



CITY OF OREGON CITY ENGINEERING PLAN REVIEW CHECKLIST FOR PUBLIC WORKS CONSTRUCTION

Project No. _____ Project Name _____
 Review Date #1 _____
 Review Date #2 _____
 Review Date #3 _____
 Review Date #4 _____
 Review Date #5 _____

LEGEND: X = O.K. blank = INCOMPLETE NA = NOT APPLICABLE

Disclaimer : This checklist does not prevent the designer from knowing all of the standards. This checklist is to be used as a guide, not a replacement for :

- Sanitary Sewer Design Standards
- Water Distribution System Design Standards
- Pavement Cut Standards
- Stormwater and Grading Design Standards or City Code Section 13.12
- Street Design Standards in City Code Title 12 and 16
- Any other applicable City or General Engineering Design Standards

The following sheets should be included in most engineering plan sets :

- _____ COVER SHEET
- _____ GENERAL CONSTRUCTION NOTES
- _____ <https://www.orcity.org/DocumentCenter/View/3435/Plan-Review-Checklist-PDF>
- _____ EXISTING CONDITIONS PLAN
- _____ TREE PRESERVATION, REMOVAL, AND MITIGATION PLAN
(* This is reviewed by the Planner)
- _____ DEMOLITION PLAN
- _____ SITE DIMENSIONAL PLAN
- _____ GRADING PLAN
- _____ EROSION & SEDIMENT CONTROL PLAN
- _____ COMPOSITE (OVERALL) UTILITY PLAN
- _____ STREET PLAN AND PROFILE
- _____ STORM PLAN AND PROFILE

- _____ SANITARY PLAN AND PROFILE
- _____ WATER PLAN AND PROFILE
- _____ STREET LIGHTING PLAN (if required)
- _____ SIGNING AND STRIPING PLAN (if required)
- _____ SIGNAL PLAN (if required)
- _____ LANDSCAPE PLAN (* This is reviewed by the Planner)
- _____ CONSTRUCTION DETAILS

PLAN PREPARATION

- _____ Prepared and stamped by a Professional Civil Engineer (PE) registered in Oregon. Verify current registration date.
- _____ Plan Sheet size - 24" x 36" with margins.
- _____ Scale: Horizontal 1" = 50', typical, 1" = 20' when more detail needed.
- _____ Use City Title Block

COVER SHEET

- _____ Sheet Index
- _____ Legend of symbols, existing and proposed
- _____ Vicinity Map.
- _____ Title Block. (Available at the link below).
<https://www.orcity.org/907/Design-Standards-Drawings>
- _____ North Arrow.
- _____ Reference Bench Mark. For Vertical and Horizontal Control. Must reference a NAVD88 datum unless another is approved by the City Engineer.
- _____ Temporary Benchmark, including description.
- _____ City GPS Control.
- _____ Project Name, placed at top center of the sheet
- _____ Planning File Number, placed just below the Project Name
- _____ As-Built Number, placed on the bottom right corner of the sheet
- _____ Utility Contact Information
- _____ Owner/Developer and Civil Engineer Contact Information

GENERAL CONSTRUCTION NOTES

- _____ Using City General Notes as modified to be applicable to the project
- _____ Include the statement that exists at the end of the notes to show what version note you are using (i.e. STANDARD NOTES UPDATED: 02/12/2018)

EXISTING CONDITIONS PLAN

- _____ Existing Grade Contours within 50 feet of the site
- _____ Existing Structures and existing finished floor elevation of existing buildings
- _____ Existing Driveways/Access Points stating dimension at property line and material of approach
- _____ Names of existing adjacent streets
- _____ Property Dimensions and Bearings
- _____ All existing impervious areas
- _____ Table showing total site area, existing pervious area, existing impervious area
- _____ Any existing easements
- _____ All existing trees
- _____ Site Water Resources (NROD, Floodplain, wetlands, etc)

TREE PRESERVATION, REMOVAL, AND MITIGATION PLAN

- _____ Provided. (see City Planning Department for requirements and approval)

DEMOLITION PLAN

- _____ Clearly show what items are being removed from the private property
- _____ Clearly show what items will be demolished offsite within the public r.o.w.

