

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the Clackamas Regional Center Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the Clackamas Regional Center Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

The DEIS included two design options within the Clackamas Regional Center Segment: North of OIT/CCC and South of OIT/CCC. These two design options may be modified by the master planning process and subsequent LUFO amendments.

With the North of OIT/CCC Design Option, the light rail alignment would extend west from the OIT/Aquatic Park Station, between the OIT and CCC campuses and SE Harmony Road. SE Harmony Road would be relocated north and the light rail line would be largely constructed within the current street right-of-way. The alignment would cross the Aquatic Park access road entrance at grade and would proceed west, south of SE Harmony Road, to the Linwood park-and-ride lot.

In general, the North of OIT/CCC Design Option would result in the following types of impacts:

- Displacement of 20 to 21 residences along the north side of SE Harmony Road
- More noise and vibration impacts, when compared with the South of OIT/CCC Design Option
- High visual impacts to areas of the Southgate Neighborhood bordering the north side of SE Harmony Road
- Displacement of about 20 off-street parking spaces in the OIT/CCC/Aquatic Park lots

With the South of OIT/CCC Design Option, the light rail alignment would extend west from the OIT/Aquatic Park Station, south and adjacent to the OIT and CCC campuses, between the existing buildings and parking lots. West of CCC, the alignment would cross the Aquatic Park access road at grade and proceed west, south of and parallel to the access road and SE Harmony Road, to the Linwood park-and-ride lot.

In general, the South of OIT/CCC Design Option would result in the following types of impacts:

- Fewer residential displacement, noise and vibration impacts, when compared with the North of OIT/CCC Design Option
- Displacement of about 70 off-street parking spaces in the OIT/CCC/Aquatic Park lots
- Greater impact to pedestrian and auto circulation within the OIT/CCC and Aquatic Park Campus
- Moderate to high visual impacts to the south OIT/CCC campus area
- Displacement of more trees and vegetation than the north of OIT/CCC Design Option

Given unresolved concerns with the impacts associated with the two Design Options, the Steering Committee and ODOT recommended to Tri-Met, Tri-Met requested, and this Council now approves, the deferral of a decision on the precise LRT alignment, station location and park-and-ride lot configuration within the OIT/CCC study area, to allow completion of a collaborative master planning process. After completion of the master plan, a LUFO amendment will decide the precise location of the LRT alignment and OIT/Aquatic Center Station and the configuration of the approximately 900-space park-and-ride lot within the OIT/CCC study area. The LUFO amendment will address the impacts associated with the relevant LCDC criteria, including consideration of displacements, noise and vibration, traffic, access and parking, natural resources, stormwater, and the Harmony Elementary School historic resource.

Economic Impacts

The Council finds that overall, the South/North Project will result in positive economic impacts in the Clackamas Regional Center Segment because improved transit capacity will be available to support existing and planned intensive development at the Clackamas Town Center area. However, the long-term benefit must be balanced by the short-term adverse economic impacts associated with the displacement of a few existing businesses on SE 82nd Avenue for the LRT alignment.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacement has an effect on employment, incomes, services and taxes. Even though the adverse impacts associated with displacement may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to the employees who work for the company.

In the Clackamas Regional Center Segment, the LRT alignment will displace 2 to 3 businesses to the west of SE 82nd Avenue, including a Pizza Hut restaurant and a U-Haul business. Adverse economic impacts associated with these displacements include the loss of employment and payroll, loss of services, and loss of assessed value and tax base associated with the operating businesses. The LRT alignment will be in public ownership and off the tax roll.

In terms of mitigation, as described in the General Findings, displaced commercial uses will be acquired at fair market value, and/or relocation benefits will be provided to business owners and tenants. During the preliminary and final engineering processes, staff will try to minimize displacements impacts to the extent practicable through design refinements.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business is assumed to be displaced.

The South/North Project improvements will affect off-street parking at the Clackamas Town Center. Additionally, off-street parking for the OIT/CCC/Aquatic Park could be affected, depending on the

outcome of the master planning process. Parking impacts for the OIT/CCC study area will be addressed in a subsequent LUFO amendment.

The Clackamas Town Center mall (CTC) is surrounded by large surface parking lots (6,280 spaces) that access the regional street system in several locations. The LRT alignment and Transit Center/Station will be located at the northern edge of the CTC parking lot. Parking spaces potentially affected by the LRT improvements were counted and surveyed to identify existing levels of utilization. The survey month (May) represents an average month for parking demand at regional malls such as the CTC. Utilization of parking is significantly higher during the winter holiday shopping season.

The LRT improvements will displace about 310 parking spaces to the north of the CTC mall. The outer-ring mall access road will also be affected by the project. The potentially affected spaces had a low rate of utilization during the May survey, primarily because of the distance away from the mall. However, many of the potentially affected spaces are occupied during the peak holiday season. In addition to the displacement of existing parking spaces, the issue of unauthorized parking is a concern with the CTC terminus for the South/North Project.

Malcolm Henry, General Manager of CTC, submitted a letter commenting on the DEIS strongly supporting the North of CTC alignment and vigorously opposing the South of CTC alignment. The CTC General Manager anticipates future transit oriented development to the north of the mall that will compliment and leverage the North of CTC alignment and transit center. However, the General Manager expressed a concern about the mall parking area becoming a de factor park-and-ride lot and the inability to protect the spaces from a practical point.

Mitigation for parking impacts on CTC could take the form of a.m. peak hour access restrictions at the existing parking lots. A similar approach has been used at Lloyd Center in Portland. The mall chains off access to all but one of the parking lots to prevent all but office related parking prior to 9:00 a.m. Other mitigation options include designation of the New Hope Church parking lot for park-and-ride activity with a shuttle bus to the CTC Transit Center, construction of structured parking at the CTC, or other traffic control measures (lane geometry and/or traffic signal phasing) that would discourage access to the CTC during the a.m. peak hour. Mitigation options for the lost surface parking within the CTC will be further evaluated during the development of the FEIS and mitigation plans.

LRT improvements in this segment will affect access along a segment of SE 80th Avenue between SE Southgate Street and SE Harmony Road. Three businesses (Good Guys Audio and two auto related shops) currently use this segment of SE 80th Avenue for secondary access. This segment of SE 80th Avenue will be closed, and access to the businesses will no longer be available from the north. However, a cul-de-sac will be installed and access will still be available to the rear of the businesses via SE Harmony Road.

Tax Base. The South/North Project will have a short-term negative impact on the tax base through the displacement of 2 to 3 business uses from the tax rolls. However, the Council finds that the tax base impacts associated with displacement will be short-term in the Clackamas Regional Center Segment. The availability of light rail and the station at CTC are expected to spur new development

in the Clackamas Regional Center area and along SE 82nd Avenue and could enhance property values and the tax base on a long-term basis.

Freight Movement. The LRT improvements in the Clackamas Regional Center Segment will have no impact on *water freight movement* or *rail freight movement*. The alignment will cross over the UP rail line near SE Linwood Avenue and SE Harmony Road on a bridge.

Chapter 4 of the DEIS notes that truck percentages on roadways within the Clackamas Regional Center Segment are very light (less than one percent) during the p.m. peak hour. The Council concurs with the conclusion of the DEIS that LRT impacts to *trucking freight movement* in this segment are expected to be minimal.

Social Impacts

The Council finds that the social impacts of the South/North Project are generally positive in the Clackamas Regional Center Segment. Light rail provides improved transit access to major destinations and activity centers within the community, and also provides connections to employment centers, services and recreational destinations in the larger region. Light rail will provide an alternative mode to travel on often-congested roadways within this segment. Outside of the OIT/CCC study area, the LRT alignment displaces relatively few residential units.

Residential Displacements. As with business displacements, the Council recognizes that in every instance where the South/North Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. It understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

In the Clackamas Regional Center Segment, the LRT alignment will displace three single family residences located just north of SE Harmony Road and along the west side of SE 80th Avenue. There may be additional residential displacements along SE Harmony Road, depending on the LRT alignment selected for the OIT/CCC study area. The residential displacements associated with the selected alignment will be evaluated in a LUFO amendment following the completion of the master plan for the OIT/CCC study area.

It may be possible to reduce some residential displacements by the South/North Project by taking only a portion of a property and/or structure and by modifying the remaining property and/or structure to allow continued occupancy. Where displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program, as explained in the General Findings.

Access to Community Facilities. The Council finds that the South/North Project will provide improved transit access to community facilities and employment centers. In particular, the CTC transit center and station will improve transit access to the substantial base of jobs and services located at the Clackamas Town Center mall. Testimony submitted on the DEIS noted that the CTC has a lot to do with the economic vitality of the region and is truly a regional center. The mall does \$350 million a year in sales and it employs, depending upon the season, from 1,500 to 5,000 people.

The mall has 16 million visitors a year, including shoppers, customers and employees. Adequate transportation access to the CTC is a vital concern. Representatives of the CTC mall are very supportive of LRT, but feel that siting on the north side is key because that is the transit-oriented side of the mall.

LRT will also provide access to the branch library located near the CTC, and will also serve the major community facilities of the Aquatic Park, OIT and CCC located along SE Harmony Road. The South/North Project will also provide improved transit accessibility and links for Clackamas Regional Center residents to local and regional employment centers, facilities and recreation destinations such as OMSI, Downtown Portland, the Convention Center, and the Rose Quarter, as well as to destinations along the East-West MAX light rail route.

Barriers to Neighborhood Interaction. The Council finds that the LRT alignment in the Clackamas Regional Center Segment will not result in barriers to neighborhood interaction, primarily because the alignment follows existing boundaries between neighborhoods. SE Monterey Avenue already functions as a boundary between intensive commercial development to the south of the roadway, and high density residential development to the north of the roadway. The LRT alignment and the reconfigured transit center will reinforce existing patterns in this area. Where the alignment travels south along SE 80th Avenue, LRT will reinforce the edge and boundary between residential uses west of the alignment and commercial uses to the east of the alignment. The OIT/CCC master planning process will determine the precise LRT alignment through the study area. However, SE Harmony Road currently functions as a boundary between neighborhoods, and adopted Clackamas County plans to widen SE Harmony Road will reinforce the edge established by SE Harmony Road.

Pedestrian and signal improvements will be implemented with the LRT stations and park-and-ride lot in the Clackamas Regional Center Segment. These improvements will improve neighborhood access to transit facilities and will reduce barriers to neighborhood interaction.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. The Council finds that with appropriate design and implementation of systemwide transit security measures as described in the General Findings, safety and security will not be adversely affected by the LRT improvements in the Clackamas Regional Center Segment.

In commenting on the DEIS, representatives of the Clackamas County Sheriff recommended that the department be involved in the final design of the LRT facilities in this segment to maximize good design for crime prevention. Additionally, the Sheriff recommends an arrangement with Tri-Met to provide community policing services at LRT facilities in the Clackamas Regional Center Segment. The Council finds both of these to be potential mitigation measures. Other individuals commenting on the DEIS noted that there is an existing problem with crime near the CTC transit center and in neighborhoods north of SE Monterey Avenue.

The CTC Transit Center and Station will be located at grade and adjacent to a major public street and active regional mall. The final design of the CTC Transit Center/Station will include careful consideration of security concerns. Security lighting and telephones will be provided at station

platforms, and landscape design (i.e., low shrubbery, good visibility) will ensure consideration of safety and security. Other potential mitigation measures are described in the General Findings.

The specific location and configuration of the alignment, station and park-and-ride lot for the OIT/CCC study area will include consideration of safety and security in the master planning and in the subsequent LUFO amendment.

Visual/Aesthetic. The topography in the Clackamas Regional Center slopes generally from northeast to southwest. Land drops away more steeply west of the surface parking at the Aquatic Park into the Mt. Scott Creek valley. The core of the Regional Center is relatively flat from east to west. Phillips Creek, a small stream typical of stream corridors in the region, flows through the Southgate neighborhood into Mt. Scott Creek. Along with its vegetation, the stream serves as modest visual relief from and within the commercial district to the east.

Major roads through the Clackamas Regional Center are generally wide and traffic is fast. There appears to be limited use of sidewalks along the major streets. Within surrounding neighborhoods, streets are usually narrow and include on-street parking. Many streets are suburban in character and lack curbs and sidewalks.

A strong visual edge exists along SE Harmony Road from SE 82nd to SE Linwood Avenue with the community college campus, Aquatic Park, open grass areas and tall roadside trees. Filtered views through trees and buildings look out over the wooded bottomlands of Mt. Scott Creek and to distant hills.

In general, the Clackamas Regional Center Segment is a large-scale, auto-oriented suburban commercial center developing in the midst of small, older neighborhoods. It is dominated by large, flat-roofed building complexes that are isolated from each other by open parking lots, vacant land and wide, multi-lane roads. These big, open blocks and wide corridors surrounded by small, tightly knit, predominantly residential areas create a development pattern that is coarse and discontinuous.

Dominant and recognized visual features in the Clackamas Regional Center Segment include the Clackamas Town Center, Aquatic Park, the North Clackamas School District offices, Mt. Talbert, and dispersed old trees, especially those found in the western end of the segment.

An existing berm and landscaping along SE Monterey will be removed for the LRT alignment and reconfigured transit center. The expanded CTC transit center, including bus lanes, will open the streetscape, enlarging its scale and giving it a stronger, more structured, architectural character. In general, visual changes to the Southgate neighborhood will be low given the existing scale and dominant architectural character of CTC and the planned extension of SE Monterey Avenue across I-205.

The alignment will run south along the east side of SE 80th Avenue to SE Harmony Road. The LRT alignment will create a high degree of visual change along SE 80th Avenue, a small-scale, unimproved residential street. The street will be widened and improved and an existing culverted segment of Phillips Creek extended. Road improvements, tracks, trains, poles and overhead wires would be added to the existing visual environment which currently consists of small-scale, simple houses. In general, the alignment would urbanize SE 80th Avenue, enlarge its scale and add new

features to a simple visual environment. However, it would also provide a visual transition between existing commercial and residential areas which is not present now.

From SE 80th Avenue, the alignment will turn south and west to SE Harmony Road and extend west to approximately SE Cedarcrest Drive and then to the Linwood park-and-ride lot. Visual impacts associated with the specific LRT alignment, station, and park-and-ride lot will be identified through the master planning process and subsequent LUFO amendment for the OIT/CCC study area.

West of the study area, the LRT alignment will generally parallel the south side of SE Harmony Road, crossing over the UPRR main line and Mt. Scott/Minthorn Creek floodplain area on a bridge. The alignment will run on 10-20 foot high retaining walls south of SE Harmony Road. Vegetation, including tall canopy trees, would be removed and would result in open views to the south. Close to Mt. Scott Creek and just east of SE Cedarcrest Drive, the elevated bridge structure begins to span the railroad and floodplain.

The alignment would alter the character of the existing SE Harmony Road character from SE Park Road west. The length, height and smooth texture of the retaining walls topped with poles and overhead wires would contrast strongly with the existing, more natural edge of the area.

Based on the findings in the *Visual Impacts Report* and the *DEIS*, the Council finds that high visual/aesthetic impacts are associated with the alignment along SE 80th Avenue and along the southern edge of SE Harmony Road. The visual impacts include deep fill slopes, bridges, the introduction of overhead structures, abutments and retaining walls and the loss of existing trees and other vegetation. Possible measures that could mitigate these impacts include:

- Consideration of varying the gradient of fill slopes and smoothing their transition to existing grades to decrease the severity of topographic change and geometry.
- Final design refinement of overhead structures to reduce their visual presence.
- Consideration of planting tree screens to reduce the scale of bridge structures and fill slopes.
- Attempt to maintain views south to Mt. Talbert along SE Harmony Road by careful placement of poles, vegetation, signing, etc.

Traffic Impacts

Major road facilities in the Clackamas Regional Center Segment include SE Sunnyside Road, SE Monterey Avenue, SE 82nd Avenue and SE Harmony Road. SE Sunnyside Road, SE 82nd Avenue, and SE Harmony Road are all classified as major arterials in the Clackamas County Comprehensive Plan. SE Monterey Avenue is classified as a minor arterial. This roadway currently runs between I-205 and SE 82nd Avenue and provides local access to the CTC on the south and residential developments on the north. A SE Monterey Avenue overcrossing of I-205 is currently under design and is planned to be in place before construction of South/North LRT.

In 1994, the average daily traffic volume on SE Sunnyside Road near the I-205 interchange was about 42,000 vehicles. In the same period, SE 82nd Avenue carried approximately 30,500 vehicles per day north of SE Harmony Road. SE Harmony Road currently carries about 18,000 vehicles per day east of SE Cedarcrest Drive. SE Monterey Avenue east of SE 82nd Avenue carries about 3,400 vehicles per day.

The intersection capacity analysis for existing conditions in the Clackamas Regional Center Segment indicates that most intersections in the project area currently operate at an acceptable level of service during the p.m. peak hour. The exception is the unsignalized intersection of SE Sunnyside Road at SE 105th Avenue which currently operates as LOS F. By selecting the CTC terminus for the South/North Project, the Council avoids impacts on this already congested intersection.

SE Sunnyside Road is currently experiencing LOS E conditions during the p.m. peak hour, largely because of the combined effect of several closely-spaced intersections. This segment also experiences severe local traffic congestion and unacceptable levels of service during the winter holiday shopping season due to the retail trip demand to the Clackamas Town Center and Clackamas Promenade.

Year 2015 traffic forecasts prepared for the South/North Project indicate that substantial traffic volume increases over existing conditions are expected with both the No-Build and all LRT Build Alternatives in the Clackamas Regional Center Segment. The intersections of SE Sunnyside Road with the I-205 southbound ramps and SE 82nd Avenue are forecast to operate at LOS F by 2015. Additionally, the intersection of SE Harmony Road and SE Fuller Road is expected to experience LOS F operations by 2015. All remaining intersections in the Clackamas Regional Center Segment are expected to operate at an acceptable level of service with the 2015 No-Build Alternative and the LRT Build Alternatives. It should be noted that these findings assume construction of the following improvements:

- The SE Sunnyside/SE Sunnybrook split diamond interchange project
- The SE Sunnybrook Extension from SE 93rd Avenue to SE Sunnyside Road at SE 108th Avenue
- The I-205 Frontage Road between SE Sunnyside Road and SE Otty Road
- SE Sunnyside widening between I-205 and SE 122nd Avenue
- SE Monterey overpass between the existing easterly terminus of SE Monterey Avenue to the I-205 eastside frontage road.

The intersections of SE 85th and SE 90th Avenues with SE Monterey Avenue will be signalized as part of the LRT project. These intersections are expected to operate at an acceptable LOS with signalization and LRT crossing gate operations. Table 5.3-2 of the *Traffic Report* illustrates that average vehicular queues at both of these intersections could delay bus circulation into and out of the transit center.

The LRT alignment crosses SE 82nd Avenue at grade with a modified signal and gated crossing. This intersection is expected to operate at an acceptable level of service D with this configuration and projected 2015 p.m. peak hour traffic volumes, provided that SE Monterey Avenue remains a "T" intersection with only an easterly leg. If SE Monterey Avenue is extended farther west to connect with SE Fuller Road, traffic operations are expected to drop to LOS F with the LRT crossing in place. However, several mitigation options are available, including allowing turning movements to proceed during the LRT phase, adding additional geometric improvements to SE Monterey Avenue, and adding a third through lane on SE 82nd Avenue in the vicinity of SE Monterey Avenue.

The Clackamas Regional Center Plan (not yet adopted) includes several roadway improvements in the vicinity of the Clackamas Town Center. These projects could result in reduced p.m. peak hour

traffic volumes and thus reduce the need for traffic impact mitigation at the intersection of SE 82nd Avenue and SE Monterey Avenue.

The alignment then follows SE 80th southbound to SE Harmony Road. This section of SE 80th Avenue is unimproved and currently in a state of disrepair. Because of the poor condition of the roadway and small number of residences with direct access, traffic volumes are extremely low. The westerly half of a 2-block section of SE 80th Avenue will be improved to accommodate the LRT alignment. The easterly half of the roadway will be improved by others at the time of development of properties to the east. The roadway improvement associated with LRT will represent a dramatic improvement over the condition of the existing roadway.

About 200 feet west of SE 80th Avenue, the LRT alignment will cross SE Harmony Road at an at-grade, gated crossing with a signal. Traffic impacts and mitigation associated with the OIT/Aquatic Center Station and park-and-ride will be identified in the master planning effort and addressed in a subsequent LUFO amendment.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the Clackamas Regional Center Segment, including but not limited to:

- Reconstruction of the entrance to the Clackamas Town Center mall to align with the newly signalized SE 85th and SE 90th Avenue intersections with SE Monterey Avenue
- Modification of the signals at SE 82nd Avenue and SE Monterey; addition of a north-bound right turn lane from SE 82nd Avenue onto SE Monterey Avenue; construct gated crossing of SE 82nd Avenue
- Install traffic signals at SE 80th Avenue and SE McBride Street, SE Southgate Street and SE Sunnyside Drive
- Half-street improvement of SE 80th Avenue between SE McBride and SE Sunnyside Drive
- Close approximately 200 feet of SE 80th Avenue south of SE Sunnyside Drive
- New signalized crossing of SE Harmony Road near SE 80nd Avenue

Additional transportation-related improvements are likely to be identified during the OIT/CCC master planning process. These improvements will be generally described in the LUFO amendment identifying the light rail route, station and park-and-lot locations for the study area.

The Council finds that the improvements summarized above can mitigate adverse transportation impacts of the South/North Project in the Clackamas Regional Center Segment.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The light rail route and associated facilities in the Clackamas Regional Center Segment provide transit service to key activity centers that are capable of enhancing transit ridership, including the Clackamas Town Center, the Aquatic Park, OIT and CCC. The Clackamas Town Center is a major destination within the region and is a hub for employment and commercial services. The area around the CTC mall is designated a Regional Center in the *2040 Growth Concept* and the

availability of LRT to the north side of the mall will support the intensification of development and transition to a mixed use center.

Clackamas County, in response to the *2040 Growth Concept*, is in the process of developing a new *Clackamas Regional Center Plan*. The plan is being designed to transition the suburban land use patterns of the area to a more urban regional center with new development focused in the LRT station areas. County adoption of the plan is anticipated in the fall of 1998. Also, the county has recently expanded the urban renewal district for the area. Funds raised through the urban renewal district will assist in the financing of infrastructure necessary to implement the *Clackamas Regional Center Plan*.

The designation of a hierarchy of mixed use centers linked by transit is a key to the *2040 Growth Concept* and the development of an efficient and compact urban form. Because significant growth is projected in this area, LRT is an important tool in the region's ability to accomplish the goals of the *2040 Growth Concept*. Surface roadways in the CTC area are congested today, with even greater congested expected under No-Build conditions. The availability of LRT will provide an alternative mode to travel on congested roadways and will help support higher densities and more compact and efficient development in the Clackamas Regional Center.

Light rail transit will also provide improved transit accessibility to the residential portion of the Southgate neighborhood located to the north of SE Monterey Avenue. This neighborhood currently includes some of the highest residential densities in North Clackamas County, including many apartment complexes and retirement centers. These existing higher density residential neighborhoods are capable of enhancing transit ridership and will also benefit by the close proximity to light rail service.

The two light rail stations in this segment will provide transit service to key activity centers and nearby residential areas, while minimizing adverse impacts on neighborhoods. The Council is sensitive to the displacement of 2-3 businesses west of SE 82nd Avenue and the displacement of 2-3 dwellings from the west side of SE 80th Avenue. However, the LRT alignment will provide a clear line and distinction between residential areas west of SE 80th Avenue and existing and redeveloping commercial areas to the east of SE 80th Avenue.

The Council believes that the alignment and the CTC Transit Center and Station offer a tremendous opportunity for employees and shoppers at CTC to take light rail to Clackamas Town Center, thereby saving energy, reducing congestion and improving air quality. Traffic studies document that all roads and intersections in the Clackamas Town Center Segment are projected to operate within acceptable levels of service with mitigation.

Further, the Council believes and finds that the OIT/Aquatic Center Station will offer opportunities for employees, students, and users to take light rail to this activity center along SE Harmony Road, again saving energy, reducing congestion and improving air quality. The specific location and design of the alignment, station and park-and-ride in the OIT/CCC study area will be determined through a collaborative master planning process and subsequent LUFO amendment.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the Clackamas Regional Center Segment that have utility separate from the South/North Project. A range of improvements are proposed as mitigation for traffic impacts associated with the LRT facilities in this segment. These improvements are described in the discussion of traffic impacts for the Clackamas Regional Center Segment.

6.4.1.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise and vibration impacts specific to the Clackamas Regional Center Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the Clackamas Regional Center Segment, are addressed in the General Findings. The General Findings include an overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts also are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the Clackamas Regional Center Segment

Land uses within this segment includes single and multi-family dwelling units, shopping centers and retail uses, schools and parks. The ambient noise environment is dominated by vehicular traffic on SE 82nd Avenue, SE Sunnyside Road, SE Harmony Road and I-205.

Single and multi-family dwelling units near the LRT alignment are located north of SE Monterey Avenue, along the west side of SE 80th Avenue, and along the north side of SE Harmony Road west of SE 82nd Avenue. The residences closest to the rail alignment range from 25 feet to 65 feet from the near track centerline.

Clackamas Community College, the Oregon Institute of Technology, North Clackamas Aquatic Park and a neighborhood park are all located along the south side of SE Harmony Road in this segment. The specific location of the alignment, station and park-and-ride lot in the OIT/CCC Study Area will be determined through a master planning process and subsequent LUFO amendment.

As shown in Figure 4.1-1 of the *Noise Report* and the *DEIS*, there were nine noise monitoring locations and two vibration testing locations for the North of CTC alignment and CTC terminus. The ambient noise levels (Ldn) at the nine noise monitoring locations ranged from 54 dBA to 70 dBA. Noise levels were higher along SE Harmony Road because of traffic and were lower along SE 80th Street because of acoustic shielding by business structures along SE 82nd Avenue. Existing vibration levels in the Clackamas Regional Center Segment are characterized by normal ambient vibration at low levels caused by vehicular traffic or other sources. Measured ambient vibration

levels ranged from about 35 to 55 VdB, averaging about 40 VdB. This is well below the normal threshold of human perception.

Table 5.2.1-6 of the *Noise Report* summarizes noise and vibration impacts for the various terminus and design options associated with the North CTC alignment. The South of OIT/CCC design option results in 7 LRT noise impacts and 4 LRT vibration impacts. The North of OIT/CCC design option results in 6 LRT noise impacts, 3 vibration impacts and 7 traffic noise impacts. The traffic noise impacts are all associated with the potential realignment of SE Harmony Road.

Mitigation Options for Noise and Vibration Impacts in the Clackamas Regional Center Segment

Mitigation options for the various types of noise and vibration are discussed in the General Findings. Appropriate mitigation will be evaluated in the FEIS and selected during the Final Design and local permitting process.

All of the LRT noise and vibration impacts are associated with single family dwellings located to the west side of the LRT alignment along SE 80th Avenue. Noise barriers could provide mitigation for all except one of the LRT noise impacts. Receiver NCTC 6 is located too close to the alignment to provide sufficient room for a barrier and will be displaced by the project. Three of the four vibration impacts could be eliminated using ballast mats. One receiver, CTC 7, is still expected to exceed the criteria by 0.1 VdB with the mitigation measures.

The traffic noise impacts will only occur with the North OIT/CCC design option. The impacts are along SE Harmony Road and include seven single family residences. The impacts are due to the displacement of front line receivers along Harmony Road that currently serve as shielding for second line receivers located along SE Sunnyside Road, and the realignment of the roadway further north. Although all of the residences will have traffic noise increases, only seven of the 16 single family residences exceed the criteria. The traffic noise impacts could be mitigated with a noise barrier.

As described in the *Noise Report* and its findings above, the Council recognizes that light rail transit will create noise and vibration impacts along SE 80th Avenue in the Clackamas Regional Center Segment. The Council also believes and finds that reasonable measures are available to avoid or reduce adverse noise and vibration impacts within this Segment.

The master planning process for the OIT/CCC study area could have an affect on traffic noise impacts along SE Harmony Road, depending on the alignment selected. Traffic noise impacts and potential mitigation measures associated with the specific alignment, station and park-and-ride lot in the OIT/CCC study area will be addressed in a subsequent LUFO amendment.

6.4.1.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the

NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural hazard impacts specific to the Clackamas Regional Center Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the Clackamas Regional Center Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Geology Report)*, and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the Clackamas Regional Center Segment

The DEIS does not identify specific *landslide areas* or *areas of severe erosion potential* in the Clackamas Regional Center Segment. The potential for major landslides within the South/North Corridor is very limited because the topography within the corridor is relatively gentle. Areas of severe erosion potential are generally associated with steep slopes and creek crossings. A portion of the alignment in this segment will be located on a fill embankment to the south side of SE Harmony Road and north of the Mt. Scott Creek floodplain, and the *Soils Report* notes that slope stability could be an issue along the section below Harmony Road. Further west, near SE Cedarcrest Drive, the alignment will cross over the floodplain and the UPRR main line on a bridge. High shrink/swell soils are mapped in the area of this bridge. These soils could adversely affect the LRT alignment and structure foundations.

As described in the General Findings, the Northwest is a seismically active area and is subject to *earthquake damage*. Figure 4.1-4 of the *Geology and Soils Results Report (Soils Report)* identifies a concealed fault to the east of I-205 that generally parallels Mt. Scott Creek. *100-year floodplains* have been designated for Phillips Creek and Mt. Scott Creek in the Clackamas Regional Center Segment.

The *Soils Report* includes the following description of existing conditions in the Clackamas Regional Center Segment.

The area is underlain by fine-grained flood deposits. Soil units in this segment include Fine-grained Facies (Qff) and Channel Facies (Qfch). The Fine-grained Facies unit is composed of silt and sand with poorly defined and complex bedding. Soil development produces significant clay in the upper six to fifteen feet of the unit. Locally, this unit may exceed 90 feet in thickness and mantle slopes up to an elevation of 300 to 350 feet.

Sediments of the Channel Facies are complex interbedded silt, sand and gravel deposited in flood channels cut into earlier or contemporaneous coarse and fine flood deposits. These channels represent major floodways. Some depressions in the irregular surfaces of the channels are filled with shallow lake or bog deposits and overbank alluvium from small streams.

Construction in this segment will include significant cuts, fills and structures. The alignment crosses Phillips Creek and lies adjacent to Mt. Scott Creek. Short-term slope stability could be an issue in the section west of the Aquatic Park access road. The fine-grained sediments disturbed during

excavation and grading will be prone to erosion by water and wind. Excavation and grading operations along this slope could be particularly sensitive to erosion.

The LRT alignment will cross Phillips Creek at SE 80th and SE McBride Streets. Phillips Creek is currently crossed by SE McBride Street with two 4 ft x 9 ft concrete box culverts. FEMA reports that flood flows should remain within the existing creek channel, without causing flooding along the reaches between SE McBride Street and SE Sunnyside Road. Metro Title 3 maps depict flooding conditions for the February 1996 flood event which were generally confined within the Phillips Creek channel.

The LRT crossing of Phillips Creek will include replacement of existing culverts with larger culverts. Based on information in the *Hydrology Report* and the assumed culvert improvements, the crossing of Phillips Creek is not expected to restrict flows and result in flooding or other conveyance impacts on Phillips Creek.

At the west end of the segment, the LRT alignment will be constructed roughly parallel to SE Harmony Road. The track will be placed on retained-earth fill built on the hillside above Mt. Scott Creek. FEMA floodplain maps of this location indicate that the footprint for the tracks will not encroach into the 100-year floodplain. Where the alignment comes close to the floodplain (in the vicinity of SE Cedarcrest Drive), a bridge is proposed. Floodplain impacts are not expected in this location because fill for the embankment would not be placed below elevation 77 feet (the approximate location for the FEMA regulatory floodplain in this location) and because the toe of the proposed embankment would not be constructed below elevation 89 feet. Construction of the North Clackamas Regional Flood Control Facility just upstream of this location will provide further assurance that flooding impacts will not occur.

Mitigation Options for Natural Hazard Impacts in the Clackamas Regional Center Segment

Based on the information contained in the *Soils Results Report* and the *Hydrology Results Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the Clackamas Regional Center Segment. Slope stability and erosion will be a concern in the portion of the alignment to the south side of SE Harmony Road and west of the Aquatic Park.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the selected alignment will provide the necessary information to anticipate and remediate less-than-ideal foundation conditions. Cuts and fills can be designed for necessary stability. If groundwater is encountered, it can be controlled with drains. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

In areas where settlement is anticipated, several options are available. If the extent of the unstable material is limited, that material can be removed and replaced with fill. In areas where excavation is not practical, settlement can be accelerated by surcharging and installing wick drains, or the structures can be mechanically supported.

While historical evidence of seismic activity in Oregon is minimal, recent studies indicate that western Oregon may be subject to a greater risk from *earthquake hazards* than previously thought.

Site geology has a significant impact on earthquake damage. Young unconsolidated silt, sand, and clay deposits are associated with enhanced earthquake damage through amplification of shaking, settlement, liquefaction, and landsliding.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed engineering studies will include an evaluation of subsurface soil seismic response characteristics and will also identify appropriate mitigation measures required for areas of shallow groundwater or unusually wet surface conditions that may be present in the Clackamas Regional Center Segment. Based on the facts in the *Soils Results Report*, the Council finds that long-term impacts to geology and soils in the Clackamas Regional Center Segment are moderate. Mitigation would consist of using standard engineering practices to construct stable slopes; design of bridges to meet Uniform Building Code seismic standards; and techniques such as excavation and backfilling, special footing and foundation designs, and special construction techniques such as pilings to address shallow groundwater or unusually wet surface conditions.

South/North Project improvements in this segment will not include fill within the designated 100-year floodplain of Mt. Scott Creek. The LRT bridge will span the floodplain and the toe of the embankment for the alignment will also be located above the 100-year flood elevation.

A minor amount of fill will be associated with the SE 80th Avenue improvements across Phillips Creek. The Council finds that replacement of the existing undersized culverts can provide mitigation for this fill and reduce or mitigate adverse flooding impacts to persons or property in the Clackamas Regional Center Segment. The LRT alignment and stations in the Clackamas Regional Center Segment will be constructed above the 100-year floodplains of both Phillips Creek and Mt. Scott Creek.

6.4.1.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the Clackamas Regional Center Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the Clackamas Regional Center Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the Clackamas Regional Center Segment

As required by Statewide Planning Goal 5, Clackamas County has inventoried and evaluated natural resources with the purpose of identifying and protecting the county's significant natural areas, including high quality wetlands and rivers and streams. Protection of these areas includes minimizing erosion, maintaining and enhancing water quality and fish and wildlife habitat, and preserving scenic quality and recreational potential. The County's Comprehensive Plan provides guidelines for protecting significant natural areas that include required minimum development setbacks from waterways and wetlands, development standards, and vegetation preservation requirements.

Within the Clackamas Regional Center Segment, the Council finds that the Clackamas County Comprehensive Plan designates Phillips Creek and Mt. Scott Creek as Stream Conservation Areas (small Type F stream - contains fish). Stream Conservation Areas are designated for multiple resource values, including fish and wildlife habitat, scenic and open space areas, and riparian areas. The Council also finds that the Aquatic Park is designated as a park. The North Clackamas Regional Flood Control Facility is a regional stormwater facility. While not designated and protected as a park, this site provides multiple resource values, including stormwater management, scenic and open space, and fish and wildlife habitat.

Fish and Wildlife Habitat. Phillips Creek will be crossed by the LRT alignment in the Clackamas Regional Center Segment. At the proposed crossing, the creek has been channelized and the associated habitat disturbed. Vegetation on the steep, earthen channel banks consists of a narrow stand of red alders with a dense understory of Himalayan blackberry and reed canarygrass. The streambed is not vegetated. Riparian habitat associated with Phillips Creek is fragmented and degraded, but it does have limited value as a local wildlife movement corridor, although the creek does cross several major roadways. The entire Phillips Creek riparian area is about 20 acres. The low-gradient, riffle-type stream exhibits low summer flows, and instream cover to provide habitat for anadromous and resident fish species is limited. Fish species known to inhabit the creek include resident cutthroat trout and white crappie. Extending the culvert would be unlikely to present a barrier to fish passage. The overall quality of the riparian and aquatic habitat at the proposed LRT crossing of Phillips Creek is relatively poor.

Approximately 0.02 acres of riparian vegetation would be lost along Phillips Creek due to an extension of the existing culvert. The LRT alignment would further limit wildlife movement along Phillips Creek by reducing available habitat along the stream corridor. No unique wildlife species have been associated with Phillips Creek, and the habitat in the vicinity of the alignment is relatively low quality. Noise and activity associated with light rail could deter wildlife species from using habitat adjacent to the alignment, although human activity in the area is already very high. Mitigation for the impact to Phillips Creek could include enhancement or restoration of habitat along the creek or at an off-site location, such as the North Clackamas Regional Flood Control Facility, or replacement of the existing box culvert with an arch culvert.

East of SE Linwood Avenue and south of SE Harmony Road is the North Clackamas Regional Flood Control Facility, a natural area exceeding 100 acres in size. The site was purchased by the Urban Renewal Agency for the primary purpose of stormwater detention. The natural area is a mixture of

several habitats with some coniferous trees along its periphery. Most of the area is either mixed coniferous/deciduous forest or shrubland. The facility functions as a natural corridor to Mount Talbert which increases its value to wildlife. However, Interstate 205 and SE 82nd Avenue form a barrier to ambulatory wildlife movement.

The riparian corridor associated with Mt. Scott Creek is approximately 100 feet wide. In the vicinity of SE Cedarcrest Drive, Mt. Scott Creek meanders to within approximately 20 feet of the alignment. In this segment, Mt. Scott Creek is characterized by low-gradient riffle and glide habitat. Streamside vegetation is primarily disturbed forest with a dense shrub understory. Aquatic vegetation is scarce in the vicinity of the LRT alignment. Fish known to inhabit the creek include coho salmon, winter steelhead, cutthroat and rainbow trout, largescale sucker, speckled dace, reidside shiner, reticulated sculpin and smallmouth bass.

Natural resource impacts to the North Clackamas Regional Flood Control Facility will be evaluated as part of the OIT/CCC master planning effort and subsequent LUFO amendment. The South of OIT/CCC design option would remove about 2 acres of deciduous forest and about one-half acre of mixed coniferous/deciduous forest associated with the North Clackamas Regional Flood Control Facility. A portion of this forest functions as riparian habitat along Mt. Scott Creek. The North of OIT/CCC design option would avoid impacts to the one-half acre mixed forest south of SE Park Road.

The LRT alignment could also affect wildlife in the North Clackamas Regional Flood Control Facility by reducing available area for foraging, nesting, roosting and cover for resident and migratory species. LRT operation could deter more secretive species from using habitat in the vicinity of the project. One TES species, the willow flycatcher, was observed in July 1989 in the southeastern portion of the North Clackamas Regional Flood Control Facility. Impacts to forested habitat would not remove any potential willow flycatcher habitat.

Impacts to riparian habitat along Mt. Scott Creek would include the loss of streamside vegetation. Long-term soil compaction could result in increased runoff, soil erosion and streambed scouring. Increased noise, lighting and human activities are not expected to preclude fish use of the stream channel. Mitigation for impacts to Mt. Scott Creek fisheries could include habitat enhancement along the stream and implementation of best management practices to minimize runoff and soil erosion.

Scenic and Open Space Areas. The Clackamas County Comprehensive Plan does not specifically designate and protect any sites in the Clackamas Regional Center Segment as "scenic" or "open space areas." However, the Stream Conservation Areas (Phillips Creek and Mt. Scott Creek) are designated for multiple resource values, including scenic and open space, and the findings under the fish and wildlife heading are also relevant to scenic and open space areas.

Riparian Areas. The Clackamas County Comprehensive Plan does not specifically designate and protect "riparian areas" separate from the Stream Conservation Areas (Phillips Creek and Mt. Scott Creek) described above.

Wetland Areas. The LRT project improvements in the Clackamas Regional Center Segment will not impact wetland areas that are protected in the Comprehensive Plan. The project will include a

minor fill of non-wetland waters, including approximately 0.02 acre of the Phillips Creek channel and 0.03 acre of a small man-made pond south of SE Harmony Road near SE 67th Avenue.

Park and Recreational Areas and Willamette River Greenway. South/North Project improvements in this segment will not affect the Willamette River Greenway.

The Clackamas County Development Agency (Agency) owns the North Clackamas Regional Flood Control Facility and the small neighborhood park located in the Clackamas Regional Center Segment. The Oregon Institute of Technology (OIT) owns property which is temporarily used as a soccer field. The Aquatic Park is owned and operated by the North Clackamas Park District.

The Agency has also preserved and set aside a 200-foot transportation corridor to provide for present and future transportation needs of the development area. The Agency has permitted the temporary construction of the neighborhood playground in the Transportation Corridor. However, this use is not designated on the plan as a long-term "park."

The neighborhood playground is a temporary facility that is located south of SE Harmony Road and north of SE Park Road within the designated transportation corridor. The 1.10-acre playground includes four half-court basketball courts and a play structure for children. The Agency has documented that temporary use of the transportation corridor as a playground is allowed until construction of the transportation system occurs. The soccer field site is not designated on the plan as a long-term "park." Depending on which design option is selected, both the temporary neighborhood playground and the soccer field uses could be displaced by the LRT improvements. After the OIT/CCC master planning is completed, a subsequent LUFO amendment will address the specific impacts of the LRT alignment, station and park-and-ride lot.

The Aquatic Park is a 3.35-acre facility that is owned by the Park District. The facility includes recreational and lap swim facilities, water slides and dives, an outdoor sand volleyball court and a patio area. Access to the Aquatic Park parking lot is from a two lane paved access road which intersects with SE Harmony Road. The North Clackamas Park and Recreation District and OIT have a reciprocal parking agreement for joint use of the parking facilities on their respective properties.

South/North LRT will provide transit access to the major activity center and destinations of the Aquatic Park, OIT and CCC. Depending on the outcome of the master planning for the OIT/CCC study area, the South/North Project may affect parking and/or access to the facilities. These impacts will be addressed in a subsequent LUFO amendment.

Clackamas County is planning to utilize the North Clackamas Regional Flood Control Facility as a district park. However, the site is not designated on any plan as a park, and any future park use will be considered secondary to the designated flood control use.

Mitigation Options for Natural Resource Impacts in the Clackamas Regional Center Segment

The Council finds that the South/North Project will have no impact on designated scenic and open space areas, wetland areas, or the Willamette River Greenway. The LRT alignment will cross Phillips Creek and will parallel Mt. Scott Creek, designated Stream Conservation Areas in the

Clackamas County Comprehensive Plan. Stream Conservation Areas have multiple resource values as fish and wildlife habitat, riparian areas and open space.

The Council finds that the crossing of Phillips Creek will have minimal adverse impact on the creek. There is an existing road crossing of Phillips Creek at SE McBride Street and SE 80th Avenue, and the LRT alignment will involve the extension of an existing culvert to accommodate the LRT alignment. The relatively short creek is crossed by several roads, vegetation is disrupted and human activity is already quite high. Mitigation for the impacts to Phillips Creek could include enhancement or restoration of the habitat along the creek or at an off-site location, such as the North Clackamas Regional Stormwater Detention Facility. Enhancement options include removal of exotic species and planting native trees and shrubs. In addition to habitat enhancement, the Council finds that best management practices to minimize runoff and soil erosion into the creek could be imposed as conditions of the FEIS and local permitting.

The LRT alignment will be located in proximity to Mt. Scott Creek, but the alignment will not cross the creek or encroach onto the floodplain. West of OIT/CCC, about 2 acres of deciduous forest could be removed along the south side of SE Harmony Road. In addition, about one-half acre of mixed coniferous/deciduous forest could be removed on the slope south of SE Harmony Road between SE 71st Court and SE Cedarcrest Drive. This forested slope is along the northern edge of the North Clackamas Regional Flood Control Facility. The impacts would all be associated with construction of the LRT alignment and would include the loss of a number of large trees and associated understory vegetation.

The North Clackamas Regional Flood Control Facility functions as a wildlife movement corridor that provides a habitat link between undeveloped land along Kellogg Creek and Mount Talbert. Impacts to the forest south of SE Harmony Road would result in the loss of a portion of that corridor, particularly where the alignment would affect riparian habitat along Mt. Scott Creek. Impacts to the movement corridor are lessened somewhat because the loss of habitat would occur along the outer edge of the corridor and would not result in fragmentation or severing of the corridor. Additional impacts to wildlife in this area include the direct loss of wildlife during project construction, wildlife being struck by trains, increased night lighting affecting nocturnal wildlife movement and wildlife roosting areas, and increased noise levels that could deter more secretive wildlife species from using habitat adjacent to the alignment.

The Council concludes that impacts to the forested slope along the south side of SE Harmony Road should be minimized to the extent practicable. The design in this area includes a bridge structure to minimize impacts to Mt. Scott Creek riparian areas that would have been associated with a lower cost retained fill structure. Enhancing disturbed portions of this forest could mitigate for unavoidable impacts. Several areas on this slope lack significant cover of trees and are dominated by dense stands of Himalayan blackberry and other exotic species. Enhancement efforts could include removal of the exotic species and replanting the areas with native trees and shrubs. Over the long term, these measures would increase the wildlife habitat value of this slope by increasing its structural and species diversity.

6.4.1.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Stormwater runoff impacts specific to the Clackamas Regional Center Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the Clackamas Regional Center Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the Clackamas Regional Center Segment

The LRT alignment in the Clackamas Regional Center Segment will cross Phillips Creek and will parallel the north side of Mt. Scott Creek and then cross the confluence of Minthorn and Mt. Scott Creeks and the UP main line on a bridge structure.

Phillips Creek, a small tributary of Mt. Scott Creek in the Harmony area, receives runoff from residential and commercial areas, including SE 82nd Avenue and Interstate 205. Phillips Creek flows southerly 1.5 miles from its headwaters near Harmony Point to its confluence with Mt. Scott Creek. Between SE 82nd Avenue and SE McBride Street, the channel is culverted throughout most of the reach, with only two, 100 foot-long daylighted sections. Upstream of SE McBride Street, the channel is rectangular with banks averaging 1.5 to 4 feet high.

The alignment will cross Phillips Creek near the intersection of SE 80th Avenue and SE McBride Street. The creek channel is approximately 20 feet wide at this location. High flows in the reach are regulated by restricting culverts located downstream at SE 82nd Avenue. Additional culverts exist under SE McBride Street and under SE 80th Avenue downstream of the proposed crossing. These culverts restrict flows in the creek and cause a backwater effect. Average depths of flow during the 100-year flood are approximately 4.5 feet (FEMA 1988). This corresponds to a 100-year flood elevation of 158.2 feet, almost 4 feet below the surrounding top-of-bank at an average elevation of approximately 162 feet.

The existing culverts near SE 80th Avenue and SE McBride Street will be replaced in conjunction with the LRT alignment improvements. The new culverts will have greater capacity and will reduce existing capacity constraints at this crossing. Based on this improvement, the Council finds that the proposed crossing of Phillips Creek should not restrict flows or result in flooding or other conveyance impacts.

At the west end of the segment, the alignment will be constructed roughly parallel to the south side of SE Harmony Road. The track will be placed on retained-earth fill built on the hillside above Mt. Scott Creek. Mt. Scott Creek originates in the Happy Valley area and flows westerly approximately 4.5 miles through a steep forested canyon at the base of Mount Talbert, then meanders through an

industrial area before joining Kellogg Creek at the North Clackamas Regional Flood Control Facility.

Flooding from Mt. Scott Creek has historically occurred near the intersection of Rusk and Lake Roads. Extensive flooding occurs in the area between SE Harmony Road and the UP main line along the reach of Mt. Scott Creek between the UP bridge and the Lake Road bridge.

FEMA floodplain maps of this location indicate that the footprint for the tracks would not encroach into the 100-year floodplain of Mt. Scott Creek. Where the alignment comes close to the floodplain (in the vicinity of SE Cedarcrest Drive), a bridge is proposed. Floodplain impacts are not expected in this portion of the alignment because fill for the embankment would not be placed below elevation 77 feet (the approximate elevation of the FEMA regulatory floodplain at this location) and because the toe of the embankment would not be constructed below elevation 89 feet. Construction of the North Clackamas Regional Flood Control Facility just upstream of this location will provide further assurance that flooding impacts will not occur.

Stormwater quantity and quality impacts associated with the development of the CTC/Transit Center Station are expected to be negligible because significant amounts of impervious surface already exist at this location. Runoff from the CTC/Transit Center Station will be directed to catch basins and storm drainage facilities in adjacent roadways.

Stormwater quantity and quality impacts associated with the OIT/Aquatic Center Station and park-and-ride lot will be addressed in a subsequent LUFO amendment following the master planning process for the OIT/CCC Study Area.

Mitigation Options for Stormwater Impacts in the Clackamas Regional Center Segment

Based on the information contained in the *Hydrology Results Report*, the Council concludes that no significant stormwater runoff or water quality impacts are expected in the Clackamas Regional Center Segment. The Council finds that water quantity and quality impacts created by the construction and operation of the South/North Project in the Clackamas Regional Center Segment can be substantially mitigated by complying with Corps of Engineers/Division of State Lands fill and removal regulations and Clackamas County erosion control and stormwater management regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

A minor increase in the risk of flooding and deterioration in water quality could occur as a result of placement of fill for the LRT crossing of Phillips Creek and for the LRT embankment south of SE Harmony Road and parallel to Mt. Scott Creek. Replacement of the undersized culverts in the Phillips Creek crossing is expected to improve the conveyance capacity of Phillips Creek. The embankment for the LRT alignment will not encroach into the 100-year floodplain of Mt. Scott Creek.

Standard erosion control measures can be implemented in connection with all improvements in the Clackamas Regional Center Segment, and site-specific erosion controls can be provided at the crossing of Phillips Creek and adjacent to Mt. Scott Creek. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of

measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting process.

Further, the Council finds that the stormwater impacts associated with the alignment, station and park-and-ride lot in the OIT/CCC Study Area will be addressed in a subsequent LUFO amendment following the completion of the master planning process.

6.4.1.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

Historic and cultural resource impacts specific to the Clackamas Regional Center Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/North Corridor, including the Clackamas Regional Center Segment, are addressed in the General Findings. Historic and cultural resource impacts and mitigation measures are also described in the *Historic, Archeological and Cultural Resource Impacts Results Report (Historic Report)*.

Identified Significant and Protected Historic and Cultural Resources in the Clackamas Regional Center Segment

The *Historic Results Report* and the Clackamas County Comprehensive Plan identify the Harmony Elementary School as the only “significant” and “protected” historic resource in the Clackamas Regional Center Segment. The school has been determined eligible for inclusion in the National Register of Historic Places. The former school building is now used as office space by the North Clackamas School District.

There may be an adverse effect on the Harmony Elementary School property, depending on the alignment selected through the OIT/CCC master planning process. The DEIS noted that the reconstruction of SE Harmony Road associated with the North of OIT/CCC Design Option would require a taking of approximately 50 feet of the school building property for right-of-way. The Harmony Elementary School and associated out buildings would not be directly affected. In addition to the direct taking of property, the relocation of SE Harmony Road would result in a seven to eight dBA increase in traffic noise at the school building. The South of OIT/CCC Design Option evaluated in the DEIS would not have an adverse effect on the Harmony Elementary School property.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the Clackamas Regional Center Segment

The Council finds that the specific impacts of the South/North Project on the Harmony Elementary School cannot be determined at this time. The precise location and design of the alignment, station and park-and-ride will be determined through a master planning process for the OIT/CCC Study Area. A subsequent amendment to this LUFO will address adverse impacts and mitigation measures

associated with the selected location for the alignment, station and park-and-ride lot for the OIT/CCC Study Area. Historic and cultural resources impacts on the Harmony Elementary School will be addressed in the LUFO amendment.

6.4.2 East Milwaukie Segment

6.4.2.1 Description of Light Rail and Highway Improvements

The East Milwaukie Segment of the South/North Project includes the following LRT-related facilities:

- An alignment that extends west from SE Cedarcrest Drive at SE Harmony Road along the north side of Highway 224 to just east of the Tillamook Branch rail line near the southern portion of the Milwaukie Industrial Area.
- Two light rail stations – one at the Linwood park-and-ride and one at SE Freeman Way.
- One park-and-ride lot located in the vicinity of SE Linwood Avenue and SE Harmony Road.

See **Figure 1.2** of the LUFO for LUFO boundaries for the East Milwaukie Segment.

Light Rail Alignment

From the vicinity of SE Cedarcrest Drive, the alignment continues westward along the south side of SE Harmony Road, crossing over the UP rail line on a new structure to a station and approximately 1300-space structured and/or surface park-and-ride lot located in the vicinity of SE Linwood Avenue. The alignment proceeds westward on the south side of SE Harmony Road, crossing SE Harmony Road diagonally at grade at the intersection of SE Harmony Road, SE Lake Road and SE International Way. It then continues westward north of and generally parallel to Highway 224 to just east of the Tillamook Branch rail line, with a station at SE Freeman Way.

Light Rail Stations

Two stations are provided in the East Milwaukie Segment: the Linwood Station and the Freeman Station.

Linwood Station. The Linwood Station is located at the Linwood park-and-ride lot at the eastern edge of the City of Milwaukie. The station will be located on the south side of SE Harmony Road, with the precise location of the station within the park-and-ride lot to be determined during final design. This station will serve residents of nearby Linwood, Oak Lodge and North Clackamas neighborhoods and park-and-ride customers.

Freeman Station. The Freeman Station is located north of Highway 224 near SE Freeman Way. This station will provide transit access to the significant employment base in the industrial parks located between Highway 224 and SE Railroad Avenue in the Milwaukie Business Industrial Neighborhood. The Freeman Station will also serve the Lake Road Neighborhood located to the

south of Highway 224. A modified traffic signal at the Highway 224/SE Freeman Way intersection will provide for pedestrian access across Highway 224 to the Freeman Station.

Park-and-Ride Lots

One park-and-ride lot is provided in the East Milwaukie Segment. The Linwood park-and-ride includes approximately 1300 surface and/or structured spaces on an approximately 3.5 acre parcel bounded by SE Harmony Road, SE Lake Road and Mt. Scott Creek. Access to the park-and-ride lot is available from SE Harmony Road on the north and SE Lake Road and SE Rusk Road on the south.

Operations and Maintenance Facilities

There are no operations and maintenance facilities located in the East Milwaukie Segment.

Highway Improvements

There are no highway improvements in the East Milwaukie Segment.

6.4.2.2 Criterion 3: Neighborhood Impacts

“Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process.”

“A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.”

“B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.”

Description of Affected Neighborhoods in the East Milwaukie Segment

The East Milwaukie Segment connects the Clackamas Regional Center to the Milwaukie Regional Center. This segment is generally characterized by two residential areas separated by a large industrial district. Two major transportation routes cross the segment. Highway 224, a high speed, limited-access expressway, runs diagonally southeast to northwest. SE Railroad Avenue is a two-lane road that runs almost parallel to the UP railroad, north of the expressway and industrial district.

The area along SE Railroad Avenue retains some of the qualities of its rural past. North of SE Railroad Avenue are neighborhoods (Linwood, Hector Campbell and Ardenwald) of primarily single-family homes, which vary from turn-of-the-century farmhouses to newly constructed homes. A low-lying wedge of land between SE Railroad Avenue and Highway 224 is developed with several business/industrial uses and functions as a key employment center for the Milwaukie area (Milwaukie Business Industrial Neighborhood). West of the industrial area is Milwaukie Marketplace, a shopping center built less than ten years ago. A small commercial district is located near Highway 224 and SE Harrison Street. South of Highway 224 is an older single-family neighborhood (Lake Road Neighborhood). Berms and a higher elevation separate that neighborhood from Highway 224. The Highway 224 LRT alignment touches the following five Milwaukie neighborhoods: Oak Lodge, Milwaukie Business Industrial, Lake Road, Historic Milwaukie and Ardenwald. A brief description of each neighborhood is presented below.

The portion of the *Oak Lodge Neighborhood* within the East Milwaukie Segment lies just south of SE Harmony Road and is divided by SE Lake Road and Highway 224. This is a very small area characterized by roads that divide the area into irregularly shaped parcels occupied with large and moderate-scale commercial and industrial structures. Vegetation and rooftops are visible from SE Railroad Avenue. The Highway 224 LRT alignment parallels the northern boundary of the Oak Lodge Neighborhood.

The *Milwaukie Business Industrial Neighborhood* extends from the eastern city limits west to SE Oak Street, and from Highway 224 north to SE Railroad Avenue. The neighborhood is a mix of industrial and commercial uses in a predominantly industrial park environment. This neighborhood is a major employment center for the Milwaukie area. The Milwaukie Marketplace commercial development is in this neighborhood. The Highway 224 LRT alignment generally parallels the southern boundary of the Milwaukie Business Industrial Neighborhood.

The *Lake Road Neighborhood* lies south of Highway 224, roughly west of Mt. Scott Creek, north of Kellogg Creek and east of SE 27th Avenue. Land use is almost exclusively single family residential, except for the far west end which is a continuation of commercial land use extending from downtown Milwaukie. The general street pattern is curvilinear except for a grid-like street system in the northwest portion of the neighborhood. Most streets have sidewalks. Along the southern edge of the neighborhood, Kellogg Creek and its riparian zone provide a significant buffer of vegetation. The Highway 224 LRT alignment generally parallels the northern boundary of the Lake Road Neighborhood.

The *Historic Milwaukie Neighborhood* contains the downtown core of Milwaukie. Land uses in the downtown area include low-scale commercial uses surrounded by older, established residential neighborhoods with grid streets. Significant community facilities in the neighborhood include Milwaukie City Hall, Ledding Library, an existing transit center, and elementary, junior and high schools. The Highway 224 LRT alignment crosses the northeast corner of the Historic Milwaukie Neighborhood.

The *Ardenwald Neighborhood* is composed almost exclusively of single family homes built after World War II. The street pattern within this neighborhood is irregular, with mostly east-west street connections. The only significant employment center in Ardenwald is Providence Milwaukie

Hospital. The Milwaukie Public Safety Building is in this neighborhood. The Highway 224 LRT alignment parallels the southwestern boundary of the Ardenwald Neighborhood.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the East Milwaukie Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the East Milwaukie Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts also are described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

Overall, the South/North Project will result in positive economic impacts in the East Milwaukie Segment because improved transit capacity will be available to support the intensive job base in the Milwaukie Industrial Area. However, the long-term benefit must be balanced by the short-term adverse economic impacts associated with displacement of existing businesses and industries for the LRT alignment and the Linwood park-and-ride.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacement has an effect on employment, incomes, services and taxes. Even though the adverse impacts associated with displacement may not be significant on a region-wide or citywide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. It understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to the employees who work for the company.

The Linwood park-and-ride lot will displace two trucking company uses (TNT Reddaway and Dick Simon Trucking) located between SE Harmony Road and SE Lake Road. The original configuration of the park-and-ride lot evaluated in the DEIS extended to both sides of SE Harmony Road. However, by focusing the park-and-ride development to the south side of Harmony Road, the project reduces the displacement and natural resource impacts associated with a larger park-and-ride.

West of SE Oak Street, the LRT alignment displaces four retail/commercial uses located adjacent to the north side of Highway 224, including an animal clinic, an auto-parts store, a gas station and a drive-in restaurant. No uses are displaced in the Milwaukie Marketplace. The LRT alignment tightly hugs the edge of Highway 224 through this section to minimize business displacement impacts.

In terms of mitigation, as described in the General Findings, displaced commercial and industrial uses will be acquired at fair market value, and relocation services will be provided to business

owners and tenants. During the preliminary and final engineering processes, engineering staff will try to minimize displacement impacts to the extent practicable through design refinements.

Further, the Council finds that the overall number of business/industrial displacements in this segment is reduced, and the displacement of business/industrial uses to the north side of SE Harmony Road avoided, through changes to the configuration of the Linwood park-and-ride from what earlier had been proposed in the DEIS.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business use is assumed to be displaced.

The South/North Project will result in very modest displacement of off-street parking spaces in the East Milwaukie Segment. Where the LRT alignment swings north of Highway 224 to bridge two creeks east of the Freeman Station, two rows of parking may be displaced. The preliminary plans for this segment identify a possible replacement parking area to mitigate for the displaced parking.

Further west, the closure of the existing SE 37th Avenue/SE International Way connection to Highway 224 displaces existing access to Six Roblees, a specialty auto-parts store. However, this use is already displaced by the LRT alignment.

Tax Base. The South/North Project will have a negative economic impact on the tax base through the displacement of business and industrial uses from the tax rolls. Table 5.1-3 of the DEIS identifies the 1994 Assessed Value of displaced properties in the East Milwaukie Segment at \$4,838,000. 1994 property taxes for the displaced properties totaled an estimated \$69,000.

The tax base impacts associated with the displacement of existing industrial uses at the Linwood park-and-ride lot will be long-term. This facility will be in public ownership and will be permanently removed from the tax rolls. The tax base impacts associated with business displacements to the north side of Highway 224 may be shorter-term. The availability of light rail may spur new development north of Highway 224 and enhance property values and the tax base on a long-term basis.

Freight Movement. There will be no impacts on *water freight* movement in the East Milwaukie Segment.

No adverse *trucking impacts* are expected in this segment. Highway 224 is classified as a freight route in the City of Milwaukie's *Transportation System Plan*. According to the Plan, freight routes generally include the major arterial roadways within the City and surrounding areas where there is a concentration of industrial land uses which encourage truck traffic. Traffic counts indicate that truck activity along Highway 224 during the PM peak range from approximately 2.7 to 3.2 percent of total traffic in the eastbound direction, and approximately 3.1 to 5.0 percent westbound. Increased growth in traffic volumes on Highway 224 will likely reduce the ability of this facility to accommodate future truck traffic. LRT impacts to truck traffic in this segment are expected to be minimal. Some delays may be experienced by trucks attempting to turn to/from Highway 224 due to LRT operations.

The South/North Project will not have adverse impacts on *rail freight* movement in the East Milwaukie Segment. For about one and a half miles, from the SE Harmony Road crossing to the Milwaukie CBD, the UP runs parallel to SE Railroad Avenue to the north side of the Milwaukie industrial area. There are approximately six northbound and six southbound freight trains and two northbound and two southbound passenger trains operating daily on these tracks. The BNSF Railroad also operates through this corridor on a trackage rights agreement signed in 1993. BNSF operates one northbound and one southbound freight train daily. Full build-out of the High Speed Rail Program includes plans for up to eight southbound and eight northbound passenger trains through this corridor in Stage 3 of the corridor development program (estimated to occur in approximately 2005).

At the east end of the segment, the LRT alignment will bridge the UP tracks near the Linwood park-and-ride. At the west end of the segment, the LRT alignment will tunnel under SE Harrison Street to avoid potential queue conflicts with the nearby UP at-grade crossing of SE Harrison Street. At all other locations in the segment, the LRT alignment will be a significant distance from the railroad and will not adversely affect rail traffic.

Social Impacts

The Council finds that the social impacts of the South/North Project are generally positive in the East Milwaukie Segment. Light rail provides improved transit access to community facilities, relatively few residential uses are displaced, and the alignment primarily uses the existing Highway 224 transportation corridor that functions as an established boundary between neighborhoods.

Residential Displacements. As with business displacements, the Council recognizes that in every instance where the South/North Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. It understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

In the East Milwaukie Segment, the LRT alignment will displace approximately 2 multi-family units and 4 single family units. The displaced residential units are concentrated in a two block area immediately north of Highway 224 between SE Oak Street and SE Monroe Street. The residential units are located close to the Highway 224 right-of-way, and displacement cannot be avoided with the alignment adjacent to Highway 224.

It may be possible to reduce some residential displacements for the South/North Project by taking only a portion of the property and/or structure and by modifying the remaining property and/or structure to allow continued occupancy. Where displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program, as explained in the General Findings.

The Council recognizes the adverse social impacts associated with the residential displacements. However, the Council finds that the residential displacements associated with the Highway 224 alignment are significantly lower than the range of 22 to 91 residential displacements associated with the Railroad Avenue alternatives. Substantial public concern has been raised regarding the

displacements associated with the Railroad Avenue alternatives. In selecting the Highway 224 alignment, the Council has responded to the public concern and selected the alignment with fewer residential displacement impacts. The Council also has responded to public concern by limiting the location of the Linwood park-and-ride to only the south side of SE Harmony Road, thereby avoiding residential displacements on the north side of SE Harmony Road.

Access to Community Facilities. The Council finds that Highway 224 alignment will provide improved transit access to community facilities and employment centers. In particular, the station at Freeman Way will improve transit access to the substantial concentration of jobs in the Milwaukie Industrial area. The South/North Project will also provide improved transit accessibility and links for Milwaukie residents to local and regional employment centers, facilities and recreational destinations such as Clackamas Town Center, the Aquatic Park, OIT/CCC, Downtown Milwaukie, Downtown Portland, OMSI, the Convention Center, the Rose Quarter, and Emanuel and Edgar Kaiser Medical Centers, as well as to destinations along the East-West MAX light rail route.

Barriers to Neighborhood Interaction. The Council finds that the Highway 224 alignment will not result in barriers to neighborhood interaction, primarily because the highway corridor already functions as an edge and boundary between several neighborhoods. Pedestrian and signal improvements will accommodate pedestrian access to the Linwood park-and-ride lot from neighborhoods located to the north of SE Harmony Road. Signal improvements at SE Freeman Way will accommodate pedestrian access to the Freeman Station from neighborhoods located to the south side of Highway 224.

During the public review of the DEIS for the South/North Project, public testimony encouraged the selection of the Highway 224 alignment over a SE Railroad Avenue alignment because LRT represents a compatible use of the major transportation corridor and because Highway 224 already functions as a substantial barrier between neighborhoods. In selecting the Highway 224 alignment, the Council has responded to this public testimony.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. The Council finds that with appropriate design and implementation of systemwide transit security measures as described in the General Findings, safety and security will not be adversely affected by the LRT stations or park-and-ride in the East Milwaukie Segment.

Individuals commenting on the DEIS noted that there is an existing problem with crime in neighborhoods north of SE Monterey Avenue. The Linwood Station and the Freeman Station will both be located at grade and adjacent to heavily used public streets. A 24-hour business is located adjacent to the Freeman Station, which substantially enhances activity and security. The final design of the LRT stations will include careful consideration of security concerns. Security lighting and telephones will be provided at station platforms, both stations will be visible from nearby public streets, and landscape design will ensure consideration of safety and security (i.e., low shrubbery). Because the Linwood park-and-ride lot is located below the grade of SE Harmony Road and is somewhat isolated, the final design of the park-and-ride lot will include careful consideration of measures such as lighting, layout and landscaping to mitigate safety and security concerns.

Visual/Aesthetic. The topography in the East Milwaukie Segment generally slopes north and east up from the Mt. Scott and Kellogg Creek valleys. The visual character of this segment is defined by the Highway 224 transportation corridor, large, flat-roofed industrial and commercial buildings, and moderate-scale residential housing.

Changes to the intersection of SE Harmony Road, SE Railroad Avenue and SE Linwood Avenue and the development of the Linwood park-and-ride and station will affect the visual/aesthetic character of the northern portion of the Oak Lodge Neighborhood. A high degree of visual change will occur in this area because of the removal of vegetation and existing structures; the redesign of major arterials on high fill slopes or retaining walls; and, the introduction of large structures or open surface areas that will alter the existing development pattern and scale of this part of the neighborhood. Viewer sensitivity to these changes would be low to moderate. While only a small area of the Oak Lodge Neighborhood would be affected, large numbers of viewers, including local employees and travelers using SE Harmony Road and Highway 224, would see the changes for varying periods of time.

Removal of vegetation and trees and modifications to existing topography will result in a moderate to high degree of visual change in the southeastern portion of the Milwaukie Industrial Neighborhood. A moderate degree of change would also occur from SE International Way to approximately SE Oak Street. The LRT alignment will remove vegetation in the Highway 224 right-of-way and replace it with poles, overhead wires, retaining walls and jersey barriers. While these changes are not incompatible with the existing industrial and commercial character of the neighborhood, they will harden the edge of the roadway with the removal of the visual buffer created by existing trees and grass.

From SE Oak Street to the Ardenwald Neighborhood boundary, several single family houses, small businesses and some vegetation will be removed parallel to the north side of Highway 224. They will be replaced with fencing, a long, below-grade structure with 10-25 foot retaining walls, closed streets and remnant parcels of vacant land. These elements will be highly visible and will enlarge the development pattern in this area and the scale of separation between Ardenwald and Historic Milwaukie neighborhoods. However, the visual changes will not be incompatible with other large-scale features such as Highway 224 and the UP main line. The *Visual Results Report* concludes that the overall visual impacts to this portion of the Ardenwald and Historic Milwaukie Neighborhoods would be low to moderate.

In general, the Council finds that the visual/aesthetic impacts associated with the LRT improvements in the East Milwaukie Segment include the disruption of neighborhood pattern with the removal of houses and businesses and relocation or closure of roads, substantial changes to existing topography and bridges. Measures that could mitigate adverse visual/aesthetic impacts include:

- During final design, consider reducing topographic changes and removal of vegetation where practicable;
- Consider planting tree and vegetation screens on fill slopes to reduce the apparent height and scale of new bridges and roadways;
- Evaluate planting of vegetation screens to separate residential areas from transportation corridors;
- Study varying the gradient of fill slopes and smoothing their transition to existing grades to decrease the topographic change and soften their geometry during final design; and

- Consider the location and direction of lights at the park-and-ride and station to prevent night time glare into the surrounding neighborhood.

Other

During the DEIS hearings, Metro received considerable testimony opposing a station location in the vicinity of SE Oak Street and the Milwaukie Marketplace. Concerns raised included the loss of small town atmosphere and adverse "quality of life" impacts to established single family neighborhoods that could result from increased density associated with the presence of a light rail transit station in the immediate area.

The Council finds that Tri-Met's LUFO application does not provide for a station in the vicinity of SE Oak Street, and the Council has not referred the application back to Tri-Met to include such a station. Consequently, the Council finds and concludes that these adverse impacts will not occur as a result of the project.

Traffic Impacts

The local street network within the East Milwaukie Segment includes SE Railroad Avenue, Highway 224, SE Monroe Street and SE Lake Road, which generally run from east to west, and SE Linwood Avenue, SE Stanley Avenue and SE 37th Avenue, which generally run from north to south. In 1994, Highway 224 carried approximately 35,000 vehicles on an average weekday east of SE Lake Road, while SE Railroad Avenue carried approximately 8,300 vehicles west of SE Linwood Avenue. Problem intersections that currently experience LOS E operations during the p.m. peak hour include the intersections of Highway 224 with SE Lake/Webster Road and SE Oak Street.

Significant traffic growth is forecast to occur on roadways within the East Milwaukie Segment by 2015. Table S-7 of the *Traffic Results Report* summarizes the volume-to-capacity ratios and level of service at 25 intersections in the East Milwaukie Segment. Compared to the No-Build Alternative, all light rail alignment alternatives, including the selected Highway 224 alignment, result in a deterioration in level of services from LOS D to LOS E at the intersection of SE Harmony Road with SE Lake/International Way. As indicated in the table, significant decreases in levels of service are expected along Highway 224 by 2015 under No-Build conditions, with almost all intersections along the corridor forecast to operate at LOS F with volume-to-capacity ratios of greater than 1.00 during the p.m. peak hour.

The unsignalized intersections of SE 37th Avenue with SE Monroe Street and the Highway 224 westbound ramps at SE Lake Road are also expected to operate at LOS F by 2015. PM peak hour traffic volume projections indicate that these intersections are expected to meet peak hour warrants for signalization by 2015 under the No-Build Alternative.

The Highway 224 alignment runs on the north side of Highway 224 between approximately the SE Harmony Road/SE International Way intersection and the Milwaukie CBD. Table 5.4-3 of the *Traffic Results Report* displays a comparison of traffic operations at key intersections affected by the Highway 224 alignment with existing and No-Build conditions.

The SE Harmony Road at SE Lake Road/SE International Way intersection is assumed to be diagonally traversed by LRT track with this alignment, with traffic operating at LOS E during the

p.m. peak hour. The Highway 224 westbound ramps at SE Lake Road would operate at LOS F and have excessive delays with both the No-Build and Highway 224 Alternatives. This intersection will likely meet warrants for signalization. However, spacing between this intersection and the signalized Highway 224 eastbound ramps at SE Lake Road may be insufficient to provide adequate vehicle storage if both intersections are signalized.

Levels of service at other intersections along Highway 224 are expected to be very similar to levels of service expected with the No-Build Alternative. The biggest difference between the Highway 224 alignment and the No-Build Alternative could occur at the intersections of Highway 224 with SE Oak and SE Monroe Streets. The proposed T-intersection at SE Monroe Street could divert some traffic to SE Oak Street and impact operations of the intersection. However, the elimination of the Milwaukie Marketplace station and park-and-ride will likely lead to lower traffic volumes. Improved traffic operations are expected at the Highway 224/SE Monroe Street intersection when compared with the No-Build Alternative.

Access to and from the Linwood park-and-ride lot will be provided via SE Lake Road at SE Rusk Road and also via a new signalized intersection on SE Harmony Road between SE Lake Road and SE Linwood Avenue. The park-and-ride lot access to SE Harmony Road is expected to operate at LOS B with average delays of just over 13 seconds per vehicle. The park-and-ride access to SE Rusk Road will likely meet warrants for signalization. Signalized intersection capacity analysis indicates that this intersection will operate at LOS C.

The *Traffic Results Report* includes an analysis of traffic impacts associated with the two stations in the East Milwaukie Segment. Because the Linwood Station will be located within the 1,300 space Linwood park-and-ride lot, the potential for unauthorized parking on the adjacent street system is very low. Bicycle and pedestrian access to the station should be adequate given the facilities which have been incorporated into the design of the park-and-ride.

Field observations indicate that there should be little demand for station related parking in the vicinity of the station at SE Freeman Way. This station lies in close proximity to the Linwood park-and-ride. Additionally vehicular access to the Freeman Station is more difficult than access to the park-and-ride lot. However, because some existing off-street parking is located adjacent to existing commercial/industrial development at SE Freeman Way, there may be some potential for light rail riders to park in these lots. Additionally, because the station is located on Highway 224, pedestrian and bicycle access is less than ideal. However, a reconfigured traffic signal at Highway 224/SE Freeman Way provides an opportunity for controlled pedestrian/bicycle access across Highway 224 from the Lake Road Neighborhood.

In response to specific issues and questions raised by the City of Milwaukie, a more detailed assessment of traffic circulation and access to/from the Linwood Station and park-and-ride lot was conducted. The assessment, set out in the *Traffic Report*, concluded that average vehicle speeds on SE Harmony Road between SE Linwood and SE International Way are expected to be approximately ten percent slower with the Highway 224 Alternative with or without LRT preemption than with the No-Build Alternative.

The Highway 224 Alternative includes the closure of the east approach of the intersection of Highway 224 with SE Monroe Street. The alignment also includes the closure of the east leg of the intersection of SE 37th Avenue with Highway 224. A new roadway link between SE 37th Avenue

and Highway 224 is proposed to be constructed as mitigation north of the existing intersection to provide a safer crossing and intersection.

In conclusion, the Council finds that the South/North Project will not significantly change the projected 2015 levels of service on streets and highways in the East Milwaukie Segment. The *Traffic Results Report* notes that four intersections meet the criteria for consideration of mitigation strategies with the Highway 224 alignment: SE Harmony Road at SE Lake Road/SE International Way; Highway 224 at SE Rusk Road; Highway 224 westbound ramps at SE Lake Road; and Highway 224 at SE Oak Street.

Mitigation strategies at the SE Lake Road intersections with SE Harmony/SE International and the westbound Highway 224 ramps would generally include the addition of turn lanes and the addition or modification of traffic signals to increase vehicle capacity at these intersections.

The intersection of Highway 224 and SE Rusk Road would be impacted by traffic from the Linwood Avenue park-and-ride lot. The addition of a southbound left turn lane on SE Rusk Road and a center median on Highway 224 would successfully mitigate intersection impacts to a level comparable to the No-Build Alternative.

The Council finds that station area traffic impacts within the East Milwaukie Segment are expected to be minimal. However, if traffic intrusion and parking associated with the Freeman Station becomes a problem, then traffic management strategies such as a permit parking program and/or physical improvements to restrict access to private commercial/industrial parking lots near the station could be considered.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the East Milwaukie Segment, including but not limited to:

- Install traffic signals at the SE Harmony Road and SE Rusk Road accesses to the Linwood park-and-ride lot
- Construction of drop-off zones along SE Harmony Road to serve Linwood Station
- Modify the existing signal and add turn lanes at the SE Harmony/Lake Road/International Way intersection
- The LRT alignment and Linwood Station and park-and-ride will accommodate a 5-lane Harmony Road improvement funded by others
- Possible replacement parking to the east of the Freeman Station to replace two rows of Blount Industries parking displaced by the LRT alignment
- Modify the traffic signal at SE Freeman Way/Highway 224 and add a right turn westbound lane
- Close off-ramp and close skewed intersection of SE 37th Avenue with Highway 224; construct a new road connection and traffic signal approximately 300 feet to the west as mitigation.
- Possible modification of signal and construction of a westbound right-turn lane from Highway 224 at SE Oak Street
- Close existing connection of SE Monroe Street to the north side of Highway 224; connect Monroe and Penzance Streets for local circulation; modify existing signal at SE Monroe Street and Highway 224
- Install a traffic signal at the Highway 224 westbound ramps at SE Lake Road.

The Council finds that the improvements summarized above can mitigate most of the adverse traffic impacts of the South/North Project in the East Milwaukie Segment.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The light rail route, two stations and one park-and-ride lot in the East Milwaukie Segment will provide light rail service to nearby residential neighborhoods such as Linwood, Oak Lodge and Lake Road. Additionally, the route along Highway 224 and the Freeman Station will provide transit accessibility to the Milwaukie Industrial Area employment center. This jobs rich area is capable of enhancing ridership on South/North LRT.

Because the light rail route largely parallels Highway 224, an existing physical boundary and barrier between neighborhoods in Milwaukie, the affected neighborhoods are protected from the significant residential displacement, noise and local traffic impacts associated with the SE Railroad Avenue alternatives that were evaluated in the DEIS.

The Highway 224 Alternative originally included a station and park-and-ride lot at Oak Street/Milwaukie Marketplace. Substantial public testimony focused on the adverse neighborhood and traffic impacts associated with the station and park-and-ride, including specific concerns regarding pressures for higher densities and redevelopment associated with the LRT station. The Council is sensitive to and responsive to this public testimony, and the Oak Street Station and park-and-ride lot are not included in this LUFO. The Council finds that because of existing development patterns, the Highway 224 alignment is unlikely to contribute in any substantial way to an efficient and more compact urban form over a 20-year horizon. While the alternative Railroad Avenue alignment would have provided limited opportunities in this regard, the need to protect established neighborhoods along Railroad Avenue, which would have experienced significant numbers of displacements, outweighed any benefits of a more compact urban form in this vicinity.

The Council believes that the alignment and stations offer an excellent opportunity for residents and employees in East Milwaukie to take light rail to work, thereby saving energy, reducing congestion and improving air quality. Traffic studies document that all roads and intersections in the East Milwaukie Segment are projected to operate within acceptable levels of service with mitigation.

Because Milwaukie is largely developed, LRT will result in business displacements and some residential displacements. Mitigation for displacement impacts are described above, in the General Findings, and in the DEIS and supporting technical results reports. Mitigation strategies will be further evaluated in the Final Environmental Impact Statement and through the local permitting process.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the East Milwaukie Segment that have utility separate from the South/North Project. A range of improvements are proposed as mitigation for traffic impacts associated with the LRT alignment, two stations and one park-and-ride lot in this segment. These improvements are described in the discussion of traffic impacts for the East Milwaukie Segment.

During the DEIS public hearing process, concern was raised as to whether light rail transit along Highway 224 could impede ODOT's ability to expand or modernize that highway. Highway 224 could be expanded to six lanes by widening to the south. Modernizing by grade-separating the 37th Avenue, Oak Street and Harrison Street intersections could be accommodated but has yet to be designed by ODOT.

6.4.2.3 Criterion 4: Noise Impacts

"Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process."

Noise and vibration impacts specific to the East Milwaukie Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the East Milwaukie Segment, are addressed in the General Findings. The General Findings include a general overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts also are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the East Milwaukie Segment

The LRT alignment in this segment generally parallels the north side of Highway 224, and the background noise environment is dominated by highway traffic noise.

Residential land uses in the East Milwaukie Segment include single and multi-family dwelling units located north of SE Harmony Road between SE Cedarcrest Drive and SE Linwood Drive and near the Milwaukie Marketplace from SE Oak Street to SE Penzance Street. The Lake Road neighborhood is oriented to the south of Highway 224 and is also separated from the highway by topography and vegetation. The closest residences to the alignment range from 30 to 60 feet from the track centerline. Industrial uses predominate in the area between Highway 224 and SE Railroad Avenue.

As described in the *Noise Report* and the *DEIS*, there were eight noise monitoring locations and two vibration testing locations for the East Milwaukie Segment. Four of the noise monitoring locations relate to the Highway 224 alignment. The remaining four noise monitoring locations and two

vibration testing locations applied to the Railroad Avenue alignment alternatives and are not relevant to these findings.

The ambient noise levels at the four noise monitoring locations (all residential uses) adjacent to Highway 224 ranged from 60 to 70 dBA. The primary noise in the East Milwaukie Segment is traffic on Highway 224.

The Impacts Summary from the *Noise Report* concludes that there are no LRT noise impacts, no wheel squeal impacts, no traffic noise impacts and no LRT vibration impacts in the East Milwaukie Segment, primarily because of the high existing noise levels from Highway 224. The Council agrees with the findings of the *Noise Report* and concludes that no noise/vibration mitigation measures are required in the East Milwaukie Segment.

While no adverse noise impacts have been identified, concern has been raised as to highway noise impacts on LRT patrons using the Freeman Way station. Persons waiting for or leaving light rail vehicles may experience unpleasant highway noise from automobile traffic along Highway 224. The Council finds that methods to reduce the impacts of highway noise on LRT patrons at this station can be studied during preliminary and final engineering and final design. Further study should balance the need for noise reduction with the need for visibility to enhance safety and security at the station platform.

6.4.2.4 Criterion 5: Natural Hazards

"Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural hazard impacts specific to the East Milwaukie Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the East Milwaukie Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Geology Report)* and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the East Milwaukie Segment

No specific *landslide areas* or *areas of severe erosion potential* are identified in the East Milwaukie Segment. The potential for major landslides within the South/North Corridor is very limited because the topography within the corridor is relatively gentle. Areas of severe erosion potential are generally associated with steep slopes and creek crossings. There are no steep slopes in the East Milwaukie Segment. However, light rail would cross over Minthorn Creek in the vicinity of the Linwood park-and-ride, where the creek is culverted under the existing parking lot. Construction of the alignment and park-and-ride lot would be done in a manner that improves the control of the erosion in that area.

As described in the General Findings, the Northwest is a seismically active area and subject to *earthquake damage*. Figure 4.1-5 of the *Geology and Soils Results Report (Soils Report)* identifies a concealed fault that crosses Highway 224 in the vicinity of SE Freeman Way. The *100-year floodplain* of Mt. Scott Creek is the only designated floodplain within the East Milwaukie Segment.

Map 3 of the Milwaukie Comprehensive Plan identifies the 100-year floodplain of Mt. Scott Creek and also identifies several areas which have *weak foundation soils* unsuitable for urban development. The largest area is just west of the Omark Industrial Park, north of Highway 224 and south of SE Railroad Avenue. Milwaukie's Comprehensive Plan includes the following policy to ensure that adequate measures are undertaken to mitigate the structural limitations of weak foundation soils:

"When developments are proposed for areas identified as having a severe construction rating (See Map 3), a special report (completed by a qualified soils engineer or engineering geologist), must accompany the application indicating proposed building techniques to mitigate soil limitations. Examples of appropriate mitigation techniques include:

- Excavating and backfilling where appropriate
- Special footing and foundation designs
- Special construction techniques such as pilings, etc."

The *Soils Report* includes the following description of existing conditions in the East Milwaukie Segment.

The Highway 224 LRT alignment lies in a Pleistocene flood-scour channel underlain by sediments of the Flood Channel Facies. Schlicker and Finlayson (1979) have mapped areas of peat or organic soils adjacent to Milwaukie Marketplace and between SE 37th Avenue and SE Freeman Way. Excessive settlement of fills and structures is possible. These areas are also likely to exhibit high groundwater levels during the wet season.

High shrink/swell soils are mapped in the area of the proposed LRT bridge below SE Linwood Drive (Schlicker and Finlayson, 1979). If present, these soils could adversely impact the stability of fills and structures associated with the Linwood park-and-ride and station. Organic soils and high groundwater are also possible in the area adjacent to Minthorn and Mt. Scott Creeks.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the selected alignment will provide the necessary information to anticipate and remediate less-than-ideal foundation conditions. Cuts and fills can be designed for necessary stability. If groundwater is encountered, it can be controlled with drains. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

In areas where settlement is anticipated, several options are available. If the extent of the unstable material is limited, that material can be removed and replaced with fill. In areas where excavation is not practical, settlement can be accelerated by surcharging and installing wick drains, or the structures can be mechanically supported.

The Linwood park-and-ride lot could impact the 100-year floodplain of Mt. Scott Creek. Mt. Scott Creek originates in the Happy Valley area, flows westerly approximately 4.5 miles through a steep forested canyon at the base of Mount Talbert, then meanders through an industrial area before joining Kellogg Creek at the North Clackamas Regional Flood Control Facility. Federal Emergency Management Agency (FEMA) maps indicate that extensive flooding occurs between SE Harmony Road and the Union Pacific Railroad (UPRR) line in the Mt. Scott Creek area, at the intersection of SE Lake and SE Rusk Roads and between the UPRR crossing of Mt. Scott Creek and SE Lake Road.

Existing flooding conditions adjacent to the park-and-ride site near Mt. Scott Creek are caused by capacity problems in the downstream reaches between Highway 224, Rusk Road, and Lake Road and by additional conveyance limitations in the Mt. Scott Creek channel past the site. Downstream of the Linwood park-and-ride, the creek channel has several meanders and a densely vegetated riparian zone with mature trees and a thick understory. These characteristics would severely restrict discharges through the reach during a flood and would promote off-channel floodwater storage. Immediately upstream of the park-and-ride site, the UP bridge also restricts the passage of flood flows from upstream areas. Together, these problems limit the downstream movement of flood flows and cause a significant backup of stored water in the vicinity of the Linwood park-and-ride site.

The Linwood park-and-ride and any fill placed on the site to regrade the parking areas could reduce the amount of off-channel floodplain storage along this reach of Mt. Scott Creek. Although the Mt. Scott Creek channel would not be directly affected by the proposed improvements, existing floodplain storage on the site could be reduced. If fill is placed within the floodplain, flooding depths and floodway flow velocities may increase adjacent to the site and in upstream and downstream locations. Because a portion of the park-and-ride site was flooded in February 1996, the improvements could be subject to the regulatory requirements of Metro's Title 3 ordinance. This ordinance requires that compensatory flood storage be provided that will balance the volume of encroachment from fill in the floodplain.

The North Clackamas Regional Flood Control Facility, which is currently under construction, could significantly reduce flooding at the site. However, it is not anticipated that the development of the Linwood park-and-ride would be exempted from the requirements of Title 3.

Mitigation Options for Natural Hazard Impacts in the East Milwaukie Segment

Based on the information contained in the *Geology Results Report* and the *Hydrology Results Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the East Milwaukie Segment. While historical evidence of seismic activity in Oregon is minimal, recent studies indicate that western Oregon may be subject to a greater risk from *earthquake hazards* than previously thought.

Site geology has a significant impact on earthquake damage. Young unconsolidated silt, sand, and clay deposits are associated with enhanced earthquake damage through amplification of shaking, settlement, liquefaction, and landsliding.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed engineering studies will include an evaluation of subsurface soil seismic response characteristics and will also

identify appropriate mitigation measures required for the areas of weak foundation soils in the East Milwaukie Segment. Based on the facts in the *Geology Results Report*, the Council finds that long-term impacts to geology and soils in the East Milwaukie Segment are minor. Mitigation would consist of using standard engineering practices to construct stable slopes; design of bridges to meet Uniform Building Code seismic standards; and techniques such as excavation and backfilling, special footing and foundation designs, and special construction techniques such as pilings to address weak foundation soils.

Portions of the Linwood park-and-ride are located within the designated 100-year floodplain boundary of Mt. Scott Creek. All fills in the floodplain will be compensated by equivalent excavation to mitigate any rise in flood levels. The Council finds that one-for-one mitigation for floodplain impacts is feasible and can reduce or mitigate adverse flooding impacts to persons or property in the East Milwaukie Segment. The LRT alignment and the Linwood Station will be constructed above the 100-year flood elevation.

6.4.2.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the East Milwaukie Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the East Milwaukie Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4(f) Impacts Results Report (4(f) Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the East Milwaukie Segment

Based on the information in the *Ecosystems Report* and the DEIS, the Council concludes that the South/North Project Improvements in the East Milwaukie Segment will not adversely affect the following natural resources:

- Park and recreational areas
- Willamette River Greenway

The applicable Milwaukie and Clackamas County comprehensive plans do not identify any natural resources sites of the type highlighted above as significant and protected in the East Milwaukie Segment. Within the East Milwaukie Segment, those plans identify the following natural resource sites as significant:

- Mt. Scott Creek (riparian, fish and wildlife habitat, and scenic and open space values)
- PS Public Storage site (wetland and habitat values)

The City of Milwaukie Comprehensive Plan includes an Open Spaces, Scenic Areas, and Natural Resources Element to address Statewide Goal 5. The City completed an inventory and analysis of 26 different natural resource sites within or adjacent to the City, including Mt. Scott Creek in unincorporated Clackamas County. The natural resources inventory included areas with unique and diverse natural and vegetative features, areas important for wildlife habitat, and areas with soil and/or wetness constraints which may contribute to erosion control, aquifer recharge, or other natural values.

Due to Milwaukie's physical setting and level of development, the Comprehensive Plan notes that few major natural resource features remain undisturbed and visible within the City. Areas along Kellogg Lake, part of Kellogg Creek, some riparian areas along the Willamette River, the steep slopes south of Lake Road, small bands of riparian vegetation along Johnson Creek, parts of Spring Creek which flow through Milwaukie, and other scattered wetland and upland sites are evaluated as potentially significant natural resources. The Plan notes that the general lack of adequate wildlife habitat in Milwaukie limits wildlife residency. On the other hand, active fish habitat exists within the City in the Willamette River, Kellogg Creek, and Johnson Creek. These waterways contain anadromous fish species.

Map 5 of the Milwaukie Comprehensive Plan identifies significant natural resource sites. In the East Milwaukie Segment within Milwaukie's city limits, Mt. Scott Creek is designated as a significant resource site for riparian and habitat values (Site #14). The PS Public Storage site is designated as a significant resource site for habitat and wetland values (Site #5). Both sites adjoin Highway 224 on its north side, with the Mt. Scott Creek site located south of the Lake Road off-ramp and the PS Public Storage site located immediately east of 37th Avenue.

In addition, Map 5 identifies three other significant resource sites that are located outside Milwaukie's city limits. These three sites (Sites #8, #9 and #12), which are contiguous and adjoin Site #14 in the City of Milwaukie, together comprise the Mt. Scott Creek Stream Conservation Area. Under Clackamas County's Comprehensive Plan, Stream Conservation Areas are designated for multiple resource values, including fish and wildlife habitat, scenic and open space areas, and riparian areas.

Land uses near the three Mt. Scott Stream Conservation Area sites include the North Clackamas Stormwater Detention Facility, a natural area exceeding 100 acres in size which is described in more detail in the Clackamas Regional Center Segment findings, as well as residential and institutional uses north and south of SE Harmony Road. Land uses north of Highway 224 in the vicinity of the protected City of Milwaukie sites are primarily commercial and light industrial. Vegetation north of Highway 224 is mostly non-native grasses and broad-leaved herbs within the highway right-of-way, with ornamental plantings associated with adjacent development. A relatively large, linear stand of red alders occurs along a stormwater management channel east of SE Freeman Way. A drainage ditch west of this road supports a small stand of emergent wetland species, along with scattered black cottonwood and red alder. Further west is the PS Public Storage site, consisting of a wetland mitigation site and stormwater detention basin. The wetland mitigation site supports emergent and

scrub-shrub wetland, while the detention basin is vegetated with scattered Oregon ash trees and a sparse cover of reed canarygrass.

West of SE 37th Avenue is a long, linear depression located between the shoulder of the highway and the Milwaukie Marketplace. Most of this depression contains open water habitat lined with a narrow band of emergent marsh and/or shrubs and deciduous trees. Water in this depression originates from the source spring of Spring Creek and flows east through the depression to SE 37th Avenue. At that point, the flow is culverted east under the road and into the Minthorn Natural Area.

The LRT alignment tightly hugs SE Harmony Road and the Highway 224 right-of-way to avoid most impacts to fish and wildlife habitat areas and wetlands, including the wetland/pond area associated with Milwaukie Marketplace, and to avoid disruption to the hydrology of the area. Along the north side of Highway 224, a total of 0.04 acre of wetland would be filled. This total includes about 230 square feet of emergent wetland along the southwestern edge of the wetland mitigation site near the south end of SE 40th Avenue (Wetland N), and about 1,340 square feet of open water/emergent wetland west of SE 37th Avenue (Wetland P). The wetland impacts at the mitigation site would occur as a result of the LRT alignment, while those east of SE 37th Avenue are associated with relocating surface street access to Highway 224.

Section 5.6 of the DEIS summarizes ecosystem impacts and potential mitigation that would result from the South/North Project. The following impacts are described for the East Milwaukie Segment:

Vegetation. Construction of the LRT alignment would remove approximately 0.2 acre of deciduous forest along Mt. Scott Creek north of the UP main line. Construction of the Linwood park-and-ride would remove vegetation within 50 feet of Mt. Scott Creek. Additional impacts include the removal of a number of small red alder trees in a small stand of deciduous forest north of Highway 224. The project would eliminate approximately 0.02 acre of this forested area.

Wetlands. Wetland impacts along the LRT alignment north of Highway 224 would include filling approximately 230 square feet of Wetland N and 1,340 square feet of Wetland P. Mitigation could include enlarging Wetland N and restoring wetland adjacent to Wetland P, or conducting mitigation off-site, possibly in areas adjacent to the Minthorn Springs Natural Area or North Clackamas Regional Stormwater Facility.

Wildlife and Fisheries. Approximately 0.2 acre of deciduous forest along Mt. Scott Creek would be removed. This loss would reduce available cover and foraging, nesting and roosting habitat for resident and migratory wildlife, and would cause additional fragmentation and degradation of the corridor between the Minthorn Springs Natural Area and North Clackamas Stormwater Detention Facility. Increased lighting, noise and human activity associated with the Linwood park-and-ride lot and the LRT line could further limit or deter wildlife from using the corridors along Minthorn and Mt. Scott Creeks.

Along the north side of Highway 224, the loss of deciduous forest (approximately 0.02 acre) and emergent marsh (approximately 0.04 acre) would eliminate cover, foraging, and nesting habitat for resident amphibians, birds and small mammals. Indirect impacts to wildlife in these areas associated with increased noise and activity could also occur, although human activity in the areas is already very high.

The LRT alignment also could affect wildlife in the North Clackamas Stormwater Detention Facility by reducing available area for foraging, nesting, roosting and cover for resident and migratory species. LRT operation could deter more secretive species from using habitat in the vicinity of the project.

Impacts to riparian habitat along Mt. Scott Creek would include the loss of streamside vegetation. Long-term soil compaction could result in increased runoff, soil erosion and streambed scouring. Increased noise, lighting and human activities are not expected to preclude fish use of the stream channel. Mitigation for impacts to Mt. Scott Creek fisheries could include habitat enhancement along the stream and implementation of best management practices to minimize runoff and soil erosion.

Because runoff from the Linwood park-and-ride lot would be treated on-site prior to discharge into Mt. Scott Creek, pollutant inputs into the creek are expected to be negligible. Although the park-and-ride site is currently a paved storage facility for a commercial trucking operation, stormwater discharge from the park-and-ride lot would increase the rate and volume of stormwater runoff into the creek.

Extension of the existing culvert at SE 37th Avenue would result in the loss of a small amount of habitat for aquatic organisms. Because Wetland P is mostly groundwater-fed, any net loss of pervious surface as a result of the crossing would be negligible in terms of groundwater quality.

Scenic and Open Space Areas. The Clackamas County Comprehensive Plan does not specifically designate and protect Mt. Scott Creek as "scenic" or "open space" areas. However, Stream Conservation Areas, including Mt. Scott Creek, are designated for multiple resource values, including scenic and open space, and the findings under the wildlife and fisheries headings are also relevant to scenic and open space areas.

Mitigation Options for Natural Resource Impacts in the East Milwaukie Segment

The DEIS initially proposed a configuration for the Linwood park-and-ride that extended to both the north and south sides of SE Harmony Road. The park-and-ride lot configuration has been revised to eliminate the surface park and ride spaces to the north side of Harmony Road. This modification avoids adverse impacts to Minthorn Creek and to wetland areas to the north side of SE Harmony Road, and also avoids filling a small (230 square feet) portion of the Mt. Scott Creek channel.

The Council recognizes that Mt. Scott Creek is designated a significant natural resource site. The Linwood park-and-ride will be developed on a site that is already paved to within 50 feet of the creek and committed to a trucking company use. Adverse impacts on the riparian and habitat values of Mt. Scott Creek can be mitigated with the implementation of best management practices for water quality. Additionally, mitigation could include habitat enhancement and restoration, especially important in riparian areas used by wildlife as movement corridors. Habitat enhancement could include removal of non-native vegetation and planting of native species. Vegetated buffers along riparian zones and streams could be created or broadened adjacent to LRT facilities where human activity is expected to be high (e.g., park-and-ride lots). Buffers can lessen the effects of noise and

lighting on wildlife. Lighting of facilities could also be minimized adjacent to higher quality wildlife habitat areas.

The Council finds that the adverse wetland impacts (0.04 acre) associated with LRT improvements north of Highway 224 cannot be avoided, and have been reduced to the extent practicable. For wetland impacts that cannot be avoided, compensatory mitigation typically involves creating, restoring, or enhancing wetlands in order to replace the wetland area and functions lost through a permitted wetland alteration.

6.4.2.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Stormwater runoff impacts specific to the East Milwaukie Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the East Milwaukie Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the East Milwaukie Segment

South/North Project improvements in the East Milwaukie Segment will include construction of the Linwood park-and-ride and station, and construction of light rail track along the northern shoulder of the roadway between SE International Way and the Milwaukie Marketplace, with a station near SE Freeman Way. Most of the area that would be affected by the alignment is pervious, grass-covered and steeply sloped.

The Linwood park-and-ride facility will include approximately 1300 spaces with a footprint of about 124,000 square feet on the existing TNT Reddaway site. Light rail tracks and a light rail station will be constructed on the southern shoulder of SE Harmony Road adjacent to the park-and-ride. A large embankment will be constructed to support an elevated track segment on the site. Although the park-and-ride site is already paved, runoff from the site is expected to increase by approximately 35% with the LRT improvements. Fill placed in the floodplain for development on the TNT Reddaway site could displace floodwaters along Mt. Scott Creek and cause problems at adjacent sites. Stormwater from the facility will be discharged into Mt. Scott Creek. A treatment pond for the park-and-ride lot would be effective in reducing pollutant concentrations in runoff compared to the untreated stormwater discharging from the existing site.

Water quantity/quality impacts from the two stations (Linwood and Freeman) are expected to be negligible since only small quantities of stormwater would be generated at these sites.

The LRT route would potentially impact a channelized stream/wetland system located along the shoulder of the Highway 224 alignment. At the east end of the alignment, the system is culverted. In the middle of the alignment (between SE Freeman Way and SE Mallard Way), the track would cross

an open section of the ditch twice, on two 60 foot bridges. Just east of SE 37th Way, the alignment would impact a second stream/wetland system that extends along the Highway 224 embankment and the south edge of the Milwaukie Marketplace. A new road connecting SE 37th Avenue with Highway 224 would also be constructed across the channel at the southeast corner of the Milwaukie Marketplace. A 90 foot box culvert is proposed at this location to convey the existing stream under the proposed roadway. Farther to the east, fill from the track alignment would encroach on the existing channel. Approximately 1,400 feet of channel would be affected at this location.

During construction, degradation of water quality could occur in ditches adjacent to track improvements along Highway 224, unless measures are taken to protect receiving waters from erosion and sediment transport. On a long-term basis, however, track improvements along Highway 224 are expected to have minimal impacts to adjacent receiving waters. In addition, the short roadway segment to be constructed between SE 37th Avenue and Highway 224 would also have a negligible long-term impact.

Mitigation Options for Stormwater Impacts in the East Milwaukie Segment

Based on the information contained in the *Hydrology Results Report*, the Council concludes that no significant stormwater runoff or water quality impacts are expected in the East Milwaukie Segment. The Council finds that water quantity and quality impacts created by the construction and operation of the South/North Project in the East Milwaukie Segment can be substantially mitigated by complying with Corps of Engineers/Division of State Lands fill and removal regulations and City of Milwaukie erosion control and stormwater management regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

A minor increase in the risk of flooding and deterioration in water quality could occur as a result of placement of fill for the Linwood park-and-ride and LRT embankment parallel to Highway 224. Stormwater quantity and quality controls, as well as compensatory flood storage, could be provided to mitigate these impacts.

Standard erosion control measures can be implemented in connection with all improvements in the East Milwaukie Segment, and site-specific erosion controls can be provided at all creek crossings. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting process.

6.4.2.7 Criterion 8: Historic and Cultural Resources

"Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources."

The *Historic, Archeological and Cultural Resources Impacts Results Report*, the *DEIS* and the *Milwaukie Comprehensive Plan (Map 5, Historic Resources)*, indicate that no known historic or cultural resources have been identified in the East Milwaukie Segment.

6.4.3 Milwaukie Regional Center Segment

6.4.3.1 Description of Light Rail and Highway Improvements

The Milwaukie Regional Center Segment of the South/North Project includes the following LRT-related facilities:

- An alignment that begins on the north side of Highway 224 near the Tillamook Branch rail line, loops into the north downtown area near SE Main Street and SE Scott Street, and then follows the Tillamook Branch rail line north of Highway 224 to the Tacoma Street Overpass.
- Two light rail stations – one at the north end of Milwaukie's downtown and the second at the north end of Milwaukie near the Tacoma Street Overpass.
- A potential operations and maintenance facility located south of SE Ochoco Street.
- One park-and-ride lot located north of the Springwater Corridor and south of the SE Tacoma Street Overpass.
- Extension of the downtown street grid two blocks north of SE Harrison Street in downtown Milwaukie.

See **Figure 1.3** of the LUFO for LUFO boundaries for the Milwaukie Regional Center Segment.

Light Rail Alignment

Starting from north of Highway 224 just east of the Tillamook Branch rail line, the alignment crosses over the branch line on a structure, then crosses under Highway 224 and crosses SE Main Street at grade. It then extends southward, parallel to and east of SE McLoughlin Boulevard, turning eastward north of SE Scott Street to a station and transit center located in the vicinity of the currently vacant Safeway store. From the transit center, the alignment curves northward to the east of Kellogg Bowl. It then curves northeast and crosses under Highway 224 and the light rail alignment through a new underpass. North of Highway 224, the alignment makes a wide curve through the Heiberg Garbage transfer station east of the Hanna-Harvester site and then extends northward, parallel to and west of the Tillamook Branch and UPRR main line. A new connection of freight spur tracks to the Tillamook Branch rail line will be constructed in the vicinity of SE Mailwell Drive and would cross the light rail alignment at grade. South of SE Ochoco Street is an alternative light rail vehicle operations and maintenance facility site. North of the Springwater Corridor and south of SE Tacoma Street will be located a station and an approximately 800-space structured park-and-ride lot. The alignment crosses over Johnson Creek on a bridge and under an existing span of the SE Tacoma Street overpass.

Light Rail Stations

Two stations are provided in the Milwaukie Regional Center Segment: the Milwaukie Transit Center and the Tacoma Station.

Milwaukie Transit Center. The Milwaukie Transit Center is located in the vicinity of the currently vacant Safeway store at the north end of Milwaukie's downtown. The existing on-street bus transit center located at SE 21st Avenue and SE Jackson Street will be relocated to the Milwaukie Transit Center. Bus pull-outs and drop off areas are provided at the station. The Milwaukie Transit Center provides convenient transit access to community facilities (Ledding Library, Scott Park, and Schools) and to businesses and residential neighborhoods in the Downtown area.

Tacoma Station. The Tacoma Station is located at the Tacoma Street Park-and-Ride lot on the south side of the Tacoma Street Overpass. The precise location of the station within the park-and-ride lot will be determined during preliminary and final engineering. Pedestrian bridges and improvements are provided to link the Tacoma Street Station with neighborhoods to the west of McLoughlin Boulevard and to the east of the UPRR tracks.

Park-and-Ride Lots

One park-and-ride lot is provided in the Milwaukie Regional Center Segment. The Tacoma Street Park-and-Ride includes approximately 800 structured parking spaces on an approximately 8.5-acre parcel. The park-and-ride lot is located north of the Springwater Corridor and south of the SE Tacoma Street Overpass, between SE McLoughlin Boulevard and the UPRR main line. Automobile access to the park-and-ride would be available from the south via an extension of SE Main Street to SE Ochoco Street and McLoughlin Boulevard, and from on the north via the existing SE Tacoma Street overpass.

Operations and Maintenance Facilities

The first priority for an operations and maintenance facility for the South/North Project is the Brooklyn Yard area in the South Willamette River Crossing Segment. However, if that location cannot be obtained or otherwise proves impracticable, this LUFO authorizes construction of a maintenance facility within the Milwaukie Regional Center Segment. The Ochoco operations and maintenance facility site encompasses approximately 9.2 acres located east of SE McLoughlin Boulevard and the historic ODOT offices, west of the UPRR, north of Oregon Transfer and the existing spur tracks and south of SE Ochoco Street. The Ochoco facility includes an operations and maintenance shop building and a yard area with LRT tracks for vehicle storage and staging of LRT operations.

Highway Improvements

Highway improvements in this segment include the following:

- Extension of SE 21st Avenue northward two blocks from SE Harrison Street;
- Extension of SE Scott Street and SE Lewellyn Street to connect SE 21st Avenue with SE Main Street.

6.4.3.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods in the Milwaukie Regional Center Segment

The Milwaukie Regional Center Segment generally encompasses downtown Milwaukie and North Milwaukie to SE Tacoma Street. The area surrounding the Milwaukie central business district (CBD) currently is identified as a *Regional Center* in the 2040 Growth Concept, with strong economic ties to the Clackamas Regional Center, the Oregon City Regional Center and the Portland Central City. The City of Milwaukie recently adopted a Milwaukie Regional Center Master Plan (Master Plan) as an ancillary document to its comprehensive plan for the Milwaukie Regional Center Area. The City Council has moved forward with implementing mixed use zoning and higher densities in the Downtown area, as recommended in the Regional Center Master Plan. The Master Plan assumed that a light rail station would be provided to serve the downtown area.

The Milwaukie Regional Center Segment encompasses the Historic Milwaukie Neighborhood and downtown Milwaukie, and includes portions of the Ardenwald and McLoughlin Industrial Neighborhoods. Along the Willamette River is the *Historic Milwaukie Neighborhood* which contains the downtown core of Milwaukie. Land use in the downtown area is characterized by a low-scale traditional business district with adjacent older, established neighborhoods. Residential streets connect older neighborhoods with the downtown and community institutions, parks, athletic fields and other open spaces. A number of significant community facilities and institutional uses are located in the neighborhood, including Milwaukie City Hall, Ledding Library, Scott Park, schools, churches and the Masonic Hall. Major roads serving the neighborhood include Highway 224, SE Harrison Street, SE McLoughlin Boulevard and SE 17th Avenue.

The neighborhood's poverty rate (4.2 percent) and percentage of minority residents (1.0 percent) are significantly lower than the regional averages (9.9 percent and 8.6 percent, respectively). The percentage of renter-occupied households (60.6 percent) and limited-mobility residents (6.2 percent) in the Historic Milwaukie Neighborhood are significantly higher than the regional averages (38.7 percent and 2.8 percent, respectively.)

The *Ardenwald Neighborhood* is located east of Highway 224 and McLoughlin Boulevard. The neighborhood is comprised almost exclusively of single family homes built after World War II. Figure 3.3-2 of the DEIS illustrates that more than 15% of the households within the Ardenwald Neighborhood have household incomes at the poverty level. The only significant employment center in the Ardenwald Neighborhood is Providence Milwaukie Hospital. Major roadways serving the neighborhood include SE 37th Avenue, SE 32nd Avenue and SE King Road. The street pattern within this neighborhood is irregular, with mostly east-west street connections.

The *McLoughlin Industrial Neighborhood* is a mixed commercial/industrial area and major employment center for the Milwaukie area. SE McLoughlin Boulevard/SE Main Street and Highway 224 are the major roadways serving the neighborhood. The visual character of the McLoughlin Industrial Area is characterized by a linear corridor of larger scale commercial and industrial structures, roads, parking lots, service areas and vacant land.

An estimated 250 acres are located within a ¼-mile radius of the two LRT stations in the Milwaukie Regional Center Segment. Existing land uses within the station areas include about 13% single family residential, 5% multifamily, 12% commercial and 15% industrial. Approximately 13% of the 250 acres are identified as undeveloped.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to Milwaukie Regional Center Segment neighborhoods are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North corridor, including the Milwaukie Regional Center Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter, "General Findings"). Economic, social and traffic impacts also are described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

Overall, the South/North Project will result in positive impacts in the Milwaukie Regional Center Segment because improved transit capacity will be available to support more intensive development in the downtown area. However, the long-term benefit must be balanced by the short-term adverse economic impacts associated with displacement of existing businesses in the downtown area and displacement of industrial uses at the northern end of Milwaukie for the development of the Ochoco operations and maintenance facility and the Tacoma Street park-and-ride.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacement has an effect on employment, incomes, services and taxes. Even though the adverse impacts associated with displacement may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to the employees who work for the company.

In the Milwaukie Regional Center Segment, the alignment will displace approximately eight business uses in the northerly part of downtown Milwaukie, to the north of SE Harrison Street and south of Highway 224. The majority of the displacements are concentrated in the wedge-shaped land area between SE McLoughlin Boulevard and SE Main Street. Among the affected businesses are a dry cleaners, travel agency, restaurant, insurance agency, credit union and health club.

Adverse economic impacts associated with these displacements include the loss of employment and payroll, loss of commercial services, and loss of assessed value and tax base associated with the operating businesses.

North of Highway 224, the alignment will displace the Heiberg Garbage transfer station. It may be possible to retain the business on the site with a reconfiguration of the building and outside activity areas. This option will be explored during preliminary and final engineering and in the FEIS. Farther north, approximately five industrial buildings are displaced by the Ochoco operations and maintenance facility, and two industrial buildings are displaced by the Tacoma Street park-and-ride. An additional commercial building (Toyota Dealer) is displaced by the northerly extension of SE Main Street to provide a southerly access connection to the Tacoma Street park-and-ride lot. As with the commercial displacements highlighted above, the adverse economic impacts associated with the industrial displacements include the loss of employment and payroll, loss of industrial services, and loss of assessed value and tax base associated with the industrial businesses.

In terms of mitigation, as described in the General Findings, displaced commercial and industrial uses will be acquired at fair market value, and relocation services will be provided to business owners and tenants. During the preliminary and final engineering processes, engineering staff will try to minimize displacement impacts to the extent practicable through design refinements.

As described earlier in these findings, the first priority for an operations and maintenance facility for the South/North Project is a location in the vicinity of Brooklyn Yard in the South Willamette River Crossing Segment. If the priority site is developed, the South of Ochoco operations and maintenance facility will not be needed and the displacement impacts associated with the facility will be avoided.

Loss of Parking/Access. The loss of parking, and loss or change of access can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business use is assumed to be displaced.

An analysis of parking loss attributable to the South/North Project in the Milwaukie Regional Center Segment is provided in Section 5.5.4 of the *Local and Systemwide Traffic Impacts Results Report*

(*Traffic Results Report*). The parking loss attributable to light rail would be limited to the on-street parking supply along the northern blocks of SE Main Street. Due to gated street crossings, four on-street parking spaces will be lost along SE Main Street.

If parking demand remains at current levels, the loss of on-street parking on SE Main Street is not expected to adversely impact the overall balance of parking demand and supply in the Milwaukie Regional Center study area. Overall, SE Main Street would still retain more on-street parking spaces than current demand.

Relocation of the Milwaukie Transit Center from its current location in downtown Milwaukie will open up on-street parking spaces currently committed to the on-street transit center on four block faces in downtown Milwaukie.

The South/North Project will result in some displacement of off-street parking spaces in the Milwaukie Regional Center Segment. For example, existing parking spaces for the Ledding Library and Scott Park will be affected, as will the parking lot for Kellogg Bowl. Mitigation could include the reconfiguration of parking areas.

