

Civil Engineering Plans Checklist

Civil engineering plans are to be submitted directly to the Engineering Department located at 3901 Main Street. For further information regarding civil requirements and submission timelines please contact the Engineering Department at 972-412-6287. Applicants are required to schedule a pre-application meeting with the Public Works Department prior to making a formal submittal. The purpose of this meeting is to discuss the City of Rowlett development review/approval process and proposed plans with prospective applicants. Pre-application meetings are held every Thursday of the month. Please contact the Planning Division at 972-463-3949 to set up a meeting. Information regarding engineering standards, including Standard Construction Details can be accessed at the following link: <https://rowlett.box.com/s/47kl09vk9zdsy5e8are1>

| CIVIL ENGINEERING PLAN REQUIREMENTS | |
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| Included | Item Description |
| A. First Plan Submittal Requirements | |
| <input type="checkbox"/> | 1. Submit one electronic pdf copy by either CD/DVD, USB Flash Drive, or Email to glangford@rowlett.com |
| <input type="checkbox"/> | 2. Each set should be neatly bound, no loose sheets will be accepted |
| <input type="checkbox"/> | 3. This completed plan review checklist attached with plans |
| <input type="checkbox"/> | 4. In addition to site specific civil sheets, the following sheets are required in all plan sets: |
| <input type="checkbox"/> | <ul style="list-style-type: none"> • Cover / Index of Sheets (City Cover Sheet) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> • General Notes (City Standard Notes) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> • Copy of the Approved Preliminary Plat by the Planning and Zoning Commission |
| <input type="checkbox"/> | <ul style="list-style-type: none"> • Drainage Area Map (show off-site, existing and proposed conditions) (1"=100' min) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> • General Notes (City Standard Notes) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> • Applicable Standard City Detail Sheets |
| <i>Plans not meeting above requirements may be returned without a review and marked "Incomplete"</i> | |
| B. Requirements for all Civil Plan Sheets | |
| <input type="checkbox"/> | 1. Title block with engineering firm information, registration number, engineer's seal, sheet title, and page numbers clearly shown |
| <input type="checkbox"/> | 2. All plans shall be tied to the City of Rowlett's GPS monument system. A minimum of two benchmarks are required on all pertinent sheets. |
| <input type="checkbox"/> | 3. North Arrow and scale clearly shown on each plan sheet |
| <input type="checkbox"/> | 4. Legend (relevant to each sheet) showing all special symbols, linetypes and hatch used |
| <input type="checkbox"/> | 5. Street names labeled on all existing, proposed, and future streets |
| <input type="checkbox"/> | 6. Lot & Block numbers and/or ownership info shown for all lots |
| <input type="checkbox"/> | 7. Caution notes shown when working next to any existing utilities (public and franchise) |
| <input type="checkbox"/> | 8. Provide a copy of the Geotechnical Report |

| C. Items to be Included in Plan Set (All sheets min 1"=20' scale, unless otherwise noted below)(Profile 1"=4'V) | |
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| <input type="checkbox"/> | 1. Dimensional Control Plan (Non-residential projects) . Dimensions for all buildings, pavement and hardscape areas (i.e. parking areas, driveways, fire lanes, turn lanes, sidewalks, radii, throat depths, etc.) . Verification of public right-of-way widths. Dimension each property corner adjacent to public right-of-way to a perpendicular point on opposite side right-of-way line (do not label "variable width" only) . Dimension along right-of-way to nearest cross-street and/or driveway measured from throat to throat. |
| <input type="checkbox"/> | 2. Tree Survey and Preservation Plan |
| <input type="checkbox"/> | 3. Grading Plans (show off-site grades along property boundary) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Both onsite and offsite existing/proposed contours shown clearly labeled |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Date and name of firm who prepared geotechnical report with corresponding note stating: "Work shall be done in accordance with the Geotechnical Report by _____, dated _____." |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Drainage clarified by flow arrows, high points, sags, ridges, and valley gutters |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Finished pad and/or floor elevations shown |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Minimum finished floor elevations shown adjacent to floodplains, ponds, creeks/channels, etc. |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Clearly show all walls and label top/bottom elevations of wall at key locations |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Spot shots shown to ensure proper drainage and adequate ADA/TAS routing where applicable (at minimum show top of curb elevations every 50 feet) |
| <input type="checkbox"/> | 4. Utility Layout (Show water, sewer and storm drain all on one sheet) (1"=100' min) |
| <input type="checkbox"/> | 5. Storm Sewer Layout (for entire subdivision) (1"=100') |
| <input type="checkbox"/> | 6. Storm Sewer Plan & Profile (1"=20'H, 1"=4'V) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Show and lable all utility crossings with separation distances |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Label inlet type, size, pavinf station or station pipe, and provide top of curb elevations. |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Lable centerline stations for lateral connections, manhole and junction box locations, pipe size changes, headwalls, bends, and future stubouts. |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Provide Inlet computation tables for all inlets |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Provide pipe hydraulics computation tables for all storm draij pipes |
| <input type="checkbox"/> | <ul style="list-style-type: none"> 100-yr gutter flows and bypass shown at each inlet along public streets and firelanes |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Provide applicable construction details for all drainage structures |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Existing and proposed ground line at centerline of pipe shown and labeled correctly |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Show all hydraulic data including pipe flow, pipe capacity, hydraulic slope, velocity, velocity head, and partial flow data if under partial flow conditions (velocity and flow depth) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Label station and flowline elevation information for all structures, crossings, laterals, etc. |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Label flowlines at every 50 foot station |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Indicate length, type/class, slope and size of all storm pipes |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Show and label 100-yr and/or 10-yr HGL, label HGL elevations at all junctions |
| <input type="checkbox"/> | <ul style="list-style-type: none"> 100-yr WSE shown at outfall for ponds, creeks and channels |

