

PROJECT REFERENCE NO. R-3830 SHEET NO. UC-3A

DESIGNED BY: DLH  
 DRAWN BY: WW, MJ, BB  
 CHECKED BY: DLH  
 APPROVED BY: DLH

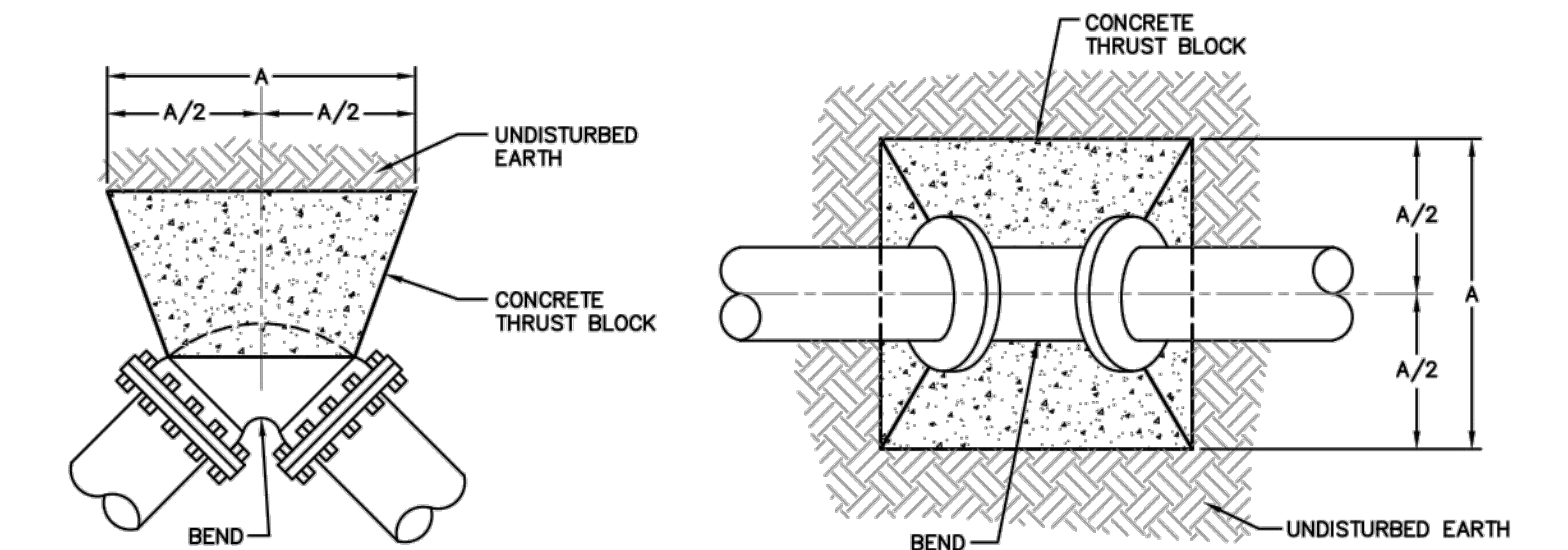
REVIS: [Stamp: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 034999]

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 Pinehurst, NC 28374  
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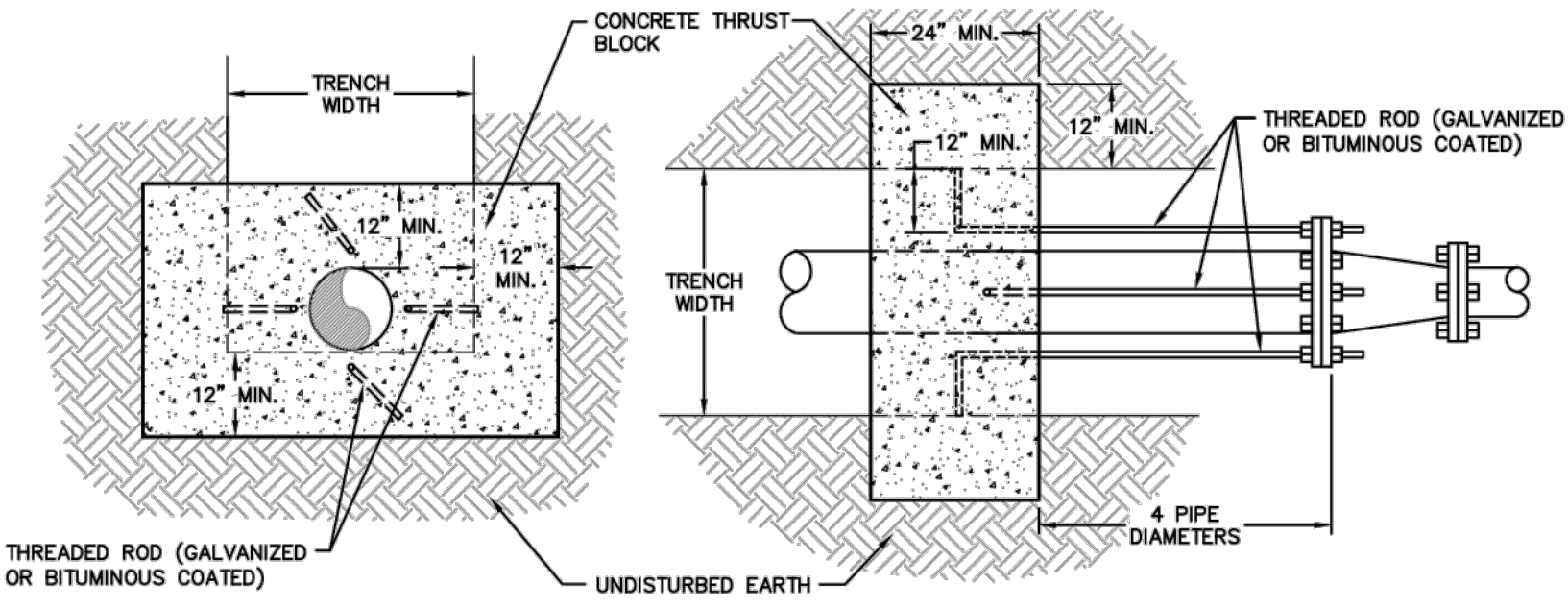
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 UTILITIES ENGINEERING SEC.  
 PHONE: (919)707-6690  
 FAX: (919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