Tax Base. The South/North Project will have a negative economic impact on the tax base through the displacement of business and industrial uses from the tax rolls. Table 5.1-3 of the DEIS identifies the 1994 Assessed Value of displaced properties in the Milwaukie Regional Center Segment at \$4,267,000. 1994 property taxes for the displaced properties totaled an estimated \$63,000.

The tax base impacts associated with the displacement of existing industrial uses at the Ochoco operations and maintenance facility and the Tacoma Street park-and-ride lot will be long-term. These facilities will be in public ownership and will be permanently removed from the tax rolls. In the north downtown area, however, the Council finds that tax base impacts associated with displacement may be shorter-term. The availability of light rail may spur redevelopment of the area around the transit center consistent with the Milwaukie Regional Center Master Plan and enhance property values and the tax base on a long-term basis.

Freight Movement. There will be no impacts on *water freight* movement in the Milwaukie Regional Center Segment.

No adverse *trucking impacts* are expected in this segment. SE McLoughlin Boulevard is classified as a freight route in the City of Milwaukie's *Transportation System Plan*. However, existing p.m. peak hour truck percentages are relatively low (approximately three percent) on SE McLoughlin Boulevard within the Milwaukie Regional Center Segment. Additionally, truck percentages within the Milwaukie CBD are very low during the p.m. peak hour. It is not anticipated that heavy truck traffic will increase significantly by 2015 within the Milwaukie Regional Center Segment. The South/North Project will include the closure of the ramp from SE McLoughlin Boulevard to SE Main Street southbound, located just south of Highway 224. However, alternative access will be available into the downtown area at SE Harrison Street and at SE Milport.

The project will have *rail freight impacts* that can be mitigated. The LRT alignment will parallel the west side of the Tillamook Branch rail line/UPRR main line for the majority of its route in the

Milwaukie Regional Center Segment. This is an active freight corridor with numerous spur tracks serving the Milwaukie Industrial Area to the north of Highway 224 and south of the Tacoma Street Overpass. The project will rearrange several existing industrial spur tracks to allow an at-grade crossing near SE Mailwell Street. An interlock protected crossing will be installed to prevent light rail/rail freight conflicts. The crossing would normally be set for light rail and would be temporarily pre-empted by the freight railroad's engineer when a railroad switching movement would be needed to cross the light rail tracks. The crossing would then be reset for light rail operations. There are typically two freight switching movements in a day that would need to cross LRT tracks in this area. About 180 LRT trains would pass through the crossing each day.

The Council finds that the identified impacts on rail freight movement in the Milwaukie Regional Center Segment can be mitigated with relocation of affected industrial rail spurs and modification of the gated crossing at SE Mailwell Drive. Construction of the rail improvements could require development of temporary trackway for rail traffic and would require close coordination between the South/North Project and the railroad operators.

Social Impacts

The Council finds that the social impacts of the South/North Project are generally positive in the Milwaukie Regional Center Segment. No residential uses will be displaced, light rail will provide improved transit access to community facilities, and the alignment primarily follows established boundaries of existing neighborhoods.

Residential Displacements. There will be no residential displacements or displacement of residential access in the Milwaukie Regional Center Segment.

Access to Community Facilities. The South/North Project will improve transit access to community facilities within the Historic Milwaukie Neighborhood, including Milwaukie City Hall, the Ledding Library and the Milwaukie Junior and Senior High Schools. Automobile and pedestrian circulation within downtown Milwaukie will be improved through the northerly extension of the downtown street grid by two blocks. Stations at the Milwaukie Transit Center and the Tacoma Street park-and-ride will improve accessibility by residents of adjoining neighborhoods to regional employment and community facilities. In addition, the extension of the Springwater Corridor Trail across the southerly boundary of the Tacoma Street park-and-ride will provide an opportunity for pedestrians to cross safely over SE McLoughlin Boulevard and the railroad, and will establish an important link for the regional Springwater Corridor Trail.

Barriers to Neighborhood Interaction. In general, the South/North Project will not result in long-term barriers to social interaction or neighborhood cohesion in the Milwaukie Regional Center Segment. The alignment parallels the Tillamook Branch rail line and the UP Main Line through the majority of this segment. The existing rail lines currently form the boundary between the Ardenwald and McLoughlin Industrial neighborhoods and the light rail alignment will reinforce the existing boundary.

In the Historic Milwaukie Neighborhood, safe and controlled crossings will be available for pedestrians and vehicles to cross the alignment and circulate through the north downtown area. Street and sidewalk improvements associated with the reconstruction of a portion of SE Main Street,

and the northerly extension of the downtown street grid by two blocks, will improve the pedestrian and circulation system in this portion of downtown Milwaukie.

Further north, the construction of pedestrian bridges over SE McLoughlin Boulevard and the UPRR track will reduce existing barriers to neighborhood circulation and provide the opportunity for improved bicycle/pedestrian access and an important link to the Springwater Corridor Trail.

Safety and Security. No safety and security impacts have been specifically identified for the Milwaukie Regional Center Segment. The general discussion of safety and security presented in the General Findings, including the discussion of potential mitigation measures, is relevant to the Milwaukie Regional Center Segment.

The current layout of Scott Park has resulted in some safety and security concerns in the portion of the park near the Safeway Building and the Athletic Club. This area of the park is currently isolated, confined to a single entry/exit area, and not visible from public roads. The light rail alignment, the relocation of the transit center, and the northerly extension of the downtown street grid will substantially open up the visibility and accessibility of this area of north downtown Milwaukie. With more activity and improved visibility and accessibility, the South/North Project should result in enhanced safety and security in this area.

Farther north, the Tacoma Street park-and-ride lot and station will include standard safety and security features such as lighting, platform telephones, and appropriate landscaping. The precise location of the station, and the design of the pedestrian bridges, will ensure consideration of visibility from nearby roadways.

Visual/Aesthetic. In general, land in the Milwaukie Regional Center Segment slopes west from SE Railroad Avenue toward the river, down through residential blocks and across railroad tracks into central downtown. The downtown area is separated from the natural and historic landscape of the river and upland neighborhoods by SE McLoughlin Boulevard and Highway 224.

The core of Milwaukie is generally small-scale, with old houses and large trees on narrow streets that connect to a downtown district. Residential streets close to the central business district connect community institutions, parks, athletic fields and other open spaces. North of Harrison Street, SE Main Street changes from Milwaukie's downtown main street to an access road along an auto-oriented strip. As it continues north, it provides access into large-scale light industrial and railroad areas east of SE McLoughlin Boulevard. McLoughlin Boulevard itself is visually and physically separated from neighborhoods to the west and east by jersey barriers, the structures of Highway 224, the railroad track and right-of-way and topography.

Dominant and recognized visual features in this segment include well-tended, large older homes, and large deciduous and coniferous trees on city streets. Recognized community resources include views of the Willamette River from downtown streets, Scott Park, the Milwaukie City Hall, Milwaukie Junior High School and play fields, the Masonic Lodge, Spring and Johnson Creeks, the Springwater Corridor and the historic ODOT building located on SE McLoughlin Boulevard.

The South/North Project would result in a moderate to high degree of visual change in the Historic Milwaukie Neighborhood. Several small-scale commercial structures will be displaced, opening up

the land area between SE McLoughlin Boulevard and SE Main Street. The construction of a new bridge over Scott Creek would create visual changes to the park and to views of the park from nearby residences and the library. However, the new transit center and the LRT alignment could facilitate new development of the northern portion of downtown in ways that could strengthen its visual relationship to the smaller-scale blocks to the south and east.

With the exception of the removal of some trees along Highway 224 to accommodate the alignment, visual impacts to the McLoughlin Industrial Neighborhood and the Ardenwald Neighborhood would be low.

In general, the Council finds that visual/aesthetic impacts to the northern portion of the historic Milwaukie Neighborhood are associated with the displacement of buildings and "opening" of the development pattern of the north downtown area, and changes to the existing character of Scott Park. Measures which could reduce these impacts include well-designed infill development, effective vegetation buffers, and well-scaled bridge design and restoration of disturbed open space and stream buffers.

Traffic Impacts

The local street network within the Milwaukie Regional Center Segment includes Highway 224, SE Monroe Street and SE Harrison Street, which generally run east to west, and SE McLoughlin Boulevard, SE 17th Avenue and SE Main Street, which generally run north to south. A potential problem intersection in this segment is the intersection of SE McLoughlin Boulevard with SE Harrison Street, which currently operates at Level of Service (LOS) E during the p.m. peak hour but which could degrade to LOS F with traffic from the Tacoma Street Park-and-Ride. Possible mitigation includes additional turn lanes to increase the vehicle capacity of the intersection.

The South/North Project will not significantly change the level of service on regional highway facilities located within the Milwaukie Regional Center Segment. The forecast volume-to-capacity ratios could increase slightly on SE McLoughlin Boulevard south of SE Washington Street due to the addition of vehicular traffic to and from the Tacoma Street park-and-ride lot.

Egress from the Tacoma Street park-and-ride lot would primarily be via SE Tacoma Street and the southbound ramp to SE McLoughlin Boulevard. This intersection would operate at an acceptable LOS D with the addition of park-and-ride related traffic. The park-and-ride lot would also result in nearly a 50 percent increase in delay at the intersection of SE Johnson Creek Boulevard and SE 32nd Avenue. Possible mitigation strategies for the park-and-ride impacts include added turn lanes at the affected intersections and possible signalization of SE 32nd at SE Johnson Creek Boulevard to increase the vehicle capacity of the intersection.

The *Traffic Results Report* includes an analysis of vehicle queuing on SE Main Street due to the dual LRT crossing of the roadway. Results of the analysis indicate that southbound vehicular queuing is potentially an issue. On average, 13 southbound vehicles can be expected to queue per cycle at the SE Harrison Street/Main Street intersection. If a traffic signal is provided at the intersection, it may be advisable to interconnect the traffic signal with the gate crossing hardware to mitigate potential queuing impacts at this location.

During the DEIS proceeding, concern was raised that the Milwaukie Transit Center might necessitate a parking management program. While the Council believes that the location of the Tacoma Street Park-and-Ride in very close proximity to downtown Milwaukie makes it unlikely that transit riders would use downtown Milwaukie streets as a de facto park-and-ride, it finds that should this occur, the City of Milwaukie could develop a parking management program that might include metering, a parking permit system, limited time parking, or similar parking management measures.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the Milwaukie Regional Center Segment, including but not limited to the following:

- The reconstruction of SE Main Street to serve the Milwaukie Transit Center.
- Installation of two gated crossings where the alignment crosses SE Main Street.
- Installation of a gated crossing where the alignment crosses the extension of SE 21st Avenue.
- Installation of a new signal at SE Harrison Street/21st Avenue intersection.
- Relocation of library parking
- Relocation of Milwaukie Transit Center
- Closure of the northbound off-ramp from SE McLoughlin Boulevard to SE Main Street.
- Installation of a cul-de-sac of SE Hanna-Harvester Drive adjacent to the LRT alignment.
- Realignment of industrial rail spurs and modification of existing gated railroad crossing at SE Mailwell Drive.
- Extension of SE Main Street north of SE Ochoco Street to provide access to the Tacoma Street park-and-ride lot, and relocation of SE Main Street to the west in the vicinity of the South of Ochoco O&M facility site.
- Installation of a new signal at the SE Ochoco/Main Street intersection
- Construction of pedestrian bridges over SE McLoughlin Boulevard and the UP track to provide pedestrian access to the Tacoma Street Station and a connection to the Springwater Corridor Trail.
- Installation of a new signal at SE Johnson Creek Boulevard/SE 32nd Avenue intersection.
- Addition of turn lanes to the intersection of SE McLoughlin Boulevard at SE Ochoco Street.

The Council finds that the improvements summarized above can mitigate adverse transportation impacts of the South/North Project in the Milwaukie Regional Center Segment.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The light rail route in the Milwaukie Regional Center Segment is largely located adjacent to the established Tillamook Branch rail line corridor, thus avoiding displacement and adverse impacts that would have resulted from acquisition of a separate LRT right-of-way through neighborhoods.

Overall, neighborhood impacts are positive. Positive impacts include increased transit accessibility to local and regional jobs and community facilities, decreased parking demand in the downtown

area, decreased air pollution, and opportunity for mixed use development near the Milwaukie Transit Center Station.

The Council carefully considered neighborhood impacts in the siting of the two LRT stations and the park-and-ride lot. No residential uses are displaced in this segment. The Council is sensitive to the displacement of business and industrial uses in the Milwaukie Regional Center Segment. The availability of LRT transit will provide a tool to implement and focus existing City of Milwaukie Comprehensive Plan designations for the north downtown area. Also, the Tacoma Street park-and-ride offers better vehicle access and causes fewer adverse neighborhood traffic impacts than the South of Ochoco site considered in the DEIS.

Existing and planned land uses in proximity to the Milwaukie Transit Center and the Tacoma Street Station are capable of enhancing transit ridership to employment and recreational destinations. The park-and-ride lot at the north end of the Milwaukie Industrial Area will provide transit accessibility to established neighborhoods located east, south and west of the alignment. This will be the last park-and-ride lot location available between the southern part of the corridor and downtown Portland.

The two stations have been located and designed to provide transit accessibility to existing neighborhoods while minimizing intrusion and adverse traffic impacts on the neighborhoods. The alignment and the Milwaukie Transit Center support employment and public uses in the downtown area without disrupting the established central business district.

The Council believes that the alignment and the Milwaukie Transit Center offer a tremendous opportunity for employees and residents of Downtown Milwaukie to take light rail to work, thereby saving energy, reducing congestion and improving air quality. Traffic studies document that all roads and intersections in the Milwaukie Regional Center Segment are projected to operate within acceptable levels of service with mitigation.

Because downtown Milwaukie is largely developed, LRT will result in business displacements and some parking impacts in this segment. Mitigation for displacement and parking impacts are described above and in the DEIS and supporting technical results reports. Mitigation strategies will be further evaluated in the Final Environmental Impacts Statement and through the local permitting process. During preliminary and final engineering and throughout the FEIS and local permitting processes, coordination with the City of Milwaukie will be maintained.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

As described earlier, modest road improvements are proposed in the Milwaukie Regional Center Segment that have utility separate from the South/North Project.

The existing grid street system of downtown Milwaukie is proposed to be extended two blocks to the north of SE Harrison Street. The downtown core area of Milwaukie has a well-established system of short and interconnected blocks. This pattern is disrupted north of SE Harrison Street with larger off-street parking areas and a more linear pattern of commercial development along SE Main Street. Extension of the grid system will provide improved pedestrian, transit and vehicle access and

circulation to the Milwaukie Transit Center and light rail. The on-street transit center currently located on four block faces adjacent to Milwaukie City Hall will be relocated to the extended street grid. These improvements will provide the opportunity to extend and reinforce the pedestrian-oriented scale and design of the central downtown two blocks to the north. No adverse impacts to neighborhoods are associated with this extension of the downtown street grid.

6.4.3.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise impacts specific to affected Milwaukie Regional Center Segment neighborhoods are addressed in the following section. Noise impacts common to neighborhoods throughout the South/North Corridor, including the Milwaukie Regional Center Segment, are addressed in the General Findings, together with a general overview of noise and vibration, descriptions of the different types of noise, and identification of potential mitigation by noise type. Noise and vibration impacts also are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Results Report)*.

Identification of Noise and Vibration Impacts in the Milwaukie Regional Center Segment

As noted under the Criterion 3 findings for this segment, existing land uses in the Milwaukie Regional Center Segment include residential, commercial, industrial and institutional uses. Residential areas are located primarily east of the Tillamook Branch rail line and Highway 224 and east of the LRT alignment as it parallels the existing Union Pacific Railroad track alignment. Commercial and institutional uses are clustered in the Milwaukie CBD on SE Main Street, SE 21st Avenue, SE Scott Street and adjacent to SE McLoughlin Boulevard. Industrial uses are primarily located adjacent to SE McLoughlin Boulevard, north of Highway 224.

The Milwaukie Regional Center Segment includes eight noise and one vibration monitoring sites. The noise and vibration monitoring sites are identified in Figure 4.3-1 of the *Noise Results Report*. The existing noise environment and noise and vibration impacts are highlighted in Table 4.3-2 and Table 5.2.3-1 of the *Noise Results Report*. The ambient (existing) noise environment in this segment is dominated by rail traffic on the Union Pacific Railroad line and vehicular traffic through the Milwaukie CBD, on SE McLoughlin Boulevard, and on an elevated section of Highway 224. The DEIS identifies the following noise and vibration impacts in this segment: (a) five LRT passby noise impacts; (b) two wheel squeal impacts; and (c) five LRT vibration impacts. Some receiver locations had a combination of noise and vibration impacts from LRT. No adverse noise impacts are identified for the highway improvements or the operations and maintenance facility in the Milwaukie Regional Center Segment.

Passby Noise Impacts. Five single family residences were found to be potentially exposed to noise levels exceeding the impact criteria. A track crossover associated with the Milwaukie Transit Center causes two potentially severe impacts. (See the General Criterion 4 Findings Applicable to All Segments for a discussion of *severe impact* and *impact*.)

Removing the crossover or moving it northward to the tunnel under Highway 224 would eliminate both impacts. No passby noise impacts were found for the Milwaukie Birthing Center or the Ledding Library due to the distance from the alignment to the structures and the slow speed of the LRT near the Milwaukie Transit Center.

Wheel Squeal Impacts. Wheel squeal analysis was performed for the Ledding Library, Scott Park, the Milwaukie Birthing Center, the Brookwood Retirement Center, two nearby residences and at all nearby commercial structures. Wheel squeal will exceed the impact criteria only at Scott Park, at distances of 90 feet or less from the LRT alignment curves near the Milwaukie Transit Center.

Vibration Impacts. Five single family residences were found to be potentially exposed to vibration levels exceeding the impact criteria. Two potentially high level vibration impacts are caused by a track crossover associated with the Milwaukie Transit Center. These receiver locations also have severe LRT noise impacts related to the crossover. No vibration impacts were found for the Milwaukie Birthing Center, the Brookwood Retirement Center or the Ledding Library due to the distance from the alignment to the structures and the slow LRT speed near the Milwaukie Transit Center.

Operation and Maintenance Facility Noise Impacts. Operational noise levels were calculated for the potential Ochoco O and M facility based on Ruby Junction noise monitoring data. The noise levels do not exceed Oregon Department of Environmental Quality noise regulations, and no operational noise impacts related to the O and M facility are predicted. Wheel squeal impacts were also examined for the O and M facility. No wheel squeal impacts were found due to the distance between receiving locations and the location of the operation and maintenance facility.

Mitigation Options for Noise and Vibration Impacts in the Milwaukie Regional Center Segment

Mitigation options for the various types of noise and vibration are discussed in the General Findings. Appropriate mitigation will be evaluated in the FEIS and selected during the Final Design and local permitting process.

The Council finds that five of the six identified noise impacts in the Milwaukie Regional Center Segment can be mitigated. Two impact locations near the downtown core (See Figure 5.2.3-1 in *Noise Results Report*) can be mitigated by moving the crossover north and reducing the LRT speed to 25 mph south of the Highway 224 tunnel. The other three impacts can be mitigated with a 600-foot noise barrier that is within the cost effectiveness criteria.

There are five vibration impacts in the Milwaukie Regional Center Segment. Two of these impacts could be mitigated with a ballast mat. The other three impacts will still exceed the criteria by 1.5 VdB after mitigation. Vibration levels from the LRT operations, however, will still be much lower than the existing vibration levels from the UP main line train traffic.

As described in its findings above, the Council recognizes that light rail transit will create noise and vibration impacts in the Milwaukie Regional Center Segment. The Council also believes and finds

that reasonable mitigation measures are available to avoid or reduce adverse noise and vibration impacts within this Segment.

6.4.3.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazards specific to the Milwaukie Regional Center Segment are addressed in the following section. Natural hazards common to segments throughout the South/North Corridor, including the Milwaukie Regional Center Segment, and design and construction techniques to reduce or mitigate natural hazards, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Geology Report)* and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the Milwaukie Regional Center Segment

The Milwaukie Comprehensive Plan identifies four types of potential natural hazard conditions within the Milwaukie area: floodplains, earthquake fault lines, landslide prone areas, and areas with weak foundation soils. The *floodplains* of Johnson Creek, Mt. Scott Creek and the Willamette River, as identified by the Army Corps of Engineers and FEMA, are shown on Map 3 of the Milwaukie Comprehensive Plan. The South/North Project will have no impact on the 100-year floodplains of Mt. Scott Creek and the Willamette River. While bridging Johnson Creek, the alignment and the Tacoma Street Park-and-Ride will be located within the 100-year floodplain of Johnson Creek.

An identified *earthquake fault line* that traverses the City of Milwaukie and the LRT alignment is also shown on Map 3. The plan text notes that Milwaukie can experience an earthquake of 4.2 magnitude (Richter Scale) in any given year, and a 6.1 earthquake every 100 years from which medium to severe damage could be expected.

The only area that has significant potential for *landslides* is the steep terrain south of Kellogg Creek. Clay soils underlain with basalt are also characteristic of the area. High potential for *erosion* may also exist in these steep areas. However, the areas south of Kellogg Creek are outside of the affected area for the South/North Project.

Several areas are identified on Map 3 of the Comprehensive Plan which have weak foundation soils unsuitable for urban development. This includes an area north of Highway 224 near the Union Pacific Rail Lines. West from the Tillamook Branch rail line over-crossing along the north side of Highway 224, the alignment is likely to encounter soft foundation conditions. Peat and highly organic soil were encountered during exploration for Highway 224 and the McLoughlin Boulevard interchange. A zone of soft silt was also encountered. Settlement of some sections of the highway has occurred. Cracked walls observed at the Hanna site also suggest settlement. Extending the fill on the north side of Highway 224 may cause additional settlement of the highway.

The alignment would traverse areas with high rates of groundwater seepage in the vicinity of the Highway 224 undercrossings. Seeps and intermittent stream channels were observed in the southwest corner of the undercrossing, specifically from the embankment fill supporting the UP tracks. The alignment would run parallel to, and then across, the stream channel that is the outlet to this seep area. Underdrain systems, if installed in the fill supporting the light rail track, could increase the seepage flow rates in the creek, but the Council believes the reports of Metro's technical consultants and finds that effects of additional flow are not likely to be significant.

Based on the information contained in the *Geology Results Report* and the *Hydrology Results Report*, the Council concludes that the 100-year floodplain of Johnson Creek represents the key natural hazard constraint in the Milwaukie Regional Center Segment

The alignment includes an elevated crossing of Spring Creek, a crossing of Crystal Creek, and one crossing of Johnson Creek. These crossings, in addition to fill for the Milwaukie Transit Center station, and alignment conflicts with the detention basins at the Tacoma Street interchange, could have minor flooding impacts if local drainage patterns are affected. However, according to Metro's technical consultants, no significant flooding is expected to occur. The Council believes their testimony and so finds. FEMA has designated a regulatory floodplain only for Johnson Creek.

At the north end of the Milwaukie Regional Center segment, the light rail alignment will cross Johnson Creek on a new bridge. The approaches to the light rail bridge crossing over Johnson Creek require the placement of fill within the 100-year floodplain. The fill would affect approximately 0.6 acres of the FEMA floodplain and could cause minor impacts to flooding conditions in other areas. The proposed crossing could comply with FEMA and other regulatory standards. The bridge could be constructed in compliance with Metro's Title 3 regulations which require balanced cut and fill within floodplain areas. Use of best management practices during construction could avoid erosion impacts from the light rail bridge over Johnson Creek.

The entire Tacoma Street Park-and-Ride site is within the FEMA 100-year floodplain of Johnson Creek. However, the park-and-ride improvements would not increase the impervious surface area relative to existing conditions. Compensatory flood storage can be provided to mitigate floodplain impacts. The LRT alignment and station will be elevated at least one foot above the 100-year flood elevation of Johnson Creek.

The Ochoco Operations and Maintenance Facility site is not within a 100-year floodplain designated by FEMA.

Flooding impacts can be mitigated through a variety of measures as highlighted below:

1. Increased peak rates of runoff are generally mitigated on a site-by-site basis, through the use of regulatory requirements for on-site peak flow runoff control. A jurisdiction may attempt to reduce existing flooding conditions by providing regional control (collection and storage) of floodwaters at a single location.
2. When runoff increases cannot be mitigated, downstream improvements to culverts, crossings, or channels may be required to alleviate potential flooding.

3. Encroachments are prohibited within FEMA regulatory 100-year floodplains without the provision of compensatory floodplain storage.

Mitigation Options for Natural Hazard Impacts in the Milwaukie Regional Center Segment

Based on the information contained in the *Geology Results Report* and the DEIS, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the Milwaukie Regional Center Segment. While historical evidence of seismic activity in Oregon is minimal, recent studies indicate that western Oregon may be subject to a greater risk from *earthquake hazards* than previously thought. The Milwaukie Comprehensive Plan identifies a fault line that traverses the project area and the LRT alignment.

Site geology has a significant impact on earthquake damage. Young unconsolidated silt, sand, and clay deposits are associated with enhanced earthquake damage through amplification of shaking, settlement, liquefaction, and landsliding.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the selected alignment will provide the necessary information to anticipate and remedy less-than-ideal foundation conditions. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed geotechnical engineering studies would include an evaluation of subsurface soil seismic response characteristics. Based on the facts in the *Geology Results Report*, the Council finds that long-term impacts to geology and soils in the Milwaukie Regional Center Segment are minor. Mitigation could consist of using standard engineering practices to construct stable slopes and design of bridges to meet Uniform Building Code seismic standards. For identified weak foundation soils, the Council finds that mitigation could consist of using standard engineering practices to construct stable slopes, and techniques such as excavation and backfilling, special footing and foundation designs, and special construction techniques such as pilings.

The alignment crosses the designated *100-year floodplain* of Johnson Creek in this segment. The Tacoma Street Park-and-Ride is also located within the designated floodplain boundaries. All fills in the floodplain can be compensated by equivalent excavation to mitigate any rise in flood levels. Further, development of the Tacoma Street Park-and-Ride will not increase the amount of impervious surface relative to existing conditions. The Council finds that one-for-one mitigation for floodplain impacts is feasible and can reduce or mitigate adverse flooding impacts to persons or property in the Milwaukie Regional Center Segment. The alignment and both stations in the Milwaukie Regional Center Segment will be constructed above 100-year flood elevations. Additional mitigation measures are identified above.

6.4.3.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the Milwaukie Regional Center Segment are addressed in the following section. Natural resource impacts and mitigation common to segments throughout the South/North Corridor, including the Milwaukie Regional Center Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the Milwaukie Regional Center Segment

The Milwaukie Comprehensive Plan includes an Open Spaces, Scenic Areas, and Natural Resources Element to address Statewide Goal 5. The City completed an inventory and analysis of 26 different natural resource sites either within or adjacent to the City. The natural resources inventory included areas with unique and diverse natural and vegetative features, areas important for wildlife habitat, and areas with soil and/or wetness constraints which may contribute to erosion control, aquifer recharge, or other natural values.

Due to Milwaukie's physical setting and level of development, the Plan notes that few major natural resource features remain undisturbed and visible within the City. Areas along Kellogg Lake, parts of Kellogg Creek, some riparian areas along the Willamette River, the steep slopes south of Lake Road, small bands of riparian vegetation along Johnson Creek, parts of Spring Creek which flow through Milwaukie, and other scattered wetland and upland sites are evaluated as potentially significant natural resources. The Plan notes that the general lack of adequate wildlife habitat in Milwaukie limits wildlife residency. On the other hand, active fish habitat exists within the City in the Willamette River, Kellogg Creek, and Johnson Creek. These waterways contain anadromous fish species.

Map 5 of the Milwaukie Comprehensive Plan identifies significant natural resource sites. Within the Milwaukie Regional Center Segment, portions of the Spring Creek area are designated as a significant resource for riparian and wildlife values. Tax lot specific Natural Resource Zone refinement maps are included in Appendix 3 of the Milwaukie Comprehensive Plan. The riparian corridor along Johnson Creek is also designated by Milwaukie as a significant natural resource site for riparian values. However, the portion of Johnson Creek crossed by the new LRT bridge near the Tacoma Street Overpass is within the City of Portland's jurisdiction rather than the City of Milwaukie's jurisdiction. Portland has mapped Environmental Overlay Zones along Johnson Creek.

Based on these facts, the Council finds and concludes that the Milwaukie Regional Center Segment contains only two significant protected natural resources: (1) the portions of the Spring Creek area designated for protection on Map 5 of the Milwaukie Comprehensive Plan; and (2) the portion of

Johnson Creek near the Tacoma Street Overpass, designated for protection by the City of Portland. The Spring Creek area is designated for multiple Goal 5 resource values, including habitat, wetland, open space, and riparian area. The segment of Johnson Creek adjacent to the Tacoma Street Park-and-Ride is recognized and protected as a Goal 5 resource under the provisions of Portland's Environmental Zones.

In addition to the above-identified significant protected natural resources, the Milwaukie Comprehensive Plan protects two park and recreational areas: Scott Park, and the Springwater Corridor. Scott Park, approximately 0.6 acres in size, is adjacent to the Ledding Library in the north end of downtown Milwaukie. The Springwater Corridor, an element of the regional 40-Mile Loop trail system, is located near SE Ochoco Street south of the proposed Tacoma Street Park-and-Ride lot.

Fish and Wildlife Habitat

Much of the land in the Milwaukie Regional Center Segment is developed and includes residential and commercial uses in and around downtown Milwaukie, as well as industrial and transportation uses north of Highway 224 between SE McLoughlin Boulevard and the UP Main line.

Spring Creek . Spring Creek, which originates near the Milwaukie Marketplace and flows through central Milwaukie, would be crossed at a single location in Scott Park. Spring Creek is impounded in Scott Park to form two ponds. Emergent vegetation is lacking in the ponds. Vegetation adjacent to the ponds is typical of urban ponds and consists primarily of ornamental trees and shrubs and a maintained lawn. No fish are known to be present in Spring Creek. Spring Creek and Scott Park have limited value as wildlife habitat due to the small size and isolation of the park in an urban setting. Wildlife observed and expected here includes waterfowl, nutria, and a variety of passerine birds common to urban parks. Portions of Spring Creek are included in the Milwaukie Natural Resource Overlay Zone.

The alignment will cross the northern pond at Scott Park on fill. A small bridge is proposed at the mid-point of the filled crossing to accommodate a channel for Spring Creek as it leaves the upper pond. The bridge would be designed to limit impacts to the drainage corridor. Additional measures to mitigate adverse impacts to Spring Creek are identified below.

Crystal Creek. A second waterway, Crystal Creek, also occurs in this segment. Under Milwaukie's plan, Crystal Creek is considered as part of the protected Spring Creek area. Crystal Creek originates at Crystal Lake, just east of the UP Main Line, and flows west along the south side of Highway 224. Near SE 23rd Avenue, the creek is culverted to the west into Johnson Creek. No fish are known to be present in Crystal Creek. A mixed coniferous/deciduous forest is associated with Crystal Creek. This forested habitat provides cover and foraging, nesting and roosting habitat for wildlife. Crystal Creek functions as local-scale wildlife travel corridor. Migratory and resident birds, small mammals and waterfowl have been observed along this riparian area. This creek meanders through residential areas and parklands that partially restrict wildlife habitat and movement to the area immediately bordering the creek. Portions of Crystal Creek are included in the Milwaukie Natural Resource Overlay Zone.

The alignment would remove approximately 0.2 acre of deciduous forest south of Highway 224, adjacent to Crystal Creek. Another 400 to 500 square feet of forest would be removed north of the highway. The habitat corridor along Crystal Creek would be fragmented by the LRT crossing; however, this corridor has no direct connection to other wildlife corridors. Adjacent wildlife habitat would be affected by noise, lighting and increased human activity associated with the LRT alignment. Potential mitigation includes replacing or enhancing habitat or replanting vegetation in the affected area.

Johnson Creek. Both Spring Creek and Crystal Creek are tributaries to Johnson Creek. Johnson Creek supports populations of both resident and anadromous fish. Johnson Creek also provides opportunity for wildlife movement; however, much of the area along the creek contains disturbed riparian areas due to residential and commercial development, high traffic use and the need to control flooding. The Milwaukie Comprehensive Plan designates the riparian corridor of Johnson Creek as a significant natural resource area. However, the portion of Johnson Creek that will be crossed by the LRT bridge is under the land use jurisdiction of the City of Portland.

Long-term South/North Project impacts to water quality and fish and wildlife habitat values of Johnson Creek, which receives input from both Spring and Crystal Creeks, are expected to be insignificant provided appropriate erosion control measures are implemented during project construction. Overall water quality may improve over current conditions following construction of the Tacoma Street Park-and-Ride. The facility will not increase the impervious surface area relative to existing conditions. On-site treatment of runoff from the park-and-ride would reduce concentrations of pollutants compared to untreated stormwater that enters Johnson Creek from the existing industrial site development.

Light rail operations would create a source of noise and light. Migratory salmonids may be initially disturbed by the additional noise and flashing lights along the rail line, but the disturbance is not expected to deter them from spawning in this reach of Johnson Creek. Resident fish are already adapted to noise and light in this reach.

Approximately 400 square feet of habitat consisting of three to four year old red alder and willow trees along Johnson Creek would also be removed for construction of the LRT bridge. These trees were planted as mitigation for construction of the SE Tacoma Street overpass. The loss of this habitat directly under the LRT bridge would be unlikely to have an adverse effect on current wildlife use of the area. If reasonable and necessary, replacement of the habitat displaced by the LRT bridge could be imposed as a condition of approval during the local jurisdiction permit approval process.

Scenic and Open Space Areas

The Milwaukie Comprehensive Plan states that the most significant views in the City are oriented toward the Willamette River. The acknowledged plan includes the following two policies to address scenic resources:

1. Future plans for the Milwaukie riverfront area will include consideration of viewing opportunities between downtown and the Willamette River, as well as special places on the riverfront for enjoying views of the river and its activities. Development plans for Dogwood Park will include maintenance of public access and opportunities for viewing Kellogg Lake.

2. The City will work with the Oregon State Department of Transportation to ensure that future improvements to McLoughlin Boulevard do not obstruct the visual relationship between downtown and the riverfront area and encourage that the large trees north of downtown be retained where possible.

The plan map of Natural Resource Sites does not include designation of scenic viewpoints.

The Council finds and concludes that the South/North Project improvements in the Milwaukie Regional Center Segment will not have an adverse impact on viewing opportunities or obstruct the visual relationship between downtown and the Willamette River and will not affect public access and opportunities for viewing Kellogg Lake. It so concludes because the Project is located outside the vicinity of Kellogg Lake and because the important view areas of the Willamette River are located south of the Project area.

Impacts on Open Space Areas are addressed under the heading of Fish and Wildlife Habitat and Park and Recreational Areas in these findings.

Riparian Areas

Riparian areas within the Milwaukie Regional Center Segment have been described and addressed under the heading of Fish and Wildlife Habitat.

Wetland Areas

The South/North Project will result in modest impacts on wetland areas in the Milwaukie Regional Center Segment. Reasonable options are available to mitigate unavoidable wetland impacts as described in the General Findings.

Approximately 200 square feet of palustrine emergent wetland will be filled to extend a culvert at the west end of the Crystal Creek channel (Wetland D). Because of alignment constraints and potential displacements, this wetland cannot practicably be avoided. This area is recognized as a natural resource site on Map 5 of the Milwaukie Comprehensive Plan. Additionally, about 650 square feet of the pond in Scott Park will be filled to extend an existing culvert for construction of the Milwaukie Transit Center. Mitigation could include wetland enhancement along Crystal Creek and habitat along the banks of the Scott Park pond, and could also consist of off-site wetland enhancement, restoration and/or creation in areas adjacent to the Minthorn Springs Natural Area or potentially along Johnson Creek.

Park and Recreational Areas and Willamette River Greenway

The South/North Project will have a potential impact on two park and recreational areas that are protected in the Milwaukie Comprehensive Plan: Scott Park and the Springwater Corridor. The Project is outside of the Willamette River Greenway boundaries and will not adversely affect the Willamette River Greenway.

Scott Park. Scott Park is adjacent to the Ledding Library in the north end of downtown Milwaukie. The Ledding Library site, approximately 1.6 acres in size, is situated on the northeast corner of SE Harrison Street and SE 21st Avenue. Scott Park, approximately 0.6 acres in size, is contiguous with and north of the library parcel, with access provided through the library parking lot and adjoining grounds. The east edge of both parcels is formed by portions of the two ponds. The two parcels are owned by the City of Milwaukie and the park/library site is designated for Public use on the Milwaukie Comprehensive Plan.

The park is located east of SE Main Street and can be entered from the library and park parking lot. The park is accessible both by foot and car. The park's attractions include Spring Creek, a short walking trail and a monument dedicated to Richard and Hannah Scott, pioneer farmers in the area. Parking for both the Ledding Library and Scott Park is shared.

Two components of the South/North Project contribute to the impact to Scott Park: the LRT alignment and the extension of SE 21st Avenue.

The LRT alignment crosses the lower (north) pond on fill. A small (12 to 18-foot span) bridge is proposed at the mid-point of the filled crossing to accommodate a channel for Spring Creek as it leaves the upper pond. The bridge would be designed to limit impacts to the drainage corridor. After crossing the pond, the alignment impacts a corridor of open space in the upland portion of the park. SE 21st Avenue is proposed to be extended northward, crossing the LRT alignment and continuing through the upland portion of Scott Park. The 21st Avenue extension is intended to provide vehicular circulation around the LRT station, facilitating bus movement and the transfer of riders from bus to LRT.

During conceptual design, numerous alternatives were considered to reduce or avoid adverse impacts to Scott Park. However, the alternatives were rejected for one or more of the following reasons: (1) they would not have provided LRT access to the core of the Milwaukie Regional Center; (2) they would have precluded reasonable options for future corridor extensions; and (3) they would have resulted in considerably more displacements, neighborhood impacts, and park and recreational area impacts than the selected LRT alignment.

Subsequently, a cooperative planning process began with the City of Milwaukie and North Clackamas Parks and Recreation District to develop a mitigation plan for Scott Park. A *Scott Park Mitigation Report (Scott Park Report)* was published in March 1998 to define the range of design opportunities that should be considered during the FEIS phase of the South/North Project when proposing what mitigation would be provided by the project for impacts to Scott Park. The *Scott Park Report* provides a land use planning and urban design context and discusses a range of potential mitigation strategies for consideration in the 4(f) analysis.

The *Scott Park Report* identifies an alignment option that would move the LRT alignment and station approximately 150 feet north of the location shown in the DEIS. Tri-Met has included this option in its application for approval of the South/North LUFO, and its selection by the Council contributes to the mitigation of the identified adverse impacts.

While the DEIS alignment bisects Scott Park, the optional alignment concentrates impacts in the northern portion of the park. Impacts on constructive uses of the site will be reduced with the

Optional Alignment, due primarily to the fact that the park would no longer be split in two pieces by the alignment. The remaining portion of Scott Park would remain contiguous with the Ledding Library site, allowing for the continuance of passive recreation as a support use to the library. The Locally Preferred Strategy (LPS) for the South/North Project includes the modest northerly shift of the LRT alignment in the Milwaukie Regional Center Segment to reduce adverse impacts on Scott Park.

Springwater Corridor. The southerly boundary of the Tacoma Street park-and-ride abuts the designated Springwater Corridor, a significant element of the regional 40-Mile Loop trail system. The City of Milwaukie's Transportation Plan identifies the planned extension of the Springwater Corridor Trail.

The westernmost point of the developed Springwater Corridor is a fenced, elevated area to the east of the UP rail line. The corridor continues east for 16.5 miles through the City of Portland, Clackamas County, the City of Milwaukie, a portion of unincorporated Multnomah County and the City of Gresham until it ends at Boring, Oregon. The City of Portland owns the Springwater Corridor and is responsible for its overall management and maintenance. The City of Gresham maintains, manages and funds improvements to the portion of the trail through its jurisdiction.

Adopted local and regional plans propose a westerly extension of the Springwater Corridor from the existing terminus east of the UP rail line to the Sellwood Bridge at Spokane Street. Metro plans to acquire the property between the western terminus of the existing corridor and SE 17th Avenue. Because of an existing operational railroad, authorization for the trail would need to be secured by Metro through an easement granted by the railroad owner. The pedestrian overpass and connection to neighborhoods west of McLoughlin Boulevard and east of the UP rail line will provide pedestrian access to the Tacoma Station and a critically important link to the regionally significant Springwater Corridor recreational trail. In addition, the South/North Project will provide a good opportunity for shared transit/recreational use of the Tacoma Street park-and-ride because of the different and complementary peak hours of use.

Mitigation Options for Natural Resource Impacts in the Milwaukie Regional Center Segment

The Council finds that the South/North Project improvements in this segment will have adverse impacts on Spring Creek and on Scott Park, protected resource areas under the Milwaukie Comprehensive Plan. Adverse impacts to Spring Creek and Scott Park (such as noise and park fragmentation) have been reduced with the northerly shift in the alignment. Additional mitigation opportunities are available, such as restoration of a more natural, meandering Spring Creek with native plantings, and replacement plantings for park landscaping displaced by the alignment.

The Council also finds that the South/North Project will have a positive impact on the Springwater Corridor, a significant regional recreational trail. Pedestrian improvements across SE McLoughlin Boulevard and the UPRR to provide neighborhood pedestrian access to the Tacoma Station will also provide the opportunity for a critical link to the existing Springwater Corridor. The South/North Project will accommodate development of the Springwater Corridor Trail along the southerly boundary of the Tacoma Street Park-and-Ride.

The South/North Project improvements will not impact the Willamette River Greenway in this segment. Although the project improvements will require a modest amount of fill of wetland, the Council finds that wetland regulations implemented by state and federal resource agencies will ensure that appropriate mitigation is provided to compensate for the impacts that cannot be avoided.

The Council recognizes that Johnson Creek is an important natural resource corridor for multiple values, including fish and wildlife habitat, open space and riparian area. The LRT bridge across Johnson Creek will be located in proximity to existing highway and railroad bridge crossings of Johnson Creek. The Council finds that measures such as balanced cut and fill, best management practices for stormwater quality and quantity, and application of E-zone standards for riparian area plantings are available to mitigate adverse impacts to Johnson Creek and will be imposed as conditions of approval during the FEIS process and/or the local permitting process.

6.4.3.6 Criterion 7: Stormwater Runoff

“Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Stormwater runoff impacts specific to the Milwaukie Regional Center Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the Milwaukie Regional Center Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the Milwaukie Regional Center Segment

The Milwaukie Transit Center will be located on Spring Creek, adjacent to the pond north of Scott Park. Development of the Transit Center could moderately increase runoff from the site. Stormwater quantity and quality facilities could be installed at the site to treat runoff prior to discharge to Spring Creek. The facilities may need to be installed in vaults under the paved area because of the small site area.

The proposed crossing of Crystal Creek, just south of the Highway 224 embankment, requires a culvert under the track alignment to prevent seepage from the hillside from building up and flooding neighboring properties east of the LRT track.

Development of the Tacoma Street park-and-ride lot will not increase impervious areas above existing conditions; therefore, runoff from the site would not increase. The existing site has several industrial uses that would be displaced by the park-and-ride lot. Water quality of stormwater runoff from the site should improve, because the existing industrial sources of pollution would be eliminated and new stormwater treatment provided as part of the park-and-ride. There is sufficient room to site an at-grade ground water quality facility at the park-and-ride.

The LRT alignment across Johnson Creek could impact the existing Tacoma Street detention basin near the intersection of SE Tacoma Street and SE McLoughlin Boulevard. If impacts to the existing basin cannot be avoided, replacement detention storage could potentially be provided at the Tacoma Park-and-Ride (if demolition of the Goodwill building would provide the required compensatory volume) or in an underground vault on the site.

Development of an O&M Facility south of Ochoco Street would include removal of several existing industrial buildings and construction of a single central maintenance building and new track. The existing site has significant impervious cover and open areas used for equipment storage.

Stormwater flows originating on the site are uncontrolled, but on-site drainage is generally routed to the west along SE Stubb Street. After construction, the expected rate and volume of stormwater runoff would be equal to or less than existing conditions for all storm events, because of a reduction in the impervious surface area. Additionally, stormwater treatment would be provided as part of drainage system improvements at the site.

Mitigation Options for Stormwater Impacts in the Milwaukie Regional Center Segment

Based on the information contained in the *Hydrology Results Report*, the Council concludes that no significant hydrologic or water quality impacts are expected in the Milwaukie Regional Center Segment. The Council finds that water quantity and quality impacts created by the construction and operation of the South/North Project in the Milwaukie Regional Center Segment can be substantially mitigated by complying with the following: DEQ standards for the Willamette Basin; Army Corps of Engineers Section 404 permit regulations; Division of State Lands regulations for instream activities; City of Milwaukie erosion control and stormwater regulations; and City of Portland erosion control and stormwater regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

A minor increase in the risk of flooding and a minor deterioration in water quality could occur as a result of fill that would be placed in Scott Park for the Milwaukie Transit Center. To avoid these impacts, stormwater quantity and quality controls, as well as compensatory flood storage, could be provided.

Although the Tacoma Park-and-Ride lot would not increase the impervious surface area, it may require water quality treatment and could cause minor flooding impacts due to fill that would be required for the approaches to the Johnson Creek crossing. Compensatory flood storage could be provided to avoid flood impacts. The existing SE Tacoma Street detention basin would be partially filled, and replacement detention storage would be provided. No significant impacts would occur from the actual alignment crossing of the Johnson Creek channel with the use of best management practices during construction.

The Ochoco O&M Facility would displace several industrial uses. The quantity and quality of stormwater runoff from this site would be maintained or improved because existing sources of pollution would be eliminated, impervious surface area reduced, and stormwater treatment provided as part of drainage system improvements at the site.

Standard erosion control measures can be implemented in connection with all improvements in the Milwaukie Regional Center Segment, and site-specific erosion controls can be provided at the creek crossings. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting processes.

6.4.3.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

Historic and cultural resource impacts specific to the Milwaukie Regional Center Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/North Corridor, including the Milwaukie Regional Center Segment, are addressed in the General Findings. Historic and cultural resource impacts are also described in the *Historic, Archeological and Cultural Resources Impacts Results Report*.

Identified Significant and Protected Historic and Cultural Resources in the Milwaukie Regional Center Segment

The decision to select the LRT alignment, site two LRT stations and one park-and-ride lot, potentially site an Operations and Maintenance Facility, and construct related street improvements in the Milwaukie Regional Center Segment must consider impacts to historic and cultural resources which are inventoried as significant and protected in the Milwaukie Comprehensive Plan.

The *Historic Results Report* identifies four historic resources that are potentially eligible for the National Register within the Milwaukie Regional Center Segment. These resources include the Philip Streib House, Milwaukie Junior High, Masonic Lodge, and Milwaukie City Hall. Previously, the ODOT Building was determined eligible for the National Register, as was the Oregon Worsted Company building located at 8300 SE McLoughlin Boulevard.

Of the historic resources evaluated in the *Historic Results Report* and identified above, the Milwaukie Comprehensive Plan designates the following as “significant” historic resources and provides protection in the acknowledged plan:

- Milwaukie Junior High
- Masonic Lodge
- Milwaukie City Hall
- ODOT Building

The Philip Streib House is listed as a “contributing” resource.

The Oregon Worsted Company building is not identified as a significant and protected historic resource under the City of Portland's Comprehensive Plan.

The DEIS and the *Historic Results Report* document that the South/North Project improvements in the Milwaukie Regional Center Segment will not require right-of-way and will have no adverse effect on the following resources: Philip Streib House, Milwaukie Junior High, Masonic Lodge, Milwaukie City Hall, and the ODOT Building. Therefore, there will be no adverse impact on any historic resources identified as significant in the Milwaukie Comprehensive Plan.

The LRT alignment, the Tacoma Street Station and the Tacoma park-and-ride will have a combined adverse effect on the Oregon Worsted Company Building, determined potentially eligible for the National Register. The building would be demolished, primarily to accommodate the park-and-ride lot. Again, this building is not protected under the City of Portland Comprehensive Plan. However, its eligibility for the National Register would trigger a 120-day demolition review process under the City of Portland's historic resources provisions.

The *Historic Results Report* also identifies the high probability that a hunter-fisher-gatherer archeological site is located within the Milwaukie Regional Center Segment. Although the Milwaukie Comprehensive Plan does not "protect" archeological resources, federal regulations are applicable to such resources.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the Milwaukie Regional Center Segment

For the reasons stated above, the Council concludes that the South/North Project improvements in the Milwaukie Regional Center Segment will not adversely affect significant historic and cultural resources identified as "protected" in the acknowledged Milwaukie and Portland Comprehensive Plans. The Oregon Worsted Building will be demolished, but this building does not have protected status under the City of Portland's Comprehensive Plan.

There is high probability that a hunter-fisher-gatherer archeological site may be located in the Milwaukie Regional Center Segment. More detailed analysis of the site could occur in the FEIS and mitigation could include having a professional archeologist on site to monitor construction.

6.4.4 McLoughlin Boulevard Segment

6.4.4.1 Description of Light Rail and Highway Improvements

The McLoughlin Boulevard Segment of the South/North Project includes the following LRT-related facilities:

- An alignment that extends from SE Tacoma Street to SE McLoughlin Boulevard at SE 20th Avenue.
- One station in the vicinity of the Bybee Overpass.

See **Figure 1.4** of the LUFO for LUFO boundaries for the McLoughlin Boulevard Segment.

Light Rail Alignment

From SE Tacoma Street, the alignment proceeds northward east of SE McLoughlin Boulevard between the roadway and the UP railroad. It proceeds past the Eastmoreland Golf Course, passing under SE Bybee Boulevard. A light rail station is located in the vicinity of SE Bybee Boulevard, with pedestrian access provided at the Bybee overpass. The alignment then continues northward east of McLoughlin Boulevard to the vicinity of SE 20th Avenue near the Brooklyn Rail Yard.

Light Rail Stations

One station is provided in the McLoughlin Boulevard Segment.

Bybee Station. The Bybee Station is located in the vicinity of the existing SE Bybee Boulevard overpass of SE McLoughlin Boulevard. This station provides transit access to the Sellwood-Moreland and Eastmoreland neighborhoods and to City of Portland park facilities in the vicinity (Westmoreland Park, Eastmoreland Golf Course, Crystal Springs Rhododendron Garden). Improved pedestrian access will be provided along SE Bybee Boulevard across SE McLoughlin Boulevard. An elevator will provide access from the pedestrian access to the station platform that will be located near the grade of SE McLoughlin Boulevard.

Park-and-Ride Lots

There are no park-and-ride lots located in the McLoughlin Boulevard Segment.

Operation and Maintenance Facilities

There are no operation and maintenance facilities located in the McLoughlin Boulevard Segment.

Highway Improvements

There are no highway improvements in the McLoughlin Boulevard Segment.

6.4.4.2 Criterion 3: Neighborhood Impacts

“Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process.”

“A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail

proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.”

- “B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.”

Description of Affected Neighborhoods in the McLoughlin Boulevard Segment.

The McLoughlin Boulevard Segment includes portions of the Sellwood-Moreland and Eastmoreland Neighborhoods that are located west and east of SE McLoughlin Boulevard, respectively. SE McLoughlin Boulevard connects the City of Milwaukie with southeast Portland. The function, scale and linear form of the roadway, as well as its lack of connection to the nearby neighborhoods, make it a strong visual and physical barrier in this part of the city.

The *Sellwood-Moreland Neighborhood* is bounded by the Willamette River to the west, SE Holgate Boulevard to the north, SE McLoughlin Boulevard and the Brooklyn Yard to the east and SE Ochoco Street to the south. The major north/south roads in the neighborhood are SE Milwaukie Avenue, SE McLoughlin Boulevard and SE 17th Avenue. The major east/west roads are SE Bybee Boulevard and SE Tacoma Street, which connects to the Sellwood Bridge. The Springwater Corridor, which parallels Johnson Creek and cuts across the southeast corner of the neighborhood, provides bicycle and pedestrian access from the Willamette River east to Gresham as part of the region’s 40-Mile Loop Trail.

Sellwood/Moreland is distinguished by a variety of land uses. Single-family residential homes and large open spaces are the predominant land uses in the neighborhood, with a significant number of commercial lands uses along SE Milwaukie, SE 17th and 13th Avenues, and some commercial and industrial development in the northern portion of the neighborhood. Westmoreland Park, which forms the eastern border of the neighborhood, is a city-wide destination, as is Oaks Bottom, a large park and natural area parallel to the Willamette River.

Relative to county and regional averages, Sellwood/Moreland has a lower proportion of minority residents, and a higher than average percentage of residents over the age of 65. The mobility limited population for the neighborhood is also higher than the county and regional average.

The *Eastmoreland Neighborhood* is bounded by SE McLoughlin Boulevard to the west, Reed College to the north, SE 39th Avenue to the east and SE Crystal Springs Boulevard to the south. The major north/south roads in the neighborhood are SE McLoughlin Boulevard, SE 39th Avenue and Crystal Springs Drive. The major east/west road is SE Woodstock Boulevard, which provides access to Reed College and terminates at SE Crystal Springs Drive.

Single-family residential homes, large open spaces and a college are the predominant land uses in the neighborhood, with some scattered apartments on the northern and eastern edges and some commercial land uses along SE 39th Avenue. Reed College is the only major employer in the neighborhood. The Crystal Springs Rhododendron Garden and Eastmoreland Golf Course, large open spaces that serve the city and region, are located in the western portion of the neighborhood.

The Springwater Corridor, which parallels Johnson Creek, lies just south of the neighborhood, providing bicycle and pedestrian access from the Willamette River east to Gresham as part of the region's 40-Mile Loop Trail.

Eastmoreland is a relatively affluent neighborhood in comparison to other neighborhoods within the South/North study area and compared to the region as a whole. The neighborhood has the highest proportion of owner-occupied housing in the study area.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to affected McLoughlin Boulevard Segment neighborhoods are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the McLoughlin Boulevard Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts also are described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

Overall, the South/North Project will result in positive impacts in the McLoughlin Boulevard Segment because improved transit accessibility will be available to residents of the affected neighborhoods. Because the alignment and station are located in the linear corridor between SE McLoughlin Boulevard and the UP rail line, the project has minimal adverse impacts on the affected neighborhoods.

Displacements. There are no commercial displacements in the McLoughlin Boulevard Segment.

Loss of Parking/Access. The project improvements in this segment (alignment and station) have no impact on existing parking or access.

Tax Base. The South/North Project will have a minimal economic impact on the tax base in the McLoughlin Boulevard Segment because no buildings or uses are displaced for the alignment and station. Project improvements will be located in undeveloped right-of-way currently owned by the UP Railroad and the Oregon Department of Transportation.

The Council concludes that tax base impacts generally will be positive, as LRT should trigger development of underutilized property close to the Bybee Station and close to the Tacoma Station in the Milwaukie Regional Center Segment.

Freight Movement. There will be no impacts on *water freight* movement in the McLoughlin Boulevard Segment.

No adverse *trucking impacts* are expected in this segment. SE McLoughlin Boulevard is classified as a freight route in the City of Portland Transportation Plan. The northbound ramps from the Tacoma Street overpass onto SE McLoughlin Boulevard will be reconstructed to accommodate the light rail alignment. Although this will result in some disruption during construction, there will be no long-term impacts to trucking on SE McLoughlin Boulevard.

The project will not have adverse impacts on *rail freight* movement. The LRT alignment will parallel the UP rail line through this segment; however, the project will not affect any rail spurs or switching movements. The LRT alignment and the rail corridor will be fenced for safety and security. The new pedestrian bridge and elevator will provide direct access to the station platform, similar to the access to LRT stations provided adjacent to the rail line in the Eastside MAX Banfield Corridor.

Social Impacts

The Council finds that the social impacts of the South/North Project are generally positive in the McLoughlin Boulevard Segment. No residential uses will be displaced, light rail will provide improved transit access to neighborhoods and to community facilities, and the alignment follows established boundaries between existing neighborhoods.

Residential Displacements. There will be no residential displacements or displacement of residential access in the McLoughlin Boulevard Segment.

Access to Community Facilities. The South/North Project will improve transit access to communities facilities within the Sellwood/Moreland and Eastmoreland neighborhoods, such as Westmoreland Park, Reed College, the Crystal Springs Rhododendron Garden, and the Milwaukie Boulevard commercial district. The Bybee Station will improve accessibility by residents of the Sellwood/Moreland and Eastmoreland neighborhoods to regional employment and recreational facilities.

Barriers to Neighborhood Interaction. The South/North Project will not result in long-term barriers to social interaction or neighborhood cohesion in the McLoughlin Boulevard Segment. The LRT alignment parallels the alignment of SE McLoughlin Boulevard and the UP rail line through this segment. The existing road and rail facilities currently form the boundary between the Sellwood/Moreland and Eastmoreland neighborhoods and the light rail alignment will reinforce this existing boundary.

The existing sidewalks on the Bybee Boulevard Overpass are quite narrow and the construction of a new pedestrian access will improve pedestrian circulation between the Sellwood/Moreland and Eastmoreland neighborhoods.

Safety and Security. The Council is sensitive to safety and security concerns at light rail stations. These concerns arise with the Bybee Station because of its isolation from neighborhoods and the presence of transients known to loiter near the Brooklyn Rail Yard and the northern portion of Oaks Bottom Wildlife Refuge. Transit users are more vulnerable in areas with less activity and/or lower visibility.

A security fence will be installed to separate the light rail alignment and the UP rail line through this segment. The Bybee Station will include standard safety and security features such as lighting, platform telephones, and appropriate landscaping. The precise location of the station, and the design of the pedestrian access, will ensure consideration of visibility from nearby roadways and from the Eastmoreland Golf Course clubhouse and parking lot.

Visual/Aesthetic. As described earlier, the LRT alignment in this segment parallels SE McLoughlin Boulevard. There is limited physical and visual access into the Sellwood/Moreland and Eastmoreland neighborhoods from SE McLoughlin Boulevard. Only two overpasses, SE Tacoma Street/SE Johnson Creek Boulevard and SE Bybee Boulevard, cross SE McLoughlin Boulevard in this segment.

SE McLoughlin Boulevard is four lanes wide through this segment and relatively flat from south to north. Sellwood/Moreland rises gradually to the west as it reaches the Willamette River bluffs. This section of SE McLoughlin Boulevard is characterized by a corridor of deciduous canopy trees and flat, open land lining both sides of the roadway. Views through and under trees include glimpses west to neighborhood streets and Westmoreland Park. Views to the east focus on vacant railroad land and a line of dense vegetation that screens much of Eastmoreland Golf Course from view. North of SE Bybee Boulevard, there are clear views of Eastmoreland Clubhouse.

This segment contains dominant visual features, namely recreational open space paralleling the east and west sides of SE McLoughlin Boulevard. The open space uses provide visual relief to the paving and intensity of the traffic corridor. Other important visual features include a continuous row of mature deciduous canopy trees bordering both sides of SE McLoughlin Boulevard between the Tacoma Street and the Bybee Boulevard overpasses. The light rail alignment allows for the retention of these trees. Recognized community features include Westmoreland Park and Eastmoreland Golf Course. The City of Portland's *Scenic Views, Sites and Drives Inventory and Scenic Resource Protection Plan* does not identify any scenic resources within this portion of the neighborhood.

Overall, the Council finds that the South/North Project would result in low visual impacts along the edges of the Sellwood/Moreland and Eastmoreland neighborhoods. The introduction of the LRT line along the east side of SE McLoughlin Boulevard would blend in with the existing scale and linear character of the road/rail corridor. The LRT alignment does not require removal of canopy trees along SE McLoughlin Boulevard. Poles and overhead wires would be seen against the existing vegetation screen bordering the Eastmoreland Golf Course and would partially obscure views of the clubhouse from SE McLoughlin Boulevard. The Bybee Station, stairs, elevator and platform would create a moderate degree of change around SE Bybee Boulevard. However, the Council finds that mitigation for visual impacts could include design of the station and pedestrian bridge to fit with the existing character and scale of the Bybee Boulevard bridge and adjacent landscaping.

Traffic Impacts

SE McLoughlin Boulevard (Oregon Highway 99E) provides south-north regional access through the Portland metropolitan area. SE McLoughlin Boulevard is classified as a Major Arterial. SE McLoughlin Boulevard is generally posted for 45 m.p.h. speeds, with some segments posted for 35 m.p.h. On-street parking is not permitted on SE McLoughlin Boulevard.

North of Highway 224, SE McLoughlin Boulevard carries approximately 46,000 vehicles per day (ODOT, 1994). SE Bybee Boulevard in the vicinity of SE McLoughlin Boulevard carries approximately 1,000 vehicles per hour (Portland, 1996). No individual intersections were analyzed within the McLoughlin Boulevard Segment for the South/North Project DEIS. No intersections within the McLoughlin Boulevard Segment meet the criteria for mitigation of traffic impacts associated with light rail. However, an analysis was conducted of potential impacts associated with parking and bus access to the Bybee Station.

The Bybee Station is located near SE McLoughlin Boulevard and SE Bybee Boulevard. Due to the location of this station in relation to major movements of traffic in the SE McLoughlin corridor, very little drop-off activity is expected. Pedestrian and bicycle access to the station should be adequate, with pedestrian access at the Bybee overpass and stairs/elevator to the station platform.

Rider activity in the vicinity of the Bybee Station could potentially result in limited park-and-ride activity on the adjacent street system. Data indicates that on the existing Eastside MAX line, the typical rider walks up to one-quarter mile to reach the train, while another 25 percent of the riders walk up to one-half-mile. Available parking within a one-quarter mile radius of the Bybee Station includes the Eastmoreland Golf Course parking lots and local streets in the Eastmoreland and Sellwood-Moreland neighborhoods. If monitoring illustrates parking problems and/or neighborhood traffic intrusion associated with this station location, the Council finds that traffic management strategies such as a parking permit program and/or physical improvements to restrict through-vehicle access to the neighborhood can be considered to address identified problems.

On SE Bybee Boulevard west of SE McLoughlin Boulevard, an increase may be experienced in the frequency and dwell time of buses blocking eastbound traffic at the existing bus stop. Neighborhood concern has been raised that this might adversely impact vehicular circulation, including emergency vehicle egress from the existing fire station to the west. The Council finds that this impact could be mitigated by changing the location of the bus stop and/or constructing a bus pullout lane.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the McLoughlin Boulevard Segment, including but not limited to:

- Modification of the northbound SE McLoughlin Boulevard on and off-ramps at SE Tacoma Street
- Installation of a northbound right turn lane from SE McLoughlin Boulevard to SE Harold Street, with a gated crossing on SE Harold Street
- Pedestrian access at the Bybee overpass along SE Bybee Boulevard
- Installation of a gated crossing at SE Harold Street and SE McLoughlin Boulevard

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The light rail alignment and station in this segment are bounded by areas designated for open space and recreational uses. Little new development capable of enhancing transit ridership is anticipated in

the vicinity of the LRT station. However, the Bybee Station provides an appropriate location for access to community facilities in this segment, while also providing pedestrian/bicycle/bus access to South/North light rail for residents of the Sellwood/Moreland and Eastmoreland neighborhoods. Because the light rail route and station are located between established linear facilities of McLoughlin Boulevard and the UP rail line at the edge of the Sellwood/Moreland and Eastmoreland neighborhoods, the Council finds that the improvements in this segment protect the two neighborhoods from adverse impacts.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the McLoughlin Boulevard Segment that have utility separate from the South/North Project. To provide additional storage length and accommodate the LRT gates, the northbound ramps to SE McLoughlin Boulevard at the Tacoma Street overpass will be reconstructed. Outside of the short-term construction impacts, the ramp reconstruction will not have an adverse impact on the Sellwood/Moreland or Eastmoreland neighborhoods.

6.4.4.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise impacts specific to affected McLoughlin Boulevard Segment neighborhoods are addressed in the following section. Noise impacts common to neighborhoods throughout the South/North Corridor, including the McLoughlin Boulevard Segment, are addressed in the General Findings, together with a general overview of noise and vibration, descriptions of the different types of noise, and identification of potential mitigation by noise type. Noise and vibration impacts also are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Results Report)*.

Identification of Noise and Vibration Impacts in the McLoughlin Boulevard Segment

The ambient noise environment in this segment is dominated by vehicular traffic on SE McLoughlin Boulevard and local arterials as well as rail traffic on the UP rail line. Residential property is located to the west of SE McLoughlin Boulevard between SE Glenwood Street and SE Tolman Street and adjacent to the east side of the UP rail line. The closest residential properties are located more than 300 feet from the LRT track centerline.

As described in the DEIS, the two noise monitoring locations for the McLoughlin Boulevard Segment included Westmoreland Park and Eastmoreland Golf Course. There was no vibration testing performed in this segment because of the distance to the nearest vibration sensitive receivers and the close proximity of the LRT alignment to the existing UP rail line.

The Impacts Summary from the *Noise and Vibration Impacts Results Report (Noise Report)* concludes that there are no LRT noise impacts, no traffic noise impacts and no LRT vibration

impacts in the McLoughlin Boulevard Segment, primarily because the segment contains only a few residences and parks, all located a considerable distance from the LRT alignment. The Council agrees with the findings of the *Noise Report* and concludes that no noise/vibration mitigation measures are required in the McLoughlin Boulevard Segment. Moreover, by reducing future traffic volumes on SE McLoughlin Boulevard over No-Build volumes, LRT will play a positive role in mitigating noise impacts of the roadway on the adjacent neighborhoods.

6.4.4.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazards specific to the McLoughlin Boulevard Segment are addressed in the following section. Natural hazards common to segments throughout the South/North Corridor, including the McLoughlin Boulevard Segment, and design and construction techniques to reduce or mitigate natural hazards, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Geology Report)* and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the McLoughlin Boulevard Segment

No *specific landslide areas, areas of severe erosion potential or areas subject to earthquake damage* are identified in the McLoughlin Boulevard Segment. The potential for major landslides within the South/North Corridor is very limited because the topography within the corridor is relatively gentle. Areas of severe erosion potential are generally associated with steep slopes and creek crossings. Neither of these conditions are present in the McLoughlin Boulevard Segment. As described in the General Findings, the Northwest is a seismically active area and subject to earthquakes. The LRT design and estimated construction costs reflect the need to conform to the relevant seismic standards for capital construction.

The *Geology and Soils Results Report (Soils Report)* includes the following description of existing conditions in the McLoughlin Boulevard Segment.

This segment lies within the Pleistocene scour channel, and the subsurface materials are gravel, sand, silt and occasional areas of peat or highly-organic silt and clay. The organic soils may be encountered anywhere along the segment but are most likely to be encountered near Crystal Springs and Johnson Creeks. Excessive settlement caused by these organic soils would adversely affect structures placed on these materials. A thorough geotechnical investigation at the site of the structures will be necessary to confirm the subsurface conditions. Slope stability and erosion should not pose any problems in this segment. The fills are less than five feet high, and there are no cuts. The culvert extension at Crystal Springs Creek can be designed and constructed to prevent erosion at the outlet.

Based on the information contained in the *Soils Report* and the *Hydrology Results Report*, the Council concludes that the 100-year floodplain of Johnson Creek and Crystal Springs Creek represent the key natural hazard constraint in the McLoughlin Boulevard Segment.

The headwaters of Crystal Springs Creek originate in Reed Lake, located near Reed College. The creek flows approximately 2 miles, in a north-to-south direction, through the Eastmoreland Golf Course and along Westmoreland Park to Johnson Creek. The drainage basin contributing flow to Crystal Springs Creek is roughly two square miles. Within the basin are Reed College, residential areas to the north and west of the college, Eastmoreland Golf Course, and Crystal Springs Rhododendron Gardens.

The LRT alignment will cross Crystal Springs Creek, between SE McLoughlin Boulevard and the UP rail line, near the northeast corner of the Eastmoreland Golf Course. At the proposed crossing, the creek channel is shallow (1 to 2 feet deep) and wide (15 to 20 feet across). The creek is conveyed under the UP rail line and SE McLoughlin Boulevard through box culverts. Residents along Crystal Springs Creek have received minor damage from past floods. The 100-year flood event inundates an extensive area between Reed Lake in the north and Johnson Creek in the south. Flooding in the area during large and infrequent storm events is expected to be shallow, on average between 0 and 1 feet in depth. Floodwaters in this area do not move at an appreciable velocity because the slope of the floodplain from north to south is negligible.

The placement of track ballast along the LRT route may reduce floodplain storage and restrict the movement of floodwaters along the floodplain. Profiles of the track alignment indicate that the track would be constructed at a slightly higher elevation than McLoughlin Boulevard to the west.

As described above, the crossing of Crystal Springs Creek would occur in the vicinity of SE Tolman Street where the existing creek emerges from the Eastmoreland Golf Course. The creek is currently conveyed under the UP rail line and under McLoughlin Boulevard in a double-box culvert, each measuring approximately 18 inches x 24 inches. Reaches upstream and downstream of the crossing are very gently sloped and unobstructed.

The existing culvert under the UPRR tracks is proposed to be extended west to accommodate construction of the LRT alignment. Extension of the culvert will not alter inlet conditions, and these modifications are not expected to reduce the capacity of the culvert. As a result, existing flooding conditions in the vicinity of the crossing are expected to remain unchanged. However, if construction of an embankment for the track restricts flood flow across the floodplain, flood flows could be concentrated at the Crystal Springs Creek crossing location. As a result, upstream flooding conditions could worsen, and flow through the culverts at this location could increase. However, the Council finds that the Project is committed to not worsen existing flooding.

Flood storage volume sufficient to compensate for the volume of ballast that would support the new LRT track will be required in accordance with FEMA requirements. The compensatory volume could be excavated adjacent to the alignment. Cross culverts could also be considered under the tracks in order to allow flood waters to flow downstream, past the tracks. LRT construction will not be permitted to increase any flood elevations upstream or downstream.

Mitigation Options for Natural Hazard Impacts in the McLoughlin Boulevard Segment

Based on the information contained in the *Geology Results Report* and the DEIS, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the McLoughlin Boulevard Segment. While historical evidence of seismic activity in Oregon is minimal, recent studies indicate that western Oregon may be subject to a greater risk from *earthquake hazards* than previously thought.

Site geology has a significant impact on earthquake damage. Young unconsolidated silt, sand, and clay deposits are associated with enhanced earthquake damage through amplification of shaking, settlement, liquefaction, and landsliding.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the selected alignment will provide the necessary information to anticipate and remedy less-than-ideal foundation conditions. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed engineering studies would include an evaluation of subsurface soil seismic response characteristics. Based on the facts in the *Geology Results Report*, the Council finds that long-term impacts to geology and soils in the McLoughlin Boulevard Segment are minor. Mitigation would consist of using standard engineering practices to construct stable slopes and design of bridges to meet Uniform Building Code seismic standards. For identified weak foundation soils, the Council finds that mitigation could consist of using standard engineering practices to construct stable slopes, and techniques such as excavation and backfilling, special footing and foundation designs, and special construction techniques such as pilings.

The alignment is located within the designated 100-year floodplain boundary of Crystal Springs Creek and Johnson Creek. All fills in the floodplain will be compensated by equivalent excavation to mitigate any rise in flood levels. The Council finds that such mitigation for floodplain impacts is feasible and will avoid adverse impacts on flood elevations in the McLoughlin Boulevard Segment. It further finds that at the Crystal Springs Creek and Johnson Creek Crossings, the bottom chords of the structures will be designed to clear the projected 100 year flood elevations by at least two feet, thereby having no impact on the flood elevations.

The City of Portland Bureau of Environmental Services (BES) is currently undertaking a year-long study to better understand Johnson Creek hydrologic conditions and its associated floodplain. Information from this study will be evaluated and additional analysis conducted during the FEIS to further define potential flooding impacts in this segment. If necessary, additional mitigation could include installation of cross culverts to convey floodwaters under the LRT track fill.

6.4.4.5 Criterion 6: Natural Resource Impacts

“Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette

River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the McLoughlin Boulevard Segment are addressed in the following section. Natural resource impacts and mitigation common to segments throughout the South/North Corridor, including the McLoughlin Boulevard Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the McLoughlin Boulevard Segment

Within the McLoughlin Boulevard Segment, Westmoreland Park, Eastmoreland Golf Course and Crystal Springs Rhododendron Garden are all designated and protected as *open space/park/recreational areas* in the City of Portland Comprehensive Plan. Given that the LRT route will be located between the existing right-of-way for SE McLoughlin Boulevard and the UP rail line, the South/North Project will not adversely impact Westmoreland Park, Eastmoreland Golf Course or the Crystal Springs Rhododendron Garden.

The McLoughlin Boulevard Segment does not affect lands located within the *Willamette River Greenway*, and the City of Portland *Scenic Views, Sites and Drives Inventory and Scenic Resource Protection Plan* does not identify any scenic resources within this segment. The continuous row of mature deciduous canopy trees (northern red oak) bordering both sides of SE McLoughlin Boulevard in this segment, although not protected as a scenic resource, will not be disturbed by the LRT alignment or the Bybee Station.

Besides wetlands, no adverse impacts to *significant and protect fish and wildlife habitat* would occur as a result of project implementation in the McLoughlin Boulevard Segment. Impacts to wildlife along the alignment include the loss of non-native grassland and low quality emergent marsh that provides limited cover, foraging and nesting habitat. Overall, impacts to local wildlife populations would be negligible.

The *Ecosystems Impacts Results Report (Ecosystems Report)* identifies three *wetlands* in the McLoughlin Boulevard Segment -- Sites 16, 17 and 18. Of these, only Site 18 is protected under the City of Portland's acknowledged comprehensive plan and land use regulations.

Site 16 consists of three shallow depressions located approximately 1000 feet north of Johnson Creek between SE McLoughlin Boulevard and the UP rail line. All three depressions are dominated by herbaceous species such as meadow foxtail, lowland cudweed, Kentucky bluegrass, colonial bentgrass, and quackgrass. The southern-most depression also supports a stand of small black cottonwoods and Oregon ash along its eastern edge.

Site 17 is a shallow depression located approximately 1100 feet south of SE Bybee Avenue between SE McLoughlin Boulevard and the UP rail line. This depression appears to have been excavated within the last 2-3 years. The dominant species in the depression is meadow foxtail. Oregon ash saplings and soft rush were also scattered throughout.

Site 18 includes habitat along Crystal Springs Creek where it is crossed by the UP rail line. East of the UP rail line, the vegetation in the creek channel consists of a few scattered stands of emergent species, such as soft rush and reed canarygrass, along with aquatic species, including duckweed and Canadian waterweed. West of the UP rail line, the creek runs through a broad depression dominated by reed canarygrass. The tops of the banks also support reed canarygrass along with Himalayan blackberry and field bindweed. Land adjacent to and including Crystal Springs Creek where it is crossed by the LRT alignment is in the City of Portland's Johnson Creek Basin Plan District and the Environmental Protection (EP) Overlay Zone.

The three wetland sites could not be avoided while still retaining the alignment between the McLoughlin Boulevard right-of-way and the UP rail line. Approximately 0.19 acre of palustrine emergent wetland would be filled in this segment. Only 270 square feet of fill will be associated with the one wetland (Site 18) that is protected under the City of Portland's acknowledged plan. The fill placed in this wetland is required to extend the existing culvert.

The Council finds that mitigating for impacts to the affected wetlands at a single location could provide greater ecological benefits to the Johnson Creek Basin than by implementing mitigation at several small, isolated sites. Alternative potential locations for conducting wetland mitigation along the creek include the Eastmoreland Golf Course and Westmoreland Park or within the rail/LRT corridor. Mitigation at any of these sites could include wetland restoration and/or creation and could involve removal of rip-rap and concrete channel lining, re-contouring channel banks to create shallow water habitat, and planting with native, herbaceous and woody wetland species. These actions would provide increased flood storage and water quality improvement functions, as well as improving wildlife and fish habitat along the creek.

Mitigation Options for Natural Resource Impacts in the McLoughlin Boulevard Segment

Based on the information in the *Ecosystems Report* and the DEIS, the Council concludes that the South/North Project improvements in the McLoughlin Boulevard Segment will not adversely impact the following natural resources:

- Significant fish and wildlife areas
- Significant open space and riparian areas
- Significant park and recreational areas (Westmoreland Park, Eastmoreland Golf Course, Crystal Springs Rhododendron Garden, Oaks Bottom Wildlife Refuge)
- Willamette River Greenway

The project will have a very minor adverse impact on a wetland area associated with Crystal Springs Creek that is identified and protected as a significant natural resource by the City of Portland. The wetland impact of approximately 270 square feet is associated with extension of a culvert and cannot be avoided. The Council finds that impacts from the culvert extension at the Crystal Springs Creek crossing could be mitigated by using a large, open-bottom culvert to return some instream function

to the area. Potential opportunities for wetland mitigation include Eastmoreland Golf Course and Westmoreland Park. There may also be opportunities to work with the City of Portland Bureau of Environmental Services to combine efforts for wetland mitigation and stormwater retention along Johnson Creek or along the trackway.

6.4.4.6 Criterion 7: Stormwater Runoff

“Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Stormwater runoff impacts specific to the McLoughlin Boulevard Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the McLoughlin Boulevard Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the McLoughlin Boulevard Segment

The headwaters of Crystal Springs Creek originate in Reed Lake, located near Reed College. The creek flows approximately 2 miles, in a north-to-south direction, through Eastmoreland Golf Course and along Westmoreland Park to Johnson Creek.

The LRT alignment would cross Crystal Springs Creek between SE McLoughlin Boulevard and the UP rail line, near the northeast corner of the Eastmoreland Golf Course. The 100-year flood event inundates an extensive area between Reed Lake in the north and Johnson Creek in the south. Flooding in the area during large and infrequent storm events is expected to be shallow.

Water quality in Crystal Springs Creek is generally better than in other creeks in the project area because most of its flow comes from springs rather than stormwater. The water is cooler in the summer and generally less turbid during storm events. The springs flow year-round and supply most of the late summer flow in the lower reaches of Johnson Creek.

Although water quality in Crystal Springs Creek is largely determined by groundwater quality, it also receives residential and commercial stormwater, and runoff from Eastmoreland Golf Course and SE McLoughlin Boulevard. Despite water quality degradation, Crystal Springs Creek supports a coho salmon population, and fish habitat enhancement projects have been proposed for the stream.

No major earthwork is required in this essentially at-grade segment. The alignment will be located between SE McLoughlin Boulevard and the UP rail line and will cross Crystal Springs Creek where it emerges from the Eastmoreland Golf Course.

The Bybee Station is located in a cleared area that has been significantly altered by past grading and track maintenance activities. Under existing conditions, runoff from the station area is uncontrolled, so it either ponds on-site or drains as sheet flow towards either SE McLoughlin Boulevard or the UP rail line. Although the area is predominantly pervious, significant runoff likely occurs from the

surrounding area because little or no vegetation currently grows on the site. Due to their heavily disturbed nature, underlying soils are probably compacted and poorly drained.

Under future conditions, site runoff would not increase significantly. Because no increases in flow are expected, no runoff treatment would be provided on-site, other than what occurs in the present drainage system. Runoff would be collected and concentrated with no adverse impacts from runoff flow discharges.

Concern was raised during the DEIS hearing that LRT construction on a berm or other structure required to elevate the alignment above the 100-year floodplain could affect the floodplain and floodway boundaries of Johnson Creek and Crystal Springs Creek and cause flooding to surrounding developed areas. The Council finds that a minor increase in the risk of flooding could occur as a result of placement of fill for the alignment. Stormwater quantity and quality controls, as well as compensatory flood storage, could be provided to mitigate those impacts.

In conclusion, the Council finds that construction and operation of the tracks in the McLoughlin Boulevard Segment would not have significant stormwater impacts. Construction of the Bybee Station would not cause significant water quality impacts. This facility would not adjoin any streams, and impacts to water quality during construction would be unlikely if erosion control BMPs and spill control measures are properly implemented. Although stormwater from the station would drain to Crystal Springs Creek, only small quantities of runoff would be produced from the light rail station.

Mitigation Options for Stormwater Impacts in the McLoughlin Boulevard Segment

Based on the information contained in the *Hydrology Results Report*, the Council concludes that no significant hydrologic or water quality impacts are expected in the McLoughlin Boulevard Segment. The Council finds that water quantity and quality impacts created by the construction and operation of the South/North Project in the McLoughlin Boulevard Segment will be substantially mitigated by complying with Corps of Engineers/Division of State Lands fill and removal regulations and City of Portland erosion control and stormwater management regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

A minor increase in the risk of flooding and deterioration in water quality could occur as a result of placement of fill/ballast for the LRT tracks. Stormwater quantity and quality controls, as well as compensatory flood storage, could be provided to avoid these impacts.

Standard erosion control measures will be implemented in connection with all improvements in the McLoughlin Boulevard Segment and site-specific erosion controls will be provided at the Crystal Springs Creek crossing. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting processes.

6.4.4.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

The *Historic, Archaeological and Cultural Resources Impacts Results Report* and the DEIS note that no known historic or cultural resources have been identified in the McLoughlin Boulevard Segment.

6.4.5 South Willamette River Crossing Segment

6.4.5.1 Description of Light Rail and Highway Improvements

The South Willamette River Crossing Segment of the South/North Project includes the following LRT-related facilities:

- An alignment (Caruthers) that extends from SE McLoughlin Boulevard at SE 20th Avenue to the east side of SW Front Avenue at SW Harrison Street.
- Five light rail stations: in the vicinity of SE Holgate Boulevard and SE 18th Avenue (Holgate Station); in the vicinity of SE Lafayette Street and SE 18th Avenue (Lafayette Station); in the vicinity of SE Clinton Street and SE 12th Avenue (Clinton Station); in the vicinity of OMSI and SE Water Avenue (OMSI Station); and in the vicinity of SW Moody Avenue and SW River Parkway (Moody Station).
- The area bounded by approximately SE Holgate Boulevard, SE 17th Avenue, SE Center Street, the east side of the light rail alignment to approximately SE Rhone Street, and a line bisecting Brooklyn Yard on the east has been identified for further study as a potential light rail vehicle operations and maintenance facility site.

See **Figure 1.5** of the LUFO for LUFO boundaries for the South Willamette River Crossing Segment.

Light Rail Alignment

From SE 20th Avenue, the alignment separates from SE McLoughlin Boulevard and turns northward. North of SE McLoughlin Boulevard, the alignment proceeds north along the western boundary within Brooklyn Yard, to the east of parcels located between SE 18th Avenue and Brooklyn Yard, to a station in the vicinity of SE Holgate Boulevard. An alternative alignment would be just to the west of the western Brooklyn Yard property boundary between SE McLoughlin Boulevard and SE Holgate Boulevard. The alignment then continues northward along the west side of Brooklyn Yard to a station in the vicinity of SE Lafayette Street, with pedestrian access serving the east Brooklyn neighborhood via an overcrossing across the UP rail line.

The alignment then continues in a northwesterly direction, crossing over SE Powell Boulevard on an elevated structure, paralleling the UP rail line. The alignment then crosses SE 12th and SE 11th

Avenues at grade, with a station located at approximately SE 12th Avenue. From there, the alignment crosses the Darigold rail spur at grade, crosses under the existing McLoughlin Boulevard viaduct, then crosses the Oregon Pacific Railroad (formerly the East Portland Traction Company) freight rail line and SE Water Avenue at grade, to a station located just south of OMSI. From the OMSI station, the alignment turns westward, crossing the Willamette River on a fixed span bridge with a vertical clearance of not less than 72 feet Columbia River Datum (CRD) and a horizontal clearance of approximately 200 feet. On the west bank of the Willamette River, the alignment continues along the north side of SW Moody Avenue, with a station located in the vicinity of SW River Parkway. The alignment then extends northwestward at grade, parallel to and north of SW Moody Avenue, turning northward parallel to SW Harbor Drive, then crossing SW Harbor Drive on an elevated structure landing at SW Front Avenue and SW Harrison Street.

Light Rail Stations

Five light rail stations are provided in the South Willamette River Crossing Segment. The stations are located along existing pedestrian routes across the UPRR tracks.

Holgate Station. The Holgate Station will serve the northerly portion of the Sellwood-Moreland neighborhood and the southerly portion of the Brooklyn neighborhood. The alignment and station pass through and serve largely commercial and industrial portions of the neighborhood. There is a limited amount of housing in this portion of the two neighborhoods. However, much of it is multi-family and there could be some improvement in mobility and access to regional employment centers for low income or minority residents who have access to the Holgate Station. There is vehicular, pedestrian and transit access across Brooklyn Yard along SE Holgate Boulevard.

Lafayette Station. The Lafayette Station will serve the Brooklyn neighborhood. This station will provide improved transit accessibility to the job base in the vicinity, including Tri-Met's administrative office and bus maintenance facility and the Fred Meyer corporate offices. Additionally, the station will serve older residential neighborhoods located to the east and west of Brooklyn Yard.

Clinton Station. The Clinton Station will serve the southern portion of the Hosford-Abernethy neighborhood and the Central Eastside Industrial District. This station will serve commercial and industrial employment uses along the alignment, with established residential neighborhoods located to the north and east of the LRT alignment. This neighborhood has a higher than average proportion of residents with limited mobility and some would see improved access to regional employment centers and community facilities.

OMSI Station. This station will provide direct light rail access to a cluster of significant destinations at the south end of the Central Eastside Industrial District, including OMSI, the PCC Workforce Training Center and KPTV Broadcasting. OMSI attendance has grown to 1 million visitors a year, including many school children and senior citizens. The OMSI station, in conjunction with planned improvements to SE Water Avenue, can seed further development of general employment activities in the vicinity of the light rail station. The OMSI Station is located at the western edge of the Hosford-Abernethy neighborhood.

Moody Station. The Moody Station is located at the south boundary of the Downtown neighborhood and the north boundary of the Corbett/Terwilliger/Lair Hill neighborhood. This station will serve the high density RiverPlace mixed use development and the northern portion of the North Macadam District. The North Macadam District contains approximately 120 acres of industrial land that is mostly vacant and is expected to redevelop to intensive commercial and residential uses.

Park-and-Ride Lots

There are no park-and-ride lots located in the South Willamette River Crossing Segment.

Operations and Maintenance Facilities

The area bounded by approximately SE Holgate Boulevard, SE 17th Avenue, SE Center Street, the east side of the light rail alignment to approximately SE Rhone Street, and a line bisecting Brooklyn Yard on the east has been identified for further study as a potential light rail vehicle operations and maintenance facility. Designation of this site for an operations and maintenance facility will require a land use final order amendment.

Highway Improvements

There are no highway improvements proposed for the South Willamette River Crossing Segment.

6.4.5.2 Criterion 3: Neighborhood Impacts

“Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process.”

“A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.”

“B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.”

Description of Affected Neighborhoods in the South Willamette River Crossing Segment

The South Willamette River Crossing Segment connects Southeast Portland to downtown Portland. McLoughlin Boulevard/Highway 99E is the primary route for traffic traveling north and south through the segment on the east side of the Willamette River. The southern portion of the segment includes a mix of residential, commercial, and industrial uses, with open space along the river. Industrial uses are located near the Brooklyn Rail Yard (Brooklyn Yard) and along rail lines running north and south through the segment. The Tri-Met bus operations facility and administrative office is located near SE 17th Avenue and SE Holgate Boulevard. An older residential neighborhood is situated between SE 17th Avenue and SE McLoughlin Boulevard to the west. Further north, the Central Eastside Industrial District is one of the city's oldest industrial sanctuaries. Located near the Marquam Bridge, OMSI, a PCC satellite campus and KPTV Broadcasting are recent arrivals to the eastern Willamette River waterfront.

On the west side of the river are residential, commercial and industrial uses and a significant amount of vacant land. SW Macadam Avenue runs north and south between John's Landing and the south waterfront area. The northernmost portion of the alignment includes RiverPlace, a higher density mixed-use development with offices, retail stores, boat moorage and residences.

From south to north, the LRT alignment touches or crosses the following designated neighborhoods: Sellwood-Moreland, Brooklyn, Hosford-Abernethy, Corbett-Terwilliger and Downtown. A summary description of each neighborhood follows, based on information from the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*.

The *Sellwood-Moreland Neighborhood* is bounded by the Willamette River to the west, SE Holgate Boulevard to the north, SE McLoughlin Boulevard and the Brooklyn Yard to the east and SE Ochoco Street to the south. The major north/south roads in the neighborhood are SE Milwaukie Avenue, SE McLoughlin Boulevard and SE 17th Avenue. The major east/west roads are SE Bybee Boulevard and SE Tacoma Street, which connects to the Sellwood Bridge.

Sellwood-Moreland is distinguished by a variety of land uses. Single-family residential homes and large open spaces are the predominant land uses in the neighborhood, with a significant number of commercial land uses along SE Milwaukie, SE 17th and 13th Avenues and some commercial and industrial development in the northern portion of the neighborhood. Westmoreland Park and the Oaks Bottom Natural Area are significant open spaces within the neighborhood.

Sellwood-Moreland contained an estimated 1990 US Census population of 11,109. When compared with Multnomah County and the region, Sellwood-Moreland has a relatively low proportion of minority residents, a higher than average percentage of residents over the age of 65, and a higher mobility limited population. The percentage of families below the poverty level is lower in the neighborhood when compared with Multnomah County and the region. The median home value is slightly lower than county and regional averages. Just under half of the housing in the neighborhood is owner occupied, lower than owner occupied housing averages in the county and the region.

The *Brooklyn Neighborhood* is bounded by the Willamette River to the west, SE Powell Boulevard to the north, SE 26th Avenue to the east and SE Holgate Boulevard to the south. The major north/south roads in the neighborhood are SE McLoughlin Boulevard, SE 26th Avenue, SE 17th

Avenue and SE Milwaukie Avenue. The major east/west roads are those bounding the neighborhood, SE Holgate and SE Powell Boulevards.

Brooklyn contains a variety of land uses, including single-family and multi-family housing, large commercial and industrial uses, neighborhood commercial uses and transportation facilities, including the Brooklyn Yard and Tri-Met headquarters and bus operations facilities. Single and multi-family homes are concentrated in the northwest portion of the neighborhood. Commercial and industrial uses are primarily located in the southwestern section. Several large entities, including Fred Meyer, PGE, UP (Brooklyn Yard) and Tri-Met take up most of the eastern portion of the neighborhood and are major employers in the area. Other employers in this part of the neighborhood include warehouses, small manufacturers and a recycling center.

Though the Willamette River forms its western boundary, access from the Brooklyn Neighborhood to the river is severely limited by SE McLoughlin Boulevard and the steep, bramble-covered slopes above the river. Land along the river is primarily undeveloped, with the exception of a rail line and Ross Island Sand and Gravel facilities.

The Brooklyn Neighborhood contained an estimated 1990 US Census population of 3,370. The proportion of minority residents is higher in the neighborhood than in Multnomah County and the region. The percentage of residents over the age of 65, the mobility limited population and the percent of families below the poverty level is lower for the Brooklyn Neighborhood than for Multnomah County and the region. The median home value in Brooklyn is significantly lower than county and region median home values. The Brooklyn Neighborhood also has a high level of renter-occupied housing when compared to the county and the region.

The *Hosford-Abernethy Neighborhood* is bounded by the Willamette River to the west, SE Hawthorne Boulevard to the north, SE 28th and 29th Avenues to the east and SE Powell Boulevard to the south. The major north/south roads in the neighborhood are SE Martin Luther King Boulevard, SE Grand Avenue, and SE 11th, SE 12th and SE 20th Avenues. The major east/west roads are those bounding the neighborhood, SE Hawthorne Street and SE Powell Boulevard, as well as SE Division Street.

Hosford-Abernethy contains a variety of land uses, including single-family and multi-family housing, large commercial and industrial uses, neighborhood commercial uses and railroad facilities. There are a variety of housing types and sizes. The Ladd's Addition section of the neighborhood is notable for its diagonal grid street system surrounding Ladd Circle Park. Ladd's Addition is listed on the National Register as a Historic District.

The southern portion of the Central Eastside Industrial District, located west of SE 11th Avenue, is a major industrial and distribution center for the city and a significant employment center. Portland's Comprehensive Plan identifies the district as an industrial sanctuary. OMSI, located along the Willamette River just south of the Marquam Bridge, is a major facility in the neighborhood that draws visitors from throughout the region.

The Hosford-Abernethy Neighborhood contained an estimated 1990 US Census population of 7,046. The proportion of minority residents, residents over the age of 65 and mobility-limited population is higher for the neighborhood when compared with proportions for Multnomah County and the region.

The percent of families below the poverty level is significantly lower in the neighborhood, when compared with the county and region. Median home values and the neighborhood's percentage of owner-occupied housing are comparable with Multnomah County and regional figures.

The LRT alignment in the South Willamette River Crossing Segment touches the northeastern edge of the *Corbett-Terwilliger-Lair Hill Neighborhood*. The neighborhood stretches north-to-south between the West Hills and the Willamette River. The major north/south roads in the neighborhood are I-5, SW Barbur Boulevard, SW Front Avenue and SW Macadam Avenue. The major east/west road is the western off-ramp of the Ross Island Bridge. A pedestrian and bicycle path (part of the Willamette River Greenway) runs adjacent to the Willamette River through most of the neighborhood.

The Corbett-Terwilliger-Lair Hill Neighborhood contains a diverse array of land uses, including single-family and multi-family housing, large industrial riverfront uses, commercial and retail uses in the SW Macadam and SW Barbur Boulevard corridors and Willamette Park. Large industrial and undeveloped parcels, including warehouses, manufacturers and vacant land, characterize the northeast corner of the neighborhood. The North Macadam District is located along the waterfront in the northern portion of the neighborhood.

The Corbett-Terwilliger-Lair Hill neighborhood contained an estimated 1990 US Census population of 3,805. The proportion of minority residents, residents over the age of 65, families below the poverty level and mobility limited population is significantly lower for the Corbett-Terwilliger-Lair Hill Neighborhood than for Multnomah County and the region. The median home value in the neighborhood is significantly higher than the county and region. The neighborhood has one of the highest percentages of renter-occupied housing outside of the downtown area.

The northern edge of the alignment in this segment touches the *Downtown Neighborhood*. This neighborhood, containing Portland's Central Business District, is bounded by the Willamette River to the east, I-5 and I-405 to the south and west and Burnside and Ankeny Streets to the north. The street system in this neighborhood is primarily a one-way grid system.

Downtown Portland contains the region's largest concentration of office, retail, apartment, condominium and mixed-use buildings, as well as a University, numerous parks and other public facilities. It is the largest employment center in the region. In addition to the commercial, retail and residential uses, a number of public buildings are located downtown, including City Hall and other City offices; a federal building and justice center; County Courthouse and other County offices and the Central Library; state offices and others.

Portland State University is located downtown. Other civic buildings are located adjacent to the park blocks, including the Portland Art Museum, Oregon History Center and the Performing Arts Center. Housing in downtown Portland is found almost exclusively in large apartment or condominium buildings. The RiverPlace mixed use development is in the SE corner of the Downtown neighborhood.

Tom McCall Waterfront Park, Pioneer Courthouse Square and the Park Blocks attract major outdoor events as well as passive recreation.

The Downtown Neighborhood contained an estimated 1990 US Census population of 8,973. The proportion of minority residents, residents over the age of 65, mobility limited population and families below the poverty level are higher for the neighborhood than for the county and the region. The Downtown Neighborhood also has a very high percentage of renter-occupied housing.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the South Willamette River Crossing Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the South Willamette River Crossing Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

Overall, the South/North Project will result in positive economic impacts in the South Willamette River Crossing Segment because improved transit capacity will be available to support the intensive job and housing base in Inner-Southeast Portland. The Caruthers Crossing will also provide transit accessibility to OMSI, a significant regional destination with more than 1 million visitors per year, including many school children. However, the long-term community economic benefit must be balanced by the adverse economic impacts associated with the displacement of some existing businesses and industries in this segment for the LRT alignment. In addition, the introduction of light rail in the urbanized and complex transportation environment of this segment (rail, trucking, navigation and auto) results in adverse traffic impacts on some industrial activities.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacement has an effect on employment, incomes, services and taxes. Even though the adverse impacts associated with displacement may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to the employees who work for the company. For this segment, the Council acknowledges the particular hardship facing the Lynch Company, given its very recent and difficult relocation from Martin Luther King Boulevard to its current location on SE 18th Avenue just south of Holgate Blvd.

The LRT alignment generally parallels the UP main line through this segment. The information in the DEIS indicates that the light rail alignment in the South Willamette River Crossing Segment may displace up to 12 commercial businesses and 28 industrial businesses generally located west of the UPRR and Brooklyn Yard. The alignment adversely affects a number of businesses/industries along SE Division Street, adjacent to Brooklyn Yard and along SE McLoughlin Boulevard. Many of the buildings to be displaced are 40 and 50 years old.

There may be additional displacements with the potential development of a light rail operations and maintenance facility in this segment. South/North Project engineers are working to refine the track alignment and configuration of the operations and maintenance facility to reduce displacement impacts. Should the alignment run along and within the edge of Brooklyn Yard, fewer displacements will result. A LUFO amendment will be required to designate the site for an operations and maintenance facility. Economic impacts, including displacements, would be assessed as part of a LUFO amendment for the study area.

During the DEIS hearing, significant testimony regarding adverse displacement impacts was received from the Lynch Company and Stor-room Mini-Storage. As a result, Tri-Met has applied for, staff has recommended, and the Council is authorizing an alignment through Brooklyn Yard that could avoid displacing these businesses. However, an alternative alignment that would displace both of these businesses also is authorized because Tri-Met may be unable to successfully negotiate with the UPRR for right-of-way within Brooklyn Yard. Tri-Met has no condemnation power over Union Pacific property.

While no buildings in this segment are displaced west of the Willamette River, LRT could potentially adversely effect Parcel 3 of the South Waterfront Development. Portland Development Commission (PDC) plans for this parcel include a mixed-use grocery/housing project. According to PDC, removing 15-feet of frontage along Moody Avenue would diminish the developability of the site because of its resulting shallow depth of 159 feet. Overall, the Council finds that the development of a light rail station at Moody will dramatically enhance the value of PDC Parcel 3 for mixed-use development.

As described in the General Findings, displaced commercial and industrial uses and property will be acquired at fair market value, and relocation services will be provided to business owners and tenants. During the preliminary and final engineering processes, staff will try to minimize displacement impacts to the extent practicable through design refinements.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business use is assumed to be displaced.

The *Traffic Report* notes that the Caruthers alignment will result in the closure of several minor streets along the alignment between SE Grand Avenue and SE Harold Street in Southeast Portland. Adjacent land uses in the area are mostly industrial, and these street closures may result in some modifications to truck routing and access through the area. To mitigate these impacts, the conceptual engineering plans identify options to reconfigure or relocate access to serve businesses and industries that are not displaced by the alignment.

The LRT alignment and OMSI Station will displace 45 parking spaces along the southern perimeter of OMSI's southern parking lot. In addition, access to the 30 parking spaces across the aisle may be affected, depending on how the parking lot is reconfigured. These 75 spaces are the least used parking spaces, as they are farthest from OMSI's front door, in its secondary parking lot. Mitigation could include replacement of lost parking spaces.

Tax Base. The South/North Project will have a negative economic impact on the tax base through the displacement of business and industrial uses from the tax rolls. Table 5.1-3 of the DEIS identifies the 1994 Assessed Value and property taxes of displaced properties in the South Willamette River Crossing Segment.

The tax base impacts associated with the displacement of existing business and industrial uses for the LRT alignment and five stations will be long-term. These facilities will be in public ownership and will be permanently removed from the tax rolls. However, the availability of light rail to Inner-Southeast neighborhoods and employment areas is expected to spur development and enhance property values and the tax base on a long-term basis.

Freight Movement. LRT improvements in the South Willamette River Crossing Segment could result in adverse impacts on water, trucking and rail freight movement.

The DEIS includes information on potential long-term impacts to freight movement on *navigable waterways* associated with the South/North Project. The Willamette River is a navigable waterway from its confluence with the Columbia River at Kelley Point, river mile 0, to river mile 185 upstream near Eugene, Oregon. The proposed Caruthers Crossing bridge will be located just south of the Marquam Bridge. The Marquam Bridge, located at river mile 13.5, is a fixed, double-decked Warren Truss bridge. The bridge has two sets of main span clearances due to its arched shape. First, a narrow horizontal clearance of 220 feet provides a vertical clearance of 120 feet CRD. Second, a wider horizontal clearance of 350 feet provides a vertical clearance of 102 feet CRD. The Federally authorized navigational channel under the main span of the Marquam Bridge is 30 feet deep and 300 feet wide, but is undefined within the river south and north of the bridge.

There is a wide range of existing users within this segment of the Willamette River. Heavy commercial use of the Willamette River by tankers and container ships is limited to the segment downstream of the Steel Bridge. Use of the river by US Coast Guard cutters, Navy ships and large cruise ships is limited to the segment of the river downstream of the Marquam Bridge. Industrial tugboats moving barges, log rafts or heavy equipment, tour and sightseeing boats, houseboats and recreational boats are frequently used throughout the full length of this segment of the river. Vertical clearances required by current river users only rarely (less than once every one to five years) exceed 85 feet CRD.

Land uses in the reach between the Marquam Bridge and the Sellwood Bridge are transitioning from marine industrial to residential, office and retail, with recreational uses along the Willamette Greenway Trail on the western bank. A barge-building facility remains active on the west bank south of the Marquam Bridge, although the owners have indicated they may relocate the facility downstream of the Portland CBD. The majority of Ross Island and surrounding islands are privately owned and are being actively mined for aggregate under a 20-year US Army Corps of Engineers permit. Significant public facilities are located along the Willamette River in this area, including Portland's Tom McCall Waterfront Park, OMSI, Willamette Park and Oaks Bottom Wildlife Refuge.

Primary factors affecting navigation include horizontal and vertical clearances provided between bridge piers and between the surface of the water and the bottom of span, respectively. Navigation can also be affected by the placement of the span relative to the navigational channel and by the

placement of bridge piers relative to the piers of existing spans immediately upstream and downstream of the proposed span. With lift spans, the level of light rail use could potentially affect navigation across the span. High, mean and low water levels can lead to changes in potential navigational impacts.

Potential impacts to navigation are based upon existing and forecast future use of the waterway. Existing and future use of the waterways within the South/North Corridor was determined through surveys of river traffic in the vicinity of the proposed spans and supplemented through a series of meetings with the US Coast Guard, US Army Corps of Engineers and with representative river users from the following categories: industrial, commercial and tour boats, recreational and land owners.

Based on the current concrete segmental design, the Caruthers Crossing would have a vertical clearance of not less than 72 feet CRD, with a horizontal clearance of approximately 200 feet. The main span of the Caruthers light rail bridge would be approximately centered over the navigational channel. Piers of the bridge would generally be placed parallel to the existing piers of the Marquam Bridge.

The light rail bridge would reduce vertical clearances upstream to the Sellwood Bridge (which has a vertical clearance of 72 feet CRD) by 30 to 48 feet. The proposed light rail bridge would not limit horizontal clearances in the main channel of the Willamette River. Surveys of current and anticipated future river users indicate that the light rail bridge could have a limited adverse impact on navigation in this area. Regular use (approximately once a week) of the river by vessels requiring a vertical clearance of approximately 83 feet CRD (accounting for mean high water at 18 feet CRD) has been documented. In addition, relatively infrequent (less than once a year) use of the river by vessels requiring a vertical clearance higher than 83 feet CRD has been reported by river users.

Mitigation for the impacts of the Caruthers Crossing bridge on navigation could include increasing the bridge's vertical clearances or negotiating operating agreements with affected river users. Regular river traffic could be accommodated with a vertical clearance of 83 feet CRD, although it would increase capital costs by approximately \$1 million (1994 dollars). The Council finds that the majority of river traffic requiring vertical clearances higher than 72 feet consists of machinery (dredges, cranes, etc.) that could be lowered or partially dismantled to reduce vertical clearance requirements.

The Council also finds that piers for the new light rail span could be designed to line up with existing piers and waterline horizontal clearances of the Marquam Bridge to accommodate log raft and barge travel. Surveys of current and anticipated river users indicate that the proposed bridge would have a limited adverse impact on navigation in this area. The Council recognizes that the US Coast Guard has the ultimate permit authority on navigational clearances for this new bridge across the Willamette River. The vertical clearance for the bridge will be increased if the US Coast Guard determines it is required for river navigation.

Trucking freight movement relies heavily on the major streets and highways in the South/North Corridor and the region. Within the South Willamette River Crossing Segment, major truck distribution centers are located within Brooklyn Yard and the Central Eastside Industrial District. Impacts to truck movements in the South/North Corridor include both potential delays due to increased congestion or out-of-direction travel associated with light rail, and the possible loss of on-

street loading zones. Localized delays to peak-period truck activity could occur due to reductions in roadway/intersection capacity associated with light rail operations. In the South Willamette River Crossing Segment, major truck routes that could be affected by light rail include SE McLoughlin Boulevard and the SE 11th/12th Avenue couplet. Impacts could also occur for trucks entering or leaving the Brooklyn Yard.

The area bounded by SE Powell Boulevard and Interstate 84, between the Willamette River and SE 12th Avenue, is classified by the City of Portland's *Central City Transportation Management Plan* as a truck district. Truck districts are intended to provide for the convenient movement of large vehicles in areas generating significant volumes of truck traffic. Truck districts may include truck terminals and industrial sanctuaries, and all streets should be available for use by trucks. Additionally, SE Powell Boulevard is classified by the City as a major truck street and SE Grand Avenue is classified as a regional truck route.

During the p.m. peak hour, the level of heavy truck activity on key streets within the South Willamette River Crossing Segment ranged from under three percent to as high as six percent. On SE Powell Boulevard at the intersection with SE Milwaukie Street, trucks accounted for nearly four percent of the total p.m. peak hour volume. Percentages on SE McLoughlin Boulevard were under three percent in both the north and southbound directions. P.M. peak hour truck percentages on SE Division Street were relatively high, ranging from four to six percent between SE 8th and SE 12th Avenues.

LRT project improvements in the South Willamette River Crossing Segment could include several minor street closures, most notably SE Clinton Street between SE 11th and SE 12th Avenues. Trucks traveling between the Tibbets Addition industrial area (on SE Clinton Street east of SE 11th Avenue) and the Ross Island Bridge currently use this roadway link. Removal of this link will likely result in additional truck traffic being routed to SE 11th, SE 12th, SE 13th, SE 14th and SE 15th Avenues between SE Clinton and SE Division Streets.

Vehicular turning radii were analyzed to assure that trucks could travel from SE Clinton Street northbound on SE 12th Avenue to SE Division Street, westbound to SE 11th Avenue and then southbound to reach the SE Powell Boulevard/Ross Island Bridge corridor. Results of this analysis indicate, and the Council finds, that sufficient roadway width on this route currently exists to accommodate a truck carrying a 40-foot trailer. However, the route would involve several very tight turns, and some on-street parking in the vicinity of the intersections likely would be lost.

The DEIS preliminary engineering plans include a signalized southbound to northbound turn-around from SE 11th Avenue to SE 12th Avenue at approximately SE Gideon Street. Analysis of the operational feasibility of this turn-around indicates that it may partially mitigate the closure of SE Clinton Street between SE 11th and SE 12th Avenues. However, it may be difficult for eastbound trucks on SE Clinton Street to use this turn-around because they would be required to merge across two lanes of traffic to reach it.

The *Traffic Report* notes that heavy truck access to and from SE McLoughlin Boulevard within the South Willamette River Crossing Segment should not be significantly impacted by light rail operations.

The Council recognizes that light rail improvements in this segment could result in negative impacts to residential neighborhoods by exacerbating truck infiltration through residential areas located between SE Clinton Street and SE Division Street. In preparing the DEIS, the project team focused specific study on the traffic patterns around this area. However, at this time, no specific mitigation has been identified. The Council concludes that additional work with the affected industrial and residential areas will be needed during preparation of the FEIS and preliminary and final engineering to find an acceptable mitigation strategy for truck access impacts in the Clinton Street area.

The *Traffic Report* includes a discussion of *railroad freight operations* in the South Willamette River Crossing Segment. North of Milwaukie, the UP main line follows the east side of SE McLoughlin Boulevard through southeast Portland to Brooklyn Yard. Brooklyn Yard was formerly the SP's main rail switching and reload point for trucks and containers in northern Oregon. UP operates a similar facility at Albina Yard in North Portland.

The merger of SP with UP opens up the possibility of adjusting the functional uses of the rail yards in Portland because UPRR's Albina Yard and Brooklyn Yard serve similar functions as intermodal transfer yards and as regular switching yards. There has been discussion of consolidating the intermodal transfer function at Albina Yard and expanding Brooklyn Yard's switching operation. The future function of Brooklyn Yard has yet to be determined by UPRR, although it is likely to remain in use as a rail facility. Brooklyn Yard is composed of 16 classification tracks, two rip or repair tracks, two team-leased tracks, six new intermodal tracks, and a yard office. Locomotives are serviced at the locomotive maintenance facility. Rail cars are repaired at the one-spot car repair facility just south of the yard office.

Concern has been raised whether a light rail alignment along the edge of Brooklyn Yard would result in land use changes making it more difficult for the yard to operate for freight distribution purposes. Because the UP rail line through Brooklyn Yard is and will remain Oregon's primary north/south rail link for both freight and passenger service, the Council finds it very unlikely that Brooklyn Yard ever would be converted to mixed use development. Union Pacific has indicated its intent to keep the yard in active rail use for the long-term future. The Council also finds that light rail along the west boundary of Brooklyn Yard would not cause the termination of existing rail access to Liquid Sugar, located west of the alignment.

North of Brooklyn Yard, the UP continues as a double track line through the City of Portland along the east bank of the Willamette River to a junction with the UP's Columbia River transcontinental line at East Portland Junction. Train speeds through the South Willamette River Crossing Segment range from 35 to 70 m.p.h.

The Oregon Pacific Railroad (OPR) shortline connects to UP near SE Caruthers Street. OPR provides rail freight shortline service from SE Milport Street in the City of Milwaukie to SE Caruthers Street in the City of Portland. Interchange sidings are provided at the connection point with UP. There are two rail spurs on the UPRR, one serving Darigold on SE 7th Avenue, the other an abandoned spur on SE Caruthers Street (formerly serving Lonestar). Switching on the active spur occurs during the night. The spur operates under a time restrictive franchise from the City of Portland.

The OPR also runs a recreational passenger rail service known as Samtrak which operates between OMSI and the Oaks Amusement Park in Sellwood.

On the west side of the Willamette River, the Willamette Shoreline runs a passenger service with historical trolleys along a former SP branch line between Lake Oswego and RiverPlace in Portland. The rail line is owned by a consortium of seven local governments to preserve it for eventual transit service. No freight service is operated along this trackage.

The impacts of South/North light rail on freight movement in the corridor are summarized in Section 4.3.1 of the DEIS. Freight rail transportation is expected to increase significantly in the region during the next 20 years, based on a study commissioned by the Port of Portland to support the Region 2040 process. Much of this increase will be experienced along the UPRR line that generally parallels the South/North Corridor between the Clackamas Town Center area and North Portland. Increases in passenger train frequency and speed during the next decade are also planned.

Within the South/North Corridor, the DEIS identifies four freight rail locations most likely to be impacted by the South/North Project. Two of the four locations are in the South Willamette River Crossing Segment.

First, the light rail alignment will cross the OPR branch line just east of OMSI. This crossing would be located close to the sidings used by OPR for interchange with the UPRR. OPR makes one to two daily freight movements through the crossing. To avoid the need for multiple train movements at the light rail crossing when OPR switches the interchange sidings, the sidings will need to be realigned. The crossing can be protected by an interlocking so that freight switching movements and light rail movements would be protected from conflicting with each other. The crossing would normally be set for light rail and would be temporarily preempted by the freight railroad's engineer when a railroad switching movement would be needed to cross the light rail tracks. The crossing would then be reset for light rail operations.

Second, the light rail alignment will cross the Darigold spur tracks at grade near SE 7th Avenue. The protection and operation of this crossing would be similar to that described for the OPRR interlocking.

Additionally, the potential development of a light rail operations and maintenance facility in this segment could be partially located on UPRR right-of-way and could affect freight rail and truck to rail operations at Brooklyn Yard. If the study area is designated for the operations and maintenance facility, a subsequent LUFO amendment will address specific freight impacts associated with the location and configuration of the facility.

Based on the information contained in the DEIS and supporting results reports, the Council concludes that LRT improvements in the South Willamette River Crossing can be designed to avoid or mitigate adverse impacts on rail freight movement. Impacts on the OPR branch line and Darigold spur affected by the at-grade LRT crossings can be substantially mitigated with interlocking and realignment of the interchange sidings.

Social Impacts

Residential Displacements. The Council finds that residential displacements have been minimized with the Caruthers alignment. As with business displacements, the Council recognizes that in every instance where the South/North Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement.

In the South Willamette River Crossing Segment, the Caruthers alignment with the Moody Design Option displaces one single-family residence. By comparison, the alternative Ross Island alignment would have displaced between 10 to 27 residential units, depending on the design option. In selecting the Caruthers alignment, the Council responded to strong neighborhood support for Caruthers and avoided the more significant residential displacements associated with the Ross Island alignment.

As explained in detail in the General Findings, where residential displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program.

