

SELLWOOD BRIDGE

Project

MULTNOMAH COUNTY

Staged and Detour Construction Options

June 2011

Purpose of Presentation

Compare two-stage bridge construction with detour bridge option looking at:

- Time
- Money
- Property Impacts
- Design
- Environmental impacts

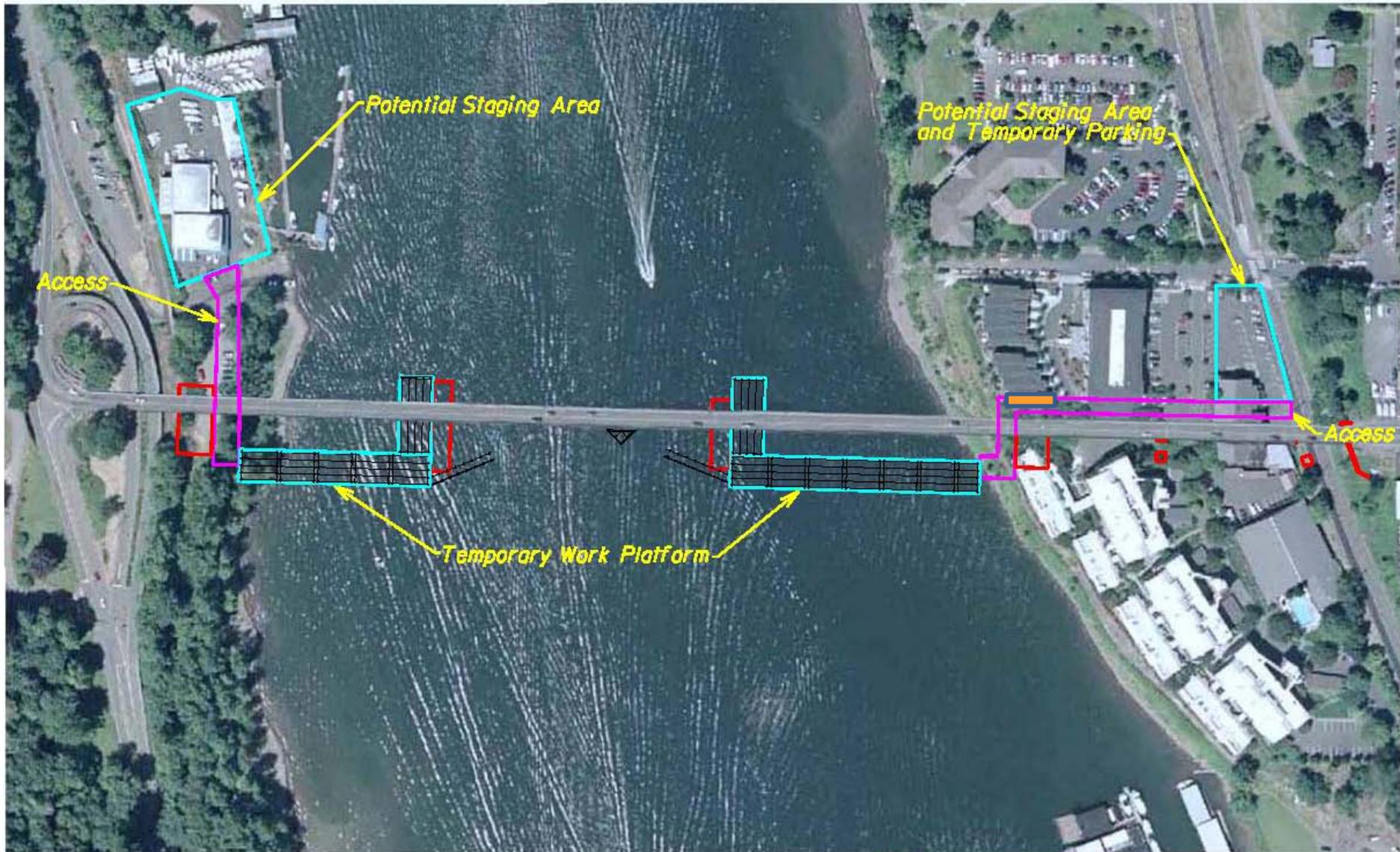
Staged Construction

- Assumed option until this year
- Bridge built in 2 phases, 1 half at a time
- Keeps bridge in service during work
- Safety issue in 2nd phase when bridge users and workers are close together
- Impacts design due to redundant features

