## CIVIL PS&E REVIEW CHECKLIST

**Project Title:** ____________________  **Project Number:** ________

**Submittal:** ________

### Plans – General

**30%  60%  90%  Final**

- First sheet of plan set includes signature box for TE Director
- Each sheet title block includes correct PSE project number and Federal Aid number if applicable
- Each sheet title block includes correct project name
- Each sheet title block includes correct drawing number (i.e. G01.01)
- Each sheet title block includes correct Designed By, Drafted By and Checked By initials and dates
- Each sheet title block includes appropriate engineer’s seal
- Each sheet showing plan view includes north arrow and is shown with correct orientation
- Each sheet showing plan/elevation/details includes scale bar and is correct
- Each sheet showing horizontal and vertical control includes appropriate datum reference
- Order of precedence of Plans is logical and consistent with WSF CADD standards (G, C, A, S, M, E)
- All indexed Plan sheets are included and sheet names/numbers are consistent with the Plans
- SOQ sheet is included with appropriate Groups assigned *(vital at Final)*
- All Legend symbols and Abbreviations correspond with those shown in the Plans
- All General Notes correspond with the work of the Plans
- Line weights are used properly to represent the work
- Scale is used properly to represent the work
- Check ADA Status Spreadsheet to verify any pertinent updates [G:\Admin\DESIGN\ADA\ADA Project Status 07-09]
- All Details and Sections are correct for sheet reference numbers, limits, aspect, and orientation
- Plans conform to the presentation requirements of the WSF CADD standards
- Line weights are used properly to represent the work
- Scale is used properly to represent the work
- Check ADA Status Spreadsheet to verify any pertinent updates
- All Details and Sections are correct for sheet reference numbers, limits, aspect, and orientation

### Plans – General (G) Series Sheets

**30%  60%  90%  Final**

#### Project Location and Vicinity Map Sheet

- Project location is accurately located
- Project location Latitude and Longitude has been verified by CAD Manager (Lat & Long required on Fed Aid projects)

#### Index Sheets *(Not sealed by TE)*

- Sheet order of precedence matches plan sequence
- Volume references are correct
- Each plan sheet is included, and sheet number, drawing number and title are consistent with the Plans

#### Sundry Site Plan *(Not sealed by TE)*

- Sundry plan is the most current available
Review Checklist Templates

30%  60%  90% Final  Summary of Quantities (Not sealed by TE)

- ■ □ □ □ All items are included, and quantities and units are consistent with estimate (vital at Final)
- ■ □ □ □ All appropriate groups are assigned (vital at Final)
- ■ □ □ □ Control Section and Tax Schedule for each group are correct (vital at Final)

30%  60%  90% Final  Other

☐ □ □ □

☐ □ □ □

Plans – Civil (C) Series Sheets

30%  60%  90% Final  Legend, Abbreviations & General Notes

- □ □ □ □ All symbols within the Plans are included and defined
- □ □ □ □ All abbreviations within the Plans are included and defined
- □ □ □ □ General notes are appropriate and applicable to work of the Plans

30%  60%  90% Final  Existing Conditions

- □ □ □ □ Upland topography is shown with appropriate line weight and accurate
- □ □ □ □ Bathymetry and elevations are shown with appropriate line weight and accurate
- □ □ □ □ Boring locations are shown, identified and accurate in their location
- □ □ □ □ R/W, DNR Lease, easements, and other property lines are shown and consistent with the Sundry Site Plan
- □ □ □ □ All existing features and elements are clearly identified
- □ □ □ □ Horizontal and vertical control is established
- □ □ □ □ Horizontal and vertical datum is identified and includes epoch date
- □ □ □ □ Survey monument identification is correct as compared to WSDOT Survey Monument Database (typically use ID#)
- □ □ □ □ Survey monument coordinates are in English units and in the Washington State Plane coordinate system
- □ □ □ □ Survey monument elevations are in English units and in the referenced vertical datum (typically MLLW)

30%  60%  90% Final  Existing Utilities

- □ □ □ □ Upland topography is consistent with Existing Conditions sheets
- □ □ □ □ Bathymetry and elevations are consistent with Existing Conditions sheets
- □ □ □ □ Underground utilities are shown using appropriate symbols, line types and scales, and are complete
- □ □ □ □ Overhead utilities are shown using appropriate symbols, line types and scales, and are complete
- □ □ □ □ R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- □ □ □ □ All applicable site and utility features and elements are clearly identified

30%  60%  90% Final  Construction Phasing

- □ □ □ □ Existing conditions shown are consistent with Existing Conditions sheets
- □ □ □ □ Bathymetry and elevations are consistent with Existing Conditions sheets
- □ □ □ □ Entire project scope is included and phased
- □ □ □ □ Phased work identified includes a sequenced phase note callout
- □ □ □ □ Phasing Notes are include for all callouts
- □ □ □ □ R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- □ □ □ □ All applicable features and elements are clearly identified
- □ □ □ □ Existing utilities shown only as applicable
Construction Staging

