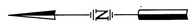


CELL 13
(EXISTING)
LOWER

CELL 14
(EXISTING)
UPPER

CELL 12
(EXISTING)
LOWER

LIMIT OF ACTIVE CELL

CELL 11
(EXISTING)
LOWER

CELL 15
(CURRENT)
UPPER

CELL 10
(EXISTING)

CELL 9
(EXISTING)

CELL 1
THROUGH
CELL 8
(EXISTING)

P-08-04 P-08-05 P-08-06 P-08-07 P-08-08 P-08-09 P-08-10 P-08-11A P-08-11B P-08-12 P-08-13 P-08-14 P-08-15 P-08-16 P-08-17

GENERAL NOTES:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, INC. NORRIDGEWOCK, MAINE, PHOTOGRAPH DATED 5/14/08.

2. GROUND CONTROL PROVIDED BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE.

3. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

4. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL REMAIN IN COMPLIANCE WITH MDEP BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTATION CONTROL AND EXISTING PERMITTING REQUIREMENTS FOR THE SITE INCLUDING FEDERAL, STATE, AND LOCAL PERMITS.

5. KATAHDIN PAPER COMPANY IS ACTIVELY FILLING CELL 15. EXISTING GRADES MAY NOT REPRESENT CURRENT CONDITIONS.

50 0 100 200 FEET

STATE OF MAINE
PETER M. MAHER
No. 10107
LICENSED
PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE
6	-	
5	-	
4	-	
3	-	
2	-	
1	-	

REVISION	CODE	DATE	REV.
SUBMITTED TO MEDEP	P	7/23/08	

REVISION	BY	CKD	APPVD	JOB

REVISION	CODE	DATE	REV.

REVISION	BY	CKD	APPVD	JOB

SME
Sevee & Maher Engineers, Inc.
4 Blanchard Road P.O. Box 85A
Cumberland Center, ME 04021

JOB NO. 08035.05

DRN	MSB	7/08
CHKD	GHC	7/08
APPVD		

ISSUE CODE
P - Preliminary
B - Bids
C - Construction
ASB - As Built
SCALE AS SHOWN

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: CELL15-16Site

EAST OPERATION

DOLBY III LANDFILL
CELL 16 CONSTRUCTION
EXISTING CONDITIONS PLAN

JOB NO.
FILE NO.
LOC. NO.

C-101

P:\projDir\ACAD\CELL 15-16\Cell15-16Site.dwg, 7/23/2008 2:09:37 PM, rtitchkop


CELL 15
CELL 16
(INTERIM OPERATIONS)
FINAL WASTE CONTOURS
OPERATIONAL DRAINAGE SEE SECTIONS AND DETAILS DWG C-300 (12" SAND LAYER TO BE EXTENDED FROM UNDERDRAIN PIPE UPSLOPE MINIMUM OF 10 FT. IN ELEVATION ON WESTERN SIDESLOPE OF CELL 15 AND NORTHERN SIDESLOPE OF CELL 7).
CORE EXIST DRAINAGE MANHOLE FOR 6" PIPE
6" PERFORATED DRAIN
TIE-IN TO CELL 15 DIKE.
CELL 16 OPERATIONAL DITCH (SLOPE TO DRAIN)
EXTEND EXISTING 6" UNDERDRAIN
N 664876.36 E 474758.74
6" PERFORATED DRAIN
SECTIONS AND DETAILS DWG C-300
6" TEE (TYP)
N 664858.12 E 474597.92
N 664857.15 E 474503.59
12" SOLID DRAIN
EXISTING CATCH BASIN #31 12" INV IN 365.25 8" INV IN 359.15 18" INV OUT 356.5
CORE EXISTING DRAINAGE MANHOLE FOR 12" PIPE
DRAINAGE MANHOLE SEE SECTIONS AND DETAILS SEE DWG C-300
6" PERFORATED DRAIN
BREAK ON SLOPE
6" PERFORATED DRAIN (SLOPE TO DRAIN NORTH)
BREAK ON SLOPE TO BE FIELD DETERMINED
SECTIONS AND DETAILS DWG C-300
STRIP COVER SOIL AND ADD 6" OF SAND
CELL 16 OPERATIONAL DITCH (SLOPE TO DRAIN)
PROTECT PIEZOMETERS FROM DAMAGE DURING CONSTRUCTION.
STRIP COVER SOILS FROM BULGING AREA SHOWN AND GRADE WASTE TO MATCH SURROUNDING GRADES. PLACE 12" SAND DRAINAGE LAYER ABOVE GRADED WASTE AND TIE-IN WITH SAND DRAINAGE LAYER.
6" PERFORATED DRAIN (SLOPE TO DRAIN SOUTH)
6" TEE (TYP)
REPLACE PERFORATED MANHOLE TOP WITH SOLID MANHOLE TOP
N 663726.69 E 474777.65
TIE INTO CELL 15 DIKE
N 663712.83 E 474774.23
STRIP AND REMOVE CELL 7 SIDESLOPE COVER
N 663719.79 E 474562.70
N 663705.58 E 474556.42
N 663882.37 E 474511.36
DIKE AND TYPE 1 DRAINAGE DITCH SEE SECTIONS AND DETAILS DWG C-300
N 663874.27 E 474431.17
DRAINAGE MANHOLE SEE SECTIONS AND DETAILS SEE DWG C-300
12" SOLID DRAIN
EXISTING DRAINAGE MANHOLE
TIE-IN 12" SOLID DRAIN TO EXISTING 12" DRAIN (TO CB-1) WITH PIPE FITTINGS AS NEEDED FOR SECURE CONNECTION
EXISTING 12" PIPE TO CB#1
P-08-09
P-08-10
P-08-11A
P-08-11B
P-08-13
P-08-14
P-08-15
P-08-16
30 0 60 120 FEET
STATE OF MAINE GUY H. COTE, JR. No. 5144 LICENSED PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
6	-									
5	-									
4	-									
3	-		P	8/22/08		REVISED PER MEDEP COMMENTS				
2	-		P	7/25/08		RESUBMITTED TO MEDEP	KCC	GHC		
1	-		P	7/23/08		SUBMITTED TO MEDEP	KCC	GHC		

SME
Sevee & Maher Engineers, Inc.
4 Blanchard Road P.O. Box 85A
Cumberland Center, ME 04021
JOB NO. 08035.05

DRN	MSB	7/08
CHKD	GHC	7/08
APPVD		

ISSUE CODE
P - Preliminary
B - Bids
C - Construction
ASB - As Built
SCALE NONE

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

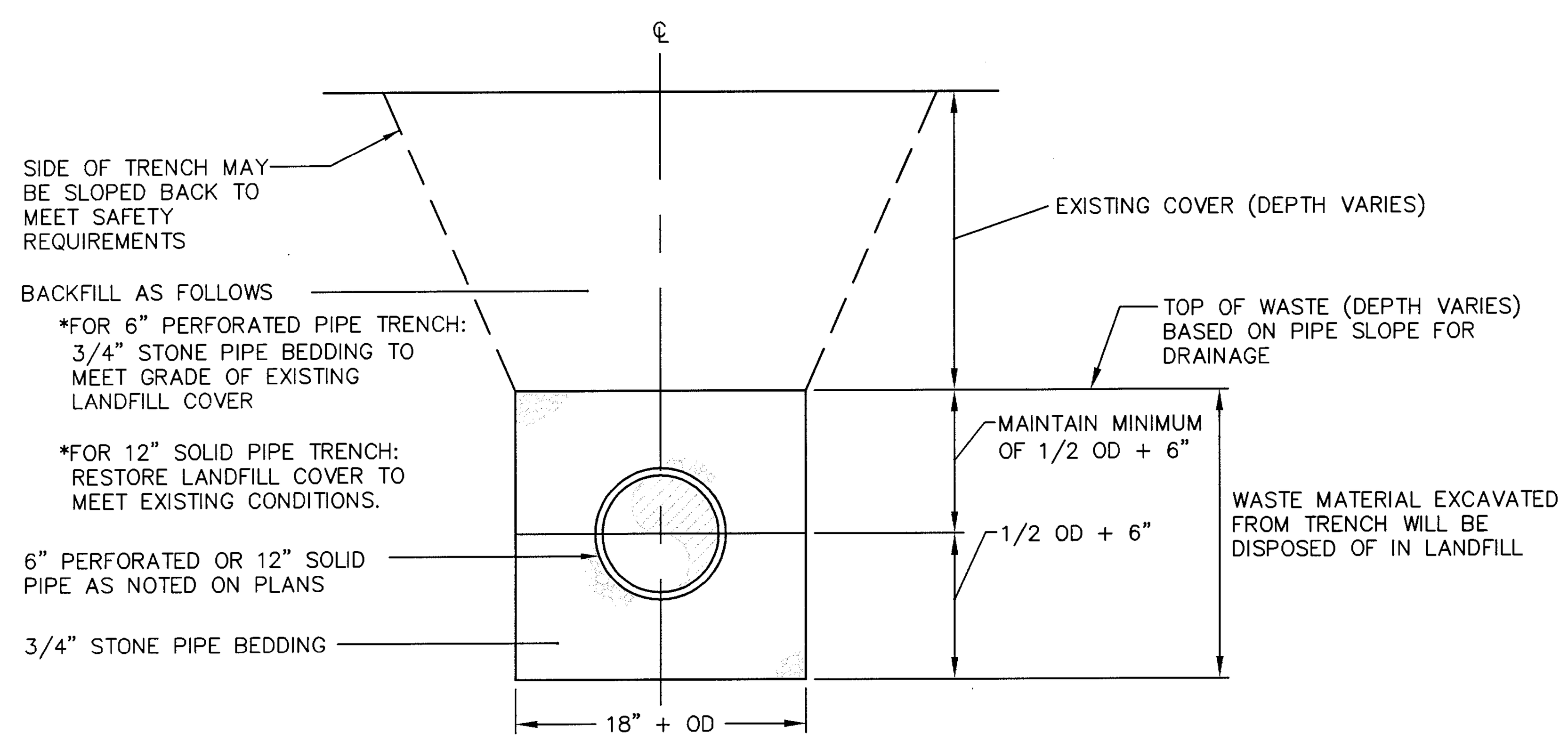
CAD FILE: CELL15-16Site

EAST OPERATION

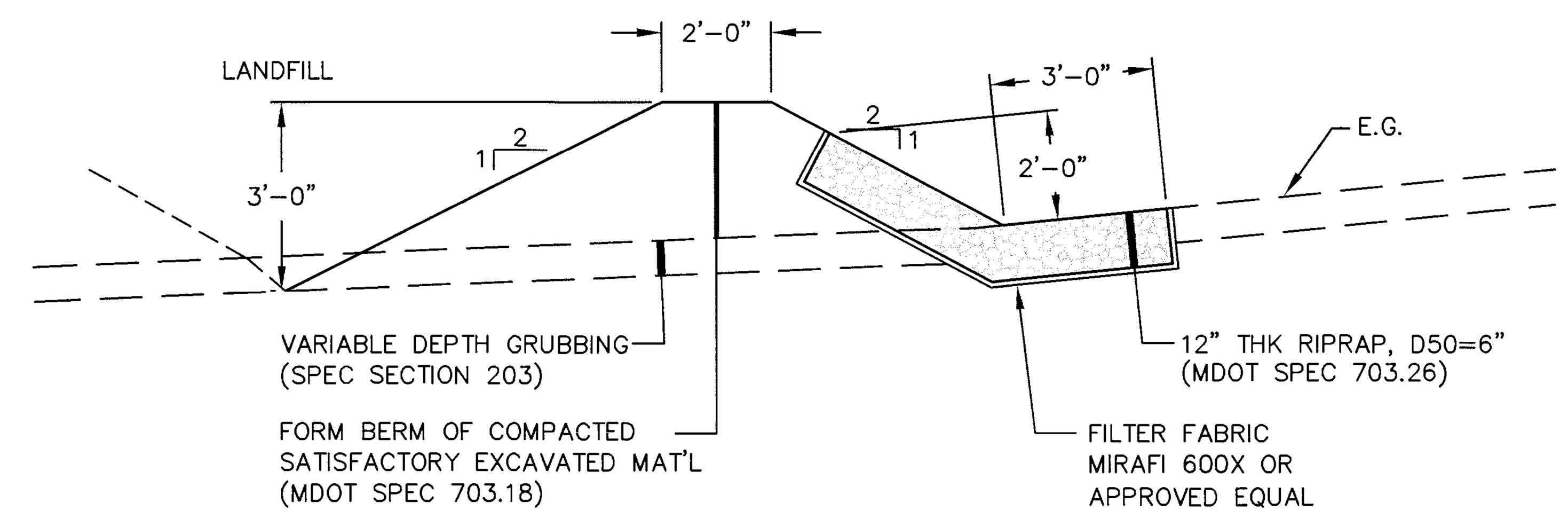
DOLBY III LANDFILL
CELL 16 CONSTRUCTION
SITE DEVELOPMENT PLAN

JOB NO.
FILE NO.
LOC. NO.

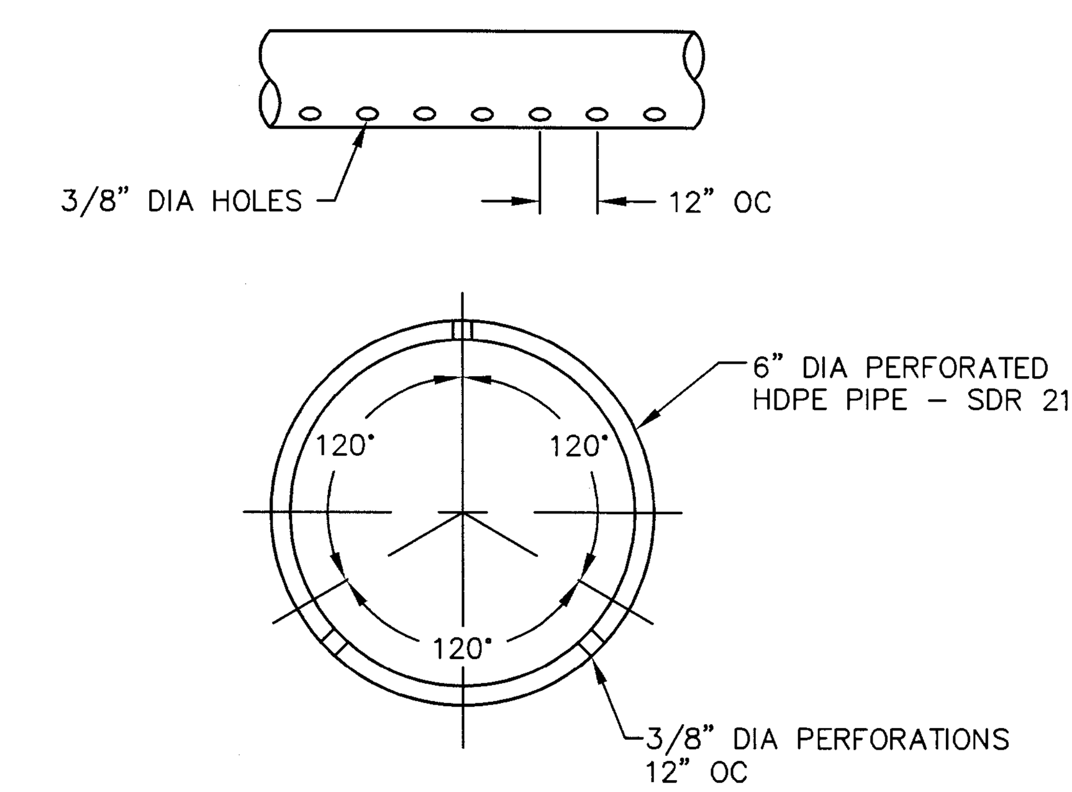
C-102



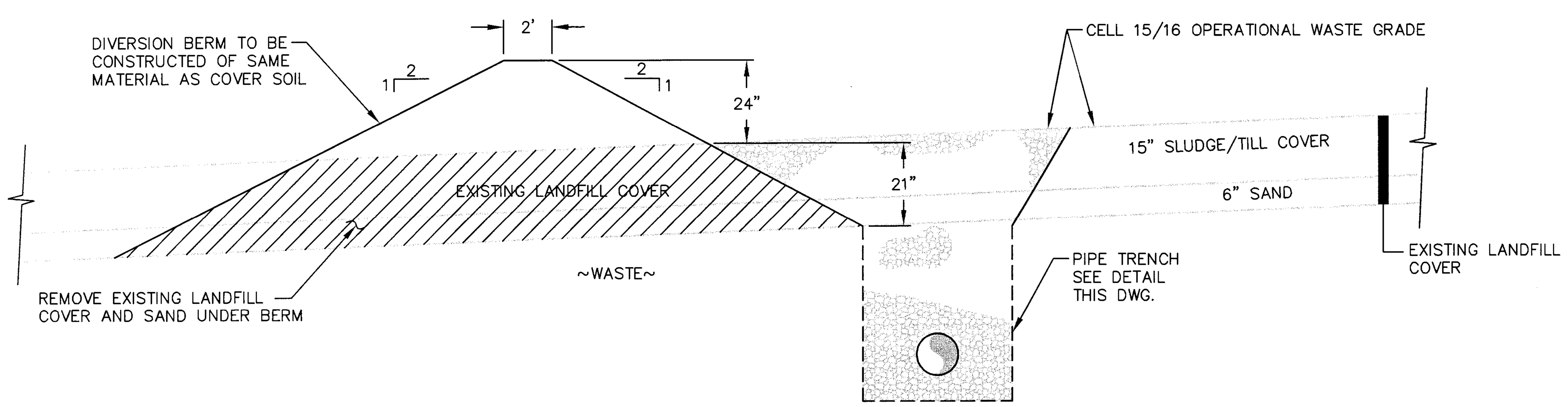
PIPE TRENCH
NTS



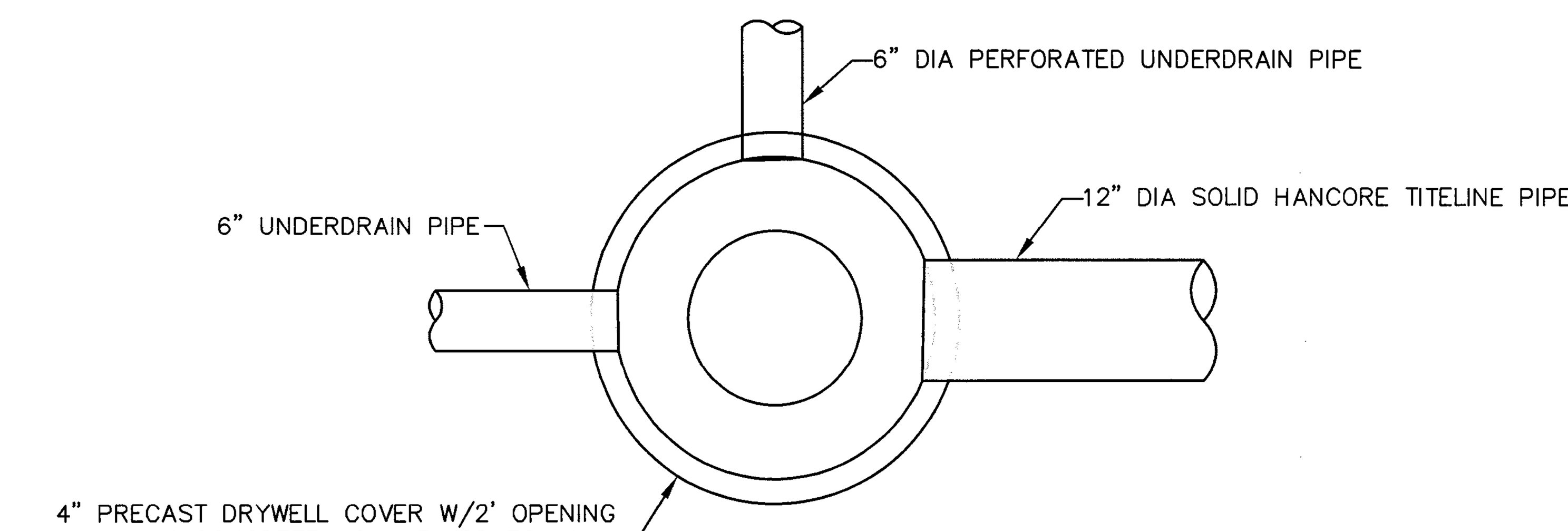
DIKE AND TYPE 1 DRAINAGE DITCH
NTS



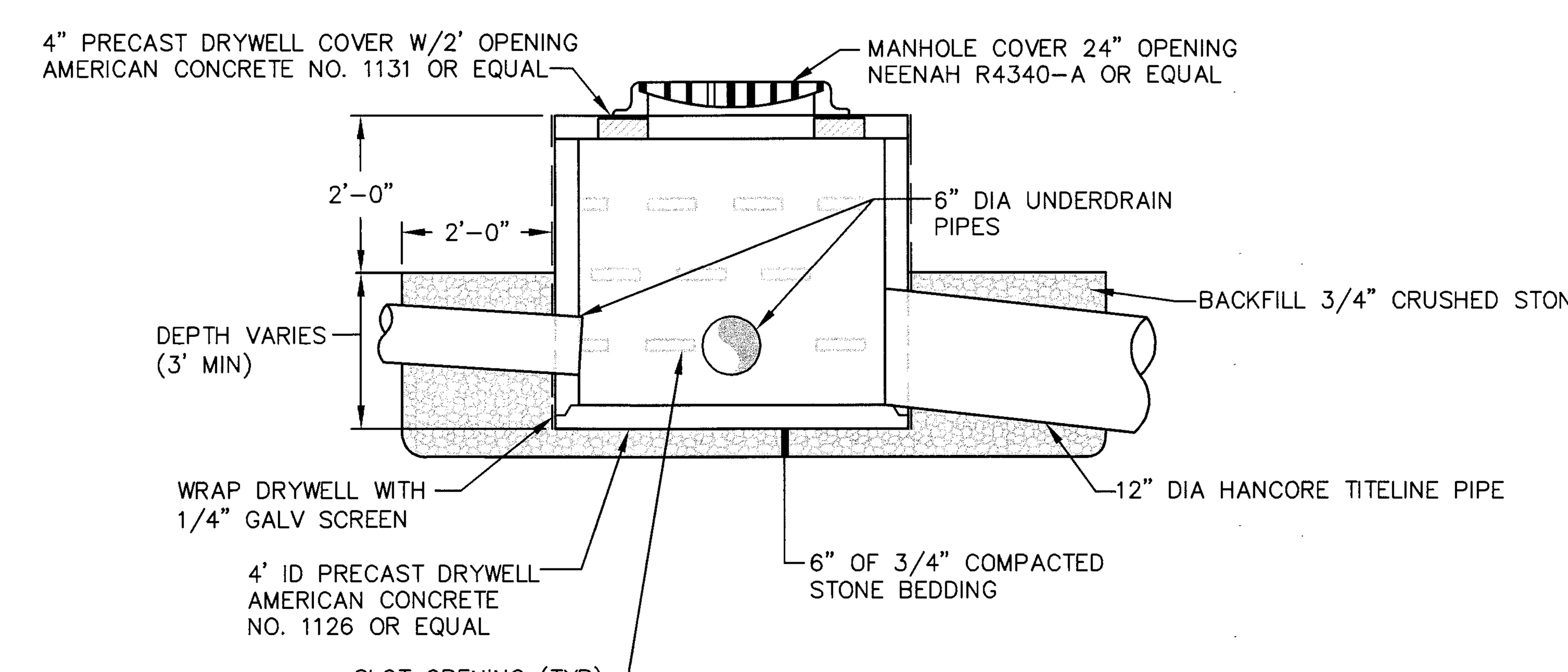
PERFORATED PIPE
NTS



OPERATIONAL/EXISTING LANDFILL COVER INTERFACE (1)
NTS
YB-___

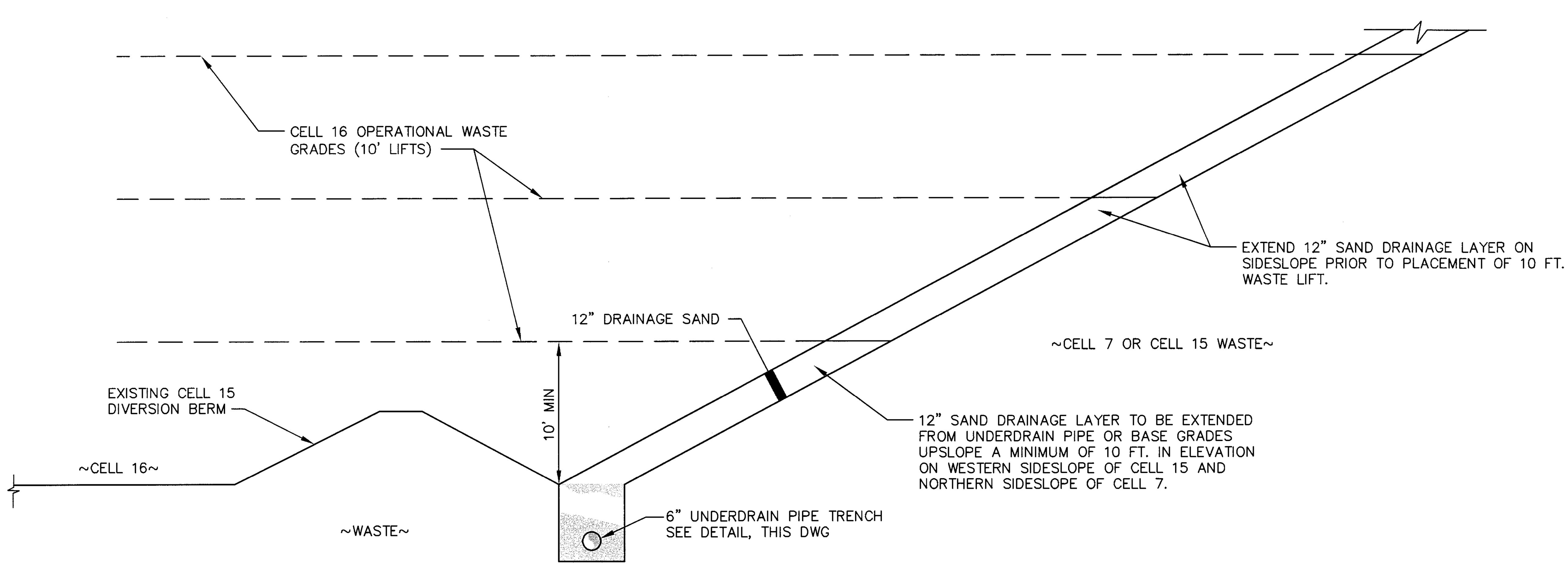


PLAN



SECTION

DRAINAGE MANHOLE
NTS



OPERATIONAL DRAINAGE
NTS

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
6	-			- -								- -						
5	-			- -								- -						
4	-			- -								- -						
3	-											- -						
2	-											- -						
1	-		P	7/23/08		SUBMITTED TO MEDEP						- -						

SME
Sevee & Maher Engineers, Inc.
4 Blanchard Road P.O. Box 85A
Cumberland Center, ME 04021
JOB NO. 08035.05

DRN	MSB	7/08
CHKD	GHC	7/08
APPVD		- -
ISSUE CODE		
P - Preliminary		
B - Bids		
C - Construction		
ASB - As Built		
SCALE	NONE	

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

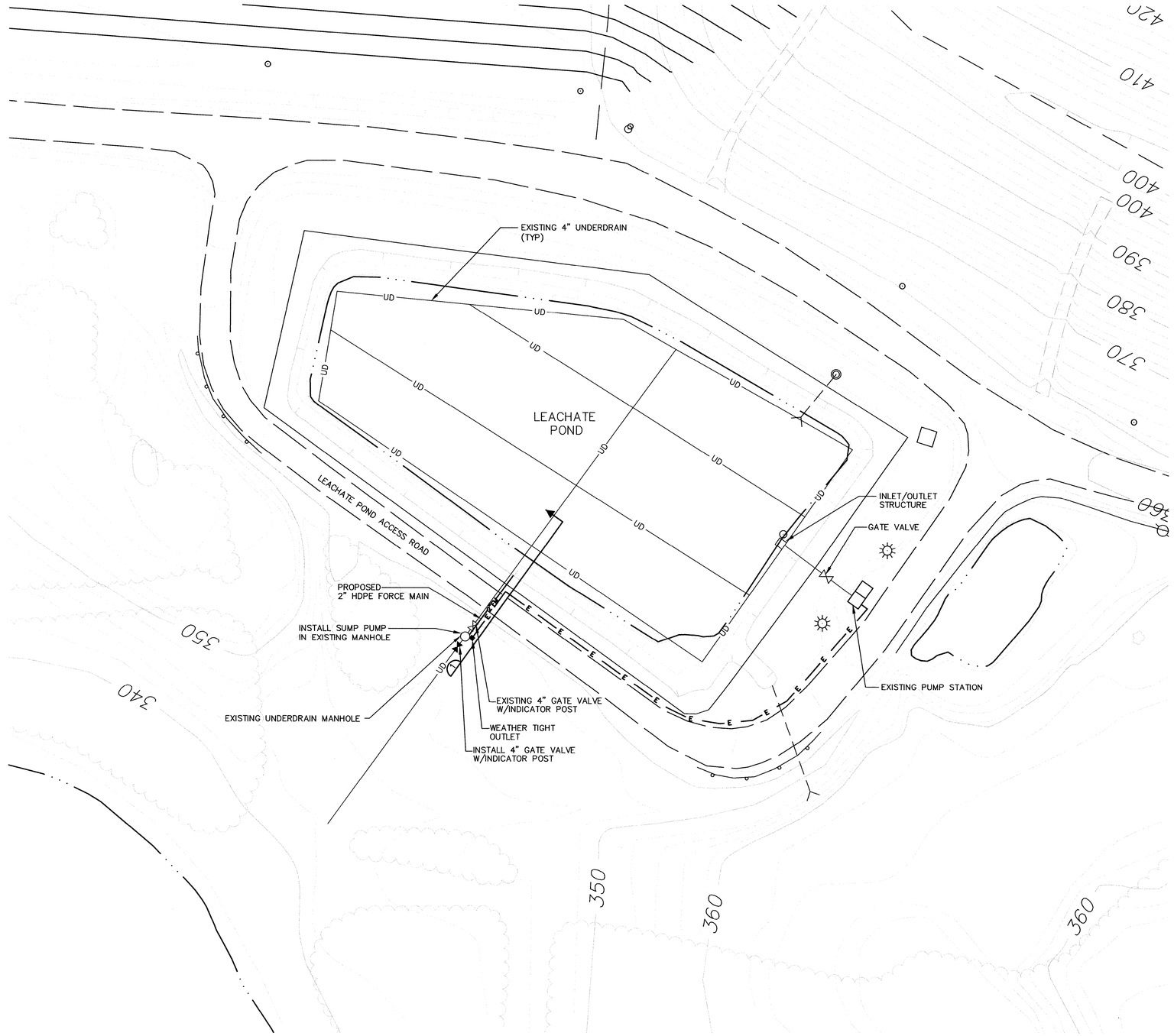
CAD FILE:

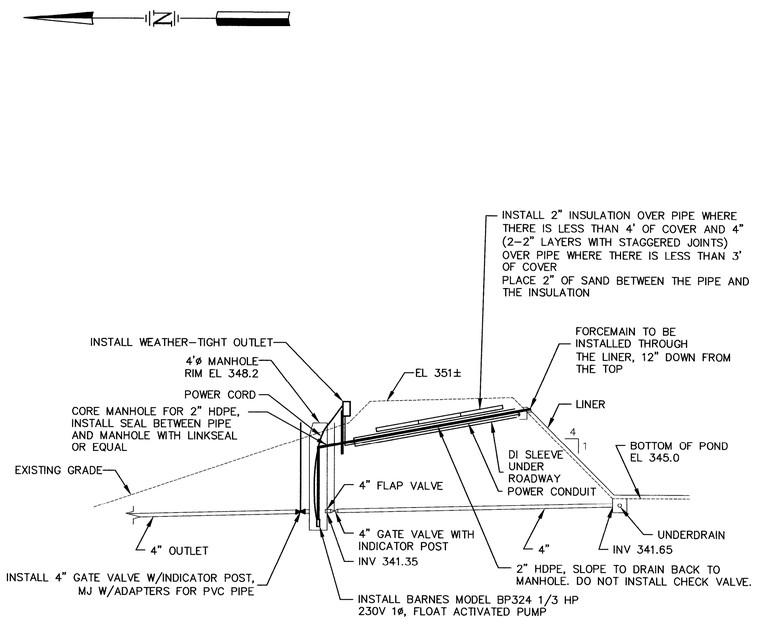
EAST OPERATION

DOLBY III LANDFILL
CELL 16 CONSTRUCTION
SECTIONS & DETAILS

JOB NO.
FILE NO.
LOC. NO.

C–300
SHEET 1 OF 1





SECTION 1
NTS

STATE OF MAINE GREGORY H. CROCKETT 15150 REGISTERED PROFESSIONAL ENGINEER 8/30/02

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REVISION	BY	CKD	APPVD	JOB
6	-			- -					
5	-			- -					
4	-	BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, INC.		- -					
3	-	NORRIDGEWOCK, MAINE - PHOTO DATE 10/23/95. GROUND CONTROL BY PLISGA & DAY,							
2	-	BANGOR, MAINE. STANDARD PRACTICE DICTATES THAT PLANS							
1	-	COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY CONTRACTOR BEFORE CONSTRUCTION.		8/13/02	SUBMITTED TO MDEP				

CODE	DATE	REVISION	BY	CKD	APPVD	JOB
	- -					
	- -					
	- -					
	- -					
	- -					
	- -					

SME
Sevee & Maher Engineers, Inc.
4 Blanchard Road P.O. Box 85A
Cumberland Center, ME 04021

JOB NO. 02005

DRN	DRD	7/27/02
CHKD	GHC	7/27/02
APPVD		

ISSUE CODE
P - Preliminary
B - Bids
C - Construction
ASB - As Built
SCALE NONE

Great Northern PAPER, INC.

CAD FILE: AS9548.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND
REPIPING OF UNDERDRAIN DISCHARGE

JOB NO.
FILE NO.
LOC. NO.

YB-26109

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KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE
DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT

SHT NO	TITLE	DWG NO
1	COVER SHEET	YB–26187
2	SYMBOLS & ABBREVIATIONS	YB–26188
3	SITE LOCATION PLAN	YB–26189
4	EXISTING CONDITIONS PLAN	YB–26190
5	BASE GRADING AND UNDERDRAIN PLAN	YB–26191
6	LEAK DETECTION PLAN	YB–26192
7	SECTIONS & DETAILS (SHEET 1 OF 3)	YB–26193
8	SECTIONS & DETAILS (SHEET 2 OF 3)	YB–26193
9	SECTIONS & DETAILS (SHEET 3 OF 3)	YB–26193

SME

Sevee & Maher Engineers, Inc.

Waste Management and Hydrogeologic Consultants

Cumberland Center, Maine

STATE OF MAINE — JOHN E. SEVEE NO. 2150 — LICENSED PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE
6	–	
5	–	
4	–	
3	–	
2	–	
1	–	

CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
	- -						
	- -						
ASB	11/26/07		RECORD DRAWING		GHC		
B	10/31/06		ISSUED FOR BID		GHC		
P	5/17/06		REVISED PER MEDEP COMMENTS		GHC		
P	12/9/05		SUBMITTED TO MEDEP		GHC		

CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
	- -						
	- -						
	- -						
	- -						
	- -						
	- -						

05034.01

DRN	DRD	11/05
CHKD	GHC	11/05
APPVD		- -

ISSUE CODE
P - Preliminary
B - Bids
C - Construction
ASB - As Built
SCALE NONE

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: LPOND–COVER.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
COVER SHEET

JOB NO. 00000
FILE NO. 0–000–0000
LOC. NO.

YB–26187

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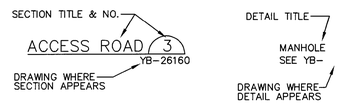
SYMBOLS

EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
		NORTH ARROW (TRUE)			DRAINAGE COURSE (WITH DIRECTION)		UG	UNDERGROUND GAS MAIN
DATE		NORTH ARROW (MAGNETIC)			EDGE OF WATER		UT	UNDERGROUND TELEPHONE LINE
N		NORTH ARROW (PLAN NORTH)			WATER ELEVATION (GROUND OR SURFACE)		UE	UNDERGROUND ELECTRICAL LINE
	25	CONTOUR LINES			FENCE LINE (WOOD)		OE	OVERHEAD ELECTRICAL LINE
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)			FENCE LINE (WIRE)		OT	OVERHEAD TELEPHONE LINE
		EXISTING GROUND			STONE WALL		12" SS	SANITARY SEWER
		SURVEY BASELINE WITH TRIANGULATION OR INTERSECTION PT.			RETAINING WALL		8" FM	FORCE MAIN
		PROPERTY LINE OR R.O.W.			GUARD RAIL		8" W	WATER MAIN
N35°-10'-10"W 251.17'	N35°-10'-10"W 251.17'	PROPERTY LINE W/ BEARING AND DISTANCE			BUILDING AND STRUCTURES		12" SD	STORM DRAIN
	0+00 1+00	CONSTRUCTION BASELINE		2 1' OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)		8" UD	UNDERDRAIN
		BOUNDARY LINE (State, County, Municipality)	TOP OF SLOPE 2 1	TOP OF SLOPE 2 1	SLOPES (WITH SLOPE RATIO)		6" PD	PERIMETER DRAIN
		SURVEY MONUMENT			EDGE OF ROAD		6" LT	LEACHATE TRANSPORT
		SURVEY CONTROL		P	CUT OR FILL LINE		6" LC	LEACHATE COLLECTION
		PROPERTY PIN, DRILL HOLE, PK, OR STAKE			BITUMINOUS PAVEMENT		6" LD	LEAK DETECTION
		WOODS OR BRUSH LINE			CONCRETE		6" G	GAS COLLECTION
		INDIVIDUAL TREE	B-12 MW-12 P-12	B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER			REDUCER
		MAPPED WETLAND	TP-12	TP-12	TEST PIT AND NUMBER			MECHANICAL CAP OR PLUG
		GAS VENT	SW-12	SW-12	SURFACE WATER SAMPLE LOCATION			COUPLING
		GAS VENT (CAPPED)			GAS EXTRACTION WELL			BEND
		CLEAN OUT STRUCTURE			MANHOLE			TEE
		CULVERT			CATCH BASIN			PIPE TO BE ABANDONED
		RAILROAD			WATER OR GAS VALVE			RISER PIPE & INLET GRATE
		SLOPE INCLINOMETER			HYDRANT			STORM GRATE
		VIBRATING WIRE SETTLEMENT CELL			AIR RELEASE VALVE			DRAINAGE INLET STRUCTURE
		VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT			SURGE RELEASE VALVE			UNDERDRAIN SUMP
		VERTICAL DISPLACEMENT MONUMENT			UTILITY POLE		SF	SILTATION FENCE
		LIQUID SETTLEMENT GAGE			LIGHT POLE		CLL	CLEARING OR CONSTRUCTION LIMIT LINE

ACCMP	ASPHALT COATED CMP	D	DEGREE OF CURVE	HDPE	HIGH DENSITY POLYETHYLENE	PERF	PERFORATED
ACP	ASBESTOS CEMENT PIPE	DBL	DOUBLE	HORIZ	HORIZONTAL	PP	POWER POLE
AC	ACRE	DEG OR °	DEGREE	HP	HORSEPOWER	PSI	POUNDS PER SQUARE INCH
AGG	AGGREGATE	DEPT	DEPARTMENT	HYD	HYDRANT	PVC	POLYVINYL CHLORIDE
ALUM	ALUMINUM	DI	DUCTILE IRON			PVMT	PAVEMENT
APPD	APPROVED	DIA OR ø	DIAMETER	ID	INSIDE DIAMETER		
APPROX	APPROXIMATE	DIM	DIMENSION	IN OR "	INCHES	QTY	QUANTITY
ARMH	AIR RELEASE MANHOLE	DIST	DISTANCE	INV	INVERT		
ASB	ASBESTOS	DN	DOWN	INV EL	INVERT ELEVATION	RCP	REINFORCED CONCRETE PIPE
ASP	ASPHALT	DR	DRAIN			ROW	RIGHT OF WAY
AUTO	AUTOMATIC	DWG	DRAWING	LB	POUND	RAD	RADIUS
AUX	AUXILIARY			LC	LEACHATE COLLECTION	REQD	REQUIRED
AVE	AVENUE	EA	EACH	LD	LEAK DETECTION	RT	RIGHT
AZ	AZIMUTH	EG	EXISTING GROUND OR GRADE	LF	LINEAR FEET	RTE	ROUTE
		ELEC	ELECTRIC	LOC	LOCATION		
BCCMP	BITUMINOUS COATED CMP	EL	ELEVATION	LT	LEACHATE TRANSPORT	S	SLOPE
BM	BENCH MARK	ELB	ELBOW			SCH	SCHEDULE
BIT	BITUMINOUS	EOP	EDGE OF PAVEMENT	MH	MANHOLE	SF	SQUARE FEET
BLDG	BUILDING	EQUIP	EQUIPMENT	MJ	MECHANICAL JOINT	SHT	SHEET
BOT	BOTTOM	EST	ESTIMATED	MATL	MATERIAL	SMH	SANITARY MANHOLE
BRG	BEARING	EXC	EXCAVATE	MAX	MAXIMUM	ST	STREET
BV	BALL VALVE	EXIST	EXISTING	MFR	MANUFACTURE	STA	STATION
				MIN	MINIMUM	SY	SQUARE YARD
CB	CATCH BASIN	FG	FINISH GRADE	MISC	MISCELLANEOUS		
CEN	CENTER	FBRGL	FIBERGLASS	MON	MONUMENT	TAN	TANGENT
CEM LIN	CEMENT LINED	FDN	FOUNDATION			TDH	TOTAL DYNAMIC HEAD
CMP	CORRUGATED METAL PIPE	FLEX	FLEXIBLE	NITC	NOT IN THIS CONTRACT	TEMP	TEMPORARY
CO	CLEAN OUT	FLG	FLANGE	NTS	NOT TO SCALE	TYP	TYPICAL
CF	CUBIC FEET	FLR	FLOOR	N/F	NOW OR FORMERLY		
CFS	CUBIC FEET PER SECOND	FPS	FEET PER SECOND	NO OR #	NUMBER	UD	UNDERDRAIN
CI	CAST IRON	FT OR '	FEET				
CL	CLASS	FTG	FOOTING	OC	ON CENTER	V	VOLTS
CONC	CONCRETE			OD	OUTSIDE DIAMETER	VA TEE	VALVE ANCHORING TEE
CONST	CONSTRUCTION	GA	GAUGE			VERT	VERTICAL
CONTR	CONTRACTOR	GAL	GALLON	PC	POINT OF CURVE		
CS	CURB STOP	GALV	GALVANIZED	PD	PERIMETER DRAIN	WG	WATER GATE
CTR	CENTER	GPD	GALLONS PER DAY	PI	POINT OF INTERSECTION	W/	WITH
CU	COPPER	GPM	GALLONS PER MINUTE	PIV	POST INDICATOR VALVE	W/O	WITHOUT
CY	CUBIC YARD			PT	POINT OF TANGENT	YD	YARD

VIEW MARKERS & IDENTIFICATION



GENERAL NOTES:

THE DOLBY LANDFILL IS AN ACTIVE FACILITY THAT RECEIVES WASTE ON A DAILY BASIS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE OWNER WITH REGARDS TO USE OF PREMISES, INCLUDING HAUL ROUTES AND VEHICULAR ACCESS. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES SO AS NOT TO INTERFERE WITH ACTIVE LANDFILLING OPERATIONS. THE CONTRACTOR SHALL OBEY ALL TRAFFIC, NOISE, AND DUST CONTROL POLICIES OF THE DOLBY LANDFILL.

THE CONTRACTOR SHALL COMPLY FULLY WITH CONDITIONS OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, (MEDEP), NRPA PERMIT BY RULE CONDITIONS, MEDEP CONSTRUCTION GENERAL PERMIT, AND MEDEP "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES", AS APPLICABLE, AND SHALL TAKE EVERY PRECAUTION TO INSURE THAT NO SILTATION OF STORMWATER DRAINAGE COURSES OCCURS AS A RESULT OF SOIL DISTURBANCE ASSOCIATED WITH THE CONTRACT SCOPE OF WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE PROTECTION OF THE PROJECT DURING CONSTRUCTION FROM ANY ACTS OF NATURE OR MAN, SUCH AS, BUT NOT LIMITED TO, FLOODS, WIND DAMAGE, EARTHEN SLIDES, AND SLOPE FAILURES. DAMAGE TO THE PROJECT CAUSED BY SUCH ACTS WILL NOT BE SUFFICIENT CAUSE TO INCREASE CONTRACTOR COSTS TO THE OWNER.

THE CONTRACTOR SHALL PROTECT EXISTING ON-SITE STRUCTURES FROM DAMAGE DURING CONSTRUCTION, INCLUDING: MONITORING WELLS, POWER LINES, SURVEY POINTS, AND EXISTING LEACHATE COLLECTION AND TRANSPORT FACILITIES AND SYSTEMS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS REQUIRED TO CORRECT DAMAGE MADE TO EXISTING ON-SITE STRUCTURES DESCRIBED ABOVE RESULTING FROM ANY CONSTRUCTION ACTIVITY.

THE CONTRACTOR AND ITS SUBCONTRACTORS MUST COMPLY WITH ALL APPLICABLE SAFETY PROCEDURES AND REQUIREMENTS UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND REGULATIONS ISSUED THEREUNDER AND STATE LABOR (SAFETY) DEPARTMENT AND MILL RULES, PROCEDURES, AND REGULATIONS REGARDING SAFETY.

CONTOURS SHOWN ON PLANS MAY NOT REPRESENT EXISTING CONDITIONS OF THE SITE. CONTRACTOR SHALL FIELD VERIFY CONDITIONS PRIOR TO CONSTRUCTION.

MATERIAL SPECIFICATIONS: (SEE TECHNICAL SPECIFICATIONS FOR MORE INFORMATION)

SCREENED TILL: SHALL BE EARTH, SUITABLE FOR EMBANKMENT CONSTRUCTION. SCREENED TILL SHALL BE GLACIAL TILL FREE OF FROZEN MATERIALS, PERISHABLE RUBBISH, PEAT, ORGANIC MATTER, LARGE ROCK FRAGMENTS, OR OTHER UNSUITABLE MATERIAL AND SHALL BE SCREENED TO LESS THAN 1" IN DIAMETER WITH GREATER THAN 20 PERCENT FINES. THE FINAL SURFACE OF THE SCREENED TILL SHALL BE FREE FROM PROTRUDING ROCKS GREATER THAN 1-INCH IN DIAMETER.

COMMON BORROW - MDOT SPECIFICATION 703.18

CLAY - THE CLAY FOR POND LINER BASE SHALL BE SILTY CLAY SOIL FREE OF ORGANIC MATTER, DEBRIS, AND ROCK FRAGMENTS LARGER THAN 1 INCH IN DIAMETER. CLAY SHALL MEET A GRADATION AND HYDRAULIC CONDUCTIVITY REQUIREMENT AS FOLLOWS:

a. SIEVE DESIGNATION — PERCENT BY WEIGHT PASSING SQUARE MESH SIEVE
1" — 100
#40 — 90-100
#200 — 75-100

b. REMOLDED HYDRAULIC CONDUCTIVITY (ASTM D 5084-90) MAXIMUM $\leq$ 1X10-7 cm/sec

c. LIQUID LIMIT: > 20
PLASTICITY INDEX: 8 $\leq$ P.E. <30

STONE BEDDING - THE STONE BEDDING MATERIAL SHALL BE 3/4 INCH SCREENED OR CRUSHED STONE, FREE OF ORGANIC MATTER, SILT OR CLAY LUMPS, OR DELETERIOUS MATERIAL.

3/4" STONE - THE PIPE BEDDING MATERIAL SHALL BE 3/4 INCH SCREENED OR CRUSHED STONE, FREE OF ORGANIC MATTER, SILT OR CLAY LUMPS, OR DELETERIOUS MATERIAL.

COMPACTION - DIKE EMBANKMENT SOIL SHALL BE COMPACTED TO A DENSITY OF 90 PERCENT OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 (STANDARD PROCTOR)

2" SOLID SDR 11 PVC LEAK DETECTION FORCE MAIN
4" PERFORATED SDR 15.5 HDPE PIPE
6" SOLID AND PERFORATED SDR 17 HDPE PIPE
12" SOLID SDR 17 HDPE PIPE
24" SOLID SDR 17 HDPE PIPE

SEED AND FERTILIZER:
AREAS DISTURBED BY CONSTRUCTION AND THE OUTBOARD SLOPES OF THE DIKE SHALL BE FERTILIZED AND SEEDED.

MATERIAL:

AGRICULTURAL GROUND LIMESTONE: 25 LBS PER UNIT (1,000 SF)

FERTILIZER: GRANULAR FERTILIZER 18.5, 18.5, 18.5 (N,P,K) 10 LBS PER UNIT

SEED:

TALL FESCUE	59%
RED FESCUE	25%
RED TOP	5%
LADINO CLOVER	3%
ANNUAL RYEGRASS	8%

THIS SEED MIXTURE SHALL BE APPLIED AT A RATE OF 3 LBS PER UNIT

MULCH - THE MULCH APPLICATION RATE SHALL BE 2 TONS PER ACRE

INSTALLATION - MDOT 618.05 AND MDOT 618.06

RECOMMENDED TIME OF SEEDING IS FROM APRIL 15 TO SEPTEMBER 15.

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
6	-			- -						- -
5	-			- -						- -
4	-			11/26/07	ASB	RECORD DRAWING		GHC		- -
3	-			10/31/06	B	ISSUED FOR BID		GHC		- -
2	-			5/17/06	P	REVISED PER MEDEP COMMENTS		GHC		- -
1	-			12/9/05	P	SUBMITTED TO MEDEP		GHC		- -

SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine
JOB NO. 05043.01

DRN	DRD	11/05
CHKD	GHC	11/05
APPVD		- -

ISSUE CODE
P - Preliminary
B - Bids
C - Construction
ASB - As Built
SCALE NONE

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: SYMSHT.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
SYMBOLS & ABBREVIATIONS

JOB NO. 00000
FILE NO. 0-000-0000
LOC. NO.

YB-26188

K:\pd\DolbyIII\ACAD\Leachate Pond\RedDwg\LPOND-DETAILS.dwg, 11/29/2007 4:53:04 PM, mbiskup

NOTE:

1. PLAN COMPILED FROM AERIAL PHOTOGRAPH DATED AUGUST 18, 2005.

2. AERIAL PHOTOGRAPHY AND BASE MAP PERFORMED BY AERIAL SURVEY & PHOTO, INC. OF NORRIDGEWOCK, MAINE. GROUND CONTROL PROVIDED BY PLISGA & DAY OF BANGOR, MAINE. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

3. EXISTING TOPOGRAPHY SHOWN AT 2-FOOT INTERVALS AND REPRESENT GRADES AT THE TIME OF THE SURVEY.

4. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL REMAIN IN COMPLIANCE WITH MAINE DEP AND BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTATION CONTROL AND EXISTING PERMITTING REQUIREMENTS FOR THE SITE INCLUDING FEDERAL, STATE AND LOCAL PERMITS.

50 0 100 200 FEET

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
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2	-			5/17/06	P	REVISED PER MEDEP COMMENTS		GHC				- -						
1	-			12/9/05	P	SUBMITTED TO MEDEP		GHC				- -						

SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine

JOB NO. 05043.01

DRN	DRD	11/05
CHKD	GHC	11/05
APPVD		- -
ISSUE CODE		
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ASB - As Built		
SCALE	AS NOTED	

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: LPOND.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
SITE LOCATION PLAN

JOB NO. 00000
FILE NO. 0-000-0000
LOC. NO.

YB-26189

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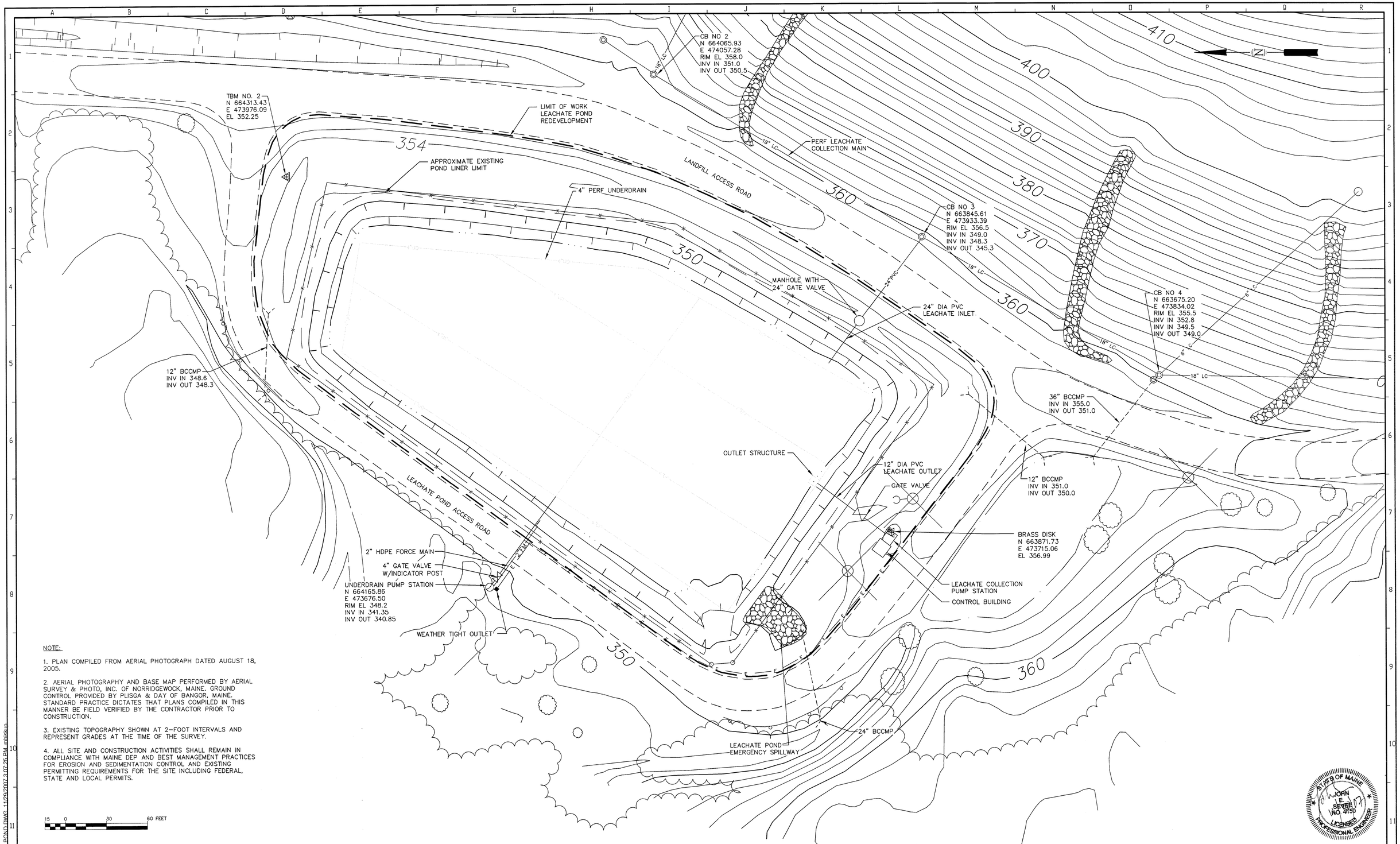

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STATE OF MAINE
JOHN E. SEVEE
NO. 4950
LICENSED PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE
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CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
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	- -						
	- -						

SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine

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SCALE AS NOTED

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: LPOND.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
EXISTING CONDITIONS PLAN

JOB NO. 000000
FILE NO. 0-000-0000
LOC. NO.

YB-26190

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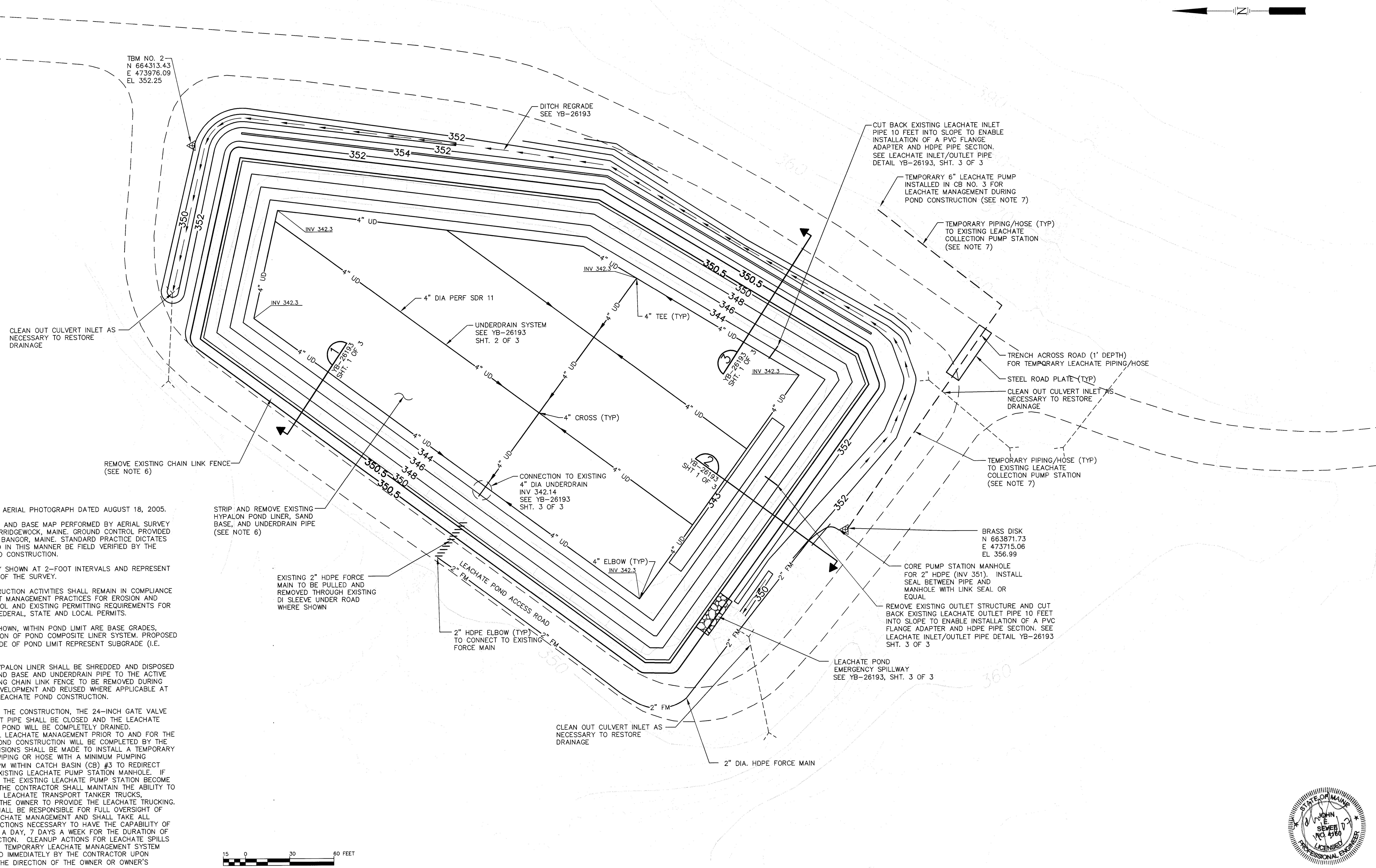

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5. PROPOSED GRADES SHOWN, WITHIN POND LIMIT ARE BASE GRADES, PRIOR TO CONSTRUCTION OF POND COMPOSITE LINER SYSTEM. PROPOSED GRADES SHOWN OUTSIDE OF POND LIMIT REPRESENT SUBGRADE (I.E. BOTTOM OF TOPSOIL).
6. REMOVED EXISTING HYPALON LINER SHALL BE SHREDDED AND DISPOSED OF WITH REMOVED SAND BASE AND UNDERDRAIN PIPE TO THE ACTIVE LANDFILL CELL. EXISTING CHAIN LINK FENCE TO BE REMOVED DURING LEACHATE POND REDEVELOPMENT AND REUSED WHERE APPLICABLE AT THE COMPLETION OF LEACHATE POND CONSTRUCTION.
7. PRIOR TO BEGINNING THE CONSTRUCTION, THE 24-INCH GATE VALVE ON THE POND'S INLET PIPE SHALL BE CLOSED AND THE LEACHATE WITHIN THE EXISTING POND WILL BE COMPLETELY DRAINED. TEMPORARY LANDFILL LEACHATE MANAGEMENT PRIOR TO AND FOR THE DURATION OF THE POND CONSTRUCTION WILL BE COMPLETED BY THE CONTRACTOR. PROVISIONS SHALL BE MADE TO INSTALL A TEMPORARY 6-INCH PUMP AND PIPING OR HOSE WITH A MINIMUM PUMPING CAPACITY OF 100 GPM WITHIN CATCH BASIN (CB) #3 TO REDIRECT LEACHATE TO THE EXISTING LEACHATE PUMP STATION MANHOLE. IF NECESSARY, SHOULD THE EXISTING LEACHATE PUMP STATION BECOME NON-OPERATIONAL, THE CONTRACTOR SHALL MAINTAIN THE ABILITY TO PUMP DIRECTLY INTO LEACHATE TRANSPORT TANKER TRUCKS, COORDINATING WITH THE OWNER TO PROVIDE THE LEACHATE TRUCKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULL OVERSIGHT OF THE TEMPORARY LEACHATE MANAGEMENT AND SHALL TAKE ALL PRECAUTIONS AND ACTIONS NECESSARY TO HAVE THE CAPABILITY OF PUMPING 24-HOURS A DAY, 7 DAYS A WEEK FOR THE DURATION OF THE POND CONSTRUCTION. CLEANUP ACTIONS FOR LEACHATE SPILLS OR LEAKS FROM THE TEMPORARY LEACHATE MANAGEMENT SYSTEM SHALL BE COMPLETED IMMEDIATELY BY THE CONTRACTOR UPON DISCOVERY, UNDER THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE.

15 0 30 60 FEET

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2	-			5/17/06	P	REVISED PER MEDEP COMMENTS		GHC				- -						
1	-			12/9/05	P	SUBMITTED TO MEDEP		GHC				- -						

SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine
JOB NO. 05043.01

DRN	MBISK	11/05
CHKD	GHC	11/05
APPVD	-	- -
ISSUE CODE		
P - Preliminary		
B - Bids		
C - Construction		
ASB - As Built		
SCALE	AS NOTED	

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: LPOND.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
BASE GRADING AND
UNDERDRAIN PLAN

JOB NO. 000000
FILE NO. 0-000-0000
LOC. NO.

YB-26191

STATE OF MAINE
JOHN E. SEVEE
NO. 4160
LICENSED
PROFESSIONAL ENGINEER

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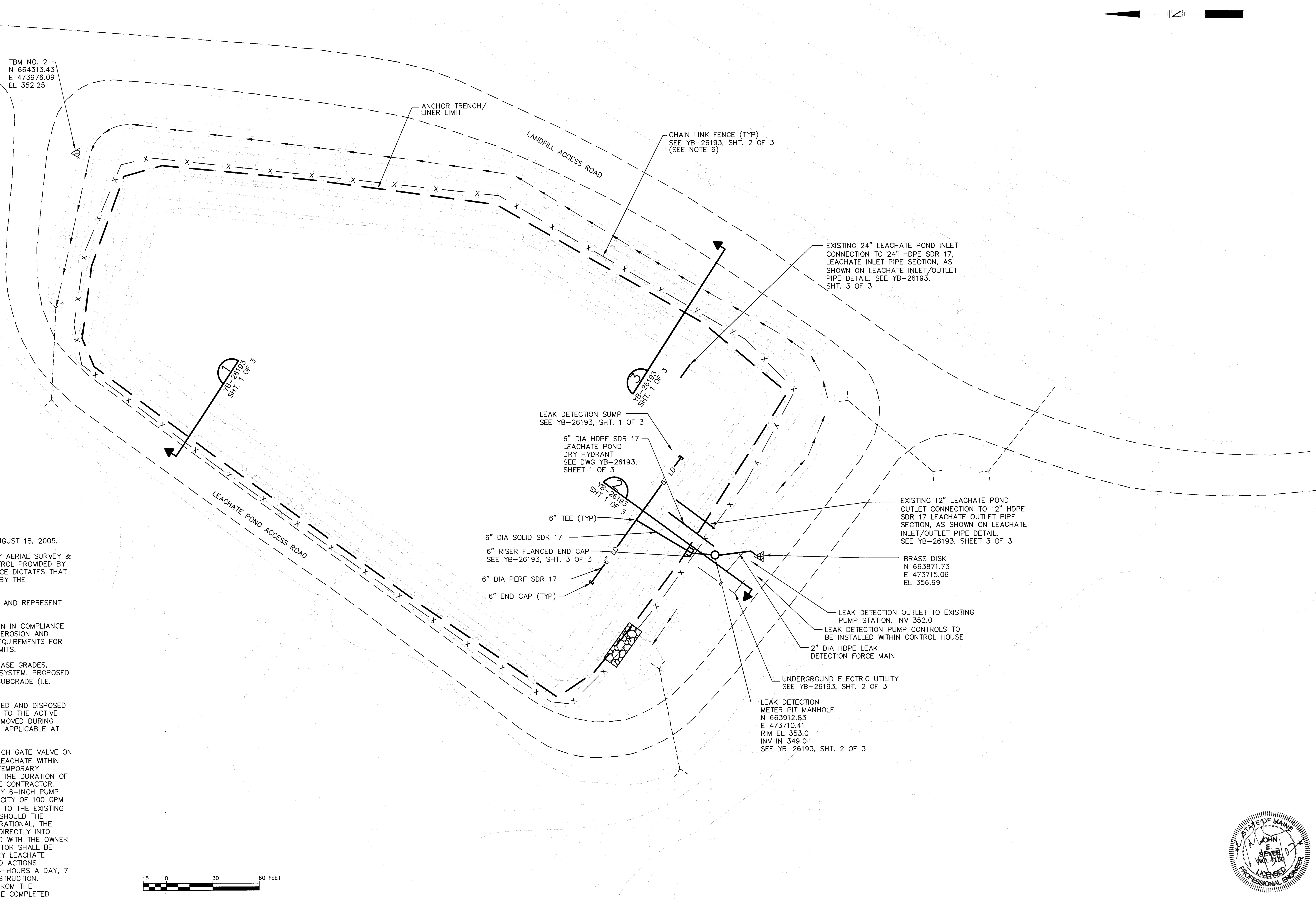

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STATE OF MAINE
JOHN E. SEVEE
NO. 4150
LICENSED
PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
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2	-			5/17/06	P	REVISED PER MEDEP COMMENTS		GHC				- -						
1	-			12/9/05	P	SUBMITTED TO MEDEP		GHC				- -						

SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine
JOB NO. 05043.01

DRN	MBISK	11/05
CHKD	GHC	11/05
APPVD		- -
ISSUE CODE		
P - Preliminary		
B - Bids		
C - Construction		
ASB - As Built		
SCALE	AS NOTED	

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

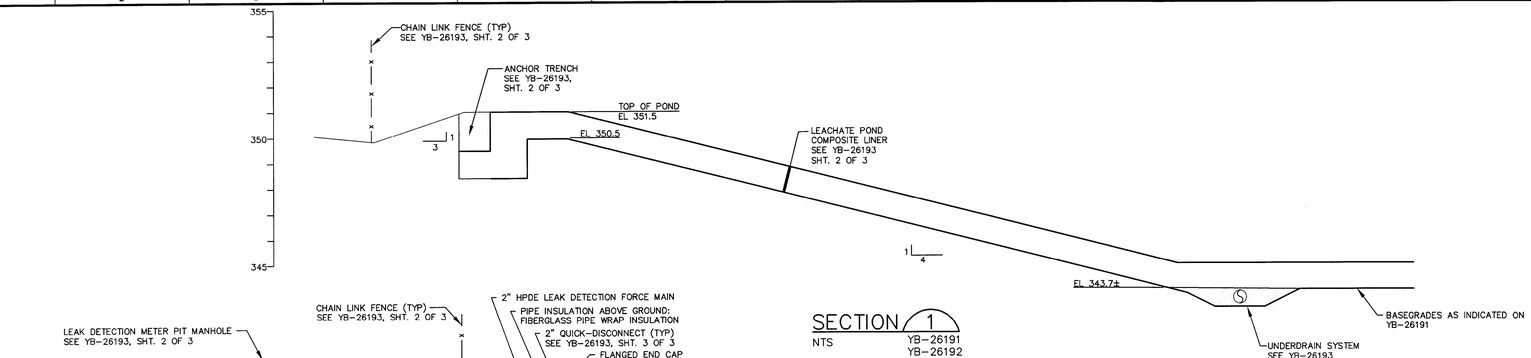
CAD FILE: LPOND.DWG

EAST OPERATION

DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
LEAK DETECTION PLAN

JOB NO. 00000
FILE NO. 0-000-0000
LOC. NO.

YB-26192



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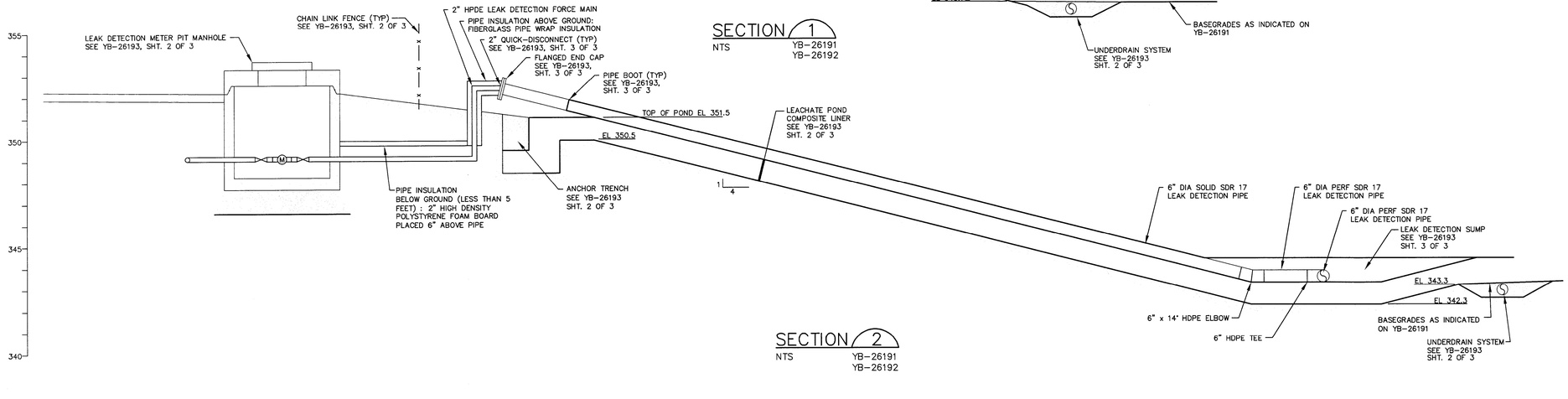

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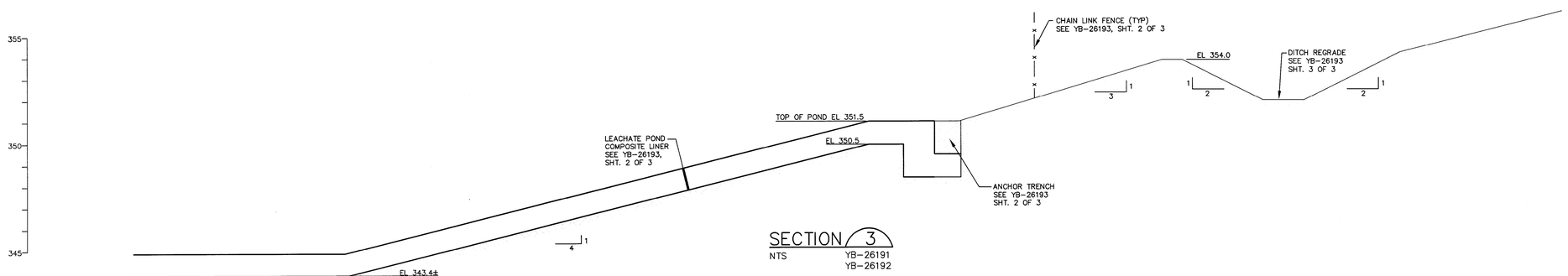

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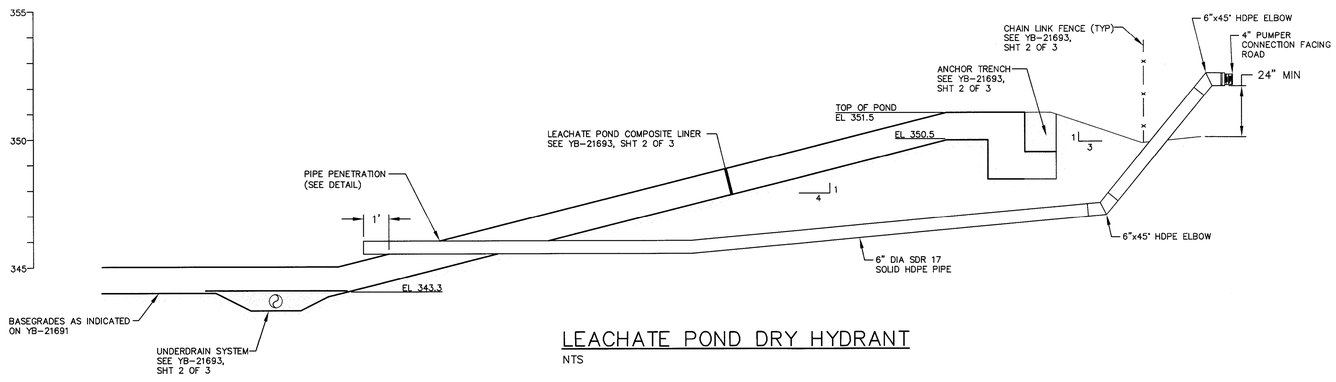

LEACHATE POND DRY HYDRANT
NTS

STATE OF MAINE
JOHN E. SEVEE
NO. 4160
LICENSED
PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE
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CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
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	10/31/06	B	ISSUED FOR BID		GHC		
	5/17/06	P	REVISED PER MEDEP COMMENTS		GHC		
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CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
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SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine

JOB NO. 05043.01

DRN	DRD	11/05
CHKD	GHC	11/05
APPVD		- -

ISSUE CODE
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ASB - As Built
SCALE AS NOTED

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: YB-26193 B0

EAST OPERATION
DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
SECTIONS AND DETAILS
(SHEET 1 OF 3)

JOB NO. 00000
FILE NO. 0-000-0000
LOC. NO.

YB-26193

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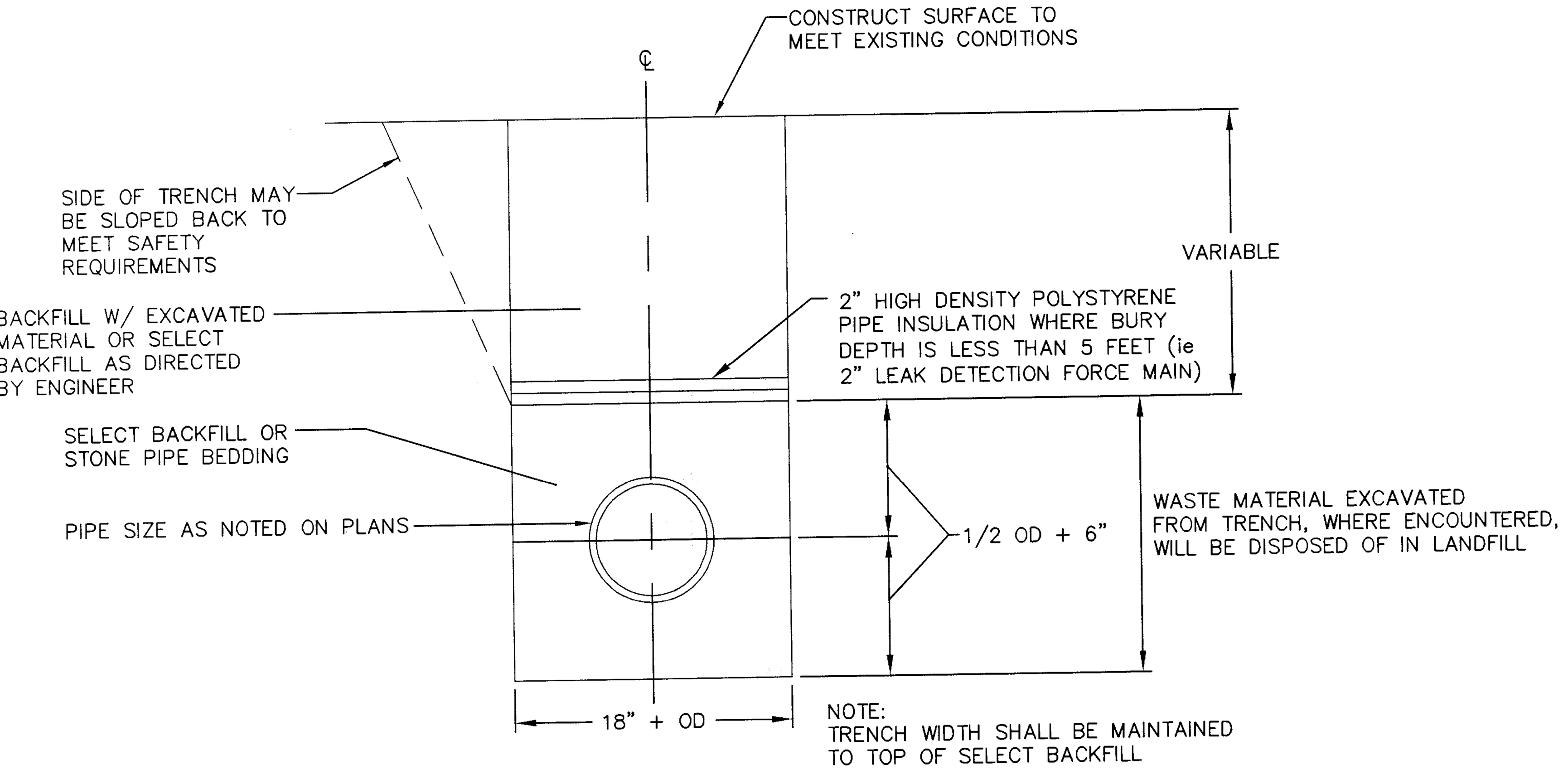
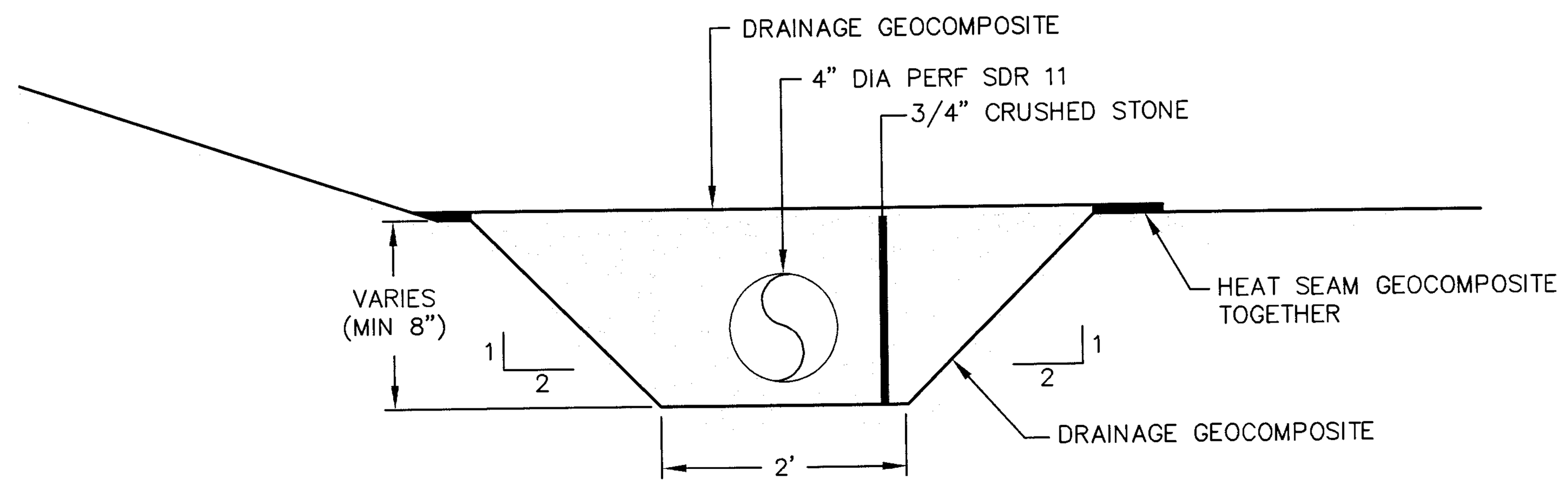


PIPE TRENCH
NTS



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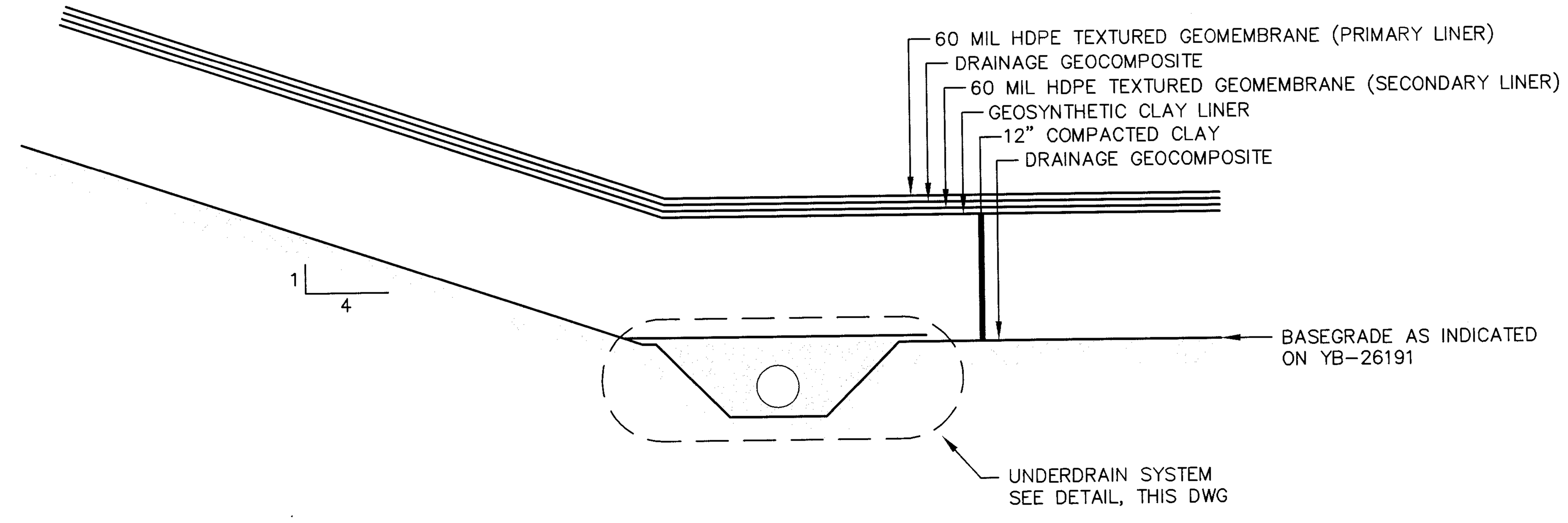
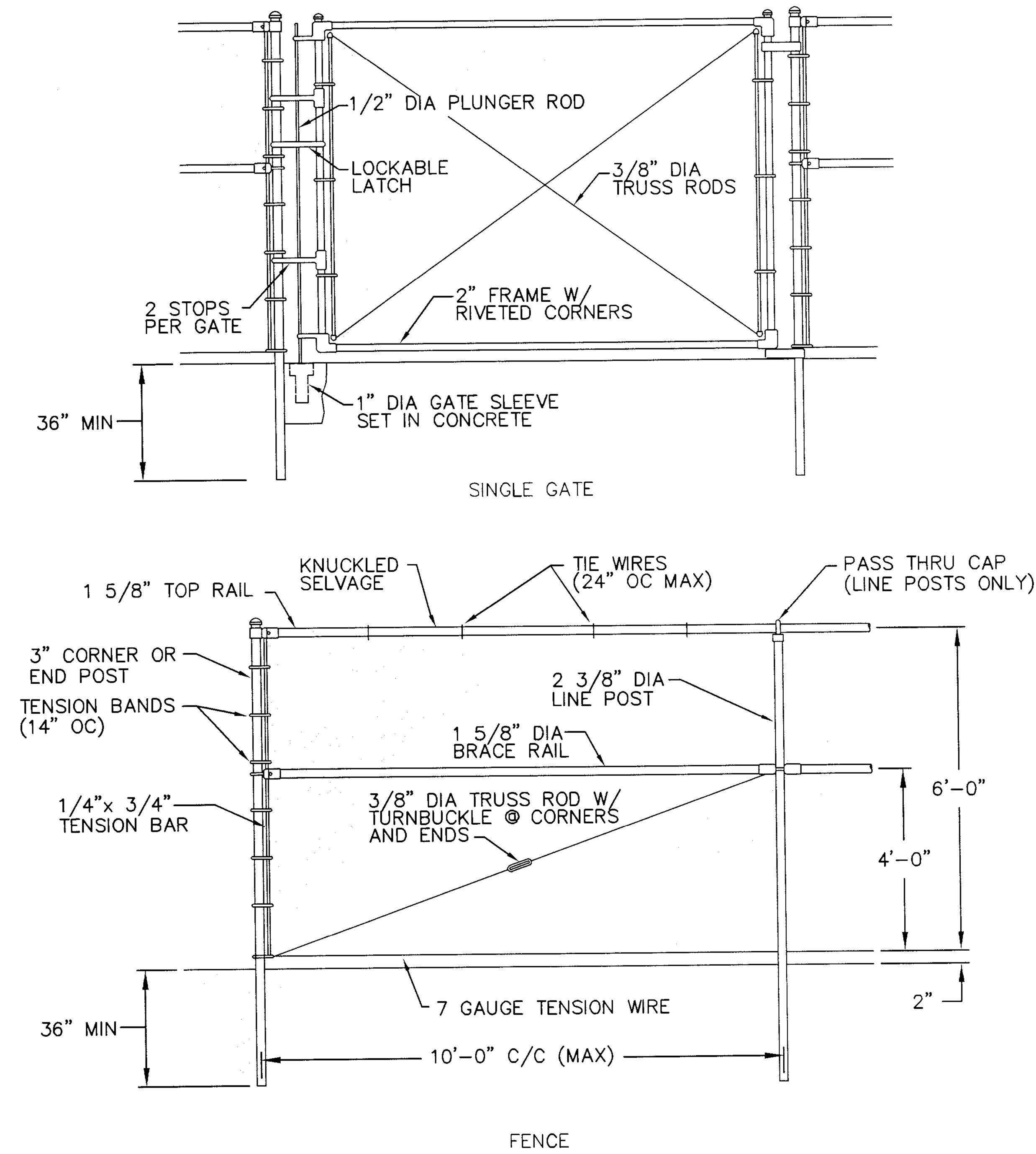
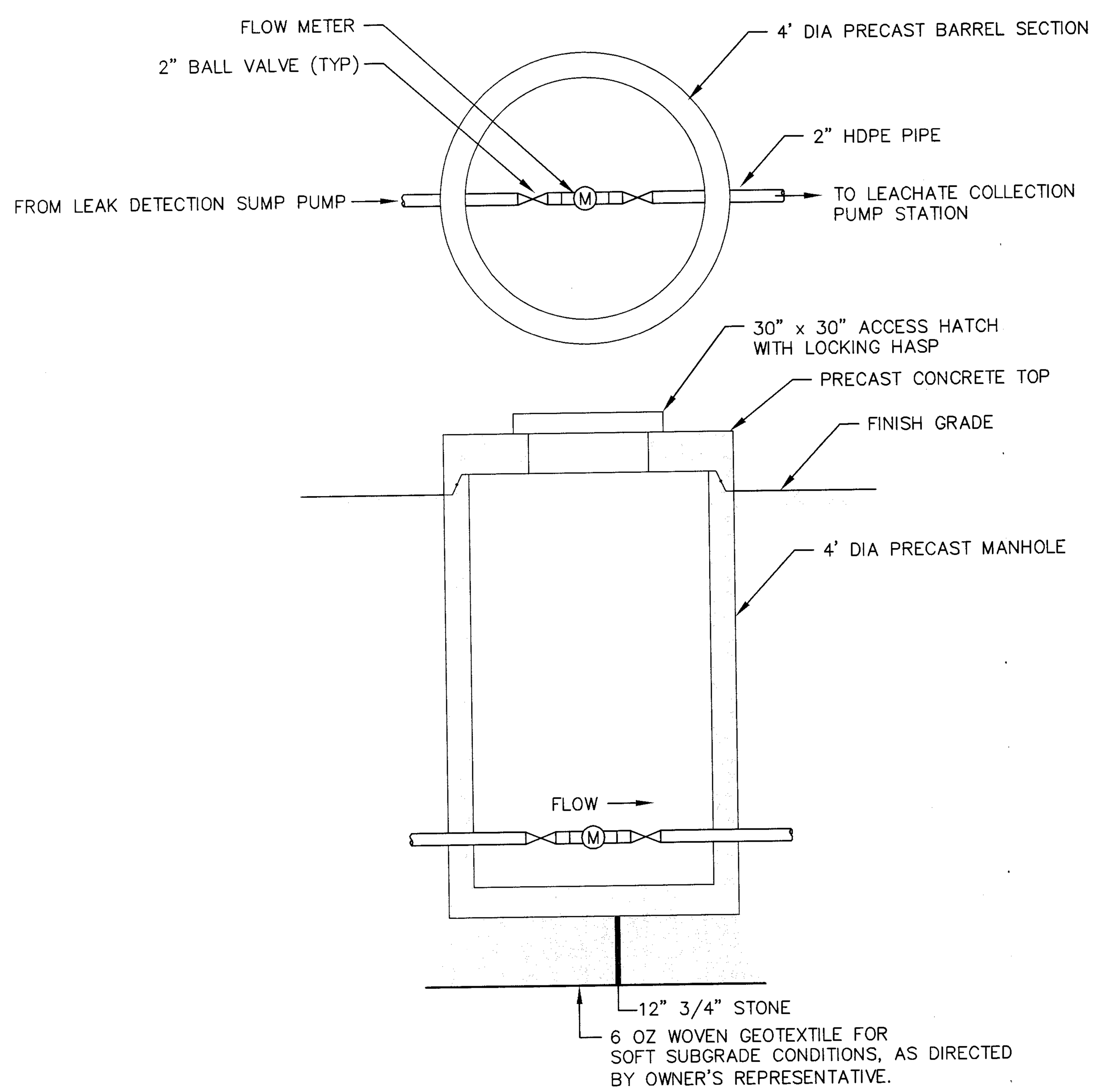


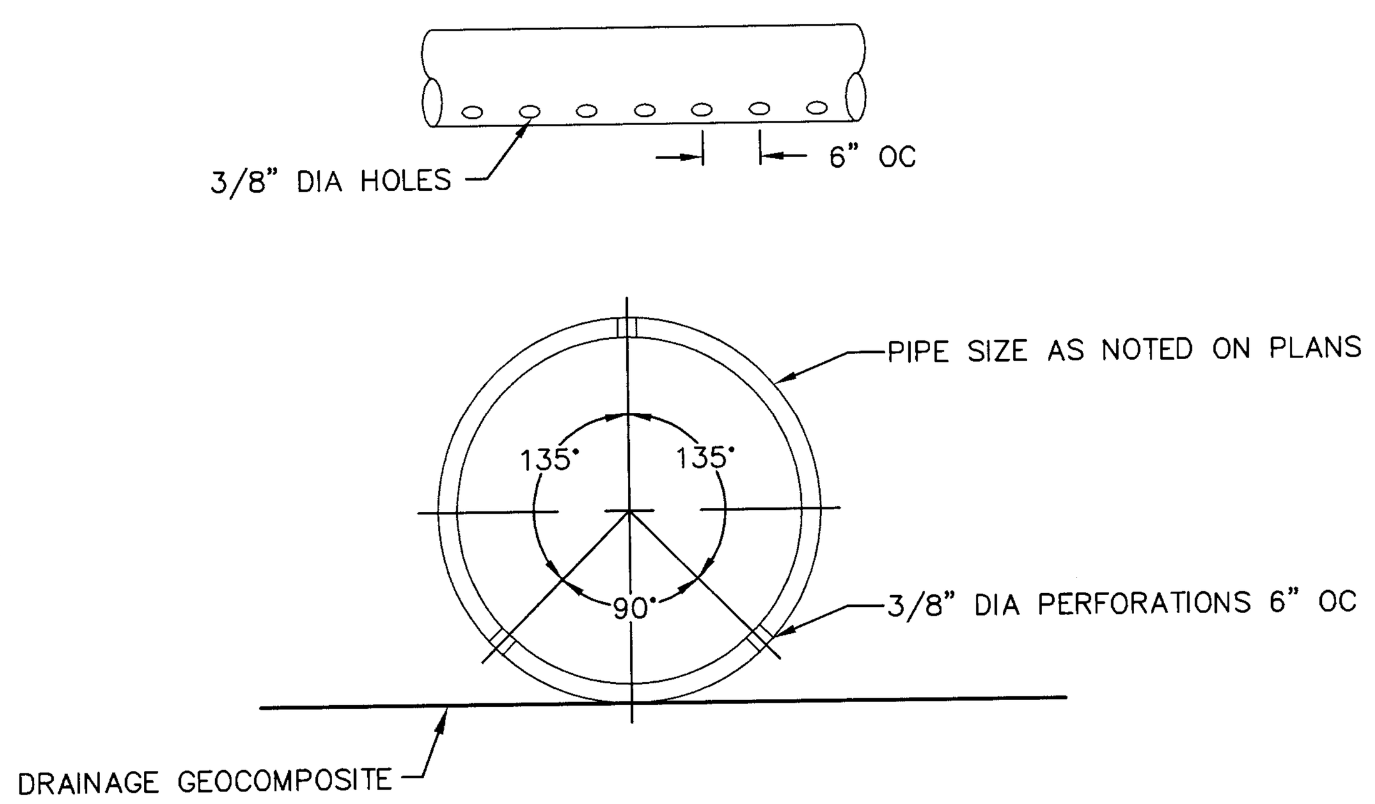
LEACHATE POND COMPOSITE LINER (BASE & SIDESLOPE)
NTS



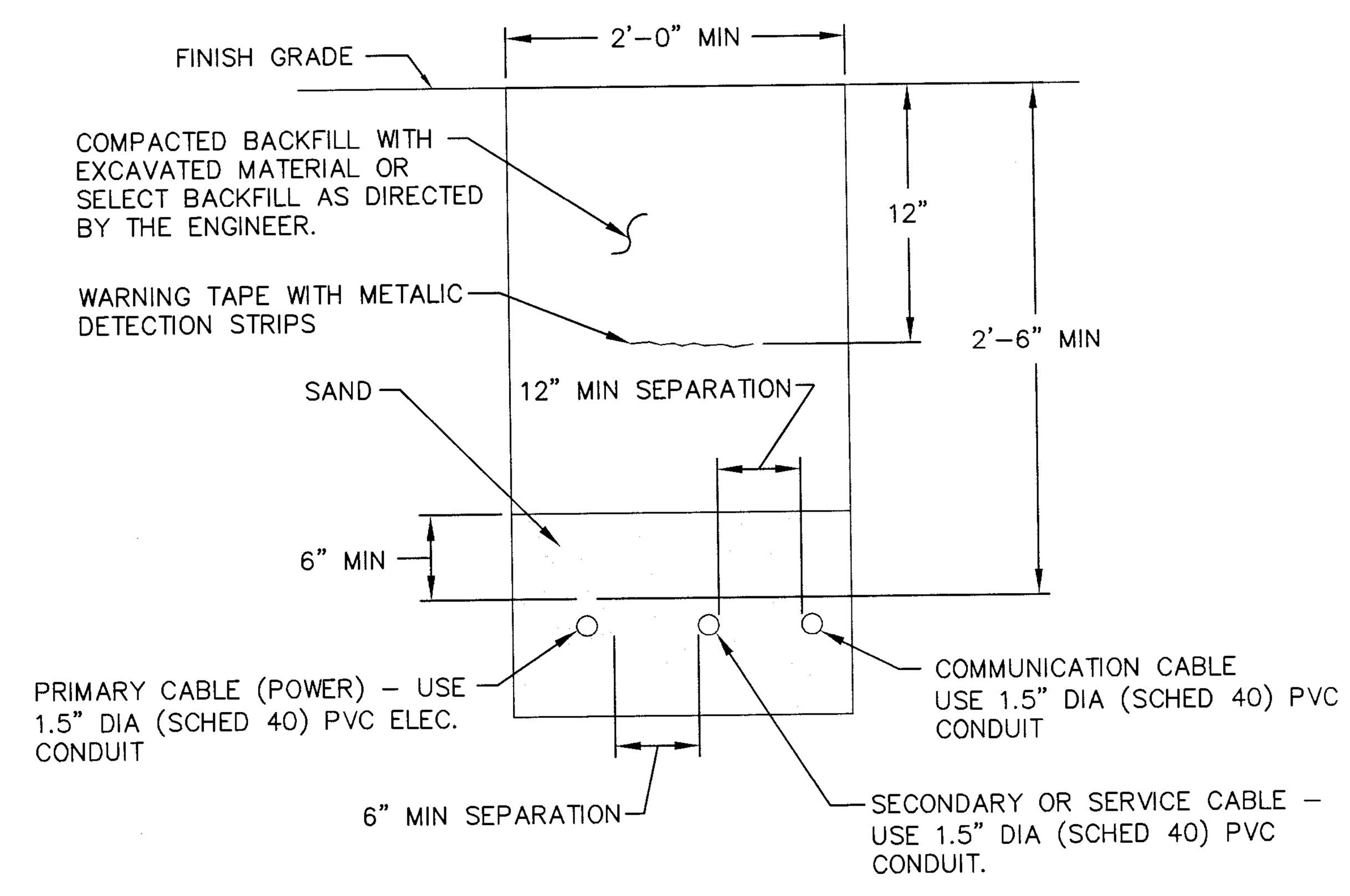
TYPICAL CHAIN LINK FENCE
NTS



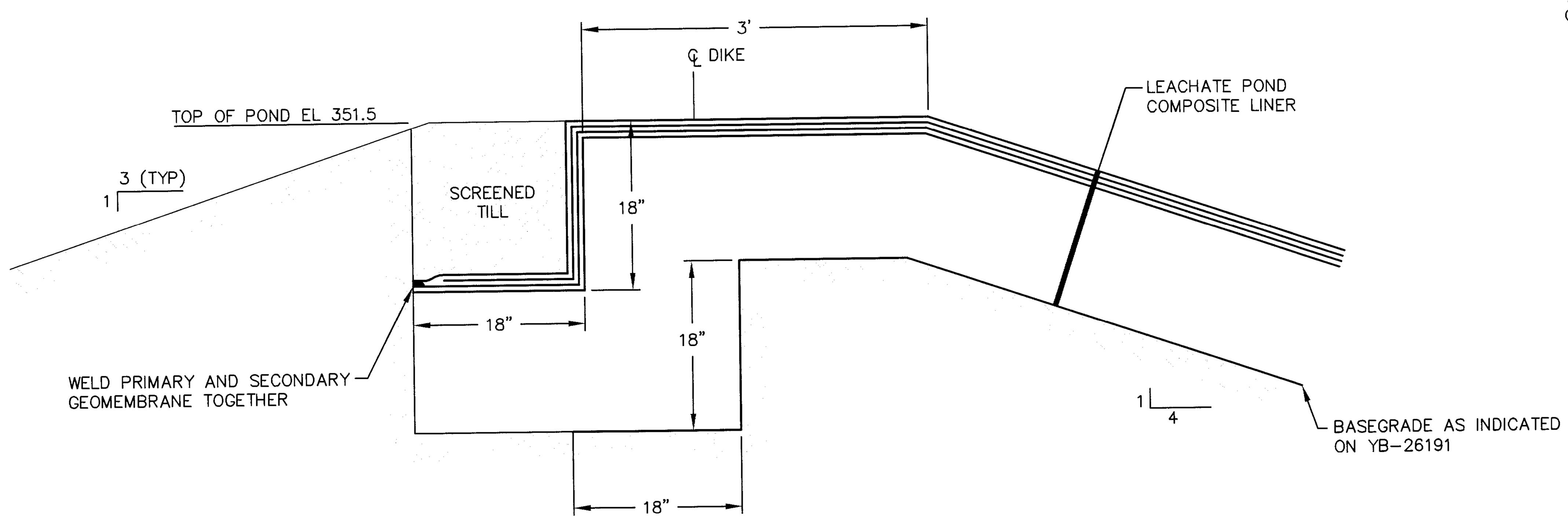
METER PIT
NTS



PERFORATED PIPE
NTS



UNDERGROUND ELECTRIC UTILITY
NTS



ANCHOR TRENCH
NTS

STATE OF MAINE JOHN E. SEVEE No. 4400 LICENSED PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB
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Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine

JOB NO. 05043.01

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APPVD		- -

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ASB - As Built
SCALE AS NOTED

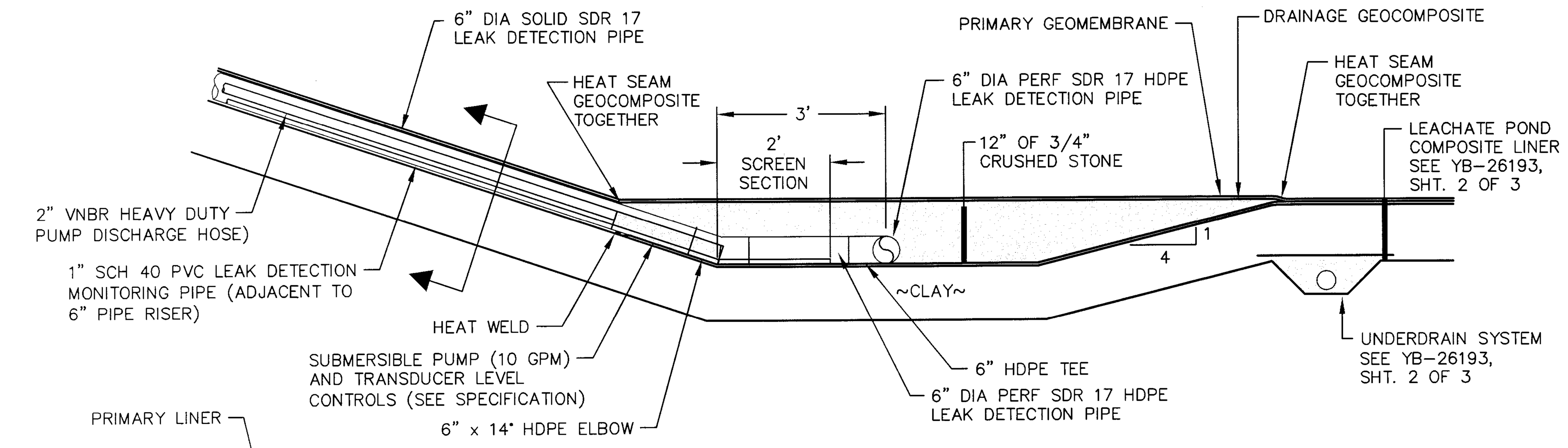
KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: YB-26193 B1

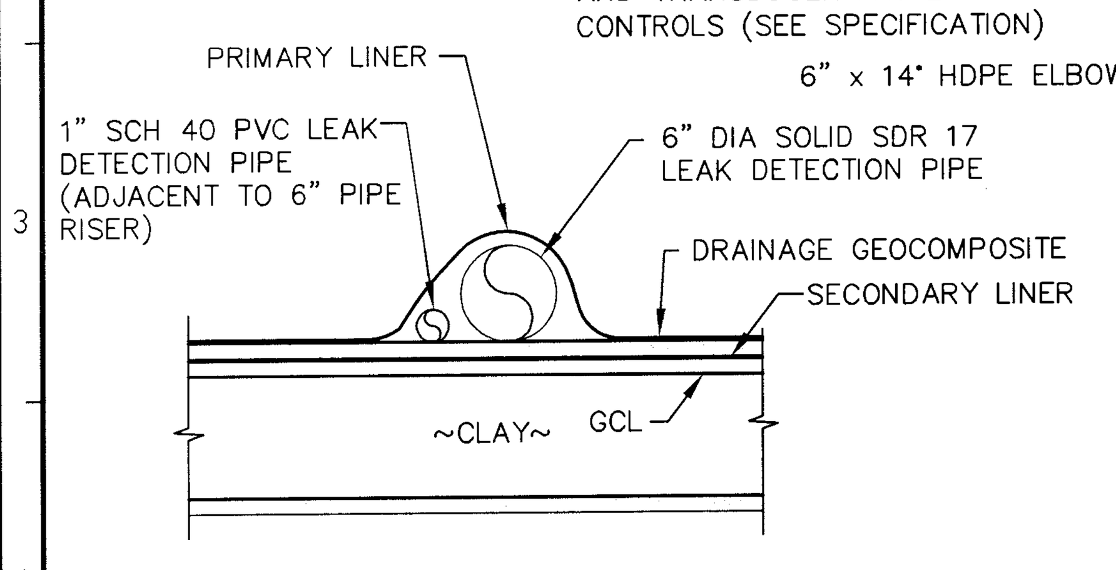
EAST OPERATION
DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
SECTIONS AND DETAILS
(SHEET 2 OF 3)

JOB NO. 00000
FILE NO. 0-000-0000
LOC. NO.

