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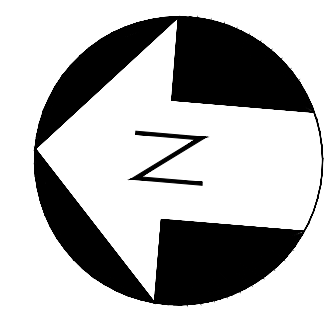
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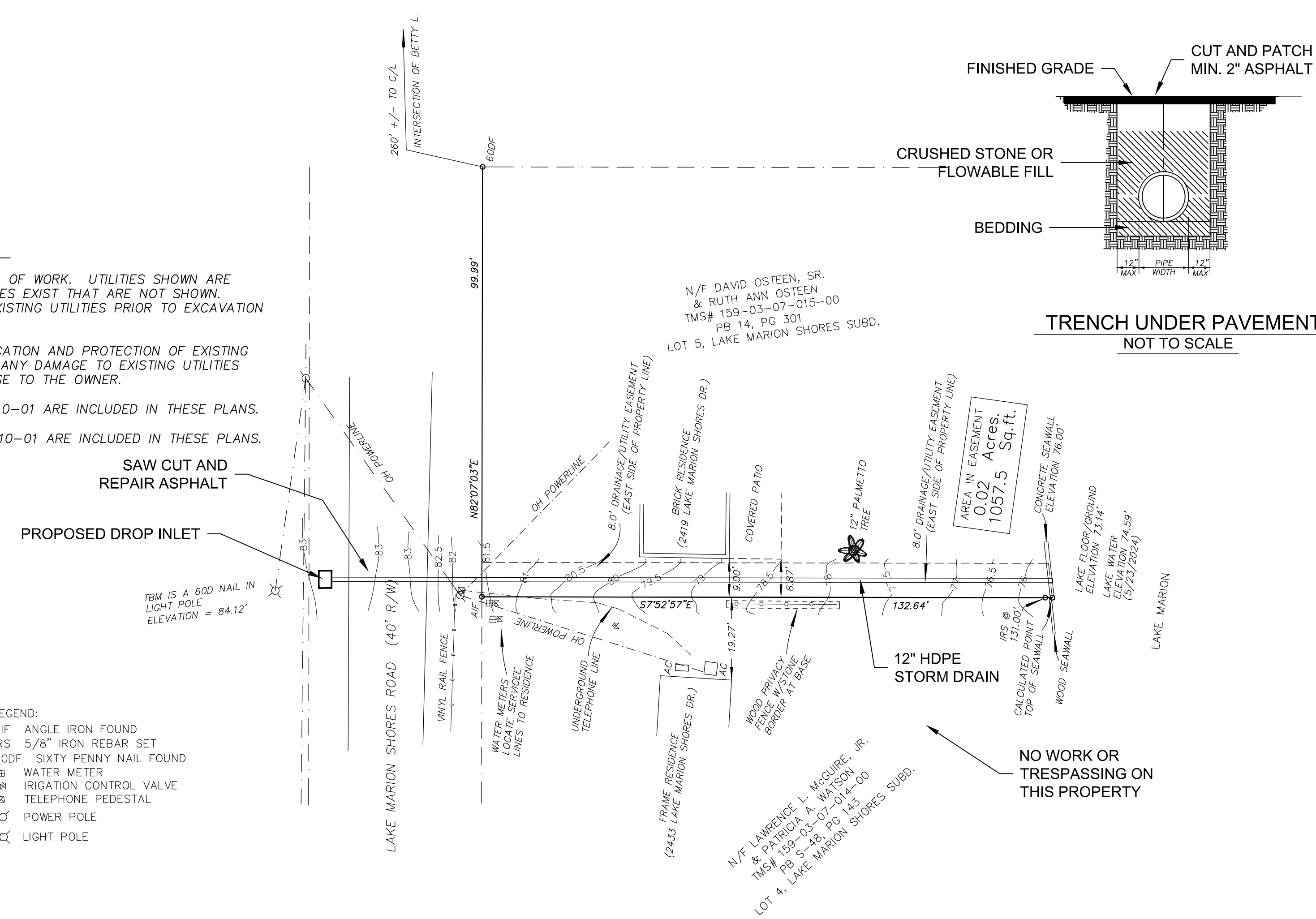
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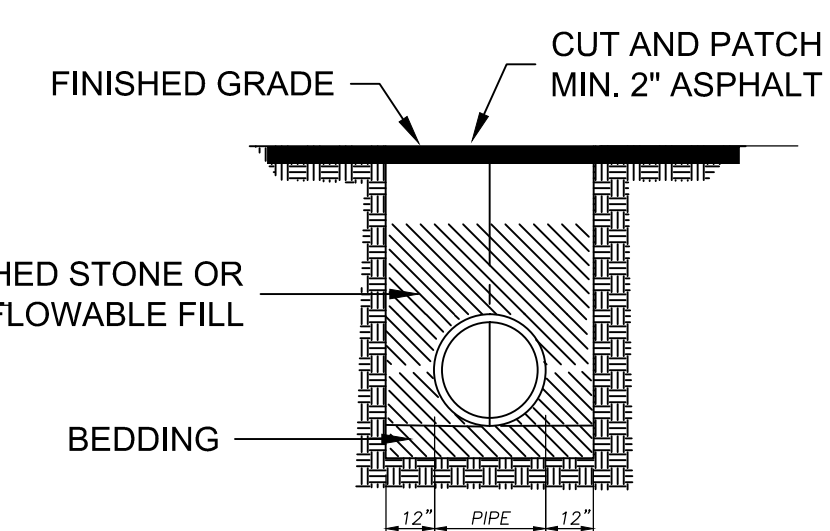
GENERAL PLAN NOTES:

1. UNDERGROUND UTILITIES EXIST IN THE AREA OF WORK. UTILITIES SHOWN ARE APPROXIMATELY LOCATED ONLY. OTHER UTILITIES EXIST THAT ARE NOT SHOWN. CONTRACTOR MUST VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION IN THE AREA.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATION AND PROTECTION OF EXISTING UTILITIES DURING THE COURSE OF THE WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. SCDOT DRAWINGS 714-705-01 AND 719-110-01 ARE INCLUDED IN THESE PLANS.
3. SCDOT DRAWINGS 714-705-01 AND 719-110-01 ARE INCLUDED IN THESE PLANS.

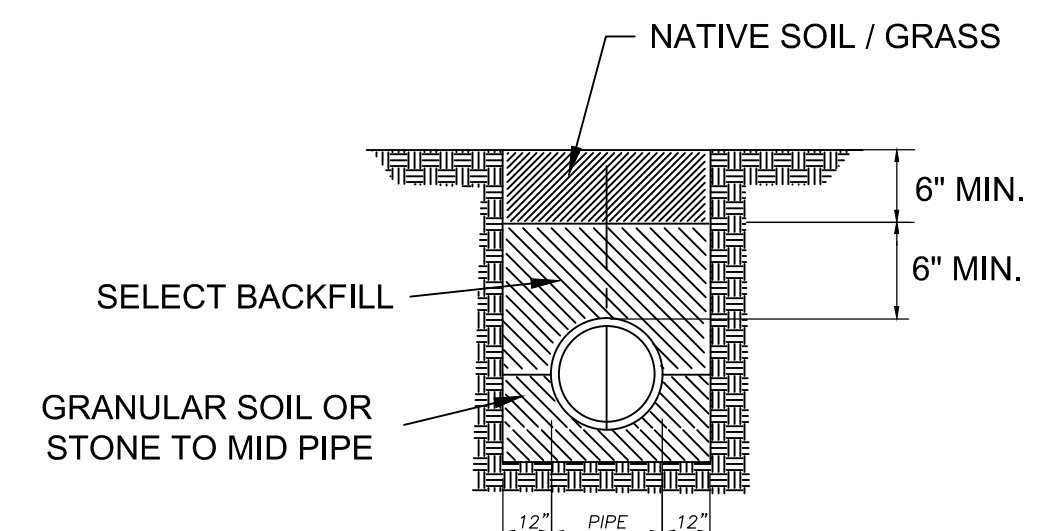
- SAW CUT AND REPAIR ASPHALT
- PROPOSED DROP INLET
- TBM IS A 600 NAIL IN LIGHT POLE ELEVATION = 84.12'
- LEGEND:
- ∠ ANG. IRON FOUND
 - ∠ 5/8" IRON REBAR SET
 - ∠ SIXTY PENNY NAIL FOUND
 - ∠ WATER METER
 - ∠ IRRIGATION CONTROL VALVE
 - ∠ TELEPHONE PEDESTAL
 - ∠ POWER POLE
 - ∠ LIGHT POLE