Access to Community Facilities. The Council finds that the South/North Project will provide improved transit access to community facilities and employment centers. In particular, the OMSI station will provide transit access to OMSI and the PCC workforce training center. OMSI has over 1 million visitors a year, many of them school children. Residential neighborhoods and schools located in proximity to the South/North Project and the existing East/West MAX route will have direct LRT access to OMSI. The OMSI station will also provide transit access to the PCC workforce training center and a link to other educational institutions and training facilities, including the Clackamas Community College and Oregon Institute of Technology campuses in the Clackamas Regional Center Segment, Portland State University in the Downtown Portland Segment, and the Cascade Campus of PCC in the North Portland Segment.

The South/North Project also will provide improved transit accessibility and links for inner-eastside residents and employees to local and regional employment centers, facilities and recreation destinations such as Downtown Portland, the Convention Center, and the Rose Quarter, as well as to destinations along the East/West MAX light rail route.

Barriers to Neighborhood Interaction. The Council finds that the LRT alignment in the South Willamette River Crossing Segment will not result in barriers to neighborhood interaction, primarily because the alignment parallels the UP main line, which currently functions as a boundary between neighborhoods. Lands abutting the alignment are generally committed to commercial and industrial uses, with residential neighborhoods separated from the railroad tracks. By following the railroad alignment, LRT does not encroach into or fragment neighborhoods.

Pedestrian improvements in the vicinity of the LRT stations will improve neighborhood access to transit facilities and will reduce barriers to neighborhood interaction.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. The Council finds that with appropriate design and implementation of systemwide transit security measures as described in the General Findings,

safety and security will not be adversely affected by the LRT improvements in the South Willamette River Crossing Segment.

Because the alignment in this segment largely follows the railroad right-of-way and is generally bounded by employment uses, station security is a sensitive issue, particularly during evening hours. In commenting on the DEIS, representatives of the Portland Police and neighborhood associations recommended that the police and neighborhood associations be involved in the final design of the stations in this segment, particularly for the Lafayette Station, to maximize good design for crime prevention. Other individuals commenting on the DEIS noted that there is an existing problem with transient activity and crime near Brooklyn Yard.

All five stations within the South Willamette River Crossing Segment will be located at grade and in close proximity to busy public streets or other active areas such as OMSI and RiverPlace. The final design of the stations will include careful consideration of safety and security concerns. Security lighting and telephones will be provided at station platforms, and landscape design (i.e., low shrubbery, good visibility, and multiple access points) will ensure consideration of safety and security.

Visual/Aesthetic. The South Willamette River Crossing Segment includes steep, inaccessible bluffs on the east shore of the Willamette River, flat bottomlands and floodplain on both sides of the river and uplands rising east and north of SE McLoughlin Boulevard. In general, the South Willamette River Crossing Segment is a visually complex environment of old inner city industrial areas and new riverfront residential and commercial development, visually and physically separated by strong natural and man-made edges such as the river, densely vegetated bluffs, major roads, bridges and railroad lines and vacant land. These barriers separate traditional land uses and create distinct areas, some of which appear underused or in transition. The segment is also characterized by visual and physical access to the river, prominent natural features and some of the most panoramic views of downtown Portland and the Willamette River within the South/North Corridor.

This segment includes a variety of features and views identified as significant in the City's *Scenic Resources Protection Plan* including: the Willamette River, Ross Island, viewpoints at OMSI, RiverPlace and the west Willamette riverbank; views of the Ross Island Bridge and the Marquam Bridge; panoramas of the river, Mt. Hood, downtown Portland and east Portland from viewpoints at SW Terwilliger Boulevard; and gateways at SE Powell Boulevard and at the Ross Island Bridge.

As described in the *Visual Report*, the overall visual impacts of the LRT improvements will be low in the Sellwood-Moreland and Brooklyn neighborhoods. The displacement of structures and the resulting vacant land along SE Powell Boulevard would widen the visual separation in the neighborhood pattern caused by the railroad.

In the Hosford-Abernethy neighborhood, a low to moderate degree of change would occur with the introduction of a new bridge over SE Powell Boulevard, new stations, more track, poles and overhead wires. The displacement of structures and the creation of vacant land along the alignment would enlarge the scale of the existing transportation corridor through the neighborhood from SE Lafayette Street to SE Grand Avenue and reinforce the separation between the south and north sides. Near OMSI, viewer sensitivity would be high for recreational users, local employees and others whose views on the ground to the water or city south and west could be framed or enclosed.

The Council finds that the scale, form, character and alignment of the structure across the Willamette River will be the defining visual element within the Willamette River Crossing segment. The introduction of a new fixed span bridge located just south of the existing Marquam Bridge and approximately 75 feet above the water will result in moderate to high visual impacts. The location of the structure adjacent to the Marquam Bridge, with a style and form somewhat similar to the Marquam Bridge, could downplay the scale of the new bridge. Alternatively, a concrete segmental bridge minimizing the cross-section of the bridge could provide visual relief. Views from waterfront locations north and south of the bridge across the river to downtown and the west hills would be obscured. Views from waterfront locations north of the bridge south down the river to Ross Island and the Ross Island Bridge would be interrupted or framed. The Council concludes that adverse visual effects can be mitigated through careful coordination with the affected jurisdictions and the public, leading to selection of a final bridge design.

The construction of a light rail overpass across SW Harbor Drive, including the removal of vegetation along and on the slopes below SW Harrison Street, also will have visual impacts. Dominant features in the area include a thick tree canopy. Views eastward from SW Harrison Street would be altered to include foreground and background views of structures and other features not readily visible today because of tree cover. While the overpass itself would create moderate to high visual impacts, it would not block views into or out of downtown. Potential mitigation could include buffering and screening and replacement of trees along SW Harrison Street to reestablish the tree canopy and street character and coordination with the City of Portland.

Traffic Impacts

East of the Willamette River, the South Willamette River Crossing Segment includes SE McLoughlin Boulevard, SE Milwaukie Avenue and SE 17th Avenue, which operate in a north to south direction, and SE Holgate Boulevard, SE Powell Boulevard and SE Division Street, which operate in an east to west direction. In 1994, SE Division Street and SE Milwaukie Avenue carried about 13,600 vehicles per day, while SE Holgate Boulevard carried 14,850 daily vehicles. West of the Willamette River, this segment includes I-5 and SW Macadam Avenue, which operate in a north to south direction. In 1994, SW Macadam Avenue carried about 36,200 vehicles per day. Two bridges, the Ross Island Bridge and the Marquam Bridge, span the Willamette River in this segment carrying SE Powell Boulevard (US 26) and I-5, respectively.

Problem intersections in this segment include the SE Clinton Street/SE 11th Avenue intersection, which currently operates at LOS F, and is occasionally blocked by southbound vehicle queues spilling back from SE Powell Boulevard during the p.m. peak hour. Also, the eastbound traffic movements at the SE Clinton Street/SE 12th Avenue intersection currently operates at LOS E during the p.m. peak hour. With the exception of these two locations, all other intersections in the South Willamette River Crossing Segment currently operate at an acceptable level of service during the p.m. peak hour.

Table S-9 of the *Traffic Report* summarizes the level of service that would occur during the 2015 p.m. peak hour at 14 intersections within the South Willamette River Crossing Segment with the No-Build and light rail alternatives. With the Caruthers Crossing, two intersections that would operate at LOS F in 2015 would experience some degradation in delay or volume-to-capacity ratios,

compared to No-Build conditions. Changes to truck routing would result in the vicinity of SE Clinton Street. Some neighborhood traffic intrusion from both trucks and automobiles could result from the closure of SE Clinton Street between SE 11th and 12th Avenues at the at-grade street crossing of the UPRR tracks.

The *Traffic Report* identifies one intersection that meets the criteria for consideration of mitigation strategies due to a forecast increase in southbound left turn volumes: SE Milwaukie Avenue at SE Powell Boulevard. Possible mitigation strategies could include added turn lanes to increase the capacity of the intersection, although available right-of-way could limit opportunities for additional lanes.

Nine special study areas were identified in the South/North Corridor as having local traffic circulation issues of particular concern to local jurisdictions. Each special study area was analyzed using methodologies appropriate for the unique issues identified. One special study area was identified in the South Willamette River Crossing Segment in the vicinity of 11th/12th/Clinton Streets at the UPRR crossing. Key issues for this study area included:

- Effects on traffic, particularly queues toward Powell Boulevard, resulting from existing railroad crossing blockages.
- Proposed mixed mainline railroad and LRT grade crossing operation – protected by gates – will increase frequency of blockages.
- Traffic signal clearance intervals at the “wye” signal, signal coordination between adjacent intersection.
- Transition from one-way to two-way street grids through the grade crossing.
- Closure of Clinton Street – circulation changes, truck operations and impacts on neighborhood.
- Pedestrian and bicycle access and connectivity between buses and LRT.

Table 5.7-1 of the *Traffic Report* presents a comparison of the Caruthers Crossing Alternative with the No-Build Alternative. As indicated in the table, the intersection of SE Holgate Street with SE 17th Avenue is forecast to operate at LOS F during the p.m. peak hour with LRT. Significant improvement in level of service is expected with the removal of SE Clinton Street between SE 11th and SE 12th Avenues. All other intersections are forecast to operate at approximately the same level of service as anticipated with the No Build Alternative.

In the vicinity of the SE Clinton Street LRT crossing, a new traffic signal is proposed at the intersection of SE Milwaukie Street with SE Woodward Street. The purpose of this signal would be to provide gaps in traffic on SE Milwaukie Street to allow truck access and other vehicular circulation to the industrial area on SE Clinton Street east of SE 12th Avenue.

Because of the combination of railroad and LRT activity at the SE 11th/12th Avenue crossing, an area along these streets and generally between approximately SE Woodward Street and SE Division Street has been identified as a special study area. The in-depth analysis conducted for this area emphasized vehicular queuing resulting from both railroad and LRT crossings of SE 11th and 12th Avenues.

Table 5.7-2 of the *Traffic Report* presents results of the queuing analysis for a 20 m.p.h. railroad crossing. The table provides estimated vehicular queue lengths and the estimated distance to the

maximum back of queue which occur at different times. The longest vehicle queues are anticipated to occur on southbound SE 11th Avenue north of SE Division Street.

The Council finds that there will be a relatively low to moderate risk of park-and-ride activity on local streets or property adjacent to the Holgate, Lafayette, OMSI and Moody stations. All stations in this segment have good pedestrian access available or planned. The Caruthers Crossing will provide access to the Willamette Greenway Trail toward the north end of the segment on both the east and west banks of the Willamette River.

The Council is aware of neighborhood and business concerns regarding potentially adverse impacts of the Clinton Station on neighborhood traffic intrusion and parking, and potential traffic conflicts with a nearby school and fire station. As described in the General Findings, the Council concludes that potential mitigation strategies related to station area parking, potential neighborhood traffic and other factors could include monitoring of potential impacts, and traffic management strategies such as a permit parking program and/or physical improvements to restrict through vehicle access to the neighborhood.

As described in the discussion of freight impacts, the Council is aware that the 11th/12th/Clinton Avenue area is complex. Although the closure of SE Clinton Avenue results in an improvement in the LOS, the Council recognizes that there are a number of other adverse traffic impacts associated with the road closure. Mitigation would include additional design refinement during preliminary and final engineering.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the South Willamette River Crossing Segment, including but not limited to:

- Relocate Liquid Sugar truck weigh station and relocate access to SE Harold Street or SE Schiller Street
- Close SE Mitchell Street
- Install a gated crossing at SE Schiller Street east of SE 18th Avenue
- Install a traffic signal at SE Holgate Boulevard east of SE 18th Avenue
- Install a gated crossing at Center Street east of the Tri-Met administrative offices
- Construct a pedestrian bridge over the freight tracks at SE Lafayette Street
- Close SE Lafayette Street, SE Rhine Street, SE Haig Street and SE Pershing Streets at the LRT alignment (no through access currently)
- Close SE 18th Avenue at SE Rhine Street
- Reconstruct SE 17th Avenue ramps and bridge over SE Powell Boulevard.
- Reconstruct a pedestrian bridge at SE Brooklyn Street
- Close SE Brooklyn Street west of SE 16th Avenue and north of SE Gideon Street
- Close SE 14th Place north of SE Gideon Street
- Close SE Clinton Street between SE 11th and 12th Avenues, and close SE 14th Place and SE Brooklyn Avenue between the UPRR and SE Gideon Street
- Construct a pedestrian bridge at SE 12th Avenue
- Construct a bus queue lane along SE 11th Avenue at SE Clinton Street
- Install gated crossings at SE 12th Avenue and SE 11th Avenue at the LRT alignment
- Install a gated crossing at SE 9th Avenue and SE Division Place

- Install a gated crossing at SE 8th Avenue
- Install LRT/Freight Rail interlock at the at-grade crossing of the UPRR's Darigold Freight Rail spur on SE 7th Avenue
- Close lower SE Grand Avenue (under the Grand Avenue viaduct) between SE Division Street and the LRT tracks
- Install a gated crossing at SE Water Avenue
- Install LRT/Freight Rail interlock at the at-grade crossing of the OPR Freight Rail branch line tracks east of OMSI
- Reconfigure OPR Freight Rail switching yard and AMTRAK passenger rail station east of OMSI
- Lower existing Greenway Trail
- Install a gated crossing of SW Moody Avenue at SW Harbor Drive for an LRT storage track
- Modify signals on SW Moody Avenue from SW River Parkway to SW Harbor Drive
- Relocate bike lane from SW Moody Avenue to an off-street multi-use path on SW Harbor Way right-of-way

The Council finds that the improvements summarized above can mitigate most of the adverse traffic impacts of the South/North Project in the South Willamette River Crossing Segment. Additional refinement of the mitigation plans for the 11th/12th/Clinton area can be addressed in preliminary engineering and the FEIS.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The Council finds that the light rail route and the four stations on the east side of the Willamette River in this segment will provide light rail service to the established residential neighborhoods of Sellwood-Moreland, Brooklyn and Hosford-Abernethy. The land use and density patterns of these inner-southeast neighborhoods are transit supportive and capable of enhancing ridership on the South/North Project. Light rail will also provide transit accessibility to the substantial base of jobs in inner-southeast Portland. According to the Southeast Uplift Neighborhood Program, there are an estimated 18,000 jobs in the Central Eastside, and the Caruthers alignment could accommodate intensification of this employment base. Established employers in this segment include Tri-Met, Portland General Electric and Fred Meyer's corporate headquarters, with an estimated 2,500 employees within walking distance of the Holgate and Lafayette Stations. The neighborhoods of Southeast Portland are strongly supportive of light rail, and neighborhood groups have built partnerships with businesses in support of the Caruthers alignment. Indeed, the Metro Council is deeply impressed by the level of support for light rail demonstrated by residents and businesses in southeast Portland.

The light rail route and the OMSI station will provide direct light rail accessibility to OMSI and the PCC Workforce Training Center. OMSI attracts an estimated 1 million visitors from throughout the region, many of them school children. The OMSI station will dramatically improve transit access to the museum, and will also link this important destination to the regional light rail system and enhance transit ridership.

On the west side of the river, the Moody Station will provide light rail service to the RiverPlace mixed use development and will also serve the north end of the North Macadam District. The North Macadam District is planned for intensive mixed-use development, and the light rail route and station location will accommodate a link with the Central City Streetcar system that is envisioned to extend further south into the Macadam District.

The Council finds light rail proximity and service in the South Willamette River Crossing Segment will contribute to the development of a compact and efficient urban form. Inner Southeast Portland is an established area of relatively densely populated neighborhoods with older single family homes, some medium density multi-family housing and small commercial centers. The substantial job base of the Central Eastside Industrial District and additional employment in the vicinity of Brooklyn Yard also characterizes the district.

The identified alignment and stations areas will not be disruptive to the single-family residential core of neighborhoods, yet will help the City of Portland meet its density goals under the 2040 Framework Plan. Currently, both the residential and commercial/industrial land surrounding some of the stations is underutilized, particularly near the Holgate, Lafayette and Clinton Stations. The availability of light rail provides a great opportunity for more intensive development in the vicinity of the station areas. The 2040 Framework Plan emphasizes higher densities and mixed use development around light rail stations as a key opportunity and strategy to support an efficient and compact urban form.

On the west side of the river, the Moody Station will serve the north end of the North Macadam District. The North Macadam District is recognized and designated as a key location for intensive and mixed use development that will support the city and regional policies for compact and efficient land use patterns. Intensification of development in the North Macadam District will not adversely impact established neighborhoods because of the major physical barriers that separate the district from neighborhoods.

The Council believes that the alignment and stations offer an excellent opportunity for residents and employees in the South Willamette River Crossing Segment to take light rail to work and recreational destinations, thereby saving energy, reducing congestion and improving air quality. Traffic studies document that roads and intersections in the South Willamette River Crossing Segment will operate within acceptable levels of service with mitigation.

Because the inner-eastside is largely developed, the LRT alignment will result in significant displacement of businesses and industries. The Council is very sympathetic to the displacement impacts, and is committed to refinement of the alignment during preliminary and final engineering in an effort to avoid, reduce and mitigate the displacement impacts of the project. Mitigation strategies for the displacement impacts, and continued study of appropriate mitigation for traffic impacts in the 11th/12th/Clinton area, will be further evaluated in the Final Environmental Impact Statement and through the local permitting process.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the South Willamette River Crossing Segment that have utility separate from the South/North Project. A range of roadway improvements is proposed as mitigation for traffic impacts associated with the LRT facilities in this segment. These improvements are described in the discussion of traffic impacts for the South Willamette River Crossing Segment.

6.4.5.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise and vibration impacts specific to the South Willamette River Crossing Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the South Willamette River Crossing Segment, are addressed in the General Findings. The General Findings include an overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts also are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the South Willamette River Crossing Segment

The South Willamette River Crossing Segment connects Southeast Portland to downtown Portland. The segment includes a mix of residential, commercial, and industrial uses, with open space and public facility/institutional uses near the river. The noise environment in this segment is dominated by automobile and truck traffic on SE McLoughlin Boulevard, SE Powell Boulevard and other arterial streets; by rail traffic on the Union Pacific railroad line; and by switching activity at Brooklyn Yard.

An older residential neighborhood with a mix of single- and multi-family residential uses is situated between SE 17th Avenue and SE McLoughlin Boulevard to the west. Tri-Met offices and a bus operations facility are located near Brooklyn Yard. Further north, the Central Eastside Industrial District is one of the city's older working industrial areas. Located near the Marquam Bridge, OMSI, a PCC satellite campus and KPTV Broadcasting are recent arrivals to the eastern Willamette River waterfront. On the west side of the Willamette River are industrial and commercial uses with a significant amount of vacant land. The northernmost portion of this segment touches RiverPlace, a higher density mixed-use development with offices, retail stores, boat moorage and housing. The residences closest to the LRT alignment in this segment are 30 feet from the track centerline.

As shown in Figure 4.5-1 of the *Noise Report*, there were five noise monitoring locations and one vibration monitoring location for the South Willamette River Crossing (Caruthers Crossing). The ambient noise levels (Ldn) at the noise monitoring locations ranged from 57 dBA to 75 dBA. The

higher background noise levels were associated with proximity to the UP rail line and to SE Division Street and SE 8th Avenue which carry large volumes of medium and heavy truck traffic.

The existing vibration environment in the South Willamette River Crossing Segment includes ground-borne vibration from freight rail traffic as well as trucks and other vehicular sources. Measured maximum vibration levels from freight train passbys were about 75 VdB, while ground-borne vibration from trucks and other traffic ranged from 44 to 58 VdB. The LRT vibration level at the OMSI building is projected to be 50 Vdb, which is well under the 75 VdB impact criterion for this type of land use. No other vibration related impacts were identified due to the distance and vibration propagation characteristics for this area.

Table 5.2.5-1 of the *Noise Report* summarizes noise and vibration impacts for the South Willamette River Crossing Segment. The Caruthers Alignment with the Moody Design Option results in one LRT noise impact (wheel squeal) and no vibration impacts. Noise levels due to wheel squeal at the 300 foot radius corner located 60 feet from the RiverPlace apartments has the potential to produce noise levels of 82 dBA, 2 dBA over the 80 dBA impact criteria.

Mitigation Options for Noise and Vibration Impacts in the South Willamette River Crossing Segment

Mitigation options for the various types of noise and vibration are discussed in the General Findings. Wheel squeal impacts are often difficult to mitigate, and there is no certain method of reducing the noise without modifying the alignment. Potential methods of reducing the noise impacts from wheel squeal include wheel and track lubricators, track treatment and noise barriers. The *Noise Report* and the *DEIS* do not identify specific mitigation for the 2.dBA wheel squeal impact at the RiverPlace apartments. Based on the information in the *Noise Report*, the Council finds that there are fewer noise and vibration impacts associated with the Caruthers alignment when compared with the Ross Island alignment, and that potential mitigation options for the one wheel squeal impact can be evaluated further through the FEIS process.

6.4.5.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazard impacts specific to the South Willamette River Crossing Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the South Willamette River Crossing Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Soils Report)*, and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the South Willamette River Crossing Segment

The DEIS does not identify specific *landslide areas* or *areas of severe erosion potential* in the South Willamette River Crossing Segment. The potential for major landslides within the South/North Corridor is very limited because the topography within the corridor is relatively gentle. Areas of severe erosion potential are generally associated with steep slopes and creek crossings.

The *Soils Report* indicates that scour-channel deposits from SE McLoughlin Boulevard to SE Grand Avenue underlie the South Willamette River Crossing Segment. The section of the alignment between SE McLoughlin Boulevard and SE Water Avenue runs essentially at grade. Earthwork will be minimal. Recent subsurface exploration adjacent to Brooklyn Yard revealed 9 to 11 feet of silt over gravel. No organic soils were encountered in these borings.

West of SE Grand Avenue to the Willamette River, the alignment is on artificial fill. This fill includes large amounts of sawdust. Spread footings for the Union/Grand Viaduct (placed on this material) have settled more than anticipated.

The surficial unit below the proposed Willamette River bridge and a part of the western approach is on recent alluvium. The depth to the Troutdale Formation, the probable bearing strata for piles, is about 75 to 100 feet. From the west end of the Marquam Bridge, the alignment is on artificial fill. As discussed above, the composition and stability of this material are quite variable and will require additional exploration during preliminary engineering.

The SW Harbor Drive overcrossing also would be located on existing artificial fill. The composition of this material is quite variable, from well-constructed fill to randomly placed material including concrete and brick rubble, sawdust, mill ends and other waste.

As described in the General Findings, the Northwest is a seismically active area and is subject to *earthquake damage*. Figure 4.1-8 of the *Soils Report* identifies a concealed earthquake fault that traverses the Willamette River and Ross Island to the south of the alignment and then extends north under the downtown area. The LRT bridge across the Willamette River will be designed in accordance with current, more stringent Uniform Building Code seismic standards for bridge structures.

The LRT alignment in this segment will cross the *100-year floodplain* of the Willamette River. The Willamette River flows northerly through Portland to its confluence with the Columbia River. The river is regulated by 11 multipurpose reservoirs operated by the U.S. Army Corps of Engineers to prevent flooding. When flooding occurs on the Willamette River, it is mainly due to backwater effects from the Columbia River.

Eight bridges span the river in the central area from the Ross Island Bridge to the Fremont Bridge, a 3-mile long reach. Significant warehouse and terminal areas on the west bank of the river downstream of the Broadway Bridge, portions of the Union Pacific Railroad at Albina Yard, and industries on the west bank near the Ross Island Bridge are within the FEMA-designated regulatory 100-year floodplain. More than one-half square mile of the downtown commercial area between the Broadway and Hawthorne bridges is within the 500-year floodplain. The Portland sea wall,

extending from the Steel Bridge to the Hawthorne Bridge, was constructed in 1928 so that the top of wall has a crest elevation above the expected 500-year flood level.

The existing Ross Island and Marquam Bridges exert a minimal influence on the Willamette River during flood events. The backwater effects of these bridges are indistinguishable from those attributable to Ross Island or other features of the river, according to 1986 FEMA profiles.

Upstream of the Marquam Bridge at the proposed Caruthers crossing location, the 100-year regulatory floodplain is approximately at elevation 29.0 feet (January 1996). The flood channel width at the proposed crossing is about 1,350 feet. The width of inundation shown on Title 3 maps at this location is approximately 3,000 feet.

The *Hydrology Report* includes a discussion of the two bridge types (concrete segmental bridge and a Warren truss) under consideration for the Caruthers crossing. It concludes, and the Council finds, that neither of the proposed crossing designs would significantly affect flooding levels in the reach. The volume of floodplain storage that would be displaced by the piers under either of the bridge design options would be very small relative to the large cross-sectional area of the floodplain and could be mitigated through compensatory flood storage.

Portions of the North Macadam Area are within the 100-year floodplain. The light rail alignment would have a very small impact on this floodplain area and could easily be mitigated through compensatory flood storage.

Mitigation Options for Natural Hazard Impacts in the South Willamette River Crossing Segment

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the South Willamette River Crossing Segment. Additionally, the Council finds that no significant *flood* impacts are expected with the Caruthers LRT alignment and crossing. The volume of floodplain storage that would be displaced by the piers for the LRT bridge will be very small relative to the large cross-sectional area of the 100-year floodplain and could be mitigated through compensatory flood storage. The Caruthers Bridge will span the 100-year flood plain of the Willamette River, and the five LRT stations in this segment also will be located above the 100-year flood elevation. The Council recognizes that additional technical analysis may be required under NEPA and the local permitting processes to document that the proposed development within the floodway (placement of bridge piers) does not reduce the conveyance capacity of the river at the project site.

Although changes in velocity and scour could be expected around new piers in the Willamette River, no significant change in average flow velocities in the reach is expected. Piers nearest the river shoreline could potentially cause scour and erosion problems during high flow events on the Willamette River shoreline. Mitigation could include placement of a blanket of large rocks or riprap at the shoreline to reduce scour and erosion around the piers. Additionally, the Council finds that site-specific sediment and erosion control measures will be required under NEPA and the local permitting processes for the Caruthers crossing of the Willamette River.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the selected alignment will provide the necessary information to anticipate and remedy less-than-ideal foundation conditions. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed engineering studies will include an evaluation of soil seismic response characteristics and will also identify appropriate mitigation measures that may be required for construction on artificial fills that are present in the South Willamette River Crossing Segment. Based on the facts in the *Soils Report*, the Council finds that long-term impacts to geology and soils in the South Willamette River Crossing Segment are minor. Mitigation would consist of design of the LRT bridge to meet Uniform Building Code seismic standards; and techniques such as excavation and backfilling, and special footing and foundation designs to address the composition and stability of artificial fills.

6.4.5.5 Criterion 6: Natural Resource Impacts

“Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural resource impacts specific to the South Willamette River Crossing Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the South Willamette River Crossing Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the South Willamette River Crossing Segment

The Portland Comprehensive Plan includes policies and objectives to address conservation of a range of natural resources identified in Statewide Goal 5 — including wetlands, riparian areas and water bodies, fish and wildlife habitat, scenic routes and viewpoints, and significant upland areas. The City has completed an inventory and analysis of natural resources sites, identified the significance of each site and provided varying levels of protection to specific sites through the application of Environmental Overlay Zones, Scenic Overlay Zones and Open Space Zones.

Within the South Willamette River Crossing Segment, the Council finds that the Willamette River is identified as a significant natural resource for multiple values, including fish and wildlife habitat and scenic resource values. The river and adjacent banks are within the Willamette River Greenway and

the river itself is identified as a scenic corridor. The bridges over the Willamette River are identified as scenic resources, and specific scenic viewpoints have been mapped on both the east and west sides of the river in proximity to the South/North Project alignment. The Caruthers bridge will cross over the Willamette Greenway Trail on both the east and west banks of the river. Additionally, the alignment may impact a designated open space purchased by the Portland Development Commission with Land and Water Conservation Act funds at the south end of the South Waterfront Redevelopment Area. The light rail improvements in this segment, most specifically the design of the bridge over the Willamette River, will be subject to City of Portland urban design and Greenway review.

Based on information in the DEIS and supporting results reports, the Council concludes that the protected natural resources in this segment are focused on the Willamette River Crossing. South/North Project improvements in this segment do not affect significant and protected wetlands, riparian areas and upland areas.

Fish and Wildlife Habitat. The Caruthers Crossing Alignment is located in a highly urbanized area that lacks wildlife habitat. Native riparian habitat along the banks of the Willamette River in the vicinity of the crossing has been removed or is highly degraded. The bridge will be constructed over one mile north of the bald eagle nest and heron rookery on Ross Island and approximately 1.8 miles south of the Fremont Bridge, the nearest known peregrine falcon nest site. Based on the information in the *Ecosystems Report* and the *DEIS*, the Council concludes that no adverse impacts to wildlife or wildlife habitat are expected with the Caruthers Crossing, particularly when compared with the potential wildlife and habitat impacts associated with the Ross Island Crossing Alternative.

Both anadromous and resident fish species inhabit the Willamette River. The main stem of the Willamette River serves as a primary corridor for the migration of adult salmonids upstream and smolts downstream. Tributaries of the Willamette River are used by anadromous and resident fish for spawning and rearing. The area where the light rail alignment will cross the Willamette River is characterized as a deep channel with slow-moving water. With the exception of Ross Island, the shorelines contain little riparian vegetation.

The main stem channel of the Willamette has been heavily modified by human activity throughout the twentieth century, and much of the original shoreline and fish habitat has been eliminated. Adjacent construction has resulted in the channelization of the river and loss of secondary channels. In developed areas, water quality has been degraded from storm water runoff carrying pollutants from roads, parking lots, and rooftops.

The crossing of the Willamette River raises several important fisheries issues. Agency concerns with bridge crossings include the potential for water quality degradation during construction, increases in predation rates through shading, hydraulic impacts that create eddies where predators could effectively hide, and habitat disturbance through placement of piers or abutments in nearshore areas.

Potential approaches for addressing fisheries impacts may include:

- Placement of piers in deep-water areas to avoid migration or juvenile rearing habitat.
- Isolation of pier construction activities from the in-water environment by using caissons, or using construction techniques to avoid water quality impacts.
- Where feasible, using high bridge designs to minimize shading.
- Using streamlined pier designs to minimize hydraulic impacts and minimize opportunities for increased predation.

Due to the lack of natural riparian habitat along the Willamette River with the Caruthers Crossing, potential impacts to fishery resources are limited to project effects associated with construction of in-water bridge foundations. These impacts include the loss of river bottom habitat and hydraulic and shading effects of the bridge foundations. A detailed discussion of project effects to TES species, including the recently listed steelhead, is presented in the *Biological Assessment for Threatened, Endangered, and Candidate Fish (Biological Assessment)*.

Prior to preparation of the *Biological Assessment*, there was concern that an increase in predation on migrating juvenile salmonids by northern squawfish could occur as a result of construction of bridge pier foundations in the river channel. The hydraulic effects of bridge pilings in a river channel have the potential to create favorable predator holding habitat in portions of the river that otherwise may not be predator habitat. The pier footings would also cast a shadow on the water where the pilings are located and further contribute to potential predator habitat. However, the analysis presented in the *Biological Assessment* concluded that these effects are not expected to result in increased predation on juvenile salmonids in the project area. With implementation of a number of conservation measures set out in Section 6.2 of the *Ecosystems Report*, the project is not expected to adversely affect the TES fish species in the project area. The National Marine Fisheries Service has concurred with this finding.

Based on this information, the Council finds that the South/North Project improvements in the South Willamette River Crossing Segment will not have an adverse impact on fish and wildlife habitat. Local, state and federal reviews will be associated with in-water work for the bridge crossing of the Willamette River, and the Council concludes that a range of measures are available to mitigate fisheries impacts that could be imposed as conditions of the NEPA process or, if reasonable and necessary, during local permitting. Section 6.2 of the *Ecosystems Report* summarizes potential measures, including sediment sampling, erosion and sediment control measures, timing of in-water construction activities, limited operation of equipment in the active river channel, cleaning of all equipment used for in-water work prior to entering the water, no storage or transfer of petroleum products within 200 feet of the active river channel, and weekly inspection of all erosion and sediment control measures to assure proper functioning and effectiveness.

Scenic and Open Space Areas. The Willamette River is identified as a scenic corridor, with important views to and from the water. Additionally, all of the existing bridges over the Willamette River are identified as scenic resources. Significant scenic resources identified in the *City of Portland Scenic Resources Protection Plan*, including viewpoints and view corridors along the Willamette River, are mapped and provided protection through application of the Scenic Resource Zone.

The purposes of the Scenic Resource zone are achieved by establishing height limits within view corridors to protect significant views and by establishing additional landscaping and screening standards to preserve and enhance identified scenic resources.

The alignment over the Willamette River is included within the boundaries of the City of Portland's Greenway Zones. Among other purposes, the Greenway regulations are intended to:

- Protect, conserve, enhance, and maintain the natural, scenic, historical, economic, and recreational qualities of lands along Portland's rivers;
- Establish criteria, standards, and procedures for the development of land, change of uses, and the intensification of uses within the greenway;
- Increase public access to and along the Willamette River for the purpose of increasing recreational opportunities, providing emergency vehicle access, assisting in flood protection and control, providing connections to other transportation systems, and helping to create a pleasant, aesthetically pleasing urban environment; and
- Implement the City's Willamette Greenway responsibilities as required by ORS 390.310 to 390.368.

The Council finds that the new LRT bridge over the Willamette River will be subject to City of Portland review under the provisions of the Willamette Greenway and Central City design review requirements. The local review will include consideration of the urban design of the bridge, provisions for the Greenway Trail, and consideration of scenic viewpoints and view corridors.

The South Willamette River Crossing Segment also includes a potential impact on a property designated and zoned as open space. The Portland Development Commission owns property in the vicinity of the Pacific Gas Transmission building plaza area below the Marquam Bridge. The property was acquired as part of the South Downtown Waterfront Development utilizing funds provided in Section 6(f) of the Land and Water Conservation Fund Act. Any use of this property would be subject to Section 4(f) and would have to be replaced with comparably valued property. The alignment would require use of approximately .033 acres of this designated open space area. The relocation of the alignment southerly approximately 30 feet would avoid any physical use of this property. If the alignment cannot be adjusted, a replacement property of comparable value would be required.

The introduction of an overpass and structure over SW Harbor Drive, where the South Willamette River Crossing Segment approaches the Downtown Portland Segment, would interrupt or block views of downtown and the river from buildings and streets to the north and south, but could also act as a gateway feature into downtown. The amount of fill required to meet grade at SW Front Street would require alterations to the landscaped slopes south of and below the Montgomery Street viewpoint.

Riparian Areas. As described in the discussion of fish and wildlife habitat, the *riparian area* along the Willamette River in the vicinity of the proposed light rail bridge crossing has been significantly altered with development. Shorelines along both the east and west banks of the river support limited natural vegetation and are included within the "River General" greenway overlay zone. The River General zone allows for uses and development which are consistent with the base zoning, which allow for public use and enjoyment of the waterfront, and which enhance the river's natural and

scenic qualities. Significant riparian and habitat areas, such as Ross Island, are included within the "River Natural" greenway overlay zone.

Wetland Areas. No wetlands occur within the vicinity of the Caruthers Alignment. Depending on the selected bridge design, up to 0.11 acre of river bottom habitat (non-wetland waters) would be removed due to construction of bridge pier foundations. Potential mitigation for the impacts of the pier foundations is discussed under Fish and Wildlife Habitat.

Park and Recreational Areas and Willamette River Greenway. The South Willamette River Crossing Segment will span the Willamette River Greenway and cross over the Willamette Greenway Trail on both the east and west banks of the river. The Greenway Trail is designated to increase recreational opportunities, as well as public access to and along the Willamette River. The Willamette Greenway Plan includes a minimum 25-foot setback to maintain the river's edge. The Willamette Greenway Trail, typically 10 to 12-feet wide, is generally developed within the Greenway setback.

The land that the Willamette Greenway Trail crosses is both publicly and privately-owned. Changes to property in the Greenway, whether publicly or privately owned, must meet standards and design guidelines set forth in the City of Portland's Willamette Greenway Plan. Property owners are required to dedicate an easement for the Greenway Trail as part of their conditional use permit. Although landowners are required to provide an easement and improvements along their frontage for the Greenway Trail, they have the option to either maintain the public use area themselves or transfer maintenance responsibilities to the City of Portland.

The existing Greenway Trail on the east bank begins at the Hawthorne Bridge and extends south toward OMSI, below the Marquam Bridge. There is a designated viewpoint on the OMSI property, and the Greenway Trail continues south from OMSI approximately 175 yards, ending at the Channel 12 building at SE Caruthers Street. This portion of the trail is accessible to residents of the Brooklyn Neighborhood.

On the west bank, the Greenway Trail continues from the northern end of the RiverPlace shopping area along the water and extends south to the Pacific Gas Transmission building plaza area, below the Marquam Bridge. There is access around the building connecting to the bike trail at the intersection of SW River Parkway and SW Moody Avenue, but the Greenway Trail along the waterfront ends at the PGT plaza area. The bike trail along SW Moody Avenue is an interim Greenway Trail connection through the industrial area. The interim trail connects into the Greenway Trail around the River Forum building and south along the Willamette River. Residents of the Corbett-Terwilliger Neighborhood have convenient access to this portion of the Greenway Trail.

The Caruthers Bridge will cross the Greenway Trail on both the east and west banks of the Willamette River. The OMSI Station is about 250 feet away from the existing Greenway Trail. The closest bridge pier for the alignment would be located approximately 50 feet away from the Greenway Trail on the east side. The alignment would provide at least a 10-foot vertical clearance over the Greenway Trail.

On the west bank, a pier will be located approximately 70 feet from the primary location for the proposed Greenway Trail. The alignment would provide for a 10-foot minimum vertical clearance

over the trail. The proposed alignment would not impede trail development. Representatives of the Portland Development Commission have advocated a higher vertical clearance over the Greenway Trail and the Council finds that the appropriate clearance will be evaluated further in preliminary and final engineering, the FEIS, and local permitting.

Both the OMSI station and the Moody Station will provide recreationalists from throughout the Portland metropolitan region with improved access to the Willamette River Greenway.

As described under the discussion of Scenic and Open Space Areas, the LRT bridge over the Willamette River will be subject to City of Portland design review under the provisions of the Greenway Zones and the Central City plan. The local review will include consideration of provisions for the Greenway Trail, and consideration of the design of the bridge and impacts on designated scenic viewpoints.

Mitigation Options for Natural Resource Impacts in the South Willamette River Crossing Segment

The Council finds that the South/North Project will not impact park areas, wildlife habitat, riparian areas and wetland areas. Potential adverse impacts on significant and protected natural resources are focused at the crossing of the Willamette River. The new bridge will span the Willamette River Greenway and will also cross over existing or planned segments of the Greenway Trail on both the east and west banks. The Willamette River is designated a scenic corridor, existing bridges over the river are identified as scenic resources, and a number of scenic viewpoints are established on both the east and west banks of the river in the vicinity of the proposed LRT bridge.

The Council finds that the bridge over the Willamette River will have an impact on the scenic and visual character of this segment. The DEIS notes that adverse visual impacts can be reduced by locating the LRT bridge in proximity to the more dominant I-5 (Marquam) Bridge and imitating the design and form of that bridge. The bridges over the Willamette River contribute to the unique character and urban design context of the City of Portland, and the design of the new LRT bridge provides the opportunity to add to that character. Mitigation of adverse visual effects of the new bridge can be addressed during the FEIS process and local permitting.

The Council also finds that the LRT overpass and structure over SW Harbor Drive could have an adverse impact on the designated SW Montgomery Street viewpoint. The overpass and structure will be subject to review by the Portland Design Commission. The local review process will include consideration of the overpass design on the designated viewpoint. The Council concludes that the local permitting process will provide the forum for site-specific design decisions that can mitigate adverse impacts of the overcrossing. The scale and design of the overcrossing could function as a gateway to the South Downtown.

Based on information in the results reports, the Council concludes that the Caruthers alignment will not result in adverse impacts to wildlife or wildlife habitat. In selecting this alignment for the crossing of the Willamette River, the Council has avoided the potential adverse wildlife habitat impacts (eagle nest and heron rookery) associated with a crossing at Ross Island.

Construction of the new LRT bridge over the Willamette River could result in adverse impacts to fisheries. Long-term impacts to fisheries include the removal of a small amount of channel bottom habitat due to construction of the bridge pier foundations. However, none of the bridge piers are expected to adversely modify essential habitat features such as suitable spawning gravels, or sites used for cover, shelter, refuge, holding, or rearing. No suitable spawning or rearing habitat is present in the area of the bridge crossing. As a result of the analysis and findings presented in the *Biological Assessment*, the Council concludes that, with implementation of a number of conservation measures, the South/North Project would not adversely affect populations of TES fish species or their critical habitat in the project area.

The Council finds that the following mitigation measures outlined for Threatened, Endangered, and Candidate Fish in the South Willamette River Crossing Segment are available to mitigate adverse impacts to the Willamette River and can be imposed as conditions of approval during the FEIS process and/or the local permitting process if reasonable and necessary:

- Implement erosion and sediment control measures to prevent sediment from entering surface waters.
- Time in-water construction activities based on discussions with NMFS and ODFW and take into consideration factors such as timing of fish migration and construction schedule and cost.
- Conduct sediment sampling prior to construction of in-water bridge piers in order to determine the presence of and characterize potential contaminants.
- Limit the operation of equipment in the active river channel to the minimum necessary.
- Clean all equipment that is used for in-water work prior to entering the water.
- Discharge all water impounded within coffer dams only onto vegetated upland sites, behind silt fences and other sediment barriers, and not directly in to the river or into wetlands.
- Do not store or transfer petroleum products within 200 feet of the active river channel.
- Assure the development and implementation of plans for the safe storage and containment of all hazardous materials used in project construction.
- Include measures in the plan for containment berms and/or detention basins, where appropriate.
- Develop a site-specific sediment and erosion control plan prior to project implementation.

6.4.5.6 Criterion 7: Stormwater Runoff

“Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Stormwater runoff impacts specific to the South Willamette River Crossing Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the South Willamette River Crossing Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the South Willamette River Crossing Segment

Surface water quality degradation can result from: 1) pollutant increases in runoff from roads and parking lots; and 2) quantity-related problems that increase erosion and sediment loads to streams and wetlands. Urban stormwater often contains increased levels of oil and grease, nutrients such as nitrates and phosphates, sediments, and various heavy metals.

Long-term water quality impacts are associated with increases in impervious surfaces (e.g., pavement and buildings). Impervious surfaces prevent rainfall infiltration and promote the storage and washoff of pollutants from automobile emissions and other sources. Automobiles are the primary source of water quality degradation from a variety of contaminants including oils and grease, metals, and other combustion by-products. Facilities that cause significant increases in automobile usage can also be expected to generate significantly higher pollutant loading. Landscaped areas, another significant source of pollutants from developed sites, can contribute fertilizer and pesticide residues, such as phosphates and nitrates, to stormwater runoff.

The LRT alignment in this segment will cross the Willamette River on a new bridge structure south of the Marquam Bridge. The Willamette River has been classified as a major source of pollutants to the Lower Columbia River due to siltation, total phosphorus concentrations and bacterial concentrations. Sources for these pollutants include municipal point sources and storm sewers.

The LRT improvements in the South Willamette River Crossing Segment include construction of five light rail stations and a bridge over the Willamette River near the Marquam Bridge. There are no park-and-ride facilities proposed within this segment; however, a potential operations and maintenance facility may be located near Brooklyn Yard, depending on the outcome of more detailed study.

The five LRT stations in this segment will be located on sites with predominantly impervious surface. Therefore, runoff is not expected to increase significantly with the proposed stations. Site-generated runoff will be directed to catch basins and storm drainage facilities in adjacent roadways. No treatment will be provided other than that which currently exists within these drainage systems. Table 5.3-5 of the *Hydrology Report* provides a summary of overall hydrologic and water quality impacts within the South Willamette River Crossing Segment. No significant hydrologic or water quality impacts are expected at any sites along the alignment. The proposed crossing of the Willamette River is not expected to cause adverse flooding impacts. The volume of floodplain storage displaced by the piers will be very small relative to the large cross-sectional area of the floodplain. Although changes in velocity and scour could be expected around new piers, no significant change in average flow velocities in the reach would be expected as the result of the Caruthers crossing.

Of the design options included in the DEIS, the Ross Island Alignment with the West of McLoughlin Design option presented the more significant potential water quality problems because of erosion and sediment transport that could occur as a result of proposed construction on steep slopes above the eastern shore of the river.

The Caruthers bridge crossing will require the construction of bridge piers and other structures within the FEMA regulatory floodplain. Under the Moody Street Design Option, the easternmost

pier of the bridge structure would be placed within 80 feet of the riverbank; under the South Marquam Design option, the easternmost pier would be within 20 feet of the east edge of the channel. Therefore, the Council finds that selection of the Moody Design Option can avoid or reduce scour of the bank, especially in response to debris buildup during flood events. Mitigation will be required for the footprint of these structures (piers and abutments) within the regulatory floodplain. It is anticipated that compensatory floodplain storage volume could be provided adjacent to the proposed structures.

Mitigation Options for Stormwater Impacts in the South Willamette River Crossing Segment

Based on the information contained in the *Hydrology Report*, the Council concludes that no significant stormwater runoff or water quality impacts are expected in the South Willamette River Crossing Segment. The Council finds that water quantity and quality impacts created by the construction and operation of the South/North Project in the South Willamette River Crossing Segment can be substantially mitigated by complying with Corps of Engineers/Division of State Lands fill and removal regulations and City of Portland erosion control and stormwater management regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

A minor deterioration in water quality could occur as a result of the construction of the LRT bridge across the Willamette River. The crossing of the Willamette River will require in-water construction and could result in short-term increases in turbidity and suspended solids. The Council finds that standard erosion control measures can be implemented in connection with all improvements in the South Willamette River Crossing Segment, and site-specific erosion controls can be provided for the bridge crossing of the Willamette. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS design and local permitting process.

Further, the Council finds that stormwater impacts associated with the potential development of an operations and maintenance facility within this segment will be addressed in a subsequent LUFO amendment if the study area is selected and designated for the operations and maintenance facility.

6.4.5.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

Historic and cultural resource impacts specific to the South Willamette River Crossing Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/North Corridor, including the South Willamette River Crossing Segment, are addressed in the General Findings. Historic and cultural resource impacts and mitigation measures are also described in the *Historic, Archeological and Cultural Resource Impacts Results Report (Historic Report)*.

Identified Significant and Protected Historic and Cultural Resources in the South Willamette River Crossing Segment

The *Historic Report* and the City of Portland Comprehensive Plan identify three significant and protected historic sites in the South Willamette River Crossing Segment. PGE's Station L (Site 21), located near OMSI, is currently listed on the National Register. Additionally, Brooklyn Yard (Site 19) and the Ford Building (Site 20), located near SE 11th Avenue and SE Division Street, have been identified as eligible for the National Register of Historic Places. See Figure 4.3-5 of the *Historic Report*. The LRT alignment will have no effect on the Ford Building. The *Historic Report* notes that light rail improvements in this segment will have an effect, but not an adverse effect, on the visual context of Station L. The LRT alignment and the OMSI station are located near Station L but will not require the use of any of the historic site's property, nor result in any substantial impact to the site. Station L will be separated from the LRT alignment and station by at least two rows of parking within the OMSI surface parking lot.

The light rail operations and maintenance facility study area within this segment abuts Brooklyn Yard. There may be an adverse effect on Brooklyn Yard, depending on whether this location is selected as the operations and maintenance facility site and on the configuration of the facility if it is selected. Designation of this site as an operations and maintenance facility will require a land use final order amendment and specific impacts on Brooklyn Yard would be addressed in that amendment.

The Council also finds that the light rail alignment will pass by Ladd's Addition, which is designated as a historic district in the National Register, although it will come no closer than a few hundred feet from the district's edge. No negative impacts are expected on the district's character. Positive impacts include potential redevelopment of noncompatible properties with buildings that will be reviewed to ensure their compatibility with the district's character.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the South Willamette River Crossing Segment

The Council finds that South/North Project improvements in this segment will not have an effect on the Ford Building or an adverse effect on Station L. The specific impacts of the South/North Project on the Brooklyn Yard cannot be determined at this time. The Brooklyn Yard abuts the boundaries of a study area for a potential operations and maintenance facility. If this location is designated for an operations and maintenance facility, a subsequent amendment to this LUFO will address adverse impacts, including historic and cultural resource impacts, associated with the location and configuration of the facility.

6.4.6 Downtown Portland Segment

6.4.6.1 Description of Light Rail and Highway Improvements

The Downtown Portland Segment includes the following LRT-related facilities:

- An alignment (Full Mall – Irving Diagonal) that extends from SW Front Avenue (a.k.a. SW Naito Parkway) at SW Harrison Street to the east end of the Steel Bridge.

- Thirteen stations – at SW Harrison Street, Portland State University (NB and SB), SW Jefferson Street, City Hall, SW Taylor Street (NB and SB), SW Washington Street (NB and SB), W Burnside Street (NB and SB) and NW Irving Street (NB and SB).

See **Figure 1.6** of the LUFO for LUFO boundaries for the Downtown Portland Segment.

Light Rail Alignment

From SW Front Avenue at SW Harrison Street, the alignment crosses SW Front Avenue at grade and continues westward in the median of SW Harrison Street between SW 1st and SW 4th Avenues. From the corner of SW Harrison Street and SW 4th Avenue, the alignment travels diagonally to connect with the SW 5th and SW 6th Avenue couplet. From the PSU plaza, light rail extends northward on separate tracks located on SW 5th and SW 6th Avenues. The SW 5th Avenue track serves southbound MAX vehicles, while the SW 6th Avenue track serves northbound MAX vehicles. On both SW 5th and SW 6th Avenues, between SW Mill Street and SW Madison Street, the alignment is located within the road right-of-way. Automobile and bus access also is provided within this right-of-way. From north of SW Madison Street to W Burnside Street, the alignment is located in the center lane of SW 5th and SW 6th Avenues.

North of W Burnside Street, the alignment continues across NW Glisan Street in the left lane of NW 5th and 6th Avenues, with buses and automobiles sharing the right lane. On NW 6th Avenue north of NW Hoyt Street, the alignment turns northeastward and crosses diagonally toward the corner of NW 5th Avenue and NW Irving Street. From approximately NW 5th Avenue and NW Irving Street, the alignment turns in a southeasterly direction at grade to a new ramp in the vicinity of NW Glisan Street that takes the alignment onto and over the Steel Bridge.

Light Rail Stations

Thirteen light rail stations are provided in the Downtown Portland Segment, counting both northbound (NB) and southbound (SB) platforms on SW 6th and SW 5th Avenues, respectively.

Harrison Station. This station will serve the South Auditorium Urban Renewal District, including several high density residential towers located east and west of SW Harrison Street. The Harrison Station will directly link the existing pedestrianways along SW 2nd Avenue and SW 3rd Avenue and provide convenient access to the Civic Auditorium.

Portland State University Stations (NB and SB). The Portland State University (PSU) stations will provide direct transit accessibility to the University, a significant activity and employment center at the southern end of downtown. The light rail stations will be incorporated into a new university plaza that is under development and will reinforce the University's role and presence as the southern gateway to downtown. A number of high density residential buildings are also located in proximity to the PSU Stations.

Jefferson Station. This station will be located on SW 6th Avenue between SW Columbia Street and SW Jefferson Street. The station will provide direct transit access to The Oregonian Building and

will also serve nearby buildings such as the University Club, Columbia Plaza and the Pacwest Center.

City Hall Station. This station will provide direct transit access to Portland's Government Center, a major activity center and destination in Downtown Portland, from the SW 5th Avenue pedestrian entrance. Several civic buildings are concentrated in proximity to this station, including City Hall, the Portland Building, the Multnomah County Courthouse, the Wyatt Federal Building, the Portland Justice Center and the Federal Courthouse.

Taylor Stations (NB and SB). The Taylor Stations will include platforms on SW 6th Avenue (NB) and SW 5th Avenue (SB), between SW Taylor and SW Yamhill Streets. These stations will serve the concentrated node of employment and retail services in the Downtown Transit Mall, including the Hilton Hotel, the Public Services Building, the Executive Building, Pioneer Courthouse, Pioneer Courthouse Square, the Standard Insurance Building, and Pioneer Place. The Taylor Stations will bound the Old Greyhound Terminal block, a major redevelopment opportunity site in Downtown Portland.

Washington Stations (NB and SB). The Washington Stations will include platforms on SW 6th Avenue (NB) and SW 5th Avenue (SB), between SW Washington and SW Stark Streets. These stations will serve the concentration of financial and hotel uses located in this area of the Transit Mall, including US National Bank, Hong Kong and Shanghai Bank, West One Bank, the Far West Center, Vintage Plaza Hotel and Fifth Avenue Suites Hotel.

Burnside Stations (NB and SB). The Burnside Stations will include platforms on NW 6th Avenue (NB) and NW 5th Avenue (SB) located north of W Burnside Street. These stations will serve the high-rise US Bancorp Tower and the wide variety of uses in the Oldtown/Chinatown area, including housing, social services, office and retail businesses. Significant new development is taking place in the North Downtown District and the nearby River District.

Irving Stations (NB and SB). The Irving Stations include a northbound platform on the diagonal between NW 6th Avenue and NW 5th Avenues, and a southbound platform on NW 5th Avenue in the vicinity of NW Hoyt Street. These stations will provide direct LRT access to the significant intermodal transportation hub that includes Union Station, the Greyhound bus terminal and Tri-Met's North Terminal. The Irving Stations will also provide access to the Main Post Office and the nearby Pearl District and River District. Both of these districts are experiencing dramatic new development of housing and services.

Park-and-Ride Lots

There are no park-and-ride lots located in the Downtown Portland Segment.

Operations and Maintenance Facilities

There are no operations and maintenance facilities located in the Downtown Portland Segment.

Highway Improvements

There are no highway improvements proposed for the Downtown Portland Segment.

6.4.6.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods in the Downtown Portland Segment

The Downtown Portland Segment extends from SW Front Avenue at SW Harrison Street, through the Portland Central Business District (CBD) to the Old Town Area. The Downtown Portland Segment is characterized by extensive commercial, office, public and institutional and multi-family uses. The existing transit mall is on SW Fifth and SW Sixth Avenues through the CBD. Tom McCall Waterfront Park parallels the Willamette River several blocks to the east of the transit mall.

The LRT alignment in the Downtown Portland Segment crosses the Downtown Neighborhood and the Oldtown-Chinatown Neighborhood. The alignment will also serve the Pearl District Neighborhood at the Irving Stations. A summary description of each neighborhood follows, based on information from the *Neighborhood Report*.

The *Downtown Neighborhood* encompasses the CBD and is bounded by the Willamette River to the east, I-5 and I-405 to the south and west and Burnside and Ankeny Streets to the north. The street system in this neighborhood is primarily a one-way grid system.

Downtown Portland contains the region's largest concentration of office, retail, apartment, condominium and mixed-use buildings, as well as a University, numerous parks and other public facilities. It is the largest employment center in the metropolitan region. In addition to the commercial, retail and residential uses, a number of public buildings are located downtown,

including City Hall and other City offices; a federal building and justice center; County Courthouse and other County offices and the Central Library; state offices and others.

Portland State University is located downtown. Other civic buildings are located adjacent to the park blocks, including the Portland Art Museum, Oregon History Center and the Performing Arts Center. Housing in Downtown Portland is found almost exclusively in large apartment or condominium buildings.

Tom McCall Waterfront Park, Pioneer Courthouse Square and the Park Blocks attract major outdoor events as well as passive recreation.

The Downtown Neighborhood contained an estimated 1990 US Census population of 8,973. The proportion of minority residents, residents over the age of 65, mobility limited population and families below the poverty level is higher for the neighborhood than for the county and the region. The Downtown Neighborhood also has a very high percentage of renter-occupied housing. The *Oldtown-Chinatown Neighborhood*, adjacent to the Portland CBD, is bounded by the Willamette River to the east, NW Broadway Street to the north, NW 6th Avenue to the west and W Burnside and SW Ankeny Streets to the south. The road system in this neighborhood is a mix of one-way and two-way streets. The neighborhood includes a recent northerly extension of the transit mall along NW 5th and NW 6th Avenues.

The Oldtown-Chinatown Neighborhood has retained a large number of historic buildings and includes a variety of office, industrial, commercial and residential uses. Office, commercial and industrial uses include the Oregon Department of Transportation Region 1 offices, Northwest Natural Gas, wholesale distributors, supply stores and a variety of services and retail businesses. The entire neighborhood is a significant employment center. The neighborhood is home to a large concentration of Asian-owned businesses (primarily Chinese), including restaurants, groceries and other shops. The Skidmore Fountain-Old Town Historic District is listed on the National Register as a National Historic Monument.

Oldtown/Chinatown also houses a large transient population and contains a number of missions and other community facilities, as well as several assisted-housing projects. Other residential uses include scattered loft apartments, Union Station Housing and the McCormick Pier apartments adjacent to the Willamette River. Union Station and Greyhound/Trailways bus terminal are located at the northern edge of the neighborhood near the Broadway Bridge. Chinatown/New Japantown is a Historic Register Historic District.

The neighborhood contained an estimated 1990 US Census population of 838. The proportion of minority residents is significantly higher for the neighborhood than for Multnomah County and the region. The percentage of residents over the age of 65 is comparable with county and regional percentages. The mobility limited population is the second highest of any neighborhood in the study area. A significant proportion of families living in the Oldtown/Chinatown Neighborhood is below the poverty level, compared to Multnomah County and the region. The neighborhood has a very high percentage of renter-occupied housing. Housing in the neighborhood is almost exclusively condominiums and single-room occupancy.

The *Pearl District Neighborhood* is bounded by the Willamette River to the north, W Burnside Street to the south, Interstate 405 to the west and NW 6th Avenue to the east. The road system in this area is a mix of one-way and two-way streets and includes a recent extension of the transit mall along NW 5th and 6th Avenues.

A mixture of office, retail, industrial and housing uses characterizes the Pearl District. Commercial and industrial uses include small manufacturers, warehouses, supply stores, and a variety of other services and retail businesses. In recent years, a significant number of industrial buildings have been converted to housing (primarily loft apartments and condominiums) and art galleries. A number of public buildings are also located in the Pearl District, including the City's main post office and the federal Customs House and immigration building.

The neighborhood contained an estimated 1990 US Census population of 1,047. However, nearly 1000 new housing units have been built in the area since 1990. According to the DEIS, the proportion of minority residents is somewhat higher than for Multnomah County and the region. The percentage of residents over the age of 65, the percentage of mobility limited population and the percentage of families living below the poverty level are higher for the Pearl District Neighborhood when compared with the county and the region. The neighborhood also has a very high percentage of renter-occupied housing. Given the number of new housing units built over the past eight years, this information from the DEIS may no longer be accurate.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the Downtown Portland Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the Downtown Portland Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

Overall, the South/North Project will result in positive economic impacts in the Downtown Portland Segment because improved transit capacity will be provided to serve this civic, commercial and entertainment center of the region. The existing bus transit mall, designated for light rail in the Downtown Plan, runs north and south through the Downtown Portland Segment, forming a spine for high density development and activity. This segment will link southeast Portland and north/northeast Portland neighborhoods with downtown Portland.

The long-term regional economic benefit associated with South/North light rail improvements in the Downtown Portland Segment must be balanced by the adverse economic impacts associated with the displacement of some businesses and parking in the segment. Additionally, the introduction of an additional light rail alignment into the successful and complex transportation environment of the Portland Transit Mall may result in adverse traffic impacts.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacement has an effect on employment, incomes, services and taxes. Even though the adverse impacts associated with displacements in the Downtown Portland Segment may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to employees who work for the company.

Based on the Locally Preferred Strategy (LPS), potential displacements at the south end of the Downtown Portland Segment include a three-story office building on SW 1st Avenue, and a restaurant on SW 4th Avenue near Portland State University. No displacements occur through the central portion of the Downtown Segment along the existing transit mall because the LRT improvements are located within public right-of-way and do not encroach into private properties.

At the north end of the Downtown Segment, the Irving Design Option that was evaluated in the DEIS included the displacement of a warehouse eligible for the National Register (Glisan Street warehouse) as well as the Post Office warehouse and Classic Chauffeur, a limousine service with offices and garage on a quarter block site at NW 5th Avenue and NW Hoyt Street. The selected "Mitigated Irving Diagonal Option" avoids displacement of the Glisan Street warehouse and the Post Office warehouse, but results in displacement impacts to Classic Chauffeur, the Package Express portion of the Greyhound Terminal, and Tri-Met's North Terminal bus facility, a 13-space layover facility for bus services terminating at Union Station. The Council finds that project staff will work with the owner of Classic Chauffeur during preliminary engineering to find solutions to mitigate the problem. The owner has indicated a preference to remain at the present location if access and circulation problems can be resolved. It also finds that project staff will work with Greyhound officials during preliminary engineering to consider opportunities to reconfigure the site and the terminal building to maintain the package express function and to accommodate short term parking needs.

As described in the General Findings, displaced commercial and industrial uses and property will be acquired at fair market value, and/or relocation benefits will be provided to business owners and tenants. During the preliminary and final engineering processes, staff will try to minimize displacement impacts to the extent practicable through design refinements. Tri-Met's North Terminal facility will be relocated and reconfigured in conjunction with the Irving NB light rail platform. This mitigation for displacement of the existing facility will actually improve the connection between light rail, bus and railroad travel modes. Additionally, there may be an opportunity to reconfigure the access to the Classic Chauffeur building to avoid a total displacement. This can be further explored during preparation of the FEIS.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business use is assumed to be displaced.

Anticipated changes to property access associated with LRT improvements in the Downtown Portland Segment are identified in Section 5.8.3 of the *Traffic Report* and summarized below. In *South Downtown*, changes in the grade of the intersection of SW 1st Avenue and SW Harrison Street will require modifications to SW 1st Avenue entrances to the buildings located on the southwest and northwest corners of the intersection. Left turns into driveways on SW Harrison Street between SW 1st and SW 4th Avenues will be prohibited. The existing landscaped median will be replaced with the LRT trackway, and the three existing mid-block openings in the median will be closed. The median openings that will be closed provide access to the Portland Center parking garage, to two apartment buildings located on either side of SW Harrison Street, and to a surface parking lot on the northeast corner of SW Harrison Street and SW 4th Avenue.

The PSU Transit Center project will close SW Montgomery Street between SW 5th and 6th Avenues. It will also construct street and sidewalk improvements along SW 5th and SW 6th Avenues from SW Harrison Street to SW Mill Street, such as curb bulbs, that could affect access to some adjacent properties. However, this six-block area is slated for redevelopment by PSU and the City's University District Plan, and the need for access to existing properties may be modified. Along SW 5th Avenue from SW Mill Street to SW Madison Street, reconstruction of SW 5th Avenue for the LRT trackway and extension of the transit mall will result in minimal changes to existing access points to adjacent properties. Two properties would have changes in access: The SW 5th Avenue entrance to a surface parking lot located on the block between SW Mill and SW Market Streets will be closed; and drop-off traffic from the Portland Plaza building will be forced to turn left onto SW Market Street, increasing out-of-direction travel.

Along SW 6th Avenue from SW Madison Street to SW Mill Street, some changes to property access points may occur. The Post Office mail drop on SW 6th Avenue at SW Clay Street will be closed and could be moved to avoid a conflict with the LRT trackway. Between SW Market and SW Mill Streets, access from SW 6th Avenue to the Oregon AAA building parking lot, located on the west block face, will be eliminated and could be replaced with the reopening of an access point on SW Mill Street west of SW 6th Avenue.

In *Central Downtown*, the LRT trackway will be constructed in the center lane of the transit mall. Existing auto access and local circulation patterns along the central portion of the SW 5th and SW 6th Avenue transit mall, from SW Madison Street north to W Burnside Street, will be maintained. One potential exception is traffic circulation associated with the US Bancorp Plaza garage entrance at SW 5th Avenue and SW Pine Street. Traffic exiting the US Bancorp Plaza garage at SW Pine Street and turning right onto SW 5th Avenue will not be permitted to subsequently turn right onto westbound SW Oak Street.

In *North Downtown*, between W Burnside Street and NW Glisan Street, access to properties will be maintained.

Based on the information in the *Traffic Report*, the Council finds that locating LRT along the existing transit mall has minimized adverse project impacts on access. Where access impacts have been identified, alternative access points have generally been identified or will be further evaluated in preliminary and final engineering and the FEIS. Shifting of trackway from the left lane to the center lane south of SW Madison Street could mitigate some potential access problems.

The DEIS includes an inventory of potentially affected on-street parking in the Downtown Portland Segment. Table 3.2-2 of the DEIS identifies 578 on-street parking spaces in the South Transit Mall, 0 in the Central Transit Mall (no on-street parking), and 109 on-street spaces in the North Transit Mall. Overall occupancy of the spaces ranged from 64 percent in the North Transit Mall to 90 percent in the South Transit Mall.

The LRT project will eliminate some short-term and all-day on-street parking within the Downtown Segment. Parking impacts of the Full Transit Mall Alignment are described in Section 5.8.4 of the *Traffic Report* and summarized below.

In the *South Transit Mall*, the SW 5th Avenue trackway and stations are expected to displace 39 parking spaces, and the SW 6th Avenue trackway and stations are expected to displace 53 spaces. Nearly all of the displaced spaces are restricted to short term parking. Based on the survey of parking utilization within the South Mall, current parking demand nearly exceeds the available supply, and the spaces displaced by the South/North LRT could result in a parking deficit in certain locations.

The *Central Transit Mall*, the area along SW 5th and SW 6th Avenues between SW Madison and W Burnside Streets, does not currently have on-street parking. Consequently, there will be no impact to on street parking through this central portion of the downtown.

The portion of the *North Transit Mall* between W Burnside and NW Glisan Streets on NW 5th and NW 6th Avenues does not currently have on-street parking. The Mitigated Irving Diagonal Option will result in the loss of 15 on-street parking spaces on NW Hoyt Street and NW 3rd Avenue. In addition, the Mitigated Irving Diagonal Option would displace a 34-space parking lot associated with the Greyhound Terminal and the North Terminal, a 13-space Tri-Met bus facility for bus services terminating at Union Station.

The Council finds that 10 of the lost on-street parking spaces could be replaced on NW Hoyt Street and NW Irving Street between NW 5th and NW 4th with the removal of the Tri-Met's North Terminal. Project staff will study replacement of on-street parking during preliminary engineering. No specific mitigation has yet been identified for the loss of the off-street spaces at the Greyhound Terminal. During preliminary engineering, project staff will work with Greyhound officials to consider site reconfiguration to accommodate short-term parking needs. This approach looks promising given the apparent underuse of the terminal site by Greyhound.

With the start-up of Westside LRT in September, 1998, and the future start-up of the South/North LRT line, Tri-Met's need for layover spaces at Union Station will be significantly reduced. Future needs can be accommodated with bus stops and layover spaces located next to the northbound LRT platform, on NW Irving Street (currently used as a bus zone) and on NW 6th Avenue, providing space for eight buses.

Tax Base. The South/North Project will have a minor impact on the tax base through the displacement of business uses from the tax roles. Table 5.1-3 of the DEIS identifies the 1994 Assessed Value and property taxes of displaced properties in the Downtown Segment. However, as described above, the displacements in this segment have been reduced from the impacts described in the DEIS, which will also reduce the tax base impacts.

The tax base impacts associated with the displacement of existing business uses for the LRT alignment and stations will be long-term. These facilities will be in public ownership and will be permanently removed from the tax rolls. However, because the majority of the alignment and stations in the Downtown Segment are located within public right-of-way, the Council finds that the tax base impacts are minimized. Additionally, the availability of light rail and stations in new areas of the Downtown Segment is expected to spur development and enhance property values and the tax base on a long-term basis, particularly around stations with vacant and underdeveloped land.

Freight Movement. The LRT project improvements in the Downtown Portland Segment will have no impacts on *water* or *rail freight* movement. Based on evidence in the *Traffic Report*, the Council finds that light rail will cross over the Willamette River on the existing Steel Bridge and there will be no changes to river navigation or to the rail corridor under the Steel Bridge on the east side of the Willamette River. The Irving Street Stations will be located in close proximity to Union Station and the Greyhound/Trailways bus terminal. Existing rail freight movement will not be affected, and the South/North improvements generally will facilitate intermodal transfer of passengers and freight. Based on the information in the *Traffic Report*, the project improvements in the Downtown Portland Segment are not expected to adversely impact *truck freight movement*. The LRT alignment will use the existing transit mall, and neither SW 5th or SW 6th Avenues are classified in the *Central City Transportation Management Plan* for truck activity. Truck impacts would be minimal within the Downtown Segment, given the limited amount of truck traffic in this area. The primary impact would be the loss of some on-street loading zones, which could be relocated nearby. No truck loading zones are impacted by the Irving Diagonal option.

The displacement of the Greyhound Package Express facility could impede movement of packages by bus unless a suitable replacement location can be provided within the Greyhound terminal building or elsewhere in the Central City.

Social Impacts

The Council finds that the social impacts of the South/North Project are generally positive in the Downtown Portland Segment. No residential uses will be displaced. Light rail will provide improved transit access to residents and employees in the Downtown. It will also link other parts of the region with the Downtown Portland activity center.

Residential Displacements. There will be no residential displacements in the Downtown Portland Segment. In selecting the Irving Diagonal Option, the Council has avoided the adverse displacement impacts associated with the Glisan Design Option, which would have displaced the Beaver Hotel, a low-income housing facility providing shelter for 60 to 80 individuals per night.

Access to Community Facilities. The Council finds that the South/North Project will provide improved transit access to community facilities and employment centers located in the Downtown Portland Segment. In particular, the LRT improvements will provide direct light rail access to the South Auditorium District, Portland State University, City Hall and nearby civic buildings, the Central Transit Mall, Oldtown/Chinatown, Union Station, and the edge of the River District. As the civic, retail, cultural and entertainment center of the region, the Downtown Portland Segment will

provide an important light rail transit link of southeast, north and northeast Portland neighborhoods, the City of Milwaukie and Clackamas County with the Regional Center.

Barriers to Neighborhood Interaction. The Council finds that the LRT improvements in the Downtown Portland Segment will not result in barriers to neighborhood interaction, primarily because the alignment generally uses the existing public right-of-way and does not fragment neighborhoods. Given the highly urban environment of the Downtown Portland Segment, there will be no significant noise or vibration impacts in comparison to existing conditions. Adverse visual impacts will be confined to a few specific locations. Overall, the Council concludes that South/North LRT will have a relatively limited impact on neighborhood cohesion and livability in the Downtown Portland Segment.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. The Council finds that with appropriate design and implementation of systemwide transit security measures as described in the General Findings, safety and security will not be adversely affected by the LRT improvements in the Downtown Portland Segment.

All stations in the Downtown Portland Segment are located at grade and adjacent to busy downtown streets. The varied land uses downtown contribute to 24-hour activity and represent a key element for safety and security on the transit system. Additionally, Tri-Met has an established relationship with the Portland Police Bureau to monitor and patrol the transit mall for safety and security.

The Council recognizes that the Downtown Portland Segment is a complex transportation environment, with light rail trains, buses, automobiles, cyclists and pedestrians operating in a shared street environment. The speed of traffic movement through Downtown Portland is controlled by timed signals that coordinate traffic movement in four directions. LRT trains, buses and automobiles travel at the same speeds through downtown, and can travel no faster than allowed by the signal progression. This generally averages about 10-15 mph for these three modes. Slower vehicle speeds enhances safety for pedestrians in the Downtown area. Additionally, LRT vehicles are equipped with horns and bells that are used selectively by train operators to warn motorists, pedestrians and cyclists of the approach of the train. Other potential mitigation could include special train signals at the crossing of the East/West and South/North LRT tracks to prevent train collisions.

All LRT improvements in the Downtown Portland Segment will be subject to review by the Portland Design Commission. The Council finds that safety and security will be considerations in the ultimate design of the LRT stations in the Downtown Portland Segment.

Visual/Aesthetic. Dominant visual features within the Downtown Portland Segment include the streetscape along the Transit Mall, major views of downtown and bridges looking north, views across the river to east Portland and from the east end of SW Harrison Street. Specific impacts on designated significant and protected scenic resources are addressed under Criterion 6, Natural Resource Impacts.

As described in the *Visual Report*, visual/aesthetic impacts in the South Downtown Entry and Mall are associated with the removal of the mature tree canopy along SW Harrison Street from SW Front

Street to SW 4th Avenue. Views up and down SW Harrison Street will be altered and include views of structures and other features not readily visible today because of the tree cover.

The alignment through the Central Transit Mall will result in a low degree of visual change. The Council finds that the scale and character of the streetscape, particularly the design elements used for the existing MAX facilities, will be incorporated into the design of the South/North improvements. This will ensure design compatibility and reduce visual/aesthetic impacts.

In the North Transit Mall, the introduction of the Mitigated Irving Diagonal Option will create an enlarged public open space between Union Station and the Greyhound Terminal, visually increasing the identity of this area as a transportation center by linking Union Station and the Greyhound Terminal with LRT and bus services, thus increasing the identity of this area as a Transportation Center. The concept of a Transportation Center at Union Station has been a central element in Portland's original 1972 Downtown Plan.

The LRT-only ramp from the Steel Bridge would introduce a retaining wall up to 20 feet in height along the existing railroad tracks and would be visible from NW Front Avenue. The presence of the existing retaining wall for the westbound Steel Bridge ramp would significantly reduce the effects of the new LRT ramp because of its similar form and adjacent location next to the railroad tracks. Overall, the Council finds that visual impacts to the Downtown Portland Segment will be focused at the ends of the segment. Visual impacts will occur in the South Entry due to the removal of mature trees along SW Harrison Street. Moderate visual impacts at the north edge of the North Mall are associated with the reconfiguration of existing blocks into larger scale spaces.

The Council finds that opportunities are available to mitigate the adverse visual impacts of the LRT improvements in the Downtown Portland Segment. Planting of new street trees to reestablish a canopy along SW Harrison Street, consideration of existing and new views and careful placement of light rail facilities, especially poles and overhead wires, will unify the areas and weave the alignment into the neighborhood. Additionally, the City of Portland Design Commission will review all light rail improvements in the Downtown Portland Segment, and consideration of visual/aesthetic impacts and appropriate mitigation conditions consistent with Section 8(1)(b) of HB 3478 will be an element of their review.

Traffic Impacts

Existing Street System. The Downtown Portland Segment extends from SW Front Avenue at SW Harrison Street to the east end of the Steel Bridge. While SW Front Avenue and SW Harrison Streets are two-way streets, the street system in the Downtown Portland Segment is generally characterized by one-way, multi-lane roadways with parallel parking and sidewalks on both sides of the streets. South of W Burnside Street, the roadway right-of-way is generally 80 feet on the north-south streets and 60 feet on the east-west streets. Typically, the north-south streets have three moving travel lanes and the east-west streets have two travel lanes. North of W Burnside Street, the right-of-way for roadway is typically 60 feet in both directions and two travel lanes are provided. Block lengths are approximately 200 feet, providing a relatively dense street grid that occupies over 40 percent of the downtown land area. This dense street grid has allowed the city to reserve streets or portions of streets for transit or pedestrian use without reducing the capacity of the street system below its ability to serve traffic demands associated with adjacent land uses.

Intersections in downtown Portland are generally controlled by traffic signals. Existing light rail trains on SW Yamhill and SW Morrison Streets move through the downtown street grid with the existing traffic signal progression pattern. At locations where turning movements would conflict with light rail trains, and along SW 1st Avenue where two-way LRT operations exist, LRT trains receive priority treatment at signals. The primary north-south automobile streets in downtown Portland are SW Front Avenue, SW 3rd and SW 4th Avenues and SW Broadway Street. The primary east-west streets are SW Market, SW Clay, SW Washington, SW Alder, W Burnside, NW Everett and NW Glisan Streets. These east to west streets generally connect to bridges across the Willamette River, except SW Market and Clay Streets, which connect to Highway 26 on the west and to I-5 on the east.

Problem intersections in the Downtown Portland Segment include the intersection of SW Front Avenue and SW Market Street, which operates at LOS F in the p.m. peak hour, with queues backing up across several intersections on both streets. During the winter holiday shopping period, the level of service on several downtown streets can deteriorate to LOS E and F during the p.m. peak hour, the lunch hour and afternoons.

The Steel Bridge provides a multi-modal link across the Willamette River, connecting the River District on the west side of the river to the Lloyd District on the east side of the river. The bridge is owned by the Union Pacific Railroad, with freight and passenger trains crossing the river on the lower deck of the bridge. ODOT leases the upper deck of the bridge from Union Pacific for use by pedestrians, bicycles, vehicles and LRT trains. Two travel lanes are provided in each direction on the upper deck for a total of four lanes. LRT trains use the inner two lanes, one in each direction. Currently, this is the only portion of the existing MAX system where LRT trains operate in mixed traffic. Traffic signals control auto, truck, and bus traffic entering the bridge, stopping this motorized traffic to allow LRT trains onto the bridge.

During the p.m. peak, LRT trains cross the Steel Bridge on minimum headways of approximately five minutes, or three trains each way during the peak 15-minute period. At the same time, the highest traffic flow on the bridge is eastbound, leaving the downtown core. This eastbound traffic is subject to an average stopped delay of 3.8 seconds per vehicle, which is equivalent to LOS A operations.

Local Street Impacts. Within the Downtown Portland Segment, 47 intersections were analyzed for potential impacts from light rail service. Table 4.2-8 of the DEIS summarizes the level of service at the 18 intersections that either indicate a change in level of service when comparing the No-Build and light rail alternatives or have been identified as problem locations.

The following discussion of local traffic impacts is divided into the South Downtown, Central Downtown and North Downtown, consistent with the analysis used in the *Traffic Report* and the *DEIS*.

In *South Downtown*, the selected alignment results in LOS E or F conditions at several intersections that would be worse than the conditions under the No-Build Alternative. The intersection of SW Front Avenue and SW Harrison Street would experience LOS F with light rail, compared to LOS C with the No-Build Alternative. The at-grade light rail crossing of SW Front Avenue would cause

delay and would add to queuing problems on SW Front Avenue. Conditions at the intersection of SW Harrison Street and SW 1st Avenue would be at LOS C with light rail, compared to LOS F with the No-Build Alternative. The intersection of SW Harrison Street and SW 5th Avenue would operate at LOS D/E with light rail, compared to LOS D with the No-Build Alternative. Traffic on SW 6th Avenue at SW Clay Street would be held to allow light rail trains to pass through the intersection and would result in increased delays for automobile and bus traffic on SW 6th Avenue.

In *Central Downtown*, there is no notable difference between the level of service associated with the No-Build and the selected alignment.

In *North Downtown*, preemption of traffic signals by LRT trains crossing W Burnside Street would disrupt the progression of eastbound and westbound traffic on W Burnside Street, increasing delays for through-traffic on W Burnside Street compared to the No-Build Alternative.

The Mitigated Irving Diagonal Option would close NW Hoyt Street at NW 5th Avenue. This street closure would have a minor effect on local circulation because NW Hoyt Street was vacated to the west between NW 5th Avenue and NW 6th Avenue for the Greyhound Terminal, and extends only one block to the east due to the existing railroad tracks serving Union Station. Also, alternate routes to accommodate local circulation would be available via NW Irving Street, an existing two-way street a half block away.

The South/North Project will include reconstruction of the upper deck of the Steel Bridge to convert the inside, mixed-use lanes to exclusive use by buses and LRT trains. The traffic signals that currently control non-LRT traffic entering the bridge will be removed, resulting in the outside lanes no longer being subject to interruptions to allow LRT trains to enter the bridge. From the standpoint of auto and bus traffic, the conversion of the upper deck from two lanes of mixed flow traffic subject to delays when LRT trains enter the bridge, to the proposed single-lane, uninterrupted flow operation would result in a capacity reduction of approximately 25 percent for auto traffic in comparison to the No-Build Alternative. These changes also are not likely to damage the historic character of the Steel Bridge.

Potential Mitigation. The DEIS states and the Council finds, that four locations in the Downtown Portland Segment meet the criteria for consideration of mitigation strategies: SW Front Avenue at SW Harrison Street; SW Front Avenue at SW Clay Street; SW 6th Avenue at SW Clay Street; and W Burnside Street between SW/NW Broadway and the Burnside Bridge.

The SW Front Avenue impacts are related to the light rail grade-crossing of SW Front Avenue, north of and adjacent to SW Harrison Street. The intersection would include the proposed extension of SW Harrison Street from SW Harbor Drive to SW Front Avenue. Mitigation strategies in this area could include turning restrictions, modification of the proposed SW Harrison Street extension, or grade separation of light rail through this intersection. Several mitigation options were evaluated at the intersection of SW Front Avenue at SW Clay Street, but none would mitigate the LOS F at this intersection.

Possible mitigation strategies at SW 6th Avenue and SW Clay Street could include the addition of a travel lane on SW 6th Avenue, signal modification, and the elimination of the proposed bus zone between SW Mill Street and SW Columbia Street. Possible mitigation strategies for W Burnside

Street could include modifying signal timing, and/or modifying or not implementing transit-priority signal preemption for the crossing of W Burnside at SW 5th or 6th Avenues.

The DEIS states, and the Council finds, that there will be no adverse traffic impacts associated with the 13 LRT stations in the Downtown Portland Segment. All stations in this segment will have very good pedestrian access, and the neighborhood traffic intrusion criteria would not apply. There would be little potential for park-and-ride activity on local streets or private property due to on and off-street parking costs and high utilization rates.

Transit Mall Operations. The DEIS includes a discussion of the impacts of South/North LRT on Transit Mall Operations. The transit mall opened in March 1978 to provide transit priority right-of-way to improve bus travel times and reliability through downtown Portland. The transit mall originally extended from SW Madison Street to W Burnside Street on SW 5th and 6th Avenues. In June 1994, the transit mall was extended north to NW Glisan Street. The transit mall has proven to be a successful means of separating, concentrating and improving bus operations through the core of downtown Portland.

The South/North Project will place light rail on the transit mall, generally in the center lane with stations approximately every four blocks. In the central and north segments of the transit mall, light rail trains will operate jointly with buses. In the central mall, buses would have exclusive use of the right lane and automobiles would have exclusive use of the intermittent left lane. In the north mall, which has only two lanes available, light rail and buses would operate jointly in the left lane, and buses and automobiles would operate jointly in the right lane. In the south segment, the transit mall will be extended from SW Madison Street to the PSU Station at SW Harrison Street, and light rail trains will operate in exclusive right-of-way while buses will generally operate in mixed traffic. This could change to a configuration and operational characteristics similar to the central mall.

Table 4.1-7 of the DEIS summarizes light rail and bus operations on the transit mall on 5th Avenue during the p.m. peak hour under existing conditions and with the No-Build and light rail alternatives. Table 4.1-8 summarizes p.m. peak-hour bus volumes on the north, central and south portions of the transit mall. Approximately 158 buses currently operate through the central mall during the p.m. peak hour with an average speed of 3.9 miles per hour.

The DEIS states, and the Council finds, that the introduction of South/North light rail will reduce bus volumes on the transit mall by eight to eighteen buses in the p.m. peak hour from the No-Build level of bus volumes. Light rail operating speeds would be over 40 percent faster than current or future p.m. peak-hour bus operating speeds on the transit mall, a travel time savings of approximately four minutes within the north and central portions of the transit mall.

The analysis of operations on the transit mall described in the DEIS is based upon retaining all existing bus routes on the transit mall that would not be replaced by Westside or South/North LRT. Tri-Met and the City of Portland are considering concepts for future transit service improvements within the Downtown Portland Segment, as well as other Central City districts. Some concepts being considered could reroute some buses from the transit mall to other downtown Portland streets. If some bus routes were rerouted from the transit mall, the remaining buses and light rail could have slightly higher operating speeds during the peak hour.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the Downtown Portland Segment, including but not limited to the following:

- Modify 7 existing traffic signals for transit priority preemption
- Reconstruct SW Harrison Street from SW Front Avenue to SW 1st Avenue from four general purpose vehicle lanes to two general purpose vehicle lanes and two track lanes
- Modify sidewalks at the intersections of SW 4th Avenue and SW Harrison Street, SW 5th Avenue and SW Montgomery Street, and SW 6th Avenue and SW Mill Street to allow the LRT alignment to enter each intersection diagonally
- Install traffic signals at the following intersections along SW/NW 5th Avenue: SW Montgomery Street, SW Mill Street, NW Couch Street, NW Davis Street, NW Flanders Street, NW Hoyt Street, and NW Irving Street
- Install traffic signals at the following intersections along SW/NW 6th Avenue: SW Montgomery Street, SW Mill Street, NW Couch Street, NW Davis Street, NW Flanders Street, NW Hoyt Street, and NW Irving Street
- Relocate existing bus shelters along SW/NW 5th and SW/NW 6th Avenues from SW Harrison Street to NW Irving Street
- Install trackwork connections between the South/North and the East/West MAX lines at SW Yamhill Street and SW Morrison Street
- Widen SW 5th Avenue immediately south of W Burnside Street to permit two buses to cross W Burnside Street simultaneously
- Modify or relocate the North Bus Terminal
- Relocate NW Irving Street from NW 5th Avenue to NW 3rd Avenue
- Install a traffic signal at NW 3rd Avenue and NW Glisan Street
- Close NW Hoyt Street between NW 4th and NW 5th Avenues
- Restrict public vehicle access on the Steel Bridge to one outside lane in either direction

The Council finds that the improvements identified in the conceptual engineering plans, along with the discussion of potential options for the four intersections that meet the criteria for mitigation in this segment, can mitigate most of the adverse traffic impacts of the South/North Project in the Downtown Portland Segment. Additional refinement of the mitigation plans for the SW Front Avenue/SW Clay Street intersection and the W Burnside area can be addressed during preliminary engineering and the FEIS.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

Downtown Portland is the civic, commercial, cultural and entertainment center of the region. Both the *Central City Plan* and the *Region 2040 Growth Concept* envision downtown Portland becoming more intensively developed. The *Downtown Plan*, adopted 25 years ago, defined the vision of the bus (and future light rail) transit mall as the prominent spine of the central city, surrounded by the region's highest density development.

The Council finds that the light rail route and stations in the Downtown Portland Segment will provide light rail proximity and service to areas that are capable of enhancing transit ridership, including but not limited to: the South Waterfront District, Portland State University, City Hall, Oldtown/Chinatown and Union Station. Although the transit mall currently provides good transit proximity and service through Downtown Portland, the extension and improvement of the transit mall along with the construction of South/North LRT will enhance the quality and reliability of transit service through the Downtown Portland Segment.

The *Land Use Report* states and the Council finds that the light rail proximity and service provided in the Downtown Portland Segment are likely to contribute to the development of an efficient and compact urban form. As stated above, the *2040 Growth Concept* designates downtown Portland as the Central City of the region, serving as the employment and cultural hub for the metropolitan area. The Central City has the highest percentage of travel by modes other than car. The *2040 Growth Concept* and City of Portland project an increase in population and employment from an average of 150 people per acre to about 250 people per acre in 2040. Improvements to the transit network, including South/North LRT, are considered vital to meeting this goal. Concentration of density in an area well-served by a multi-modal transportation system is a key component of the regional and local vision of an efficient and compact urban form.

Further, the Council finds that LRT improvements in the Downtown Portland Segment will not adversely impact downtown neighborhoods. The LRT alignment will largely use existing public rights-of-way, and no residential uses will be displaced. Based on public testimony, the Council concludes that the impacts of the South/North Project on affected downtown neighborhoods are generally positive.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the Downtown Portland Segment that have utility separate from the South/North Project. A range of improvements is proposed as mitigation for traffic impacts associated with the LRT facilities in this segment. These improvements are described in the discussion of traffic impacts for the Downtown Portland Segment.

6.4.6.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise and vibration impacts specific to the Downtown Portland Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the Downtown Portland Segment, are addressed in the General Findings. The General Findings include an overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the Downtown Portland Segment

The Downtown Portland Segment encompasses the Portland CBD and includes an intense mix of varied land uses. The noise environment in this segment is dominated by automobile and bus traffic through downtown Portland streets.

Residential areas are scattered throughout downtown Portland along the length of the alignment. Category 2 land uses include several hotels and condominiums. The closest residential buildings are located 20 feet from the track centerline.

Commercial areas are prevalent along the entire track alignment. Category 3 land uses include Portland State University, St. Mary's Academy and Pioneer Courthouse Square.

As shown in Figure 4.6-1 of the *Noise Report*, there were six noise monitoring locations and one vibration monitoring location for the Downtown Segment. One monitoring location (M38) was used in both the South Willamette River Crossing and the Downtown Portland Segment because of the close proximity to the downtown area. Table 4.6-2 of the *Noise Report* identifies the ambient noise levels at the six monitoring locations. Ambient noise levels (Ldn) ranged from 65 dBA to 73 dBA. The elevated ambient level of 73 dBA (at location M43) was due to close proximity to the bus mall along NW 6th Avenue.

The existing vibration environment in the Downtown Segment is characterized by typically low levels generated by city traffic. These levels were found to average about 46 and 51 VdB, with a maximum level of 70 VdB from truck traffic. Most of the vibration-sensitive land uses in this segment consist of large multi-story masonry buildings with heavy foundations (e.g., hotels and apartment buildings). These types of buildings are less likely to be subject to vibration impact.

Table 5.2.6-1 of the *Noise Report* summarizes noise and vibration impacts for the Downtown Segment. According to the DEIS, the selected alignment with the Irving Design Option results in 1 LRT noise impact (wheel squeal) and no vibration impacts. The wheel squeal impacts a hotel at the corner of SW 5th Avenue and SW Montgomery Street. The modified Mitigated Irving Diagonal Option, identified following completion of the DEIS, is not expected to result in noise impacts because it provides softer curves than previously were proposed for the intersection of NW 3rd Avenue and NW Glisan Street.

Mitigation Options for Noise and Vibration Impacts in the Downtown Portland Segment

Mitigation options for the various types of noise and vibration are discussed in the General Findings. Wheel squeal impacts are often difficult to mitigate, and there is no certain method of reducing the noise without modifying the alignment. Methods of reducing the noise impacts from wheel squeal include wheel and track lubricators, track treatment and noise barriers. The *Noise Report* and the *DEIS* do not identify specific mitigation for the wheel squeal impacts at the hotel in this segment. Based on the information in the *Noise Report*, the Council finds that there are fewer noise impacts associated with the selected alignment when compared with the Half Mall Alignment studied in the DEIS, and that potential mitigation options for the one wheel squeal impact can be evaluated further through the FEIS process.

6.4.6.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazard impacts specific to the Downtown Portland Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the Downtown Portland Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Soils Report)*, and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the Downtown Portland Segment

The DEIS does not identify specific *landslide areas, areas of severe erosion potential, or lands within the 100-year floodplain* in the Downtown Portland Segment. This segment is essentially an at-grade alignment along existing streets. Other than pavement removal and utility relocation, little earthwork will be required.

Geologic units in the Downtown Portland Segment include fine-grained flood deposits and recent alluvium. The surface of these units has been extensively modified by past construction. The northern LRT crossing of the Willamette River will use existing LRT facilities on the Steel Bridge. No work will be required within the waterway or within the *100-year floodplain* for the Steel Bridge Crossing.

As described in the General Findings, the Northwest is a seismically active area and is subject to *earthquake damage*. Figure 4.1-9 of the *Soils Report* identifies a concealed fault that traverses the transit mall. LRT improvements in the Downtown Portland Segment will be designed in accordance with current Uniform Building Code seismic standards.

Mitigation Options for Natural Hazard Impacts in the Downtown Portland Segment

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council finds that no *landslide areas, areas of severe erosion potential or 100-year floodplains* are affected by the LRT improvements in the Downtown Portland Segment. The northerly crossing of the Willamette River will use the existing Steel Bridge.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. Prior to construction, site-specific geotechnical studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed studies will include an evaluation of soil seismic response characteristics. Based on the facts in the *Soils Report*, the Council finds that long-term impacts to geology and soils in the Downtown Segment are minor.

Mitigation would consist of design of LRT improvements to meet Uniform Building Code seismic standards.

6.4.6.5 Criterion 6: Natural Resource Impacts

“Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural resource impacts specific to the Downtown Portland Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the Downtown Portland Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the Downtown Portland Segment

The Portland Comprehensive Plan includes policies and objectives to address conservation of a range of natural resources identified in Statewide Goal 5 – including wetlands, riparian areas and water bodies, fish and wildlife habitat, scenic routes and viewpoints, and significant upland areas. The City has completed an inventory and analysis of natural resource sites, identified the significance of each site and provided varying levels of protection to specific sites through the application of Environmental Overlay Zones, Scenic Overlay Zones and Open Space Zones.

As described earlier, land use in the Downtown Segment are primarily commercial, although residential, recreational, transportation and industrial uses are present as well. Both shorelines of the Willamette River are developed in the vicinity of the Steel Bridge: an apartment complex and urban park are located on the west bank; and rail lines and a grain transfer facility are located on the east bank. No in-water work will be associated with the construction of South/North LRT tracks on the Steel Bridge.

Because the Downtown Portland Segment is highly urbanized, few natural resources are present or impacted by the South/North Project. Based on information in the DEIS and the results reports, the Council finds that the LRT improvements in this segment will only potentially impact designated scenic resources and viewpoints.

Fish and Wildlife Habitat. The Downtown Portland Segment is highly urbanized. Both shorelines of the Willamette River are developed in the vicinity of the Steel Bridge, and the river channel lacks vegetation. With the exception of the open water habitat in the river, this segment lacks natural

habitat or significant areas with vegetative cover. Because of the lack of natural habitat, wildlife use of the Downtown Portland Segment is expected to be negligible.

Peregrine falcon are known to nest on the Fremont Bridge, approximately 0.75 mile northwest of the Steel Bridge LRT crossing. This species may occasionally fly over and forage the Downtown Portland Segment. This specie's occurrence in the project area is described in more detail in the *Biological Assessment for Bald Eagle and Peregrine Falcon for the South/North Transit Corridor Study*. Because of the distance between the LRT alignment and the nest site, construction and operation of South/North LRT is not expected to adversely affect nesting peregrine falcon.

Fishery resources within the Downtown Portland Segment are limited to the Willamette River channel. This deep-water channel lacks suitable spawning habitat, and both shorelines are lacking streamside vegetation. Several TES fish species, including chinook and coho salmon, steelhead trout, cutthroat trout, and Pacific lamprey occur in the Willamette River. However, these species are expected to use the river channel in the vicinity of the Downtown Portland Segment as a migration corridor only due to the lack of suitable aquatic and streamside habitat. These TES species are described in more detail in the *Biological Assessment for Threatened, Endangered, and Candidate Fish for the South/North Transit Corridor Study*. Because no in-water work will be conducted for the LRT crossing over the Willamette River using the Steel Bridge, direct impacts to fisheries are not expected.

Scenic and Open Space Areas. Dominant *scenic/visual* features within the Downtown Portland Segment include the streetscape along the Transit Mall, street trees along SW Harrison Street, major views of downtown and bridges looking north, and views across the river to east Portland from the east end of SW Harrison Street. Visual resources formally identified in the City's *Scenic Views, Sites and Drives Inventory, Scenic Resources Protection Plan*, include: the Willamette River and riverfront; view corridors along SW 5th and SW 6th Avenues; views of RiverPlace from SW Montgomery Street; views of Mt. St. Helens from the gazebo at SW Front Street; view of the river and east bank, and of downtown from the south RiverPlace floating dock. In addition, all existing bridges over the Willamette River, including the Steel Bridge (which is on the National Register of Historic Places), are identified as scenic resources. Union Station is also identified as a Visual Resource.

The *Visual Report* describes neighborhood change, neighborhood sensitivity and neighborhood visual impacts associated with the LRT improvements in the Downtown Portland Segment. The discussion of impacts is divided into three segments: South Downtown Entry and Mall, Central Downtown Transit Mall and North Downtown Mall.

In the *South Downtown Entry and Mall*, the introduction of an overpass and structure over SW Harbor Drive, where the South Willamette River Crossing Segment approaches the Downtown Portland Segment, would interrupt or block views of downtown and the river from buildings and streets to the north and south, but could also act as a gateway feature into downtown. The amount of fill required to meet grade at SW Front Street would require alterations to the landscaped slopes south of and below the Montgomery Street viewpoint.

The replacement of trees in the SW Harrison Street right-of-way from SW Front Street to SW 4th Avenue would open up and enlarge the streetscape and alter its strong visual character. The City of

Portland has a special tree preservation plan for this area, which was included in the South Auditorium Area Landscape Plan designed by Lawrance Halprin.

Overall, moderate to high visual impacts would occur to the South Downtown Entry and Mall. Views of the Willamette River and Marquam Bridge from the SW Montgomery Stairs, a city-designated viewpoint, could be altered or blocked. The Council finds that the scale of change to the South Entry and viewpoint has been reduced by selecting the Caruthers Alignment because it does not include a station on the overpass. Mitigation for tree removal could include tree replacement. Appropriate mitigation will be considered during preliminary engineering. Additionally, the City of Portland Design Commission will review all light rail improvements in the Downtown Portland Segment, and consideration of appropriate mitigation measures consistent with Section 8(1)(b) of HB 3478 will be an element of the Commission's review.

The *Central Downtown Transit Mall* is a significant visual resource for the City of Portland. Willamette River viewpoints at the ends of east/west streets have been designated as scenic viewpoints. Views east toward the river would not be affected since the alignment is to the west on SW 5th and SW 6th Avenues.

Modifications to SW 5th and SW 6th Avenues, such as small amounts of fill to even grades and the removal of some trees and bus shelters, will retain the scale and character of the streetscape. Viewer sensitivity to the South/North improvements will be low for downtown viewers whose views of north/south and east/west streets currently include light rail facilities. Based on information in the *Visual Report*, the Council concludes that overall visual impacts to the Central Downtown Transit Mall would be low. The alignment adjacent to Pioneer Courthouse Square and Pioneer Courthouse could result in moderate visual impacts.

In the *North Downtown Mall*, with the Mitigated Irving Diagonal Option, the alignment parallels existing freight and Amtrak tracks between NW 5th Avenue and NW 3rd Avenue to its intersection with the existing NW Glisan Street westbound ramp. Retaining walls ranging in height from 5-20 feet would face Union Station tracks. The Council finds that the presence of the existing retaining wall for the westbound Steel Bridge ramp would significantly reduce the effects of the new LRT ramp because of its similar form and its location adjacent to the railroad tracks. The *Visual Report* notes, and the Council finds, that viewer sensitivity would be low for viewers using Union Station, bus lines, neighborhood streets and the Steel Bridge.

The Council further finds that the LRT improvements in the Downtown Portland Segment will be subject to review by the Portland Design Commission. The local review will include consideration of the urban design of the improvements and consideration of scenic viewpoints and view corridors. Appropriate conditions can be imposed through the local review process if reasonable and necessary to avoid or mitigate adverse impacts on designated scenic resources and viewpoints.

The LRT improvements in the Downtown Portland Segment will not impact designated open space areas such as Tom McCall Waterfront Park.

Riparian Areas. As described in the discussion of fish and wildlife habitat, the *riparian area* along the Willamette River in the vicinity of the Steel Bridge light rail crossing has been significantly altered with development. Shorelines along both the east and west banks of the river support limited

natural vegetation and are included within the "River Industrial" and "River General" greenway overlay zone, respectively. Significant riparian and habitat areas, such as Ross Island, are included within the "River Natural" greenway overlay zone.

Wetland Areas. The *Ecosystems Report* and the Portland Comprehensive Plan do not identify any wetland areas in the Downtown Portland Segment. However, the Willamette River channel below the Ordinary High Water elevation is classified as "waters of the state."

Park and Recreational Areas and Willamette River Greenway. Two designated parks are located in the Downtown Portland Segment adjacent to the LRT alignment: Pioneer Courthouse Square and Kelly Fountain.

The City of Portland owns Pioneer Courthouse Square, a 1.21-acre city park located at SW 6th Avenue and SW Yamhill Street. Pioneer Courthouse Square is used for numerous events such as live bands, art exhibits and cultural festivals. The park is also used as a display area for seasonal events. Access to Pioneer Courthouse Square is by foot or by the MAX light rail. The East/West MAX line travels by the park on the adjacent SW Yamhill and SW Morrison Streets, with two stations located adjacent to Pioneer Courthouse Square. The South/North alignment adjacent to Pioneer Courthouse Square will be located within the street right-of-way and will not adversely impact the park. The Taylor Station will be located on the block immediately south of Pioneer Courthouse Square.

Kelly Fountain borders the Downtown and Oldtown/Chinatown Neighborhoods and is located at W Burnside Street and SW 6th Avenue. The small, 0.01-acre park is owned and operated by the City of Portland. This city park has a fountain, trees, planters and five benches. The fountain area provides a space for pedestrians to stop and rest in an urban environment. The SW 6th Avenue light rail alignment will be located in the existing right-of-way, so the sidewalk and fountain area will not be affected.

The South/North LRT alignment will technically cross the Willamette River Greenway. However, the improvements will be located on the existing Steel Bridge and will not represent a new encroachment into the Greenway. Modifications to the ramps at the west end of the Steel Bridge to accommodate South/North light rail will be located outside of the Greenway Boundary. Additionally, the LRT improvements will not impact the Greenway Trail or Tom McCall Waterfront Park.

Mitigation Options for Natural Resource Impacts in the Downtown Portland Segment

Based on information in the results reports, the Council finds that the South/North Project improvements in the Downtown Portland Segment will not impact significant fish and wildlife, open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in the City of Portland Comprehensive Plan. The LRT alignment will use the existing Steel Bridge and no new improvements will be constructed within the Willamette Greenway. All LRT improvements in the Downtown Portland Segment will be subject to review by the Portland Design Commission. The Council concludes that the local permitting process will provide the forum for site-specific design decisions that can mitigate adverse impacts as provided in HB 3478.

6.4.6.6 Criterion 7: Stormwater Runoff

“Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Stormwater runoff impacts specific to the Downtown Portland Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the Downtown Portland Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the Downtown Portland Segment

The LRT improvements in the Downtown Portland Segment include construction of an alignment and thirteen LRT stations in existing paved areas. There are no park-and-ride lots or operations and maintenance facilities proposed in this segment. The LRT alignment will cross the Willamette River at the north end of the segment on the existing Steel Bridge.

All stations within this segment are located in areas that are currently paved (street and/or sidewalk). As a result, the LRT improvements in the Downtown Portland Segment should not increase the rate or volume of stormwater runoff, either individually or collectively. Runoff generated along the alignment and at the stations will be directed to catch basins and storm drainage facilities in adjacent roadways. Drainage is currently conveyed to the Willamette River. The Council anticipates no increase in pollutant loading compared to that generated from existing streets and sidewalks in the Downtown Portland Segment.

Mitigation Options for Stormwater Impacts in the Downtown Portland Segment

As shown in Table 5.3-6 of the *Hydrology Report*, no adverse hydrologic, flooding, or water quality problems are expected from any of the proposed LRT improvements in the Downtown Portland Segment. The Council concurs with this finding and concludes that no specific stormwater mitigation measures are required in this segment.

Standard erosion control and stormwater management techniques described in the General Findings are applicable and will be implemented by the Portland Bureau of Environmental Services through local permitting.

6.4.6.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

Historic and cultural resource impacts specific to the Downtown Portland Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/North Corridor, including the Downtown Portland Segment, are addressed in the General Findings. Historic and cultural resource impacts and mitigation measures are also described in the *historic, Archeological and Cultural Resource Impacts Results Report (Historic Report)*.

Identified Significant and Protected Historic and Cultural Resources in the Downtown Portland Segment

The *Historic Report* identifies a total of fifty historic resources and one historic district within one block of the selected alignment. Twenty-nine historic resources and the one historic district are currently listed on the National Register (See Tables 5.5-1 and 5.5-2 of the *Historic Report*). Eleven historic resources and one historic district within this segment were previously determined eligible for the National Register. All of these resources are considered "significant" historic resources under the Portland Comprehensive Plan.

Ten additional historic resources have been determined eligible for the National Register as part of the South/North DEIS.

Table 5.5-1 of the *Historic Report* indicates that there would be no effect on 45 historic resources under the Full Transit Mall Alignment.

There would be an effect, but not an adverse effect, on four historic resources and one historic district due to the sidewalk modifications associated with the LRT stations, including: the J.K. Gill Building (48), the Theater (66), the Equitable Building (78), the Oregonian Building (98) and Portland's Chinatown/New Japantown Historic District (D-1).

There would be an adverse effect on one resource, the Portland City Hall (61). The proposed location of a LRT station in front of the SW 5th Avenue entrance to City Hall would result in visual impacts to the building and disrupt established access to and from the building.

The *Historic Report* also describes effects of the DEIS Irving Design Option. Nine historic resources and one historic district within the potentially affected area of this option have been identified (see Tables 5.5-1 and 5.5-2). Seven individual resources and one historic district are currently listed on the National Register or were previously determined eligible. All of these resources are automatically considered significant under the City of Portland Comprehensive Plan. Two historic resources have been determined eligible for the National Register as part of the South/North DEIS.

Effects of the Irving Design Option on resources on or eligible for the National Register are summarized below.

There would be no effect on the Commercial Building at 421-39 NW Third Avenue (26), the Signal Tower (28), the Commercial Building at 340 NW Glisan (105), and the Steel Bridge (130).

There would be an effect associated with sidewalk modifications, but not an adverse effect, on the Firehouse (27), Hotel Medford (46), the Steam Plant (115), and Portland's Chinatown/New Japantown Historic District (D-1).

The *Historic Report* and the DEIS indicate that there would have been an adverse effect on the Warehouse at 406 NW Glisan Street (104) as a result of the DEIS Irving Design Option. However, that design has been modified to the "Mitigated Irving Diagonal Option" and avoids demolition of the Glisan Street Warehouse historic resource. As a result, there is no adverse effect on the warehouse.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the Downtown Portland Segment

The Council finds that many of the impacts identified in the *Historic Report* potentially could be avoided through relatively minor alterations in the design of the South/North Alignment Alternatives and Design Options. For example, the Irving Design Option has been modified in this Land Use Final Order to avoid demolition of the Glisan Warehouse (104). Project staff will continue to work in coordination with the City of Portland during preliminary and final engineering and the local permitting processes to seek practicable approaches to mitigate impacts.

Upon selection of the Locally Preferred Strategy and identification of project-wide mitigation commitments, "Determination of Effect" forms for the LPS will be coordinated with the Oregon State Historic Preservation Office (SHPO) and the Washington Office of Archaeology and Historic Preservation (OAHP). The resulting impacts and mitigation commitments will be addressed in a formal Memorandum of Agreement (MOA) that will be executed and included in the Final EIS.

Generally, visual impacts on historic resources could be mitigated through enhanced design treatments. Station and shelter design, construction materials, and street improvements could be chosen to complement existing building and street settings. Use of low-impact colors and low-glare glass, for example, could lessen the impacts of stations in historic districts or areas with a high number of historic resources.

Because a number of identified historic resources for the South/North Project are located in Downtown Portland, the appearance of these structures could be used to develop the character of LRT and street improvement design. Station construction could take place entirely in the public right-of-way, avoiding intrusion into private property. Where possible, overhead wiring could be attached to existing support structures.

The design of LRT improvements in the Downtown Portland Segment will be reviewed by the City of Portland Design Commission and may be reviewed by the Historic Landmarks Commission for impacts on designated historic resources and historic districts. In general, the provisions for Historic Reviews established in Chapter 33.846 of the City of Portland Zoning Code address landmark designation; historic design review for exterior alteration of a Historic Landmark; construction of a new structure within a Historic District; and demolition review.

Based on the information included in the *Historic Report*, the Council concludes that the Portland City Hall could be adversely affected by the construction of a LRT station in front of the 5th Avenue

entrance to the building. The station will be located in the public right-of-way next to the City Hall. However, effects could include visual and access impacts that could be avoided or minimized if creative solutions, compatible with the existing historic character of Portland City Hall, were applied to the design and location of the station. The Council also recognizes that there are positive benefits associated with a light rail station adjacent to Portland City Hall, and it notes that the City of Portland has endorsed locating a station adjacent to City Hall. Further, the recent renovation of City Hall provides pedestrian-only access on SW 5th Avenue, which can be compatible with the LRT station. The design and location of the station can be evaluated further during preliminary and final engineering and the FEIS, and the resulting 4(f) impacts and mitigation commitments will be addressed in a formal Memorandum of Agreement.

6.4.7 Eliot Segment

6.4.7.1 Description of Light Rail and Highway Improvements

The Eliot Segment of the South/North Project includes the following LRT-related facilities:

- An alignment that extends from the east end of the Steel Bridge to the Edgar Kaiser Medical Facility.
- Three light rail stations - the Rose Quarter Transit Center and Station, the Broadway Station, and the Russell Station.

See **Figure 1.7** of the LUFO for LUFO boundaries for the Eliot Segment

Light Rail Alignment

From the east end of the Steel Bridge, the alignment moves to an at-grade station and transit center at the Rose Quarter. The alignment then passes under I-5 and turns northward following generally along the eastern edge of I-5, crossing over NE Weidler Street and NE Broadway Street. The alignment then continues in a northwesterly direction to N Flint Avenue, where it turns northward to N Russell Street. The alignment then turns westward along N Russell Street to the east side of I-5, then turns northwestward generally following the east side of I-5. In the vicinity of N Fremont Street, the alignment crosses over I-5 on a structure to a location near the Edgar Kaiser Medical Facility.

Light Rail Stations

Three stations are provided in the Eliot Segment, including a Transit Center at the Rose Quarter.

Rose Quarter Transit Center. The South/North Project improvements will include a reconfigured at-grade Transit Center and station at the Rose Quarter. The Transit Center will include four LRT platforms for the East/West and South/North MAX lines, plus nearby bus bays for bus line connections to LRT. The Rose Quarter Transit Center will provide direct regional transit access to this major activity center, including the Rose Garden Arena, the Memorial Coliseum and the Convention Center.

Broadway Station. This station will be located to the east of I-5 on a structure over NE Weidler and NE Broadway Streets. This station will serve the Eliot and Lloyd Neighborhoods. Hotels/motels, restaurants, commercial uses and residential uses are located in proximity to this station.

Russell Station. This station will be located to the north side of N Russell Street and will serve the Eliot Neighborhood, Harriet Tubman Middle School and Lillis Albina Park, the Ronald McDonald House, Emanuel Hospital and nearby medical offices, and City of Portland maintenance facilities.

Park-and-Ride Lots

There are no park-and-ride lots located in the Eliot Segment.

Operations and Maintenance Facilities

There are no operations and maintenance facilities located in the Eliot Segment.

Highway Improvements

There are no highway improvements proposed for the Eliot Segment.

6.4.7.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

Description of Affected Neighborhoods in the Eliot Segment

The Eliot Segment connects north and northeast Portland with downtown Portland. The southern portion of the Eliot Segment has undergone significant changes in the last decade, with the construction of the Oregon Convention Center and the Rose Garden Arena. These facilities, along with the Memorial Coliseum, have established the area as a major entertainment and tourism center

for the region. The hotels, restaurants, retail and offices located in the area support the entertainment uses. The east/west couplet of NE Broadway/Weidler forms a commercial corridor linking the entertainment facilities with the Lloyd Center area. Also located within the southern portion of the segment is the Portland Public School District Administration Building.

The central and northern portions of the Eliot Segment include a mix of residential, institutional and industrial uses. Residences include an eclectic mix of older single-family homes and newer multi-family structures, and include examples of innovative non-profit housing development. The Emanuel Hospital Campus is a prominent institution located within the northern portion of the segment. The northern portion of the LRT alignment in the Eliot Segment will cross over to the west side of I-5 and link with another prominent institution, the Edgar Kaiser Medical Facility. The Kaiser Station, however, is included in the North Portland Segment.

The LRT alignment in the Eliot Segment crosses the Lloyd Neighborhood and the Eliot Neighborhood. A summary description of each neighborhood follows, based on information from the *Neighborhood Results Report*.

The *Lloyd Neighborhood* is bounded by the Willamette River on the west, NE 15th Avenue on the east, NE Broadway Street on the north and the Banfield Freeway (I-84) on the south. The street pattern is primarily a grid. Major streets in the neighborhood are one way, including: NE Broadway Street, which carries traffic over the Broadway Bridge and into downtown Portland; NE Weidler Street; NE Martin Luther King Boulevard; and NE Grand Avenue. The I-5 freeway runs through the western portion of the Lloyd Neighborhood. Access to the Steel Bridge, which crosses the Willamette River into Downtown, also is located in the neighborhood. The Lloyd Neighborhood is currently served by light rail along NE Holladay Street.

The Lloyd Neighborhood is a major employment center in the region and is predominantly commercial in character. The neighborhood includes a mix of uses, such as event facilities, retail and office, and housing. A number of significant destination points are located in the western portion of the neighborhood, including the Memorial Coliseum, the Oregon Convention Center and the Rose Garden Arena. The Lloyd Shopping Center, a retail destination point, is located at the eastern edge of the neighborhood. Several large office buildings are also located in this neighborhood including the State Office Building, Metro, Tri-Met and the Port of Portland offices. There are also several hotels and restaurants located in the neighborhood which provide services to users of the entertainment facilities. A small number of residential uses are scattered throughout the neighborhood.