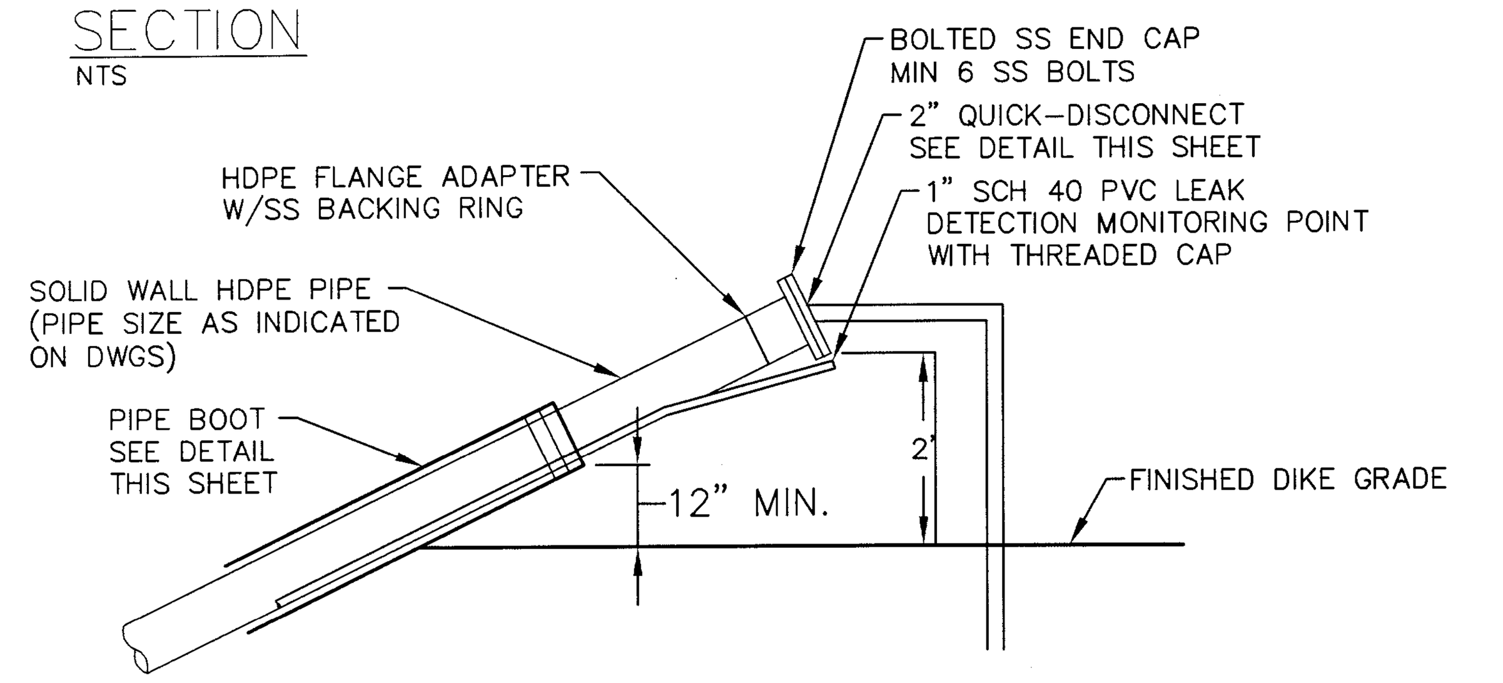
YB-26193



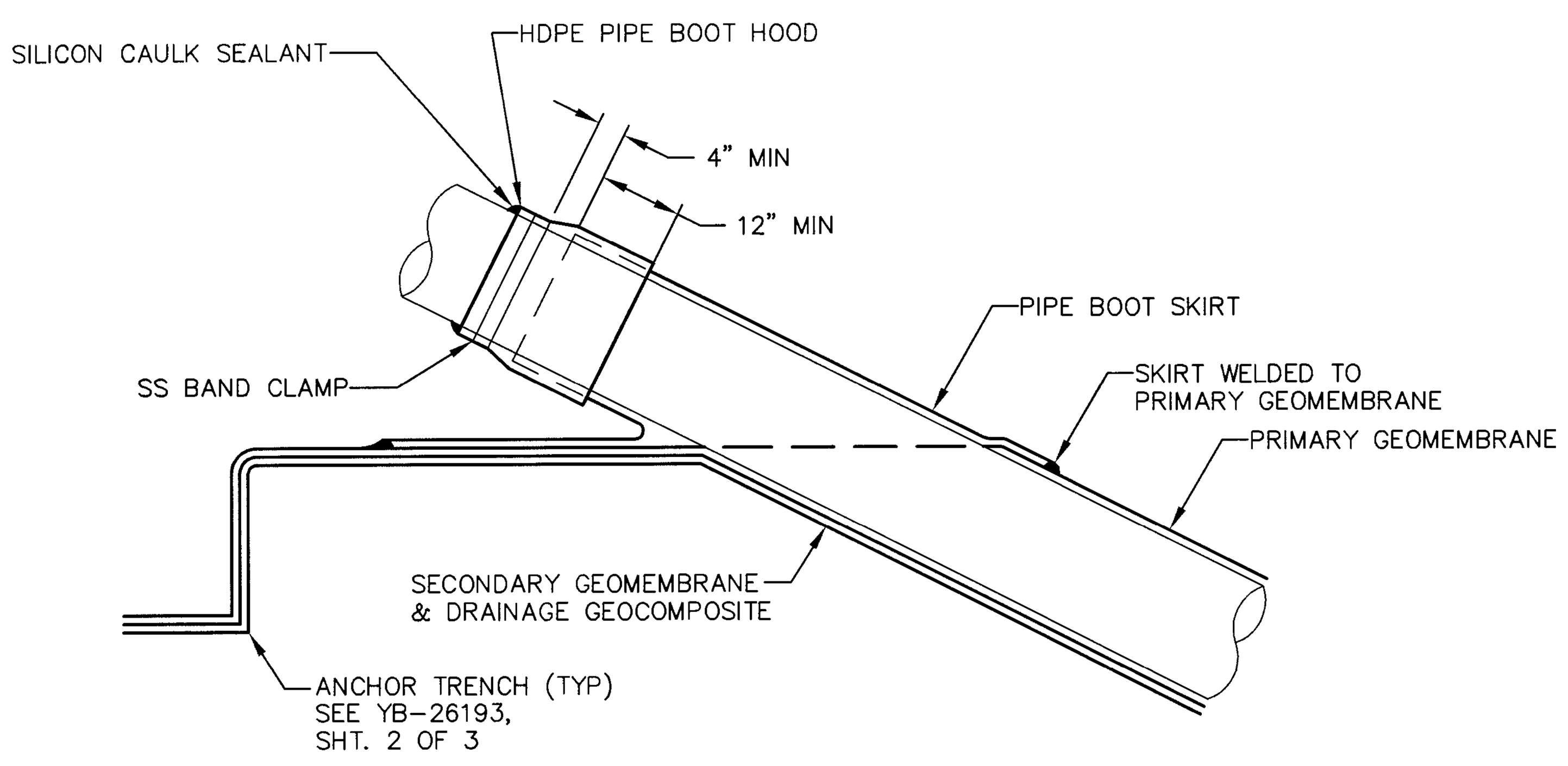
LEAK DETECTION SUMP
NTS



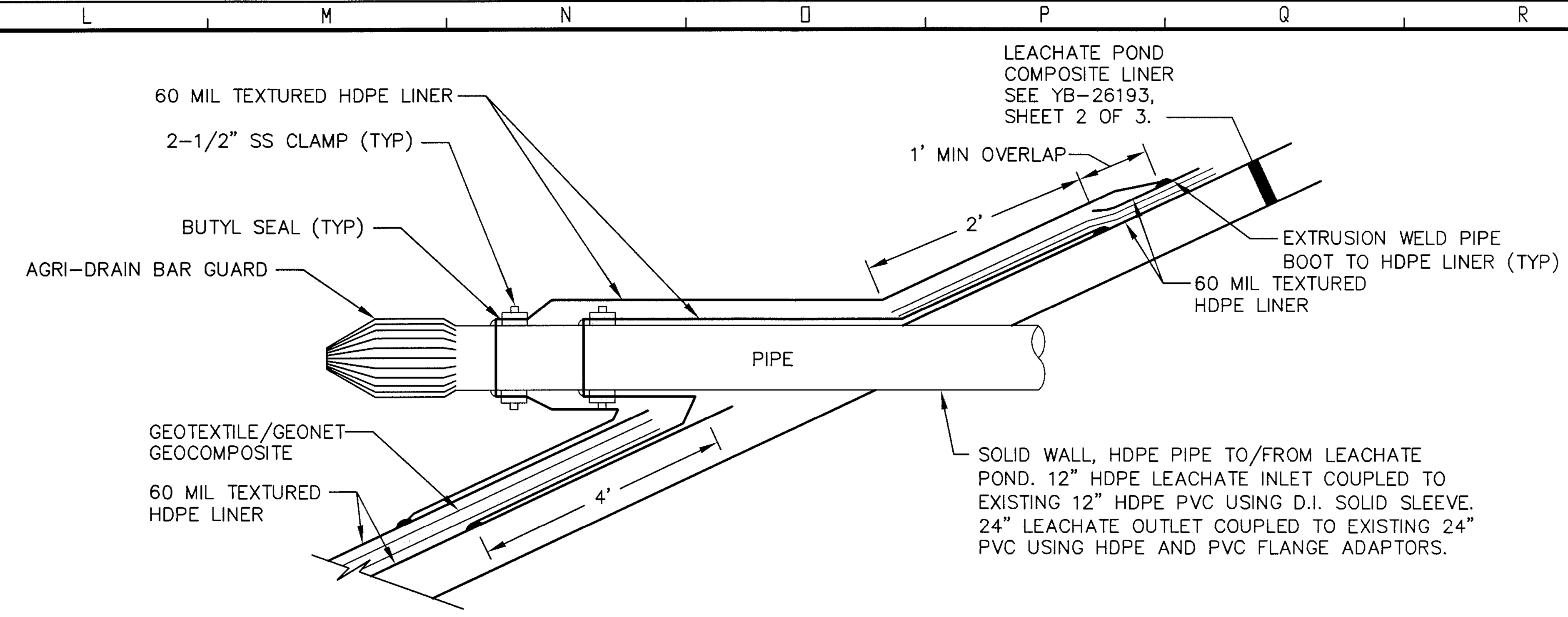
SECTION
NTS



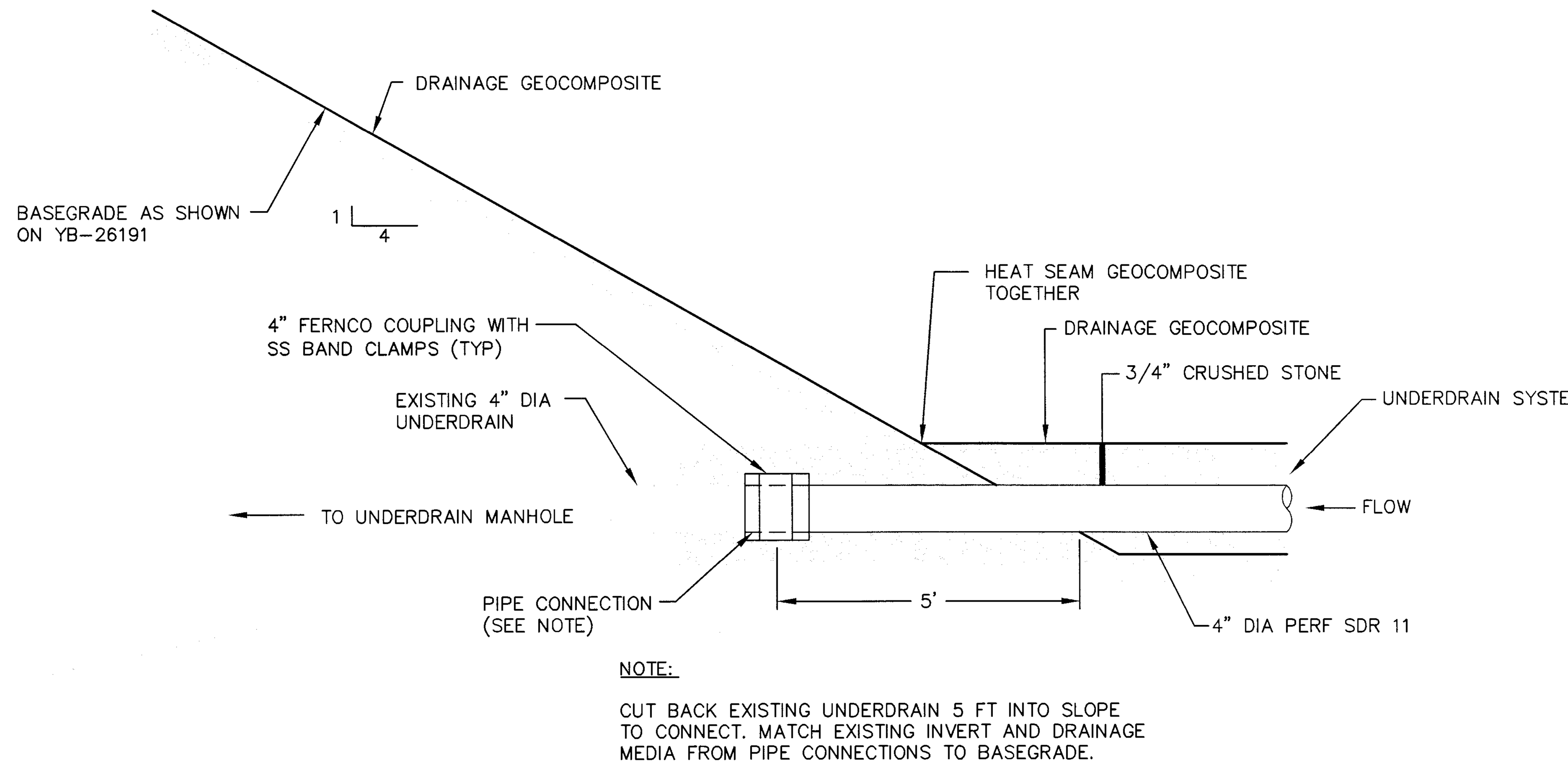
FLANGED END CAP
NTS



LEAK DETECTION PUMP CONDUIT PIPE BOOT
NTS



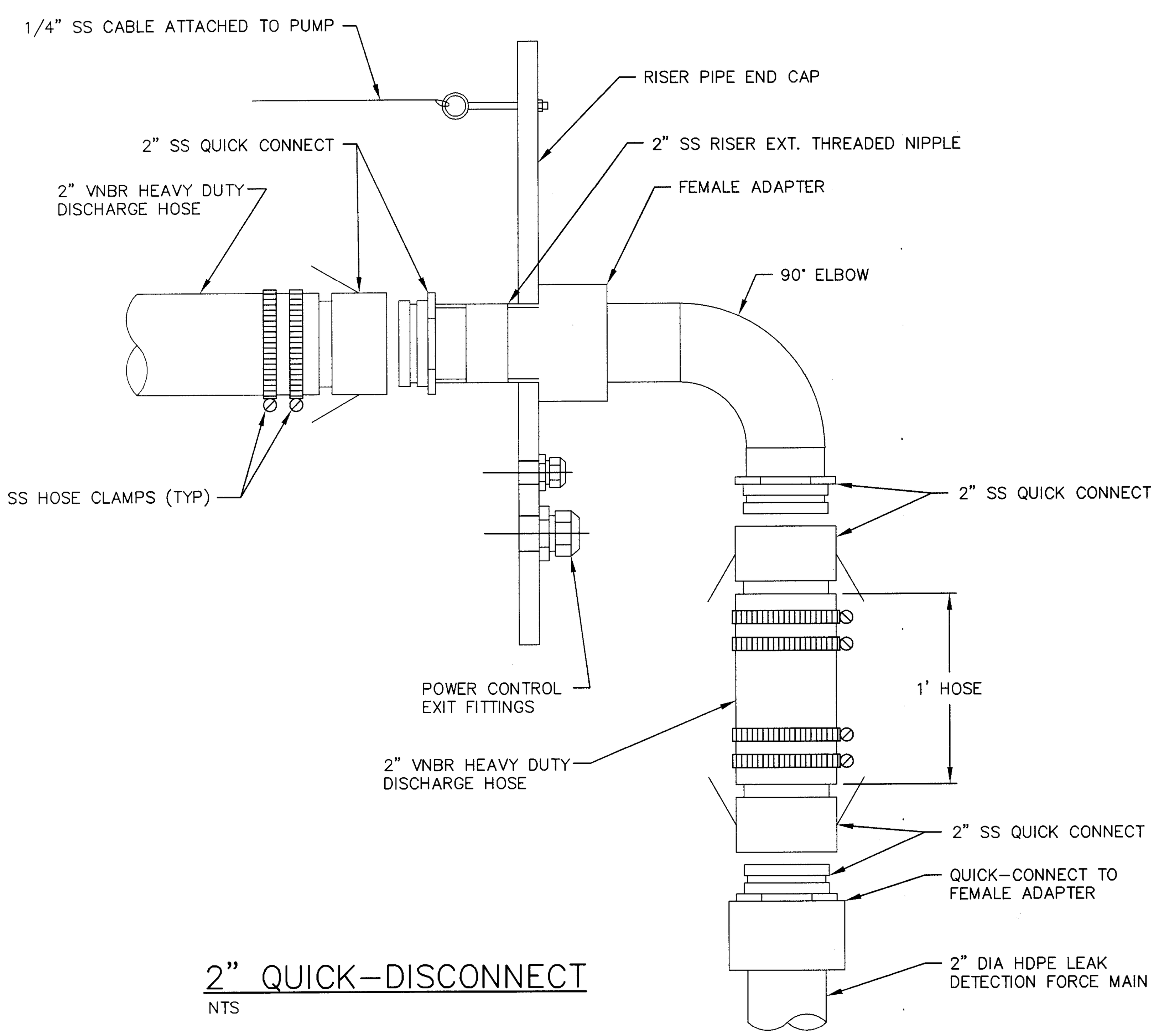
LEACHATE INLET/OUTLET PIPE
NTS



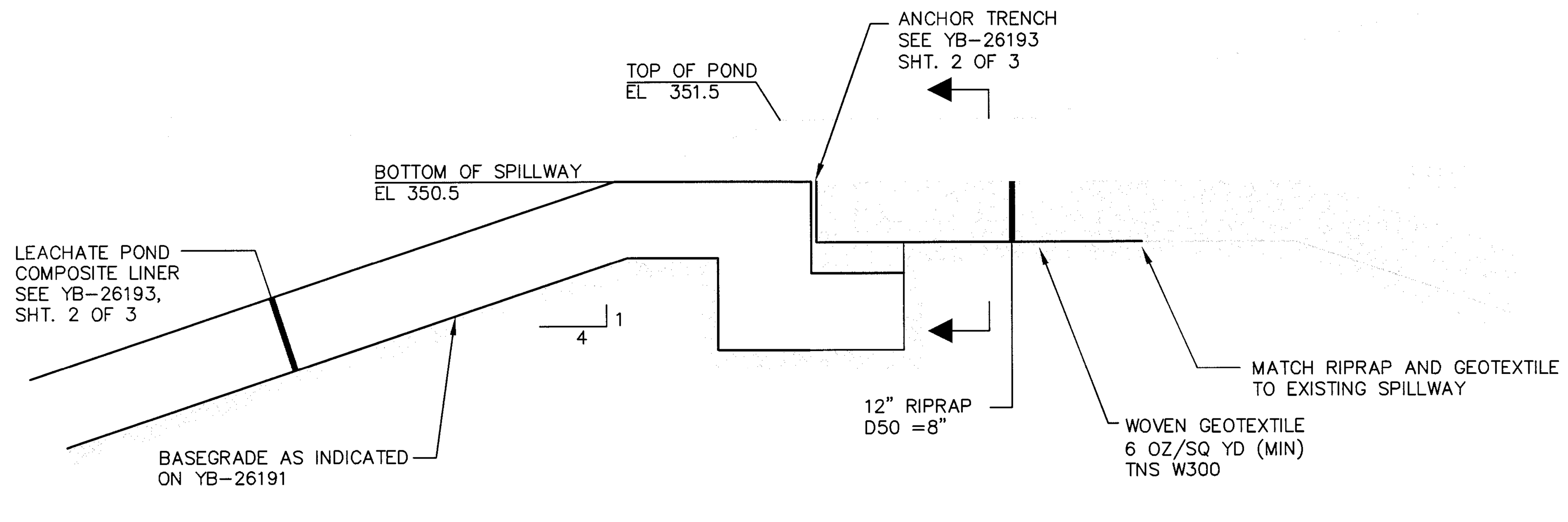
NOTE:

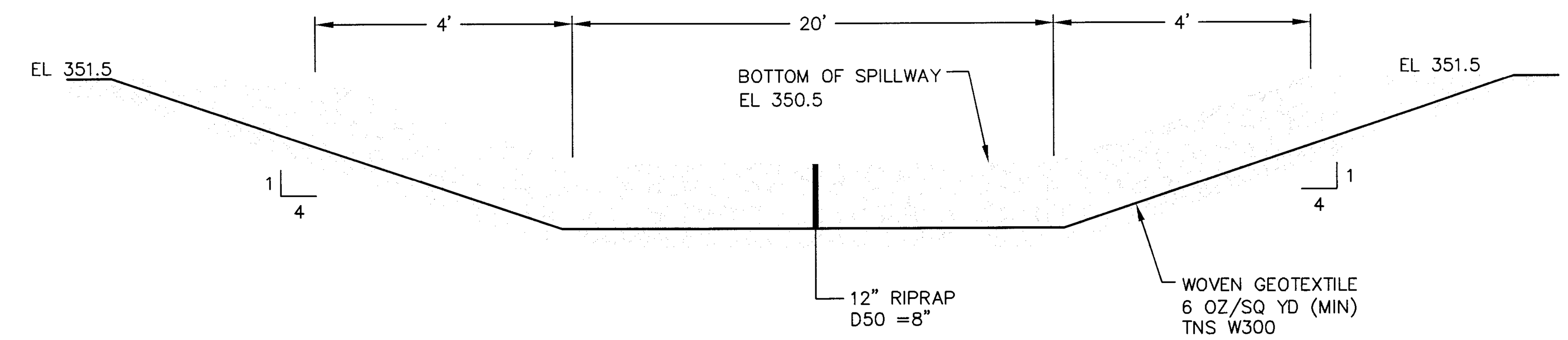
CUT BACK EXISTING UNDERDRAIN 5 FT INTO SLOPE TO CONNECT. MATCH EXISTING INVERT AND DRAINAGE MEDIA FROM PIPE CONNECTIONS TO BASEGRADE.

CONNECTION TO EXISTING 4" UNDERDRAIN
NTS



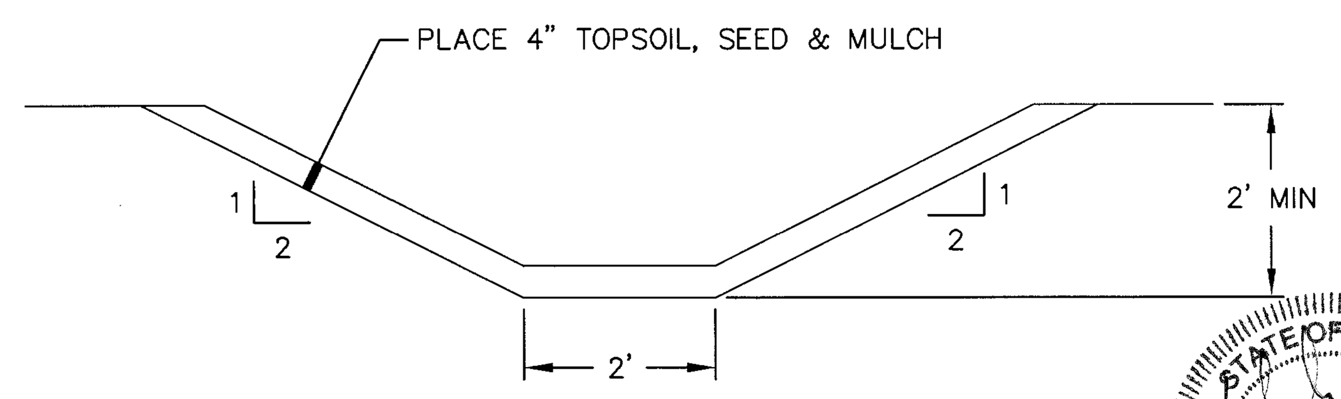
2" QUICK-DISCONNECT
NTS





SECTION

LEACHATE POND EMERGENCY SPILLWAY
NTS



DITCH REGRADE
NTS

STATE OF MAINE JOHN E. SEVEE NO. 4160 LICENSED PROFESSIONAL ENGINEER

REF. NO.	DRAWING NO.	REFERENCE DRAWING TITLE	CODE	DATE	REV.	REVISION	BY	CKD	APPVD	JOB	CODE	DATE	REV.
6	-			- -								- -	
5	-											- -	
4	-			11/26/07	ASB	RECORD DRAWING						- -	
3	-			10/31/06	B	ISSUED FOR BID		GHC				- -	
2	-			5/17/06	P	REVISED PER MEDEP COMMENTS		GHC				- -	
1	-			12/9/05	P	SUBMITTED TO MEDEP		GHC				- -	

SME
Sevee & Maher Engineers, Inc.
Waste Management and Hydrogeologic Consultants
Cumberland Center, Maine
JOB NO. 05043.01

DRN	DRD	11/05
CHKD	GHC	11/05
APPVD	-	-
ISSUE CODE		
P - Preliminary		
B - Bids		
C - Construction		
ASB - As Built		
SCALE	AS NOTED	

KATAHDIN PAPER COMPANY LLC.
EAST MILLINOCKET, MAINE

CAD FILE: YB-26193 B2

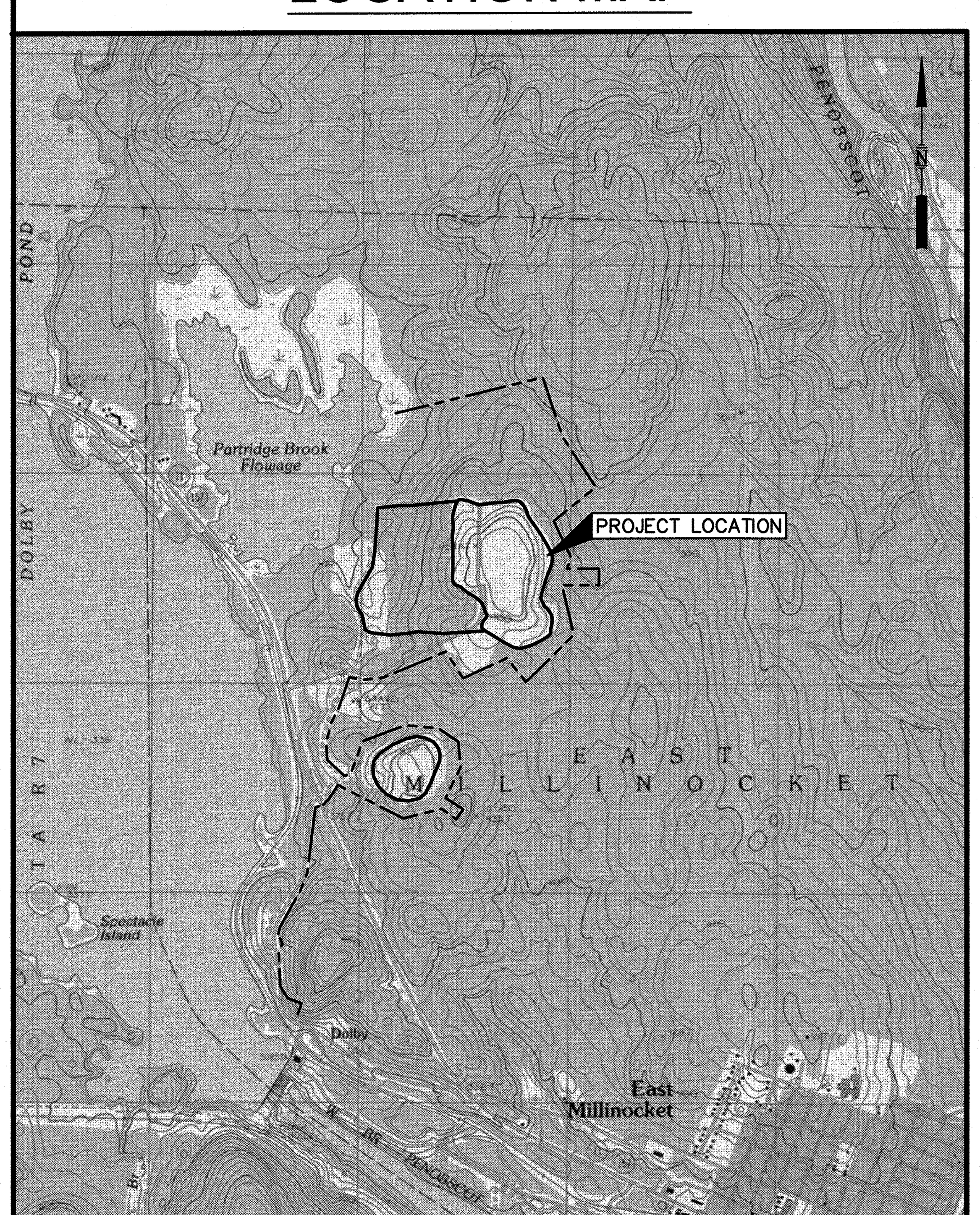
EAST OPERATION
DOLBY III LANDFILL
LEACHATE POND REDEVELOPMENT
SECTIONS AND DETAILS
(SHEET 3 OF 3)

JOB NO. 00000
FILE NO. 0-000-0000
LOC. NO.

YB-26193

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE - PHASE 1
EAST MILLINOCKET, MAINE

LOCATION MAP



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4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

STATE OF MAINE LICENSED PROFESSIONAL ENGINEER No. 5144

RECORD DRAWINGS

SYMBOLS

EXISTING	PROPOSED	
		NORTH ARROW (TRUE)
DATE		NORTH ARROW (MAGNETIC)
N		NORTH ARROW (PLAN NORTH)
25	25	CONTOUR LINES
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)
		EXISTING GROUND
		SURVEY BASELINE WITH TRIANGULATION OR INTERSECTION PT.
		PROPERTY LINE OR R.O.W.
N35°-10'-10"W 251.17'	N35°-10'-10"W 251.17'	PROPERTY LINE W/ BEARING AND DISTANCE
	0+00 1+00	CONSTRUCTION BASELINE
		BOUNDARY LINE (State, County, Municipality)
		SURVEY MONUMENT
		SURVEY CONTROL
		PROPERTY PIN, DRILL HOLE, PK, OR STAKE
		WOODS OR BRUSH LINE
		INDIVIDUAL TREE
		MAPPED WETLAND
		GAS VENT
		GAS VENT (CAPPED)
		CLEAN OUT STRUCTURE
		CULVERT
		RAILROAD
		SLOPE INCLINOMETER
		VIBRATING WIRE SETTLEMENT CELL
		VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT
		VERTICAL DISPLACEMENT MONUMENT
		LIQUID SETTLEMENT GAGE

EXISTING	PROPOSED	
		DRAINAGE COURSE (WITH DIRECTION)
		EDGE OF WATER
		WATER ELEVATION (GROUND OR SURFACE)
		FENCE LINE (WOOD)
		FENCE LINE (WIRE)
		STONE WALL
		RETAINING WALL
		GUARD RAIL
		BUILDING AND STRUCTURES
	1 2 OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)
TOP OF SLOPE	TOP OF SLOPE	SLOPES (WITH SLOPE RATIO)
		EDGE OF ROAD
	F	CUT OR FILL LINE
		BITUMINOUS PAVEMENT
		CONCRETE
B-12 MW-12 P-12	B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER
TP-12	TP-12	TEST PIT AND NUMBER
SW-12	SW-12	SURFACE WATER SAMPLE LOCATION
		GAS EXTRACTION WELL
		MANHOLE
		CATCH BASIN
		WATER OR GAS VALVE
		HYDRANT
		AIR RELEASE VALVE
		SURGE RELEASE VALVE
		UTILITY POLE
		LIGHT POLE

EXISTING	PROPOSED	
G	UG	UNDERGROUND GAS MAIN
T	UT	UNDERGROUND TELEPHONE LINE
E	UE	UNDERGROUND ELECTRICAL LINE
OE	OE	OVERHEAD ELECTRICAL LINE
OT	OT	OVERHEAD TELEPHONE LINE
12" SS	12" SS	SANITARY SEWER
8" FM	8" FM	FORCE MAIN
8" W	8" W	WATER MAIN
12" SD	12" SD	STORM DRAIN
8" UD	8" UD	UNDERDRAIN
6" PD	6" PD	PERIMETER DRAIN
6" LT	6" LT	LEACHATE TRANSPORT
6" LC	6" LC	LEACHATE COLLECTION
LD	6" LD	LEAK DETECTION
GC	6" G	GAS COLLECTION
		REDUCER
		MECHANICAL CAP OR PLUG
		COUPLING
		BEND
		TEE
		PIPE TO BE ABANDONED
		RISER PIPE & INLET GRATE
		STORM GRATE
		DRAINAGE INLET STRUCTURE
		UNDERDRAIN SUMP
	SF	SILTATION FENCE
	CLL	CLEARING OR CONSTRUCTION LIMIT LINE

ACCMP	ASPHALT COATED CMP
ACP	ASBESTOS CEMENT PIPE
AC	ACRE
AGG	AGGREGATE
ALUM	ALUMINUM
APPD	APPROVED
APPROX	APPROXIMATE
ARMH	AIR RELEASE MANHOLE
ASB	ASBESTOS
ASP	ASPHALT
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AZ	AZIMUTH
BCCMP	BITUMINOUS COATED CMP
BM	BENCH MARK
BIT	BITUMINOUS
BLDG	BUILDING
BOT	BOTTOM
BRG	BEARING
BV	BALL VALVE
CB	CATCH BASIN
CEN	CENTER
CEM LIN	CEMENT LINED
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CS	CURB STOP
CTR	CENTER
CU	COPPER
CY	CUBIC YARD
D	DEGREE OF CURVE
DBL	DOUBLE
DEG OR °	DEGREE
DEPT	DEPARTMENT
DI	DUCTILE IRON
DIA OR ø	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DRAIN
DWG	DRAWING
EA	EACH
EG	EXISTING GROUND OR GRADE
ELEC	ELECTRIC
EL	ELEVATION
ELB	ELBOW
EOP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EST	ESTIMATED
EXC	EXCAVATE
EXIST	EXISTING
FG	FINISH GRADE
FBRGL	FIBERGLASS
FDN	FOUNDATION
FLEX	FLEXIBLE
FLG	FLANGE
FLR	FLOOR
FPS	FEET PER SECOND
FT OR '	FEET
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HYD	HYDRANT
ID	INSIDE DIAMETER
IN OR "	INCHES
INV	INVERT
INV EL	INVERT ELEVATION
LB	POUND
LC	LEACHATE COLLECTION
LD	LEAK DETECTION
LF	LINEAR FEET
LOC	LOCATION
LT	LEACHATE TRANSPORT
MH	MANHOLE
MJ	MECHANICAL JOINT
MATL	MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY
NO OR #	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PD	PERIMETER DRAIN
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PT	POINT OF TANGENT
PERF	PERFORATED
PP	POWER POLE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RAD	RADIUS
REQD	REQUIRED
RT	RIGHT
RTE	ROUTE
S	SLOPE
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SMH	SANITARY MANHOLE
ST	STREET
STA	STATION
SY	SQUARE YARD
TAN	TANGENT
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
TYP	TYPICAL
UD	UNDERDRAIN
V	VOLTS
VA TEE	VALVE ANCHORING TEE
VERT	VERTICAL
WG	WATER GATE
W/	WITH
W/O	WITHOUT
YD	YARD

VIEW MARKERS & IDENTIFICATION

DETAIL TITLE

MANHOLE
SEE DWG C-300

DRAWING WHERE
DETAIL APPEARS

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY FULLY WITH CONDITIONS OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MEDEP) OPERATING PERMIT, BOARD ORDER, MEDEP NRPA PERMIT BY RULE CONDITIONS, MEDEP CONSTRUCTION GENERAL PERMIT, MEDEP "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES", AND MAINE DEPARTMENT OF TRANSPORTATION (MDOT) ENTRANCE PERMIT REQUIREMENTS, AS APPLICABLE.

2. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL ABIDE BY ALL SAFETY REQUIREMENTS ASSOCIATED WITH WORKING AT AN ACTIVE SOLID WASTE LANDFILL FACILITY (i.e., RISK OF WORKER EXPOSURE TO LANDFILL GASES, LEACHATE, SOLID WASTE) INCLUDING THE FOLLOWING:
   - COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS;
   - COMPLY WITH ALL VERSO SAFETY REQUIREMENTS, INCLUDING USE OF HARD HATS, SAFETY GLASSES, AND FLUORESCENT SAFETY VESTS AT ALL TIMES;
   - FOLLOW CONFINED SPACE ENTRY RULES ESTABLISHED BY VERSO OPERATIONS AND OSHA FOR THE SITE, INCLUDING, BUT NOT LIMITED TO, MANHOLES, CATCH BASINS, PUMP STATIONS, TEST PITS, TRENCHES, ETC., AND
   - ALL EQUIPMENT USED ON SITE SHALL BE EQUIPPED WITH BACK-UP ALARMS AND WARNING LIGHTS.

3. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ENSURE THAT NO SILTATION OF STORMWATER DRAINAGE COURSES OCCURS AS A RESULT OF SOIL DISTURBANCE ASSOCIATED WITH THE CONTRACT SCOPE OF WORK.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE PROTECTION OF THE PROJECT DURING CONSTRUCTION FROM ANY ACTS OF NATURE OR MAN, SUCH AS, BUT NOT LIMITED TO, FLOODS, WIND DAMAGE, EARTH SLIDES, AND SLOPE FAILURES. DAMAGE TO THE PROJECT CAUSED BY SUCH ACTS WILL NOT BE SUFFICIENT CAUSE TO INCREASE CONTRACT COSTS TO THE OWNER.

5. THE CONTRACTOR SHALL PROTECT EXISTING ON-SITE STRUCTURES FROM DAMAGE DURING CONSTRUCTION, INCLUDING: MONITORING WELLS, POWER LINES, MAINTENANCE FACILITIES, EXISTING LEACHATE COLLECTION, LINER AND TRANSPORT SYSTEMS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS REQUIRED TO CORRECT DAMAGE MADE TO EXISTING ON-SITE STRUCTURES DESCRIBED ABOVE RESULTING FROM ANY CONSTRUCTION ACTIVITY.

6. THE DESIGN INTENT, AS DETERMINED BY THE ENGINEER, WILL GOVERN IN THE CASE OF DISCREPANCY IN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS. THE SPECIFICATIONS ARE INTENDED TO SUPPLEMENT AND CLARIFY THE DRAWINGS, AS SOMETIMES WORK IS CALLED FOR IN THE SPECIFICATIONS THAT IS NOT SHOWN ON THE DRAWINGS AND SOMETIMES THE DRAWINGS INDICATE WORK THAT IS NOT MENTIONED IN THE SPECIFICATIONS. BOTH DRAWINGS AND SPECIFICATIONS MUST BE COMPILED WITH IN ORDER TO FULFILL THE CONTRACT REQUIREMENTS, AND ANY WORK CALLED FOR BY EITHER IS AS BINDING AS THOUGH IT WERE CALLED FOR BY BOTH. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY ERROR OR OMISSION IN THE DRAWINGS OR OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND SPECIFICATIONS. IN ALL CASES OF DOUBT AS TO THE TRUE MEANING OF THE DRAWINGS AND SPECIFICATIONS, THE DECISION OF THE ENGINEER WILL BE FINAL AND CONCLUSIVE.

REV.	BY	DATE	STATUS
	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

STATE OF MAINE
GUNH H. COTE
No. 5...
LICENSED
PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

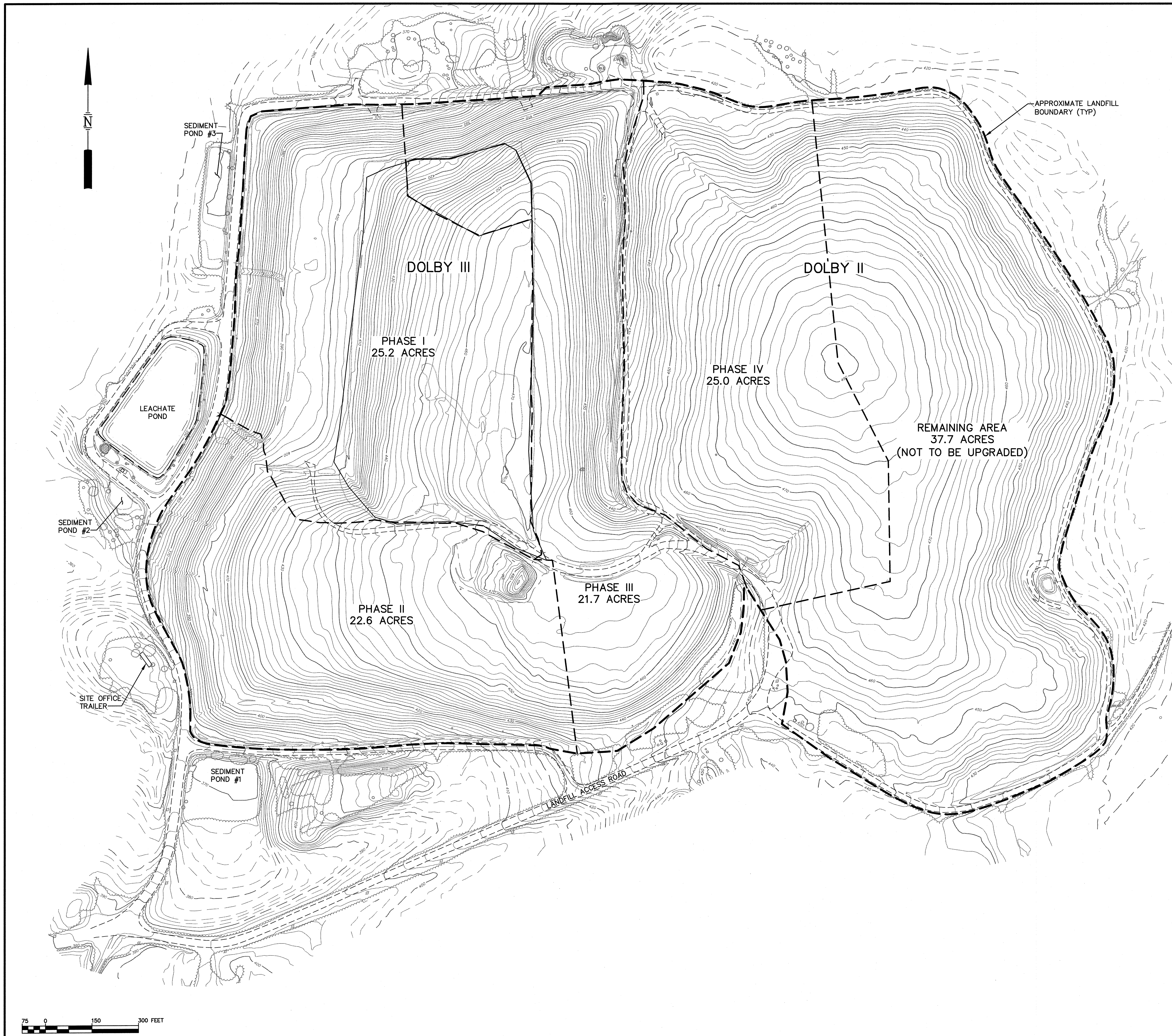
SYMBOLS AND ABBREVIATIONS

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: NONE
CTB: SME-STD

JOB NO. 15250.00 DWG FILE SYMSHT

C-100



NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. GROUND CONTROL BY PLISGA & DAY, BANGOR, MAINE. VERTICAL DATUM: NAVD 1929. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015
3. PHASED CLOSURE AREAS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE.
4. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.

REV.	BY	DATE	STATUS
	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

STATE OF MAINE GUY H. COTE JR. No. 5144 LICENSED PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

PHASED CLOSURE PLAN

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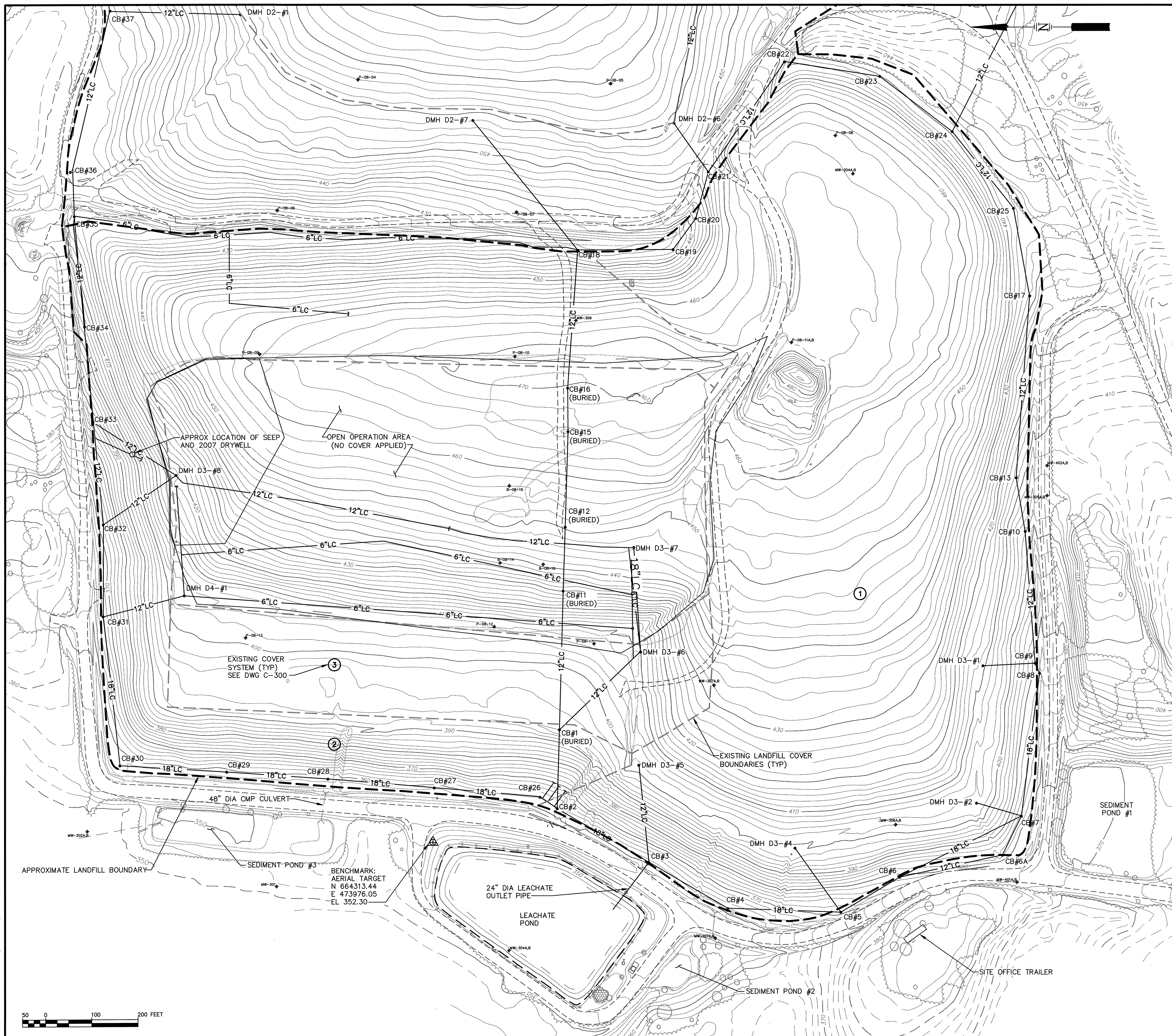
DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: PHASED
CTB: SME–STD

JOB NO. 15250.00 DWG FILE BASE

C–101



NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. GROUND CONTROL BY PLISGA & DAY, BANGOR, MAINE. VERTICAL DATUM: NAVD 1929. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. VERTICAL DATUM: BRASS PLUG BENCHMARK (EL. 356.99) AT PUMP STATION. HORIZONTAL DATUM: MAINE STATE COORDINATES EAST ZONE NAD 83.
3. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
4. BORINGS AND TEST PITS PERFORMED BY MAINE TEST BORING. FIELD LOCATION AND LOGS BY SEVEE & MAHER ENGINEERS.
5. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
6. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.

PHASE I CATCH BASIN SCHEDULE

CB ID	RIM EL	INV IN	INV OUT
CB#2	362.00	350.9 (18") 350.48 (18")	350.48 (18")
CB#26	357.80	351.1 (18")	351.1 (12")
CB#27	358.20	351.6 (18")	351.6 (18")
CB#28	359.70	352.0 (18") 353.7 (8")	352.0 (18")
CB#29	359.20	352.6 (18")	352.6 (18")
CB#30	359.70	353.0 (18")	353.0 (18")
CB#31	364.00	355.3 (12") 359.2 (8")	356.5 (18")

REV.	BY	DATE	STATUS
	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

EXISTING CONDITIONS PLAN

STATE OF MAINE ... LICENSED PROFESSIONAL ENGINEER

SME
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Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: EXCON
CTB: SME-STD

JOB NO. 15250.00 DWG FILE BASE

C-102

FINAL COVER TERMINATION LEGEND

- —1— TYPE I FINAL COVER TERMINATION
- —2— TYPE II FINAL COVER TERMINATION
- —3— TYPE III FINAL COVER TERMINATION
- —4— TYPE IV FINAL COVER TERMINATION

NOTE: FOR DETAILS SEE DWG C-300

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. GROUND CONTROL BY PLISGA & DAY, BANGOR, MAINE. BASE MAP INSIDE THE LIMIT OF WORK FROM AS BUILT SURVEY OF DOLBY LANDFILL PHASE 1 BY SARGENT CORPORATION, DATED OCTOBER, 2016. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. VERTICAL DATUM: NAVD 1929.
2. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
3. BORINGS AND TEST PITS PERFORMED BY MAINE TEST BORING. FIELD LOCATION AND LOGS BY SEVEE & MAHER ENGINEERS.
4. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
5. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
6. BASE GRADES REPRESENT THE TOP OF THE GAS COLLECTION SAND LAYER PRIOR TO INSTALLATION OF 40 MIL TEXTURED HDPE GEOMEMBRANE OF THE FINAL COVER SYSTEM. THE CONTRACTOR SHALL ACHIEVE THE BASE GRADES BY RE-GRADING WASTE SURFACE OR FILLING WITH COMMON BORROW. THE TOP 6 INCHES OF FILL NECESSARY TO ACHIEVE BASE GRADE SHALL BE SAND OR GRIT (1" MINUS).
7. EXISTING COVER SOILS WITHIN THE LIMIT OF THE FINAL COVER GEOMEMBRANE SHALL BE STRIPPED TO THE TOP OF EXISTING GAS COLLECTION LAYER. THE CONTRACTOR SHALL VERIFY THE THICKNESS OF EXISTING GAS COLLECTION SAND OR GRIT AND SHALL ADD ADDITIONAL SAND AS NECESSARY TO ACHIEVE A MINIMUM SAND THICKNESS OF 6 INCHES.
8. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID
REV.	BY	DATE	STATUS

STATE OF MAINE GUY H. COTE, JR. No. 5144 LICENSED PROFESSIONAL ENGINEER 12/6/16

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SITE PLAN

SME
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4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

DESIGN BY:	PCM
DRAWN BY:	SJM
DATE:	4/2016
CHECKED BY:	[signature]
LMN:	SITE PLAN
CTB:	SME-STD

JOB NO. 15250.00 DWG FILE BASE

C-104

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. GROUND CONTROL BY PLISGA & DAY, BANGOR, MAINE. BASE MAP INSIDE THE LIMIT OF WORK FROM AS BUILT SURVEY OF DOLBY LANDFILL PHASE 1 BY SARGENT CORPORATION, DATED OCTOBER, 2016. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. VERTICAL DATUM: NAVD 1929.
2. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
3. BORINGS AND TEST PITS PERFORMED BY MAINE TEST BORING. FIELD LOCATION AND LOGS BY SEVEE & MAHER ENGINEERS.
4. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
5. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
6. BASE GRADES REPRESENT THE TOP OF THE GAS COLLECTION SAND LAYER PRIOR TO INSTALLATION OF 40 MIL TEXTURED HDPE GEOMEMBRANE OF THE FINAL COVER SYSTEM. THE CONTRACTOR SHALL ACHIEVE THE BASE GRADES BY RE-GRADING WASTE SURFACE OR FILLING WITH COMMON BORROW. THE TOP 6 INCHES OF FILL NECESSARY TO ACHIEVE BASE GRADE SHALL BE SAND OR GRIT (1" MINUS).
7. EXISTING COVER SOILS WITHIN THE LIMIT OF THE FINAL COVER GEOMEMBRANE SHALL BE STRIPPED TO THE TOP OF EXISTING GAS COLLECTION LAYER. THE CONTRACTOR SHALL VERIFY THE THICKNESS OF EXISTING GAS COLLECTION SAND OR GRIT AND SHALL ADD ADDITIONAL SAND AS NECESSARY TO ACHIEVE A MINIMUM SAND THICKNESS OF 6 INCHES.
8. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

		11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID
REV.	BY	DATE	STATUS

STATE OF MAINE
GUY H. COTE, JR.
No. 5[illegible]
LICENSED PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

GAS COLLECTION PIPING PLAN

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DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: GC-PIPING
CTB: SME-STD

JOB NO. 15250.00 DWG FILE BASE

C-105

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. GROUND CONTROL BY PLISGA & DAY, BANGOR, MAINE. BASE MAP INSIDE THE LIMIT OF WORK FROM AS BUILT SURVEY OF DOLBY LANDFILL PHASE 1 BY SARGENT CORPORATION, DATED OCTOBER, 2016. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. VERTICAL DATUM: NAVD 1929.
2. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
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8. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

REV.	BY	DATE	STATUS
	NWT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

UNDERDRAIN PIPING PLAN

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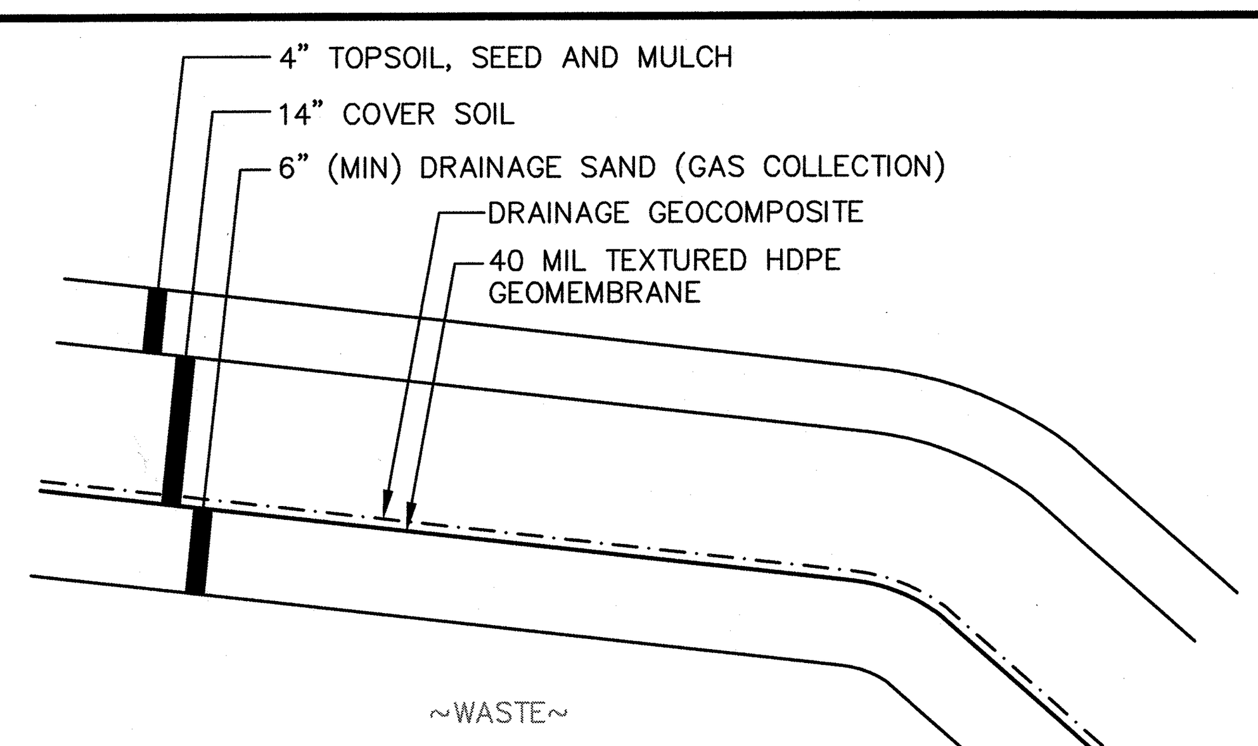
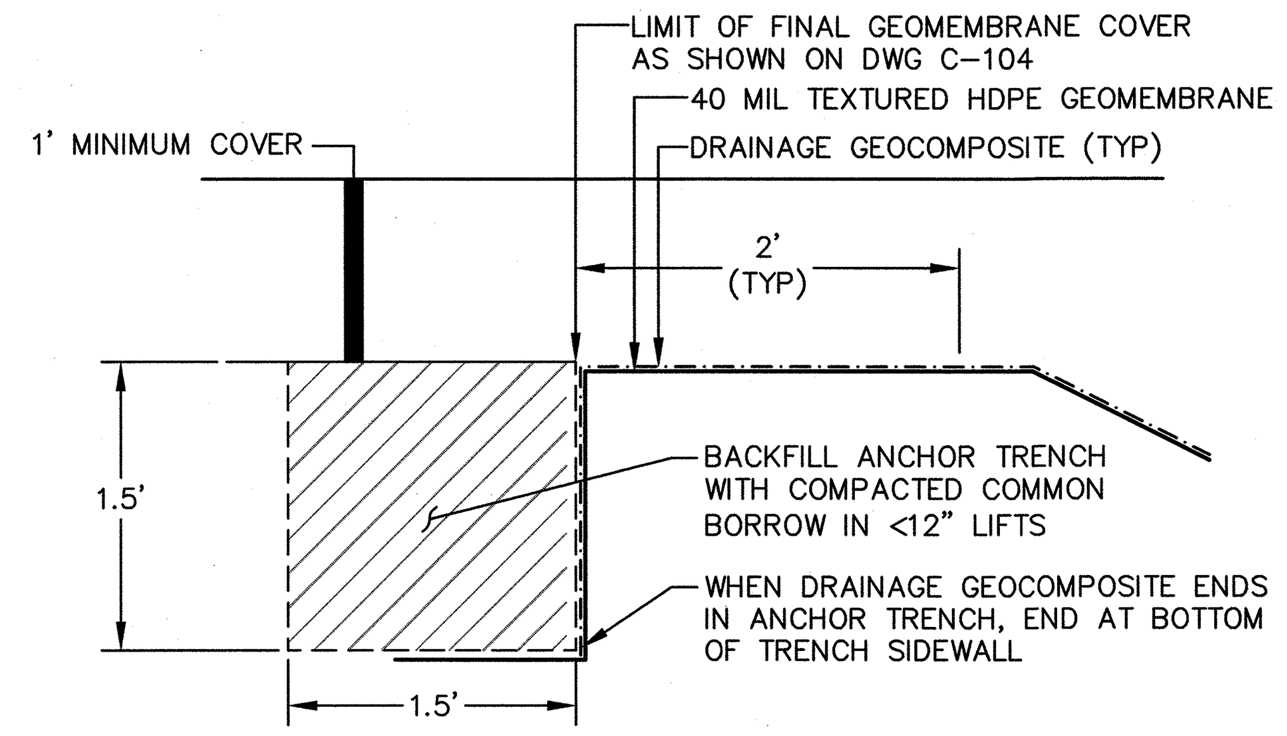
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY: [signature]
LMN: UD-PIPING
CTB: SME-STD

JOB NO. 15250.00 DWG FILE BASE

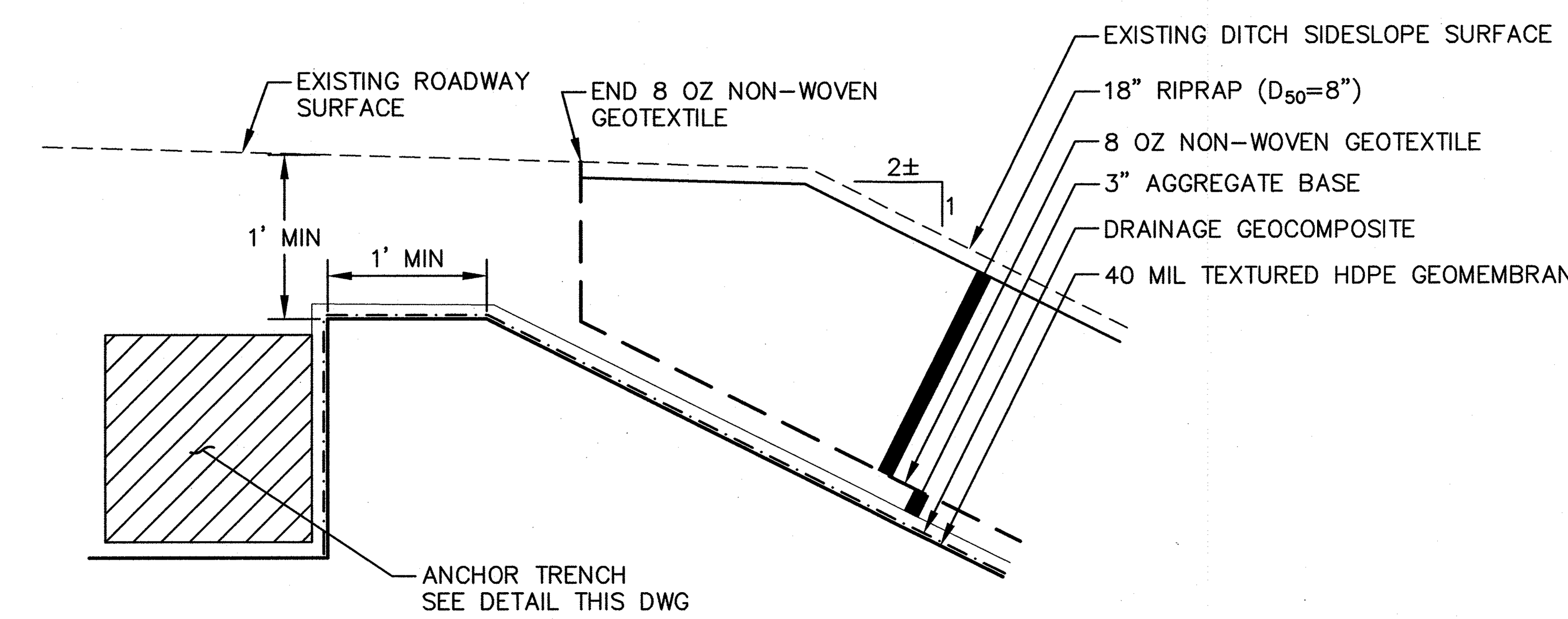
C-106



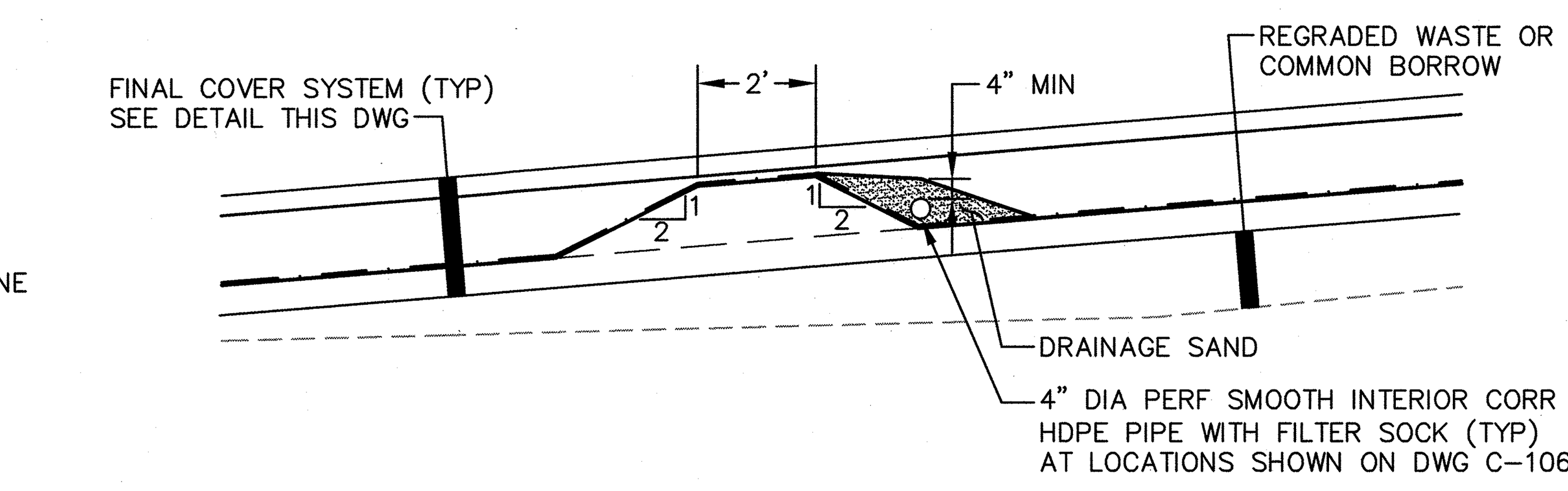
FINAL COVER SYSTEM



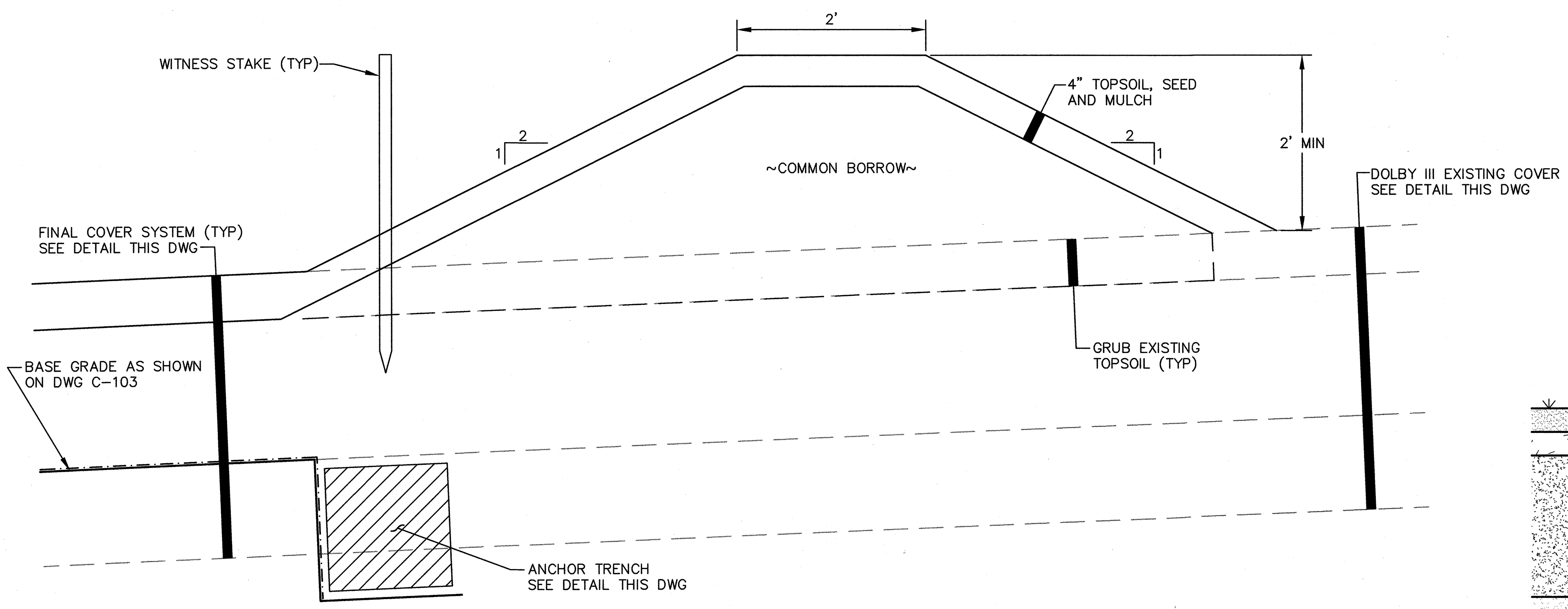
ANCHOR TRENCH
NTS



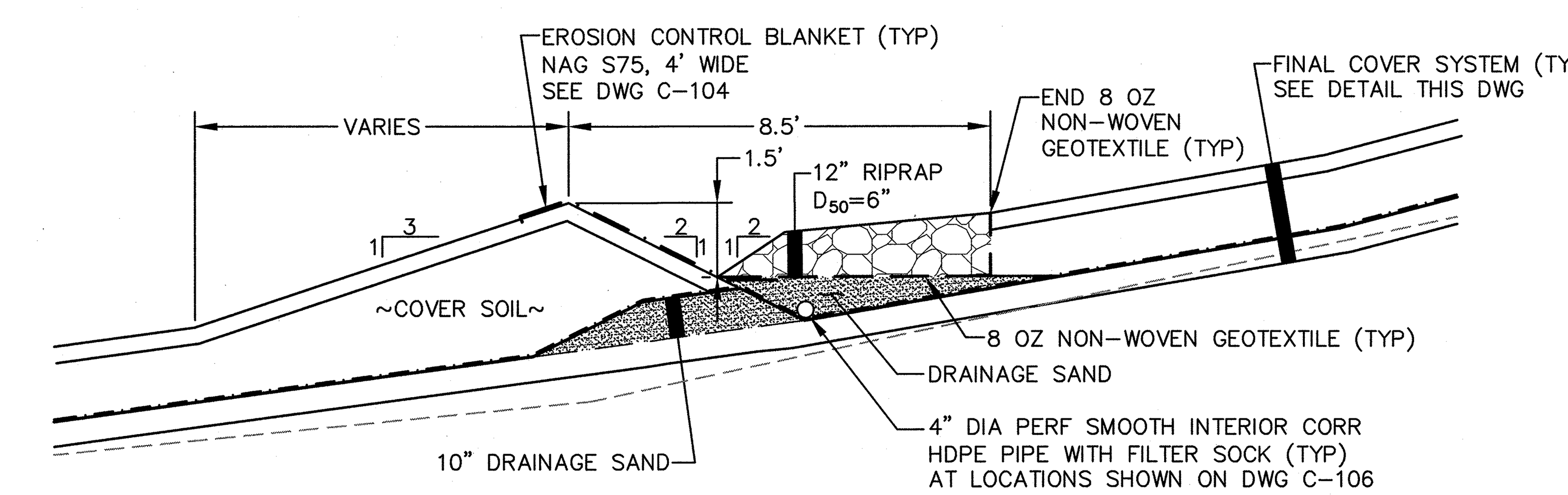
TYPE I FINAL COVER TERMINATION
NTS



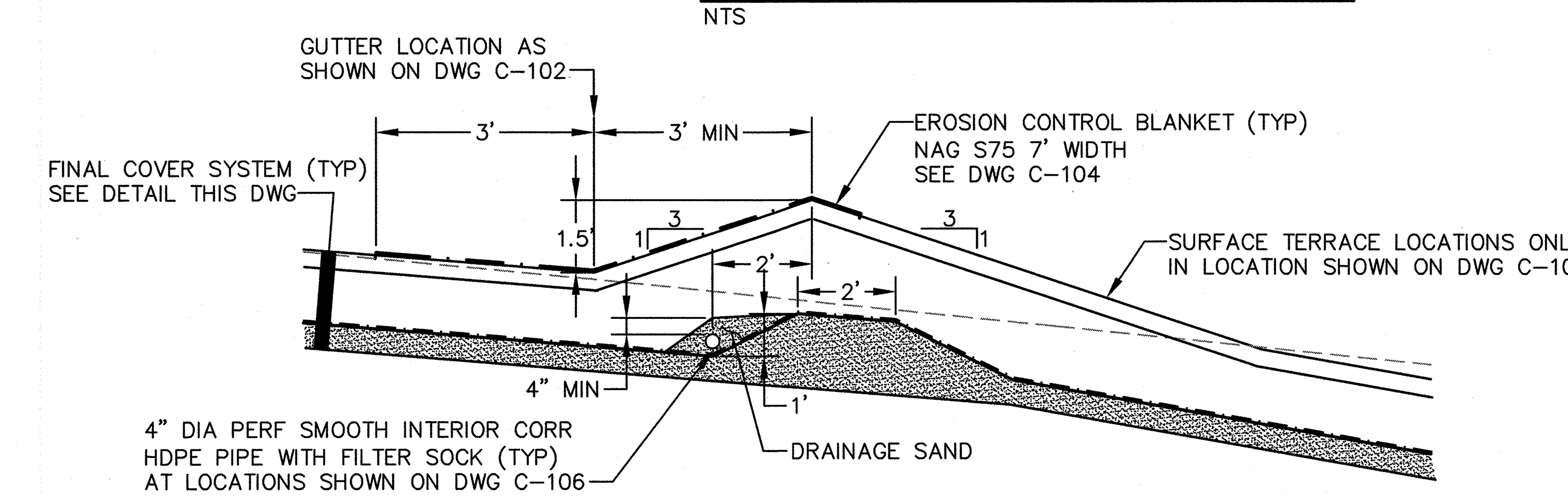
INTERMEDIATE UNDERDRAIN
NTS



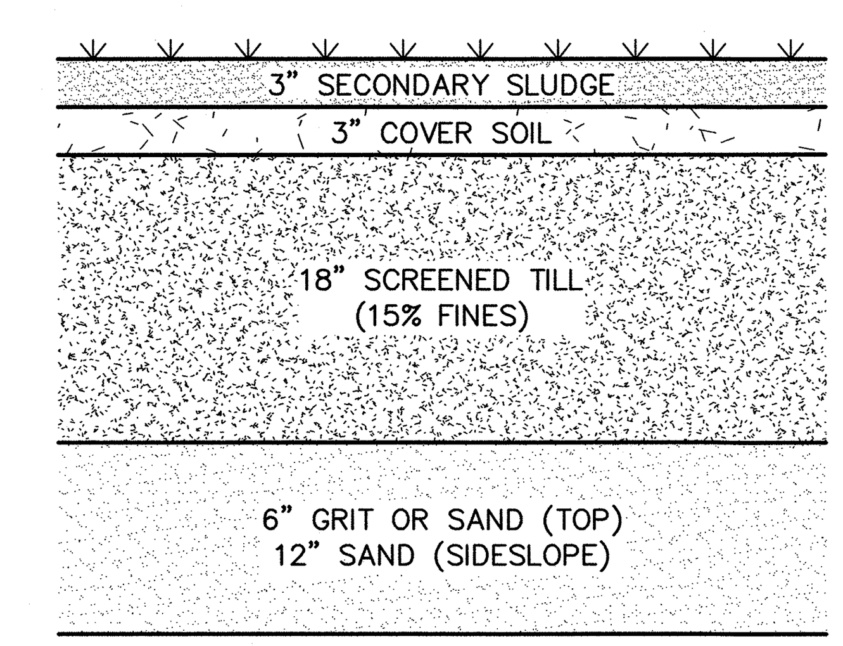
TYPE II FINAL COVER TERMINATION
NTS



TOE BERM AND UNDERDRAIN
NTS



SURFACE SWALE AND UNDERDRAIN
NTS



DOLBY III – EXISTING COVER 1
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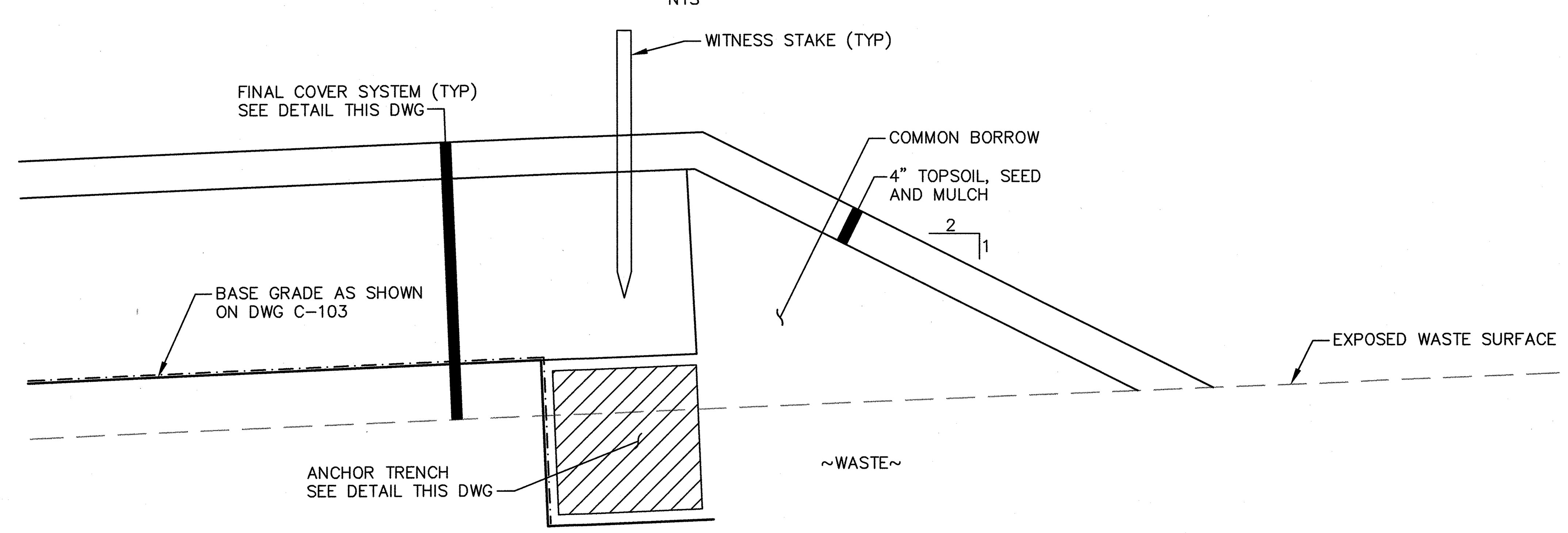
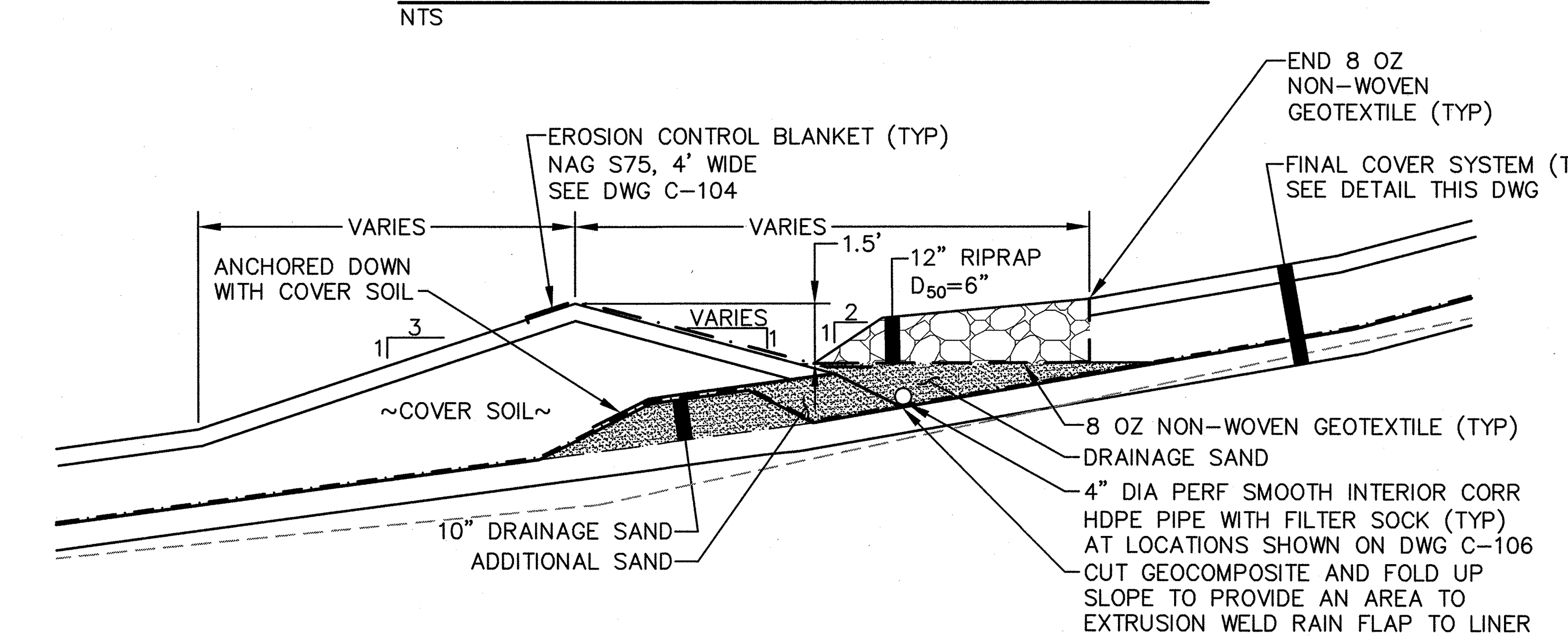
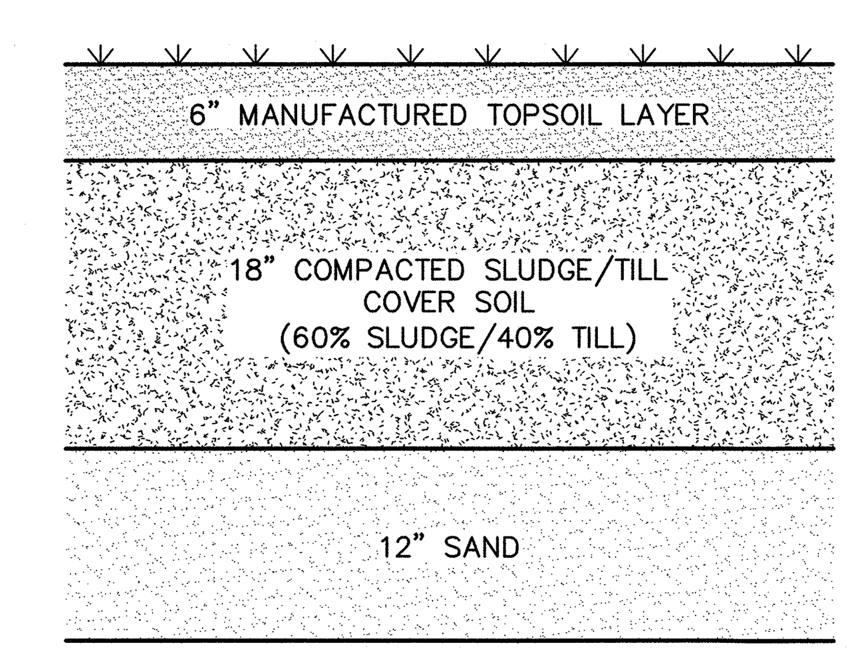


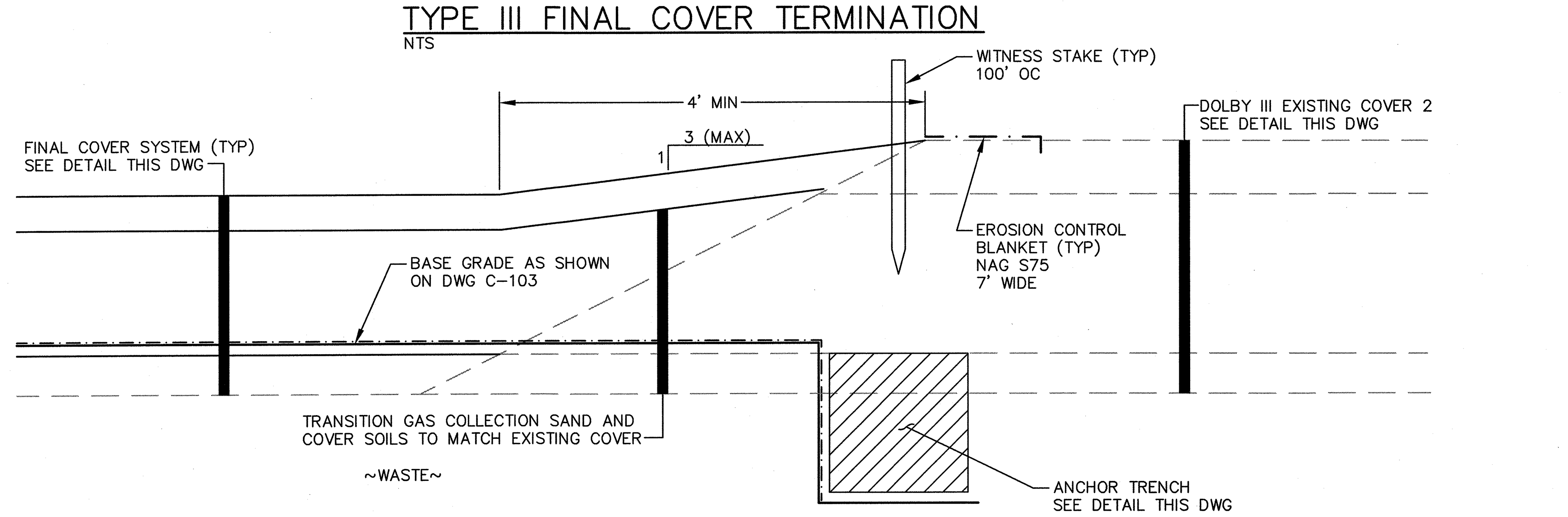
TYPE III FINAL COVER TERMINATION
NTS



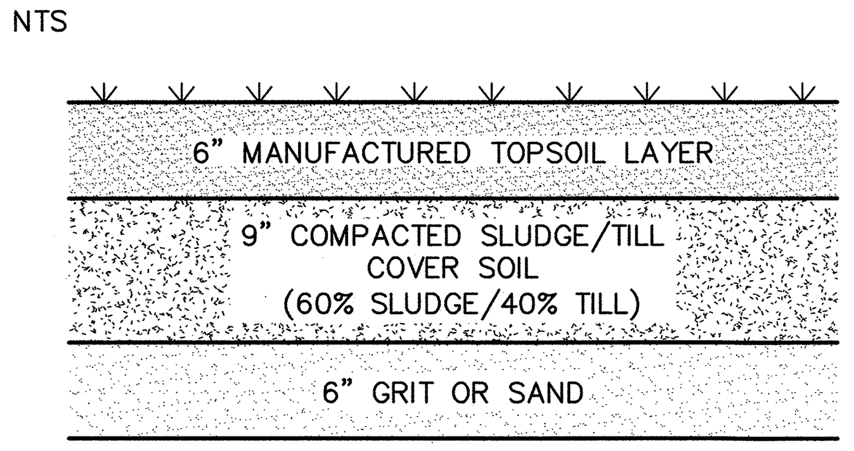
RAIN FLAP
NTS



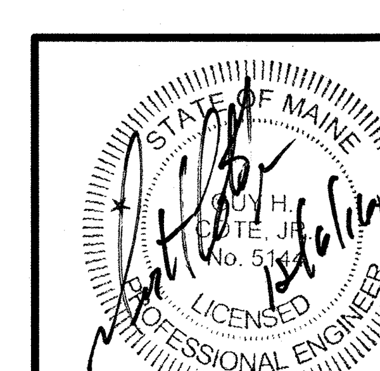
DOLBY III – EXISTING COVER 2
NTS



TYPE IV FINAL COVER TERMINATION
NTS



DOLBY III – EXISTING COVER 3
NTS



MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

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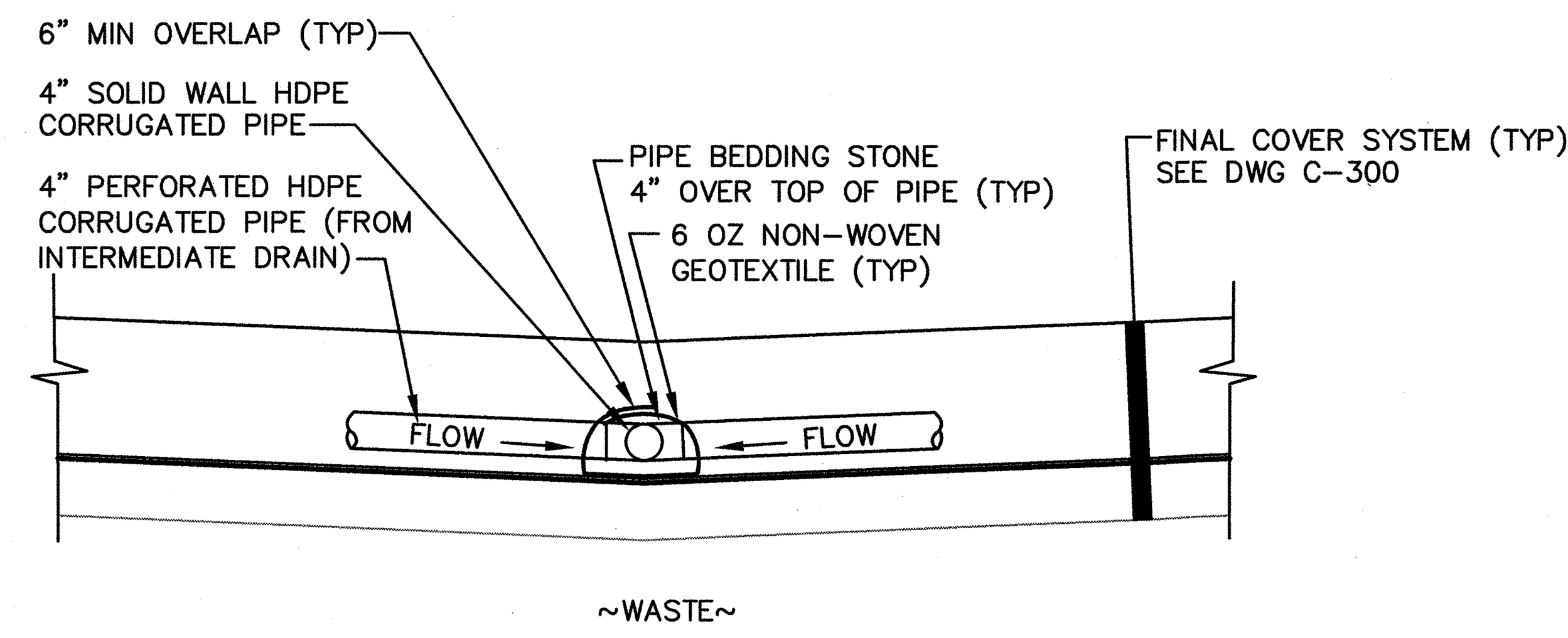
REV.	BY	DATE	STATUS
	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

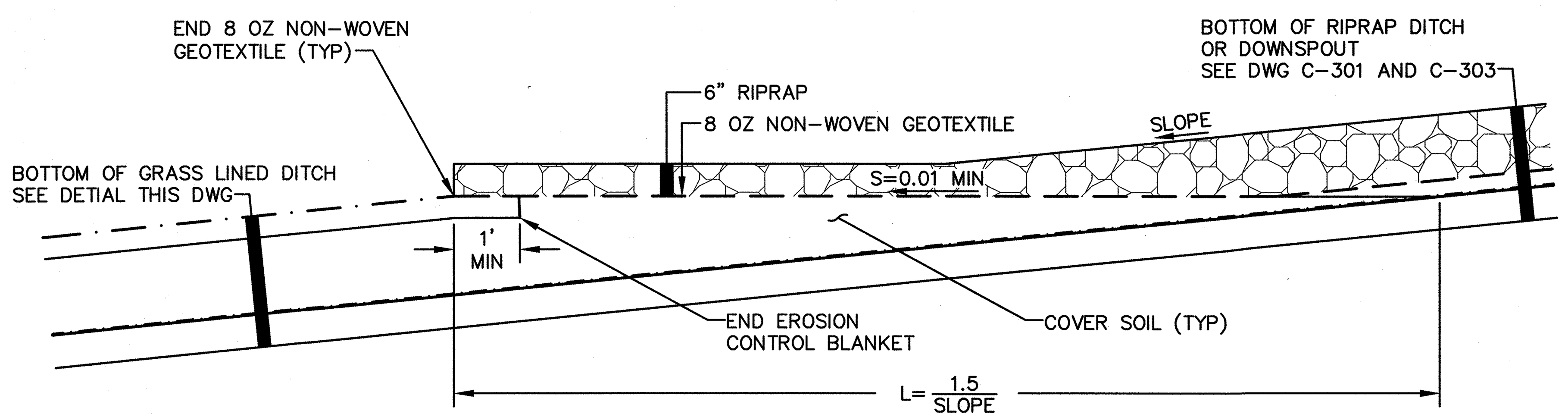
DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: NONE
CTB: SME-STD

