

ORDINANCE NO. 4728

AN ORDINANCE OF THE CITY OF MESQUITE, TEXAS, ADOPTING REVISIONS TO THE CITY OF MESQUITE ENGINEERING DESIGN MANUAL; PROVIDING A REPEALER CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY CLAUSE NOT TO EXCEED \$2,000.00 FOR A PERSON VIOLATING A PROVISION OF THIS ORDINANCE GOVERNING FIRE SAFETY, ZONING, OR PUBLIC HEALTH AND SANITATION AND A PENALTY NOT TO EXCEED \$500.00 FOR ALL OTHER PROVISIONS; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, pursuant to Ordinance No. 4673, the Mesquite City Council adopted the City of Mesquite Engineering Design Manual (the “**Manual**”) to serve as a comprehensive manual for infrastructure design and construction; and

WHEREAS, the proposed revisions to the Manual will include the following items: (1) revise procedure to update the Manual Appendices; (2) revise requirements for driveways for Single-Family Residential/Duplex properties; (3) revise study limits for Traffic Impact Analysis; and (4) add a requirement for minimum slab elevation in relation to street and alley elevations; and

WHEREAS, the City Council has reviewed the proposed revisions to the Manual and finds it is in the best interest of the City to adopt the same.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MESQUITE, TEXAS:

SECTION 1. That the Manual is hereby amended as follows, and in all other respects said Manual shall remain in full force and effect:

- a) *Record of Revisions.* Delete existing Page i, entitled, “Record of Revisions,” and replace with a new Page i attached as Exhibit “A.”
- b) *Section 1.13.3.* Delete the text of existing Section 1.13.3 and replace with new text to now read as shown on attached Exhibit “B.”
- c) *Table 2-9.* Delete existing Table 2-9 and replace with a new Table 2-9 as shown on attached Exhibit “C.”
- d) *Section 2.7.2.* Delete the text of existing Section 2.7.2 and replace with new text to now read as shown on attached Exhibit “D.”
- e) *Table 2-16.* Delete existing Table 2-16 and replace with a new Table 2-16 as shown on attached Exhibit “E.”

- f) *Section 3.1.14.* Delete the text of existing Section 3.1.14 and replace with new text to now read as shown on attached Exhibit "F."

All exhibits are attached to this ordinance and incorporated herein by reference and made a part thereof.


SECTION 2. That all ordinances or portions thereof in conflict with the provisions of this ordinance, to the extent of such conflict, are hereby repealed. To the extent that such ordinances or portions thereof are not in conflict herewith, the same shall remain in full force and effect.

SECTION 3. That should any word, sentence, clause, paragraph or provision of this ordinance be held to be invalid or unconstitutional, the validity of the remaining provisions of this ordinance shall not be affected and shall remain in full force and effect.

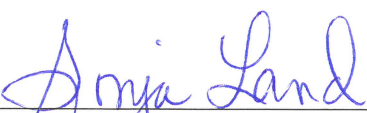
SECTION 4. That, unless specifically provided otherwise by this ordinance or by state law, any person (as defined in Chapter 1, Section 1-2 of the Mesquite City Code, as amended) violating any of the provisions or terms of this ordinance governing fire safety, zoning, or public health and sanitation, shall be deemed to be guilty of a Class C Misdemeanor and, upon conviction, shall be subject to a fine not to exceed \$2,000.00, and that any person (as defined in Chapter 1, Section 1-2 of the Mesquite City Code, as amended) violating any other provision of this ordinance shall be deemed to be guilty of a Class C Misdemeanor, and, upon conviction, shall be subject to a fine not to exceed \$500.00. If the maximum penalty provided for by this ordinance for an offense is greater than the maximum penalty provided for the same offense under the laws of the State of Texas, the maximum penalty for violation of this ordinance for such offense shall be the maximum penalty provided by the laws of the State of Texas.

SECTION 5. That this ordinance shall take effect and be in force from and after five days after publication.

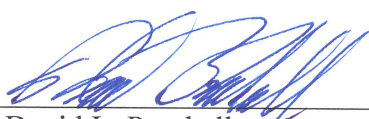
DULY PASSED AND APPROVED by the City Council of the City of Mesquite, Texas, on the 7th day of October 2019.

  
\_\_\_\_\_  
Tandy Boroughs  
Mayor Pro Tem

ATTEST:

  
\_\_\_\_\_  
Sonja Land  
City Secretary

APPROVED AS TO LEGAL FORM:

  
\_\_\_\_\_  
David L. Paschall  
City Attorney

*RECORD OF REVISIONS*

The following list includes the effective date(s) of the City of Mesquite's *Engineering Design Manual* and a summary of significant changes.

