SECTION (July 30, 2019 Version)	COMMENT/REQUEST	CITY RESPONSE
CHAPTER 1 - ADMINISTRATION		
Section 1.2.4	It may be helpful to include a note acknowledging that FEMA provides flood data in “grid” coordinates and that this data would need to be converted to “surface” coordinates for the City. It may also be helpful to require that the scaling factor be included on plans or applicable documents.	We will consider adding this to guidance documents such as the design checklists.
Section 1.7	It appears that section 1.7 Alternative Design, Exceptions, and variance request applies to all sections of the DCM. It is important that this remains so and is utilized by staff when appropriate.	A Variance Request Form has been created that requires the applicant to indicate location of the section seeking variance. Form will be made available on website.
CHAPTER 2 - RIGHT-OF-WAY AND EASEMENTS		
Section 2.1.1.A2	In regards to maintenance of Natural Streams, the first priority of the City should be to have agreements in place for the City to maintain natural streams, or secondarily for the property owner to agree to maintenance in absence of this agreement. The City should seek to obtain and maintain natural streams to the extent that the property owners are willing through dedications or other agreements for the protection of the natural drainage ways. It should also be considered that maintenance of natural streams should include removal of debris and not mowing as natural streams should not be altered.	City will continue its current policy not to maintain natural streams.
Section 2.1.1.B	Potential typo. “Large Diameter.”	Typo has been corrected.
Section 2.1.2	The requirement for the filing of public drainage easements on BMPs may need to be required as part of As Builts.	Not all development triggers As-Builts. BMP's are established during site plan or subdivision review; therefore the drainage easements should be dedicated by separate instrument or shown on the plat. Any significant change during construction will require revision to plans for City to review and approve.
CHAPTER 3 - WATER UTILITIES		
Section 3.1.2.D	Is there a maximum velocity for fire flow conditions or is the engineer to base this velocity solely on residual pressure?	The engineer is to base this velocity on normal, non-fire flow conditions.
Section 3.1.3.A.8	Two feet of separation between utilities seems to be more common in North Texas. Requiring three feet of separation may result in more instances of the City having to use its discretion or allow variances.	Separation distance has been revised to 3 feet horizontally and 2 feet vertically.
Section 3.1.3.B.2	The combination of cover requirements (forty two inches) and depth requirements (three feet) will likely result in the need to relocate several franchise utilities or almost all water lines having to be profiled (assuming there is a franchise utility crossing).	The requirement of providing a profile "beneath public service providers" has been revised to "within congested corridors." The intent is to show the locations of larger or multiple public providers' infrastructure crossings.
Section 3.1.3.B.7	Does this indicate that the City will not allow an uncased bore option? An example that comes to mind where an uncased bore option could be helpful would be a concrete driveway crossing.	The section has been revised to state "Alternate methods and materials may be used upon approval by WU."
Section 3.1.6.E	Does this indicate that the City will not allow one larger meter to serve an apartment complex with multiple buildings? This would likely result in the need for a public main to be routed through the complex. We just want to confirm that this is the City’s desired intent.	The section has been revised to clarify the fact public mains may be required within a development.
Section 3.1.6.E	Potential typo. Need a period at the end of Item E.	Revised.
Section 3.2.1.B	This sentence could use some clarification for situations in which extensions may not be feasible due to topography.	The section has been revised to clarify the fact the abutting property or properties may require service "as required".
Sections 3.2.2. D, E	Please note that the combination of these two criteria could potentially create challenges, particularly in flatter corridors. In these situations, 0.61% slope may be difficult to achieve.	Section 3.2.2.D states exceptions will require approval by WU.
Section 3.2.3.A.4	Possible typo. The paragraph references crossing beneath water mains instead of sanitary sewer mains.	Revised.
Section 3.2.3.B.9	Does this indicate that the City will not allow an uncased bore option? An example that comes to mind where an uncased bore option could be helpful would be a concrete driveway crossing.	The section has been revised to state "Alternate methods and materials may be used upon approval by WU."
CHAPTER 4 - TRANSPORTATION		
Section 4.4.2.B	Revise last sentence to read “A TIA will not be required for developments generating less than 500 tpd unless special circumstances exists as outlined in Section F. below”	Revision made by City during comment period.