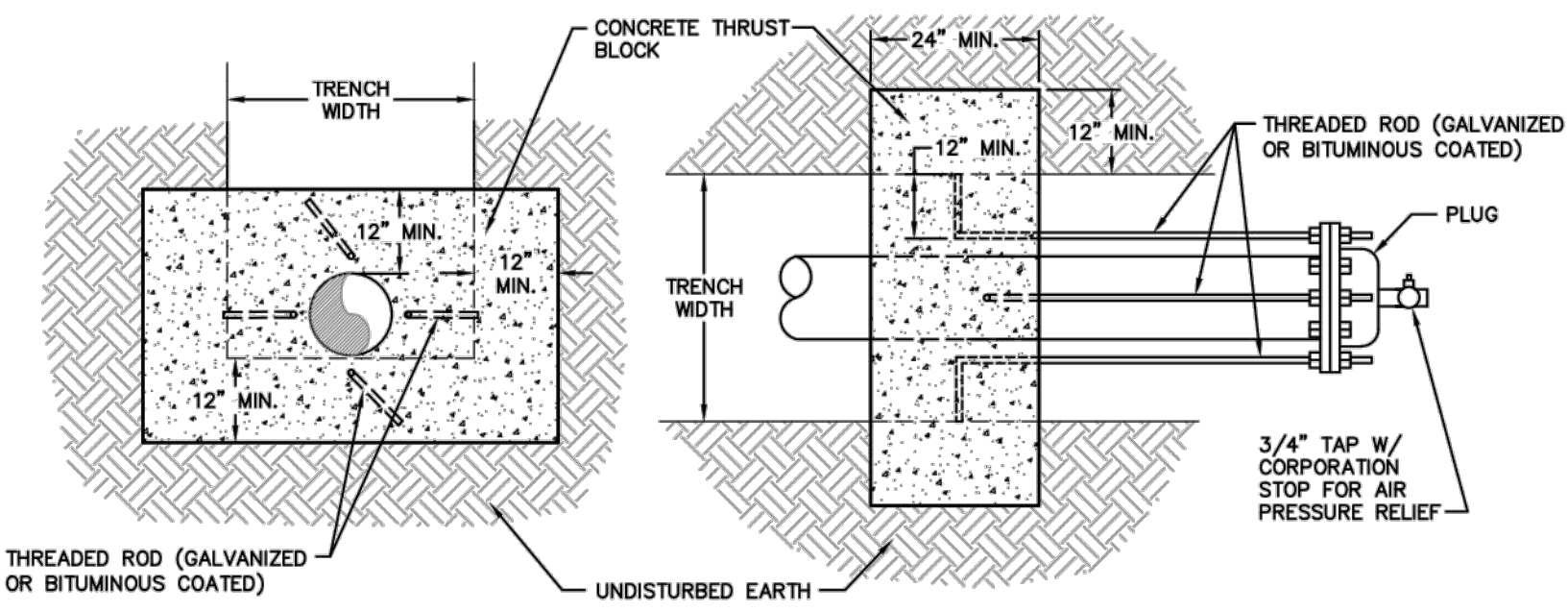
UTILITY CONSTRUCTION



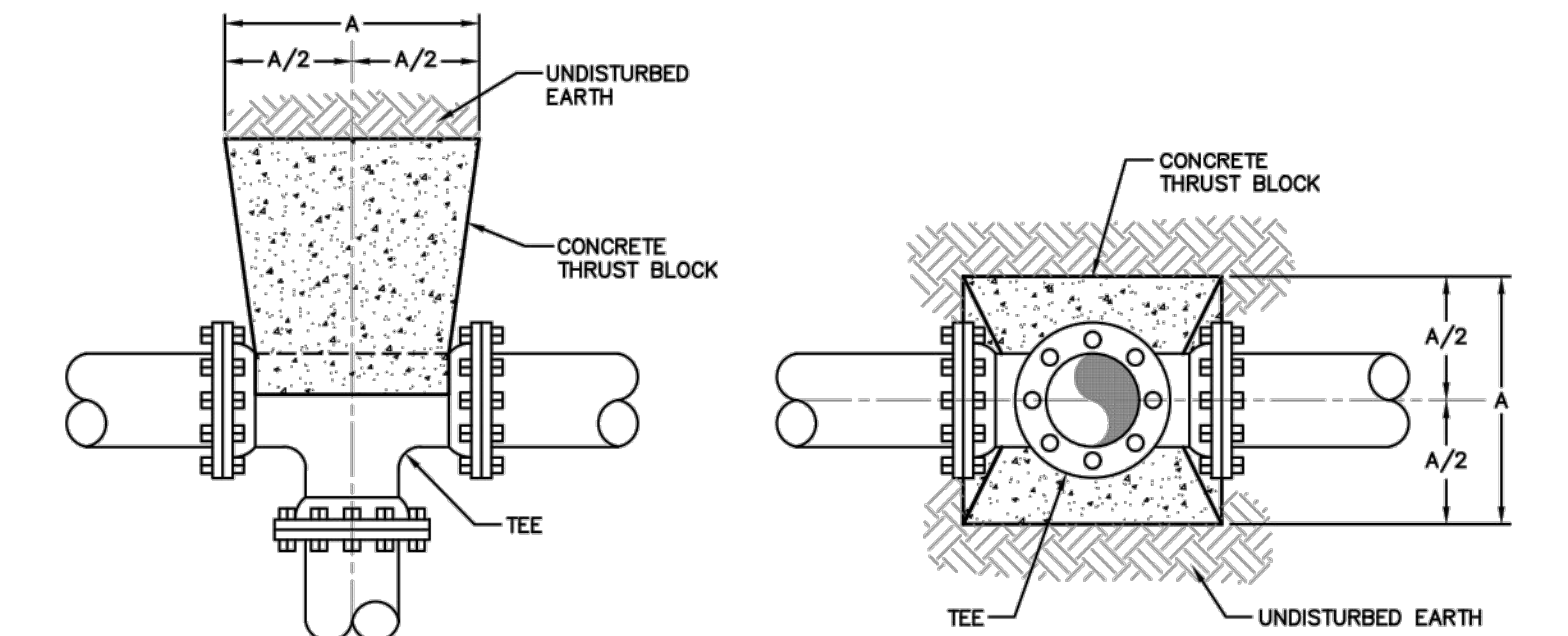
TYPICAL THRUST BLOCKS FOR BENDS



TYPICAL THRUST BLOCK FOR REDUCERS



TYPICAL THRUST BLOCK FOR PLUGS



TYPICAL THRUST BLOCKS FOR TEES

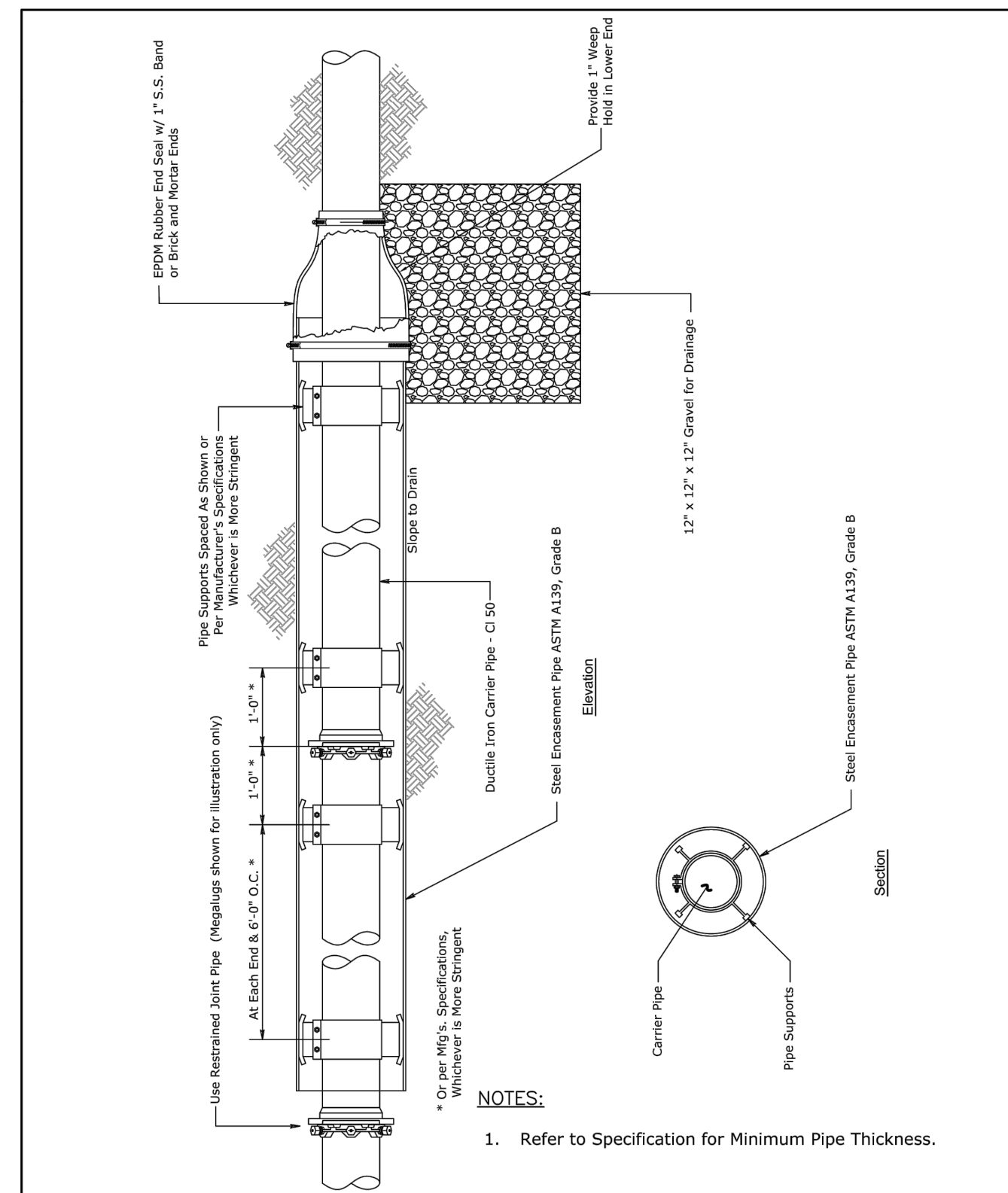
NOTES:  
 1. FITTING JOINTS SHALL NOT BE POURED IN CONCRETE OR HAVE CONCRETE SPILLED ON THE BOLTS OR NUTS. THE FITTING SHALL BE WRAPPED IN A LAYER OF POLYETHYLENE PLASTIC PRIOR TO POURING THE THRUST BLOCK.  
 2. ROD AND EYE BOLT DIAMETER SHALL BE A MINIMUM OF 3/4" AND SHALL MATCH THE SIZE OF THE BOLT PROVIDED WITH THE FITTING.  
 3. CONTRACTOR SHALL REPLACE FITTING BOLTS WITH THREADED ROD FOR 1/2 OF THE BOLTS SUPPLIED WITH EACH FITTING. RODS SHALL BE EQUALLY SPACED.  
 4. ALL DIMENSIONS SHOWN ARE IN INCHES.

TYPE

SIZE	11-1/4" BEND	22-1/2" BEND	45° BEND	90° BEND	TEE	PLUG
2-6	12	12	12	16	16	14
8	12	12	16	22	22	18
10	12	14	20	28	28	22
12	12	18	24	32	32	28
14	14	20	28	38	38	32
16	16	22	32	42	42	36
18	18	26	36	48	48	40
20	20	28	40	52	52	44
24	24	34	46	64	64	54
30	30	42	58	78	78	66
36	36	50	70	94	94	80
42	40	58	80	108	108	92
48	46	66	90	124	124	104

THRUST BLOCK DIMENSION "A"

