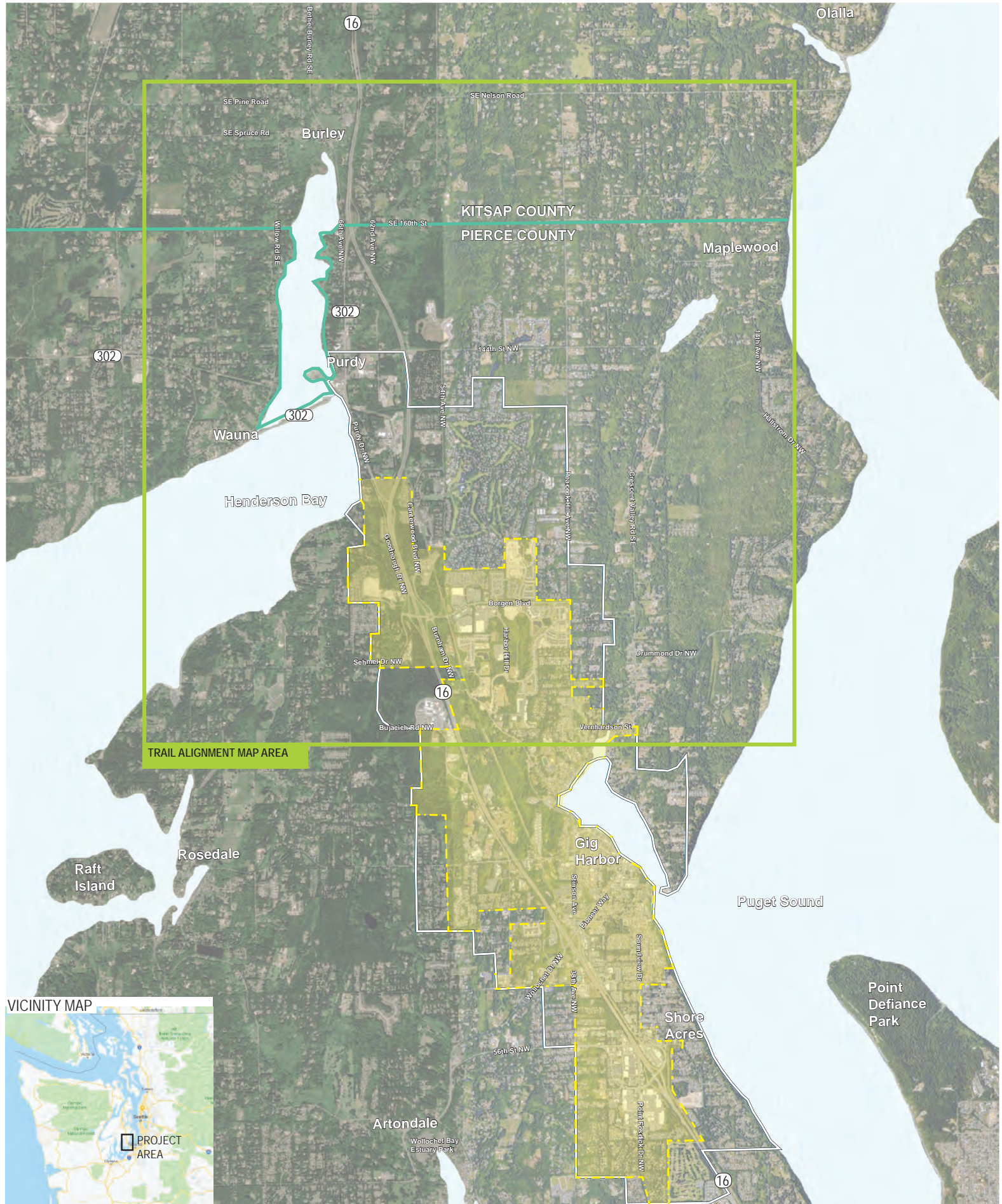


# CUSHMAN TRAIL PHASE V PLANNING STUDY

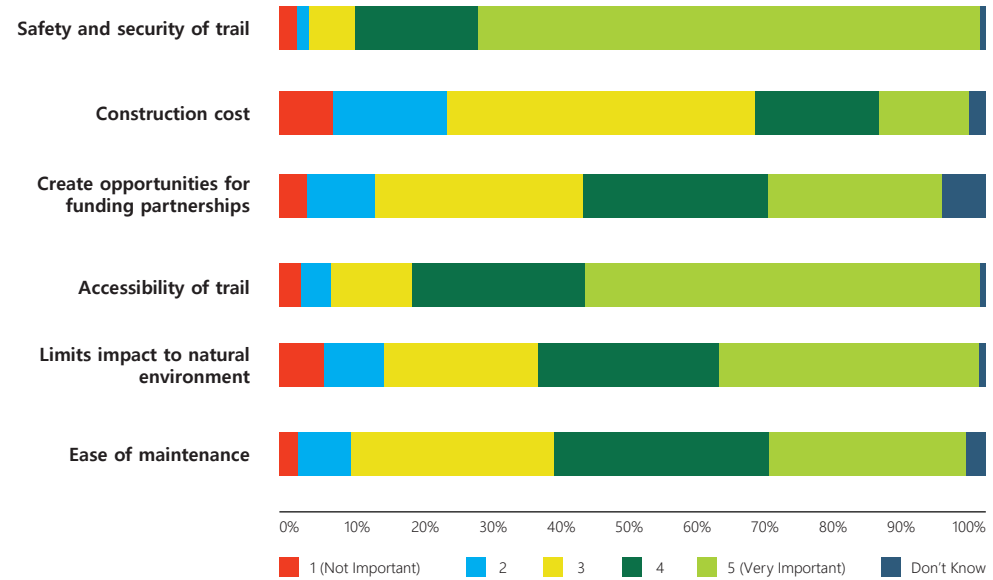


# CUSHMAN TRAIL PHASE V PLANNING STUDY

## PUBLIC PROCESS

**75%** of survey respondents suggest Cushman Trail prioritize a route for recreational use

### Importance of guiding principles



### Your vision for this trail extension



# CUSHMAN TRAIL PHASE V PLANNING STUDY



## *GUIDING PRINCIPLES*

The phase 5 trail extension will building upon the first 4 phases. The trail will maintain a 10' wide paved surface with gravel shoulders, and serve as a non-motorized multi-purpose trail. Final trail design will comply with local adopted standards for a shared use path.

### *DEFINITIONS*

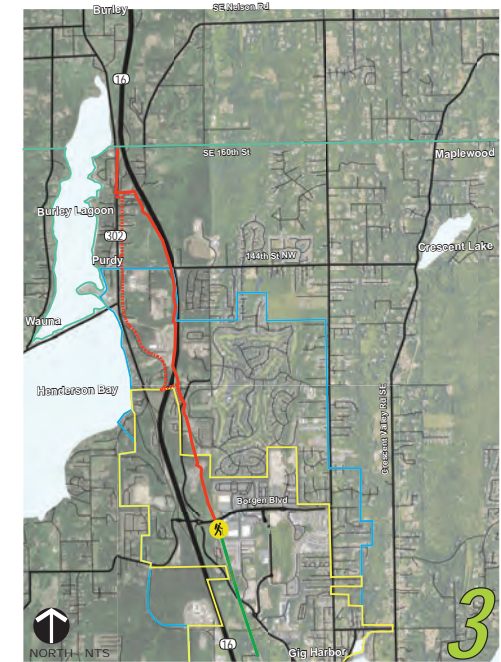
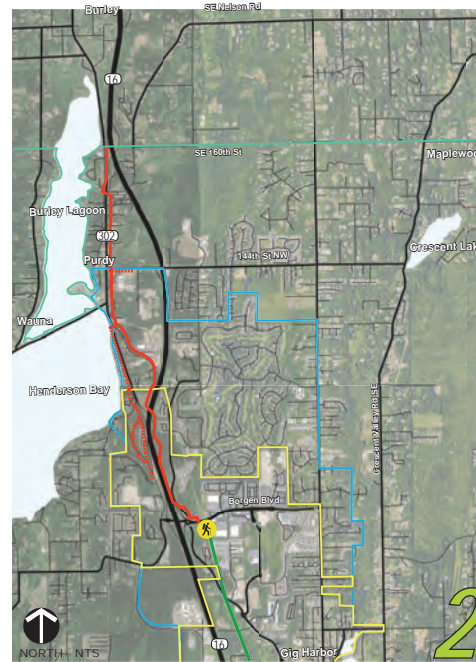
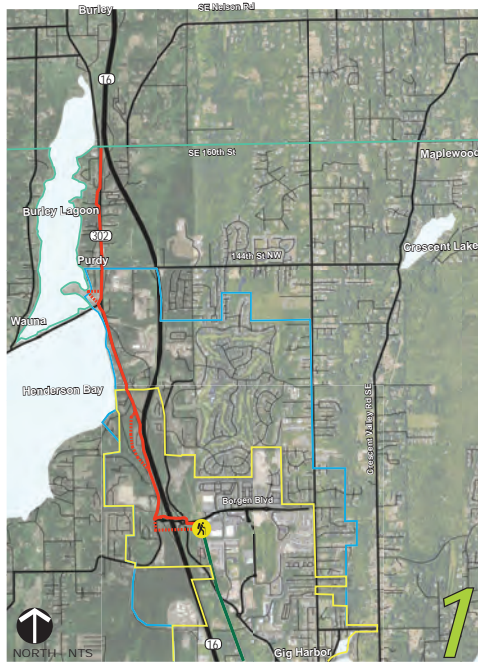
|  |  |
|--|--|
| <b>Safety and security of trail</b>                    | Prioritizes a trail corridor with safe crossings of all roadways and intersections, trail separation from vehicle traffic, open site lines along the trail, numerous entrances and exit points, and minimizes hiding spots.  |
| <b>Accessibility of trail</b>                          | Prioritizes universal use by all ages and physical abilities by minimizing steep slopes.   |
| <b>Ease of maintenance</b>                             | Prioritizes limiting long-term maintenance efforts across entirety of the trail through a reduction in the number of off-grade structures (e.g. bridges, tunnels, boardwalks, etc.) and careful material selection; minimizes disruption to partner agency maintenance (i.e. does not negatively impact access to infrastructure such as power lines, culverts, maintained ditches, etc.), lessens new and out of the way territory for maintenance crews. |
| <b>Limits impact to natural environment</b>            | Prioritizes a route which minimizes tree removals, wetland impacts, and habitat disruption during- and post-construction.  |
| <b>Construction Cost</b>                               | Prioritizes a route with the lowest up-front construction costs by minimizing the number of off-grade structures along the trail, utilizing existing pavement, and minimizing the need to purchase additional right of way.  |
| <b>Create opportunities for funding partnerships</b>   | Prioritizes routes with the highest potential to receive outside funding from grants and partnership opportunities with other organizations and agencies, and tailoring trail/offshoots to better align with funding sources. Many grant opportunities will also require the trail to meet federal standards (in addition to local adopted standards).   |
| <b>Connections to waypoints and major destinations</b> | Prioritizes routes that connect to identified waypoints. Waypoints include Purdy, St. Anthony Hospital, businesses, Peninsula High School, Purdy Elementary School, transit stops, other communities, and connections to existing trails and/or routes to the north.   |
| <b>Trails proximity to nature</b>                      | Prioritizes a route in close proximity to nature where families, walkers, recreational bicyclists, and alternative wheeled transportations can use the trail for exercise, enjoyment of the outdoors, views, and scenic journeys away from loud roads.   |

# CUSHMAN TRAIL PHASE V PLANNING STUDY

## ALTERNATIVES



- LEGEND**
- EXISTING CUSHMAN TRAIL
  - PROPOSED CUSHMAN TRAIL
  - - - TRAIL CONNECTION
  - URBAN GROWTH BOUNDARY
  - GIG HARBOR CITY LIMITS
  - COUNTY LINE
  - TRAIL HEAD



**GUIDING PRINCIPLES**

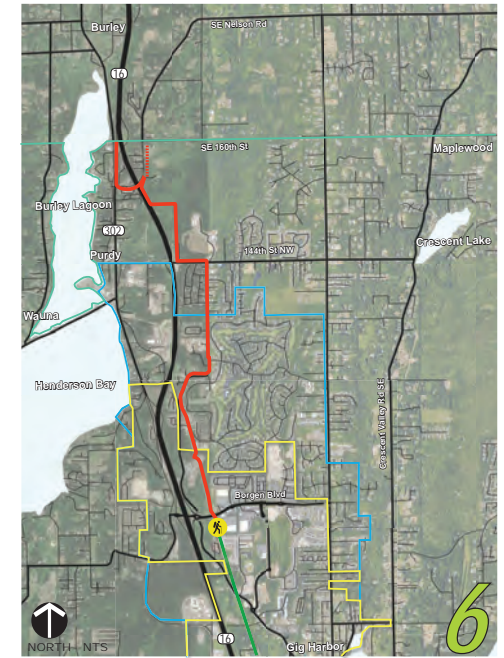
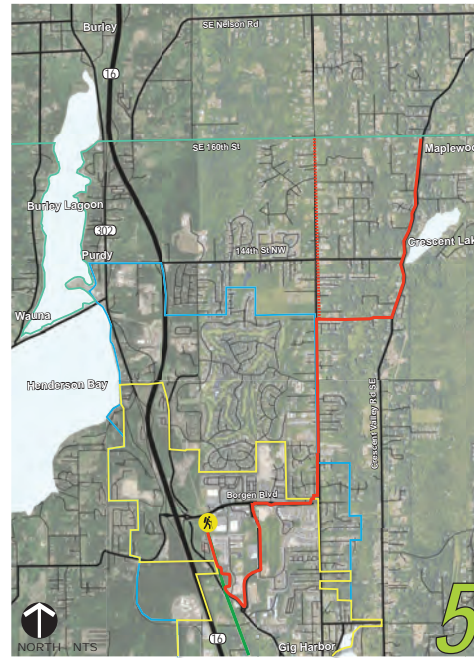
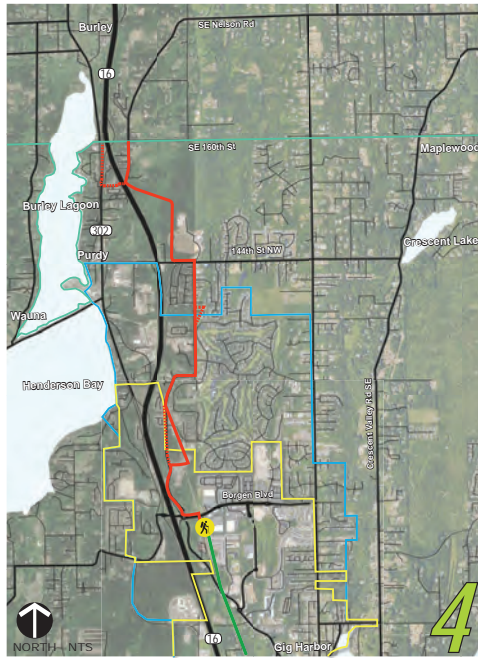
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|--|--|---|--|--|--|---|
| <b>Safety and security of trail</b>                    |  | mostly along roadway corridors but lots of opportunity to get on / off the trail; safety concerns with roundabout intersections |  | partially separated from roadway corridors, some ability to get on/off the trail   |  | mostly separated from roadway corridors, less ability to get on/off the trail                             |
| <b>Accessibility of trail</b>                          |  | least topography, but further from residential areas  |  | some topography, but still not very connected to residential areas   |  | some topography, partially connected to residential areas   |
| <b>Ease of maintenance</b>                             |  | close to roadway for access, lots of 'eyes on trail' to discourage vandalism, etc.  |  | close to roadway for easy access, some 'eyes on trail' to discourage vandalism, etc.                                       |  | most restrictive access, limited 'eyes on trail' to discourage vandalism, etc.                            |
| <b>Limits impacts to natural environment</b>           |  | limited tree removal with route along roadway corridor  |  | some tree removal where trail separated from roadway corridor  |  | most tree removal with greatest separation of the trail from roadway corridor                             |
| <b>Construction cost</b>                               |  | needs major structures and improvements to cross SR16   |  | needs major structures and improvements to cross SR16  |  | minimizes structures needed but difficult slope adjacent to SR16  |
| <b>Create opportunities for funding partnerships</b>   |  | close to urban center / future development area but not near residential areas and not connected to St. Anthony's Hospital      |  | close to urban center / future development area but not near residential areas and not connected to St. Anthony's Hospital |  | connects to St. Anthony's Hospital and potential for connection to urban center / future development area |
| <b>Connections to waypoints and major destinations</b> |  | connects to 1 waypoint  |  | connects to 2 waypoint   |  | connects to 3 waypoint  |
| <b>Trails proximity to nature</b>                      |  | potential views to the bay  |  | potential views to the bay   |  | open space along the power line corridor and potential views to the bay                                   |

