

# APPENDIX C

## GENERAL NOTES

The General Notes Sheet shall be inserted into every Engineering Plan set submitted.

**GENERAL NOTES FOR CONSTRUCTION ACTIVITIES:**

1. All work shall conform to the City of Mesquite's General Design Standards. In the event an item of work is not covered in the Plans or the City of Mesquite General Design Standards, the most current North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction and the most current version of Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges shall apply with concurring notification to the City Engineer and the Project Engineer. The City Engineer shall have final decision on all construction materials, methods, and procedures.
2. All contractors and developers, with their employees and agents, shall comply with all applicable Federal, State and Local safety laws and regulations, including but not limited to the Occupational Safety and Health Act of 1970, and ordinances rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property to protect them from death, injury, damage or loss
3. All communication between the City and the Contractor shall be through the Engineering Construction Inspector and City Engineer only. It is the responsibility of the contractor to contact the appropriate department for inspections of work not falling under the Engineering Construction Permit.
4. Prior to construction, contractor shall have in their possession all necessary permits, plans, licenses, etc. Contractor shall have at least one set of approved Engineering plans and specifications on-site at all times.
5. It is the Contractor's responsibility to notify utility companies to arrange for exact locations at least 48 hours prior to beginning construction. The completeness and accuracy of the utility data shown on the plans is not guaranteed. The contractor is responsible for verifying the depth and location of existing underground utilities prior to excavating, trenching, or drilling and shall be required to take any precautionary measures to protect all lines shown and / or any other underground utilities not on record or not shown on the plans. The contractor will be responsible for damages to utilities if the damage is caused by negligence or failure to have locates performed.
  - i. Texas 811 811
  - ii. City of Mesquite Utilities 972-216-6940
  - iii. City of Mesquite Traffic 972-216-6278
5. Verification of the condition of existing City utilities prior to connections shall be the responsibility of the contractor. The contractor shall request for line locates as directed in item #4.
6. Contractor shall locate and protect all existing landscape irrigation systems. Damage to existing irrigation systems shall be restored to equal or better condition by a licensed irrigator at the contractors expense.
7. Contractor shall be responsible for any damage to existing facilities or adjacent properties during construction. Any removal or damage to existing facilities or adjacent properties shall be replaced or repaired to equal or better condition by the contractor. The Contractor shall coordinate all repairs to private property with the property owner. Contractor shall pay and/or settle with private property owner for all costs related to any damage. For more detail, refer to **NCTCOG 107.24**.
8. Testing and inspection of materials shall be performed by a commercial testing laboratory approved by the City. Contractor shall furnish materials or specimens for testing, and shall furnish suitable evidence that the materials proposed to be incorporated into the work are in accordance with the specifications. All testing and re-testing costs shall be the responsibility of the contractor. For more detail, refer to **NCTCOG 106.5**.
9. Contractor shall notify the City at least 48 hours prior to beginning any construction.
10. All shop drawings, working drawings or other documents which require review by the City shall be submitted by the contractor sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
11. Contractor shall be responsible for all required construction surveying and staking and shall notify the City of any discrepancies prior to proceeding with any work. For more detail, refer to **NCTCOG 105.4**.
12. Contractor shall be responsible for protecting all survey markers including iron rods, property corners, or survey monuments within the limits of construction and outside right-of-way during construction. Any survey markers disturbed during construction shall be replaced by the contractor at no cost to the City.
13. Contractor shall not store materials, equipment or other construction items on adjacent properties or right-of-way without the prior written consent of the property owner and the City. The Project shall not be accepted until the contractor provides a letter from the property owner stating they are satisfied with the condition of the property.
14. Unusable excavated material, or construction debris shall be removed and disposed of offsite at an approved disposal facility by the contractor.
15. All signage shall be installed in accordance with the latest edition of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

**GENERAL NOTES FOR EROSION CONTROL/STORM WATER POLLUTION PREVENTION:**

16. The contractor shall comply with the City of Mesquite's Storm Water Ordinance, the TDPES General Construction Permit TXR150000 and any other State and/or Local regulations.
17. Contractor is responsible for keeping streets and driveways adjacent to the project free of mud and debris at all times. Contractor shall clean up and remove all loose material resulting from construction operations. Stockpiling or staging of materials will not be allowed in right-of-way without prior authorization. The contractor shall take all available precautions to control dust. Any dirt, mud, debris tracked offsite shall be cleaned up by the contractor immediately.
18. All erosion control devices shown on the plans released for construction shall be installed in accordance with the SWP3 sequencing prior to commencing any earth disturbing activities. Failure to install the erosion control devices before starting the earth disturbing activities may result in sanctions including, but not limited to, withholding of release of construction permits, inspections, payment of City funded portions of the project, suspension of construction activities, or citations. Erosion control devices shall be installed and maintained in compliance with the project plans, City Stormwater ordinance and/or SWP3 and Construction General Permit. The contractor shall inspect the site daily and keep the site free of trash and construction debris.
19. Contractor must execute and keep a copy of the Construction Site Notice (CSN) for those activities disturbing more than 1 acres and a Notice of Intent (NOI) for those activities disturbing 5 acres or more.