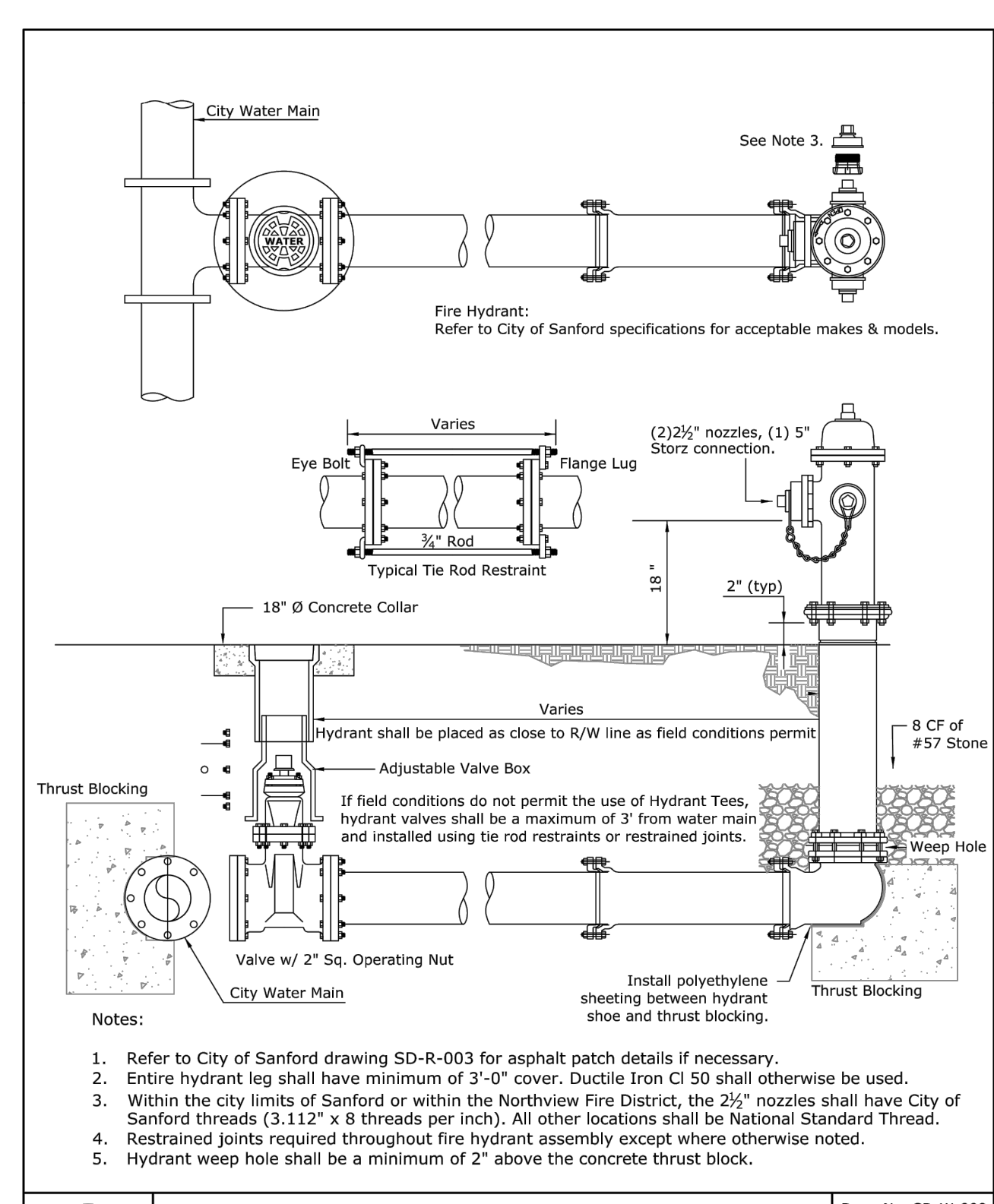
**W**  
6  
THRUST BLOCKING - ALL  
 UPDATED MARCH, 2017  
 NOT TO SCALE



Encasement Pipe