Staged Construction

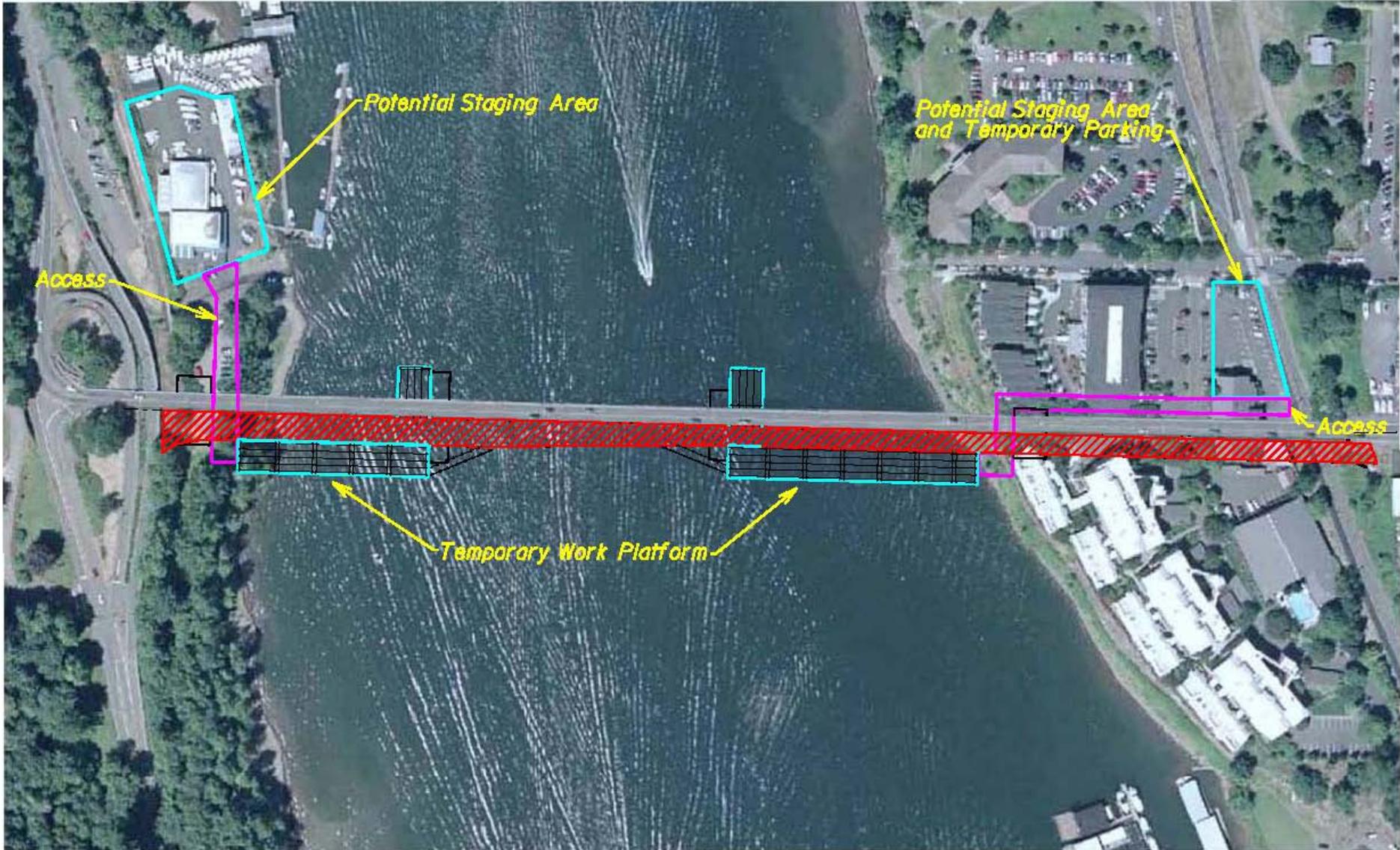
- Use existing bridge while first half of new bridge is built on southside
- Traffic shifts to south half of new bridge
- Old bridge removed
- North half of new bridge built to form one new bridge
- Following graphics show:
 - Contractor staging areas, construction access routes, temporary work platforms, permanent bridge foundations and structures