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| <input type="checkbox"/> | <p>7. Detention Pond Design, Calculations & Layout (1"=20')</p> <ul style="list-style-type: none"> -Show calculations and method used, provide detention pond volume sizing calculations and/or computation table. Provide stage-discharge table and/or curve information. -Provide weir and/or orifice sizing calculations for outfall structure. - Existing and proposed contours shown and labeled. -Cross-section of pond including side slopes, normal pool elevation (if applicable), show 100-yr WSE and 10-yr WSE. -Detail of pond outfall structure showing all elevations as necessary. -Show and label all existing/proposed utilities and easements. -Provide an access/maintenance ramp (max slope 6:1) |
| <input type="checkbox"/> | 8. Profile and provide cross-sections and hydraulic calculations for all swales and open channels |
| <input type="checkbox"/> | 9. Erosion Control & Stormwater Pollution Prevention Plan (1"=20') |
| <input type="checkbox"/> | 10. Water Line Plan & Profile (>12") (1"=20'H, 1"=4'V) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> -Label size, type and pressure class for all proposed water mains . Show location for all water services and meters . Show and label all easements . Dimension location of all mains, services, meters, and spacing from other utilities . Curve data and stationing provided as necessary . Show and label all fire hydrants, valves, fittings, FDC locations, and back-flow prevention Profile View . Profile all water mains 12" and large, or where a potential conflict may arise . Existing and proposed ground line at centerline of pipe shown and labeled correctly . Label station and flowline elevations at 100' intervals, and for all fittings, laterals, and crossings . Indicate length, type/class, slope and size of all lines . All utility crossings and parallel sewer/storm lines shown in profile . Indicate length, type and size of encasement as needed |
| <input type="checkbox"/> | 11. Sanitary Sewer Line Plan & Profile (1"=20'H, 1"=4'V) |
| <input type="checkbox"/> | <ul style="list-style-type: none"> Dimension location of all mains from other utilities -Label line name, size, and type of all proposed sanitary sewer lines -Stubouts labeled with size, slope, length, and flowline elevations (if not profiled) - Show and label all easements - Show centerline stationing for sanitary sewer - Show and label all manholes with rim elevations, as well as cleanouts - Indicate type and size of encasement where needed - Show flow direction arrows for sewer main - Topographic contours shown to delineate sewer basins Profile View . Profile shown for all mains 8" and larger, or where a potential conflict may arise . Existing and proposed ground line at centerline of pipe shown and labeled . Label station and flowline elevation information for all manholes, cleanouts, crossings, laterals . Label flowlines at every 50 foot station . Manhole inflow and outflow elevations to be designed with a minimum of 0.1' drop . Indicate the type and diameter for all manholes . Indicate length, type/class, slope and size of all sanitary sewer pipe between manholes . All utility crossings and parallel storm lines shown in profile . Indicate length, type and size of encasement as needed |
| <input type="checkbox"/> | 12. Paving Plan |
| <input type="checkbox"/> | -Typical Pavement Section details shown (firelane, parking areas, streets, subgrade, etc.) |
| <input type="checkbox"/> | -For streets, centerline stationing at every 100', PC's, PT's, and curve data labeled |
| <input type="checkbox"/> | - Intersection, driveway and island curb radii labeled |
| <input type="checkbox"/> | -All sidewalks and barrier free ramps shown, labeled and dimensioned |

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| <input type="checkbox"/> | - Existing, proposed, future streets and drives shown and labeled |
| <input type="checkbox"/> | - Right-of-way corner clips and sight visibility easements provided |
| <input type="checkbox"/> | -Storm inlets identified with paving stations and top of curb elevations at center of inlet. |
| <input type="checkbox"/> | -Drainage clarified by flow arrows at crests, sags, ridges, intersections, and valley gutters |
| <input type="checkbox"/> | - Show driveway locations for all lots adjacent to storm inlets |
| <input type="checkbox"/> | -Show sidewalk layout |
| <input type="checkbox"/> | 13. Traffic Control Plan |
| <input type="checkbox"/> | 14. Illumination Plan |
| <input type="checkbox"/> | 15 .Landscape & Irrigation Plan |
| <input type="checkbox"/> | 16. Tree Survey and Preservation Plan |
| <input type="checkbox"/> | 17. Trails |
| <input type="checkbox"/> | 18. Bridge Plans – If applicable |
| <input type="checkbox"/> | 19. Other Utilities Layout (electric, gas, telephone and cable) |
| | <p>Notes:</p> <p>*Show street cross sections on every sheet showing ROW, sidewalks and concrete thickness and strength. All plan and profile sheets shall be on City of Rowlett standard sheets.</p> <p>* All horizontal and vertical control shall be on City of Rowlett Geodetic Control, Texas State Plane Coordinates NAD 83(93) North Central Zone, and NAVD 88. All sheets that have contours or profiles shall have benchmark information shown.</p> <p>* All sheets shall be numbered sequentially (1 of X, 2 of X,etc., X=total number of sheets).</p> <p>* Use City standard sheets for Cover Sheet and Plan/Plan Profile Sheets. DO NOT MODIFY OR “CUT UP” PROFILE.</p> <p>* Smaller scales may be used in order to fit drawings to sheets if no detail will be lost, and by prior approval.</p> <p>* All text shall be a minimum of 0.10” if all upper case, and 0.12”</p> <p>*A scale of 1”=30’ will not be allowed on any Civil Drawings.</p> <p>Final Plats should not be submitted with the civil plan sets. If they are included, they will be returned immediately as rejected without review. The plats should only be submitted to the Department of Development Services upon determination by the Development Services Engineer.</p> |