



NW Bethany Boulevard Improvements Project Focus Group Meeting #5 Notes

Meeting Date: November 4, 2010

Time: 5:00-7:00 p.m.

Location: Sunset Presbyterian Church

FOCUS GROUP MEMBERS:

Doug Alvarez	√	Paul Enriquez	√
Debra Ashe	√	Bob McMillan	√
Hal Ballard	√	Charles Murphy	√
Chris Biggs (David Hicks filling in)	√	Steve Murray	√
Ann Bryan	√	Jeff Oberst	√
Robert Bueermann	√	Sandra Peterson	√
Stephen Collins	√	Norm Rose (Fran Bates filling in)	√
Rob Saxton		John Hartsock	√

PROJECT MANAGEMENT TEAM:

Washington County			
Matt Costigan	√	Jan Wilson	√
Brian Irish	√	Magdalena Campuzano	√
Kim Haughn			
Howell Consulting			
Leslie Howell	√		
WHPacific			
Wayne Bauer	√	Ken Rehms	√
Sarah Heller	√		
Kittleson & Associates			
Wade Scarbrough	√		
Michael Minor & Associates			
Michael Minor	√		

OTHER ATTENDEES:

Approximately 65 others (see sign-in sheet for names)

Welcome and Introductions – *Leslie Howell (Howell Consulting)*

Leslie welcomed everyone to the meeting and reviewed the night's agenda. (Copies of the agenda were made available for the audience). Leslie reminded the audience that this is a committee meeting with time available at the end for public comments. The audience is asked to hold comments until then.

Leslie asked the group for any corrections to the meeting notes from Meeting No. 4. Meeting notes will be revised to clarify that Alternative 1 allows left turns out at Avondale. Other than this change, the notes were approved by the PFG. Meeting notes will be posted to the project website.

Leslie welcomed Fran Bates who is representing Norm Rose and David Hicks who is representing Christine Biggs for this meeting.

Items from the “issues bin” from the last meeting were reviewed.

- **New tube counts.** Tube counters were in place near Oak Hills Drive for one full week at the end of September 2010. It was shown that Saturday traffic is similar to weekday traffic, but not quite as high of volumes. The ADT was calculated to be 20,100. The tubes did not differentiate AM and PM volumes, but gathered total volumes and travel speeds. This information was provided on a handout and will be made available on the project website.

Question: What is the peak hour?

Answer: Wade thought the AM peak hour was between 7:30 – 8:30 AM and PM peak hour between 4:30 – 5:30 PM. (Wade later clarified that the AM and PM peak hours were 7:00 - 8:00 am and 4:00 – 5:00 pm respectively)

Noise Analysis Presentation – *Michael Minor (Michael Minor & Associates)*

Background:

Michael introduced himself and stated that he has been analyzing noise studies for the past 20 years and has extensive experience in Washington County. A PowerPoint presentation was shown that explained the noise analysis process, the status of the work on the NW Bethany Blvd. project, and the preliminary results of that analysis. The presentation will be made available on the project website. Some points made in the presentation:

- Noise is measured in decibels, ranging from 0 dB to 140 dB. The average sound is in the 40 dB to 80 dB range. Sound levels of 120 dB reaches the pain threshold in the human ear, and 140 dB will cause hearing loss. This is the equivalent to the sound a jet engine makes at 50 feet.
- Sound is measured using L_{max} (the loudest noise in the study time) and L_{eq} (energy average sound level). As no two cars sounds alike, L_{eq} is used to provide an energy average noise level that is comparable to the way people hear. The peak hour traffic (highest number of vehicles per hour at the post speed) is used for the analysis period.

Acoustics:

There are three general rules for acoustics:

- Doubling or halving the distance from traffic noise source decreases or increases noise by approximately 3 dB, respectively.
- A 10 mph increase or decrease in speed results in an increase or decrease in noise of approximately 3 dB, respectively.

- Doubling or halving the traffic volume increases or decreases noise by approximately 3 dB, respectively.

In general, a 3 dB change in noise is the minimum that people can barely perceive. A 5 dB change is clearly perceived. A 10 dB increase is perceived to be twice as loud.

Regulations:

The Federal Highway Administration (FHWA) has developed a standard for noise studies. FHWA criteria for consideration of noise abatement includes the following:

- Future noise approaching or exceeding L_{eq} of 67 dB
- Future noise levels that substantially exceed existing noise levels
- Local jurisdictions defines the criteria for “approach” and “substantial”

Washington County has defined “approach” as 1 dB and “substantial” as a change of 15 dB over the existing noise levels. This means that if future traffic noise levels meet or exceed 66 dB, or if the future traffic noise levels increase by 15 dB or more over the existing traffic noise levels, then noise abatement must be considered.