# CUSHMAN TRAIL PHASE V PLANNING STUDY

## ALTERNATIVES



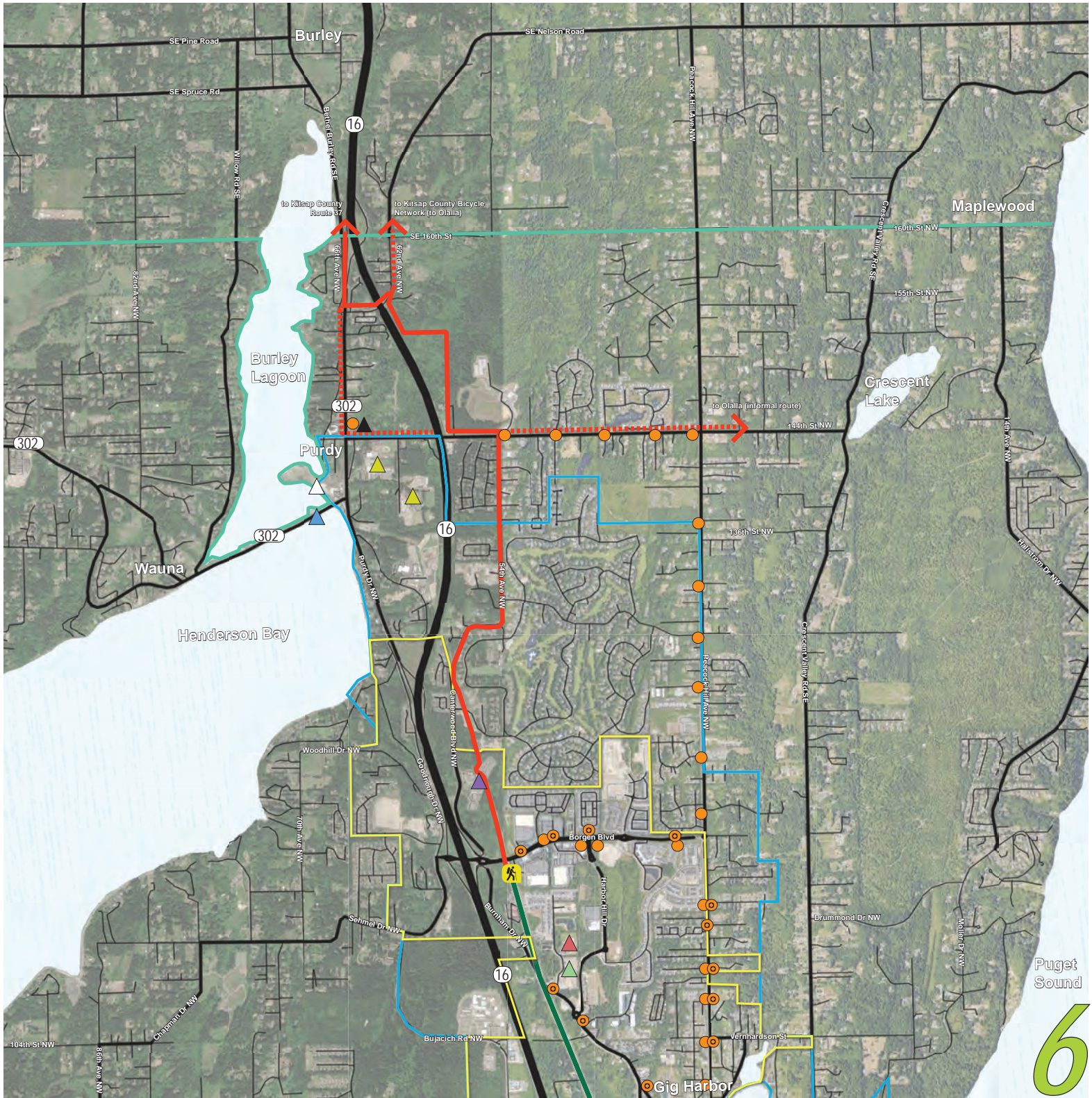
- LEGEND**
- EXISTING CUSHMAN TRAIL
  - PROPOSED CUSHMAN TRAIL
  - - - TRAIL CONNECTION
  - URBAN GROWTH BOUNDARY
  - GIG HARBOR CITY LIMITS
  - COUNTY LINE
  - TRAIL HEAD



|                           |  |   |  |   |  |   |  |
|---------------------------|--|---|--|---|--|---|--|
| <b>GUIDING PRINCIPLES</b> | <b>Safety and security of trail</b>                    | <span style="color: green;">+</span>                                      | partially separated from roadway corridors, some ability to get on/off the trail         | <span style="color: green;">+</span>                                      | mostly along roadway corridors but lots of opportunity to get on / off the trail                                       | <span style="color: green;">+</span> <span style="color: green;">+</span> | mostly separated from roadway corridors, minimizes crossings   |
|                           | <b>Accessibility of trail</b>                          | <span style="color: green;">+</span>                                      | more topography, more connected to residential areas                                     | <span style="color: red;">-</span>  | most topography, partially connected to residential areas but leads to more isolated, rural area                       | <span style="color: green;">+</span>                                      | some topography, greatest connection to residential areas  |
|                           | <b>Ease of maintenance</b>                             | <span style="color: green;">+</span>                                      | some restricted access, moderate 'eyes on trail' to discourage vandalism, etc.           | <span style="color: red;">-</span>  | close to roadway for easy access, further away from urban areas, limited 'eyes on trail' to discourage vandalism, etc. | <span style="color: green;">+</span>                                      | most restrictive access, limited 'eyes on trail' to discourage vandalism, etc.                                       |
|                           | <b>Limits impacts to natural environment</b>           | <span style="color: green;">+</span>                                      | some tree removal where trail separated from roadway corridor                            | <span style="color: green;">+</span> <span style="color: green;">+</span> | limited tree removal with route along roadway corridor   | <span style="color: green;">+</span>                                      | some tree removal where trail separated from roadway corridor  |
|                           | <b>Construction cost</b>                               | <span style="color: green;">+</span> <span style="color: green;">+</span> | least structures needed  | <span style="color: green;">+</span>                                      | minimizes structures needed but difficult slope along Peacock Hill Ave NW  | <span style="color: green;">+</span> <span style="color: green;">+</span> | least structures needed  |
|                           | <b>Create opportunities for funding partnerships</b>   | <span style="color: green;">+</span>                                      | connects to St. Anthony's Hospital but misses potential future development area at Purdy | <span style="color: red;">-</span>  | not connected to St. Anthony's Hospital or potential future development area at Purdy                                  | <span style="color: green;">+</span> <span style="color: green;">+</span> | greatest connection between residential areas, St. Anthony's Hospital and potential future development area at Purdy |
|                           | <b>Connections to waypoints and major destinations</b> | <span style="color: green;">+</span>                                      | connects to 1 waypoint   | <span style="color: red;">-</span>  | connects to 1 waypoint   | <span style="color: green;">+</span> <span style="color: green;">+</span> | connects to 3 waypoint   |
|                           | <b>Trails proximity to nature</b>                      | <span style="color: green;">+</span>                                      | forested area near the transfer station  | <span style="color: green;">+</span> <span style="color: green;">+</span> | more rural, forested roadway corridor and connection to Olalla area  | <span style="color: green;">+</span> <span style="color: green;">+</span> | open space along the powerline corridor and near the transfer station  |

# CUSHMAN TRAIL PHASE V PLANNING STUDY

## *PREFERRED ALTERNATIVE*



### WAYPOINTS

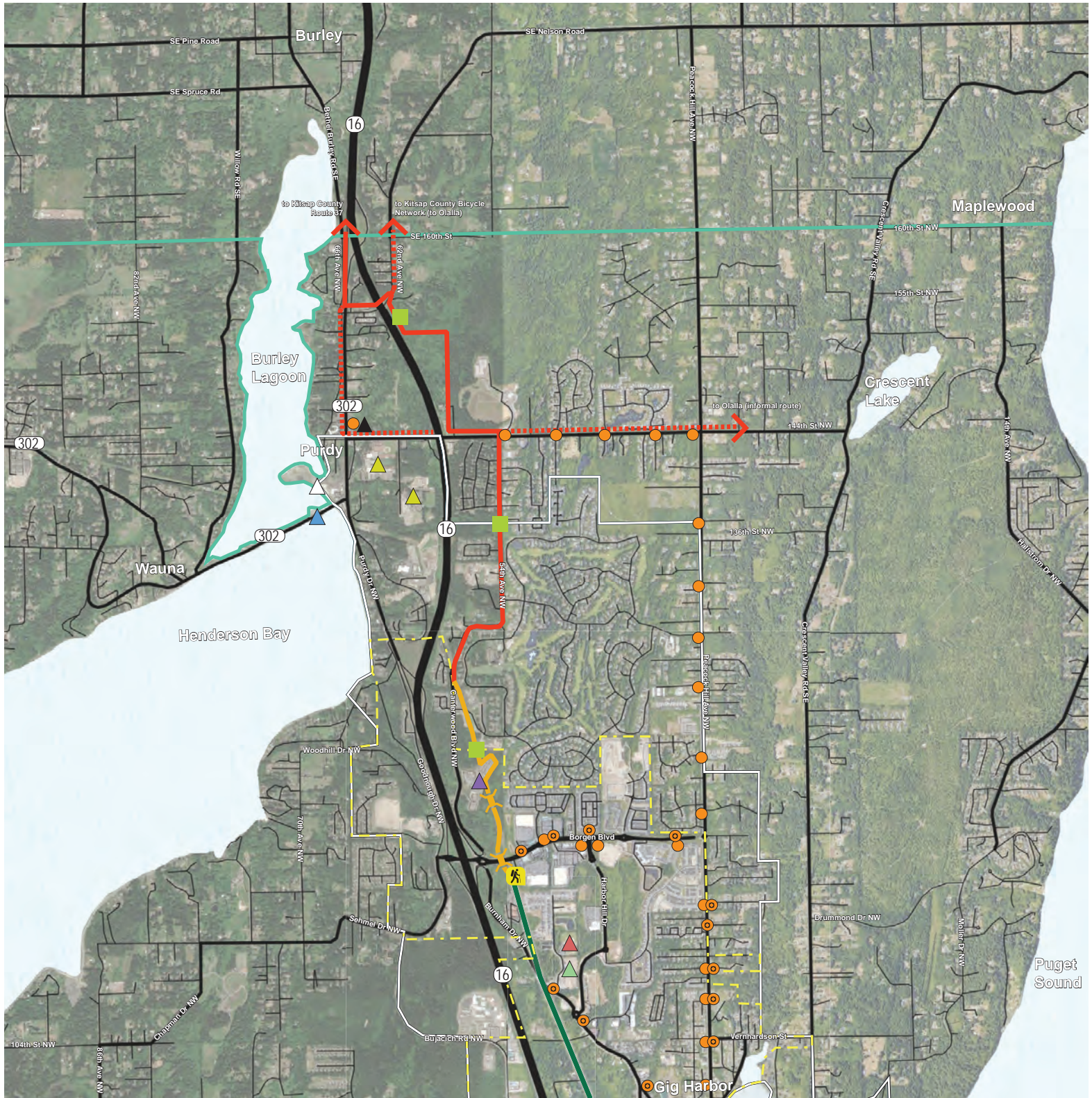
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- ▲ HWY 302 CROSSING AT BURLEY LAGOON
- ▲ FUTURE ATHLETIC COMPLEX
- ▲ FUTURE SCHOOL #9
- ▲ PENINSULA HIGH SCHOOL / PURDY ELEMENTARY SCHOOL
- ▲ DOWNTOWN PURDY
- ▲ PURDY PARK-N-RIDE

### LEGEND

- EXISTING CUSHMAN TRAIL
- PROPOSED CUSHMAN TRAIL
- ⋯ TRAIL CONNECTION
- URBAN GROWTH BOUNDARY
- GIG HARBOR CITY LIMITS
- COUNTY LINE
- TRANSIT STOPS
- SEASONAL TROLLEY STOPS
- ▲ TRAIL HEAD

# CUSHMAN TRAIL PHASE V PLANNING STUDY

## FINAL ALIGNMENT



### WAYPOINTS

- ▲ ST. ANTHONY HOSPITAL
- ▲ HWY 302 CROSSING AT BURLEY LAGOON
- ▲ FUTURE ATHLETIC COMPLEX
- ▲ FUTURE SCHOOL #9
- ▲ PENINSULA HIGH SCHOOL / PURDY ELEMENTARY SCHOOL
- ▲ DOWNTOWN PURDY
- ▲ PURDY PARK-N-RIDE

### LEGEND

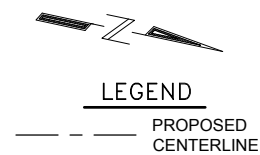
- EXISTING CUSHMAN TRAIL
- TRAIL CONNECTION
- TRANSIT STOPS
- 1ST MILE OF PREFERRED ALIGNMENT UNDER PRELIMINARY ENGINEERING
- URBAN GROWTH BOUNDARY
- SEASONAL TROLLEY STOPS
- GIG HARBOR CITY LIMITS
- COUNTY LINE
- BRIDGE
- POTENTIAL REST AREA LOCATIONS



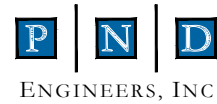
# CITY OF GIG HARBOR

## CUSHMAN TRAIL PHASE V PLANNING STUDY

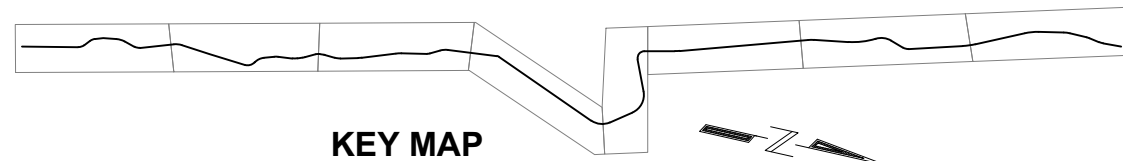
### FIRST-MILE CONCEPT DRAWINGS - NOVEMBER 2019



