

Engineering Plan Review Checklist

Project Name: _____

Project Contact Name: _____

Date: _____

Submission of this completed form is a part of the Engineering Application. All items should be "checked off" prior to submittal to ensure a complete submittal. If the applicant deems an item to be "Not Applicable" to the proposed development, it shall be marked as "NA" with an explanation.

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Administrative Items				
		Engineering Plan Submission Application with submittal checklist				
		Engineering-Plan Review Checklist				
		Four Complete Copies of Engineering Plans Initial Submittal; Three Complete Copies of Engineering Plans Re-Submittal; Two additional sets each submittal is proposed lift station.				
		Markups from Previous Submittals, if subsequent submittal				
		Annotated Review Comments, if applicable				
		Two copies of any Study or Report Completed in Support of the Project				
		Submission of Required Fire Flows Form to Fire Marshal				
		Submission of Fire Hydrant Flow Form to Fire Marshal				
		Floodplain Administrator Development Permit Application				
		Tx DOT preliminary letter of approval for Drive Approach Connections				
		TxDOT permits obtained				
		Franchised Utility Approval Obtained (specify)				
		Other Agency or Land Owner Approval Obtained (specify)				
		Corps of Engineers (COE) Wetland Permit Obtained (if applicable) or letter of determination				
		Federal Emergency Management Agency (FEMA) Letter of Map Revision (LOMR)				
		Other Agreements (explain)				
		Studies - If Required				
		Geotechnical Report				
		Federal Emergency Management Agency (FEMA) Letter of Map Revision (LOMR) Flood Study				
		Wetland Determination				
		Lift Station Report				
		Hydraulic Study Submitted				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Water Study Submitted				
		Sanitary Sewer Capacity Study Submitted				
		Traffic Impact Study				
		Flood Study (100 year-fully developed) (Local or FEMA)				
		All Sheets				
		Sheet Size 24" x 36"				
		Title Block with Subdivision Name, Project Name and Sheet Description				
		Revision Block - Filled Out				
		North Arrow				
		Vertical and Horizontal Scale Listed and Accurate				
		Benchmarks Listed and Described				
		Legend of All Drawing Symbols and Line Types Used				
		Engineer's Seal, Signature and Date per Texas Engineering Practices Act				
		Responsibility Note Required on All Sheets except site plan and standard details: "ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN."				
		Provide Key Map for Large Projects Showing Sheet Locations				
		Clear Drafting with Proper Line Weights for Ease of Reading				
		No Overlapping Text				
		Drafting at Adequate Scale to Obtain Ease of Reading and Scanning				
		Cover Sheet				
		Project Name				
		Official Plat Name as Assigned by the Planning and Zoning Department (including Block & Lot)				
		Official Project Address Assigned by the City Planning and Zoning Department				
		Mapsco Grid Reference				
		Month and Year of Probable Start of Project Construction				
		Revision Table				
		Engineer Contact Information (Name, Address, Phone Number, email address)				
		Owner Contact Information (Name, Address, Phone Number, email address)				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Sheet Index - List ALL sheets included in plan set including details				
		Location Map with North Arrow				
		Side Bar - Plat Subdivision Name & Project Name				
		Title of type of sheet (i.e. Grading, Utility, Water,...)				
