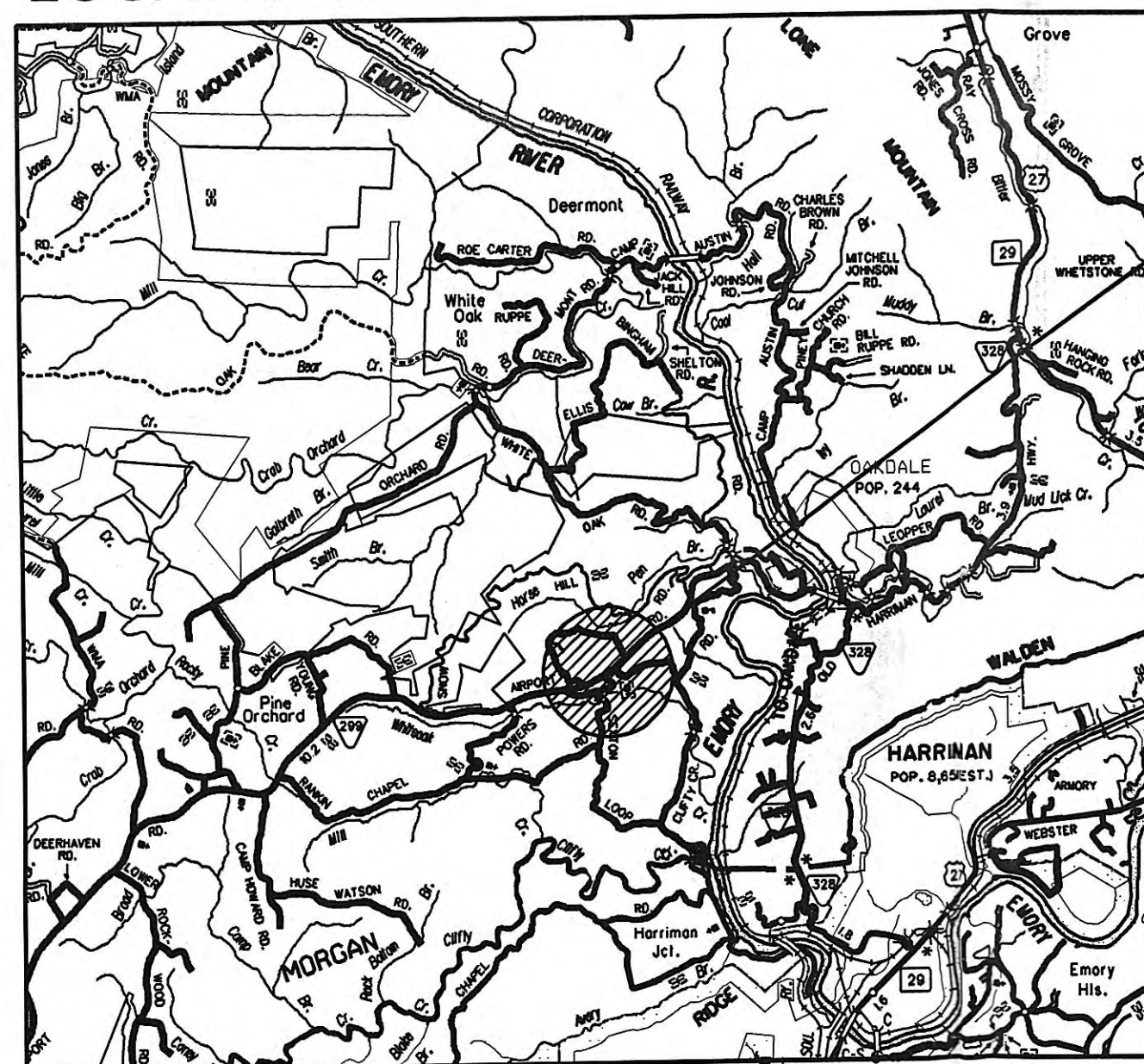


HARRIMAN UTILITY BOARD

Roane County, Tennessee

WATER LINE REPLACEMENTS AIRPORT ROAD

LOCATION MAP



PROJECT LOCATION

Project Engineer



PLANS REVIEWED AND APPROVED BY HARRIMAN UTILITY BOARD

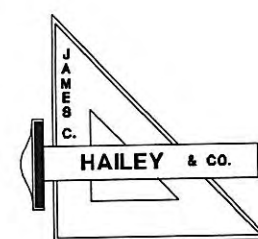
Frankie Davis

4-2-2013
DATE

SHEET INDEX

TITLE SHEET	
WATER LINE ADDITIONS	1
STANDARD DETAILS	2
STANDARD DETAILS	3

SET NUMBER



JAMES C. HAILEY & CO.

PHONE: 615-883-4933

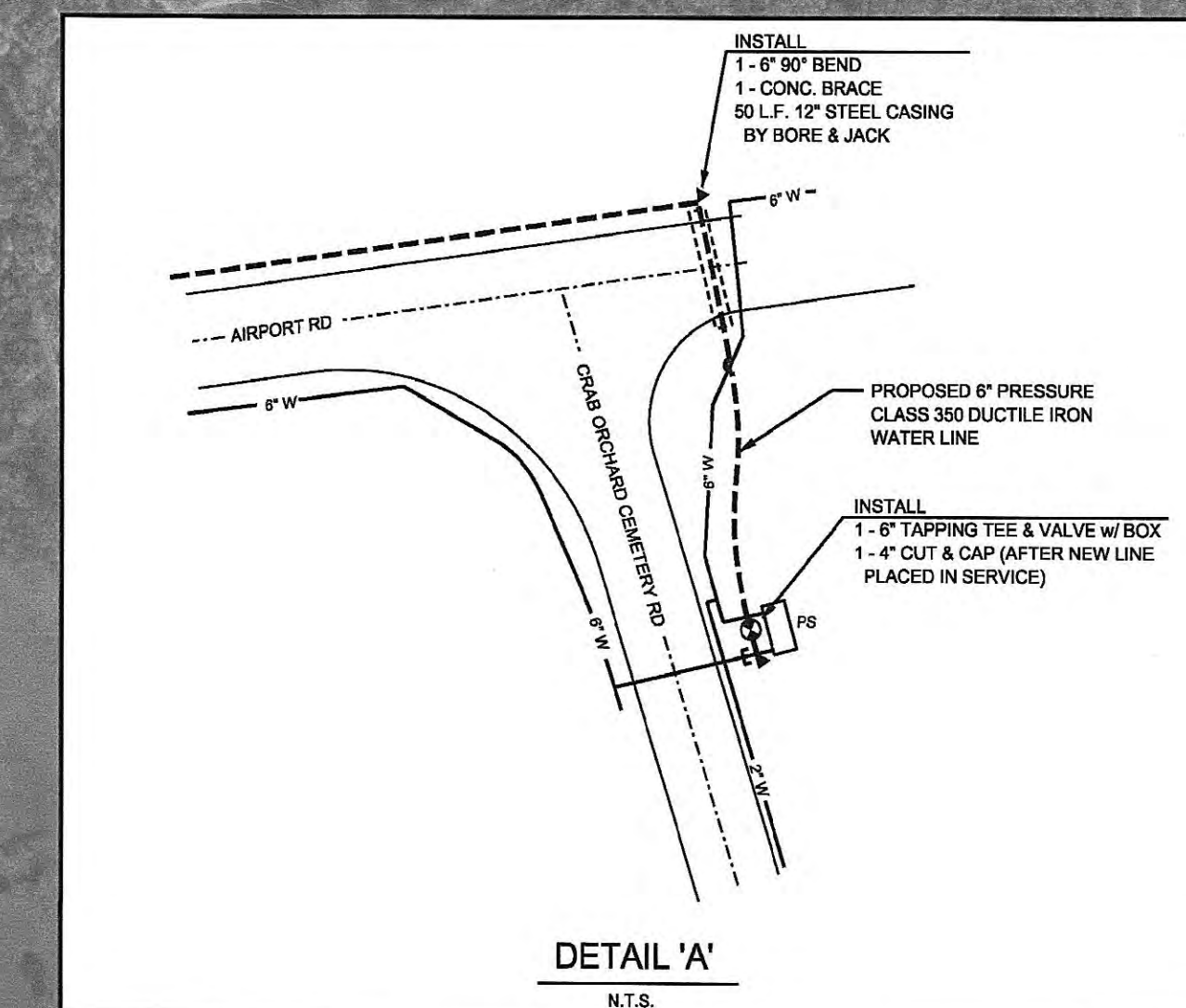
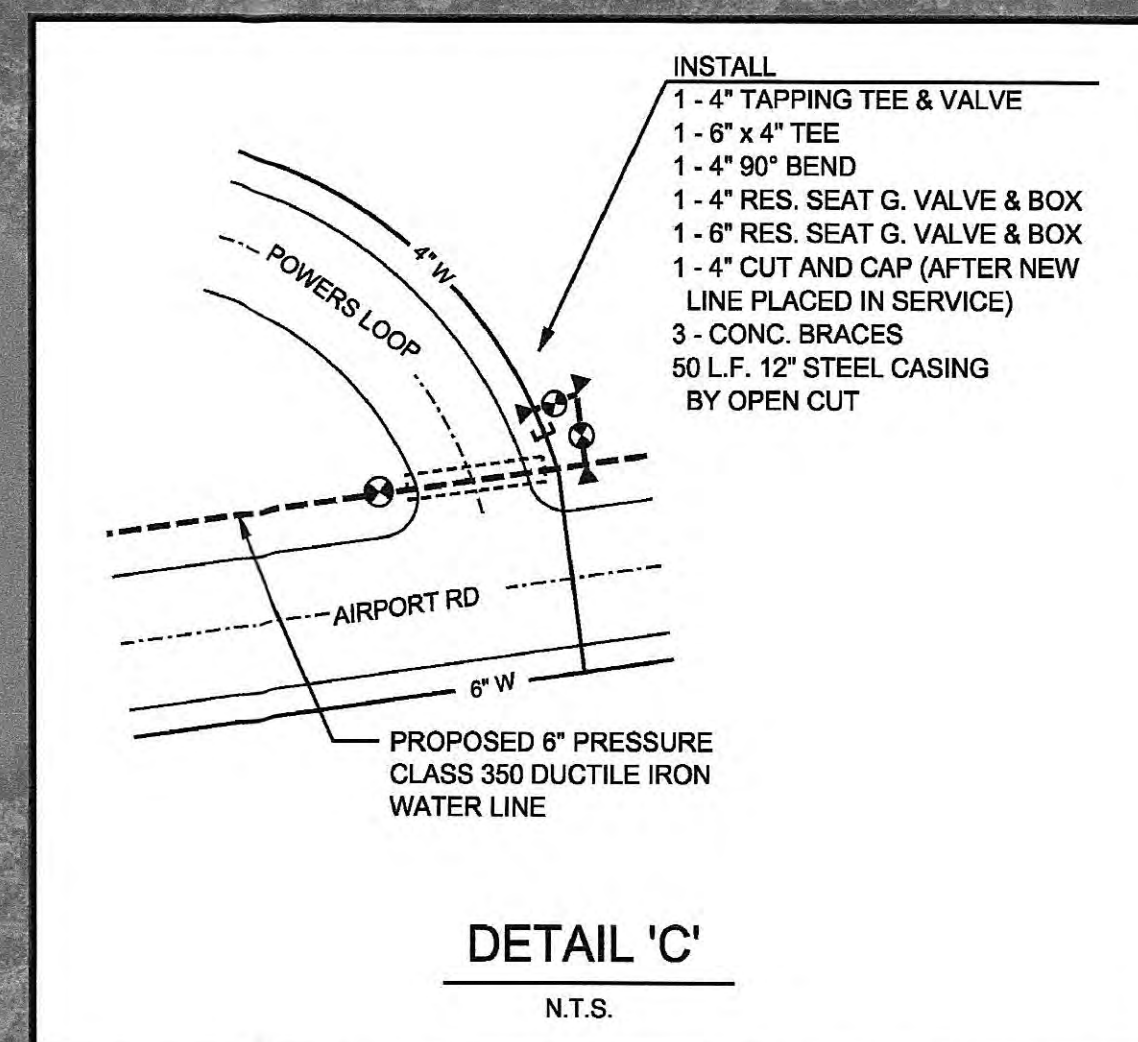
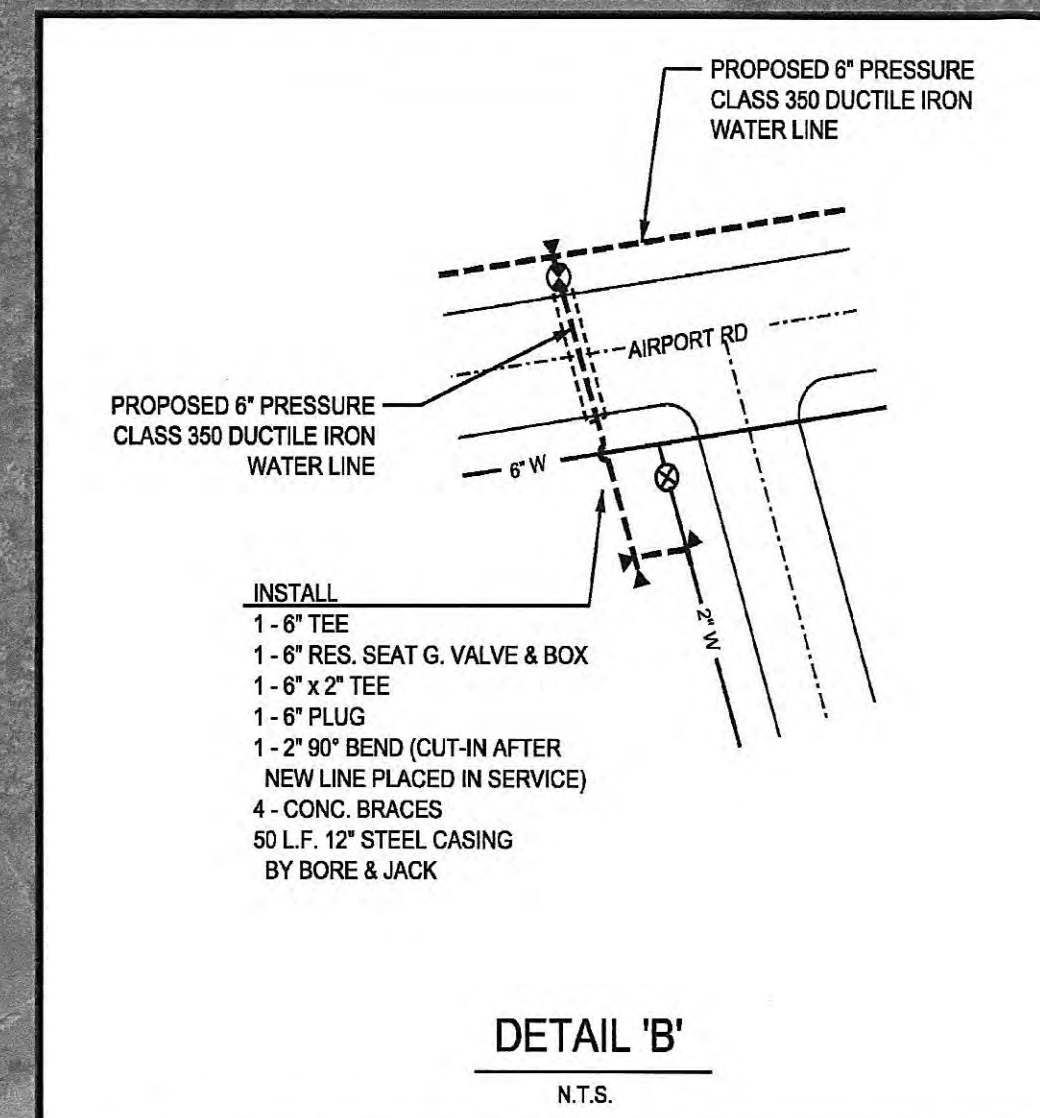
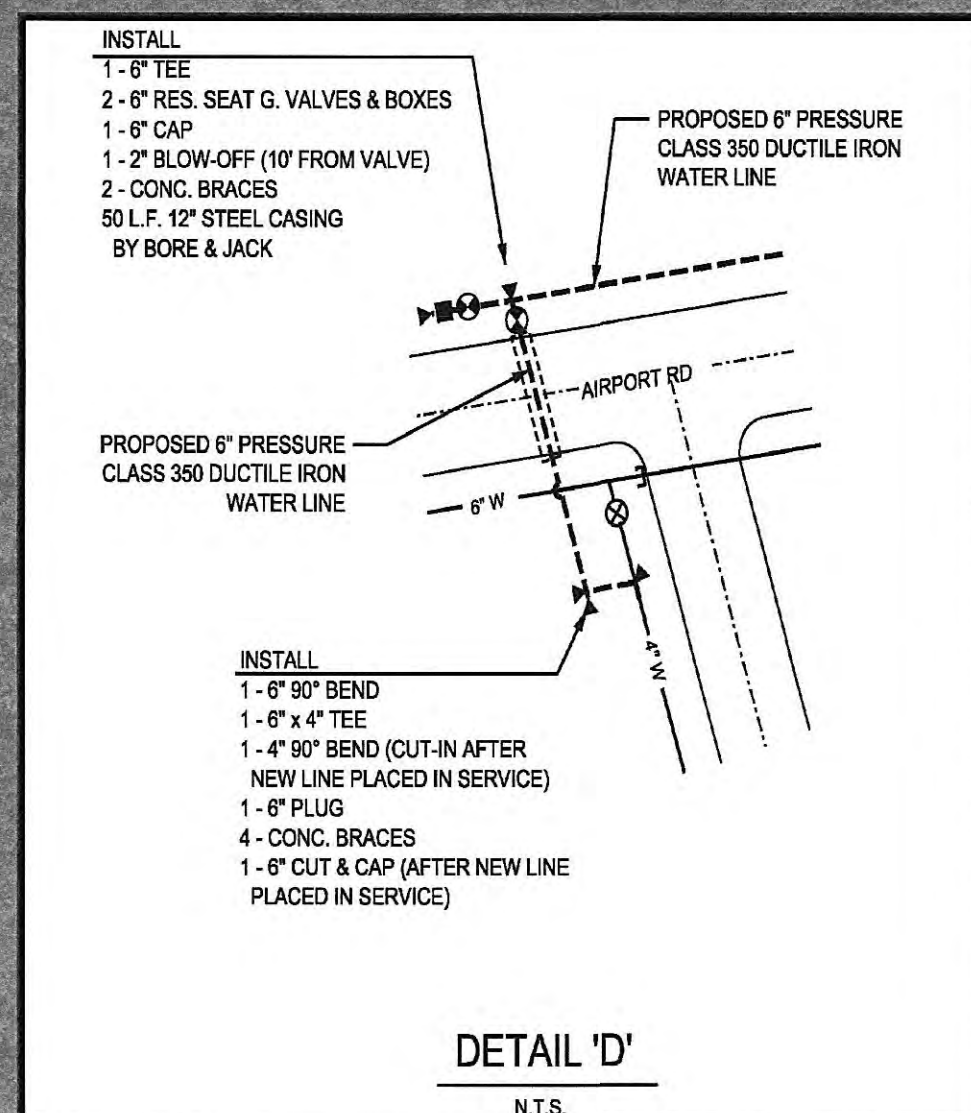
7518 HIGHWAY 70 S - SUITE 100 NASHVILLE, TENNESSEE

FAX: 615-883-4937

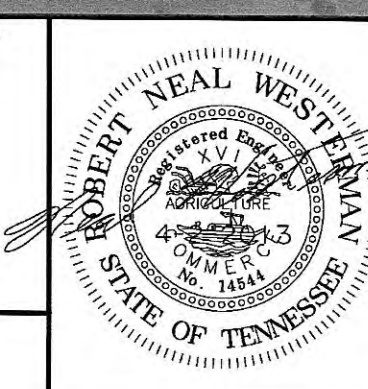
<http://www.jchengr.com>

JCH PROJECT NO. 13133

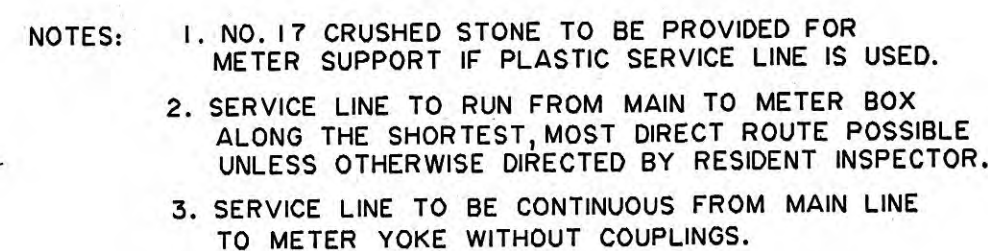
HARRIMAN - WATER LINE REPLACEMENT - AIRPORT ROAD



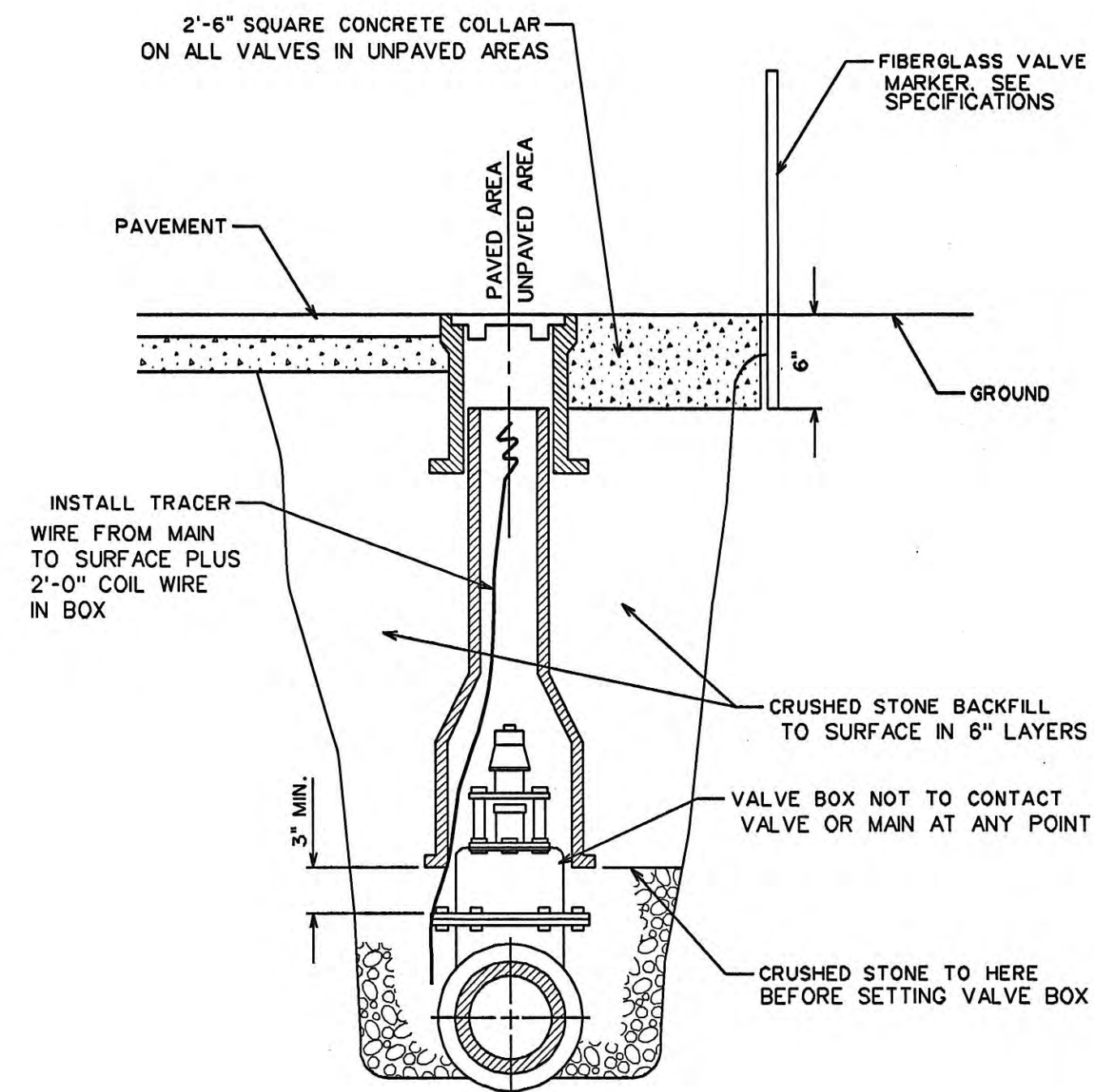
JAMES C. HAILEY & COMPANY
Consulting Engineers
Nashville, Tennessee
PH: 615-883-4933 FAX: 615-883-4937
<http://www.jchengr.com>



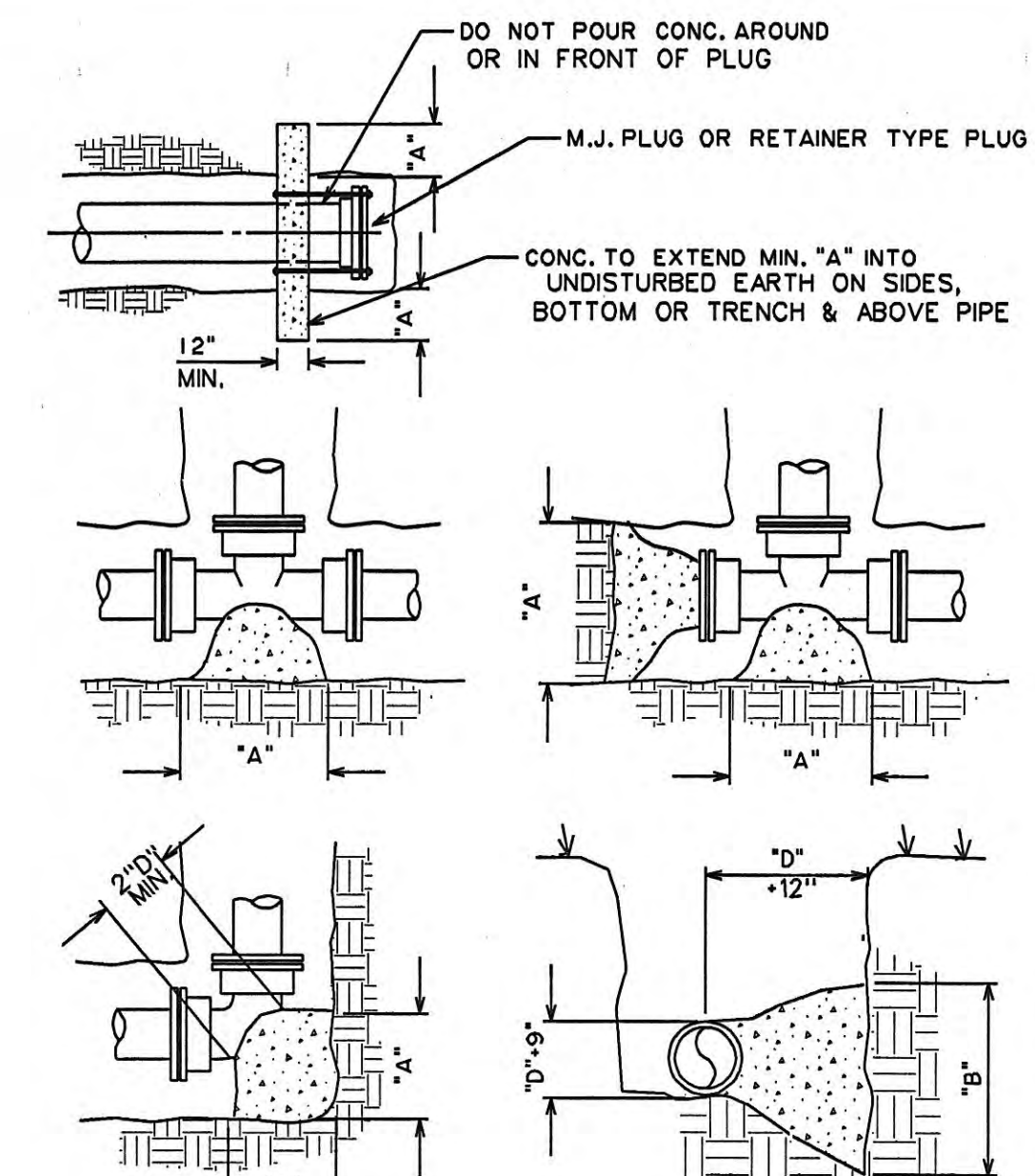
HARRIMAN UTILITY BOARD Roane County, Tennessee			AIRPORT ROAD WATER LINE REPLACEMENT		
DESIGN RNW	DRAWN LLB	CHECKED RNW	DATE MAR 2013	SCALE 1" = 200'	PROJECT NO. 13133



TYPICAL SERVICE CONNECTION

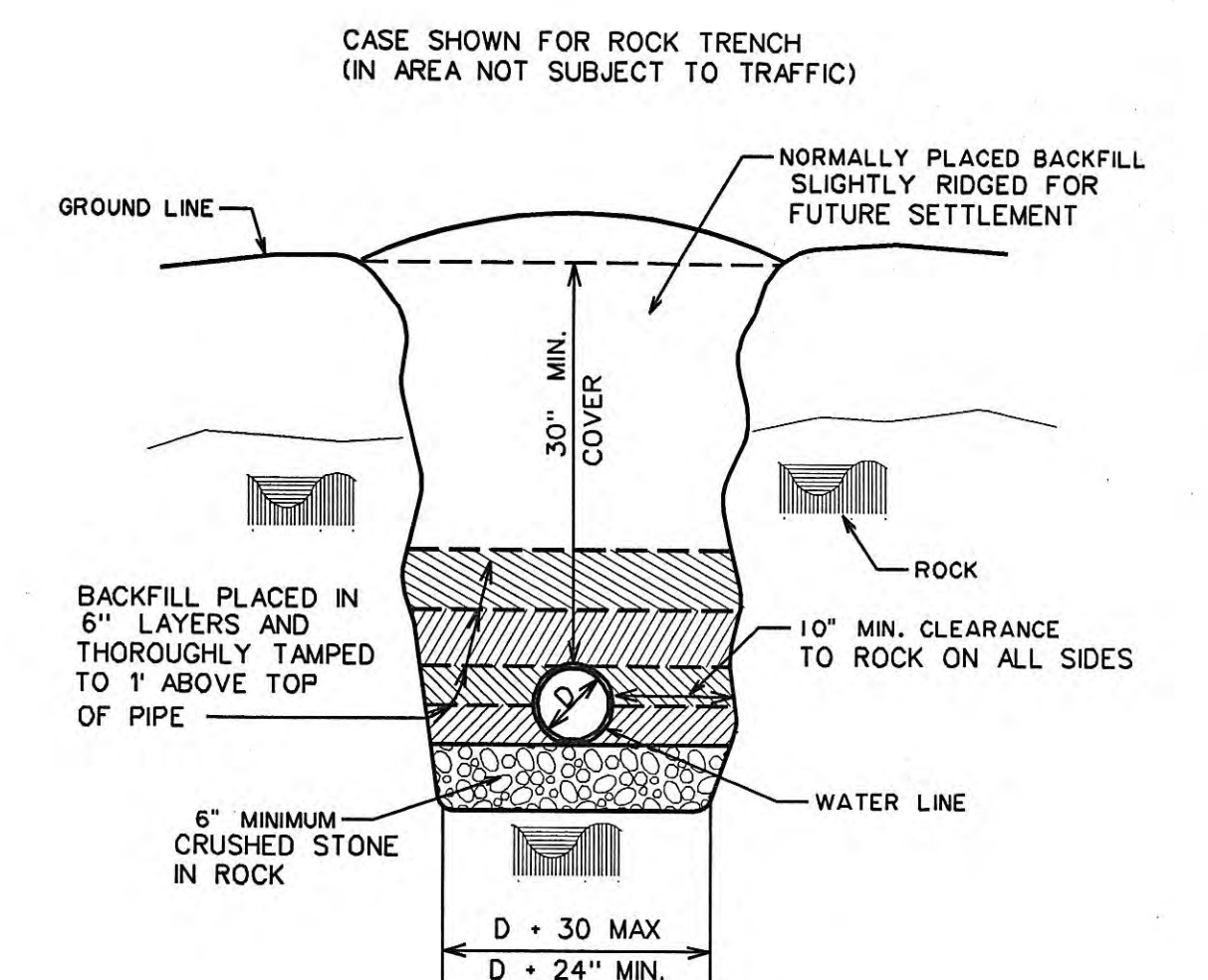


TYPICAL VALVE BOX SETTING

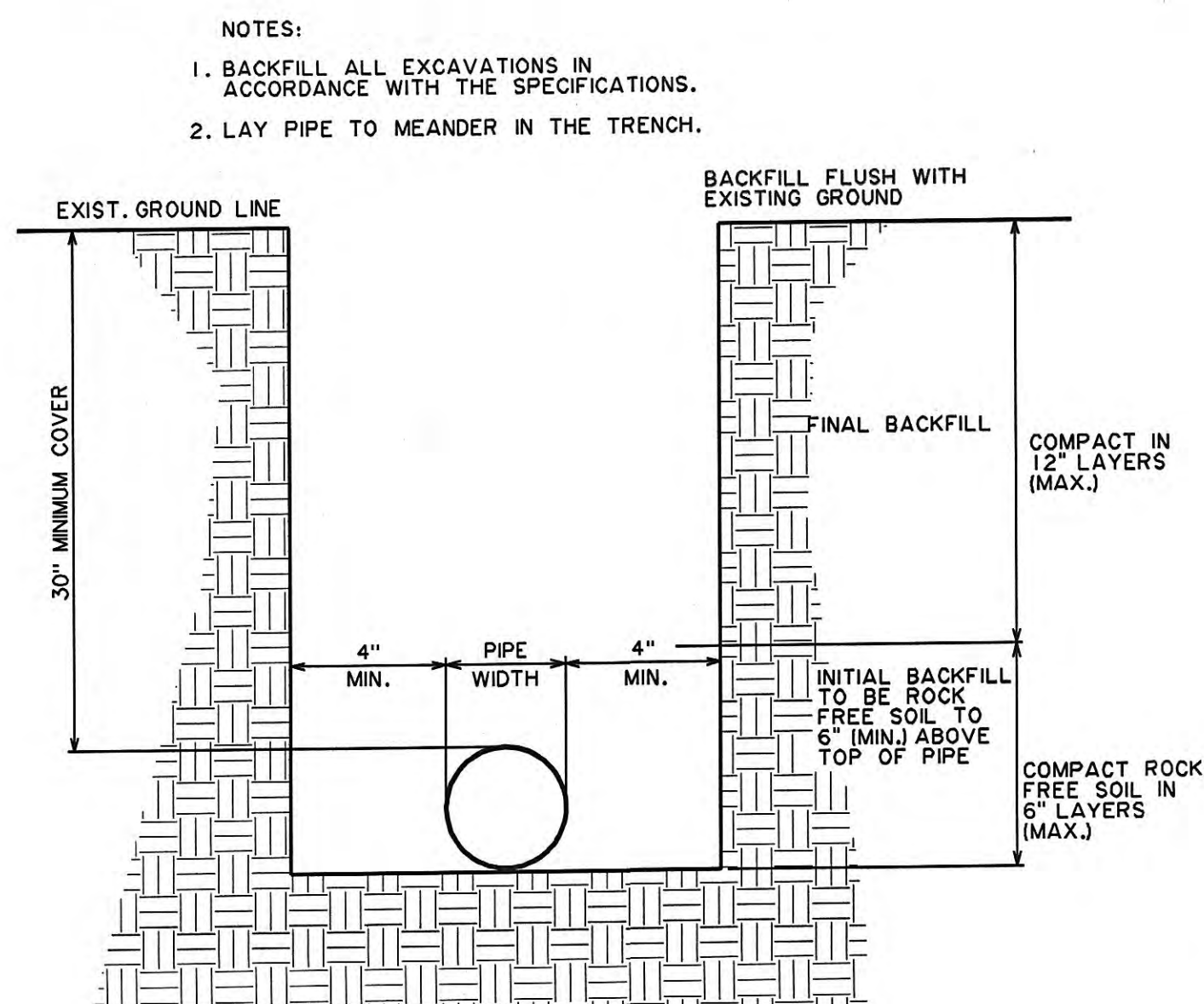


BLOCK MUST BE POURED AGAINST UNDISTURBED EARTH (TYP.)								
CONCRETE BRACE DIMENSION SCHEDULE								
PIPE SIZE	90° BEND	45° BEND	22 1/2° BEND	TEE	DEAD END			
6" OR UNDER	2'-0"	2'-0"	1'-6"	1'-6"	1'-6"	2'-0"	2'-0"	1'-6"
8"	2'-3"	2'-3"	1'-9"	1'-9"	1'-9"	2'-6"	2'-6"	2'-0"
10"	2'-6"	2'-6"	2'-0"	2'-0"	2'-0"	3'-0"	3'-0"	2'-4"
12"	3'-6"	3'-0"	2'-6"	2'-6"	2'-3"	2'-3"	3'-6"	2'-9"
16"	4'-0"	4'-0"	3'-0"	3'-0"	2'-6"	2'-6"	5'-6"	4'-0"
20"	5'-6"	4'-6"	4'-0"	3'-6"	3'-0"	3'-0"	6'-5"	5'-0"
24"	7'-0"	5'-0"	5'-0"	4'-0"	3'-6"	3'-6"	8'-0"	6'-0"
30"	9'-0"	6'-0"	6'-6"	4'-6"	4'-0"	12'-0"	6'-0"	7'-9"

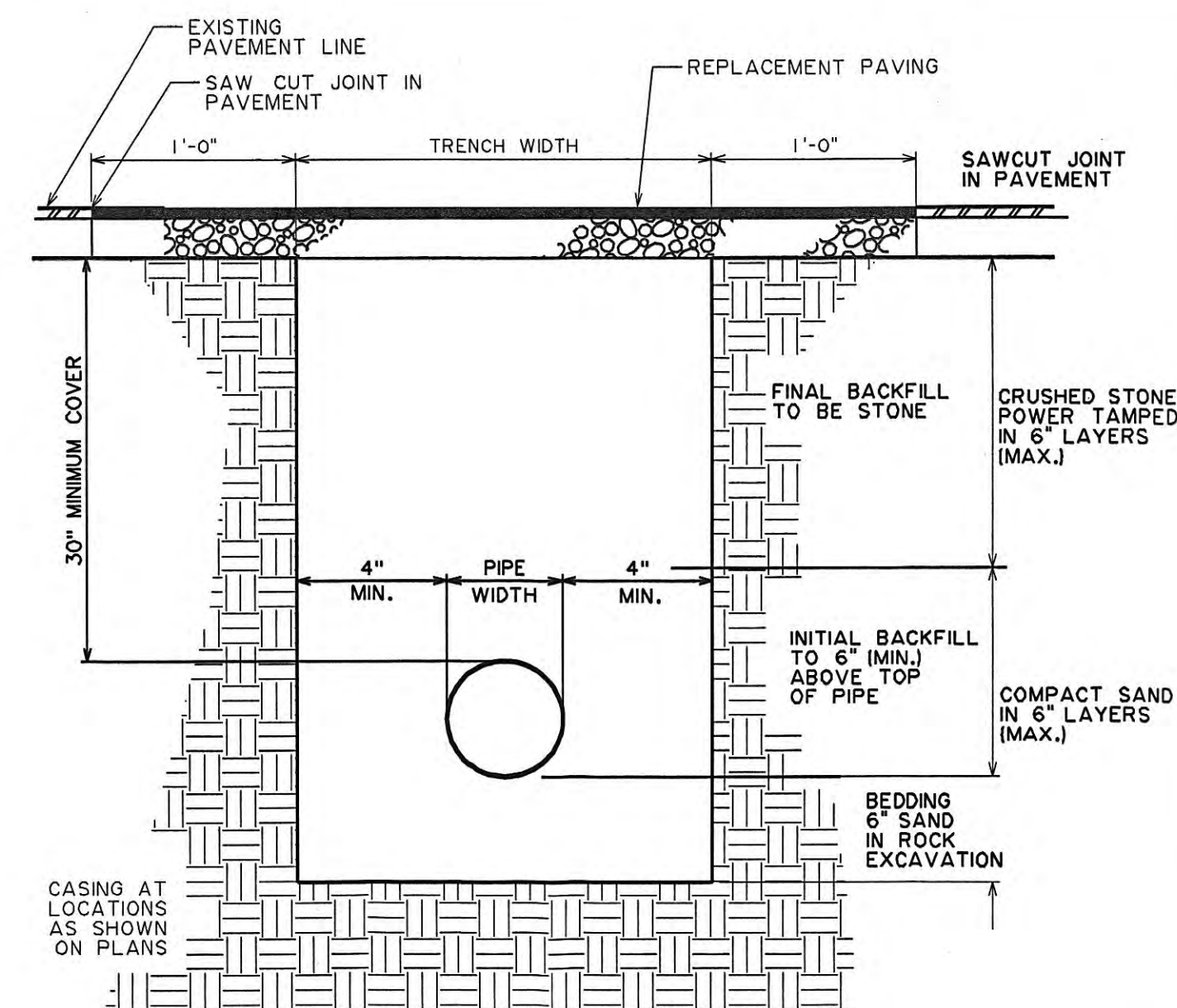
CONC. THRUST BLOCK (BRACE)



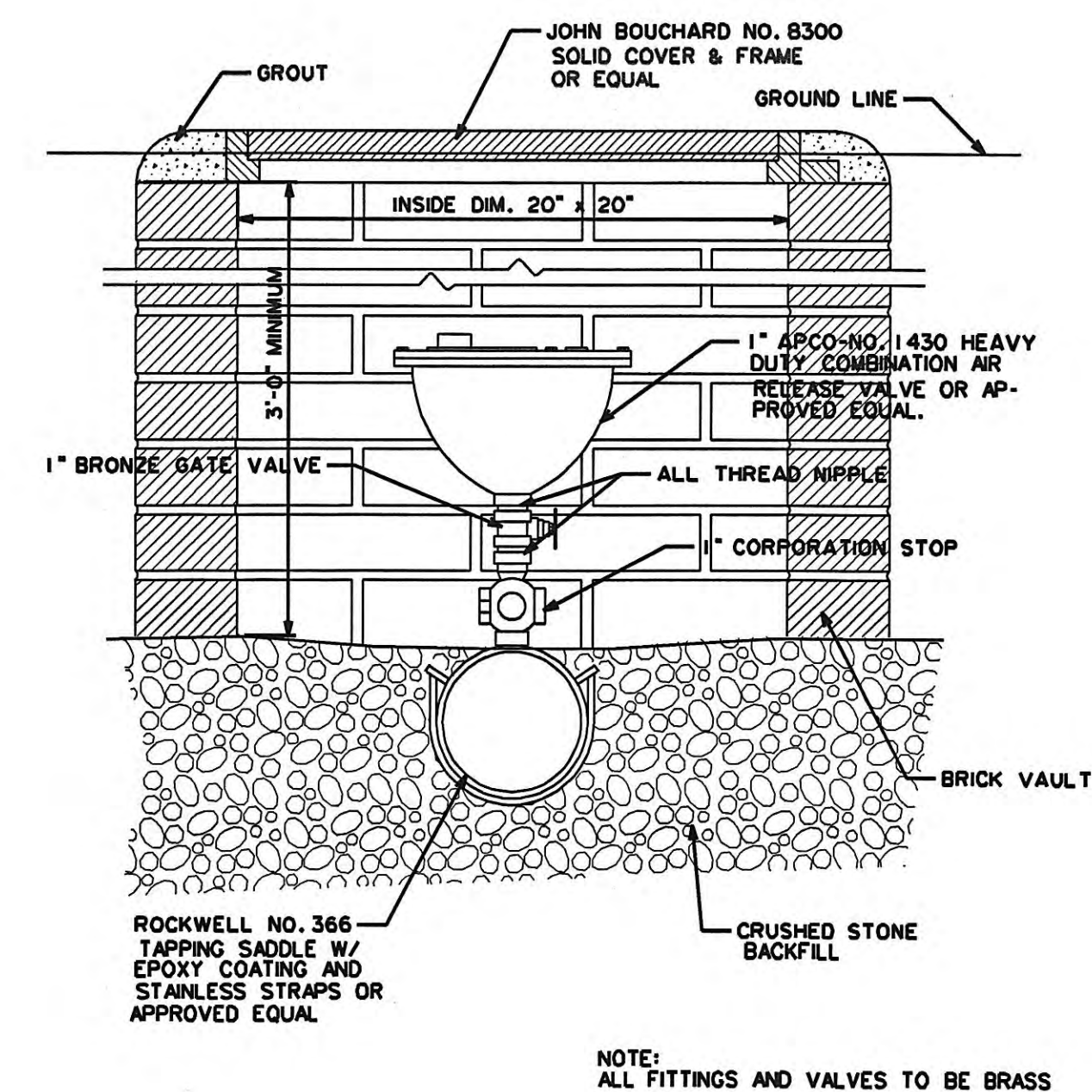
TYPICAL TRENCH SECTION



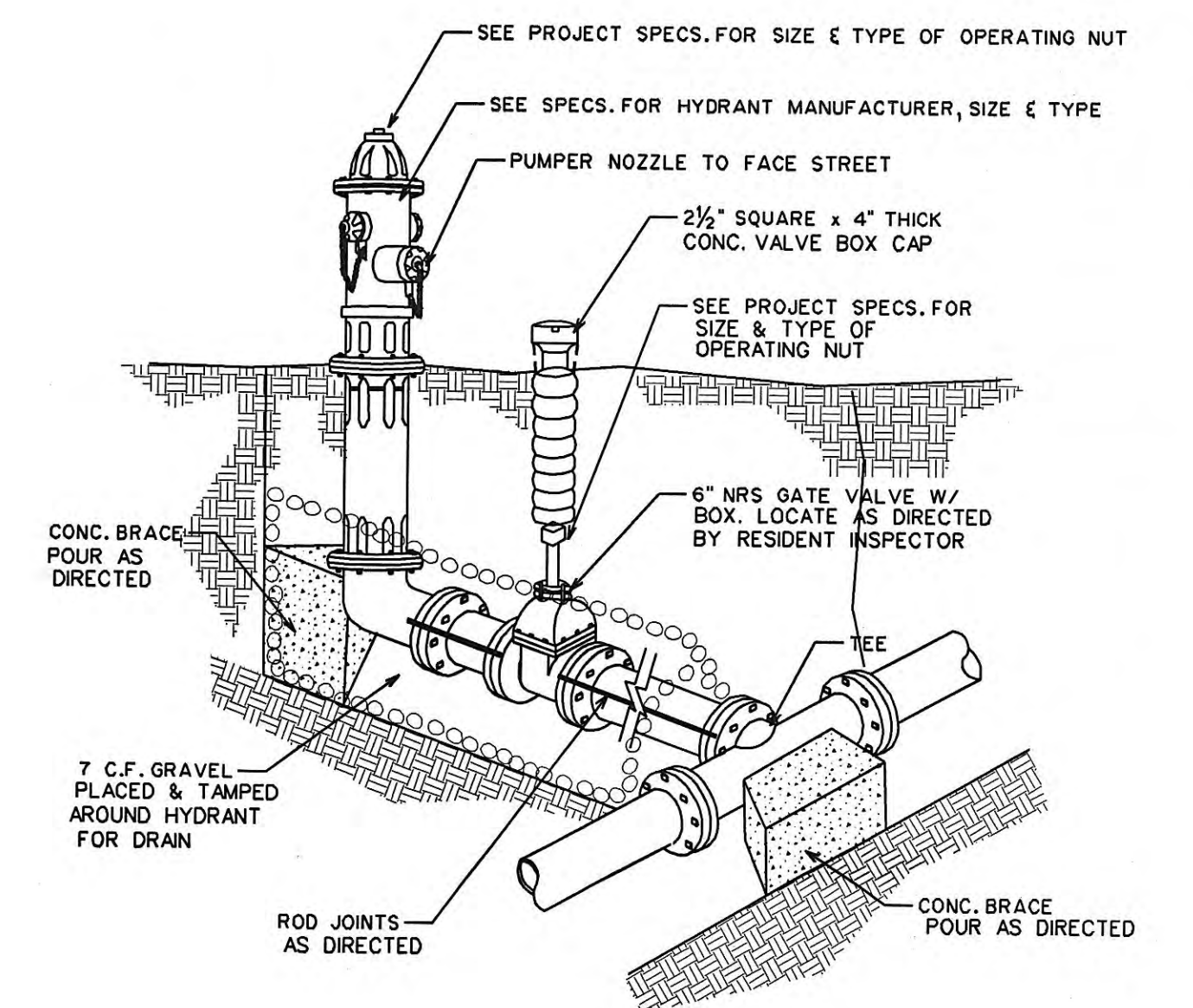
TYPICAL TRENCH SECTION IN SOIL EXCAVATION



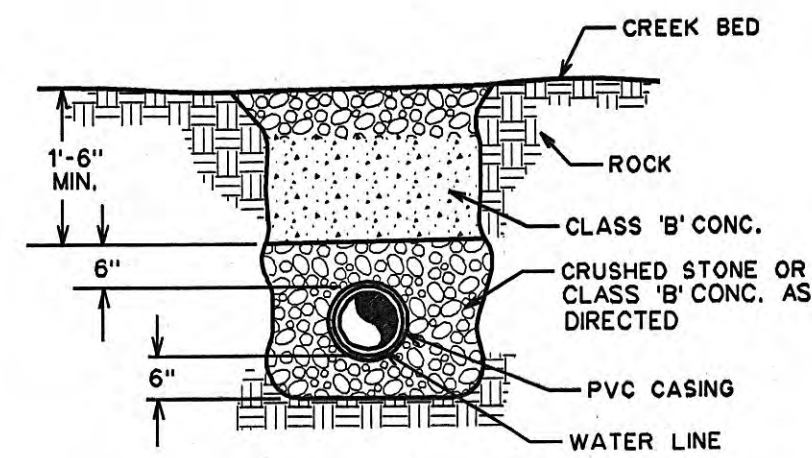
TYPICAL TRENCH SECTION UNDER PAVEMENT



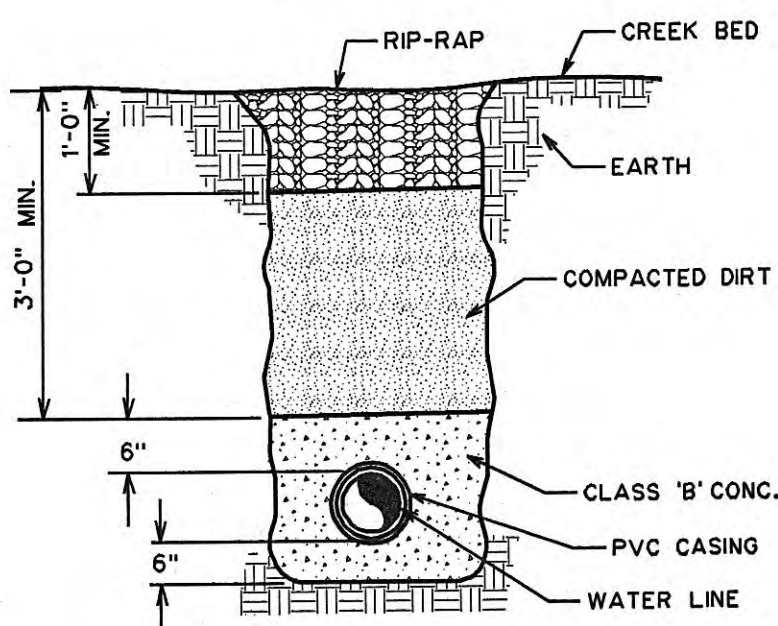
AIR RELEASE VALVE ASSEMBLY



TYPICAL FIRE HYDRANT INSTALLATION

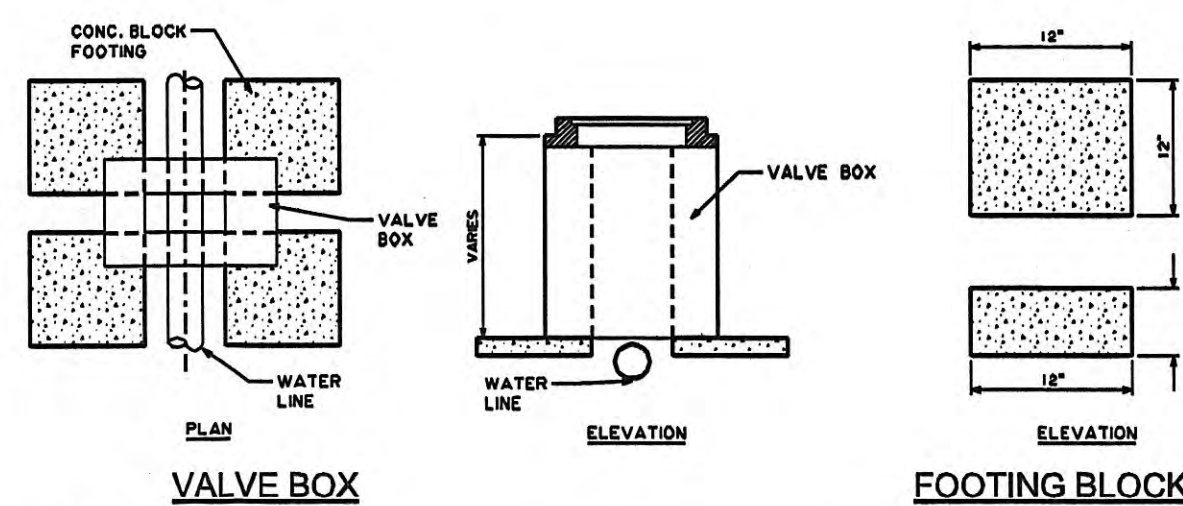


IN ROCK

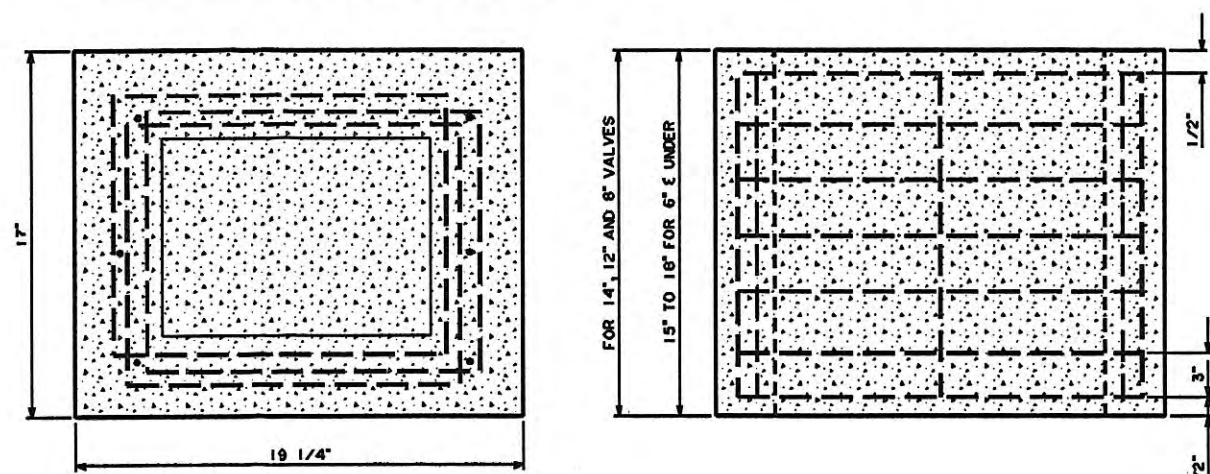


IN EARTH

TYPICAL STREAM CROSSING DETAIL

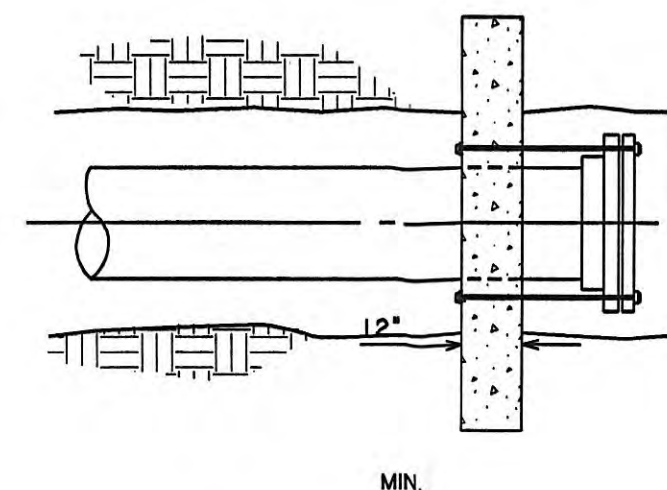


- NOTES:
- FOUR (4) CONCRETE BLOCKS OF THE SIZE AND SHAPE SHOWN ARE TO BE PLACED UNDER EACH BOX, ONE UNDER EACH CORNER OF BOX.
 - NO REINFORCING STEEL IN FOOTING BLOCKS. CONCRETE MIX TO BE (1) PART CEMENT, (2) PARTS SAND AND (4) PARTS NO. 2 CRUSHED STONE OR GRAVEL. VOLUME FOR ONE BLOCK = .333 CU. FT. WEIGHT OF ONE BLOCK = 50 LBS. - WEIGHT FOR ALL FOUR BLOCKS = 200 LBS. BEARING AREA ON SOL. = 576 SQ. IN.



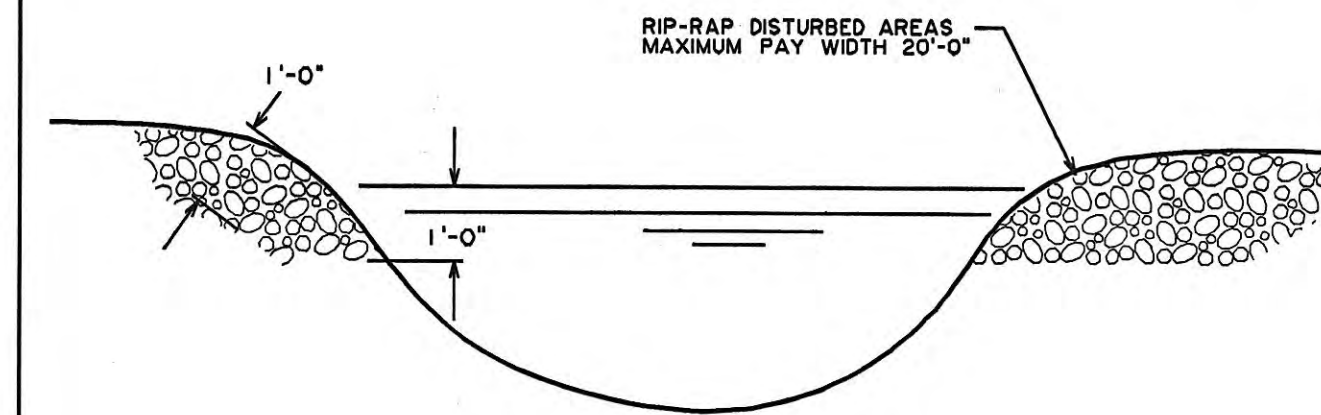
- NOTES:
- REINFORCING TO BE 1/4\"/>
 - CONCRETE MIXTURE TO BE (1) PART CEMENT, (2) PARTS SAND AND (4) PARTS NO. 2 CRUSHED STONE OR GRAVEL. TOTAL VOLUME OF MIXTURE FOR BOX APPROXIMATELY 2 CU. FT.

STANDARD CONCRETE VALVE BOX

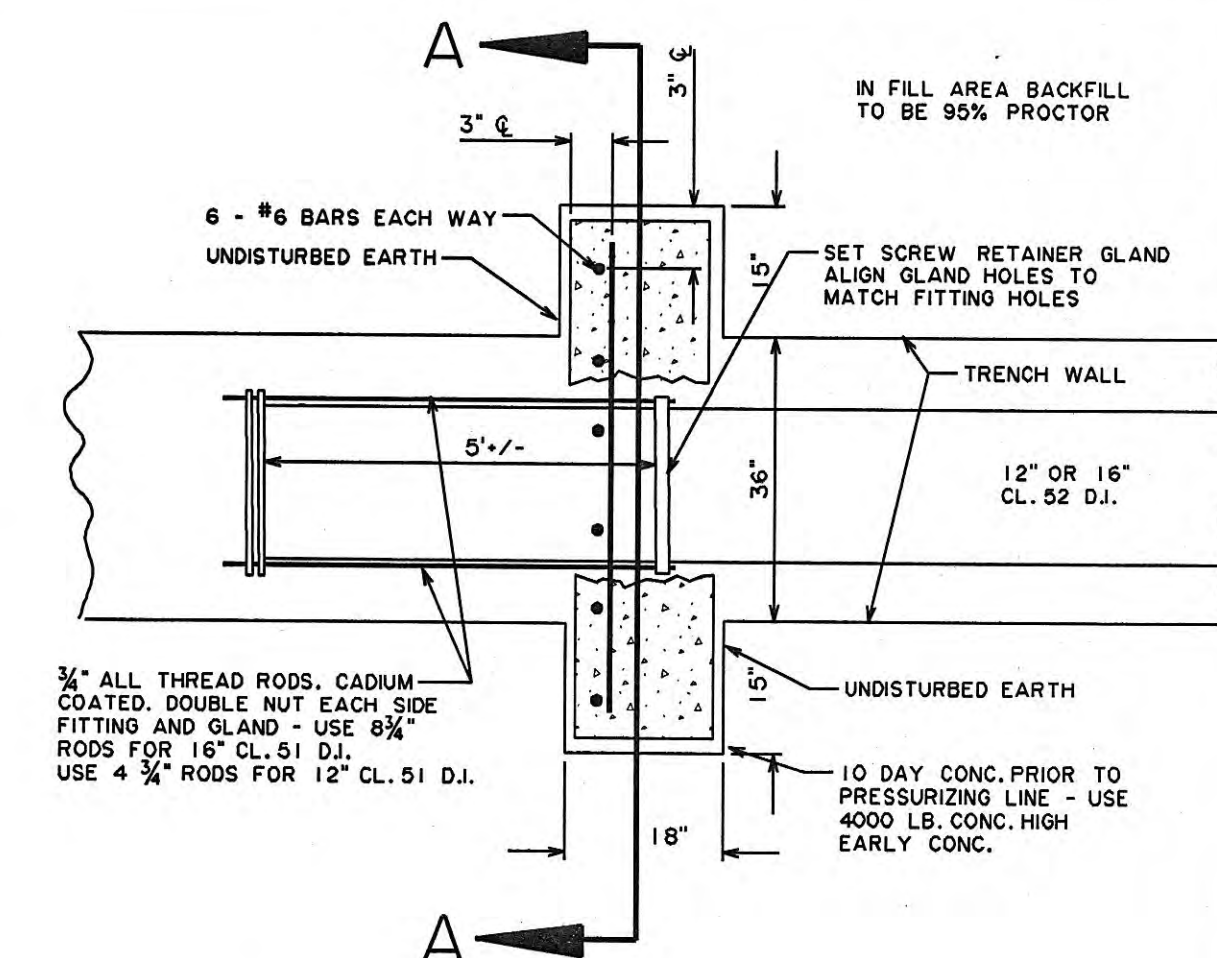


SIZE	2	4	6	8	10	12	16	20
* OF RODS	2	2	4	5	7	10	16	24

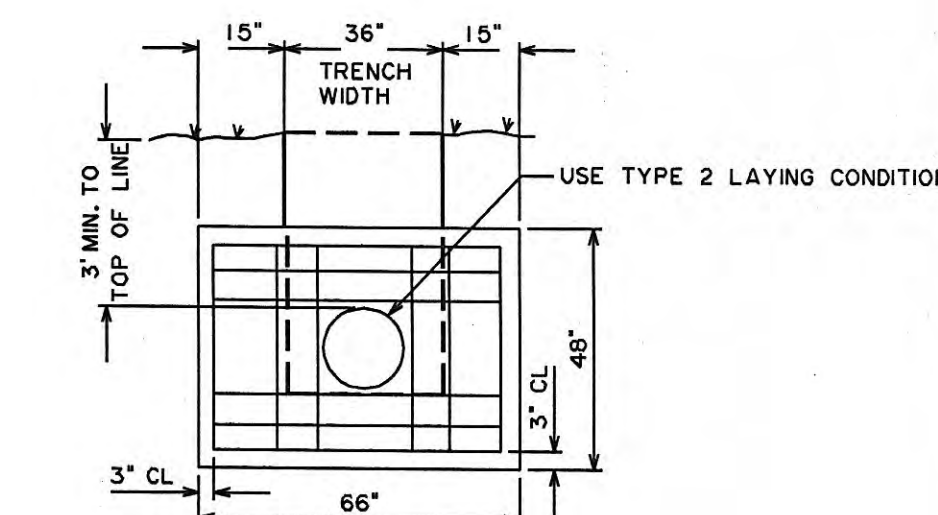
CONC. THRUST BLOCK (BRACE)
3/4\"/>



RIP-RAP DETAIL
STREAM CROSSING SECTION

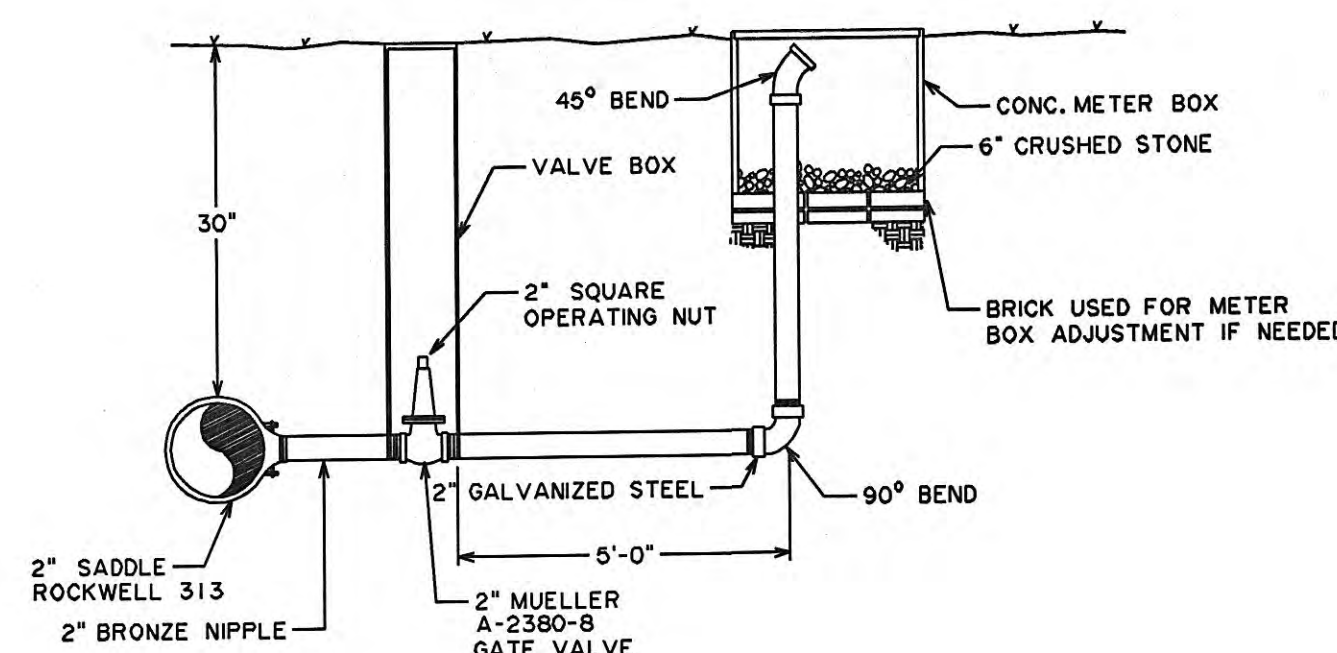


PLAN

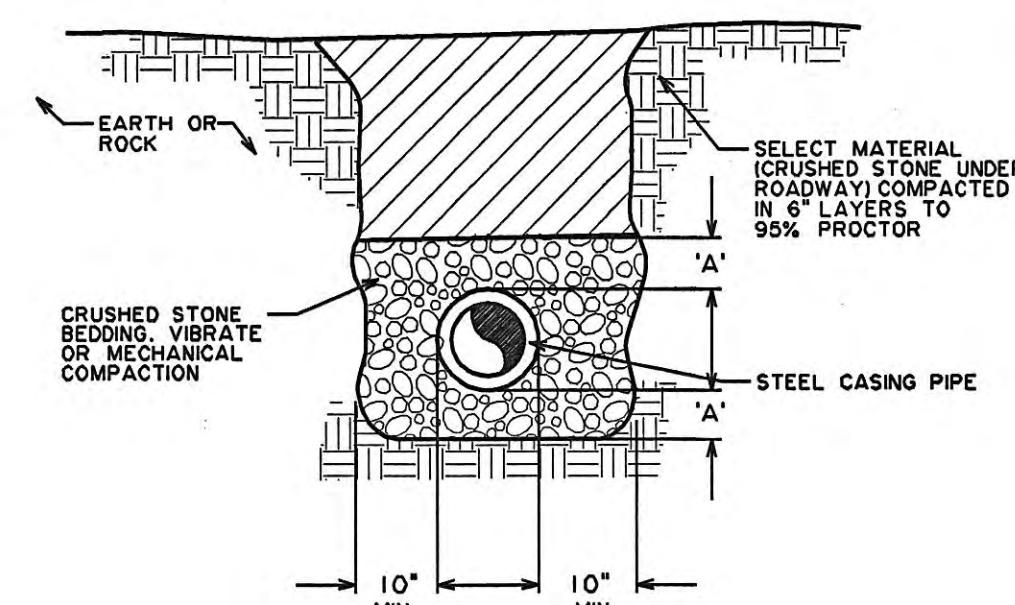


SECTION A-A

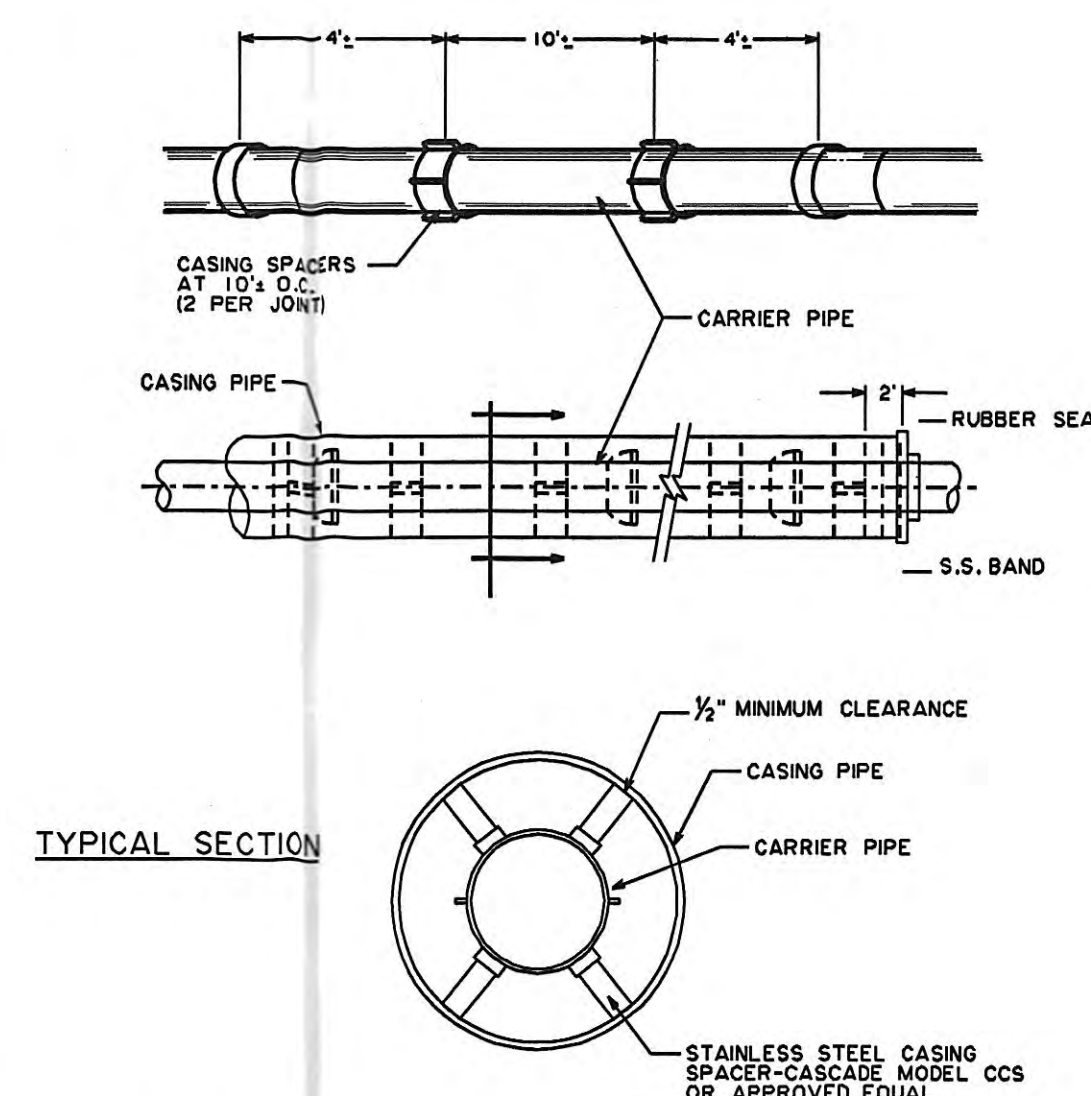
TYPICAL REINFORCED
CONCRETE REVERSE KICKER



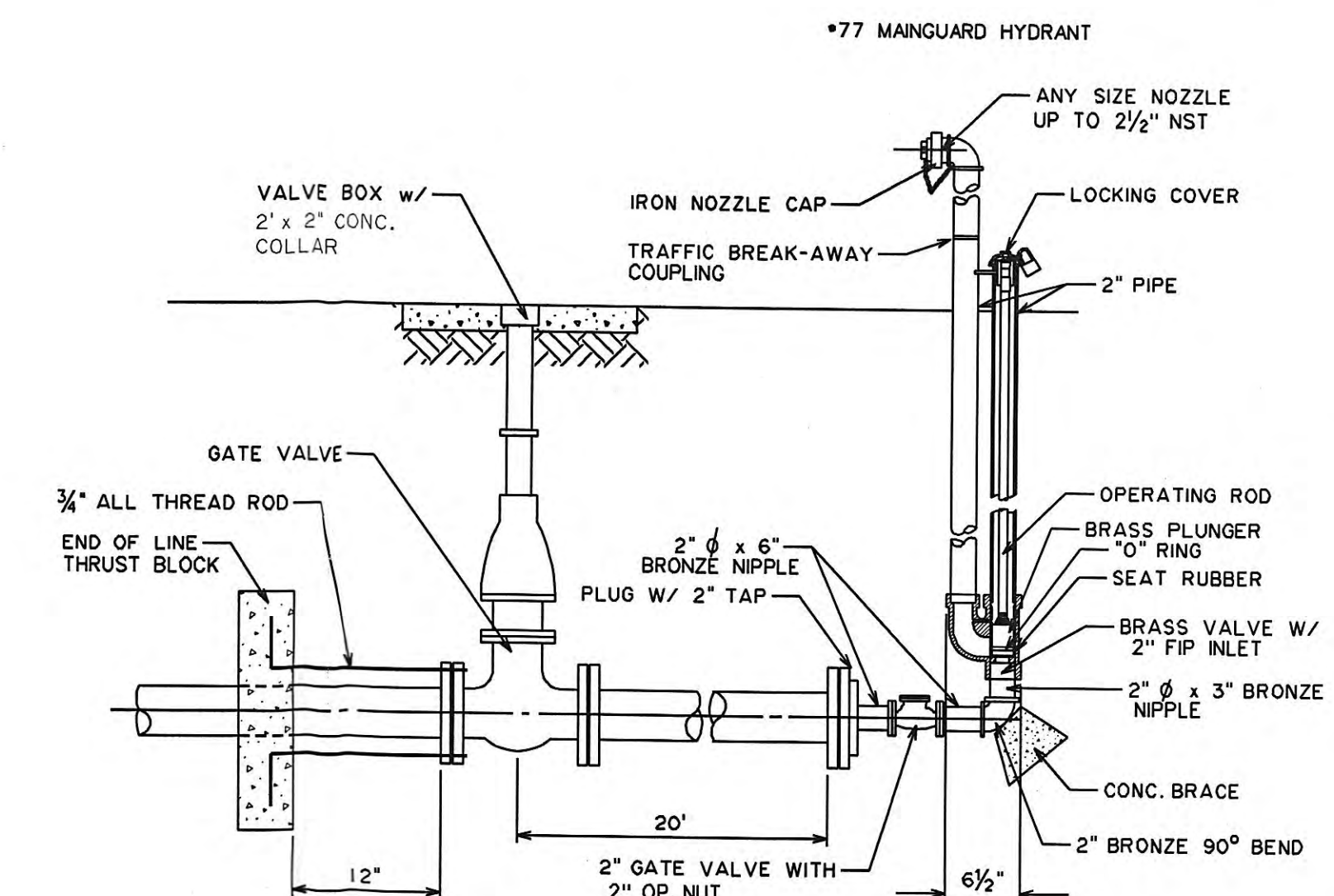
BLOW-OFF DETAIL FOR
MAINS OVER 4"



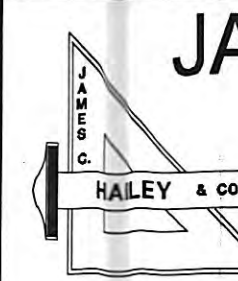
TRENCH SECTION FOR CASING
BY OPEN CUT



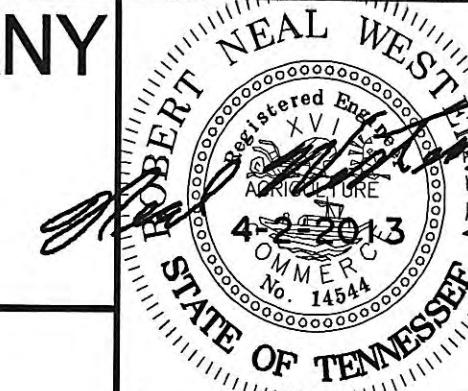
WATER LINE CASING DETAIL



END OF LINE BLOW-OFF
ASSEMBLY DETAIL



JAMES C. HAILEY & COMPANY
Consulting Engineers
Nashville, Tennessee 37221
PH: 615-883-4933 FAX: 615-883-4937
http://www.jchengr.com



HARRIMAN
UTILITY BOARD
Roane County, Tennessee

DESIGN	DRAWN	CHECKED	DATE	SCALE	PROJECT NO.
RNW	LLB	RNW	MAR. 2013	NONE	13133

STANDARD DETAILS

3