A long-term, comprehensive solution

Casey Liles
CRC Highway Engineering Manager

Anne Pressentin
CRC Communications

Mike Palazzo
CRC Specialty Services Director

Philip Meis
Utility Mapping Services

AASHTO Conference
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Overview

• Project background, origin and development
• The selected solution
• Right-of-way status and challenges
• Delivering the project
• Utilities
• Questions and answers
A corridor of the future

- Critical link between Canada and Mexico
- Estimated $40 billion in freight crosses the bridge annually
- One-of-a-kind project
CRC project area
CRC project area
Six critical I-5 problems

- Crashes
- Congestion
- Impaired freight movement
- Limited transit options
- Poor bike and pedestrian access
- Earthquake risk
“Threading the needle” - Oregon

- Columbia River
- ESA Species
- Hayden Island
- PDX
- North Portland Harbor
- Pier 99 Bldg
- Delta Park
- Expo Center
- Freight Traffic
- Vanport Wetlands
- Delta Park
“Threading the needle” - navigation
“Threading the needle” - Washington

- Pearson Field
- Land Bridge
- Vancouver National Historic Reserve
- Old Apple Tree
- BNSF Railroad
- Downtown Vancouver
“Threading the needle”
Public process to develop solutions

- **2001 – 2002**
  I-5 Transportation and Trade Partnership

- **2005 – 2008**
  39-member CRC Task Force

- **2008 – 2011**
  Project Sponsors Council and citizen advisory groups

- More than 30,000 people engaged at over 1,000 events
The selected solution
Long-term, comprehensive solution to improve safety and reduce congestion

- Replacement I-5 bridge
- Improvements to closely-spaced highway interchanges
- Light rail extension to Vancouver
- Pedestrian and bicycle facility improvements
Increased safety and reduced congestion by replacing the I-5 bridge.
Light rail extension

- Get people out of traffic
- Connection to more than 52 miles of rail network in the region
- Encourage up to 6 million transit boardings per year
Columbia River Crossing
Oregon improvements
Washington improvements
Right-of-way overview

• Right-of-way acquisition scheduled to start in 2013

• OREGON (approx. $140 million)
  – 89 full or partial acquisitions
  – 35 floating homes
  – 53 boat slips
  – Approximately 98 displaced residences and businesses
  – Including temporary construction easements

• WASHINGTON (approx. $60 million)
  – 89 full or partial acquisitions
  – 35 permanent easements
  – Approximately 30 displaced residences and businesses
  – Including temporary construction easements
North Portland Harbor and Hayden Island
Floating homes
SR-14
SR-14 and downtown Vancouver
Light rail in Vancouver
Light rail in Vancouver (cont.)
North end of project (cont.)
North end of project
Right-of-way

• **Process:**
  – Coordination with WSDOT and ODOT
  – FTA/FHWA

• **Status**
  – BNSF/reserve
  – Funding
  – Right of entry request
Drilled shaft and driven pile project

• **Purpose:**
  – Verify load carrying capacity of soil
  – Evaluate constructability

• **2 locations**
  – 1 in WA, 1 in OR

• **Noise and vibration monitoring**

• **Outcomes:**
  – More design certainty
  – Reduced construction cost
Current design work

• **Advancing design on:**
  – Several levees
  – Utilities
  – Transit
  – Other structures and roadways, as needed

• **Work will support:**
  – Development of the upcoming RFQ/RFP
  – Federal, state and local permit applications
Proposed construction sequence

Years 1 - 6
Proposed construction sequence

Years 2 - 5
Proposed construction sequence

Years 3 - 9
## Proposed contract summary

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<tr>
<th>Title</th>
<th>Delivery Method</th>
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<td>River crossing and approaches, including Community Connector, Evergreen Blvd, Mill Plain (if funding is available) and McLoughlin Blvd.</td>
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<td>Mainland Connector to Hayden Island (transit/local bridge)</td>
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<td>Oregon transit</td>
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<td>Washington transit</td>
<td>Design-Bid-Build or General Contractor / Construction Manager</td>
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<td>Washington park-and-ride garages</td>
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<td>Transit station finishes</td>
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<td>Ruby Junction maintenance facility modifications</td>
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## Proposed contract summary (cont.)

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<td>Central control</td>
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<td>Transit signage and graphics</td>
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<td>Marine Drive interchange and Hayden Island interchange final</td>
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<td>Washington North Package: Fourth Plain Blvd, 29th &amp; 33rd, SR 500, and also Mill Plain</td>
<td>Design-Build</td>
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Costs and funding for CRC

• Federal funds
  – Federal Transit Administration
    New Starts
  – Federal Highway Administration
  – Transportation Infrastructure
    Finance and Innovation Act
    (TIFIA)

• Oregon and Washington

• Toll bond proceeds

$3.1 – 3.5 billion
Project development schedule

- Legislative review (2012)
- Final design phase begins
- Highway property acquisition process begins
- Issue request for qualifications for design-builder for Columbia River bridges
- Issue request for proposals for design-builder for Columbia River bridges

- Legislative review (2013)
- Investment grade tolling analysis
- Submit application for Full Funding Grant Agreement
- Select design-builder for Columbia River bridges
- Begin construction

- Transit only property acquisition process begins
- New southbound I-5 bridge opens
- Light rail service begins
- New northbound I-5 bridge opens
- Demolition of old bridges begins
- Corridor construction ends

PUBLIC OUTREACH

Utilities overview
Field Work Challenges

Property Access Issues

• Hostile Land Owners

• Property Access Issues
  – Effect on Field Work Schedule and Mobilization
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**Portland DOWNTOWN**

*Water Year Normal (1981-2010 normals)*: 42.85"
Affected Levee System
US Army Corps of Engineers
Hayden Island

Ground Improvements
Discontinued Services
Underwater Crossings – North Portland Harbor
Private property issues
Utility Congestion
Quality Assurance

Subsurface Utility Engineering Services
Project: Columbia River Crossing – SUE Segments 1 and 2 (Oregon)
Confirmation of Depicted Existing Facilities

Note: This form is provided to the utility representative as part of a due diligence effort regarding the initial mapping of your facilities. By completing this form the reviewer does not imply any guarantees of accuracy or completeness, but only that a reasonable effort to review the plans has been made by appropriate officials and based on available on-site data, information, and institutional knowledge. An indication of apparent accuracy is given. This form provides an opportunity for representatives to either concur or disagree with how their facilities appear on the attached sheets and notify Utility Mapping Services, Inc. (UMS) whether anything stands out as being reasonably depicted or grossly in error.