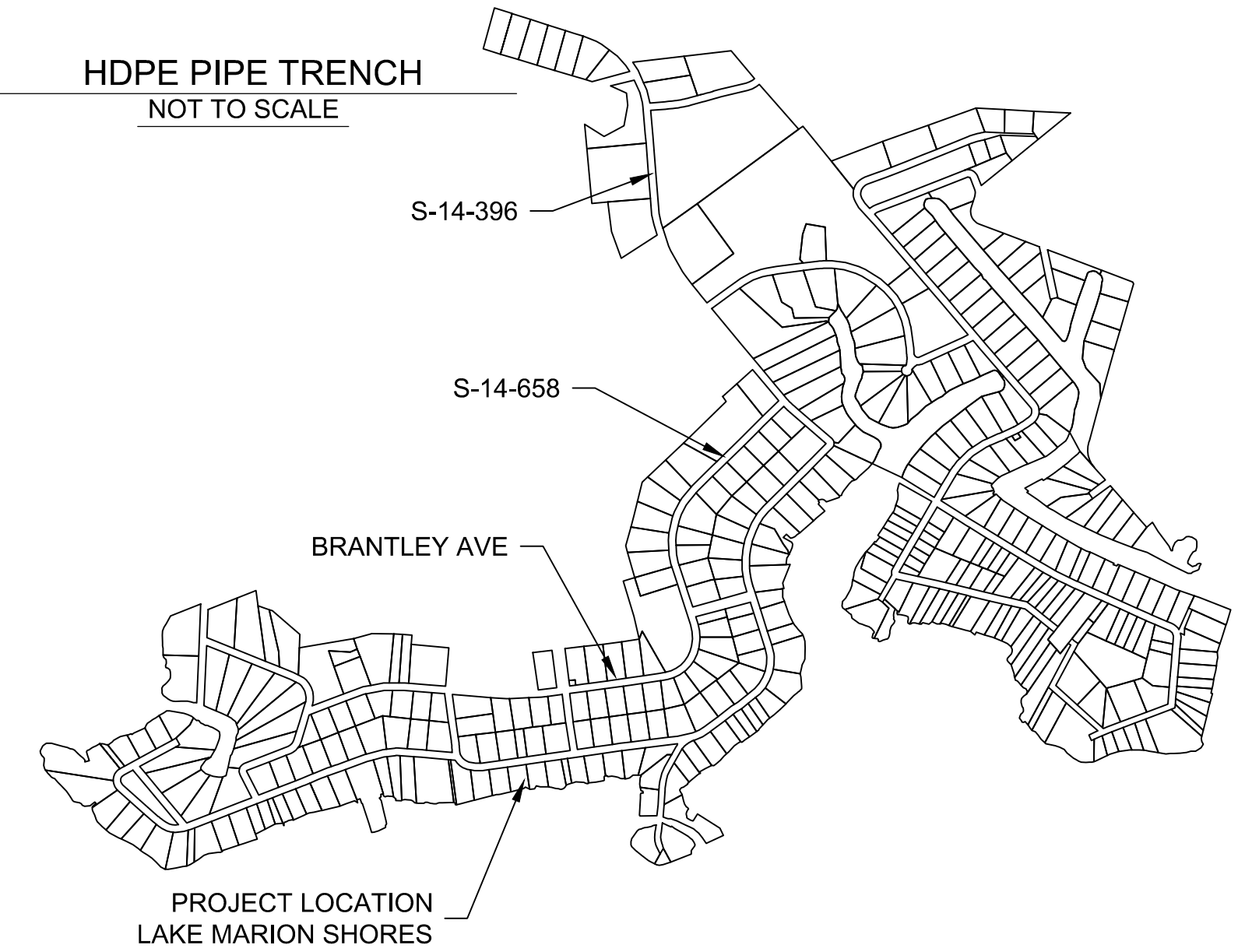
PLAN
SCALE: 1" = 20'