Because the Lloyd Neighborhood is predominantly commercial, it has a low population. The neighborhood contained an estimated 1990 US Census population of 498. Since then, however, over 500 new housing units have been built. According to the DEIS, the mobility-limited population is significantly higher at 30 percent than for the county (1.9 percent) and the region (2.8 percent), probably because the area includes a very high proportion of persons over 65 year of age. 98.4 percent of neighborhood residents rent their housing, more than double the rental rate of the county and the region.

The *Eliot Neighborhood* extends from the Willamette River on the west to NE 7th Avenue on the east and from NE Broadway Street on the south to NE Fremont Street on the north. The I-5 freeway runs

through the Eliot Neighborhood. Major north/south streets in the neighborhood are N Interstate Avenue and NE Martin Luther King Jr. Boulevard. NE Fremont Street and NE Broadway Street are the main east/west streets.

The neighborhood is comprised of a wide range of uses including retail, office, industrial, residential and institutional. The Portland Public School (PPS) District administration building is located in the southwest corner of the neighborhood. A large industrial area is located north of the PPS administration building between I-5 and the Willamette River. This older industrial area seems distinct from the neighborhood because it is separated by the I-5 freeway and is at a lower elevation.

Emanuel Hospital occupies a large area in the northern portion of the neighborhood, east of the I-5 freeway. Two neighborhood parks are located in close proximity to the hospital: Lillis Albina Park is south of the hospital at the corner of N Russell Street and N Flint Avenue, and Dawson Park is northeast of the hospital between N Stanton and N Morris Streets and N Vancouver and NE Williams Avenues.

Retail uses are located along NE Broadway Street, which forms the common boundary between the Lloyd and Eliot Neighborhoods. Commercial uses are also located along NE Martin Luther King Jr. Boulevard.

The majority of residential uses are single family. Most are located east of the I-5 freeway. Matt Dishman Community Center, which includes an indoor swimming pool and recreational facilities, is located in the neighborhood, as is the Harriet Tubman Middle School.

The Eliot Neighborhood contained an estimated 1990 US Census population of 2,861. Approximately 56.5 percent of the neighborhood population is minority compared with 13 percent of Multnomah County and 8.6 percent for the region. The mobility-limited population is considerably higher at 7 percent than for either the county (1.9 percent) or the region (2.8 percent). The percentage of population over 65 years of age is somewhat lower for the neighborhood than for the county and the region. The proportion of households below the poverty level is significantly greater in the Eliot Neighborhood (39.7 percent) than in Multnomah County (13.1 percent) and the region as a whole (9.9 percent).

Median value of housing in the neighborhood is significantly less than either the county or region. In addition, a significantly larger proportion of residents rent their home (70.6 percent) than in the county (44.7 percent) or the region (38.7 percent).

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the Eliot Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the Eliot Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and*

Neighborhood Impacts Results Report (Neighborhood Report), and the Local and Systemwide Traffic Impacts Results Report (Traffic Report).

Economic Impacts

Overall, the South/North Project will result in positive economic impacts in the Eliot Segment because improved transit capacity will be provided to serve the Rose Quarter entertainment center (including the Rose Garden Arena and the Memorial Coliseum), the nearby Convention Center, the mixed use NE Broadway corridor, Emanuel Hospital, and close-in Lloyd and Eliot Neighborhoods and community facilities. This segment will link inner north/northeast neighborhoods with downtown Portland.

The long-term regional economic benefit associated with the South/North light rail improvements in the Eliot Segment must be balanced by the adverse economic impacts associated with displacements of some businesses and parking in the segment. Additionally, the introduction of light rail into the complex transportation environment of the Lloyd and Eliot Neighborhoods may result in adverse traffic impacts.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacements affect employment, incomes, services and taxes. Even though the adverse impacts associated with displacements in the Eliot Segment may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to employees who work for the company.

The LRT alignment in the Eliot Segment is expected to displace 5 commercial/retail businesses, 8 industrial businesses and 2 public (school-related) uses. The displaced commercial uses are concentrated in the NE Broadway/Weidler area, the displaced light industrial uses are concentrated along N Flint Avenue, and the displaced school-related uses (school bus facility and teacher parking) are near the Harriet Tubman Middle School.

In selecting the chosen alignment, which combines elements of the East I-5/Kerby and Wheeler/Russell alternatives described in the DEIS, the Council has not reduced displacement impacts below those associated with either of those DEIS alternatives. However, the selected LRT alignment is responsive to community input received during the DEIS review process. The Kerby Station was perceived as isolated from the neighborhood, and at the "back door" of Emanuel Hospital. The Russell Station is better located and oriented to serve existing and future development in the Eliot Neighborhood. Displacement impacts along N Flint Avenue, however, cannot be avoided with this alignment and station location.

As described in the General Findings, displaced commercial, industrial and public uses and property will be acquired at fair market value, and/or relocation benefits will be provided to business owners and tenants. During the preliminary and final engineering processes, staff will try to minimize displacement impacts to the extent practicable through design refinements. For example, the East I-5/Russell alignment has already been refined to avoid displacing the City of Portland Stanton Yards (garage and maintenance facility).

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business use is assumed to be displaced.

The analysis of on-street *parking impacts* in the Eliot Segment focuses on N Flint Avenue. Boundaries for the N Flint Avenue parking study area generally follow the alignment of N Flint and N Vancouver Avenues between N Broadway and N Russell Streets. Parking in this study area would be impacted by both LRT and the proposed Phase 2 of ODOT's I-5, Greeley/North Banfield improvement project. As currently conceived, the ODOT project would modify the alignment of both N Flint and N Vancouver Avenues to accommodate improved access to and from I-5.

Table 5.9-12 of the *Traffic Report* identifies a total of 162 on-street parking spaces in the N Flint Avenue parking study area. The LRT alignment will displace approximately 26 of these parking spaces. Eighteen spaces will be displaced along the southern end of N Williams Avenue near N Broadway Street. The portion of N Hancock Street between N Williams and N Vancouver Avenues will be closed with a loss of 4 parking spaces. Four additional spaces will be lost near the southern end of N Vancouver Avenue. Currently, the average occupancy of the on-street parking spaces in the study area is 67 percent. With the reduction in available spaces due to LRT, the *Traffic Report* states and the Council finds that all existing demand could be accommodated with an occupancy rate of 81 percent. Parking mitigation would not be required.

Based on the Conceptual engineering plans, the Council finds that access alternatives are available for all affected parcels not identified as project displacements. Accordingly, no access mitigation is required.

Tax Base. The South/North Project will have a minor impact on the tax base through the displacement of business uses from the tax rolls. Table 5.1-3 of the DEIS identifies the 1994 Assessed Value and property taxes of displaced properties in the Eliot Segment. The selected alignment reflects a synthesis of the two alignment alternatives for the Eliot Segment that were evaluated in the DEIS.

The tax base impacts associated with the displacement of private property and existing business uses for the LRT alignment and stations will be long-term. These facilities will be in public ownership and will be permanently removed from the tax rolls. However, the Council finds that the availability of light rail and stations in the Eliot Segment is expected to spur development and enhance property values and the tax base on a long-term basis, particularly around stations with vacant and underdeveloped land. In fact, the area has already been rezoned to accommodate high density development near the LRT alignment. Higher density development is consistent with the City's Albina Plan, adopted in 1993.

Freight Movement. The LRT improvements in the Eliot Segment will not impact *water or rail freight* movement.

Portland's Central City Transportation Management Plan (CCTMP) designates one truck district within the Eliot Segment, located adjacent to Albina Yard, Union Pacific's current intermodal

facility for the Portland region. The truck district is bounded by I-405 on the north, Interstate Avenue on the east, N Albina Avenue on the south, and the Willamette River on the west. Access to the district is via N Interstate Avenue, which is designated in the CCTMP as a minor truck street. Other truck streets in the Eliot Segment include NE Larrabee Street, NE Weidler Street, and NE Broadway Street. The NE Martin Luther King, Jr. Boulevard/NE Grand Avenue couplet is designated as a major truck street. The Transportation Element of the *Portland Comprehensive Plan* designates N Kerby Avenue and N Russell Street as minor truck streets. Access to I-5, I-84, and I-405, all regional truck routes, is via the I-5 interchange at NE Broadway/NE Weidler Street, and via the I-405 ramps connecting to N Kerby Avenue.

The *Traffic Report* notes that heavy trucks typically comprise on the order of two percent of the total traffic on key streets in the Eliot Segment during the p.m. peak period. Locally heavier volumes were observed in the vicinity of truck generators, such as the Union Pacific Intermodal Yard at Albina, or the city maintenance shops located on N Kerby Avenue at N Stanton Street.

Based on the information included in the *Traffic Report*, the Council finds that the LRT improvements in the Eliot Segment will not result in adverse impacts to *truck freight movement*. Truck volumes within the Eliot Segment are relatively light and generally oriented toward the Broadway/Weidler interchange with I-5. With the grade-separated Broadway/Weidler design option, delays to trucks in the vicinity of the interchange would be similar to delays that would occur with the No-Build Alternative. There are some industrial uses that generate truck trips within the segment, but they are generally located west of I-5 and are not in immediate proximity to the LRT alignment. Further, the alignment has been refined to avoid displacement of the city maintenance shop and garage.

Social Impacts

The Council finds that the LRT improvements in the Eliot Segment result in positive and negative social impacts. Light rail will provide improved transit access to housing and jobs in the Eliot Segment and will link the neighborhood with regional employment centers and other activity areas. However, light rail will displace some housing in a neighborhood that has been heavily impacted by housing displacement for development of institutional, entertainment and transportation facilities over the past several decades. The Council recognizes that displacement can have a significant social impact on the viability of neighborhoods. It also is aware of the neighborhood's displacement history and understands that many neighborhood residents have serious reservations about the South/North Project for this reason.

Residential Displacements. As with business displacements, the Council finds that in every instance where the South/North Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. The Council understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

In the Eliot Segment, the LRT alignment displaces a total of 33 multi-family units, including one 26-unit apartment building near Holladay Park Hospital, a 5-plex on N Flint Street, and a duplex on N Kerby Street. Additionally, 4 single-family dwellings are displaced by the LRT alignment, two

along N Flint Avenue and 2 along N Kerby Avenue. Emanuel Hospital owns the two displaced single family dwellings on N Kerby Avenue.

In choosing the selected "East I-5/Russell" alignment, the Council has not reduced residential displacement impacts when compared with the displacements associated with either the East I-5/Kerby Alternative or the Wheeler/Russell Alternative as described in the DEIS. However, the selected LRT alignment is responsive to community input.

The neighborhood perceived the proposed Kerby Station as isolated from the neighborhood and at the "back door" of Emanuel Hospital. It felt that the Russell Station is better located and oriented to serve existing and future development in the Eliot Neighborhood. The Council agrees with these neighborhood conclusions, although it finds that it cannot avoid residential displacement impacts along N Flint Avenue with this alignment and station location. The Council finds that opportunities may be available to relocate the displaced residential dwellings to nearby vacant lots in the Eliot Neighborhood. This could help to retain the architectural and neighborhood character and minimize the adverse social impacts of displacement.

As explained in the General Findings, where residential displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program.

Access to Community Facilities. The Council finds that the South/North Project improvements in the Eliot Segment will provide better access for residents to community facilities, regional entertainment centers and regional employment centers than the No-Build Alternative. Affected neighborhoods within this segment have higher percentages of mobility-impaired, elderly, poor and minority residents than the region or the county.

The Russell Station will provide transit access to the Eliot Neighborhood and to Emanuel Hospital, Harriet Tubman Middle School and the nearby Dishman Community Center. From this station, Eliot residents will be able to access other community and regional facilities and employment centers such as the Rose Garden Arena, the Convention Center, downtown Portland, OMSI and the Central Eastside Industrial Area, as well as destinations along the East/West MAX line.

Barriers to Neighborhood Interaction. The Council finds that the LRT alignment in the Eliot Segment will not result in barriers to neighborhood interaction, primarily because the LRT alignment largely parallels I-5. The freeway already functions as a significant barrier and boundary between neighborhoods. The LRT alignment along N Flint Avenue, with the Russell Station, is selected primarily because it provides better transit accessibility for the Eliot Neighborhood than a Kerby Station would provide. The Russell Station is located in proximity to Tubman Middle School, Lillis Albina Park and Emanuel Hospital and is well connected to Eliot residential neighborhoods via sidewalks along N Russell Street and other grid streets.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. The Council finds that, with appropriate design and implementation of systemwide transit security measures as described in the General Findings, safety and security will not be adversely affected by the LRT improvements in the Eliot Segment. Because the alignment in this segment largely follows the I-5 right-of-way and is generally bounded by employment uses, station security is a sensitive issue, particularly during evening hours.

The Rose Quarter Transit Center will be located at-grade, adjacent to busy public streets and active uses. The LRT improvements at the Rose Quarter will be subject to City of Portland review by the Design Commission. The Council understands that affected businesses, neighborhood associations, Tri-Met and the City of Portland Police Bureau will be involved in the review of the final design of the Rose Quarter Transit Center to maximize safety and security.

The LRT alignment and Broadway Station will be grade-separated from the NE Broadway/Weidler couplet to avoid adverse traffic impacts. The Council recognizes that it is generally preferable to locate transit stations at the grade of adjacent public streets and in active areas to enhance visibility, safety and security. As with the Rose Quarter Transit Center, the Council finds that the Broadway Station will be subject to City of Portland review by the Design Commission. The Council finds that affected businesses, neighborhood associations Tri-Met and the Police Bureau will be involved in the review of the final design of the Broadway Station to maximize safety and security. This review will include consideration of issues such as the height of the structure, visibility, materials, lighting, pedestrian/bicycle/disabled access, landscaping, etc.

In commenting on the DEIS, the Lloyd District Community Association (LDCA) recommended the grade-separated option for the Broadway/Weidler alignment and station. The at grade option created additional, negative traffic consequences for the Lloyd District. The LDCA also emphasized that public safety around, and access to, station areas will be critical to any alignment option. To this end, the LDCA has proposed a LRT Station Task Force to develop a "Good Neighbor Plan" to address strategies to ensure public safety goals for the community are met.

The Russell Station will be located at-grade adjacent to N Russell Street, in close proximity to active uses such as Harriet Tubman Middle School, Lillis Albina Park, the Ronald McDonald House and Emanuel Hospital. The Council finds that the location of a station on Russell Street was preferred by the Eliot Neighborhood over a Kerby Station, primarily because of greater visibility, proximity to the neighborhood, and opportunity to better link the station with future development. The Council finds that LRT trains will be traveling at slow speeds on N Flint Avenue because of the tight track curve approaching the Russell Station. The slow train speeds will improve pedestrian safety conditions for children near the Harriet Tubman Middle School and Lillis Albina Park.

Visual/Aesthetic. The concentration of large regional facilities (Rose Garden Arena, Memorial Coliseum and the Convention Center) between the Steel Bridge and the Broadway Bridge dominate the visual character of the south end of the Eliot Segment. Views of the Willamette River, bridges, Downtown and the West Hills are other key visual elements. Specific impacts on designated significant and protected scenic resources are addressed under Criterion 6, Natural Resource impacts.

The Eliot Neighborhood retains the visual character of an old central city area with long blocks of moderately scaled, older brick industrial and commercial buildings interspersed with vacant lots, some parks, schools and churches and busy commercial/industrial streets. This pattern breaks up as the topography slopes under the I-5 freeway down to the river, and commercial and residential blocks give way to larger scale blocks of loosely arranged industrial structures, vacant land, and parking and storage areas under the columns of I-5. The I-5 and I-405 freeways and Emanuel Hospital are the dominant visual features in the north end of the Eliot Segment.

As described in the *Visual Report*, the LRT alignment and Transit Center at the Rose Quarter will result in modifications to existing roads, light rail platforms, drop-off zones, and turnarounds. The Council finds that these changes will not result in significant visual impacts, primarily because of the scale of the existing environment and the dominance of the I-5 freeway and the Rose Garden Arena.

The grade-separated crossing of the Broadway/Weidler couplet will result in significant localized visual impacts in both the Lloyd and Eliot Neighborhoods, primarily because of the scale of walls, overhead structures, and potential obstruction of views. The Council finds that the potential adverse impact associated with a structure must be balanced by the benefits to traffic flow gained in separating light rail and road traffic at this highly congested location. Additionally, the Council finds that there may be an opportunity to design the grade-separated alignment and station over the Broadway/Weidler couplet to function as a "gateway" to the Rose Quarter and the Lloyd District.

The alignment proceeds north along the east side of N Flint Avenue. Structures and trees along this side of the street will be removed, which will enlarge the scale of the street, create vacant land and open up the eastern block face of the street. Additional poles and overhead wires will be introduced into the streetscape as the alignment curves onto N Russell Street. The alignment will cross N Kerby Avenue at-grade and then proceed onto retained fills and a bridge over N Graham Street and then north under the I-5 freeway ramps and piers to N Mississippi Street. The alignment will then parallel I-5 on retained fills and cross over I-5 to Edgar Kaiser Medical Center via an overpass. Based on the description in the *Visual Report*, the Council finds that the retaining walls, structures and bridges in this section will be visually compatible with the existing freeway environment.

The Council finds that opportunities are available to mitigate the adverse visual impacts of the LRT improvements in the Eliot Segment, including the following if reasonable and necessary:

- In final design, consider the terracing of retaining walls to offset their vertical height, and adding texture and color to their surface to reduce their scale and reflection capability.
- Support the implementing actions in the adopted *Albina Community Plan* that integrate the South/North Project into the neighborhood.
- In the final design, attempt to match existing vertical and horizontal elements in terms of color, form and texture.

Landscaping also is available to mitigate adverse visual and aesthetic impacts.

Traffic Impacts

Existing System. The Eliot Segment extends from the east end of the Steel Bridge crossing of the Willamette River north to the Edgar Kaiser Medical Facility. Surface transportation facilities within the Eliot Segment are under the jurisdiction of the City of Portland and ODOT. The Eliot Segment includes three major activity centers: 1) the Oregon Convention Center, 2) the Rose Garden Arena/Memorial Coliseum complex, and 3) the Legacy Emanuel Hospital and Health Center.

Key street system elements that will be affected by the South/North Project include the eastern approaches to the Steel Bridge on N Multnomah and N Oregon Streets, the N/NE Broadway/Weidler Street couplet, and the N Vancouver and N Williams Avenue couplet. N Interstate, a regional surface street, has its southern terminus at the Steel Bridge. Regional freeway connections are made

via I-5, which has ramp connections to NE Holladay Street and the N/NE Broadway/Weidler couplet, and via I-405, which provides ramp connections to N Vancouver and N Williams Avenues at N Cook Street.

Average daily traffic volumes across the Steel Bridge are approximately 14,500 vehicles per day. On N/NE Broadway from the Broadway Bridge to NE Martin Luther King Jr. Boulevard, average daily traffic volumes are approximately 35,000 westbound vehicles, with around 26,000 eastbound vehicles in the same portion of N/NE Weidler Street. North of the N/NE Broadway/Weidler Street couplet, average daily traffic volume on N Vancouver Avenue in the vicinity of N Russell Street is 7,500 vehicles northbound, with approximately the same volume on southbound N Williams. Average daily traffic volumes on N Russell Street are 5,200 vehicles between the N Vancouver/Williams Avenue couplet and N Kerby Avenue. Average daily traffic volumes on N Kerby Avenue are 3,600 vehicles.

The *Traffic Report* indicates that intersections in the vicinity of the Rose Quarter were found to be operating at LOS B during the p.m. peak hour, including both N Wheeler Avenue at N Multnomah Street, NE Multnomah Street at NE 1st Avenue, and NE Martin Luther King Jr. Boulevard with NE Holladay Street. The one exception was at the intersection of N Interstate Avenue with N Multnomah Street, where the northbound and southbound movements along N Interstate Avenue are at LOS D and LOS E, respectively. Preemption of this intersection by LRT trains approaching from the Steel Bridge and the Rose Quarter transit center reduce the capacity of the intersection and increase delays for auto traffic at this location.

Intersections along the N/NE Broadway/Weidler Street couplet currently operate at LOS C or better during the p.m. peak hour with three exceptions. At the intersection of N Weidler Street with N Vancouver Avenue, eastbound traffic demands exceed the capacity for this traffic movement and contribute to the overall intersection LOS D during the p.m. peak hour. At the intersection of N Broadway with N Vancouver Avenue, southbound N Vancouver Avenue traffic demands exceed the capacity for this approach with a volume to capacity ratio of 1.52. This contributes to the overall p.m. peak hour LOS F operation at the intersection. On the N Wheeler Avenue approach to the southbound I-5 entrance ramp, traffic demands approach the capacity for this movement with a volume to capacity ratio of 0.96. Observations of this location indicate that the southbound I-5 freeway mainline weave between this entrance ramp and the eastbound I-84 ramp controls the operations of N Wheeler Avenue. During the p.m. peak period, the ramp traffic spills back through the N Wheeler/Williams/I-5 southbound ramp intersection due to the downstream capacity constraint presented by the freeway weave.

Key intersections in the Eliot neighborhood, including N Russell Street at N Flint Avenue and N Kerby Avenue at N Graham Street, currently operate at LOS C or better during the p.m. peak hour.

Local Traffic Impacts. The Eliot Segment encompasses several distinct environments from the standpoint of traffic operations. Across the Steel Bridge, LRT trains currently operate in mixed flow with other motorized traffic, the only point on the existing system where LRT trains and autos share lanes. In the Rose Quarter, traffic operations are heavily influenced by high levels of transit activity associated with the Rose Quarter Transit Center, and large pedestrian flows generated by events at the Convention Center, Rose Garden, and Coliseum venues. Farther north, the Broadway/Weidler couplet and its interchange with I-5 present significant challenges to efficient movement of

motorized traffic, bicycles, pedestrians, and proposed LRT trains. The northern portion of the Eliot Segment is more residential in character; there, traffic tends to be influenced by large institutions in the area, particularly Emanuel Hospital.

Traffic forecasts for the 2015 PM peak hour conditions have been used to assess traffic operations in the Eliot Segment. As in other segments throughout the South/North Corridor, traffic volumes will increase from existing conditions with any of the alternatives. The highest concentration of traffic and accompanying congestion will be in the vicinity of freeway access points and bridges across the Willamette River. Changes in traffic patterns in the Eliot Segment would be limited despite the assumed construction of Phase 2 of the Greeley Ramps/North Banfield Project, which would include reconstruction of the I-5 interchange with Broadway/Weidler, including realignments of N Flint, N Vancouver, N Williams, and NE Victoria Avenues. The changes to the surface street network that would occur with the No-Build Alternative are described in the *Traffic Report* (p. 5-109).

Table 5.9-1 of the *Traffic Report* provides the 2015 Level of Service Summary for the No-Build, East I-5/Kerby and Wheeler/Russell Alternatives.

At-Grade Rose Quarter Transit Center. The *Traffic Report* indicates that traffic operations at the intersection of N Multnomah Street and N Interstate Avenue will be worse with the At-Grade Transit Center Design than with the Multi-Level Design Option. With the LRT trackway crossing N Interstate Avenue on grade, delays to auto traffic would be in the LOS E range.

In light of the adverse traffic impacts associated with the grade crossing of N Interstate Avenue evaluated in the DEIS, the Council is committed to working with Tri-Met, the City of Portland and representatives of the Rose Quarter to refine the design of the At-Grade Transit Center during preliminary and final engineering and preparation of the FEIS. The refined design could include or provide for the future realignment and/or grade separation of Interstate Avenue to avoid the adverse traffic impacts identified in the *Traffic Report*.

Additionally, in selecting the East I-5/Kerby alignment for the Rose Quarter area, the Council has avoided the greater impacts on event-related traffic and pedestrian flows in the vicinity of the Rose Garden Arena associated with the Wheeler/Russell Alternative.

Grade-Separated Broadway/Weidler. With the Grade-Separated Broadway/Weidler Design option, the *Traffic Report* states and the Council finds that p.m. peak hour traffic operations would be similar to the No-Build Alternative with minor variations due to small differences in traffic assignments, and slight changes in traffic signal timing. With the grade-separated LRT crossings, average delays during the p.m. peak hour will be in the LOS B range at two intersections, as compared with average delays in the LOS F range with the at-grade LRT crossings. In comparison to the At-Grade Option, queues would generally be shorter and less spillback would occur with the Grade-Separated Broadway/Weidler Design Option.

Public comments on the DEIS emphasized the preference for a grade-separated Broadway/Weidler crossing to avoid adding to the congestion on the surface streets. Others commented that the design of the grade-separated crossing can be integrated into the existing architecture and street designs in the area to minimize visual impacts.

In recognition of the complexity of the Broadway/Weidler study area, Tri-Met, the City of Portland, ODOT and Metro will work together to develop a refined design for this area that addresses the following needs in an integrated manner: LRT access and operations; capacity and weave problems on I-5; access to, from and within the Lloyd District; and the development of the Broadway/Weidler couplet as a Main Street. The study will consider an at-grade crossing of Broadway/Weidler in conjunction with other improvements and will include a phasing and financing plan. If the study does not result in a mutually agreed upon solution, then the East I-5/Russell alignment with a grade-separated crossing of the Broadway/Weidler couplet will be constructed.

Eliot Neighborhood. North of NE Broadway, the Greeley Ramps/North Banfield Phase 2 project would result in changes to the surface street system as described in the No-Build Alternative (See Section 5.9.1.1 of *Traffic Report*). Additionally, N Flint Avenue will be converted to one-way operation southbound with the LRT trackway on the east curb between N Tillamook Street and N Russell Street. N Page Street will be closed between N Flint Avenue and N Vancouver Avenue. A traffic signal will be installed at the grade crossing where the southbound traffic on N Flint Avenue would turn left across the LRT trackway to N Tillamook Street, providing an outlet to N Vancouver Avenue. Given anticipated volumes, this crossing is expected to operate at LOS D or better with 2015 p.m. peak hour traffic volumes.

At the intersection of N Russell Street and N Vancouver Avenue, the existing traffic signals will be modified to provide coordinated operation with the intersection of N Flint Avenue at N Russell Street and to provide protection for LRT crossings of that intersection. This will cause a decline in LOS because LRT trains passing through the intersection will interrupt traffic movements. Based on information in the *Traffic Report*, the Council finds that in other locations of the Eliot Segment north of N Broadway, the LRT trackway will be grade-separated from surface streets and changes to traffic circulation patterns or traffic operations will be minimal.

Station Impacts. A summary of station impacts is provided in Section 5.9.2 of the *Traffic Report*. Based on the information in the report, the Council finds that the potential for transit-related parking in the Rose Quarter Transit Center area will be low because the City has recently implemented an on-street parking meter program in the Lloyd District and off-street parking areas have had parking controls for some time. Recent upgrades to pedestrian and bicycle facilities in the vicinity will provide good access to the Rose Quarter Transit Center from nearby activity centers and residential areas.

The Council finds that there is moderate potential for station-related parking in areas near the Broadway Station. Again, the parking meter program in the Lloyd District, and controls on off-street lots, will tend to limit station-related parking to on-street locations in the Eliot neighborhood. A permit parking program in the Eliot neighborhood could provide mitigation for neighborhood parking impacts. On-going upgrades to pedestrian and bicycle facilities along NE Broadway/Weidler will result in good pedestrian and bicycle connections to commercial and residential areas east of the LRT alignment.

The proximity of the Russell Station to adjacent residential neighborhoods with uncontrolled on-street parking results in a moderate potential for station-related parking in these areas within 600 feet of the station. As with the Broadway Station, this potential impact could be mitigated with implementation of a permit parking program for the Eliot neighborhood.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the Eliot Segment, including but not limited to the following:

- Relocate N Interstate Avenue and install associated traffic signals
- Allow two-way traffic on NE Oregon Street west of the Oregon Convention Center
- Realign N Williams Avenue
- Close N Williams Avenue from N Holladay Street to N Multnomah Street
- Realign N Multnomah Street from N 1st Avenue to N Interstate Avenue
- Revise and relocate sidewalks and other pedestrian routes
- Revise or relocate the Trolley Barn
- Modify the traffic signal at NE 1st Avenue and NE Multnomah Street
- Relocate truck access to the Holladay Park building
- Modify the I-5 off-ramp at NE Weidler Street
- Close NE Victoria Avenue and provide a new roadway between the light rail alignment and I-5 from NE Weidler Street to NE Broadway Street
- Modify signals at NE Weidler Street and NE Broadway Street
- Close N Hancock Street west of N Williams Avenue
- Install gated crossings at N Vancouver Avenue, at N Flint Avenue and N Tillamook Street, and at N Kerby Street
- Narrow N Flint Avenue from I-5 to N Russell Street and change the traffic pattern to two southbound lanes
- Close N Page Street at N Flint Avenue
- Install a traffic signal at N Russell Street
- Lower N Mississippi Avenue beneath the Fremont interchange

The Council finds that the improvements identified above can mitigate most of the adverse traffic impacts of the South/North Project in the Eliot Segment. Additional refinement of the design of the At-Grade Rose Quarter Transit Center and a LRT/Roadway Refinement Study for the Broadway/Weidler Couplet can be addressed in preliminary engineering and the FEIS.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The *Region 2040 Growth Concept* designates most of the area within the Eliot Segment as part of the Portland Central City, the major activity center of the region that serves as the employment and cultural hub for the metropolitan area. The *Growth Concept* anticipates that a significant increase in density will be required overall in the Portland Central City to maintain the Central City's 20 percent share of regional employment. The population and employment densities for the Central City are projected to increase from 150 people per acre to 250 people per acre by 2040. Improvements to the transit system network, including South/North LRT, will play an important role in achieving this goal. Concentration of density in an area well-served by a multi-modal transportation system is a key component of the regional and local vision of an efficient and compact urban form.

Most of the Eliot Segment is also within Portland's *Central City Plan* boundaries. The *Central City Plan*, first adopted in 1988, outlined a course of action for revitalizing downtown Portland by encouraging a high density mix of uses and promoting alternative transportation modes, including transit. The plan identifies the east side of the Steel Bridge near the Rose Garden Arena as an important gateway to the Central City. Portions of the Eliot Segment are also within the boundaries of the *Albina Community Plan*, which envisions and supports light rail service to the area.

The location of the Oregon Convention Center, Rose Garden Arena and Memorial Coliseum at the south end of the Eliot Segment have established the area as a major entertainment and tourism center for the region. Providing light rail proximity and service to this major entertainment activity center can enhance transit ridership, particularly with the link of east/west and south/north light rail service at the Rose Quarter Transit Center. In the adopted *Central City Plan*, the area around the Rose Quarter is designated for the most intense development in the Eliot Segment. Based on a review of preliminary plans, the Council finds that the At-Grade Transit Center Design, including the reconfiguration of local streets, has taken into account the potential for more intensive development in the Rose Quarter. The Rose Quarter area is separated from nearby neighborhoods by the major physical barrier of I-5 and surface streets connecting to the Steel Bridge and the Broadway Bridge. As a consequence, more intensive, efficient and compact urban development in the Rose Quarter area can take advantage of excellent transit accessibility while avoiding adverse impacts on neighborhoods.

North of the Rose Quarter Transit Center, the LRT stations at Broadway and Russell will provide transit proximity and service to employment centers such as the Lloyd District and Emanuel Hospital and established residential neighborhoods that are capable of enhancing transit ridership. Based on the recent spurt of new development in the Lloyd District and along Martin Luther King Jr. Boulevard, the Council anticipates that the availability of LRT service may support additional development in the vicinity of the Broadway and Russell Stations.

The Council recognizes that the displacements associated with the South/North Project will adversely impact the Eliot Neighborhood. However, the alignment was selected in response to input from the neighborhood. The Russell Station is located and oriented to serve both the Emanuel Hospital Campus and the Eliot Neighborhood. The Council finds that the N Flint Avenue alignment and the Russell Street Station can be refined during final engineering to reduce impacts to adjacent properties, minimize neighborhood impacts and meet urban design and redevelopment objectives in the area.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the Eliot Segment that have utility separate from the South/North Project. A range of improvements is proposed as mitigation for traffic impacts associated with the LRT facilities in this segment. These improvements are described in the discussion of traffic impacts for the Eliot Segment.

6.4.7.3 Criterion 4: Noise Impacts

"Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process."

Noise and vibration impacts specific to the Eliot Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the Eliot Segment, are addressed in the General Findings. The General Findings include an overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the Eliot Segment

The Eliot Segment encompasses the Rose Quarter District and includes an intense mix of land uses. The noise environment in this segment is dominated by vehicular traffic on I-5 and I-405, as well as vehicular traffic on surface arterial streets.

Single and multi-family dwellings in the Eliot Segment are located east of I-5 between N Cook Street and N Fremont Street. The closest residences in this segment are about 30 to 40 feet from the track centerline.

Category 2 land uses (categories described in the General Findings) in the Eliot Segment include the Ronald McDonald House near the intersection of N Kerby Avenue and N Russell Street, the Travelodge Hotel south of NE Weidler Street near NE 1st Avenue, the Inn at the Coliseum south of N Weidler Street near N Vancouver Avenue, and Emanuel Hospital east of N Kerby Avenue near N Graham Street.

Category 3 land uses in the Eliot Segment include Harriet Tubman Middle School west of N Flint Avenue near N Russell Street, the Rose Garden to the west of I-5 near N Multnomah Street, and the Edgar Kaiser Medical Offices to the west of I-5 near N Overlook Boulevard.

As shown in Figure 4.7-1 of the *Noise Report*, there were two noise monitoring locations and one vibration test location in the Eliot Segment, one near Harriet Tubman Middle School and the second near Emanuel Hospital. Vibration testing was performed near the corner of NE Vancouver Avenue and NE Knott Street. Ambient vibration measurements were taken at NE 6th Avenue and NE Holladay Street, and near Emanuel Hospital.

Table 4.7-1 of the *Noise Report* summarizes ambient noise levels at the two monitoring locations in the Eliot Segment. The ambient noise levels (*Ldn*) were relatively high at 79 dBA at the Tubman Middle School location and 69 dBA at the Emanuel Hospital location. The high noise levels at Tubman Middle School were due to the adjacent traffic on I-5. The noise sources at the Emanuel Hospital location include helicopter traffic, ambulances, ingress and egress of traffic at the hospital, and traffic along North Kerby, I-5 and I-405.

Existing vibration conditions in the Eliot Segment consist of low-level, normal traffic and other ambient vibration sources. Measured average levels ranged from 54 to 59 VdB.

Table 5.2.7-4 of the *Noise Report* summarizes noise and vibration impacts associated with the selected alignment in the Eliot Segment. Identified noise impacts include one wheel squeal impact at the Ronald McDonald House and three vibration impacts that affect the Ronald McDonald House and two single family residences located west of N Michigan Avenue, south of N Fremont Street.

Mitigation Options for Noise and Vibration Impacts in the Eliot Segment

The Ronald McDonald House is approximately 40 feet from the 173 foot curve radius of the LRT alignment along N Russell Street. The predicted impact from the wheel squeal is 84 dBA, 4 dBA above the maximum impact criterion of 80 dBA. Mitigation options for the various types of noise and vibration are discussed in the General Findings. Wheel squeal impacts are often difficult to mitigate, and there is no certain method of reducing the noise without modifying the alignment. Methods of reducing the noise impacts from wheel squeal include wheel and track lubricators, track treatment and noise barriers. The *Noise Report* and the *DEIS* do not identify specific mitigation for the wheel squeal impact at the Ronald McDonald House. The Council finds that potential mitigation options for the one wheel squeal impact in the Eliot Segment can be evaluated further during preliminary engineering and in the FEIS.

The *Noise Report* notes and the Council finds that mitigation options such as ballast mats are available to mitigate the three identified vibration impacts in the Eliot Segment.

6.4.7.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazard impacts specific to the Eliot Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the Eliot Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Soils Report)*, and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the Eliot Segment

The DEIS does not identify specific *landslide areas, areas of severe erosion potential, or lands within the 100-year floodplain* in the Eliot Segment. The *Soils Report* states and the Council finds that fine-grained flood deposits underlie the Eliot Segment. A small area of artificial fill is present near NE Weidler Street. Most of the surface soil has been extensively modified by past construction.

As described in the General Findings, the Northwest is a seismically active area and is subject to *earthquake damage*. Figure 4.1-10 of the *Soils Report* identifies a concealed fault that essentially parallels the east side of the Willamette River. LRT improvements in the Eliot Segment will be designed in accordance with current Uniform Building Code seismic standards.

Mitigation Options for Natural Hazard Impacts in the Eliot Segment

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council finds that no *landslide areas, areas of severe erosion potential or 100-year floodplains* are affected by the LRT improvements in the Eliot Segment.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. Prior to construction, site-specific geotechnical studies will be conducted to determine appropriate construction techniques and avert potential geological problems. Detailed studies will include an evaluation of soil seismic response characteristics and will also identify appropriate mitigation measures that may be required for construction of a grade-separated crossing of the NE Broadway/Weidler couplet on artificial fills. Based on the facts in the *Soils Report*, the Council finds that long-term impacts to geology and soils in the Eliot Segment are minor. Mitigation would consist of design of LRT improvements to meet Uniform Building Code seismic standards; and techniques such as excavation and backfilling, and special footing and foundation designs to address the composition and stability of artificial fills.

6.4.7.5 Criterion 6: Natural Resource Impacts

“Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural resource impacts specific to the Eliot Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the Eliot Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystem Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the Eliot Segment

The Portland Comprehensive Plan includes policies and objectives to address conservation of a range of natural resources identified in Statewide Goal 5 – including wetlands, riparian areas and water bodies, fish and wildlife habitat, scenic routes and viewpoints, and significant upland areas. The City has completed an inventory and analysis of natural resources sites, identified the

significance of each site and provided varying levels of protection to specific sites through the application of Environmental Overlay Zones, Scenic Overlay Zones and Open Space Zones.

As described earlier, the Eliot Segment extends from the Steel Bridge on the south to the Edgar Kaiser Medical Facility between N Interstate Avenue and I-5 on the north. It includes the Eliot Neighborhood. The segment is characterized by a wide mix of uses including an industrial sanctuary, the Rose Quarter, commercial, retail, and medical uses and a mix of low to high density residential development.

Because the Eliot Segment is highly urbanized, few natural resources are present or impacted by the South/North Project. Based on the information in the DEIS and the results reports, the Council finds that the LRT improvements in this segment will only potentially impact designated scenic viewpoints.

Fish and Wildlife Habitat. The Eliot Segment is highly urbanized. No natural habitat or significant vegetative cover occurs within this segment. Because of the lack of natural habitat within the Eliot Segment, no TES plant species were encountered, nor were any expected. Wildlife use of this segment is also expected to be negligible because of the lack of natural habitat.

Peregrine falcon are known to nest on the Fremont Bridge, approximately 0.75 mile northwest of the Steel Bridge LRT crossing. This species may occasionally fly over and forage the Eliot Segment. This species occurrence in the project area is described in more detail in the *Biological Assessment for Bald Eagle and Peregrine Falcon for the South/North Transit Corridor Study*. Because of the distance between the LRT alignment and the nest site, the *Ecosystems Report* concludes and the Council finds that construction and operation of South/North LRT is not expected to adversely affect nesting peregrine falcon.

No waterways are present in the Eliot Segment; therefore no fishery resources are present.

Scenic and Open Space Areas. Visual/scenic resources identified as significant in the City's *Scenic Views, Sites and Drives Inventory, Scenic Resources Protection Plan* include views of downtown from Lillis Albina Park, a viewpoint toward the Willamette River and Downtown Portland from an overlook south of the Steel Bridge, and a gateway focal point at NE 3rd Avenue and NE Broadway Street. Additionally, all downtown bridges are identified as scenic resources, including the Steel Bridge, and the Willamette River is designated a scenic corridor. Landscaped areas adjacent to I-5 through North Portland are designated as "Open Space" on the Portland Comprehensive Plan. Scenic viewpoints are protected with application of Scenic Overlay Zones and height limitations.

The LRT alignment will be located to the east and north of Lillis Albina Park and will not affect the viewpoint from the park to the west and south toward Downtown. Additionally, road modifications in the vicinity of the Rose Quarter Transit Center will be located east of the overlook viewpoint and will not interfere with views of the Willamette River and Downtown Portland. With development of a grade-separated LRT alignment and station over the Broadway/Weidler couplet, the design of the structure could function as a "gateway" to both the Rose Quarter and the Lloyd Districts, consistent with the plan for a gateway/focal point in this vicinity. The overall design and visual appearance of the Steel Bridge will not be modified with the addition of South/North LRT tracks across the bridge

and views to and from the Willamette River will not be affected by LRT improvements in the Eliot Segment.

The landscaped areas adjacent to I-5 are designated "Open Space" to recognize the open, landscaped character and not because of plans for active open space use. The City of Portland Open Space zone permits highway and utility improvements. Additionally, Portland City Code Title 17, Public Improvements and not Title 33, Planning and Zoning generally regulate transportation improvements within public right-of-way such as I-5.

Riparian Areas. There are no riparian areas within the Eliot Segment.

Wetland Areas. The *Ecosystems Report* notes that no wetlands were identified in the Eliot Segment.

Park and Recreational Areas and Willamette River Greenway. One park in the Eliot Segment is adjacent to the LRT alignment. Lillis Albina Park (4.68-acres) is located at N Flint Avenue and N Russell Street, east of I-5. The park is adjacent to Tubman Middle School, but is owned and maintained by the City of Portland. Lillis Albina Park is accessible to and within walking distance of residents of the Eliot Neighborhood. Use of the playing field is available by contacting the City of Portland Parks Bureau.

The park's principal attraction consists of a playing field with picnic tables and bleachers. There is also a playground area for children. The Portland Youth Soccer Association (PYSA) and Little League use the field for organized activities (practices and games) seven days a week. The LRT alignment will be located on the east side of N Flint Avenue and the north side of N Russell Street bordering Lillis Albina Park. The South/North Project will not require right-of-way from the park. Therefore, the *4f Report* concludes and the Council finds that there will be no use or adverse impact on the Lillis Albina Park.

The South/North LRT alignment will technically cross the Willamette River Greenway. However, the improvements will be located on the existing Steel Bridge and will not represent a new encroachment into the Greenway. The Rose Quarter Transit Center is located outside of the Greenway Boundary and the LRT improvements will not impact the long-term development of the Greenway Trail along the east side of the Willamette River.

Mitigation Options for Natural Resource Impacts in the Eliot Segment

Based on the information in the results reports, the Council finds that the South/North Project improvements in the Eliot Segment will not impact significant fish and wildlife habitat, open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in the City of Portland Comprehensive Plan.

The Council finds that the LRT alignment will not have an adverse impact on Lillis Albina Park and the designated viewpoint from the park toward Downtown Portland because the alignment is located to the far side of the streets abutting the park (N Flint Avenue and N Russell Street) away from the viewpoint. Additionally, road improvements in the vicinity of the Rose Quarter will not be located in front of or interfere with the view from the overlook and viewpoint to the south of the Steel

Bridge. Further, the Council finds that the grade-separated alignment and station over the Broadway/Weidler couplet could provide the opportunity for development of a "gateway" to the Rose Quarter and the Lloyd District. The local permitting process will provide the forum for consideration of the scale and design of the structure.

The Council recognizes that the landscaped right-of-way of the I-5 corridor is designated "Open Space" in the Portland Comprehensive Plan. However, this designation does not preclude or limit transportation improvements within the public right-of-way, and the Council finds that the LRT alignment through the I-5 corridor can be landscaped to mitigate visual impacts.

6.4.7.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Stormwater runoff impacts specific to the Eliot Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the Eliot Segment, are addressed in the general findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the Eliot Segment

The LRT improvements in the Eliot Segment include construction of an alignment, a transit center at the Rose Quarter and two additional stations in existing paved areas. There are no park-and-ride lots or operations and maintenance facilities proposed in this segment.

The transit center and stations within the Eliot Segment are located in areas that are currently paved (street and/or sidewalk). As a result, the *Hydrology Report* states and the Council finds that the LRT improvements in the Eliot Segment are not expected to increase the rate or volume of stormwater runoff, either individually or collectively. Runoff generated along the alignment and at the transit center and stations will be directed to catch basins and storm drainage facilities in adjacent roadways. Drainage is currently conveyed to the Willamette River. No increase in pollutant loading would be anticipated compared to that generated from existing streets and sidewalks in the Eliot Segment.

Mitigation Options for Stormwater Impacts in the Eliot Segment

As shown in Table 5.3-7 of the *Hydrology Report*, no adverse hydrologic, flooding, or water quality problems are expected from any of the proposed LRT improvements in the Eliot Segment. The Council concurs with this finding and concludes that no specific stormwater mitigation measures are required in this segment. Standard erosion control and stormwater management techniques described in the General Findings are applicable in the Eliot Segment and will be implemented by the Portland Bureau of Environmental Services through local permitting.

6.4.7.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

Historic and cultural resource impacts specific to the Eliot Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/North Corridor, including the Eliot Segment, are addressed in the General Findings. Historic and cultural resource impacts and mitigation measures are also described in the *Historic, Archeological and Cultural Resource Impacts Results Report (Historic Report)*.

Identified Significant and Protected Historic and Cultural Resources in the Eliot Segment

As part of the DEIS, the following five historic and cultural resource sites in the Eliot Segment were evaluated for eligibility for the National Register:

- Emanuel Hospital/2800 N Commercial Street (Site 131)
- Warehouse/222-240 N Broadway Street (Site 132)
- John H. Norwood Residence/226 N Page Street (Site 191)
- Worthy Bridges-Walter Callison Residence/2404 N Flint Street (Site 192)
- Otis Cain Residence/2310 N Page Street (Site 193)

None of the five sites were determined eligible for the National Register, the first two (Sites 131, 132) because of loss of integrity; and the last three (Sites 191, 192, 193) because they are not 50 years of age.

The City of Portland Historic Resource Protection Overlay Zone provides historic resource designations for individual resources and two different designations for districts.

A *Historic District* is an area with common historic values of significance to the City as a whole. Historic Districts are thoroughly documented and may also be listed by the US Department of the Interior on the National Register of Historic Places. Information supporting a specific district's designation is found in the City's Historic Resources Inventory and in the evaluation and ESEE analysis done in support of the district's creation.

A *Conservation District* is an area with common historic values significant to a neighborhood or sub-area within the City. Conservation districts need not be as well documented as Historic Districts. Conservation Districts include areas that contribute to the preservation of significant features of Portland's development history. Information supporting a specific district's designation is found in the City's Historic Resources Inventory and in the evaluation and ESEE analysis done in support of the district's creation.

The Council is aware that the City of Portland has established boundaries and implemented review procedures for the *Eliot Conservation District*. However, Map 445-2 of the Portland Zoning Code

confirms that the westerly boundary of the Eliot Conservation District does not extend west of N Williams Avenue to the south of NE Russell Street. Therefore, the LRT alignment that extends north in N Flint Avenue and west in N Russell Street lies outside of the boundaries of the Eliot Conservation District.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the Eliot Segment

Based on the information in the *Historic Report* and the DEIS, the Council concludes that the LRT improvements in the Eliot Segment will not have an adverse impact on historic and cultural resources that are identified as significant and protected in the City of Portland Comprehensive Plan. Potential mitigation for impacted buildings are described in the General Findings.

The Council is aware that concerns have been raised regarding the adequacy of the South/North DEIS evaluation of historic resources, with specific concerns expressed regarding potential adverse project impacts on buildings associated with African American individuals, institutions, businesses, and events over time ("Cornerstones" project). However, Criterion 8 deals only with historic and cultural resources that are identified as "significant" and "protected" by the acknowledged local comprehensive plan. Because these resources are not inventoried and protected under the City of Portland Comprehensive Plan, the Council finds that Criterion 8 does not apply to them.

6.4.8 North Portland Segment

6.4.8.1 Description of Light Rail and Highway Improvements

The North Portland Segment of the South/North Project includes the following LRT-related facilities:

- An alignment that extends from the Edgar Kaiser Medical Facility to N Marine Drive.
- Five light rail stations in the vicinity of Edgar Kaiser Medical Facility, N Skidmore Street, N Denver Avenue, Portland International Raceway and the Expo Center.
- Three additional stations in the vicinities of N Killingsworth Street, N Portland Boulevard and N Lombard Street. A planning process resulting in a land use final order amendment will decide the locations of the alignment and these three stations within the Crossover Study Area generally bounded by N Killingsworth Street, N Interstate Avenue, N Lombard Street and I-5.

See **Figures 1.8a and 1.8b** of the LUFO for LUFO boundaries for the North Portland Segment.

Light Rail Alignment

From the station located at the Edgar Kaiser Medical Facility near I-5, the alignment runs northward west of and generally parallel to I-5 to just south of N Skidmore Street, where it jogs northwestward to a station in the vicinity of N Skidmore and N Montana. The alignment then returns to the west side of I-5 by jogging northeastward, crossing under N Going Street. The alignment continues along the west side of I-5 to an at-grade crossing of N Killingsworth Street. From here, the alignment continues northward through a study area generally bounded by N Killingsworth Street, N Interstate

Avenue, N Lombard Street and I-5. A planning process resulting in a land use final order amendment will decide the location of the alignment as well as the locations of stations in the vicinities of N Killingsworth Street, N Portland Boulevard and N Lombard Street.

From the station in the vicinity of N Lombard Street, the alignment continues northward in the center of N Interstate Avenue to the vicinity of N Denver Avenue, with limited and controlled automobile and pedestrian crossings through this section. A station is located just south of the intersection of N Interstate Avenue and N Denver Avenue, between N Denver Avenue and N Fenwick Street. At N Denver Avenue, the alignment continues northward, east of N Denver Avenue, crossing over the Columbia Slough on a new bridge with a minimum vertical clearance of 34 feet CRD and a minimum horizontal clearance of 66 feet. The alignment then continues northward east of N Denver Avenue to a station in the vicinity of West Delta Park and Portland International Raceway near I-5. From here the track crosses above Highway 99 and then continues adjacent to N Expo Road between N Expo Road and I-5 to N Marine Drive, with a station near the Expo Center.

Light Rail Stations

Eight stations are provided in the North Portland Segment. The precise locations of three of the stations will be decided as part of the Crossover Study and addressed in a subsequent LUFO amendment.

Edgar Kaiser Station. This station will be located to the west side of I-5 and will serve Edgar Kaiser Medical Facility employees, patients and visitors. The station will also provide transit access to Kaiser Town Hall, a community facility, and to the nearby residential neighborhoods of Overlook and Boise. The Boise Neighborhood lies east of I-5; however, a combined pedestrian/security vehicle bridge will provide access across I-5 to the Edgar Kaiser Station.

Skidmore Station. The Skidmore Station will be located one block west of I-5 at the intersection of N Montana and N Skidmore Street. This station will serve the Overlook Neighborhood and provide convenient transit access to commercial uses along N Interstate. Additionally, the existing Skidmore overcrossing of I-5 provides a convenient link of the light rail station to the Humboldt Neighborhood to the east of I-5.

Crossover Study Stations (3). Three stations will be located in the Crossover Study Area that generally extends between N Interstate Avenue and I-5, from south of N Killingsworth Street to north of N Lombard Street. The three stations will be located in proximity to the major east-west streets that connect neighborhoods to the east and west of I-5 in this vicinity: N Killingsworth Street, N Portland Boulevard and N Lombard Street. The precise location of the alignment and the specific station locations will be decided in a Crossover Study that includes consideration of station visibility and security and local development and urban design objectives. The impacts of the alignment and stations will be addressed in a subsequent LUFO amendment.

Kenton Station. The Kenton Station will be located on N Interstate Avenue in the vicinity of N Willis Boulevard and N Argyle Street. This station will serve residential, commercial and community uses in the historic Kenton District. The Kenton Business District functions as a commercial and community activity center for the neighborhood. The character of the Kenton

Neighborhood is primarily residential with local commercial services to the south of N Columbia Boulevard, transitioning to industrial and public uses north of N Columbia Boulevard.

PIR Station. This station, located in the vicinity of West Delta Park and Portland International Raceway (PIR), will serve the public and quasi-public destination points of PIR, Portland Meadows Racetrack and Delta Park. The station will provide light rail accessibility to support major events at these facilities.

Expo Center Station. This station will be located near and serve the Portland Metropolitan Exposition Center (Expo Center), another major event facility in the North Portland Segment. The Expo Center was recently expanded to accommodate the Smithsonian Exhibit, and it serves as a venue for large-scale events such as boat and RV shows, garden shows, etc.

Park-and-Ride Lots

There are no park-and-ride lots in the North Portland Segment.

Operations and Maintenance Facilities

There are no operations and maintenance facilities in the North Portland Segment.

Highway Improvements

There are no highway improvement proposed for the North Portland Segment.

6.4.8.2 Criterion 3: Neighborhood Impacts

“Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process.”

“A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.”

“B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.”

Description of Affected Neighborhoods in the North Portland Segment

This segment directly affects three neighborhoods to the west of I-5: Overlook, Arbor Lodge and Kenton. Neighborhoods that lie east of I-5 (Boise, Humboldt and Piedmont) are less directly affected by the South/North Project but will have access to light rail via existing east/west overpasses over I-5. In general, the North Portland Segment is distinguished by mixed use development along N Interstate Avenue, including single and multi-family dwellings, commercial and business uses and light industrial development. Mostly single family neighborhoods are located on either side of I-5. The Cascade Campus of Portland Community College lies east of I-5 in the vicinity of N Killingsworth Street. Delta Park (East and West) regional recreational facilities, the Portland International Raceway and the Expo Center are all located at the north end of this segment.

A summary description of each directly affected neighborhood follows, based on information from the *Neighborhood Impacts Results Report*.

The *Overlook Neighborhood* is bounded on the south by the Fremont Bridge, on the north by N Ainsworth Street and N Willamette Boulevard, on the east by I-5 and on the west by the Willamette River. N Going Street provide access to I-5 from the Overlook Neighborhood. Other major streets include N Interstate Avenue, N Greeley Avenue, N Willamette Boulevard, N Killingsworth and N Ainsworth Streets.

Overlook includes a wide range of land uses, including residential, industrial, institutional, retail and office. Swan Island, an industrial park area, makes up the northwestern portion of the neighborhood and is a major employment center. The rail yards to the south of Swan Island are part of the Overlook Neighborhood. N Interstate Avenue is primarily a commercial strip with various retail and service uses. The Edgar Kaiser Medical Center is located between N Interstate Avenue and the I-5 freeway at the southern entryway to the Overlook Neighborhood. Overlook Park is located to the west of the Kaiser Medical Center. The residential portion of the neighborhood is located between N Willamette Boulevard/N Greeley Avenue and the I-5 freeway. The neighborhood is predominantly single family with some multi-family buildings.

The Overlook Neighborhood contained an estimated 1990 US Census population of 5,596. The percentage of population that is minority, over 65 years of age and below the poverty level is somewhat higher for the Overlook Neighborhood than comparable percentages for the county and the region. The median value of housing in the neighborhood is considerably less than either the county or region.

The *Arbor Lodge Neighborhood* is bounded by N Ainsworth Street on the south and N Lombard Street on the north, I-5 on the east and N Chataqua and N Willamette Boulevards on the west. The major north/south street is N Interstate Avenue. The major east/west streets include N Portland Boulevard, N Lombard Street and N Ainsworth Street. Other east/west streets dead end at the I-5 freeway.

The Arbor Lodge Neighborhood is predominantly residential in character, although some commercial uses are located along N Interstate Avenue. The majority of the residences in the neighborhood are single family. Mock's Crest is a single family subdivision located in the western

portion of the neighborhood. This subdivision was platted after World War II and is unique because of the deep front setbacks, unique street lighting and mature street trees.

Commercial uses are located along both sides of N Interstate Avenue. The largest retail use in the neighborhood is the Fred Meyer shopping center located at the southeast corner of N Interstate Avenue and N Lombard Street.

The Arbor Lodge Neighborhood contained an estimated 1990 US Census population of 6,237. Approximately 13.6 percent of the population is minority compared with 13 percent for Multnomah County and 8.6 percent for the region. The mobility limited population is slightly higher in the neighborhood compared to the county and the region. The percentage of population over 65 years of age is considerably higher, almost double, county and region percentages.

The proportion of households below the poverty level is slightly lower in the neighborhood than in Multnomah County, but slightly higher than the region as a whole. Median value of housing in the neighborhood is considerably less than either the county or region. A lower proportion of Arbor Lodge residents rent their homes.

The *Kenton Neighborhood* is bounded in the south by N Lombard Street and on the north by the North Portland Harbor, on the east by I-5 and on the west by N Chataqua Boulevard. The major north/south street in the neighborhood is N Interstate Avenue which turns into N Denver Avenue. The major east/west streets are N Lombard Street and N Columbia Boulevard. These streets cross over I-5 and provide a connection with the Piedmont Neighborhood. The remaining east/west streets dead-end at I-5.

The Kenton Neighborhood contains a wide range of uses including residential, commercial, industrial and recreational destination points. The character of the neighborhood is primarily residential. The residences are primarily single family with some multi-family units mixed in. The Kenton Neighborhood has a designated Historic Conservation District located on the west side of the northern end of N Interstate Avenue.

The Columbia Slough runs diagonally through the neighborhood and separates the industrial area from the northernmost portion of the neighborhood, which contains a number of destination points. West Delta Park, Portland International Raceway, Heron Lakes Golf Course and the Expo Center are located on the west side of I-5; and Portland Meadows Race Track, Portland Meadows Golf Course and East Delta Park are located to the east side of I-5.

The Kenton Neighborhood contained an estimated 1990 US Census population of 6,536. Approximately 23.1 percent of the population is minority compared with 13 percent for Multnomah County and 8.6 percent for the region. The mobility limited population and the population over 65 years of age is somewhat higher for the neighborhood than for the county and the region.

The proportion of households below the poverty level is greater in the neighborhood (19.8 percent) than in Multnomah County (13.1 percent) and the region as a whole (9.9 percent). Median value of housing in the neighborhood is considerably less than either the county or region. The proportion of residents that rent their home is slightly higher than in the region, but lower than the county.

As noted earlier, the Boise, Humboldt and Piedmont Neighborhoods all are located to the east side of I-5. Figures 3.3-2 and 3.3-3 of the DEIS illustrate that all three of these neighborhoods have household poverty rates and percentage of minority residents significantly higher than county and regional averages. Median home values in the neighborhoods are well below the county and regional medians.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the North Portland Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the North Portland Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter "General Findings"). Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

The DEIS included two alignment alternatives in the North Portland Segment: I-5 and Interstate Avenue. Two design options were evaluated for the I-5 alignment: Modify Alberta Street Ramps and Retain Alberta Street Ramps.

The Council has selected a synthesis of the two alignment alternatives for the North Portland Segment. South of N Killingsworth Street, the I-5 alignment with the Retain Alberta Ramps is selected. The Council has identified a Crossover Study Area generally extending between N Killingsworth and N Lombard Streets, between N Interstate Avenue and I-5. The precise location of the alignment crossover from I-5 to N Interstate and the specific locations for the three stations within this area, and associated impacts, will be addressed in the Crossover Study. North of N Lombard Street, the Council has selected the Interstate Alignment Alternative.

The I-5 and Interstate alignment alternatives through the Crossover Study Area have different impacts relating to displacement, noise, traffic, safety and security, and urban design/development potential. The Council, in partnership with affected neighborhoods and jurisdictions, will attempt to maximize the positive impacts and reduce adverse impacts with a more detailed evaluation of the alignment and station options within the Crossover Study Area. Specific impacts of the selected alignment and station locations will be addressed in a subsequent LUFO amendment.

Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacements affect employment, incomes, services and taxes. Even though the adverse impacts associated with displacements in the North Portland Segment may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to employees who work for the company.

No commercial displacements are associated with the Council selection of the I-5 alignment for the southerly portion of the segment, extending from Edgar Kaiser Medical Center to N Killingsworth Street. By comparison, the Interstate Alignment would have displaced about 8-10 commercial uses in this southerly segment.

The Council has selected the Interstate Alignment north of N Lombard Street. This alignment requires widening of N Interstate Avenue to accommodate the LRT tracks and station platforms and to realign existing streets and curbs. Because many buildings along N Interstate Avenue have narrow setbacks, widening the street requires the removal of structures. As a commercial thoroughfare, more businesses are located on N Interstate Avenue, accounting for the greater business displacements associated with this alignment. The majority of the potentially affected structures are older buildings ranging from 30 to 50 years in age, although many have been renovated.

The Interstate Alignment will displace approximately 10 commercial and industrial uses between N Lombard Street and the Columbia Slough. The commercial displacements are concentrated in the area between N Lombard and N Terry Streets on the east side of N Interstate Avenue. The industrial displacements are concentrated in the area north of N Argyle Street and south of the Columbia Slough. The LRT bridge and alignment paralleling the N Denver Viaduct will displace industrial uses located to the east side of the viaduct.

In selecting the synthesis alignment for the North Portland Segment, the Council has attempted to balance displacement impacts with opportunities for a better integration of LRT with the neighborhood.

As described in the General Findings, displaced commercial, industrial and public uses and property will be acquired at fair market value, and/or relocation benefits will be provided to business owners and tenants. During the preliminary and final engineering processes, staff will try to minimize displacement impacts to the extent possible through design refinements.

Loss of Parking/Access. The loss of parking, and the loss or change of access, can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access cannot be safely and adequately relocated or reconfigured, then the entire business is assumed to be displaced.

Anticipated changes to *property access* in the North Portland Segment are discussed in Section 5.10.3 of the *Traffic Report*. Only property access changes that would be incurred by properties remaining after acquisition of property and/or right-of-way have been identified.

In the southerly portion of the segment, the Council's selection of the I-5 alignment minimizes impacts to parking and access. Where the LRT alignment swings away from I-5 at the Skidmore Station, N Montana Street is converted into a 1-way southbound street. The LRT alignment will be located in a tunnel under N Going Street north to N Alberta Street and will avoid impacts to parking and access in this section.

Access impacts in the Crossover Study Area will be addressed in a subsequent LUFO amendment.

The Council's selection of the Interstate Alignment to the north of N Lombard Street will result in some impacts to parking and access. The existing frontage including sidewalks, curbs and gutter will be reconstructed in conjunction with the construction of the LRT trackway in the median of N Interstate Avenue. The reconstruction of N Interstate Avenue would result in some additional turn restrictions beyond those that already exist. U-turns would be accommodated at signalized intersections along N Interstate Avenue.

In the Kenton area, the reconstruction of the intersections in the immediate vicinity of the existing intersection of N Interstate Avenue with N Argyle Street and N Denver Avenue will result in changes in access to remaining properties in the district. The *Traffic Report* states and the Council finds that these changes will be relatively minor in terms of auto circulation and will improve existing pedestrian and bicycle routes.

Parking impacts in the North Portland Segment were assessed primarily along N Interstate Avenue and portions of adjacent side streets. The selection of the I-5 alignment in the southerly portion of the segment will have little or no impact on existing on-street parking in North Portland and will avoid parking impacts associated with the N Interstate Alignment between N Overlook Boulevard and N Killingsworth Street. The Council finds that the location and design of the Edgar Kaiser Station can be refined during preliminary and final design to minimize adverse impacts on parking at the Kaiser Medical Facility and improve the integration of the LRT station into the hospital campus and the neighborhood.

Parking impacts within the Crossover Study Area will be addressed in the subsequent LUFO amendment after selection of the precise alignment and station locations.

With the Council selection of the Interstate Alignment north of N Lombard Street, about 24 parking spaces along N Interstate Avenue will be displaced, with the majority of the loss between N Winchell and N Terry Streets. The existing parking occupancy rate of the entire subarea including the side streets is 5.6 percent. This will increase to about 6.7 percent with the LRT alignment in N Interstate Avenue. Therefore, the Council finds that the future supply of on-street parking in this area clearly exceeds the current demand for parking.

Tax Base. The South/North Project will have a minor impact on the tax base through the displacement of business/industrial uses from the tax rolls. In general, the Interstate Avenue Alignment has higher tax base impacts than the I-5 Alignment because more higher value commercial properties are displaced. Table 5.1-3 of the DEIS identifies the 1994 Assessed Value and property taxes of displaced properties in the North Portland Segment. The selected alternative reflects a synthesis of the two alignment alternatives that were evaluated in the DEIS, and the middle portion of the Segment is included within a Crossover Study Area.

The tax base impacts associated with the displacement of private property and existing business uses for the LRT alignment and stations will be long-term. These facilities will be in public ownership and will be permanently removed from the tax rolls. However, the Council finds that the availability of light rail and stations in the North Portland Segment is expected to spur development and enhance property values and the tax base on a long-term basis, particularly around stations with vacant and underdeveloped land.

Freight Movement. The LRT alignment in the North Portland Segment will cross over the Columbia Slough immediately north of the Columbia Boulevard industrial area. There is no official channel within the Columbia Slough, nor has it been dredged in this area. Due to the shallow nature of the water, primary use of the waterway has been for recreational boating, and the Council finds that the LRT improvements will not adversely affect *water freight movement*. The LRT bridge over the Columbia Slough will have a vertical clearance of 34 feet CRD and a minimum horizontal clearance of 66 feet, matching the main span of the existing N Denver Avenue Viaduct bridge approximately 75 feet downstream.

The LRT improvements in the North Portland Segment will not impact *rail freight movement*. UP's North Portland line, which runs east/west across North Portland, crosses the South/North Corridor in the vicinity of N Columbia Boulevard. This rail line provides UP with an alternative entry into the City of Portland for its transcontinental line, and services a number of industries. The LRT alignment will cross over N Columbia Boulevard and the rail line on a structure, resulting in no at-grade LRT/rail crossings in the North Portland Segment.

The City of Portland has designated two truck districts within the North Portland Segment. At the southern end of the segment, the Albina Yard and Swan Island Industrial Area comprise a truck district bounded by I-405 on the south, N Greeley Avenue on the north and east, and the Willamette River on the west. Access to this district is via the Greeley ramps to and from I-5 at the I-5/I-405 interchange, via N Going Street, and via N Interstate Avenue.

At the northern end of the segment, the Rivergate Industrial Area comprises a truck district bounded by the Willamette River on the west, the Columbia River and North Portland Harbor on the north, the City limits on the east, and N Columbia Boulevard on the south. The primary truck access to this district is via the N Lombard, Delta Park, and N Marine Drive interchanges on I-5 and via N Columbia Boulevard. Other designated truck streets include N Interstate Avenue, N Lombard Street from N Interstate east across I-5 to NE Martin Luther King Jr. Boulevard, and N Portland Boulevard from I-5 east to NE Martin Luther King Jr. Boulevard.

As noted in the *Traffic Report*, p.m. peak period truck volumes along N Interstate Avenue range from 2-3 percent in the southern portion of the segment to around 5-7 percent in the northern portion. N Going Street and the N Marine Drive interchange with I-5 were observed to carry the highest truck traffic in the North Portland Segment.

Based on the information in the *Traffic Report*, the Council finds that the LRT improvements in the North Portland Segment will not have a significant adverse impact on *truck freight movement*. At two of the three interchanges with the heaviest truck volumes, N Going Street and N Marine Drive, the LRT trackway will be grade separated from the surface street system and will avoid adverse traffic/truck impacts. The at-grade crossing of N Lombard Street will continue to be signal controlled.

By choosing the I-5 alignment in the southerly portion of the segment, there will be no change in the basic cross-section of N Interstate Avenue or removal of parking used by delivery trucks for loading/unloading use. In the Kenton area, the reconfiguration of the N Denver/Argyle/Interstate Avenue intersection will reduce delays for some truck movements and increase delays for others.

In choosing to retain the Alberta Ramps, the Council has avoided impacts to access and travel times that were associated with the Modify Alberta Ramps Design Option. Businesses located to the east of I-5 will retain the same truck access to the I-5 freeway as they have today.

Social Impacts

The Council finds that the LRT improvements in the North Portland Segment result in positive and negative social impacts. Light rail will provide improved transit access to housing and jobs in the North Portland Segment and will link the affected neighborhoods with regional employment centers and other activity areas. North Portland neighborhoods have higher concentrations of minority, lower income and mobility limited residents that could see positive benefits from improved transit service and access. However, light rail will displace some housing and service uses. The Council recognizes that displacement can have a significant social impact on the viability of neighborhoods.

Residential Displacements. As with business displacements, the Council finds that in every instance where the South/North Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. The Council understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

The selected I-5 alignment in the southerly portion of the segment will displace approximately 13 single family homes located between N Montana Street and I-5 near the intersection with N Skidmore Street. The Council selected the Skidmore Station location in response to community concerns regarding potential isolation of stations adjacent to I-5. The station can be integrated into the neighborhood and residential redevelopment opportunities will be available around the LRT station.

Residential displacements within the Crossover Study Area will be addressed in a subsequent LUFO amendment after the precise alignment and station locations are selected.

With the selection of the Interstate Alignment north of the Crossover Study Area, approximately 39 residential units are displaced to the east side of N Interstate Avenue between N Lombard Street and N Terry Street. These include approximately 36 multifamily units and 3 single family dwellings. Again, the Council finds that this alignment can be integrated into the Kenton Neighborhood and residential redevelopment opportunities will be available in close proximity to the LRT alignment.

As explained in the General Findings, where residential displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program.

Access to Community Facilities. The Council finds that the South/North Project will provide improved transit access to community facilities and employment centers located in the North Portland Segment, including the Edgar Kaiser Medical Facility, Portland Community College's Cascade Campus, Ockley Green and Kenton Schools, the Interstate Cultural Facility, and neighborhood parks and churches. Additionally, residents of the affected neighborhoods to the west and east sides of I-5 will have improved transit accessibility to regional employment centers and recreational/educational destinations located along East/West and South/North MAX lines.

Barriers to Neighborhood Interaction. The Council finds that the LRT improvements in the North Portland Segment will not result in significant barriers to neighborhood interaction. In the southerly portion of the segment, the LRT alignment generally parallels I-5, which already functions as a boundary and barrier between neighborhoods west and east of the freeway. By locating the LRT stations near major east/west crossings over the freeway, the Council is maximizing the LRT coverage to neighborhoods east and west of the freeway. Additionally, construction of a pedestrian/security vehicle bridge over the freeway at the south end of the North Portland Segment will connect the Boise Neighborhood with the Kaiser Station and overcome the existing freeway barrier between neighborhoods.

Selection of the Interstate Avenue Alignment north of N Lombard Street will result in a number of changes to traffic operations. The number of auto travel lanes will be reduced, with a corresponding reduction in traffic volumes on N Interstate Avenue. Neighborhood cohesion could be impacted because of the change to local pedestrian travel patterns that would occur from limiting pedestrian access across N Interstate Avenue to approximately once every two blocks. However, the Council finds that crossings will be provided for east-west pedestrian movements between existing signalized intersections. In general, the median LRT configuration will reduce barriers to neighborhood interaction and provide an improved environment for pedestrian crossings of N Interstate Avenue relative to existing conditions by reducing the width of the crossing and providing a refuge for pedestrians.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. Because portions of the alignment in the North Portland Segment parallel I-5, the Council recognizes that station security is a sensitive issue, particularly during evening hours. The Council finds that, with appropriate design and implementation of systemwide transit security measures as described in the General Findings, safety and security will not be adversely affected by the LRT improvements in the North Portland Segment.

The Edgar Kaiser Station will be located at the grade of the medical center facilities. This station will be located at the terminus of N Overlook Boulevard and in proximity to Kaiser Town Hall, an active community facility. The station will be visible from N Interstate Avenue and will also have a pedestrian/security vehicle bridge connection to the Boise Neighborhood east of I-5. The Council finds that with appropriate bridge design, improved visibility of bridge traffic, and especially with adequate width to accommodate police vehicles on the bridge, the pedestrian bridge should not encounter the security problems that resulted in the closure of the I-5 pedestrian overcrossing at N Failing Street.

The Skidmore Station will be located one block west of I-5 near the N Skidmore Street overpass of I-5. The Council finds that this location of the Skidmore Station was preferred by the neighborhood over a station adjacent to I-5, primarily because of greater visibility, proximity to the neighborhood, and opportunity to better link the station with future development. The station location at-grade next to N Skidmore Street provides for good visibility from a busy public street and convenient access across the overpass to neighborhoods east of I-5.

The precise location of the LRT alignment and three stations within the Crossover Study Area will be addressed in a subsequent LUFO amendment. In general, the Council anticipates that the stations

will be located in the vicinity of the three major east/west cross streets of N Killingsworth Street, N Portland Boulevard and N Lombard Street to maximize visibility at active street intersections and take advantage of existing links between neighborhoods east and west of I-5.

North of N Lombard Street, the Kenton Station will be located at-grade and in proximity to a range of active land uses. The Council finds that there are opportunities to integrate the design of this station with the historic Kenton Neighborhood. Further, the reduced number of auto travel lanes on N Interstate and the "Z" crossings will enhance safety for pedestrians and provide a refuge from auto traffic at crossings. The Council finds that the "Z" crossings enhance pedestrian safety by orienting pedestrians in the direction of oncoming light rail traffic prior to crossing the light rail tracks. This enables people who might not otherwise hear the trains coming to see them.

Stations at PIR and the Expo Center will provide transit accessibility to major event activities. Final design of these stations will include consideration of safety and security issues such as visibility, multiple access points, lighting, landscaping, and pedestrian and bicycle connections to the event facilities.

The Council finds that affected businesses, neighborhood associations, Tri-Met and the Portland Police Bureau will be involved in the review of the final design of the LRT stations in the North Portland Segment to maximize safety and security. This review will include consideration of issues such as visibility, materials, lighting, pedestrian/bicycle/disabled access, landscaping, telephones at platforms and potential security cameras. Strategies to mitigate adverse safety and security impacts will be further evaluated during the FEIS and local permitting processes.

Visual/Aesthetic. The North Portland Segment rises sharply from the Willamette River north to N Going Street, then rises more gradually to N Ainsworth Street, flattening out at approximately N Portland Boulevard. It then slopes gradually down to the Columbia River floodplain. Most structures along N Interstate are located close to the street adjacent to narrow sidewalks. The interior of the neighborhood between I-5 and N Interstate Avenue consists of moderate-scale, one and two story older houses. I-5 is screened from the neighborhoods with old hedges, a concrete sound wall and irregularly placed landscaping.

Dominant visual features in the North Portland Segment include the Paul Bunyan statue in Kenton; communication towers near the Expo Center and Portland International Raceway; community open spaces such as Patton Square Park and the Interstate Firehouse Cultural Center, Ockley Green and Kenton Schools, West Delta Park, East Delta Park and the 40-mile loop trail; and vintage houses interspersed along N Interstate Avenue.

The visual impacts of the LRT improvements in the North Portland Segment are described in the *Visual Impacts Results Report* and summarized below.

In the southerly portion of the segment, a moderate degree of change will occur along the eastern edge of neighborhoods abutting I-5. Several houses will be displaced, vegetation removed, and topography modified with retaining walls and structures for LRT. Long concrete retaining walls will be more visible from I-5 because of their height and the removal of vegetation. Trains, poles and overhead wires will replace views of houses and rooftops, trees and other vegetation located above the freeway lanes.

North of the Crossover Study Area, structures and vegetation on the east side of N Interstate Avenue are removed to accommodate the LRT alignment. The alignment will alter the residential character of this area with the removal of large canopy trees and the introduction of tracks, poles and overhead wires. In Kenton, the enlargement of the N Denver/N Argyle/N Interstate Avenue intersection, the opening of the northeast corner of the district with the removal of structures, and the development of a station and light rail facilities in the median will result in a moderate degree of visual change.

From N Argyle Street to the end of the segment, the alignment parallels the east side of N Denver Boulevard on fill slopes, 10-20 foot high retaining walls and overpasses. Industrial structures and vegetation are removed. Just north of N Victory Boulevard the alignment crosses Pacific Highway West and continues north on a 20-30 foot high retaining wall between N Expo Road and I-5. A high degree of visual change will occur along N Expo Road to the North Portland Harbor. Mature canopy trees may be removed, eliminating the vegetation screen along the freeway and replacing it with tracks, poles, overhead wires and a 10-15 foot retaining walls.

Based on the information in the *Visual Report*, the Council finds that the visual impacts associated with the South/North improvements in the North Portland Segment include: creation of vacant land in residential and business districts; removal of street trees and other vegetation; and construction of deep fill slopes, retaining walls and sound walls along the I-5 corridor. Possible measures that could mitigate these visual impacts include:

- Supporting redevelopment of vacant lands with businesses, housing, trees and open space or pedestrian-scale amenities to create an attractive urban environment along the alignment;
- Supporting implementation of actions in the adopted Albina Community Plan that integrate South/North LRT into the neighborhood;
- Modifying the surface of retaining walls, such as terracing or the use of alternative textures and/or color, to soften their height and length;
- Working to integrate retaining walls and sound walls;
- Planting the walls and terraces with groups of trees and other vegetation to decrease their apparent length and height and to reflect planting patterns found in the neighborhood;
- Planting of tree screens on fill slopes, such as at the Expo Center, to break up its apparent height.

Traffic Impacts

Existing Street System. Extending from the vicinity of the Edgar Kaiser Medical Facility north to the North Portland Harbor, the North Portland Segment is approximately four miles in length. It includes surface transportation facilities under the jurisdiction of ODOT and the City of Portland.

Within the southern two-thirds of the segment, south of N Columbia Boulevard, the surface street system is on a regular grid with east-west collector or arterial streets spaced at approximately one-half mile intervals. Interstate 5 cuts through the grid in a north-south direction, generally located three to four blocks east of N Interstate Avenue. Crossings of I-5 are generally limited to arterial or collector streets, and are located at one-half mile to one-quarter mile apart for motorized traffic.

North of N Columbia Boulevard to the North Portland Harbor crossing, the street system is dominated by the regional arterial system including I-5, N Interstate Avenue, N Martin Luther King Jr. Boulevard, and N Marine Drive.

I-5 experiences the highest daily traffic volumes of any highway or street within the North Portland Segment. Traffic counts taken between 1993 and 1995 indicated daily volumes on I-5 ranging from 141,000 vehicles per day between the N Alberta Street and N Portland Boulevard interchanges to approximately 100,000 vehicles per day at Delta Park. On N Interstate Avenue, average daily traffic volumes during the same period ranged from 12,000 to 14,000 vehicles per day between N Going Street and N Argyle Street. Average daily traffic on key east-west streets ranged from 26,500 vehicles per day on N Going Street to 21,500 vehicles per day on N Lombard Street, approximately 21,000 vehicles per day on N Columbia Boulevard, and 16,000 vehicles per day on N Portland Boulevard.

LOS F conditions currently exist during the p.m. peak hour at the N Interstate Avenue intersections with N Going Street and N Lombard Street. At N Going Street, both northbound and eastbound approaches operate at LOS F, with lengthy queues observed during the p.m. peak hour. The N Interstate Avenue intersection with N Alberta Street has a northbound through-movement operating at LOS E. The intersection of N Interstate Avenue and N Killingsworth Street currently operates at LOS D. Intersections at N Minnesota Avenue and N Alberta Street and at N Montana/I-5 off-ramp and N Lombard Street exhibit LOS F operations on one or more of the minor (stop sign controlled) approach traffic movements.

Local Traffic Impacts. 2015 traffic volume forecasts indicate that substantial growth in volumes will occur within the North Portland Segment. With this growth, higher peak period traffic will be expected on surface streets in comparison to existing conditions, reflecting capacity constraints on I-5 that will limit that facility's ability to accommodate additional peak period traffic.

Table 5.10-1 of the *Traffic Report* summarizes the projected 2015 p.m. peak hour traffic conditions at key intersections in the study area under the No-Build Alternative. As occurs under existing conditions, intersections with high east-west traffic volumes, typically those with access to I-5 interchanges, will operate at LOS E or LOS F with 2015 traffic volumes.

Table 4.2-10 of the DEIS summarizes the level of service for 15 intersections within the North Portland Segment for the No-Build and light rail alternatives. Five of the intersections are located within the Crossover Study Area. The traffic impacts for the area generally bounded by N Killingsworth Street on the south and N Lombard Street on the north will be assessed in a subsequent LUFO amendment.

With the Council selection of the I-5 alignment in the southerly portion of the Segment, from the Edgar Kaiser Medical Facility to about N Killingsworth Street, no physical changes will occur on N Interstate Avenue. Very little difference in traffic operations would exist along N Interstate Avenue in this southerly section in comparison with the No-Build Alternative. Within this southerly section, the LRT alignment will cross N Skidmore Street at grade, with a signal at the intersection. Grade separation from the high volume streets will be provided with a tunnel from south of N Going Street to just north of N Alberta Street. The Alberta Ramps will be retained and there will be little change

from projected No-Build conditions with the introduction of LRT adjacent to I-5 in this southerly section.

The Council has selected the Interstate Alignment for the section north of the Crossover Study Area. The light rail trackway will be located in the center of N Interstate Avenue to Kenton, where the trackway is located on the east side of the N Denver Avenue Viaduct across N Columbia Boulevard and the Columbia Slough. From that point north to the North Portland Harbor, the light rail trackway is located on the west side of I-5.

With the reduction in the typical cross-section of N Interstate Avenue from two lanes in each direction to one lane in each direction, a corresponding reduction in traffic volumes on N Interstate Avenue will also occur. In the Kenton area, the intersections of N Interstate Avenue with N Fenwick Street, N Denver Avenue, N Argyle Street, and N Willis Street will be reconstructed to provide for the LRT trackway and the Kenton Station. With the installation of traffic signals at some locations that are currently unsignalized, and the changes in traffic patterns, the overall levels of service at these intersections will improve in comparison with the No-Build Alternative.

The reduction in travel lanes along N Interstate Avenue will reduce the capacity of that facility to accommodate automobile traffic. This could have the effect of reducing use of N Interstate Avenue as an alternative route to I-5 when I-5 is heavily congested. The availability of light rail will increase overall capacity along N Interstate Avenue.

The Council's decision to retain the N Alberta Street ramps to I-5 will avoid changes in local accessibility. Closure of the existing ramps would have adversely affect those living or working in the N Alberta/N Killingsworth Street corridor east of I-5 who would have been required to make some out-of-direction travel to get to or from I-5 southbound.

Station Impacts. A summary of station impacts is provided in Section 5.10.2 of the *Traffic Report*. Based on the information in the report, the Council finds that there is moderate potential for park-and-ride activity on adjacent property and neighborhood streets in the North Portland Segment. There is free on-street parking available in the vicinity of most stations, and the corridor lies within a large travel shed with high attraction to the Portland Central City. In addition to parking in residential areas adjacent to stations, off-street lots in the vicinity of the Edgar Kaiser station could offer opportunities for park-and-ride activity. The potential for drop-off traffic will vary depending upon the location of the station in relation to I-5 ramps and/or its proximity to major cross streets. The Council finds that the potential for residential neighborhood traffic intrusion will generally be low due to the proximity of the stations to the arterial street system.

If monitoring of station area parking indicates problems, parking mitigation strategies could be implemented for on-street parking. Monitoring and control of off-street lots (such as Edgar Kaiser) could be required. For example, private parking lot operators in the Lloyd District have restricted access to parking lots during the a.m. commute period (e.g. before 9:00 a.m.) to discourage park-and-ride activity in the vicinity of transit stations along the Eastside MAX.

Mitigation Strategies. As described earlier, the Council has selected the I-5 alignment in the southerly portion of this segment, has deferred a decision on the precise alignment in the Crossover Study Area, and has selected the Interstate Avenue alignment in the northerly portion of the segment.

The *Traffic Report* states, and the Council finds, that none of the intersections analyzed for the I-5 alignment meet the requirements for mitigation. By grade-separating the LRT alignment via a tunnel from the high volume intersections of N Going and N Alberta, adverse traffic impacts are avoided.

The *Traffic Report* identifies three intersections along N Interstate Avenue that would require mitigation for degradation in level of service relative to the No-Build Alternative. One of these intersections (N Interstate Avenue/N Alberta Street) is avoided with the Council selection of the I-5 alignment in the southerly portion of the segment. The other two intersections of N Interstate Avenue with N Killingsworth Street and N Portland Boulevard are within the boundaries of the Crossover Study Area. The identification of adverse traffic impacts and associated mitigation for the Crossover Study Area will be addressed in a subsequent LUFO amendment.

Conceptual engineering plans identify transportation related improvements to mitigate adverse traffic impacts in the North Portland Segment, including but not limited to the following:

- Remove the existing pedestrian bridge at N Overlook Boulevard and build a new pedestrian bridge closer to the Edgar Kaiser Station
- Reconstruct the alley along I-5 between N Failing Street and N Mason Street
- Install a signal and gated crossing at N Skidmore Street
- Construct bus pullouts along N Skidmore Street east of N Montana Avenue
- Narrow N Montana Avenue to one lane of southbound traffic from N Skidmore Street to N Mason Street
- Close N Prescott Street east of N Montana Avenue
- Revise the intersection of N Lombard Street and N Interstate Avenue
- Widen N Interstate Avenue from N Lombard Street to N Terry Street outside the existing 100 foot right-of-way
- Reconstruct N Interstate Avenue from a four-lane basic section to a two-lane basic section with sidewalks, curbs and gutter, auto and bicycle lanes, turn and/or auxiliary lanes at intersections, and parking lanes at mid-block locations
- Realign N Farragut Street to connect with N Terry Street at N Interstate Avenue and install a signal at the N Interstate Avenue intersection
- Allow traffic to cross the median of N Interstate Avenue only at N Terry Street and N Fenwick Avenue in the stretch of N Interstate Avenue from N Lombard Street to N Argyle Street
- Install a traffic signal at N Fenwick Avenue and N Interstate Avenue
- Reconfigure and widen the street network in the Kenton area. N Argyle Street south of N Denver Avenue would be realigned to intersect N Interstate Avenue south of the intersection of N Interstate/N Denver/N Argyle Streets. The northbound leg of N Interstate Avenue would be realigned at the N Denver Avenue intersection to align with N Argyle Street north of N Denver Avenue and N Willis Street
- Modify the traffic signal at N Argyle Street and N Interstate Avenue
- Relocate N Argyle Street east of N Interstate Avenue
- Install a traffic signal and gated crossing at the Familian access along N Denver Avenue
- Relocate N Expo Road south of the Expo Center

The Council finds that the improvements identified above can mitigate the adverse traffic impacts of the South/North Project in the North Portland Segment. Refinement of mitigation plans can be addressed in preliminary engineering and the FEIS.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The *City of Portland Comprehensive Plan* and the *Albina Community Plan* envision an intensification of land uses in proximity to the South/North LRT station areas. The light rail route and associated facilities in the North Portland Segment provide transit service to key activity centers that are capable of enhancing transit ridership, including the Edgar Kaiser Medical Facility, relatively dense North Portland neighborhoods, the Cascade Campus of PCC, retail/service nodes along N Interstate Avenue, the Historic Kenton District, PIR and West Delta Park and the Expo Center.

By selecting a synthesis alignment, the Council recognizes the important role that LRT service and accessibility can provide to support more intensive development along N Interstate Avenue. LRT is an important tool in the region's ability to accomplish the goals of the Region 2040 Growth Concept. The availability of LRT will provide an alternative mode to travel on congested roadways such as I-5 and will help support higher densities and more compact and efficient development in the North Portland Segment.

Light rail transit will also provide improved transit accessibility and service to residents of North Portland. A higher than average number of North Portland residents are dependent on transit for access to jobs and services. The existing residential neighborhoods provide the density and design features such as grid streets and mixed use development that are capable of enhancing transit ridership.

Because the North Portland Segment is largely developed, the Council finds that it is not possible to completely avoid displacement impacts. However, the synthesis alignment provides the opportunity to best balance moderate displacement impacts against providing LRT service that can be well-integrated into the neighborhood and community and meet urban design and redevelopment objectives for the area.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the North Portland Segment that have utility separate from the South/North Project. A range of improvements are proposed as mitigation for traffic impacts associated with the LRT facilities in this segments. These improvements are described in the discussion of traffic impacts for the North Portland Segment.

6.4.8.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise and vibration impacts specific to the North Portland Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the North Portland Segment, are addressed in the General Findings. The General Findings include an overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the North Portland Segment

N Interstate Avenue was the primary route connecting Oregon and Washington prior to the construction of the I-5 Freeway. The two routes parallel and run north and south through the North Portland Segment. N Interstate Avenue's historic role as a travel route is still apparent from the many restaurants and motels that line the avenue. Several streets intersect N Interstate Avenue and the I-5 Freeway, linking north and northeast Portland neighborhoods.

North Portland is an older, well established area of Portland. Many of the area's single family homes were constructed for shipyard workers during World War II. The Edgar Kaiser Medical Facility is a major employment center and health care facility at the southern end of the segment. Also located in the southern portion of the segment is Overlook Park, a neighborhood landmark perched on a bluff above the Willamette River.

Commercial uses and services are located along N Interstate, N Killingsworth and N Lombard Streets, in the central portion of the segment. The northern portion of the segment has a high concentration of industrial uses, particularly along the I-5 Freeway and N Columbia Boulevard. Regional destination points are also located in the northernmost portion of the segment, including the Portland International Raceway, Delta Park and the Expo Center.

Category 2 land uses (Noise Categories described in the General Findings) within the North Portland Segment include single and multi-family dwelling units and hotels. Category 3 land uses include Ockley Green Middle School, Kenton Elementary School, several churches along N Interstate Avenue, and the Firehouse Theater and Overlook Park on N Interstate Avenue.

As shown in Figure 4.8-1 of the *Noise Report*, there were seventeen noise monitoring locations and one vibration monitoring location in the North Portland Segment. Vibration monitoring for the segment was performed at the Kenton School at the intersection of N Interstate Avenue and N Lombard Street. Ambient vibration was recorded at the corner of N Ainsworth Street and N Minnesota Avenue.

Table 4.8-2 of the *Noise Report* summarizes the existing noise environment for the North Portland Segment. The measured Ldn levels ranged from 59 to 73 dBA, with the higher levels at sites directly exposed to vehicular traffic on either N Interstate Avenue, I-5 or the major east-west arterials. Areas adjacent to N Interstate Avenue, I-5 and N Going Street have high existing noise levels due to high traffic volumes and truck traffic in the area. The existing vibration environment in the North Portland Segment is also influenced by vehicle traffic, with measurements ranging from 42 to 46 VdB near the Kenton School.

As described earlier, the selected LRT alignment for the North Portland Segment represents a synthesis of the two alignment alternatives evaluated in the DEIS. The Council has selected the I-5 alignment in the southerly portion of the segment, extending from Edgar Kaiser Medical Facility to about N Killingsworth Street. Four noise monitoring sites were located along this portion of the alignment (M46, M47, M49 and M50). The alignment through the Crossover Study Area, and associated noise impacts, will be addressed in a subsequent LUFO amendment. The Council has selected the Interstate Avenue alignment north of N Lombard Street. Four noise monitoring sites were located along this portion of the alignment (M58, M59, M60 and M62).

Table 5.2.8-1 of the *Noise Report* provides a general comparison of the noise and vibration impacts associated with the different alignment alternatives and design options. Some receiver may have a combination of impacts from LRT and traffic. Therefore, the total number of impacts may not equal the sum of the individual impacts.

I-5 Alignment/Retain Alberta Ramps:	LRT Noise Impacts	9
	LRT Vibration Impacts	23
	Traffic Impacts	5
	Total Impacts	27
Interstate Avenue Alignment	LRT Noise Impacts	2
	LRT Vibration Impacts	26
	Traffic Impacts	118
	Total Impacts	118

In comparing the two alignment alternatives, the I-5 alignment has more LRT noise impacts due to the close proximity of the receivers to the LRT alignment. The number of vibration impacts are similar for the two alignment alternatives, with a slightly higher impact along the Interstate Alignment. The number of traffic noise impacts is significantly higher for the Interstate Avenue Alignment, which also skews the total noise impacts.

The Interstate Avenue Alignment evaluated in the DEIS required the closure of the center two lanes along N Interstate Avenue from N Overlook Boulevard to N Argyle Street. To accommodate the alignment, which travels down the center of N Interstate Avenue, the on street parking and remaining south and north travel lanes are moved closer to the existing homes and businesses in the area.

The *Noise Report* indicates that the 118 receivers impacted with traffic noise along N Interstate Avenue have noise level increases of between 1 and 2 dBA, except at two locations that have 3 dBA increases. Normal human hearing can usually only detect a 3 dBA change in broadband noise, such as traffic noise. Furthermore, under the No-Build or I-5 Build alternatives, traffic levels along N

Interstate Avenue are expected to increase over the years and result in future traffic noise levels with the same range of increase associated with the Interstate Build Alternative.

Mitigation Options for Noise and Vibration Impacts in the North Portland Segment

The Council decision to retain the Alberta Ramps and to select the I-5 alignment in the southern portion of the North Portland Segment, from the Edgar Kaiser Medical Facility to about N Killingsworth Street, results in fewer noise impacts than the Modify Alberta Ramps Design Option or the Interstate Avenue Alignment in this section. Figures 4.2.8-1 and 4.2.8-2 of the *Noise Report* identify the noise and vibration receptors and proposed noise walls and vibration mitigation for the impacts along the selected I-5 alignment up to N Killingsworth Street. Based on the information in the *Noise Report*, the Council concludes that reasonable measures such as noise walls and ballast mats are available to mitigate the noise and vibration impacts in this section.

The noise and vibration impacts associated with the selected alignment and stations (3) in the Crossover Study Area between N Killingsworth and N Lombard Streets will be addressed in a subsequent LUFO amendment.

Figures 5.2.8-11 and 5.2.8-12 of the *Noise Report* identify the noise and vibration receptors and potential vibration mitigation for the selected Interstate Avenue alignment from N Lombard Street to the Expo Center. The *Noise Report* states and the Council finds that options such as ballast mats are available to mitigate vibration impacts. Noise walls are not feasible along N Interstate Avenue; however, residential insulation may be feasible and cost-effective at certain locations.

6.4.8.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazard impacts specific to the North Portland Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the North Portland Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Soils Report)*, and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the North Portland Segment

The DEIS does not identify specific *landslide areas* or *areas of severe erosion potential* in the North Portland Segment. The potential for major landslides within the South/North Corridor is very limited because the topography within the corridor is relatively gentle. Areas of severe erosion potential are generally associated with steep slopes and creek crossings. The *Soil Report* notes, and

the Council finds, that slope instability and erosion are possible at the south end of the LRT bridge over the Columbia Slough.

The *Soils Report* indicates that the North Portland Segment is divided into two distinct soil types. From the south end of the segment to N Columbia Boulevard, underlying units are fine and coarse-grained flood deposits. The surface of these units has been extensively modified by past construction. From N Columbia Boulevard to the North Portland Harbor, the alignment and stations are located on recent alluvium. This expanse of alluvium includes many lakes, ponds and sloughs, and highly organic soils are likely to be encountered during construction. Seasonally high groundwater is also present in this area. Excessive settlement is possible in the section from N Columbia Boulevard to the North Portland Harbor. Control of surface water and groundwater could be a problem in excavations and low-lying areas.

As described in the General Findings, the Northwest is a seismically active area and is subject to *earthquake damage*. Figure 4.1-11 of the *Soils Report* does not identify any concealed faults within the North Portland Segment. However, a concealed fault is identified a short distance to the south of the Edgar Kaiser Medical Facility, approximately parallel to N Overlook Boulevard.

The LRT alignment will cross the Columbia Slough *100-year floodplain* in the vicinity of the existing N Denver Avenue bridge. The Columbia Slough serves as a drainage canal for interior runoff from broad floodplain areas located south of the Columbia River. The Slough enters the Willamette River near its confluence with the Columbia River. Because the Slough is subject to backwater from the Willamette River, areas with significant industrial development along its banks are extremely flood prone. The drainage districts along the Columbia River have levees that provide varying degrees of flood protection. The Peninsula Drainage District N. 1 has structural levees that cannot provide protection from the 100-year flood event. The Peninsula Drainage District N. 2 does provide 100-year flood protection, but the interior drainage system must store runoff when the Columbia and Willamette rivers are at flood stage. The Multnomah Drainage District No. 1 and Sandy Drainage District have levees that are expected to withstand a 500-year flood event. Pumps are used at flood stage to evacuate water from interior areas to the Slough.

The *Hydrology Report* indicates that the LRT bridge over the Columbia Slough will be about 600 feet long and located east (upstream) of the existing Denver Avenue crossing. The FEMA 100-year floodplain is approximately 500 feet wide in this location. Therefore, the crossing will completely span the FEMA regulatory floodplain and is not expected to result in adverse flooding conditions or changes in flood velocity. The Expo Center Station will be located west of the I-5 interchange with N Marine Drive in the northeast corner of Peninsula Drainage District No. 1; therefore, the station area may be subject to flooding.

Mitigation Options for Natural Hazard Impacts in the North Portland Segment

Based on the information contained in the *Soils Report* and the *Hydrology Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* are affected by the LRT improvements in the North Portland Segment. The alignment will pass under N Going Street through a tunnel. The *Soils Report* states and the Council finds that long-term stability and erosion should not be a problem at this location with proper design.

The Council recognizes that shallow groundwater, soft zones and highly organic soil may be present from the Columbia Slough northward to the Expo Center. Additionally, the northerly portion of the segment is subject to *flooding conditions*. The Council finds that the 600 foot LRT bridge over the Columbia Slough has been designed to completely span the designated 100-year floodplain. During preliminary engineering and final design, the precise location and elevation of the Expo Center Station can be refined to ensure that it is protected from adverse flooding impacts.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the alignment will provide the necessary information to anticipate and remediate less-than-ideal foundation conditions. Cuts and fills can be designed for necessary stability. If groundwater is encountered, it can be controlled with drains. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

In areas where settlement is anticipated, several options are available. If the extent of the unstable material is limited, the material can be removed and replaced with suitable fill materials. In areas where excavation is not practical, settlement can be accelerated by surcharging and installing wick drains, or the structures can be mechanically supported.

While historical evidence of seismic activity in Oregon is minimal, recent studies indicate that western Oregon may be subject to a greater risk from *earthquake hazards* than previously thought. Site geology has a significant impact on earthquake damage. Young unconsolidated silt, sand, and clay deposits are associated with enhanced earthquake damage through amplification of shaking, settlement, liquefaction, and landsliding.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geological problems. Detailed engineering studies will include an evaluation of subsurface soil seismic response characteristics and will also identify appropriate mitigation measures required for areas of shallow groundwater or unusually wet soil conditions that may be present in the portion of the North Portland Segment between the Columbia Slough and the Expo Center Station. Based on the facts in the *Soils Report*, the Council finds that long-term impacts to geology and soils in the North Portland Segment are moderate. Mitigation would consist of using standard engineering practices to construct stable slopes; design of tunnels and bridges to meet Uniform Building Code seismic standards; and techniques such as excavation and backfilling, special footing and foundation designs, and special construction techniques such as pilings to address shallow groundwater, organic soils or unusually wet surface conditions.

6.4.8.5 Criterion 6: Natural Resource Impacts

“Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval

during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural resource impacts specific to the North Portland Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the North Portland Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystem Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the North Portland Segment

The Portland Comprehensive Plan includes policies and objectives to address conservation of a range of natural resources identified in Statewide Goal 5 – including wetlands, riparian areas and water bodies, fish and wildlife habitat, scenic routes and viewpoints, and significant upland areas. The City has completed an inventory and analysis of natural resource sites, identified the significance of each site and provided varying levels of protection to specific sites through the application of Environmental Overlay Zones, Scenic Overlay Zones and Open Space Zones. As described earlier, the southerly portion of the North Portland Segment is highly urbanized, and few natural resources are present or impacted by the South/North Project between the Edgar Kaiser Medical Facility and N Columbia Boulevard. The portion of the Segment from the Columbia Slough to the Expo Center includes a remnant of a once large network of natural waterways and wetlands that occurred within the Columbia River floodplain. Natural resources in this portion of the North Portland Segment include waterways, wetlands, open space and scenic areas and park and recreational areas.

Fish and Wildlife Habitat. The northern portion of the alignment is within the Columbia Corridor Natural Resources Management Plan area which encompasses a portion of the historic floodplain of the Columbia River between the Willamette and Sandy Rivers. Fish and wildlife habitats within this portion of the Columbia Corridor are generally smaller and more isolated than elsewhere in the Columbia Corridor and are surrounded by conflicting land uses and activities such as I-5 and the Expo Center. Despite these conditions, the area continues to provide habitat for wildlife that are able to tolerate the urban development and human activity in the area.

Within the alignment impact area, habitat along the Columbia Slough is highly degraded and consists primarily of reed canarygrass and Himalayan blackberry along with small, scattered stands of riparian trees. These small trees are likely used by migrating birds that use habitat along the slough and surrounding areas as a travel corridor. These trees may also have limited value as cover and foraging habitat for resident birds and small mammals. Nutria, muskrat, and waterfowl use the open water habitat in the Slough for foraging. The Columbia Slough is included within the City of Portland’s Environmental Overlay zone for multiple resource values.

The Columbia Slough constitutes approximately 18 miles of slow-moving stream and dredged backwater areas paralleling the Columbia River in north Portland. The Slough includes upper and lower main channel segments and numerous side channels and lakes. Development since 1917 has required levee construction for protection from the Columbia and Willamette rivers flood waters.

At the proposed LRT crossing east of the Denver Avenue crossing, the Columbia Slough is characterized as a slow-moving backwater stream with turbid water. Overstory vegetation is primarily Himalayan blackberry and canarygrass. Stream shading and instream cover habitat is limited. Bank slopes are less than 2 percent, and the substrate is primarily mud and fine sediments. The *Ecosystems Report* states that fish using the Columbia Slough include many of the same species that occur in the Columbia and Willamette rivers. No suitable spawning or rearing habitat is present in this area and fish are expected to use the Slough in the project vicinity as a migration corridor only.

The Columbia Slough and the Peninsula 1 canal to the north will be spanned by the LRT bridge. No in-water structures will be constructed in either water body. The shadow cast by the structure will likely preclude vegetation from growing under the bridge. A small amount (about 0.08 acre) of degraded riparian vegetation will be lost along the Columbia Slough with the construction of the LRT bridge.

Two forested areas dominated by black cottonwood are located farther north along the alignment. One small forested area (0.25 acre) is located south of N Victory Boulevard. This area is isolated and has been degraded by illegal debris dumping. This forested area is likely used by migrating birds moving through the Columbia Corridor and by common resident birds and small mammals for nesting, foraging, roosting, and cover.

The forested area along N Expo Road extends from north of PIR to the Expo Center. This habitat, along with the emergent marsh to the west, are both within the City of Portland's Environmental Overlay zone. The forested habitat has been degraded by illegal debris dumping, use as a transient camp, and very poor water quality. It's relatively small size (about 1.5 acre), shape and proximity to I-5 also decrease its value as wildlife habitat.

Despite the historic and ongoing impacts to this forested site, it does have value as foraging, cover, and nesting habitat for passerine birds and small mammals. The large trees provide ample nesting habitat. The site also forms the eastern edge of a relatively large tract of undeveloped land that extends from the Smith and Bybee lakes area to Interstate 5, and therefore has connectivity to adjacent habitat areas. A great blue heron rookery is located approximately one mile west of the forested habitat along N Expo Road.

As explained in the DEIS, a half-mile long, narrow stand of deciduous forest between N Expo Road and I-5 would be impacted (about 1.4 acres removed) by the LRT alignment. Small areas of forest (approximately 0.18 acre) and marsh (approximately 0.08 acre) on the west side of N Expo Road would also be lost. The loss of about 1.5 to 1.6 acres of forested habitat along N Expo Road would eliminate foraging, cover, and nesting habitat for passerine birds and small mammals and eliminate potential roost and nest sites for raptors, such as red-tailed hawk. The loss of this forested habitat would also reduce the amount of habitat available to birds using the area as a travel corridor, as well as eliminate the vegetated buffer between I-5 and the undeveloped habitat west of N Expo Road.

Scenic and Open Space Areas. Visual/scenic resources in the North Portland Segment that are identified as significant in the City's *Scenic Views, Sites and Drives Inventory, Scenic Resources Protection Plan* include views of downtown from Overlook Park, the Columbia Slough scenic

corridor west of N Denver Avenue, and the N Marine Drive scenic drive from NE 185th Avenue to Kelley Point Park.

The LRT alignment will be located northeast of Overlook Park and will not affect the scenic view corridor from the park toward the Willamette River and downtown Portland. Additionally, the alignment will cross the Columbia Slough to the east of the Denver viaduct and will not interfere with views of the Slough to the west of N Denver Avenue. However, the view from the Columbia Slough of the new LRT bridge crossing the Slough will have a visual impact. Potential mitigation includes coordination with the City during final design. Finally, the northern edge of the alignment in this segment ends at the Expo Center Station. The LRT bridge over N Marine Drive (scenic drive) and the North Portland Harbor (scenic corridor) is addressed in the findings for the Hayden Island Segment.

The undeveloped, landscaped public right-of-way adjacent to I-5 is designated "Open Space" to recognize the open, landscaped character and not because of plans for active open space use. The City of Portland Open Space zone permits highway and utility improvements. Additionally, Portland City Code Title 17, Public Improvements and not Title 33, Planning and Zoning generally regulate transportation improvements within public right-of-way such as I-5. The LRT alignment will parallel the west side of I-5 from the Edgar Kaiser Medical Facility to just south of N Killingsworth. The precise alignment through the Crossover Study Area will be addressed in a subsequent LUFO amendment. The alignment will return to the west side of I-5 adjacent to PIR, Delta Park and the Expo Center. The Council finds that the portion of the alignment located within the I-5 right-of-way can be landscaped to mitigate visual impacts and retain the open space character.

To mitigate adverse impacts on designated scenic resources and viewpoints, appropriate conditions can be imposed during the FEIS process, or during the local permitting process as provided in Section 8(1)(b) of HB 3478.

Riparian Areas. Riparian areas are described under the discussion of Fish and Wildlife Habitat.

Wetland Areas. The *Ecosystems Report* documents that there are no wetland areas in the portion of the North Portland Segment to the south of the Columbia Slough. North of the Columbia Slough, one wetland was identified south of N Victory Boulevard, between I-5 and N Denver Avenue (Wetland J). Further north, a forested wetland (Wetland K) is located between I-5 and N Expo Road, south of the Expo Center. Wetland K is included within the City of Portland Environmental Overlay (EC) zone.

Park and Recreational Areas and Willamette River Greenway. The North Portland Segment does not affect lands within the Willamette River Greenway.

Seven park and recreational areas are located within the North Portland Segment: 1) Overlook Park; 2) Patton Square Park; 3) Ockley Green Middle School; 4) Kenton School; 5) 40 Mile Loop Trail; 6) West Delta Park; and 7) East Delta Park.

Overlook Park is located at N Interstate Avenue and N Overlook Boulevard at the south end of this segment. The park's main attractions are its sports facilities, which include a basketball court, three fields for baseball and softball, a soccer fields and areas for horseshoes, shuffleboard and handball.

The 12-acre city/neighborhood park is not affected with the Council's selection of the I-5 alignment in the southern portion of this segment.

Patton Square Park is located at N Interstate Avenue and N Emerson Street. Activities include a playground and the Interstate Firehouse Cultural Center. This park is not affected with the Council's selection of the I-5 alignment in the southern portion of this segment.

Ockley Green School is located at N Interstate Avenue and N Montana Street. The Portland Park Bureau has a partnership with the Portland Public Schools relating to use of the playing field at the school. Ockley Green School is within the boundaries of the Crossover Study Area. Impacts of the selected alignment and station locations for the Crossover Study Area will be addressed in a subsequent LUFO amendment.

The Kenton School play field is located at N Interstate Avenue and N Lombard Street. This site is at the northern edge of the Crossover Study Area and impacts on the Kenton School will also be addressed in the subsequent LUFO amendment for the Crossover Study Area.

The 40-Mile Loop Trail will connect numerous parks in the Portland metropolitan area, including those along the Columbia, Sandy and Willamette rivers. Although the trail does not currently exist on the north side of the Columbia Slough, the Portland Comprehensive Plan designates plans for the recreational trail on the north side of the Slough, on top of the dike. The 4(f) Report notes that the LRT bridge over the Columbia Slough will include a clearance under the bridge of at least 16.5 feet, which is adequate to accommodate the recreational trail. Because the alignment is elevated, it will not result in a Section 4(f) use of the trail.

West Delta Park is a city/regional park of about 663 acres that is owned and operated by the City of Portland. Located north of Columbia Slough, south of N Marine Drive, east of N Portland Road and west of N Denver Avenue and N Force Avenue, the park's main attractions include a golf course and raceway. The LRT alignment will be located to the east of N Denver Avenue, approximately 120 feet away from the western edge of the N Denver Avenue right-of-way. The alignment does not physically touch West Delta Park and will not result in any Section 4(f) use or impairment of use of West Delta Park. The stations at PIR and the Expo Center will provide transit accessibility to major events at West Delta Park facilities.

East Delta Park is a companion city/regional park of about 94 acres located to the east side of I-5. East Delta Park is owned and maintained by the City of Portland. It includes numerous playing fields for football, soccer, baseball and softball. The South/North LRT alignment will be located on the west side of I-5, between the freeway and N Expo Road. Therefore, the alignment will not result in any Section 4(f) use or impact on East Delta Park.

Mitigation Options for Natural Resource Impacts in the North Portland Segment

Based on the information provided in the *Ecosystems Report* and the *4(f) Report*, the Council concludes that the South/North Project improvements in the North Portland Segment will not result in adverse impacts on the Willamette River Greenway or designated scenic and open space areas that are protected in the Portland Comprehensive Plan. The alignment will avoid Overlook Park, Patton Square Park, West Delta Park and East Delta Park. Further, the LRT bridge over the Columbia

Slough will not interfere with the 40-Mile Loop recreational trail because there will be at least a 16.5 foot clearance between the top of the dike and the bottom of the bridge.

The Council finds that the LRT bridge over the Columbia Slough will displace a small amount of riparian vegetation. The City of Portland's Bureau of Environmental Services (BES), in conjunction with the Corps of Engineers, is involved in a habitat restoration initiative along the Columbia Slough in the vicinity of the proposed LRT alignment. Mitigation for LRT impacts could potentially be implemented in a cooperative effort with the BES and the Corps. The Council finds that restoration efforts such as removal of exotic species and planting native trees and shrubs along the slough could mitigate project-related impacts to vegetation, wetlands, wildlife habitat, and fisheries.

The Council concludes that impacts to the forested wetland area near the Expo Center should be avoided and/or minimized to the extent practical. The boundaries for the LRT alignment in this area (See LUFO Figure 1.8b) are intentionally broad to provide the flexibility to shift the alignment to avoid and/or reduce impacts on the forested wetland area. Mitigation for unavoidable wetland impacts could include enhancement, restoration, and/or creation of wetland and upland habitat along the Columbia Slough.

6.4.8.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Stormwater runoff impacts specific to the North Portland Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the North Portland Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the North Portland Segment

The LRT improvements in the North Portland Segment include construction of a light rail alignment and eight LRT stations. No park-and-ride lots or operations and maintenance facilities are located in the North Portland Segment. The precise location of the alignment and three of the stations in the area between N Interstate Avenue and I-5, from approximately N Killingsworth Street to N Lombard Street, will be decided in a Crossover Study. Impacts, including stormwater impacts, for the Crossover Study Area will be addressed in a subsequent LUFO amendment.

As described in the *Hydrology Report*, water quality in the Columbia Slough is poor, particularly during wet weather discharges from stormwater outfalls and combined sewer overflows (CSOs). DEQ has designated the slough as water quality limited. Currently, the City of Portland is working with other agencies to develop total maximum daily loads to improve water quality, eliminate combined sewer overflows, and implement other water quality improvement projects for the Columbia Slough.

The majority of the stations in the North Portland Segment will be located in areas that are currently paved (street and/or sidewalk). As a result, the *Hydrology Report* states and the Council finds that the LRT improvements are not expected to increase the rate or volume of stormwater runoff, either individually or collectively. Runoff generated along the alignment and at the stations will be directed to catch basins and storm drainage facilities in adjacent roadways. No treatment will be provided other than the treatment that now occurs within these existing drainage systems. Drainage is currently conveyed to the Willamette River, the Columbia Slough or North Portland Harbor. No increase in pollutant loading would be anticipated compared to that generated from existing streets and sidewalks in the North Portland Segment.

The Expo Center Station will be developed within a site that currently has significant pervious surface and vegetation. Runoff from the station will be conveyed to the existing Expo Center parking lot storm drainage facilities for detention (if required) and water quality treatment in conformance with local standards. Therefore, the *Hydrology Report* concludes and the Council finds that no significant increases in stormwater discharges are expected at the Expo Center Station.

Mitigation Options for Stormwater Impacts in the North Portland Segment

As shown in Table 5.3-8 of the *Hydrology Report*, no significant hydrologic, flooding, or water quality problems are expected from the LRT improvements in the North Portland Segment. Flooding impacts are avoided because the Columbia Slough crossing will completely span the 100-year floodplain. Standards erosion control and stormwater management techniques described in the General Findings are applicable in the North Portland Segment and will be implemented by the Portland Bureau of Environmental Services through local permitting.

The Council finds that water quantity and quality impacts created by the construction and operation of the South/North Project in the North Portland Segment can be substantially mitigated by complying with Corps of Engineers/Division of State Lands fill and removal regulations and City of Portland erosion control and stormwater management regulations. These rules and regulations outline Best Management Practices (BMPs) to prevent or limit pollutants from entering surface waters through urban drainage systems.