Staged Construction: Early Phase



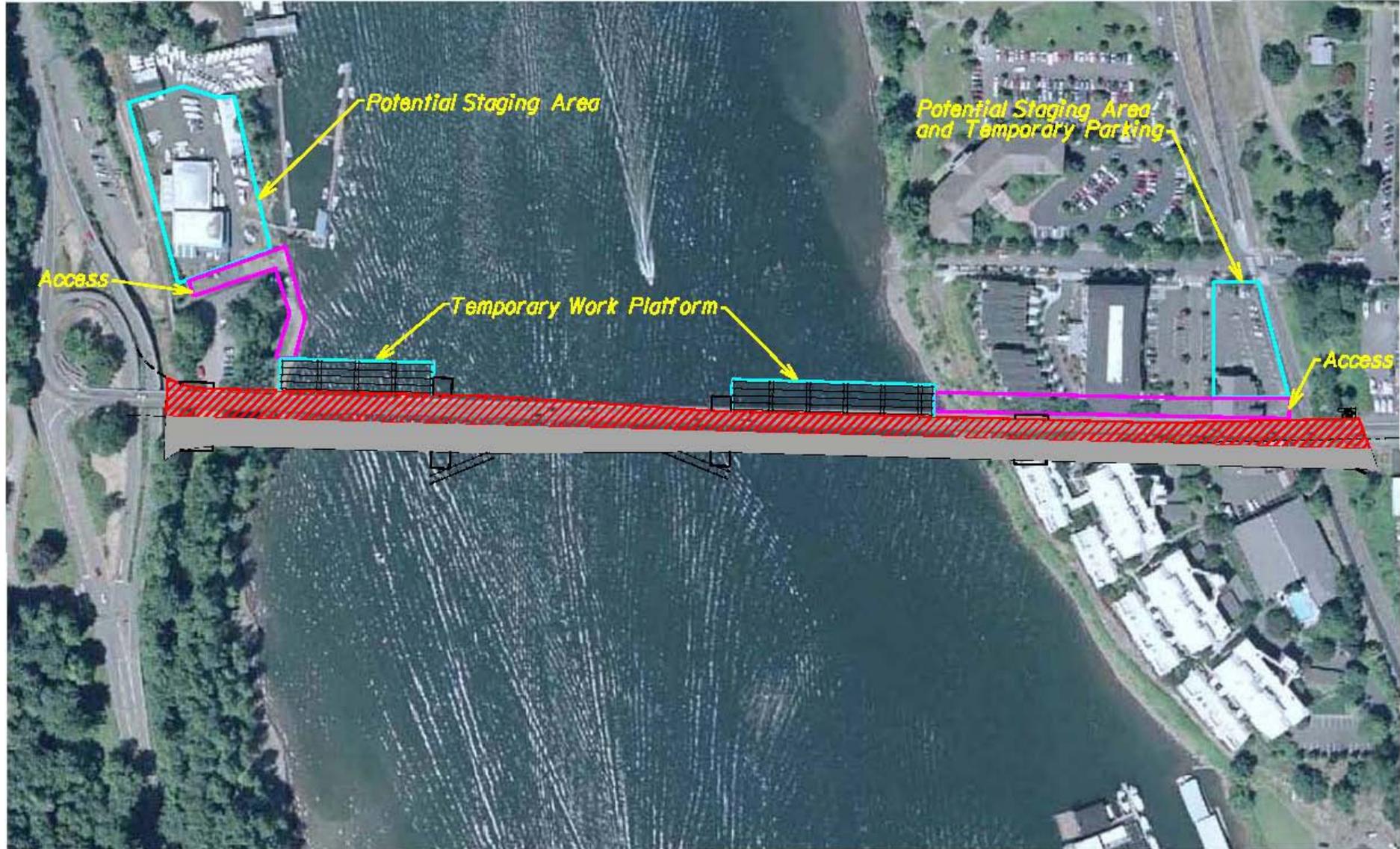
 Permanent Bridge Foundations

Staged Construction: South Half New Bridge



 Staged Construction, Stage 1
18 to 24 Month Duration

Staged Construction: North Half New Bridge



 Staged Construction, Stage 2
18 to 24 Month Duration

Staged Construction: Completed New Bridge



Finished Bridge

Detour Construction

- Proposed in 2011 by newly-hired design and construction teams
- Old bridge moved north, out of work zone
- Bridge moved *carefully and safely* by specialty subcontractor
- Detour bridge would not include worst sections of old bridge (West approach span)

