

**BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT**

FOR THE PURPOSE OF AUTHORIZING	)	RESOLUTION NO. 92-1614A
ISSUANCE OF A REQUEST FOR BIDS	)	
FOR GROUNDWATER MONITORING WELL	)	Introduced by Rena Cusma,
IMPROVEMENTS AND PIEZOMETER	)	Executive Officer
INSTALLATION AT ST. JOHNS LANDFILL	)	

WHEREAS, It is in the public interest that the St. Johns Landfill closure process move forward in an expeditious manner; and

WHEREAS, A Water quality monitoring plan has been submitted to the Oregon Department of Environmental Quality (DEQ) as part of the St. Johns Landfill closure; and

WHEREAS, In their March 5, 1992 letter DEQ required construction of additional shallow groundwater monitoring wells and nested piezometer clusters; and

WHEREAS, This resolution along with the Request for Bid and contract form for the work described above were submitted to the Executive Officer for consideration and all were forwarded to the Council for approval; and

WHEREAS, The resolution was submitted to the Executive Officer for consideration and was forwarded to the Council for approval; now therefore,

BE IT RESOLVED,

That the Council of the Metropolitan Service District authorizes issuance of an RFB for work associated with Groundwater Monitoring Well Improvements and Piezometer Installation at the St. Johns Landfill.

ADOPTED by the Council of the Metropolitan Service District this 14<sup>th</sup> day of May, 1992.

  
\_\_\_\_\_  
Jim Gardner, Presiding Officer

JK:ay  
SW921614.RES

## SOLID WASTE COMMITTEE REPORT

CONSIDERATION OF RESOLUTION NO. 92-1614, FOR THE PURPOSE OF AUTHORIZING ISSUANCE OF A REQUEST FOR BIDS FOR GROUNDWATER MONITORING WELL IMPROVEMENTS AND PIEZOMETER INSTALLATION AT ST. JOHNS LANDFILL

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Date: May 6, 1992

Presented by: Councilor Van Bergen

**Committee Recommendation:** At the May 5 meeting, the Committee voted 3-0 to recommend Council adoption of Resolution No. 92-1608. Voting in favor: Councilors Hansen, Van Bergen and Wyers.

**Committee Issues/Discussion:** Joanna Karl, Engineering and Analysis Staff, explained that the resolution would authorize issuance of an RFB for work to address a DEQ request that Metro make certain improvements in the groundwater quality monitoring well system at the St. Johns Landfill. DEQ also is requiring the installation of piezometers to measure groundwater levels.

Karl noted that the RFB has been reviewed internally, by the DEQ, and by Parametrix, which provides Metro with engineering services related to the landfill closure. Karl offered several technical amendments to the RFB based on comments from those who reviewed the proposal. For example, the RFB now provides that the well installation contractor have experience in drilling wells in a landfill.

Jim Watkins, Engineering and Analysis Manager, explained that the contract would be for five years, the approximate length of the major closure work at the landfill. Watkins noted that the original estimated cost of \$363,000 was developed by Metro staff. This amount is included in the FY 92-93 budget. An outside review indicates that the cost of the proposed work will be \$330,000, plus or minus 30 percent.

Watkins indicated that the bulk of the well development, abandonment and improvement work and the installation of the piezometers will be completed during the first year of the contract. The work during the remaining years of the contract will primarily be repair and maintenance of the well and piezometer systems. Bidders will be submitting a per hour charge for up to 300 hours of work during the last four years of the contract. Watkins indicated that work during the initial year of the contract would cost about \$240,000. This work was originally estimated to cost \$200,000, but DEQ is now requiring the installation of additional wells and piezometers.

Councilor Van Bergen asked legal counsel what DEQ's general regulatory authority was in this area. Todd Sadlo, Senior Assistant Counsel, indicated that he would review the applicable statutes and rules and respond at a future date.





## METRO

2000 S.W. First Avenue  
Portland, OR 97201-5398  
503/221-1646

# Memorandum

To: Solid Waste Committee Members

From: John Houser, Council Analyst

Date: April 29, 1992

Re: Resolution No. 92-1614, For the Purpose Authorizing Issuance of a Request for Bids for Groundwater Monitoring Well Improvements and Piezometer Installation at St. Johns Landfill

Resolution No. 92-1614 is scheduled for committee consideration at the May 7 meeting.

### Background

The DEQ has advised Metro that it will require the installation of additional groundwater monitoring equipment as part of the closure of the St. Johns Landfill. The RFB would be for a five-year contract. A majority of the work including well construction and abandonment, piezometer installation and various maintenance activities would be completed during the first year of the contract. Additional work in subsequent years of the contract would include maintenance, repair and possible replacement of wells as deemed necessary. The five-year contract will cover the entire closure construction period at the landfill.

The proposed FY 92-93 budget includes \$363,000 for the major construction work associated with the contract. It is anticipated that compensation for the remaining years of the contract would be at an hourly rate agreed upon in the contract.

### Issues and Questions

The committee may wish to address the following issues related to the resolution:

- 1) How was the estimated cost of the proposed work during FY 92-93 determined?
- 2) Does staff have any estimate as to the potential cost of the remaining four years of the proposed contract?
- 3) Was the cost of this project included in the original cost estimate for the closure of the landfill?

## STAFF REPORT

### IN CONSIDERATION OF RESOLUTION NO. 92-1614 FOR THE PURPOSE OF AUTHORIZING THE ISSUANCE OF A REQUEST FOR BIDS FOR GROUNDWATER MONITORING WELL IMPROVEMENTS AND PIEZOMETER INSTALLATION AT ST. JOHNS LANDFILL

Date: May 5, 1992

Presented by: Jim Watkins  
Joanna Karl

#### PROPOSED ACTION

Adopt Resolution No. 92-1614 which authorizes the issuance of a Request for Bids (RFB) for Groundwater Monitoring Well Improvements and Piezometer Installation at St. Johns Landfill.

#### FACTUAL BACKGROUND AND ANALYSIS

As part of the closure of St. Johns Landfill, it is necessary to maintain existing wells which provide reliable water quality data, to abandon existing wells which do not provide reliable water quality data, and to construct new wells as required by the Oregon Department of Environmental Quality (DEQ). The new wells consist of shallow groundwater monitoring wells (for water quality data) and nested piezometer clusters (for water level data). The water level data is to determine the groundwater flow paths in the vicinity of the landfill site, such that the rate and extent of groundwater input from the landfill to the sloughs and the lakes can be determined.

The Request for Bids (RFB) is for a 5-year contract to handle work required throughout the entire closure period. The majority of the work described - including well abandonment, shallow groundwater monitoring well and piezometer construction, and maintenance - will be completed in 1992. An "Hourly Charge" is included on the bid sheet to handle "unanticipated conditions" encountered during the abandonment and maintenance work.

The work required in the later years of the contract include: (1) well extension(s) of the interior wells as the landfill surface is brought to subgrade; and (2) yet-to-be-determined "Additional Work", anticipated to include repair or replacement of existing wells due to damage during the closure construction, as well as general maintenance of the wells. A five-year contract was considered necessary because it could be difficult to get a competitive bidder for the relatively small amount of remaining work.

Payment for the "Additional Work" in the years 1993-1996 will be made at the contract hourly rate that was bid plus a yearly percentage increase.

#### BUDGET

\$363,000 is budgeted from the closure account in the 1992-1993 fiscal year for repair, construction and abandonment of the groundwater monitoring wells at St. Johns Landfill.





**METRO**

2000 S.W. First Avenue  
Portland, OR 97201-5398  
503/221-1646

# Memorandum

DATE: May 11, 1992

TO: Metro Council  
Executive Officer  
Interested Parties *PA*

FROM: Paulette Allen, Clerk of the Council

RE: AGENDA ITEM NO. 7.2; RESOLUTION NO. 92-1614

Because of the volume of that RFB document, the "St. Johns Landfill Groundwater Monitoring Well Improvements and Piezometer Installation RFB #92B-13-W" was printed separately from the Council agenda. Copies will be available at the Council meeting May 14 also. Thank you.

## STAFF REPORT

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Jim Gardner, Presiding Officer

JK:ay  
SW921614.RES

**St. Johns Landfill**

**Groundwater Monitoring Well Improvements and  
Piezometer Installation**

**RFB #92B-13-SW**

**Metropolitan Service District  
Solid Waste Department  
2000 S.W. First Avenue  
Portland, Oregon 978201-5398**



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## PART I

**INVITATION TO BID**

Sealed Bids for the abandonment, construction, extension, maintenance, and repair of groundwater monitoring wells at St. Johns Landfill, RFB #92B-13-SW, must be delivered to the Metropolitan Service District (Metro), 2000 S.W. First Avenue, Portland, OR 97201-5398, to the attention of Joanna Karl, Senior Engineer no later than 3:00 p.m., Pacific Standard Time (PST), Friday, June 5, 1992. At that time, the Bids will be opened and publicly read aloud at Metro in the Council Chamber.

The project is located at the St. Johns Landfill, 9363 N. Columbia Blvd., Portland, OR. Some drilling work will be performed approximately 600 feet north of the landfill in the Bybee Lakes wetlands area, and approximately 500 feet east of the landfill in the Smith Lake wetlands area. The St. Johns Landfill is classified as a sanitary landfill. As a sanitary landfill, the possibility exists of encountering gases, leachates and/or other substances that may be potentially hazardous to the health and safety of personnel during work at the St. Johns Landfill.

The work contemplated includes the following:

- Well abandonment for a minimum of 16 existing wells. An estimated five additional wells may also need abandonment, based on the results of checking well quality;
- Check the quality of 16 existing wells;
- Remove silt from 11 existing wells;
- Install inserts into 8 existing monitoring wells;
- Install 7 shallow monitoring wells;
- Install 9 multiple piezometers (Metro provides the casing and instrumentation); and
- Extend, remove extensions, and complete surface casing and grouting for the 5 existing H-series wells during construction activities through year 1996.

Metro is currently in the process of closing the St. Johns Landfill. Thus, the groundwater monitoring well improvements and piezometer installation work will need to be coordinated with other contractors on site, doing the following work: 1) soils are being procured and stockpiled on the site over a one-year period which began in the fall of 1991, the soils are being used to preload selected areas of the landfill to accelerate settlement and to achieve final grades in closures; and 2) closure of Subarea 1, which will begin in the spring of 1992. The landfill will be in the first phase of the construction of final cover for the closure of the 230-acre St. Johns Landfill, covering a 35-acre portion of the site which includes Subarea 1, the northern portion of the Powerline Corridor (PLC), and the western portion of Subarea 2. The closure work includes stripping and stockpiling of existing topsoil and low permeable soil; procurement and placement of subgrade embankment material; placement of a low permeable soil barrier; procurement and installation of 40 mil VLDPE geomembrane, geonet composite, Type I sand, and topsoil; and installation of surface water control measures including hydroseeding, and installation of gas extraction wells, PVC and HDPE gas piping, construction of a temporary gas flare system, and construction of a temporary gas condensate system.

## INVITATION TO BID

It is anticipated that certain designated tasks described in this scope of work will be completed before the Subarea 1 closure begins. The well extension (and removal of extensions) will be done in stages, as required by the construction work. The Contractor shall coordinate all activities, as necessary, with other contractors on site.

Before a contract is awarded, Metro may conduct such additional investigations as are necessary to determine whether a Bidder is qualified. Upon request, the Bidder shall promptly submit such additional information as deemed necessary by Metro to evaluate the Bidder's qualifications.

Each Bid must be submitted on the prescribed form and accompanied by a certified check or cashier's check or Bid Bond executed on the prescribed form, payable to the Metropolitan Service District in the amount of TEN THOUSAND DOLLARS (\$ 10,000.00). The Bid and bid security should be delivered in a sealed envelope marked "St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation", RFB #92B-13-SW" to the attention of Joanna Karl.

Bidders shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

The successful Bidder will be required to furnish the necessary additional Bonds for the faithful performance of the Contract and for the payment of all persons supplying labor and materials as prescribed in the Contract Documents.

Each Bid must contain a statement as to whether the Bidder is a resident bidder, as defined in ORS 279.029.

Bidders or Subcontractors shall be licensed under ORS 468A.720 (regarding licensing of the contractors on projects involving asbestos abatement), in the event the soils may be contaminated.

Contractor shall be a duly licensed and bonded monitoring well constructor in Oregon, and otherwise comply with ORS 537.447 et seq. and OAR Chapter 690, Division 240. The Employees of the Contractor, who are performing the drilling work on the landfill site, shall have the same. Only licensed well constructors shall operate the drilling machines. To be awarded this bid, the Contractor must have, at a minimum, the following experience:

- Abandoned a minimum of 500 lineal feet of monitoring wells on landfill sites; and
- Constructed a minimum of 500 lineal feet of monitoring wells on landfill sites.

In the event that any subcontractors are to be used, Bidders are to comply with Metro's Disadvantaged Business Program. The program goals are:

Disadvantaged Business Enterprises	10 percent
Women-Owned Business Enterprises	3 percent

The percentage goals are applicable to the total amount of the Work.

## **INVITATION TO BID**

As part of the Bid, all Bidders must submit a statement that they will comply with the contract goals or have made good faith efforts to do so. Failure to meet these goals or to demonstrate good faith efforts to do so will constitute a non-responsive Bid. See "Instructions to Bidders" for references to applicable procedures and the Appendix stating Metro's position on this issue. Any questions regarding DBE/WBE requirements should be addressed to the Metro Procurement Officer, Mr. Rich Wiley at (503) 221-1646, ext. 536.

For any task or portion of a task to be undertaken by a subcontractor or materials supplier, the Contractor shall not engage a DBE/WBE subcontractor or materials supplier on an exclusive basis prior to Contract award.

This project is considered a public works project. By signing and submitting a Bid for this project, Bidders certify that payment of prevailing wage rates will be complied with, as contained in ORS 279.350. No Bid will be received or considered by Metro unless the Bid contains a statement by the Bidder that the provisions of ORS 279.350, regarding prevailing wage rates, are to be complied with.

A Pre-Bid Conference for prospective Bidders will be conducted at 2:00 p.m., PDT, on Tuesday, May 26, 1992 at the St. Johns Landfill, 9363 N. Columbia Blvd., Portland, Oregon.

Metro reserves the right to reject all Bids or any Bids not conforming to the intent and purpose of the Contract Documents, to reject for good cause any and all Bids upon a finding of Metro that it is in the public interest to do so or to waive any informality or irregularity in any Bid or Bids. Metro further reserves the right to award the Contract at any time within sixty (60) days following the Bid opening date.

For information concerning the proposed work contact Joanna Karl, Senior Engineer, (503) 221-1646.

Dated on this \_\_\_\_\_ day of \_\_\_\_\_, 1992.

**METROPOLITAN SERVICE DISTRICT**

By: \_\_\_\_\_  
Bob Martin, Director  
Solid Waste Department



**INSTRUCTIONS TO BIDDERS****1. DESCRIPTION OF WORK**

The project is located at the St. Johns Landfill, 9363 N. Columbia Blvd., Portland, OR. Some drilling work will be performed approximately 600 feet north of the landfill in the Bybee Lakes wetlands area, and approximately 500 feet east of the landfill in the Smith Lake wetlands area. The St. Johns Landfill is classified as a sanitary landfill. As a sanitary landfill, the possibility exists of encountering gases, leachates and/or other substances that may be potentially hazardous to the health and safety of personnel during work at the St. Johns Landfill.

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It is anticipated that certain designated tasks described in this scope of work will be completed before the Subarea 1 closure begins. The well extension (and removal of extensions) will be done

## **INSTRUCTIONS TO BIDDERS**

in stages, as required by the construction work. The Contractor shall coordinate all activities, as necessary, with other contractors on site.

### **2. DEFINITIONS**

Except as otherwise specifically provided herein, all words and phrases defined in the Special Conditions shall have the same meaning and intent in these Instructions to Bidders. Bidders should refer to those definitions as they read these Instructions.

### **3. DOCUMENT INTERPRETATION**

The Contract Documents are intended to be complementary and to provide all details reasonably required for the execution of the proposed Work. Any person contemplating the submission of a Bid shall have thoroughly examined all of the various parts of these Contract Documents. If the Bidder has any doubt as to the meaning or the intent of the Contract Documents or finds any inconsistency or discrepancy within the Contract Documents, the Bidder must request Metro's interpretation, in writing at least six (6) working days prior to Bid opening. Such requests for interpretation shall be mailed or delivered to Metro at 2000 S.W. First Avenue, Portland, Oregon 97201-5398, Attention: Joanna Karl. Any interpretations or changes in the Contract Documents will be made only in writing, in the form of Addenda to the Contract Documents which will be furnished to all Bidders receiving a set of the Bidding Documents and which shall be binding upon all Bidders as if set forth in the original Contract Documents. Bidders shall indicate receipt of all Addenda on their Bids. Metro will not be responsible for any other explanation or interpretation of the Bidding Documents. Bidders shall have no right to rely on any oral interpretation or instructions made by Metro or the Engineer, unless it is also committed to writing and issued as an Addendum.

In the absence of any pre-bid request for clarification, or any interpretation of the Contract Documents, as outlined above, any subsequent interpretation shall be made by Metro, and shall be final and binding on the successful Bidder, and Metro shall pay no extra costs or expenses to such Bidder resulting from such interpretation.

### **4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE AND COMPLIANCE WITH LAWS**

Before submitting a Bid, Bidders shall fully examine and read the Contract Documents; visit the site of the proposed Work, and examine the Site and the surrounding areas; and fully inform themselves of all conditions on, in, at and around the Site, the surrounding areas, and any work that may have been done thereon. The Bidder acknowledges by the submission of its Bid that it understands the nature and location of the Work, the general and local conditions, conditions of the Site, electric power, water, and the kind of surface materials on the Site, the kind of equipment needed, and all other matters which may in any way affect the Work or the cost, including utilities not identified in the Contract Documents.



## INSTRUCTIONS TO BIDDERS

Information derived from inspection of the Contract Documents and any specific sections thereof showing location of utilities and structures will not in any way relieve the Contractor from any risk, or from properly examining the Site and making such additional investigations as it may elect, or from properly fulfilling all the terms of the Contract Documents. An available list of technical reports, including site conditions and subsurface and monitoring information, are included in the Special Conditions. A report, "Site Characterization/Health and Safety Hazards," is included in the Appendix.

Asbestos fill areas shown on the Drawings are known controlled disposal areas in operation since 1985. Contractor may encounter asbestos contaminated waste in other areas.

Metro does not in any way warrant the accuracy of any information in such investigations and Bidders shall have no right to rely on the information contained in such records or investigations. Furthermore, if the Bidder determines that additional investigations of site and/or soil conditions are necessary or desirable, Bidder shall cause such additional investigations to be made, at Bidder's expense, prior to submitting a Bid and subject to coordination with Metro.

Any failure of a Bidder to acquaint itself with all of the available information concerning conditions or having such additional investigations of Site and soil conditions conducted, as may be necessary, will not relieve it from responsibility for estimating properly the difficulties or cost of the Work and the Bidder shall, regardless of such failure, be bound to its Bid, except as otherwise specified herein.

Each Bidder shall inform itself of, and the Bidder awarded a Contract shall comply with, federal, state, and local laws, codes, statutes, ordinances, and regulations, as amended, relative to the execution of the Work. Each Bidder shall prepare its Bid in accordance with, and all Bid prices shall assume compliance with, such laws, codes, statutes, ordinances and regulations. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, prevailing wage rates, nondiscrimination in the employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and nonburning requirements, permits, fees, and similar subjects.

If any portion of the Contract Documents does not conform to such laws, codes, statutes, ordinances or regulations as amended, the Bidder shall so advise Metro in writing at least ten (10) business days before Bids are due. If it is shown that the Contractor, as Bidder, knew or should have known that any portion of the Contract Documents does not conform to such laws, codes, statutes, ordinances or regulations and had failed to so advise Metro, it shall be liable for costs of making any deviation(s) required for compliance with such laws, codes, statutes, ordinances or regulations.

Each Bidder, in submitting its Bid, certifies that the Bidder is eligible to receive a contract for a public work, as set forth in ORS 279.361 and agrees, if awarded the Contract, that each of its Subcontractors will be required to certify such compliance, and certification will be filed with Metro prior to such Subcontractor commencing any work under the Contract. A copy of "PREVAILING

WAGE RATES for Public Works Contracts in Oregon" is enclosed herein and applies to the work performed under the Contract.

**5. DISADVANTAGED BUSINESS PROGRAM COMPLIANCE**

Metro has made a strong commitment to provide maximum opportunities to Disadvantaged and Women-Owned Businesses in contracting. The successful Bidder will be required to meet Metro's Disadvantaged Business Program goals or clearly demonstrate that a good faith effort has been made to meet the goals. The goals for this Contract are: Disadvantaged Business Enterprises (DBEs) -- ten percent (10%), and Women-Owned Business Enterprises (WBEs) -- three percent (3%) of the Base Bid Amount. DBEs and WBEs must be certified by the state of Oregon as DBEs/WBEs, at the time of Bid opening, to be counted toward the Contract goals.

The Bid submitted must contain a fully completed Disadvantaged Business Program Compliance Form contained herein. Metro will require apparent low Bidders to submit completed DBE and WBE Utilization Forms (also contained herein) and all good faith efforts documentation by the close of the next working day following Bid opening. Within five working days of Bid opening, such Bidders must submit to Metro signed letters of agreement between the Bidder and the DBE/WBE subcontractors or suppliers to be utilized in performance of the Contract. Detailed procedures for completing the forms and for demonstrating good faith efforts are contained in Metro Code 2.04 (Metro's Disadvantaged Business Program). Refer to the Appendix for a letter from the Metro Deputy Executive Officer which states Metro's position on this issue. Any questions are to be directed to Mr. Rich Wiley, Metro Procurement Officer.

Bidder's special attention is directed to Section 2.04.155 (Contract Award Criteria), and Section 2.04.160 (Determination of Good Faith Efforts). Bidders should note that the latter section includes a requirement of:

"Advertise in trade association, general circulation, minority and trade-oriented, women-focus publications, if any, and through a minority-owned newspaper or minority-owned trade publication concerning the subcontracting or material supply opportunities (on the project) at least ten (10) days before Bids or proposals are due."

The following are minority-oriented and women-focus publications in the Portland metropolitan area that Metro is aware of:

The Hispanic News, 9203 S.E. Francis, Portland, OR 97266 (503) 777-6759

The Skanner, 2337 N. Williams Avenue, Portland, OR 97211 (503) 287-3562.

The Portland Observer, P.O. Box 3137, Portland, OR 97208 (503) 283-2486

The American Contractor, P.O. Box 11233, Portland, OR 97211 (503) 208-9000

## **INSTRUCTIONS TO BIDDERS**

Pro-Woman, P.O. Box 6957, Portland, OR 97228 (503) 452-0121

The requirement to advertise is but one of the actions necessary to demonstrate good faith efforts under this program.

Failure of the Bidder to comply with all of the requirements of the Disadvantaged Business Program will result in the Bid being deemed non-responsive.

### **6. PREPARATION OF BIDS**

All blank spaces in the Bid Forms must be completed either by typing or in ink. Amounts shall be shown in both words and figures. Any Bids which do not include prices on all Bid Items will be considered non-responsive and will be rejected. No changes shall be made in the phraseology of the forms.

Any Bid may be deemed non-responsive which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, conditioned or which in any manner shall fail to conform to the conditions of the Contract Documents.

Each Bid shall give the full business address of the Bidder and be signed by it with its legal signature.

- a. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership authorized to sign contracts on behalf of the partnership, or by an authorized representative, followed by the printed name and title of the person signing.
- b. Bids by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the president, secretary or other person authorized to bind it in the matter. When requested by Metro, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.
- c. If a Bid is submitted by a joint venture, a certified copy of the legal agreement constituting the joint venture shall be attached to the Bid.

The name of each person signing shall also be typed or printed below the signature. Signatures of all individuals must be in longhand.

Failure to fulfill any of the above requirements may render the Bid non-responsive.

**7. SUBMISSION OF BIDS**

All Bids must be submitted not later than the time prescribed, at the place, and in the manner set forth in the INVITATION TO BID. Bids must be made on the forms provided under separate cover as the BID BOOK, these forms are also contained herein as the Bid Forms. Each Bid and all other documentation required to be submitted with the Bid must be submitted in a sealed envelope, so marked as to indicate its contents without being opened, and addressed in conformance with the instructions in the INVITATION TO BID and the ADVERTISEMENT FOR BIDS.

**8. MODIFICATION OR WITHDRAWAL OF BIDS**

Any Bid may be modified after delivery to the location specified in the Invitation to Bid by delivering to the same location before the time fixed for the Bid opening, a written sealed supplement to the original Bid, marked "Supplement to Bid of (Name of Bidder) for the St. Johns Landfill Closure - Groundwater Monitoring Well Construction, RFB #92B-13-SW." A supplement shall clearly identify the Bid item(s) that are changed by setting forth the original Bid item(s), and the modified item(s). Metro may reject any Bid supplement that, in its opinion, does not set forth the proposed modifications clearly enough to determine the definiteness and certainty of the item(s) offered by the Bidder. No Bidder shall be allowed to submit more than one (1) Bid for this Contract.

Bids may be withdrawn by the Bidder prior to the time fixed for the receipt of Bids by having an authorized representative of the Bidder with sufficient identification personally pick up the Bid. Bids may not be withdrawn for a period of sixty (60) days from and after the opening of Bids or on or prior to the last date of any extension of such time as may be agreed upon between Metro and the Bidder.

**9. BID SECURITY**

Bids must be accompanied by a certified check or cashier's check drawn on a bank in good standing, or a Bid Bond on the form provided herein by Metro, issued by a surety authorized to issue such bonds in Oregon, named on the current list of approved surety companies acceptable on federal bonds, and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department, in the amount of not less than TEN THOUSAND DOLLARS (\$10,000.00). This bid security shall be given as a guarantee that the Bidder will not withdraw its Bid for a period of sixty (60) days after Bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Agreement and furnish a properly executed Performance Bond and a properly executed Labor and Materials Payment Bond, each in the full amount of the Bid, within the time specified. Bid security deposited in the form of a certified check or cashier's check shall be subject to the same requirements as a Bid Bond.

## **INSTRUCTIONS TO BIDDERS**

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

### **10. EXPERIENCE AND ABILITY TO PERFORM THE WORK**

Within twenty-four (24) hours following request by Metro, any Bidder may be required to present information indicating that the Bidder has the necessary experience and qualifications in the class of Work to be performed, and the ability, equipment, key personnel and financial resources to perform the Work satisfactorily within the time specified. In determining the award of this Contract, such information will be considered, and the Bidder is cautioned to make complete and comprehensive presentation of its abilities and resources. Failure of any Bidder to comply fully and timely with a request for information under this section shall be grounds for rejection of that Bid.

No Bidder will be considered for contract award unless such Bidder is authorized by law to execute the Contract or perform the Work for which such Bid is received. Should it appear, at any time, that any Bidder is not or might not be authorized by law to execute the Contract or perform such Work, then such Bidder may at any time be rejected and Metro may refuse to execute any contract with such Bidder regardless of whether or not the contract had been previously awarded by the Metro Council and without any liability whatever on the part of the Metropolitan Service District, its Council, or any member of its Council, or Metro's officer, employees, or its agents, either as individuals or in official capacities.

Bidders shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

The successful Bidder will be required to furnish the necessary additional Bonds for the faithful performance of the Contract and for the payment of all persons supplying labor and materials as prescribed in the Contract Documents.

Each Bid must contain a statement as to whether the Bidder is a resident bidder, as defined in ORS 279.029.

Bidders or Subcontractors shall be licensed under ORS 468A.720 (regarding licensing of the contractors on projects involving asbestos abatement), in the event the soils may be contaminated.

Contractor shall be a duly licensed and bonded monitoring well constructor in Oregon, and otherwise comply with ORS 537.447 et seq. and OAR Chapter 690, Division 240. The Employees of the Contractor, who are performing the drilling work on the landfill site, shall have the same. Only licensed well constructors shall operate the drilling machines. To be awarded this bid, the Contractor must have, at a minimum, the following experience:

- Abandoned a minimum of 500 lineal feet of monitoring wells on landfill sites; and
- Constructed a minimum of 500 lineal feet of monitoring wells on landfill sites.

**11. REJECTION OF BIDS**

Metro reserves the right to reject all Bids or any Bid not conforming to the intent and purpose of the Contract Documents, to waive any informality or irregularity in any Bid or Bids, to reject any Bid not in compliance with all prescribed public bidding procedures and requirements and, for good cause, to reject any or all Bids upon a finding by Metro that it is in the public interest to do so.

**12. BASIS OF AWARD**

Metro reserves the right to make award of this Contract to the lowest responsive, responsible Bidder, based on the lowest Total Bid amount. Any Bid which does not include bid prices for all Bid items may be considered non-responsive and will therefore be rejected. Metro will enter into negotiation with the lowest responsible bidder to resolve work-related issues, as represented by the forms included in Part III.

Under Oregon Law (Oregon Laws 1991, Chapter 385, Section 61, included in an Appendix to the bid documents), public agencies, including Metro, must give preference to the purchase of materials and supplies manufactured from recycled materials. All Bidders are required to specify the minimum, if not exact, percentage of recycled product in each product offered, and both the post-consumer and secondary waste content of each product offered. A Bidder may also specify that none of the products offered contain any recycled product. The definitions of "recycled product," "post-consumer waste," and "secondary waste material," as well as other explanatory materials, are included in the Appendix.

If a bid includes recycled products, the Bidder shall so specify in a written attachment to the Bid forms. If no statement is included, Metro will assume that none of the products offered contain any recycled product. In addition, Metro will assume that a bid item contains no recycled product if information submitted for the item is in Metro's opinion incomplete, incorrect, or unintelligible.

Metro will calculate the recycled product preference as follows: If any Bidder submits a bid price for an item that 1) meets the definition of "Recycled Product" (see Oregon Laws 1991, Chapter 385, Section 59, in Appendix), 2) meets applicable standards, and 3) can be substituted for a comparable non-recycled product included in the base bid, Metro will subtract 5% of the "recycled" material cost from the applicable Bid Item for the purpose of comparing bids. In all circumstances, the Bidder shall submit the actual proposed cost of the material. It is Metro's responsibility to calculate any preferences required under Oregon law. A Bidder who claims a recycled product preference shall utilize in this Work, all of the recycled product claimed.

In determining the lowest responsive, responsible Bidder, Metro shall, for the purpose of awarding the Contract, add a percent increase on the Bid of a nonresident Bidder, as that term is defined in ORS 279.029(6)(c), equal to the percent, if any, of the preference given to that nonresident Bidder in the state in which that Bidder resides. For purposes of determining the percent increases to be applied pursuant to this section, Metro shall rely on the list published by the Oregon Department of



General Services pursuant to ORS 279.029(3), and Metro shall not incur any liability to any Bidder by relying on such list.

### **13. LIST OF PROPOSED SUBCONTRACTORS**

Metro will require all Bidders to furnish in writing to Metro the names of all Subcontractors and Suppliers which Bidder proposes to use in completing the Work along with a brief description of the subcontract or supply work involved and the subcontract or supply work dollar amount by the close of the next working day following Bid opening. Metro will notify the Bidder in writing within ten (10) days following receipt from Bidder of the above-described information if Metro has any reasonable objection to any such proposed Subcontractor or Supplier. The Bidder shall not subcontract with any proposed Subcontractor or Supplier to whom Metro has made a reasonable objection. In the event of such objection, Bidder shall propose another entity to whom Metro has no reasonable objection. No amounts or prices bid by the Bidder shall be increased by any difference occasioned by such substitution. Failure of Metro to reply within the above-described time period shall be construed to mean that Metro has no objection at that time. Failure of the Bidder to comply with this section shall be cause for rejection of Bidder's Bid and, in such event, the bid security submitted by Bidder shall be taken by Metro and considered as liquidated damages.

Prospective Bidders are encouraged to verify the qualifications of proposed subcontractors/suppliers and be prepared to furnish Metro with a list of similar projects performed by the proposed subcontractors/suppliers.

### **14. AWARD AND EXECUTION OF CONTRACT**

Within sixty (60) days after the opening of bids, Metro will accept one of the Bids or reject all of the bids. The acceptance of the Bid will be by written Notice of Award, mailed or delivered to the office designated in the Bid. The Notice of Award shall not entitle the party to whom it is delivered to any rights whatsoever.

The successful Bidder shall, within seven (7) days after receiving three copies of the Agreement described in these Contract Documents, sign and deliver to Metro the three Agreement copies, following Notice of Award and, together with an acceptable Performance Bond and a Labor and Materials Payment Bond, certificates of insurance and certified copies of insurance policies as required in these Contract Documents.

Upon receipt of the signed Agreement copies and all other documents required to be submitted by the successful Bidder, as prescribed herein, Metro shall sign the Agreement copies and issue a written Notice to Proceed to Contractor. Contractor shall commence work within ten (10) days of issuance of the Notice to Proceed.

In the event of failure of the lowest responsive, responsible Bidder to sign and return the construction Agreement and all other documents required to be submitted, as prescribed herein, Metro may award the Contract to the next lowest responsive, responsible Bidder.



**15. PERFORMANCE BOND AND LABOR AND MATERIALS PAYMENT BOND**

The successful Bidder shall file with Metro a Performance Bond on the form bound herewith and in the amount described in this section, as security for the faithful performance of this Contract and to cover all guarantees against defective workmanship or materials, or both, for a period of one (1) year after the date of Final Completion and Acceptance of the Work by Metro. The successful Bidder shall additionally file a Labor and Materials Payment Bond on the form bound herewith and in the amount described below, as security for the payment of all persons supplying labor and materials for the construction of the Work. The surety furnishing these bonds shall have a sound financial standing and a record of service satisfactory to Metro, shall be authorized to do business in the state of Oregon, and shall be named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and U.S. Treasury Department. If more than one surety is on a bond, then each surety must agree that it is jointly and severally liable on the bond for all obligations on the bond.

The amount of each bond described above shall be a sum not less than 100 percent of the Contract Amount. The Attorney-in-Fact (Resident Agent) who executes the Performance Bond and the Labor and Materials Payment Bond on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

**16. FAILURE TO EXECUTE CONTRACT AND FURNISH BONDS**

The Bidder to whom a Contract is awarded who fails to promptly and properly execute this Contract and furnish the required bonds, certificates of insurance and certified copies of insurance policies shall forfeit the bid security that accompanied its Bid and the bid security shall be retained as liquidated damages by Metro. It is agreed that this sum is a fair estimate of the amount of damages Metro will sustain if the Bidder fails to enter into a Contract and furnish the bonds, certificates of insurance and certified copies of insurance policies required.

**17. BID BACK-UP (Bid Preparation Documents)**

Within six (6) days after Metro's request and as a condition precedent to the award of the Contract, the apparent low responsive and responsible Bidder shall submit to Metro in a sealed envelope their complete bid summary, along with corresponding back-up including, but not limited to: quantity take-off sheets, pricing sheets and information/data substantiating the Total Bid amount. The back-up data provided will include that of all Subcontractors listed in the Bid, as well as all lower-tier Subcontractors. This bid summary and back-up data will be held in strict confidence by Metro in its original sealed envelope and will not be opened except in the event of dispute between Metro and Contractor. Bid Back-Up shall be delivered to Metro, 2000 S.W. First Avenue, Portland, OR 97201-5398, Attention: Joanna Karl, enclosed in a double envelope to prevent accidental opening. The envelope shall be marked "Bid Back-up Documents of (Name of Bidder) for the St. Johns Landfill - Groundwater Monitoring Well Construction, RFB #92B-13-SW."

**PART II**  
**BID FORMS**

**II-1. BIDDER INFORMATION**

To: Metropolitan Service District

Address: 2000 S.W. First Avenue, Portland, OR 97201-5398

Contract: St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation

Bidder:

Address:

Bidder's Contact:

Date:

Telephone: (    )

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of Metro, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that it has carefully examined the Contract Documents for the completion of the Work, has personally inspected the Site, has satisfied itself as to the Work involved, and that this Bid is made in accordance with the provisions and under the terms of the Contract Documents which are hereby made a part of this Bid.

Any printed matter on any letter or paper enclosed herewith which is not part of the Bidding Documents or which was not requested by Metro is not to be considered a part of this Bid, and the undersigned agrees that such printed matter shall be entirely disregarded and, notwithstanding such printed matter, that the Bid is a bid to do the Work and furnish the labor and materials and all other things required by the Contract Documents strictly within the time and in accordance with such Specifications. This Bid is irrevocable for sixty (60) days following the date of the opening of Bids.

The Bidder hereby acknowledges receipt and acceptance of all addenda issued up to the time of bid opening.

**BID SECURITY**

Bid security in the form of a certified check, cashier's check or bid bond as further described in the Instructions for Bidders and in the amount of TEN THOUSAND AND NO/100 DOLLARS (\$10,000.00) is enclosed herewith and is subject to all the conditions stated in the Instructions for Bidders.

**CONTRACT EXECUTION, BONDS AND INSURANCE**

The Bidder agrees that if this Bid is accepted, it will, following Notice of Award and within seven (7) days after receipt of three copies of the Agreement in the form annexed hereto, sign the Agreement, and will at that time deliver to Metro the Performance Bond and the Labor and Materials Payment Bond required herein and in the form annexed hereto, along with all certificates of insurance and certified copies of insurance policies specified and required in these Contract Documents, and will, to the extent of its Bid, furnish all machinery, tools, apparatus, and other means of operation and construction and do the Work and furnish all the materials necessary to complete all Work as specified or indicated in the Contract Documents.

**COMMENCEMENT OF WORK AND CONTRACT COMPLETION TIME**

The time frame for the award and execution of this Contract shall be as described in the Instructions for Bidders and other Contract Documents. The Successful Bidder further agrees to commence the Work within five (5) days of issuance of the Notice to Proceed and to diligently prosecute the Work to its final completion in accordance with the Contract Documents.

**SALES AND USE TAXES**

The Bidder agrees that all applicable federal, state and local sales and use taxes are included in the stated bid prices for the Work.

**LUMP SUM AND UNIT PRICE WORK**

The Bidder further proposes to accept as full payment for the Work proposed herein the amounts computed under the provisions of the Contract Documents and based on the listed lump sum and unit price amounts. The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

**PREVAILING WAGES FOR PUBLIC WORK**

Bidder hereby certifies that the provisions of ORS 279.350, regarding prevailing wages, shall be complied with on this project.

**NONDISCRIMINATION**

The Bidder hereby certifies that it has not and will not discriminate against minorities, women, or emerging small business enterprises in obtaining any required subcontracts for goods or services.

**II-2. RESIDENT/NON-RESIDENT BIDDER STATUS**

Oregon law requires that Metro, in determining the lowest responsive Bidder, must add a percent increase on the Bid of a non-resident Bidder equal to the percent, if any, of the preference given to that Bidder in the state in which that Bidder resides. Consequently, each Bidder must indicate whether it is a resident or non-resident Bidder. A resident Bidder is a Bidder that has paid unemployment taxes or income taxes in the state of Oregon during the twelve (12) calendar months immediately preceding submission of this Bid, has a business address in Oregon, and has stated in its Bid that the Bidder is a "resident Bidder." A "non-resident Bidder" is a Bidder who is not a resident Bidder (ORS 279.029).

The undersigned Bidder states that it is: (check one)

1. A resident Bidder \_\_\_\_\_
2. A non-resident Bidder \_\_\_\_\_

Indicate state in which Bidder resides: \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Printed Name of Bidder

\_\_\_\_\_  
Title

**II-3. SURETY**

**SURETY**

If the Bidder is awarded a Contract on this Bid, the surety or sureties who provide(s) the Performance Bond and Labor and Materials Payment Bond will be:

**SURETY**

**ADDRESS**

1.

2.

**II-4. REQUIRED BID INFORMATION**

List the Oregon licensed and bonded monitoring well constructors below, and attach proof of bonding:

INDIVIDUAL'S NAME

LICENSE NO.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**ABANDONMENT EXPERIENCE ON LANDFILL SITES:**

LOCATION

DATE

NO. OF LINEAL FEET

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

TOTAL: \_\_\_\_\_

**CONSTRUCTION EXPERIENCE ON LANDFILL SITES:**

LOCATION DATE NO. OF LINEAL FEET

LOCATION

DATE

NO. OF LINEAL FEET

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

TOTAL: \_\_\_\_\_



**II-5. SCHEDULE OF BID PRICES**

Item No.	Est.'d Quantity	Description of Item	Unit Price (Words)	Unit Price (Figure)	Total Cost
1	1 LS	1992: General mobilization - Site safety and health program	(per lump sum)	\$	\$
2	59 Each	1992: Mobilization to each well or piezometer location at the St. Johns Landfill site	(per each)	\$	\$
3	2 Each	1992: Mobilization and site protection at the wetlands lake sites	(per each)	\$	\$
4	19 Each	1992: Well abandonment - Method A	(per each)	\$	\$
5	2 Each	1992: Well abandonment - Method B	(per each)	\$	\$
6	16 Each	1992: Check well quality	(per each)	\$	\$
7	11 Each	1992: Remove silt from wells	(per each)	\$	\$
8	8 Each	1992: Install well inserts	(per each)	\$	\$
9	222 LF	1992: Drill, furnish materials, and install 7 shallow new monitoring wells	(per lineal foot)	\$	\$
10	915 LF	1992: Drill, furnish back fill material, and install 9 multiple piezometers	(per lineal foot)	\$	\$
11a	5 Each	1992: 5' well extension (Wells H-1, H-4, H-5)	(per each)	\$	\$
11b	1 Each	1992: Grout and complete surface casing (Well H-1)	(per each)	\$	\$
12a	7 Each	1993: Mobilization (to Wells H-2, H-4, and H-5)	(per each)	\$	\$
12b	4 Each	1993: 5-foot well extension (Wells H-2, H-4)	(per each)	\$	\$
12c	2 Each	1993: Remove 5-foot well extension (Well H-5)	(per each)	\$	\$
12d	1 Each	1993: Grout and complete surface casing (Well H-2)	(per each)	\$	\$
13a	6 Each	1994: Mobilization (to Wells H-3, H-4, and H-5)	(per each)	\$	\$
13b	4 Each	1994: 5-foot well extension (Wells H-3, H-4)	(per each)	\$	\$
13c	1 Each	1994: Remove 5-foot well extension (Well H-5)	(per each)	\$	\$
13d	1 Each	1994: Grout and complete surface casing (Well H-3)	(per each)	\$	\$
14a	3 Each	1995: Mobilization (Wells H-4, H-5)	(per each)	\$	\$
14b	1 Each	1995: 5-foot well extension (Well H-4)	(per each)	\$	\$
14c	1 Each	1995: Remove 5-foot well extension (Well H-5)	(per each)	\$	\$
14d	1 Each	1995: Grout and complete surface casing (Well H-4)	(per each)	\$	\$
15a	1 Each	1996: Mobilization (Well H-5)	(per each)	\$	\$
15b	1 Each	1996: Grout and complete surface casing (Well H-5)	(per each)	\$	\$
16	150 Hours	1992: "Hourly Charges" during well abandonment and well maintenance (performed only upon Metro approval)	(per hour)	\$	\$
17	1 LS	Site cleanup and restoration	(per lump sum)	\$	\$
18	300 Hours	"Additional Work" (performed only when agreed with Metro)	(per hour)	\$	\$
<b>TOTAL</b>					<b>\$</b>

**II-6. RECYCLED PRODUCTS**  
(Attach to Schedule of Bid Prices)

BID ITEM NO. & DESCRIPTION	SUPPLIER	QUANTITY OF RECYCLED PRODUCT	RECYCLED PRODUCT (%)	POST- CONSUMER CONTENT (%)	WASTE CONTENT (%)	AMOUNT OF RECYCLED PRODUCT (\$)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

**NOTES:**

1. For definitions, refer to Appendix, Oregon Law 1991, Chapter 385, Section 59 and 61.
2. It is the Bidder's responsibility to determine if the recycled product meets the Contract specifications.  
Metro reserves the right to confirm information submitted by contacting the manufacturer.

**II-7. SIGNATURE PAGE**

The name of the Bidder submitting this Bid is \_\_\_\_\_ doing business at

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
 Street City State Zip

which is the full business address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of all of the partners, if the Bidder is a partnership or joint venture, or of all persons interested in this Bid as individuals are as follows:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**If Individual**

IN WITNESS hereto the undersigned has set his/her hand this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
 Signature of Bidder

\_\_\_\_\_  
 Printed Name of Bidder

\_\_\_\_\_  
 Title

**II-7. SIGNATURE PAGE (cont.)**

**If Partnership or Joint Venture**

IN WITNESS hereto the undersigned has set his/her hand this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Name of Partnership or Joint Venture

By: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Person Signing

Title: \_\_\_\_\_

**If Corporation**

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Name of Corporation

\_\_\_\_\_  
State of Incorporation

By: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Person Signing

Title: \_\_\_\_\_

## II-8. NON-COLLUSION AFFIDAVIT

STATE OF \_\_\_\_\_)

County of \_\_\_\_\_)

I state that I am \_\_\_\_\_ (Title) of \_\_\_\_\_ (Name of Bidder) and that I am authorized to make this Affidavit on behalf of the Bidder. I am the person authorized by the Bidder and responsible for the price(s) and the amount of this Bid.

I state that:

- (1) The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, Bidder or potential Bidder, except as disclosed in the attached appendix.
- (2) Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other person who is a Bidder or potential Bidder, and they will not be disclosed before bid opening.
- (3) No attempt has been made or will be made to induce any person to refrain from bidding on this contract, or to submit a Bid higher than this Bid, or to submit any intentionally high or non-competitive bid or other form of complementary Bid.
- (4) This Bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any person to submit a complementary or other noncompetitive Bid.
- (5) \_\_\_\_\_ (Name of Bidder), its affiliates, subsidiaries, officers, directors and employees (as applicable) are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as listed and described in the attached appendix.

I state that I and \_\_\_\_\_ (Name of Bidder) understand and acknowledge that the above representations are material and important, and will be relied on by Metro in awarding the Contract for which this Bid is submitted. Any misstatement in this Affidavit will be treated as fraudulent concealment from Metro of the true facts relating to the submission of Bids for this Contract.

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name of Affiant

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

My Commission Expires:     /     /

**II-9. BID BOND**

(NOTE: BIDDERS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL MEN BY THESE PRESENTS:

We the undersigned, \_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the state of \_\_\_\_\_ and duly authorized to do surety business in the state of Oregon and name on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, unto the METROPOLITAN SERVICE DISTRICT, as OBLIGEE, in the sum of TEN THOUSAND DOLLARS (\$ 10,000.00) in lawful money of the United States of America, for the payment of which sum well and truly to be made as agreed and liquidated damages.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT whereas the PRINCIPAL has submitted to the Metropolitan Service District a certain Bid for work required for the St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation, which work is specifically described in the accompanying Bid;

NOW, THEREFORE, if the Metropolitan Service District does not award a contract to the PRINCIPAL within the time specified in the Instructions to Bidders for the work described in said Bid, or in the alternate, if said Bid shall be accepted and the PRINCIPAL, within the time and in the manner described under the Contract Documents, enters into a written contract in accordance with the Bid, files the two bonds, one guaranteeing faithful performance of the work to be done and the other guaranteeing payment for labor and materials as required by law, and files the required certified copies of insurance policies and certificates of insurance, then the obligation shall be null and void; otherwise, the same shall remain in full force and effect.

The SURETY, for value received, hereby stipulates and agrees that the obligation of said SURETY and this bond shall be in no way impaired or affected by any extension of the time within which the Metropolitan Service District may accept such Bid; and said SURETY does hereby waive notice of any such extension.

If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
SURETY

\_\_\_\_\_  
PRINCIPAL

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**II-10. DISADVANTAGED BUSINESS PROGRAM COMPLIANCE FORM**

(To be submitted with Bid.)

(See Appendix)

Name of Metro Project: St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation

Name of Bidder: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

In accordance with Metro's Disadvantaged Business Program, the above-named Bidder has accomplished the following:

- \_\_\_\_ 1. Has fully met the contract goals and will subcontract \_\_\_\_ percent of the Bid Amount to DBEs and \_\_\_\_ percent to WBEs.
- \_\_\_\_ 2. Has partially met the contract goals and will subcontract \_\_\_\_ percent of the Bid Amount to DBEs and \_\_\_\_ percent to WBEs. Bidder has made good faith efforts prior to Bid opening to meet the full goals and will submit documentation of the same to Metro within twenty-four (24) hours of Metro's request.
- \_\_\_\_ 3. Will not subcontract any of the Bid Amount to DBEs or WBEs but has made good faith efforts prior to Bid opening to meet the contract goals and will submit documentation of such good faith efforts to Metro within twenty-four (24) hours of Metro's request.



**II-11. DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION FORM**

1. Name of Metro Project: **The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation**

2. Name of Bidder \_\_\_\_\_

Address \_\_\_\_\_

3. The above-named Bidder intends to subcontract \_\_\_\_ percent of the Bid to the following Disadvantaged Business Enterprises (DBEs):

Names, Contact Persons, Addresses  
and Phone Numbers of DBE Firms  
Bidder Anticipates Utilizing

Nature of  
Participation

Dollar Value of  
Participation

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Total DBE Participation Amount \_\_\_\_\_

Amount of Base Bid \_\_\_\_\_

DBE Percent of Base Bid \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**II-12. WOMEN BUSINESS ENTERPRISES UTILIZATION FORM**

1. Name of Metro Project: **The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation**

2. Name of Bidder \_\_\_\_\_

Address \_\_\_\_\_

3. The above-named Bidder intends to subcontract \_\_\_\_ percent of the Bid to the following Women Business Enterprises (WBEs):

Names, Contact Persons, Addresses  
and Phone Numbers of WBE Firms  
Bidder Anticipates Utilizing

Nature of  
Participation

Dollar Value of  
Participation

_____	_____	_____
_____		
_____		
_____	_____	_____
_____		
_____		
_____	_____	_____
_____		
_____		

Total WBE Participation Amount \_\_\_\_\_

Amount of Base Bid \_\_\_\_\_

WBE Percent of Base Bid \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**II-13. LIST OF PROPOSED SUBCONTRACTORS AND SUPPLIERS**

If awarded the Contract, the Bidder proposes to employ the following Subcontractors who will perform work or labor or render service the Bidder, as well as the Suppliers who will furnish major components, materials, and equipment. The Bidder shall state below the name(s) and address(es) of all proposed Subcontractor(s) and Supplier(s). If no subcontract work or purchases are proposed, the Bidder shall so state.

<b>Name of Proposed Subcontractor or Supplier _____</b>	<b>Description of Work Items to be Subcontracted and Major Item Purchase _____</b>	<b>Estimated Percent of Total Bid Price</b>
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**II-14. PLANT AND EQUIPMENT REQUIREMENTS**

The Bidder proposes to utilize the following plant and equipment on-site (including equipment of Subcontractors):

<u>Type</u>	<u>Quantity</u>
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**PART III**  
**OTHER FORMS**

## III-1. PERFORMANCE BOND

(NOTE: CONTRACTORS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW BY ALL MEN BY THESE PRESENTS:

We the undersigned \_\_\_\_\_ as PRINCIPAL (hereinafter called CONTRACTOR),  
and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the state  
of \_\_\_\_\_, duly authorized to do surety business in the state of Oregon and named on the current list  
of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published  
in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and is of the  
appropriate class for the bond amount as determined by Bests Rating System, as SURETY, hereby hold and firmly bind  
ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, to pay to the Metropolitan  
Service District as OBLIGEE (hereinafter called Metro), the amount of \_\_\_\_\_  
Dollars (\$ \_\_\_\_\_), in lawful money of the United States of America.

WHEREAS, the CONTRACTOR entered into a contract with Metro dated \_\_\_\_\_, 19\_\_\_\_, which  
contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: The  
St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation.

NOW, THEREFORE, the condition of this obligation is such that if the CONTRACTOR shall promptly, truly and  
faithfully perform all the undertakings, covenants, terms, conditions, and agreements of the aforesaid St. Johns Landfill  
- Groundwater Monitoring Well Improvements and Piezometer Installation, Metro having performed its obligations  
thereunder, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever Contractor shall be declared by Metro to be in default under the Contract Documents for the project  
described herein, the SURETY may promptly remedy the default, or shall promptly complete The St. Johns Landfill -  
Groundwater Monitoring Well Improvements and Piezometer Installation in accordance with the Contract Documents  
and the project specifications. SURETY, for value received, further stipulates and agrees that all changes, extensions of  
time, alterations or additions to the terms of the Contract or specifications for the St. Johns Landfill - Groundwater  
Monitoring Well Improvements and Piezometer Installation are within the scope of the SURETY's undertaking on this  
bond, and SURETY hereby waives notice of any such change, extension of time, alteration or addition to the terms of  
The St. Johns Landfill Closure - Groundwater Monitoring Well Improvements and Piezometer Installation or to the  
work or to the specifications. Any such change, extension of time, alteration or addition to the terms of The St. Johns  
Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation or to the Work or to the  
Specifications shall automatically increase the obligation of the SURETY hereunder in a like amount, provided that such  
increase shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the  
SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made  
hereunder, until the full amount of the obligation is exhausted.

No right of action shall accrue on this bond to or for the use of any person or corporation other than Metro or its  
heirs, executors, administrators, successors or assigns.



If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
CONTRACTOR

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_ By: \_\_\_\_\_  
Title: \_\_\_\_\_ Title: \_\_\_\_\_

## III-2. LABOR AND MATERIALS PAYMENT BOND

(NOTE: CONTRACTOR MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL MEN BY THESE PRESENTS:

We the Undersigned \_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the state of \_\_\_\_\_, and duly authorized to do surety business in the state of Oregon and named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and which carries an "A" rating and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and

severally, unto the Metropolitan Service District, as OBLIGEE, in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States of America, for the payment of that sum for the use and benefit of claimants as defined below.

The condition of this obligation is such that whereas the PRINCIPAL entered into a Contract with the said Metropolitan Service District dated \_\_\_\_\_, 19\_\_\_\_, which Contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation.

NOW THEREFORE, if the PRINCIPAL shall promptly make payments to all persons, firms, subcontractors, corporations and/or others furnishing materials for or performing labor in the prosecution of the work provided for in the aforesaid The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation, and any authorized extension or modification thereof, including all amounts due for materials, equipment, mechanical repairs, transportation, tools and services consumed or used in connection with the performance of such work, and for all labor performed in connection with such work whether by subcontractor or otherwise, and all other requirements imposed by law, then this obligation shall become null and void; otherwise this obligation shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is as specified in ORS 279.526.
2. The above-name PRINCIPAL and SURETY hereby jointly and severally agree with the OBLIGEE and its assigns that every claimant as above-specified, who has not been paid in full, may sue on this bond for the use of such claimant, prosecute the suite to final judgement in accordance with ORS 279.536 for such sum or sums as may be justly due claimant, and have execution thereon. The OBLIGEE shall not be liable for the payment of any judgement, costs, expenses or attorney's fees of any such suit.

PROVIDED, FURTHER, that the said SURETY for the value received, hereby stipulates and agrees that all changes, extensions of time, alternations to the terms of The St. Johns Landfill Closure - Groundwater Monitoring Well Improvements and Piezometer Installation, or to work to be performed thereunder or the specifications accompanying the same shall be within the scope of the SURETY's undertaking on this bond, and said SURETY does hereby waive notice of any such change, extension of time, alteration or addition to the terms of The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation, or to the Work or to the Specifications. Any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications shall automatically increase the obligation of the SURETY hereunder in a like amount, provided that the total of such increases shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made hereunder, until the full amount of the obligation is exhausted, or if the full amount of the obligation is not exhausted and no claim is pending resolution, until such time as no further claims can be made pursuant to law with regard to the above described project, by any claimant specified in ORS 279.526.

If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all obligations on this bond.

In WITNESS WHEREOF, we have hereunto set our hands and seals this \_\_\_\_ day of \_\_\_\_\_, 19\_\_.

**SURETY** **PRINCIPAL**

By: \_\_\_\_\_ By: \_\_\_\_\_

**Title:** \_\_\_\_\_ **Title:** \_\_\_\_\_

**III-3. CONSTRUCTION SCHEDULE**

The Bidder shall submit as part of this proposal a summary schedule for start, duration, and completion of all bid items, using a bar chart format. This shall include some discussion of work to be completed, 1993-1996. These same items shall be addressed in the Work Plan to be submitted by the Bidder.

**III-4. PROPOSED NARRATIVE WORK PLAN**

As part of the Bid proposal, the Bidder shall submit proposed narrative Work Plan. Subsequently, within five days after award, the Contractor shall formally submit for Metro review and concurrence the Work Plan with any modifications or details developed after the proposal submittal. The elements of the Work Plan shall be identifiable in the construction schedule (Bid Form III-3).

**PART IV**  
**CONTRACT**

**PUBLIC CONTRACT**

THIS Contract dated this \_\_\_\_ day of \_\_\_\_\_, 1992, is entered into between the METROPOLITAN SERVICE DISTRICT, a municipal corporation, whose address is 2000 S.W. First Avenue, Portland, Oregon 97201-5398, hereinafter referred to as "Metro," and \_\_\_\_\_, whose address is \_\_\_\_\_, hereinafter referred to as the "Contractor."

**BOTH PARTIES AGREE AS FOLLOWS:**

**ARTICLE I  
SCOPE OF WORK**

The Contractor shall perform the work and/or deliver to Metro the goods described in the Scope of Work attached hereto as Part V. All services and goods shall be of good quality and, otherwise, in accordance with the Scope of Work.

**ARTICLE II  
TERM OF CONTRACT**

The term of this Contract shall be for a period commencing \_\_\_\_\_, 1992 through and including December 31, 1996.

**ARTICLE III  
CONTRACT SUM AND TERMS OF PAYMENT**

Metro shall compensate the Contractor for work performed and/or goods supplied as described in Bidder's accepted bid and in the Supplementary conditions annexed hereto. Metro shall not be responsible for payment of any materials, expenses or costs other than those which are specifically described within.

**ARTICLE IV  
LIABILITY AND INDEMNITY**

The Contractor is an independent contractor and assumes full responsibility for the content of its work and performance of The Contractor's labor, and assumes full responsibility for all liability for bodily injury or physical damage to person or property arising out of or related to this Contract, and shall indemnify and hold harmless Metro, its agents and employees, from any and all claims, demands, damages, actions, losses, and expenses, including attorney's fees, arising out of or in any way connected with its performance of this Contract. The Contractor is solely responsible



for paying the Contractor's subcontractors. Nothing in this Contract shall create any contractual relationship between any subcontractor and Metro.

**ARTICLE V  
TERMINATION**

Metro may terminate this Contract upon giving the Contractor seven (7) days written notice. In the event of termination, the Contractor shall be entitled to payment for work performed to the date of termination. Metro shall not be liable for indirect or consequential damages. Termination by Metro will not waive any claim or remedies it may have against the Contractor.

**ARTICLE VI  
INSURANCE**

Contractor shall purchase and maintain, at the Contractor's expense, insurance as specified in Section 19 of the Supplementary Conditions.

**ARTICLE VII  
PUBLIC CONTRACTS**

The Contractor shall comply with all applicable provisions of ORS Chapters 187 and 279 and all other conditions and terms necessary to be inserted into public contracts in the State of Oregon. To the extent that such provisions are required to be part of this agreement by State law, they are incorporated herein by reference.

**ARTICLE VIII  
ATTORNEY'S FEES**

In the event of any litigation concerning this Contract, the prevailing party shall be entitled to reasonable attorney's fees and court costs, including fees and costs on appeal to any appellate courts.

**ARTICLE IX  
QUALITY OF GOODS**

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of the highest quality. All workers and subcontractors shall be skilled in their trades. The Contractor guarantees all work against defects in material or workmanship for a period of one (1) year from the date of acceptance or final payment by Metro, whichever is later. All guarantees and warranties of goods furnished to the Contractor or subcontractors by any manufacturer or supplier shall be deemed to run to the benefit of Metro.

**ARTICLE X  
OWNERSHIP OF DOCUMENTS**

All Documents of any nature including, but not limited to, reports, drawings, works of art and photographs, produces by the Contractor pursuant to this Agreement are the property of Metro and it is agreed by the parties hereto that such Documents are work made for hire. The Contractor does hereby convey, transfer and grant to Metro all rights of reproduction and the copyright to all such Documents.

**ARTICLE XI  
SUBCONTRACTORS; DISADVANTAGED BUSINESS PROGRAM**

The Contractor shall contact Metro prior to negotiating any subcontracts and the Contractor shall obtain approval from Metro before entering into any subcontracts for the performance of any of the services and/or supply of any of the goods covered by this Contract. Metro reserves the right to reasonably reject any subcontractor or supplier and no increase in the Contractor's compensation shall result thereby. All subcontracts related to this Contract shall include the terms and conditions of this Agreement. The Contractor shall be fully responsible for all of its subcontractors as provided in Article IV.

If required in the Scope of Work, the Contractor agrees to make a good faith effort, as that term is defined in Metro's Disadvantaged Business Program (Section 2.04.160 of the Metro Code) to reach the goals of subcontracting seven (7) percent of the contract amount to Disadvantaged Business Enterprise and five (5) percent of the contract amount to Women-Owned Business Enterprise. Metro reserves the right, at all times during the period of this Agreement, to monitor compliance with the terms of this paragraph and Metro's Disadvantaged Business Program.

**ARTICLE XII  
RIGHT TO WITHHOLD PAYMENTS**

Metro shall have the right to withhold from payments due the Contractor such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage or claim which may result from the Contractor's performance or failure to perform under this Agreement or the failure of the Contractor to make proper payment to any suppliers or subcontractors. If a liquidated damages provision is contained in the Scope of Work and if the Contractor has, in Metro's opinion, violated that provision, Metro shall have the right to withhold from payments due the Contractor such sums as shall satisfy that provision. All sums withheld by Metro under this Article shall become the property of Metro and the Contractor shall have no right to such sums to the extent that the Contractor has breached this Contract.

**ARTICLE XIII  
SAFETY**

If services of any nature are to be performed pursuant to this Agreement, the Contractor shall take all necessary precautions for the safety of employees and others in the vicinity of the services being performed and shall comply with all applicable provision of federal, state and local safety laws and building codes, including the acquisition of any required permits.

**ARTICLE XIV  
INTEGRATION OF CONTRACT DOCUMENTS**

All of the provisions of any Bidding Documents including, but not limited to, the Advertisement for Bids, Invitation to Bid, Instructions to Bidders, Scope of Work, Drawings, Bid Forms, Addenda, this contract, Supplementary Conditions, Special Conditions, and Bidders submitted bid which were utilized in conjunction with the bidding and award of this Contract are hereby expressly incorporated by reference. Otherwise, this Contract represents the entire and integrated agreement between Metro and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. This Contract may be amended only by written instrument signed by both Metro and the Contractor. The law of the State of Oregon shall govern the construction and interpretation of this Contract.

**ARTICLE XV  
ASSIGNMENT**

The Contractor shall not assign any rights or obligations under or arising from this Contract without prior written consent from Metro.

**CONTRACTOR**

**METROPOLITAN SERVICE DISTRICT**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## SUPPLEMENTARY CONDITIONS

All conditions set forth in Part IV-2 are applicable to all Contractors and shall apply to such extent that they are not in conflict with these Supplementary Conditions in the event of such conflict. These Supplementary Conditions shall take precedence.

1. Authority and Relationships of Metro and Engineer -- the following provisions shall govern the authority of the various officers, agents, representatives, consultants and employees of Metro, and Engineer. Except as specifically provided in this section, no individual acting or purporting to act as an officer, agent, representative, consultant or employee of Metro or Engineer shall have any authority to make representations, statements or decisions of whatever nature binding Metro or Engineer regarding any aspect of this Contract. Except as specifically provided in this section, Contractor shall have no right to, and shall not rely on any such representation, statement or decision. Any reference to action by Metro in this Contract requires the written approval of the Metro Executive Officer or a person who is designated in writing by the Metro Executive Officer as having authority to act for Metro but only to the extent that such authority is expressly delegated in writing.
2. Authority of Metro -- except as otherwise provided herein, Metro shall determine the amount, quality, acceptability, fitness, and progress of the Work covered by the Contract. Metro and Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents. Metro and Engineer will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work. Nothing contained in this Contract is intended nor shall be construed to create any third-party beneficiary relationship between Metro and Contractor's subcontracting agents or employees.
  - 2.1 It shall be the duty of Contractor to comply with all procedures established and/or implemented by Metro as stated above. In the event any such procedures are at variance with other provisions of these Documents, such procedures shall prevail.
  - 2.2 Metro may call for meetings of Contractor, Contractor's Subcontractors and Suppliers as Metro deems necessary for the proper supervision and inspection of the Work. Such meetings shall be held at the Site on regular working days during regular working hours, unless otherwise directed by Metro. Attendance shall be mandatory for all parties notified to attend.
  - 2.3 Contractor shall immediately comply with any and all orders and instructions given in accordance with the terms of this Contract by Metro.
  - 2.4 Contractor has no right to, and shall not, rely on representations of whatever nature made by any individual, whether or not employed by or purporting to represent Metro or Engineer, unless such individual has been specifically and expressly delegated authority to make such representations pursuant to these Contract Documents. Likewise Contractor has no right, and shall not rely on any representations of authorized changes in the contract of whatever size or nature unless such change is in writing and signed by Metro.
  - 2.5 Nothing contained in this Paragraph shall obligate Metro or Engineer to supervise Contractor's work under this Contract and Contractor shall remain fully responsible for the complete and proper supervision of all of the Work.
3. Project Scheduling -- Contractor shall submit to Metro a detailed Construction Schedule for completion of the work pursuant to the Specifications. The Construction Schedule shall, when approved and as updated and approved by Metro, become a part of the Contract Documents.

4. Coordination with Other Metro Contractors -- Contractor shall afford all such Other Metro Contractors reasonable opportunity for storage of their materials and execution of their Work, shall provide that the execution of Contractor's Work properly connects and coordinates with work of all Other Metro Contractors, and shall cooperate with Other Metro Contractors to the end of facilitating the Work in such a manner as Metro may direct.
5. Duty to Maintain Schedule -- It shall be the responsibility of Contractor to maintain its schedule so as not to delay the work of Other Metro Contractors. Contractor is required to cooperate in every way possible with Other Metro Contractors.
6. Failure to Coordinate Work -- If Contractor fails to coordinate its work with the work of Other Metro Contractors as directed by Metro, Metro may, upon written notice to Contractor, withhold any payment otherwise due hereunder until Contractor complies with Metro's directions.
7. Acceptance Not Implied by Failure to Object -- Failure or neglect on the part of Metro or any of its authorized representatives to condemn or reject defective, improper or inferior work or materials shall not be construed to imply a final acceptance of such work or materials and shall not be construed as relieving Contractor of its duties to perform fully all requirements of the Contract Documents.
8. Unsatisfactory Materials and Workmanship -- Material, work or workmanship which, in the opinion of the Construction Manager, does not conform to the Contract Documents, or is in any way unsatisfactory or unsuited to the purpose for which it is intended, will be rejected. Contractor shall bear the cost of correcting or removing as deemed necessary by Metro, all non-conforming materials, work or workmanship. Contractor shall make a close inspection of all materials as delivered, and shall promptly replace all defective materials with conforming materials without waiting for their rejection by Metro.
9. General Warranty of Contractor -- Contractor warrants to Metro that materials and equipment provided under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects and contaminants not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by Metro, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. The warranty made by Contractor under this Paragraph shall be in addition to any other specific warranties and certifications required elsewhere in these Contract Documents.
10. Correction of Work by Contractor -- Contractor shall be responsible for and shall promptly correct or replace any defective Work, whether due to faulty or contaminated materials or errors in workmanship, or Work failing to conform to the requirements of the Contract Documents which may be discovered or which may develop within one (1) year after the date of Substantial Completion or within such longer period as is specified below or otherwise in these Contract Documents.
  - 10.1 In the case of equipment manufactured by others and supplied and/or installed by Contractor, the one (1) year period shall commence upon the date of first beneficial operation of such equipment by Metro. In the case of Work which is corrected or replaced by Contractor, the one (1) year period shall commence again on the date of acceptance by Metro of such corrected or replaced Work. Testing shall not be construed to mean acceptance.
  - 10.2 If Metro does not require correction or replacement of defective Work or Work failing to conform to the Contract Documents, Contractor, if required by Metro, shall repay to Metro such portion of the Contract Amount as is equitable under the circumstances, as determined by Metro.

10.3 Contractor's responsibilities under this Paragraph shall not extend to correction or replacement of defects which are attributable to mistreatment by Metro or to normal wear and tear.

11. Proof of Compliance with Contract Provisions -- For Metro to determine whether Contractor has complied or is complying with the requirements of the Contract which are not readily enforceable by inspection and test of the Work, Contractor shall, upon request, promptly submit to Metro such properly authenticated documents as may be necessary to demonstrate compliance with the Contract or other satisfactory proof of its compliance with such requirements.
12. Change Orders -- Metro may order changes in the Work herein required, including deletions of work, and may order additional materials and work in connection with the performance of the Work.

If such changes in the Work increase or decrease the cost of any part of the Work or change the time necessary to complete the Work, the Contract Amount shall be increased or decreased by such amount and the Contract Time changed at prices specified in the Bid submitted or as Contractor and Metro may agree upon as reasonable in a written Change Order. Contractor shall promptly comply with such Change Orders and carry them out in accordance with the Contract Documents.