Standard erosion control measures can be implemented in connection with all improvements in the North Portland Segment, and site-specific erosion controls will be provided at the Columbia Slough Crossing. The Council recognizes that the Slough has been designated as a water quality limited stream and is subject to specific water quality standards. BMPs for water quality impacts typically include sediment and erosion controls, construction spill control measures, oil/water separators, biofiltration swales, and water quality/retention ponds. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts will be refined and selected during the FEIS, final design and local permitting processes.

6.4.8.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot

practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

Historic and cultural resource impacts specific to the North Portland Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/North Corridor, including the North Portland Segment, are addressed in the General Findings. Historic and cultural resource impacts and mitigation measures are also described in the *Historic, Archeological and Cultural Resource Impacts Results Report (Historic Report)*.

Identified Significant and Protected Historic and Cultural Resources in the North Portland Segment

The North Portland Segment includes one historic resource that is currently listed on the National Register (Site 148 - Fire Station at 5340 N Interstate Street). This resource is automatically considered significant and protected under the acknowledged Portland Comprehensive Plan. Additionally, the Kenton Conservation District is located in the North Portland Segment. The boundaries of the Kenton Conservation District are identified on Map 445-3 of the Portland Zoning Code. In general, the boundaries of the district extend from the north side of N Lombard Street on the south to the north side of N Willis Boulevard on the north, extending from the east side of N Delaware Avenue to the west side of N Interstate Avenue. Map 443-3 identifies the buildings that are designated as “Historic” and “Contributing” resources within the Kenton Conservation District.

As part of the DEIS, the following six historic resources were determined potentially eligible for the National Register, but are not currently designated as significant and protected under the City of Portland Comprehensive Plan:

- Nicolai Co. Office Ensemble (Site 133)
- Nicolai Co. Industrial Site Ensemble (Site 134)
- Kenton Stockyard School (Site 137)
- Polish American Citizens Building (Site 139)
- St. Stanislaus Church (Site 140)
- Residence at 1422 N McClellan Street (Site 151)

The selected LRT alignment in the North Portland Segment represents a synthesis of the two alignment alternatives evaluated in the DEIS (Interstate Avenue and I-5). The southerly portion of the alignment generally follows I-5 to N Killingsworth Street. North of the Crossover Study Area, the alignment generally follows the Interstate Alignment. The precise location of the alignment and the three stations between N Killingsworth and N Lombard Streets will be decided as part of the Crossover Study, and impacts will be addressed in a subsequent LUFO amendment. However, there are no identified significant and protected historic resources within the Crossover Study Area.

By selecting the I-5 alignment in the southerly portion of the North Portland Segment, adverse impacts to historic resources are avoided. Specifically, the alignment avoids adverse impacts to the following historic resources that are located on N Interstate Avenue: Polish American Citizens Club, the Stanislaus Church and the Fire Station.

The *Historic Report* states and the Council finds that the LRT alignment will have no effect on the Kenton Stockyard School (Site 137). There will be an adverse effect on the Nicolai Co. Office Ensemble (Site 133) and the Nicolai Co. Industrial Site Ensemble (Site 134) with the selection of the Interstate Alignment north of N Lombard Street. Both of these buildings will be demolished. Although potentially eligible for the National Register, these buildings are located north of the Kenton Conservation District and are not currently recognized as significant or protected by the City of Portland.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the North Portland Segment

The DEIS and the *Historic Report* document that the South/North Project improvements will not require right-of-way or adversely affect any historic resources that are recognized as significant and protected under the City of Portland Comprehensive Plan. There are no impacts on the Fire House on N Interstate (National Register) or to any designated historic resources within the Kenton Conservation District.

By selecting the I-5 alignment between Edgar Kaiser Medial Center and N Killingsworth, the Council has avoided potential adverse impacts on National Register eligible resources clustered along N Interstate Avenue, including the Polish American Citizens Club and Stanislaus Church. The selected alignment also avoids the Fire House on N Interstate Avenue, which is included on the National Register.

The Council finds that the Portland Landmarks Commission will have an opportunity to review light rail improvements, including the Kenton Station, that are located within the Kenton Conservation District. However, the LRT improvements will not displace any buildings designated as "Historic" or "Contributing" resources within the Kenton Conservation District.

The Council recognizes that the Interstate Alignment north of N Lombard Street will result in an adverse effect on the Nicolai Co. Office Ensemble (Site 133) and the Nicolai Co. Industrial Site Ensemble (Site 134). Both of these buildings could be demolished by the alignment. Both buildings are located north of the Kenton Conservation District and are not recognized as significant or protected by the City of Portland. However, because the buildings have been identified as eligible for the National Register, federal processes will apply through NEPA. If avoidance is not possible, NEPA mitigation for the loss of these two resources could include recordation and salvage of the structures.

6.4.9 Hayden Island Segment

6.4.9.1 Description of Light Rail and Highway Improvements

The Hayden Island Segment of the South/North Project includes the following LRT-related facilities:

- An alignment that extends from N Marine Drive to the Oregon/Washington state line at the Columbia River. The alignment generally parallels the west side of I-5.

- One LRT Station on Hayden Island.

See **Figure 1.8b** of the LUFO for LUFO boundaries for the Hayden Island Segment.

Light Rail Alignment

From the Expo Center, the alignment crosses over N Marine Drive, the North Portland Harbor and N Jantzen Street on a bridge structure. Over the North Portland Harbor, the LRT span would have an approximate vertical clearance of 35 feet CRD and an approximate horizontal clearance of 215 feet. A station is located near N Jantzen Drive. The alignment then crosses the I-5 ramps and continues northward, west of I-5, to the state line, running on a new bridge parallel to and at the same height as the Interstate Bridge.

From the state line, the alignment continues northward into Vancouver, Washington. Because the portion of the Project in the State of Washington is outside the jurisdiction of the State of Oregon, it is not subject to compliance with House Bill 3478 and is not addressed in the LUFO or these LUFO findings.

Light Rail Stations

One station is provided in the Hayden Island Segment.

Hayden Island Station. The Hayden Island Station is located west of I-5 at grade, near N Jantzen Drive. This station will provide transit access to the predominantly commercial uses and employment base of the Jantzen Beach Center.

Park-and-Ride Lots

There are no park-and-ride lots in the Hayden Island Segment.

Operations and Maintenance Facilities

There are no operations and maintenance facilities in the Hayden Island Segment.

Highway Improvements

There are no highway improvements in the Hayden Island Segment.

6.4.9.2 Criterion 3: Neighborhood Impacts

“Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process.”

- "A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."**
- "B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."**

Description of Affected Neighborhoods in the Hayden Island Segment

The Hayden Island Segment extends north from N Marine Drive across the North Portland Harbor and Hayden Island to the Oregon/Washington state line in the Columbia River. The Hayden Island area is characterized primarily by retail and commercial development, including a large hotel, several "big box" retail outlets, several fast-food chains and the Jantzen Beach Mall. A small residential community includes houseboat inhabitants on Hayden Island. Hayden Island is separated from Vancouver, Washington by the Columbia River.

With only one station, the LRT improvements in this segment largely affect the Hayden Island Neighborhood. The alignment touches the northern boundary of the Kenton Neighborhood at the southern edge of the North Portland Harbor. However, the Kenton Neighborhood is served by stations located farther south (Expo Center, Kenton) and the neighborhood is not affected by LRT improvements in the Hayden Island Segment.

A range of uses are located in the *Hayden Island Neighborhood*, but the primary use is commercial. Jantzen Beach Center, a large commercial mall, and other retail uses are located to the west of I-5. Hotels and restaurants are also located on the island. Residential uses are located in the northwestern and eastern portions of the island. The residences in the northwestern area are manufactured homes. In the eastern portion of the island the residences are both on the land and in the river; house boats are located on the south side of the island and along North Portland Harbor. Small marinas are located around the island.

The Hayden Island Neighborhood contained an estimated 1990 US Census population of 1,831. The percentage of minority population and proportion of households below the poverty level is lower in the neighborhood than for the county and the region. The percentage of population over 65 years of age is considerably higher than averages for the county and the region.

The LRT alignment will generally parallel the west side of I-5 through this segment, with a station located on the south side of the island near N Jantzen Drive.

Identify adverse economic, social and traffic impacts on affected neighborhoods. Identify measures to reduce those impacts.

Economic, social and traffic impacts specific to the Hayden Island Segment are addressed in the following section. Economic, social and traffic impacts applicable to neighborhoods throughout the South/North Corridor, including the Hayden Island Segment, are addressed above under the heading "General Impacts and Mitigation Measures Applicable to All Segments" (hereinafter, "General Findings"). Economic, social and traffic impacts are also described, along with corresponding mitigation measures, in the *Land Use and Economic Impacts Results Report (Land Use Report)*, the *Social and Neighborhood Impacts Results Report (Neighborhood Report)*, and the *Local and Systemwide Traffic Impacts Results Report (Traffic Report)*.

Economic Impacts

Overall, the South/North Project will result in positive impacts in the Hayden Island Segment because improved transit capacity will be available to support more intensive development in the Jantzen Beach area. LRT will also offer an alternative to traveling on often-congested nearby roadways. However, the long-term benefit must be balanced by the short-term adverse economic impacts associated with the displacement of existing businesses adjacent to the west side of I-5 near the Jantzen Beach Mall.

Business Displacements. In every instance where the South/North Project displaces an existing commercial or industrial use, that represents an adverse economic impact. Displacements affect employment, incomes, services and taxes. Even though the adverse impacts associated with displacements in the Hayden Island Segment may not be significant on a region-wide or city-wide level, the Metro Council recognizes and is sympathetic to the significance of each displacement at the individual business and community level. Metro understands and acknowledges that relocations can cause significant anxiety and trauma not only to the company being displaced, but also to employees who work for the company.

The LRT alignment and the Hayden Island Station will displace ten retail businesses and a Public Utilities Commission building adjacent to the west side of I-5. Three of the displaced businesses are free-standing buildings (Denny's, Pietro's Pizza and McDonald's), while the other displaced businesses are in a mini-mall complex. Two retail spaces in the mini-mall are currently vacant. All of the businesses were established after 1985.

Adverse economic impacts associated with these displacements include the loss of employment and payroll, loss of services, and loss of assessed value and tax base associated with the operating businesses. The displaced PUC building is already in public ownership and off the tax roll.

In terms of mitigation, as described in the General Findings, displaced commercial uses will be acquired at fair market value, and relocation services will be provided to business owners and tenants. During the preliminary and final engineering processes, engineering staff will try to minimize displacement impacts to the extent practicable through design refinements.

Loss of Parking/Access. The loss of parking, and loss or change of access can have adverse economic impacts on businesses. If the project must remove an existing access, and if that access

cannot be safely and adequately relocated or reconfigured, then the entire business is assumed to be displaced.

No parking or access to businesses will be displaced in the Hayden Island Segment, beyond that associated with the businesses west of I-5 that are displaced by the alignment and station. No shortage of parking at the Jantzen Beach Center has been identified.

Although portions of parking lots near the Hayden Island Station could potentially be used as a de facto park-and-ride, the availability of 2000 park-and-ride spaces in Vancouver, Washington should minimize this likelihood. Because the most significant bottleneck for traffic congestion is on the Interstate Bridge rather than on I-5 south of the bridge, the Council believes and finds that most Washington commuters traveling by light rail would park in Vancouver rather than at Jantzen Beach. However, should use of the area as a de facto park-and-ride lot becomes a problem, the Council finds that parking management techniques like those identified for the Clackamas Town Center Transit Center could be utilized as mitigation measures.

Tax Base. The South/North Project will have a negative economic impact on the tax base through the displacement of business uses from the tax rolls. However, the Council finds that tax base impacts associated with displacement may be shorter-term in the Hayden Island Segment. The availability of light rail is expected to spur redevelopment of the commercial area around the Hayden Island Station and could enhance property values and the tax base on a long-term basis.

Freight Movement. The LRT improvements in the Hayden Island Segment will be grade-separated from the local street system and will have no impact on *trucking*. There are no rail lines crossed by LRT in the Oregon portion of the Hayden Island Segment, so there will be no impact on *rail freight movement*.

LRT improvements in this segment could have an adverse impact on navigation and *water freight movement* on the Columbia River.

The alignment will cross North Portland Harbor with a concrete segmental bridge, which would have an approximate vertical clearance of 35 feet CRD and an approximate horizontal clearance of 215 feet, matching the existing I-5 bridge 50 feet upstream. The DEIS concludes that the light rail span would not adversely impact navigation on the North Portland Harbor.

The light rail bridge across the Columbia River will be located approximately 90 feet downstream of the existing Interstate Bridges. Based on the current bow string design, the light rail bridge would provide two navigational channels: 1) over the alternate barge channel, the bridge would have a vertical clearance of 46 feet CRD and a horizontal clearance of 511 feet; and 2) over the main channel, the bridge would have a movable Bascule span with an unlimited vertical clearance and a horizontal clearance of 263 feet, matching the existing lift spans of the Interstate Bridges.

Pier locations for the new LRT bridge would match those of the existing Interstate Bridges, which would allow the river users to treat the combined bridges as one obstacle. This new combination of bridges would shorten the navigational distance between the BNSF Railroad bridge and the nearest upstream structure by approximately 150 feet.

Representatives of the tug and barge industry operating on the Columbia River have indicated that the construction of the LRT crossing between the present I-5 spans and the BNSF Railroad bridge poses a significant additional navigational hazard to downstream barge traffic. Even without the light rail bridge, the tug and barge industry has considerably difficulty, particularly during high flows, lining up tows with the railroad bridge opening after transiting under the I-5 span. Using the lift span requires I-5 bridge raisings, which are not permitted for certain rush hour times of day.

The tug and barge operators indicate that the width of a new light rail crossing (approximately 90 feet) will result in greater difficulty using the alternative barge channel which passes under the I-5 bridges south of the lift spans. A new bridge just downstream from I-5 could result in the need to use the lift span more often, which would stop light rail as well as I-5 traffic during the additional raisings.

The tug and barge operators conclude that the hazard to navigation presented by the proposed crossing could be mitigated to some extent by placing the piers in such a manner as to anticipate the need to turn the tow quickly to the north when using the alternative barge channel. In other words, it would not be a good idea to line up the new piers with the I-5 piers as presently proposed, but rather, an alignment should be determined at the alternate barge channel which allows the tow to be turned as quickly as possible. They note that the best solution would be to rebuild the railroad bridge to provide a safer opening for barge traffic.

The Council finds that the concerns raised by the tug and barge operators are valid. It finds that impacts could be mitigated through pier placement, and it concludes that the placement of piers for the LRT bridge across the Columbia River should be evaluated further in the FEIS to address and mitigate adverse impacts on river navigation.

Social Impacts

The Council finds that the social impacts of the South/North Project are generally positive in the Hayden Island Segment. Light rail will provide improved transit access to the substantial commercial and employment base at the Jantzen Beach commercial center. Additionally, local roadways are often congested, and access options are limited to Hayden Island residents. South/North LRT will provide a convenient, efficient alternate travel mode. The alignment parallels the established transportation corridor of I-5 that functions as an established boundary to Hayden Island Neighborhoods.

Residential Displacements. As with business displacements, the Council recognizes that in every instance where the South/North Project displaces an existing household, that represents an adverse social impact, and the Council is sympathetic to the significance of each residential displacement. The Council understands and acknowledges that relocations can cause significant anxiety and trauma to families, uprooting them from neighborhoods, schools and friends and imposing change on them.

In the Hayden Island Segment, the LRT alignment will displace 12 houseboats (considered single family residences) from the North Portland Harbor. This could impact the character of the existing houseboat residential community. It also could create anxiety and trauma for affected families by uprooting them from their neighborhoods, schools and friends and imposing change on them.

Where displacements are unavoidable, the project will provide compensation for real property and/or relocation benefits to property owners and tenants based on fair market value and a comprehensive relocation program, as explained in the General Findings.

Access to Community Facilities. The South/North Project will improve mobility for Hayden Island residents to travel to and from community facilities and employment centers outside their neighborhood. This is a particular benefit given the absence of other convenient travel options besides the automobile. The Hayden Island Station will improve transit access to the substantial concentration of jobs and commercial services at the Jantzen Beach Center. It will also provide improved transit accessibility and links for Hayden Island residents to local and regional employment centers, facilities and recreational destinations along the South/North and East/West MAX lines.

Barriers to Neighborhood Interaction. The Council finds that the LRT alignment will not result in barriers to neighborhood interaction, primarily because the alignment parallels the I-5 freeway which already functions as an edge and boundary to the Hayden Island Neighborhood. Pedestrian and bicycle facilities (funded by others) will establish a link between the Hayden Island station and the nearby pedestrian/bicycle system.

Safety and Security. The Council is sensitive to the importance of safety and security in neighborhoods affected by the South/North Project. The Council finds that, with appropriate design and implementation of systemwide transit security measures as described in the General Findings, safety and security will not be adversely affected by the LRT station in the Hayden Island Segment.

The Hayden Island Station will be located at the grade of local streets serving the Jantzen Beach commercial center (N Jantzen Drive and N Center Avenue). 24-hour businesses are located in proximity to the Hayden Island Station, which substantially enhances activity and security. The final design of the LRT station will include careful consideration of security concerns. Security lighting and telephones will be provided at the station platform, the station will be visible from nearby streets and landscape design will ensure consideration of safety and security (i.e., low shrubbery).

Visual/Aesthetic. Hayden Island and the Columbia River consist of a busy, auto-dominated commercial strip and large, dramatic expanse of open water. Commercial development patterns on Hayden Island have obscured natural features to the point where any connection to water or natural landforms is not visually apparent unless one is on the shoreline. Many signs and utility poles; constant, fast traffic and noise; scattered moderate and large-scale commercial structures; and the artificial landforms associated with I-5 create a coarsely textured, complex environment with a confusing visual character. The breadth and openness of the Columbia River provides visual contrast to an otherwise cluttered visual environment.

Dominant visual features in this segment include the North Portland Harbor, the historic I-5 truss bridge between Hayden Island and Vancouver, Washington and the wide, flat and open stretch of the Columbia River. The river is a significant regional resource and the dominant visual element within this segment because of its large-scale and openness. It also serves as a dramatic gateway between Oregon and Washington.

LRT improvements in the Hayden Island Segment include a good deal of bridging. The bridge over the North Portland Harbor would remove structures, including houseboats and vegetation, along both banks of the harbor, and interrupt views south from Hayden Island to the west hills. The bridge then parallels the west side of I-5, removing commercial structures along that side of the freeway. The alignment rises above the I-5 ramps on fill, removes the Oregon Information Center and crosses the remainder of the island and the Columbia River on another bridge immediately west of the existing I-5 Bridge.

In general, the Council finds that the addition of an elevated structure and cut-and-fill slopes on the mainland and on Hayden Island will not result in significant visual changes because of their location and scale relative to the I-5 Corridor and nearby structures. A moderate degree of change would occur with the new crossings of the North Portland Harbor and the Columbia River because of the potential impacts of new bridge forms over the waterways and the resulting changes to views of (and from) the North Portland Harbor and the Columbia River.

The Council finds that possible measures that could mitigate the adverse impacts of the new bridges on views include consideration in the final design of matching the vertical and horizontal alignments of existing I-5 bridges and attempting to compliment the architectural character of the existing bridges, including the use of the same scale, pattern and sequencing of trusses, tiers and columns. Additional mitigation includes design coordination with the City of Portland. Appropriate conditions can be imposed through the local review process consistent with Section 8(1)(b) of HB 3478 to avoid or mitigate adverse impacts on designated scenic resources and viewpoints.

Traffic Impacts

Light rail will be grade-separated on Hayden Island, with no traffic impacts on the island. The LRT alignment will bridge over N Marine Drive, N Jantzen Street and N Jantzen Drive, and Hayden Island Drive. Given the design, the Council concludes that the South/North Project will not result in adverse traffic impacts in the Hayden Island Segment.

Provide for a light rail route and associated facilities, balancing the need for light rail proximity and service to areas that are capable of enhancing transit ridership; the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and the need to protect affected neighborhoods from the identified adverse impacts.

The Council finds that the light rail route and station on Hayden Island will provide light rail proximity and service to the substantial employment and commercial base located at the Jantzen Beach Center. Additionally, through improved high capacity transit service, island residents will have improved accessibility to local and regional employment centers, community facilities and recreational destinations throughout the Portland metropolitan region. Currently, travel options to and from Hayden Island are limited and often congested, and under the DEIS No-Build alternative, these options would get much worse over time. Light rail will provide a convenient, reliable alternative mode of travel. Because the LRT alignment largely parallels the existing barrier of I-5 and is grade-separated from local streets, affected neighborhoods are protected from significant adverse impacts.

Provide for associated highway improvements, balancing the need to improve the highway system with the need to protect affected neighborhoods from the identified adverse impacts.

No highway improvements are proposed in the Hayden Island Segment that have utility separate from the South/North Project. Light rail will be grade-separated on Hayden Island with no traffic impacts on existing streets.

6.4.9.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

Noise and vibration impacts specific to the Hayden Island Segment are addressed in the following section. Noise and vibration impacts common to neighborhoods throughout the South/North Corridor, including the Hayden Island Segment, are addressed in the General Findings. The General Findings include an overview of noise and vibration, descriptions of different types of noise, and identification of potential noise mitigation by noise type. Noise and vibration impacts also are identified, along with corresponding mitigation measures, in the *Noise and Vibration Impacts Results Report (Noise Report)*.

Identification of Noise and Vibration Impacts in the Hayden Island Segment

The LRT alignment in this segment generally parallels the west side of Interstate 5 and the background noise environment is dominated by vehicular traffic on I-5 and local arterial streets and air traffic.

Land use on the south side of the Columbia River includes two Double Tree Hotels near the Columbia River, the Jantzen Beach Shopping Center, and houseboats at North Portland Harbor. The closest residential property is about 40 feet from the LRT track centerline. There are few vibration-sensitive locations south of the Columbia River, except for the Double Tree Hotels.

As described in the *Noise Report* and the *DEIS*, noise monitoring was performed at three locations south of the Columbia River. Table 4.9-1 summarizes the location and land use for each of the noise monitoring locations. Table 4.9-2 summarizes the noise monitoring results for this segment. The ambient noise at all three monitoring locations on the south side of the Columbia River was dominated by traffic on I-5 and aircraft from Portland International Airport and Pearson Airport flight paths. Both Hayden Island and Downtown Vancouver are in the flight path of the airport. The measured noise levels range from 72 dBA to 74 dBA, which represents a relatively high noise environment.

The Impacts Summary from the *Noise Report* concludes that there are no LRT noise impacts, no wheel squeal impacts, no traffic noise impacts and no LRT vibration impacts in the Hayden Island Segment (Oregon portion), primarily because of high existing noise from I-5 and airport traffic. The Council agrees with the findings of the *Noise Report* and concludes that no noise/vibration mitigation measures are required in the Hayden Island Segment.

6.4.9.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Natural hazard impacts specific to the Hayden Island Segment are addressed in the following section. Natural hazard impacts applicable to neighborhoods throughout the South/North Corridor, including the Hayden Island Segment, are addressed in the General Findings. Natural hazard impacts, and associated mitigation measures, also are described in the *Geology and Soils Impacts Results Report (Geology Report)* and the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Natural Hazard Areas in the Hayden Island Segment

No specific *landslide areas* or *areas of severe erosion potential* are identified in the Hayden Island Segment. The potential for major landslides within the South/North Corridor is very limited because the topography within the corridor is relatively gentle. Areas of severe erosion potential are generally associated with steep slopes and creek crossings. Although the LRT alignment will cross the North Portland Harbor and the Columbia River on new bridge structures, the banks associated with the crossings are not particularly steep. As described in the General Findings, the Northwest is a seismically active area and is subject to *earthquake damage*. The *Geology and Soils Report* does not identify any earthquake faults in the Hayden Island Segment. However, the South/North Project improvements, and the bridge crossings in particular, will be designed and constructed to meet Uniform Building Code seismic standards.

The *Geology and Soils Report* includes the following description of existing conditions in the Hayden Island Segment.

The LRT alignment crosses the North Portland Harbor and the Columbia River as well as Hayden Island. Soils in this segment are primarily recent alluvium (Qal) and artificial fill (Qaf). The fill is probably dredge spoils and will be similar to the adjacent alluvium. The proposed bridges will require extensive geotechnical investigation. The depth to bedrock (Troutdale Formation) is probably greater than 100 feet. On Hayden Island, the water table will likely be near the surface for much of the year. With thorough exploration, stability of the approach fills should not be an issue.

The proposed 1,670-foot light rail bridge across North Portland Harbor will completely span the *floodplain*, with no significant encroachment or fill that would cause adverse flooding conditions or changes in flood velocity. The volume of displacement presented by the piers is expected to be insignificant.

Two options are considered in the DEIS for the design of the Columbia River crossing: a concrete segmental bridge and a bow string truss bridge. Neither of the proposed bridge designs is expected to significantly impact *floodplain* conditions in the vicinity of the crossing. Based on profiles

presented in FEMA reports, the backwater effect of the bridges is indistinguishable from that of other bridges such as the Burlington Northern Railroad Bridge downstream or the Interstate 205 bridge upstream, or from other features of the river such as Hayden Island (FEMA 1982). The volume of displacement presented by the piers would be insignificant relative to the large cross sectional area of the floodplain. Although changes in velocity and scour could be expected around new piers, no significant change in average flow velocities in the reaches would be expected as the result of either crossing. The pier layouts of both designs would be aligned with existing pier locations on the Interstate Bridge upstream.

Although the footprint areas required for the pier structures are not large relative to the adjacent Columbia River floodplain, compensatory floodplain mitigation should be provided at the crossing to comply with local, state, and federal floodplain management regulations. It is anticipated that compensatory floodplain storage volume could be provided adjacent to the proposed structure.

Mitigation Options for Natural Hazard Impacts in the Hayden Island Segment

Based on the information contained in the *Geology Results Report* and the *Hydrology Results Report*, the Council finds that no *landslide areas* or *areas of severe erosion potential* have been identified in the Hayden Island Segment. While historical evidence of seismic activity in Oregon is minimal, recent studies indicate that western Oregon may be subject to a greater risk from *earthquake hazards* than previously thought.

Site geology has a significant impact on earthquake damage. Young unconsolidated silt, sand, and clay deposits are associated with enhanced earthquake damage through amplification of shaking, settlement, liquefaction, and landsliding.

Potential mitigation measures to address geologic/soils conditions are provided in Section 6 of the *Soils Report*. During final design, a thorough geotechnical investigation of the selected alignment will provide the necessary information to anticipate and remedy less-than-ideal foundation conditions. Soft foundation conditions, delineated by the exploration program, can be mitigated with proper designs.

Prior to construction, site-specific geotechnical engineering studies will be conducted to determine appropriate construction techniques to avert potential geologic problems. Detailed engineering studies will include an evaluation of subsurface soil seismic response characteristics and will also identify appropriate mitigation measures for areas of artificial fill soils in the Hayden Island Segment. Based on the facts in the *Geology Results Report*, the Council finds that long-term impacts to geology and soils in the Hayden Island Segment are minor and can be mitigated. Mitigation could consist of using standard engineering practices to construct stable slopes; design of bridges to meet Uniform Building Code seismic standards; and techniques such as excavation and backfilling, special footing and foundation designs, and special construction techniques such as surcharging and dewatering to address the stability of artificial fill and the high water table on Hayden Island.

The 100-year *floodplain* of North Portland Harbor will be completely spanned by the LRT bridge, with no significant fill or encroachment into the floodplain resulting from pier placement. A very minor amount of fill will be associated with the placement of piers for the new bridge across the 100-year floodplain of the Columbia River. All fills in these floodplains will be compensated by

equivalent excavation to mitigate any rise in flood levels. The Council finds that one-for-one mitigation for floodplain impacts is feasible and can reduce or mitigate adverse flooding impacts to persons or property in the Hayden Island Segment. The Hayden Island Station will be constructed above the 100-year flood elevation.

6.4.9.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Natural resource impacts specific to the Hayden Island Segment are addressed in the following section. Natural resource impacts applicable to neighborhoods throughout the South/North Corridor, including the Hayden Island Segment, are addressed in the General Findings. Natural resource impacts, along with associated mitigation measures, also are described in the *Ecosystems Impacts Results Report (Ecosystems Report)* and the *Parklands, Recreation Areas, Wildlife and Waterfowl Refuges 4f Impacts Results Report (4f Report)*.

Identification of Impacts to Significant, Protected Natural Resources in the Hayden Island Segment

The Portland Comprehensive Plan includes policies and objectives to address conservation of a range of natural resources identified in Statewide Goal 5, including wetlands, riparian areas and water bodies, fish and wildlife habitat, scenic routes and viewpoints, and significant upland areas. The City has completed an inventory and analysis of natural resource sites, identified the significance of each resource site and provided varying levels of protection to specific sites through the application of Environmental Overlay Zones.

Within the Hayden Island Segment, the Council finds that the water bodies of North Portland Harbor and the Columbia River are identified as significant natural resources for multiple values and included within the Environmental Conservation Overlay Zone. The Council also finds that N Marine Drive is identified as a scenic corridor in the Portland Comprehensive Plan. Further, the Portland Comprehensive Plan designates the planned extension of the 40-Mile Loop recreational trail along N Marine Drive adjacent to the south side of the North Portland Harbor. Based on these facts, the Council concludes that the natural resources highlighted above are significant and afforded some protection under the acknowledged Portland Comprehensive Plan.

Fish and Wildlife Habitat. The North Portland Harbor and Columbia River are recognized as significant natural resources for multiple values, including *fish and wildlife habitat*. Shorelines along both of these waterways have been substantially altered and now support limited natural vegetation. With the exception of a few large cottonwoods along both shores of the harbor, ornamental plantings and weedy exotic species comprise most of the vegetative cover. Only the

open water of the river, and to a lesser extent the harbor, provide much habitat value to wildlife. A variety of resident and migratory waterfowl are expected on both waterways, as are small mammals such as nutria and river otter.

No Threatened and Endangered (TES) wildlife species were observed within this segment. Overwintering bald eagles have been reported in the Smith and Bybee Lakes area, about 1.5 miles west of the southern portion of the alignment. Although eagles may forage along the North Portland Harbor and the Columbia River in the vicinity of the project alignment, no nesting habitat occurs in the immediate area.

Because of the lack of natural vegetation along most of this alignment, impacts to wildlife populations would be minimal. Impacts to riparian habitat along north Portland Harbor and the Columbia River would be limited to the loss of several relatively large cottonwood trees along the harbor shorelines. Since these trees occur in small, isolated stands surrounded by development, their loss would not adversely affect local wildlife populations.

The Columbia River is an important passageway for anadromous fish species moving between the ocean and upstream spawning areas, and also provides significant habitat for resident fish species. The Columbia River is a popular sport fishing area, although seasonal closures limit fishing to allow recovery of depleted salmon runs and to honor Native American treaty rights. The river at the proposed LRT crossing is closed to summer angling from mid-March to August. Other popular fishing occurs for shad, walleye, trout, sturgeon, and warm water game fish.

TES fish that occur in the North Portland Harbor and Columbia River are Snake River chinook and sockeye salmon, chum salmon, coho salmon, steelhead trout, sea-run cutthroat trout, green sturgeon, white sturgeon, and Pacific lamprey. These species are expected to use the river and harbor in the project vicinity as a migration corridor only. No suitable spawning or rearing habitat is present in this area.

The river banks at the North Portland Harbor crossing are located in an area of small scale commercial developments associated with a marina and trucking firm. The shoreline consists primarily of bare soil with little or no vegetation with less than a 30 percent slope. Several scattered cottonwood trees occur near the shoreline, but provide little shade or instream cover. Small scale localized bank flooding appears to be a frequent occurrence.

Both Columbia River shorelines associated with the LRT crossing are located in areas of commercial development (restaurants and motels) with stream banks consisting of bare soil, bark, and scattered non-native plantings that provide little or no shading or instream cover. Bank slopes are less than 30 percent and the river is channelized.

Long-term impacts to fisheries in this segment include the removal of channel bottom habitat in North Portland Harbor and the Columbia River due to construction of bridge pier foundations. Depending on the bridge design selected, approximately 0.05 acres of habitat would be lost in North Portland Harbor and between 0.06 and 0.07 acres of river bottom would be lost in the Columbia River. However, none of the bridge piers are expected to adversely modify essential habitat features such as suitable spawning gravels, or sites used for cover, shelter, refuge, holding or rearing.

Scenic and Open Space Areas. *Scenic and open space* resources recognized in the City of Portland's *Scenic Views, Sites and Drives Inventory, Scenic Resource Protection Plan* include the Marine Drive scenic corridor, the North Portland Harbor scenic corridor, the historic northbound I-5 truss and lift bridge, and the Columbia River scenic corridor.

This section of the N Marine Drive Scenic Corridor borders the North Portland Harbor, a narrow waterway dominated on the east by the large horizontal forms of I-5 and heavy industrial activities and busy roads along its south banks. Older, wooden and metal storage and other buildings rim the bank. Views from the south and north bank of the Harbor are blocked to the east by the I-5 bridge but focus on a cluster of small docks and houseboats nestled against the south shore of Hayden Island adjacent to the bridge. Views west down the harbor focus on the channel and on river-related commercial and industrial activities along both banks.

The LRT alignment will cross over N Marine Drive and the North Portland Harbor on an approximately 1,670 foot bridge constructed west of the I-5 bridge. The LRT bridge would remove some houseboats and vegetation along both banks of the harbor, and interrupt views south from Hayden Island to the west hills. The bridge would also introduce a new overhead structure over the Marine Drive and North Portland Harbor scenic corridors. However, because the LRT bridge will closely parallel the existing I-5 bridge and is located in an intensively urban, industrial section of the scenic corridor, the Council finds that the project will not result in a significant adverse impact on either scenic corridor.

The reach of the Columbia River crossed by the LRT alignment is wide, flat, open water bordered by industrial, commercial, residential and undeveloped areas along its shoreline. The shoreline is less dense than the Willamette River shoreline. The river is a significant regional resource and the dominant visual element within this segment because of its large scale and openness. The river also serves as a dramatic gateway between Oregon and Washington. The LRT bridge will be located immediately west of the existing I-5 Bridge over the Columbia River, in the Columbia River scenic corridor. The bridge parallels the vertical and horizontal alignment of the I-5 Bridge. The new bridge will not interfere with views upriver from the I-5 Bridge toward Mt. Hood. The *Visual Quality and Aesthetics Impacts Results Report* concludes that the new bridge forms over the Columbia River and the resulting changes to views of (and from) the Columbia River will result in moderate visual impacts.

Potential measures for visual impacts to scenic corridors include consideration during final design of matching the vertical and horizontal alignments of existing I-5 bridges and attempting to compliment the architectural character of the existing bridges, including the use of the same scale, pattern and sequencing of trusses, tiers and columns. Additional mitigation includes design coordination with the City of Portland. Appropriate conditions that are reasonable and necessary and do not prevent implementation of the LUFO can be imposed through the local review process to avoid or mitigate adverse impacts on designated scenic resources and viewpoints.

Riparian Areas. As described in the discussion of fish and wildlife habitat, the *riparian area* along the North Portland Harbor and the Columbia River has been significantly altered with development. Shorelines along both of these waterways now support limited natural vegetation.

Wetland Areas. The *Ecosystems Report* documents that the project improvements in the Hayden Island Segment do not impact *wetlands*.

Park and Recreational Areas and Willamette River Greenway. No designated *parks* are affected by the South/North Project in the Hayden Island Segment. Additionally, the project improvements are located outside of the boundaries of the *Willamette River Greenway*.

The LRT alignment will cross over the 40-Mile Loop *recreational trail* along N Marine Drive. The 40-Mile Loop is designated a significant recreational resource and is protected in the acknowledged City of Portland Comprehensive Plan. There is a minimum 17-foot vertical clearance between the alignment and the location of the trail. The trail has not yet been constructed, and the alignment will allow for future construction. The alignment and pier locations would not require any use of the trail. Therefore, the Council concludes that the South/North Project will not adversely impact the 40-Mile Loop recreational trail in the Hayden Island Segment.

Mitigation Options for Natural Resource Impacts in the Hayden Island Segment

The Council finds that the South/North Project will have no adverse impacts on park areas, riparian areas and wetland areas. Although the new LRT bridge over N Marine Drive will pass over the designated 40-Mile Loop recreational trail, the design of the bridge will not interfere with or preclude development of the trail. Additionally, the new LRT bridge will accommodate a bicycle/pedestrian facility on the westerly side of the bridge across the North Portland Harbor.

The Council finds that the bridges across the North Portland Harbor and the Columbia River will have an impact on the scenic and visual character of this segment. However, by locating the LRT bridges in close proximity the existing and more dominant I-5 bridges, the Council concludes that visual impacts will be reduced. Additionally, by locating the LRT alignment to the west of I-5, views up the Columbia River toward Mt. Hood are not affected.

Construction of the new LRT bridges over the North Portland Harbor and the Columbia River could result in adverse impacts to fish and wildlife habitat. However, these waterways currently serve as migratory routes for fish and wildlife because of inadequate conditions for nesting, spawning, etc. Impacts to riparian habitat along North Portland Harbor would be limited to the loss of several relatively large cottonwood trees along the harbor shorelines. Since these trees occur in small, isolated stands surrounded by development, their loss would not adversely affect local wildlife populations. Small, isolated stands of trees in an urbanized area afford poor quality habitat due primarily to the lack of habitat diversity, lack of buffering from human activity and lack of movement corridors to other habitat areas.

Long-term impacts to fisheries include the removal of a small amount of channel bottom habitat due to construction of the bridge pier foundations. However, none of the bridge piers are expected to adversely modify essential habitat features such as suitable spawning gravels, or sites used for cover, shelter, refuge, holding, or rearing. No suitable spawning or rearing habitat is present in the area of the bridge crossings. As a result of the analysis and findings presented in the *Biological Assessment for Threatened, Endangered, and Candidate Fish*, the Council concludes that, with implementation of a number of conservation measures, the South/North Project would not likely adversely affect

populations of TES fish species or their critical habitat in the project area. The Council notes that the National Marine Fisheries Service (NMFS) concurs with this finding.

The Council finds that the following mitigation measures outlined for Threatened, Endangered, and Candidate Fish in the Hayden Island Segment are available to mitigate adverse impacts to the North Portland Harbor and the Columbia River and could be imposed as conditions of approval during the FEIS process and/or the local permitting process if reasonable and necessary:

- Implement erosion and sediment control measures to prevent sediment from entering surface waters.
- Time in-water construction activities based on discussions with NMFS and the Oregon Department of Fish and Wildlife, and take into consideration factors such as timing of fish migration and construction schedule and cost.
- Conduct sediment sampling prior to construction of in-water bridge piers in order to determine the presence of and characterize potential contaminants.
- Limit the operation of equipment in the active river channel to the minimum necessary.
- Clean all equipment that is used for in-water work prior to entering the water.
- Discharge all water impounded within coffer dams only onto vegetated upland sites, behind silt fences and other sediment barriers, and not directly in to the river or into wetlands.
- Do not store or transfer petroleum products within 200 feet of the active river channel.
- Assure the development and implementation of plans for the safe storage and containment of all hazardous materials used in project construction..
- Include measures in the plan for containment berms and/or detention basins, where appropriate.
- Develop a site-specific sediment control and erosion control plan prior to project implementation.

6.4.9.6 Criterion 7: Stormwater Runoff

“Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

Stormwater runoff impacts specific to the Hayden Island Segment are addressed in the following section. Stormwater runoff impacts and mitigation common to segments throughout the South/North Corridor, including the Hayden Island Segment, are addressed in the General Findings. Stormwater impacts and mitigation measures are also described in the *Hydrology and Water Quality Impacts Results Report (Hydrology Report)*.

Identification of Stormwater Impacts in the Hayden Island Segment

The Hayden Island Station will be constructed on a currently grassy area. Before discharge to North Portland Harbor, runoff from the site is currently directed as overland flow to catch basins within the adjacent commercial area. Only small quantities of runoff would be expected at the Hayden Island light rail station; therefore, potential impacts to water quality would be negligible. The station is located away from the North Portland Harbor. Thus, impacts to water quality during construction of

the Hayden Island Station would not occur if erosion control BMPs and spill control measures are properly implemented. After development, runoff from the station site would continue to be directed to existing stormwater facilities.

Special site-specific erosion controls will be required at the LRT bridge crossings of the North Portland Harbor and the Columbia River. Temporary construction erosion controls should be used to ensure that soil erosion, especially due to earthmoving and regrading activities, does not cause turbidity in the water bodies. Measures to prevent accidental chemical spills and releases of harmful construction materials should also be enacted. Existing vegetation on the channel banks should be protected from disturbance, and any vegetation that must be removed should be replaced.

Mitigation Options for Stormwater Impacts in the Hayden Island Segment

Based on the information contained in the *Hydrology Results Report*, the Council concludes that no significant stormwater quantity or water quality impacts are expected in the Hayden Island Segment. Only one station will be constructed on Hayden Island, and the surrounding area is already extensively paved and committed to development.

The Council recognizes that specific and detailed mitigation erosion control and water quality measures will be required for the construction of the LRT bridges across the North Portland Harbor and the Columbia River. The potential mitigation measures highlighted above for Threatened, Endangered and Candidate Fish Species in the Hayden Island Segment are relevant to stormwater quality and erosion control. The Council finds that a range of measures are available and site-specific mitigation for stormwater quantity and quality impacts associated with the bridge construction across the North Portland Harbor and the Columbia River will be refined and selected during the FEIS and local permitting processes.

6.4.9.7 Criterion 8: Historic and Cultural Resources

"Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources."

Historic and cultural resource impacts specific to the Hayden Island Segment are addressed in the following section. Historic and cultural resource impacts and mitigation common to segments throughout the South/north Corridor, including the Hayden Island Segment, are addressed in the General Findings. Historic and cultural resource impacts and mitigation measures are also described in the *Historic, Archeological and Cultural Resource Impacts Results Report (Historic Report)*.

Identified Significant and Protected Historic and Cultural Resources in the Hayden Island Segment

The decision to select the LRT alignment and site one LRT station in the Hayden Island Segment must consider impacts to historic and cultural resources which are inventoried as significant and protected in the City of Portland Comprehensive Plan.

The *Historic Results Report* and the Portland Comprehensive Plan identify the northbound Columbia River Interstate Bridge as the only "significant" and "protected" historic resource in the Hayden Island Segment. The bridge is currently listed on the National Register. The *Historic Results Report* concludes that there would be an effect, but not an adverse effect, on the bridge because of its close proximity to the LRT improvements.

The *Historic Results Report* also indicates that there is a high probability for historic archaeological resource sites in the Hayden Island Segment. Although the specific location is not identified and the City of Portland Comprehensive Plan does not "protect" archeological resources, federal regulations are applicable to such resources.

Mitigation Options for Identified Historic and Cultural Resource Impacts in the Hayden Island Segment

Based on the findings in the *Historic Results Report*, the Council concludes that the South/North Project will not adversely affect the northbound Interstate Bridge, the only significant historic and cultural resource protected in the acknowledged City of Portland Comprehensive Plan in the Hayden Island Segment. The new LRT bridge will be constructed adjacent to the southbound Interstate Bridge to avoid visual impacts on the northbound bridge structure which was constructed at an earlier date and is listed on the National Register.

There is high probability that a historic archaeological resource site may be located in the Hayden Island Segment. More detailed analysis of the site could occur in the FEIS and mitigation could include having a professional archeologist on site to monitor LRT construction.

7. Compliance With Substantive Criteria (3-8) Short Term (Construction) Impacts

7.1 Introduction

This section summarizes the short-term impacts associated with construction of the South/North Project and highlights mitigation measures that are applicable in all nine segments. The primary goals of including short-term, construction impacts in the LUFO findings are to:

- Identify locations, importance and duration of potential, major construction impacts; and
- Identify potential mitigation measures (in general terms) for major impacts.

Linear projects such as the South/North Project are typically divided into various segments or line sections for construction of the trackway, structures, park and ride facilities and related work. The construction sequence will vary depending upon pre-existing conditions and the nature of the LRT facilities. In segments of the alignment where the track is located within a separate right-of-way and supported on ties and ballast, extensive clearing and grading may be required. During the grading phase, culverts or other permanent drainage structures will be installed. Underground utility services may be relocated during the grading phase to avoid interference with light rail construction. In developed urban areas such as Portland's Central Business District, where the paved trackway is constructed within existing street right-of-way, grading activity is minimized but extensive reconstruction of streets and sidewalks may occur. Extensive utility relocation may be required in the Portland CBD to avoid conflicts within the paved trackway. Sound barrier walls may also be constructed during this phase at appropriate locations.

Following the grading and preliminary site work, installation of light rail utility ductbanks, catenary pole foundations, platform foundations, and major structures such as bridges will begin. Bridge work will be accompanied by foundation construction which may involve pile driving or other specialized operations. Other activities outside the trackway also may occur during this period, such as construction or relocation of roadways, park-and-ride construction, and construction of traction power substations and signals buildings.

The next construction phase involves the installation of trackwork which will include ballast and ties in areas where the LRT has separate right-of-way. The installation of catenary poles, catenary wire, signals, communications cables, and other system-wide elements will follow the completion of track construction. Once all elements of the LRT system are completed, integrated testing and start-up will begin.

A *Construction Impacts Assumptions Matrix for the South/North Project* is adopted by this reference and incorporated in these LUFO findings. The Council finds that the matrix provides a good summary of construction activities and impacts associated with the Alignment Alternatives and Design Options evaluated in the DEIS.

7.2 Criterion 3: Neighborhood Impacts

"Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of

approval during the National Environmental Policy Act (NEPA) process or, if reasonable and necessary, by affected local governments during the local permitting process."

"A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of an efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts."

"B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts."

The South/North Project will result in adverse economic, social and traffic impacts through disruptions to existing land uses. However, these impacts will be temporary in duration and should end when the construction activities end. Construction of light rail facilities and highway improvements will adversely impact local economic and social interests located adjacent to or nearby construction or staging areas by interfering with residences and businesses, disrupting traffic and pedestrian movement, displacing parking, altering accesses, and causing noise, vibrations, dust, congestion, increased truck traffic near residences and businesses, and visual impacts. Rerouting, detours and lane closures will create temporary additional traffic through neighborhoods, with associated noise, dust and congestion. Construction machinery, trucks, and general construction activities will be temporary negative visual features of the project. Businesses that would be likely to feel the greatest impact are those that would experience the longest construction periods, those that have many other convenient competitors and those that are most dependent upon convenient access.

Economic and Social Impacts

Throughout the alignment, construction will have short-term and temporary impacts to businesses and residences of the nature described above. During the preparation of preliminary engineering and the FEIS, specific mitigation plans will be developed addressing short-term economic and social impacts to businesses and residences. These measures will include maintaining access to existing uses and providing screening to minimize dust and visual impacts. Wherever possible, the project will provide alternative access and ensure that access is maintained to all properties during construction. Some businesses that require access at all times and generate many trips (e.g., delivery services, drive-ins) may be inconvenienced. Utility services also may be interrupted as a result of construction. In the event that access or utility service to a residence or business would be temporarily disrupted, advance notice would be provided and the length of the disruption would be minimized to the extent practical.

Particular concern has been raised regarding economic impacts along the Downtown Portland transit mall, especially regarding the maintenance of access to businesses in the Central Business District

(CBD). These concerns are addressed in the *Downtown Portland Tier 1 Final Report* (December 1995) (*Tier 1 Report*), which the Council incorporates by reference herein. To minimize impacts, a goal has been established to complete all downtown construction work within a three year period, rather than the four to five years that otherwise might be required. During the EIS process, scheduling and phasing options for the work will be carefully assessed. To reduce impacts, options include

- Completing work in one segment of the project (e.g., the North Mall) before commencing another (e.g., the Central Mall)
- Completing work on one street before commencing another; and
- Avoiding construction work concurrently on both sides of any single block, particularly buildings such as US Bancorp Tower, Meier & Frank, and similar buildings with frontage on both SW 5th and SW 6th Avenues.

When it adopted the *Tier 1 Report*, the Council concluded that, during final design, a detailed construction management and mitigation plan should be developed for Portland's CBD that would create a Downtown Portland Construction District. It also recommended formation of a Downtown Portland LRT Committee to oversee the design, development of contract documents and construction of all work within the construction district. These and other construction mitigation measures are spelled out in the *Tier 1 Report*. The Council continues to abide by its previous findings regarding the availability of these mitigation measures.

Temporary construction impacts on neighborhoods could result from increased traffic congestion, truck traffic, noise, vibration and dust. Temporary street closures, traffic reroutes and detours could increase traffic within neighborhoods and impede access to community facilities. Specific impacts are identified in the DEIS at pages 5-86 to 5-88, incorporated herein by this reference. These include partial closures of streets, temporary rerouting or relocation of driveways, noise impacts from pile driving and bridge pier construction, impaired access for elderly and mobility-impaired residents, and disruption of activities near schools.

Construction activity may temporarily create dangerous situations for pedestrians. Much of the construction will occur in public rights-of-way, which also accommodate sidewalks and accesses to adjacent uses like schools. Construction activities can reduce sidewalk widths and bring trucks and other construction-related traffic into neighborhoods and in very close proximity of pedestrian areas. For neighborhoods so affected by construction, the Council finds that Tri-Met can work with neighborhood representatives to identify issues of concern and potential mitigation measures. Potential mitigation measures include

- Developing construction management plans for incorporation into construction contracts following close coordination with neighborhood and business associations and with representatives of public facilities located adjacent to the alignment, to maximize the opportunity to identify in advance potentially hazardous situations for pedestrians and proactively plan for pedestrian safety
- Providing ongoing coordination during construction to keep affected neighborhood and business area representatives informed about the schedule and location of construction work and anticipated modifications to pedestrian access
- Limiting construction hours for certain activities in sensitive areas

- Providing facilities to maintain pedestrian movement and safety
- Providing fencing around construction and staging areas

Construction activities also could reduce accessibility to police, fire departments and other public safety and emergency service providers. Construction activities will, at times, impede the movement of emergency vehicles by temporarily narrowing or reducing the number of travel lanes or by detouring traffic and road segment closures. These impacts are often associated with activities such as construction of grade crossings of streets and construction of overpasses or underpasses for the LRT alignment. To ensure the most effective, continuous access to construction site vicinity uses for public safety and emergency service providers, the Council finds that the following measures could be employed

- Develop construction management plans, for incorporation into construction contracts, in close coordination with affected police and fire departments and other emergency service providers
- Involve emergency service providers in planning for traffic management during construction in order to identify alternate emergency routes in advance of construction
- Maintain regular coordination with emergency service providers during construction to give them advance notice of when, where and for how long traffic capacity constraints on street closures will be employed, and to plan for how local emergency access will be maintained
- Maintain pedestrian access to adjacent uses
- To the extent practicable, maintain the visibility to police patrols of uses adjacent to construction areas

In summary, the Council finds that numerous measures are potentially available to mitigate impacts to businesses and neighborhoods. Potential mitigation measures beyond those listed above include:

- Management of construction activities to reduce dust, noise and vibration
- Fencing and buffering to reduce construction impacts in sensitive areas
- Use of berms, hay bales, plastic sheeting and other similar measures to reduce surface erosion and runoff into water bodies and storm sewers
- Provision of temporary alternative parking and pedestrian access

Traffic Impacts

Construction of the LRT improvements within the South/North Corridor will result in temporary impacts to local and regional automobile and truck traffic. A description of the traffic impacts associated with construction is contained in Section 5.13 of the *Local and Systemwide Traffic Impact Results Report (Traffic Report)*. The Council adopts the facts from this report by reference and concludes that the recommended mitigation measures described in the report can be effective in reducing the adverse impacts of LRT construction on local traffic. Key findings of construction traffic impacts by segment are summarized below.

Clackamas Regional Center Segment

This construction activity could be accomplished while maintaining traffic flow on the roadway. Some driveways from SE Monterey Avenue to the Town Center will be temporarily relocated and

some Town Center parking will be temporarily closed for construction staging and work activity. Construction of the at-grade crossing of SE 82nd Avenue south of SE Monterey Avenue will likely require phased construction and half street closures on SE 82nd Avenue. It may be possible to construct temporary travel lanes on SE 82nd Avenue to maximize through traffic flow through the area.

Construction of the LRT trackway on SE 80th Avenue could require closure of the roadway. Some local access issues will have to be resolved during construction.

East Milwaukie Segment

The Highway 224 alignment will involve construction of an LRT structure over the UPRR near the intersection of SE Harmony Road with SE Railroad Avenue/SE Linwood Avenue. The Highway 224 alignment will have minimal construction traffic-related impacts on this intersection.

Construction of the LRT trackway through the intersection of SE Harmony Road with SE Lake Road/International Way could require closure of most traffic movements at the intersection. The eastbound and westbound right turn movements might be accommodated during most phases of construction, but all other movements will likely require detours.

Other construction traffic-related impacts will occur along Highway 224 and will involve both full and partial closure of intersection side streets. It may be possible to close SE Freeman Way between SE International Way and Highway 224 except for local traffic. Construction of a new roadway link to replace the existing intersection of SE 37th Avenue/International Way with Highway 224 could likely be accomplished with limited impacts to the surrounding street system. It may be possible to construct this new roadway link while maintaining traffic at the existing intersection.

Construction of the at-grade LRT crossing of SE Oak Street and the LRT tunnel under SE Harrison Street will require careful staging to minimize construction impacts. At both locations, it may be possible to maintain one lane of traffic flow during construction.

Milwaukie Regional Center Segment

Construction of LRT tunnels under Highway 224 will have to be carefully staged to maintain as much capacity as possible on Highway 224. Construction could require a cut-and-cover approach which could result in partial, off-peak lane closures and/or lane width reductions at the beginning of tunnel construction. Excavation of this tunnel could be expected to result in a significant increase in local truck traffic due to the volume of earth removal and subsequent concrete delivery which would be necessary.

Reconstruction of the SE Main Street crossings of Highway 224 and SE Scott Street would present two problems. The first would involve maintenance of access to all industrial properties in the area and to the Southgate Transit Center and park-and-ride lot. Second, construction on SE Main Street would likely result in higher traffic volumes and poorer levels of service on SE McLoughlin Boulevard in the vicinity. However, it should be possible to maintain one travel lane either northbound or southbound through the construction area at all times.

Construction along the Tillamook Branch Line railroad corridor would have limited impacts on the surrounding street system with the exception of SE Mailwell Avenue, where street closure during construction could be required. Construction impacts on freight rail operations will need to be carefully coordinated with the railroad operator.

Reconstruction of the SE Tacoma Street northbound ramps to SE McLoughlin Boulevard to provide an at-grade LRT crossing will be difficult if traffic is to be maintained on the ramps. Partial, off-peak or full closures of the ramps may be required during construction. Some potential exists to stage construction of a new ramp north of the existing structure to allow some traffic flow to and from SE McLoughlin Boulevard.

McLoughlin Boulevard Segment

Only minor construction traffic impacts are expected in this segment, primarily related to potential reconstruction of the SE Bybee Street overcrossing. Reconstruction of the overpass could require short-term lane restrictions and/or lane closures on SE McLoughlin Boulevard to set bridge falsework and girders. Detour routes are available for these short bridge closures. Some traffic delays could also be experienced along SE McLoughlin Boulevard due to trucks entering and leaving construction staging areas along this street.

Reconstruction of the SE Bybee Boulevard overpass could result in minor diversion of traffic to East Moreland and West Moreland neighborhood streets. The potential for any significant traffic diversion is minimal due to limited alternative east/west through-street options and the potentially substantial out-of-direction travel through nearby neighborhoods. Reconstruction of the overpass in a manner that maintains at least one lane of traffic will further mitigate the potential for traffic diversion through nearby neighborhoods. In a one-lane situation, flaggers would be employed as necessary to keep traffic moving in both directions.

South Willamette River Crossing Segment

Potentially significant construction traffic impacts would be experienced with the Caruthers Alignment on SE Holgate Boulevard, SE Powell Boulevard and SE 11th/12th Avenues in the vicinity of SE Clinton Street.

An at-grade LRT crossing of SE Holgate Boulevard will require carefully staged, half street construction in order to minimize traffic disruption. A key issue in this area will be maintenance of truck access to the Brooklyn Yard.

Construction of the LRT bridge over SE Powell Boulevard will require lane width reductions and peak period or all day closures on SE Powell Boulevard associated with the installation of the falsework for the LRT structure. This could lead to traffic diversion onto paralleling streets in the Brooklyn and Hosford-Abernathy neighborhoods. Careful construction staging can minimize the impact of construction activity on the available capacity of SE Powell Boulevard through the construction zone. Signed detour routes can be implemented during any periods of total closure. The existence of a well developed grid of streets, offering a broad array of alternative routes, will further mitigate neighborhoods against any locally significant intrusion of diverted traffic.

Construction in the vicinity of the SE 11th/12th Avenue and SE Clinton Street area will have to be coordinated with existing railroad operations in the vicinity. Reconstruction of SE 11th and SE 12th Avenues could require significant changes in existing traffic patterns, including detours through neighboring residential or industrial areas. Lanes will be narrowed, or their number reduced, to facilitate temporary, partial street closures. Careful construction staging can minimize the potential diversion of traffic due to these activities. The availability of SE McLoughlin Boulevard, SE 21st Avenue and SE 26th Avenue, which offer through connections north and south of SE Powell Boulevard, further reduce the potential for traffic diversion on local neighborhood streets. A truck route for local truck access also can be established.

The bridge structure across the Willamette River will likely result in increased truck activity on local streets on either side of the river, as significant earth and concrete work will be required. Also, the river's navigational envelope (75 feet in height and 300 feet in width) will have to be maintained during construction.

Downtown Portland Segment

Construction of South/North LRT through downtown Portland will have the potential for significant disruption to traffic circulation. Because of this potential, the conceptual design process has included consultation with downtown stakeholders to assist in the identification of specific issues and potential means of addressing these issues. Of particular concern are the potential short-term impacts related to maintenance of access to businesses within the CBD, the potential effects of construction activities on transit bus operations on the existing transit mall and LRT operations on SW Yamhill and Morrison Streets, and impacts on general purpose traffic entering and leaving the downtown via several major arterials and bridges.

Recognizing that construction of the South/North Project within the Portland CBD will be a major undertaking, the Downtown Oversight Committee has expressed a concern that light rail construction within the CBD be done using techniques that would minimize disruption. Some of the techniques that could be utilized include:

- Phasing of utility and light rail construction.
- Splitting CBD construction into several contract packages.
- Sequencing of construction packages.
- Phasing of construction within a contract package.
- Creation of a light rail construction district with special restrictions.
- Use of non-traditional contracting techniques.

Phasing and packaging of construction contract packages for the CBD to minimize short-term impacts during construction will be a major focus of subsequent preliminary and final design work. Descriptions of the potential effects on traffic operations in the Downtown Portland Segment are described below.

In the South Downtown section, construction of the LRT trackway across SW Front Avenue will require partial closures of SW Front Avenue at SW Harrison Street to allow the profile of the intersection to be raised and to allow SW Harrison Street to be realigned through the intersection.

Detours, particularly for southbound traffic on SW Front Avenue, could be difficult because of the superblock street network in this portion of downtown Portland.

The reconstruction of SW Harrison Street from SW Front Avenue to SW 4th Avenue may require a full closure of this street to allow for utility relocations, roadway profile modifications, and trackway construction. Detour routes are available but longer than elsewhere in downtown Portland due to the superblocks in the vicinity. This will also affect southbound traffic on SW 1st Avenue. Maintenance of pedestrian and vehicle access to the apartment complexes on SW Harrison Street will be a concern.

Along SW 5th and SW 6th Avenues, construction activity may require full closures of two to four block long sections of these streets to allow relocation of underground utilities, upgrades to storm drainage systems, roadway and sidewalk reconstruction, and trackway construction. Construction through intersections with SW Clay Street, SW Market Street, and other cross-streets with heavier traffic volumes will be a particular concern from the standpoint of construction staging and potential detour routes. Maintenance of vehicular and pedestrian access to adjacent properties during construction will also be a significant concern. Some parking losses may also occur on cross-streets in the vicinity of construction areas.

Reconstruction of the existing transit mall in the Central Downtown section will be similar to that described above for South Downtown, except that work between the curbs and building faces could be less intrusive in that sidewalk reconstruction may only be required in station areas. Outside of the station areas, the impact on pedestrian access to adjacent properties along the existing mall would be minimal during construction. Vehicular access may, however, be restricted in areas under active construction. Buses on the transit mall will be re-routed during construction. Impacts of bus rerouting will be further evaluated during development of mitigation plans and the Final EIS.

Disruption of MAX service would occur at two locations where construction of grade-crossings and connecting trackage would require short-duration and/or off-peak closures of the existing tracks. Further study of construction methods and sequences, and potential bus and LRT operating plans to minimize disruption, will occur in Preliminary Engineering and in the Final EIS.

In the North Downtown section, construction of the LRT trackway across W Burnside Street could result in a significant impact on traffic circulation patterns. Partial closures of W Burnside at NW 5th or NW 6th Avenues may be required. This could be coordinated with work in the Rose Quarter to minimize the total impact on traffic detouring to other bridges such as the Broadway Bridge or Steel Bridge. There is also a concern for pedestrian safety in the North Downtown section due to confined remaining sidewalk area. Mitigation includes fencing and signage.

As in Central Downtown, reconstruction of the transit mall on NW 5th and NW 6th Avenues would require full closures of two to four block segments to allow utility relocations and reconstruction of the LRT trackway. These closures would require re-routing of transit buses but would have a minimal overall impact on traffic circulation. Closures of sidewalks may not be required except at station locations, which would minimize impacts to pedestrian access to adjacent properties along the North Transit Mall.

With the Irving Diagonal Design Option, less direct impact will occur to local traffic circulation on NW Glisan Street, but access to the Greyhound Station, Tri-Met's north terminal staging area at the north end of the transit mall, and to Union Station will be more difficult. Reconstruction of sidewalks will also be more extensive with the Irving Diagonal Design Option.

On the Steel Bridge, reconstruction of the west approach structure will require a full closure to westbound auto traffic on the bridge with detours. Shutdowns of existing MAX service would also be required to cut in the new trackwork and to accommodate ramp construction. This work would be coordinated with similar work on the east approach to minimize overall disruption.

Eliot Segment

Construction activity on the main span of the Steel Bridge will include rehabilitation of the lift span joints and bridge bearings. Short-term and/or off-peak full closures to auto, bus, and LRT traffic across the bridge may be required for this work. This work would be scheduled to avoid the Rose Festival and could also be scheduled to coincide with either east or west bridge approach work to minimize the total extent of disruption.

A shoo-fly, or detour track, may need to be constructed on the east approach to the Steel Bridge for use by MAX trains during construction. It may be necessary to close NE Oregon Street to all or some auto and bus traffic between the Steel Bridge and NE 1st Avenue while the shoo-fly is in use; at a minimum, only one eastbound lane could remain open.

Construction of the Rose Quarter Transit Center could require a full closure of N Interstate Avenue. N Multnomah Street would be less affected by construction than N Interstate Avenue.

Maintenance of pedestrian, auto, and bus circulation for events held at the Oregon Convention Center, Rose Garden Arena, and Memorial Coliseum will be a significant concern during construction. The existing Rose Quarter Transit Center and accompanying transit bus traffic will have to be relocated for the duration of the construction.

Overall, traffic impacts for the grade-separated Broadway/Weidler Design Option will be less than the at-grade option. Off-peak closures may be required to set falsework for the LRT structures over surface streets, and some restrictions to traffic movements can be expected due to construction activity.

Maintenance of access to and safety of students and faculty at the Harriet Tubman Middle School during construction of the LRT trackway along N Flint Avenue, including utility relocation work, will be a significant issue. Partial closures of N Russell Street and N Kerby Avenue will be required for grade crossing construction. Construction of fills and retaining walls will generate high numbers of truck trips on these streets.

Construction along I-5 and under the I-405 ramps may result in some slowdowns on these freeways due to drivers looking at construction activity. Traffic on the I-405 exit ramp may be detoured to a temporary roadway during construction of the LRT tunnel under this ramp. Off-peak closures may be required on I-5 to implement lane shifts associated with pier construction in the median, and to

allow erection of girders and/or falsework for the LRT bridge over I-5 at the north end of this LRT segment.

North Portland Segment

Construction of the LRT trackway adjacent to I-5 in the southern portion of this segment will have the potential for traffic slowdowns caused by interested drivers if screening is not provided between the active construction areas and the I-5 mainline. The construction activity will generate a high volume of truck traffic associated with retaining walls and embankment work.

Partial street closures will be required to construct grade crossings at cross streets. Detour routes will be available but may involve some significant out-of-direction travel due to the limited number of streets crossing I-5.

Temporary detour roadways and partial street closures may be required for construction of the LRT tunnel under N Going Street; during peak travel periods, the reduction in capacity resulting from these detours and/or closures could increase delays to auto and truck traffic using the Going Street interchange.

Disruption to traffic operations due to the construction of light rail in the center of N Interstate Avenue would be significant. Construction activity would be from the edge of sidewalk to the edge of sidewalk. Disruption to traffic operations in the Kenton District could be significant and may require local detours in the vicinity of the station area. These conditions could be exacerbated by relatively high numbers of construction related truck trips that may be generated by construction of major structures over N Columbia Boulevard and Columbia Slough.

Major structures over N Columbia Boulevard, Columbia Slough, Highway 99W, and N Marine Drive/North Portland Harbor may require off-peak street closures for erection of falsework or bridge girders, and would generate high numbers of truck trips associated with retaining wall and bridge construction activities. Some traffic restrictions could be expected.

Construction activity in the vicinity of the Portland International Raceway and the Expo Center may disrupt access to event parking areas, and staging areas could result in temporary loss of some event parking.

Hayden Island Segment

The extension of light rail north from N Marine Drive will require construction of two major bridges; one over the North Portland Harbor and the other over the Columbia River. Construction of the bridge over the North Portland Harbor will increase truck traffic on N Marine Drive and N Jantzen Drive at either end of this structure. Some potential would exist for slowdowns on I-5 associated with gawkers. Partial or complete closure of N Jantzen Drive may be required.

Construction of an LRT bridge over the Columbia River would involve significant activity including fill, pile driving and concrete work associated with the structure. An increase in truck traffic would be experienced, and a construction staging area would be required. Truck activity associated with

the bridge would impact N Hayden Island Drive and other local streets on Hayden Island as well as the I-5/Hayden Island interchange ramps.

Mitigation Strategies for Construction Impacts to Traffic

As highlighted above, short-term construction impacts will likely take the form of roadway closures, detours and/or lane reductions, increased truck traffic, pedestrian access restrictions and local access restrictions. The council finds that short-term construction impacts are best mitigated by coordination with local agencies, service providers and residents.

Mitigation for construction impacts could include a variety of activities ranging from scheduling of construction activities to minimize conflicts during peak travel periods to using alternative construction techniques or equipment. The Council finds that some of the options for mitigating the short-term traffic impacts associated with light rail construction could include, but not be limited to the following:

- Limit work areas in congested locations such as the Portland CBD to two to four blocks to minimize disruptions to traffic, bus and pedestrian circulation, as well as business access.
- Avoid construction during peak travel hours or seasons such as Christmas when traffic volumes in the vicinity of regional shopping facilities are significantly higher.
- Develop and maintain a program of coordination and outreach with affected business and community interests to oversee construction traffic mitigation and management activities.
- Develop and implement Travel Demand Management strategies to reduce vehicular traffic volumes in congested corridors.
- Where appropriate, develop temporary parking to mitigate loss due to construction staging or work activities
- As appropriate, functional and reasonable, develop and implement alternative construction techniques to minimize traffic impacts. These techniques might include such activities as barging of materials to work sites for major bridge construction to reduce the anticipated level of truck activity.
- Monitor traffic control to identify and resolve issues which occur due to changes in day-to-day construction activities.

7.3 Criterion 4: Noise Impacts

“Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.”

As with any large project, construction of a light rail system involves the use of equipment, machinery and procedures that result in intense noise levels and occasionally high vibration levels in and around the construction site. Sections of the alignment for the South/North Project are adjacent to a number of noise sensitive uses such as dwellings.

Construction activities will occur throughout the South/North Corridor as close as 100 feet from existing structures. Estimates of maximum noise levels at the closest receivers for various stages of

construction are provided in Table 6.5-1 of the *Noise and Vibration Impact Analysis Results Report (Noise Report)*. Noise levels at 100 feet from receivers generally range from 85 dBA (backhoe, loader) to 89 dBA (paver, trucks). Offsetting the relatively high noise levels is the fact that the construction will be of short duration, and the levels in Table 6.5-1 can be expected only when the equipment is within 100 feet of the receiver. All buildings bordering on project roadways can expect maximum construction noise levels in the 80 to 90 dBA when equipment is operating in the immediate area.

There are currently no criteria for construction noise or vibration impacts between the hours of 7:00 AM to 7:00 PM. However, if construction is to continue past these hours, noise levels must meet the appropriate standards outlined Chapter 2 of the *Noise Report*, or a nighttime noise variance must be issued by the local governing body.

As described in the *Noise Report*, the ability to predict and assess vibration impacts is not well-developed. Variables such as soil conditions and transmissibility of the media make vibration an extremely complex problem. Structures located on weak soils, having historic value, or containing vibration sensitive equipment are among those likely to be sensitive to vibration impacts.

Common vibration-producing equipment used during construction activities include pile drivers, jackhammers, bulldozers, and backhoes. Pile driving activities are only expected for bridge construction for the grade separated and river crossings and possibly during the construction of station structures. The *Noise Report* states, and the Council finds, that there are no vibration sensitive receptors near the proposed river crossing areas. For this reason, vibration from demolition activities are expected to produce the highest levels for vibration sensitive receivers. Construction equipment used during demolition include bulldozers, backhoes, jackhammers, loaders, and haul trucks. Demolition activities are not expected to produce vibration levels higher than 0.64 in/sec. After the demolition activities are complete and normal construction is underway, vibration levels should drop to between 0 and 0.64 in/sec.

The Council finds that adverse noise impacts associated with construction are temporary and can be effectively mitigated by avoiding construction on Sundays, legal holidays, and during the late evening and early morning hours in noise sensitive areas. Additionally, the Council finds that equipping motorized construction equipment with sound control devices, and developing construction contract documents that include noise limit specifications, reinforced with state/local ordinances and regulations, can be effective techniques for minimizing adverse noise impacts associated with construction.

If specific noise complaints are received during construction, the contractor could be required to implement one or more of the following noise mitigation measures:

- Install temporary or portable acoustic barriers around stationary construction noise sources.
- Locate stationary construction equipment as far from nearby noise-sensitive properties as possible.
- Shut off idling equipment.
- Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
- Notify nearby residents whenever extremely noisy work will be occurring.

7.4 Criterion 5: Natural Hazards

“Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which could be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.”

No specific landslide areas or areas subject to earthquake damage have been identified in the South/North Corridor. Construction activities at stream crossings could result in erosion and have detrimental effects on 100-year floodplain areas and water quality. The *Geology and Soils Impacts Results Report (Soils Report)* notes that the selected South/North Project includes three major river crossings as well as a large volume of earthwork. Erosion and sediment control are the most likely construction-related problems. Minor slope instability may develop at several locations. Settlement could occur in the Milwaukie and Delta Park areas.

Erosion control during construction begins with an Erosion and Sediment Control Plan (ESCP). The ESCP is based on the results of the geotechnical investigation and on the preliminary design. Appropriate remediation measures will be applied at each phase of construction. The ODOT *Construction Project Pollution Control Manual (1997)* lists eight topics important to erosion prevention and sediment control. These include clearing limits, sensitive area restrictions, surface water control, perimeter protection, sediment retention, cover measures, traffic area stabilization and dust control.

Slope stability problems encountered during construction could include failures of existing oversteepened or unstable slopes and failures of improperly designed (constructed) slopes or fills. These failures can be minimized by using construction techniques appropriate to the foundation conditions of the site. Remediation of existing unstable slopes and provisions to address settlement are addressed under the Long Term Impacts section of these findings.

Construction activities will involve using heavy machinery for clearing and grading. Pollutants such as fuel, oil and grease, hydraulic fluid, and other hydrocarbons could be released from the heavy equipment during construction. The removal of vegetative cover and the subsequent exposure of soil increases the amount and velocity of surface runoff. Erosive capacity also increases. Stream crossings would be especially vulnerable to construction-related impacts due to vegetation removal and subsequent rises in water temperature and turbidity. Construction activities have the potential to contribute significant amounts of sediment to waterways either directly or indirectly via the storm drain system.

To mitigate these potential impacts, Best Management Practices (BMPs) will be used during construction. BMPs to control sedimentation can include limiting work to dry weather periods and using barrier berms, silt fencing, temporary detention basins, and hay bales. Release of fuel and other vehicle residues could be contained by fueling and lubricating equipment within berm and membrane-lined areas only, using drip pans, and developing a hazardous waste spill control plan.

The Council finds that erosion can be avoided and floodplains protected by restricting cut and fill to the extent practicable and minimizing the removal of trees and vegetation along stream and river banks. Construction activities within the 100-year floodplain will be temporary and no long-term alteration of floodplain levels will occur. Proper sediment, erosion, and spill controls will be implemented to limit potential adverse impacts on natural hazard areas. Additionally, with appropriate construction precautions, such as identifying the limits of grading, utilizing appropriate construction equipment, and performing revegetation work immediately following construction, the magnitude of short-term impacts and the duration for recovery will be minimized.

7.5 Criterion 6: Natural Resource Impacts

"Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Construction activities may cause temporary disruption (noise, dust, vibration) of scenic and open space or park and recreational areas identified in local comprehensive plans. Project construction activities will have temporary impacts on significant habitat areas for fish and wildlife, including wetlands. In general, local comprehensive plans designate creeks, streams and rivers as significant open space, riparian and fish and wildlife habitat areas.

Temporary construction impacts can be mitigated through a variety of techniques, including erosion control and surface runoff containment using berms, silt screens, hay bales, retaining walls, and fencing. Noise and visual impacts from construction can be mitigated as discussed previously under Criteria 3 and 4.

The *Ecosystems Results Report* identifies wetlands, wildlife and habitat areas that will be adversely impacted by construction activities and describes the nature and extent of expected impacts. The Council agrees with and accepts the facts set forth in the *Ecosystems Results Report* and adopts the facts by reference into these findings.

Wetlands have been identified within the South/North Project area. The majority are associated with permanent or intermittent streams; others occur in isolated depressions or are associated with roadside ditches. Many of the wetland areas have been channelized, diverted, culverted, and/or surrounded by development.

Short-term impacts to wetland areas include the possible temporary filling of wetlands during grading activities, vegetation disturbance and/or removal within the designated LRT right-of-way, and temporary erosion and sedimentation impacts to off-site wetlands. Permits for fill in wetlands will be required by the Corps of Engineers under the Clean Water Act and by the Division of State Lands under the Oregon Removal-Fill Law. Construction within streams will require permits from

the Oregon Department of Fish & Wildlife and local jurisdictions. The Council finds that appropriate mitigation can be specified as conditions of these local, state and federal permits.

During construction, there could be some disturbance to wildlife in areas adjacent to the right-of-way resulting from the activity of construction equipment. High noise levels and large amounts of dust could be produced during the construction. Some species of wildlife are likely to retreat from this disturbance. Most species would be expected to reoccupy adjacent habitats following completion of the construction.

Short-term impacts to vegetation and wildlife in the majority of the nine segments of the South/North Project will be minor, given the heavily urbanized character of the affected lands. In all cases, revegetation following construction will provide opportunities to mitigate short-term impacts. For this revegetation, native trees, shrubs, and herbaceous plants could be selected for their value in providing food and/or cover for a variety of wildlife species.

The Council recognizes that the creek, stream and river crossings by South/North LRT raise several important fisheries issues. Agency concerns with bridge crossings include the potential for water quality degradation during construction, increases in predation rates through shading, hydraulic impacts that create eddies where predators could effectively hide, and habitat disturbance through placement of piers or abutments in nearshore areas.

The Council finds that local, state and federal reviews will be associated with in-water work for the bridge crossings of the Willamette and Columbia Rivers. It further finds that a range of measures are available to mitigate fisheries impacts that can be imposed as approval conditions during the NEPA process or, if reasonable and necessary, through local permitting. Section 6.2 of the *Ecosystems Report* summarizes potential measures, including sediment sampling, erosion and sediment control measures, timing of in-water construction activities, limited operation of equipment in the active river channel, cleaning of all equipment used for in-water work prior to entering the water, no storage or transfer of petroleum products within 200 feet of the active river channels, and weekly inspection of all erosion and sediment control measures to assure proper functioning and effectiveness.

7.6 Criterion 7: Stormwater Runoff

"Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process."

Construction of the South/North Project would remove existing vegetation in some locations, causing potential short-term increases in erosion and sedimentation of adjacent waterways and temporary increases in runoff rates. Other water quality impacts could result from release of oil, grease, fuel or hydraulic fluids from construction equipment. Temporary storage of soil, materials or equipment in a floodplain could aggravate upstream flooding problems during a flood event.

Within the South/North Corridor, the potential for construction related water quality and/or hydrology impacts would be highest at the park-and-ride lots and river and stream crossings. Other areas where soils could be exposed, such as station locations, would require attention to erosion and sediment control. Potential temporary impacts to water quality would also be associated with demolition sites, construction staging areas and construction of concrete structures.

The Council finds that many BMPs for controlling construction-related erosion and sedimentation are available and have been used on past LRT construction projects in the Portland metropolitan area. Potential measures include covering temporarily exposed soils, use of barrier berms, silt fences and temporary sediment basins, as well as special wet-weather rules regarding excavation, dump truck covering and tire cleaning. Protecting existing vegetation along channel banks, or if disturbance cannot be avoided, disturbing banks only during the dry season and re-vegetating as soon as possible would reduce potential water quality impacts. Release of fuel and other vehicle residues could be contained by fueling and lubricating equipment within bermed and membrane-lined areas only, using drip pans and developing a hazardous waste spill control plan.

The *Water Quality and Hydrology Results Report (Hydrology Report)* identifies the areas of the South/North Project where special controls may be needed to address stormwater impacts of construction. The Council finds that the information in the *Hydrology Report* provides a good framework for implementing site-specific stormwater mitigation measures through the NEPA process and/or local permitting, and it incorporates that information by reference herein.

7.7 Criterion 8: Historic and Cultural Resources

“Identify adverse impacts on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impacts cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.”

A detailed description of the historic and archaeological inventory for the South/North Project is provided in the *Historic, Archaeological and Cultural Resources Impacts Results Report (Historic Report)*. This report indicates that there are four segments with a high probability of hunter-fisher-gatherer archaeological resource sites, and three segments with a high probability for historic archaeological resource sites. Areas potentially affected include the Clackamas Regional Center Segment, East Milwaukie Segment, Milwaukie Regional Center Segment, McLoughlin Boulevard Segment, Downtown Portland Segment, and Hayden Island/Vancouver Segment

Archaeologically sensitive areas generally include shorelines of creeks, the land around natural springs, wetland areas, floodplains, land under existing historic buildings and small parcels of apparently undisturbed land. A professional archaeologist will be on site to monitor construction activities in the specified archaeologically sensitive areas as identified in the *Archaeological Report* (excluded from the public record for confidentiality reasons).

The *Historic Report* identifies construction impacts such as noise, dust, vibration and limitations on access which could cause temporary adverse impacts to historic resources. Because most of the LRT construction will occur within the public right-of-way, construction impacts are limited and could be mitigated through the measures described in the General Findings for Historic Resources.

The Council finds that construction could be managed to minimize disruptions to auto and pedestrian access and use of historic resources. Construction scheduling could be managed to limit disruptions during important seasonal times such as the holiday season. Potential impacts of construction-related, ground-borne vibration on historic resources could be mitigated through construction practices. Construction noise could be mitigated in residential areas with historic resources through limiting construction to daytime hours. Advance notice to residents could also help minimize noise disruptions. In commercial areas with historic resources, noise could be limited to after-hours construction.

On balance, the Council finds that construction impacts will be short-term in nature and the Final EIS process will provide an opportunity to refine the design and develop mitigation plans to reduce short and long-term project impacts on significant and protected historic resources. Further, the Council finds that a professional archaeologist will be on site to monitor construction activities at all identified archaeologically sensitive areas. Special federal and state statutes will apply if any Indian burial sites are encountered during construction of the South/North Project.

8. Compliance with Alignment-Specific Criteria (9-10)

8.1 Criterion 9: Clackamas County Alignment Connections

“Consider a light rail route connecting the Clackamas Town Center area with the City of Milwaukie’s Downtown. Consider an extension of the light rail route connecting the City of Oregon City and the City of Gladstone with the City of Milwaukie via the Interstate 205 corridor and/or the McLoughlin Boulevard corridor.”

Criterion 9 requires consideration of specific alignment connections within Clackamas County. It requires, first, consideration of a light rail route connecting the Clackamas Town Center with the City of Milwaukie’s downtown area. It further requires consideration of a light rail route extension connecting the cities of Gladstone and Oregon City with the City of Milwaukie via the Interstate 205 corridor and/or the McLoughlin Boulevard corridor.

The Council finds that only the first sentence of Criterion 9 is relevant to this proceeding. The Council finds that it has met the requirement in this sentence (1) through its consideration of the South/North Project Draft Environmental Impact Statement (DEIS), which includes alternative alignments to connect downtown Milwaukie with the Clackamas Town Center area; (2) through its consideration of public testimony on alignments connecting downtown Milwaukie and the Clackamas Town Center area during the DEIS public hearing process and the LUFO adoption process; and (3) through its LUFO decision establishing a light rail alignment connecting downtown Milwaukie with the Clackamas Town Center area as described in these findings.

The Council finds that the second sentence does not apply to the current proceeding, but instead is directed to Phase II of the South/North Project, during which the Council will establish the light rail route, stations, lots and maintenance facilities and the highway improvements for the Project Extension. The Council finds that HB 3478 distinguishes “the Project” from the “Project Extension”, and finds that the current proceeding concerns only the Project.

The legislative history of LCDC’s criteria confirms this conclusion. As explained in a document entitled “Narrative in Support of Proposed Metro Criteria”, incorporated herein by this reference, this second sentence “applies only to the project extension to Oregon City and requires the Metro Council to consider a route along the I-205 corridor and/or the McLoughlin Boulevard corridor.” Again, the “Project Extension” is not a part of the current proceeding before the Council, but instead will be considered during Phase II of the South/North Project as described in Section 1(19) of HB 3478.

8.2 Criterion 10: Portland-Milwaukie Alignment Connections

“Consider a light rail route connecting Portland’s Central City with the City of Milwaukie’s Downtown via inner southeast Portland neighborhoods and, in the City of Milwaukie, the McLoughlin Boulevard corridor, and further connecting the Central City with north and inner northeast Portland neighborhoods via the Interstate 5/Interstate Avenue corridor.”

Criterion 10, like Criterion 9, reflects local policies addressing where the light rail route should be located. It considers the northern portion of the Project and is responsive to Portland and Milwaukie comprehensive plan policies addressing the location of the light rail route in Portland and between the Portland city limits and downtown Milwaukie.

Like Criterion 9, Criterion 10 contains two separate requirements. It requires, first, consideration of a light rail route connecting Portland's Central City with the City of Milwaukie's downtown area via inner southeast Portland neighborhoods and, in the City of Milwaukie, the McLoughlin Boulevard corridor. Further, it requires consideration of a light rail route connecting Portland's Central City with north and inner northeast neighborhoods via the Interstate 5/Interstate Avenue corridor.

The Council finds that it has met the first requirement in Criterion 10 (1) through its consideration of the South North DEIS, which includes two alternative alignments to connect downtown Milwaukie with Portland's Central City along the McLoughlin Boulevard Corridor and through southeast Portland neighborhoods; (2) through its receipt and consideration of public testimony on alignments connecting downtown Milwaukie with downtown Portland via the McLoughlin Boulevard corridor and southeast Portland neighborhoods during the DEIS public hearing process and the LUFO adoption process; and (3) through its decision approving a light rail alignment connecting downtown Milwaukie with Portland's Central City via McLoughlin Boulevard and the Caruthers alignment through inner southeast Portland neighborhoods. Those neighborhoods are identified in the McLoughlin Boulevard and South Willamette River Crossing segment findings.

The Council also finds that it has met the second requirement in Criterion 10 (1) through its consideration of the South North DEIS, which includes alternative alignments to connect Portland's Central City with north and inner northeast Portland neighborhoods via either Interstate 5 or Interstate Avenue; (2) through its receipt and consideration of public testimony on the two proposed alignments connecting downtown Portland with north and inner northeast Portland neighborhoods during the DEIS public hearing process and the LUFO adoption process; and (3) through its decision approving a light rail alignment so connecting Portland's Central City with north and inner northeast Portland neighborhoods via the Interstate Avenue alignment with a crossover from I-5. Those neighborhoods are identified in the Eliot and North Portland segment findings.

TRANSPORTATION PLANNING COMMITTEE REPORT

CONSIDERATION OF RESOLUTION NO. 98-2673, FOR THE PURPOSE OF ADOPTING THE LAND USE FINAL ORDER ESTABLISHING THE LIGHT RAIL ROUTE, STATIONS, LOTS AND MAINTENANCE FACILITIES AND THE RELATED HIGHWAY IMPROVEMENTS, FOR THE SOUTH/NORTH LIGHT RAIL PROJECT.

Date: July 22, 1998

Presented by: Councilor Washington

Committee Action: At its July 21, 1998 meeting, the Transportation Planning Committee unanimously recommended Council adoption of Resolution No. 98-2673. Voting in favor: Councilors McLain and Washington.

Council Issues/Discussion: This resolution was presented by Richard Brandman and Leon Skiles, Transportation Department staff. The LUFO meets state land use requirements applying to the Oregon portion of the South/North alignment, and is identical to the application submitted by Tri-Met.

The LUFO establishes the areas within which the South/North Facilities can be built. The facilities include the route itself, stations, park-and-ride lots, maintenance facilities, transit centers and related highway improvements. The resolution also approves maps and findings, which are exhibits to the resolution.

The LUFO is consistent with the Oregon portion of the Locally Preferred Strategy. If boundaries need to be changed for any of the facilities they must be formally be amended at a later time by Tri-Met and Metro.

No public testimony was offered on this resolution. The councilors thanked staff for their work.

STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 98-2673 FOR THE PURPOSE OF ADOPTING THE LAND USE FINAL ORDER ESTABLISHING THE LIGHT RAIL ROUTE, STATIONS, LOTS AND MAINTENANCE FACILITIES AND THE RELATED HIGHWAY IMPROVEMENTS, INCLUDING THEIR LOCATIONS, FOR THE SOUTH/NORTH LIGHT RAIL PROJECT

Date: July 16, 1998

Presented by: Richard Brandman

NATURE OF PROPOSED ACTION

This resolution would: 1) adopt the Land Use Final Order (LUFO) for the South/North Light Rail Project (Exhibit A) identical to the LUFO application submitted by Tri-Met (Exhibit B); 2) adopt the findings of fact and conclusion of law in support of the LUFO (Exhibit C), demonstrating how the Metro Council's decisions in its adopted LUFO comply with applicable review criteria; and 3) express the Metro Council's intent to amend the Regional Transportation Plan (RTP) and Regional Urban Growth Goals and Objectives (RUGGOs) and related documents to make those Functional Plans consistent with the LUFO.

Tri-Met's application addresses the light rail route, light rail stations, lots and maintenance facilities, and the highway improvements for an area extending from the Clackamas Regional Center in Clackamas County, Oregon to the Oregon/Washington state line ("the Project"). Although the Project is a bi-state project, HB 3478 applies only to the portion within the State of Oregon. At a future date, following preparation of a draft Environmental Impact Statement, Tri-Met will apply to the Council for approval of a new LUFO extending the light rail route to Oregon City ("the Project Extension").

FACTUAL BACKGROUND AND ANALYSIS

A. RELATIONSHIP OF ACTION TO NATIONAL ENVIRONMENTAL POLICY ACT OF 1969

Adoption of the South/North LUFO is a land use proceeding that is governed only by the standards and requirements in House Bill 3478. The requirements of the Act are described below.

The Metro Council also will select a Locally Preferred Strategy pursuant to requirements of the National Environmental Policy Act of 1969. However, that is a separate action, governed by a different set of standards. Federal regulations govern the decision on the LPS while adoption of the LUFO is controlled by state law.

B. REQUIREMENTS OF HOUSE BILL 3478

House Bill 3478 authorizes the Metro Council, following application by Tri-Met, to adopt a Land Use Final Order for the South/North Project. The Act further requires the Council to adopt written findings demonstrating how its decisions comply with approval criteria established by the Land Conservation and Development Commission (LCDC) under Section 4 of the Act.

The LUFO is a written order of the Metro Council establishing the light rail route, the stations, lots and maintenance facilities, and the related highway improvements for the South/North Light Rail Project, including their locations. As explained in Section 6(1) (a) of House Bill 3478:

"Prior to publication of the public hearing notice described in Section 7(1) of this Act, and following receipt of recommendations from the Department of Transportation and the Steering Committee, Tri-Met shall apply to the council for a land use final order approving the light rail route, stations, lots and maintenance facilities, and the highway improvements, including their locations. The applied-for locations shall be in the form of boundaries within which the light rail route, stations, lots and maintenance facilities, and the highway improvements shall be located. These boundaries shall be sufficient to accommodate adjustments to the specific placements of the light rail route, stations, lots and maintenance facilities, and the highway improvements for which need commonly arises upon the development of more detailed environmental or engineering data following approval of a Full Funding Grant Agreement."

Section 7(7) of House Bill 3478 requires the Metro Council to demonstrate with written findings how its LUFO complies with the approval criteria established by LCDC. These criteria are the legal standards against which the Council must measure its decisions. Draft findings of fact demonstrating compliance with those criteria are attached to this staff report and incorporated herein by this reference. Those findings may require revision or supplementing prior to adoption to respond to public testimony.

Section 6(1) (b) of House Bill 3478 provides for the Metro Council, following the public hearing, to either 1) adopt a LUFO establishing the facilities and locations applied for by Tri-Met; or 2) continue the public hearing and refer the proposed facilities and locations back to Tri-Met for further review. Should the Metro Council adopt the LUFO, it must provide notice of its decision as soon as reasonably possible following adoption. Should it refer the matter back to Tri-Met, then Tri-Met must consider amendments to its proposed project and forward a further application to the Metro Council for hearing and adoption. At that time, the Metro Council will retain the same decision options it has at the first hearing.

Section 3(1) of the Act provides that the procedures and requirements set out in House Bill 3478 are the only land use procedures and requirements to which the Metro Council's decisions on the light rail route, stations, lots and maintenance facilities, and the highway improvements for the Project, including their locations, are subject.

C. LUFO RECOMMENDATIONS AND TRI-MET APPLICATION

As noted, House Bill 3478 requires that Tri-Met submit its application to the Metro Council following its receipt of recommendations from the Oregon Department of Transportation and the South/North LUFO Steering Committee established pursuant to Section 1(21) of the Act. On June 5, 1998, the LUFO Steering Committee adopted its recommendations for the South/North Project LUFO (see Attachment B of Exhibit B). The LUFO Steering Committee's recommendation was consistent with the Locally Preferred Strategy recommendations of the PMG, the Citizen Advisory Committee, the Downtown Oversight Committee and the South/North Steering Committee. The Oregon Department of Transportation followed with its recommendations on June 8, 1998 in the form of a letter to the Tri-Met Board from Kay Van Sickel, Region 1 Manager, expressly endorsing the recommendation of the South/North LUFO Steering Committee (see Attachment C of Exhibit B). The light rail route, stations, lots, maintenance facilities and highway improvements contained in Tri-Met's application, including their locations, are the same as those recommended by the LUFO Steering Committee and ODOT.

On July 1, 1998, the Tri-Met Board of Directors unanimously approved its LUFO application to the Metro Council for the South/North Light Rail Project. Tri-Met submitted its application to Metro on July 2, 1998 (Exhibit B).

D. PROPOSED SOUTH/NORTH LAND USE FINAL ORDER

The proposed South/North LUFO (Exhibit A) contains the following elements:

1. REQUESTED LIGHT RAIL AND HIGHWAY IMPROVEMENTS

The attached Land Use Final Order (Exhibit A) contains a segment-by-segment textual description of the South/North Project's light rail and highway improvements as applied for by Tri-Met and consistent with the project's LPS.

The LUFO also includes maps illustrating the boundaries within which the light rail route, stations, lots, maintenance facilities and highway improvements may go without need for a LUFO amendment. These maps are the same maps recommended by the South/North LUFO Steering Committee and ODOT and are the same maps included in Tri-Met's LUFO application. While these maps generally are at a scale of one inch equals 400 feet, Tri-Met also has provided a copy of

these maps at a scale of one inch equals 200 feet to provide greater clarity as to the approved boundaries for the light rail and highway facilities and improvements.

In text and maps, the LUFO is identical to Tri-Met's application.

2. INTERPRETATION OF TERMS

The LUFO for which Tri-Met seeks Council approval establishes the light rail route, stations, lots, maintenance facilities and the highway improvements for the South/North Project. Consistent with the LUFO Steering Committee's recommendation, Tri-Met is asking the Metro Council to interpret these terms to have the following meanings:

"Light rail route" means the alignment upon which the light rail tracks will be located. The light rail route will be located on land to be owned by or under the operating control of Tri-Met.

"Stations" means those facilities to be located along the light rail route for purposes of accessing or serving the light rail system. Stations include light rail station platforms; kiss-and-ride areas; bus transfer platforms and transit centers; vendor facilities; and transit operations rooms.

"Lots" means those parking structures or surface parking lots that are associated with a station, owned by or under the operating control of either Tri-Met or another entity with the concurrence of Tri-Met and intended primarily for use by persons riding transit or carpooling. Parking structures may include some retail or office spaces in association with the primary use.

"Maintenance facilities" means those facilities to be located on land to be owned or controlled by Tri-Met for purposes of operating, servicing, repairing or maintaining the light rail transit system, including but not limited to light rail vehicles, the light rail tracks, stations, lots, and ancillary facilities and improvements. Maintenance facilities include maintenance facility access trackways; storage tracks for light rail vehicles; service, repair and maintenance shops and equipment; office facilities; locker rooms; control and communications rooms; transit district employee and visitor parking lots; and storage areas for materials and equipment and non-revenue vehicles.

"Highway improvements" include new roads, road extensions or road widenings outside existing rights-of-way that have independent utility in themselves and are not needed to mitigate adverse traffic impacts associated with the light rail route, stations, lots or maintenance facilities.

Additionally, Tri-Met is asking the Council to acknowledge in its LUFO that implementation of the LUFO, including the construction,

operation and maintenance of the light rail route, stations, lots and maintenance facilities and the highway improvements for the Project, necessitates and requires development approval of certain associated actions and the permitting of certain associated or ancillary facilities or improvements. These associated actions or ancillary facilities or improvements, identified in more detail in Tri-Met's application, generally are required (1) to ensure the safe and proper functioning and operation of the light rail system; (2) to provide project access; (3) to improve traffic flow, circulation or safety in the vicinity of the Project; or (4) to mitigate adverse impacts caused to the adjoining roadway network resulting from the alignment, stations, lots or maintenance facilities.

3. NEED FOR ADDITIONAL PARK-AND-RIDE SPACES

Tri-Met's application also identifies a need for approximately 1,100 additional park-and-ride spaces, beyond those provided for in its application, to improve ridership. The determination of appropriate locations for these spaces would require further analysis and a LUFO amendment. Staff concurs with Tri-Met that this need exists based on the analysis prepared for the Draft Environmental Impact Statement, which identified a demand for 4,100 park-and-ride spaces in the southern portion of the corridor. No action on these additional spaces is required at this time.

E. APPLICABLE LAND USE CRITERIA AND FINDINGS

On May 30, 1996, in accordance with Section 4 of HB 3478, LCDC established the criteria to be used by the Council in making land use decisions establishing the light rail route, stations, lots and maintenance facilities, and the highway improvements for the Project or Project Extension, including their locations. The approved criteria include two procedural, six substantive, and two alignment-specific standards. In its LUFO findings, the Council must demonstrate compliance with these criteria.

Draft findings addressing the LCDC criteria are attached to the Metro Council resolution as Exhibit C.

F. NOTIFICATION OF PUBLIC HEARING

Notification of the LUFO Public Hearing was provided to the public through a variety of mechanisms as follows:

- . Legal notice was published in *The Oregonian* on July 6, 1998;
- . A postcard was mailed to all owners of property located within approximately 100 feet of the proposed project improvements; and
- . A South/North newsletter was sent to the project's 15,000 person mailing list in June and July 1998.

Also, information was made available on the project telephone "Hotline," on Metro's Transportation web page and through the Metro Council's normal meeting notice procedures.

G. REFINEMENTS AND AMENDMENTS

The South/North Land Use Final Order will be amended periodically as the project moves forward. Amendments to the South/North LUFO will be processed in a similar manner to the original adoption. LUFO amendments are anticipated:

- . To incorporate design changes resulting from Preliminary Engineering upon completion of the Final Environmental Impact Statement;
- . To address Special Study Areas such as the alignment, station location and park-and-ride lot at OIT/CCC and the North Portland crossover; and
- . To address Federal Transit Administration issues in conjunction with execution of the Full Funding Grant Agreement.

Local jurisdictions will issue development permits consistent with the adopted LUFO.

STAFF RECOMMENDATION

Staff recommends approval of Resolution No. 98-2673, adopting a Land Use Final Order for the South/North Project. Staff concurs with Tri-Met's proposed definitions of terms, and it recommends that the Council approve them. Staff also concurs with Tri-Met that implementation of the LUFO will necessitate and require development approval of certain associated actions and the permitting of certain associated or ancillary facilities or improvements as identified in Tri-Met's application, and it recommends Council acknowledgment of this in its LUFO.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 98-2673.

SK:lmk
98-2673.RES
7-9-98

**BEFORE THE
LAND CONSERVATION AND DEVELOPMENT COMMISSION
OF THE STATE OF OREGON**

IN THE MATTER OF CRITERIA)	
EXPEDITING CERTAIN DECISIONS)	ORDER NO. LCDC-01-98
REGARDING SOUTH-NORTH LIGHT)	
RAIL IN THE PORTLAND METRO)	
REGION)	

This matter came before the Land Conservation and Development Commission (the Commission) on May 30, 1996, as a Request for Adoption pursuant to House Bill 3478 (Or. Laws 1996, Chapter 12), with specific regard to Section 4 of that Act. The Commission having fully considered the South North Light Rail criteria , timely comments and reports of the Department of Land Conservation and Development (the Department), and having provided for objections and exceptions of interested parties, now enters its:

FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. The 68th Legislative Assembly, 1996 Special Session adopted House Bill 3478, relating to siting of the South-North Light Rail Line in the Portland Metro region. The Bill was signed into law by Governor John Kitzhaber on March 4, 1996.
2. Section 4 of HB 3478 directs the Commission to establish criteria expediting decisions remaining for a South-North MAX Light Rail Project to be located in the cities of Portland, Milwaukie, Gladstone and Oregon City and Multnomah and Clackamas counties. Remaining issues are the light rail route, stations, park-and-ride lots and maintenance facilities and highway improvements for the South-North MAX Light Rail Project, including their locations.
3. Said criteria are to be suitable for use by the Metro Council in making South-North light rail and highway improvement land use decisions that are in spirit and substance equivalent to the land use procedures that otherwise would be applicable.
4. Metro prepared and submitted proposed criteria to the Commission on behalf of itself, the affected local governments, Tri-Met and the Oregon Department of Transportation (ODOT) by letter dated March 5, 1996 and signed by representatives of Metro, the local governments, Tri-Met and ODOT.
5. The Commission director reviewed the proposed criteria and prepared a report to the Commission dated May 9, 1996, which explained according to the statute how the criteria reflect statewide land use goals and applicable acknowledged local comprehensive plan policies. Criteria recommended by the director to the Commission were the same as proposed by Metro.

Contained in the director's report is a "narrative in support of the south-north criteria", an exhibit titled "Brief Statement Explaining How Criteria Reasonably Reflects Relevant Statewide Land Use Planning Goals and Affected Local Government Comprehensive Plan Policies" and an outline of "local plan policies applicable to selection of criteria".

6. LCDC conducted a public hearing on May 30, 1996 on the recommended criteria and, hearing no opposition and finding the supporting documentation cited above adequate evidence, adopted the criteria. Rationale presented for each criterion in the director's report together with relevant attachments, which are incorporated by reference in this Order, addresses how the criteria reasonably reflect applicable Commission statewide land use planning goals and rules and local plan policies.

DATED THIS 27 DAY OF FEBRUARY 1998

FOR THE COMMISSION:



Richard P. Benner, Director

Department of Land

Conservation and Development

NOTE: You are entitled to judicial review of this order. Judicial review may be obtained by filing a petition for review within 60 days from the service of this final order. Judicial review is pursuant to the provisions of ORS 183.482 and 197.650

Exhibits: Exhibit A: House Bill 3478 (Or. Laws 1996, Chapter 12)
 Exhibit B: Metro Letter and Proposed Criteria
 Exhibit C: Directors Report dated May 9, 1996

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Commission Summary for May 30, 1996

Thursday, May 30, 1996
9:00 am
Hearing Room A
State Capitol Building
Salem

For Further Information Contact: Mitch Rohse Phone: 373-0050

1. *PUBLIC HEARING AND ADOPTION OF PROPOSED CRITERIA FOR SOUTH/NORTH LIGHT RAIL

No testimony was recieved on this item. The commission adopted the staff recommendation.

2. *PUBLIC COMMENT

No public comment was received.

3. MINUTES

4. ISSUES PENDING

5. METRO ACKNOWLEDGMENT OF COMPLIANCE REQUEST FOR REGIONAL GOALS AND OBJECTIVES (RUGGOS)

The commission approved Metro's acknowledgement request for the Regional Goals and Objectives.

6. *JURISDICTION STATUS REPORT

7. COMMISSIONERS' REPORT

8. DIRECTOR'S REPORT

9. OTHER

(This was a very brief meeting.)



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Updated 6/96

MEETING NOTICE

LAND CONSERVATION AND DEVELOPMENT COMMISSION

LAND
CONSERVATION
AND
DEVELOPMENT
COMMISSION

Thursday, May 30, 1996
9:00 am
Hearing Room A
State Capitol Building
Salem

For Further Information
Contact: Mitch Rohse
Phone: 503-373-0050
E-Mail mitch.rohse@state.or.us

AGENDA

NOTE: Adoption of Goal 5 and Goal 5 Rules has been postponed to a special meeting on June 14, 1996. No discussion or action on Goal 5 will occur at this meeting. There will be no LCDC meeting on May 31, 1996 as previously announced.

Material delivered to the Department sufficiently in advance of the meeting will be distributed to the Commission members. If you bring written materials to the meeting, please provide the Commission Assistant with 15 copies for distribution to the Commission and staff.

*1.0 PUBLIC HEARING AND ADOPTION OF PROPOSED CRITERIA FOR SOUTH/NORTH LIGHT RAIL

Depending on the number of persons wishing to testify, the chair of the commission may limit the amount of time each person has to speak. Please limit your oral comments to 3 minutes. The chair may further limit time if necessary. The commission does not allow the yielding of time to another person. The commission encourages written testimony in addition to or instead of oral testimony in the event there is not time to hear everyone who wishes to speak.

*2.0 PUBLIC COMMENT

This part of the agenda is for comments on topics not scheduled for discussion elsewhere on the agenda. The commission chair will set time limits (usually 3 minutes) for individual speakers. The maximum amount of time for all public comments under this agenda item will be 30 minutes. If you plan to appear at public comment, please let the department know in advance by calling 503-373-0050.

3.0 MINUTES

4.0 ISSUES PENDING



1175 Court Street NE
Salem, OR 97310

(OVER)

5.0 METRO ACKNOWLEDGMENT OF COMPLIANCE REQUEST FOR REGIONAL GOALS AND OBJECTIVES (RUGGOS)

Testimony is limited to the department, affected local government and people who have commented or objected. Objectors and those who have commented will be allowed 5 minutes each to testify; the jurisdiction will have 10 minutes to testify and an additional 10 minutes for rebuttal. Depending on the number of objectors, the chair may impose further time limits.

_6.0 JURISDICTION STATUS REPORT

7.0 COMMISSIONERS' REPORT

8.0 DIRECTOR'S REPORT

9.0 OTHER

The Commission reserves this time, if needed, for other business or for further consideration of any item on the agenda.

Because of the uncertain length of time needed, the Commission may deal with any item at any time in the meeting, except those set for a specific time. Anyone wishing to be heard on any item not having a set time should arrive at 9:00 am to avoid missing an item of interest. Topics not on the agenda may be introduced and discussed during the Director's Report, during the Commissioners' Report, or under Other Business.

Public Testimony

_ Agenda items where opportunity is given for public comment. The chair may limit time for testimony on any agenda item.

The Commission places great value on testimony from the public. People who want to testify are encouraged to:

1. Provide written summaries.
2. Recognize that substance, not length, determines the value of testimony.
3. Endorse rather than repeat testimony of other witnesses.

Thank you for taking the time to present your views.

If you have a disability that requires any special materials, services, or assistance, please contact us at 373-0050 so we may arrange for appropriate accommodations.

May 9, 1996

TO: Land Conservation and Development Commission

FROM: Richard P. Benner, Director *RB*

SUBJECT: Agenda Item 1.0, May 30, 1996, LCDC Meeting

DEPARTMENT OF
LAND
CONSERVATION
AND
DEVELOPMENT

Proposed Criteria for Metro South-North Light Rail Project

RECOMMENDED ACTION

The department recommends that the commission:

1. Adopt the proposed criteria and supporting documentation; and
2. Authorize the commission chair or his designee to sign an order which establishes the criteria and provides a brief statement explaining how the criteria reasonably reflect those statewide land use planning goals and local plan policies relevant to Metro's decisions.

OVERVIEW

House Bill 3478, signed into law by Governor Kitzhaber on March 6, 1996, directs the Land Conservation and Development Commission (LCDC) to establish criteria that will be used by Metro to make decisions for the South-North Project. The LCDC's statutory charge is to issue an order establishing the criteria and a brief statement explaining how the criteria reflect statewide land use goals and acknowledged local comprehensive plan policies relevant to Metro's light rail and associated highway decisions.

The purpose of HB 3478 is to authorize a more expedited land use review process than would ordinarily be possible under existing regulations. The legislation expedites the review process in three ways. First, it authorizes the Metro Council to make the land use decisions for all of the affected jurisdictions (cities of Portland, Milwaukie, Gladstone and Oregon City and the counties of Multnomah and Clackamas). Absent this provision, the six affected jurisdictions would be required to make separate land use decisions for the project based on their respective comprehensive plans. In addition to being lengthy, a series of separate review processes could subject the project to multiple appeals. With Metro making a single decision for the region, only one land use action will be subject to appeal.

Second, the legislation expedites the appellate review process. Both an appeal of the criteria adopted by LCDC and an appeal of Metro's findings and decisions based on the criteria are subject to accelerated appeal procedures as outlined in the act.

John A. Kitzhaber
Governor



1175 Court Street NE
Salem, OR 97310-0590
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11745

Third, the legislation limits the basis of judicial review for both the criteria established by LCDC and the decisions made by Metro.

The Commission adopted land use criteria for Westside Light Rail Transit in 1991 pursuant to SB 573. These South-North criteria are substantially similar to the Westside criteria. Changes appear where the 1995 South-North legislation differs from the 1991 legislation, where local plans required a change, and where geographic features such as the Willamette River varied between the Westside and south-north areas.

PURPOSE OF LCDC CRITERIA

Under the legislation Metro's decision-making authority is limited to those aspects of the siting decision which have not yet been made. For example, Metro's Regional Transportation Plan and the acknowledged comprehensive plans of the affected counties and cities already address the need for light rail and give some direction regarding the route for light rail. Statewide land use goals and local plan policies also conceptually support the project on the grounds that it will provide for a balanced, energy efficient transportation system that will contribute to improved air quality in the region.

The land use decisions remaining to be resolved concern the following:

- The light rail route;
- The light rail stations and park-and-ride lots;
- Vehicle maintenance facilities;
- The highway improvements to be included in the project.

The legislation requires LCDC to adopt criteria that will be used by the Metro Council to make decisions on the portions of the project described above. The criteria represent a synthesis of the statewide land use goals and acknowledged local comprehensive plan policies that are relevant to making those decisions.

When reviewing the proposed criteria, it is important to note that the criteria relate only to the first tier in what can be described as a two-tiered local land use decision-making process. The first tier consists of the Metro Council adopting a preferred alternative for the South/North project based on findings in support of the criteria. At this stage, Metro will be required to identify adverse impacts associated with the project and to identify ways in which such impacts might be mitigated.

The second tier consists of local land use review processes (e.g., design review, conditional use review) required by affected local jurisdictions. Local review will occur after a preferred alternative has been selected by Metro.

Under provisions of the legislation, the project cannot be denied at the local review stage. However, reasonable conditions of approval necessary to mitigate adverse impacts may be imposed. A primary advantage of this approach is that local jurisdictions maintain discretion over numerous final design details of the project. The process also allows the public to participate in the public review process used to determine what types of mitigation measures should be applied.

The National Environmental Policy Act (NEPA) process is referenced in the criteria because the federal NEPA process requires identification of adverse impacts and approval of a mitigation plan as part of the Final Environmental Impact Statement for projects receiving federal funds..

CRITERIA DEVELOPMENT

In early September 1995 Metro staff began working with planning and transportation staff from affected local jurisdictions to identify comprehensive plan goals and policies relevant to the South/North Project. That effort is documented in "Comprehensive Plan Policies Applicable to Selection of Criteria for the South-North MAX Light Rail Project" (hereafter referred to as Comprehensive Plan Polices).

The affected jurisdictions are in agreement that the document identifies all comprehensive plan goals and policies relevant to Metro's decision.

Using the Comprehensive Plan Policies and the statewide planning goals, Metro developed 10 criteria. Metro developed its proposed criteria after consulting with the affected jurisdictions, the Department of Land Conservation and Development (DLCD) staff and the Department of Justice, and after providing opportunity for other interested persons to present testimony.

PROPOSED CRITERIA

DLCD staff is recommending the same criteria as those proposed by Metro. The criteria shown below reflect the intent of statewide goals and local comprehensive plan policies.

1. Coordinate with and provide an opportunity for Clackamas and Multnomah counties, the cities of Gladstone, Milwaukie, Oregon City and Portland, the TriCounty Metropolitan Transportation District of Oregon, and the Oregon Department of Transportation, to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations.

Rationale: Criteria 1 and 2 (stated below) are procedural rather than substantive. They direct the way in which the project hearing should be conducted. HB 3478 specifically requires the Metro Council to consider testimony provided by Tri-Met, Oregon Department of Transportation, and affected jurisdictions.

Statewide Goal 2, Land Use Planning, calls for city, county, state, federal agency and special district plans and actions related to land use to be consistent. To demonstrate compliance with this goal, government entities and special districts throughout the state are required to develop and implement planning coordination agreements.

As indicated in the Comprehensive Plan Policies, the local comprehensive plan policies also promote intergovernmental coordination and cooperation.

Criterion 1 directs the Metro Council to coordinate with the affected agencies and jurisdictions and to provide an opportunity for those entities to submit testimony on the project facilities. The criterion, however, limits consideration of testimony to those aspects of the project identified in HB 3478.

2. Hold a hearing to provide an opportunity for the public to submit testimony on the light rail route, light rail stations, park-and-ride lots and vehicle maintenance facilities, and the highway improvements, including their locations.

Rationale: As stated above, Criterion 2 is a procedural criterion which directs the Metro Council to facilitate citizen involvement by providing a public hearing on the project. Similar to Criterion 1, it limits consideration of testimony to aspects of the project defined by HB 3478.

Citizen involvement in the land use decision-making process is one of the hallmarks of Oregon's land use program. Statewide Goal 1, Citizen Involvement, and related citizen involvement policies contained in the local comprehensive plans promote opportunities for public participation. The purpose of Criterion 2 is to ensure that the public has an adequate opportunity to present written and/or oral testimony in a public forum.

3. Identify adverse economic, social and traffic impacts on affected residential, commercial and industrial neighborhoods and mixed use centers. Identify measures to reduce those impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the local permitting process.

A. Provide for a light rail route and light rail stations, park-and-ride lots and vehicle maintenance facilities, including their locations, balancing (1) the need for light rail proximity and service to present or planned residential, employment and recreational areas that are capable of enhancing transit ridership; (2) the likely contribution of light rail proximity and service to the development of a efficient and compact urban form; and (3) the need to protect affected neighborhoods from the identified adverse impacts.

B. Provide for associated highway improvements, including their locations, balancing (1) the need to improve the highway system with (2) the need to protect affected neighborhoods from the identified adverse impacts.

Rationale: Statewide Goal 12 and Rule, Transportation, encourages a safe, convenient and economic transportation system. In designing and constructing transportation improvement, the Goal 12 Transportation Planning Rule (TPR) (OAR 660-12-035(3)(c)) calls for environmental, energy, land use, economic, and energy consequences. The TPR at 660-12-030(3)(b) and (4) also requires consideration of measures to reduce reliance on the automobile and increase the modal share of non-automobile trips. In addition, the Metro Regional Transportation Plan (RTP) encourages adequate levels of mobility with minimum environmental and energy consumptions impacts.

