

Meeting Notes

Subject: I-5 Rose Quarter Improvement Project – ODOT-PBOT Transportation Analysis Meeting
Date: August 2, 2017
Time: 1:00 – 2:30
Location: ODOT Region 1, 123 NW Flanders, Room 318

Indicates action items

1. Introductions and Meeting Purpose

Megan Channell (ODOT)	John Cullerton (PMX)
Chi Mai (ODOT)	Andy Johnson (HDR)
Teresa Boyle (PBOT)	Beth Wemple (HDR)
Lewis Wardrip (PBOT)	Louise Kling (AECOM)
Ningsheng Zhou (PBOT)	Julia Dunn (AECOM)
XXXXX	
Rory Renfro (Alta)	

The purpose of this meeting is for ODOT and PBOT to discuss and confirm the approach for the transportation analysis to be prepared as part of the I-5 Rose Quarter Improvement Project (I5RQ) Environmental Assessment (EA).

2. Project Overview and Update (Megan)

- The purpose of the I5RQ is to improve the safety and operations of I-5 in the vicinity of the Rose Quarter and Broadway/Weidler Interchange. The EA effort builds off of the findings from the N/NE Quadrant Plan and Broadway/Weidler Facility Plan (2012). I5RQ improvements include the addition of auxiliary lanes and full shoulders along I-5 between I-84 and I-405, as well as freeway lid structures, and a bike/ped overcrossing at Clackamas Street.

3. EA Transportation Scope Overview (John)

- Prior transportation work in 2010-11 was developed from a Vissim model that focused on freeway operations with some surface street analysis. In 2013-14, the freeway analysis was updated. As part of the EA effort, HDR will update the freeway analysis and the surface street analysis. The base year will be updated from 2010 to 2015 and a new forecast year of 2045 will be used.
- The EA Transportation scope includes the following tasks: plan and policy review; future demand forecasting; transportation safety analysis for the freeway and local street; operations analysis of key intersections, ramp terminals and Portland city streets; freeway volumes update; active transportation analysis; access management analysis; and preparation of the transportation technical report and EA section.

4. Travel Demand Modeling Approach (Chi/Ning)

- Chi described the travel demand modeling approach for the EA:

- The Consultant Team will develop 2045 traffic volumes to analyze and obtain future year results. Metro's current RTP-based travel demand model is for 2040 and the City's model is for 2035.
- The Metro provided the City with 2015 and 2040 Build and No Build trip tables. The City will use Metro's trip tables to update the City's base network from 2010 to 2015 and to prepare a 2045 Build and No Build subarea network. The City will prepare assignments for the 2015 Base Year, No Build and Build and provide the assigned Visum network to PMX for post-processing by Friday, August 11.
- Then PMX will provide 2045 future year volumes to HDR; HDR will incorporate into their freeway and local street Vissim modeling efforts.
- Ning discussed his model run assumptions:
 - Based on a preliminary look between the City and Metro models, he confirmed that there were few new improvements within the City between 2035 and 2040, so using the City's 2035 network is a reasonable approach.
 - When Ning carries out the assignment, he will 1) run 2-hour AM/PM peak periods, which should be sufficient to flag any issues on the local street system and identify appropriate mitigations and 2) combine all auto types into one category and all truck types into another category.
 - Ning will provide PMX with both a subarea model assignment run as well as the original full regional model assignment. The consultant team will calibrate the micro-simulation models.
- Zone Disaggregation:
 - Andy inquired about the treatment/exact routing that the City assumed for the Hancock vicinity. John added that the Facility Plan included a diverter at Williams/Hancock. Ning noted that the local street was coded at 25 mph with a 500 vehicle capacity and confirmed that Hancock was added.
 - Ning will share with the Consultant Team a list of all of the turn prohibitions to ensure that assumptions are appropriately applied.
- Build v. No Build:
 - Megan clarified that the Build should just include our Project (the full I5RQ Improvement Project is in the financially constrained network). For the No Build, the City should remove the Project and use the old part of I-5/existing network.
 - Megan also confirmed that the CRC Project is included in the financially constrained 2040 RTP network (prepared in 2014).
- Operations/Safety Analysis and Automated/Autonomous Vehicles (AV):
 - Ning confirmed that AV operations assumptions are not currently included in Metro's or City's model. There is no data on the demand side to apply AV considerations to forecasting/ modeling, but perhaps it can be incorporated on the design side. Megan noted that Metro and ODOT are both looking into the impacts of AV, but the timeline for the availability of such information is unknown.
 - Should AV operations be accounted for as part of the safety analysis? HDR can analyze crash types by vehicle type and provide an order of magnitude (low/medium/high).

5. Freeway and Local Street Modeling (Andy/Beth/Rory)

- HDR is in the process of updating the Vissim model base year from 2010 to 2015 and Andy was optimistic about the preliminary results:
 - HDR applied all of the signal timing assumptions (very minor changes).
 - HDR looked at the ramp terminals (PM, AM and midday) to confirm the ramps could potentially clear in the future. Preliminary results found that the midday is trending worse than AM.
 - HDR found that congestion on the link between the SB off-ramp at Broadway along Vancouver between Broadway and Weidler would result in traffic queues that pose a risk of queuing back onto the freeway mainline.
 - Andy noted this issue can be resolved through design, by changing signal phasing, or adding storage. A resolution can be tested, but will not necessarily be designed as part of EA work.
 - It does not appear that the API would need to change to accommodate the proposed improvements.
 - HDR's traffic analysis/design support work will be used to inform ODOT's (Mark Johnson) efforts to fine tune the I5RQ preliminary design, which Mark is aiming to complete in the next two weeks. Mark's direction will shape the design assumptions that will be included in the Build network.
- HDR confirmed their transportation analysis approach as follows:
 - The analysis will capture 2 hours AM/PM peak periods, which is a normal FHWA practice; but will include longer seeding periods to properly carry out the analysis. ODOT will confirm that the time period (2-hour AM/PM peak) assumptions and approach for the Transportation Analysis are acceptable with FHWA.
 - The Freeway Vissim analysis will help us understand queuing operations and to recognize the lane assignments.
 - The V/C ratio for the freeway and ramp terminals will be obtained using Synchro/HCS.
 - HCS and Synchro will be run as an additional analysis for the non-ramp terminals and V/C will be reported.
 - The City confirmed that they use V/C standards which will require Synchro/HCS analysis.
- Moda Center Egress:
 - Based on information from previous look at Moda Center Egress (refer to the June 2016 *Moda Center – Post Event Traffic Analysis Memo*), there was a recommendation to convert Wheeler/Vancouver to a 2-way operation, particularly during a post-event. This included a double right onto Weidler with a new relocated I-5 SB on-ramp. Megan will send Teresa a copy of the 2016 Moda Center – Post Event Traffic Analysis Memo.
 - John noted that a full-time 2-way operation scenario south of Weidler has not been further investigated. During non-event times, traffic congestion should not be an issue, but the EA analysis should consider what should be done with signal timing during this period, as well as during post-event operations.

- The Project will evaluate various volume scenarios around the Moda Center to understand post-event operations.
- The City emphasized the importance of reengaging the Rose Quarter to get their input early on. Teresa will reach out to the Rose Quarter's Susan Hartnett to provide her an update on the EA analysis and to let her know the Project Team will be reaching out for input.
- Active Transportation:
 - Rory provided an overview of Alta's active transportation scope, which covers the entire API, but focuses on the vicinity of the Broadway/Weidler Box. Tasks include a bike/ped gap analysis, a level of stress analysis of the existing conditions, and an examination of bike/ped impacts under the Build and No Build. Alta will also provide support on HDR's local street safety analysis and support PMX's transit assessment work.
- Safety Analysis:
 - Freeway Safety Analysis: Beth anticipates the existing freeway analysis will be easy and quick, while the future analysis will rely on results from the modeling work. Pending future volumes, the HCM procedure will be followed and the Interchange Safety Analysis Tool (ISAT) will be applied for future, existing and No Build (generally accepted methodology with FHWA). ODOT will confirm that the Safety Analysis Methodology (as noted in Methodology memo) is acceptable with FHWA.
 - Beth anticipates that under the Build and No Build, crashes will go up as a result of the increased volume of traffic in the 2045 model. The safety methodology uses traffic volume as a key factor in determining safety measures. One potential analysis strategy to consider is assigning the existing volumes on the future Build and No Build networks, or converting to crash rates rather than raw numbers for both the Build and No Build.
 - To minimize the locations where rapid deceleration results in crashes, HDR will prepare a supplemental emergency braking analysis. This work calibrates (rapid deceleration) Vissim output and applies it to the model to identify if there are any points of rapid deceleration in the future.
 - Local Street Safety Analysis: Megan confirmed the local street safety analysis contingency task has been activated. The SOW will be dependent on feedback and direction from discussions from PBOT. ODOT will set-up follow-up meeting with the Consultant Team (Beth, Rory) and PBOT to discuss the local street safety SOW.

6. City Standards, Policies and Desired Outcomes (Teresa/Lewis)

- City concerns include:
 1. Twin turnaround at Broadway and Weidler
 - Andy will look for TOAS (??) information for the Twin Turnaround and send to the City.
 2. Modal Impacts (e.g. the dual turn and how it affects pedestrians, other modes)
 - Teresa emphasized the need for the overall transportation analysis to look more modally and reflect any future impacts to bike/ped/transit.

- Andy noted that the existing Vissim model only incorporates what is currently occurring to bike/peds and there is a need to look at future impacts (e.g. the Vissim model captures any pedestrian movements involved in a signal phase; pedestrian movements during special events will need to be hardcoded). Andy will coordinate with Nelson Chi to see what pedestrian data is available and define and apply appropriate assumptions.
- Teresa noted the need to confirm the growth assumptions from the N/NE Quadrant Plan are included in the Project’s transportation modeling.
- HDR will coordinate with the City to incorporate PBOT’s protected bike lane initiative into the Vissim model.
- 3. Streetcar operations impacts during construction.
 - Megan noted Portland Streetcar Inc. (PSI) has had separate discussions about what they can do to continue operations in the Project Area during construction, and will be prioritizing operations to Hollywood. ODOT will circle back with PSI (Dan Bower) on streetcar coordination efforts and with PBOT’s Streetcar Division (Kathryn Levine).
- 4. Land Use/ Comprehensive Planning
 - Metro’s model incorporates 2035 demand, but the growth assumptions do not include the City’s recent Comprehensive Plan update. John suggests comparing the TAZ level growth assumptions to see the difference between the land use patterns.
- 5. Other Potential Issues?
 - Rose Quarter Garages: Plans for redeveloping the City-owned garages will not be resolved in the near-term.
 - Portland Public School site: Megan has been coordinating with Staci Monroe
 - Proposed developments in Project Area: Shell Station, Toyota dealership, adjacent to hotel site, others.

7. Schedule and Next Check-in (Megan)

- Transportation Analysis Schedule:
 - Late-August: Complete the assignment of future volumes.
 - September/October: Prepare and complete freeway/local street future volume work.
 - Mid-December: Submit Draft Transportation Technical Report

Action Items

Action Item	Responsible Party	Due Date	Status
PBOT (Ning) will prepare assignments for the 2015 Base Year, 2045 No Build and 2045 Build and provide the assigned Visum network to PMX for post-processing.	PBOT	August 11	Pending
PBOT (Ning) will share with the Consultant Team a list of all of the routing prohibitions to ensure that assumptions are appropriately applied.	PBOT	August 7	Complete

Action Item	Responsible Party	Due Date	Status
Pending authorization from ODOT, HDR (Beth) can analyze intersection crashes by vehicle type and provide an order of magnitude ranking (low/medium/high).	ODOT/HDR	TBD	Pending
ODOT (Megan) will send Teresa a copy of the 2016 Moda Center – Post Event Traffic Analysis Memo.	ODOT	August 4	Pending
PBOT (Teresa) will reach out to the Rose Quarter’s Susan Hartnett to provide her an update.	PBOT	August 11	Pending
ODOT (Megan) will set-up follow-up meeting with the Consultant Team (Beth, Rory) and PBOT to discuss the local street safety SOW.	ODOT	August 11	Pending
HDR (Andy) will look for TOAS information for the Williams turnaround and send to the City.	HDR	August 7	Pending
HDR (Andy) will coordinate with Nelson Chi to see what pedestrian data is available and define and apply appropriate assumptions.	HDR	August 7	Pending
PMX (John) will confirm whether the growth assumptions from the N/NE Quadrant Plan are incorporated into Metro’s 2040 RTP model.	PMX	August 11	Pending
HDR will coordinate with Alta and the City to incorporate PBOT’s protected bike lane initiative into the Vissim model.	HDR	August 25	Pending
ODOT (Megan) will circle back with PSI (Dan Bower) on streetcar coordination efforts and also coordinate with PBOT’s Streetcar Division (Kathryn Levine).	ODOT	August 25	Pending