

# APPENDIX B

## CITY CHECKLISTS

*CITY CHECKLISTS*

1. Engineering Plan Submittal Requirements
2. Engineering Plan Submittal Checklist
3. Traffic Impact Analysis Checklist
4. Geotechnical Report for Roadways Checklist
5. Operations and Maintenance Form
6. Grading and Floodplain Development Permit Form
7. Underground Fire Sprinkler Mains – Engineering Plans Checklist
8. Water and/or Sewer Service Only Project Checklist
9. Culvert and Drive Approach Only Project Checklist
10. Individual Single Family Lot Residential Development – Engineering Plans Checklist
11. Parking Lot Improvement Checklist
12. Impervious Area Summary Form
13. ROW and Easement Abandonment Procedure
14. Temporary Concrete Batch Plant Permit Procedure
15. Record Drawings Procedures for Private Projects
16. Acceptance Letter Request Form
17. Project Closeout and Acceptance Checklist
18. Mass Grading Coordination with Building Inspection Procedure
19. Engineering Plan Changes After Release Procedure
20. Variance Request to Engineering Design Manual

The Engineer shall verify the current edition of the checklists with the Engineering Division.



## **Engineering Plan Submittal Requirements**

**Revised:  
May 20, 2019**

## Introduction:

- These **Engineering Plan Submittal Requirements** are intended to standardize City requirements for civil engineering plans and communicate them in a straightforward manner. Comments on this document can be submitted directly Curt Cassidy, P.E., the City Engineer, at: [ccassidy@cityofmesquite.com](mailto:ccassidy@cityofmesquite.com)
- The most current version of the **Engineering Plan Submittal Requirements** and other related documents and resources are available in Appendix B of the Engineering Design Manual.
- Engineering Division contact information is available at: <https://www.cityofmesquite.com/380/Engineering-Resources>
- The Engineering Division has developed other documents, checklists and aids to assist and guide the development team through engineering plan preparation, review and construction process. These documents are available in Appendix B of the Engineering Design Manual.

The Development Team normally consists of the developer/property owner, a civil engineering firm, an architect and a general contractor and sub-contractors.

## **A Successful private development team:**

- Has a **designated project manager** who is often the lead project engineer or architect who is responsible for ensuring that project stakeholders are receiving timely communication regarding project status, timelines are met, submittals are complete, submittals meet published requirements and design guidelines, and City review comments are adequately addressed.
- **Communicates** among the design team and other project stakeholders and with City Staff frequently via email (preferred) or telephone. Face to face meetings with City Staff must be scheduled in advance and include an agenda so City Staff can prepare for a productive and efficient meeting.
- **Coordinates** utility relocations and required service with franchise utility companies. The Engineering Division does not coordinate franchise utility issues for private development projects.

## Prior to Engineering Plan Submission:

**Schedule and attend a Pre-Application Meeting** – At this meeting staff will explain the City's Development review processes, and you may ask project specific questions. Staff can point you in the right direction and provide some candid advice on any special problems your project may encounter. The team will assign a case manager to guide you through each step of the process and coordinate team review.

To set up your pre-application meeting please apply on the Citizen's Access Portal ,fill out the online Self-Survey form and pay the \$50 Pre-Application fee with the Planning & Zoning Division. Meetings are held each Wednesday morning beginning at 9AM and last a half-hour per applicant.

**Obtain Record Drawings.** The development team is responsible for obtaining and reviewing record drawings for City infrastructure during the plan preparation phase, prior to submitting plans.

Information and a request form for requesting City record drawings can be obtained at the following website: <http://www.cityofmesquite.com/384/Plats-Engineering-Records>.

Please understand that the City does not guarantee the information on record drawings but they provide a good starting point for investigation.

Record drawings are transmitted electronically. In addition, record drawings may need to be obtained from other governmental agencies such as the Texas Department of Transportation (TXDOT), the North Texas Municipal Water District (NTMWD), Dallas Water Utilities (DWU), etc. and from franchised utility companies.

**Request a Pre-Design Meeting** - a pre-design meeting between the development team and Engineering Division staff allows the development team to ask specific engineering-related questions and allows Engineering Division staff to share its institutional knowledge before significant design effort is expended.

### **Engineering Plan Review and Release Process:**

**Initial Engineering Plan Submittal:** After Site Plan approval by the Planning & Zoning Division, you may submit for Engineering Plan Review to the Engineering Division through energov.

## **City of Mesquite - Engineering Division**

Updated: January 15, 2019

The City will **only** accept payment of fees and plan and permit submittals through the **Citizen Access Portal (CAP)**. Please click on the link for more information:

<https://energov.cityofmesquite.com>. All plan and supporting documents must be submitted digitally per the below requirements.

### **Each Engineering Plan Submission Shall Consist of:**

- Digital copy in pdf format per eReview Standards:**
  - **Engineering plans (including details)**
  - **Supporting design calculations, reports, hydraulic studies, geotechnical reports, SWPPP, etc.**
  - **Required Administrative Items (such as supporting permit documentation, etc. Refer to the *Engineering Plan Submittal Checklist* in Appendix B of the Engineering Design Manual**
- Correct engineering plan review fee**

All submittals of the above information will be through the Citizen Access Portal at:

<https://energov.cityofmesquite.com>

Once at the Citizen's Access Portal, you will need to do the following:

- Create an account with a username and password (along with name, address, contact information, etc.)
- Enter information about the project (location, size of the site, engineering firm, etc.)
- Upload the engineering submission

The engineering plan set shall include **a copy** of the site plan approved by Planning Division and with the Planning Division stamp and signature of approval. **Please retain the originals of your approved & signed site plan to make copies for subsequent submittals.**

The submittal will be reviewed for completeness by the Engineering Plan Review Specialist in accordance with the two-page checklist at the end of this document. If the submittal is incomplete, it will be immediately rejected and returned without review. If the submittal is complete, it will be routed for City Staff review. **Our Goal is to return the first submittal with review comments within 21 calendar days of submission.** Depending on workload and the size and quality of the engineering plan submission staff often returns plans faster than this goal. Notification that the review has been completed will be posted on eReview. Paper copies will not be mailed out or be available for pick up from the engineering department. All markups will be on eReview.

**Engineering Plan Review Fees and Timeframes:**

(Mesquite Subdivision Ordinance, Article III, Section E(7) and City Ordinance No. 4155)

**Engineering Plan Submittal Review:**

<b>First Review:</b> <b>(Goal of 21 calendar day turnaround)</b>	\$750.00 for Properties Less Than One Acre \$750.00 Plus \$50.00 per Acre for Properties Over One Acre (Round Up to Largest Acre)
<b>Subsequent Reviews:</b> <b>(Goal of 10 calendar day turnaround)</b>	\$500.00 for Properties Less Than One Acre \$500.00 Plus \$25.00 per Acre for Properties Over One Acre (Round Up to Largest Acre)
<b>Fast Track Staff Review (each review):</b> <b>(Goal of 3 working day turnaround)</b>	\$2500.00 Plus \$100.00 per Acre for Properties Over One Acre (Round Up to Largest Acre)

**Engineering Plan Review Status:** The status of an engineering plan review should be checked on-line on energov at <https://energov.cityofmesquite.com>, using the personal login.

**Explanation of How City Comments Were Resolved:**

Address each of City comments by annotating the digital City marked up set with an explanation of how the comment was addressed and/or writing a letter of explanation that itemizes all the comments by sheet with explanation of how the comments were addressed. Place the information or explanation on the same plan sheet as the review comment. If the information or explanation is on another sheet, write a note on the markup sheet next to the review comment telling the City where to find the information or explanation.

**Marked up Plans with City Comments:**

Engineering plan comments will be able to be viewed after the review process is complete on energov.

**Other Plan Approvals, Documents, and Permits Required.** The following plans and permits must be submitted & approved prior to full release of Engineering Plans for construction:

- Tree Survey and Preservation Plan.** A Tree Survey and Preservation Plan is required on most projects. This plan shall be submitted separately to and approved by Planning and Zoning during the Site Plan review process.
- Grading Permit.** A grading permit is normally submitted for each project requiring Engineering Plans. Refer to the *Grading and Floodplain Development Permit Form* located in Appendix B of the Engineering Design Manual for information on calculation of fees and preparation of the grading permit.
- TCEQ Notice or Notice of Intent (NOI) and Construction Site Notice (CSN).** Provide copies of the appropriate TCEQ Notice of Intent from the Operator(s) and Large Site or Small Site Construction Site Notice (CSN) as defined in the TCEQ General Permit, as well as a Stormwater Pollution Prevention Plan (SWPPP) **in digital format** for sites 1 acre and larger.
- Project Specific Permits.** During Engineering Plan review, Engineering Division will advise the development team if other letter(s) of permission or permits from adjacent property owners and/or other public agencies (i.e., TxDOT, NTMWD, COE, Dallas County, FEMA, etc.), are required. Such documents include cross-access easements, FEMA CLOMR and LOMR, and TxDOT access and crossing permits.
- Calculation and Payment of Engineering Inspection Fees:**  
Please reference document on Engineering Division website at:  
<http://www.cityofmesquite.com/DocumentCenter/Home/View/408>
- Other Administrative Items or Studies as appropriate: See page 1 of the detailed **Engineering Plan Submittal Checklist** located in Appendix B of the Engineering Design Manual.

### **Preparation of Engineering Plans for Release:**

When Engineering Plans have completed the review process and all changes incorporated into the plans, engineering inspection and Grading Permit fees paid, other administrative documents received, the development team shall furnish the following **minimum** number of **complete** engineering plans sets to the City Engineering Division:

- A Minimum** of five (5) full-size (24" x 36" or 22" x 34") sets of complete Engineering Plans.
- A Minimum of one** (1) half-size (11" x 17") set of complete Engineering Plans.
- A CD/DVD or flash drive with the complete set of stamped engineering plans in **all** of the **following three formats** - pdf, tiff and AutoCAD dwg formats.

If the construction team requires more than four sets of engineering plans they may furnish additional sets above these minimums.

The development team shall provide an individual to stamp every sheet of the plan sets with the **"City of Mesquite-Released for Construction"** stamp.

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The hard copy engineering plans will **be distributed at the preconstruction meeting** as follows:

- 1 – Half Size Set: Public Works Construction Inspector – Truck Copy
- 1 – Full Size Set: City Engineering Division – Office Rack Copy
- 4 – Full Size Sets: Given to Developer for Distribution to Construction Team at the Preconstruction Meeting.

The development team may make copies of the engineering plans with the **“City of Mesquite-Released for Construction”** stamp to ensure all contractors and trades are building from these released plans sets.

Changes to the released engineering plan set are processed per the procedure found on the Engineering Division website at:

<https://www.cityofmesquite.com/DocumentCenter/Home/View/405>

### **Miscellaneous Engineering Plan Guidance:**

- **Fire Lane, Flow, and Hydrant Requirements.**
  - Fire lanes, fire flows, and fire hydrant requirements shall be per the current International Fire Code (IFC) adopted by Ordinance. Requirements may be directly coordinated with the Fire Marshall.
  - Fire lanes: shall not cover the same area as a loading zone or parking spaces; shall have an unobstructed vertical clearance of not less than 14-feet; shall have an unobstructed width of not less than 24-feet; shall be within 50-feet of the building’s fire department connection (FDC); and shall not dead end in after 150-feet without an approved turn around. Additional requirements are detailed in the IFC
  - **Fire Lane Paving:** shall be 6 inches thick, 4,000 psi 6-sacks concrete per cubic yard minimum, reinforced with #4 steel bars on-18 inch centers both ways atop a six-inch lime subgrade (34 lbs./sq. yd application rate) placed in 8” lifts and compacted to 95% of Standard Proctor at a moisture range of 0% to plus 6% of optimum moisture. Two-inches greater concrete depth can be substituted for the required lime subgrade (minimum 8-inch thickness). See [https://www.cityofmesquite.com/DocumentCenter/View/10465/Fire-Lane-Marking-and-Paving-Guidelines\\_2015?bidId=](https://www.cityofmesquite.com/DocumentCenter/View/10465/Fire-Lane-Marking-and-Paving-Guidelines_2015?bidId=)
- **Water Mains – Refer to City GDS for water especially sheets 4 & 5 Make sure all these water notes (Mains, backflow, meters) match the notes on the GDS**
  - For large sites, a looped water main shall be provided and connected to two different existing water mains. As approved by the assigned City Project Engineer, fire hydrants may be on a dead end main not more than 75-feet long with a 6-inch pipe or 150-feet for with an 8-inch pipe.
  - Domestic water taps must be off a live/looped main and not a fire hydrant lead or fire sprinkler line.
  - Water mains shall be not less than 8-inches in diameter and looped. See City of Mesquite General Design Standards Water Sheet 4 for other size and design requirements.
  - All water lines must be in a minimum 15-foot easement. Ensure the fire sprinkler line is outside the easement.

- All valves and fittings shall be mechanically restrained. Place valves at adjacent to Tee intersections and on fire hydrant leads. Do not place valves on end of a plugged line.
  - Typically, the top of the water main shall be 42-inch deep (see standard details). If the water main is less than 18-inch deep, provide a 4-inch concrete cap.
  - Water mains shall typically be designed to be installed above storm water pipes and sanitary sewer pipes.
- **Water Meter Backflow Protection:**
    - Reduced pressure backflow prevention assembly (RPZs) shall be installed on all domestic service water lines (does not include single family residences). The City prefers the RPZ on the domestic line be installed inside the building. RPZs shall be installed on all irrigation water lines. The City requires the RPZ be installed on the private side of the meter in an above ground insulated box.
- **Water Meters:**
    - Meters must not be placed in paved areas including sidewalks and driveways (i.e., installed in a grass area protected by a concrete curb). Meters must be placed in a utility easement or City ROW.
    - Bullheads are not allowed. Projects may not bull-head two separate 2-inch meters and have a 3-inch domestic service line to the building. If the site needs a 3-inch meter or greater, provide water service/meter sizing calculations (i.e., GPM).
    - Domestic water service shall be tapped into a looped water main.
    - All hospitals shall have two water service pipes and meters installed in such a manner so as to minimize the potential for an interruption of the supply of water in the event of a water main or water service pipe failure. (International Building Code, paragraph 609.2)
    - Irrigation water service may be tapped into a dead-end main or fire hydrant lead. If tapped off a fire hydrant lead, the meter and RPZ shall have a minimum 3-foot clearance to the “4 ½” steamer” portion of the fire hydrant.
- **Typical Sanitary Sewer Lines (non-residential):**
    - Comply with the City General Design Standards
    - Refer to Appendix D for Standard Details
    - Bring sewer service into an existing manhole or construct a manhole at the tie-in to the existing sewer system.
    - Provide top rim, flow line in, flow line out and slope of lines.
    - Most sewer mains will be SDR-26, 8-inch at a minimum 0.4% slope.
    - Show all water and storm sewer lines in profile of sewer main. Not necessary for simple commercial service. Provide benchmarks.
    - All sewers shall have precast manholes. If deeper than 15-feet, then construct a 5-foot diameter manhole. All drop manholes are 5-foot diameter.
    - All commercial developments shall install a minimum 6-inch domestic sewer service. All non residential sewer services shall be connected to the City sanitary sewer main at a manhole.
    - See TCEQ requirements for required water and sanitary sewer separation distances.

