

**Glencoe Interchange Project  
Joint SWG and PDT meeting #4B**

7-9 p.m. Wednesday, June 7  
Jessie Mays Community Hall  
30955 NW Hillcrest, North Plains

Meeting Summary

**SWG members present**

Wayne Holm (Oregon Canadian Forest Products)  
Tai Kim (Subway)  
Susie Anthony (CPO 8)  
Robin Biden (Hillsboro School District)  
Paul Coussens (Property Owner)  
Marie Finegan (Washington County Farm Bureau)  
Bob Jossy (Jossy Farms)  
Debbie Raber (City of Hillsboro)  
Bob Horning (North Plains Chamber of Commerce)  
Clark Berry (NW ACT)  
Butch Kindel (Washington County Fire District #2)  
David Smith (North Plains Planning Commission)  
Derek Robbins (City of Forest Grove)  
Hal Ballard (Washington County Bicycle Transportation Coalition)

**SWG members absent**

Joe Darby, Stewart Stiles Truck Line

**PDT members present**

Lili Gordon, Tim Wilson, Tom Braibish, Amy Gibbons, Allan McDonald, Canh Lam, Mark Johnson, Marty Jensvold (ODOT)  
Marc Butorc, Matt Hughart (Kittleson Associates)  
Rick Kuehn (CH2M Hill)  
Kristin Hull, Kalin Schmoltdt (JLA)  
Abe Turki, Gregg Leion, Washington County  
Blake Boyles, Don Otterman, City of North Plains

**Meeting purpose:**

- Learn about interchange design
- Brainstorm possible interchange designs

**Welcome and introductions**

Kristin welcomed all to the design workshop. As the members of the PDT and SWG were both present, Kristin led a brief round of introductions.

**Review agenda** – Kristin noted that Matt and Marc will present materials which will be followed by some drawing by the group members. Kristin also invited members of the audience to participate in the workshop.

### **Project status**

Tom Braibish recalled what the group has already accomplished, noting the discussion of purpose and need, present and future conditions for traffic, and NEPA—noting that NEPA is not just about the natural, but social conditions as well. Tom described this meeting as an opportunity to look at viable interchange geometries. These alternatives will then be held up to the purpose and need, and goals and objectives. Tom then asked Gregg Leion to talk about Washington County's transportation plan.

Greg pointed out that Glencoe Road was selected as the main arterial connection south to Forest Grove and Cornelius. He said that this decision, supported by years of investment of MSTIP funds, was made through an open public process which involved many participants including representatives from North Plains, Forest Grove, and regional farmers. He explained that adding interchanges at other roads would require additional investments in the arterial system and that the County does not have funding for those improvements.

Tom encouraged the group draw upon all of the options it can think of. He emphasized that all ideas will be considered and weighed against the criteria. He noted that some ideas will be more challenging to make work, but may present advantages and benefits that can be incorporated into other alternatives.

Greg added that if there are ideas which don't involve Glencoe road, then there will likely be costs associated with upgrading the road. He pointed out that ideas which involve Gordon Road would have added costs of upgrading it to an arterial. He added that Gordon Road may still be considered, but just wanted to provide some context.

A SWG member pointed out that conditions have changed since 1988. Greg responded that he just wanted to make the point that \$16 million in improvements have already been made to support Glencoe Road as the major route. Tom Braibish emphasized that the most important aspect to consider is that the alternatives will need to fit with the local and county plans.

### **Interchange design 101**

Marc Butorac noted that the workshop is not solely to design the interchange but also to educate the group and understanding the context of how interchanges work. Marc noted that nothing is off the table. Marc noted that the public will go through an identical process at the community workshop.

**Presentation** – Matt described the purpose of the presentation: to teach the parameters and the basic forms of interchanges so that the group can lay out forms on individual aerial maps.

Matt spoke briefly about road hierarchies and the progression from freeway to arterial, to collector, and to street. He noted that you can't go directly from a high order facility (freeway) directly to a low hierarchy facility (street).

Matt showed various examples of interchanges and noted how they take on different forms depending on their environment. He pointed out that urban interchanges are different than rural interchanges. He noted that the “diamond” interchange and its variations are quite common, and described it as a likely candidate for this location. Matt also noted that the parclo-A (partial clover “advance”) and parclo-B (partial clover “beyond”) were possible options. He noted that parclos are often good options because they can avoid impacts in one or more quadrants.

Matt described how they must consider design characteristics such as vertical clearance, which impacts the length of roadway approaches, as well as on and off ramps which require a certain distance to allow acceleration and deceleration. He pointed out how loop ramps have to be at the right radius; not too tight or too wide.

Matt also described how access to the interchange itself must be managed. He talked about how approaches must be gradual and described how minimum approach distances can increase quickly depending upon circumstances. He also pointed out that they must design for trucks and vehicles with heavy loads.

A member asked about the full measurement of ramps and whether such measured distance included acceleration lanes. Matt said that yes, acceleration lanes are considered as a part of the ramp length.

Matt also described how driver expectations need to be met, and designs must be consistent with what drivers expect to encounter. He noted that interchange form should be consistent, don’t want to introduce unique elements which surprise or confuse drivers into making unexpected maneuvers. (For example, exits on the left side of the roadway.)

Matt addressed interchange spacing requirements, noting that there must a minimum distance between interchange forms extending from the end of one on-ramp to the beginning of the off-ramp at the next. He also pointed out that designs must consider what is happens on side-streets in advance of the interchange forms. He noted that ODOT standards institute a one-quarter mile spacing between the ramp terminal and the first major public intersection or driveway.

A member pointed out that these intersection design standards appear to be setting up a scenario in which there would be substantial impact to the community of North Plains. He asked how much flexibility is possible to reduce such impacts. Matt responded that in many cases it is impossible to meet all of the design standards. Tom Braibish pointed out that details about the functional and socioeconomic impacts were included within the evaluation criteria and will be considered as alternatives are reviewed. He noted that a strict perspective would close all streets and driveways within the project area, but as that is not an option, other options will have to be explored. He noted that the design standards aren’t *completely* flexible, but must still be tailored against the potential impacts to North Plains. Allen McDonald pointed out that while ODOT will purchase control of access within one-quarter mile, they may not close all accesses. He cited an example of access to a property which remained open after constructing an interchange, with the stipulation that future development or sale will bring the access up to standards. Kristin noted that the group will talk about specific access issues later and the task for the day is to come up with ideas.

Another member agreed, noting that it will be easier to decide whether ideas are good or bad once they are made available to judge.

### **Interchange design workshop**

Matt provided traffic volumes which some members had requested at last week's meeting.

Marc again told the group that there are no bad options.

Marc explained the interchange design tools that were provided to each participant and explained the color coding. He asked participants to record their name and phone number on designs in case the project team had questions. Marc reiterated the call to be creative, as at least \$15 million will be spent by the time the project is done, and it will be around for 40 years or more.

### **Report back on interchange design workshop**

After the ideas had been posted on the walls, Marc encouraged the group to stay and browse and ask questions, noting that they would like to get as many options out into the open tonight and in the coming week. Marc also encouraged the group to take home the interchange design tools. Marc then quickly quizzed the tables on interchange types.

**Review options** – Marc gave a summary of what he had seen, noting that the group will get the chance to see all the ideas at the next meeting. Marc noted:

- Diamonds, both tight and single point.
- Lots of parclo-bs for Westbound 26 to Southbound Glencoe Road. (In the NW quadrant.)
- Parclo A forms for Southbound Glencoe to Eastbound Hwy. 26.
- Split diamonds (Glencoe 313<sup>th</sup>/316<sup>th</sup>/Gordon).
- Tight diamonds.
- Gordon road parclo-bs and diamonds.
- Flyover
- Tunneling Glencoe

### **Next steps and close**

- Next public meeting:  
5:30-7:30 p.m. Thursday, June 8  
North Plains Elementary School
- Next meeting:  
7-9 p.m. Thursday, July 13  
Jessie Mays Community Hall