(Reviewer Name)
(Reviewer Title)
(Company & Contact Information)
(Data)

A review of the attached existing utility plans has been conducted in which the sheets were checked for reasonable accuracy and completeness. The opinion provided is based upon the available records, schematics and understanding of the existing facilities. The following best describe the results of this review: (check one)

☑ Based on available records, the plan sheets appear to accurately depict our known facilities. The corresponding facility descriptions also appear to be reasonable or correct.
☐ Insufficient records exist to evaluate the accuracy of the plan sheets.
☐ Our records indicate we do not have facilities within or near the project limits.
☐ The utility plan sheets accurately depict the known facilities with the following exceptions:

Please direct questions to:
CRC SUE Project Manager
Rob Knut, P.E., Senior Engineer
p. 406.933.5500 / rknut@umms.us
or
CRC SUE Project Director
Phil Mott, P.E., Principal Engineer
c. 801.208.2032 / pmott@umms.us
p. 360.218.6867
mottp@chambers-wwcmms.org
1,000,000 Linear Feet of Utilities
Protecting Complex Features
Data Management Solution

• Independent of any Particular Software Platform
• Features
  – Location (23 miles of existing roadway corridors)
  – Accumulated Data (61,407 survey shots)
• Conflicts (~5,000 to date)
  – Collaborative Environment Tracking Input from All Stakeholders
  – Conflict Analysis
  – All Accumulated Information
  – Resolution Management
• Real-time Interaction
Facility Owners

- AT&T
- Integra
- Clark PUD
- Trimet
- Vancouver
- WSDOT
- CenturyLink
- Time Warner
- Pacificorp (Pacific Power)
- Portland
- ODOT
- Comcast
- Verizon
- Portland General Electric
- Northwest Natural
## Search Results

### Filter and Search
1st) Project filter...  
2nd) Owner filter...

92 Features retrieved. Use the Feature Name Search to filter more if necessary.  
*Partial searches are enabled.*

### Existing Features

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## Conflict Data Management

### CRC Project (Portland - Vancouver Bridge)

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<td>Segment 2</td>
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## Search Results

### Conflicts

**Filter and Search**

1. Select a Conflict Zone...
2. Select an Owner...
3. Select an Alignment...

9 Conflicts retrieved. Use Search to filter more if necessary. Partial searches are enabled.

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Utility Workshops

- Project Schedule and Delivery
- Utility Designating Process
- Quality Assurance Reviews
- Utility Conflict Analysis and Resolution Effort
  - Conflict Management Software Training
- Requirements and Governances
  - Required QL A and 3D analysis
  - Betterments
  - Joint Usage Corridors
- Design Adjustments
- Relocation Planning
  - Easements and R/W, Staging, Joint Usage Corridors
Utility Workshops

Term Sheets

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**10.5.2 CRC TERM SHEET**

The CRC Term sheet is intended to be a tool for project offices to use during the early development phase of an agreement, by providing a place to record agreement elements and decisions as they are made. It is meant to be a synopsis of these elements and decisions, and is not intended to contain a verbatim version of what will be included in the formal agreement. Nor will it include the legal language of the agreement.

| Other Party: | Washington Dept of Transport and Clark P |
| Agreement Title: | Permit Plan Utility |
| Agreement Project Title: | Columbia R |
| Agreement Duration: | In effect until the project completion |

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**Attachment A**

**FEDERAL**

1. 23 USC 109(i)
2. 23 USC 423

**Federal Regulations**

1. 23 CFR 643 Utilities - Subpart A - Utility Relocations, Adjustments, and Reimbursements
2. 23 CFR 645 Utilities - Subpart B - Accommodation of Utilities
3. 23 CFR 645.147(d) - Cost Development and Reimbursement
4. 49 CFR 24 Uniform Relocation Act

**Utility Program Guide, FHWA**

**STATE OF OREGON**

Oregon Constitution
Oregon Revised Statutes
1. OR 325.910 Relocation Duties of Public Entity
2. OR 326.321 Expense of Relocating Municipal Facilities
3. OR 372.020 State Highwayed through Cities
4. OR 374.305 to 374.330 Permission to build on ROW
5. OR 204.010 Authority to construct utilities on ROW
6. OR 204.020 Joint occupancy of poles
7. OR 730.210 to 730.210 Underground utility facilities

Oregon Administrative Rules
1. OAR 734-051-0215(3) Utility Relocations responsibility by Developers
2. OAR 734-050 Permit regulations
3. OAR 000 Public Utility Commission
4. OAR 552 Oregon Utility Notification Center

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Future Challenges as Project Moves Forward

• Project Staging – Bridge first
• Various delivery methods
  – design-build
  – design-bid-build
• Design changes
• Utility changes – existing, betterments, relocations, joint usage
• Resolution Selections / Options
• Prioritizing and Staging Utility Work
• Coordination with Utilities and Prime Contractor
  – Bid documents and prime contract inclusions