

WEIR CALCULATIONS:

ORIFICE CALCULATIONS:

OPENING #1

H = 2.0 IN

L = 2.0 IN

A = 0.028 FT²

INVERT ELEVATION = 1050.30

HEAD = WSEL - CENTROID

OPENING #2

H = 6.0 IN

L = 6.0 IN

A = 0.25 FT²

INVERT ELEVATION = 1052.60

HEAD = WSEL - CENTROID

OPENING #3

H = 2.0 IN

D = 2.0 IN

A = 0.03 FT²

INVERT ELEVATION = 1053.90

HEAD = WSEL - CENTROID

Outfall Structure Summary												
Design Storm	Volume (ac-ft)	Elevation (ft)	Opening #1			Opening #2			Opening #3			Total
			Weir	Orifice	Actual	Weir	Orifice	Actual	Weir	Orifice	Actual	
2-year	0.09	1052.50	1.63	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19
10-year	0.15	1053.80	3.27	0.25	0.25	1.97	1.17	1.17	0.00	0.00	0.00	1.42
100-year	0.23	1056.10	6.98	0.32	0.32	9.82	2.17	2.17	1.63	0.19	0.19	2.68

Elevation Discharge Summary Table										Stage Storage Summary Table			
Elevation	Opening #1			Opening #2			Opening #3			Total	Elevation (ft)	Volume (ft3)	Volume (ac-ft)
	Weir	Orifice	Actual	Weir	Orifice	Actual	Weir	Orifice	Actual				
1050.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1050.30	0.00	0.000
1050.38	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1050.38	89.17	0.002
1051.38	0.56	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	1051.38	1514.03	0.035
1052.38	1.50	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.19	1052.38	3606.70	0.083
1053.38	2.70	0.23	0.23	1.03	0.88	0.88	0.00	0.00	0.00	1.11	1053.38	5603.83	0.129
1054.38	4.12	0.27	0.27	3.56	1.49	1.49	0.17	0.08	0.08	1.84	1054.38	7451.36	0.171
1055.38	5.72	0.30	0.30	6.95	1.91	1.91	0.90	0.16	0.16	2.37	1055.38	9055.53	0.208
1056.38	7.50	0.33	0.33	11.02	2.26	2.26	1.95	0.21	0.21	2.80	1056.38	10217.08	0.235
1057.05	8.77	0.35	0.35	14.08	2.47	2.47	2.80	0.23	0.23	3.05	1057.05	10930.41	0.251

NOTE:

LATERAL PVC COLLECTOR OR ADS N12 PER DETAIL 4 SHEET L-7

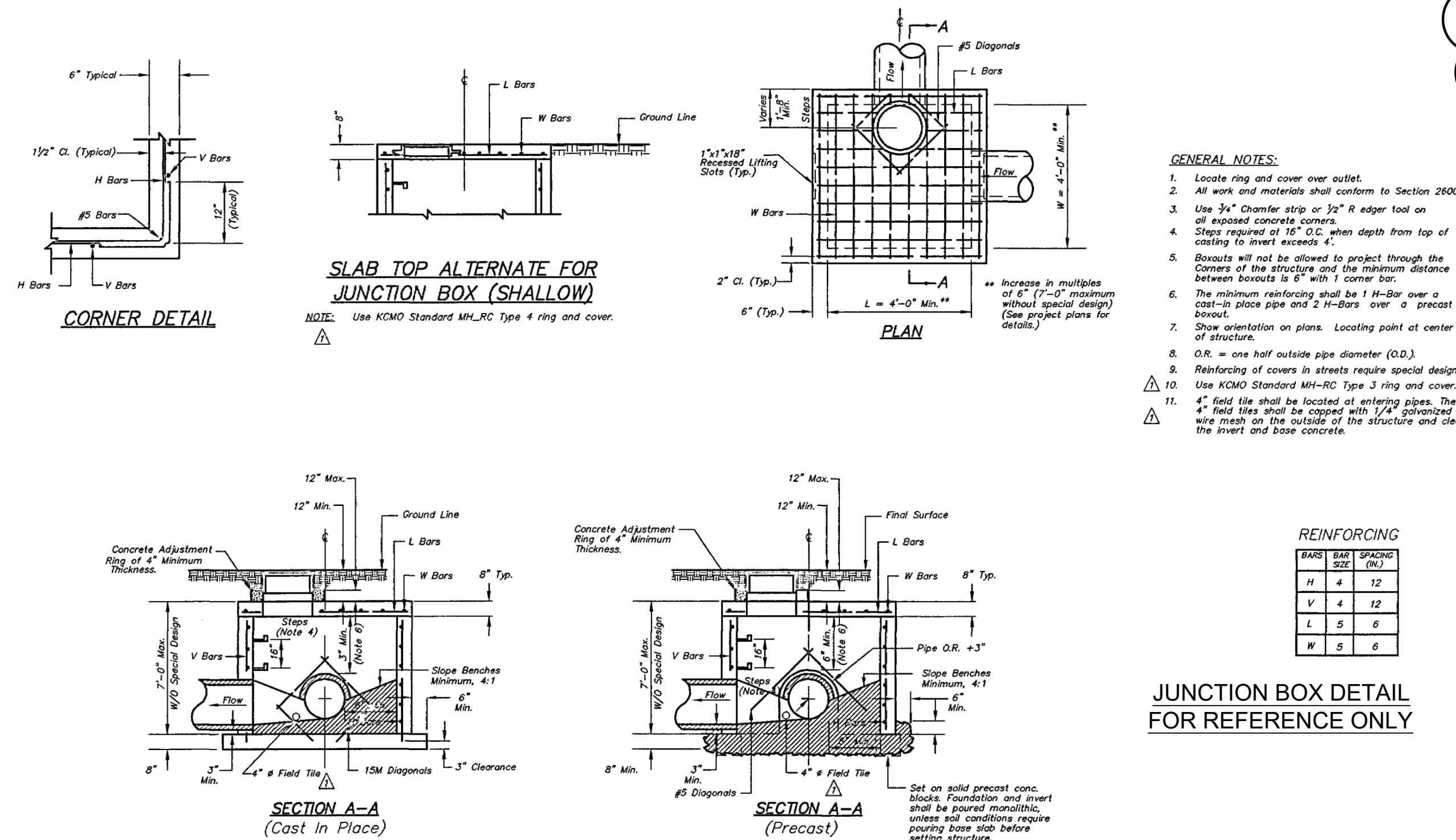
STOP!
CALL BEFORE YOU DIG
MISSOURI ONE CALL SYSTEM
1-800-344-7483 or 811
(@ least 72 hours prior to digging)

