# **TOWN OF HUDSON**

# CONSTRUCTION PLANS CHECKLIST

# 1. General Drafting Standards

- Sheets maximum size shall be 24" x 36" in size.
  Text should be legible and relocated from areas with congestion or numerous line types.
- $\square$  No text shall be under a L80 or 0.08" in height.
- Any reduced plans shall not have any text heights under the L80 height.
- All existing improvements, including lot lines, ROW lines, etc. shall be dashed.
- All existing contour lines shall be dashed with a dashX2 or hiddenX2 line.
- Any existing improvements, contours, lot lines, ROW lines, etc. shall continue past the boundary lines at least 100 feet.
- $\mathbf{\nabla}'$  Each sheet shall have a title block and named appropriate with the name of the subdivision and sheet purpose and sheet number.
- $\square$  Original and revision dates on all sheets.
- Sheets containing plan views shall contain a north arrow, bar scale and written scales for horizontal, along with vertical if appropriate.
- The boundary should always be in a heavy line type.
- ⊠∕ Acceptance signature blocks shall be included on all sheets where public improvements are to be constructed.
- Plans shall be checked, sealed, signed and dated by a Registered Professional Engineer.

### 2. Cover Sheet

- Project Name and Legend.
- All General Notes for entire project.
- Vicinity or location map with site denoted and streets, parks schools, etc. labeled.
- Benchmark description including reference to datum (NAVD29). Descriptions shall be sufficient to provide for locating monuments.
- Basis of bearings, section or control line information including all aliquot corners.
- Sheet Index.
- List of Contacts and Engineer's Signature Block
- Owner, engineer and developer's name, address and telephone numbers.

## 3. General Requirements for All Plan and Profile Sheets

- Horizontal Scale: 1"=50' or larger. Vertical Scale: 1"=5' or larger.
- Match lines labeled with corresponding sheet number.
- Existing and proposed rights-of-way, easements, and property lines, on and adjacent to the site.
- ☑ Label street names. Denote all lot numbers and blocks.
- $\square$  Curb and gutter, sidewalk, and alleys.
- Beginning station tied and referenced to section line or control line.

# 4. Phasing Plan – If Applicable

- □ Denote the phases in heavy lines and large lettering.
- Draw and label any temporary traffic signage required for proposed phasing. П

### 5. Grading Plan

- Existing site topography extending a minimum 100' past property limits.
- Existing and proposed curb and gutter, sidewalk, bike-paths, alleys, and other improvements including irrigation ditches drainage swales, and structures.
- Location of fixed objects and features (wetlands, trees, poles, fences, buildings, walls, etc.).
- ☑ Label all improvements such as structures. Cross-sections and details may be necessary to adequately describe improvements.
- $\square$  Show and label driveway grades and dimensions.
- $\square$  100-year floodplain and floodway lines and flood elevations if applicable.
- Label all proposed and existing finished floor elevations on and adjacent to the site.
- Existing contours (2.0-foot maximum interval).
- Proposed contours (2.0-foot maximum interval). Line types should be heavier than the existing. Index contours should be heavier than others. Show match with existing contours.
- ☑ Label street slopes, grade breaks, and approximate high and low point locations.
- Spot elevations at all property corners.
  Survey control points with elevations and coordinates.
- Drainage designation for each lot. Show drainage flow arrows.

- Where parking lots, special entrances, trash enclosures, special structures, etc. are to be constructed spot elevations should be added at all points where curb directions change.
- $\square$  Do not include existing or proposed utilities.

# 6. Erosion Control Plan

- $\square$  Proposed silt fence and other erosion control devices.
- For plan requirements and symbols see "Storm Drainage Volume II Design Criteria and Construction Specifications," Section 13.

### 7. Master Utility Plan

- Existing utilities both on and adjacent to site. Draw at an appropriate (readable) scale.
- Proposed utilities on and adjacent to the site. Draw proposed utilities in a heavier weight than the existing. Include all manholes, fire hydrants, valves, inlets, irrigation structures, etc.
- Alignment of all dry utilities including gas, electric, telephone, and cable television.
- Proposed points of connection for water and sewer.
- Proposed abandonment of any existing lines.
- $\square$  Conduits for dry utility sleeves, labeled with conduct size and utility use.

# 8. Signage, Striping and Lighting Plan

- The signage, striping and lighting items set forth on this sheet shall be set in a heavier line weight and shall be appropriately labeled.
- Pavement marking shall include lane lines, cross walks and stop bars, lettering and symbols. Dimension lane widths.
- A sign table shall be included listing all signs, their MUTCD designation and number required.

