PLANNING & ZONING DEPARTMENT
401 South Rogers Street | Waxahachie, Texas 75168
(469) 309-4290 | www.waxahachie.com/Departments/PlanningandZoning

CONSTRUCTION PLAN CHECKLIST

***Case Number:** _____ **Parcel ID #:** _____
*Entered by City Staff

Development Name: _____

The Construction Plan must include the following items—each table shall be a separate sheet:
Applicant must check box each showing item was provided | City verifies items during plan review

COVER SHEET - The cover sheet shall include:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Project title and type of project.	❑	❑
❑	❑	2	Location map.	❑	❑
❑	❑	3	Index of Sheets (if not included on its own sheet).	❑	❑
❑	❑	5	Approval blocks for City including City Engineer and Director of Public Works.	❑	❑
❑	❑	6	Professional Engineer's seal, signature and date.	❑	❑
❑	❑	7	"Release for Construction" Approval Block for the Director of Public Works	❑	❑

GENERAL

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	North arrow clearly shown on each plan sheet.	❑	❑
❑	❑	2	Bench marks shown on each sheet; located on permanent structure outside of construction limits and conveniently spaced (500' +). Benchmark set by site with State Plane Coordinate System (Texas North Central - 4202)	❑	❑
❑	❑	3	Title blocks with project name, title, sheet number and scales shown.	❑	❑
❑	❑	4	Each sheet must bear the seal of a Licensed Professional Engineer, signature, and date.	❑	❑
❑	❑	5	Street names on each sheet.	❑	❑
❑	❑	6	Property owners and property lines shown.	❑	❑
❑	❑	7	Submit one (1) set of plans on 22" x 34" sheets and two (2) sets of plans 11" x 17" for city review.	❑	❑
❑	❑	8	Text height shall be 12% the scale of the full size drawing (i.e. 1"=20' the text height shall be 2.4). Text shall be legible on the half size 11" x17" plans.	❑	❑
❑	❑	9	Place standard general notes on plans.	❑	❑
❑	❑	10	Existing, proposed and future facilities must clearly be defined.	❑	❑

GRADING * – Each grading plan shall include:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Horizontal scale for grading plans shall be at 1" = 40' on full size drawings.	❑	❑
❑	❑	2	Existing one-foot contours based on an on-the-ground survey or controlled aerial topographic map (dashed lines and labeled) to extend 20 feet from property line onto adjacent property.	❑	❑
❑	❑	3	Proposed one-foot contours – solid lines and labeled.	❑	❑
❑	❑	4	Show top of curb elevation every 50 feet on streets, alleys, existing and proposed parking lots.	❑	❑
❑	❑	5	Grade spots shall be provided at intersections to ensure positive drainage.	❑	❑
❑	❑	6	Slope: a. Back of street curb to property line: ¼" per foot (2% min.). b. Parking lot top of curb to property line: 4:1 - Maximum 4 (horizontal) to 1 (vertical). c. Any unpaved area to property line: Maximum slope of 4:1. d. Show driveways with ¼" per foot + 6" from street gutter up to property line.	❑	❑

❑	❑	7	Letter of approval if grading is proposed on adjacent property.	❑	❑
❑	❑	8	Utility easement from abutting property owners.	❑	❑
❑	❑	9	Proposed inlets, label and size.	❑	❑
❑	❑	10	Proposed pipes, label and size.	❑	❑
❑	❑	11	Existing inlets and pipes.	❑	❑
❑	❑	12	* The cover sheet and the construction plans sheets shall have a statement if the plans are for Mass Grading only. The utilities and streets shall be shown for reference purposes only.	❑	❑