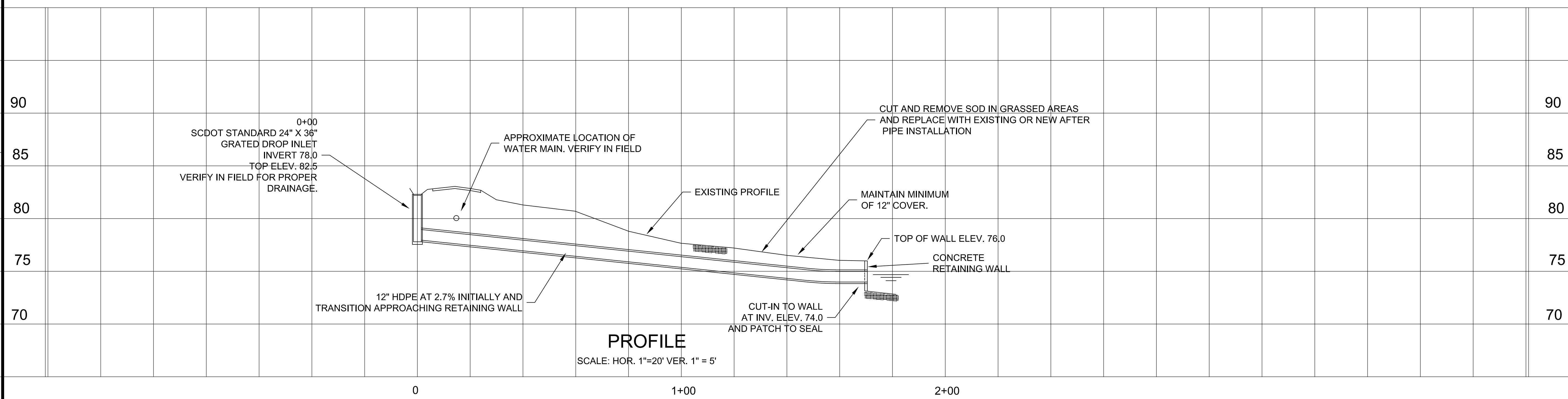
TRENCH UNDER PAVEMENT
NOT TO SCALE



HDPE PIPE TRENCH
NOT TO SCALE



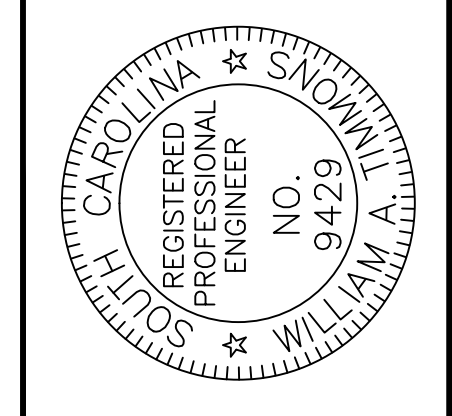
LOCATION MAP
SCALE: 1" = 800' +/-



PROFILE
SCALE: HOR. 1"=20' VER. 1" = 5'

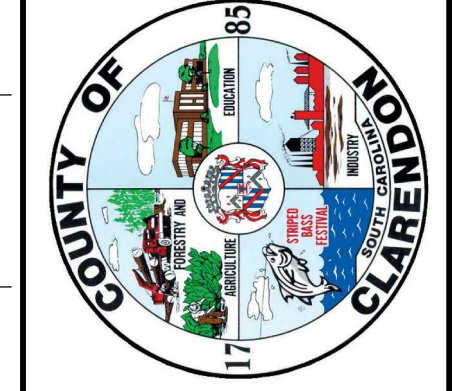
PROPOSED INLET AND STORM DRAIN PIPING

DESIGN	DATE	APPROVED	REV
WAT	JUNE 24, 2024	ENG323 -50	1
DRAWN	DATE	DWG NO.	OF
AS SHOWN		1	3



REVISIONS	DATE	APPROVED
1	8/16/24	

ADDED NOTES



Clarendon County Engineering
411 SUNSET DR. - MANNING, S.C. 29102
(803) 433-3256 FAX: (803) 435-2208

CLARENDON COUNTY
LAKE MARION SHORES RD.