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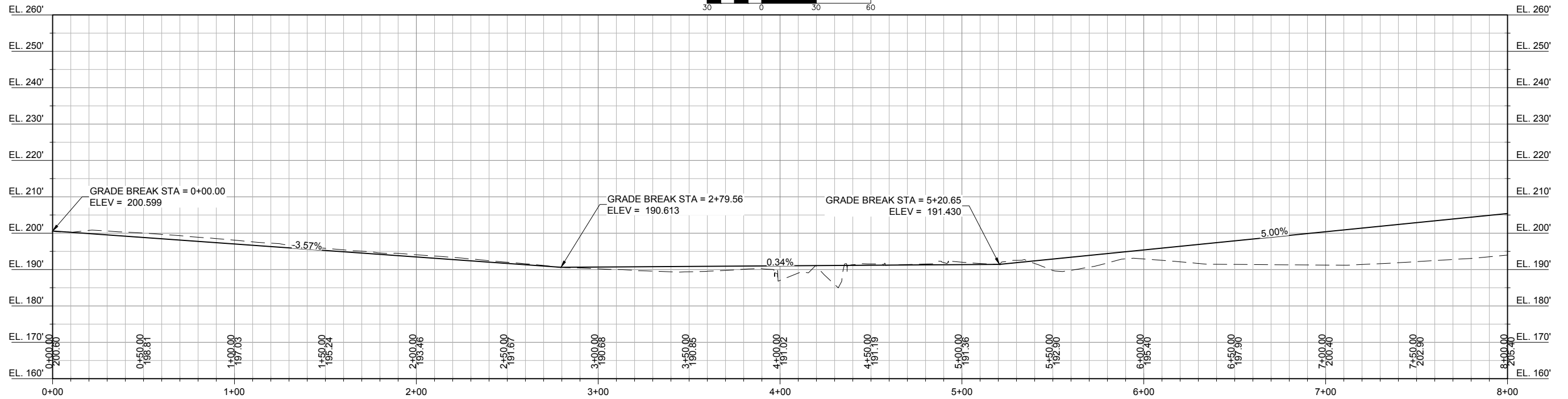
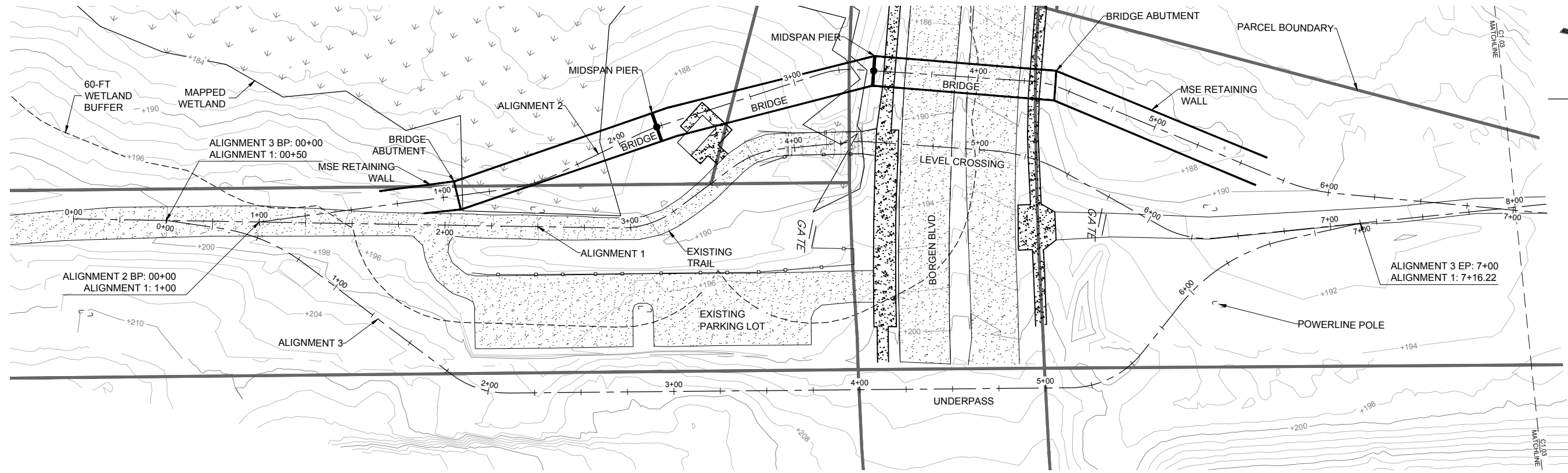
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| PROJECT: <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |                    |              |  |
| TITLE: <b>TITLE SHEET AND ALIGNMENT PLAN</b>         |                    |              |  |
| DESIGNED BY: CR / CC                                 | PROJECT NO: 184100 | SHEET NO:    |  |
| DRAWN BY: DM   | DATE: NOV. 5, 2019 | <b>G1.01</b> |  |
| CHECKED BY: CK                                       | SCALE: NOTED       |              |  |

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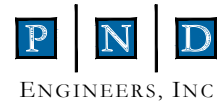
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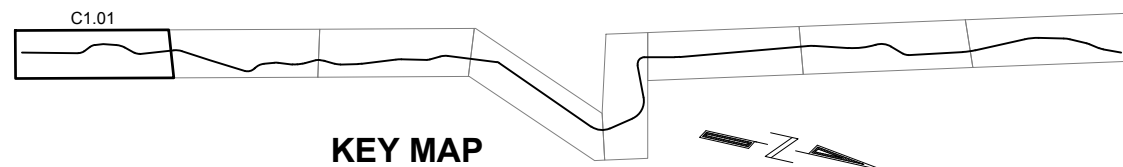


ALIGNMENT 1: LEVEL CROSSING  
PROFILE  
1H:2V

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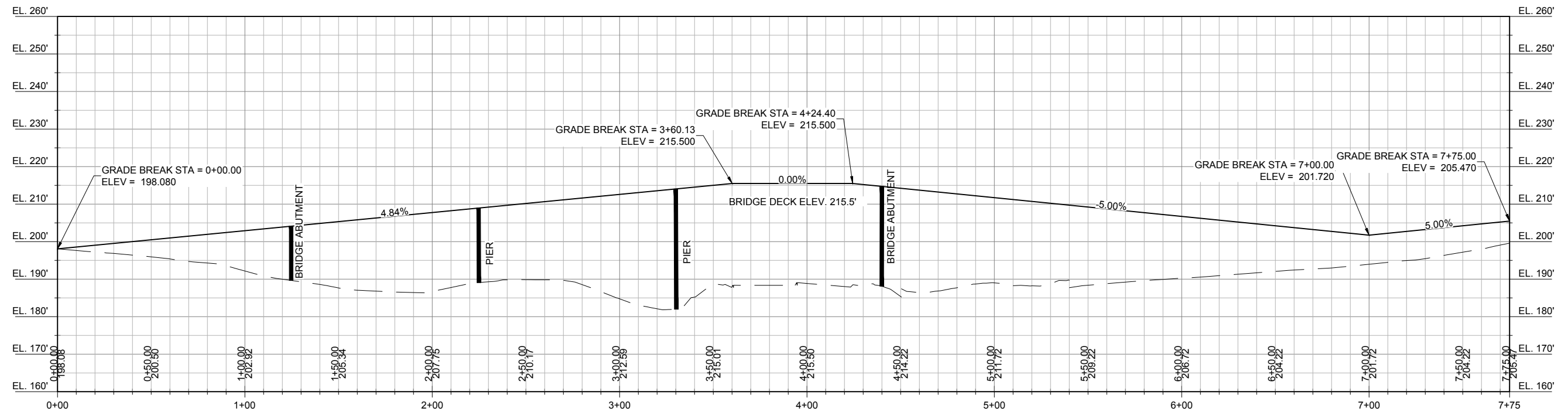
KEY MAP

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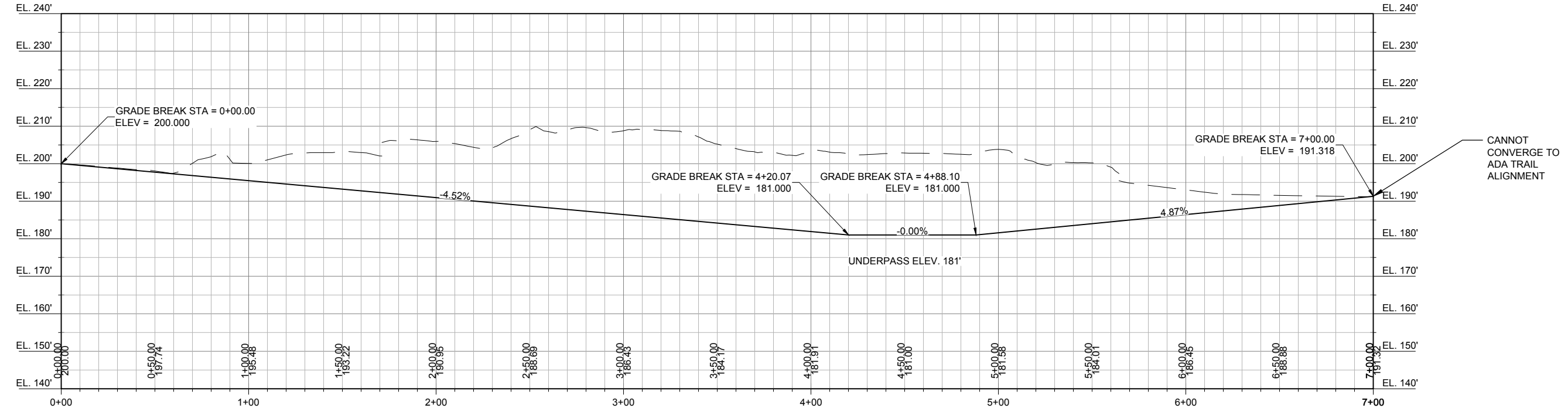
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| PROJECT:                                    |         |             |              |
| <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |         |             |              |
| TITLE:                                      |         |             |              |
| <b>PLAN AND PROFILE</b>                     |         |             |              |
| DESIGNED BY:                                | CR / CC | PROJECT NO: | 184100       |
| DRAWN BY:                                   | DM      | DATE:       | NOV. 5, 2019 |
| CHECKED BY:                                 | CK      | SCALE:      | NOTED        |
| SHEET NO:                                   |         |             | <b>C1.01</b> |

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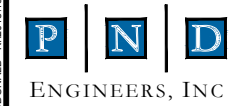


ALIGNMENT 2: BRIDGE CROSSING PROFILE  
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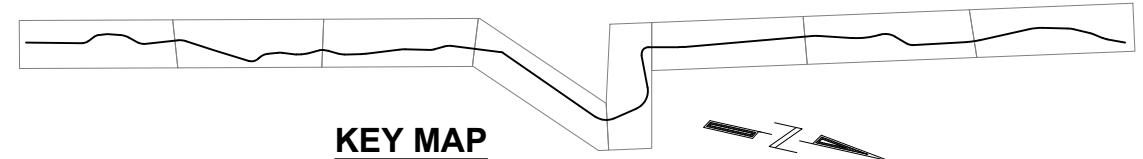


ALIGNMENT 3: UNDERPASS CROSSING PROFILE  
1H:2V

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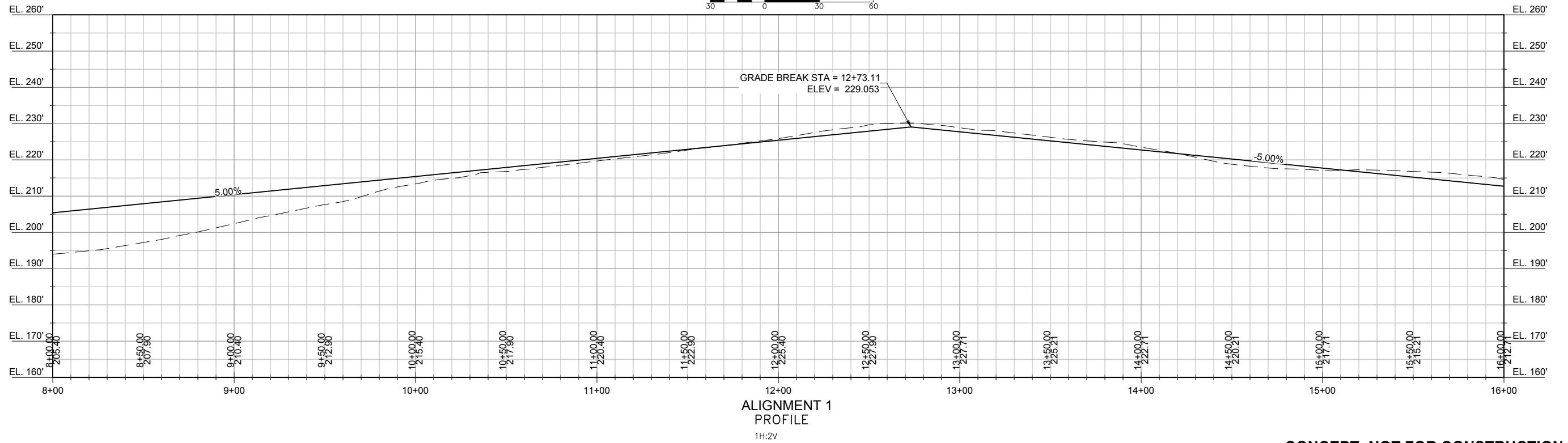
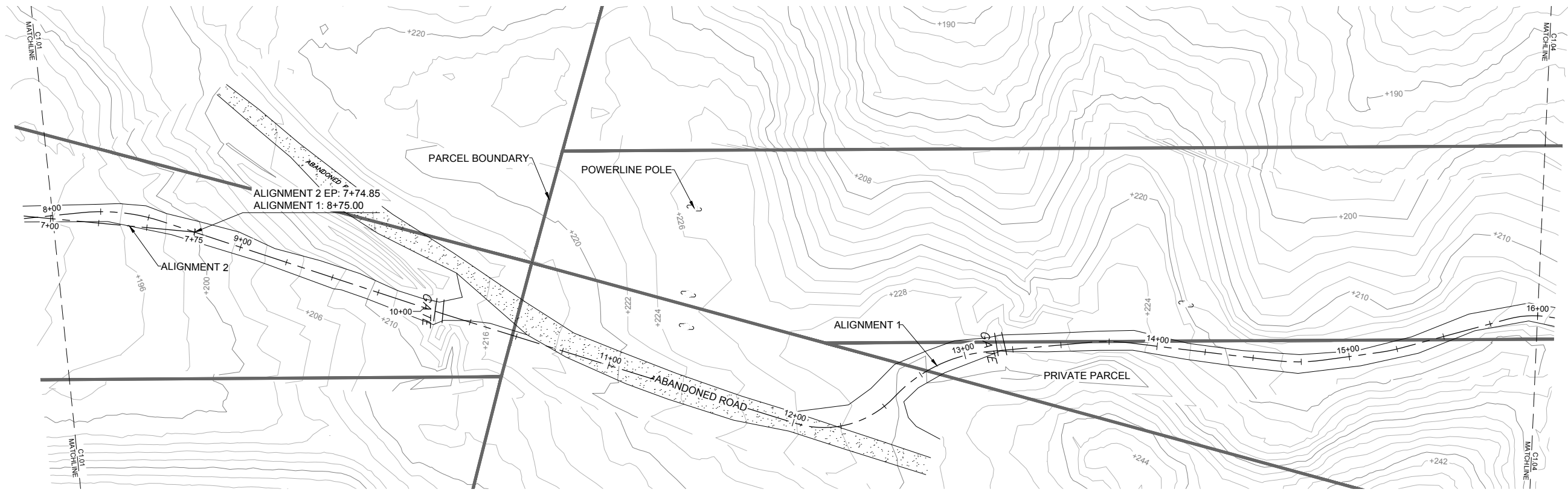