No order for any alteration, modification or additional work which shall increase or decrease the Contract Amount or change the Contract Time shall become part of the Contract unless the resulting Change Order shall have been agreed upon in writing and the Change Order signed by Contractor and Metro, unless the work is Force Account work. Metro may, at its discretion, also require the signature of Contractor's surety on the Change Order. Prior to the approval of such Change Order, the Engineer shall have approved any design modifications entailed thereby.

13. Procedure for Determining Impact of Change Orders on Contract Amount

- 13.1 Price before Proceeding -- If Metro intends to order changes in the Work, it may request a proposal by Contractor for the proposed added or deleted work before directing Contractor to commence work. Within fourteen (14) days after issuance of such request by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form supplied by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so indicated and written proposals from Subcontractors or Suppliers shall be included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.
- 13.2 Proceed While Pricing -- If Metro finds it necessary to make changes in the Work in an expeditious manner, it may direct Contractor to proceed with the change while preparing a proposal for the added or deleted Work. In such an instance, Metro may assign an estimated value to the change which Contractor shall not exceed without further authorization by Metro. Within fourteen (14) days after issuance of such by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form supplied by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.
- 13.3 Unit Prices -- If the proposed additional or deleted work is the subject of Unit Prices stated in the Contract Documents or subsequently agreed upon, such Unit Prices shall be binding upon Contractor in calculating the increase or decrease in the Contract Amount attributable to the proposed additional or deleted work.



14. Limitations when Change Orders Impact Contract Amount-- The following limitations shall apply in the calculation of the costs of changes in the Work:
- 14.1 Overhead and Profit -- Contractor will be permitted allowance for Profit and Overhead on its increased Direct Cost resulting from any changes in the Work ordered by Metro. Likewise, Profit and Overhead will be deducted for any portion of the Work which is deleted. In the case of a change involving both credits and extras, Overhead and Profit shall be applied to the net extra after subtraction of credits.
    - 14.1.1 Overhead and Profit for the entity performing the work with its own crews shall not exceed 10 percent of the Direct Cost of the changed work.
    - 14.1.2 Overhead and Profit for Contractor or Subcontractor who has had the work performed by a lower tier Subcontractor shall not exceed ten percent of the Direct Cost of the changed work.
    - 14.1.3 If the Work is performed by a second-tier or inferior Subcontractor, the total Overhead and Profit for all tiers shall in no event exceed 25 percent of the Direct Cost of the changed work. Distribution of this Overhead and Profit among the tiers is the responsibility of Contractor.
    - 14.1.4 Overhead, profit, and all expenses of contractor are assumed to have been included in hourly rates and unit prices for extra work specified in the contractor's bid, and no additional amount shall be allowed therefore.
  - 14.2 Taxes and Insurance -- Except as otherwise provided herein, federal, state, regional, county and local taxes, including, but not limited to, income taxes, excise taxes, sales and use taxes and payroll taxes and insurance shall be shown separately and will be allowed on extras and shall be credited on credits. No Overhead and Profit will be allowed on taxes and insurance.
  - 14.3 Bond Premiums -- The actual rate of bond premium as paid on the additional Direct Cost plus the cost of taxes will be allowed. No Overhead and Profit will be allowed on such premiums.
  - 14.4 Equipment Costs -- The allowance for equipment costs (both rental as well as Contractor-owned equipment) shall be limited to those rates in the Rental Rate Bluebook published by Dataquest Incorporated, 1290 Ridder Park Drive, San Jose, California 95131-2398, (800) 227-8444.
  - 14.5 Force Account Work -- If Contractor does not respond to Metro's Request for Proposal with a cost breakdown within the fourteen (14) day period as required above, or if Metro determines that Contractor's breakdown of costs is unreasonable in consideration of the work proposed to be added or deleted, or if Metro determines that the proposed work must be commenced promptly to avoid delay to the Project, Metro may issue an order for Force Account work and Contractor shall promptly perform or delete the work described in such order. Change, if any, in the Contract Amount due to such Force Account work shall be the sum total of the following items:
    - 14.5.1 Actual labor cost, including premium on compensation insurance and charge for social security taxes, and other taxes pertaining to labor.
    - 14.5.2 The proportionate cost of premiums of public liability property damage and other insurance applicable to the extra work involved and required by these Contract Documents.
    - 14.5.3 Actual cost of material, including applicable taxes pertaining to materials.

14.3.4 Actual cost of plant and equipment rental, at rates to be agreed upon in writing before the work is begun. No charge for the cost of repairs to plant or equipment will be allowed. Equipment items having a capital cost of under \$250.00 are considered small tools and classified as Overhead.

14.5.5 Overhead and Profit as provided and limited in Section 14.1, above.

14.5.6 The proportionate actual costs of premiums for bonds required by these Contract Documents.

Whenever any Force Account work is in progress, Contractor shall furnish each working day to Metro a detailed written report signed by Contractor of the amount and cost of all of the items listed in (1) through (6) above, and no claim for compensation for such extra work will be allowed unless such report shall have been made. Metro reserves the right to provide such materials as it may deem expedient and no compensation, overhead or profit will be allowed to Contractor for such materials.

14.6 Oral Modifications -- No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract.

14.7 Impact of Authorized Changes in the Contract -- Changes in the Work made pursuant to this Article and extensions of the Contract Time allowed by Metro due to such changes shall not in any way release any warranty or promises given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the sureties of bonds executed pursuant to said provisions. The sureties, in executing such bonds, shall be deemed to have expressly agreed to any such change in the Work and to any extension of Contract Time made by reason thereof.

15. Scope of Payment -- Payment to Contractor of the Contract Amount for performing all Work required under the Contract, as adjusted for any Change Orders approved as hereinbefore specified, shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the Work, and for performing and completing, in accordance with these Contract Documents, all Work required under the Contract, and for all expenses incurred by Contractor for any purpose in connection with the performance and completion of said Work.

Whenever it is specified herein that Contractor is to do work or provide materials of any class for which no price is fixed in the Contract, it shall be understood that Contractor is to do such work or provide such materials without extra charge or allowance or direct payment of any sort, and that the cost of doing such work or providing such materials is included in its Bid.

## 16. Schedule of Values

16.1 Generally -- At least 15 days prior to Contractor's application for the first progress payment, Contractor shall submit a detailed breakdown on its lump sum bid items. The format and detail of the breakdown shall be as directed by Metro to facilitate and clarify future progress payments to Contractor. This breakdown shall be referred to as the Schedule of Values.

16.2 Review of Schedule of Values -- Metro will review the Schedule of Values to ascertain that the dollar amounts of the Schedule of Values are in fact fair cost allocations for the work item listed. Upon concurrence by Metro, a formal approval of this Schedule of Values will be issued. Metro shall be the sole judge of fair cost allocations. Contractor's monthly progress payment requests shall reflect the cost figures included in the approved Schedule of Values and shall be based upon completed work items or percentages of work items completed prior to the end of the payment period as more fully described below.

17. Progress Payment Procedure

17.1 Generally -- Subject to the approval of Metro, disbursements shall be made by Metro of progress payments upon written request of Contractor and pursuant to the Contract Documents as specified in Part V, Section 2 of the Specifications.

17.1.1 Before the end of each calendar month, Contractor shall file with the Construction Manager in duplicate on a form approved by Metro, a proposed payment estimate for the period commencing on the 26th day of the previous month through midnight on the 25th day of the calendar month in question. Metro and the Construction Manager shall review Contractor's estimate and shall determine the value of Contractor's work based upon the Schedule of Values and incorporated labor and materials for the payment period. Contractor shall not be paid for any work which is, in Metro's opinion, defective or improper or for work needed to correct Contractor's defective or improper work. Contractor shall be paid 95 percent (95%) of the determined value of work accomplished less any offset or withholding of sums by Metro allowed under the Contract Documents within thirty (30) days after receipt by Metro of Contractor's payment estimate. Metro will routinely withhold five percent (5%) as Retainage.

17.1.2 No inaccuracy or error in any monthly progress payment estimates shall operate to release Contractor or its surety from damages arising from such work or from the enforcement of each and every provision of the Contract Documents, and Metro shall have the right subsequently to correct any error made in any estimate for progress payments.

17.2 Retainage -- If, in Metro's opinion, work on the Project is progressing satisfactorily, Metro may eliminate additional Retainage on any remaining monthly progress payments after 50 percent (50%) of the Work under the Contract is, in Metro's opinion, completed. Elimination of additional Retainage under this Subparagraph shall be allowed by Metro only upon written application by Contractor, which application shall include written approval of Contractor's surety.

17.2.1 If after Metro allows such an elimination of additional Retainage, Metro determines that progress of the Work is not satisfactory or that Contractor has breached any provision of the Contract, Metro may again retain and continue to retain, in addition to that Retainage already being held by Metro, five percent (5%) of any future progress payments made to Contractor.

17.2.2 When Metro determines that the Work is 97-1/2 percent (97-1/2%) complete, Metro may, at its discretion and without application by Contractor reduce the retained amount to 100 percent (100%) of the value of the Work remaining to be done.

17.2.3 All funds retained by Metro under this section shall be retained in a fund by Metro and paid in accordance with ORS 279.435.

17.2.4 Contractor may elect to deposit bonds or securities of the type described below with Metro or in any bank or trust company to be held in lieu of the cash retainage described above and for the benefit of Metro. In such event, Metro shall reduce the Retainage in an amount equal the value of the bonds and securities and shall pay the amount of the reduction to Contractor in accordance with ORS 279.435. Interest on such bonds or securities shall accrue to Contractor.

17.2.5 Bonds and securities deposited or acquired as described above shall be of a character approved by the Director of Oregon's Department of General Services including, but not limited to:

17.2.5.1 Bills, certificates, notes or bonds of the United States.

- 17.2.5.2 Other obligations of the United States or its agencies.
- 17.2.5.3 Obligations of any corporation wholly owned by the federal government.
- 17.2.5.4 Indebtedness of the Federal National Mortgage Association.
- 17.2.5.5 Contractor may elect to require Metro to deposit the accumulated Retainage in an interest bearing account in a bank, savings bank, trust company or savings association for the benefit of Metro. Interest on such an account shall accrue to Contractor.
- 17.2.5.6 If Metro incurs additional costs as a result of Contractor's exercise of any of the above-described options, Metro may recover such costs from Contractor by reduction of the Final Payment. Metro shall inform Contractor of all such accrued costs.

17.3 Other Conditions Precedent to Payment -- It is a condition precedent to Contractor's rights to any payments under the Contract that all bills for labor and materials, including labor and materials supplied by or to Contractor, shall have been paid in full and, if requested by Metro, Contractor shall submit receipted invoices and/or lien waivers, as evidence of payment in full of all such accounts. As a further condition precedent to Contractor's right to any payments under this Contract, if requested by Metro, Contractor shall submit a claims release before any payment, and a final claims release stating Contractor has been paid in full prior to the Final Payment.

Payments to Contractor shall be conditioned upon Contractor complying with all provisions of this Contract regarding scheduling and progress reports submissions and upon Contractor furnishing all other information and data necessary to ascertain actual progress. Metro's determination that Contractor has failed or refused to furnish the required information, data, schedules or other reports shall constitute a basis for withholding all payments until the required information, data, revised schedules and diagrams, if necessary, and other reports are furnished.

17.4 Payment Does Not Imply Acceptance of Work -- The granting of any progress payment, or the receipt thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof, and shall in no way lessen the liability of Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may or may not have been apparent or detected at the time such payment was made.

18. Protection of Work, Persons and Property Against Damages -- Contractor shall protect the Work from damage due to construction operations, the action of the elements, including erosion due to normal and extraordinary weather conditions, the carelessness of other contractors, vandalism, or any other cause whatever until Final Completion and Acceptance of the Work.

Contractor shall protect all public and private property insofar as it may be endangered by operations of Contractor including adjoining lands, air and waterways, and shall be fully responsible for taking proper precautions for the prevention of accidents to persons and/or damage to such property at, on or near the Site.

All federal, state and local safety and environmental protection laws, rules and orders including fire codes, applicable to the Work to be done under the Contract, shall be obeyed, complied with and enforced by Contractor.

Contractor shall provide and maintain such guards, fences, barriers, signs, regulatory and warning lights, and other traffic control and safety devices adjacent to and on the Site as may be necessary to prevent accidents to the public and damage to property. Contractor shall also provide, place and maintain such lights as may be necessary for illuminating the said signs, guards, fences, barriers and other traffic and safety control devices.

Upon Final Completion and Acceptance of the Work, Contractor shall remove all temporary signs, lights, barriers, etc., from the Site.

## 19. Insurance

19.1 Public Liability and Property Damage Insurance -- Contractor shall purchase and maintain, at the Contractor's expense, the following types of insurance covering the Contractor, its employees and agents.

19.1.1 Broad form comprehensive general liability insurance covering bodily injury, property damage, and personal injury with automatic coverage for premises/completed operations and product liability. The policy must be endorsed with contractual liability coverage.

19.1.2 Automobile bodily injury and property damage liability insurance.

Insurance coverage shall be on an occurrence basis with an annual aggregate limit of \$5,000,000.

METRO, its elected officials, departments, employees and agents shall be named as an ADDITIONAL INSURED. Notice of any material change or policy cancellation shall be provided to METRO thirty (30) days prior to the change.

19.1.3 Subcontractor's Insurance -- Contractor shall require that all of its Subcontractors and Suppliers of any tier provide insurance coverage and conditions identical to Contractor's insurance coverage, except that the policy limits of all Subcontractors' insurance coverage shall be at least \$1,000,000 combined single limit for each occurrence and in the aggregate.

19.2 Workers' Compensation and Employer's Liability Insurance -- The Contractor, its subcontractors, and all employers working under this contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers. The Contractor shall provide METRO with certification of workers' compensation insurance including employer's liability of \$1,000,000.

19.3 Forms of Policies and Other Insurance Requirements -- Contractor shall, at the time of signing this agreement, provide Metro two (2) certified copies of the policies of all insurance herein required to be obtained by Contractor except that Worker's Compensation Insurance may be evidenced by a Certificate of Insurance. At Metro's request, Contractor shall immediately deliver to Metro the receipts for payment of premiums on any or all such policies.

19.4 Contractor's Responsibility -- All policies of insurance and Certificates of Insurance shall be satisfactory to Metro. Approval of the insurance by Metro shall not relieve or decrease the extent to which Contractor or Contractor's Subcontractors and Suppliers of any tier may be held responsible for payment of any and all damages resulting from performance of the Work.

19.5 Copies Filed with Metro -- Each such policy or Certificate of Insurance shall bear an endorsement precluding its cancellation, expiration or any reduction in its coverage without giving to Metro at least sixty (60) days prior written notice. Contractor shall file with Metro two (2) certified copies of the required new or renewed policy or two (2) Certificates of Insurance for each such policy, as applicable, before the effective date of such cancellation, change or expiration.

19.6 Contractor Neglect of Insurance -- If Contractor neglects to obtain or maintain in force any such insurance or to deliver such policy or policies, certificates and receipts to Metro, then Metro may, at its option, obtain and maintain such insurance. Contractor hereby appoints Metro its true and lawful attorney, to do all things

necessary to obtain and maintain such insurance. All monies expended by Metro for such insurance shall be charged to Contractor and Metro may offset its costs in obtaining and/or maintaining such policies from sums due or to become due Contractor under the Contract or otherwise collect such sums from Contractor. Failure of Metro to obtain or maintain such insurance shall in no way relieve Contractor of any of its responsibilities under this Contract.

19.7 Termination -- Contractor's failure to maintain any item of the required insurance shall be sufficient cause for termination or suspension of this Contract.

19.8 Obtaining the Insurance -- All insurance required shall be obtained through a company or companies having a policyholders surplus of at least ten (10) times the amount or limit of liability afforded by such insurance company on policies issued for this Contract. Such company shall be duly and legally licensed to transact business in the state of Oregon and shall be acceptable to Metro. Said insurance shall be primary over any insurance or self-insurance of Metro.

20. Equal Employment Opportunity Affirmative Action Requirement -- Contractor shall be certified as Equal Employment Opportunity Affirmative Action Employers by the City of Portland, Oregon, for the entire term of the Contract. Contractor's Subcontractors and Suppliers shall be certified prior to commencement of any of their Work on the Project and shall remain certified for the entire duration of the Contract.

21. Miscellaneous Statutory Responsibilities of Contractor

21.1 Generally -- Contractor shall keep itself fully informed of and shall fully comply with all federal, state, regional and local laws, rules, regulations, ordinances and orders pertaining in any manner, to this Contract and those rules, regulations and orders of any agency or authority having jurisdiction over the work or those persons employed or engaged therein. Contractor shall pay all taxes, including federal, state, regional, county, city or taxes of any other governmental entity applicable to the work performed or materials provided under this Contract.

21.2 Environmental Laws -- Contractor shall fully comply with all federal, state and local laws, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of natural resources and all amendments thereto. Contractor shall also fully comply with all rules, regulations and ordinances enacted or to be enacted by any federal, state or local agency dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the Contract. Such statutes, rules, regulations and ordinances shall include, but are not limited to those in 7 USCA Sections 136 to 136Y, 15 USCA Sections 2601 to 2629, 33 USCA Sections 1251 to 1376, 33 USCA Sections 1401 to 1445, 42 USCA Sections 300f to 300j-11, 42 USCA Sections 4321 to 4370a, 42 USCA Sections 4901 to 4918, 42 USCA Sections 6901 to 6991i, 42 USCA Sections 7401 to 7642, 42 USCA Sections 9601 to 9675, 29 USCA Sections 651 et seq., Oregon Administrative Rules Chapter 61, and Title 18 of the City of Portland Code.

Such agencies shall include, but not be limited to, the following:

21.2.1 Federal Agencies

Agriculture, Department of Forest Service  
Soil Conservation Service  
Defense, Department of Army Corps of Engineers  
Energy, Department of Environmental Protection Agency  
Health and Human Services, Department of Interior  
Department of Fish and Wildlife Service  
Heritage Conservation and Recreation Service

Bureau of Land Management  
 Bureau of Indian Affairs  
 Water and Power Resource Service  
 Office of Surface Mining  
 Labor, Department of Occupational Safety and Health Administration  
 Mine Safety and Health Administration  
 Transportation, Department of Coast Guard  
 Federal Highway Administration

21.2.2 State Agencies

Agriculture, Department of Energy,  
 Department of Environmental Quality,  
 Department of Fish and Wildlife,  
 Department of Forestry,  
 Department of Geology and Mineral Industries,  
 Department of Human Resources,  
 Department of Land Conservation and Development,  
 Department of Soil and Water Conservation Commission  
 State Engineer  
 State Land Board and Division of State Lands  
 Water Resources Board, Department of  
 Bureau of Labor and Industries

21.2.3 Local Agencies

City of Portland  
 Multnomah County  
 Metropolitan Service District  
 Planning Commissions (as applicable)

21.3 Other Provisions of Oregon Law

Generally -- The provisions set out in Oregon Revised Statutes Chapters 187 and 279, as amended or superseded, including the latest additions and revisions, are incorporated by reference as part of these Contract Documents. Such sections include, but are not necessarily limited to, ORS 187.010, 187.020 279.021, 279.312, 279.314, 279.316, 279.318, 279.320, 279.334, 279.338, 279.348, 279.350, 279.352, 279.354, 279.355, 279.356, 279.359, 279.361, 279.365, and 279.400 through 279.435. Contractor shall fully comply with all applicable provisions of these statutes. The specific requirements of certain of these sections are set out below.

21.3.1 Payment to Subcontractors and Laborers -- Pursuant to ORS 279.312, Contractor shall make payment promptly, as due, to all persons supplying such Contractor labor or material for the prosecution of the Work provided in this Contract. Contractor shall pay all contributions or amounts due the Industrial Accident Fund (IAF) from such Contractor, Subcontractor or Supplier incurred in the performance of the Contract. Contractor shall not permit any lien or claim to be filed or prosecuted against Metro, the State, County, school district, municipality, municipal corporation, or subdivision thereof, on account of any labor or material furnished. Contractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

- 21.3.2 Failure to Make Payment for Labor or Services -- Pursuant to ORS 279.314, if Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to Contractor or a Subcontractor by any person in connection with this Contract as such claim becomes due, Metro may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due Contractor by reason of such Contract. Metro's payment of such a claim in the manner authorized by ORS 279.314 shall not relieve Contractor or Contractor's surety from obligation with respect to any unpaid claims.
- 21.3.3 Hours of Work -- Except as provided in ORS 279.334, no person shall be employed for more than eight (8) hours in any one day, or forty (40) hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases the laborer shall be paid at least time and a half pay for all overtime in excess of eight (8) hours a day and for work performed on Saturday and on any legal holiday specified in ORS 279.334. Contractor shall furthermore comply with any applicable provisions of ORS 279.316, 279.334, 279.336 and 279.338.
- 21.3.4 Payment for Medical Care -- Pursuant to ORS 279.320, Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums which Contractor agrees to pay for such services and all monies and sums which Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying such service.
- 21.3.5 Requirements for Foreign Contractors -- Pursuant to ORS 279.021, any "foreign contractor" awarded a public contract with a price exceeding \$10,000, shall promptly report to the Department of Revenue, on forms to be provided by the Oregon Department of Revenue, the total contract price, terms of payment, length of contract and such other information as may be required before Final Payment can be received on the public contract. Final Payment shall not be made until this provisions has been complied with.
- For purposes of this paragraph, a "foreign contractor" is one who is not domiciled in or registered to do business in the state of Oregon.
- 21.3.6 Prevailing Wage -- Except as limited by Oregon Revised Statutes, Contractor shall pay his/her workers and require his/her Subcontractors to pay its workers the prevailing rate of wage as required in ORS 279.350, and shall comply with all other requirements contained therein. The Appendix to this Contract contains a schedule of the existing prevailing rate of wage which may be paid to workers in each trade or occupation required to perform the Work, either by Contractor or its Subcontractors or any other person doing or contracting to do the whole or any part of the Work contemplated by this Contract, and such workers shall be paid not less than such specified minimum hourly rate of wage. The specifications for each subcontract shall include a copy of the prevailing wage schedule applicable to this project, and each subcontract shall include a clause regarding conformance to the schedule.
- 21.3.7 Sanitary Facilities -- Contractor shall be responsible for all costs that may be incurred in complying with ORS 654.150 and the rules adopted pursuant thereto including, but not limited to, securing exemption or partial exemption from the requirements of ORS 654.150, (sanitary facilities at construction projects; standards, exemptions).
- 21.3.8 Royalty Payments -- Contractor shall promptly pay when due, all royalties owed to the State of Oregon or other governmental entity under ORS Chapter 274 or other provision of law.



21.4 Work to Comply with Codes -- All Work shall be in full compliance with any and all codes specified in the Contract Documents and all federal, state and local laws, ordinances, rules, regulations and orders and all amendments to such codes, laws, ordinances, rules, regulations and orders. If Contractor observes or discovers that any portion or portions of the Contract Documents are at variance with any such requirements, Contractor shall promptly submit a written Request for Clarification to Metro pursuant to this agreement, which shall fully describe the variance. If Contractor performs Work contrary to codes, laws, ordinances, rules, regulations or orders without submitting such Request to Metro, Contractor shall assume full responsibility for such Work and shall bear all costs attributable thereto.

21.5 Authorized Persons May Check for Compliance -- Persons authorized by Metro or any governmental body having jurisdiction over the Project may at any time enter upon any part of the work to ascertain whether Contractor is complying with such laws, ordinances, regulations or orders.

22. No Additional Compensation Allowed for Compliance with Laws -- The Contract Amount includes full compensation for compliance with all applicable laws, rule, regulations, ordinances and orders and all amendments thereto and Contractor shall not make claim for nor be allowed any additional compensation for such compliance.

23. Intent and Interpretation of Contract Documents --

23.1 Precedence of Contract Documents -- All determination of the precedence of, or discrepancy in, the Contract Documents shall be made by Metro, but in general, precedence will be in accordance with the following list with the highest precedence item at the top:

23.1.1 Signed contract

23.1.2 Special Conditions

23.1.3 Supplementary Conditions, Advertisement for Bids, Instructions to Bidders, Invitation to Bid, Bid Forms, Performance Bond, and Labor and Materials Payment Bond.

23.1.4 Specifications

23.1.5 Drawings.

Detailed information takes precedence over general information, and words take precedence over numbers unless obviously incorrect.

Addenda, Clarifications, and all Change Orders to the Contract Documents take the same order of precedence as the specific sections that they are amending.

23.2 Discrepancies, Errors and Omissions -- The intent of the Contract Documents is to require the Contractor to perform and provide every detail and item necessary for completion of the Project. The Contract Documents are not complete in every detail, however, and the Contractor shall comply with their intent and meaning, taken as a whole, and shall not avail itself of any manifest errors or omissions to the detriment of the Work. Should any error, omission, discrepancy or ambiguity appear in the Contract Documents, instructions or work done by others, Contractor shall immediately upon discovery submit a Request for Clarification to Metro. If Contractor proceeds with any such work without receiving a Clarification, Contractor shall be responsible for all resulting damage and defects, and shall perform any work necessary for full and faithful performance of the Work in accordance with the intent of the Contract Documents shall be indicated by Contractor on the shop drawings and provided by Contractor to the same extent as if both indicated and specified. Any work indicated on the drawings but not specified, or vice versa, shall be furnished in the manner specified above as

though fully set forth in both. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified. In case of discrepancy or ambiguity, in quantity or quality, the greater quantity or better quality as determined by Metro, shall be provided at no extra cost to Metro.

- 23.3 Standards to Apply Where Detailed Specifications are Not Furnished -- Wherever in these Contract Documents or in any directions given by Metro pursuant to or supplementing these Contract Documents, it is provided that Contractor shall furnish materials or manufactured articles or shall do work for which no detailed Specifications are set forth, the materials or manufactured articles shall conform to the usual standards for first-class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work for which no detailed Drawings or Specifications are set forth herein shall conform to the usual standards for first-class work of the kind required.

**24. Contractor's Organization**

- 24.1 Contractor's Authorized Representatives -- Prior to commencing any work under this Contract, Contractor shall submit in writing to Metro a list of Contractor's authorized representatives. Such list shall include the name and title of each representative along with the extent to which each representative is authorized to represent, bind, and act for Contractor. The description of extent of representation shall include, but not be limited to, the maximum dollar value of Change Orders which the individual may authorize, and whether the individual may respond to Request for Proposals. Contractor shall be fully liable for the acts, omissions and decisions of such representatives to the extent stipulated in the written list submitted to Metro.
- 24.2 Key Personnel -- Contractor shall submit, in writing, to Metro a list of the names, addresses, and telephone numbers of its key personnel who are to be contacted in case of emergencies on the job during non-working hours, including Saturdays, Sundays, and holidays and all other key personnel as may be required.
- 24.3 Contractor's Employees -- Contractor shall enforce strict discipline and good order among Contractor's employees and other persons carrying out the Work. Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

Whenever Metro shall notify Contractor that any employee on the Work is, in the judgment of Metro, incompetent, unfaithful, disorderly or refuses to carry out the provisions of the Contract, such employee shall be discharged or transferred from the Work.

Contractor shall give Metro, at its request at any time, full and correct information as to the number of workers employed in connection with each subdivision of the Work, the classification and rate of pay of each worker, the cost to Contractor of each class of materials, tools and appliances used by it in the Work, and the amount of each class of materials used in each subdivision of the Work.

- 24.4 Daily Construction Reports -- Each day Contractor shall deliver to the Construction Manager a daily construction report which shall include, at a minimum, the following information:

24.4.1 Name of Contractor and Project

24.4.2 Weather, temperature, and any unusual Site conditions for the day in question.

24.4.3 A brief description and location of the day's work activities and any special problems and/or serious accidents or environmental releases, including preventative or mitigation measures taken (including work of Subcontractors).

24.4.4 A description of significant progress in construction for that day as well as any problems encountered that might affect the progress of the Project as they relate to the Construction Schedule.

24.4.5 Any other information as requested by Metro or its representative.

24.5 Contractor to Supply Sufficient Material and Workers -- Contractor shall at all times keep on the premises sufficient material and employ sufficient supervision and workers to prosecute the Work at the rate necessary to substantially complete the Work herein required within the time specified in the Contract and in accordance with the Construction Schedule. Contractor shall coordinate the Work of its Subcontractors so that information required by one will be provided by others involved in time for incorporation in the Work in proper sequence and without delay of any materials, devices or provisions for future work.

24.6 Construction Plant, Equipment and Methods -- The construction plant and equipment provided by Contractor, and Contractor's methods and organization for handling the Work shall be such as will secure a good quality of work and rate of progress which will ensure the completion of the Work within the time specified, in accordance with the Construction Schedule, and without violating city, local, state, or federal environmental regulation during construction.

Contractor shall give Metro full information in advance as to Contractor's plans for carrying on any part of the Work. If at any time before the commencement or during the progress of the Work, any part of Contractor's plant or equipment, or any of Contractor's methods of executing the Work, appears to Metro to be inadequate to ensure the required quality, environmental protection or rate of progress of the Work, Metro may order Contractor to increase or improve its facilities or methods, and Contractor shall promptly comply with such orders. Neither compliance with such orders nor failure of Metro to issue such orders shall relieve Contractor from obligation or liability to secure the quality of work and the rate of progress required by the Contract. Contractor shall be responsible for overload of any part or parts of structures beyond their safe calculated carrying capacities, and for release of pollutants into surrounding waters resulting from Contractor's activities on the Site.

Contractor shall provide temporary utilities pursuant to the Specifications and shall be responsible for the safety and adequacy of its plant, equipment and methods.

## SPECIAL CONDITIONS

1. Scope of Work -- This Contract covers the performance of all work and services and the furnishing of all materials, except those items specifically identified as provided by the Owner, to abandon damaged monitoring wells, maintain functional wells, and install new monitoring wells and piezometers.

The Contractor shall furnish all superintendence, labor services, plant equipment, tools, supplies, transportation, materials and site restoration necessary for the following:

2. Schedule -- Construction activity under this contract shall commence within five days after award of the Contract (estimated award in late-June, 1992) and all work scheduled in 1992 must be completed by November 1, 1992. Extension of the wells, removal of extensions, and completion of the surface casing shall be completed as required by coordinating with Metro during years 1993 to 1996. Certain activities on the site require that the following items be complete on or before the dates indicated:

- Abandonment of wells C-3 and D-8a shall be completed within ten calendar days after Notice to Proceed;
- One (1) 5-foot extension of well H-1 shall be completed within ten calendar days after Notice to Proceed;
- Nine (9) multiple piezometers shall be completed within 30 calendar days after Notice to Proceed; and
- Seven (7) shallow monitoring wells shall be completed within 60 calendar days after Notice to Proceed.

The Contractor shall employ a work force and provide materials and equipment to accomplish the work in a workmanlike manner at a rate of progress as required by the schedule and as stipulated in the Contract Documents.

3. Permits -- Metro has secured all general permits for the St. Johns Landfill project. Copies of the permits are on file at Metro. All requirements set forth by these permits shall be investigated prior to bidding and are to be strictly followed by the Contractor.

A Memorandum of Understanding (MOU) has been signed between the Oregon Department of Environmental Quality (DEQ) and the Oregon Water Resources Commission (WRD). The MOU delegates the authority to DEQ for regulation and inspection of drilling, construction and decommissioning of groundwater monitoring wells installed at DEQ-regulated sites and facilities (copy of MOU is included in the Appendix). The St. Johns Landfill is a DEQ-regulated site.

Contractor shall submit all start cards and fees directly to the WRD and shall submit all required well abandonment or well construction information to the DEQ Solid Waste Section as required by the State of Oregon.

Metro will assist in obtaining permission for Contractor access onto the Wetlands Lake sites adjacent to the landfill. The Contractor shall acquire and pay for all permits of a temporary nature relating to the construction of the project.

4. Site Inspection -- The Contractor shall carefully examine the site and be familiar with the conditions of the work involved.
5. Contractor's Responsibility for Health and Safety -- The contractor shall ensure compliance with all requirements of the Federal Occupational Health and Safety Act of 1970 (OSHA), as amended, including OSHA 29 CFR Part 1910 Hazardous Waste Operations and Emergency response, Final rule, Oregon Administrative Rules (OAR) 437-02-100 et. seq. and with any other applicable Oregon Industrial Health and Safety provisions as they apply to health and safety provisions for hazardous waste operations, and all other applicable federal, state, county, and local laws, ordinances, and codes.

The Contractor is responsible for the preparation of the Health and Safety Plan which meets applicable laws, rules, and regulations including OSHA regulations and applicable Oregon Occupational Health and Safety and Health code.

Contractor shall be fully responsible for protecting the health and safety of its workers. Contractor warrants that it is fully aware of potential hazards on the site and is capable of taking all necessary precautions in performing the work. Contractor is solely and completely responsible for meeting all applicable laws, regulations and requirements for employee health and safety during the work performed under this Contract. Contractor shall provide to all of their personnel working on the project the required orientation and training on potential hazards anticipated and the appropriate use of safety equipment.

Contractor will submit the names and qualifications of first aid trained personnel who will be available for administering first aid on each shift, prior to beginning work.

Contractor must develop and submit a site specific Health & Safety Plan which addresses:

- Site characterization and health risk and hazard analysis
- Site control measures
- Training
- Medical surveillance
- Engineering controls, work practices and personal protective equipment
- Monitoring program
- Informational program/hazard communication program
- Material handling
- Decontamination procedures
- Emergency response
- Illumination
- Sanitation
- Site Excavation
- Contractors and Subcontractors
- Standard operating procedures for health and safety
- Names of key personnel and alternates responsible for site health and safety
- Personal protective equipment program
- Spill containment program

Metro will make available its existing on-site Health and Safety Plan, which can be amended as required to cover the all of the Contractor's activities

6. Metro Review and Approval -- The Technical Specifications make references to Engineer- and Metro-approved methods or review and approval. Metro will expedite this review and approval activity to support the Contractor.
7. Storage of Material and Equipment -- Contractor laydown and parking areas are shown on the Drawings.
8. Site Access -- Access to the landfill site shall be off Columbia Boulevard through the scale area and across the two-lane bridge which spans the Columbia Slough.

Access to the piezometer site P-8 shall be through Port of Portland property and through sensitive wetlands areas. Access to piezometer site P-9 shall be off the east dike of the landfill through sensitive wetlands areas. Metro will obtain the necessary permission to access these areas. The Contractor shall obtain all permits necessary for access into these areas, and ensure that the disturbed wetlands area would be properly restored to their original condition.

9. Environmental Protection -- The Contractor shall perform the work in strict conformity with all applicable laws, rules, and regulations relating to pollution of any adjacent lake or waterway.

The Contractor shall be responsible for fuels, oil, or other contaminants which spill into the construction area or water. If such a spill occurs, appropriate measures to clean up the spill shall be immediately undertaken by the Contractor at its expense. Any fines or other penalties resulting from Contractor spills shall be the sole responsibility of the Contractor.

10. Fire Protection -- Contractor personnel shall not be allowed to smoke or otherwise have open flames on the landfill site.

Torch cutting and welding shall be allowed on the landfill perimeter road if gas monitoring indicates that a safe condition exists.

11. Site Conditions and Subsurface and Monitoring Information -- The site of the work is a closed solid waste landfill upon which other contractors will be working. Contractor is expected to know and understand the condition of the site, as it relates to the Contractor's bid. The following technical reports may be reviewed at Metro's downtown office for subsurface and well information:

- Port of Portland and City of Portland, Smith and Bybee Lakes Environmental Studies, Technical Appendices, November, 1987.
- Sweet-Edwards/EMCON, St. Johns Landfill and Environmental Management Options, Volumes I and II, May, 1989.
- Cornforth Consultants, Inc., Abandonment of Monitoring Wells, St. Johns Landfill, February, 1991.
- Cornforth Consultants, Inc., Five Interior Monitoring Wells, As Constructed, St. Johns Landfill, October, 1990.
- "Special Waste Disposal Areas, 10/29/90-11/13/90", CH<sup>2</sup>M Hill, March 1991; and Letter from Oregon Department of Human Resources, 4/26/91.

12. Drilling Fluids and Bit Lubrication -- No bit lubrication other than filtered air and potable water shall be allowed. Compressed air shall be filtered to eliminate contamination of the air by oil from the compressor. Water used down hole in any phase of the work shall be kept to a minimum. The Contractor shall prevent and is responsible for any hydrocarbon or other chemical contamination of materials used in drilling. No drilling muds or foams shall be used and petroleum or soap-based products shall not be allowed. The use of petroleum based joint compounds, which are normally used to prevent binding, shall not be allowed.
13. Additional Work -- An "Additional Work" item is included as part of this Contract. This work shall consist of additional well abandonment, maintenance, and construction, requested in writing by Metro during the life of the Contract.

## DEFINITIONS

Addendum (Plural: Addenda) -- Means a document issued by Metro during the bidding period which modifies, interprets, supersedes or supplements the Contract Documents and becomes a part of the Contract Documents. It is the Bidder's responsibility to determine how addenda impact the Work. All Bids submitted shall include the cost of the Work included in any addenda issued prior to award.

Authorized Representative -- Is a person, corporation, partnership or other legal entity acting on behalf of another through expressly delegated authority as specified in these Contract Documents.

Bid -- Is the written offer of a Bidder to perform the Work as defined in these Contract Documents, when made out in accordance with all of the Contract Documents and submitted on the appropriate Bid Forms.

Bidder -- Is any individual, partnership, corporation, or joint venture, acting directly or through a duly and legally authorized representative, submitting or intending to submit a Bid for the Work as described in these Contract Documents.

Bidding Documents -- See "Contract Documents."

Bid Forms -- Include the following: the Bid proposal, including Bidder Information, Resident/Non-Resident Bidder Status, Surety, Required Bid Information, Schedule of Bid Prices, Recycled Products, Signature Page, Non-Collusion Affidavit, Bid Bond, Disadvantaged Business Program Compliance Form, Disadvantaged Business Enterprises Utilization Form, Women Business Enterprises Utilization Form, List of Proposed Sub-Contractors and Suppliers, and Plant and Equipment Requirements.

Change Order -- Is a written document signed by Metro and Contractor stating their agreement upon all of the following:

- A change in the Work;
- The amount of the increase or decrease in the Contract Amount, if any; and
- The extent of the adjustment to the Contract Time, if any.

Clarification -- Is a written document consisting of supplementary details, instruction or information issued by Metro after the award of Contract which clarifies, or supplements the Contract Documents and becomes a part of the Contract Documents. A Clarification may or may not affect the scope of work.

Completion -- See "Substantial Completion" and "Final Completion and Acceptance."

Construction Manager -- Is a representative of Metro, and is the interface with Contractor and will be the conduit for all Change Orders, correspondence, Requests for Information, Clarifications, and negotiations.

Construction Schedule or Schedule -- Is the timeline for the project.

Contract Amount -- Is the total amount shown in the contract as revised by Change Orders.

Contract Documents or Contract or Bidding Documents -- Consist of the Advertisement for Bids, the Invitation to Bid, the Instructions to Bidders, the Bid Forms, the Performance Bond, the Labor and Materials Payment Bond, the Public Contract, the Supplementary Conditions, the Special Conditions, the Specifications, the Drawings, the approved and updated Construction Schedule, the approved and updated Work Plan, and any modifications of any of the foregoing in the form of Addenda, Clarifications, Change Orders or Force Account Work.

Contractor -- Is the party who has entered into this Contract with Metro and who is responsible for the complete performance of the Work contemplated by the Contract Documents and for the payment of all legal debts pertaining to the Work, including its officers, agents, employees, and representatives.

Contract Time -- Is the period of time, including adjustments approved by Metro, which is allowed in the Contract Documents for Contractor to substantially complete the Work.

Direct Costs -- Are those costs of labor (including benefits), material, and equipment incurred by the person, corporation, partnership, or joint venture whose employees are actually performing the task.

Disadvantaged Business Program -- Is Metro's program to provide maximum opportunities to Disadvantaged and Women-Owned Business Enterprises in contracts, which is contained in Metro Code 2.04

Drawings -- Means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location, and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

Engineer -- Is a representative of Metro. The Engineer will have authority to act on behalf of Metro only to the extent provided in these Contract Documents.

Final Completion and Acceptance -- Means the completion by Contractor of all of the Work called for under the Contract, whether expressly or impliedly required, including but not limited to, satisfactory operation of all equipment, completion and correction of all punch list items to the satisfaction of Metro, settlement of all claims, delivery of all warranties and agreements to correct Work, equipment operation and maintenance manuals, as-built drawings, required approvals and acceptances by federal, state, or local governments or other authorities having jurisdiction over the Work, and removal of all rubbish, tools, scaffolding, and surplus materials and equipment from the Site.

Final Payment -- Is the balance of the Contract Amount to be paid to the Contractor upon Final Completion and Acceptance of the Work.

Force Account Work -- Is work, ordered in writing by Metro, for which Contractor must report its actual costs in accordance with Paragraph 14.5 of the Supplemental Conditions.

Lump Sum -- Means all costs and expenses of whatever nature, including Overhead and Profit, associated with the Work involved.

Material or Materials -- Shall be construed to include machinery, equipment, manufactured articles, materials of construction such as formwork, fasteners, etc., and any other classes of items to be provided in connection with the Contract, except where a more limited meaning is indicated by the context.

Metro -- Means the Metropolitan Service District of the Portland metropolitan area, a municipal corporation established and existing under the laws of the State of Oregon, ORS Chapter 268

Metro Council or Council -- means the elected Council of Metro.

Miscellaneous Phrases -- In the Contract Documents shall be interpreted as follows:

Whenever the words "as directed," "as instructed," "as required," "as permitted," or words of like effect are used, it shall be understood that the direction, requirement, or permission of Metro is intended.



The words "sufficient," "necessary," "proper," and the like shall mean sufficient, necessary or proper in the judgment of Metro.

The words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to, Metro.

Notice of Award -- Is the document issued by Metro to the lowest responsive, responsible Bidder whose Bid complies with all the requirements prescribed by the Contract Documents. The Notice of Award shall be given pursuant to the provisions of the Instructions to Bidders. It shall not entitle the party to whom it is given to any payment under the Contract, nor shall Metro be liable to such party or to any person for any alleged damages for any action taken in reliance upon such notice.

Notice to Proceed -- Is the written notice given Contractor to commence the prosecution of its Work as defined in the Contract Documents. The Notice to Proceed will also establish the date and time of a preconstruction conference.

Other Metro Contractors -- Are all individuals, corporations, partnerships, or joint ventures (except Contractor or Engineer) with whom Metro has a contract to perform work on, or related to, the Project.

Overhead -- When applied to the cost of the work, shall include the following items, when reasonable and necessary for completion of the work:

- All on-site payroll costs, taxes, insurance fringe benefits and bonuses of same, for supervising, estimating, expediting, purchasing, drafting and clerical/secretarial services where directly incurred in the performance of the Contract.
- Small tools (less than \$250 capital cost per item);
- Equipment maintenance and repairs;
- Temporary construction, utilities, and safety requirements;
- Transportation of materials other than direct identifiable cost of specific deliveries, or as included in price of material;
- Parking fees for workers (if applicable);
- Permit fees;
- Cost of reproduction;
- Field office costs

Home or branch office overhead shall not be included, but shall be part of Contractor's profit and shall include, but is not limited to, the following:

- Accounting function of Contractor's Home and Branch Office;
- General expenses of Contractor's Home and Branch Office;
- Interest on capital; and
- Salaries of any home and branch office estimators and administration.

Owner -- Means Metro.

Plans -- Means Drawings.

Profit -- Means that portion of Contractor's Bid price that is not Direct Costs of Overhead

Project -- Means the Work described in the Contract Documents.

## DEFINITIONS

Provide -- Means furnish and install complete and in place and ready for operation and use.

Punch List -- Is the list prepared by the Construction Manager at the time of Substantial Completion which reflects Contractor's incomplete, nonconforming work. Punch list items must be completed to the satisfaction of the Engineer and Metro in order for the Project to reach Final Completion and Acceptance.

Request for Clarification -- Is a written request made by Contractor for additional information to clarify an ambiguity in the Contract Documents.

Retainage or Retention -- is the difference between the amount earned by Contractor on the Contract and the amount paid on the Contract by Metro.

Schedule of Values -- Is the detailed breakdown of a lump sum contract amount as required, in accordance with Paragraph 16 of the Supplemental Conditions.

Shown, As Shown -- Work shown on the Drawings which is a part of the Contract Documents.

Site -- Is the real property upon which the Project is located.

Specifications -- Are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

Subcontractor -- Means a person, partnership, corporation or joint venture which has a direct contract with Contractor to perform a portion of the Work at the Site.

Submittals -- Include shop drawings, samples, manufacturer's brochures, pamphlets, catalog cuts, color charts, or other descriptive data, clearly defining the article, material, equipment, or device proposed by Contractor for use in the Work. "Shop drawings" are the drawings and diagrams showing details of fabrication and erection which Contractor is required to submit to the Engineer.

Substantial Completion -- is the stage in the progress of the Work, as determined by Metro, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that Metro can occupy or use the Work for its intended use.

Supplier -- Means an individual, partnership, corporation, or joint venture entering into an agreement with Metro or Contractor for furnishing a portion of the work which requires no labor at the Site, other than common carriers.

Unit Prices -- Are the costs for specific units of work as defined in the Bid and Supplementary Conditions and include all costs, including, but not limited to, equipment, labor, materials, incidentals, Overhead and Profit, for the unit of work described.

Work -- Means, unless the context requires otherwise, the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute all or a portion of the Project as the context requires.

**PART V**  
**TECHNICAL SPECIFICATIONS**

**SECTION 1 - GENERAL****1.1 HEALTH AND SAFETY**

- A. Formal Health and Safety training is required of the Contractor for this job. In responding to this bid, the Contractor acknowledges familiarity with conditions at the project site and will institute any Health and Safety Plan requirements of applicable laws and regulation pertinent to the specific project site conditions. The Contractor is responsible for the preparation of the Health and Safety Plan which meets all applicable laws, rules, and regulations including OSHA Regulations and applicable Oregon Occupational Safety and Health Codes. The Contractor shall submit a copy of their Health and Safety Plan within five (5) calendar days after the Notice to Proceed.
- B. The Contractor shall perform air monitoring at the boring or well head and in the general vicinity of the work.

**1.2 ACCESS TO WELL LOCATIONS**

- A. Metro will assist in attaining permission for access onto the off-site property and drill sites prior to commencement of the project.
- B. Once onto the project site, the Contractor shall provide physical access of all required equipment, personnel, and materials to each drill site. The Contractor shall coordinate all access and operational requirements, as necessary, with other contractors on site.
- C. Any temporary roads for well access shall be constructed to the Contractor's Specification with the following restrictions:
  - (1) Existing roads shall not be obstructed.
  - (2) Existing facilities shall not be disturbed.
  - (3) The temporary access road shall be designed to minimize disturbance of the existing landfill cover.
  - (4) All temporary access road construction shall be limited in width to a single lane.
- D. A plan of the temporary access road shall be submitted to Metro by the Contractor and approved prior to the start of access road construction.

**1.3 CONTRACTOR REQUIREMENTS**

- A. The construction of groundwater monitoring wells is regulated by the State of Oregon. A Memorandum of Understanding (MOU) has been signed between the Oregon Department of Environmental Quality (DEQ) and the Oregon Water Resources Commission (WRD). The MOU delegates the authority to DEQ for regulation and inspection of drilling, construction and decommissioning of groundwater monitoring wells installed at DEQ-regulated sites and facilities (copy of MOU is included in the Appendix). The St. Johns Landfill is a DEQ-regulated site. The Contractor shall be familiar with and conduct all monitoring well construction activities in accordance with the Memorandum of Understanding between WRD and DEQ dated November 1, 1991.
  - (1) All monitoring wells will be constructed and installed by an "Oregon licensed Monitoring Well Constructor" per WRD Chapter 690, Division 240, "Construction and Maintenance of Monitoring Wells and Other Holes in Oregon" (effective January 1, 1991), and by the Department of Environmental Quality (DEQ) draft "Guidelines for Groundwater Well Drilling Construction and Decommissioning" (November 20, 1991). Well construction design Specifications are shown on the Drawings.
  - (2) The Contractor shall submit all start cards and fees directly to WRD and shall submit all required well abandonment or well construction information to DEQ Solid Waste Section as required by the State of Oregon.

- (3) The Contractor shall submit monitoring well reports to Metro and to the State of Oregon Water Resources Department (WRD).
- B. The Contractor shall select construction methods appropriate for the subsurface or well conditions anticipated to be encountered at each work location. The Engineer will review and authorize the selected construction methods. Submittal and review of proposed construction methods shall occur prior to any work. The Scope of Work includes furnishing of all equipment, labor, materials, permits, and incidentals necessary to perform the work as described in these Documents.
- C. The Contractor shall be required to have at least one Oregon licensed Monitoring Well Constructor and at least one competent driller's assistant for each drilling machine on site through the duration of the project.
- D. The Contractor will be responsible to:
  - (1) Procure all permits, licenses and certificates necessary to complete the work.
  - (2) Comply with all federal, state, and local laws, ordinances, rules, and regulations.
  - (3) Convey water (if necessary for drilling operations which meets the State of Oregon water quality standards. Water is available on the landfill site at the location shown on the Drawings.
  - (4) Locate all utilities, if applicable.
  - (5) Restore and clean up drill site and access roads to near original condition as stipulated in Section 8.
  - (6) Designate a representative who will be the only individual authorized to coordinate with Metro and the Engineer.
  - (7) The Contractor shall keep a daily written log of operations, including size and length of the casing placed, character, depth and thickness of all formations penetrated, and causes of delays. Duplicate copies of this log shall be furnished to the Engineer at the end of each work day.
- E. The Contractor shall conduct all operations in such a way as to prevent any contamination, destruction, scarring, or defacing of the work site:
  - (1) Every effort shall be made to present an orderly appearance at the work site while drilling operations take place. At the completion of the field activities, the Contractor shall be required to return the site to near its original condition as stipulated in Section 8.
  - (2) In the event that any damages to the site property occur because of the Contractor's activities, the contractor shall, at his/her own expense, repair the damages to the extent deemed suitable by Metro.

**SECTION 2  
MEASUREMENT AND PAYMENT**

**2.1 MEASUREMENT OF PAY QUANTITIES**

- A. Contractor will be paid on an interim basis for all work completed. During the 1992 work, the Contractor shall prepare a monthly estimate of the work accomplished to date. The format and date of the pay request submittals will be subject to the approval of Metro. Metro will determine the final interim payment amount for 1992 work with Contractor present to verify items and quantities.
- B. For work in 1993, 1994, 1995 and 1996, the Contractor shall prepare an estimate of the work accomplished within 30 days after each mobilization is completed. Metro will determine the final payment amount with Contractor present to verify items and quantities.
- C. Description of Methods for Measurement of Quantities:
  - (1) Where **lump sum** is the specified pay unit, complete payment for the work described to be done, completed and accepted, without further measurement will be used, except Section 2.6, Item 1 - General Mobilization, where partial payment will be made. Payment will be made at the Contract lump sum price.
  - (2) Where **per each** is the specified pay unit, complete payment for each item, completed and accepted, without further measurement will be used. Payment will be made at the Contract price given for each item. partial payment will not be made for per each items.
  - (3) Where **per lineal foot** is the specified pay unit, payment will be made for each vertical lineal foot depth of well or piezometer completed and accepted. Payment will be made at the Contract lineal foot price given.
- D. Hourly Charges: Where **per hour** is the specified pay unit for well abandonment or well maintenance, payment will be made for each hour of work required due to 'unanticipated conditions' encountered during the work. Material expended under this item will be paid at cost plus 15 percent.

Any work performed under Hourly Charges shall be approved in advance of the work by Metro, as follows:

- (1) The Contractor shall make a request to Metro outlining the unanticipated condition;
- (2) Metro will respond immediately to the verbal request; and
- (3) The Contractor shall provide to Metro written documentation of the request and response within 24 hours of the initial request.

## 2. MEASUREMENT AND PAYMENT

Payment will be made at the Contract hourly rate given. The Contractor shall submit receipts for materials expended under this item.

- E. Additional Work: Where per hour is the specified pay unit for Additional Work items requested by Metro, payment will be made for each hour of work completed on the requested item(s). Materials expended under this item will be paid at cost plus 15 percent. Work under Additional Work will be initiated as follows:

- (1) Metro will submit a written request to the Contractor for each item of work;
- (2) The Contractor shall respond with a scope of work and a cost proposal;
- (3) Metro and the Contractor will then negotiate a mutually agreeable scope and cost based on the submittal;
- (4) If no agreement can be reached, Metro will obtain the required services elsewhere, or apply the Force Account pursuant to Section 14.5 of the Supplementary Conditions.

Payment will be made at the Contract hourly rate given for Additional Work completed in 1992. For Additional Work in 1993, 1994, 1995, and 1996, payment will be made at the Contract hourly rate given plus a yearly percentage increase. The percentage increase shall be included in the cost proposal and negotiated as stipulated in (1) and (4) above. The Contractor shall submit receipts for materials expended under this item.

- F. No payment will be made for:

- (1) Delays due to improper or inoperable drilling equipment or improper drilling methods during drilling and installation of wells and piezometers. The Contractor shall be familiar with ground conditions at the St. Johns Landfill and shall be prepared to employ drilling and installation methods as required to complete the work as stipulated in the Contract Documents.
- (2) Delays encountered in accessing drilling sites. The Contractor shall be familiar with conditions for access to all well locations and shall be prepared to provide suitable equipment to aid access. Site access shall be accomplished as stipulated in the Special Conditions.
- (3) Drilling footage in excess of that needed to complete the required installations.
- (4) Work performed under the "per hour" rate provisions which are not approved in advance by Metro.
- (5) Wasted materials, materials stored on-site, or materials on hand after completion of the work.
- (6) Work not in compliance with the Specifications or incomplete work or installations.

## **2. MEASUREMENT AND PAYMENT**

- (7) Repair, replacement, or redoing of work or installations not completed in compliance with the Specifications.
- (8) Work performed outside the provisions of the Contract, or for any item contrary to any provision of the Contract.

### **2.2 ESTIMATED QUANTITIES FOR UNIT PRICE ITEMS**

- A. The estimated quantities shown in the Schedule of Quantities and Prices are estimates only, being given only as the basis for the comparison of Bids. Metro does not guarantee that the actual amount of work will correspond to the estimates. The basis of payment will be the actual unit bid items of work performed and measured in accordance with the Contract. Certain bid items or units are included to establish a unit price. Payment per completed unit (for per each and per lineal foot) will be at the Contract price, unless the quantity is greater than or less than 20% of the estimated quantities given in the Schedule of Quantities and Prices.

### **2.3 QUANTITIES FOR PER HOUR ITEMS**

- A. The quantities shown in the schedule of Quantities and Prices are being given only as the basis for the comparison of Bids. The Contractor is advised that there exists no basis for estimating the amount of hourly charges due to unanticipated conditions or the amount of additional work which may be required over the life of the contract. Therefore, the basis of payment will only be made as stipulated under Paragraph 2.1D - Hourly Charges and 2.1E - Additional Work.

### **2.4 PAYMENT FOR LUMP SUM ITEMS**

- A. Payment for work items designated per lump sum units shall be in accordance with of the Supplemental Conditions and according to the Contract prices given in the Schedule of Quantities and Prices. Partial payments shall be made as stipulated in Paragraph 2.6 to this Section.

### **2.5 PAYMENT FOR "PER EACH", "PER LINEAL FOOT", AND "PER HOUR" UNIT PRICE ITEMS**

- A. Payment for items designated per each, per lineal foot or per hour shall be according to the Contract prices given in the Schedule of Quantities and Prices.

#### **DESCRIPTION OF BID ITEMS**

#### **ITEM 1 - 1992: General mobilization and site safety and health program**

- A. Mobilization: This item shall consist of preconstruction costs of preparatory work and operations performed by the Contractor, including, but not limited to, the following:
  - (1) Movement of personnel, drilling rigs, drilling equipment, support vehicles, supplies, and incidentals to the project site.
  - (2) Premium on bonds and insurance for the project.



## **2 MEASUREMENT AND PAYMENT**

- (3) Permits or documentation required to meet access or regulatory requirements.
  - (4) Costs incurred for operations which must be performed or costs which must be incurred before beginning work on the project site.
  - (5) Operations which must be performed or costs which must be incurred in removing equipment, personnel, and materials from the project site.
- B. Site Safety and Health Program: This item shall be included in this bid item. This portion of the lump sum price shall constitute complete compensation for the investigation of existing conditions and potential hazards, preparation of all required safety and health program elements, and implementation of the approved Program throughout the Contractors' work on the landfill site.
- C. Any portion of the work covered by a specific bid item shall not be included in this item.
- D. Partial payments for Item 1 - 1992 General Mobilization and Site Safety and Health Program will be made as follows:
- (1) When at least 5 percent of the total original Contract amount, based on monthly estimates, is earned from other bid items, 50 percent of the amount bid for Item 1 will be paid.
  - (2) When at least 25 percent of the total original Contract amount, based on monthly estimates, is earned from other bid items, payment for Item 1 will total 90 percent of the amount bid.
  - (3) Upon completion of all work on the project, payment for Item 1 will total 100 percent of the amount bid.

### **ITEM 2 - 1992: Mobilization to each well or piezometer location at the St. Johns Landfill site**

- A. The per each price for mobilization to each well location on the St. Johns site shall be full compensation for pioneering access to the location and the setup, breakdown, decontamination, and moving of all equipment, and materials and moving personnel between well locations on the landfill.
- B. One mobilization per well location will be paid except as follows:
- (1) Metro requests that the operations be moved to expedite other work on the landfill. In this case an additional mobilization, per the Contract unit price, will be paid to move back onto the location.

- (2) Unanticipated conditions are encountered during well abandonment and it is in Metro's best interest that operations be moved to another location to expedite the work. In this case an additional mobilization, per the contract unit price, will be paid to move back onto the location.

**ITEM 3 - 1992: Mobilization and site protection at the wetlands lake sites**

- A. The per each price for mobilization to each well location outside within the Smith and Bybee Lake sites shall be full compensation for the setup, breakdown, decontamination, and moving personnel to and from each well location and from each well location.
- B. The wetlands sites are extremely sensitive and the price shall include added precautions required to minimize disturbance to the ground, surface water, and vegetation during the work and principally during ingress and egress from the sites. Any discharge of drilling fluids, petroleum products, or other potential contaminants will be appropriately cleaned up or remediated by the Contractor at his expense.

**ITEM 4 - 1992: Well abandonment - Method A**

- A. Abandonment of the wells by Method A will be paid at the Contract price given per each for Well Abandonment - Method A. Payment shall include clearing the well, removal of security casing and surface seal, grouting, downhole cutoff of casing, disposal of leachate and all start cards, well construction decommissioning documentation, and other permits required for the work.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.1D.

**ITEM 5 - 1992: Well Abandonment - Method B**

- A. Abandonment of the wells by Method B will be paid at the Contract price given per each for Well Abandonment - Method B. Payment shall include for overboring, removal, and disposal of material removed from the boring, backfilling, grouting, bentonite pellets, and all start cards, well construction decommissioning documentation, and other permits required for the work.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.1D.

**ITEM 6 - 1992: Check well quality**

- A. Check of well quality will be paid at the Contract price given per each well checked. The price shall include a visual survey of the surface casing and surface seal, probing of the well casing to determine the depth of clear casing, and performing a leak test in the solid casing above the well screen.

- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.1D.

**ITEM 7 - 1992: Remove silt from wells**

- A. Removal of silt from wells will be paid at the Contract price given per each well for which the removal of silt is attempted.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.1D.

**ITEM 8 - 1992: Install well inserts**

- A. Installation of well inserts will be paid at the Contract price given per each well for which the installation of each insert is attempted.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.1D.

**ITEM 9 - 1992: Drill, furnish materials, and install 7 shallow new monitoring wells**

- A. Installation of seven new shallow monitoring wells will be paid at the Contract price given per vertical lineal foot depth of wells completed and accepted. Measurement will be the length of casing installed, including stickup. The price shall include the use of drilling equipment, drilling labor, decontamination not associated with mobilization, collection of soil samples, well development, collection of soil and liquid material into approved drums, casing materials, screen, backfill material, security casing and lock, and installation labor.

**ITEM 10 - 1992: Drill, furnish back fill material, and install 9 multiple piezometers**

- A. Installation of the nine multiple piezometers will be paid at the Contract price given per lineal foot of borehole drilled. Measurement will be between the ground surface and bottom of hole as measured on the drill tools and rods. The price shall include the use of drilling equipment, drilling labor, and collection of soil and liquid material removed from the hole into approved drums, backfill material, security casing and lock, and installation labor. Casing and instrumentation will be furnished and assembled by Metro.

**ITEM 11a - 1992: 5-foot well extension (Wells H-1, H-4, H-5)**

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1992. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

**ITEM 11b - 1992: Grout and complete surface casing (Well H-1)**

## **2. MEASUREMENT AND PAYMENT**

- A. Completion of the surface casing for Well H-1 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

### **ITEM 12a - 1993: Mobilization** (to Wells H-2, H-4, and H-5)

- A. Mobilization for 1993 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to and from the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

### **ITEM 12b - 1993: 5-foot well extension** (Wells H-2, H-4)

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1993. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

### **ITEM 12c - 1993: Remove 5-foot well extension** (Well H-5)

- A. Removal of 5-foot well extensions will be paid at the Contract price given for each removal completed in 1993. The price shall include all labor to remove and store the casings on the St. Johns site.

### **ITEM 12d - 1993: Grout and complete surface casing** (Well H-2)

- A. Completion of the surface casing for Well H-2 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

### **ITEM 13a - 1994: Mobilization** (to Wells H-3, H-4, and H-5)

- A. Mobilization for 1994 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

### **ITEM 13b - 1994: 5-foot well extension** (Wells H-3, H-4)

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1994. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

### **ITEM 13c - 1994: Remove 5-foot well extension** (Well H-5)

- A. Removal of 5-foot well extensions will be paid at the Contract price given for each removal completed in 1994. The price shall include all labor to remove and store the casings on the St. Johns site.

**ITEM 13d - 1994: Grout and complete surface casing (Well H-3)**

- A. Completion of the surface casing for well H-3 will be paid at the Contract price given. The price shall include for labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 14a - 1995: Mobilization (Wells H-4, H-5)**

- A. Mobilization for 1995 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

**ITEM 14b - 1995: 5-foot well extension (Well H-4)**

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1995. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

**ITEM 14c - 1995: Remove 5-foot well extension (Well H-5)**

- A. Removal of 5-foot well extensions will be paid at the Contract price given for each removal completed in 1995. The price shall include all labor to remove and store the casings on the St. Johns site. **ITEM 14d - 1995:**

**Grout and complete surface casing  
(Well H-4)**

- A. Completion of the surface casing for well H-4 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 15a - 1996: Mobilization (Well H-5)**

- A. Mobilization for 1996 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

**ITEM 15b - 1996: Grout and complete surface casing (Well H-5)**

- A. Completion of the surface casing for Well H-5 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 16 - 1992: Unanticipated conditions during well abandonment and well maintenance  
(performed only upon Metro approval)**

## 2 MEASUREMENT AND PAYMENT

- A. Work required due to unanticipated conditions encountered during well abandonment and installation of replacement wells will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro as described in Paragraph 2.1D.

### **ITEM 17 - Site cleanup and restoration**

- A. All costs associated with site cleanup and restoration shall be included in the Contract lump sum price. This item shall include general site cleanup during and upon completion of the work, repair of any damaged facilities, and restoration of the Wetlands Lake access and drilling sites.
- B. Cleanup or remediation required in the wetlands due to discharge of drilling fluids, petroleum products or other potential contaminants shall be excluded from this bid item and will be performed at Contractor expense.

### **ITEM 18 - Additional Work (performed only when agreed with Metro)**

- A. Additional work requested and agreed by Metro shall be paid as follows:
  - (1) Payment will be made at the Contract hourly rates given for Additional work completed in 1992.
  - (2) For Additional Work in 1993, 1994, 1995, and 1996, payment will be made at the Contract hourly rate given plus a negotiated yearly percentage increase as stipulated in Paragraph 2.1E.

### SECTION 3 WELL ABANDONMENT

#### 3.1 GENERAL

##### A. SCOPE

- (1) This Section covers the requirements for the abandonment of 21 groundwater monitoring wells. The approximate location of the wells to be abandoned are shown on the Drawings.
- (2) The well identification and coordinate locations are summarized as follows:

**TABLE 3-1. WELL ABANDONMENT**

Well Identification	East Coordinate (feet)	North Coordinate (feet)
Well Abandonment - Method A		
A-1 <sup>b</sup>	12370 <sup>a</sup>	1510 <sup>a</sup>
A-2	11885	1892
A-3 <sup>b</sup>	12355	2427
A-4 <sup>b</sup>	12790 <sup>a</sup>	1910 <sup>a</sup>
B-2	11090 <sup>a</sup>	1840 <sup>a</sup>
B-4	11035	2639
C-1	12424	1238
C-2	11115 <sup>a</sup>	1245 <sup>a</sup>
C-3	10859	3445
C-5	12290 <sup>a</sup>	3550 <sup>a</sup>

TABLE 3-1. WELL ABANDONMENT (cont'd)

Well Identification	East Coordinate (feet)	North Coordinate (feet)
Well Abandonment - Method A (cont'd)		
D-5a	13226.13	1335
D-5b	13216.82	1330
D-6b	14249.50	3054
D-7a	12712.05	3587
D-8a	10928.29	3328
EPA-O <sup>b</sup>	12440 <sup>a</sup>	2040 <sup>a</sup>
EPA-P <sup>b</sup>	11632.34	2553
EPA-Q	11285.67	1591
EPA-R	10928.29	3328
Well Abandonment - Method B		
E-1	12300 <sup>a</sup>	3420 <sup>a</sup>
E-2	13280 <sup>a</sup>	3740 <sup>a</sup>

<sup>a</sup>) Well location based on visual field check

<sup>b</sup>) Metro may choose to not abandon these wells based on results from check of well quality

(3) All phases of this work must be coordinated with and performed in the presence of the Engineer. Metro shall be notified at least 48 hours in advance of the work to ensure the availability of the Engineer.

(4) The report "Abandonment of Monitoring Wells", dated February 7, 1991, prepared by Cornforth Consultants, Inc., shall be used as a reference for additional monitoring well data and background information.

#### A. RESPONSIBILITIES OF THE CONTRACTOR

(1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.

(2) The Contractor shall monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector.

#### B. RESPONSIBILITIES OF THE ENGINEER



### **3. WELL ABANDONMENT**

- (1) The Engineer will be in the field during all well abandonment activities. The Engineer will observe the work for compliance with these Specifications and will observe and document the abandonment procedure.

#### **C. SCHEDULE**

- (1) Wells C-3 and D-8a must be abandoned within ten days of Notice to Proceed. The well abandonment work scheduled for 1992 shall be completed no later than November 1, 1992.

#### **D. CONDITION OF THE WELLS**

- (1) The general condition of the wells is described in the Cornforth Consultants report. Tables 3-2 and 3-4 indicate that wells A-2 shallow, A-2 deep, B-2, B-4, B-5, EPA-R, E-1 and E-2 have been extended in the past, probably to accommodate refuse filling. Old buried surface monuments may exist at depth. Copies of Tables 3-2 and 3-4 follow.
- (2) The estimated casing conditions, dimensions, and screen or slot locations indicated in the referenced tables and reports are based on inferences from driller's logs. Some or all of the wells have undergone ground settlement and have a history of monitoring well accidents, well repairs, casing extensions, and borehold conditions which are unknown. The Contractor is cautioned that the estimated casing conditions may vary significantly from actual field conditions.

### **3.2. MATERIALS**

#### **A. GROUT**

- (1) Provide a grout with a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids. All grout shall be mixed with potable water.
- (2) Neat cement having minimum 28-day strength of 3000 psi.

#### **B. BENTONITE PELLETS**

- (1) Bentonite pellets or chips shall consist of Bariod Holeplug, medium grade, or approved equal.

### **3.3 EXECUTION**

#### **A. WELL ABANDONMENT - GENERAL**

- (1) Wells to be Abandoned:

### **3. WELL ABANDONMENT**

- a. Wells A-1, A-2, A-3, A-4, B-2, B-4, C-1, C-2, C-3, C-5, D-5a, D-5b, D-6b, D-7a, D-8a, EPA-O, EPA-P, EPA-Q and EPA-R shall be abandoned in accordance with Method A. Method A consists of backfilling each casing with grout.
- b. Wells E-1 and E-2 shall be abandoned in accordance with Method B. Abandonment Method B involves overdrilling and backfilling the subsequent borings with grout.

#### **B. ABANDONMENT PROCEDURE - METHOD A**

- (1) Refer to Tables 3-2 and 3-3 below, and well logs in the Appendix.
- (2) The Contractor shall check each well for obstructions by lowering a heavy pipe (or equivalent object) down the well to ensure that the well is open to the bottom.
- (3) If a well is found to be plugged, the Contractor shall attempt to clear the obstruction by jetting, drilling, or other appropriate methods while minimizing disturbance to the casing.
- (4) Remove the surface casing and cut the well casing using down-hole tools at the depth of casing cutoff indicated in Table 3-3 below.
- (5) Tremie grout the casing from the bottom to the top of the cut casing. Leachate forced out the top, as the grout fills the casing, shall be collected. Spillage of leachate onto the ground shall not be permitted.
- (6) The grout shall fill the casing from the present casing depth as indicated in Table 3-2 to within 2 feet of the depth of casing cutoff indicated in Table 3-3.
- (7) While the grout is still liquid, the upper portion of the casing which was cut in (4) above shall be pulled out. The cut casing shall be withdrawn during placement of the bentonite's pellets in such a way as to prevent sloughing of soils or refuse into the boring.
- (8) The remaining open hole left after casing removal shall be backfilled with bentonite pellets tamped into the borings to the surface.
- (9) Any leachate/water or soil material coming out of the wells during clearing, grouting, and removal of casing shall be collected and disposed of as stipulated in Section 3.3E - Disposal of Well Materials.