		Approved Site Plan				
		Official Site Plan Attached with Planning and Zoning Department Stamp and Signed				
		Approved Landscape/Treescape Plan				
		Official Landscape and Treescape Plan Attached with Planning and Zoning Department Stamp and Signed				
		Proposed Final Plat				
		Plat Included				
		Correct Plat Name				
		Plat Closure Calculations (Sealed by Registered Surveyor or Engineer)				
		GPS Grid Coordinates Shown for the Property Corners Properly Into City Monumentation System (x, y coordinates on 2 property corners)				
		Location map				
		Street Names with Right-of-Ways Widths Identified				
		Benchmark (if near drainage feature or flood zone)				
		Basis of bearing				
		Metes and Bounds of Tract				
		Adjacent Land Ownership Information				
		List Corners Found or Set				
		Property Pins Shown for tracts across ROW with verification of existing ROW Widths				
		Building Setback Lines Shown				
		Recording Volume and Page Information for all separate easements and ROW dedications within platted area or adjacent tracts				
		100-Year Floodplain for Fully Developed Conditions showing cross sections and elevations				
		Minimum Finished Floor Elevations Shown (if near drainage feature or flood zone)				
		Drainage & Drainage Maintenance Easements Shown and annotated				
		Required Utility Easements Shown (15' minimum width) and annotated				
		Access Easements Shown and annotated				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		ROW. Dedication Shown and annotated				
		ROW Corner Clips and annotated				
		All Existing easements (on-site) shown and annotated				
		Visibility Easements Shown and annotated				
		Surveyor Seal, Signature and Date				
		Dimensional Control & Paving Plan				
		Lot Boundary with Dimensions and Bearings				
		Street Names Shown				
		Existing ROW				
		ROW. Dedication and ROW Corner Clips Shown with Dimensions				
		Verification of public rights-of-way width ("variable width" is not acceptable) (When Required)				
		Visibility Easements Shown as Required by City Code				
		Building Setback Lines Shown				
		Dimensions (thickness, width, length, radius) for all paved areas (parking areas, driveways, fire lanes, turn lanes, drive aisles, sidewalks, etc)				
		Driveways Location, Spacing and Width Meet City Code and TxDOT Requirements				
		Driveways- Width, Radius, Distance to Adjacent Drives, Alignment with other Drives Across Street Shown				
		Fire Lane - Width, Radius & Distance from Building Shown and Detailed including turn-arounds and dead-ends				
		All Pavement Thickness, Concrete Strength, Reinforcing, Subgrade Detailed Per City Requirements				
		Location of Fire Sprinkler Fire Department Connection (FDC) Shown				
		Location of Electrical Transformers Shown				
		Dumpster Location, Access and Construction Requirements Met and approved by Planning and Zoning Department (Backing Distance and Maneuver - Accessible by SU-30 Turning Template)				
		All Existing and Proposed Utility and Drainage Easements Shown (15' minimum width)				
		Existing and Required Access Easements Shown				
		Screening Wall Location, Foundation, Height, Start/End of Wall				
		Retaining Wall Location, Foundation, Height, Start/End of Wall				
		Existing and Required Sidewalks and Trails Shown with Dimensions				
		Show Location of Required ADA Ramps				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Limits of 100-Year Ultimate Flood Plain Shown (FEMA and local)				
		Note Identifying Reference for 100-Year Floodplain and WSE Information with cross section with elevations				
		New/Relocating Left Turn Lane and/or deceleration lanes complies with City and TxDOT Requirements (Spacing, Length, Construction)				
		Existing and Proposed Infrastructure within Median Modifications Shown (Trees, Street Lights, Conduit, Irrigation, pavers, etc)				
		Street Lighting and Street Sign Plan				
		Grading Plan				
		Benchmarks				
		Exist Lot Lines & Corners (lot lines screened if being changed)				
		Proposed Lot Lines				
		Existing (screened) & Proposed ROW				
		Street Names Shown				
		Drainage Easements for Drainage Features and Structures Shown (15' minimum width)				
		Existing & Proposed Improvements (paving and building footprints)				
		Minimum Finished Floor (FF) Elevations for Structures meet Requirements of Drainage Ordinance				
		Minimum Finished Floor (FF) Elevation Shown for each Structure				
		Existing & Proposed Contours for Site and Minimum of 50' Beyond Property Lines (with appropriate contour interval) with all ponds and waterways labeled				