**Bores - See City General Design Standards for bores at:**

<http://www.cityofmesquite.com/DocumentCenter/Home/View/439>

- **Retaining Walls.** Projects with retaining walls over three (3) feet in height or any wall supporting structures such as parking areas, drive isles, screening walls, fences or handrails shall include construction details in the plans. Retaining wall structural calculations shall be submitted separately if the retaining wall is greater than four (4) feet in height. An engineer licensed in the State of Texas shall design and seal the calculations. Soils report used in the calculations shall also be submitted. If a retaining wall has a drop off height greater than 30-inches within 3 feet horizontal of a walking surface, a guard or handrail detail shall be included in the plans and shall comply with Building Inspection requirements (typically vertical pickets at 4-inch spacing) (International Building Code 1003.2.11.1 and International Residential Code 312.2). If a screening wall or handrail is either attached to or in the proximity of the retaining wall, the structural calculations shall reflect the appropriate loads and the construction details shall show the connection between the two.

### **After Engineering Plan Release:**

- **Building Plans.** Building Plans and application for a Building Permit shall be submitted to Building Inspection Division for review any time after Engineering Plans are “released”.
- **Pre-Construction Meeting.** Once Engineering Plans are “released” for construction, the developer or general contractor must contact the assigned Engineering Division **Public Works Construction Inspector** to schedule a pre-construction meeting. You will be given contact information for the Public Works Construction Inspector once plans have been released.
- **Engineering Plans On-Site.** The contractor and each sub-contractor shall have a least one set of Engineering Plans with the red City’s “release” stamp. Lack of engineering plans on the project site with the City released for construction stamp is grounds for the City to issue a “Stop Work Notice” halting work on the project.

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### **Expiration of Engineering Plans – Reference: *Mesquite Subdivision Ordinance, Article III, Section E(9)***

- The acceptance of an administratively complete engineering plan submittal application is considered a permit application under the Local Government Code, Chapter 245. Said permit application shall expire two years after acceptance of administratively complete application unless progress is being made toward completion of the project. If the permit expires, a new engineering plan submittal application will be required under current design standards and ordinances, which shall include submission of additional fees.

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### **City Engineering Acceptance of Civil Construction:**

**In addition to proper completion of the construction shown on the engineering plans, there are several important administrative items that must be submitted and approved prior to City acceptance of the improvements and issuance of a Certificate of Occupancy for a project. These administrative items include:**

- Record Drawings.** If changes to the “released” set of Engineering Plans are needed during construction, they must be submitted to the City Engineering Division for review and release. Both hard copy and electronic copy of record drawings are required prior to final acceptance. Refer to the *Record Drawings Procedures Private Projects* document in Appendix B of the Engineering Design Manual.

- Maintenance Bond** – a one-year maintenance bond for 10% of the cost of the public improvements (or a minimum of \$500.00) must be submitted to your assigned Engineering Division Public Works Construction Inspector.
- Acceptance Letter Request Form** – fill out this form and turn into your assigned Engineering Division Public Works Construction Inspector. This form is available in Appendix B of the Engineering Design Manual (*Acceptance Letter Request Form*).
- All required **construction and material tests reports** have been successfully completed and witnessed by your inspector and related documentation of these tests submitted to your assigned Engineering Division Public Works Construction Inspector.
- All other project documentation complete, City invoices paid, etc.

### **ABBREVIATED ENGINEERING PLAN SUBMITTAL CHECKLIST**

Refer to the full checklist, *Engineering Plan Submittal Checklist*, located in Appendix B of the Engineering Design Manual.

1. The following administrative items are included with the Engineering Plan Submittal:
  - Digital copy in pdf format per eReview Standards:
    - Engineering plans (including details)
    - Supporting design calculations, reports, hydraulic studies, geotechnical reports, SWPPP, etc.
    - Required Administrative Items (such as supporting permit documentation, etc. – See *Engineering Plan Submittal Checklist*, located in Appendix B of the Engineering Design Manual)
    - Markups of previous submittals, if applicable.
    - Annotated review comments, if applicable.
    - Permits from other public entities, if applicable.
2. All drawing sheets will include a title block, north arrow, scale, legend, and seal of the Engineer of Record.
3. The **Cover Sheet** include a location map, engineer and owner contact information, sheet index, and plan type (civil engineering, mass grading, etc.).
4. A copy of the **approved Site Plan stamped by Planning Division** will follow the Cover Sheet
5. **Dimensional Control & Paving Plan** sheet(s) will include:
  - Dimensions (thickness, width, length, radius) for all paved areas (parking areas, driveways, fire lanes, turn lanes, drive aisles, sidewalks, etc.)
  - Dumpster location accessible by SU-30 vehicle.
  - Screening and/or retaining wall location, foundation, and height.
  - Setbacks, easements, 100-year flood elevation.
  - Median openings, streetlights, and trees.
  - Pavement markings, streetlight and street signage.
  - Two GPS grid coordinates.
  - Metes and bounds.

- All existing and proposed public and private easements and rights-of-way.
  - Verification of public rights-of-way width (“variable width” is not acceptable).
  - Building setback lines.
6. **Grading Plan** sheet(s) will include:
- Lot area and disturbed land area.
  - Minimum finished floor elevation, 100-year flood plain line, and 100-year storm water surface elevation.
  - Existing and proposed lot lines, easements, improvements within 25’ of the site, off and on-site drainage features, and positive overflow routes.
  - Existing and proposed contours and spot elevations on-site and 50’ beyond property line.
  - Proposed retaining wall locations with top and bottom of wall elevations.
  - Cut and fill areas and cross-sections and building pads.
7. Drainage Area Map sheet(s) will include:
- (See Engineering Design Manual for detailed drainage plan requirement checklist):**
- Storm drainage analysis and design shall comply Section 3, Drainage Design Requirements, of the Engineering Design Manual.
  - Labeled basins and sub-basins with flow arrows that drain to/through the site.
  - Drainage Area Map Calculation Table that includes drainage areas, I, C, T<sub>c</sub>, Q, etc., for the fully developed, 100-year storm event.
  - Existing and proposed drainage structures and location of all sags and crests.
8. **Storm Drainage Plan** sheet(s) will include:
- (See Engineering Design Manual for detailed drainage plan requirement checklist):**
- Storm drain pipe size, material, vertical and horizontal alignment, slope, hydraulic grade line, and velocity for all mains and laterals.
  - Storm drain inlet size, type, location, and capacity.
  - Storm sewer manhole location, size, type, and material.
  - Outfall, headwall, and other structure location, type, velocity, and erosion/scouring protection.
  - Ditch, swale and open channel width, depth, running and side slopes, and capacity.
  - Detention/retention pond location, size, depth, capacity, and material.
  - Proposed Drainage Easements for Storm Drains 18-inch diameter and above.
9. **Utility (Water & Sanitary Sewer) Plan** sheet(s) will include:
- Existing and proposed water main and lateral location, size, material, valving, metering, flow rate, fire flow rate, fire hydrant location, FDC location, back-flow prevention, depth, and crossings and clearance from other utilities and structures.
  - Existing and proposed sanitary sewer main and lateral location, size, material, manholes with flow line in and flow line out, cleanouts, depth/profile, slope, and crossings and clearance from other utilities and structures.
  - All existing and proposed public and private easements and rights-of-way.
  - Proposed line separating public from private maintenance for both utilities.

10. **Erosion Control/SWP3 Plan – Submitted Digitally (pdf)** (required on all projects with disturbed area greater than 1 Acre) sheet(s) will include:
- Owner, engineer, and developer's contact information, total site and disturbed acreage, limits of construction, and borrow and spoil areas.
  - Existing and proposed contours, drainage structures, pavement and other structures.
  - BMP locations, details, phasing, calculations, and maintenance schedule.
  - Fully executed NOI and either small or large CSN as applicable.
  - SWP3 must meet all EPA and TCEQ regulatory requirements.**
  - Operations and Maintenance Checklist
11. Applicable project specific and **City General Design Standards and Standard Detail sheet(s)** will be attached to the end of the Engineering Plan set.
12. Refer to the *Engineering Plan Submittal Checklist*, in Appendix B of the Engineering Design Manual for a detailed list of requirements for each plan sheet.



## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					<b>City prefers that many administrative items be submitted as a high quality color pdf document for ease of review and long term storage</b>	
					<b>All submittals shall be through the Citizen's Access Portal: <a href="https://energov.cityofmesquite.com">https://energov.cityofmesquite.com</a></b>	
					<b>Items on this Checklist are Standard Requirements. This is a generic list that covers many items needed for projects. Additional or less items may be required based on project.</b>	
					<b>ADMINISTRATIVE ITEMS</b>	
					Engineering Plan Review Fees	
					Digital copy in pdf format of the full engineering plan submission (including details)	
					Annotated Review Comments, if applicable	
					One <b>Digital (pdf)</b> copy of any Study or Report Completed in Support of the Project	
					Impervious Area Summary Form Completed	
					Grading Permit Fee and Deposit	
					Executed Grading Permit Owner's Affidavit	
					Executed NOI, CSN (large or small depending on acreage disturbed) and SWPPP ( <b>Digital only</b> ) if 1 acre or over (NOI only required if 5-acres or more disturbed land)	
					Engineering Inspection Fee Calculation	
					Engineering Inspection Fee Paid	
					TXDOT Permit for Drive Approach Connections (letter) ( <b>Digital Copy</b> )	
					TXDOT Utility Permit Obtained-Usually the City must obtain this permit)	
					Other Agency or Land Owner Approval Obtained (specify)	
					Corps of Engineers (COE) Wetland Permit Obtained, if applicable	
					Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision (CLOMR) Obtained	
					Pro-Rata Fee Paid and Agreement Executed (rare)	
					Interlocal Agreements Approved and Executed (explain)	
					Letter of Permission for Offsite Grading Work	
					Easements for Permanant Offsite Improvements	
					Other Agreements (explain)	
					<b>STUDIES - IF APPROPRIATE OR REQUIRED</b>	
					Geotechnical Report ( <b>Color Digital copy only-pdf</b> )	
					Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision (CLOMR) Flood Study Submitted and City Review Fee Paid	
					Hydraulic Study Submitted	
					Water Study Submitted	
					Sanitary Sewer Capacity Study Submitted	
					Traffic Impact Analysis (TIA) Study ( <b>Digital pdf Only</b> )	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					<b>ALL SHEETS</b>	
					Sheet Size 22"x34" Preferred, 24" x 36" maximum sheet size (All sheet sizes should match and <b>all sheets should be printed to scale</b> )	
					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	
					811 Logo	
					Responsibility Note Required on All Sheets: "ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF MESQUITE, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN."	
					Provide Key Map for Project 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	
					<b>COVER SHEET</b>	
					Plan Type (Civil Site Engineering, Mass Grading, Etc )	
					Project Name	
					Official Plat Name as Assigned by the Planning and Zoning Division (including Block & Lot)	
					Official Project Address Assigned by the City GIS Division	
					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)	
					Sheet Index - List ALL sheets included in plan set including details	
					Location Map with North Arrow	
					Side Bar - Project Name	
					City Project Acceptance Requirements see: <a href="https://www.cityofmesquite.com/DocumentCenter/Home/View/6792">https://www.cityofmesquite.com/DocumentCenter/Home/View/6792</a>	
					<b>PLAT</b>	
					Latest Plat is Located in Plan Set	
					Plat is Immediately After Cover Sheet	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					<b>APPROVED SITE PLAN</b>	
					Approved Site Plan is Located Immediately After Plat	
					<b>Copy</b> Official Site Plan Attached with Planning and Zoning Division Stamp and Signature Only Selected sheets of the approved site plan that involve site layout, drainage, utilities, etc. should be included. <b>Do not include</b> building elevations or landscaping/irrigation sheets from the approved site plan. <b>(Applicant should retain original copies of approved site plan)</b>	
					<b>DIMENSIONAL CONTROL &amp; PAVING PLAN</b>	
					Lot Boundary with Dimensions and Bearings	
					GPS Grid Coordinates Shown for Two Property Corners & Properly Locates Tract in City GIS System <b>(must be in grid)</b>	
					Street Names Shown	
					Existing ROW	
					R.O.W. Dedication and ROW Corner Clips Shown with Dimensions	
					Verification of public rights-of-way width ("variable width" is not acceptable)	
					Visibility Easements Shown as Required by City Code	
					Building Setback Lines Shown	
					Minimum Finished Floor (FF) Elevation Shown for each Structure	
					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 Requirements	
					Driveways- Width, Radius, Distance to Adjacent Drives, Alignment with other Drives Across Street Shown	
					Driveway Radius Minimum Distance away from Inlets and Fire Hydrants per <i>Engineering Design Manual</i>	
					Driveway Grades from Gutter per <i>Engineering Design Manual</i>	
					Fire Lane - Width, Radius & Distance from Building Shown and Detailed	
					Fire Lane Pavement Thickness, Concrete Strength, Reinforcing, Subgrade Detailed Per City Requirements	
					Sidewalk Location, width, offset from back-of-curb	
					Barrier Free Ramp (Per TxDOT Pedestrian Facilities Curb Ramps PED - 18 Details) Location and <b>Type of Ramp</b>	
					Location of Fire Sprinkler Fire Department Connection (FDC) Shown	
					Location of Electrical Transformers Shown	
					Dumpster Location, Access and Construction Requirements Met (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	
					Show Required Paving Blockouts for Inlets with Dimensions	
					Screening Wall Location, Foundation, Height, Start/End of Wall	
					Retaining Wall Location, Foundation, Height, Start/End of Wall, Top of Wall and Bottom of Wall Elevations	
					Existing and Required Sidewalks and Trails Shown with Dimensions	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					Limits of 100-Year Ultimate Flood Plain Shown	
					Note Identifying Reference for 100 Year Floodplain and WSE Information	
					Left Turn Lane Complies with City Requirements (Spacing, Length, Construction)	
					Existing and Proposed Infrastructure within Median Modifications Shown (Trees, Street Lights, Conduit, Irrigation, etc)	
					Streets and Alley Profiles (if Applicable)	
					Street and Alley Vertical and Horizontal Curve Information (if Applicable)	
					Street and Alley Pavement Thickness, Concrete Strength, Reinforcing, Subgrade Detailed Per City Requirements (if Applicable)	
					Sight Distance Triangles Shown on Street and Alley Intersections	
					Streets and Alley Centerline Stationing (if Applicable)	
					Details and Spot Grades on Street Intersections - Denote Valley Gutters, Crown Transitions, etc.	
					Details on Horizontal and Vertical Curves with Layout Information (if Applicable)	
					Paving Marking Should be Shown - If a City Street Must comply with City Pavement Marking Standard Details	
					Show Existing Fences and Trees on Site and in Close Proximity to Property Line	
					<b>LEFT-TURN LANES AND MEDIAN MODIFICATIONS</b>	
					Median Details with Dimensions, Existing and Proposed Trees, Existing and Proposed Median Lighting, Lighting Conduit and Conductors, Other Improvements	
					Show Left-Turn Lane Median Geometry and Reverse Curve Dimensions and Layout Information	
					Show Spot Grades on Median to Ensure Median Opening Cross-Fall is Not Excessive	
					Show Locations of Existing and Proposed Driveways in Relation to the Left-Turn Lane on Both Sides of the Street with Dimensions	
					Left Turn Lane Buttons and Monolithic Nose Shown per City Requirements	
					Plans for Required Modifications to City Irrigation Systems (usually in medians)	
					<b>GRADING PLAN</b>	
					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)	
					Existing & Proposed Spot Elev. Showing Grade; High & Low Points; Swales, Inverts & Ridges	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					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 Slope 4H:1V (H=Horizontal, V=Vertical)	
					Ditches Adjacent to Site Cleared, Cleaned & Regraded	
					Positive Overflow Routes	
					Limits of 100-Year Ultimate Floodplain Shown	
					Ultimate (Fully Developed) 100-Year Floodplain Water Surface Elevations (WSE's) Shown a Minimum of Every 100'	
					Note Identifying Reference for 100 Year Floodplain and WSE Information	
					Cross sections to scale with hydraulic calculations	
					Location of Cross-Sections With Stationing Shown	
					Existing and Proposed Retaining Walls with Top & Bottom Spot Elevations	
					No Lot-to-Lot Drainage	
					Grading Plan Matches Drainage Area Map	
					Does Grading Plan Address Impacts to Adjacent Properties Requiring Easements or Letters of Permission	
					<b>DRAINAGE AREA MAP</b>	
					Storm Drainage Analysis and design shall comply with the Drainage Ordinance	
					Existing and Proposed Drainage Area Maps Shown	
					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 2-foot Contour Information - Not USGS Quads (Minimum 2')	
					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	
					Drainage Area Map Calculation Table With Outfall Summary Included	
					I - Values Meet City Requirements	
					C - Values Meet City Requirements	
					Time of Concentration Values Used Meet City Requirements	
					Time of Concentration Calculations Shown (for larger areas)	
					Q - Calculated Flow in cfs	
					Provide a Subtotal for each 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	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					Note Identifying Reference for 100 Year Floodplain and WSE Information	
					Show Limits of Each Plan Sheet	
					<b>STORM DRAINAGE PLANS (Inlets and Storm Drain Systems)</b>	
					Benchmark Location and Elevation	
					Minimum Finished Floor (FF) Elevations for Structures meet Requirements of Drainage Ordinance	
					Minimum Finished Floor (FF) Elevation Shown for each Structure	
					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	
					Minimum Slopes Maintained for All Storm Drain	
					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)	
					Vertical and Horizontal Alignment, Stationing, Layout, Curve Information 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	
					Ultimate 100-Year Water Surface Elevation For Outfalls into Creeks, Ponds, and Lakes Shown	
					Acceptable Pipe Velocity per <i>Engineering Design Manual</i>	
					Elevation Information on Plan View (Flowlines, Top-of-Curb, 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	
					Street Gutter Capacity Calculations Shown	
					Inlet Capacity Calculations Provided In Tabular Form	
					Inlets Placed to Capture Runoff Before It Enters Street or Major Thoroughfare	
					Driveway Radius Minimum Distance away from Inlets and Fire Hydrants per <i>Engineering Design Manual</i>	
					No Inlets Under Minimum Requirements	
					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, Etc)	
					No Grate Inlets at Sag Points	
					Storm Sewer Inlet Location, Size, Type, Material and Construction Detail Per City Requirements	
					Provide Curbing in Alleys at Inlet Locations	
					Storm Sewer Manhole Location, Size, Type, Material and Construction Detail Per City Requirements	
					Pipe Intersections at 60 degrees with Larger Main (if possible)	
					Acceptable Pipe Intersections Angles per <i>Engineering Design Manual</i>	