Noise abatement is considered for all identified noise impacts. This is considered, not required, and must meet the following criteria for reasonable and feasible noise mitigation.

- Reasonable: \$20,000 per residence is allowed for mitigation measures and is used as a general guideline for construction costs.
- Feasible: Must be constructible and result in a minimum of a 5 dB reduction in noise. Sound wall constructability issues include placement on horizontal line of sight and avoiding existing underground or overhead utilities.

Bethany Blvd Study:

The Bethany Blvd noise study will follow the draft *Washington County Traffic Noise Analysis Manual*, March 2002 guidelines. Michael conducted a field visit, chose measurement locations, and gathered traffic counts, vehicle types, and travel speeds in order to perform a detailed data analysis. He is in the process of reviewing the information to prepare a draft noise analysis report.

The preliminary study monitored noise at eight locations within the corridor. These locations registered noise levels between 57 dB and 73 dB. Traffic counts were taken during the monitoring and were broken down into three categories:

- Cars – passenger cars
- Medium trucks – UPS, FedEx, delivery trucks
- Heavy trucks – dump trucks, buses

A radar gun was used to measure vehicle speeds. The location of shielding was observed during the field visit to determine if there are any fences, houses, or ground zones that may affect the monitored noise levels.

Question: Do you model existing or proposed conditions?

Answer: Several conditions are modeled. These include existing, no-build, and future build for all alternatives. The baseline is the existing condition with existing traffic. The no-build is the existing condition with future traffic. Each alternative is modeled with future traffic. Michael said that based on his experience, he would expect a difference between existing, 3-lane, and 5-lane options to vary from 1-3 dB or 2-4 dB.

Question: Why not adjust the noise model for speeding traffic instead of using posted speed?

Answer: The analysis includes checking the model using existing traffic and posted speeds to get a good baseline. This is then modeled against for the alternatives and projected traffic volumes and speeds.

Question: At peak hour won't cars travelling at the posted speed be louder?

Answer: Typically, the measured difference would be slightly louder just after peak hour, as traffic travels slower than during peak hour.

Question: How close to Hwy 26 was a monitoring location?

Answer: The entire corridor was analyzed between Hwy 26 and West Union.

Preliminary Results:

Information gathered and analyzed was used to create a model representing the corridor. Preliminary analysis indicates existing noise levels on Bethany to be between 56 dB and 72 dB L_{eq} . The no-build condition would increase noise levels to be between 58 and 74 dB. The 5-lane build alternative would increase noise levels to be between 58 and 76 dB.

Under existing conditions, 27 receivers meet impact criteria. Under the no-build condition, 35 would meet impact criteria. Under the 2035 future build condition, 36 would meet impact criteria.

Question: Do you take into account noise throughout the day or just during peak hour?

Answer: Some agencies use 24-hour noise; for example, at airports. For roads, the peak hour is used because it is a worse case. If mitigation is warranted, it would also reduce noise levels during the other hours of the day.

Mitigation:

Noise abatement measures fall into three main categories:

- Traffic Management Measures:
 - Speed restrictions – slower speeds
 - Vehicle restrictions – not allow heavy trucks
- Design Measures:
 - Depressed roadway
 - Lids/ covering roadway
 - Special pavement – This would not have an impact since Washington County already uses good pavement
 - Retaining walls
- Noise Barriers:
 - Sound walls
 - Earth berms – require approximately 30' of right-of-way, not feasible in tight corridors

Michael reviewed why sound walls are the only practical measure for Bethany Blvd. He went on to give an overview of how sound walls work in reducing noise. Sound walls are designed to absorb some noise and reflect some noise back towards traffic. The roughened or fractured surface of the wall breaks up noise. Noise from cars is generally located at the pavement interface with the car tire, noise from medium trucks is located 4'-6' above the pavement, and noise from heavy truck is located 8' above the pavement. Some noise comes over the walls, and noise reductions are influenced by topography and distance to the walls. Typically, 6'-8' walls yield a 7-10 dB reduction in noise from passenger vehicles. Sound walls are the most common form of noise mitigation.

Question: Do trees work well for noise mitigation?

Answer: Trees will soften the noise over time and have a visual effect, but they provide a minimal reduction in noise.

Question: Will wider roads bring more trucks?

Answer: Truck traffic is driven by the type of development, such as deliveries to commercial businesses. Truck traffic is not anticipated to increase significantly along Bethany Blvd.