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REFERENCES

NATIONAL DOCUMENTS
 AASHTO M294,
 ASTM D1149, ASTM D2321,
 ASTM D3350, ASTM F477

SCDOT DOCUMENTS
 SCDOT SUPPLEMENTAL TECHNICAL SPECIFICATION SC-M-714, ENGINEERING DIRECTIVE MEMORANDUM 24, INSTRUCTIONAL BULLETIN 2010-01, QUALIFIED PRODUCT LIST 30.

RELATED DRAWINGS & KEYWORDS
 714-005-00
 714-505-00
 714-990-MD

PRECONSTRUCTION SUPPORT ENGINEER



E. Stangle
 SIGNATURE

APRIL 30, 2010
 DATE

#	DATE	CHK	DESCRIPTION
3/2010		JBH	GENERAL REVISIONS
3/2009		HJC	UPDATE PAY ITEMS
7/2008		HJC	ADD CASE 6
3/2008		DSO	NEW STANDARD



STANDARD DRAWING

PIPE CULVERTS
 SMOOTH WALL
 (FLEXIBLE HIGH DENSITY POLYETH. (HDPE TYPE S))
 DETAILS & FILL HEIGHT

714-705-01

EFFECTIVE LETTING DATE | JANUARY 2011

TABLE 714-705A: CORRUGATED HIGH DENSITY POLYETHYLENE PIPE TYPE S FILL HEIGHT

NOMINAL PIPE DIAMETER (IN)	MINIMUM HYDRAULIC AREA (FT ²)	MANNING'S ROUGHNESS COEFFICIENT "n"	ESTIMATED MINIMUM TRENCH WIDTH (IN)	CASE 1 MAXIMUM ALLOWABLE COVER HEIGHT (FT)	CASE 1A STRUCTURAL BACKFILL ENVELOPE HEIGHT (FT)	MINIMUM COVER (FT)		CASE 4 UNIVERSIAL HL-93 DRIVEWAY MIN. COVER (FT) NOT FOR USE UNDER ROADWAY	CASE 6 MAX COVER WITH INVERT AT 2 X O.D. BELOW GROUNDWATER (FT)
						CASE 2 HL-93 VEHICLE LOADING	CASE 3 CONSTRUCTION VEHICLE LOADING 75 KIP/AXLE		
12	0.79	SEE MFG	39	15	0.5	0.5	1.2	0.5	14
15	1.22	SEE MFG	42	14	0.5	0.6	1.3	0.75	13
18	1.77	0.012	46	12	0.5	0.9	1.7	1.0	10
24	3.14	0.012	54	14	0.5	0.6	1.4	0.75	12
30	4.91	0.012	65	12	0.5	0.8	1.7	1.0	9
36	7.07	0.012	74	13	0.5	1.0	2.0	1.0	9
42	9.35	0.012	84	14	0.5	1.2	2.2	1.25	11
48	12.36	0.012	94	13	0.5	1.5	2.5	1.5	8
54	--	--	--	--	--	--	--	--	--
60	19.31	0.012	112	14	0.5	1.7	2.7	1.75	11

STRUCTURAL DESIGN NOTES:
 S1. ALL VALUES NOTED AS "--" TYPICALLY INDICATE THAT PIPE SIZE IS NOT AVAILABLE OR IS NOT RECOMMENDED FOR THIS CONDITION.
 S2. THE HIGH DENSITY POLYETHYLENE PIPE FILL HEIGHT TABLE IS BASED ON THE FOLLOWING CRITERIA:

LOAD CASE 1 - TYPICAL STANDARD INSTALLATION
 NUMBERS PUBLISHED ARE BASED ON MINIMUM (MOST CONSERVATIVE) VALUES CALCULATED BY MANUFACTURERS LISTED ON QUALIFIED PRODUCT LIST 30 FOR HDPE PIPE CULVERTS OR SCDOT DEEP INSTALLATION CUTOFF. FOR CASE 1A, THE STRUCTURAL BACKFILL ENVELOPE CASE WAS ADDED TO MINIMIZE THE SELECT BACKFILL VOLUME USED FOR TYPICAL INSTALLATIONS. DO NOT INSTALL HDPE PIPE DEEPER THAN MAXIMUM COVER SHOWN UNLESS DESIGNED PIPE IS APPROVED BY THE RPO STRUCTURAL ENGINEER.

LOAD CASE 2 - TYPICAL MINIMUM COVER INSTALLATION
 NUMBERS PUBLISHED ARE BASED ON MAXIMUM (MOST CONSERVATIVE) VALUES CALCULATED BY MANUFACTURERS LISTED ON THE HDPE PIPE CULVERT QUALIFIED PRODUCT LIST 30.

LOAD CASE 3 - TYPICAL MINIMUM COVER FOR CONSTRUCTION LOADING
 NUMBERS PUBLISHED ARE BASED ON MAXIMUM (MOST CONSERVATIVE) VALUES CALCULATED BY MANUFACTURERS LISTED ON THE HDPE PIPE CULVERT QUALIFIED PRODUCT LIST 30. MINIMUM VALUE INCLUDES AASHTO BRIDGE CONSTRUCTION SPECIFICATION MINIMUM FOR 75 K/AXLE CONSTRUCTION LOAD AS SHOWN IN TABLE 26.6. IF HEAVIER EQUIPMENT LOADING IS EXPECTED, CONTACT PIPE MANUFACTURER AND DESIGN STANDARDS OFFICE.

LOAD CASE 4 - UNIVERSIAL HL-93 DRIVEWAY APPLICATIONS ONLY WHEN MINIMUM COVER (CASE 2) CANNOT BE ACHIEVED. NUMBERS PUBLISHED ARE BASED ON MINIMUM (MOST CONSERVATIVE) VALUES CALCULATED BY MANUFACTURERS LISTED ON QUALIFIED PRODUCT LIST FOR PIPE CULVERTS.

LOAD CASE 6 - INSTALLATION BELOW GROUNDWATER TABLE
 NUMBERS PUBLISHED ARE BASED ON MINIMUM (MOST CONSERVATIVE) VALUES CALCULATED BY MANUFACTURERS LISTED ON QUALIFIED PRODUCT LIST OR SCDOT DEEP INSTALLATION CUTOFF. PIPE INSTALLED DEEPER THAN 2 X O.D. BELOW GROUNDWATER TABLE ELEVATION OR DEEPER THAN INDICATED FOR LOAD CASE 6 CONDITIONS, REQUIRE CUSTOM DESIGN, AND APPROVAL OF THE ENGINEER OF RECORD.

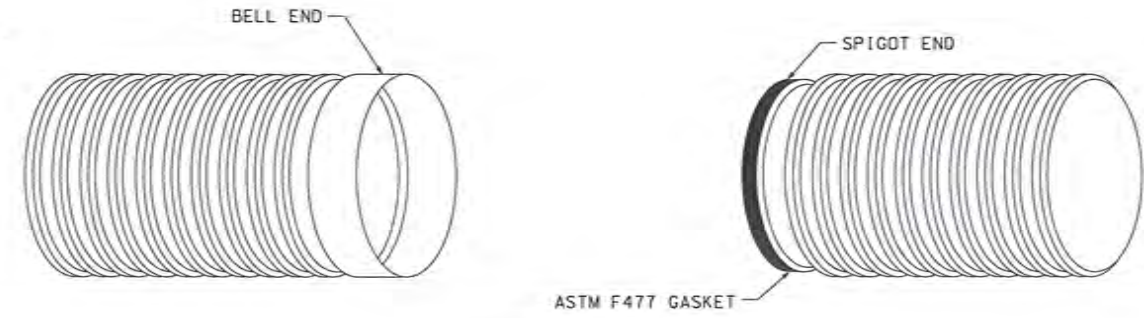
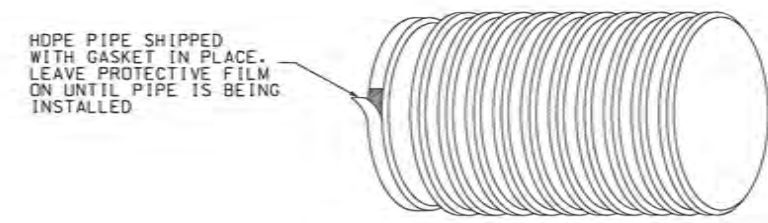
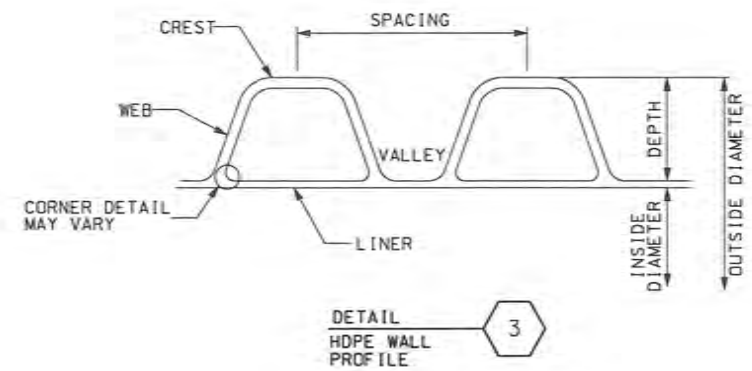
S4. EACH PIPE MANUFACTURER WISHING TO SUPPLY PIPE FOR SCDOT PROJECTS SHALL SUBMIT STRUCTURAL CALCULATIONS IN ACCORDANCE WITH SCDOT INSTRUCTIONAL BULLETIN 2010-01 CULVERT PIPE STRUCTURAL DESIGN CRITERIA. CALCULATIONS ARE TO BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF SOUTH CAROLINA AND SUBMITTED FOR REVIEW BY THE DEPARTMENT BEFORE SUPPLYING PIPE TO SCDOT PROJECTS.