## Engineering Plan Checklist - May 20, 2019

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Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					Outfall, Headwall, and Other Structure Location, Type, Velocity, and Erosion/Scouring Protection per <i>Engineering Design</i>	
					Headwall Handrail and/or Traffic Rail Details, if Required	
					Pipe Outfall into Creeks and Ditches Point Downstream	
					Pipe Outfall Flowline at Acceptable Elevation Compared to Creek Flowline per <i>Engineering Design Manual</i>	
					Pipe Outfall Erosion Protection at Creek or Ditch per <i>Engineering Design Manual</i>	
					Pipe Outfall Energy Dissipation (if required)	
					Show Aesthetic Treatments for Headwalls	
					Positive Overflow Route Identified Through Site	
					Sag Points Identified and Paved Positive Overflow Designed	
					Outfall/Headwall Locations Pointed Down Stream	
					Outfall/Headwall Flowline at Acceptable Elevation Compared to Creek Flowline per <i>Engineering Design Manual</i>	
					Outfalls Discharge into Existing Drainage Features or Provide Easements as Required	
					Outfall Velocity per <i>Engineering Design Manual</i>	
					Appropriate Details are Included for Structures, Junction Boxes, Headwalls and Inlets	
					Connection Details Provided for Non-Standard Connections	
					Limits of 100-Year Ultimate Floodplain Shown	
					Ultimate (Fully Developed) 100-Year Floodplain Water Surface Elevations (WSE's) Shown a Minimum of Every 100'	
					Note Identifying Reference for 100 Year Floodplain and WSE Information	
					Drainage Easements for Drainage Features and Structures Shown (15' Minimum Width)	
					<b>STORM DRAINAGE PLANS (Ditches, Swales, Flumes and Open Channels)</b>	
					Minimum Finished Floor (FF) Elevations for Structures meet Requirements of Drainage Ordinance	
					Minimum Finished Floor (FF) Elevation Shown for each Structure	
					Ditches, Swales and Open Channels have Plan and Profile View with Stationing, Layout Information, Hydraulic Information, Cross Sections	
					Paved Flumes at all Overland Flow Locations (between houses)	
					Direction of Flow Indicated for Ditches, Swales and Open Channels	
					Ditches, Swales and Open Channels have 100 year Ultimate Water Surface Shown on Profile	
					Ditches, Swales and Open Channels have 100 year Ultimate Water Surface Shown on Cross Sections	
					Ditches, Swales and Open Channels Armored with Approved Material in Areas Where Average & Localized Velocities are Above	
					Ditches, Swales and Open Channels can Carry 100-year Ultimate Storm with 1.0' of Freeboard and 2.0' of Sediment Storage	
					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	
					Ditches, Swales and Open Channels Side Slopes Less Than 4H: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)	
					<b>STORM DRAINAGE PLANS (Detention and Ponds)</b>	
					Required Detention Shown	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					Detention Calculation Shown and Correct	
					Detention/Retention Pond Location, Size, Depth, Capacity, and Material Per <i>Engineering Design Manual</i>	
					Grading Plan for Detention/Retention Pond	
					TCEQ Permits for Retention Ponds	
					TCEQ Requirements met for Dams/Ponds - Breach Analysis, Etc...	
					Soils Analysis for Retention Ponds and Dams	
					Retention Ponds Should Not have Submerged Inlet Structures	
					Provide Access and Structures that Contribute to Long Term Maintenance of Detention Pond	
					Drainage Easements for Drainage Features and Structures Shown (15' Minimum Width on Both Sides or 20' Minimum Width on One Side)	
					<b>UTILITY (WATER AND SANITARY SEWER) PLANS</b>	
					Private Utility Note: "ALL SANITARY SEWER AND WATER 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 DIVISION AND INSTALLED BY A LICENSED PLUMBER."	
					<b>WATER</b>	
					Water Main Sized In Compliance with Water System Master Plan	
					Water Mains Provided to Front Property Along all Street Frontages	
					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)	
					Utility Easements for Fire Hydrant Shown (15' minimum width)	
					Proposed and Existing Fire Lanes Shown	
					Fire Hydrant Spacing Meets Requirements of Adopted International Fire Code (IFC)	
					Fire Sprinkler Line Shown into Riser Room	
					Fire Sprinkler Line Outside of Utility Easement	
					Fire Sprinkler Line Called Out as "Private" Past Easement or Right-of-Way	
					Fire Sprinkler Line Called Out as "Public" Within Easement or Right-of-Way	
					Fire Sprinkler Fire Department Connection (FDC) Location Shown and Detailed	
					Water Main Fittings, Valves, etc Identified	
					Water Mains Profiled when Required as per <i>Engineering Design Manual</i>	
					All Water Main Bores Profiled	
					All Crossings Identified on Appropriate Profile and Plan	
					Bore complies with Bore and Utility Crossing General Design Standards	
					Existing Water Meters Shown with Size	
					Proposed Water Meters Shown (Both Domestic and Irrigation) with Size(s)	

## Engineering Plan Checklist - May 20, 2019

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Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					Domestic Water Meters on Looped/Circulating Main	
					All Water Meters on Separate Service - No Water Meter "Bullheads" or Manifolds Allowed	
					Water Meters Located in Unpaved Area	
					Water Meter Sizes Identified	
					Water Service Line Called Out as "Private" Before Meter	
					Water Service Line Called Out as "Public" Past Meter	
					Appropriate Backflow Prevention (RPZ) Shown on Private Side of Irrigation Meters, DC is required on domestic on riser in building	
					Water System Reviewed for Constructability and Maintenance - Depth and Clearance From Streets, Structures, Other Utilities	
					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	
					<b>SANITARY SEWER</b>	
					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	
					Sanitary Sewer Main Size, Material and Class Identified on 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	
					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	
					All Existing and Proposed Public and Private Easements and Rights of Way Shown	
					Sanitary Sewer Line Called Out as "Private" Before Easement or Right-of-Way	
					Sanitary Sewer Line Called Out as "Public" Within Easement or Right-of-Way	
					Sanitary Sewer Mains Identified as Either Public or Private with Lines of Demarcation and Private Utility Note	
					Single-Family Residence Not Connected to Main at Manhole	
					Nonsingle-Family Residence Connected to Main at Manhole	
					Sanitary Sewer Main Ends at a Manhole	
					<b>PAVEMENT MARKING, SIGNAGE AND LIGHTING</b>	
					Plan Sheets and Details on Required Street Name Signs, Street Lighting and Pavement Marking and Traffic Signage for City	
					<b>MISCELLANEOUS DETAILS AND REQUIREMENTS</b>	
					Plans for Required Modifications to City Irrigation Systems (usually in medians)	

## Engineering Plan Checklist - May 20, 2019

Project Name: \_\_\_\_\_ Engineer Completing Checklist: \_\_\_\_\_ Date of Plan Submission: \_\_\_\_\_

Not Applicable	Included	Missing	Incomplete	Code Ref	<b>Item Description</b>	<b>Notes</b>
					<b>EROSION CONTROL (For Sites Greater 1- Acre or Larger) / SWP3 (If Required by TCEQ Regulations)</b>	
					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	
					Limits of Trees/Shrubs to Remain	
					Grades Match Grading Plan	
					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	
					<b>General Design Standards &amp; Standard Details</b>	
					City of Mesquite's General Notes Sheet	<i>Appendix C</i>
					All Applicable City Standard Details	<i>Appendix D</i>
					TxDOT Pedestrian Facilities Curb Ramps PED - 18 Details	
					TxDOT Precast SET Type II Cross and Parallel Drainage Details	
					Specialized Manufacturer's Details	
					Other Pertinent Details - Explain	
					Other Pertinent Details - Explain	

Project Name: \_\_\_\_\_

Engineer Name: \_\_\_\_\_

Engineering Firm: \_\_\_\_\_

Report Date: \_\_\_\_\_

Date Received: \_\_\_\_\_

*Note: This checklist is provided for convenience only and represents only a partial list of the requirements for TIAs. Refer to **Section 2.16 (Traffic Impact Analysis)** for all requirements. Any N/A response shall include a written explanation with adequate justification, as deemed necessary by the Traffic Engineer.*

<b>COMPLETE</b>	<b>N/A</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>1. PRELIMINARY MEETING</b>
<input type="checkbox"/>	<input type="checkbox"/>	Contact the Manager of Traffic Engineering prior to beginning the study
<input type="checkbox"/>	<input type="checkbox"/>	Analysis needed for weekday peak hours
<input type="checkbox"/>	<input type="checkbox"/>	Analysis needed for weekend peak hours
<input type="checkbox"/>	<input type="checkbox"/>	Analysis needed for mid-day weekday or school period
<input type="checkbox"/>	<input type="checkbox"/>	Method of distributing trips
<input type="checkbox"/>	<input type="checkbox"/>	Analysis software
<input type="checkbox"/>	<input type="checkbox"/>	Percentage of pass-by or internal capture
<b>COMPLETE</b>	<b>N/A</b>	<b>2. INTRODUCTION</b>
<input type="checkbox"/>	<input type="checkbox"/>	Description site location and study area
<input type="checkbox"/>	<input type="checkbox"/>	Development description
<input type="checkbox"/>	<input type="checkbox"/>	Selection of analysis period
<b>COMPLETE</b>	<b>N/A</b>	<b>3. SITE CONDITIONS</b>
<input type="checkbox"/>	<input type="checkbox"/>	Existing Conditions
		○ Existing zoning (source cited)
		○ Geometric parameters of existing roads from governing body
		○ Existing traffic counts
		○ Intersection and driveway counts (eight hours if a traffic signal warrant will be conducted)
		○ 24-hour volume counts (Tuesday to Thursday, or possibly weekend)
<input type="checkbox"/>	<input type="checkbox"/>	Site Development
		○ Vicinity map
		○ Site plan
		○ Driveway locations and street alignment
<b>COMPLETE</b>	<b>N/A</b>	<b>4. PROJECTED TRAFFIC</b>
<input type="checkbox"/>	<input type="checkbox"/>	Site Traffic
		○ Clear and concise description for trip generation purpose (source cited)

		<ul style="list-style-type: none"> <li>○ Trip generation using the current edition of ITE's <i>Trip Generation Manual</i></li> <li>○ Trip distribution and assignment (each step of this procedure should be clearly shown in enough detail so that all calculations can be verified)</li> <li>○ Account for pass-by trip and internal capture reductions</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<b>Background Traffic</b> <ul style="list-style-type: none"> <li>○ Clear and concise description for trip generation purpose (source cited)</li> <li>○ Vicinity map of background sources</li> <li>○ Trip generation using the current edition of ITE's <i>Trip Generation Manual</i></li> <li>○ Trip distribution and assignment (each step of this procedure should be clearly shown in enough detail so that all calculations can be verified)</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<b>Reassignment Rates</b> <ul style="list-style-type: none"> <li>○ Clear and concise description (source cited)</li> <li>○ Pass-by, diverted trips, and internal capture using the current edition of ITE's <i>Trip Generation Manual</i> based on different land use classifications</li> <li>○ Reduction for any other land use types should be documented and approved by the City</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<b>Total Traffic</b> <ul style="list-style-type: none"> <li>○ Clear and concise description for trip generation purpose (source cited)</li> <li>○ Combine site and background traffic for each intersection and driveway</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<b>Future Traffic</b> <ul style="list-style-type: none"> <li>○ Clear and concise description for trip generation purpose (source cited)</li> <li>○ If required, calculate using background traffic volumes adjusted for the TIA horizon year</li> </ul>
<b>COMPLETE</b>	<b>N/A</b>	<b>5. TRAFFIC ANALYSIS</b>
<input type="checkbox"/>	<input type="checkbox"/>	Existing level of service (LOS) analysis using software approved by the City
<input type="checkbox"/>	<input type="checkbox"/>	<b>Background LOS analysis using software approved by the City</b> <ul style="list-style-type: none"> <li>○ Capacity analysis for unsignalized intersection using current version of HCS software or other software approved by the City</li> <li>○ Signal warrants analysis using TMUTCD</li> <li>○ Capacity analysis for signalized intersection using software approved by the City (if existing or warranted)</li> <li>○ Turning vehicle storage space (queuing) analysis, as required by City Code</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	Projected LOS analysis using software approved by the City