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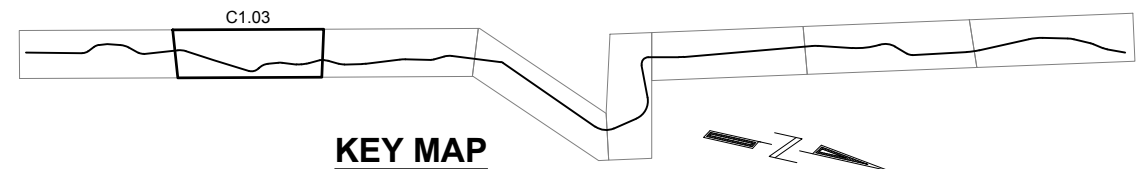
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| PROJECT:<br><b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |                       |                           |  |
| TITLE:<br><b>BRIDGE AND UNDERPASS CROSSING PROFILE</b>  |                       |                           |  |
| DESIGNED BY:<br>CR / CC                                 | PROJECT NO:<br>184100 | SHEET NO:<br><b>C1.02</b> |  |
| DRAWN BY:<br>DM   | DATE:<br>NOV. 5, 2019 |                           |  |
| CHECKED BY:<br>CK                                       | SCALE:<br>NOTED       |                           |  |

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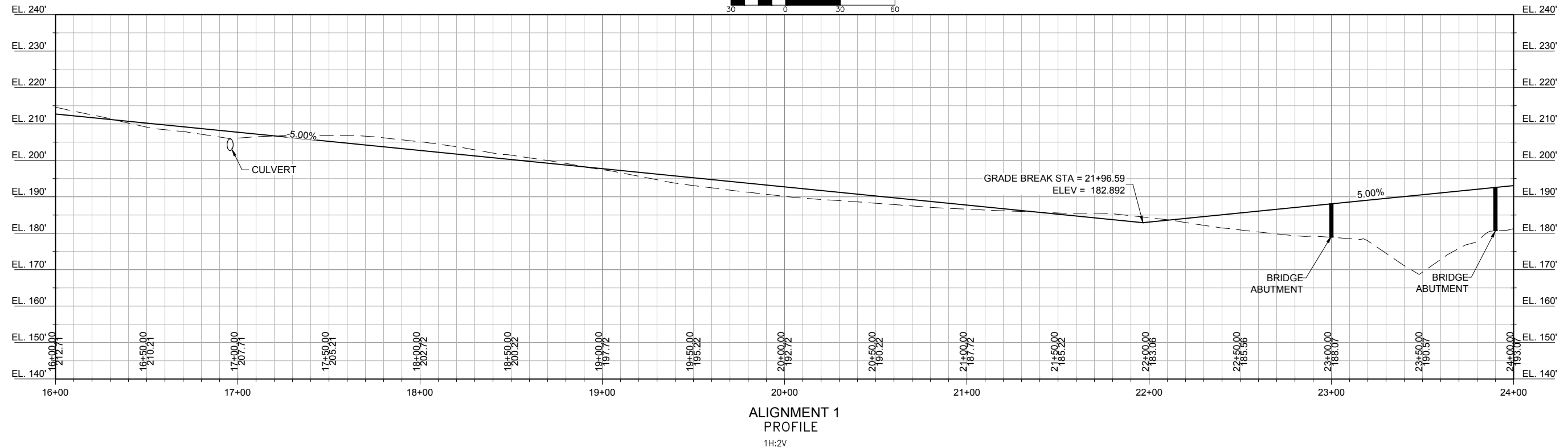
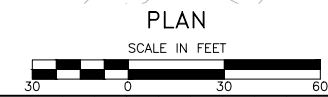
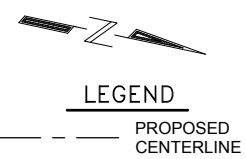
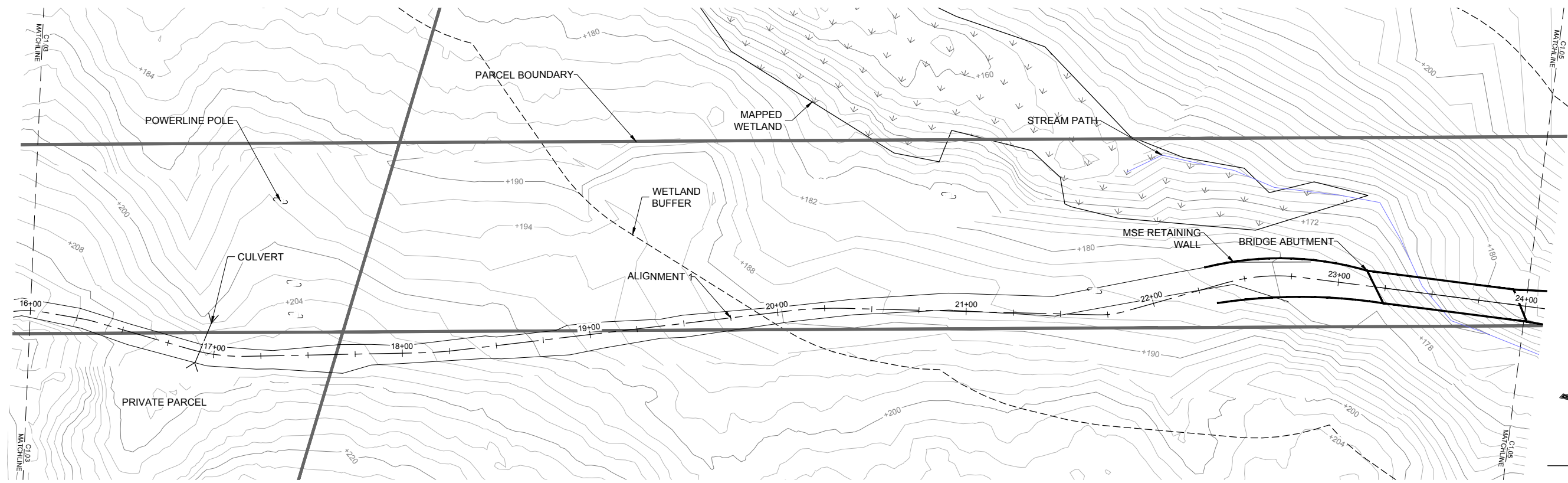
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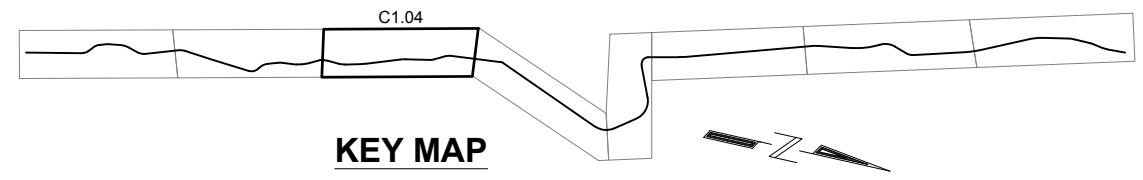
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| <b>CONCEPT- NOT FOR CONSTRUCTION</b>        |         |             |              |
| <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |         |             |              |
| <b>PLAN AND PROFILE</b>                     |         |             |              |
| PROJECT:                                    |         |             |              |
| TITLE:                                      |         |             |              |
| DESIGNED BY:                                | CR / CC | PROJECT NO: | 184100       |
| DRAWN BY:                                   | DM      | DATE:       | NOV. 5, 2019 |
| CHECKED BY:                                 | CK      | SCALE:      | NOTED        |
| SHEET NO:                                   |         |             | <b>C1.03</b> |



**ALIGNMENT 1 PROFILE**  
 1H:2V

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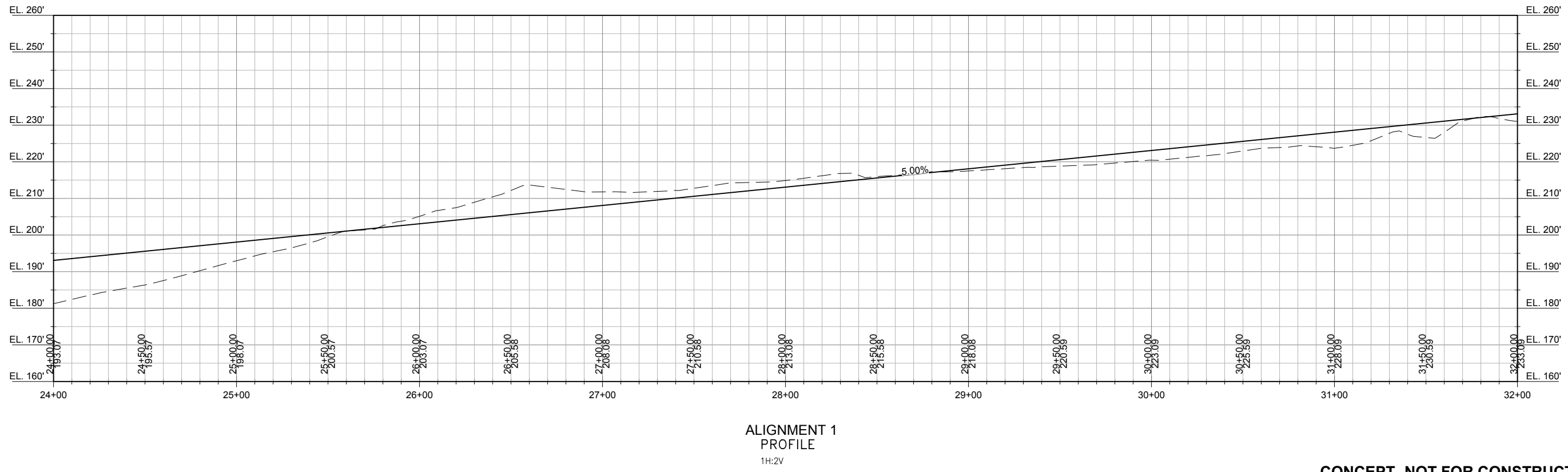
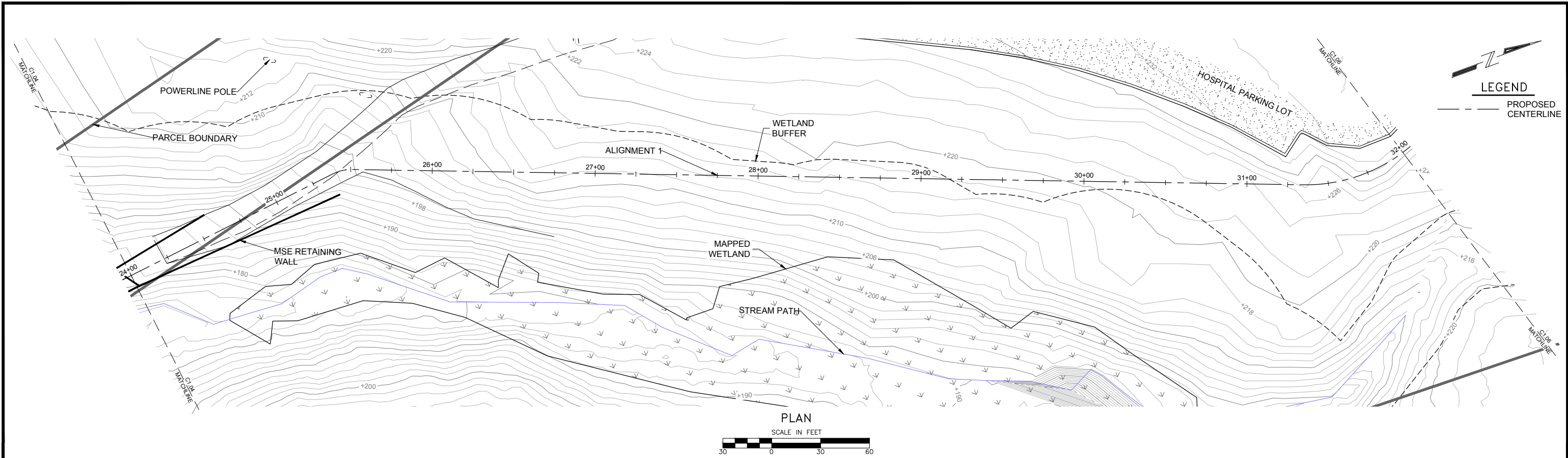


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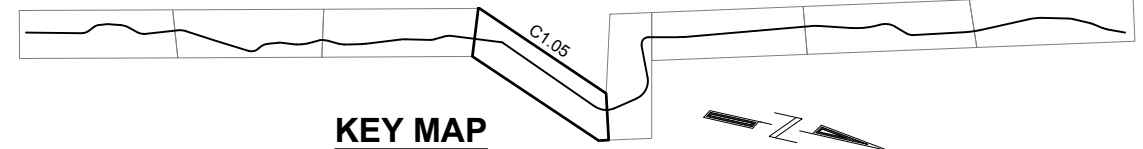
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| <b>PROJECT:</b><br>CITY OF GIG HARBOR<br>CUSHMAN TRAIL |         |             |              |
| <b>TITLE:</b><br>PLAN AND PROFILE                      |         |             |              |
| DESIGNED BY:   | CR / CC | PROJECT NO: | 184100       |
| DRAWN BY:  | DM      | DATE:       | NOV. 5, 2019 |
| CHECKED BY:  | CK      | SCALE:      | NOTED        |
| SHEET NO:  |         |             | <b>C1.04</b> |

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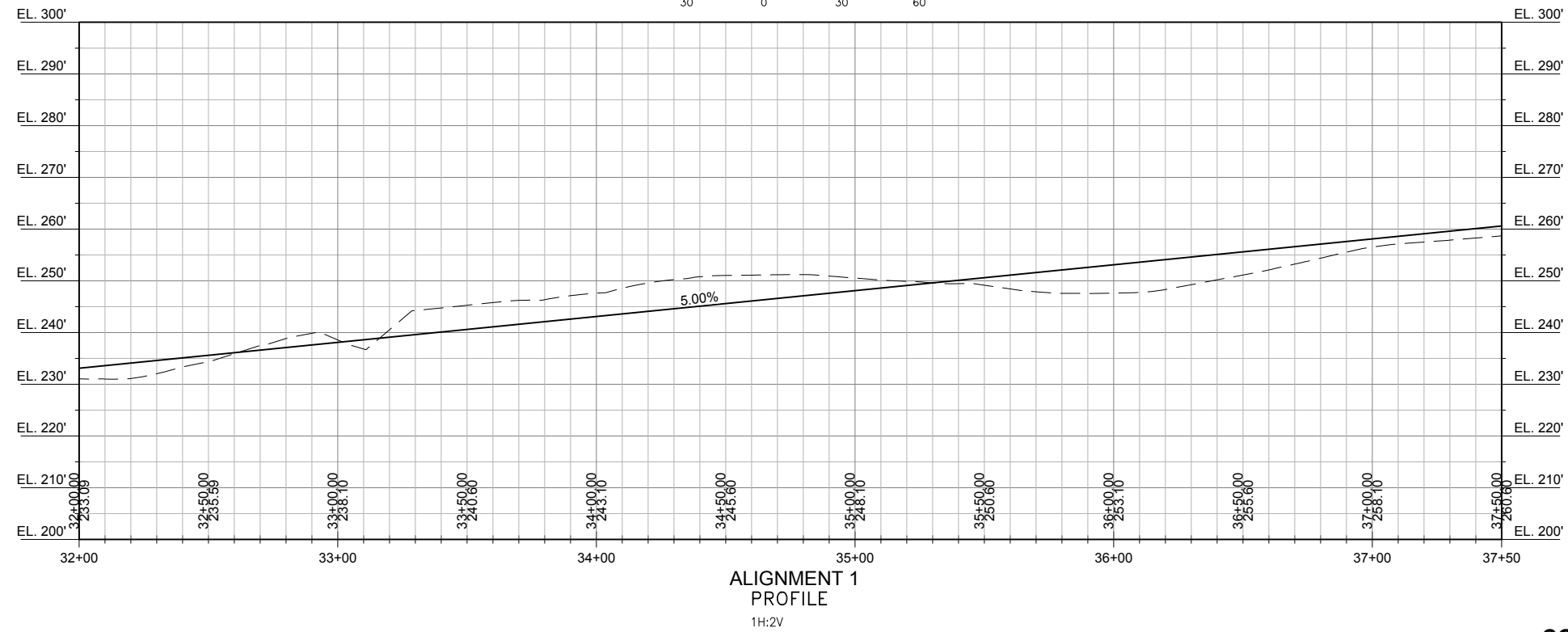
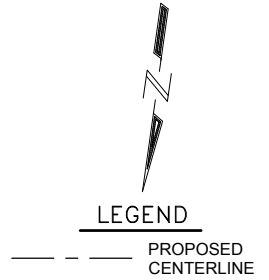
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**CONCEPT- NOT FOR CONSTRUCTION**

