Traffic Data

Traffic volume: N Ivanhoe @ New York Ave

<table>
<thead>
<tr>
<th></th>
<th>Northbound</th>
<th>Southbound</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>6,166</td>
<td>7,235</td>
<td>13,401</td>
</tr>
<tr>
<td>AM period</td>
<td>2,487</td>
<td>3,038</td>
<td>5,525</td>
</tr>
<tr>
<td>PM period</td>
<td>3,679</td>
<td>4,197</td>
<td>7,876</td>
</tr>
</tbody>
</table>

Speed (mph): N Ivanhoe @ New York

<table>
<thead>
<tr>
<th></th>
<th>Northbound</th>
<th>Southbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>All vehicles</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>50th percentile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vehicles</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>85th percentile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vehicles</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>90th percentile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All vehicles</td>
<td>52%</td>
<td>45%</td>
</tr>
<tr>
<td>% over speed limit (25 mph)</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>All vehicles</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>% 10 mph over limit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy trucks only</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>85% percentile</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Volume by Vehicle Type: N Ivanhoe @ New York

Street Cross-section dimensions

<table>
<thead>
<tr>
<th></th>
<th>Ivanohe</th>
<th>Lombard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ROW width</td>
<td>60 ft</td>
<td>60 ft</td>
</tr>
<tr>
<td>Sidewalks</td>
<td>12 ft</td>
<td>12 ft</td>
</tr>
<tr>
<td>Travel lanes (2)</td>
<td>22 ft</td>
<td>22 ft</td>
</tr>
<tr>
<td>Parking (each side)</td>
<td>7 ft</td>
<td>7 ft</td>
</tr>
</tbody>
</table>

Traffic Volumes, US 30 Bypass

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>St Johns Bridge</td>
<td>23,000</td>
<td></td>
</tr>
<tr>
<td>N Ivanhoe @ John</td>
<td>7,200</td>
<td></td>
</tr>
<tr>
<td>Lombard @ Oswego</td>
<td>44,600</td>
<td>Oregon DOT, 2006</td>
</tr>
</tbody>
</table>

N Ivanhoe @ New York data collected August 1-2, 2007
N Ivanhoe @ Richmond data collected September 12-14, 2007
Thanks for coming tonight.

The Portland Office of Transportation and the project's Citizen Advisory Committee want you to learn about the St Johns MTIP Project, a transportation improvement project funded by a $2.2 million MTIP (Metropolitan Transportation Improvement Program) grant, and get your feedback on the proposed improvements.

The project focuses on addressing two general issues identified through two prior planning processes:

**Improving freight mobility**
Consistent with the recommendations of the St Johns Truck Strategy

**Improving pedestrian safety**
Consistent with the recommendations of the St Johns/ Lombard Plan

**Project Information:**
Please proceed through the following numbered stations to learn more about these issues and how the project intends to address them. Staff and members of the Citizen Advisory Committee are available to answer questions.

**Providing Feedback:**
The following opportunities for you to provide comments:
Station 9: priority pedestrian crossing locations (dot voting)
Station 16: written general comments (Post-it notes)
Comment sheet: purple sheet available at sign-in table
St Johns MTIP Project

Identify issues to address and design modifications prior to design engineering

Citizens Advisory Committee
A group of 14 members representing various stakeholder groups within the St Johns community overseeing development of the project process and recommendations.

Technical Advisory Committee
A group representing various government agency groups within the City overseeing development of the technical aspects of the recommendations.

Citizens Advisory Committee

St Johns Truck Strategy
design concepts
2001

St Johns/Lombard Plan
design concepts
2004

Design Engineering

Construction ~4 months

Refined Design Concept

Design Refinement Phase

2007 2008

2009

Tonight’s Open House

Process/ Schedule

2001

2004
A key freight mobility issue is improving the efficiency and safety of the designated freight route through St Johns.