Local comprehensive plan policies are supportive of transit and traffic improvements which promote an efficient, balanced, urban transportation system while minimizing adverse social, economic, and environmental impacts. In other words, the state and local plan policies recognize that transportation needs must be balanced with other urban needs and concerns.

Criterion 3 reflects the balancing concept articulated in Goal 12, the RTP, and related local comprehensive plan policies. It requires Metro to identify adverse economic and social impacts on affected neighborhoods and to balance those impacts with transportation needs. In addition, Metro must consider ways to mitigate adverse impacts through project design.

Criterion 3 also reflects provisions in the TPR, RTP and local plans encouraging mixed use centers and higher density development near light rail lines. It provides for Metro to consider the likely contribution of light rail proximity and service to the development of an efficient and compact urban form as part of its balancing process.

The criterion clearly outlines a two-tiered decision-making process. At the Metro decision-making level, an alignment will be chosen, stations, park-and-ride lot and vehicle maintenance facility locations will be selected, and the highway improvements will be defined. Sections A and B of Criterion 3 require Metro to consider adverse impacts on affected neighborhoods when making these decisions. Specific measure designed to mitigate adverse impacts on affected neighborhoods will be imposed through the NEPA process or by affected local governments during the permitting process

4. Identify adverse noise impacts and identify measures to reduce noise impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by affected local governments during the permitting process.

Rationale: Statewide Goal 6, Air, Water, and Land Resources Quality, calls for maintaining and improving the quality of the state's air, water and land resources. Noise is identified as a component of this goal.

Applicable local comprehensive plan policies encourage consideration of noise impacts when planning and constructing development and transportation projects. Furthermore, they call for measures to minimize excessive noise that adversely affects adjacent land uses.

Under Criterion 4, and consistent with Goal 6, Metro is required to identify adverse noise impacts associated with the project. HB 3478 authorizes the Metro Council only to decide the project facilities. Decisions on appropriate mitigation techniques will occur at later stages of the planning and permitting processes. Consistent with applicable local plan policies, Criterion 4 offers assistance in those processes through identification of impacts and potential mitigation measures.

5. Identify affected landslide areas, areas of severe erosion potential, areas subject to earthquake damage and lands within the 100-year floodplain. Demonstrate that adverse impacts to persons or property can be reduced or mitigated through design or construction techniques which would be imposed during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

Rationale: Statewide Goal 7, Areas Subject to Natural Disasters and Hazards, and related local comprehensive plan policies were established to protect the public from natural disasters and hazards. The local plan policies require jurisdictions to identify sensitive geologic areas, steep slopes, floodplains, groundwater sources, erosion and deposition, earthquake-sensitive areas, and weak foundation soils, among others. All of the affected jurisdictions have some type of mechanism either to limit development or to control the design of development on lands subject to natural disasters and hazards.

In accordance with state and local policies, Criterion 5 requires Metro to identify adverse impacts to sensitive lands. Measures designed to mitigate for such natural occurrences may be imposed through the NEPA or local land use review processes.

6. Identify adverse impacts on significant fish and wildlife, scenic and open space, riparian, wetland and park and recreational areas, including the Willamette River Greenway, that are protected in acknowledged local comprehensive plans. Where adverse impacts cannot practicably be avoided, encourage the conservation of natural resources by demonstrating that there are measures to reduce or mitigate impacts which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

Rationale: Statewide Goal 5, Open Spaces, Scenic and Historic Areas and Natural Resources, calls for conserving open spaces and protecting natural and scenic resources. The local comprehensive plans contain like policies for these resources. Both the state and local policies recognize that such resources should not be preserved at all costs. Local plans are required to balance the need to preserve significant natural resources with the need to accommodate growth and development within the urban growth boundary. In determining the relative value of urban and natural uses, Goal 5 and several of the related local comprehensive plan policies require that

an economic, social, environmental, and energy (ESEE) analysis be conducted. As a result of that analysis, local jurisdictions have the authority to impose land development controls and/or mitigation measures.

Criterion 6 requires Metro to identify impacts associated with the project that are adverse to Goal 5 resources that are protected in acknowledged comprehensive plans. Where practical, the criterion requires Metro to avoid uses adversely affecting natural or scenic resources. If avoidance is impractical mitigation measures may be imposed through the NEPA and local land use review processes. Metro is required to identify the types of mitigation measures which could be imposed.

Statewide Goal 15, Willamette River Greenway, calls for protecting, conserving, enhancing and maintaining the qualities of lands along the Willamette River Greenway while allowing certain development to occur. The City of Portland's comprehensive plan contains a similar policy. Because the light rail alignment will cross the Greenway somewhere in the City of Portland, Criterion 6 includes a specific reference to the Greenway.

7. Identify adverse impacts associated with stormwater runoff. Demonstrate that there are measures to provide adequate stormwater drainage retention or removal and protect water quality which could be imposed as conditions of approval during the NEPA process or, if reasonable and necessary, by local governments during the permitting process.

Rationale: Statewide Goal 6, Air, Water and Land Resources Quality, calls for maintaining and improving water quality. Similarly, applicable plan policies recognize the need to protect water quality, and identify and mitigate for such impacts as stormwater runoff resulting from increases in impervious surfaces. Runoff becomes an issue in regard to highway widening, light rail stations, park-and-ride lots and maintenance facilities.

Criterion 7 requires Metro to identify where the project is expected to increase stormwater runoff and to demonstrate that mitigation measures or natural systems are adequate to handle the runoff. Specific mitigation measures will be imposed during the NEPA or local land use reviews.

8. Identify adverse impact on significant historic and cultural resources protected in acknowledged comprehensive plans. Where adverse impact cannot practicably be avoided, identify local, state or federal review processes that are available to address and to reduce adverse impacts to the affected resources.

Rationale: In addition to protecting natural and scenic resources, Statewide Goal 5 provides for protection of significant historic and cultural resources. Local plans also protect these resources.

Generally, the protection of historic and cultural resources is carried out through ordinances which are applied to development at the permitting stage. At that time, the local government may impose appropriate conditions on the development to minimize adverse impacts or to fully protect the resource. Alternatively, the local government may allow for the alteration, removal or

demolition of the resource in accordance with standards and procedures set out in their local ordinances. Also, the federal NEPA process requires very careful consideration of impacts on historic and cultural resources.

Criterion 8 reasonably reflects Goal 5 and the relevant local plan policies and implementing measures. Metro is required to identify adverse impacts on significant historic and cultural resources protected in acknowledged plans. Such impacts are to be avoided to the extent practicable, and to identify the local, state and federal procedures available to address and reduce adverse impacts on these resources when avoidance is not practicable.

9. Consider a light rail route connecting the Clackamas Town Center area with the City of Milwaukie's downtown. Consider an extension of the light rail route connecting the City of Oregon City and the City of Gladstone with the City of Milwaukie via the Interstate 205 corridor and/or the McLoughlin Boulevard corridor.

Rationale: Criteria 9 and 10 (below) concern Metro's decision only for the location of the light rail route. While these criteria may help implement Statewide Goals 6, 9, 12 and 13 by improving air quality, reinforcing and encouraging economic development, reducing reliance on the automobile, and meeting regional energy conservation objectives, they are intended more particularly to respond to specific policies in applicable plans. Criterion 9 concerns the southern portion of the project, i.e., that portion located in Clackamas County and the cities of Milwaukie, Oregon City and Gladstone.

Criterion 9 is consistent with and reflects Clackamas County plan policies (Transit Policy 11.0), Milwaukie Transportation Plan Map 8, Milwaukie Transportation Element, Objective No. 5, Policies 2, 7 and 8, and Oregon City Transportation Policy 23.

10. Consider a light rail route connecting Portland's central city with the City of Milwaukie's downtown via inner southeast Portland neighborhoods and, in the City of Milwaukie, the McLoughlin Boulevard corridor, and further connecting the central city with north and inner northeast Portland neighborhoods via the Interstate 5/Interstate Avenue corridor.

Rationale: Like Criterion 9, Criterion 10 responds to local policies addressing where the light rail route should be located. Criterion 10 considers the northern portion of the project and is responsive to policies in Portland's and Milwaukie's plans. Specifically, Milwaukie Transportation Element, Objective #5, Policy 2, promotes a light rail route along the McLoughlin Boulevard corridor. This route is also shown on Milwaukie's Transportation Plan Map 8.

For Portland, numerous neighborhood plans promote light rail transit in or near their neighborhoods. Specifically:

- Albina Community Plan, Policy II, Objective 9
- Piedmont Neighborhood Plan, Policy 4, Objective 6
- Kenton Neighborhood Plan, Policy 5, Objective 1
- Boise Neighborhood Plan, Policy VI, Objective 4
- Eliot Neighborhood Plan, Policy C
- Brooklyn Neighborhood Plan, Policy 7A
- University District Plan, Policy 16C
- Central City Plan, Policy 4A
- Transportation Element, North District Policies 3 and 5; Northeast District Policy 8 and Southeast Policy 2.

Criterion 10 reasonably reflects these plan policies.

CONCLUSION:

The affected cities and counties, Oregon Department of Transportation, Tri-Met and Metro have undergone considerable effort to identify the comprehensive and functional plan policies that are relevant to Metro's decision on the South-North Light Rail project facilities, including their locations, and to draft criteria that reasonably reflect those policies and the statewide planning goals. The result is a set of criterion that fulfills the legislative directive to LCDC set out in HB 3478. The purpose of this legislation can be reasonably and expeditiously achieved by application of these criteria.

Furthermore, the proposed criteria are written to avoid vague language that can be subject to different interpretations. And they are written to assist local governments during the permitting process.

ATTACHMENTS:

- Transmittal Letter
- Letter of Support from Local Governments
- Proposed South-North Land Use Criteria
- Narrative in Support of the South-North Criteria Proposed by Metro, the Cities of Gladstone, Milwaukie, Oregon City and Portland, Clackamas and Multnomah Counties, Tri-Met and ODOT
- Comprehensive Plan Policies Applicable to Selection of Criteria for the South-North MAX Light Rail Project

LOT	UNIT	LEVEL	STRAT	FEAT	PP
1	TU1-01	1	I/IIb		
2	TU1-01	2	I/c		
3	TU1-01	3	IIb		
4	TU1-01	4	I/c		
5	TU1-01	5	IIa/IV		
6	TU1-01	6	IIa/IV		
7	TU1-02	1	I/IIb		
8	TU1-02	2	I/c		
9	TU1-02	3	I/c		
10	TU1-02	4	I/c		
11	TU1-02	5	I/c		
12	TU1-02	6	IIc/IV		
13	TU1-02	FROM BACK DIRT			
14	ST1-01	2	I/c		
15	ST1-01	3	I/c		
16	ST1-01	4	I/c		
17	ST1-01	5	I/c		
18	ST1-02	5	IIb		
19	ST1-02	7	IIb		
20	ST1-02	9	IIb/IV		
21	ST1-03	1	I/IIb		
22	ST1-03	4	IIb		
23	ST1-04	1	I/IIb		
24	ST1-04	4	IIb		
25	ST1-05	2	IIb		
26	ST1-05	3	IIb		
27	ST1-05	4	IIb		
28	TU1-03	1	I		
29	TU1-03	2	IIb		
30	TU1-03	3	I/c		
31	TU1-03	4	I/c		
32	TU1-03	5	IIa		
33	TU1-03	6	IIa/IV		
34	TU1-03	6	IIa/IV	I FL-2	
35	TU1-04	2	IIb		
36	TU1-04	FL-1	IIa	I	
37	TU1-04	FL-2	IIa	I	
38	TU1-05	2	IIb		
39	TU1-05	3	IIb		
40	ST4-01	1	I/IIc		
41	ST4-01	2	I/c		
42	ST4-01	4	I/c		
43	ST4-01	5	I/c		
44	ST4-01	7	I/c		
45	ST4-01	8	IIc/IV		
46	ST4-02	2	I/c		
47	ST4-02	3	I/c		
48	ST4-02	4	I/c		
49	ST4-02	5	I/c		
50	ST4-02	6	I/c		
51	ST4-02	7	I/c		
52	ST4-02	8	IIc/V		
53	ST4-03	1	I/IIc		
54	ST4-03	2	I/c		
55	ST4-03	3	I/c		
56	ST4-03	4	I/c		
57	ST4-03	5	IIc/IV		
58	ST4-03	6	IIc/IV		
59	ST4-04	1	I/IIc		
60	ST4-04	2	I/c		
61	ST4-04	3	I/c		
62	ST4-04	4	I/c		
63	ST4-04	5	I/c		
64	ST4-04	6	I/c		
65	ST4-04	7	I/c		
66	ST4-04	8	I/c		
67	ST4-04	9	I/c		
68	ST4-05	2	I/c		
69	ST4-05	3	I/c		
70	ST4-05	4	I/c		
71	ST4-05	5	I/c		
72	ST4-05	6	I/c		
73	ST4-05	7	I/c		
74	TU4-01	1	I/III		
75	TU4-01	2	IIc/III		
76	TU4-01	2	IIc/III		X
77	TU4-01	2	IIc/III		X
78	TU4-01	2	IIc/III		X
79	TU4-01	2	IIc/III		X
80	TU4-01	2	IIc/III		X
81	TU4-01	3	IIc/III		
82	TU4-01	3	IIc/III		X
83	TU4-01	3	IIc/III		X
84	TU4-01	3	IIc/III		X
85	TU4-01	3	IIc/III		X
86	TU4-01	4	III		
87	TU4-01	4	III		X
88	TU4-01	4	III		X
89	TU4-01	5	III/IV		
90	TU4-01	6	III/IV		
91	TU4-01	7	III/IV		
92	TU4-02	1	I/III		
93	TU4-02	2	III		
94	TU4-02	3	III		

FOVA 3100 CRC

PRELIMINARY

LOT CATALOG

LOT	UNIT	LEVEL	STRAT	FEAT	PP
95	TU4-02	4	III		
96	TU4-03	1	I		
97	TU4-03	2	I/c		
98	TU4-03	3	III		
99	TU4-03	4	III		
100	TU4-03	5	III		
101	TU4-03	6	III		
102	TU4-04	1	I		
103	TU4-04	2	I/a/III		
104	TU4-04	3	I/a/III		
105	TU4-04	3	I/a/III		X
106	TU4-04	4	I/a/III		
107	TU4-04	5	I/a/III		
108	TU4-05	1	I		
109	TU4-05	2 AND 3	IIb	2	
110	TU4-05	2	IIc		
111	TU4-05	3	IIc/IV		
112	TU4-05	4	IIc/IV		
113	TU4-06	1	I/IIa		
114	TU4-06	2	IIa/IV		
115	TU4-06	3	IIa/IV		
116	TU4-06	4	III/IV		
117	TU4-06	4	III/IV		X
118	TU4-07	1	I/IIc		
119	TU4-07	2	IIc		
120	TU4-07	3	IIc/IV		
121	TU4-07	4	IIc/IV		
122	TU4-07	4	IIc	3	
123	TU4-07	5	IIc/IV		
124	TU4-07	5	IIc	3	
125	TU4-07	FL-3	IIc	3	
126	TU4-08	1	I/IIc		
127	TU4-08	2	IIc		
128	TU4-08	3	IIc		
129	TU4-08	4	IIa	4 FL-1	
130	TU4-08	4	IIc		
131	TU4-08	5	III		
132	TU4-08	6	III		
133	TU4-09	1	I/IIc		
134	TU4-09	2	IIc		
135	TU4-09	3	IIc/III		
136	TU4-09	4	IIc	3 FL-1	
137	TU4-09	5	IIc	3 FL-2	
138	TU4-09	FL-3	IIc	3	
139	TU4-10	1	I		
140	TU4-10	2	IIb/III		
141	TU4-10	3	III		
142	TU4-10	4	III		
143	TU4-10	4	III		
144	TU4-10	5	III		
145	TU4-10	6	III/IV		
146	TU4-10	7	III/IV		
147	TU4-11	1	I/IIc		
148	TU4-11	2	IIc		
149	TU4-11	3	IIc		
150	TU4-11	4	IIc		
151	TU4-11	5	IIc/IV		
152	ST5-01	1	IIb		
153	ST5-01	2	IIb		
154	ST5-02	2	IIc		
155	ST5-02	3	IIc		
156	ST5-03	2	IIc		
157	ST5-04	3	IIc		
158	ST5-04	4	IIc		
159	ST5-04	5	IIc		
160	ST5-04	6	IIc		
161	ST5-04	7	IIc		
162	ST5-04	8	IIc		
163	ST5-02	4	IIc		
164	TU5-01	1	I/IIb		
165	TU5-01	2	IIc		
166	TU5-01	3	IIc		
167	TU5-01	4	IIc		
168	TU5-01	5	IIc		
169	TU5-01	6	IIc		
170	TU5-02	1	I/IIc		
171	TU5-02	2	IIc		
172	TU5-02	3	IIc		
173	TU5-02	4	IIc/IV		
174	TU5-03	1	I/IIb		
175	TU5-03	3	IIc		
176	TU5-03	4	IIc		
177	TU5-03	5	IIc		
178	TU5-03	6	IIa		
179	TU5-03	7	IIa		
180	TU5-04	1	I/IIc		
181	TU5-04	2	IIc		
182	TU5-04	3	IIc		
183	TU5-04	3	IIc		
184	TU5-04	4	IIc		
185	TU5-04	5	IIc		
186	TU5-04	6	IIc		
187	TU5-04	7	IIc		
188	TU5-05	2	III		

PRELIMINARY

LOT CATALOG

FOVA 3100 CRC

LOT	UNIT	LEVEL	STRAT	FEAT	PP
189	TUS-05	3	III		
190	TUS-06	2	III		
191	TUS-06	2	III		X
192	TUS-06	3	III		
193	TUS-06	4	III/IV		
194	TUS-07	2	Ib		
195	TUS-07	3	Ib/IV		
196	TUS-07	4	Ib/IV		
197	TUS-07	5	Ib/IV		
198	TUS-08	2	III		
199	TUS-08	3	III/IV		
200	TUS-09	2	Ic		
201	TUS-09	3	Ic		
202	TUS-09	4	Ic		
203	TUS-09	5	Ia		
204	TUS-09	6	Ia		
205	TUS-09	7	Ia	7 FL-1	
206	TUS-09	8	Ia	7 FL-2	X
207	TUS-09	8	Ia	7 FL-2	X
208	TUS-09	8	Ia	7 FL-2	
209	TUS-09	8	Ia	7 FL-2	X
210	TUS-09	8	Ia	7 FL-2	X
211	TUS-09	9	Ia		
212	TUS-09	10	Ia		
213	TUS-09	11	Ia		
214	TUS-09	12	Ia		
215	TUS-09	13	Ia		
216	TUS-09	14	Ia		
217	TUS-09	15	Ia		
218	TUS-09	16	Ia		
219	TUS-09	17	Ia		
220	TUS-09	20	Ia	15 FL-1	
221	TUS-09	15, 16	Ia	14 FL-1	
222	TUS-09	20	Ia	15 FL-1	
223	TUS-09	21	Ia	15 FL-2	
224	TUS-09	WALL SCRAPE			
225	TUS-09	8	Ia	7 FL-2	X
226	TUS-09	8	Ia	7 FL-2	X
227	TUS-10	2	Ia	5 FL-2	
228	TUS-10	3	Ia	5 FL-3	
229	TUS-10	4	Ia	6 FL-1	
230	TUS-10	5	Ia		
231	TUS-10	6	III		
232	TUS-10	7	III		
233	TUS-10	8	III		
234	TUS-10	1-9		9 FL-2	
235	TUS-11	2	Ic	5 FL-1	
236	TUS-11	3	Ia	5 FL-2	
237	TUS-11	4	Ia	5 FL-3	
238	TUS-11	5	Ia	6 FL-1	
239	TUS-11	6	Ia		
240	TUS-11	7	III		
241	TUS-11	8	III/IV		
242	TUS-11	9	III/IV		
243	TUS-11	10	III/IV		
244	TUS-11	11	III/IV		
245	TUS-11	WALL SCRAPE			
246	TUS-12	1	I/Ic		
247	TUS-12	2	Ic		
248	TUS-12	3	Ic		
249	TUS-12	4	Ic		
250	TUS-12	4	III	8 FL-1	
251	TUS-12	5	III	8 FL-2	
252	TUS-12	5	Ic		
253	TUS-12	1	I/Ic	GRAB	
254	TUS-12	TRENCH 21	III		
255	TUS-12 & 13	6	III	8 FL-3	
256	TUS-12 & 13	6	III	8 FL-4	
257	TUS-13	1	III	8 FL-1	
258	TUS-13	1	Ic	11 FL-1	
259	TUS-13	2	III	8 FL-2	
260	TUS-13	2	Ic	11 FL-2	
261	TRENCH 5-03	GRAB			
262	TRENCH 5-09	GRAB			
263	TRENCH 5-16	GRAB			
264	TRENCH 5-18	GRAB			
265	TRENCH 5-20	GRAB			
266	TRENCH 5-21	GRAB			
267	TU3-01	2	Ib		
268	TU3-01	3	III		
269	TU3-01	N. WALL PROFILE			
270	TU3-02	1	Ic		
271	TU3-02	2	Ic/III		
272	TU3-02	3	III		
273	TU3-02	2	Ic/III	17 FL-1	
274	TU3-02	2	Ic/III	17 FL-2	
275	TU3-02	5	Ia	17 FL-3	
276	TU3-03	2	Ic		
277	TU3-03	3	III		
278	TU3-03	4,5,6	Ia	18 FL-1	
279	TU3-04	2	Ia		
280	TU3-05	3	III		
281	TU3-05	2	Ia/III		
282	TU3-06	1 GRAB			

FOVA 3100 CRC

PRELIMINARY

LOT CATALOG

LOT	UNIT	LEVEL	STRAT	FEAT	PP
283	TU3-06	2	Ia/III		
284	TU3-06	3	II/IV		
285	TU3-06	4	II/IV		
286	TU3-02	2	Ic/III	16 FL-2	
287	TU3-07	2	II		
288	TU3-07	3	II/IV		X
289	TU3-07	3	II/IV		X
290	TU3-07	3	II/IV		X
291	TU3-07	3	II/IV		X
292	TU3-07	3	II/IV		
293	TU3-07	4	II/IV		
294	TU3-08	2	Ic		
295	TU3-08	3	II		
296	TU3-08	4	II		
297	TU3-09	2	Ia/III		
298	TU3-09	3	II/IV		
299	TU3-09	4	II/IV		
300	TU3-10	3	Ia/IV		
301	TU3-11	2	Ia		
302	TU3-11	3			
303	TU3-12	2	Ib		
304	TU3-12	3	Ic		
305	TU3-12	4	II		
306	TU3-12	4	Ib	21 FL-3	
307	TU3-12	5	II		
308	TU3-12	5	Ia	21 FL-4	
309	TU3-12	6	II/IV		
310	TU3-12	7	II	25 FL-1	
311	TU3-13	3		22 FL-1	
312	TU3-13	2	Ic		
313	TU3-13	3	II		
314	TU3-14	2	Ic		
315	TU3-14	3	II		
316	TU3-15	2	Ib		
317	TU3-15	3	Ic		
318	TU3-15	4	II		
319	TU3-15	5	II/IV		
320	TU3-15	4,5	Ic	23 FL-1	
321	TU3-16	2	II		
322	TU3-16	3	II/IV		
323	TU3-16	4	II/IV		
324	TU3-17	2	Ib		
325	TU3-17	3	Ib		
326	TU3-17	4	Ic		
327	TU3-18	2	Ib		
328	TU3-18	3	Ib		
329	TU3-18	4	Ib		
330	TU3-19	2	Ib		
331	TU3-19	3	Ib		
332	TU3-19	4	Ic/III		
333	TU3-19	5	Ic		
334	TU3-19	7	Ic		
335	TU3-19	10	Ic/IV		
336	TU3-19	11	Ic/IV		
337	TU3-19	12	Ic/IV		
338	TU3-19	5	Ic	27 FL-1	
339	TU3-19	6	Ic	27 FL-2	
340	TU3-19	7	Ic	27 FL-3	
341	TU3-19	8	Ic	27 FL-4	
342	TU3-19	7	Ic	30 FL-1	
343	TU3-19	9	Ic	32 FL-1	
344	TU3-20	2	Ib		
345	TU3-20	3	Ib		
346	TU3-20	4	Ib		
347	TU3-20	6	Ib		
348	TU3-20	1-5 WALL SCRAPE			
349	TU3-20	5	Ic	29 FL-1	
350	TU3-20	5	Ic	31 FL-1	
351	TU3-21	3	Ib		
352	TU3-21	3	Ib	33 FL-1	
353	TU3-22	1	Ib		
354	TU3-22	2	Ib		
355	TU3-22	3	Ib		
356	TU3-22	4	Ic/III		
357	TU3-22	5	II/IV		
358	TU3-22	6a	II/IV		
359	TU3-22	6	Ia	35	
360	TRENCH 3-39	1		34	
361	TRENCH 3-02	GRAB			
362	TRENCH 3-02/03	GRAB			
363	TRENCH 3-03	GRAB			
364	TRENCH 3-04	GRAB			
365	TRENCH 3-05	GRAB			
366	TRENCH 3-06	GRAB			
367	TRENCH 3-07	GRAB			
368	TRENCH 3-08	GRAB			
369	TRENCH 3-09	GRAB			
370	TRENCH 3-10	GRAB			X
371	TRENCH 3-10	GRAB			X
372	TRENCH 3-10	GRAB			X
373	TRENCH 3-11	GRAB			
374	TRENCH 3-12	GRAB			
375	TRENCH 3-13	GRAB			
376	TRENCH 3-14	GRAB			

PRELIMINARY

LOT CATALOG

FOVA 3100 CRC					
LOT	UNIT	LEVEL	STRAT	FEAT	PP
377	TRENCH 3-15	GRAB			
378	TRENCH 3-16	GRAB			
379	TRENCH 3-18	GRAB			
380	TRENCH 3-20	GRAB			
381	TRENCH 3-21	GRAB			
382	TRENCH 3-23	GRAB			
383	TRENCH 3-24	GRAB			
384	TRENCH 3-25	GRAB			
385	TRENCH 3-26	GRAB			
386	TRENCH 3-27	GRAB			
387	TRENCH 3-28	GRAB			
388	TRENCH 3-29	GRAB			
389	TRENCH 3-30	GRAB			
390	TRENCH 3-31	GRAB			
391	TRENCH 3-32	GRAB			
392	TRENCH 3-33	GRAB			
393	TRENCH 3-35	GRAB			
394	TRENCH 3-39A	GRAB			
395	TRENCH 3-39B	GRAB			
396	TRENCHES 3-01-08	GRAB			
397	TU2-01	2		I/c	
398	TU2-01	3		I/c	
399	TU2-01	4		I/c	
400	TU2-01	5		I/c	
401	TU2-01	6		I/c	
402	TU2-01	7		I/c	
403	TU2-01	8		I/c	
404	TU2-01	9		I/c	
405	TU2-01	10		I/c/IV	
406	TU2-01	11		I/c/IV	
407	TU2-01	2-6 WALL SCRAPE			
408	TU2-01	GRAB			
409	ST2-06	2		I/b	
410	ST2-06	3		I/b	
411	ST2-06	GRAB			
412	ST2-07	1		I	
413	ST2-07	4		I/b	
414	ST2-07	5		I/b/IV	
415	ST2-08	1			
416	ST2-08	2		I/Ib	
417	ST2-08	3		I/b	
418	ST2-08	5		I/b	
419	ST2-09	1		I	
420	ST2-09	3		I/b	
421	ST2-09	5		I/c	
422	ST2-09	6		I/c	
423	ST2-10	1		I/Ib	
424	ST2-10	5		I/b	
425	ST2-10	6		I/c	
426	ST2-10	7		I/c	
427	ST2-10	8		I/c	
428	ST2-10	9		I/c	
429	ST2-11	1		I/Ib	
430	ST2-11	2		I/b	
431	ST2-11	3		I/b	
432	ST2-11	4		I/b	
433	ST2-11	5		I/b	
434	ST2-11	6		I/b	
435	ST2-11	8		I/b	
436	ST2-11	9		I/b	
437	ST2-12	1		I/Ib	
438	ST2-12	4		I/b	
439	ST2-12	5		I/b	
440	ST2-13	1		I/Ib	
441	ST2-13	2		I/b	
442	ST2-14	1		I/Ib	
443	ST2-14	2		I/b	
444	ST2-14	3		I/b	
445	ST2-15	2		I/b	
446	ST2-15	3		I/b	
447	ST2-15	4		I/b	
448	ST2-16	1		I/Ib	
449	ST2-16	2		I/c	
450	ST2-16	3		I/c	
451	ST2-16	4		I/c	
452	ST2-16	5		I/c	
453	ST2-16	6		I/c	
454	TRENCH 2-02	GRAB			
455	TRENCH 2-04	GRAB			
456	TRENCH 2-07	GRAB			
457	TRENCH 2-08	GRAB			
458	TRENCH 2-09	GRAB			
459	TRENCH 2-10	GRAB			
460	TRENCH 2-12	GRAB			
461	TRENCH 2-14	GRAB			
462	TRENCH 2-16	GRAB			
463	TRENCH 2-17	GRAB			
464	TRENCH 2-17	GRAB			
465	TRENCH 2-18	GRAB			
466	TRENCH 2-19	GRAB			
467	VICINITY OF TRENCH 3-11				
468	TU4-01	4	III		X
469	PROVENIENCE LOST IN LAB				

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LOT SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	pp	OBJECT	SPRAGUE TYPOLOGY	N
45 1	ST4-01	8	70-80	IleTV	Undif/20th/19thc. Fill				NAIL, SQUARE	III.B.2.	1
45 1	ST4-01	8	70-80	IleTV	Undif/20th/19thc. Fill				NAIL, SQUARE	III.B.2.	1
	ST4-01	1	0-10	I/Ile	Modern Sod/Undif/20th/19thc. Fill				RUBBER BALL FRAGMENT	VIII.	1
	ST4-01	3	20-30	IleTV	Undif/20th/19thc. Fill				CLINKER	III.E.	2
	ST4-01	5	40-50	Ile	Undif/20th/19thc. Fill				COAL	III.E.	1
	ST4-01	6	50-60	Ile	Undif/20th/19thc. Fill				COAL	III.E.	1
	ST4-01	6	50-60	Ile	Undif/20th/19thc. Fill				SLAG	III.E.	1
	ST4-01	7	60-70	Ile	Undif/20th/19thc. Fill				ASPHALT ROOFING		1
	ST4-01	8	70-80	IleTV	Undif/20th/19thc. Fill				BRICK	III.B.1.	1
46 1	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
46 2	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
46 3	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
46 4	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				COPPER TUBE/ROD	VIII.A.	1
46 5	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				SLATE	VIII.	17
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 1	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
47 2	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				EARTHENWARE, TRANSFERPRINTED	III.B.2.	1
48 1	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
48 1	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
48 1	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
48 2	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
48 2	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
48 3	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				NAIL, SQUARE	III.B.2.	1
48 4	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				METAL NUT		1
49 2	ST4-02	5	40-50	Ile	Undif/20th/19thc. Fill				LAMP GLASS	III.B.3.	1
50 1	ST4-02	5	40-50	Ile	Undif/20th/19thc. Fill				EARTHENWARE, TRANSFERPRINTED	III.B.2.	1
50 2	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
50 2	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
50 3	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
50 4	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				NAIL, SQUARE	III.B.2.	1
50 5	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				NAIL, WIRE	III.B.2.	1
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	2
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	4
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	2
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	4
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	6
50 6	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
51 1	ST4-02	7	60-70	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
51 1	ST4-02	7	60-70	Ile	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	2
51 2	ST4-02	7	60-70	Ile	Undif/20th/19thc. Fill				NAIL, WIRE	III.B.2.	0
52 1	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
52 1	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
52 2	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				NAIL, WIRE	III.B.2.	3
52 3	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	3
52 3	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	4
52 3	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				METAL WIRE	III.B.2.	1
52 4	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				METAL STRAP		1
	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				ASPHALT ROOFING		4
	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				FOIL	VIII.	1
	ST4-02	2	10-20	Ile	Undif/20th/19thc. Fill				SLAG	III.E.	1
	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				ASPHALT SHINGLE		9
	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				BRICK	III.B.1.	2
	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				COAL	III.E.	8
	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				SLAG	III.E.	4
	ST4-02	3	20-30	Ile	Undif/20th/19thc. Fill				WOOD FRAGMENT	III.B.1.	1
	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				CHARCOAL	III.B.1.7	13
	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				COAL AND CLINKER	III.E.	30
	ST4-02	4	30-40	Ile	Undif/20th/19thc. Fill				FOIL	VIII.	1
	ST4-02	5	40-50	Ile	Undif/20th/19thc. Fill				ASPHALT SHINGLE		20
	ST4-02	5	40-50	Ile	Undif/20th/19thc. Fill				CHARCOAL	III.B.1.7	20
	ST4-02	5	40-50	Ile	Undif/20th/19thc. Fill				COAL AND CLINKER	III.E.	30
	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				ASPHALT SHINGLE		3
	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				CLINKER	III.E.	7
	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				TAR PAPER	III.B.1.	12
	ST4-02	6	50-60	Ile	Undif/20th/19thc. Fill				WOOD	III.B.1.	30
	ST4-02	7	60-70	Ile	Undif/20th/19thc. Fill				FOIL WRAPPER	VIII.	1
	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				BRICK	III.B.1.	5
	ST4-02	8	70-80	Ile/V	Undif/20th/19thc. Fill				COAL	III.E.	1
53 1	ST4-03	1	0-10	I/Ile	Modern Sod/Undif/20th/19thc. Fill				STONEWARE, CLAY PIGEON		1
53 1	ST4-03	1	0-10	I/Ile	Modern Sod/Undif/20th/19thc. Fill				STONEWARE, CLAY PIGEON		1
53 2	ST4-03	1	0-10	I/Ile	Modern Sod/Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
54 1	ST4-03	2	10-20	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
54 1	ST4-03	2	10-20	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
54 2	ST4-03	2	10-20	Ile	Undif/20th/19thc. Fill				PORCELAIN	III.B.2.	1
55 1	ST4-03	3	20-30	Ile	Undif/20th/19thc. Fill				PORCELAIN	III.B.2.	1
55 2	ST4-03	3	20-30	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
56 1	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
56 1	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
56 1	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
56 1	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
56 1	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
56 1	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
56 2	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				LIGHT BULB SHERD	VIII.B.	1
56 2	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
56 2	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
56 2	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
56 2	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
56 3	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				NAIL, WIRE	III.B.2.	3
56 4	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				PLASTIC	VIII.	1
56 5	ST4-03	4	30-40	Ile	Undif/20th/19thc. Fill				PAPER PIECES	VIII.	100
57 1	ST4-03	5	40-50	IleTV	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
57 1	ST4-03	5	40-50	IleTV	Undif/20th/19thc. Fill				FLAT GLASS	III.B.1.	1
57 2	ST4-03	5	40-50	IleTV	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
57 2	ST4-03	5	40-50	IleTV	Undif/20th/19thc. Fill				GLASS SHERD	VIII.B.	1
57 3	ST4-03	5	40-50	IleTV	Undif/20th/19thc. Fill				NUT		1

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SPEC		UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	PR	OBJECT	SPRAGUE TYPOLOGY	N
372	7	TRENCH 3-10 (40-50 M E9-10 M N)	GRAB	0-90	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
372	8	TRENCH 3-10 (40-50 M E9-10 M N)	GRAB	0-90	N/A	Mixed deposits				NAIL, SQUARE	II.B.2.	1
372	9	TRENCH 3-10 (40-50 M E9-10 M N)	GRAB	0-90	N/A	Mixed deposits				PORCELAIN	II.B.2.	1
373	1	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				PULL TAB		1
373	2	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
373	2	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
373	2	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
373	5	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				NAIL, WROUGHT	II.B.2.	1
373	7	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				PORCELAIN	II.B.2.	2
373	8	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				NAIL, WIRE	II.B.2.	1
373	9	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
373	9	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
373	10	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE	II.B.2.	1
373	11	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				PIPE, TOBACCO	I.G.	1
373	12	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
373	13	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				METAL SPIKE		1
467	1	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				COAL SAMPLE	III.E.	1
374	1	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				IRONSTONE	II.B.2.	1
374	1	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				IRONSTONE	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	2	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
374	3	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BEAD, DRAWN	I.C.	1
374	3	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BEAD, DRAWN	I.C.	1
374	3	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BEAD, DRAWN	I.C.	1
374	5	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE	II.B.2.	1
374	5	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				IRONSTONE	II.B.2.	1
374	6	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
374	6	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
374	6	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
374	6	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
374	6	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				GLASS SHIED	VIII.B.	1
374	6	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				GLASS SHIED	VIII.B.	1
374	7	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				GLASS SHIED	VIII.B.	1
374	8	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				PIPE, TOBACCO	I.G.	1
374	9	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				NAIL, WIRE	II.B.2.	2
374	9	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				NAIL, SQUARE	II.B.2.	1
374	10	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				STONEWARE	II.B.2.	1
374	11	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				NAIL, WROUGHT	II.B.2.	1
374	12	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				PORCELAIN	II.B.2.	1
375	2	TRENCH 3-13	GRAB	0-50	N/A	Mixed deposits				IRONSTONE	II.B.2.	1
375	3	TRENCH 3-13	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
375	4	TRENCH 3-13	GRAB	0-50	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
375	4	TRENCH 3-13	GRAB	0-50	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
375	5	TRENCH 3-13	GRAB	0-50	N/A	Mixed deposits				METAL LID	VIII.A.	1
376	1	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				METAL STRAP		1
376	2	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				NAIL, WROUGHT	II.B.2.	1
376	2	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				NAIL, WROUGHT	II.B.2.	1
376	3	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	II.B.2.	1
376	3	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	II.B.2.	1
376	4	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				ALUMINUM CAN FRAGMENTS		1
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE	II.B.2.	2
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE	II.B.2.	2
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE	II.B.2.	1
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	II.B.2.	3
376	8	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				STONEWARE	II.B.2.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	9	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				BOTTLE GLASS	VIII.B.	1
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	2
376	11	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				PIPE, TOBACCO	I.G.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	II.B.1.	1

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LOT SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	DP	OBJECT	SPRAGUE TYPOLOGY	N
	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				CONCRETE	III.B.1	
	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				METAL FRAGMENT	VIII.A	4
	TUI-01	5	39-50	I/a/IV	19th c. Fill				FIRE CRACKED ROCK	VIII.	2
7 1	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				SPOON	II.B.2.	1
7 2	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				METAL ARTIFACT	VIII.A	1
7 3	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				SCREW	II.B.2.	1
7 4	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				NAIL, SQUARE	II.B.2.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				BOTTLE GLASS	VIII.B.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				BOTTLE, BEER	I.G.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				BOTTLE, BEER	I.G.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				GLASS SHERD	VIII.B.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				GLASS SHERD	VIII.B.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				GLASS SHERD	VIII.B.	1
7 5	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				GLASS SHERD	VIII.B.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
7 6	TUI-02	1	-3 to 10	I/Ib	Modern Sod/20th c. Fill				FLAT GLASS	II.B.1.	1
8 2	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				NAIL, WIRE	II.B.2.	3
8 2	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				NAIL, MACHINE-CUT	II.B.2.	1
8 2	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				NAIL, MACHINE-CUT	II.B.2.	1
8 3	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				IRON PIPE	III.C.1.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE GLASS	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE GLASS	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE GLASS	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE GLASS	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE GLASS	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL	I.G.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL	I.G.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL	I.G.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				BOTTLE, BEER	I.G.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				GLASS SHERD	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				GLASS SHERD	VIII.B.	1
8 4	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				GLASS SHERD	VIII.B.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
8 5	TUI-02</										

PRELIMINARY

LOT	SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	DT	OBJECT	SPRAGUE TYPOLOGY	N
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				GLASS SHIED	VIII.B.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				GLASS SHIED	VIII.B.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				GLASS SHIED	VIII.B.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	VIII.B.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	II.B.3.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	II.B.3.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	II.B.3.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	II.B.3.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	II.B.3.	1
11	1	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				LAMP GLASS	II.B.3.	1
11	2	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
11	2	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
11	2	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
11	2	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				FLAT GLASS	II.B.1.	1
11	3	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				PORCELAIN	II.B.2.	1
11	4	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				NAIL, WIRE	II.B.2.	5
11	5	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				NAIL, MACHINE-CUT	II.B.2.	1
11	5	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				NAIL, MACHINE-CUT	II.B.2.	1
11	6	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				SEED	VIII.	1
11	7	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				BONE, UNWORKED	II.B.2.	1
11	8	TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				STONEWARE	II.B.2.	1
12	1	TUI-02	6	45-63	Ilc/IV	Undif 20th/19thc. Fill				NAIL, MACHINE-CUT	II.B.2.	1
13	1	TUI-02	GRAB	-3 to 50	N/A	Mixed deposits				NAIL, MACHINE-CUT AMERICAN	II.B.2.	1
		TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				ASPHALT	V.I.E.	3
		TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				BRICK	II.B.1.	25
		TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FOIL	VIII.	5
		TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				PLASTER	II.B.1.	1
		TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				PLASTIC	VIII.	10
		TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				TAR PAPER	II.B.1.	2
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				BRICK	II.B.1.	31
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				BRUSH HANDLE	I.D.	1
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				CLOTH	VIII.	1
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				CONCRETE	II.B.1.	15
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				FOIL	VIII.	1
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				LINOLEUM	II.B.1.	2
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				METAL FRAGMENT	VIII.A.	3
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				PLASTIC	VIII.	1
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				PLASTIC	VIII.	1
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				SLAG	II.E.	21
		TUI-02	2	10-20	Ilc	Undif 20th/19thc. Fill				WALL BOARD	II.B.1.	1
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				ASPHALT	V.I.E.	3
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				BRICK	II.B.1.	17
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				COAL	II.E.	4
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				CONCRETE	II.B.1.	1
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				PAINT FRAGMENTS	II.B.1.	12
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				PLASTIC	VIII.	1
		TUI-02	3	19.5-30	Ilc	Undif 20th/19thc. Fill				PLASTIC	VIII.	8
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				BRICK	II.B.1.	2
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				COAL	II.E.	7
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				LINOLEUM	II.B.1.	1
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				PAINT FRAGMENT	II.B.1.	1
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				PLASTIC	VIII.	1
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				PLASTIC SHEET	VIII.	1
		TUI-02	4	30-38	Ilc	Undif 20th/19thc. Fill				STYROFOAM	VIII.	1
		TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				BRICK	II.B.1.	3
		TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				COAL	II.E.	25
		TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				MORTAR	II.B.1.	1
		TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				PLASTIC SHEET	VIII.	1
		TUI-02	5	33-50	Ilc	Undif 20th/19thc. Fill				TAR PAPER	II.B.1.	20
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				BOTTLE GLASS	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				BOTTLE GLASS	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				BOTTLE GLASS	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				BOTTLE GLASS	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				BOTTLE GLASS	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				GLASS SHIED	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				GLASS SHIED	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				GLASS SHIED	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				GLASS SHIED	VIII.B.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				LAMP GLASS	II.B.3.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				LAMP GLASS	II.B.3.	1
28	1	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				LAMP GLASS	II.B.3.	1
28	2	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				FLAT GLASS	II.B.1.	1
28	2	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				FLAT GLASS	II.B.1.	1
28	2	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				FLAT GLASS	II.B.1.	1
28	3	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				FLAT GLASS	II.B.1.	1
28	4	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				NAIL, MACHINE-CUT	II.B.2.	1
28	4	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				SLATE	VIII.	1
28	5	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				STONEWARE	II.B.2.	1
28	6	TUI-03	1	-6 to 13	I	Modern Sod; first post cemetery				SEED	VIII.	1
29	1	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				NAIL, WIRE	II.B.2.	6
29	2	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				FLAT GLASS	II.B.1.	1
29	2	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				FLAT GLASS	II.B.1.	1
29	2	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				FLAT GLASS	II.B.1.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				FLAT GLASS	II.B.1.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				BOTTLE GLASS	VIII.B.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				BOTTLE GLASS	VIII.B.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				BOTTLE, ALCOHOL	I.G.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				GLASS SHIED	VIII.B.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				GLASS SHIED	VIII.B.	1
29	3	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				GLASS SHIED	VIII.B.	1
29	4	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				METAL ARTIFACT	VIII.A.	1
29	4	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				METAL ARTIFACT	VIII.A.	1
29	5	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				PLASTIC ARMY MAN	I.J.	2
29	6	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				COIN	V.	1
29	7	TUI-03	2	11-21	IIb	20th c. Fill; first post cemetery				NAIL, SQUARE	II.B.2.	2
30	1	TUI-03	3	20-38	Ilc	Undif 20th/19th c. Fill; first post cemetery				NAIL, WIRE	II.B.2.	8
30	2	TUI-03	3	20-38	Ilc	Undif 20th/19th c. Fill; first post cemetery				NAIL, MACHINE-CUT	II.B.2.	2
30	3	TUI-03	3	20-38	Ilc	Undif 20th/19th c. Fill; first post cemetery				METAL GROMMET	I.A.	1
30	4	TUI-03	3	20-38	Ilc	Undif 20th/19th c. Fill; first post cemetery				IRONSTONE	II.B.2.	1
30	4	TUI-03	3	20-38	Ilc	Undif 20th/19th c. Fill; first post cemetery				IRONSTONE	II.B.2.	1

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LOT	SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT.LEV.	PO	OBJECT	SPRAGUE TYPOLOGY	N
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	1
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	3
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	27
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	1
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	6
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	7
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	2
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	2
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	1
271	6	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	1
272	4	TU3-02	3		106-116	Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	1
272	4	TU3-02	3		106-116	Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	2
272	4	TU3-02	3		106-116	Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	3
272	4	TU3-02	3		106-116	Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE	I.B.2.	1
273	2	TU3-02	2		122-132	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Post and Post Hole	17	1		EARTHENWARE	I.B.2.	1
273	2	TU3-02	2		122-132	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Post and Post Hole	17	1		EARTHENWARE	I.B.2.	2
274	4	TU3-02	2		122-142	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Post and Post Hole	17	2		EARTHENWARE	I.B.2.	1
275	5	TU3-02	5		142-207	19th c Fill; Tayatas House; Post and Post Hole	17	3		EARTHENWARE	I.B.2.	1
286	1	TU3-02	2		109-113	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Railroad Tie and Wood Board	16	2		EARTHENWARE	I.B.2.	2
286	1	TU3-02	2		109-113	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Railroad Tie and Wood Board	16	2		EARTHENWARE	I.B.2.	1
286	1	TU3-02	2		109-113	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Railroad Tie and Wood Board	16	2		EARTHENWARE	I.B.2.	1
286	1	TU3-02	2		109-113	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Railroad Tie and Wood Board	16	2		EARTHENWARE	I.B.2.	1
286	1	TU3-02	2		109-113	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Railroad Tie and Wood Board	16	2		EARTHENWARE	I.B.2.	1
270	2	TU3-02	1		0-112	Undif 20th/19th c Fill; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
270	2	TU3-02	1		0-112	Undif 20th/19th c Fill; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	7
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	2
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	2
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	3
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	5	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
272	5	TU3-02	3		106-116	Intact HBC &/or US Army All Periods; Tayatas House				EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
273	3	TU3-02	2		122-132	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Post and Post Hole	17	1		EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
273	3	TU3-02	2		122-132	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Post and Post Hole	17	1		EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
275	6	TU3-02	5		142-207	19th c Fill; Tayatas House; Post and Post Hole	17	3		EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
286	1	TU3-02	2		109-113	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House; Railroad Tie and Wood Board	16	2		EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	8	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House	16	2		EARTHENWARE, TRANSFERPRINTED	I.B.2.	1
271	7	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				STONEWARE	I.B.2.	1
271	7	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				STONEWARE	I.B.2.	1
271	7	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				STONEWARE	I.B.2.	1
272	2	TU3-02	3		106-116	Intact HBC &/or US Army All Periods; Tayatas House				LAMP GLASS	I.B.3.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97-107	Undif 20th/19th c Fill & Intact HBC &/or US Army All Periods; Tayatas House				FLAT GLASS	I.B.1.	1
271	3	TU3-02	2		97							

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LOT#	SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	pp	OBJECT	SPRAGUE TYPOLOGY	N
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
94	4	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
94	4	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
94	4	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	2
94	4	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
94	5	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE	II.B.2.	1
94	5	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE	II.B.2.	2
94	6	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	II.B.2.	2
94	6	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	II.B.2.	6
94	6	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	II.B.2.	3
94	6	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	II.B.2.	1
94	6	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	II.B.2.	1
94	6	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	II.B.2.	1
94	7	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE, CLAY PIGEON		1
94	7	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE, CLAY PIGEON		1
94	7	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE, CLAY PIGEON		1
94	7	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE, CLAY PIGEON		1
94	7	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE, CLAY PIGEON		1
94	8	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				PIPE, TOBACCO	I.G.	1
94	8	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				PIPE, TOBACCO	I.G.	1
94	8	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				PIPE, TOBACCO	I.G.	1
94	9	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				PIPE, TOBACCO	I.G.	1
94	9	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				BONE, UNWORKED	II.B.2.	8
94	9	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				BONE, UNWORKED	II.B.2.	1
94	10	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				DEBITAGE, LITHIC, FLAKE	V.C.	1
94	10	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				DEBITAGE, LITHIC, FLAKE	V.C.	1
94	10	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				DEBITAGE, LITHIC, FLAKE SHATTER	V.C.	1
94	11	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAKED TOOL FRAGMENT		1
94	12	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, WIRE	II.B.2.	5
94	12	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, MACHINE-CUT AMERICAN	II.B.2.	1
94	12	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, MACHINE-CUT AMERICAN	II.B.2.	1
94	13	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				METAL WASHER		1
94	14	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	II.B.2.	1
94	15	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				SCREW	II.B.2.	1
94	16	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, WROUGHT	II.B.2.	3
94	17	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, WROUGHT	II.B.2.	1
94	17	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, SQUARE	II.B.2.	2
95	2	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				NAIL, WIRE	II.B.2.	1
95	2	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				STONEWARE, CLAY PIGEON		2
95	3	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
95	3	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	II.B.1.	1
95	4	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	II.B.2.	1
95	5	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				DEBITAGE, LITHIC, FLAKE	V.C.	1
		TU4-02	1	0-15	I/III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				COAL	II.E.	1
		TU4-02	1	0-15	I/III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				SLATE	VIII.	1
		TU4-02	1	0-15	I/III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				TAR PAPER	II.B.1.	1
		TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FIRE CRACKED ROCK	VIII.	7
		TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				FIRE CRACKED ROCK	VIII.	7
96	1	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				NAIL, WROUGHT	II.B.2.	2
96	1	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				NAIL, WROUGHT	II.B.2.	1
96	2	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				NAIL, WIRE	II.B.2.	1
96	3	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
96	3	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
96	3	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
96	4	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				EARTHENWARE	II.B.2.	1
96	4	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				EARTHENWARE	II.B.2.	1
96	4	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				EARTHENWARE	II.B.2.	2
96	6	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				BONE, UNWORKED	II.B.2.	1
96	6	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				BONE, UNWORKED	II.B.2.	1
96	7	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				BOTTLE, ALCOHOL	I.G.	1
96	7	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				BOTTLE, ALCOHOL	I.G.	1
96	7	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				BOTTLE, ALCOHOL	I.G.	1
96	7	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				BOTTLE, ALCOHOL	I.G.	1
96	8	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				FLAT GLASS	II.B.1.	1
96	8	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				FLAT GLASS	II.B.1.	1
96	9	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				FLAT GLASS	II.B.1.	1
96	9	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				MIRROR GLASS		1
97	1	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	4
97	1	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
97	1	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	2
97	1	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
97	1	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE, TRANSFERPRINTED	II.B.2.	1
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE	II.B.2.	2
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE	II.B.2.	6
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE	II.B.2.	2
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE	II.B.2.	2
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE	II.B.2.	1
97	2	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				EARTHENWARE	II.B.2.	1
97	3	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				STONEWARE	II.B.2.	1
97	3	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				STONEWARE	II.B.2.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE GLASS	VIII.B.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE GLASS	VIII.B.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1
97	4	TU4-03	2	4-16	IIc	Undif 20th/19th c F&I; House 4B				BOTTLE, ALCOHOL	I.G.	1

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LOT SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT.LEV.	PP	ASPHALT	OBJECT	SPRAGUE TYPOLOGY	N
	TU4-08	2	-3 to 10	Ilc	Undif 20th/19th c. Fill				ASPHALT		VII.E	1
	TU4-08	2	-3 to 10	Ilc	Undif 20th/19th c. Fill				BRICK		II.B.1.	1
	TU4-08	2	-3 to 10	Ilc	Undif 20th/19th c. Fill				COAL		II.E.	160
	TU4-08	2	-3 to 10	Ilc	Undif 20th/19th c. Fill				MISC. MODERN DEBRIS		VII.	4
	TU4-08	3	10-23	Ilc	Undif 20th/19th c. Fill				BRICK		II.B.1.	5
	TU4-08	3	10-23	Ilc	Undif 20th/19th c. Fill				COAL		II.E.	100
	TU4-08	3	10-23	Ilc	Undif 20th/19th c. Fill				MISC. DEBRIS		VII.	10
	TU4-08	4	16-30	Ilc	Undif 20th/19th c. Fill				ASPHALT		VII.E.	1
	TU4-08	4	16-30	Ilc	Undif 20th/19th c. Fill				COAL		II.E.	1
	TU4-08	4	16-30	Ilc	Undif 20th/19th c. Fill				FIRE-CRACKED ROCK		VII.	2
	TU4-08	4	16-30	Ilc	Undif 20th/19th c. Fill				ROOT		VII.	1
	TU4-08	5	29-41	III	Intact HBC &/or US Army All Periods				BURNED ROOT FRAGMENTS		VII.	10
	TU4-08	5	29-41	III	Intact HBC &/or US Army All Periods				COAL		II.E.	1
	TU4-08	6	40-50	III	Intact HBC &/or US Army All Periods				ROOTS		VII.	1
133 1	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				STONEWARE		II.B.2.	1
133 1	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				STONEWARE		II.B.2.	1
133 2	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				EARTHENWARE		II.B.2.	1
133 3	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				BOTTLE GLASS		VII.B.	1
133 3	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
133 3	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
133 3	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
133 3	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
133 4	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
133 5	TU4-09	1	0-9	I/Ilc	Modern Sod/Undif 20th/19thc. Fill				METAL WIRE		II.B.2.	1
134 1	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				EARTHENWARE, TRANSFERPRINTED		II.B.2.	2
134 1	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				EARTHENWARE, TRANSFERPRINTED		II.B.2.	1
134 1	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				EARTHENWARE, TRANSFERPRINTED		II.B.2.	1
134 2	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
134 2	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
134 2	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
134 2	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
134 2	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
134 2	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				FLAT GLASS		II.B.1.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE GLASS		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE GLASS		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE GLASS		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE GLASS		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE, ALCOHOL		I.G.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				BOTTLE, BEER		I.G.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 3	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				GLASS SHERD		VII.B.	1
134 4	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				NAIL, MACHINE-CUT AMERICAN		II.B.2.	1
134 4	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				NAIL, SQUARE		II.B.2.	3
134 4	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				NAIL, SQUARE		II.B.2.	3
134 5	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				NAIL, WIRE		II.B.2.	1
134 6	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				SHOTGUN SHELL BASE		II.B.2.	3
134 7	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				EARTHENWARE		II.B.2.	2
134 8	TU4-09	2	5-20	Ilc	Undif 20th/19thc. Fill				STONEWARE		II.B.2.	1
135 1	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				EARTHENWARE		II.B.2.	1
135 2	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				STONEWARE		II.B.2.	1
135 3	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				BOTTLE, ALCOHOL		I.G.	1
135 4	TU4-09	3										

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SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	DI	OBJECT	SPRAGUE TYPOLOGY	N
204 2	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BONE, UNWORKED	II.B.2	1
204 2	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BONE, UNWORKED	II.B.2	2
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 3	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				FLAT GLASS	II.B.1	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE GLASS	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE GLASS	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE GLASS	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE GLASS	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE GLASS	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE, ALCOHOL	I.G.	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE, ALCOHOL	I.G.	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				BOTTLE, ALCOHOL	I.G.	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASS SHERD	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASS SHERD	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASS SHERD	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASS SHERD	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASS SHERD	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASS SHERD	VIII.B	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASSWARE SHERD	II.B.2	1
204 4	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				GLASSWARE SHERD	II.B.2	1
204 5	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				EARTHENWARE	II.B.2	1
204 7	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				EARTHENWARE	II.B.2	1
204 7	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				NAIL, SQUARE	II.B.2	1
204 7	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				NAIL, SQUARE	II.B.2	13
204 8	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				LEAD FRAGMENT	VIIA	1
204 9	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				DEBITAGE, LITHIC, FLAKE	VIII	1
204 9	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				DEBITAGE, LITHIC, FLAKE	VIII	1
204 9	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				DEBITAGE, LITHIC, FLAKE	VIII	1
204 9	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				DEBITAGE, LITHIC, FLAKE	VIII	1
204 9	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				DEBITAGE, LITHIC, FLAKE SHATTER	VIII	1
204 9	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				DEBITAGE, LITHIC, FLAKE SHATTER	VIII	1
204 11	TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building; Historic Surface?				SHELL	II.B.2	7
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, BUTCHERED	II.B.2	1
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, BUTCHERED	II.B.2	1
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, BUTCHERED	II.B.2	1
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	83
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	8
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	2
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	5
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	9
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	15
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	8
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	1
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	5
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	1
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	1
205 1	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BONE, UNWORKED	II.B.2	1
205 2	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	2
205 2	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	3
205 2	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	1
205 2	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	1
205 2	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	2
205 2	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	3
205 3	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	4
205 3	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL CAN FRAGMENTS	VIIA	4
205 4	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		BUTTON, 4-HOLED	IA.7	1
205 5	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL DISC/POSSIBLE BUTTON	IA.7	1
205 6	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL ARTIFACT	VIIA	1
205 6	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL ARTIFACT	VIIA	1
205 6	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		METAL ARTIFACT	VIIA	1
205 7	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		PORCELAIN	II.B.2	1
205 8	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		PORCELAIN	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		EARTHENWARE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		EARTHENWARE	II.B.2	2
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		EARTHENWARE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	7
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	2
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	10
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	3
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	2
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building; Midden (upper)	7	1		IRONSTONE	II.B.2	1
205 9	TUS-09	7	112								

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210	SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	PP	OBJECT	SPRAGUE TYPOLOGY	N
218	6	TUS-09	16	180-192	fla	19th c. Fill; 1859 Harney building; Midden (middle)				FLAT GLASS	ILB.1.	1
218	6	TUS-09	16	180-192	fla	19th c. Fill; 1859 Harney building; Midden (middle)				FLAT GLASS	ILB.1.	1
218	6	TUS-09	16	180-192	fla	19th c. Fill; 1859 Harney building; Midden (middle)				FLAT GLASS	ILB.1.	1
218	6	TUS-09	16	180-192	fla	19th c. Fill; 1859 Harney building; Midden (middle)				FLAT GLASS	ILB.1.	1
218	6	TUS-09	16	180-192	fla	19th c. Fill; 1859 Harney building; Midden (middle)				FLAT GLASS	ILB.1.	1
218	6	TUS-09	16	180-192	fla	19th c. Fill; 1859 Harney building; Midden (middle)				FLAT GLASS	ILB.1.	1
219	1	TUS-09	17	189-200	fla	19th c. Fill; 1859 Harney building; Midden (middle)				PIPE, TOBACCO	I.G.	1
219	2	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)				GLASS SHERD	VILB.	1
220	1	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		RIM OF METAL TUB	ILB.	2
220	1	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		RIM OF METAL TUB	ILB.	2
220	1	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		RIM OF METAL TUB	ILB.	4
220	1	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		RIM OF METAL TUB	ILB.	1
221	1	TUS-09	15,16	175-178	fla	19th c. Fill; 1859 Harney building; Midden (middle)	14	1		WOOD, WORKED	ILB.1.	1
221	2	TUS-09	15,16	175-178	fla	19th c. Fill; 1859 Harney building; Midden (middle)	14	1		EARTHENWARE	ILB.2.	1
221	3	TUS-09	15,16	175-178	fla	19th c. Fill; 1859 Harney building; Midden (middle)	14	1		GLASS SHERD	VILB.	1
221	3	TUS-09	15,16	175-178	fla	19th c. Fill; 1859 Harney building; Midden (middle)	14	1		GLASS SHERD	VILB.	1
222	1	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		SHEET METAL	ILB.2.	1
222	2	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		GLASS SHERD	VILB.	1
222	2	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		GLASS SHERD	VILB.	1
222	2	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		GLASS SHERD	VILB.	1
222	3	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		EARTHENWARE	ILB.2.	1
222	4	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		EARTHENWARE	ILB.2.	1
222	5	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		NAIL, SQUARE	ILB.2.	5
222	6	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		FLAT GLASS	ILB.1.	1
222	6	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		FLAT GLASS	ILB.1.	1
222	6	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		FLAT GLASS	ILB.1.	1
222	7	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		BONE, BUTCHERED	ILB.2.	1
222	7	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		BONE, UNWORKED	ILB.2.	1
222	7	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		BONE, UNWORKED	ILB.2.	1
222	7	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		BONE, UNWORKED	ILB.2.	1
222	8	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		WHITE METAL FRAGMENTS	VIL.A.	8
222	8	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		WHITE METAL FRAGMENTS	VIL.A.	8
222	8	TUS-09	20	220-230	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	1		WHITE METAL FRAGMENTS	VIL.A.	1
223	2	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BONE, BUTCHERED	ILB.2.	1
223	2	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BONE, BUTCHERED	ILB.2.	1
223	2	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden (lower)	15	2		BOTTLE GLASS	VILB.	1
223	3	TUS-09	21	230-266	fla	19th c. Fill; 1859 Harney building; Midden						

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LOI	SPEC.	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	PP	OBJECT	SPRAGUE TYPOLOGY	N
229	4	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		GLASS SHERD	VIII.B.	1
229	4	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		GLASS SHERD	VIII.B.	1
229	4	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		GLASS SHERD	VIII.B.	1
229	4	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		GLASS SHERD	VIII.B.	1
229	4	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		GLASS SHERD	VIII.B.	1
229	5	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		NAIL, MACHINE-CUT	II.B.2	2
229	5	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		NAIL, MACHINE-CUT AMERICAN	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	3
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	2
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	6	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		BONE, UNWORKED	II.B.2	1
229	7	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		EARTHENWARE	II.B.2	1
229	8	TUS-10	4	51-53	Ila	19th c. Fill; 1859 Harney building; Midden Wood Elements	6	1		NAIL, SQUARE	II.B.2	3
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	4
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	38
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	31
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	28
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	8
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	1
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	2
230	1	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				METAL CAN FRAGMENTS	VIIIA.	1
230	2	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				TOOTHBRUSH HEAD	ID.	4
230	3	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				GROMMET	IA.	1
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	6
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	1
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	3
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	1
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	1
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	1
230	4	TUS-10	5	47-60	Ila	19th c. Fill; 1859 Harney building				EARTHENWARE	II.B.2	1

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PRELIMINARY

LOT	SPEC	UNIT	LEVEL	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	DP	OBJECT	SPRAGUE TYPOLOGY	N
259	4	TUS-13	2	111-126	III	Intact IHBC &/or US Army All Periods; ca. 1874 Vancouver House hotel; Midden	8	2		GLASS SHERD	VIII.B.	1
259	4	TUS-13	2	111-126	III	Intact IHBC &/or US Army All Periods; ca. 1874 Vancouver House hotel; Midden	8	2		GLASS SHERD	VIII.B.	1
259	4	TUS-13	2	111-126	III	Intact IHBC &/or US Army All Periods; ca. 1874 Vancouver House hotel; Midden	8	2		GLASS SHERD	VIII.B.	1
260	3	TUS-13	2	112-133	IIc	Undif 20th/19th c Fill; ca. 1874 Vancouver House hotel; Modern Trench (utility?) and Post Remnant (railroad?)	11	2		GLASS SHERD	VIII.B.	1
260	3	TUS-13	2	112-133	IIc	Undif 20th/19th c Fill; ca. 1874 Vancouver House hotel; Modern Trench (utility?) and Post Remnant (railroad?)	11	2		GLASS SHERD	VIII.B.	1
469	1	UNPROVENIENCED			N/A					BONE, UNWORKED	II.B.2.	1

FOVA 3100 CRC

PRELIMINARY

BEADS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	PP	OBJECT	N	CHROMA	MUNSELL	LENG. (mm)	DIA.	FOVA VAR. #	SHAPE	DECORATION	OPACITY	NOTES
374	3	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BEAD, DRAWN	1	MONOCHROME	N9/0.5	1.97	2.84		CYLINDRICAL		OPAQUE	GRAB SAMPLE
374	3	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BEAD, DRAWN	1	MONOCHROME	N9/0.5	1.38	1.86		CYLINDRICAL		OPAQUE	GRAB SAMPLE
374	3	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				BEAD, DRAWN	1	MONOCHROME	2.5PB3/6	0.80	0.99		CYLINDRICAL		OPAQUE	GRAB SAMPLE
360	9	TRENCH 3-39	GRAB	82	N/A	Undif 20th/19th c. Fill; ca. 1892 U.S. Army stable building				BEAD, DRAWN	1	MONOCHROME	N9/0.5	1.96	2.34		CYLINDRICAL		OPAQUE	FEATURE 34. GRAB SAMPLE
268	9	TU3-01	3	87-99	III	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	8/10Y	4.23	4.24		CYLINDRICAL		OPAQUE	
284	5	TU3-06	3	85-98	III/IV	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	8/10Y	3.37	4.40		CYLINDRICAL		OPAQUE	
284	5	TU3-06	3	85-98	III/IV	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	8/10Y	2.69	3.40		CYLINDRICAL		OPAQUE	
292	12	TU3-07	3	85-98	III/IV	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	10YR4/8	6.85	9.02	1043	CYLINDRICAL	FACETED	TRANSPARENT	
292	12	TU3-07	3	85-98	III/IV	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	N9/0.5	2.22	2.90		CYLINDRICAL		OPAQUE	
296	9	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	COLORLESS	4.96	4.45	1067	CYLINDRICAL	FACETED	TRANSPARENT	
309	2	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house				BEAD, DRAWN	1	MONOCHROME	8/10Y	3.19	3.68		CYLINDRICAL		OPAQUE	
309	2	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house				BEAD, DRAWN	1	MONOCHROME	8/10Y	2.13	3.12		CYLINDRICAL		OPAQUE	
310	9	TU3-12	7	79-88	III	Intact HBC &/or US Army All Periods; Kanaka house; Pit	25		1	BEAD, DRAWN	1	MONOCHROME	8/10Y	2.64	3.62		CYLINDRICAL		OPAQUE	
310	9	TU3-12	7	79-88	III	Intact HBC &/or US Army All Periods; Kanaka house; Pit	25		1	BEAD, DRAWN	1	MONOCHROME	N9/0.5	1.92	2.98		CYLINDRICAL		OPAQUE	
310	9	TU3-12	7	79-88	III	Intact HBC &/or US Army All Periods; Kanaka house; Pit	25		1	BEAD, DRAWN	1	MONOCHROME	9/10Y	2.28	2.86		CYLINDRICAL		OPAQUE	
321	2	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House				BEAD, DRAWN	1	MONOCHROME	5B4/8	2.89	3.62		CYLINDRICAL		OPAQUE	
93	13	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				BEAD, WIRE WOUND	1	MONOCHROME	2/5GY 10GY-G	8.88	5.95		ELLIPTICAL		OPAQUE	
93	13	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				BEAD, DRAWN	1	MONOCHROME	3/10GY 10GY-G	2.56	3.17		CYLINDRICAL		OPAQUE	
99	11	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				BEAD, WIRE WOUND	1	MONOCHROME	5B 4/4	5.29	5.24		SPHERICAL		OPAQUE	
99	11	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				BEAD, DRAWN	1	MONOCHROME	N0.5/	5.47	5.25	1057	CYLINDRICAL	FACETED	OPAQUE	
103	11	TU4-04	2	7-15	Ila/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				BEAD, DRAWN	1	MONOCHROME	8/5GY	3.84	4.15		CYLINDRICAL		OPAQUE	
103	11	TU4-04	2	7-15	Ila/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				BEAD, DRAWN	1	MONOCHROME	8/5GY	4.07	4.14		CYLINDRICAL		OPAQUE	
121	3	TU4-07	4	30-40	Ile/IV	Undif 20th/19th c. Fill				BEAD, WIRE WOUND	1	MONOCHROME	2.5Y7/6	8.04			SPHERICAL		OPAQUE	PARTIAL BEAD
137	6	TU4-09	5	40-50	Ile	Undif 20th/19th c. Fill				BEAD, DRAWN	1	MONOCHROME	N9/0.5	2.90	3.50		CYLINDRICAL		OPAQUE	
203	3	TU5-09	5	100-111	Ila	19th c. Fill; 1859 Harney building				BEAD, DRAWN	1	MONOCHROME	N9/0.5	1.71	2.25		CYLINDRICAL		OPAQUE	
208	10	TU5-09	8	121-140	Ila	19th c. Fill; 1859 Harney building	7		2	BEAD, DRAWN	1	MONOCHROME	N9/0.5	15.27	2.62	1007	CYLINDRICAL		OPAQUE	
208	10	TU5-09	8	121-140	Ila	19th c. Fill; 1859 Harney building	7		2	BEAD, DRAWN	1	MONOCHROME	N9/0.5	5.40	6.21		CYLINDRICAL		OPAQUE	
251	6	TU5-12	5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel				BEAD, DRAWN	1	MONOCHROME	N9/0.5	2.36	3.62		CYLINDRICAL		OPAQUE	
257	3	TU5-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel				BEAD, DRAWN	1	MONOCHROME	N9/0.5 & 10B 3/6	1.79	2.99		CYLINDRICAL		OPAQUE	

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	pp	OBJECT	N	SIZE (cm)	DESCRIPTION	MFG. METHOD	SURFACE MODS	NOTES
442	2	ST2-14	1	0-10	I/IIb	Modern Sod/20thc. Fill; line officers quarters				WASHER	1		FLAT		RUBBER	
93	16	ST4-02	2	10-27	IIc	Intact HBC &/or US Army All Periods; House 4B				SCREW	1		WOOD/SLOTTED	MACHINE	SLOTTED #8	
57	3	ST4-03	5	40-50	IIc/IV	Undif 20th/19thc. Fill				NUT	1	L: 21.37, W: 21.71	SQUARE			
57	4	ST4-03	5	40-50	IIc/IV	Undif 20th/19thc. Fill				SCREW/NUT	1		ROUND HEAD	MACHINE		BROKEN TIP
159	1	ST5-04	5	40-50	IIc	Undif 20th/19thc. Fill				SCREW	1		FLATHEAD	MACHINE	SLOTTED	BROKEN TIP
368	10	TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits				BOLT	1			MACHINE		GRAB SAMPLE, BROKEN TIP
5	3	TU1-01	5	39-50	IIa/IV	19th c. Fill				BOLT	1	16.60	SQUARE HEAD			HEAD ONLY
7	3	TU1-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				SCREW	1	30.00	ROUND HEAD	MACHINE	PHILLIPS	
399	2	TU2-01	4	30-40	IIc	Undif 20th/19th c. Fill; workshops				WASHER	1	3/8 SAE	FLAT	MACHINE		
401	14	TU2-01	6	50-63	IIc	Undif 20th/19th c. Fill; workshops				BOLT	1		CARRIAGE	MACHINE		BROKEN TIP
402	16	TU2-01	7	60-73	IIc	Undif 20th/19th c. Fill; workshops				BOLT	1		CARRIAGE	MACHINE		BROKEN TIP
402	19	TU2-01	7	60-73	IIc	Undif 20th/19th c. Fill; workshops				SCREW	1	22.98	WOOD	MACHINE	FLAT HEAD	
402	19	TU2-01	7	60-73	IIc	Undif 20th/19th c. Fill; workshops				SCREW	1	26.31	SHEET METAL	MACHINE		
402	19	TU2-01	7	60-73	IIc	Undif 20th/19th c. Fill; workshops				SCREW	1	#8, 31.48	WOOD	MACHINE		
402	19	TU2-01	7	60-73	IIc	Undif 20th/19th c. Fill; workshops				SCREW	1		WOOD	MACHINE		BROKEN TIP
296	13	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House				BOLT/NUT	1			MACHINE		NO HEAD
327	4	TU3-18	2	75-91	IIb	20th c. Fill				SCREW	1	52.09	FLAT	MACHINE	SLOTTED	
327	4	TU3-18	2	75-91	IIb	20th c. Fill				SCREW	1		FLAT HEAD	MACHINE	SLOTTED	NO TIP
349	8	TU3-20	5	123-135	IIc	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	29	1		WASHER	1	DIAMETER: 3.49	FLAT	MACHINE		
351	4	TU3-21	3	110-121	IIb	20th c. Fill				WASHER	1	7/16 SAE	FLAT	MACHINE		
353	2	TU3-22	1	2-22	IIb	20th c. Fill				NUT	1	L: 12.92, W: 12.41	SQUARE	MACHINE		
354	9	TU3-22	2	12-24	IIb	20th c. Fill				SCREW	1		FLAT HEAD	MACHINE	SLOTTED	BROKEN HEAD
356	14	TU3-22	4	32-44	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				SCREW	1	#10	WOOD	MACHINE	#10	BROKEN TIP
93	22	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	4	1/2 SAE	FLAT	MACHINE		
93	22	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	1	1/4 SAE	FLAT	MACHINE		
93	23	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	1	L: 15.67, W: 15.61	SQUARE	MACHINE		7.6-mm THICK
94	14	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	1	L: 15.78, W: 15.45	SQUARE	MACHINE		
94	15	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				SCREW	1		ROUND HEAD	MACHINE		BROKEN TIP
95	4	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				WASHER	1	1/4 SAE	ROUND	MACHINE		
98	10	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				BOLT	1		HEXAGONAL	MACHINE		BROKEN TIP
180	6	TU5-04	1	-2 to 11	I/IIc	Modern Sod/Undif 20th/19thc. Fill				BOLT	1	HEAD: 31-mm	SQUARE	MACHINE		BROKEN SHAFT
185	1	TU5-04	5	40-50	IIc	Undif 20th/19thc. Fill				BOLT	1	DIAMETER: 30.79	UNKNOWN TYPE	MACHINE	FRAGMENT	
215	11	TU5-09	13	160-192	IIa	19th c. Fill; 1859 Harney building				SCREW	1		FLAT	MACHINE	SLOTTED	
231	24	TU5-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				SCREW	1		UNKNOWN	MACHINE		NO HEAD
257	11	TU5-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		SCREW	1			MACHINE		BROKEN HEAD

[illegible]

FOVA 3100 CRC

BONE

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BONE

[illegible]

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	p	OBJECT	N	SIZE (mm)	WEIGHT (g)	L	W (in)	TH (in)	SURFACE MODS	DESCRIPTION
61	7	ST4-04	3	20-30	I/c	Undif 20th/19th c. Fill; pond deposits				BRICK	2	50	51.00					
163	1	ST5-02	4	30-40	I/c	Undif 20th/19th c. Fill				BRICK	1	40	22.43				BURNT	
157	1	ST5-04	3	20-30	I/c	Undif 20th/19th c. Fill				BRICK	1	30	1.48				POSSIBLY ENGLISH BRICK	
157	1	ST5-04	3	20-30	I/c	Undif 20th/19th c. Fill				BRICK	1	40	11.00				POSSIBLY ENGLISH BRICK	
383	2	TRENCH 3-24	GRAB	0-143	N/A	Mixed deposits				BRICK	1	52	22.06					
392	2	TRENCH 3-33	GRAB	0-120	N/A	Mixed deposits				BRICK	1		1071.87				2.25 BURNT	
307	1	TU3-12	5	61-71	III	Intact HBC &/or US Army All Periods; Kanaka house				BRICK	1	30	3.00					
307	1	TU3-12	5	61-71	III	Intact HBC &/or US Army All Periods; Kanaka house				BRICK	1	20	2.43					
307	1	TU3-12	5	61-71	III	Intact HBC &/or US Army All Periods; Kanaka house				BRICK	7	15	4.80					
307	1	TU3-12	5	61-71	III	Intact HBC &/or US Army All Periods; Kanaka house				BRICK	4	10	0.79					
338	7	TU3-19	5	68-78	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	27	1		BRICK	3	40	30.00					
338	7	TU3-19	5	68-78	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	27	1		BRICK	1	50	18.14					
338	7	TU3-19	5	68-78	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	27	1		BRICK	1	53	28.04					
338	9	TU3-19	5	68-78	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	27	1		BRICK, AMERICAN	1		2005.38	8.12	3.84	2.27	TYPE 5, COMPLETE. 1 FACE APPEARS BLADE TRIMMED, OTHER FACE HAS STRIATIONS FROM MOLD	
74	23	TU4-01	1	0-10	I/III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				BRICK	1	30	7.25					
74	23	TU4-01	1	0-10	I/III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				BRICK	1	30	2.85				1 SURFACE WITH POSSIBLE STRIATIONS, LIGHTER CENTER	
99	19	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				BRICK	1		500.44				3.19 COLOR VARIES FROM YELLOWISH BROWN TO RED, POSSIBLY ENGLISH BRICK	
99	19	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				BRICK	1	60	87.54				0.44 COLOR VARIES FROM YELLOWISH BROWN TO RED, POSSIBLY ENGLISH BRICK	
199	5	TU5-08	3	28-43	III/IV	Intact HBC &/or US Army All Periods				BRICK	1	53	55.18					
203	1	TU5-09	5	100-111	I/a	19th c. Fill; 1859 Harney building				BRICK, ENGLISH	1	50	18.17					
205	15	TU5-09	7	112-137	I/a	19th c. Fill; 1859 Harney building	7	1		BRICK	1	50	18.12					
205	15	TU5-09	7	112-137	I/a	19th c. Fill; 1859 Harney building	7	1		BRICK	1	20	6.05					
205	15	TU5-09	7	112-137	I/a	19th c. Fill; 1859 Harney building	7	1		BRICK	1	30	2.75					
205	15	TU5-09	7	112-137	I/a	19th c. Fill; 1859 Harney building	7	1		BRICK	1		415.10			3.39	2.02	
227	1	TU5-10	2	36-49	I/a	19th c. Fill; 1859 Harney building	5	2		BRICK	1	40	20.22					
234	2	TU5-10	1-9	90-152	N/A	Mixed deposits; 1859 Harney building	9	2		BRICK	1	30	4.95					
238	2	TU5-11	5	38-46	I/a	19th c. Fill; 1859 Harney building	6	1		BRICK, AMERICAN	1		1136.27		3.93	2.22	WHITE MORTAR ON SURFACE	TYPE 5

BUCKLES, BUTTONS

01840

LOT SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAO	MEAN	NOTES	VESSEL #	
415	1 ST2-08	1	0-10	Flb	Modern Soc/20th c. Fill				EARTHENWARE	1	10	WHITEWARE WITH GREEN SLIP GLAZE	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	POSSIBLY A PAINTED FIGURINE		
427	1 ST2-10	8	70-80	flb	20th c. Fill				IRONSTONE	1	15	IRONSTONE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		493	
436	2 ST2-10	7	60-70	flb	20th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		494	
435	2 ST2-11	8	70-80	flb	20th c. Fill				STONEWARE	1	40	REDWARE, BISQUE FIRED	FLOWER POT	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		495	
453	3 ST2-16	6	50-60	flc	Undif 20th/19th c. Fill; fine officers quarters				PORCELAIN	1	30	PORCELAIN, SOFT PASTE, DECORATED	CUP	BASE	DARK GREEN HAND PAINTED LINES ON BASE AND ON OUTSIDE OF FOOT	UNKNOWN	NONE	EUROPE	1829	1860	1844.5		495	
44	1 ST4-01	7	60-70	flc	Undif 20th/19th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
50	1 ST4-02	6	50-60	flc	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	39	BLUE	SOUP PLATE	BODY	UNKNOWN	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1852	1840.5		10	
47	2 ST4-02	3	20-30	flc	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
54	2 ST4-03	2	10-20	flc	Undif 20th/19th c. Fill				PORCELAIN	1	30	GLAZE	ELECTRICAL INSULATOR	BODY	N/A	UNKNOWN	BURNED	USA	1900	1950	1925		11	
55	1 ST4-03	3	20-30	flc	Undif 20th/19th c. Fill				PORCELAIN	1	15	GLAZE	ELECTRICAL INSULATOR	BODY	N/A	UNKNOWN	BURNED	USA	1900	1950	1925		11	
58	1 ST4-03	6	50-60	IV	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
64	5 ST4-04	6	50-60	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	SAUCER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		12	
67	3 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	PLATE	RM	WATTEAU	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1847	1852	1849.5		13	
67	5 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				STONEWARE	1	20	GLAZED SURFACES	SNUFF BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		14	
67	6 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				PORCELAIN	2	20	PORCELAIN, CHINESE EXPORT	BOWL	BODY	GREEN HAND DECORATED LEAVES	UNKNOWN	NONE	CHINA	1829	1860	1844.5	CROSS MENDIS	15	
59	2 ST4-04	1	0-10	flb	Modern Soc/Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
61	5 ST4-04	3	20-30	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
61	5 ST4-04	3	20-30	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	BURNED	ENGLAND	1829	1860	1844.5			
62	6 ST4-04	4	30-40	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
62	6 ST4-04	4	30-40	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
63	6 ST4-04	5	40-50	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	POT	LIDDED	ENGLAND	1829	1860	1844.5		
64	5 ST4-04	6	50-60	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
64	5 ST4-04	6	50-60	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
64	5 ST4-04	6	50-60	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
66	7 ST4-04	8	70-80	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
67	5 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	1	10	WHITEWARE, HAND DECORATED	FLATWARE	BASE	RED AND GREEN HAND DECORATED	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
67	5 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	7	5	WHITEWARE, UNDECORATED	UNKNOWN	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5				
67	5 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	UNKNOWN	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
67	5 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	UNKNOWN	UNKNOWN	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
62	7 ST4-04	4	30-40	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
62	7 ST4-04	4	30-40	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
63	7 ST4-04	5	40-50	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
63	7 ST4-04	5	40-50	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	15	GREENISH BLUE	FLATWARE	BODY	BLUE ROSE	COPELAND & GARRETT	NONE	ENGLAND	1825	1847	1836			
64	6 ST4-04	6	50-60	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
67	3 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
67	3 ST4-04	9	80-90	flc	Undif 20th/19th c. Fill; pond deposits				EARTHENWARE, TRANSFERPRINTED	2	10	DARK BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
61	6 ST4-04	3	20-30	flc	Undif 20th/19th c. Fill; pond deposits				PORCELAIN	1	15	PORCELAIN, CHINESE EXPORT	UNKNOWN	BODY	BROWN HAND DECORATED	UNKNOWN	NONE	CHINA	1829	1860	1844.5			
61	6 ST4-04	3	20-30	flc	Undif 20th/19th c. Fill; pond deposits				PORCELAIN	1	10	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	EUROPE	1829	1860	1844.5			
63	10 ST4-04	5	40-50	flc	Undif 20th/19th c. Fill; pond deposits				PORCELAIN	1	10	PORCELAIN, CHINESE EXPORT	UNKNOWN	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5			
66	8 ST4-04	8	70-80	flc	Undif 20th/19th c. Fill; pond deposits				PORCELAIN	1	10	PORCELAIN, CHINESE EXPORT	UNKNOWN	RM	RED AND YELLOW HAND DECORATED	UNKNOWN	NONE	CHINA	1829	1860	1844.5			
66	6 ST4-04	8	70-80	flc	Undif 20th/19th c. Fill; pond deposits				STONEWARE	1	40	SALT GLAZED SURFACES	SEWER TILE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
72	2 ST4-05	6	50-60	flc	Undif 20th/19th c. Fill; pond deposits				IRONSTONE	1	20	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	CRAZED	ENGLAND	1840	1900	1870			
153	2 ST5-01	2	10-20	flc	20th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
165	4 ST5-01	2	10-20	flc	20th c. Fill				EARTHENWARE	1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
154	2 ST5-02	2	10-20	flc	Undif 20th/19th c. Fill				EARTHENWARE	1	30	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		194	
154	2 ST5-02	2	10-20	flc	Undif 20th/19th c. Fill				STONEWARE	1	30	AND EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		194	
154	2 ST5-02	2	10-20	flc	Undif 20th/19th c. Fill				EARTHENWARE	2	10	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
154	2 ST5-02	2	10-20	flc	Undif 20th/19th c. Fill				EARTHENWARE	2	15	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
155	6 ST5-02	3	20-30	flc	Undif 20th/19th c. Fill				PORCELAIN	1	20	PORCELAIN, SOFT PASTE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
155	2 ST5-02	3	20-30	flc	Undif 20th/19th c. Fill				STONEWARE	2	15	AND EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
156	2 ST5-03	2	10-20	flc	Undif 20th/19th c. Fill				IRONSTONE	2	15	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875			
156	2 ST5-03	2	10-20	flc	Undif 20th/19th c. Fill				IRONSTONE	2	20	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875			
156	2 ST5-03	2	10-20	flc	Undif 20th/19th c. Fill				IRONSTONE	1	20	IRONSTONE, UNDECORATED	HOLLOWWARE	RM	N/A	UNKNOWN	BURNED	ENGLAND	1850	1900	1875			
156	2 ST5-03	2	10-20	flc	Undif 20th/19th c. Fill				IRONSTONE	2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
161	1 ST5-04	7	60-70	flc	Undif 20th/19th c. Fill				PORCELAIN	1	10	PORCELAIN, CHINESE EXPORT	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5			
454	1 TRENCH 2-02	GRAB	0-192	N/A	Mixed deposits				IRONSTONE	1	40	IRONSTONE, UNDECORATED	CUP	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		496	
455	1 TRENCH 2-04	GRAB	0-200	N/A	Mixed deposits				PORCELAIN	1	20	PORCELAIN, INDUSTRIAL	TOILET FIXTURE	BODY	N/A	UNKNOWN	NONE	USA	1900	1950	1920		497	
456	1 TRENCH 2-07	GRAB	0-192	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	DARK BLUE	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		498	
457	1 TRENCH 2-08	GRAB	0-192	N/A	Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		499	
457	1 TRENCH 2-08	GRAB	0-192	N/A	Mixed deposits				IRONSTONE	1	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875			
458	1 TRENCH 2-09	GRAB	0-191	N/A	Mixed deposits				IRONSTONE, TRANSFERPRINTED	1	60	DARK PURPLISH BLUE	SAUCER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1880	1865		500	
458	5 TRENCH 2-09	GRAB	0-191	N/A	Mixed deposits				STONEWARE	1	40	GRAY BODY, COLORLESS SALT GLAZED	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		501	
459	1 TRENCH 2-10	GRAB	0-142	N/A	Mixed deposits				PORCELAIN	1	50	PORCELAIN, INDUSTRIAL	INSULATOR	BODY	N/A	UNKNOWN	BURNED	USA	1900	1950	1925	NAI.IT STYLE INSULATOR	502	
459	1 TRENCH 2-10	GRAB	0-142	N/A	Mixed deposits				PORCELAIN	1	40	PORCELAIN, INDUSTRIAL	UNKNOWN	BODY	N/A	UNKNOWN	NONE	USA	1900	1950	1925			
463	5 TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5</			

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #
363	3 TRENCH 3-02	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	3 TRENCH 3-02	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	3 TRENCH 3-02	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				2	10	PURPLE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	3 TRENCH 3-02	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	20	PURPLE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				2	15	WHITEWARE, UNDECORATED	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDS
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				1	15	WHITEWARE, UNDECORATED	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				1	15	WHITEWARE, UNDECORATED	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				2	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
363	5 TRENCH 3-03	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				1	30	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				2	15	BLUE	SAUCER	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	CROSS MENDS
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE				1	20	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	BLUE	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDS
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE				1	20	WHITEWARE, SHELL EDGE DECORATION	PLATE	BODY	BLUE	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDS
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE				1	20	WHITEWARE, COTTAGEWARE DECORATION	CUP	RM	HAND PAINTED MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	40	BLUE	PLATE	BASE	BLUE ROSE	COPELAND & GARRETT	WEAR	ENGLAND	1833		1847	1840	BLANCHI
366	2 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE				1	60	WHITEWARE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
366	2 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE				1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
366	1 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	30	FLOW BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
366	2 TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				5	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
367	1 TRENCH 3-07	GRAB	0-125	N/A	Mixed deposits	STONEWARE				1	30	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5	
367	2 TRENCH 3-07	GRAB	0-125	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	
367	3 TRENCH 3-07	GRAB	0-125	N/A	Mixed deposits	EARTHENWARE				1	15	YELLOWWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
367	2 TRENCH 3-07	GRAB	0-125	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
368	3 TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	20	BLUE	CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	
368	5 TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits	EARTHENWARE				1	15	WHITEWARE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
368	9 TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits	PORCELAIN				1	40	PORCELAIN, CHINESE EXPORT	TANK	RM	DESIGNS	UNKNOWN	NONE	CHINA	1829		1860	1844.5	
368	5 TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits	EARTHENWARE				1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
368	3 TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	DARK FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850	ONE OF THE COPELAND 18700 SERIES
369	2 TRENCH 3-09	GRAB	0-35	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	RED	CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	
369	2 TRENCH 3-09	GRAB	0-35	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	SOUP PLATE	SHOULDER	CAMILLA	COPELAND & GARRETT	NONE	ENGLAND	1833		1852	1842.5	
369	2 TRENCH 3-09	GRAB	0-35	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
369	2 TRENCH 3-09	GRAB	0-35	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
370	1 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
370	1 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				4	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
371	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	40	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	
371	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	30	BLUE	PLATE	BODY	WILLOW	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1860	1844.5	
372	1 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	SAUCER	RM	LILY	COPELAND	NONE	ENGLAND	1837		1852	1844.5	
371	3 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
371	3 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
371	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				3	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
371	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	30	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
371	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	40	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
372	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	STONEWARE				1	30	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	30	WHITEWARE, COTTAGEWARE DECORATION	PLATE	RM	BLACK HAND PAINTED WIDE BAND ALONG RM	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
372	9 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	PORCELAIN				1	30	PORCELAIN, CHINESE EXPORT	GINGER JAR	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5	
372	2 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	20	INTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	10	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	EARTHENWARE				1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	IRONSTONE				1	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	IRONSTONE				1	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	
372	4 TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	IRONSTONE				2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	
373	7 TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits	PORCELAIN				2	40	PORCELAIN, INDUSTRIAL	ELECTRICAL INSULATOR	BODY	N/A	UNKNOWN	NONE	USA	1900		1950	1925	
373	9 TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BROWN	SAUCER	RM	MACAW/PAGODA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1838		1852	1845	
373	9 TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	30	BLUE	SAUCER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	POSSIBLY CHINESE PLANTS
373	10 TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits	EARTHENWARE				1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	SAUCER	BODY	MACAW/PAGODA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1838		1852	1845	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	20	BLUE	PLATE	RM	MARINE OR MARINO	COPELAND & G. PHILLIPS	NONE	ENGLAND	1834		1834	1836	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	30	BLUE	PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	
374	5 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE				1	15	YELLOWWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
374	2 TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits	EARTHENWARE, TRANSFERPRINTED				1	30	DARK BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
374	2 TRENCH 3-12	GRAB</																					

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT.	FEAT. LEV.	P	OBJECT	N	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MCAN	NOTES	VESSEL#
374	10	TRENCH 3-12	GRAB	0-50	N/A	Mixed deposits				STONEWARE	1	20	BUFF BODY, COLORLESS SALT GLAZED INTERIOR AND EXTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		
375	3	TRENCH 3-13	GRAB	0-50	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED IRONSTONE	1	20	GRAY IRONSTONE, UNDECORATED	CUP HOLLOWWARE	BODY	LILY N/A	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1817 1852	1860	1856 1875		469
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE	1	20	WHITEWARE, COTTAGEWARE DECORATION	SAUCER	RM	HAND PAINTED MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		470
376	8	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				STONEWARE	1	50	BUFF BODY, COLORLESS SALT GLAZED EXTERIOR	CROCK	BODY	N/A	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		471
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BASE	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	BASE	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	BASE	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	BODY	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	RM	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	CUP	BODY	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	2	40	BLUE	CUP	BODY	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5 CROSS MENDS		472
376	10	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	CUP	RM	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5 CROSS MENDS		472
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	2	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829	1860	1844.5 CROSS MENDS		
376	3	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	HOLLOWWARE	RM	MULTI-STEPPED, IMPRESSED ANGLAR LINES	UNKNOWN	NONE	ENGLAND	1840	1870	1855		
376	3	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
376	6	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				IRONSTONE	3	15	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
376	14	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		
378	8	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				PORCELAIN	4	50+	PORCELAIN, INDUSTRIAL	INSULATOR	BODY	GRAY BODY WITH DARK BROWN SLIP GLAZE	UNKNOWN COPELAND & GARRETT, W.T.	NONE	USA	1900	1950	1925		473
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SOUP PLATE	BODY	CAMILLA	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833	1852	1842.5		474
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SOUP PLATE	BODY	CAMILLA	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833	1852	1842.5		474
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SOUP PLATE	RM	CAMILLA	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833	1852	1842.5		474
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	SOUP PLATE	RM	CAMILLA	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833	1852	1842.5		474
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	RM	AESOP'S FABLES	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1830	1852	1841		475
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	SAUCER	BODY	BROSELEY	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1860	1844.5		476
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	3	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
378	5	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
378	6	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
379	3	TRENCH 3-18	GRAB	0-120	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
380	1	TRENCH 3-20	GRAB	0-60	N/A	Mixed deposits				IRONSTONE	1	30	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		477
380	1	TRENCH 3-20	GRAB	0-60	N/A	Mixed deposits				IRONSTONE	1	40	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		477
380	1	TRENCH 3-20	GRAB	0-60	N/A	Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		477
380	1	TRENCH 3-20	GRAB	0-60	N/A	Mixed deposits				IRONSTONE	3	40	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875 CROSS MENDS		477
382	1	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				PORCELAIN	1	40	PORCELAIN, SOFT PASTE, UNDECORATED	DOOR KNOB	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		478
382	8	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	15	GREEN	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		479
382	9	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
385	3	TRENCH 3-26	GRAB	0-150	N/A	Mixed deposits				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
386	4	TRENCH 3-27	GRAB	0-122	N/A	Mixed deposits				PORCELAIN	1	50	PORCELAIN, CHINESE EXPORT	BOWL	BODY	UNDECORATED	UNKNOWN	NONE	CHINA	1829	1860	1844.5		480
388	1	TRENCH 3-29	GRAB	0-210	N/A	Mixed deposits				PORCELAIN	1	15	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	RM	UNDECORATED	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
390	4	TRENCH 3-31	GRAB	0-123	N/A	Mixed deposits				PORCELAIN	2	30	PORCELAIN, INDUSTRIAL	INSULATOR	BODY	N/A	UNKNOWN	NONE	USA	1900	1950	1925		481
390	5	TRENCH 3-31	GRAB	0-123	N/A	Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	BROWN	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
390	4	TRENCH 3-31	GRAB	0-123	N/A	Mixed deposits				IRONSTONE	2	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
390	4	TRENCH 3-31	GRAB	0-123	N/A	Mixed deposits				PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	EUROPE	1829	1860	1844.5		
392	6	TRENCH 3-33	GRAB	0-120	N/A	Mixed deposits				PORCELAIN	1	15	PORCELAIN, INDUSTRIAL	ELECTRICAL	BODY	N/A	UNKNOWN	NONE	ENGLAND	1900	1950	1925		482
392	6	TRENCH 3-33	GRAB	0-120	N/A	Mixed deposits				PORCELAIN	1	40	PORCELAIN, INDUSTRIAL	INSULATOR	BODY	N/A	UNKNOWN	NONE	ENGLAND	1900	1950	1925		482
393	1	TRENCH 3-35	GRAB	0-120	N/A	Mixed deposits				PORCELAIN	1	40	PORCELAIN, UNDECORATED	BOWL	RM	N/A	UNKNOWN	NONE	USA	1880	1930	1905		483
393	1	TRENCH 3-35	GRAB	0-120	N/A	Mixed deposits				PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BODY	UNDECORATED	UNKNOWN	NONE	CHINA	1829	1860	1844.5		
394	7	TRENCH 3-39	I	82	Blc	Unit# 200b/190b c, FBI; ca. 1892 U.S. Army stable building	34			STONEWARE	1	15	EXTERIOR GRAY BODY, TAN SLIP GLAZED INTERIOR AND	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		435
394	7	TRENCH 3-39	I	82	Blc	Unit# 200b/190b c, FBI; ca. 1892 U.S. Army stable building	34			STONEWARE	1	20	EXTERIOR GRAY BODY, TAN SLIP GLAZED INTERIOR AND	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		435
394	5	TRENCH 3-39A	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				IRONSTONE	2	20	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1843	1846	1844.5		484
394	5	TRENCH 3-39A	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				IRONSTONE	1	30	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1843	1846	1844.5		484
394	6	TRENCH 3-39A	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				STONEWARE	1	15	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1846	1844.5		485
394	6	TRENCH 3-39A	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				STONEWARE	1	20	EXTERIOR BUFF BODY, COLORLESS SALT GLAZED	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		486
394	6	TRENCH 3-39A	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				STONEWARE	1	50	INTERIOR BUFF BODY, DARK BROWN SALT GLAZED EXTERIOR, COLORLESS SALT GLAZED	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		487
395	2	TRENCH 3-39B	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	SAUCER	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		488
395	2	TRENCH 3-39B	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				EARTHENWARE	2	30	WHITEWARE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5 CROSS MENDS		489
395	2	TRENCH 3-39B	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		

IMPRESSED REGISTRY MARK, WITH "H" TO THE LEFT OF DIAMOND, INDICATING A REGISTRY MARK OF 1843

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #
195	8 TRENCH 1-3/9B	GRAB	0-120 N/A			Mixed deposits; ca. 1892 U.S. Army stable building				STONEWARE	1	20	GRAY BODY, LIGHT TAN SLIP GLAZED INTERIOR AND EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		490
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	15	IRONSTONE, GOTTHIC MOLDED	CUP	BODY	GOTTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1870	1855		311
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	30	IRONSTONE, GOTTHIC MOLDED	CUP	BODY	GOTTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1870	1855		311
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	40	IRONSTONE, GOTTHIC MOLDED	PLATE	RM	GOTTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1870	1855		312
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		313
262	6 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	DARK GREEN SAUCER	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNIDENTIFIED PATTERN #7	314
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	15	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
262	5 TRENCH 1-5/99	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
263	5 TRENCH 1-5-16	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
263	5 TRENCH 1-5-16	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	40	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
263	5 TRENCH 1-5-16	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
263	5 TRENCH 1-5-16	GRAB	0-110 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, GOTTHIC MOLDED	CUP	BODY	N/A	UNKNOWN	NONE	ENGLAND	1840	1870	1855		
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	SOUP PLATE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		315
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	SOUP PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		316
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	SOUP PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		316
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	DISH	BASE	N/A	KNOWLES, TAYLOR, KNOWLES	NONE	USA	1870	1900	1885	CROSS MENDS	317
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	70	IRONSTONE, UNDECORATED	DISH	BASE	N/A	KNOWLES, TAYLOR, KNOWLES	NONE	USA	1870	1900	1885	CROSS MENDS	317
264	4 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	FLOW BLUE	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1900	1875	CROSS MENDS	318
264	4 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	50	FLOW BLUE	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1900	1875	CROSS MENDS	318
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	20	IRONSTONE, DECAL DECORATED	HOLLOWWARE	BODY	PINK COLORED LEAVES DECAL, PATTERN UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	2	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	2	30	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
264	3 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
264	4 TRENCH 1-5-18	GRAB	0-184 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
265	4 TRENCH 1-5-20	GRAB	0-120 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, GOTTHIC MOLDED	SOUP PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1870	1855		319
265	4 TRENCH 1-5-20	GRAB	0-120 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, GOTTHIC MOLDED	SOUP PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1870	1855		319
265	4 TRENCH 1-5-20	GRAB	0-120 N/A			Mixed deposits				EARTHENWARE	1	30	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
265	6 TRENCH 1-5-20	GRAB	0-120 N/A			Mixed deposits				IRONSTONE	1	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	1 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	40	DARK BLUE	SAUCER	RM	WATTEAU	W. T. COPELAND	NONE	ENGLAND	1847	1852	1849.5		320
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATTER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		321
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	50	ALONG RM	PLATTER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840	1860	1850	UNIDENTIFIED PATTERN #9	322
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	40	DARK BROWN	SOUP PLATE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNIDENTIFIED PATTERN #10	323
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	3	70	IRONSTONE, UNDECORATED	WASH BASIN	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875	CROSS MENDS	324
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	2	40	IRONSTONE, UNDECORATED	WASH BASIN	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875	CROSS MENDS	324
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	80	IRONSTONE, UNDECORATED	WASH BASIN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		324
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	WASH BASIN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		324
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	2	50	IRONSTONE, GOTTHIC MOLDED	CREAMER	BASE	GOTTHIC MOLDED, HEXAGONAL BASE	UNKNOWN	NONE	ENGLAND	1840	1870	1855	CROSS MENDS	325
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, GOTTHIC MOLDED	CREAMER	BODY	GOTTHIC MOLDED, HEXAGONAL BASE	UNKNOWN	NONE	ENGLAND	1840	1870	1855	CROSS MENDS	325
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	2	40	IRONSTONE, GOTTHIC MOLDED	CUP	BASE	GOTTHIC MOLDED, HEXAGONAL BASE	UNKNOWN	NONE	ENGLAND	1840	1870	1855	CROSS MENDS	326
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	2	50	IRONSTONE, GOTTHIC MOLDED	CUP	BODY	GOTTHIC MOLDED, HEXAGONAL BASE	UNKNOWN	NONE	ENGLAND	1840	1870	1855	CROSS MENDS	326
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	DISH	RM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		327
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	50	IRONSTONE, UNDECORATED	SOUP PLATE	SHOULDER	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		328
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	50	DARK FLOW BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840	1860	1850	UNIDENTIFIED PATTERN #8	329
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	2	15	FLOW BLUE	HOLLOWWARE	BODY	ALXAMIRA	W. T. COPELAND	NONE	ENGLAND	1847	1852	1849.5		
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	30	FLOW BLUE	HOLLOWWARE	BODY	ALXAMIRA	W. T. COPELAND	NONE	ENGLAND	1847	1852	1849.5		
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW MULBERRY	UNKNOWN	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1840	1860	1850		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	3	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	3	15	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	2	20	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	2	40	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	20	IRONSTONE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	2 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
266	8 TRENCH 1-5-21	GRAB	0-125 N/A			Mixed deposits				IRONSTONE	1	20	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829	1860	1844.5		
2	6 TUI-01	2	10-20 ft			Undf 20th/19th c. Fill				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	DOLL LIMB	N/A	N/A	UNKNOWN	N/A	EUROPE	1850	1900	1875		1
2	6 TUI-01	2	10-20 ft			Undf 20th/19th c. Fill				EARTHENWARE	1	30	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	N/A	UNKNOWN	NONE	ENGLAND	1830	1850	1840		2
2	7 TUI-01	2	10-20 ft			Undf 20th/19th c. Fill				STONEWARE	1	60	GLAZED INTERIOR AND EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		3
1	4 TUI-01	1	-12 to 10 ft			Modern Sed/20th c. Fill				STONEWARE, TAN BODY WITH YELLOWISH	1	30	TAN SALT GLAZED EXTERIOR	ALE BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		73
11	3 TUI-02	5	33-50 ft			Undf 20th/19th c. Fill				PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		4
11	8 TUI-02	5	33-50 ft			Undf 20th/19th c. Fill				STONEWARE	1	15	SPATTER INSMEL GLAZE	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
28	5 TUI-03	1	-6 to 13 ft			Modern Sed; first post cemetery			</															

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT LEV	P	OBJECT	N	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #	
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	YELLOWWARE, MEDIUM BLUE NARROW BAND	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		334
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	ANTIQUE VASE	COPELAND	NONE	ENGLAND	1840		1852	1846		335
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	20	DARK BROWN	SAUCER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		336
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	FOOT	WILLOW	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		338
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	FOOT	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	HOLLOWWARE	BODY	ITALIAN	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1852	1840.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	ANTIQUE VASE	COPELAND	NONE	ENGLAND	1840		1852	1846		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BASE	UNKNOWN, PRINTED "LILY"	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BASE	LILY	COPELAND	BURNED	ENGLAND	1837		1852	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	20	FLOW BLUE	FLATWARE	BODY	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1829		1860	1850		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW MULBERRY	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	1	20	FLOW MULBERRY	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				PORCELAIN	1	15	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				PORCELAIN	1	20	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	EUROPE	1829		1860	1844.5		
267	3 TUI3-01		2	86-91 IIs		20th c. Fill; Tayentus House				STONEWARE	1	30	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	5	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		332
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	10	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	20	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	30	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	40	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	15	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	RM	N/A	UNKNOWN	BURNED	CHINA	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	1	30	EXTERIOR GRAY BODY, TAN SLIP GLAZED INTERIOR AND	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				LUSTERWARE, RED BODY, WHITE INTERIOR	2	15	GLAZE, BROWN LUSTER EXTERIOR GLAZE	JUG/MUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		330
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	2	10	YELLOWWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	2	15	UNKNOWN	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		331
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	2	15	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		
268	11 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				STONEWARE	2	15	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	BURNED	CHINA	1829		1860	1844.5		331
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	4	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	4	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				LUSTERWARE, RED BODY, WHITE INTERIOR	5	10	GLAZE, BROWN LUSTER EXTERIOR GLAZE	JUG/MUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		330
268	12 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE, TRANSFERPRINTED	7	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	8	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	9	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
268	7 TUI3-01		3	87-99 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	17	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
272	4 TUI3-02		3	186-116 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	CUP	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		345
275	5 TUI3-02		5	142-207 IIs		19th c. Fill; Tayentus House	17		3	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FIGURINE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		347
270	3 TUI3-02		1	0-112 IIs		Undir' 20th/19th c. Fill; Tayentus House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TUI3-02		2	97-107 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	15	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	MEDIUM BLUE NARROW BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TUI3-02		2	97-107 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TUI3-02		2	97-107 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TUI3-02		2	97-107 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TUI3-02		2	97-107 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TUI3-02		2	97-107 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
272	4 TUI3-02		3	186-116 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	50	WHITEWARE, UNDECORATED	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
272	4 TUI3-02		3	186-116 III		Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
273	2 TUI3-02		2	122-132 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House	17		1	EARTHENWARE	1	10	WHITEWARE, COTTAGEWARE DECORATION	UNKNOWN	BODY	HAND PAINTED DARK BURGUNDY LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
273	2 TUI3-02		2	122-132 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House	17		1	EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TUI3-02		2	109-113 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TUI3-02		2	109-113 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TUI3-02		2	109-113 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TUI3-02		2	109-113 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TUI3-02		2	109-113 IIs/III		Undir' 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentus House																			

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT LEV	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #	
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	SAUCER	SHOULDER	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		339
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	UNKNOWN	COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1837		1852	1844.5		340
272	5 TU3-02		3	106-116	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	BODY	LILY	COPELAND	NONE	ENGLAND	1837		1852	1844.5		346
270	2 TU3-02		1	0-112	Ic	Undif 20th/19th c. Fill; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	BLACK	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
270	2 TU3-02		1	0-112	Ic	Undif 20th/19th c. Fill; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	30	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5 UNIDENTIFIED PATTERN #1		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5 UNIDENTIFIED PATTERN #1		
272	5 TU3-02		3	106-116	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	FLATWARE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
273	3 TU3-02		2	122-132	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
273	3 TU3-02		2	122-132	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
275	6 TU3-02		5	142-207	Ia	19th c. Fill; Tayentas House	17		3	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TU3-02		2	109-113	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TU3-02		2	109-113	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	8 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	GINGER JAR	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		344
271	7 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				STONEWARE	1	15	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		341
271	7 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				STONEWARE	1	30	EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		342
271	7 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				STONEWARE	1	30	GRAY BODY, BROWN SLIP GLAZED INTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		343
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	2	15	YELLOWWARE, UNDECORATED	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
272	4 TU3-02		5	106-116	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
274	4 TU3-02		2	132-142	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House	17		2	EARTHENWARE	2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
286	1 TU3-02		2	109-113	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	UNKNOWN	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	3	10	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED DARK BURGUNDY LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
272	4 TU3-02		3	106-116	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	3	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	3	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	6	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	7	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	5 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	7	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	8	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
271	6 TU3-02		2	97-107	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	27	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	30	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	BLUE	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		349
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	15	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	BLUE	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		349
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	CUP	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		357
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	SAUCER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		358
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	SAUCER	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5 BURNED		359
276	3 TU3-03		4.5-6	122-185	Ia	19th c. Fill; Tayentas House	18		1	EARTHENWARE	1	30	WHITEWARE, COTTAGEWARE DECORATION	SLOP BOWL	BODY	HAND PAINTED MEDIUM GREEN AND BLUE LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		360
276	2 TU3-03		2	105-111	Ic	Undif 20th/19th c. Fill; Tayentas House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
276	2 TU3-03		2	105-111	Ic	Undif 20th/19th c. Fill; Tayentas House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	10	EXTERIOR GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	PLATE	RM	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850		350
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	PLATE	RM	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850		350
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW MULBERRY	PLATE	RM	STATICE	W.T. COPELAND	NONE	ENGLAND	1844		1852	1848		351
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	DARK BLUE	SAUCER	BODY	WATTEAU	W.T. COPELAND	NONE	ENGLAND	1847		1852	1849.5		353
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		354
276	1 TU3-03		2	105-111	Ic	Undif 20th/19th c. Fill; Tayentas House				EARTHENWARE, TRANSFERPRINTED	1	15	DARK GREEN	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentas House				EARTHENWARE, TRANSFERPRINTED															

LOI	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT.	LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #	
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED DARK BURGUNDY AND MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDS	
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	5	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	15	FLOW BLUE	PLATE	BODY	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850		350
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	2	15	BRONSTONE, GOTHIC MOLDED	CUP	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		356
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	2	20	BRONSTONE, GOTHIC MOLDED	CUP	SHOULDER	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		356
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	10	WHITEWARE, UNDECORATED	UNKNOWN	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	15	WHITEWARE, UNDECORATED	HOLLOWWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	3	15	BLUE	SAUCER	BODY	CAMILLA	COPELAND	NONE	ENGLAND	1833		1852	1842.5		352
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	3	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	3	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	10 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	3	15	EXTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	4	15	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	5	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	7 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	7	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
277	13 TU3-03		3	111-121	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	10	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
279	5 TU3-04		2	53-61	IIa	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	11	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
281	2 TU3-05		2	112-120	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	EXTERIOR GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
281	6 TU3-05		2	112-120	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
281	6 TU3-05		2	112-120	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	UNKNOWN	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
281	6 TU3-05		2	112-120	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	UNKNOWN	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
282	2 TU3-06	GRAB	0-87	N/A		19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
283	4 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	BLACK CROSSED LINES AND TWO DARK BLUE DOTS	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
283	4 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
283	4 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	WIDE LIGHT GREEN BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		366
283	2 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	RED	CUP	RM	WARWICK GROUPS	W.T. COPELAND	BURNED	ENGLAND	1848		1852	1850		362
283	2 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SAUCER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	UNIDENTIFIED PATTERN #11	363
283	2 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW MULBERRY	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		364
284	11 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	SHOULDER	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		369
284	11 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	RM	LILY	COPELAND	NONE	ENGLAND	1837		1852	1844.5		369
284	11 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	DARK BROWN	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
283	1 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	1	15	BRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1850		1900	1875		
283	1 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	1	40	BRONSTONE, UNDECORATED	HOLLOWWARE	BASE	N/A	UNKNOWN	BURNED	ENGLAND	1850		1900	1875		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	1	20	BRONSTONE, GOTHIC MOLDED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1850		1900	1875	CROSS MENDS	
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	1	40	BRONSTONE, GOTHIC MOLDED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1850		1900	1875	CROSS MENDS	
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	1	30	BRONSTONE, GOTHIC MOLDED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1850		1900	1875		
283	3 TU3-06		3	82-89	IIIIV	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				PORCELAIN	3	20	PORCELAIN, CHINESE EXPORT	GINGER JAR	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		365
282	1 TU3-06	GRAB	0-87	N/A		Mixed deposits; Tayentia House				STONEWARE	1	30	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	RM	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		361
283	1 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	15	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		361
283	1 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	40	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		361
283	1 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	40	GRAY BODY, BROWN SLP GLAZED EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		362
284	2 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	20	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		367
284	2 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	40	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	BASE	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		367
284	2 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	50	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		367
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	30	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	WIDE BLUE BAND, NARROW BROWN BAND, WIDE LIGHT GREEN BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDS	368
283	4 TU3-06		2	82-89	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	30	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	11 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	11 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	15	DARK BROWN	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				IRONSTONE	2	40	BRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
284	2 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	2	30	RED BODY, DARK BROWN SLP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		367
284	1 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
284	11 TU3-06		3	85-98	IIIIV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	3	10	BLUE	FLATWARE	BODY	LILY	COPELAND	NONE	ENGLAND						