Section 4.4.2.F	Traffic Impact Analysis (TIA) allows the requirement of TIA to be at the discretion of Council or P&Z. It is not appropriate for Council or P&Z members to require a TIA or any additional engineering studies if city staff or City Traffic Engineer or Public Works director has determined that one is not necessary or that all requirements have already been met. This is especially true considering that all traffic and hydrology related engineering must be approved in order for the application to be considered complete. The language contained in this section allows Council and P&Z to require additional engineering post all engineering items being completed and accepted by engineering professionals. Council and P&Z should only be allowed to act on the specific recommendations of the City and design engineers.	Item 7 has been removed from the list of "Special Circumstances" in Section 4.4.2.E. Item 8 has been modified to include D-PWT.
Section 4.4.2.D	The section allowing TIAs to be required at time of Site Plan should have a limitation based on trip generation. The City needs to be careful to not arbitrarily require TIAs.	Removed section 4.4.2.D. Revised section 4.4.2.B by deleting "platting" so that TIA requirements are standard for all types of development.
Section 4.4.3.A	Remove paragraph “TIA shall be reviewed & Accepted by the City prior to the project application being deemed complete”	Revision made by City during comment period.
Section 4.4.3.B.7	Add subparagraph iv. “Designing Walkable Urban Thoroughfare – A Context Sensitive Approach” as published by ITE.	Revision made by City during comment period.
Section 4.5.4	Revise language that if 1% grade cannot be achieved, a request for variance shall be submitted in accordance with Section 1.7	Revision made by City during comment period.
Section 4.5.4.B *Table 4-5*	Do the lengths shown in the “Distance” column include intersections? Or do they represent distance on either side of the intersection/	Revised "Distance" column to "Approach Distance".
Section 4.5.5	Is there a different minimum cul-de-sac radius for industrial use?	Revised 4.5.5 to "The minimum radius for the back of curb on a local street shall be 39 feet." Revised 4.5.6.H to "Dead end fire lanes and public streets…" Industrial roads will be governed by 4.5.6.H.
Section 4.11.4.B *Table 4-11*	Possible typo in final sentence (“The typical taper length in this case is 150 feet for streets that with a speed limit of 40 or higher.”)	Corrected typo by deleting "that".
CHAPTER 5 - STORMWATER		
Section 5.2.1	The SWPPP requirement should be removed from Site Plan submittal since, as it correctly states in 1.4.5 SWPPP, the contractor is required to provide the SWPPP. A developer should be able to acquire an accepted Site Plan without a sealed SWPPP. Requiring a SWPPP narrative at Site Plan submittal is not the appropriate timing with how the industry works. A developer often needs to have Site Plan approval prior to having a contractor on board. The SWPPP should remain a requirement with Public Improvements but should come with the three-party contracts since at this time a contractor has been selected. In the case of private developments, the SWPPP should come with the building permit.	City will require SWPPP for the approval of a Site Plan, since not all land disturbances may require Public Improvements. The SWPPP document may leave unknown information blank, since this is a living document and should be updated throughout construction. Conflicting language in Section 1.4.5 was removed.
Section 5.2.1.A.3.iii	Is it the City’s intent for FEMA to have fully approved the LOMC prior to final inspection? If not, some clarification here would be helpful (e.g. “LOMC submittal documentation”)	Wording has been clarified. City will require documentation of submittal to FEMA.
Section 5.2.1.B *Table 5-1*	It may be beneficial to add a caveat to the HEC-HMS/RAS versions to be “consistent with the base modeling platforms,” given the disparities that may exist between two versions of the same software.	Agreed. This language has been added to Section 5.8.1.
Section 5.2.1.B *Table 5-1*	We would recommend inclusion of Culvert Master or FHWA’s HY-8 as an allowable software for hydraulic analysis of culverts. It is FEMA-approved.	CulvertMaster has been added to the list. We do not believe HY-8 is widely used in the area, but it can be used if approved by the D-PWT as stated in the manual.
Section 5.3	Recommend clarification: “FPE’s are required for all lots located in or immediately adjacent to the floodplain…”	Clarification has been added.