The Strategy consists of a package of projects designed collectively to make sure freight moving through the St Johns area uses the appropriate freight route connection to and from the St Johns Bridge- Columbia Blvd/ Burgard St/ Lombard St.

The package of projects is divided up into projects that enhance freight mobility on the appropriate freight route and traffic calming projects that discourage use inappropriate routes, such as St Louis/ Fessenden.

The St Johns MTIP project funds two priority freight mobility concept projects:

- **Ivanhoe/ St Louis/ Lombard intersection**
  Improve safety by increasing the turn radii at corners.
  Reduce delay by upgrading the traffic signal

- **Ivanhoe/ Philadelphia intersection**
  Improve safety by increasing the corner turn radius
  Reduce delay by upgrading the traffic signal
Adopted by City Council in 2004, the St Johns/Lombard Plan is a comprehensive land use and transportation plan for revitalizing the St Johns Town Center.

The primary goal is to support commercial and residential development opportunities while preserving the area’s small town character and scale.

A variety of transportation improvements are recommended, many are related to improving the pedestrian environment within and access to the commercial core area.

A key issue to improving the pedestrian environment is pedestrian crossing safety along major streets such as Ivanhoe.

The plan recommends 9 crossing improvements within the town center. Most of these locations are intended to be improved with curb extensions, a few have the option of median refuge islands. One location, the Ivanhoe/ Richmond intersection, is recommended for signalization.

The MTIP Project funds pedestrian crossing improvements at several locations, to be determined, and signalization of the Richmond/ Ivanhoe intersection.

The Plan identifies a number of locations for pedestrian crossing improvements to enhance access into the commercial core area and improve area wide circulation, consistent with a high quality pedestrian environment.
Three major tasks for both the pedestrian and freight elements of the project were identified for the design refinement phase to address. Also identified are the key issues related to each task.

<table>
<thead>
<tr>
<th>Major Objectives/ Design Refinement Tasks</th>
<th>Key Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pedestrian Element</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Confirm feasibility of traffic signal installation at N Ivanhoe/ Richmond | • ODOT approval/ impact on system capacity  
• Freight route (over-dimensional) compatibility |
| Confirm pedestrian crossing improvement locations | • SJ/L Plan first and second priority locations  
• SJ/L Design guidelines issues: on-street parking, transit impacts on traffic flow, turn movements  
• New locations (?) |
| Confirm pedestrian crossing improvements basic design | • Curb extension vs. median  
• SJ/L Design guidelines issues: on-street parking, transit impacts on traffic flow, turn movements  
• Freight route (over-dimensional) compatibility  
• Green stormwater management design opportunities |
| **Freight Element**                       |            |
| Confirm Ivanhoe/ St Louis/ Lombard intersection geometry concept | • Safety for freight and other vehicles related to existing turn radius  
• Impact of turn radius changes on all vehicle speeds  
• Pedestrian environment impacts of existing geometry  
• ROW acquisition impacts  
• Feasibility of St Louis/ Lombard intersection NE corner ‘kink’ as freight disincentive  
• Lombard/ Reno pedestrian crossing safety  
• Bike lanes |
| Confirm Philadelphia/ Ivanhoe intersection geometry concept | • Safety for freight and other vehicles related to existing turn radius  
• Impact of turn radius changes on all vehicle speeds  
• Pedestrian environment impacts of existing geometry  
• ROW acquisition impacts  
• Need for channelization (medians)  
• Feasibility of adding west leg pedestrian crossing |
| Confirm signal system upgrade concept: Ivanhoe/ Philadelphia, Ivanhoe/ Baltimore, and St Louis/ Lombard | • Inclusion of Ivanhoe/ Baltimore signal to enhance overall system benefit. |
**Objective:**
Improve pedestrian crossing safety at the Ivanhoe/ Richmond intersection.