		<ul style="list-style-type: none"> <li>○ Capacity analysis for unsignalized intersection using software approved by the City</li> <li>○ Signal warrants analysis using TMUTCD</li> <li>○ Capacity analysis for signalized intersection using software approved by the City (if existing or warranted)</li> <li>○ Turning vehicle storage space (queuing) analysis as required by City Code</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	Site circulation/parking analysis
<input type="checkbox"/>	<input type="checkbox"/>	Summarize net change in Measures of Effectiveness
<input type="checkbox"/>	<input type="checkbox"/>	Safety analysis
<input type="checkbox"/>	<input type="checkbox"/>	Discussion of additional facilities (sidewalks, crosswalks, school bus stops, railroad crossings, etc.)
<b>COMPLETE</b>	<b>N/A</b>	<b>6. TRAFFIC MANAGEMENT PLAN</b>
<input type="checkbox"/>	<input type="checkbox"/>	Traffic Management Plan (TMP) based on the site plan (include estimated maximum peak hour trip generation, the planned traffic circulation, and the estimated traffic queuing)
<b>COMPLETE</b>	<b>N/A</b>	<b>7. CONCLUSIONS AND RECOMMENDATIONS</b>
<input type="checkbox"/>	<input type="checkbox"/>	Site access, driveways, and circulation plan
<input type="checkbox"/>	<input type="checkbox"/>	Recommended site modifications (include drawings and cost estimate)
<input type="checkbox"/>	<input type="checkbox"/>	Recommended intersection and driveway improvements (include drawings, cost estimate, timing methods, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	Recommended off-site improvements (include drawings and cost estimate)
<b>COMPLETE</b>	<b>N/A</b>	<b>8. APPENDIX/DOCUMENTATION</b>
<input type="checkbox"/>	<input type="checkbox"/>	Raw traffic count data
<input type="checkbox"/>	<input type="checkbox"/>	The current edition of ITE's trip generation data summary
<input type="checkbox"/>	<input type="checkbox"/>	Capacity analysis printouts and data file
<input type="checkbox"/>	<input type="checkbox"/>	TMUTCD's Traffic Signal Warrant Analysis worksheets
<input type="checkbox"/>	<input type="checkbox"/>	Photographs of the site
<input type="checkbox"/>	<input type="checkbox"/>	Additional tables or figures not included in the report
<b>COMPLETE</b>	<b>N/A</b>	<b>9. SUBMITTAL AND REVIEW PROCEDURES</b>
<input type="checkbox"/>	<input type="checkbox"/>	Two bound copies of the TIA report, including all documentation and signed and sealed by a licensed Professional Engineer in the State of Texas.
<input type="checkbox"/>	<input type="checkbox"/>	Traffic Engineer approval is valid for 24 months, provided significant changes in the development proposal or surrounding conditions have not occurred. If site plan changes after initial TIA approval, the TMP shall be revised accordingly and resubmitted for Traffic Engineer approval.

**MISCELLANEOUS NOTES:**

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**Engineer Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Project Name: \_\_\_\_\_

Geotechnical Engineer/Firm: \_\_\_\_\_

Report Date: \_\_\_\_\_

Date Received: \_\_\_\_\_

*Note: Any N/A response shall include a written explanation with adequate justification, as deemed necessary by the Director of Public Works.*

<b>COMPLETE</b>	<b>N/A</b>	
<input type="checkbox"/>	<input type="checkbox"/>	<b>1. SECTION 2.11.1 GENERAL</b>
<input type="checkbox"/>	<input type="checkbox"/>	A. Include the <i>Summary of Geotechnical Recommendations Form</i>
<input type="checkbox"/>	<input type="checkbox"/>	B. Description of Project
<input type="checkbox"/>	<input type="checkbox"/>	C. Location of Project
<input type="checkbox"/>	<input type="checkbox"/>	D. Roadway type and classification
<input type="checkbox"/>	<input type="checkbox"/>	E. Grading plan and summary
<input type="checkbox"/>	<input type="checkbox"/>	F. Discussion of underground utilities within the Project limits
<b>COMPLETE</b>	<b>N/A</b>	<b>2. SECTION 2.11.2 GEOTECHNICAL INVESTIGATION</b>
<input type="checkbox"/>	<input type="checkbox"/>	A. Discussion of existing surface/subsurface conditions that may affect subgrade and pavement design or performance (i.e. vegetation, terrain, existing structures, existing pavement, etc.)
<input type="checkbox"/>	<input type="checkbox"/>	B. Discussion of geological conditions that may impact subgrade and pavement design or performance. Specify formation.
<input type="checkbox"/>	<input type="checkbox"/>	C. Surface/subsurface conditions with logs <ul style="list-style-type: none"> <li>- Sampling techniques</li> <li>- Description of soil and rock encountered, including lab test details</li> <li>- Discussion of water and groundwater conditions</li> <li>- Discussion of seasonal variations in moisture content</li> <li>- Atterberg limits (ASTM D 4318)</li> <li>- Percent Passing the No. 200 sieve (ASTM D 1140)</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	D. All standards used in field and laboratory testing shall be identified. Any deviations to standard procedures shall be discussed.
<b>COMPLETE</b>	<b>N/A</b>	<b>3. SECTION 2.11.3 SUBSURFACE DESIGN</b>
<input type="checkbox"/>	<input type="checkbox"/>	A. Expansive Soils Evaluation <ul style="list-style-type: none"> <li>- Percent swell calculation and test results</li> <li>- Effect of cut/fills (i.e. long-term soil uplift in cut areas; settlement overburden pressure effects in fill areas)</li> <li>- Identify soil movement estimates at each boring location</li> <li>- Explanation of anomalous variations within the soil profile and between borings (i.e., Atterberg limits, PI, sulfates, clay to rock, etc.)</li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	B. Soil Moisture Conditioning <ul style="list-style-type: none"> <li>- Discussion of swell test results summary</li> <li>- Recommended depth of moisture conditioning</li> <li>- Address transition between zones of varying depth</li> <li>- Discussion of possible variations during construction and mitigation thereof</li> </ul>

- Discussion of techniques to maintain moisture in soil
- Discussion of methods to test soil moisture conditioning during construction (i.e. a second geotechnical investigation/re-evaluation may be required to specifically address soil moisture prior to lime operations)
- Address street trees

**COMPLETE**      **N/A**  
                     

**4. SECTION 2.11.4 SUBGRADE DESIGN**

**A. Subgrade Stabilization**

- Typical subgrade type
- Explanation of anomalous soil conditions anticipated and discussion of potential variations to consider
- Construction techniques to implement
- Effects of rock/rock fragments encountered during construction and recommendations to abate

                    

**B. Soluble Sulfates**

- Identify soluble sulfate test results; summarize results and discuss variations
- Discussion of techniques during construction to mitigate sulfate-induced heaving
- Sulfate retesting during construction

**COMPLETE**      **N/A**  
                        
                        
                     

**5. SECTION 2.11.5 PAVEMENT DESIGN**

- A. Identify roadway type(s) and classifications(s)
- B. Identify deviations from Pavement Design Input Values (Re: **Table 2-23**)
- C. Identify recommended pavement section

**COMPLETE**      **N/A**  
                        
                        
                        
                        
                        
                        
                        
                     

**6. APPENDIX**

- A. Geological Map
- B. Boring Locations
- C. Boring Logs
- D. Grading Plan (for non-linear projects)
- E. Cut vs. fill by station number (for linear projects)
- F. Printout from WinPAS pavement design software program
- G. Proposed typical section with dimensions showing pavement thickness, subgrade type and thickness, moisture conditioning depth, and location of moisture barrier. If applicable, location of proposed trees and root barriers shall be shown.

**Geotechnical Engineer Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**OPERATIONS AND MAINTENANCE FORM**

This Operations and Maintenance Form must be accepted by the City before the final Engineering Plans are approved for construction. Submittal of an Operations and Maintenance Form is required to demonstrate the long-term preservation and performance of Permanent Best Management Practices (PBMPs).

Permit Application Number: \_\_\_\_\_

Owner Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Site Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

**SITE-SPECIFIC OPERATIONS AND MAINTENANCE PLAN**

Please check all that apply (continued onto the following pages).

Description of PBMP	Maintenance Procedure	Frequency of Maintenance	Responsible Party
1. _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____	<input type="checkbox"/> As needed (seasonally) <input type="checkbox"/> Within 14 days of significant storm events <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semi-Annually <input type="checkbox"/> Annually <input type="checkbox"/> Other: _____	<input type="checkbox"/> Owner (above) <input type="checkbox"/> Other (below)

Description of PBMP	Maintenance Procedure	Frequency of Maintenance	Responsible Party
2. _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____	<input type="checkbox"/> As needed (seasonally) <input type="checkbox"/> Within 14 days of significant storm events <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semi-Annually <input type="checkbox"/> Annually <input type="checkbox"/> Other: _____	<input type="checkbox"/> Owner (above) <input type="checkbox"/> Other (below)
3. _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____	<input type="checkbox"/> As needed (seasonally) <input type="checkbox"/> Within 14 days of significant storm events <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semi-Annually <input type="checkbox"/> Annually <input type="checkbox"/> Other: _____	<input type="checkbox"/> Owner (above) <input type="checkbox"/> Other (below)
4. _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____	<input type="checkbox"/> As needed (seasonally) <input type="checkbox"/> Within 14 days of significant storm events <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semi-Annually <input type="checkbox"/> Annually <input type="checkbox"/> Other: _____	<input type="checkbox"/> Owner (above) <input type="checkbox"/> Other (below)

Description of PBMP	Maintenance Procedure	Frequency of Maintenance	Responsible Party
5. _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____	<input type="checkbox"/> As needed (seasonally) <input type="checkbox"/> Within 14 days of significant storm events <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semi-Annually <input type="checkbox"/> Annually <input type="checkbox"/> Other: _____	<input type="checkbox"/> Owner (above) <input type="checkbox"/> Other (below)

**RESPONSIBLE PARTY**

In the event the Owner does not assume responsibility for Operations and Maintenance, please provide contact information for the Other Responsible Party.

Other Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

**ADDITIONAL COMMENTS**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**TERMS AND CONDITIONS**

The Responsible Party agrees to the Operations and Maintenance procedures and frequency of maintenance for each PBMP included in this Operations and Maintenance Form. The City of Mesquite reserves the right to perform inspections and maintenance, at the expense of the Responsible Party, to correct deficiencies should the Responsible Party fail to perform the work after given notice.

The duration of this Operations and Maintenance Form is to be mutually agreed upon by the Owner and the City of Mesquite. Please state the effective dates below.

<b>Responsible Party</b>	<b>Effective Date</b>	<b>Expiration Date</b>
<input type="checkbox"/> Owner <input type="checkbox"/> Other <input type="checkbox"/> City	_____	_____ <input type="checkbox"/> Pending City's acceptance based on record of inspection.

If this agreement is made for the City to assume indefinite Operations and Maintenance responsibility of this Site, please state the specific, mutually agreeable conditions below.

<b>Method of Determining Indefinite Operations and Maintenance Costs</b>	<b>Escrow Funds Transferred to City</b>
	Amount: \$ _____ Anticipated Date of Transaction: _____
<b>Additional Comments:</b> _____ _____ _____ _____	

**ACKNOWLEDGEMENT**

**BY SIGNING BELOW**, the Responsible Party accepts and agrees to the terms and conditions contained in this Operations and Maintenance Form and in any document executed and recorded with it.  
To be signed in the presence of a City of Mesquite Administrator.

_____	_____	_____
<b>Owner/Other Printed Name</b>	<b>Owner/Other Signature</b>	<b>Date</b>

_____	_____	_____
<b>Other/Other Printed Name</b>	<b>Other/Other Signature</b>	<b>Date</b>

_____	_____	_____
<b>Administrator Printed Name</b>	<b>Administrator Signature</b>	<b>Date</b>

**GRADING & FLOODPLAIN DEVELOPMENT PERMIT**  
CITY OF MESQUITE



**Permit No.** \_\_\_\_\_

This permit allows the owner to fill, grade, excavate, or otherwise disturb the surface of property described below, in accordance with Mesquite City Code, Section 11-50 to 11-57.

**PROJECT NAME:** \_\_\_\_\_

**PLAT NAME:** \_\_\_\_\_

**PROPERTY LOCATION:** \_\_\_\_\_

**PROPERTY OWNER:** \_\_\_\_\_

<b>DEPOSIT REQUIRED:</b>	<b>\$</b>	<b>0.00</b>	<b>(Disturbed land area-acreage)</b>
<b>PERMIT FEE (NON-REFUNDABLE):</b>	<b>\$</b>	<b>100.00</b>	
<b>TOTAL:</b>	<b>\$</b>	<b>0.00</b>	

**Requirements and conditions of this permit:**

- Grading plans have been submitted and approved by the City.
- Submission of a notarized statement from the property owner giving permission to the Contractor to fill, grade, excavate, or otherwise disturb the property and acknowledgment by property owner of his responsibilities as described in section 11-57 of the Mesquite City Code.
- For projects disturbing 1 acre or more of land, submission of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with City, TCEQ and EPA regulations and requirements.
- For projects disturbing 5 acres or more of land submit a copy of the Notice of Intent (NOI) from all site "Operators".
- When applicable, submit copy of Parks & Recreation Department Approval of the tree preservation plan to the Engineer.
- When applicable (floodplain encroachment), provide a copy of a Conditional Letter of Map Revision (CLOMR) from FEMA.
- Special Conditions –**

The Developer, Contractor and Engineer is hereby notified that issuance of this permit does not indicate approval of the engineering plans and that grade revisions can and will be made if determined necessary after a complete review of the final plans.

At any time the City determines that the project is in non-compliance with this permit or any other applicable permits and/or letters of permission, this permit shall be revoked and a stop work order shall be issued to the Developer and / or Contractor.

If it is necessary for the City to remove soil, rock, mud or debris from its streets, alleys, utility facilities, rights of way or easements, or construct erosion devices on the permit site to prevent erosion in connection with this permit, the cost of such will be charged to the holder of this permit and subtracted from the balance of the deposit required herein. To be reimbursed for deposited funds NOT used to reimburse the City for construction or removal of soil, rock, mud and debris, a written request must be made to the City Engineer from the depositor named below within two (2) years of written project acceptance by the City Engineer, and the following conditions must be met. Failure to request funds within the prescribed time will result in forfeiture of such funds to the City's General Fund.