GENERAL NOTES:

- CONTRACTOR TO FIELD VERIFY LOCATION AND THE FLOWLINES OF ALL EXISTING UTILITIES.
- WATER AND WASTEWATER SERVICE TO BE PROVIDED BY THE CITY OF LEE'S SUMMIT.
- CONTRACTOR TO COORDINATE WITH MEP PLANS AT ALL UTILITY STUBOUTS.
- CONTRACTOR TO REFERENCE GEOTECHNICAL REPORT PREPARED BY INTERTEK PSI (PSI PROJECT NO. 03381842 DATED DECEMBER 14, 2018 FOR UTILITY TRENCH RECOMMENDATIONS.

SITE UTILITY NOTES:

- THE LOCATION AND / OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF EXISTING UTILITIES ON SITE OR IN RIGHT-OF-WAY.
- CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTION TO ANY EXISTING LINES. CONTRACTOR SHALL COORDINATE AND SCHEDULE TIE-INS/CONNECTIONS WITH ALL UTILITY COMPANIES.
- ALL UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING.
- ALL NECESSARY INSPECTION AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED UTILITY POSSESSION AND THE FINAL CONNECTION OF SERVICE.
- GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
- ALL SEWER LINES TO HAVE 48" COVER MINIMUM.
- ALL WATERLINES AND SANITARY SEWER LINES, AND WATERLINES AND STORM SEWER LINES SHOULD BE KEPT TEN FEET (10') APART WHEN PARALLEL OR 24" VERTICAL CLEARANCE WHEN CROSSING (OUTSIDE OF PIPE) IF 24" OF VERTICAL CLEARANCE CAN NOT BE MAINTAINED. SANITARY SEWER LINE TO BE ENCASED IN CONCRETE FOR 20' CENTERED ON CROSSING.
- ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- ALL MATERIALS, CONSTRUCTION, AND INSPECTION FOR WATER AND SANITARY SEWER LINES SHALL BE PER CITY OF ST. CHARLES STANDARD SPECIFICATIONS.
- DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT THE CONTRACTORS EXPAND.
- CONTRACTOR SHALL REFER TO MEP PLANS AND SP SHEETS FOR EXACT UTILITY ENTRANCE/CONNECTION LOCATIONS.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AN TIE ON FEES REQUIRED. AS WELL AS COSTS OF UNDERGROUND SERVICE CONNECTIONS TO BE BUILDINGS.
- THE CONTRACTOR SHALL INCLUDE IN THE BID PRICE THE DAILY RECORD KEEPING OF THE AS-BUILT CONDITION OF ALL THE UNDERGROUND UTILITIES.



RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/24/2020

Kimley»Horn

13455 Noel Road, Suite 700, Dallas, Texas 75240
PHONE: 214-420-5600 FAX: 214-420-5680
WWW.KIMLEY-HORN.COM
MISSOURI REGISTRATION NUMBER 001512
© 2019 KIMLEY-HORN AND ASSOCIATES, INC.

SUMMIT WAVES
WAVE POOL ADDITION
LEE'S SUMMIT, MO

DRAINAGE AND DETENTION
POND PLAN

Scale: AS SHOWN
Designed by: ABP
Drawn by: ABO
Checked by: SEG
Date: JUNE 2020
Project No. 064538700

SHEET
C-8