PAVING PLAN – Each Paving Plan shall include:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Horizontal scale for paving plans shall be at 1" = 40' on full size drawings.	❑	❑
❑	❑	2	Geotechnical Report with proposed pavement requirements provided to the City for streets within Public Right-of-Way and walls adjacent to Public Right-of-Way.	❑	❑
❑	❑	3	Right-of-way, street, alley, drives and sidewalks dimensioned.	❑	❑
❑	❑	4	Centerline stations shown.	❑	❑
❑	❑	5	Limits of work defined.	❑	❑
❑	❑	6	Barrier free ramps at all intersections per the latest ADA requirements	❑	❑
❑	❑	7	Pavement transitions.	❑	❑
❑	❑	8	Traffic control items; striping, traffic buttons, sign.	❑	❑
❑	❑	9	Street lighting.	❑	❑
❑	❑	10	Concrete pavement thickness.	❑	❑
❑	❑	11	Minimum 3,600 psi in 28 days concrete compressive strength.	❑	❑
❑	❑	12	6" curbs.	❑	❑
❑	❑	13	Minimum reinforcement with No. 4 bars 24" off center both ways (O.C.B.W), or No. 3 bars 18" O.C.B.W.	❑	❑
❑	❑	14	Sidewalks to be 4" thick, 3,600 psi in 28 days, reinforced with No. 3 bars 14" O.C.B.W.	❑	❑
❑	❑	15	Expansion joints at intersection and at minimum 600 foot intervals for pavement.	❑	❑
❑	❑	16	Saw Cuts shall comply with the Geotechnical Engineer Report. Minimum Saw cut at 15-, 17.5- and 20-foot intervals for 6-inch, 7-inch and 8-inch pavements respectively. Saw Cuts shall be located outside of the normal longitudinal wheel path of traffic.	❑	❑
❑	❑	17	Radius at corners conform with Thoroughfare Standards and Pavement Design Methods	❑	❑
❑	❑	18	Gutter flow arrows. Slope and arrow along intersection gutter (0.5% min.)	❑	❑
❑	❑	19	Roadways comply with thoroughfare plan.	❑	❑
❑	❑	20	Geometrics meet design speed criteria.	❑	❑
❑	❑	21	Is Superelevation required?	❑	❑
❑	❑	22	Retaining Walls: a. Type, beginning and ending locations and wall elevations. b. Provide design if non-standard or modified. Walls taller than 4 feet shall require design to be sealed by a Professional Engineer licensed in the State of Texas. c. Drainage behind walls shown.	❑	❑
❑	❑	23	Driveway grades shown.	❑	❑
❑	❑	24	Prepare and submit plans and necessary forms for TDLR plans review and field inspection. A copy of the TDLR Review, field inspection and final TDLR approval shall be provided to the City.	❑	❑

PAVING PROFILE AND GRADES – Plan shall include:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Vertical scale for paving profiles shall be at 1" = 4' on full size drawings.	❑	❑
❑	❑	2	Profiles plotted showing ground at proposed property line.	❑	❑
❑	❑	3	Top of curb profiles must meet minimum and maximum grade requirements.	❑	❑
❑	❑	4	Driveway profile grades.	❑	❑
❑	❑	5	Vertical curves must be designed in accordance with Thoroughfare Standards and Pavement Design Methods	❑	❑
❑	❑	6	Contour grading plans for major intersections.	❑	❑
❑	❑	7	Spot top of curb elevations in plan view on proposed left turn lanes.	❑	❑
❑	❑	8	Check carefully for any place water might pond. Are inlets located at sag points, intersections with minimum longitudinal slope or vertical curves?	❑	❑
❑	❑	9	Are grades, crossfall, slopes, etc., consistent with information shown on typical section?	❑	❑
❑	❑	10	Check ends of project for drainage. If gutters drain to ditches or field type inlets, are grades and profiles shown?	❑	❑
❑	❑	11	Minimum grades maintained to assure complete drainage.	❑	❑

