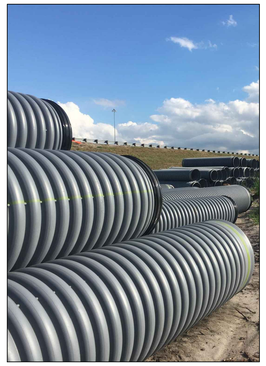
STEP 1 : PIPE HANDLING AND STORAGE



- STACK PIPE ON LEVEL GROUND TO PREVENT DAMAGE TO THE PRODUCT.
- PIPE CAN BE MOVED WITH A BACKHOE AND A NYLON SLING, TWO (2) LIFT POINTS SPACED 10' APART RECOMMENDED FOR 36"-60" PIPE.
- PIPE CAN BE MOVED BY BEING CARRIED PERPENDICULAR ON TOP OF FORKS.
- DO NOT LIFT PIPE BY INSERTING FORKLIFT FORK INTO THE PIPE.
- DO NOT DRAG OR STRIKE PIPE ENDS AGAINST ANYTHING.

STEP 2 : TRENCH WIDTH RECOMMENDATIONS

TRENCH MUST BE WIDE ENOUGH TO FIT PIPE, WORKERS, AND COMPACTION EQUIPMENT.

RECOMMENDED MINIMUM TRENCH WIDTHS, WHEN TRENCH WALLS AND FOUNDATION ARE STABLE. FOR ADDITIONAL TRENCH WIDTH OPTIONS REFER TO ADS INSTALLATION STANDARDS AND ASTM D2321.

DO NOT CUT OR DRILL INTO OR THROUGH THE CORRUGATIONS OR RIBS OF PLASTIC PIPE EXCEPT WHEN NECESSARY TO MEET THE DIMENSIONAL REQUIREMENTS SHOWN IN THE PLANS.

END TREATMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PROJECT PLANS AND STANDARD PLANS, INDEXES 430-021 AND 430-022.

NOMINAL PIPE DIAMETER	OUTSIDE DIAMETER (AVG)	MINIMUM BETWEEN PARALLEL PIPES
12"	14.5"	12"
15"	17.7"	12"
18"	21.4"	12"
24"	28.0"	12"
30"	35.5"	15"
36"	41.5"	18"
42"	47.4"	21"
48"	54.1"	24"
60"	67.1"	30"

STEP 3 : PREPARATION OF BEDDING MATERIAL

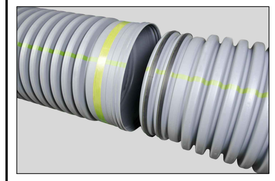
ENSURE BEDDING IS UNIFORM AND TRUE TO LINE AND GRADE. MIDDLE ⅓ SHOULD BE LOOSE TO CRADLE PIPE. CHECK 2-3 TIMES ALONG 20' STICK

EXTEND BEDDING AT LEAST 2 FEET BEYOND THE END OF THE PIPE BEING INSTALLED.

TRENCH SHOULD BE DRY OR PROPERLY DEWATERED BEFORE PLACING BEDDING AND BACKFILL. FOLLOW GUIDELINES IN 125-8.3.4 IF TRENCH IS UNABLE TO BE DEWATERED.

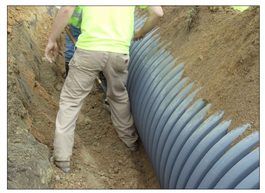
IF STONE OR ANY OPEN GRADED BEDDING MATERIAL IS USED, WRAP THE STONE WITH A TYPE D-3 FILTER FABRIC IN ACCORDANCE WITH SPEC. 985 (EX. ADS 0601TAL & 0601TF FABRIC).

STEP 4 : PIPE JOINT ASSEMBLY

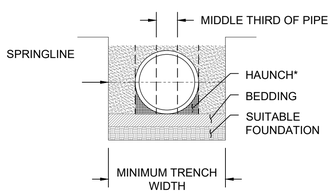


- REMOVE GASKET WRAP. USE A CLEAN RAG OR BRUSH TO LIGHTLY LUBRICATE INSIDE THE BELL. CLEAN SPIGOT END OF PIPE. DO NOT ALLOW LUBRICATED SECTION TO TOUCH DIRT OR BACKFILL.
- ALIGN PIPE AND PLACE SPIGOT INTO BELL. USING NYLON STRAP OR PUSH PIECE, FULLY INSERT SPIGOT INTO BELL. WHEN LEADING BELL EDGE TOUCHES "HOME" MARK JOINT IS FULLY INSERTED.
- FURNISH AND INSTALL A FILTER FABRIC JACKET AROUND ALL PIPE JOINTS AND THE JOINT BETWEEN THE PIPE AND THE STRUCTURE IN ACCORDANCE WITH STANDARD PLANS, INDEXES 425-001 AND 430-001. USE FABRIC MEETING THE PHYSICAL REQUIREMENTS OF TYPE D-3 SPECIFIED IN SECTION 985.
- THE MINIMUM DISTANCE FROM THE OUTSIDE OF A CONCRETE STRUCTURE TO THE FIRST PIPE JOINT SHOULD BE A MINIMUM OF FOUR (4) FEET.

STEP 5 : PLACING MATERIAL INTO HAUNCH AREA



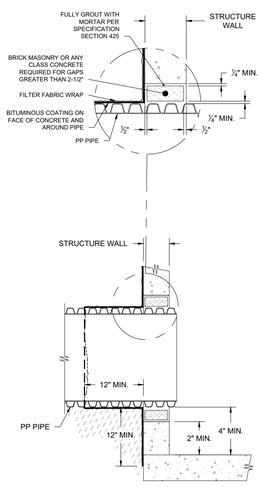
TRACKHOE OPERATOR SHALL UNIFORMLY PLACE A SHALLOW LIFT, OVER THE PIPE SO WORKERS CAN DIAGONALLY KNIFE OR BOOT PRESS SOIL UNDER PIPE HAUNCHES. PLACING BACKFILL UNDER THE PIPE HAUNCHES HELPS PREVENT THE PIPE FROM SHIFTING DURING BACKFILL COMPACTION.



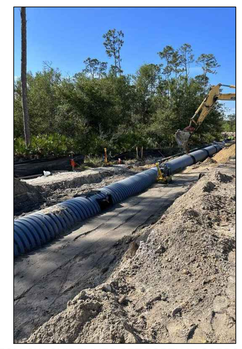
*** BEST PRACTICE TIP: HAUNCH BACKFILL PROVIDES SUPPORT FOR SOIL & TRAFFIC LOADS. BACKFILL SHOULD BE WORKED INTO HAUNCH AREA.**

STEP 6 : FABRIC & GROUT CONNECTION TO STRUCTURE

1. PLACE BITUMINOUS COATING (OR APPROVED ADHESIVE) AROUND PIPE, WRAP AND SECURE FABRIC AROUND PIPE, LEAVING EXCESS FABRIC TO PRESS AGAINST STRUCTURE.
2. INSERT PIPE INTO STRUCTURE, WITH PIPE RESTING ON BEDDING. THE PIPE SHOULD BE IN THE APPROXIMATE CENTER OF THE OPENING.
3. GROUT PIPE INTO CONCRETE STRUCTURE. SOLID MASONRY UNITS, FULLY GROUTED IN PLACE, MAY BE USED TO HELP FILL LARGER VOIDS.
4. PLACE BITUMINOUS COATING (OR APPROVED ADHESIVE) ON STRUCTURE SURFACE, THEN PRESS EXCESS FABRIC IN PLACE.



STEP 7 : COMPACT BACKFILL IN LIFTS

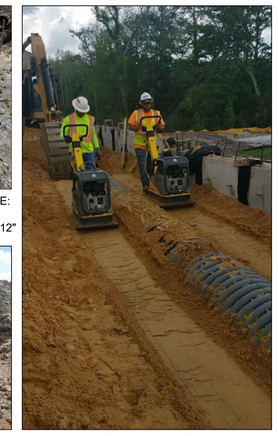


FOLLOW GUIDELINES SET FORTH IN SSRBC SECTION 125. PLACE BACKFILL AROUND PIPE IN COMPACTED LIFTS WITHIN PIPE COVER ZONE. COMPACT BEDDING AND BACKFILL WITH SMALL TO MEDIUM COMPACTION EQUIPMENT TO SPECIFIED DENSITY. VISUALLY INSPECT THE PIPE TO ENSURE THE APPROPRIATE SHAPE IS MAINTAINED.

BEST PRACTICE TIP: USE ONE PIECE OF COMPACTION EQUIPMENT ON EITHER SIDE OF THE PIPE IN UNISON.

STEP 8 : COMPACT OVER TOP OF PIPE

WHEN COMPACTING FILL OVER TOP OF PIPE:
LIGHT WEIGHT COMPACTION EQUIP. MIN 6"
MEDIUM WEIGHT COMPACTION EQUIP. MIN 12"



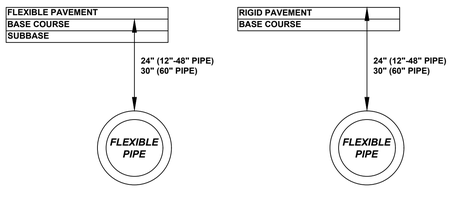
MEDIUM SIZED COMPACTORS MAY BE USED TO COMPACT BACKFILL IN LIFTS UP SIDES OF PIPE.

SEE TABLE 2 FOR MINIMUM COVER REQUIREMENTS FOR TYPICAL CONSTRUCTION EQUIPMENT.

TABLE 1: FDOT MINIMUM & MAXIMUM COVER

CLASS II POLYPROPYLENE PIPE

MINIMUM COVER (BENEATH ROADWAY)



MAXIMUM COVER	
12"	21'
15"	22'
18"	19'
24"	16'
30"	19'
36"	16'
42"	15'
48"	15'
60"	16'

NOTE: UNPAVED AREAS HAVE A MINIMUM COVER REQUIREMENT OF TWELVE (12) INCHES.

TABLE 2 : MIN. COVER FOR CONSTRUCTION VEHICLES

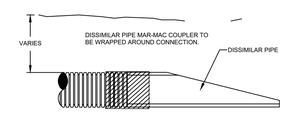
MINIMUM COVER FOR CONSTRUCTION VEHICLES

CONSTRUCTION VEHICLE	VEHICLE DESCRIPTION	MINIMUM TIRE	AXLE LOAD (lbs)	PIPE DIAMETER	TEMPORARY MINIMUM COVER HEIGHTS (in)		
					A1 & A3 @ 95% SPD	A-2-4 / A-2-5 / A4 @ 95% SPD	A-2-4 / A-2-5 / A4 @ 90% SPD
FORD F150	PICKUP TRUCK (GWVR)	P275/55R 20	7450	12"-48"	3	3	6
				60"	6	6	9
CHEVY 3500	UTILITY TRUCK (GWVR)	235/80-17	13200	12 -48"	6	6	9
				60"	9	9	12
CAT CT660	DUMP TRUCK	22.5-R11	46000	12"-60"	9	12	18
CAT 16M3	GRADER	23.5-R25	58753	12"-18"	12	15	21
				24"-60"			24
CAT 730C	ARTICULATED DUMP TRUCK	23.5-R25	74538	12"-15"	15	18	24
				18"-60"			27
CAT CS78B[1]	ROLLER	84-IN DRUM	74600	12"-18"	15	21	24
				24"-60"			27
KOMATSU WA800-3	WHEEL LOADER	45/65-45	158270	12"-30"	15	21	30
				36"-60"			36

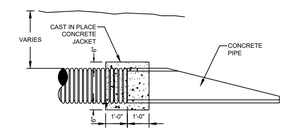
[1]ACCELERATOR (VIBRATOR) TURNED ON

MINIMUM COVER VALUES DO NOT ACCOUNT FOR RUTTING OR UNSTABLE SOIL OVER THE PIPE. ADDITIONAL COVER MAY BE REQUIRED TO MAINTAIN THE PIPE'S STRUCTURAL INTEGRITY.

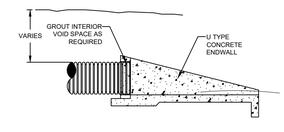
TABLE 3 : DISSIMILAR PIPE CONNECTIONS



HP STORM CONNECTION TO DISSIMILAR PIPE WITH MARMAC



HP STORM CONNECTION TO RCP WITH CONCRETE JACKET



HP STORM CONNECTION TO U-TYPE CONCRETE END WALL

TABLE 4 : PIPE INSPECTION & REPAIR

FDOT 430-4.8 PIPE INSPECTION:

FOR PIPES INSTALLED UNDER THE ROADWAY, INSPECTION SHALL BE CONDUCTED WHEN BACKFILL REACHES THREE (3) FEET ABOVE THE PIPE CROWN OR UPON COMPLETION OF THE STABILIZED BACKFILL.

REFERENCE FDOT PIPE REPAIR MATRIX FOR APPROVED REPAIR METHODS.

FOR GUIDANCE ON PIPE ACCEPTANCE, REFERENCE FDOT CONSTRUCTION PROJECT ADMIN MANUAL (CPAM) CHAPTER 8.13.

HP STORM INSTALLATION GUIDE (FDOT)

PIPE MUST BE INSTALLED IN ACCORDANCE WITH ASTM D2321, IN ADDITION TO ALL SITE CONDITIONS REQUIRED BY STATE AND LOCAL CODES, INDUSTRY STANDARDS AND GUIDELINES, MANUFACTURER'S INSTALLATION RECOMMENDATIONS, OSHA, AND ALL APPLICABLE LAWS.

DRAWN: JEK
REVISION: 1
DATE: 09/24/24
DWG NO:
NOT TO SCALE

HP Storm
Dual Wall Pipe

ADSPIPE.COM

SHEET
1 OF 1

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