JOB NO. 15250.00 DWG FILE DETAILS

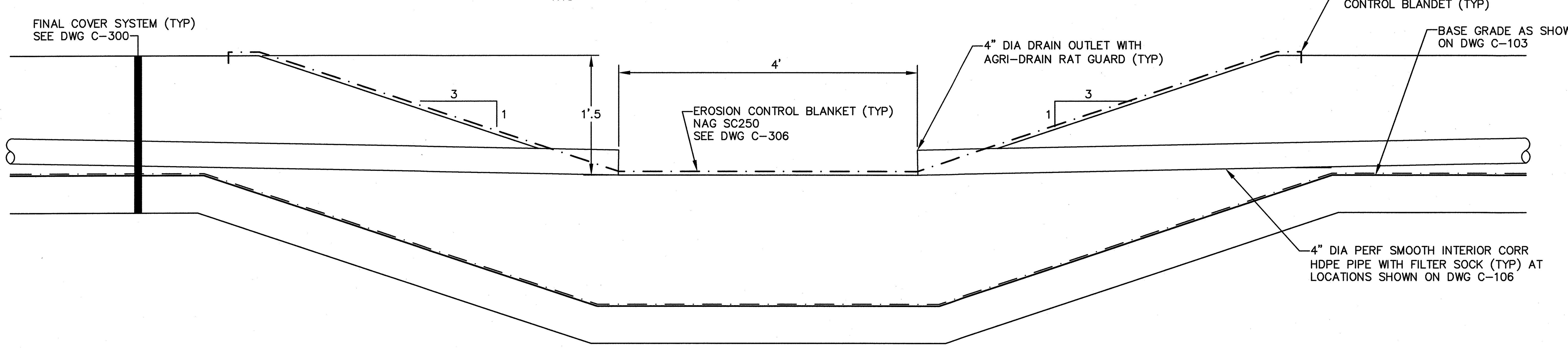
C-300



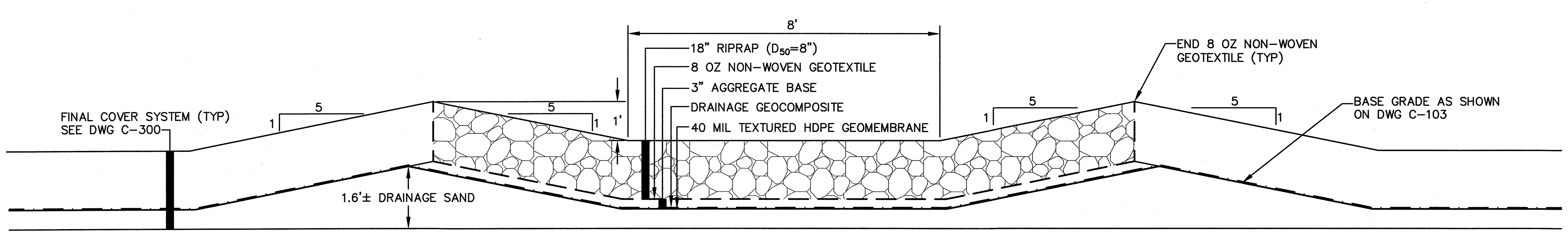
UNDERDRAIN HEADER PIPE
NTS



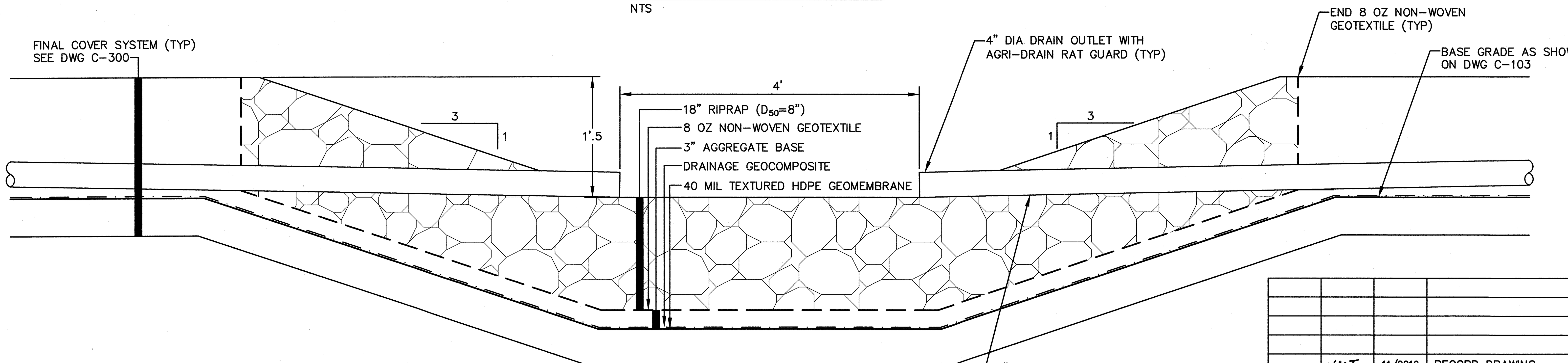
RIRAP/GRASS LINED DITCH TRANSITION
NTS



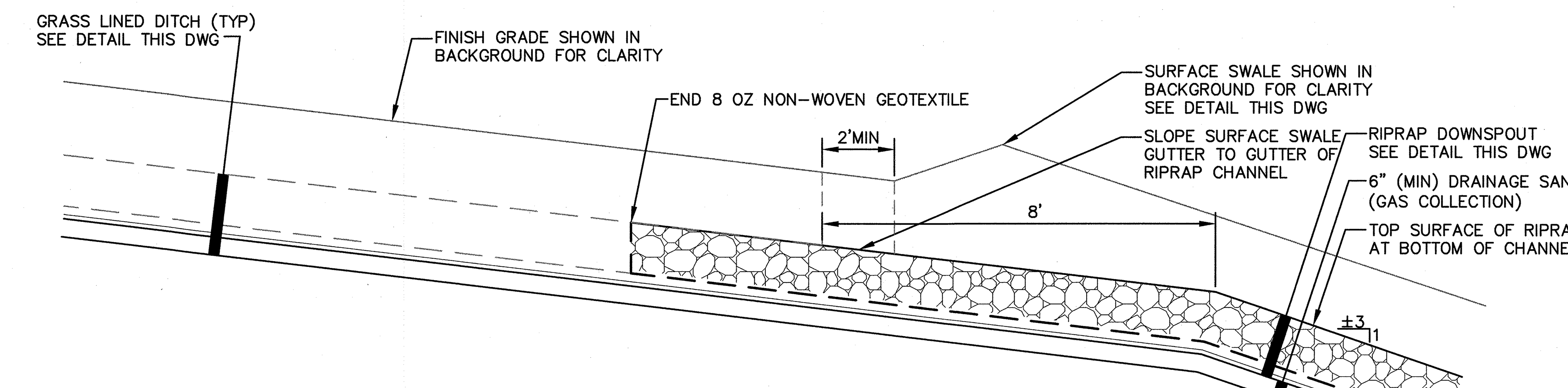
GRASS LINED DITCH
NTS



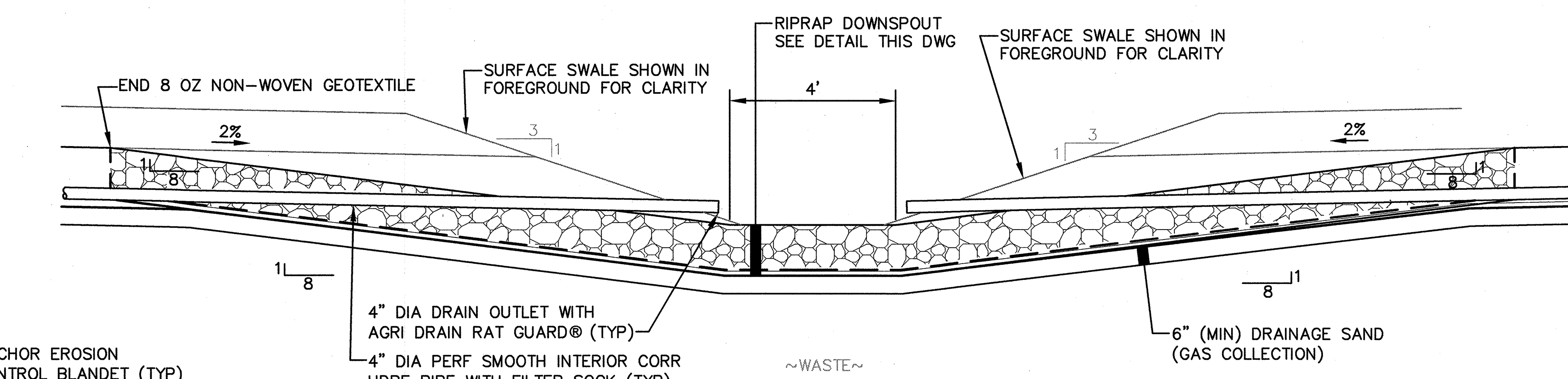
SHALLOW DOWNSPOUT
NTS



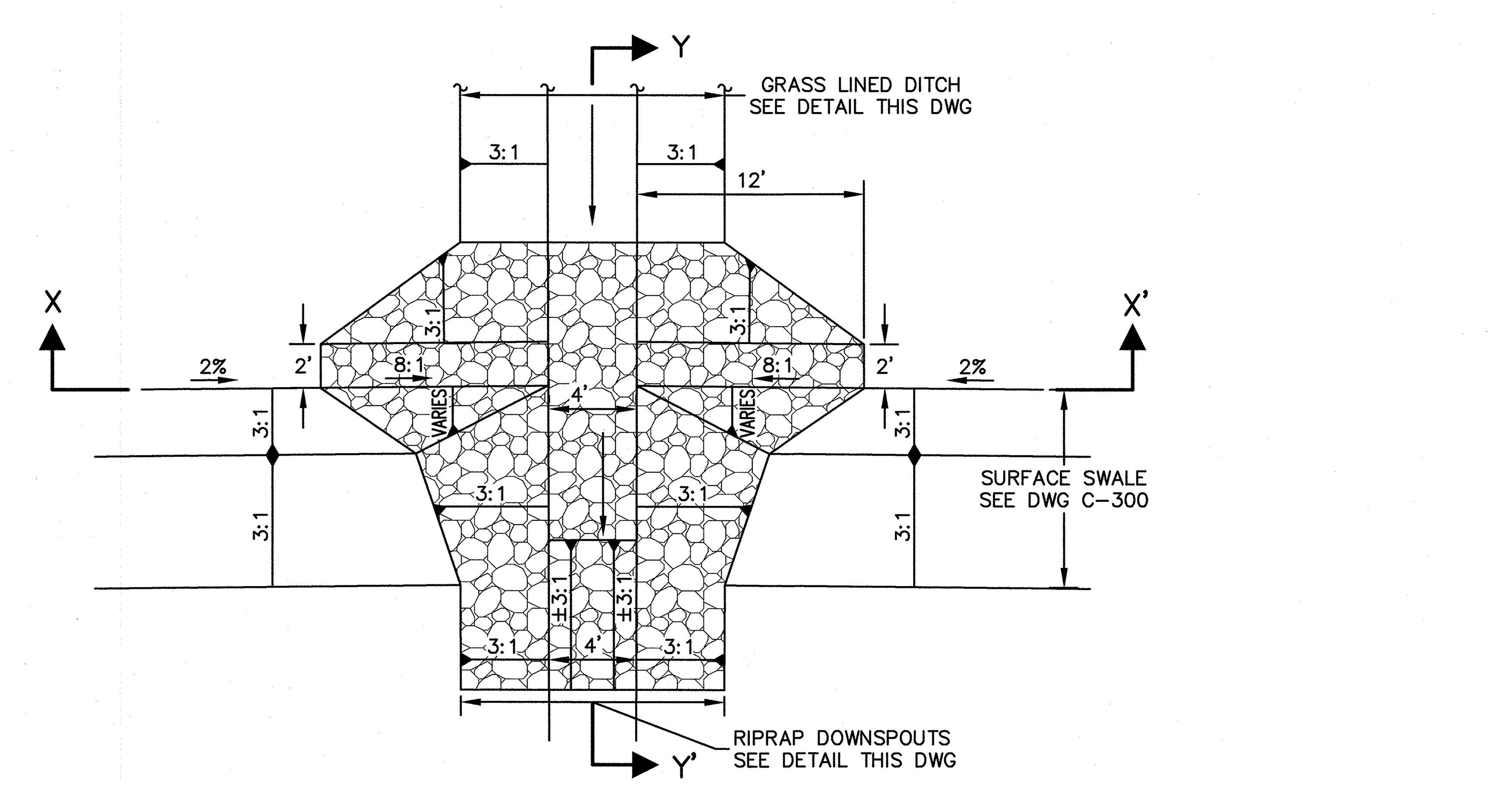
RIPRAP DOWNSPOUT
NTS



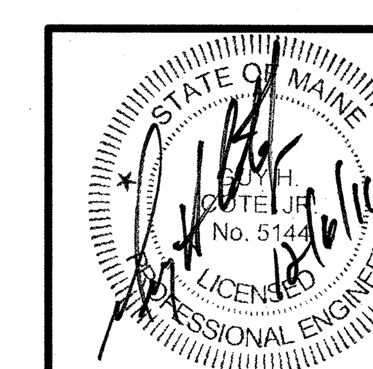
SECTION Y-Y'



SECTION X-X'



RIPRAP TRANSITION AT SURFACE SWALE
NTS



	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID
REV.	BY	DATE	STATUS

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

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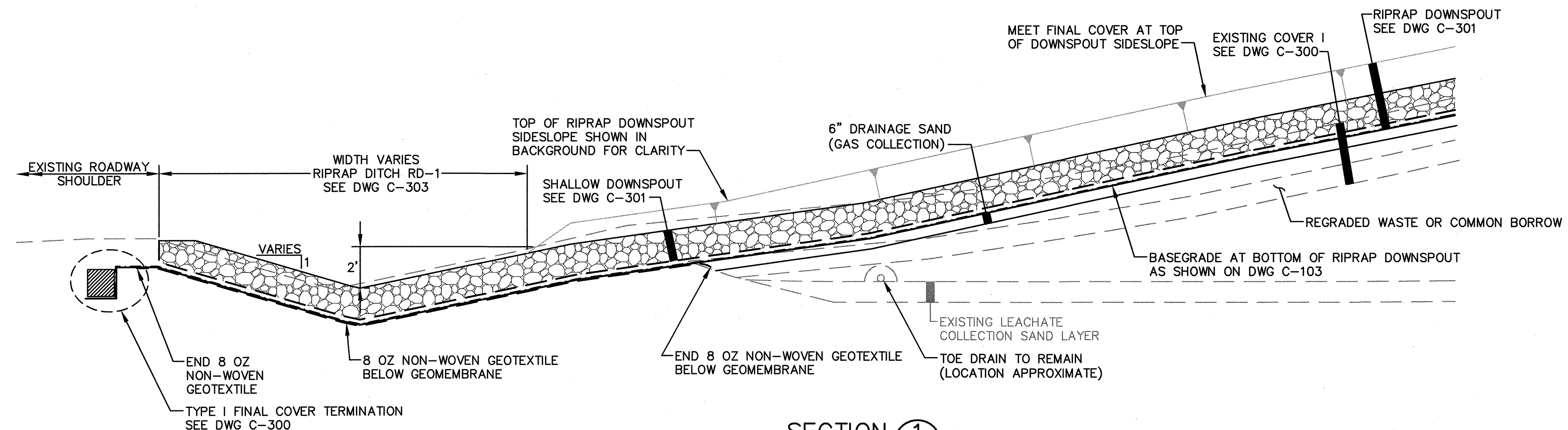
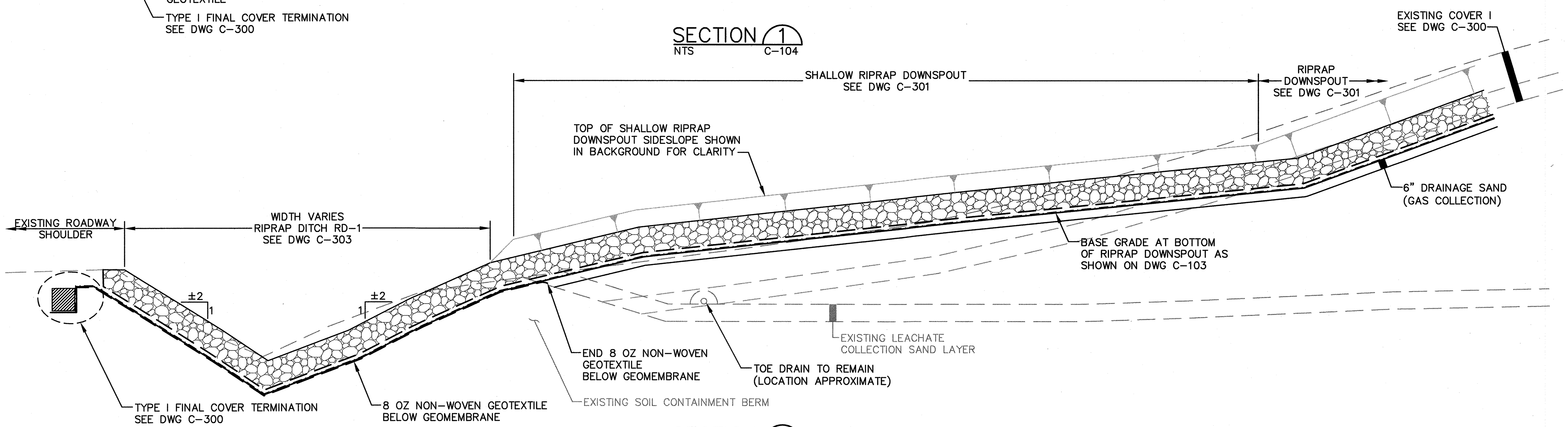
DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: NONE
CTB: SME-STD

JOB NO. 15250.00 DWG FILE DETAILS

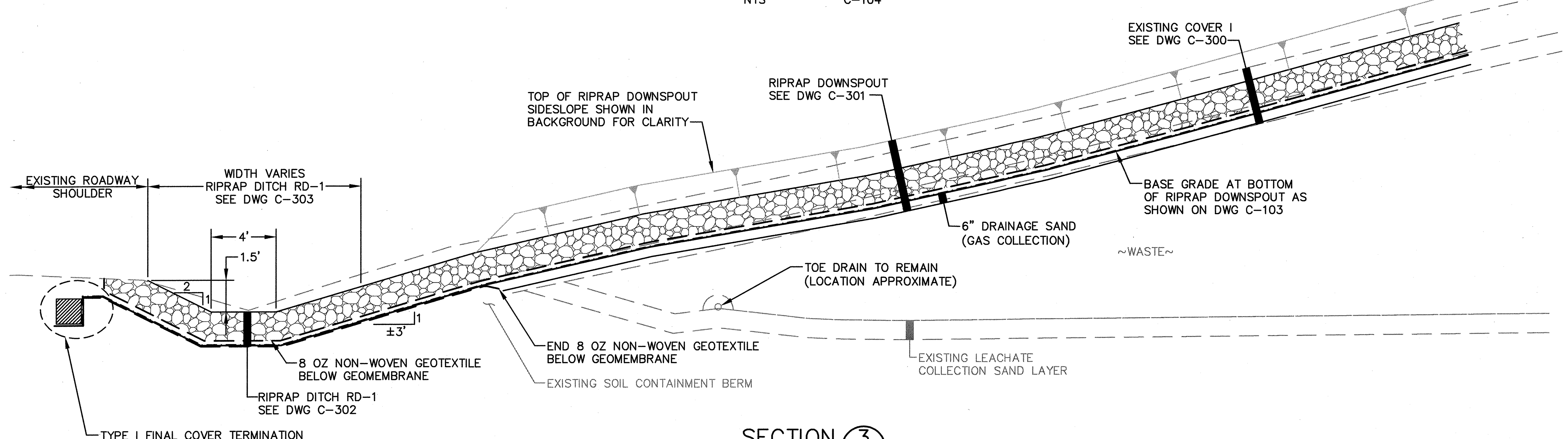
C-301



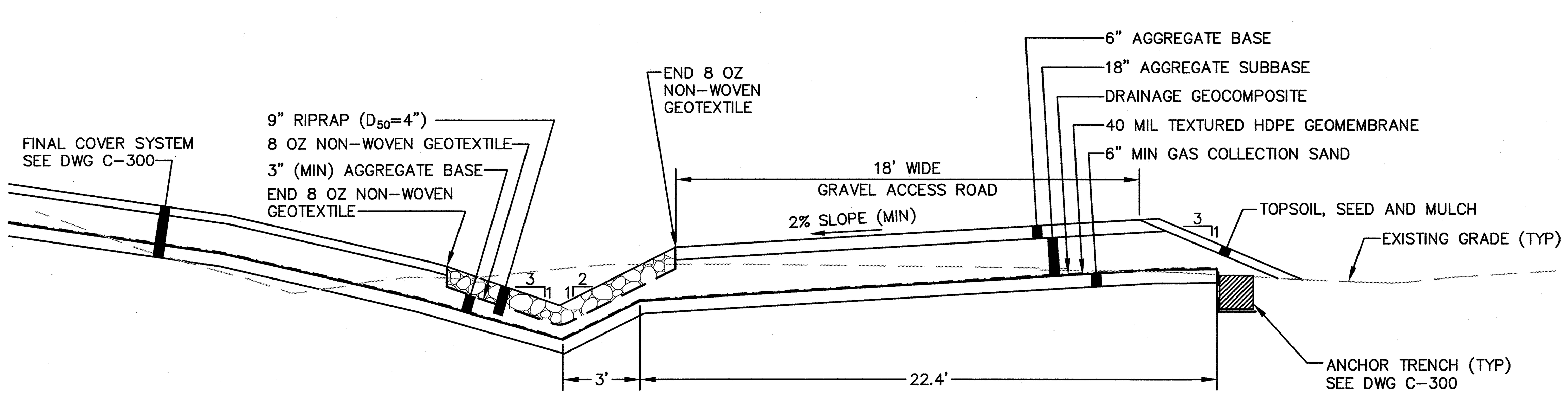
SECTION 1
NTS C-104



SECTION 2
NTS C-104



SECTION 3
NTS C-104



SECTION 4
NTS C-104

REV.	BY	DATE	STATUS
	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

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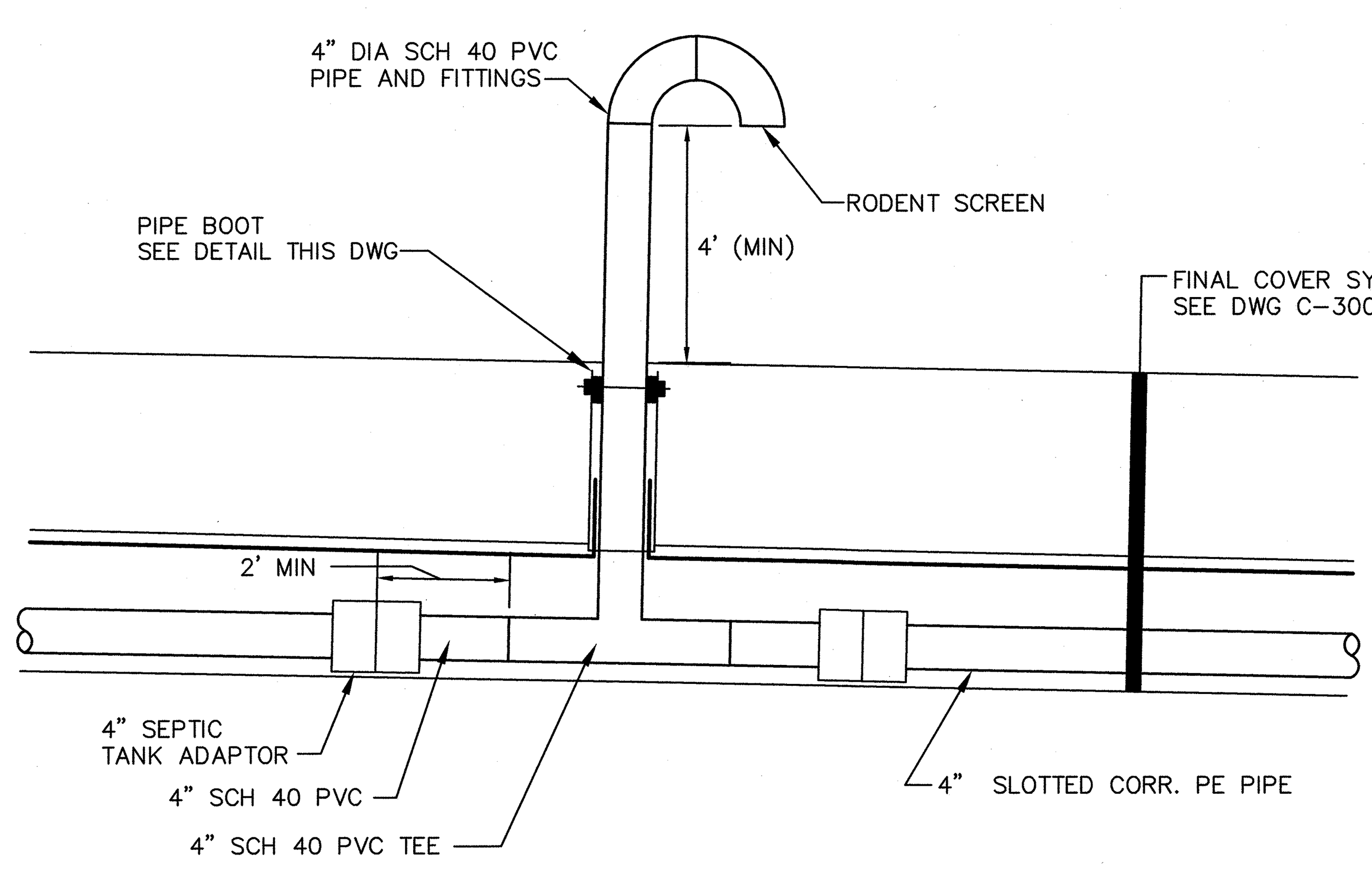
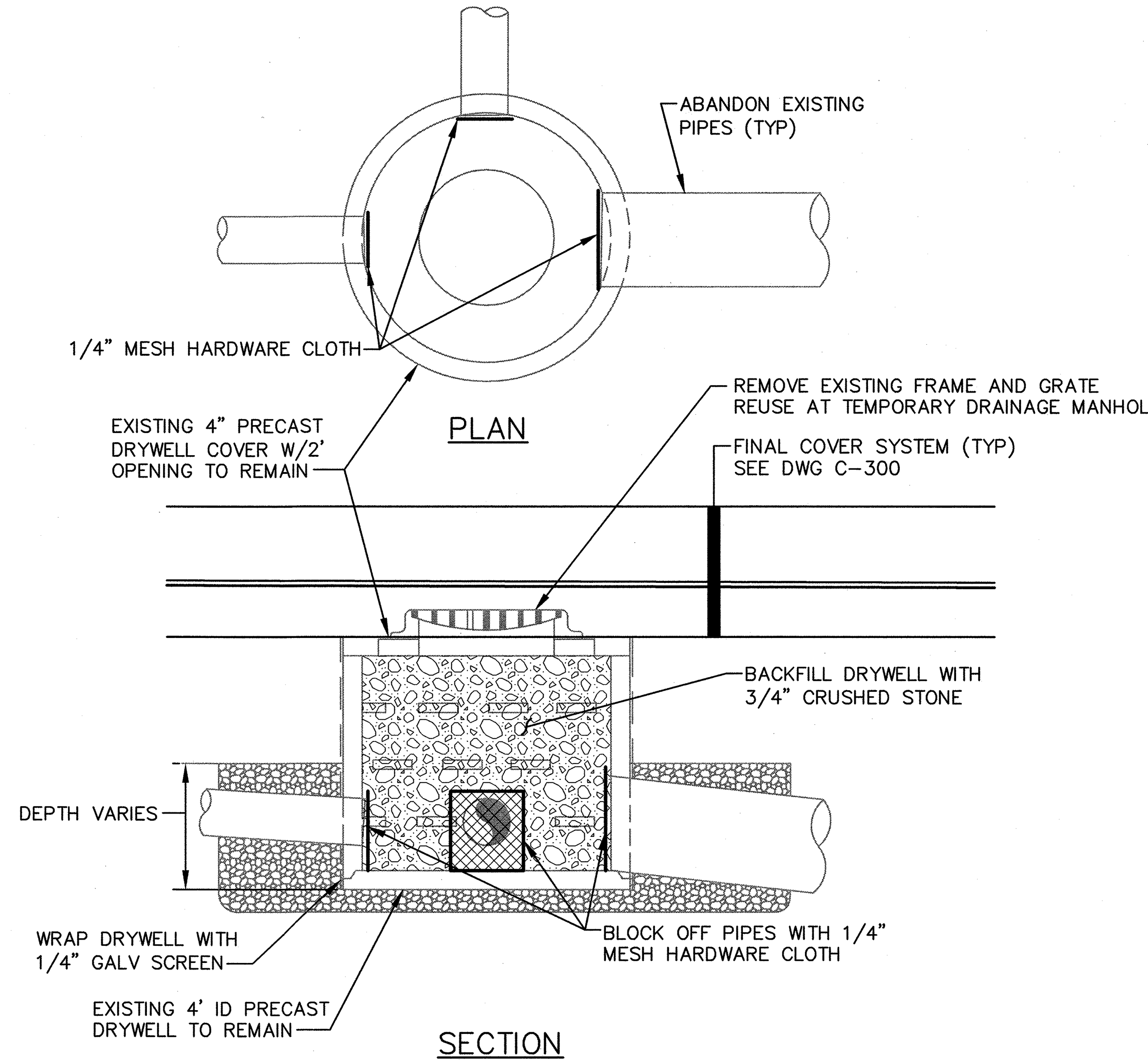
DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: NONE
CTB: SME-STD

JOB NO. 15250.00 DWG FILE DETAILS

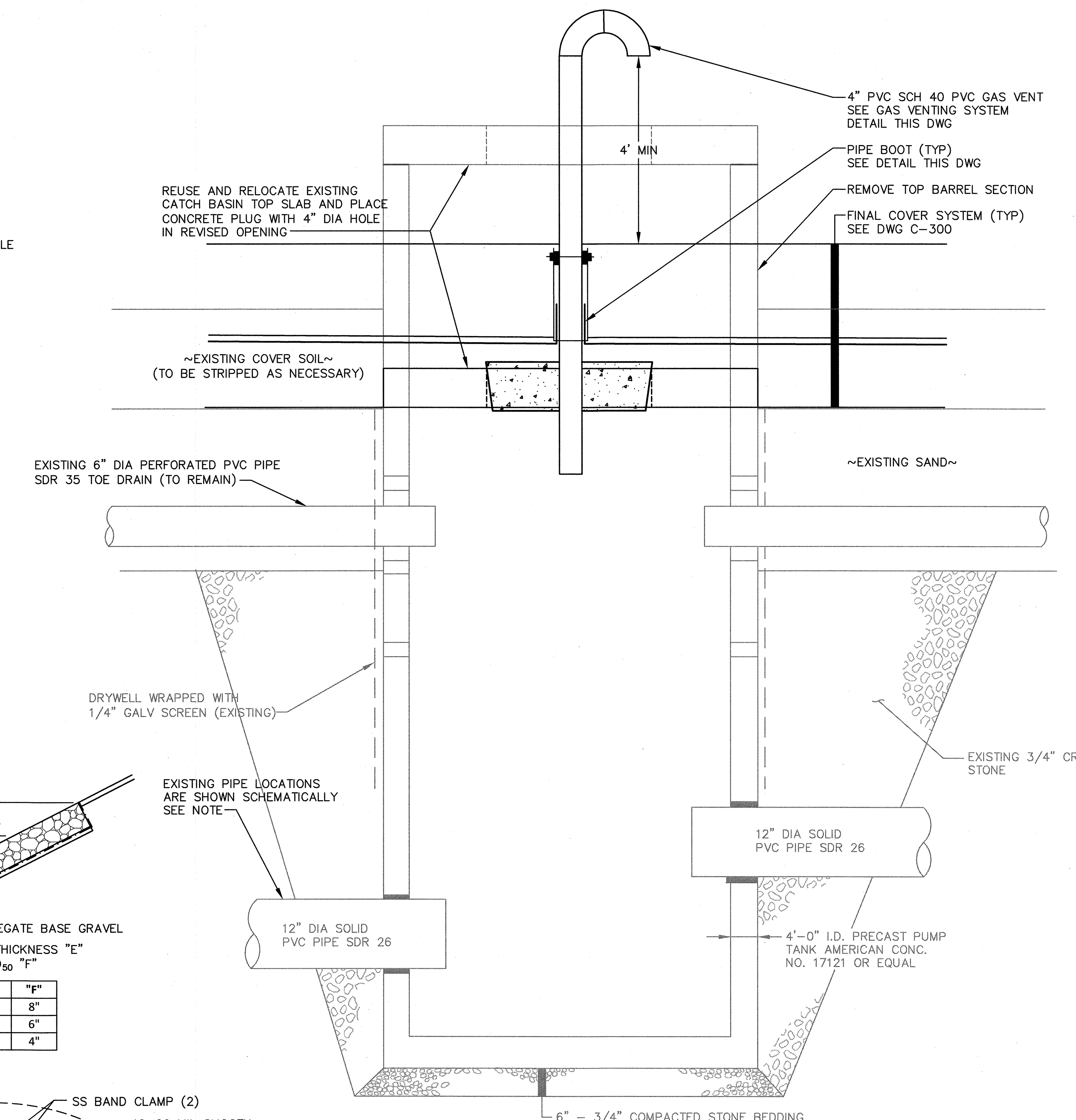
C-302



GAS VENTING SYSTEM
NTS

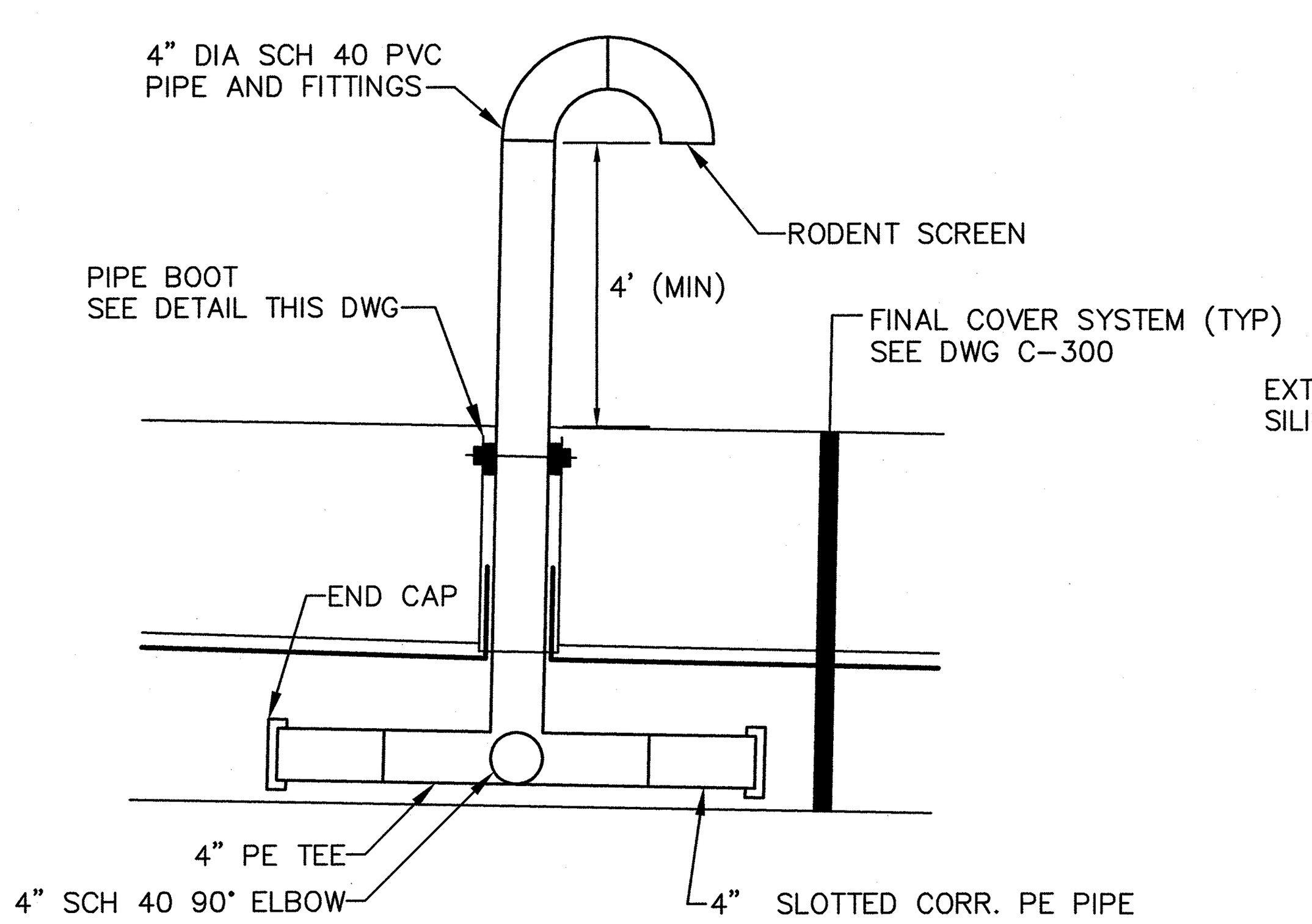


DRAINAGE MANHOLE ABANDONMENT
NTS

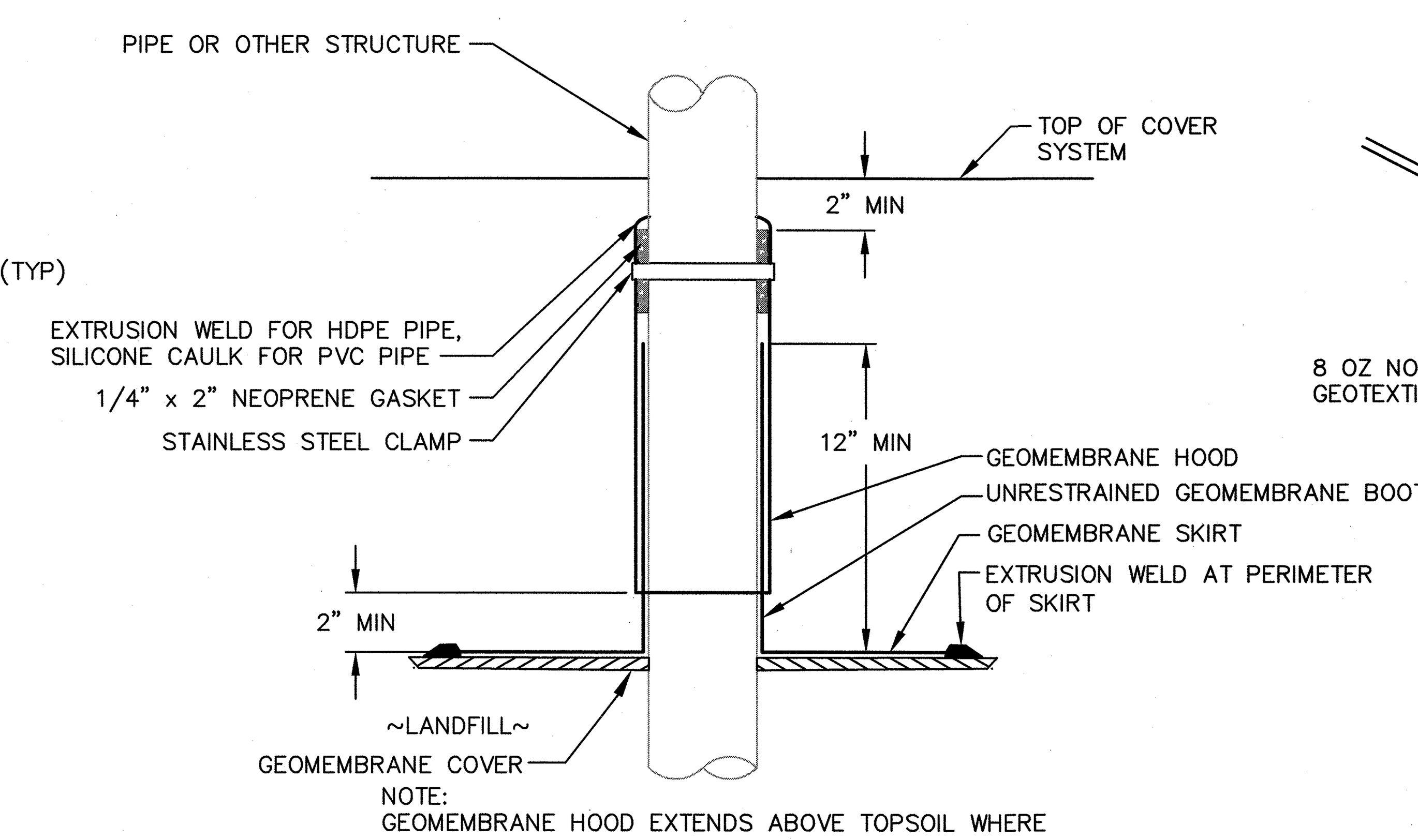


NOTE:
1. CONTRACTOR SHALL FIELD VERIFY PIPE LOCATIONS AND OTHER EXISTING CONDITIONS PRIOR TO ABANDONMENT.
2. COVER SYSTEM MATERIAL OVER CATCH BASINS VARIES TO AS THIN AS 6-8 INCHES.

EXISTING CATCH BASIN ABANDONMENT
NTS

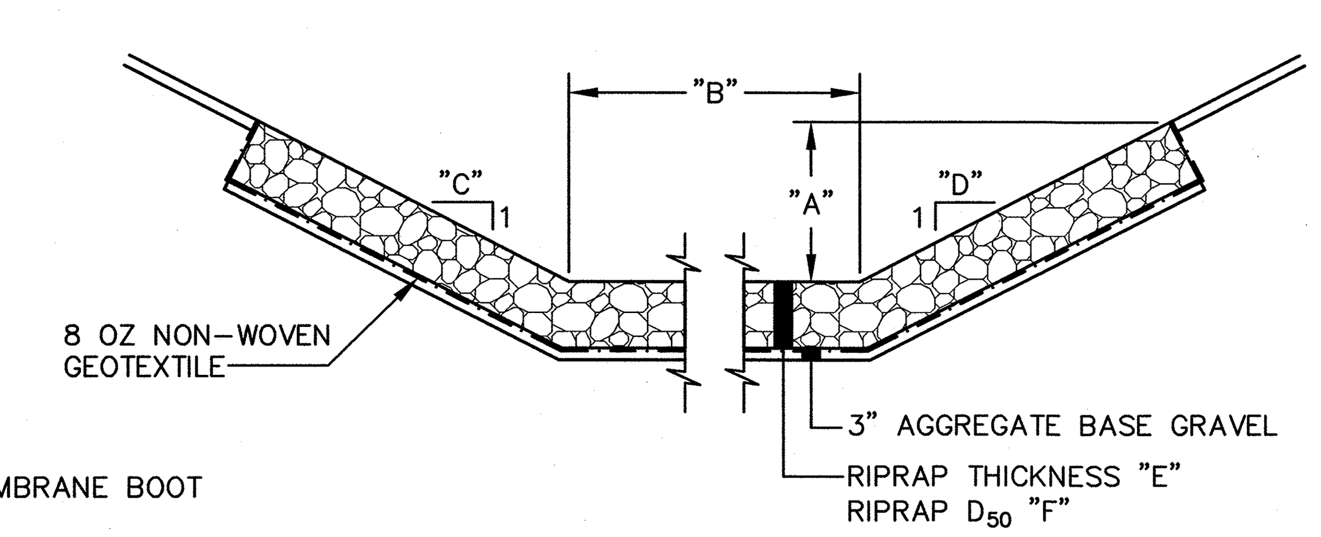


ADDITIONAL GAS VENT
NTS



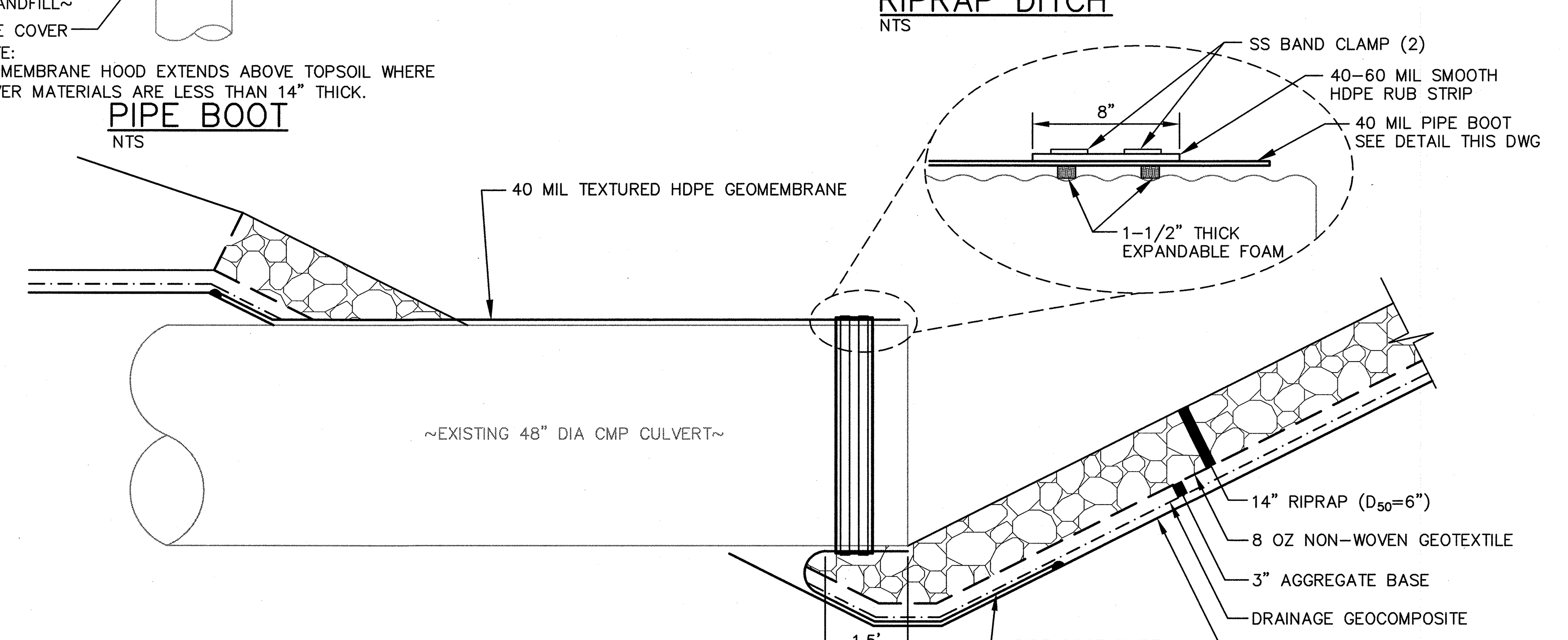
NOTE:
GEOMEMBRANE HOOD EXTENDS ABOVE TOPSOIL WHERE COVER MATERIALS ARE LESS THAN 14" THICK.

PIPE BOOT
NTS

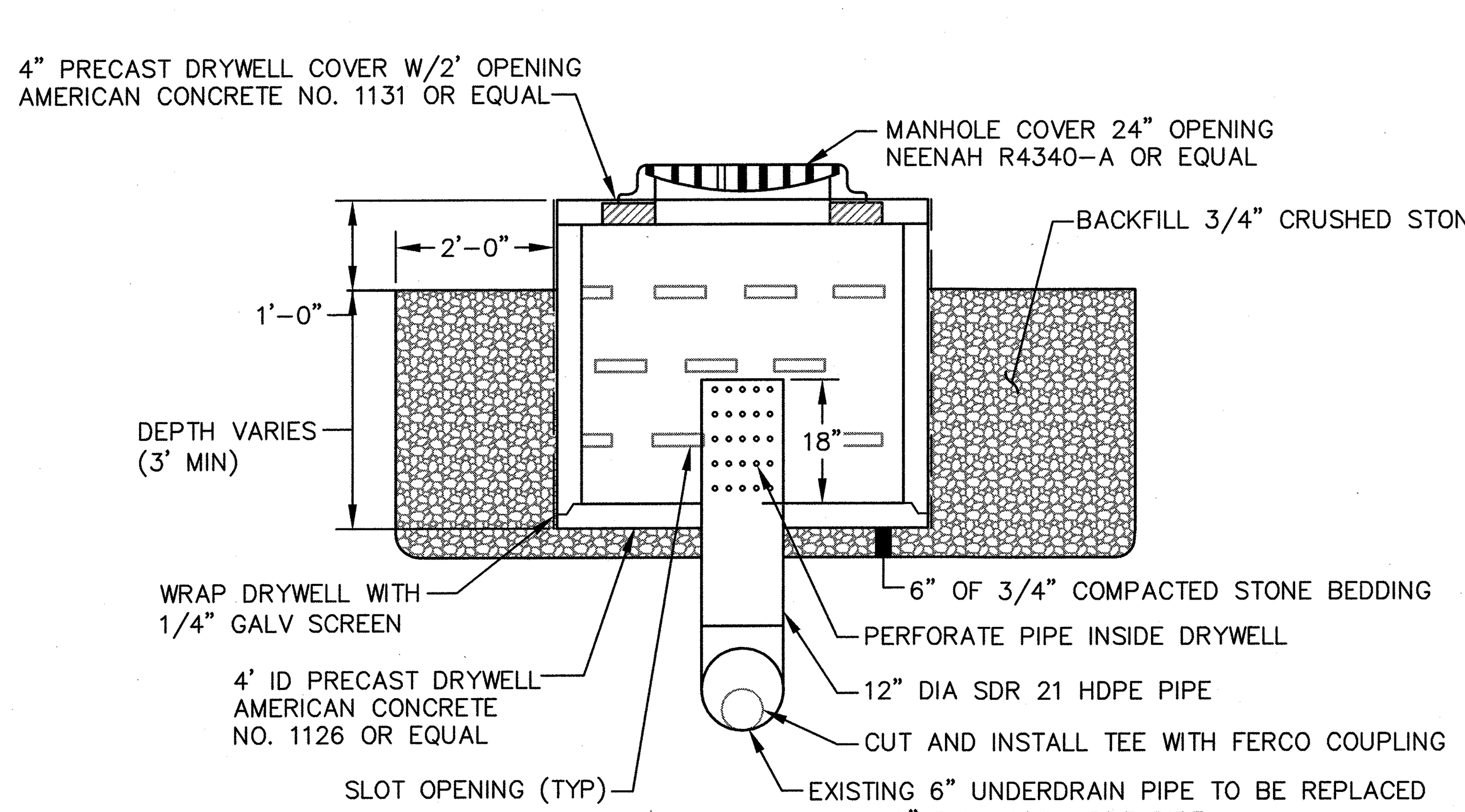


DITCH	"A"	"B"	"C"	"D"	"E"	"F"
RD-1	1.5'	4'	2'	3'	18"	8"
RD-2	2'	4'	3'	3'	14"	6"
RD-3	2'	0	3'	2'	9"	4"

RIPRAP DITCH
NTS



CULVERT PIPE BOOT
NTS



TEMPORARY DRAINAGE MANHOLE
NTS

REV.	BY	DATE	STATUS
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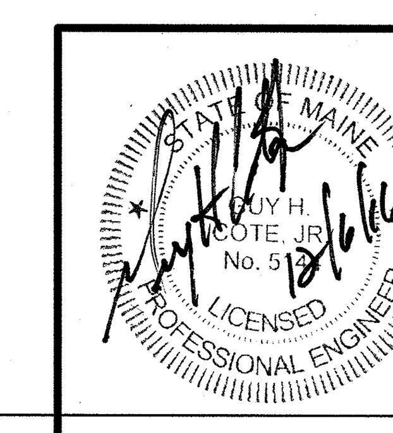
	PCM	4/2016	ISSUED FOR BID



MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

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DATE: 4/2016
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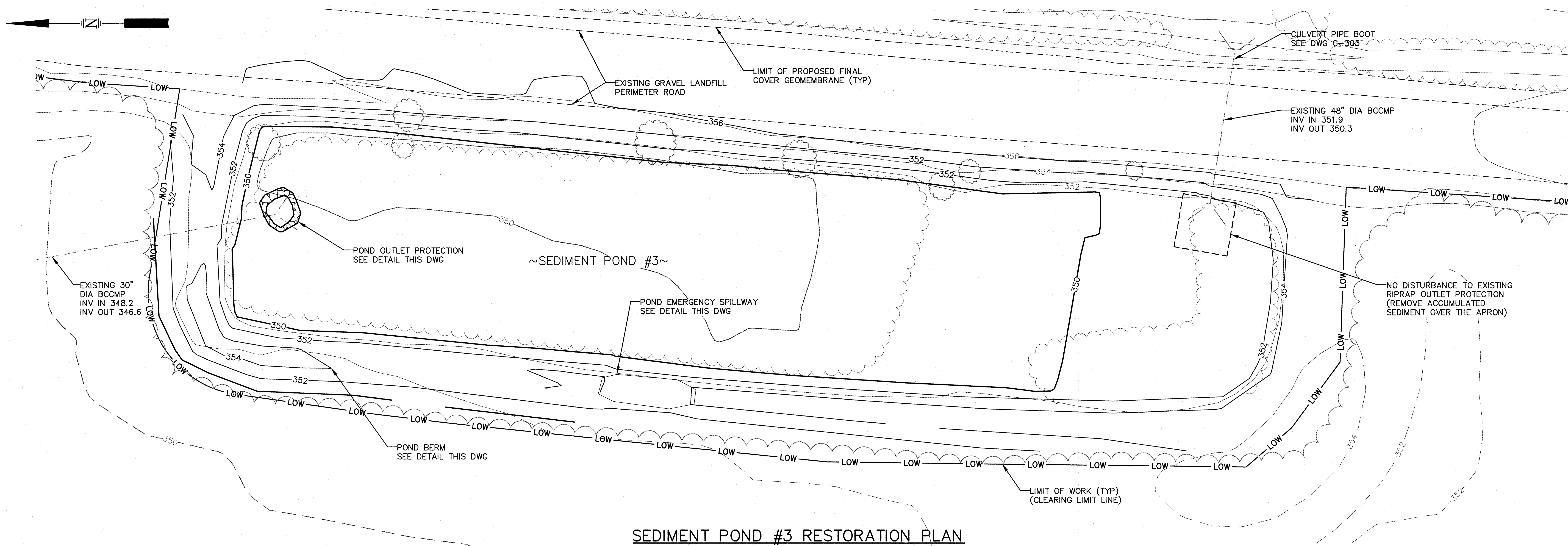
LMN: NONE
CTB: SME-STD

JOB NO. 15250.00 DWG FILE DETAILS

C-303

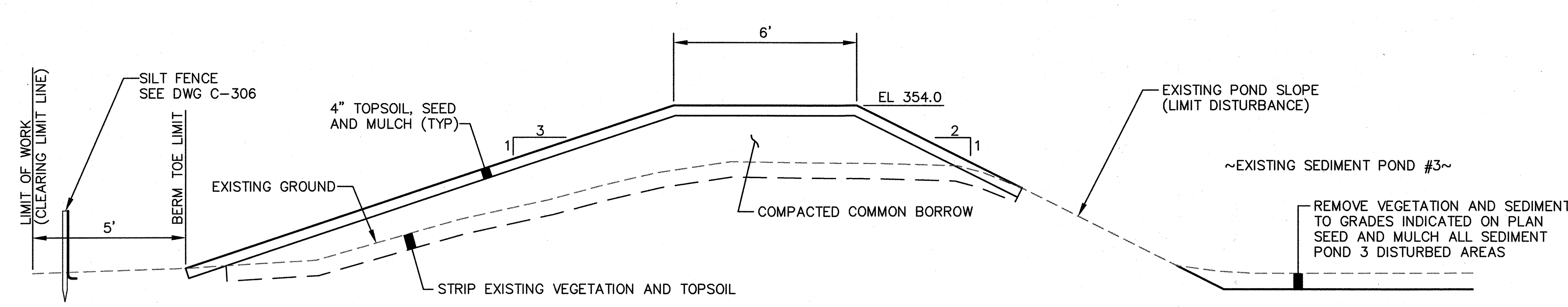


SEDIMENT POND #3 RESTORATION PLAN

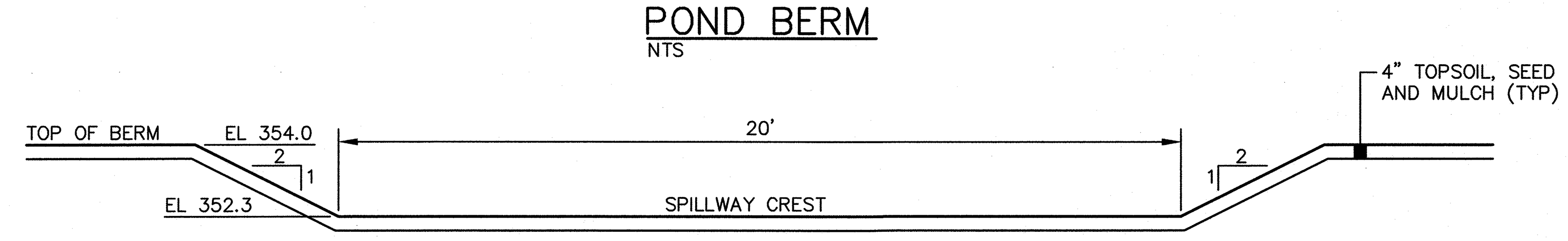
10 0 20 40 FEET

NOTES

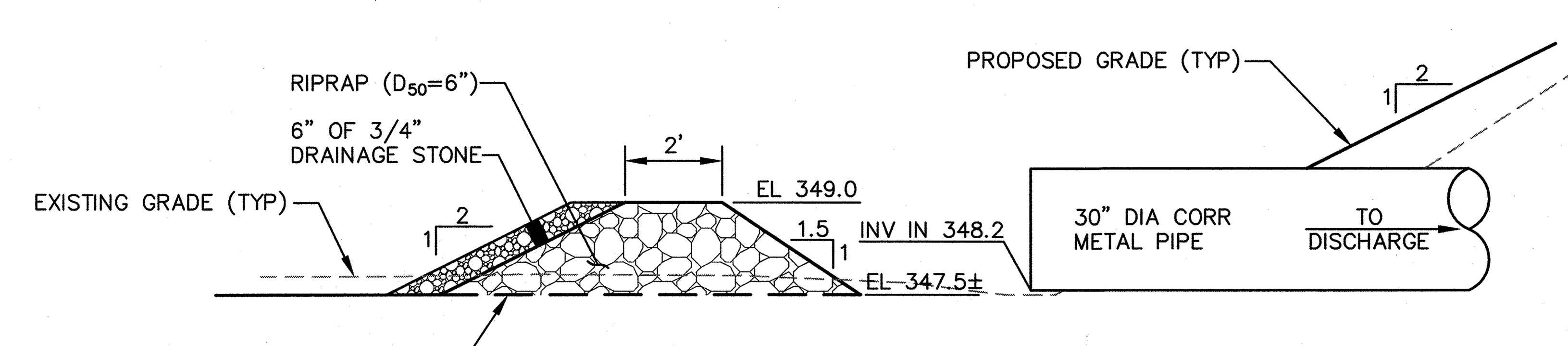
1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. GROUND CONTROL BY PLISGA & DAY, BANGOR, MAINE. VERTICAL DATUM: NAVD 1929. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
3. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.



POND BERM
NTS



POND EMERGENCY SPILLWAY
NTS



POND OUTLET PROTECTION
NTS

REV.	BY	DATE	STATUS
	NAT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SEDIMENT POND #3 RESTORATION PLAN AND DETAILS

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
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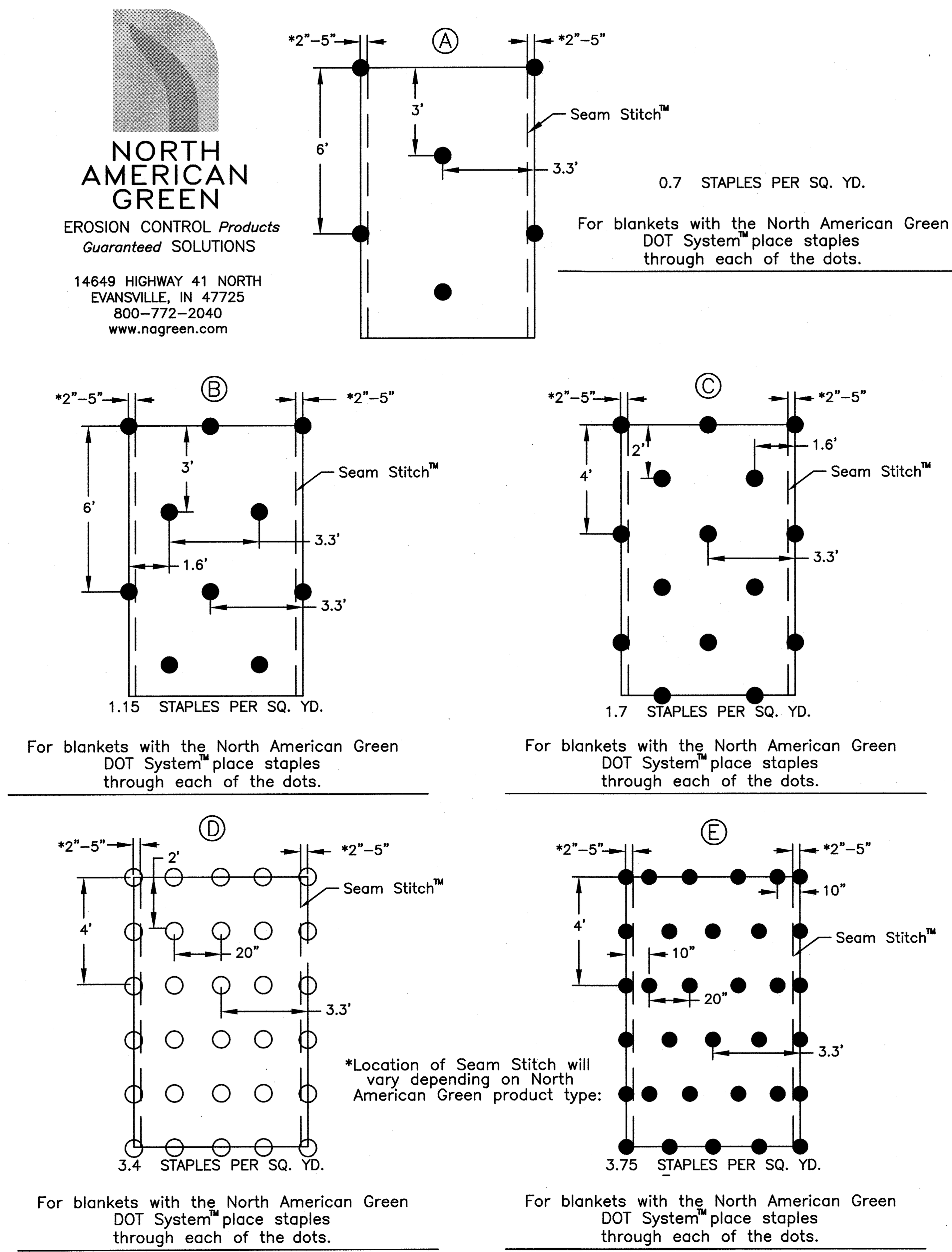
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: POND-RESTORE
CTB: SME-STD

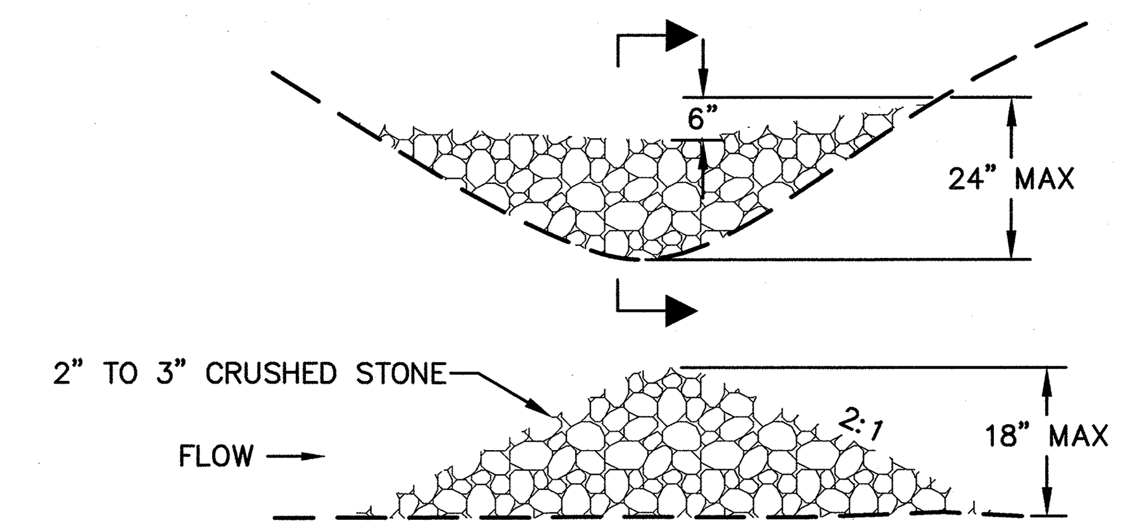
JOB NO. 15250.00 DWG FILE BASE

C-305



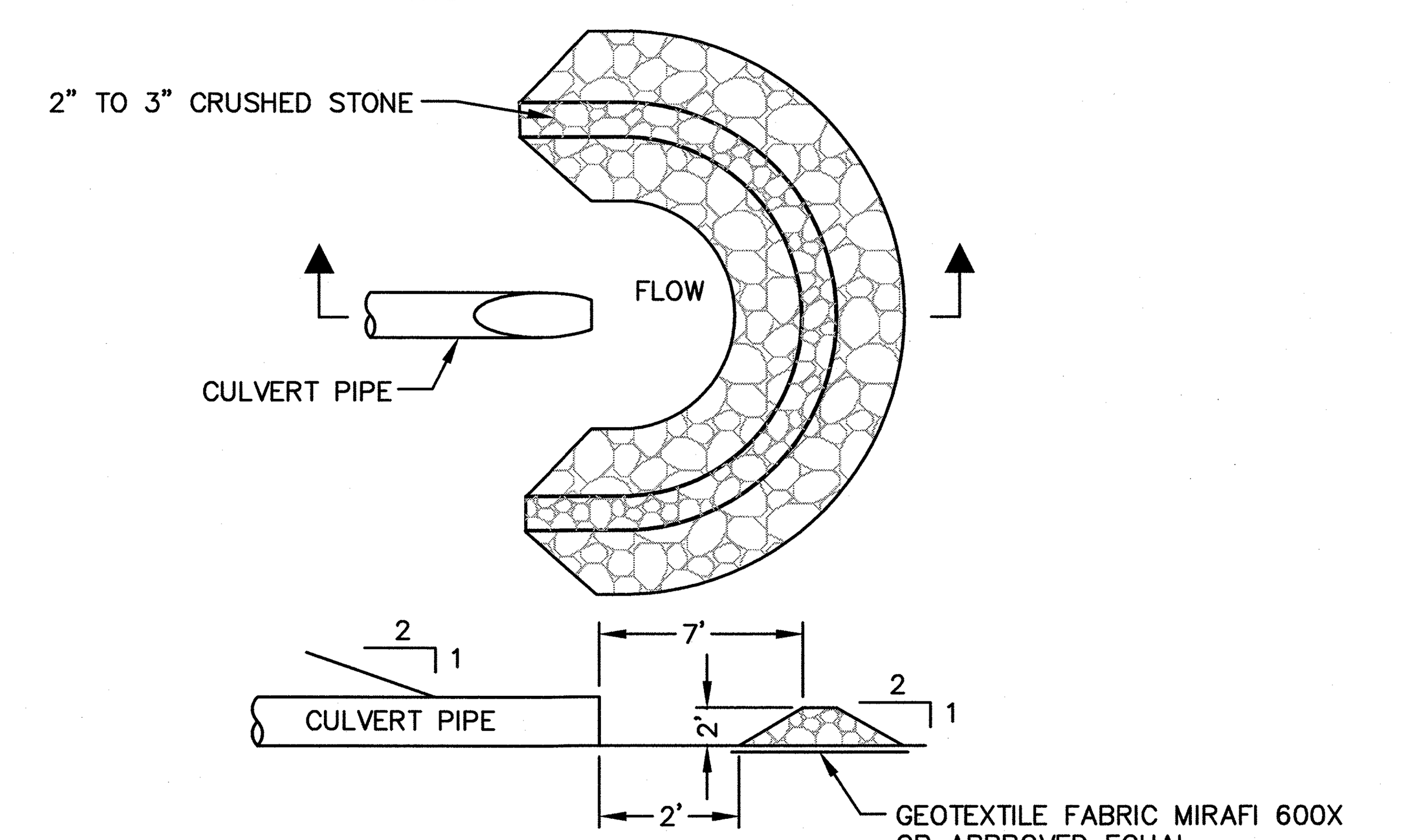
ECB STAPLE PATTERN GUIDE

NTS



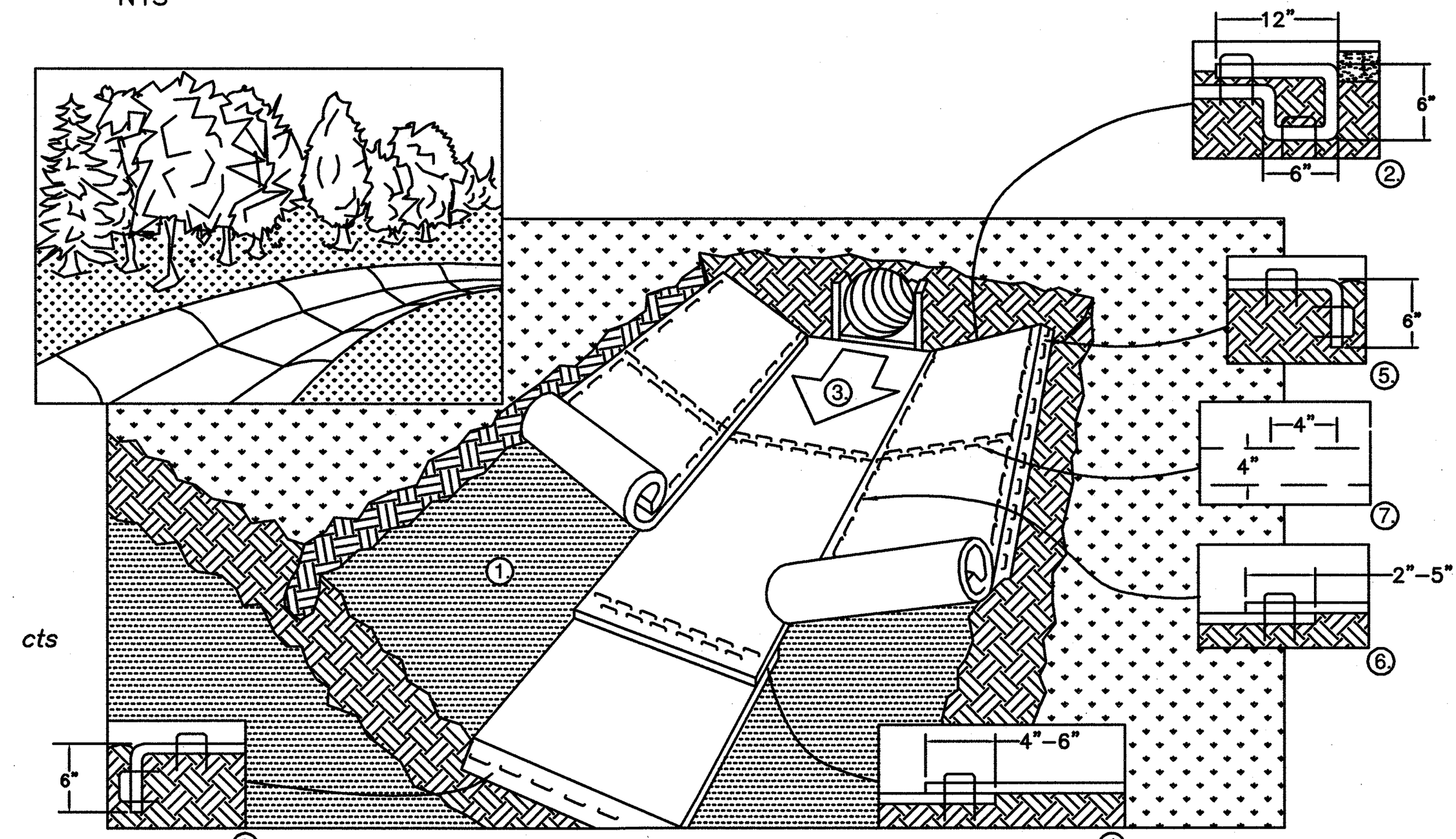
STONE CHECK DAM

NTS



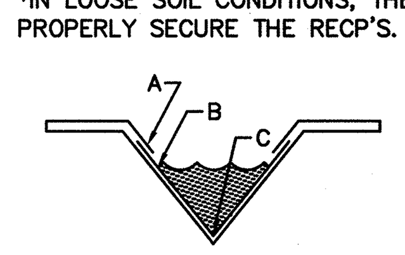
RIPRAP CULVERT INLET PROTECTION (TEMPORARY)

NTS



1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL CENTER RECP'S IN THE DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" TO 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP'S.
5. FULL LENGTH EDGE OF RECP'S AT OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP'S MUST BE OVERLAPPED APPROXIMATELY 2" TO 5" (DEPENDING ON RECP'S TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP'S MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.



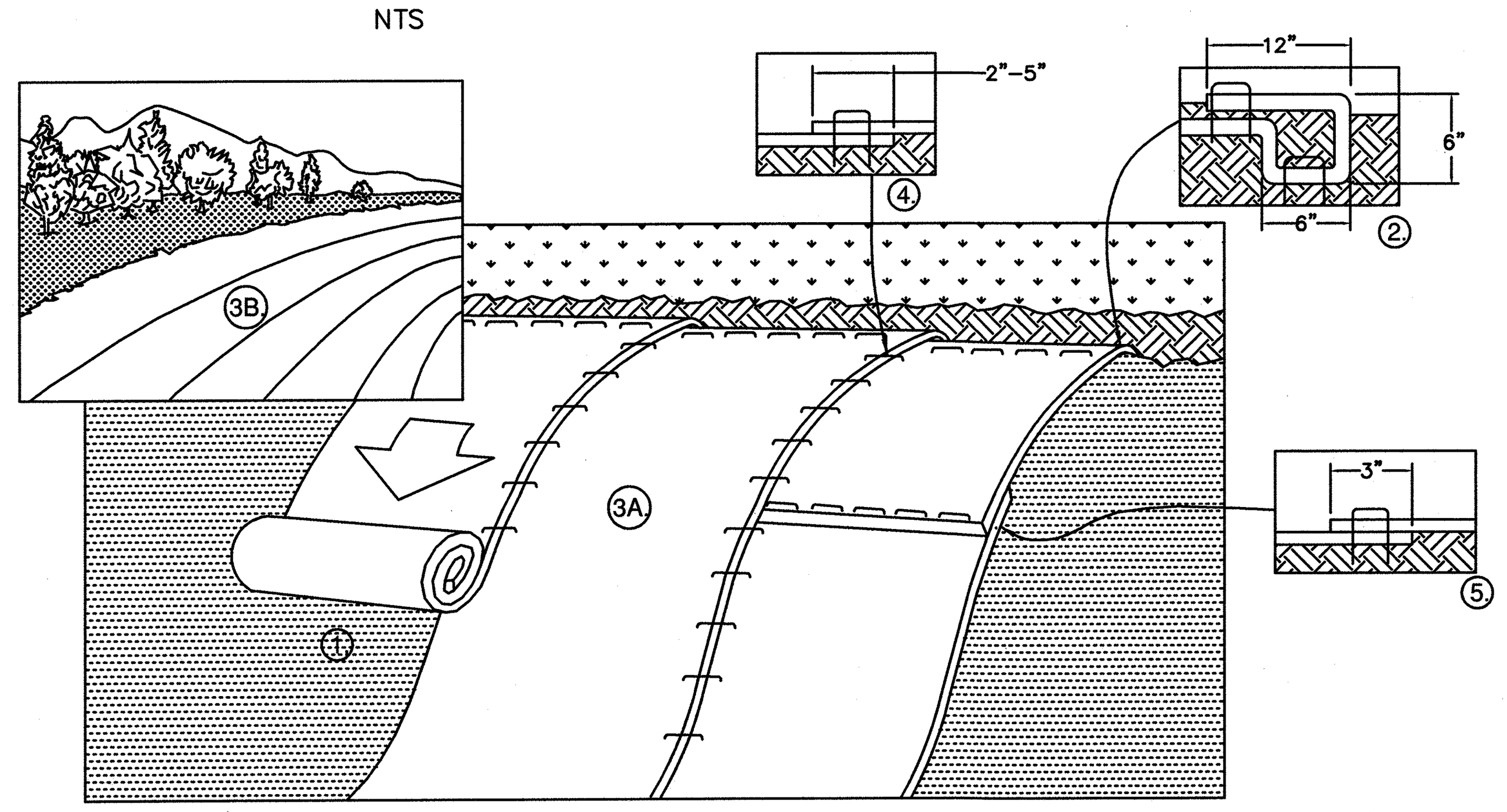
CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

CHANNEL INSTALLATION

NTS



1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

SLOPE INSTALLATION

NTS

TEMPORARY AND PERMANENT
EROSION AND SEDIMENTATION CONTROL

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with the Maine Erosion and Sediment Control Best Management Practices, Maine Department of Environmental Protection, March 2003, and as currently revised.
2. The contractor will be responsible for the repair/replacement/ maintenance of all erosion control measures until all disturbed areas are stabilized. Contractor shall be responsible for plan preparation, documentation and inspection in accordance with Maine Construction General Permit obtained for this project.
3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance, shall be temporarily stabilized within 7 days of the disturbance.
4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
5. Any suitable topsoil will be stripped and stockpiled for reuse in final grading. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with aroostook rye, annual or perennial ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

Aroostook Rye: Recommended Seeding Dates: 9/10 – 11/1
Application Rate: 112 lbs/acre

Perennial Ryegrass: Recommended Seeding Dates: 4/1 – 9/10
Application Rate: 85 lbs/acre

Mulch:
- o Hay or Straw
  Application Rate: 2 – 3 tons/acre.
  Anchor with tack or 300 lbs/acre fiber mulch
- o Wood Fiber Cellulose
  Application Rate: 4,000 lbs/acre.
  Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fence

(a) Silt fence will be installed prior to and downgradient of all construction activity where soil disturbance may result in erosion.

(b) The height of a silt fence will not exceed 36 inches.

(c) The filter fabric will be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth will be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts will be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing will not exceed 6 feet.

(e) A trench will be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upgradient from the barrier.

(f) The standard strength of filter fabric will be stapled or wired to the fence, and 8 inches of the fabric will be extended into the trench. The fabric will not extend more than 36 inches above the original ground surface. Filter fabric will not be stapled to existing trees.

(g) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric will be stapled or wired directly to the posts with all other provisions of item (f) applying.

(h) The trench will be backfilled and the soil compacted over the filter fabric.

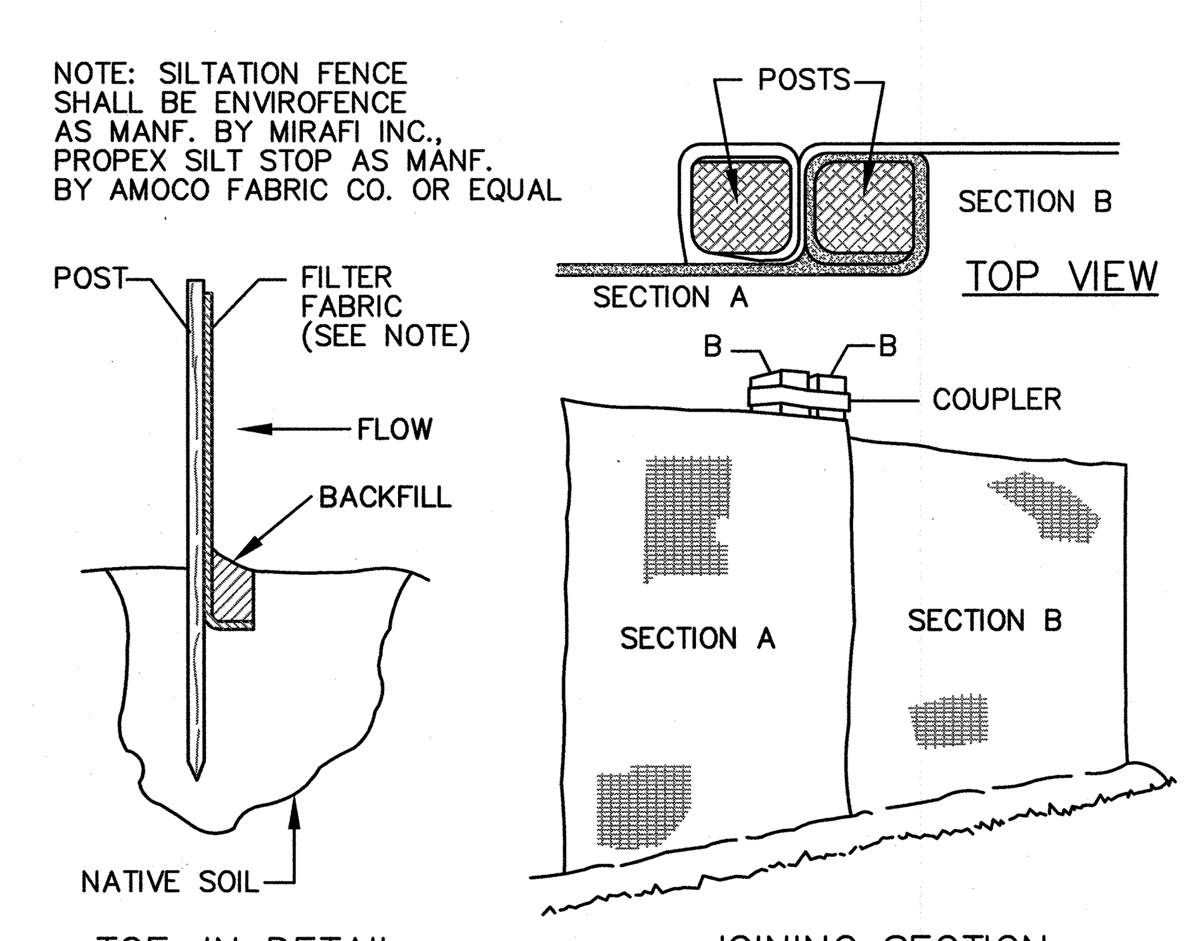
(i) Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

(j) Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.

(k) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric will be replaced promptly.

(l) Sediment deposits should be removed after each storm event if significant buildup has occurred or if deposits exceed 15 inches in depth.

NOTE: SILTATION FENCE SHALL BE ENVIROFENCE AS MANF. BY MIRAFI INC., PROPEX SILT STOP AS MANF. BY AMOCO FABRIC CO. OR EQUAL



SILTATION FENCE

NTS

B. TEMPORARY MEASURES (CONT)

2. Stone Check Dams

(a) Stone check dams should be constructed of 2 to 3-inch stone. The stone should be placed according to the configuration shown on the drawing. Hand or mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.

(b) Check dams should be installed as the swale is being constructed.

(c) Sediment will be removed from behind the check dams when it has accumulated to one half of the original height of the dam.

(d) Check dams will be removed when the grass has matured sufficiently to protect the ditch or swale. The area beneath the check dams will be seeded and mulched immediately after they are removed.

(e) Regular inspections will be made to ensure that the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam will be corrected. If evidence of siltation in the water is apparent downstream from the check dam, the check dam will be inspected and adjusted. Check dams will be checked for sediment accumulation after each significant rainfall.

3. WOOD WASTE COMPOST/BARK FILTER BERMS

(a) The filter berm shall consist of an approved wood waste compost/bark mulch mix or recycled composted bark flume grit and fragmented wood generated from water-flume log handling systems or small shredding of stumpage (6 inches long x 1/2" dia.). The mixture needs to be a well-graded blend of organic and mineral substance. The composition is usually manufactured on or off site and by blending it with a well graded sand and gravel. The objective is a tight, heavy, non-erodible mixture that is not composed of one uniform material, i.e. just bark mulch will not suffice. Comparable composted mixes can be used upon approval of the Department of Environmental Protection, Bureau of Land and Water Quality.

(b) The mix shall conform to the following standards:
* Moisture Content 30 – 60%
* PH-5.0-8.0
* Screen Size – 100% less than 6-inch max; 70% less than 0.75 inch.
* No less than 80% organic material (dry weight) by loss of ignition.
* No stones larger than 4 inch diameter.
* Silts, clays or sugar sands are not acceptable in the mix.

(c) Installation and Size of Berm: The dimensions of the berm are more a function of the strength of the material than the flows (forces) it will encounter. At a minimum the berm shall be 4 feet wide and 18 inches high. The berm shall be placed, uncompacted along a relatively level contour. Wherever possible the existing surface must be scoured and the mixture keyed in like any other sediment control measure.

(d) Maintenance: All deficiencies shall be immediately corrected with additional material place on top of the berm to reach the desired height. When the berm is decomposed, clogged with sediment, eroded, or becomes ineffective, it shall be replaced.

(e) Clean up and Retrieval: At the end of the job, an erosion control berm shall be removed or spread out so that the native earth can be seen below.

4. Erosion Control Mats

(a) During the growing season (April 1 to September 10) use mats indicated on drawings on channel bottoms and steep slopes >3H:1V.

(b) During the fall and winter (September 11 to March 31) use heavy grade mats as recommended by the engineer on all channel bottoms and slopes >4h:1V.

(c) Install mats in accordance with the manufacturer's recommendations.

5. Erosion Control Measures

(a) The smallest practical area of land shall be exposed to construction at any one time.

(b) The temporary erosion control measures shall be maintained until the permanent erosion control measures are present.

(c) All areas disturbed by construction shall have available loam placed before seeding (or an acceptable alternative).

(d) After construction is terminated, all temporary erosion control measures shall be removed and accumulated sediment disposed of in a secure location.

(e) Mulch shall be mowings of acceptable herbaceous growth, free from noxious weeds or woody stems, and shall be dry.

C. PERMANENT MEASURES

1. Riprapped Ditches, Aprons and Plunge Pools

(a) Construct riprapped ditches, aprons and plunge pools in accordance with the details shown on the Drawings.

(b) Stone for riprap will consist of sub-angular field stone or rough unhewn quarry stone. The stone will be hard and of such quality that it will not disintegrate on exposure to water or weathering, be chemically stable and suitable in all other respects for the purpose intended. The bulk specific gravity (saturated surface-dry basis) of the individual stones will be at least 2.5.

(c) The riprap should be placed so that it produces a dense well-graded mass of stone with a minimum of voids. The desired distribution of stones throughout the mass may be obtained by selective loading at the quarry, controlled clumping of successive loads during final placing, or by combination of these methods. The riprap should be placed to its full thickness on one operation. The riprap should not be placed in layers. The riprap should not be placed by dumping into chutes or similar methods which are likely to cause segregation of the various stone sizes. Care should be taken not to dislodge the underlying material when placing the stones.

The finished slope should be free of pockets of small stone or clusters of large stones. Hand placing may be necessary to achieve the required grades and a good distribution of stone sizes. Final thickness of the riprap blanket should be within plus or minus 1/4 of the specified thickness.

(d) Riprap will be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone. If repairs are needed, they should be accomplished immediately.

B. PERMANENT MEASURES (CONT)

2. Topsoil, Seed, Mulch

(a) Topsoil: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used (refer to Section C-2-2 of Best Management Practices Handbook, see Note 2).

(b) Seeding should be completed by September 15 of each year. Areas not seeded or which do not obtain satisfactory growth by October 1, will be seeded with Aroostook Rye or mulched at rates previously specified herein. After November 1, or the first killing frost, disturbed areas should be treated as indicated in C below:

SEEDING SPECIFICATIONS

Seed	Permanent Seeding (180 lbs/acre)	Temporary Seeding (120 lbs/acre)
Red Fescue	50% by weight	
Red Top	2% by weight	100% by weight
White Cover	5% by weight	
Annual Ryegrass	25% by weight	
Birdsfoot Trefoil	3% by weight	
Kentucky Bluegrass	15% by weight	

Fertilizer: Apply 2 pounds per unit (87 lbs/acre) of nitrogen, phosphoric acid, and potash, or 413 lbs/acre of 19-19-19 fetilizer.

Lime: Apply liquid limestone at a rate of 3 tons per acre (138 lbs/1,000 sq ft).

Mulch: Mulch with weed-free hay or straw at 3.0 tons per acre with tack or 260 lbs/acre fiber mulch.

(c) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site. The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(3) Erosion Control Mats
(a) Install mats as indicated on drawings and in accordance with manufacturers' recommendations

D. MAINTENANCE PLAN

1. Routine Maintenance Inspection shall be performed annually by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq ft)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq ft).

E. INSPECTIONS

1. Inspections will be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections will occur weekly and before and after each significant rainfall event (1 inch or more within a 24 hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized.

2. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and the major observations relating to the operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMP's that need to be maintained; location(s) of BMP's that failed to operate as designed or proved inadequate for a particular location; and location(s) of where additional BMP's area needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.

REV.	BY	DATE	STATUS
	NMT	11/2016	RECORD DRAWING
	PCM	6/2016	ISSUED FOR CONSTRUCTION
	PCM	4/2016	ISSUED FOR BID

STATE OF MAINE
GUY H. COTE
No. 12616
LICENSED PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE – PHASE 1
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

SME
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DESIGN BY: PCM
DRAWN BY: SJM
DATE: 4/2016
CHECKED BY:
LMN: NONE
CTB: SME-STD

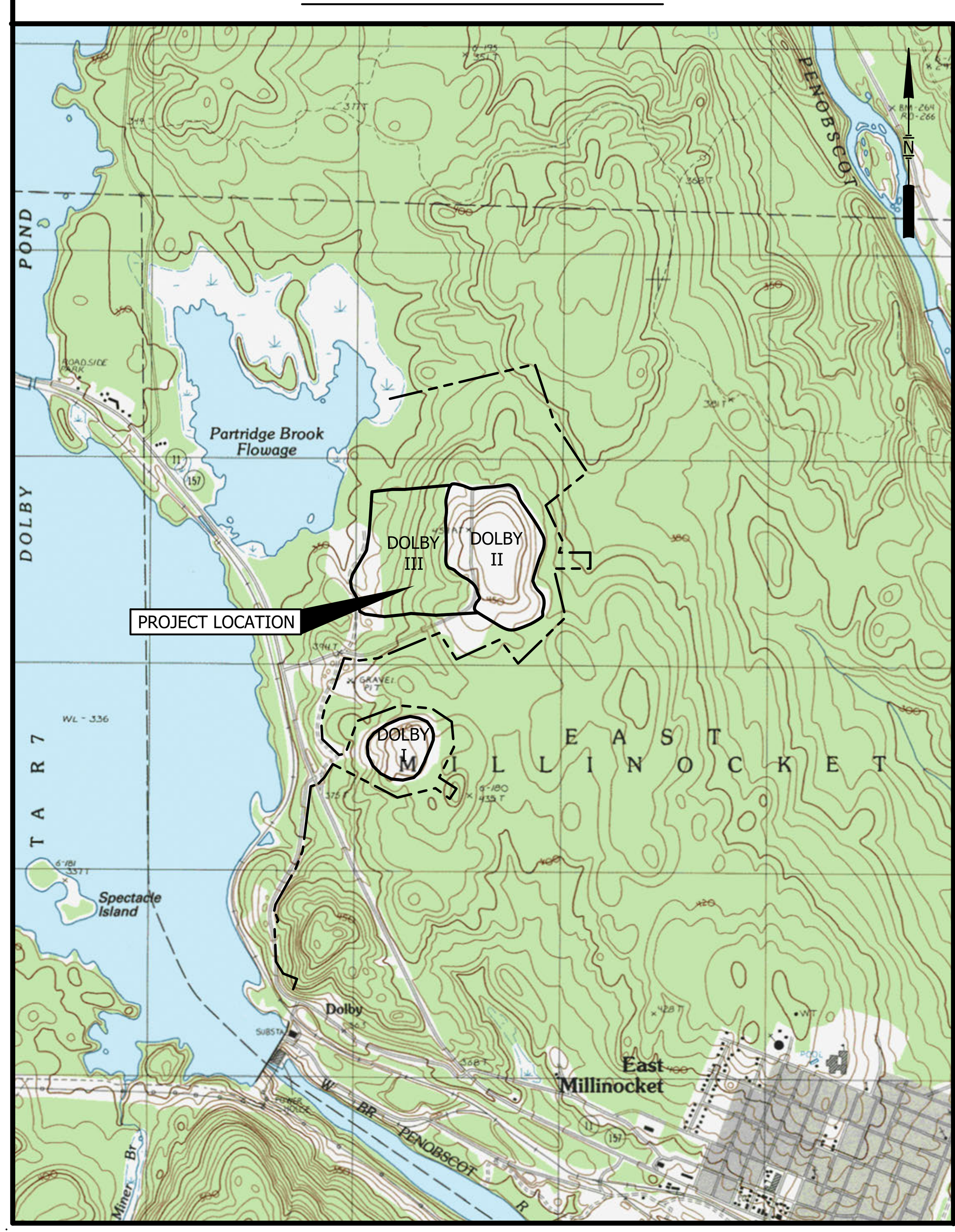
JOB NO. 15250.00 DWG FILE DETAILS

C-306

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

TITLE	DWG NO
COVER SHEET	
SYMBOLS & ABBREVIATIONS	C-100
PHASED CLOSURE PLAN	C-101
EXISTING CONDITIONS PLAN	C-102
SITE BASE GRADING PLAN - PHASE 2	C-103
SITE BASE GRADING PLAN - PHASE 3	C-104
SITE PLAN - PHASE 2	C-105
SITE PLAN - PHASE 3	C-106
GAS COLLECTION AND FINGER DRAIN PIPING PLAN - PHASE 2	C-107
GAS COLLECTION AND FINGER DRAIN PIPING PLAN - PHASE 3	C-108
UNDERDRAIN PIPING PLAN - PHASE 2	C-109
UNDERDRAIN PIPING PLAN - PHASE 3	C-110
SECTIONS AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
SECTIONS AND DETAILS	C-302
SECTIONS AND DETAILS	C-303

LOCATION MAP



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RECORD DRAWINGS

SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		NORTH ARROW (TRUE)
DATE		NORTH ARROW (MAGNETIC)
N		NORTH ARROW (PLAN NORTH)
25	25	CONTOUR LINES
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)
		EXISTING GROUND
		SURVEY BASELINE WITH TRIANGULATION OR INTERSECTION PT.
		PROPERTY LINE OR R.O.W.
N35°-10'-10"W 251.17'	N35°-10'-10"W 251.17'	PROPERTY LINE W/ BEARING AND DISTANCE
	0+00 1+00	CONSTRUCTION BASELINE
		BOUNDARY LINE (State, County, Municipality)
		SURVEY MONUMENT
		SURVEY CONTROL
		PROPERTY PIN, DRILL HOLE, PK, OR STAKE
		WOODS OR BRUSH LINE
		INDIVIDUAL TREE
		MAPPED WETLAND
		GAS VENT
		GAS VENT (CAPPED)
		CLEAN OUT STRUCTURE
		CULVERT
		RAILROAD
		SLOPE INCLINOMETER
		VIBRATING WIRE SETTLEMENT CELL
		VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT
		VERTICAL DISPLACEMENT MONUMENT
		LIQUID SETTLEMENT GAGE

EXISTING	PROPOSED	DESCRIPTION
		DRAINAGE COURSE (WITH DIRECTION)
		EDGE OF WATER
		WATER ELEVATION (GROUND OR SURFACE)
		FENCE LINE (WOOD)
X X	X X	FENCE LINE (WIRE)
		STONE WALL
		RETAINING WALL
		GUARD RAIL
		BUILDING AND STRUCTURES
	2 1 OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)
TOP OF SLOPE 2%	TOP OF SLOPE 2%	SLOPES (WITH SLOPE RATIO)
		EDGE OF ROAD
	C F	CUT OR FILL LINE
		BITUMINOUS PAVEMENT
		CONCRETE
B-12 MW-12 P-12	B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER
TP-12	TP-12	TEST PIT AND NUMBER
SW-12	SW-12	SURFACE WATER SAMPLE LOCATION
		GAS EXTRACTION WELL
		MANHOLE
		CATCH BASIN
		WATER OR GAS VALVE
		HYDRANT
		AIR RELEASE VALVE
		SURGE RELEASE VALVE
		UTILITY POLE
		LIGHT POLE

EXISTING	PROPOSED	DESCRIPTION
G	UG	UNDERGROUND GAS MAIN
T	UT	UNDERGROUND TELEPHONE LINE
E	UE	UNDERGROUND ELECTRICAL LINE
OE	OE	OVERHEAD ELECTRICAL LINE
OT	OT	OVERHEAD TELEPHONE LINE
12" SS	12" SS	SANITARY SEWER
8" FM	8" FM	FORCE MAIN
8" W	8" W	WATER MAIN
12" SD	12" SD	STORM DRAIN
8" UD	8" UD	UNDERDRAIN
6" PD	6" PD	PERIMETER DRAIN
6" LT	6" LT	LEACHATE TRANSPORT
6" LC	6" LC	LEACHATE COLLECTION
LD	6" LD	LEAK DETECTION
GC	6" G	GAS COLLECTION
		REDUCER
		MECHANICAL CAP OR PLUG
		COUPLING
		BEND
		TEE
		PIPE TO BE ABANDONED
		RISER PIPE & INLET GRATE
		STORM GRATE
		DRAINAGE INLET STRUCTURE
		UNDERDRAIN SUMP
	SF	SILTATION FENCE
	CLL	CLEARING OR CONSTRUCTION LIMIT LINE

ACCMP	ASPHALT COATED CMP
ACP	ASBESTOS CEMENT PIPE
AC	ACRE
AGG	AGGREGATE
ALUM	ALUMINUM
APPD	APPROVED
APPROX	APPROXIMATE
ARMH	AIR RELEASE MANHOLE
ASB	ASBESTOS
ASP	ASPHALT
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AZ	AZIMUTH
BCCMP	BITUMINOUS COATED CMP
BM	BENCH MARK
BIT	BITUMINOUS
BLDG	BUILDING
BOT	BOTTOM
BRG	BEARING
BV	BALL VALVE
CB	CATCH BASIN
CEN	CENTER
CEM LIN	CEMENT LINED
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CS	CURB STOP
CTR	CENTER
CU	COPPER
CY	CUBIC YARD
D	DEGREE OF CURVE
DBL	DOUBLE
DEG OR °	DEGREE
DEPT	DEPARTMENT
DI	DUCTILE IRON
DIA OR Ø	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DRAIN
DWG	DRAWING
EA	EACH
EG	EXISTING GROUND OR GRADE
ELEC	ELECTRIC
EL	ELEVATION
ELB	ELBOW
EOP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EST	ESTIMATED
EXC	EXCAVATE
EXIST	EXISTING
FG	FINISH GRADE
FBRGL	FIBERGLASS
FDN	FOUNDATION
FLEX	FLEXIBLE
FLG	FLANGE
FLR	FLOOR
FPS	FEET PER SECOND
FT OR '	FEET
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HYD	HYDRANT
ID	INSIDE DIAMETER
IN OR "	INCHES
INV	INVERT
INV EL	INVERT ELEVATION
LB	POUND
LC	LEACHATE COLLECTION
LD	LEAK DETECTION
LF	LINEAR FEET
LOC	LOCATION
LT	LEACHATE TRANSPORT
MH	MANHOLE
MJ	MECHANICAL JOINT
MATL	MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY
NO OR #	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PD	PERIMETER DRAIN
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PT	POINT OF TANGENT
PERF	PERFORATED
PP	POWER POLE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RAD	RADIUS
REQD	REQUIRED
RT	RIGHT
RTE	ROUTE
S	SLOPE
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SMH	SANITARY MANHOLE
ST	STREET
STA	STATION
SY	SQUARE YARD
TAN	TANGENT
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
TYP	TYPICAL
UD	UNDERDRAIN
V	VOLTS
VA TEE	VALVE ANCHORING TEE
VERT	VERTICAL
WG	WATER GATE
W/	WITH
W/O	WITHOUT
YD	YARD

VIEW MARKERS & IDENTIFICATION

DETAIL TITLE

MANHOLE
SEE DWG C-300

DRAWING WHERE
DETAIL APPEARS

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY FULLY WITH CONDITIONS OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MEDEP) OPERATING PERMIT, BOARD ORDER, MEDEP CONSTRUCTION GENERAL PERMIT, MEDEP "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES", AND MAINE DEPARTMENT OF TRANSPORTATION (MDOT) ENTRANCE PERMIT REQUIREMENTS, AS APPLICABLE.
2. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL ABIDE BY ALL SAFETY REQUIREMENTS ASSOCIATED WITH WORKING AT AN ACTIVE SOLID WASTE LANDFILL FACILITY (i.e., RISK OF WORKER EXPOSURE TO LANDFILL GASES, LEACHATE, SOLID WASTE) INCLUDING THE FOLLOWING:
   - COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS;
   - INCLUDING, BUT NOT LIMITED TO, USE OF HARD HATS, SAFETY GLASSES, AND FLUORESCENT SAFETY VESTS AT ALL TIMES;
   - FOLLOW ALL APPLICABLE OSHA RULES, INCLUDING, BUT NOT LIMITED TO, THOSE RELATED TO MANHOLES, CATCH BASINS, PUMP STATIONS, TEST PITS, TRENCHES, ETC.
3. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ENSURE THAT NO SILTATION OF STORMWATER DRAINAGE COURSES OCCURS AS A RESULT OF SOIL DISTURBANCE ASSOCIATED WITH THE CONTRACT SCOPE OF WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE PROTECTION OF THE PROJECT DURING CONSTRUCTION FROM ANY ACTS OF NATURE OR MAN, SUCH AS, BUT NOT LIMITED TO, FLOODS, WIND DAMAGE, EARTH SLIDES, AND SLOPE FAILURES. DAMAGE TO THE PROJECT CAUSED BY SUCH ACTS WILL NOT BE SUFFICIENT CAUSE TO INCREASE CONTRACT COSTS TO THE OWNER.
5. THE CONTRACTOR SHALL PROTECT EXISTING ON-SITE STRUCTURES FROM DAMAGE DURING CONSTRUCTION, INCLUDING: MONITORING WELLS, POWER LINES, MAINTENANCE FACILITIES, EXISTING LEACHATE COLLECTION, LINER AND TRANSPORT SYSTEMS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS REQUIRED TO CORRECT DAMAGE MADE TO EXISTING ON-SITE STRUCTURES DESCRIBED ABOVE RESULTING FROM ANY CONSTRUCTION ACTIVITY.
6. THE DESIGN INTENT, AS DETERMINED BY THE ENGINEER, WILL GOVERN IN THE CASE OF DISCREPANCY IN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS. THE SPECIFICATIONS ARE INTENDED TO SUPPLEMENT AND CLARIFY THE WORK SHOWN IN THE DRAWINGS, AS SOMETIMES WORK IS CALLED FOR IN THE SPECIFICATIONS THAT IS NOT SHOWN ON THE DRAWINGS AND SOMETIMES THE DRAWINGS INDICATE WORK THAT IS NOT MENTIONED IN THE SPECIFICATIONS. BOTH DRAWINGS AND SPECIFICATIONS MUST BE COMPLIED WITH IN ORDER TO FULFILL THE CONTRACT REQUIREMENTS, AND ANY WORK CALLED FOR BY EITHER IS AS BINDING AS THOUGH IT WERE CALLED FOR BY BOTH. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY ERROR OR OMISSION IN THE DRAWINGS OR OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND SPECIFICATIONS. IN ALL CASES OF DOUBT AS TO THE TRUE MEANING OF THE DRAWINGS AND SPECIFICATIONS, THE DECISION OF THE ENGINEER WILL BE FINAL AND CONCLUSIVE.

REV.	BY	DATE	STATUS
	BDP	12/2023	RECORD DRAWING
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SYMBOLS AND ABBREVIATIONS

SME
SEVEE & MAHER ENGINEERS
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DESIGN BY: NMT
DRAWN BY: SJM
DATE: 12/2021
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 21588.07 DWG FILE SYMSHT

C-100

NOTES

1. BASE MAP OUTSIDE THE LIMIT OF WORK PREPARED BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 5/4/2021. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. VERTICAL DATUM: NAVD 1929.
3. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF DOLBY III LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015
4. PHASED CLOSURE AREAS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE.
5. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.

REV.	BY	DATE	STATUS
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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
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PHASED CLOSURE PLAN

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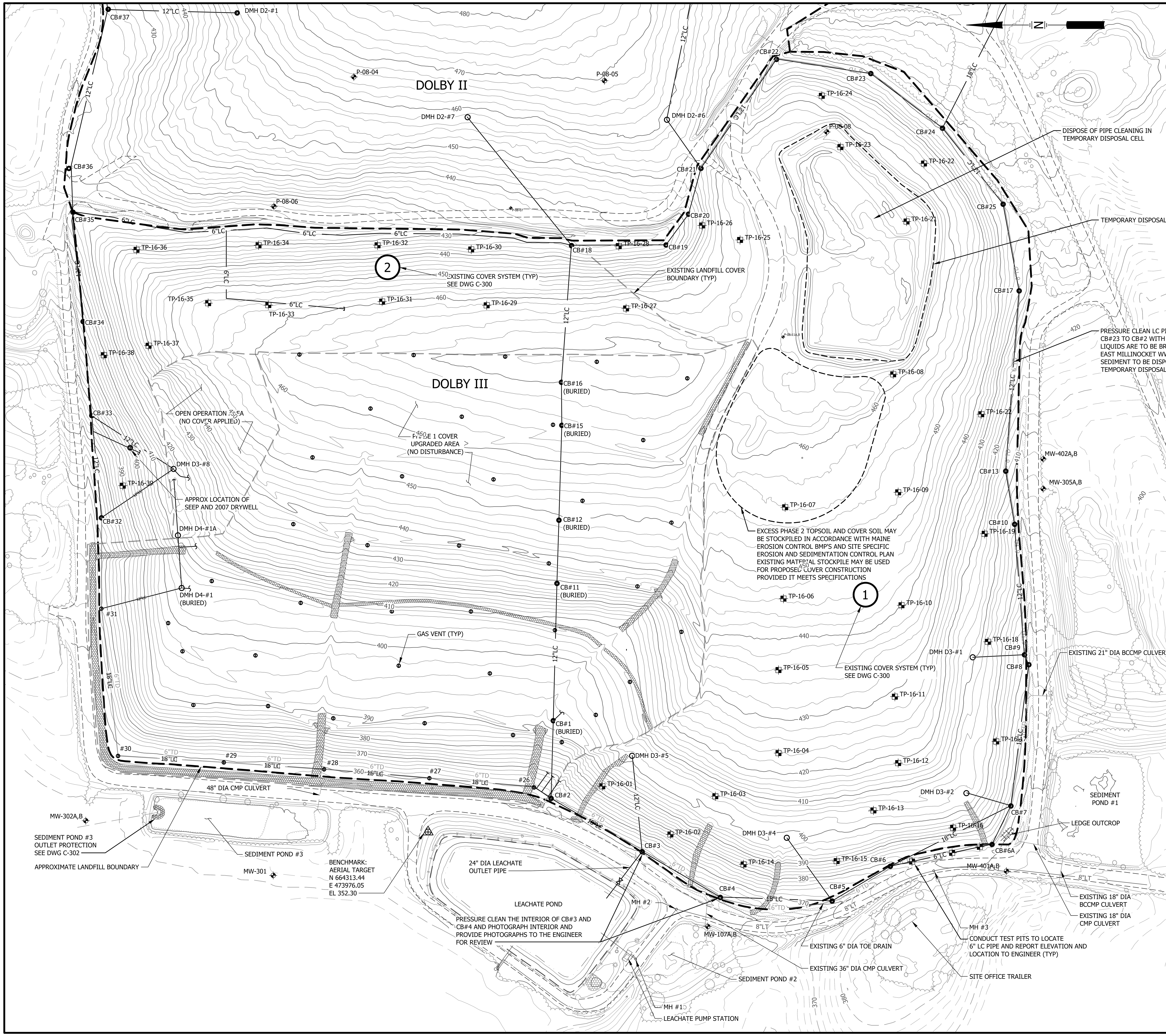
LMN:	PHASED
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-101



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2. VERTICAL DATUM: NAVD 1929.
3. ADDITIONAL DITCH TOPOGRAPHY ALONG TOE OF LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
4. BORINGS AND TEST PITS PERFORMED BY MAINE TEST BORING. FIELD LOCATION AND LOGS BY SEVEE & MAHER ENGINEERS.
5. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
6. ALL SITE AND CONSTRUCTION ACTIVITIES (INCLUDING SOIL STOCKPILE AREAS) SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.