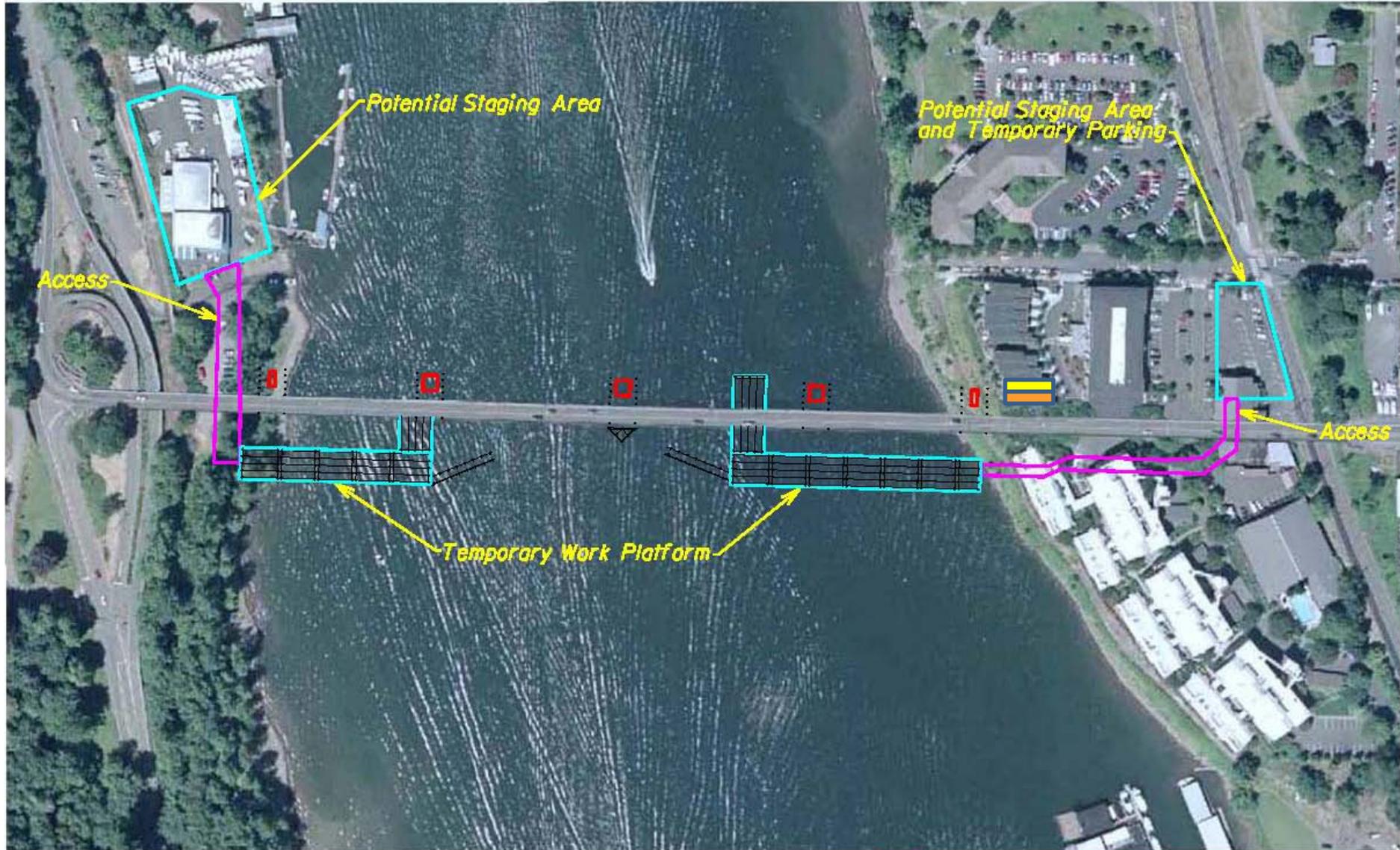
Detour Construction

- Detour bridge as strong or stronger than old bridge (including seismic)
- New bridge can be built in one phase
- Significant benefits for schedule, cost, safety, design and environment
- Similar number of bridge closure days

