State of Alaska

Department of Transportation

&

Public Facilities



**Central Region**

**Highway Design**

**P.O. Box 196900**

**Anchorage, Alaska 99519-6900**

Highway Design Checklist

DEPARTMENT OF TRANSPORTATION

&

PUBLIC FACILITIES

(Central Region)

# HIGHWAY DESIGN CHECKLIST

This form shall be filled out prior to delivering the Final Plans, Specifications, and Estimate (Final PS&E – ATA Milestone) to the Contracts Section. It is recommended that the Design Team use this checklist throughout the design process to ensure the Final PS&E is complete and formatted in accordance with DOT&PF policy and design procedures.

**How to fill out this document**:

For in-house designed projects, the Lead Designer of each section initials, by hand, the “designed” column and ensures the Engineer of Record, or another designer familiar with project development and design standards, conducts an independent review and has initialed the “checked” column.

For consultant designed projects, the consultant Lead Designer of each section initials, by hand, the “designed” box and the consultant Engineer of Record initials the checked box. The DOT&PF consultant coordinator will ensure that the Final PS&E has been done in accordance with this checklist.

**DO NOT** fill this form out electronically! This should not be an exercise in copy/paste but should be a thoughtful, careful, vigilant exercise in checking your work product.

The completed Highway Design Checklist should be included in the project file. The Contracts Section requires a copy of the Highway Design Checklist to be submitted with the Final PS&E.

# REVIEWERS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TITLE  | PRINTED NAME | SIGNATURE | INITIALS | DATE |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# PLAN SHEETS

## INDEX

A typical Final PS&E includes the following plan sheet categories. However, depending on the size and scope of a project, not all sheets may be included in the set. The **Engineer of Record** (EOR) must sign off that the sheets not included in the plans have been considered and have been found irrelevant and/or not pertinent to the design of this project (this should be discussed with the DOT&PF Project Manager). Sheets marked ‘NO’ will not require the section to be included in the checklist and can be deleted. The EOR must include a reason for not including the plan sheet categories below.

|  |  |
| --- | --- |
| PLAN SHEETS | INCLUDED? |
| YES | NO |
| ‘A’ – Title |  |  |
| ‘A’ – Index & Sheet Layout Schematic |  |  |
| ‘A’ – Legend |  |  |
| ‘A’ – Survey Control |  |  |
| ‘B’ – Typical Sections |  |  |
| ‘C’ – Estimate of Quantities/Table of Estimating Factors |  |  |
| ‘D’ – Summary Tables |  |  |
| ‘E’ – Details (Regional & Project Specific) |  |  |
| ‘F’ – Plan (& Profile, if included)  |  |  |
| Mainline |  |  |
| Approaches |  |  |
| Pathways |  |  |
| ‘G’ – Intersection and other Grading Plans |  |  |
| ‘H’ – Traffic Sheets  |  |  |
| Traffic Legend & Notes |  |  |
| Traffic Details (Signal, Lighting, Signing, Striping, etc.) |  |  |
| Signalization |  |  |
| Illumination |  |  |
| Signing & Striping (Sign Summary Table) |  |  |
| ‘J’ – Reserved (Temporary Traffic Control, when required) |  |  |
| ‘K’ – Automated Traffic Recorder (ATR) & Weigh-in-Motion (WIM) |  |  |
| ‘L’ – Landscaping |  |  |
| ‘M’ – Retaining Walls |  |  |
| ‘N’ – Bridge Structures |  |  |
| ‘Q’ – Reserved (Erosion and Sediment Control Plans, if required) |  |  |
| ‘R’ – Right-of-Way Maps |  |  |
| ‘U’ – Utilities |  |  |

**Reason for not including sheets in project**:

Engineer of Record’s Initials: \_\_\_\_\_\_\_\_\_\_

Shown below is an outline of items required to complete an acceptable Final PS&E. Fill in each blank. If an item is not applicable to the project, use “N/A”.

##  ALL SHEETS

The following items should be shown on each plan sheet\*. It’s recommended to do this check first.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| Project Designation:1. Revision Block (used for Addendums)
2. State (Alaska)
3. Federal / State Project Numbers
4. Year (of Advertising)
5. Sheet Number (A1 for example)
6. Total Sheets (per category)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Title Block w/ Project Title & Sheet Description |  |  |  |
| Engineer of Record (EOR) Stamp w/ Signature, Date, & AELS required information (except on A1) |  |  |  |

\*Unless otherwise noted

|  |
| --- |
| **RESOURCES** |
|  | Civil 3D 2024 |
|  |  [A1, P&P, and Detail Borders](https://dot.alaska.gov/creg/design/highways/AutoCAD/ACAD/Borders/) |
|  |  [Support Drawings – A, B, C, D Sheets](https://dot.alaska.gov/creg/design/highways/AutoCAD/ACAD/SupportDrawings/) |
|  |  [CAD Templates](https://dot.alaska.gov/creg/design/highways/AutoCAD/ACAD/Template/) |
|  | [Current Drafting Guide](http://www.dot.state.ak.us/creg/design/highways/AutoCAD/DraftingGuide/) |
|  |

## ‘A’ SHEETS

### TITLE SHEET

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Project Designation (top right-hand corner & left to right) – in addition to items listed under All Sheets:1. Route Number & Mile Points (should match ePID)
2. Latitude & Longitude (taken at midpoint of project; 6 decimals places; should match AWP)

  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Key Map w/ Project Location (with arrow and M&O station) |  |  |  |
| Project Name or Title has the following format (example):1. Proposed Highway Project
2. Project Name (Seward Highway MP 90.3 to 97 Rehabilitation, PH II)
3. Federal / State Project Numbers

The Project Name should closely match the name on the Federal-Aid Agreement. All project stationing should be developed and stationed South to North, West to East, and match historic stationing, when possible. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Project Work Description:The work items shown are listed in the order of work performed. For example: Grading, Drainage, Paving, Pathway, Signing, Striping, Illumination, & Signalization  |  |  |  |
| Vicinity Map:1. North Arrow (w/ Township, Range, & Meridian)
2. BOP (Beginning of Project) Label & Station
3. EOP (End of Project) Label & Station
4. BOP and BOP stationing match F sheets
5. Bridge Locations with Bridge No.
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Project Summary:1. Roadway Names (Major) w/ widths & lengths (mi.)
2. Bridges (Name and No.) w/ widths & lengths (ft.)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| For 3R/4R projects:Design Designations: 1. Roadway Name(s)
2. Functional Class
3. AADT (Existing Year)
4. AADT (Design Year)
5. Design Speed (V)
6. DHV (Existing Year)
7. DHV (Design Year)
8. T – Percentage Commercial Trucks (%)
9. D – Directional Distribution (%)

  Design Designations shall match those in DSR appendix. For 1R/2R projects:Design Designations: 1. Roadway Name(s)
2. Functional Class
3. AADT (Existing Year)
4. Design Speed (V)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Title Block (bottom right-hand corner) will have the following information:1. State of Alaska and associated address
2. DOT&PF Regional Preconstruction Engineer “Approved” Signature & Date
3. DOT&PF Regional Construction Engineer, “Concur” Signature & Date
 |  |  |  |
| For Consultant Design, show “PLANS DEVELOPED BY: (Name of Firm)” in 0.140 text size just above the Signature Block in the lower right hand corner. |  |  |  |