### 9. Street Plan and Profile

- Existing street improvements for full width of street plus 50' beyond construction limits.
- Proposed street improvements; curb and gutter, storm inlets, sidewalk, bikeways and alleys. Curb types, pan widths, etc. should be denoted on the plan. Limits of construction shall be noted.
- Curve layout information including radius, length of curve, central or deflection angle, stationing of point of curvature (P.C.) and point of tangent (P.T.)
- Plan view shall denote right-of-way widths, flowline to flowline widths, flowline spot elevations at intersections, cul-de-sacs, "knee-caps" and the beginning and ending of horizontal curves with stationing at any alignment changes. If plan is too cluttered intersection details shall be provided. Proposed contours and utilities are not typically shown in the plan view.
- Profile view shall contain a minimum of one profile, that being the centerline. Whenever the street cross section varies from the standard section, other profiles or cross-sections should be added to clarify including flow-line profiles for curb returns and cul-de-sacs. Cross-sections shall be provided for arterial and major collector streets as well as widening of existing streets.
- Profiles shall extend a minimum 100' beyond limits of construction. Cross-sections shall extend a minimum 25' beyond construction limits.
- If centerline profile is used a distance and slope should be denoted on the profile view for all horizontal curves at flowlines.
- Existing and proposed profiles should be shown and labeled. Existing profiles shall be in a dashed line type. Vertical curve data shall include beginning and ending grades, length of curve, stationing for point of vertical curvature, point of vertical intersection, and point of vertical tangent.

# 10. Utility Plan and Profile

- Separate plan and profile sheets shall be provided for water, sanitary sewers, storm drains, storm water channels, non-potable water, irrigation pipelines, and ditches.
- For storm drains, follow those requirements as set forth in the "Storm Drainage Volume II Design Criteria and Construction Specifications," Section 2.5 Construction Plans.
- Show all existing and proposed utilities including valves, fire hydrants, manholes, inlets and associated items in the plan view.
- Draw proposed subject utility with a heavy line weight.
- Draw and label any proposed new connections to the existing systems, as well as existing service connections, by station in the plan view.
- $\square$  Include any benchmarks and horizontal control points.
- Label and draw the pipe alignment with stationing, pipe size, type of material, pipe class and length between fittings or manholes on the plan and profile views.
- Profiles should accurately depict the existing and proposed grades above pipes.
- The profiles should depict all proposed crossings with other existing or proposed utilities. Label all crossings with the type of utility and size and elevation if known. Show any special thrust restraint.

- $\square$  The profiles for the water lines shall denote the top of pipe elevations for all fittings.
- $\square$  The profiles for sewer lines shall denote manhole rim elevations along with the various invert elevations.
- Stations that correspond to any pipe appurtenances including air relief valves, pressure reducing valves, blowoffs, lift stations, and clean-outs.

### 11. Detail Sheets

- ☑ Typical sections shall be provided for all streets showing all improvements and dimensions. This shall include the pavement section design.
- Add any applicable standard details as provided in the "Design Criteria and Construction Specifications" manual.
- ☑ Include special details for any item not clearly described or labeled in the Construction Plans or Design Criteria manuals. This is particularly true for drainage channels, rip-rap areas, irrigation structures, retaining walls and all other non-standard structures.

### 12. General Notes

The following general notes shall be included on construction plans as applicable:

- All work within the public right-of-way, or easement shall conform to the Town of Hudson Construction Specifications and Design Standards.
- The Contractor is responsible for obtaining all required permits prior to commencement of any work on the project. A permit from Public Works Department (970-350-9881) is required for all construction in public right-of-way or easements. A pre-construction conference shall be held with Town representatives before a permit will be issued. Call Utility Notification Center of Colorado at 1-800-922-1987 for utility locates at least 48 hours prior to any excavation work.
- The Contractor shall notify Construction Services (970-350-9358) at least 24 hour prior to required inspection.
- It is the Contractor's responsibility to notify the Owner/ Developer, and the Town, of any problems in conforming to the accepted plans for any element of the proposed improvements prior to its construction.
- ☑ It is the responsibility of the Developer during construction activities to resolve construction problems due to changed conditions, or design errors encountered by the Contractor during the progress of any portion of the project. If, in the opinion of the Town, the modifications proposed by the Developer, to the accepted plans, involve significant changes to the character of the work, or to the future contiguous public or private improvements, the Developer shall be responsible for re-submitting the revised plans to the Town of Hudson for acceptance prior to any further construction related to that portion of the project. Any improvements not constructed in accordance with the accepted plans, or the accepted revised plans, shall be removed and reconstructed according to the approved plan.
- The Contractor shall be solely and completely responsible for the conditions at and adjacent to the job site, including safety of all persons and property, during the performance of the work. This requirement shall apply continuously and shall not be limited to normal working hours. The duty of the Town to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.
- The Contractor shall provide all lights, signs, barricades, flag persons, or other devices necessary to provide for public safety in accordance with the current Manual on Uniform Traffic Control Devices, and the Hudson Supplement to the Manual on Uniform Traffic Control Devices.
- The Contractor is responsible for the protection of all survey monuments. Any monument that must be destroyed for construction shall be replaced. The Contractor shall engage the services of a Professional Licensed Surveyor (PLS) prior to disturbing any monuments.
- Prior to final placement of surface pavement, all underground utility mains shall be installed and service connections stubbed out beyond curb line, when allowed by the utility. Service from public utilities and from sanitary sewers shall be made available for each lot in such a manner that will not be necessary to disturb the street pavement, curb, gutter, and sidewalk when connections are made.
- A Geotechnical Report has been prepared by \_\_\_\_\_\_ (include report date and project #) for right-of-way grading and paving. Refer to Geotechnical Report for any requirements exceeding Town Standards. A Final Pavement Design Report is also required. The soil investigation for this report shall occur after utility construction and grading for streets is completed to within 6" of anticipated subgrade. The final Pavement Design Report shall be accepted by the Town of Hudson prior to any non-structural concrete, pavement or subgrade installation.