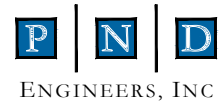
**CITY OF GIG HARBOR  
CUSHMAN TRAIL**

**PLAN AND PROFILE**

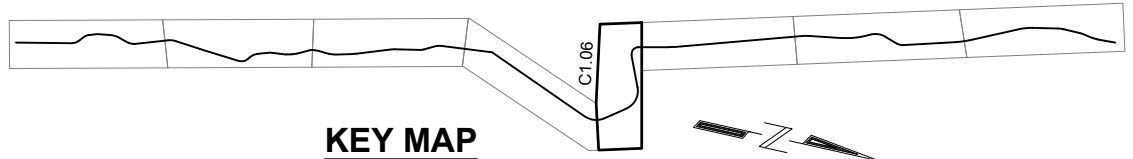
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| CHECKED BY:  | CK      | SCALE:      | NOTED        |           |              |



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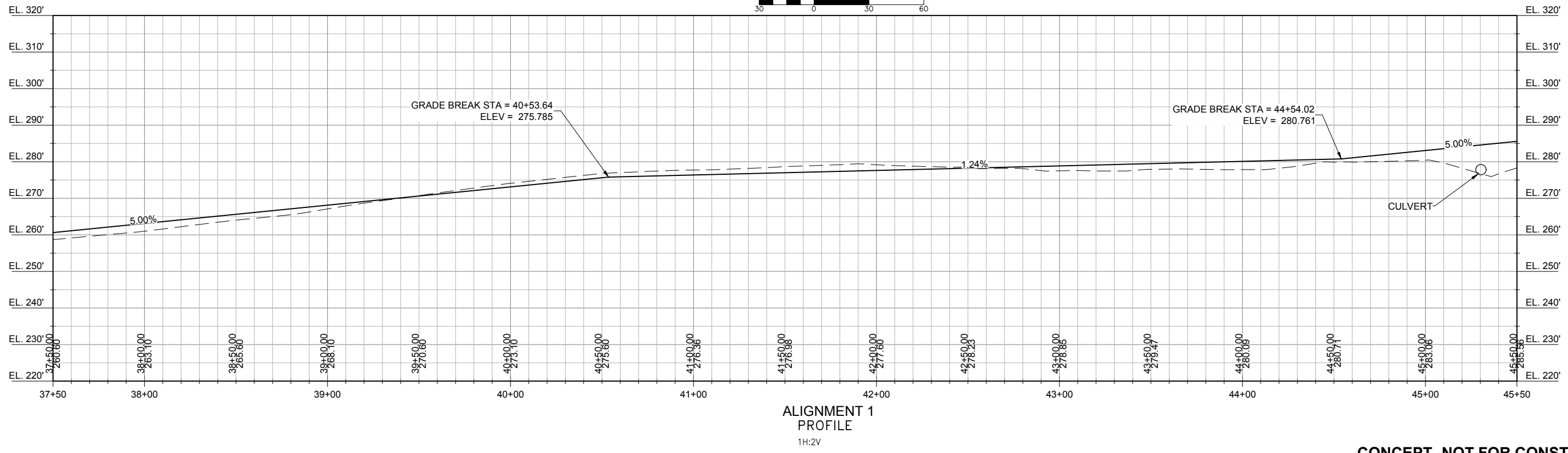
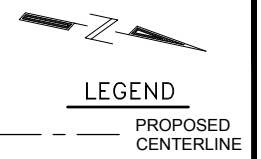
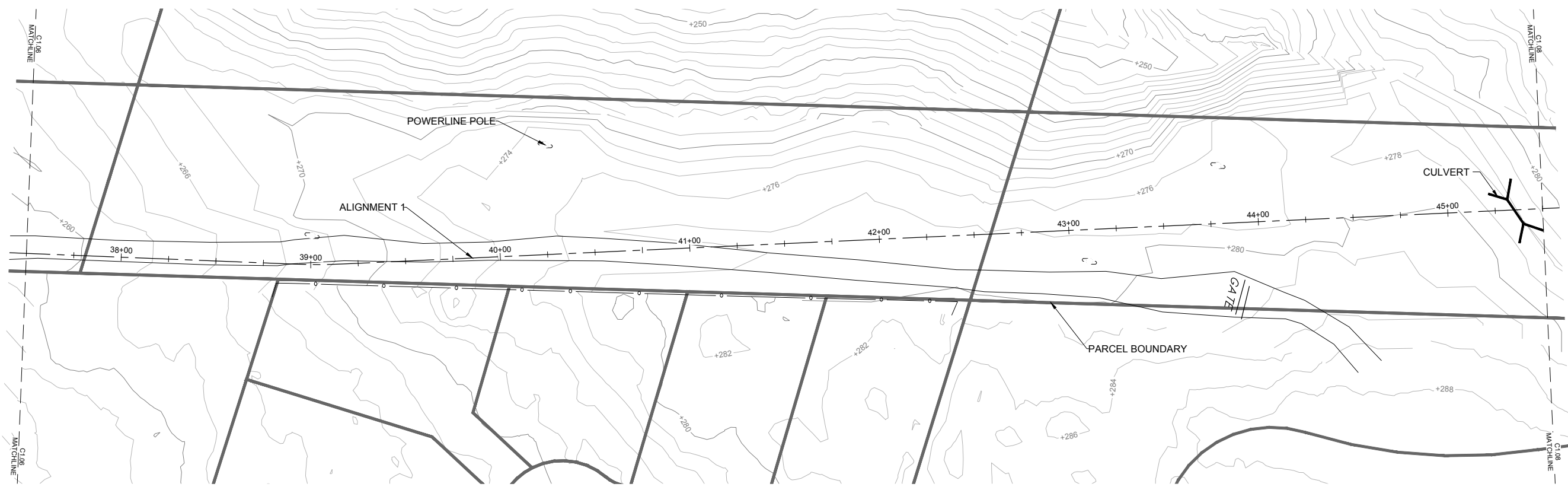


**KEY MAP**

| REV | DATE | DESCRIPTION |
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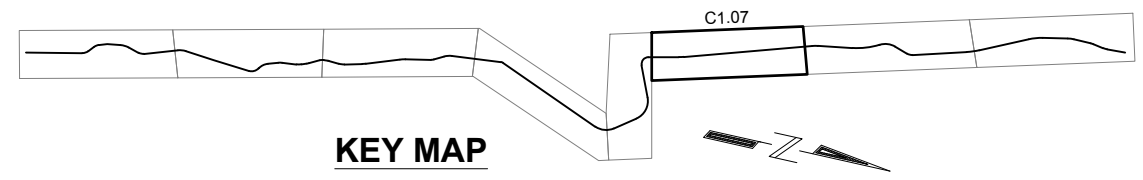
PND ENGINEERS, INC. IS NOT RESPONSIBLE FOR SAFETY PROGRAMS, METHODS OR PROCEDURES OF OPERATION, OR THE CONSTRUCTION OF THE DESIGN SHOWN ON THESE DRAWINGS. WHERE SPECIFICATIONS ARE GENERAL OR NOT CALLED OUT, THE SPECIFICATIONS SHALL CONFORM TO STANDARDS OF INDUSTRY. DRAWINGS ARE FOR USE ON THIS PROJECT ONLY AND ARE NOT INTENDED FOR REUSE WITHOUT WRITTEN APPROVAL FROM PND. DRAWINGS ARE ALSO NOT TO BE USED IN ANY MANNER THAT WOULD CONSTITUTE A DETRIMENT DIRECTLY OR INDIRECTLY TO PND.

|   |         |             |              |
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| <b>CONCEPT- NOT FOR CONSTRUCTION</b>        |         |             |              |
| <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |         |             |              |
| <b>PLAN AND PROFILE</b>                     |         |             |              |
| DESIGNED BY:                                | CR / CC | PROJECT NO: | 184100       |
| DRAWN BY:                                   | DM      | DATE:       | NOV. 5, 2019 |
| CHECKED BY:                                 | CK      | SCALE:      | NOTED        |
| SHEET NO:                                   |         |             | <b>C1.06</b> |



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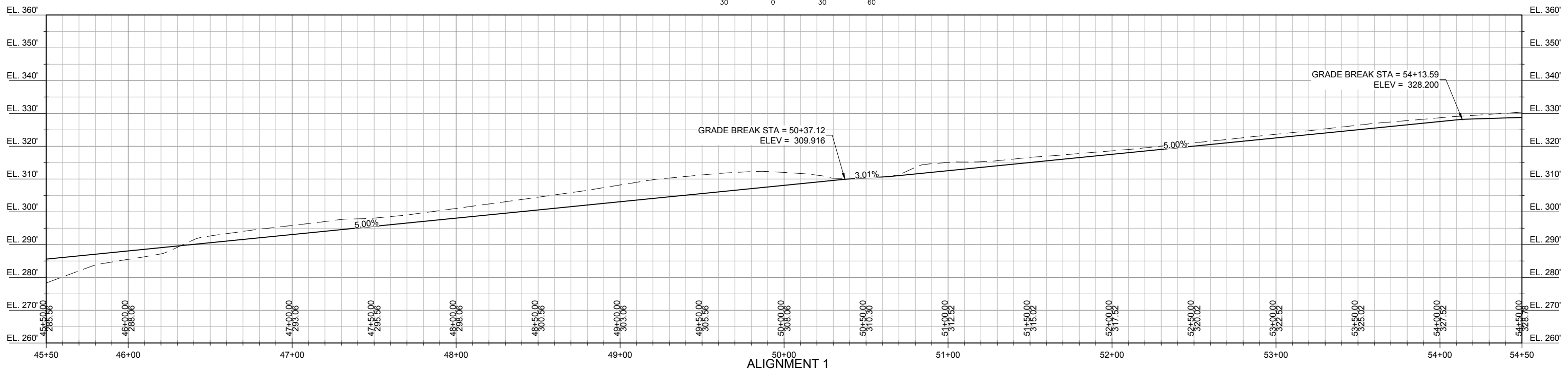
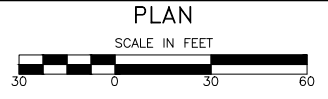
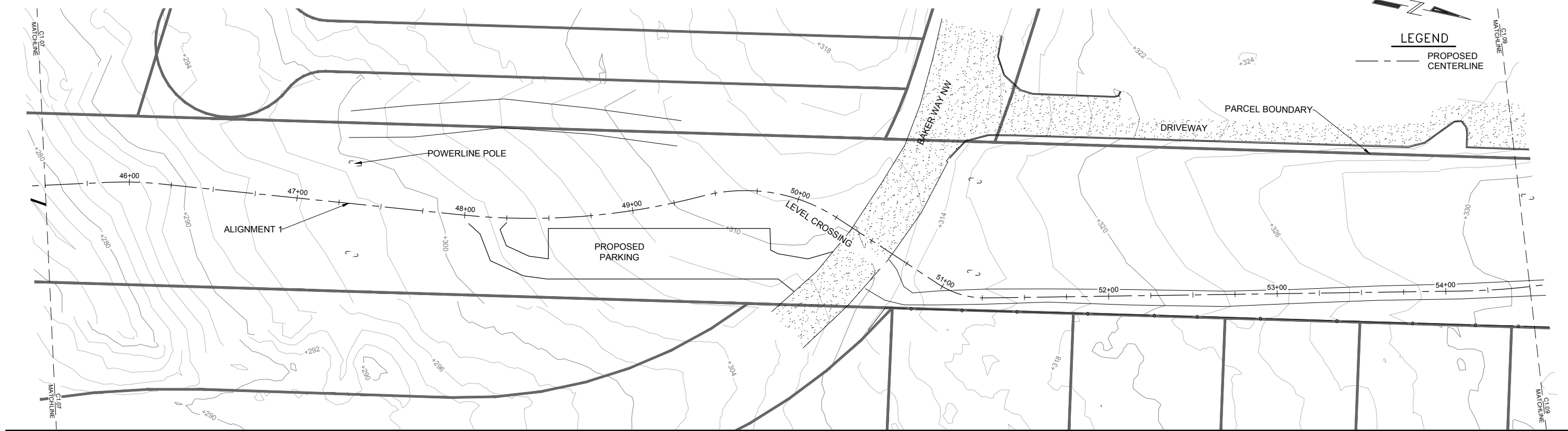
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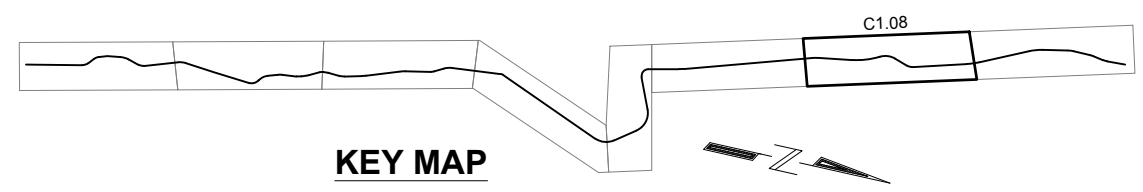
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| <b>CONCEPT- NOT FOR CONSTRUCTION</b>        |         |             |              |
| <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |         |             |              |
| <b>PLAN AND PROFILE</b>                     |         |             |              |
| DESIGNED BY:                                | CR / CC | PROJECT NO: | 184100       |
| DRAWN BY:                                   | DM      | DATE:       | NOV. 5, 2019 |
| CHECKED BY:                                 | CK      | SCALE:      | NOTED        |
| TITLE:                                      |         |             | <b>C1.07</b> |



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**CONCEPT- NOT FOR CONSTRUCTION**