- Upland topography is consistent with Existing Conditions sheets
- Bathymetry and elevations are consistent with Existing Conditions sheets
- R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- All applicable existing features and elements are clearly identified
- Upland and in-water staging areas clearly identified including hatching, and dimensioned to local control
- All access points are clearly identified
- All restrictions are identified in the Notes

Demolition Plans

- Upland topography is consistent with Existing Conditions sheets
- Bathymetry and elevations are consistent with Existing Conditions sheets
- R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- Existing utilities consistent with Existing Utilities sheets
- All applicable existing features and elements are clearly identified
- All demolition work of project is identified and appropriately referenced to discipline plan sheets (i.e. see Civil, Structural, Mechanical, or Electrical sheets)
- Demolition call-outs accurately describe the nature and limits of the work
- All salvage and relocation items are clearly identified
- All utility demolition is identified by cross-hatch

Site Layout

- Upland topography is consistent with Existing Conditions sheets
- Upland topography is consistent with new contours shown
- Bathymetry and elevations are consistent with Existing Conditions sheets
- R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- Existing utilities consistent with Existing Utilities sheets
- All applicable features and elements are clearly identified
- Surveying information and applicable datum are shown
- Vertical datum includes epic date (typically MLLW)
- Work points are identified
- Work point coordinates are in English units and in the Washington State Plane coordinate system
- Work point elevations are in English units and in the referenced vertical datum (typically MLLW)
- All new work of project is identified and appropriately referenced to discipline plan sheets (i.e. see Civil, Structural, Mechanical, or Electrical sheets)
- All new work of project is coordinated between discipline plan sheets (i.e. see Civil, Structural, Mechanical, or Electrical sheets)
- All new work is clearly delineated from existing conditions
- Only new work is shown – i.e. All existing work replaced by new work is removed from plan sheets
- New work call-outs accurately describe the nature and limits of the work
### Civil Site Work
- [ ] Upland topography is consistent with Existing Conditions sheets
- [ ] Bathymetry and elevations are consistent with Existing Conditions sheets
- [ ] R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- [ ] Existing utilities consistent with Existing Utilities sheets
- [ ] All applicable features and elements are clearly identified
- [ ] All civil work of project is identified
- [ ] All new work is shown and clearly delineated from existing conditions
- [ ] Only new work is shown – i.e. All existing work replaced by new work is removed from plan sheets
- [ ] Civil work call-outs accurately describe the nature and limits of the work and are consistent with Site Layout

### Civil Plans & Details
- [ ] Upland topography is consistent with Existing Conditions sheets
- [ ] Bathymetry and elevations are consistent with Existing Conditions sheets
- [ ] R/W, DNR Lease, easements, and other property lines are shown and consistent with Existing Conditions sheets
- [ ] Existing utilities consistent with Existing Utilities sheets
- [ ] All applicable features and elements are clearly identified
- [ ] Reference dimensions are indicated as appropriate
- [ ] New utilities are shown and complete
- [ ] Pavement removal limits are clearly shown and dimensioned
- [ ] Grading limits are clearly shown and dimensioned
- [ ] Trenching and cut and fill limits are shown
- [ ] HMA limits are clearly shown and dimensioned
- [ ] Slopes for drainage are shown and clear
- [ ] Pavement sections are shown and detailed
- [ ] Utility elevations are consistent between plans and profiles
- [ ] Drainage structure grate and invert elevations are shown and in the referenced vertical datum
- [ ] Signing and striping is shown and complete
- [ ] ADA parking and access are shown and have been coordinated with Architecture

### Other
- [ ]
- [ ]
- [ ]
- [ ]
Appendix L

Review Checklist Templates

Plans – Biddability/Constructability

30%  60%  90% Final

■   ☐   □ Contractor staging is shown and adequate, and coordinated with Operations and the specifications

■   ☐   □ Phasing plans are shown and cover all work, and coordinated with Operations and the specifications

■   ☐   □ ■ Traffic control is shown and complete, and coordinated with Operations

□   ☐   □ ■ Plans are consistent between all disciplines

□   ☐   □ ■ Plans are clear in representing/delineating the work

■   ☐   □ ■ SOQ items are consistent with Payment sections of the specifications in title and unit of measure (vital at Final)

☐   ☐   □   ■ Identify any Value Engineering Opportunities

Specifications

30%  60%  90% Final

☐   ☐   □   □ All work of the Plans is addressed by a specification

■   ☐   □   □ All applicable, current Amendments to the Standard Specifications are included

☐   ☐   □   □ All applicable WSDOT General Special Provisions are included

☐   ☐   □   □ All applicable WSF Special Provisions are included

■   ☐   □   □ Contract Working Days is consistent with the engineer’s construction schedule