PHASE 2 CATCH BASIN SCHEDULE

CB ID	INV IN	INV OUT
CB#18	422.2 (18") 423.7 (12")	423.2 (18")
CB#19	428.3 (6") 428.0(6")	425.4(12")
CB#20	437.3 (6") 437.3(6")	434.7(12")
CB#21	448.9 (6") 449.1(6") 436.9(12") 445.4(12")	445.5 (12")
CB#32	358.8 (18")	358.65 (18")
CB#33	373.2 (18")	373.2 (18")
CB#34	391.2 (12") 397.0 (8")	391.1 (12")
CB#35	407.2 (12") 415.0 (6") 415.0 (6")	407.1 (12")

PHASE 3 CATCH BASIN SCHEDULE

CB ID	INV IN	INV OUT
CB#2	350.9 (18") 350.5 (18")	350.5 (18")
CB#3	349.0 (18") 348.8 (18")	345.8 (24")
CB#4	352.7 (18") 349.4 (18")	349.23 (18")
CB#5	361.9 (18")	354.1 (18")
CB#6	368.1 (18")	362.2 (18")
CB#6A	378.9 (6")	379.2 (6")
CB#7	371.2 (18")	371.0 (18")
CB#8	375.6 (18")	375.13 (18")
CB#9	378.7 (12") 381.3 (2")	378.1 (18")
CB#10	392.8 (12")	392.5 (12")

REV.	BY	DATE	STATUS
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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
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EXISTING CONDITIONS PLAN

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LMN: EXCON
CTB: SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-102

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 5/4/2021. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. VERTICAL DATUM: NAVD 1929.
3. ADDITIONAL DITCH TOPOGRAPHY ALONG THE TOE OF DOLBY III LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
4. BORINGS AND TEST PITS PERFORMED BY MAINE TEST BORING. FIELD LOCATION AND LOGS BY SEVEE & MAHER ENGINEERS, SEE DWG C-102.
5. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
6. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
7. BASE GRADES WITHIN THE LIMIT OF WORK REPRESENT ASBUILT TOP OF GAS COLLECTION SAND CONDITIONS PROVIDED BY THE CONTRACTOR, GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023.
8. EXISTING COVER SOILS WITHIN THE LIMIT OF THE FINAL COVER GEOMEMBRANE SHALL BE STRIPPED TO THE TOP OF EXISTING GAS COLLECTION LAYER. THE CONTRACTOR SHALL VERIFY THE THICKNESS OF EXISTING GAS COLLECTION SAND OR GRIT AND SHALL ADD ADDITIONAL SAND AS NECESSARY TO ACHIEVE A MINIMUM SAND THICKNESS OF 6 INCHES.
9. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

ABANDONMENT SCHEDULE

STRUCTURE ID	STRUCTURE TYPE	DIAMETER	MATERIAL
CB #18	CATCH BASIN	4'	CONCRETE
CB #19	CATCH BASIN	4'	CONCRETE
CB #20	CATCH BASIN	4'	CONCRETE
CB #32	CATCH BASIN	4'	CONCRETE
CB #33	CATCH BASIN	4'	CONCRETE
CB #34	CATCH BASIN	4'	CONCRETE
CB #35	CATCH BASIN	4'	CONCRETE
DMH D3-#8	DRAIN MANHOLE	4'	CONCRETE
DMH D4-#1A	DRAIN MANHOLE	4'	CONCRETE

REV.	BY	DATE	STATUS
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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SITE BASE GRADING PLAN - PHASE 2

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CTB: SME-STD

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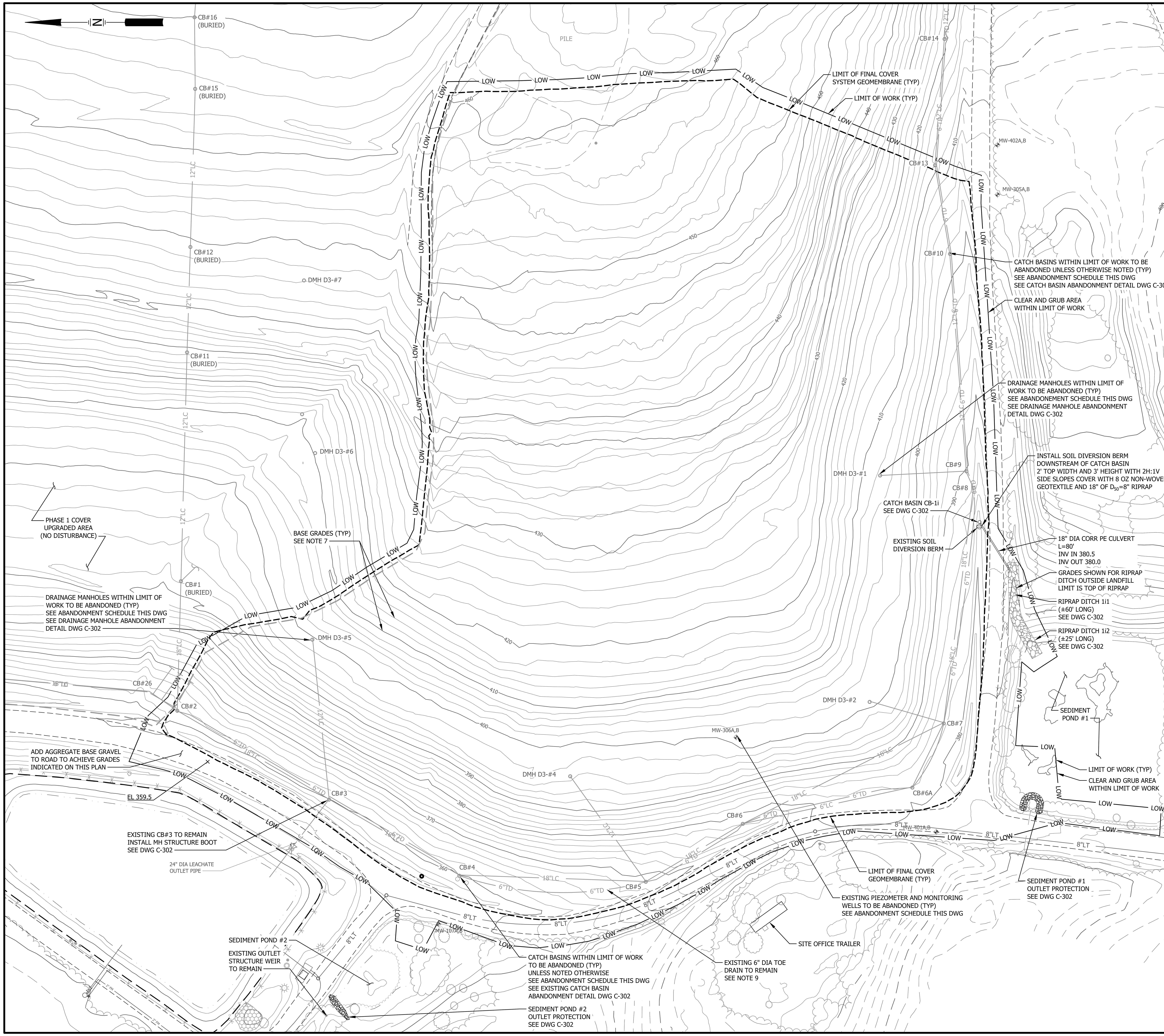
C-103



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9. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

ABANDONMENT SCHEDULE

STRUCTURE ID	STRUCTURE TYPE	DIAMETER	MATERIAL
CB #2	CATCH BASIN	4'	CONCRETE
CB #4	CATCH BASIN	4'	CONCRETE
CB #5	CATCH BASIN	4'	CONCRETE
CB #6	CATCH BASIN	4'	CONCRETE
CB #6A	CATCH BASIN	4'	CONCRETE
CB #7	CATCH BASIN	4'	CONCRETE
DMH D3-#2	DRAIN MANHOLE	4'	CONCRETE
DMH D3-#4	DRAIN MANHOLE	4'	CONCRETE
DMH D3-#5	DRAIN MANHOLE	4'	CONCRETE
MW-306 A,B	MONITORING WELL	1"	PVC
CB #8	CATCH BASIN	4'	CONCRETE
CB #9	CATCH BASIN	4'	CONCRETE
CB #10	CATCH BASIN	4'	CONCRETE
CB #13	CATCH BASIN	4'	CONCRETE
CB #17	CATCH BASIN	4'	CONCRETE
CB #21	CATCH BASIN	4'	CONCRETE
CB #22	CATCH BASIN	4'	CONCRETE
CB #23	CATCH BASIN	4'	CONCRETE
CB #24	CATCH BASIN	4'	CONCRETE
CB #25	CATCH BASIN	4'	CONCRETE
P-08-08	PIEZOMETER	1"	PVC
P-08-11A	PIEZOMETER	1"	PVC
P-08-11B	PIEZOMETER	1"	PVC
MW-204A	MONITORING WELL	1"	PVC
MW-204B	MONITORING WELL	1"	PVC
MW-307A	MONITORING WELL	1"	PVC
MW-307B	MONITORING WELL	1"	PVC

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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SITE BASE GRADING PLAN - PHASE 3

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CTB: SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-104

FINAL COVER TIE-IN/TERMINATION LEGEND

- 1 — TYPE 1 FINAL COVER TERMINATION
- 4 — TYPE 4 FINAL COVER TERMINATION
- 5 — TYPE 5 FINAL COVER SYSTEM TIE-IN

NOTE: FOR DETAILS SEE DWG C-300

NOTES

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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
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SITE PLAN - PHASE 2

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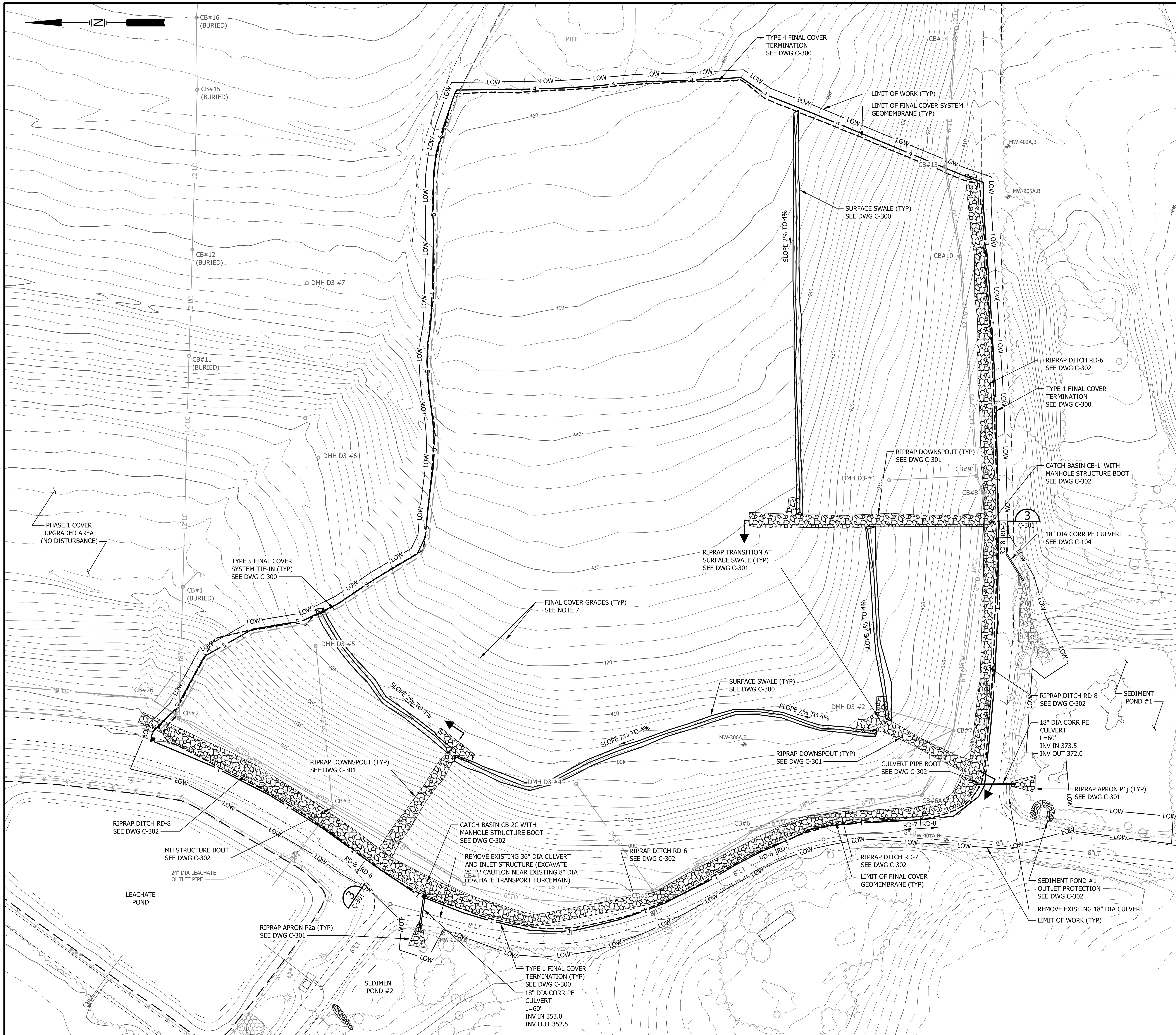
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-105



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9. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

FINAL COVER TIE-IN/TERMINATION LEGEND

- 1 — TYPE 1 FINAL COVER TERMINATION
- 4 — TYPE 4 FINAL COVER SYSTEM TIE-IN
- 5 — TYPE 5 FINAL COVER TERMINATION

NOTE: FOR DETAILS SEE DWG C-300

REV.	BY	DATE	STATUS
	BDP	12/2023	RECORD DRAWING
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SITE PLAN - PHASE 3

SME
SEVEE & MAHER
ENGINEERS
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DESIGN BY:	NMT
DRAWN BY:	SJM
DATE:	12/2021
CHECKED BY:	BDP
LMN:	P3-SITE
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-106

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 5/4/2021. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. VERTICAL DATUM: NAVD 1929.
3. ADDITIONAL DITCH TOPOGRAPHY ALONG THE TOE OF DOLBY III LANDFILL BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 10/7/2015.
4. BORINGS AND TEST PITS PERFORMED BY MAINE TEST BORING. FIELD LOCATION AND LOGS BY SEVEE & MAHER ENGINEERS, SEE DWG C-102.
5. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
6. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
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	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

GAS COLLECTION AND FINGER DRAIN PIPING PLAN
PHASE 2

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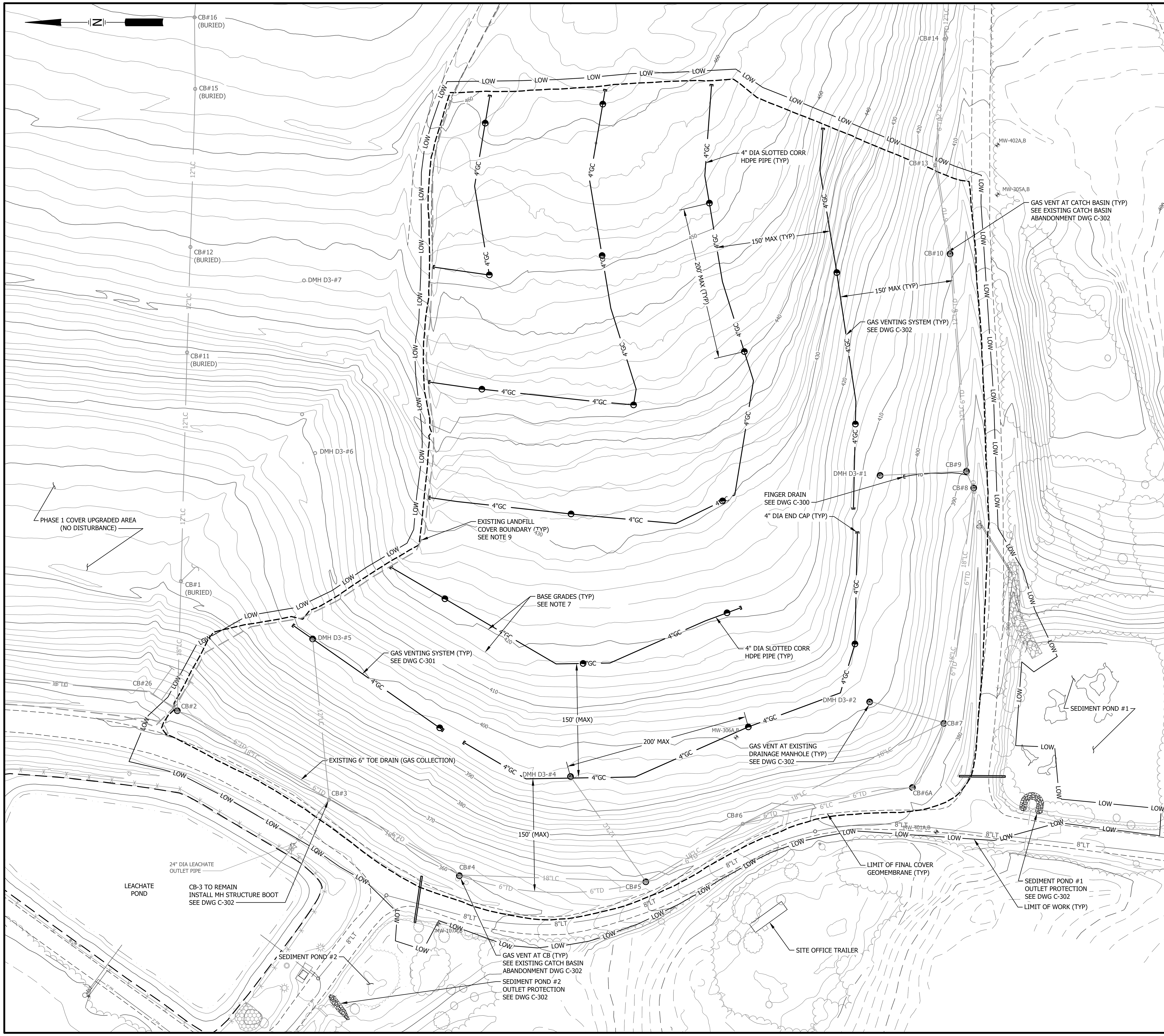
DATE:	12/2021
CHECKED BY:	BDP
LMN:	P2-GC-PIPING
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-107



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	BDP	12/2021	ADDENDUM #1
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

GAS COLLECTION AND FINGER DRAIN PIPING PLAN
PHASE 3

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DRAWN BY:	SJM
DATE:	12/2021
CHECKED BY:	BDP
LMN:	P3-GCPIPING
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-108

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 5/4/2021. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

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7. CONTOURS AND UNDERDRAIN PIPING LOCATIONS WITHIN THE LIMIT OF WORK REPRESENT FINAL COVER ASBUILT CONDITIONS PROVIDED BY THE CONTRACTOR, GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023.

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9. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

	BDP	12/2023	RECORD DRAWING
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW
REV.	BY	DATE	STATUS

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

UNDERDRAIN PIPING PLAN - PHASE 2

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DATE:	12/2021
CHECKED BY:	BDP
LMN:	NE-P2-UD-PIPING
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

C-109

NOTES

1. BASE MAP OUTSIDE OF THE LIMIT OF WORK PREPARED BY SEVEE & MAHER ENGINEERS, INC., CUMBERLAND, MAINE, DATED 5/4/2021. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

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9. CONTRACTOR SHALL PRESERVE THE EXISTING TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM.

GEOCOMPOSITE LEGEND

TYPE I

TYPE II

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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
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UNDERDRAIN PIPING PLAN - PHASE 3

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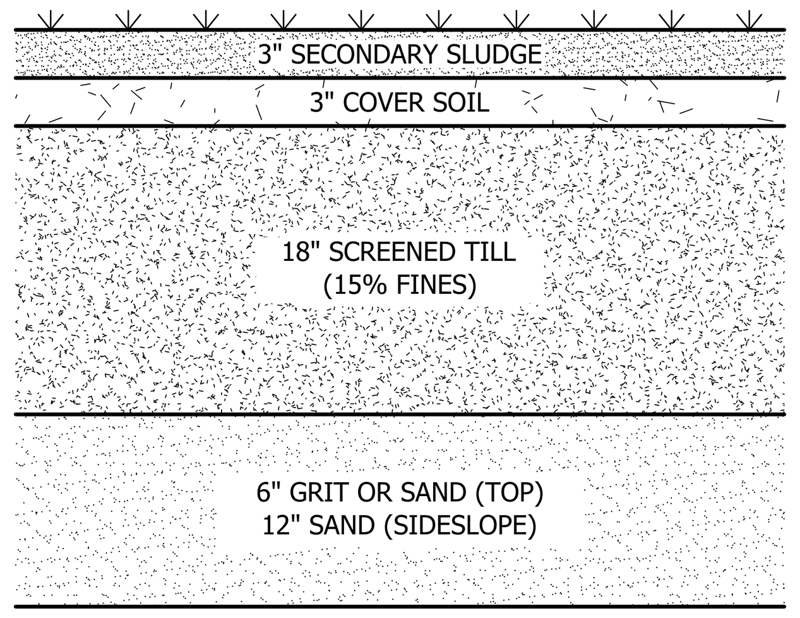
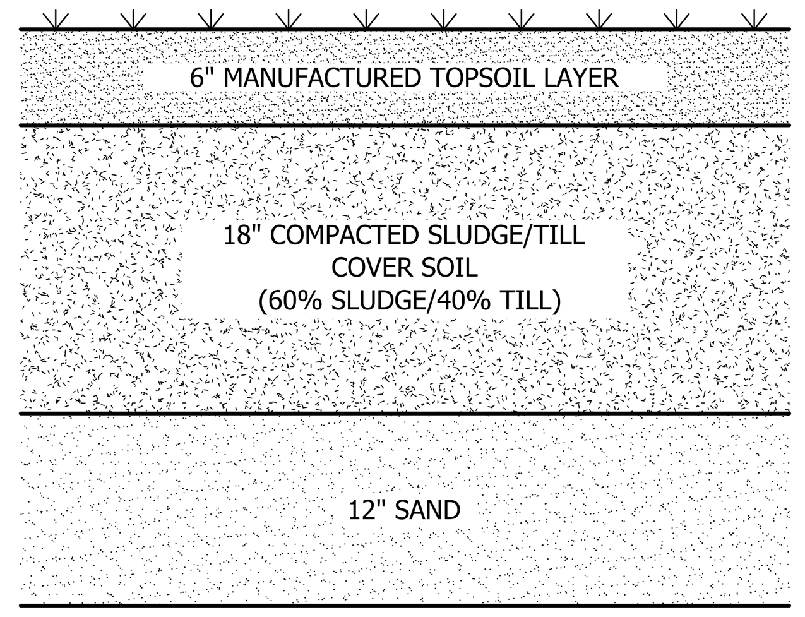
DATE:	12/2021
CHECKED BY:	BDP
LMN:	P3-UDPIPING
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE BASE

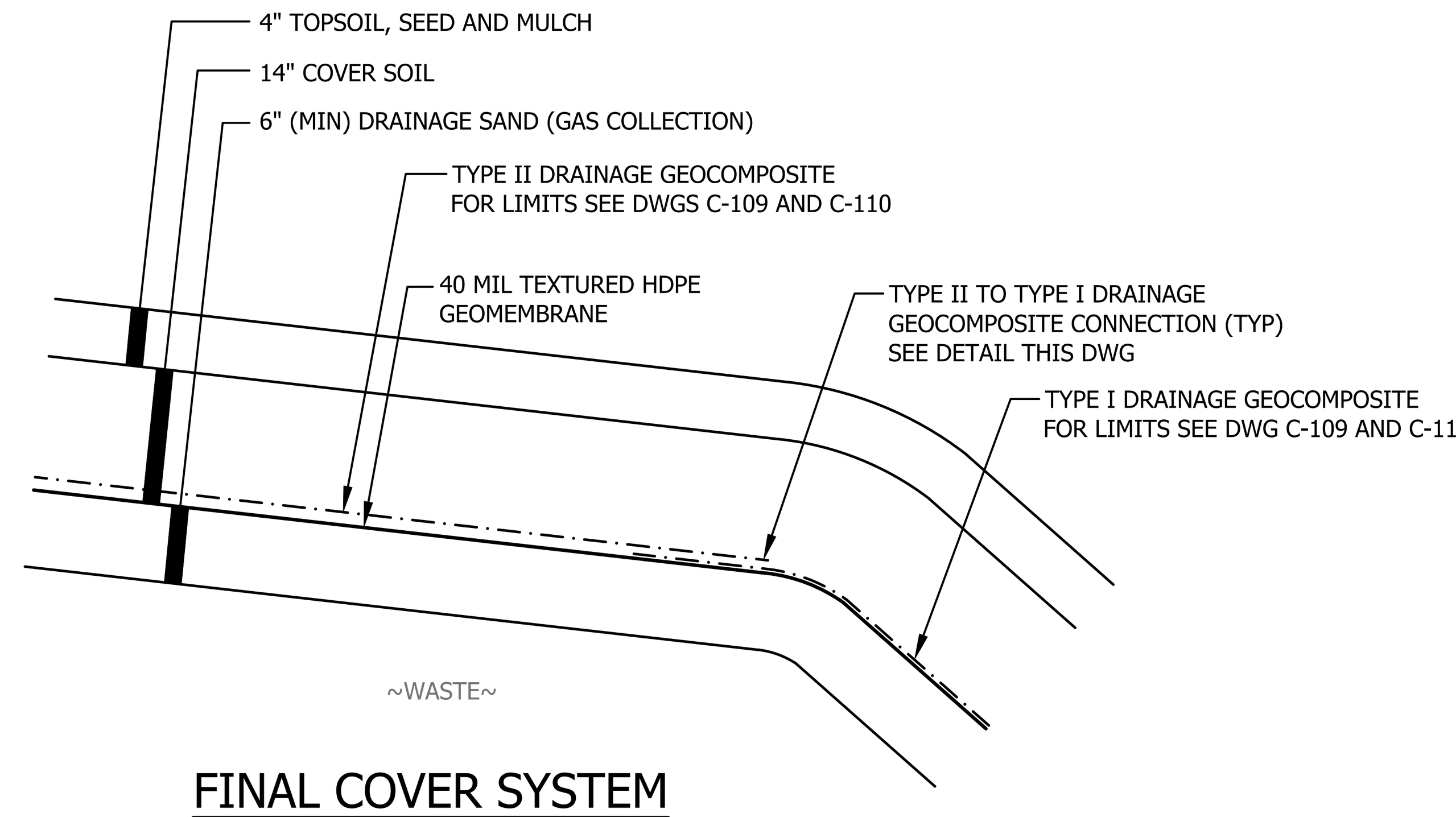
C-110



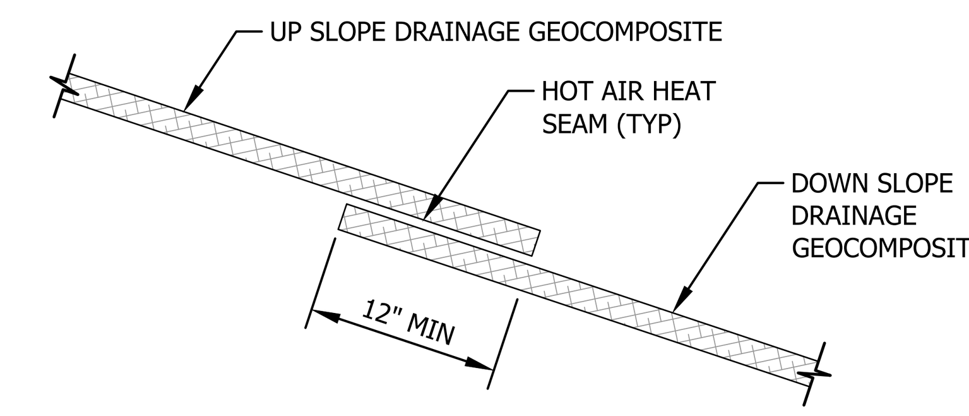
DOLBY III - EXISTING COVER 1
NTS



DOLBY III - EXISTING COVER 2
NTS



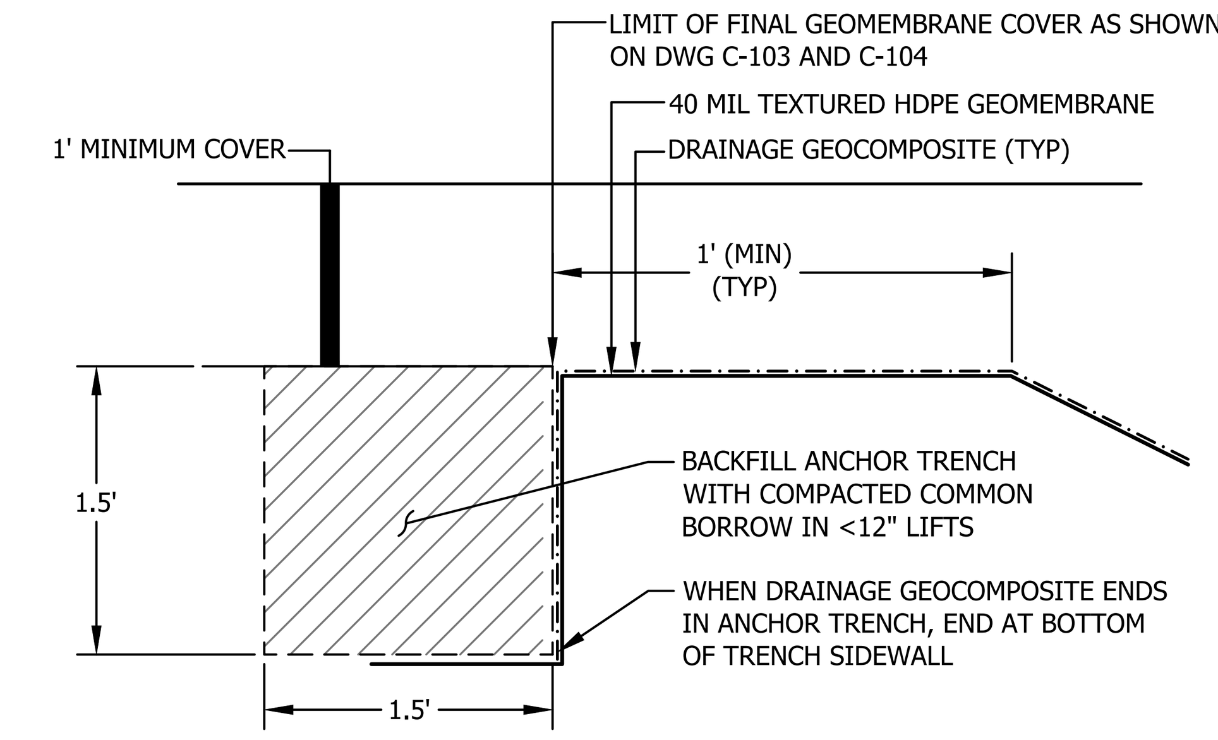
FINAL COVER SYSTEM
NTS



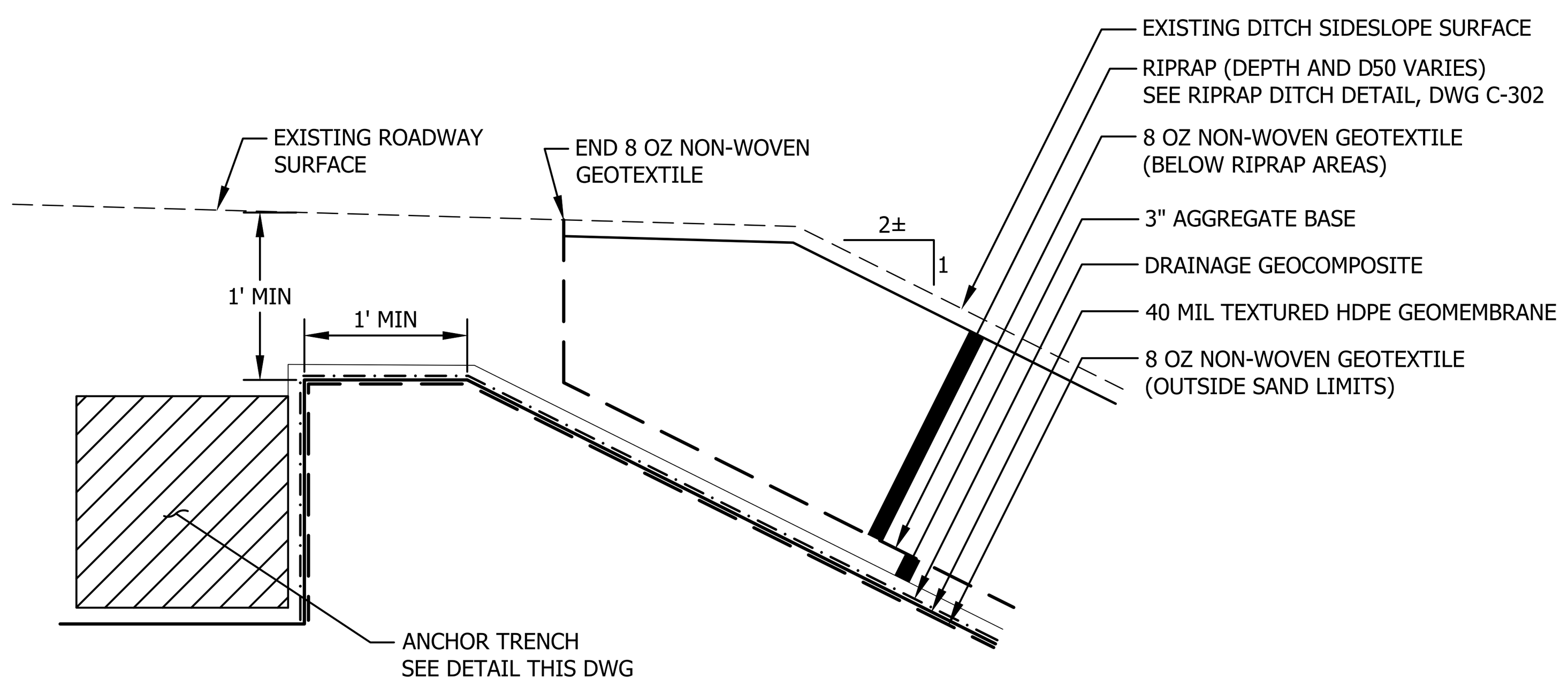
NOTE:

CONTRACTOR SHALL MAKE CONNECTION AT LOCATIONS SHOWN ON THE DRAWINGS.

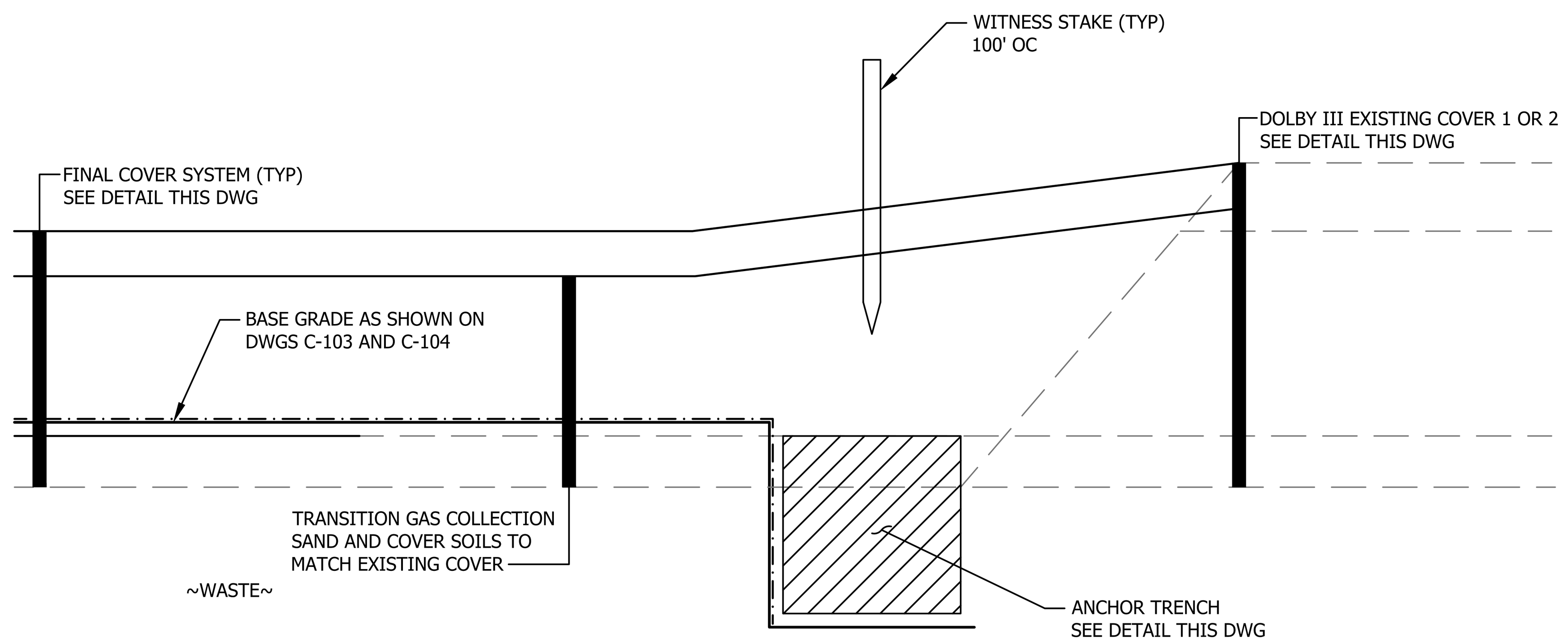
TYPE II TO TYPE I
DRAINAGE GEOCOMPOSITE CONNECTION
NTS



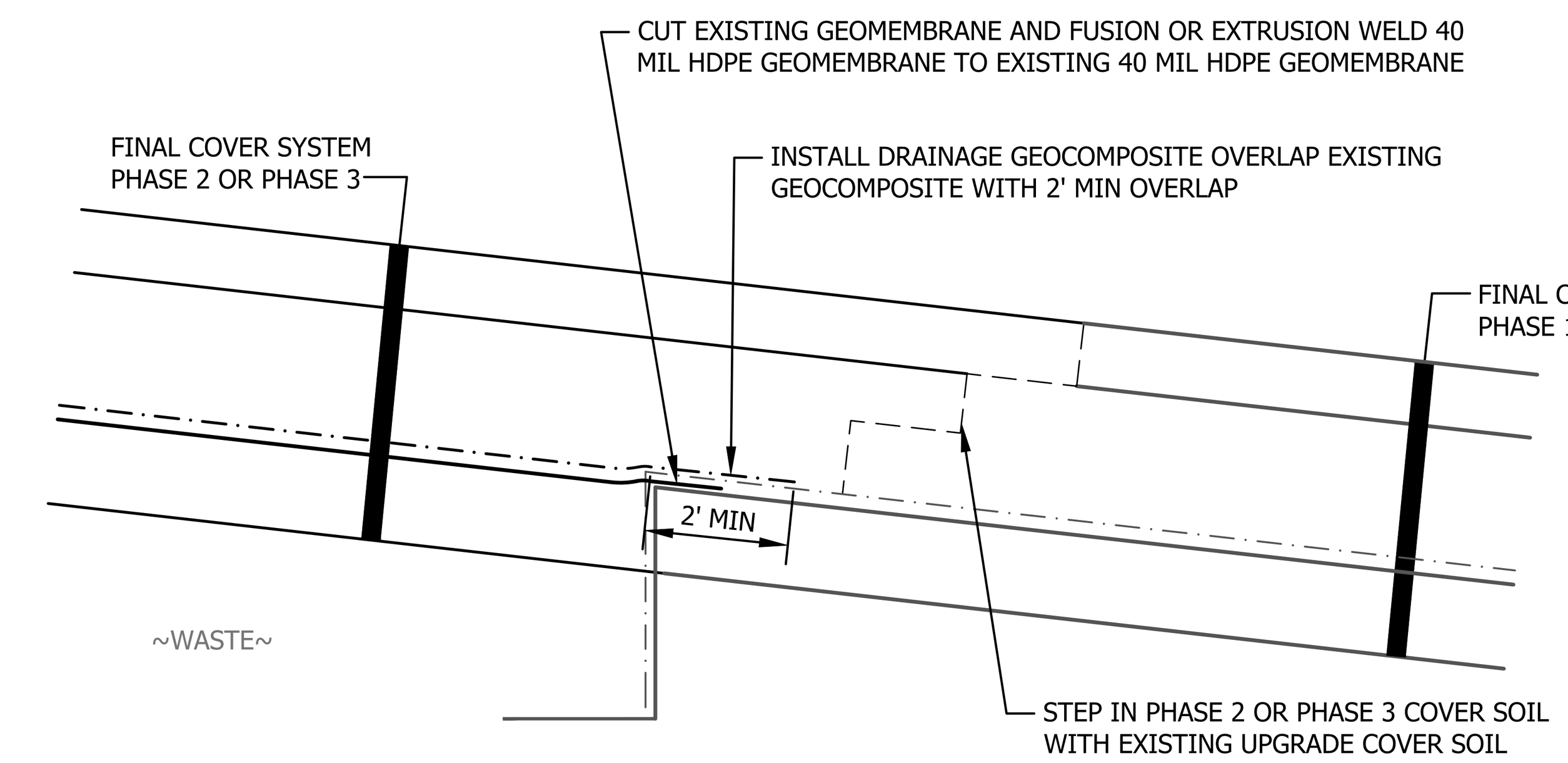
ANCHOR TRENCH
NTS



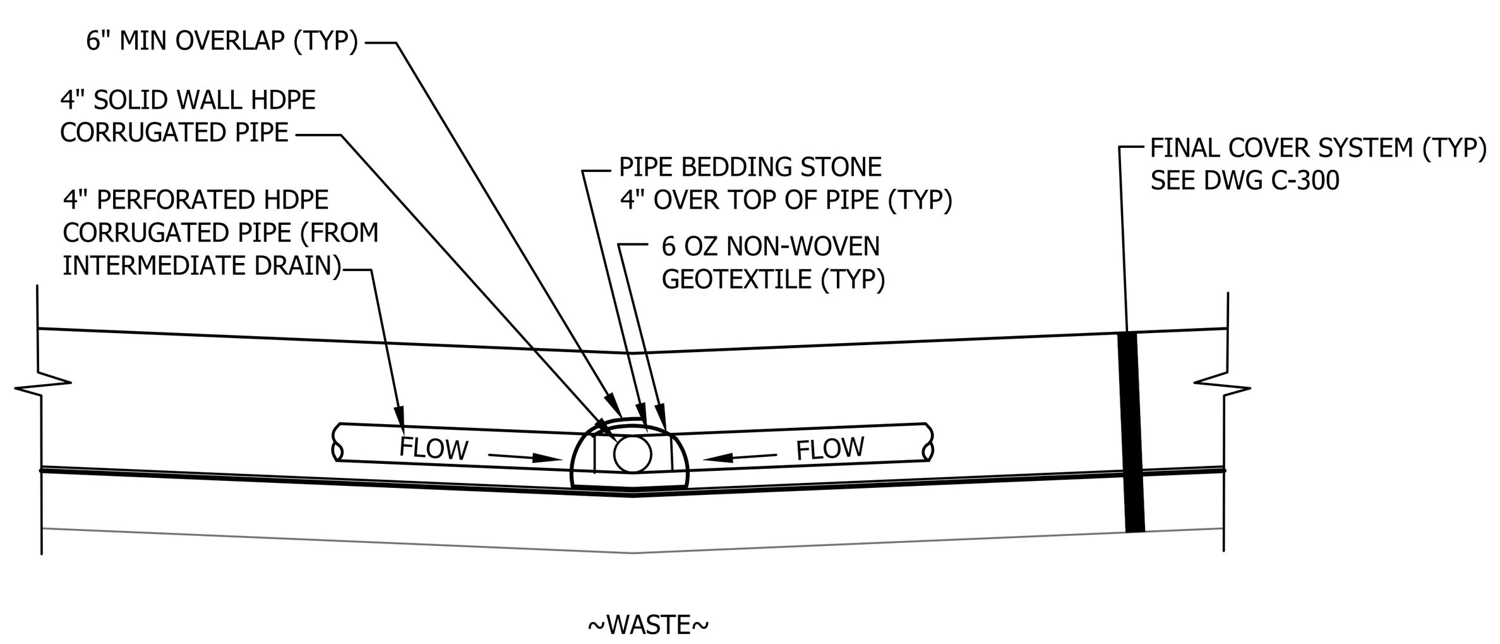
TYPE 1 FINAL COVER TERMINATION
NTS



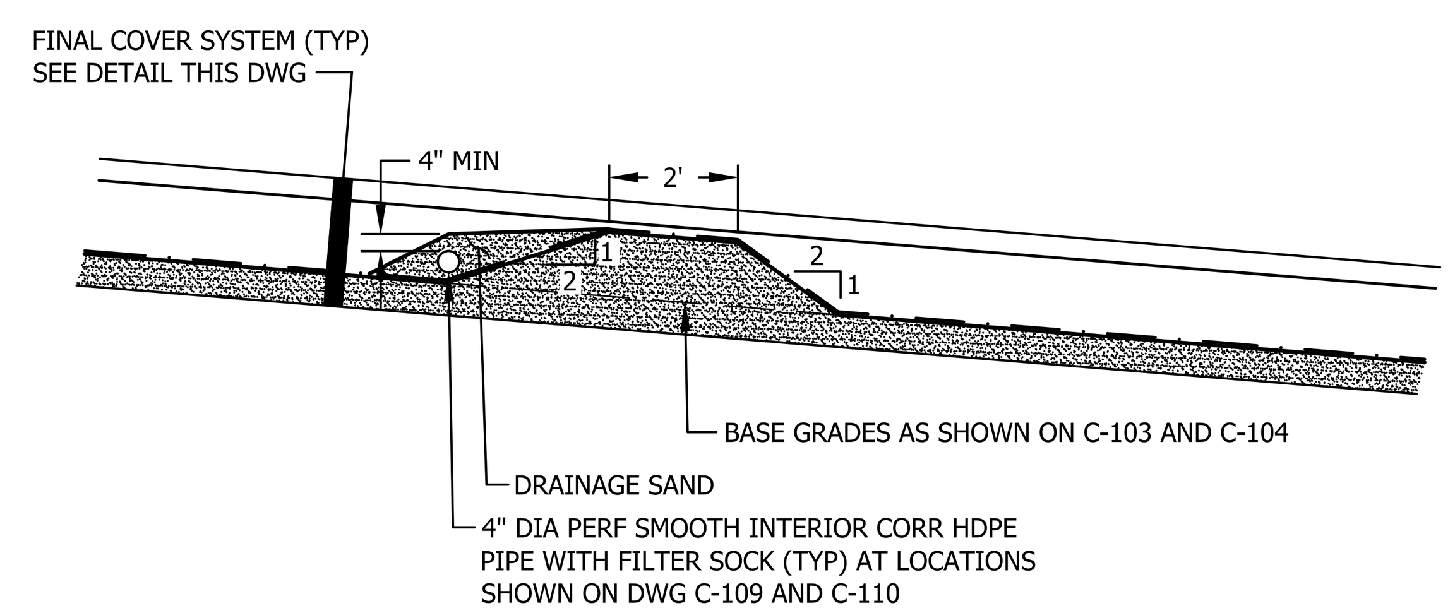
TYPE 4 FINAL COVER TERMINATION
NTS



TYPE 5 FINAL COVER SYSTEM TIE-IN
NTS

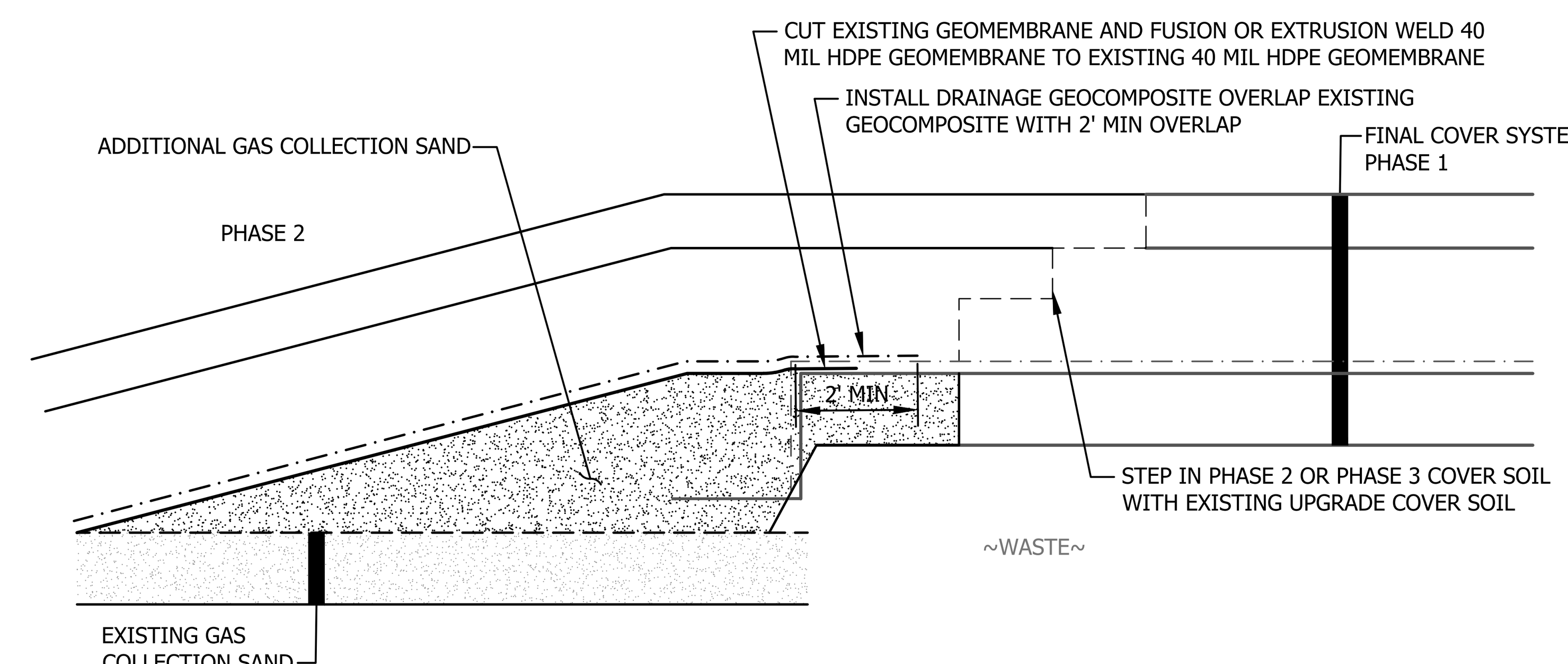


UNDERDRAIN HEADER PIPE
NTS

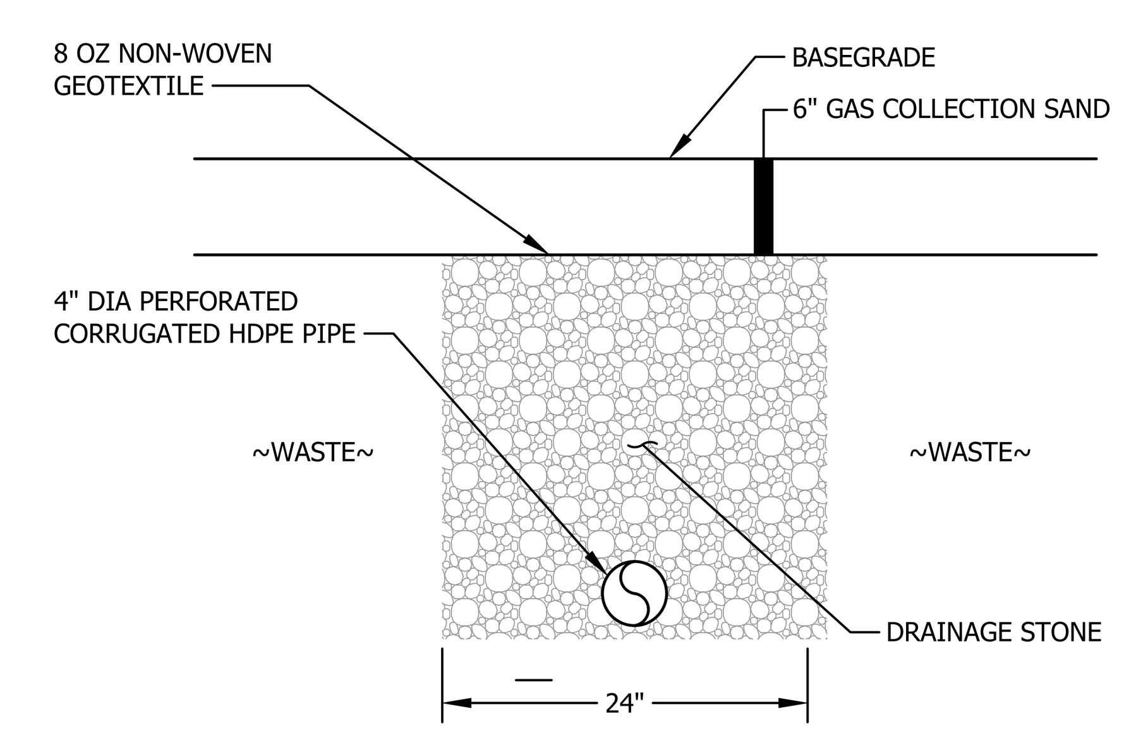


NOTE:
BERM FOR INTERMEDIATE UNDERDRAIN SHALL BE CONSTRUCTED WITH DRAINAGE SAND.

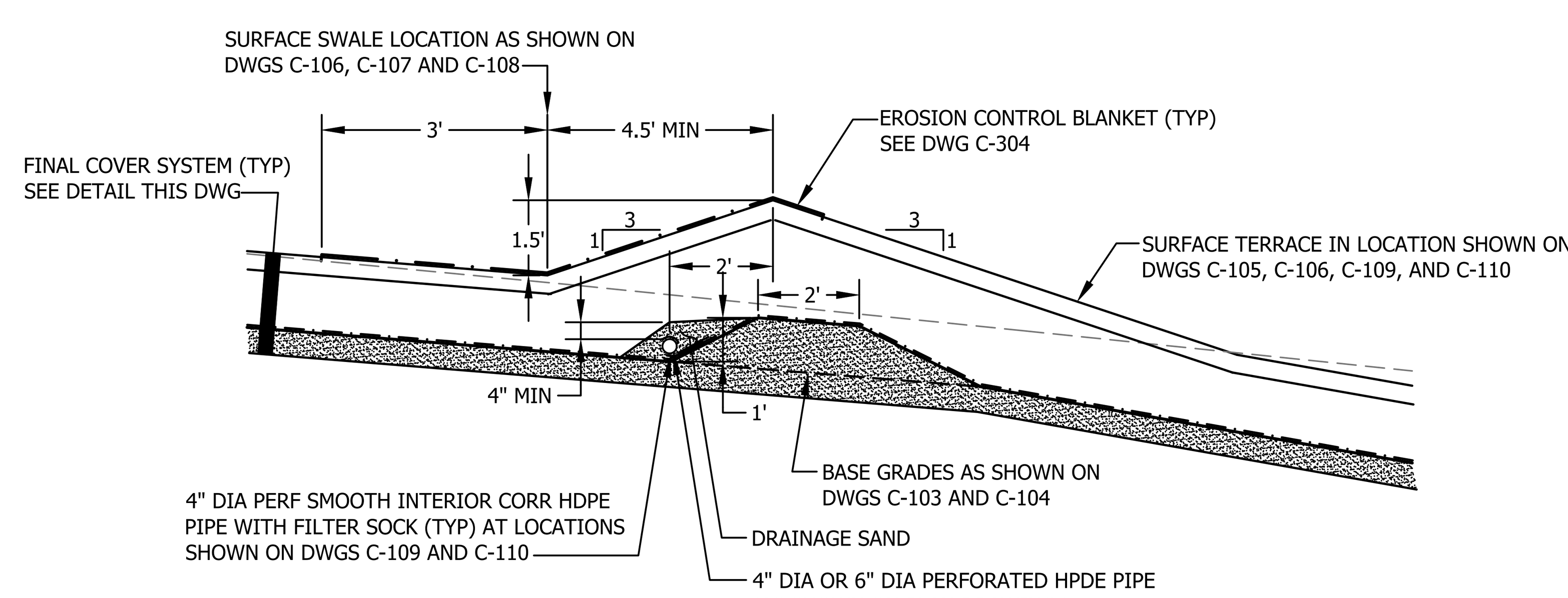
INTERMEDIATE UNDERDRAIN
NTS



TYPE 5 FINAL COVER SYSTEM GAS COLLECTION SAND TIE-IN
NTS



FINGER DRAIN
NTS



SURFACE SWALE AND UNDERDRAIN
NTS

REV.	BY	DATE	STATUS
	BDP	12/2023	RECORD DRAWING
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SECTIONS AND DETAILS

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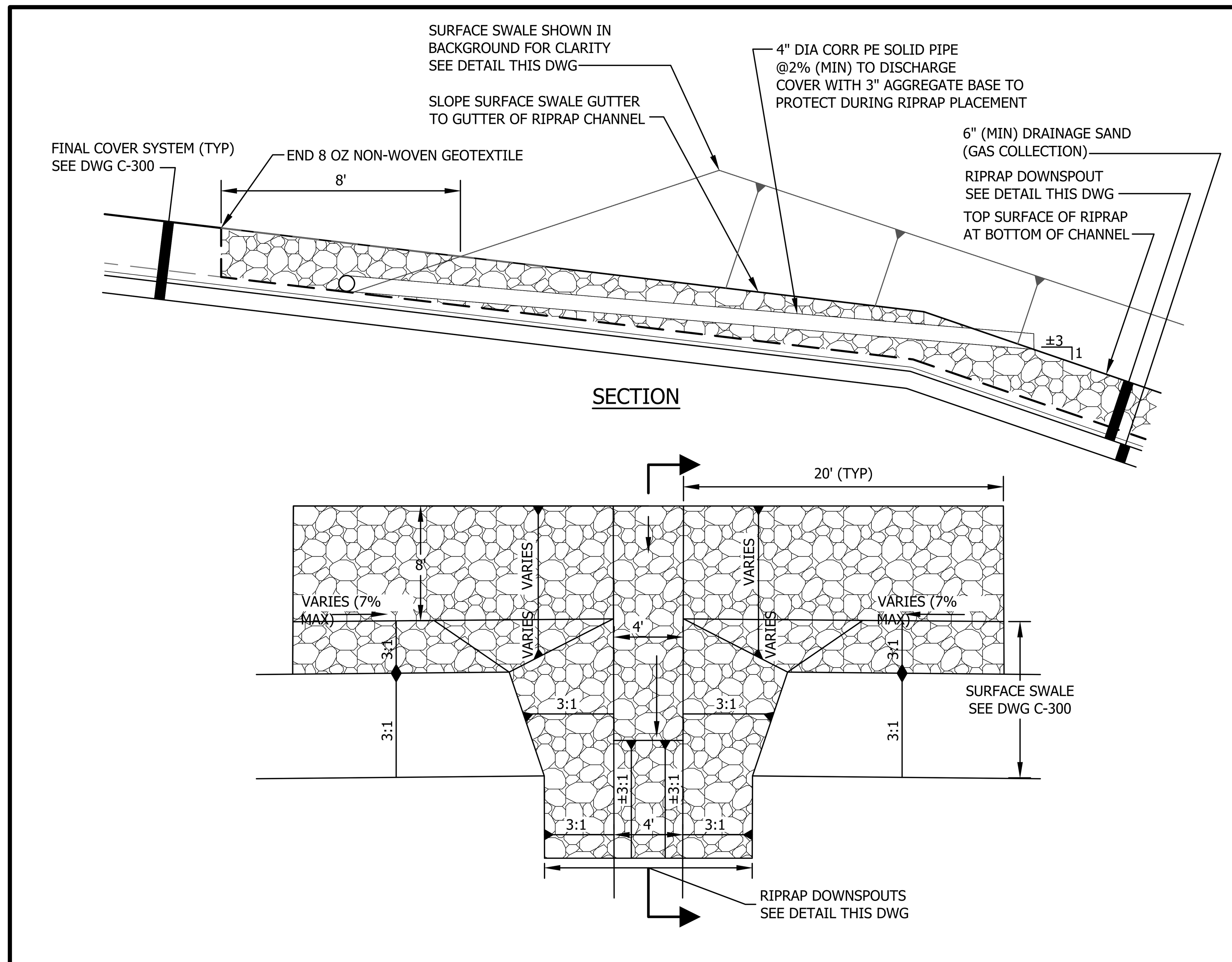
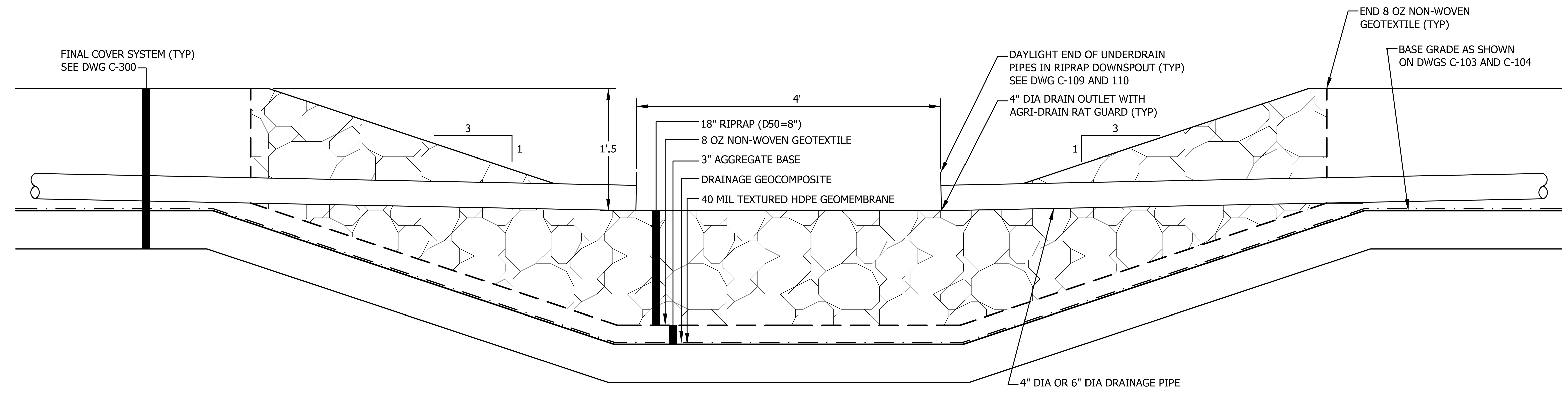
DESIGN BY: NMT
DRAWN BY: SJM
DATE: 12/2021
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 21588.07 DWG FILE DETAILS

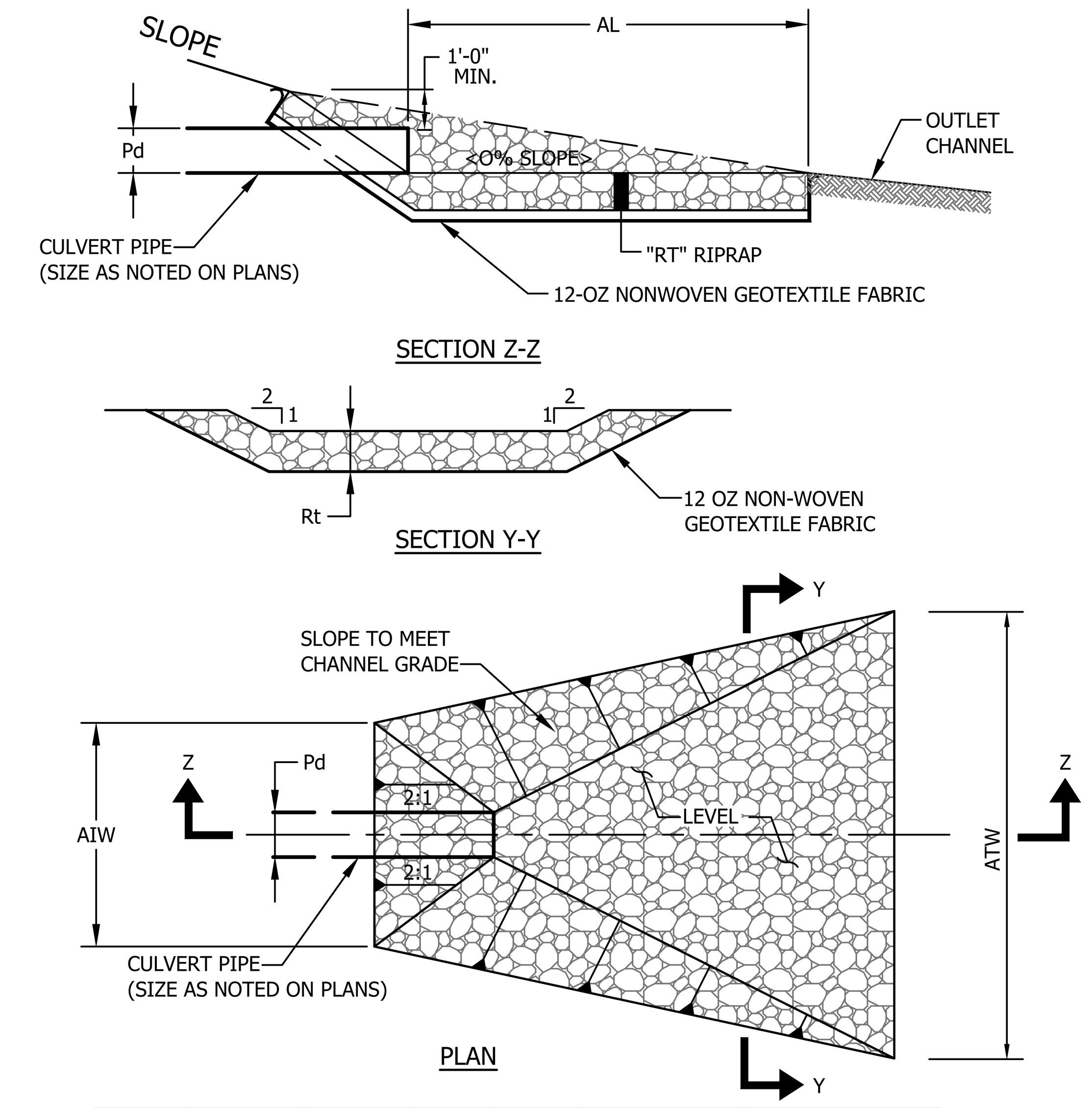
C-300



RIPRAP TRANSITION AT SURFACE SWALE
NTS

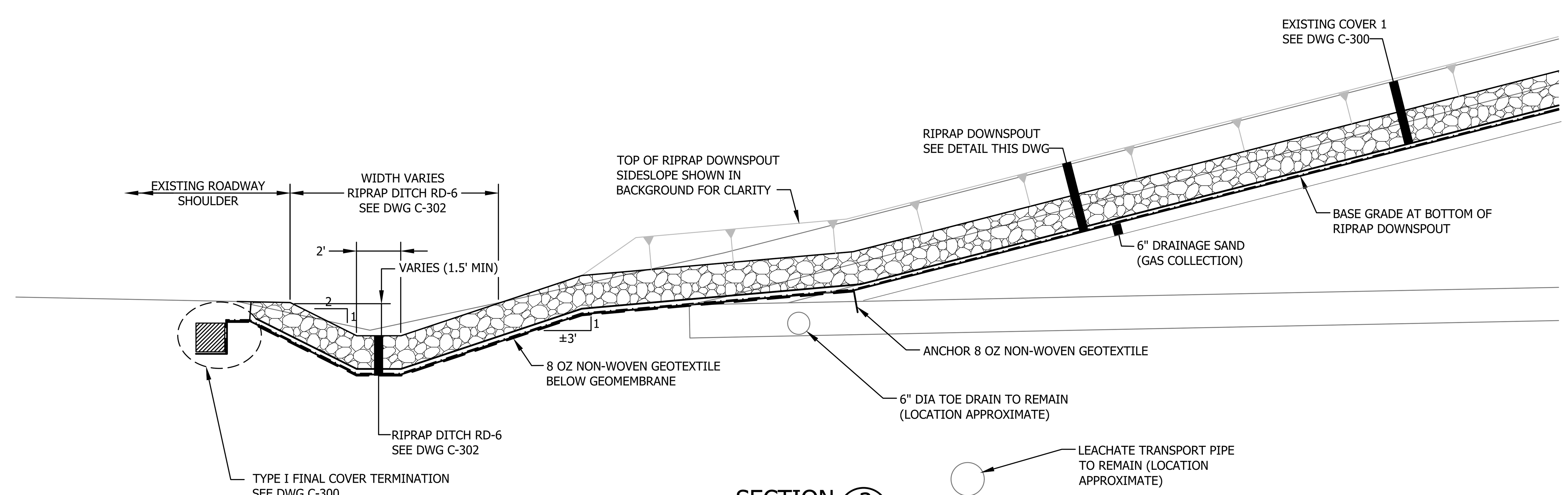


RIPRAP DOWNSPOUT
NTS

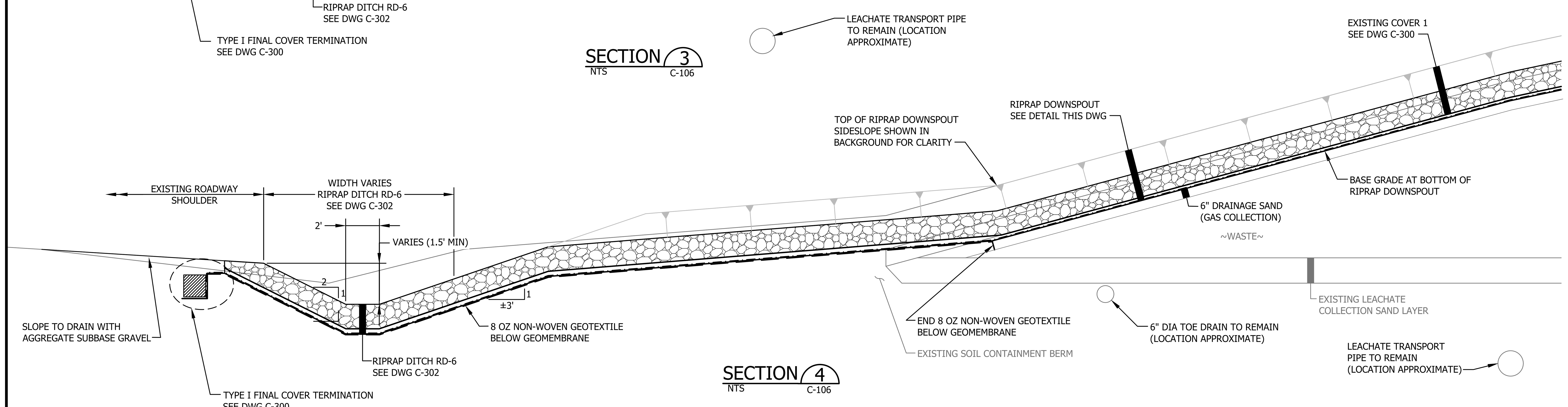


OUTLET NO.	PIPE DIA. Pd (IN)	D50	THICK RT (IN)	LENGTH AL (FT)	INITIAL WIDTH AIW (FT)	TERMINAL WIDTH ATW (FT)
P1j	18	6	14	20	6	22
P2a	18	18	27	20	6	22

RIPRAP APRON AT PIPE INLET/OUTLET
NTS



SECTION 3
NTS C-106



SECTION 4
NTS C-106

REV.	BY	DATE	STATUS
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	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
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SECTIONS AND DETAILS

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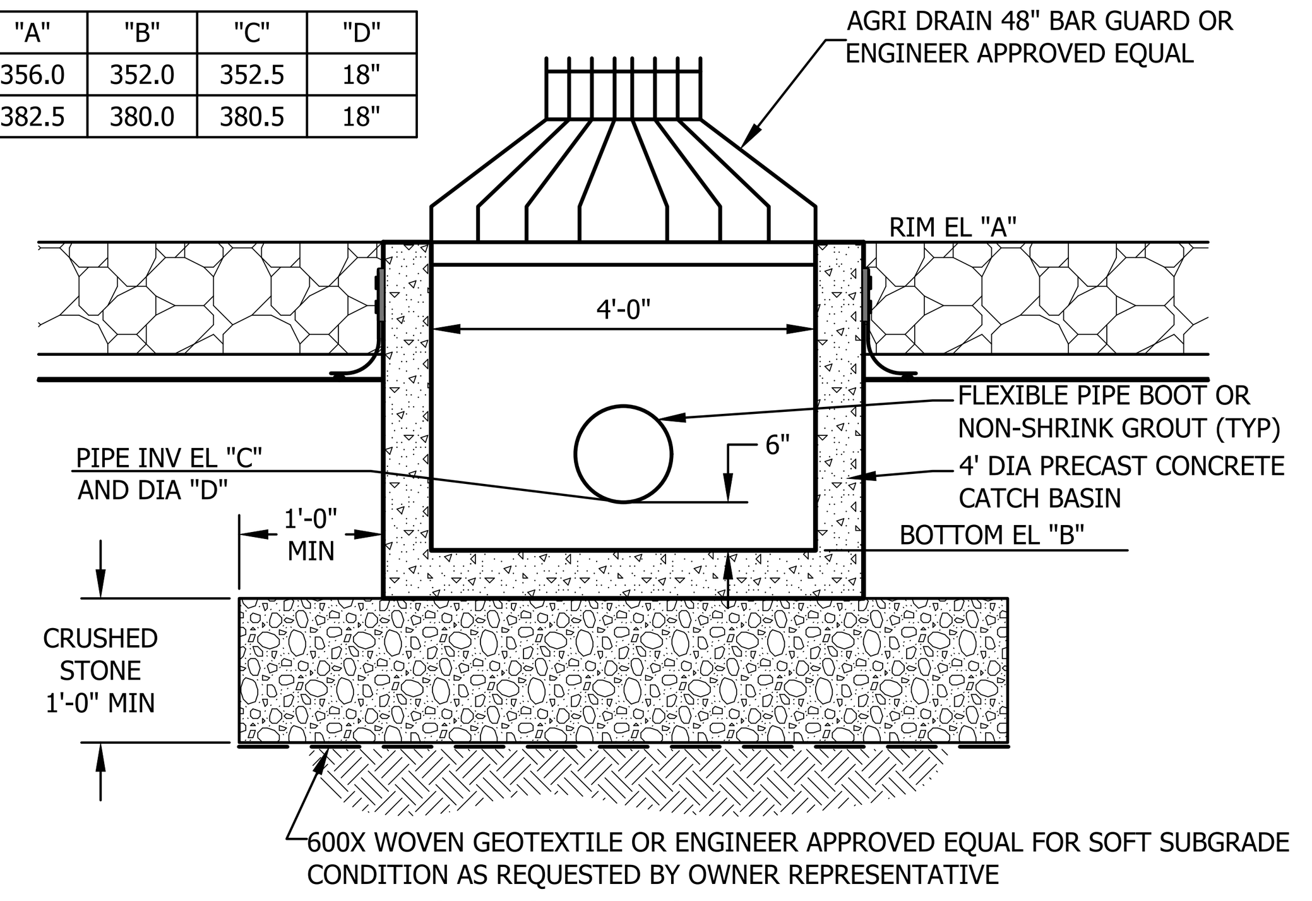
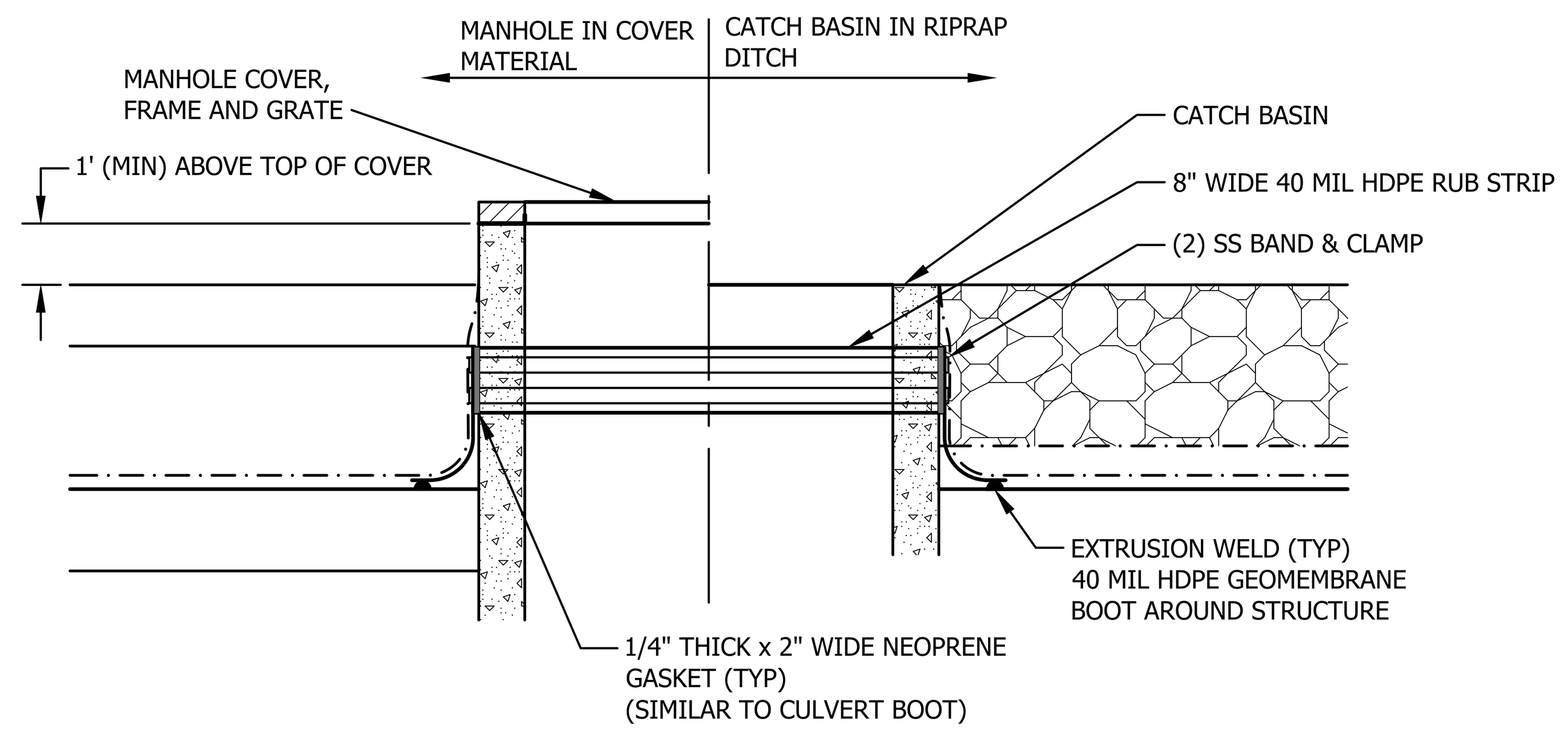
DESIGN BY: NMT
DRAWN BY: SJM
DATE: 12/2021
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 21588.07 DWG FILE DETAILS C-301

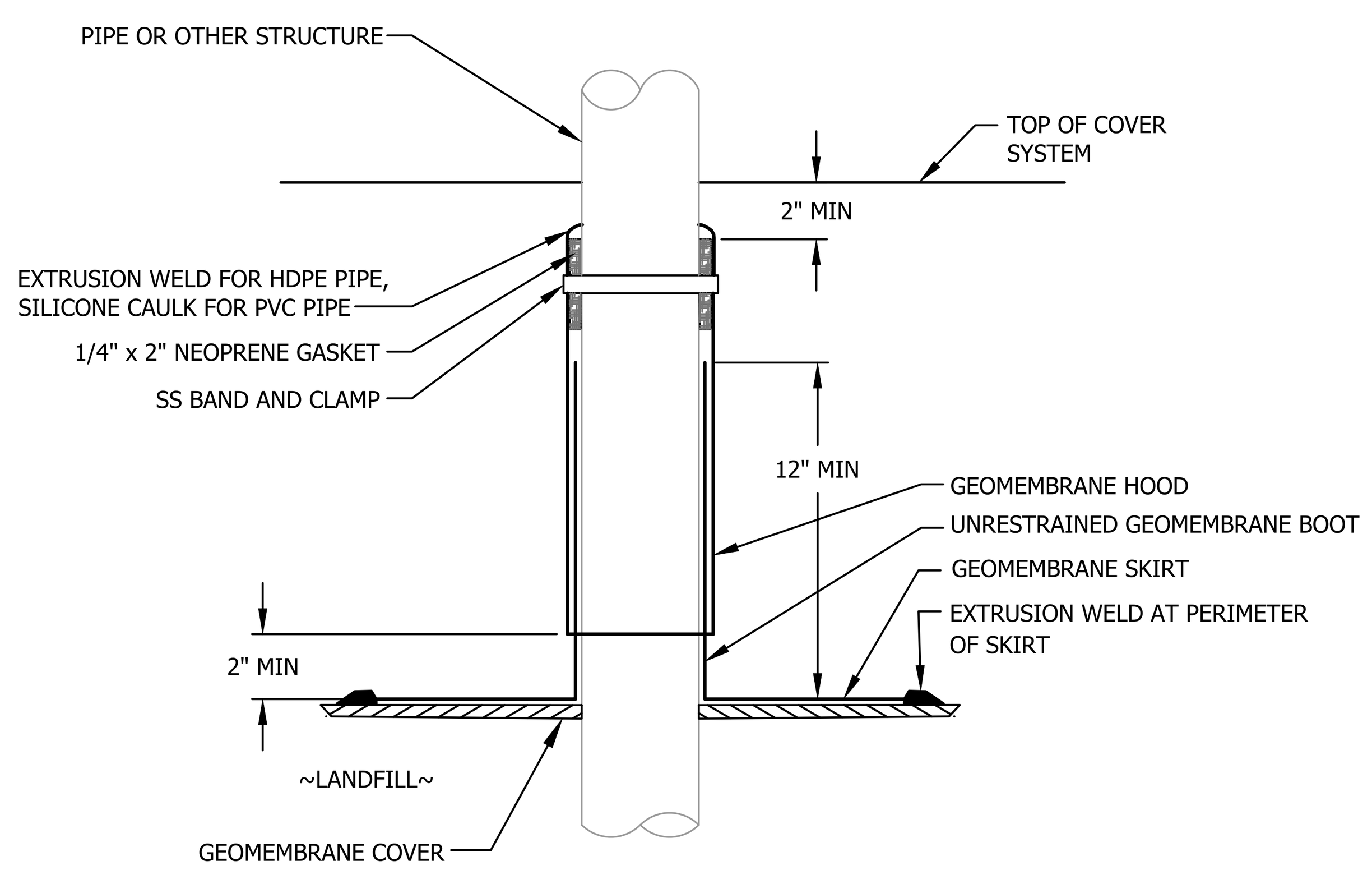
CB	"A"	"B"	"C"	"D"
CB-2c	356.0	352.0	352.5	18"
CB-1i	382.5	380.0	380.5	18"



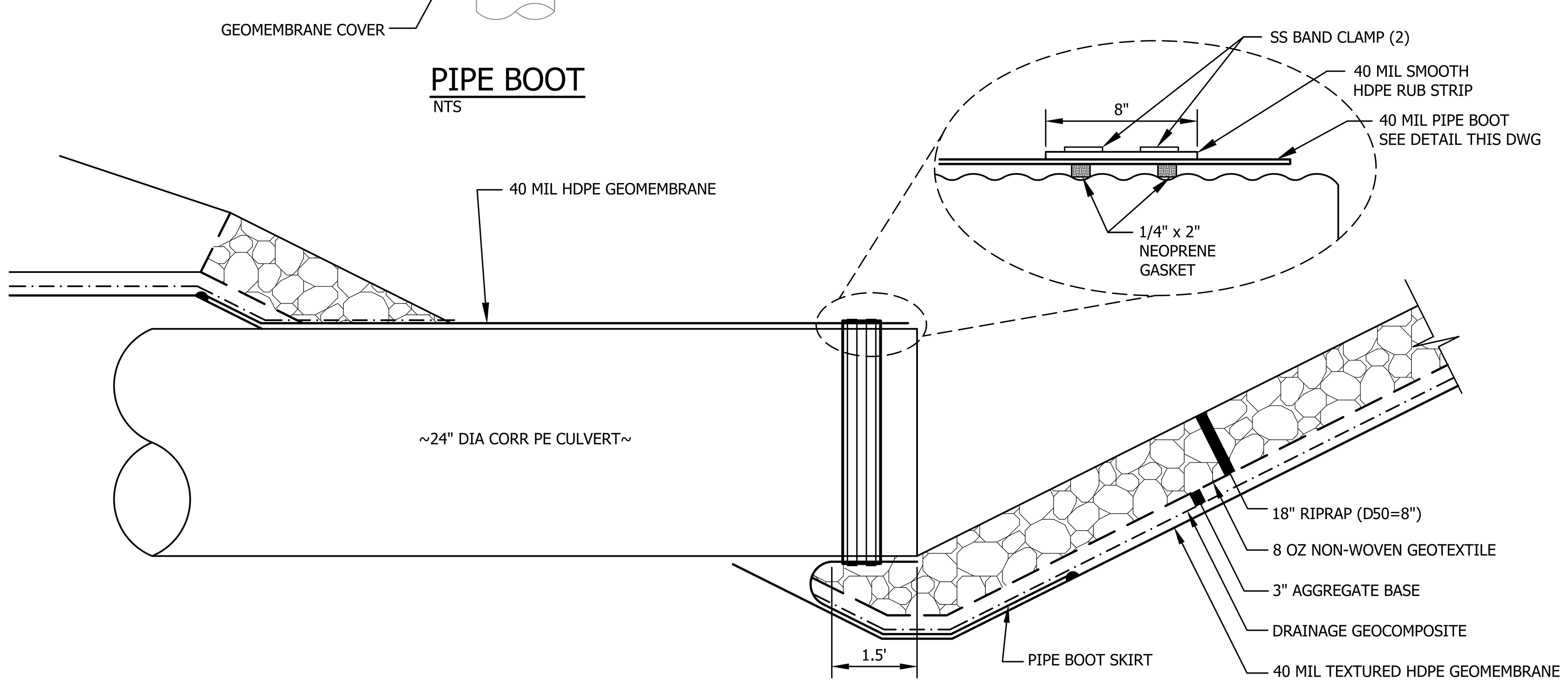
CATCH BASIN
NTS



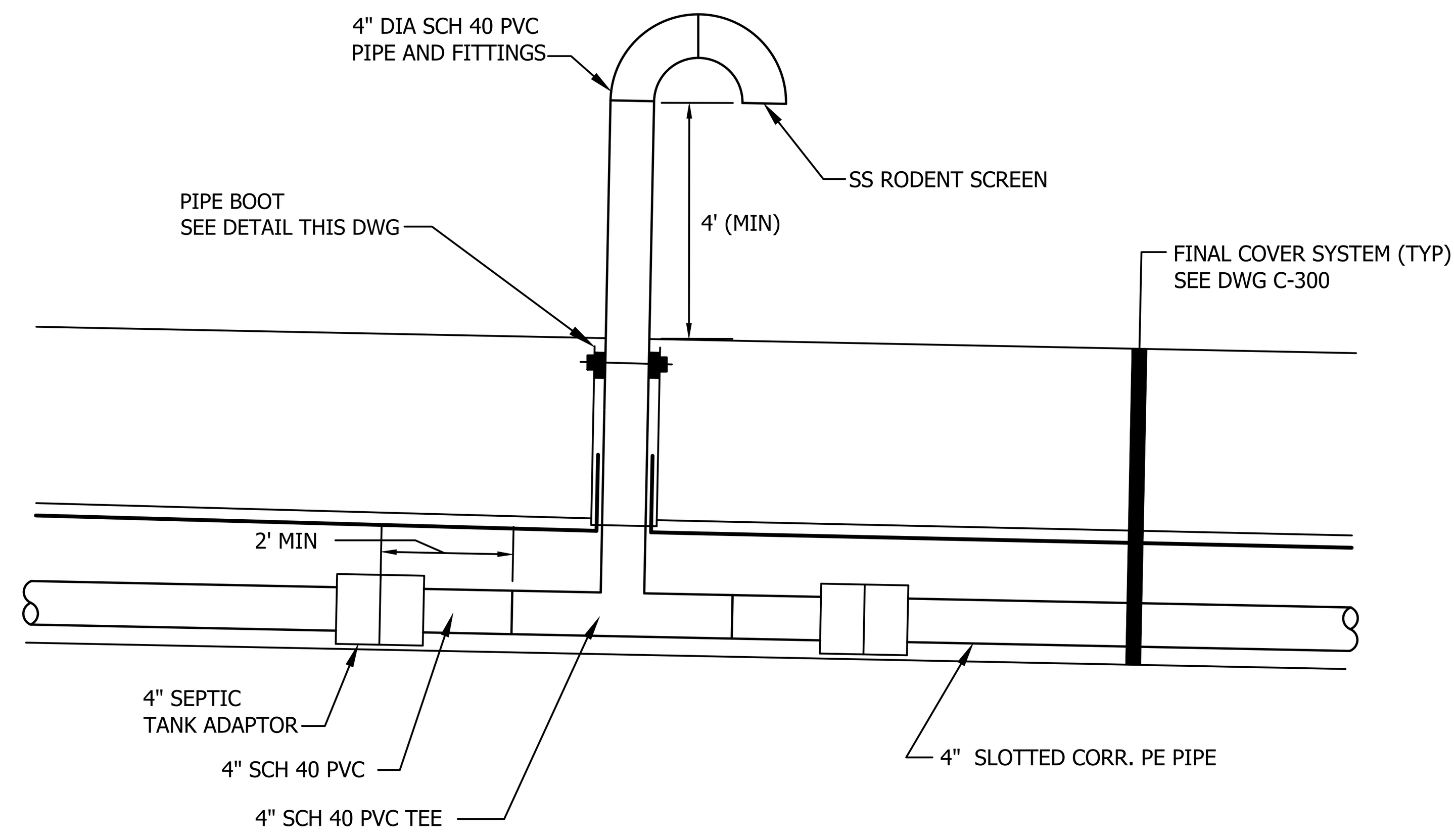
MH/CB STRUCTURE BOOT
NTS



PIPE BOOT
NTS

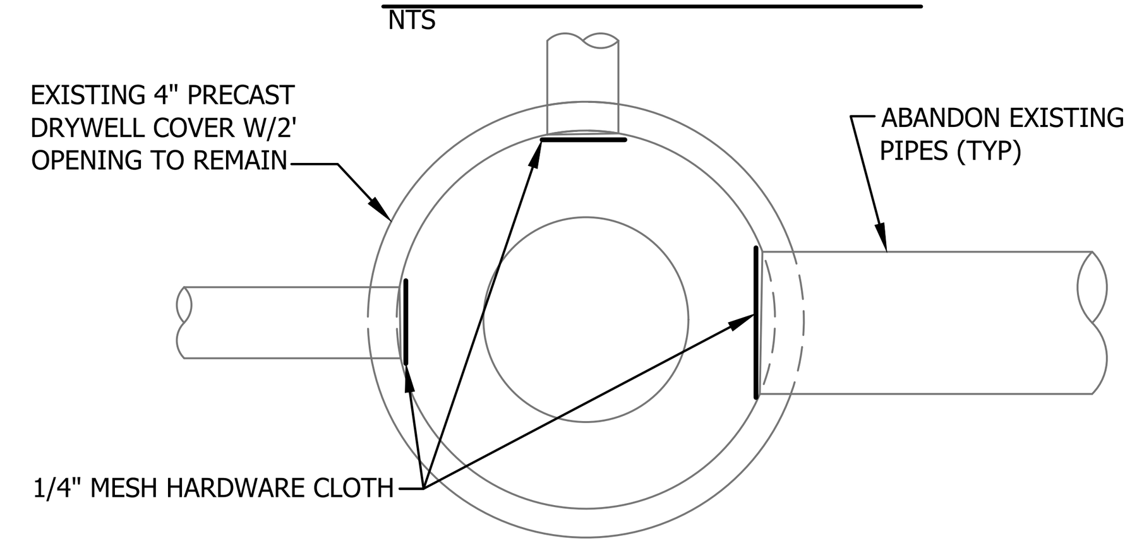


CULVERT PIPE BOOT
NTS

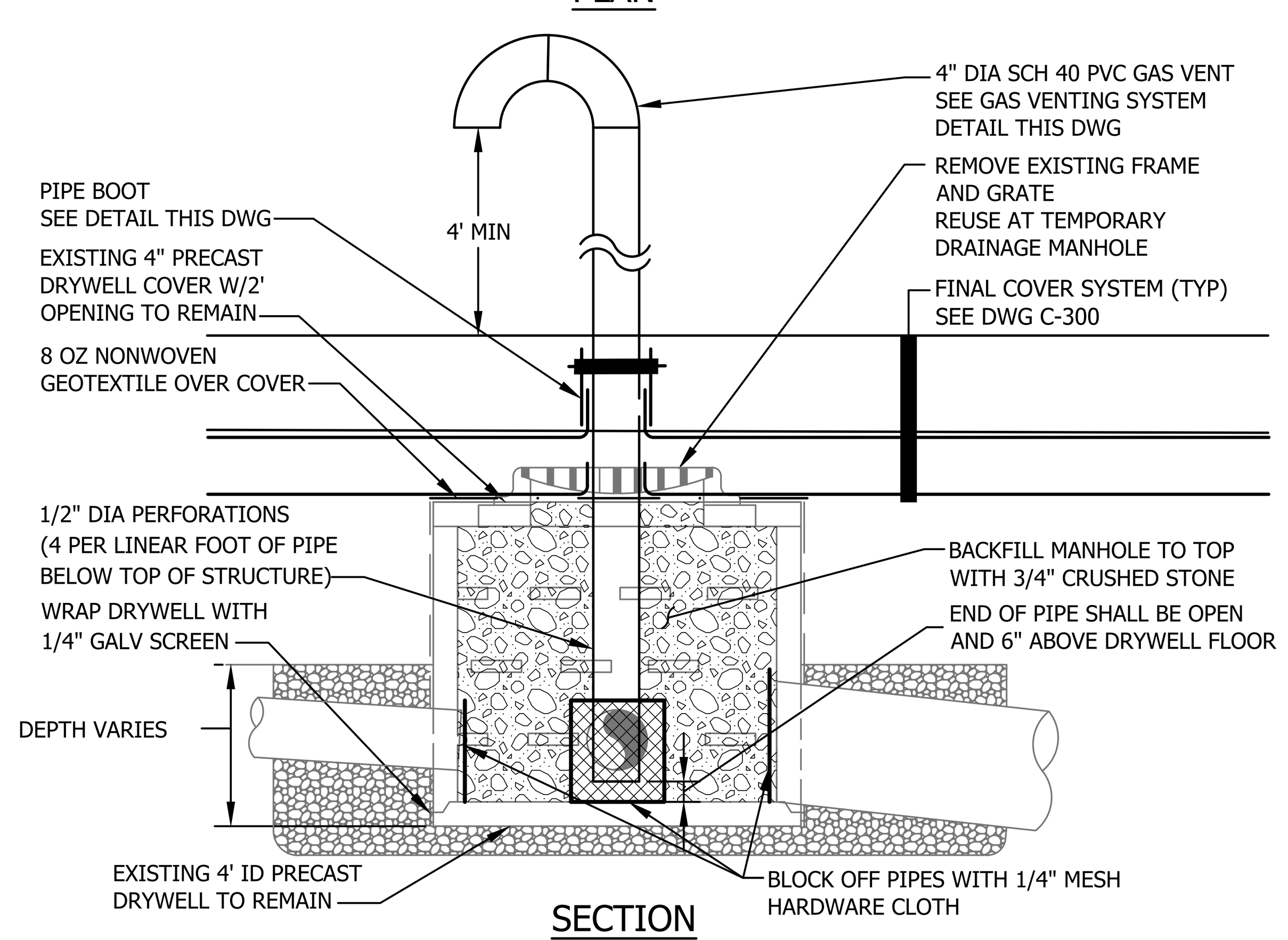


NOTE:
ALL PVC TO PVC CONNECTIONS SHALL BE GLUED.

GAS VENTING SYSTEM
NTS

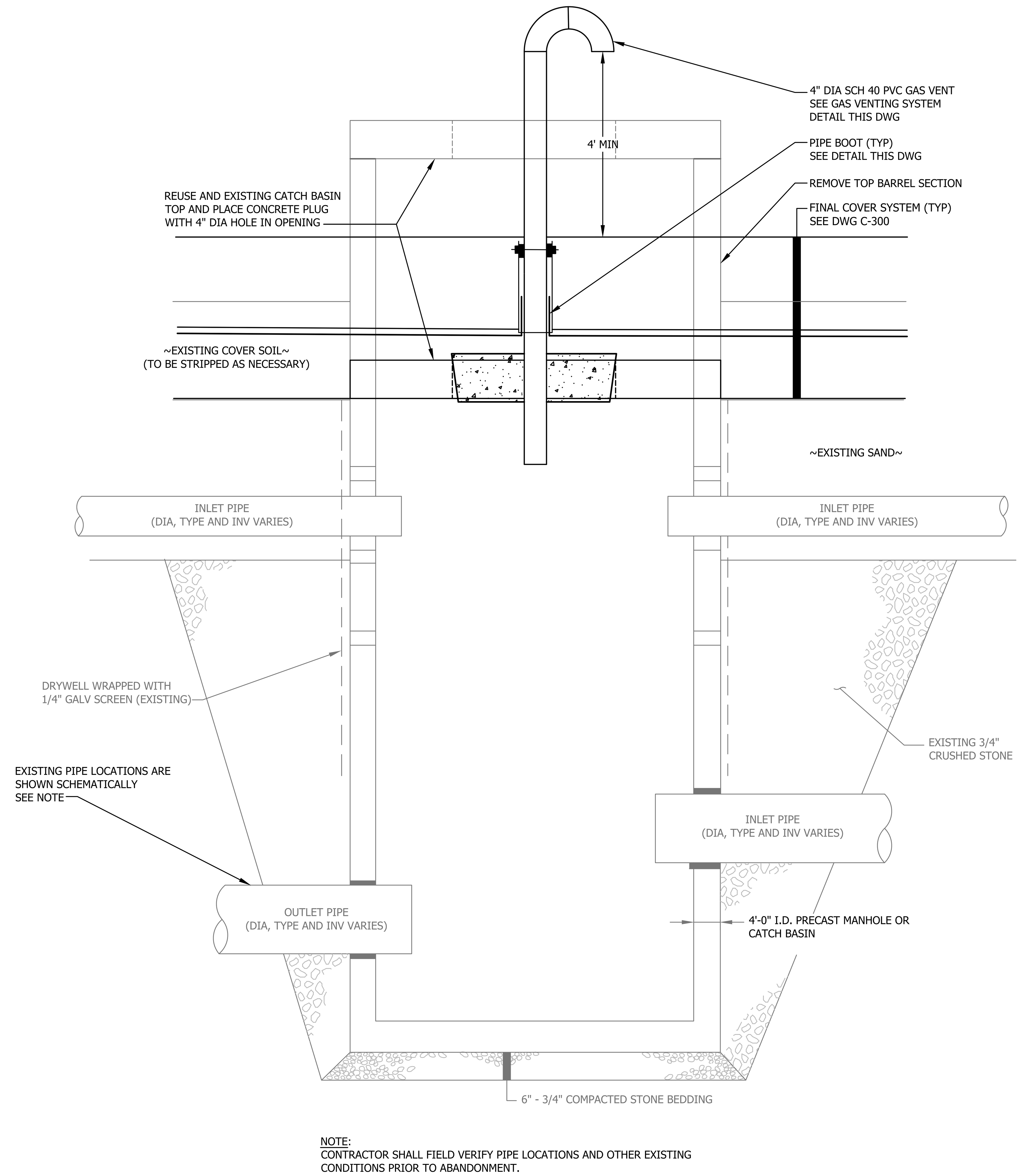


PLAN



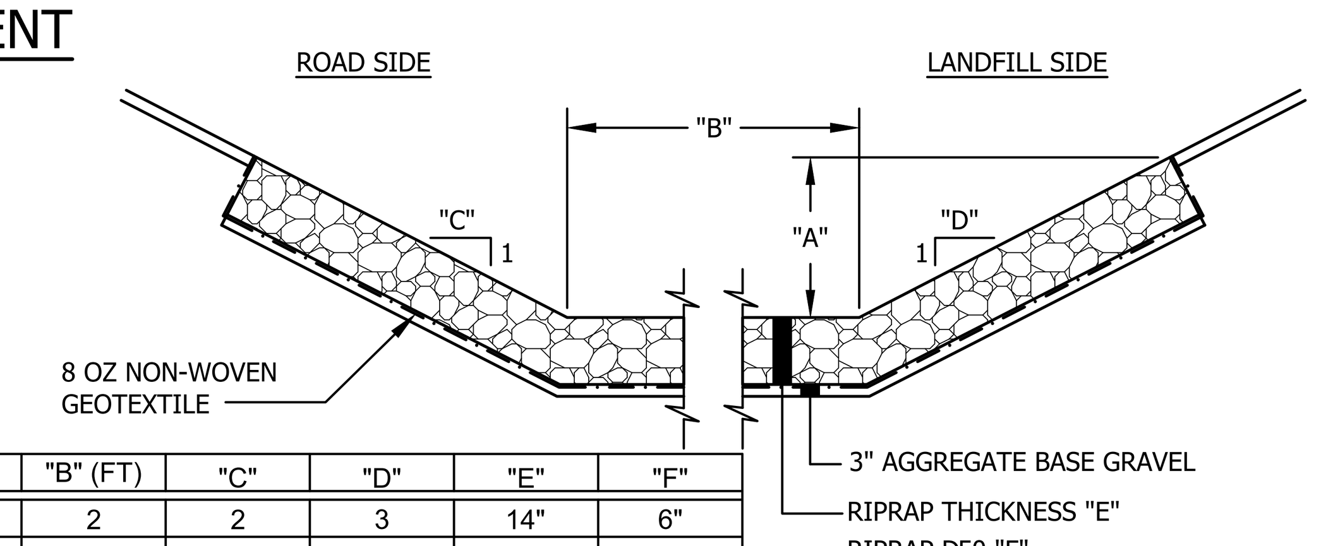
SECTION

DRAINAGE MANHOLE ABANDONMENT
NTS



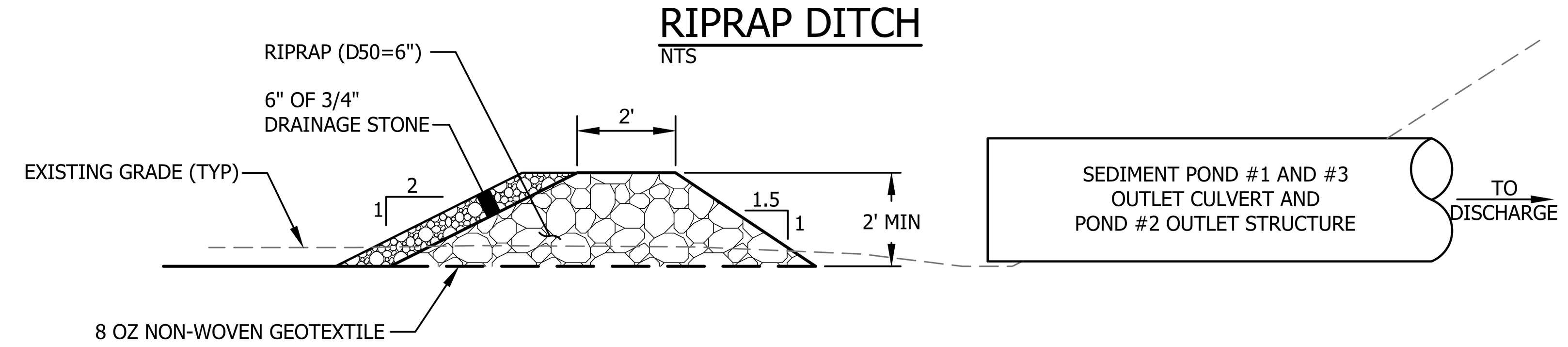
NOTE:
CONTRACTOR SHALL FIELD VERIFY PIPE LOCATIONS AND OTHER EXISTING CONDITIONS PRIOR TO ABANDONMENT.