1. All disturbed areas on and off site are vegetated with a vigorous stand of grass or other ground cover.
2. Temporary erosion control devices are no longer required and have been removed.
3. Permanent erosion control devices are in place on the site and working properly and no further hazard of erosion is present on the site.
4. Where applicable, a copy of the TCEQ Notice of Termination (NOT) for the project has been submitted to the City.
5. The City Engineer has given written acceptance of the project.

The Depositor must notify the City of Mesquite, Attn: Engineering Division in writing of all address changes.

**Deposited By:**

**Name:**

**Address:**

**Phone:**

**Permit Issued By:**

**Name:**

**Title: Storm Water Specialist**

**Date:**

cc: Construction File  
Property Owner  
Construction Contractor  
Grading Permit File

CITY OF MESQUITE

OWNER'S STATEMENT OF PERMISSION AND RESPONSIBILITY

I, \_\_\_\_\_, being the Owner and/or Officer of

\_\_\_\_\_ the Company/Individual/Partnership (circle one) that owns the property described in the attached Grading Permit and being fully authorized to execute this statement for the purposes stated herein, do hereby give permission to

\_\_\_\_\_ contractor, to fill, grade, excavate, or otherwise disturb the described property. Further, I acknowledge and understand all of the responsibilities and obligations of the Property Owner described in Sections 11-50 to 11-57 of the Code of the City of Mesquite, Texas, and all of the provisions of such Sections including the right of the City of Mesquite to go upon the property to perform any requirements unfulfilled by the Owner.

SIGNED this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

By: \_\_\_\_\_

Signature

Printed Name

Texas Drivers License No.

Title

Company Name

Mailing Address

Mailing Address

Telephone & Fax Numbers

State of Texas §

§

County of \_\_\_\_\_ §

Before me, the undersigned authority, on this day personally appeared the person whose name is subscribed to the forgoing Owner's Statement of Permission and Responsibility and acknowledged to me that he/she has the authority to execute the same for the Company named therein.

GIVEN under my hand and official seal this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Notary in and for the State of Texas

<b>DEPOSIT REQUIRED:</b>	
\$ _____	; 1 <sup>st</sup> Acre \$500 + \$100 for each additional Acre (round up)
<b>\$ 100.00</b>	<b>PERMIT FEE (NON-REFUNDABLE)</b>
<b>\$ _____</b>	<b>TOTAL AMOUNT DUE</b>

# City of Mesquite – Engineering Division

## ALLOWABLE FILL MATERIALS

(Per Section 11-53 of the City Code of Mesquite)

Revised April 2012

### FILL IN AREAS ZONED FOR COMMERCIAL USE (excluding ROW or Easements):

- Clean soil, clay, shale, gravel, or sands.
- Broken concrete pavement, if the maximum particle size is 4” in diameter and all reinforcing steel is removed.

Note: Consult with the Building Inspection Division for Compaction Requirements.

### FILL IN AREAS ZONED FOR RESIDENTIAL DEVELOPMENT (excluding ROW or Easements):

- Clean soil, clay, shale, gravel, or sands.

All fill on residential lots and pads shall be compacted to a minimum **95% of standard proctor** (ASTM D-698) with optimum moisture content of 0% to +6%. Compaction shall be placed with a maximum of 12” loose lifts and shall be compacted with sheep’s foot vibratory roller.

### FILL IN AREAS THAT ARE OR MAY BECOME CITY RIGHT-OF-WAY OR EASEMENT:

- Clean soil, clay, shale’s, gravel, or sands.
- **Under existing paving, fill material shall be crushed concrete flexible base, TXDOT Item 247, Grade 1, Type D.**

All fill within City right-of-way or easements shall be compacted to a minimum **95% of standard proctor** (ASTM D-698) with optimum moisture content of 0% to +6%. Compaction shall be placed with a maximum of 12” loose lifts and shall be compacted with sheep’s foot vibratory roller.

### MATERIALS UNSUITABLE FOR FILL:

The following materials are unsuitable for fill due to their high potential for settlement, decomposition, or other unsatisfactory engineering properties:

- Trash or debris of any kind.
- Any soil or debris that has a high organic content, such as pond silt, topsoil with roots, wood chips, brush or tree limbs, etc... Topsoil may be used in landscaping areas when there is an approved site plan that details the location of future paving and structures and landscape areas.
- Broken concrete pavement, if the particle size is greater than 4” in diameter or if there is any reinforcing steel.
- Reinforcing steel or other steel products.
- Asphaltic materials.

**NOTE: Per the Texas Administrative Code, Title 30 Environmental Quality, Chapter 330 “Municipal Solid Waste” - the use of asphaltic materials and concrete containing reinforcing steel for fill is not permitted.**

Permit No. \_\_\_\_\_ **GRADING PERMIT REFUND REQUEST**  
**CITY OF MESQUITE**



**PROJECT NAME:** \_\_\_\_\_

**PLAT NAME:** \_\_\_\_\_

**PROPERTY LOCATION:** \_\_\_\_\_

**PROPERTY OWNER:** \_\_\_\_\_

**AMOUNT ON DEPOSIT:** \$ \_\_\_\_\_

Depending on the project the following requirements may need to be completed before the refund is processed:

- Submission by the applicant of a copy of a notice of termination (NOT) to the TCEQ to the City.
- All disturbed areas on site are re-vegetated with a vigorous stand of grass or other ground cover.
- All temporary erosion control devices are no longer required and removed from site.
- Permanent erosion control facilities are in place and functioning properly as designed.
- No further hazard of erosion is present at the site.
- The City Engineer or his designee has given written acceptance of the public improvements

Upon determination by the City Engineer that no further hazard of erosion, silting, or debris being deposited on streets, alleys, utility facilities, rights-of-way or easements exists by reason of the condition of land for which a deposit is made, so much of such deposit that is not required to reimburse the City for the expense of removal of soil, mud, rock, and debris from its streets, alleys, utility facilities, rights-of-way or easements by reason of work performed on such land shall be refunded. The reasonable charge of such removal by the City shall be billed to permittee from time to time and subtracted from the balance of the deposit.

**Deposited By:**

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Company:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**Phone:** \_\_\_\_\_

Return Grading Permit Refund Request to:

**Grading Permit Refund Request**  
**City of Mesquite - Engineering Division**  
**Attn: Storm Water Specialist**  
**P.O. Box 850137**  
**Mesquite TX 75185-0137**

In accordance with Mesquite City Code, Section 11-54(d), this is a written request for refund of  
Grading Permit Deposit for Grading Permit

Date of Request: \_\_\_\_\_

Signature of Requester: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

**COMMENTS:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# UNDERGROUND FIRE SPRINKLER MAINS – ENGINEERING PLANS CHECKLIST

Revised: January 15, 2019

Engineering plans shall be submitted for any **underground fire sprinkler system** projects.

This checklist is intended to assist the developer and/or designer of fire sprinkler systems with requirements for engineering plan submittal. Closely following this checklist will help minimize the number of comments returned and speed the overall process of engineering plan review. Please read the **Engineering Plan Submittal Requirements & Engineering Plan Checklist** thoroughly for more detailed explanation of requirements listed below.

It is strongly suggested that a meeting be held with the assigned City Project Engineer prior to starting design.

The following is for a non-single family residential structure. For single family residential structures, contact the City's Engineering Division and Fire Department for requirements.

All submittals shall be through the City's Citizen Access Portal, <https://energov.cityofmesquite.com>.

**Items that MUST be completed and submitted for Engineering Division to accept plan submittal:**

- Digital pdf set of Engineering Plans – see below for typical requirements
- Engineering Plan Submittal Review Fee

Plans must follow and incorporate City Standard Details and General Notes for water mains and underground fire sprinkler systems.

## **General Design and Construction Requirements for Water Mains and Underground Fire Sprinkler Mains:**

- Plan set shall include a cover sheet following **Engineering Plan Submittal Requirements & Engineering Plan Checklist** requirements.
- Obtain a copy of the record drawings, plan and profile, of the water main you propose to tap from the City Engineering Records Office. Your plan needs to show the location of existing water mains accurately as well as other water, sanitary sewer or storm drainage mains, laterals or service taps in the area.
- Plans should be complete showing existing mains, easements, aboveground features such as buildings, parking lots, streets, sidewalks, etc.
- All fire sprinkler mains should have a valve within City Right-of-Way or easement.
- All underground fire sprinkler mains 12-inch in diameter or smaller shall be C900 – 200, DR 14, blue PVC water pipe per City Standards Details.
- Contractor must test fire sprinkler main per City Standard Details before putting into service. Tests must be witnessed by City Public Works Construction Inspector and a completed and signed copy of the Texas Department of Insurance Contractor's Material and Test Certificate for Underground Piping (see <http://www.tdi.texas.gov/forms/form18sprinkler.html>) given to the City Public Works Construction Inspector for City records.
- Copy of State Fire Marshal's Certificate of Registration (SCR) for the fire sprinkler installation company must be given to the City Public Works Construction Inspector for City records.
- Copy of State Fire Marshal's Certificate of Licensure for the Responsible Managing Employee (RME) signing the Contractor's Material and Test Certificate for Underground Piping form must be given to the City Public Works Construction Inspector for City records.
- All valves and fittings shall be mechanically anchored with "Megalug" type retainer glands or other approved anchoring glands or means. See City General Design Standards (GDS).

- All public water mains must be in a minimum 15-foot easement. Ensure the private underground fire sprinkler main is **outside** of public utility easements. Show water easement on utility plans. Call out as private outside of City Right-of-Way or easement.
- Fire lines must be off a looped main and not a dead end or fire hydrant lead.
- Show fire line going into fire closet.
- Public Works Construction Inspector shall inspect and witness hydrostatic test for the underground fire main at floor flange in fire closet.
- State whether fire sprinkler system is water only or has chemical additives (typically non heated areas).
- Alarm Check Valve and RPZ shall be placed in fire closet per City Standard Details.
- Only stainless steel RPZ are allowed.
- Double check valves are not allowed for a backflow preventor.
- Utility Service Inspector shall inspect and test RPZ. Call 972-216-6947.

**Bores:**

Reference City Standard Details for bores in Appendix D of the Engineering Design Manual.

**Calculation and Payment of Engineering Inspection Fee for Underground portion of Fire Sprinkler System.**

Project Name: \_\_\_\_\_ Date: \_\_\_\_\_

Plat Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

## **WATER AND/OR SEWER SERVICE ONLY PROJECT CHECKLIST**

Revised: January 15, 2019

Engineering plans are generally required for water or sewer service installation that connects to a City main. The following is an abbreviated checklist for typical requirements compiled from the larger Engineering Plan Submittal Requirements. **New commercial building projects may be required to go through the Site Plan Process to obtain an approved site plan prior to submission of Engineering Plans. Grading and drainage plans may be required on new home sites.** Engineering plans must address all applicable City, State and Federal requirements, including requirements for drainage, grading, fire protection, utilities and traffic. Plans shall also include applicable City General Design Standards & Construction Standard Details.

This checklist is limited to projects that require a simple domestic or irrigation water service of 2-inch or less in size and/or a sewer service. Fire lines and any other construction on the site or complicated site conditions will require additional design, details or review requirements through other departments.

### **Each Engineering Plan Submission Shall Consist of:**

- Digital copy in pdf format per eReview Standards:**
  - **Engineering plans (including details)**
  - **Supporting design calculations, reports, hydraulic studies, geotechnical reports, SWPPP, etc.**
  - **Required Administrative Items (such as supporting permit documentation, etc. – Refer to the *Engineering Plan Submittal Checklist* in Appendix B of the Engineering Design Manual**
- Correct engineering plan review fee**

All submittals of the above information will be through the Citizen Access Portal at:

<https://energov.cityofmesquite.com>

**From Engineering Plan Submittal Requirements, Refer to the *Engineering Plan Submittal* in Appendix B of the Engineering Design Manual**

### **Engineering Plans Sets Shall Include:**

- Cover Sheet
- Plat
- Utility Plan Showing:
  - Existing Site Features in the area of the proposed installation, including buildings, trees dumpsters, paving and other utilities.
  - Existing contour lines (maximum 2' contour interval) (for sewer services only)
  - Building Finished Floor elevation (for sewer service only)
  - Benchmark location and elevation (for sewer service only)
  - Existing water and sewer main location, size and material
  - R.O.W. and easement lines

- Property address, plat name, lot and block

**□ Appropriate City Standard Detail Sheets and General Notes.**

**General Design Information on water and sewer service:**

- All water services from the City main to the meter shall be within dedicated ROW or in a 15' min. utility easement.
- Profiles for all bores showing all crossings of existing utilities.
- Domestic taps must be off a looped main and not a dead end or fire hydrant lead.
- Show pavement to be removed and replaced if required.
- Taps on mains larger than 12-inch diameter should be avoided and may not be allowed in some cases.

**Note:** A site survey showing all visible ground features such as water valves, manholes, curbs, transformers, trees, pavement headwalls, storm water inlets, and other features is required. The survey may be limited to the location around the service tap and service lines. Additional survey may be required if the tap location needs to be moved. Utility locator maps and As-builts can be obtained through our Engineering GIS website. Standard Details and Plan submittal application can be found on the Engineering Department website under Engineering Resources.

**An Engineering Inspection Fee payment is required based on the estimated cost of improvements.**

# Culvert and Drive Approach **Only** Project Checklist

Revised: January 15, 2019

Engineering Plans are required for new drive approaches and new culverts or culvert extensions under existing driveways in the City of Mesquite. If you need to replace an existing culvert under an existing driveway, the City may require increasing its size to meet current standards.

**The minimum pipe is 18-inch diameter, class III reinforced concrete pipe (RCP).** All driveway culverts require headwalls designed to City Standards. If your existing pipe is not at least this size and material, it will be required to be upgraded and engineering plans are required.

Replacing an existing broken pipe or resetting an existing pipe does not require engineering plans.

**New commercial building projects may be required to go through the Site Plan Process to obtain an approved site plan prior to submission of Engineering Plans. Grading and drainage plans may be required on new home sites.** This checklist is intended to assist a land owner who desires to install a drive approach from a roadway with a parallel drainage ditch with requirements for engineering plan submittal.

Closely following this checklist will help minimize the number of comments returned and speed the overall process of engineering plan review. Please read the **Engineering Plan Submittal Requirements** thoroughly for more detailed explanation of requirements listed below. Refer to the City of Mesquite **Driveway Ordinance and Section 2.7 of the Engineering Design Manual**

It is strongly suggested that a meeting be held with a City Project Engineer prior to starting design of the culvert and drive approach.

## **Each Engineering Plan Submission Shall Consist of:**

- Digital copy in pdf format per eReview Standards:**
  - **Engineering plans (including details)**
  - **Supporting design calculations, reports, hydraulic studies, geotechnical reports, SWPPP, etc.**
  - **Required Administrative Items (such as supporting permit documentation, etc. – Refer to the *Engineering Plan Submittal Checklist* in Appendix B of the Engineering Design Manual**
- Correct engineering plan review fee**

All submittals of the above information will be through the Citizen Access Portal at:

<https://energov.cityofmesquite.com>

## **Engineering Plan Set Will Generally Include the Following Sheets:**

**(Read *Engineering Plan Submission Requirements* and *Engineering Plan Checklist* for detailed requirements)**

- Cover Sheet
- Driveway Plan showing:
  - Drainage area map to culvert of catchment area to culvert with flow calculations based on City Drainage Ordinance.
  - Existing site feature in the area of the proposed driveway including structures, trees, pipes, signs or other utilities.
  - Property address, plat name lot and block.