WATER – All water distribution and transmission facilities shall include:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Horizontal scale for plan views shall be at 1" = 40' on full size drawings.	❑	❑
❑	❑	2	Vertical scale for profile views shall be at 1" = 4' on full size drawings.	❑	❑
❑	❑	3	Loop water mains.	❑	❑
❑	❑	4	Valves on fire hydrant leads between the water main and the hydrant	❑	❑
❑	❑	5	Gate Valves on main lines up to 24-inch in diameter.	❑	❑
❑	❑	6	Maximum distance between each fire hydrant. a. Residential – 500' c-c on street. b. Multifamily, Office, retail, commercial, industrial 300' c-c on street.	❑	❑
❑	❑	7	All portions of building within 300' radius of a fire hydrant in commercial.	❑	❑
❑	❑	8	All portions of building within 400' radius of a fire hydrant in multifamily.	❑	❑
❑	❑	9	All portions of buildings within 500' radius of a fire hydrant in single family and duplex residential.	❑	❑
❑	❑	10	Maximum length non-looped line serving a fire hydrant is 150 feet.	❑	❑
❑	❑	11	Lateral service (min. 1" poly) from main line to two feet from ROW.	❑	❑
❑	❑	12	Water main extended to opposite property line or tied to existing main.	❑	❑
❑	❑	13	Profile mains 12" and larger.	❑	❑
❑	❑	14	Air Release Valve required at water main high points and Blow Off valves at low points of the water lines. Developer shall coordinate the design of the Air Release Valve with the Manufacturer.	❑	❑
❑	❑	15	Show other utility lines crossing water lines. Sanitary Sewer shall have a minimum horizontal outside of pipe separation of 9-feet.	❑	❑
❑	❑	16	Show location of water meters: a. Domestic b. Irrigation with check valves c. Fire Line with double detector check valves and vault	❑	❑

❑	❑	17	Show size of water meters.	❑	❑
❑	❑	18	Approval for the Fire Department Connection (FDC) location provided by the Fire Marshall.	❑	❑
❑	❑	19	FDC shall be located by the Double Detector Check Vault unless otherwise approved by the Fire Marshall.	❑	❑
❑	❑	20	FDC shall be a maximum of 100-feet from a Fire Hydrant.	❑	❑
❑	❑	21	Note minimum pipe covers (attach water and standard details and general notes).	❑	❑
❑	❑	22	10-foot minimum water line easements. Water easement shall include fire hydrants and water meters for lines off ROW.	❑	❑

SANITARY SEWER – All Sanitary Sewer plans shall include:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Horizontal scale for plan views shall be at 1" = 40' on full size drawings.	❑	❑
❑	❑	2	Vertical scale for profile views shall be at 1" = 4' on full size drawings.	❑	❑
❑	❑	3	8" minimum, PVC SDR-35 for depth up to 12', PVC SDR-26 for sewer lines deeper than 12'	❑	❑
❑	❑	4	Manhole at end of all lines	❑	❑
❑	❑	5	Manholes at change of pipe size, tees and bends	❑	❑
❑	❑	6	No curves in the sewer shall be allowed	❑	❑
❑	❑	7	500' maximum distance between manholes	❑	❑
❑	❑	8	Minimum slopes: a. 6" – 0.54% b. 8" – 0.35%. c. 10" – 0.26%. d. 12" – 0.22%. e. 15" – 0.16%. f. 18" – 0.12%. g. 21" – 0.095%. h. 27" – 0.065%.	❑	❑
❑	❑	9	Sewer laterals shall be installed on the center of lot where possible.	❑	❑
❑	❑	10	Sanitary Sewer lines and laterals shall have an outside horizontal and Vertical pipe separation of 9-feet from water lines, service lines and Fire Hydrants. If Sanitary Sewer lines and lateral cannot be installed within the minimum horizontal separation the following shall be required: a. If the Sewer Line is above water line, the water line shall be encased in a casing pipe with a minimum pressure rating of 150 psi for the entire length the separation of the sewer and water line is less than 9-feet. The end of the casing pipe shall be grout sealed. b. If the Sewer Line is below water line, the sewer line shall has the following options: • If less than 2' vertical separation and 4 feet horizontal separation: i. Install sewer line with PVC Pipe and gasket with a minimum pressure rating of 150 psi. ii. Sewer line is encased with cement stabilized sand along the entire length the separation of the sewer and water line is less than 9-feet. The concrete encasement shall be (quarter of the pipe diameter or 1-foot whichever is greater). iii. Sewer line is encased in a casing pipe with a minimum pressure rating of 150 psi along the entire length the separation of the sewer and water line is less than 9-feet. The end of the casing pipe shall be grout sealed. • If a sewer line is above water line and crosses a water line with < 2' vertical separation i. Minimum 6-inch separation ii. Install sewer line with PVC Pipe and gasket with a minimum pressure rating of 150 psi. iii. Sewer line is encased in a casing pipe with a minimum pressure rating of 150 psi along the entire length the separation of the sewer and water line is less than 9'. The end of the casing pipe shall be grout sealed. c. Sanitary Sewer Manholes within 9' of the outside water pipe shall require the water line to be encased with cement stabilized sand.	❑	❑