Question: What vehicle classification does a TriMet bus fall under?

Answer: A TriMet bus is classified as a heavy truck because it has a diesel engine, the exhaust sits up higher, and it emits low frequency noise.

Question: Why is there a variance in noise ranges?

Answer: Backyards are the noisiest area on this project because they are closest to Bethany Blvd. Houses farther away from the road experience less noise from the road than those immediately adjacent to the road. For example, the noise level measured at Bethany Blvd is 70 dB, but it is 57 dB a block back.

Question: Would there be segments of walls along the roadway?

Answer: The possible wall locations have not been completely analyzed yet. The wall would have openings for intersections which allows noise to get through. Michael will bring the results back and proposals for wall locations at a future PFG meeting.

Question: 15' of right-of-way would move the sound wall further back. Is there an impact from this to the houses further back?

Answer: There may be a 1-2 dB increase if at all. Noise levels in the neighborhood should stay the same because the sound would be blocked by the houses.

Question: Does noise travel in a parabolic shape?

Answer: Noise hits the wall and curves back down toward the residences. The lower the frequency, the more the noise bends down.

Next steps:

Michael will update the noise model for topographical features and noise predictions, meet with Washington County staff to discuss the noise study results and noise abatement considerations, and complete the noise technical report. This information will then be presented at a future PFG meeting.

Question: Will you look at energy absorption sound walls?

Answer: They are cost-prohibitive in this application and are generally used in industrial or commercial applications. The only location of them in Oregon that Michael is aware of is along the TriMet MAX line on SW Jefferson Street in Goose Hollow. The energy absorption walls are a thick, fine pegboard material that works well until it is plugged by road grime.

Question: Based on the requirements, a 66 dB noise level would qualify for noise abatement. Would sound walls end up being too costly and exceed the \$20,000 per house requirement?

Answer: Typically, no. Sound walls cost approximately \$20/SF. The \$20,000 per house is used as a guideline.

Question: Are sound walls in the project budget? What about greenery in front of the walls to soften the concrete feel?

Answer: Yes, sound walls are in the budget. Placing landscaping in front of them has not been considered since it is a design detail that also requires additional right-of-way impacts. Landscaping will be considered as the design is moved forward.

Question: What is the minimum length of wall needed for sound walls to be effective?

Answer: It depends upon the location. Generally, sound walls along 4 houses would result in a noticeable difference. Houses at intersections or the ends of walls typically do not notice as much of a difference. To be effective, the walls would need to provide a 5 dB reduction in noise to justify being built.

Question: At Telshire, what would happen with the existing 6' retaining wall?

Answer: A sound wall could not be constructed on top of the existing retaining wall. If warranted, the retaining wall could be removed, and a sound/ retaining wall built in its place. This may be cost-prohibitive.

Question: Where is the 185th project located that has been mentioned as having sound walls added?

Answer: On 185th Avenue between West Union and Rock Creek (Westview High School). This project is still in the design phase but is slightly ahead in its design then we are.

Question: Where are sound walls located for other Washington County projects?

Answer: Murray Blvd has several sound walls, also Scholls Ferry Road near Hwy 217, Farmington Road between 160th and Farmington, and along Hwy 26.

During the review of the evaluation matrix, Michael commented that FHWA does not consider adding turn lanes a capacity adjustment and would not trigger a noise study, thus no need for sound walls or mitigation. To warrant a noise study, travel lanes (capacity) needs to be added or there needs to be a substantial increase in noise.

Continue Evaluation of Design Concept Alternatives – Wayne Bauer (WHPacific)

Wayne gave an overview of the 4 alternatives that were presented at the previous PFG meeting. Alternative 1 is the five-lane; Alternative 2 is the four-lane; Alternative 3 is the five-three-five-lane; and Alternative 4 is the three-lane. Since PFG #4, changes to the exhibits have consisted of cleaning up inconsistencies between the alternatives to indicate adding medians to control left turns, but no additional design.

The design team has completed additional work to fill in the matrix for discussion with the PFG. An updated version was provided. The team is still working on refining the traffic data. The updated information was then described in more detail.

- Traffic and Circulation: Values for V/C ratio, capacity and level of service (LOS) of the corridor were included in the matrix. Alternative 1 has the best overall capacity. Alternative 3 starts to see LOS F. Washington County design standards is LOS D or better.
- Signalized intersections use the V/C ratio to measure capacity. Washington County standard is $V/C < 1$ for acceptable capacity performance. The V/C ratio is over 1 for the three signalized intersections in Alternatives 3 and 4.

Question: Ridgetop is a right in / right out. Will it really be LOS F?