Detour Construction

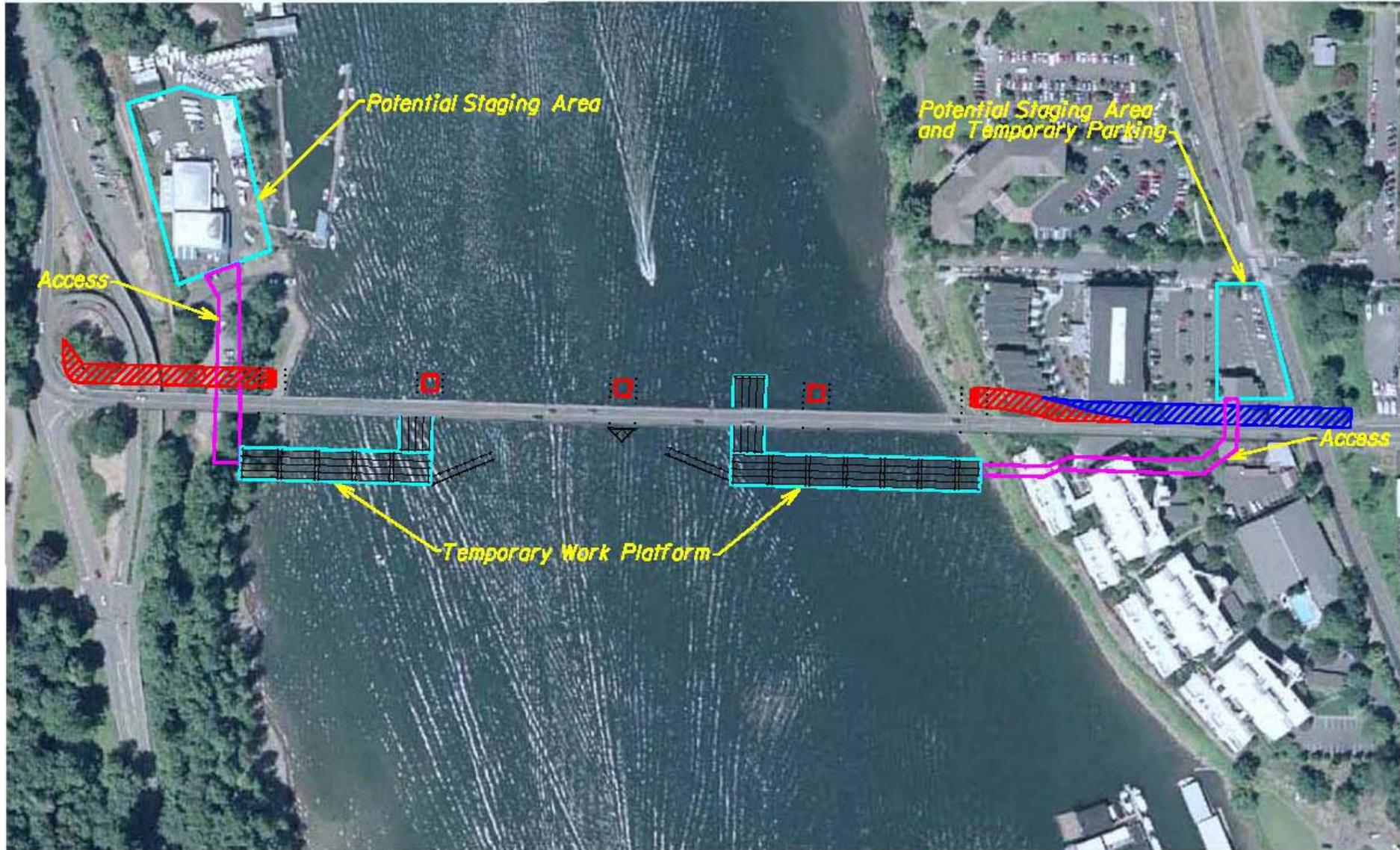
- Uses portion of old east approach
- Will avoid damage to nearby buildings
- Saves time and cost compared to Staged Construction