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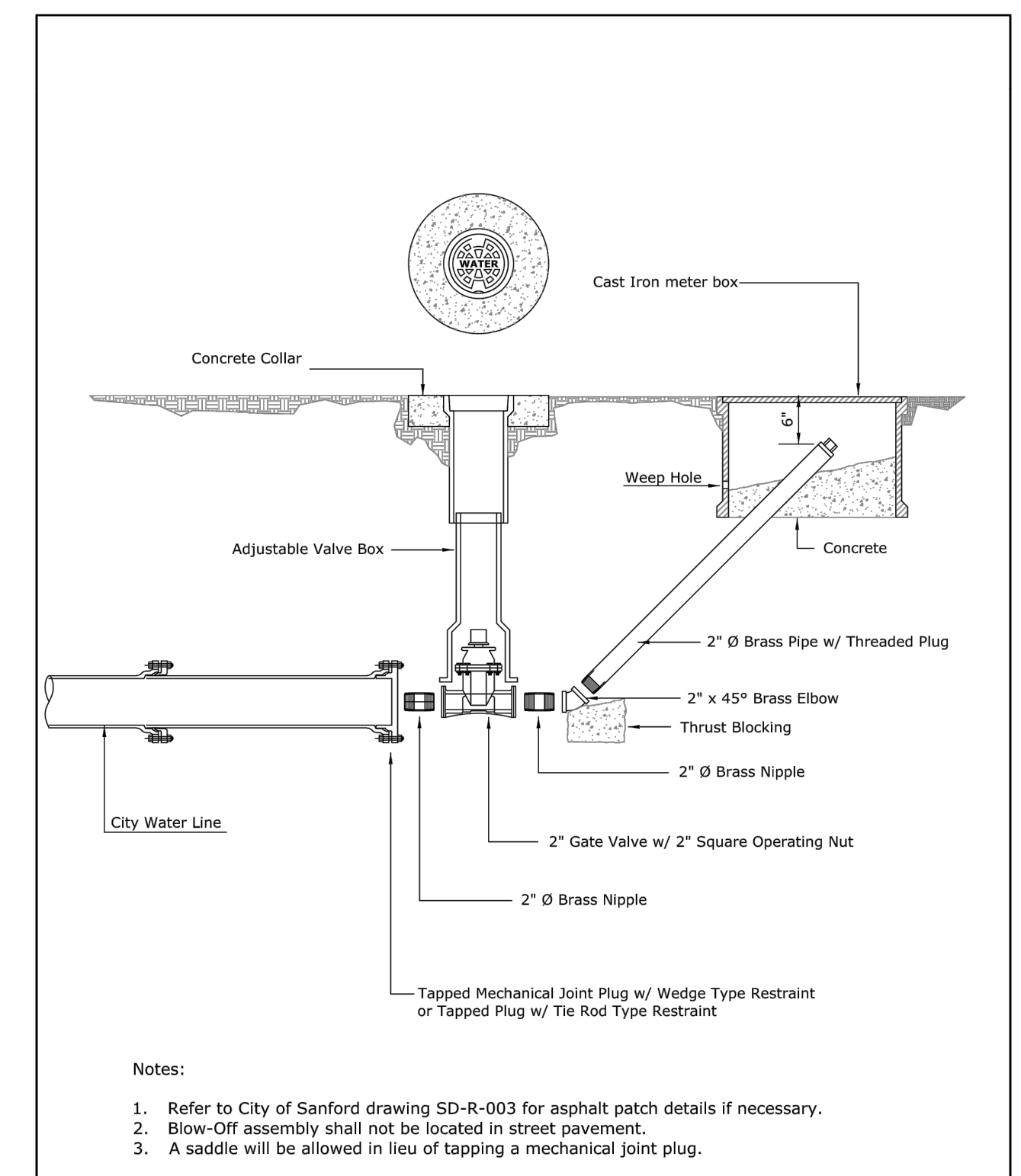
Dwg. No. SD-S-005  
 Date: 10/16/2020  
 Scale: Not To Scale  
 Drawn By: Staff



