Land Use Code Amendments

Design and Mitigation for East Link Light Rail

City Council Study Session
December 3, 2012
Tonight

Where we are in the process

Focus tonight on Council input regarding certain design and mitigation topics:

- Linear alignment segments south of Downtown
- Traction Power Substations (TPSS)

Schedule and Next Steps
Process Context

2007-2008
Policy Development
Best Practices Comp Plan

2012
Land Use Code Development
Light Rail Overlay

2013-2014
Alignment Approval
Council

2013-2014
Design/Mitigation Approval
Land Use Permits

Starting 2014
Technical Review
Building, Fire, Utility, and Transportation Permits
Tools to Evaluate Proposed Overlay Provisions for Design and Mitigation

- Visualizations of alignment segments south of Downtown
  - Cross section of Bellevue Way at Winter’s House
  - Two cross sections of 112th Ave SE
    - Trench
    - Main Street station

- Illustrative photographs
  - Traction power substations
  - Landscaping

- Aerial photographs to provide context
Code Adoption Schedule

- Time scheduled on upcoming Council agendas:
  - December 10
  - All January Study Sessions

- December 10th Design and Mitigation Topics
  - South Bellevue Park and Ride
  - Elevated Alignment in South Bellevue

- January Design and Mitigation Topic Blocks
  - Concrete and Masonry Structures – tunnel portal, noise walls
  - Other Alignment Elements – Fences, Lights, OCS, Signals, Vents
  - Stations and Station Design Process
  - Bel–Red (including the Operations and Maintenance Base)
  - Overall Process (CUP/DA/Admin Modifications) and Wrap-up
Council Input Needed

Design and Mitigation Feedback:

• Alignment softening/transitions south of Downtown
  • Portions adjacent to private property
  • Portions adjacent to City right-of-way

• Setbacks and Landscaping for TPSS
  • Code required setback, or
  • Setback as necessary to accommodate required landscape screening

Visualization Feedback
Landscape Development Code References

◦ Linear Alignment – to be added to Land Use Code based on Council direction
◦ Traction Power Substations (TPSS) – LUC 20.25M.040.B

Dimensional Requirements

◦ TPSS Setbacks – LUC 20.25M.040.A.2

Design Guidelines

◦ TPSS Structures require context sensitivity – LUC 20.25M.050.B.2
Relevant Policy Language

- **Comprehensive Plan Policies:**
  - TR 75.12 [in part] indicates that the City should partner with Sound Transit to include “substantial landscaping at stations and along the alignment, including retained significant trees and transplanted trees that are, at a minimum, saplings.”
  - TR 75.14 Promote the use of context sensitive design and high quality materials to prevent and mitigate negative impacts and incorporate the light rail system appropriately into the streetscape.

- **Best Management Practices (excerpts)**
  - “Transit facilities and infrastructure, including stations, track bed, supports, power poles, noise walls, ancillary buildings, etc., should apply the principles of context-sensitive design to be better integrated with Bellevue neighborhoods.”
  - “[B]est practices emphasize reducing opportunities for conflict; improving visibility for everyone in the roadway environment; improving the predictability of pedestrians, bicyclists, and automobiles in the transit environment; and employing intelligent transportation tools to improve traffic operations.”
Best Practices, Comprehensive Plan and proposed Overlay emphasize need for “context sensitive design”

Comprehensive Plan describes: “Context sensitive design seeks to balance the needs of the project with other desirable outcomes, including environmental sustainability, community character, and the creation of vital public places. Typical considerations of context sensitive design include building materials and texture, building scale relative to nearby structures and relationship to streets and adjacent uses.”
20.25M.040.B: Traction Power Substations (TPSS) shall be screened with 10 feet of Type III landscaping pursuant to the requirements of LUC 20.20.520.G.3.

20.25M.050.B: Additional Design Guidelines for Other RLRT Facilities. In all land use districts, the following design guidelines shall apply to traction power substations, signal bungalows, ventilation structures, signs, tunnel portals, retaining walls, and acoustical barriers.

1. The facilities identified in this section, when located above grade, shall use context sensitive design to integrate the facility into the community. This includes, but is not limited to, the following:
   a. Incorporating superior urban design, complementary materials, and public art;
   b. Providing substantial landscaping along the alignment, where appropriate, including retained significant trees and transplanted trees; and
   c. Incorporating durable materials in design and construction to ensure that the facility retains its appearance, functionality, and community value.