Detour Construction: Early Phase



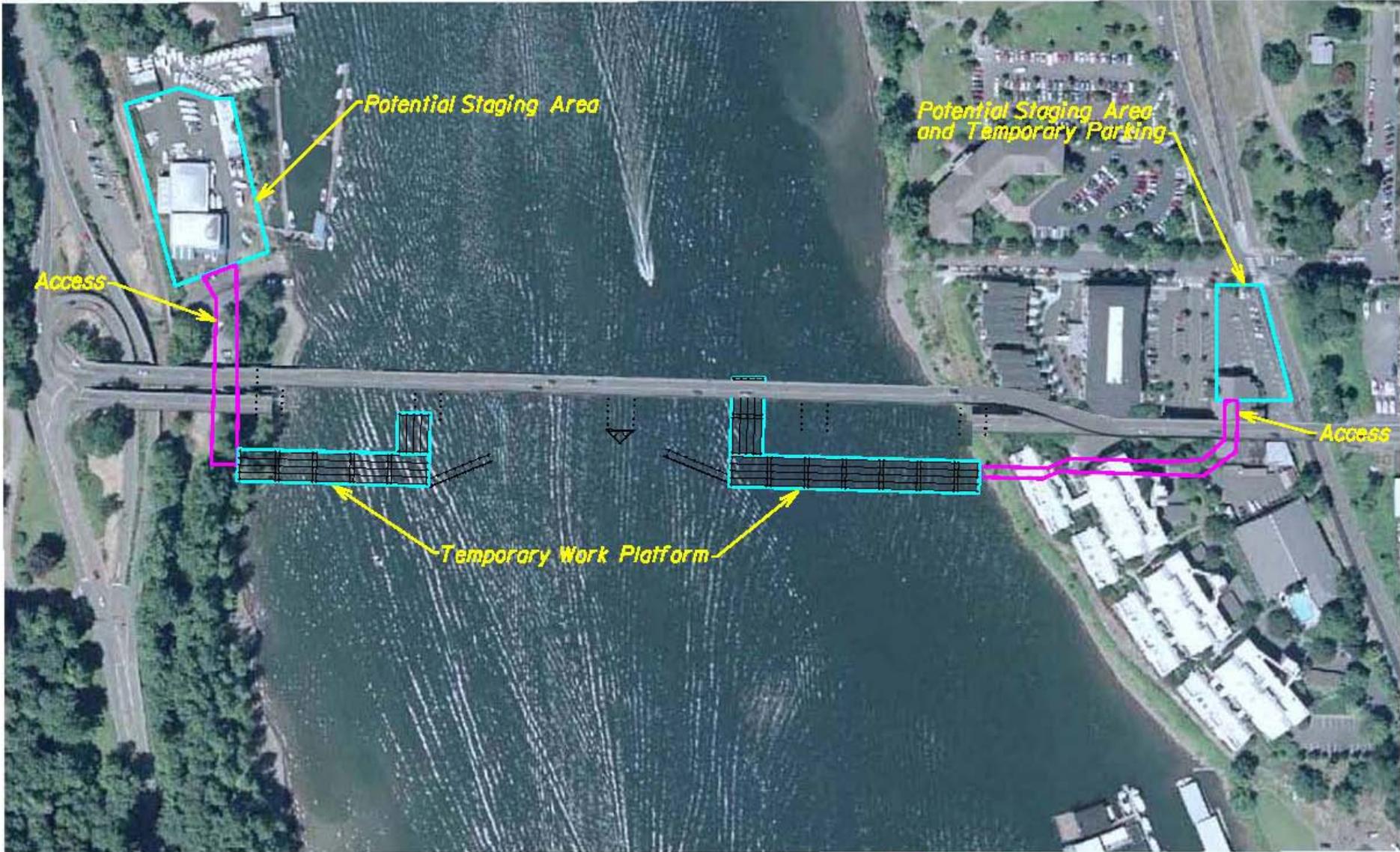
Detour In-Water Foundations

Detour Construction: East Approach Options



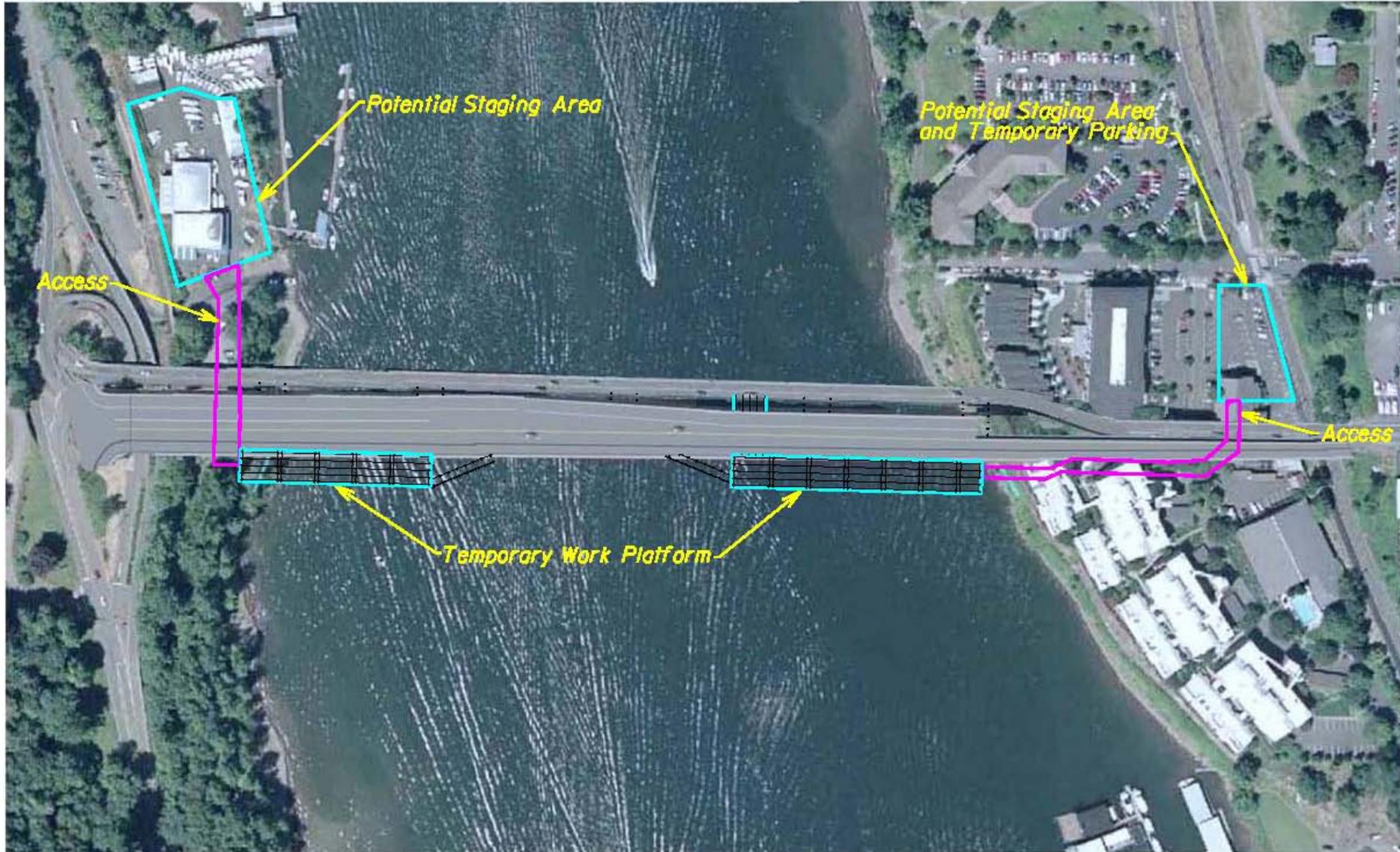
-  Detour Alignment Options 1 and 2
-  Detour Alignment Option 2 Only