#### **C. ABANDONMENT PROCEDURE - METHOD B**

### 3. WELL ABANDONMENT

- (1) Both wells for Method B abandonment are double completion. Refer to Table 3-4 below and the well logs in the Appendix for boring and well information.
- (2) The Contractor shall check each well casing for obstructions by lowering a heavy pipe (or equivalent object) down the well to ensure that the well is open to the bottom.
- (3) If a well is found to be plugged, the Contractor shall attempt to clear the obstruction by jetting, drilling, or other appropriate methods while minimizing disturbance to the casing.
- (4) Install a continuous steel tensile member into each casing with a 1/2-inch grout tube attached. The tensile member shall be continuously connected with clamps or tack welds sufficient to withstand tension by pulling with the drill rig lifting winch.
- (5) Tremie neat cement grout into each casing from the bottom to the top. Leachate forced out the top, as the grout fills the casing, shall be collected. Spillage of leachate onto the ground shall not be permitted.
- (6) Let grout set overnight. The Contractor shall demonstrate by engineering calculations that the tensile member and grout is sufficient to pullout the casings.
- (7) Remove all surface casing.
- (8) After the grout has set overnight, connect drill winch to tensile member in shallow well casing and pull out casing.
- (9) Using a 6-inch annulus hollow stem flight auger, overdrill the boring on the deep well to the top of and a minimum 2 feet into the underlying gravel.
- (10) Conduct the overdrilling so that as much of the well seal and backfill materials are removed from the bore as practicable. Any material brought out of the wells during overdrilling shall be immediately collected into drums.
- (11) Connect drill winch to tensile member in deep well casing and pull out casing.
- (12) Clear the remaining material out of the auger annulus by jetting, drilling, or other appropriate methods.

### **3. WELL ABANDONMENT**

- (13) Grout through the center of the auger as the auger is withdrawn from the boring. The grout level shall be maintained at a level of 20 feet below the ground surface in well E-1 and 13 feet below the ground surface in well E-2.
- (14) The remaining 20 feet in well E-1 and 13 feet in well E-2 open hole backfilled with bentonite pellets to the surface. These shall be installed by withdrawing the auger during placement of the bentonite pellets in such a way as to prevent sloughing of soils or refuse into the boring.
- (15) Any leachate/water or soil material coming out of the wells during overdrilling shall be collected and disposed of as stipulated in Section 3.3E - Disposal of Well Materials.

#### **D. VARIANCE**

- (1) The Contractor shall immediately inform Metro if unanticipated conditions are encountered during the work. The Contractor shall stop work and proceed as outlined in Section 2 - Measurement and Payment, Paragraph 2.2D.
- (2) If attempts to fully grout or completely overbore and remove the casing, seal, and filter pack materials prior to backfilling, as described above, are not successful, Metro may determine that alternative abandonment procedures may be required. Alternative abandonment procedures may be carried out under the Hourly Charges, Item 16 in the Schedule of Quantities and Prices.
- (3) If site specific conditions require approval of alternate methods of abandonment, approval of special standards shall be requested by Metro from the Oregon Department of Environmental Quality, Solid and Hazardous Waste Division.

#### **E. DISPOSAL OF WELL MATERIALS**

- (1) Backfill material removed from the boring shall be collected into drums and disposed of on the landfill site as directed by the Metro. All surface and well casings shall be cut into maximum 10-foot lengths and disposed of on the landfill site as directed by Metro. Torch cutting of steel casing shall not be permitted on the interior of the landfill site.
- (2) Any leachate/water coming out of the wells during clearing, grouting, and removal of casing shall be immediately collected in drums and disposed of in the existing leachate disposal system in Subarea 5.
- (3) Additional disposal and cleanup shall be carried out as stipulated in Section 8 - Site Cleanup and Restoration.

**TABLE 3-2. ABANDONMENT DATA, METHOD A**

Well No.	Casing Diameter/ Material (inches)	Original Casing Depth (feet)	Estimated Well Extension (feet)*	Present Casing Depth (feet)	Leachate Depth (feet)	Surface Casing	Remarks
A-1 A-2(sh) A-2(dp) A-3 A-4	2" PVC 2" PVC	19.0 33.0	16 16	35 <sup>b</sup> 49 <sup>b</sup>	23 <sup>d</sup> 23 <sup>d</sup>	6" PVC 6" PVC	double completion double completion
B-2 B-4	3" steel 3" steel	33 43	24 25	57 <sup>b</sup> 68 <sup>b</sup>	29 <sup>d</sup> 49 <sup>d</sup>	6" PVC 6" PVC	
C-1 C-2 C-3 C-5	2" steel 2" steel 2" steel 2" steel	37.5 24.0 21 25	-- -- -- --	36.5° 19.7° 19.9° 20.8°	27.7° 14.2° 10.6° 10.3°	none none none none	plugged at unknown depth approximately 2 feet of "silt" filled in bottom of casing  approximately 3 feet of "silt" filled in bottom of casing
D-5a D-5b D-6b							

TABLE 3-2. ABANDONMENT DATA, METHOD A (cont'd)

Well No.	Casing Diameter/ Material (inches)	Original Casing Depth (feet)	Estimated Well Extension (feet) <sup>a</sup>	Present Casing Depth (feet)	Leachate Depth (feet)	Surface Casing	Remarks
EPA-O							
EPA-P							
EPA-Q	2" PVC	62	--	56 <sup>a,b</sup>	29 <sup>d</sup>	6½" steel	
EPA-R	2" stainless	48	10	58 <sup>a,b</sup>	28 <sup>d</sup>	6½" steel	

<sup>a</sup>) Does not include casing stickup

<sup>b</sup>) Depth below 1990 ground surface within approximately  $\pm 3$  feet

<sup>c</sup>) Measured depth below top of casing (CH2M, 1990)

<sup>d</sup>) Depth below 1990 ground surface estimated from August 1990 leachate levels measured in adjacent H-Series monitoring wells and adjacent August 1990 slough water levels

**TABLE 3-3. SUMMARY OF CASING CUTOFFS**

Well No.	Casing Diameter/ Material (inches)	Present Surface Elevation (feet)	Design Subgrade Fill Elevation (feet)	Design Fill Depth Above Surface (feet)	Estimated Settlement (feet)	Final Fill Depth Above Surface After Settlement (feet)	Recommended Depth of Casing Cutoff Below Present Ground Surface (feet)
A-1 A-2 A-3	2" PVC	56	58	2	10	-8	18
B-2 B-4	3" steel 3" steel	63 68	75 70	12 2	10 16	2 -14	8 24
C-1 C-2 C-3 C-5	2" steel 2" steel 2" steel 2" steel	36 22 18 18	37 25 20 18	1 3 2 0	4.5 3 3 3	-3.5 0 -1 -3	13.5 10 11 13
D-5a D-5b D-6b D-7a D-8a	   3" PVC 3" PVC	   29 32	   30 30	   1 -2	   3 3.5	   -2 -5.5	   12 15
EPA-O EPA-P EPA-Q EPA-R	  2" PVC 2" stainless	  62 55	  68 57	  6 2	  10 15	  -4 -13	  14 23

**TABLE 3-4. ABANDONMENT DATA, METHOD B**

Well No.	Well Casings Diameter/Material/ Depth	Leachate Depth (feet)	Surface Casing	Original		Estimated Well Extension (feet) <sup>a</sup>	Recommended	
				Bore Diameter (inches)	Bore Depth (feet)		Overbore Diameter (inches)	Overbore Depth (feet)
E-1	<u>Shallow</u> 2" PVC 0 - 56 feet  <u>Deep</u> 2" PVC 0 - 70 feet	15 <sup>a</sup>	old buried 8" PVC surface casing, depth approx. 23-28 feet	7.5	48	24	8	72
E-2	<u>Shallow</u> 2" PVC 0 - 49 feet  <u>Deep</u> 2" PVC 0 - 116 feet	19.3 <sup>b</sup>	old buried 8" PVC surface casing, depth approx. 16 - 21 feet	7.5	102	15	8	116

<sup>a</sup>) Depth below 1990 ground surface estimated from August 1990 leachate levels measured in adjacent H-Series monitoring wells

<sup>b</sup>) Measured depth below top of casing

<sup>c</sup>) Does not include casing stickup



**SECTION 4**  
**WELL EXTENSION, EXTENSION REMOVAL,**  
**AND WELL COMPLETION**

**4.1 GENERAL**

**A. SCOPE**

- (1) This Section covers the requirements for the extensions, removal of extensions, or completion of surface casing for H-Series wells H-1 to H-5 which are located within the interior of the landfill at the locations shown on the Drawings.
- (2) The extension or removals shall be carried out in response to construction filling or fill removal on the site by other contractors during closure construction through the year 1996. The extensions and removal must be coordinated with the work of Metro's other contractors.
- (3) The following schedule of extensions, extension removals, or surface casing completion are estimated:

**TABLE 4-1**

Year	Wells	Quantity	Activity
1992	H-1, H-4, H-5	5	5-foot well extension
1992	H-1	1	Complete and grout surface casing
1993	H-2, H-4	4	5-foot well extension
1993	H-5	2	Remove 5-foot well extension
1993	H-2	1	Complete and grout surface casing
1994	H-3, H-4	4	5-foot well extension
1994	H-5	1	Remove 5-foot well extension
1994	H-3	1	Complete and grout surface casing

**4. WELL EXTENSION, EXTENSION REMOVAL  
AND WELL COMPLETION**

**TABLE 4-1 (cont'd)**

Year	Wells	Quantity	Activity
1995	H-4	1	5-foot well extension
1995	H-5	1	Remove 5-foot well extension
1995	H-4	1	Complete and grout surface casing
1996	H-5	1	Complete and grout surface casing

- (4) Metro will request the work in writing to the Contractor based on the work completed on the landfill site, and the needs for scheduling on the project.
- (5) The following procedures are specifically designed to eliminate on-site torch cutting and welding work on the landfill interior due to the threat of igniting landfill gases and to maintain the integrity of the monitoring well. Contractor shall review the well and the recommended extension procedure prior to starting work. Modification of the procedure, if any, shall be in accordance with the State of Oregon Regulations, and approved by Metro in advance of the work.

**B. RESPONSIBILITIES OF THE CONTRACTOR**

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.
- (2) All phases of this work must be done in the presence of the Engineer. Metro shall be notified at least 48 hours in advance of performance of this work to ensure the availability of the Engineer and surveyors.
- (3) When requested by Metro, the Contractor shall be available to complete the requested extension, extension removal, or well completion within 30 days of Metro written request.
- (4) The Contractor shall monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector.

**C. RESPONSIBILITIES OF THE ENGINEER**

- (1) The Engineer will be in the field during all Contractor activities. The Engineer will observe the work for compliance with these Specifications and will observe and document the procedures.

#### **D. SCHEDULE**

- (1) Extensions, extension removals, and completions shall be carried out on a schedule as requested by Metro. When requested by Metro, the Contractor shall be available to complete the requested extension, extension removal, or well completion within 30 days of Metro written request.
- (2) Through the year 1996, most closure work will be carried out over the six-month period from May through October.

#### **E. CONDITION OF THE WELLS**

- (1) The general condition of the wells are described in the Cornforth Consultants report "Five Interior Monitoring Wells, As Constructed", dated October 29, 1990. Since the report, some settlement of the wells has occurred, and well H-4 has been extended 15 feet and well H-5 has been extended 10 feet.

### **4.2 MATERIALS**

#### **A. WELL CASING AND CENTRALIZERS**

- (1) The well extension casing shall consist of Johnson Environmental Products 2-inch diameter Schedule 40 flush-threaded stainless steel casing, or equivalent casing compatible with the existing casing. The Contractor shall have a mixture of 5-foot and 10-foot lengths.
- (2) Centralizers shall be suitable for use with 2-inch stainless steel casing inside of 5½-inch diameter steel pipe. One (1) centralizer per 5-foot extended section shall be supplied.

#### **B. INNER PROTECTIVE CASING**

- (1) The inner protective casing shall consist of 5-foot lengths of 5 1/2-inch diameter steel pipe surface monument casing. The protective casing shall have standard NPT threads at both ends for continued extension.
- (2) Steel couplings with NPT threads for 5 1/2-inch protective casing.

#### **C. OUTER PROTECTIVE CASING**

- (1) Temporary 10-inch diameter steel pipe casing shall be used in preload filling areas outside of the 5½-inch protective casing.

#### **D. GROUT**

#### **4. WELL EXTENSION, EXTENSION REMOVAL AND WELL COMPLETION**

- (1) Grout shall consist of American Colloid Pure Gold Grout, or equivalent grout consisting of a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids.
- (2) Metro will provide 57 bags of the Pure Gold Grout for use by the Contractor.

#### **E. PROTECTIVE SAND BERM**

- (1) Metro will supply dredge sand for the protective berms. The Contractor shall obtain the sand from existing on-site stockpiles.

#### **F. LIGHTED BARRICADES**

- (1) The lighted barricades shall consist of lighted, free-standing barricades. Contractor shall also use sufficient batteries for one-year continuous operation of the barricades.

#### **G. SURFACE MONUMENT AND LOCKING CAP**

- (1) The surface casing, concrete plug, and locking cap shall be fabricated by the Contractor as shown on the Drawings.

### **4.3 EXECUTION**

#### **A. EXTENSION PROCEDURE**

- (1) Prior to extension, Contractor shall coordinate with Metro to determine the vertical elevation of the 2-inch well casing (See 4.3A(4) below) .
- (2) At an off-site location, or on the perimeter road, cut a 3/4-inch wide by 2-foot long slot on one end of a maximum 10-foot long, 5 1/2-inch diameter steel pipe to allow it to slip over the "O" ring hasp on the surface monument. Weld an appropriate threaded coupling to the other end (top) of the steel pipe as shown on the Drawings. For wells H-4 and H-5, this is not needed.
- (3) Approach the well to be extended from upwind and monitor for hazardous gases emitting from the well cap and surrounding area. Take appropriate personal safety measures.
- (4) Unlock and remove steel pipe cap and PVC slipcap. Metro will provide surveyors, and will survey the top of the existing 2-inch casing.

#### 4. WELL EXTENSION, EXTENSION REMOVAL AND WELL COMPLETION

- (5) Thread on a maximum 10-foot long section of 2-inch diameter stain-less steel casing with vented PVC slipcap on top. Interchange 5-foot and 10-foot sections with successive raises to maintain the top of the 2-inch casing with the top of the protective casing.
- (6) Place a stainless steel centralizer near the top of the 2-inch well casing.
- (7) On the first raise, lower the new 5-foot long section of 5 1/2-inch steel pipe over the 2-inch well casing and the 4 1/2-inch steel surface monument casing. Metro will survey the new top of the 2-inch casing as in 4.3A(4) above.
- (8) In preload areas, install a centered 5-foot long section 10-inch temporary casing over the 5 1/2-inch casing from existing grade to the top of projected preload grade and fill with bentonite material or chips to the top.
- (9) Pack dredge sand materials around the temporary casing or protective casing to form a 3- to 5-foot high and minimum 5-foot radius berm. All material placement against the temporary casing shall be done carefully by hand or using a small backhoe.
- (10) For additional protection, place a minimum of three blinking light barricades on the berm around the protective casing.
- (11) Repeat steps (1) to (10) of this extension procedure for each successive raise, except the 5 1/2-inch diameter steel pipe would be threaded into the coupling and the 10-inch diameter casing would be clamped onto the lower casing in preload areas.

#### B. EXTENSION REMOVAL

- (1) Coordinate survey of top of 2-inch casing. Metro will provide survey.
- (2) Carefully remove berm using hand method or small backhoe, protective casings, and inner 2-inch casing down to a minimum 3 feet above the surrounding grade.
- (3) Replace sand berm materials around the temporary casing or protective casing. Place blinking light barricades.
- (4) Coordinate survey of finished 2-inch casing elevation. Metro will provide surveyor.
- (5) Store all reusable casing materials on-site at a location indicated by the Engineer.

**C. COMPLETE AND GROUT SURFACE CASING**

- (1) At the top of the last raise or compacted subgrade, install a concrete plug as shown and make a new steel pipe cap for the well to be extended. Paint the new surface monument pipe and pipe cap with rustproof paint.
- (2) Leave sufficient height as shown on the Drawings to accommodate the approximate 2.5' final cover thickness.
- (3) If all extensions, extension removals, and surface monuments are completed, tremie grout between the 5 1/2-inch and 2-inch casing.
- (4) Construct protective posts set in concrete as indicated on the Drawings.

**SECTION 5  
WELL MAINTENANCE**

**5.1 GENERAL**

**A. SCOPE**

- (1) This Section covers the requirements for the checking quality and maintenance of 16 existing groundwater monitoring wells. The approximate location of the wells to be maintained are shown on the Drawings.
- (2) This work shall consist of the following in designated wells:
  - a. Check quality of wells
  - b. De-silting
  - c. Retrofitting selected 3-inch diameter D-Series wells to 2-inch wells by adding lining inserts
- (3) The well identification and coordinate locations are summarized as follows:

TABLE 5-1. EXISTING WELL CHECK AND MAINTENANCE

Well Identification	East Coordinate (feet)	North Coordinate (feet)	Check Well Quality	Remove Silt	Install Insert
A-1 <sup>b</sup>	12370 <sup>a</sup>	1450 <sup>a</sup>	X	— <sup>b</sup>	— <sup>b</sup>
A-3 <sup>b</sup>	12355	2427	X	— <sup>b</sup>	— <sup>b</sup>
A-4 <sup>b</sup>	12850 <sup>a</sup>	1960 <sup>a</sup>	X	— <sup>b</sup>	— <sup>b</sup>
EPA-O <sup>b</sup>	12440 <sup>a</sup>	2040 <sup>a</sup>	X	— <sup>b</sup>	— <sup>b</sup>
EPA-P <sup>b</sup>	11632	2553	X	— <sup>b</sup>	— <sup>b</sup>
D-1a	9301	3239	X	X	X
D-1b	9298.20	3232	X	X	X
D-1c	9295.29	3225	X	X	X
D-2a	10224.43	2453	X	X	X
D-2b	10227.38	2445	X	X	X
D-3a	10070.32	1308	X	X	X
D-3b	10068	1305	X	X	—
D-4a	11588	1202	X	X	X
D-4b	11583	1202	X	X	X
D-6a	14250	3054	X	X	—
D-6c	14252	3046	X	X	—

<sup>a</sup>) Well location based on visual field check

<sup>b</sup>) Metro may choose to remove silt or install inserts for these wells if they are not abandoned

(4) All phases of this work must be coordinated with and performed in the presence of the Engineer. Metro shall be notified at least 48 hours in advance of the work to ensure the availability of the Engineer.

(5) The report "St. Johns Landfill Water Quality Impact Investigation", dated May 31, 1989, prepared by Sweet Edwards/EMCON, shall be used as a reference for additional monitoring well data and background information.

#### B. RESPONSIBILITIES OF THE CONTRACTOR

(1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.



**C. RESPONSIBILITIES OF THE ENGINEER**

- (1) The Engineer will be in the field during all well maintenance activities. The Engineer will observe the work for compliance with these Specifications and will observe and document the maintenance procedure.
- (2) The Contractor will monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector.

**D. SCHEDULE**

- (1) This portion of the work shall be completed no later than November 1, 1992.

**E. CONDITION OF THE WELLS**

- (1) The general condition of the wells are described in the Sweet Edwards/ EMCON report referenced in Part IV - Special Conditions.
- (2) Many of the "D" series monitoring wells that were installed in 1984 have experienced severe sediment buildup inside their 3-inch PVC well casings. This problem is apparently due to the large screen slot size ( $\frac{1}{8}$ -inch) and inadequate gravel/sand pack used in constructing the wells. From 3 to 17 feet of sediment buildup has been documented in these wells. Some previous sediment removal attempts have been successful; however, the wells could not be properly developed because sediment continued to enter the wells.

**5.2 MATERIALS**

**A. INSERTS**

- (1) Casing inserts for each well shall consist of a nominal 2-inch ID, flush-threaded, new, Schedule 40 PVC blank casing with threaded joints. The screen shall be a 10-foot section, nominal 2-inch ID, flush-threaded, new, Schedule 40 PVC with .008-inch size slotted openings. The screen shall have a 2-foot length blank tail pipe on the bottom.

**B. SAND PACKS**

- (1) The sand pack for the well inserts shall be 1020 Colorado Silico Sand.

**5.3 EXECUTION**

**A. DECONTAMINATION**

- (1) Decontamination of the drilling rig and all associated equipment will take place prior to any well maintenance activity.

- (2) The drill bit, rods, and any jetting tools shall be cleaned between wells.
- (3) The insert casing shall be cleaned prior to installation, and kept clean between the time it is washed and the time it is used in the well. PVC casing that has already been decontaminated by the manufacturer and shipped in plastic will not need to be recleaned unless the plastic wrapping has been damaged or the pipe contaminated.
- (4) All drilling equipment, tools, and PVC casing associated with the well maintenance shall be decontaminated using a high-temperature steam cleaner.
- (5) Any air compressor used for jetting shall be fitted with an in-line filter and pre-filter and maintained so that any existing well cannot be contaminated by air from the compressor.
- (6) The Contractor shall be responsible for providing all the equipment necessary for the cleaning process. This includes a portable high-pressure and temperature washer.

**B. CHECK WELL QUALITY**

- (1) The Contractor shall visually check surface casing, monument and cap. Needed repairs shall be noted.
- (2) The Contractor shall check each well for obstructions by lowering a heavy pipe (or equivalent object) down the well to check that the well is open to the top of the screen interval.
- (3) If a well is found to be plugged above the screen, the Contractor shall attempt to clear the obstruction by jetting, drilling with small-diameter clearing tools, or other appropriate methods while minimizing disturbance to the casing.
- (4) Once the casing is clear, at least to the top of the screen, the Contractor shall seal a packer just above the screen interval and fill the casing with potable water to the top.
- (5) The Contractor shall hold the packer seal and water for a minimum of 20 minutes to observe the drop in water level in the casing. The Contractor shall coordinate this work with the Engineer.

**C. REMOVE SILT FROM SCREEN INTERVAL**

- (1) Sediment shall be removed from the wells indicated in Table 5-1 water either: 1) bailing, 2) surging with a surge block, 3) pumping/overpumping/backwashing, or 4) a combination of these three methods.

**D. INSERTS**

- (1) Inserts shall be installed in the wells indicated in Table 5-1.

## **5. WELL MAINTENANCE**

- (2) Attempt to clear the wells prior to placing inserts as described in Paragraphs 5.3B(2) and 5.3B(3) above.
- (3) Install inserts with sufficient length of blank casing to extend the tail pipe to within 2 feet of the bottom of the well. Centralizers shall be installed on minimum 20' spacings.
- (4) If insert will not go to within 2 feet of the bottom of the well, the Contractor shall make a second attempt to clear the well and again install the insert.
- (5) A sand pack shall be placed around the insert screen by slowly washing sand pack sand down the annular space.
- (6) A threaded joint shall be left at the top of the casing for future possible extensions.
- (7) The top of the casing shall be less than 5 feet above the adjacent ground surface. The casing shall be capped with a threaded vented cap.
- (8) The well shall be developed as stipulated in Section 6.3H.

### **E. REPAIR**

After all other well maintenance operations are completed, the Contractor shall complete repair to the surface casing, monument, or cap. This shall be carried out under as stipulated in Section 2 - Paragraph 2.2D-Additional Work.

## SECTION 6 MONITORING WELL CONSTRUCTION

### 6.1 GENERAL

#### A. SCOPE

- (1) This Section covers the requirements for the construction of seven shallow groundwater monitoring wells.
- (2) Seven shallow monitoring wells shall be constructed at the locations shown on the Drawings. The well identification, estimated coordinate locations, and estimated depths are summarized in Table 6-1 below:

**TABLE 6-1. MONITORING WELLS**

Well Identification	East Coordinate (feet) <sup>a</sup>	North Coordinate (feet) <sup>a</sup>	Depth (feet)
<b>Monitoring Wells</b>			
K-1	10990	1200	25
K-2	10190	2350	25
K-3	10520	3490	25
K-4	14250	2980	25
K-5	13390	1850	25
K-6a	13200	1350	25
K-6b	13210	1360	72

<sup>a</sup> Well locations are approximate; actual locations will be field-located at the time of drilling

#### B. RESPONSIBILITIES OF THE CONTRACTOR

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.
- (2) The Contractor shall monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector.

#### C. RESPONSIBILITIES OF THE ENGINEER

- (1) The Engineer will be in the field during the drilling, sampling, well construction, and well development activities. The Engineer will observe the work for compliance with these Specifications and will manage all

soil sampling activity, will maintain a boring log, and will observe and document the monitoring well installation.

- (2) The Engineer will monitor for chemical stability during well development.

## **6.2 MATERIALS**

### **A. MONITORING WELL CASING**

- (1) The groundwater monitoring well casing shall be nominal 2-inch inside diameter (ID), flush-threaded, new, Schedule 40 PVC. Casing shall include a 2-foot length to be used as a tail pipe, which shall be capped with a threaded PVC end cap.

### **B. MONITORING WELL SCREENS**

- (1) The groundwater monitoring well screens shall be nominal 2-inch ID, flush-threaded, new, Schedule 40 PVC and shall be furnished in 5-foot lengths. The slotted openings shall be 0.020-inch size.

### **C. SAND PACK MATERIAL**

- (1) The sand pack material for the groundwater monitoring wells shall be No. 10-20 Colorado Silica Sand, or equivalent.

### **D. GROUT**

- (1) The grout shall consist of American Colloid Pure Gold Grout, or equivalent grout consisting of a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids.
- (2) The Contractor shall measure and record depth soundings versus volume of grout used. This information shall be included on the well log record.

### **E. BENTONITE PELLETS**

- (1) Bentonite pellets or chips shall consist of Baroid Holeplug, medium grade, or approved equal.

### **F. SURFACE MONUMENT AND LOCKING CAP**

- (1) The surface casing, concrete plug, and locking cap shall be fabricated by the Contractor as stipulated in the Drawings.

## **6.3 EXECUTION**

**A. DECONTAMINATION**

- (1) Decontamination of the drilling rig and all associated equipment will take place prior to mobilization and demobilization on-site and between each boring.
- (2) The drill bit and rods shall be steam cleaned between borings. Special attention shall be given to the threaded sections of the drill rods to remove any residual joint compounds.
- (3) PVC casing shall be steam cleaned prior to installation and kept clean between the time it is washed and the time it is used in the well. PVC casing that has already been decontaminated by the manufacturer and shipped in plastic will not need to be re-cleaned unless the plastic wrapping has been damaged or the pipe contaminated.
- (4) All drilling equipment, tools, steel casing, and PVC casing associated with the construction of the groundwater monitoring wells shall be decontaminated using a high-temperature steam cleaner.
- (5) The Contractor shall be responsible for providing all the equipment necessary for the cleaning process. This includes a portable high-pressure and temperature washer.

**B. DRILLING**

- (1) All borings shall be drilled using a hollow stem auger drilling rig. The Contractor shall provide a rig large enough and capable of reaching the desired depth. A borehole 6 inches in diameter and up to 75 feet deep may be required. Appropriate equipment and supplies should be available if heaving sand conditions are encountered.
- (2) The Contractor shall prevent and is responsible for any hydrocarbon/ chemical contamination of materials used in drilling. No petroleum or soap-based products shall be allowed. The use of petroleum-based joint compounds, which are normally used to prevent binding, shall not be allowed.

**C. ALIGNMENT**

- (1) Alignment requirements during drilling are that any casing, liner, or drill tools can be run freely through the boring. At a minimum, the alignment shall conform to OAR Chapter 690, Division 240 State of Oregon requirement for the construction of monitoring wells. Alignment requirement for the completed groundwater monitoring wells is that any temporary or permanent pump must install freely to the bottom of the well.

**D. SOIL SAMPLING AND BOREHOLE LOGGING**

## **6 MONITORING WELL CONSTRUCTION**

- (1) Borehole logging will be conducted by the Engineer for the purposes of this project, and must also be done by the Contractor for fulfillment of State requirements. The Contractor shall endeavor to provide information on drilling conditions that will assist the Engineer in making determinations of subsurface conditions.
- (2) Soil sampling in conjunction with Standard Penetration Tests shall be conducted at 5-foot intervals. The samples shall be made immediately available for inspection by the Engineer.
- (3) After drilling each borehole, the groundwater monitoring wells shall be immediately constructed.

### **E. WELL CASING INSTALLATION**

- (1) The well casing shall be installed as follows:
  - a. The Contractor shall install one 2-inch ID, Schedule 40 PVC monitoring well in each boring.
  - b. Each monitoring well shall have a 10-foot section of 20-slot screen. A flush-threaded end cap shall be placed below the well screen and capped on the bottom.
  - c. The monitoring well casing will then be lowered into the boring and shall be suspended at the desired depth of well completion for the remainder of the installation.
  - d. The drill stem shall be pulled back a few inches prior to sand pack installation to ensure that the monitoring well casing is not caught in the drill stem.
  - e. The monitoring well casing shall be cleaned before installation (unless already cleaned, wrapped, and shipped in plastic bags by the manufacturer). Gloves and coveralls worn by the Contractor while touching the monitoring well casing shall be new and clean.

### **F. SAND PACK INSTALLATION**

- (1) A sand pack shall be placed around the monitoring well screen by tremie sand down the annular space. The drill stem casing shall be pulled back at a rate such that sand pack material is always inside the drill casing. The top of the sand pack shall be placed approximately 3 feet above the well screen. A surge block shall be utilized to settle the sand pack prior to placing the well seal.
- (2) The drill casing shall be withdrawn in such a manner as to not cause disturbance to the sand pack envelope and subsurface formations.

### **G. ANNULAR SEAL INSTALLATION**

- (1) A minimum 2' thick bentonite chip plug shall be placed directly above the sand pack. If it is above the water level in the well, it shall be hydrated by pouring potable water through a separate tremie pipe placed in the annular space of the well.

The well seal above the bentonite plug shall consist of grout placed by tremie methods to the land surface.

- (2) The drill casing shall be withdrawn from the boring during placement of the seal. The casing shall be withdrawn in such a manner as to not cause disturbance to the annular seal and subsurface formations. The casing shall be withdrawn in such a way to prevent sloughing of native soils into the boring.

#### **H. WELL DEVELOPMENT**

- (1) Each monitoring well shall be properly developed 24 hours after completion. Well development shall remove the volume of water introduced during well drilling and installation and five to ten well bore volumes until the water is chemically stable and essentially free of sediments, or as directed by the Engineer.
- (2) Purged groundwater shall be collected into appropriate storage drums.

#### **I. PROTECTION OF WELLS**

- (1) The well heads shall be protected by installing above-ground-surface casing, concrete plug, protective posts, and locking cap as shown on the Drawings. The surface casing construction shall be completed a minimum of 24 hours after the well casing installation to allow the grout to settle. The surface casing and locking cap shall be fabricated by the Contractor as shown on the Drawings.
- (2) The ground surface shall be graded to direct surface drainage away from the well head.

#### **J. ABANDONMENT AND REINSTALLATION**

- (1) Any well that does not meet the requirements of these Specifications due to the actions of the Contractor shall be abandoned in accordance with the requirements in Section 3 - Well Abandonment. A new replacement well shall be started in the immediate vicinity at a location designated by the Engineer. No payment will be made for any work associated with the well abandonment or duplicate work on the new replacement well.

#### **K. SITE RESTORATION**

- (1) At the conclusion of all work activity at a boring, all drilling tools, extra casing, trash and other materials shall be removed from the site. No work shall begin on subsequent borings until the previous boring site has been cleaned up. All miscellaneous trash materials such as cement or bentonite bags shall be disposed of in a proper way by the Contractor.



## **6. MONITORING WELL CONSTRUCTION**

- (2) All soil and soil/liquid mixtures which have been removed from the borings disposed of as stipulated in Section 3.3E - Disposal of Well Materials. Free liquid may be disposed of as stipulated in Section 3.3E - Disposal of Well Materials.
- (3) The well site and access shall be restored as stipulated in Section 8.

## SECTION 7 MULTIPLE PIEZOMETER CONSTRUCTION

### 7.1 GENERAL

#### A. SCOPE

- (1) This Section covers the requirements for the installation of nine multiple piezometers.
- (2) Nine multiple piezometers shall be installed at the locations shown on the Drawings. The well identification, estimated coordinate locations, and estimated depths are summarized below.
- (3) The upper portion of the borings are through the landfill perimeter dike and/or soft river alluvium. The bottom approximately 30 feet of each boring will penetrate the underlying gravel formations.

**TABLE 7-1. MULTIPLE PIEZOMETERS**

Piezometer Installation	East Coordinate (feet) <sup>a</sup>	North Coordinate (feet) <sup>a</sup>	Depth (feet)
<b>Multiple Piezometers</b>			
P-1	11000	1200	140 <sup>b</sup>
P-2	10190	2340	130 <sup>b</sup>
P-3	10530	3490	80 <sup>b</sup>
P-4	14250	2990	90 <sup>b</sup>
P-5	13400	1850	110 <sup>b</sup>
P-6	13200	1360	135 <sup>b</sup>
P-7	11380	3500	80 <sup>b</sup>
P-8 <sup>c</sup>	11520	4130	65 <sup>b</sup>
P-9 <sup>c</sup>	14790	3200	85 <sup>b</sup>

<sup>a</sup>) Piezometer locations are approximate; actual locations will be field-located at the time of drilling

<sup>b</sup>) Estimated depth; actual depth may vary

<sup>c</sup>) Wetlands Lake site

**B. RESPONSIBILITIES OF THE CONTRACTOR**

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.
- (2) The Contractor shall provide the boring, assist in the installation, and provide labor and materials for backfilling the multiple piezometers.
- (3) The Contractor will maintain a driller's log. A copy of the driller's log will be furnished to the Engineer when the piezometer installation has been completed.
- (4) The Contractor shall monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector.

**C. RESPONSIBILITIES OF THE ENGINEER**

- (1) The Engineer will be in the field during the drilling, testing, and piezometer construction activities. The Engineer will observe the work for compliance with these Specifications and will manage all soil sampling activity and maintain a detailed boring log for locating the piezometer.
- (2) The Engineer will provide the piezometer instrumentation and casing and will fabricate the assembly and install it into the boring.

**7.2 MATERIALS**

**A. SAND PACK MATERIAL**

- (1) The sand pack material for the piezometers shall be No. 10-20 Colorado Silica Sand, or equivalent.

**B. GROUT**

- (1) The grout shall consist of American Colloid Pure Gold Grout, or equivalent grout consisting of a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids.

**C. BENTONITE PELLETS**

- (1) Bentonite pellets or chips shall consist of Baroid Holeplug, medium grade, or approved equal.

**D. SURFACE MONUMENT AND LOCKING CAP**

- (1) The surface casing, concrete plug, locking cap, and protective posts shall be fabricated by the Contractor as stipulated in the Drawings.

### 7.3 EXECUTION

#### A. DECONTAMINATION

- (1) Decontamination of the drilling rig and all associated equipment will take place prior to mobilization and demobilization on-site and between each boring.
- (2) The drill bit and rods shall be cleaned between borings. Special attention shall be given to the threaded sections of the drill rods to remove any residual joint compounds.
- (3) PVC casing shall be cleaned prior to installation and kept clean between the time it is washed and the time it is used in the well. PVC casing that has already been decontaminated by the manufacturer and shipped in plastic will not need to be re-cleaned unless the plastic wrapping has been damaged or the pipe contaminated.
- (4) All drilling equipment, tools, steel casing, sampling equipment and PVC casing associated with the construction of the piezometers shall be decontaminated using a high-temperature steam cleaner.
- (5) The Contractor shall be responsible for providing all the equipment necessary for the cleaning process. This includes a portable high-pressure and temperature washer.

#### B. DRILLING

- (1) An estimated 915 lineal feet in nine (9) borings shall be complete for installation of the multiple piezometers.
- (2) All borings shall be drilled and cased using air rotary or cable tool drilling methods. The drilling equipment and drilling method shall be approved in advance of the work by the Engineer.
- (3) Drilling equipment shall be complete with all accessories required for drilling, sampling, and installing casing through soft, fine-grained alluvium and drilling and casing in loose to dense gravel materials.
- (4) The boring will initially be drilled with temporary oversize casing 10 inches in diameter to a depth of 15 feet into the soft alluvium. On the landfill dike, the total depths of the oversize casing may be 30 feet or more. The oversize casing shall be socketed into the alluvium by pushing the casing 2 to 3 feet beyond the original drill depth.
- (5) After installation of the oversize casing, the temporary casing size will be reduced to 6-inch. The intent is to avoid creating a potential conduit between saturated zones.

## **7. MULTIPLE PIEZOMETER CONSTRUCTION**

- (6) The finished cased borehole shall be a minimum 6 inches in diameter up to 175 feet deep. The Contractor shall provide equipment capable of reaching the desired depth. The Engineer will approve the final depth of all borings.
- (7) Temporary casing shall be used to support the hole during drilling, sampling and instrument installation. Torch cutting and welding shall be limited to the outside edge of the landfill perimeter road and shall be carried out as stipulated in the Special Conditions.
- (8) After final depth is reached, the hole shall be thoroughly cleaned of all drill cuttings or excess materials. The final boring shall consist of an unobstructed, minimum 6-inch diameter casing to the final depth approved by the Engineer.
- (9) After drilling each borehole, the piezometer instrumentation casings shall be immediately installed.
- (10) The Contractor shall prevent and is responsible for any hydrocarbon/ chemical contamination of materials used in drilling. No petroleum or soap-based products shall be allowed. The use of petroleum-based joint compounds, which are normally used to prevent binding, shall not be allowed.

### **C. ALIGNMENT**

- (1) Alignment requirements during drilling are that any casing, liner, or drill tools can be run freely through the boring.

### **D. SOIL SAMPLING AND BOREHOLE LOGGING**

- (1) Borehole logging will be conducted by the Engineer for the purposes of locating the piezometers. The Contractor shall endeavor to provide information on drilling conditions that will assist the Engineer in making determinations of subsurface conditions.
- (2) Soil sampling in connection with Standard Penetration Tests shall be conducted at 10-foot intervals. The samples shall be made immediately available for inspection by the Engineer.

### **E. MULTIPLE PIEZOMETER INSTALLATION**

- (1) The multiple piezometer assembly consists of 2-inch schedule PVC casing with three or four pneumatic or electronic sensors installed into couplings along the length of the casing. The sensors will be placed at strategic depths determined by Metro to measure water pressure. Most of the assembly will be completed prior to drilling. Final assembly will be needed as the casing is installed down the boring.

## **7. MULTIPLE PIEZOMETER CONSTRUCTION**

- (2) Materials and initial assembly of the multiple piezometers will be provided by Metro and the Engineer. The Contractor shall endeavor to provide assistance as needed during insertion of the multiple piezometer assembly into the cased boring.
- (3) As the casing is lowered, potable water may need to be added to overcome buoyancy.
- (4) After the pipe assembly comes to rest on the bottom of the boring, the backfilling and gradual removal of the temporary casing can start.
- (5) After all of the temporary casing has been removed and the backfilling completed, the piezometers shall be connected and read to test the installation. The installation shall be finished by the Contractor by tremie grouting the inside of the 2-inch casing through the 1/2-inch tube. Finally, the top of the installation shall be terminated so the wires or tubes are well protected and easily accessed to be read.

### **F. BACKFILLING**

- (1) The Contractor shall take careful measurements on all piezometer port depths to ensure proper sand pack and grouting installation.
- (2) During backfilling, use a weighted measuring tape to sound the level and progress of the backfilling at all times.
- (3) To facilitate the removal of temporary casing sections and preventing the pneumatic tubes from damage, the tube ends must be put back into the PVC casing.
- (4) Sand Pack Installation:
  - a. A minimum 3-foot thick sand pack shall be placed around each piezometer port in the annular space using tremie methods. The temporary casing shall be pulled back at a rate such that sand pack material is always just below the bottom of the temporary casing, inside the drill casing. The top of the sand pack shall be placed a minimum of 1.5 feet above each piezometer port.
  - b. The temporary casing shall be withdrawn in such a manner as to not cause disturbance to the sand pack envelope and subsurface formations.
- (5) Annular Seal Installation - in Gravel:

## **7. MULTIPLE PIEZOMETER CONSTRUCTION**

- a. Bentonite pellets or chips shall be placed in the gravel section of the boring using: 1) tremie methods by pumping with potable water, or 2) slowly pouring into the annulus.
- b. The temporary casing shall be withdrawn from the boring during placement of the pellets or chips. The casing shall be withdrawn in such a way that the boring is supported by casing or the pellets or chips.
- c. The pellets or chips shall be allowed to swell for a minimum of one hour prior to placement of sand or grout.

### **(6) Annular Seal Installation - Above Gravel:**

- a. Grout shall be placed between each 3-foot thick sand layer using tremie methods. The grout tube shall consist of a tee or 90° bend at the outlet end to prevent washing out the sand pack during grouting.
- b. The temporary casing shall be withdrawn from the boring during placement of the seal. The casing shall be withdrawn in such a manner as to not cause disturbance to the annular seal and subsurface formations. The casing shall be withdrawn in such a way that some grout remains in the casing and prevents sloughing of native soils into the boring.

## **G. PROTECTION OF PIEZOMETERS**

- (1) The piezometer heads shall be protected by installing above-ground-surface casing, concrete plug, protective posts, and locking cap as shown on the Drawings. The surface construction shall be completed a minimum of 24 hours after the piezometer casing installation to allow the grout to settle. The surface casing and locking cap shall be fabricated by the Contractor as shown on the Drawings.
- (2) The ground surface shall be graded to direct surface drainage away from the piezometer head.

## **H. ABANDONMENT AND REINSTALLATION**

- (1) Any piezometer boring or installation that does not meet the requirements of these Specifications due to the actions of the Contractor shall be abandoned in accordance with the requirements in Section 3 - Well Abandonment. A new replacement piezometer boring shall be started in the immediate vicinity at a location designated by the Engineer. No payment will be made for any work associated with the well abandonment or duplicate work on the new replacement boring.

## **I. SITE RESTORATION**

- (1) At the conclusion of all work activity at a boring, all drilling tools, extra casing, trash and other materials shall be removed from the site. No work shall begin on subsequent borings until the previous boring site has been

## **7. MULTIPLE PIEZOMETER CONSTRUCTION**

cleaned up. All miscellaneous trash materials such as cement or bentonite bags shall be disposed of in a proper way by the Contractor.

- (2) All soil and soil liquid mixtures which have been removed from the borings shall be disposed of as stipulated in Section 3.3E - Disposal of Well Materials . Free liquid shall be as stipulated in Section 3.3E.



## SECTION 8

### SITE CLEANUP AND RESTORATION

#### 8.1 SCOPE

- A. This Specification Section includes the work to be performed before final acceptance of the Contract for site cleanup and restoration. All temporary construction facilities shall be removed, all work areas and access cleaned up and neatly graded and restored.

#### 8.2 EXECUTION

##### A. CLEANUP AND RESTORATION

- (1) Well and Piezometer Locations: The Contractor shall clean up and remove all refuse, dried grout, spilled drilling mud, and other unused or excess materials of any kind resulting from the work. Work areas around the wells which were disturbed shall be smoothed and graded so that surface water drains away from the well or piezometer.
- (2) Access Roads: Tracks, access corridors, or roads to the wells or piezometer locations, not to remain for Metro's use, shall be graded smooth to match the existing terrain. Ruts or other depressions caused by the drilling equipment shall be filled-in, smoothed, seeded, and restored to the satisfaction of Metro.
- (3) Contractor Laydown: Areas that have been used for temporary buildings and construction parking shall be restored by removing temporary structures, temporary utilities, debris, and waste. The areas shall be restored to a condition as close as reasonably possible to the conditions when the work started.
- (4) Wetland Areas: Surrounding the St. Johns Landfill perimeter are valuable lakes, wetlands, and adjacent uplands that are protected by environmental zoning regulations imposed by the City of Portland. This area is managed by Metro through the Smith and Bybee Lakes Management Committee, to which plans for any significant disturbances will be submitted for review.

Well drilling and installation activities on property adjacent to the landfill must be conducted in a manner than minimizes impact on the resources. Use of vehicles that minimize disturbance of the vegetation and soil is preferred. In the event that disturbance is significant during operations, as judged by a designated Metro employee at the site, the Contractor shall be responsible for mitigation, and will be required to follow a landscape plan developed by Metro. This landscape plan will include the items listed below:

## **8. SITE CLEANUP AND RESTORATION**

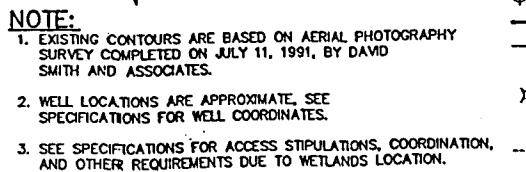
- a. Any trees over three inches in diameter which are removed or fatally damaged must be replaced with any combination of trees that equal the diameter lost. Saplings must be replaced in kind or replanted to a different location.
- b. The landscape plan will identify size, species, spacing, and locations of plants. Vegetation must be planted so that full ground cover is achieved within one year of planting.
- c. Plant species are to be native, selected from the Portland Plant List.
- d. Planting density must be no less than one shrub per 200 square feet. Shrubs should be planted in groupings and concentrated in disturbed areas.
- e. Maintenance of vegetation planted is required. This may include manual irrigation after planting, and replacement of planted stock which has not survived one full year after planting. Evaluation of planting success is required one year after planting and will be based on 80 percent survival of plants. If less than 80 percent of each layer (ground cover, shrub, tree) has survived, replanting is required to achieve the 80 percent survival rate of the layer.

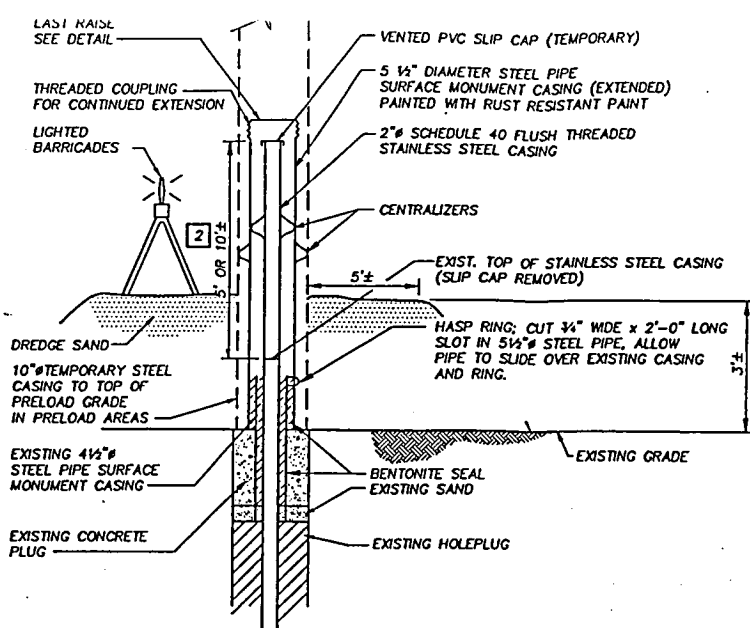
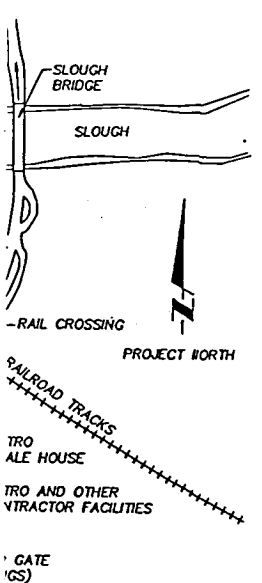
### **B. DISPOSAL**

- (1) General paper, soil, or other solid wastes or oversize solid materials taken out of the well, such as old well casings or monument pieces, shall be disposed of in Subarea 4 as directed by Metro.
- (2) Solid and liquid materials taken out of the wells shall be disposed of as stipulated in Section 3.3E - Disposal of Well Materials.
- (3) Free liquid may be disposed of in the existing leachate disposal system in Subarea 5.

### **C. FINISHING AND CLEANUP**

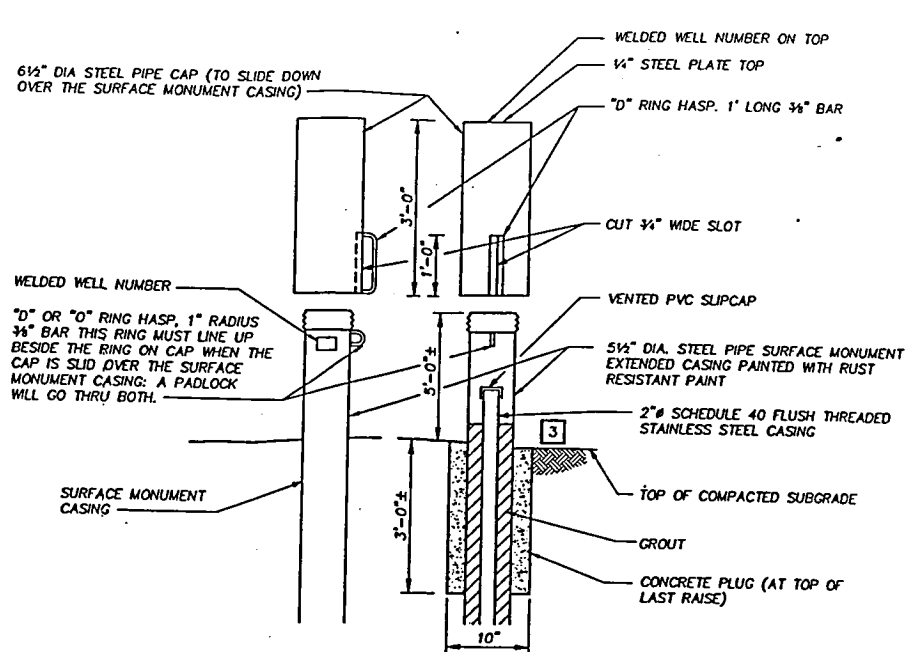
- (1) Periodically or as may be directed by Metro immediately after completion of the work, the Contractor shall cleanup and remove all refuse and unused materials of any kind resulting from the work. Upon completion of the work, the Contractor shall remove all of its equipment, and clean the project areas to the satisfaction of Metro.
- (2) Access roads and parking areas, not to remain for Metro's use, shall be graded smooth to match the existing terrain.

[illegible]



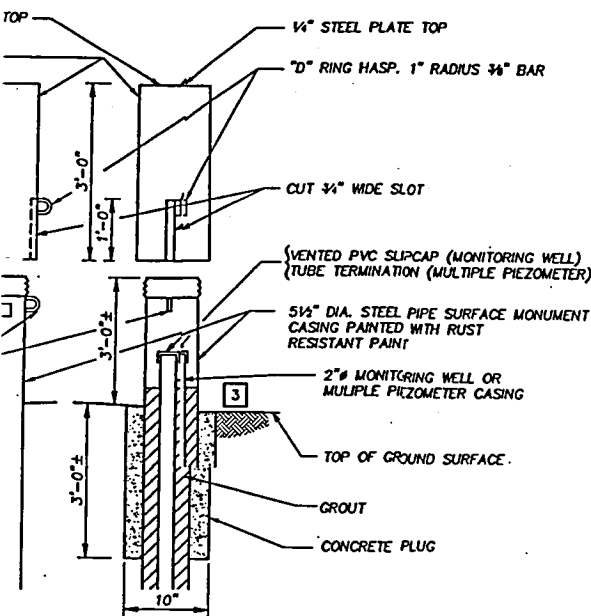
WELL EXTENSION FOR H-SERIES MONITORING WELLS (TYP)

DETAIL  
NO SCALE



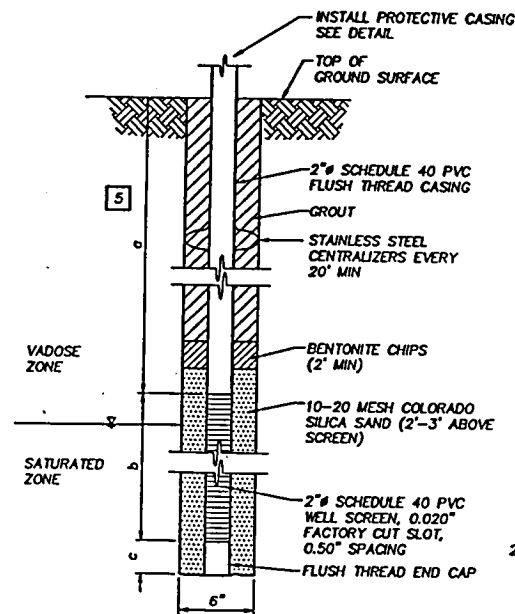
TOP OF H-SERIES WELL LOCKING CAP AND SURFACE MONUMENT COMPLETION (TYP)

DETAIL  
NO SCALE



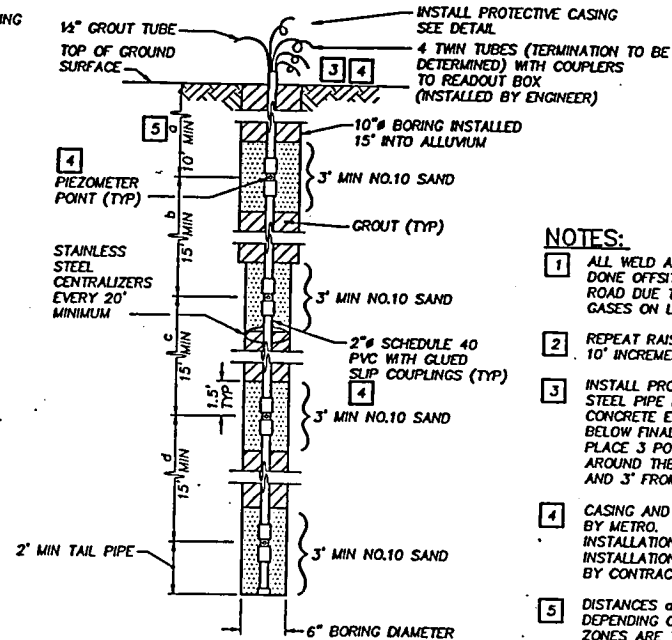
WELL WITH PROTECTIVE CASING AND LOCKING CAP

DETAIL  
NO SCALE



MONITORING WELL INSTALLATION (TYP)

DETAIL  
NO SCALE



BOREHOLE AND MULTIPLE PIEZOMETER INSTALLATION (TYP)

DETAIL  
NO SCALE

# NOTES:

- ALL WELD AND TORCH CUTTING TO BE DONE OFFSITE OR ON THE PERIMETER ROAD DUE TO POTENTIAL HAZARDOUS GASES ON LANDFILL.
- REPEAT RAISES AS NEEDED IN 5' OR 10' INCREMENTS.
- INSTALL PROTECTIVE POSTS OF 3" STEEL PIPE FILLED WITH AND SET IN CONCRETE EXTENDING 3' ABOVE AND BELOW FINAL GROUND ELEVATION. PLACE 3 POSTS ARRANGED IN A TRIANGLE AROUND THE SURFACE MONUMENT AND 3' FROM IT.
- CASING AND INSTRUMENTATION SUPPLIED BY METRO. INSTRUMENT FABRICATION AND INSTALLATION BY ENGINEER. BORING INSTALLATION AND SURFACE MONUMENT BY CONTRACTOR.
- DISTANCES a THROUGH d VARIABLE DEPENDING ON WHERE THE COMPLETION ZONES ARE TO BE SET IN THE FIELD.



DESIGNED:	NAME	DATE
CHECKED:	RT	4/92
DRAWN:	RT	4/92
CHECKED:	RT	4/92
DESIGN REVIEW:	RT/AM	4/92



METROPOLITAN SERVICE DISTRICT  
Solid Waste Department  
Jim Watkins, Engineering Manager  
Dennis O'Neill, Project Manager

ST. JOHNS LANDFILL  
DETAILS  
GROUNDWATER MONITORING WELL  
IMPROVEMENTS AND PIEZOMETER INSTALLATION

SHEET	2
OF	2
DATE:	APRIL 1992
DWG NO:	19190402

## APPENDICES

**APPENDIX A**  
**Memorandum of Understanding (DEQ and WRD)**

RECEIVED

NOV 14 1991

WATER RESOURCES DEPT  
SALEM, OREGON

# MEMORANDUM OF UNDERSTANDING

Between

Oregon Department of Environmental Quality  
and the  
Oregon Water Resources Commission

November 1, 1991

Subject: Delegation of Authority to inspect and set special standards for Drilling, Construction, and Decommissioning of Groundwater Monitoring Wells Installed at DEQ-Regulated Sites and Facilities.

## PURPOSE

The Director of the Water Resources Department (WRD) and the Director of the Department of Environmental Quality (DEQ) have entered into this Memorandum of Understanding (MOU) to delegate to the DEQ certain authorities relating to regulation and inspection of drilling, construction and decommissioning of groundwater monitoring wells installed at DEQ-regulated sites and facilities.

OAR Chapter 690, Division 240, adopted August 3, 1990, sets forth the conditions under which the Oregon Water Resources Commission may delegate to another state agency the control and management of monitoring wells and other holes.

## SCOPE OF DEQ'S DELEGATED AUTHORITY

Monitoring wells which shall be regulated and inspected under this agreement are those drilled, constructed or decommissioned at facilities or sites which are regulated pursuant to DEQ permit or other regulatory authority. These include facilities or sites with WPCF permits; NPDES permits; solid waste treatment or disposal permits; hazardous waste treatment, storage, disposal or

NOV 14 1977

WATER DIVISION  
SHELL OIL CO.

Standards (WRD Well Standards) or the DEQ "Guidelines For Groundwater Monitoring Well Drilling, Construction, And Decommissioning" (DEQ Guidelines). The DEQ Guidelines are found to be equal to or more stringent than the standards for monitoring well construction, protection, casing, decontamination and site cleanliness, well screen, filter pack, well development, well sealing, temporary wells and well decommissioning set forth in OAR Chapter 690, Division 240. A copy of the DEQ Guidelines are attached to and made a part of this agreement.

#### VARIANCES

Written requests for variances to the DEQ Guidelines shall be submitted to the DEQ as set forth in the DEQ Guidelines. Written approval from the DEQ must be received prior to completion or decommissioning of the well for which a variance is sought. A proposed variance shall only be granted by DEQ if, in the opinion of the reviewer, the drilling, construction or decommissioning methods proposed does not increase the risk of contamination or waste of groundwater, or loss of artesian pressure, more than if the well is completed according to the DEQ Guidelines.

DEQ shall report to WRD on all written variances issued under the terms of this agreement. A copy of each variance shall be made available to the WRD upon request.

#### INSPECTION

The DEQ shall implement an inspection program and be responsible for ensuring compliance with the WRD Well Standards or DEQ Guidelines. The goal of the inspection program shall be to ensure that wells are constructed in accordance with the WRD Well Standards and/or DEQ Guidelines or approved variance, in a manner that protects the groundwater resource from contamination and waste or loss of artesian pressure.

Major elements of a DEQ inspection program include:

- (1) Advance review and approval of monitoring well design plans.
- (2) Direct inspection of monitoring wells in the field during selected phases of drilling, construction, or decommissioning.
- (3) Direct inspection of monitoring wells in the field following construction.



NOV 14 1991  
WATER RESOURCES DEPT.  
SALMON, OREGON

The DEQ shall identify and report monitoring well constructor licensing violations to the WRD, including but not limited to the lack of a licensed constructor at a monitoring well construction site, constructor negligence, or improper well construction.

This agreement does not preclude DEQ from independently enforcing violations of its permits, statutes, and rules.

#### REPORTING

A quarterly report describing the total number of monitoring wells regulated and inspected, wells achieving compliance with the DEQ Guidelines, variances issued and wells referred for enforcement action will be compiled by the DEQ and submitted to the WRD.

#### FUNDING OF DEQ ACTIVITIES

The Water Resources Commission will provide the Department of Environmental Quality \$125,000, in quarterly installments, to support DEQ's activity in this program for the remainder of 1991-93 biennium. The DEQ will implement the inspection program on July 1, 1992. Funding for the 1993-95 biennium will be negotiated prior to the start of the biennium.

#### IMPLEMENTATION

Implementation of the program by DEQ will begin March 1, 1992. The inspection portion of the program will be implemented on July 1, 1992.

William H. Young  
William H. Young  
Director  
Water Resources Department  
Quality

Fred Hansen  
Fred Hansen  
Director  
Department of Environmental

Date \_\_\_\_\_

Date \_\_\_\_\_

(11-22-91) ? (RA)

## **APPENDIX B**

### **Drill Logs**

**APPENDIX C.**

**Metro's Position on DBE/WBE**

# METRO

2001 SW First Avenue  
Portland, OR 97201-5398  
(503) 221-1646  
Fax 241-7417

October 22, 1991

Dear Potential Bidder/Proposer:

For the past ten years, the Metropolitan Service District has had a special contracting program to encourage participation in metro contracts by businesses owned by minorities including women. This program has been applied to both federally funded and locally funded projects.

We have now been advised by our General Counsel that the Metro Code provisions relating to participation by minority-owned businesses in locally funded contracts are unconstitutional.

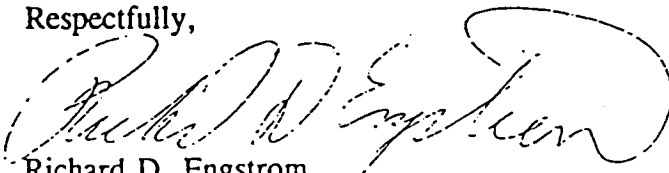
Therefore, I must reluctantly advise you that until the Metro Council acts to correct this defect and/or adopts a new program, I cannot and will not act in probable violation of the law and attempt to enforce the present Metro DBE and WBE Program requirements on locally funded projects.

The economy of the Metro region is comprised of a multitude of emerging and small businesses which mirror the racial diversity within our boundaries. They're our customers and clients. They pay taxes. They hire the local work force. They determine the health of the local economy. Supporting those businesses should not be viewed as just a requirement. Supporting those businesses should be viewed as good business!

I, therefore encourage you to set the legal question aside and voluntarily follow good faith efforts to utilize Disadvantaged, Minority and Women Owned Business Enterprises as your subcontractors and suppliers.

Please consider these issues carefully. Talk to your legal counsel. Reflect upon the larger issue. If you have questions, please contact Rich Wiley at Metro 221-1646 x 116.

Respectfully,



Richard D. Engstrom  
Deputy Executive Officer

Executive Officer  
Rena Cusma

Metro Council

Tanya Collier  
Presiding Officer  
District 9

Jim Gardner  
Deputy Presiding  
Officer  
District 3

Susan McLain  
District 1

Lawrence Bauer  
District 2

Richard Devlin  
District 4

Tom DeJardin  
District 5

George Van Bergen  
District 6

Ruth McFarland  
District 7

Judy Wiers  
District 8

Roger Buchanan  
District 10

David Knowles  
District 11

Sandi Hansen  
District 12

**APPENDIX D**  
**Oregon Law Regarding Recycling**

development, revision, amendment and implementation of local solid waste reduction, reusing, recycling and solid waste management programs that comply with the opportunity to recycle established in ORS 459.165. The department shall give special emphasis to assisting rural and remote counties.

NOTE: Sections 53 to 58 were deleted by amendment. Subsequent sections were not renumbered.

**SECTION 59. ORS 279.731 is amended to read:**

279.731. As used in ORS 279.731 to 279.739, unless the context otherwise requires:

(1) "Post-consumer waste" means a finished material which would normally be disposed of as solid waste, having completed its life cycle as a consumer item. "Post-consumer waste" does not include manufacturing waste.

(2) "Public agency" means a county, city, special district or other public or municipal corporation, and any instrumentality thereof.

(3) "Recycled material" means any material that would otherwise be a useless, unwanted or discarded material except for the fact that the material still has useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled.

[(2)] (4) "Recycled paper" means a paper product with not less than:

(a) Fifty percent of its total weight consisting of secondary waste materials; or

(b) Twenty-five percent of its total weight consisting of post-consumer waste.

(5) "Recycled product" means all materials, goods and supplies, not less than 50 percent of the total weight of which consists of secondary and post-consumer waste with not less than 10 percent of its total weight consisting of post-consumer waste. "Recycled product" also includes any product that could have been disposed of as solid waste, having completed its life cycle as a consumer item, but otherwise is refurbished for reuse without substantial alteration of the product's form.

[(3)] (6) "Secondary waste materials" means fragments of products or finished products of a manufacturing process which has converted a virgin resource into a commodity of real economic value, and includes post-consumer waste, but does not include excess virgin resources of the manufacturing process. For paper, "secondary waste materials" does not include fibrous waste generated during the manufacturing process such as fibers recovered from waste water or trimmings of paper machine rolls, mill broke, wood slabs, chips, sawdust or other wood residue from a manufacturing process.

[(4)] (7) "State agency" includes the Legislative Assembly, the courts and their officers and committees and the constitutional state officers.

**SECTION 60. ORS 279.733 is amended to read:**

279.733. (1) All state agencies purchasing supplies, materials, equipment or personal services shall:

[(1)] (a) Review their procurement specifications currently utilized in order to eliminate, wherever economically feasible, discrimination against the procurement of recovered resources or recycled materials.

[(2)] (b) Provide incentives, wherever economically feasible, in all procurement specifications issued by them for the maximum possible use of recovered resources and recycled materials.

[(3)] (c) Develop purchasing practices which, to the maximum extent economically feasible, assure purchase of materials which are recycled or which may be recycled or reused when discarded.

[(4)] (d) Establish management practices which minimize the volume of solid waste generated by [them by] reusing paper, envelopes, containers and all types of packaging and by limiting the amount of materials consumed and discarded.

[(5)] (e) Use and require persons with whom they contract to use, in the performance of the contract work, to the maximum extent economically feasible, recycled paper.

(2) Any invitation to bid or request for proposal under ORS chapter 279 shall include the following language: "Vendors shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document."

**SECTION 61. ORS 279.739 is amended to read:**

279.739. (1) Notwithstanding provisions of law requiring a state agency or a public agency to enter into contracts with the lowest responsible bidder and subject to subsection (2) of this section, any state agency or public agency charged with the purchase of materials and supplies for any public use [may, in its discretion,] shall give preference to the purchase of materials and supplies manufactured from recycled materials.

(2) A state agency or public agency [may] shall give preference to materials and supplies manufactured from recycled materials [only] if:

[(a) The bids of the persons or manufacturing concerns supplying the recycled materials, or the prices quoted by them, do not exceed by more than five percent the lowest bid or prices quoted by persons and manufacturing concerns offering nonrecycled materials; and]

[(b) The public agency finds that the public good will be served thereby.]

(a) The recycled product is available;

(b) The recycled product meets applicable standards;

(c) The recycled product can be substituted for a comparable nonrecycled product; and

(d) Recycled product costs do not exceed the costs of nonrecycled products by more than five percent.

[(3) As used in this section:]



[(a) "Public agency" means a county, city, special district, or other public and municipal corporations, and any instrumentality thereof.]

[(b) "Recycled material" means any material that would otherwise be a useless, unwanted or discarded material except for the fact that the material still has useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled.]

(3) At its discretion, a state or public agency may give preference to the purchase of materials and supplies manufactured from recycled materials, even if the cost differential exceeds the five percent preference set forth in subsection (2) of this section.

(4) State agencies, unless otherwise specified in ORS 279.731 to 279.739, and public agencies may give preference to the suppliers of recycled products and recycled paper or to products that reduce the amount of waste generated. State agencies, unless otherwise specified in ORS 279.731 to 279.739, and public agencies may determine the amount of this preference.

(5) In any bid in which the state has reserved the right to make multiple awards, the recycled product or recycled paper preference shall be applied to the extent possible to maximize the dollar participation of firms offering recycled products or recycled paper in the contract award.

(6) A state or public agency shall require the bidder to specify the minimum, if not exact, percentage of recycled paper in paper products or recycled product in products offered, and both the post-consumer and secondary waste content regardless of whether the product meets the percentage of recycled material specified for recycled paper or recycled products in ORS 279.731. For paper products, a state agency or public agency also shall require that the bidder specify the fiber type. The contractor may certify a zero percent recycled paper or product. All contract provisions impeding the consideration of products with recycled paper or recycled products shall be deleted in favor of performance standards.

(7) The department shall review and work with state agencies to develop procurement specifications that encourage the use of recycled products whenever quality of a recycled product is functionally equal to the same product manufactured with virgin resources. Except for specifications that have been established to preserve the public health and safety, all procurement and purchasing specifications shall be established in a manner that encourages procurement and purchase of recycled products.

(8) All public and state agencies shall establish purchasing practices that assure, to the maximum extent economically feasible, purchase of materials, goods and supplies that may be recycled or reused when discarded.

SECTION 62. Sections 63 to 81 of this Act are added to and made a part of ORS 279.731 to 279.739.

SECTION 63. (1) The Legislative Assembly finds that:

(a) It is the policy of the state to conserve and protect its resources. The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.

(b) The volume of solid waste generated within the state, an increased rate in the consumption of products and materials, including paper products, and the absence of adequate programs and procedures for the reuse and recycling of these products and materials threaten the quality of the environment and well-being of the people of Oregon.

(2) Therefore, the Legislative Assembly declares that the policy and intent of ORS 279.731 to 279.739 is to improve environmental quality by providing for:

(a) The procurement of products made from recycled materials; and

(b) The recycling of waste materials.