- Existing contour lines in the driveway area and within the ROW along the entire property frontage and preferably to the next downstream and upstream culverts.
  - Existing water and sewer mains (to ensure no conflicts with installation of culvert and headwalls)
  - R.O.W. and easement lines
  - Property address, plat name lot and block
  - Proposed culvert and headwalls with pipe size, material (RCP), pipe class (Class III min.). Required headwalls are generally TXDOT SET Precast – See <https://www.cityofmesquite.com/DocumentCenter/Home/View/5596>. These headwalls can generally be installed without the safety pipe runner bars for single culverts with pipe sizes up to 30-inches in diameter.
  - Proposed drive approach with dimensions on width and curb return radii.
  - Distance to nearest driveways on either side of proposed drive.
  - Proposed grading of upstream and downstream ditch. (ditch must drain properly to next downstream culvert and have maximum 4:1 side slopes. (4-horizontal to1-vertical)
- Appropriate Standard Details
- Required headwalls are generally TXDOT SET Precast Headwalls – See <https://www.cityofmesquite.com/DocumentCenter/Home/View/5596>. These headwalls can generally be installed without the safety pipe runner bars for single culverts with pipe sizes up to 30-inches in diameter.
  - Applicable standard details from Appendix C of Engineering Design Manual
  - City of Mesquite General Notes

**An Engineering Inspection Fee payment is required based on the estimate cost of improvements.**

# Individual Single Family Lot Residential Development Engineering Plans Checklist

Revised: January 15, 2019

This checklist is intended to assist the developer of individual or a small number (four or less) of single-family home lots with requirements for engineering plan submittal. Closely following this checklist will help minimize the number of comments returned and speed the overall process of engineering plan review. Please read the **Engineering Plan Submittal Requirements located in Appendix B of the Engineering Design Manual for a more thorough** explanation of requirements listed below.

It is strongly suggested that a meeting be held with the City Engineer or assigned City Project Engineer prior to purchasing a lot for building a home and prior to hiring an engineer.

## **Prior to submission please research and have the following questions answered:**

1. Does the lot have existing water and sewer services that are relatively new (less than 20-year old) and could be used for the new home? – Contact Utilities Division to verify – Engineering plans are required if new water or sanitary sewer services are needed. Refer to Section 5.12 of the Engineering Design manual for guidance on when a new water tap is required and refer to Section 6.6 of the Engineering Design Manual for guidance on when a new sewer service needs to be installed.
2. Does the street in front of the lot have curb and gutter or no curb and gutter (only ditches)? Engineering plans are required if there is a ditch in front of the house and a culvert is needed.
3. Is there significant off-site storm water directed to the lot? Engineering plans are required if there is significant off-site storm water runoff draining through or directed toward the site.
4. Is the lot in or adjacent to a floodplain? Engineering plans will be required if the site is adjacent to or contains a significant drainage feature such as a ditch, creek, detention pond or floodplain.
5. Does the area have a history of flooding problems as recorded in the Engineering Division complaint database? Engineering plans are required if the area has a history of flooding problems.
6. Does the lot need platting?

## **Each Engineering Plan Submission Shall Consist of:**

- Digital copy in pdf format per eReview Standards:
  - Engineering plans (including details)
  - Supporting design calculations, reports, hydraulic studies, geotechnical reports, SWPPP, etc.
  - Required Administrative Items (such as supporting permit documentation, etc. – Refer to the **Engineering Plan Submittal Checklist** in Appendix B of the Engineering Design Manual
- Correct engineering plan review fee

All submittals of the above information will be through the Citizen Access Portal at:

<https://energov.cityofmesquite.com>

**Engineering Plan Set Will Generally Include the Following Sheets:**

**(Read *Engineering Plan Submission Requirements* and *Engineering Plan Checklist* for detailed requirements)**

- Cover Sheet
- Plat
- Dimensional Control & Paving (usually on the same sheet)
- Grading Plan
- Drainage Area Map
- Drainage Plan
- Utility Plan Showing:
  - Existing Site Features in the area of the proposed installation, including buildings, trees, paving and other utilities.
  - Building Finished Floor elevation
  - Existing water and sewer main location, size and material
  - R.O.W. and easement lines
- Appropriate Standard Details

**General Design Information on water and sewer service:**

- All water services from the City main to the meter shall be within dedicated ROW or in a 15' min. utility easement.
- Profiles for all bores showing all crossings of existing utilities.
- Domestic taps must be off a looped main and not a dead end or fire hydrant lead.
- Single Family Residential sanitary sewer tap cannot be at a manhole.
- Show pavement to be removed and replaced if required.
- Taps on mains larger than 12-inch diameter should be avoided and may not be allowed in some cases.

**Grading, Drainage Area Map & Drainage Plans are generally the most difficult portion of the engineering plans. These plans must include/address the following:**

- Provide side yard swales and drainage around house with spot elevations and drainage direction arrows (lot-to-lot drainage is generally prohibited)
- Show the Minimum Finish floor elevation – see Drainage Ordinance for requirements
- Show the topography for site and at least 50 feet outside of site
- Show Benchmarks – Elevation and description of benchmark location
- New water and sanitary sewer services (old services must be disconnected/capped at main)
- Show adjacent drives, adjacent ditches, adjacent homes, adjacent culverts
- If a culvert is required – Hydraulic calculations, RCP pipe embedment details, precast SET headwalls & profile
- Drainage Area Map – show contributing off-site drainage to site and bar-ditch
- Hydraulic Study / Flood Study Information –If adjacent to a Drainage Feature or in a floodplain

**Note:** A site survey showing all visible ground features such as water valves, manholes, curbs, trees, pavement headwalls, storm water inlets, and other features is required. The survey may be limited to the location around the service tap and service lines. Additional survey may be required if the tap location needs to be moved. Utility locator maps and As-builts can be obtained through our Engineering GIS website. Standard Details and Plan submittal application can be found on the Engineering Department website under Engineering Resources.

**An Engineering Inspection Fee payment is required based on the estimated cost of improvements.**

Project Name: \_\_\_\_\_ Date: \_\_\_\_\_

Plat Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

## **PARKING LOT IMPROVEMENT CHECKLIST**

Revised: January 15, 2019

Engineering plans are generally required for parking lot expansion projects. The following is an abbreviated checklist for typical parking lot improvements compiled from the larger Engineering Plan Submittal Requirements. **Larger parking lot projects may be required to go through the Site Plan Process to obtain an approved site plan prior to submission of Engineering Plans.** Engineering plans must address all applicable City, State and Federal requirements, including requirements for **drainage**, grading, fire protection, utilities and traffic. Plans shall also include applicable City standard construction details.

### **Each Engineering Plan Submission Shall Consist of:**

**Digital copy in pdf format per eReview Standards:**

- Engineering plans (including details)
- Supporting design calculations, reports, hydraulic studies, geotechnical reports, SWPPP, etc.
- Required Administrative Items (such as supporting permit documentation, etc. – Refer to the *Engineering Plan Submittal Checklist* in Appendix B of the Engineering Design Manual

**Correct engineering plan review fee**

All submittals of the above information will be through the Citizen Access Portal at:

<https://energov.cityofmesquite.com>

The engineering plan set shall include **a copy** (*please retain originals of your approved site plan to make copies for subsequent submittals*) of the site plan approved by Planning Division and with the Planning Division stamp and signature of approval, if required.

### **Engineering Plan Sets For Parking Lot Expansions Shall Include:**

Cover Sheet

Dimensional Control/Paving/Grading Plan – Showing the following items:

- Dumpster Pad Location
- Fire Lane and Fire Hydrant locations – Existing and proposed if required
- Visibility Triangles and Easements (for any connections to City Streets)
- Existing contour lines (maximum 2' contour interval)
- Proposed contour lines (maximum 2' contour interval)
- Benchmark location and elevation
- Spot elevations for proposed paving and other improvements such as (Top of Curb, Finished Floor, Driveway Apron, Drainage Inlet Throat, Flowline, etc)

- Drainage Area Map (see *Engineering Design Manual* for additional information required on the Drainage Area Map)
- Storm Drainage Plans – show culverts, headwalls, storm sewer pipe, inlets, downspouts, etc.
- Traffic Control, Paving and Grading Notes
- Standard Details (typically)
  - Paving – sidewalks, approaches
  - Standard and Recessed Inlets
  - Storm Sewer Sheet – manholes, pipes
  - Special Inlets (Y-inlets)
  - Water
- SWP3 / Erosion Control Plan (if over 1 acre of land is disturbed by proposed project)
- If area to be disturbed is 1 acre or over – Executed TCEQ – Small Construction Site Notice (CSN)
- If area to be disturbed is 5 acres or over – Executed TCEQ Notice of Intent (NOI) and Large Construction Site Notice (CSN).
- If trees are to be removed, approval of tree mitigation plan by Planning and Zoning.
- Grading Permit, notarized, completed and fee (if required)
- Impervious Area Form Summary – updated

# City of Mesquite

## IMPERVIOUS AREA SUMMARY

Revised: February 08, 2019

Property Address:

Plat Name:

Project Name:

	Existing (square feet)	Proposed Change (square feet)	Total (square feet)
Total Land Area			
Building Impervious Area (roof-tops, awnings, covered areas, etc.)			
Paving Impervious Area (Parking Lot, sidewalks, drive approaches, fire-lanes, other paved areas, etc.)			
Total Impervious Area			
Landscaped or Grassed Areas (Landscaping areas, grassed areas, trees, etc.)			

Calculations Performed By:

Position/Title:

Company:

Address:

Phone & E-mail: \_\_\_\_\_

Approx. Project Start Date: \_\_\_\_\_ & Completion Date: \_\_\_\_\_

These dates will initiate billing for City Services. Should the **Completion** date change, please alert Water Utilities at **972-216-6612**

Please fill out the billing information on **applicable** page (2 or 3).

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### City Staff Use:

Received by City - Date:

Copy to Storm Water Specialist - Date:

Submitted to Water Accounting:

Calculations Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

# City of Mesquite

## DRAINAGE UTILITY DISTRICT

Fill out this Page for Facilities with a **“Single” Meters only**

Property Address:

\_\_\_\_\_  
Owner's Signature

\_\_\_\_\_  
Owner's Company Name

\_\_\_\_\_  
Owner's Printed Name

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Title

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Telephone & Fax Numbers

I, \_\_\_\_\_ instruct the City of Mesquite to bill the Drainage  
(Property Owner)  
Utility District charges to **(check one)**: Property Owner \_\_\_\_\_ or Alternate billing \_\_\_\_\_.

### **Alternate Billing Info:**

Name/Title: \_\_\_\_\_

Company: \_\_\_\_\_

Street Address: \_\_\_\_\_

City / State / Zip code \_\_\_\_\_

Date: \_\_\_\_\_

# City of Mesquite

## DRAINAGE UTILITY DISTRICT

Fill out this Page for Multi-Tenant Facilities with **“Multiple” Meters only**

Property Address: \_\_\_\_\_

\_\_\_\_\_  
Owner's Signature

\_\_\_\_\_  
Owner's Company Name

\_\_\_\_\_  
Owner's Printed Name

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Title

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Telephone & Fax Numbers

I, \_\_\_\_\_ instruct the City of Mesquite to bill the Drainage  
(Property Owner)

Utility District charges to **(check one)**: Property Owner  Tenant:

Date: \_\_\_\_\_

The following addresses are listed as part of the above property, please indicate the amount of impervious area to be charged to each address, if you choose to have each tenant billed.

NOTE: If you choose to allocate impervious area to tenants, please supply tenant name and address below:

### TENANT ADDRESSES:

Tenant Name: \_\_\_\_\_

Tenant Address: \_\_\_\_\_

Impervious Area: \_\_\_\_\_

-----  
Tenant Name: \_\_\_\_\_

Tenant Address: \_\_\_\_\_

Impervious Area: \_\_\_\_\_

-----  
Tenant Name: \_\_\_\_\_

Tenant Address: \_\_\_\_\_

Impervious Area: \_\_\_\_\_

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**For Properties with more than 3 Tenants** please add an additional page with property address at the top of the page, add billing details for all additional tenants.

# City of Mesquite ROW & Easement Abandonment Procedure

Revised: June 6, 2012

## The procedure to abandon ROW or an easement is as follows:

R.O.W. or easements will only be abandoned if they do not contain City facilities or facilities of a franchised utility company, and if the ROW or easement is not currently being utilized or is determined to no longer be needed for public use. At times portions of easements may be abandoned or abandonment may occur reserving a utility easement, but only if a partial abandonment or such reservation does not hinder the City's ability to maintain its facilities or a utility company's ability to maintain the facilities of the franchised utility company.

Since Right-of-Way (ROW) and easements are dedicated to the City for the public use, action by the City Council is required to abandon a public ROW or easement. City ROW and easements are also utilized by various privately owned utility companies through contractual franchise agreements with the City. Therefore, the franchised utility companies must agree with the abandonment of an easement or ROW.

If all of the requirements set forth in this procedure are met, abandonment will be considered by the City Council by adoption of an ordinance (or other appropriate legal instrument as outlined below) abandoning the affected ROW or easement. Once approved by the City Council, the ordinance and/or other appropriate legal instrument will be filed in the Deed Records of the County where the abandoned property is located.

If a street easement was acquired by plat, the method for abandonment of whatever interest the city acquired will be by council ordinance, which will be filed of record to provide a searchable item in the county land records.

If the easement was acquired as a specific dedication by separate instrument or by prescriptive easement and not by plat, a document that expressly abandons the easement and releases all of the city's interest (a vacating document) must be approved by the city council and these documents *must* be filed at the county records office.

If the city acquired fee simple title, the city must convey it by deed, following all the applicable procedures in the Local Government Code, Section 272.001 et seq.

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A pre-application meeting with the City Engineer is highly recommended to look at the specifics and receive initial guidance through the process. The applicant requesting the abandonment must obtain the following information and forward this information to the Engineering Division **as a complete packet**:

- A letter of request from the applicant and all adjoining property owners requesting abandonment of the subject ROW or easement. Where the underlying title to the ROW is in more than one owner, all owners must agree to the abandonment. The City will not be responsible for determinations of ownership and division of property.
- Check made out to the "City of Mesquite" in the amount of **\$500.00** for the administrative processing fee for abandonment of public easements or ROW (per Ordinance No. 3970 – Mesquite City Code Section 1-18).
- A copy of the original ROW and/or easement dedication instrument (usually this is a plat or a separate dedication instrument). Often the Engineering Division or City Secretary's office will have

# City of Mesquite ROW & Easement Abandonment Procedure

Revised: June 6, 2012

copies of the dedication instrument on file and can make copies of the document for the applicant. However, in some cases the Engineering Division or City Secretary will not have copies. In these cases the applicant must do the required research and obtain certified copies of the documents. This research often requires research of the County Records. The Applicant will likely require the assistance of a surveyor, title company, or other land records professional of the applicant's choice in finding the required documents.