EXISTING CATCH BASIN ABANDONMENT
NTS



DITCH	"A" (FT)	"B" (FT)	"C"	"D"	"E"	"F"
RD-4	2	2	2	3	14"	6"
RD-5	1.5	4	2	3	27"	12"
RD-6	1.5	2'	2	3	18"	8"
RD-7	1.5	0	2	3	14"	6"
RD-8	1.5	2'	2	3	14"	6"
RD-9	1.5	2'	3	3	14"	6"
RD-1i1	1.5	2'	3	3	18"	8"
RD-1i2	1.5	4'	3	3	18"	8"

RIPRAP DITCH
NTS



POND OUTLET PROTECTION
NTS

REV.	BY	DATE	STATUS
	BDP	12/2023	RECORD DRAWING
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SECTIONS AND DETAILS

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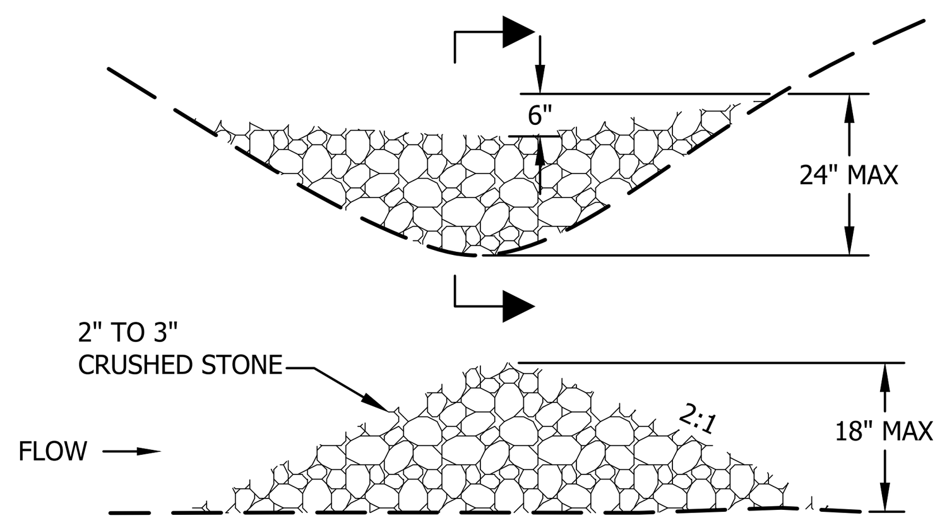
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com

DESIGN BY: NMT
DRAWN BY: SJM
DATE: 12/2021
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 21588.07 DWG FILE DETAILS

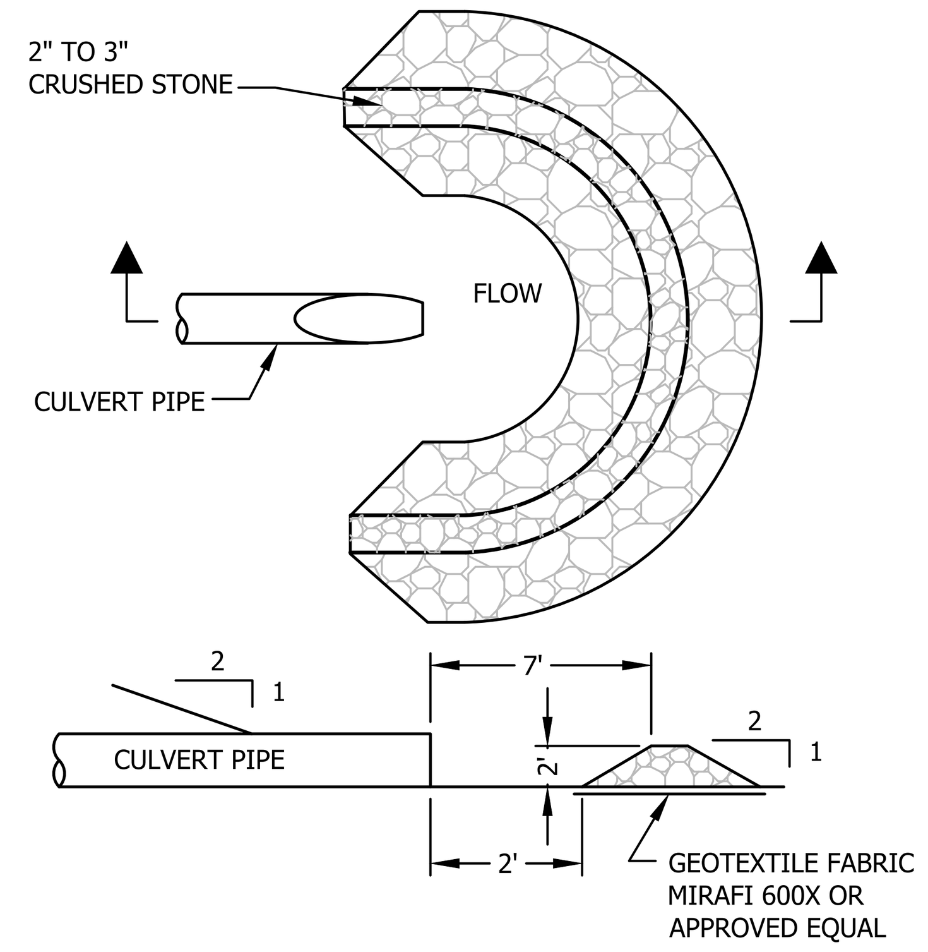
C-302



SECTION

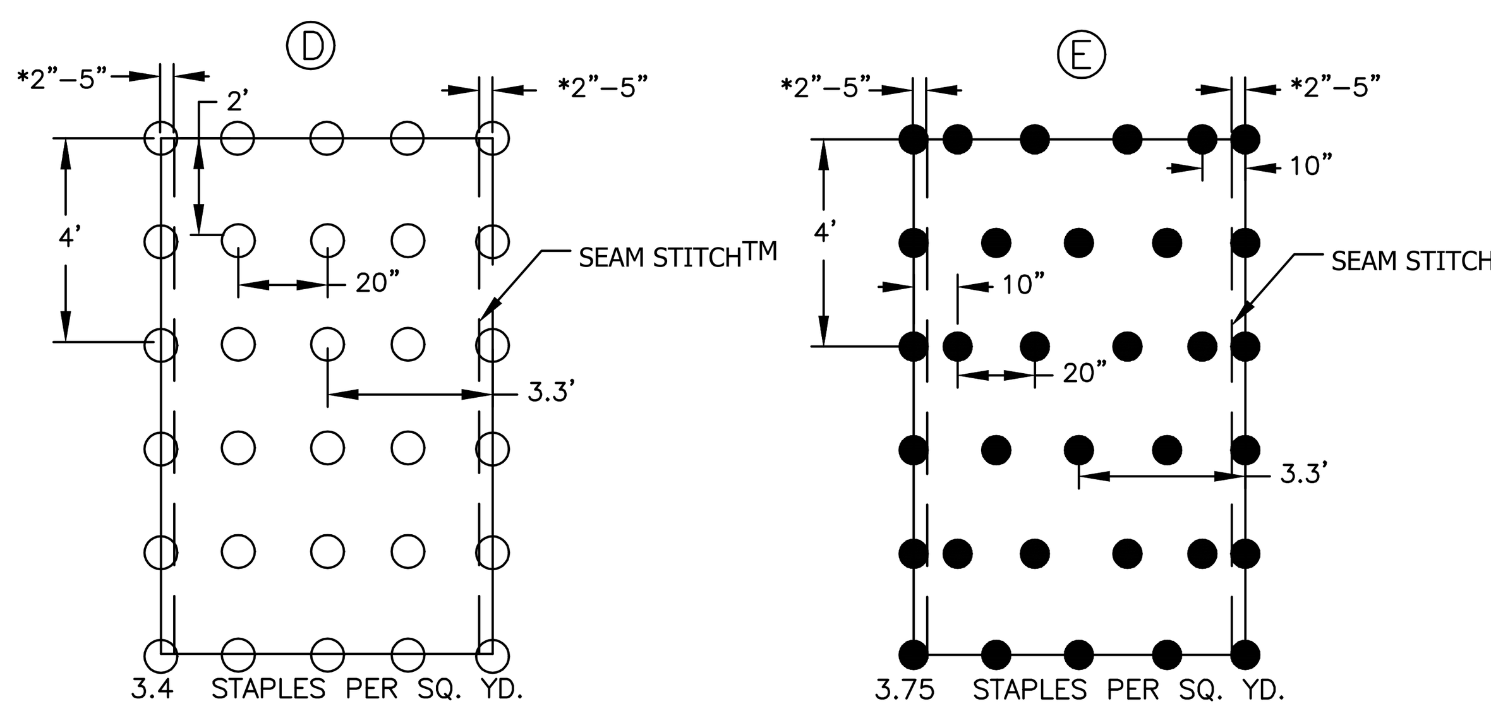
STONE CHECK DAM

NTS



RIPRAP CULVERT INLET PROTECTION (TEMPORARY)

NTS

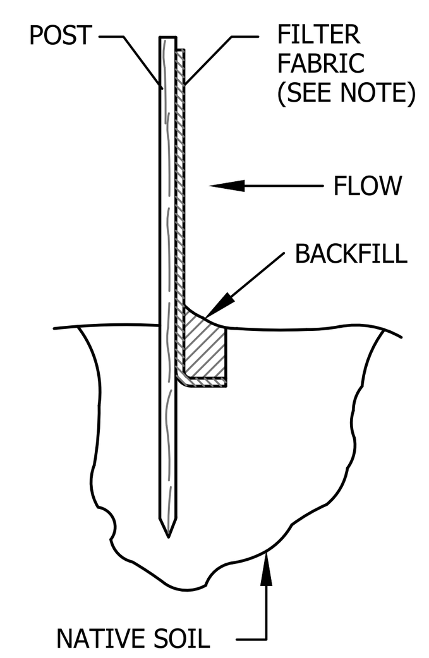


*LOCATION OF SEAM STITCH WILL VARY DEPENDING ON NORTH AMERICAN GREEN PRODUCT TYPE

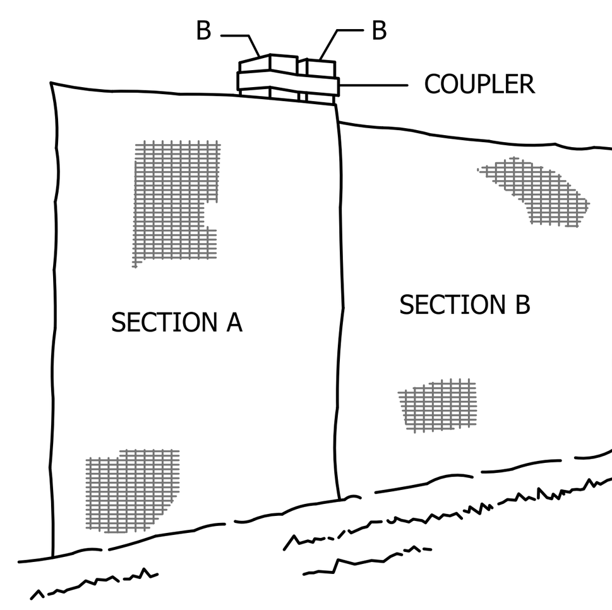
FOR BLANKETS WITH THE NORTH AMERICAN GREEN DOT SYSTEMTM PLACE STAPLES THROUGH EACH OF THE DOTS.

ECB STAPLE PATTERN GUIDE

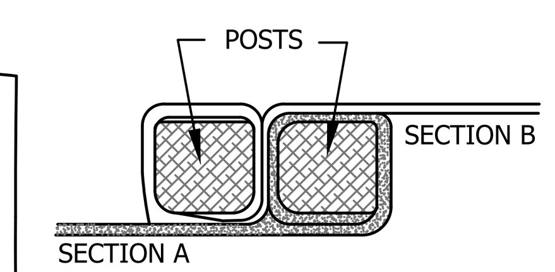
NTS



TOE-IN DETAIL



JOINING SECTION

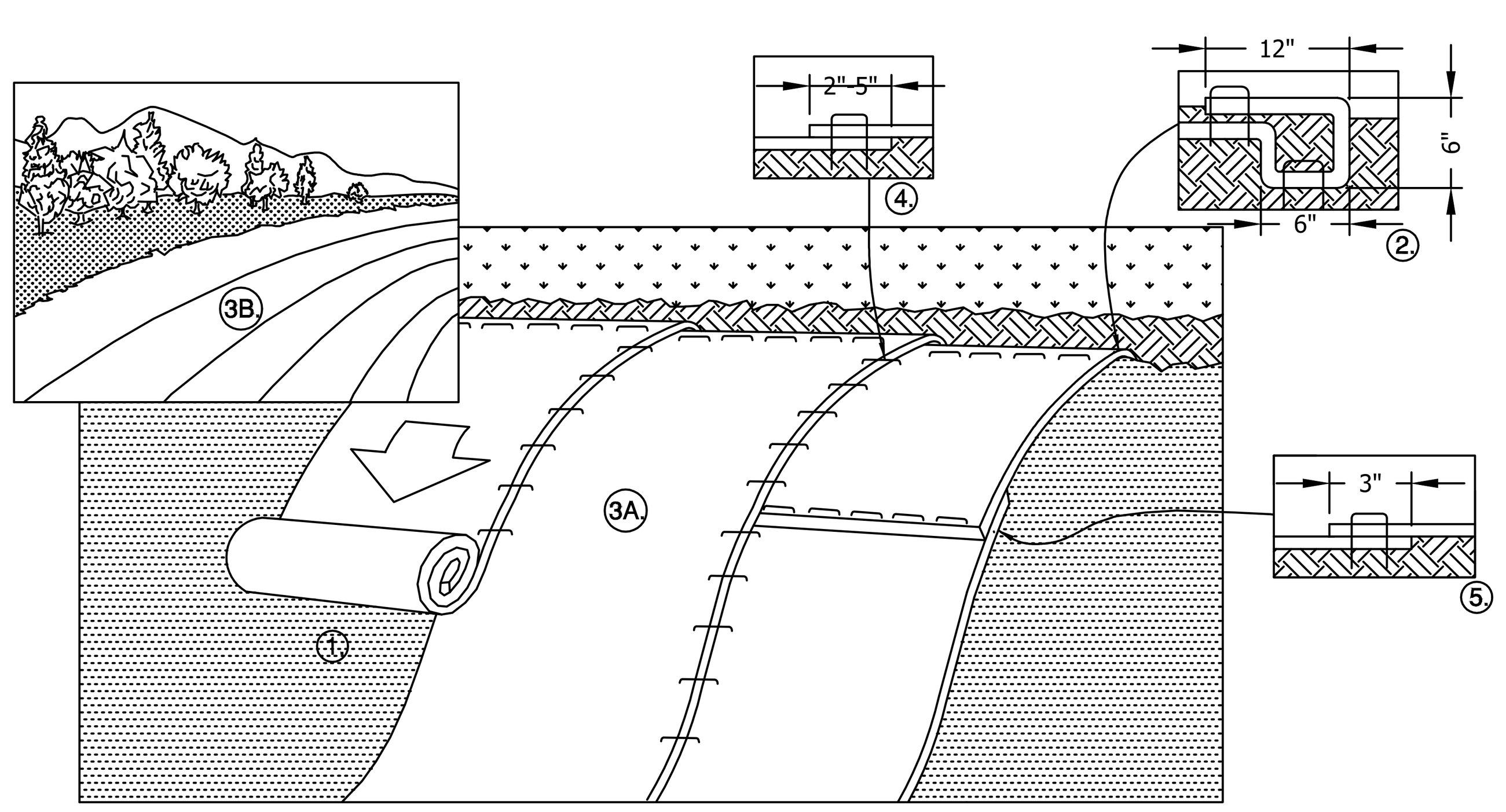


TOP VIEW

NOTE: SILTATION FENCE SHALL BE ENVIROFENCE AS MANF. BY MIRAFI INC., PROPEX SILT STOP AS MANF. BY AMOCO FABRIC CO. OR EQUAL

SILTATION FENCE

NTS

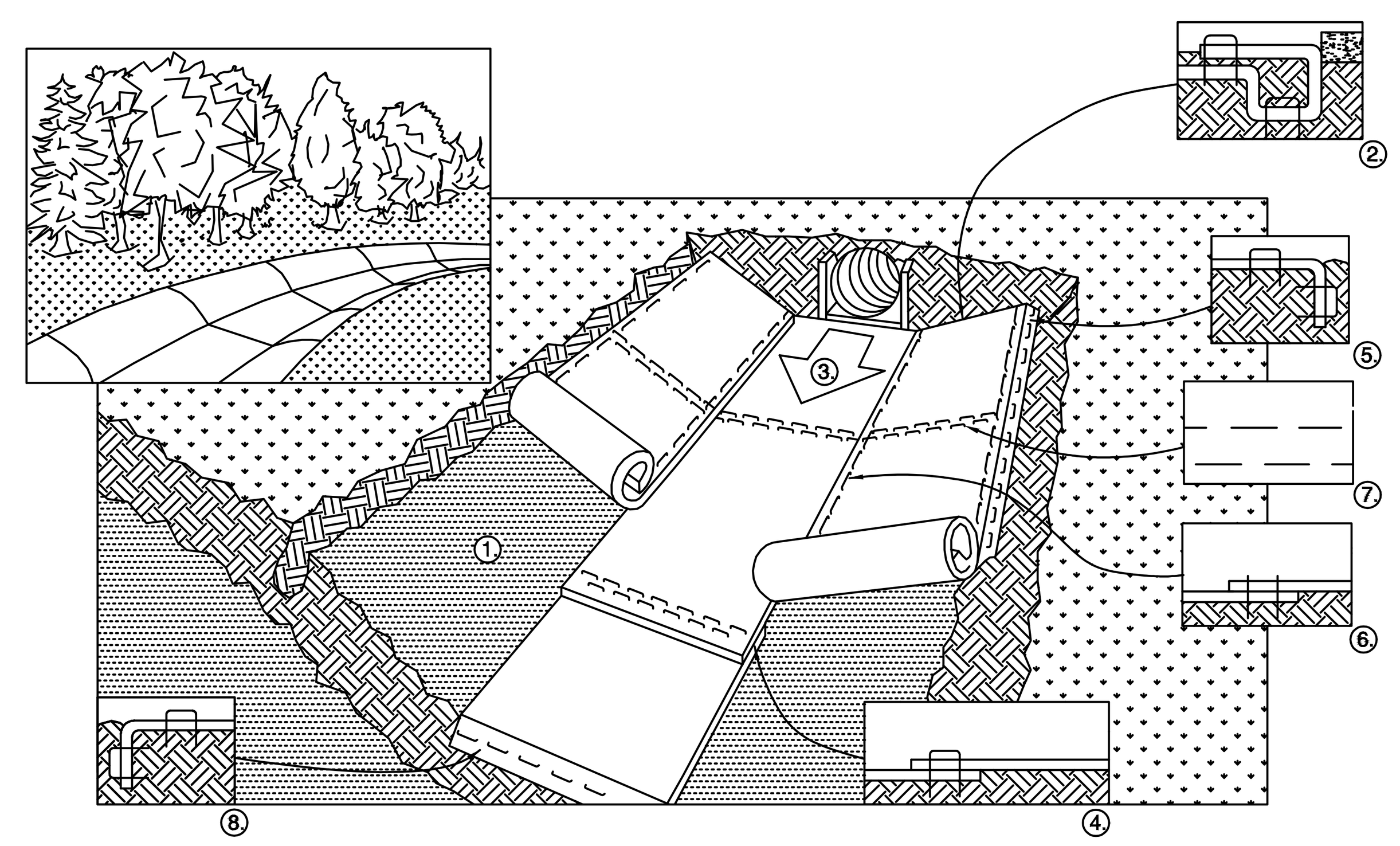


1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEMTM, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

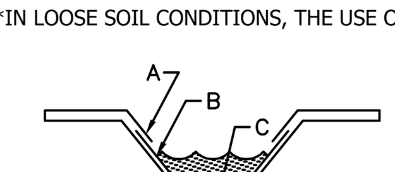
SLOPE INSTALLATION

NTS



1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL CENTER RECP'S IN THE DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEMTM, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" TO 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP'S.
5. FULL LENGTH EDGE OF RECP'S AT OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP'S MUST BE OVERLAPPED APPROXIMATELY 2" TO 5" (DEPENDING ON RECP'S TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP'S MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.



CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

CHANNEL INSTALLATION

NTS

TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with the Maine Erosion and Sediment Control Best Management Practices, Maine Department of Environmental Protection, October 2016, and as currently revised.
2. The contractor will be responsible for the repair/replacement/ maintenance of all erosion control measures until all disturbed areas are stabilized. Contractor shall be responsible for plan preparation, documentation and inspection in accordance with Maine Construction General Permit obtained for this project.
3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance, shall be temporarily stabilized within 7 days of the disturbance.
4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
5. Any suitable topsoil will be stripped and stockpiled for reuse in final grading. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with aroostook rye, annual or perennial ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

   Aroostook Rye: Recommended Seeding Dates: 9/10 - 11/1
   Application Rate: 112 lbs/acre

   Perennial Ryegrass: Recommended Seeding Dates: 4/1 - 9/10
   Application Rate: 85 lbs/acre

   Mulch: o Hay or Straw
   Application Rate: 2 - 3 tons/acre.
   Anchor with tack or 300 lbs/acre fiber mulch

   o Wood Fiber Cellulose (Up to August)
   Application Rate: 4,000 lbs/acre.
   Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fence

(a) Silt fence will be installed prior to and downgradient of all construction activity where soil disturbance may result in erosion.

(b) The height of a silt fence will not exceed 36 inches.

(c) The filter fabric will be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth will be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts will be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing will not exceed 6 feet.

(e) A trench will be excavated approximately 4 inches wide and 4 inches deep along the line of posts and upgradient from the barrier.

(f) The standard strength of filter fabric will be stapled or wired to the fence, and 8 inches of the fabric will be extended into the trench. The fabric will not extend more than 36 inches above the original ground surface. Filter fabric will not be stapled to existing trees.

(g) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric will be stapled or wired directly to the posts with all other provisions of item (f) applying.

(h) The trench will be backfilled and the soil compacted over the filter fabric.

(i) Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

(j) Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.

(k) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric will be replaced promptly.

(l) Sediment deposits should be removed after each storm event if significant buildup has occurred or if deposits exceed 15 inches in depth.

2. Stone Check Dams

(a) Stone check dams should be constructed of 2 to 3-inch stone. The stone should be placed according to the configuration shown on the drawing. Hand or mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.

(b) Check dams should be installed as the swale is being constructed.

(c) Sediment will be removed from behind the check dams when it has accumulated to one half of the original height of the dam.

(d) Check dams will be removed when the grass has matured sufficiently to protect the ditch or swale. The area beneath the check dams will be seeded and mulched immediately after they are removed.

(e) Regular inspections will be made to ensure that the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam will be corrected. If evidence of siltation in the water is apparent downstream from the check dam, the check dam will be inspected and adjusted. Check dams will be checked for sediment accumulation after each significant rainfall.

3. Wood Waste Compost/Bark Filter Berms

(a) The filter berm shall consist of an approved wood waste compost/bark mulch mix or recycled composted bark flume grit and fragmented wood generated from water-flume log handling systems or small shredding of stumpage (6 inches long x 1/2" dia.). The mixture needs to be a well-graded blend of organic and mineral substance. The composition is usually manufactured on or off site and by blending it with a well graded sand and gravel. The objective is a tight, heavy, non-erodible mixture that is not composed of one uniform material, i.e. just bark mulch will not suffice. Comparable composted mixes can be used upon approval of the Department of Environmental Protection, Bureau of Land and Water Quality.

(b) The mix shall conform to the following standards:
* Moisture Content 30 - 60%
* PH-5.0-8.0
* Screen Size - 100% less than 6-inch max; 70% less than 0.75 inch.
* No less than 80% organic material (dry weight) by loss of ignition.
* No stones larger than 4 inch diameter.
* Silts, clays or sugar sands are not acceptable in the mix.

(c) Installation and Size of Berm: The dimensions of the berm are more a function of the strength of the material than the flows (forces) it will encounter. At a minimum the berm shall be 4 feet wide and 18 inches high. The berm shall be placed, uncompacted along a relatively level contour. Wherever possible the existing surface must be scoured and the mixture keyed in like any other sediment control measure.

(d) Maintenance: All deficiencies shall be immediately corrected with additional material place on top of the berm to reach the desired height. When the berm is decomposed, clogged with sediment, eroded, or becomes ineffective, it shall be replaced.

(e) Clean up and Retrieval: At the end of the job, an erosion control berm shall be removed or spread out so that the native earth can be seen below.

B. TEMPORARY MEASURES (Cont)

4. Erosion Control Mats

(a) During the growing season (April 1 to September 10) use mats indicated on drawings on channel bottoms and steep slopes >3H:1V.

(b) During the fall and winter (September 11 to March 31) use heavy grade mats as recommended by the engineer on all channel bottoms and slopes >4h:1V.

(c) Install mats in accordance with the manufacturer's recommendations.

5. Erosion Control Measures

(a) The smallest practical area of land shall be exposed to construction at any one time.

(b) The temporary erosion control measures shall be maintained until the permanent erosion control measures are present.

(c) All areas disturbed by construction shall have available loam placed before seeding (or an acceptable alternative).

(d) After construction is terminated, all temporary erosion control measures shall be removed and accumulated sediment disposed of in a secure location.

(e) Mulch shall be mowings of acceptable herbaceous growth, free from noxious weeds or woody stems, and shall be dry.

C. Permanent Measures

1. Riprapped Ditches, Aprons and Plunge Pools

(a) Construct riprapped ditches, aprons and plunge pools in accordance with the details shown on the Drawings.

(b) Stone for riprap will consist of sub-angular field stone or rough unhewn quarry stone. The stone will be hard and of such quality that it will not disintegrate on exposure to water or weathering, be chemically stable and suitable in all other respects for the purpose intended. The bulk specific gravity (saturated surface-dry basis) of the individual stones will be at least 2.5.

(c) The riprap should be placed so that it produces a dense well-graded mass of stone with a minimum of voids. The desired distribution of stones throughout the mass may be obtained by selective loading at the quarry, controlled clumping of successive loads during final placing, or by combination of these methods. The riprap should be placed to its full thickness on one operation. The riprap should not be placed in layers. The riprap should not be placed by dumping into chutes or similar methods which are likely to cause segregation of the various stone sizes. Care should be taken not to dislodge the underlying material when placing the stones.

The finished slope should be free of pockets of small stone or clusters of large stones. Hand placing may be necessary to achieve the required grades and a good distribution of stone sizes. Final thickness of the riprap blanket should be within plus or minus 1/4 of the specified thickness.

(d) Riprap will be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone. If repairs are needed, they should be accomplished immediately.

2. Topsoil, Seed, Mulch

(a) Topsoil: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used (refer to Section C-2-2 of Best Management Practices Handbook, see Note 2).

(b) Seeding should be completed by September 15 of each year. Areas not seeded or which do not obtain satisfactory growth by October 1, will be seeded with Aroostook Rye or mulched at rates previously specified herein. After November 1, or the first killing frost, disturbed areas should be treated as indicated in C below:

SEEDING SPECIFICATIONS

Seed	Permanent Seeding (180 lbs/acre)	Temporary Seeding (120 lbs/acre)
Red Fescue	50% by weight	Winter Rye
Red Top	2% by weight	100% by weight
White Cover	5% by weight	
Annual Ryegrass	25% by weight	
Birdsfoot Trefoil	3% by weight	
Kentucky Bluegrass	15% by weight	

Fertilizer: Apply 2 pounds per unit (87 lbs/acre) of nitrogen, phosphoric acid, and potash, or 413 lbs/acre of 19-19-19 fertilizer.

Lime: Apply liquid limestone at a rate of 3 tons per acre (138 lbs/1,000 sq ft).

Mulch: Mulch with weed-free hay or straw at 3.0 tons per acre with tack or 260 lbs/acre fiber mulch.

(c) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site. The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(3) Erosion Control Mats
(a) Install mats as indicated on drawings and in accordance with manufacturers' recommendations

D. MAINTENANCE PLAN

1. Routine Maintenance Inspection shall be performed annually by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq ft)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq ft).

E. INSPECTIONS

1. Inspections will be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections will occur weekly and before and after each significant rainfall event (1 inch or more within a 24 hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized.

2. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and the major observations relating to the operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMP's that need to be maintained; location(s) of BMP's that failed to operate as designed or proved inadequate for a particular location; and location(s) of where additional BMP's area needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.

F. HOUSEKEEPING

1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.
6. Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges.
7. Additional requirements. Additional requirements may be applied on a site-specific basis.

REV.	BY	DATE	STATUS
	BDP	12/2023	RECORD DRAWING
	BDP	12/2021	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASES 2 AND 3
EAST MILLINOCKET, MAINE
BGS PROJECT 3345

SECTIONS AND DETAILS

SME SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com

DESIGN BY:	NMT
DRAWN BY:	SJM
DATE:	12/2021
CHECKED BY:	BDP
LMN:	NONE
CTB:	SME-STD

JOB NO. 21588.07 DWG FILE DETAILS C-303

MAINE DEPARTMENT OF ADMINISTRATIVE AND FINANCIAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

TITLE	DWG NO
COVER SHEET	
SYMBOLS & ABBREVIATIONS	C-100
PHASED CLOSURE PLAN	C-101
EXISTING CONDITIONS PLAN	C-102
TEMPORARY CELL WASTE MIXING PLAN	C-103
SITE BASE GRADING PLAN	C-104
GAS COLLECTION PIPING PLAN	C-105
UNDERDRAIN PIPING PLAN	C-106
SITE PLAN	C-107
SECTIONS AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
SECTIONS AND DETAILS	C-302
SECTIONS AND DETAILS	C-303
SECTIONS AND DETAILS	C-304

LOCATION MAP

SME
SEVEE & MAHER ENGINEERS
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Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

STATE OF MAINE
BRIAN R. PIERCE
LICENSED PROFESSIONAL ENGINEER

RECORD DRAWINGS

SYMBOLS

EXISTING	PROPOSED	
		NORTH ARROW (TRUE)
DATE		NORTH ARROW (MAGNETIC)
N		NORTH ARROW (PLAN NORTH)
25	25	CONTOUR LINES
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)
		EXISTING GROUND
		SURVEY BASELINE WITH TRIANGULATION OR INTERSECTION PT.
		PROPERTY LINE OR R.O.W.
N35°-10'-10"W 251.17'	N35°-10'-10"W 251.17'	PROPERTY LINE W/ BEARING AND DISTANCE
	0+00 1+00	CONSTRUCTION BASELINE
		BOUNDARY LINE (State, County, Municipality)
		SURVEY MONUMENT
		SURVEY CONTROL
		PROPERTY PIN, DRILL HOLE, PK, OR STAKE
		WOODS OR BRUSH LINE
		INDIVIDUAL TREE
		MAPPED WETLAND
		GAS VENT
		GAS VENT (CAPPED)
		CLEAN OUT STRUCTURE
		CULVERT
		RAILROAD
		SLOPE INCLINOMETER
		VIBRATING WIRE SETTLEMENT CELL
		VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT
		VERTICAL DISPLACEMENT MONUMENT
		LIQUID SETTLEMENT GAGE

EXISTING	PROPOSED	
		DRAINAGE COURSE (WITH DIRECTION)
		EDGE OF WATER
		WATER ELEVATION (GROUND OR SURFACE)
		FENCE LINE (WOOD)
X	X	FENCE LINE (WIRE)
		STONE WALL
		RETAINING WALL
		GUARD RAIL
		BUILDING AND STRUCTURES
	2 1 OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)
TOP OF SLOPE 2:1	TOP OF SLOPE 2:1	SLOPES (WITH SLOPE RATIO)
		EDGE OF ROAD
	C F	CUT OR FILL LINE
		BITUMINOUS PAVEMENT
		CONCRETE
B-12 MW-12 P-12	B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER
TP-12	TP-12	TEST PIT AND NUMBER
SW-12	SW-12	SURFACE WATER SAMPLE LOCATION
		GAS EXTRACTION WELL
		MANHOLE
		CATCH BASIN
		WATER OR GAS VALVE
		HYDRANT
		AIR RELEASE VALVE
		SURGE RELEASE VALVE
		UTILITY POLE
		LIGHT POLE

EXISTING	PROPOSED	
G	UG	UNDERGROUND GAS MAIN
T	UT	UNDERGROUND TELEPHONE LINE
E	UE	UNDERGROUND ELECTRICAL LINE
OE	OE	OVERHEAD ELECTRICAL LINE
OT	OT	OVERHEAD TELEPHONE LINE
12" SS	12" SS	SANITARY SEWER
8" FM	8" FM	FORCE MAIN
8" W	8" W	WATER MAIN
12" SD	12" SD	STORM DRAIN
8" UD	8" UD	UNDERDRAIN
6" PD	6" PD	PERIMETER DRAIN
6" LT	6" LT	LEACHATE TRANSPORT
6" LC	6" LC	LEACHATE COLLECTION
LD	6" LD	LEAK DETECTION
GC	6" G	GAS COLLECTION
		REDUCER
		MECHANICAL CAP OR PLUG
		COUPLING
		BEND
		TEE
		PIPE TO BE ABANDONED
		RISER PIPE & INLET GRATE
		STORM GRATE
		DRAINAGE INLET STRUCTURE
		UNDERDRAIN SUMP
	SF	SILTATION FENCE
	CLL	CLEARING OR CONSTRUCTION LIMIT LINE

ACCMP	ASPHALT COATED CMP
ACP	ASBESTOS CEMENT PIPE
AC	ACRE
AGG	AGGREGATE
ALUM	ALUMINUM
APPD	APPROVED
APPROX	APPROXIMATE
ARMH	AIR RELEASE MANHOLE
ASB	ASBESTOS
ASP	ASPHALT
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AZ	AZIMUTH
BCCMP	BITUMINOUS COATED CMP
BM	BENCH MARK
BIT	BITUMINOUS
BLDG	BUILDING
BOT	BOTTOM
BRG	BEARING
BV	BALL VALVE
CB	CATCH BASIN
CEN	CENTER
CEM LIN	CEMENT LINED
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CS	CURB STOP
CTR	CENTER
CU	COPPER
CY	CUBIC YARD
D	DEGREE OF CURVE
DBL	DOUBLE
DEG OR °	DEGREE
DEPT	DEPARTMENT
DI	DUCTILE IRON
DIA OR Ø	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DRAIN
DWG	DRAWING
EA	EACH
EG	EXISTING GROUND OR GRADE
ELEC	ELECTRIC
EL	ELEVATION
ELB	ELBOW
EOP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EST	ESTIMATED
EXC	EXCAVATE
EXIST	EXISTING
FG	FINISH GRADE
FBRGL	FIBERGLASS
FDN	FOUNDATION
FLEX	FLEXIBLE
FLG	FLANGE
FLR	FLOOR
FPS	FEET PER SECOND
FT OR '	FEET
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HYD	HYDRANT
ID	INSIDE DIAMETER
IN OR "	INCHES
INV	INVERT
INV EL	INVERT ELEVATION
LB	POUND
LC	LEACHATE COLLECTION
LD	LEAK DETECTION
LF	LINEAR FEET
LOC	LOCATION
LT	LEACHATE TRANSPORT
MH	MANHOLE
MJ	MECHANICAL JOINT
MATL	MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY
NO OR #	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PD	PERIMETER DRAIN
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PT	POINT OF TANGENT
PERF	PERFORATED
PP	POWER POLE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RAD	RADIUS
REQD	REQUIRED
RT	RIGHT
RTE	ROUTE
S	SLOPE
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SMH	SANITARY MANHOLE
ST	STREET
STA	STATION
SY	SQUARE YARD
TAN	TANGENT
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
TYP	TYPICAL
UD	UNDERDRAIN
V	VOLTS
VA TEE	VALVE ANCHORING TEE
VERT	VERTICAL
WG	WATER GATE
W/	WITH
W/O	WITHOUT
YD	YARD

VIEW MARKERS & IDENTIFICATION

DETAIL TITLE

MANHOLE
SEE DWG C-300

DRAWING WHERE
DETAIL APPEARS

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY FULLY WITH CONDITIONS OF THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MEDEP) OPERATING PERMIT, BOARD ORDER, MEDEP "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES", AND MAINE DEPARTMENT OF TRANSPORTATION (MDOT) ENTRANCE PERMIT REQUIREMENTS, AS APPLICABLE.
2. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL ABIDE BY ALL SAFETY REQUIREMENTS ASSOCIATED WITH WORKING AT AN ACTIVE SOLID WASTE LANDFILL FACILITY (i.e., RISK OF WORKER EXPOSURE TO LANDFILL GASES, LEACHATE, SOLID WASTE) INCLUDING THE FOLLOWING:
   - COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS;
   - INCLUDING, BUT NOT LIMITED TO, USE OF HARD HATS, SAFETY GLASSES, AND FLUORESCENT SAFETY VESTS AT ALL TIMES;
   - FOLLOW ALL APPLICABLE OSHA RULES, INCLUDING, BUT NOT LIMITED TO, THOSE RELATED TO MANHOLES, CATCH BASINS, PUMP STATIONS, TEST PITS, TRENCHES, ETC.
3. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ENSURE THAT NO SILTATION OF STORMWATER DRAINAGE COURSES OCCURS AS A RESULT OF SOIL DISTURBANCE ASSOCIATED WITH THE CONTRACT SCOPE OF WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE PROTECTION OF THE PROJECT DURING CONSTRUCTION FROM ANY ACTS OF NATURE OR MAN, SUCH AS, BUT NOT LIMITED TO, FLOODS, WIND DAMAGE, EARTH SLIDES, AND SLOPE FAILURES. DAMAGE TO THE PROJECT CAUSED BY SUCH ACTS WILL NOT BE SUFFICIENT CAUSE TO INCREASE CONTRACT COSTS TO THE OWNER.
5. THE CONTRACTOR SHALL PROTECT EXISTING ON-SITE STRUCTURES FROM DAMAGE DURING CONSTRUCTION, INCLUDING: MONITORING WELLS, POWER LINES, MAINTENANCE FACILITIES, EXISTING LEACHATE COLLECTION, LINER AND TRANSPORT SYSTEMS, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS REQUIRED TO CORRECT DAMAGE MADE TO EXISTING ON-SITE STRUCTURES DESCRIBED ABOVE RESULTING FROM ANY CONSTRUCTION ACTIVITY.
6. THE DESIGN INTENT, AS DETERMINED BY THE ENGINEER, WILL GOVERN IN THE CASE OF DISCREPANCY IN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS. THE SPECIFICATIONS ARE INTENDED TO SUPPLEMENT AND CLARIFY THE WORK SHOWN IN THE DRAWINGS, AS SOMETIMES WORK IS CALLED FOR IN THE SPECIFICATIONS THAT IS NOT SHOWN ON THE DRAWINGS AND SOMETIMES THE DRAWINGS INDICATE WORK THAT IS NOT MENTIONED IN THE SPECIFICATIONS. BOTH DRAWINGS AND SPECIFICATIONS MUST BE COMPLIED WITH IN ORDER TO FULFILL THE CONTRACT REQUIREMENTS, AND ANY WORK CALLED FOR BY EITHER IS AS BINDING AS THOUGH IT WERE CALLED FOR BY BOTH. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY ERROR OR OMISSION IN THE DRAWINGS OR OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND SPECIFICATIONS. IN ALL CASES OF DOUBT AS TO THE TRUE MEANING OF THE DRAWINGS AND SPECIFICATIONS, THE DECISION OF THE ENGINEER WILL BE FINAL AND CONCLUSIVE.

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

STATE OF MAINE
BRIAN R. PIERCE
9909
LICENSED
PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

SYMBOLS AND ABBREVIATIONS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
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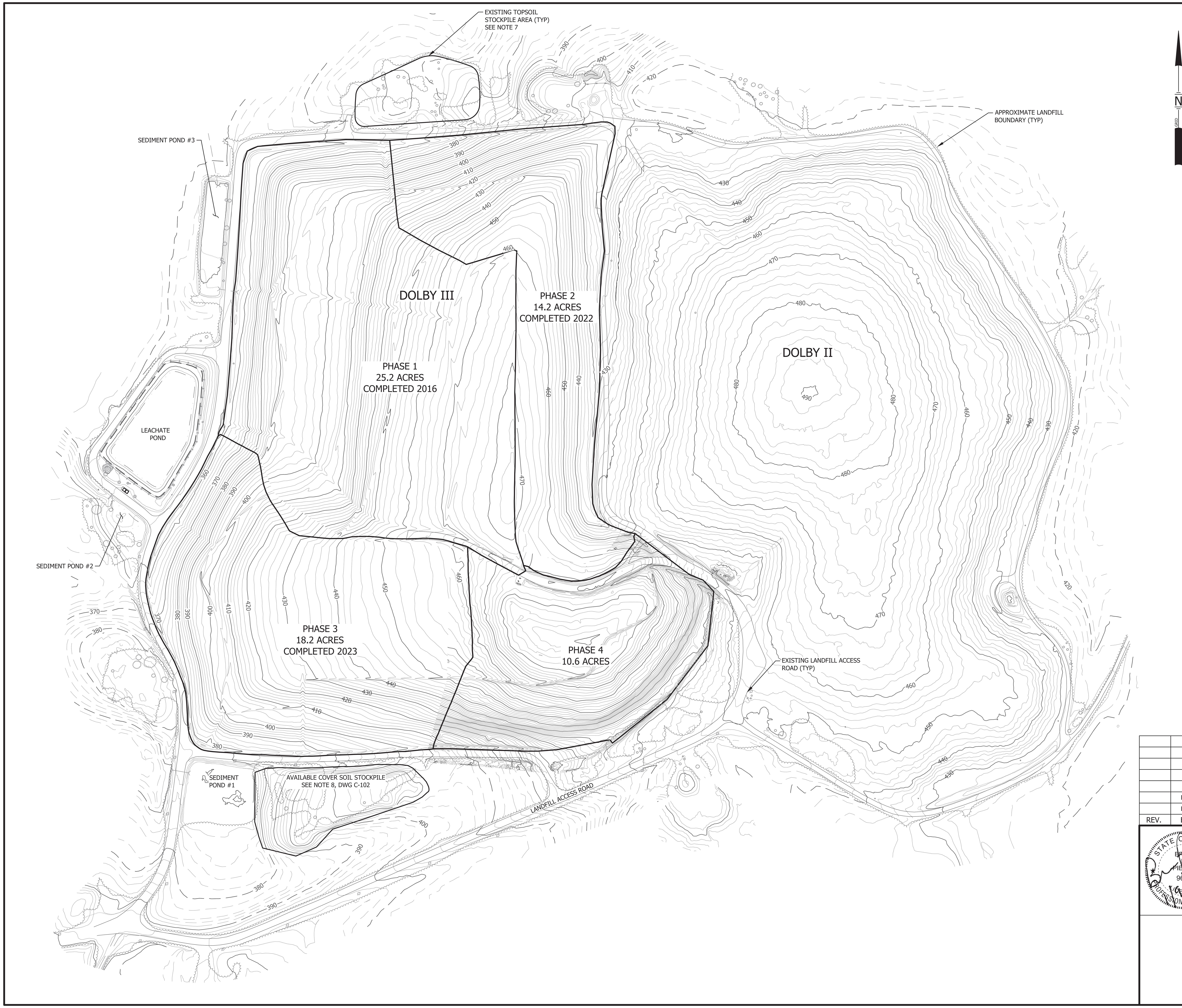
DESIGN BY:	TJM
DRAWN BY:	BWB
DATE:	1/2025
CHECKED BY:	NMT
LMN:	NONE
CTB:	SME-STD

JOB NO. 231265.00 DWG FILE SYMSHT

C-100



NOTE:

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

2. TOPOGRAPHY WITHIN LANDFILL LIMITS AND OUTSIDE PHASES 2 THROUGH 4 COVER UPGRADE AREAS FROM AERIAL SURVEY PERFORMED BY SEVEE AND MAHER ENGINEERS DATED 5/4/2021. TOPOGRAPHY WITHIN PHASE 2 AND 3 COVER UPGRADE AREAS PROVIDED BY GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023.

3. VERTICAL DATUM: NAVD 1929.

4. TOPOGRAPHY WITHIN PHASE 4 CONSTRUCTION LIMITS BASED ON FINAL COVER GRADES PROVIDED BY SARGENT CORP. ON NOVEMBER 5, 2024.

5. PHASED CLOSURE AREAS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE.

6. ALL SITE AND CONSTRUCTION ACTIVITES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.

7. AREAS USED FOR STOCKPILING SHOULD FOLLOW MEDEP BEST MANAGEMENT PRACTICES. ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED, AREAS SHOULD BE RE-GRADED AND RE-SEEDED.

75 0 150 300 FEET

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
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STATE OF MAINE
BRIAN D. PIERCE
9609
LICENSED PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

PHASED CLOSURE PLAN

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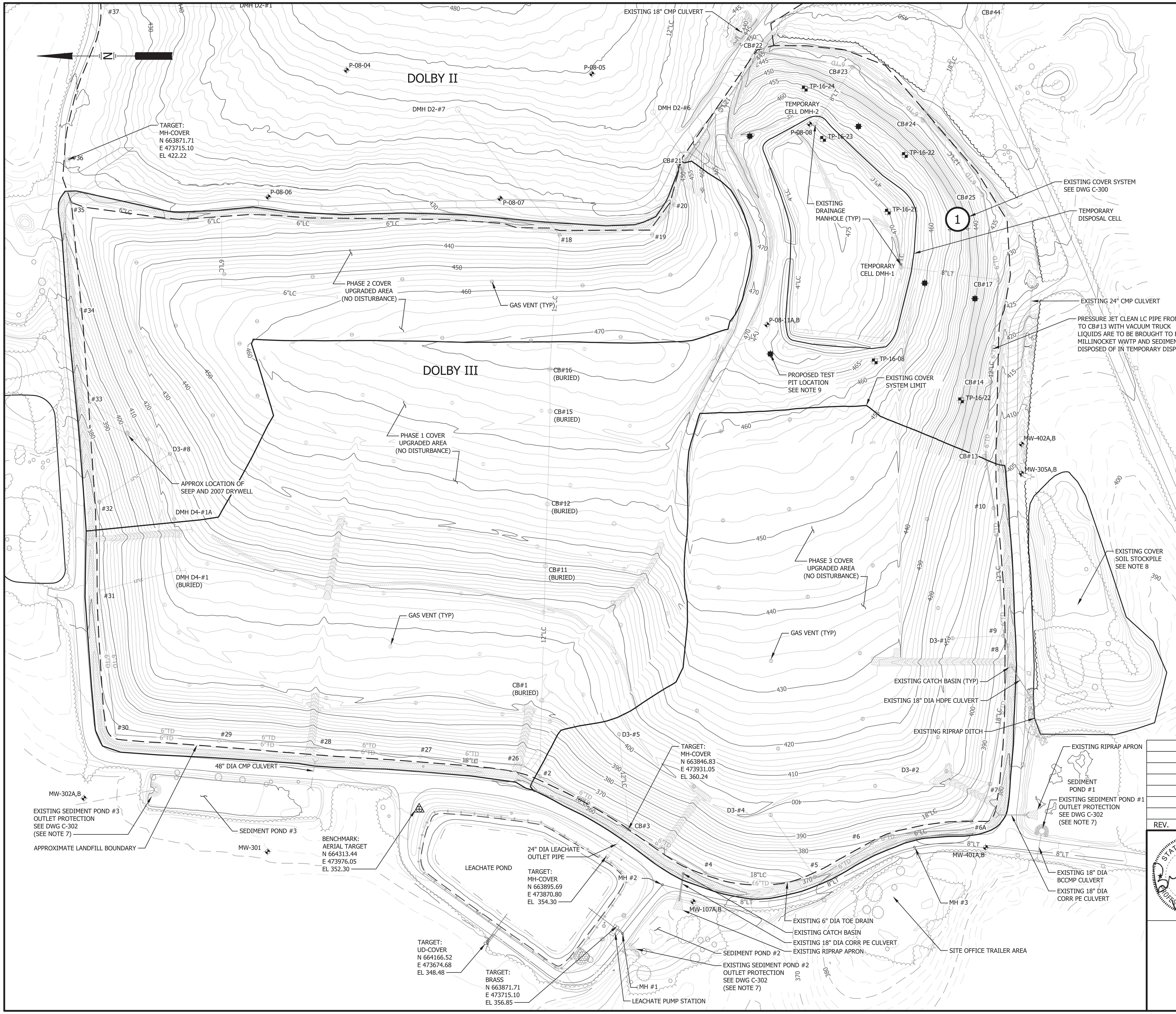
DESIGN BY:	TJM
DRAWN BY:	BWB
DATE:	1/2025
CHECKED BY:	NMT
LMN:	C-101
CTB:	SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-101



NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. TOPOGRAPHY WITHIN LANDFILL LIMITS AND OUTSIDE PHASE 2, 3, AND 4 COVER UPGRADE AREAS FROM AERIAL SURVEY PERFORMED BY SEVEE AND MAHER ENGINEERS DATED 5/4/2021. TOPOGRAPHY WITHIN PHASE 2 AND 3 COVER UPGRADE AREAS PROVIDED BY GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023. TOPOGRAPHY WITHIN PHASE 4 CONSTRUCTION LIMITS PROVIDED BY SARGENT CORPORATION ON NOVEMBER 5, 2024.
3. VERTICAL DATUM: NAVD 1929.
4. BORINGS PERFORMED BY MAINE TEST BORING. TEST PITS, FIELD LOCATIONS, AND LOGS BY SEVEE & MAHER ENGINEERS.
5. CATCH BASIN DATA AS SHOWN ON HISTORICAL DRAWINGS FOR SITE DEVELOPMENT PLAN CELL 2, CELL 9 AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
6. ALL SITE AND CONSTRUCTION ACTIVITIES (INCLUDING SOIL STOCKPILE AREAS) SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
7. SEDIMENT POND OUTLET PROTECTIONS SHOULD BE REMOVED ONCE CONSTRUCTION ACTIVITIES ARE CONCLUDED AND SITE HAS ACHIEVED SUITABLE GRASS GROWTH AS DETERMINED BY THE ENGINEER.
8. EXISTING COVER SOIL STOCKPILE SHOULD BE CLEARED, STUMPED, AND GRUBBED PRIOR TO USE. EROSION CONTROL MEASURES SHOULD BE INSTALLED AND DISTURBED AREAS SHALL BE STABILIZED AT COMPLETION OF WORK PER MEDEP BEST MANAGEMENT PRACTICES.
9. TEST PITS SHOULD BE PERFORMED WITHIN TWO WEEKS OF SITE MOBILIZATION. CONDUCT TEST PITS TO LOCATE EXISTING GAS COLLECTION SAND AND REPORT LOCATION AND ELEVATION TO ENGINEER.

PHASE 4 CATCH BASIN SCHEDULE

CB ID	INV IN	INV OUT
CB#13	405.6 (12")	405.4 (12")
CB#14	411.6 (12")	411.40 (12")
CB#17	426.00 (8") 425.05 (12")	425.01 (12")
CB#21	448.9 (6") 449.1(6") 436.9(12") 445.4(12")	445.5 (12")
CB#22	435.3 (6") 437.0 (6")	433.9 (12")
CB#23	435.5 (6") 435.0 (8") 434.8 (6")	433.9 (12")
CB#24	432.8 (6") 434.4 (6") 433.0 (18")	432.3 (12")
CB#25	429.3 (6") 430.1 (6")	427.8 (12")
TEMPORARY CELL DMH-1	462.2 (4") 459.3 (4")	457.37 (8")
TEMPORARY CELL DMH-2	458.8 (4") 458.8 (4")	457.04 (8")

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

EXISTING CONDITIONS PLAN

STATE OF MAINE
BRIAN PIERCE
9609
LICENSED PROFESSIONAL ENGINEER

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DRAWN BY: BWB
DATE: 1/2025
CHECKED BY: NMT
LMN: EXCON
CTB: SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-102

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

2. TOPOGRAPHY WITHIN LANDFILL LIMITS AND OUTSIDE PHASE 2 AND 3 COVER UPGRADE AREAS FROM AERIAL SURVEY PERFORMED BY SEVEE AND MAHER ENGINEERS DATED 5/4/2021. TOPOGRAPHY WITHIN PHASE 2 AND 3 COVER UPGRADE AREAS PROVIDED BY GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023. TOPOGRAPHY WITHIN PHASE 4 CONSTRUCTION LIMITS PROVIDED BY SARGENT CORPORATION ON NOVEMBER 5, 2024.

3. VERTICAL DATUM: NAVD 1929.

4. BORINGS PERFORMED BY MAINE TEST BORING. FIELD LOCATION. TEST PITS, AND LOGS BY SEVEE & MAHER ENGINEERS.

5. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.

6. CONTRACTOR SHALL PRESERVE THE EXISTING TEMPORARY CELL TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM. CONTRACTOR SHALL ADD 8 OZ NON-WOVEN GEOTEXTILE OVER EXISTING CRUSHED STONE PRIOR TO PLACING WASTE/COVER SOIL MIXTURE OVER THE EXISTING TOE DRAIN.

7. CONTRACTOR SHALL PRESERVE THE EXISTING CONTAINMENT BERM THROUGHOUT THE DURATION OF THE WASTE MIXING AND GAS COLLECTION SAND PLACEMENT. AFTER THE WASTE MIXING AND GAS COLLECTION SAND PLACEMENT IS COMPLETED, THE CONTRACTOR SHALL REMOVE THE EXISTING CONTAINMENT BERM AND STRIP THE EXISTING TOPSOIL AND COVER SOIL FROM THE REMAINDER OF PHASE 4.

8. THE EXISTING SLUDGE WASTE IN THE TEMPORARY CELL LOCATED ON THE EAST SIDE OF THE CELL SHALL BE MIXED AT A 1:1 RATIO WITH EXISTING STOCKPILED COVER SOIL MATERIAL FROM THE PHASE 3 COVER UPGRADE PROJECT LOCATION SHOWN ON C-101 AND C-102.

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

STATE OF MAINE
BRIAN D. PIERCE
9609
LICENSED PROFESSIONAL ENGINEER
1/9/2025

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

TEMPORARY CELL WASTE MIXING

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DESIGN BY: TJM
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DATE: 1/2025
CHECKED BY: NMT
LMN: C-103
CTB: SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-103

ABANDONMENT SCHEDULE			
STRUCTURE ID	STRUCTURE TYPE	DIAMETER	MATERIAL
CB #13	CATCH BASIN	4'	CONCRETE
CB #14	CATCH BASIN	4'	CONCRETE
CB #17	CATCH BASIN	4'	CONCRETE
CB #21	CATCH BASIN	4'	CONCRETE
CB #22	CATCH BASIN	4'	CONCRETE
CB #23	CATCH BASIN	4'	CONCRETE
CB #24	CATCH BASIN	4'	CONCRETE
CB #25	CATCH BASIN	4'	CONCRETE
P--08-08	PIEZOMETER	1"	PVC
P-08-11A	PIEZOMETER	1"	PVC
P-08-11B	PIEZOMETER	1"	PVC
TEMPORARY CELL DMH-#1	DRAINAGE MANHOLE	4'	CONCRETE
TEMPORARY CELL DMH-#2	DRAINAGE MANHOLE	4'	CONCRETE

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. TOPOGRAPHY WITHIN LANDFILL LIMITS AND OUTSIDE PHASE 2 AND 3 COVER UPGRADE AREAS FROM AERIAL SURVEY PERFORMED BY SEVEE AND MAHER ENGINEERS DATED 5/4/2021. TOPOGRAPHY WITHIN PHASE 2 AND 3 COVER UPGRADE AREAS PROVIDED BY GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023. TOPOGRAPHY WITHIN PHASE 4 COVER UPGRADE AREA PROVIDED BY SARGENT CORPORATION ON NOVEMBER 5, 2024.
3. VERTICAL DATUM: NAVD 1929.
4. BORINGS PERFORMED BY MAINE TEST BORING. FIELD LOCATION. TEST PITS, AND LOGS BY SEVEE & MAHER ENGINEERS.
5. CATCH BASIN DATA AS SHOWN ON HISTORICAL PLANS FOR SITE DEVELOPMENT CELL 2, CELL 9, AND CELL 14 CONSTRUCTION AND CELL 12 CLOSURE.
6. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
7. BASE GRADES REPRESENT THE TOP OF THE GAS COLLECTION SAND LAYER PRIOR TO INSTALLATION OF FINAL COVER SYSTEM 40 MIL TEXTURED HDPE GEOMEMBRANE. GRADES WITHIN THE LIMIT OF WORK REPRESENT A VERTICAL OFFSET OF 1.5-FEET FROM TOP OF FINAL COVER GRADES PROVIDED BY SARGENT CORP. ON NOVEMBER 5, 2024.
8. CONTRACTOR SHALL PRESERVE THE EXISTING TEMPORARY CELL TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM. CONTRACTOR SHALL ADD 8 OZ NON-WOVEN GEOTEXTILE OVER EXISTING CRUSHED STONE PRIOR TO PLACING WASTE/COVER SOIL MIXTURE OVER THE EXISTING TOE DRAIN.

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

STATE OF MAINE
BRIAN D. PIERCE
9609
LICENSED
PROFESSIONAL ENGINEER
1/9/2025

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

SITE BASE GRADING PLAN

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DATE:	1/2025
CHECKED BY:	NMT
LMN:	C-104
CTB:	SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-104

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
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6. BASE GRADES REPRESENT THE TOP OF THE GAS COLLECTION SAND LAYER PRIOR TO INSTALLATION OF FINAL COVER SYSTEM 40 MIL TEXTURED HDPE GEOMEMBRANE. GRADES WITHIN THE LIMIT OF WORK REPRESENT A VERTICAL OFFSET OF 1.5-FEET FROMTOP OF FINAL COVER GRADES PROVIDED BY SARGENT CORP. ON NOVEMBER 5, 2024
7. CONTRACTOR SHALL PRESERVE THE EXISTING TEMPORARY CELL TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM. CONTRACTOR SHALL ADD 8 OZ NON-WOVEN GEOTEXTILE OVER EXISTING CRUSHED STONE PRIOR TO PLACING WASTE/COVER SOIL MIXTURE OVER THE EXISTING TOE DRAIN.

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

STATE OF MAINE
BRIAN D. PIERCE
9609
LICENSED
PROFESSIONAL ENGINEER
1/9/2025

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

GAS COLLECTION PIPING PLAN

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
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DESIGN BY: TJM
DRAWN BY: BWB
DATE: 1/2025
CHECKED BY: NMT
LMN: C-105
CTB: SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-105

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. TOPOGRAPHY WITHIN LANDFILL LIMITS AND OUTSIDE PHASE 2 AND 3 COVER UPGRADE AREAS FROM AERIAL SURVEY PERFORMED BY SEVEE AND MAHER ENGINEERS DATED 5/4/2021. TOPOGRAPHY WITHIN PHASE 2 AND 3 COVER UPGRADE AREAS PROVIDED BY GORDON CONTRACTING, INC., OF SANGERVILLE, MAINE ON NOVEMBER 14, 2023.
3. VERTICAL DATUM: NAVD 1929.
4. BORINGS PERFORMED BY MAINE TEST BORING. FIELD LOCATION. TEST PITS, AND LOGS BY SEVEE & MAHER ENGINEERS.
5. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
6. BASE GRADES REPRESENT THE TOP OF THE GAS COLLECTION SAND LAYER PRIOR TO INSTALLATION OF FINAL COVER SYSTEM 40 MIL TEXTURED HDPE GEOMEMBRANE. GRADES WITHIN THE LIMIT OF WORK REPRESENT A VERTICAL OFFSET OF 1.5-FEET FROM FINAL COVER GRADES PROVIDED BY SARGENT CORP. ON NOVEMBER 5, 2024
7. CONTRACTOR SHALL PRESERVE THE EXISTING TEMPORARY CELL TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM. CONTRACTOR SHALL ADD 8 OZ NON-WOVEN GEOTEXTILE OVER EXISTING CRUSHED STONE PRIOR TO PLACING WASTE/COVER SOIL MIXTURE OVER THE EXISTING TOE DRAIN.
8. BASE GRADES OUTSIDE THE TEMPORARY CELL REPRESENT THE TOP OF THE GAS COLLECTION SAND LAYER PRIOR TO INSTALLATION OF FINAL COVER SYSTEM 40 MIL TEXTURED HDPE GEOMEMBRANE. CONTRACTOR SHALL STRIP EXISTING COVER SOIL DOWN TO EXISTING GAS COLLECTION SAND AND SMOOTH.

GEOCOMPOSITE LEGEND

- TYPE I
- TYPE 2

STATE OF MAINE BRIAN D PIERCE 9609 LICENSED PROFESSIONAL ENGINEER 1/9/2025

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
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UNDERDRAIN PIPING PLAN

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DESIGN BY: TJM
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DATE: 1/2025
CHECKED BY: NMT
LMN: C-106
CTB: SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-106

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

FINAL COVER TIE-IN/TERMINATION LEGEND

- 1 — TYPE 1 FINAL COVER TERMINATION
- 5 — TYPE 5 FINAL COVER SYSTEM TIE-IN
- 6 — TYPE 6 FINAL COVER TERMINATION
- 7 — TYPE 7 FINAL COVER TERMINATION

NOTE: FOR DETAILS SEE DWG C-300

NOTES

1. BASE MAP PREPARED BY AERIAL SURVEY & PHOTO OF NORRIDGEWOCK, MAINE. PHOTO DATE 10/15/2015. HORIZONTAL DATUM HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, NAD 83. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
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3. VERTICAL DATUM: NAVD 1929.
4. BORINGS PERFORMED BY MAINE TEST BORING. FIELD LOCATION. TEST PITS, AND LOGS BY SEVEE & MAHER ENGINEERS.
5. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
6. GRADES SHOWN WITHIN PHASE 4 LIMIT OF WORK REPRESENT THE SURFACE OF THE FINAL COVER SYSTEM AS PROVIDED BY SARGENT CORP. ON NOVEMBER 5, 2024
7. CONTRACTOR SHALL PRESERVE THE EXISTING TEMPORARY CELL TOE DRAIN. EXISTING TOE DRAIN SHALL REMAIN TO COLLECT LEACHATE AND GAS BELOW THE COVER SYSTEM. CONTRACTOR SHALL ADD 8 OZ NON-WOVEN GEOTEXTILE OVER EXISTING CRUSHED STONE PRIOR TO PLACING WASTE/COVER SOIL MIXTURE OVER THE EXISTING TOE DRAIN.

STATE OF MAINE
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9409
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MAINE BUREAU OF GENERAL SERVICES
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SITE PLAN

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DATE:	1/2025
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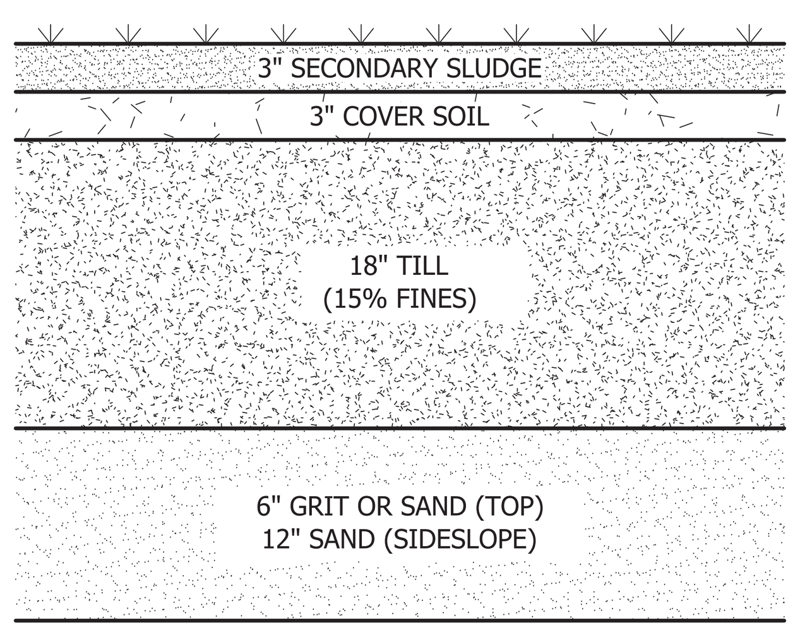
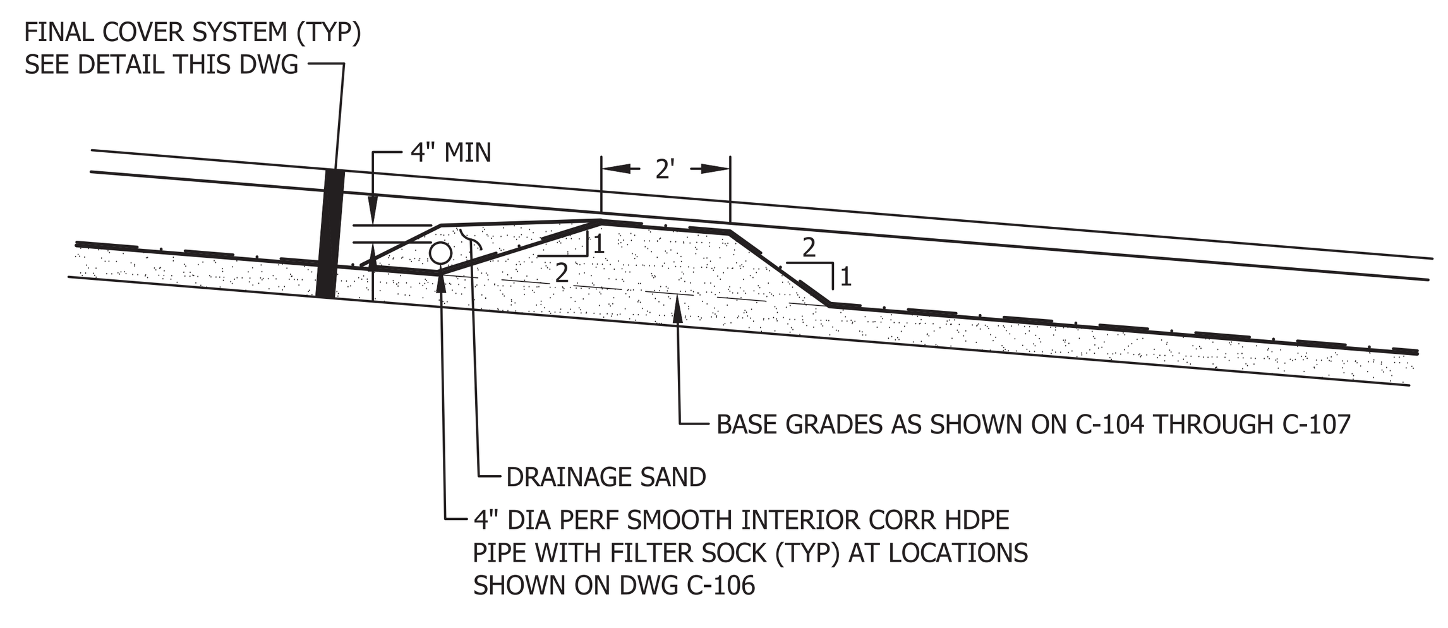
LMN:	C-107
CTB:	SME-STD.CTB

JOB NO. 231265.00 DWG FILE BASE

C-107

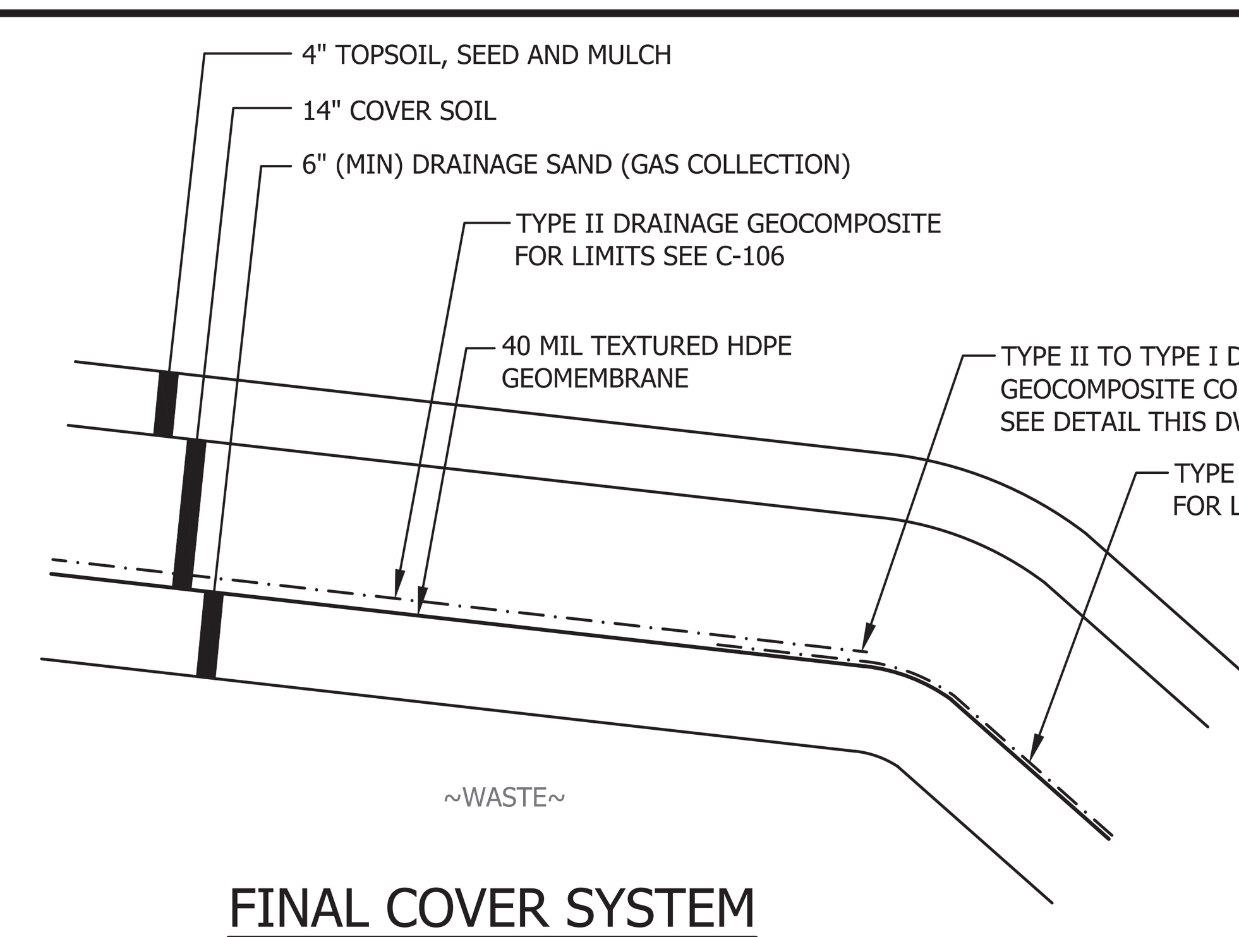


DOLBY III - EXISTING COVER 1
NTS

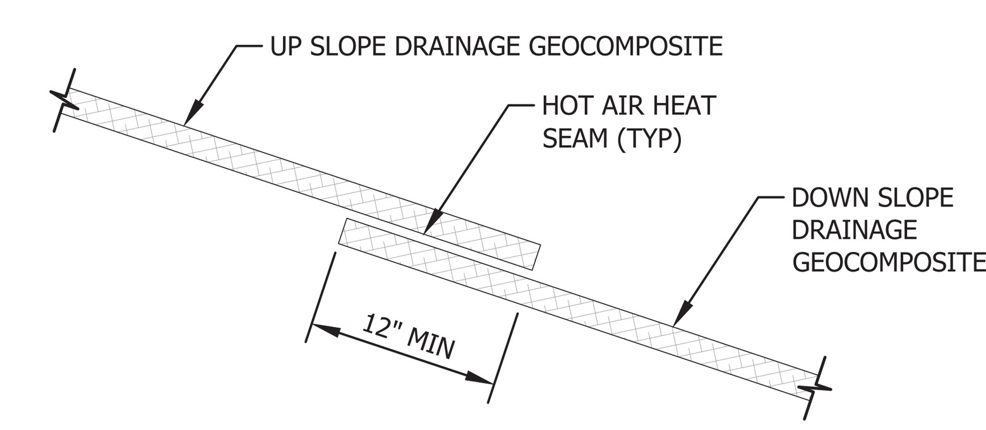


NOTE:
BERM FOR INTERMEDIATE UNDERDRAIN SHALL BE CONSTRUCTED WITH DRAINAGE SAND.

INTERMEDIATE UNDERDRAIN
NTS

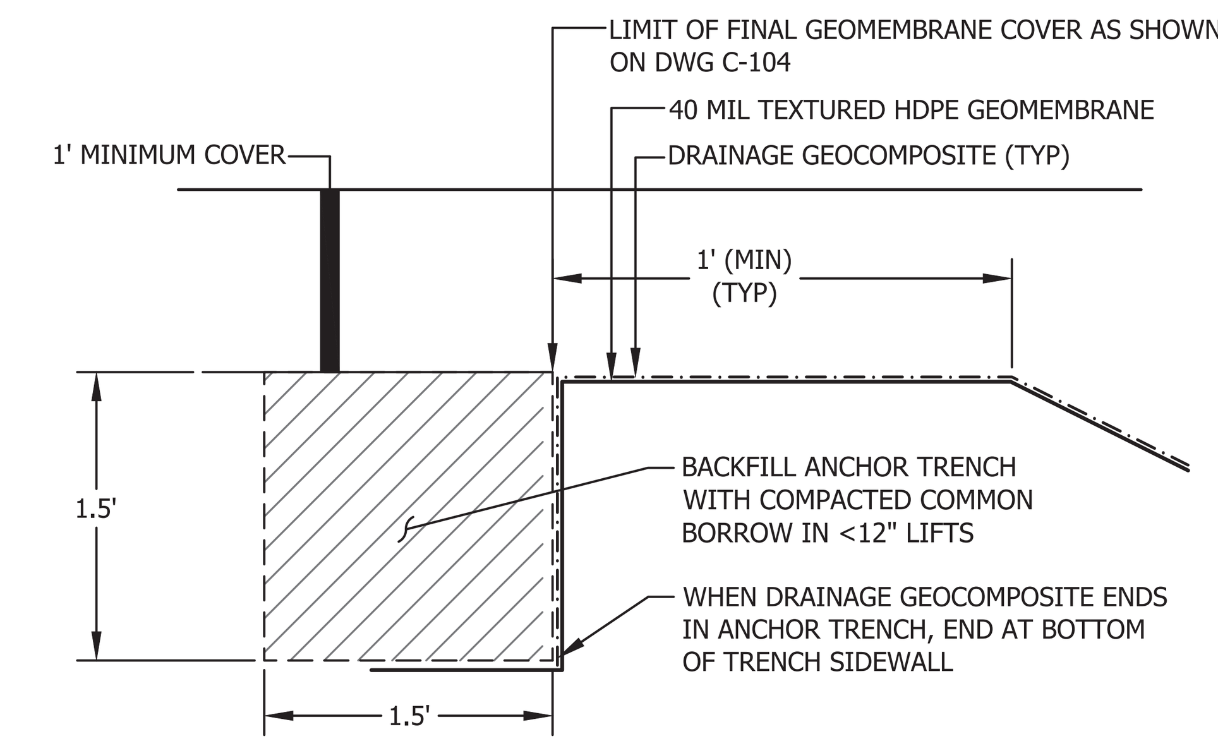


FINAL COVER SYSTEM
NTS

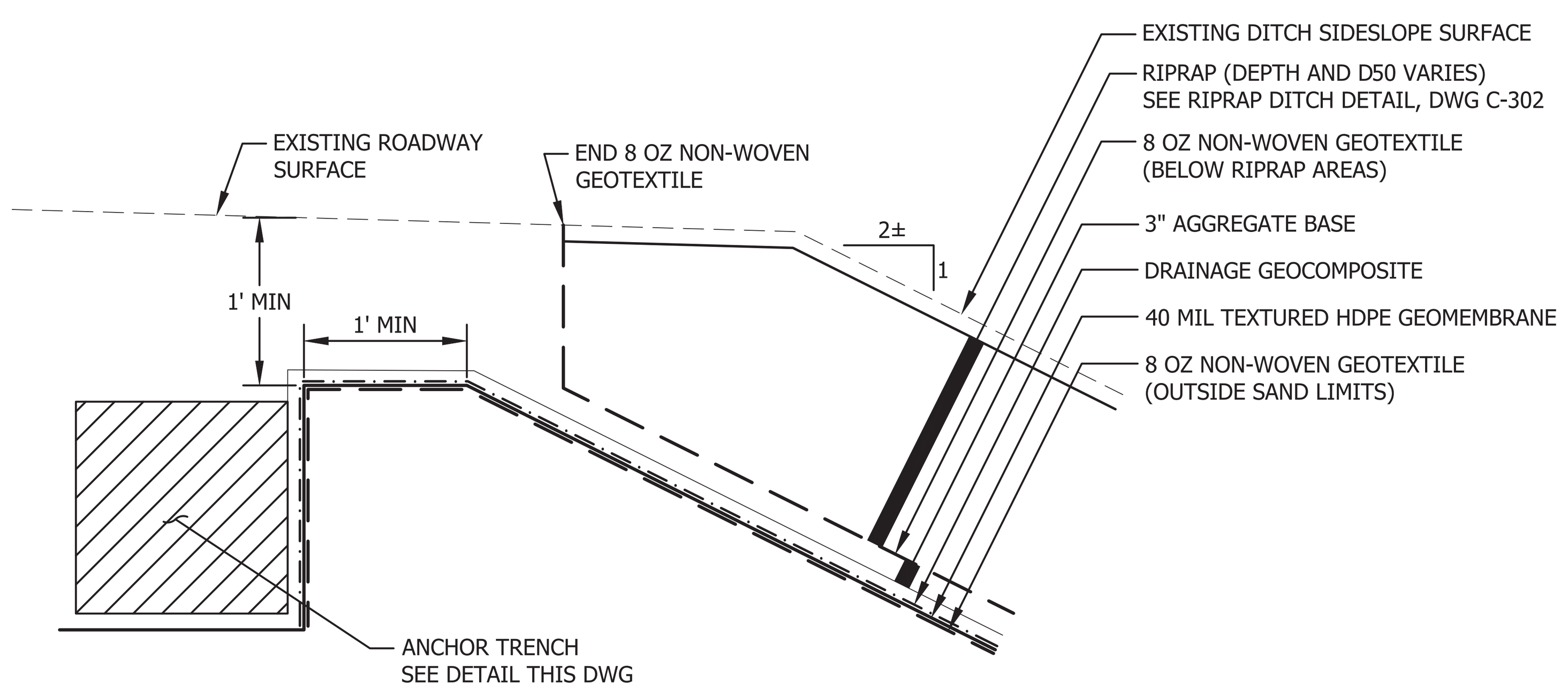


NOTE:
CONTRACTOR SHALL MAKE CONNECTION AT LOCATIONS SHOWN ON THE DRAWINGS.

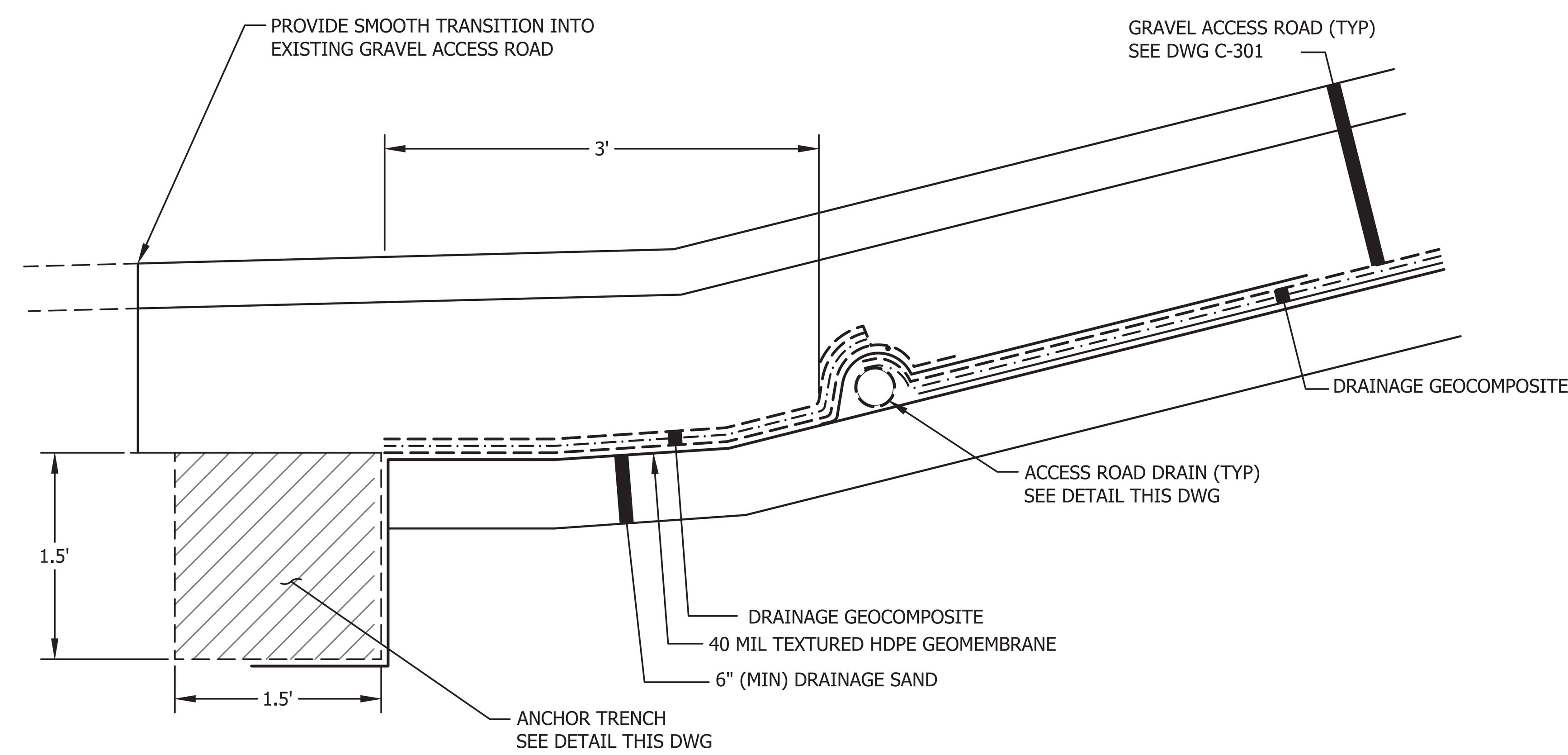
TYPE II TO TYPE I DRAINAGE GEOCOMPOSITE CONNECTION
NTS



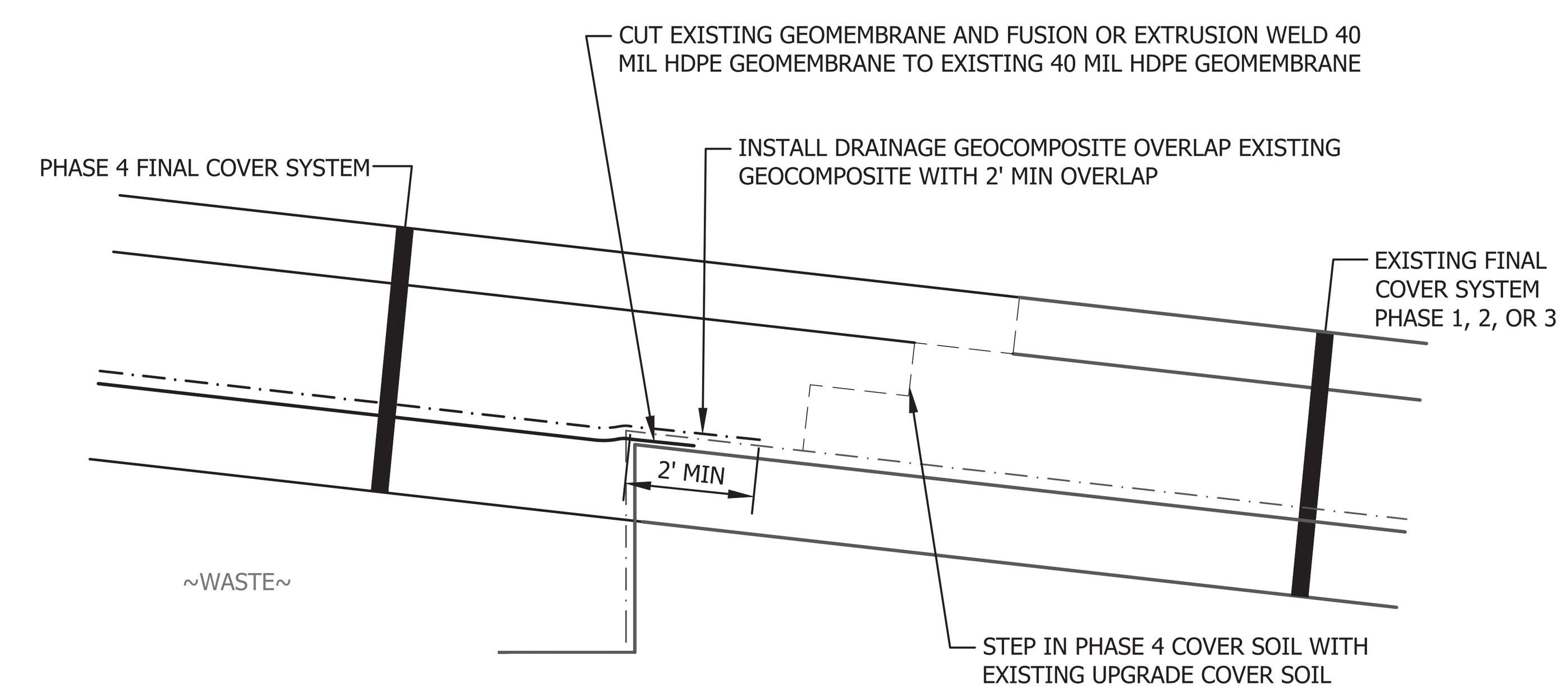
ANCHOR TRENCH
NTS



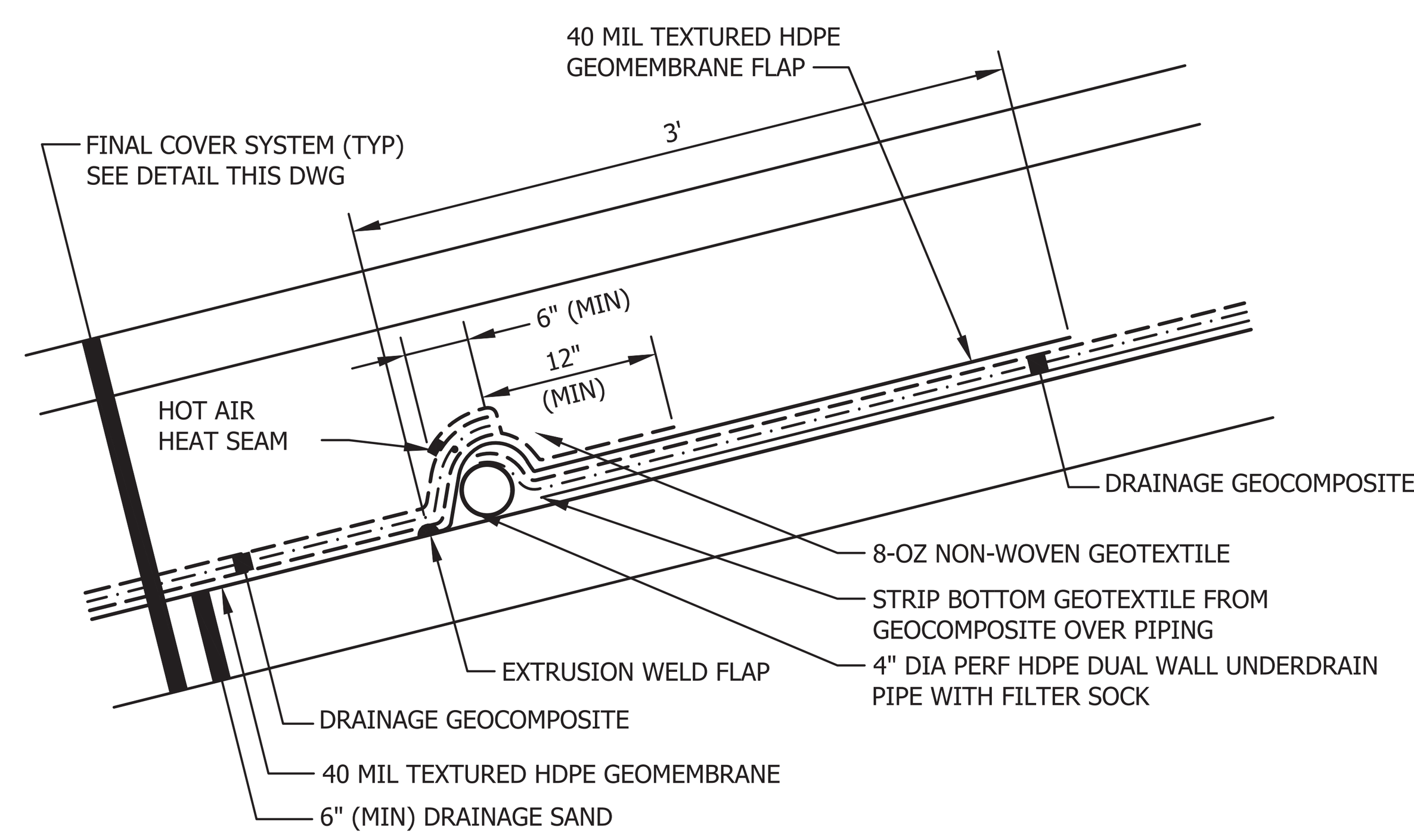
TYPE 1 FINAL COVER TERMINATION
NTS



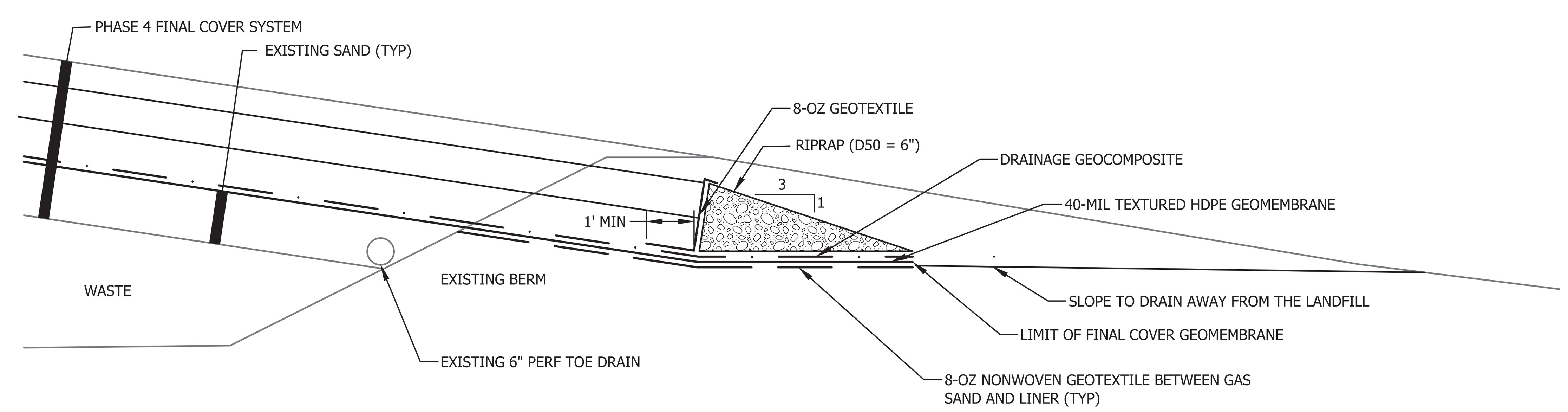
TYPE 7 FINAL COVER TERMINATION
NTS



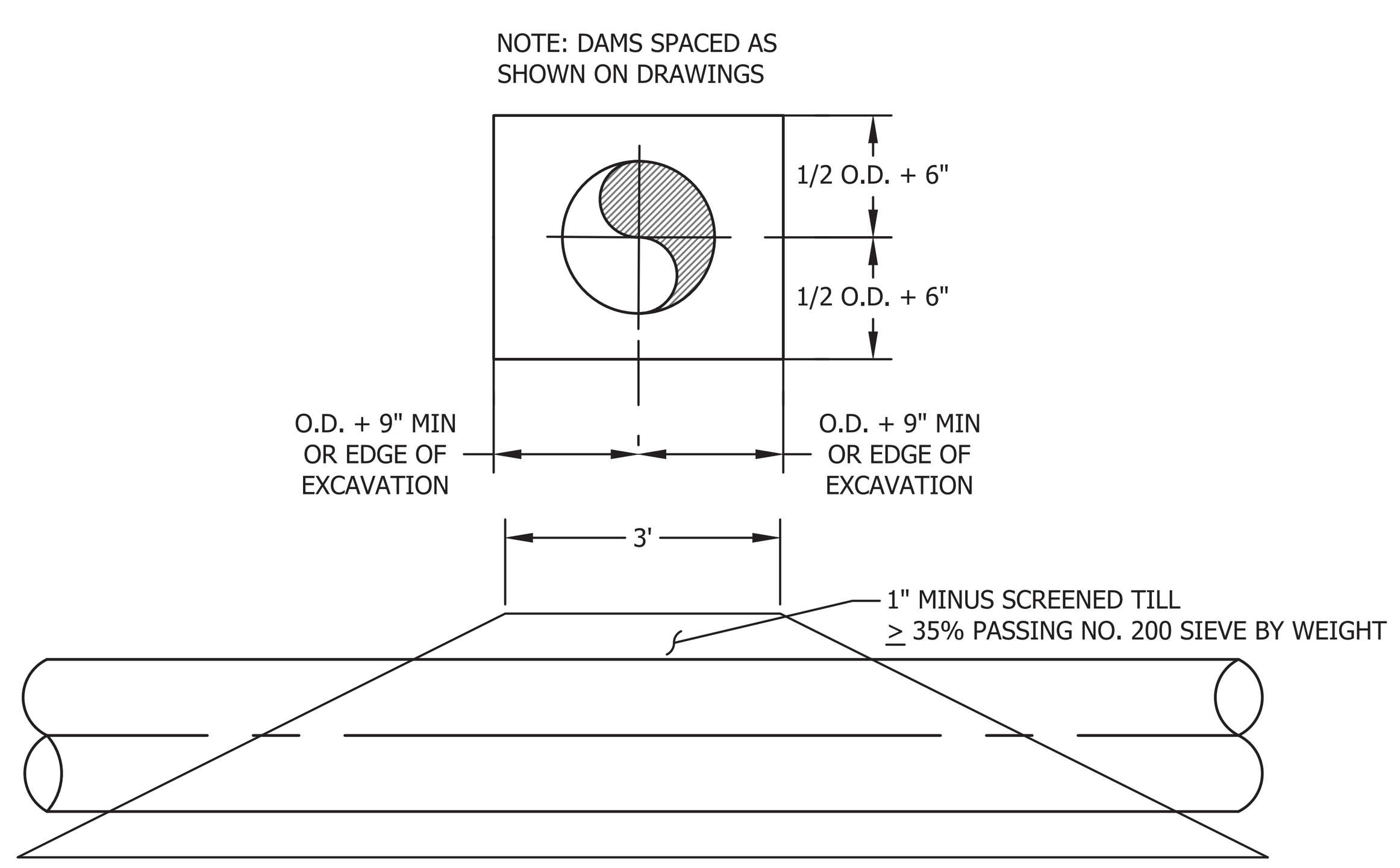
TYPE 5 FINAL COVER TIE-IN
NTS



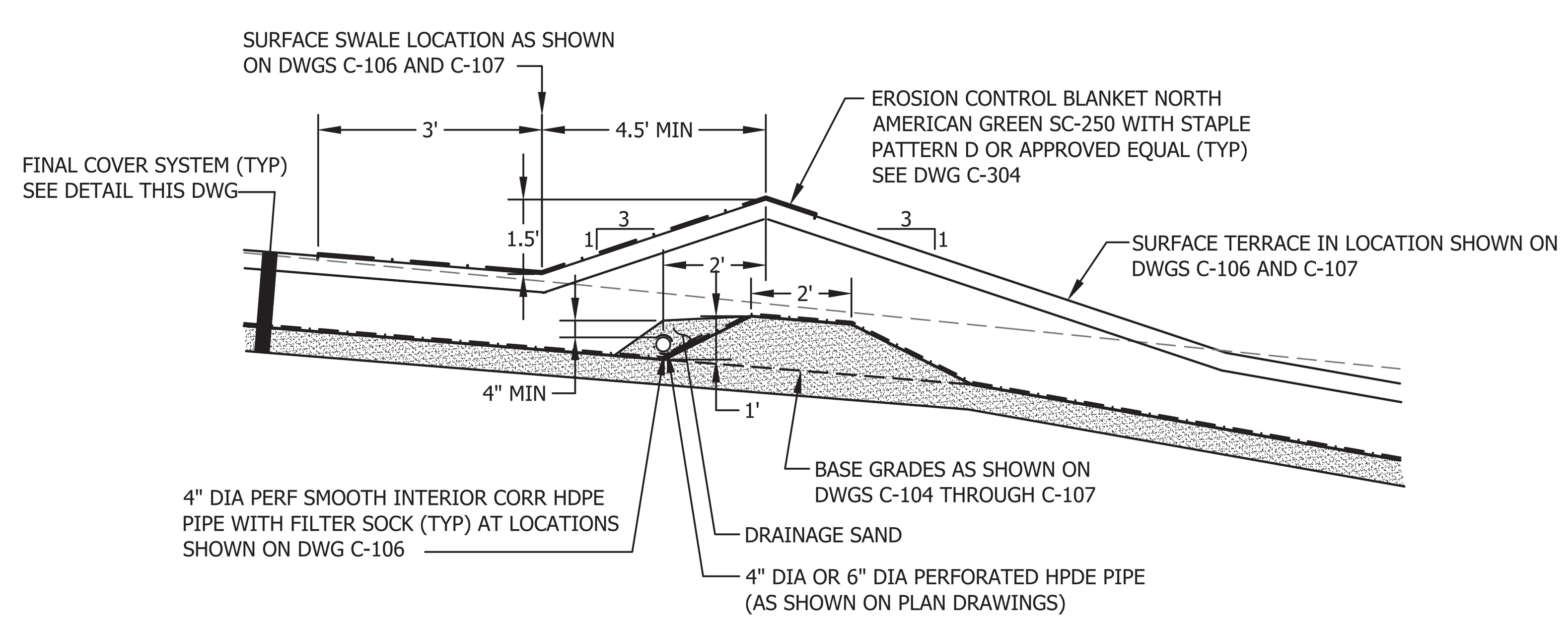
ACCESS ROAD DRAIN
NTS



TYPE 6 FINAL COVER TERMINATION
NTS



TILL DAM
NTS



SURFACE SWALE AND UNDERDRAIN
NTS

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MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