SECTION 64. As used in sections 64 to 67 of this 1991 Act:

(1) "Industrial oil" means any compressor, turbine or bearing oil, hydraulic oil, metal-working oil or refrigeration oil.

(2) "Lubricating oil" means any oil intended for use in an internal combustion crankcase, transmission, gearbox or differential or an automobile, bus, truck, vessel, plane, train, heavy equipment or machinery powered by an internal combustion engine.

(3) "Recycled oil" means used oil that has been prepared for reuse as a petroleum product by refining, rerefining, reclaiming, reprocessing or other means provided that the preparation or use is operationally safe, environmentally sound and complies with all laws and regulations.

(4) "Used oil" has the meaning given that term in ORS 468.850.

(5) "Virgin oil" means oil that has been refined from crude oil and that has not been used or contaminated with impurities.

SECTION 65. Every state agency or public agency shall revise its procedures and specifications for the purchase of lubricating oil and industrial oil to eliminate any exclusion of recycled oils and any requirement that oils be manufactured from virgin materials.

SECTION 66. Every state agency and public agency shall require that purchases of lubricating oil and industrial oil be made from the seller whose oil product contains the greater percentage of recycled oil, unless a specific oil product containing recycled oil is:

(1) Not available within a reasonable period of time or in quantities necessary to meet an agency's needs;

**APPENDIX E**  
**Prevailing Wage Rates (BOLD)**



# PREVAILING WAGE RATES

for

## Public Works Contracts in Oregon



Mary Wendy Roberts  
Commissioner  
Bureau of Labor and Industries

Effective January 1, 1992



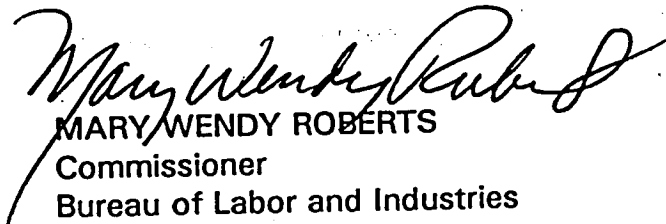
BUREAU OF LABOR AND INDUSTRIES  
Mary Roberts, Commissioner

January 1, 1992

This booklet contains the Prevailing Wage Rates for the building and construction trades in the State of Oregon. These rates are effective January 1, 1992. These rates have been amended in accordance with ORS 279.348 through ORS 279.365.

Prevailing Wage Rates are the minimum wages that must be paid to all workers employed in the construction, reconstruction, major renovation or painting of any public works. Copies of these rates must be incorporated into all bid specifications when the advertisement for a public works contract is issued. A provision that Prevailing Wage Rates be paid must also be put in the contract. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the project, with one exception; if during the bidding process the Prevailing Wage Rates change, the public contracting agency has the option of amending the bid specifications to reflect such changes.

If you identify any errors in the rates published, please bring them to the attention of the Prevailing Wage Rate specialist in Portland (229-6655). If you have any questions about the manner in which the Prevailing Wage Rates are enforced, contact the Wage and Hour Division in Portland (229-5750).

  
MARY WENDY ROBERTS  
Commissioner  
Bureau of Labor and Industries

PORTLAND  
1400 SW 5th Avenue  
Portland, Oregon 97201

MEDFORD  
700 E Main  
Medford, Oregon 97504

SALEM  
3865 Wolverine St. NE; E-1  
Salem, Oregon 97310

COOS BAY  
320 Central Ave., Suite 510  
Coos Bay, Oregon 97420

BEND  
1250 NE 3rd, Suite B105  
Bend, Oregon 97701

EUGENE  
165 E 7th Street, Suite 220  
Eugene, Oregon 97401

PENDLETON  
700 SE Emigrant, Suite 240  
Pendleton, Oregon 97801

AN EQUAL OPPORTUNITY EMPLOYER

## ANNOUNCEMENT

The Prevailing Wage Rates contained in this booklet generally reflect those rates determined for Oregon by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act; certain changes have been made to better reflect prevailing practices in Oregon. Pursuant to ORS 279.348 to ORS 279.365, these rates have been adopted for use on public works contracts in Oregon. If you have specific questions regarding how rates are determined or if you would like a copy of this booklet, please contact:

Prevailing Wage Rate Analyst  
Bureau of Labor and Industries  
P.O. Box 800,  
Portland, OR 97207-0800  
(503)229-6655

The first copy is free. Additional copies are available for \$2.00 each.

## GENERAL INFORMATION

Information in this section and in the "Commonly Asked Questions" is meant to provide a convenient reference to Oregon's Prevailing Wage Rate Law. It is in no way a complete statement of the laws and rules. Note that important information on compliance has been added on page 4 under "Commonly Asked Question" number 11.

If you have questions about the enforcement of Prevailing Wage Rates, please contact the Wage and Hour Division. Division offices may be reached at the following phone numbers:

Bend	388-6330
Eugene	686-7623
Medford	776-6201
Pendleton	276-7884
Portland	229-5750
Salem	378-3292

### Apprentices and Trainees

Apprentices and trainees may be employed on public works. To qualify as an apprentice or trainee, the worker must be registered in a bonafide apprenticeship or training program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship and Training Agency recognized by BAT. For information call 229-6573. The apprentice or trainee is to receive all fringe benefits and a percentage of the journeyman's wage rate which is listed in this booklet. This rate may be different than the rate contained in the Apprenticeship Standards for the trade. The correct percentage shall be determined by the appropriate apprenticeship or training committee. All other workers must receive rates as published.

### Zone Pay

In certain trades, the basic hourly rate of pay progressively increases based upon the distance between the job site and a designated landmark; this is commonly referred to as zone pay. To determine the hourly wage, find the correct zone based on the number of road miles the job site is from the closest designated city (based either on distance from city hall or from geographical center of the city, depending on the trade) and add the amount for that zone to the basic hourly rate. Zone pay, unlike travel pay, is the basic hourly wage upon which overtime is computed.

### Bid Specifications

The specifications for every public works contract must include the current Prevailing Wage Rates in effect at the time the specifications are first advertised. A statement incorporating the existing rates by reference will not satisfy this requirement (ORS 279.352).

NOTE: If a public agency fails to include the Prevailing Wage Rates in the contract specifications or fails to include in the contract the provision that Prevailing Wage Rates must be paid, the liability for any unpaid prevailing wages could be exclusively that of the agency.

### Fringe Benefits

Payments for fringe benefits are in addition to the basic hourly rate. Fringe benefits means the amount for:

- a) medical or hospital care; pensions on retirement or death; compensation for injuries or illness resulting from an occupational activity, or insurance to provide any of the foregoing;
- b) unemployment benefits, life insurance, disability and sickness insurance or accident insurance;
- c) vacation and holiday pay;
- d) defraying costs of apprenticeship or other similar programs; and
- e) other such bona fide benefits.

NOTE: For the purpose of Prevailing Wage Rates, fringe benefits do not include any benefits which may be required by federal, state or local law (e.g. Workers' Compensation, Unemployment Insurance, etc.).

Fringe benefits may be paid to the worker in cash or to a third party administering a fringe benefit program. When an hourly rate in excess of the required prevailing base rate is paid, the amount by which the rate is exceeded may be credited toward payment of fringe benefits.

### Overtime

Workers employed on a public works job for more than eight hours in a day or 40 hours in a week must be paid overtime for each additional hour so worked (ORS 279.334). Overtime is calculated at no less than one and one-half times the basic hourly rate as determined by the Commissioner of Labor (not including fringe benefits which are paid at the straight rate for every hour worked). In the computation of overtime, travel pay does not need to be included but zone pay differentials do.

Work performed on Saturday, Sunday or legal holidays must also be compensated at time and one-half. Legal holidays for purposes of Prevailing Wage Rates include the following: 1) New Year's Day on January 1; 2) Memorial Day on the last Monday in May; 3) Independence Day on July 4; 4) Labor Day on the first Monday in September; 5) Thanksgiving Day on the fourth Thursday in November; 6) Christmas Day on December 25.

NOTE: Contractors who are signatory to a collective bargaining agreement may be subject to different overtime requirements (ORS 279.334[3]).

### Certification of Payroll

The law requires every contractor and subcontractor to file certain information on wages paid to each worker employed on a public works contract. This statement must completely and accurately reflect payroll records for the work week immediately preceding the submission. A contractor or subcontractor must complete and submit the certified statement contained on Form WH-38 as well as the information required on the weekly payroll side of the form. A copy of Form WH-38 and instructions for completing it are included in the back of this booklet; xeroxed copies may be used for filing.

The schedule for submitting payroll information is as follows: once within 15 days of the date the contractor or subcontractor first began work on the project and once before the final inspection of the project by the public contracting agency; in addition, for projects exceeding 90 days, submissions are to be made at 90 day intervals. Payroll information is to be filed with both the public contracting agency and the Wage and Hour Division, Bureau of Labor and Industries, P.O. Box 800, Portland, Oregon 97201-0800. The payroll information must be kept by the contractor and or subcontractor for three years.

## COMMONLY ASKED QUESTIONS

1) What are "Prevailing Wage Rates?"

A prevailing wage rate is the minimum wage, including fringe benefits to be paid workers employed on contracts for public works. Different rates are established for specific trades and specific geographical areas.

2) Who must be paid "Prevailing Wage Rates?"

All employees of a contractor or subcontractor engaged on a public works project when the total price of the project is \$10,000 or more must receive at least the Prevailing Wage Rate (PWR) for time worked on the project, unless otherwise exempt.

Supervisory and office/clerical employees are not required to be paid the PWR. A person who owns and operates his/her own truck on construction projects (Owner/Operator) is not required to be paid the PWR.

3) What about contracts when Federal funds are used?

When more than \$2,000 of federal funds are involved, the contract is usually subject to the provisions of the Davis-Bacon Act, not Oregon statutes. Further information may be obtained from the U.S. Department of Labor, Wage and Hour Division, Portland, Oregon (326-3057). However, in the event that federal funds are involved, but the contract is not regulated under Davis-Bacon, Oregon's Prevailing Wage Rates Statutes may apply (ORS 279.348 - 279.365).

4) I don't have a pension fund. How do I calculate fringe benefits?

Workers must receive at a minimum the sum of the basic hourly rate plus all fringe benefits for each hour worked on a public works contract. Fringe benefits may be paid either to a third party trust account or in cash directly to the worker.

5) My employees receive health benefits. Do I get credit for the health benefit when I prepare my payroll on a public works project?

Yes. Any expenditures an employer makes for bona fide employee benefits can be charged against the fringe benefit payments designated in the Prevailing Wage Rate Booklet. To learn how to compute the correct hourly charge, call the Wage and Hour Division (229-5750).

6) What if the employees are not paid on an hourly basis?

All workers must receive at least the basic hourly rate of wage and fringe benefits for each hour worked on the project. If an employee is paid other than on an hourly basis, the equivalent hourly rate (for both wages and fringe benefits) must still be at least equal to the rates published.

7) How do I classify workers?

Virtually all of the job classifications/trades normally used in the construction industry are represented by the job classifications used in this PWR publication. These classification titles should be used according to common practice. Try to fit your workers into existing classifications. If you have questions about how to classify workers, contact the Wage and Hour Division at 229-5750 in Portland or at one of the offices listed on page 1 of this booklet.

Laborers who do basic work requiring no specific skills, training, or knowledge are generally classified as Group 1 Laborers.

(Note that Landscapers are classified as Laborers, and Ornamental Ironworkers are classified as Ironworkers.)

## COMMONLY ASKED QUESTIONS (Continued)

- 8) When are new rates determined? How long are they effective?

Prevailing Wage Rates are determined once each year by the Commissioner of the Bureau of Labor and Industries. The Commissioner may amend the rates at any time. The rates are usually amended at least once each year. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the contract, with one exception. If during the bidding process the prevailing wage rate changes, the public contracting agency (not the contractor) has the option of amending the bid specifications to reflect such change.

- 9) How do I post Prevailing Wage Rates?

Every contractor or subcontractor employing workers on a public works project is required to post the applicable Prevailing Wage Rates in a conspicuous and accessible place in or about the work-site. Rates need to be posted for the duration of the job. Contractors and subcontractors who intentionally fail to post the PWR can be made ineligible to receive any public works contract for up to three years.

- 10) What can I do about a contractor who is not complying with Oregon's PWR law?

File a complaint with the nearest office of the Oregon Bureau of Labor and Industries or contact the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. 5th Avenue, Portland, Oregon 97201 (229-5750). Other Bureau offices are located in Bend (388-6330), Coos Bay (269-4575), Eugene (686-7623), Medford (776-6013), Pendleton (276-7884) and Salem (378-3292). You may also complain to the contracting agency, which has the contractual authority to pay PWR claims directly to a contractor's or subcontractor's workers (ORS 279.314).

- 11) What happens to contractors who do not comply with PWR statutes?

Contractors and subcontractors who pay less than the Prevailing Wage Rates may be liable to the workers affected for the amount found due plus an equal amount as liquidated damages (ORS 279.356). Contracting agencies also have the contractual authority to withhold payments due or to be due to the contractor or subcontractor in order to pay the unpaid prevailing wages directly to the worker (ORS 279.314).

Contractors and subcontractors who intentionally refuse to pay the Prevailing Wage Rate to workers employed on public works or to post the PWR on the job site may be determined to be ineligible to receive any public works contracts for a period of up to three years (ORS 279.361). Workers employed by the contractor or subcontractors have a right of action against the surety of the prime contractor for any unpaid prevailing wages.

A list is kept of all contractors, subcontractors, and other persons ineligible to receive public works contracts and subcontracts. When a contractor or subcontractor is a corporation, the individual officers and agents of the corporation can be debarred, in addition to the corporation. As a result, individuals who intentionally fail to pay or post the PWR are prevented from simply moving from one corporation to another.

In addition, Chapter 323, Oregon Laws 1991, provides that any person that loses a competitive bid for a construction contract may bring an action for damages against the person who is awarded the contract, if the losing bidder can establish that the winner has knowingly violated any one of several laws, including the requirement to pay Prevailing Wage Rates while performing work under the contract. The losing bidder is entitled to recover, as liquidated damages, 10% of the losing bid amount, or \$5,000, whichever is greater, plus reasonable attorney fees.

## COMMONLY ASKED QUESTIONS (Continued)

### 12) How much do I pay apprentices?

To qualify as an apprentice, the worker must be registered in a bona fide apprenticeship program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship Agency recognized by BAT. For information call 229-6573. The apprentice is to receive all fringe benefits and a percentage of the journeyman's wage rate as listed in this booklet. This rate may be different than the rate contained in the Apprenticeship Standards for the trade. The correct percentage shall be determined by the appropriate apprenticeship committee. All other workers receive rates as published.

### 13) What records must I keep? For how long?

Contractors and subcontractors are required to keep records necessary for determining if Prevailing Wage Rates were paid. These records must include the Payroll and Certified Statement Form (WH-38) as well as the following: The name and address of each employee; the work classification(s) of each employee; the rate(s) of wages and fringe benefits paid to each employee; the rate(s) of fringe benefit payments made in lieu of those required to be provided to each employee; total daily and weekly compensation paid to each employee; daily and weekly hours worked by each employee; apprenticeship and training agreements; any payroll and other such records pertaining to the employment of employees upon a public works contract.

These need to be kept for a period of three (3) years from the completion of the public work contract. Records relating to public works contracts must be maintained separately from records relating to private projects/contracts.

### 14) What forms are public agencies required to file with the Bureau of Labor and Industries?

Public agencies are required to prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement that the agency intends to fund during the subsequent budget period (ORS 279.023[2]). If, after the original filing, the agency plans additional public improvements, a revised list is to be submitted (OAR 839-16-008[2]).

The "Notice of Award of Public Works Contract" is to be filed with the Wage and Hour Division within 30 days of the date when a contract is awarded which requires the payment of Prevailing Wage Rates (i.e., is regulated under ORS 279.348 to 279.365).

Copies of the "Planned Public Improvement Summary" (Form No. WH-118), the "Capital Improvement Project Cost Comparison Estimate" (WH-119), and the "Notice of Award of Public Works Contract" (WH-81) can be found at the back of this booklet.

### 15) Does a contracting agency have any power to enforce payment of Prevailing Wage Rates on its public works projects?

Yes. According to ORS 279.314, all public contracts for work or services must contain a clause or condition permitting the contracting agency to pay a worker's past due wage claim, charging the payment against funds due or to become due to the contractor.



## **NOTE**

There have been several changes in addition to the usual wage and fringe benefit up-dates in this booklet. We have attempted to make them more noticeable by printing them in bold type. You may have already noticed the addition to item 11 on page 4. You will find other changes under the following trades.

### **BOILERMAKERS**

The separate storage tank classification has been dropped. All Boilermaker work now has the same rate.

### **BRICKLAYERS/STONEMASONS**

A differential has been added to the Area 2 base rate for refractory work, and modifications have been made in the Area descriptions.

### **CARPENTERS**

An additional clarification on computing the proper zone pay differential for groups 5, 6 and 7 has been added.

### **DREDGING**

Leverman-Hydraulic and Leverman-Dipper are now the same classification. The classification Fill Equipment Operator has been added.

### **MARBLE SETTERS**

Modifications have been made in the Area description.

### **PLASTERERS**

Area 1 plasterers have added the Nozzleman and Swinging Scaffold categories.

### **TILE SETTERS**

Modifications have been made in the Area descriptions.

### **TILE & TERRAZZO FINISHERS**

This trade is now titled TILE, TERRAZZO, BRICK & MARBLE FINISHERS, and modifications have been made in the Area descriptions.



TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>ASBESTOS WORKERS</u></b>			<b><u>BRICKLAYERS/STONEMASONS</u></b>		
<u>Installation</u> of insulation on mechanical systems*			Area 1	19.78	4.75
Journeyman Asbestos Worker			(add \$0.75 per hour to Fringe for Refractory repair work.)		
o Projects in buildings which are not used for manufacturing, manufacturing services or similar processes (Offices, schools, laboratories, etc.)			Area 2	19.00	4.62
			(add \$0.75 per hour to Fringe for Refractory repair work.)		
o Projects in buildings which are used for manufacturing, manufacturing services and similar processes (water treatment plants, electrical generating plants, road maintenance shops, etc.)			<u>Area 1</u>		
			Baker	Hood River	Multnomah
			Benton (a)	Lincoln (a)	Polk
			Clackamas	Linn (a)	Sherman
			Clatsop	Malheur (a)	Tillamook
			Columbia	Marion	Umatilla
			Gilliam	Morrow	Union
			<u>Area 2</u>		
			Benton (b)	Douglas	Josephine
			Crook	Grant	Klamath
			Coos	Harney	Lake
			Curry	Jackson	Lane
			Deschutes	Jefferson	Lincoln (b)
			a) North half		
			b) South half		
<u>Removal</u> of insulation on mechanical systems* which are not going to be scrapped.**			<b><u>CARPENTERS</u></b>		
o Hazardous Materials Handler Mechanic (in any type of project regardless of value)			Under the following circumstances a rate lower than the basic hourly rate may be used for carpenters:		
			The lower rate applies to all public works projects of less than \$750 thousand involving construction, reconstruction, major renovation or painting. In determining the \$750 thousand figure, do include the cost of all surfacing and paving, but do not include the cost of underground utilities (i.e., the amount of the contract dedicated to facilities for electricity, water, gas, sewerage including storm water, and communications) which are five feet or more outside of and away from any building, bridge or dock which is a part of the project, and are subordinate and incidental to the major purpose of the project.		
* Mechanical systems include pipes, boilers, ducts, flues, breechings, etc.			NOTE: In determining whether or not the lower rates are applicable, consider the total project cost, and not the cost of any individual contract (or schedule) within that project.		
** The removal of all insulation materials from mechanical systems is exclusively the work of Asbestos Workers, unless the mechanical systems are going to be scrapped. It does not matter whether the insulation materials contain asbestos. <u>Laborers do all removal of insulation materials on mechanical systems to be scrapped and any non mechanical (walls, ceilings, floors, beams, etc.) insulation.</u> They also do loading of any insulation materials that have already been removed, bagged and tagged, as well as cleanup at the removal site and all work done at the disposal site. Laborers performing asbestos removal are classified as Group 3 laborers.					
<b><u>BOILERMAKERS</u></b>	21.79	5.91			

TRADES	BASIC		TRADES	BASIC	
	HOURLY	FRINGE		HOURLY	FRINGE
	RATE	BENEFITS		RATE	BENEFITS

**CARPENTERS** (See above for explanation of when the lower rates may be used)

	LESS THAN		
	100%	100%	
Zone 1 (Base Rate):			
o Group 1	15.99	18.97	4.32
o Group 2	16.11	19.12	4.32
o Group 3	16.44	19.47	4.32
o Group 4	16.56	19.62	4.32
o Group 5	16.47	19.47	4.32
o Group 6	16.55	19.62	4.32
o Group 7	16.97	19.97	4.32

Zone Differential for Carpenters  
(Add to Zone 1 Rate)

Zone 2	.85
Zone 3	1.25
Zone 4	1.70
Zone 5	2.00
Zone 6	3.00

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 60 miles.

Zone 5: More than 60 miles but less than 70 miles.

Zone 6: More than 70 miles.

#### Reference cities for Group 1 and 2 Carpenters

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	Vancouver

Zones for Groups 3 and 4 Carpenters are determined by the distance between the project site and either 1) the worker's residence or 2) City Hall of a reference city for the appropriate group shown below, whichever is closer.

#### Reference Cities for Group 3 and 4 Carpenters

Eugene	Medford	Portland	Vancouver
Longview	North Bend	The Dalles	

Zones for Groups 5, 6 and 7 Carpenters are determined as follows:

- For those workers who reside within zone 1 of a reference city below, their zone pay differential shall be computed based upon the distance from the city hall of that city to the project site.

#### CARPENTERS (Continued)

- For those workers who reside nearer to the project than is the city hall of any reference city below; the mileage from their residence to the project may be used in computing their zone pay differential.
- The zone pay differential for all other projects shall be computed from the city hall of Longview, North Bend, or Portland, whichever is closer to the project.

#### Reference Cities for Groups 5, 6 and 7

Astoria	Eugene	Newport	Salem
Bend	Klamath Falls	Portland	The Dalles
North Bend	Medford	Roseburg	Longview

#### Group 1

Auto. Nailing Machine  
Carpenters  
Form Stripper  
Manhole Builders  
Non-irritating Ins.  
Cabinet & Shelving Installers  
(wood or steel)

#### Group 3

Millwrights  
Machine Erectors  
Machinists

#### Group 5

Bridge, Dock & Wharf  
Builders  
Piledrivermen

#### Group 7

Marine Piledriver

#### CEMENT MASONS

##### Zone 1 (Base Rate):

o Group 1	17.14	5.77
o Group 2	17.48	5.77
o Group 3	17.48	5.77
o Group 4	17.83	5.77

Group 1 Cement Masons, hand chipping and patching grouting, end pointing, screed setting, plugging, filling bolt holes, dry packing, setting curb forms, planks, stakes, lines and grades.

## TRADES

BASIC  
HOURLY RATE FRINGE  
BENEFITS

## TRADES

BASIC  
HOURLY RATE FRINGE  
BENEFITS

CEMENT MASONS (continued)

- Group 2 Composition Workers (includes installation of epoxy & other resinous toppings), and Power Machine Operators.
- Group 3 Cement masons working on suspended, swinging and/or hanging scaffold.
- Group 4 Cement Masons performing work of both Group 2 and Group 3 at the same time.

Zone Differential for Cement Masons  
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

Cities

Bend	Corvallis	Coos Bay	Roseburg	Eugene
Pasco	The Dalles	Medford	Longview	K. Falls
Salem	Pendleton	Astoria	Portland	Newport

DIVERS & DIVERS' TENDERS

o Divers	47.84	4.32
o Divers' Tenders	21.01	4.32

Depth Pay and Enclosure Pay are added to the Divers' Basic Hourly Rate to obtain the Total Hourly Rate for the diver.

BASIC HOURLY + DEPTH PAY + ENCLOSURE PAY = TOTAL DIVERS' HOURLY PAY

## o Divers' Depth Pay

Depth of Dive	Hourly Depth Pay
50-100 ft	[(total ft- 50] x \$1.00)/hr.
100-150 ft	\$ 50 + [(total ft-100] x \$1.50)/hr.
150-200 ft	\$125 + [(total ft-150] x \$2.00)/hr.

DIVERS & DIVERS' TENDERS(continued)

o Divers' Enclosure Pay(working without vertical escape)

## Distance Travelled

In the Enclosure	Hourly Enclosure Pay
5 - 50 ft	\$ .50/hr
50 - 100 ft	\$ .63/hr
100 - 150 ft	\$ 2.13/hr
150 - 200 ft	\$ 4.63/hr
200 - 300 ft	\$ 4.63 + [(total ft-200]x \$.05)/hr
300 - 450 ft	\$ 9.63 + [(total ft-300]x \$.10)/hr
450 - 600 ft	\$24.63 + [(total ft-450]x \$.20)/hr

DREDGING

## Zone 1 (Base Rate):

o Leverman	21.91	5.67
o Asst. Engineer (including: Watch Engineer, Welder, Mechanic, Machinist)	21.24	5.67
o Tenderman (Boatman, Attending Dredge Plan); Fireman	20.73	5.67
o Fill Equipment Operator	20.29	5.67
o Assistant Mate (Deckhand); Oiler	18.95	5.67

Zone Differential for Dredging  
(Add to Zone 1 Rate)

Zone 2	1.50
Zone 3	1.90
Zone 4	2.40
Zone 5	3.00

Zone 1: Center of job site not more than 15 miles from the City Hall of Portland

Zone 2: More than 15 miles but not more than 30

Zone 3: More than 30 miles but not more than 50

Zone 4: More than 50 miles but not more than 70

Zone 5: More than 70 miles.

DRYWALL/WETWALL

o Drywall (Accoustical and Drywall Applicator)	17.85	5.57
o Wetwall (Lather)	17.10	6.32

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>ELECTRICIANS</u></b>			<b><u>ELEVATOR CONSTRUCTORS(continued)</u></b>		
<u>Area 1:</u>			<u>Area 2</u>		
o Electricians	18.15	3.40	o Mechanic	21.79	5.68 + a
o Cable Splicers	19.97	3.50	o Helper	15.25	5.68 + a
<u>Area 2:</u>			o Probationary Helper	10.90	-
o Electricians	21.21	6.25	a) Plus 8% of basic hourly rate for employees with more than 5 years of service; 6% of basic hourly rate for 6 months to 5 years of service.		
o Cable Splicers	22.27	6.28			
<u>Area 3:</u>	19.35	5.63	<u>Area 1</u>	<u>Area 2</u>	
<u>Area 4:</u>	21.05	4.02	Umatilla	All	
<u>Area 5:</u>			Wallowa	Remaining	
o Electricians	22.25	6.12	Union	Counties	
o Cable Splicers	23.00	6.14	Baker		
<u>Area 6:</u>			<b><u>GLAZIERS</u></b>		
o Electricians	18.72	5.76	<u>Area 1</u>	19.50	3.70
o Cable Splicers	20.59	5.32	(Add \$1.00 to base rate if safety belt is required by State safety regulations)		
<u>Area 1</u>	<u>Area 2</u>	<u>Area 2(cont)</u>	(Add \$4.00 to base rate for work done from a non-motorized single-man bosun chair)		
Malheur	Baker	Umatilla	<u>Area 2</u>	14.36	2.74
	Gilliam	Union	(Add \$0.50 to base rate if working at over 35 feet of free fall in height)		
	Grant	Wallowa	<u>Area 1</u>	<u>Area 2</u>	
	Morrow	Wheeler	All Counties	Malheur	
		Lane (a)	except Malheur		
<u>Area 4</u>	<u>Area 5</u>	<u>Area 6</u>	<b><u>HIGHWAY AND PARKING STRIPERS</u></b>		
Benton	Clackamas	Harney		18.40	2.00
Crook	Clatsop	Jackson	<b><u>IRONWORKERS</u></b>		
Deschutes	Columbia	Josephine	o Structural, Reinforcing, Ornamental,		
Jefferson	Hood River	Klamath	Riggers, Fence Erectors, Signal Men	19.56	6.86
Lane (b)	Multnomah	Lake			
Linn	Sherman	Douglas (b)			
Marion	Tillamook				
Polk	Wasco				
Yamhill(c)	Washington				
	Yamhill (d)				
a) Those portions lying west of a line North and South from the NE corner of Coos County to the SE corner of Lincoln County					
b) That portion lying east of a line running North and South from the NE corner of Coos County to the SE corner of Lincoln County					
c) South half					
d) North half					
<b><u>ELEVATOR CONSTRUCTORS</u></b>					
<u>Area 1</u>					
o Mechanic	19.34	5.68 + a			
o Helper	13.54	5.68 + a			
o Probationary Helper	9.67	-			

## LABORERS

### Zone 1 (Base Rate):

o Group 1	14.62	5.12
o Group 2	14.97	5.12
o Group 3	15.27	5.12
o Group 4	15.52	5.12
o Group 5	13.03	5.12
o Group 6	9.78	5.12

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. A Group 1 base rate is used for General Laborer on such a site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

### Zone Differential for Laborers

(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

### Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

### Group 1

Asphalt Plant Laborers	General Laborer ***
Asphalt Spreaders	Guardrail, Median
Batch Weighman	Rail (c)
Broomers	Leverman or Aggregate
Brush Burners/Cutters	Spreader (d)
Carpenter Tender	Material Yard Man (e)
Car & Truck Loaders	Powderman Tender
Change-House Man	Railroad Track Laborers
Choke Setter	Ribbon Setters (f)
Chipper Operator (a)	Rip Rap Man (Hand
Clean-up Laborers ***	Placed)
Concrete Laborers	Road Pump Tender
Culvert (hand labor)	Sewer Laborer
Curing, concrete	Signalman

## LABORERS Group 1( continued)

Demolition, wrecking and moving ***	Skipman
Driller Tender	Slopers
Dry-shack Man	Sprayman
Dumpers, road oiling crew	Stake Chaser
Dumpmen for grading crew	Stockpiler
Elevator Feeders	Timber Faller/Bucker (Hand Labor)
Fine Graders	Toolroom Man (Job site)
Fire Watch	Tunnel Bull Gang (Above Ground)
Form Strippers (b)	Weight-Man-Crusher (g)

a) Pittsburg or similar types

b) Not swinging stages

c) Reference Post, Guide Post, or  
Right-of Way Marker

d) Flaherty, Loading Spotters or similar types

e) Including electrical

f) Including steel forms

g) Aggregate when used

\*\*\* Laborers can tear off roofs, clean up or handle roofing materials only when at least one new story is added or in demolition work, where no reroofing will occur.

### Group 2

Applicators (a)	Gunit or Pot Tender
Brush Cutters (b)	Handlers/Mixers (f)
Burners	Post Hole Digger, Air, gas or electric
Choker Splicer	Power Tool Operators (g)
Clary Power Spreader(c)	Sand Blasting (wet)
Clean up Nozzleman- Green Cutter (d)	Stake Setter
Concrete Power Buggyman	Tampers
Crusher Feeder	Tunnel Muckers/Brakeman/ Concrete Crew/Bull Gang (underground)
Demolition/Wrecking (e)	
Grade Checker	
Granite Nozzleman Tender	

a) Including Pot Tender for same, applying protective material by hand or nozzle on utility lines or storage tanks on project

b) Power saw

c) And similar types of spreaders

d) Concrete, rock, etc.

e) Charred Materials

f) Of all materials of an irritating nature including cement and lime

g) Includes, but not limited to: Dry Pack Machine, Jackhammer, Chipping Guns, Paving Breakers, Vibrators (less than 4" diameter)

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b>LABORERS( continued)</b>			<b>LIMITED ENERGY ELECTRICIANS</b>		
<u>Group 3</u>			May only be used for electrical work not exceeding 100 va in Class II and III installations (as defined in Article 725 of the National Electrical Code):		
Asbestos Removal		Power Saw Operators (d)	Area 1	16.24	4.92
Asphalt Rakers		Pumpcrete Nozzleman	Area 2	16.24	4.92
Bit Grinder		Sand Blasting (dry)	Area 3	11.13	2.37
Concrete Saw Operator		Pipe Layers of all Types	Area 4	11.43	2.53
Drill Doctor		Sewer Timberman	Area 5	12.47	2.56
Drill Operators (a)		Track Liners (e)	Area 6	11.27	2.70
Guniting Nozzleman		Tugger Operator	Area 7	11.65	2.08
High Scalers,		Tunnel-Chuck Tenders,	Area 8	11.10	2.57
Strippers, Drillers(b)		Nippers, Timberman	Area 9	16.24	4.92
Laser Beam (c)		Vibrator (4" and larger)	Area 10	11.57	1.88
Manhole Builder		Water Blaster	Area 11	12.56	1.96
Powdermen		Welder	Area 12	15.07	1.99
a) Air Tracks, Cat Drills, Wagon Drills, Rubber-mounted drills, and other similar types			Area 13	12.73	2.41
b) Covers work in Swinging Stages, chairs or belts, under extreme conditions unusual to normal drilling, blasting, barring-down, or sloping and stripping.			Area 14	12.43	2.17
c) Pipe laying, applicable when employee assigned to move, set up, align Laser Beam.			Area 1	Clatsop, Columbia, Tillamook	
d) Bucking and falling			Area 2	Clackamas, Multnomah, Washington, Yamhill (north half)	
e) Anchor Machines, Ballast Regulators, Multiple Tampers, Power Jacks			Area 3	Marion, Polk, Yamhill (south half)	
			Area 4	Benton, Lincoln, Linn	
<u>Group 4</u>			Area 5	Lane	
Laser Beam (Tunnel), applicable when employee assigned to move, set-up, align laser beam			Area 6	Douglas	
Tunnel Miners			Area 7	Coos, Curry	
Tunnel Powderman			Area 8	Jackson, Josephine	
			Area 9	Hood River, Sherman, Wasco	
<u>Group 5</u>			Area 10	Crook, Deschutes, Jefferson	
Flagger			Area 11	Klamath, Lake	
<u>Group 6</u>			Area 12	Gilliam, Grant, Morrow, Umatilla, Wheeler	
Fence Builder		Landscaping or planting laborer	Area 13	Baker, Union, Wallowa	
			Area 14	Harney, Malheur	
			<b>LINE CONSTRUCTION</b>		
			Area 1		
			o Group 1	21.68	5.26
			o Group 2	19.59	5.19
			o Group 3	16.12	4.06
			o Group 4	16.89	4.09
			o Group 5	14.78	4.01
			o Group 6	13.90	3.99
			Area 2:		
			o Cable Splicers	19.41	3.52
			o Journeyman Lineman	17.65	3.46
			o Line Equip. Mech. (Right-of-way)	15.89	3.39
			o Line Equip. Oper.	15.89	3.39
			o Groundman	11.92	3.23

TRADES		BASIC HOURLY RATE	FRINGE BENEFITS	TRADES		BASIC HOURLY RATE	FRINGE BENEFITS
<b>LINE CONSTRUCTION(continued)</b>				<b>PLASTERERS</b>			
<u>Area 1</u> All counties except Malheur County				<u>Area 1</u> o Nozzleman 20.28 4.02 o Swinging scaffold 19.78 4.02 o all other work 19.28 4.02			
<u>Group 1</u>	<u>Group 2</u>			<u>Area 2</u> o Nozzleman 20.78 4.06 o Swinging scaffold 19.78 4.06 o all other work 19.28 4.06			
Cable Splicers	Certified Lineman Welder			<u>Area 1</u> <u>Area 1(cont)</u> <u>Area 1(cont)</u> <u>Area 2</u>			
Leadman Pole Sprayer	Heavy Line Equipment Man			Benton	Deschutes	Lincoln (b)	All
	Lineman			Coos	Harney	Linn (b)	remaining
	Pole Sprayer			Crook	Jefferson	Wasco (b)	counties
<u>Group 3</u>	<u>Group 4</u>			Curry	Klamath (a)	Wheeler (b)	
Tree Trimmer	Line Equipment Man			Douglas	Lane		
<u>Group 5</u>	<u>Group 6</u>			a) Northern one-third      b) South half			
Head Groundman	Groundman			<b>PLUMBERS &amp; STEAMFITTERS/PIPEFITTERS</b>			
Jackhammer Man				<u>Area 1 (Both)</u> 20.23      5.15			
Powderman				<u>Area 2 (Both)</u> 22.35      5.65			
<u>Area 2</u> Malheur County				<u>Area 3 (Both)</u> 20.40      5.10			
<b>MARBLE SETTERS</b> (Includes Granite)				<u>Area 1</u>	<u>Area 2</u>	<u>Area 3</u>	
<u>Area 1</u> 20.78      4.75				Baker	Grant (b)	All remaining counties	
<u>Area 1</u>				Harney (a)	Morrow		
Baker	Hood River	Multnomah	Wallowa	Malheur	Umatilla		
Benton (a)	Lincoln (a)	Polk	Wasco (a)		Wallowa		
Clackamas	Linn (a)	Sherman	Washington		Union		
Clatsop	Malheur (a)	Tillamook	Yamhill				
Columbia	Marion	Umatilla					
Gilliam	Morrow	Union					
a) North half							
<b>PAINTERS &amp; DRYWALL TAPERS</b>							
<u>Area 1</u> o Painters & Drywall Tapers      13.15      2.26							
<u>Area 2</u> o Brush      15.50      2.18 o Spray, sandblasting, other pressure blasting over 3000 psi, and steam cleaning.      16.00      2.18							
o Drywall Tapers      20.15      3.30							
<u>Area 1</u> Malheur County	<u>Area 2</u> Remaining Counties						



## POWER EQUIPMENT OPERATORS

### Zone 1 (Base Rate):

o Group 1	19.60	5.67
o Group 2	19.25	5.67
o Group 3	18.65	5.67
o Group 4	18.25	5.67
o Group 5	17.75	5.67
o Group 6	17.05	5.67

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

### ZONE RATES AND DESCRIPTIONS

(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

### Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	PortOrford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

## POWER EQUIPMENT OPERATORS (continued)

### GROUP CLASSIFICATIONS

### ASPHALT

- 6 Plant Oiler
- 6 Plant Fireman
- 6 Pugmill Operator (any type)
- 6 Truck mounted asphalt spreader, with screed
- 4 Screed Operator
- 5 Extrusion Machine Operator
- 2 Asphalt Plant Operator (any type)
- 4 Asphalt Paver Operator
- 5 Roller Operator (any asphalt mix)
- 4 Diesel-Electric Engineer, Plant
- 5 Asphalt Burner and Reconditioner Operator (anytype), 84
- 4 Roto-Mill, pavement profiler operator, under 6 foot lateral cut
- 5 Roto-Mill, pavement profiler, ground man
- 2 Roto-Mill, pavement profiler operator, 6 foot lateral cut and over

### BLADE

- 6 Blade Operator, pulled type
- 4 Blade Operator
- 4 Blade Operator, Finish
- 4 Blade Operator, externally controlled by electronic, mechanical hydraulic means
- 4 Blade Operator, multi-engine
- 2 Auto Grader or "Trimmer" Operator

### BULLDOZERS

- 4 Bulldozer Operator
- 4 Drill Cat Operator
- 4 Side-Boom Operator
- 2 Tandem bulldozer operator (quadnine and similar type, D-11)
- 4 Bulldozer Operator, twin engine (TC 12 and similar type, D-10)
- 4 Cable-Plow Operator (any type)

### CLEARING

- 4 Log Skidder Operator
- 4 Chipper Operator
- 4 Incinerator Operator
- 4 Stump Splitter Operator



TRADES	BASIC		TRADES	BASIC	
	HOURLY	FRINGE		HOURLY	FRINGE
	RATE	BENEFITS		RATE	BENEFITS

**POWER EQUIPMENT OPERATORS**  
(GROUP CLASSIFICATIONS continued)

**COMPRESSORS**

- 6 Compressor Operator (any power), under 1,250 cu. ft. total capacity
- 5 Compressor Operator (any power), over 1,250 cu. ft. capacity

**COMPACTORS** - Self-Propelled

- 5 Compactor Operator, including vibratory
- 5 Wagner Patcor Operator or similar type (without blade)
- 4 Compactor Operator, with blade
- 4 Compactor Operator, multi-engine

**CONCRETE**

- 6 Plant Oiler
- 6 Assistant Conveyor Operator
- 6 Conveyor Operator
- 6 Mixer Box Operator (C.T.B., dry batch, etc.)
- 6 Cement Hog Operator
- 6 Concrete Saw Operator
- 6 Concrete Curing Machine Operator (riding type)
- 6 Wire Mat or Brooming Machine Operator
- 5 Combination Mixer and Compressor Operator, gunite work
- 5 Concrete Batch Plant Quality Control Operator
- 5 Belcrete Operator
- 5 Pumpcrete Operator (any type)
- 5 Pavement Grinder and/or Grooving Machine Operator (riding type)
- 4 Mixer Mobile Operator
- 5 Cement Pump Operator, Fuller-Kenyon and similar
- 5 Concrete Pump Operator
- 5 Grouting Machine Operator
- 4 Screed Operator
- 4 Concrete Cooling Machine Operator
- 5 Concrete Mixer Operator, single drum, any capacity
- 2 Batch Plant and/or Wet Mix Operator, 1 and 2 drum
- 1 Batch Plant and/or Wet Mix Operator, 3 units or more
- 5 Cast in place pipe laying machine
- 5 Maginnis Internal Full Slab Vibrator Operator
- 5 Concrete Finishing Machine Operator, Clary, Johnson, Bidwell, Burgess bridge deck or similar type
- 5 Curb Machine Operator, Mechanical Berm, Curb and/or Curb and Gutter
- 5 Concrete Joint Machine Operator
- 5 Concrete Planer Operator
- 5 Tower Mobile Operator
- 5 Power Jumbo Operator setting slip forms etc., in tunnels

**POWER EQUIPMENT OPERATORS**  
(GROUP CLASSIFICATIONS continued)

**CONCRETE** (continued)

- 5 Slip Form Pumps, power driven hydraulic lifting device for concrete forms
- 5 Concrete Paving Machine Operator
- 5 Concrete Finishing Machine Operator
- 5 Concrete Spreader Operator
- 4 Concrete Paving Road Mixer
- 2 Automatic Concrete Slip Form Paver Operator
- 2 Concrete Canal Line Operator
- 4 Concrete Breaker
- 4 Reinforced Tank Banding Machine (K-17 or similar types)
- 2 Concrete Profiler, Diamond Head

**CRANE**

- 6 Oiler
- 6 Truck Crane Oiler-Driver, 25 ton capacity or over
- 6 Fireman, all equipment
- 6 A-Frame Truck Operator, single drum
- 6 Tugger or Coffin Type Hoist Operator
- 5 Helicopter Hoist Operator
- 5 Hoist Operator, single drum
- 5 Elevator Operator
- 5 A-Frame Truck Operator, double drum
- 5 Boom Truck Operator
- 4 Chicago Boom and similar types
- 4 Lift Slab Machine Operator
- 4 Boom Type lifting device, 5 ton capacity or less
- 4 Cerry Picker or similar type crane-hoist, 5 ton capacity or less
- 4 Crane Operator, under 25 ton (except for rough terrain)
- 4 Hoist Operator, two drum
- 4 Hoist Operator, three or more drums
- 4 Derrick Operator, under 100 ton
- 4 Hoist Operator, stiff leg, guy derrick or similar type, 50 ton and over
- 4 Cableway Operator, up to 25 tons
- 2 Cableway Operator, 25 tons and over
- 4 Crane Operator, over 25 tons and including 40 tons
- 4 Bridge Crane Operator, Locomotive, Gantry, Overhead
- 2 Crane Operator, over 40 tons and including 20 tons
- 1 Crane Operator, over 200 tons
- 2 Tower Crane Operator
- 2 Whirley Operator, up to and including 150 tons
- 1 Whirley Operator, over 150 tons
- 1 Helicopter Operators, when used in erecting work
- 5 Hydraulic Boom Truck Operator, Pittman

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)			<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		
<b><u>CRUSHER</u></b>			<b><u>GUARDRAIL EQUIPMENT</u></b>		
6			6		Oiler
6			6		Auger Oiler
4			6		Oiler, combination guardrail machines
4			4		Guardrail Punch Operator (all types)
4			6		Guardrail Punch Oiler
4			4		Guardrail Auger Operator (all types)
4			4		Combination Guardrail machines. i.e. punch, auger etc.
<b><u>DRILLING</u></b>			<b><u>HAZARDOUS WASTE REMOVAL</u></b>		
6			5		Assistant to the Engineer (Oiler)
6			4		Assistant Incinerator Control Board Operator
5			3		Incinerator Control Board Operator
4			<b><u>HEATING PLANT</u></b>		
4			6		Temporary Heating Plant Operator
4			4		Surface Heater and Planer Operator
4			<b><u>HYDRAULIC HOES</u></b>		
4			5		Hydraulic Backhoe Operator, wheel type 3/8 cu. yd. and under with or without front end attachments 2-1/2 cu. yd. and under (Ford, John Deere, Case type)
4			4		Hydraulic Backhoe Operator, Track Type 3/8 cu.yd. (Note: Over 3/8 cu. yd. takes Shovel Classification rate)
<b><u>FLOATING EQUIPMENT</u></b>			<b><u>LOADERS</u></b>		
6			6		Bucket Elevator Loader Operator, Barber-Greene and similar types
6			5		Loaders, rubber-tired type, 2-1/2 cu. yd. and under
5			5		Elevating Grader Operator, Tractor Towed requiring Operator or Grader
4			4		Belt Loader Operator, Kolman and Ko Cal types
4			4		Loader Operator, front end and overhead, 2-1/2 cu. yd. and under 4 cu. yd.
4			4		Elevating Loader Operator, Athey and similar types
4			4		Elevating Grader Operator, Sierra, Euclid or similar types
4			3		Loader Operator, 4 cu. yd. but less than 6 cu. yd.
4			2		Loader Operator, 6 cu. yd. and over
4			<b><u>OILERS</u></b>		
2			6		Oiler
2			6		Guardrail Punch Oiler
1			6		Truck Crane Oiler-Driver, 25 ton or over
			6		Auger Oiler
			6		Grade Oiler, required to check grade
<b><u>FORK LIFT</u></b>					
6					
6					
6					
5					
5					
3					
<b><u>GENERATORS</u></b>					
4					
4					

TRADES	BASIC HOURLY FRINGE RATE BENEFITS	TRADES	BASIC HOURLY FRINGE RATE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)	
<b><u>OILERS</u></b> (continued)		<b><u>REPAIRMEN, Heavy Duty</u></b>	
5 Service Oiler (Greaser)		6 Parts Man (Tool Room)	
6 Grade Checker		6 H.D. Repairman Tender	
<b><u>PILEDRIVERS</u></b> (Use Crane rates when driving or pulling piling)		6 Welder's Tender	
4 Hammer Operator		4 Diesel-Electric Engineer (Plant or Floating)	
4 Piledriver Operator (not crane type)		4 Bolt Threading Machine Operator	
<b><u>PIPE LINE</u></b> - Sewer Water		4 Drill Doctor (Bit Grinder)	
6 Tar Pot Fireman		4 H.D. Mechanic	
6 Tar Pot Fireman (power agitated)		4 H.D. Welder	
6 Hydraulic Pipe Press Operator		4 Machine Tool Operator	
5 Hydra Hammer or similar types		4 Combination H.D. Mechanic-Welder, when dispatched and/or when required to do both	
5 Pavement Breaker Operator		4 Welder - Certified, when dispatched and/or required	
4 Pipe Cleaning Machine Operator		<b><u>RUBBER-TIRED SCRAPERS</u></b>	
4 Pipe Doping Machine Operator		4 Rubber-tired Scraper Operator, single engine, single scraper	
4 Pipe Bending Machine Operator		4 Self-loading, paddle wheel, auger type under 15 cu. yd.	
4 Pipe Wrapping Machine Operator		4 Rubber-tired Scraper Operator, twin engine	
4 Boring Machine Operator		4 Rubber-tired Scraper Operator, with push-pull attachments	
4 Back Filling Machine Operator		3 Rubber-tired Scraper Operator with tandem scrapers	
<b><u>PUMPS</u></b>		2 Rubber-tired Scraper Operator, with tandem scrapers, multi-engine	
6 Pump Operator, any power		4 Self-loading, paddle wheel, auger type 15 cu. yd. and over, single engine	
6 Hydrostatic Pump Operator		3 Self-loading, paddle wheel, auger type, finish and/or 2 or more units	
5 Pump Operator, more than 5 (any size)		<b><u>SHOVEL, DRAGLINE, CLAMSHELL, BACKHOE, SKOOPER, ETC., OPERATOR</u></b>	
5 Pot Rammer Operator		6 Oiler	
<b><u>RAILROAD EQUIPMENT</u></b>		6 Grade Oiler (required to check grade)	
6 Brakeman		6 Grade Checker	
6 Oiler		6 Fireman	
6 Switchman		4 Diesel-Electric Engineer	
6 Motorman		4 Stationary Drag Scraper Operator	
6 Ballast Jack Tamper Operator		4 Shovel, Dragline, Clamshell, Hoe etc., Operator under 3 cu. yd.	
5 Locomotive Operator		4 Grade-all Operator	
5 Ballast Regulator Operator		2 Shovel, Dragline, Clamshell, Hoe etc., Operator 3 cu. yd. and over	
5 Ballast Tamper Multi-Purpose Operator		<b><u>SIGNALMAN</u></b>	
5 Track Liner Operator		6 Bell Boy, phones, etc., Operator	
5 Tie Spacer Operator		6 Helicopter Radioman (ground)	
5 Shuttle Car Operator			
<b><u>REMOTE CONTROL</u></b>			
2 Remote controlled earth-moving equipment			

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)			<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		
<b><u>SURFACING (BASE) MATERIAL</u></b>			<b><u>UNDERWATER EQUIPMENT</u></b>		
6			2		
5			Underwater Equipment Operator, remote or otherwise, when used in construction work		
6			<b><u>ROOFERS</u></b>		
6			Area 1:		
5			o Roofers	17.14	4.30
5			o Handling coal tar pitch	18.85	4.30
4			Area 2:		
5			o Roofers	15.79	4.48
5			(Add \$2.00 per hour to Fringe for work with irritable Bituminous material.)		
5			Area 3:		
<b><u>SWEEPERS</u></b>			o Roofers	13.84	2.50
6			(Add \$1.50 per hour to Fringe for work with irritable Bituminous material.)		
5			Area 4:		
<b><u>TRACTOR - RUBBER TIRED</u></b>			o Roofers	15.75	3.85
5			(Add \$2.00 per hour to Fringe for work with irritable Bituminous materials)		
4			Area 5:		
4			o Roofers	16.65	3.85
4			(Add \$3.00 per hour to Fringe for work with irritable Bituminous materials)		
4			<b><u>Area 1</u></b>	<b><u>Area 1(cont)</u></b>	<b><u>Area 2</u></b>
<b><u>TRENCHING MACHINE</u></b>			Baker	Multnomah	Benton
6			Clackamas	Sherman	Coos
6			Clatsop	Tillamook	Crook
5			Columbia	Wasco	Curry
4			Jefferson	Washington	Deschutes
4			Gilliam	Wheeler	Douglas
2			Grant		Harney
2			Hood River		Jackson
<b><u>TUNNEL</u></b>					Josephine
4			<b><u>Area 3</u></b>	<b><u>Area 4</u></b>	<b><u>Area 5</u></b>
6			Malheur	Umatilla	Morrow
4				Union	
6				Wallowa	
<b><u>WELDING MACHINES</u></b>					
6					

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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## SHEETMETAL WORKERS

Area 1 18.55 5.63  
(Add \$0.75 to base rate for work performed on any swinging platform, swinging chair, or swinging ladder)

Area 2 17.41 4.28  
(Add \$1.75 to base rate for work performed whenever it is possible for worker to fall 30 feet or more)  
(Add \$1.75 to base rate for work performed in an area where epoxy resins or other injurious chemicals are being applied)

Area 3 19.75 5.07  
(Add \$1.00 to base rate for work where it is necessary to wear a chemically activated face mask)  
(Add \$1.00 to base rate for work where employee is required to wear a fresh air mask due to nuclear related work)  
(Add \$.45 to base rate for work on a swinging stage, swinging scaffold or bosun chair in excess of 30 feet above the ground)

Area 4 17.14 3.99

### Area 1

Benton	Gilliam	Linn	Tillamook
Clackamas	Grant	Marion	Wasco
Clatsop	Harney	Multnomah	Washington
Columbia	Hood River	Polk	Wheeler
Crook	Jefferson	Sherman	Yamhill
Deschutes	Lincoln		

<u>Area 2</u>	<u>Area 3</u>	<u>Area 4</u>	<u>Area 4 (cont)</u>
Baker	Morrow	Coos	Josephine
Malheur	Umatilla	Curry	Klamath
	Union	Douglas	Lake
	Wallowa	Jackson	Lane

## SOFT FLOOR LAYERS

Area 1 16.26 4.00 + a  
Area 2 13.66 1.19

a) plus 4% of basic hourly rate for employees with less than one year of service, 6% for those with more than one year.

## SOFT FLOOR LAYERS(continued)

Area 1 - All counties except Malheur County  
Area 2 - Malheur County

SPRINKLER FITTERS 20.90 5.33

## TENDERS TO MASON TRADES

o Tenders for Bricklayers, Tile Setters, Marble Setters and Terrazzo Workers; Topping for Cement Finishers and Mortar Mixers.  
15.99 4.12  
(Add \$0.50 to base rate for refractory work)  
(Add to base rate an amount equal to that received for safety belt requirements or other unusual job conditions by the mechanic this worker is tending)

TENDERS TO PLASTERERS 15.50 4.12

## TILE SETTERS

Area 1 18.10 4.20

(Add \$.50 to base rate if safety belt required by State safety regulations or work involves epoxy, furnane, alkor, acetylene, black grouting and/or steam cleaning.)

Area 2 18.00 4.37

(Add \$.24 to base rate if safety belt required by State safety regulations; \$.20 if work involves epoxy, furnane, alkor, acetylene, black grouting, and/or steam cleaning.)

### Area 1

Baker	Hood River	Multnomah	Wallowa
Benton (a)	Lincoln (a)	Polk	Wasco (a)
Clackamas	Linn (a)	Sherman	Washington
Clatsop	Malheur (a)	Tillamook	Yamhill
Columbia	Marion	Umatilla	
Gilliam	Morrow	Union	

### Area 2

Benton (b)	Douglas	Josephine	Linn (b)
Crook	Grant	Klamath	Malheur (b)
Coos	Harney	Lake	Wasco (b)
Curry	Jackson	Lane	Wheeler
Deschutes	Jefferson	Lincoln (b)	

a) North half  
b) South half

## TRADES

BASIC  
HOURLY FRINGE  
RATE BENEFITS

## TRADES

BASIC  
HOURLY FRINGE  
RATE BENEFITS

**TILE, TERRAZZO, BRICK & MARBLE FINISHERS**

- o Assists Tile Setters, Brick Layers, Marble Masons, Stone Masons, and Terrazzo Workers by striking, sawing, cleaning, washing or grouting. Does not lay or set any material.

Area 1 13.92 2.85  
o (Add \$0.75 to fringe for Refractory repair work.)

Area 1

Baker	Hood River	Multnomah	Wallowa
Benton (a)	Lincoln (a)	Polk	Wasco (a)
Clackamas	Linn (a)	Sherman	Washington
Clatsop	Malheur (a)	Tillamook	Yamhill
Columbia	Marion	Umatilla	
Gilliam	Morrow	Union	

a) North half

**TRUCK DRIVERS**Zone 1 (Base Rate):

o Group 1	16.73	5.50
o Group 2	16.85	5.50
o Group 3	16.98	5.50
o Group 4	17.23	5.50
o Group 5	17.45	5.50
o Group 6	17.60	5.50
o Group 7	17.80	5.50

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

**Zone Differential for Truck Drivers**  
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

**TRUCK DRIVERS (continued)**Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	Port Orford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

WorkGroup

A-Frame or Hydra-lift Truck w/load bearing surface. . . . . 1

Battery Rebuilder . . . . . 1

Bus or Man-Haul Driver. . . . . 1

Concrete Buggies (Power operated) . . . . . 1  
Drivers and Helpers handling sacked cement--add 15¢ per hour

Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof:

Up to and inc. 10 cu. yds. . . . .	1
Over 10 cu. yds. and inc. 30 cu. yds. . . . .	3
Over 30 cu. yds. and inc. 50 cu. yds. . . . .	4
Over 50 cu. yds. and inc. 60 cu. yds. . . . .	5
Over 60 cu. yds. and inc. 80 cu. yds. . . . .	6
Over 80 cu. yds. and inc. 100 cu. yds. . . . .	7

Dumpsters or Similar Equipment--all sizes . . . . . 2

Flaherty Spreader Driver or Leverman . . . . . 2

Lift Jitneys, Fork Lifts--all sizes--used in loading, unloading & transporting material on job site. . . . . 1

Loader and/or Leverman on Concrete Dry Batch Plant, manually operated. . . . . 1

Low Bed Equipment, Flat Bed Semi-Truck and Trailer or Doubles transporting equipment or wet or dry materials . . . . . 2

Lubrication Man, Fuel Truck Driver, Driver, Tireman, Wash Rack, Steam Cleaner or combination. . . . . 1

TRADES	BASIC		TRADES	BASIC	
	HOURLY	FRINGE		HOURLY	FRINGE
	RATE	BENEFITS		RATE	BENEFITS

### TRUCK DRIVERS (Continued)

Lumber Carrier, Driver-Straddle  
Carrier--used in loading, unloading  
and transportation of material on job  
site. . . . . 2

Oil Distributor Driver or Leverman. . . . . 2

Pilot Car . . . . . 1

Slurry Truck Driver or Leverman . . . . . 1

Solo Flat Bed and Misc. Body Trucks--  
0-10 tons . . . . . 1

#### Transit Mix and Wet or Dry Mix Trucks:

5 cu. yds. and under . . . . . 1

Over 5 cu. yds. and inc. 7 cu. yds. . . . . 2

Over 7 cu. yds. and inc. 11 cu. yds. . . . . 3

Over 11 cu. yds. and inc. 15 cu. yds. . . . . 4

Team Drivers. . . . . 1

Tireman, full-time basis. . . . . 1

Truck Helper. . . . . 1

Truck Mechanic--Welder--Body Repairman . . . 3

Truck Mechanic Helper . . . . . 1

#### Water Wagons (Rated Capacity) up to:

3000 gallons . . . . . 1

3000 to 5000 gallons . . . . . 2

5000 to 10,000 gallons. . . . . 3

10,000 to 15,000 gallons . . . . . 4

Winch Truck--takes classification of  
truck on which winch is mounted

### WELDERS; RIGGERS

Receive rate for craft performing operation to which  
welding and rigging are incidental.





### CERTIFIED STATEMENT

I \_\_\_\_\_, \_\_\_\_\_  
(Name of signatory party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

\_\_\_\_\_ on the \_\_\_\_\_  
(Contractor, Subcontractor or Surety) (Building or work)

\_\_\_\_\_ ; that during the payroll period commencing on the \_\_\_\_\_ day  
of \_\_\_\_\_, 19\_\_\_\_, and ending the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_,  
all persons employed on said project have been paid the full weekly wages earned, that no rebates have  
been or will be made either directly or indirectly to or on

behalf of said \_\_\_\_\_  
(Contractor, Subcontractor or Surety)  
from the full weekly wages earned by any person, and that no deductions have been made either directly  
or indirectly from the full wages earned by any person, other than permissible deductions as specified in  
ORS 652.610, and described below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) That any payrolls otherwise under this contract required to be submitted for the above  
period are correct and complete; that the wage rates for workers contained therein are not less than the  
applicable wage rates contained in any wage determination incorporated into the contract; that the  
classifications set forth therein for each worker conform with work performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide  
apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of  
Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists  
in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of  
Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS:

In addition to the basic hourly wage rates paid to each worker listed in the above referenced  
payroll, payments of fringe benefits as listed in the contract have been or will be made to appro-  
priate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH:

Each worker listed in the above referenced payroll has been paid, as indicated on the payroll, an  
amount not less than the sum of the applicable basic hourly wage rate plus the amount of the  
required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS:

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	

I have read this certified statement, know the contents thereof and it is true to my knowledge.

NAME AND TITLE

SIGNATURE

☐

Contractor

☐

Subcontractor

☐

Surety

File this form with the contracting agency and send a true copy to the Bureau of Labor and Industries,  
Wage and Hour Division, P.O. Box 800, Portland, OR 97207-0800.

BUREAU OF LABOR AND INDUSTRIES - WAGE AND HOUR DIVISION

INSTRUCTIONS FOR COMPLETING PAYROLL AND CERTIFIED STATEMENT FORM, WH-38  
(Rev 6/91)

General: This form meets needs resulting from the 1983 amendments to the Prevailing Wage Rate Law. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Bureau of Labor and Industries, in addition to payment of not less than the predetermined rates. The contractor's obligation to pay fringe benefits may be met either by payment of the benefits to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringe benefits.

This form provides for the contractor's showing of the payroll and all monies paid to the employees, whether as basic rates or as cash in lieu of fringe benefits and provides for the contractor's representation in the certified statement that he/she is paying other benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the form follow:

Fill in all boxes at the top of the form. Be sure to enter the date the contract was first advertised for bid by the contracting agency. This date should appear on the bid documents.

Column 1 - Name, Address, and Social Security number of Employee: The employee's full name must be shown on each payroll submitted. The employee's address must also be shown on the first payroll submitted. The address need not be shown on subsequent payrolls unless the address changes. Although not required, space is available in the name and address section so that Social Security numbers can be listed.

Column 2 - Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement.

Column 3 - Work Classifications: List classification descriptive of work actually performed by employees. Include group number when appropriate. Consult classifications and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown of hours so worked is maintained and shown on submitted payroll by use of separate line entries.

Column 4 - Hours worked: Enter as overtime hours all hours worked in excess of 8 hours per day, all hours worked on Saturday and Sunday and hours worked on legal holidays as defined in ORS 279.334.

Column 5 - Total: Self-explanatory.

Column 6 - Rate of Pay, including Fringe Benefits: In the rate of pay box, list actual hourly rate paid the employee for straight time worked plus any cash in lieu of fringe benefits paid to the employee. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate, thus \$12.50/2.35. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. Payment of not less than time and one half the basic or regular rate paid is required for overtime under ORS 279.334. In addition to paying not less than the predetermined rate for the classification in which the employee works, the contractor shall pay to approved plans, funds, or programs or shall pay as cash in lieu of fringe benefits, amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

FRINGE BENEFITS -- Contractors who pay all required fringe benefits: A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Commissioner of the Bureau of Labor and Industries shall continue to show on the payroll the basic cash hourly rate and overtime rate paid to employees. Such a contractor shall check paragraph 4(a) of the Certified Statement to indicate that he/she is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exceptions shall be noted in Section 4(c).

Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in column (6) of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, the contractor shall check paragraph 4(b) of the Certified Statement to indicate that he/she is paying fringe benefits in cash directly to employees. Any exceptions shall be noted in Sections 4(c).

Use of section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination required is obliged to pay the deficiency directly to the employees as cash in lieu of fringe benefits. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employee as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor shall pay, and shall show that he/she is paying to each such employee for all hours (unless otherwise provided by applicable determination) worked on the project an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in Section 4(c). The rate paid and amount of cash paid in lieu of fringe benefits per hour should be entered in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of the employees' wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the project and then the gross amount earned on all projects, thus \$63.00/120.00.

Column 8 - Deductions: Four columns are provided for showing deductions made. If more than four deductions should be involved, use first 3 columns; show the balance of deductions under "Other" column; show actual total under "Total Deductions" column; and in an attachment to the payroll describe the deductions contained in the "Other" column. All deductions must be in accordance with the provisions of ORS 652.610. If the employee worked on other jobs in addition to this project, show actual deductions from gross wage, but indicate that deductions are based on gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory

Certified Statement Required by ORS 279.354: While this form need not be notarized, the Certified Statement is subject to the penalties provided by ORS 279.990. Accordingly, the party signing this required statement should have knowledge of the facts represented as true.

Space has been provided between items (1) and (2) of the Statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "See Deductions column in this payroll." See paragraph entitled "FRINGE BENEFITS" above for instructions concerning filling out paragraph 4 of the Statement.

# PLANNED PUBLIC IMPROVEMENT SUMMARY

FISCAL YEAR \_\_\_\_\_ - \_\_\_\_\_

PAGE \_\_\_\_\_ OF \_\_\_\_\_

(Name of State or Local Government Agency)

Project Number	Project Name	Project Type	Project Location	Estimated Project Cost	Agency or Contract Work

ORS 279.023 generally states that not less than 30 days prior to adoption of its budget for the subsequent budget period, each public agency shall prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement known to that agency that the agency plans to fund in the budget period... If the agency decides to use its own equipment and personnel for constructing projects estimated to cost more than \$50,000, the agency shall show that the decision conforms to the policy of the State of Oregon that public agencies shall make every effort to construct public improvements at the least cost to the public agency, and the public agency shall cause to be kept and preserved a full, true and accurate account of the costs of performing the work including all engineering and administrative expenses and a reasonable estimate of the cost, including investment cost, of the equipment used. **NOTE:** This Improvement Summary together with the project estimate and least cost determination constitutes a public record available in the usual manner for public review or copying. Mail a copy of this public improvement summary to: Wage and Hour Division, P.O. Box 800, Portland, Oregon 97207-0800.

(Name of State or Local Government Agency)

FUND:  
PROJECT NUMBER:

Rough Quantity Estimate	Units	Work Class Description	Agency Force Estimate		Agency Contract Estimate	
			Unit Cost	Total Cost	Unit Cost	Total Cost
Estimated Construction Period _____				\$		\$

**Estimated Construction Period** \_\_\_\_\_

\_\_\_\_\_ determines that (Agency Forces)(Contractor) can perform this work at the least cost.  
(Name of Agency) (cross out one)

FORM WH - 119 (Rev 6/91)

(Agency Official)

NOTICE OF AWARD OF PUBLIC WORKS CONTRACTS  
(For use by Public agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone Number \_\_\_\_\_

2. CONTRACTING AGENCY

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone Number \_\_\_\_\_

Submit this completed notice to:

Wage and Hour Division,

Prevailing Wage Section,

P.O. Box 800

Portland, Oregon 97207-0800

FORM WH-81 (Rev. 1/91)

3. CONTRACT INFORMATION

A. Contract Name and Number: \_\_\_\_\_

B. Location of Work: \_\_\_\_\_

C. County: \_\_\_\_\_

D. Amount of the Award: \$ \_\_\_\_\_

E. Source of Funds: (i.e. 100% Federal Funds; 50/50  
Federal, State; 100% local)

F. Date Contract Awarded: \_\_\_\_\_

G. Date Contract Specifications Advertised for Bid:  
\_\_\_\_\_

NOTICE OF AWARD OF PUBLIC WORKS CONTRACTS  
(For use by Public agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name ZAK CONSTRUCTION COMPANY

Address 1234 N.W. Camille Street

City, State, Zip Alexandra, OR 97201

Phone Number (503) 122-4567

2. CONTRACTING AGENCY

Name LOPEZ IRRIGATION DISTRICT

Address 1234 N.W. Shannon Court

City, State, Zip Jamestown, OR 97201

Phone Number (503) 987-6543

Submit this completed notice to:

Wage and Hour Division,

Prevailing Wage Section,

P.O. Box 800

Portland, Oregon 97207-0800

FORM WH-81 (Rev. 1/91)

3. CONTRACT INFORMATION

A. Contract Name and Number: \_\_\_\_\_

Dam Repair 100-H

B. Location of Work: Becca, Oregon

C. County: Malheur

D. Amount of the Award: \$ 25,000

E. Source of Funds: (i.e. 100% Federal Funds; 50/50  
Federal, State; 100% local)

100% State

F. Date Contract Awarded: July 16, 1991

G. Date Contract Specifications Advertised for Bid:  
\_\_\_\_\_

July 2, 1991

BUREAU OF LABOR AND INDUSTRIES  
P.O. BOX 800  
PORTLAND, OREGON 97207-0800

ADDRESS CORRECTION REQUESTED

**APPENDIX F**  
**Metro Code Section 2.04.100**



**APPENDIX G**  
**Site Characterization/ Health & Safety Hazards**

**BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT**

FOR THE PURPOSE OF AUTHORIZING	)	RESOLUTION NO. 92-1614
ISSUANCE OF A REQUEST FOR BIDS	)	
FOR GROUNDWATER MONITORING WELL	)	Introduced by Rena Cusma,
IMPROVEMENTS AND PIEZOMETER	)	Executive Officer
INSTALLATION AT ST. JOHNS LANDFILL	)	

WHEREAS, It is in the public interest that the St. Johns Landfill closure process move forward in an expeditious manner; and

WHEREAS, A Water quality monitoring plan has been submitted to the Oregon Department of Environmental Quality (DEQ) as part of the St. Johns Landfill closure; and

WHEREAS, In their March 5, 1992 letter DEQ required construction of additional shallow groundwater monitoring wells and nested piezometer clusters; and

WHEREAS, This resolution along with the Request for Bid and contract form for the work described above were submitted to the Executive Officer for consideration and all were forwarded to the Council for approval; and

WHEREAS, The resolution was submitted to the Executive Officer for consideration and was forwarded to the Council for approval; now therefore,

BE IT RESOLVED,

That the Council of the Metropolitan Service District authorizes issuance of an RFB for work associated with Groundwater Monitoring Well Improvements and Piezometer Installation at the St. Johns Landfill.