☐   ☐   □   □ All indexed specifications are included and titles are consistent

☐   ☐   □   □ All specifications contain Description, Materials, Construction Requirements, Measurement, and Payment sections

☐   ☐   □   □ Description sections clearly and accurately define the scope of work

■   ☐   □   □ Payment sections are consistent with the SOQ items in title and unit of measure (vital at Final)

☐   ☐   □   □ All lump sum items contain approximate quantities for bidding or are biddable from the contract documents

☐   ☐   □   □ All force account items are defined

☑   ☐   □   □ All sole source/proprietary items have been approved by WSF or ASDE as appropriate, and documentation is in the project files

☐   ☐   □   □ Soil boring logs are included in the Appendices

☐   ☐   □   □ Environmental and Jurisdictional permits are included in the Appendices

☐   ☐   □   □ Hazardous Materials reports are included in the Appendices

☐   ☐   □   □ Federal Aid Special Training Provisions have been addressed
Estimate

30% 60% 90% Final

■ □ □ ■ All work of the Plans and specifications is included in the estimate
■ ■ □ ■ All unit prices have been reviewed and verified by Project Controls
■ ■ □ ■ All lump sum items have backup estimates
■ □ □ ■ All force account items have justification
■ □ □ ■ All contingencies have been validated
■ □ □ ■ Mobilization is included
■ □ □ □ All EBase items are consistent with the SOQ items and Payment sections of the specifications (vital at Final)
■ □ □ □ All EBase quantities & unit prices match the estimate
■ □ □ □ The EBase contingencies match the estimate
CIVIL CONSTRUCTABILITY REVIEW CHECKLIST

Project Title: ___________________ Project Number: ________
Submittal: _____________________

Plans – Constructability
60%  90%
☐ ☐ Entire project scope is shown
☐ ☐ Upland topography shown is accurate
☐ ☐ Existing conditions shown are accurate
☐ ☐ Existing utilities shown are accurate
☐ ☐ Verify connection points of all utilities
☐ ☐ Verify all utility systems are shown are complete
☐ ☐ Horizontal and vertical control shown is accurate and accessible
☐ ☐ Contractor staging shown is adequate and accessible
☐ ☐ Verify work areas defined are adequate
☐ ☐ Verify work areas defined are accessible and free of horizontal and vertical site constraints
☐ ☐ Verify work areas defined are free of dangerous conditions
☐ ☐ All site features have been accounted for in demolition
☐ ☐ All salvage items have been included
☐ ☐ Phasing and schedule of work does not interfere with other disciplines

Specifications – Constructability
60%  90%
☐ ☐ All work of the Plans is included in the specifications
☐ ☐ All demolition work shown on the Plans matches the scope defined in the specifications
☐ ☐ All necessary survey work is included and accessible
☐ ☐ All salvage items have been included
☐ ☐ All permits are included in the Appendices

Estimate – Constructability
60%  90%
☐ ☐ All work of the Plans and specifications is included in the estimate
### CIVIL CHECK CHECKLIST

**Project Title:** ____________________ **Project Number:** ________

**Submittal:** ____________________

<table>
<thead>
<tr>
<th>Plans - General</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Title block includes PSE project number</td>
<td>☐</td>
</tr>
<tr>
<td>Title block includes Designed By, Drafted By and Checked By initials and dates</td>
<td>☐</td>
</tr>
<tr>
<td>All line types and symbols are included on the Legend</td>
<td>☐</td>
</tr>
<tr>
<td>All abbreviations are included on the Abbreviations list</td>
<td>☐</td>
</tr>
<tr>
<td>General Notes are consistent with work shown</td>
<td>☐</td>
</tr>
<tr>
<td>General Notes include language requiring Contractor to verify existing underground utility locations prior to excavation</td>
<td>☐</td>
</tr>
<tr>
<td>All Plan sheet names/numbers are consistent with the Civil plan sheet index</td>
<td>☐</td>
</tr>
<tr>
<td>SOQ sheet includes all civil bid items</td>
<td>☐</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Plans – Engineering</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All civil work is indicated on the Site Plan</td>
<td>☐</td>
</tr>
<tr>
<td>Demolition work is clearly shown</td>
<td>☐</td>
</tr>
<tr>
<td>All civil work is consistent with Environmental provisions</td>
<td>☐</td>
</tr>
<tr>
<td>Reference dimensions are indicated</td>
<td>☐</td>
</tr>
<tr>
<td>Upland topography is shown and accurate to existing conditions</td>
<td>☐</td>
</tr>
<tr>
<td>Bathymetry and elevations are shown and accurate</td>
<td>☐</td>
</tr>
<tr>
<td>Surveying information is shown and accurate to existing conditions</td>
<td>☐</td>
</tr>
<tr>
<td>Horizontal and vertical control is established, accurate and complete</td>
<td>☐</td>
</tr>
<tr>
<td>Boring locations are shown and accurate</td>
<td>☐</td>
</tr>
<tr>
<td>R/W, DNR Lease, easements, and other property lines are shown and accurate</td>
<td>☐</td>
</tr>
<tr>
<td>Grading limits are clearly shown and field measureable to established control</td>
<td>☐</td>
</tr>
<tr>
<td>Excavation and backfill limits are shown</td>
<td>☐</td>
</tr>
<tr>
<td>Pavement sections are shown and appropriate for the location</td>
<td>☐</td>
</tr>
<tr>
<td>Geotechnical recommendations have been incorporated</td>
<td>☐</td>
</tr>
<tr>
<td>Paving limits are shown and field measureable to established control</td>
<td>☐</td>
</tr>
<tr>
<td>Existing utilities are clearly shown and accurate to existing conditions and records</td>
<td>☐</td>
</tr>
<tr>
<td>New utilities are clearly shown and identified, and conflicts have been resolved</td>
<td>☐</td>
</tr>
<tr>
<td>Slopes for drainage are adequate and all areas drain to a collection point</td>
<td>☐</td>
</tr>
<tr>
<td>Drainage structures are located to established control</td>
<td>☐</td>
</tr>
<tr>
<td>Utility profile elevations are consistent with plan elevations</td>
<td>☐</td>
</tr>
<tr>
<td>Roadway, holding lane and parking improvements are shown and located to established control</td>
<td>☐</td>
</tr>
<tr>
<td>Curb, gutter, sidewalks and ramps are correctly located and identified to established control</td>
<td>☐</td>
</tr>
<tr>
<td>Signing and striping is identified and located to established control</td>
<td>☐</td>
</tr>
<tr>
<td>All references to Standard Plans are current and correct</td>
<td>☐</td>
</tr>
<tr>
<td>ADA requirements are identified and consistent with code</td>
<td>☐</td>
</tr>
</tbody>
</table>

- Storm Drain System
  - Check water quality design and details
  - Check that all materials used are appropriate for the application
  - Check that pervious surface drainage is adequate and connected to storm system
  - Check curb and gutter drain locations
  - Crosscheck contours and grate spot elevations for proper drainage slopes
  - Check number and locations of storm inlets

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Legend:
- ☑ Acceptable
- ☐ Not Acceptable
- ☐ Not Applicable
Check size and slope of storm drains
Crosscheck plan and profile horizontal dimensions and compare to established control
Check storm drain invert elevations against contours (no exposed or shallow piping)
Check drain grate and manhole rim elevations against topography
Check that structure drain systems are connected to storm system
Check storm drainage details
Check cathodic protection system and details

Sanitary Sewer System
Review adequacy of sewage system capacity
Check lift station design and details.
Check that point(s) of connection to existing system is shown
Check flow velocity
Check that mains provide gravity flow from laterals
Check adequate separation from water lines
Check inverts of mains and laterals for adequate drops
Check adequate dimensions for manhole locations
Check cleanout locations
Check details
Check that all materials used are appropriate for the application
Check cathodic protection system and details

Plans – Biddability/Constructability
Civil work areas are adequate for type(s) of work to be performed
Civil work areas are accessible and free of horizontal and vertical site constraints
Civil work areas are free of dangerous conditions
Check if shoring is required for excavation
Check if dewatering is required for excavation

Specifications
All civil work is included in the specifications
Check for shoring and dewatering specification language
Check that all civil quantities are obtainable from the Plans
All civil special provisions contain Description, Materials, Construction Requirements, Measurement, and Payment sections
Civil special provision description sections clearly and accurately define the scope of work
Check that the term “shall” is used for all Contractor responsibilities
Check that the term “will” is used for all State responsibilities
Check that all items requiring submittal are identified
Check that all testing requirements are identified
Payment sections are consistent with the SOQ items in title and unit of measure
All lump sum items contain approximate quantities for bidding
All force account items are defined
Appropriate environmental provisions and BMPs are included in special provisions
Appropriate hazardous materials procedures are included in the special provisions
Check that all references to Standard Specifications, Special Provisions, Standard Plans, and other standards and codes are current and correct
Special Provisions contain applicable Regional Special Provisions for WSF projects
Special Provisions contain applicable WSDOT General Special Provisions
Estimate
☐ All civil work is included in the estimate
☐ All unit prices are for in-place work, and do not include contingency or mobilization
☐ All lump sum prices are for in-place work, and do not include contingency or mobilization
☐ All force account items are identified

Construction Schedule
☐ All civil work is included in the schedule
☐ Civil work activities occur in the appropriate order
☐ Civil work activities are assigned an appropriate duration
☐ Civil work activities are assigned appropriate logic based on project scope/phasing