- The applicant must have a survey and field notes prepared by a licensed surveyor for the ROW or easement to be abandoned. Often only a portion of the original dedication can be abandoned. The sketch and field notes should reflect only those portions to be abandoned.
- Actual field locations of all City utilities should be recorded by the applicant's surveyors. If the utilities are under or close to a structure these locations should be shown on the sketch of the area to be abandoned, along with the necessary easements. The City Utility Division will aid surveyors in the location of the utilities.
- Letters from all the franchised utility companies indicating they have no objections to the ROW or easement abandonment are required. If the easement contains facilities of the franchised utilities, these facilities should be shown on the sketch. Contact should be made with the respective franchised utility companies to locate their respective facilities.
- In some cases, ROW or easement abandonment will involve the purchase of property or interest therein from the City. In such cases the applicant must have an appraisal done by a **MAI certified appraiser** who is pre-approved by the City. This appraisal will be the basis for determining fair market value of the property to be paid to the City by the applicant. **Contact the City Engineer for specific guidance whether this step is required.**

When the relevant above information has been received by the Engineering Division, the applicant will be notified that the file is complete and ready for City Council action. At this time, the City Engineer will place the abandonment on the City Council agenda, prepare a M&C with recommendation, and inform the applicant of the date and time of the council meeting. Generally this type of item is placed on the consent agenda.

The City Engineer will request preparation of an abandonment ordinance from the City Attorney's office and forward to them the applicable sketch, field notes, and M&C for the abandonment.

The applicant should be present at the City Council meeting in the event the City Council pulls the item off of the consent agenda and wishes to discuss the matter in open session.

Upon City Council approval of the abandonment ordinance the applicant is required to pay to the City the value of the abandonment as determined by the MIA appraisal (if applicable). Once the settlement is received the City finalizes the abandonment ordinance and forwards a copy of the ordinance to the applicant.

Additional copies are given to the Engineering Division for filing in the applicable subdivision file (along with the information assembled by the applicant) and for recording on various City maps.

# City Of Mesquite - Temporary Concrete Batch Plant Permits

Revision Date: August 1, 2012

## **PURPOSE:**

To provide a uniform and equitable procedure for the permitting of temporary concrete or asphalt batch plants.

## **HISTORY:**

The zoning ordinance, Section 1-602(C) gives the City Council authority to approve temporary concrete or asphalt batch plant permits. This authority was delegated to City staff by the City Council June 3, 1974.

Administrative Directive No.2 assigned permitting responsibility for temporary concrete batch plants to the Engineering Division.

## **PROCEDURE:**

In applying for a temporary batch plant permit, the following six items of information must be submitted by the applicant to the Engineering Division:

1. Letter of request from applicant for permit.
2. An area map of approximate location of proposed site put on Mapsco Grid. This area map should indicate proposed truck route of aggregate haulers and concrete trucks.
3. A plot plan of the batch plant site showing dimensions to existing construction, location of fire hydrant for proposed water source, etc.
4. Copy of Texas Commission on Environmental Quality (TCEQ) application. This should include copies of required public notices, if applicable.
5. Copy of TCEQ permit.
6. Notarized letter of permission from property owner allowing use of property for batch plant site. This requirement can be waived if the batch plant is within the boundaries of the project.

Engineering staff shall evaluate the permit for compliance with the zoning ordinance, Section 1-602(C) requirement – **“Such batch plant shall be located at least five hundred (500) feet from any occupied residential lot, and shall not be used for construction at any other location than the project for which it is permitted.”**

Once this information has been received and reviewed by the Engineering Division and all information is satisfactory, a letter of permit shall be sent to the applicant. A copy of the permit letter should be sent to the Public Works Construction Inspector assigned to the project.

Generally, permits shall be granted for specific projects within the City of Mesquite; and only for the time duration of that specific project. Exceptions to these guidelines can be granted by the City Engineer.

# Requirements for Record Drawings and Plats for Private Development Projects

Updated: January 15, 2019

The contractor shall arrange an appointment with the assigned City Public Works Construction Inspector (**PWCI**) to review his "marked-up" field set of civil drawings prior to submitting to the consulting engineer. This "marked-up" field set should have notes and changes identified for all deletions, additions, change orders, addendums and other changes to the plans. This "marked-up" field set must be approved by the assigned PWCI. Once approved by the PWCI the contractor shall submit the "marked-up" field set to the consulting engineer who prepared the plans for preparation of record drawings and digital files that meet the below requirements.

Engineering Firms for Private Development Projects shall submit the following to the assigned City Public Works Construction Inspector:

## **Record Drawings (As-Builts):**

- 2 Blackline (24" x 36" or 22" x 34") Copies & Associated Electronic Files.
- These record drawings shall be sealed by the engineer of record in accordance with the Texas Board of Professional Engineers Policy Advisory Opinion Regarding Record (As-Built) Drawings – Issued February 8, 2007, available at web address (<http://www.tbpe.state.tx.us/nm/pa18.pdf>).
- All sheets of the approved civil drawings with all details shall be included.
- All changes shall be shown and noted in the revision block.
- Revisions shall be drawn using accepted drafting standards and shall be neat and easily read and interpreted.
- Line work and notes related to work deleted or changed shall be omitted from the drawing. **All information on the blackline copies shall be crisp with well defined lines and lettering. The information shall have high contrast and be capable of producing a high quality, legible microfilm and scanned image.**
- An electronic copy of the record drawings shall be submitted on CD-ROM in both AutoCAD (.dwg file format) and TIFF Class IV, 400 dpi format. The .dwg files for the plan set may be in either model or paper space.
- The City Public Works Construction Inspector shall check the CD tiff images are complete and correct and copy both the tiff images and the dwg files onto the mercury server (J: drive) in the project digital folder under a separate folder labeled **.rcd dwgs**.
- The PWCI shall give the two blackline record drawing copies to the Engineering Division GIS staff for indexing, filming, scanning and placement in the City record drawing database. The GIS staff member receiving the blackline drawings and CD-ROM from the PWCI shall sign and date the Project Final Acceptance Check-Off List. The Engineering Division GIS staff will also distribute one copy of the blackline record drawings to the Fire Marshall.

## **Plats:**

- An electronic copy of the Final Plat (without signatures) must be submitted to the **Planning and Zoning Office** on CD-ROM in **AutoCAD 2006 or later in .dwg file format**. The AutoCAD drawing must be in "**model-space**". The plat must show two property corners in **grid coordinates**. Grid coordinates must be referenced to a City GPS point. The grid coordinates must be in North American Datum (NAD) 83, Texas State Plane, North Central FIPS Zone 4202. This electronic copy does not need a seal. This copy will be used by the GIS technicians to place the plat properly on the updated street maps.

**No Certificate of Occupancy of any sort shall be approved by the Engineering Division until an acceptable set of record drawings and associated digital files are received and approved.**

# Acceptance Letter Request Form

## City of Mesquite – Engineering Division

Updated: February 20, 2015

Subdivision Name	
Project Name	
Project Address	
Developer's Company Name	
Developer's Representative	
Developer's Address & Phone Number	
Contractor's Company Name	
Contractor's Representative	
Contractor's Address & Phone Number	
Date Work Completed	
Maintenance Bond Start Date	
Maintenance Bond Expiration Date	
Maintenance Bond Surety	
Maintenance Bond Number	
Maintenance Bond Amount	\$
Total Value of Public Works Construction to be Maintained by the City of Mesquite and Subject to the one-year maintenance bond:	
City Public Works Construction Inspector	

**City Maintained Water System Improvements:**

Quantity	Units	Description	Value
	L.F.	6" DR 14 PVC Water Main	
	L.F.	8" DR 14 PVC Water Main	
	L.F.	12" DR 14 PVC Water Main	
	L.F.	16" Class 52 Ductile Iron Water Main	
	L.F.	18" Class 52 Ductile Iron Water Main	
	Each	Fire Hydrants	
	Each	6" RS Valves (200 psi minimum rating)	
	Each	8" RS Valves (200 psi minimum rating)	
	Each	12" RS Valves (200 psi minimum rating)	
	Each	16" RS Valves (200 psi minimum rating)	
	Each	18" RS Valves (200 psi minimum rating)	
	Each	¾" Copper Water Service (Dom. Or Irrig.)	
	Each	1" Copper Water Service(Dom. Or Irrig.)	
	Each	1-1/2" Copper Water Service(Dom. Or Irrig.)	
	Each	2" Copper Water Service(Dom. Or Irrig.)	
	Each	3" Ductile Iron Water Service & Meter Vault	
	Each	4" Ductile Iron Water Service & Meter Vault	
	Tons	Ductile Iron Fittings	
	Each	2" Air/Vacuum Release Valve	
	Each	____" X ____" Tapping Sleeve and Valve	
<b>Total Value of Water System Construction Under City Maintenance and Subject to One-Year Maintenance Bond</b>			<b>\$</b>

**Privately Maintained Water (Fire Sprinkler & Irrigation) System Improvements:**

Quantity	Units	Description	Value
	Tons	Ductile Iron Fittings	
	L.F.	6" DR 14 PVC Water Main	
	L.F.	8" DR 14 PVC Water Main	
	L.F.	10" DR 14 PVC Water Main	
	L.F.	12" DR 14 PVC Water Main	
	L.F.	6" Class 52 Ductile Iron Water Main	
	L.F.	8" Class 52 Ductile Iron Water Main	
	L.F.	10" Class 52 Ductile Iron Water Main	
	L.F.	12" Class 52 Ductile Iron Water Main	
	Each	6" RS Valves (200 psi minimum rating)	
	Each	8" RS Valves (200 psi minimum rating)	
	Each	10" RS Valves (200 psi minimum rating)	
	Each	12" RS Valves (200 psi minimum rating)	
	Each	Fire Department Connection (FDC) Assembly	
	Each	Stainless Steel 90° Bend	
	L.F.	4" PVC Pipe	
<b>Total Value of Water (Fire Sprinkler &amp; Irrigation) System Construction Under Private Maintenance</b>			<b>\$</b>

**City Maintained Sanitary Sewer System Improvements:**

Quantity	Units	Description	Value
	L.F.	4" DR-26 PVC Pipe	
	L.F.	6" DR-26 PVC Pipe	
	L.F.	8" DR-26 PVC Pipe	
	L.F.	12" DR-26 PVC Pipe	
	L.F.	15" DR-26 PVC Pipe	
	Each	Main Line Clean-out	
	Each	Service Connection to Manhole	
	Each	4' Diameter Manhole	
	Each	5' Diameter Internal Drop Manhole	
	Each	5' Diameter Extra Depth Manhole	
	Each	4" Sanitary Sewer Service Connection	
	Each	6" Sanitary Sewer Service Connection	
<b>Total Value of Sanitary Sewer System Construction Under City Maintenance and Subject to One-Year Maintenance Bond</b>			<b>\$</b>

**Privately Maintained Sanitary Sewer System Improvements:**

Quantity	Units	Description	Value
	L.F.	4" DR-26 PVC Pipe – Private Maintenance	
	L.F.	6" DR-26 PVC Pipe – Private Maintenance	
	L.F.	8" DR-26 PVC Pipe – Private Maintenance	
	Each	Private Clean-out	
	Each	4" Sanitary Sewer Service	
	Each	6" Sanitary Sewer Service	
<b>Total Value of Sanitary Sewer System Construction Under Private Maintenance</b>			<b>\$</b>

**City Maintained Drainage System Improvements:**

Quantity	Units	Description	Value
	L.F.	6" ADS N-12, HDPE Drainage Pipe	
	L.F.	8" ADS N-12, HDPE Drainage Pipe	
	L.F.	12" ADS N-12, HDPE Drainage Pipe	
	L.F.	15" ADS N-12, HDPE Drainage Pipe	
	L.F.	18" Diam. RCP, Class III	
	L.F.	21" Diam. RCP, Class III	
	L.F.	24" Diam. RCP, Class III	
	L.F.	27" Diam. RCP, Class III	
	L.F.	30" Diam. RCP, Class III	
	L.F.	33" Diam. RCP, Class III	
	L.F.	36" Diam. RCP, Class III	
	L.F.	39" Diam. RCP, Class III	
	L.F.	42" Diam. RCP, Class III	
	L.F.	45" Diam. RCP, Class III	
	L.F.	48 Diam. RCP, Class III	
	L.F.	_____ "Diam. RCP, Class III	
	L.F.	_____ " Diam. RCP, Class III	
	L.F.	_____ " Diam. RCP, Class III	
	Each	8' Curb Inlets	
	Each	10' Curb Inlets	
	Each	12' Curb Inlets	
	Each	14' Curb Inlets	
	Each	Grate Inlets – Size _____	
	Each	Grate Inlets – Size _____	
	Each	Grate Inlets – Size _____	
	Each	Y-type Inlets – Size _____	
	Each	Y-type Inlets – Size _____	
	Each	Combination Inlets – Size _____	
	L. F.	_____ ' Wide Drainage Flume	
	Each	Junction Structure	
	Each	_____ ' Diam. Junction Manhole	
	Each	Type A Headwall – Size _____	
	Each	Type A Headwall – Size _____	
	Each	Type B Headwall – Size _____	
	Each	Type B Headwall – Size _____	
	Each	Type C Headwall – Size _____	
	Each	Type C Headwall – Size _____	
	Each	SET Headwall – Size _____	
<b>Total Value of Storm Drainage System Construction Under City Maintenance and Subject to One-Year Maintenance Bond</b>			<b>\$</b>

**Privately Maintained Drainage System Improvements:**

Quantity	Units	Description	Value
	L.F.	6" ADS N-12, HDPE Drainage Pipe	
	L.F.	8" ADS N-12, HDPE Drainage Pipe	
	L.F.	12" ADS N-12, HDPE Drainage Pipe	
	L.F.	15" ADS N-12, HDPE Drainage Pipe	
	L.F.	18" Diam. RCP, Class III	
	L.F.	21" Diam. RCP, Class III	
	L.F.	24" Diam. RCP, Class III	
	L.F.	27" Diam. RCP, Class III	
	L.F.	30" Diam. RCP, Class III	
	L.F.	33" Diam. RCP, Class III	
	L.F.	36" Diam. RCP, Class III	
	L.F.	39" Diam. RCP, Class III	
	L.F.	42" Diam. RCP, Class III	
	L.F.	45" Diam. RCP, Class III	
	L.F.	48 Diam. RCP, Class III	
	L.F.	_____ "Diam. RCP, Class III	
	L.F.	_____ " Diam. RCP, Class III	
	L.F.	_____ " Diam. RCP, Class III	
	Each	8' Curb Inlets	
	Each	10' Curb Inlets	
	Each	12' Curb Inlets	
	Each	14' Curb Inlets	
	Each	Grate Inlets – Size _____	
	Each	Grate Inlets – Size _____	
	Each	Grate Inlets – Size _____	
	Each	Y-type Inlets – Size _____	
	Each	Y-type Inlets – Size _____	
	Each	Combination Inlets – Size _____	
	Each	SET Headwall – Size _____	
	Each	Type A Headwall – Size _____	
	Each	Type A Headwall – Size _____	
	Each	Type B Headwall – Size _____	
	Each	Type B Headwall – Size _____	
	Each	Type C Headwall – Size _____	
	Each	Type C Headwall – Size _____	
<b>Total Value of Storm Drainage System Construction Under Private Maintenance</b>			<b>\$</b>