2. Traction power substations shall be sited, screened, and/or incorporate architectural materials and treatments to minimize visual and operational impacts to surrounding uses. Based on CP Policy TR-75.22
## Comparison of Landscape Types

<table>
<thead>
<tr>
<th>Landscape Type</th>
<th>Width</th>
<th>Purpose/Characteristics</th>
<th>Typical Application</th>
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</thead>
<tbody>
<tr>
<td><strong>Type I</strong></td>
<td>15    feet</td>
<td><strong>Very dense sight barrier to significantly separate uses and land use districts.</strong>&lt;br&gt;- Two rows of evergreen trees (6 ft high / 20 ft on center)&lt;br&gt;- Shrubs (3.5 ft high) to cover ground within 3 years&lt;br&gt;- Backed with sight obscuring fence&lt;br&gt;- Can house in building as an alternative</td>
<td>• Electrical Substations&lt;br&gt;• Sewage pumping stations&lt;br&gt;• Water distribution Facility&lt;br&gt;• Equipment and vehicle storage yards in transition areas or visible from ROW</td>
</tr>
<tr>
<td><strong>Type II</strong></td>
<td>10    feet</td>
<td><strong>Visual separation between uses and land use districts.</strong>&lt;br&gt;- Evergreen and deciduous trees&lt;br&gt;  - deciduous limited to 30%&lt;br&gt;  - 6 ft high / 20 feet on center&lt;br&gt;- Shrubs (3.5 ft high) to cover ground within 3 years</td>
<td>• Churches&lt;br&gt;• Public Parking Lots&lt;br&gt;• Solid Waste Disposal Facility&lt;br&gt;• Government Service Building</td>
</tr>
<tr>
<td><strong>Type III/IV</strong></td>
<td>10    feet</td>
<td><strong>Soften appearance</strong> of streets, parking areas, and building elevations.&lt;br&gt;- Evergreen and deciduous trees&lt;br&gt;  - deciduous limited to 50%&lt;br&gt;  - 6 ft high / 30 feet on center&lt;br&gt;- Shrubs (3.5 ft high) to cover ground within 3 years</td>
<td>• Parking areas and buildings&lt;br&gt;• R-10 through R-30&lt;br&gt;• NB, PO, O OLB&lt;br&gt;• LI, GC, CB</td>
</tr>
<tr>
<td><strong>Type V</strong></td>
<td>n/a</td>
<td><strong>Visual relief and shade</strong> in parking areas.</td>
<td>• Parking lots</td>
</tr>
<tr>
<td><strong>Transition Area</strong></td>
<td>20    feet</td>
<td><strong>Very dense buffer</strong> to significantly separate uses of lesser intensity.&lt;br&gt;- Evergreen and deciduous buffer (10 ft high)&lt;br&gt;  - Deciduous limited to 40%&lt;br&gt;  - 5 trees/1,000 sf&lt;br&gt;- Shrubs (3.5 ft high / 3 ft on center)&lt;br&gt;- Retention of Significant Trees required w/i 15 ft of prop line</td>
<td>Areas receiving transition from higher intensity uses&lt;br&gt;• Single Family&lt;br&gt;• Multifamily</td>
</tr>
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</table>
Landscape Screen / Buffer Example

Main Street

108th Ave SE

North
Street Frontage Landscaping Example
Street Frontage Landscaping Example
Track – Trench at Winters House
Track – At-grade at Winters House
Track – Trench on 112th Ave SE
112th Avenue SE – North Section
East Main Station, at-grade
TPSS

Screened

Unscreened

Screened
TPSS – Contextual Art
TPSS – Sweyolocken (Existing)
Current Sweyolocken Pump Station
TPSS – East Main Station

112th Ave SE
TPSS – East Main Station (Existing)
TPSS - 120th Ave NE
TPSS – 120th Ave NE (Existing)
TPSS – NE 24th St (Existing)
Next Steps

- December 3 – Alignment and Traction Power Substation (TPSS) design & mitigation focus
- December 10 – Park and Ride and Elevated Alignment design & mitigation focus
- January study sessions – complete design & mitigation discussion; confirm procedural approach
- End of January – SEPA Threshold Determination

For more information, see East Link Project website at: http://www.bellevuewa.gov/light-rail-overlay.htm