Fire Hydrant Assembly

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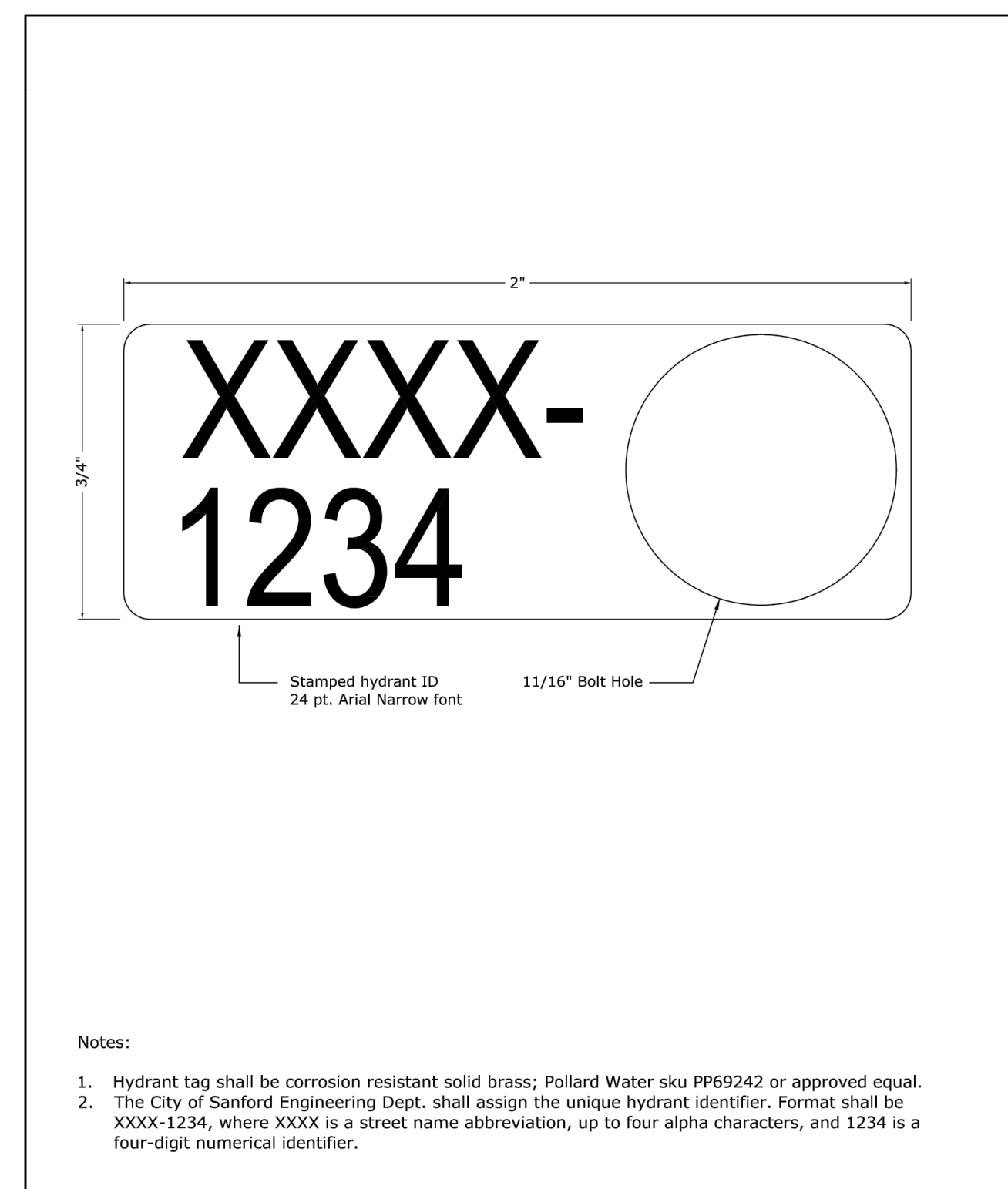
Dwg. No. SD-W-009  
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 Scale: Not To Scale  
 Drawn By: Staff