SITE DIMENSIONAL PLAN

- _____ Driveway dimensions
- _____ New roadway dimensions which includes sidewalk, parkway, etc.
- _____ Proposed roadway dimensions to existing public r.o.w.
- _____ Sight Triangle
- _____ Proposed Property / Right of way Dedication
- _____ Number all lots to be created
- _____ Any existing and proposed easements

- _____ Names of existing adjacent streets
- _____ Any existing structures to remain
- _____ Location of any retaining walls or fences
- _____ Check overhangs, awnings, and architectural bump outs
- _____ Names of proposed new streets
- _____ Property Dimensions and Bearings
- _____ Table showing total site area, existing pervious area, existing impervious area compared with proposed pervious area and proposed impervious area
- _____ All proposed trees
- _____ Proposed stormwater facilities
- _____ Provide a Shadow Plat if required
- _____ Table of Number of Parking spaces and ADA Spaces
- _____ Accessible Route defined
- _____ Pavement Section (Non-Single family subdivision projects)
- _____ Location and description of existing survey monuments (and note if protection or replacement will be needed)

GRADING PLAN

- _____ Existing Grade Contours within 50 feet of the site
- _____ Proposed Grade Contours (at 1 foot intervals) onsite
- _____ Spot Grades where needed
- _____ Finished Floor Elevations of proposed house footprints
- _____ Designation of slopes (i.e. 3:1, 4:1)
- _____ All excavated slopes no steeper than 2:1, unless approved otherwise
- _____ Fill slopes shall not be constructed on natural slopes steeper than 2:1
- _____ Benched ground where natural slopes are steeper than 4:1 and the height is greater than 5 feet, at a minimum of 10 feet wide, unless approved otherwise
- _____ Drainage Arrows to show intent of proposed grading
- _____ Overland Flow Arrows to show intent of stormwater flow beyond 10 year storm
- _____ Stormwater Facility
- _____ Proposed and Existing Swales
- _____ No slope or wall shall be placed on a property line, drainage shall flow to a swale or drainage structure to prevent ponding on neighboring property. Minimum 2 foot setback required.
- _____ Rock sizes greater than 6 inches in maximum dimension shall be 5 feet or more below grade
- _____ Site Water Resources (NROD, Floodplain, wetlands, etc)

- _____ Locations of Disturbed Areas including a statement on the area (i.e. 1.23 acres)
- _____ Quantities of Cut/Fill
- _____ Locations of Drainage Structures
- _____ Construction Information
- _____ Standard Grading Notes
- _____ Any other requirements found in the Engineering Stormwater Review Checklist

EROSION & SEDIMENT CONTROL PLAN

- _____ Silt Fence
- _____ Inlet Protection
- _____ Use of Approved BMPs
- _____ Stockpile Locations
- _____ Sedimentation Basin (if needed)
- _____ Gravel Construction Entrance

COMPOSITE (OVERALL) UTILITY PLAN

- _____ Site Geometric Plan
- _____ Storm sewer, sanitary sewer, and water main lines and structures
- _____ Stormwater Facilities
- _____ Proposed Street Light locations
- _____ Existing trees to remain
- _____ Proposed Street Trees
- _____ Proposed Utility Easements (P.U.E. and any others)
- _____ Proposed Structures (Buildings, Fences, Walls, etc)
- _____ Proposed Driveways (if known)
- _____ Proposed Mailboxes (if known)

STREET PLAN AND PROFILE

- _____ Classification of existing and/or proposed streets
- _____ Driveway width and/or location
- _____ Sidewalk width and location
- _____ Travel Lane (Road) width and location
- _____ Bike lane width and location
- _____ Parking lane width and location

- _____ Streetscape width and location
- _____ Curb type and location
- _____ Pavement section
- _____ Right of Way lines (proposed and existing)
- _____ Approved temporary turn around if a dead end street with a future extension
- _____ Access control for a future extension (also shown on the plat)
- _____ Street alignment with other streets, offset no more than 5 feet
- _____ Dimension of spacing of driveways and/or proposed streets
- _____ Pedestrian amenity alignment with existing amenities
- _____ Accessways if required
- _____ Intersection angle of 90 degrees (no less than 80 degrees)
- _____ Dead end street or cul-de-sac = maximum 25 dwelling units, maximum street length of 200 feet
- _____ Dead end street or cul-de-sac = sufficient radius for emergency vehicles
- _____ Vertical Curve information if required
- _____ Cross Slope of Road (crown to edge)
- _____ Profile of proposed road versus existing grade
- _____ Superelevation if required
- _____ Storm sewer profile can be part of street profile