### SHEET LAYOUT, SCHEMATIC, INDEX, GENERAL NOTES SHEET

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Stick drawing(s) of Roadway Centerline alignment(s) |  |  |  |
| Sheet outlines with Sheet numbers superimposed on alignment |  |  |  |
| Abbreviations, specific to the project, are included  |  |  |  |
| General Notes have been included and have been checked with the standard General Notes on the [A2 Template Sheet](https://dot.alaska.gov/creg/design/highways/AutoCAD/ACAD/SupportDrawings/12345_A01nA02_TTL-A2.pdf) for consistency  |  |  |  |
| Index of Sheets **will** be in the Alpha-Numeric order as shown on the A2 Template drawing and always located in the top right corner of Sheet A2:For when to include J Sheets, see Chapter 14 of the Highway Preconstruction Manual for the requirement of including stamped Temporary Traffic Control Plan. If stamped drawings are not required, supply TTCP as ‘for information only’ to the bidders. |  |  |  |
| Sheet numbers in the Index match the number of sheets in each section |  |  |  |
| Located on the right below the index of sheets:List Central Region Standard Details used on the Project using the following callout:THE FOLLOWING CENTRAL REGION STANDARD DETAILS APPLY TO THIS PROJECT:List all Alaska Standard Plans (ASP) used on the Project using the following callout:  The following Alaska Standard PLANs apply to this Project: Alaska Standard Plans have been checked against the latest [CR ASP Index](http://www.dot.state.ak.us/creg/design/highways/AutoCAD/RegionalDetails/)? | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

### LEGEND

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| The latest [A3 Template Sheet](https://dot.alaska.gov/creg/design/highways/AutoCAD/ACAD/SupportDrawings/12345_A03_LGND-A3.pdf) has been included with any additional project specific lines added in their appropriate sections. |  |  |  |

### SURVEY CONTROL

All Survey Control Sheets shall be checked and approved by the DOT&PF Survey Manager or their representative, prior to final placement in the Plan Set.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Has the Survey Control sheet been approved by DOT&PF Survey Manager? |  |  |  |

## ‘B’ SHEETSTYPICAL SECTIONS

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Typical Section Titles: Show only the Roadway or Street names. The words “Typical Section” are shown only in the Title Block |  |  |  |
| If applicable, show the general “Cut Section” left of centerline and the “Embankment Section” (Fill Section) right of centerline **Reduce the number of Typical Sections as much as possible**  |  |  |  |
| Station Range (Station-to-Station) where Typical Section applies and match design. Show stationing covering BOP to EOP.  |  |  |  |
| Show “Typical” roadway surface width (left half shows total half-width; right half details lane and shoulder widths, if symmetrical – generally this is for two lane rural roads) |  |  |  |
| Show roadway structural section material types and depths in order, from top to bottom, in a Pavement Structural Section detail. All material hatching matches those provided on B1 template. All material callouts should match the Specification description (except for Selected Material). Structural Section details should only be shown on B1. |  |  |  |
| Sidewalk width and include a Sidewalk Structural Section detail |  |  |  |
| Pathway width and include a Pathway Structural Section detail |  |  |  |
| Embankment & Ditch Foreslope and Backslope Rate (2:1, 4:1, etc.) are shown (use a Slope Exception Table, if necessary). |  |  |  |
| Median (Raised or Flush) width and structural section material layer depths |  |  |  |
| Show Right-of-Way limits left & right of centerline |  |  |  |
| Surface Cross Slopes (%) and directional arrow on:1. Roadway
2. Median
3. Sidewalk/Pathway
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Type of Curb and Gutter to be used identified:1. Mountable Curb
2. Expressway Curb (medians)
3. \_\_\_\_\_\_\_\_\_\_\_\_\_
 |  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Roadway Centerline, Profile Grade Point, and Point of Rotation |  |  |  |
| Pathway Centerline/Control line, Profile Grade Point, and Point of Rotation. (If separate alignment & profile grade) |  |  |  |
| Cut / Fill Slope Exception Table, if applicable |  |  |  |

## ‘C’ SHEETSESTIMATE OF QUANTITIES

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| The column headers shall be in the following order (left to right): AWP Item Number, AWP Item Description, Pay Unit, and Total Quantity(AWP Pay Item numbers can be shown on the left and right side of the Estimate of Quantities sheet on large projects, if applicable) |  |  |  |
| Check that all Item Numbers, Item Descriptions, Pay Units, & Quantities match those shown in the Engineer’s Estimate, Plans (Summary Tables & P&Ps), and Project Provisions |  |  |  |
| All Item Numbers are in order, starting w/ the smallest item number at the top |  |  |  |
| All items are grouped by Section with one blank line in between each Section |  |  |  |
| Have additional blank lines been provided at the end of the table for Change Order items? |  |  |  |
| Items have been rounded accordingly\* |  |  |  |
| Show the following “Table of Estimating Factors” on the **last** Estimate of Quantities Sheet:1. Borrows (lb/ft3)
2. Aggregate Base Course (lb/ft3)
3. HMA (lb/ft3)
4. Asphalt Binder (% of HMA)
5. Asphalt Tack Coat (ton/yd2)
6. Ditch Lining (lb/ft3)
7. Riprap (lb/ft3)
8. ­­­­Water For Seeding (gallon/ft2)
9. \_\_\_\_\_\_\_\_\_\_\_\_

The Estimating Factors are consistent with values from Regional Materials. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| For each **measurable** Pay Item on the “Estimate of Quantities” sheet, include supporting calculations either in the “Plan Summary Tables” **or** the “Design Quantity Computations” \*\* |  |  |  |

\* Consider the following guidance when rounding:

* Plan quantities should never be more exact than can be reasonably measured in the field.
* Use the same rounding methodology for a bid item in multiple projects or categories.
* The use of partial units is discouraged. However, partial units may be used for items measured by acre (AC) or mile (MI). Partial units may also be used for items such as signs (SF) & guardrail (LF) due to the method of measurement.
* Do not round quantities more than one percent to retain the accuracy of the estimated quantity.

\*\* Only the Pay Items that have calculations associated with them should be included in either a D sheet table or on P&Ps for storm drain networks or in the Quantity Computations Notebook. We do not want items that have no associated calculations, such as 640.0001 Mobilization & Demobilization or 641.0006 Withholding, included in the Quantity Computation Notebook.

## ‘D’ SHEETSSUMMARY TABLES

Note: The ‘D’ Section should contain summary tables for all work items except those shown on the Traffic Sheets (Salvage Sign, Signing, Lighting System, & Signal System), Bridge Sheets (Concrete Volumes, Reinforcing Steel, Piles, etc.), Typical Sections, the Landscaping Sheets (Plants, Trees, Boulders, Trail Amenities, etc.), and Quantity Computation Notebook. If Storm Drain Systems are proposed, place these tables on their respective Plan & Profile Sheets (or in the E Sheets, only when F sheets are too busy).

