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METRO

DATE: August 31, 2007

TO: TPAC and interested parties

FROM: Anthony Butzek, PE, Transportation Engineer

SUBJECT: Cost Estimate Submittal Status

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PURPOSE

This memo summarizes status of cost estimate submittals and issues pertaining to the accuracy and differences in methodology used for estimates.

ACTION REQUESTED

Jurisdictions that have not yet submitted estimates, or are in the process of updating or clarifying estimates should complete this task as soon as possible.

BACKGROUND AND CONTEXT

The RTP is the long-range blueprint for the transportation system serving the Portland metropolitan region. The plan deals with how best to move people and goods in and through the region and establishes the policy framework to guide the design, management and governance of investments in the region's transportation system for all forms of travel—motor vehicle, transit, bike, and pedestrian—and the movement of goods and freight.

In past RTP editions, the quality of project cost estimates has been poor: project costs often exceed estimates by multiples, sometimes orders-of-magnitude. There are many reasons for this, but the most frequent are changes in project scope, failure to adequately consider impacts of utilities and right-of-way, inflation, and construction cost increases. Little documentation of the cost estimates has previously been required, so it is often unclear what each cost estimate was intended to include.

In refining the implementation plan for the RTP, it is important to more accurately assess expected costs, and to clearly document the scope of the estimates. The additional requirement of providing standardized cost estimates was intended to address this.

STATUS

I have made a general review of all cost estimates submitted, and discussed questions and concerns with each submitter. Several jurisdictions have yet to submit, or to complete their submittal. Table 1 summarizes the status.

Table 1. Cost estimate submittal status as of August 30, 2007

Jurisdiction	Status	Confidence of Estimates
Clackamas County	Complete	Ok
Damascus	Mostly complete, minor revisions underway	Ok
Happy Valley	Complete	Ok
Lake Oswego	Complete	Ok
Milwaukie	Complete	Ok
Oregon City	Complete	Ok
West Linn	Mostly complete, minor revisions underway	Ok
Wilsonville	Complete	Ok
N. Clackamas PRD	Complete	Ok
Multnomah County	Not submitted	Missing[1]
Gresham	Complete	Ok
Portland	Not submitted	Missing[2]
Port of Portland	Complete	Ok
Washington County	Complete	Ok
Beaverton	Alternate methodology used, mostly complete	Low[3]
Cornelius	Not submitted	Missing[4]
Forest Grove	Alternate methodology proposed, not submitted	Missing[5]
Hillsboro	Submitted, some projects missing	Low[6]
Sherwood	Complete	Ok
Tigard	Complete	Ok
Tualatin	Complete	Ok
Tualatin Hills PRD	Not submitted	Missing[7]
ODOT	Complete	Ok
TriMet	Complete	Ok

Notes:
1 – Multnomah County has submitted a proposed alternate methodology but has not yet submitted estimates.
2 – Portland has not yet submitted estimates.
3 – Beaverton confidence of estimates is considered low because methodology does not follow prescribed format.
4 – Cornelius has not yet submitted estimates.
5 – Forest Grove has submitted a proposed alternate methodology but has not yet submitted estimates.
6 – Hillsboro confidence of estimates is considered low because they have not yet submitted estimates for all projects.
7 – THPRD has not yet submitted estimates and has not responded to inquiries.

ACCURACY OF ESTIMATES

The most frequent complaint regarding the methodology was that the estimates are too high. In the Metro spreadsheet, this stems primarily from the addition of markups (design, admin, engineering, construction contingency, environmental contingency, right-of-way contingency, and admin contingency). In the Washington County spreadsheet, the construction estimate is multiplied by 250% to account for these markups. Many jurisdictions manually reduced the markups to offset what they felt was excessive. This may be reasonable for individual projects but it hinders consistency between jurisdictions.

This raises the question of the primary purpose of the estimates. In budgeting for individual projects, it is probably appropriate to use the large markups, as some projects are likely to need them due to complexity or use of federal funding. However, given that many projects are to be funded locally and that some projects will be less complex, use of these markups for all projects probably overestimates systemwide costs. Table 2 lists some possible reductions in markup to address this:

Table 2. Possible revisions to cost markups

Item	Existing	Change to
Metro spreadsheet		
Surveying/design	30%	20%
Admin	35%	10%
Construction eng.	20%	20%
Contingency – construction	20%	20%
Contingency – environ.	20%	20%
Contingency – ROW	40-50%	25-35%
Contingency – admin/design	20%	0
Washington County spreadsheet		
Overall markup	150% (total)	115% (total)
Preliminary engineering	25%	25%
Construction eng. & survey	35%	20%
Project complexities	35%	20%
Contingency	65%	50%

These changes would reduce estimates using the Metro spreadsheet by 15-25% in most cases, and those using the Washington County spreadsheet by 23.3%. Jurisdictions that have reduced the markups would also be adjusted for consistency.

Any changes in markups would affect the number of projects in each jurisdiction's financially-constrained list.

Option A:
Create consistency across jurisdictions by revising markups as listed above, or to other preferable values. This would require revisions to the financially-constrained list during a subsequent phase.

Option B:
Leave the estimates as-is, recognizing that variation of markups exists between different jurisdictions and that some jurisdictions provided more conservative estimates than others.

It is proposed to have a preliminary discussion today, and discuss this further at the October or November TPAC meeting.