**GENERAL NOTES FOR TRAFFIC CONTROL:**

20. Contractor shall provide the Project Engineer with a traffic control plan at least 10 business days before any work on a City street. Traffic control measures shall conform to the latest revision of the Texas Manual on Uniform Traffic Control Devices (TMUTCD)
21. Contact Traffic Engineering Division, 972-216-6917, at least 48 hours prior to work requiring the removal or relocation of traffic signs, traffic control equipment or other traffic control appurtenances. Only City traffic personnel shall remove traffic signs.
22. In the event the construction work requires the closure of an existing street, alley, or fire lane, the contractor shall request the road closure through the City Inspector a minimum of 48 hours in advance of the requested closure. Closures will not be allowed prior to 9:00 a.m. or after 3:30 p.m., Monday through Friday unless otherwise approved by the City. In the event a driveway(s) needs to be closed, the contractor shall request the driveway closure through the City inspector, who will in turn notify dispatch and other pertinent City departments. Closures are prohibited during school zones times in and around schools.

23. If the construction zone affects the movements of pedestrians, adequate pedestrian access and walkways shall be provided in accordance with the Disabilities Act Accessibility Guidelines, PROWAG, TAS and the TMUTCD. Where developments occur within 0.5 miles of a school site, temporary sidewalks must be constructed connecting the development to the school site. The route shall be approved by the City Engineer. Temporary sidewalks may be constructed with materials other than concrete. The material shall be approved by the City Engineer and be an all-weather material of a color and texture distinctly different from the permanent sidewalk.
24. Overnight lane closures shall be approved by City prior closing the lane. Any lane or shoulder closure on an Arterial road that extends into the night shall require the mandatory use of arrow boards.

**GENERAL NOTES FOR PAVING**

25. Absolutely no earthwork, lime application, or other preparation of the subgrade for paving of streets, alleys, sidewalks, trails, fire lanes or other transportation related flatwork shall be initiated without authorization from the City. The City will authorize the subgrade work in preparation for paving after utility trench backfill testing has been completed and verified to meet the City requirements.
26. All sidewalks shall comply with the Americans with Disabilities Act and the Texas Architectural Barriers Act. The City of Mesquite has NOT reviewed these plans for compliance with the Americans with Disabilities Act, Texas Architectural Barriers Act, or any other accessibility legislation, and does not warranty or approve these plans for any accessibility standards. Prior to project acceptance, the Contractor shall submit to the City documentation that the project was inspected by a Registered Accessibility Specialist, registered with the Texas Department of Licensing and Regulation certifying the project is in compliance with the requirements of the Texas Architectural Barriers Act.
27. All concrete paving (streets, alleys, sidewalks, driveways) within City ROW shall have a 28 day minimum compressive strength of 4,000 psi, containing a minimum of 6 sacks of cement per cubic yard , with a slump range of 1" to 3" slump for machine pours and 3" to 5" slump for hand pours unless otherwise noted in the General Design Standards. All materials and requirements for concrete shall conform to the requirements of the current NCTCOG Item "Portland Cement Concrete Pavement" with the exception that fly ash may be substituted for up to 20% of the cement content requirement at 1 to 1.25 cement to fly ash substitution rate.
28. All concrete must be mechanically vibrated. The forming of new street and alley pavement is by using the Slip Form method. Concrete shall be hand placed at intersections and miscellaneous areas.
29. Temperature during concrete placement:
  - a. The temperature of concrete as placed shall not exceed 95°F.
  - b. No concrete shall be placed on a frozen subgrade
  - c. If the ambient air temperature is less than 40°F and dropping concrete shall not be placed.
  - d. If concrete is placed and there is an anticipated low temperature of less than 40°F within 5 days after placement the concrete must be covered and kept at a temperature of no less than 50°F.
  - e. In all cases, concrete should not be kept at a temperature of less than 50°F for a period of 5 days' minimum.
27. Reinforcing shall conform to ASTM A 615 and be a minimum grade of 60 per ASTM A 370. Reinforcing steel bar laps are to be 30 bar diameters or 15" per ACI 318, whichever is greater. A minimum of 50% of rebar intersections are to be secured with tie wire and supported with chairs. All reinforcement shall be free from rust, scale, oil, paint and other substances which prevent bonding to the concrete. Unless otherwise specified, steel shall be placed at 1/2 the pavement depth.
28. White curing compound is to be applied, per manufacturer's recommendations, to all exposed concrete surfaces (including backs of curbs) immediately after completion of finishing operations, per ASTM C-309, Type 2, NCTCOG Section 303.2.13.1.1.
29. No vehicle traffic shall be permitted on newly paved areas for seven days after concrete pour or until 3,000 psi is achieved.
30. All fill and lime subgrades shall be placed in maximum 8" compacted lifts and be compacted to 95% standard proctor at a moisture range of 0% to 6% of optimum moisture. Moisture level must be maintained, by wetting or application of asphalt emulsion prime coat (0.25 to 0.50 gal/sy) if necessary, until placing of concrete paving.

**GENERAL NOTES FOR TRENCHING AND CONFINED SPACE**

31. All excavation and trench operations shall be conducted in accordance with 29 Code of Federal regulations (CFR), Part 1926, Subpart P and all other applicable State and City regulations. Prior to commencing any excavation or trenching operation, the Contractor shall submit to the City Engineer a plan sealed by a Texas Licensed Professional Engineer indicating the intended procedures to be used by the Contractor to comply with OSHA requirements. Such plan shall further identify the "Competent Person" as required by paragraph 1926.651(k)(1) that will work with each crew. An affidavit from the Contractor indicating the competent person must be submitted with the trench safety plan to the City Engineer. A copy of the trench safety plan must be on the job at all times. The City reserves the right to deny payment for any construction activities in excavations or trenches that are not in accordance with the submitted plan. The City does not approve or disapprove Trench Safety Plans, but will retain a file copy.
32. Implementation of trench safety shall comply with submitted trench safety design plan. Submit designated competent person who will be on-site full time and is capable of identifying existing and predictable hazards in surrounding or work conditions which are unsanitary, hazardous, or dangerous to employees and who has the authorization to take prompt corrective measures to eliminate them. Install, operate, maintain, adjust, and remove trench safety equipment, and precautions in accordance with trench safety design.
33. All entry into confined spaces conducted in accordance with 29 Code of Federal regulations (CFR), Part 1910.147 P and all other applicable State and City regulations. Prior to commencing any confined space entry, the Contractor shall submit to the City Engineer a copy of the confined space entry plan with a completed permit.

**GENERAL NOTES FOR UTILITIES**

34. All water and wastewater mains that are proposed to be abandoned within street ROW and less than 10 feet in depth, under any major intersections, or in areas that could impact major infrastructure, shall be abandoned by draining the existing main and cutting and filling the existing main with grout.

MATERIAL	DESIGNATION	TEST	FREQUENCY	REQUIRED TESTING	
				REQUIREMENTS	NOTES
SUBGRADE	ASTM D-6938	IN-PLACE DENSITY AND WATER CONTENT	EVERY 300 LINEAR FEET <sup>1</sup>	MOISTURE CONTENT: 0%-6% OF OPTIMUM; DENSITY: 95% OF STANDARD PROCTOR	EVERY 8" LIFT
		LIME STABILIZED SUBGRADE - DEPTH CHECK		DEPTH OF STABILIZATION AS SPECIFIED PER PLANS	
		LIME STABILIZED SUBGRADE - SIEVE ANALYSIS		1.75" SIEVE: 100% PASSING; NO. 4 SIEVE: 60%	
	ASTM D-698	PROCTOR	EVERY NEW MATERIAL SOURCE		
CONCRETE PAVING	ASTM C-143	SLUMP OF PORTLAND CEMENT CONCRETE	FIRST TRUCK EACH DAY + 1 EVERY 150CY	1"-3" MACHINE POURS; 3"-5" HAND POURS	
	ASTM C-231	CONCRETE AIR CONTENT BY PRESSURE METHOD (FOR FRESH CONCRETE)		MINIMUM 3%	
	ASTM C-1064	TEMPERATURE OF FRESHLY MIXED PORTLAND CEMENT CONCRETE	EVERY TRUCK	95 F MAX (HOT WEATHER) AND 50 F MIN (COLD WEATHER)	
	ASTM C-39	COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS	3 CYLINDERS TAKEN FROM FIRST TRUCK EVERY DAY + 3 EVERY 150CY	3,000 PSI MINIMUM FOR TRAFFIC; 4,000 PSI MINIMUM AT 28 DAYS	1 BROKEN AT 7 DAYS AND THE OTHER 2 BROKEN AT 28 DAYS; IF NEEDING TO GET TRAFFIC ON PAVEMENT FASTER THEN ADDITIONAL CYLINDER BROKEN AT 3 DAYS
	ASTM C-42	OBTAINING AND TESTING DRILLED CORES OF CONCRETE	EVERY 300 LINEAR FEET <sup>1</sup>	4,000 PSI COMPRESSIVE AT 28 DAYS	4" DIAMETER TAKEN 28 DAYS AFTER POUR
	ASTM C-174	MEASURING LENGTH OF DRILLED CONCRETE CORES		DEPTH OF PAVEMENT AS SPECIFIED PER PLANS	

<sup>1</sup>PER LANE, TRENCH, ALLEY OR SIDEWALK

<b>GENERAL DESIGN STANDARDS</b> STANDARD DETAILS	
SCALE: N.T.S.	SHEET:
REVISION DATE: 11/11/2019	G-GN