Select items may be included only in the Quantity Computations Notebook.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Summary Tables have been provided for all measurable items that aren’t included in the typical section and other parts of the Plans\* |  |  |  |
| Summary Tables match format of Summary Table Template as provided by DOT&PF |  |  |  |
| Lump sum item alternative quantities are either in the D sheets or in the Quantity Computations Notebook (and included in AWP) |  |  |  |

\* Items such as Borrow, HMA, etc. should not be included in the summary tables. Calculations for such items should be included in the Quantity Computations Notebook provided to the contractors at the time of bidding.

Consider the following for summary tables:

* Only Include an Earthwork Summary Table in the Final PS&E if approved by the Construction Project Manager. For review sets, include the Earthwork Summary table (D0) with watermark stating it’ll be removed prior to as-advertisement and included in the Quantity Computations Notebook.

## ‘E’ PLAN SHEETSHIGHWAY DETAILS

All “Highway Details”, whether they are details developed by the Designer or the commonly used “Regional Details”, should be project specific. Group like details together.

Details used for Signing, Striping, Illumination, & Signalization, Temporary Traffic Control, Landscaping, and Utilities should be shown in their appropriate sections.

“Regional Details” can be found on the FTP site at <http://www.dot.state.ak.us/creg/design/highways/AutoCAD/> or for in-house staff at [\\dot.soa.alaska.gov\shared\AVI\LIB\HighwayDesignMasters\Autocad\RegionalDetails](file:///%5C%5Cdot.soa.alaska.gov%5Cshared%5CAVI%5CLIB%5CHighwayDesignMasters%5CAutocad%5CRegionalDetails) (except for Traffic drawings which can only be found on FTP site).

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| All Regional Details included have been modified to be more project specific, as necessary |  |  |  |
| North Arrow, if a plan view is shown |  |  |  |
| Culverts greater than 10’ but less than 20’ have been reviewed by the Statewide Hydrologist and Bridge Section including structural calculations |  |  |  |

## ‘F’ PLAN & PROFILE SHEETS

### MAINLINE PLAN VIEW

The following items should be shown on the Plan View of each Plan Sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| North Arrow |  |  |  |
| The scale of the “full size” Plan View **should\*** be as follows:1. 50:1 for Rural Projects
2. 20:1 for Urban Projects

\*Check with DOT&PF PM prior to using a different scale |  |  |  |
| Beginning of Project (BOP) Station (first page only) |  |  |  |
| End of Project (EOP) Station (last page only) |  |  |  |
| Centerline Stationing. If applicable, Mainline Station Equations with labels “AHD.” and “BK.” are included |  |  |  |
| Centerline Bearings (Shown as 7 digits) |  |  |  |
| Edge of Pavement Tapers w/Stations & Offset Distances |  |  |  |
| Match Lines (with next/previous Station) |  |  |  |
| Mainline and cross-street roadway names |  |  |  |
| ROW\Public Use Easement Lines\Controlled Access (C/A) labeled |  |  |  |
| Temporary Construction Permit/Easement lines  |  |  |  |
| Curve Data:1. Curve Name, if included
2. PI Station & corresponding PC/PT Stations (2 decimals – ex. STA 100+00.00)
3. Northing & Easting Coordinates (4 decimals)
4. D (Central Angle – 1 decimals)
5. Tangent (2 decimals)
6. Length of Curve (2 decimals)
7. Radius (2 decimals)
8. Rate of Superelevation (2 decimals)
9. Runout, Runoff, & % Runoff (0 decimals)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Mainline/Street Intersection and Public Approach Radius Point Table, if applicable |  |  |  |
| Cut Backslope (dashed line) and Fill Slope (dotted line) Limits |  |  |  |
| All new roadway features such as curb and gutter, medians, drainage improvements, and pedestrian amenities (sidewalks & pathways)  |  |  |  |
| Guardrail and End Treatments (with pavement widening) |  |  |  |
| New Retaining Wall Structures |  |  |  |
| New Bridge Structures  |  |  |  |
| Storm Drain Structures & Pipes w/tables (large storm drain projects may use separate P&P sheets) |  |  |  |
| New culverts w/drainage arrows |  |  |  |
| Special Ditches & Ditch Linear Grading locations |  |  |  |
| Any important existing topographical features (roadways, approaches, buildings, bridges, curb & gutter, any ROW encroachments)  |  |  |  |
| Existing Stream & River Channels (label stream names, if known) |  |  |  |
| Coastal Tide lines |  |  |  |
| All existing utilities are shown |  |  |  |
| Section Line Ties |  |  |  |
| Section Corners |  |  |  |
| Drawing has checked for proper scale |  |  |  |

### MAINLINE PROFILE VIEW

The following items should be shown on the Profile View of each Plan Sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Original Ground (OG) & Finished Grade (FG) Line & Labeled |  |  |  |
| Profile Grade Line & Labeled (2 decimals) |  |  |  |
| Vertical Curve Data1. VPI Stations (should be a whole number, 2 decimals– ex. STA 100+50.00)
2. Elevations (2 decimals)
3. Vertical Curve Lengths (should be a whole number, 0 decimals)
4. VPC & VPT shown as circles - not labeled
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Station Labeling at 100 Foot increments shown at bottom of Profile Grid and at the sheet match lines |  |  |  |
| All Profile Stations & Elevations are properly located within the profile view |  |  |  |
| Subsurface Water Elevations (if known) |  |  |  |
| Existing Culverts |  |  |  |
| New Culverts |  |  |  |
| Bridge (begin & end stations/elevations)  |  |  |  |
| Existing Overhead Utilities (station & elevation above crossing point @ centerline\*):1. Electric
2. Telephone
3. Cable TV
4. Miscellaneous

\*Verify vertical clearance meet requirements | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Existing Underground Utilities (if elevations have been surveyed\*)\*Only place elevations if the utility has been surveyed. Consult with Construction Manager and Utility Lead |  |  |  |
| Storm Drain Structures & Pipes |  |  |  |
| Special Ditches w/ Station, Offset, Elevation (begin, end, & vertical angle points, and ditch grades) |  |  |  |
| Proposed Utilities (if constructed by Contractor) and are not shown in ‘U’ sheets |  |  |  |
| Muck/Sub Excavation limits & approximate depth (with begin/end transition length & stations) – only include if requested by Construction |  |  |  |

### APPROACH PLAN & PROFILE

The following items should be shown on each “Approach Plan & Profile” Sheet.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| North Arrow |  |  |  |
| Approach Horizontal & Vertical Alignments (matching Mainline alignment requirements\*)\*Stationing increments may be decreased |  |  |  |
| Intersecting Centerline (C/L) Stations for Mainline & Approaches  |  |  |  |
| Intersection Data (same precision as Mainline):1. Road / Street Names
2. C/L Stationing and Intersection Station Equations
3. Centerline Bearings
4. Curve Data
5. Radius Point Table w/ Size, Station, and Offset Distance
6. Pavement Widths
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Sight Distance Triangles (stopping and intersection) distances have been calculated for each residential, commercial, and public approach – are included in the Design Project Files |  |  |  |