<b>Effective Date</b>	<b>Description</b>										
<b>05/20/2019</b>	Adoption of the <i>Engineering Design Manual</i> by City Council.										
<b>07/24/2019</b>	Following Revisions were made: <table border="1"> <tr> <td>Appendix B</td> <td>• Impervious Area Summary Updated</td> </tr> <tr> <td>Appendix C</td> <td>• Revised General Notes Sheet to require arrow boards at night on arterials, steel placement in pavement</td> </tr> <tr> <td>Appendix D</td> <td>• Revised General-2, W-GN, P-7 P-26</td> </tr> <tr> <td>Appendix E</td> <td>• Revised Water Approved List to allow Fusible PVC and Certa-Lok as pipe materials. • Modify Water Approved List to allow for Certa-Lok as restrained joint option • Modify Sewer Approved List to allow for Fusible PVC and Certa-Lok as pipe materials.</td> </tr> <tr> <td>Appendix F</td> <td>• Added Technical Specification 'Pipe Bursting'</td> </tr> </table>	Appendix B	• Impervious Area Summary Updated	Appendix C	• Revised General Notes Sheet to require arrow boards at night on arterials, steel placement in pavement	Appendix D	• Revised General-2, W-GN, P-7 P-26	Appendix E	• Revised Water Approved List to allow Fusible PVC and Certa-Lok as pipe materials. • Modify Water Approved List to allow for Certa-Lok as restrained joint option • Modify Sewer Approved List to allow for Fusible PVC and Certa-Lok as pipe materials.	Appendix F	• Added Technical Specification 'Pipe Bursting'
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<b>10/07/2019</b>	<table border="1"> <tr> <td>1.13.3</td> <td>• Revised procedure to update appendices</td> </tr> <tr> <td>Table 2-9</td> <td>• Revised single family residential driveway requirements</td> </tr> <tr> <td>2.7.2.A</td> <td>• Revised item to refer to Table 2-9</td> </tr> <tr> <td>Table 2-16</td> <td>• Revised study area for Level II Analysis to ½ mile</td> </tr> <tr> <td>3.1.14</td> <td>• Added 3.1.14.B</td> </tr> </table>	1.13.3	• Revised procedure to update appendices	Table 2-9	• Revised single family residential driveway requirements	2.7.2.A	• Revised item to refer to Table 2-9	Table 2-16	• Revised study area for Level II Analysis to ½ mile	3.1.14	• Added 3.1.14.B
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## EXHIBIT "B"

1.13.3. *Procedure for Appendices Updates* – The appendices may be revised in accordance with the following procedures:

1.13.3.A. *Committee Review* – All revisions to the Appendices will be considered and approved by a Committee consisting of the following:

- Assistant Director of Public Works–Engineering Services
- Assistant Director of Public Works–Field Service
- City Engineer
- Infrastructure Asset Manager

1.13.3.B. A representative from each of the following will be notified and given at least 5 business days to review and respond prior to adoption: Streets Division, Utilities Division, Traffic Division, Parks Department, Planning Division, and Building Inspection Division

1.13.3.C. *Posting* – Upon approval by the Committee, the proposed revisions will be incorporated into the Design Manual and posted on the Engineering Division Website and take immediate effect.

# EXHIBIT "C"

**Table 2-9. Minimum Driveway Spacing Requirements**

Driveway Type	Located On	Flare/Radius		Driveway Width		Spacing from Another Driveway (C)		Spacing from Intersection (Intersection With → Minimum Distance)		Number of Driveways
		Type	Min.	Max.	Min.	Max.	Min.	Max.	Min.	
Single-Family Residential/ Duplex	Alley	Fillet	5'	5'	10'	10'	10'		Street (non-local) → 25'	Rear entry garage or carport is limited to two alley connections per lot, tract or parcel  Front or side entry garage or carport may have one street connection and two alley approaches per lot, tract or parcel
	Local or Collector	Radius or Fillet	5'	5'	10'	30'				
Utility Service	All	Radius or Fillet	15'		12'	15'	½ Commercial Driveway Requirements		Follow Commercial Driveway Requirements	
Multi-Family Residential/ Commercial/ Industrial	Major Arterial	Radius	20'		30'	40'	150'		Major Arterial → 150' Minor Arterial → 125' Collector → 100' Local/Alley → 50'	Major/Minor Arterial → 150' Collector/Local → 100'
	Minor Arterial	Radius	20'		30'	40'	150'		Major/Minor Arterial → 100' Collector/Local/Alley → 50'	A maximum of three driveways shall be permitted for each 1,000 feet of roadway frontage, regardless of the minimum spacing requirements.
	Collector	Radius	15'		24'	36'	100'		All → 50'	
	Local								Not Permitted	
	Alley								Not Permitted	

**Notes:**

1. Driveway spacing may be reduced by up to ½ for an entry only partial access driveway followed consecutively by a downstream exist only partial access driveway.
2. Exiting trips is actual or projected peak hour exiting trips.
3. Except as provided by the approval of circular driveway access.
4. Entry only and exit only partial access driveways shall be considered to be ½ of a right turn in/right turn out partial access driveway or full access driveway.
5. The flare or radius cannot extend past the adjoining property line without written permission of adjacent property owner. The termination point of a driveway radius or fillet shall be a minimum of 10 feet from a storm sewer inlet and 5 feet from a fire hydrant.

## EXHIBIT "D"

### 2.7.2. Geometry

- 2.7.2.A. *Flare/Radius* – Refer to Note 5 on Table 2-9
- 2.7.2.B. *Minimum Number of Driveway Lanes per Driveway* – For full access driveways on an arterial, a minimum of one entering lane and two exiting lanes are required.
- 2.7.2.C. *Driveway/Public Street Intersection Angle*
  - 2.7.2.C.i. The deflection angle of all full access or right turn in/right turn out partial access driveway connections to public streets may vary from 80 degrees to 100 degrees. The driveway shall be tangent and without curve from the right-of-way line to a point 25 feet within the lot, parcel or tract of land the driveway is accessing.
  - 2.7.2.C.ii. The deflection angle of all entry only or exit only partial access driveway connections to public streets may vary from 45 degrees to 90 degrees. The driveway shall be tangent until it has fully entered private property.
- 2.7.2.D. *Location of Driveways* – A driveway serving a multifamily or non-residential land use shall not be located at established pedestrian crossings of public streets.
  - 2.7.2.D.i. A driveway serving a multifamily or non-residential land use shall not be constructed in existing angle parking areas except when the curb is restored to its normal location along the roadway in front of the premises.
  - 2.7.2.D.ii. A driveway serving a multifamily or non-residential land use shall not be designed or constructed for use for the standing or parking of vehicles or for use as angle parking.
- 2.7.2.E. *Street Intersection Corner Clearance* – When the adjacent street frontage is within the minimum corner clearance distance:
  - 2.7.2.E.i. If the lot, tract or parcel is in the process of being subdivided and replatted from a larger tract of land with sufficient frontage to meet the minimum corner clearance distance, a joint access easement by plat shall be required of the subdivider so that the minimum corner clearance requirement is met.
  - 2.7.2.E.ii. If the lot, tract or parcel cannot obtain a joint access easement to meet the minimum corner clearance requirements, a single driveway connection may be made at the point along the public street frontage that provides the maximum clearance distance.

## EXHIBIT "E"

**Table 2-16. Levels of Traffic Impact Analyses**

<b>Level of Analysis</b>	<b>Criteria</b>	<b>Study Horizon</b>	<b>Study Area</b>
I	Projected site-generated peak-hour trips of 100-200 per hour <b>AND</b> No significant modification of traffic signals or roadway geometry proposed	Year of completion, assuming full build-out and occupancy	All driveway access points, adjacent roadways, and adjacent major intersections. All signalized intersections on each street serving the site within 1/4 mile.
II	Projected site-generated peak-hour trips of 201-500 per hour <b>OR</b> Installation or modification of traffic signals or roadway geometry proposed, regardless of project size	Year of completion, assuming full build-out and occupancy <b>AND</b> Five years after completion	All driveway access points, adjacent roadways, and adjacent major intersections. All signalized and major unsignalized intersections on each street serving the site within 1/2 mile.
III	Projected site-generated peak-hour trips 501+ per hour <b>OR</b> Installation or modification of two or more traffic signals, addition of travel lanes, or modification of interchange proposed, regardless of project size	Year of completion, assuming full build-out and occupancy <b>AND</b> Five years after completion	All driveway access points, adjacent roadways, and adjacent major intersections. All signalized and major unsignalized intersections on each street serving the site within 1 mile.

## EXHIBIT "F"

- 3.1.14. *General Lot Grading and Drainage Requirements* – Lot grading and drainage shall at a minimum meet the following requirements:
- 3.1.14.A. Existing drainage patterns shall be maintained. Grading and drainage shall not negatively impact surrounding properties.
  - 3.1.14.B. The first floor elevations of all residential and other structures shall be set at a minimum elevation of the higher of either one and one-half (1.5) feet above the alley invert or one (1) foot above the top of the street curb elevation, and with positive drainage provided away from the structure. Positive overflow sections shall provide a minimum of two (2) feet of freeboard from the overflow invert adjacent to structures and the corresponding first floor elevation of all residential and other structures. Lot grading plans are required for all new subdivisions.
  - 3.1.14.C. Lot-to-lot drainage, defined as runoff from one individually owned private lot to another, is not allowed. Once runoff is conveyed to public right-of-way (ROW) or drainage easement, it may not be directed back onto property outside of a drainage easement.
  - 3.1.14.D. Lots shall be graded to drain surface water away from foundation walls. Impervious surfaces within 10 feet of the building foundation shall be sloped a minimum of 2% away from the building.
  - 3.1.14.E. All earthen drainage swales draining areas less than one cumulative acre shall have a 2% minimum slope. Side yards and backyards shall have a 1% minimum slope. All paved drainage swales shall have a 1% minimum slope.
  - 3.1.14.F. Drainage from residential areas, such as roof tops, should be allowed to flow overland before joining the storm sewer system.
  - 3.1.14.G. Seepage into basements or sub-surface structures that is pumped to ground level, seepage from springs and runoff from roof drains on non-residential buildings that would flow onto or across driveways, sidewalks, or other areas commonly crossed by pedestrians, can create hazards or nuisances to pedestrians. Thus, if hazards or nuisances would be created, the basement and rooftop drains shall be tied directly to the nearest storm sewer, provided that pumped lines from basements have back flow preventers and the water is uncontaminated.