ADOPTED by the Council of the Metropolitan Service District this \_\_\_\_ day of \_\_\_\_\_, 1992.

---

Jim Gardner, Presiding Officer

JK:ay  
SW921614.RES

**BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT**

FOR THE PURPOSE OF AUTHORIZING	)	RESOLUTION NO. 92-1614
ISSUANCE OF A REQUEST FOR BIDS	)	
FOR GROUNDWATER MONITORING WELL	)	Introduced by Rena Cusma,
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ADOPTED by the Council of the Metropolitan Service District this \_\_\_\_ day of \_\_\_\_\_, 1992.

\_\_\_\_\_  
Jim Gardner, Presiding Officer

JK:ay  
SW921614.RES

## STAFF REPORT

### IN CONSIDERATION OF RESOLUTION NO. 92-1614 FOR THE PURPOSE OF AUTHORIZING THE ISSUANCE OF A REQUEST FOR BIDS FOR GROUNDWATER MONITORING WELL IMPROVEMENTS AND PIEZOMETER INSTALLATION AT ST. JOHNS LANDFILL

Date: May 5, 1992

Presented by: Jim Watkins  
Joanna Karl

#### PROPOSED ACTION

Adopt Resolution No. 92-1614 which authorizes the issuance of a Request for Bids (RFB) for Groundwater Monitoring Well Improvements and Piezometer Installation at St. Johns Landfill.

#### FACTUAL BACKGROUND AND ANALYSIS

As part of the closure of St. Johns Landfill, it is necessary to maintain existing wells which provide reliable water quality data, to abandon existing wells which do not provide reliable water quality data, and to construct new wells as required by the Oregon Department of Environmental Quality (DEQ). The new wells consist of shallow groundwater monitoring wells (for water quality data) and nested piezometer clusters (for water level data). The water level data is to determine the groundwater flow paths in the vicinity of the landfill site, such that the rate and extent of groundwater input from the landfill to the sloughs and the lakes can be determined.

The Request for Bids (RFB) is for a 5-year contract to handle work required throughout the entire closure period. The majority of the work described - including well abandonment, shallow groundwater monitoring well and piezometer construction, and maintenance - will be completed in 1992. An "Hourly Charge" is included on the bid sheet to handle "unanticipated conditions" encountered during the abandonment and maintenance work.

The work required in the later years of the contract include: (1) well extension(s) of the interior wells as the landfill surface is brought to subgrade; and (2) yet-to-be-determined "Additional Work", anticipated to include repair or replacement of existing wells due to damage during the closure construction, as well as general maintenance of the wells. A five-year contract was considered necessary because it could be difficult to get a competitive bidder for the relatively small amount of remaining work.

Payment for the "Additional Work" in the years 1993-1996 will be made at the contract hourly rate that was bid plus a yearly percentage increase.

#### BUDGET

\$363,000 is budgeted from the closure account in the 1992-1993 fiscal year for repair, construction and abandonment of the groundwater monitoring wells at St. Johns Landfill.

**St. Johns Landfill**

**Groundwater Monitoring Well Improvements and  
Piezometer Installation**

**RFB #92B-13-SW**

**Metropolitan Service District  
Solid Waste Department  
2000 S.W. First Avenue  
Portland, Oregon 978201-5398**

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## PART I



## INVITATION TO BID

Sealed Bids for the abandonment, construction, extension, maintenance, and repair of groundwater monitoring wells at St. Johns Landfill, RFB #92B-13-SW, must be delivered to the Metropolitan Service District (Metro), 2000 S.W. First Avenue, Portland, OR 97201-5398, to the attention of Joanna Karl, Senior Engineer no later than 3:00 p.m., Pacific Standard Time (PST), Friday, June 5, 1992. At that time, the Bids will be opened and publicly read aloud at Metro in the Council Chamber.

The project is located at the St. Johns Landfill, 9363 N. Columbia Blvd., Portland, OR. Some drilling work will be performed approximately 600 feet north of the landfill in the Bybee Lakes wetlands area, and approximately 500 feet east of the landfill in the Smith Lake wetlands area. The St. Johns Landfill is classified as a sanitary landfill. As a sanitary landfill, the possibility exists of encountering gases, leachates and/or other substances that may be potentially hazardous to the health and safety of personnel during work at the St. Johns Landfill.

The work contemplated includes the following:

- Well abandonment for a minimum of 16 existing wells. An estimated five additional wells may also need abandonment, based on the results of checking well quality;
- Check the quality of 16 existing wells;
- Remove silt from 11 existing wells;
- Install inserts into 8 existing monitoring wells;
- Install 7 shallow monitoring wells;
- Install 9 multiple piezometers (Metro provides the casing and instrumentation); and
- Extend, remove extensions, and complete surface casing and grouting for the 5 existing H-series wells during construction activities through year 1996.

Metro is currently in the process of closing the St. Johns Landfill. Thus, the groundwater monitoring well improvements and piezometer installation work will need to be coordinated with the following other contractors on site, doing the following work: (1) soils are being procured and stockpiled on the site over a one-year period which began in the fall of 1991, the soils are being used to preload selected areas of the landfill to accelerate settlement and to achieve final grades in closures; and (2) closure of Subarea 1, which will begin in the spring of 1992. The landfill will be in the first phase of the construction of final cover for the closure of the 230-acre St. Johns Landfill, covering a 35-acre portion of the site which includes Subarea 1, the northern portion of the Powerline Corridor (PLC), and the western portion of Subarea 2. The closure work includes stripping and stockpiling of existing topsoil and low permeable soil; procurement and placement of subgrade embankment material; placement of a low permeable soil barrier; procurement and installation of 40 mil VLDPE geomembrane, geonet composite, Type I sand, and topsoil; and installation of surface water control measures including hydroseeding, and installation of gas extraction wells, PVC and HDPE gas piping, construction of a temporary gas flare system,



## INVITATION TO BID

construction of a temporary gas condensate system, and pulverization and recompaction of areas of low permeable soil.

It is anticipated that certain designated tasks described in this scope of work will be completed before the Subarea 1 closure begins. The well extension (and removal of extensions) will be done in stages, as required by the construction work. The Contractor shall coordinate all activities, as necessary, with other contractors on site.

Before a contract is awarded, Metro may conduct such additional investigations as are necessary to determine whether a Bidder is qualified. Upon request, the Bidder shall promptly submit such additional information as deemed necessary by Metro to evaluate the Bidder's qualifications.

Each Bid must be submitted on the prescribed form and accompanied by a certified check or cashier's check or Bid Bond executed on the prescribed form, payable to the Metropolitan Service District in the amount of TEN THOUSAND DOLLARS (\$ 10,000.00). The Bid and bid security should be delivered in a sealed envelope marked "St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation", RFB #92B-13-SW" to the attention of Joanna Karl.

Bidders shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

The successful Bidder will be required to furnish the necessary additional Bonds for the faithful performance of the Contract and for the payment of all persons supplying labor and materials as prescribed in the Contract Documents.

Each Bid must contain a statement as to whether the Bidder is a resident bidder, as defined in ORS 279.029.

Bidders or Subcontractors shall be licensed under ORS 468A.720 (regarding licensing of the contractors on projects involving asbestos abatement), in the event the soils may be contaminated.

Contractor shall be a duly licensed and bonded monitoring well constructor in Oregon, and otherwise comply with ORS 537.447 et seq. and OAR Chapter 690, Division 240. The Employees of the Contractor, who are performing the drilling work on the landfill site, shall have the same. Only licensed well constructors shall operate the drilling machines.

In the event that any subcontractors are to be used, Bidders are to comply with Metro's Disadvantaged Business Program. The program goals are:

Disadvantaged Business Enterprises	10 percent
Women-Owned Business Enterprises	3 percent

The percentage goals are applicable to the total amount of the Work.

## INVITATION TO BID

As part of the Bid, all Bidders must submit a statement that they will comply with the contract goals or have made good faith efforts to do so. Failure to meet these goals or to demonstrate good faith efforts to do so will constitute a non-responsive Bid. See "Instructions to Bidders" for references to applicable procedures and the Appendix stating Metro's position on this issue. Any questions regarding DBE/WBE requirements should be addressed to the Metro Procurement Officer, Mr. Rich Wiley at (503) 221-1646, ext. 536.

For any task or portion of a task to be undertaken by a subcontractor or materials supplier, the Contractor shall not engage a DBE/WBE subcontractor or materials supplier on an exclusive basis prior to Contract award.

This project is considered a public works project. By signing and submitting a Bid for this project, Bidders certify that payment of prevailing wage rates will be complied with, as contained in ORS 279.350. No Bid will be received or considered by Metro unless the Bid contains a statement by the Bidder that the provisions of ORS 279.350, regarding prevailing wage rates, are to be complied with.

A mandatory Pre-Bid Conference for prospective Bidders will be conducted at 2:00 p.m., PST, on Friday, May 22, 1992 at the St. Johns Landfill, 9363 N. Columbia Blvd., Portland, Oregon.

Metro reserves the right to reject all Bids or any Bids not conforming to the intent and purpose of the Contract Documents, to reject for good cause any and all Bids upon a finding of Metro that it is in the public interest to do so or to waive any informality or irregularity in any Bid or Bids. Metro further reserves the right to award the Contract at any time within sixty (60) days following the Bid opening date.

For information concerning the proposed work contact Joanna Karl, Senior Engineer, (503) 221-1646.

Dated on this \_\_\_\_\_ day of \_\_\_\_\_, 1992.

METROPOLITAN SERVICE DISTRICT

By: \_\_\_\_\_  
Bob Martin, Director  
Solid Waste Department

**INSTRUCTIONS TO BIDDERS****1. DESCRIPTION OF WORK**

The project is located at the St. Johns Landfill, 9363 N. Columbia Blvd., Portland, OR. Some drilling work will be performed approximately 600 feet north of the landfill in the Bybee Lakes wetlands area, and approximately 500 feet east of the landfill in the Smith Lake wetlands area. The St. Johns Landfill is classified as a sanitary landfill. As a sanitary landfill, the possibility exists of encountering gases, leachates and/or other substances that may be potentially hazardous to the health and safety of personnel during work at the St. Johns Landfill.

The work contemplated includes the following:

- Well abandonment for a minimum of 16 existing wells. An estimated five additional wells may also need abandonment, based on the results of checking well quality;
- Check the quality of 16 existing wells;
- Remove silt from 11 existing wells;
- Install inserts into 8 existing monitoring wells;
- Install 7 shallow monitoring wells;
- Install 9 multiple piezometers (Metro provides the casing and instrumentation); and
- Extend, remove extensions, and complete surface casing and grouting for the 5 existing H-series wells during construction activities through year 1996.

Metro is currently in the process of closing the St. Johns Landfill. Thus, the groundwater monitoring well improvements and piezometer installation work will need to be coordinated with the following other contractors on site, doing the following work: (1) soils are being procured and stockpiled on the site over a one-year period which began in the fall of 1991, the soils are being used to preload selected areas of the landfill to accelerate settlement and to achieve final grades in closures; and (2) closure of Subarea 1, which will begin in the spring of 1992. The landfill will be in the first phase of the construction of final cover for the closure of the 230-acre St. Johns Landfill, covering a 35-acre portion of the site which includes Subarea 1, the northern portion of the Powerline Corridor (PLC), and the western portion of Subarea 2. The closure work includes stripping and stockpiling of existing topsoil and low permeable soil; procurement and placement of subgrade embankment material; placement of a low permeable soil barrier; procurement and installation of 40 mil VLDPE geomembrane, geonet composite, Type I sand, and topsoil; and installation of surface water control measures including hydroseeding, and installation of gas extraction wells, PVC and HDPE gas piping, construction of a temporary gas flare system, construction of a temporary gas condensate system, and pulverization and recompaction of areas of low permeable soil.

It is anticipated that certain designated tasks described in this scope of work will be completed before the Subarea 1 closure begins. The well extension (and removal of extensions) will be

done in stages, as required by the construction work. The Contractor shall coordinate all activities, as necessary, with other contractors on site.

## **2. DEFINITIONS**

Except as otherwise specifically provided herein, all words and phrases defined in the Special Conditions shall have the same meaning and intent in these Instructions to Bidders. Bidders should refer to those definitions as they read these Instructions.

## **3. DOCUMENT INTERPRETATION**

The Contract Documents are intended to be complementary and to provide all details reasonably required for the execution of the proposed Work. Any person contemplating the submission of a Bid shall have thoroughly examined all of the various parts of these Contract Documents. If the Bidder has any doubt as to the meaning or the intent of the Contract Documents or finds any inconsistency or discrepancy within the Contract Documents, the Bidder must request Metro's interpretation, in writing at least six (6) working days prior to Bid opening. Such requests for interpretation shall be mailed or delivered to Metro at 2000 S.W. First Avenue, Portland, Oregon 97201-5398, Attention: Joanna Karl. Any interpretations or changes in the Contract Documents will be made only in writing, in the form of Addenda to the Contract Documents which will be furnished to all Bidders receiving a set of the Bidding Documents and which shall be binding upon all Bidders as if set forth in the original Contract Documents. Bidders shall indicate receipt of all Addenda on their Bids. Metro will not be responsible for any other explanation or interpretation of the Bidding Documents. Bidders shall have no right to rely on any oral interpretation or instructions made by Metro or the Engineer, unless it is also committed to writing and issued as an Addendum.

In the absence of any pre-bid request for clarification, or any interpretation of the Contract Documents, as outlined above, any subsequent interpretation shall be made by Metro, and shall be final and binding on the successful Bidder, and Metro shall pay no extra costs or expenses to such Bidder resulting from such interpretation.

## **4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE AND COMPLIANCE WITH LAWS**

Before submitting a Bid, Bidders shall fully examine and read the Contract Documents; visit the site of the proposed Work, and examine the Site and the surrounding areas; and fully inform themselves of all conditions on, in, at and around the Site, the surrounding areas, and any work that may have been done thereon. The Bidder acknowledges by the submission of its Bid that it understands the nature and location of the Work, the general and local conditions, conditions of the Site, electric power, water, and the kind of surface materials on the Site, the



## **INSTRUCTIONS TO BIDDERS**

kind of equipment needed, and all other matters which may in any way affect the Work or the cost, including utilities not identified in the Contract Documents.

Information derived from inspection of the Contract Documents and any specific sections thereof showing location of utilities and structures will not in any way relieve the Contractor from any risk, or from properly examining the Site and making such additional investigations as it may elect, or from properly fulfilling all the terms of the Contract Documents. Investigation of Site and soil conditions have been conducted for Metro. Bidders may inspect the records of such investigations at locations specified by Metro.

Asbestos fill areas shown on the Drawings are known controlled disposal areas in operation since 1985. Contractor may encounter asbestos contaminated waste in other areas.

Metro does not in any way warrant the accuracy of any information in such investigations and Bidders shall have no right to rely on the information contained in such records or investigations. Furthermore, if the Bidder determines that additional investigations of site and/or soil conditions are necessary or desirable, Bidder shall cause such additional investigations to be made, at Bidder's expense, prior to submitting a Bid and subject to coordination with Metro.

Any failure of a Bidder to acquaint itself with all of the available information concerning conditions or having such additional investigations of Site and soil conditions conducted, as may be necessary, will not relieve it from responsibility for estimating properly the difficulties or cost of the Work and the Bidder shall, regardless of such failure, be bound to its Bid, except as otherwise specified herein.

Each Bidder shall inform itself of, and the Bidder awarded a Contract shall comply with, federal, state, and local laws, codes, statutes, ordinances, and regulations, as amended, relative to the execution of the Work. Each Bidder shall prepare its Bid in accordance with, and all Bid prices shall assume compliance with, such laws, codes, statutes, ordinances and regulations. This requirement includes, but is not limited to, applicable regulations concerning minimum wage rates, prevailing wage rates, nondiscrimination in the employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and nonburning requirements, permits, fees, and similar subjects.

If any portion of the Contract Documents does not conform to such laws, codes, statutes, ordinances or regulations as amended, the Bidder shall so advise Metro in writing at least ten (10) business days before Bids are due. If it is shown that the Contractor, as Bidder, knew or should have known that any portion of the Contract Documents does not conform to such laws, codes, statutes, ordinances or regulations and had failed to so advise Metro, it shall be liable for costs of making any deviation(s) required for compliance with such laws, codes, statutes, ordinances or regulations.

## INSTRUCTIONS TO BIDDERS

Each Bidder, in submitting its Bid, certifies that the Bidder is eligible to receive a contract for a public work, as set forth in ORS 279.361 and agrees, if awarded the Contract, that each of its Subcontractors will be required to certify such compliance, and certification will be filed with Metro prior to such Subcontractor commencing any work under the Contract. A copy of "PREVAILING WAGE RATES for Public Works Contracts in Oregon" is enclosed herein and applies to the work performed under the Contract.

### 5. DISADVANTAGED BUSINESS PROGRAM COMPLIANCE

Metro has made a strong commitment to provide maximum opportunities to Disadvantaged and Women-Owned Businesses in contracting. The successful Bidder will be required to meet Metro's Disadvantaged Business Program goals or clearly demonstrate that a good faith effort has been made to meet the goals. The goals for this Contract are: Disadvantaged Business Enterprises (DBEs) -- ten percent (10%), and Women-Owned Business Enterprises (WBEs) -- three percent (3%) of the Base Bid Amount. DBEs and WBEs must be certified by the state of Oregon as DBEs/WBEs, at the time of Bid opening, to be counted toward the Contract goals.

The Bid submitted must contain a fully completed Disadvantaged Business Program Compliance Form contained herein. Metro will require apparent low Bidders to submit completed DBE and WBE Utilization Forms (also contained herein) and all good faith efforts documentation by the close of the next working day following Bid opening. Within five working days of Bid opening, such Bidders must submit to Metro signed letters of agreement between the Bidder and the DBE/WBE subcontractors or suppliers to be utilized in performance of the Contract. Detailed procedures for completing the forms and for demonstrating good faith efforts are contained in Metro Code 2.04 (Metro's Disadvantaged Business Program). Refer to the Appendix for a letter from the Metro Deputy Executive Officer which states Metro's position on this issue. Any questions are to be directed to Mr. Rich Wiley, Metro Procurement Officer.

Bidder's special attention is directed to Section 2.04.155 (Contract Award Criteria), and Section 2.04.160 (Determination of Good Faith Efforts). Bidders should note that the latter section includes a requirement of:

Advertise in trade association, general circulation, minority and trade-oriented, women-focus publications, if any, and through a minority-owned newspaper or minority-owned trade publication concerning the subcontracting or material supply opportunities (on the project) at least ten (10) days before Bids or proposals are due.

The following are minority-oriented and women-focus publications in the Portland metropolitan area that Metro is aware of:

## **INSTRUCTIONS TO BIDDERS**

The Hispanic News, 9203 S.E. Francis, Portland, OR 97266 (503) 777-6759

The Scanner, 2337 N. Williams Avenue, Portland, OR 97211 (503) 287-3562.

The Portland Observer, P.O. Box 3137, Portland, OR 97208 (503) 283-2486

The American Contractor, P.O. Box 11233, Portland, OR 97211 (503) 208-9000

Pro-Woman, P.O. Box 6957, Portland, OR 97228 (503) 452-0121

The requirement to advertise is but one of the actions necessary to demonstrate good faith efforts under this program.

Failure of the Bidder to comply with all of the requirements of the Disadvantaged Business Program will result in the Bid being deemed non-responsive.

### **6. PREPARATION OF BIDS**

All blank spaces in the Bid Forms must be completed either by typing or in ink. Amounts shall be shown in both words and figures. Any Bids which do not include prices on all Bid Items will be considered non-responsive and will be rejected. No changes shall be made in the phraseology of the forms.

Any Bid may be deemed non-responsive which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, conditioned or which in any manner shall fail to conform to the conditions of the Contract Documents.

Each Bid shall give the full business address of the Bidder and be signed by it with its legal signature.

- a. Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership authorized to sign contracts on behalf of the partnership, or by an authorized representative, followed by the printed name and title of the person signing.
- b. Bids by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and designation of the president, secretary or other person authorized to bind it in the matter. When requested by Metro, satisfactory evidence of the authority of the officer signing in behalf of the corporation shall be furnished.



## **INSTRUCTIONS TO BIDDERS**

- c. If a Bid is submitted by a joint venture, a certified copy of the legal agreement constituting the joint venture shall be attached to the Bid.

The name of each person signing shall also be typed or printed below the signature. Signatures of all individuals must be in longhand.

Failure to fulfill any of the above requirements may render the Bid non-responsive.

### **7. SUBMISSION OF BIDS**

All Bids must be submitted not later than the time prescribed, at the place, and in the manner set forth in the INVITATION TO BID. Bids must be made on the forms provided under separate cover as the BID BOOK, these forms are also contained herein as the Bid Forms. Each Bid and all other documentation required to be submitted with the Bid must be submitted in a sealed envelope, so marked as to indicate its contents without being opened, and addressed in conformance with the instructions in the INVITATION TO BID and the ADVERTISEMENT FOR BIDS.

### **8. MODIFICATION OR WITHDRAWAL OF BIDS**

Any Bid may be modified after delivery to the location specified in the Invitation to Bid by delivering to the same location before the time fixed for the Bid opening, a written sealed supplement to the original Bid, marked "Supplement to Bid of (Name of Bidder) for the St. Johns Landfill Closure - Groundwater Monitoring Well Construction, RFB #92B-13-SW." A supplement shall clearly identify the Bid item(s) that are changed by setting forth the original Bid item(s), and the modified item(s). Metro may reject any Bid supplement that, in its opinion, does not set forth the proposed modifications clearly enough to determine the definiteness and certainty of the item(s) offered by the Bidder. No Bidder shall be allowed to submit more than one (1) Bid for this Contract.

Bids may be withdrawn by the Bidder prior to the time fixed for the receipt of Bids by having an authorized representative of the Bidder with sufficient identification personally pick up the Bid. Bids may not be withdrawn for a period of sixty (60) days from and after the opening of Bids or on or prior to the last date of any extension of such time as may be agreed upon between Metro and the Bidder.

### **9. BID SECURITY**

Bids must be accompanied by a certified check or cashier's check drawn on a bank in good standing, or a Bid Bond on the form provided herein by Metro, issued by a surety authorized to issue such bonds in Oregon, named on the current list of approved surety companies acceptable



## **INSTRUCTIONS TO BIDDERS**

on federal bonds, and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department, in the amount of not less than TEN THOUSAND DOLLARS (\$10,000.00). This bid security shall be given as a guarantee that the Bidder will not withdraw its Bid for a period of sixty (60) days after Bid opening, and that if awarded the Contract, the successful Bidder will execute the attached Agreement and furnish a properly executed Performance Bond and a properly executed Labor and Materials Payment Bond, each in the full amount of the Bid, within the time specified. Bid security deposited in the form of a certified check or cashier's check shall be subject to the same requirements as a Bid Bond.

The Attorney-in-Fact (Resident Agent) who executes these bonds on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

### **10. EXPERIENCE AND ABILITY TO PERFORM THE WORK**

Within twenty-four (24) hours following request by Metro, any Bidder may be required to present information indicating that the Bidder has the necessary experience and qualifications in the class of Work to be performed, and the ability, equipment, key personnel and financial resources to perform the Work satisfactorily within the time specified. In determining the award of this Contract, such information will be considered, and the Bidder is cautioned to make complete and comprehensive presentation of its abilities and resources. Failure of any Bidder to comply fully and timely with a request for information under this section shall be grounds for rejection of that Bid.

No Bidder will be considered for contract award unless such Bidder is authorized by law to execute the Contract or perform the Work for which such Bid is received. Should it appear, at any time, that any Bidder is not or might not be authorized by law to execute the Contract or perform such Work, then such Bidder may at any time be rejected and Metro may refuse to execute any contract with such Bidder regardless of whether or not the contract had been previously awarded by the Metro Council and without any liability whatever on the part of the Metropolitan Service District, its Council, or any member of its Council, or Metro's officer, employees, or its agents, either as individuals or in official capacities.

Bidders shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document.

The successful Bidder will be required to furnish the necessary additional Bonds for the faithful performance of the Contract and for the payment of all persons supplying labor and materials as prescribed in the Contract Documents.

Each Bid must contain a statement as to whether the Bidder is a resident bidder, as defined in ORS 279.029.

## **INSTRUCTIONS TO BIDDERS**

Bidders or Subcontractors shall be licensed under ORS 468A.720 (regarding licensing of the contractors on projects involving asbestos abatement), in the event the soils may be contaminated.

Contractor shall be a duly licensed and bonded monitoring well constructor in Oregon, and otherwise comply with ORS 537.447 et seq. and OAR Chapter 690, Division 240. The Employees of the Contractor, who are performing the drilling work on the landfill site, shall have the same. Only licensed well constructors shall operate the drilling machines.

### **11. REJECTION OF BIDS**

Metro reserves the right to reject all Bids or any Bid not conforming to the intent and purpose of the Contract Documents, to waive any informality or irregularity in any Bid or Bids, to reject any Bid not in compliance with all prescribed public bidding procedures and requirements and, for good cause, to reject any or all Bids upon a finding by Metro that it is in the public interest to do so.

### **12. BASIS OF AWARD**

Metro reserves the right to make award of this Contract to the lowest responsive, responsible Bidder, based on the lowest Total Bid amount. Any Bid which does not include bid prices for all Bid items may be considered non-responsive and will therefore be rejected. Metro will enter into negotiation with the lowest responsible bidder to resolve work-related issues, as represented by the forms included in Part III.

Under Oregon Law (Oregon Laws 1991, Chapter 385, Section 61, included in an Appendix to the bid documents), public agencies, including Metro, must give preference to the purchase of materials and supplies manufactured from recycled materials. All Bidders are required to specify the minimum, if not exact, percentage of recycled product in each product offered, and both the post-consumer and secondary waste content of each product offered. A Bidder may also specify that none of the products offered contain any recycled product. The definitions of "recycled product," "post-consumer waste," and "secondary waste material," as well as other explanatory materials, are included in the Appendix.

If a bid includes recycled products, the Bidder shall so specify in a written attachment to the Bid forms. If no statement is included, Metro will assume that none of the products offered contain any recycled product. In addition, Metro will assume that a bid item contains no recycled product if information submitted for the item is in Metro's opinion incomplete, incorrect, or unintelligible.

Metro will calculate the recycled product preference as follows: If any Bidder submits a bid price for an item that (1) meets the definition of "Recycled Product" (see Oregon Laws 1991,

## **INSTRUCTIONS TO BIDDERS**

Chapter 385, Section 59, in Appendix), (2) meets applicable standards, and (3) can be substituted for a comparable non-recycled product included in the base bid, Metro will subtract 5% from the Bid Item cost of the declared "recycled" product for the purpose of comparing bids. In all circumstances, the Bidder shall submit the actual proposed cost of the material. It is Metro's responsibility to calculate any preferences required under Oregon law. A Bidder who claims a recycled product preference shall utilize in this Work, all of the recycled product claimed.

In determining the lowest responsive, responsible Bidder, Metro shall, for the purpose of awarding the Contract, add a percent increase on the Bid of a nonresident Bidder, as that term is defined in ORS 279.029(6)(c), equal to the percent, if any, of the preference given to that nonresident Bidder in the state in which that Bidder resides. For purposes of determining the percent increases to be applied pursuant to this section, Metro shall rely on the list published by the Oregon Department of General Services pursuant to ORS 279.029(3), and Metro shall not incur any liability to any Bidder by relying on such list.

### **13. LIST OF PROPOSED SUBCONTRACTORS**

Metro will require all Bidders to furnish in writing to Metro the names of all Subcontractors and Suppliers which Bidder proposes to use in completing the Work along with a brief description of the subcontract or supply work involved and the subcontract or supply work dollar amount by the close of the next working day following Bid opening. Metro will notify the Bidder in writing within ten (10) days following receipt from Bidder of the above-described information if Metro has any reasonable objection to any such proposed Subcontractor or Supplier. The Bidder shall not subcontract with any proposed Subcontractor or Supplier to whom Metro has made a reasonable objection. In the event of such objection, Bidder shall propose another entity to whom Metro has no reasonable objection. No amounts or prices bid by the Bidder shall be increased by any difference occasioned by such substitution. Failure of Metro to reply within the above-described time period shall be construed to mean that Metro has no objection at that time. Failure of the Bidder to comply with this section shall be cause for rejection of Bidder's Bid and, in such event, the bid security submitted by Bidder shall be taken by Metro and considered as liquidated damages.

Prospective Bidders are encouraged to verify the qualifications of proposed subcontractors/suppliers and be prepared to furnish Metro with a list of similar projects performed by the proposed subcontractors/suppliers.

### **14. AWARD AND EXECUTION OF CONTRACT**

Within sixty (60) days after the opening of bids, Metro will accept one of the Bids or reject all of the bids. The acceptance of the Bid will be by written Notice of Award, mailed or delivered to the office designated in the Bid. The Notice of Award shall not entitle the party to whom it

is delivered to any rights whatsoever.

The successful Bidder shall, within seven (7) days after receiving three copies of the Agreement described in these Contract Documents, sign and deliver to Metro the three Agreement copies, following Notice of Award and, together with an acceptable Performance Bond and a Labor and Materials Payment Bond, certificates of insurance and certified copies of insurance policies as required in these Contract Documents.

Upon receipt of the signed Agreement copies and all other documents required to be submitted by the successful Bidder, as prescribed herein, Metro shall sign the Agreement copies and issue a written Notice to Proceed to Contractor. Contractor shall commence work within ten (10) days of issuance of the Notice to Proceed.

In the event of failure of the lowest responsive, responsible Bidder to sign and return the construction Agreement and all other documents required to be submitted, as prescribed herein, Metro may award the Contract to the next lowest responsive, responsible Bidder.

#### 15. PERFORMANCE BOND AND LABOR AND MATERIALS PAYMENT BOND

The successful Bidder shall file with Metro a Performance Bond on the form bound herewith and in the amount described in this section, as security for the faithful performance of this Contract and to cover all guarantees against defective workmanship or materials, or both, for a period of one (1) year after the date of Final Completion and Acceptance of the Work by Metro. The successful Bidder shall additionally file a Labor and Materials Payment Bond on the form bound herewith and in the amount described below, as security for the payment of all persons supplying labor and materials for the construction of the Work. The surety furnishing these bonds shall have a sound financial standing and a record of service satisfactory to Metro, shall be authorized to do business in the state of Oregon, and shall be named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and U.S. Treasury Department. If more than one surety is on a bond, then each surety must agree that it is jointly and severally liable on the bond for all obligations on the bond.

The amount of each bond described above shall be a sum not less than 100 percent of the Contract Amount. The Attorney-in-Fact (Resident Agent) who executes the Performance Bond and the Labor and Materials Payment Bond on behalf of the surety must attach a notarized copy of his/her Power of Attorney as evidence of his/her authority to bind the surety on the date of execution of the bond.

**16. FAILURE TO EXECUTE CONTRACT AND FURNISH BONDS**

The Bidder to whom a Contract is awarded who fails to promptly and properly execute this Contract and furnish the required bonds, certificates of insurance and certified copies of insurance policies shall forfeit the bid security that accompanied its Bid and the bid security shall be retained as liquidated damages by Metro. It is agreed that this sum is a fair estimate of the amount of damages Metro will sustain if the Bidder fails to enter into a Contract and furnish the bonds, certificates of insurance and certified copies of insurance policies required.

**17. BID BACK-UP (Bid Preparation Documents)**

Within six (6) days after Metro's request and as a condition precedent to the award of the Contract, the apparent low responsive and responsible Bidder shall submit to Metro in a sealed envelope their complete bid summary, along with corresponding back-up including, but not limited to: quantity take-off sheets, pricing sheets and information/data substantiating the Total Bid amount. The back-up data provided will include that of all Subcontractors listed in the Bid, as well as all lower-tier Subcontractors. This bid summary and back-up data will be held in strict confidence by Metro in its original sealed envelope and will not be opened except in the event of dispute between Metro and Contractor. Bid Back-Up shall be delivered to Metro, 2000 S.W. First Avenue, Portland, OR 97201-5398, Attention: Joanna Karl, enclosed in a double envelope to prevent accidental opening. The envelope shall be marked "Bid Back-up Documents of (Name of Bidder) for the St. Johns Landfill - Groundwater Monitoring Well Construction, RFB #92B-13-SW."



**PART II**  
**BID FORMS**



**II-1. BIDDER INFORMATION**

To: Metropolitan Service District

Address: 2000 S.W. First Avenue, Portland, OR 97201-5398

Contract: St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation

Bidder:

Address:

Bidder's Contact:

Date:

Telephone: (    )

**BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of Metro, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.

The Bidder further declares that it has carefully examined the Contract Documents for the completion of the Work, has personally inspected the Site, has satisfied itself as to the Work involved, and that this Bid is made in accordance with the provisions and under the terms of the Contract Documents which are hereby made a part of this Bid.

Any printed matter on any letter or paper enclosed herewith which is not part of the Bidding Documents or which was not requested by Metro is not to be considered a part of this Bid, and the undersigned agrees that such printed matter shall be entirely disregarded and, notwithstanding such printed matter, that the Bid is a bid to do the Work and furnish the labor and materials and all other things required by the Contract Documents strictly within the time and in accordance with such Specifications. This Bid is irrevocable for sixty (60) days following the date of the opening of Bids.

The Bidder hereby acknowledges receipt and acceptance of all addenda issued up to the time of bid opening.

**BID SECURITY**

Bid security in the form of a certified check, cashier's check or bid bond as further described in the Instructions for Bidders and in the amount of TEN THOUSAND AND NO/100 DOLLARS (\$10,000.00) is enclosed herewith and is subject to all the conditions stated in the Instructions for Bidders.

**CONTRACT EXECUTION, BONDS AND INSURANCE**

The Bidder agrees that if this Bid is accepted, it will, following Notice of Award and within seven (7) days after receipt of three copies of the Agreement in the form annexed hereto, sign the Agreement, and will at that time deliver to Metro the Performance Bond and the Labor and Materials Payment Bond required herein and in the form annexed hereto, along with all certificates of insurance and certified copies of insurance policies specified and required in these Contract Documents, and will, to the extent of its Bid, furnish all machinery, tools, apparatus, and other means of operation and construction and do the Work and furnish all the materials necessary to complete all Work as specified or indicated in the Contract Documents.

**COMMENCEMENT OF WORK AND CONTRACT COMPLETION TIME**

The time frame for the award and execution of this Contract shall be as described in the Instructions for Bidders and other Contract Documents. The Successful Bidder further agrees to commence the Work within ten (10) days of issuance of the Notice to Proceed and to diligently prosecute the Work to its final completion in accordance with the Contract Documents.

**SALES AND USE TAXES**

The Bidder agrees that all applicable federal, state and local sales and use taxes are included in the stated bid prices for the Work.

**LUMP SUM AND UNIT PRICE WORK**

The Bidder further proposes to accept as full payment for the Work proposed herein the amounts computed under the provisions of the Contract Documents and based on the listed lump sum and unit price amounts. The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.



**PREVAILING WAGES FOR PUBLIC WORK**

Bidder hereby certifies that the provisions of ORS 279.350, regarding prevailing wages, shall be complied with on this project.

**NONDISCRIMINATION**

The Bidder hereby certifies that it has not and will not discriminate against minorities, women, or emerging small business enterprises in obtaining any required subcontracts for goods or services.

**II-2. RESIDENT/NON-RESIDENT BIDDER STATUS**

Oregon law requires that Metro, in determining the lowest responsive Bidder, must add a percent increase on the Bid of a non-resident Bidder equal to the percent, if any, of the preference given to that Bidder in the state in which that Bidder resides. Consequently, each Bidder must indicate whether it is a resident or non-resident Bidder. A resident Bidder is a Bidder that has paid unemployment taxes or income taxes in the state of Oregon during the twelve (12) calendar months immediately preceding submission of this Bid, has a business address in Oregon, and has stated in its Bid that the Bidder is a "resident Bidder." A "non-resident Bidder" is a Bidder who is not a resident Bidder (ORS 279.029).

The undersigned Bidder states that it is: (check one)

1. A resident Bidder \_\_\_\_\_
2. A non-resident Bidder \_\_\_\_\_

Indicate state in which Bidder resides: \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Printed Name of Bidder

\_\_\_\_\_  
Title

**II-3. SURETY**

**SURETY**

If the Bidder is awarded a Contract on this Bid, the surety or sureties who provide(s) the Performance Bond and Labor and Materials Payment Bond will be:

**SURETY**

**ADDRESS**

1.

2.

**II-4. REQUIRED BID INFORMATION**

List the Oregon licensed and bonded monitoring well constructors below, and attach proof of bonding:

**INDIVIDUAL'S NAME****LICENSE NO.**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**II-5. SCHEDULE OF BID PRICES**

Item No.	Estimated Quantity	Description of Item	Unit Price	Total Cost
1 (per lump sum)	1 LS	1992: General mobilization - Site safety and health program	\$	\$
2 (per each)	59 Each	1992: Mobilization to each well or piezometer location at the St. Johns Landfill site	\$	\$
3 (per each)	2 Each	1992: Mobilization and site protection at the wetlands lake sites	\$	\$
4 (per each)	19 Each	1992: Well abandonment - Method A	\$	\$
5 (per each)	2 Each	1992: Well abandonment - Method B	\$	\$
6 (per each)	16 Each	1992: Check well quality	\$	\$
7 (per each)	11 Each	1992: Remove silt from wells	\$	\$
8 (per each)	8 Each	1992: Install well inserts	\$	\$
9 (per lineal foot)	222 LF	1992: Drill, furnish materials, and install 7 shallow new monitoring wells	\$	\$
10 (per lineal foot)	915 LF	1992: Drill, furnish back fill material, and install 9 multiple piezometers	\$	\$
11a (per each)	5 Each	1992: 5-foot well extension (Wells H-1, H-4, H-5)	\$	\$
11b (per each)	1 Each	1992: Grout and complete surface casing (Well H-1)	\$	\$
12a (per each)	7 Each	1993: Mobilization (to Wells H-2, H-4, and H-5)	\$	\$
12b (per each)	4 Each	1993: 5-foot well extension (Wells H-2, H-4)	\$	\$
12c (per each)	2 Each	1993: Remove 5-foot well extension (Well H-5)	\$	\$
12d (per each)	1 Each	1993: Grout and complete surface casing (Well H-2)	\$	\$
13a (per each)	6 Each	1994: Mobilization (to Wells H-3, H-4, and H-5)	\$	\$
13b (per each)	4 Each	1994: 5-foot well extension (Wells H-3, H-4)	\$	\$
13c (per each)	1 Each	1994: Remove 5-foot well extension (Well H-5)	\$	\$
13d (per each)	1 Each	1994: Grout and complete surface casing (Well H-3)	\$	\$
14a (per each)	3 Each	1995: Mobilization (Wells H-4, H-5)	\$	\$
14b (per each)	1 Each	1995: 5-foot well extension (Well H-4)	\$	\$
14c (per each)	1 Each	1995: Remove 5-foot well extension (Well H-5)	\$	\$
14d (per each)	1 Each	1995: Grout and complete surface casing (Well H-4)	\$	\$
15a (per each)	1 Each	1996: Mobilization (Well H-5)	\$	\$
15b (per each)	1 Each	1996: Grout and complete surface casing (Well H-5)	\$	\$
16 (per hour)	150 Hours	1992: "Hourly Charges" during well abandonment and well maintenance (performed only upon Metro approval)	\$	\$
17 (per lump sum)	1 LS	Site cleanup and restoration	\$	\$
18 (per hour)	300 Hours	"Additional Work" (performed only when agreed with Metro)	\$	\$
<b>TOTAL</b>				\$

**BID FORMS****II-6. RECYCLED PRODUCTS**  
(Attach to Schedule of Bid Prices)

BID ITEM NO. & DESCRIPTION	SUPPLIER	QUANTITY OF RECYCLED PRODUCT	RECYCLED PRODUCT (%)	POST- CONSUMER CONTENT (%)	WASTE CONTENT (%)	AMOUNT OF RECYCLED PRODUCT (\$)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

**NOTES:**

1. For definitions, refer to Appendix, Oregon Law 1991, Chapter 385, Section 59 and 61.
2. It is the Bidder's responsibility to determine if the recycled product meets the Contract specifications.  
Metro reserves the right to confirm information submitted by contacting the manufacturer.

**II-7. SIGNATURE PAGE**

The name of the Bidder submitting this Bid is \_\_\_\_\_

doing business at

\_\_\_\_\_ Street  
City State Zip

which is the full business address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of all of the partners, if the Bidder is a partnership or joint venture, or of all persons interested in this Bid as individuals are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**If Individual**

IN WITNESS hereto the undersigned has set his/her hand this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Printed Name of Bidder

\_\_\_\_\_  
Title

**II-7. SIGNATURE PAGE (cont.)**

**If Partnership or Joint Venture**

IN WITNESS hereto the undersigned has set his/her hand this \_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Name of Partnership or Joint Venture

By: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Person Signing

Title: \_\_\_\_\_

**If Corporation**

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this \_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
Name of Corporation

\_\_\_\_\_  
State of Incorporation

By: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Person Signing

Title: \_\_\_\_\_

**II-8. NON-COLLUSION AFFIDAVIT**

STATE OF \_\_\_\_\_)

County of \_\_\_\_\_)

I state that I am \_\_\_\_\_ (Title) of \_\_\_\_\_ (Name of Bidder) and that I am authorized to make this Affidavit on behalf of the Bidder. I am the person authorized by the Bidder and responsible for the price(s) and the amount of this Bid.

I state that:

- (1) The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, Bidder or potential Bidder, except as disclosed in the attached appendix.
- (2) Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other person who is a Bidder or potential Bidder, and they will not be disclosed before bid opening.
- (3) No attempt has been made or will be made to induce any person to refrain from bidding on this contract, or to submit a Bid higher than this Bid, or to submit any intentionally high or non-competitive bid or other from of complementary Bid.
- (4) This Bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any person to submit a complementary or other noncompetitive Bid.
- (5) \_\_\_\_\_ (Name of Bidder), its affiliates, subsidiaries, officers, directors and employees (as applicable) are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as listed and described in the attached appendix.

I state that I and \_\_\_\_\_ (Name of Bidder) understand and acknowledge that the above representations are material and important, and will be relied on by Metro in awarding the Contract for which this Bid is submitted. Any misstatement in this Affidavit will be treated as fraudulent concealment from Metro of the true facts relating to the submission of Bids for this Contract.

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name of Affiant

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

My Commission Expires:     /     /



**II-9. BID BOND**

(NOTE: BIDDERS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL MEN BY THESE PRESENTS:

We the undersigned, \_\_\_\_\_, as  
 PRINCIPAL, and \_\_\_\_\_, a corporation organized and existing under and by virtue of the  
 laws of the state of \_\_\_\_\_ and duly authorized to do surety business in the state of Oregon and name on the  
 current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations  
 as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and  
 is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and  
 firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, unto the  
 METROPOLITAN SERVICE DISTRICT, as OBLIGEE, in the sum of TEN THOUSAND DOLLARS (\$ 10,000.00 in  
 lawful money of the United States of America, for the payment of which sum well and truly to be made as agreed and  
 liquidated damages.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT whereas the PRINCIPAL has submitted to the  
 Metropolitan Service District a certain Bid for work required for the St. Johns Landfill - Groundwater Monitoring Well  
 Improvements and Piezometer Installation, which work is specifically described in the accompanying Bid;

NOW, THEREFORE, if the Metropolitan Service District does not award a contract to the PRINCIPAL within the  
 time specified in the Instructions to Bidders for the work described in said Bid, or in the alternate, if said Bid shall be  
 accepted and the PRINCIPAL, within the time and in the manner described under the Contract Documents, enters into a  
 written contract in accordance with the Bid, files the two bonds, one guaranteeing faithful performance of the work to be  
 done and the other guaranteeing payment for labor and materials as required by law, and files the required certified  
 copies of insurance policies and certificates of insurance, then the obligation shall be null and void; otherwise, the same  
 shall remain in full force and effect.

The SURETY, for value received, hereby stipulates and agrees that the obligation of said SURETY and this bond  
 shall be in no way impaired or affected by any extension of the time within which the Metropolitan Service District may  
 accept such Bid; and said SURETY does hereby waive notice of any such extension.

If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all  
 obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
 SURETY

\_\_\_\_\_  
 PRINCIPAL

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**II-10. DISADVANTAGED BUSINESS PROGRAM COMPLIANCE FORM**

(To be submitted with Bid.)

(See Appendix)

Name of Metro Project: St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation

Name of Bidder: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

In accordance with Metro's Disadvantaged Business Program, the above-named Bidder has accomplished the following:

- \_\_\_ 1. Has fully met the contract goals and will subcontract \_\_\_ percent of the Bid Amount to DBEs and \_\_\_ percent to WBEs.
- \_\_\_ 2. Has partially met the contract goals and will subcontract \_\_\_ percent of the Bid Amount to DBEs and \_\_\_ percent to WBEs. Bidder has made good faith efforts prior to Bid opening to meet the full goals and will submit documentation of the same to Metro within twenty-four (24) hours of Metro's request.
- \_\_\_ 3. Will not subcontract any of the Bid Amount to DBEs or WBEs but has made good faith efforts prior to Bid opening to meet the contract goals and will submit documentation of such good faith efforts to Metro within twenty-four (24) hours of Metro's request.

**II-11. DISADVANTAGED BUSINESS ENTERPRISE UTILIZATION FORM**

1. Name of Metro Project: **The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation**

2. Name of Bidder \_\_\_\_\_

Address \_\_\_\_\_

3. The above-named Bidder intends to subcontract \_\_\_\_ percent of the Bid to the following Disadvantaged Business Enterprises (DBEs):

Names, Contact Persons, Addresses  
and Phone Numbers of DBE Firms  
Bidder Anticipates Utilizing

Nature of  
Participation

Dollar Value of  
Participation

_____	_____	_____
_____		
_____		
_____	_____	_____
_____		
_____		
_____	_____	_____
_____		
_____		

Total DBE Participation Amount \_\_\_\_\_

Amount of Base Bid \_\_\_\_\_

DBE Percent of Base Bid \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**II-12. WOMEN BUSINESS ENTERPRISES UTILIZATION FORM**

1. Name of Metro Project: **The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation**

2. Name of Bidder \_\_\_\_\_

Address \_\_\_\_\_

3. The above-named Bidder intends to subcontract \_\_\_\_ percent of the Bid to the following Women Business Enterprises (WBEs):

Names, Contact Persons, Addresses  
and Phone Numbers of WBE Firms  
Bidder Anticipates Utilizing

Nature of  
Participation

Dollar Value of  
Participation

_____	_____	_____
_____		
_____		
_____	_____	_____
_____		
_____		
_____	_____	_____
_____		

Total WBE Participation Amount \_\_\_\_\_

Amount of Base Bid \_\_\_\_\_

WBE Percent of Base Bid \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**PART III**  
**OTHER FORMS**



## III-1. PERFORMANCE BOND

(NOTE: CONTRACTORS MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW BY ALL MEN BY THESE PRESENTS:

We the undersigned \_\_\_\_\_ as PRINCIPAL (hereinafter called CONTRACTOR),  
and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the state  
of \_\_\_\_\_, duly authorized to do surety business in the state of Oregon and named on the current  
list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as  
published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department  
and is of the appropriate class for the bond amount as determined by Bests Rating System, as SURETY, hereby  
hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, to  
pay to the Metropolitan Service District as OBLIGEE (hereinafter called Metro), the amount of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), in lawful money of the United States of America.

WHEREAS, the CONTRACTOR entered into a contract with Metro dated \_\_\_\_\_, 19\_\_\_\_,  
which contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows:  
The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation.

NOW, THEREFORE, the condition of this obligation is such that if the CONTRACTOR shall promptly, truly  
and faithfully perform all the undertakings, covenants, terms, conditions, and agreements of the aforesaid St. Johns  
Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation, Metro having performed its  
obligations thereunder, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever Contractor shall be declared by Metro to be in default under the Contract Documents for the project  
described herein, the SURETY may promptly remedy the default, or shall promptly complete The St. Johns  
Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation in accordance with the Contract  
Documents and the project specifications. SURETY, for value received, further stipulates and agrees that all  
changes, extensions of time, alterations or additions to the terms of the Contract or specifications for the St. Johns  
Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation are within the scope of the  
SURETY's undertaking on this bond, and SURETY hereby waives notice of any such change, extension of time,  
alteration or addition to the terms of The St. Johns Landfill Closure - Groundwater Monitoring Well Improvements  
and Piezometer Installation or to the work or to the specifications. Any such change, extension of time, alteration  
or addition to the terms of The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer  
Installation or to the Work or to the Specifications shall automatically increase the obligation of the SURETY  
hereunder in a like amount, provided that such increase shall not exceed twenty-five percent (25%) of the original  
amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments  
made hereunder, until the full amount of the obligation is exhausted.

No right of action shall accrue on this bond to or for the use of any person or corporation other than Metro or  
its heirs, executors, administrators, successors or assigns.

If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all obligations on this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
CONTRACTOR

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

## III-2. LABOR AND MATERIALS PAYMENT BOND

(NOTE: CONTRACTOR MUST USE THIS FORM, NOT A SURETY COMPANY FORM)

KNOW ALL MEN BY THESE PRESENTS:

We the Undersigned \_\_\_\_\_, as PRINCIPAL, and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the state of \_\_\_\_\_ and duly authorized to do surety business in the state of Oregon and named on the current list of approved surety companies acceptable on federal bonds and conforming with the underwriting limitations as published in the Federal Register by the audit staff of the Bureau of Accounts and the U.S. Treasury Department and which carries an "A" rating and is of the appropriate class for the bond amount as determined by Best's Rating System, as SURETY, hereby hold and firmly bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, unto the Metropolitan Service District, as OBLIGEE, in the sum of \_\_\_\_\_

Dollars (\$ \_\_\_\_\_) in lawful money of the United States of America, for the payment of that sum for the use and benefit of claimants as defined below.

The condition of this obligation is such that whereas the PRINCIPAL entered into a Contract with the said Metropolitan Service District dated \_\_\_\_\_, 19\_\_\_\_, which Contract is hereunto annexed and made a part hereof, for accomplishment of the project described as follows: The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation.

NOW THEREFORE, if the PRINCIPAL shall promptly make payments to all persons, firms, subcontractors, corporations and/or others furnishing materials for or performing labor in the prosecution of the work provided for in the aforesaid The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation, and any authorized extension or modification thereof, including all amounts due for materials, equipment, mechanical repairs, transportation, tools and services consumed or used in connection with the performance of such work, and for all labor performed in connection with such work whether by subcontractor or otherwise, and all other requirements imposed by law, then this obligation shall become null and void; otherwise this obligation shall remain in full force and effect, subject, however, to the following conditions:

1. A claimant is as specified in ORS 279.526.
2. The above-name PRINCIPAL and SURETY hereby jointly and severally agree with the OBLIGEE and its assigns that every claimant as above-specified, who has not been paid in full, may sue on this bond for the use of such claimant, prosecute the suite to final judgement in accordance with ORS 279.536 for such sum or sums as may be justly due claimant, and have execution thereon. The OBLIGEE shall not be liable for the payment of any judgement, costs, expenses or attorney's fees of any such suit.

PROVIDED, FURTHER, that the said SURETY for the value received, hereby stipulates and agrees that all changes, extensions of time, alternations to the terms of The St. Johns Landfill Closure - Groundwater Monitoring Well Improvements and Piezometer Installation, or to work to be performed thereunder or the specifications accompanying the same shall be within the scope of the SURETY's undertaking on this bond, and said SURETY does hereby waive notice of any such change, extension of time, alteration or addition to the terms of The St. Johns Landfill - Groundwater Monitoring Well Improvements and Piezometer Installation, or to the Work or to the Specifications. Any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications shall automatically increase the obligation of the SURETY hereunder in a like



amount, provided that the total of such increases shall not exceed twenty-five percent (25%) of the original amount of the obligation without the consent of the SURETY.

This obligation shall continue to bind the PRINCIPAL and SURETY, notwithstanding successive payments made hereunder, until the full amount of the obligation is exhausted, or if the full amount of the obligation is not exhausted and no claim is pending resolution, until such time as no further claims can be made pursuant to law with regard to the above described project, by any claimant specified in ORS 279.526.

If more than one surety is on this bond, each surety hereby agrees that it is jointly and severally liable for all obligations on this bond.

In WITNESS WHEREOF, we have hereunto set our hands and seals this \_\_\_\_ day of \_\_\_\_\_, 19\_\_.

\_\_\_\_\_  
SURETY

\_\_\_\_\_  
PRINCIPAL

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

### III-3. CONSTRUCTION SCHEDULE

The Bidder shall submit as part of this proposal a summary schedule for start, duration, and completion of principal work items. This shall include some discussion of work to be completed, 1993-1996. These same principal work items shall be addressed in the Work Plan to be submitted by the Bidder.

### III-4. LIST OF PROPOSED SUBCONTRACTORS AND SUPPLIERS

If awarded the Contract, the Bidder proposes to employ the following Subcontractors who will perform work or labor or render service the Bidder, as well as the Suppliers who will furnish major components, materials, and equipment. The Bidder shall state below the name(s) and address(es) of all proposed Subcontractor(s) and Supplier(s). If no subcontract work or purchases are proposed, the Bidder shall so state.

<u>Name of Proposed Subcontractor or Supplier</u>	<u>Description of Work Items to be Subcontracted and Major Item Purchase</u>	<u>Estimated Percent of Total Bid Price</u>
---	--	---

**III-5. PLANT AND EQUIPMENT REQUIREMENTS**

The Bidder proposes to utilize the following plant and equipment on-site (including equipment of Subcontractors):

<u>Type</u> _____	<u>Quantity</u> _____
-------------------	-----------------------

**III-6. NARRATIVE WORK PLAN**

As part of the Bid proposal, the Bidder shall submit an overall Work Plan. Subsequently, within five days after award, the Contractor shall formally submit for Metro review and concurrence the Work Plan with any modifications or details developed after the proposal submittal. The elements of the Work Plan shall be identifiable in the construction schedule (Bid Form III-3).

**PART IV**  
**CONTRACT**

**PUBLIC CONTRACT**

THIS Contract dated this \_\_\_\_ day of \_\_\_\_\_, 1990, is entered into between the METROPOLITAN SERVICE DISTRICT, a municipal corporation, whose address is 2000 S.W. First Avenue, Portland, Oregon 97201-5398, hereinafter referred to as "Metro," and \_\_\_\_\_, whose address is \_\_\_\_\_, hereinafter referred to as the "Contractor."

**BOTH PARTIES AGREE AS FOLLOWS:**

**ARTICLE I  
SCOPE OF WORK**

The Contractor shall perform the work and/or deliver to Metro the goods described in the Scope of Work attached hereto as Part V. All services and goods shall be of good quality and, otherwise, in accordance with the Scope of Work.

**ARTICLE II  
TERM OF CONTRACT**

The term of this Contract shall be for a period commencing \_\_\_\_\_, 1992 through and including December 31, 1996.

**ARTICLE III  
CONTRACT SUM AND TERMS OF PAYMENT**

Metro shall compensate the Contractor for work performed and/or goods supplied as described in Bidder's accepted bid and in the Supplementary conditions annexed hereto. Metro shall not be responsible for payment of any materials, expenses or costs other than those which are specifically described within.

**ARTICLE IV  
LIABILITY AND INDEMNITY**

The Contractor is an independent contractor and assumes full responsibility for the content of its work and performance of The Contractor's labor, and assumes full responsibility for all liability for bodily injury or physical damage to person or property arising out of or related to this Contract, and shall indemnify and hold harmless Metro, its agents and employees, from any and all claims, demands, damages, actions, losses, and expenses, including

attorney's fees, arising out of or in any way connected with its performance of this Contract. The Contractor is solely responsible for paying the Contractor's subcontractors. Nothing in this Contract shall create any contractual relationship between any subcontractor and Metro.

**ARTICLE V  
TERMINATION**

Metro may terminate this Contract upon giving the Contractor seven (7) days written notice. In the event of termination, the Contractor shall be entitled to payment for work performed to the date of termination. Metro shall not be liable for indirect or consequential damages. Termination by Metro will not waive any claim or remedies it may have against the Contractor.

**ARTICLE VI  
INSURANCE**

Contractor shall purchase and maintain, at the Contractor's expense, insurance as specified in Section 19 of the Supplementary Conditions.

**ARTICLE VII  
PUBLIC CONTRACTS**

The Contractor shall comply with all applicable provisions of ORS Chapters 187 and 279 and all other conditions and terms necessary to be inserted into public contracts in the State of Oregon. To the extent that such provisions are required to be part of this agreement by State law, they are incorporated herein by reference.

**ARTICLE VIII  
ATTORNEY'S FEES**

In the event of any litigation concerning this Contract, the prevailing party shall be entitled to reasonable attorney's fees and court costs, including fees and costs on appeal to any appellate courts.

**ARTICLE IX  
QUALITY OF GOODS**

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of the highest quality. All workers and subcontractors shall be skilled in their trades. The Contractor guarantees all work against defects in material or workmanship for a period of one (1) year from the date of acceptance or final payment by Metro, whichever is later. All guarantees and warranties of goods furnished to the Contractor or subcontractors by any manufacturer or supplier shall be deemed to run to the benefit of Metro.

**ARTICLE X  
OWNERSHIP OF DOCUMENTS**

All Documents of any nature including, but not limited to, reports, drawings, works of art and photographs, produces by the Contractor pursuant to this Agreement are the property of Metro and it is agreed by the parties hereto that such Documents are work made for hire. The Contractor does hereby convey, transfer and grant to Metro all rights of reproduction and the copyright to all such Documents.

**ARTICLE XI  
SUBCONTRACTORS; DISADVANTAGED BUSINESS PROGRAM**

The Contractor shall contact Metro prior to negotiating any subcontracts and the Contractor shall obtain approval from Metro before entering into any subcontracts for the performance of any of the services and/or supply of any of the goods covered by this Contract. Metro reserves the right to reasonably reject any subcontractor or supplier and no increase in the Contractor's compensation shall result thereby. All subcontracts related to this Contract shall include the terms and conditions of this Agreement. The Contractor shall be fully responsible for all of its subcontractors as provided in Article IV.

If required in the Scope of Work, the Contractor agrees to make a good faith effort, as that term is defined in Metro's Disadvantaged Business Program (Section 2.04.160 of the Metro Code) to reach the goals of subcontracting seven (7) percent of the contract amount to Disadvantaged Business Enterprise and five (5) percent of the contract amount to Women-Owned Business Enterprise. Metro reserves the right, at all times during the period of this Agreement, to monitor compliance with the terms of this paragraph and Metro's Disadvantaged Business Program.



**ARTICLE XII  
RIGHT TO WITHHOLD PAYMENTS**

Metro shall have the right to withhold from payments due the Contractor such sums as necessary, in Metro's sole opinion, to protect Metro against any loss, damage or claim which may result from the Contractor's performance or failure to perform under this Agreement or the failure of the Contractor to make proper payment to any suppliers or subcontractors. If a liquidated damages provision is contained in the Scope of Work and if the Contractor has, in Metro's opinion, violated that provision, Metro shall have the right to withhold from payments due the Contractor such sums as shall satisfy that provision. All sums withheld by Metro under this Article shall become the property of Metro and the Contractor shall have no right to such sums to the extent that the Contractor has breached this Contract.

**ARTICLE XIII  
SAFETY**

If services of any nature are to be performed pursuant to this Agreement, the Contractor shall take all necessary precautions for the safety of employees and others in the vicinity of the services being performed and shall comply with all applicable provision of federal, state and local safety laws and building codes, including the acquisition of any required permits.

**ARTICLE XIV  
INTEGRATION OF CONTRACT DOCUMENTS**

All of the provisions of any Bidding Documents including, but not limited to, the Advertisement for Bids, Invitation to Bid, Instructions to Bidders, Scope of Work, Drawings, Bid Forms, Addenda, this contract, Supplementary Conditions, Special Conditions, and Bidders submitted bid which were utilized in conjunction with the bidding and award of this Contract are hereby expressly incorporated by reference. Otherwise, this Contract represents the entire and integrated agreement between Metro and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. This Contract may be amended only by written instrument signed by both Metro and the Contractor. The law of the State of Oregon shall govern the construction and interpretation of this Contract.

**ARTICLE XV  
ASSIGNMENT**

The Contractor shall not assign any rights or obligations under or arising from this Contract without prior written consent from Metro.

**CONTRACTOR**

**METROPOLITAN SERVICE DISTRICT**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## SUPPLEMENTARY CONDITIONS

All conditions set forth in Part IV-2 are applicable to all Contractors and shall apply to such extent that they are not in conflict with these Supplementary Conditions in the event of such conflict. These Supplementary Conditions shall take precedence.

1. Authority and Relationships of Metro and Engineer -- the following provisions shall govern the authority of the various officers, agents, representatives, consultants and employees of Metro, and Engineer. Except as specifically provided in this section, no individual acting or purporting to act as an officer, agent, representative, consultant or employee of Metro or Engineer shall have any authority to make representations, statements or decisions of whatever nature binding Metro or Engineer regarding any aspect of this Contract. Except as specifically provided in this section, Contractor shall have no right to, and shall not rely on any such representation, statement or decision. Any reference to action by Metro in this Contract requires the written approval of the Metro Executive Officer or a person who is designated in writing by the Metro Executive Officer as having authority to act for Metro but only to the extent that such authority is expressly delegated in writing.
2. Authority of Metro -- except as otherwise provided herein, Metro shall determine the amount, quality, acceptability, fitness, and progress of the Work covered by the Contract. Metro and Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents. Metro and Engineer will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors, or any of their agents or employees, or any other persons performing any of the Work. Nothing contained in this Contract is intended nor shall be construed to create any third-party beneficiary relationship between Metro and Contractor's subcontracting agents or employees.
  - 2.1 It shall be the duty of Contractor to comply with all procedures established and/or implemented by Metro as stated above. In the event any such procedures are at variance with other provisions of these Documents, such procedures shall prevail.
  - 2.2 Metro may call for meetings of Contractor, Contractor's Subcontractors and Suppliers as Metro deems necessary for the proper supervision and inspection of the Work. Such meetings shall be held at the Site on regular working days during regular working hours, unless otherwise directed by Metro. Attendance shall be mandatory for all parties notified to attend.
  - 2.3 Contractor shall immediately comply with any and all orders and instructions given in accordance with the terms of this Contract by Metro.
  - 2.4 Contractor has no right to, and shall not, rely on representations of whatever nature made by any individual, whether or not employed by or purporting to represent Metro or Engineer, unless such individual has been specifically and expressly delegated authority to make such representations pursuant to these Contract Documents. Likewise Contractor has no right, and shall not rely on any representations of authorized changes in the contract of whatever size or nature unless such change is in writing and signed by Metro.
  - 2.5 Nothing contained in this Paragraph shall obligate Metro or Engineer to supervise Contractor's work under this Contract and Contractor shall remain fully responsible for the complete and proper supervision of all of the Work.
3. Project Scheduling -- Contractor shall submit to Metro a detailed Construction Schedule for completion of the work pursuant the Specifications. The Construction Schedule shall, when approved and as updated and approved by

Metro, become a part of the Contract Documents.

4. Coordination with Other Metro Contractors -- Contractor shall afford all such Other Metro Contractors reasonable opportunity for storage of their materials and execution of their Work, shall provide that the execution of Contractor's Work properly connects and coordinates with work of all Other Metro Contractors, and shall cooperate with Other Metro Contractors to the end of facilitating the Work in such a manner as Metro may direct.
5. Duty to Maintain Schedule -- It shall be the responsibility of Contractor to maintain its schedule so as not to delay the work of Other Metro Contractors. Contractor is required to cooperate in every way possible with Other Metro Contractors.
6. Failure to Coordinate Work -- If Contractor fails to coordinate its work with the work of Other Metro Contractors as directed by Metro, Metro may, upon written notice to Contractor, withhold any payment otherwise due hereunder until Contractor complies with Metro's directions.
7. Acceptance Not Implied by Failure to Object -- Failure or neglect on the part of Metro or any of its authorized representatives to condemn or reject defective, improper or inferior work or materials shall not be construed to imply a final acceptance of such work or materials and shall not be construed as relieving Contractor of its duties to perform fully all requirements of the Contract Documents.
8. Unsatisfactory Materials and Workmanship -- Material, work or workmanship which, in the opinion of the Construction Manager, does not conform to the Contract Documents, or is in any way unsatisfactory or unsuited to the purpose for which it is intended, will be rejected. Contractor shall bear the cost of correcting or removing as deemed necessary by Metro, all non-conforming materials, work or workmanship. Contractor shall make a close inspection of all materials as delivered, and shall promptly replace all defective materials with conforming materials without waiting for their rejection by Metro.
9. General Warranty of Contractor -- Contractor warrants to Metro that materials and equipment provided under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects and contaminants not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by Metro, Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. The warranty made by Contractor under this Paragraph shall be in addition to any other specific warranties and certifications required elsewhere in these Contract Documents.
10. Correction of Work by Contractor -- Contractor shall be responsible for and shall promptly correct or replace any defective Work, whether due to faulty or contaminated materials or errors in workmanship, or Work failing to conform to the requirements of the Contract Documents which may be discovered or which may develop within one (1) year after the date of Substantial Completion or within such longer period as is specified below or otherwise in these Contract Documents.
  - 10.1 In the case of equipment manufactured by others and supplied and/or installed by Contractor, the one (1) year period shall commence upon the date of first beneficial operation of such equipment by Metro. In the case of Work which is corrected or replaced by Contractor, the one (1) year period shall commence again on the date of acceptance by Metro of such corrected or replaced Work. Testing shall not be construed to mean acceptance.
  - 10.2 If Metro does not require correction or replacement of defective Work or Work failing to conform to the Contract Documents, Contractor, if required by Metro, shall repay to Metro such portion of the Contract

Amount as is equitable under the circumstances, as determined by Metro.

10.3 Contractor's responsibilities under this Paragraph shall not extend to correction or replacement of defects which are attributable to mistreatment by Metro or to normal wear and tear.

11. Proof of Compliance with Contract Provisions – For Metro to determine whether Contractor has complied or is complying with the requirements of the Contract which are not readily enforceable by inspection and test of the Work, Contractor shall, upon request, promptly submit to Metro such properly authenticated documents as may be necessary to demonstrate compliance with the Contract or other satisfactory proof of its compliance with such requirements.

12. Change Orders – Metro may order changes in the Work herein required, including deletions of work, and may order additional materials and work in connection with the performance of the Work.

If such changes in the Work increase or decrease the cost of any part of the Work or change the time necessary to complete the Work, the Contract Amount shall be increased or decreased by such amount and the Contract Time changed at prices specified in the Bid submitted or as Contractor and Metro may agree upon as reasonable in a written Change Order. Contractor shall promptly comply with such Change Orders and carry them out in accordance with the Contract Documents.

No order for any alteration, modification or additional work which shall increase or decrease the Contract Amount or change the Contract Time shall become part of the Contract unless the resulting Change Order shall have been agreed upon in writing and the Change Order signed by Contractor and Metro, unless the work is Force Account work. Metro may, at its discretion, also require the signature of Contractor's surety on the Change Order. Prior to the approval of such Change Order, the Engineer shall have approved any design modifications entailed thereby.

13. Procedure for Determining Impact of Change Orders on Contract Amount

13.1 Price before Proceeding – If Metro intends to order changes in the Work, it may request a proposal by Contractor for the proposed added or deleted work before directing Contractor to commence work. Within fourteen (14) days after issuance of such request by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form supplied by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so indicated and written proposals from Subcontractors or Suppliers shall be included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.

13.2 Proceed While Pricing – If Metro finds it necessary to make changes in the Work in an expeditious manner, it may direct Contractor to proceed with the change while preparing a proposal for the added or deleted Work. In such an instance, Metro may assign an estimated value to the change which Contractor shall not exceed without further authorization by Metro. Within fourteen (14) days after issuance of such by Metro, Contractor shall furnish three copies of a complete breakdown of costs of both credits and additions directly attributable to the change in the Work proposed, itemizing materials, labor, taxes, affect on Contract Time, if any, and Overhead and Profit on a form supplied by Metro and in accordance with the limitations described in the following Paragraph. Subcontract work shall be so included with similar breakdowns provided. Following submission of its cost breakdown, Contractor shall meet with Metro to discuss all aspects of scope, costs, scheduling and construction methods.



13.3 Unit Prices -- If the proposed additional or deleted work is the subject of Unit Prices stated in the Contract Documents or subsequently agreed upon, such Unit Prices shall be binding upon Contractor in calculating the increase or decrease in the Contract Amount attributable to the proposed additional or deleted work.

14. Limitations when Change Orders Impact Contract Amount-- The following limitations shall apply in the calculation of the costs of changes in the Work:

14.1 Overhead and Profit -- Contractor will be permitted allowance for Profit and Overhead on its increased Direct Cost resulting from any changes in the Work ordered by Metro. Likewise, Profit and Overhead will be deducted for any portion of the Work which is deleted. In the case of a change involving both credits and extras, Overhead and Profit shall be applied to the net extra after subtraction of credits.

14.1.1 Overhead and Profit for the entity performing the work with its own crews shall not exceed 10 percent of the Direct Cost of the changed work.

14.1.2 Overhead and Profit for Contractor or Subcontractor who has had the work performed by a lower tier Subcontractor shall not exceed ten percent of the Direct Cost of the changed work.

14.1.3 If the Work is performed by a second-tier or inferior Subcontractor, the total Overhead and Profit for all tiers shall in no event exceed 25 percent of the Direct Cost of the changed work. Distribution of this Overhead and Profit among the tiers is the responsibility of Contractor.