		Existing & Proposed Spot Elev. Showing Grade; High & Low Points; Swales, Inverts & Ridges with Flow Arrows				
		Label Lot Area and Disturbed Land Area				
		Adjacent Property Improvements Within Minimum 25' of site				
		Existing & Proposed On-site and Off-site Drainage Features (Design Info Shown)				
		Maximum Cross Slope 3H:1V (H=Horizontal, V=Vertical) Min Running Slope 1% for unpaved areas				
		Ditches Adjacent to Site Cleared, Cleaned & Regraded (only with permission from property owner)				
		Positive Overflow Routes with elevations (All public roads that have a sag require an overflow route)				
		Lot grading to be above street elevation (Residential Only)				
		Limits of 100-Year Ultimate Floodplain Shown				
		Ultimate (Fully Developed) 100-Year Floodplain Water				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Surface Elevations (WSE's) shown on cross sections				
		Note Identifying Reference for 100-Year Floodplain and WSE Information				
		Cross sections to scale with hydraulic calculations				
		Location of Cross-Sections With Stationing Shown				
		Cut or Fill Areas shown on Cross-Sections				
		Existing and Proposed Retaining Walls with Top & Bottom Spot Elevations and calculations as required				
		No Residential Cross Lot Drainage				
		Grading Plan Matches Drainage Area Map				
		Does Grading Plan Address Impacts to Adjacent Properties Requiring Easements or Letters of Permission				
		All Detention Areas with Flumes with Elevations and Side Slopes Labeled				
		Drainage Area Map				
		Storm Drainage Analysis and design shall comply with the Drainage Ordinance				
		Existing and Proposed Drainage System and Structures Shown (pipe, inlets, etc)				
		Current Zoning or Anticipated Ultimate Development Shown and Correct For Off-Site Areas				
		Ensure Site Drainage is Collected on Site				
		Design for a Ultimate (Fully Developed) 100 Year Storm Event				
		Design showing Elevation Contours for the Entire Off-Site Drainage Basin and 50' beyond Property				
		Design with most recent surveyed Contour Information				
		Drainage Area Map shows Subbasins For Each Collection Point and Inlet				
		Each Drainage Area has ID, Q100, Acres and Direction of Flow to the Outfall Shown				
		Each Outfall labeled with an Identification, direction of flow and Total Flow				
		Drainage Direction Arrows for Both On-site and Off-site Drainage Basins				
		Indicate all Sags and Crests With Flow Arrows				
		City Standard Drainage Area Map Calculation Table With Outfall Summary Included				
		I - Values Meet City Requirements				
		C - Values Meet City Requirements (based on Zoning)				
		Time of Concentration Values Used Meet City Requirements				
		Q - Calculated Flow in cfs				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Provide a Subtotal for each Major Drainage Line				
		Drainage Area Map & Calculations for all Offsite Drainage				
		Limits of 100-Year Ultimate Floodplain Shown				
		Ultimate (Fully Developed) 100-Year Floodplain Water Surface Elevations (WSE's) shown (FEMA and local)				
		Note Identifying Reference for 100 Year Floodplain and WSE Information (FEMA and local)				
		Show Limits of Each Plan Sheet (Tile)				
		Show Detention				
		Show Existing Drainage Areas (lighter line type)				
		Label where each drainage area drains (inlet number, swale, etc.)				
		Storm Drainage Plans (Storm Drainage Structures including Pipe, Inlets, Etc.)				
		Benchmark Location and Elevation				
		Flood Study / FEMA FIRM Map Reference Information Listed by Note				
		Storm Sewer Alignment Logical, Sharp Bends Eliminated				
		Collecting On-Site Drainage with Storm Sewer/Inlets				
		Profile Given for all Storm Sewer Mains and Laterals				
		Pipe Size, Material and Class Identified on Plan and Profile				
		Hydraulic Grade Line Shown on all Storm Sewer Profiles for Mains/Laterals				
		Other Hydraulic Info Shown on Storm Sewer Profiles for all Mains/Laterals (Q100, Qcap, Velocity, V2/2g) at every junction and/or increase in flow				
		Vertical and Horizontal Alignment and Slope Shown for all Mains/Laterals on Plan and Profile				
		Hydraulic Grade Line Meets City Design Requirements				
		Starting Hydraulic Grade Line Calculations/Assumptions Listed				
		Starting Hydraulic Grade Line Meets City Design Requirements				
		Pipe Velocity Within Ordinance Requirements and Limitations				
		Elevation Information on Plan View (Flowlines, Top-of-Curb, Hgl or 100 yr water surface (partial flow) at every inlet, etc) Matches Profile View				