**Issues:**
Potential impacts to transportation system capacity.

Close spacing of the existing traffic signals at Lombard/ Jersey and Lombard/ Oswego create the potential increased congestion if traffic queues from the proposed signal at Ivanhoe/ Richmond spill back and impact the operations of the existing signals.

Modeling results:
Traffic engineering analysis indicates that with the phasing diagram shown to the right and coordination with the Jersey and Oswego signals, addition of a signal at Richmond will not degrade overall system capacity.

**Recommendation:**
Proceed with signalizing the intersection. The Oregon Department of Transportation has approved the signal.

- New Signal Volume to Capacity ratio: 0.64
- Level of service/ existing: B
- Level of service/ new signal: B

The Ivanhoe/ Richmond intersection is currently a dangerous location to cross N Ivanhoe St because of poor sight distances around the corner that US 30 Bypass traffic flows around.

Priority will be given to the first phase to keep US 30 Bypass traffic flowing. Pedestrians who want to cross the street or traffic approaching on the side streets will trigger either the second or third phase.
**Objective:**
Improve pedestrian safety at unsignalized crossings.

**Issues:**
Priority locations (where?)
Potential on-street parking loss.
Potential impacts to turn movements and traffic flow.
Potential impacts to freight mobility.

Curb extensions are now a very common safety improvement in commercial districts that want to emphasize a high quality pedestrian environment.

The St Johns/Lombard Plan identified several locations within the town center to improve pedestrian crossing safety. Many of the locations are on Ivanhoe St, where traffic generated by the St Johns Bridge creates a barrier to pedestrian access between the growing waterfront residential area and the commercial district. Locations on St Louis Ave support the objectives of the St Johns Truck Strategy.

**Curb extensions**
Curb extensions are the preferred improvement at most locations. They are very effective because they reduce the crossing distance and improve the sight distance between drivers and pedestrians.

**Pedestrian Design Guidelines**
The St Johns/ Lombard Plan contains guidelines for the location and design of pedestrian crossing improvements:

- Involve the local neighborhood and business associations, adjacent property owners and surrounding community into the design process.
- Design improvements that:
  - improve pedestrian safety and enhance access to commercial destinations and transit service.
  - directly support the urban development concept’s land use vision and objectives.
  - minimize impacts to traffic flow, turn movements and on-street parking.
  - If curb extensions are proposed at transit stops, bus zones (no curb extensions) should be placed at the following stops to reduce impacts to traffic flow.
Locations
An important decision making issue is to prioritize the locations of the crossing improvements.

The Citizens Advisory Committee has considered a variety of locations within the St Johns town center for improvement. Most come from the recommendations of the St Johns/ Lombard Plan, some are new locations proposed by the Citizens Advisory Committee.

The locations identified are divided into two tiers of priority. The second priority locations will be built as the budget allows.

First Priority Locations

Second Priority Locations
Dot voting
Objective:
Provide ‘green’ stormwater management, where possible, as part of all street improvements.

Green Street Stormwater Management
A street that uses vegetated facilities to manage stormwater runoff at its source is referred to as a ‘Green Street’.

In April of 2007, the Portland City Council approved a resolution to promote and incorporate the use of green street facilities as part street improvement projects.

Green streets offer numerous benefits:
• Reduces polluted stormwater entering Portland’s rivers and streams.
• Diverts stormwater from entering the sewer system and reduce basement flooding, sewer backups and combined sewer overflows to the Willamette River.
• Reduces demand on the sewer collection system and the cost of expanding the system.
• Address requirements of federal and state regulations to protect public health and watersheds.

The St Johns MTIP Project has numerous opportunities to incorporate green street stormwater facilities. Locations identified for curb extensions will be designed to include vegetated swales where possible. Street stormwater will be flow into the swales where vegetation will help percolate the stormwater back into the ground. The Bureau of Environmental Services will maintain the facilities.
Objective:
Reduce delay on the designated freight route by upgrading the existing signal system through the town center core.

Issues:
None.