14.1.4 Overhead, profit, and all expenses of contractor are assumed to have been included in hourly rates and unit prices for extra work specified in the contractor's bid, and no additional amount shall be allowed therefore.

14.2 Taxes and Insurance -- Except as otherwise provided herein, federal, state, regional, county and local taxes, including, but not limited to, income taxes, excise taxes, sales and use taxes and payroll taxes and insurance shall be shown separately and will be allowed on extras and shall be credited on credits. No Overhead and Profit will be allowed on taxes and insurance.

14.3 Bond Premiums -- The actual rate of bond premium as paid on the additional Direct Cost plus the cost of taxes will be allowed. No Overhead and Profit will be allowed on such premiums.

14.4 Equipment Costs -- The allowance for equipment costs (both rental as well as Contractor-owned equipment) shall be limited to those rates in the Rental Rate Bluebook published by Dataquest Incorporated, 1290 Ridder Park Drive, San Jose, California 95131-2398, (800) 227-8444.

14.5 Force Account Work -- If Contractor does not respond to Metro's Request for Proposal with a cost breakdown within the fourteen (14) day period as required above, or if Metro determines that Contractor's breakdown of costs is unreasonable in consideration of the work proposed to be added or deleted, or if Metro determines that the proposed work must be commenced promptly to avoid delay to the Project, Metro may issue an order for Force Account work and Contractor shall promptly perform or delete the work described in such order. Change, if any, in the Contract Amount due to such Force Account work shall be the sum total of the following items:

14.5.1 Actual labor cost, including premium on compensation insurance and charge for social security taxes, and other taxes pertaining to labor.

14.5.2 The proportionate cost of premiums of public liability property damage and other insurance applicable to the extra work involved and required by these Contract Documents.

14.5.3 Actual cost of material, including applicable taxes pertaining to materials.

14.3.4 Actual cost of plant and equipment rental, at rates to be agreed upon in writing before the work is begun. No charge for the cost of repairs to plant or equipment will be allowed. Equipment items having a capital cost of under \$250.00 are considered small tools and classified as Overhead.

14.5.5 Overhead and Profit as provided and limited in Section 14.1, above.

14.5.6 The proportionate actual costs of premiums for bonds required by these Contract Documents.

Whenever any Force Account work is in progress, Contractor shall furnish each working day to Metro a detailed written report signed by Contractor of the amount and cost of all of the items listed in (1) through (6) above, and no claim for compensation for such extra work will be allowed unless such report shall have been made. Metro reserves the right to provide such materials as it may deem expedient and no compensation, overhead or profit will be allowed to Contractor for such materials.

14.6 Oral Modifications -- No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract.

14.7 Impact of Authorized Changes in the Contract -- Changes in the Work made pursuant to this Article and extensions of the Contract Time allowed by Metro due to such changes shall not in any way release any warranty or promises given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the sureties of bonds executed pursuant to said provisions. The sureties, in executing such bonds, shall be deemed to have expressly agreed to any such change in the Work and to any extension of Contract Time made by reason thereof.

15. Scope of Payment -- Payment to Contractor of the Contract Amount for performing all Work required under the Contract, as adjusted for any Change Orders approved as hereinbefore specified, shall be full compensation for furnishing all labor, materials, equipment and tools necessary to the Work, and for performing and completing, in accordance with these Contract Documents, all Work required under the Contract, and for all expenses incurred by Contractor for any purpose in connection with the performance and completion of said Work.

Whenever it is specified herein that Contractor is to do work or provide materials of any class for which no price is fixed in the Contract, it shall be understood that Contractor is to do such work or provide such materials without extra charge or allowance or direct payment of any sort, and that the cost of doing such work or providing such materials is included in its Bid.

#### 16. Schedule of Values

16.1 Generally -- At least 15 days prior to Contractor's application for the first progress payment, Contractor shall submit a detailed breakdown on its lump sum bid items. The format and detail of the breakdown shall be as directed by Metro and in accordance with Section 01370 of the Specifications to facilitate and clarify future progress payments to Contractor. This breakdown shall be referred to as the Schedule of Values.

16.2 Review of Schedule of Values -- Metro will review the Schedule of Values to ascertain that the dollar amounts of the Schedule of Values are in fact fair cost allocations for the work item listed. Upon concurrence by Metro, a formal approval of this Schedule of Values will be issued. Metro shall be the sole judge of fair cost.

allocations. Contractor's monthly progress payment requests shall reflect the cost figures included in the approved Schedule of Values and shall be based upon completed work items or percentages of work items completed prior to the end of the payment period as more fully described below.

**17. Progress Payment Procedure**

**17.1 Generally** -- Subject to the approval of Metro, disbursements shall be made by Metro of progress payments upon written request of Contractor and pursuant to the Contract Documents as specified in Section 01025 of the Specifications.

**17.1.1** Before the end of each calendar month, Contractor shall file with the Construction Manager in duplicate on a form approved by Metro, a proposed payment estimate for the period commencing on the 26th day of the previous month through midnight on the 25th day of the calendar month in question. Metro and the Construction Manager shall review Contractor's estimate and shall determine the value of Contractor's work based upon the Schedule of Values and incorporated labor and materials for the payment period. Contractor shall not be paid for any work which is, in Metro's opinion, defective or improper or for work needed to correct Contractor's defective or improper work. Contractor shall be paid 95 percent (95%) of the determined value of work accomplished less any offset or withholding of sums by Metro allowed under the Contract Documents within thirty (30) days after receipt by Metro of Contractor's payment estimate. Metro will routinely withhold five percent (5%) as Retainage.

**17.1.2** No inaccuracy or error in any monthly progress payment estimates shall operate to release Contractor or its surety from damages arising from such work or from the enforcement of each and every provision of the Contract Documents, and Metro shall have the right subsequently to correct any error made in any estimate for progress payments.

**17.2 Retainage** -- If, in Metro's opinion, work on the Project is progressing satisfactorily, Metro may eliminate additional Retainage on any remaining monthly progress payments after 50 percent (50%) of the Work under the Contract is, in Metro's opinion, completed. Elimination of additional Retainage under this Subparagraph shall be allowed by Metro only upon written application by Contractor, which application shall include written approval of Contractor's surety.

**17.2.1** If after Metro allows such an elimination of additional Retainage, Metro determines that progress of the Work is not satisfactory or that Contractor has breached any provision of the Contract, Metro may again retain and continue to retain, in addition to that Retainage already being held by Metro, five percent (5%) of any future progress payments made to Contractor.

**17.2.2** When Metro determines that the Work is 97- $\frac{1}{2}$  percent (97- $\frac{1}{2}$  %) complete, Metro may, at its discretion and without application by Contractor reduce the retained amount to 100 percent (100%) of the value of the Work remaining to be done.

**17.2.3** All funds retained by Metro under this section shall be retained in a fund by Metro and paid in accordance with ORS 279.435.

**17.2.4** Contractor may elect to deposit bonds or securities of the type described below with Metro or in any bank or trust company to be held in lieu of the cash retainage described above and for the benefit of Metro. In such event, Metro shall reduce the Retainage in an amount equal the value of the bonds and securities and shall pay the amount of the reduction to Contractor in accordance with ORS 279.435. Interest on such bonds or securities shall accrue to Contractor.

**17.2.5** Bonds and securities deposited or acquired as described above shall be of a character approved by the



Director of Oregon's Department of General Services including, but not limited to:

17.2.5.1 Bills, certificates, notes or bonds of the United States.

17.2.5.2 Other obligations of the United States or its agencies.

17.2.5.3 Obligations of any corporation wholly owned by the federal government.

17.2.5.4 Indebtedness of the Federal National Mortgage Association.

17.2.5.5 Contractor may elect to require Metro to deposit the accumulated Retainage in an interest bearing account in a bank, savings bank, trust company or savings association for the benefit of Metro. Interest on such an account shall accrue to Contractor.

17.2.5.6 If Metro incurs additional costs as a result of Contractor's exercise of any of the above-described options, Metro may recover such costs from Contractor by reduction of the Final Payment. Metro shall inform Contractor of all such accrued costs.

17.3 Other Conditions Precedent to Payment -- It is a condition precedent to Contractor's rights to any payments under the Contract that all bills for labor and materials, including labor and materials supplied by or to Contractor, shall have been paid in full and, if requested by Metro, Contractor shall submit receipted invoices and/or lien waivers, as evidence of payment in full of all such accounts. As a further condition precedent to Contractor's right to any payments under this Contract, if requested by Metro, Contractor shall submit a claims release before any payment, and a final claims release stating Contractor has been paid in full prior to the Final Payment.

Payments to Contractor shall be conditioned upon Contractor complying with all provisions of this Contract regarding scheduling and progress reports submissions and upon Contractor furnishing all other information and data necessary to ascertain actual progress. Metro's determination that Contractor has failed or refused to furnish the required information, data, schedules or other reports shall constitute a basis for withholding all payments until the required information, data, revised schedules and diagrams, if necessary, and other reports are furnished.

17.4 Payment Does Not Imply Acceptance of Work -- The granting of any progress payment, or the receipt thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof, and shall in no way lessen the liability of Contractor to replace unsatisfactory work or material, though the unsatisfactory character of such work or material may or may not have been apparent or detected at the time such payment was made.

18. Protection of Work, Persons and Property Against Damages -- Contractor shall protect the Work from damage due to construction operations, the action of the elements, including erosion due to normal and extraordinary weather conditions, the carelessness of other contractors, vandalism, or any other cause whatever until Final Completion and Acceptance of the Work.

Contractor shall protect all public and private property insofar as it may be endangered by operations of Contractor including adjoining lands, air and waterways, and shall be fully responsible for taking proper precautions for the prevention of accidents to persons and/or damage to such property at, on or near the Site.

All federal, state and local safety and environmental protection laws, rules and orders including fire codes, applicable to the Work to be done under the Contract, shall be obeyed, complied with and enforced by Contractor.

Contractor shall provide and maintain such guards, fences, barriers, signs, regulatory and warning lights, and other

traffic control and safety devices adjacent to and on the Site as may be necessary to prevent accidents to the public and damage to property. Contractor shall also provide, place and maintain such lights as may be necessary for illuminating the said signs, guards, fences, barriers and other traffic and safety control devices.

Upon Final Completion and Acceptance of the Work, Contractor shall remove all temporary signs, lights, barriers, etc., from the Site.

## 19. Insurance

**19.1 Public Liability and Property Damage Insurance** -- Contractor shall purchase and maintain, at the Contractor's expense, the following types of insurance covering the Contractor, its employees and agents.

**19.1.1** Broad form comprehensive general liability insurance covering bodily injury, property damage, and personal injury with automatic coverage for premises/completed operations and product liability. The policy must be endorsed with contractual liability coverage.

**19.1.2** Automobile bodily injury and property damage liability insurance.

Insurance coverage shall be on an occurrence basis with an annual aggregate limit of \$5,000,000.

METRO, its elected officials, departments, employees and agents shall be named as an ADDITIONAL INSURED. Notice of any material change or policy cancellation shall be provided to METRO thirty (30) days prior to the change.

**19.1.3 Subcontractor's Insurance** -- Contractor shall require that all of its Subcontractors and Suppliers of any tier provide insurance coverage and conditions identical to Contractor's insurance coverage, except that the policy limits of all Subcontractors' insurance coverage shall be at least \$1,000,000 combined single limit for each occurrence and in the aggregate.

**19.2 Workers' Compensation and Employer's Liability Insurance** -- The Contractor, its subcontractors, and all employers working under this contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers. The Contractor shall provide METRO with certification of workers' compensation insurance including employer's liability of \$1,000,000.

**19.3 Forms of Policies and Other Insurance Requirements** -- Contractor shall, at the time of signing this agreement, provide Metro two (2) certified copies of the policies of all insurance herein required to be obtained by Contractor except that Worker's Compensation Insurance may be evidenced by a Certificate of Insurance. At Metro's request, Contractor shall immediately deliver to Metro the receipts for payment of premiums on any or all such policies.

**19.4 Contractor's Responsibility** -- All policies of insurance and Certificates of Insurance shall be satisfactory to Metro. Approval of the insurance by Metro shall not relieve or decrease the extent to which Contractor or Contractor's Subcontractors and Suppliers of any tier may be held responsible for payment of any and all damages resulting from performance of the Work.

**19.5 Copies Filed with Metro** -- Each such policy or Certificate of Insurance shall bear an endorsement precluding its cancellation, expiration or any reduction in its coverage without giving to Metro at least sixty (60) days prior written notice. Contractor shall file with Metro two (2) certified copies of the required new or renewed policy or two (2) Certificates of Insurance for each such policy, as applicable, before the effective date of such

cancellation, change or expiration.

19.6 Contractor Neglect of Insurance -- If Contractor neglects to obtain or maintain in force any such insurance or to deliver such policy or policies, certificates and receipts to Metro, then Metro may, at its option, obtain and maintain such insurance. Contractor hereby appoints Metro its true and lawful attorney, to do all things necessary to obtain and maintain such insurance. All monies expended by Metro for such insurance shall be charged to Contractor and Metro may offset its costs in obtaining and/or maintaining such policies from sums due or to become due Contractor under the Contract or otherwise collect such sums from Contractor. Failure of Metro to obtain or maintain such insurance shall in no way relieve Contractor of any of its responsibilities under this Contract.

19.7 Termination -- Contractor's failure to maintain any item of the required insurance shall be sufficient cause for termination or suspension of this Contract.

19.8 Obtaining the Insurance -- All insurance required shall be obtained through a company or companies having a policyholders surplus of at least ten (10) times the amount or limit of liability afforded by such insurance company on policies issued for this Contract. Such company shall be duly and legally licensed to transact business in the state of Oregon and shall be acceptable to Metro. Said insurance shall be primary over any insurance or self-insurance of Metro.

20. Equal Employment Opportunity Affirmative Action Requirement -- Contractor shall be certified as Equal Employment Opportunity Affirmative Action Employers by the City of Portland, Oregon, for the entire term of the Contract. Contractor's Subcontractors and Suppliers shall be certified prior to commencement of any of their Work on the Project and shall remain certified for the entire duration of the Contract.

21. Miscellaneous Statutory Responsibilities of Contractor

21.1 Generally -- Contractor shall keep itself fully informed of and shall fully comply with all federal, state, regional and local laws, rules, regulations, ordinances and orders pertaining in any manner, to this Contract and those rules, regulations and orders of any agency or authority having jurisdiction over the work or those persons employed or engaged therein. Contractor shall pay all taxes, including federal, state, regional, county, city or taxes of any other governmental entity applicable to the work performed or materials provided under this Contract.

21.2 Environmental Laws -- Contractor shall fully comply with all federal, state and local laws, ordinances and regulations dealing with the prevention of environmental pollution and the preservation of natural resources and all amendments thereto. Contractor shall also fully comply with all rules, regulations and ordinances enacted or to be enacted by any federal, state or local agency dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the Contract. Such statutes, rules, regulations and ordinances shall include, but are not limited to those in 7 USCA Sections 136 to 136Y, 15 USCA Sections 2601 to 2629, 33 USCA Sections 1251 to 1376, 33 USCA Sections 1401 to 1445, 42 USCA Sections 300f to 300j-11, 42 USCA Sections 4321 to 4370a, 42 USCA Sections 4901 to 4918, 42 USCA Sections 6901 to 6991i, 42 USCA Sections 7401 to 7642, 42 USCA Sections 9601 to 9675, 29 USCA Sections 651 et seq., Oregon Administrative Rules Chapter 61, and Title 18 of the City of Portland Code.

Such agencies shall include, but not be limited to, the following:

21.2.1 Federal Agencies

Agriculture, Department of Forest Service  
Soil Conservation Service

Defense, Department of Army Corps of Engineers  
 Energy, Department of Environmental Protection Agency  
 Health and Human Services, Department of Interior  
 Department of Fish and Wildlife Service  
 Heritage Conservation and Recreation Service  
 Bureau of Land Management  
 Bureau of Indian Affairs  
 Water and Power Resource Service  
 Office of Surface Mining  
 Labor, Department of Occupational Safety and Health Administration  
 Mine Safety and Health Administration  
 Transportation, Department of Coast Guard  
 Federal Highway Administration

**21.2.2 State Agencies**

Agriculture, Department of Energy,  
 Department of Environmental Quality,  
 Department of Fish and Wildlife,  
 Department of Forestry,  
 Department of Geology and Mineral Industries,  
 Department of Human Resources,  
 Department of Land Conservation and Development,  
 Department of Soil and Water Conservation Commission  
 State Engineer  
 State Land Board and Division of State Lands  
 Water Resources Board, Department of  
 Bureau of Labor and Industries

**21.2.3 Local Agencies**

City of Portland  
 Multnomah County  
 Metropolitan Service District  
 Planning Commissions (as applicable)

**21.3 Other Provisions of Oregon Law**

Generally -- The provisions set out in Oregon Revised Statutes Chapters 187 and 279, as amended or superseded, including the latest additions and revisions, are incorporated by reference as part of these Contract Documents. Such sections include, but are not necessarily limited to, ORS 187.010, 187.020, 279.021, 279.312, 279.314, 279.316, 279.318, 279.320, 279.334, 279.338, 279.348, 279.350, 279.352, 279.354, 279.355, 279.356, 279.359, 279.361, 279.365, and 279.400 through 279.435. Contractor shall fully comply with all applicable provisions of these statutes. The specific requirements of certain of these sections are set out below.

**21.3.1 Payment to Subcontractors and Laborers** -- Pursuant to ORS 279.312, Contractor shall make payment promptly, as due, to all persons supplying such Contractor labor or material for the prosecution of the Work provided in this Contract. Contractor shall pay all contributions or amounts due the Industrial Accident Fund (IAF) from such Contractor, Subcontractor or Supplier incurred in the performance of the Contract. Contractor shall not permit any lien or claim to be filed or prosecuted against Metro, the State, County, school district, municipality, municipal corporation, or subdivision thereof, on

account of any labor or material furnished. Contractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167.

- 21.3.2 Failure to Make Payment for Labor or Services – Pursuant to ORS 279.314, if Contractor fails, neglects, or refuses to make prompt payment of any claim for labor or services furnished to Contractor or a Subcontractor by any person in connection with this Contract as such claim becomes due, Metro may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due Contractor by reason of such Contract. Metro's payment of such a claim in the manner authorized by ORS 279.314 shall not relieve Contractor or Contractor's surety from obligation with respect to any unpaid claims.
- 21.3.3 Hours of Work – Except as provided in ORS 279.334, no person shall be employed for more than eight (8) hours in any one day, or forty (40) hours in any one week, except in cases of necessity, emergency, or where the public policy absolutely requires it, and in such cases the laborer shall be paid at least time and a half pay for all overtime in excess of eight (8) hours a day and for work performed on Saturday and on any legal holiday specified in ORS 279.334. Contractor shall furthermore comply with any applicable provisions of ORS 279.316, 279.334, 279.336 and 279.338.
- 21.3.4 Payment for Medical Care – Pursuant to ORS 279.320, Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to the employees of Contractor, of all sums which Contractor agrees to pay for such services and all monies and sums which Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying such service.
- 21.3.5 Requirements for Foreign Contractors – Pursuant to ORS 279.021, any "foreign contractor" awarded a public contract with a price exceeding \$10,000, shall promptly report to the Department of Revenue, on forms to be provided by the Oregon Department of Revenue, the total contract price, terms of payment, length of contract and such other information as may be required before Final Payment can be received on the public contract. Final Payment shall not be made until this provisions has been complied with.
- For purposes of this paragraph, a "foreign contractor" is one who is not domiciled in or registered to do business in the state of Oregon.
- 21.3.6 Prevailing Wage – Except as limited by Oregon Revised Statutes, Contractor shall pay his/her workers and require his/her Subcontractors to pay its workers the prevailing rate of wage as required in ORS 279.350, and shall comply with all other requirements contained therein. The Appendix to this Contract contains a schedule of the existing prevailing rate of wage which may be paid to workers in each trade or occupation required to perform the Work, either by Contractor or its Subcontractors or any other person doing or contracting to do the whole or any part of the Work contemplated by this Contract, and such workers shall be paid not less than such specified minimum hourly rate of wage. The specifications for each subcontract shall include a copy of the prevailing wage schedule applicable to this project, and each subcontract shall include a clause regarding conformance to the schedule.
- 21.3.7 Sanitary Facilities – Contractor shall be responsible for all costs that may be incurred in complying with ORS 654.150 and the rules adopted pursuant thereto including, but not limited to, securing exemption or partial exemption from the requirements of ORS 654.150, (sanitary facilities at construction projects; standards, exemptions).

- 21.3.8 Royalty Payments -- Contractor shall promptly pay when due, all royalties owed to the State of Oregon or other governmental entity under ORS Chapter 274 or other provision of law.
- 21.4 Work to Comply with Codes -- All Work shall be in full compliance with any and all codes specified in the Contract Documents and all federal, state and local laws, ordinances, rules, regulations and orders and all amendments to such codes, laws, ordinances, rules, regulations and orders. If Contractor observes or discovers that any portion or portions of the Contract Documents are at variance with any such requirements, Contractor shall promptly submit a written Request for Clarification to Metro pursuant to this agreement, which shall fully describe the variance. If Contractor performs Work contrary to codes, laws, ordinances, rules, regulations or orders without submitting such Request to Metro, Contractor shall assume full responsibility for such Work and shall bear all costs attributable thereto.
- 21.5 Authorized Persons May Check for Compliance -- Persons authorized by Metro or any governmental body having jurisdiction over the Project may at any time enter upon any part of the work to ascertain whether Contractor is complying with such laws, ordinances, regulations or orders.
22. No Additional Compensation Allowed for Compliance with Laws -- The Contract Amount includes full compensation for compliance with all applicable laws, rule, regulations, ordinances and orders and all amendments thereto and Contractor shall not make claim for nor be allowed any additional compensation for such compliance.

## SPECIAL CONDITIONS

1. Scope of Work -- This Contract covers the performance of all work and services and the furnishing of all materials, except those items specifically identified as provided by the Owner, to abandon damaged monitoring wells, maintain functional wells, and install new monitoring wells and piezometers.

The Contractor shall furnish all superintendence, labor services, plant equipment, tools, supplies, transportation, materials and site restoration necessary for the following:

2. Schedule -- Construction activity under this contract shall commence within five days after award of the Contract (estimated award in late-June, 1992) and all work scheduled in 1992 must be completed by November 1, 1992. Extension of the wells, removal of extensions, and completion of the surface casing shall be completed as required by coordinating with Metro during years 1993 to 1996. Certain activities on the site require that the following items be complete on or before the dates indicated:

- Abandonment of wells C-3 and D-8a shall be completed within ten calendar days after Notice to Proceed;
- One (1) 5-foot extension of well H-1 shall be completed within ten calendar days after Notice to Proceed;
- Nine (9) multiple piezometers shall be completed within 30 calendar days after Notice to Proceed; and
- Seven (7) shallow monitoring wells shall be completed within 60 calendar days after Notice to Proceed.

The Contractor shall employ a work force and provide materials and equipment to accomplish the work in a workmanlike manner at a rate of progress as required by the schedule and as stipulated in the Contract Documents.

3. Permits -- Metro has secured all general permits for the St. Johns Landfill project. Copies of the permits are on file at Metro. All requirements set forth by these permits shall be investigated prior to bidding and are to be strictly followed by the Contractor.

A Memorandum of Understanding (MOU) has been signed between the Oregon Department of Environmental Quality (DEQ) and the Oregon Water Resources Commission (WRD). The MOU delegates the authority to DEQ for regulation and inspection of drilling, construction and decommissioning of groundwater monitoring wells installed at DEQ-regulated sites and facilities (copy of MOU is included in the Appendix). The St. Johns Landfill is a DEQ-regulated site.

Contractor shall submit all start cards and fees directly to the WRD and shall submit all required well abandonment or well construction information to the DEQ Solid Waste Section as required by the State of Oregon.

Metro will obtain permission for Contractor access onto the Wetlands Lake sites adjacent to the landfill. The Contractor shall otherwise acquire and pay for all permits of a temporary nature relating to the construction of the project.

4. Site Inspection -- The Contractor shall carefully examine the site and be familiar with the conditions of the work involved.

5. Contractor's Responsibility for Health and Safety – The contractor shall ensure compliance with all requirements of the Federal Occupational Health and Safety Act of 1970 (OSHA), as amended, including OSHA 29 CFR Part 1910 Hazardous Waste Operations and Emergency response, Final rule, Oregon Administrative Rules (OAR) 437-02-100 et. seq. and with any other applicable Oregon Industrial Health and Safety provisions as they apply to health and safety provisions for hazardous waste operations, and all other applicable federal, state, county, and local laws, ordinances, and codes.

The Contractor is responsible for the preparation of the Health and Safety Plan which meets applicable laws, rules, and regulations including OSHA regulations and applicable Oregon Occupational Health and Safety and Health code.

Contractor shall be fully responsible for protecting the health and safety of its workers. Contractor warrants that it is fully aware of potential hazards on the site and is capable of taking all necessary precautions in performing the work. Contractor is solely and completely responsible for meeting all applicable laws, regulations and requirements for employee health and safety during the work performed under this Contract. Contractor shall provide to all of their personnel working on the project the required orientation and training on potential hazards anticipated and the appropriate use of safety equipment.

6. Metro Review and Approval – The Technical Specifications make references to Engineer- and Metro-approved methods or review and approval. Metro will expedite this review and approval activity to support the Contractor.
7. Storage of Material and Equipment – Contractor laydown, storage, and parking areas are shown on the Drawings.
8. Site Access – Access to the landfill site shall be off Columbia Boulevard through the scale area and across the two-lane bridge owned by Metro which spans the Columbia Slough.

Access to the piezometer site P-8 shall be through Port of Portland property and through sensitive wetlands areas. Access to piezometer site P-9 shall be off the east dike of the landfill through sensitive wetlands areas. Metro will obtain the necessary permission to access these areas. The Contractor shall obtain all permits necessary for access into these areas, and ensure that the disturbed wetlands area would be properly restored to their original condition.

9. Environmental Protection – The Contractor shall perform the work in strict conformity with all applicable laws, rules, and regulations relating to pollution of any adjacent lake or waterway.

The Contractor shall be responsible for fuels, oil, or other contaminants which spill into the construction area or water. If such a spill occurs, appropriate measures to clean up the spill shall be immediately undertaken by the Contractor at its expense. Any fines or other penalties resulting from Contractor spills shall be the sole responsibility of the Contractor.

10. Fire Protection – Contractor personnel shall not be allowed to smoke or otherwise have open flames on the landfill site.

Torch cutting and welding shall be allowed on the landfill perimeter road if gas monitoring indicates that a safe condition exists.



11. Site Conditions and Subsurface and Monitoring Information -- The site of the work is a closed solid waste landfill upon which other contractors will be working. Contractor is expected to know and understand the condition of the site, as it relates to the Contractor's bid. The following technical reports may be reviewed at Metro's downtown office for subsurface and well information:
- Port of Portland and City of Portland, Smith and Bybee Lakes Environmental Studies, Technical Appendices, November, 1987.
  - Sweet-Edwards/EMCON, St. Johns Landfill and Environmental Management Options, Volumes I and II, May, 1989.
  - Cornforth Consultants, Inc., Abandonment of Monitoring Wells, St. Johns Landfill, February, 1991.
  - Cornforth Consultants, Inc., Five Interior Monitoring Wells, As Constructed, St. Johns Landfill, October, 1990.
  - "Special Waste Disposal Areas, 10/29/90-11/13/90", CH<sup>2</sup>M Hill, March 1991; and Letter from Oregon Department of Human Resources, 4/26/91.
12. Drilling Fluids and Bit Lubrication -- No bit lubrication other than filtered air and potable water shall be allowed. Compressed air shall be filtered to eliminate contamination of the air by oil from the compressor. Water used down hole in any phase of the work shall be kept to a minimum. The Contractor shall prevent and is responsible for any hydrocarbon or other chemical contamination of materials used in drilling. No drilling muds or foams shall be used and petroleum or soap-based products shall not be allowed. The use of petroleum based joint compounds, which are normally used to prevent binding, shall not be allowed.
13. Additional Work -- An "Additional Work" item is included as part of this Contract. This work shall consist of additional well abandonment, maintenance, and construction, requested in writing by Metro during the life of the Contract.

**PART V**  
**TECHNICAL SPECIFICATIONS**

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**TECHNICAL SPECIFICATIONS**

**SECTION 1 - GENERAL****1.1 HEALTH AND SAFETY**

- A. Formal Health and Safety training is required of the Contractor for this job. In responding to this bid, the Contractor acknowledges familiarity with conditions at the project site and will institute any Health and Safety Plan requirements of applicable laws and regulation pertinent to the specific project site conditions. The Contractor is responsible for the preparation of the Health and Safety Plan which meets all applicable laws, rules, and regulations including OSHA Regulations and applicable Oregon Occupational Safety and Health Codes. The Contractor shall submit a copy of their Health and Safety Plan within five (5) calendar days after the Notice to Proceed.
- B. The Engineer will be performing air monitoring at the boring or well head and in the general vicinity of the work. The Contractor will be informed of the results of the air monitoring. However, the Engineer will not be responsible for the actions of the Contractor.

**1.2 ACCESS TO WELL LOCATIONS**

- A. Permission for access onto the property and drill sites will be arranged by Metro prior to commencement of the project.
- B. Once onto the project site, the Contractor shall provide physical access of all required equipment, personnel, and materials to each drill site. The Contractor shall coordinate all access and operational requirements, as necessary, with other contractors on site.
- C. Any roads with access shall be constructed to the Contractor's Specification with the following restrictions:
  - (1) Existing roads shall not be obstructed.
  - (2) Existing facilities shall not be disturbed.
  - (3) The access road shall be designed to minimize disturbance of the subgrade.
  - (4) All access road construction shall be limited in width to a single lane.

**1.3 CONTRACTOR REQUIREMENTS**

- A. The construction of groundwater monitoring wells is regulated by the State of Oregon. A Memorandum of Understanding (MOU) has been signed between the Oregon Department of Environmental Quality (DEQ) and the Oregon Water Resources Commission (WRD). The MOU delegates the authority to DEQ for regulation and inspection of drilling, construction and decommissioning of groundwater monitoring wells installed at DEQ-regulated sites and facilities (copy of MOU is included in the Appendix). The St. Johns Landfill is a DEQ-regulated site. The Contractor shall be familiar with and conduct all monitoring well construction activities in accordance with the Memorandum of Understanding between WRD and DEQ dated November 1, 1991.
  - (1) All monitoring wells will be constructed and installed by an "Oregon licensed Monitoring Well Constructor" per WRD Chapter 690, Division 240, "Construction and Maintenance of Monitoring Wells and Other Holes in Oregon" (effective January 1, 1991), and by the Department of Environmental Quality (DEQ) draft "Guidelines for Groundwater Well Drilling Construction and Decommissioning" (November 20, 1991). Well construction design Specifications are shown on the Drawings.
  - (2) The Contractor shall submit all start cards and fees directly to WRD and shall submit all required well abandonment or well construction information to DEQ Solid Waste Section as required by the State of Oregon.
- B. The Contractor shall select construction methods appropriate for the subsurface or well conditions anticipated to

be encountered at each work location. The construction method shall be submitted to Metro for review and authorization. The Scope of Work includes furnishing of all equipment, labor, materials, permits, and incidentals necessary to perform the work as described in these Documents.

- C. The Contractor shall be required to have at least one Oregon licensed Monitoring Well Constructor and at least one competent driller's assistant for each drilling machine on site through the duration of the project.
- D. The Contractor will be responsible to:
- (1) Procure all permits, licenses and certificates necessary to complete the work.
  - (2) Comply with all federal, state, and local laws, ordinances, rules, and regulations.
  - (3) Convey water (if necessary for drilling operations which meets the State of Oregon water quality standards. Water is available on the landfill site at the location shown on the Drawings.
  - (4) Locate all utilities, if applicable.
  - (5) Restore and clean up drill site and access roads to near original condition as stipulated in Section 8.
  - (6) Designate a representative who will be the only individual authorized to coordinate with Metro and the Engineer.
  - (7) The Contractor shall keep a daily written log of operations, including size and length of the casing placed, character, depth and thickness of all formations penetrated, and causes of delays. Duplicate copies of this log shall be furnished at the end of each work day.
- E. The Contractor shall conduct all operations in such a way as to prevent any contamination, destruction, scarring, or defacing of the work site:
- (1) Every effort shall be made to present an orderly appearance at the work site while drilling operations take place. At the completion of the field activities, the Contractor shall be required to return the site to near its original condition as stipulated in Section 8.
  - (2) In the event that any damages to the site property occur because of the Contractor's activities, the contractor shall, at his/her own expense, repair the damages or reclaim the land to the extent deemed suitable by Metro.

**SECTION 2  
MEASUREMENT AND PAYMENT**

**2.1 MEASUREMENT OF PAY QUANTITIES**

- A. Contractor will be paid on an interim basis for all work completed. During the 1992 work, the Contractor shall prepare a monthly estimate of the work accomplished to date. The format and date of submittal will be subject to the approval of Metro. Metro will determine the final interim payment amount with Contractor present to verify items and quantities.
- B. For work in 1993, 1994, 1995 and 1996, the Contractor shall prepare an estimate of the work accomplished within 30 days after each mobilization is completed. Metro will determine the final payment amount with Contractor present to verify items and quantities.
- C. Description of Methods for Measurement of Quantities:
- (1) Where lump sum is the specified pay unit, complete payment for the work described to be done, completed and accepted, without further measurement will be used, except Section 2.6, Item 1 - General Mobilization, where partial payment will be made. Payment will be made at the Contract lump sum price.
  - (2) Where per each is the specified pay unit, complete payment for each item, completed and accepted, without further measurement will be used. Payment will be made at the Contract price given for each item. partial payment will not be made for per each items.
  - (3) Where per lineal foot is the specified pay unit, payment will be made for each vertical lineal foot depth of well or piezometer completed and accepted. Payment will be made at the Contract lineal foot price given.
- D. Hourly Charges: Where per hour is the specified pay unit for well abandonment or well maintenance, payment will be made for each hour of work required due to 'unanticipated conditions' encountered during the work. Material expended under this item will be paid at cost plus 15 percent.

Any work performed under Hourly Charges shall be approved in advance of the work by Metro, as follows:

- (1) The Contractor shall make a request to Metro outlining the unanticipated condition;
- (2) Metro will respond immediately to the verbal request; and
- (3) The Contractor shall provide to Metro written documentation of the request and response within 24 hours of the initial request.



Payment will be made at the Contract hourly rate given. The Contractor shall submit receipts for materials expended under this item.

- E. Additional Work: Where per hour is the specified pay unit for Additional Work items requested by Metro, payment will be made for each hour of work completed on the requested item(s). Materials expended under this item will be paid at cost plus 15 percent. Work under Additional Work will be initiated as follows:

- (1) Metro will submit a written request to the Contractor for each item of work;
- (2) The Contractor shall respond with a scope of work and a cost proposal;
- (3) Metro and the Contractor will then negotiate a mutually agreeable scope and cost based on the submittals;
- (4) If no agreement can be reached, Metro will obtain the required services elsewhere.

Payment will be made at the Contract hourly rate given for Additional Work completed in 1992. For Additional Work in 1993, 1994, 1995, and 1996, payment will be made at the Contract hourly rate given plus a yearly percentage increase. The percentage increase shall be included in the cost proposal and negotiated as stipulated in (1) and (4) above. The Contractor shall submit receipts for materials expended under this item.

- F. No payment will be made for:

- (1) Delays due to improper or inoperable drilling equipment or improper drilling methods during drilling and installation of wells and piezometers. The Contractor shall be familiar with ground conditions at the St. Johns Landfill and shall be prepared to employ drilling and installation methods as required to complete the work as stipulated in the Contract Documents.
- (2) Delays encountered in accessing drilling sites. The Contractor shall be familiar with conditions for access to all well locations and shall be prepared to provide suitable equipment to aid access. Site access shall be accomplished as stipulated in the Special Conditions.
- (3) Drilling footage in excess of that needed to complete the required installations.
- (4) Work performed under the "per hour" rate provisions which are not approved in advance by Metro.
- (5) Wasted materials, materials stored on-site, or materials on hand after completion of the work.
- (6) Work not in compliance with the Specifications or incomplete work or installations.

- (7) Repair, replacement, or redoing of work or installations not completed in compliance with the Specifications.
- (8) Work performed outside the provisions of the Contract, or for any item contrary to any provision of the Contract.

## **2.2 ESTIMATED QUANTITIES FOR UNIT PRICE ITEMS**

- A. The estimated quantities shown in the Schedule of Quantities and Prices are estimates only, being given only as the basis for the comparison of Bids. Metro does not guarantee that the actual amount of work will correspond to the estimates. The basis of payment will be the actual unit bid items of work performed and measured in accordance with the Contract. Certain bid items or units are included to establish a unit price. Payment per completed unit (for per each and per lineal foot) will be at the Contract price, unless the quantity is greater than or less than 20% of the estimated quantities given in the Schedule of Quantities and Prices.

## **2.3 QUANTITIES FOR PER HOUR ITEMS**

- A. The quantities shown in the schedule of Quantities and Prices are being given only as the basis for the comparison of Bids. The Contractor is advised that there exists no basis for estimating the amount of hourly charges due to unanticipated conditions or the amount of additional work which may be required over the life of the contract. Therefore, the basis of payment will only be made as stipulated under Paragraph 2.1D - Hourly Charges and 2.1E - Additional Work.

## **2.4 PAYMENT FOR LUMP SUM ITEMS**

- A. Payment for work items designated per lump sum units shall be in accordance with of the Supplemental Conditions and according to the Contract prices given in the Schedule of Quantities and Prices. Partial payments shall be made as stipulated in Paragraph 2.6 to this Section.

## **2.5 PAYMENT FOR "PER EACH", "PER LINEAL FOOT", AND "PER HOUR" UNIT PRICE ITEMS**

- A. Payment for items designated per each, per lineal foot or per hour shall be according to the Contract prices given in the Schedule of Quantities and Prices.



**2.6 DESCRIPTION OF BID ITEMS****ITEM 1 - 1992: General mobilization and site safety and health program**

- A. Mobilization: This item shall consist of preconstruction costs of preparatory work and operations performed by the Contractor, including, but not limited to, the following:
- (1) Movement of personnel, drilling rigs, drilling equipment, support vehicles, supplies, and incidentals to the project site.
  - (2) Premium on bonds and insurance for the project.
  - (3) Permits or documentation required to meet access or regulatory requirements.
  - (4) Costs incurred for operations which must be performed or costs which must be incurred before beginning work on the project site.
  - (5) Operations which must be performed or costs which must be incurred in removing equipment, personnel, and materials off from the project site.
- B. Site Safety and Health Program: This item shall be included in this bid item. This portion of the lump sum price shall constitute complete compensation for the investigation of existing conditions and potential hazards, preparation of all required safety and health program elements, and implementation of the approved Program throughout the Contractors' work on the landfill site.
- C. Any portion of the work covered by a specific bid item shall not be included in this item.
- D. Partial payments for Item 1 - 1992 General Mobilization and Site Safety and Health Program will be made as follows:
- (1) When at least 5 percent of the total original Contract amount, based on monthly estimates, is earned from other bid items, 50 percent of the amount bid for Item 1 will be paid.
  - (2) When at least 25 percent of the total original Contract amount, based on monthly estimates, is earned from other bid items, payment for Item 1 will total 90 percent of the amount bid.
  - (3) Upon completion of all work on the project, payment for Item 1 will total 100 percent of the amount bid.

**ITEM 2 - 1992: Mobilization to each well or piezometer location at the St. Johns Landfill site**

- A. The per each price for mobilization to each well location on the St. Johns site shall be full compensation for pioneering access to the location and the setup, breakdown, decontamination, and moving of all equipment, and materials and moving personnel between well locations on the landfill.
- B. One mobilization per well location will be paid except as follows:
  - (1) Metro requests that the operations be moved to expedite other work on the landfill. In this case an additional mobilization, per the Contract unit price, will be paid to move back onto the location.
  - (2) Unanticipated conditions are encountered during well abandonment and it is in Metro's best interest that operations be moved to another location to expedite the work. In this case an additional mobilization, per the contract unit price, will be paid to move back onto the location.

**ITEM 3 - 1992: Mobilization and site protection at the wetlands lake sites**

- A. The per each price for mobilization to each well location outside within the Smith and Bybee Lake sites shall be full compensation for the setup, breakdown, decontamination, and moving personnel to and from each well location and from each well location.
- B. The wetlands sites are extremely sensitive and the price shall include added precautions required to minimize disturbance to the ground, surface water, and vegetation during the work and principally during ingress and egress from the sites. Any accidental discharge of drilling fluids, petroleum products, or other potential contaminants will be appropriately cleaned up or remediated by the Contractor at his expense.

**ITEM 4 - 1992: Well abandonment - Method A**

- A. Abandonment of the wells by Method A will be paid at the Contract price given per each for Well Abandonment - Method A. Payment shall include clearing the well, removal of security casing and surface seal, grouting, downhole cutoff of casing, disposal of leachate and all start cards, well construction decommissioning documentation, and other permits required for the work.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.2D.

**ITEM 5 - 1992: Well Abandonment - Method B**

- A. Abandonment of the wells by Method B will be paid at the Contract price given per each for Well Abandonment - Method B. Payment shall include for overboring, removal, and disposal of material removed from the boring, backfilling, grouting, bentonite pellets, and all start cards, well construction decommissioning

documentation, and other permits required for the work.

- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.2D.

**ITEM 6 - 1992: Check well quality**

- A. Check of well quality will be paid at the Contract price given per each well checked. The price shall include a visual survey of the surface casing and surface seal, probing of the well casing to determine the depth of clear casing, and performing a leak test in the solid casing above the well screen.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.2D.

**ITEM 7 - 1992: Remove silt from wells**

- A. Removal of silt from wells will be paid at the Contract price given per each well for which the removal of silt is attempted.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.2D.

**ITEM 8 - 1992: Install well inserts**

- A. Installation of well inserts will be paid at the Contract price given per each well for which the installation of each insert is attempted.
- B. Work required due to unanticipated conditions will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro, as stipulated in Paragraph 2.2D.

**ITEM 9 - 1992: Drill, furnish materials, and install 7 shallow new monitoring wells**

- A. Installation of seven new shallow monitoring wells will be paid at the Contract price given per vertical lineal foot depth of wells completed and accepted. Measurement will be the length of casing installed, including stickup. The price shall include the use of drilling equipment, drilling labor, decontamination not associated with mobilization, collection of soil samples, well development, collection of soil and liquid material into approved drums, casing materials, screen, backfill material, security casing and lock, and installation labor.

**ITEM 10 - 1992: Drill, furnish back fill material, and install 9 multiple piezometers**

- A. Installation of the nine multiple piezometers will be paid at the Contract price given per vertical lineal foot depth of borehole drilled. Measurement will be between the ground surface and bottom of hole as measured on

the drill tools and rods. The price shall include the use of drilling equipment, drilling labor, and collection of soil and liquid material removed from the hole into approved drums, backfill material, security casing and lock, and installation labor. Casing and instrumentation will be furnished and assembled by Metro.

**ITEM 11a - 1992: 5-foot well extension (Wells H-1, H-4, H-5)**

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1992. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

**ITEM 11b - 1992: Grout and complete surface casing (Well H-1)**

- A. Completion of the surface casing for Well H-1 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 12a - 1993: Mobilization (to Wells H-2, H-4, and H-5)**

- A. Mobilization for 1993 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to and from the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

**ITEM 12b - 1993: 5-foot well extension (Wells H-2, H-4)**

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1993. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

**ITEM 12c - 1993: Remove 5-foot well extension (Well H-5)**

- A. Removal of 5-foot well extensions will be paid at the Contract price given for each removal completed in 1993. The price shall include all labor to remove and store the casings on the St. Johns site.

**ITEM 12d - 1993: Grout and complete surface casing (Well H-2)**

- A. Completion of the surface casing for Well H-2 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 13a - 1994: Mobilization (to Wells H-3, H-4, and H-5)**

- A. Mobilization for 1994 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel,

construction equipment, supplies, and incidentals to the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

**ITEM 13b - 1994: 5-foot well extension (Wells H-3, H-4)**

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1994. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

**ITEM 13c - 1994: Remove 5-foot well extension (Well H-5)**

- A. Removal of 5-foot well extensions will be paid at the Contract price given for each removal completed in 1994. The price shall include all labor to remove and store the casings on the St. Johns site.

**ITEM 13d - 1994: Grout and complete surface casing (Well H-3)**

- A. Completion of the surface casing for well H-3 will be paid at the Contract price given. The price shall include for labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 14a - 1995: Mobilization (Wells H-4, H-5)**

- A. Mobilization for 1995 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

**ITEM 14b - 1995: 5-foot well extension (Well H-4)**

- A. Installation of the 5-foot well extensions will be paid at the Contract price given for each well extension completed in 1995. The price shall include all labor and casing materials required to complete the work, less materials supplied by Metro (as indicated in Section 4 - Well Extension, Extension Removal, and Well Completion).

**ITEM 14c - 1995: Remove 5-foot well extension (Well H-5)**

- A. Removal of 5-foot well extensions will be paid at the Contract price given for each removal completed in 1995. The price shall include all labor to remove and store the casings on the St. Johns site.

**ITEM 14d - 1995: Grout and complete surface casing (Well H-4)**

- A. Completion of the surface casing for well H-4 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 15a - 1996: Mobilization (Well H-5)**

- A. Mobilization for 1996 will be paid at the Contract price given for each mobilization to a well location at the St. Johns site. This item shall consist of costs of preparatory work, decontamination, and movement of personnel, construction equipment, supplies, and incidentals to the project site. Only one (1) mobilization will be paid if multiple operations are carried out during a site mobilization visit.

**ITEM 15b - 1996: Grout and complete surface casing (Well H-5)**

- A. Completion of the surface casing for Well H-5 will be paid at the Contract price given. The price shall include labor, grout, surface casing, concrete plug, steel pipe cap, and protective posts.

**ITEM 16 - 1992: Unanticipated conditions during well abandonment and well maintenance  
(performed only upon Metro approval)**

- A. Work required due to unanticipated conditions encountered during well abandonment and installation of replacement wells will be paid at the Contract hourly rate given. Any work performed under the hourly rate shall be approved in advance by Metro as described in Paragraph 2.2D.

**ITEM 17 - Site cleanup and restoration**

- A. All costs associated with site cleanup and restoration shall be included in the Contract lump sum price. This item shall include general site cleanup during and upon completion of the work, repair of any damaged facilities, and restoration of the Wetlands Lake access and drilling sites.

**ITEM 18 - Contingency (performed only when agreed with Metro)**

- A. Contingency work requested and agreed by Metro shall be paid as follows:

- (1) Payment will be made at the Contract hourly rates given for Contingency work completed in 1992.
- (2) For Contingency work in 1993, 1994, 1995, and 1996, payment will be made at the Contract hourly rate given plus a negotiated yearly percentage increase as stipulated in Paragraph 2.2E.

### SECTION 3 WELL ABANDONMENT

#### 3.1 GENERAL

##### A. SCOPE

- (1) This Section covers the requirements for the abandonment of 21 groundwater monitoring wells. The approximate location of the wells to be abandoned are shown on the Drawings.
- (2) The well identification and coordinate locations are summarized as follows:

**TABLE 3-1. WELL ABANDONMENT**

Well Identification	East Coordinate (feet)	North Coordinate (feet)
Well Abandonment - Method A		
A-1 <sup>b</sup>	12370 <sup>a</sup>	1510 <sup>a</sup>
A-2	11884.54	1892.1
A-3 <sup>b</sup>	12354.72	2427.00
A-4 <sup>b</sup>	12790 <sup>a</sup>	1910 <sup>a</sup>
B-2	11090 <sup>a</sup>	1840 <sup>a</sup>
B-4	11035.04	2639.08
C-1	12424.26	1238.37
C-2	11115 <sup>a</sup>	1245 <sup>a</sup>
C-3	10859.20	3444.65
C-5	12290 <sup>a</sup>	3550 <sup>a</sup>

TABLE3-1. WELL ABANDONMENT (cond'd)

Well Identification	East Coordinate (feet)	North Coordinate (feet)
Well Abandonment - Method A (cond'd)		
D-5a	13226.13	1335.05
D-5b	13216.82	1330.47
D-6b	14249.50	3054.09
D-7a	12712.05	3586.6
D-8a	10928.29	3328.29
EPA-O <sup>b</sup>	12440 <sup>a</sup>	2040 <sup>a</sup>
EPA-P <sup>b</sup>	11632.34	2553.40
EPA-Q	11285.67	1591.33
EPA-R	10928.29	3328.29
Well Abandonment - Method B		
E-1	12300 <sup>a</sup>	3420 <sup>a</sup>
E-2	13280 <sup>a</sup>	3740 <sup>a</sup>

a) Well location based on visual field check

b) Metro may choose to not abandon these wells based on results from check of well quality

(3) All phases of this work must be coordinated with and performed in the presence of the Engineer. Metro shall be notified at least 48 hours in advance of the work to ensure the availability of the Engineer.

(4) The report "Abandonment of Monitoring Wells", dated February 7, 1991, prepared by Cornforth Consultants, Inc., shall be used as a reference for additional monitoring well data and background information.

#### A. RESPONSIBILITIES OF THE CONTRACTOR

(1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.



**B. RESPONSIBILITIES OF THE ENGINEER**

- (1) The Engineer will be in the field during all well abandonment activities. The Engineer will observe the work for compliance with these Specifications and will observe and document the abandonment procedure.
- (2) The Engineer will monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector. The Engineer will inform the Contractor if elevated or potentially hazardous conditions are encountered. However, the Engineer will not be responsible for the actions that the Contractor undertakes in response to information provided by the Engineer.

**C. SCHEDULE**

- (1) Wells C-3 and D-8a must be abandoned within ten days of Notice to Proceed. The well abandonment work scheduled for 1992 shall be completed no later than November 1, 1992.

**D. CONDITION OF THE WELLS**

- (1) The general condition of the wells is described in the Cornforth Consultants report. Tables 3-2 and 3-4 indicate that wells A-2 shallow, A-2 deep, B-2, B-4, B-5, EPA-R, E-1 and E-2 have been extended in the past, probably to accommodate refuse filling. Old buried surface monuments may exist at depth.
- (2) The estimated casing conditions, dimensions, and screen or slot locations indicated in the referenced tables and reports are based on inferences from driller's logs. Some or all of the wells have undergone ground settlement and have a history of monitoring well accidents, well repairs, casing extensions, and borehold conditions which are unknown. The Contractor is cautioned that the estimated casing conditions may vary significantly from actual field conditions.

**3.2. MATERIALS****A. GROUT**

- (1) Provide a grout with a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids. All grout shall be mixed with potable water.

**B. BENTONITE PELLETS**

- (1) Bentonite pellets or chips shall consist of Bariod Holeplug, medium grade, or approved equal.

### 3.3 EXECUTION

#### A. WELL ABANDONMENT- GENERAL

(1) Wells to be Abandoned:

- a. Wells A-1, A-2, A-3, A-4, B-2, B-4, C-1, C-2, C-3, C-5, D-5a, D-5b, D-6b, D-7a, D-8a, EPA-O, EPA-P, EPA-Q and EPA-R shall be abandoned in accordance with Method A. Method A consists of backfilling each casing with grout.
- b. Wells E-1 and E-2 shall be abandoned in accordance with Method B. Abandonment Method B involves overdrilling and backfilling the subsequent borings with grout.

#### B. ABANDONMENT PROCEDURE - METHOD A

- (1) Refer to Tables 3-2 and 3-3, and well logs in the Appendix.
- (2) The Contractor shall check each well for obstructions by lowering a heavy pipe (or equivalent object) down the well to ensure that the well is open to the bottom.
- (3) If a well is found to be plugged, the Contractor shall attempt to clear the obstruction by jetting, drilling, or other appropriate methods while minimizing disturbance to the casing.
- (4) Remove the surface casing and cut the well casing using down-hole tools at the depth of casing cutoff indicated in Table 3-3.
- (5) Tremie grout the casing from the bottom to the top of the cut casing. Leachate forced out the top, as the grout fills the casing, shall be collected. Spillage of leachate onto the ground shall not be permitted.

### 3. WELL ABANDONMENT

- (6) The grout shall fill the casing from the present casing depth as indicated in Table 3-2 to within 2 feet of the depth of casing cutoff indicated in Table 3-3.
- (7) While the grout is still liquid, the upper portion of the casing which was cut in (4) above shall be pulled out. The cut casing shall be withdrawn during placement of the bentonite's pellets in such a way as to prevent sloughing of soils or refuse into the boring.
- (8) The remaining open hole left after casing removal shall be backfilled with bentonite pellets tamped into the borings to the surface.
- (9) Any leachate/water or soil material coming out of the wells during clearing, grouting, and removal of casing shall be immediately collected into drums.
- (10) The drums and casings shall be disposed of as specified in Section 8.

#### C. ABANDONMENT PROCEDURE - METHOD B

- (1) Both wells for Method B abandonment are double completion. Refer to Table 3-4 and the well logs in the Appendix for boring and well information.
- (2) The Contractor shall check each well casing for obstructions by lowering a heavy pipe (or equivalent object) down the well to ensure that the well is open to the bottom.
- (3) If a well is found to be plugged, the Contractor shall attempt to clear the obstruction by jetting, drilling, or other appropriate methods while minimizing disturbance to the casing.
- (4) Install a nominal 1/4-inch steel reinforcing bar into each casing with a 1/2-inch grout tube attached. The steel bars shall be continuously connected with clamps or tack welds sufficient to withstand tension by pulling with the drill rig lifting winch.

### 3. WELL ABANDONMENT

- (5) Tremie grout each casing from the bottom to the top. Leachate forced out the top, as the grout fills the casing, shall be collected. Spillage of leachate onto the ground shall not be permitted.
- (6) Let grout set overnight.
- (7) Remove all surface casing.
- (8) After the grout has set overnight, connect drill winch to reinforcing bar in shallow well casing and pull out casing.
- (9) Using a 6-inch annulus hollow stem flight auger, overdrill the boring on the deep well to the top of and a minimum 2 feet into the underlying gravel.
- (10) Conduct the overdrilling so that as much of the well seal and backfill materials are removed from the bore as practicable. Any material brought out of the wells during overdrilling shall be immediately collected into drums.
- (11) Connect drill winch to reinforcing bar in deep well casing and pull out casing.
- (12) Clear the remaining material out of the auger annulus by jetting, drilling, or other appropriate methods.
- (13) Grout through the center of the auger as the auger is withdrawn from the boring. The grout level shall be maintained at a level of 20 feet below the ground surface in well E-1 and 13 feet below the ground surface in well E-2.
- (14) The remaining 20 feet in well E-1 and 13 feet in well E-2 open hole backfilled with bentonite pellets to the surface. These shall be installed by withdrawing the auger during placement of the bentonite pellets in such a way as to prevent sloughing of soils or refuse into the boring.
- (15) Any leachate/water or soil material coming out of the wells during overdrilling shall be immediately collected into drums.
- (16) The drums shall be disposed of as stipulated in Section 8.

#### D. VARIANCE

- (1) The Contractor shall immediately inform Metro if unanticipated conditions are encountered during the work. The Contractor shall stop work and proceed as outlined in Section 2 - Measurement and Payment,

Paragraph 2.2D.

- (2) If attempts to fully grout or completely overbore and remove the casing, seal, and filter pack materials prior to backfilling, as described above, are not successful, Metro may determine that alternative abandonment procedures may be required. Alternative abandonment procedures may be carried out under the Hourly Charges, Item 16 in the Schedule of Quantities and Prices.
- (3) If site specific conditions require approval of alternate methods of abandonment, approval of special standards shall be requested by Metro from the Oregon Department of Environmental Quality, Solid and Hazardous Waste Division.

#### **E. DISPOSAL OF WELL MATERIALS**

- (1) All casing and backfill material removed from the boring shall be disposed of on the landfill site as directed by the Engineer. Steel casing shall be cut into maximum 10-foot lengths prior to disposal. Torch cutting of steel casing shall not be permitted on the interior of the landfill site.
- (2) Any leachate/water coming out of the wells during clearing, grouting, and removal of casing shall be immediately collected and disposed of in the existing leachate disposal system in Subarea 5.
- (3) Additional disposal and cleanup shall be carried out as stipulated in Section 8 - Site Cleanup and Restoration.

TABLE 3-2. ABANDONMENT DATA, METHOD A

Well No.	Casing Diameter/ Material (inches)	Original Casing Depth (feet)	Estimated Well Extension (feet) <sup>a</sup>	Present Casing Depth (feet)	Leachate Depth (feet)	Surface Casing	Remarks
A-1							
A-2(sh)	2" PVC	19.0	16	35 <sup>b</sup>	23 <sup>d</sup>	6" PVC	double completion
A-2(dp)	2" PVC	33.0	16	49 <sup>b</sup>	23 <sup>d</sup>	6" PVC	double completion
A-3							
A-4							
B-2	3" steel	33	24	57 <sup>b</sup>	29 <sup>d</sup>	6" PVC	
B-4	3" steel	43	25	68 <sup>b</sup>	49 <sup>d</sup>	6" PVC	
C-1	2" steel	37.5	--	36.5°	27.7°	none	plugged at unknown depth
C-2	2" steel	24.0	--	19.7°	14.2°	none	approximately 2 feet of "silt" filled in bottom of casing
C-3	2" steel	21	--	19.9°	10.6°	none	
C-5	2" steel	25	--	20.8°	10.3°	none	approximately 3 feet of "silt" filled in bottom of casing
D-5a							
D-5b							
D-6b							

TABLE 3-2. ABANDONMENT DATA, METHOD A (cont'd)

Well No.	Casing Diameter/ Material (inches)	Original Casing Depth (feet)	Estimated Well Extension (feet) <sup>a</sup>	Present Casing Depth (feet)	Leachate Depth (feet)	Surface Casing	Remarks
EPA-O							
EPA-P							
EPA-Q	2" PVC	62	—	56 <sup>a,b</sup>	29 <sup>d</sup>	6 ½" steel	
EPA-R	2" stainless	48	10	58 <sup>a,b</sup>	28 <sup>d</sup>	6 ½" steel	

<sup>a</sup>) Does not include casing stickup

<sup>b</sup>) Depth below 1990 ground surface within approximately ±3 feet

<sup>c</sup>) Measured depth below top of casing (CH2M, 1990)

<sup>d</sup>) Depth below 1990 ground surface estimated from August 1990 leachate levels measured in adjacent H-Series monitoring wells and adjacent August 1990 slough water levels

**TABLE 3-3. SUMMARY OF CASING CUTOFFS**

Well No.	Casing Diameter/ Material (inches)	Present Surface Elevation (feet)	Design Subgrade Fill Elevation (feet)	Design Fill Depth Above Surface (feet)	Estimated Settlement (feet)	Final Fill Depth Above Surface After Settlement (feet)	Recommended Depth of Casing Cutoff Below Present Ground Surface (feet)
A-1 A-2 A-3	2" PVC	56	58	2	10	-8	18
B-2 B-4	3" steel 3" steel	63 68	75 70	12 2	10 16	2 -14	8 24
C-1 C-2 C-3 C-5	2" steel 2" steel 2" steel 2" steel	36 22 18 18	37 25 20 18	1 3 2 0	4.5 3 3 3	-3.5 0 -1 -3	13.5 10 11 13
D-5a D-5b D-6b D-7a D-8a	3" PVC 3" PVC	29 32	30 30	1 -2	3 3.5	-2 -5.5	12 15
EPA-O EPA-P EPA-Q EPA-R	2" PVC 2" stainless	62 55	68 57	6 2	10 15	-4 -13	14 23



TABLE 3-4. ABANDONMENT DATA, METHOD B

Well No.	Well Casings Diameter/Material/ Depth	Leachate Depth (feet)	Surface Casing	Original		Estimated Well Extension (feet) °	Recommended	
				Bore Diameter (inches)	Bore Depth (feet)		Overbore Diameter (inches)	Overbore Depth (feet)
E-1	<u>Shallow</u> 2" PVC 0 - 56 feet  <u>Deep</u> 2" PVC 0 - 70 feet	15 <sup>a</sup>	old buried 8" PVC surface casing, depth approx. 23-28 feet	7.5	48	24	8	72
E-2	<u>Shallow</u> 2" PVC 0 - 49 feet  <u>Deep</u> 2" PVC 0 - 116 feet	19.3 <sup>b</sup>	old buried 8" PVC surface casing, depth approx. 16 - 21 feet	7.5	102	15	8	116

<sup>a</sup> Depth below 1990 ground surface estimated from August 1990 leachate levels measured in adjacent H-Series monitoring wells

<sup>b</sup> Measured depth below top of casing

<sup>c</sup> Does not include casing stickup

**SECTION 4**  
**WELL EXTENSION, EXTENSION REMOVAL,**  
**AND WELL COMPLETION**

**4.1 GENERAL**

**A. SCOPE**

- (1) This Section covers the requirements for the extensions, removal of extensions, or completion of surface casing for H-Series wells H-1 to H-5 which are located within the interior of the landfill at the locations shown on the Drawings.
- (2) The extension or removals shall be carried out in response to construction filling or fill removal on the site by other contractors during closure construction through the year 1996. The extensions and removal must be coordinated with the work of Metro's other contractors.
- (3) The following schedule of extensions, extension removals, or surface casing completion are estimated:

**TABLE 4-1**

Year	Wells	Quantity	Activity
1992	H-1, H-4, H-5	5	5-foot well extension
1992	H-1	1	Complete and grout surface casing
1993	H-2, H-4	4	5-foot well extension
1993	H-5	2	Remove 5-foot well extension
1993	H-2	1	Complete and grout surface casing
1994	H-3, H-4	4	5-foot well extension
1994	H-5	1	Remove 5-foot well extension
1994	H-3	1	Complete and grout surface casing

TABLE 4-1 (cont'd)

Year	Wells	Quantity	Activity
1995	H-4	1	5-foot well extension
1995	H-5	1	Remove 5-foot well extension
1995	H-4	1	Complete and grout surface casing
1996	H-5	1	Complete and grout surface casing

- (4) Metro will request the work in writing to the Contractor based on the work completed on the landfill site, and the needs for scheduling on the project.
- (5) The following procedures are specifically designed to eliminate on-site torch cutting and welding work on the landfill interior due to the threat of igniting landfill gases and to maintain the integrity of the monitoring well. Contractor shall review the well and the recommended extension procedure prior to starting work. Modification of the procedure, if any, shall be in accordance with the State of Oregon Regulations, and approved by Metro in advance of the work.

#### B. RESPONSIBILITIES OF THE CONTRACTOR

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.
- (2) All phases of this work must be done in the presence of the Engineer. Metro will be notified at least 48 hours in advance of performance of this work to ensure the availability of the Engineer and surveyors.
- (3) When requested by Metro, the Contractor shall be available to complete the requested extension, extension removal, or well completion within 30 days of Metro written request.

#### C. RESPONSIBILITIES OF THE ENGINEER

- (1) The Engineer will be in the field during all Contractor activities. The Engineer will observe the work for compliance with these Specifications and will observe and document the procedures.

#### 4. WELL EXTENSION, EXTENSION REMOVAL AND WELL COMPLETION

- (2) The Engineer will monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector. The Engineer will inform the Contractor if elevated or potentially hazardous conditions are encountered. However, the Engineer will not be responsible for the actions that the Contractor undertakes in response to information provided by the Engineer.

#### D. SCHEDULE

- (1) Extensions, extension removals, and completions shall be carried out on a schedule as requested by Metro. When requested by Metro, the Contractor shall be available to complete the requested extension, extension removal, or well completion within 30 days of Metro written request.
- (2) Through the year 1996, most closure work will be carried out over the six-month period from May through October.

#### E. CONDITION OF THE WELLS

- (1) The general condition of the wells are described in the Cornforth Consultants report "Five Interior Monitoring Wells, As Constructed", dated October 29, 1990. Since the report, some settlement of the wells has occurred, and well H-4 has been extended 15 feet and well H-5 has been extended 10 feet.

### 4.2 MATERIALS

#### A. WELL CASING AND CENTRALIZERS

- (1) The well extension casing shall consist of Johnson Environmental Products 2-inch diameter Schedule 40 flush-threaded stainless steel casing, or equivalent casing compatible with the existing casing. The Contractor shall have a mixture of 5-foot and 10-foot lengths.
- (2) Metro will supply Contractor with twelve 10-foot sections and one 5-foot section of the specified stainless steel well casing.
- (3) Centralizers shall be suitable for use with 2-inch stainless steel casing inside of 5½ -inch diameter steel pipe. One (1) centralizer per 5-foot extended section shall be supplied.

#### B. INNER PROTECTIVE CASING

- (1) The inner protective casing shall consist of 5-foot lengths of 5½ -inch diameter steel pipe surface monument casing. The protective casing shall have standard NPT threads at both ends for continued extension.

- (2) Steel couplings with NPT threads for 5½ -inch protective casing.

#### C. OUTER PROTECTIVE CASING

- (1) Temporary 10-inch diameter steel pipe casing shall be used in preload filling areas outside of the 5½ -inch protective casing.

#### D. GROUT

- (1) Grout shall consist of American Colloid Pure Gold Grout, or equivalent grout consisting of a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids.
- (2) Metro will provide 57 bags of the Pure Gold Grout for use by the Contractor.

#### E. PROTECTIVE SAND BERM

- (1) Metro will supply dredge sand for the protective berms. The Contractor shall obtain the sand from existing on-site stockpiles.

#### F. LIGHTED BARRICADES

- (1) The lighted barricades shall consist of lighted, free-standing barricades. Contractor shall also use sufficient batteries for one-year continuous operation of the barricades.

#### G. SURFACE MONUMENT AND LOCKING CAP

- (1) The surface casing, concrete plug, and locking cap shall be fabricated by the Contractor as shown on the Drawings.

### 4.3 EXECUTION

#### A. EXTENSION PROCEDURE

- (1) Prior to extension, Contractor will need to coordinate with Metro and surveyors to determine the vertical elevation of the 2-inch well casing.
- (2) At an off-site location, or on the perimeter road, cut a ½ -inch wide by 2-foot long slot on one end of a maximum 10-foot long, 5½ -inch diameter steel pipe to allow it to slip over the "O" ring hasp on the surface monument. Weld an appropriate threaded coupling to the other end (top) of the steel pipe as shown on the Drawings. For wells H-4 and H-5, this is not needed.

#### 4. WELL EXTENSION, EXTENSION REMOVAL AND WELL COMPLETION

- (3) Approach the well to be extended from upwind and monitor for hazardous gases emitting from the well cap and surrounding area. Take appropriate personal safety measures.
- (4) Unlock and remove steel pipe cap and PVC slipcap. Survey top of 2-inch casing. Metro will provide surveyors.
- (5) Thread on a maximum 10-foot long section of 2-inch diameter stain-less steel casing with vented PVC slipcap on top. Interchange 5-foot and 10-foot sections with successive raises to maintain the top of the 2-inch casing with the top of the protective casing.
- (6) Place a stainless steel centralizer near the top of the 2-inch well casing.
- (7) On the first raise, lower the new 5-foot long section of 5½ -inch steel pipe over the 2-inch well casing and the 4½ -inch steel surface monument casing. Survey the new top of the 2-inch casing as in (4) above.
- (8) In preload areas, install a centered 5-foot long section 10-inch temporary casing over the 5½ -inch casing from existing grade to the top of projected preload grade and fill with 6 to 8 mesh bentonite seal material to the top.
- (9) Pack dredge sand materials around the temporary casing or protective casing to form a 3- to 5-foot high and minimum 5-foot radius berm. All material placement against the temporary casing shall be done carefully by hand or using a small backhoe.
- (10) For additional protection, place a minimum of three blinking light barricades on the berm around the protective casing.
- (11) Repeat steps (1) to (10) of this extension procedure for each successive raise, except the 5½ -inch diameter steel pipe would be threaded into the coupling and the 10-inch diameter casing would be clamped onto the lower casing in preload areas.

#### B. EXTENSION REMOVAL

- (1) Coordinate survey of top of 2-inch casing. Metro will provide survey.
- (2) Remove berm, protective casings, and inner 2-inch casing down to a minimum 3 feet above the surrounding grade.

#### **4. WELL EXTENSION, EXTENSION REMOVAL AND WELL COMPLETION**

- (3) Replace sand berm materials around the temporary casing or protective casing. Place blinking light barricades.
- (4) Coordinate survey of finished 2-inch casing elevation.
- (5) Store all reusable casing materials on-site at a location indicated by the Engineer.

#### **C. COMPLETE AND GROUT SURFACE CASING**

- (1) At the top of the last raise or compacted subgrade, install a concrete plug as shown and make a new steel pipe cap for the well to be extended. Paint the new surface monument pipe and pipe cap with rustproof paint.
- (2) Leave sufficient height as shown on the Drawings to accommodate the approximate 2.5' final cover thickness.
- (3) If all extensions, extension removals, and surface monuments are completed, tremie grout between the 5½-inch and 2-inch casing.
- (4) Construct protective posts set in concrete as indicated on the Drawings.