Section 5.4.2.C	To which storms is the 5% max velocity increase threshold applicable? Again listing the 2, 25, and 100-year storms may be helpful.	Clarification was made to set this requirement for 2-, 25-, and 100-year events.
Section 5.4.2	Final paragraph: in regards to downstream assessments, it may be helpful to reference a downstream confluence as a potential limit. In some situations, you may have a confluence that eliminates further downstream impacts before reaching a structure (bridge or culvert).	The requirement to carry the assessment to a hydraulically significant structures is a minimum, but the downstream assessment limit is to be determined by the engineer based on the downstream conditions.
Section 5.5.2	Recommend clarification: “…discharges to the right of way shall not cause the street flow to exceed the…”	Clarification was added.

Section 5.6.3	Recommend clarification: "…as described in the TXDOT Hydraulic Design Manual."	Clarification was added.
Section 5.6.4	We would recommend the City specifying a default sheet flow Manning's n-value that the design engineer can revise only if he/she provides supporting data. We have found in many instances that engineers use the highest Manning's sheet flow n-value allowed by TR-55 (n = 0.41) for maintained grassed areas. This artificially inflates the total Tc.	Typical Manning's n values for smooth and grassed surfaces were added to Section 5.6.5
Section 5.6.5	Recommend clarification: "table 5-4 provides the Frequency Factors to be used with Rational Method. The product of the frequency factor and the runoff coefficient shall not exceed 1.0." If this limit is not imposed, the runoff would exceed the rainfall. This could also be added as a note to the table.	Clarification was added to Section 5.6.5. This will be consistent with current DCM.
Section 5.6.6	For redundancy, we would recommend adding Note 3 from Table 5-3 as a sentence in this section.	Note was added to Section 5.6.6.
Section 5.6.7	Recommend clarification: "NRCS hydrograph method requires…"	Clarification was added.
Section 5.7.3	We believe that the limitation of drop inlet capacity calculation to a head elevation of one foot above the inlet flow line may be too restrictive. In this situation, the 1.4 ratio of depth of flow to opening height will not be achieved (assuming a 6" opening plus a 6" top slab). This limitation will likely result in the need for significantly larger inlets in some cases. We would recommend that the City allow consideration of additional head depth if the HGL is within the Row/easement, and proper freeboard and clogging considerations are provided.	Head depth will be limited to ROW/Easement.
Section 5.7.4.B	As currently proposed, storm drain profiles would have to show both the 25-year and 100-year HGL's. However, it would be difficult to estimate the 100-year HGL for a system that is completely on-grade (no sumps), which would only be designed to a 25-year storm. Significant assumptions would have to be made regarding the surface flow characteristics of the 100-year discharge. We would recommend clarifying this language.	We know that the HGL for a 25 and 100 year storm event will be very similar in these cases, but do not want to create a separate design criteria for special circumstances.
Section 5.7.4.B	Of the four sentences immediately following the bulleted list, we would recommend moving the third and fourth sentences to be after the list (The iSWM Hydraulics Technical Manual table 1.10 provides…) This seems to fit better with the last bullet, which references coincidental peaks.	This Section was modified for clarity.
Section 5.7.4.C	It may be helpful to address outfalls into a pond. We would recommend that end treatments on outfalls into a pond also conform to slope (4:1, per the manual) and include velocity dissipation measures.	storm drain outfall requirements for streams now apply to outfalls to natural channels and ponds as well.
Section 5.7.5.A.1	Does this include roadside ditches?	No. This bullet was modified.
Section 5.7.5.D *Bullet 2*	The minimum channel bottom width is listed as 6-feet but the minimum ramp width is listed as 10-feet. How has the City reconciled this difference in the past? Should the minimum bottom width be widened to match the minimum ramp width?	Smaller equipment can be used inside the actual channel. The ramp would be used for a trailer or larger truck to back into.
Section 5.7.5.D *Bullet 11*	We read this to mean that the City is moving away from accepting concrete-lined channels within its easements, regardless of land reclamation, jurisdictional waters (or the lack thereof), etc. Is this intent? Would this also be the case for flumes?	The current DCM does not allow new concrete channels. This is not a change. Flumes are still allowed.