S5. FOR INSTALLATIONS DEEPER THAN THE VALUE INDICATED FOR CASE 1 OR CASE 6, OR INSTALLED DEEPER THAN 2 X O.D. BELOW THE GROUNDWATER TABLE, SPECIAL DESIGNED PIPE IS REQUIRED. SITE CONDITIONS OTHER THAN TYPICAL INSTALLATION MAY ALSO REQUIRE SPECIAL DESIGNED PIPE. FOR THESE CONDITIONS, OTHER PIPE TYPES MAY BE MORE APPROPRIATE. CONTACT PIPE MANUFACTURER BEFORE SPECIFYING THIS TYPE OF PIPE TO CONFIRM THAT CUSTOM PIPE IS

S6. THIS FILL HEIGHT TABLE IS FOR USE IN ROADWAY APPLICATIONS ONLY AND SHOULD NOT BE USED FOR ANY OTHER TRANSPORTATION FACILITY.

S7. SPECIAL DESIGN MAY BE REQUIRED FOR INSTALLATIONS OUTSIDE OF SCDOT RIGHT OF WAY - SEE RIGHT OF WAY/UTILITY/MUNICIPAL AGREEMENT FOR THESE INSTALLATIONS.

- NOTES:
- SEE SHEET 714-505-00 FOR GENERAL NOTES, AND TRENCH INSTALLATION REQUIREMENTS.
 - USE MANUFACTURER LISTED ON SCDOT QUALIFIED PRODUCT LIST 30.
 - SEE 714-990-MD FOR RESIDENTIAL DRIVEWAY INSTALLATIONS FOR MAINTENANCE APPLICATIONS.
- PAY ITEMS:
 7143xxx --- "SMOOTH WALL PIPE.....LF
 7141xxx --- "CORR. HDPE PIPE (TYPE S).....LF
 2034xxx --- "PIPE ADDITIONAL FOUNDATION WORK.....LF
 (---) = (DIAMETER)



STANDARD JOINT
 [SEE SC-M-714 FOR FIELD FABRICATED JOINT]

REFERENCES	
NATIONAL DOCUMENTS	
ASTM C55, ASTM A706, AASHTO M55, AASHTO M105, AASHTO M306, AASHTO M111	
SCDOT DOCUMENTS	
QUALIFIED PRODUCT LIST 14, QUALIFIED PRODUCT LIST 13	
RELATED DRAWINGS & KEYWORDS	
719-110-01 TO 719-11-02, 719-105-01, 719-550-00, 719-420-00, 719-425-00, 719-305-00, 719-310-00	

PRECONSTRUCTION SUPPORT ENGINEER



E. S. Taylor
SIGNATURE
MARCH 3, 2008
DATE

6			
5			
4			
3			
2			
1			
0	3/2008	DSO	GENERAL REVISIONS
#	DATE	CHK	DESCRIPTION

SCDOT
SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS OFFICE
955 PARK STREET
ROOM 405
COLUMBIA, SC 29201

STANDARD DRAWING

DROP INLET
(24"X36")
DETAILS

719-110-01

EFFECTIVE LETTING DATE MAY 2008