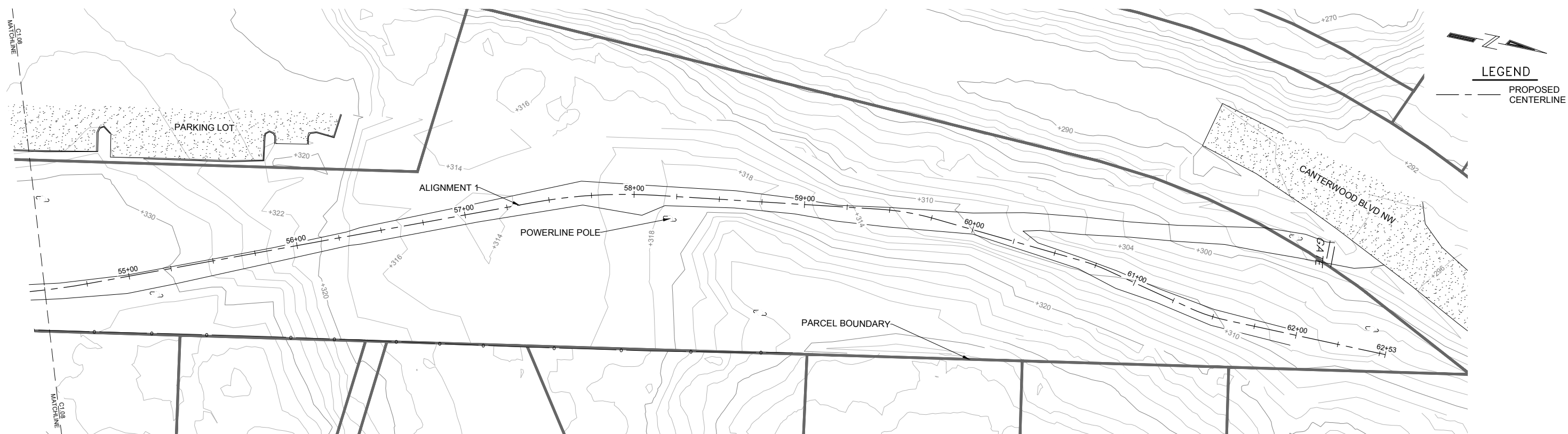
**CITY OF GIG HARBOR  
CUSHMAN TRAIL**

**PLAN AND PROFILE**

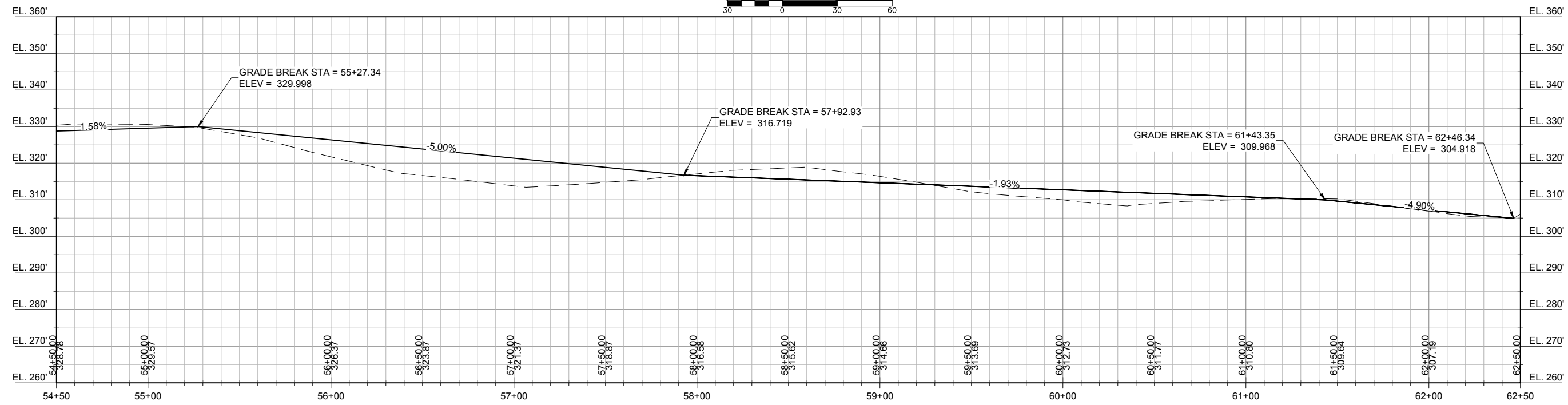
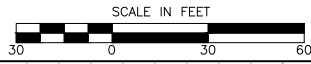
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| DRAWN BY:    | DM      | DATE:       | NOV. 5, 2019 |           |              |
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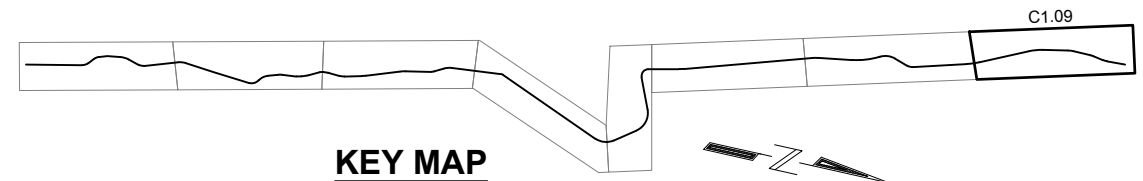
PLAN



ALIGNMENT 1  
PROFILE  
1H:2V

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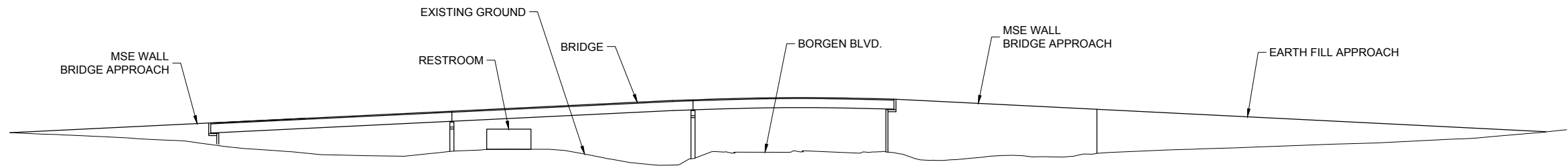
KEY MAP

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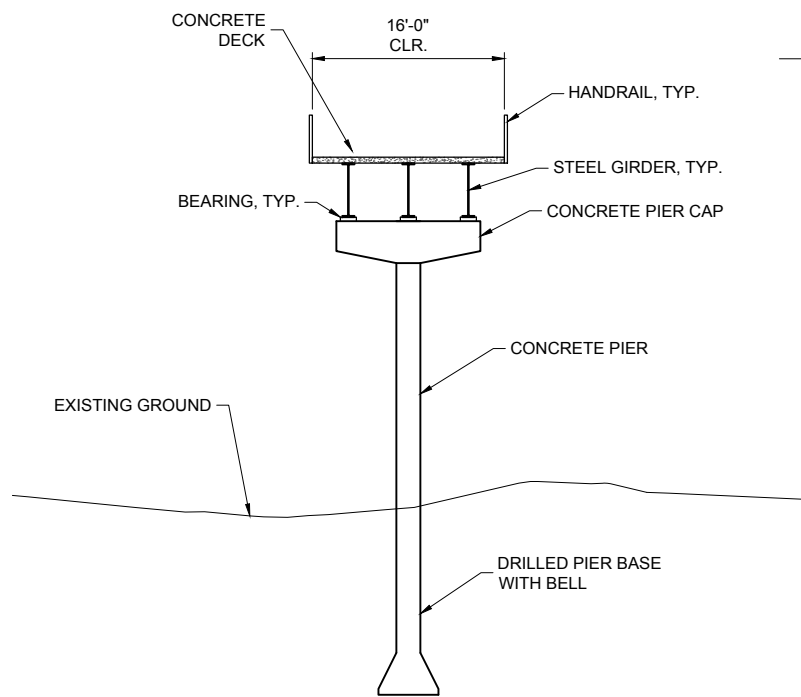
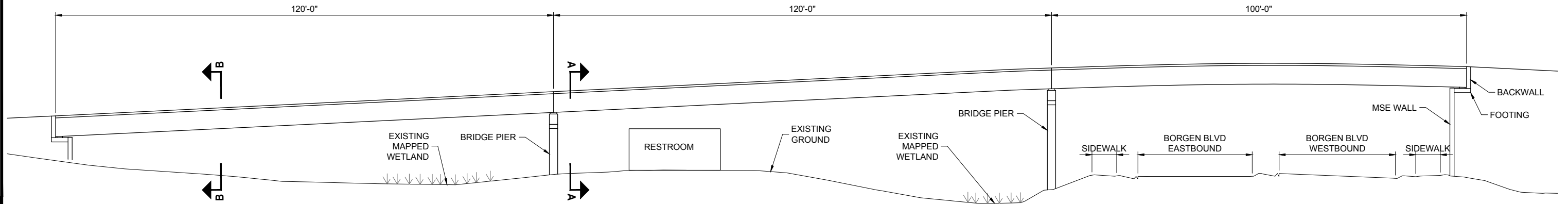
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| PROJECT:<br><b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |         |             |              |
| TITLE:<br><b>PLAN AND PROFILE</b>                       |         |             |              |
| DESIGNED BY:  | CR / CC | PROJECT NO: | 184100       |
| DRAWN BY:   | DM      | DATE:       | NOV. 5, 2019 |
| CHECKED BY:   | CK      | SCALE:      | NOTED        |
| SHEET NO:   |         |             | <b>C1.09</b> |

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**BRIDGE AND APPROACH ELEVATION**

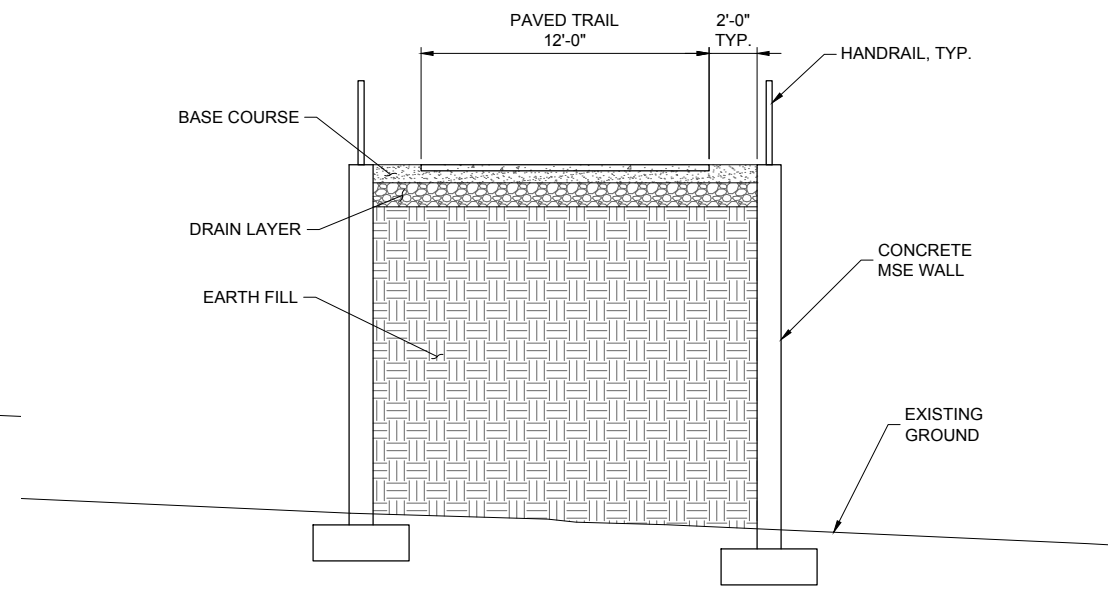
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**SECTION A-A - BRIDGE SECTION AT PIER**

**BRIDGE ELEVATION**

HANDRAIL NOT SHOWN FOR CLARITY

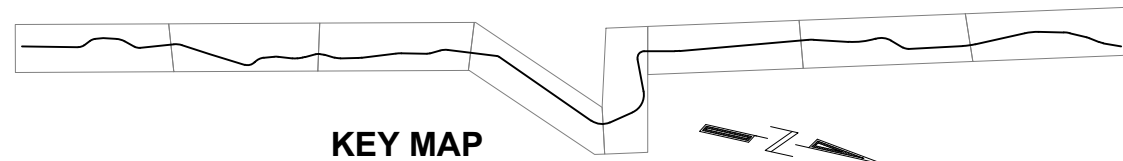


**SECTION B-B - MSE WALL SECTION AT APPROACH**

CONCEPT- NOT FOR CONSTRUCTION



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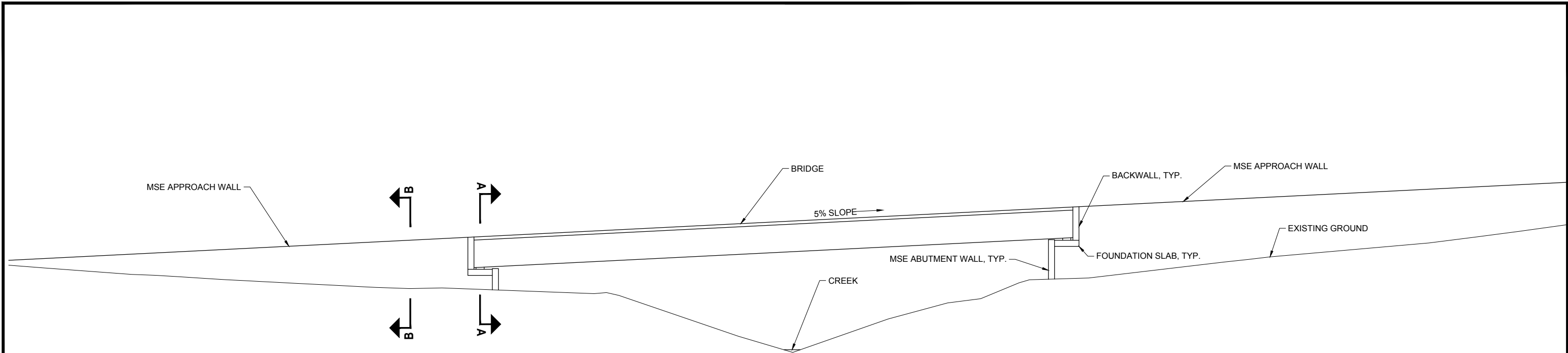
**KEY MAP**