Section 5.7.5.E *Bullet 4*	Minimum channel slope requirement of 1% may make it difficult to use a median or roadside ditch as a stormwater BMP, as mentioned in Bullet 2. Bioswales and water quality ditches frequently have very flat bottom slopes to facilitate permeation and percolation. Some clarification on this matter may be helpful.	BMPs would be covered by BMP design criteria. This requirement does not prohibit BMPs in the ROW.
Section 5.7.5.F *Bullet 1*	Does this preclude the use of bioswales?	Bullet has been deleted.
Section 5.7.5.F *Bullet 4*	Has the minimum vegetated swale slope of 2% intentionally been left steeper than for roadside ditches (1%)?	Yes. The minimum roadside ditch grade has to match the minimum street grade, but 1% slope on a vegetated swale is not preferable unless it is being used as a BMP.
Section 5.7.6	This section does not mention the design storm to be used.	In Table 5-2, roadside ditches and culverts have a design storm.
5.7.6.C *Bullet 4*	Intention of bullet is unclear.	Bullet has been deleted. Section C: Headwater Limitations has been modified to be more clear.
Section 5.7.7	This section does not mention the freeboard to be used.	The City does not have freeboard requirements for bridges. The freeboard requirement was removed from the culvert section for consistency.

Section 5.7.7	It is our understanding that the City has selected a 25-year design storm for bridges based on empirical data and CIP project experience demonstrating that 100-year bridge conveyance cannot be reasonably achieved due to channel capacity limitations. We would recommend that the City include language in the manual stating that 100-year sizing should be evaluated in consideration of future tailwater improvements.	Change has been made.
Section 5.8.3	We are glad to see the City adopt valley storage mitigation requirements.	Thank you.
Section 5.8.4	Possible typo. "…as allowed by the federally adopted standards…"	Change has been made.
Section 5.8.4	The text denotes requirement of a CLOMR for increases greater than 0.0 feet, while FEMA technically requires a CLOMR for increases above 0.00 feet.	The City will continue to regulate to 0.0 feet.
	It may be helpful to define potential actions that will be required should the site be found to not have been constructed according to the CLOMR.	Resolving Post Construction discrepancies will be handled in accordance with the Flood Damage Prevention Chapter of the City Code of Ordinances.
Section 5.9.1.A *Item 5*	Based on our understanding of 30 TAC 299.13, the additional state and federal requirements apply at 6-feet height and greater. The criteria as written state 4-feet. Is this intentional?	Yes. Four feet is the typically threshold at the City for structural design.
Section 5.9.1.A *Item 9*	Is the 10-foot wide access path to be provided around the entire facility? Or just along one side?	It is required around the entire pond. This bullet has been clarified.
Section 5.9.1.B *Item 9 and 10*	Text regarding 24/48 hours is slightly confusing. It seems that the release should occur over a period no more than 48 hours. As currently written, the facilities would be required to release for more than 48 hours.	The typos have been corrected
Section 5.10.2.B.1	The way we read this section and the associated table, a 5-acre site would be required to provide 10 BMP's (5 x 2). Is this the intent? If not, it may be helpful to clarify the text to read "…shall be provided based on the total impervious area, per the table below," (or similar).	This was not the intent. The language has been corrected.
Section 5.10.3.D *Bullet 9*	Possible typo. "Discharge of roof drains…"	Typo has been corrected.
Section 5.10.3.F	We would recommend clarifying that the maintenance of BMP's is transferred from the "owner" to an HOA (if applicable).	Clarifications have been made to this section.
CHAPTER 6 - PARKS		
	No comments	
CHAPTER 7 - DEFINITIONS		
	No comments	
GENERAL		
	It is important that no language exists such that staff may arbitrarily require over-analysis through unnecessary traffic or hydraulic studies that accrues costs when infrastructure will not change. All staff needs to be trained, highly competent, and reliable in executing Engineering judgement on when these additional studies are necessary and should not operate with a "prove it to me" method of review as these studies add additional costs and time.	Review comments will be issued in conformance with the design criteria as adopted by ordinance, and in accordance with State law.