**SECTION 5**  
**WELL MAINTENANCE**

**5.1 GENERAL**

**A. SCOPE**

- (1) This Section covers the requirements for the checking quality and maintenance of 16 existing groundwater monitoring wells. The approximate location of the wells to be maintained are shown on the Drawings.
- (2) This work shall consist of the following in designated wells:
  - a. Check quality of wells
  - b. De-silting
  - c. Retrofitting selected 3-inch diameter D-Series wells to 2-inch wells by adding lining inserts
- (3) The well identification and coordinate locations are summarized as follows:



TABLE 5-1. EXISTING WELL CHECK AND MAINTENANCE

Well Identification	East Coordinate (feet)	North Coordinate (feet)	Check Well Quality	Remove Silt	Install Insert
A-1 <sup>b</sup>	12370 <sup>a</sup>	1450 <sup>a</sup>	X	<u>b</u>	<u>b</u>
A-3 <sup>b</sup>	12354.72	2427.00	X	<u>b</u>	<u>b</u>
A-4 <sup>b</sup>	12850 <sup>a</sup>	1960 <sup>a</sup>	X	<u>b</u>	<u>b</u>
EPA-O <sup>b</sup>	12440 <sup>a</sup>	2040 <sup>a</sup>	X	<u>b</u>	<u>b</u>
EPA-P <sup>b</sup>	11632.34	2553.40	X	<u>b</u>	<u>b</u>
D-1a	9300.86	3238.83	X	X	X
D-1b	9298.20	3232.08	X	X	X
D-1c	9295.29	3224.78	X	X	X
D-2a	10224.43	2453.02	X	X	X
D-2b	10227.38	2445.03	X	X	X
D-3a	10070.32	1308.01	X	X	X
D-3b	10067.68	1304.99	X	X	—
D-4a	11588.24	1201.63	X	X	X
D-4b	11582.87	1202.14	X	X	X
D-6a	14249.50	3054.09	X	X	—
D-6c	14251.52	3045.93	X	X	—

a) Well location based on visual field check

b) Metro may choose to remove silt or install inserts for these wells if they are not abandoned

- (4) All phases of this work must be coordinated with and performed in the presence of the Engineer. Metro shall be notified at least 48 hours in advance of the work to ensure the availability of the Engineer.
- (5) The report "St. Johns Landfill Water Quality Impact Investigation", dated May 31, 1989, prepared by Sweet Edwards/EMCON, shall be used as a reference for additional monitoring well data and background information.

**B. RESPONSIBILITIES OF THE CONTRACTOR**

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.

**C. RESPONSIBILITIES OF THE ENGINEER**

- (1) The Engineer will be in the field during all well maintenance activities. The Engineer will observe the work for compliance with these Specifications and will observe and document the maintenance procedure.
- (2) The Engineer will monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector. The Engineer will inform the Contractor if elevated or potentially hazardous conditions are encountered. However, the Engineer will not be responsible for the actions that the Contractor undertakes in response to information provided by the Engineer.

**D. SCHEDULE**

- (1) This portion of the work shall be completed no later than November 1, 1992.

**E. CONDITION OF THE WELLS**

- (1) The general condition of the wells are described in the Sweet Edwards/ EMCON report referenced in Part IV - Special Conditions.
- (2) Many of the "D" series monitoring wells that were installed in 1984 have experienced severe sediment buildup inside their 3-inch PVC well casings. This problem is apparently due to the large screen slot size ( $\frac{1}{8}$ -inch) and inadequate gravel/sand pack used in constructing the wells. From 3 to 17 feet of sediment buildup has been documented in these wells. Some previous sediment removal attempts have been successful; however, the wells could not be properly developed because sediment continued to enter the wells.

**5.2 MATERIALS**

**A. INSERTS**

- (1) Casing inserts for each well shall consist of a nominal 2-inch ID, flush-threaded, new, Schedule 40 PVC blank casing with threaded joints. The screen shall be a 10-foot section, nominal 2-inch ID, flush-threaded, new, Schedule 40 PVC with 0.010-inch size slotted openings. The screen shall have a 2-foot length blank tail pipe on the bottom.

### 5.3 EXECUTION

#### A. DECONTAMINATION

- (1) Decontamination of the drilling rig and all associated equipment will take place prior to any well maintenance activity.
- (2) The drill bit, rods, and any jetting tools shall be cleaned between wells.
- (3) The insert casing shall be cleaned prior to installation, and kept clean between the time it is washed and the time it is used in the well. PVC casing that has already been decontaminated by the manufacturer and shipped in plastic will not need to be recleaned unless the plastic wrapping has been damaged or the pipe contaminated.
- (4) All drilling equipment, tools, and PVC casing associated with the well maintenance shall be decontaminated using a high-temperature steam cleaner.
- (5) Any air compressor used for jetting shall be fitted with an in-line filter and pre-filter and maintained so that any existing well cannot be contaminated by air from the compressor.
- (6) The Contractor shall be responsible for providing all the equipment necessary for the cleaning process. This includes a portable high-pressure and temperature washer.

#### B. CHECK WELL QUALITY

- (1) The Contractor shall visually check surface casing, monument and cap. Needed repairs shall be noted.
- (2) The Contractor shall check each well for obstructions by lowering a heavy pipe (or equivalent object) down the well to check that the well is open to the top of the screen interval.
- (3) If a well is found to be plugged above the screen, the Contractor shall attempt to clear the obstruction by jetting, drilling with small-diameter clearing tools, or other appropriate methods while minimizing disturbance to the casing.
- (4) Once the casing is clear, at least to the top of the screen, the Contractor shall seal a packer just above the screen interval and fill the casing with potable water to the top.
- (5) The Contractor shall hold the packer seal and water for a minimum of 20 minutes to observe the drop in water level in the casing. The Contractor shall coordinate this work with the Engineer.

**C. REMOVE SILT FROM SCREEN INTERVAL**

- (1) Sediment shall be removed from the wells indicated in Table 5-1 by washing with potable or jetting with filtered compressed air.

**D. INSERTS**

- (1) Inserts shall be installed in the wells indicated in Table 5-1.
- (2) Attempt to clear the wells prior to placing inserts as described in Paragraphs 5.3B(2) and 5.3B(3) above.
- (3) Install inserts with sufficient length of blank casing to extend the tail pipe to within 2 feet of the bottom of the well.
- (4) If insert will not go to within 2 feet of the bottom of the well, the Contractor shall make a second attempt to clear the well and again install the insert.
- (5) Insertion by jetting the insert casing into place shall only be attempted if other methods fail.
- (6) A threaded joint shall be left at the top of the casing for future possible extensions.
- (7) The top of the casing shall be less than 5 feet above the adjacent ground surface. The casing shall be capped with a threaded vented cap.

**E. REPAIR**

After all other well maintenance operations are completed, the Contractor shall complete repair to the surface casing, monument, or cap. This shall be carried out under unanticipated conditions as stipulated in Section 2 - Paragraph 2.2D -Unanticipated Conditions.

## SECTION 6 MONITORING WELL CONSTRUCTION

### 6.1 GENERAL

#### A. SCOPE

- (1) This Section covers the requirements for the construction of seven shallow groundwater monitoring wells.
- (2) Seven shallow monitoring wells shall be constructed at the locations shown on the Drawings. The well identification, estimated coordinate locations, and estimated depths are summarized in Table 6-1 below:

**TABLE 6-1. MONITORING WELLS**

Well Identification	East Coordinate (feet) <sup>a</sup>	North Coordinate (feet) <sup>a</sup>	Depth (feet)
Monitoring Wells			
K-1	10990	1200	25
K-2	10190	2350	25
K-3	10520	3490	25
K-4	14250	2980	25
K-5	13390	1850	25
K-6a	13200	1350	25
K-6b	13210	1360	72

<sup>a</sup>) Well locations are approximate; actual locations will be field-located at the time of drilling

#### B. RESPONSIBILITIES OF THE CONTRACTOR

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.

#### C. RESPONSIBILITIES OF THE ENGINEER

- (1) The Engineer will be in the field during the drilling, sampling, well construction, and well development activities. The Engineer will observe the work for compliance with these Specifications and will manage all soil sampling activity, will maintain a boring log, and will observe and document the monitoring well installation.

- (2) The Engineer will monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, combustible gases, oxygen, and volatile organic compounds and hydrogen sulfide detection. The Engineer will inform the Contractor if elevated or potentially hazardous conditions are encountered. However, the Engineer will not be responsible for the actions that the Contractor undertakes in response to information provided by the Engineer.
- (3) The Engineer will monitor for chemical stability during well development.

## **6.2 MATERIALS**

### **A. MONITORING WELL CASING**

- (1) The groundwater monitoring well casing shall be nominal 2-inch inside diameter (ID), flush-threaded, new, Schedule 40 PVC. Casing shall include a 2-foot length to be used as a tail pipe, which shall be capped with a threaded PVC end cap.

### **B. MONITORING WELL SCREENS**

- (1) The groundwater monitoring well screens shall be nominal 2-inch ID, flush-threaded, new, Schedule 40 PVC and shall be furnished in 5-foot lengths. The slotted openings shall be 0.020-inch size.

### **C. SAND PACK MATERIAL**

- (1) The sand pack material for the groundwater monitoring wells shall be No. 10-20 Colorado Silica Sand, or equivalent.

### **D. GROUT**

- (1) The grout shall consist of American Colloid Pure Gold Grout, or equivalent grout consisting of a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids.
- (2) The Contractor shall measure and record depth soundings versus volume of grout used. This information shall be included on the well log record.

### **E. BENTONITE PELLETS**

- (1) Bentonite pellets or chips shall consist of Baroid Holeplug, medium grade, or approved equal.

### **F. SURFACE MONUMENT AND LOCKING CAP**

- (1) The surface casing, concrete plug, and locking cap shall be fabricated by the Contractor as stipulated in the Drawings.

### 6.3 EXECUTION

#### A. DECONTAMINATION

- (1) Decontamination of the drilling rig and all associated equipment will take place prior to mobilization and demobilization on-site and between each boring.
- (2) The drill bit and rods shall be steam cleaned between borings. Special attention shall be given to the threaded sections of the drill rods to remove any residual joint compounds.
- (3) PVC casing shall be steam cleaned prior to installation and kept clean between the time it is washed and the time it is used in the well. PVC casing that has already been decontaminated by the manufacturer and shipped in plastic will not need to be re-cleaned unless the plastic wrapping has been damaged or the pipe contaminated.
- (4) All drilling equipment, tools, steel casing, and PVC casing associated with the construction of the groundwater monitoring wells shall be decontaminated using a high-temperature steam cleaner.
- (5) The Contractor shall be responsible for providing all the equipment necessary for the cleaning process. This includes a portable high-pressure and temperature washer.

#### B. DRILLING

- (1) All borings shall be drilled using a hollow stem auger drilling rig. The Contractor shall provide a rig large enough and capable of reaching the desired depth. A borehole 6 inches in diameter and up to 75 feet deep may be required. Appropriate equipment and supplies should be available if heaving sand conditions are encountered.
- (2) The Contractor shall prevent and is responsible for any hydrocarbon/ chemical contamination of materials used in drilling. No petroleum or soap-based products shall be allowed. The use of petroleum-based joint compounds, which are normally used to prevent binding, shall not be allowed.

#### C. ALIGNMENT

- (1) Alignment requirements during drilling are that any casing, liner, or drill tools can be run freely through the boring. At a minimum, the alignment shall conform to OAR Chapter 690, Division 240 State of Oregon requirement for the construction of monitoring wells. Alignment requirement for the completed groundwater monitoring wells is that any temporary or permanent pump must install freely to the bottom of the well.

**D. SOIL SAMPLING AND BOREHOLE LOGGING**

- (1) Borehole logging will be conducted by the Engineer for the purposes of this project, and must also be done by the Contractor for fulfillment of State requirements. The Contractor shall endeavor to provide information on drilling conditions that will assist the Engineer in making determinations of subsurface conditions.
- (2) Soil sampling in conjunction with Standard Penetration Tests shall be conducted at 5-foot intervals. The samples shall be made immediately available for inspection by the Engineer.
- (3) After drilling each borehole, the groundwater monitoring wells shall be immediately constructed.

**E. WELL CASING INSTALLATION**

- (1) The well casing shall be installed as follows:
  - a. The Contractor shall install one 2-inch ID, Schedule 40 PVC monitoring well in each boring.
  - b. Each monitoring well shall have a 10-foot section of 20-slot screen. A flush-threaded end cap shall be placed below the well screen and capped on the bottom.
  - c. The monitoring well casing will then be lowered into the boring and shall be suspended at the desired depth of well completion for the remainder of the installation.
  - d. The drill stem shall be pulled back a few inches prior to sand pack installation to ensure that the monitoring well casing is not caught in the drill stem.
  - e. The monitoring well casing shall be cleaned before installation (unless already cleaned, wrapped, and shipped in plastic bags by the manufacturer). Gloves and coveralls worn by the Contractor while touching the monitoring well casing shall be new and clean.

**F. SAND PACK INSTALLATION**

- (1) A sand pack shall be placed around the monitoring well screen by tremming the sand down the annular space. The drill stem casing shall be pulled back at a rate such that sand pack material is always inside the drill casing. The top of the sand pack shall be placed approximately 3 feet above the well screen. A surge block shall be utilized to settle the sand pack prior to placing the well seal.
- (2) The drill casing shall be withdrawn in such a manner as to not cause disturbance to the sand pack envelope and subsurface formations.



#### G. ANNULAR SEAL INSTALLATION

- (1) An approximate 3- to 5-foot thick bentonite chip plug shall be placed directly above the sand pack. If it is above the water level in the well, it shall be hydrated by pouring potable water through a separate tremie pipe placed in the annular space of the well.

The well seal above the bentonite plug shall consist of grout placed by tremie methods to the land surface.

- (2) The drill casing shall be withdrawn from the boring during placement of the seal. The casing shall be withdrawn in such a manner as to not cause disturbance to the annular seal and subsurface formations. The casing shall be withdrawn in such a way to prevent sloughing of native soils into the boring.

#### H. WELL DEVELOPMENT

- (1) Each monitoring well shall be properly developed 24 hours after completion. Well development shall remove the volume of water introduced during well drilling and installation and five to ten well bore volumes until the water is chemically stable and essentially free of sediments, or as directed by the Engineer.

- (2) Purged groundwater shall be collected into appropriate storage drums.

#### I. PROTECTION OF WELLS

- (1) The well heads shall be protected by installing above-ground-surface casing, concrete plug, and locking cap as shown on the Drawings. The surface casing construction shall be completed a minimum of 24 hours after the well casing installation to allow the grout to settle. The surface casing and locking cap shall be fabricated by the Contractor as shown on the Drawings.
- (2) The ground surface shall be graded to direct surface drainage away from the well head.

#### J. ABANDONMENT AND REINSTALLATION

- (1) Any well that does not meet the requirements of these Specifications due to the actions of the Contractor shall be abandoned in accordance with the requirements in Section 3 - Well Abandonment. A new replacement well shall be started in the immediate vicinity at a location designated by the Engineer. No payment will be made for any work associated with the well abandonment or duplicate work on the new replacement well.

#### K. SITE RESTORATION

- (1) At the conclusion of all work activity at a boring, all drilling tools, extra casing, trash and other materials shall be removed from the site. No work shall begin on subsequent borings until the previous boring site

## 6 MONITORING WELL CONSTRUCTION

has been cleaned up. All miscellaneous trash materials such as cement or bentonite bags shall be disposed of in a proper way by the Contractor.

- (2) All soil and soil/liquid mixtures which have been removed from the borings shall be stored on-site in 55 gallon drums. Free liquid may be disposed of in the existing leachate disposal system in Subarea 5.
- (3) The well site and access shall be restored as stipulated in Section 8.

## SECTION 7

### MULTIPLE PIEZOMETER CONSTRUCTION

#### 7.1 GENERAL

##### A. SCOPE

- (1) This Section covers the requirements for the installation of nine multiple piezometers.
- (2) Nine multiple piezometers shall be installed at the locations shown on the Drawings. The well identification, estimated coordinate locations, and estimated depths are summarized below.
- (3) The upper portion of the borings are through the landfill perimeter dike and/or soft river alluvium. The bottom approximately 30 feet of each boring will penetrate the underlying gravel formations.

#### MULTIPLE PIEZOMETERS

Piezometer Installation	East Coordinate (feet) <sup>a</sup>	North Coordinate (feet) <sup>a</sup>	Depth (feet)
Multiple Piezometers			
P-1	11000	1200	140 <sup>b</sup>
P-2	10190	2340	130 <sup>b</sup>
P-3	10530	3490	80 <sup>b</sup>
P-4	14250	2990	90 <sup>b</sup>
P-5	13400	1850	110 <sup>b</sup>
P-6	13200	1360	135 <sup>b</sup>
P-7	11380	3500	80 <sup>b</sup>
P-8 <sup>c</sup>	11520	4130	65 <sup>b</sup>
P-9 <sup>c</sup>	14790	3200	85 <sup>b</sup>

- a) Piezometer locations are approximate; actual locations will be field-located at the time of drilling  
b) Estimated depth; actual depth may vary  
c) Wetlands Lake site

**B. RESPONSIBILITIES OF THE CONTRACTOR**

- (1) The requirements and responsibilities of the Contractor are stipulated in Section 1 - General.
- (2) The Contractor shall provide the boring, assist in the installation, and provide labor and materials for backfilling the multiple piezometers.
- (3) The Contractor will maintain a driller's log. A copy of the driller's log will be furnished to the Engineer when the piezometer installation has been completed.

**C. RESPONSIBILITIES OF THE ENGINEER**

- (1) The Engineer will be in the field during the drilling, testing, and piezometer construction activities. The Engineer will observe the work for compliance with these Specifications and will manage all soil sampling activity and maintain a detailed boring log for locating the piezometer.
- (2) The Engineer will provide the piezometer instrumentation and casing and will fabricate the assembly and install it into the boring.
- (3) The Engineer will monitor the breathing zone and the top of the borehole using a photoionization detector and/or a combination explosimeter, oxygen and hydrogen sulfide detector. The Engineer will inform the Contractor if elevated or potentially hazardous conditions are encountered. However, the Engineer will not be responsible for the actions that the Contractor undertakes in response to information provided by the Engineer.

**7.2 MATERIALS****A. SAND PACK MATERIAL**

- (1) The sand pack material for the groundwater monitoring wells shall be No. 10-20 Colorado Silica Sand, or equivalent.

**B. GROUT**

- (1) The grout shall consist of American Colloid Pure Gold Grout, or equivalent grout consisting of a high solids granular sodium bentonite slurry having a minimum mud weight of 9.5 pounds per gallon and containing at least 20 percent solids.

**C. BENTONITE PELLETS**

- (1) Bentonite pellets or chips shall consist of Baroid Holeplug, medium grade, or approved equal.

**D. SURFACE MONUMENT AND LOCKING CAP**

- (1) The surface casing, concrete plug, locking cap, and protective posts shall be fabricated by the Contractor as stipulated in the Drawings.

**7.3 EXECUTION****A. DECONTAMINATION**

- (1) Decontamination of the drilling rig and all associated equipment will take place prior to mobilization and demobilization on-site and between each boring.
- (2) The drill bit and rods shall be cleaned between borings. Special attention shall be given to the threaded sections of the drill rods to remove any residual joint compounds.
- (3) PVC casing shall be cleaned prior to installation and kept clean between the time it is washed and the time it is used in the well. PVC casing that has already been decontaminated by the manufacturer and shipped in plastic will not need to be re-cleaned unless the plastic wrapping has been damaged or the pipe contaminated.
- (4) All drilling equipment, tools, steel casing, sampling equipment and PVC casing associated with the construction of the piezometers shall be decontaminated using a high-temperature steam cleaner.
- (5) The Contractor shall be responsible for providing all the equipment necessary for the cleaning process. This includes a portable high-pressure and temperature washer.

**B. DRILLING**

- (1) An estimated 915 lineal feet in nine (9) borings shall be complete for installation of the multiple piezometers.
- (2) All borings shall be drilled and cased using air rotary or cable tool drilling methods. The drilling equipment and drilling method shall be approved in advance of the work by the Engineer.
- (3) Drilling equipment shall be complete with all accessories required for drilling, sampling, and installing casing through soft, fine-grained alluvium and drilling and casing in loose to dense gravel materials.
- (4) The boring will initially be drilled with temporary oversize casing 10 inches in diameter to a depth of 15 feet into the soft alluvium. On the landfill dike, the total depths of the oversize casing may be 30 feet or

more. The oversize casing shall be socketed into the alluvium by pushing the casing 2 to 3 feet beyond the original drill depth.

- (5) After installation of the oversize casing, the temporary casing size will be reduced to 6-inch. The intent is to avoid creating a potential conduit between saturated zones.
- (6) The finished cased borehole shall be a minimum 6 inches in diameter up to 175 feet deep. The Contractor shall provide equipment capable of reaching the desired depth. The Engineer will approve the final depth of all borings.
- (7) Temporary casing shall be used to support the hole during drilling, sampling and instrument installation. Torch cutting and welding shall be limited to the outside edge of the landfill perimeter road and shall be carried out as stipulated in the Special Conditions.
- (8) After final depth is reached, the hole shall be thoroughly cleaned of all drill cuttings or excess materials. The final boring shall consist of an unobstructed, minimum 6-inch diameter casing to the final depth approved by the Engineer.
- (9) After drilling each borehole, the piezometer instrumentation casings shall be immediately installed.
- (10) The Contractor shall prevent and is responsible for any hydrocarbon/ chemical contamination of materials used in drilling. No petroleum or soap-based products shall be allowed. The use of petroleum-based joint compounds, which are normally used to prevent binding, shall not be allowed.

#### C. ALIGNMENT

- (1) Alignment requirements during drilling are that any casing, liner, or drill tools can be run freely through the boring.

#### D. SOIL SAMPLING AND BOREHOLE LOGGING

- (1) Borehole logging will be conducted by the Engineer for the purposes of locating the piezometers. The Contractor shall endeavor to provide information on drilling conditions that will assist the Engineer in making determinations of subsurface conditions.
- (2) Soil sampling in connection with Standard Penetration Tests shall be conducted at 10-foot intervals. The samples shall be made immediately available for inspection by the Engineer.

**E. MULTIPLE PIEZOMETER INSTALLATION**

- (1) The multiple piezometer assembly consists of 2-inch schedule PVC casing with three or four pneumatic or electronic sensors installed into couplings along the length of the casing. The sensors will be placed at strategic depths determined by Metro to measure water pressure. Most of the assembly will be completed prior to drilling. Final assembly will be needed as the casing is installed down the boring.
- (2) Materials and initial assembly of the multiple piezometers will be provided by Metro and the Engineer. The Contractor shall endeavor to provide assistance as needed during insertion of the multiple piezometer assembly into the cased boring.
- (3) As the casing is lowered, potable water may need to be added to overcome buoyancy.
- (4) After the pipe assembly comes to rest on the bottom of the boring, the backfilling and gradual removal of the temporary casing can start.
- (5) After all of the temporary casing has been removed and the backfilling completed, the piezometers shall be connected and read to test the installation. The installation shall be finished by the Contractor by tremie grouting the inside of the 2-inch casing through the 1/2-inch tube. Finally, the top of the installation shall be terminated so the wires or tubes are well protected and easily accessed to be read.

**F. BACKFILLING**

- (1) The Contractor shall take careful measurements on all piezometer port depths to ensure proper sand pack and grouting installation.
- (2) During backfilling, use a weighted measuring tape to sound the level and progress of the backfilling at all times.
- (3) To facilitate the removal of temporary casing sections and preventing the pneumatic tubes from damage, the tube ends must be put back into the PVC casing.
- (4) Sand Pack Installation:
  - a. A minimum 2-foot thick sand pack shall be placed around each piezometer port in the annular space using tremie methods. The temporary casing shall be pulled back at a rate such that sand pack material

## **7. MULTIPLE PIEZOMETER CONSTRUCTION**

is always just below the bottom of the temporary casing, inside the drill casing. The top of the sand pack shall be placed a minimum of 1.5 feet above each piezometer port.

- b. The temporary casing shall be withdrawn in such a manner as to not cause disturbance to the sand pack envelope and subsurface formations.

### **(5) Annular Seal Installation - in Gravel:**

- a. Bentonite pellets shall be placed in the gravel section of the boring using tremie methods.
- b. The temporary casing shall be withdrawn from the boring during placement of the pellets. The casing shall be withdrawn in such a way that the boring is supported by casing or the pellets.

### **(6) Annular Seal Installation - Above Gravel:**

- a. Grout shall be placed between each 2-foot thick sand layer using tremie methods. The grout tube shall consist of a tee or 90° bend at the outlet end to prevent washing out the sand pack during grouting.
- b. The temporary casing shall be withdrawn from the boring during placement of the seal. The casing shall be withdrawn in such a manner as to not cause disturbance to the annular seal and subsurface formations. The casing shall be withdrawn in such a way that some grout remains in the casing and prevents sloughing of native soils into the boring.

## **G. PROTECTION OF PIEZOMETERS**

- (1) The piezometer heads shall be protected by installing above-ground-surface casing, concrete plug, and locking cap as shown on the Drawings. The surface construction shall be completed a minimum of 24 hours after the piezometer casing installation to allow the grout to settle. The surface casing and locking cap shall be fabricated by the Contractor as shown on the Drawings.
- (2) The ground surface shall be graded to direct surface drainage away from the piezometer head.

## **H. ABANDONMENT AND REINSTALLATION**

- (1) Any piezometer boring or installation that does not meet the requirements of these Specifications due to the actions of the Contractor shall be abandoned in accordance with the requirements in Section 3 - Well Abandonment. A new replacement piezometer boring shall be started in the immediate vicinity at a location designated by the Engineer. No payment will be made for any work associated with the well abandonment or duplicate work on the new replacement boring.



**I. SITE RESTORATION**

- (1) At the conclusion of all work activity at a boring, all drilling tools, extra casing, trash and other materials shall be removed from the site. No work shall begin on subsequent borings until the previous boring site has been cleaned up. All miscellaneous trash materials such as cement or bentonite bags shall be disposed of in a proper way by the Contractor.
- (2) All soil and soil liquid mixtures which have been removed from the borings shall be stored on-site in 55 gallon drums. Free liquid may be disposed of in the existing leachate disposal system in Subarea 5.

## SECTION 8

### SITE CLEANUP AND RESTORATION

#### 8.1 SCOPE

- A. This Specification Section includes the work to be performed before final acceptance of the Contract for site cleanup and restoration. All temporary construction facilities shall be removed, all work areas and access cleaned up and neatly graded and restored.

#### 8.2 EXECUTION

##### A. CLEANUP AND RESTORATION

- (1) Well and Piezometer Locations: The Contractor shall clean up and remove all refuse, dried grout, spilled drilling mud, and other unused or excess materials of any kind resulting from the work. Work areas around the wells which were disturbed shall be smoothed and graded so that surface water drains away from the well or piezometer.
- (2) Access Roads: Tracks, access corridors, or roads to the wells or piezometer locations, not to remain for Metro's use, shall be graded smooth to match the existing terrain. Ruts or other depressions caused by the drilling equipment shall be filled-in, smoothed, and restored to the satisfaction of Metro.
- (3) Contractor Laydown: Areas that have been used for temporary buildings and construction parking shall be restored by removing temporary structures, temporary utilities, debris, and waste. The areas shall be restored to a condition as close as reasonably possible to the conditions were when the work started.
- (4) Wetland Areas: Surrounding the St. Johns Landfill perimeter are valuable lakes, wetlands, and adjacent uplands that are protected by environmental zoning regulations imposed by the City of Portland. This area is managed by Metro through the Smith and Bybee Lakes Management Committee, to which plans for any significant disturbances will be submitted for review.

Well drilling and installation activities on property adjacent to the landfill must be conducted in a manner than minimizes impact on the resources. Use of vehicles that minimize disturbance of the vegetation and soil is preferred. In the event that disturbance is significant during operations, as judged by a designated Metro employee at the site, the Contractor shall be responsible for mitigation, and will be required to follow a landscape plan developed by Metro. This landscape plan will include the items listed below:

## 8. SITE CLEANUP AND RESTORATION

- a. Any trees over three inches in diameter which are removed or fatally damaged must be replaced with any combination of trees that equal the diameter lost. Saplings must be replaced in kind or replanted to a different location.
- b. The landscape plan will identify size, species, spacing, and locations of plants. Vegetation must be planted so that full ground cover is achieved within one year of planting.
- c. Plant species are to be native, selected from the Portland Plant List.
- d. Planting density must be no less than one shrub per 200 square feet. Shrubs should be planted in groupings and concentrated in disturbed areas.
- e. Maintenance of vegetation planted is required. This may include manual irrigation after planting, and replacement of planted stock which has not survived one full year after planting. Evaluation of planting success is required one year after planting and will be based on 80 percent survival of plants. If less than 80 percent of each layer (ground cover, shrub, tree) has survived, replanting is required to achieve the 80 percent survival rate of the layer.

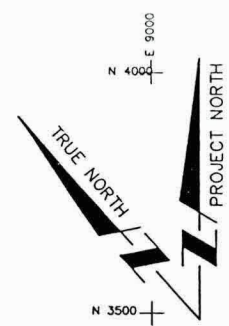
### B. DISPOSAL

- (1) General paper, soil, or other solid wastes or oversize solid materials taken out of the well, such as old well casings or monument pieces, shall be disposed of in Subarea 4 as directed by the Engineer.
- (2) Soil and soil/liquid mixtures taken out of the wells shall be collected into drums. The drums shall be stored on-site or disposed of in Subarea 4, as directed by the Engineer.
- (3) Free liquid may be disposed of in the existing leachate disposal system in Subarea 5.

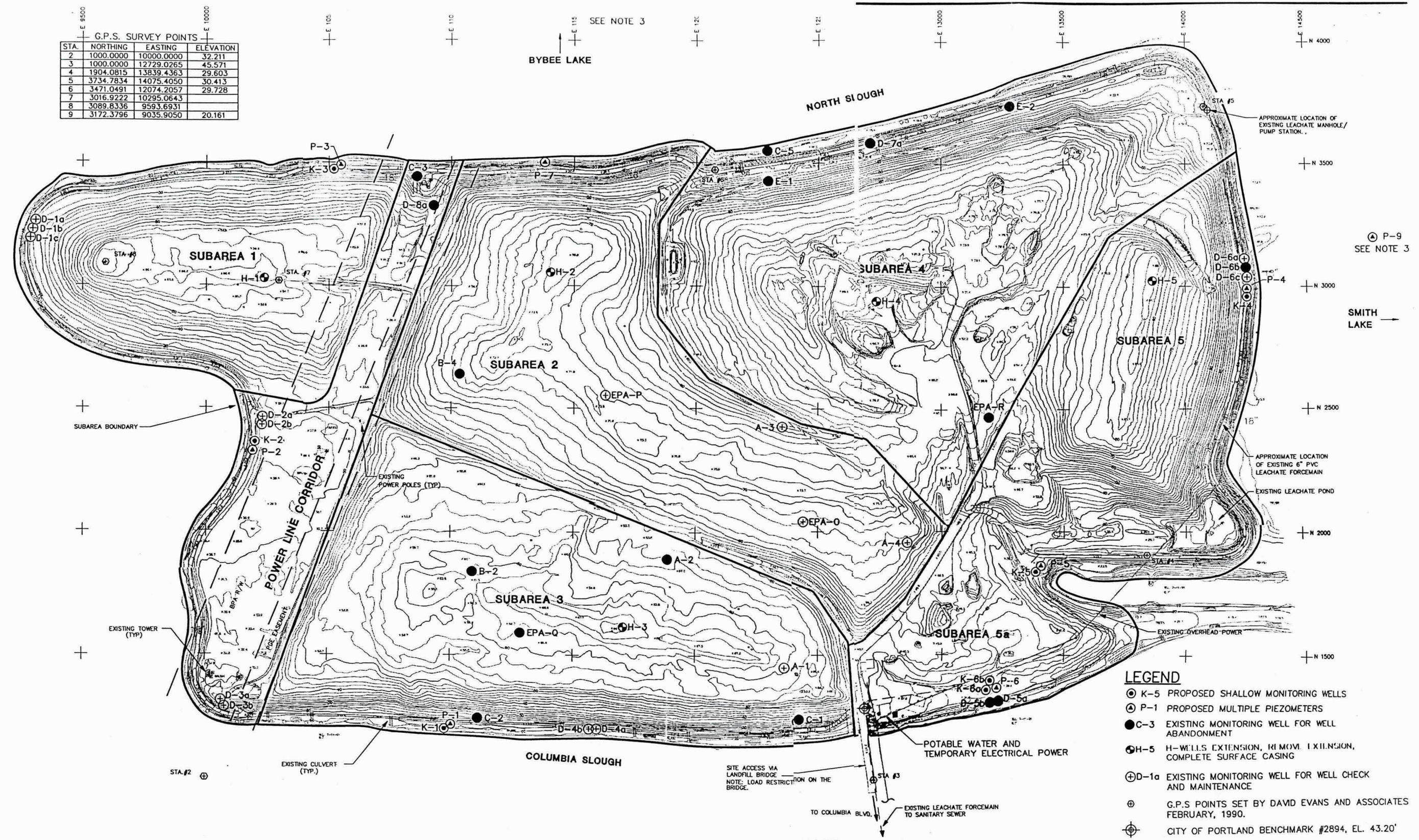
### C. FINISHING AND CLEANUP

- (1) Periodically or as may be directed by Metro immediately after completion of the work, the Contractor shall cleanup and remove all refuse and unused materials of any kind resulting from the work. Upon completion of the work, the Contractor shall remove all of its equipment, and clean the project areas to the satisfaction of Metro.
- (2) Access roads and parking areas, not to remain for Metro's use, shall be graded smooth to match the existing terrain.



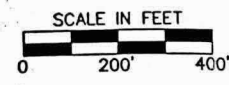


G.P.S. SURVEY POINTS			
STA.	NORTHING	EASTING	ELEVATION
2	1000.0000	10000.0000	32.211
3	1000.0000	12729.0265	45.571
4	1904.0815	13839.4363	29.603
5	3734.7834	14075.4050	30.413
6	3471.0491	12074.2057	29.728
7	3016.9222	10295.0643	
8	3089.8336	9593.6931	
9	3172.3796	9035.9050	20.161



- LEGEND**
- ⊙ K-5 PROPOSED SHALLOW MONITORING WELLS
  - ⊕ P-1 PROPOSED MULTIPLE PIEZOMETERS
  - C-3 EXISTING MONITORING WELL FOR WELL ABANDONMENT
  - ⊕ H-5 H-WELLS EXTENSION, REMOVAL, EXTENSION, COMPLETE SURFACE CASING
  - ⊕ D-1a EXISTING MONITORING WELL FOR WELL CHECK AND MAINTENANCE
  - ⊕ G.P.S. POINTS SET BY DAVID EVANS AND ASSOCIATES FEBRUARY, 1990.
  - ⊕ CITY OF PORTLAND BENCHMARK #2894, EL. 43.20'
  - SUBAREA BOUNDARY
  - EXISTING OVERHEAD POWER
  - EXISTING LEACHATE FORCEMAIN
  - EXISTING CULVERTS

- NOTE:**
- EXISTING CONTOURS ARE BASED ON AERIAL PHOTOGRAPHY SURVEY COMPLETED ON JULY 11, 1991, BY DAVID SMITH AND ASSOCIATES.
  - WELL LOCATIONS ARE APPROXIMATE, SEE SPECIFICATIONS FOR WELL COORDINATES.
  - SEE SPECIFICATIONS FOR ACCESS STIPULATIONS, COORDINATION, AND OTHER REQUIREMENTS DUE TO WETLANDS LOCATION.



**ST. JOHNS LANDFILL  
SITE PLAN  
GROUNDWATER MONITORING WELL  
IMPROVEMENTS AND PIEZOMETER INSTALLATION**

SHEET: 1  
OF 2

DATE: APRIL 1992

DWG NO: 19190401

**Parametrix, Inc.**

Post Office Box 460  
Sumner, Washington 98390  
206-838-9810 206-863-5128

13020 Northrup Way  
Bellevue, Washington 98005  
206-455-2550

5700 Kiteap Way, Suite 202  
Bremerton, Washington 98312  
206-377-0014

7820 N.E. Holman, Suite B-6  
Portland, Oregon 97218  
503-256-5444

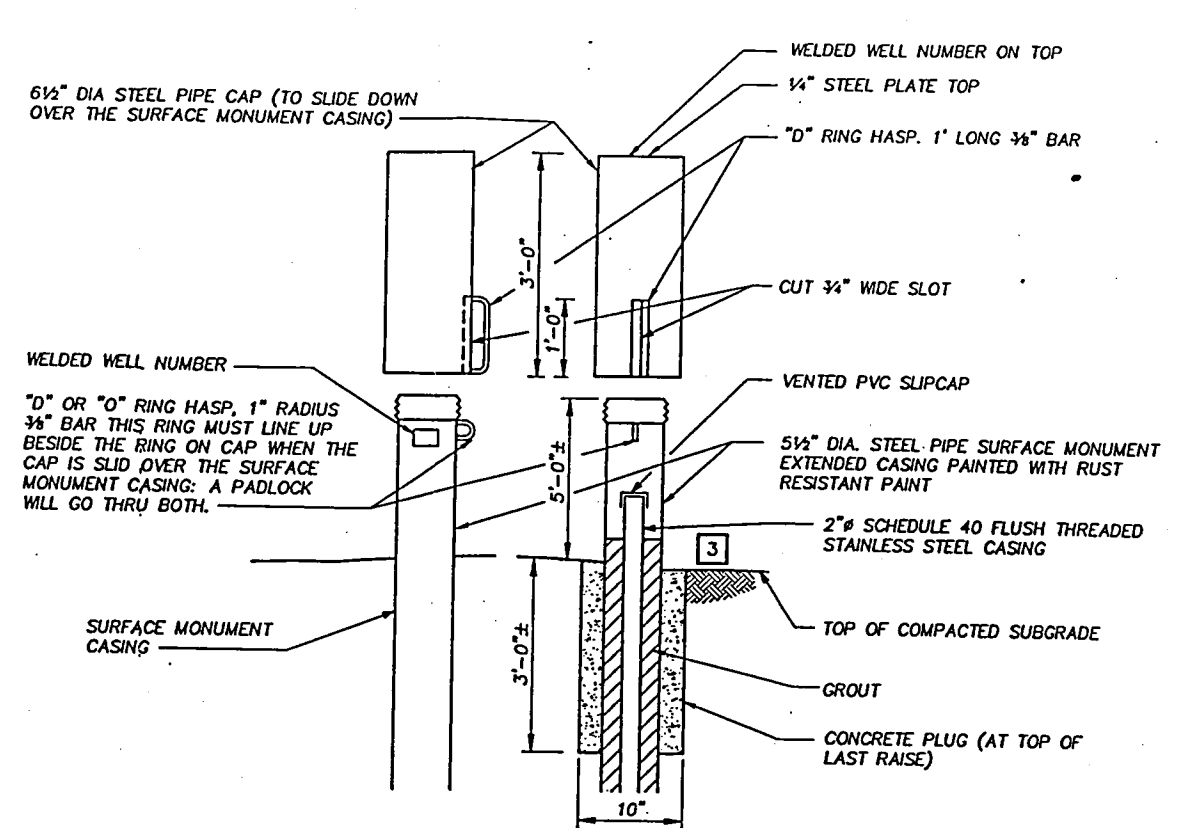
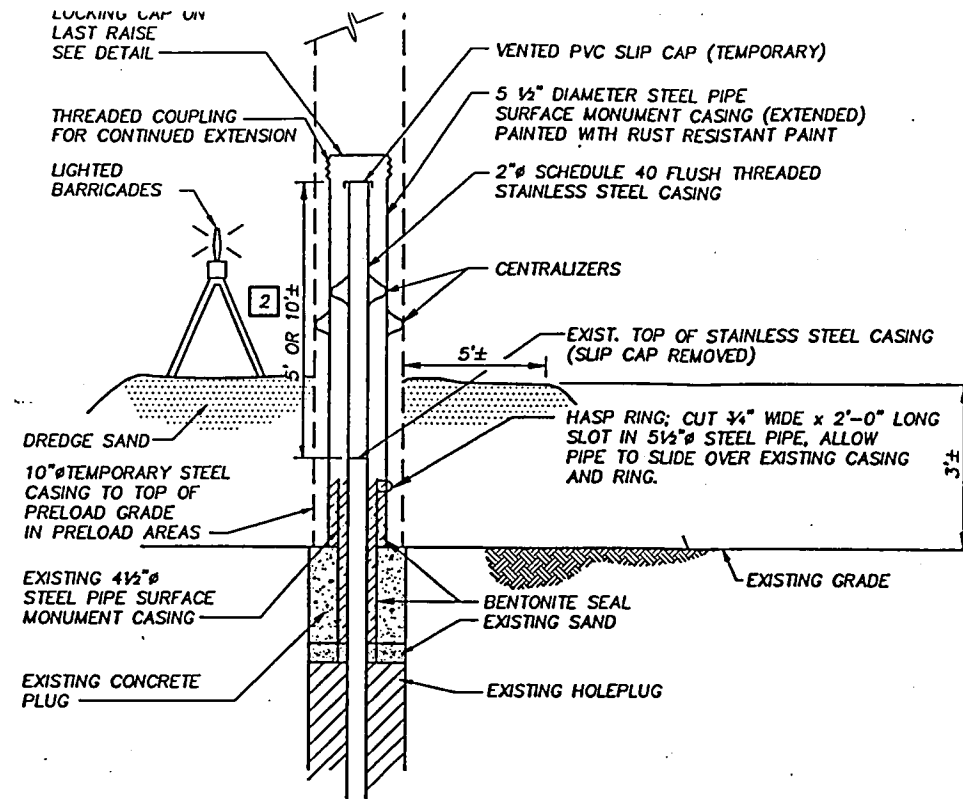
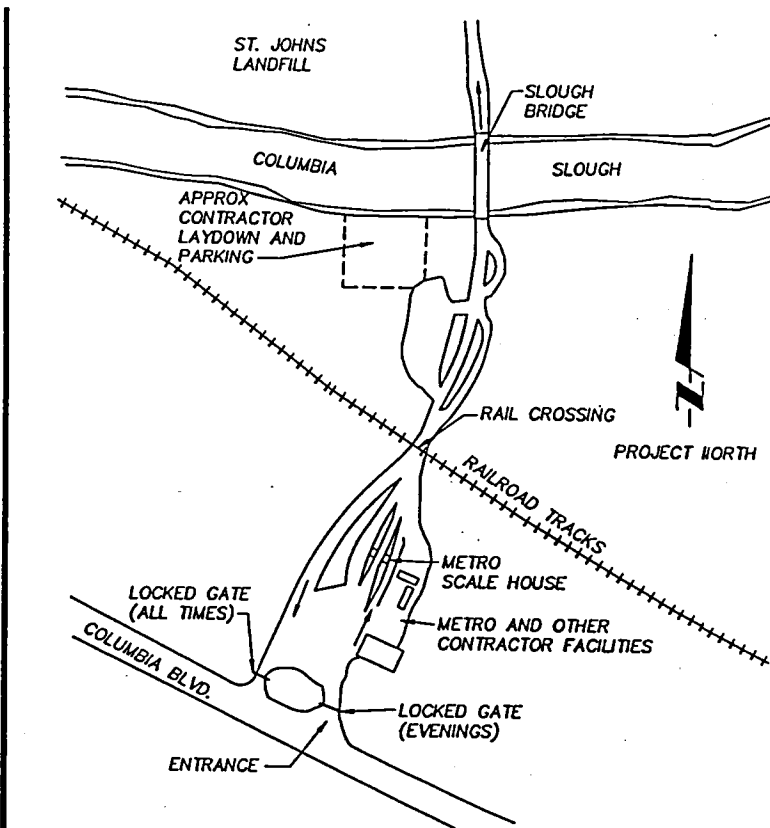


DESIGNED:	NAME	DATE
CHECKED:	RT/DM	4/92
DRAWN:	RBR	4/92
CHECKED:	RT	4/92
DESIGN REVIEW:	RT/DM	4/92



**METROPOLITAN SERVICE DISTRICT**  
Solid Waste Department  
Jim Watkins, Engineering Manager  
Dennis O'Neil, Project Manager

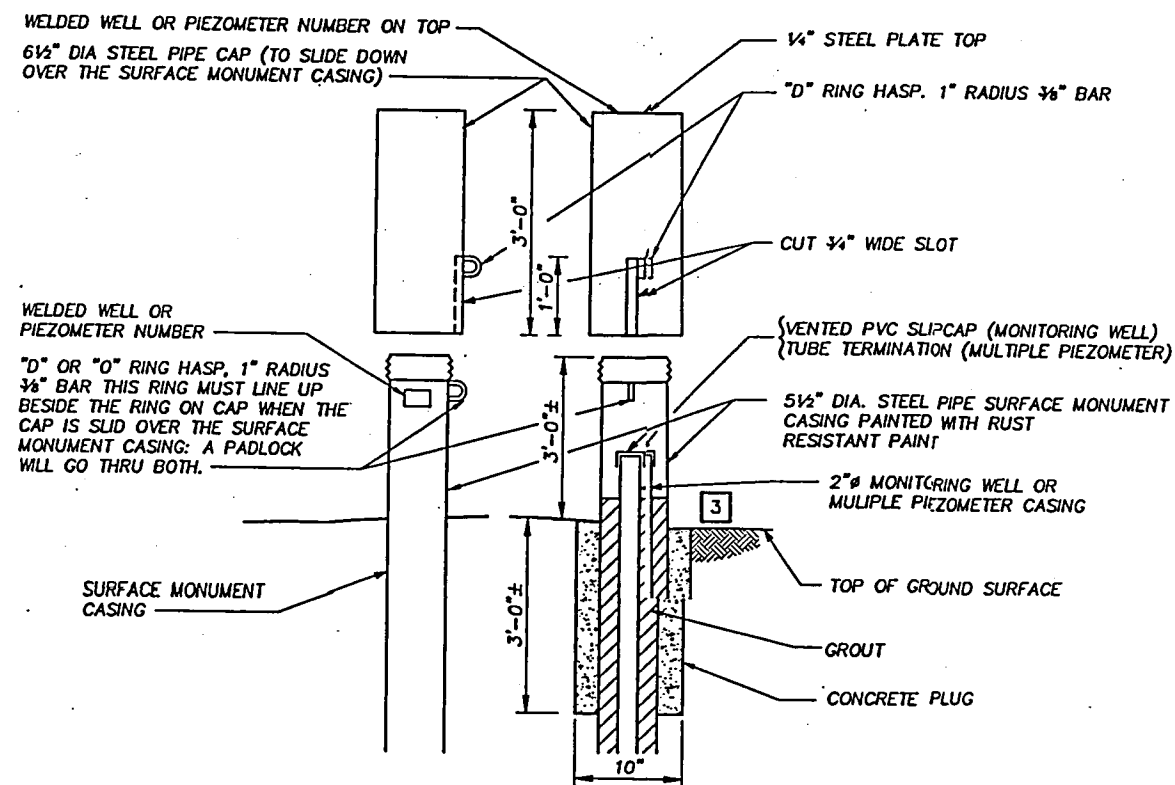




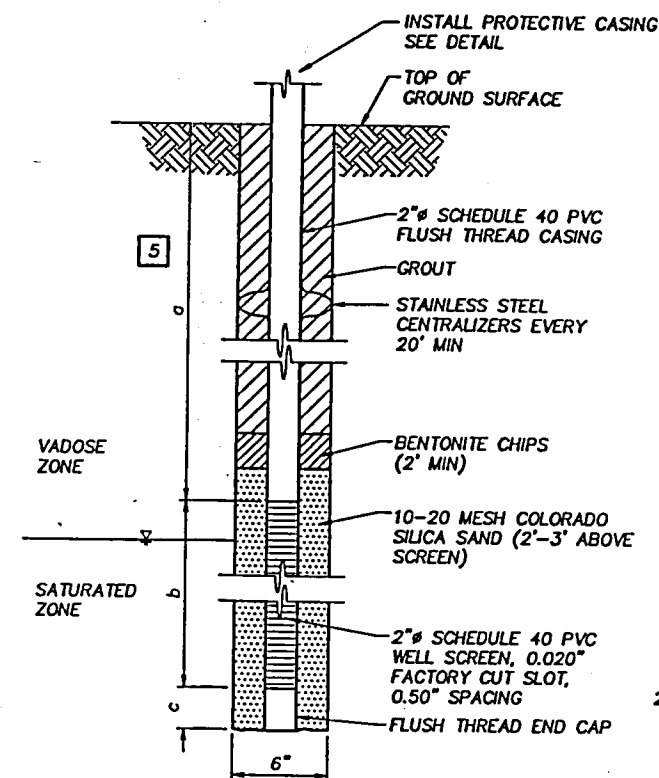
SITE ACCESS, CONTRACTOR LAYDOWN AND PARKING  
NO SCALE

WELL EXTENTION FOR H-SERIES MONITORING WELLS (TYP)

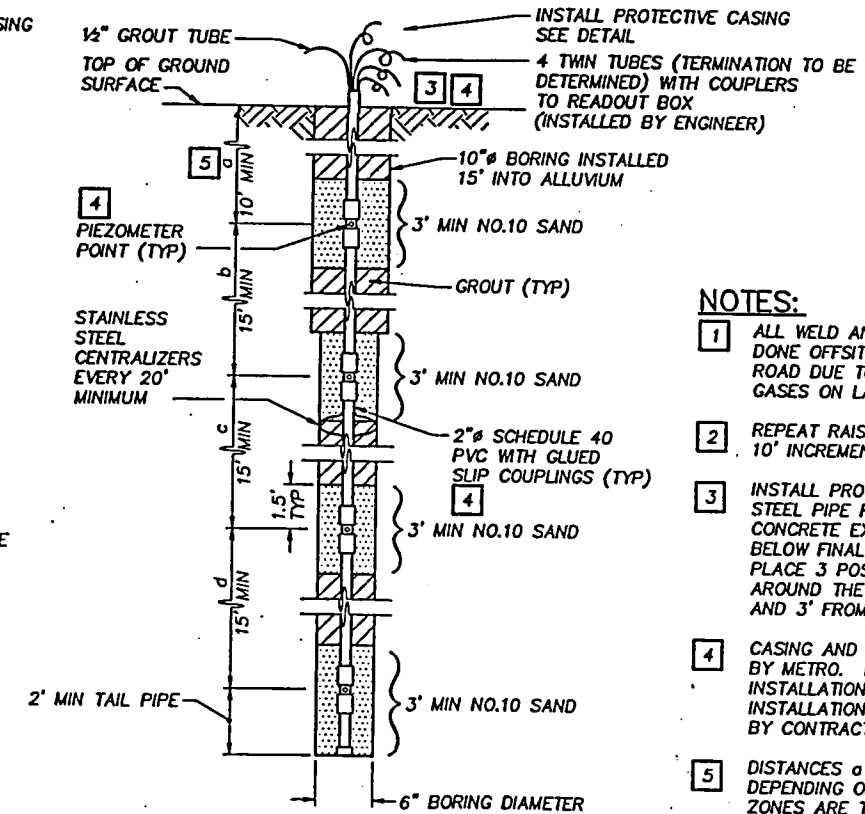
TOP OF H-SERIES WELL LOCKING CAP AND SURFACE MONUMENT COMPLETION (TYP)



TOP OF WELL OR PIEZOMETER PROTECTIVE CASING AND LOCKING CAP



MONITORING WELL INSTALLATION (TYP)



BOREHOLE AND MULTIPLE PIEZOMETER INSTALLATION (TYP)

- NOTES:

- 1 ALL WELD AND TORCH CUTTING TO BE DONE OFFSITE OR ON THE PERIMETER ROAD DUE TO POTENTIAL HAZARDOUS GASES ON LANDFILL.
- 2 REPEAT RAISES AS NEEDED IN 5' OR 10' INCREMENTS.
- 3 INSTALL PROTECTIVE POSTS OF 3" Ø STEEL PIPE FILLED WITH AND SET IN CONCRETE EXTENDING 3' ABOVE AND BELOW FINAL GROUND ELEVATION. PLACE 3 POSTS ARRANGED IN A TRIANGLE AROUND THE SURFACE MONUMENT AND 3' FROM IT.
- 4 CASING AND INSTRUMENTATION SUPPLIED BY METRO. INSTRUMENT FABRICATION AND INSTALLATION BY ENGINEER. BORING INSTALLATION AND SURFACE MONUMENT BY CONTRACTOR.
- 5 DISTANCES a THROUGH d VARIABLE DEPENDING ON WHERE THE COMPLETION ZONES ARE TO BE SET IN THE FIELD.

## APPENDICES



## **APPENDIX A**

### **Memorandum of Understanding (DEQ and WRD)**

RECEIVED

NOV 14 1991

WATER RESOURCES DEPT  
SALEM, OREGON

# MEMORANDUM OF UNDERSTANDING

Between

Oregon Department of Environmental Quality  
and the  
Oregon Water Resources Commission

November 1, 1991

Subject: Delegation of Authority to inspect and set special standards for Drilling, Construction, and Decommissioning of Groundwater Monitoring Wells Installed at DEQ-Regulated Sites and Facilities.

## PURPOSE

The Director of the Water Resources Department (WRD) and the Director of the Department of Environmental Quality (DEQ) have entered into this Memorandum of Understanding (MOU) to delegate to the DEQ certain authorities relating to regulation and inspection of drilling, construction and decommissioning of groundwater monitoring wells installed at DEQ-regulated sites and facilities.

OAR Chapter 690, Division 240, adopted August 3, 1990, sets forth the conditions under which the Oregon Water Resources Commission may delegate to another state agency the control and management of monitoring wells and other holes.

## SCOPE OF DEQ'S DELEGATED AUTHORITY

Monitoring wells which shall be regulated and inspected under this agreement are those drilled, constructed or decommissioned at facilities or sites which are regulated pursuant to DEQ permit or other regulatory authority. These include facilities or sites with WPCF permits; NPDES permits; solid waste treatment or disposal permits; hazardous waste treatment, storage, disposal or



NOV 14 1981  
WATER RESOURCES DEPT  
SALT LAKE CITY

post closure care permits; underground storage tank permits; and sites performing environmental cleanup activities, either voluntary or mandatory, under the auspices of DEQ.

#### MONITORING WELL CONSTRUCTOR REGULATION

The WRD shall retain all responsibility for the licensing of monitoring well constructors as set forth in OAR 690-240-055 through -085.

The DEQ shall require that monitoring wells over which it is delegated authority be constructed only by duly licensed and bonded monitoring well constructors, and that only said constructors may operate the drilling machines at monitoring well construction sites.

Responsibility for enforcement against monitoring well constructors for violations shall remain with the WRD. The DEQ will cooperate with the WRD in providing evidence to WRD of suspected or known violations.

#### START CARD AND START CARD FEES

Notice requirements for the construction of monitoring wells over which authority has been delegated to the DEQ shall be those established in OAR 690-240-090. Start cards and start card fees shall be submitted directly to the WRD by the monitoring well constructor.

Start Cards for monitoring wells over which the DEQ has been delegated authority shall be forwarded to DEQ in a timely manner.

#### EFFECTIVE DATE/MODIFICATION OR TERMINATION

This agreement is effective upon signature of the Director of the Water Resources Department and the Director of the Department of Environmental Quality. This agreement may only be modified by agreement of both parties in writing, and may be terminated by mutual agreement of both parties in writing, or by either party 30 days following delivery of written notice.

#### MONITORING WELL DRILLING, CONSTRUCTION AND DECOMMISSIONING

Monitoring wells over which the DEQ has been delegated authority shall meet or exceed the WRD Monitoring Well Construction

NOV 14 1991  
WATER LAW DEPT.  
SHELL OIL CO.

Standards (WRD Well Standards) or the DEQ "Guidelines For Groundwater Monitoring Well Drilling, Construction, And Decommissioning" (DEQ Guidelines). The DEQ Guidelines are found to be equal to or more stringent than the standards for monitoring well construction, protection, casing, decontamination and site cleanliness, well screen, filter pack, well development, well sealing, temporary wells and well decommissioning set forth in OAR Chapter 690, Division 240. A copy of the DEQ Guidelines are attached to and made a part of this agreement.

#### VARIANCES

Written requests for variances to the DEQ Guidelines shall be submitted to the DEQ as set forth in the DEQ Guidelines. Written approval from the DEQ must be received prior to completion or decommissioning of the well for which a variance is sought. A proposed variance shall only be granted by DEQ if, in the opinion of the reviewer, the drilling, construction or decommissioning methods proposed does not increase the risk of contamination or waste of groundwater, or loss of artesian pressure, more than if the well is completed according to the DEQ Guidelines.

DEQ shall report to WRD on all written variances issued under the terms of this agreement. A copy of each variance shall be made available to the WRD upon request.

#### INSPECTION

The DEQ shall implement an inspection program and be responsible for ensuring compliance with the WRD Well Standards or DEQ Guidelines. The goal of the inspection program shall be to ensure that wells are constructed in accordance with the WRD Well Standards and/or DEQ Guidelines or approved variance, in a manner that protects the groundwater resource from contamination and waste or loss of artesian pressure.

Major elements of a DEQ inspection program include:

- (1) Advance review and approval of monitoring well design plans.
- (2) Direct inspection of monitoring wells in the field during selected phases of drilling, construction, or decommissioning.
- (3) Direct inspection of monitoring wells in the field following construction.

NOV 14 1981

WATER WELL REPORT  
SANTA CLARA COUNTY

- (4) Final review and approval of as-built diagrams and other documentation.

In order to assure compliance with the DEQ Guidelines, the DEQ shall set a goal of reviewing design plan and as-built construction documents for approximately 10 to 20 percent of all monitoring wells constructed under DEQ regulatory authority, and a goal of direct in-field inspection during or after construction activities of 25 percent of monitoring wells constructed under DEQ regulatory authority.

The majority of the inspections will be conducted at underground storage tank facilities regulated by DEQ where virtually no well inspections are currently occurring. The DEQ will coordinate with its other programs to assure that compliance with WRD requirements are met.

#### WATER WELL REPORT (WELL LOG)

Well constructor's shall prepare a monitoring well reports for each monitoring well drilled, constructed, altered, converted, or decommissioned, including unsuccessful monitoring wells.

Logs for monitoring wells over which the DEQ has been delegated authority shall indicate the DEQ's jurisdiction. The WRD shall provide the DEQ with copies of all such DEQ-flagged logs.

#### INVESTIGATION OF ALLEGED VIOLATIONS, ENFORCEMENT AND CIVIL PENALTIES

Responsibility for investigation of alleged violations, enforcement actions, enforcement determinations and proceedings, and civil penalties against monitoring well constructors and/or land owners as established under OAR 690-240-150 through -180 shall remain with the WRD.

The DEQ shall assist the WRD in enforcement activities by providing corroborative testimony and documentation as necessary. The DEQ shall investigate, document and notify the WRD of suspected or known violations of the WRD Well Standards or DEQ Guidelines. The DEQ shall provide the WRD with the evidence of failure as described in OAR 690-240-145. The DEQ shall make all records related to monitoring well construction and water quality sampling from monitoring wells available to the WRD.

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WATER RESOURCES COM. DEPT.  
Salem, Oregon

The DEQ shall identify and report monitoring well constructor licensing violations to the WRD, including but not limited to the lack of a licensed constructor at a monitoring well construction site, constructor negligence, or improper well construction.

This agreement does not preclude DEQ from independently enforcing violations of its permits, statutes, and rules.

#### REPORTING

A quarterly report describing the total number of monitoring wells regulated and inspected, wells achieving compliance with the DEQ Guidelines, variances issued and wells referred for enforcement action will be compiled by the DEQ and submitted to the WRD.

#### FUNDING OF DEQ ACTIVITIES

The Water Resources Commission will provide the Department of Environmental Quality \$125,000, in quarterly installments, to support DEQ's activity in this program for the remainder of 1991-93 biennium. The DEQ will implement the inspection program on July 1, 1992. Funding for the 1993-95 biennium will be negotiated prior to the start of the biennium.

#### IMPLEMENTATION

Implementation of the program by DEQ will begin March 1, 1992. The inspection portion of the program will be implemented on July 1, 1992.

William H. Young  
William H. Young  
Director  
Water Resources Department  
Quality

Fred Hansen  
Fred Hansen  
Director  
Department of Environmental

Date \_\_\_\_\_

Date \_\_\_\_\_

(11-22-91) ? (RA)



## **APPENDIX B**

### **Drill Logs**



**APPENDIX C**  
**Metro's Position on DBE/WBE**

# METRO

2000 SW First Avenue  
Portland, OR 97201-5398  
(503) 221-1646  
Fax 241-7417

October 22, 1991

Dear Potential Bidder/Proposer:

For the past ten years, the Metropolitan Service District has had a special contracting program to encourage participation in metro contracts by businesses owned by minorities including women. This program has been applied to both federally funded and locally funded projects.

We have now been advised by our General Counsel that the Metro Code provisions relating to participation by minority-owned businesses in locally funded contracts are unconstitutional.

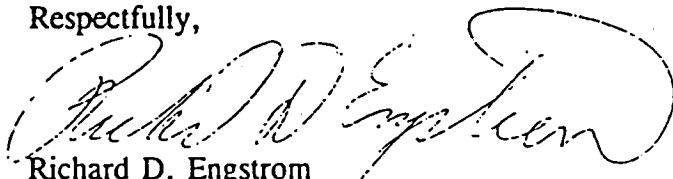
Therefore, I must reluctantly advise you that until the Metro Council acts to correct this defect and/or adopts a new program, I cannot and will not act in probable violation of the law and attempt to enforce the present Metro DBE and WBE Program requirements on locally funded projects.

The economy of the Metro region is comprised of a multitude of emerging and small businesses which mirror the racial diversity within our boundaries. They're our customers and clients. They pay taxes. They hire the local work force. They determine the health of the local economy. Supporting those businesses should not be viewed as just a requirement. Supporting those businesses should be viewed as good business!

I, therefore encourage you to set the legal question aside and voluntarily follow good faith efforts to utilize Disadvantaged, Minority and Women Owned Business Enterprises as your subcontractors and suppliers.

Please consider these issues carefully. Talk to your legal counsel. Reflect upon the larger issue. If you have questions, please contact Rich Wiley at Metro 221-1646 x 116.

Respectfully,



Richard D. Engstrom  
Deputy Executive Officer

Executive Officer  
Rena Cusma

Metro Council

Tanya Collier  
Presiding Officer  
District 9

Jim Gardner  
Deputy Presiding  
Officer  
District 3

Susan McLain  
District 1

Lawrence Bauer  
District 2

Richard Devlin  
District 4

Tom DeJardin  
District 5

George Van Bergen  
District 6

Ruth McFarland  
District 7

Judy Myers  
District 8

Roger Buchanan  
District 10

David Knowles  
District 11

Sandi Hansen  
District 12



**APPENDIX D**  
**Oregon Law Regarding Recycling**



development, revision, amendment and implementation of local solid waste reduction, reusing, recycling and solid waste management programs that comply with the opportunity to recycle established in ORS 459.165. The department shall give special emphasis to assisting rural and remote counties.

NOTE: Sections 53 to 58 were deleted by amendment. Subsequent sections were not renumbered.

SECTION 59. ORS 279.731 is amended to read: 279.731. As used in ORS 279.731 to 279.739, unless the context otherwise requires:

(1) "Post-consumer waste" means a finished material which would normally be disposed of as solid waste, having completed its life cycle as a consumer item. "Post-consumer waste" does not include manufacturing waste.

(2) "Public agency" means a county, city, special district or other public or municipal corporation, and any instrumentality thereof.

(3) "Recycled material" means any material that would otherwise be a useless, unwanted or discarded material except for the fact that the material still has useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled.

[(2)] (4) "Recycled paper" means a paper product with not less than:

(a) Fifty percent of its total weight consisting of secondary waste materials; or

(b) Twenty-five percent of its total weight consisting of post-consumer waste.

(5) "Recycled product" means all materials, goods and supplies, not less than 50 percent of the total weight of which consists of secondary and post-consumer waste with not less than 10 percent of its total weight consisting of post-consumer waste. "Recycled product" also includes any product that could have been disposed of as solid waste, having completed its life cycle as a consumer item, but otherwise is refurbished for reuse without substantial alteration of the product's form.

[(3)] (6) "Secondary waste materials" means fragments of products or finished products of a manufacturing process which has converted a virgin resource into a commodity of real economic value, and includes post-consumer waste, but does not include excess virgin resources of the manufacturing process. For paper, "secondary waste materials" does not include fibrous waste generated during the manufacturing process such as fibers recovered from waste water or trimmings of paper machine rolls, mill broke, wood slabs, chips, sawdust or other wood residue from a manufacturing process.

[(4)] (7) "State agency" includes the Legislative Assembly, the courts and their officers and committees and the constitutional state officers.

SECTION 60. ORS 279.733 is amended to read:

279.733. (1) All state agencies purchasing supplies, materials, equipment or personal services shall:

[(1)] (a) Review their procurement specifications currently utilized in order to eliminate, wherever economically feasible, discrimination against the procurement of recovered resources or recycled materials.

[(2)] (b) Provide incentives, wherever economically feasible, in all procurement specifications issued by them for the maximum possible use of recovered resources and recycled materials.

[(3)] (c) Develop purchasing practices which, to the maximum extent economically feasible, assure purchase of materials which are recycled or which may be recycled or reused when discarded.

[(4)] (d) Establish management practices which minimize the volume of solid waste generated by [them by] reusing paper, envelopes, containers and all types of packaging and by limiting the amount of materials consumed and discarded.

[(5)] (e) Use and require persons with whom they contract to use, in the performance of the contract work, to the maximum extent economically feasible, recycled paper.

(2) Any invitation to bid or request for proposal under ORS chapter 279 shall include the following language: "Vendors shall use recyclable products to the maximum extent economically feasible in the performance of the contract work set forth in this document."

SECTION 61. ORS 279.739 is amended to read:

279.739. (1) Notwithstanding provisions of law requiring a state agency or a public agency to enter into contracts with the lowest responsible bidder and subject to subsection (2) of this section, any state agency or public agency charged with the purchase of materials and supplies for any public use [may, in its discretion,] shall give preference to the purchase of materials and supplies manufactured from recycled materials.

(2) A state agency or public agency [may] shall give preference to materials and supplies manufactured from recycled materials [only] if:

[(a) The bids of the persons or manufacturing concerns supplying the recycled materials, or the prices quoted by them, do not exceed by more than five percent the lowest bid or prices quoted by persons and manufacturing concerns offering nonrecycled materials; and]

[(b) The public agency finds that the public good will be served thereby.]

(a) The recycled product is available;

(b) The recycled product meets applicable standards;

(c) The recycled product can be substituted for a comparable nonrecycled product; and

(d) Recycled product costs do not exceed the costs of nonrecycled products by more than five percent.

[(3) As used in this section:]



[(a) "Public agency" means a county, city, special district, or other public and municipal corporations, and any instrumentality thereof.]

[(b) "Recycled material" means any material that would otherwise be a useless, unwanted or discarded material except for the fact that the material still has useful physical or chemical properties after serving a specific purpose and can, therefore, be reused or recycled.]

(3) At its discretion, a state or public agency may give preference to the purchase of materials and supplies manufactured from recycled materials, even if the cost differential exceeds the five percent preference set forth in subsection (2) of this section.

(4) State agencies, unless otherwise specified in ORS 279.731 to 279.739, and public agencies may give preference to the suppliers of recycled products and recycled paper or to products that reduce the amount of waste generated. State agencies, unless otherwise specified in ORS 279.731 to 279.739, and public agencies may determine the amount of this preference.

(5) In any bid in which the state has reserved the right to make multiple awards, the recycled product or recycled paper preference shall be applied to the extent possible to maximize the dollar participation of firms offering recycled products or recycled paper in the contract award.

(6) A state or public agency shall require the bidder to specify the minimum, if not exact, percentage of recycled paper in paper products or recycled product in products offered, and both the post-consumer and secondary waste content regardless of whether the product meets the percentage of recycled material specified for recycled paper or recycled products in ORS 279.731. For paper products, a state agency or public agency also shall require that the bidder specify the fiber type. The contractor may certify a zero percent recycled paper or product. All contract provisions impeding the consideration of products with recycled paper or recycled products shall be deleted in favor of performance standards.

(7) The department shall review and work with state agencies to develop procurement specifications that encourage the use of recycled products whenever quality of a recycled product is functionally equal to the same product manufactured with virgin resources. Except for specifications that have been established to preserve the public health and safety, all procurement and purchasing specifications shall be established in a manner that encourages procurement and purchase of recycled products.

(8) All public and state agencies shall establish purchasing practices that assure, to the maximum extent economically feasible, purchase of materials, goods and supplies that may be recycled or reused when discarded.

SECTION 62. Sections 63 to 81 of this Act are added to and made a part of ORS 279.731 to 279.739.

SECTION 63. (1) The Legislative Assembly finds that:

(a) It is the policy of the state to conserve and protect its resources. The maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern.

(b) The volume of solid waste generated within the state, an increased rate in the consumption of products and materials, including paper products, and the absence of adequate programs and procedures for the reuse and recycling of these products and materials threaten the quality of the environment and well-being of the people of Oregon.

(2) Therefore, the Legislative Assembly declares that the policy and intent of ORS 279.731 to 279.739 is to improve environmental quality by providing for:

(a) The procurement of products made from recycled materials; and

(b) The recycling of waste materials.

SECTION 64. As used in sections 64 to 67 of this 1991 Act:

(1) "Industrial oil" means any compressor, turbine or bearing oil, hydraulic oil, metal-working oil or refrigeration oil.

(2) "Lubricating oil" means any oil intended for use in an internal combustion crankcase, transmission, gearbox or differential or an automobile, bus, truck, vessel, plane, train, heavy equipment or machinery powered by an internal combustion engine.

(3) "Recycled oil" means used oil that has been prepared for reuse as a petroleum product by refining, rerefining, reclaiming, reprocessing or other means provided that the preparation or use is operationally safe, environmentally sound and complies with all laws and regulations.