SECTIONS AND DETAILS

STATE OF MAINE
BRIAN D. PIERCE
9609
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PROFESSIONAL ENGINEER

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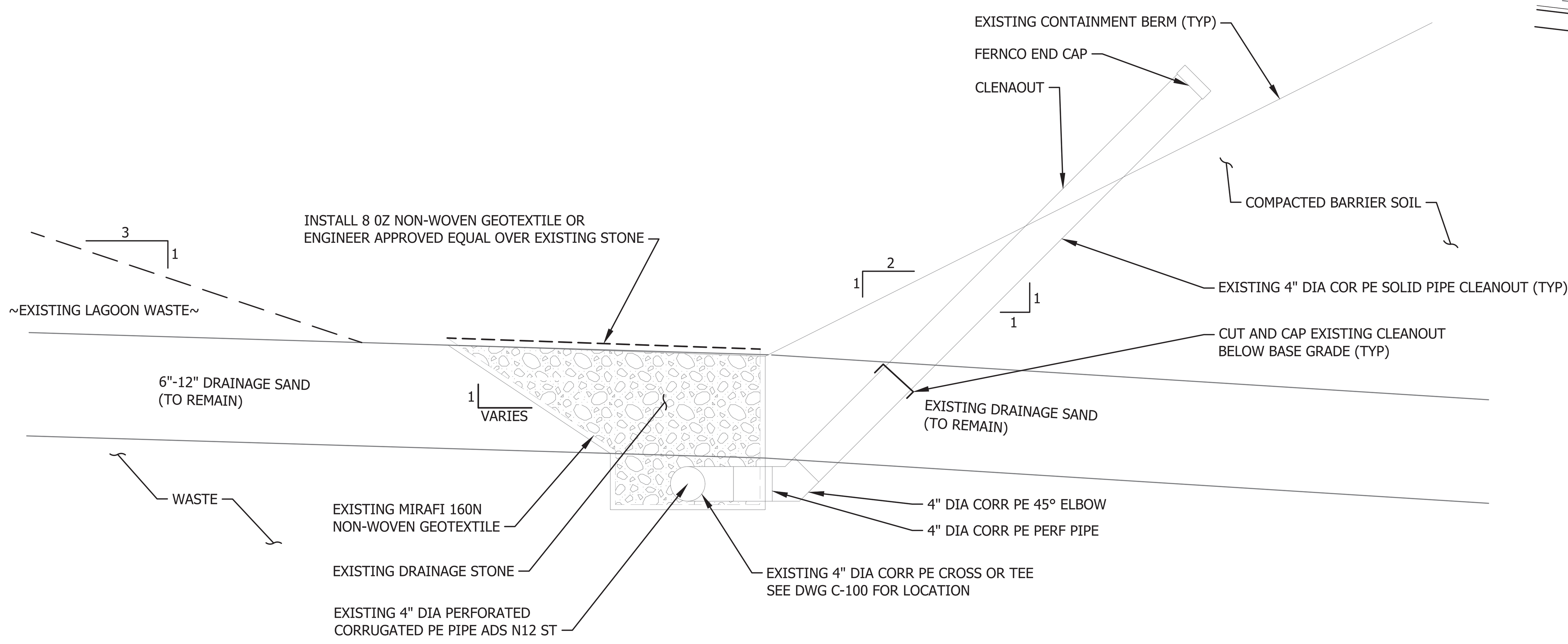
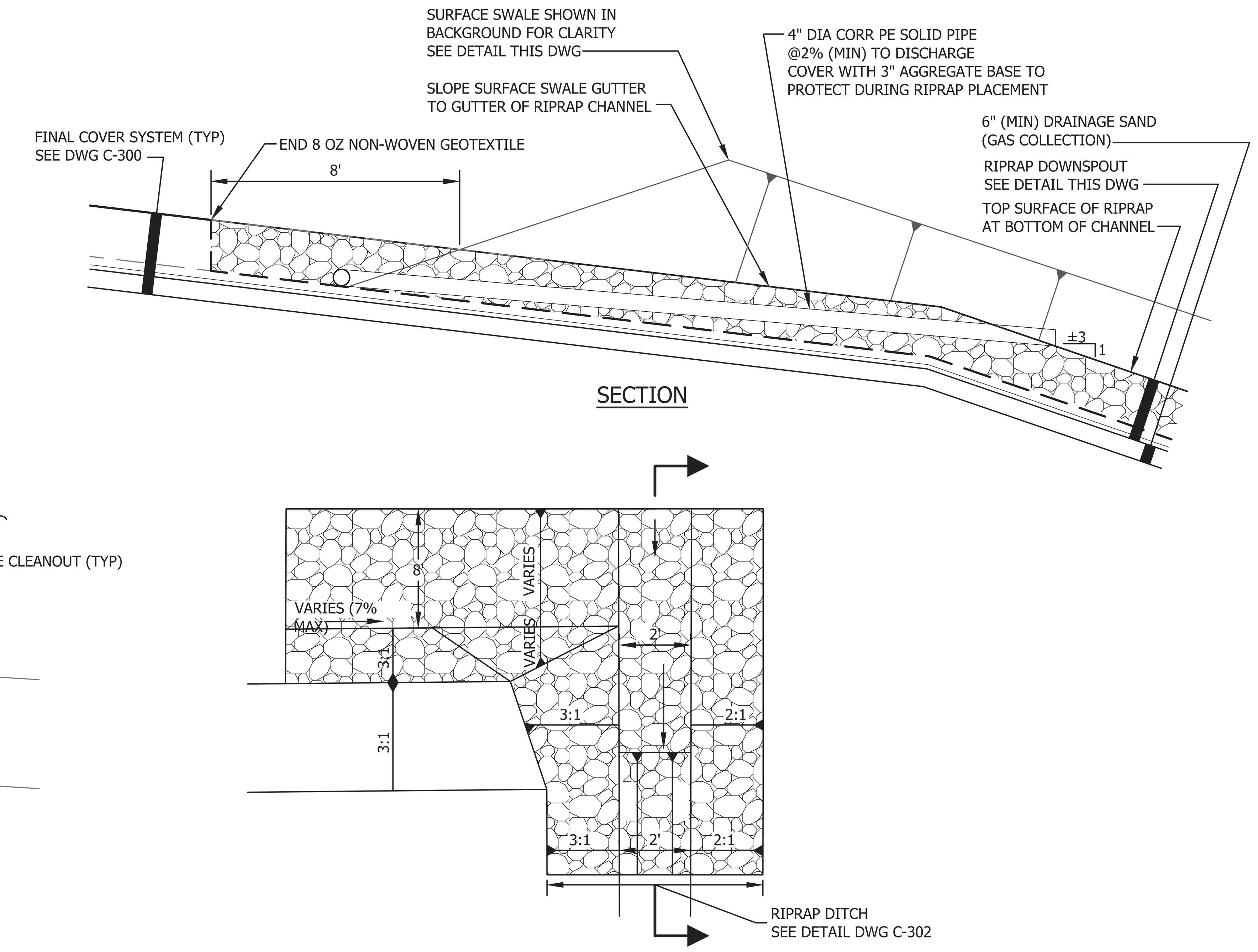
DATE: 11/2024
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 231265.00 DWG FILE DETAILS

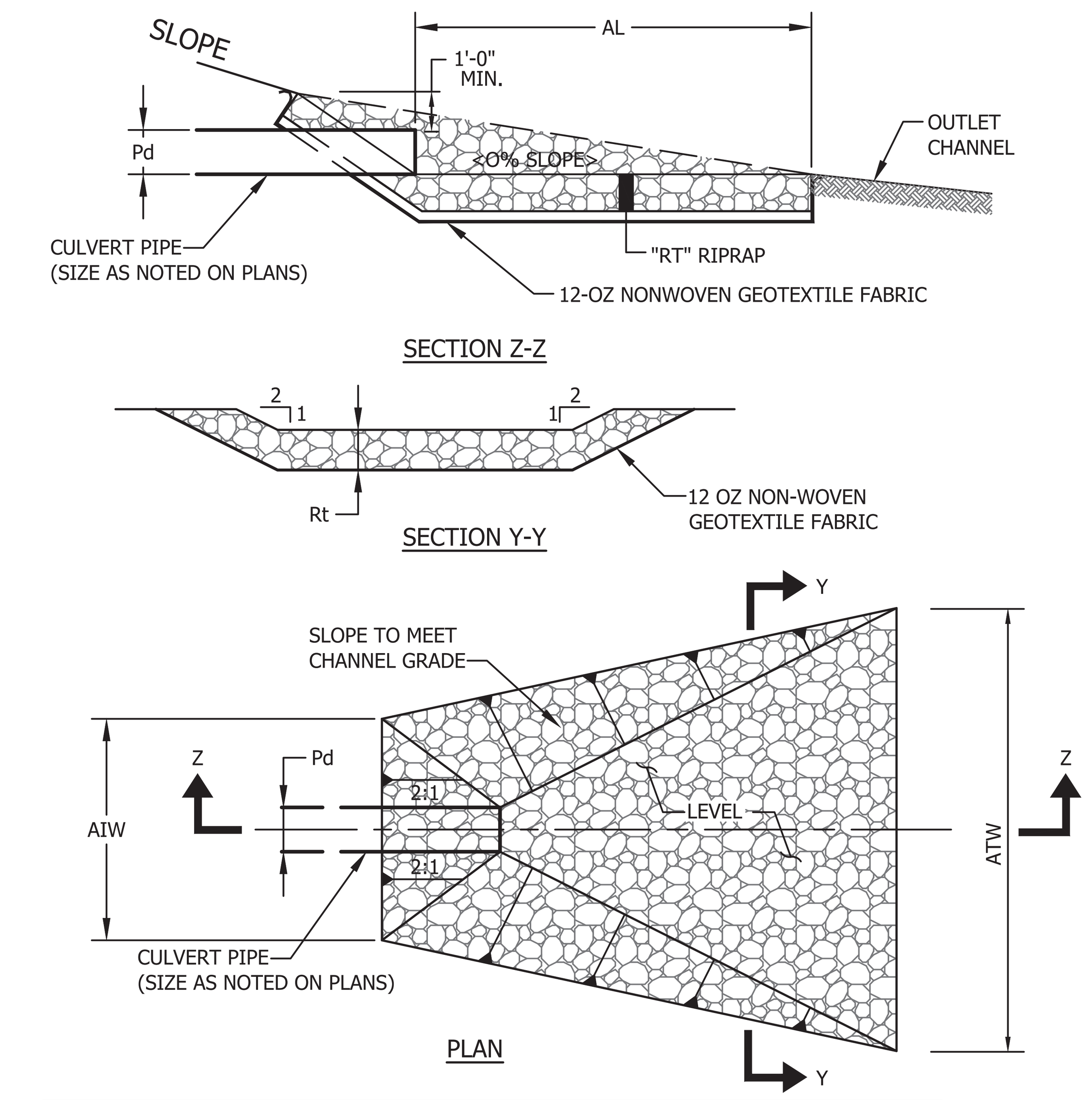
C-300



EXISTING TEMPORARY CELL LEACHATE COLLECTION TOE DRAIN AND CLEANOUT
NTS

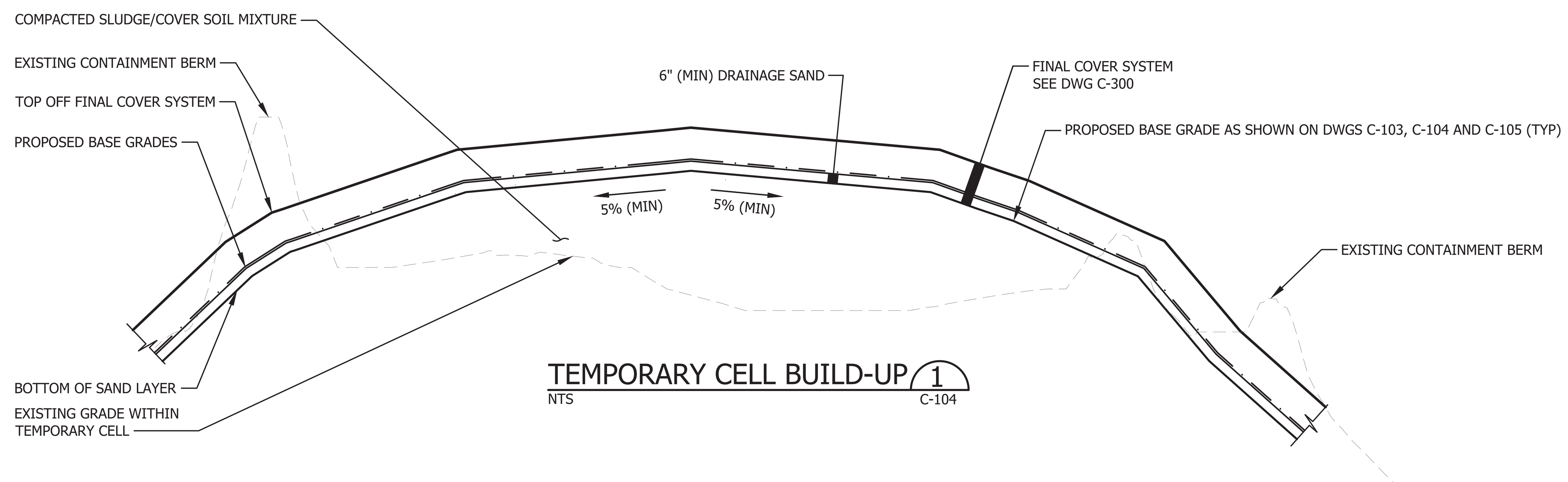


RIPRAP TRANSITION AT SURFACE SWALE
NTS

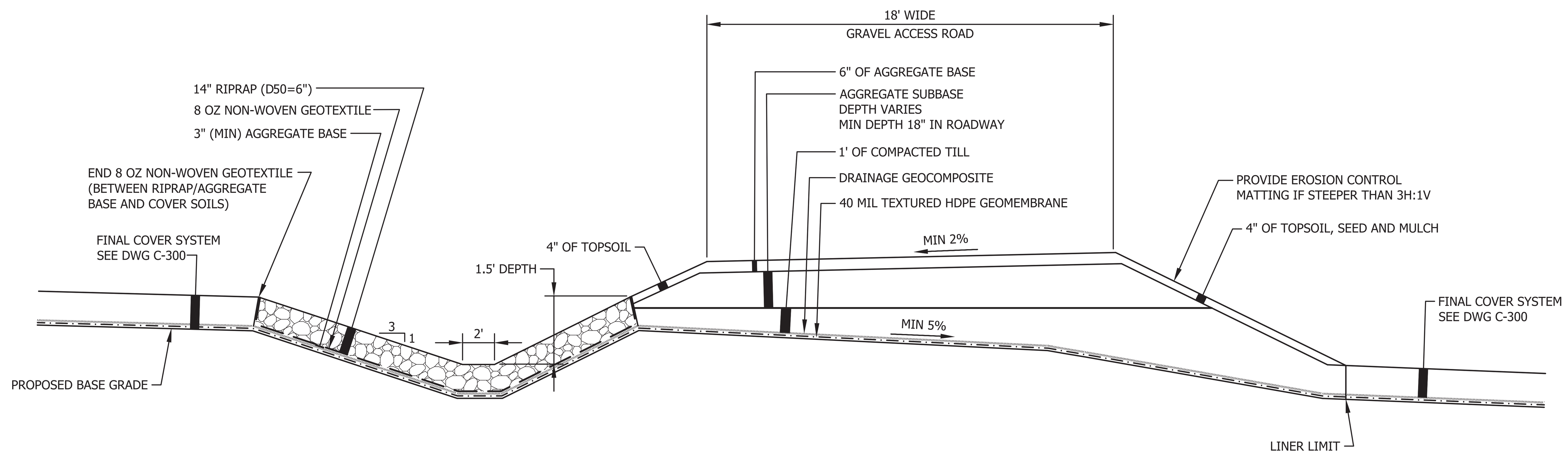


INLET/OUTLET NO.	PIPE DIA. Pd (IN)	D50	THICK RT (IN)	LENGTH AL (FT)	INITIAL WIDTH AIW (FT)	TERMINAL WIDTH ATW (FT)
1	18	6	18	13	6	12
2	24	6	18	13	6	12
3	24	6	18	13	6	12

RIPRAP APRON AT PIPE INLET/OUTLET
NTS



TEMPORARY CELL BUILD-UP 1
NTS C-104



GRAVEL ACCESS ROAD 2
NTS C-105, C-106, AND C-107

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
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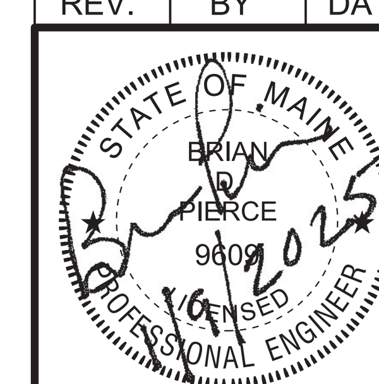

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

SECTIONS AND DETAILS

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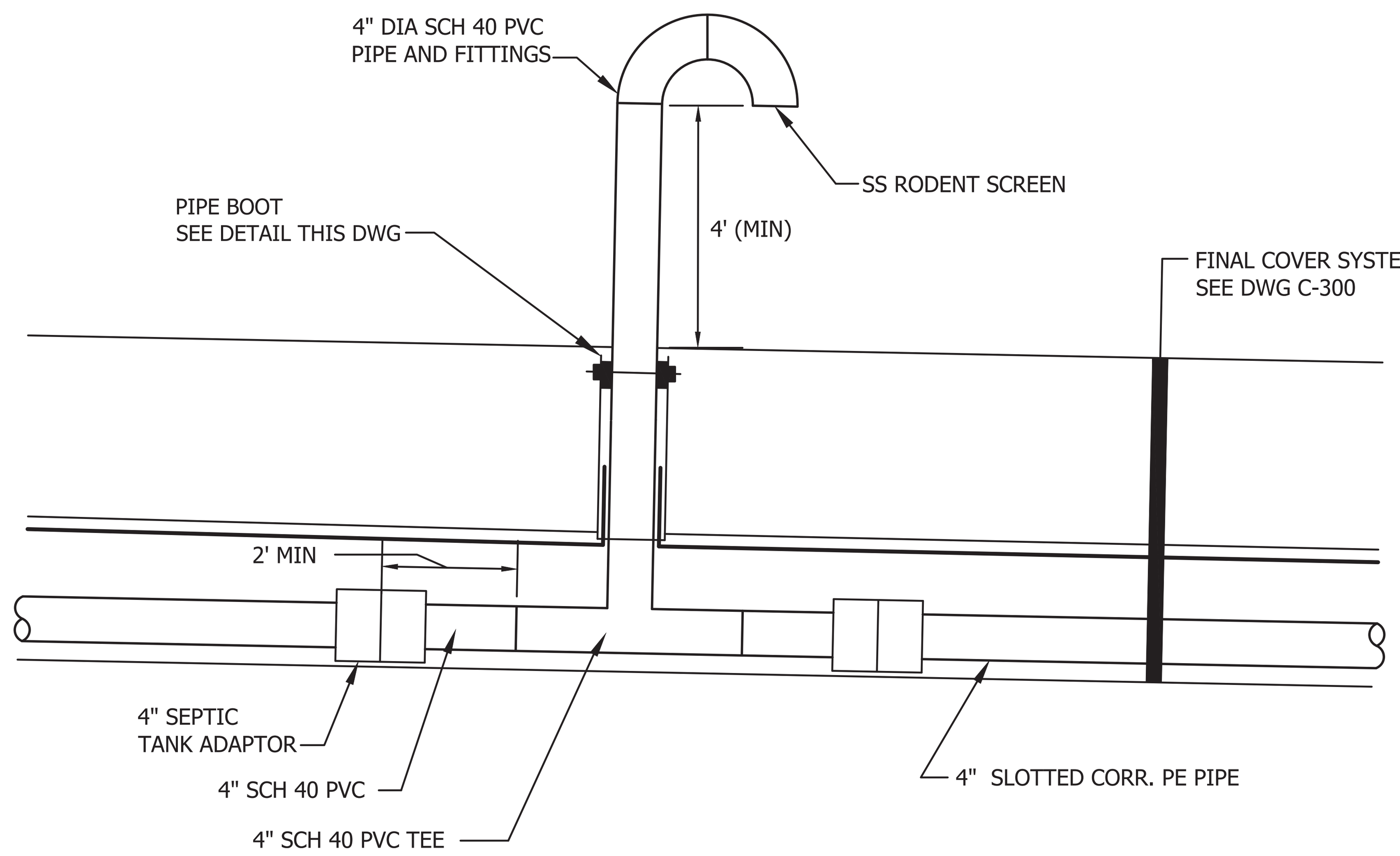
CTB: SME-STD

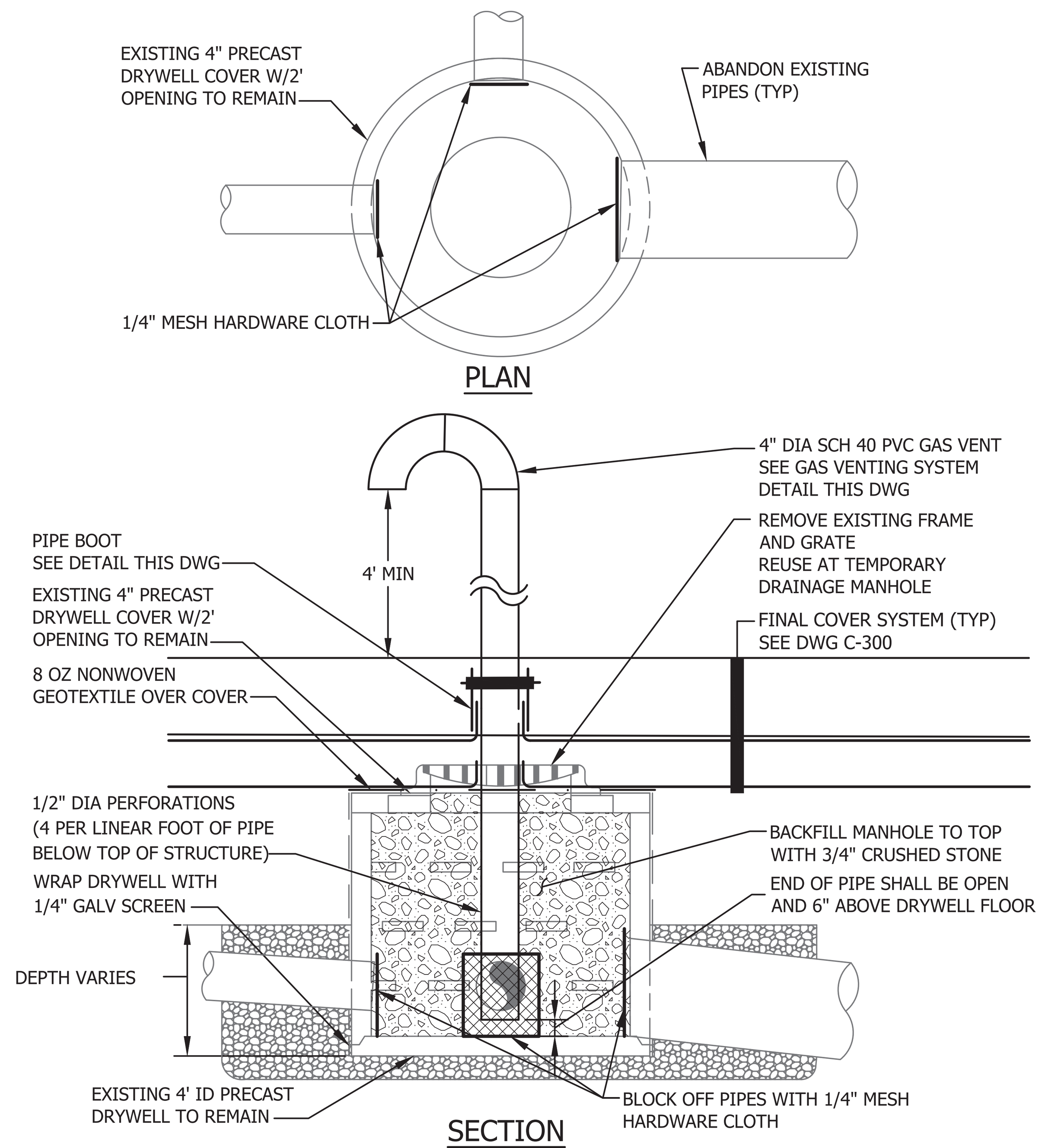
JOB NO. 231265.00 DWG FILE DETAILS

C-301

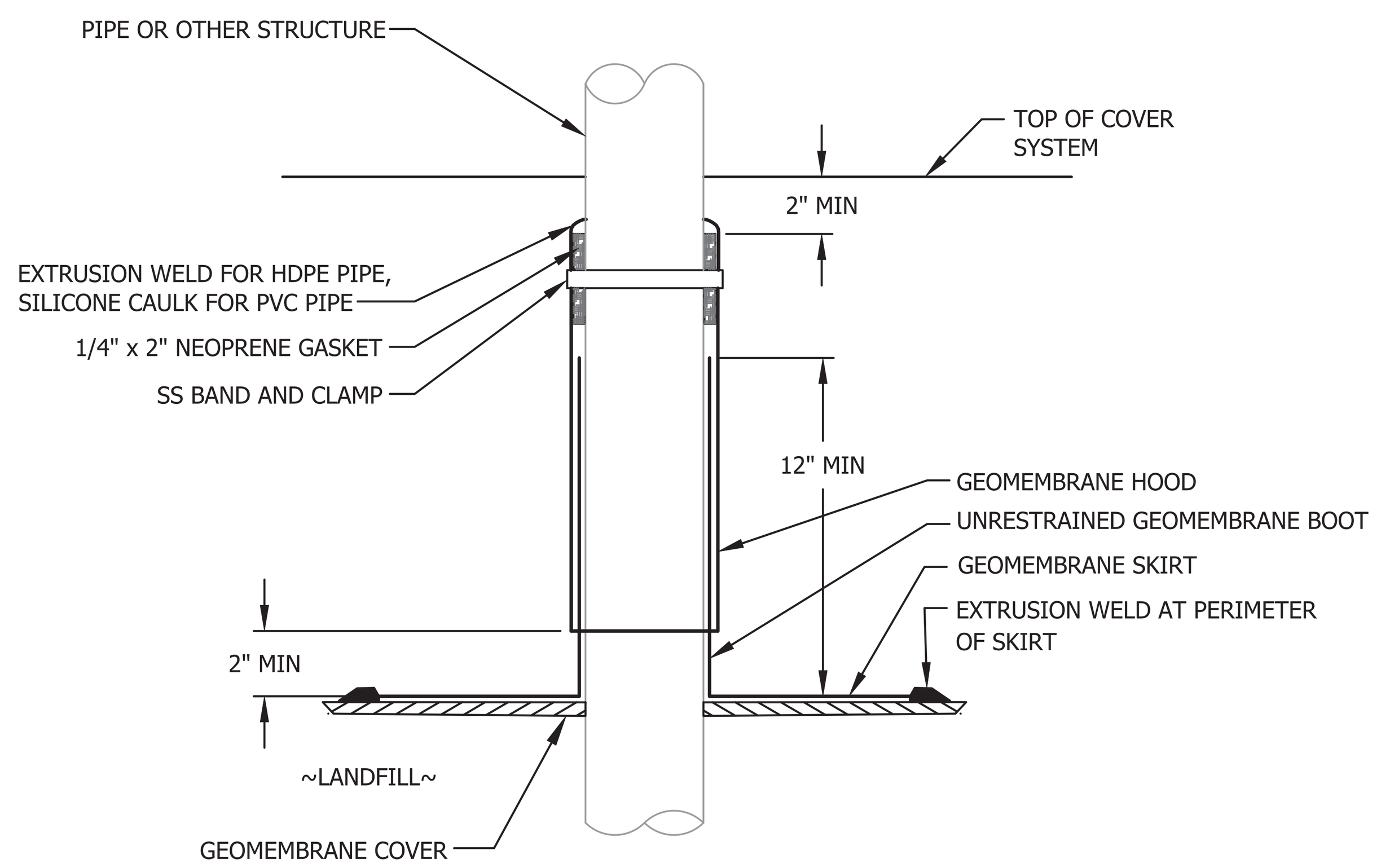


NOTE:
ALL PVC TO PVC CONNECTIONS SHALL BE GLUED.

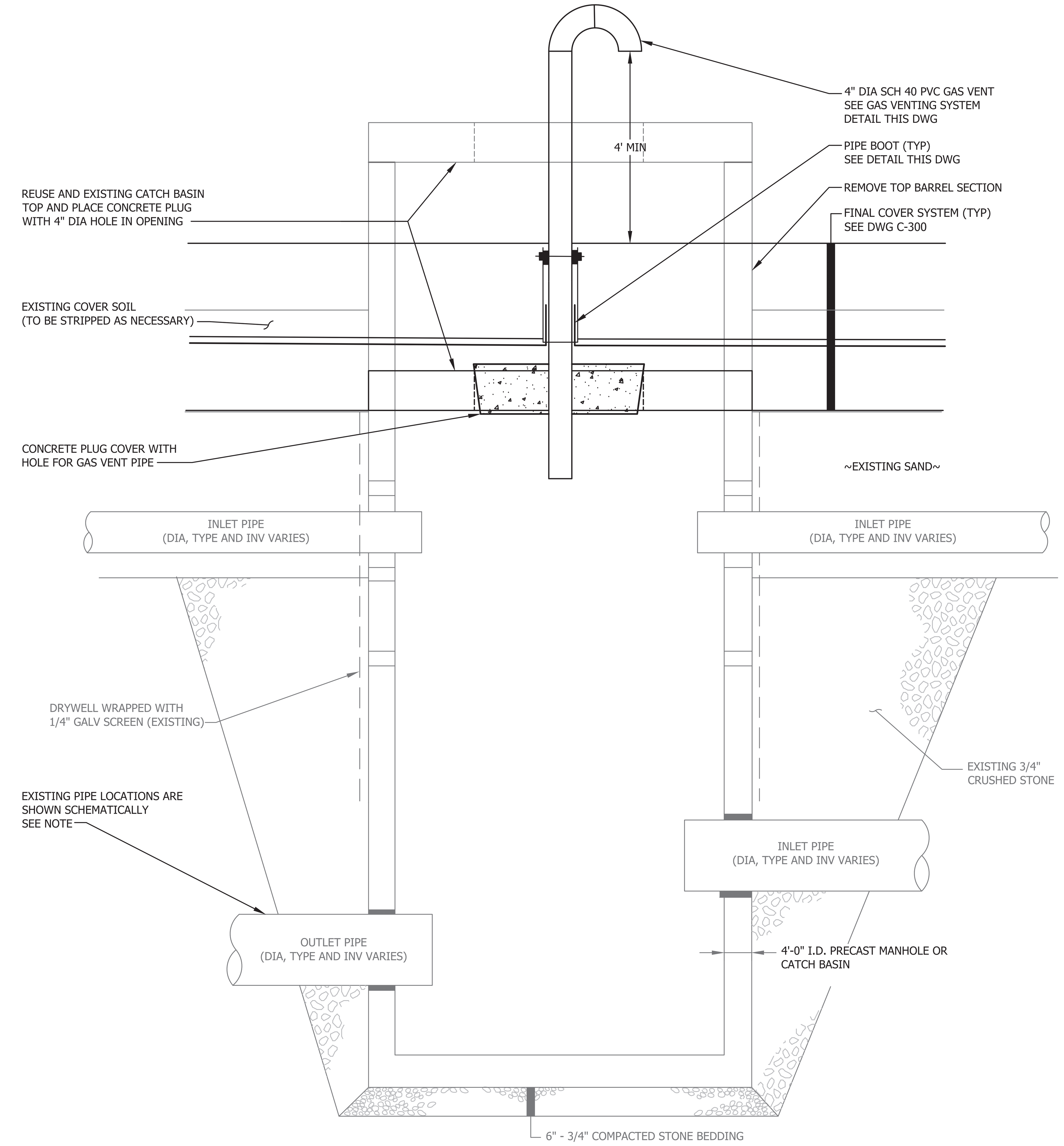
GAS VENTING SYSTEM
NTS



DRAINAGE MANHOLE ABANDONMENT
NTS

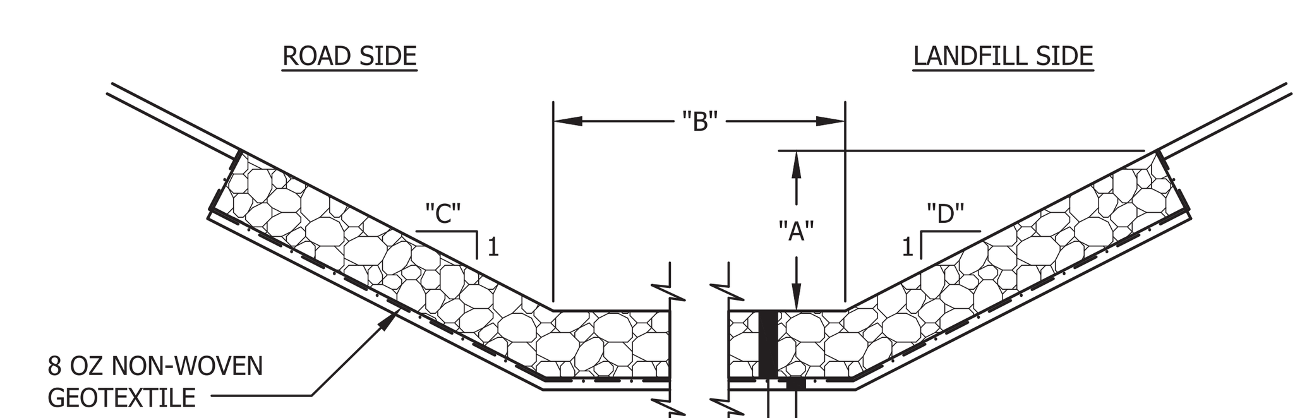


PIPE BOOT
NTS



NOTE:
CONTRACTOR SHALL FIELD VERIFY PIPE LOCATIONS AND OTHER EXISTING CONDITIONS PRIOR TO ABANDONMENT.

EXISTING CATCH BASIN ABANDONMENT
NTS



DITCH	"A" (FT)	"B" (FT)	"C"	"D"	"E"	"F"
RD-4	2	2	2	3	14"	6"
RD-6	1.5	2	2	3	18"	8"
RD-9	1.5	2	3	3	14"	6"

RIPRAP DITCH
NTS

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STATE OF MAINE
BRIAN D. PIERCE
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LICENSED
PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
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SECTIONS AND DETAILS

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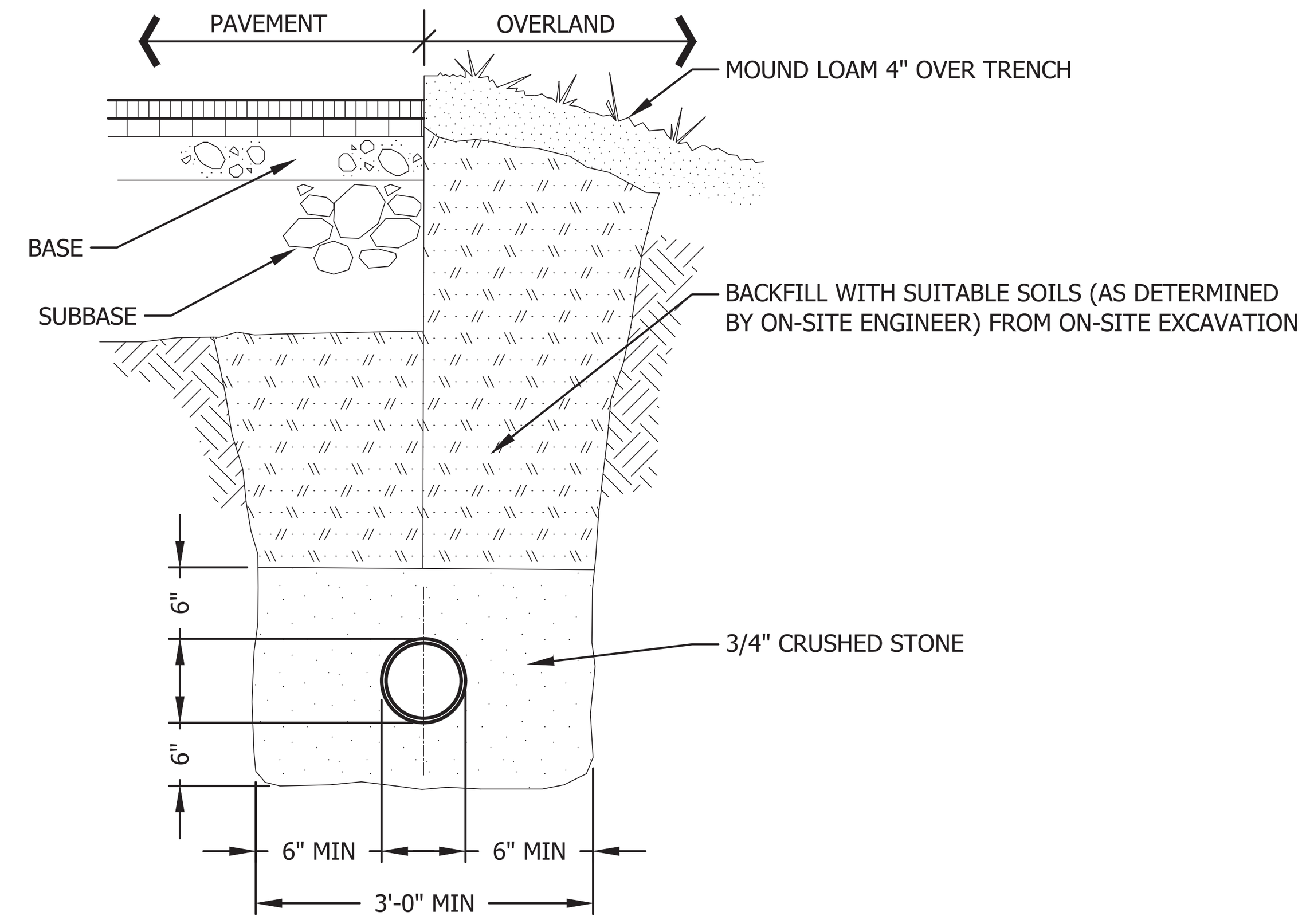
DESIGN BY: TJM
DRAWN BY: BWB
DATE: 11/2024
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

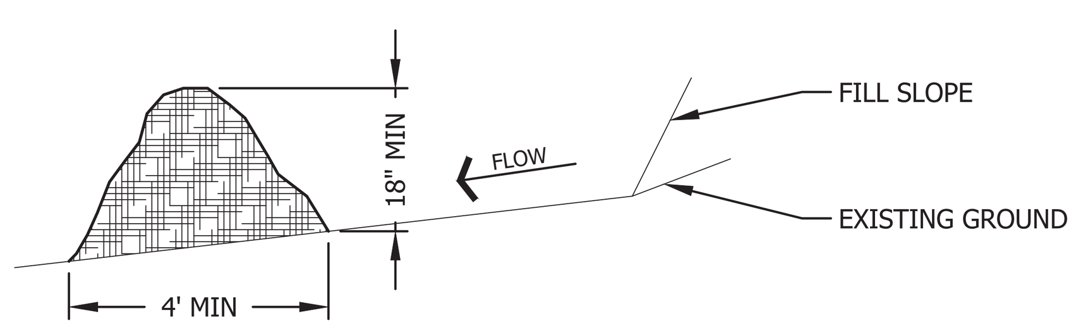
JOB NO. 231265.00 DWG FILE DETAILS

C-302



TYPICAL TRENCH SECTION

NTS



EROSION CONTROL MIX SEDIMENT BARRIER

NOTES:

1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH.

   THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
   A. ORGANIC MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
   B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
   C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
   D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
   E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.
   F. PH: 5.0 - 8.0

2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.

3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.

4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
   A. AT LOW POINTS OF CONCENTRATED FLOW
   B. BELOW CULVERT OUTLET APRONS
   C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED
   D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADIENT WATERSHED)
   E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS

5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.

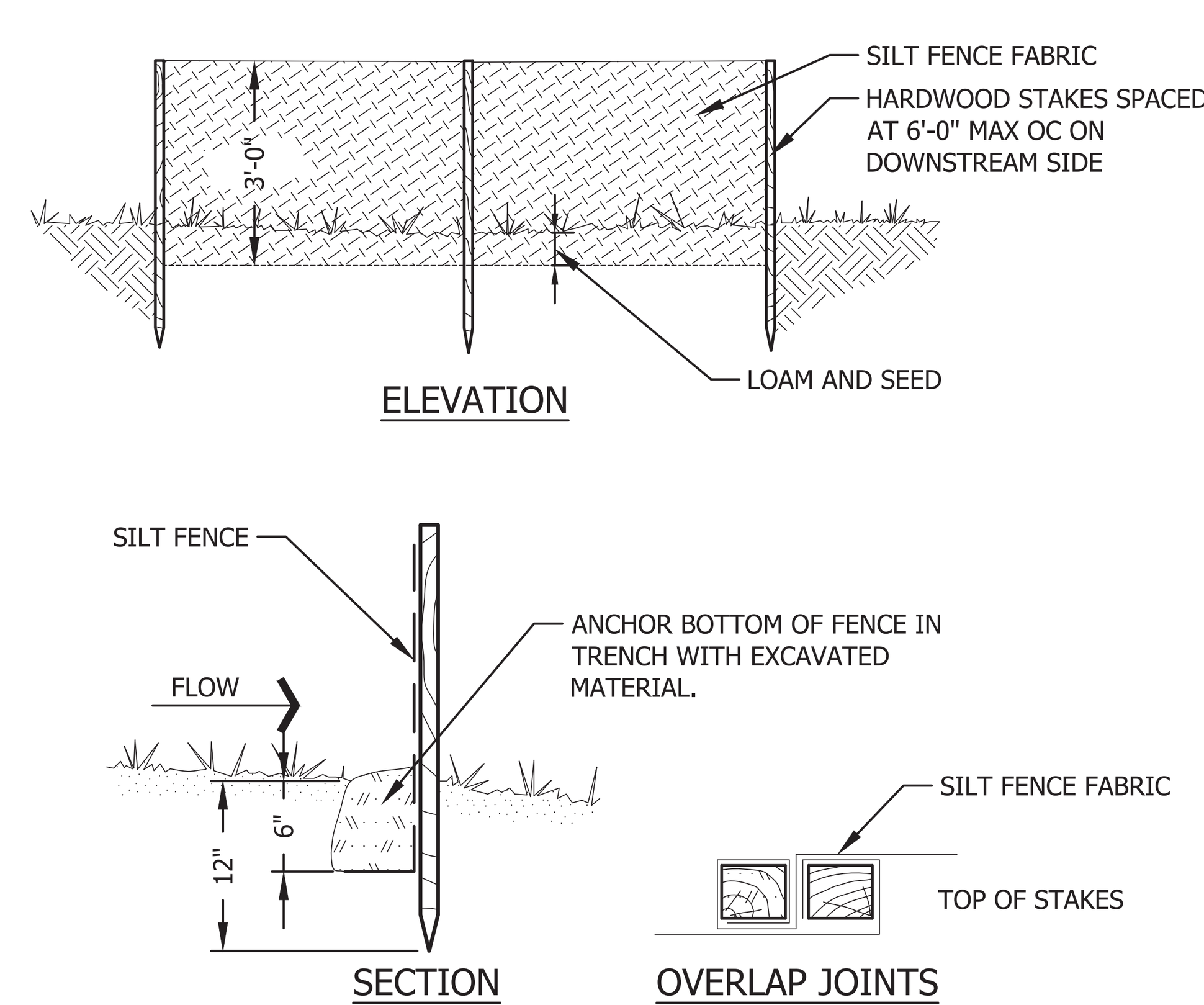
6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.

7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.

9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED.

10. IF TEMPORARY BERMS ARE USED AS SILT BARRIERS, THEY ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILT FENCE.

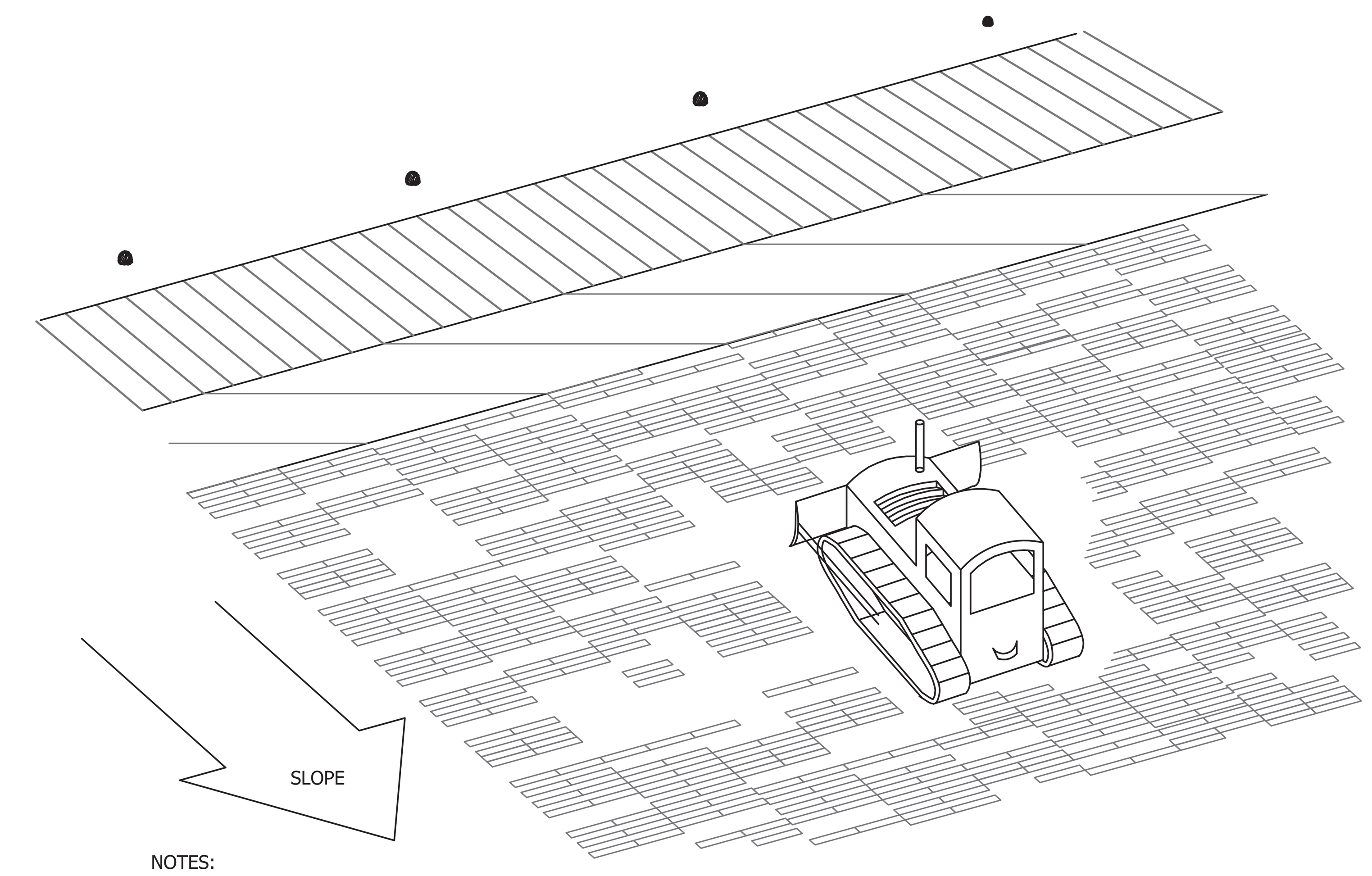


SILT FENCE

NOTE:
CONTRACTORS OPTION TO USE SEDIMENT BARRIER OR SILT FENCE FOR SLOPE PROTECTION.

SURFACE DRAINAGE SEDIMENT CONTROL

NTS



NOTES:
1. SLOPE TRACKING SHALL BE PERFORMED BY CONTRACTOR ON ALL FINISHED AREAS TO BE SEEDED.
2. TRACKING SHALL BE PERFORMED BY RUNNING LOW GROUND PRESSURE TRACKED MACHINERY UP AND DOWN SLOPES LEAVING TREAD MARKS PARALLEL TO THE CONTOUR.

SLOPE TRACKING

NTS

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STATE OF MAINE
BRIAN D. PIERCE
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1/9/2025

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

SECTIONS AND DETAILS

SME
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DESIGN BY:	TJM
DRAWN BY:	BWB
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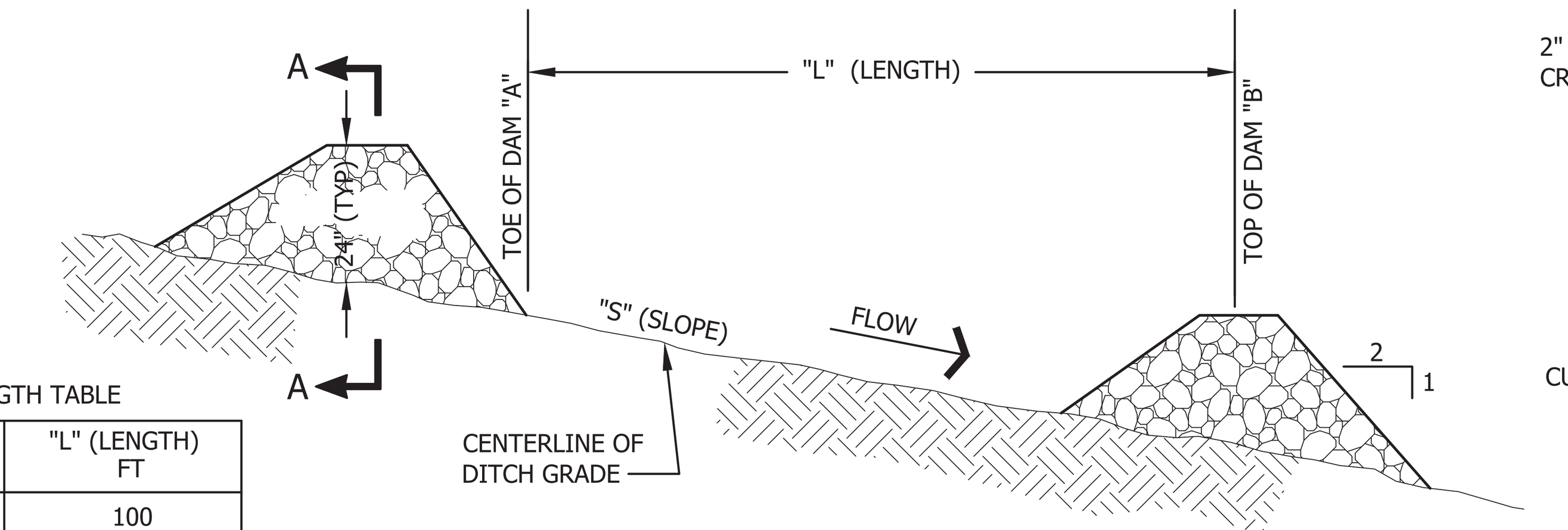
CHECKED BY:	BDP
LMN:	NONE
CTB:	SME-STD

JOB NO. 231265.00 DWG FILE DETAILS

C-303

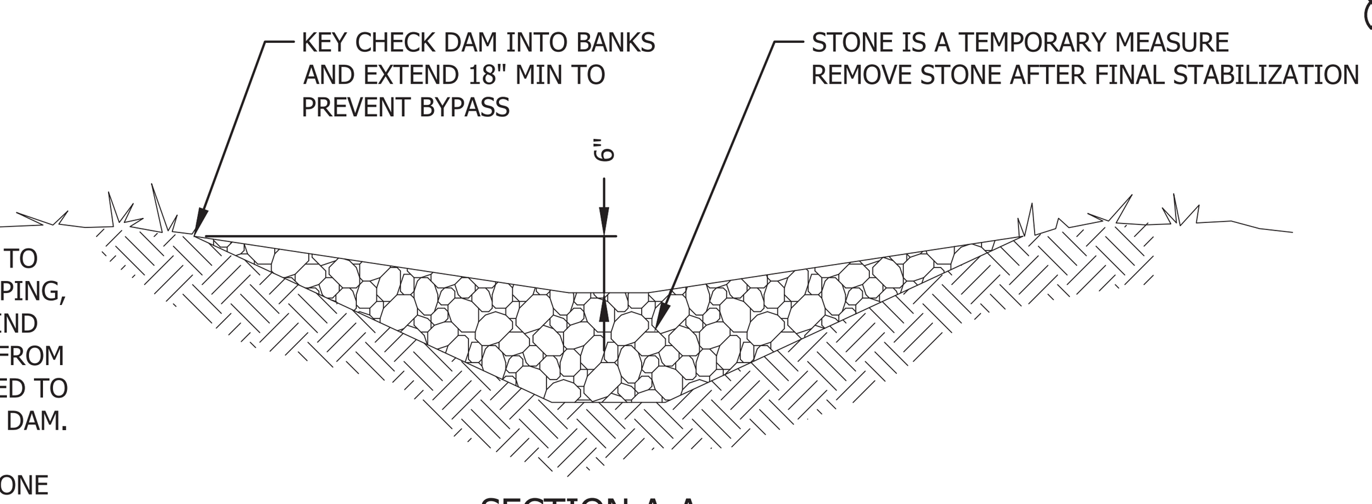


SLOPE & LENGTH TABLE

"S" (SLOPE) FT/FT	"L" (LENGTH) FT
0.020	100
0.030	66
0.040	50
0.050	40
0.080	25
0.100	20
0.120	17
0.150	13

L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

ELEVATION VIEW



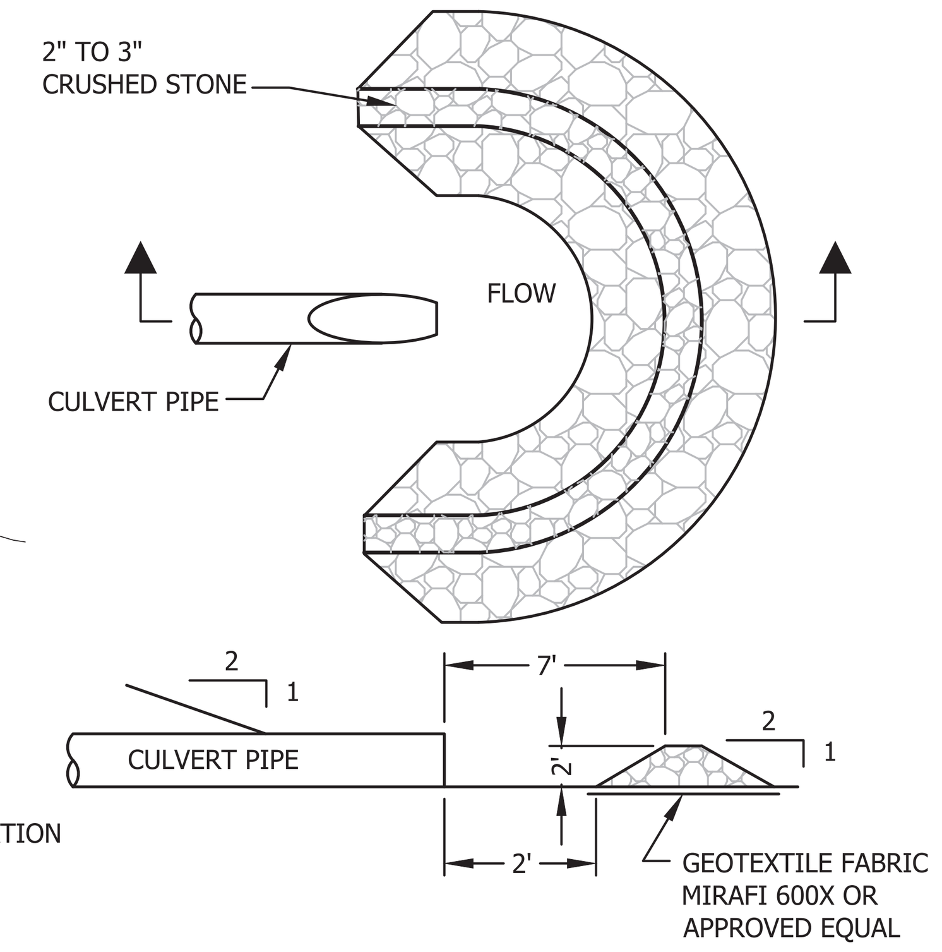
NOTES:

1. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND DAMS. SEDIMENT SHOULD BE REMOVED FROM BEHIND DAMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE DAM.
2. STONE: 1"-6" WELL GRADED CRUSHED STONE

SECTION A-A

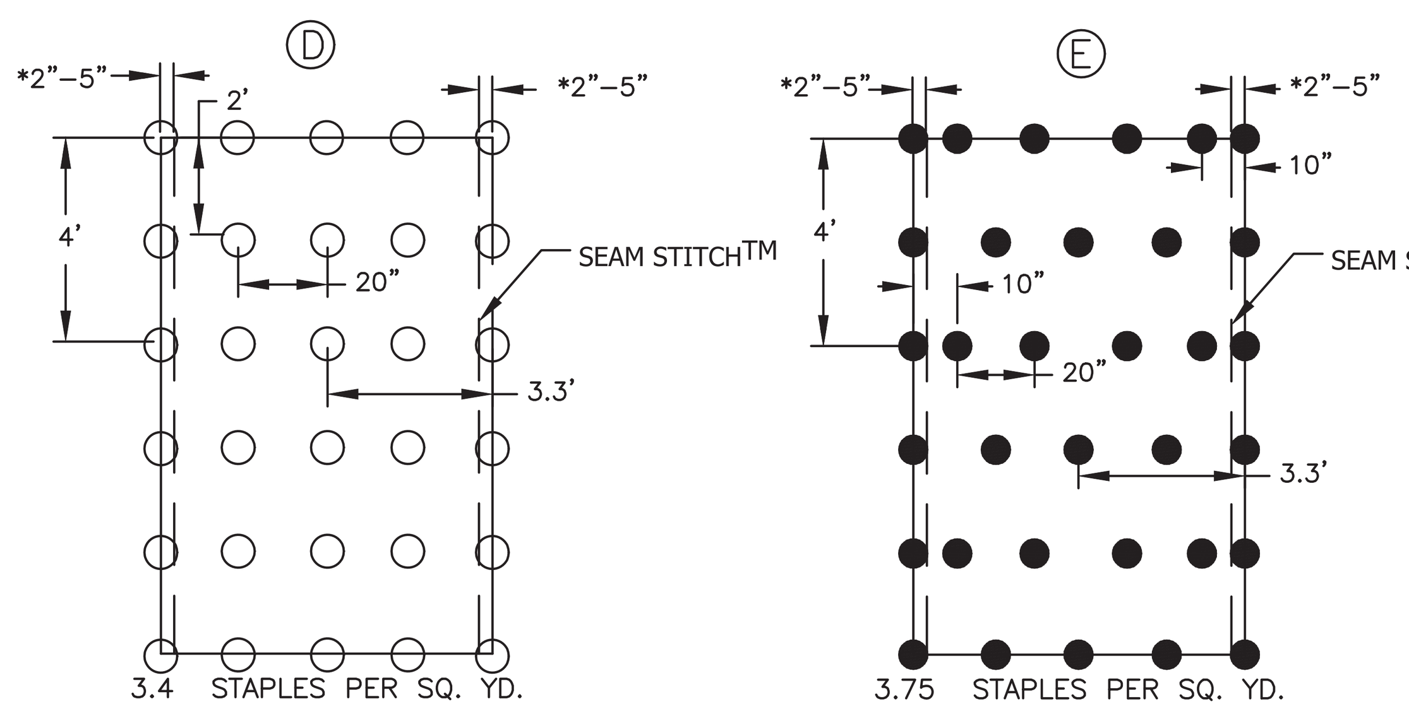
STONE CHECK DAM

NTS



RIPRAP CULVERT INLET PROTECTION (TEMPORARY)

NTS

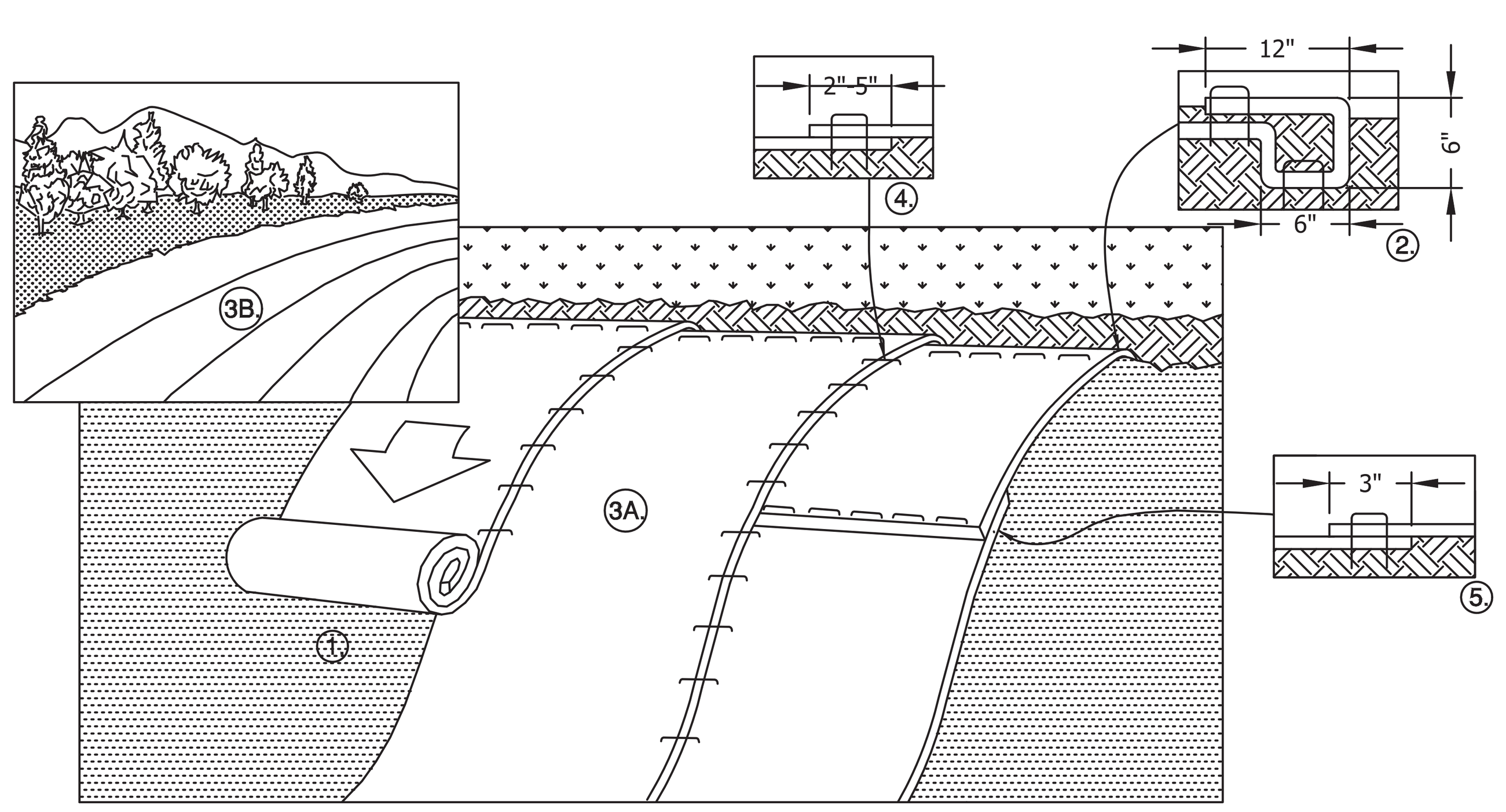


*LOCATION OF SEAM STITCH WILL VARY DEPENDING ON NORTH AMERICAN GREEN PRODUCT TYPE

FOR BLANKETS WITH THE NORTH AMERICAN GREEN DOT SYSTEMTM PLACE STAPLES THROUGH EACH OF THE DOTS.

ECB STAPLE PATTERN GUIDE

NTS

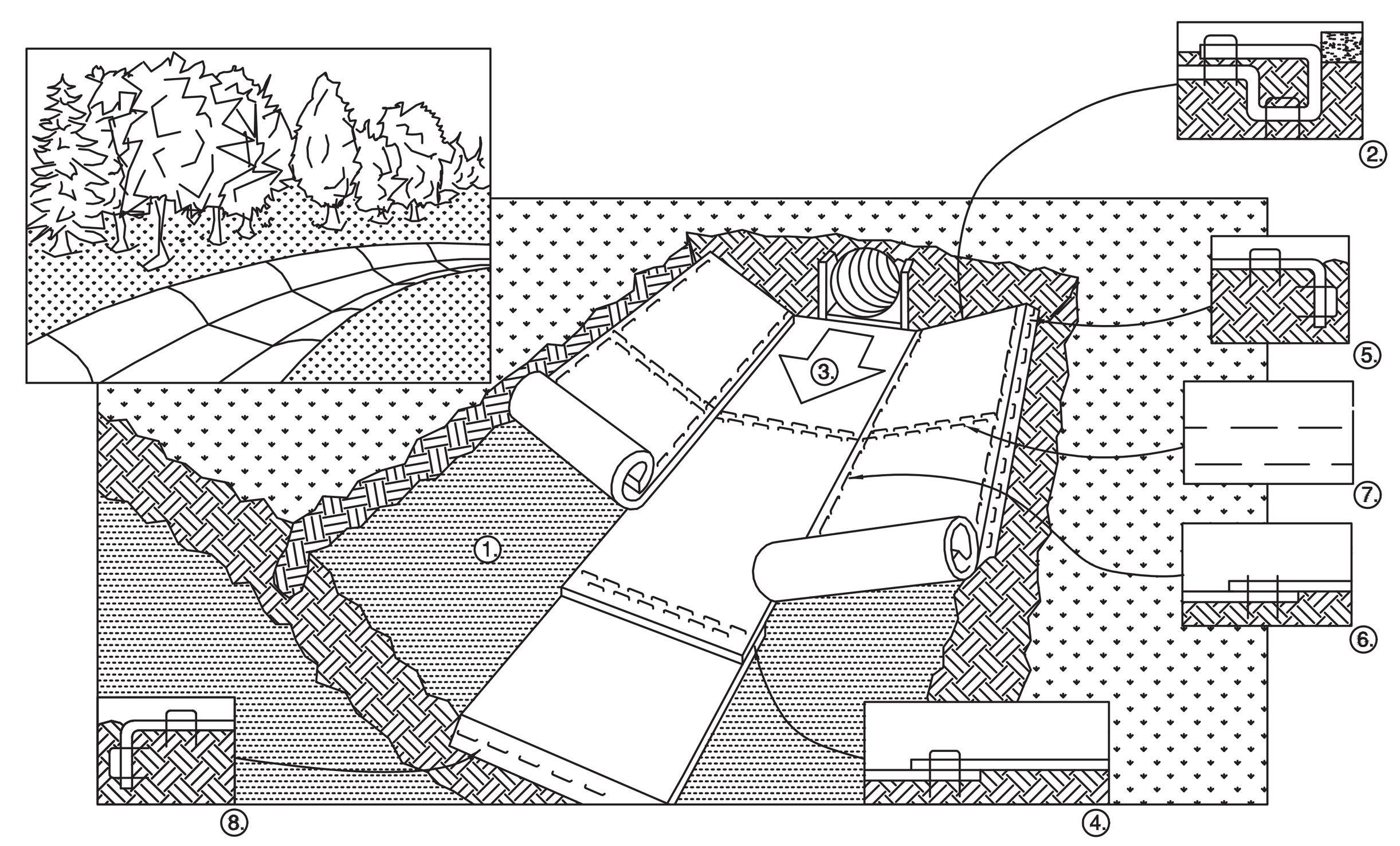


1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEMTM, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

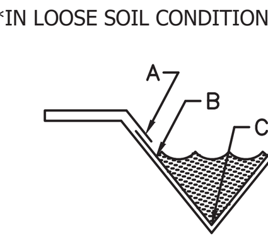
SLOPE INSTALLATION

NTS



1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL CENTER RECP'S IN THE DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEMTM, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP'S END OVER END (SHINGLE STYLE) WITH A 4" TO 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP'S.
5. FULL LENGTH EDGE OF RECP'S AT OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP'S MUST BE OVERLAPPED APPROXIMATELY 2" TO 5" (DEPENDING ON RECP'S TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP'S MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.



CRITICAL POINTS

A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

CHANNEL INSTALLATION

NTS

TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with the Maine Erosion and Sediment Control Best Management Practices, Maine Department of Environmental Protection, October 2016, and as currently revised.
2. The contractor will be responsible for the repair/replacement/ maintenance of all erosion control measures until all disturbed areas are stabilized. Contractor shall be responsible for plan preparation, documentation and inspection.
3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance, shall be temporarily stabilized within 7 days of the disturbance.
4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
5. Any suitable topsoil or cover soil will be stripped and stockpiled for reuse in final grading. Soil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. If a stockpile is necessary, the side slopes of the stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all stockpiles. Stockpiles will be surrounded with siltation fencing and will be temporarily seeded with aroostook rye, annual or perennial ryegrass, within 7 days of formation, or temporarily mulched if seeding cannot be done within the recommended seeding dates. Recommended seeding dates and application rates are as follows:

   Aroostook Rye: Recommended Seeding Dates: 4/15 - 8/15
   Application Rate: 112 lbs/acre

   Perennial Ryegrass: Recommended Seeding Dates: 4/15 - 8/15
   Application Rate: 85 lbs/acre

   Mulch: o Hay or Straw
   Application Rate: 2 - 3 tons/acre.
   Anchor with tack or 300 lbs/acre fiber mulch

   o Wood Fiber Cellulose (4/15 - 7/15) Temporary mulch only
   Application Rate: 4,000 lbs/acre.
   Anchoring not required

B. TEMPORARY MEASURES

1. Silt Fence

(a) Silt fence will be installed prior to and downgradient of all construction activity where soil disturbance may result in erosion.

(b) The height of a silt fence will not exceed 36 inches.

(c) The filter fabric will be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth will be spliced together only at a support post, with a minimum 6-inch overlap, and securely sealed.

(d) Posts will be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (minimum of 12 inches). When extra strength fabric is used without the wire support fence, post spacing will not exceed 6 feet.

(e) A trench will be excavated approximately 6 inches wide and 6 inches deep along the line of posts and upgradient from the barrier.

(f) The standard strength of filter fabric will be stapled or wired to the fence, and 8 inches of the fabric will be extended into the trench. The fabric will not extend more than 36 inches above the original ground surface. Filter fabric will not be stapled to existing trees.

(g) When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric will be stapled or wired directly to the posts with all other provisions of item (f) applying.

(h) The trench will be backfilled and the soil compacted over the filter fabric.

(i) Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

(j) Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.

(k) Should the fabric on a silt fence decompose or become ineffective prior to the end of the expected usable life, and the barrier still be necessary, the fabric will be replaced promptly.

(l) Sediment deposits should be removed after each storm event if significant buildup has occurred or if deposits exceed half the height of the fence.

2. Stone Check Dams

(a) Stone check dams should be constructed of 2 to 3-inch crushed stone. The stone should be placed according to the configuration shown on the drawing. Hand or mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.

(b) Check dams should be installed as the swale is being constructed.

(c) Sediment will be removed from behind the check dams when it has accumulated to one half of the original height of the dam.

(d) Check dams will be removed when the grass has matured sufficiently to protect the ditch or swale. The area beneath the check dams will be seeded and mulched immediately after they are removed.

(e) Regular inspections will be made to ensure that the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam will be corrected. If evidence of siltation in the water is apparent downstream from the check dam, the check dam will be inspected and adjusted. Check dams will be checked for sediment accumulation after each significant rainfall.

3. Erosion control mix and sediment barrier

(a) The filter berm shall consist of an approved wood waste compost/bark mulch mix or recycled composted bark flume grit and fragmented wood generated from water-flume log handling systems or small shredding of stumpage (6 inches long x 1/2" dia.). The mixture needs to be a well-graded blend of organic and mineral substance. The composition is usually manufactured on or off site and by blending it with a well graded sand and gravel. The objective is a tight, heavy, non-erodible mixture that is not composed of one uniform material, i.e. just bark mulch will not suffice. Comparable composted mixes can be used upon approval of the Department of Environmental Protection, Bureau of Land and Water Quality.

(b) The mix shall conform to standards shown on the detail:

(c) Installation and Size of Berm: The dimensions of the berm are more a function of the strength of the material than the flows (forces) it will encounter. At a minimum the berm shall be 4 feet wide and 18 inches high. The berm shall be placed, uncompacted along a relatively level contour. Wherever possible the existing surface must be scoured and the mixture keyed in like any other sediment control measure.

(d) Maintenance: All deficiencies shall be immediately corrected with additional material place on top of the berm to reach the desired height. When the berm is decomposed, clogged with sediment, eroded, or becomes ineffective, it shall be replaced.

(e) Clean up and Retrieval: At the end of the job, an erosion control berm shall be removed or spread out so that the native earth can be seen below.

B. TEMPORARY MEASURES (Cont)

4. Erosion Control Mats

(a) During the growing season (April 15 to August 15) use mats indicated on drawings on channel bottoms and steep slopes >3H:1V.

(b) During the fall and winter (August 15 to April 15) use heavy grade mats as recommended by the engineer on all channel bottoms and slopes >4h:1V.

(c) Install mats in accordance with the manufacturer's recommendations.

5. Erosion Control Measures

(a) The smallest practical area of land shall be exposed to construction at any one time.

(b) The temporary erosion control measures shall be maintained until the permanent erosion control measures are present.

(c) All areas disturbed by construction shall have available loam placed before seeding (or an acceptable alternative).

(d) After construction is terminated, all temporary erosion control measures shall be removed and accumulated sediment disposed of in a secure location.

(e) Mulch shall be mowings of acceptable herbaceous growth, free from noxious weeds or woody stems, and shall be dry.

C. Permanent Measures

1. Riprapped Ditches, Aprons and Plunge Pools

(a) Construct riprapped ditches, aprons and plunge pools in accordance with the details shown on the Drawings.

(b) Stone for riprap will consist of sub-angular field stone or rough unhewn quarry stone. The stone will be hard and of such quality that it will not disintegrate on exposure to water or weathering, be chemically stable and suitable in all other respects for the purpose intended. The bulk specific gravity (saturated surface-dry basis) of the individual stones will be at least 2.5.

(c) The riprap should be placed so that it produces a dense well-graded mass of stone with a minimum of voids. The desired distribution of stones throughout the mass may be obtained by selective loading at the quarry, controlled clumping of successive loads during final placing, or by combination of these methods. The riprap should be placed to its full thickness on one operation. The riprap should not be placed in layers. The riprap should not be placed by dumping into chutes or similar methods which are likely to cause segregation of the various stone sizes. Care should be taken not to dislodge the underlying material when placing the stones.

The finished slope should be free of pockets of small stone or clusters of large stones. Hand placing may be necessary to achieve the required grades and a good distribution of stone sizes. Final thickness of the riprap blanket should be within plus or minus 1/4 of the specified thickness.

(d) Riprap will be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone. If repairs are needed, they should be accomplished immediately.

2. Topsoil, Seed, Mulch

(a) Topsoil: Use stockpiled materials spread to the depths shown on the plans, if available.

(b) Seeding should be completed by August 15 of each year. Areas not seeded or which do not obtain satisfactory growth by August 1, will be seeded with Aroostook Rye or mulched at rates previously specified herein. After October 1, or the first killing frost, disturbed areas should be treated as indicated in C below:

SEEDING SPECIFICATIONS

Seed	Permanent Seeding (180 lbs/acre)	Temporary Seeding (112 lbs/acre)
Red Fescue	50% by weight	Winter Rye
Red Top	2% by weight	100% by weight
White Cover	5% by weight	
Annual Ryegrass	25% by weight	
Birdsfoot Trefoil	3% by weight	
Kentucky Bluegrass	15% by weight	

Fertilizer: Apply 2 pounds per unit (87 lbs/acre) of nitrogen, phosphoric acid, and potash, or 413 lbs/acre of 19-19-19 fertilizer.

Lime: Apply liquid limestone at a rate of 3 tons per acre (138 lbs/1,000 sq ft).

Mulch: Mulch with weed-free hay or straw at 2-3 tons per acre with engineer approved tack or fiber mulch to completely cover hay/straw mulch.

(c) If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site. The following methods may be used to perform a dormant seeding:

(1) Prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After the first killing frost and before snow fall, broadcast or hydroseed the selected seed mixture. Double the regular seeding rates for this type seeding.

(2) When soil conditions permit, between the first killing frost and before snow fall, prepare the seedbed, lime and fertilize, apply the selected seed mixture, and mulch and anchor. Double the regular seeding rates for this type of seeding.

Dormant seedings need to be anchored extremely well on slopes, ditch bases and areas of concentrated flows.

Dormant seeding requires inspection and reseeding as needed in the spring. All areas where cover is inadequate must be immediately reseeded and mulched as soon as possible.

(3) Erosion Control Mats
(a) Install mats as indicated on drawings and in accordance with manufacturers' recommendations

D. MAINTENANCE PLAN

1. Routine Maintenance Inspection shall be performed annually by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities shall include checking erosion controls for accumulation of sediments.

2. Grassed Areas

(a) Lime according to a soil test or at a minimum of every five years using a rate of 2 tons per acre (100 pounds per 1,000 sq ft)

(b) Topdress with fertilizer in the early spring (before May 15) one year after planting with a balanced fertilizer, applying 50 pounds of nitrogen/acre (500 pounds of 10-20-20 per acre). Thereafter, fertilize according to a soil test or broadcast biennially, 300 pounds of 10-10-10 or equivalent per acre (7.5 pounds per 1,000 sq ft).

E. INSPECTIONS

1. Inspections will be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed if needed. Such inspections will occur weekly and before and after each significant rainfall event (1 inch or more within a 24 hour period) during construction until permanent erosion control measures have been properly installed and the site is stabilized.

2. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and the major observations relating to the operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMP's that need to be maintained; location(s) of BMP's that failed to operate as designed or proved inadequate for a particular location; and location(s) of where additional BMP's area needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.

F. HOUSEKEEPING

1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.
3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.
4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.
6. Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges.
7. Additional requirements. Additional requirements may be applied on a site-specific basis.

REV.	BY	DATE	STATUS
	BDP	1/2025	RECORD DRAWING
	BDP	2/2024	ISSUED FOR BID AND MEDEP REVIEW

STATE OF MAINE BRIAN D. PIERCE 9609 LICENSED PROFESSIONAL ENGINEER

MAINE BUREAU OF GENERAL SERVICES
DOLBY LANDFILL COVER UPGRADE
PHASE 4
EAST MILLINOCKET, MAINE
BGS PROJECT 3754

SECTIONS AND DETAILS

SME SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com

DESIGN BY: TJM
DRAWN BY: BWB
DATE: 11/2024
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 231265.00 DWG FILE DETAILS

C-304

GENERAL NOTES

1. UTILITIES AND AGENCIES
   - BANGOR AND AROOSTOOK RAILROAD
   - MAINE DEPARTMENT OF TRANSPORTATION - DIVISION OFFICE, BANGOR, MAINE
   - BANGOR HYDRO-ELECTRIC CO. – ROUTE 2, LINCOLN, MAINE
   - NYNEX
   - DIG SAFE

2. NOTES
   - REFER TO DRAWING YB-22974 FOR MANHOLE AND STRUCTURE SCHEDULE
   - PAVEMENT AND BASES REMOVED BY THE PIPELINE CONSTRUCTION SHALL BE REPLACED TO THE SAME THICKNESS OF THE ADJACENT LAYERS.
   - ALL AREAS DISTURBED BY THE PIPELINE CONSTRUCTION AND NOT RESURFACED SHALL BE COVERED WITH TWO (2") INCHES OF LOAM, GRADED, SEEDED, AND MULCHED.
   - THRUST RESTRAINT REQUIRED ON ALL FORCE MAIN BENDS GREATER THAN 22.5°. SEE DETAIL YB-22977

LEGEND

	EXISTING	PROPOSED
STRUCTURES		
MANHOLE		
CONTOUR	211	211
WETLAND EDGE		
LEACHATE LINE		
SURVEY BASELINE		
TREE LINE		
OVERHEAD TELEPHONE	O.T.	
UTILITY POLE		
TEST PIT	37	37
WETLAND SETBACK BUFFER		
RAILROAD		
FILL OR CUT AREA (PROFILE)		

DATUM

HORIZONTAL DATUM FROM STATION 0+00 TO STATION 167+00 IS BASED ON MAINE STATE GRID (EAST ZONE) 1927 NORTH AMERICAN DATUM.

VERTICAL DATUM FROM STATION 0+00 TO STATION 167+00 IS BASED ON NGVD29.

HORIZONTAL AND VERTICAL CONTROL

SQUAW BAY CONTROL POINT #1 = BRASS DISK IN TOP OF CONCRETE MANHOLE ON WESTERLY SIDE OF LEACHATE POND.

COORDINATES: NORTH 664163.732
EAST 473626.762

ELEVATION: 348.58

IDENTIFICATION: "MON.#10"

SQUAW BAY CONTROL POINT #2 = BRASS DISK IN TOP OF CONCRETE PUMP STATION ON SOUTHERLY SIDE OF LEACHATE POND.

COORDINATES: NORTH 663871.733
EAST 473715.059

ELEVATION: 356.99

IDENTIFICATION: "MON.#8"

SQUAW BAY CONTROL POINT #29 = BRASS DISK IN TOP OF CONCRETE CYLINDER ON NORTHWEST CORNER OF FIBER RECYCLE BUILDING.

COORDINATES: NORTH 653349.382
EAST 479333.704

ELEVATION: 318.24

IDENTIFICATION: CONTROL MON. 705A

VERTICAL DATUM CONVERSION FACTOR

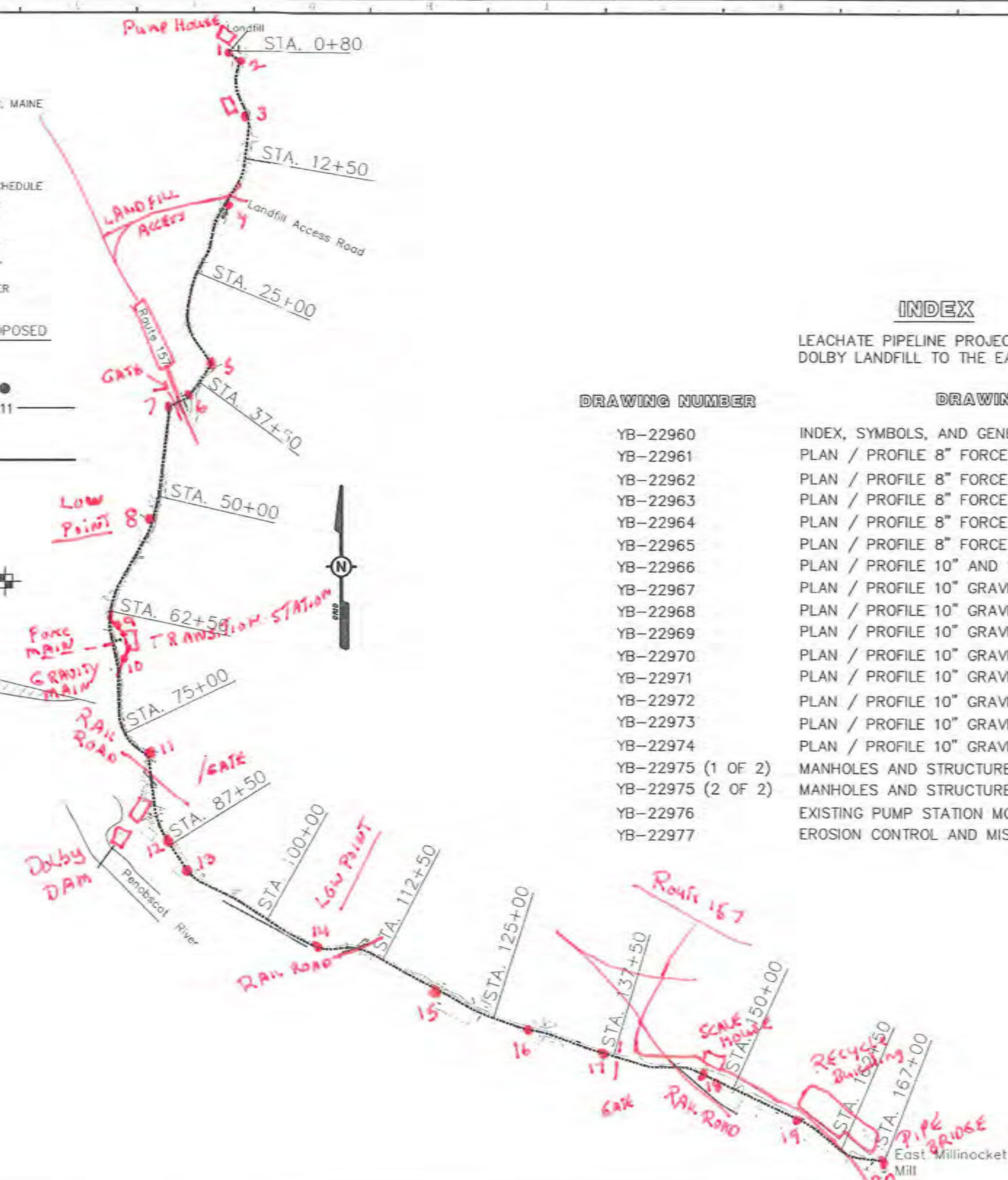
TO CONVERT NGVD (29) TO "MILL DATUM, ADD 1.59'.
TO CONVERT MILL DATUM TO NGVD (29) SUBTRACT 1.59'.

TEMPORARY BENCHMARKS (TBM)

TBM, PL-13 – TOP OF BOULDER – ELEV. 386.56 – STA. 31+00, 45'R.

TBM, SCOUT RD – TOP OF GRIND STONE – ELEV. 389.70 – STA. 61+35, 50'R.

TBM, GROUNDWOOD BLDG – PAINT MARK ON BLDG ELEV. 307.41 – STA. 167+00 160'R.



INDEX

LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION

DRAWING NUMBER	DRAWING TITLE
YB-22960	INDEX, SYMBOLS, AND GENERAL NOTES
YB-22961	PLAN / PROFILE 8" FORCE MAIN – STA. 0+80 TO STA. 12+50
YB-22962	PLAN / PROFILE 8" FORCE MAIN – STA. 12+50 TO STA. 25+00
YB-22963	PLAN / PROFILE 8" FORCE MAIN – STA. 25+00 TO STA. 37+50
YB-22964	PLAN / PROFILE 8" FORCE MAIN – STA. 37+50 TO STA. 50+00
YB-22965	PLAN / PROFILE 8" FORCE MAIN – STA. 50+00 TO STA. 62+50
YB-22966	PLAN / PROFILE 10" AND 12" GRAVITY TRANSITION – STA. 62+50 TO STA. 75+00
YB-22967	PLAN / PROFILE 10" GRAVITY SECTION STA. 75+00 TO STA. 87+50
YB-22968	PLAN / PROFILE 10" GRAVITY SECTION STA. 87+50 TO STA. 100+00
YB-22969	PLAN / PROFILE 10" GRAVITY SECTION STA. 100+00 TO STA. 112+50
YB-22970	PLAN / PROFILE 10" GRAVITY SECTION STA. 112+50 TO STA. 125+00
YB-22971	PLAN / PROFILE 10" GRAVITY SECTION STA. 125+00 TO STA. 137+50
YB-22972	PLAN / PROFILE 10" GRAVITY SECTION STA. 137+50 TO STA. 150+00
YB-22973	PLAN / PROFILE 10" GRAVITY SECTION STA. 150+00 TO STA. 162+50
YB-22974	PLAN / PROFILE 10" GRAVITY SECTION STA. 162+50 TO STA. 167+00
YB-22975 (1 OF 2)	MANHOLES AND STRUCTURES – MISCELLANEOUS DETAILS
YB-22975 (2 OF 2)	MANHOLES AND STRUCTURES – MISCELLANEOUS DETAILS
YB-22976	EXISTING PUMP STATION MODIFICATIONS – PLANS AND DETAILS
YB-22977	EROSION CONTROL AND MISCELLANEOUS DETAILS

STATE OF MAINE
PETER B. TUBBS
3878
REGISTERED PROFESSIONAL ENGINEER

CODE	NO.	DATE	REVISION	BY	CHK	APPVD	JOB NO.
C		3/96	RECORD DRAWING	MSB	PBT		
C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		22846
B		4/95	ISSUED FOR BIDS	MSB	PBT		22846
P		4/25	PRELIMINARY CONSTRUCTION ISSUE	MSB	JRK		22846

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APP'D		

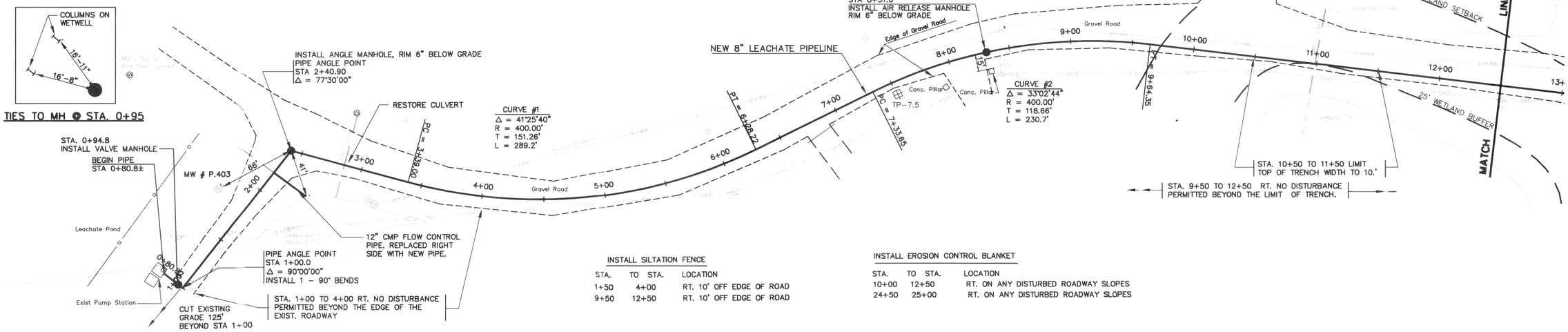
ISSUE CODE: P – Prelim. B – Bids M – Mill T.O. C – Const.
SCALE N.T.S.

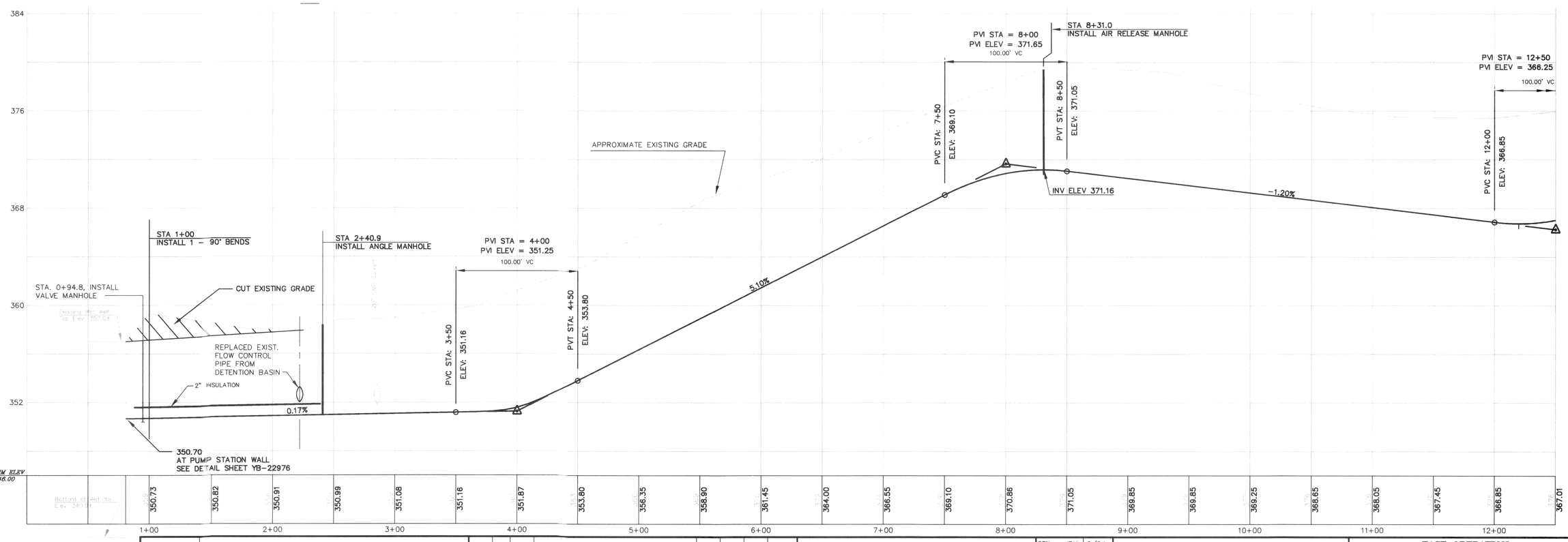
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 0+80. TO STA. 167+00
8" FORCE MAIN
INDEX, SYMBOLS, AND GENERAL NOTES

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22960
SHEET 1 OF 1





YB-14801	DOLBY 3 LANDFILL, INTERPRETIVE GEOLOGIC PROFILES							
YB-14800	DOLBY 3 LANDFILL, PHREATIC SURFACE MAP							
YB-14799	DOLBY 3 LANDFILL, BEDROCK SURFACE TOPOGRAPHY MAP	C	3/96	RECORD DRAWING	MSB	PBT		
YB-14797	DOLBY 3 LANDFILL, SITE DEVELOPMENT	C	6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
YB-14796-A	DOLBY 3 LANDFILL, SITE DEVELOPMENT DETAILS	B	4/95	ISSUED FOR BIDS	MSB	PBT		
YB-14795	DOLBY 3 LANDFILL, LEACHATE POND DETAILS	P	4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
SB-14888	DOLBY LANDFILL LEACHATE PUMP STATION, PLANS & SECTIONS	P	12/94	SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

STATE OF MAINE
PETER B. TUBBS
2678
REGISTERED PROFESSIONAL ENGINEER
3/96

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE: P - Prelim | B - Bids | M - Mtl T.O. | C - Const.

1"=40'H; 1'=4'V

BOWATER
Great Northern Paper

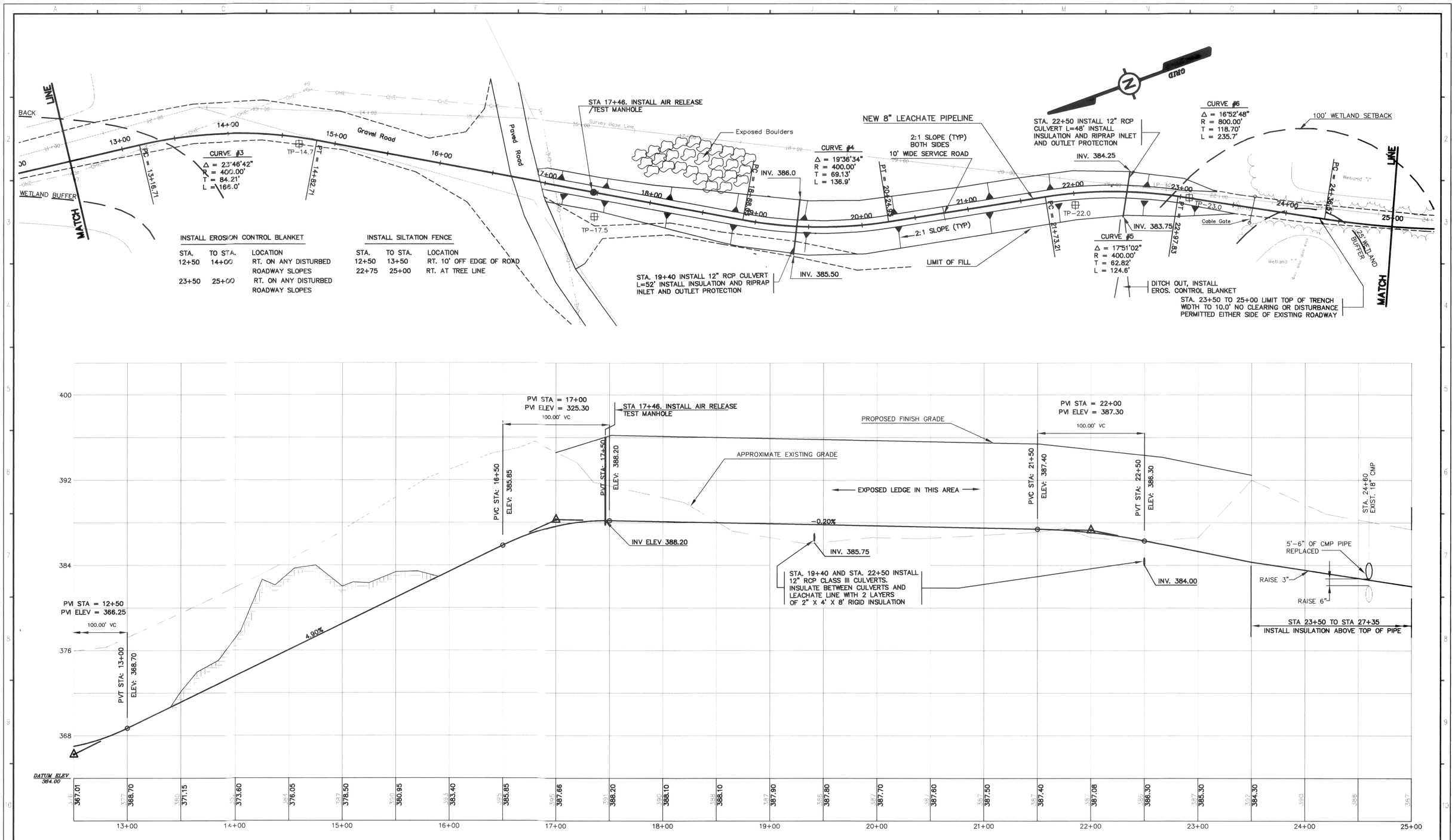
EAST OPERATION

LEACHATE PIPELINE PROJECT

DOLBY LANDFILL TO THE EAST OPERATION
STA. 0+80.8 TO STA. 12+50
8" FORCE MAIN
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22961
SHEET 1 OF 1



STATE OF MAINE
PETER B TUBBS
2878
REGISTERED
PROFESSIONAL ENGINEER
4-3-96

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		3/96	RECORD DRAWING	MSB	PBT		
		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
		B		4/95	ISSUED FOR BIDS	RMC	PBT		
		P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
		P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE: P – Prelim | B – Bids | M – Mtl T.O. | C – Const.