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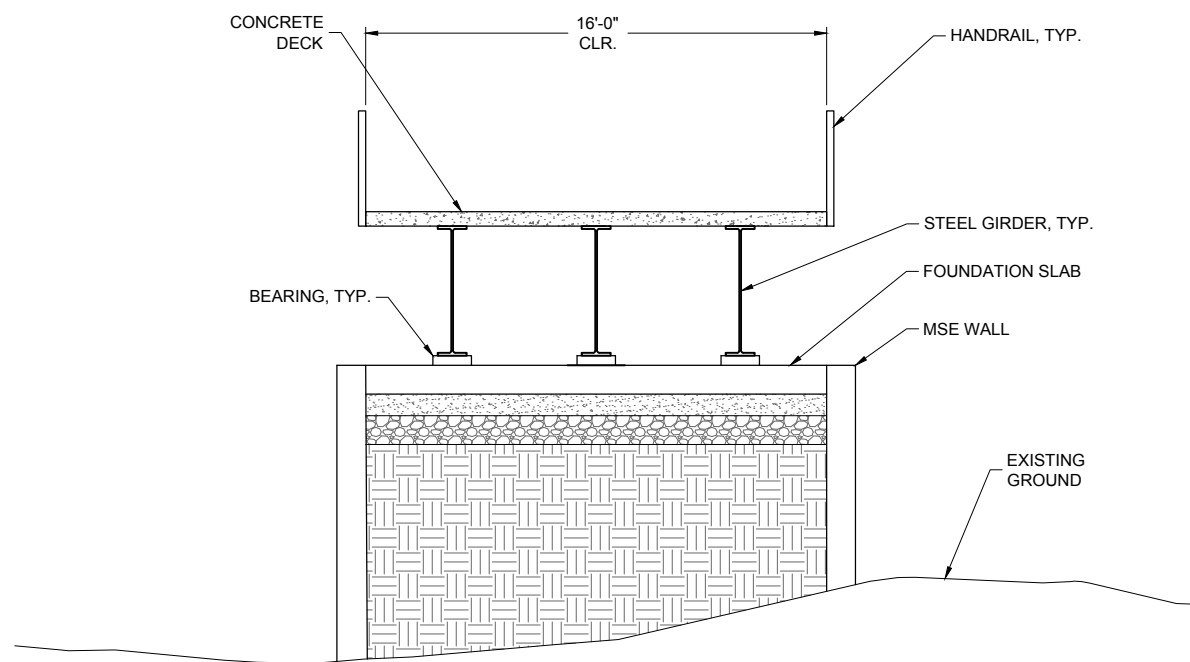
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| PROJECT: <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |                    |              |  |
| TITLE: <b>BORGEN BRIDGE CONCEPT</b>                  |                    |              |  |
| DESIGNED BY: CK                                      | PROJECT NO: 184100 | SHEET NO:    |  |
| DRAWN BY: DM   | DATE: NOV. 5, 2019 | <b>S1.01</b> |  |
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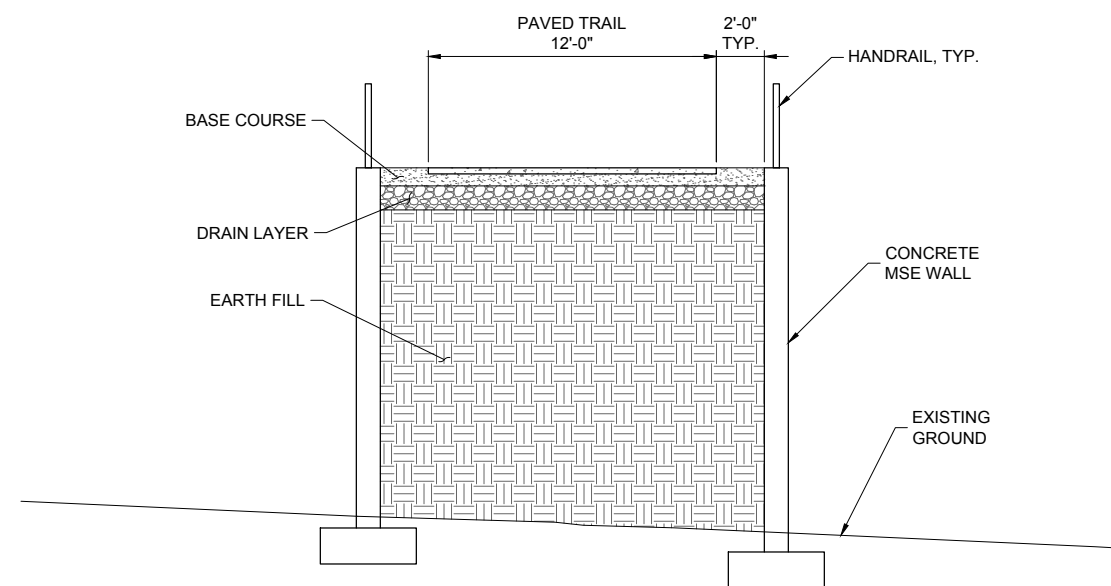
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**BRIDGE AND APPROACH ELEVATION**  
HANDRAIL NOT SHOWN FOR CLARITY

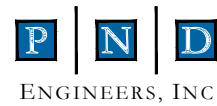


**SECTION A-A - BRIDGE SECTION AT ABUTMENT**

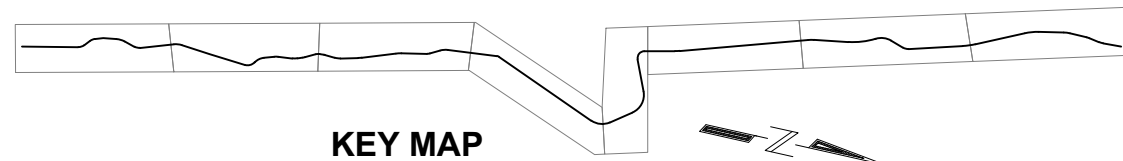


**SECTION B-B - MSE WALL SECTION AT APPROACH**

**CONCEPT- NOT FOR CONSTRUCTION**



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**KEY MAP**

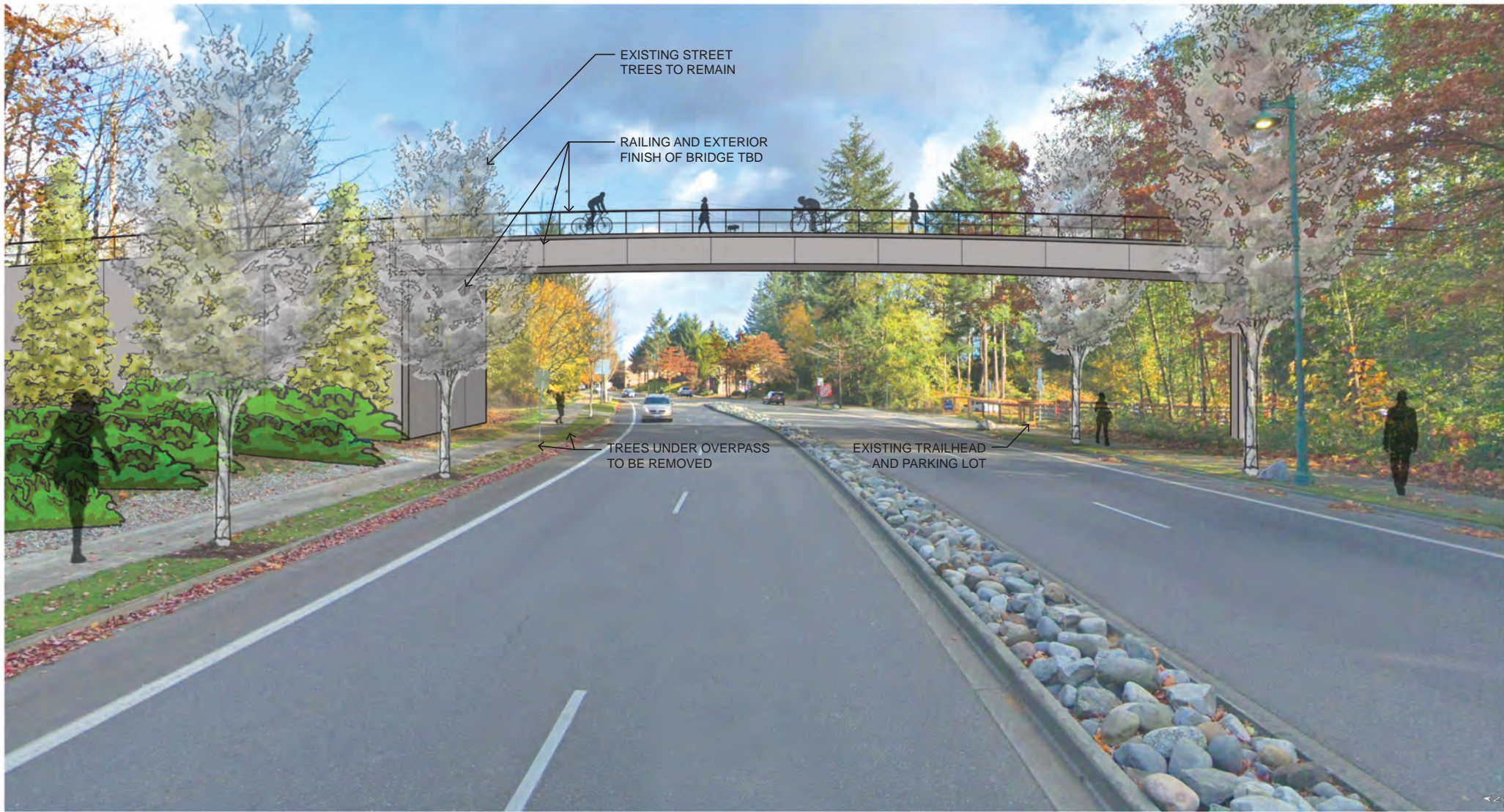
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| PROJECT: <b>CITY OF GIG HARBOR<br/>CUSHMAN TRAIL</b> |                    |           |  |
| TITLE: <b>CREEK BRIDGE CONCEPT</b>                   |                    |           |  |
| DESIGNED BY: CK                                      | PROJECT NO: 184100 | SHEET NO: |  |
| DRAWN BY: DM   | DATE: NOV. 5, 2019 |           |  |
| CHECKED BY: GW                                       | SCALE: NOTED       |           |  |

**S1.02**

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**CUSHMAN TRAIL PHASE V PLANNING STUDY**  
PROPOSED BORGEN BLVD CROSSING - LOOKING EAST



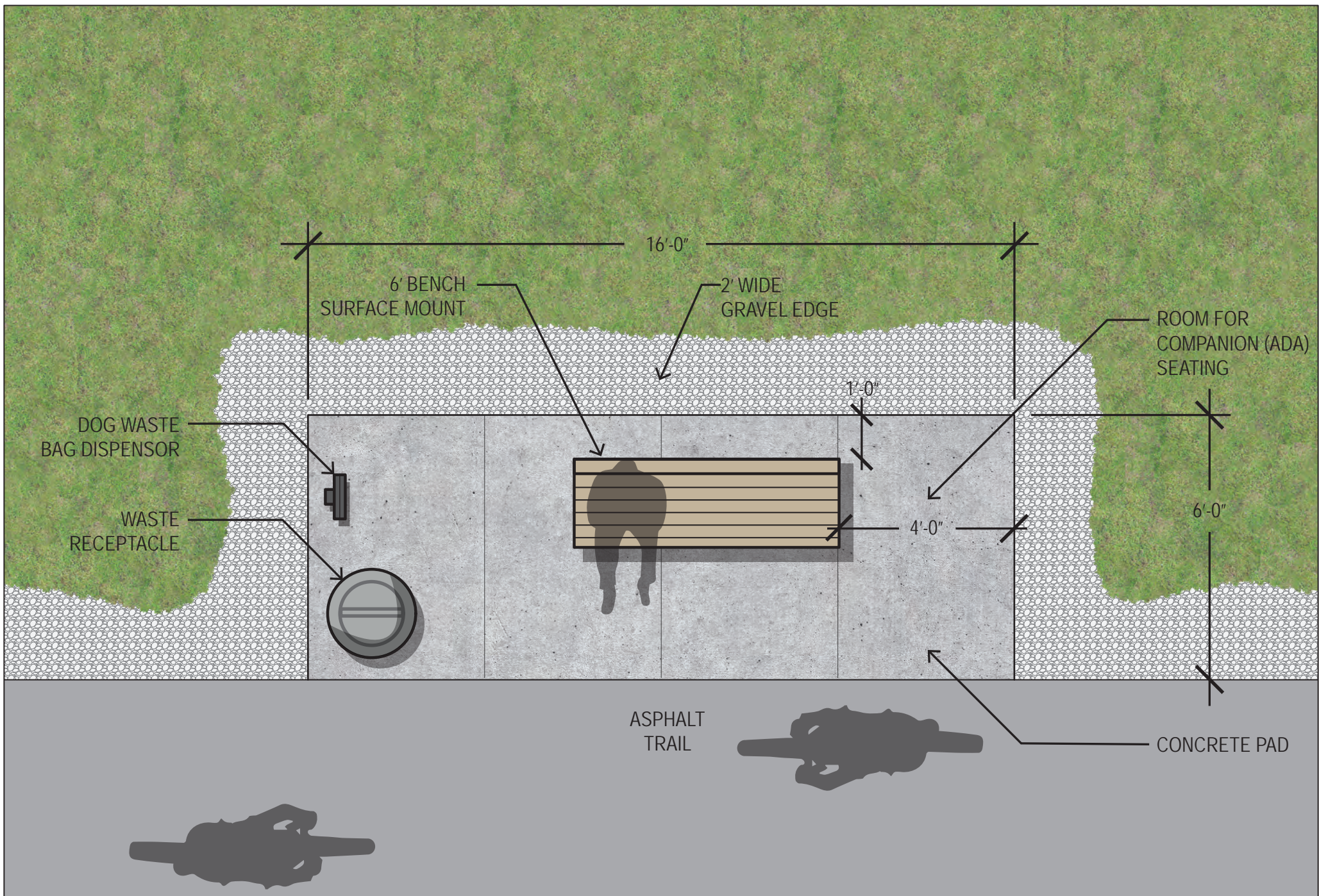
RAILING AND EXTERIOR  
FINISH OF BRIDGE TBD