Two Inch Blow-Off Assembly

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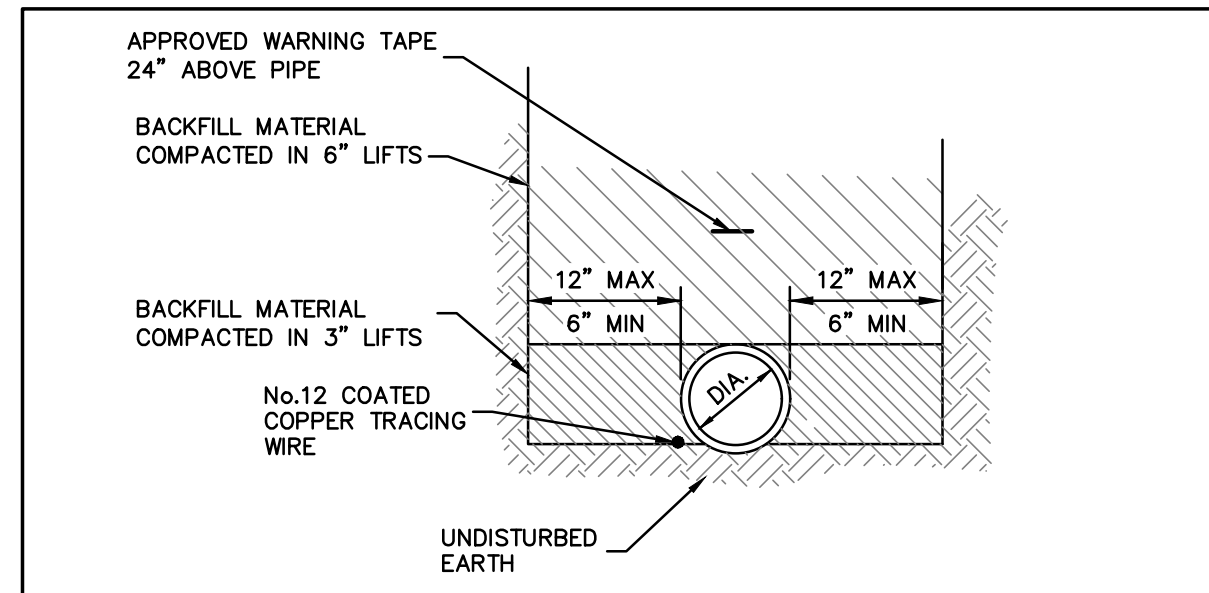
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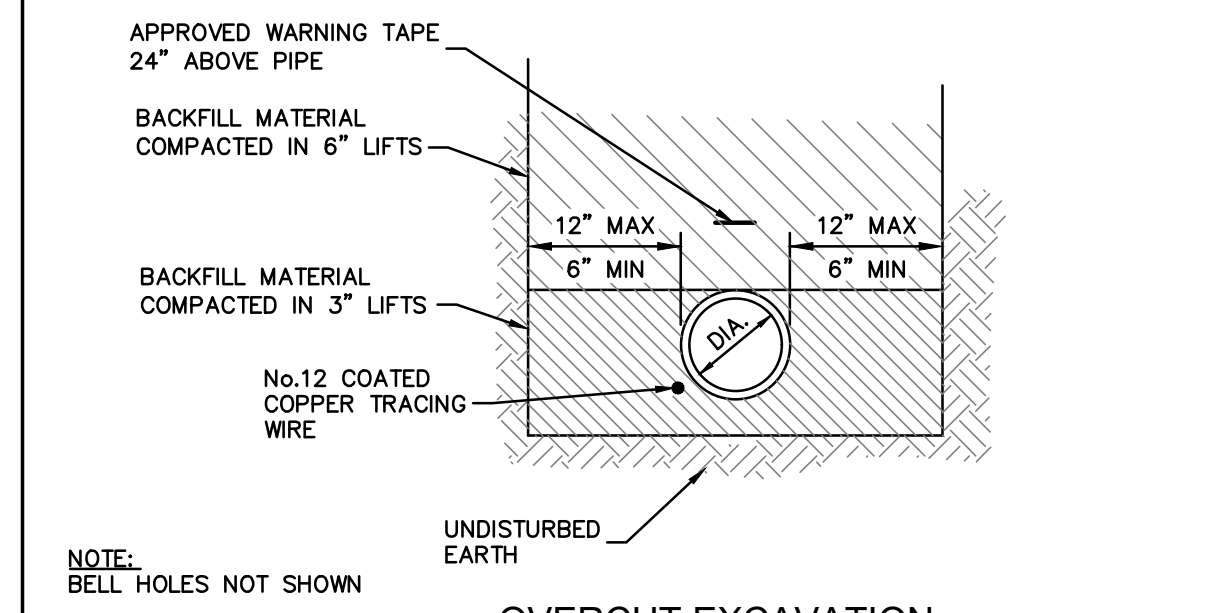
Hydrant Tag