SCALE 1"=40'H;1"=4'V

BOWATER
Great Northern Paper

EAST OPERATION

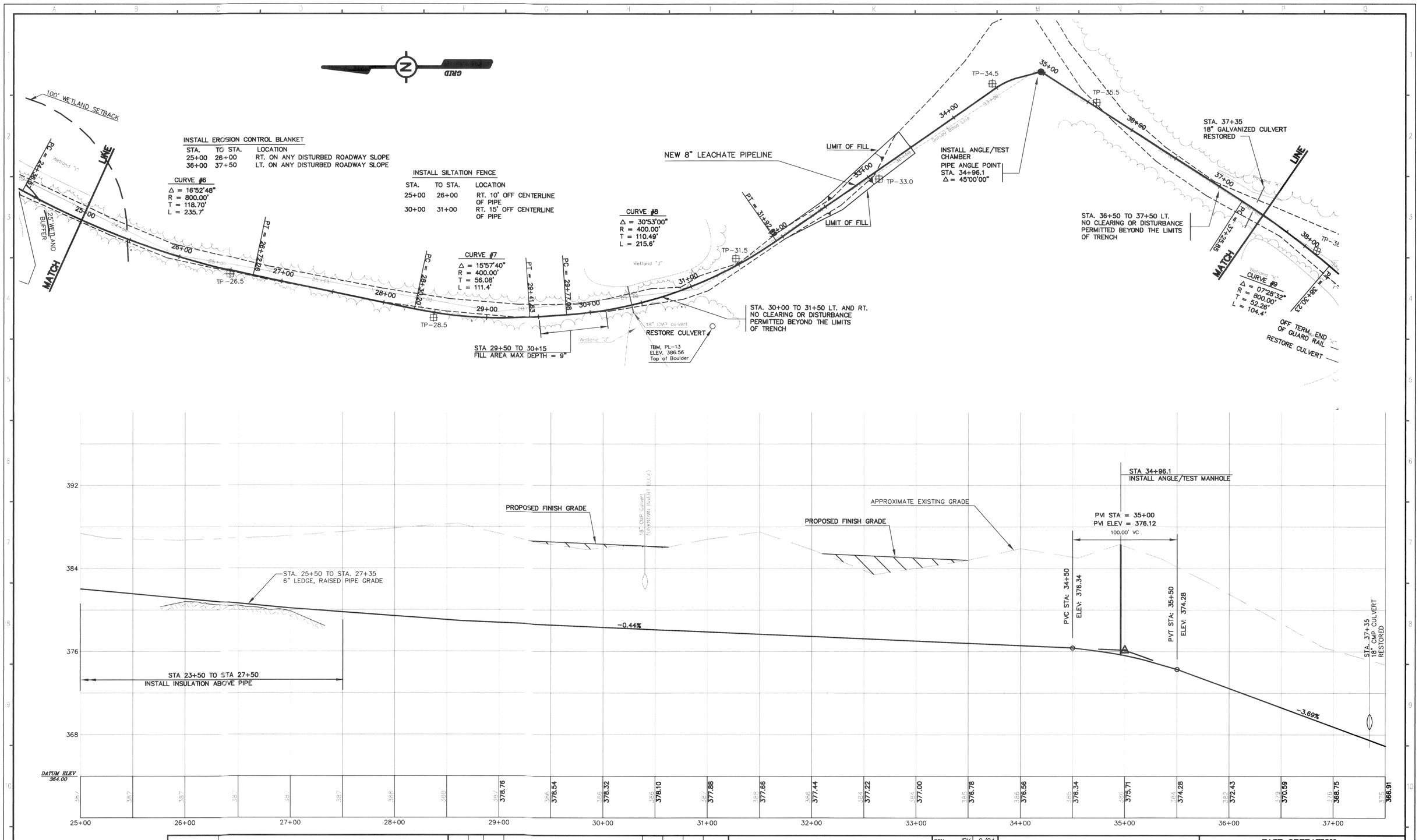
LEACHATE PIPELINE PROJECT

DOLBY LANDFILL TO THE EAST OPERATION
STA. 12+50 TO STA. 25+00
8" FORCE MAIN
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22962
SHEET 1 OF 1

D:\94-227\ACAD\94227R12 Thu Mar 28 14:07:07 1996



DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
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		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
		B		4/95	ISSUED FOR BIDS	RMC	PBT		
		P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
		P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

STATE OF MAINE
PETER B TUBBS 2678
REGISTERED PROFESSIONAL ENGINEER

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE
P – Prelim B – Bids
M – Mtl T.O. C – Const.
SCALE 1"=40'H;1"=4'V

BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 25+00 TO STA. 37+50
8" FORCE MAIN
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22963
SHEET 1 OF 1

D:\94-227\ACAD\9422PR12 Thu Mar 28 14:10:42 1996

CULVERT

MATCH LINE

STA. 37+50 TO 39+00 RT.
NO CLEARING OR DISTURBANCE
PERMITTED BEYOND THE LIMITS
OF TRENCH

INSTALL ANGLE MANHOLE
PIPE ANGLE POINT
STA. 38+93.7
Δ = 22°30'00"

GRID

TP-38.0

38+00

PC = 37+25.77

PT = 38+30.23

CURVE #9
Δ = 07°28'32"
R = 800.00'
T = 52.26'
L = 104.4'

TP-39.0

42'

48.5'

OFF TERM. END
OF GUARD RAIL

RESTORE CULVERT

ROUTE 157

To East Millinocket

To Millinocket

39+00

STA. 39+13 TO STA. 40+13
INSTALL 100' OF 24" DIA.
STEEL CASING PIPE BY
HORIZONTAL BORING

STEEL DOUBLE LEAF SWING
GATE INSTALLED

27'

41+00

TP-41.0

39'

REPLACE CULVERT
RESTORE DRAINAGE

Woods
Road

STA 41+00
INSTALL ANGLE MANHOLE
Δ = 60°00'00"

NEW 8" LEACHATE PIPELINE

42+00

43+00

44+00

TP-44.0

45+00

46+00

47+00

48+00

49+00

TP-50.0

50+00

PC = 49+63.75

MATCH LINE

STA. 46+00 TO 50+0 LT. NO CLEARING
OR DISTURBANCE PERMITTED BEYOND
LIMIT OF EXISTING ROAD

25' WETLAND BUFFER

PIPE DEFLECTED 4' RT. @ STA. 48+0
AROUND 20 C.Y.± BOULDER

STA. 46+50 TO 50+00 LIMIT
TOP OF TRENCH WIDTH TO 10.0'

100' WETLAND SETBACK

INSTALL SILTATION FENCE

STA.	TO STA.	LOCATION
37+50	39+00	RT. AT TREE LINE
46+00	50+00	LT. 5' OFF EDGE OF RD.
49+00	50+00	RT. AT TREE LINE

STA 38+94
INSTALL ANGLE MANHOLE

ELEV: 363.22

368

STA 41+00
INSTALL ANGLE MANHOLE

APPROXIMATE EXISTING GRADE

PVI STA = 45+00
PVI ELEV = 354.12
100.00' VC

50


STA. 50+00 TO 56+00 LT. NO CLEARING OR DISTURBANCE PERMITTED BEYOND THE EXISTING ROAD
(Cedar post) property line marker
STA 51+50 INSTALL TEST MANHOLE
MATCH LINE
50+00
51+00
52+00
53+00
54+00
55+00
56+00
57+00
58+00
59+00
60+00
61+00
62+00
PC = 49+63.75
PT = 50+69.86
PC = 52+28.98
PT = 54+39.25
PC = 59+44.26
Woods Road
NEW POLE # 6
RESTORE CULVERT
CURVE #10
Δ = 07°35'58"
R = 800.00'
T = 53.13'
L = 106.1'
CURVE #11
Δ = 15°03'36"
R = 800.00'
T = 105.75'
L = 210.3'
CURVE #12
Δ = 41°46'55"
R = 800.00'
T = 305.35'
L = 583.39'
TP-55.2
TP-58.5
TP-59.5
TP-61.5
Bituminous Paved Roadway
NEW 8" LEACHATE PIPELINE
25' WETLAND BUFFER
100' WETLAND SETBACK
18.5'
2.7'
NEW POLE # 6
TIES TO MH @ STA. 51+50
STA. 50+00 TO 55+50 LIMIT TOP OF TRENCH WIDTH TO 10'
STA.50+00 TO 56+00 RT. NO CLEARING OR DISTURBANCE PERMITTED BEYOND THE EXISTING TREE LINE
INSTALL SILTATION FENCE
STA. TO STA. LOCATION
50+00 55+50 RT. AT THE TREE LINE
62+00 62+50 RT. AT THE TREE LINE
INSTALL EROSION CONTROL BLANKET
STA. TO STA. LOCATION
50+00 55+50 RT. ON ANY DISTURBED ROADWAY SLOPE
Gravel Parking Area
TBM-SCOUT RD. ELEV 389.70
STA. 62+00 TO 62+50 RT. NO CLEARING OR DISTURBANCE BEYOND THE TREE LINE
16' INSULA
GRID
N
368
360
352
344
392
384
376
368
360
APPROXIMATE EXISTING GRADE
GRADE CHANGE TO AVOID, OR MINIMIZE LEDGE
STA 51+50 INSTALL TEST MANHOLE
6.4%
-2.60%
INSULATE
APPROXIMATE EXISTING GRADE
0.68%
5.60%
PIPE RAISED TO MINIMIZE LEDGE REMOVAL
DATUM ELEV 336.00
DATUM ELEV 356.00
341.12
339.82
338.78
349.03
352.24
355.45
358.25
361.05
363.85
366.65
369.45
372.25
374.07
376.09
376.96
377.30
377.64
377.98
378.32
50+00
51+00
52+00
53+00
54+00
55+00
56+00 +25 +50
57+00
58+00
59+00
60+00
61+00
62+00

STATE OF MAINE
PETER B TUBBS
2878
REGISTERED
PROFESSIONAL ENGINEER
4-3-96

C	3/96	RECORD DRAWING	MSB	PBT	
C	6/95	ISSUED FOR CONSTRUCTION	BAK	PBT	
B	4/95	ISSUED FOR BIDS	MSB	PBT	
P	4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT	
P		SUBMITTED W/ PERMIT APPLICATION	JRK	PBT	

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE
P - Prelim | B - Bids
M - Mtl T.O. | C - Const.
SCALE 1"=40'H; 1"=4'V

BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 50+00 TO STA. 62+50
8" FORCE MAIN
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783
YB-22965
SHEET 1 OF 1

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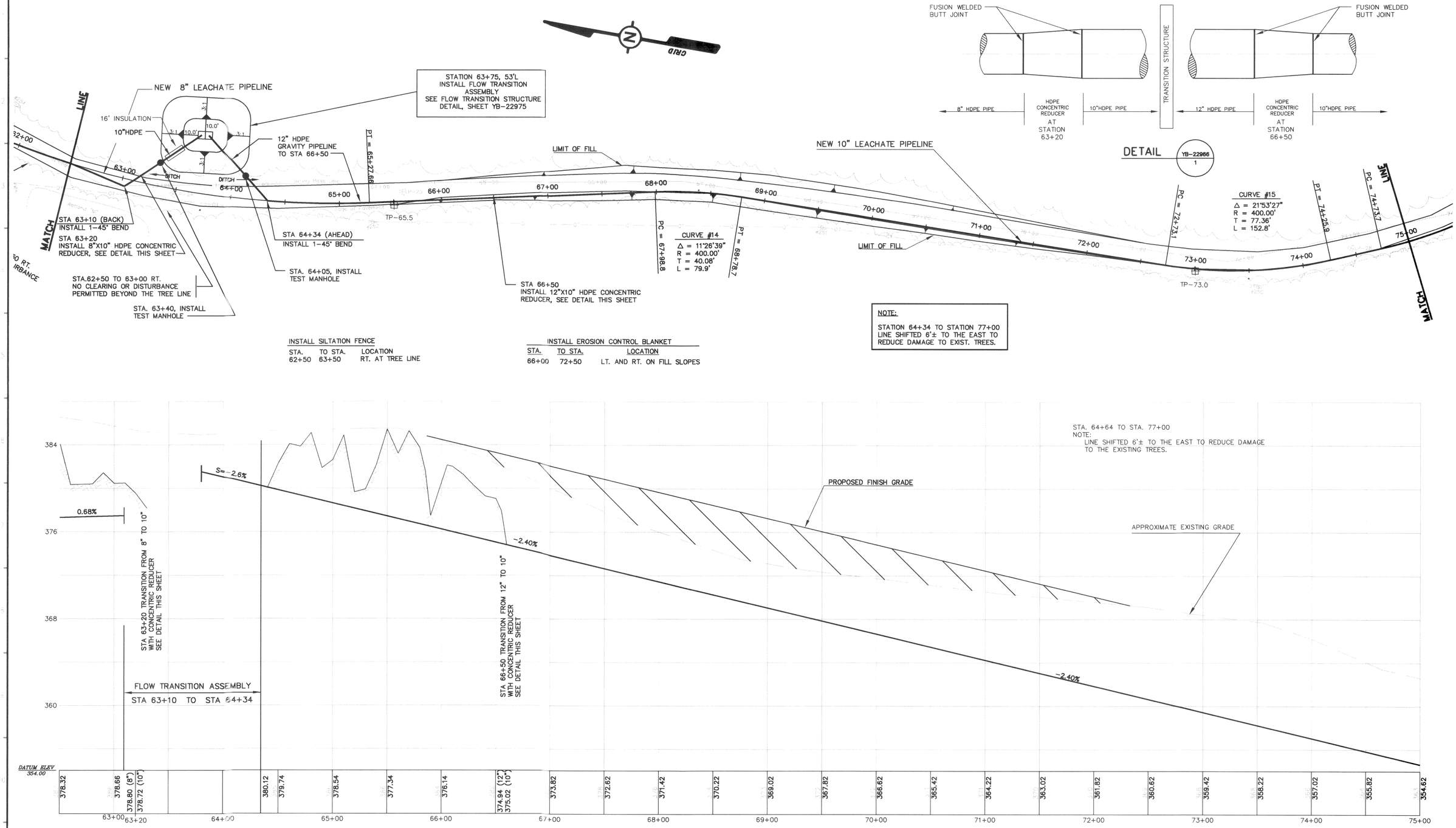


STATE OF MAINE
PETER B TUBBS
2678
REGISTERED PROFESSIONAL ENGINEER
4.3.96

C		3/96	RECORD DRAWING	MSB	PBT			
C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT			
B		4/95	ISSUED FOR BIDS	RMC	PBT			
P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT			
P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT			
DRAWING NO.			ASSOCIATED DRAWING TITLE	REVISION		BY	CHK	APPVD	JOB NO.

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94	
CHK	PBT	10/94	
CHK			
CORR			
APPVD			

ISSUE CODE

P - Prelim	B - Bids
M - Mtl T.O.	C - Const.

SCALE 1"=40'H;1"=4'V

BOWATER
Great Northern Paper

EAST OPERATION

LEACHATE PIPELINE PROJECT

DOLBY LANDFILL TO THE EAST OPERATION
STA. 62+50 TO STA. 75+00
8" FORCE MAIN/12" & 10" GRAVITY TRANSITION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22966
SHEET 1 OF 1

U:\94-22\ACAD\9422H12 Thu Apr 4 16:04:41 1996

FUSION WELDED BUTT JOINT
PIPE
PIPE ANGLE POINT
STA. 78+35.3
Δ = 45°00'00"
INSTALL ANGLE MANHOLE
STEEL DOUBLE LEAF SWING GATE INSTALLED
GRID
NOTE: REFER TO B.A.R.R. CO.RIGHT OF WAY & TRACK MAP,SCHOODIC STREAM JCT. TO E. MILLINOCKET
AREA TO BE FILLED
STA 272+70± (CENTERLINE TRACK) = STA 80+67± (LEACHATE LINE)
STA 80+22 - STA 81+22 INSTALL 100' OF 24" D.I. CASING PIPE
NEW 10" LEACHATE PIPELINE
CURVE #16
Δ = 29°06'25"
R = 400.00'
T = 103.85'
L = 203.2'
PC = 74+73.7
PT = 76+76.9
PC = 83+23.0
TEST PIT REQUIRED TO LOCATE 2" WATER (MAINTAIN IN SERVICE)
CURVE #17
Δ = 26°55'47"
R = 800.00'
T = 191.54'
L = 376.0'
PT = 86+99.0
STA. 85+30
INSTALL TEST M.H.
Elec. Substation
MATCH LINE
APPROXIMATE EXISTING GRADE
STA 78+35.3
INSTALL ANGLE MANHOLE
PROPOSED FINISH GRADE
GRADE CHANGE OVER UNBLASTED LEDGE 8-4-95
9.0'± COVER
-4.50%
STA 80+22 - STA 81+22 INSTALL 100' OF 24"DIA. D.I. CASING PIPE
100' VC
PVI STA = 82+00
PVI ELEV = 329.42
PVC STA: 81+50 ELEV: 331.67
PVT STA: 82+50 ELEV: 325.49
-7.86%
PVI STA = 84+50
PVI ELEV = 309.77
100.00' VC
PVC STA: 84+00 ELEV: 313.70
PVT STA: 85+00 ELEV: 309.34
STA 85+30
INSTALL TEST MANHOLE
-0.86%
DATUM ELEV 330.00
DATUM ELEV 306.00
354.62 353.42 352.22 351.02 350.50 350.00 348.20 345.17 342.92 340.67 338.42 336.17 333.92
331.67 329.00 325.49 321.56 317.63 313.70 310.64 309.34 308.91 308.48 308.05 307.62 307.19
75+00 76+00 77+00 78+00 79+00 80+00 81+00 +25 +50 82+00 83+00 84+00 85+00 86+00 87+00

Drawing No.	Reference Drawing Title	Code	No.	Date	Revision	By	Chk	Appvd	Job No.
		C		3/96	RECORD DRAWING	MSB	PBT		
		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
		B		4/95	ISSUED FOR BIDS	MSB	PBT		
				4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
				3/15/95	SUBMITTED FOR R.R. APPROVAL	PBT	PBT		
V2h-2	B.A.R.R. Co. RIGHT OF WAY & TRACK MAP, SCHOODIC STREAM JCT. TO E. MILLINOCKET	P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

STATE OF MAINE — PETER B TUBBS 2878 — REGISTERED PROFESSIONAL ENGINEER

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

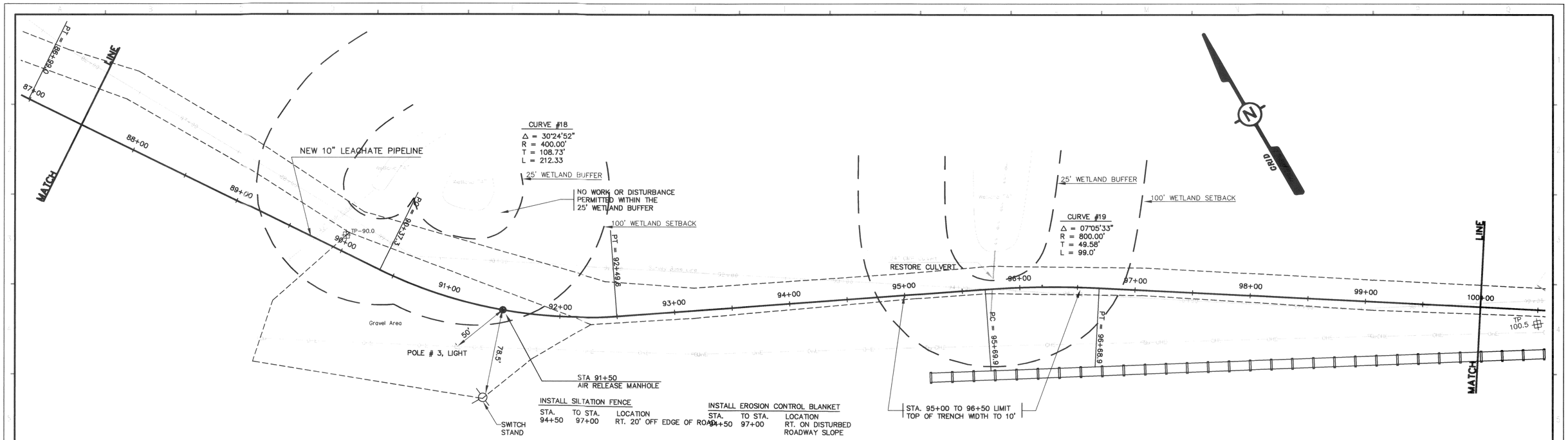
DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE: P - Prelim; B - Bids; M - Mtl T.O.; C - Const.
SCALE 1"=40'H; 1"=4'V

BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 75+00 TO STA. 87+50
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783
YB-22967
SHEET 1 OF 1



STATE OF MAINE
PETER B TUBBS
2578
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISION	DRN	CHK	APPVD
C	3/96	RECORD DRAWING	MSB	PBT	
C	6/95	ISSUED FOR CONSTRUCTION	BAK	PBT	
B	4/95	ISSUED FOR BIDS	RMC	PBT	
P	4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT	
P		SUBMITTED W/ PERMIT APPLICATION	JRK	PBT	

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
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CHK		
CORR		
APPVD		

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P - Prelim | B - Bids
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SCALE 1"=40'H;1"=4'V

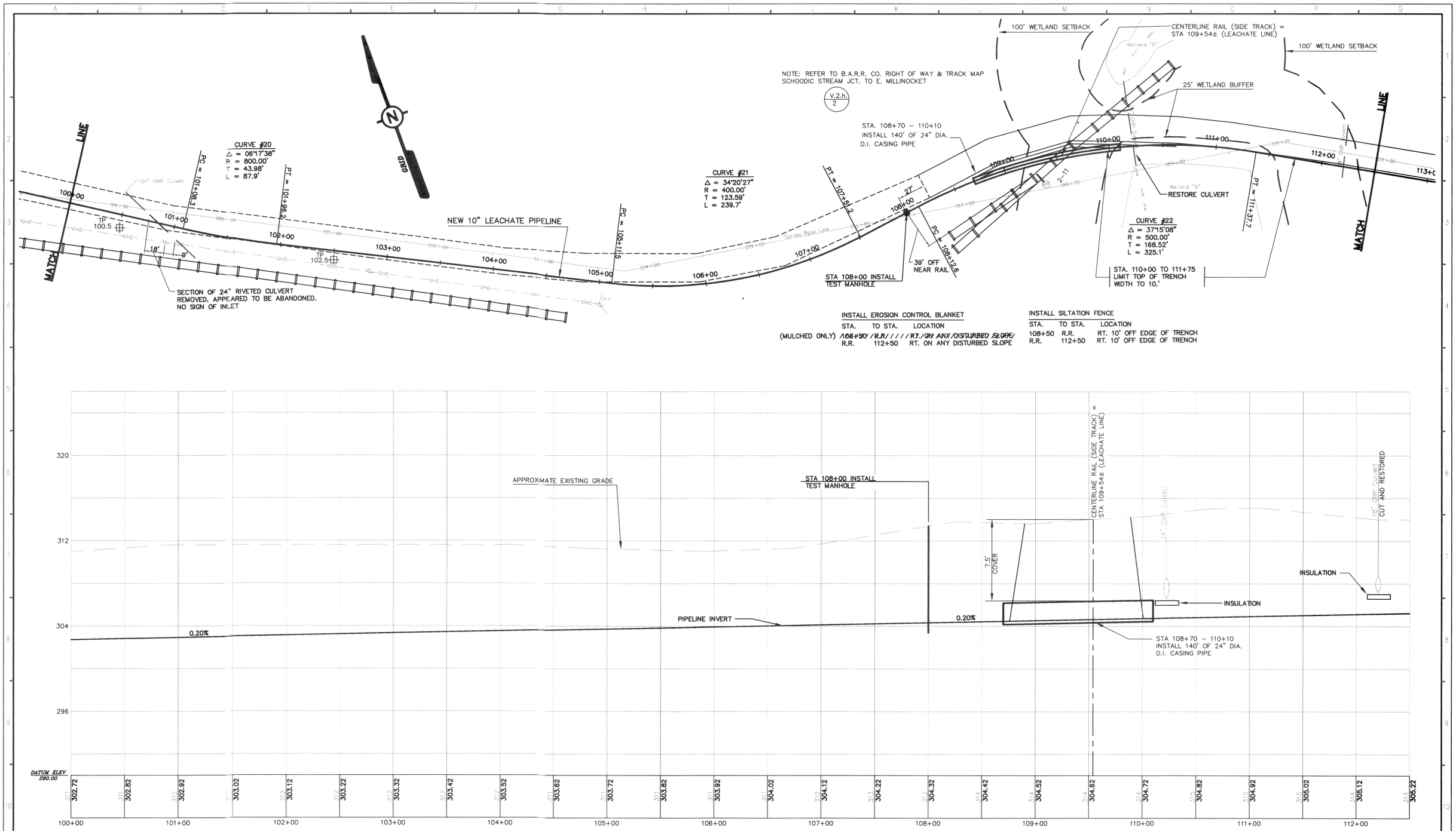
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 87+50 TO STA. 100+00
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22968
SHEET 1 OF 1

U:\94-227\ACAD\9422\H12 Thu Apr 4 15:13:16 1996



STATE OF MAINE
PETER B TUBBS 2578
REGISTERED PROFESSIONAL ENGINEER
4-3-96

		C		3/96	RECORD DRAWING	MSB	PBT	
		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT	
		B		4/95	ISSUED FOR BIDS	MSB	PBT	
		P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT	
				3/15/95	SUBMITTED FOR R.R. APPROVAL	JRK	PBT	
V2h-2	& A.R.R. Co. RIGHT OF WAY & TRACK MAP, SCHOODIC STREAM JCT. TO E. MILLINOCKET	P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT	
DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD JOB No.

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

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CHK		
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ISSUE CODE: P – Prelim | B – Bids | M – Mtl T.O. | C – Const.

SCALE 1"=40'H; 1"=4'V

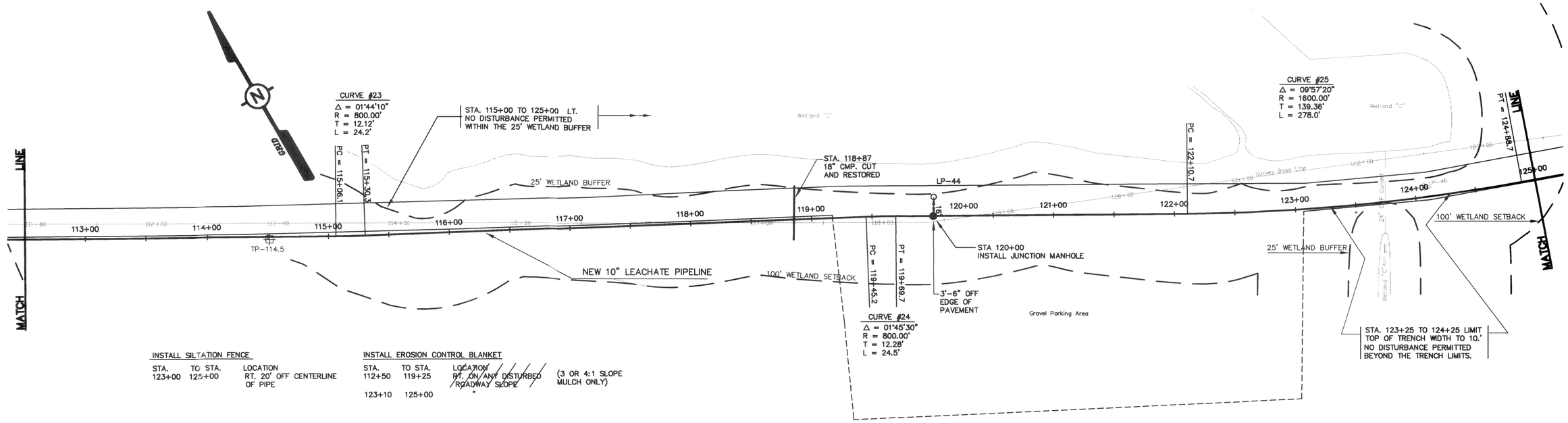
BOWATER
Great Northern Paper

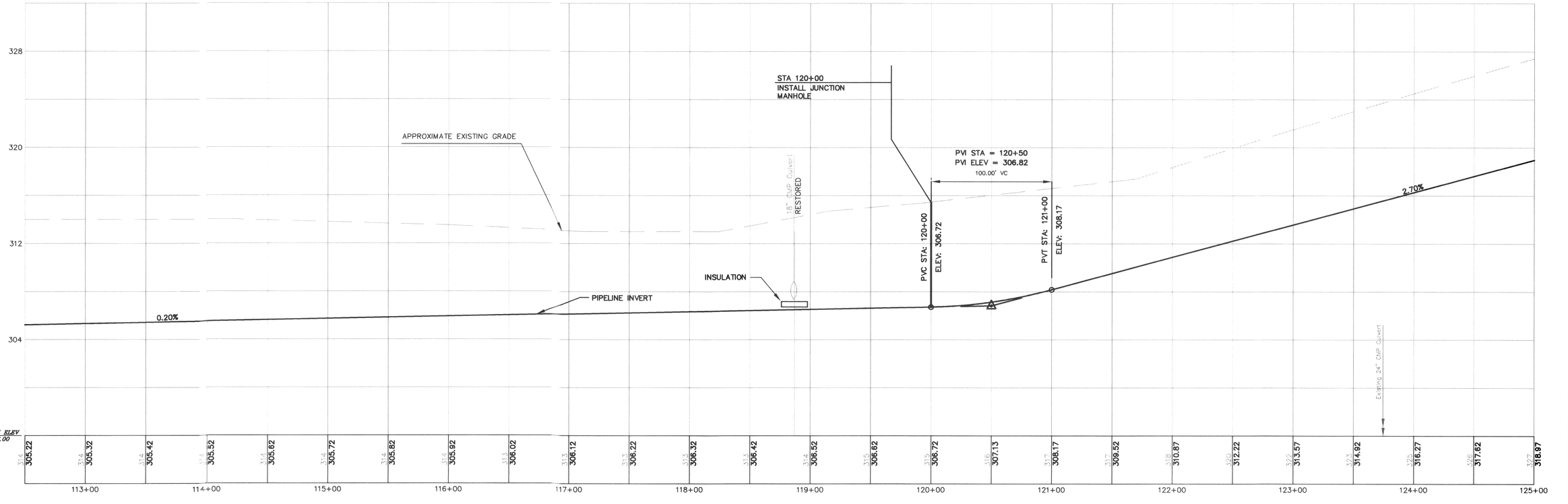
EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 100+00 TO STA. 112+50
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22969
SHEET 1 OF 1

D:\94-227\ACAD\94227H12 Thu Mar 28 14:55:52 1996





STATE OF MAINE
PETER B TUBBS
2878
REGISTERED
PROFESSIONAL ENGINEER
4-3-96

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
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		B		4/95	ISSUED FOR BIDS	RMC	PBT		
		P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
		P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE
P - Prelim | B - Bids
M - Mtl T.O. | C - Const.
SCALE 1"=40'H;1"=4'V

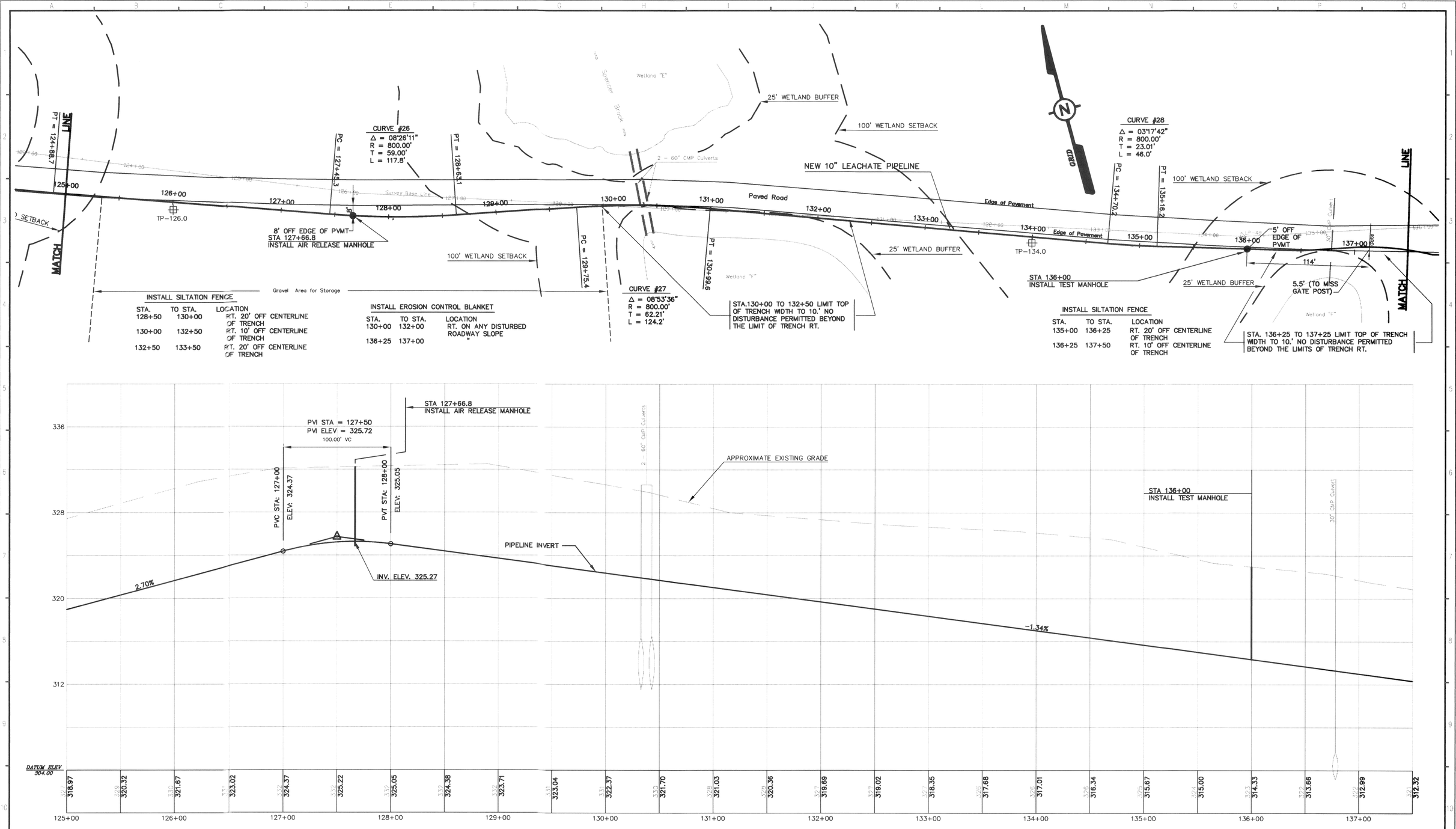
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 112+50 TO STA. 125+00
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22970
SHEET 1 OF 1

D:\94-227\ACAD\94227R12 Thu Mar 28 15:00:43 1996



C		3/96	RECORD DRAWING	MSB	PBT			
C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT			
B		4/95	ISSUED FOR BIDS	RMC	PBT			
P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT			
P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT			
DRAWING NO.		REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.

STATE OF MAINE
PETER B TUBBS
2678
REGISTERED PROFESSIONAL ENGINEER
7-3-96

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE
P – Prelim | B – Bids
M – Mtl T.O. | C – Const.
SCALE 1"=40'H; 1"=4'V

BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 125+00 TO STA. 137+50
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22971
SHEET 1 OF 1

D:\94-227\ACAD\9422PR12 Thu Mar 28 15:04:11 1996

Paved Road

NOTE: REFER TO B.A.R.R. CO. STATION MAP SCHOODIC STREAM JCT. TO E. MILLINOCKET

V.2.h. / S2

STA 143+72 – STA 144+52
INSTALL 80' OF 24"DIA. D.I. CASING PIPE

STA 146+60 INSTALL AIR RELEASE/TEST MANHOLE

4" SAN. SEWER FROM SCALE HOUSE RESTORED

EXIST. PVMT. THIS AREA PATCHED AND ALLIGATORED

CURVE #29
Δ = 16°56'39"
R = 400.00'
T = 59.58'
L = 118.3'

PC = 140+82.3

PT = 142+00.6

Paved Road

Edge of Pavement

Bark Storage Area

TP-143

45°

65'

143+72

144+52

PC = 144+21.3

PT = 145+98.1

STA 144+12 (LEACHATE LINE) = CENTERLINE R.R.

NEW 10" LEACHATE PIPELINE

CURVE #30
Δ = 25°19'22"
R = 400.00'
T = 89.86'
L = 176.8'

NEW PATCH BY E.P.I. (5–8' WIDE)

MATCH LINE

MATCH LINE

INSTA PROTE

138+00 139+00 140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00

INSTALL SILTATION FENCE

STA.	TO STA.	LOCATION
137+50	138+50	RT. 20' OFF CENTERLINE OF TRENCH
149+00	150+00	RT. AT TOE OF PIPE FILL

INSTALL EROSION CONTROL BLANKET

STA.	TO STA.	LOCATION
137+50	138+50	RT. ON ANY DISTURBED ROADWAY SLOPE
144+50	150+00	ON PIPE TRENCH AND DISTURBED AREAS WITH SLOPES STEEPER THAN 3:1

APPROXIMATE EXISTING GRADE

PVI STA = 140+50
PVI ELEV = 308.30
100.00' VC

PVC STA: 140+00 ELEV: 308.97

PVT STA: 141+00 ELEV: 309.30

PVI STA = 142+50
PVI ELEV = 312.30
100.00' VC

PVC STA: 142+00 ELEV: 311.30

PVT STA: 143+00 ELEV: 312.54

15" CMP Culvert

STA 144+12 (LEACHATE LINE) = CENTERLINE R.R.

3.5' COVER

PVC STA: 144+50 ELEV: 313.26

BOXED INSULATION

STA 143+72 – STA 144+52
INSTALL 80' OF 24"DIA. D.I. CASING PIPE

STA. 143+50 TO STA. 144+75
INSTALL PIPE INSULATION

PVI STA = 145+00
PVI ELEV = 313.50
100.00' VC

PVT STA: 145+50 ELEV: 315.77

STA 146+60 INSTALL AIR RELEASE/TEST MANHOLE

PVI STA = 146+50
PVI ELEV = 320.30
100.00' VC

PVC STA: 146+00 ELEV: 318.03

INV. ELEV. 319.35

PVT STA: 147+00 ELEV: 318.67

4" SAN. SEWER FROM SCALE HOUSE – RESTORED

PVC STA: 148+50 ELEV: 313.79

PVI STA = 149+00
PVI ELEV = 312.16
100.00' VC

PVT/PVC STA: 149+50 ELEV: 306.11

200.00' VC

-1.34% 2.0% 0.48% 4.53% -3.26% -12.11%

328 320 312 304

DATUM ELEV 296.00

138+00	139+00	140+00	141+00	142+00	143+00	144+00	145+00	146+00	147+00	148+00	149+00	150+00
321 312.32	320 311.65	319 310.98	319 310.31	317 309.64	316 308.97	316 308.72	318 309.30	328 310.30	321 311.30	321 312.11	322 312.54	322 312.78
319 313.02	320 313.26	324 314.00	326 315.77	327 318.03	40 319.33	326 318.67	325 317.04	326 315.42	322 313.79	321 311.05	315 306.11	305 301.13

STATE OF MAINE — PETER B TUBBS 2878 — REGISTERED PROFESSIONAL ENGINEER — 4-3-96

DRAWING NO.	REFERENCE DRAWING TITLE
V2h–S2	B.A.R.R. Co. STATION MAP SCHOODIC STREAM JCT. TO E. MILLINOCKET

CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
C		3/96	RECORD DRAWING	MSB	PBT		
C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
B		4/95	ISSUED FOR BIDS	RMC	PBT		
P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
		3/15/95	SUBMITTED FOR R.R. APPROVAL	PBT	PBT		
P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE: P – Prelim | B – Bids | M – Mtl T.O. | C – Const.

SCALE 1"=40'H; 1"=4'V

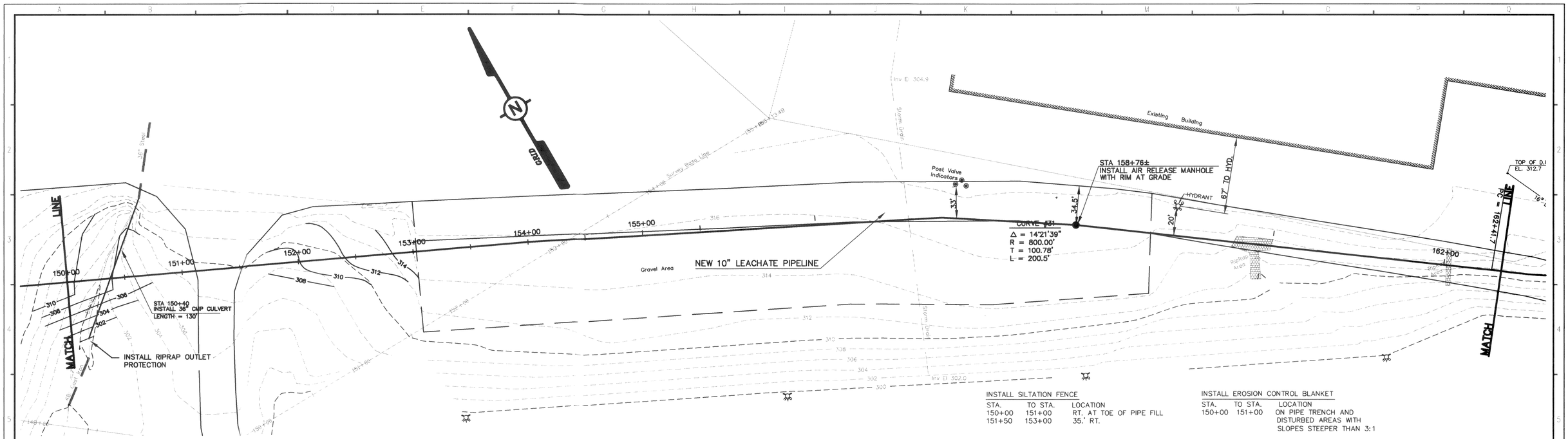
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 137+50 TO STA. 150+00
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22972
SHEET 1 OF 1

D:\94-227\ACAD\94227H12 Thu Mar 28 15:29:33 1996

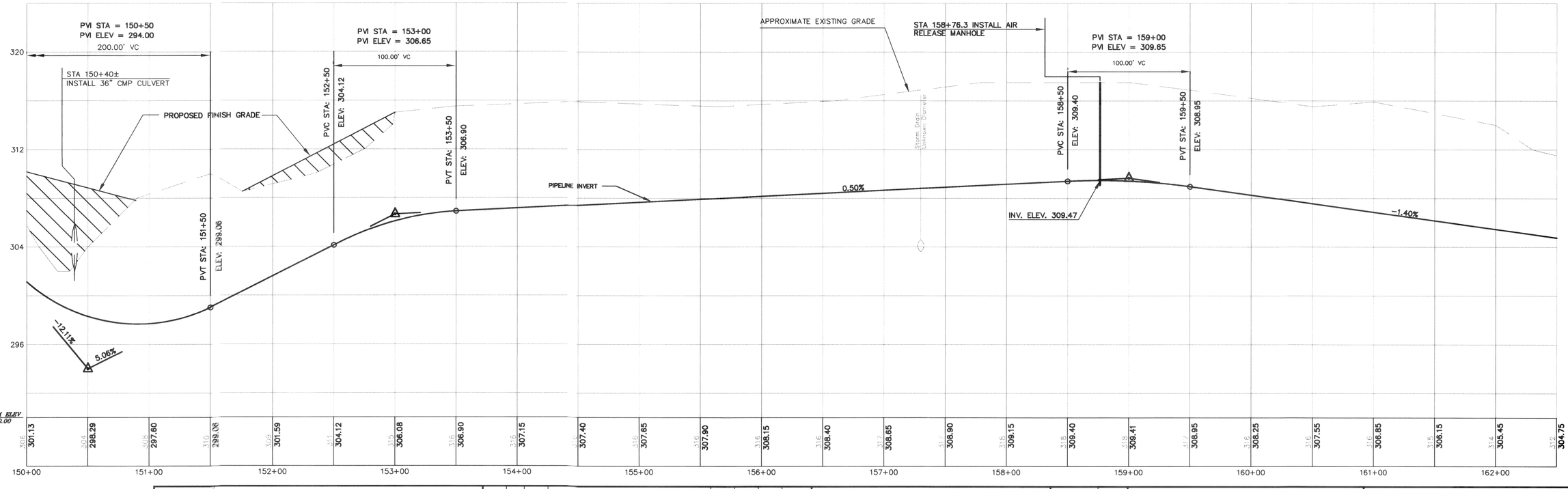


INSTALL SILTATION FENCE

STA.	TO STA.	LOCATION
150+00	151+00	RT. AT TOE OF PIPE FILL
151+50	153+00	35.' RT.

INSTALL EROSION CONTROL BLANKET

STA.	TO STA.	LOCATION
150+00	151+00	ON PIPE TRENCH AND DISTURBED AREAS WITH SLOPES STEEPER THAN 3:1



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	C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
	B		4/95	ISSUED FOR BIDS	MSB	PBT		
	P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
	P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		
YB-20978	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.

RECYCLE FIBER PLANT – UNDERGROUND UTILITIES SHEETS 1–6
REFERENCE DRAWING TITLE

STATE OF MAINE
PETER B TUBBS
2676
REGISTERED
PROFESSIONAL ENGINEER
4-5-96

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE: P – Prelim; B – Bids; M – Mtl T.O.; C – Const.
SCALE 1"=40'H;1"=4'V

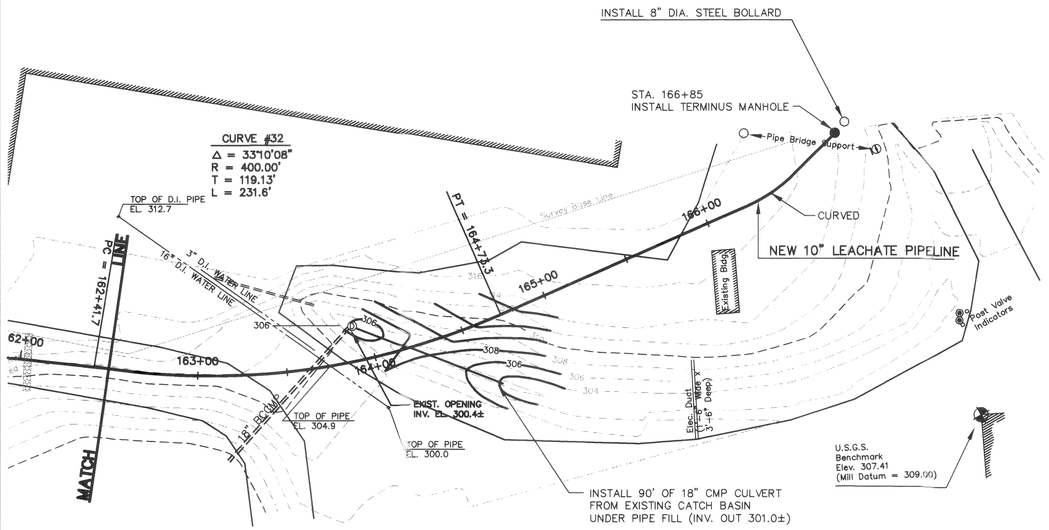
BOWATER
Great Northern Paper

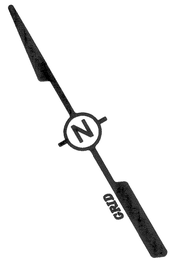
EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 150+00 TO STA. 162+50
10" GRAVITY SECTION
PLAN & PROFILE

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22973
SHEET 1 OF 1

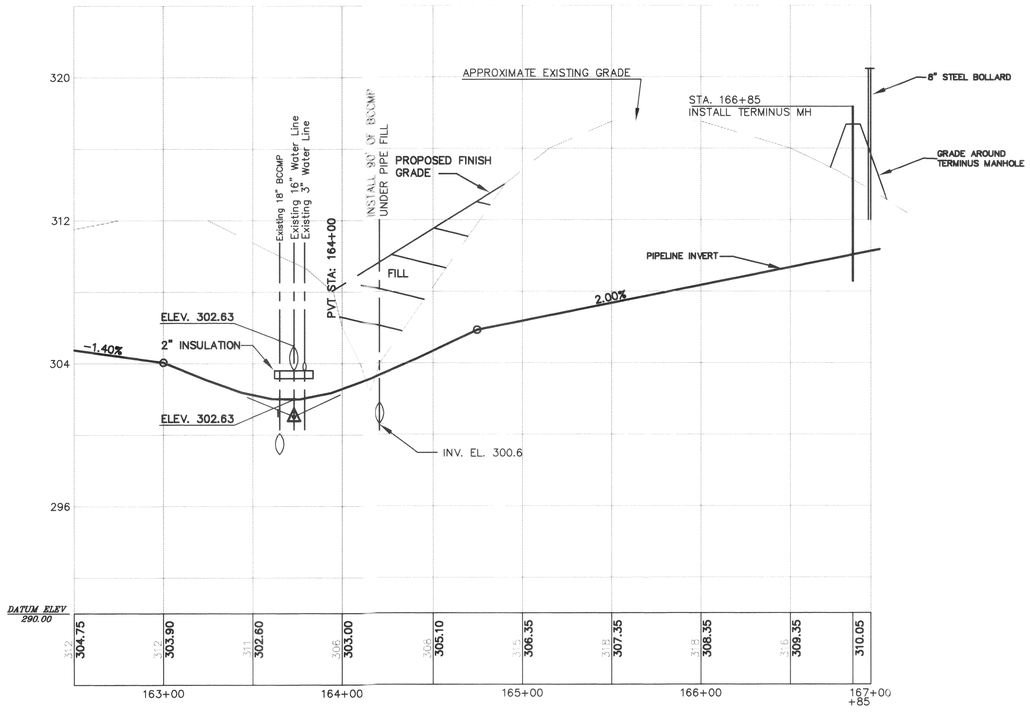
D:\94-227\ACAD\94227R12 Thu Mar 28 15:34:14 1996





MANHOLE AND STRUCTURE SCHEDULE

STATION	TYPE	SIZE	DESCRIPTION
0+95	CIRCULAR	8' DIA.	GATE AND CHECK VALVE
2+41	CIRCULAR	6' DIA.	ANGLE
8+31	CIRCULAR	6' DIA.	AIR RELEASE
17+46	CIRCULAR	8' DIA.	AIR RELEASE / TEST
34+96	CIRCULAR	8' DIA.	ANGLE / TEST
38+94	CIRCULAR	4' DIA.	ANGLE
41+00	CIRCULAR	4' DIA.	ANGLE
51+50	CIRCULAR	8' DIA.	TEST
63+40	CIRCULAR	8' DIA.	TEST
63+75, 53' LT.	RECTANGULAR	6' X 12'	FLOW TRANSITION STRUCTURE
64+05	CIRCULAR	8' DIA.	TEST
78+35	CIRCULAR	4' DIA.	ANGLE
85+30	CIRCULAR	8' DIA.	TEST
91+50	CIRCULAR	4' DIA.	AIR RELEASE
108+00	CIRCULAR	8' DIA.	TEST
127+67	CIRCULAR	6' DIA.	AIR RELEASE
136+00	CIRCULAR	8' DIA.	TEST
120+00	CIRCULAR	4' DIA.	JUNCTION
146+60	CIRCULAR	8' DIA.	AIR RELEASE / TEST
158+76	CIRCULAR	6' DIA.	AIR RELEASE
166+85	CIRCULAR	8' DIA.	VALVE



STATE OF MAINE
PETER B TUBBS
2878
REGISTERED
PROFESSIONAL ENGINEER
4-3-96

DRAWING NO.	REFERENCE DRAWING TITLE
YB-20978	RECYCLE FIBER PLANT AND UNDERGROUND UTILITIES, SHTS. 1-6

CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
C		3/96	RECORD DRAWING	MSB	PBT		
C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
B		4/95	ISSUED FOR BIDS	RMC	PBT		
P		4/95	PRELIMINARY CONSTRUCTION ISSUE	RMC	PBT		
P			SUBMITTED W/ PERMIT APPLICATION	JRK	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	JRK	9/94
CHK	PBT	10/94
CHK		
CORR		
APPVD		

ISSUE CODE
P - Prelim | B - Bids
M - MH T.O. | C - Const.
SCALE 1"=40'H;1"=4'V

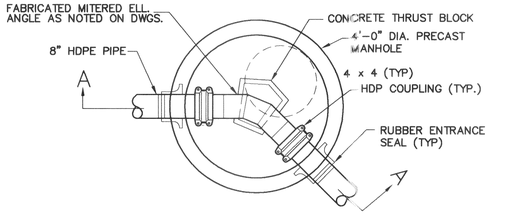
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
STA. 162+50 TO STA. 167+00
10" GRAVITY SECTION
PLAN & PROFILE

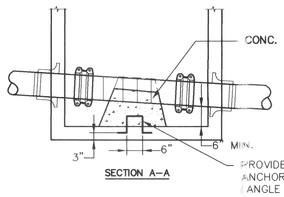
JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22974
SHEET 1 OF 1

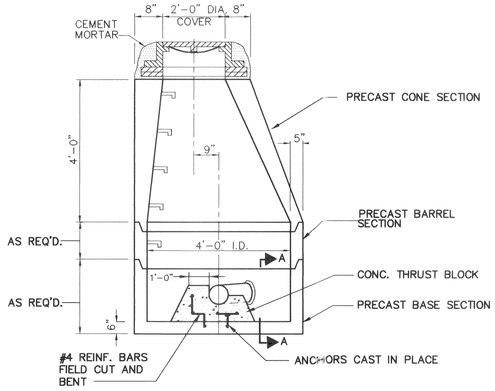
D:\94-227\ACAD\94227R12 Thu Apr 4 09:33:41 1996



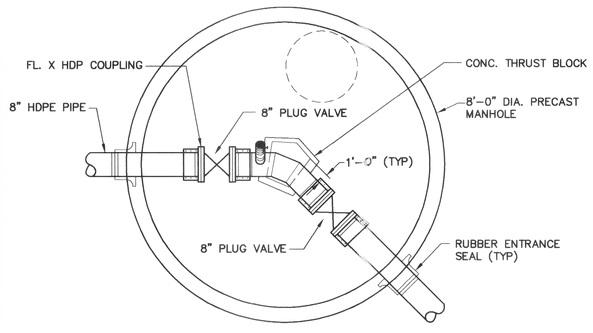
PLAN



SECTION A–A

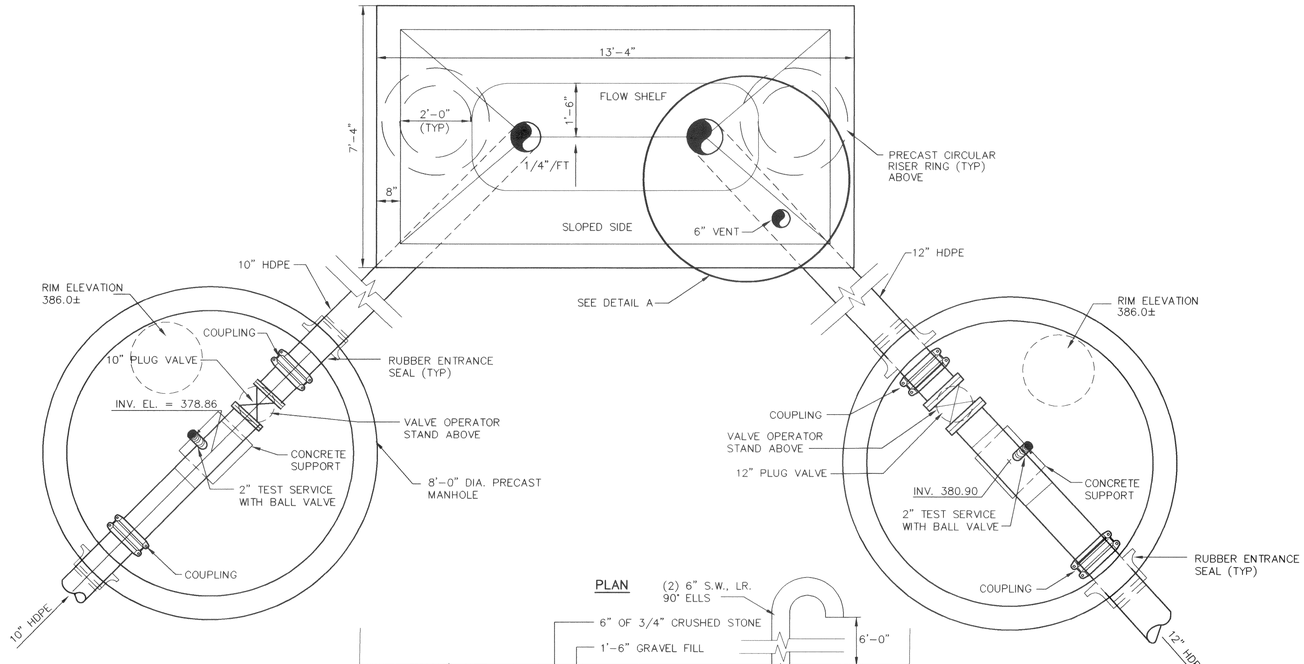


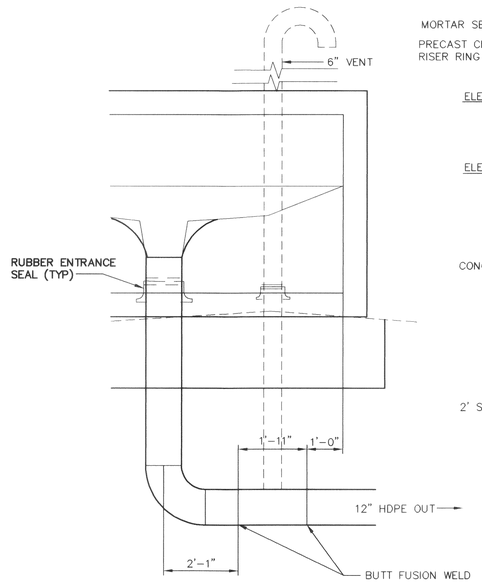
ELEVATION
TYPICAL JUNCTION / ANGLE MANHOLE



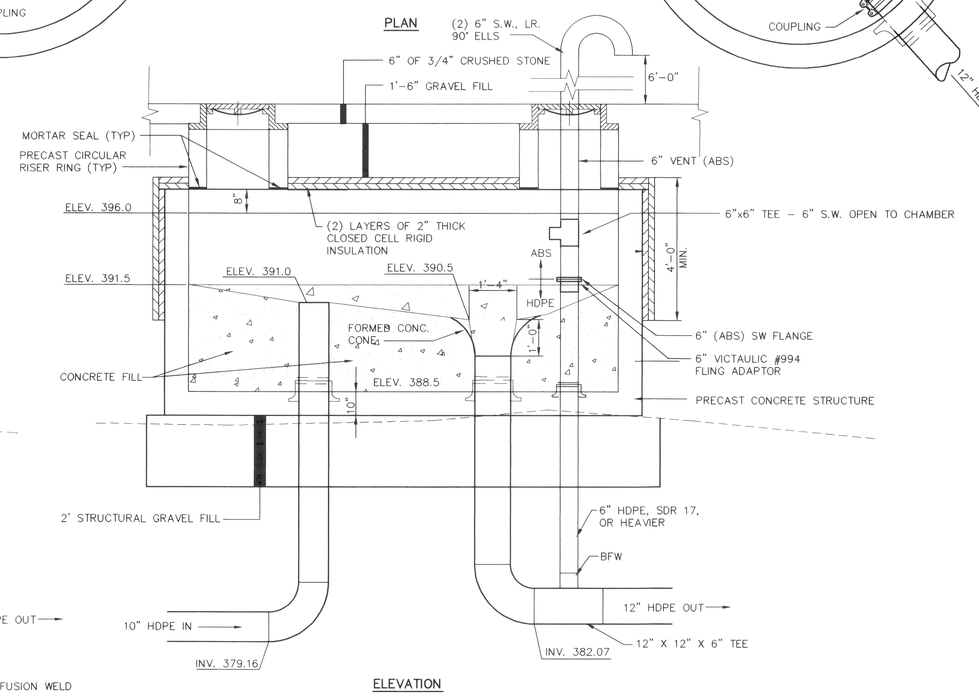
PLAN

ANGLE / TEST CHAMBER
STATION 34+96





DETAIL A
N.T.S.



ELEVATION
FLOW TRANSITION STRUCTURE
N.T.S.

STATE OF MAINE
PETER B TUBBS 2978
REGISTERED PROFESSIONAL ENGINEER
4-3-96

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		3/96	RECORD DRAWING	MSB	PBT		
		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
		B		4/95	ISSUED FOR BIDS	MSB	PBT		
		P		4/95	PRELIMINARY CONSTRUCTION ISSUE	MSB	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	MSB	4/95
CHK	PBT	4/95
CHK		
CORR		
APPVD		

ISSUE CODE: P – Prelim. | B – Bids | M – Mtl T.O. | C – Const.

SCALE AS NOTED

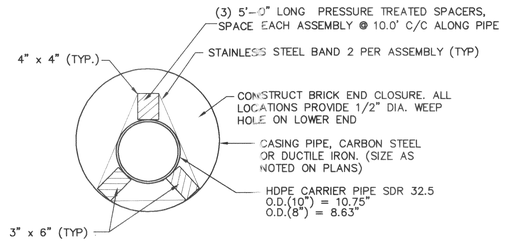
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
MANHOLES AND STRUCTURES
MISCELLANEOUS DETAILS

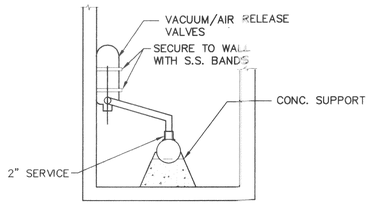
JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB–22975
SHEET 1 OF 2

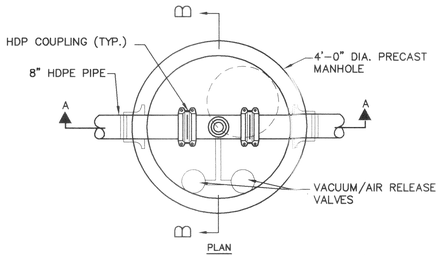
D:\94-227\ACAD\DETAIL-2 Thu Mar 28 07:33:46 1996



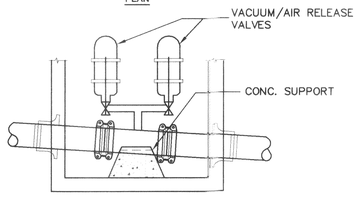
RAILROAD AND ROUTE 157 CROSSINGS
PIPE ENCASEMENT
N.T.S.



SECTION B-B

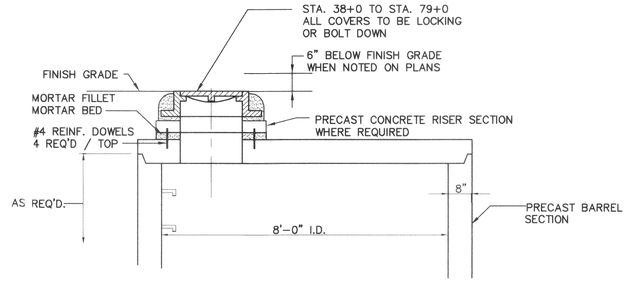


PLAN

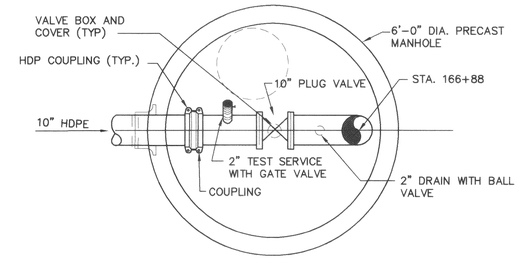


SECTION A-A

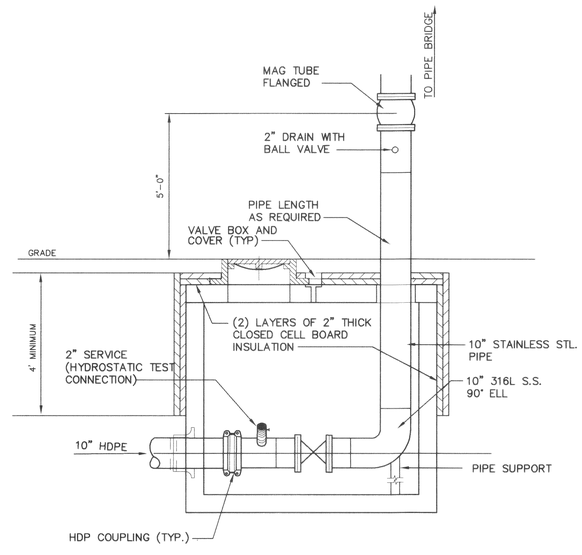
AIR RELEASE MANHOLE
N.T.S.



TYPICAL TOP INSTALLATION
FLAT TOP MANHOLES AND STRUCTURES
N.T.S.



PLAN



ELEVATION

TERMINUS MANHOLE
N.T.S.

PETER B TUBBS 2678 REGISTERED PROFESSIONAL ENGINEER STATE OF MAINE
4-3-96

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		3/96	RECORD DRAWING	MSB	PBT		
		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
		B		4/95	ISSUED FOR BIDS	MSB	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	MSB	4/95
CHK	PBT	4/95
CHK		
CORR		
APPVD		

ISSUE CODE: P - Prelim; B - Bids; M - Mtl T.O.; C - Const.
SCALE AS NOTED

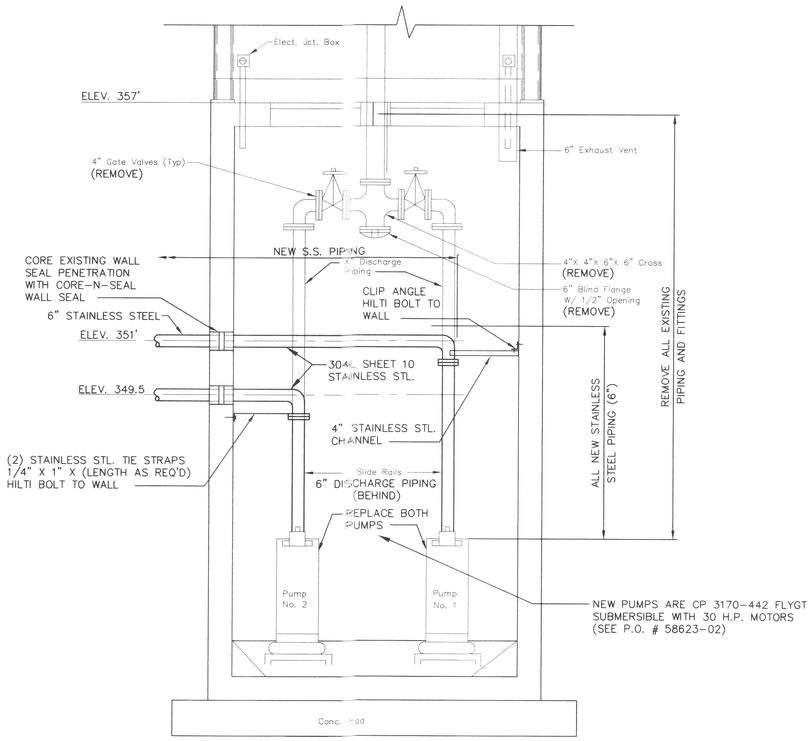
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
MANHOLES AND STRUCTURES
MISCELLANEOUS DETAILS

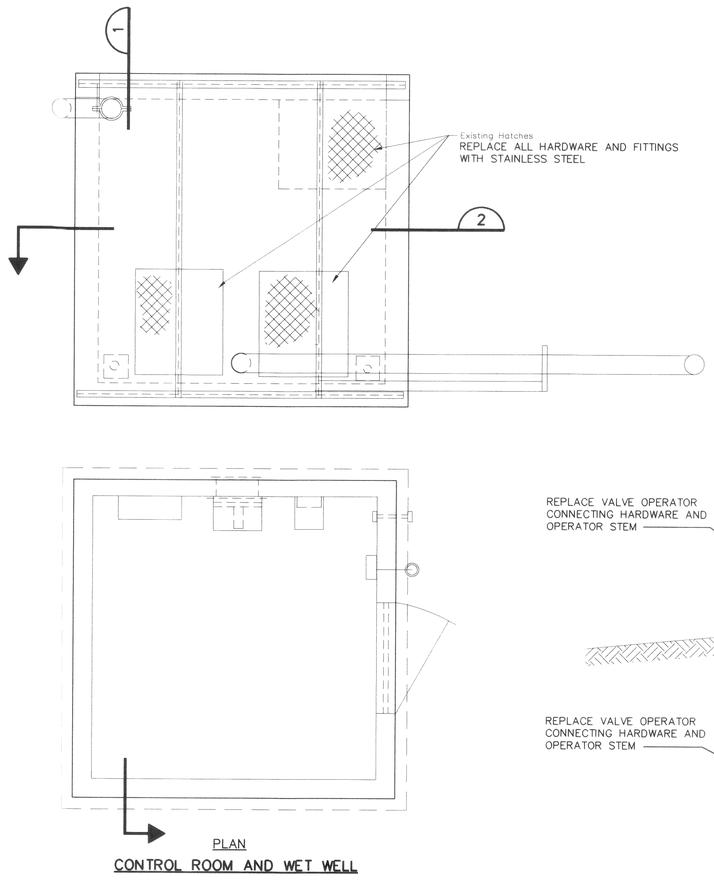
JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22975
SHEET 2 OF 2

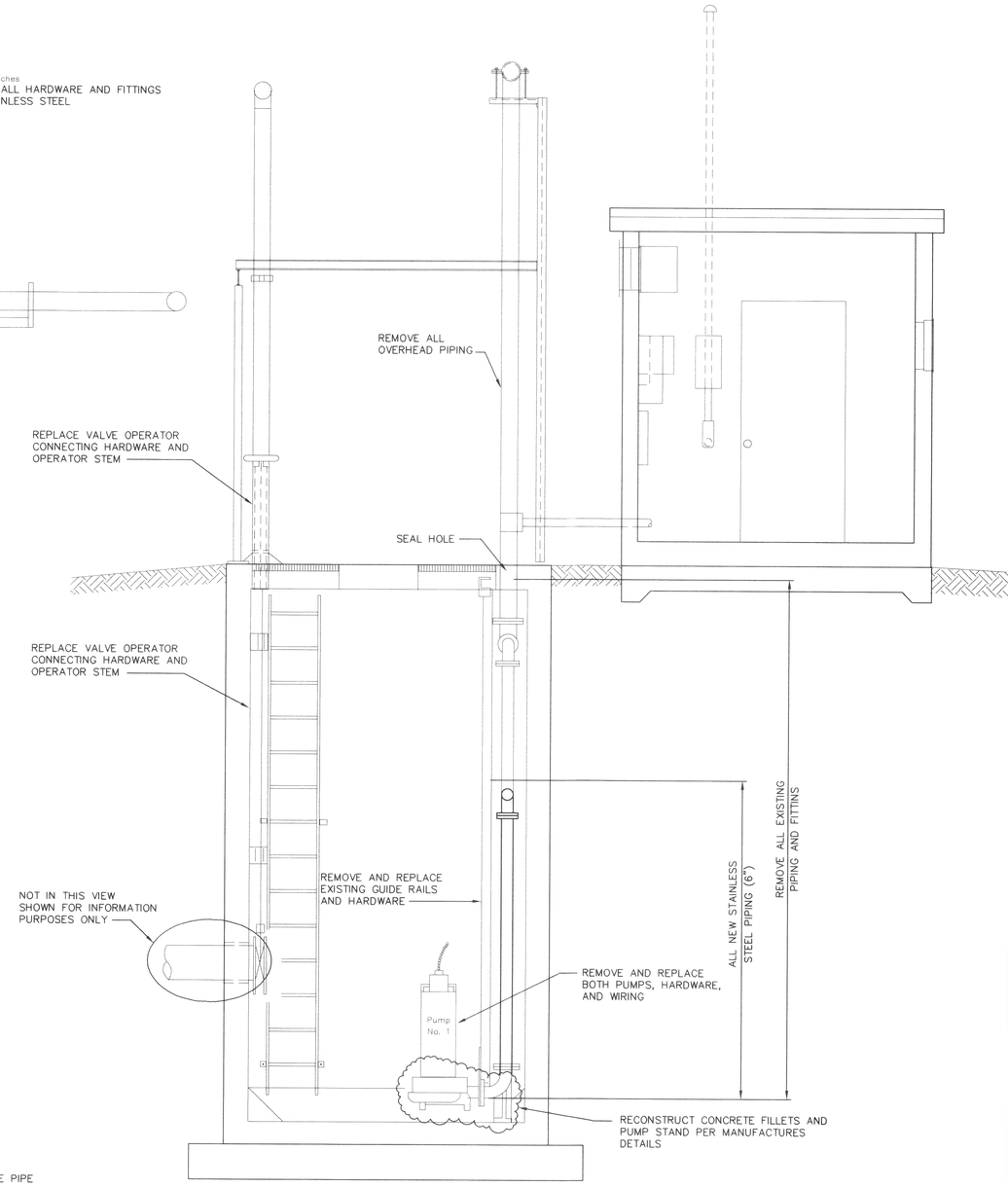
U:\94-22\CAD\DETAIL24 Thu Apr 4 09:19:14 1996



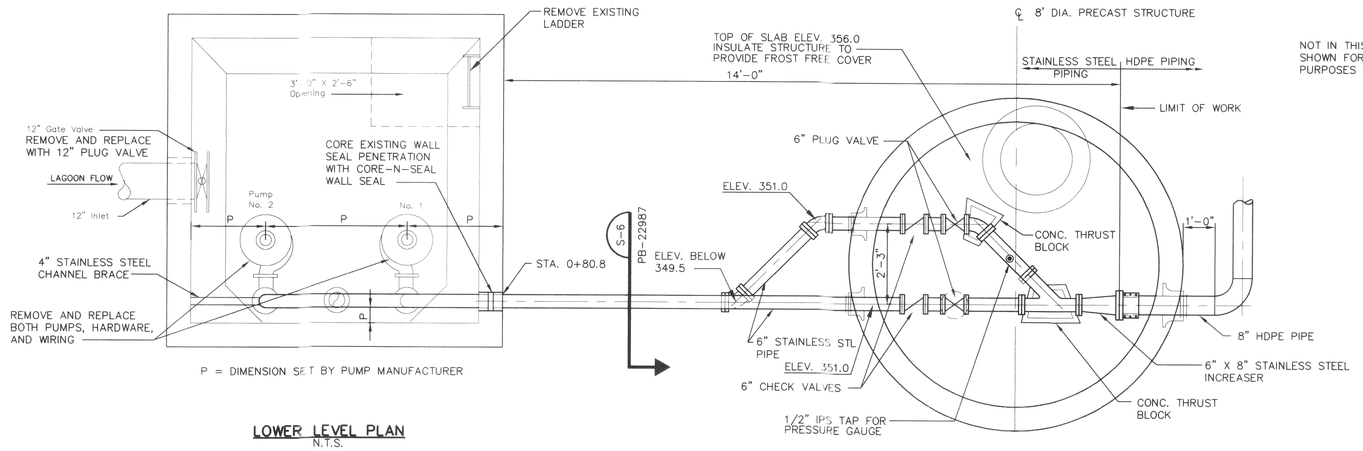
SECTION 2
N.T.S.



PLAN
CONTROL ROOM AND WET WELL



SECTION 1
N.T.S.



P = DIMENSION SET BY PUMP MANUFACTURER

LOWER LEVEL PLAN
N.T.S.

STATE OF MAINE
PETER B TUBBS 2678
REGISTERED PROFESSIONAL ENGINEER
1-3-96

DRAWING NO.	REFERENCE DRAWING TITLE
SB - 14888	BOYDCO - LEACHATE PUMP STATION PLANS AND SECTIONS

CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
C		3/96	RECORD DRAWING	MSB	PBT		
C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
B		6/95	ISSUED FOR BIDS	MSB	PBT		
P		4/95	PRELIMINARY CONSTRUCTION ISSUE	MSB	PBT		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	MSB	4/95
CHK	PBT	4/95
CHK		
CORR		
APPVD		

ISSUE CODE: P - Prelim; B - Bids; M - Mtl T.O.; C - Const.
SCALE: AS NOTED

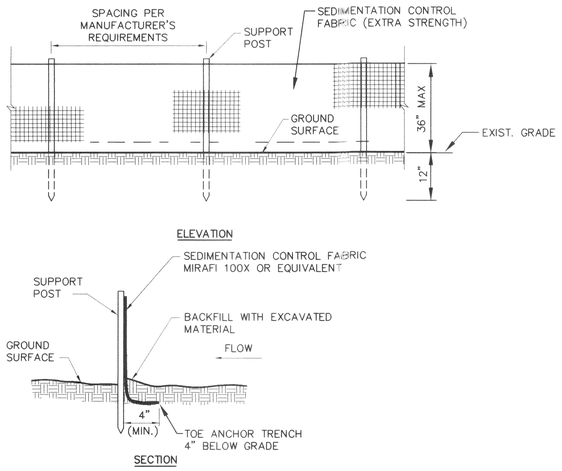
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
EXISTING PUMP STATION MODIFICATIONS
PLANS AND SECTIONS

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

YB-22976

D:\94-227\ACAD\DETAIL-1 Thu Apr 4 09:16:56 1996



SILTATION FENCE (KEYED IN)

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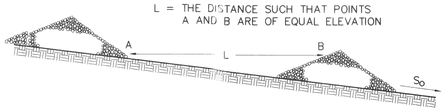
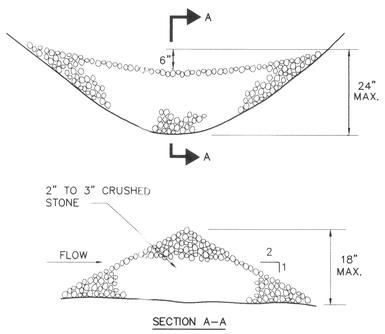


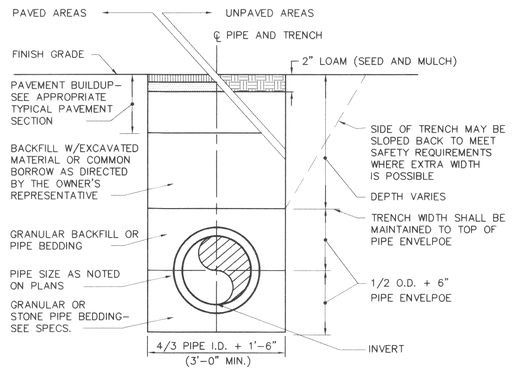
SPACING BETWEEN CHECK DAMS

So (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	10

STONE CHECK DAMS

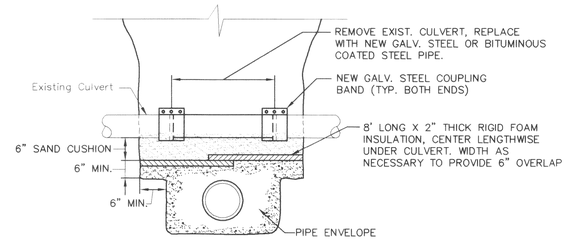
N.T.S.





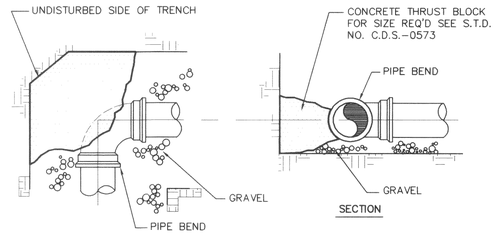
TYPICAL TRENCH DETAIL

N.T.S.



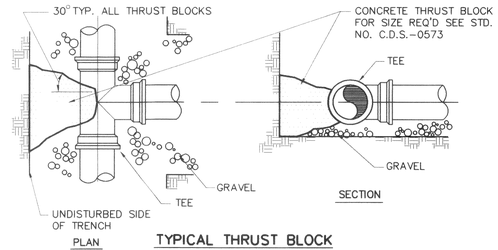
CULVERT RESTORATION

N.T.S.



TYPICAL THRUST BLOCK PLACEMENT ON BENDS

N.T.S.

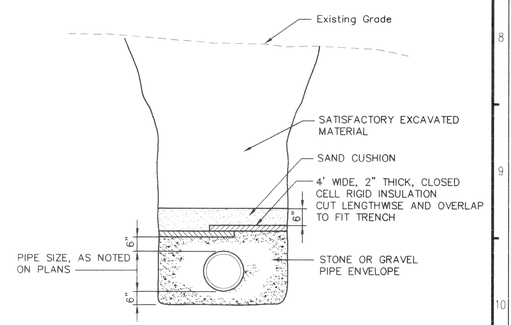


TYPICAL THRUST BLOCK PLACEMENT ON TEES

N.T.S.

SIZE REQUIREMENTS FOR CONCRETE THRUST BLOCKS

		BEARING ON UNDISTURBED SOIL (SQUARE FT.)			
FITTINGS		90° BENDS	45° BENDS	TEES & PLUGS	HYDRANTS
PIPE SIZE	4"	2.0	1.0	1.0	N/A
	6"	3.0	2.0	2.0	6.0
	8"	5.0	3.0	4.0	N/A
	10"	7.0	4.0	5.0	N/A
	12"	10.0	6.0	7.0	N/A
	14"	13.0	7.0	10.0	N/A
	16"	17.0	9.0	12.0	N/A



TYPICAL SECTION TRENCH INSULATION

N.T.S.

TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, Cumberland County Soil and Water Conservation District, Department of Environmental Protection, March 1991, and as currently revised.
2. Drainage or pumping will not be discharged into any stream, brook or drainage course or any wetland. Discharge points shall be established and protected to collect sediments before discharge onto upland areas.
3. Disturbed areas will be permanently stabilized within 15 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance, shall be temporarily stabilized within 7 days of the disturbance.
4. Removal of trees, bushes and other vegetation as well as disturbance of topsoil will be kept to a minimum in all areas while allowing proper site operations.
5. Stockpiles shall be located in a manner such that natural drainage in not obstructed and no off–site sedimentation will result. Silt fence will be installed around the perimeter of all stockpiles. Topsoil stockpiles surrounded with siltation fencing or temporarily mulched

B. TEMPORARY MEASURES

1. Silt Fence
   (a) Silt fence will be installed prior to and down–gradient of all construction activity where soil disturbance may result in erosion.
   (b) Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.
   (c) Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs will be made as necessary, Any required repairs will be made immediately.
   (d) Sediment deposits shall be removed after each storm event if significant buildup has occurred.
2. Stone Check Dams
   (a) Stone check dams should be constructed of 2 to 3 inch stone. The stone should be placed according to the configuration shown to ensure that the center of the dam is lower than the edges.
   (b) Sediments will be removed from behind the check dams when it has accumulated to one half of the original height of the dam.
   (d) Check dams will be removed at the completion of the work. The area beneath the check dams will be seeded and mulched immediately after they are removed.
   (e) Regular inspections shall be made to ensure the integrity of the dam. Check dams will be checked for sediment accumulation after each significant rainfall. Repairs will be made as necessary.

C. INSPECTIONS

Inspections will be undertaken by qualified personnel to ensure that temporary and permanent erosion and sedimentation controls are properly installed and correctly functioning, and that additional erosion control measures are installed as needed. Such inspections will occur bi–weekly and after each significant rainfall event (1 inch or more within a 24 hour period) during construction until permanent erosion control measures have been installed and and the site is stabilized.

STATE OF MAINE — PETER B TUBBS 2678 REGISTERED PROFESSIONAL ENGINEER — 4/96

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		3/96	RECORD DRAWING	MSB	PBT		
		C		6/95	ISSUED FOR CONSTRUCTION	BAK	PBT		
		B		4/95	ISSUED FOR BIDS	MSB	PBT		
		P		4/25	PRELIMINARY CONSTRUCTION ISSUE	MSB	PBT		

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P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	MSB	4/95
CHK	PBT	4/95
CHK		
CORR		
APPVD		

ISSUE CODE: P – Prelim; B – Bids; M – Mtl T.O.; C – Const.

SCALE: AS NOTED

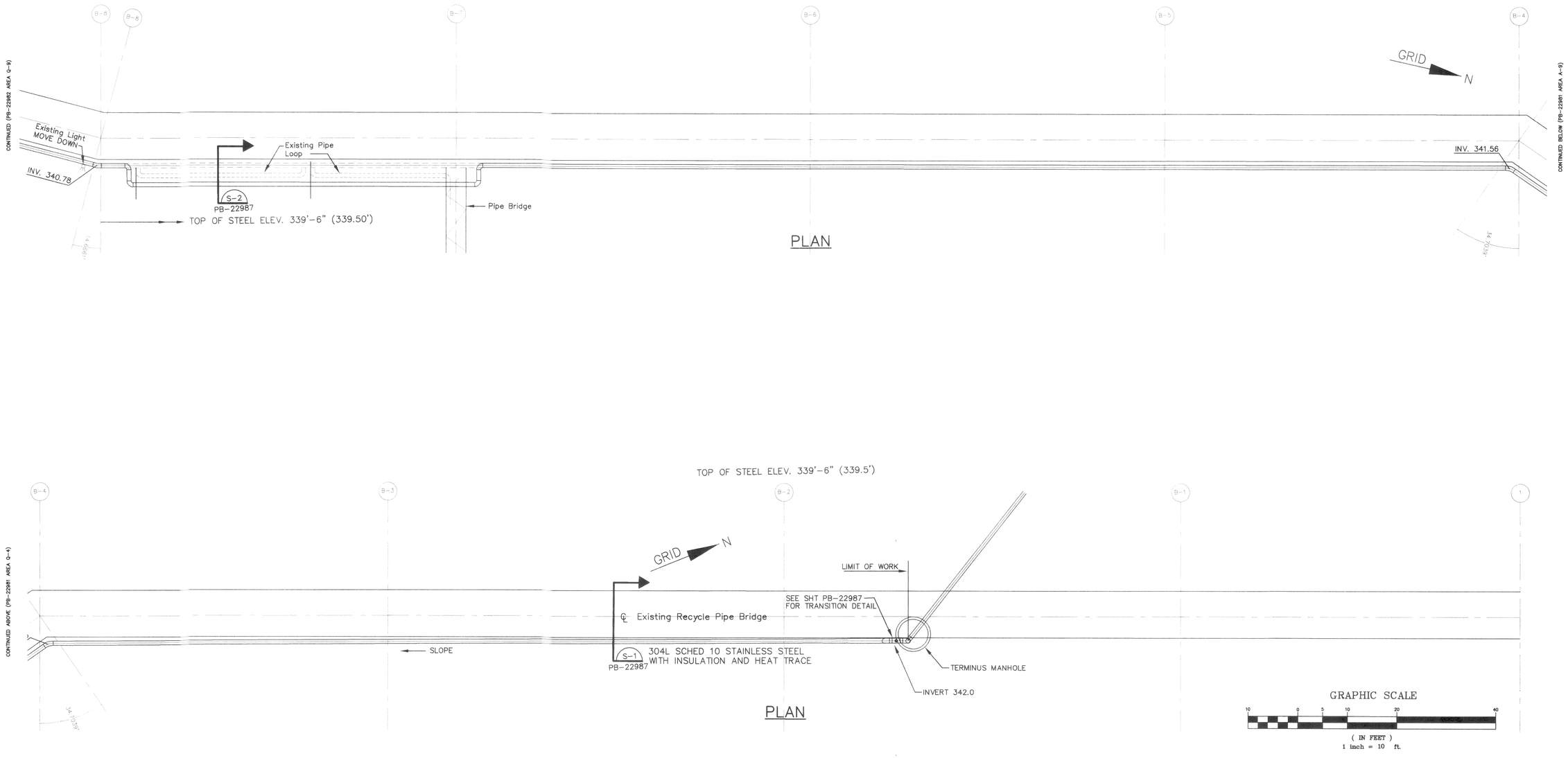
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
EROSION CONTROL AND MISCELLANEOUS DETAILS

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2–092–4783

YB–22977
SHEET 1 OF 1

D:\94-227\ACAD\DETAIL-3 Thu Apr 4 09:10:41 1996



STATE OF MAINE
DAVID WILLARD YOUNG
2410
REGISTERED
PROFESSIONAL ENGINEER

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		8/17/95	ISSUED FOR CONSTRUCTION	BDB	DWY		
PF-01632-C	SIMONS ENGINEERING/RECYCLE FIBER PLANT	P		8/8/95	FOR CLIENT REVIEW	BDB	DWY		
PF-01631-D	SIMONS ENGINEERING/RECYCLE FIBER PLANT	P		5/26/95	FOR CLIENT REVIEW	MSB	DWY		

SQUAW BAY CORP
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DRN	DWY 5/95
CHK	
CHK	
CORR	
APPVD	
ISSUE CODE	
P - Prelim	B - Blds
M - Mtl T.O.	C - Const.
SCALE	1" = 10'

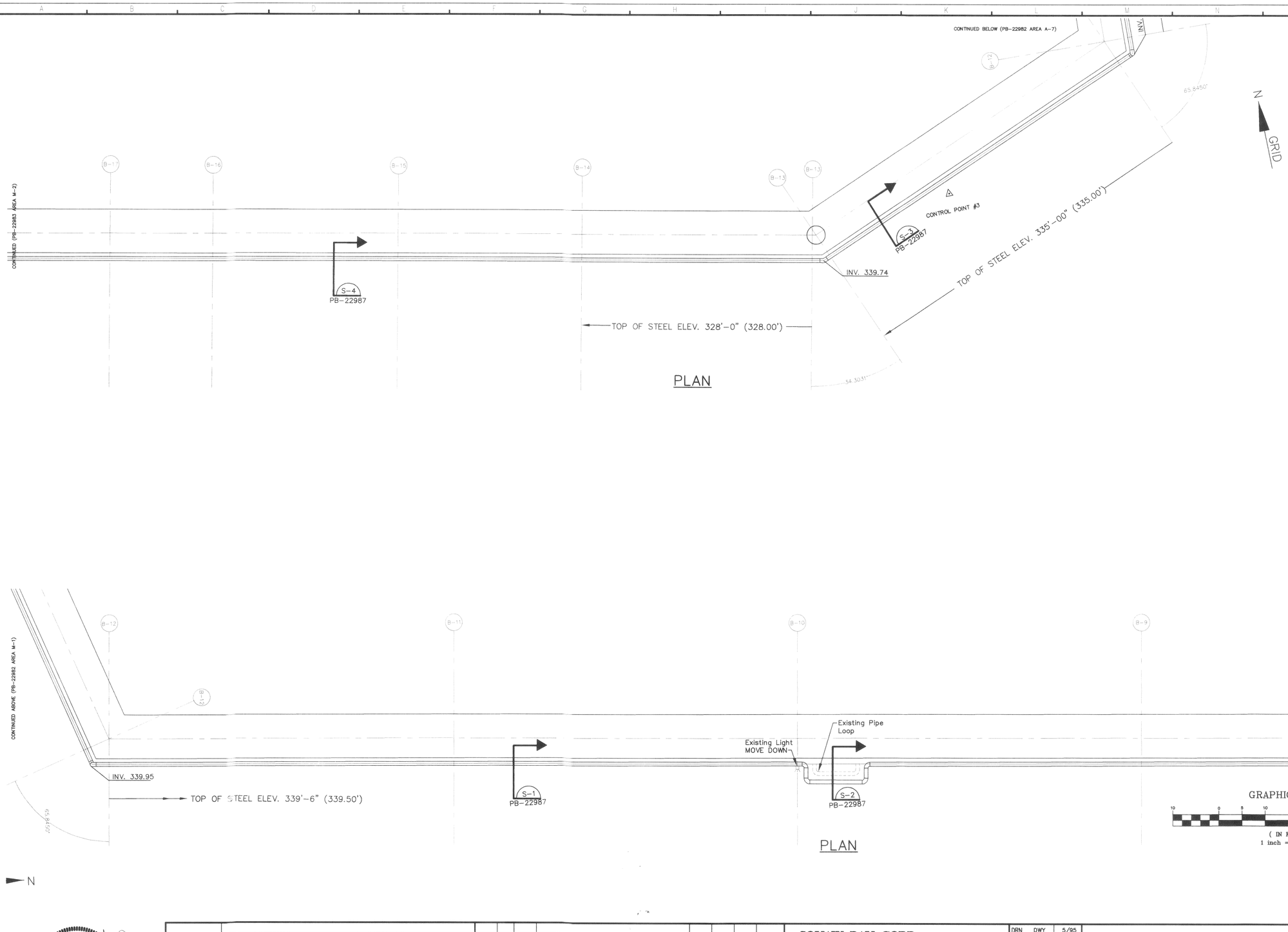
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
PIPE BRIDGE
10" GRAVITY SEWER

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

PB-22981
SHEET 1 OF 8

L:\94-22\02\ACAD\22102 Thu Aug 17 11:49:16 1995



STATE OF MAINE
DAVID WILLARD YOUNG
2410
REGISTERED
PROFESSIONAL ENGINEER

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
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PF-01633-C	SIMONS ENGINEERING/RECYCLE FIBER PLANT	P		8/8/95	FOR CLIENT REVIEW	MSB	DWY		
PF-01634-B	SIMONS ENGINEERING/RECYCLE FIBER PLANT	P		5/26/95	FOR CLIENT REVIEW	MSB	DWY		

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DRN DWY	5/95
CHK	
CHK	
CORR	
APPVD	
ISSUE CODE	
P – Prelim	B – Bids
M – Mtl T.O.	C – Const.
SCALE	1" = 10'

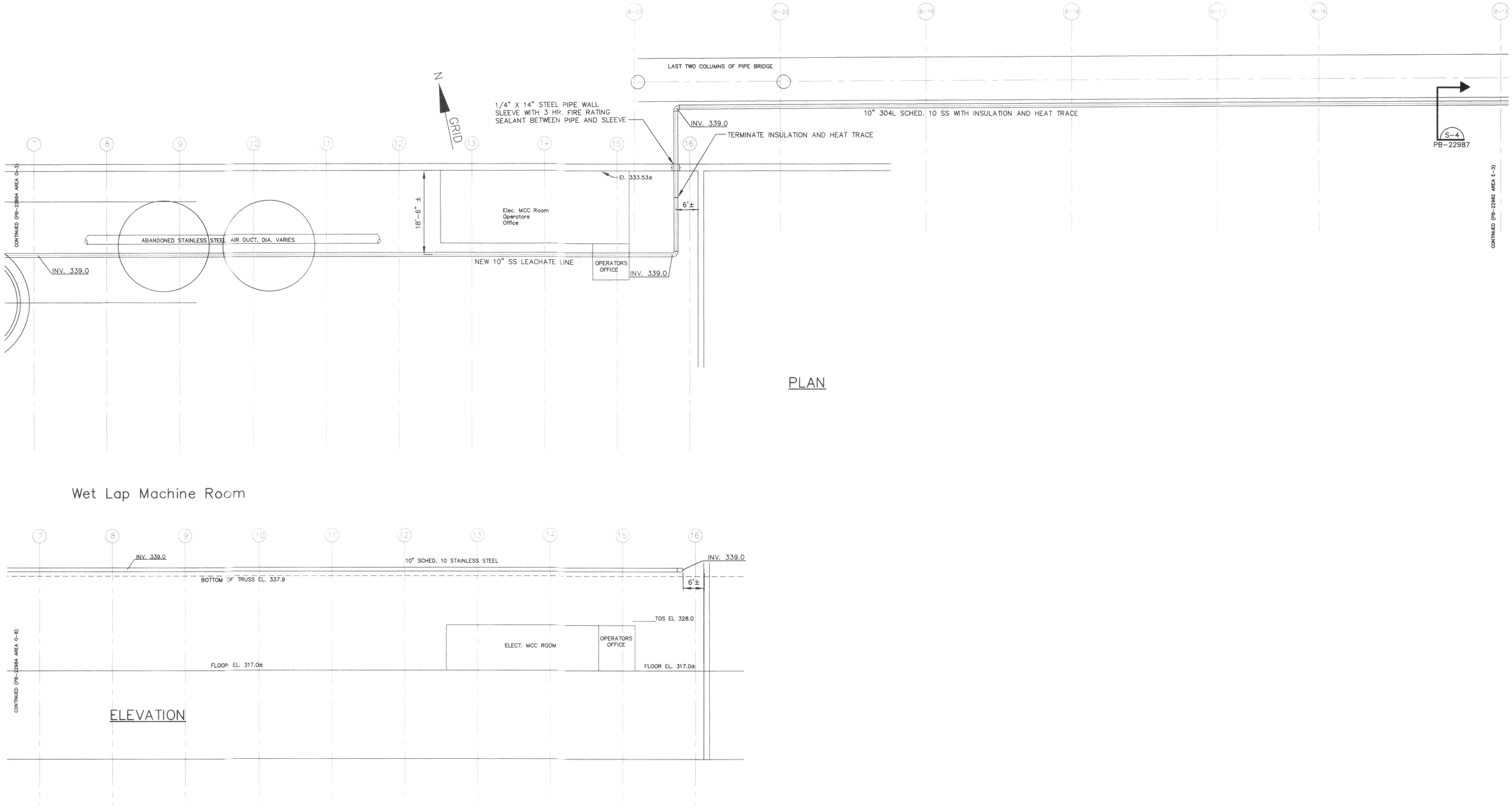
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
PIPE BRIDGE
10" GRAVITY SEWER

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

PB-22982
SHEET 2 OF 8

L:\94-22\02\ACAD\c2\02 Thu Aug 17 11:57:46 1995



PLAN

Wet Lap Machine Room

ELEVATION

DAVID WILLARD YOUNG 2410 REGISTERED PROFESSIONAL ENGINEER STATE OF MAINE

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
PF-01634-B	SIMONS ENGINEERING/RECYCLE FIBER PLANT		C	8/17/95	ISSUED FOR CONSTRUCTION	BDB	DWY		
				8/8/95	ISSUED FOR CLIENT REVIEW				
				5/26/95	ISSUED FOR CLIENT REVIEW	MSB	DWY		

SQUAW BAY CORP
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C 8/17/95 ISSUED FOR CONSTRUCTION BDB DWY

DRN	DWY	5/95	
CHK			
CHK			
CORR			
APPVD			
P – Prelim	B – Bids		
M – Mtl T.O.	C – Const.		
SCALE	1" = 10'		

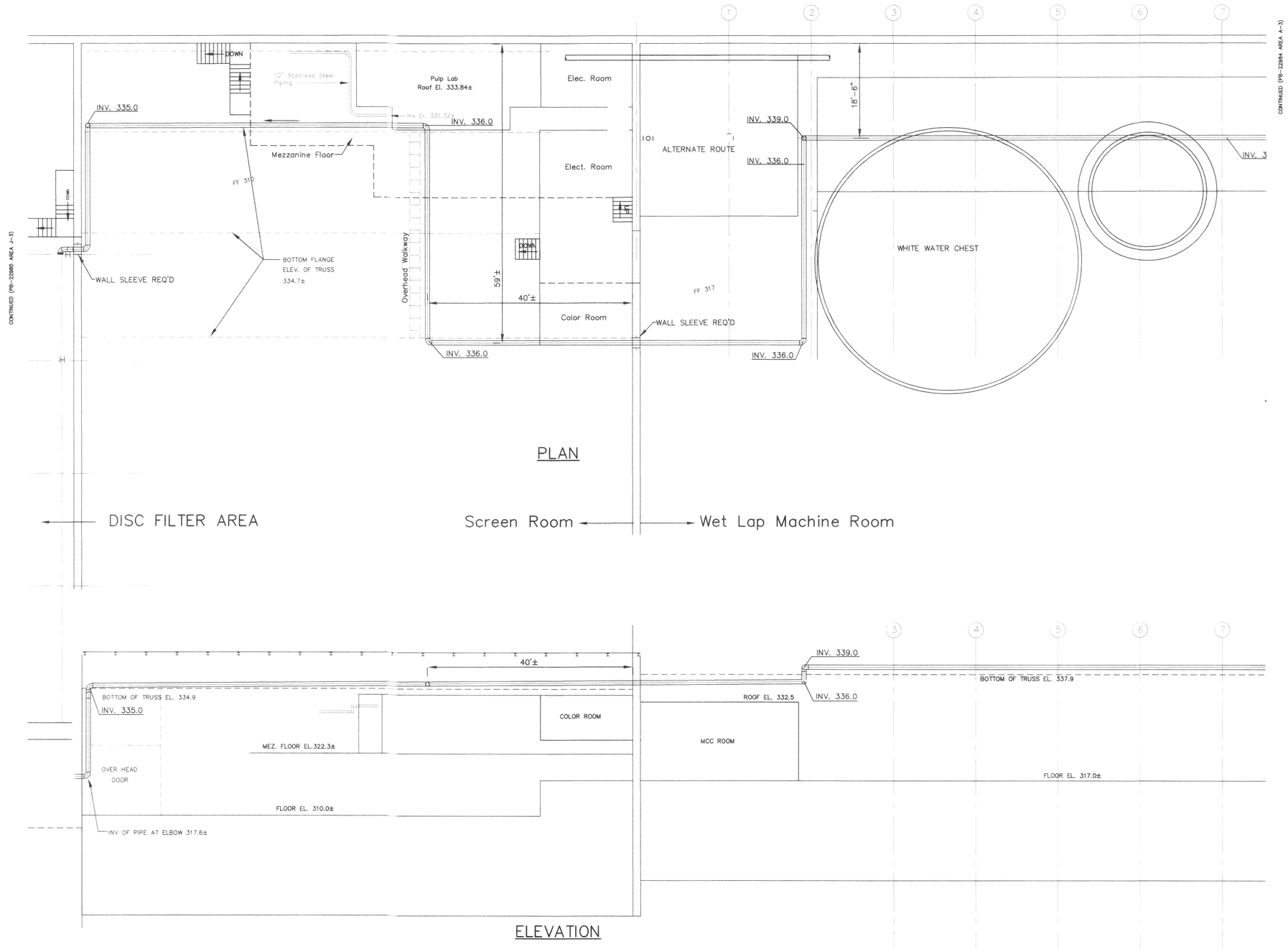
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
PIPE BRIDGE AND WET LAP ROOM
10" GRAVITY SEWER

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

PB-22983
SHEET 3 OF 8

L:\94-22\02\ACAD\22102 Thu Aug 17 12:05:47 1995



STATE OF MAINE
DAVID WILLARD YOUNG
2410
REGISTERED
PROFESSIONAL ENGINEER

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
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				8/8/95	ISSUED FOR CLIENT REVIEW	MSB	DWY		
				5/26/95	ISSUED FOR CLIENT REVIEW	MSB	DWY		

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P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	DWY	5/95
CHK		
CHK		
CORR		
APPVD		

ISSUE CODE	
P – Prelim	B – Bids
M – Mtl T.O.	C – Const.