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FLAT	FLAT LEV	#	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL
287	6 T13-07		2	82-90 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	DARK BROWN	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	372
287	6 T13-07		2	82-90 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	DARK BROWN	SAUCER	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	373
292	8 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	DARK BROWN	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	376
292	8 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	RM	BRITISH FLOWERS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1852	1840.5	377
292	8 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	PINK	CUP	RM	FRENCH RADIATING SPRIGS	COPELAND	NONE	ENGLAND	1833		1852	1842.5	378
287	6 T13-07		2	82-90 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	373
292	8 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	BURGUNDY	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	376
292	6 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				PORCELAIN	1	30	PORCELAIN, SOFT PASTE, HAND DECORATED	CUP	BASE	GOLD LEAF BAND ON FOOT	UNKNOWN	NONE	EUROPE	1829		1860	1844.5	374
292	10 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	20	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5	379
292	6 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	30	WHITEWARE, COTTAGEWARE DECORATION	CUP	BODY	HAND PAINTED MEDIUM GREEN AND DARK GREEN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	375
292	6 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	30	WHITEWARE, UNDECORATED	CUP	BODY	LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	375
287	6 T13-07		2	82-90 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	HOLLOWWARE	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	372
292	8 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	10	FLOW MULBERRY	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	373
287	5 T13-07		2	82-90 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	372
292	6 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	373
292	6 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	374
292	8 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	3	10	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	375
292	6 T13-07		3	85-98 IIIV		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	5	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	376
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	INTERIOR	MUG/JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	380
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	LUSTERWARE, RED BODY, BROWN LUSTER	MUG/JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	381
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	380
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	BLUE	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	382
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	MOCHIAWARE	HOLLOWWARE	BODY	DARK GREEN DENDRITIC PATTERN ON OFF WHITE BACKGROUND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	395
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	MOCHIAWARE	MUG/JUG	BODY	DARK GREEN DENDRITIC PATTERN ON OFF WHITE BACKGROUND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	395
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	MOCHIAWARE	MUG/JUG	BODY	DARK GREEN DENDRITIC PATTERN ON OFF WHITE BACKGROUND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	395
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	MOCHIAWARE	MUG/JUG	BODY	MEDIUM BLUE NARROW BAND	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	395
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	MOCHIAWARE	MUG/JUG	BODY	MEDIUM BLUE NARROW BAND	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	395
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	CUP	BODY	HAND PAINTED MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	396
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	SAUCER	BODY	HAND PAINTED MEDIUM GREEN AND BLUE LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	396
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	397
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	CUP	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	398
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	CUP	BODY AND HANDLE	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	398
296	12 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	YELLOWWARE, TRANSFERPRINTED	CUP	BODY	BLACK CURSIVE PARTIAL LETTER	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	399
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	395
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	396
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	RM	N/A	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	397
295	4 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	398
296	10 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	399
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	SAUCER	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	383
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	FOOT	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	383
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SAUCER	RM	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	383
296	12 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	384
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
296	12 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
296	12 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
296	12 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	SHOULDER	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
296	12 T13-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5	385
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	DARK GREEN	PLATE	BODY	SEASON'S VARIATION	COPELAND & GARRETT	BURNED	ENGLAND	1835		1847	1841	386
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	SAUCER	RM	BRITISH FLOWERS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1852	1840.5	387
295	16 T13-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	RM	WARWICK GROUPS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1840		1852	1846	388

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #	
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	10 BROWN		CUP	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		390
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	10 RED		CUP	RIM	WARWICK GROUPS	COPELAND	NONE	ENGLAND	1840		1852	1846		391
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	10 BLUE		CUP	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		392
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	30 BLUE		CUP	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		393
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	20 FLOW MULHERRY		CUP	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		394
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	10 BLUE		CUP	BODY	BYRON VIEWS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		400
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	15 BLUE		SAUCER	BODY	ITALIAN	COPELAND	NONE	ENGLAND	1829		1852	1840.5		402
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	30 BLUE		CUP	BODY	BYRON VIEWS	BROSSELY	NONE	ENGLAND	1829		1852	1840.5		403
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	20 BLUE		SAUCER	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		405
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	20 BLUE		FLATWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	15 FLOW BLUE		FLATWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	10 FLOW MULHERRY		FLATWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	15 RED		HOLLOWWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	15 RED		CUP	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	20 RED		FLATWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	5 BLUE		FLATWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	15 BLUE		FLATWARE	BASE	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	30 BLUE		FLATWARE	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	15 BLUE		FLATWARE	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	10 DARK BLUE		FLATWARE	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	1	20 PURPLE		HOLLOWWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			PORCELAIN	1	15 PORCELAIN, CHINESE EXPORT		HOLLOWWARE	BODY	LATE KANKING STYLE, DARK BLUE HAND PAINTED	UNKNOW	NONE	CHINA	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			PORCELAIN	1	10 PORCELAIN, CHINESE EXPORT		FLATWARE	RIM	LIGHT BLUE HAND PAINTED NARROW BAND	UNKNOW	NONE	CHINA	1829		1860	1844.5		
296	11 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			PORCELAIN	1	10 PORCELAIN, SOFT PASTE, UNDECORATED		HOLLOWWARE	BODY	N/A	UNKNOW	NONE	EUROPE	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			STONEWARE	1	15 EXTERIOR		HOLLOWWARE	BODY	DUFF BODY, COLORLESS SALT GLAZED	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	30 WHITEWARE, UNDECORATED		SAUCER	BASE	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5 CROSS MENDS		397
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	10 WHITEWARE, UNDECORATED		CUP	BODY	N/A	UNKNOW	BURNED	ENGLAND	1829		1860	1844.5		398
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	10 WHITEWARE, COTTAGEWARE DECORATION		HOLLOWWARE	BODY	HAND PAINTED MEDIUM GREEN LEAVES	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	15 WHITEWARE, UNDECORATED		FLATWARE	FOOT	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	20 WHITEWARE, UNDECORATED		HOLLOWWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	30 WHITEWARE, UNDECORATED		HOLLOWWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	10 YELLOWWARE, UNDECORATED		UNKNOW	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	15 YELLOWWARE, UNDECORATED		UNKNOW	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	15 YELLOWWARE, UNDECORATED		HOLLOWWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	2	15 WHITEWARE, UNDECORATED		FLATWARE	RIM	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	15 BLUE		CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		384
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	15 BLUE		CUP	RIM	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		384
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	20 BLUE		CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		384
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	20 BLUE		PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		385
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	20 BLUE		PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		385
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	20 BLUE		PLATE	RIM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		385
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	30 BLUE		PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		385
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	40 GREEN		PLATE	RIM	SEASON'S VARIATION	COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1835		1847	1841 CROSS MENDS		386
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	30 PINK		CUP	RIM	FRENCH RADIATING SPRIGS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5 CROSS MENDS		389
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	15 DARK BLUE		SAUCER	BASE	WATTEAU	COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1840		1852	1846 CROSS MENDS		401
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	5 BLUE		UNKNOW	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	10 BLUE		UNKNOW	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	15 BLUE		HOLLOWWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	15 BLUE		FLATWARE	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	15 BLUE		FLATWARE	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	2	20 BLUE		FLATWARE	BODY	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	3	20 WHITEWARE, UNDECORATED		FLATWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	3	20 WHITEWARE, UNDECORATED		HOLLOWWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	3	10 BLUE		CUP	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		384
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	3	15 BLUE		FLATWARE	RIM	UNKNOW	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	4	15 WHITEWARE, UNDECORATED		FLATWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	4	20 WHITEWARE, UNDECORATED		FLATWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
295	16 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	4	10 BLUE		PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		385
296	12 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE, TRANSFERPRINTED	4	15 BLUE		PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		385
295	4 TU3-08		3	81-93 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE	5	15 WHITEWARE, UNDECORATED		HOLLOWWARE	BODY	N/A	UNKNOW	NONE	ENGLAND	1829		1860	1844.5		
296	10 TU3-08		4	91-104 III		Intact HBC &/or US Army All Periods; Tayentaa House			EARTHENWARE															

PRELIMINARY

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT - LEV	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	UNKNOWN	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL	
296	12 TUS-08	4	91-104 III			Intact HBC &/or US Army All Periods; Tayenta House				EARTHENWARE, TRANSFERPRINTED	8	10	BLUE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
295	4 TUS-08	3	81-93 III			Intact HBC &/or US Army All Periods; Tayenta House				EARTHENWARE	9	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
296	4 TUS-08	4	91-104 III			Intact HBC &/or US Army All Periods; Tayenta House				EARTHENWARE	11	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
295	4 TUS-08	3	81-93 III			Intact HBC &/or US Army All Periods; Tayenta House				EARTHENWARE	23	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
297	10 TUS-09	2	31-40 Ba/III			19th c. Fill/Intact HBC &/or US Army All Periods				EARTHENWARE	1	15	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	BLUE, WITH RAISED MOLDED SPHERES		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	406	
298	5 TUS-09	3	38-47 BIV/IV			Intact HBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	BODY	CANOVA		VARIOUS	NONE	ENGLAND	1830		1845	1837.5	407	
297	9 TUS-09	2	31-40 Ba/III			19th c. Fill/Intact HBC &/or US Army All Periods				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
297	9 TUS-09	2	31-40 Ba/III			19th c. Fill/Intact HBC &/or US Army All Periods				EARTHENWARE	1	30	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
297	10 TUS-09	2	31-40 Ba/III			19th c. Fill/Intact HBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	1	10	PURPLE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
297	9 TUS-09	2	31-40 Ba/III			19th c. Fill/Intact HBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	20	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
297	8 TUS-09	2	31-40 Ba/III			19th c. Fill/Intact HBC &/or US Army All Periods				PORCELAIN	1	15	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BASE	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
298	2 TUS-09	3	38-47 BIV/IV			Intact HBC &/or US Army All Periods				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
298	5 TUS-09	3	38-47 BIV/IV			Intact HBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
298	5 TUS-09	3	38-47 BIV/IV			Intact HBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
300	3 TUS-10	3	54-65 IV			19th c. Fill, McLaughlin Road				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
300	3 TUS-10	3	54-65 IV			19th c. Fill, McLaughlin Road				EARTHENWARE, TRANSFERPRINTED	1	20	BLACK	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
301	2 TUS-11	2	29-41 Ba			19th c. Fill				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
301	2 TUS-11	2	29-41 Ba			19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
305	1 TUS-12	4	57-63 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	15	MOCILWARE	MUG/JUG	BODY	YELLOW BODY, MEDIUM BLUE BANDS		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	408	
305	1 TUS-12	4	57-63 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	15	MOCILWARE	MUG/JUG	RM	YELLOW BODY, MEDIUM BLUE BANDS		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	408	
305	1 TUS-12	4	57-63 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	40	WHITEWARE, UNDECORATED	JUG	BASE	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	409	
305	3 TUS-12	4	57-63 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	RM	BROSELEY		COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1852	1840.5	410	
307	2 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	2	20	DARK BLUE	WASH BASIN	BODY	WATTEAU		COPELAND & GARRETT, W.T.	NONE	ENGLAND	1840		1852	1846	411	
307	2 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BASE	CAMILLA		COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5	412	
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	30	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	NARROW DARK BROWN BAND, WIDE BLUE BAND		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	413	
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	BODY	LILY		COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1853	1845	414	
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	PLATE	BODY	CAMILLA		COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5	415	
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	BODY	CAMILLA		COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5	415	
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BODY	CAMILLA		COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5	415	
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	PLATE	BODY	PORTLAND VASE		COPELAND & GARRETT	NONE	ENGLAND	1831		1847	1839	416	
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	417	
304	2 TUS-12	3	52-59 IIIc			Undif 20th/19th c. Fill; Kanaka house				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
305	1 TUS-12	4	57-63 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
305	1 TUS-12	4	57-63 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	5	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	BASE	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A		UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A		UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	RM	N/A		UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
307	7 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	10	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	2 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	3	10	BLUE	FLATWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
307	2 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BASE	UNKNOWN		UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
307	2 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	2	20	DARK BLUE	HOLLOWWARE	BODY	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDS	
308	6 TUS-12	5	61-71 IIIa			19th c. Fill; Kanaka house			21	4	EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
308	6 TUS-12	5	61-71 IIIa			19th c. Fill; Kanaka house			21	4	EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
308	6 TUS-12	5	61-71 IIIa			19th c. Fill; Kanaka house			21	4	EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
308	5 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	FLATWARE	BASE	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
308	5 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	CAMILLA		COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5		
308	5 TUS-12	5	61-71 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	CAMILLA		COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5		
309	4 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	BROWN NARROW LINE, LIGHT BLUE HAND PAINTED		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
309	4 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
309	10 TUS-12	6	71-79 BIV/IV			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	RM	UNKNOWN		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
313	8 TUS-13	3	60-73 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	RM	MACAW/PAGODA		COPELAND & GARRETT, W.T.	NONE	ENGLAND	1838		1852	1845	418	
313	9 TUS-13	3	60-73 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	SAUCER	BASE	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	IMPRESSED MAKER'S MARK, ILLEGIBLE	
312	2 TUS-13	2	50-67 IIIc			Undif 20th/19th c. Fill; Kanaka house				IRONSTONE	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A		UNKNOWN	BURNED	ENGLAND	1850		1900	1875			
313	9 TUS-13	3	60-73 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
313	9 TUS-13	3	60-73 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
313	8 TUS-13	3	60-73 III			Intact HBC &/or US Army All Periods; Kanaka house				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	MARINE OR MARINO		G. PHILLIPS	NONE	ENGLAND	1834		1838	1836		
313	9 TUS-13	3	6																							

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #	
323	8 TU3-16		4	98-108	III/IV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	CLUSTERWARE, BROWN EXTERIOR, WHITE INTERIOR	MUG/JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	422	
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	CUP	FOOT	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	425	
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	CLUSTERWARE, BROWN EXTERIOR, WHITE INTERIOR	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	15	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
322	1 TU3-16		3	94-99	III/IV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	423	
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SAUCER	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5	423	
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	424	
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	RED	SAUCER	RD	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	426	
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
322	2 TU3-16		3	94-99	III/IV	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	BYRON VILWS	COPELAND & GARRETT, W.T.	BURNED	ENGLAND	1833		1852	1842.5		
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				STONEWARE	1	20	BUFF BODY, COLORLESS SALT GLAZED	BOTTLE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	427	
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	2	10	BROWN	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	3	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	3	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	7 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE	4	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
321	6 TU3-16		2	83-95	III	Intact HBC &/or US Army All Periods; Tayentia House				EARTHENWARE, TRANSFERPRINTED	5	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
326	7 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	PLATE	BASE	WILLOW	VARIOUS	NONE	ENGLAND	1829		1860	1844.5	428	
326	7 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	BASE	WILLOW	VARIOUS	NONE	ENGLAND	1829		1860	1844.5	428	
326	7 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BASE	WILLOW	VARIOUS	NONE	ENGLAND	1829		1860	1844.5	428	
326	7 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	BASE	WILLOW	VARIOUS	NONE	ENGLAND	1829		1860	1844.5	428	
326	7 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	PLATE	BASE	WILLOW	VARIOUS	NONE	ENGLAND	1829		1860	1844.5	428	
326	3 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	CUP	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	429	
326	3 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	40	YELLOW BACKGROUND TINT, BLACK TRANSFER	CUP	RD	BASE	UNIDENTIFIED, PERSONALIZED CUP STYLE WITH OAK LEAVES AND RINGS AROUND RD. A "L.E." UNDERMATH	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	430
326	3 TU3-17		3	115-120	I/b	20th c. Fill				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
326	3 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE	4	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
326	3 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
326	3 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
326	7 TU3-17		4	116-127	I/c	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
330	1 TU3-19		2	33-59	I/b	20th c. Fill; ca. 1859 Quartermasters stable building				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	RD	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
333	2 TU3-19		5	68-81	I/c/III	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
339	1 TU3-19		6	78-93	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	27		2	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
340	1 TU3-19		7	89-105	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	27		3	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
345	6 TU3-20		3	107-119	I/b	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building				IRONSTONE	1	40	IRONSTONE, UNDECORATED	PLATE	RD	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	431	
349	4 TU3-20		5	123-135	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	29		1	STONEWARE	1	30	EXTERIOR	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5	432	
345	5 TU3-20		3	107-119	I/b	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building				PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	EUROPE	1829		1860	1844.5		
349	3 TU3-20		5	123-135	I/c	Undif 20th/19th c. Fill; ca. 1859 Quartermasters stable building	29		1	IRONSTONE	1	10	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
357	4 TU3-22		5	41-54	III/IV	Intact HBC &/or US Army All Periods				IRONSTONE	1	15	IRONSTONE, UNDECORATED	CUP	RD	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	433	
357	4 TU3-22		5	41-54	III/IV	Intact HBC &/or US Army All Periods				IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	PLATE	RD	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840		1870	1855	434	
353	7 TU3-22		1	2-22	I/b	20th c. Fill				IRONSTONE	1	10	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
353	7 TU3-22		1	2-22	I/b	20th c. Fill				IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
356	6 TU3-22		4	32-44	I/c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
357	4 TU3-22		5	41-54	III/IV	Intact HBC &/or US Army All Periods				IRONSTONE	2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	CROSS MENDS	
356	11 TU3-22		4	32-44	I/c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				PORCELAIN	1	10	PORCELAIN, SOFT PASTE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	EUROPE	1829		1860	1844.5		
359	5 TU3-22		6	53-70	I/a	19th c. Fill	35		1	STONEWARE	1	15	BUFF BODY, DARK BROWN SLIP GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, BLUSH TINT	CUP	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	PROBABLY FLOW BLUE DECORATED	16
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, BLUSH TINT	CUP	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	PROBABLY FLOW BLUE DECORATED	16
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	CUP	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		17
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, BLUE SHELL EDGE DECORATED	PLATTER	RD	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		18
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, BLUE SHELL EDGE DECORATED	PLATTER	RD	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		18
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, BLUE SHELL EDGE DECORATED	PLATE	RD	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		19
74	1 TU4-01		1	0-10	I/II	Modern Sod & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	4	15	DARK BLUE	SAUCER	BODY	ITALIAN	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829					

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LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #	
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	3	15	BLUE	PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		55
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	30	BLUE	PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		55
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	3	30	BLUE	PLATE	RIM	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		55
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	4	15	BLUE	PLATE	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		56
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		56
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BASE	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		56
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	RIM	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837		1852	1844.5		56
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	60	BLUE	PLATE	BASE	BYRON GROUPS-HOLOGNA	COPELAND & GARRETT	NONE	ENGLAND	1833		1852	1842.5		57
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	BODY	PAGODA	COPELAND & GARRETT	NONE	ENGLAND	1838		1852	1845		58
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SAUCER	BASE	PAGODA	COPELAND & GARRETT	NONE	ENGLAND	1838		1852	1845		58
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	DARK BLUE	CUP	BODY	WATTEAU	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1847		1852	1849.5		59
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	LIGHT BLUE	CUP	RIM	BROSLEY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1818		1852	1835		60
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	FLOW BLUE	SAUCER	RIM	FRENCH RADIATING SPRIGS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833		1852	1842.5		61
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	SHOULDER	ITALIAN	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1852	1840.5		62
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	DARK FLOW BLUE	SAUCER	RIM	B700	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1838		1852	1845		63
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	DARK FLOW BLUE	SAUCER	BODY	B772	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1839		1852	1845.5		64
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	DARK FLOW BLUE	CUP	RIM	B772	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1839		1852	1845.5		65
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	DARK FLOW BLUE	CUP	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850		66
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	HANDLE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		67
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	GREEN	PLATE	BODY	SEASONS VARIATION	COPELAND & GARRETT	NONE	ENGLAND	1835		1847	1841		68
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		69
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	RIM	FRUIT AND FLOWERS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1826		1852	1839		70
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	CUP	BODY	CONTINENTAL VIEWS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1845		1852	1848.5		71
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	CUP	BODY	CONTINENTAL VIEWS	COPELAND	NONE	ENGLAND	1845		1852	1848.5		71
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		72
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		72
75	10	TU4-01	2	8-17	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		72
81	11	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				PORCELAIN	1	10	PORCELAIN, CHINESE EXPORT	BOWL	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		74
81	11	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				PORCELAIN	1	20	PORCELAIN, CHINESE EXPORT	BOWL	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		74
81	11	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	BOWL	RIM	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		74
86	10	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4B				PORCELAIN	1	20	PORCELAIN, CHINESE EXPORT	BOWL	BODY	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		74
81	12	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	15	GLAZED EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		75
81	12	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	20	GLAZED EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		75
81	12	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	30	GLAZED EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		75
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	15	YELLOWWARE, UNDECORATED	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		76
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		76
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	30	YELLOWWARE, UNDECORATED	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		76
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	LUSTERWARE, RED BODY, WHITE INTERIOR GLAZE, BROWN LUSTER EXTERIOR GLAZE	MUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		77
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	20	LUSTERWARE, RED BODY, WHITE INTERIOR GLAZE, BROWN LUSTER EXTERIOR GLAZE	MUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		77
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	10	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	LIGHT GREEN BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		78
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	20	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	WIDE LIGHT GREEN BAND, NARROW WHITE BAND,	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		78
81	13	TU4-01	3	15-20	Ic:III	Undif 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	WIDE LIGHT GREEN BAND, NARROW WHITE BAND,	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		78

PRELIMINARY

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT.	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #	
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	YELLOW BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		78
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, BANDED DECORATION	SAUCER	RM	NARROW BROWN BAND ON INNER RM	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	SEE FOVA 36096	79
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, COTTAGEWARE DECORATION	SAUCER	BODY	LIGHT GREEN HAND PAINTED LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	SEE FOVA 36096	79
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	30	WHITEWARE, UNDECORATED	SAUCER	FOOT	DOUBLE FOOT RING	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		80
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	40	WHITEWARE, UNDECORATED	SAUCER	FOOT	SINGLE FOOT RING	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		81
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	SAUCER	FOOT	SINGLE FOOT RING	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		82
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	CUP	HANDLE	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		83
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	40	WHITEWARE, UNDECORATED	CUP	FOOT	TALL FOOT	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		83
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	CUP	FOOT	TALL FOOT	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		84
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	30	WHITEWARE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		85
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	40	WHITEWARE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		85
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		86
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	PLATE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	DISTINCTIVE BLUE PUDDLING AROUND	87
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	5	30	WHITEWARE, UNDECORATED	DISH, SERVING	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	THREE SHERDS CROSS MEND	88
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	40	WHITEWARE, UNDECORATED	DISH, SERVING	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		88
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	50	WHITEWARE, UNDECORATED	DISH, SERVING	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		88
81	13	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	60	WHITEWARE, UNDECORATED	DISH, SERVING	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		88
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	20	WHITEWARE, SHELL EDGE DECORATION	PLATTER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		89
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	30	WHITEWARE, SHELL EDGE DECORATION	PLATTER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		89
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	40	WHITEWARE, SHELL EDGE DECORATION	PLATTER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		89
86	6	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, SHELL EDGE DECORATION	PLATTER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		89
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, SHELL EDGE DECORATION	PLATTER	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		89
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		90
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, SHELL EDGE DECORATION	PLATE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		90
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	FLOW BLUE	CUP	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5	CROSS MENDS	91
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	50	FLOW BLUE	CUP	HANDLE	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5	CROSS MENDS	91
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	FLOW BLUE	CUP	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		91
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	FLOW BLUE	CUP	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		91
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	FLOW BLUE	CUP	RM	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		91
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	FLOW BLUE	CUP	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		91
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	CUP	BODY	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		92
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	FLOW BLUE	CUP	BODY	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		92
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	SAUCER	BODY	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		92
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	3	20	DARK FLOW BLUE	CUP	RM	B772	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1839		1853	1846		93
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	PLATE	BODY	CAMILLA	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833		1853	1843		94
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	PLATE	BODY	CAMILLA	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833		1853	1843		94
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BODY	CAMILLA	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833		1853	1843		94
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	CUP	BODY	LILY	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1853	1845		95
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	RM	LILY	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1853	1845		95
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BROWN	SAUCER	FOOT	LILY	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1853	1845		96
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	3	20	BROWN	PLATE	FOOT	CANOVA	UNKNOWN COPELAND & GARRETT	NONE	ENGLAND	1830		1845	1837.5		97
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	BROWN	PLATE	BODY	SEASONS VARIATION	UNKNOWN COPELAND & GARRETT	NONE	ENGLAND	1835		1853	1844		98
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	RM	AESOP'S FABLES	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1830		1853	1841.5		99
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	RM	AESOP'S FABLES	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1830		1853	1841.5		99
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	FOOT	BYRON VIEWS	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833		1853	1843		100
81	14	TU4-01	3	15-20	10c/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	RM	FRUIT AND FLOWERS	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1826		1853	1839.5		101

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	RM	FRUIT AND FLOWERS	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1826	1853	1839.5		101	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	10	DARK BLUE	CUP	RM	WATTEAU	W.T. COPELAND	NONE	ENGLAND	1846	1853	1849.5		102	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	DARK BLUE	CUP	RM	WATTEAU	W.T. COPELAND	NONE	ENGLAND	1846	1853	1849.5		102	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1840	1845	1837.5		103	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		103	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5	CROSS MENDS WITH LOT R1 SPEC 14	103	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5	CROSS MENDS WITH LOT R1 SPEC 14	103	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		103	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	30	BLUE	PLATE	BODY	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		103	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	CUP	RM	BROSELEY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1829	1853	1841		104	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	SAUCER	BASE	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		105	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	BASE	PAGODA	COPELAND & GARRETT	NONE	ENGLAND	1838	1853	1845.5		106	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	PLATE	BASE	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829	1860	1844.5		107	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SAUCER	BODY	HYRON VIEWS	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833	1853	1843		108	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	40	DARK BLUE	CUP	SHOULDER	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		109	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	RM	CHINESE FLOWERS	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1829	1853	1841		110	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #1	111	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #1	111	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	30	BLUE	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #1	111	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	4	30	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	6	15	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	8	20	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #2	112	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	20	DARK BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #3, CROSS MENDS	113	
81	14 TU4-01		3	15-20	Ic-IIl	Usd1/ 20th/19th c., Fill & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	UNKNOWN PATTERN #4	114	
86	3 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	1	15	LUSTERWARE, RED BODY, WHITE INTERIOR GLAZE, BROWN LUSTER EXTERIOR GLAZE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		115	
86	3 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	1	50	GLAZE, BROWN LUSTER EXTERIOR GLAZE	CUP	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		115	
86	3 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	1	15	WHITEWARE, UNDECORATED	CUP	HANDLE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		116	
86	3 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	1	30	WHITEWARE, UNDECORATED	PLATE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		117	
86	3 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	1	40	WHITEWARE, UNDECORATED	PLATE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	IMPRESSED MAKER'S MARK, "JAL"	118	
86	4 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			STONEWARE	1	40	GRAY BODY, GRAY SALT GLAZED EXTERIOR BUFF BODY, DARK BROWN SLIP GLAZE	BOTTLE	BODY	UNKNOWN	UNKNOWN	NONE	EUROPE	1829	1860	1844.5		119	
86	4 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			STONEWARE	1	30	EXTERIOR	FOOD POT	BODY	UNKNOWN	UNKNOWN	NONE	CHINA	1829	1860	1844.5		120	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	RM	AESOP'S FABLES-THE FOX AND THE GRAPES	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1830	1852	1841		121	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	CUP	RM	AESOP'S FABLES-THE FOX AND THE GRAPES	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1830	1852	1841		121	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	BODY	AESOP'S FABLES-THE FOX AND THE GRAPES	COPELAND & GARRETT, W.T. COPELAND	BURNED	ENGLAND	1830	1852	1841		121	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	FOOT	CAMILLA	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833	1852	1842.5		122	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	5	DARK FLOW BLUE	CUP	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848	1852	1850		123	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	15	DARK FLOW BLUE	CUP	RM	RUINS	W.T. COPELAND	NONE	ENGLAND	1848	1852	1850		123	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	DARK FLOW BLUE	PLATE	BASE	RUINS	W.T. COPELAND	NONE	ENGLAND	1848	1852	1850		124	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	RM	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837	1852	1844.5		125	
91	1 TU4-01		7	45-57	IV	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	RM	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837	1853	1845		125	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	2	15	DARK BLUE	CUP	BODY	WATTEAU	W.T. COPELAND	NONE	ENGLAND	1848	1852	1850		126	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	20	RED	PLATE	FOOT	LILY	COPELAND	NONE	ENGLAND	1837	1852	1844.5		127	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	4	10	BLUE	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		128	
86	6 TU4-01		4	20-25	III	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		129	
89	2 TU4-01		5	25-36	III-IV	Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	CUP	SHOULDER	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		130	
74	1 TU4-01		1	0-10	I-III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	POT	ENGLAND	1829	1860	1844.5		
74	1 TU4-01		1	0-10	I-III	Modern Sod & Intact HBC &/or US Army All Periods; House 4B			EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	LIDDED	ENGLAND	1829	1860	1844.5		
74	6 TU4-01		1	0-10	I-III																			

PRELIMINARY

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LOI	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP			FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL#	
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	3	30	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	15	DARK BLUE	FLATWARE	BODY	WATTHAU	UNKNOWN	NONE	ENGLAND	1847		1852	1849.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	10	DARK BLUE	FLATWARE	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	10	DARK FLOW BLUE	FLATWARE	BODY	RUNS	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	2	10	DARK FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	20	DARK FLOW BLUE	FLATWARE	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	20	DARK FLOW BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	30	DARK FLOW BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	2	40	DARK FLOW BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	10	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	30	GREENISH BLUE	FLATWARE	FOOT	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	3	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
75	3	TU4-01	2	8-17	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	SHOULDER	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	30	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	30	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	7	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	7	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	9	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	3	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	40	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	6	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	2	30	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	TALL FOOT	UNKNOWN	HEAVILY CRAZED	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	3	10	WHITEWARE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	3	20	WHITEWARE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	4	10	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	2	15	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	13	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	15	BLACK	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CHECKERBOARD PATTERN	
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	LILY	UNKNOWN	COPELAND & GARRETT, W.T. COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1853	1845	
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	FLATWARE	BASE	ITALIAN	UNKNOWN	NONE	ENGLAND	1829		1853	1841	BASE MARK "COPELAND", PROBABLY	
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BASE	UNKNOWN	W.T. COPELAND	NONE	ENGLAND	1847		1853	1850	"COPELAND LATE SPODE" MARK	
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	FOOT	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	RIM	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	2	30	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	5	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	34	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	24	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	Be-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4B						EARTHENWARE, TRANSFERPRINTED	3	15	BLUE	HOLLOWWARE	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		

LOT#	SPEC	UNIT	LEV	DPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE	WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	7	20	BLUE			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	4	20	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	5	30	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	4	40	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	50	BLUE			FLATWARE	BASE	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	2	30	BROWN			FLATWARE	BASE	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	10	BROWN			FLATWARE	BASE	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	40	DARK BLUE			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	4	15	DARK FLOW BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	4	20	DARK FLOW BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	2	30	DARK FLOW BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	3	10	DARK FLOW BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
81	14	TU4-01	3	15-20	1c-II	Undrf 20th/19th c. Fill & Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	2	15	RED			FLATWARE	BASE	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	CROSS MENDES	
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	15	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	20	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	30	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	5	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2	10	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	4	15	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	30	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2	10	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	4	15	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2	15	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	4	30	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2	20	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	3	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	20	YELLOWWARE, UNDECORATED			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	30	BLUE			HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	6	5	BLUE			UNKNOWN	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	27	10	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	7	15	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	4	20	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	2	30	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	40	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	BROWN			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	20	BROWN			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
86	6	TU4-01	4	20-25	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE			FLATWARE	BASE	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	INKED MARKER'S MARK, "PEA"/"FOR"	
89	1	TU4-01	5	25-36	III/IV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	10	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
89	1	TU4-01	5	25-36	III/IV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	15	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
89	1	TU4-01	5	25-36	III/IV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	30	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
89	1	TU4-01	5	25-36	III/IV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2	10	WHITEWARE, UNDECORATED			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
90	3	TU4-01	6	35-45	IIIV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	3	5	WHITEWARE, UNDECORATED			UNKNOWN	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
90	3	TU4-01	6	35-45	IIIV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	15	WHITEWARE, UNDECORATED			UNKNOWN	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
90	2	TU4-01	6	35-45	IIIV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	2	10	BLUE			UNKNOWN	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
90	2	TU4-01	6	35-45	IIIV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE			FLATWARE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
91	2	TU4-01	7	45-57	IV	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	1	15	WHITEWARE, UNDECORATED			HOLLOWWARE	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
92	6	TU4-02	1	0-15	I/II	Modern Soil & Intact HBC &/or US Army All Periods; House 4I	STONEWARE	1	30	DARK BROWN SALT GLAZED EXTERIOR, BUFF BODY, CLEAR SALT GLAZED INTERIOR			CROCK	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		131
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE			CUP	RIM	CAMILLA	UNKNOWN	UNKNOWN	NONE	ENGLAND	1833		1852	1842.5		132
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	DARK FLOW BLUE			CUP	BODY	B772	UNKNOWN	UNKNOWN	NONE	ENGLAND	1839		1852	1845.5		133
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	3	20	DARK FLOW BLUE			CUP	BODY	B772	UNKNOWN	UNKNOWN	NONE	ENGLAND	1839		1852	1845.5		133
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	10	RED			PLATE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	UNKNOWN PATTERN #4	134
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	15	RED			PLATE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	UNKNOWN PATTERN #4	134
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	20	RED			UNKNOWN	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	UNKNOWN PATTERN #4	134
93	1	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE, TRANSFERPRINTED	1	40	RED			PLATE	BODY	UNKNOWN	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	UNKNOWN PATTERN #4	134
93	3	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	STONEWARE	3	20	EXTERIOR			BOTTLE	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		135
93	3	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	STONEWARE	2	20	EXTERIOR			BOTTLE	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		136
93	3	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	STONEWARE	1	40	EXTERIOR			CROCK	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		137
93	3	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	STONEWARE	1	50	INTERIOR			CROCK	BODY	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		138
93	5	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2	20	WHITEWARE, BANDED DECORATION			SLOP BOWL	SHOULDER	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		139
93	5	TU4-02	2	18-27	III	Intact HBC &/or US Army All Periods; House 4I	EARTHENWARE	2																	

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT LEV	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL#
94	4 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	DARK FLOW BLUE	CUP	BODY	B772	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1839	1852	1845.5		143
94	4 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	DARK FLOW BLUE	CUP	BODY	B772	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1839	1853	1846		143
94	5 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				STONEWARE	2	40	AND EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		144
92	5 TU4-02	1	0-15 VIII			Modern Sud & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
92	5 TU4-02	1	0-15 VIII			Modern Sud & Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BROWN	FLATWARE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	RESEMBLES "PEACOCK" PATTERN	
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	LIGHT BLUE WIDE BAND	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	WIDE BLUE BAND	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	MEDIUM GREEN HAND PAINTED LEAF	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	MEDIUM GREEN HAND PAINTED LEAF	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				UNKNOWN	11	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	5 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	7	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	HOLLOWWARE	SHOULDER	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
93	1 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	FLATWARE	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848	1852	1850		
94	4 TU4-02	2	10-27 III			Intact HBC &/or US Army All Periods; House 4B				UNKNOWN	1	5	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	EUROPE	1829	1860	1844.5		
94	6 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	MEDIUM GREEN HAND PAINTED LEAF	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	6 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	6 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	6	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	6 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	6 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	BURNED	ENGLAND	1829	1860	1844.5		
94	6 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	4 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	MACAW/PAGODA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1838	1852	1845		
94	4 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	4 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BROWN	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
94	5 TU4-02	3	18-30 III			Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	15	EXTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
97	1 TU4-03	2	4-16 IIc			Unit# 20b/19b c. Fill, House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	BODY	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837	1852	1844.5		146
97	1 TU4-03	2	4-16 IIc			Unit# 20b/19b c. Fill, House 4B				STONEWARE	1	10	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		147
97	1 TU4-03	2	4-16 IIc			Unit# 20b/19b c. Fill, House 4B				STONEWARE	1	20	RED BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		147
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		148
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	PLATE	BODY	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		148
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BODY	CAMILLA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1833	1852	1842.5		149
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	SAUCER	BODY	MACAW/PAGODA	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1838	1852	1845		149
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	DARK FLOW BLUE	CUP	BODY	B772	COPELAND	NONE	ENGLAND	1839	1852	1845.5		150
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	DARK FLOW BLUE	CUP	BODY	B772	W.T. COPELAND	NONE	ENGLAND	1839	1852	1845.5		150
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BROWN	CUP	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829	1860	1844.5		151
98	1 TU4-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	RED	CUP	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829	1860	1844.5		152
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	3	20	DARK BLUE	SAUCER	BODY	WILLOW	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		154
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	DARK BLUE	SAUCER	BODY	WILLOW	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		154
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	DARK BLUE	SAUCER	RM	WILLOW	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	CROSS MENDS	154
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	DARK BLUE	SAUCER	RM	WILLOW	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	CROSS MENDS	154
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	4	40	DARK BLUE	SAUCER	FOOT	WILLOW	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	CROSS MENDS	155
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	BODY	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		155
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATE	BODY	CANOVA	UNKNOWN	NONE	ENGLAND	1830	1845	1837.5		155
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	RM	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837	1852	1844.5		156
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	SAUCER	FOOT	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		156
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	RM	LILY	COPELAND	NONE	ENGLAND	1837	1852	1844.5		157
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		157
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	BLACK	CUP	RM	CANOVA	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		158
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	20	FLOW BLUE	CUP	RM	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848	1852	1850		158
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	FOOT	CHINESE FLOWERS	COPELAND & GARRETT, W.T.	USE WEAR	ENGLAND	1829	1852	1840.5		159
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	BROWN	CUP	RM	TYROLEAN	COPELAND & WILIAM RIDGWAY & CO.	NONE	ENGLAND	1834	1854	1844		159
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	30	BLUE	PLATE	SHOULDER	UNION	COPELAND & GARRETT	NONE	ENGLAND	1829	1847	1838		160
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	SHOULDER	UNION	COPELAND & GARRETT	NONE	ENGLAND	1829	1847	1838		160
99	1 TU4-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B			</															

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAIT	ANALYSIS OCCUPATION GROUP	FEAT.	FEAT. LEV.	F	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, BANDED DECORATION	SLOP BOWL	RM	HAND PAINTED, DARK BROWN RM BAND, BLUE HAND PAINTED FLOWER	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	163
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, BANDED DECORATION	SLOP BOWL	BODY	MEDIUM BLUE WIDE BAND HAND PAINTED VIOLET FLOWERS AND MEDIUM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	163
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, COTTAGEWARE DECORATION	SLOP BOWL	BODY		UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	164
100	1 T14-03	5	25-35 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	40	WHITEWARE, COTTAGEWARE DECORATION	SLOP BOWL	BODY	MEDIUM GREEN HAND PAINTED LEAF	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	164
99	6 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				STONEWARE	2	10	AND EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	165
99	6 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	40	EXTERIOR, UNGLAZED INTERIOR	BOTTLE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	166
96	4 T14-03	1	-3 to 10 I			Modern Ssd; House 4B				EARTHENWARE	1	10	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	BLUSH GREEN WIDE BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
96	4 T14-03	1	-3 to 10 I			Modern Ssd; House 4B				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
96	4 T14-03	1	-3 to 10 I			Modern Ssd; House 4B				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
96	3 T14-03	2	-4 to 16 IIc			Modern Ssd; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
96	3 T14-03	1	-3 to 10 I			Modern Ssd; House 4B				EARTHENWARE	1	15	DARK BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
96	3 T14-03	1	-3 to 10 I			Modern Ssd; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	2 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE	2	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	2 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE	6	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	2 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
97	2 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
97	2 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	1 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	1 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	1 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	2	5	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	1 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
97	1 T14-03	2	-4 to 16 IIc			Undf 20th/19th c. Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	1	20	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	1 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	WIDE BLUE BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	2 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, BANDED DECORATION	HOLLOWWARE	RM	NARROW BROWN BAND ON RM	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	2 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, BANDED DECORATION	HOLLOWWARE	RM	NARROW BROWN BAND ON RM	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
98	2 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	14	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	2 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	6	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	2 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	4	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	1 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	1 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	6	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	1 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	DARK FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
98	1 T14-03	3	12-20 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	UNKNOWN	BODY	ALHAMBRA	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	GLAZE, BROWN LUSTER EXTERIOR GLAZE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	BROWN WIDE BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	20	WHITEWARE, BANDED DECORATION	HOLLOWWARE	RM	NARROW BROWN BAND AROUND RM	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	4	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	20	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	10	15	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	10	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	5	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	40	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	2 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	40	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
99	1 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	1 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	1 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	HOLLOWWARE	FOOT	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	1 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	40	FLOW BLUE	HOLLOWWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
99	1 T14-03	4	15-25 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	GREEN	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
100	1 T14-03	5	25-35 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
100	1 T14-03	5	25-35 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
100	1 T14-03	5	25-35 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
100	1 T14-03	5	25-35 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	40	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
101	1 T14-03	6	35-47 III			Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	5	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	1 T14-04	3	14-24 IIa/II			19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	10	PINK	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	167
104	3 T14-04	3	14-24 IIa/II			19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	15	EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	168
104	3 T14-04	3	14-24 IIa/II			19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				STONEWARE	3	30	INTERIOR AND EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	169
107	3 T14-04	5	21-30 IIa/II			19th c. Fill/Intact HBC &/or US Army All Periods; House 4B																		

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #
103	8 TU4-04		2	7-15	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
103	8 TU4-04		2	7-15	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
103	8 TU4-04		2	7-15	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
103	8 TU4-04		2	7-15	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	1 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	MOCIAWARE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	2 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, BANDED DECORATION	FLATWARE	RIM	DARK BROWN BAND AROUND RIM	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	2 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	2 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	1 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	6	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	1 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	1 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	FLATWARE	BODY	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1852	1844.5	
104	1 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	15	DARK FLOW BLUE	FLATWARE	BODY	RUINS	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850	
104	1 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
104	3 TU4-04		3	14-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	30	EXTERIOR	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
106	1 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	9	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
106	1 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
106	1 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
106	2 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	4	10	BLUE	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
106	2 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	UNKNOWN	RIM	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1852	1844.5	
106	2 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	RED	FLATWARE	BODY	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1852	1844.5	
106	3 TU4-04		4	19-24	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				STONEWARE	1	15	BUFF BODY WITH DARK BROWN SALT GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	5	LUSTERWARE, RED BODY, WHITE INTERIOR GLAZE, BROWN LUSTER EXTERIOR GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	LUSTERWARE, RED BODY, WHITE INTERIOR GLAZE, BROWN LUSTER EXTERIOR GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	LUSTERWARE, RED BODY, WHITE INTERIOR GLAZE, BROWN LUSTER EXTERIOR GLAZE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	1 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, BANDED DECORATION	HOLLOWWARE	BODY	DARK BROWN BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	5	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	3	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	HOLLOWWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	2 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE	1	20	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	1 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	3	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	1 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	4	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
107	1 TU4-04		5	21-30	Ia/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1852	1844.5	
110	2 TU4-05		2	6-20	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
110	1 TU4-05		2	6-20	Ic	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
111	1 TU4-05		3	20-33	IV	Undif 20th/19th c. Fill				EARTHENWARE	1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
112	1 TU4-05		4	30-40	IV	Undif 20th/19th c. Fill				EARTHENWARE	1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
118	1 TU4-07		1	-1 to 10	I/IIc	Modern Soil/Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATE	SIDELDER	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	172
119	1 TU4-07		2	6-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	PLATE	RIM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	173
118	1 TU4-07		1	-1 to 10	I/IIc	Modern Soil/Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
119	1 TU4-07		2	6-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE	3	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
119	1 TU4-07		2	6-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
120	1 TU4-07		3	15-30	Ic/IV	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
120	2 TU4-07		3	15-30	Ic/IV	Undif 20th/19th c. Fill				PORCELAIN	2	15	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
121	2 TU4-07		4	30-40	Ic/IV	Undif 20th/19th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
121	1 TU4-07		4	30-40	Ic/IV	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
122	1 TU4-07		4	30-40	Ic	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
128	2 TU4-08		3	10-23	Ic	Undif 20th/19th c. Fill				STONEWARE	1	50	GRAY BODY, COLORLESS SALT GLAZED EXTERIOR, LIGHT BROWN SALT GLAZED INTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5 IMPRESSED, "EN./E. GLA"	174
130	1 TU4-08		4	16-30	Ic	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	20	DARK FLOW BLUE	CUP	RIM	B772	W.T. COPELAND	NONE	ENGLAND	1839		1852	1845.5	175
126	4 TU4-08		1	-6 to 4	I/IIc	Modern Soil/Undif 20th/19th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
127	1 TU4-08		2	-3 to 10	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	20	WHITEWARE, COTTAGEWARE DECORATION	FLATWARE	BASE	HAND PAINTED DARK BROWN PLANT PACT	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
127	1 TU4-08		2	-3 to 10	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
127	1 TU4-08		2	-3 to 10	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
127	1 TU4-08		2	-3 to 10	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	FOOT	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
128	3 TU4-08		3	10-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	10	WHITEWARE, DECORATED	UNKNOWN	BODY	DARK BROWN UNGLAZED FIELD, TYPE UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
128	3 TU4-08		3	10-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
128	1 TU4-08		3	10-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	CAMILLA	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833		1852	1842.5	
128	1 TU4-08		3	10-23	Ic	Undif 20th/19th c. Fill				EARTHENWARE, TRANSFERPRINTED	1	10	RED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT- LEV	P	OBJECT	N	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL	
128	9 T134-08		3	10-23 Bc	Undif 20th/19th c. Fill					PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
133	1 T134-09		1	0-9 F Bc	Modern Sod/Undif 20th/19th. Fill					STONEWARE	1	15	AND EXTERIOR GRAY BODY, BROWN SALT GLAZED INTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	176	
133	1 T134-09		1	0-9 F Bc	Modern Sod/Undif 20th/19th. Fill					STONEWARE	1	40	INTERIOR AND EXTERIOR LIGHT GRAY BODY, LIGHT GRAY SLIP GLAZED	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	177	
133	2 T134-09		1	0-9 F Bc	Modern Sod/Undif 20th/19th. Fill					EARTHENWARE	1	20	WHITEWARE, COTTAGEWARE DECORATION	SAUCER	BASE	MEDIUM GREEN HAND PAINTED LEAF	UNKNOWN COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1860	1844.5	178	
134	1 T134-09		2	5-20 Bc	Undif 20th/19th. Fill					EARTHENWARE, TRANSFERPRINTED	2	15	BLUE REDWARE, DARK BROWN OX BLOOD SLIP	SAUCER	RM	LILY	UNKNOWN	NONE	ENGLAND	1837		1852	1844.5	179	
134	8 T134-09		2	5-20 Bc	Undif 20th/19th. Fill					STONEWARE	1	20	GLAZE	FOOD POT	BODY	UNKNOWN	UNKNOWN	NONE	CHINA	1829		1860	1844.5	180	
135	2 T134-09		3	20-30 Bc:III	Periods					STONEWARE	1	15	GRAY BODY, BROWN SALT GLAZED INTERIOR	BOTTLE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	181	
134	7 T134-09		2	5-20 Bc	Undif 20th/19th. Fill					EARTHENWARE	3	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
134	1 T134-09		2	5-20 Bc	Undif 20th/19th. Fill					EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
135	1 T134-09		3	20-30 Bc:III	Periods					EARTHENWARE	2	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
136	1 T134-09		4	30-40 Bc	Undif 20th/19th. Fill				3	1	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
136	1 T134-09		4	30-40 Bc	Undif 20th/19th. Fill				3	1	EARTHENWARE, TRANSFERPRINTED	1	10	LIGHT BLUE	FLATWARE	BODY	BROSSELEY	UNKNOWN	NONE	ENGLAND	1829		1852	1840.5	
137	1 T134-09		5	40-50 Bc	Undif 20th/19th. Fill				3	2	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
137	1 T134-09		5	40-50 Bc	Undif 20th/19th. Fill				3	2	EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
138	1 T134-09		4,5	50-60 Bc	Undif 20th/19th. Fill				3	3	EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
138	1 T134-09		4,5	50-60 Bc	Undif 20th/19th. Fill				3	3	EARTHENWARE	2	20	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
139	4 T134-09		1	0-6 F Bc	Modern Sod/Undif 20th/19th. Fill					EARTHENWARE, TRANSFERPRINTED	1	5	RED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
140	2 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE	1	20	WHITEWARE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	182	
140	3 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					PORCELAIN	1	15	PORCELAIN, SOFT PASTE, UNDECORATED	DOLL	UNKNOWN	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	183	
141	1 T134-10		3	15-18 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	LILY	COPELAND	NONE	ENGLAND	1837		1852	1844.5	184	
141	1 T134-10		3	15-18 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	10	DARK FLOW BLUE	CUP	RM	H772	COPELAND	NONE	ENGLAND	1839		1852	1845.5	185	
141	1 T134-10		3	15-18 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	15	RED	CUP	RM	TYROLEAN	WILLIAM	NONE	ENGLAND	1834		1854	1844	186	
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	20	LIGHT BLUE BUFF BODY, DARK BROWN SLIP GLAZE	CUP	RM	UNKNOWN	RIDGWAY & CO. UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	187	
142	2 T134-10		4	17-26 BDb	Intact HBC, House 4b					STONEWARE	1	15	EXTERIOR BUFF BODY, DARK BROWN SLIP GLAZE	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	188	
142	2 T134-10		4	17-26 BDb	Intact HBC, House 4b					STONEWARE	1	40	EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	188	
140	2 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE	2	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
140	2 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE	1	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
140	1 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	3	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
140	1 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	5	BLUE	HOLLOWWARE	BODY	LILY	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1837		1852	1844.5		
140	1 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BODY	LILY	COPELAND	NONE	ENGLAND	1837		1852	1844.5		
141	1 T134-10		2	4-16 Bb:IIIb	20th c. Fill & Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	2	10	RED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
141	2 T134-10		3	15-18 BDb	Intact HBC, House 4b					EARTHENWARE	2	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
141	2 T134-10		3	15-18 BDb	Intact HBC, House 4b					EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
141	1 T134-10		3	15-18 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	BODY	CAMILLA	COPELAND	NONE	ENGLAND	1833		1853	1843		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	4	15	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED DARK GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	12 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	3	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	12 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	5	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	12 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	4	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	12 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	12 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	12 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A	W.T. COPELAND	NONE	ENGLAND	1847		1852	1849.5 IMPRESSED MAKER'S MARK, "COPE"		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	4	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	5	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	2	20	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	20	DARK FLOW BLUE	UNKNOWN	RM	H772	W.T. COPELAND	NONE	ENGLAND	1839		1852	1845.5		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	FLATWARE	BODY	RUNS	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1848		1852	1850		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	10	LIGHT BLUE	FLATWARE	BODY	MACAW/PAGODA	COPELAND	NONE	ENGLAND	1838		1853	1845.5		
142	1 T134-10		4	17-26 BDb	Intact HBC, House 4b					EARTHENWARE, TRANSFERPRINTED	1	10	RED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
144	2 T134-10		5	25-37 BDb	Intact HBC, House 4b					EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
144	2 T134-10		5	25-37 BDb	Intact HBC, House 4b					EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
144	1 T134-10		5	25-37 BDb	Intact HBC, House 4b					EARTHENWARE	1	20	DARK BLUE	FLATWARE	BODY	WATTEAU	W.T. COPELAND COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1847		1852	1849.5		
148	1 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					EARTHENWARE, TRANSFERPRINTED	1	20	PURPLE	SAUCER	RM	BLUE ROSE	UNKNOWN	NONE	ENGLAND	1829		1833	1831	189	
148	1 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	PLATE	RM	CAMILLA	COPELAND & GARRETT, W.T. COPELAND	NONE	ENGLAND	1833		1852	1842.5	INKED MAKER'S MARK, "PELAN" IN A CIRCLE, FROM A COPELAND & GARRETT 1840 MARK	
148	1 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATTER	BASE	UNKNOWN	COPELAND & GARRETT	NONE	ENGLAND	1833		1847	1840 MARK	191	
148	3 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					STONEWARE	1	15	BUFF BODY, BROWN SALT GLAZED EXTERIOR GRAY BODY, COLORLESS SALT GLAZED	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	192	
148	3 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					STONEWARE	1	40	EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	193	
147	2 T134-11		1	0-13 F Bc	Modern Sod/Undif 20th/19th. Fill, House 4b					EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
147	2 T134-11		1	0-13 F Bc	Modern Sod/Undif 20th/19th. Fill, House 4b					EARTHENWARE	1	30	WHITEWARE, UNDECORATED	PLATE	SHOULDER	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
147	1 T134-11		1	0-13 F Bc	Modern Sod/Undif 20th/19th. Fill, House 4b					EARTHENWARE, TRANSFERPRINTED	1	10	DARK FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
148	2 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					EARTHENWARE	2	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
148	2 T134-11		2	9-22 Bc	Undif 20th/19th c. Fill, House 4b					EARTHENWARE	4	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN</									

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT.	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #
148	1 T134-11		2	9-22	IIc	Undif 20th/19th c., Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	1	15	RED	FLATWARE	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5	
149	2 T134-11		3	20-28	IIc	Undif 20th/19th c., Fill; House 4B				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
149	2 T134-11		3	20-28	IIc	Undif 20th/19th c., Fill; House 4B				EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
149	1 T134-11		3	20-28	IIc	Undif 20th/19th c., Fill; House 4B				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
150	2 T134-11		4	27-41	IIc	Undif 20th/19th c., Fill; House 4B				EARTHENWARE	1	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
167	3 T135-01		4	30-40	IIc	Undif 20th/19th c., Fill				STONEWARE	1	30	BUFF BODY, BROWN SALT GLAZED EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	195
167	4 T135-01		4	30-40	IIc	Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	PLATE	RM	AESOP'S FABLES	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1830		1852	1841	196
166	5 T135-01		3	19-30	IIc	Undif 20th/19th c., Fill				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
166	3 T135-01		3	19-30	IIc	Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	UNKNOWN	BODY	RUNS	W.T. COPELAND	NONE	ENGLAND	1848		1852	1850	
166	6 T135-01		3	19-30	IIc	Undif 20th/19th c., Fill				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	IRONST- OVER CROWN AND LION
167	1 T135-01		4	30-40	IIc	Undif 20th/19th c., Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
171	5 T135-02		2	10-20	IIc	Undif 20th/19th c., Fill				STONEWARE	1	10	EXTERIOR	SOY SAUCE POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5	197
171	5 T135-02		2	10-20	IIc	Undif 20th/19th c., Fill				STONEWARE	2	30	EXTERIOR	BUFF BODY, DARK BROWN SLIP GLAZE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
173	2 T135-02		4	30-42	IIc/IV	Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	CHINA	1829		1860	1844.5	197
170	4 T135-02		1	0-10	IIb/c	Modern Sod/Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	198
171	8 T135-02		2	10-20	IIc	Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
171	8 T135-02		2	10-20	IIc	Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	DARK BLUE	UNKNOWN	BODY	UNKNOWN	W.T. COPELAND	NONE	ENGLAND	1847		1852	1849.5	
172	8 T135-02		3	20-30	IIc	Undif 20th/19th c., Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
172	8 T135-02		3	20-30	IIc	Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	FLATWARE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
172	11 T135-02		3	20-30	IIc	Undif 20th/19th c., Fill				PORCELAIN	1	10	PORCELAIN, SOFT PASTE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
180	7 T135-04		1	-2 to 11	IIb/c	Modern Sod/Undif 20th/19th c., Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	WHEAT PATTERN	UNKNOWN	NONE	ENGLAND	1850		1875	1862.5	
180	3 T135-44		1	-2 to 11	IIb/c	Modern Sod/Undif 20th/19th c., Fill				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
180	2 T135-44		1	-2 to 11	IIb/c	Modern Sod/Undif 20th/19th c., Fill				EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
188	3 T135-45		2	62-80	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	2	10	GLAZE, BROWN LUSTER EXTERIOR GLAZE	MUG/JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	199
188	3 T135-45		2	62-80	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	2	15	GLAZE, BROWN LUSTER EXTERIOR GLAZE	MUG/JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	199
188	3 T135-45		2	62-80	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	1	30	GLAZE, BROWN LUSTER EXTERIOR GLAZE	MUG/JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
192	5 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				STONEWARE	1	30	REDWARE, DARK BROWN LUSTER GLAZE	SEWER TILE	BODY	N/A	UNKNOWN	NONE	USA	1875		1925	1900	200
192	5 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				STONEWARE	2	30	REDWARE, COARSE WHITE INTERIOR GLAZE	FLOWER POT	BODY	N/A	UNKNOWN	NONE	UNKNOWN	1829		1860	1844.5	CROSS MEMPHIS
192	1 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	5	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
192	1 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
192	1 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	2	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
192	1 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
192	1 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	1	10	YELLOW SLIP TRAIL, DECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
192	1 T135-06		3	45-74	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	1	30	YELLOW SLIP TRAIL, DECORATED	HOLLOWWARE	BODY	YELLOW BACKGROUND WITH TWO NARROW WHITE SLIP TRAILS	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
198	3 T135-08		2	22-32	III	Intact IIBC &/or US Army All Periods				STONEWARE	2	20	AND EXTERIOR	CROCK	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	202
198	2 T135-08		2	22-32	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	1	10	WHITEWARE, BANNED DECORATION	HOLLOWWARE	BODY	WIDE BLUE BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
198	2 T135-08		2	22-32	III	Intact IIBC &/or US Army All Periods				EARTHENWARE	2	5	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
198	2 T135-08		2	22-32	III	Intact IIBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	2	5	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
199	8 T135-08		3	28-43	IIIc/IV	Intact IIBC &/or US Army All Periods				EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
199	6 T135-08		3	28-43	IIIc/IV	Intact IIBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	2	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
199	6 T135-08		3	28-43	IIIc/IV	Intact IIBC &/or US Army All Periods				EARTHENWARE, TRANSFERPRINTED	2	5	FLOW BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	
202	3 T135-09		4	88-102	IIc	Undif 20th/19th c., Fill; 1859 Harney building				EARTHENWARE	1	15	WHITEWARE, SHILL EDGE DECORATION	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	203
202	3 T135-09		4	88-102	IIc	Undif 20th/19th c., Fill; 1859 Harney building				EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	RM	SIRUS	JAMES & THOMAS EDWARDS	NONE	ENGLAND	1839		1841	1840	204
205	7 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	PORCELAIN	1	40	PORCELAIN, CHINESE EXPORT	GINGER JAR LID	LID	LATE NANKING STYLE, DARK BLUE HAND PAINTED	UNKNOWN	NONE	CHINA	1829		1860	1844.5	205
205	8 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	PORCELAIN	1	30	PORCELAIN, SOFT PASTE, UNDECORATED	DOLL LEG	LEG	N/A	UNKNOWN	NONE	EUROPE	1829		1860	1844.5	206
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	70	IRONSTONE, UNDECORATED	MUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	207
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	CUP	RM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840		1870	1855	208
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	CUP	RM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840		1870	1855	209
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	2	40	IRONSTONE, UNDECORATED	CUP	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840		1870	1855	209
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	70	IRONSTONE, UNDECORATED	CUP	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840		1870	1855	210
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	STONEWARE	1	15	EXTERIOR	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5	211
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	40	IRONSTONE, UNDECORATED	SAUCER	RM	SCALLOP MOLDED RIM	UNKNOWN	NONE	ENGLAND	1850		1900	1875	212
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	PLATE	RM	SCALLOP MOLDED RIM	UNKNOWN	NONE	ENGLAND	1850		1900	1875	213
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	SAUCER	RM	SCALLOP MOLDED BODY	UNKNOWN	NONE	ENGLAND	1850		1900	1875	214
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	40	IRONSTONE, UNDECORATED	SAUCER	RM	SCALLOP MOLDED BODY	UNKNOWN	NONE	ENGLAND	1850		1900	1875	215
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	40	IRONSTONE, UNDECORATED	SAUCER	RM	SCALLOP MOLDED BODY	UNKNOWN	NONE	ENGLAND	1850		1900	1875	216
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	2	40	IRONSTONE, UNDECORATED	PLATE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	217
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	40	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	218
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	219
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	70	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	220
205	9 T135-09		7	112-137	IIa	19th c. Fill; 1859 Harney building	7		1	IRONSTONE	1	90	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	221
205	9 T135-09																							

PRELIMINARY

CERAMICS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS	OCCUPATION GROUP	FEAT	FEAT. LEV.	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	UNKNOWN	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	ALSO	NOTES	VESSEL#
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE, TRANSFERPRINTED	1	30	FLOW BLUE	PLATE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1860	1900	1889	ALSO HAND PAINTED GREEN LEAVES	224					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	PLATE	REM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1900	1875		225					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	PLATE	REM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1900	1875		226					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	CUP	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1900	1875		227					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	CUP	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1900	1875		228					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	15	IRONSTONE, UNDECORATED	PLATE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		229					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		230					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	15	IRONSTONE, UNDECORATED	PLATE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		231					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	60	IRONSTONE, UNDECORATED	SLIP PLATE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		232					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	30	IRONSTONE, UNDECORATED	CUP	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		233					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	50	IRONSTONE, UNDECORATED	BOTTLE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875	POSSIBLY A MILK BOTTLE	233					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	PORCELAIN	1	40	PORCELAIN, SOFT PASTE, UNDECORATED	MOLDED FIGURINE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840	1900	1860		234					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	PORCELAIN	1	40	PORCELAIN, SOFT PASTE, UNDECORATED	TOY CUP	REM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1900	1875		235					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	PORCELAIN	1	30	PORCELAIN, SOFT PASTE, UNDECORATED	TOY SAUCER	REM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1900	1875		236					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	PORCELAIN	1	40	PORCELAIN, SOFT PASTE, UNDECORATED	TOY PLATE	REM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850	1900	1875		237					
208	16 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	STONEWARE	1	15	EXTERIOR	DIFF BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		238				
208	16 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	STONEWARE	3	20	EXTERIOR	DIFF BODY, DARK BROWN SLIP GLAZE	FOOD POT	LID	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		238				
208	16 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	STONEWARE	1	40	EXTERIOR	DIFF BODY, DARK BROWN SLIP GLAZE	FOOD POT	LID	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		238				
208	16 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	STONEWARE	1	50	INTERIOR	GRAY BODY, COLORLESS SALT GLAZED EXTERIOR, DARK BROWN SLIP GLAZED	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		239				
208	16 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	STONEWARE	1	60	GRAY BODY, BROWN SLIP GLAZED EXTERIOR	BOTTLE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		240					
211	6 TUS-09	9	124-50	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	30	IRONSTONE, UNDECORATED	CUP	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		241					
211	6 TUS-09	9	124-50	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	PITCHER	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1900	1875		242					
215	1 TUS-09	13	160-192	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	1	20	DARK PURPLE	CUP	BODY	VENETIAN SCENERY	WOOD	NONE	ENGLAND	1832	1836	1834		243					
215	6 TUS-09	13	160-192	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	2	20	WHITEWARE, GOTHIC MOLDED	PLATE	REM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1860	1850		244					
215	6 TUS-09	13	160-192	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	1	50	WHITEWARE, GOTHIC MOLDED	PLATE	REM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1860	1850		245					
215	6 TUS-09	13	160-192	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	2	15	WHITEWARE, GOTHIC MOLDED	SAUCER	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1860	1850		246					
215	6 TUS-09	13	160-192	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	1	40	WHITEWARE, GOTHIC MOLDED	SAUCER	BODY	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840	1860	1850		247					
200	6 TUS-09	2	72-87	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	2	5	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		248					
200	6 TUS-09	2	72-87	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	2	10	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		249					
200	6 TUS-09	2	72-87	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		250					
200	6 TUS-09	2	72-87	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	1	10	FLOW BLUE	FLATWARE	REM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		251					
200	7 TUS-09	2	72-87	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	PORCELAIN	1	10	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	EUROPE	1829	1860	1844.5		252					
201	2 TUS-09	3	76-96	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	SLIGHTLY RESEMBLES PAGODA	253					
202	6 TUS-09	4	88-102	IIc	Uninf 20th/19th c. Fill; 1859 Harney building	7	2	PORCELAIN	1	30	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	EUROPE	1829	1860	1844.5	PATTERN	254					
203	5 TUS-09	5	100-111	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		255					
203	5 TUS-09	5	100-111	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE, TRANSFERPRINTED	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	RHNS	UNKNOWN	NONE	ENGLAND	1848	1852	1850		256					
204	5 TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		257					
204	5 TUS-09	6	110-127	IIa	19th c. Fill; 1859 Harney building	7	2	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		258					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	EARTHENWARE	2	10	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		259					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	EARTHENWARE	1	40	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		260					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	EARTHENWARE	7	30	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		261					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	7	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		262					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	2	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		263					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		264						
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	3	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		265					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		266					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		267					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	1	50	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		268					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		269					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	2	30	IRONSTONE, UNDECORATED	FLATWARE	REM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		270					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	IRONSTONE	1	10	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		271					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	PORCELAIN	3	15	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	EUROPE	1850	1900	1875		272					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	PORCELAIN	2	10	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	REM	N/A	UNKNOWN	NONE	EUROPE	1850	1900	1875		273					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	PORCELAIN	1	20	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	EUROPE	1850	1900	1875		274					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	PORCELAIN	1	40	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	EUROPE	1850	1900	1875		275					
205	9 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	PORCELAIN	1	40	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	EUROPE	1850	1900	1875		276					
205	10 TUS-09	7	112-137	IIa	19th c. Fill; 1859 Harney building	7	1	STONEWARE	1	80	GLAZED INTERIOR AND EXTERIOR	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		277					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	1	50	IRONSTONE, FOLIATED DECORATION	HOLLOWWARE	REM	FOLIATED MOLDED REM	UNKNOWN	NONE	ENGLAND	1850	1900	1865		278					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	2	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		279					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	5	15	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		280					
208	6 TUS-09	8	121-40	IIa	19th c. Fill; 1859 Harney building	7	2	IRONSTONE	2	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		281					
20																											

[illegible]

PRELIMINARY

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	#	OBJECT	N	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPQ	TAQ	MEAN	NOTES	VESSEL #
230	13 TUS-10		5	47-60 III		19th c. Fill, 1859 Harney building				STONEWARE	1	15	GRAY BODY, DARK BROWN OX BLOOD SALT GLAZE EXTERIOR, LIGHT BROWN SALT GLAZED INTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		
231	8 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	50	BUFF BODY, BENSINGTON SLIP GLAZED INTERIOR, UNGLAZED BASE	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	15	UNKNOWN	UNKNOWN	BODY	N/A	UNKNOWN	ALL GLAZE GONE	ENGLAND	1829	1860	1844.5		
231	15 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	10	WHITEWARE, SHELL EDGE DECORATION	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	3	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	2	20	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	30	WHITEWARE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	8 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	30	YELLOWWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	15 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE, TRANSFERPRINTED	1	20	DARK BLUE	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	8 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	2	10	IRONSTONE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	15	IRONSTONE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	40	IRONSTONE, UNDECORATED	CUP	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	2	20	IRONSTONE, UNDECORATED	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	30	IRONSTONE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
231	16 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				PORCELAIN	2	10	PORCELAIN, SOFT PASTE, UNDECORATED BUFF BODY, COLORLESS SALT GLAZED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	8 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				STONEWARE	1	10	INTERIOR AND EXTERIOR REDWARE, DARK BROWN SALT GLAZED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
231	8 TUS-10		6	52-68 III		Intact HBC &/or US Army All Periods, 1859 Harney building				STONEWARE	1	30	INTERIOR AND EXTERIOR	SEWER TILE	BODY	N/A	UNKNOWN	NONE	USA	1870	1920	1895		
232	12 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	20	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED BURGUNDY COLORED LEAVES	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
232	11 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE, TRANSFERPRINTED	1	30	RED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
232	10 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	2	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
232	10 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	2	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
232	10 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
232	10 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
232	3 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				PORCELAIN	1	30	DECORATION PORCELAIN, SOFT PASTE, GOLD LEAF	HOLLOWWARE	HANDLE	GOLD LEAF DECORATION	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
232	9 TUS-10		7	57-81 III		Intact HBC &/or US Army All Periods, 1859 Harney building				STONEWARE	1	15	BUFF BODY, COLORLESS SALT GLAZED EXTERIOR, DARK BROWN SLIP INTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	50	WHITEWARE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	2	20	IRONSTONE, GOTHIC MOLDED	FLATWARE	BODY	GOthic MOLDED	UNKNOWN	NONE	ENGLAND	1840	1870	1855		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	7	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	4	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	15	IRONSTONE, UNDECORATED	HOLLOWWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	4	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	30	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	ALL GLAZE GONE	ENGLAND	1850	1900	1875		
233	5 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
233	2 TUS-10		8	61-90 III		Intact HBC &/or US Army All Periods, 1859 Harney building				PORCELAIN	1	40	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BODY	UNDECORATED	UNKNOWN	NONE	CHINA	1829	1860	1844.5		
234	4 TUS-10		1-9	90-152 N/A		Mixed deposits, 1859 Harney building	9		2	IRONSTONE	1	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		
235	7 TUS-11		2	18-30 III		Undir 20th/19th c. Fill, 1859 Harney building	5		1	EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	RIM	LILY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1837	1852	1844.5		268
235	7 TUS-11		2	18-30 III		Undir 20th/19th c. Fill, 1859 Harney building	5		1	EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	SAUCER	RIM	BROSLEY	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1852	1840.5		269
236	9 TUS-11		3	30-41 III		19th c. Fill, 1859 Harney building	5		2	EARTHENWARE, TRANSFERPRINTED	1	20	BLUE BUFF BODY, COLORLESS SALT GLAZED	CUP	RIM	FRUIT AND FLOWERS	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829	1852	1840.5		270
237	3 TUS-11		4	38-46 III		19th c. Fill, 1859 Harney building	5		3	STONEWARE	1	50	EXTERIOR BUFF BODY, DARK BROWN SLIP GLAZE	JUG	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5		271
239	2 TUS-11		6	32-53 III		19th c. Fill, 1859 Harney building				STONEWARE	1	30	EXTERIOR BUFF BODY, DARK BROWN SLIP GLAZE	FOOD POT	BODY	N/A	UNKNOWN	NONE	CHINA	1829	1860	1844.5		272
239	12 TUS-11		6	32-53 III		19th c. Fill, 1859 Harney building				PORCELAIN	1	70	PORCELAIN, SOFT PASTE, UNDECORATED	SAUCER	RIM	N/A	UNKNOWN	NONE	EUROPE	1829	1860	1844.5		273
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	70	WHITEWARE, UNDECORATED	ONIMENT JAR	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	CROSS MENDS	274
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods, 1859 Harney building				EARTHENWARE	1	20	WHITEWARE, UNDECORATED	ONIMENT JAR	RIM	N/A	UNKNOWN	NONE	ENGLAND	1829	1860	1844.5	CROSS MENDS	274
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods, 1859 Harney building				IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	RIM	N/A	UNKNOWN	NONE	ENGLAND	1850	1900	1875		275

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT. LEV.	P	OBJECT	S	SIZE	DESC	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #	
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	70	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		276
241	4 TUS-11		8	36-63 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			EARTHENWARE	1	30	WHITEWARE, UNDECORATED	SAUCER	BASE	N/A	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		277
242	1 TUS-11		9	61-78 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	50	IRONSTONE, UNDECORATED	PITCHER	SPOUT	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		278
244	1 TUS-11		11	69-89 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	PLATE	RM	MARINE OR MARINO	G. PHILLIPS	NONE	ENGLAND	1834		1838	1836		279
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED MEDIUM GREEN AND BLUE LEAVES	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE	2	10	WHITEWARE, UNDECORATED	UNKNOWN	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE	1	15	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE	2	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE, TRANSFERPRINTED	1	30	BLACK AND BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	6 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	7 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	7 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	7 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
235	7 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	IRONSTONE	1	30	IRONSTONE, CHINESE EXPORT	HOLLOWWARE	BODY	HAND PAINTED DARK BLUE PLANTS, PROBABLY LATE NANKING PATTERN	UNKNOWN	NONE	CHINA	1829		1860	1844.5		
235	4 TUS-11		2	18-30 IIc		Undirf 200d/190b c. Fill; 1859 Harney building	5	1	STONEWARE	1	15	EXTERIOR	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
236	7 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE	1	30	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
236	9 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		
236	9 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	FLATWARE	BODY	ITALIAN	COPELAND & GARRETT, W.T.	NONE	ENGLAND	1829		1852	1840.5		
236	9 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	FLATWARE	BODY	RUSS	COPELAND	NONE	ENGLAND	1848		1852	1850		
236	7 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	1	15	IRONSTONE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
236	7 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
236	7 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
236	8 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	2	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
236	8 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	2	15	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
236	8 TUS-11		3	30-41 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	1	15	IRONSTONE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
239	11 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE	5	10	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
239	11 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
239	11 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	EARTHENWARE	1	20	WHITEWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
239	11 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	1	20	IRONSTONE, UNDECORATED	HOLLOWWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
239	12 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	1	5	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
239	12 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	2	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
239	12 TUS-11		6	32-53 IIa		190b c. Fill; 1859 Harney building	5	2	IRONSTONE	2	30	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	2	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	2	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	20	IRONSTONE, UNDECORATED	HOLLOWWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
240	10 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
240	6 TUS-11		7	51-62 III		Intact HBC &/or US Army All Periods; 1859 Harney building			PORCELAIN	2	15	PORCELAIN, SOFT PASTE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	EUROPE	1829		1860	1844.5		
241	4 TUS-11		8	36-63 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			EARTHENWARE	1	15	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
241	6 TUS-11		8	36-63 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	50	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
241	7 TUS-11		8	36-63 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
241	7 TUS-11		8	36-63 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	40	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
242	1 TUS-11		9	61-78 IIIV		Intact HBC &/or US Army All Periods; 1859 Harney building			IRONSTONE	1	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
246	1 TUS-12		1	0-11 IIc		Intact HBC &/or US Army All Periods; 1859 Harney building			EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATTER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		280
249	2 TUS-12		4	100-120 IIc		Undirf 200d/190b c. Fill; ca. 1874 Vancouver House hotel			IRONSTONE	1	20	IRONSTONE, FOLIATED DECORATION	PLATE	RM	RM	UNKNOWN	NONE	ENGLAND	1840		1876	1855		281
249	2 TUS-12		4	100-120 IIc		Undirf 200d/190b c. Fill; ca. 1874 Vancouver House hotel			IRONSTONE	1	40	IRONSTONE, FOLIATED DECORATION	PLATE	RM	RM	UNKNOWN	NONE	ENGLAND	1840		1876	1855		281
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	40	BLACK	PLATE	BASE	UNKNOWN FRENCH RHEBUS PUZZLE	UNKNOWN	NONE	FRANCE	1829		1860	1844.5		282
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	10	DARK FLOW BLUE	CUP	BODY	RURAL SCENES	W.T. COPELAND	NONE	ENGLAND	1850		1852	1851		283
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	15	DARK FLOW BLUE	CUP	BODY	RURAL SCENES	W.T. COPELAND	NONE	ENGLAND	1850		1852	1851		283
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	20	DARK FLOW BLUE	CUP	BODY	RURAL SCENES	W.T. COPELAND	NONE	ENGLAND	1850		1852	1851		283
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	30	DARK FLOW BLUE	CUP	BODY	RURAL SCENES	W.T. COPELAND	NONE	ENGLAND	1850		1852	1851		283
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	40	DARK FLOW BLUE	CUP	BODY	RURAL SCENES	W.T. COPELAND	NONE	ENGLAND	1850		1852	1851		283
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	CUP	RM	HAND PAINTED DARK BLUE	UNKNOWN	NONE	CHINA	1829		1860	1844.5		284
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	30	DARK BLUE	SAUCER	BODY	WATTEAU	W.T. COPELAND	NONE	ENGLAND	1847		1852	1849.5		285
250	3 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	EARTHENWARE, TRANSFERPRINTED	1	40	BLUE	PLATTER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		286
250	10 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	IRONSTONE	1	60	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		287
250	10 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	IRONSTONE	1	40	IRONSTONE, UNDECORATED	SAUCER	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		288
250	10 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	IRONSTONE	2	30	IRONSTONE, GOTHIC MOLDED	PLATE	RM	GOTHIC MOLDED, VERTICAL FLUTES	UNKNOWN	NONE	ENGLAND	1840		1870	1855		289
250	10 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	IRONSTONE	1	50	IRONSTONE, GOTHIC MOLDED	CUP	RM	GOTHIC MOLDED	UNKNOWN	NONE	ENGLAND	1840		1870	1855		290
250	10 TUS-12		4	102-110 III		Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1	IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	CUP	RM	GOTHIC MOLDED	UNKNOWN	NONE	ENGL						

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT LEV	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL#		
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	2	15	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	ALL GLAZE GONE	ENGLAND	1829		1840	1834.5		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	3	20	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	ALL GLAZE GONE	ENGLAND	1829		1840	1834.5		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	1	30	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	ALL GLAZE GONE	ENGLAND	1829		1840	1834.5		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	3	10	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1840	1834.5		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	2	20	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1840	1834.5		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	1	30	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1840	1834.5		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	2	30	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1840	1834.5 CROSS MENDES		293	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	2	40	PEARLWARE, UNDECORATED	DISH	BASE	N/A	UNKNOWN	NONE	ENGLAND	1829		1840	1834.5 CROSS MENDES		293	
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		IRONSTONE	1	40	IRONSTONE, UNDECORATED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		294	
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		IRONSTONE	1	50	IRONSTONE, GOTHIC MOLDED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		295	
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	CUP	BODY	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		295	
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	SAUCER	RM	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		296	
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	SAUCER	BASE	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		296	
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATTER	BASE	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1829		1860	1844.5		297	
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	1	60	BLUE	PLATTER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		297	
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	PLATTER	RM	LOZERE	UNKNOWN	EDWARD CHALLINOR	NONE	ENGLAND	1842		1867	1854.5		297
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	1	30	BLACK	CUP	RM	UNIDENTIFIED COMMEMORATIVE TRANSFERPRINT, "IS FOR VO." IN GEOMETRIC PRINT	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		298	
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	2	15	FLOW BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		298	
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	1	15	FLOW BLUE	CUP	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		298	
251	2 TUS-12		5	110-120	III	House hotel	8	2		EARTHENWARE, TRANSFERPRINTED	2	30	FLOW BLUE	PLATTER	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5 CROSS MENDES		299	
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		300	
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		300	
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	40	IRONSTONE, UNDECORATED	WASH BASIN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		301	
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	50	IRONSTONE, UNDECORATED	WASH BASIN	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		301	
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	50	IRONSTONE, UNDECORATED	WASH BASIN	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		301	
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	60	IRONSTONE, UNDECORATED	WASH BASIN	FOOT	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		301	
253	6 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel	8			EARTHENWARE, TRANSFERPRINTED	1	30	FLOW BLUE	CHAMBER POT	BODY	ALHABRA	UNKNOWN	NONE	ENGLAND	1848		1853	1850.5		302	
255	4 TUS-12		6	121-136	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	3		EARTHENWARE, TRANSFERPRINTED	1	70	FLOW BLUE	CHAMBER POT	RM	ALHABRA	W.T. COPELAND	NONE	ENGLAND	1848		1853	1850.5		302	
247	3 TUS-12		2	80-90	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	10	IRONSTONE, UNDECORATED	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875				
247	3 TUS-12		2	80-90	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	20	IRONSTONE, UNDECORATED	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875				
247	3 TUS-12		2	80-90	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	30	IRONSTONE, UNDECORATED	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875				
247	3 TUS-12		2	80-90	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	40	IRONSTONE, UNDECORATED	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875				
247	3 TUS-12		2	80-90	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	30	IRONSTONE, UNDECORATED	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850		1900	1875				
248	6 TUS-12		3	90-100	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			EARTHENWARE	1	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
249	2 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			EARTHENWARE	1	15	WHITEWARE, COTTAGEWARE DECORATION	HOLLOWWARE	BODY	HAND PAINTED MEDRM GREEN LEAVES	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
249	3 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			EARTHENWARE	1	30	YELLOWWARE, UNDECORATED	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
249	2 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	FLATWARE	BODY	GOTHIC MOLDED	UNKNOWN	BURNED	ENGLAND	1840		1870	1855			
249	2 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	4	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850		1900	1875			
249	2 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	3	15	IRONSTONE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850		1900	1875			
249	2 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850		1900	1875			
249	2 TUS-12		4	100-120	Ic	Undir 200/190 c. Fill; ca. 1874 Vancouver House hotel	8			IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	1	10	WHITEWARE, BANDED DECORATION	FLATWARE	BODY	WIDE BLUE BAND	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	4	10	WHITEWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	6 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	2	10	YELLOWWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	6 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	1	20	YELLOWWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	6 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	2	30	YELLOWWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	6 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE	1	50	YELLOWWARE, UNDECORATED	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	FLATWARE	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	6	10	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	3	15	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	2	20	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	3	30	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850			
250	3 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		EARTHENWARE, TRANSFERPRINTED	2	40	FLOW BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850			
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		IRONSTONE	1	15	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875			
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		IRONSTONE	2	20	IRONSTONE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875			
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		IRONSTONE	2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900				

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	P	P	OBJECT	N	SIZE	DESC.	FORM	TYPE	STYLE	MANUFACTURER	USE WEAR	ORIGIN	TPO	TAQ	MEAN	NOTES	VESSEL #	
250	10 TUS-12		4	102-110	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BODY	UNDECORATED	UNKNOWN	NONE	CHINA	1829		1860	1844.5		
251	12 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE	1	50	YELLOWWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	2	15	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
251	2 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	FLATWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		IRONSTONE	2	10	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
251	1 TUS-12		5	110-120	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		IRONSTONE	1	15	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					EARTHENWARE	1	10	YELLOWWARE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					IRONSTONE	1	10	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					IRONSTONE	2	15	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					IRONSTONE	1	20	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					IRONSTONE	2	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
252	2 TUS-12		5	115-126	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel					IRONSTONE	1	50	IRONSTONE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
253	6 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel					EARTHENWARE, TRANSFERPRINTED	1	15	BLUE	UNKNOWN	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel					IRONSTONE	1	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel					IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
253	3 TUS-12	GRAB	0-113	N/A		Mixed deposits; ca. 1874 Vancouver House hotel					IRONSTONE	1	40	IRONSTONE, UNDECORATED	HOLLOWWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	2	40	BLUE	PLATTER	BODY	LOZERE	EDWARD CHALLINOR	NONE	ENGLAND	1842		1867	1854.5	297	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	2	50	BLUE	PLATTER	RM	LOZERE	EDWARD CHALLINOR	NONE	ENGLAND	1842		1867	1854.5	297	
260	2 TUS-13		2	112-133	IIc	Unit# 200b/190b c, Fill; ca. 1874 Vancouver House hotel	11		2		EARTHENWARE, TRANSFERPRINTED	1	30	BLUE	PLATTER	BODY	LOZERE	EDWARD CHALLINOR	NONE	ENGLAND	1842		1867	1854.5	297	
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	50	IRONSTONE, UNDECORATED	SAUCER	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	303	
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	30	IRONSTONE, GOTHIC MOLDED	SAUCER	RM	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855	304	
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	50	IRONSTONE, GOTHIC MOLDED	CUP	RM	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855	305	
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	50	IRONSTONE, UNDECORATED	PLATE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	306	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	2	30	BLUE	CUP	BASE	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	307	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	50	BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	307	
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		PORCELAIN	1	30	PORCELAIN, SOFT PASTE, UNDECORATED	TOY CREAMER	RM	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5	307	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	6	DARK FLOW BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850	308	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	15	DARK FLOW BLUE	CUP	BODY	UNKNOWN	UNKNOWN	BURNED	ENGLAND	1840		1860	1850	308	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	20	DARK FLOW BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850	308	
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	30	DARK FLOW BLUE	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850	308	
259	5 TUS-13		2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	1	20	FLOW MULBERRY	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850	CROSS MENDS	309
259	5 TUS-13		2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	1	30	FLOW MULBERRY	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850	CROSS MENDS	309
259	5 TUS-13		2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	2	30	FLOW MULBERRY	CUP	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850		309
259	5 TUS-13		2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	2	10	DARK FLOW BLUE	PLATE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850		310
259	5 TUS-13		2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		2		EARTHENWARE, TRANSFERPRINTED	1	40	DARK FLOW BLUE	PLATE	RM	UNKNOWN	UNKNOWN	NONE	ENGLAND	1840		1860	1850		310
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE	1	15	WHITEWARE	UNKNOWN	BODY	N/A	UNKNOWN	NONE	GASTRO LITH	ENGLAND	1829		1860	1844.5	
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE	1	20	YELLOWWARE, UNDECORATED	FLATWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	20	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
257	9 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		EARTHENWARE, TRANSFERPRINTED	1	10	BLUE	HOLLOWWARE	BODY	UNKNOWN	UNKNOWN	NONE	ENGLAND	1829		1860	1844.5		
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	40	IRONSTONE, GOTHIC MOLDED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1840		1870	1855		
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	15	IRONSTONE, UNDECORATED	UNKNOWN	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	20	IRONSTONE, UNDECORATED	FLATWARE	RM	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	4	30	IRONSTONE, UNDECORATED	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875		
257	7 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		IRONSTONE	1	30	IRONSTONE, UNDECORATED	FLATWARE	BASE	N/A	UNKNOWN	NONE	ENGLAND	1850		1900	1875	BLACK INC MAKER'S MARK, SCROLL. WORK WITH "JENSE"	
257	4 TUS-13		1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8		1		PORCELAIN	1	30	PORCELAIN, CHINESE EXPORT	HOLLOWWARE	BODY	N/A	UNKNOWN	NONE	CHINA	1829		1860	1844.5		
258																										

CLAY PIGEON

11955

CLAY PIGEON

11956

11957

CLAY PIGEON

11958

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	PP	OBJECT	N	MNV	SIZE (mm)	DESCRIPTION	PART	SURFACE MODS	NOTES
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.25
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.18
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.26
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.20
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.14
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.15
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.14
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.16
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.20
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.13
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.09
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.13
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.15
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.15
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.16
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.15
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.13
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.16
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.10
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.09
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.11
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.09
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.11
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.13
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.13
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.09
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.10
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.09
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.13
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.10
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.09
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.03
142	4	TU4-10	4	17-26		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		6	CLAY PIGEON, POLYMER CERAMIC			0.05
144	4	TU4-10	5	25-37		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.66
145	1	TU4-10	6	36-45		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		30	CLAY PIGEON, POLYMER CERAMIC			2.16
146	1	TU4-10	7	45-57		Intact HBC; House 4B				STONEWARE, CLAY PIGEON	1		20	CLAY PIGEON, POLYMER CERAMIC			1.93
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		30	CLAY PIGEON, POLYMER CERAMIC			2.00
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		20	CLAY PIGEON, POLYMER CERAMIC			2.02
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		20	CLAY PIGEON, POLYMER CERAMIC			1.71
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		20	CLAY PIGEON, POLYMER CERAMIC			1.31
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		30	CLAY PIGEON, POLYMER CERAMIC			1.58
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			1.24
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.90
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.91
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		20	CLAY PIGEON, POLYMER CERAMIC			0.93
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		20	CLAY PIGEON, POLYMER CERAMIC			1.12
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.80
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.45
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.98
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.51
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.61
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.41
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.65
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.70
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.51
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.52
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.33
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.25
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.30
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.49
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.34
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.34
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.35
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.28
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.35
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.28
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.16
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.31
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.34
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.21
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.28
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.35
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.16
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.18
148	5	TU4-11	2	9-22		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.18

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	PP	OBJECT	N	MNV	SIZE (mm)	DESCRIPTION	PART	SURFACE MODS	NOTES
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.40
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.54
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.37
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.59
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.30
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		15	CLAY PIGEON, POLYMER CERAMIC			0.56
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.34
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.24
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.35
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.36
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.22
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.31
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.16
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.12
149	4	TU4-11	3	20-28		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.08
150	1	TU4-11	4	27-41		Undif 20th/19th c. Fill; House 4B				STONEWARE, CLAY PIGEON	1		10	CLAY PIGEON, POLYMER CERAMIC			0.24

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUP	FEAT	FEAT. LEV.	pp	OBJECT	N	WEIGHT (g)	DESCRIPTION	NOTES	PERIOD
365	1	TRENCH 3-05	GRAB	0-110	N/A	Mixed deposits				COAL SAMPLE	3	1005.00			
467	1	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				COAL SAMPLE	1	2127.98			
396	1	TRENCH 3-1-8	GRAB	0-180	N/A	Mixed deposits				COAL SAMPLE	65	475.90		SAMPLE FROM TRENCH 1-8	
97	11	TU4-03	2	4-16	I/c	Undif 20th/19th c. Fill; House 4B				COAL SAMPLE	47	212.50			

PRELIMINARY

FOVA 3100 CRC

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT	LEV	pp	OBJECT	N	SIZE (mm)	THICKNESS(n)	THICKNESS (mm)	NOTES	WEIGHT (g)
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	60	0.069	1.74 COLORLESS		1.84
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	40	0.066	1.68 COLORLESS		2.27
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	50	0.047	1.19 COLORLESS		0.54
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	20	0.054	1.37 COLORLESS		0.34
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	15	0.078	1.98 COLORLESS		0.36
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	15	0.089	2.26 COLORLESS		0.44
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	15	0.066	1.67 COLORLESS		0.27
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	15	0.079	2.01 COLORLESS		0.28
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	15	0.059	1.49 COLORLESS		0.32
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	20	0.051	1.30 COLORLESS		0.16
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	10	0.085	2.17 COLORLESS		0.20
469	2	PROVENIENCE LOST IN LAB	N/A		N/A	Mixed deposits					FLAT GLASS	1	10	0.071	1.80 COLORLESS		0.18
17	4	ST1-01	5	40-50	1/c	Undif 20th/19th c. Fill; line officers quarters					FLAT GLASS	1	20	0.086	2.19 COLORLESS, RESIDUE		0.38
17	4	ST1-01	5	40-50	1/c	Undif 20th/19th c. Fill; line officers quarters					FLAT GLASS	1	20	0.094	2.38 COLORLESS		0.55
22	2	ST1-03	4	70-80	1/b	20th c. Fill					FLAT GLASS	1	15	0.119	3.01 COLORLESS		0.50
22	2	ST1-03	4	70-80	1/b	20th c. Fill					FLAT GLASS	1	40	0.202	5.14 COLORLESS, WORKED/CHIPPED		4.09
24	2	ST1-04	4	65-80	1/b	20th c. Fill					FLAT GLASS	1	10	0.095	2.41 COLORLESS		0.19
25	3	ST1-05	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	40	0.093	2.36 COLORLESS		2.44
27	3	ST1-05	4	30-40	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.088	2.24 COLORLESS		0.18
27	3	ST1-05	4	30-40	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.089	2.27 COLORLESS		0.52
27	3	ST1-05	4	30-40	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	30	0.096	2.45 COLORLESS		0.56
410	2	ST2-06	3	9-22	1/b	20th c. Fill; Blacksmith shop					FLAT GLASS	1	10	0.039	0.99 COLORLESS		0.09
410	2	ST2-06	3	9-22	1/b	20th c. Fill; Blacksmith shop					FLAT GLASS	1	15	0.119	3.03 COLORLESS, PATINATED		0.73
413	1	ST2-07	4	21-31	1/b	20th c. Fill					FLAT GLASS	1	15	0.099	2.51 COLORLESS, CRAZED		0.56
419	3	ST2-09	1	0-10	1	Modern Sod					FLAT GLASS	1	10	0.106	2.68 COLORLESS		0.30
420	1	ST2-09	3	20-30	1/b	20th c. Fill					FLAT GLASS	1	15	0.113	2.88 COLORLESS		0.51
420	1	ST2-09	3	20-30	1/b	20th c. Fill					FLAT GLASS	1	10	0.130	3.29 COLORLESS		0.15
420	1	ST2-09	3	20-30	1/b	20th c. Fill					FLAT GLASS	1	15	0.130	3.29 COLORLESS		0.16
420	1	ST2-09	3	20-30	1/b	20th c. Fill					FLAT GLASS	1	10	0.128	3.26 COLORLESS		0.16
420	1	ST2-09	3	20-30	1/b	20th c. Fill					FLAT GLASS	1	10	0.129	3.27 COLORLESS		0.30
421	4	ST2-09	5	40-50	1/c	Undif 20th/19th c. Fill					FLAT GLASS	1	20	0.106	2.70 COLORLESS		0.78
429	2	ST2-11	1	0-10	1/1b	Modern Sod/20th c. Fill					FLAT GLASS	1	30	0.088	2.24 COLORLESS		0.57
431	2	ST2-11	3	20-30	1/b	20th c. Fill					FLAT GLASS	1	20	0.089	2.27 COLORLESS		0.63
433	1	ST2-11	5	40-50	1/b	20th c. Fill					FLAT GLASS	1	30	0.103	2.61 COLORLESS		0.87
433	1	ST2-11	5	40-50	1/b	20th c. Fill					FLAT GLASS	1	20	0.112	2.85 AQUA		0.93
434	1	ST2-11	6	50-60	1/b	20th c. Fill					FLAT GLASS	1	10	0.068	1.73 COLORLESS		0.10
434	1	ST2-11	6	50-60	1/b	20th c. Fill					FLAT GLASS	1	20	0.073	1.86 COLORLESS		0.61
437	2	ST2-12	1	0-10	1/1b	Modern Sod/20th c. Fill					FLAT GLASS	1	10	0.093	2.37 COLORLESS		0.28
437	2	ST2-12	1	0-10	1/1b	Modern Sod/20th c. Fill					FLAT GLASS	1	10	0.108	2.75 COLORLESS		0.13
438	2	ST2-12	4	30-40	1/b	20th c. Fill					FLAT GLASS	1	10	0.086	2.19 COLORLESS, PATINATED		0.26
439	2	ST2-12	5	40-50	1/b	20th c. Fill					FLAT GLASS	1	6	0.096	2.44 COLORLESS		0.05
439	2	ST2-12	5	40-50	1/b	20th c. Fill					FLAT GLASS	1	10	0.110	2.80 COLORLESS		0.25
442	1	ST2-14	1	0-10	1/1b	Modern Sod/20th c. Fill; line officers quarters					FLAT GLASS	1	30	0.077	1.96 AQUA		1.45
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.085	2.16 COLORLESS		0.12
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.065	1.64 COLORLESS		0.16
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.070	1.79 COLORLESS		0.20
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.077	1.96 COLORLESS		0.44
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	6	0.065	1.65 COLORLESS		0.05
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.067	1.71 COLORLESS		0.36
443	1	ST2-14	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.095	2.41 AQUA		0.46
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.057	1.44 AQUA		0.28
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.080	2.03 AQUA		0.26
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.072	1.82 AQUA		0.46
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	30	0.070	1.79 AQUA		0.75
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.106	2.69 AQUA		0.65
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.056	1.72 AQUA		0.23
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.057	1.44 AQUA		0.24
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.098	2.49 AQUA		0.32
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.085	2.15 AQUA		0.38
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.084	2.13 AQUA		0.44
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.063	1.61 AQUA		0.40
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	30	0.077	1.96 COLORLESS, PATINATED		0.83
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	30	0.085	2.17 COLORLESS		0.99
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.056	1.42 COLORLESS		0.15
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.058	1.47 COLORLESS		0.23
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.098	2.49 AQUA		0.55
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	30	0.093	2.35 AQUA		1.03
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.080	2.03 AQUA		0.18
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.057	1.44 AQUA		0.16
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.068	1.72 AQUA		0.20
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.069	1.76 AQUA		0.16
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.070	1.77 AQUA		0.28
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.070	1.77 AQUA		0.07
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.083	2.11 AQUA		0.20
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.080	2.04 AQUA		0.13
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.056	1.43 AQUA		0.28
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.083	2.12 AQUA		0.48
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.070	1.77 AQUA		0.34
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.080	2.03 AQUA		0.21
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.093	2.37 AQUA		0.11
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.067	1.70 AQUA		0.11
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.077	1.96 AQUA		0.52
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.056	1.43 AQUA		0.21
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	10	0.069	1.75 AQUA		0.19
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.083	2.11 AQUA		0.91
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	20	0.068	1.73 AQUA		0.28
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.057	1.44 AQUA		0.28
445	6	ST2-15	2	10-20	1/b	20th c. Fill; line officers quarters					FLAT GLASS	1	15	0.082	2.08 AQUA		0.