### PATHWAY PLAN & PROFILE

The following items should be shown on each “Pathway Plan & Profile” Sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| North Arrow |  |  |  |
| Approach Horizontal & Vertical Alignments (matching Mainline alignment requirements\*)\*Stationing increments may be decreased |  |  |  |
| Intersecting Centerline (C/L) Stations for Mainline & Pathway  |  |  |  |
| Intersection Data (same precision as Mainline):1. C/L Stationing and Intersection Station Equations
2. Centerline Bearings
3. Curve Data
4. Radius Point Table w/ Size, Station, and Offset Distance
5. Pathway Widths
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Pathway alignments at all intersections are per Unsignalized Intersection Stop and Crossing detail |  |  |  |

## ‘G’ SHEETSINTERSECTION & OTHER GRADING PLANS

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| North Arrow |  |  |  |
| Intersecting Centerline (C/L) Stations for Mainline & Approaches  |  |  |  |
| Label Manholes & Inlets (structure number should match P&P and Summary Tables) |  |  |  |
| Intersection Grading Data:1. Street Names
2. Station at C/L for each appropriate interval
3. Elevations & offset distances right & left of C/L
4. Begin & End Radius stations & elevations
5. Elevation & offset at approximately 20’ intervals
6. Rotation points and pavement cross slopes
7. Elevation & offset at the Curb Flow Line
8. Show appropriate breaklines
9. Proposed contours of paved surface
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

## ‘H’ SHEETS TRAFFIC SIGNING, STRIPING, ILLUMINATION, & SIGNALIZATION

### LEGEND

The following items should be located on the “Legend” and should be the first sheet in the “H” Sheets.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| Sheet H1 shows additional legend & symbols used within the Traffic Sheets that aren’t shown on A3 (This sheet can be found on the Traffic Regional Details FTP site and shall be stamped & signed by the EOR.)  |  |  |  |
| Additional Marking Details:1. Two-way Left-turn Arrows
2. Merge Arrows
3. Yield Bar
4. \_\_\_\_\_\_\_\_
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Signing and Striping Notes1. Type of striping material
2. Thickness of striping material (make sure this agrees with specs)
3. Inlaid or Surface Applied
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Foundation Notes |  |  |  |
| Signal System Notes |  |  |  |

### ALL PLAN VIEW SHEETS

The following items should be shown on each “Plan View” sheet.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| North Arrow |  |  |  |
| Roadway Names |  |  |  |
| Centerline Stationing |  |  |  |
| Match Lines (with next/previous Station) |  |  |  |

### SIGNAL SYSTEM

The following items should be shown on each “Signal System Plan View” sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Size and configuration of all signal heads |  |  |  |
| Load center located at reasonable distance to controller cabinet |  |  |  |
| Controller cabinet with door facing away from intersection |  |  |  |
| Insure the Load Center and Traffic Controller are not installed in low spots or ditches. |  |  |  |
| Signal Poles at least 15’ from edge of traveled way (desirable), out of clear zone or behind curb. |  |  |  |
| Mast Arms extending to the center of the lane farthest from the pole that is serviced by the mast arm signal |  |  |  |
| Signal Heads shown as they will be installed in accordance with DOT&PF Traffic Detail Signal Hardware and numbered by phase |  |  |  |
| Pedestrian Signals |  |  |  |
| Pedestrian Push Buttons |  |  |  |
| Optical Detectors positioned for line of sight operation |  |  |  |
| GPS Detectors  |  |  |  |
| Loop Detectors |  |  |  |
| Loop Reference Line (MOA) or station provided per loop layout detail. |  |  |  |
| Junction Boxes |  |  |  |
| Six loops maximum per Type 1A junction box |  |  |  |
| Tie-ins to existing facilities |  |  |  |
| Phase diagram: 1. Show all allowed pedestrian movements by a dashed line
2. Show permissive left turn movements with a dashed line
3. Indicate FYA phasing by including “eyelash” markings on the opposing through movement phase or by other clear means
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Existing Utilities and conflicting topographical features |  |  |  |
| Poles and j-boxes agree with the Foundation and J-Box Schedule |  |  |  |
| Number poles clockwise from the northwest quadrant  |  |  |  |
| Number pedestrian gear correctly to correlate with phasing |  |  |  |
| Number signal heads by correct phase and location around the intersection  |  |  |  |
| Turn off all utility layers on the signal operations sheet signal system plan sheet does include utility layers shown |  |  |  |

### WIRING DIAGRAM

The following items should be shown on each “Wiring Diagram” sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Poles, j-boxes, signal heads, loops, and pedestrian signals and pushbuttons, agree with the plan view |  |  |  |
| Show conduit sizes and types for each conduit  |  |  |  |
| Show cable numbers, sizes, and types in each conduit run |  |  |  |
| Provide separate conduits for lighting and signal cable |  |  |  |
| Detail tie-ins to existing facilities |  |  |  |
| 1-3” RMC and 2-2” RMC in signal pole foundations (one 2” to be used for intersection lighting) |  |  |  |
| The Main Street is crossed once with 1-3” spare, 1-2” conduit for illumination, and 1-3” conduit for each signal pole across the street from the controller  |  |  |  |
| Illumination circuit bypasses the controller cabinet |  |  |  |
| The controller cabinet feeder is the only circuit between the load center and the controller cabinet  |  |  |  |
| Signal cable is as follows for all signals:SOA Maintained Signals - 1. 7C#14 all vehicular signals
2. 4C#14 all pedestrian buttons and indications
3. 3C#14 pre-emption confirmation light
4. 3C#20 pre-emption detection
5. 7pr#18 loop lead in (unless design necessitates otherwise)

MOA Maintained Signals - 1. 7C#14 all vehicular signals
2. 5C#14 pedestrian indications
3. 3C#14 all pedestrian buttons
4. 3C#14 pre-emption confirmation light
5. 3C#20 pre-emption detection
6. 7pr#18 loop lead in (unless design necessitates otherwise)
 |  |  |  |
| Check conduit fill |  |  |  |
| Check J-box fill |  |  |  |
| Provide a separate conduit for high voltage and low voltage |  |  |  |
| Wire diagram notes |  |  |  |
| North arrow next to the wire diagram |  |  |  |

### SIGNAL SYSTEM SUMMARY

The following items should be shown on each “Signal System Summary” sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Show profile views of poles:1. Mast arm lengths
2. Signal heads
3. Preemption devices
4. Radar Units
5. Signs
6. Foundation elevations
7. Lane designations
8. Other equipment (cameras, PTZ, radio, etc.)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Include Controller Equipment |  |  |  |
| Include Controller Details |  |  |  |
| Signs mounted on signal mast arms agree with sign summary and signing sheets |  |  |  |
| Pole numbers, signal head locations, lane designations, electroliers agree with plan view  |  |  |  |
| Include Signal Load Center Summary.Load center summaries designate maintaining agency (owner)  |  |  |  |
| Load center sheet must be co-signed by Electrical Engineer |  |  |  |

### ILLUMINATION

The following items should be shown on each “Illumination Plan View” sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Pole Numbers and locations agree with the Electrolier Schedule |  |  |  |
| Show lighting circuits with conduit size and cable |  |  |  |
| Show and label load centers  |  |  |  |
| Include Electrolier Schedule |  |  |  |
| Include Luminaire Performance Criteria  |  |  |  |
| Include Load Center Summary on sheets where load centers are shown, if space is available. Load center summaries designate maintaining agency (owner) |  |  |  |
| Load Center sheet must be co-signed by Electrical Engineer |  |  |  |
| Include Illumination Notes |  |  |  |
| Include Voltage Drops for each lighting circuit. |  |  |  |
| Circuits from different load centers do not share junction boxes |  |  |  |
| Show numbered illumination j-boxes  |  |  |  |
| J-Box numbering for lighting systems:1. If there are no extra j-boxes, i.e. only j-boxes next to each electrolier, then the electrolier and the j-box should have the same number
2. If there are extra j-boxes, the extras should be numbered with the starting point electrolier number and an alpha suffix.