**City Maintained Street Paving:**

Quantity	Units	Description	Value
	Lane Feet.	6" thick, 3,600 psi Reinforced Concrete Street Paving – _____	
	Lane Feet.	8" thick, 3,600 psi Reinforced Concrete Street Paving – _____	
	Lane Feet.	10" thick, 3,600 psi Reinforced Concrete Street Paving – _____	
	Lane Feet.	____" thick, 3,600 psi Reinforced Concrete Street Paving – _____	
	Lane Feet.	____" thick, 3,600 psi Reinforced Concrete Street Paving – _____	
	Square Yards	4" Thick Reinforced Concrete Sidewalk Paving (4' Width)	
	Square Yards	4" Thick Reinforced Concrete Sidewalk Paving (5' Width)	
	Square Yards	4" Thick Reinforced Concrete Sidewalk Paving (4' Width) w/Wall	
	Square Yards	4" Thick Reinforced Concrete Sidewalk Paving (5' Width) w/Wall	
	Each	ADA Compliant Handicapped Ramps	
	Each	Left-Turn Lane - with Median Opening	
	Each	Left-Turn Lane - without Median Opening	
	Square Yards	4" Thick Reinforced Concrete Median Paving	
	Square Yards	Pavestone Median Pavers with Sleeper Slab	
	Square Yards	Stamped Median Paverment	
	S.Y.	_____ X _____ Street Cut	
<b>Total Value of Street Paving Under City Maintenance and Subject to One-Year Maintenance Bond</b>			<b>\$</b>

**City Maintained Alley Paving**

Quantity	Units	Description	Value
	Linear Feet	8"-5"-8" thick, 3,600 psi Reinforced Concrete Alley Paving – Alley "____"	
	Linear Feet	8"-5"-8" thick, 3,600 psi Reinforced Concrete Alley Paving – Alley "____"	
	Linear Feet	8"-5"-8" thick, 3,600 psi Reinforced Concrete Alley Paving – Alley "____"	
	Linear Feet	8"-5"-8" thick, 3,600 psi Reinforced Concrete Alley Paving – Alley "____"	
	Linear Feet	8"-5"-8" thick, 3,600 psi Reinforced Concrete Alley Paving – Alley "____"	
	Linear Feet	8"-5"-8" thick Reinforced Concrete Alley Paving – Alley "____"	
	Linear Feet	8"-5"-8" thick, 3,600 psi Reinforced Concrete Alley Paving – Alley "____"	
	S.Y.	____ X _____ Alley Pavement Cut	
	Each	Alley Drive Approaches	
<b>Total Value of Alley Paving Under City Maintenance and Subject to One-Year Maintenance Bond</b>			<b>\$</b>

**Miscellaneous Privately Maintained Improvements**

Quantity	Units	Description	Value
	Linear Feet	6' Tall Masonry Screening Wall	
	Linear Feet	8' Tall Masonry Screening Wall	
	Linear Feet		
	Linear Feet	8' Wrought Iron and Masonry Pillar Screening Wall	
	Linear Feet	_____ Retaining Walls	
	Each	Median and Parkway Landscaping and Irrigation	
<b>Total Value of Screening Walls and Landscaping Under Private Maintenance.</b>			<b>\$</b>



## **City of Mesquite - Engineering Acceptance of Civil Construction:**

January 15, 2019

**In addition to proper completion of the construction shown on the engineering plans, there are several important administrative items that must be submitted and approved prior to City acceptance of the improvements and issuance of a Certificate of Occupancy for a project. These administrative items include:**

- Record Drawings.** If changes to the “released” set of Engineering Plans are needed during construction, they must be submitted to the City Engineering Division for review and release. Both hard copy and electronic copy of record drawings are required prior to final acceptance. Refer to the *Record Drawings Procedures Private Projects* in Appendix B of the Engineering Design Manual
- Maintenance Bond** – a one-year maintenance bond for 10% of the cost of the public improvements (or a minimum of \$500.00) must be submitted to your assigned Engineering Division Public Works Construction Inspector.
- Acceptance Letter Request Form** – fill out this form and turn into your assigned Engineering Division Public Works Construction Inspector. Refer to the *Acceptance Letter Request Form* in Appendix B of the Engineering Design Manual
- All required **construction and material tests reports** have been successfully completed and witnessed by your inspector and related documentation of these tests submitted to your assigned Engineering Division Public Works Construction Inspector.
- All other project documentation complete, City invoices paid, etc.

**Coordination between Building Inspection and Engineering**  
**on**  
**Building Pad Preparation during Mass Grading**  
**Revised 7-09-2008**

On an exception basis, Building Inspection may choose to allow a developer of a large project to have their building pad preparation work (such as water injection, lime stabilization, over excavation and placement of select fill or other soil modification process for the building foundation) be accomplished during mass grading. Typically, Building Inspection permits and inspects all building pad preparation work.

If Building Inspection approves the developer's or project engineer's request to perform building pad preparation during mass grading, the following notes shall be on the mass grading plans.

**Notes on grading sheet(s):**

1. Contractor shall prepare the building pad foundation by specifically constructing the pad according to the following provisions in the geo-technical report (reference geotechnical report by stating title of report, name of firm that produced report and report issuance/revision date). If the geotechnical report offers options for building pad preparation, the engineer shall specify and detail with narrative and drawings on this grading plan the selected option to be constructed.
2. The contractor shall not drill any piers or construct any piers, foundation, parking lot, building electrical, building plumbing or any other site work. The only work released with the mass grading plans is the grading and pad preparation.
3. After mass grading, the Building Inspector may require additional reports or additional engineering studies for various reasons including too much time elapsing between water injection and placing of the foundation, changing soil conditions, unforeseen on site conditions and/or final submittal of building plans.
4. The contractor is responsible for providing two (2) soil reports for all geotechnical and materials testing inspections (such as proctors and densities). The contractor is responsible for providing one copy to the Building Inspection Division-Commercial Inspector and one copy to the assigned Public Works Construction Inspector. **Digital pdf copies of these reports are preferred.**
5. Contractor shall conserve water during mass grading during drought conditions in accordance with the City adopted plan. Contractor shall carefully monitor water use and water injection to ensure no water is wasted nor running down the street, ditches or channel. If contractor wastes water or allows it to leave the site, enforcement action may result.
6. The grading plan is subject to change during review of the general engineering plans prior to the City "releasing" general engineering plans for construction. The developer and contractor proceed with the mass grading plan at their own risk.
7. All responsibility for adequacy of design remains with the design engineer. The City of Mesquite, in reviewing and releasing plans for construction, assumes no responsibility for adequacy or accuracy of design.

**To receive Building Inspection approval, the following steps shall be taken.**

1. The project engineer shall place the notes above on the mass grading plans and building foundation plans.
2. The project engineer shall provide one copy of the geo-technical report sealed by an engineer registered in the State of Texas to Building Inspection and provide one copy of the report to Engineering Division with transmittal letter.

**Internal City Coordination:**

Once the City's Civil Engineer has reviewed the mass grading plans and is ready to release them, the City's Civil Engineer shall send an email request to Building Inspection. If acceptable, Building Inspection shall approve the request and provide an email response to the City's Civil Engineer.

The City Civil Engineer over private plan review will brief the City Project Engineer, Public Works Construction Inspector and Building Official on scope of the building pad preparation included in the Mass Grading Plans and the inspections and reports expected from the contractor during this preparation.

# Procedure for Private Development Engineering Plan Changes After Formal Release for Construction

Updated: January 10, 2019

**This procedure is to be used** for engineering plan changes for **private development projects** after engineering plans are released by the Engineering Division for construction including all fees paid, plans stamped released for construction and the file and stamped plans turned over to the Public Works Construction Inspector for scheduling of a preconstruction meeting.

If the engineering plans have not reached this stage of final release, a plan change shall be treated as a modification of plans that have not been released for construction.

The City Project Manager is the assigned engineer at the City of Mesquite responsible for the review of engineering construction plans prior to release of construction and also for review of any changes to the plans during construction due to conflicts or field conditions which necessitate a revised plan. Generally, project issues are brought up by the Public Works Construction Inspector and passed on to the City Project Manager to determine if revised plans are required.

## Procedure:

- The **City Project Manager** will collect information related to the change from the assigned Public Works Construction Inspector and/or the contractor or the developers engineer.
- With this information the **City Project Manager** will determine if the change is of enough significance to require preparation of revised plans before work continues or if the change can be made in the field and documented on the “as-built” record drawings submitted by the consulting engineer.
- The **City Project Manager** shall post this information to EnerGov to inform stakeholders of the need for a plan revision.
- If an immediate plan change is required, the **City Project Manager** will inform the contractor and developer’s consulting engineer of the nature of the plan change and, if necessary, also inform them that the project (or portions of a project) is shut down from further construction until the needed plan changes are submitted and approved.
- The Consulting Engineer will send a digital copy proposed changes to the **City Project Manager** for review. This submittal should be by email or the CAP system of EnerGov and should be accompanied with a transmittal letter from the consulting engineer explaining the changes and give full contact information for follow-up. The revised plan set should clearly identify all changes to the original released plan set by clouding changed information and identifying this information in the revision block with an appropriate numbered symbol (usually a small triangle with a number of the revision inserted in the triangle). The revised set should be stamped and sealed with an updated date of the change.

- The **City Project Manager** shall confer with assigned Public Works Construction Inspector to determine if the changes submitted are adequate to address the identified issues.
- Once the review is complete and the consulting engineer has made all changes required, the consulting engineer shall submit:
  - A Minimum** of five (5) full-size (24" x 36" or 22" x 34") sets of complete Engineering Plans.
  - A Minimum of one** (1) half-size (11" x 17") set of complete Engineering Plans.
  - A CD/DVD or flash drive with the complete set of stamped engineering plans in **all** of the **following three formats** - pdf, tiff and AutoCAD dwg formats.

If the construction team requires more than four sets of engineering plans they may furnish additional sets above these minimums.

Depending on the number of plan sheets involved a representative from the consulting engineer (preferred) or the Engineering Plan Review and Records Specialist will stamp the revised plan sets with two stamps:

- Released for Construction Stamp with current date
- Revised Stamp

- The City will keep one full size and the half size sets of revised plans and the Engineering Plan Review and Records Specialist will distribute as follows:
  - Engineering Division Rack Set (full size set)
  - Public Works Construction Inspector truck set (one full size set and one half-size)
- The consulting engineer representative shall take the remaining four (or more) sets of plan revisions and shall be responsible for issuance to the contractor, surveyor, developer, etc.
- The Engineering Plan Review and Records Specialist shall post this information to the P&Z project tracker blog to inform stakeholders that revised plans have been approved and released for construction.

Project Name: \_\_\_\_\_

Engineer Name: \_\_\_\_\_

Engineering Firm: \_\_\_\_\_

Request Date: \_\_\_\_\_

Date Received: \_\_\_\_\_

**REQUIREMENT REQUESTING TO BE VARIED:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VARIANCE REQUESTING:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Note: All the following items should be included with this form for a variance request to be reviewed. Any N/A response shall include a written explanation with adequate justification, as deemed necessary by the Director of Public Works.*

**COMPLETE**

**N/A**

**1. GENERAL**

A. Description of Project

B. Location of Project

**COMPLETE**

**N/A**

**2. VARIANCE REQUEST SPECIFICS**

A. Signed and sealed engineering analysis

The City Engineer will review variance request and will request additional information necessary to complete review.

Engineer Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# City of Mesquite

## IMPERVIOUS AREA SUMMARY

Revised: February 08, 2019

Property Address: \_\_\_\_\_

Plat Name: \_\_\_\_\_

Project Name: \_\_\_\_\_

	Existing (square feet)	Proposed Change (square feet)	Total (square feet)
Total Land Area			
Building Impervious Area <small>(roof-tops, awnings, covered areas, etc.)</small>			
Paving Impervious Area <small>(Parking Lot, sidewalks, drive approaches, fire-lanes, other paved areas, etc.)</small>			
Total Impervious Area			
Landscaped or Grassed Areas <small>(Landscaping areas, grassed areas, trees, etc.)</small>			

Calculations Performed By: \_\_\_\_\_

Position/Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Phone & E-mail: \_\_\_\_\_

Approx. Project Start Date: \_\_\_\_\_ & Completion Date: \_\_\_\_\_

These dates will initiate billing for City Services. Should the **Completion** date change, please alert Water Utilities at **972-216-6612**

Please fill out the billing information on **applicable** page (2 or 3).

### City Staff Use:

Received by City - Date: \_\_\_\_\_

Copy to Storm Water Specialist - Date: \_\_\_\_\_

Submitted to Water Accounting: \_\_\_\_\_

Calculations Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

# City of Mesquite

## DRAINAGE UTILITY DISTRICT

Fill out this Page for Facilities with a **“Single” Meters only**

Property Address:

\_\_\_\_\_  
Owner's Signature

\_\_\_\_\_  
Owner's Company Name

\_\_\_\_\_  
Owner's Printed Name

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Title

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Telephone & Fax Numbers

I, \_\_\_\_\_ instruct the City of Mesquite to bill the Drainage  
(Property Owner)  
Utility District charges to **(check one)**: Property Owner \_\_\_\_\_ or Alternate billing \_\_\_\_\_.

### **Alternate Billing Info:**

Name/Title: \_\_\_\_\_

Company: \_\_\_\_\_

Street Address: \_\_\_\_\_

City / State / Zip code \_\_\_\_\_

Date: \_\_\_\_\_

# City of Mesquite

## DRAINAGE UTILITY DISTRICT

Fill out this Page for Multi-Tenant Facilities with **"Multiple" Meters only**

Property Address: \_\_\_\_\_

\_\_\_\_\_  
Owner's Signature

\_\_\_\_\_  
Owner's Company Name

\_\_\_\_\_  
Owner's Printed Name

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Title

\_\_\_\_\_  
Owner's Mailing Address

\_\_\_\_\_  
Owner's Telephone & Fax Numbers

I, \_\_\_\_\_ instruct the City of Mesquite to bill the Drainage  
(Property Owner)

Utility District charges to **(check one)**: Property Owner  Tenant:

Date: \_\_\_\_\_

The following addresses are listed as part of the above property, please indicate the amount of impervious area to be charged to each address, if you choose to have each tenant billed.

NOTE: If you choose to allocate impervious area to tenants, please supply tenant name and address below:

TENANT ADDRESSES:

Tenant Name: \_\_\_\_\_

Tenant Address: \_\_\_\_\_

Impervious Area: \_\_\_\_\_

-----  
Tenant Name: \_\_\_\_\_

Tenant Address: \_\_\_\_\_

Impervious Area: \_\_\_\_\_

-----  
Tenant Name: \_\_\_\_\_

Tenant Address: \_\_\_\_\_

Impervious Area: \_\_\_\_\_

-----  
**For Properties with more than 3 Tenants** please add an additional page with property address at the top of the page, add billing details for all additional tenants.