❑	❑	11	Spacers are installed a minimum of 5-foot intervals along the pipe within the casing.	❑	❑
❑	❑	12	Minimum lateral size: a. Residential – 4” b. Apartment, Retail or Commercial – 6” c. Manufacturing or Industrial – 8”	❑	❑
❑	❑	13	Manholes required for laterals 6-inches and larger	❑	❑
❑	❑	14	Show other utility lines crossing wastewater lines.	❑	❑
❑	❑	15	Label lines to correspond to profile.	❑	❑
❑	❑	16	Concrete encasement at creek crossing.	❑	❑
❑	❑	17	Provide stub outs to adjacent property. Add services for Planned Development Communities.	❑	❑
❑	❑	18	Note benchmark on all sheets.	❑	❑
❑	❑	19	15’ easement provided for lines not in ROW.	❑	❑

UTILITIES – All plans shall show the following:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	Existing and proposed facilities shown in plan and profiles views.	❑	❑
❑	❑	2	Underground facilities close to or in conflict with proposed construction located by actual ties and elevations.	❑	❑
❑	❑	3	Caution notes shown when construction operations come close to existing utilities.	❑	❑
❑	❑	4	Proposed communication, electric lines and gas lines shall cross perpendicular to the existing and proposed streets.	❑	❑
❑	❑	5	Light Poles shall not be installed within 5-feet from the water line, water service, sanitary sewer line, water meter or fire hydrant	❑	❑

EROSION CONTROL – All plans shall show the following:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	The scale for Erosion Control Plans may vary however shall be prepared on sheets no smaller than 1” = 100’ on full size drawings.	❑	❑
❑	❑	2	Existing and Proposed Grading.	❑	❑
❑	❑	3	Existing and Proposed Drainage Features.	❑	❑
❑	❑	4	Erosion features including temporary construction entrance, silt fence, inlet protection, sediment pond, rock berms, seeding, etc.	❑	❑
❑	❑	5	Erosion control standard details.	❑	❑

PAVEMENT MARKINGS AND SIGNAGE – All plans shall show the following:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	The scale for Pavement Marking Plans may vary however shall be prepared on sheets no smaller than 1” = 100’ on full size drawings.	❑	❑
❑	❑	2	Pavement Markings and Signage Plan in accordance with the latest MUTCD manual.	❑	❑
❑	❑	3	TxDOT Pavement Markings Standard Details.	❑	❑

TRAFFIC CONTROL PLAN – All plans shall show the following:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	The scale for Traffic Control Plans may vary however shall be prepared on sheets no smaller than 1" = 200' on full size drawings.	❑	❑
❑	❑	2	Traffic Control Plan in accordance with the latest MUTCD	❑	❑
❑	❑	3	Traffic Control Standard Details.	❑	❑
❑	❑	4	Traffic Control Phasing as necessary.	❑	❑

STREET LIGHTING PLAN – All plans shall show the following:

Provided Y	Provided N			Verified Y	Verified N
❑	❑	1	The scale for Street Lighting Plans may vary however shall be prepared on sheets no smaller than 1" = 100' on full size drawings.	❑	❑
❑	❑	2	Lighting and Conduit Layout Plan.	❑	❑
❑	❑	3	Light poles shall not be places closer than 5-feet from water lines, sewer lines, water meters or fire hydrants without written approval from the Director of Public Works.	❑	❑