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT.	FEAT.	OBJECT	N	SIZE	THICKNESS(m)	THICKNESS (mm)	NOTES	WEIGHT (g)
							FEAT	LEV.	pp		(mm)				
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.070	1.77 AQUA		0.13
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.057	1.44 AQUA		0.22
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.080	2.02 AQUA, PATINATED		0.30
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.057	1.44 AQUA		0.06
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.067	1.69 AQUA		0.21
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.070	1.79 AQUA		0.37
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.056	1.42 AQUA		0.10
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.056	1.41 AQUA		0.35
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.056	1.43 AQUA		0.26
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.099	2.52 AQUA		0.40
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.084	2.14 AQUA		1.34
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.063	1.60 AQUA		0.20
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.073	1.85 AQUA		0.19
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.057	1.45 AQUA		0.16
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.068	1.72 AQUA		0.12
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.100	2.53 AQUA		0.14
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.056	1.43 AQUA		0.26
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.098	2.50 AQUA		0.50
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.056	1.43 AQUA, PATINATED		0.47
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.070	1.78 AQUA		0.10
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.057	1.44 AQUA		0.26
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.071	1.80 AQUA		0.34
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.056	1.43 AQUA		0.33
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.099	2.52 AQUA		0.95
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.056	1.43 AQUA		0.23
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.084	2.13 AQUA		0.60
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.057	1.44 AQUA		0.59
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	20	0.095	2.41 AQUA		0.54
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.072	1.82 AQUA		0.71
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.084	2.14 AQUA		0.52
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.096	2.45 AQUA		1.11
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.093	2.35 AQUA, PATINATED		1.55
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	40	0.098	2.49 AQUA, PATINATED		1.65
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.094	2.38 AQUA, PATINATED		2.66
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	40	0.100	2.53 AQUA, PATINATED		2.57
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	40	0.097	2.47 AQUA, PATINATED		2.98
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	30	0.068	1.73 AQUA, PATINATED		0.69
445	6	ST2-15	2	10-20	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	40	0.095	2.42 AQUA, PATINATED		1.53
446	1	ST2-15	3	20-30	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	6	0.072	1.84 COLORLESS		0.05
446	1	ST2-15	3	20-30	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	6	0.094	2.38 COLORLESS		0.05
446	1	ST2-15	3	20-30	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	10	0.071	1.81 COLORLESS		0.17
446	1	ST2-15	3	20-30	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.069	1.76 COLORLESS		0.38
446	1	ST2-15	3	20-30	1lb	20th c, Fill; line officers quarters			FLAT GLASS	1	15	0.069	1.75 COLORLESS		0.32
448	2	ST2-16	1	0-10	1lb	Modern, Ssd/20thc, Fill; line officers quarters			FLAT GLASS	1	20	0.069	1.75 COLORLESS		0.75
449	3	ST2-16	2	10-20	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.088	2.24 COLORLESS		0.61
449	3	ST2-16	2	10-20	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.078	1.99 COLORLESS		0.17
450	3	ST2-16	3	20-30	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.090	2.29 COLORLESS		1.27
451	2	ST2-16	4	30-40	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.093	2.37 COLORLESS		0.46
451	2	ST2-16	4	30-40	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	10	0.053	1.35 AQUA		0.06
451	2	ST2-16	4	30-40	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.070	1.79 AQUA		0.47
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	70	0.091	2.30 AQUA		10.76
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	15	0.089	2.26 COLORLESS		0.34
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.090	2.29 COLORLESS		0.35
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.079	2.01 COLORLESS		0.66
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.096	2.44 COLORLESS		1.72
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	40	0.092	2.34 COLORLESS		1.59
452	1	ST2-16	5	40-50	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.091	2.30 COLORLESS		1.70
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.091	2.31 AQUA		0.56
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	15	0.091	2.32 AQUA		0.26
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.091	2.31 AQUA		1.21
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.091	2.30 AQUA		0.36
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.091	2.30 AQUA		0.43
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	15	0.091	2.30 AQUA		0.43
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	10	0.091	2.30 AQUA		0.12
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	20	0.091	2.31 AQUA		0.78
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.096	2.44 AQUA		0.65
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	15	0.091	2.31 AQUA		0.16
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.091	2.31 AQUA		1.56
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.091	2.31 AQUA		1.32
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.091	2.31 AQUA		1.02
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	30	0.091	2.30 AQUA		1.75
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	40	0.091	2.31 AQUA		2.45
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	40	0.091	2.31 AQUA		2.27
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	50	0.091	2.31 AQUA, PATINATED		2.67
453	7	ST2-16	6	50-60	1lb	Undif 20th/19th c, Fill; line officers quarters			FLAT GLASS	1	60	0.091	2.32 AQUA, PATINATED		5.27
42	2	ST4-01	4	30-40	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	6	0.050	1.27 COLORLESS		0.04
42	2	ST4-01	4	30-40	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	15	0.079	2.00 COLORLESS		0.28
43	2	ST4-01	5	40-50	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	20	0.074	1.88 COLORLESS		0.25
46	1	ST4-02	4	10-20	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	15	0.085	2.17 COLORLESS		0.40
48	1	ST4-02	4	30-40	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	10	0.080	1.55 LIGHT AQUA		0.15
48	1	ST4-02	4	30-40	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	30	0.061	1.55 LIGHT AQUA		0.70
48	1	ST4-02	4	30-40	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	30	0.087	2.21 LIGHT AQUA		1.77
50	2	ST4-02	6	50-60	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	20	0.086	2.19 COLORLESS		0.30
50	2	ST4-02	6	50-60	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	40	0.124	3.14 COLORLESS		2.70
51	1	ST4-02	8	70-80	1lb/V	Undif 20th/19thc, Fill			FLAT GLASS	1	50	0.088	2.24 COLORLESS		2.62
52	1	ST4-02	8	70-80	1lb/V	Undif 20th/19thc, Fill			FLAT GLASS	1	30	0.100	2.54 COLORLESS, GREEN FLECKS		0.77
53	2	ST4-03	1	0-10	1lb	Modern, Ssd/Undif 20th/19thc, Fill			FLAT GLASS	1	15	0.094	1.87 COLORLESS		0.31
55	2	ST4-03	3	20-30	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	15	0.073	1.85 COLORLESS		0.35
56	2	ST4-03	4	30-40	1lb	Undif 20th/19thc, Fill			FLAT GLASS	1	10	0.069	1.76 COLORLESS		0.14

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT LEV	DP	OBJECT	N	SIZE (mm)	THICKNESS(m)	THICKNESS (mm)	NOTES	WEIGHT (g)
56	2	ST4-03	4	30-40	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	15	0.066	1.68	COLORLESS	0.28
56	2	ST4-03	4	30-40	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	30	0.123	3.12	COLORLESS	0.74
56	2	ST4-03	4	30-40	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	30	0.074	1.88	COLORLESS	0.56
1		ST4-03	5	40-50	1lc/IV	Undif 200b/19hc. Fill				FLAT GLASS	1	15	0.086	2.18	COLORLESS	0.32
57	1	ST4-03	5	40-50	1lc/IV	Undif 200b/19hc. Fill				FLAT GLASS	1	20	0.086	2.18	COLORLESS	0.66
61	4	ST4-04	3	20-30	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	5	0.045	1.14	COLORLESS	0.05
61	4	ST4-04	3	20-30	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.048	1.22	AQUA	0.13
61	4	ST4-04	3	20-30	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.133	3.39	AQUA	1.62
61	4	ST4-04	3	20-30	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	40	0.250	6.34	COLORLESS, DOES NOT LOOK LIKE FLAT GLASS?	9.39
62	5	ST4-04	4	30-40	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.080	2.04	COLORLESS	0.41
63	5	ST4-04	4	30-40	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	40	0.100	2.54	AQUA	2.50
63	5	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.058	2.63	LIGHT AMBER	0.32
63	5	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.075	1.90	COLORLESS	0.42
63	5	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.091	2.32	COLORLESS	0.65
63	5	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	5	0.052	1.33	AQUA	0.05
63	5	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.072	1.83	AQUA	0.08
63	5	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.096	2.45	AQUA	0.92
64	4	ST4-04	5	40-50	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	40	0.127	3.23	AQUA	4.01
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.063	1.61	COLORLESS	0.08
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.071	1.80	COLORLESS	0.15
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.102	2.59	COLORLESS	0.23
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.071	1.81	COLORLESS	0.28
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.065	1.64	COLORLESS	0.42
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.088	2.23	COLORLESS	0.24
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.064	1.62	AQUA	0.06
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.091	2.30	AQUA	0.25
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.082	2.08	AQUA	0.13
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.063	1.60	AQUA	0.51
64	4	ST4-04	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.140	3.56	AQUA, WORKED?	3.71
65	4	ST4-04	7	60-70	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.079	2.01	COLORLESS	0.28
65	4	ST4-04	7	60-70	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.126	3.21	COLORLESS, WORKED?	1.58
66	5	ST4-04	7	70-80	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.076	1.92	COLORLESS	0.16
66	5	ST4-04	8	70-80	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.067	1.71	COLORLESS	0.03
66	5	ST4-04	8	70-80	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.081	2.05	COLORLESS	0.10
66	5	ST4-04	8	70-80	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.082	2.09	COLORLESS	0.30
66	5	ST4-04	8	70-80	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.083	2.10	COLORLESS	1.27
66	5	ST4-04	8	70-80	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	40	0.083	2.12	COLORLESS	1.21
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.075	1.91	AQUA	0.49
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	5	0.073	1.85	COLORLESS	0.04
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	5	0.093	1.35	COLORLESS	0.04
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	5	0.073	1.86	COLORLESS	0.03
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.075	1.90	COLORLESS	0.11
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.073	1.85	COLORLESS	0.18
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.072	1.84	COLORLESS	0.22
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.096	2.43	COLORLESS	0.35
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.103	2.61	COLORLESS	0.26
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.080	2.02	COLORLESS	0.28
67	2	ST4-04	9	80-90	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.058	1.47	COLORLESS	0.88
70	4	ST4-05	4	30-40	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	15	0.047	1.19	COLORLESS	0.28
70	4	ST4-05	4	30-40	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	30	0.126	3.20	AQUA	2.06
72	1	ST4-05	6	50-60	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	10	0.041	1.03	COLORLESS	1.02
73	1	ST4-05	7	60-70	1lc	Undif 200b/19hc e. Fill; pond deposits				FLAT GLASS	1	20	0.085	2.16	COLORLESS?	0.77
154	4	ST5-02	2	10-20	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	10	0.406	10.30	AQUA	0.03
154	4	ST5-02	2	10-20	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	30	0.099	2.51	AQUA	2.89
155	3	ST5-02	3	20-30	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	30	0.088	2.23	AQUA	0.88
162	2	ST5-04	8	70-80	1lc	Undif 200b/19hc. Fill				FLAT GLASS	1	30	0.077	1.95	AQUA	0.87
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.085	2.15	AQUA, PATINATED, GRAB SAMPLE	0.56
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.114	2.90	AQUA, PATINATED, GRAB SAMPLE	1.29
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.113	2.86	COLORLESS, GRAB SAMPLE	1.61
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.087	2.20	AQUA, PATINATED, GRAB SAMPLE	1.22
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.084	2.14	AQUA, PATINATED, GRAB SAMPLE	1.44
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.109	2.78	AQUA, GRAB SAMPLE	4.77
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.122	3.09	AQUA, PATINATED, GRAB SAMPLE	0.52
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.104	2.64	AQUA, PATINATED, GRAB SAMPLE	0.84
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.105	2.66	AQUA, PATINATED, GRAB SAMPLE	3.27
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.087	2.21	AQUA, PATINATED, GRAB SAMPLE	1.21
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.098	2.49	AQUA, PATINATED, GRAB SAMPLE	0.59
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.072	1.84	AQUA, PATINATED, GRAB SAMPLE	0.42
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.094	2.14	AQUA, PATINATED, GRAB SAMPLE	0.99
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.078	1.98	AQUA, PATINATED, GRAB SAMPLE	0.32
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.100	2.54	AQUA, PATINATED, GRAB SAMPLE	0.63
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.085	2.16	AQUA, PATINATED, GRAB SAMPLE	2.58
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.146	3.71	AQUA, PATINATED, GRAB SAMPLE	4.91
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	50	0.087	2.20	AQUA, PATINATED, GRAB SAMPLE	2.91
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	50	0.076	1.94	AQUA, PATINATED, GRAB SAMPLE	3.19
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	50	0.116	2.94	AQUA, PATINATED, GRAB SAMPLE	4.70
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	80	0.087	2.22	AQUA, PATINATED, GRAB SAMPLE	7.77
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	100	0.079	2.01	AQUA, PATINATED, GRAB SAMPLE	11.77
462	3	TRENCH 2-16	GRAB	0-122	N/A	Mixed deposits; workshops				FLAT GLASS	1	90	0.071	1.80	AQUA, PATINATED, GRAB SAMPLE	15.20
463	2	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	15	0.076	1.94	COLORLESS, GRAB SAMPLE	0.20
463	2	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.057	1.46	COLORLESS, GRAB SAMPLE	0.11
463	2	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.068	1.72	COLORLESS, GRAB SAMPLE	0.07
463	2	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.066	1.68	COLORLESS, GRAB SAMPLE	0.07
463	2	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	15	0.051	1.29	AQUA, GRAB SAMPLE	0.16
463	2	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.098	2.50	AQUA, GRAB SAMPLE	2.36
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.078	1.98	AQUA, FROSTED, GRAB SAMPLE	2.54
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.077			

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT. LEV.	pp	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.094		2.38 COLORLESS, GRAB SAMPLE	1.76
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.052		1.31 COLORLESS, GRAB SAMPLE	0.88
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.094		2.38 COLORLESS, GRAB SAMPLE	1.48
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.078		1.99 COLORLESS, GRAB SAMPLE	1.96
464	5	TRENCH 2-17	GRAB	0-175	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.092		2.33 COLORLESS, GRAB SAMPLE	2.90
466	2	TRENCH 2-19	GRAB	0-164	N/A	Mixed deposits				FLAT GLASS	1	20	0.065		1.66 AQUA, FROSTED, GRAB SAMPLE	0.31
466	2	TRENCH 2-19	GRAB	0-164	N/A	Mixed deposits				FLAT GLASS	1	15	0.063		1.61 AQUA, FROSTED, GRAB SAMPLE	0.36
466	2	TRENCH 2-19	GRAB	0-164	N/A	Mixed deposits				FLAT GLASS	1	15	0.086		2.18 AQUA, FROSTED, GRAB SAMPLE	0.47
366	5	TRENCH 3-06	GRAB	0-110	N/A	Mixed deposits				FLAT GLASS	1	15	0.046		1.18 COLORLESS, GRAB SAMPLE	0.20
367	6	TRENCH 3-07	GRAB	0-125	N/A	Mixed deposits				FLAT GLASS	1	15	0.103		2.62 COLORLESS, GRAB SAMPLE	0.59
368	6	TRENCH 3-08	GRAB	0-120	N/A	Mixed deposits				FLAT GLASS	1	40	0.085		2.15 COLORLESS, GRAB SAMPLE	2.0
371	6	TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	X			FLAT GLASS	1	20	0.128		3.26 AQUA, GRAB SAMPLE	0.74
372	7	TRENCH 3-10	GRAB	0-90	N/A	Mixed deposits	X			FLAT GLASS	1	15	0.048		1.21 COLORLESS, GRAB SAMPLE	0.21
373	12	TRENCH 3-11	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.094		2.39 COLORLESS, GRAB SAMPLE	0.99
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.092		2.34 AQUA, GRAB SAMPLE	2.24
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.054		1.38 AQUA, GRAB SAMPLE	0.65
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	50	0.056		1.41 AQUA, GRAB SAMPLE	1.52
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.060		1.52 AQUA, GRAB SAMPLE	0.67
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	20	0.048		1.23 COLORLESS, GRAB SAMPLE	0.23
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	20	0.049		1.24 COLORLESS, GRAB SAMPLE	0.27
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	20	0.037		0.95 COLORLESS, GRAB SAMPLE	0.26
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.057		1.46 COLORLESS, GRAB SAMPLE	0.74
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.048		1.22 COLORLESS, GRAB SAMPLE	0.51
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.064		1.62 COLORLESS, GRAB SAMPLE	0.65
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.052		1.31 COLORLESS, GRAB SAMPLE	0.38
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.059		1.50 COLORLESS, GRAB SAMPLE	0.71
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.057		1.46 COLORLESS, GRAB SAMPLE	0.66
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.054		1.36 COLORLESS, GRAB SAMPLE	0.89
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.056		1.42 COLORLESS, GRAB SAMPLE	0.97
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	30	0.048		1.23 COLORLESS, GRAB SAMPLE	0.65
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.045		1.15 COLORLESS, GRAB SAMPLE	0.86
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.065		1.65 COLORLESS, GRAB SAMPLE	1.99
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.058		1.47 COLORLESS, GRAB SAMPLE	1.08
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.057		1.44 COLORLESS, GRAB SAMPLE	1.68
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	50	0.058		1.47 COLORLESS, GRAB SAMPLE	2.34
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	50	0.049		1.24 COLORLESS, GRAB SAMPLE	2.21
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	60	0.049		1.24 COLORLESS, GRAB SAMPLE	2.80
376	12	TRENCH 3-14	GRAB	0-100	N/A	Mixed deposits				FLAT GLASS	1	40	0.057		1.46 COLORLESS, GRAB SAMPLE	1.74
378	3	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				FLAT GLASS	1	10	0.039		1.00 COLORLESS, GRAB SAMPLE	0.08
378	3	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				FLAT GLASS	1	20	0.041		1.03 COLORLESS, GRAB SAMPLE	0.27
378	3	TRENCH 3-16	GRAB	0-55	N/A	Mixed deposits				FLAT GLASS	1	30	0.066		1.67 COLORLESS, GRAB SAMPLE	0.27
379	4	TRENCH 3-18	GRAB	0-120	N/A	Mixed deposits				FLAT GLASS	1	20	0.091		2.31 AQUA, GRAB SAMPLE	0.43
379	4	TRENCH 3-18	GRAB	0-120	N/A	Mixed deposits				FLAT GLASS	1	75	0.090		2.29 AQUA, GRAB SAMPLE	6.07
368	6	TRENCH 3-23	GRAB	0-120	N/A	Mixed deposits				FLAT GLASS	1	30	0.069		1.74 AQUA, GRAB SAMPLE	1.01
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	20	0.088		2.23 COLORLESS, GRAB SAMPLE	0.58
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	20	0.085		2.15 COLORLESS, GRAB SAMPLE	0.35
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	50	0.088		2.24 COLORLESS, GRAB SAMPLE	5.31
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	20	0.089		2.25 COLORLESS, GRAB SAMPLE	0.72
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	15	0.056		1.43 COLORLESS, GRAB SAMPLE	0.18
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.100		2.53 COLORLESS, GRAB SAMPLE, STRIP OF WINDOW GLAZING/PAINT? ON EDGE	2.43
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.088		2.24 COLORLESS, GRAB SAMPLE	2.91
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.088		2.24 COLORLESS, GRAB SAMPLE	2.51
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	60	0.089		2.27 COLORLESS, GRAB SAMPLE	7.74
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	50	0.087		2.22 CLEAR STRIP OF WINDOW GLAZING/PAINT?, GRAB SAMPLE	3.58
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.091		2.31 COLORLESS, GRAB SAMPLE	3.41
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	15	0.089		2.27 COLORLESS, GRAB SAMPLE	0.18
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	30	0.089		2.25 COLORLESS, GRAB SAMPLE	0.50
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	20	0.089		2.25 COLORLESS, GRAB SAMPLE	0.21
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	15	0.088		2.23 COLORLESS, GRAB SAMPLE	0.22
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	10	0.092		2.33 COLORLESS, GRAB SAMPLE	0.13
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	10	0.088		2.23 COLORLESS, GRAB SAMPLE	0.14
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	20	0.088		2.24 COLORLESS, GRAB SAMPLE	0.78
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.089		2.25 COLORLESS, GRAB SAMPLE	2.25
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	30	0.090		2.28 COLORLESS, GRAB SAMPLE	1.82
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	30	0.089		2.27 COLORLESS, GRAB SAMPLE	1.01
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	30	0.089		2.26 COLORLESS, GRAB SAMPLE	0.85
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.089		2.26 COLORLESS, GRAB SAMPLE	2.26
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.088		2.23 COLORLESS, GRAB SAMPLE	2.19
382	3	TRENCH 3-23	GRAB	0-150	N/A	Mixed deposits				FLAT GLASS	1	40	0.088		2.23 COLORLESS, GRAB SAMPLE	1.52
383	1	TRENCH 3-24	GRAB	0-143	N/A	Mixed deposits				FLAT GLASS	1	30	0.088		2.24 COLORLESS, GRAB SAMPLE	1.02
383	1	TRENCH 3-24	GRAB	0-143	N/A	Mixed deposits				FLAT GLASS	1	60	0.091		2.31 COLORLESS, GRAB SAMPLE	6.69
385	2	TRENCH 3-26	GRAB	0-159	N/A	Mixed deposits				FLAT GLASS	50	0.089		2.27 COLORLESS, GRAB SAMPLE	3.67	
385	2	TRENCH 3-26	GRAB	0-159	N/A	Mixed deposits				FLAT GLASS	1	40	0.084		2.13 COLORLESS, GRAB SAMPLE	4.12
386	1	TRENCH 3-27	GRAB	0-122	N/A	Mixed deposits				FLAT GLASS	1	20	0.091		2.31 AQUA, GRAB SAMPLE	0.82
389	1	TRENCH 3-30	GRAB</													

PRELIMINARY

FOVA 3100 CRC

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT.	FEAT. LEV.	PP	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.071	1.80	COLORLESS, ETCHED, GRAB SAMPLE	0.55
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.083	2.12	COLORLESS, ETCHED, GRAB SAMPLE	0.57
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.079	2.01	COLORLESS, GRAB SAMPLE	0.83
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.054	1.36	COLORLESS, ETCHED, GRAB SAMPLE	0.43
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.061	1.54	COLORLESS, ETCHED, GRAB SAMPLE	0.30
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.076	1.92	COLORLESS, ETCHED, GRAB SAMPLE	0.60
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.081	2.05	COLORLESS, ETCHED, GRAB SAMPLE	0.78
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.063	1.60	COLORLESS, GRAB SAMPLE	0.47
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.088	2.23	COLORLESS, GRAB SAMPLE	0.37
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.063	1.59	COLORLESS, ETCHED, GRAB SAMPLE	0.45
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.098	2.48	COLORLESS, ETCHED, GRAB SAMPLE	0.85
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.085	2.17	COLORLESS, ETCHED, GRAB SAMPLE	0.59
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.081	2.05	COLORLESS, ETCHED, GRAB SAMPLE	0.71
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.045	1.14	COLORLESS, ETCHED, GRAB SAMPLE	0.22
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.082	2.09	COLORLESS, ETCHED, GRAB SAMPLE	0.43
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.061	1.54	COLORLESS, ETCHED, GRAB SAMPLE	0.28
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.095	2.41	COLORLESS, ETCHED, GRAB SAMPLE	0.36
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.085	2.15	COLORLESS, GRAB SAMPLE	0.12
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.070	1.79	COLORLESS, ETCHED, GRAB SAMPLE	0.18
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.085	2.16	COLORLESS, GRAB SAMPLE	0.16
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	15	0.082	2.08	COLORLESS, GRAB SAMPLE	0.19
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.091	2.32	COLORLESS, ETCHED, GRAB SAMPLE	0.23
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.057	1.44	COLORLESS, ETCHED, GRAB SAMPLE	0.16
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.061	1.55	COLORLESS, ETCHED, GRAB SAMPLE	0.07
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.077	1.96	COLORLESS, ETCHED, GRAB SAMPLE	0.13
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.055	1.39	COLORLESS, ETCHED, GRAB SAMPLE	0.10
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.096	2.45	COLORLESS, ETCHED, GRAB SAMPLE	0.14
394	7	TRENCH 3-39a	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	10	0.066	1.68	COLORLESS, GRAB SAMPLE	0.10
394	7	TRENCH 3-39b	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.073	1.86	COLORLESS, GRAB SAMPLE	0.10
395	7	TRENCH 3-39b	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	30	0.076	1.93	COLORLESS, GRAB SAMPLE	0.54
395	7	TRENCH 3-39b	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.086	2.18	COLORLESS, GRAB SAMPLE	0.64
395	7	TRENCH 3-39b	GRAB	0-120	N/A	Mixed deposits; ca. 1892 U.S. Army stable building				FLAT GLASS	1	20	0.091	2.30	COLORLESS, ETCHED, GRAB SAMPLE	0.77
263	2	TRENCH 5-16	GRAB	0-110		Mixed deposits				FLAT GLASS	1	20	0.044	1.11	COLORLESS, RESIDUE, GRAB SAMPLE	0.23
1	3	TUI-01	1	-2 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	30	0.078	1.99	LIGHT AQUA	0.90
1	3	TUI-01	1	-2 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	30	0.094	2.38	VERY LIGHT AQUA	1.20
2	3	TUI-01	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.050	1.28	COLORLESS	0.14
2	3	TUI-01	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.056	1.42	COLORLESS	0.38
2	3	TUI-01	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	30	0.056	1.42	COLORLESS	0.71
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.088	2.24	COLORLESS	0.19
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.085	2.15	COLORLESS	0.23
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.078	1.98	COLORLESS	0.23
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.097	2.46	COLORLESS	0.34
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	30	0.122	3.11	COLORLESS, GOLD FLAKE	1.97
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.082	2.09	LIGHT AQUA	0.72
4	3	TUI-01	4	30-40	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.056	1.43	COLORLESS, RESIDUE	0.19
5	2	TUI-01	5	39-50	I/IIa/IV	19th c. Fill				FLAT GLASS	1	30	0.103	2.62	COLORLESS, FROSTED ON ONE SIDE	0.71
5	2	TUI-01	5	39-50	I/IIa/IV	19th c. Fill				FLAT GLASS	1	15	0.103	2.62	COLORLESS, FROSTED ON ONE SIDE	0.28
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	30	0.119	3.01	COLORLESS	0.79
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	20	0.100	2.55	VERY LIGHT OLIVE	0.78
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	20	0.098	2.48	COLORLESS	1.22
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	20	0.119	3.03	COLORLESS	0.24
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	10	0.072	1.83	COLORLESS	0.20
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	15	0.119	3.02	COLORLESS	0.21
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	15	0.123	3.13	COLORLESS	0.18
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	10	0.122	3.10	COLORLESS	0.28
7	6	TUI-02	1	-3 to 10	I/IIb	Modern Sod/20th c. Fill				FLAT GLASS	1	15	0.093	2.35	COLORLESS	0.25
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.093	2.37	COLORLESS	0.71
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.072	1.82	COLORLESS	0.54
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.089	2.25	LIGHT OLIVE	0.55
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.081	2.06	LIGHT AQUA	0.30
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.105	2.66	LIGHT OLIVE	0.17
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.062	1.58	COLORLESS	0.21
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.063	1.61	COLORLESS	0.18
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.088	2.23	LIGHT OLIVE	0.10
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.094	2.38	COLORLESS	0.20
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.084	2.14	COLORLESS	0.09
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.076	1.93	AQUA	0.25
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.072	1.82	COLORLESS	0.54
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	20	0.094	2.39	COLORLESS, CRACKS	0.19
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.064	1.62	COLORLESS	0.70
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.081	2.07	AQUA	0.55
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.089	2.26	LIGHT GREEN	0.30
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.063	1.60	COLORLESS	0.21
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.097	2.47	COLORLESS	0.23
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.021	0.53	COLORLESS	0.03
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.093	2.35	COLORLESS	0.09
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.105	2.67	LIGHT GREEN	0.17
8	5	TUI-02	2	10-20	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.089	2.26	LIGHT GREEN	0.10
9	2	TUI-02	3	19.5-30	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	10	0.078	1.99	LIGHT AQUA	0.10
9	2	TUI-02	3	19.5-30	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.069	1.74	COLORLESS	0.15
10	2	TUI-02	4	30-38	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.077	1.96	COLORLESS	0.17
11	2	TUI-02	5	33-50	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.087	2.22	COLORLESS	0.52
11	2	TUI-02	5	33-50	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.080	2.02	LIGHT AQUA	0.20
11	2	TUI-02	5	33-50	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	30	0.080	2.04	LIGHT AQUA	1.20
11	2	TUI-02	5	33-50	I/c	Undif 20th/19thc. Fill				FLAT GLASS	1	15	0.087	2.20	LIGHT AQUA	0.71
11	2	TUI														

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT LEV.	pp	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
28	2	TU1-03	1	4 to 13	1	Modern Sod; first post cemetery				FLAT GLASS	1	15	0.089	2.27	LIGHT OLIVE	0.43
29	2	TU1-03	2	11-21	1b	20th c. Fill; first post cemetery				FLAT GLASS	1	10	0.101	2.56	COLORLESS	0.19
29	2	TU1-03	2	11-21	1b	20th c. Fill; first post cemetery				FLAT GLASS	1	30	0.123	3.12	COLORLESS	0.89
29	2	TU1-03	2	11-21	1b	20th c. Fill; first post cemetery				FLAT GLASS	1	30	0.087	2.21	COLORLESS	0.94
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	50+	0.098	2.49	COLORLESS, FROSTED ON ONE SIDE	6.84
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	15	0.090	2.28	COLORLESS	0.56
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	20	0.069	1.75	COLORLESS	0.70
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	15	0.059	1.50	COLORLESS	0.31
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	30	0.074	1.88	LIGHT AQUA	1.04
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	30	0.075	1.90	LIGHT AQUA	1.48
30	7	TU1-03	3	20-38	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	15	0.105	2.67	LIGHT OLIVE	0.75
31	5	TU1-03	4	34-43	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	15	0.072	1.82	COLORLESS	0.27
31	5	TU1-03	4	34-43	1lc	Undif 20th/19th c. Fill; first post cemetery				FLAT GLASS	1	20	0.091	2.30	COLORLESS	1.03
32	1	TU1-03	5	36-47	1la	19th c. Fill; first post cemetery				FLAT GLASS	1	50	0.274	6.95	COLORLESS, WORKED/CHIPPED	7.13
33	3	TU1-03	6	36-55	1lc	19th c. Fill; first post cemetery				FLAT GLASS	1	10	0.040	1.01	LIGHT AMBER	0.15
35	2	TU1-04	2	41-55	1b	20th c. Fill; first post cemetery				FLAT GLASS	1	15	0.046	1.17	LIGHT AMBER	2.27
35	2	TU1-04	2	41-55	1b	20th c. Fill; first post cemetery				FLAT GLASS	1	10	0.083	2.11	COLORLESS	0.12
37	1	TU1-04	5	65-78	1la	19th c. Fill; first post cemetery	1	2		FLAT GLASS	1	30	0.080	2.03	COLORLESS	0.85
38	4	TU1-05	2	-3 to 16	1b	20th c. Fill				FLAT GLASS	1	15	0.080	2.04	COLORLESS	0.22
38	4	TU1-05	2	-3 to 16	1b	20th c. Fill				FLAT GLASS	1	15	0.082	2.08	COLORLESS	0.46
38	4	TU1-05	2	-3 to 16	1b	20th c. Fill				FLAT GLASS	1	20	0.072	1.82	LIGHT AQUA	0.38
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	53	0.141	3.58	COLORLESS, GRAB SAMPLE	9.48
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.109	2.77	COLORLESS, ETCHED, GRAB SAMPLE	1.31
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.089	2.25	COLORLESS, GRAB SAMPLE	1.34
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.131	3.32	COLORLESS, ETCHED, GRAB SAMPLE	1.76
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.092	2.33	COLORLESS, ETCHED	0.34
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.089	2.27	COLORLESS	0.35
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.088	2.24	COLORLESS	0.66
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.073	1.86	COLORLESS	0.32
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.078	1.98	COLORLESS, ETCHED	0.57
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.081	2.05	COLORLESS, SCRATCHED	0.67
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.059	1.50	COLORLESS	0.32
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.060	1.53	COLORLESS, ETCHED	0.14
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.115	2.92	COLORLESS	0.24
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.092	2.34	COLORLESS	0.28
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.102	2.58	COLORLESS	0.26
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.130	3.30	COLORLESS	0.16
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.089	2.25	COLORLESS	0.30
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.072	1.83	COLORLESS	0.18
398	2	TU2-01	3	20-30	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.112	2.84	COLORLESS	0.12
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.072	1.84	COLORLESS, ETCHED	1.01
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.078	1.98	COLORLESS	1.93
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.092	2.34	COLORLESS	0.46
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.067	1.71	COLORLESS	0.85
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.078	1.97	COLORLESS	0.64
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.062	1.57	COLORLESS	0.54
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.115	2.91	COLORLESS	0.54
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.067	1.71	COLORLESS	0.31
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.072	1.83	COLORLESS	0.54
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.070	1.78	COLORLESS	0.28
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.082	2.09	COLORLESS	0.39
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.078	1.98	COLORLESS	0.20
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.080	2.04	COLORLESS	0.56
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.109	2.76	COLORLESS	0.23
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.083	2.10	COLORLESS	0.28
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.083	2.10	COLORLESS	0.14
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.082	2.09	COLORLESS	0.10
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.080	2.03	COLORLESS	0.07
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.068	1.72	COLORLESS	0.13
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	6	0.074	1.89	COLORLESS, ETCHED	0.10
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.096	2.44	COLORLESS	0.11
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.051	1.29	COLORLESS	0.04
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.100	2.53	COLORLESS	0.07
399	9	TU2-01	4	30-40	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.082	2.09	COLORLESS	0.17
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.088	2.24	COLORLESS	0.10
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.081	2.06	AQUA	0.11
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.080	2.03	AQUA	0.52
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.075	1.91	AQUA	0.48
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.072	1.83	AQUA	0.28
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.056	1.42	AQUA	0.25
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.103	2.61	AQUA	0.19
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.075	1.91	AQUA, PATINATED	0.23
400	11	TU2-01	5	39-51	1lc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.064	1.63	AQUA	

PRELIMINARY

FOVA 3100 CRC						FLAT GLASS										
LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT LEV	PP	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.076	1.94 AQUA, PATINATED		0.26
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.110	2.80 AQUA		0.11
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.072	1.83 AQUA		0.89
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.075	1.91 AQUA		0.12
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.062	1.57 AQUA		0.19
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.060	1.76 AQUA		0.29
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.123	3.13 AQUA		0.14
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.075	1.90 AQUA		0.18
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.084	2.14 AQUA		0.04
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.089	2.25 AQUA		0.35
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.067	1.69 AQUA		0.25
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.091	2.32 AQUA		0.30
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.069	1.74 AQUA		0.31
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.092	2.33 AQUA		0.26
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.067	1.71 AQUA		0.44
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.098	2.49 AQUA		0.29
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.089	2.25 AQUA		0.46
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.064	1.63 AQUA		0.58
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.065	1.64 AQUA		0.35
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.099	2.51 AQUA		2.35
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.059	1.51 AQUA		0.26
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.142	3.60 AQUA		1.07
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.074	1.89 AQUA		1.03
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.130	3.31 AQUA		0.90
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.123	3.12 AQUA		1.04
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.090	2.29 AQUA		0.40
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.060	1.52 AQUA, PATINATED		0.39
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.078	1.98 AQUA, PATINATED		1.15
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.080	2.03 AQUA, PATINATED		0.88
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.142	3.61 AQUA, PATINATED		4.08
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.092	2.34 AQUA, PATINATED		1.97
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.173	4.40 AQUA, PATINATED		1.56
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.090	2.29 AQUA, PATINATED		0.62
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.095	2.41 AQUA, PATINATED		0.66
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.083	2.12 AQUA, PATINATED		0.72
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.081	2.06 AQUA, PATINATED		0.30
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.089	2.25 AQUA, PATINATED		0.45
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.066	1.68 AQUA, PATINATED		0.29
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.093	2.35 AQUA, PATINATED		0.79
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.066	1.68 AQUA, PATINATED		0.94
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.085	2.17 AQUA, PATINATED		0.89
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.063	1.61 AQUA, PATINATED		0.63
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.114	2.89 AQUA, PATINATED		1.71
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.123	3.12 AQUA, PATINATED		1.54
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50	0.139	3.53 AQUA, PATINATED		3.59
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.092	2.33 AQUA, PATINATED		2.96
400	11	TU2-01	5	39-51	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.119	3.02 AQUA, PATINATED		4.09
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50	0.115	2.92 LIGHT AQUA		2.50
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.064	1.63 COLORLESS		0.15
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.095	2.42 COLORLESS		0.47
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.086	2.19 COLORLESS		0.78
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.062	1.58 COLORLESS		0.20
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50+	0.117	2.98 LIGHT AQUA		4.88
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.074	1.89 COLORLESS		0.36
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.081	2.07 COLORLESS		0.56
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.085	2.15 COLORLESS		0.31
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.083	2.12 COLORLESS		0.96
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50	0.120	3.04 LIGHT AQUA		3.49
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.096	2.45 COLORLESS		0.73
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.081	2.05 LIGHT AQUA		0.31
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50	0.086	2.19 LIGHT AQUA		2.23
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.103	2.62 LIGHT AQUA		0.34
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.121	3.07 LIGHT AQUA		0.74
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.039	0.99 COLORLESS		0.09
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.081	2.06 LIGHT AQUA		0.24
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.141	3.57 COLORLESS		0.63
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.071	1.81 COLORLESS		1.05
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.112	2.85 LIGHT AQUA		2.51
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.095	2.42 LIGHT AQUA		1.28
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.079	2.01 LIGHT AQUA		0.20
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.081	2.05 LIGHT AQUA		0.28
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.094	2.40 LIGHT AQUA		2.18
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.096	2.45 LIGHT AQUA		0.62
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	20	0.122	3.09 COLORLESS		0.72
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.098	2.48 LIGHT AQUA		1.70
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50	0.076	1.94 LIGHT AQUA		3.79
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.083	2.11 LIGHT AQUA		1.15
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	15	0.114	2.90 LIGHT AQUA		0.31
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	50	0.081	1.93 LIGHT AQUA		0.97
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.085	2.15 LIGHT AQUA		0.96
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.054	1.36 COLORLESS		0.15
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	10	0.052	1.33 COLORLESS		0.09
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	30	0.085	2.17 LIGHT AQUA		1.47
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.084	2.14 LIGHT AQUA, RESIDUE		1.78
401	13	TU2-01	6	50-63	Ilc	Undif 20th/19th c. Fill; workshops				FLAT GLASS	1	40	0.093	2.36 LIGHT AQUA		3.40
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LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT. LEV.	PP	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.064	1.68 LIGHT AQUA		0.07
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.064	1.63 LIGHT AQUA		0.23
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	50+	0.084	2.14 LIGHT AQUA		1.77
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.079	2.01 LIGHT AQUA		0.41
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.079	2.01 LIGHT AQUA		0.10
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	6	0.085	2.15 LIGHT AQUA		0.06
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.082	2.08 LIGHT AQUA		1.56
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	40	0.115	2.91 LIGHT AQUA		1.13
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.107	2.71 LIGHT AQUA		2.21
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	63	0.075	1.91 LIGHT AQUA		9.17
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	50	0.085	2.16 LIGHT AQUA		5.61
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.083	2.11 LIGHT AQUA		1.00
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.078	1.97 COLORLESS		0.19
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.131	3.32 LIGHT AQUA		1.63
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.077	1.95 LIGHT AQUA		1.26
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.112	2.85 LIGHT AQUA		1.06
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.055	1.40 COLORLESS		0.24
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.113	2.88 LIGHT AQUA		0.32
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.094	2.39 LIGHT AQUA, ETCHED		0.78
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.087	2.21 LIGHT AQUA		1.76
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.087	2.21 LIGHT AQUA		0.44
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.081	2.07 LIGHT AQUA		0.22
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.091	2.32 LIGHT AQUA		0.29
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.067	1.71 COLORLESS		0.56
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.113	2.87 COLORLESS		0.64
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.072	1.83 COLORLESS		0.67
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.056	1.43 COLORLESS		0.20
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.074	1.87 COLORLESS		0.22
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.079	2.00 COLORLESS		0.26
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.085	0.88 COLORLESS		0.11
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.048	1.22 COLORLESS		0.06
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.061	1.56 COLORLESS		0.30
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.064	1.63 COLORLESS		0.19
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.071	1.81 COLORLESS		0.90
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.072	1.84 COLORLESS		0.12
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.042	1.07 COLORLESS		0.08
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.082	2.08 COLORLESS		0.12
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.086	2.18 COLORLESS		0.23
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.064	1.62 COLORLESS		0.09
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.070	1.79 COLORLESS		0.50
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	6	0.029	0.73 COLORLESS		0.05
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.054	1.36 COLORLESS		0.28
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	6	0.057	1.45 COLORLESS		0.06
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.053	1.35 COLORLESS		0.07
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	6	0.057	1.46 COLORLESS		0.16
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.075	1.91 COLORLESS		0.23
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.080	2.03 LIGHT AQUA		0.54
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.081	2.05 LIGHT AQUA, CHIPPED		0.40
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.109	2.78 LIGHT AQUA		0.79
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.081	2.05 LIGHT AQUA		0.43
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.081	2.06 LIGHT AQUA		0.26
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.089	2.25 LIGHT AQUA		0.48
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.111	2.81 LIGHT AQUA		1.32
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.094	2.40 LIGHT AQUA		0.37
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.093	2.36 LIGHT AQUA		0.41
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.050	1.26 LIGHT AQUA		0.29
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.072	1.84 LIGHT AQUA		0.31
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.079	2.00 LIGHT AQUA		0.43
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.115	2.91 LIGHT AQUA		0.86
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.114	2.90 LIGHT AQUA		1.07
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.120	3.04 LIGHT AQUA		0.56
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.139	3.54 LIGHT AQUA		0.91
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.119	3.01 LIGHT AQUA		0.45
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	40	0.081	2.06 LIGHT AQUA		1.39
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.107	2.72 LIGHT AQUA		0.58
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.089	2.25 LIGHT AQUA		0.48
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.072	1.83 LIGHT AQUA		0.15
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.084	2.13 LIGHT AQUA		0.31
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.071	1.80 LIGHT AQUA		0.06
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.058	1.47 LIGHT AQUA		0.16
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.099	2.51 LIGHT AQUA		0.16
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.120	3.05 LIGHT AQUA		0.50
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.072	2.01 LIGHT AQUA		1.39
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.081	2.05 LIGHT AQUA		0.46
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.085	2.16 LIGHT AQUA		0.37
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	6	0.053	1.35 LIGHT AQUA		0.05
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.080	2.03 LIGHT AQUA		0.32
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.072	1.83 LIGHT AQUA, CHIPPED		0.11
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.081	2.07 LIGHT AQUA		0.40
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.079	2.01 LIGHT AQUA		0.10
401	13	TU2-01	6	50-63	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	10	0.087	2.21 LIGHT AQUA		0.21
402	3	TU2-01	7	60-73	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.057	1.44 COLORLESS		0.25
402	3	TU2-01	7	60-73	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	20	0.076	1.94 COLORLESS		0.31
402	3	TU2-01	7	60-73	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.074	1.88 COLORLESS		0.33
402	3	TU2-01	7	60-73	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	30	0.091	2.31 COLORLESS		0.84
402	3	TU2-01	7	60-73	Ilc	Undrf 20th/19th e. Fill; workshops				FLAT GLASS	1	15	0.074	1.89 COLORLESS		0.18
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PRELIMINARY

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ANALYSIS OCCUPATION GROUPINGS															FEAT. LEV.		PP	OBJECT	N	SIZE (mm)	THICKNESS(n)	THICKNESS (mm)	NOTES		FLAT GLASS	
LOT	SPEC	UNIT	LEV	DEPTH	STRAT																			WEIGHT (g)		
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.031	0.80 COLORLESS		0.06				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.054	1.38 COLORLESS		0.12				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.066	1.68 COLORLESS		0.32				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.078	1.97 COLORLESS		0.26				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.081	2.07 COLORLESS		0.17				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.059	1.51 COLORLESS		0.28				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.061	1.55 COLORLESS		0.14				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.066	1.68 COLORLESS		0.27				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.076	1.94 COLORLESS		0.20				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.076	1.92 COLORLESS		0.18				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.050	1.26 COLORLESS		0.08				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.060	1.52 LIGHT AQUA		1.05				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.098	2.49 LIGHT AQUA		3.49				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.051	1.29 LIGHT AQUA		0.26				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.119	3.03 LIGHT AQUA		0.82				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.083	2.10 LIGHT AQUA		0.62				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.076	1.92 LIGHT AQUA		0.19				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.094	2.40 LIGHT AQUA		0.62				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.141	3.57 LIGHT AQUA		0.74				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.074	1.87 LIGHT AQUA		0.29				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.088	2.24 LIGHT AQUA		3.38				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.101	2.56 LIGHT AQUA		0.89				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.120	3.06 LIGHT AQUA		1.72				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.105	2.66 LIGHT AQUA		2.15				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30+	0.137	3.47 LIGHT AQUA		3.05				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.052	1.33 LIGHT AQUA		0.23				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.067	1.71 LIGHT AQUA		0.36				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.123	3.13 LIGHT AQUA, BLUE-GREEN FLECKS		2.62				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.078	1.98 LIGHT AQUA		1.46				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.077	1.96 LIGHT AQUA		0.49				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.113	2.86 LIGHT AQUA		2.08				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.086	2.18 LIGHT AQUA		0.68				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.073	1.82 LIGHT AQUA		0.70				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.072	1.82 LIGHT AQUA		0.12				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.058	1.48 LIGHT AQUA		0.86				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.057	1.45 LIGHT AQUA		1.36				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30+	0.079	2.00 LIGHT AQUA		1.82				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.095	2.42 LIGHT AQUA		0.85				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.078	1.99 LIGHT AQUA		0.43				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.106	2.69 LIGHT AQUA		0.83				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.085	2.16 LIGHT AQUA		1.11				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.056	1.43 LIGHT AQUA		1.07				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.083	2.11 LIGHT AQUA		1.52				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.078	1.97 LIGHT AQUA		2.95				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.080	2.03 LIGHT AQUA		0.66				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.129	3.28 LIGHT AQUA		0.38				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.077	1.96 LIGHT AQUA		2.28				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.055	1.39 LIGHT AQUA		0.30				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.082	2.09 LIGHT AQUA		0.33				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.080	2.04 LIGHT AQUA		0.36				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.112	2.84 LIGHT AQUA		1.16				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.083	2.12 LIGHT AQUA		0.49				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.081	2.06 LIGHT AQUA		0.33				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.057	1.44 LIGHT AQUA		0.50				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.130	3.29 LIGHT AQUA		0.42				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.090	2.28 LIGHT AQUA		0.12				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.074	1.89 LIGHT AQUA		0.39				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.114	2.89 LIGHT AQUA		1.13				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.079	2.80 LIGHT AQUA		2.11				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.082	2.09 LIGHT AQUA		0.13				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.063	1.60 LIGHT AQUA		0.43				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	56	0.063	1.59 LIGHT AQUA		0.14				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.079	2.01 COLORLESS		6.15				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.076	1.94 COLORLESS		0.89				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.061	1.55 COLORLESS		0.20				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	10	0.061	1.55 COLORLESS		0.26				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	6	0.102	6.59 COLORLESS		0.03				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.085	2.16 COLORLESS, CHIPPED		0.29				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.077	1.95 COLORLESS		0.83				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	40	0.157	4.00 COLORLESS		3.19				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.053	1.34 COLORLESS		0.87				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	15	0.070	1.79 COLORLESS		0.35				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	30	0.093	2.35 COLORLESS		1.16				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20+	0.122	3.11 COLORLESS		0.79				
402	3	TU2-01	7	60-73	Ile	Undif 20th/19th c. Fill; workshops										FLAT GLASS	1	20	0.071	1.81						

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT	PP	OBJECT	SIZE	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops	FEAT	LEV.	PP	FLAT GLASS	1	0.060	1.53	COLORLESS	0.34
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.114	2.89	COLORLESS	0.33
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.092	2.33	COLORLESS	0.68
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.076	1.94	COLORLESS	0.67
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.062	1.57	COLORLESS	0.19
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.089	2.25	COLORLESS	0.29
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.060	1.53	COLORLESS	0.58
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.090	2.02	COLORLESS	0.97
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.032	0.82	COLORLESS	0.03
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.080	2.03	COLORLESS	0.20
402	3	TU2-01	7	60-73	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.074	1.89	COLORLESS	0.12
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.080	2.02	COLORLESS	0.28
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.079	2.00	COLORLESS	0.70
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.085	1.66	COLORLESS	0.19
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.048	1.22	COLORLESS	0.07
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.059	1.51	COLORLESS	0.06
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.061	1.56	COLORLESS	0.26
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.042	1.07	COLORLESS	0.12
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.064	1.62	COLORLESS	0.18
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.108	2.75	COLORLESS	0.23
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.067	1.70	COLORLESS	0.34
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.093	1.68	COLORLESS	0.56
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.124	3.15	AQUA	0.79
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.084	2.14	AQUA	0.39
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.070	1.79	AQUA	0.27
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.081	2.07	AQUA	1.62
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.087	2.22	AQUA	0.60
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.065	1.64	AQUA	0.37
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.082	2.09	AQUA	0.15
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.093	2.37	AQUA	0.82
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.085	2.15	AQUA	0.49
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.050	1.27	AQUA, FROSTED	0.53
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.063	1.61	AQUA	0.34
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.106	2.68	AQUA	0.89
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.092	2.33	AQUA	0.62
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.095	2.41	AQUA	0.56
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.081	2.06	AQUA	0.50
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.077	1.96	AQUA	0.35
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.065	1.65	AQUA	0.18
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.050	1.26	AQUA	0.28
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.084	2.13	AQUA, PATINATED	0.55
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.071	1.80	AQUA, PATINATED	0.31
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.065	1.66	AQUA, PATINATED	0.46
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.079	2.00	AQUA, PATINATED	0.54
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.084	2.13	AQUA	0.95
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.085	2.15	AQUA	0.91
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.081	2.06	AQUA	1.26
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.082	2.09	AQUA	0.60
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.080	2.04	AQUA	0.53
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.108	2.75	AQUA	0.51
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.078	1.98	AQUA	0.36
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.081	2.05	AQUA, PATINATED	0.64
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.067	1.69	AQUA	0.47
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.093	2.36	AQUA	0.38
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.083	2.10	AQUA	2.46
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.063	1.61	AQUA	0.90
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.086	2.18	AQUA, PATINATED	0.35
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.084	2.13	AQUA	0.53
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.070	1.79	AQUA	0.36
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.126	3.19	AQUA	1.64
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.079	2.01	AQUA, PATINATED	2.77
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.061	1.54	AQUA	0.44
403	5	TU2-01	8	70-89	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.104	2.63	AQUA	0.74
404	1	TU2-01	8	89-100	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.107	2.71	COLORLESS, CRACKED	0.57
404	1	TU2-01	9	89-100	Ilc	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.084	2.14	AQUA, CRACKED	1.31
405	1	TU2-01	10	100-110	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.070	1.77	COLORLESS	0.20
405	1	TU2-01	10	100-110	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.057	1.46	COLORLESS	0.20
405	1	TU2-01	10	100-110	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.074	1.87	AQUA	0.70
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.078	1.97	AQUA, FROSTED	0.50
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.065	1.65	AQUA	0.32
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.085	2.16	AQUA	0.82
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.059	1.51	AQUA	0.37
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.065	1.66	COLORLESS	0.12
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.059	1.51	COLORLESS	0.23
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.070	1.79	COLORLESS	0.31
406	1	TU2-01	11	110-120	IV	Undif 200b/190b c, Fill, workshops				FLAT GLASS	1	0.093	2.35	AQUA	2.43
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.084	2.13	AQUA, WALL SCRAPINGS	0.51
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.107	2.72	AQUA, PATINATED, WALL SCRAPINGS	0.56
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.084	2.29	AQUA, WALL SCRAPINGS	0.40
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.091	2.31	AQUA, WALL SCRAPINGS	0.45
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.104	2.65	AQUA, WALL SCRAPINGS	0.97
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.093	2.36	AQUA, WALL SCRAPINGS	0.55
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.068	1.73	AQUA, WALL SCRAPINGS	0.28
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.129	3.27	AQUA	1.44
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.084	2.14	AQUA	1.14
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.102	2.59	AQUA, PATINATED	1.90
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.089	2.25	AQUA	0.25
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.129	3.28	AQUA	0.32
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	0.088	2.23	AQUA, CRAZED	0.56

PRELIMINARY

FOVA 3100 CRC

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	LEV	pp	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	15	0.113	2.86	AQUA	0.48
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	20	0.133	3.38	AQUA	0.70
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.086	2.18	AQUA	1.21
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.043	1.09	AQUA	0.06
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	15	0.096	2.45	AQUA	0.56
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.070	1.78	AQUA	0.68
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.104	2.63	AQUA, PATINATED	1.90
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.098	2.49	AQUA	0.69
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	40	0.081	2.07	AQUA, PATINATED	2.12
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.059	1.51	AQUA	0.12
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	15	0.085	2.16	COLORLESS	0.20
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.082	2.09	COLORLESS	0.09
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.093	2.35	COLORLESS	0.09
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.083	2.12	COLORLESS	0.24
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.065	1.66	COLORLESS	0.10
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.091	2.31	COLORLESS	0.20
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.104	2.63	COLORLESS	0.17
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	30	0.091	2.32	COLORLESS, PATINATED	1.12
407	1	TU2-01	2-6	8-63	N/A	Mixed deposits; workshops				FLAT GLASS	1	50	0.105	2.66	COLORLESS, PATINATED	3.56
408	2	TU2-01	GRAB	0-120	N/A	Mixed deposits; workshops				FLAT GLASS	1	10	0.119	3.01	AQUA, GRAB SAMPLE	0.31
267	2	TU3-01	2	86-91	III	20th c. Fill; Tayentas House				FLAT GLASS	1	6	0.057	1.46	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.063	1.61	COLORLESS	0.20
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.062	1.58	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.041	1.05	COLORLESS	0.02
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.042	1.07	COLORLESS	0.07
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.111	2.81	COLORLESS	0.10
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.055	1.40	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.049	1.25	COLORLESS	0.09
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.044	1.12	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.070	1.79	COLORLESS	0.02
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.049	1.25	COLORLESS	0.09
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.052	1.32	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.066	1.68	COLORLESS	0.09
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.059	1.51	COLORLESS, ETCHED	0.22
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.051	1.30	COLORLESS	0.02
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.043	1.08	COLORLESS	0.04
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.052	1.31	COLORLESS	0.12
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.070	1.79	COLORLESS	0.05
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.052	1.31	COLORLESS	0.09
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.045	1.14	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.045	1.15	COLORLESS	0.05
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.096	2.44	COLORLESS	0.04
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.050	1.28	COLORLESS	0.08
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.041	1.04	COLORLESS	0.03
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.061	1.55	COLORLESS	0.05
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.049	1.25	COLORLESS	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.042	1.06	COLORLESS	0.10
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.064	1.62	AQUA	0.07
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	15	0.063	1.61	LIGHT AQUA	0.16
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.048	1.23	LIGHT AQUA	0.02
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	15	0.046	1.16	LIGHT AQUA	0.24
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.055	1.40	LIGHT AQUA	0.08
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.062	1.57	LIGHT AQUA	0.23
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.062	1.58	LIGHT AQUA	0.10
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	20	0.063	1.60	LIGHT AQUA	0.30
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.061	1.54	LIGHT AQUA	0.13
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.060	1.53	LIGHT AQUA	0.27
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	20	0.062	1.58	LIGHT AQUA	0.56
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	20	0.107	2.73	LIGHT AQUA	0.67
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.081	2.07	LIGHT AQUA	0.15
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.061	1.54	LIGHT AQUA	0.07
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.075	1.90	LIGHT AQUA	0.20
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.074	1.87	LIGHT AQUA	0.28
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.086	2.18	LIGHT AQUA	0.27
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.071	1.80	LIGHT AQUA	0.16
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.069	1.76	LIGHT AQUA	0.18
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.064	1.62	LIGHT AQUA	0.07
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	20	0.064	1.62	LIGHT AQUA	0.55
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.053	1.35	LIGHT AQUA	0.08
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.043	1.09	LIGHT AQUA	0.08
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.061	1.54	LIGHT AQUA	0.11
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.059	1.51	LIGHT AQUA	0.17
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.043	1.10	LIGHT AQUA	0.04
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	15	0.063	1.59	LIGHT AQUA	0.31
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.053	1.34	LIGHT AQUA	0.03
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.065	1.65	LIGHT AQUA	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.064	1.63	LIGHT AQUA, BLACK SPOT	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.061	1.55	LIGHT AQUA	0.11
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.056	1.41	LIGHT AQUA	0.06
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	6	0.059	1.50	LIGHT AQUA	0.03
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.061	1.54	LIGHT AQUA	0.13
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.060	1.52	LIGHT AQUA	0.18
268	6	TU3-01	3	87-99	III	Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.054	1.37	LIGHT AQUA	0.14
271	3	TU3-02	2	97-107	Ic/III	Undif 20th/19th c. Fill & Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	10	0.059	1.50	LIGHT AQUA	0.15
271	3	TU3-02	2	97-107	Ic/III	Undif 20th/19th c. Fill & Intact IIBC &/or US Army All Periods; Tayentas House				FLAT GLASS	1	20	0.130	3.30	LIGHT AQUA	1.42
271	3	TU3-02	2	97-107	Ic/III	Undif 20th/19th c. Fill &										

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LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT	LEV	PP	OBJECT	SIZE	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
295	11	TU3-08	3	81-93	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.044	1.03 COLORLESS	0.14
295	11	TU3-08	3	81-93	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.041	1.11 COLORLESS	0.09
295	11	TU3-08	3	81-93	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.041	1.04 COLORLESS	0.06
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.047	1.19 COLORLESS	0.11
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.042	1.06 COLORLESS	0.02
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.043	1.09 COLORLESS	0.05
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.046	1.17 COLORLESS	0.04
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.037	0.95 COLORLESS	0.11
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.063	1.59 COLORLESS	0.18
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.042	1.06 COLORLESS	0.16
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.046	1.18 COLORLESS	0.17
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	20	0.046	1.16 COLORLESS	0.22
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.048	1.23 COLORLESS	0.05
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.103	2.62 COLORLESS	0.14
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.049	1.25 COLORLESS	0.07
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.047	1.19 COLORLESS	0.18
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.046	1.17 COLORLESS	0.08
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.056	1.43 COLORLESS	0.03
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.052	1.31 COLORLESS	0.12
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.046	1.16 COLORLESS	0.05
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.057	1.44 COLORLESS	0.23
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.043	1.08 COLORLESS	0.08
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.059	1.49 COLORLESS	0.17
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.037	0.95 COLORLESS	0.05
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.045	1.15 COLORLESS	0.07
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.045	1.14 COLORLESS	0.08
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.044	1.12 COLORLESS	0.15
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.065	1.65 COLORLESS	0.28
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.065	1.64 LIGHT AQUA	0.13
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.054	1.36 LIGHT AQUA	0.14
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	20	0.056	1.43 LIGHT AQUA	0.35
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.055	1.40 LIGHT AQUA, RESIDUE	0.23
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.060	1.52 LIGHT AQUA	0.12
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.044	1.12 LIGHT AQUA	0.08
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.045	1.14 LIGHT AQUA	0.11
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	20	0.056	1.43 LIGHT AQUA	0.54
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.056	1.42 LIGHT AQUA	0.09
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.056	1.43 LIGHT AQUA	0.07
296	7	TU3-08	4	91-104	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.071	1.81 COLORLESS	0.07
297	3	TU3-09	2	31-40	Ia/Ib/III	19th c. Fill/Intact HBC &/or US Army All Periods					FLAT GLASS	1	15	0.044	1.13 COLORLESS	0.16
298	4	TU3-09	3	38-47	III/IV	Intact HBC &/or US Army All Periods					FLAT GLASS	1	6	0.046	1.16 COLORLESS	0.06
299	1	TU3-09	4	44-59	IV	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.039	1.00 COLORLESS	0.11
305	8	TU3-12	4	57-63	III	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	6	0.063	1.59 COLORLESS	0.07
307	10	TU3-12	5	61-71	Ib	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	10	0.039	1.00 COLORLESS	0.07
307	10	TU3-12	5	61-71	Ib	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	10	0.057	1.46 LIGHT AQUA	0.13
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.063	1.61 COLORLESS	0.10
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.046	1.17 COLORLESS	0.17
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.083	2.12 COLORLESS	0.15
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.072	1.82 COLORLESS	0.10
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.043	1.08 COLORLESS	0.05
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.046	1.16 COLORLESS	0.08
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.044	1.11 COLORLESS	0.11
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.048	1.21 COLORLESS	0.14
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.042	1.07 COLORLESS	0.05
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.044	1.12 COLORLESS	0.06
308	2	TU3-12	5	61-71	Ia	19th c. Fill; Kanaka house midden	21	4			FLAT GLASS	1	10	0.045	1.15 COLORLESS	0.06
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	15	0.052	1.31 LIGHT AQUA	0.39
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	15	0.053	1.34 LIGHT AQUA	0.13
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	15	0.063	1.60 LIGHT AQUA, RESIDUE	0.23
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	15	0.048	1.21 LIGHT AQUA	0.22
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	10	0.059	1.49 LIGHT AQUA	0.18
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	10	0.045	1.15 LIGHT AQUA	0.07
309	3	TU3-12	6	71-79	III/IV	Intact HBC &/or US Army All Periods; Kanaka house midden					FLAT GLASS	1	10	0.047	1.20 LIGHT AQUA	0.11
310	8	TU3-12	7	79-88	III	Intact HBC &/or US Army All Periods; Kanaka house midden	25	1			FLAT GLASS	1	30	0.041	1.03 COLORLESS, PATINATED	0.43
310	8	TU3-12	7	79-88	III	Intact HBC &/or US Army All Periods; Kanaka house midden	25	1			FLAT GLASS	1	30	0.047	1.19 AQUA, PATINATED	0.57
311	3	TU3-13	3	64-72	Ib	Intact HBC; Kanaka house	22	1			FLAT GLASS	1	15	0.043	1.09 COLORLESS	0.08
311	3	TU3-13	3	64-72	Ib	Intact HBC; Kanaka house	22	1			FLAT GLASS	1	15	0.056	1.41 COLORLESS	0.23
311	3	TU3-13	3	64-72	Ib	Intact HBC; Kanaka house	22	1			FLAT GLASS	1	15	0.054	1.37 COLORLESS	0.15
311	3	TU3-13	3	64-72	Ib	Intact HBC; Kanaka house	22	1			FLAT GLASS	1	15	0.041	1.03 COLORLESS	0.16
311	3	TU3-13	3	64-72	Ib	Intact HBC; Kanaka house	22	1			FLAT GLASS	1	15	0.038	0.97 COLORLESS	0.09
311	3	TU3-13	3	64-72	Ib	Intact HBC; Kanaka house	22	1			FLAT GLASS	1	20	0.042	1.06 COLORLESS	0.14
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	10	0.042	1.07 AQUA	0.09
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	10	0.044	1.12 AQUA	0.11
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	10	0.043	1.10 AQUA	0.05
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	10	0.039	0.99 AQUA	0.10
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	15	0.106	2.68 AQUA	0.29
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	20	0.041	1.05 AQUA	0.15
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	15	0.052	1.32 AQUA	0.11
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	20	0.068	1.73 AQUA	0.21
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	15	0.055	1.39 AQUA	0.13
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	20	0.041	1.03 AQUA	0.21
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	20	0.041	1.04 AQUA	0.20
312	1	TU3-13	2	50-67	Ic	Undif 20th/19th c. Fill; Kanaka house					FLAT GLASS	1	30	0.069	1.76 AQUA	1.02
313	6	TU3-13	3	60-73	III	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	50	0.092	2.33 AQUA	2.90
313	6	TU3-13	3	60-73	III	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	40	0.067	1.69 AQUA	1.68
313	6	TU3-13	3	60-73	III	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	30	0.051	1.30 AQUA	1.21
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ANALYSIS OCCUPATION GROUPINGS											FEAT. LEV.		PP	OBJECT	N	SIZE (mm)	THICKNESS(n)	THICKNESS (mm)	NOTES	FLAT GLASS	WEIGHT (g)
LOT	SPEC	UNIT	LEV	DEPTH	STRAT						FEAT	LEV.									
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.060		1.52 AQUA		1.35
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.057		1.46 AQUA		0.82
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	40	0.070		1.79 AQUA		1.44
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	40	0.047		1.19 AQUA		1.06
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	40	0.069		1.75 AQUA		1.25
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.055		1.39 AQUA		0.99
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	40	0.057		1.45 AQUA		1.86
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.037		0.94 AQUA		0.42
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.054		1.37 AQUA		0.91
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.054		1.37 AQUA		0.67
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.039		1.00 AQUA		0.75
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.061		1.55 AQUA		0.60
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.046		1.18 AQUA		0.92
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.056		1.42 AQUA		1.03
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	40	0.057		1.46 AQUA		0.92
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.046		1.17 AQUA		0.55
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.044		1.12 AQUA		0.52
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.044		1.13 AQUA		0.53
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.051		1.29 AQUA		0.26
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.064		1.63 AQUA		0.80
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.053		1.35 AQUA		0.49
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.045		1.15 AQUA		0.54
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.045		1.14 AQUA		0.42
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.041		1.03 AQUA		0.31
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.056		1.41 AQUA		0.41
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.043		1.08 AQUA		0.39
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.046		1.18 AQUA		0.34
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.071		1.81 AQUA		0.66
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.052		1.32 AQUA		0.64
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.101		2.57 AQUA		0.82
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.057		1.46 AQUA		0.51
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.041		1.04 AQUA		0.37
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.059		1.49 AQUA		0.31
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.039		0.99 AQUA		0.29
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.055		1.40 AQUA		0.40
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.044		1.13 AQUA		0.33
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.053		1.35 AQUA		0.46
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.043		1.09 AQUA		0.31
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.044		1.11 AQUA		0.31
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.055		1.40 AQUA		0.49
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.065		1.66 AQUA		0.72
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.055		1.40 AQUA		0.46
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.056		1.43 AQUA		0.80
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.056		1.42 AQUA		0.23
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.056		1.41 AQUA		0.30
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.046		1.16 AQUA		0.26
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.040		1.01 AQUA		0.28
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.059		1.50 AQUA		0.17
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.058		1.47 AQUA		0.20
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.036		0.91 AQUA		0.05
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.044		1.11 AQUA		0.23
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.062		1.58 AQUA		0.25
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.041		1.03 AQUA		0.05
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.046		1.16 AQUA		0.25
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.073		1.85 AQUA		0.31
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.068		1.73 AQUA		0.12
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.060		1.52 AQUA		0.12
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.058		1.47 AQUA		0.19
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.056		1.41 AQUA		0.30
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.055		1.39 AQUA		0.33
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.044		1.12 AQUA		0.22
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.069		1.76 AQUA		0.33
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.040		1.01 AQUA		0.10
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.041		1.04 AQUA		0.14
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.044		1.12 AQUA		0.13
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.055		1.40 AQUA		0.16
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.041		1.04 AQUA		0.13
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.039		0.99 AQUA		0.12
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.040		1.01 AQUA		0.16
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	20	0.054		1.38 AQUA		0.39
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.058		1.48 AQUA		0.17
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.061		1.55 AQUA		0.21
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.059		1.49 AQUA		0.11
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.039		1.49 AQUA		0.12
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.049		1.24 AQUA		0.11
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.042		1.07 AQUA		0.09
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.043		1.10 AQUA		0.11
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.044		1.11 AQUA		0.10
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	30	0.044		1.11 AQUA		0.32
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.040		1.03 AQUA		0.08
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.043		1.08 AQUA		0.13
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	15	0.046		1.17 AQUA		0.11
313	6	TU3-13	3	60-73	III	Intact IIBC &/or US Army All Periods; Kanaka house								FLAT GLASS	1	10	0.044		1.12 AQU		

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FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT.	FEAT.	LEV.	PP	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
319	3	TU3-15	5	66-77	III/IV	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	10	0.050	1.27 AQUA, CRAZED		0.15
319	3	TU3-15	5	66-77	III/IV	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	15	0.035	0.89 COLORLESS		0.10
319	3	TU3-15	5	66-77	III/IV	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	10	0.040	1.01 COLORLESS		0.07
319	3	TU3-15	5	66-77	III/IV	Intact HBC &/or US Army All Periods; Kanaka house					FLAT GLASS	1	10	0.061	1.56 COLORLESS		0.16
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.074	1.87 AQUA		0.26
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.046	1.16 AQUA		0.09
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.062	1.57 AQUA		0.39
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.069	1.75 AQUA		0.18
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.051	1.29 AQUA		0.16
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.069	1.76 AQUA		0.16
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.055	1.39 AQUA		0.06
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	15	0.067	1.70 AQUA		0.07
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.078	1.97 COLORLESS		0.14
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.062	1.57 COLORLESS		0.05
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.054	1.37 COLORLESS		0.07
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.049	1.25 COLORLESS		0.16
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.049	1.24 COLORLESS		0.06
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.060	1.52 COLORLESS		0.04
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.058	1.47 COLORLESS		0.03
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.051	1.29 COLORLESS		0.02
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	6	0.051	1.29 COLORLESS		0.08
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.043	1.08 COLORLESS		0.03
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.034	0.86 COLORLESS		0.07
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.057	1.46 COLORLESS		0.09
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.075	1.91 COLORLESS		0.12
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.051	1.30 COLORLESS		0.09
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.043	1.10 COLORLESS		0.08
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.048	1.23 COLORLESS		0.05
321	5	TU3-16	2	83-95	III	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.060	1.53 COLORLESS		0.15
322	6	TU3-16	3	94-99	III/IV	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.055	1.39 COLORLESS		0.19
322	6	TU3-16	3	94-99	III/IV	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.050	1.28 COLORLESS		0.11
322	2	TU3-16	4	98-108	III/IV	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	10	0.040	1.01 COLORLESS		0.08
323	2	TU3-16	4	98-108	III/IV	Intact HBC &/or US Army All Periods; Tayentas House					FLAT GLASS	1	20	0.044	1.11 AQUA		0.09
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	15	0.077	1.96 AQUA		0.48
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	15	0.122	3.10 COLORLESS		0.44
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	10	0.122	3.10 COLORLESS		0.16
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	15	0.090	2.29 COLORLESS		0.25
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	15	0.091	2.30 COLORLESS		0.48
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	30	0.094	2.40 COLORLESS		0.74
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	20	0.091	2.32 COLORLESS, PAINTED LINE		0.96
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	30	0.088	2.24 COLORLESS		0.99
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	40	0.122	3.11 COLORLESS		4.61
324	4	TU3-17	2	105-115	IIb	20th c. Fill					FLAT GLASS	1	60	0.122	3.10 COLORLESS		5.38
325	2	TU3-17	3	115-120	IIb	20th c. Fill					FLAT GLASS	1	30	0.088	2.23 COLORLESS		1.07
325	2	TU3-17	3	115-120	IIb	20th c. Fill					FLAT GLASS	1	15	0.089	2.26 COLORLESS		0.40
325	2	TU3-17	3	115-120	IIb	20th c. Fill					FLAT GLASS	1	15	0.089	2.26 COLORLESS		0.26
325	2	TU3-17	3	115-120	IIb	20th c. Fill					FLAT GLASS	1	30	0.090	2.29 COLORLESS		0.43
325	2	TU3-17	3	115-120	IIb	20th c. Fill					FLAT GLASS	1	40	0.118	2.99 COLORLESS		0.57
325	2	TU3-17	3	115-120	IIb	20th c. Fill					FLAT GLASS	1	30	0.087	2.22 COLORLESS		1.74
326	10	TU3-17	4	116-127	IIc	Unidif 20th/19th c. Fill					FLAT GLASS	1	96	0.082	2.09 COLORLESS		0.10
326	10	TU3-17	4	116-127	IIc	Unidif 20th/19th c. Fill					FLAT GLASS	1	15	0.096	2.44 COLORLESS		0.19
326	10	TU3-17	4	116-127	IIc	Unidif 20th/19th c. Fill					FLAT GLASS	1	15	0.088	2.23 COLORLESS		0.25
326	10	TU3-17	4	116-127	IIc	Unidif 20th/19th c. Fill					FLAT GLASS	1	15	0.088	2.24 COLORLESS		0.48
326	10	TU3-17	4	116-127	IIc	Unidif 20th/19th c. Fill					FLAT GLASS	1	20	0.092	2.33 COLORLESS		0.77
327	3	TU3-18	2	75-91	IIb	20th c. Fill					FLAT GLASS	1	30	0.089	2.27 COLORLESS		1.41
327	3	TU3-18	2	75-91	IIb	20th c. Fill					FLAT GLASS	1	10	0.128	3.26 COLORLESS		0.29
327	3	TU3-18	2	75-91	IIb	20th c. Fill					FLAT GLASS	1	15	0.093	2.35 COLORLESS		0.27
327	3	TU3-18	2	75-91	IIb	20th c. Fill					FLAT GLASS	1	15	0.074	1.87 COLORLESS		0.32
327	3	TU3-18	2	75-91	IIb	20th c. Fill					FLAT GLASS	1	20	0.093	2.36 COLORLESS		0.26
328	2	TU3-18	3	87-101	IIb	20th c. Fill					FLAT GLASS	1	10	0.067	1.70 COLORLESS		0.68
328	2	TU3-18	3	87-101	IIb	20th c. Fill					FLAT GLASS	1	10	0.041	1.05 COLORLESS		0.09
328	2	TU3-18	3	87-101	IIb	20th c. Fill					FLAT GLASS	1	15	0.054	1.38 COLORLESS		0.12
328	2	TU3-18	3	87-101	IIb	20th c. Fill					FLAT GLASS	1	10	0.092	2.34 COLORLESS		0.15
329	1	TU3-18	4	97-107	IIb	20th c. Fill					FLAT GLASS	1	30	0.256	6.49 COLORLESS		0.14
330	3	TU3-19	2	33-59	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	20	0.079	2.01 COLORLESS		2.08
330	3	TU3-19	2	33-59	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	10	0.063	1.60 COLORLESS		0.41
331	1	TU3-19	3	54-62	IIc	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	30	0.090	2.28 COLORLESS		0.10
333	1	TU3-19	5	68-81	IIc	Unidif 20th/19th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	30	0.071	1.80 COLORLESS		0.60
338	5	TU3-19	5	68-78	IIc	Unidif 20th/19th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	15	0.124	3.16 COLORLESS		0.83
342	5	TU3-19	7	89-104	IIc	Unidif 20th/19th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	10	0.088	2.23 COLORLESS		0.56
345	4	TU3-20	3	107-119	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	10	0.098	2.50 COLORLESS		0.10
345	4	TU3-20	3	107-119	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	15	0.088	2.23 COLORLESS		0.12
345	4	TU3-20	3	107-119	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	15	0.077	1.95 COLORLESS		0.24
345	4	TU3-20	3	107-119	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	15	0.104	2.65 COLORLESS		0.27
345	4	TU3-20	3	107-119	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	30	0.093	2.35 COLORLESS		0.28
346	2	TU3-20	4	117-127	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	15	0.069	1.75 COLORLESS		0.37
346	2	TU3-20	4	117-127	IIb	20th c. Fill; ca. 1859 Quartermasters stable building					FLAT GLASS	1	40	0.085	2.17 COLORLESS		0.38
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	15	0.120	3.04 AQUA		1.17
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	10	0.056	1.43 AQUA		0.36
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	10	0.078	1.98 AQUA		0.12
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	10	0.074	1.87 AQUA		0.15
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	10	0.061	1.56 AQUA		0.14
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	20	0.082	2.08 AQUA		0.17
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	40	0.070	1.77 AQUA, PATINATED		0.38
353	5	TU3-22	1	2-22	IIb	20th c. Fill					FLAT GLASS	1	10	0.047	1.20 COLORLESS		1.96
353	5	TU3-22	1	2-22	IIb	20th c. Fill											

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT.	FEAT. LEV.	PP	OBJECT	N	SIZE (mm)	THICKNESS (in)	THICKNESS (mm)	NOTES	WEIGHT (g)
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	15	0.089	2.27	COLORLESS	0.19
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	15	0.047	1.19	COLORLESS	0.17
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	10	0.070	1.77	COLORLESS	0.17
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	15	0.079	2.01	COLORLESS, PATINATED	0.26
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	10	0.081	2.06	COLORLESS	0.32
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	20	0.074	1.88	COLORLESS	0.13
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	10	0.081	2.05	CLEAR, PATINATED	0.71
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	10	0.062	1.58	CLEAR, PATINATED	0.27
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	20	0.058	1.47	COLORLESS, PATINATED	0.12
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	15	0.059	1.50	COLORLESS, PATINATED	0.29
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	20	0.081	2.05	COLORLESS, PATINATED	0.13
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	30	0.062	1.57	COLORLESS, PATINATED	0.35
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	20	0.065	1.66	COLORLESS, PATINATED	0.51
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	30	0.084	2.14	COLORLESS, PATINATED	0.63
353	5	TU3-22	1	2-22	lb	20th c. Fill				FLAT GLASS	1	40	0.067	1.71	COLORLESS, PATINATED	1.66
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	10	0.059	1.49	AQUA	2.02
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.061	1.55	AQUA	1.81
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.073	1.86	AQUA	0.13
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.084	2.14	AQUA	0.21
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	10	0.074	1.87	AQUA	0.10
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.074	1.87	AQUA	0.23
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.088	2.23	AQUA	0.13
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.082	2.08	AQUA	0.23
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.067	1.69	AQUA	0.32
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.049	1.25	AQUA, PATINATED	0.30
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.074	1.88	AQUA, PATINATED	0.27
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.065	1.65	AQUA, PATINATED	0.23
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	20	0.066	1.67	AQUA, PATINATED	0.32
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.067	1.69	AQUA	0.31
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.065	1.64	AQUA, PATINATED	0.27
354	1	TU3-22	2	12-24	lb	20th c. Fill				FLAT GLASS	1	15	0.058	1.48	AQUA, PATINATED	0.25
355	6	TU3-22	3	22-34	lb	20th c. Fill				FLAT GLASS	1	30	0.078	1.98	AQUA, PATINATED	0.34
355	6	TU3-22	3	22-34	lb	20th c. Fill				FLAT GLASS	1	10	0.067	1.69	COLORLESS	1.26
355	6	TU3-22	3	22-34	lb	20th c. Fill				FLAT GLASS	1	15	0.083	2.12	COLORLESS, PATINATED	0.20
355	6	TU3-22	3	22-34	lb	20th c. Fill				FLAT GLASS	1	20	0.092	2.34	COLORLESS	0.43
355	6	TU3-22	3	22-34	lb	20th c. Fill				FLAT GLASS	1	15	0.064	1.62	COLORLESS	0.62
355	6	TU3-22	3	22-34	lb	20th c. Fill				FLAT GLASS	1	20	0.057	1.46	COLORLESS, PATINATED	0.19
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	15	0.061	1.56	AQUA, PATINATED	0.42
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	15	0.095	2.42	AQUA, PATINATED	0.29
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	10	0.071	1.80	AQUA, PATINATED	0.41
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	10	0.111	2.83	AQUA, PATINATED	0.18
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	10	0.050	1.27	AQUA, PATINATED	0.22
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	10	0.070	1.77	AQUA, PATINATED	0.14
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	15	0.087	2.21	AQUA, PATINATED	0.20
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	15	0.048	1.22	AQUA, PATINATED	0.33
356	4	TU3-22	3	32-44	lb	20th c. Fill				FLAT GLASS	1	15	0.043	1.10	AQUA, PATINATED	0.16
356	4	TU3-22	4	32-44	lb	20th c. Fill				FLAT GLASS	1	20	0.068	1.72	AQUA, PATINATED	0.17
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.080	2.03	AQUA, PATINATED	0.49
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.086	2.49	AQUA, PATINATED	0.31
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.068	1.67	AQUA, PATINATED	0.57
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.057	1.45	AQUA, PATINATED	0.27
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.080	2.03	AQUA, PATINATED	0.37
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.059	1.50	AQUA, PATINATED	0.54
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.067	1.71	AQUA, PATINATED	0.57
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.100	2.53	AQUA, PATINATED	0.39
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.078	1.97	AQUA, PATINATED	0.31
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.056	1.41	AQUA, PATINATED	0.51
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.056	1.43	AQUA, PATINATED	0.25
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.055	1.39	AQUA, PATINATED	0.36
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.080	2.04	AQUA, PATINATED	0.63
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.078	1.99	AQUA, PATINATED	0.60
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.068	1.73	AQUA, PATINATED	0.75
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.069	1.74	AQUA, PATINATED	0.22
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.078	1.97	AQUA, PATINATED	0.52
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.062	1.58	AQUA, PATINATED	0.41
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.067	1.70	AQUA, PATINATED	0.58
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	30	0.079	2.01	AQUA, PATINATED	0.73
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	10	0.061	1.55	COLORLESS	1.19
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.100	2.55	COLORLESS	0.10
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.076	1.94	COLORLESS	0.18
356	4	TU3-22	4	32-44	lb	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.080	2.04	COLORLESS	0.10
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.054	1.38	AQUA, PATINATED	0.28
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.054	1.37	AQUA, PATINATED	0.58
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.056	1.42	AQUA	0.25
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.053	1.34	COLORLESS	0.09
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.072	1.82	COLORLESS	0.12
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.061	1.55	COLORLESS	0.19
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	20	0.063	1.60	COLORLESS	0.58
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.061	1.54	COLORLESS	0.24
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.071	1.81	COLORLESS	0.14
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	30	0.061	1.54	COLORLESS	0.87
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.081	2.07	COLORLESS, PATINATED	0.30
357	3	TU3-22	5	41-54	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.093	2.36	COLORLESS, PATINATED	0.35
358	1	TU3-22	6a	52-80	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.075	1.90	AQUA	0.63
358	1	TU3-22	6a	52-80	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	15	0.103	2.62	COLORLESS	0.34
358	1	TU3-22	6a	52-80	III/IV	Intact HBC &/or US Army All Periods				FLAT GLASS	1	30	0.068	1.72	COLORLESS	1.16

11983

PRELIMINARY

FLAT GLASS

11984

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT LEV	FEAT IP	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.043	1.58 COLORLESS		0.07
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.060	1.52 COLORLESS		0.10
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.042	1.06 COLORLESS		0.03
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.044	1.12 COLORLESS		0.06
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.065	1.64 COLORLESS		0.05
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.047	1.20 COLORLESS		0.03
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.003	0.09 COLORLESS		0.02
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.042	1.08 COLORLESS		0.05
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.045	1.15 COLORLESS		0.05
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.056	1.43 COLORLESS		0.08
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.057	1.45 COLORLESS		0.05
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.015	0.38 COLORLESS		0.01
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.043	1.10 COLORLESS		0.13
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.048	1.23 COLORLESS		0.06
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.042	1.06 COLORLESS		0.02
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.092	2.34 COLORLESS		0.09
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.041	1.04 COLORLESS		0.07
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.041	1.05 COLORLESS		0.04
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.037	0.95 COLORLESS		0.02
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.041	1.04 COLORLESS		0.06
93	14	TU4-02	2	10-27	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.051	1.29 COLORLESS		0.07
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.078	1.97 AQUA		0.20
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.063	1.59 AQUA		0.10
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.045	1.15 AQUA		0.09
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.064	1.63 AQUA		0.24
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.080	2.02 AQUA		0.22
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.045	1.14 AQUA		0.06
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.065	1.64 AQUA		0.16
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.051	1.29 AQUA		0.04
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.085	2.15 AQUA		0.12
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.061	1.54 AQUA		0.05
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	20	0.039	1.00 AQUA		0.18
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.045	1.15 AQUA		0.13
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	20	0.076	1.93 AQUA		0.39
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.083	2.12 AQUA		0.44
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	20	0.079	2.01 AQUA		0.57
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	20	0.080	2.04 AQUA		0.39
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.037	0.94 COLORLESS		0.05
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.040	1.02 COLORLESS		0.05
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.055	1.39 COLORLESS		0.04
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.040	1.01 COLORLESS		0.06
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.043	1.10 COLORLESS		0.01
94	3	TU4-02	3	18-30	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.047	1.20 COLORLESS		0.06
95	3	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.043	1.08 COLORLESS		0.03
95	3	TU4-02	4	27-40	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.057	1.45 AQUA		0.09
96	8	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				FLAT GLASS	1	10	0.048	1.22 COLORLESS		0.11
96	8	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				FLAT GLASS	1	20	0.128	3.26 COLORLESS		1.13
96	8	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				FLAT GLASS	1	20	0.043	1.09 AQUA		0.33
96	9	TU4-03	1	-3 to 10	I	Modern Sod; House 4B				MIRROR GLASS	1	10	0.050	1.26 MIRROR		0.03
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	10	0.066	1.68 COLORLESS		0.04
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	10	0.122	3.09 COLORLESS		0.23
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	10	0.044	1.13 COLORLESS		0.05
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	15	0.128	3.26 COLORLESS		0.38
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	10	0.085	2.16 COLORLESS		0.15
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	10	0.088	2.24 COLORLESS		0.18
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	10	0.086	2.19 COLORLESS		0.21
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	15	0.130	3.29 COLORLESS		0.43
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	15	0.121	3.07 COLORLESS		0.47
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	15	0.120	3.05 COLORLESS		0.48
97	5	TU4-03	2	4-16	IIc	Undif 20th/19th c. Fill; House 4B				FLAT GLASS	1	30	0.120	3.05 COLORLESS		1.73
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.060	1.52 AQUA, CRAZED		0.16
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.048	1.21 AQUA		0.16
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.042	1.06 AQUA		0.20
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.037	0.94 AQUA		0.07
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.043	1.10 AQUA		0.17
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.048	1.22 AQUA		0.06
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	6	0.061	1.54 AQUA		0.05
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.032	0.81 AQUA		0.05
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.039	0.98 AQUA		0.04
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.045	1.14 AQUA		0.04
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.049	1.24 AQUA		0.10
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.044	1.13 AQUA		0.13
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.048	1.23 AQUA		0.15
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.044	1.12 AQUA		0.08
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.050	1.26 AQUA		0.09
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.050	1.26 AQUA		0.23
98	8	TU4-03	3	12-20	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	30	0.047	1.20 AQUA		0.30
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.046	1.17 COLORLESS		0.07
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.050	1.26 COLORLESS		0.27
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.048	1.23 COLORLESS		0.09
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.077	1.95 COLORLESS		0.12
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.066	1.67 AQUA		0.34
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.048	1.23 AQUA		0.28
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.046	1.16 AQUA		0.07
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	10	0.051	1.30 AQUA		0.13
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1	15	0.045	1.14 AQUA		0.19
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B				FLAT GLASS	1					

PRELIMINARY

FOVA 3100 CRC										PRELIMINARY										FLAT GLASS	
LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS				FEAT	FEAT LEV	DP	OBJECT	N	SIZE	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.041	1.05 AQUA		0.12		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	30	0.046	1.17 AQUA		0.19		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.046	1.18 AQUA		0.12		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.037	0.93 AQUA		0.07		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.043	1.08 AQUA		0.09		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.052	1.32 AQUA		0.17		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.051	1.29 AQUA		0.32		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.060	1.53 AQUA		0.26		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.036	0.92 AQUA		0.24		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.043	1.10 AQUA		0.19		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.046	1.17 AQUA		0.15		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.039	1.00 AQUA		0.11		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.049	1.24 AQUA		0.31		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.050	1.26 AQUA		0.26		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.048	1.22 AQUA		0.31		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.041	1.05 AQUA		0.28		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.046	1.17 AQUA		0.34		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.050	1.26 AQUA		0.39		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	30	0.048	1.22 AQUA		0.56		
99	10	TU4-03	4	15-25	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	30	0.040	1.01 AQUA		0.46		
100	4	TU4-03	5	25-35	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.058	1.47 AQUA		0.15		
100	4	TU4-03	5	25-35	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.044	1.13 AQUA		0.15		
101	3	TU4-03	6	35-47	III	Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.043	1.08 COLORLESS		0.01		
103	5	TU4-04	2	7-15	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.049	1.25 COLORLESS		0.09		
103	5	TU4-04	2	7-15	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.057	1.44 COLORLESS		0.07		
103	5	TU4-04	2	7-15	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.049	1.24 COLORLESS		0.06		
103	5	TU4-04	2	7-15	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.044	1.12 COLORLESS		0.04		
103	5	TU4-04	2	7-15	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.052	1.31 COLORLESS		0.02		
103	5	TU4-04	2	7-15	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.093	2.37 COLORLESS		0.95		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.111	2.82 AQUA		0.34		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.075	1.91 AQUA		0.17		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.052	1.32 COLORLESS		0.23		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.078	1.99 COLORLESS		0.20		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	15	0.144	3.66 COLORLESS		0.49		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.128	3.26 COLORLESS		0.8		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	20	0.104	2.63 COLORLESS		0.89		
104	7	TU4-04	3	14-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	50	0.081	2.07 COLORLESS		1.61		
106	6	TU4-04	4	19-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.041	1.05 AQUA		0.07		
106	6	TU4-04	4	19-24	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.057	1.44 COLORLESS		0.14		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.076	1.92 COLORLESS		0.05		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.071	1.80 COLORLESS		0.14		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	6	0.047	1.19 COLORLESS		0.03		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	6	0.043	1.10 COLORLESS		0.02		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.044	1.12 COLORLESS		0.11		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	10	0.056	1.43 COLORLESS		0.18		
107	8	TU4-04	5	21-30	IIa/III	19th c. Fill/Intact HBC &/or US Army All Periods; House 4B							FLAT GLASS	1	30	0.087	2.21 COLORLESS		1.11		
108	2	TU4-05	1	0-10	I	Modern Sod							FLAT GLASS	1	10	0.046	1.17 AQUA		0.06		
110	5	TU4-05	2	6-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	6	0.039	0.98 COLORLESS		0.03		
110	5	TU4-05	2	6-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	15	0.090	2.29 COLORLESS		0.19		
115	3	TU4-06	3	20-30	IIa/IV	19th c. Fill							FLAT GLASS	1	15	0.047	1.20 AQUA		0.15		
126	3	TU4-08	1	-6 to 4	I/IIc	Modern Sod/Undif 20th/19thc. Fill							FLAT GLASS	1	10	0.034	0.87 COLORLESS		0.05		
128	6	TU4-08	3	10-23	IIc	Undif 20th/19th c. Fill							FLAT GLASS	1	20	0.074	1.88 COLORLESS		0.63		
130	4	TU4-08	4	16-30	IIc	Undif 20th/19th c. Fill							FLAT GLASS	1	15	0.065	1.66 AQUA		0.21		
133	4	TU4-09	1	0-9	I/IIc	Modern Sod/Undif 20th/19thc. Fill							FLAT GLASS	1	10	0.048	1.23 COLORLESS		0.09		
134	2	TU4-09	2	5-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	15	0.073	1.86 COLORLESS		0.12		
134	2	TU4-09	2	5-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	15	0.086	2.18 COLORLESS		0.28		
134	2	TU4-09	2	5-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	20	0.095	2.42 AQUA		0.60		
134	2	TU4-09	2	5-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	15	0.067	1.69 AQUA		0.43		
134	2	TU4-09	2	5-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	10	0.041	1.04 AQUA		0.05		
134	2	TU4-09	2	5-20	IIc	Undif 20th/19thc. Fill							FLAT GLASS	1	20	0.052	1.32 AQUA		0.18		
135	5	TU4-09	3	20-30	IIc/III	Undif 20th/19th c. Fill & Intact HBC &/or US Army All Periods							FLAT GLASS	1	10	0.043	1.08 AQUA		0.05		
136	3	TU4-09	4	30-40	IIc	Undif 20th/19thc. Fill				3		1	FLAT GLASS	1	10	0.044	1.11 COLORLESS		0.09		
136	3	TU4-09	4	30-40	IIc	Undif 20th/19thc. Fill				3		1	FLAT GLASS	1	10	0.057	1.44 AQUA		0.11		
136	3	TU4-09	4	30-40	IIc	Undif 20th/19thc. Fill				3		1	FLAT GLASS	1	15	0.070	1.79 COLORLESS		0.15		
137	3	TU4-09	5	40-50	IIc	Undif 20th/19thc. Fill				3		2	FLAT GLASS	1	15	0.064	1.63 COLORLESS		0.31		
138	3	TU4-09	4,5	50-60	IIc	Undif 20th/19thc. Fill				3		3	FLAT GLASS	1	15	0.069	1.76 COLORLESS		0.24		
139	2	TU4-10	1	0-6	I	Modern Sod; House 4B							FLAT GLASS	1	6	0.056	1.42 COLORLESS		0.05		
139	2	TU4-10	1	0-6	I	Modern Sod; House 4B							FLAT GLASS	1	6	0.037	0.94 COLORLESS		0.03		
139	2	TU4-10	1	0-6	I	Modern Sod; House 4B							FLAT GLASS	1	10	0.079	2.00 COLORLESS		0.11		
141	6	TU4-10	3	15-18	IIb	Intact HBC; House 4B							FLAT GLASS	1	15	0.048	1.23 COLORLESS		0.24		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.063	1.61 COLORLESS		0.06		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.054	1.38 COLORLESS		0.05		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.039	0.98 COLORLESS		0.02		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	6	0.055	1.39 COLORLESS		0.06		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.059	1.50 COLORLESS		0.19		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.059	1.50 COLORLESS		0.07		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.055	1.39 COLORLESS		0.10		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.057	1.44 COLORLESS		0.11		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	15	0.061	1.55 COLORLESS		0.21		
142	6	TU4-10	4	17-26	IIb	Intact HBC; House 4B							FLAT GLASS	1	30	0.070	1.78 COLORLESS		0.49		
144	6	TU4-10	5	25-37	IIb	Intact HBC; House 4B							FLAT GLASS	1	10	0.057	1.45 COLORLESS		0.13		
147	4	TU4-11	1	0-13	I/IIc	Modern Sod/Undif 20th/19thc. Fill; House 4B							FLAT GLASS	1	6	0.036	0.92 COLORLESS		0.03		

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT	LEV	pp	OBJECT	N	SIZE	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
166	2	TUS-01	3	19-30	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.075	1.61	COLORLESS	0.12
166	2	TUS-01	3	19-30	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.075	1.90	COLORLESS	0.27
166	2	TUS-01	3	19-30	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	15	0.071	1.80	COLORLESS	0.19
166	2	TUS-01	3	19-30	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	15	0.075	1.90	COLORLESS	0.18
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	15	0.077	1.95	COLORLESS	0.06
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.085	2.15	COLORLESS, ETCHED	0.13
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.044	1.11	COLORLESS, ETCHED	0.10
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.090	2.29	COLORLESS	0.09
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.121	3.08	COLORLESS	0.36
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.081	2.05	COLORLESS	0.18
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	10	0.092	2.33	COLORLESS	0.10
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	15	0.074	1.89	COLORLESS	0.23
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	15	0.095	2.42	AQUA	0.34
171	2	TUS-02	2	10-20	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	20	0.098	2.49	GREEN	0.39
172	3	TUS-02	3	20-30	I/c	Undif 20th/19thc. Fill					FLAT GLASS	1	15	0.087	2.21	COLORLESS, ETCHED	0.28
192	2	TUS-06	3	45-74	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	15	0.073	1.85	COLORLESS	0.17
192	2	TUS-06	3	45-74	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	15	0.075	1.91	COLORLESS	0.41
192	2	TUS-06	3	45-74	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	15	0.074	1.87	COLORLESS	0.36
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	50	0.090	2.28	AQUA	4.55
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	30	0.092	2.33	AQUA	0.64
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	20	0.061	1.56	AQUA	0.27
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	6	0.069	1.75	COLORLESS	0.05
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	6	0.053	1.35	AQUA	0.07
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	6	0.065	1.66	COLORLESS	0.05
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.070	1.77	COLORLESS, ETCHED	0.06
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.061	1.54	COLORLESS	0.06
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.061	1.56	AQUA	0.18
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.096	2.43	AQUA	0.15
198	5	TUS-08	2	22-32	III	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.056	1.41	COLORLESS	0.08
199	4	TUS-08	3	28-43	III/IV	Intact HBC &/or US Army All Periods					FLAT GLASS	1	30	0.072	1.83	AQUA	0.61
199	4	TUS-08	3	28-43	III/IV	Intact HBC &/or US Army All Periods					FLAT GLASS	1	15	0.069	1.75	AQUA	0.26
199	4	TUS-08	3	28-43	III/IV	Intact HBC &/or US Army All Periods					FLAT GLASS	1	10	0.054	1.37	COLORLESS	0.05
199	4	TUS-08	3	28-43	III/IV	Intact HBC &/or US Army All Periods					FLAT GLASS	1	6	0.069	1.75	COLORLESS	0.04
200	3	TUS-09	2	72-87	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	40	0.089	2.25	COLORLESS	1.08
200	3	TUS-09	2	72-87	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	30	0.089	2.26	COLORLESS, BURNED, CRACKED	0.90
200	3	TUS-09	2	72-87	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	30	0.059	1.50	AQUA	0.76
200	3	TUS-09	2	72-87	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	20	0.058	1.48	AQUA	0.32
200	3	TUS-09	2	72-87	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	15	0.088	2.23	COLORLESS	0.22
200	3	TUS-09	2	72-87	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	15	0.049	1.24	COLORLESS	0.18
201	5	TUS-09	3	76-96	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	20	0.072	1.84	MIRROR?	0.52
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	40	0.057	1.44	COLORLESS, ETCHED	1.35
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	15	0.057	1.45	COLORLESS, ETCHED, CRACKED	0.25
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	15	0.057	1.85	COLORLESS	0.32
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	15	0.057	1.44	COLORLESS, ETCHED, CRACKED	0.20
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	10	0.051	1.29	MIRROR?	0.11
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	10	0.037	0.95	COLORLESS	0.05
202	1	TUS-09	4	88-102	I/c	Undif 20th/19thc. Fill; 1859 Harney building					FLAT GLASS	1	6	0.046	1.16	COLORLESS	0.04
203	7	TUS-09	5	100-111	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	50	0.075	1.90	COLORLESS	3.97
203	7	TUS-09	5	100-111	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	20	0.073	1.86	COLORLESS	0.61
203	7	TUS-09	5	100-111	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	20	0.061	1.55	COLORLESS, ETCHED	0.35
203	7	TUS-09	5	100-111	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	6	0.052	1.32	COLORLESS	0.12
204	3	TUS-09	6	110-127	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	20	0.077	1.96	COLORLESS	0.54
204	3	TUS-09	6	110-127	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	20	0.056	1.41	AQUA	0.35
204	3	TUS-09	6	110-127	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	15	0.080	2.03	COLORLESS	0.25
204	3	TUS-09	6	110-127	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	15	0.073	1.86	COLORLESS	0.18
204	3	TUS-09	6	110-127	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	10	0.095	2.41	AQUA	0.22
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	1	10	0.054	1.38	COLORLESS	0.13
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.096	2.43	AMBER	0.14
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.068	1.72	GREEN	0.26
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.086	2.18	AQUA, CRACKED	0.20
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.055	1.39	COLORLESS, ETCHED	2.00
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.070	1.77	COLORLESS, SCRATCHED	3.27
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.074	1.88	COLORLESS, ETCHED	3.78
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.071	1.81	COLORLESS, ETCHED	0.24
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.053	1.35	COLORLESS	0.16
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.050	1.26	COLORLESS, ETCHED	0.12
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.091	2.32	COLORLESS	0.16
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.028	0.72	COLORLESS	0.09
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.086	2.19	COLORLESS	0.19
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.066	1.67	COLORLESS	0.20
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.054	1.37	COLORLESS	0.15
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.062	1.57	COLORLESS	0.11
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.064	1.63	COLORLESS	0.13
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.093	2.35	COLORLESS	3.82
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.079	2.01	COLORLESS, CRACKED	1.47
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.078	1.97	COLORLESS, BURNED, CRACKED	1.64
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.087	2.21	COLORLESS	2.36
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.073	1.85	COLORLESS, ETCHED	1.35
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.067	1.71	COLORLESS	1.88
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.091	2.32	COLORLESS	1.80
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.070	1.77	COLORLESS, CRACKED	1.56
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.069	1.76	COLORLESS	1.18
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney building					FLAT GLASS	7	1	0.057	1.45	COLORLESS	1.57
205	26	TUS-09	7	112-137	I/a	19th c. Fill; 1859 Harney											

FOVA 3100 CRC						PRELIMINARY												FLAT GLASS			
LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS						FEAT	FEAT	OBJCT	N	SIZE	THICKNESS(in)	THICKNESS (mm)	NOTES		WEIGHT (g)
											LEV	PP									
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.064	1.62 COLORLESS	1.02
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	10	0.075	1.90 COLORLESS	0.11
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	10	0.060	1.52 COLORLESS, CRACKED	0.13
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	10	0.057	1.46 COLORLESS	0.12
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	10	0.059	1.49 COLORLESS	0.04
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.070	1.78 COLORLESS	1.15
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.072	1.82 COLORLESS, CRACKED	0.33
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.078	1.98 COLORLESS	1.16
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.070	1.79 COLORLESS	1.22
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.079	2.00 COLORLESS	1.52
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.075	1.91 COLORLESS	0.62
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.075	1.91 COLORLESS	1.01
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.084	2.13 COLORLESS	0.57
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.086	2.18 COLORLESS, ETCHED	0.60
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.067	1.71 COLORLESS	0.58
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.056	1.43 COLORLESS	0.85
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.066	1.68 COLORLESS, CRACKED	0.50
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.066	1.68 COLORLESS, CRACKED	0.44
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.055	1.39 COLORLESS, CRACKED	0.28
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.067	1.71 COLORLESS	0.44
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.079	2.01 COLORLESS	0.43
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.064	1.38 COLORLESS, ETCHED	0.30
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.086	2.19 COLORLESS, ETCHED	0.55
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.075	1.90 COLORLESS	0.36
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.076	1.93 COLORLESS	0.17
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.074	1.87 COLORLESS, RESIDUE	0.41
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.061	1.54 COLORLESS	0.40
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.066	1.68 COLORLESS, ETCHED	0.55
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.070	1.78 COLORLESS, CRACKED	0.40
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.077	1.96 COLORLESS	0.95
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.065	1.64 COLORLESS	0.34
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.095	2.42 COLORLESS	0.48
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.069	1.74 COLORLESS	0.34
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.076	1.93 COLORLESS	0.52
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.073	1.86 COLORLESS, ETCHED	0.46
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.062	1.57 COLORLESS	0.39
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.082	2.22 COLORLESS	0.38
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.070	1.77 COLORLESS	0.32
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	30	0.082	2.08 COLORLESS	0.60
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.062	1.58 COLORLESS	0.41
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.070	1.77 COLORLESS	0.36
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.087	2.20 AQUA	0.14
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.042	1.07 AQUA, ETCHED	0.22
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.060	1.52 COLORLESS	0.26
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.075	1.90 COLORLESS, ETCHED	0.34
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.087	2.21 COLORLESS, ETCHED	0.36
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.071	1.81 COLORLESS	0.30
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.058	1.48 COLORLESS	0.26
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.072	1.83 COLORLESS	0.33
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	20	0.055	1.39 COLORLESS	0.18
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.073	1.85 COLORLESS	0.28
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.065	1.64 COLORLESS	0.12
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.067	1.70 COLORLESS	0.14
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.067	1.69 COLORLESS	0.29
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.070	1.78 AQUA	0.12
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.063	1.60 COLORLESS, CRACKED	0.27
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.068	1.73 COLORLESS, ETCHED	1.73
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.063	1.59 COLORLESS	0.14
205	26	TUS-09	7	112-137	fla	19th c. Fill; 1859 Harney building								7	1	FLAT GLASS	1	15	0.071	1.80 COLORLESS, ETCHED	0.23
205	26	TUS-09	7																		

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT LEV	PR	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.077		.95 COLORLESS	0.37
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.081		2.06 COLORLESS	0.50
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.064		1.63 ETCHED	0.25
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.095		2.41 COLORLESS	0.36
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.063		1.59 COLORLESS	0.33
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.069		1.75 COLORLESS	0.34
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	15	0.058		1.48 COLORLESS	0.24
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.058		1.48 COLORLESS	0.68
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.069		1.74 ETCHED	0.70
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.088		2.24 COLORLESS	0.91
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.087		2.20 COLORLESS	0.62
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.076		1.94 COLORLESS	0.62
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.059		1.49 COLORLESS	0.41
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.089		2.25 COLORLESS	0.31
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.071		1.80 COLORLESS	0.75
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.055		1.40 COLORLESS	0.20
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.090		2.29 COLORLESS	0.46
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.087		2.21 COLORLESS	0.48
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.074		1.89 COLORLESS	0.47
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.076		1.93 COLORLESS	0.53
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.062		1.58 COLORLESS	0.55
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	20	0.111		2.81 AQUA	0.41
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.076		1.93 COLORLESS	0.89
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.054		1.38 COLORLESS	0.80
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.057		1.46 COLORLESS	1.38
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.078		1.99 ETCHED	1.10
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.074		1.89 CRACKED	0.53
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.055		1.39 COLORLESS	1.32
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.065		1.64 COLORLESS	0.60
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.064		1.63 COLORLESS	0.43
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.078		1.97 COLORLESS	0.81
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.067		1.70 COLORLESS	0.62
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	30	0.063		1.59 COLORLESS	0.28
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	40	0.082		2.09 COLORLESS	1.06
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	40	0.089		2.25 COLORLESS	1.25
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	40	0.059		1.50 COLORLESS	1.56
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	40	0.067		1.71 COLORLESS	1.13
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	40	0.059		1.50 COLORLESS	1.66
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	40	0.091		2.31 COLORLESS	1.93
208	17	TUS-09	8	121-140	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	50+	0.070		1.79 COLORLESS	2.16
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building	7	2		FLAT GLASS	1	10	0.049		1.24 LANTERN GLASS	0.13
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.091		2.32 COLORLESS	0.12
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.033		0.83 COLORLESS	0.04
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.064		1.63 COLORLESS	0.39
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.076		1.93 COLORLESS	0.55
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.104		2.63 COLORLESS	0.35
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.072		1.84 COLORLESS	0.16
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.048		1.21 COLORLESS	0.14
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.065		1.66 COLORLESS	0.16
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.057		1.46 COLORLESS	0.20
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.067		1.69 COLORLESS	0.48
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.075		1.91 COLORLESS	0.75
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.084		2.13 COLORLESS	0.40
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.057		1.46 CRAZED	0.23
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.083		2.10 COLORLESS	1.32
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.074		1.87 COLORLESS	1.12
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.072		1.84 COLORLESS	0.96
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.073		1.86 COLORLESS	0.28
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.074		1.89 COLORLESS	0.84
211	4	TUS-09	9	124-150	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	40	0.072		1.83 COLORLESS	1.57
212	4	TUS-09	10	139-161	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.078		1.98 COLORLESS	0.36
213	5	TUS-09	11	150-170	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.071		1.81 AQUA	0.49
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.067		1.69 AQUA	0.13
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.127		3.22 AQUA	0.16
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.066		1.67 AQUA	0.12
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.078		1.99 AQUA	0.17
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.070		1.79 AQUA	0.14
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.073		1.86 AQUA	0.10
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.047		1.20 GREEN	0.14
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.054		1.37 COLORLESS	0.15
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.049		1.25 COLORLESS	0.11
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.045		1.14 COLORLESS	0.06
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.050		1.26 COLORLESS	0.10
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.067		1.69 AQUA	0.22
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.046		1.18 AQUA	0.18
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.028		0.70 GREEN	0.08
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.076		1.93 COLORLESS	0.36
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.066		1.68 COLORLESS	0.41
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.091		2.32 AQUA	0.24
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.072		1.83 AQUA	0.17
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.067		1.70 AQUA	0.26
215	10	TUS-09	13	160-192	11a	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.054		1.36 COLORLESS	0.27</

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT.	FEAT.	PP	OBJECT	SIZE	THICKNESS(n)	THICKNESS (mm)	NOTES	WEIGHT (g)
							FEAT.	LEV.	PP		N				
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.068	1.72 AQUA	0.35
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.045	1.14 AQUA	0.28
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.050	1.27 AQUA, ETCHED	0.44
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.070	1.77 AQUA	0.58
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.092	2.34 AQUA	0.57
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.080	2.04 AQUA	0.25
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.044	1.13 AQUA	0.35
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.066	1.67 AQUA	0.13
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.074	1.89 COLORLESS	0.37
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.057	1.44 COLORLESS	0.37
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.074	1.88 COLORLESS, CRACKED	0.22
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.080	2.04 COLORLESS	1.05
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.073	1.85 AQUA, ETCHED	0.37
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.059	1.49 AQUA, CRACKED	0.57
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.092	2.33 AQUA, CRACKED	1.17
215	10	TUS-09	13	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.087	2.22 COLORLESS	1.14
216	6	TUS-09	14	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	40	0.091	2.31 COLORLESS	1.53
216	6	TUS-09	14	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.071	1.80 AQUA	0.32
216	6	TUS-09	14	160-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.052	1.31 COLORLESS	0.08
217	1	TUS-09	15	170-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	6	0.045	1.14 AQUA	0.06
217	1	TUS-09	15	170-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.058	1.48 AQUA	0.10
217	1	TUS-09	15	170-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.066	1.68 AQUA, CRACKED	0.09
217	1	TUS-09	15	170-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.078	1.99 COLORLESS, CRACKED	0.14
217	1	TUS-09	15	170-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.056	1.41 AQUA	0.14
217	1	TUS-09	15	170-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.076	1.93 ETCHED	0.45
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.069	1.74 CLEAR	0.42
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.094	2.39 CLEAR	0.89
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.062	1.75 AQUA	0.36
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.076	1.92 AQUA	0.29
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.032	0.82 COLORLESS, CRAZED	0.06
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.080	2.02 COLORLESS	0.10
218	6	TUS-09	16	180-192	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	10	0.044	1.13 COLORLESS	0.05
222	6	TUS-09	20	220-230	Ia	19th c. Fill; 1859 Harney building	15	1		FLAT GLASS	1	30	0.056	1.43 AQUA	2.79
222	6	TUS-09	20	220-230	Ia	19th c. Fill; 1859 Harney building	15	1		FLAT GLASS	1	20	0.057	1.45 AQUA	0.38
222	6	TUS-09	20	220-230	Ia	19th c. Fill; 1859 Harney building	15	1		FLAT GLASS	1	30	0.064	1.61 COLORLESS	0.40
222	8	TUS-10	2	36-49	Ia	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.057	1.46 COLORLESS	0.64
229	3	TUS-10	4	51-53	Ia	19th c. Fill; 1859 Harney building	6	1		FLAT GLASS	1	15	0.048	1.21 COLORLESS	0.13
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.072	1.82 COLORLESS, PATINATED	0.15
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.061	1.56 COLORLESS	0.25
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.046	1.16 COLORLESS	0.19
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	15	0.080	2.04 COLORLESS	0.36
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.076	1.93 COLORLESS	0.69
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.082	2.09 COLORLESS	0.26
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	20	0.065	1.64 COLORLESS	0.29
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.061	1.56 COLORLESS	0.32
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.078	1.98 COLORLESS	0.81
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.049	1.25 COLORLESS	0.60
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.053	2.12 COLORLESS	1.20
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.080	1.27 COLORLESS	1.36
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	30	0.072	1.84 COLORLESS, PATINATED	1.72
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	50	0.081	2.06 COLORLESS	2.99
230	11	TUS-10	5	47-60	Ia	19th c. Fill; 1859 Harney building				FLAT GLASS	1	50	0.079	2.01 COLORLESS	5.64
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.085	2.16 AQUA	0.59
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	10	0.059	1.49 AQUA	0.08
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.054	1.37 AQUA	0.22
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.085	2.16 COLORLESS	0.22
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.069	1.74 COLORLESS	0.51
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.046	1.18 COLORLESS	0.11
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	10	0.065	1.64 COLORLESS	0.20
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.067	1.69 COLORLESS	0.17
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.074	1.89 COLORLESS	0.29
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.069	1.74 COLORLESS	0.14
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.085	2.17 COLORLESS, PATINATED	0.54
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.081	2.05 COLORLESS, PATINATED	0.23
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.069	1.75 COLORLESS, PATINATED	0.25
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	30	0.064	1.62 COLORLESS, PATINATED	1.23
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.074	1.88 COLORLESS, PATINATED	0.63
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	40	0.085	2.16 COLORLESS, PATINATED	0.98
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.062	1.57 COLORLESS, PATINATED	0.25
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.044	1.11 COLORLESS, PATINATED	0.16
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.078	1.97 COLORLESS, PATINATED	0.21
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	10	0.077	1.95 COLORLESS, PATINATED	0.16
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.071	1.81 COLORLESS, PATINATED	0.65
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.041	1.03 COLORLESS, PATINATED	0.10
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.046	1.18 COLORLESS, PATINATED	0.25
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	10	0.081	2.06 COLORLESS, PATINATED	0.19
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.074	1.89 COLORLESS, PATINATED	0.18
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.069	1.74 COLORLESS, PATINATED	0.15
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.066	1.43 COLORLESS, PATINATED	0.22
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.089	2.25 COLORLESS, PATINATED	0.44
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.072	1.84 COLORLESS, PATINATED	0.41
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.048	1.22 COLORLESS, PATINATED	0.24
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.047	1.20 COLORLESS, PATINATED	0.17
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	20	0.081	2.07 COLORLESS, PATINATED	0.34
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.100	2.54 COLORLESS, PATINATED	0.23
231	12	TUS-10	6	52-68	III	Intact HBC &/or US Army All Periods; 1859 Harney building				FLAT GLASS	1	15	0.057	1.46 COLORLESS, PATINATED	0.18
231	12	TUS-10	6	52-68	III	Intact H									

11991

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT.	FEAT.	DP	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
							LEV.									
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	30	0.070		1.77 COLORLESS, RESIDUE	0.45
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	30	0.071		1.81 COLORLESS, CHIPPED	1.15
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS	0.19
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	30	0.070		1.77 COLORLESS, RESIDUE	1.22
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	40	0.071		1.80 COLORLESS, RESIDUE	1.32
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.074		1.87 COLORLESS, RESIDUE	0.23
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.074		1.88 COLORLESS	0.38
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	30	0.071		1.80 COLORLESS, CHIPPED	0.82
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.046		1.18 COLORLESS	0.16
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.070		1.77 COLORLESS, RESIDUE	0.46
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.073		1.86 COLORLESS, RESIDUE	0.59
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.79 COLORLESS	0.13
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.074		1.89 COLORLESS, RESIDUE	0.56
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.072		1.82 COLORLESS, RESIDUE	0.40
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.071		1.81 COLORLESS, RESIDUE	0.16
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.046		1.18 COLORLESS	0.09
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.067		1.70 COLORLESS	0.12
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.070		1.79 COLORLESS	0.36
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.069		1.74 COLORLESS	0.36
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.072		1.83 COLORLESS	0.22
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.040		1.02 COLORLESS	0.19
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.071		1.80 COLORLESS	0.78
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.046		1.17 COLORLESS	0.12
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.075		1.91 COLORLESS	0.16
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.074		1.89 COLORLESS	0.26
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS	0.15
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.072		1.87 COLORLESS, CHIPPED	0.12
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.78 COLORLESS	0.08
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	6	0.061		1.56 COLORLESS	0.03
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS, CHIPPED, RESIDUE	0.24
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.072		1.82 COLORLESS, RESIDUE	0.79
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.070		1.77 COLORLESS, RESIDUE	0.27
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.075		1.90 COLORLESS, RESIDUE	0.65
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.055		1.39 COLORLESS, CHIPPED, RESIDUE	0.37
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.072		1.83 COLORLESS, RESIDUE	0.13
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.073		1.86 COLORLESS, RESIDUE	0.78
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.069		1.76 COLORLESS, RESIDUE	0.07
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.072		1.82 COLORLESS, RESIDUE	0.27
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.071		1.81 COLORLESS, RESIDUE	0.45
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.071		1.81 COLORLESS, RESIDUE	0.10
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.071		1.81 COLORLESS, RESIDUE	0.48
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS, RESIDUE	0.17
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	30	0.069		1.76 COLORLESS, RESIDUE	0.55
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS, RESIDUE	0.14
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	20	0.074		1.88 COLORLESS, RESIDUE	0.52
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.073		1.86 COLORLESS, RESIDUE	0.39
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS, RESIDUE	0.14
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.067		1.70 LIGHT AQUA, RESIDUE	0.18
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.064		1.38 COLORLESS, RESIDUE, CHIPPED	0.65
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	15	0.055		1.39 COLORLESS, RESIDUE	0.18
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.072		1.82 COLORLESS, RESIDUE	0.15
235	8	TUS-11	2	18-30	11c	Undif 20th/19th c. Fill; 1859 Harney building	5	1		FLAT GLASS	1	10	0.057		1.46 COLORLESS, RESIDUE	0.15
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	15	0.069		1.75 LIGHT AQUA, INTERIOR CRACKS	0.28
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	30	0.072		1.83 COLORLESS	0.43
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	30	0.068		1.73 COLORLESS	1.19
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	10	0.069		1.76 COLORLESS	0.07
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.076		1.93 COLORLESS, CRACKS	1.07
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.076		1.93 COLORLESS	0.18
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.083		2.11 COLORLESS, YELLOW STAIN	1.04
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.090		2.29 COLORLESS, CRACKS	0.62
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.075		1.90 COLORLESS	0.34
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.069		1.74 COLORLESS, CRACKS	0.43
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	10	0.075		1.91 COLORLESS	0.15
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	15	0.076		1.92 COLORLESS	0.15
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.071		1.80 COLORLESS	0.32
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.067		1.70 COLORLESS	0.73
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	15	0.052		1.32 COLORLESS, WHITE FLECKS	0.37
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	20	0.066		1.67 COLORLESS	0.95
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	6	0.048		1.22 COLORLESS, WHITE STUFF	0.06
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	6	0.069		1.76 COLORLESS	0.11
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	15	0.076		1.93 COLORLESS, RESIDUE	0.31
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	10	0.076		1.93 COLORLESS	0.24
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	15	0.046		1.18 COLORLESS	1.14
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	10	0.030		0.75 LIGHT AQUA	0.03
236	13	TUS-11	3	30-41	11a	19th c. Fill; 1859 Harney building	5	2		FLAT GLASS	1	10	0.054		1.38 LIGHT AQUA	0.06
237	9	TUS-11	4	38-46	11a	19th c. Fill; 1859 Harney building	5	3		FLAT GLASS	1	65	0.078		1.98 LIGHT AQUA, RESIDUE	8.27
238	7	TUS-11	5	38-46	11a	19th c. Fill; 1859 Harney building	6	1		FLAT GLASS	1	10	0.070		1.77 COLORLESS	0.16
238	7	TUS-11	5	38-46	11a	19th c. Fill; 1859 Harney building	6	1		FLAT GLASS	1	15	0.062		1.77 COLORLESS	0.28
238	7	TUS-11	5	38-46	11a	19th c. Fill; 1859 Harney building	6	1		FLAT GLASS	1	30	0.051		1.29 COLORLESS, CRACKS	0.33
238	7	TUS-11	5	38-46	11a	19th c. Fill; 1859 Harney building	6	1		FLAT GLASS	1	20	0.052		1.31 COLORLESS	0.09
240	8	TUS-1														

11993

FOVA 3100 CRC

PRELIMINARY

FLAT GLASS

LOT	SPEC	UNIT	LEV	DEPTH	STRAT	ANALYSIS OCCUPATION GROUPINGS	FEAT	FEAT. LEV.	pp	OBJECT	N	SIZE (mm)	THICKNESS(in)	THICKNESS (mm)	NOTES	WEIGHT (g)
257	1	TUS-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		FLAT GLASS	1	30	0.033		1.35 COLORLESS	0.55
257	1	TUS-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		FLAT GLASS	1	20	0.070		1.78 COLORLESS	0.94
257	1	TUS-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		FLAT GLASS	1	30	0.058		1.47 COLORLESS	0.85
257	1	TUS-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		FLAT GLASS	1	10	0.059		1.50 COLORLESS	0.11
257	1	TUS-13	1	102-119	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	1		FLAT GLASS	1	15	0.043		1.09 COLORLESS	0.32
258	4	TUS-13	1	109-112	Ile	Undif 20th/19th c. Fill; ca. 1874 Vancouver House hotel	11	1		FLAT GLASS	1	20	0.087		2.22 LIGHT AQUA	0.74
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	30	0.075		1.90 LIGHT AQUA	1.00
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	30	0.080		2.02 LIGHT AQUA	1.11
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	15	0.058		1.48 LIGHT AQUA	0.50
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	20	0.065		1.66 COLORLESS	0.22
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	15	0.049		1.25 COLORLESS	0.48
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	15	0.084		2.14 COLORLESS	0.56
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	15	0.084		2.13 COLORLESS	0.40
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	6	0.053		1.35 COLORLESS	0.08
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	20	0.063		1.61 COLORLESS	0.67
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	15	0.050		1.28 COLORLESS	0.32
259	7	TUS-13	2	111-126	III	Intact HBC &/or US Army All Periods; ca. 1874 Vancouver House hotel	8	2		FLAT GLASS	1	15	0.059		1.50 COLORLESS	0.42
260	5	TUS-13	2	112-133	Ile	Undif 20th/19th c. Fill; ca. 1874 Vancouver House hotel	11	2		FLAT GLASS	1	10	0.057		1.45 COLORLESS	0.14

FOVA 3100 CRC

PRELIMINARY

VESSEL GLASS

LOT	TYPE	QUANTITY	UNIT	LFY	DEPTH	STRAT	CULTURAL STRAT DESIGNATION	TEXT	LFY	LFY	LFY	OBJECT	QTY	COLOR	FORM	SHAPE	PART	SPAC	UNIT	MANF. METH.	ST WFACE MARKS	Visual	LAB/ST MARKS	NOTES
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								BOTTLE, MEDICINE	1	50 AQUA	BOTTLE	RECTANGLE	BASE	N	N	BLOWN INTO MOLD	WHITTL MARKS			
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	40 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	BLOWN INTO MOLD	ORANGE PIEL			
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	BLOWN INTO MOLD	ORANGE PIEL			
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								TUMBLER	1	30 COLORLESS	TUMBLER	CYLINDER	HOEL	N	N	UNKNOWN	BURNED			
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								TUMBLER	1	40 COLORLESS	TUMBLER	CYLINDER	BODY	N	N	UNKNOWN	BURNED			
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								TUMBLER	1	30 COLORLESS	TUMBLER	CYLINDER	BODY	N	N	UNKNOWN	BURNED			
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	10 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	10 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
409	3	PROVINCENCE LOST IN LAB	N/A	Almond deposits								GLASS SHIELD	1	6 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
14	3	SITI-40	2	10-20	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE, SODA WATER	1	40 COLORLESS	BOTTLE	CYLINDER	BODY	N	N	MACHINE MADE	BURNED	REV		APPLIED COLOR LABEL (ORANGE)
15	3	SITI-40	3	20-30	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	40 COLORLESS	BOTTLE	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
15	3	SITI-40	3	20-30	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	30 COLORLESS	BOTTLE	UNKNOWN	BODY	N	N	UNKNOWN				
15	3	SITI-40	3	20-30	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	30 COLORLESS	BOTTLE	UNKNOWN	BODY	N	N	UNKNOWN				
16	4	SITI-40	4	40-60	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE, SODA WATER	1	50 COLORLESS	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN	BURNED			APPLIED COLOR LABEL (ORANGE)
16	4	SITI-40	4	40-60	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	30 COLORLESS	BOTTLE	CYLINDER	BASE	N	N	MACHINE MADE	BURNED, DECORATED			
16	4	SITI-40	4	40-60	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	20 COLORLESS	BOTTLE	CYLINDER	BASE	N	N	MACHINE MADE	BURNED, DECORATED			
16	4	SITI-40	4	40-60	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	60 COLORLESS	BOTTLE	CYLINDER	BASE	N	N	MACHINE MADE	BURNED, DECORATED	2A "SIT24"		EMBOSSEING ON BASE
17	3	SITI-40	3	40-60	It	Uchd 20th/19th c. Fill, low off-axis counters						BOTTLE GLASS	1	40 COLORLESS	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN				
17	3	SITI-40	3	40-60	It	Uchd 20th/19th c. Fill, low off-axis counters						GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
18	1	SITI-42	5	40-50	It	20th c. Fill						BOTTLE, BEER	1	15 AMBER	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN				
20	2	SITI-42	9	40-60	It	20th c. Fill						BOTTLE GLASS	1	30 COLORLESS	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN				
21	1	SITI-43	1	0-10	1It	Modern Soc20th c. Fill						BOTTLE GLASS	1	20 COLORLESS	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN				
22	1	SITI-43	1	70-80	It	20th c. Fill						GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
23	1	SITI-43	1	0-10	1It	Modern Soc20th c. Fill						BOTTLE GLASS	1	15 GREEN	UNKNOWN	SQUARE	UNKNOWN	N	N	UNKNOWN				
23	1	SITI-43	1	0-10	1It	Modern Soc20th c. Fill						BOTTLE GLASS	1	6 GREEN	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
23	1	SITI-43	1	0-10	1It	Modern Soc20th c. Fill						BOTTLE GLASS	1	15 COLORLESS	UNKNOWN	SQUARE	UNKNOWN	N	N	UNKNOWN				
23	1	SITI-43	1	0-10	1It	Modern Soc20th c. Fill						BOTTLE GLASS	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
21	1	SITI-44	1	0-10	1It	Modern Soc20th c. Fill						BOTTLE GLASS	1	15 COLORLESS	UNKNOWN	UNKNOWN	HOEL	N	N	UNKNOWN				
21	1	SITI-44	1	0-10	It	20th c. Filler						BOTTLE, BEER	1	20 AMBER	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN	BURNED			
25	4	SITI-45	2	10-20	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 GREEN	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
25	4	SITI-45	2	10-20	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	10 GREEN	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
25	4	SITI-45	2	10-20	It	20th c. Fill, low off-axis counters						LAMP GLASS	1	20 COLORLESS	LAMP GLASS	UNKNOWN	UNKNOWN	N	N	UNKNOWN	FLAKED			
26	3	SITI-45	2	10-20	It	20th c. Fill, low off-axis counters						LAMP GLASS	1	6 COLORLESS	LAMP GLASS	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						BOTTLE GLASS	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	30 BLACK	UNKNOWN	UNKNOWN	POSTER, MARK	N	N	UNKNOWN	BURNED, DISTORTED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	30 BLACK	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED, DISTORTED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						BOTTLE GLASS	1	50 COLORLESS	BOTTLE	CYLINDER	BODY	N	N	UNKNOWN	BURNED, DISTORTED			APPLIED COLOR LABEL (ORANGE)
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	40 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED, DISTORTED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	30 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
26	3	SITI-45	2	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	10 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
27	3	SITI-45	3	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	BURNED			
27	3	SITI-45	3	20-30	It	20th c. Fill, low off-axis counters						BOTTLE GLASS	1	50 COLORLESS	BOTTLE	UNKNOWN	BODY	N	N	UNKNOWN	BURNED, FLATTOP	NOT CO		ETCHING
27	3	SITI-45	3	20-30	It	20th c. Fill, low off-axis counters						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	FLAKED			
27	3	SITI-45	3	40-60	It	20th c. Fill, low off-axis counters						BOTTLE GLASS	1	60 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	PATTERN MOLD, MELTED			
27	3	SITI-45	3	40-60	It	20th c. Fill, low off-axis counters						BOTTLE GLASS	1	30 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	MELTED			
409	1	SITZ-46	3	1-9	It	20th c. Fill, blacksmith shop						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
410	1	SITZ-46	3	9-22	It	20th c. Fill, blacksmith shop						GLASS SHIELD	1	10 GREEN	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
410	1	SITZ-46	3	9-22	It	20th c. Fill, blacksmith shop						GLASS SHIELD	1	6 RED	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
414	1	SITZ-47	5	31-41	It/IV	20th c. Fill						GLASS SHIELD	1	15 AQUA	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
414	1	SITZ-47	5	31-41	It/IV	20th c. Fill						GLASS SHIELD	1	6 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN	CRIZZLING			
415	2	SITZ-48	1	0-10	1It	Modern Soc20th c. Fill						GLASS SHIELD	1	10 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						BOTTLE GLASS	1	40 COLORLESS	BOTTLE	UNKNOWN	BODY	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						BOTTLE GLASS	1	30 COLORLESS	BOTTLE	UNKNOWN	BODY	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						BOTTLE GLASS	1	30 COLORLESS	BOTTLE	UNKNOWN	BODY	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						GLASS SHIELD	1	30 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						GLASS SHIELD	1	15 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						GLASS SHIELD	1	15 AMBER	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						GLASS SHIELD	1	15 AMBER	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
416	1	SITZ-48	2	10-20	It	20th c. Fill						GLASS SHIELD	1	10 OLIVE	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
419	2	SITZ-49	1	0-10	I	Modern Soc						BOTTLE GLASS	1	15 AMBER	BOTTLE	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
420	2	SITZ-49	3	20-30	It	20th c. Fill						BOTTLE GLASS	1	30 AMBER	BOTTLE	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
420	2	SITZ-49	3	20-30	It	20th c. Fill						GLASS SHIELD	1	30 AQUA	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				
421	1	SITZ-49	3	40-60	It	Uchd 20th/19th c. Fill						GLASS SHIELD	1	20 COLORLESS	UNKNOWN	UNKNOWN	UNKNOWN	N	N	UNKNOWN				

[illegible]