STORM PLAN AND PROFILE

- _____ Private Stormwater Roof Drainage
- _____ Manhole Stationing, numbers, dimensional control.
- _____ Line designation (A, B, etc.)
- _____ Size, type of pipe, length, slope of pipe
- _____ Rim elevation, inverts, existing/proposed finished grades
- _____ Backfill designation
- _____ Utility crossings (Field locate / pothole to provide detailed information)
- _____ Match lines (with sheet number reference).
- _____ Pipe System Requirements
 - _____ Minimum 2 feet cover under collector and above roads
 - _____ May use Class 52 Ductile Iron or Class V concrete for 1 ft cover
 - _____ PVC and HDPE require 2 feet minimum cover
 - _____ Minimum velocity = 2.5 fps
 - _____ Maximum velocity = 15 fps

- _____ Minimum 12" in size
- _____ Maximum pipe length = 400 feet
- _____ Minimum separation = 6" vertical, 3 ft horizontal from other utilities
- _____ Debris grates for 18" in diameter or larger
- _____ Minimum pipe slope = 0.5%
- _____ Manhole shall be at all pipe junctions
- _____ Outfall shall have energy dissipaters
- _____ Drainage easements = 15 feet
- _____ Foundation drains piped directly to storm system for commercial/industrial
- _____ Foundation drains piped to street with plastic pipe for residential per code
- _____ Culverts

SANITARY SEWER PLAN AND PROFILE

- _____ Manhole Stationing, numbers, dimensional control.
- _____ Line designation (A, B, etc.)
- _____ Size, type of pipe, length, slope of pipe
- _____ Rim elevation, inverts, existing/proposed finished grades
- _____ Backfill designation
- _____ Utility crossings (Field locate / pothole to provide detailed information)
- _____ Match lines (with sheet number reference)

2.0 GENERAL DESIGN CONSIDERATION

- _____ Provide for removal of domestic and industrial wastes.
- _____ Separate Sanitary & Storm Systems.
- _____ Designed for Ultimate Flows, per Sewer Master Plan.
- _____ Provide for Adjacent Upstream Property. (Extend across street frontage and through easements if required).

2.1 SANITARY SEWER SYSTEM CAPACITY

- _____ Design Calculations (if required).

2.04 SANITARY SEWER PLAN AND PROFILE

- _____ Service Locations with size, material, depth at property line, station

_____ Location of existing water courses, stream and railroad crossings, culverts and storm drains crossing the alignment within 500 feet of proposed and future extension

_____ Location of existing 100 year floodplain

_____ Location of wells, water main valves, pump stations, fire hydrants and blow offs within a 100 foot radius of proposed and future extension

2.7 PIPE MATERIAL

_____ All public sanitary sewers shall be constructed with PVC pipe

_____ Class 50 ductile iron pipe shall be used when determined by the City Engineer

2.8 PIPE SIZE

_____ Shown on plan and profile.

_____ 8" minimum.

_____ Exception, 6" minimum if non-extendable, less than 250 ft. in length.

_____ Sized for Master Plan Ultimate Flows.

2.9 MINIMUM/MAXIMUMSLOPE

_____ Meets standard minimum.

_____ 6" = 0.60

_____ 8" = 0.40

_____ Meets preferred minimum for non-extendable sewer, shall be used for last 400 feet

_____ 6" = 1.00

_____ 8" = 0.75

_____ Maximum slopes (for slopes exceeding 19%, check criteria formula).

2.10 ELEVATION OFFSET AT MANHOLES

_____ 0.10' drop for less than 45° deflection angle.

_____ 0.20' drop for greater than 45° deflection angle.

_____ Maximum off-set one-foot (1') for conflicts.

_____ Drop connection.

2.11 ANCHOR WALLS

- _____ 20% or greater slope, anchor walls are required.
- _____ If velocity exceeds 15 Feet Per Second, use Ductile Iron pipe