		Show Crossings of Existing and Proposed Water and Sanitary Sewer on Storm Sewer Profile				
		Note minimum Cover for Pipes and Culverts				
		Drainage System Reviewed for Constructability - Depth and Clearance From Streets, Structures, Other Utilities				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		(dimensions)				
		Inlet Capacity Calculations Provided In Tabular Form				
		Inlets Placed to Capture Runoff Before It Enters Street or Major Thoroughfare				
		If Street Drainage, Calculations Showing Curb & Street Capacity				
		If Street Drainage, Show Nearest Inlet & all Upstream Drainage				
		Inlet Construction Layout Information Shown (Top of Curb, Flowline, Throat Elevation, Type, Size, Hgl, Q100, Etc)				
		Storm Sewer Inlet Location, Size, Type, and Construction Detail Per City Requirements				
		Storm Sewer Manhole Location, Size, Type, and Construction Detail Per City Requirements				
		Outfall, Headwall, and Other Structure Location, Type, Velocity and Erosion/Scouring Protection Per City Standards				
		Positive Overflow Route Through Site with grades				
		Sag Points Identified and Paved Positive Overflow Designed				
		Outfall/Headwall Locations No Greater Than 1' Above Creek Flowline and Pointed Down Stream				
		Outfalls Discharge into Existing Drainage Features or Provide Easements as Required				
		Outfall Velocity Meets City Requirements				
		Outfall Protection / Energy Dissipation When Required				
		Appropriate Details are Included for Structures, Junction Boxes, Headwalls and Inlets (if different than NCTCOG 3 rd Ed. or City details)				
		Connection Details Provided for Non-Standard Connections				
		Limits of 100-Year Ultimate Floodplain Shown (FEMA and local)				
		Ultimate (Fully Developed) 100-Year Floodplain Water Surface Elevations (WSE's) shown (FEMA and local)				
		Note Identifying Reference for 100 Year Floodplain and WSE Information				
		Drainage Easements for Drainage Features and Structures Shown (15' minimum width)				
		Storm Drainage Plans (Ditches, Swales, and Open Channels)				
		Direction of Flow Indicated for Ditches, Swales and Open Channels				
		Ditches, Swales and Open Channels have 100 year Ultimate Water Surface Shown on Profile (min 1% Running Slope)				
		Ditches, Swales and Open Channels have 100 year Ultimate Water Surface Shown on Cross Sections				
		Ditches, Swales and Open Channels Armored with				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Approved Material in Areas Where Average & Localized Velocities are Above 6 fps				
		Ditches, Swales and Open Channels can Carry 100-year Ultimate Storm with 2.0' of Freeboard				
		Ditches, Swales and Open Channels Hydraulic Information Shown On Plans				
		Ditches, Swales and Open Channels Hydraulic Information Shown On Plans Matches Hydraulic Report or Flood Study Submitted				
		Ditches, Swales and Open Channels Side Slopes Less Than 3H:1V for Grassed/Un-Armored Sections				
		Ditch, Swale and Open Channel Width, Depth, Running and Side Slopes and Capacity Per City Requirements				
		Drainage Easements for Drainage Features and Structures Shown (15' minimum width)				
		Storm Drainage Plans (<i>Detention and Ponds</i>)				
		Required Detention Shown				
		Detention Calculation Shown and Correct				
		Outfall discharge curves for required storm events				
		Detention/Retention Pond Location, Size, Depth, Capacity, and Material Per City Requirements, 100 year Water Surface Elevations				
		Provide Access and Structures that Contribute to Long Term Maintenance of Detention Pond				
		Drainage Easements for Drainage Features and Structures Shown (15' minimum width)				
		Provide chart showing flow allowable vs. flow actual for Q ₅ , Q ₁₀ , Q ₂₅ , and Q ₁₀₀				
		Utility Plans (<i>Water & Sanitary Sewer</i>)				
		Water				
		Water Main Sized In Compliance with Water System Master Plan				
		Water Mains Provided to Front Property Along all Street Frontages or Otherwise Extended to Serve Adjacent Properties				
		Water Main Extension Required By Code Shown				
		Water Mains Looped to Provide Circulating and Redundant Feed				
		Water Main Size, Material and Class Called Out				
		Existing Water Mains and Valves Shown; Show Valves on both sides of Tap in Case Area Needs to be Isolated				
		Existing & Proposed Fire Hydrants Shown				
		Utility Easements for Water Mains Shown (15' minimum width)				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Proposed and Existing Fire Lanes Shown				