SOME TREE REMOVAL  
TO OCCUR

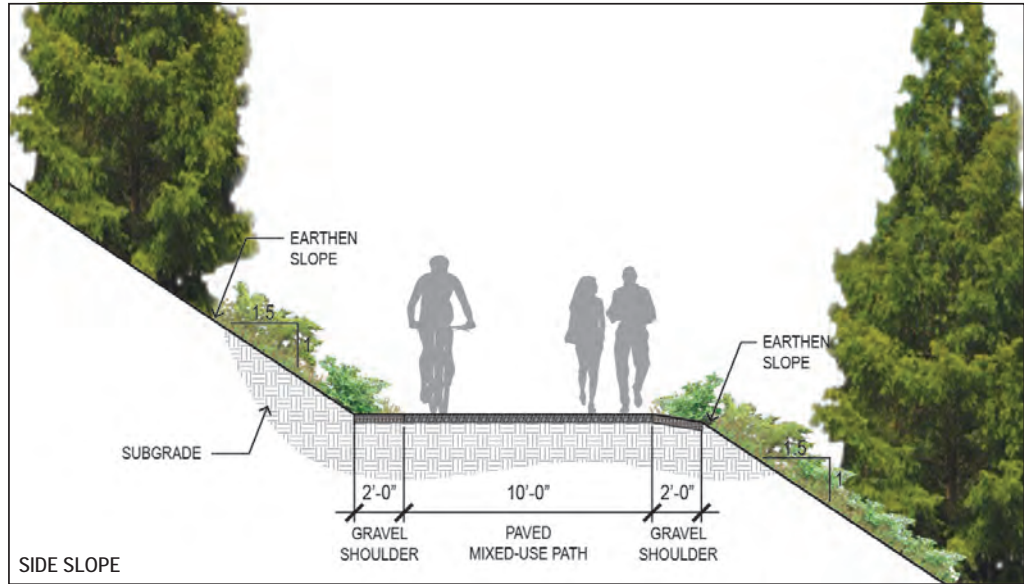
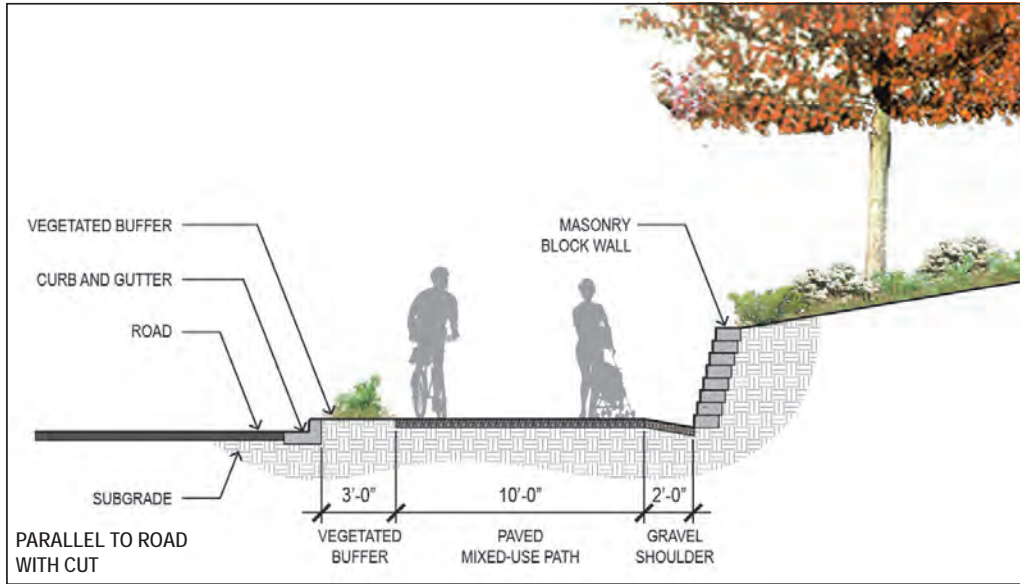
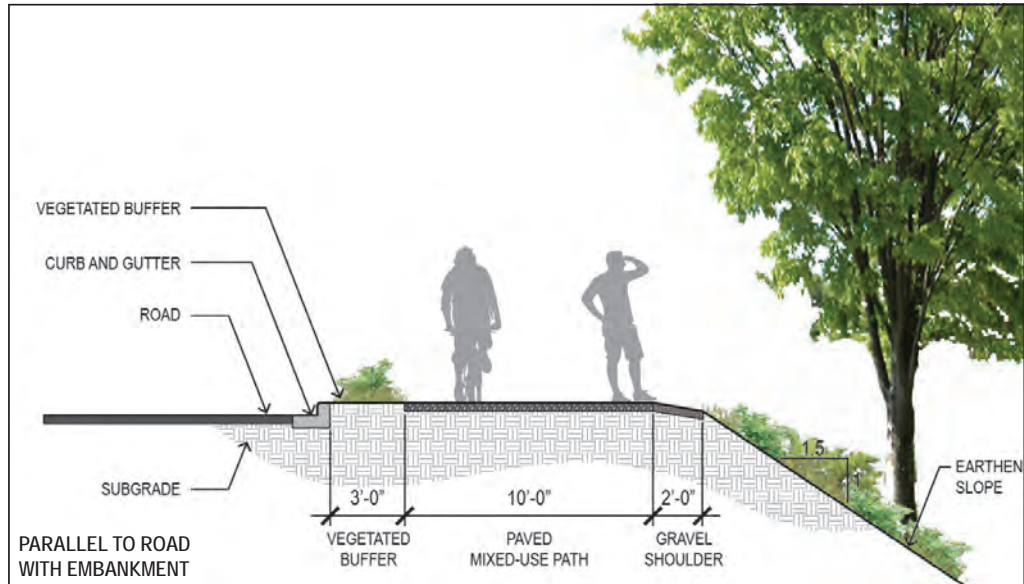
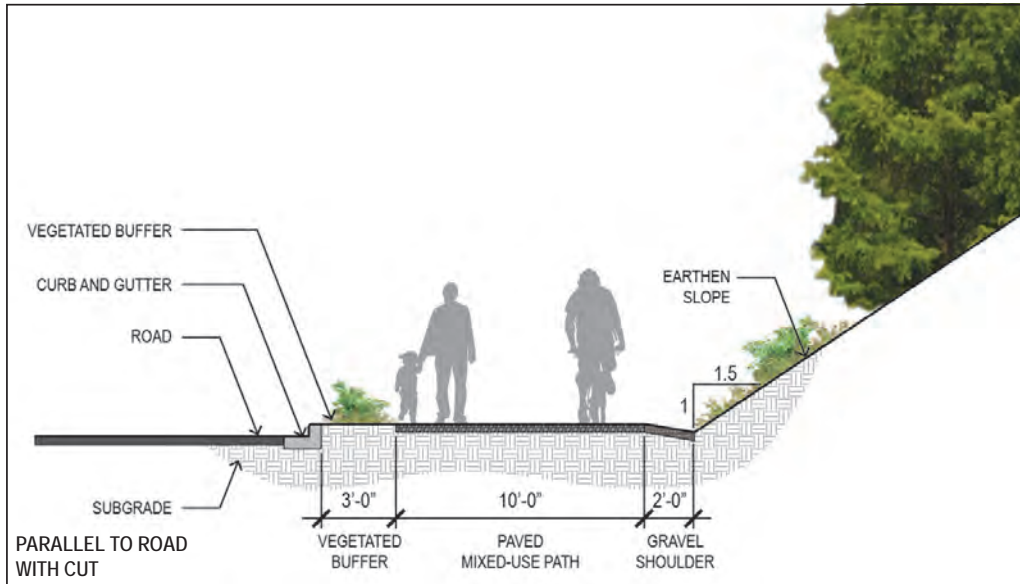
EXISTING RESTROOM

## CUSHMAN TRAIL PHASE V PLANNING STUDY

PROPOSED BORGEN BLVD CROSSING - LOOKING NORTH



**CUSHMAN TRAIL PHASE V PLANNING STUDY**  
TYPICAL REST AREA



CUSHMAN TRAIL PHASE V PLANNING STUDY  
TRAIL SECTIONS

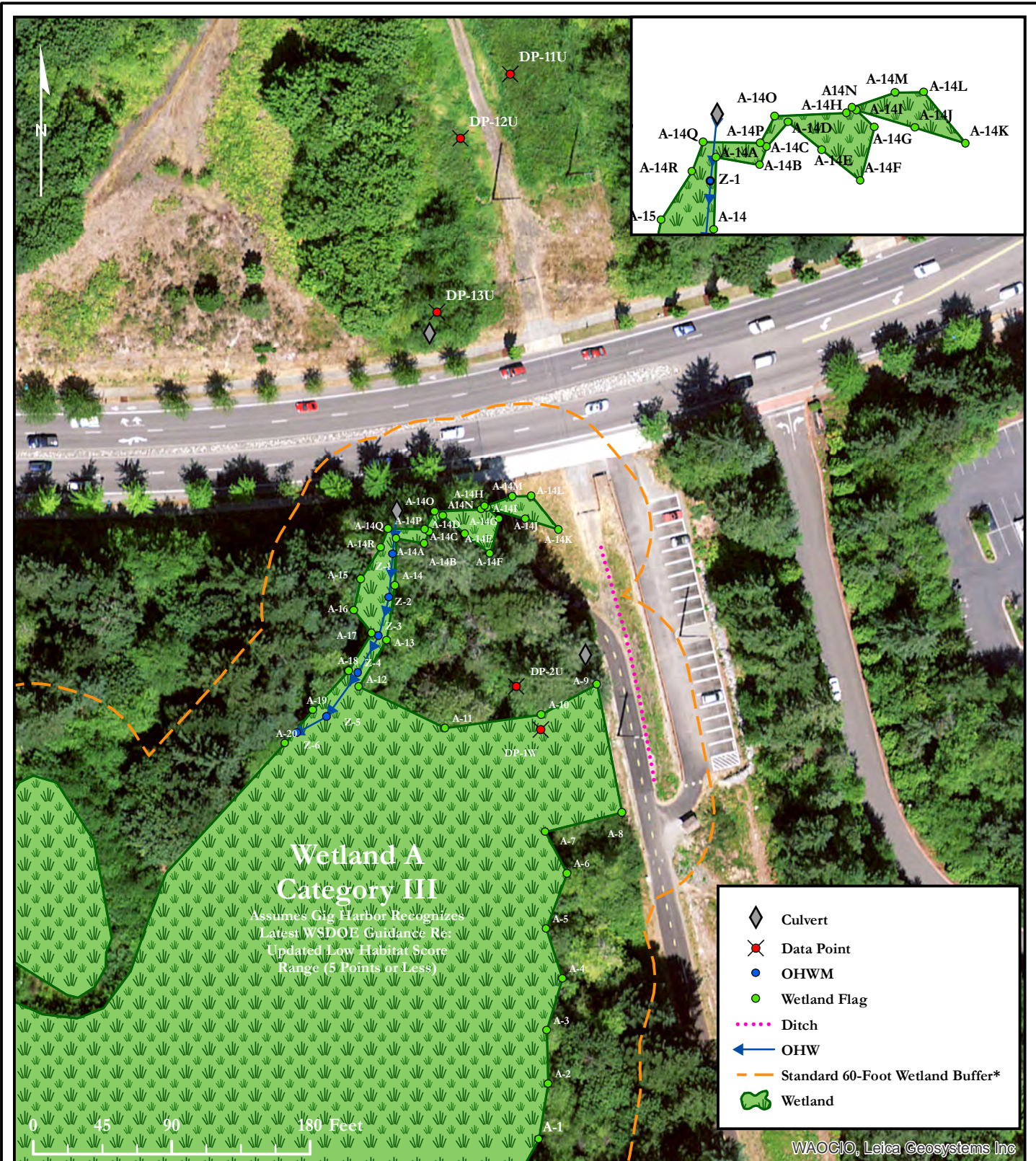
# Cushman Trail Phase V Planning Study

## First Mile Cost Analysis – Engineer’s Estimate

|  |   |
|--|---|
| <p><b>Option 1 – Trail + Borgen Bridge</b></p> <ul style="list-style-type: none"> <li>• Mixed-use trail from Borgen Blvd. to Canterwood Blvd.</li> <li>• 12-foot wide asphalt pavement with 2-foot gravel shoulders</li> <li>• Multi-span bridge structure crossing Borgen Blvd.</li> <li>• Grades throughout meet ADA accessibility requirements</li> </ul> | <p>Estimate:                    \$6,766,000</p> <p>15% Contingency:            \$970,000</p> <p><b>Total:                         \$7,736,000</b></p> |
| <p><b>Option 2 – Trail + Borgen Level Crossing</b></p> <ul style="list-style-type: none"> <li>• Mixed-use trail from Borgen Blvd. to Canterwood Blvd.</li> <li>• 12-foot wide asphalt pavement with 2-foot gravel shoulders</li> <li>• Level RRFB crossing at Borgen Blvd.</li> <li>• Grades throughout meet ADA accessibility requirements</li> </ul>       | <p>Estimate:                    \$3,046,000</p> <p>15% Contingency:            \$412,000</p> <p><b>Total:                         \$3,458,000</b></p> |



# CUSHMAN TRAIL PHASE V - WETLAND A (FOR SURVEY)

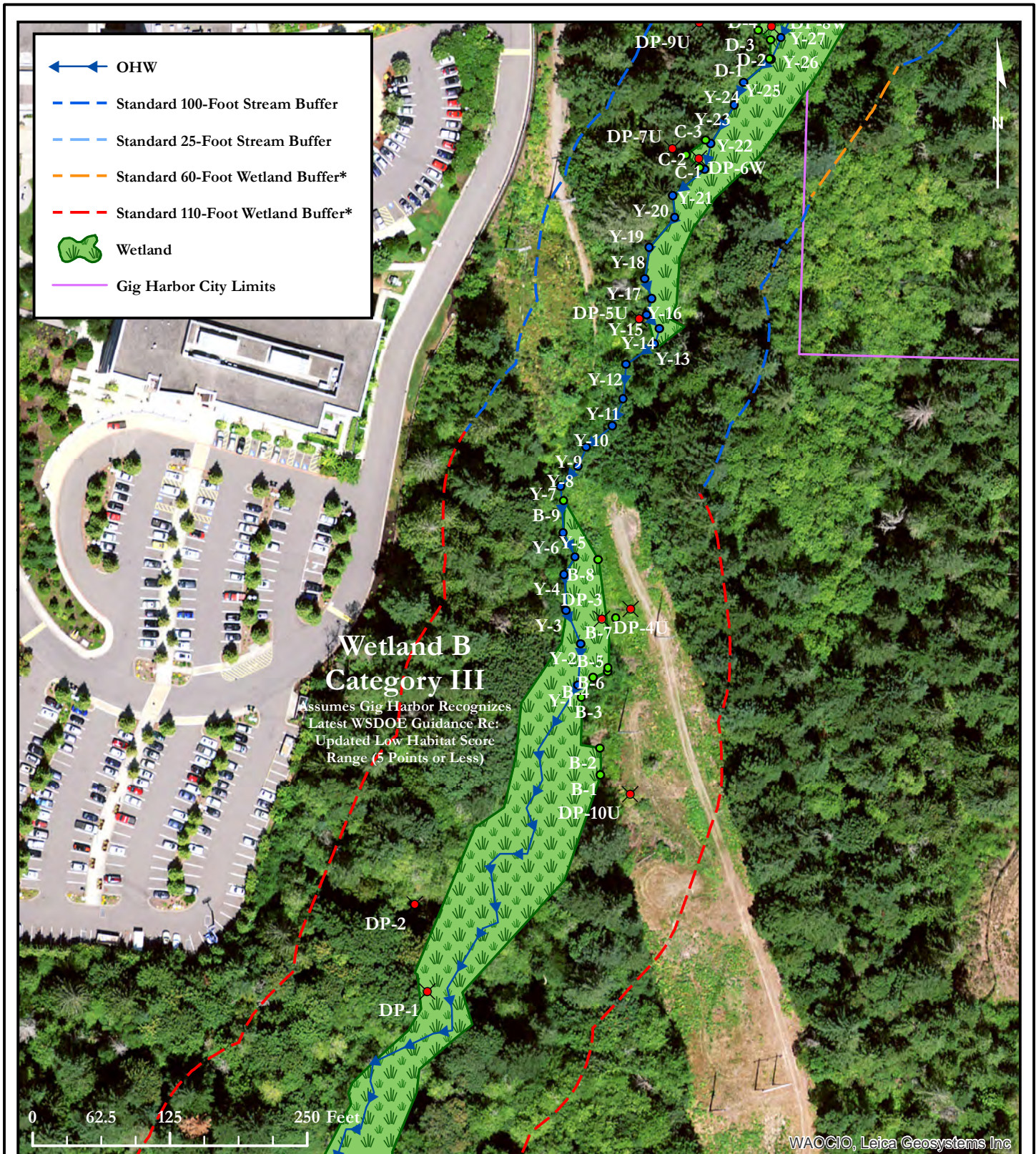



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 Environmental Assessment • Planning • Land Use Solutions  
 2907 Harborview Dr., Suite D, Gig Harbor, WA 98335  
 Phone: (253) 514-8952 Fax: (253) 514-8954  
[www.soundviewconsultants.com](http://www.soundviewconsultants.com)

**CUSHMAN TRAIL**  
 ADJACENT TO:  
 11400 51ST NW  
 GIG HARBOR, WA 98332

|                   |
|-------------------|
| DATE: 10/25/2019  |
| JOB: 1823.0001    |
| BY: DLS           |
| SCALE: 1" = 90'   |
| FIGURE NO. 1 of 4 |

# CUSHMAN TRAIL PHASE V - WETLAND B (FOR SURVEY)



WAOCIO, Leica Geosystems Inc



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 Environmental Assessment • Planning • Land Use Solutions  
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 Phone: (253) 514-8952 Fax: (253) 514-8954  
[www.soundviewconsultants.com](http://www.soundviewconsultants.com)

**CUSHMAN TRAIL**

ADJACENT TO:  
 11400 51ST NW  
 GIG HARBOR, WA 98332

|                   |
|-------------------|
| DATE: 10/25/2019  |
| JOB: 1823.0001    |
| BY: DLS           |
| SCALE: 1" = 125'  |
| FIGURE NO. 2 of 4 |

# CUSHMAN TRAIL PHASE V - WETLAND C/D (FOR SURVEY)




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**CUSHMAN TRAIL**

ADJACENT TO:  
 11400 51ST NW  
 GIG HARBOR, WA 98332

|                   |
|-------------------|
| DATE: 10/25/2019  |
| JOB: 1823.0001    |
| BY: DLS           |
| SCALE: 1" = 125'  |
| FIGURE NO. 3 of 4 |

# CUSHMAN TRAIL PHASE V - WETLAND E (FOR SURVEY)



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**CUSHMAN TRAIL**

ADJACENT TO:  
11400 51ST NW  
GIG HARBOR, WA 98332

|                   |
|-------------------|
| DATE: 10/25/2019  |
| JOB: 1823.0001    |
| BY: DLS           |
| SCALE: 1" = 20'   |
| FIGURE NO. 4 of 4 |