2.12 MINIMUM DEPTH

- _____ Lateral Sewer - Four feet (4').
- _____ Main and trunk sewer/within roadway - 8 feet.
- _____ Main and trunk sewer/within easements - 6 feet.
- _____ If flat topography where existing sewers are shallow (5 feet or less), minimum cover is 3 feet
- _____ When sewer has cover of 3 feet or less, ductile iron pipe must be used

2.13 LOCATION

- _____ 10-foot horizontal separation with waterlines.
- _____ 18-inch vertical clearance with waterlines.
- _____ Waterline crossings at, or near 90 degrees.
- _____ 12-inch vertical separation with storm, exception (Ductile Iron pipe to be used).
- _____ 5 feet North and West of street centerline.
- _____ 10 feet from East curb on curves.
- _____ 6 feet from West curb on curves.
- _____ Easements shown on plan - Minimum width 15 feet (less than 15" diameter).
- _____ Easements shown on plan - Minimum width 20 feet (more than 15" diameter).
- _____ Easement description/sketch/documents or show on plat as appropriate.
- _____ Vehicular access to manholes.
- _____ Stream crossings - Special requirements.
- _____ Well, spring separation (50' minimum)

2.14 ALIGNMENT

- _____ Straight and uniform slope.

2.15 MANHOLES

- _____ Manhole spacing 400 feet.
- _____ Manhole locations (check list Section 2.15c).

- _____ Drop manholes - last resort, drop >24", maximum diameter 12". Outside Only
- _____ For rims over 2 feet high, use aluminum lid.

2.16 LATERAL SEWER (SERVICE LATERALS) AND PRIVATE COLLECTOR SYSTEMS

- _____ Each lot/parcel provided service lateral.
- _____ 5-foot separation with manholes and tees
- _____ Located 90° to main, except at a cul-de-sac.
- _____ Connections not at manholes, except cul-de-sac (Case-by-case).
- _____ 2 way Clean-out at property line.
- _____ Minimum cover 4 feet at property line.
- _____ Minimum size 4 inches for building sewer.
- _____ Minimum size 6 inches for multi-family/commercial.
- _____ Minimum slope 2% (1% when approved by City Engineer).
- _____ Residential building sewer/crossing private property not allowed unless approved by City Engineer with easement.

WATER PLAN AND PROFILE

- _____ Valve Stationing, numbers, dimensional control.
- _____ Fire Hydrants, numbers, dimensional control.
- _____ Air Release Valves, numbers, dimensional control.
- _____ Size, type of pipe
- _____ Rim elevation, line elevation, existing/proposed finished grades
- _____ Backfill designation
- _____ Utility crossings (Field locate / pothole to provide detailed information)
- _____ Match lines (with sheet number reference).

2.0 GENERAL DESIGN CONSIDERATION

- _____ Adequate Fire Flow
- _____ Min./Max. Working Pressure 40 - 100 psi, Normal, 60 psi
- _____ Provide for Adjacent Property and Maximum Development. (extend across street frontage and through easements, if required)
- _____ Maximum Velocity - 10 fps for average demand plus fireflow.
- _____ 20 psi residual pressure under calculated fire flow conditions.

2.1 WATER SYSTEM CAPACITY

_____ Minimum Fire Flow in Residential Area
1,000 gpm

_____ Minimum Fire Flow in Industrial and Commercial Areas per Fire Department (Case
by case - Minimum 1,500 gpm)
Required fire flow = _____

2.8 WATER MASTER PLAN REQUIREMENTS

_____ Oversizing Per Master Plan Included

2.9 PIPE MATERIALS

_____ Less than 30" = Ductile Iron
_____ 10" and above = thickness Class 50
_____ 8" and below = thickness Class 52

_____ Push on Titon Joint

_____ Rubber gaskets on joints

_____ Omni Balls at all "T"s

2.10 MAIN SIZE

_____ System Grid (looped)

_____ Shown on Plan

_____ 8" minimum. Exceptions as approved by the City Engineer.

_____ Dead end lines avoided. If not, then Fire Hydrant at end unless line meets criteria
for a blow-off in Section 2.17B. Approved by City Engineer on a case-by-case
basis.

_____ 10"+ Primary Feeder Mains, Industrial Subdivisions, or as
Dictated by Water Master Plan and Required Fire Flow

2.11 MINIMUM DEPTH

_____ 36" in Right-of-Way, 36" in Easements (3 feet of cover to top of pipe)

_____ Request for less Than Standard shall be approved by the City Engineer.

2.12 LOCATION

- _____ 4' From Curb Under Street Section
- _____ Bends 4' From Face of Curb
- _____ Water/Sanitary Separation (10' Horiz.) (18" Vert.), OAR333-61-050
- _____ Water/Other Utility Separation (10' Preferred, 3' Minimum)
- _____ Parallel Mains (12" Vertical Separation)
- _____ Utility Crossings (6" Vertical Clearance)
- _____ Minimum Radius for curved streets:
 - _____ 6" through 12" - 500'
 - _____ 14" through 16" - 600'
 - _____ 18" through 24" - 800'
- _____ Offset From Property Lines (42") - Parallel Lines
- _____ Easements (15' - Distribution) (20' -Transmission)
- _____ 20 foot separation to proposed structures (Commercial)
- _____ Located in parking lots/drives for access (Apartments, Commercial)

2.14 VALVES

- _____ Gate Valves 8" or Less
- _____ Butterfly Valves 10" or Larger
- _____ Combination Air & Vacuum Release Valves (See 2.17 Blow-offs)
- _____ Spacing Maximum - 500' - 800' for Distribution
- _____ Spacing Maximum - 1,300' - 2,000' for Transmission
- _____ Tee Intersection, Valved on All Branches (See OCPW Std Dwg 413)
- _____ Cross Intersection, Valved on All Branches (See OCPW Std Dwg 413)
- _____ Located at Tee or Cross fitting as near as possible
- _____ At Hazardous Crossing, Valved Each Side
- _____ At Terminus of Phased Construction (See 2.17 Blow-offs)

2.15 BACKFLOW PREVENTION

- _____ Provided, if required. Coord with City Water Quality personnel

2.16 FIRE HYDRANTS

- _____ Spacing, Residential 500 feet (When Measured Along Road)
- _____ Spacing High Value - 200-500 feet (as Determined by Fire Department)

- _____ Preferred At Street Intersections/Property Line
- _____ No further than 250 feet from any dwelling, business, garage, or building
- _____ Maximum 200 foot Centerline Distance to Cul de-sac Radius Point
- _____ Main Size for Dead End Mains, 8" Minimum (Avoid long dead end leads,if possible)
(Need City Engineer Approval)
- _____ 5-foot Separation with Utility Poles/Guys
- _____ Bollards as necessary in exposures to vehicle traffic. No closer than five feet from FH

2.17 AIR RELEASE VALVES/BLOW-OFFS

- _____ Air Release Valve at High Points on All Mains in Hilly Terrain as Approved by the City Engineer
- _____ Installed in a Manhole off the Street. Provide for Drainage
- _____ Blow-Off Hydrants are used on Main Lines to be Extended Later, Dead End Lines, Low Points. Locate at Least 2 feet Behind Curbs.

2.18 SERVICE LINES

- _____ Size
- _____ Service Location
- _____ Meter Location

2.19 METERS

- _____ Install by City (In Construction Notes)
- _____ Located in Right-of-way or Easement
- _____ Same Size as Service Line, Unless Supporting Calculations Supplied and Approved
- _____ 3" and Larger, Special Location and Vault Requirements, Flow Calculations

STREET LIGHTING PLAN (if required)

- _____ Street Lighting Design Provided. To be reviewed by PGE.
- _____ Photometric Plan Provided. To be reviewed by PGE.
- _____ Shall follow Statement of Streetlight Installation Responsibilities by PGE dated June 20, 2018. (Option B)
- _____ Single Family Residential : Local Streets use 25 foot poles. Arterial and Collector streets use 30 foot poles unless otherwise noted.
- _____ Shall follow PGE Approved Street Lighting Equipment for New Installations for

- _____ Outdoor Lighting Services – 2018 (LED is the only allowed public lighting type)
- _____ The maximum height of any lighting pole serving a multi-family residential use shall be 20 feet.
- _____ Commercial : The maximum height serving any other type of use shall be 25 feet, except in parking lots larger than five acres, the maximum height shall be 35 feet if the pole is located at least one hundred feet from any residential use.

SIGNING AND STRIPING PLAN (if required)

- _____ Location of any signs
- _____ Size of signs
- _____ Location and Type of Striping (lane lines, turn lanes, crosswalks, bike lanes, stop bars, etc.)
- _____ Note if striping shall be painted or thermoplastic
- _____ Note location and type of any bollards, barricades, or endmarkers

SIGNAL PLAN (if required)

- _____ Provided. To be reviewed by Clackamas County.

LANDSCAPE PLAN (* This is reviewed by the Planner)

- _____ Provided. (see City Planning Department for requirements and approval)
- _____ Overlay Plan of landscaping, utility mains and service, streetlights and other structures
 - _____ 15 feet from streetlights
 - _____ 5 feet from fire hydrants
 - _____ 20 feet from intersections
 - _____ 5 feet from all public utilities

CONSTRUCTION DETAILS

**Designer should provide the most recent details found at : <https://www.orcity.org/907/Design-Standards-Drawings>*

These details should be provided on all plan sheets with City Public Improvements where applicable. Consultant Details or other agency details should only be provided when no City detail exists or applies.

- _____ OC 313 – Pipe Bedding and Trench Backfill
- _____ Residential Lot Grading Types
- _____ OC 301 – Manhole

_____	OC 302 – Shallow Manhole
_____	OC 303 – Drop Manhole Connection
_____	OC 305 – Manhole Frames and Covers
_____	OC 306 – Waterproof & Tamperproof Manhole Frame & Cover
_____	OC 307 – Manhole Step
_____	OC 308 – Poured In Place Manhole Base
_____	OC 309 – Sanitary Sewer Cleanout on MainLine
_____	OC 310 – Sanitary Sewer Service
_____	OC 310-A – 2-way Cleanout for Sanitary SewerService
_____	OC 311 – Sanitary Sewer Service Tap to Existing Sewers
_____	OC 317 – Marker Post
_____	OC 401 – Standard Fire HydrantInstallation
_____	OC 402 – Standard 1” Water Service
_____	OC 404 – Standard 2” Water Service
_____	OC 405 – Standard Blowoff
_____	OC 407 – Thrust Blocking
_____	OC 408 – Standard Straddle Block
_____	OC 409 – Standard Sanitary SewerCrossing
_____	OC 410 – Standard Valve Box
_____	OC 411 – Standard Wet Tap
_____	OC 412 – Tie Rod Requirements
_____	OC 413 –Standard Valve Location and Joint Requirements
_____	OC 415 – Sampling Station
_____	OC 416 – Standard Fire LineInstallation
_____	OC 417 – 1” Combination Air Release & Vacuum Valve
_____	OC 418 – 2” Combination Air Release & Vacuum Valve
_____	OC 419-1 – 4” & Larger Water Meter Vault (Plan)
_____	OC 419-2 – 4” & Larger Typical Water Meter Vault (Profile)
_____	OC 419-3 – 4” & Larger Water Meter Vault (Detail Notes)
_____	OC 420 – Water Vault LadderInstallation
_____	OC 421-1 – 4” & Larger Typical Double Check Valve Assembly (DC)
_____	OC 421-2 – 4” & Larger Typical Double Check Valve Assembly(Side)
_____	OC 421-3 – 4” & Larger Typical Double Check Valve Assembly(Front)
_____	OC 421-4 – 4” & Larger Typical Double Check Valve Assembly(Notes)

- _____ OC 422 – Typical Backflow Preventers for Residential Irrigation Systems
- _____ OC 500 – Local Street Section
- _____ OC 501 – Collector Street Section
- _____ OC 502 – Arterial Street Section
- _____ OC 503 – Standard Cul-de-sac
- _____ OC 504 – Standard Residential Driveway
- _____ OC 504A – Standard Residential Driveway Notes
- _____ OC 505 – Standard Commercial Driveway
- _____ OC 506 – Commercial Driveway with Curbs
- _____ OC 507 – Curb Cut for Driveways
- _____ OC 508 – Sidewalk Detail
- _____ OC 509 – Sidewalk Ramp Details and Placement Options
- _____ OC 510 – Standard Curb
- _____ OC 511 – Monolithic Curb and Gutter
- _____ OC 512 – Street Barricade
- _____ OC 513 – Typical Utility Placement
- _____ OC 514 – Manhole Adjustment Detail
- _____ OC 515 – Pedestrian Path or Bikeway
- _____ OC 517 – Offset Crown and Shed Street
- _____ OC 518 – Eyebrow - Corner
- _____ OC 519 – Mailbox Location
- _____ OC 520 – Centerline Survey Monuments
- _____ OC 521 – Street Name Sign with 4-inch Lettering for 25 MPH or Less Speed Limits
- _____ OC 522 - Street Name Sign with 6-inch Lettering for 30-40 MPH or Less Speed Limits
- _____ OC 523 – Typical Sign Assembly and Mounting Hardware
- _____ OC 524 – Street Sign General Notes
- _____ OC 525 – End of Roadway Marker
- _____ OC 528 – Local Residential Speed Hump
- _____ OC 529 – Pavement Markings Placement
- _____ OC 529A – Bike Lane and Crosswalk Notes
- _____ OC 530 – Street Tree Planting in Planter Strip
- _____ OC 531 – Project Notification Sign
- _____ OC 532 – Pavement Cut Standard, Typical Layout
- _____ OC 533 – Pavement Cut Standard, Intersections

- _____ OC 534 – Pavement Cut Standard, Cul-de-sacs (Local Streets)
- _____ OC 601-1 – Flow Control Manhole, Page 1 of 2
- _____ OC 601-2 – Flow Control Manhole, Page 2 of 2
- _____ OC 602-1 – High Flow Bypass Manhole, Page 1 of 2
- _____ OC 602-2 – High Flow Bypass Manhole, Page 2 of 2
- _____ OC 603 – Primary Pond Outlet for Type “A” Detention Pond
- _____ OC 604 – On Site Catch basin
- _____ OC 605 – Pipe Anchor Wall
- _____ OC 606 – Bore Casing
- _____ OC 607 – Pollution Control Manhole
- _____ OC 608 – Storm Manhole for Large Diameter Pipe (27” and Larger)
- _____ OC 609 – Precast Curb Inlet
- _____ OC 610-4 – Type G-1, G-2 Catch Basin with Sump
- _____ OC 610-5 – Type 4 Catch Basin
- _____ OC 611-1 – Area Drainage Basin or Field Inlet
- _____ OC 611-2 – Ditch Inlet
- _____ OC 612 – Storm Sewer Service
- _____ OC 613-2 – Pollution Control Manhole with Outside Drop
- _____ OC 614 – Carry Through Manhole
- _____ OC 616 – Subsurface Drain
- _____ OC 618 – Stormwater Planter Facility – One Way Cleanout
- _____ OC 619 – Roadside Stormwater Planter – Plan View
- _____ OC 620 – Roadside Stormwater Planter – Elevation
- _____ OC 621 – Roadside Stormwater Planter – Section
- _____ OC 622 – Roadside Stormwater Planter – Detail
- _____ OC 623 – Curb Cut Scupper and Sediment Catch Basin
- _____ OC 624 – Roadside Stormwater Planter – Concrete Check Dam
- _____ OC 625 – Waterproof Liner Attachment and Pipe Boot
- _____ OC 626 – Beehive Overflow Structure
- _____ OC 627 – Stormwater Planter Facility – 2 Way Cleanout
- _____ OC 630 – Roadside Stormwater Planter – Plant Spacing
- _____ OC 631 – Tree Well in Stormwater Planter
- _____ Stormwater Pond Signage
- _____ Silt Fence
- _____ Inlet Protection

- _____ Gravel Construction Entrance
- _____ Other Erosion Control Details (as applicable)

MISCELLANEOUS

- _____ Location of Private Utilities (electric, gas, telephone, communication, cable)

**Other plans may be required, including, but not limited to :*

- *Phasing Plan*
- *Traffic Control Plan*

Checklist last updated November 2023