Detour: Slide Old Bridge North



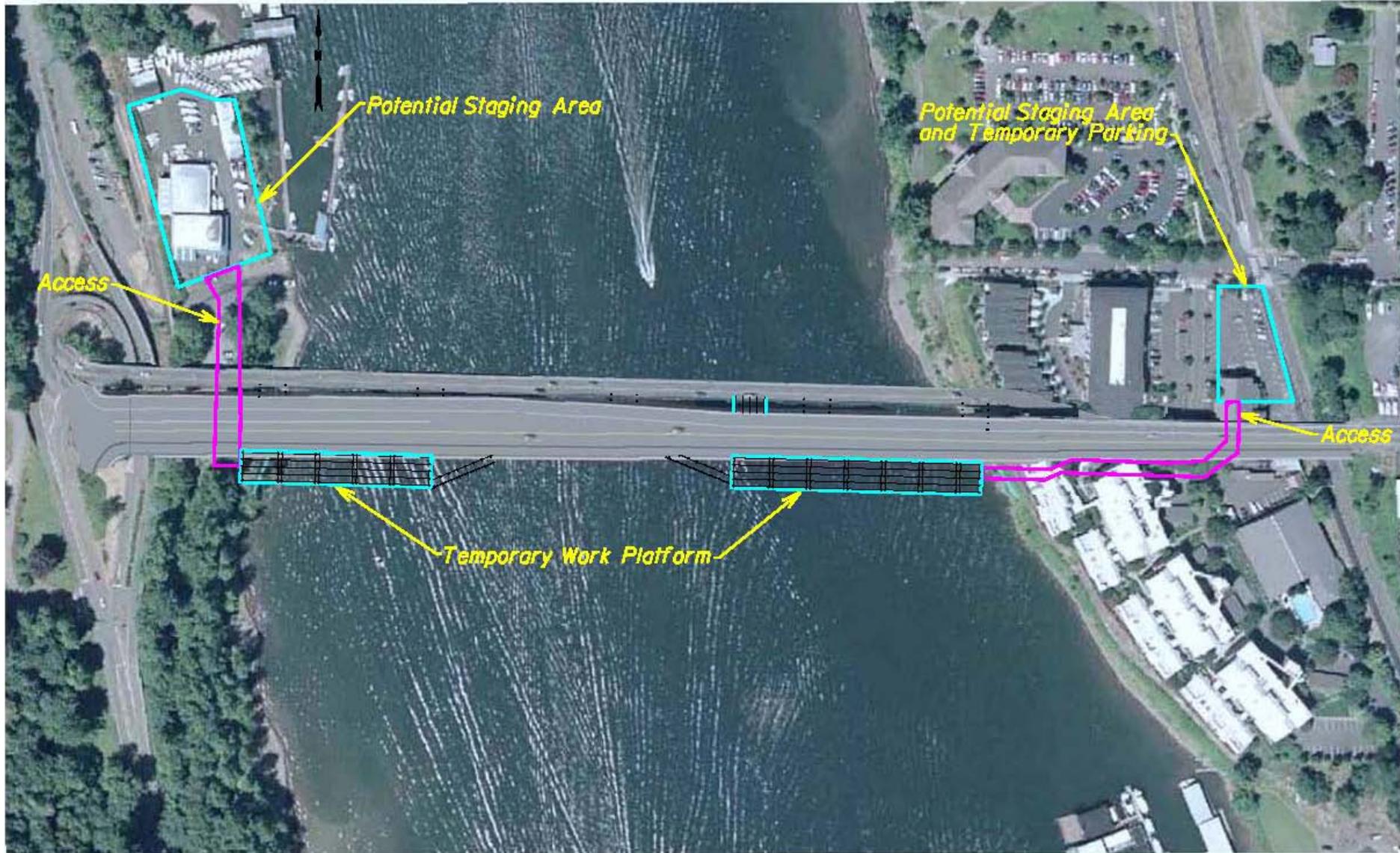
Detour Option 1, Stage 1

Detour: Construct New Bridge



Detour Option 1 - Stage 2,
East Approach First
Stage Construction

Detour: Fill In East Approach



Detour Option 1 - Stage 3,
East Approach First
Stage Construction

Detour: Completed Bridge



Finished Bridge

Detour Bridge Schedule

- Late Fall 2011: Confirm funding plan & schedule
- In-water construction as early as December 2011 and as late as July 2012
- Temporary approach structures Spring 2012
- 4-day bridge closure needed for switch to detour (late spring 2012)
- Construction with Detour: December 2011 – 2015

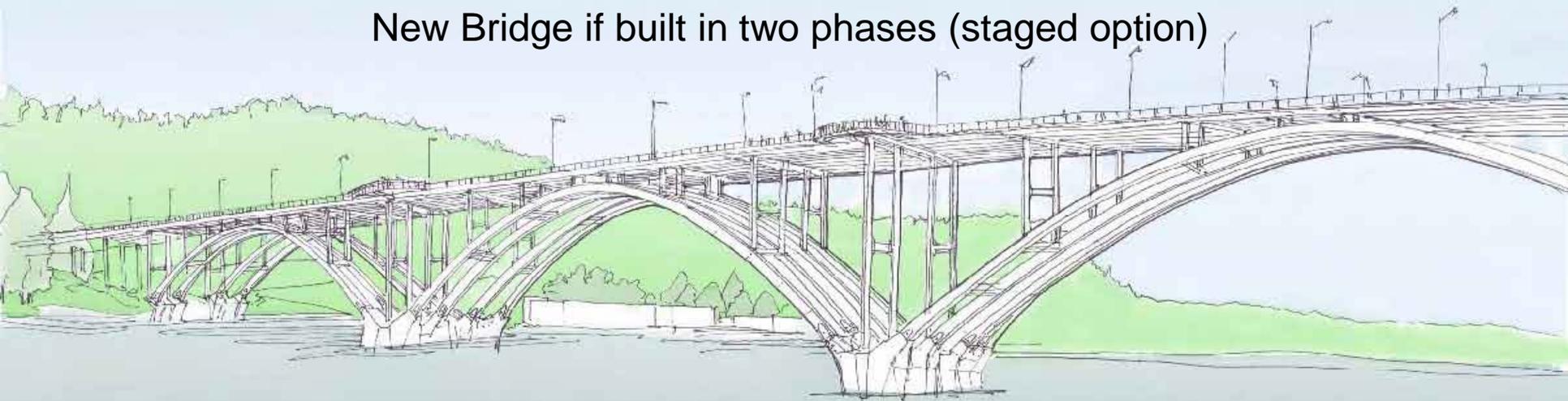
Detour Bridge Benefits

- **Time:**
 - Reduce construction duration up to 12 months
- **Money:**
 - Reduce cost (\$5 to \$10 million) in materials, labor, and equipment
- **Safety:**
 - Separation improves safety for workers and travelling public.
- **Design:**
 - Eliminates redundant features
 - Improves appearance (two arch ribs instead of four)
- **Environmental Impacts:**
 - Requires fewer temporary work bridges
 - Requires less construction time
 - Reduces in-water and riparian impacts

New Bridge if built in one phase (detour option)



New Bridge if built in two phases (staged option)



Outreach Activities

- Sellwood Moreland Improvement League
- Riverpark Condominiums
- Sellwood Harbor Condominiums
- Sellwood Moreland Business Association
- Regulatory agencies
- ODOT, Portland, FHWA

River Park Concerns

Temporary construction concerns for Staged Construction or Detour Bridge Options:

- Right of Way
- Emergency Access
- Garbage Service
- Noise
- Parking
- Air Quality
- Security
- Sunlight
- Vibration
- Impact to nearby structures
- Schedule & funding

Detour Bridge Decision Process

- June 16, 2011 - County Board asked to approve detour bridge option and negotiations for needed Right of Way
- Summer/Fall 2011 - Permits and Land Use Reviews (City of Portland, State, Federal)
- September/October 2011 - 60% Design approval by:
 - Public Stakeholder Committee
 - County Board

Questions ?