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Dwg. No. SD-W-011  
 Date: 04/02/2020  
 Scale: Not To Scale  
 Drawn By: Staff



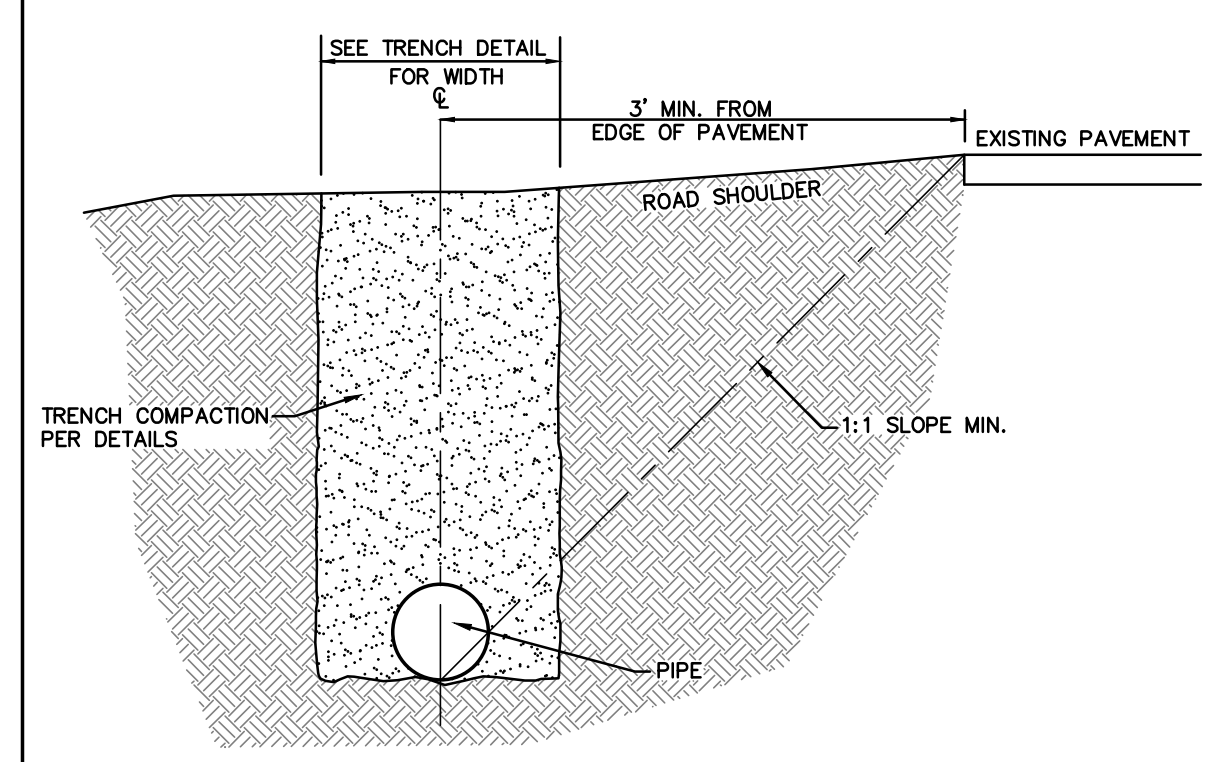
STANDARD EXCAVATION



OVERCUT EXCAVATION

NOTE:  
 1. CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.  
 2. PAYMENT FOR ROCK EXCAVATION AND SELECT BACKFILL IN TRENCH SHALL BE FOR ACTUAL QUANTITIES AND SHALL NOT EXCEED THE WIDTH OF TRENCH SHOWN ON THIS DETAIL.

**W**  
1  
WATER LINE TRENCHING  
 UPDATED MARCH, 2017  
 NOT TO SCALE



WATER LINE INSTALLATION ON NCDOT ROAD SHOULDER

**W**  
5  
WATER LINE INSTALLATION ON NCDOT ROAD SHOULDER  
 UPDATED MARCH, 2017  
 NOT TO SCALE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED