

PLUGS								
SIZE	4"	6"	8"	12"	16"	18"	20"	24"
D	16"	18"	18"	24"	24"	30"	30"	30"
L	16"	18"	22"	30"	48"	48"	48"	48"
T	10"	12"	12"	12"	12"	18"	24"	24"
W	16"	18"	22"	24"	30"	30"	48"	48"

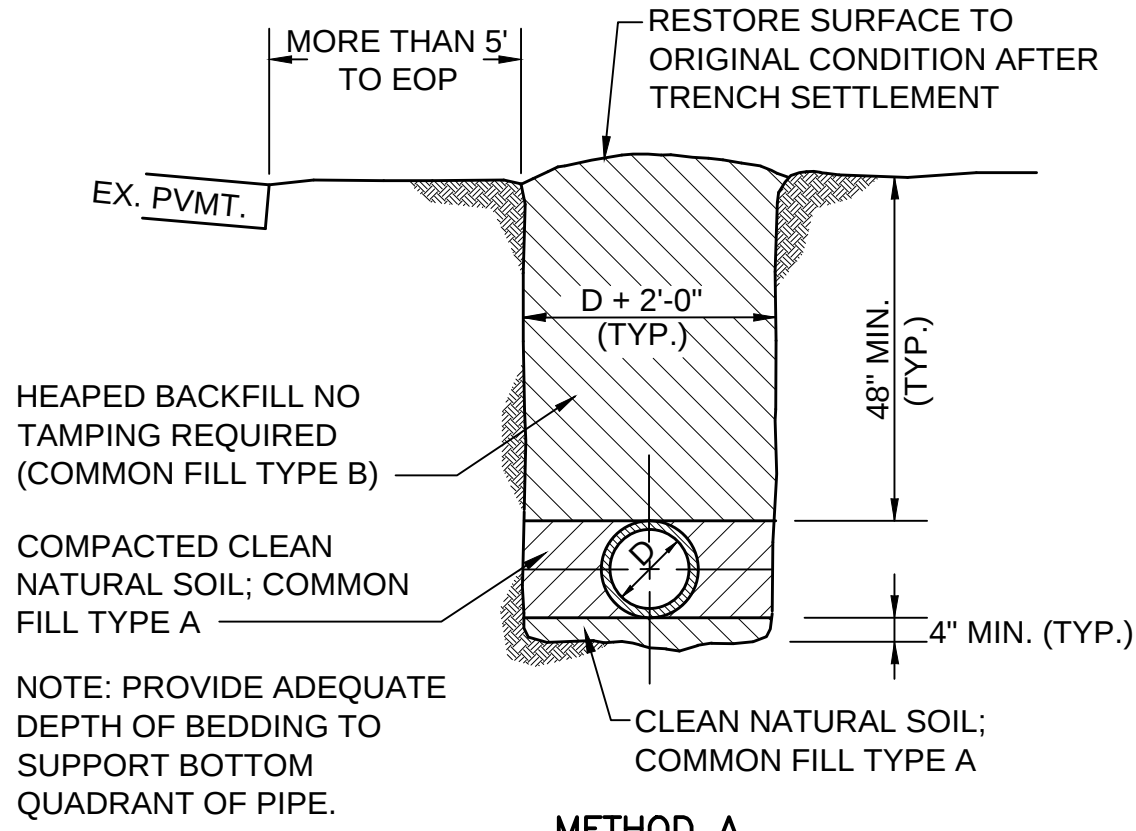
11 1/4", 22 1/2" & 45° BENDS								
SIZE	4"	6"	8"	12"	16"	18"	20"	24"
D	6"	6"	6"	6"	6"	8"	16"	16"
L	12"	14"	16"	20"	34"	40"	45"	52"
T	12"	14"	14"	16"	28"	33"	37"	46"
W	10"	12"	14"	18"	22"	25"	28"	32"

90° BENDS								
SIZE	4"	6"	8"	12"	16"	18"	20"	24"
D	8"	8"	10"	12"	12"	16"	20"	20"
L	20"	24"	27"	34"	48"	51"	51"	70"
T	10"	16"	18"	22"	36"	40"	44"	50"
W	12"	12"	16"	24"	28"	34"	40"	44"

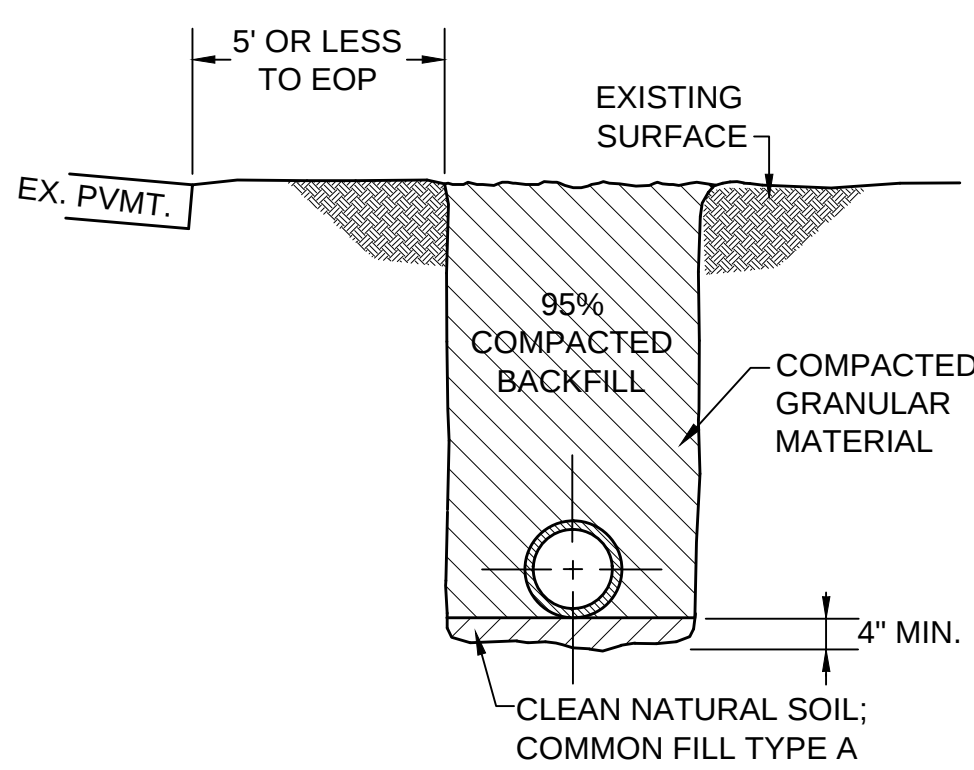
TEES								
SIZE	4"	6"	8"	12"	16"	18"	20"	24"
D	8"	8"	12"	12"	12"	16"	38"	38"
L	10"	18"	24"	27"	28"	30"	48"	48"
W	16"	12"	18"	24"	28"	34"	48"	48"
T	12"	12"	15"	18"	20"	22"	24"	24"

VERTICAL BEND & STRAIGHT PIPE								
SIZE	4"	6"	8"	12"	16"	18"	20"	24"
D	12"	15"	15"	18"	21"	21"	24"	24"
L	18"	24"	24"	30"	36"	36"	36"	42"

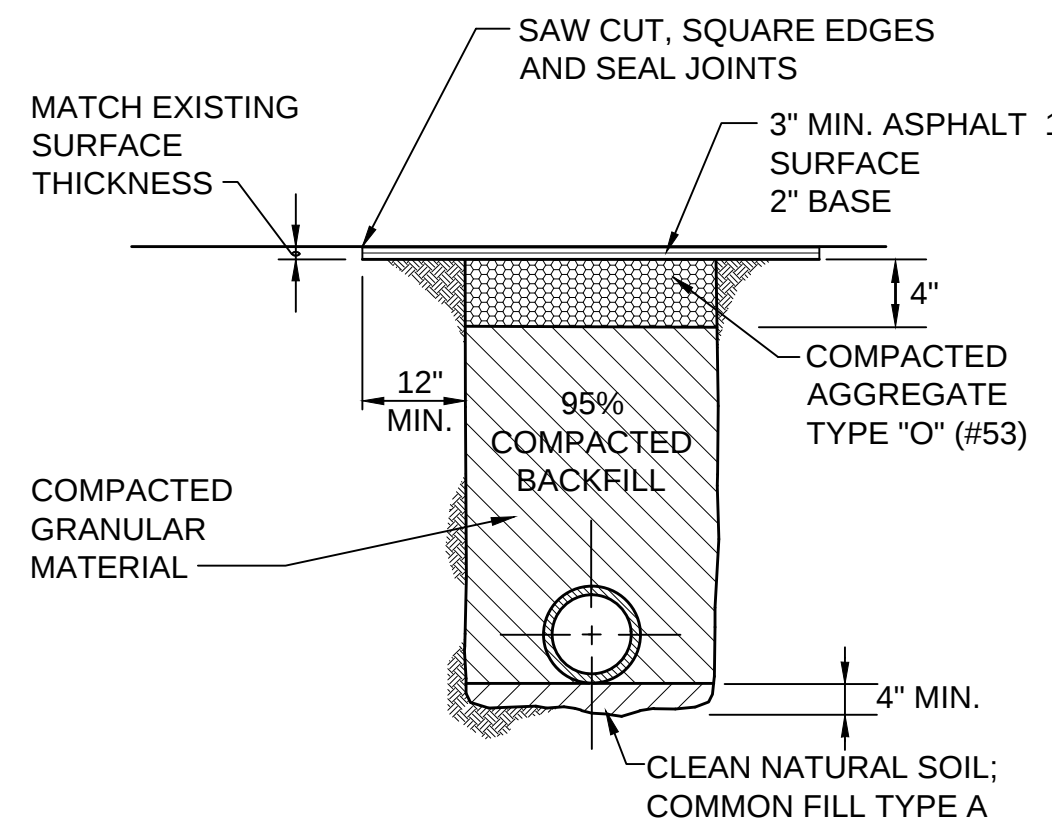
NOTE:
DEPTH "D" MAY BE GREATER THAN SPECIFIED TO ALLOW WORKING SPACE. BLOCKING MUST BE PLACED AGAINST UNDISTURBED EARTH.



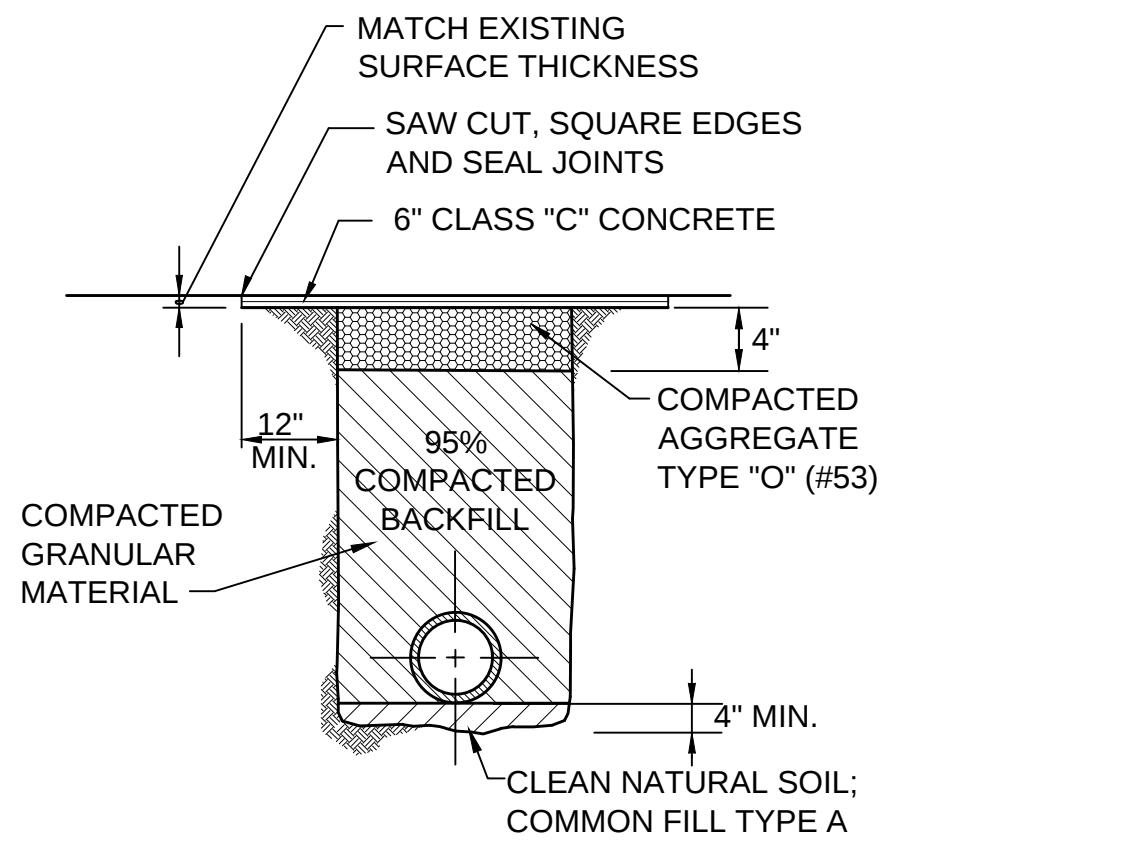
METHOD A
OPEN TERRAIN



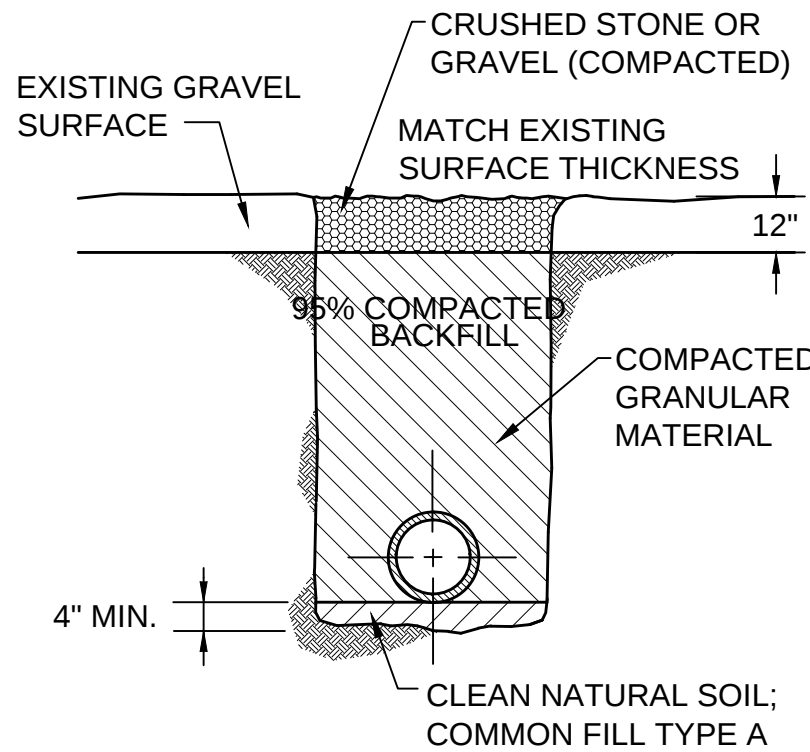
METHOD B
OPEN TERRAIN



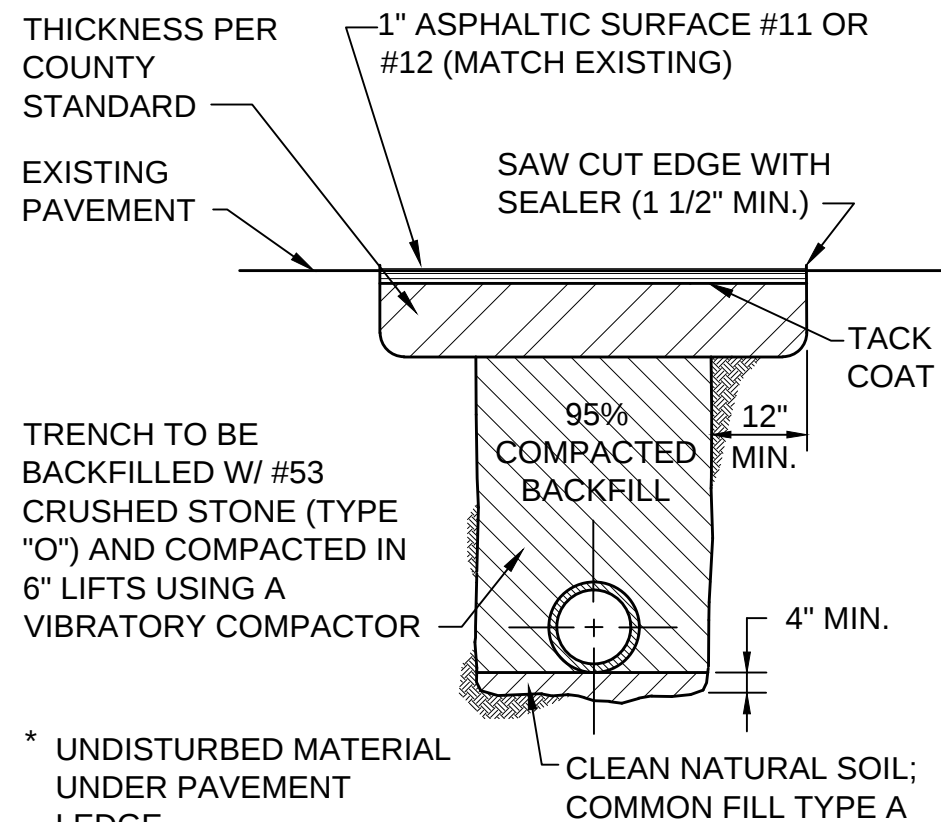
METHOD C
ASPHALT DRIVEWAYS



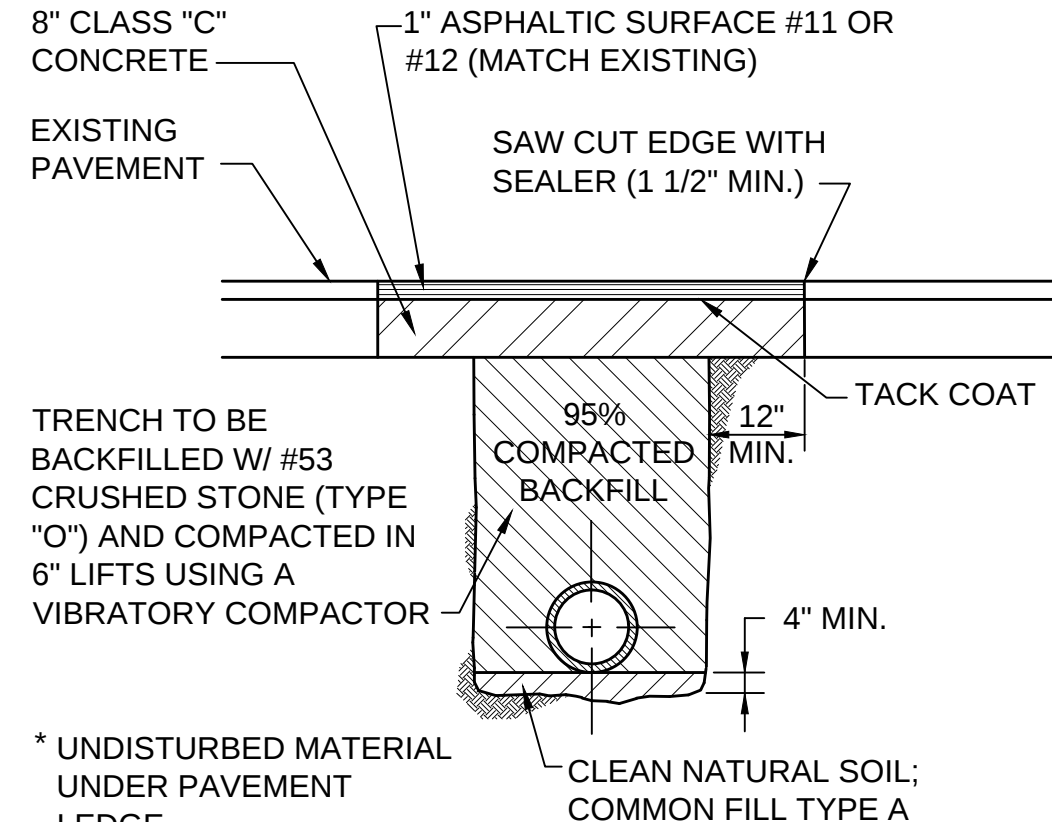
METHOD D
CONCRETE DRIVEWAYS



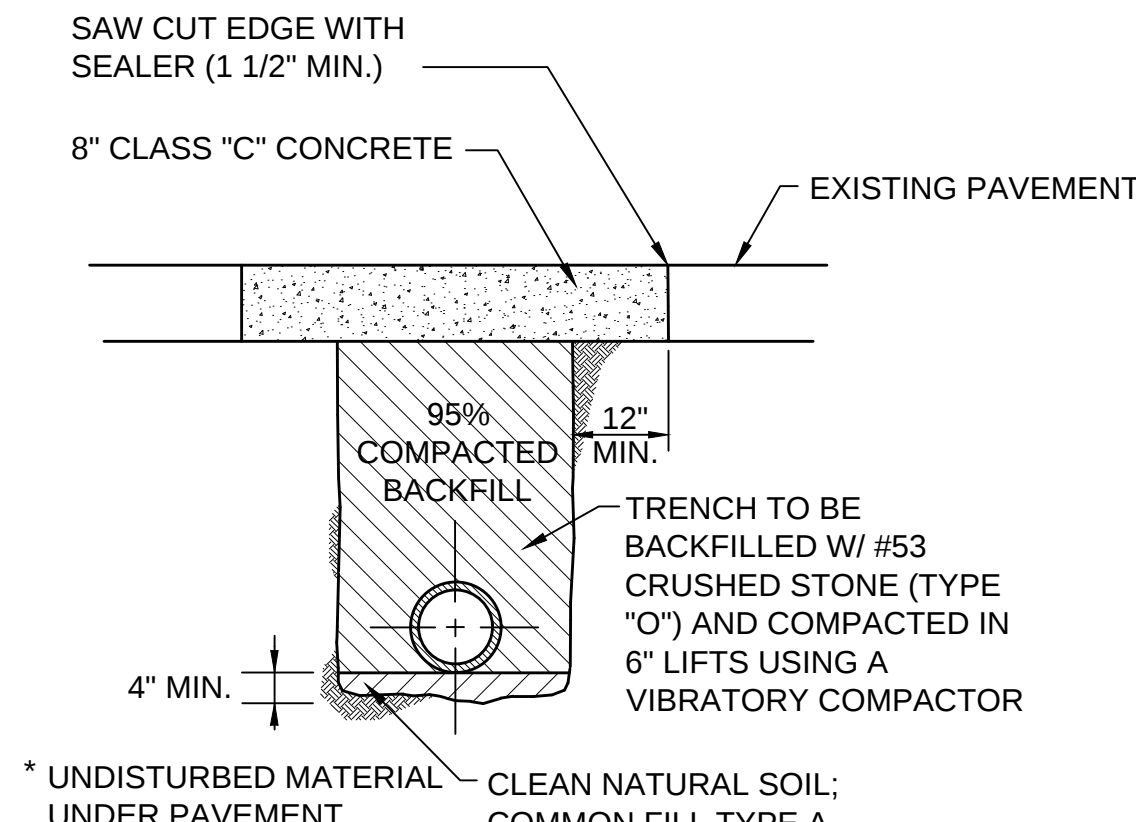
METHOD E
UNPAVED DRIVEWAYS



METHOD F
ASPHALT ROADS



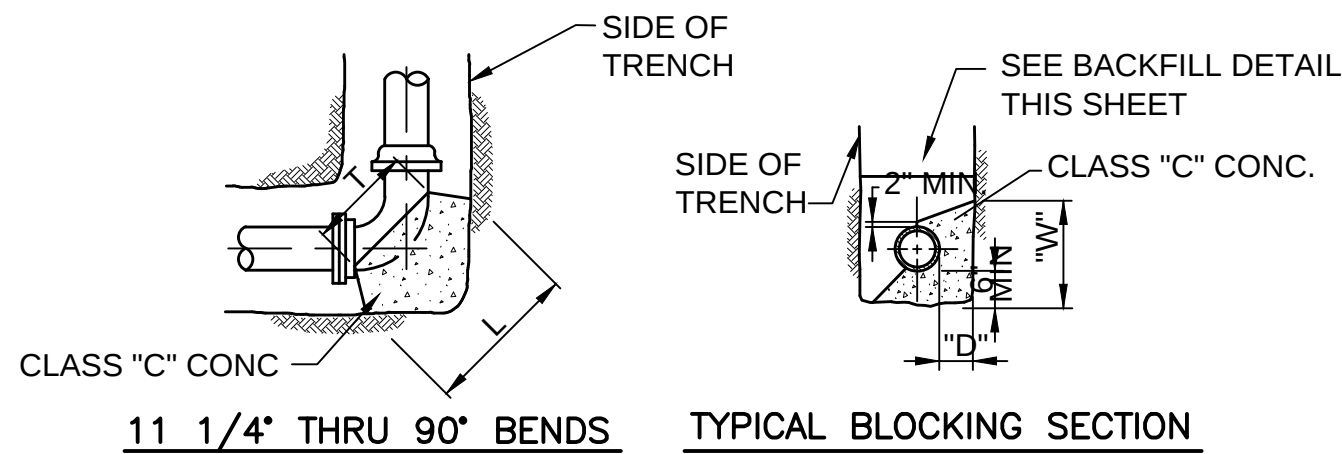
METHOD G
CONCRETE ROAD UNDER ASPHALT SURFACE



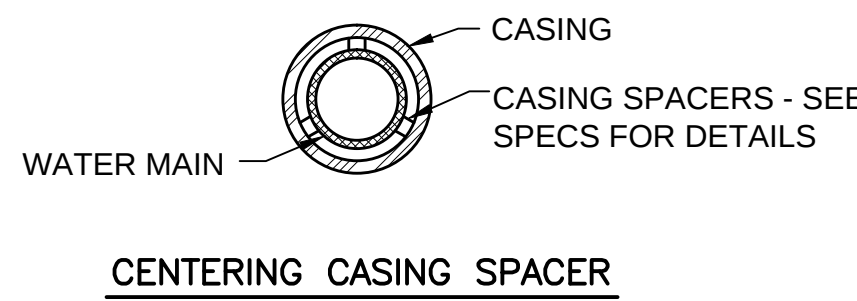
METHOD H
CONCRETE ROAD

BEDDING / BACKFILL / PAVEMENT REPLACEMENT DETAILS

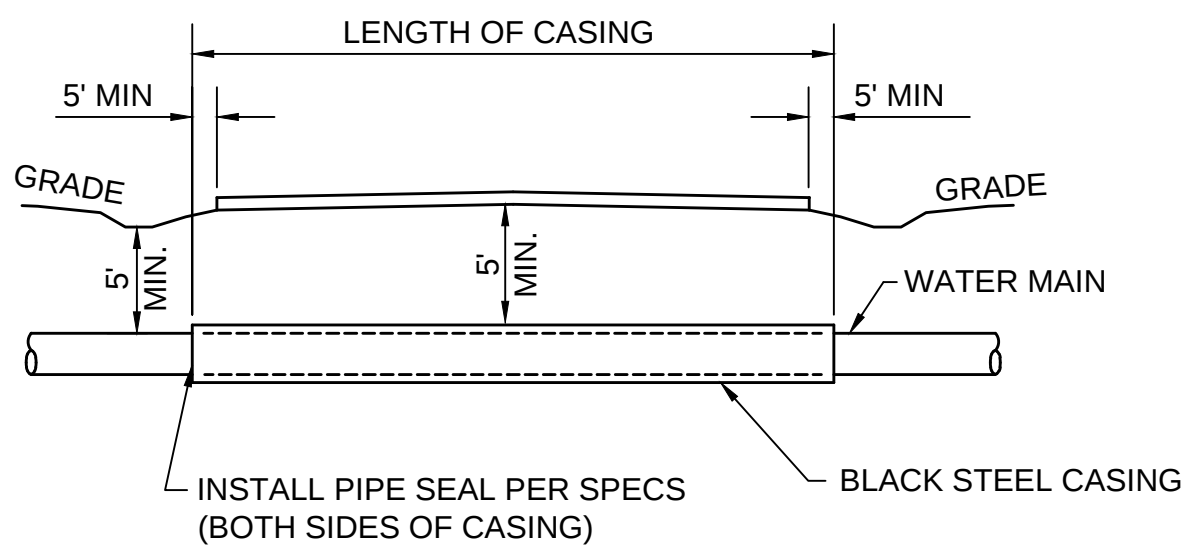
NOT TO SCALE



TYPICAL BLOCKING SECTION

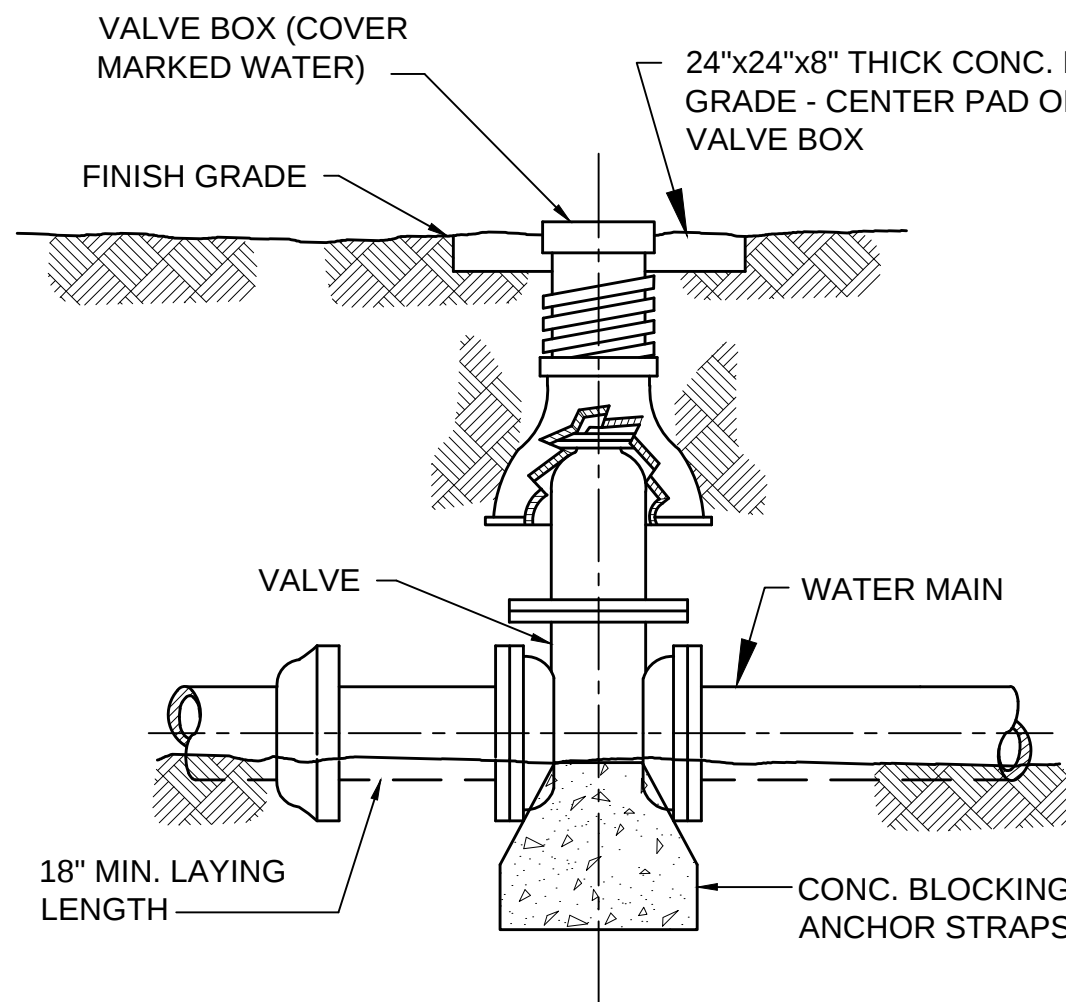


CENTERING CASING SPACER



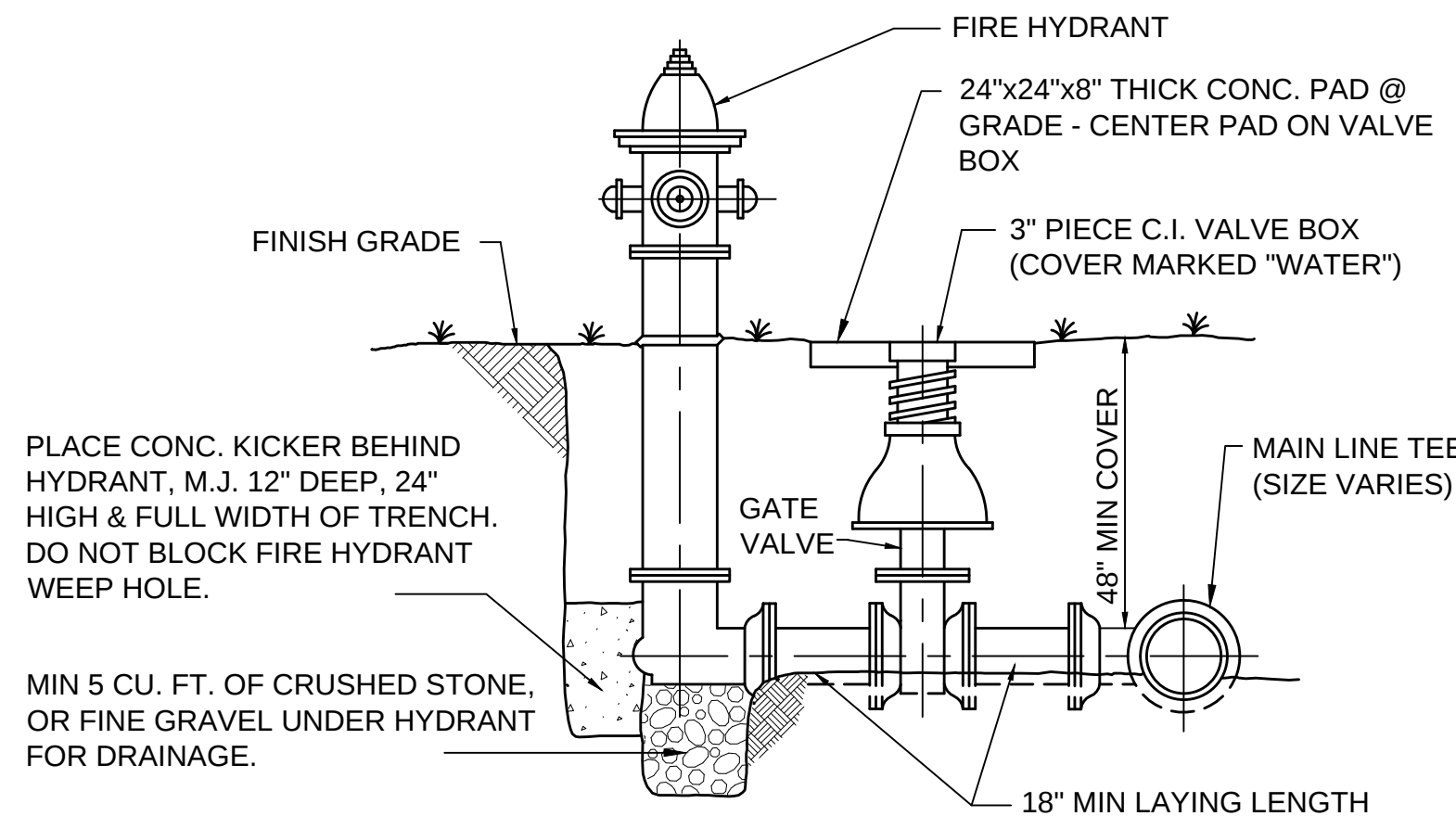
DETAILS
TYPICAL CASING

NOT TO SCALE



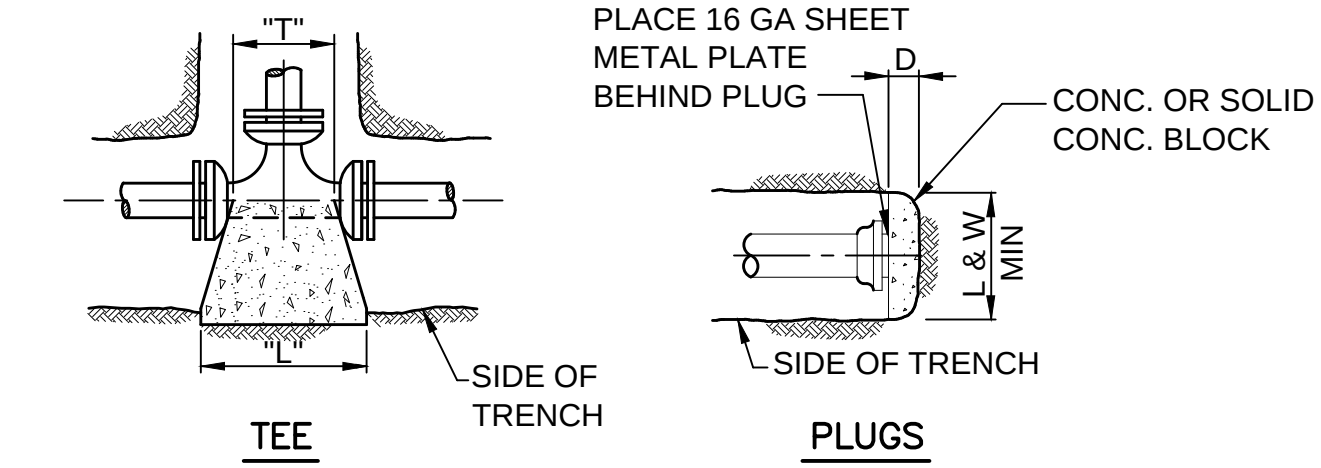
DETAIL
TYPICAL WATER VALVE SETTING

NOT TO SCALE



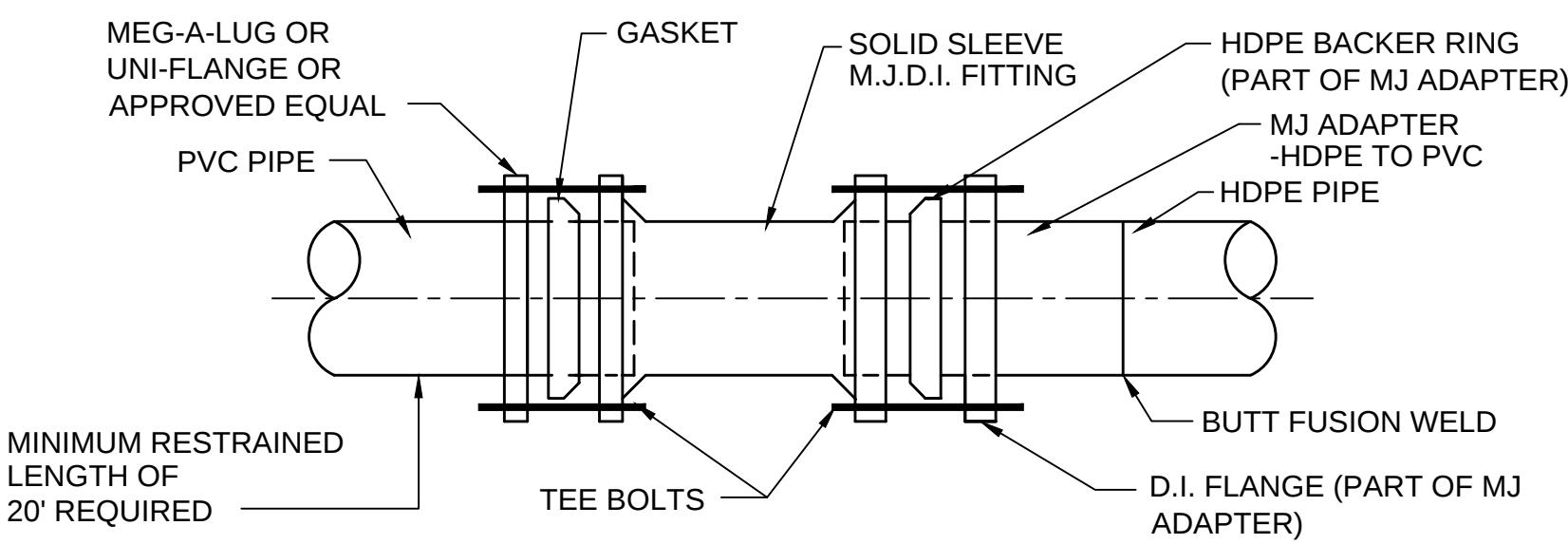
DETAIL
FIRE HYDRANT ASSEMBLY

NOT TO SCALE



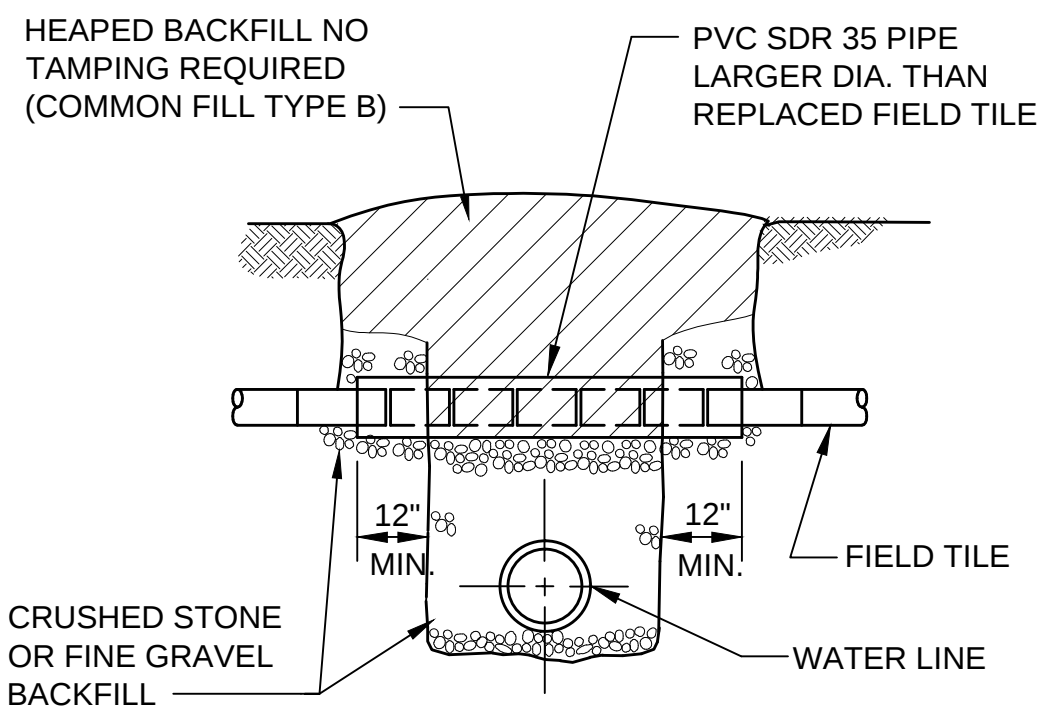
DETAILS
CONCRETE THRUST BLOCKS

NOT TO SCALE



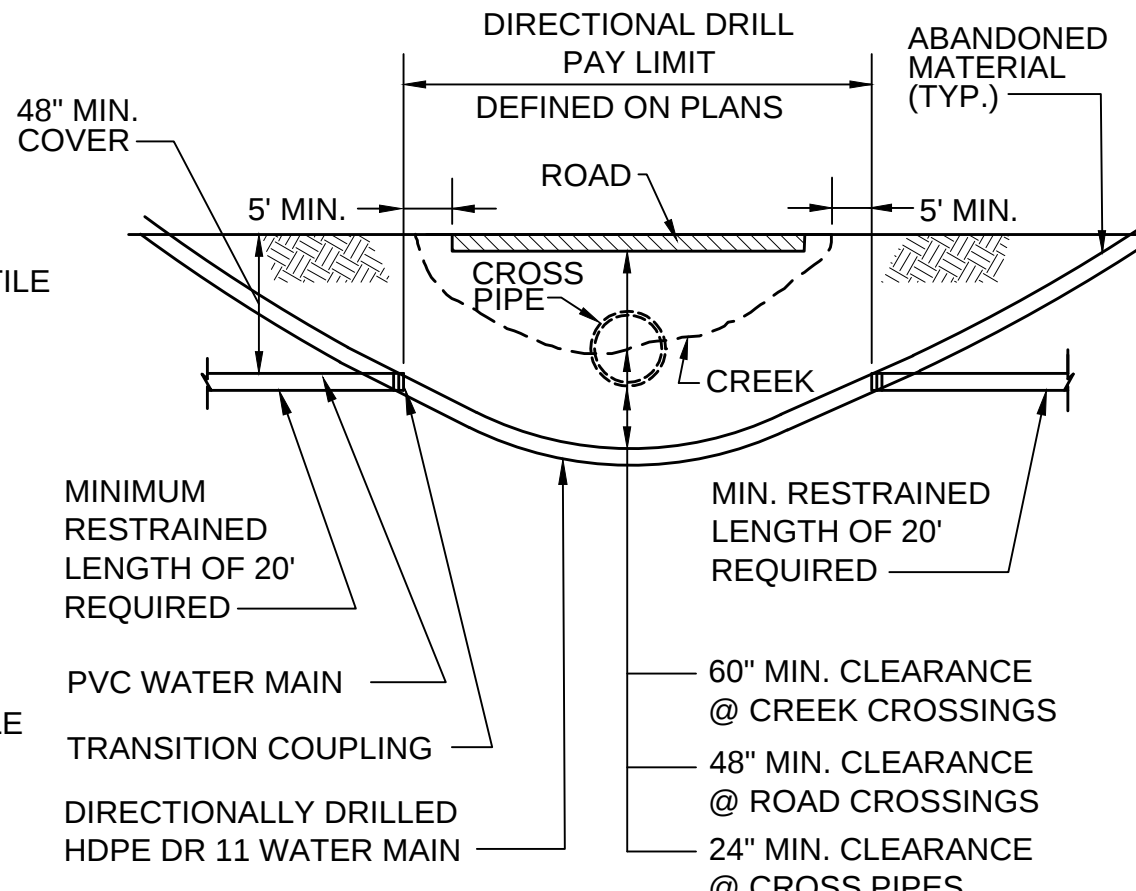
DETAIL
HDPE/PVC TRANSITION COUPLING

NOT TO SCALE



DETAIL
FIELD DRAIN REPLACEMENT

NOT TO SCALE



DETAIL
DIRECTIONAL DRILLING

NOT TO SCALE

THIS RECORD DOCUMENT HAS BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CONSTRUCTION CONTRACTOR. GRW ENGINEERS, INC. HAS ATTEMPTED TO VERIFY THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION BUT SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

GRW
ENGINEERS - ARCHITECTS - PLANNERS
www.grwinc.com

ENGINEER/ARCHITECT: DANIEL R. CUTSHAW
CONSTRUCTION COMPANY: MIKE HOLMAN EXCAVATING, INC.
DATE: FEBRUARY 2014

This document, originally issued, sealed, and signed by Daniel R. Cutshaw, Indiana Professional Engineer, No. 11200431, on April 15, 2013, shall not be used in lieu of a certified document.

GRW PROJECT NO. 3235
CLIENT PROJECT NO. G-6
ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT SHALL BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF GRW ENGINEERS, INC.

GRW
ENGINEERS - ARCHITECTS - PLANNERS
www.grwinc.com

STANDARD DETAILS

DIVISION G-6 - SPADES RD. BPS WATER MAIN IMPROVEMENTS
HOOSIER HILLS REGIONAL WATER DISTRICT
RIPLEY COUNTY, INDIANA

DESIGNED	CJF	DRAWN	MAA <th>REVIEWED</th> <td>ALW<th>APPROVED</th><td>DRC</td></td>	REVIEWED	ALW <th>APPROVED</th> <td>DRC</td>	APPROVED	DRC
DATE	4-14						

REVISIONS

NO.	DESCRIPTION	DATE
1.	AS-BUILT REVISED	4-14

DATE: APRIL 2013
SCALE: N.T.S.
SHEET NO.

C-01