Answer: Yes. LOS F means there is at least a 50 second wait and with only one lane to turn into on Alternative 4, there would be less gaps, requiring a longer wait time, making LOS a F.

Question: Ridgetop doesn't have many houses. Is LOS F correct?

Answer: On average, a vehicle would wait 50 seconds or more, resulting in a LOS of F.

Question: What do the items shown in red mean?

Answer: Items shown in red do not meet Washington County standards.

Question: What happens to the driveways along Bethany?

Answer: The accesses will be closed on Bethany, but they all have alternate access on side streets.

Question: Why is there a difference in LOS between Alternative 1 and Alternative 3 at Bronson? Don't they have the same number of lanes?

Answer: Lane usage with a lane drop creates inefficiencies in usage of all lanes. The traffic analysis accounts for this and results in a difference in LOS between the alternatives.

Chuck Murphy read a statement from Metro from a document on their website regarding livability and sustainability.

Wayne commented that traffic data has been developed presented and that four alternatives are under consideration. They are all being evaluated by the design team equally.

Question: Will you reduce lane and sidewalk widths and move medians around?

Answer: These refinements will be addressed during design. Lane width reductions and centerline shifts will be reviewed.

- Community Impacts: The community impacts listed included right-of-way area and easement areas estimated based on a preliminary level of design.

There was a discussion on home values. Real estate agents have come through the neighborhood and claimed that there is a \$15,000 to \$20,000 loss on homes now even if the property does not front the project. Some PFG members would like to see home value change added to the matrix.

The value of the right-of-way to be acquired was discussed. The property owners will be compensated for the property acquired. The appraisal process is set by the federal requirements for right-of-way acquisition and has to be followed for this project. That process cannot evaluate properties not directly affected.

Question: Can you have appraisers come in and address the values of homes that front Bethany Blvd and also the neighborhoods.

Answer: Matt will discuss this with the Washington County right-of-way staff.

Question: We would like to see what the range is for lane dimensions and lane shifts.

Answer: This was addressed at the last PFG. A line item for this can be added to the matrix.

Backyard surveys are being completed to locate houses, trees, and other information. The house that may possibly be acquired was surveyed, and it was confirmed that the house lies within the 45' right-of-way dimension. Other structures (two decks and a pool) will be affected by the four alternatives as shown in the matrix.

Retaining walls areas are shown in the matrix. A "guesstimate" for potential sound walls was included in the construction costs based on the preliminary noise analysis and likely locations.

A preliminary cultural and historical study was completed, and no historic or cultural resources are documented at this time. The visual category includes evaluating impacts of each alternative primarily to trees and views. The recreational category relates to the park property at the south end and the wetland area at the north end.

- **Project Costs:** The costs shown are rough and based on preliminary designs. Right-of-way costs are not shown at this time because they would be too preliminary.

Question: Will the speed limit change?

Answer: No, it is posted at 35 mph and will not change.

- **Natural Environment:** Environmental items are still being studied, such as the noise analysis and air quality work that will be completed. The hydraulics and water quality items are being reviewed, but are considered equal as a stormwater system would be provided for each alternative.

PFG members were asked to review the matrix and send comments, revisions, or additions on categories or items to Matt. Leslie will be asking the committee for their preferences at next month's PFG meeting.

Public Comment Period – *Leslie Howell (Howell Consulting)*

Leslie asked for public comment from those in the meeting audience.

James Boone – He is fascinated and frustrated by the traffic numbers. They show an increase of 110-150% by 2035 north of Hwy 26. The area north of Laidlaw is projected to have more traffic than what is on Bethany between Hwy 26 and West Union now. Can you present the number of projected people or houses in North Bethany and the number of people south of there today? It is hard to believe the numbers.

Response: The discussion on the TAZ at the last meeting addressed these traffic numbers.

Shirley Bates – Are retaining walls different than sound walls? (*Response:* Yes.) We would like to see the Metro assumptions used in the traffic model. We would like to see the map for the infill area. We have asked for this a couple times.

Response: The discussion on the TAZ at the last meeting addressed this, and identified the locations where growth is expected to occur according to the METRO model. This information has been posted on the website. The team is not aware of a map showing future growth areas included in the Metro model.

Chuck Swartley – The traffic numbers between 2005 and 2010 show a 50% growth. If this is used as the growth model, then yes, you would see growth, but he disagrees with this. 70% of traffic is in the peak hour. The design results in building roads to move traffic in peak hour. Transportation budgets are stretched. The County could spend the money better by putting the \$7-\$8 million towards other roads in Washington County. The livability of 7 to 8 neighborhoods is affected. People have lived in the area 30 years and are concerned with livability. He doesn't agree with needing a 5-lane road and hopes for the 3-lane or 5-3-5-lane alternative. He doesn't think that the 5-lane will improve traffic.

Darla Castagno – Walls with greenery take up a lot of space. Would we be responsible for maintenance of the walls? She is a 40-year resident of Oak Hills. This is the only planned community in Oregon that hasn't gone public. This treasure should be protected. This is a profound and negative impact on 16 homes. A lawyer we've consulted with said that he hasn't seen such potential destruction in his career. Oak Hills was rated #1 as America's most affordable community in Oregon. On October 25th, the State Historic Preservation Society met with people in Oak Hills. There is an informational meeting for potential eligibility as a historic district on Wednesday November 17th at 7pm.

Response: The historical study has completed a database research only. The historian is still working on the impact study which will be presented at a future meeting.

Micki Sparr – Houses on the east side are likely to lose 20’ of their backyards. Losing backyards is critical because people are looking for houses with backyards. The property acquisition will result in a vacant lot. Nobody wants to live on a cul-de-sac with a vacant lot.

Jean- Claude Ballard – He came tonight because this is called a focus group. He does not think the design team is listening and asked for a balance between presentation and listening. He would like to see answers to traffic objections. The focus group should be renamed public session.

Lori Waldo –She suggested the proposed overcrossing of Hwy 26 at 173rd Avenue be in the analysis of Alternative 4 with three lanes. The 173rd improvement should be considered if the objective is to move traffic from north to south. Secondly, people north of Hwy 26 are greatly impacted by five lanes. This is a gateway to the community. It should feel good to drive up the boulevard. This road is a living community, and made a comparison of Bethany to Cornell Road.

MJ Wykowski – Is concerned with the 5-lane’s impact on livability and community. The 5-lane and people trying to cross the road will be dangerous, which is a sign that it would sacrifice the community. Some people may be willing to sit on the road an extra 10 minutes to save community.

Larry Barnum – He spent 43 years in the police department. The 35 mph speed limit won’t be maintained. If you expand the number of lanes, the speed will go up. If Intel and other development occur to the west, the traffic will move west. He has discussed the traffic analysis with several traffic engineers, and has the names of 7 traffic engineers in Oregon who would come here to disagree with the traffic analysis being presented.

Rick Morrison – He wrote a letter to the County Commissioners. Commissioner Duyck emailed back that five lanes is needed, that no progress will be made by subjective decisions, and that we need to look at this objectively. Mr. Morrison feels the five lane alternative will be pushed through, so we should look at the alternative impacts carefully. He wants to know who to talk to have a livable three lane, and who has ultimate say? He asked to take them on a walk around the Bethany area.

Ed Barrows – This will come down to a political decision. He lived in Santa Cruz, CA, and they were anti-growth. Their stance was that if you don’t like it how it is, live somewhere else. He doesn’t think this should be widened to allow for some Intel person 20 years from now to speed through Bethany to try to save 5 minutes on their commute. He asked what the real goal is of the PFG?

Response: The goal of the PFG is to provide feedback and hold the design team accountable.

Terrance Nefcy – The board of commissioners needs to come to conclusion on recommendations.

Jack Blevins – He has been in the 3not5 group for over a year. There is the old adage that figures don’t lie, but liars figure. He feels like the design team is slanting the data towards the five lane alternative.

Conclusion – *Leslie Howell (Howell Consulting)*

Leslie mentioned the next step in the process includes a PFG meeting in December. At the next PFG meeting, the design team will be polling the PFG members to compile a summary of their input on each alternative. Also at the next meeting, the presentation to the County Board of Commissioners will be discussed.

Items added to the “issues bin” for the next PFG meeting:

- Provide photos of example sound walls
- Consider economic impact to homes in the community in evaluation of alternatives
- Add information about possible lane width reductions into matrix
- Can a right-of-way expert come to next meeting?

End of Meeting Notes

Next PFG Meeting: Thursday, December 2nd from 5:00 to 7:00 p.m.

County Board of Commissioners Meeting: This was noted as being scheduled for December 21st.

PLEASE NOTE: This meeting is being rescheduled to occur in February (tentatively scheduled for the evening if the 22nd). More details will be provided at the next PFG meeting.

Open House: By pushing the BCC meeting back a couple of months, this will give us the opportunity to hold an open house in late January and gather additional public opinion specific to the alternatives being evaluated. More details will be provided at the next PFG meeting.

Future PFG Meeting: March TBD but will likely be one of the last two Thursdays