(E.G., between electroliers 5 and 6, the intermediate j-boxes would be numbered 5A, 5B, 5C, etc. Between the Load Center C and electrolier 21, the intermediate j-boxes would be numbered CA, CB, CC, etc.)  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

### SIGNING

The following items should be shown on each “Signing Plan View” sheet.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| Regional Details for Signing (located on the FTP site) |  |  |  |
| Sign post number, orientation of sign, sign graphic (sign picture) as shown in the Sign Shop Drawings or MUTCD/ASDS, agree with the sign summary |  |  |  |
| Signs mounted on signal mast arms agree with the signal pole stationing found in the foundation schedule |  |  |  |
| Stationing of signs mounted on electroliers agrees with the stations on the electrolier schedule |  |  |  |
| Show STOP or YIELD signs and D3-1s at all non-signalized public approaches in the order and orientation as they would appear from top to bottom of sign post |  |  |  |

### STRIPING

The following items should be shown on each “Striping Plan View” sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Label the width and color of each marking in every window |  |  |  |
| Station the beginning and ending of each marking |  |  |  |
| Station the beginning and ending of all tapers |  |  |  |
| Show all dimensions where lane, shoulder, or median widths change |  |  |  |
| Lane and shoulder widths agree with the pavement widths shown on the Plan & Profile and Typical Section Sheets |  |  |  |
| Center and edge lines run through local roads (without fog lines), residential, and commercial approaches unless the approach has a dedicated left turn lane (see Unsignalized Intersection Stop and Crossing Detail)  |  |  |  |
| Station edge line and centerline breaks at approaches other than local roads and residential and commercial approaches |  |  |  |
| Flexible and Rigid Delineators – symbols included on sheets |  |  |  |
| Dual left turn guide stripes  |  |  |  |
| Crosswalks at signalized intersectionsVerify curb ramps are within the crosswalks (for 1R projects this may occur on F-sheets) |  |  |  |
| Arrows in turn lanes (include ONLY symbol only when a thru lane ends in a turn) |  |  |  |
| Arrows in two way left turn lanes:1. 500’ separation between arrow set.
2. Separation between turn arrows\* are:
3. 35 mph and less – use 8’
4. Greater than 35 mph and ≤ 45 mph – use 12’
5. Greater than 45 mph – use 16’

\*include value in the Striping Notes | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Combination Thru/Turn Arrows at split phased intersections |  |  |  |
| Lane Drop Arrows – recommended lane drop arrow to use shown on H1 sheet |  |  |  |
| RR Xing Symbols – guidance in the Alaska Standard Plan T-20 |  |  |  |
| Bicycle Lane Markings and Symbols – shown on H1 sheet |  |  |  |
| Yield Lines |  |  |  |
| Gores |  |  |  |
| Right-in/Right-out striping |  |  |  |
| Approach markings for obstructions on the non-intersection ends of raised medians per Alaska Standard Plan T-20 |  |  |  |
| Stop bars are shown where pathway/sidewalk is present – per Unsignalized Intersection Noncurbed Stop and Crossing detail |  |  |  |
| 100 ft lead-in and 50 ft lead-out solid stripes at each location where white skip stripes between multi-lane thru lanes approach a major intersection |  |  |  |
| Pavement marker locations in relation to striping |  |  |  |

### SIGN SUMMARY

The following items should be shown on each “Sign Summary” sheet.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Post number, station, centerline reference, type, legend, and direction sign faces in the sign summary sheets agree with the Plans |  |  |  |
| Use the DOT&PF Central Regional Standard Sign Summary format. This can be found in the model space of Traffic’s H1 sheet in model space.  |  |  |  |
| Signs 36” wide and wider and diamonds 36” wide and wider on a side should be framed. All smaller signs should be unframed. 1. 12” D3-1 and D3-1A signs are always framed
 | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ |  |
| For State-maintained roads, all signs large enough to receive framing shall use min. of 3” T for post size or larger as required by proper post sizing. For municipality/borough-maintained roads, check their standards for post size guidance. Typical for signs within MOA, use 2.5” P.T. for all posts. Confirm with maintaining Agency in all cases. |  |  |  |
| Stationing of signs mounted on electroliers agree with the electrolier schedule |  |  |  |
| Signs mounted on signal mast arms agree with the signal pole stationing |  |  |  |
| Check the area calculations: 1. Double the sign area of all signs installed as two signs back to back
2. Double faced signs (different than case ‘a’ above) only count area as one face per 615 basis of payment.
 |  |  |  |
| Include a note in the remarks column for signs behind barrier, referencing DOT&PF Alaska Standard Plan S-32. Signs shielded by guardrail that are greater than 75’ from the end post do not require breakaway bases  |  |  |  |
| Include sign shop drawings as an Appendix in the specs for all signs of variable dimensions and special signs |  |  |  |

## ‘K’ PLAN SHEETSAUTOMATED TRAFFIC RECORDER (ATR) / WEIGH-IN-MOTION (WIM)

All ATR/WIM designs shall be reviewed and approved by the DOT&PF Highway Data Manager or their representative, prior to final placement in the Final PS&E.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| All Traffic Counter/WIM structures are also shown on the Mainline Plan & Profiles sheets |  |  |  |
| The ATR/WIM Plans conform to the current DOT&PF Planning Highway Data format  |  |  |  |

### ATR / WIM SYSTEM COMPONENTS

The following Details and Items should be shown on the ATR/WIM Plan Sheets.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| Tie-in to existing electrical & telephone facilities |  |  |  |
| Existing Utilities and conflicting topographical features |  |  |  |
| Loop Detectors, Axle Sensors, and Dimensions Layout |  |  |  |
| Junction Box(s) Detail and Layout |  |  |  |
| Traffic Cabinet, Poles, and Foundations |  |  |  |
| ATR/ WIM Electronic Equipment |  |  |  |
| Conduit sizes and types for each conduit run |  |  |  |
| Cable numbers, sizes, and types in each conduit run |  |  |  |
| Provide separate conduits for Loops, Power, and Sensor Cable |  |  |  |
| Load Center Detail |  |  |  |
| Wiring Diagram Layout of complete system |  |  |  |

## ‘L’ PLAN SHEETSLANDSCAPING

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| The following list of generic items should be shown on each Landscape Plan Sheet:1. North Arrow
2. Landscape Legend (identifying each type of shrub, tree, trail amenity, etc. shown on the individual sheet)
3. Show right-of-way lines
4. Existing Utilities
5. Curb lines
6. Medians
7. Roadway centerline & stationing w/ station match lines
8. Landscape sheets reference power requirements, if any, to electrical sheets
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Total quantities are summarized on the first sheet (L1) in the “Landscape Summary” and each quantity agrees w/ the Estimate of Quantities Sheet & the Cost Estimate:1. Trees & Shrubs
2. Boulders
3. Topsoil & Seed
4. Vegetative Erosion Control
5. Pedestrian Area Paving
6. Landscape Structures
7. Decorative Fences & Railings
8. Benches, Trash Receptacles, Trail Signing, & Other Furnishings
9. Decorative Lighting (if not shown on the Illumination Sheets)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Each Plan sheet shows the layout of each item and are labeled w/ individual quantities listed:1. Trees & Shrubs
2. Boulders
3. Topsoil & Seed
4. Vegetative Erosion Control
5. Pedestrian Area Paving
6. Landscape Structures
7. Decorative Fences & Railings
8. Benches, Trash Receptacles, Trail Signing, & Other Furnishings
9. Decorative Lighting
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Installation details are shown at the back of the ‘L’ sheets for:1. Trees & Shrubs (planting & staking detail)
2. Boulders
3. Vegetative Erosion Control
4. Irrigation Plan
5. Pedestrian Area Paving
6. Landscape Structures
7. Decorative Fences & Railings
8. Benches, Trash Receptacles, Trail Signing, & Other Furnishings
9. Decorative Lighting
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| All items are placed outside the clear zone:1. Trees
2. Boulders
3. Landscape Structures
4. Decorative Fences & Railings
5. Benches, Trash Receptacles, Trail Signing, & Other Furnishings
6. Decorative Lighting
7. Load center (if installed under this project)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| All items do not obstruct intersection or approach sight distance, signs, signals, other permanent traffic control devices, luminaries, or utilities:1. Trees & Shrubs
2. Boulders
3. Vegetative Erosion Control
4. Landscape Structures
5. Decorative Fences & Railings
6. Benches, Trash Receptacles, Trail Signing, & Other Furnishings
7. Decorative Lighting (including load center)
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Maintenance Agreement has been signed for non-highway facilities (typically these agreements are inserted in the DSR as an appendix and sent to Regional Standards Engineer electronically)  |  |  |  |
| Adequate snow storage space between the roadway and planting areas, pedestrian facilities, and other landscape items is provided on site  |  |  |  |

## ‘M’ PLAN SHEETSRETAINING WALLS

All Retaining Wall designs shall be reviewed and approved by the DOT&PF Foundation Engineer (Statewide Materials) or their representative prior to final placement in the Final PS&E.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Retaining Wall Title Sheet, should show the following:1. North Arrow
2. Show all required “Retaining Wall Notes” specifying any requirements for special construction techniques and wall materials
3. Vicinity Map showing the proposed wall location within the Roadway Project limits
4. The wall quantities, along w/ any excavation & backfill quantities
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Retaining Wall Detail Sheets should show the following:1. A side view, or Typical Section, of the type of structure to be constructed w/ the horizontal control point called out (this is usually at the top face of retaining wall)
2. Original ground line and cut slope, if required, w/ slope rate, behind the wall
3. The excavation limits behind the wall and below the footings
4. Reinforcing Steel Table, if applicable
5. Back of Wall drainage system
6. Right-of-Way Line shown outside wall area (This is not a Construction Easement since this is a permanent structure to be owned & maintained by the Department)
7. Details of wall appurtenances (depending on the type of structure) such as wall curb, top of wall concrete copings, handrail, noise barrier, wall drainage outlets, location, and configuration of signs and lighting, including conduit locations
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Retaining Wall “Plan View” Sheets should show the following:1. North Arrow
2. Horizontal wall alignment, including the Begin and End Wall Stations and offsets from Roadway Centerline, along w/ any wall angle points
3. Original Ground Contour elevations (obtained by cross sections taken at 10’, 25’, 50’, or 100’ intervals depending on the size and length of the retaining wall)
4. Testhole locations w/ numbers (actual testhole soil information is usually shown after the Wall P&P Sheets)
5. New roadway with alignment, curb & gutter, & sidewalks
6. The relative location of new and existing utilities within the proximity of the retaining wall
7. Right-of-Way lines and Construction Easement lines
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Retaining Wall “Profile View” Sheets:1. Original ground line and proposed profiles in front of and behind the retaining wall
2. Elevation on top of wall at the beginning and end of wall, all profile grade break points, and roadway profile data at the face of wall
3. Elevations along the bottom of the wall footing
4. Elevation of highest permissible level of foundation construction (the top of the footings should be placed at least 2 feet below the frost line), location, depth, and extent of any unsuitable material to be removed and replaced
5. Elevation high water and normal water levels at stream locations, if applicable
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Test Hole Data Sheets:Show Testhole Numbers and soil gradation information.(This information can be shown on the Plan Sheets or given to the Bidders as a separate document at time of advertising.) **Do not include Design Recommendations.** |  |  |  |
| Construction Sequencing Sheets:Show all required traffic control, access, and staged wall construction sequencing |  |  |  |

## ‘N’ PLAN SHEETSBRIDGE STRUCTURES

The Designer should use this checklist in development of the drainage structures (bridges, large culverts, etc.) to ensure design of the bridge and roadway is consistent. This section should be filled out by Design staff and any discrepancies should be forwarded to the Bridge Designer.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| All Right-of-Way limits are shown in the General Layout and Site Plan sheets |  |  |  |
| There are not any conflicts between the new bridge location and any modifications to the new stream channel |  |  |  |
| Are all structures located within the ROW? If not, has the ROW Section been notified? |  |  |  |
| The Designer should “double check” that the bridge structure:1. Is constructed in the correct location
2. Has the correct deck cross slope and/ or super elevation
3. Bridge and Pathway widths match that shown on the P&P Sheets
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Check Plan View against the roadway plans for each bridge structure stationing:Bridge №:\_\_\_\_\_\_\_\_, begin\_\_\_\_\_\_\_\_\_, end\_\_\_\_\_\_\_\_\_ Bridge №:\_\_\_\_\_\_\_\_, begin\_\_\_\_\_\_\_\_\_, end\_\_\_\_\_\_\_\_\_ Bridge №:\_\_\_\_\_\_\_\_, begin\_\_\_\_\_\_\_\_\_, end\_\_\_\_\_\_\_\_\_  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Check profile grade against the roadway plans for each bridge structure elevation:Bridge №:\_\_\_\_\_\_\_\_, begin \_\_\_\_\_\_\_\_\_, end\_\_\_\_\_\_\_Bridge №:\_\_\_\_\_\_\_\_, begin \_\_\_\_\_\_\_\_\_, end\_\_\_\_\_\_\_ Bridge №:\_\_\_\_\_\_\_\_, begin \_\_\_\_\_\_\_\_\_, end\_\_\_\_\_\_\_  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| All bridge components are addressed in the specifications for material requirements, const. tolerances, method of payment, etc. |  |  |  |
| The vertical clearance under the bridge meets the current DOT&PF Preconstruction Manual requirements |  |  |  |

## ‘R’ PLAN SHEETSRIGHT-OF-WAY MAPS

All Right-of-Way Maps shall be checked and approved by the DOT&PF ROW Engineering Supervisor or their representative, prior to final placement in the Final PS&E. This section should be filled out by Design staff and any discrepancies should be forwarded to the ROW Engineering.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| All Pay Item Numbers, Descriptions, and Quantities shown on the Monument Summary Sheet match that shown on the Estimate of Quantities Sheet  |  |  |  |
| The Horizontal Alignments match the Plans. Station Equations shall be noted on the ROW Plan Sheets, “AHD” and “BK” shall be used. |  |  |  |
| All cut slopes and fill slopes limits are clearly shown & match F sheets |  |  |  |
| All Primary & Secondary monuments requiring referencing prior to Construction are listed |  |  |  |
| All Parcels acquired for additional ROW are shown  |  |  |  |
| All Temporary Construction Easement (TCE) shown match that shown on the F sheets (TCPs are **not** shown on ROW Maps; only on F-sheets) |  |  |  |

## ‘U’ PLAN SHEETSUTILITY SHEETS

All Utility Sheets shall be checked and approved by the DOT&PF Utility Engineer or their representative, prior to final placement in the Final PS&E. This section should be filled out by Design staff and any discrepancies should be forwarded to the Utility Engineer.

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| In order, the first Utility Sheets should show all work that the project Contractor is required to do, any details needed, and quantity items required for completing the work(This option is better than showing the Contractors work on the Plan & Profile ‘F’ Section because it reduces plan sheet clutter) |  |  |  |
| The remaining Utility Sheets should show the work required to be completed by any of the Utility Companies (ML&P, ACS, Enstar, GCI, etc.) These sheets are usually full-size copies as those included in the Utility Agreements. |  |  |  |

## TRANSPORATION MANAGEMENT PLAN

Verify requirement for including stamped drawings in the Final PS&E (locate in ‘J’ Sheets) by consulting Chapter 14 Highway Work Zone Safety & Traffic Control Plans of the Highway Preconstruction Manual and the DOT&PF Project Manager. All Temporary Traffic Control Plans (TTCP) shall be reviewed and approved by qualified-DOT&PF staff (see [Policy & Procedure 05.05.015](https://dot.alaska.gov/admsvc/pnp/local/dot-jnu_123033.pdf)) prior to placement in the Final PS&E. If it’s deemed that a signed TTCP is not required for the project, a TTCP will be supplied as part of the Transportation Management Plan with the advertisement package to the Contracts Section. This section should still be filled out whether the TTCP is included in the plan set or under a separate cover.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Title Sheet (if supplied under a separate cover) |  |  |  |
| North Arrow |  |  |  |
| Vicinity Schematic (if needed):1. Special Signing with Traffic Control Notes
2. Label all Street Names
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Central Region Detail sheets have been included:1. Permanent Construction Signs
 | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ |  |
| For dedicated Permanent Construction Signing plan sheets:1. Incorporates Alaska Standard Plan C-04 and Central Region Permanent Construction Sign drawing
2. Proper signing at the BOP & EOP
3. All Side Streets have the required Advance Construction Warning signing
4. Alternate Route (Detours) informational signs
5. Add Portable Changeable Message Boards, if deemed warranted by the Traffic Control Engineer
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Detours:Short Term (Overnight or Weekends):1. Temporary Signing, Cones, and Barricades
2. Define Alternate Routes

Long Term (Duration of Construction):1. Permanent Signing & Barricades
2. Construction Sequencing (Phasing Plan)
3. Typical Section with lane and work area dimensions
4. Plan & Profile for detour alignment
5. Sign locations of Hospitals
6. Sign and define alternate routes
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Active Transportation Access:1. Access to all businesses is maintained throughout all construction phases
2. Alternate active transportation routes are identified, if required
3. Show all required directional devices (cones, barricades, safety fencing, etc.) to separate active transportation from the Work Zone & Traffic Lanes
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| Per [Policy & Procedure 05.05.015](https://dot.alaska.gov/admsvc/pnp/local/dot-jnu_123033.pdf), Training: Personnel involved in the development and design of work zone related transportation management and traffic control shall be trained and periodically retrained, appropriate to the job decisions each individual is required to make and to reflect changing industry practices, processes and procedures. Personnel shall successfully complete the training listed, or an equivalent:Design of Traffic Control Plans requires: * Roadside Safety Design

AND EITHER* Worksite Traffic Control Design OR
* Worksite Traffic Supervisor

Training must be done every four years. |  |  |  |

## SPECIAL PROVISIONS

Below are listed a few generic requirements in creating an acceptable Specification Package. It is the responsibility of the EOR and the Specification Writer to work together to ensure completeness of this portion of the Final PS&E.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| Specifications format follows the current [Specifications Guide](https://dot.alaska.gov/creg/design/highways/specifications-users/005_CHS_Specification_Provision_Guides/) |  |  |  |
| Footer contains the Project Name and Project Number throughout the document |  |  |  |
| Header contains the correct Section Number (beginning on the second page of a section) throughout the document |  |  |  |
| Special Notice to Bidders is current. |  |  |  |
| The cover page of the Special Provisions shows the following (in order from top to bottom):* Part 4
* Standard Modifications and Special Provisions to the State of Alaska
* DOT&PF Seal
* Standard Specifications for Highway Construction (include current edition year)
 |  |  |  |
| If there are any project specific edits (except for areas with fill-in-the-blank…i.e. Environmental Permits) to the Section 100s, they’ve been approved by AGO |  |  |  |
| All Standard Pay Items modified, in any way, from the “Standard Specifications for Highway Construction” (current edition) are addressed in the Special Provisions |  |  |  |
| All New Pay Items are addressed in the Special Provisions under the following:* Description
* Construction Requirements
* Method of Measurement
* Basis of Payment

Other subsections will also apply on a project specific basis |  |  |  |
| All applicable Statewide & Regional Special Provisions are included |  |  |  |
| All specification recommendations from the following DOT&PF staff have been addressed:1. Bridge Design
2. Construction
3. Environmental are addressed (This includes all Environmental Permits, ESCP, and the Landscaping requirements)
4. Maintenance & Operations
5. Regional & Statewide Materials
6. Regional Hydrologist
7. Right-of-Way
8. Traffic Safety
9. Utilities
 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| The following applicable “Appendices”are at the back of the Special Provisions:1. Construction Surveying Requirements (Title Sheet Only)\*
2. Environmental Permits
3. Material Certification List
4. Sign Shop Drawings
5. Temporary Construction Easements
6. \_\_\_\_\_\_\_\_\_\_\_\_

Note:\*Only the Appendix Cover Sheet & associated ‘blank page’ are necessary as the Contracts Section will insert this document at time of advertising | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

## ENGINEER’S ESTIMATE

|  |  |  |  |
| --- | --- | --- | --- |
| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| All new Pay Items have been approved and inserted into AASHTOWare by the Module Administrator  |  |  |  |
| All Unit Prices are consistent with current bid item prices |  |  |  |
| Add the Construction Engineering cost percentage to the Subtotal (Basic Bid – Exclusions) at the following rate:1. 15% for Departmental (DOT&PF) Personnel\*

or 25% for Consultant Engineering Personnel\*\*Verify percentage with Construction Manager |  |  |  |
| Add the appropriate percentage for the DOT&PF Indirect Cost Allocation Plan (ICAP) to the Subtotal dollar amount to obtain the Grand Total |  |  |  |
| Have funding packages been included and items assigned and checked versus the approved Phase 4 & 7 PDA. |  |  |  |
| A Project Validation Report has been run and errors corrected |  |  |  |
| ~~AASHTOWare Workflow has been changed from “Proj Design & Review” to “Assigned to Letting’\*~~~~\*Note: Do not do this until the very end. Once you change it, you will need to ask a Letting User to change the workflow back if changes are required.~~ |  |  |  |

## FINAL PS&E TRANSMITTAL PACKAGE (MISCELLANEOUS)

The following is a list of items required to transmit an acceptable “Final PS&E Package” to the DOT&PF Contracts Section for advertising the project.

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| “Final PS&E Transmittal Memo” has been completed |  |  |

## EROSION AND SEDIMENT CONTROL PLAN (ESCP)

ESCPs are not included in the Final PS&E. It will be supplied under a separate cover as part of the advertisement package to the Contracts Section.

| DESCRIPTION | DESIGNED | CHECKED | REMARKS |
| --- | --- | --- | --- |
| ESCP narrative format follows the current ESCP template and all required information has been included |  |  |  |
| Site Maps included |  |  |  |
| BMP Details included, as necessary |  |  |  |

**ITEMS NOT INCLUDED IN FINAL PS&E PACKAGE**

The following items are not to be submitted as part of the Final PS&E package but are included as a general reminder about project items that should have been completed prior to Final PS&E submittal.

### RAILROAD CROSSING ENGINEER’S CHECKLIST

For all projects, the Railroad Crossing Engineer’s Checklist needs to be completed.

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| Railroad Crossing Engineer’s Checklist has been completed and distributed according to Regional Policy |  |  |

### STORM WATER LETTER OF APPROVAL

Every construction project that disturbs more than one acre of land must submit a Notice of Intent (NOI) and apply for coverage under the Construction General Permit (CGP). Only projects that construct permanent storm water controls have to obtain a Storm Water Letter of Approval. If the installation of permanent storm water control disturbs less than an acre a storm water letter of approval is still required, though a CGP NOI does not need to be filed. – FAQs from DEC Division of Water website.

See <https://dec.alaska.gov/water/wastewater/stormwater/permits-approvals/plan-reviews/> for more information.

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| “Permanent Storm Water Management Control – Plan Review Checklist” has been submitted to DEC and a “Storm Water Engineering Plan Review (Letter of Approval)” been received for projects outside of Anchorage MS4 area – see comment below |  |  |

For DOT&PF projects [within the MS4 Permitted Area](https://dot.alaska.gov/creg/design/highways/ESCP/MS4/MOA_MS4_Boundary.pdf), the DEC (via the MS4 permit) has delegated its authority to DOT&PF for review and approval of construction-related and permanent storm water controls. Design must adhere to the requirements in the [MOA/DOT&PF MS4 permit](https://dec.alaska.gov/Applications/Water/EDMS/nsite/map/results/detail/532401255928786692/documents) and DOT&PF’s [Policy on Stormwater Facilities Design within MOA](https://dot.alaska.gov/creg/design/highways/ESCP/MS4/08-2018-PnP-Stormwater_Facilities_in_MOA_Rev1.pdf) (see the [Annotated MOA Stormwater Manual – Volume 1](https://dot.alaska.gov/creg/design/highways/ESCP/MS4/ASM_Volume1_Final_December2017_Annotated_Rev1%20August%202018.pdf).) Design approval occur through the normal project review process; therefore, no additional approval document is necessary.

Please note:  DOT&PF cannot legally construct, modify, or operate any permanent storm water controls in Alaska unless covered by both the CGP (or individual construction permit as applicable) AND either an APDES MS4 Permit (such as the MOA MS4 permit) OR a “Letter of Approval” from DEC.

### DRINKING WATER ENGINEERING PLANS CONSTRUCTION APPROVAL

Constructing or modifying a public water system without DEC approval violates state statutes and regulations, can result in enforcement action against the owner of a system, can result in an increased risk to public health, and can significantly delay a project – from DEC Division of Drinking Water website – <https://dec.alaska.gov/eh/dw/engineering/plan-review-checklist/> for more information.

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| “Engineering Plan Review” has been submitted to DEC and “Construction Approval” been received  |  |  |

###

### MOA/TORA/AGREEMENTS

Agreements with other Agencies are generally done early in the project delivery phase and changes occur during design need to be included.

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| Agreements with other Agencies have been reviewed and amendment executed, as needed. Ensure all roadways that are to be owned/maintained by Others have been accounted for in the agreement(s).  |  |  |

### SURFACE & SUBSURFACE WATER RIGHTS

Per Alaska's Constitution, water is a public resource belonging to the people of the state to be managed by the State for maximum benefit to the public. All surface and subsurface waters on all lands in Alaska are reserved to the people for common use and are subject to appropriation in accordance with the Alaska Water Use Act. The Alaska Department of Natural Resources (ADNR) determines and adjudicates rights and authorizations in the waters of the state, and its appropriation and distribution (AS 46.15.010). Pursuant to AS 46.15, a person may not divert, impound, withdraw, or use a significant amount of water from any source without a permit, certificate of appropriation or authorization from ADNR. **Anyone who diverts, impounds, withdraws, or uses a significant amount of water without an authorization from ADNR is guilty of a misdemeanor** (AS 46.15.180). In addition to a penalty imposed under AS 46.15.180, ADNR may remove or abate unpermitted works of appropriation, diversion, impoundment, or withdrawal and **you are liable for all costs of removal, abatement, or installation and for court costs and attorney fees incurred** by the state in seeking enforcement of the order (AS 46.15.255).

For more information on water rights, visit <https://dnr.alaska.gov/mlw/water/rights/>.

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| Has an analysis/review been conducted to determine if an application is required for a water use authorization for project impacts to water rights?  |  |  |

### CENTRAL REGION MAILBOX BEST PRACTICE

Mailbox supports should be brought up to current safety standards and be located at a space for safer delivery whenever possible (POM 632.523 and DOT&PF Standard Plans M-20, M-23). Upgrades must be considered with capital roadway projects when performing rehabilitation (“3R”) or reconstruction (“4R”) work (HPCM 1160.3.12 and 1130.4). This is also an option when new mailboxes are requested. DOT&PF reviews existing mailbox supports within the scope, schedule, and budget of preventive maintenance projects (PM or 1R) when feasible. (HPCM 1140).

For more information, see [Central Region Mailbox Practice 2021](https://dot.alaska.gov/creg/design/highways/Design_Guidance/Mailbox/).

| DESCRIPTION | YES | NO |
| --- | --- | --- |
| Have mailboxes been evaluated and addressed according to the Central Region Mailbox Practice?  |  |  |