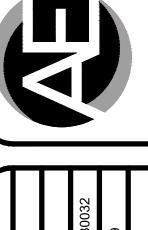


ENGINEERS • SURVEYORS • LABORATORIES • DRILLING

NSED KANSAS ENGINEERING & SURVEYING CORPORATION E-137/LS-17



	REVISIONS			DRA	DRAWING
NO.	DESCRIPTION	ВУ	DATE	DRAWN BY:	Э
1.	REVISED PER CITY COMMENTS	GC	12/18/19	12/18/19 CHECK BY:	Ь
2.	REVISED PER CITY COMMENTS	GC	1/9/2020	1/9/2020 LICENSE NO.	А
				DATE:	1
				FIELD BOOK:	
				JOB NUMBER:	7
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ASTRUCTURE IMPROVEMENTS

DATE: ON AND DECEMENTS

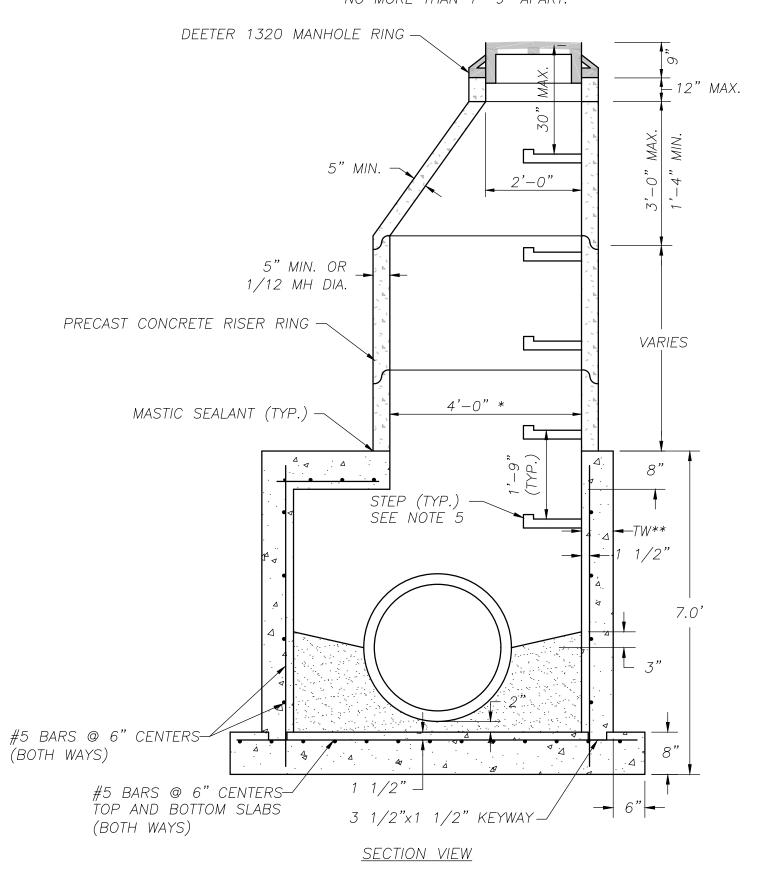
STORM PLAN



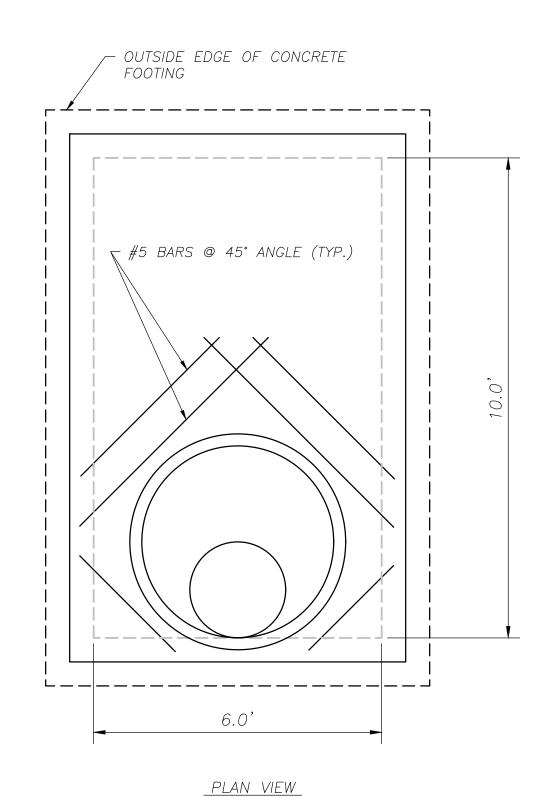


NOTES:

- 1. ALL CONCRETE SHALL BE 4000 psi.
- 2. JUNCTION BOX CONSTRUCTION NOTES SHALL LIST THE "L" DIMENSION FIRST, THE "W" DIMENSION SECOND, AND THE "H" DIMENSION THIRD.
- 3. FLOOR OF JUNCTION BOX SHALL HAVE A SHAPED CONCRETE INVERT TO PROVIDE FOR SMOOTH FLOW.
- 4. THE MINIMUM DIMENSION BETWEEN TOP OF PIPE AND TOP OF BOX SHALL BE 1'-6" (TYPICAL ALL WALLS)
- 5. STEPS SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT PUBLIC WORKS APPROVED PRODUCT LIST. THE TOP STEP SHALL BE NO MORE THAN 30" BELOW THE RIM ELEVATION AS SHOWN ON THE PLANS. THE REMAINING STEPS SHALL BE SPACED NO MORE THAN 1"-9" APART.