		Fire Hydrant Spacing Meets Requirements of Adopted International Fire Code (IFC)				
		Fire Sprinkler Fire Department Connection (FDC) Location Shown				
		Water Main Fittings, Valves, etc Identified				
		Water Mains 16" and Larger Profiled				
		All Water Main Bores Profiled				
		All Crossings Identified on Appropriate Profile				
		Bore complies with Bore and Utility Crossing General Design Standards and TxDOT Standards if in TxDOT ROW				
		Existing Water Meters Shown				
		Proposed Water Meters Shown (Both Domestic and Irrigation)				
		Domestic and Irrigation Water Meters on Looped/Circulating Main				
		All Water Meters on Separate Service - No Water Meter "Bullheads" or Manifolds Allowed				
		Water Meters Location, Preferred to be in Unpaved Area				
		Water Meter Sizes Identified				
		Appropriate Double Check/Backflow Prevention Shown on Private Side of All Meters				
		Water System Reviewed for Constructability and Maintenance - Depth and Clearance From Streets, Structures, Other Utilities (Dimensions)				
		Water Mains Identified as Either Public or Private with Lines of Demarcation				
		Utility Crossings Shown in All Profiles and Bore Profiles including Franchise Utilities and Street Light Utilities				
		If Fire Sprinkler Line is Shown, Add Note to Plans to Indicated the Requirement for Separate Permit from the Fire Department and label min 10-foot separation distance from all other utilities				
		Sanitary Sewer				
		Sanitary Sewer Mains Provided to Front Property or Otherwise Extended to Serve Upstream Property				
		Existing Sanitary Sewer Mains, Manholes, Cleanouts and Services Shown				
		Proposed Sanitary Sewer Mains, Manholes, Cleanouts and Services Shown				
		Sanitary Sewer Mains Profiled				
		Bore complies with Bore and Utility Crossing General Design Standards and TxDOT Standards if in TxDOT ROW				
		Sanitary Sewer Main Size, Material and Class Identified on				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Plan and Profile				
		Sanitary Sewer Depth, Slope, Service Locations, Cleanouts and Manholes shown in all Profiles				
		Sanitary Sewer Rim, Flow Line In & Flow Line Out Elevations for All Manholes (min 2% drop between manhole flow-in and flow-out)				
		Utility Crossings Shown in All Profiles and Bore Profiles including Franchise Utilities and Street Light Utilities				
		Sanitary Sewer System Reviewed for Constructability and Maintainability - Depth and Clearance From Streets, Structures, Other Utilities (Dimensions)				
		All Existing and Proposed Public and Private Easements and Rights of Way Shown				
		Sanitary Sewer Mains Identified as Either Public or Private with Lines of Demarcation and Private Utility Note				
		Private Utility Note: "ALL SANITARY SEWER WORK DESIGNATED AS "PRIVATE" IN THIS SET OF PLANS SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE, PERMITTED AND INSPECTED BY THE CITY BUILDING INSPECTION DEPARTMENT AND INSTALLED BY A LICENSED PLUMBER."				
		Lift Station				
		Lift Station Report				
		Dimension and Control Plans				
		Grading Plan				
		Forced Main Plan				
		Landscape Plan				
		Detail Sheets				
		Erosion Control (For Sites Greater 1- Acre or Larger) / SWP3 (If Required by TCEQ Regulations)				
		Owners Name , Address & Phone No.				
		Developers Name Address & Phone No.				
		Engineers Name Address & Phone No.				
		Site Acreage Listed				
		Disturbed Acreage Listed (Acres)				
		Limits of Construction and Disturbed Areas Shown				
		Existing Ground Contours, Drainage Features and Structures				
		100-Yr Flood Plain with Elevations (FEMA and local)				
		Limits of Trees/Shrubs to Remain				
		Grades to Match Grading Plan				

Not Applicable	Included	Item Description	Notes	Official Use Only		
				Missing	Incomplete	Code Ref
		Proposed Storm Drainage, Structures & Pavement				
		Borrow & Spoil Area Identified				
		BMP Locations, details, Calculations, and Maintenance Schedule				
		Sediment Basin, required if disturbed area greater than 10 acres				
		Standard Details				
		Any Details not Included in Standard Specifications for Public Works Construction, North Central Texas, Third Edition, or the City of Rockwall Standards of Design and Construction.				
		Add Note on Plans indicating the use of Details as Outlined in the Standard Specifications for Public Works Construction, North Central Texas, Third edition and City of Rockwall Standards of Design and Construction				
		TXDOT Details				
		Other Pertinent Details - Explain				

*******End of Checklist for Engineering Plan*******