Recommendation:
Upgrade the St Louis/ Lombard and Ivanhoe/ Baltimore signals.

'Interconnect' the three traffic signals

Percent reduction in PM peak travel time delay

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>East bound</td>
<td>17%</td>
</tr>
<tr>
<td>Westbound</td>
<td>44%</td>
</tr>
</tbody>
</table>
Objective:
Provide adequate turning radii for trucks on the designated freight route to improve safety for all vehicles.
- Ivanhoe/ St Louis/ Lombard intersection
- Ivanhoe/ Philadelphia intersection

Issues:
Potential increase in overall vehicle speeds.
Impacts related to right-of-way acquisition.

The St Johns Truck Strategy design concept:
Increase the turn radii at three corners
**Recommendation:**
Increase turn radius at three corners. Use ‘truck corner’ design concept to control vehicle speeds.

Do not realign north leg St Louis/Lombard intersection- instead rely on other recommended elements of St Johns Truck Strategy to address cut-through freight issue on Fessenden.

Do not add medians to channelize traffic through the Ivanhoe/Philadelphia intersection.

**Truck Corners:**
This new tool effectively creates a dual corner radii. Car traffic would be directed around the tighter inner corner radius, which will act like a traffic calming device to control speeding. Between this radius and the outer corner radius will be a raised ‘mountable’ area. Large trucks that need a greater radius will be able to ride up and over this area in order to use the outer radius.

The yellow shaded area is approximately where the ‘mountable’ portion of the corner would be. The blue shaded area shows the approximate location of the new sidewalk (12 ft in width).

The existing radius at the three corners is approximately 40 ft. The truck corners would create an approximately 25 ft inner radius and an approximately 75 ft outer radius.
St Johns Truck Strategy
The overall basic strategy to improve freight mobility on the designated freight route and reduce freight traffic on non-freight streets includes several additional projects.

Projects to discourage freight traffic on St Louis-Fessenden
- Add physical improvements which reduce the width of the street, increase pedestrian safety, and slow traffic speeds to create a more residential oriented street environment (TC/S Projects No. 2 and 3).
  Currently un-funded
- Reduce the speed limit to 25 mph and sign the route for no through trucks.
  Currently in progress, signs up this Spring
- Redesign the Columbia Blvd/Columbia Way/ N Portland Rd intersection to better guide bridge bound trucks to Columbia Blvd instead of Columbia Way (TSI Project No. 3).
  Design planning funded by MTIP

Projects to improve freight mobility on the designated freight route
- Redesign Burgard/Lombard roadway segment to improve traffic flow and safety.
  Currently un-funded
- Rebuild the weight restricted Burgard Bridge to allow for all trucks to use.
  Currently funded, construction to begin in late 2008
- Improve sight distances on Lombard at St Johns Ave to increase safety.
  Currently un-funded
Next Steps

Future Projects/ St Johns-Lombard Plan

St Johns/Lombard Plan
The 2004 plan identifies numerous transportation improvement project to support revitalization of the town center while maintaining its historic small town character. Two of the major intersection of the projects are shown below.

Lombard/ Jersey/ Richmond intersection Improvements
Action Item TC 5
Currently un-funded

The existing alignment provides poor sight lines into the commercial core for westbound US 30 Bypass traffic.

The recommended design concept would shift ‘Ivy Island’ to the north, creating a new, more accessible plaza space, and removes the slip lane from Lombard which improves sight lines and slows traffic entering into the commercial district.

Philadelphia/ Ivanhoe intersection improvements
Action Item TC 16
Currently un-funded

The existing alignment of Burlington provides poor sight lines into the commercial core for traffic coming off the bridge. Westbound access to the bridge from Lombard is out-of-direction due to Burlington being one-way eastbound.

The recommended design concept is to visually open up the view into the commercial district and provide two-way traffic flow on Burlington.
Thanks for coming.

Please write any comments you have about the project on the Post-it notes provided and place below.