(4) "Used oil" has the meaning given that term in ORS 468.850.

(5) "Virgin oil" means oil that has been refined from crude oil and that has not been used or contaminated with impurities.

SECTION 65. Every state agency or public agency shall revise its procedures and specifications for the purchase of lubricating oil and industrial oil to eliminate any exclusion of recycled oils and any requirement that oils be manufactured from virgin materials.

SECTION 66. Every state agency and public agency shall require that purchases of lubricating oil and industrial oil be made from the seller whose oil product contains the greater percentage of recycled oil, unless a specific oil product containing recycled oil is:

(1) Not available within a reasonable period of time or in quantities necessary to meet an agency's needs;



**APPENDIX E**  
**Prevailing Wage Rates (BOLD)**



# **PREVAILING WAGE RATES**

for

## **Public Works Contracts in Oregon**



Mary Wendy Roberts  
Commissioner  
Bureau of Labor and Industries

Effective January 1, 1992



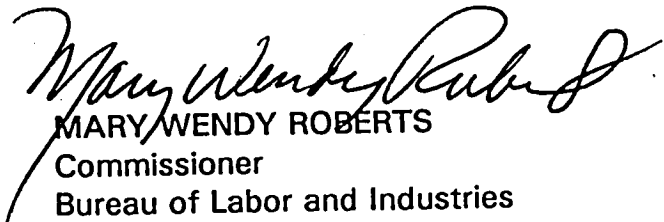
**BUREAU OF LABOR AND INDUSTRIES**  
Mary Roberts, Commissioner

January 1, 1992

This booklet contains the Prevailing Wage Rates for the building and construction trades in the State of Oregon. These rates are effective January 1, 1992. These rates have been amended in accordance with ORS 279.348 through ORS 279.365.

Prevailing Wage Rates are the minimum wages that must be paid to all workers employed in the construction, reconstruction, major renovation or painting of any public works. Copies of these rates must be incorporated into all bid specifications when the advertisement for a public works contract is issued. A provision that Prevailing Wage Rates be paid must also be put in the contract. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the project, with one exception; if during the bidding process the Prevailing Wage Rates change, the public contracting agency has the option of amending the bid specifications to reflect such changes.

If you identify any errors in the rates published, please bring them to the attention of the Prevailing Wage Rate specialist in Portland (229-6655). If you have any questions about the manner in which the Prevailing Wage Rates are enforced, contact the Wage and Hour Division in Portland (229-5750).

  
**MARY WENDY ROBERTS**  
Commissioner  
Bureau of Labor and Industries

**PORTLAND**  
1400 SW 5th Avenue  
Portland, Oregon 97201

**MEDFORD**  
700 E Main  
Medford, Oregon 97504

**SALEM**  
3865 Wolverine St. NE; E-1  
Salem, Oregon 97310

**COOS BAY**  
320 Central Ave., Suite 510  
Coos Bay, Oregon 97420

**BEND**  
1250 NE 3rd, Suite 8105  
Bend, Oregon 97701

**EUGENE**  
165 E 7th Street, Suite 220  
Eugene, Oregon 97401

**PENDLETON**  
700 SE Emigrant, Suite 240  
Pendleton, Oregon 97801

**AN EQUAL OPPORTUNITY EMPLOYER**

## ANNOUNCEMENT

The Prevailing Wage Rates contained in this booklet generally reflect those rates determined for Oregon by the Secretary of Labor of the United States pursuant to the Davis-Bacon Act; certain changes have been made to better reflect prevailing practices in Oregon. Pursuant to ORS 279.348 to ORS 279.365, these rates have been adopted for use on public works contracts in Oregon. If you have specific questions regarding how rates are determined or if you would like a copy of this booklet, please contact:

Prevailing Wage Rate Analyst  
Bureau of Labor and Industries  
P.O. Box 800,  
Portland, OR 97207-0800  
(503)229-6655

The first copy is free. Additional copies are available for \$2.00 each.

## GENERAL INFORMATION

Information in this section and in the "Commonly Asked Questions" is meant to provide a convenient reference to Oregon's Prevailing Wage Rate Law. It is in no way a complete statement of the laws and rules. Note that important information on compliance has been added on page 4 under "Commonly Asked Question" number 11.

If you have questions about the enforcement of Prevailing Wage Rates, please contact the Wage and Hour Division. Division offices may be reached at the following phone numbers:

Bend	388-6330
Eugene	686-7623
Medford	776-6201
Pendleton	276-7884
Portland	229-5750
Salem	378-3292

### Apprentices and Trainees

Apprentices and trainees may be employed on public works. To qualify as an apprentice or trainee, the worker must be registered in a bonafide apprenticeship or training program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship and Training Agency recognized by BAT. For information call 229-6573. The apprentice or trainee is to receive all fringe benefits and a percentage of the journeyman's wage rate which is listed in this booklet. This rate may be different than the rate contained in the Apprenticeship Standards for the trade. The correct percentage shall be determined by the appropriate apprenticeship or training committee. All other workers must receive rates as published.

### Zone Pay

In certain trades, the basic hourly rate of pay progressively increases based upon the distance between the job site and a designated landmark; this is commonly referred to as zone pay. To determine the hourly wage, find the correct zone based on the number of road miles the job site is from the closest designated city (based either on distance from city hall or from geographical center of the city, depending on the trade) and add the amount for that zone to the basic hourly rate. Zone pay, unlike travel pay, is the basic hourly wage upon which overtime is computed.

### Bid Specifications

The specifications for every public works contract must include the current Prevailing Wage Rates in effect at the time the specifications are first advertised. A statement incorporating the existing rates by reference will not satisfy this requirement (ORS 279.352).

**NOTE:** If a public agency fails to include the Prevailing Wage Rates in the contract specifications or fails to include in the contract the provision that Prevailing Wage Rates must be paid, the liability for any unpaid prevailing wages could be exclusively that of the agency.

### Fringe Benefits

Payments for fringe benefits are in addition to the basic hourly rate. Fringe benefits means the amount for:

- a) medical or hospital care; pensions on retirement or death; compensation for injuries or illness resulting from an occupational activity, or insurance to provide any of the foregoing;
- b) unemployment benefits, life insurance, disability and sickness insurance or accident insurance;
- c) vacation and holiday pay;
- d) defraying costs of apprenticeship or other similar programs; and
- e) other such bona fide benefits.

**NOTE:** For the purpose of Prevailing Wage Rates, fringe benefits do not include any benefits which may be required by federal, state or local law (e.g. Workers' Compensation, Unemployment Insurance, etc.).

Fringe benefits may be paid to the worker in cash or to a third party administering a fringe benefit program. When an hourly rate in excess of the required prevailing base rate is paid, the amount by which the rate is exceeded may be credited toward payment of fringe benefits.

### Overtime

Workers employed on a public works job for more than eight hours in a day or 40 hours in a week must be paid overtime for each additional hour so worked (ORS 279.334). Overtime is calculated at no less than one and one-half times the basic hourly rate as determined by the Commissioner of Labor (not including fringe benefits which are paid at the straight rate for every hour worked). In the computation of overtime, travel pay does not need to be included but zone pay differentials do.

Work performed on Saturday, Sunday or legal holidays must also be compensated at time and one-half. Legal holidays for purposes of Prevailing Wage Rates include the following: 1) New Year's Day on January 1; 2) Memorial Day on the last Monday in May; 3) Independence Day on July 4; 4) Labor Day on the first Monday in September; 5) Thanksgiving Day on the fourth Thursday in November; 6) Christmas Day on December 25.

**NOTE:** Contractors who are signatory to a collective bargaining agreement may be subject to different overtime requirements (ORS 279.334[3]).

### Certification of Payroll

The law requires every contractor and subcontractor to file certain information on wages paid to each worker employed on a public works contract. This statement must completely and accurately reflect payroll records for the work week immediately preceding the submission. A contractor or subcontractor must complete and submit the certified statement contained on Form WH-38 as well as the information required on the weekly payroll side of the form. A copy of Form WH-38 and instructions for completing it are included in the back of this booklet; xeroxed copies may be used for filing.

The schedule for submitting payroll information is as follows: once within 15 days of the date the contractor or subcontractor first began work on the project and once before the final inspection of the project by the public contracting agency; in addition, for projects exceeding 90 days, submissions are to be made at 90 day intervals. Payroll information is to be filed with both the public contracting agency and the Wage and Hour Division, Bureau of Labor and Industries, P.O. Box 800, Portland, Oregon 97201-0800. The payroll information must be kept by the contractor and or subcontractor for three years.



## COMMONLY ASKED QUESTIONS

1) What are "Prevailing Wage Rates?"

A prevailing wage rate is the minimum wage, including fringe benefits to be paid workers employed on contracts for public works. Different rates are established for specific trades and specific geographical areas.

2) Who must be paid "Prevailing Wage Rates?"

All employees of a contractor or subcontractor engaged on a public works project when the total price of the project is \$10,000 or more must receive at least the Prevailing Wage Rate (PWR) for time worked on the project, unless otherwise exempt.

Supervisory and office/clerical employees are not required to be paid the PWR. A person who owns and operates his/her own truck on construction projects (Owner/Operator) is not required to be paid the PWR.

3) What about contracts when Federal funds are used?

When more than \$2,000 of federal funds are involved, the contract is usually subject to the provisions of the Davis-Bacon Act, not Oregon statutes. Further information may be obtained from the U.S. Department of Labor, Wage and Hour Division, Portland, Oregon (326-3057). However, in the event that federal funds are involved, but the contract is not regulated under Davis-Bacon, Oregon's Prevailing Wage Rates Statutes may apply (ORS 279.348 - 279.365).

4) I don't have a pension fund. How do I calculate fringe benefits?

Workers must receive at a minimum the sum of the basic hourly rate plus all fringe benefits for each hour worked on a public works contract. Fringe benefits may be paid either to a third party trust account or in cash directly to the worker.

5) My employees receive health benefits. Do I get credit for the health benefit when I prepare my payroll on a public works project?

Yes. Any expenditures an employer makes for bona fide employee benefits can be charged against the fringe benefit payments designated in the Prevailing Wage Rate Booklet. To learn how to compute the correct hourly charge, call the Wage and Hour Division (229-5750).

6) What if the employees are not paid on an hourly basis?

All workers must receive at least the basic hourly rate of wage and fringe benefits for each hour worked on the project. If an employee is paid other than on an hourly basis, the equivalent hourly rate (for both wages and fringe benefits) must still be at least equal to the rates published.

7) How do I classify workers?

Virtually all of the job classifications/trades normally used in the construction industry are represented by the job classifications used in this PWR publication. These classification titles should be used according to common practice. Try to fit your workers into existing classifications. If you have questions about how to classify workers, contact the Wage and Hour Division at 229-5750 in Portland or at one of the offices listed on page 1 of this booklet.

Laborers who do basic work requiring no specific skills, training, or knowledge are generally classified as Group 1 Laborers.

(Note that Landscapers are classified as Laborers, and Ornamental Ironworkers are classified as Ironworkers.)



## COMMONLY ASKED QUESTIONS (Continued)

8) When are new rates determined? How long are they effective?

Prevailing Wage Rates are determined once each year by the Commissioner of the Bureau of Labor and Industries. The Commissioner may amend the rates at any time. The rates are usually amended at least once each year. The rates in effect at the time the bid specifications are first advertised are those that apply for the duration of the contract, with one exception. If during the bidding process the prevailing wage rate changes, the public contracting agency (not the contractor) has the option of amending the bid specifications to reflect such change.

9) How do I post Prevailing Wage Rates?

Every contractor or subcontractor employing workers on a public works project is required to post the applicable Prevailing Wage Rates in a conspicuous and accessible place in or about the work-site. Rates need to be posted for the duration of the job. Contractors and subcontractors who intentionally fail to post the PWR can be made ineligible to receive any public works contract for up to three years.

10) What can I do about a contractor who is not complying with Oregon's PWR law?

File a complaint with the nearest office of the Oregon Bureau of Labor and Industries or contact the Wage and Hour Division, Bureau of Labor and Industries, 1400 S.W. 5th Avenue, Portland, Oregon 97201 (229-5750). Other Bureau offices are located in Bend (388-6330), Coos Bay (269-4575), Eugene (686-7623), Medford (776-6013), Pendleton (276-7884) and Salem (378-3292). You may also complain to the contracting agency, which has the contractual authority to pay PWR claims directly to a contractor's or subcontractor's workers (ORS 279.314).

11) What happens to contractors who do not comply with PWR statutes?

Contractors and subcontractors who pay less than the Prevailing Wage Rates may be liable to the workers affected for the amount found due plus an equal amount as liquidated damages (ORS 279.356). Contracting agencies also have the contractual authority to withhold payments due or to be due to the contractor or subcontractor in order to pay the unpaid prevailing wages directly to the worker (ORS 279.314).

Contractors and subcontractors who intentionally refuse to pay the Prevailing Wage Rate to workers employed on public works or to post the PWR on the job site may be determined to be ineligible to receive any public works contracts for a period of up to three years (ORS 279.361). Workers employed by the contractor or subcontractors have a right of action against the surety of the prime contractor for any unpaid prevailing wages.

A list is kept of all contractors, subcontractors, and other persons ineligible to receive public works contracts and subcontracts. When a contractor or subcontractor is a corporation, the individual officers and agents of the corporation can be debarred, in addition to the corporation. As a result, individuals who intentionally fail to pay or post the PWR are prevented from simply moving from one corporation to another.

In addition, Chapter 323, Oregon Laws 1991, provides that any person that loses a competitive bid for a construction contract may bring an action for damages against the person who is awarded the contract, if the losing bidder can establish that the winner has knowingly violated any one of several laws, including the requirement to pay Prevailing Wage Rates while performing work under the contract. The losing bidder is entitled to recover, as liquidated damages, 10% of the losing bid amount, or \$5,000, whichever is greater, plus reasonable attorney fees.

## COMMONLY ASKED QUESTIONS (Continued)

### 12) How much do I pay apprentices?

To qualify as an apprentice, the worker must be registered in a bona fide apprenticeship program of the U.S. Department of Labor, Bureau of Apprenticeship and Training (BAT) or with any State Apprenticeship Agency recognized by BAT. For information call 229-6573. The apprentice is to receive all fringe benefits and a percentage of the journeyman's wage rate as listed in this booklet. This rate may be different than the rate contained in the Apprenticeship Standards for the trade. The correct percentage shall be determined by the appropriate apprenticeship committee. All other workers receive rates as published.

### 13) What records must I keep? For how long?

Contractors and subcontractors are required to keep records necessary for determining if Prevailing Wage Rates were paid. These records must include the Payroll and Certified Statement Form (WH-38) as well as the following: The name and address of each employee; the work classification(s) of each employee; the rate(s) of wages and fringe benefits paid to each employee; the rate(s) of fringe benefit payments made in lieu of those required to be provided to each employee; total daily and weekly compensation paid to each employee; daily and weekly hours worked by each employee; apprenticeship and training agreements; any payroll and other such records pertaining to the employment of employees upon a public works contract.

These need to be kept for a period of three (3) years from the completion of the public work contract. Records relating to public works contracts must be maintained separately from records relating to private projects/contracts.

### 14) What forms are public agencies required to file with the Bureau of Labor and Industries?

Public agencies are required to prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement that the agency intends to fund during the subsequent budget period (ORS 279.023[2]). If, after the original filing, the agency plans additional public improvements, a revised list is to be submitted (OAR 839-16-008[2]).

The "Notice of Award of Public Works Contract" is to be filed with the Wage and Hour Division within 30 days of the date when a contract is awarded which requires the payment of Prevailing Wage Rates (i.e., is regulated under ORS 279.348 to 279.365).

Copies of the "Planned Public Improvement Summary" (Form No. WH-118), the "Capital Improvement Project Cost Comparison Estimate" (WH-119), and the "Notice of Award of Public Works Contract" (WH-81) can be found at the back of this booklet.

### 15) Does a contracting agency have any power to enforce payment of Prevailing Wage Rates on its public works projects?

Yes. According to ORS 279.314, all public contracts for work or services must contain a clause or condition permitting the contracting agency to pay a worker's past due wage claim, charging the payment against funds due or to become due to the contractor.



## **NOTE**

There have been several changes in addition to the usual wage and fringe benefit up-dates in this booklet. We have attempted to make them more noticeable by printing them in bold type. You may have already noticed the addition to item 11 on page 4. You will find other changes under the following trades.

### **BOILERMAKERS**

The separate storage tank classification has been dropped. All Boilermaker work now has the same rate.

### **BRICKLAYERS/STONEMASONS**

A differential has been added to the Area 2 base rate for refractory work, and modifications have been made in the Area descriptions.

### **CARPENTERS**

An additional clarification on computing the proper zone pay differential for groups 5, 6 and 7 has been added.

### **DREDGING**

Leverman-Hydraulic and Leverman-Dipper are now the same classification. The classification Fill Equipment Operator has been added.

### **MARBLE SETTERS**

Modifications have been made in the Area description.

### **PLASTERERS**

Area 1 plasterers have added the Nozzleman and Swinging Scaffold categories.

### **TILE SETTERS**

Modifications have been made in the Area descriptions.

### **TILE & TERRAZZO FINISHERS**

This trade is now titled TILE, TERRAZZO, BRICK & MARBLE FINISHERS, and modifications have been made in the Area descriptions.

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>ASBESTOS WORKERS</u></b>			<b><u>BRICKLAYERS/STONEMASONS</u></b>		
<u>Installation</u> of insulation on mechanical systems*			Area 1	19.78	4.75
Journeyman Asbestos Worker			(add \$0.75 per hour to Fringe for Refractory repair work.)		
o Projects in buildings which are not used for manufacturing, manufacturing services or similar processes (Offices, schools, laboratories, etc.)			Area 2	19.00	4.62
18.10 4.83			(add \$0.75 per hour to Fringe for Refractory repair work.)		
o Projects in buildings which are used for manufacturing, manufacturing services and similar processes (water treatment plants, electrical generating plants, road maintenance shops, etc.)			<u>Area 1</u>		
19.45 4.83			Baker	Hood River	Multnomah
<u>Removal</u> of insulation on mechanical systems* which are not going to be scrapped.**			Benton (a)	Lincoln (a)	Polk
o Hazardous Materials Handler Mechanic (in any type of project regardless of value)			Clackamas	Linn (a)	Sherman
12.71 2.70			Clatsop	Malheur (a)	Tillamook
* Mechanical systems include pipes, boilers, ducts, flues, breechings, etc.			Columbia	Marion	Umatilla
** The removal of all insulation materials from mechanical systems is exclusively the work of Asbestos Workers, unless the mechanical systems are going to be scrapped. It does not matter whether the insulation materials contain asbestos. <u>Laborers do all removal of insulation materials on mechanical systems to be scrapped and any non mechanical (walls, ceilings, floors, beams, etc.) insulation.</u> They also do loading of any insulation materials that have already been removed, bagged and tagged, as well as cleanup at the removal site and all work done at the disposal site. Laborers performing asbestos removal are classified as Group 3 laborers.			Gilliam	Morrow	Union
<b><u>BOILERMAKERS</u></b>			<u>Area 2</u>		
21.79 5.91			Benton (b)	Douglas	Josephine
			Crook	Grant	Klamath
			Coos	Harney	Lake
			Curry	Jackson	Lane
			Deschutes	Jefferson	Lincoln (b)
			a) North half		
			b) South half		
			<b><u>CARPENTERS</u></b>		
			Under the following circumstances a rate lower than the basic hourly rate may be used for carpenters:		
			The lower rate applies to all public works projects of less than \$750 thousand involving construction, reconstruction, major renovation or painting. In determining the \$750 thousand figure, do include the cost of all surfacing and paving, but do not include the cost of underground utilities (i.e., the amount of the contract dedicated to facilities for electricity, water, gas, sewerage including storm water, and communications) which are five feet or more outside of and away from any building, bridge or dock which is a part of the project, and are subordinate and incidental to the major purpose of the project.		
			NOTE: In determining whether or not the lower rates are applicable, consider the total project cost, and not the cost of any individual contract (or schedule) within that project.		

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS		
<b>CARPENTERS</b> (See above for explanation of when the lower rates may be used)			<b>CARPENTERS</b> (Continued)				
LESS THAN			2. For those workers who reside nearer to the project than is the city hall of any reference city below; the mileage from their residence to the project may be used in computing their zone pay differential.				
100% 100%			3. The zone pay differential for all other projects shall be computed from the city hall of Longview, North Bend, or Portland, whichever is closer to the project.				
Zone 1 (Base Rate):			Reference Cities for Groups 5, 6 and 7				
o Group 1	15.99	18.97	4.32	Astoria	Eugene	Newport	Salem
o Group 2	16.11	19.12	4.32	Bend	Klamath Falls	Portland	The Dalles
o Group 3	16.44	19.47	4.32	North Bend	Medford	Roseburg	Longview
o Group 4	16.56	19.62	4.32				
o Group 5	16.47	19.47	4.32				
o Group 6	16.55	19.62	4.32				
o Group 7	16.97	19.97	4.32				
Zone Differential for Carpenters (Add to Zone 1 Rate)							
Zone 2	.85						
Zone 3	1.25						
Zone 4	1.70						
Zone 5	2.00						
Zone 6	3.00						
Zone 1: Projects within 30 miles of City Hall in the Cities listed below.							
Zone 2: More than 30 miles but less than 40 miles.							
Zone 3: More than 40 miles but less than 50 miles.							
Zone 4: More than 50 miles but less than 60 miles.							
Zone 5: More than 60 miles but less than 70 miles.							
Zone 6: More than 70 miles.							
Reference cities for Group 1 and 2 Carpenters							
Albany	Eugene	Longview	Portland				
Astoria	Goldendale	Madras	Port Orford				
Baker	Grants Pass	Medford	Reedsport				
Bend	Hermiston	McMinnville	Roseburg				
Brookings	Hood River	Newport	Salem				
Burns	Klamath Falls	Oregon City	The Dalles				
Coos Bay	LaGrande	Ontario	Tillamook				
Corvallis	Lakeview	Pendleton	Vancouver				
Zones for Groups 3 and 4 Carpenters are determined by the distance between the project site and either 1) the worker's residence or 2) City Hall of a reference city for the appropriate group shown below, whichever is closer.							
Reference Cities for Group 3 and 4 Carpenters							
Eugene	Medford	Portland	Vancouver				
Longview	North Bend	The Dalles					
Zones for Groups 5, 6 and 7 Carpenters are determined as follows:							
1. For those workers who reside within zone 1 of a reference city below, their zone pay differential shall be computed based upon the distance from the city hall of that city to the project site.							



TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
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### CEMENT MASONS (continued)

- Group 2 Composition Workers (includes installation of epoxy & other resinous toppings), and Power Machine Operators.
- Group 3 Cement masons working on suspended, swinging and/or hanging scaffold.
- Group 4 Cement Masons performing work of both Group 2 and Group 3 at the same time.

Zone Differential for Cement Masons  
(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

#### Cities

Bend	Corvallis	Coos Bay	Roseburg	Eugene
Pasco	The Dalles	Medford	Longview	K. Falls
Salem	Pendleton	Astoria	Portland	Newport

### DIVERS & DIVERS' TENDERS

o Divers	47.84	4.32
o Divers' Tenders	21.01	4.32

Depth Pay and Enclosure Pay are added to the Divers' Basic Hourly Rate to obtain the Total Hourly Rate for the diver.

BASIC HOURLY + RATE	HOURLY DEPTH + PAY	HOURLY ENCLOSURE + PAY	DIVERS' = TOTAL HOURLY PAY
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o Divers' Depth Pay

Depth of Dive	Hourly Depth Pay
50-100 ft	[(total ft- 50] x \$1.00)/hr.
100-150 ft	\$ 50 + [(total ft-100] x \$1.50)/hr.
150-200 ft	\$125 + [(total ft-150] x \$2.00)/hr.

### DIVERS & DIVERS' TENDERS(continued)

o Divers' Enclosure Pay(working without vertical escape)

Distance Travelled

In the Enclosure	Hourly Enclosure Pay
5 - 50 ft	\$ .50/hr
50 - 100 ft	\$ .63/hr
100 - 150 ft	\$ 2.13/hr
150 - 200 ft	\$ 4.63/hr
200 - 300 ft	\$ 4.63 + [(total ft-200]x \$.05)/hr
300 - 450 ft	\$ 9.63 + [(total ft-300]x \$.10)/hr
450 - 600 ft	\$24.63 + [(total ft-450]x \$.20)/hr

### DREDGING

Zone 1 (Base Rate):

o Leverman	21.91	5.67
o Asst. Engineer (including: Watch Engineer, Welder, Mechanic, Machinist)	21.24	5.67
o Tenderman (Boatman, Attending Dredge Plan); Fireman	20.73	5.67
o Fill Equipment Operator	20.29	5.67
o Assistant Mate (Deckhand); Oiler	18.95	5.67

Zone Differential for Dredging  
(Add to Zone 1 Rate)

Zone 2	1.50
Zone 3	1.90
Zone 4	2.40
Zone 5	3.00

Zone 1: Center of job site not more than 15 miles from the City Hall of Portland

Zone 2: More than 15 miles but not more than 30

Zone 3: More than 30 miles but not more than 50

Zone 4: More than 50 miles but not more than 70

Zone 5: More than 70 miles.

### DRYWALL/WETWALL

o Drywall (Accoustical and Drywall Applicator)	17.85	5.57
o Wetwall (Lather)	17.10	6.32

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>ELECTRICIANS</u></b>			<b><u>ELEVATOR CONSTRUCTORS(continued)</u></b>		
<u>Area 1:</u>			<u>Area 2</u>		
o Electricians	18.15	3.40	o Mechanic	21.79	5.68 + a
o Cable Splicers	19.97	3.50	o Helper	15.25	5.68 + a
<u>Area 2:</u>			o Probationary Helper	10.90	-
o Electricians	21.21	6.25	a) Plus 8% of basic hourly rate for employees with more than 5 years of service; 6% of basic hourly rate for 6 months to 5 years of service.		
o Cable Splicers	22.27	6.28			
<u>Area 3:</u>	19.35	5.63			
<u>Area 4:</u>	21.05	4.02	<u>Area 1</u>	<u>Area 2</u>	
<u>Area 5:</u>			Umatilla	All	
o Electricians	22.25	6.12	Wallowa	Remaining	
o Cable Splicers	23.00	6.14	Union	Counties	
<u>Area 6:</u>			Baker		
o Electricians	18.72	5.76			
o Cable Splicers	20.59	5.32			
<u>Area 1</u>	<u>Area 2</u>	<u>Area 2(cont)</u>	<u>Area 3</u>		
Malheur	Baker	Umatilla	Coos		
	Gilliam	Union	Curry		
	Grant	Wallowa	Lincoln		
	Morrow	Wheeler	Douglas (a)		
			Lane (a)		
<u>Area 4</u>	<u>Area 5</u>	<u>Area 6</u>			
Benton	Clackamas	Harney			
Crook	Clatsop	Jackson			
Deschutes	Columbia	Josephine			
Jefferson	Hood River	Klamath			
Lane (b)	Multnomah	Lake			
Linn	Sherman	Douglas (b)			
Marion	Tillamook				
Polk	Wasco				
Yamhill(c)	Washington				
	Yamhill (d)				
a) Those portions lying west of a line North and South from the NE corner of Coos County to the SE corner of Lincoln County					
b) That portion lying east of a line running North and South from the NE corner of Coos County to the SE corner of Lincoln County					
c) South half					
d) North half					
<b><u>ELEVATOR CONSTRUCTORS</u></b>			<b><u>GLAZIERS</u></b>		
<u>Area 1</u>			<u>Area 1</u>	19.50	3.70
o Mechanic	19.34	5.68 + a	(Add \$1.00 to base rate if safety belt is required by State safety regulations)		
o Helper	13.54	5.68 + a	(Add \$4.00 to base rate for work done from a non-motorized single-man bosun chair)		
o Probationary Helper	9.67	-	<u>Area 2</u>	14.36	2.74
			(Add \$0.50 to base rate if working at over 35 feet of free fall in height)		
			<u>Area 1</u>	<u>Area 2</u>	
			All Counties except Malheur	Malheur	
			<b><u>HIGHWAY AND PARKING STRIPERS</u></b>		
				18.40	2.00
			<b><u>IRONWORKERS</u></b>		
			o Structural, Reinforcing, Ornamental, Riggers, Fence Erectors, Signal Men	19.56	6.86

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b>LABORERS</b>			<b>LABORERS Group 1( continued)</b>		
Zone 1 (Base Rate):			Demolition, wrecking and moving ***		
o Group 1	14.62	5.12			Skipman
o Group 2	14.97	5.12	Driller Tender		Slopers
o Group 3	15.27	5.12	Dry-shack Man		Sprayman
o Group 4	15.52	5.12	Dumpers, road oiling crew		Stake Chaser
o Group 5	13.03	5.12	Dumpmen for grading crew		Stockpiler
o Group 6	9.78	5.12			Timber Faller/Bucker (Hand Labor)
Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. A Group 1 base rate is used for General Laborer on such a site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.			Elevator Feeders		Toolroom Man (Job site)
Zone Differential for Laborers (Add to Zone 1 Rate)			Fine Graders		Tunnel Bull Gang (Above Ground)
Zone 2	.65		Fire Watch		Weight-Man-Crusher (g)
Zone 3	1.15		Form Strippers (b)		
Zone 4	1.70		a) Pittsburg or similar types		
Zone 5	2.75		b) Not swinging stages		
Zone 1: Projects within 30 miles of City Hall in the Cities listed below.			c) Reference Post, Guide Post, or Right-of Way Marker		
Zone 2: More than 30 miles but less than 40 miles.			d) Flaherty, Loading Spotters or similar types		
Zone 3: More than 40 miles but less than 50 miles.			e) Including electrical		
Zone 4: More than 50 miles but less than 80 miles.			f) Including steel forms		
Zone 5: More than 80 miles.			g) Aggregate when used		
Reference Cities			*** Laborers can tear off roofs, clean up or handle roofing materials only when at least one new story is added or in demolition work, where no reroofing will occur.		
Albany	Eugene	Longview	Portland		
Astoria	Goldendale	Madras	Port Orford		
Baker	Grants Pass	Medford	Reedsport		
Bend	Hermiston	McMinnville	Roseburg		
Brookings	Hood River	Newport	Salem		
Burns	Klamath Falls	Oregon City	The Dalles		
Coos Bay	LaGrande	Ontario	Tillamook		
Corvallis	Lakeview	Pendleton			
Group 1			Group 2		
Asphalt Plant Laborers	General Laborer ***		Applicators (a)	Gunitite or Pot Tender	
Asphalt Spreaders	Guardrail, Median Rail (c)		Brush Cutters (b)	Handlers/Mixers (f)	
Batch Weighman	Leverman or Aggregate Spreader (d)		Burners	Post Hole Digger, Air, gas or electric	
Broomers	Material Yard Man (e)		Choker Splicer	Power Tool Operators (g)	
Brush Burners/Cutters	Powderman Tender		Clary Power Spreader(c)	Sand Blasting (wet)	
Carpenter Tender	Railroad Track Laborers		Clean up Nozzleman- Green Cutter (d)	Stake Setter	
Car & Truck Loaders	Ribbon Setters (f)		Concrete Power Buggyman	Tampers	
Change-House Man	Rip Rap Man (Hand Placed)		Crusher Feeder	Tunnel Muckers/Brakeman/ Concrete Crew/Bull Gang (underground)	
Choke Setter	Road Pump Tender		Demolition/Wrecking (e)		
Chipper Operator (a)	Sewer Laborer		Grade Checker		
Clean-up Laborers ***	Signalman		Granite Nozzleman Tender		
Concrete Laborers			a) Including Pot Tender for same, applying protective material by hand or nozzle on utility lines or storage tanks on project		
Culvert (hand labor)			b) Power saw		
Curing, concrete			c) And similar types of spreaders		
			d) Concrete, rock, etc.		
			e) Charred Materials		
			f) Of all materials of an irritating nature including cement and lime		
			g) Includes, but not limited to: Dry Pack Machine, Jackhammer, Chipping Guns, Paving Breakers, Vibrators (less than 4" diameter)		



TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>LABORERS( continued)</u></b>			<b><u>LIMITED ENERGY ELECTRICIANS</u></b>		
<b><u>Group 3</u></b>			May only be used for electrical work not exceeding 100 va in Class II and III installations (as defined in Article 725 of the National Electrical Code):		
Asbestos Removal		Power Saw Operators (d)	Area 1	16.24	4.92
Asphalt Rakers		Pumpcrete Nozzleman	Area 2	16.24	4.92
Bit Grinder		Sand Blasting (dry)	Area 3	11.13	2.37
Concrete Saw Operator		Pipe Layers of all Types	Area 4	11.43	2.53
Drill Doctor		Sewer Timberman	Area 5	12.47	2.56
Drill Operators (a)		Track Liners (e)	Area 6	11.27	2.70
Gunit Nozzleman		Tugger Operator	Area 7	11.65	2.08
High Scalers,		Tunnel-Chuck Tenders,	Area 8	11.10	2.57
Strippers, Drillers(b)		Nippers, Timberman	Area 9	16.24	4.92
Laser Beam (c)		Vibrator (4" and larger)	Area 10	11.57	1.88
Manhole Builder		Water Blaster	Area 11	12.56	1.96
Powdermen		Welder	Area 12	15.07	1.99
a) Air Tracks, Cat Drills, Wagon Drills,			Area 13	12.73	2.41
Rubber-mounted drills, and other similar			Area 14	12.43	2.17
types					
b) Covers work in Swinging Stages, chairs			<u>Area 1</u>	Clatsop, Columbia, Tillamook	
or belts, under extreme conditions unusual			<u>Area 2</u>	Clackamas, Multnomah, Washington, Yamhill	
to normal drilling, blasting, barring-down,				(north half)	
or sloping and stripping			<u>Area 3</u>	Marion, Polk, Yamhill (south half)	
c) Pipe laying, applicable when employee			<u>Area 4</u>	Benton, Lincoln, Linn	
assigned to move, set up, align Laser Beam.			<u>Area 5</u>	Lane	
d) Bucking and falling			<u>Area 6</u>	Douglas	
e) Anchor Machines, Ballast Regulators,			<u>Area 7</u>	Coos, Curry	
Multiple Tampers, Power Jacks			<u>Area 8</u>	Jackson, Josephine	
			<u>Area 9</u>	Hood River, Sherman, Wasco	
<b><u>Group 4</u></b>			<u>Area 10</u>	Crook, Deschutes, Jefferson	
Laser Beam (Tunnel), applicable when employee			<u>Area 11</u>	Klamath, Lake	
assigned to move, set-up, align laser beam			<u>Area 12</u>	Gilliam, Grant, Morrow, Umatilla, Wheeler	
Tunnel Miners			<u>Area 13</u>	Baker, Union, Wallowa	
Tunnel Powderman			<u>Area 14</u>	Harney, Malheur	
<b><u>Group 5</u></b>			<b><u>LINE CONSTRUCTION</u></b>		
Flagger			Area 1		
<b><u>Group 6</u></b>			o Group 1	21.68	5.26
Fence Builder		Landscaping or planting laborer	o Group 2	19.59	5.19
			o Group 3	16.12	4.06
			o Group 4	16.89	4.09
			o Group 5	14.78	4.01
			o Group 6	13.90	3.99
			Area 2:		
			o Cable Splicers	19.41	3.52
			o Journeyman Lineman	17.65	3.46
			o Line Equip. Mech.		
			(Right-of-way)	15.89	3.39
			o Line Equip. Oper.	15.89	3.39
			o Groundman	11.92	3.23

TRADES		BASIC HOURLY RATE	FRINGE BENEFITS	TRADES		BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>LINE CONSTRUCTION</u></b> (continued)				<b><u>PLASTERERS</u></b>			
<b><u>Area 1</u></b> All counties except Malheur County				<b><u>Area 1</u></b> o Nozzleman 20.28 4.02 o Swinging scaffold 19.78 4.02 o all other work 19.28 4.02			
<b><u>Group 1</u></b>	<b><u>Group 2</u></b>			<b><u>Area 2</u></b> o Nozzleman 20.78 4.06 o Swinging scaffold 19.78 4.06 o all other work 19.28 4.06			
Cable Splicers	Certified Lineman Welder						
Leadman Pole Sprayer.	Heavy Line Equipment Man						
	Lineman						
	Pole Sprayer						
<b><u>Group 3</u></b>	<b><u>Group 4</u></b>						
Tree Trimmer	Line Equipment Man						
<b><u>Group 5</u></b>	<b><u>Group 6</u></b>						
Head Groundman	Groundman						
Jackhammer Man							
Powderman							
<b><u>Area 2</u></b> Malheur County							
<b><u>MARBLE SETTERS</u></b> (Includes Granite)				<b><u>PLUMBERS &amp; STEAMFITTERS/PIPEFITTERS</u></b>			
<b><u>Area 1</u></b>		20.78	4.75	<b><u>Area 1 (Both)</u></b> 20.23 5.15			
<b><u>Area 1</u></b>				<b><u>Area 2 (Both)</u></b> 22.35 5.65			
Baker	Hood River	Multnomah	Wallowa	<b><u>Area 3 (Both)</u></b> 20.40 5.10			
Benton (a)	Lincoln (a)	Polk	Wasco (a)				
Clackamas	Linn (a)	Sherman	Washington				
Clatsop	Malheur (a)	Tillamook	Yamhill				
Columbia	Marion	Umatilla					
Gilliam	Morrow	Union					
a) North half							
<b><u>PAINTERS &amp; DRYWALL TAPERS</u></b>							
<b><u>Area 1</u></b> o Painters & Drywall Tapers 13.15 2.26							
<b><u>Area 2</u></b> o Brush 15.50 2.18 o Spray, sandblasting, other pressure blasting over 3000 psi, and steam cleaning. 16.00 2.18 o Drywall Tapers 20.15 3.30							
<b><u>Area 1</u></b> Malheur County	<b><u>Area 2</u></b> Remaining Counties						
				<b><u>Area 1</u></b> Benton Deschutes Lincoln (b) All Coos Harney Linn (b) remaining Crook Jefferson Wasco (b) counties Curry Klamath (a) Wheeler (b) Douglas Lane a) Northern one-third b) South half			

## POWER EQUIPMENT OPERATORS

### Zone 1 (Base Rate):

o Group 1	19.60	5.67
o Group 2	19.25	5.67
o Group 3	18.65	5.67
o Group 4	18.25	5.67
o Group 5	17.75	5.67
o Group 6	17.05	5.67

Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.

### ZONE RATES AND DESCRIPTIONS

(Add to Zone 1 Rate)

Zone 2	.65
Zone 3	1.15
Zone 4	1.70
Zone 5	2.75

Zone 1: Projects within 30 miles of City Hall in the Cities listed below.

Zone 2: More than 30 miles but less than 40 miles.

Zone 3: More than 40 miles but less than 50 miles.

Zone 4: More than 50 miles but less than 80 miles.

Zone 5: More than 80 miles.

### Reference Cities

Albany	Eugene	Longview	Portland
Astoria	Goldendale	Madras	PortOrford
Baker	Grants Pass	Medford	Reedsport
Bend	Hermiston	McMinnville	Roseburg
Brookings	Hood River	Newport	Salem
Burns	Klamath Falls	Oregon City	The Dalles
Coos Bay	LaGrande	Ontario	Tillamook
Corvallis	Lakeview	Pendleton	

## POWER EQUIPMENT OPERATORS (continued)

### GROUP CLASSIFICATIONS

### ASPHALT

- 6 Plant Oiler
- 6 Plant Fireman
- 6 Pugmill Operator (any type)
- 6 Truck mounted asphalt spreader, with screed
- 4 Screed Operator
- 5 Extrusion Machine Operator
- 2 Asphalt Plant Operator (any type)
- 4 Asphalt Paver Operator
- 5 Roller Operator (any asphalt mix)
- 4 Diesel-Electric Engineer, Plant
- 5 Asphalt Burner and Reconditioner Operator (anytype), 84
- 4 Roto-Mill, pavement profiler operator, under 6 foot lateral cut
- 5 Roto-Mill, pavement profiler, ground man
- 2 Roto-Mill, pavement profiler operator, 6 foot lateral cut and over

### BLADE

- 6 Blade Operator, pulled type
- 4 Blade Operator
- 4 Blade Operator, Finish
- 4 Blade Operator, externally controlled by electronic, mechanical hydraulic means
- 4 Blade Operator, multi-engine
- 2 Auto Grader or "Trimmer" Operator

### BULLDOZERS

- 4 Bulldozer Operator
- 4 Drill Cat Operator
- 4 Side-Boom Operator
- 2 Tandem bulldozer operator (quadnine and similar type, D-11)
- 4 Bulldozer Operator, twin engine (TC 12 and similar type, D-10)
- 4 Cable-Plow Operator (any type)

### CLEARING

- 4 Log Skidder Operator
- 4 Chipper Operator
- 4 Incinerator Operator
- 4 Stump Splitter Operator

TRADES	BASIC HOURLY RATE FRINGE BENEFITS	TRADES	BASIC HOURLY RATE FRINGE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)	
<b><u>COMPRESSORS</u></b>		<b><u>CONCRETE</u></b> (continued)	
6 Compressor Operator (any power), under 1,250 cu. ft. total capacity 5 Compressor Operator (any power), over 1,250 cu. ft. capacity		5 Slip Form Pumps, power driven hydraulic lifting device for concrete forms 5 Concrete Paving Machine Operator 5 Concrete Finishing Machine Operator 5 Concrete Spreader Operator 4 Concrete Paving Road Mixer 2 Automatic Concrete Slip Form Paver Operator 2 Concrete Canal Line Operator 4 Concrete Breaker 4 Reinforced Tank Banding Machine (K-17 or similar types) 2 Concrete Profiler, Diamond Head	
<b><u>COMPACTORS</u></b> - Self-Propelled		<b><u>CRANE</u></b>	
5 Compactor Operator, including vibratory 5 Wagner Patcor Operator or similar type (without blade) 4 Compactor Operator, with blade 4 Compactor Operator, multi-engine		6 Oiler 6 Truck Crane Oiler-Driver, 25 ton capacity or over 6 Fireman, all equipment 6 A-Frame Truck Operator, single drum 6 Tugger or Coffin Type Hoist Operator 5 Helicopter Hoist Operator 5 Hoist Operator, single drum 5 Elevator Operator 5 A-Frame Truck Operator, double drum 5 Boom Truck Operator 4 Chicago Boom and similar types 4 Lift Slab Machine Operator 4 Boom Type lifting device, 5 ton capacity or less 4 Cerry Picker or similar type crane-hoist, 5 ton capacity or less 4 Crane Operator, under 25 ton (except for rough terrain) 4 Hoist Operator, two drum 4 Hoist Operator, three or more drums 4 Derrick Operator, under 100 ton 4 Hoist Operator, stiff leg, guy derrick or similar type, 50 ton and over 4 Cableway Operator, up to 25 tons 2 Cableway Operator, 25 tons and over 4 Crane Operator, over 25 tons and including 40 tons 4 Bridge Crane Operator, Locomotive, Gantry, Overhead 2 Crane Operator, over 40 tons and including 20 tons 1 Crane Operator, over 200 tons 2 Tower Crane Operator 2 Whirley Operator, up to and including 150 tons 1 Whirley Operator, over 150 tons 1 Helicopter Operators, when used in erecting work 5 Hydraulic Boom Truck Operator, Pittman	
<b><u>CONCRETE</u></b>			
6 Plant Oiler 6 Assistant Conveyor Operator 6 Conveyor Operator 6 Mixer Box Operator (C.T.B., dry batch, etc.) 6 Cement Hog Operator 6 Concrete Saw Operator 6 Concrete Curing Machine Operator (riding type) 6 Wire Mat or Brooming Machine Operator 5 Combination Mixer and Compressor Operator, gunite work 5 Concrete Batch Plant Quality Control Operator 5 Belcrete Operator 5 Pumpcrete Operator (any type) 5 Pavement Grinder and/or Grooving Machine Operator (riding type) 4 Mixer Mobile Operator 5 Cement Pump Operator, Fuller-Kenyon and similar 5 Concrete Pump Operator 5 Grouting Machine Operator 4 Screed Operator 4 Concrete Cooling Machine Operator 5 Concrete Mixer Operator, single drum, any capacity 2 Batch Plant and/or Wet Mix Operator, 1 and 2 drum 1 Batch Plant and/or Wet Mix Operator, 3 units or more 5 Cast in place pipe laying machine 5 Maginnis Internal Full Slab Vibrator Operator 5 Concrete Finishing Machine Operator, Clary, Johnson, Bidwell, Burgess bridge deck or similar type 5 Curb Machine Operator, Mechanical Berm, Curb and/or Curb and Gutter 5 Concrete Joint Machine Operator 5 Concrete Planer Operator 5 Tower Mobile Operator 5 Power Jumbo Operator setting slip forms etc., in tunnels			

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)			<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		
<b><u>CRUSHER</u></b>			<b><u>GUARDRAIL EQUIPMENT</u></b>		
6			6		Oiler
6			6		Auger Oiler
4			6		Oiler, combination guardrail machines
4			4		Guardrail Punch Operator (all types)
4			6		Guardrail Punch Oiler
4			4		Guardrail Auger Operator (all types)
4			4		Combination Guardrail machines. i.e. punch, auger etc.
<b><u>DRILLING</u></b>			<b><u>HAZARDOUS WASTE REMOVAL</u></b>		
6			5		Assistant to the Engineer (Oiler)
6			4		Assistant Incinerator Control Board Operator
5			3		Incinerator Control Board Operator
4			<b><u>HEATING PLANT</u></b>		
4			6		Temporary Heating Plant Operator
4			4		Surface Heater and Planer Operator
4			<b><u>HYDRAULIC HOES</u></b>		
4			5		Hydraulic Backhoe Operator, wheel type 3/8 cu. yd. and under with or without front end attachments 2-1/2 cu. yd. and under (Ford, John Deere, Case type)
4			4		Hydraulic Backhoe Operator, Track Type 3/8 cu. yd. (Note: Over 3/8 cu. yd. takes Shovel Classification rate)
4			<b><u>LOADERS</u></b>		
4			6		Bucket Elevator Loader Operator, Barber-Greene and similar types
4			5		Loaders, rubber-tired type, 2-1/2 cu. yd. and under
4			5		Elevating Grader Operator, Tractor Towed requiring Operator or Grader
4			4		Belt Loader Operator, Kolman and Ko Cal types
4			4		Loader Operator, front end and overhead, 2-1/2 cu. yd. and under 4 cu. yd.
4			4		Elevating Loader Operator, Athey and similar types
4			4		Elevating Grader Operator, Sierra, Euclid or similar types
4			3		Loader Operator, 4 cu. yd. but less than 6 cu. yd.
4			2		Loader Operator, 6 cu. yd. and over
4			<b><u>OILERS</u></b>		
4			6		Oiler
4			6		Guardrail Punch Oiler
4			6		Truck Crane Oiler-Driver, 25 ton or over
4			6		Auger Oiler
4			6		Grade Oiler, required to check grade
<b><u>FLOATING EQUIPMENT</u></b>					
6					
6					
5					
4					
4					
4					
4					
4					
4					
2					
2					
1					
<b><u>FORK LIFT</u></b>					
6					
6					
6					
5					
5					
3					
<b><u>GENERATORS</u></b>					
4					
4					

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)			<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		
<u>OILERS</u> (continued)			<u>REPAIRMEN, Heavy Duty</u>		
5			6		
6			6		
<u>PILEDRIVERS</u> (Use Crane rates when driving or pulling piling)			6		
4			4		
4			4		
<u>PIPE LINE</u> - Sewer Water			4		
6			4		
6			4		
6			4		
5			4		
5			4		
4			4		
4			4		
4			4		
4			4		
4			4		
4			4		
4			4		
<u>PUMPS</u>			<u>RUBBER-TIRED SCRAPERS</u>		
6			4		
6			4		
5			4		
5			4		
5			3		
5			2		
<u>RAILROAD EQUIPMENT</u>			4		
6			3		
6			2		
6			4		
6			3		
6			<u>SHOVEL, DRAGLINE, CLAMSHELL, BACKHOE, SKOOPER, ETC., OPERATOR</u>		
6			6		
6			6		
6			6		
6			6		
6			4		
5			4		
5			4		
5			4		
5			4		
5			4		
5			4		
5			2		
<u>REMOTE CONTROL</u>			<u>SIGNALMAN</u>		
2			6		
			6		

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)			<b><u>POWER EQUIPMENT OPERATORS</u></b> (GROUP CLASSIFICATIONS continued)		
<b><u>SURFACING (BASE) MATERIAL</u></b>			<b><u>UNDERWATER EQUIPMENT</u></b>		
6	Roller Operator, grading of base rock (not asphalt)		2	Underwater Equipment Operator, remote or otherwise, when used in construction work	
5	Roller Operator, Oiling, C.T.B.				
6	Tamping Machine Operator, mechanical, self-propelled		<b><u>ROOFERS</u></b>		
6	Hydrographic Seeder Machine Operator, straw, pulp or seed		Area 1:		
5	Rock Spreaders, self-propelled		o Roofers	17.14	4.30
5	Pulva-mixer or similar types		o Handling coal tar pitch	18.85	4.30
4	Blade Mounted Spreaders, Ulrich and similar types		Area 2:		
5	Chip Spreading Machine Operator		o Roofers	15.79	4.48
5	Lime Spreading Operator		(Add \$2.00 per hour to Fringe for work with irritable Bituminous material.)		
<b><u>SWEEPERS</u></b>			Area 3:		
6	Broom Operator, self-propelled		o Roofers	13.84	2.50
5	Sweeper Operator (Wayne type) self-propelled		(Add \$1.50 per hour to Fringe for work with irritable Bituminous material.)		
<b><u>TRACTOR - RUBBER TIRED</u></b>			Area 4:		
5	Tractor Operator, rubber-tired, 50 H.P. Flywheel and under		o Roofers	15.75	3.85
4	Tractor Operator, rubber -tired, over 50 H.P. Flywheel		(Add \$2.00 per hour to Fringe for work with irritable Bituminous materials)		
4	Tractor Operator, with boom attachment		Area 5:		
4	Rubber-tired Dozers and Pushers (Michigan, Cat, Hough type)		o Roofers	16.65	3.85
<b><u>TRENCHING MACHINE</u></b>			(Add \$3.00 per hour to Fringe for work with irritable Bituminous materials)		
6	Oiler		<b><u>Area 1</u></b>	<b><u>Area 1(cont)</u></b>	<b><u>Area 2</u></b>
6	Grade Oiler (required to check grade)		Baker	Multnomah	Benton
5	Trenching Machine Operator, maximum digging capacity 3 ft. depth		Clackamas	Sherman	Coos
4	Trenching Machine Operator, maximum digging capacity over 3 ft. depth		Clatsop	Tillamook	Crook
4	Back Filling Machine Operator		Columbia	Wasco	Curry
2	Wheel Excavator		Jefferson	Washington	Deschutes
2	Canal Trimmer		Gilliam	Wheeler	Douglas
2	Band Wagon (in conjunction with wheel excavator)		Grant		Harney
<b><u>TUNNEL</u></b>			Hood River		Jackson
4	Mucking Machine Operator				Josephine
6	Conveyor Operator (any type)		<b><u>Area 3</u></b>	<b><u>Area 4</u></b>	<b><u>Area 5</u></b>
4	Shield Operator		Malheur	Umatilla	Morrow
6	Air Filtration Equipment Operator			Union	
<b><u>WELDING MACHINES</u></b>				Wallowa	
6	Welding Machine Operator				



TRADES		BASIC HOURLY RATE	FRINGE BENEFITS	TRADES		BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>SHEETMETAL WORKERS</u></b>				<b><u>SOFT FLOOR LAYERS</u></b> (continued)			
Area 1		18.55	5.63	Area 1 - All counties except Malheur County			
(Add \$0.75 to base rate for work performed on any swinging platform, swinging chair, or swinging ladder)				Area 2 - Malheur County			
Area 2		17.41	4.28	<b><u>SPRINKLER FITTERS</u></b>		20.90	5.33
(Add \$1.75 to base rate for work performed whenever it is possible for worker to fall 30 feet or more)				<b><u>TENDERS TO MASON TRADES</u></b>			
(Add \$1.75 to base rate for work performed in an area where epoxy resins or other injurious chemicals are being applied)				o Tenders for Bricklayers, Tile Setters, Marble Setters and Terrazzo Workers; Topping for Cement Finishers and Mortar Mixers.		15.99	4.12
Area 3		19.75	5.07	(Add \$0.50 to base rate for refractory work)			
(Add \$1.00 to base rate for work where it is necessary to wear a chemically activated face mask)				(Add to base rate an amount equal to that received for safety belt requirements or other unusual job conditions by the mechanic this worker is tending)			
(Add \$1.00 to base rate for work where employee is required to wear a fresh air mask due to nuclear related work)				<b><u>TENDERS TO PLASTERERS</u></b>		15.50	4.12
(Add \$.45 to base rate for work on a swinging stage, swinging scaffold or bosun chair in excess of 30 feet above the ground)				<b><u>TILE SETTERS</u></b>			
Area 4		17.14	3.99	Area 1		18.10	4.20
<b><u>Area 1</u></b>				(Add \$.50 to base rate if safety belt required by State safety regulations or work involves epoxy, furnane, alkor, acetylene, black grouting and/or steam cleaning.)			
Benton	Gilliam	Linn	Tillamook	Area 2		18.00	4.37
Clackamas	Grant	Marion	Wasco	(Add \$.24 to base rate if safety belt required by State safety regulations; \$.20 if work involves epoxy, furnane, alkor, acetylene, black grouting, and/or steam cleaning.)			
Clatsop	Harney	Multnomah	Washington	<b><u>Area 1</u></b>			
Columbia	Hood River	Polk	Wheeler	Baker	Hood River	Multnomah	Wallowa
Crook	Jefferson	Sherman	Yamhill	Benton (a)	Lincoln (a)	Polk	Wasco (a)
Deschutes	Lincoln			Clackamas	Linn (a)	Sherman	Washington
<b><u>Area 2</u></b>				Clatsop	Malheur (a)	Tillamook	Yamhill
<b><u>Area 3</u></b>				Columbia	Marion	Umatilla	
<b><u>Area 4</u></b>				Gilliam	Morrow	Union	
<b><u>Area 4 (cont)</u></b>				<b><u>Area 2</u></b>			
Baker	Morrow	Coos	Josephine	Benton (b)	Douglas	Josephine	Linn (b)
Malheur	Umatilla	Curry	Klamath	Crook	Grant	Klamath	Malheur (b)
	Union	Douglas	Lake	Coos	Harney	Lake	Wasco (b)
	Wallowa	Jackson	Lane	Curry	Jackson	Lane	Wheeler
<b><u>SOFT FLOOR LAYERS</u></b>				Deschutes	Jefferson	Lincoln (b)	
Area 1		16.26	4.00 + a	a) North half			
Area 2		13.66	1.19	b) South half			
a) plus 4% of basic hourly rate for employees with less than one year of service, 6% for those with more than one year.							

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>TILE, TERRAZZO, BRICK &amp; MARBLE FINISHERS</u></b>			<b><u>TRUCK DRIVERS (continued)</u></b>		
o Assists Tile Setters, Brick Layers, Marble Masons, Stone Masons, and Terrazzo Workers by striking, sawing, cleaning, washing or grouting. Does not lay or set any material.			<u>Reference Cities</u>		
Area 1	13.92	2.85	Albany	Eugene	Longview
o (Add \$0.75 to fringe for Refractory repair work.)			Astoria	Goldendale	Portland
<u>Area 1</u>			Baker	Grants Pass	Madras
Baker	Hood River	Multnomah	Bend	Hermiston	Medford
Benton (a)	Lincoln (a)	Polk	Brookings	Hood River	McMinnville
Clackamas	Linn (a)	Sherman	Burns	Klamath Falls	Roseburg
Clatsop	Malheur (a)	Tillamook	Coos Bay	Oregon City	Salem
Columbia	Marion	Umatilla	Corvallis	Ontario	The Dalles
Gilliam	Morrow	Union		Pendleton	Tillamook
a) North half			<u>Work</u>		
<b><u>TRUCK DRIVERS</u></b>			<u>Group</u>		
Zone 1 (Base Rate):			A-Frame or Hydra-lift Truck w/load bearing surface. . . . .		
o Group 1	16.73	5.50	Battery Rebuilder . . . . .		
o Group 2	16.85	5.50	Bus or Man-Haul Driver. . . . .		
o Group 3	16.98	5.50	Concrete Buggies (Power operated) . . . . .		
o Group 4	17.23	5.50	Drivers and Helpers handling sacked cement—add 15¢ per hour		
o Group 5	17.45	5.50	Dump Trucks, Side, End and Bottom Dumps, including Semi-Trucks and trains or combinations thereof:		
o Group 6	17.60	5.50	Up to and inc. 10 cu. yds. . . . .		
o Group 7	17.80	5.50	Over 10 cu. yds. and inc. 30 cu. yds. . . . .		
Note: A Hazardous Waste Removal Differential must be added to the base rate if work is performed inside the boundary of a Federally Designated Hazardous Waste Site. For further information on this, call the Prevailing Wage Rate Coordinator at 229-6655.			Over 30 cu. yds. and inc. 50 cu. yds. . . . .		
Zone Differential for Truck Drivers (Add to Zone 1 Rate)			Over 50 cu. yds. and inc. 60 cu. yds. . . . .		
Zone 2 .65			Over 60 cu. yds. and inc. 80 cu. yds. . . . .		
Zone 3 1.15			Over 80 cu. yds. and inc. 100 cu. yds. . . . .		
Zone 4 1.70			Dumpsters or Similar Equipment—all sizes . . . . .		
Zone 5 2.75			Flaherty Spreader Driver or Leverman . . . . .		
<u>Zone 1:</u> Projects within 30 miles of City Hall in the Cities listed below.			Lift Jitneys, Fork Lifts—all sizes—used in loading, unloading & transporting material on job site. . . . .		
<u>Zone 2:</u> More than 30 miles but less than 40 miles.			Loader and/or Leverman on Concrete Dry Batch Plant, manually operated. . . . .		
<u>Zone 3:</u> More than 40 miles but less than 50 miles.			Low Bed Equipment, Flat Bed Semi-Truck and Trailer or Doubles transporting equipment or wet or dry materials . . . . .		
<u>Zone 4:</u> More than 50 miles but less than 80 miles.			Lubrication Man, Fuel Truck Driver, Driver, Tireman, Wash Rack, Steam Cleaner or combination. . . . .		
<u>Zone 5:</u> More than 80 miles.					

TRADES	BASIC HOURLY RATE	FRINGE BENEFITS	TRADES	BASIC HOURLY RATE	FRINGE BENEFITS
<b><u>TRUCK DRIVERS</u></b> (Continued)					
Lumber Carrier, Driver-Straddle Carrier--used in loading, unloading and transportation of material on job site. ....		2			
Oil Distributor Driver or Leverman. ....		2			
Pilot Car .....		1			
Slurry Truck Driver or Leverman .....		1			
Solo Flat Bed and Misc. Body Trucks-- 0-10 tons .....		1			
Transit Mix and Wet or Dry Mix Trucks:					
5 cu. yds. and under .....		1			
Over 5 cu. yds. and inc. 7 cu. yds. ....		2			
Over 7 cu. yds. and inc. 11 cu. yds. ....		3			
Over 11 cu. yds. and inc. 15 cu. yds. ....		4			
Team Drivers. ....		1			
Tireman, full-time basis. ....		1			
Truck Helper. ....		1			
Truck Mechanic--Welder--Body Repairman ...		3			
Truck Mechanic Helper .....		1			
Water Wagons (Rated Capacity) up to:					
3000 gallons .....		1			
3000 to 5000 gallons .....		2			
5000 to 10,000 gallons. ....		3			
10,000 to 15,000 gallons .....		4			
Winch Truck--takes classification of truck on which winch is mounted					
<b><u>WELDERS; RIGGERS</u></b>					
Receive rate for craft performing operation to which welding and rigging are incidental.					



**CERTIFIED STATEMENT**

I \_\_\_\_\_, \_\_\_\_\_  
(Name of signatory party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

\_\_\_\_\_ on the \_\_\_\_\_  
(Contractor, Subcontractor or Surety) (Building or work)

\_\_\_\_\_ ; that during the payroll period commencing on the \_\_\_\_\_ day  
of \_\_\_\_\_, 19\_\_\_\_, and ending the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_,  
all persons employed on said project have been paid the full weekly wages earned, that no rebates have  
been or will be made either directly or indirectly to or on

behalf of said \_\_\_\_\_  
(Contractor, Subcontractor or Surety)  
from the full weekly wages earned by any person, and that no deductions have been made either directly  
or indirectly from the full wages earned by any person, other than permissible deductions as specified in  
ORS 652.610, and described below:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2) That any payrolls otherwise under this contract required to be submitted for the above  
period are correct and complete; that the wage rates for workers contained therein are not less than the  
applicable wage rates contained in any wage determination incorporated into the contract; that the  
classifications set forth therein for each worker conform with work performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide  
apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of  
Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists  
in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of  
Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS OR PROGRAMS:

In addition to the basic hourly wage rates paid to each worker listed in the above referenced  
payroll, payments of fringe benefits as listed in the contract have been or will be made to appro-  
priate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH:

Each worker listed in the above referenced payroll has been paid, as indicated on the payroll, an  
amount not less than the sum of the applicable basic hourly wage rate plus the amount of the  
required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS:

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	

I have read this certified statement, know the contents thereof and it is true to my knowledge.

NAME AND TITLE

SIGNATURE

☐

Contractor

☐

Subcontractor

☐

Surety

File this form with the contracting agency and send a true copy to the Bureau of Labor and Industries,  
Wage and Hour Division, P.O. Box 800, Portland, OR 97207-0800.



BUREAU OF LABOR AND INDUSTRIES - WAGE AND HOUR DIVISION

INSTRUCTIONS FOR COMPLETING PAYROLL AND CERTIFIED STATEMENT FORM, WH-38  
(Rev 6/91)

General: This form meets needs resulting from the 1983 amendments to the Prevailing Wage Rate Law. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Bureau of Labor and Industries, in addition to payment of not less than the predetermined rates. The contractor's obligation to pay fringe benefits may be met either by payment of the benefits to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringe benefits.

This form provides for the contractor's showing of the payroll and all monies paid to the employees, whether as basic rates or as cash in lieu of fringe benefits and provides for the contractor's representation in the certified statement that he/she is paying other benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the form follow:

Fill in all boxes at the top of the form. Be sure to enter the date the contract was first advertised for bid by the contracting agency. This date should appear on the bid documents.

Column 1 - Name, Address, and Social Security number of Employee: The employee's full name must be shown on each payroll submitted. The employee's address must also be shown on the first payroll submitted. The address need not be shown on subsequent payrolls unless the address changes. Although not required, space is available in the name and address section so that Social Security numbers can be listed.

Column 2 - Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement.

Column 3 - Work Classifications: List classification descriptive of work actually performed by employees. Include group number when appropriate. Consult classifications and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown of hours so worked is maintained and shown on submitted payroll by use of separate line entries.

Column 4 - Hours worked: Enter as overtime hours all hours worked in excess of 8 hours per day, all hours worked on Saturday and Sunday and hours worked on legal holidays as defined in ORS 279.334.

Column 5 - Total: Self-explanatory.

Column 6 - Rate of Pay, including Fringe Benefits: In the rate of pay box, list actual hourly rate paid the employee for straight time worked plus any cash in lieu of fringe benefits paid to the employee. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate, thus \$12.50/2.35. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. Payment of not less than time and one half the basic or regular rate paid is required for overtime under ORS 279.334. In addition to paying not less than the predetermined rate for the classification in which the employee works, the contractor shall pay to approved plans, funds, or programs or shall pay as cash in lieu of fringe benefits, amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

FRINGE BENEFITS -- Contractors who pay all required fringe benefits: A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Commissioner of the Bureau of Labor and Industries shall continue to show on the payroll the basic cash hourly rate and overtime rate paid to employees. Such a contractor shall check paragraph 4(a) of the Certified Statement to indicate that he/she is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exceptions shall be noted in Section 4(c).

Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in column (6) of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, the contractor shall check paragraph 4(b) of the Certified Statement to indicate that he/she is paying fringe benefits in cash directly to employees. Any exceptions shall be noted in Sections 4(c).

Use of section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination required is obliged to pay the deficiency directly to the employees as cash in lieu of fringe benefits. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employee as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor shall pay, and shall show that he/she is paying to each such employee for all hours (unless otherwise provided by applicable determination) worked on the project an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in Section 4(c). The rate paid and amount of cash paid in lieu of fringe benefits per hour should be entered in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of the employees' wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the project and then the gross amount earned on all projects, thus \$63.00/120.00.

Column 8 - Deductions: Four columns are provided for showing deductions made. If more than four deductions should be involved, use first 3 columns; show the balance of deductions under "Other" column; show actual total under "Total Deductions" column; and in an attachment to the payroll describe the deductions contained in the "Other" column. All deductions must be in accordance with the provisions of ORS 652.610. If the employee worked on other jobs in addition to this project, show actual deductions from gross wage, but indicate that deductions are based on gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory

Certified Statement Required by ORS 279.354: While this form need not be notarized, the Certified Statement is subject to the penalties provided by ORS 279.990. Accordingly, the party signing this required statement should have knowledge of the facts represented as true.

Space has been provided between items (1) and (2) of the Statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "See Deductions column in this payroll." See paragraph entitled "FRINGE BENEFITS" above for instructions concerning filling out paragraph 4 of the Statement.



# PLANNED PUBLIC IMPROVEMENT SUMMARY

FISCAL YEAR \_\_\_\_\_ - \_\_\_\_\_

PAGE \_\_\_\_\_ OF \_\_\_\_\_

(Name of State or Local Government Agency)

Project Number	Project Name	Project Type	Project Location	Estimated Project Cost	Agency or Contract Work

ORS 279.023 generally states that not less than 30 days prior to adoption of its budget for the subsequent budget period, each public agency shall prepare and file with the Commissioner of the Bureau of Labor and Industries a list of every public improvement known to that agency that the agency plans to fund in the budget period... If the agency decides to use its own equipment and personnel for constructing projects estimated to cost more than \$50,000, the agency shall show that the decision conforms to the policy of the State of Oregon that public agencies shall make every effort to construct public improvements at the least cost to the public agency, and the public agency shall cause to be kept and preserved a full, true and accurate account of the costs of performing the work including all engineering and administrative expenses and a reasonable estimate of the cost, including investment cost, of the equipment used. **NOTE:** This Improvement Summary together with the project estimate and least cost determination constitutes a public record available in the usual manner for public review or copying. Mail a copy of this public improvement summary to: Wage and Hour Division, P.O. Box 800, Portland, Oregon 97207-0800.

(Name of State or Local Government Agency)

FUND:  
PROJECT NUMBER:

Rough Quantity Estimate	Units	Work Class Description	Agency Force Estimate		Agency Contract Estimate	
			Unit Cost	Total Cost	Unit Cost	Total Cost
Estimated Construction Period _____				\$		\$

**Estimated Construction Period** \_\_\_\_\_

\_\_\_\_\_ determines that (Agency Forces)(Contractor) can perform this work at the least cost.  
(Name of Agency) (cross out one)

FORM WH - 119 (Rev 6/91)

(Agency Official)

NOTICE OF AWARD OF PUBLIC WORKS CONTRACTS  
(For use by Public agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone Number \_\_\_\_\_

2. CONTRACTING AGENCY

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone Number \_\_\_\_\_

Submit this completed notice to:  
Wage and Hour Division,  
Prevailing Wage Section,  
P.O. Box 800  
Portland, Oregon 97207-0800

3. CONTRACT INFORMATION

A. Contract Name and Number: \_\_\_\_\_

B. Location of Work: \_\_\_\_\_

C. County: \_\_\_\_\_

D. Amount of the Award: \$ \_\_\_\_\_

E. Source of Funds: (i.e. 100% Federal Funds; 50/50  
Federal, State; 100% local)

F. Date Contract Awarded: \_\_\_\_\_

G. Date Contract Specifications Advertised for Bid: \_\_\_\_\_

FORM WH-81 (Rev. 1/91)

NOTICE OF AWARD OF PUBLIC WORKS CONTRACTS  
(For use by Public agency in Complying with ORS 279.363)

1. PRIME CONTRACTOR

Name ZAK CONSTRUCTION COMPANY

Address 1234 N.W. Camille Street

City, State, Zip Alexandra, OR 97201

Phone Number (503) 122-4567

2. CONTRACTING AGENCY

Name LOPEZ IRRIGATION DISTRICT

Address 1234 N.W. Shannon Court

City, State, Zip Jamestown, OR 97201

Phone Number (503) 987-6543

Submit this completed notice to:  
Wage and Hour Division,  
Prevailing Wage Section,  
P.O. Box 800  
Portland, Oregon 97207-0800

3. CONTRACT INFORMATION

A. Contract Name and Number: Dam Repair 100-H

B. Location of Work: Becca, Oregon

C. County: Malheur

D. Amount of the Award: \$ 25,000

E. Source of Funds: (i.e. 100% Federal Funds; 50/50  
Federal, State; 100% local)

100% State

F. Date Contract Awarded: July 16, 1991

G. Date Contract Specifications Advertised for Bid:

July 2, 1991

FORM WH-81 (Rev. 1/91)

BUREAU OF LABOR AND INDUSTRIES  
P.O. BOX 800  
PORTLAND, OREGON 97207-0800

ADDRESS CORRECTION REQUESTED