**NOTE: WALL THICKNESS (TW) SHALL BE 6" FOR STRUCTURES 0'-8' DEEP, AND 8" FOR STRUCTURES OVER 8' DEEP.



Junction Box

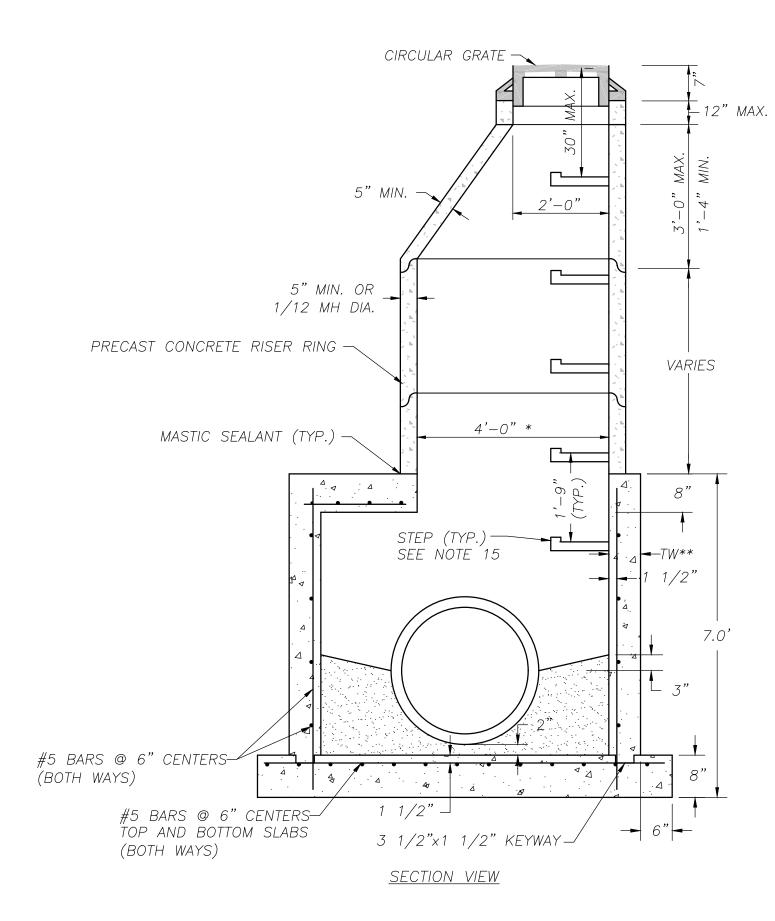
Not to Scale

<u>NOTES</u>

- 1. ALL CONCRETE SHALL BE 4000 PSI.
- 2. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.

INSIDE WALL-L

- 3. FLOOR OF INLET SHALL BE SHAPED WITH NON—REINFORCED CONCRETE INVERT TO PROVIDE SMOOTH FLOW.
- 4. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.
- 5. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL
- SPACINGS NOT TO EXCEED 4'-0".
- 6. BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.
- 7. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8$ " SHALL BE PERMITTED.
- 8. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
- 9. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
- 10. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
- 11. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
- 12. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE
 PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN
 IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE
 POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE
 IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
- 13. RCP CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2'OF THE STRUCTURE.
- 14. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"H") AND ("W"+"H") LESS THAN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED.
- 15. STEPS SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT PUBLIC WORKS APPROVED PRODUCTS LIST. THE TOP STEP SHALL BE NO MORE THAN 30" BELOW THE RIM ELEVATION AS SHOWN ON THE PLANS. THE REMAINING STEPS SHALL BE SPACED NO MORE THAN 1"-9" APART.



<u>PLAN VIEW</u>

**NOTE: WALL THICKNESS (TW) SHALL BE 6" FOR STRUCTURES O'-8' DEEP, AND 8" FOR STRUCTURES OVER 8' DEEP.

Grate Inlet

Not to Scale

NOTE: ENGINEER SHALL APPROVE SHOP DRAWINGS PRIOR TO FABRICATION OF ALL STORM STRUCTURES.



CIRCULAR GRATED INLET DEETER 1931 CATCH BASIN INLET GRATE AND

OUTSIDE EDGE OF CONCRETE FOOTING

18CO10004	JOB NUMBER:				
	FIELD BOOK:				
12/18/2019	DATE:				
PE-200903003	1/9/2020 LICENSE NO.	1/9/2020	GC	REVISED PER CITY COMMENTS	2.
PJ	GC 2/18/19 CHECK BY:	12/18/19	ЭĐ	REVISED PER CITY COMMENTS	<u> </u>
29	DATE DRAWN BY:	DATE	ВУ	DESCRIPTION	NO.
DRAWING INFO.	/AO			REVISIONS	
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DETAILS