SCALE 1" = 10'

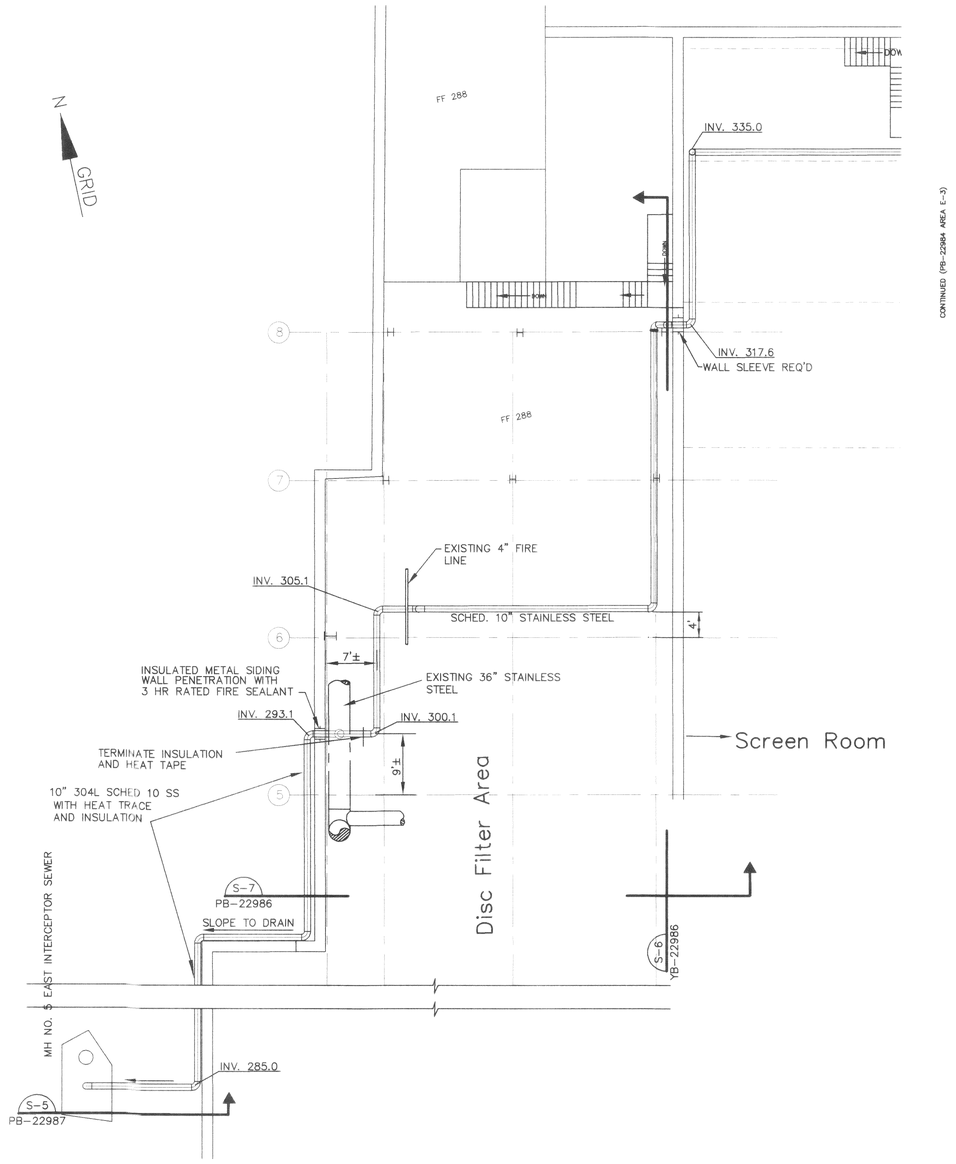
BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
WET LAP AND SCREEN ROOM AREA
10" GRAVITY SEWER

JOB NO. 22845
ENG. REQ. NO.
FILE NO. 2-092-4783

PB-22984
SHEET 4 OF 8

L: 94-22-102 ACAD 22102 Mon Aug 21 11:48:23 1995



PLAN

DRAWING NO.	REFERENCE DRAWING TITLE
AF-375-E	SIMONS ENGINEERING/DISC FILTER BLDG.
YF-719-F	SIMONS ENGINEERING/GROUND WOOD IMPROVEMENTS STEEL ✪ EL 310
YF-725-B	SIMONS ENGINEERING/EAST INTERCEPTOR SEWER
YF-696-B	SIMONS ENGINEERING/EAST INTERCEPTOR SEWER

CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
C		8/17/95	ISSUED FOR CONSTRUCTION	BDB	DWY		
P		8/8/95	ISSUED FOR CLIENT REVIEW	MSB	DWY		
P		5/26/95	ISSUED FOR CLIENT REVIEW	MSB	DWY		

STATE OF MAINE
DAVID WILLARD YOUNG 2410
REGISTERED PROFESSIONAL ENGINEER

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

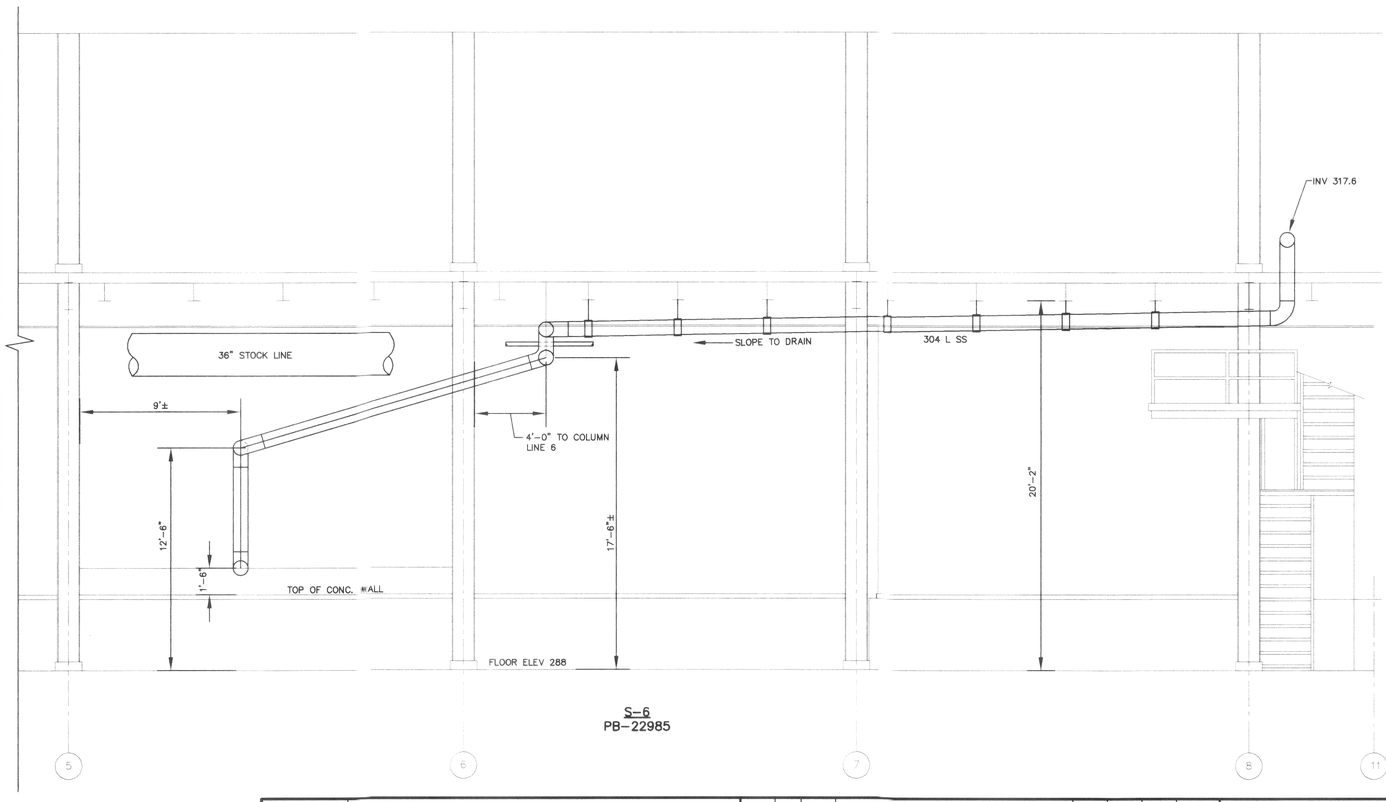
DRN DWY	5/95
CHK	
CHK	
CORR	
APPVD	
ISSUE CODE	
P – Prelim	B – Blds
M – Mtl T.O.	C – Const.
SCALE	1" = 10'

BOWATER
Great Northern Paper

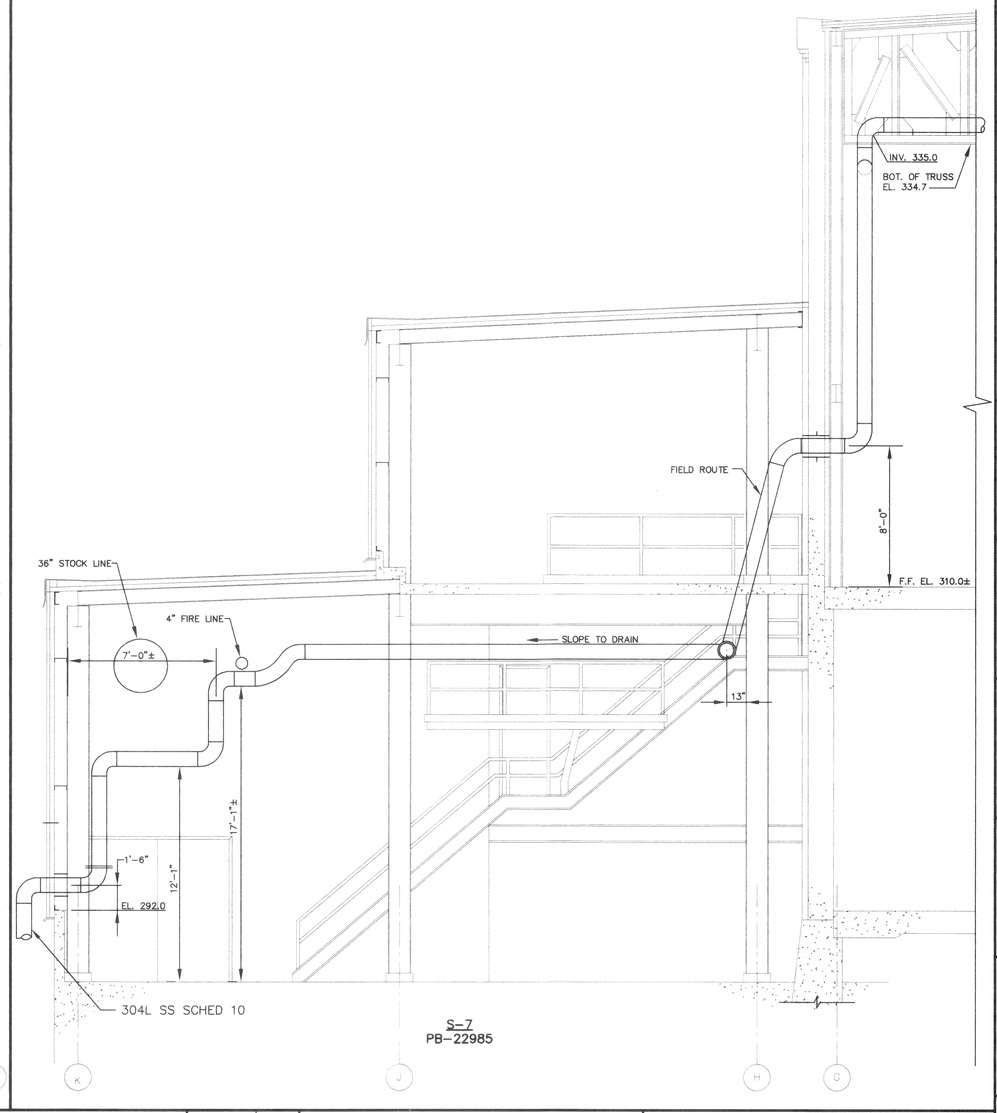
EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
DISC FILTER AREA
10" GRAVITY SEWER

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

PB-22985
SHEET 5 OF 8



S-6
PB-22985



S-7
PB-22985

STATE OF MAINE
DAVID MILLARD YOUNG
2410
REGISTERED PROFESSIONAL ENGINEER

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		8/17/95	ISSUED FOR CONSTRUCTION	BDB	DWY		
SF-719-F	SIMMONS ENGINEERING GROUND WOOD IMPROVEMENTS -STEEL @ EL 310	P		8/8/95	FOR CLIENT REVIEW	MSB	DWY		
AF-737-B	SIMMONS ENGINEERING GROUND WOOD IMPROVEMENTS - DISC FILTER BLDG.	P		5/26/95	FOR CLIENT REVIEW	MSB	DWY		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	
CHK	
CHK	
CORR	
APPVD	
ISSUE CODE	
P - Prelim	B - Bids
M - Mtl T.O.	C - Const.
SCALE	1/4"/FT

BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DISC FILTER AREA

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

PB-22986
SHEET 6 OF 8

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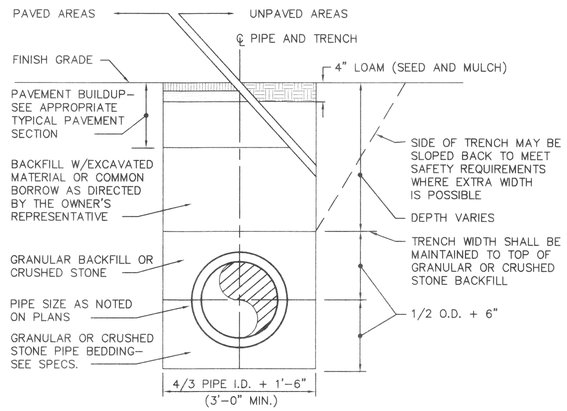
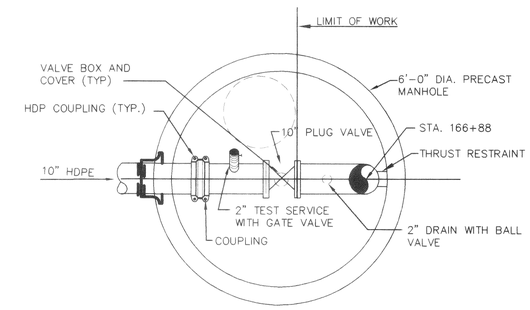


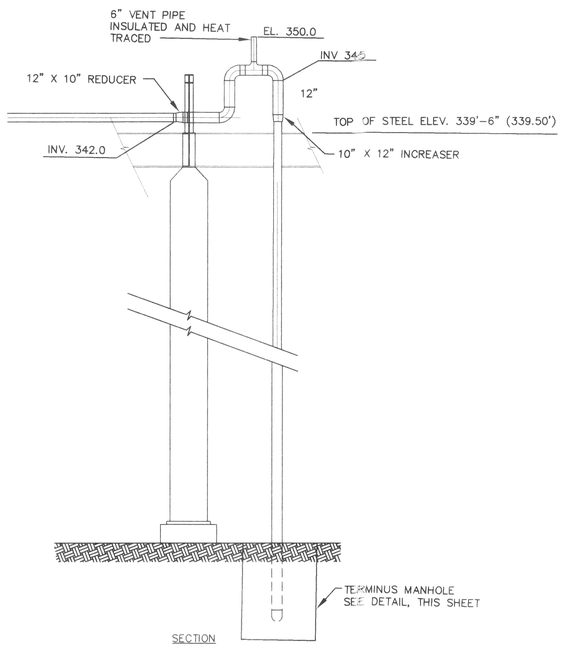
TYPICAL TRENCH DETAIL

N.T.S.

S–6

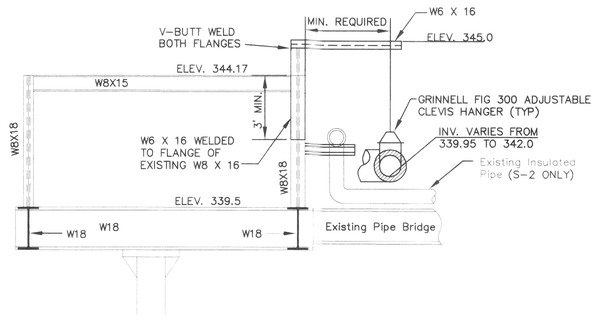


PLAN



TRANSITION DETAIL

N.T.S.



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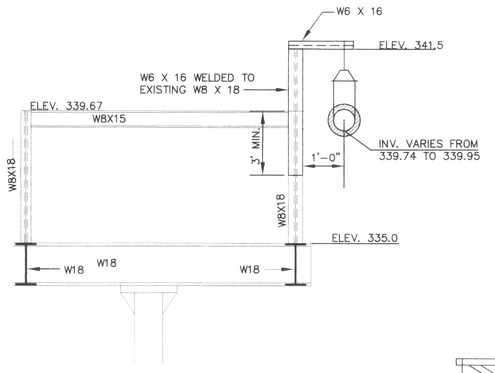

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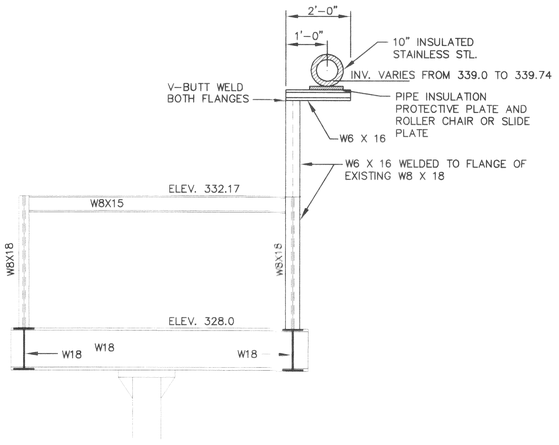
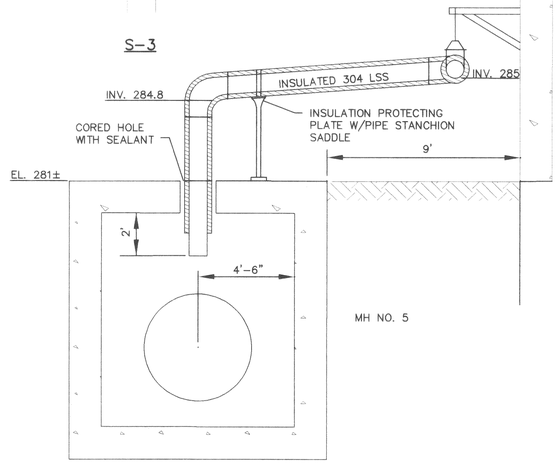
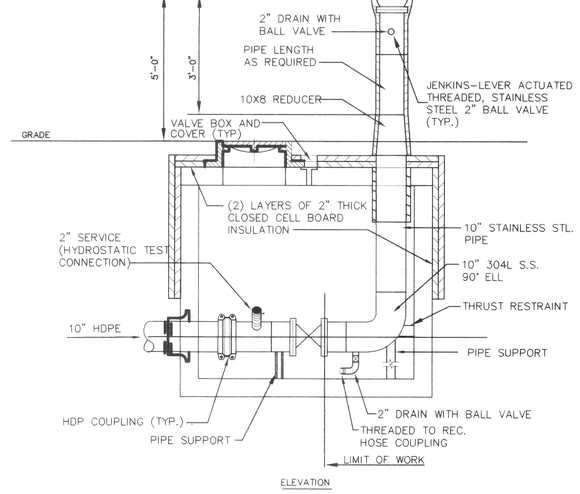


S–4



S–5



ELEVATION

TERMINUS MANHOLE

N.T.S.

STATE OF MAINE
DAVID WILLARD YOUNG
2410
REGISTERED
PROFESSIONAL ENGINEER

DRAWING NO.	REFERENCE DRAWING TITLE	CODE	NO.	DATE	REVISION	BY	CKD	APPVD	JOB No.
		C		8/17/95	ISSUED FOR CONSTRUCTION	BDB	DWY		
		P		8/8/95	FOR CLIENT REVIEW	MSB	DWY		
		P		5/28/95	FOR CLIENT REVIEW	MSB	DWY		

SQUAW BAY CORP
CONSULTING ENGINEERS
P.O. BOX 86A CUMBERLAND CENTER, MAINE 04021

DRN	DWY	5/95
CHK		
CHK		
CORR		
APPVD		
ISSUE CODE		
P – Prelim	B – Bids	
M – Mtl T.O.	C – Const.	
SCALE	N.T.S.	

BOWATER
Great Northern Paper

EAST OPERATION
LEACHATE PIPELINE PROJECT
DOLBY LANDFILL TO THE EAST OPERATION
SECTIONS AND DETAILS
10" GRAVITY SEWER

JOB NO. 22846
ENG. REQ. NO.
FILE NO. 2-092-4783

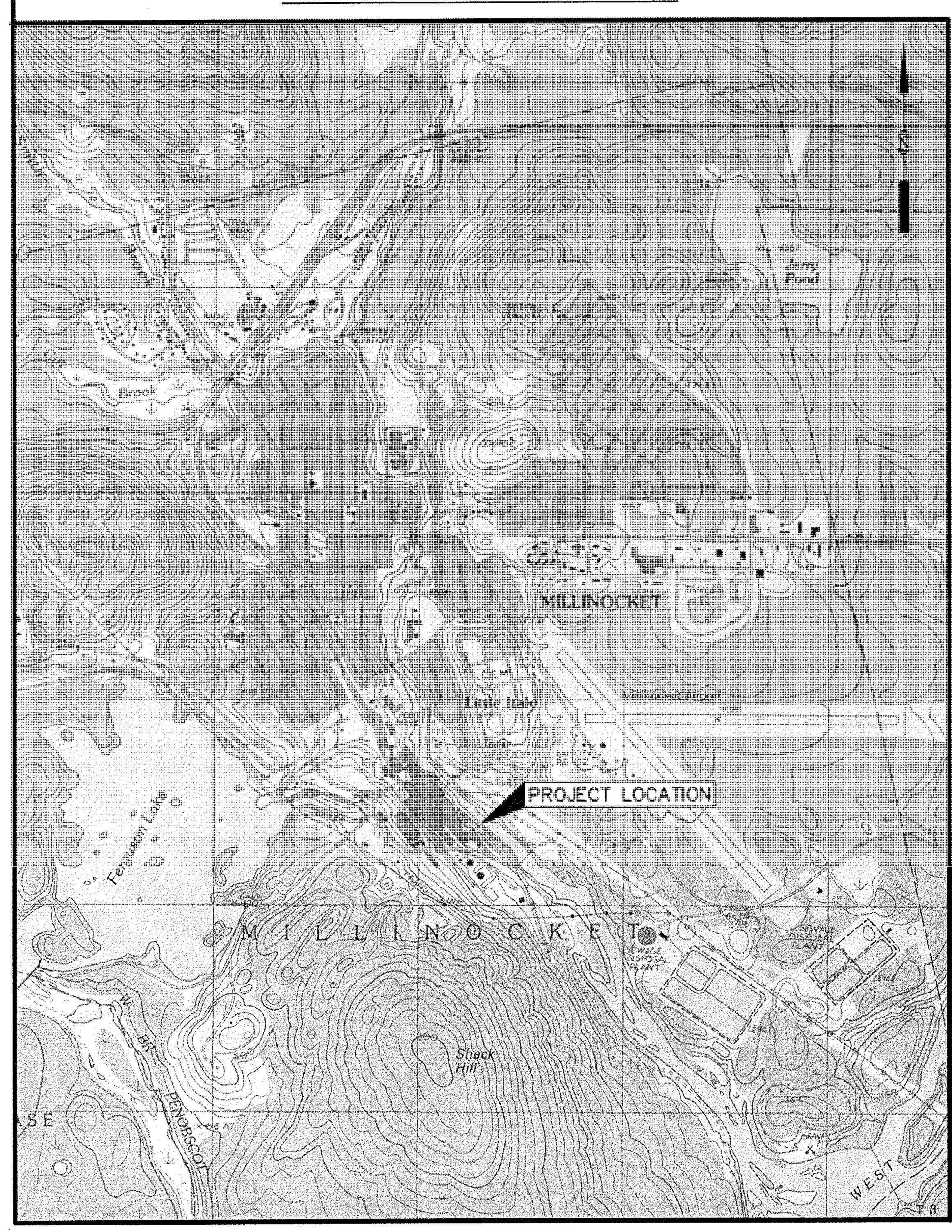
PB–22987
SHEET 7 OF 8

L:\94-22\NZ\ACAD\22102 Mon Aug 21 14:41:56 1995

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
EAST MILLINOCKET, MAINE

TITLE	DWG NO
COVER SHEET	
SYMBOLS & ABBREVIATIONS	C-100
SITE OVERVIEW PLAN	C-101
LEACHATE PIPELINE PLAN AND PROFILE	C-200
LEACHATE PIPELINE PLAN AND PROFILE	C-201
LEACHATE PIPELINE PLAN AND PROFILE	C-202
SECTIONS AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
SECTIONS AND DETAILS	C-302
SECTIONS AND DETAILS	C-303
SECTIONS AND DETAILS	C-304
SECTIONS AND DETAILS	C-305
FLOW METER BUILDING ELECTRICAL PLAN	6312-14001-E03

LOCATION MAP



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RECORD DRAWINGS

SYMBOLS

EXISTING	PROPOSED	
		NORTH ARROW (TRUE)
DATE		NORTH ARROW (MAGNETIC)
N		NORTH ARROW (PLAN NORTH)
25	25	CONTOUR LINES
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)
		EXISTING GROUND
		SURVEY BASELINE WITH TRIANGULATION OR INTERSECTION PT.
		PROPERTY LINE OR R.O.W.
N35°-10'-10"W 251.17'	N35°-10'-10"W 251.17'	PROPERTY LINE W/ BEARING AND DISTANCE
	0+00 1+00	CONSTRUCTION BASELINE
		BOUNDARY LINE (State, County, Municipality)
		SURVEY MONUMENT
		SURVEY CONTROL
		PROPERTY PIN, DRILL HOLE, PK, OR STAKE
		WOODS OR BRUSH LINE
		INDIVIDUAL TREE
		MAPPED WETLAND
		GAS VENT
		GAS VENT (CAPPED)
		CLEAN OUT STRUCTURE
		CULVERT
		RAILROAD
		SLOPE INCLINOMETER
		VIBRATING WIRE SETTLEMENT CELL
		VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT
		VERTICAL DISPLACEMENT MONUMENT
		LIQUID SETTLEMENT GAGE

EXISTING	PROPOSED	
		DRAINAGE COURSE (WITH DIRECTION)
		EDGE OF WATER
		WATER ELEVATION (GROUND OR SURFACE)
		FENCE LINE (WOOD)
		FENCE LINE (WIRE)
		STONE WALL
		RETAINING WALL
		GUARD RAIL
		BUILDING AND STRUCTURES
	1 2 OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)
TOP OF SLOPE 2:1	TOP OF SLOPE 2:1	SLOPES (WITH SLOPE RATIO)
		EDGE OF ROAD
	F	CUT OR FILL LINE
		BITUMINOUS PAVEMENT
		CONCRETE
B-12 MW-12 P-12	B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER
TP-12	TP-12	TEST PIT AND NUMBER
SW-12	SW-12	SURFACE WATER SAMPLE LOCATION
		GAS EXTRACTION WELL
		MANHOLE
		CATCH BASIN
		WATER OR GAS VALVE
		HYDRANT
		AIR RELEASE VALVE
		SURGE RELEASE VALVE
		UTILITY POLE
		LIGHT POLE

EXISTING	PROPOSED	
G	UG	UNDERGROUND GAS MAIN
T	UT	UNDERGROUND TELEPHONE LINE
E	UE	UNDERGROUND ELECTRICAL LINE
OE	OE	OVERHEAD ELECTRICAL LINE
OT	OT	OVERHEAD TELEPHONE LINE
12" SS	12" SS	SANITARY SEWER
8" FM	8" FM	FORCE MAIN
8" W	8" W	WATER MAIN
12" SD	12" SD	STORM DRAIN
8" UD	8" UD	UNDERDRAIN
6' PD	6" PD	PERIMETER DRAIN
6" LT	6" LT	LEACHATE TRANSPORT
6" LC	6" LC	LEACHATE COLLECTION
LD	6" LD	LEAK DETECTION
GC	6" G	GAS COLLECTION
		REDUCER
		MECHANICAL CAP OR PLUG
		COUPLING
		BEND
		TEE
		PIPE TO BE ABANDONED
		RISER PIPE & INLET GRATE
		STORM GRATE
		DRAINAGE INLET STRUCTURE
		UNDERDRAIN SUMP
	SF	SILTATION FENCE
	CLL	CLEARING OR CONSTRUCTION LIMIT LINE

ACCMP	ASPHALT COATED CMP
ACP	ASBESTOS CEMENT PIPE
AC	ACRE
AGG	AGGREGATE
ALUM	ALUMINUM
APPD	APPROVED
APPROX	APPROXIMATE
ARMH	AIR RELEASE MANHOLE
ASB	ASBESTOS
ASP	ASPHALT
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AZ	AZIMUTH
BCCMP	BITUMINOUS COATED CMP
BM	BENCH MARK
BIT	BITUMINOUS
BLDG	BUILDING
BOT	BOTTOM
BRG	BEARING
BV	BALL VALVE
CB	CATCH BASIN
CEN	CENTER
CEM LIN	CEMENT LINED
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CS	CURB STOP
CTR	CENTER
CU	COPPER
CY	CUBIC YARD
D	DEGREE OF CURVE
DBL	DOUBLE
DEG OR °	DEGREE
DEPT	DEPARTMENT
DI	DUCTILE IRON
DIA OR ø	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DN	DOWN
DR	DRAIN
DWG	DRAWING
EA	EACH
EG	EXISTING GROUND OR GRADE
ELEC	ELECTRIC
EL	ELEVATION
ELB	ELBOW
EOP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EST	ESTIMATED
EXC	EXCAVATE
EXIST	EXISTING
FG	FINISH GRADE
FBRGL	FIBERGLASS
FDN	FOUNDATION
FLEX	FLEXIBLE
FLG	FLANGE
FLR	FLOOR
FPS	FEET PER SECOND
FT OR '	FEET
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HYD	HYDRANT
ID	INSIDE DIAMETER
IN OR "	INCHES
INV	INVERT
INV EL	INVERT ELEVATION
LB	POUND
LC	LEACHATE COLLECTION
LD	LEAK DETECTION
LF	LINEAR FEET
LOC	LOCATION
LT	LEACHATE TRANSPORT
MH	MANHOLE
MJ	MECHANICAL JOINT
MATL	MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURE
MIN	MINIMUM
MISC	MISCELLANEOUS
MON	MONUMENT
NITC	NOT IN THIS CONTRACT
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY
NO OR #	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PD	PERIMETER DRAIN
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PT	POINT OF TANGENT
PERF	PERFORATED
PP	POWER POLE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RAD	RADIUS
REQD	REQUIRED
RT	RIGHT
RTE	ROUTE
S	SLOPE
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SMH	SANITARY MANHOLE
ST	STREET
STA	STATION
SY	SQUARE YARD
TAN	TANGENT
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPORARY
TYP	TYPICAL
UD	UNDERDRAIN
V	VOLTS
VA TEE	VALVE ANCHORING TEE
VERT	VERTICAL
WG	WATER GATE
W/	WITH
W/O	WITHOUT
YD	YARD

VIEW MARKERS & IDENTIFICATION

DETAIL TITLE

MANHOLE
SEE DWG C-300

DRAWING WHERE
DETAIL APPEARS

REV.	BY	DATE	STATUS
	BDP	12/15	RECORD DRAWING
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	6/15	ISSUED FOR BID

STATE OF MAINE
GUY H. COTE, JR.
No. 5144
LICENSED PROFESSIONAL ENGINEER

MAINE DEPARTMENT OF ECONOMIC
AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
EAST MILLINOCKET, MAINE

SYMBOLS AND ABBREVIATIONS

SME
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DESIGN BY: BDP
DRAWN BY: SJM
DATE: 5/2015
CHECKED BY: BDP
LMN: NONE
CTB: SME-STD

JOB NO. 14134.09 DWG FILE SYMSHT

C-100

NOTES

1. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
2. AERIAL PHOTO FROM GOOGLE EARTH PRO, DATED SEPTEMBER 17, 2013. IMAGE ALIGNMENT ADJUSTED TO MATCH EXISTING GROUND SURVEY BY SEVEE & MAHER ENGINEERS, INC.

	BOP	12/15	RECORD DRAWING
	BDP	8/15	REVISED PER CHANGE ORDER 1
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	6/15	ISSUED FOR BID
REV.	BY	DATE	STATUS

STATE OF MAINE — COTE, JR. No. 5144 — LICENSED — PROFESSIONAL ENGINEER

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
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SITE OVERVIEW PLAN

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DATE: 5/2015
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LMN: SITE-OVER
CTB: SME-STD

JOB NO. 14134.09 DWG FILE BASE

C-101

LEACHATE PIPELINE PROFILE

20 0 40 80 FEET (HORZ)
2 0 4 8 FEET (VERT)

NOTES

1. BASE MAP PREPARED BY SEVEE & MAHER ENGINEERS, INC, CUMBERLAND, MAINE. HORIZONTAL DATUM MAINE STATE COORDINATE SYSTEM EAST ZONE, SPC 1801. VERTICAL DATUM IS NAVD 88, GEOID 12.
2. BORING LOCATIONS AND TOWN OF EAST MILLINOCKET SANITARY SEWER PIPE INVERTS FIELD SURVEYED BY SEVEE & MAHER ENGINEERS, INC. OF CUMBERLAND MAINE. BORING DESIGNATION NR=NO REFUSAL. LOCATIONS OF ALL OTHERS IS APPROXIMATE AND ARE BASED ON HISTORICAL PLANS AND ON UTILITY SURVEY BY DIGSMART.
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5. UTILITIES AND STRUCTURES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER AT NO ADDITIONAL COST TO THE OWNER.
6. THE PROPERTY OWNER HAS EXPRESSED NO OBJECTION TO REMOVAL OF POWER LINES AND POLES. CONTRACTOR SHALL CONFIRM ALL LINES TO BE REMOVED ARE DEENERGIZED PRIOR TO REMOVAL.

REV.	BY	DATE	STATUS
	BDP	12/15	RECORD DRAWING
	BDP	8/15	REVISED PER CHANGE ORDER 1
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	7/15	REVISED PER ADDENDUM 1
	BDP	6/15	ISSUED FOR BID

STATE OF MAINE — GUY H. COTE, JR. — No. 5144 — LICENSED PROFESSIONAL ENGINEER

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
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LEACHATE PIPELINE PLAN AND PROFILE

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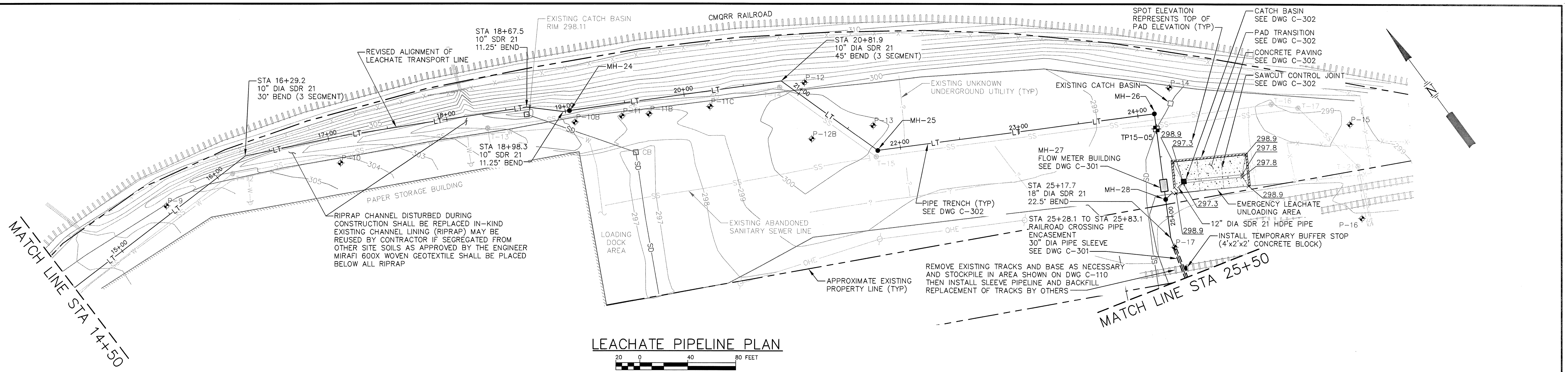
CTB: SME-STD

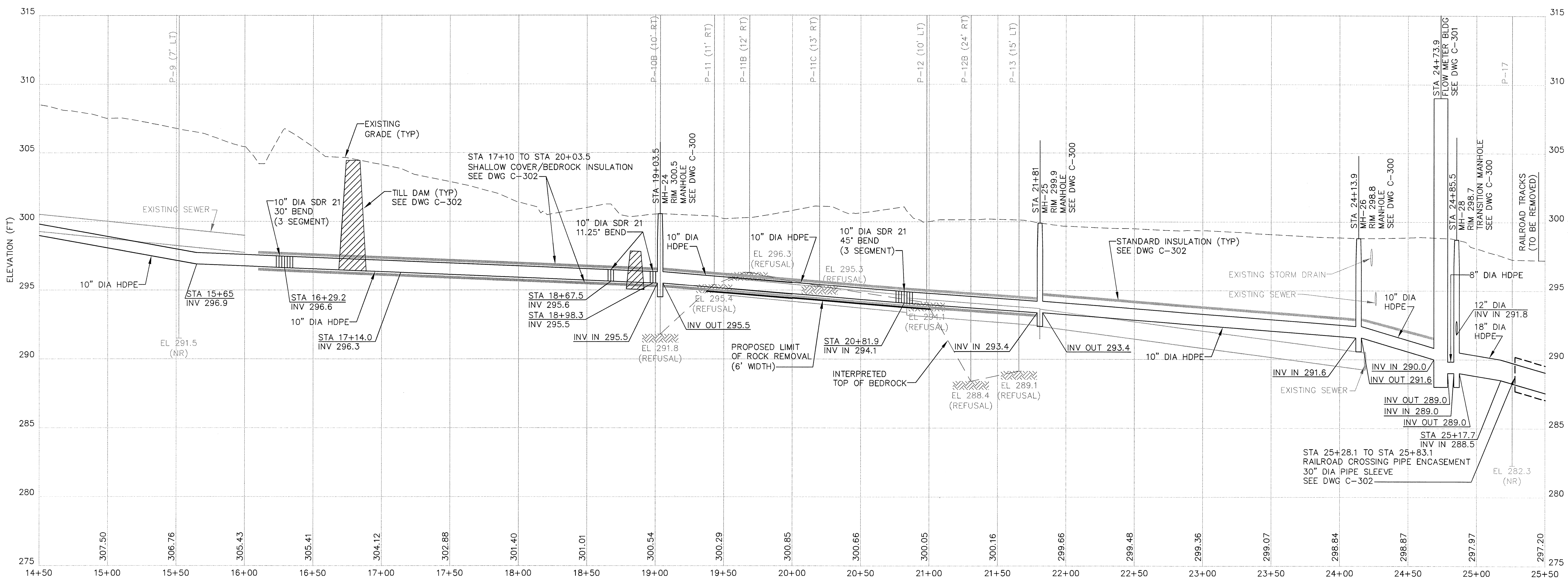
JOB NO. 14134.09 DWG FILE BASE

C-200



LEACHATE PIPELINE PLAN

20 0 40 80 FEET



LEACHATE PIPELINE PROFILE

20 0 40 80 FEET (HORZ)
2 0 4 8 FEET (VERT)

NOTES

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	BDP	12/15	RECORD DRAWING
	BDP	8/15	REVISED PER CHANGE ORDER 2
	BDP	8/15	REVISED PER CHANGE ORDER 1
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	6/15	ISSUED FOR BID

STATE OF MAINE — GUY H. COTE, JR. No. 5144 — LICENSED PROFESSIONAL ENGINEER

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LEACHATE PIPELINE PLAN AND PROFILE

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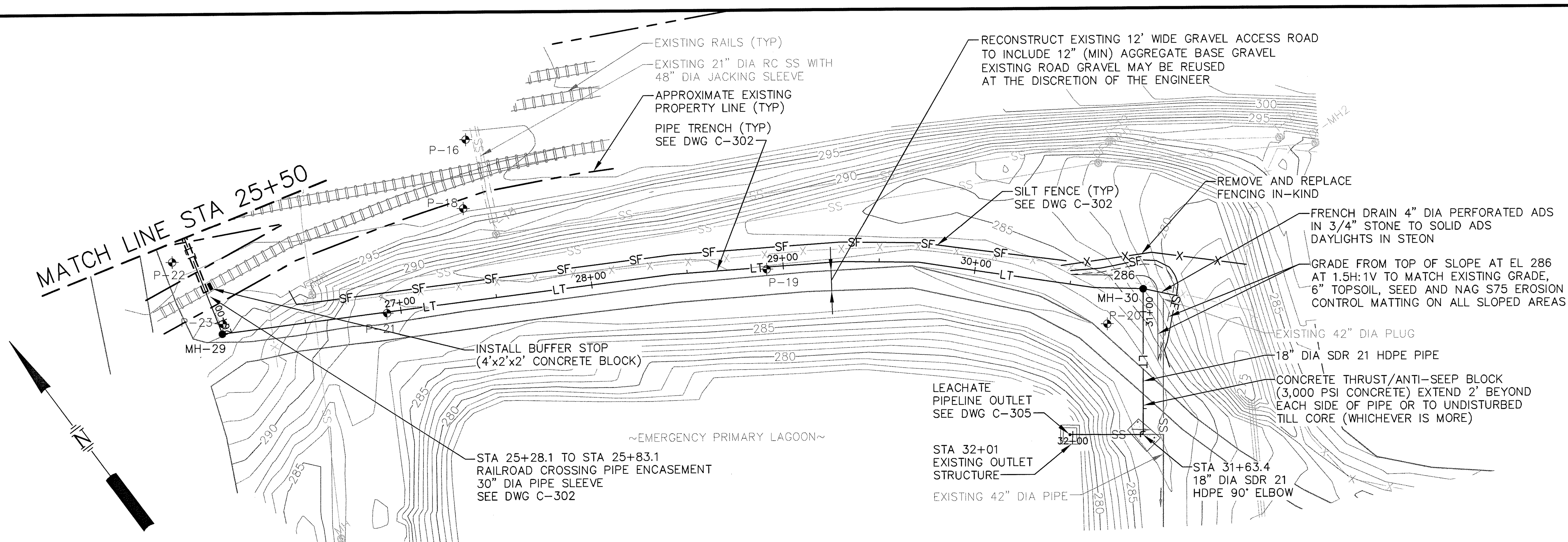
CTB:	SME-STD

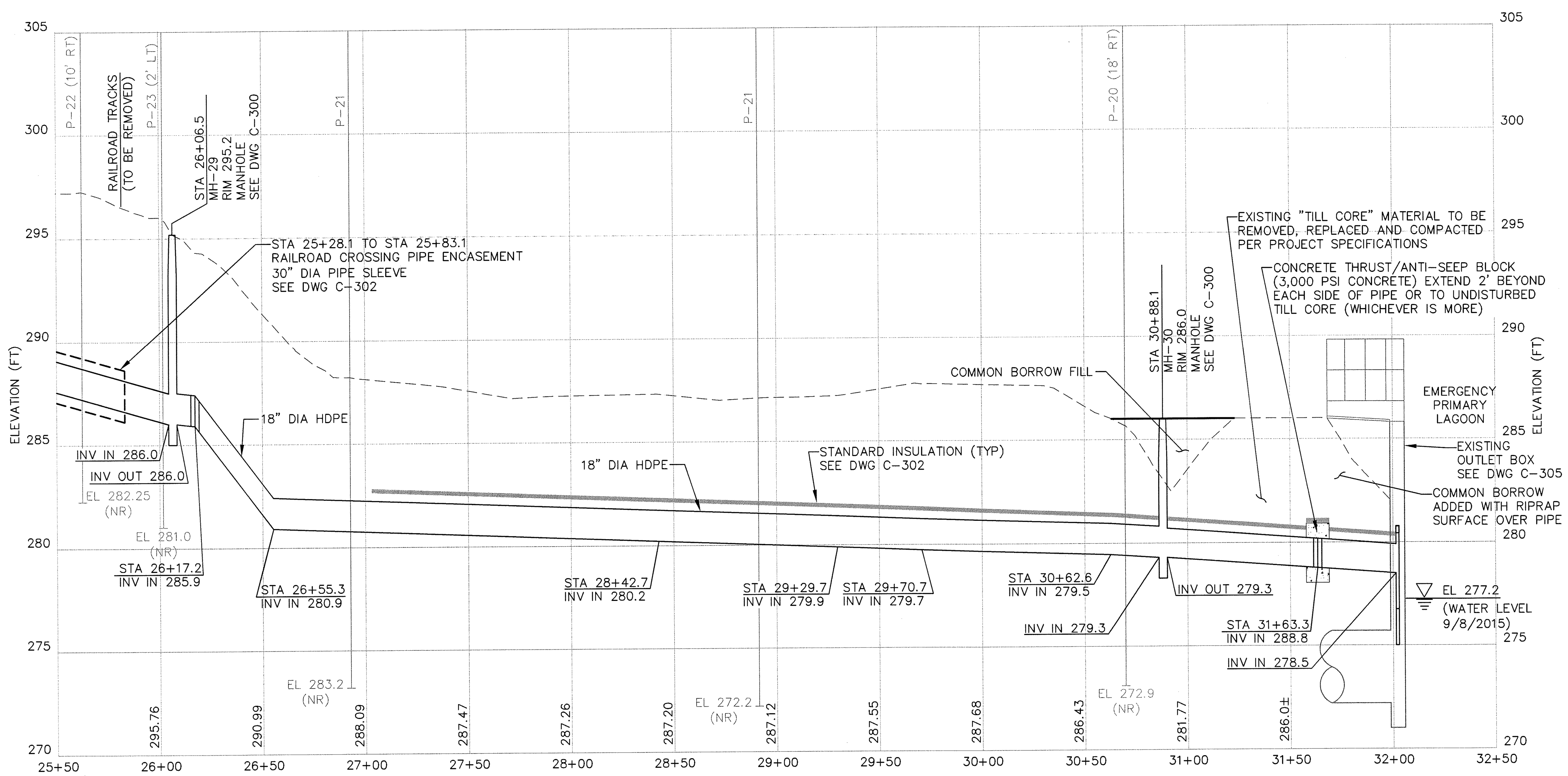
JOB NO. 14134.09 DWG FILE BASE

C-201



LEACHATE PIPELINE PLAN

20 0 40 80 FEET



LEACHATE PIPELINE PROFILE

20 0 40 80 FEET (HORZ)
2 0 4 8 FEET (VERT)

NOTES

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REV.	BY	DATE	STATUS
	BDP	12/15	RECORD DRAWING
	BDP	9/15	REVISED PER CHANGE ORDER 3
	BDP	8/15	REVISED PER CHANGE ORDER 1
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	6/15	ISSUED FOR BID

STATE OF MAINE
GUY W. COTE, JR.
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LICENSED PROFESSIONAL ENGINEER

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LEACHATE PIPELINE PLAN AND PROFILE

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DATE:	5/2015
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LMN:	LT-PLAN-PROF
CTB:	SME-STD

JOB NO. 14134.09 DWG FILE BASE

C-202

MANHOLE AND CATCH BASIN NOTES:

THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

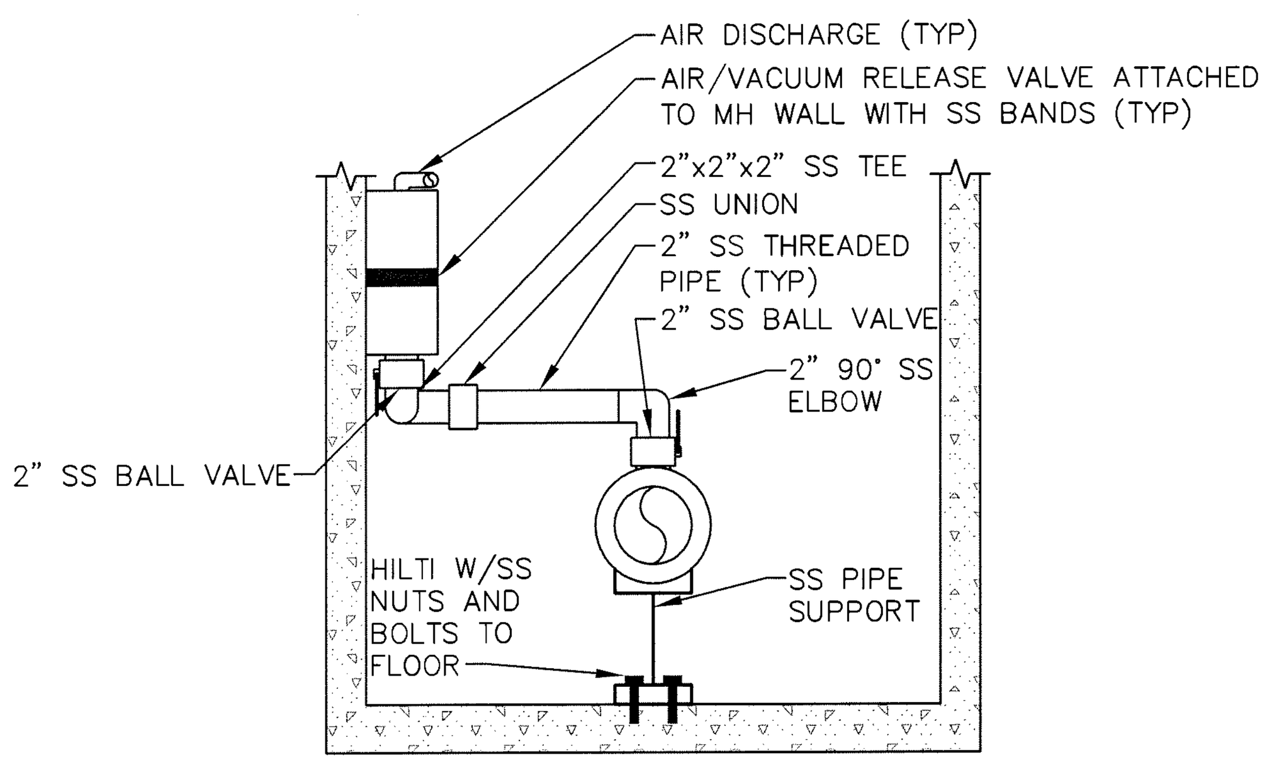
PRODUCT DATA: SUBMIT PRODUCT DATA FOR ALL MATERIALS USED ON THE JOB FOR REVIEW FOR LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN CONTRACT DOCUMENTS.

SHOP DRAWINGS: SUBMIT FOR REVIEW SHOP DRAWINGS OF ALL PRECAST UNITS. MANUFACTURER'S INFORMATION SHALL BE SUBMITTED FOR JOINT SEALANTS AND WATERPROOFING. MANUFACTURE SHALL PROVIDE ANTI-FLOTATION DESIGN SHOP DRAWINGS AND CALCULATIONS, INCLUDING ANY EXTENDED BASE SLABS AS NECESSARY, FOR PROPOSED MANHOLES. MANUFACTURER SHALL ASSUME GROUNDWATER LEVELS EQUAL TOP OF GROUND ELEVATIONS AND PROVIDE FOR A 1.2 FACTOR OF SAFETY AGAINST FLOTATION.

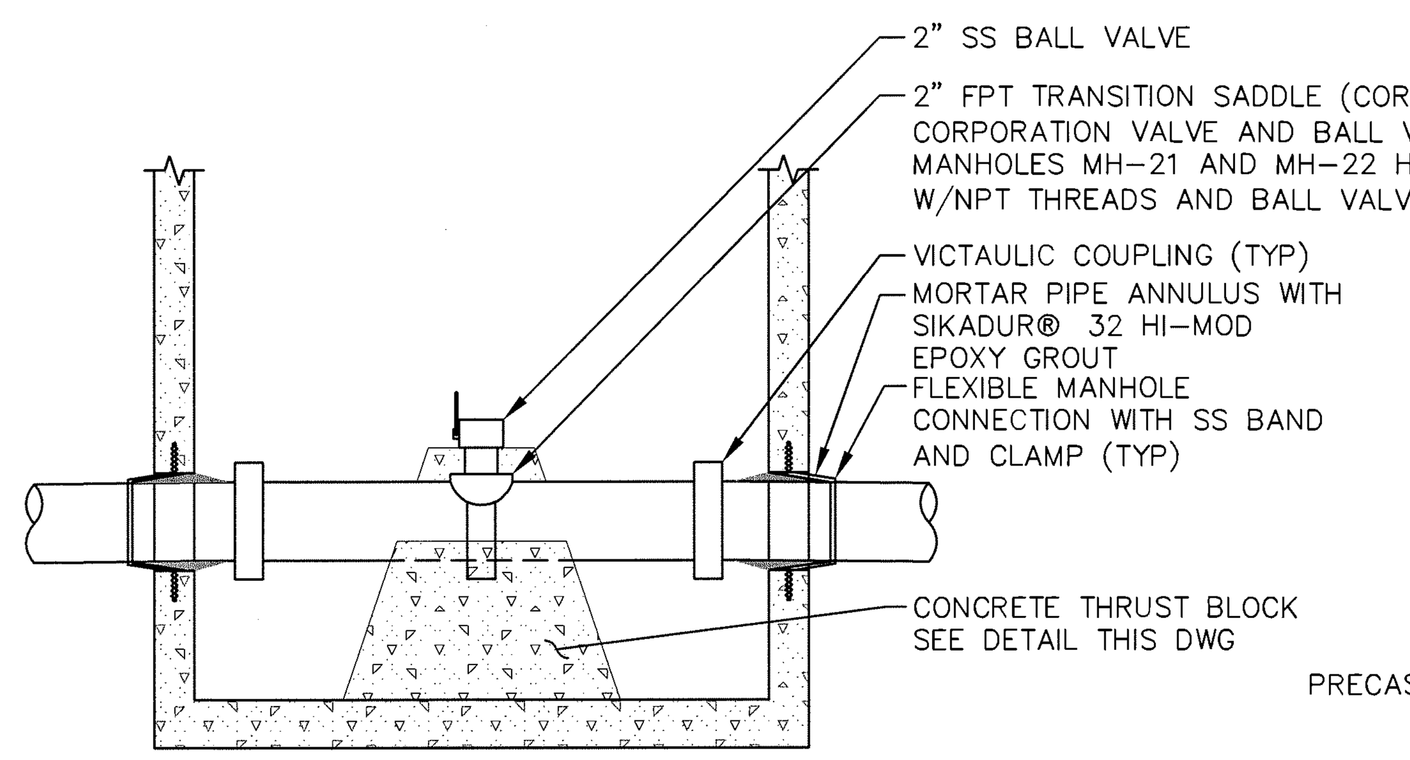
LOAD RATING: ALL MANHOLES AND CATCH BASINS SHALL BE H-20 LOAD RATED.

MANHOLE SCHEDULE

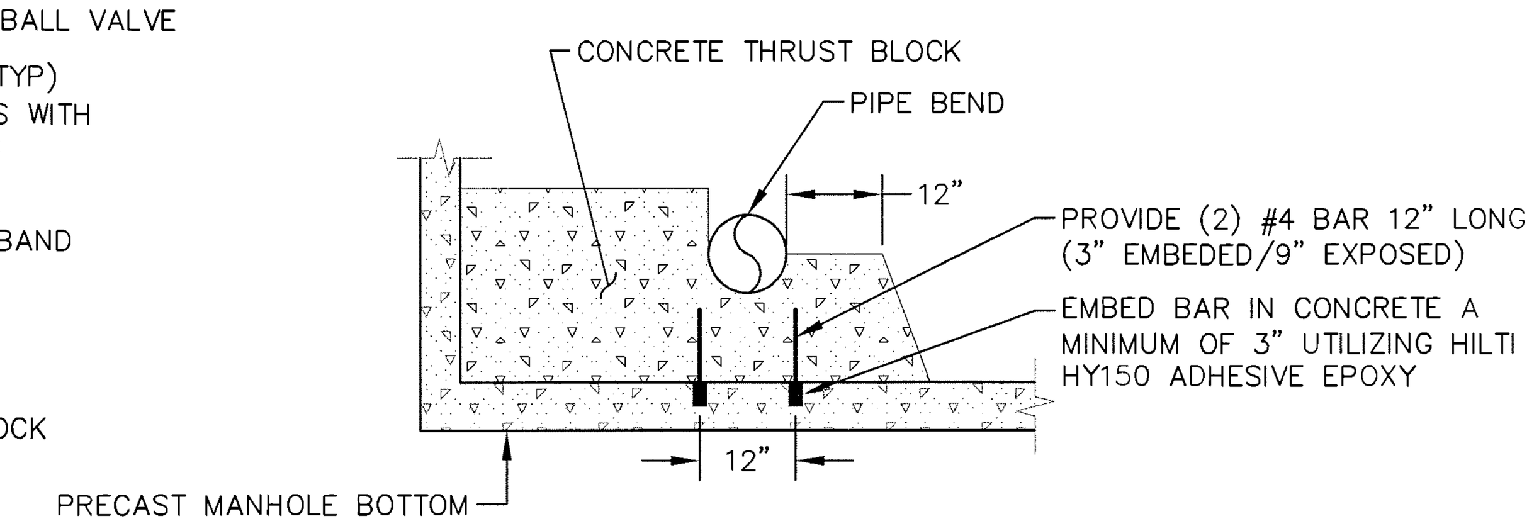
MANHOLE	PIPE ANGLE (DEGREES)	STATION	INSIDE DIA (FEET)	RIM EL (FEET)	INVERT IN		INVERT OUT		BOTTOM EL
					PIPE DIA (INCHES)	PIPE INV EL (FEET)	PIPE DIA (INCHES)	PIPE INV EL (FEET)	
MH-20	NONE	2+45	8	316.0	10 (EXIST)	308.0 (EXIST)	10	308.0	307.0+/-
MH-21	NONE	5+00	6	314.1	10	308.0	10	308.0	307.0
MH-22	45 (3-SEGMENT)	11+90	6	310.2	10	301.7	10	301.7	300.7
MH-23	52 (3-SEGMENT)	13+64	6	309.6	10	300.5	10	300.5	299.5
MH-24	NA	19+03.5	6	300.5	10	295.5	10	295.5	294.5
MH-25	45 (3-SEGMENT)	21+81	6	299.9	10	293.4	10	293.4	292.4
MH-26	90 (5-SEGMENT)	24+13.9	6	298.8	10	291.6	10	291.6	290.6
FLOW METER BLDG	SEE DETAIL ON DWG C-301	24+73.9	NA (6' x 10')	NA	10	290.0	8	289.0	288.0
MH-28	NA	24+85.5	6	298.7	8	289.0	18	289.0	288.0
					12	291.8			
MH-29	75 (5-SEGMENT)	26+06.5	8	295.2	18	286.0	18	286.0	285.0
MH-30	90 (5-SEGMENT)	30+88.1	8	286.0	18	279.3	18	279.3	278.3
ECB	NA	NA	6	NA	NA	NA	12	287.5	NA



SECTION B-B'



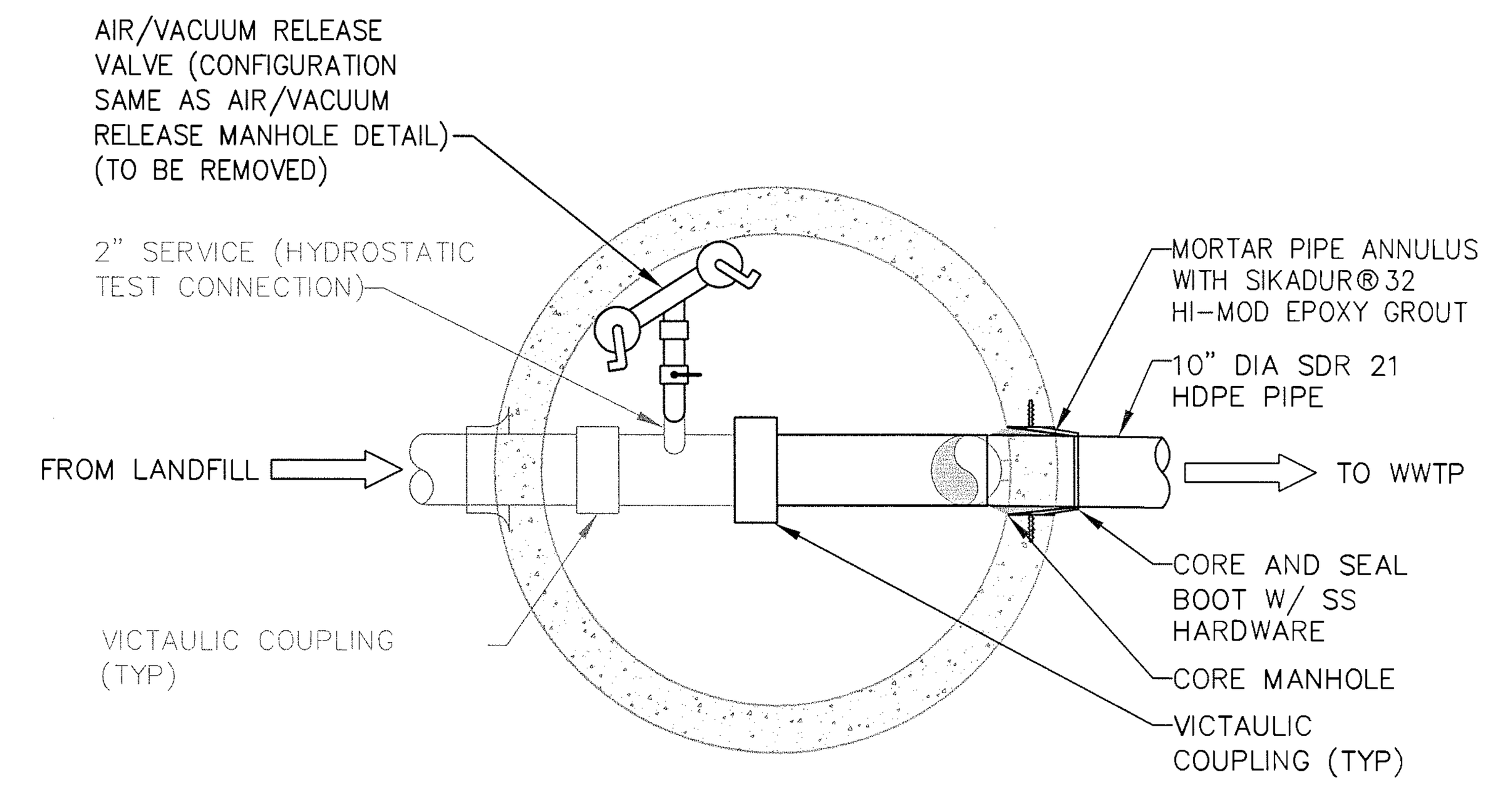
SECTION C-C'



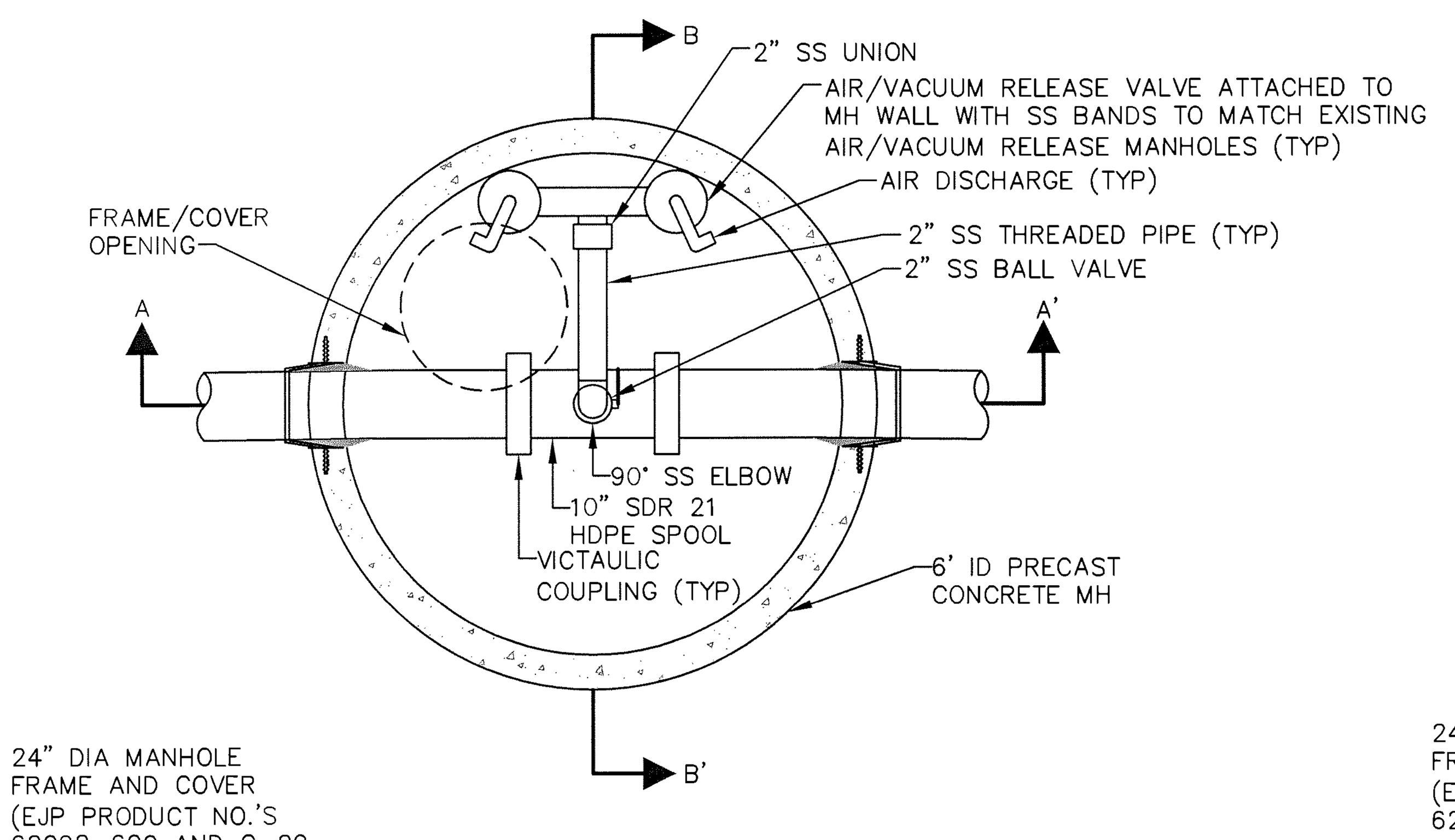
SECTION D-D'

MANHOLE THRUST BLOCK

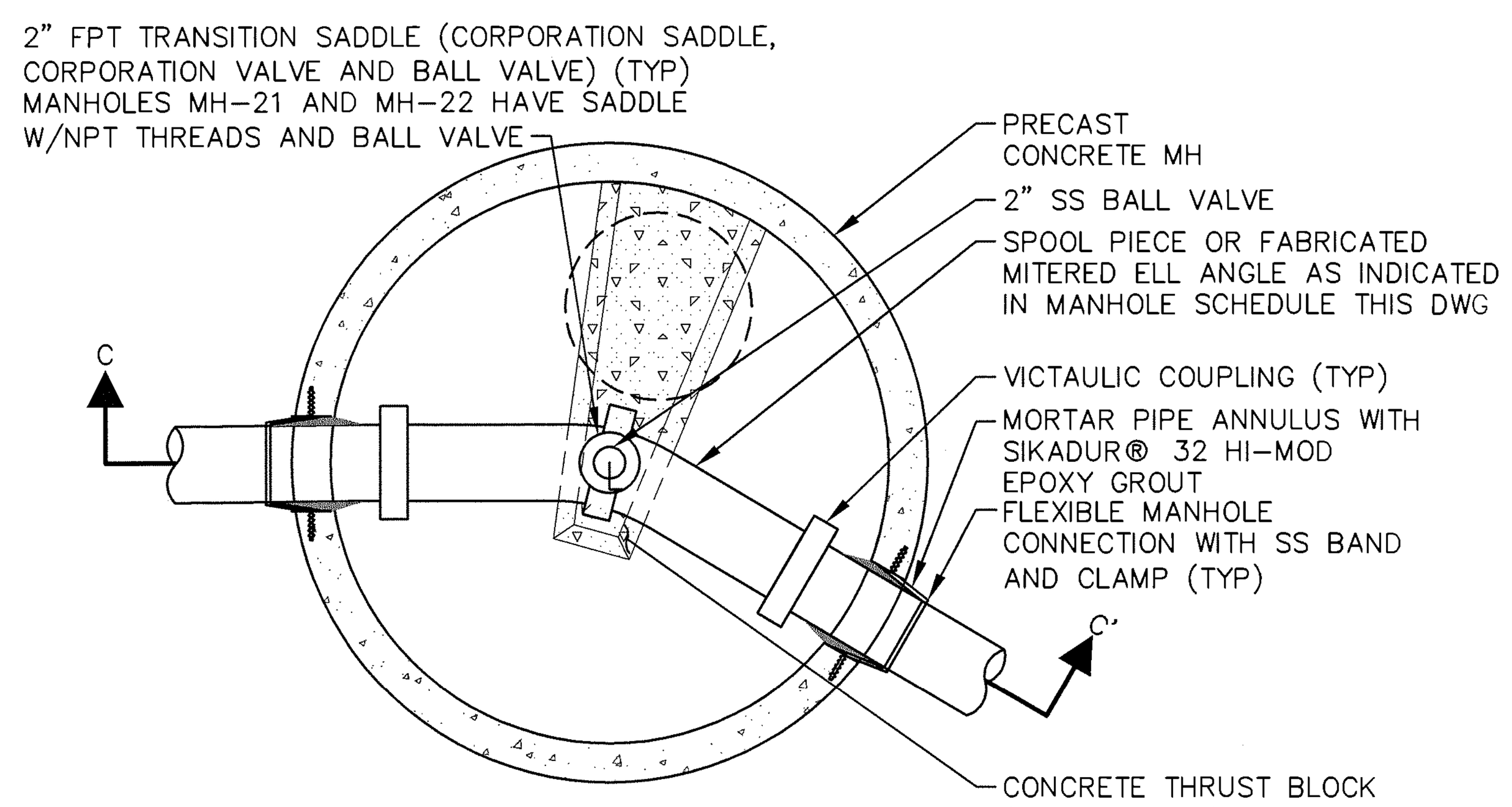
NTS



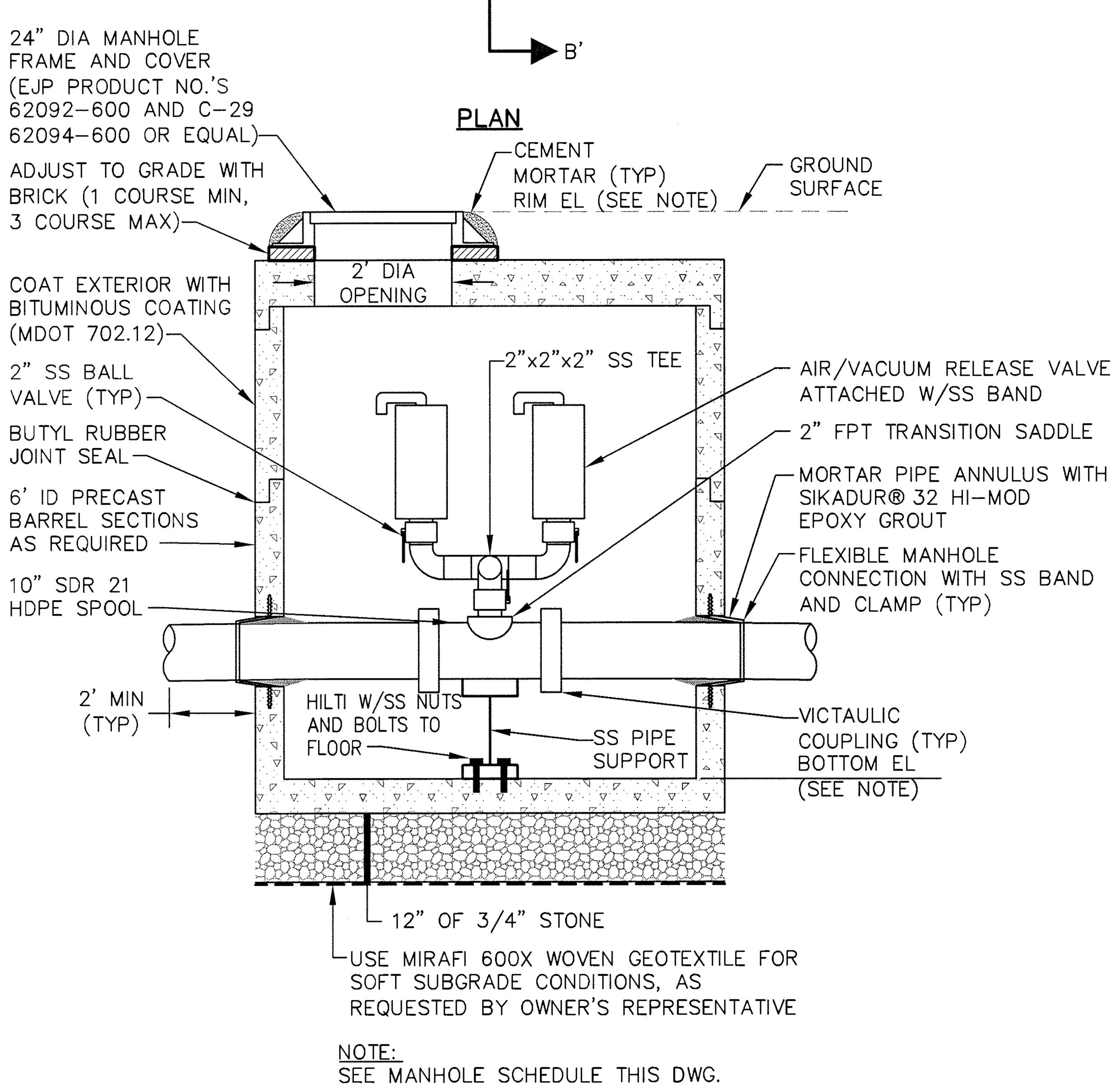
PLAN



PLAN



PLAN

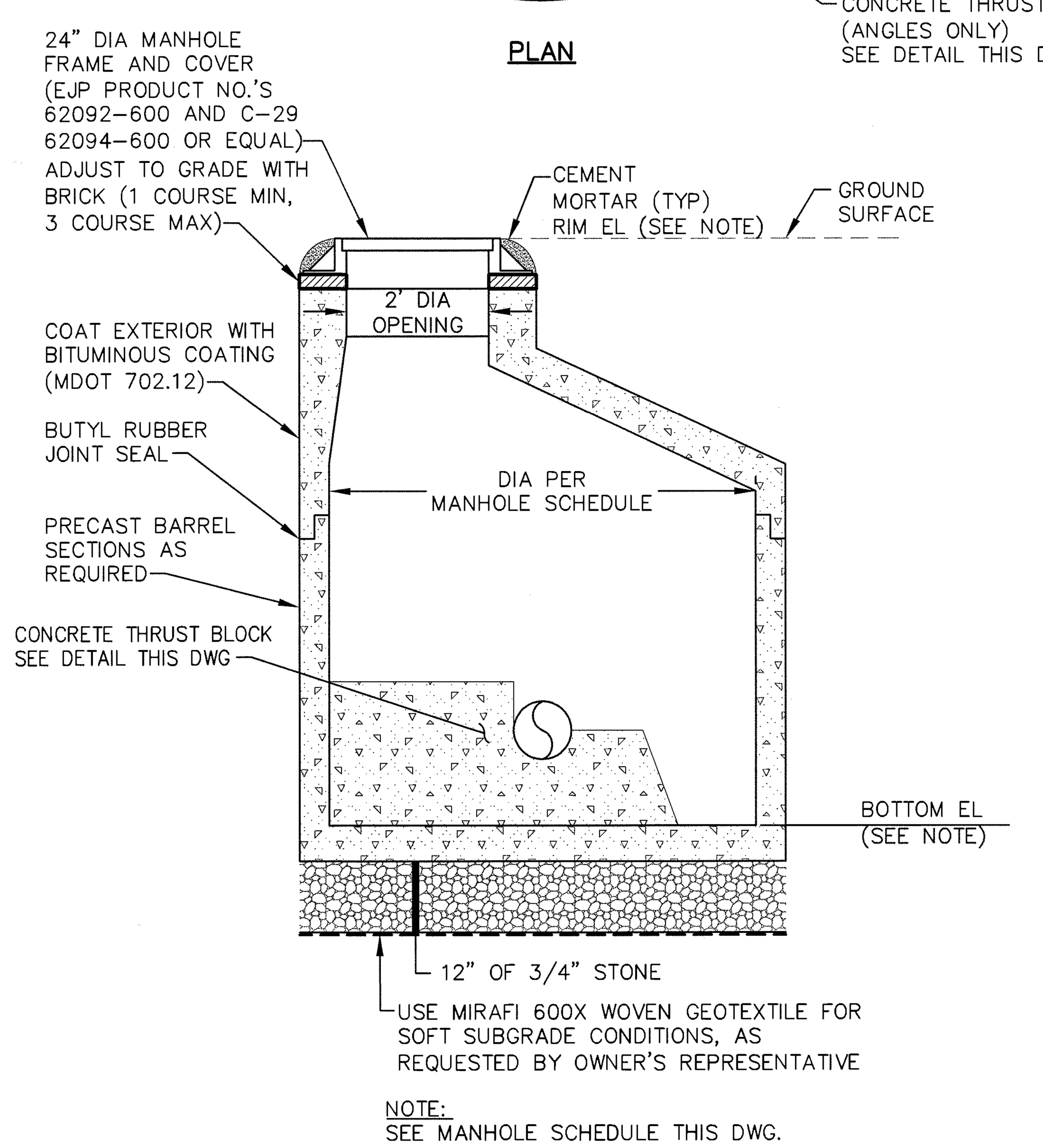


NOTE:
SEE MANHOLE SCHEDULE THIS DWG.

SECTION A-A'

AIR/VACUUM RELEASE MANHOLE

NTS

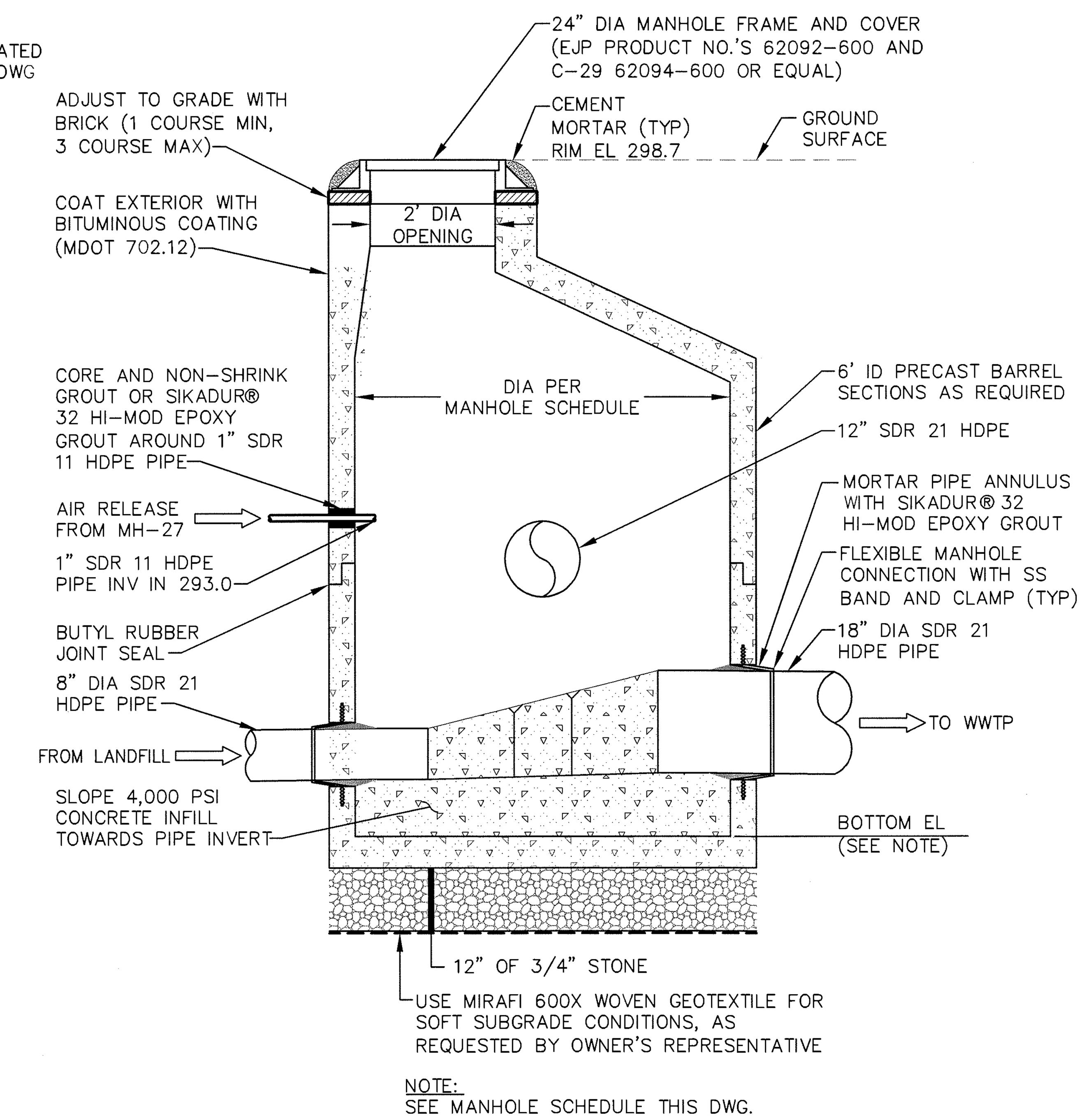


NOTE:
SEE MANHOLE SCHEDULE THIS DWG.

ELEVATION

MANHOLE

NTS

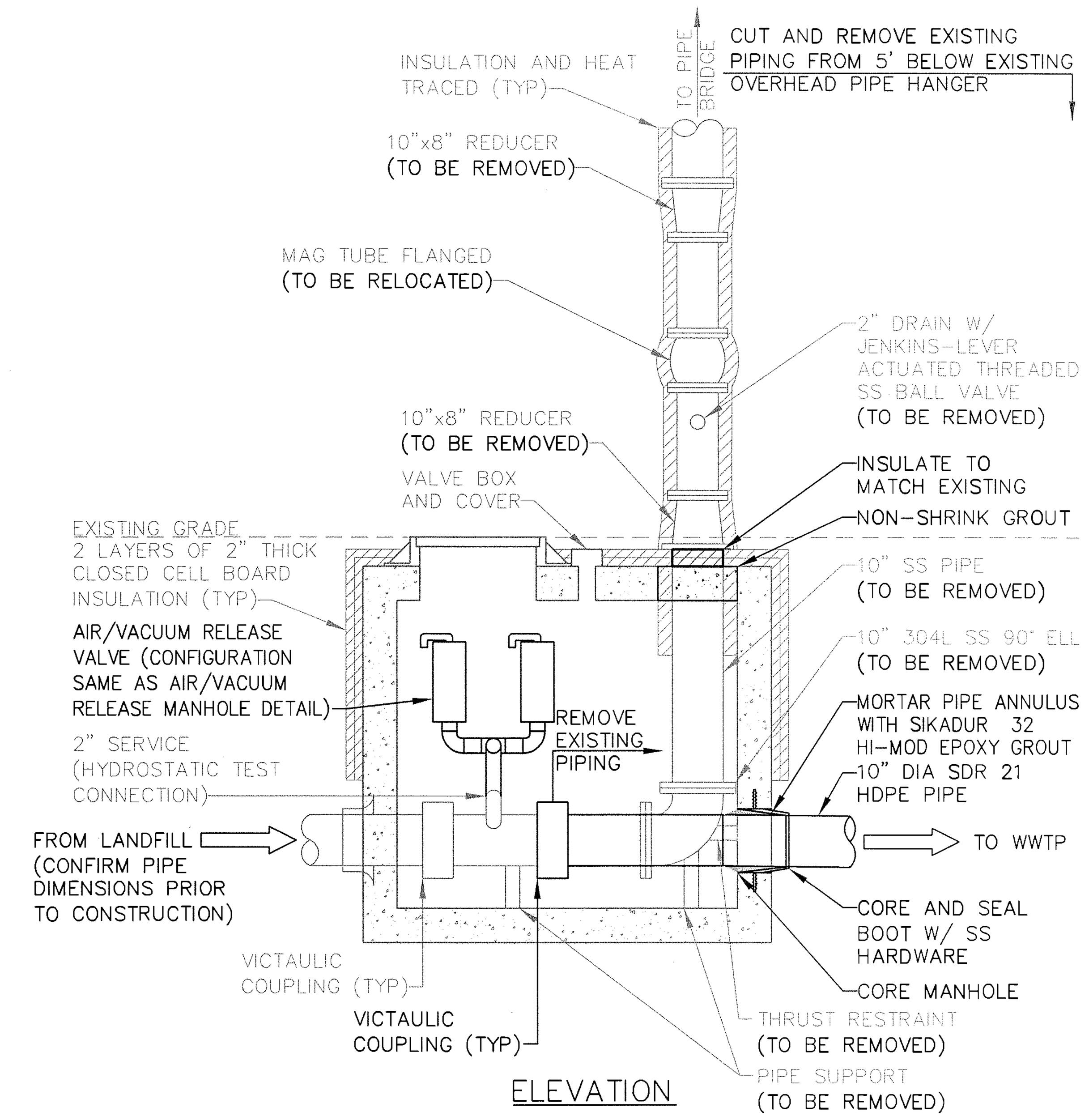


NOTE:
SEE MANHOLE SCHEDULE THIS DWG.

ELEVATION

MANHOLE 28

NTS



ELEVATION

NOTES:
1. CONFIRM PIPE DIMENSIONS PRIOR TO CONSTRUCTION
2. TERMINUS MANHOLE PIPING SHALL BE DEWATERED PRIOR TO TIE-IN. ALL LEACHATE FROM THE SYSTEM SHALL BE DISPOSED OF IN GNP MILL SEWER MANHOLE AT LOCATION DETERMINED BY ENGINEER. ANTICIPATED LEACHATE VOLUME FROM DEWATERING IS 20,000 GALLONS.

TERMINUS MANHOLE (MH 20)

NTS

REV.	BY	DATE	STATUS
	BDP	12/15	RECORD DRAWING
	BDP	8/15	REVISED PER CHANGE ORDER 1
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	7/15	REVISED PER ADDENDUM 1
	BDP	6/15	ISSUED FOR BID

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

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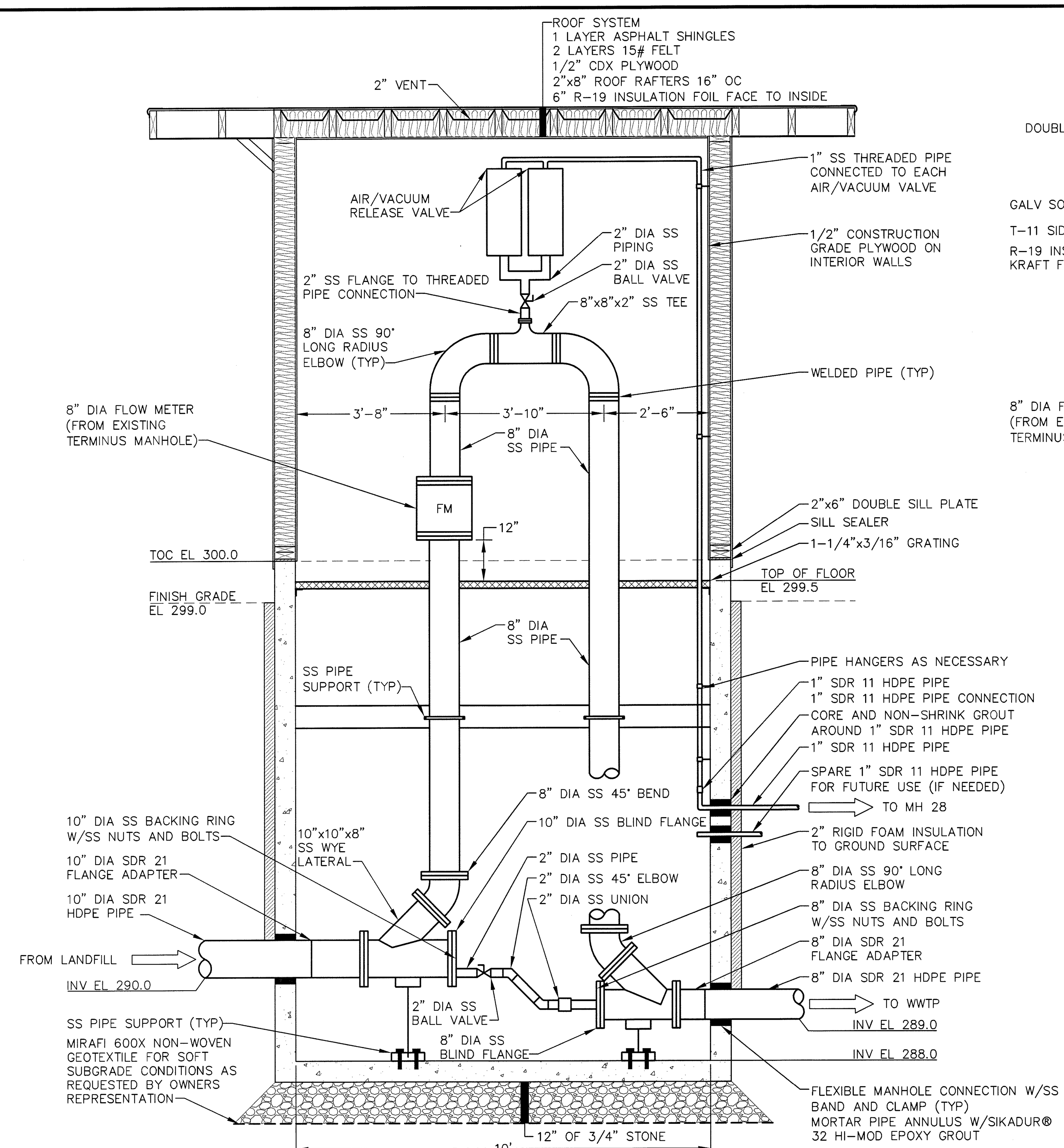
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

DESIGN BY: BDP
DRAWN BY: JRL
DATE: 5/28/2015
CHECKED BY: BDP
LMN: LMN
CTB: SME-STD

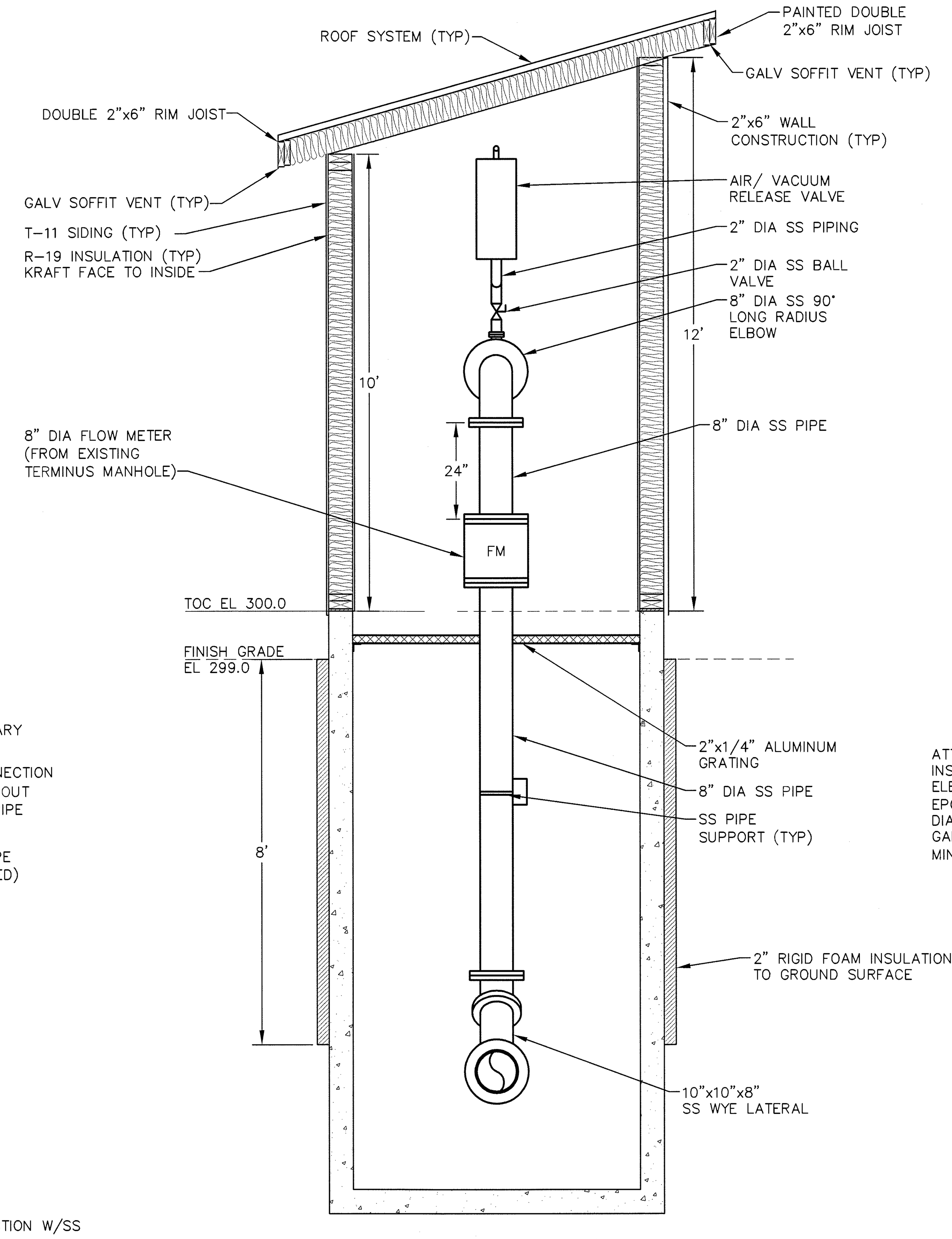
JOB NO. 14134.09 DWG FILE DETAILS

C-300



SECTION A–A'

NTS



SECTION B–B'

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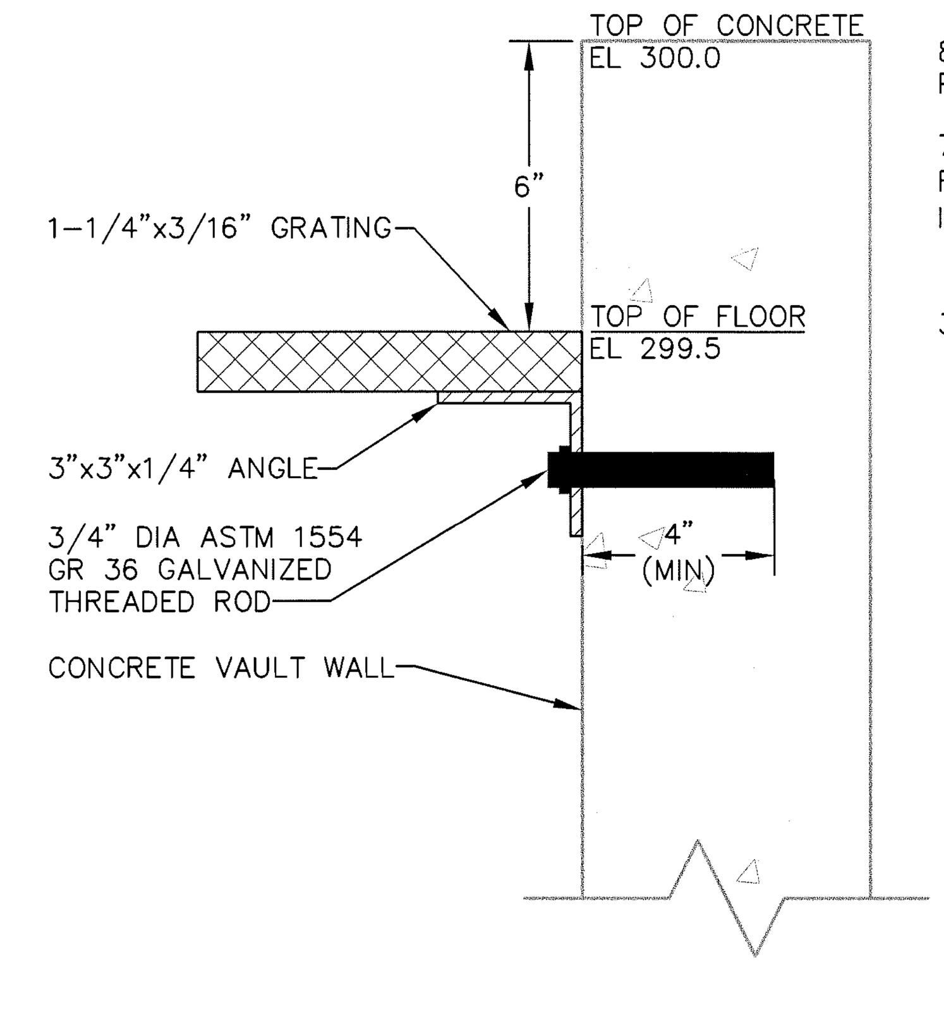
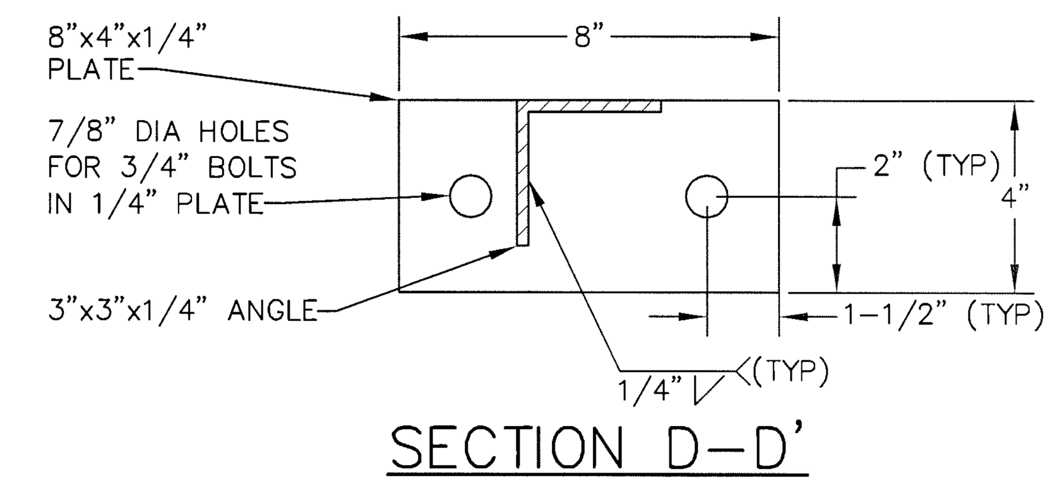


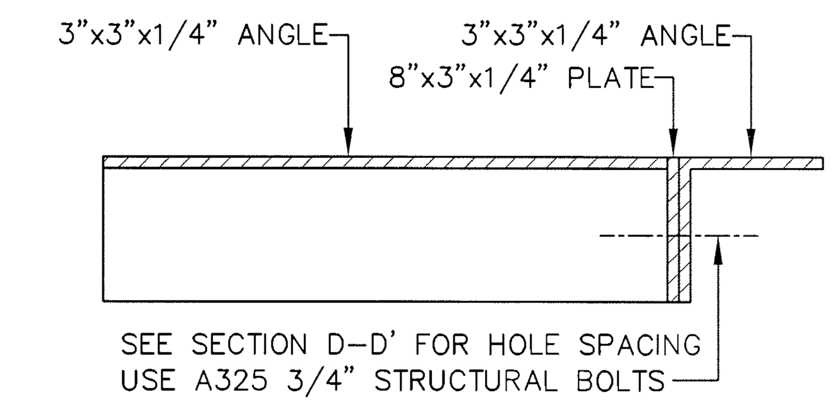
SECTION C–C'

NTS



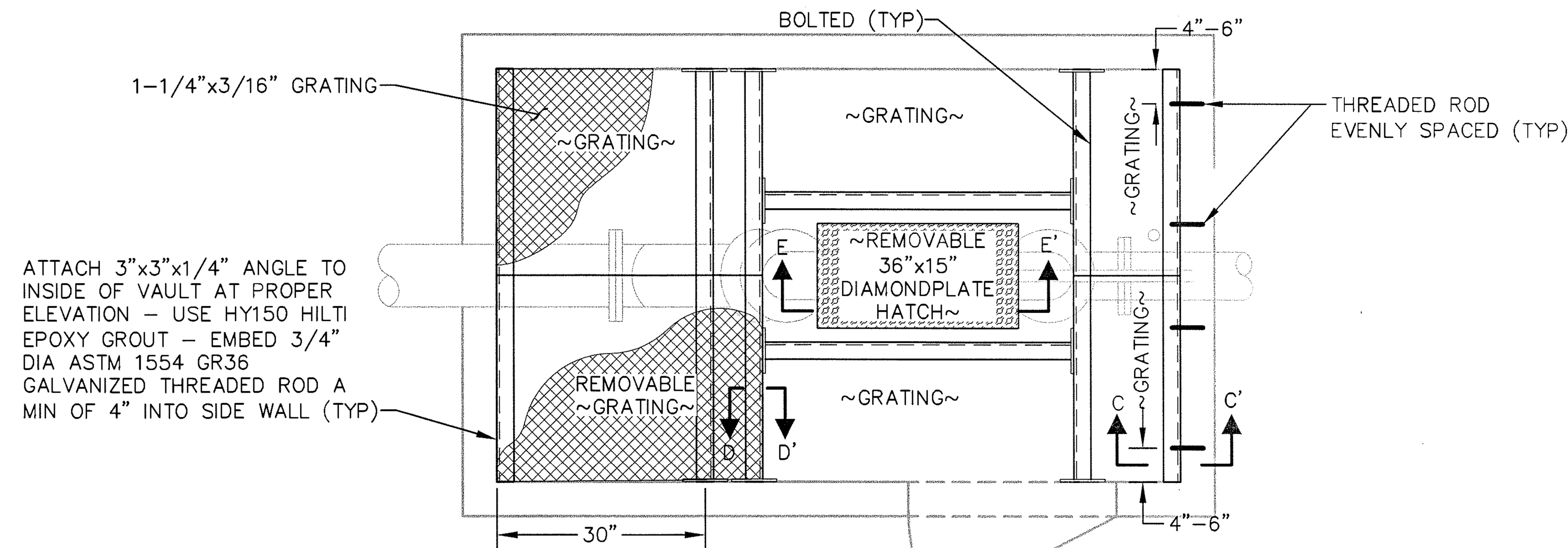
SECTION D–D'

NTS



SECTION E–E'

NTS



FLOOR GRATE NOTES:

1. GRATING TO BE 1-1/4"x3/16" GW SERIES WELDED BAR GRATING AS SOLD BY McNICHOLS (OR ENGINEERED APPROVED EQUAL).
2. ANGLES SHOULD BE ASTM A36, FINISH COATED WITH ONE PRIME COAT OF PAINT AND ONE FINISH COAT.

   PRIMER: PRO-CRYL UNIVERSAL ACRYLIC PRIMER BY SHERWIN-WILLIAMS (B66-310 SERIES) ONE COAT. SURFACE PREPARATION TO MEET SSPC-SP10 (NEAR WHITE BLAST). ACHIEVE 4-5 DRY MIL THICKNESS

   TOP COAT: DTM ACRYLIC COATING, SEMI-GLOSS (B66-200 SERIES) TWO COATS TO ACHIEVE 4-5 DRY MIL THICKNESS. FOLLOW MANUFACTURERS RECOMMENDATIONS.
3. ALL WELDING TO BE E-70XX.
4. ALL LOOSE STRUCTURAL BOLTS TO BE ASTM A325 WITH STANDARD WASHERS AND NUTS.
5. ANCHOR BOLTS TO BE EMBEDDED IN CONCRETE TO BE ASTM 1554 GRADE 36 GALVANIZED THREADED ROD, EMBEDDED A MINIMUM OF 4" UTILIZING HILTI HY150 EPOXY ADHESIVE. NUTS AND WASHERS SHALL BE GALVANIZED ALSO.
6. USE OF ALL PAINT AND EPOXY PRODUCTS ARE TO BE PER THE MANUFACTURERS DIRECTIONS.

FLOOR GRATE DETAIL

NTS

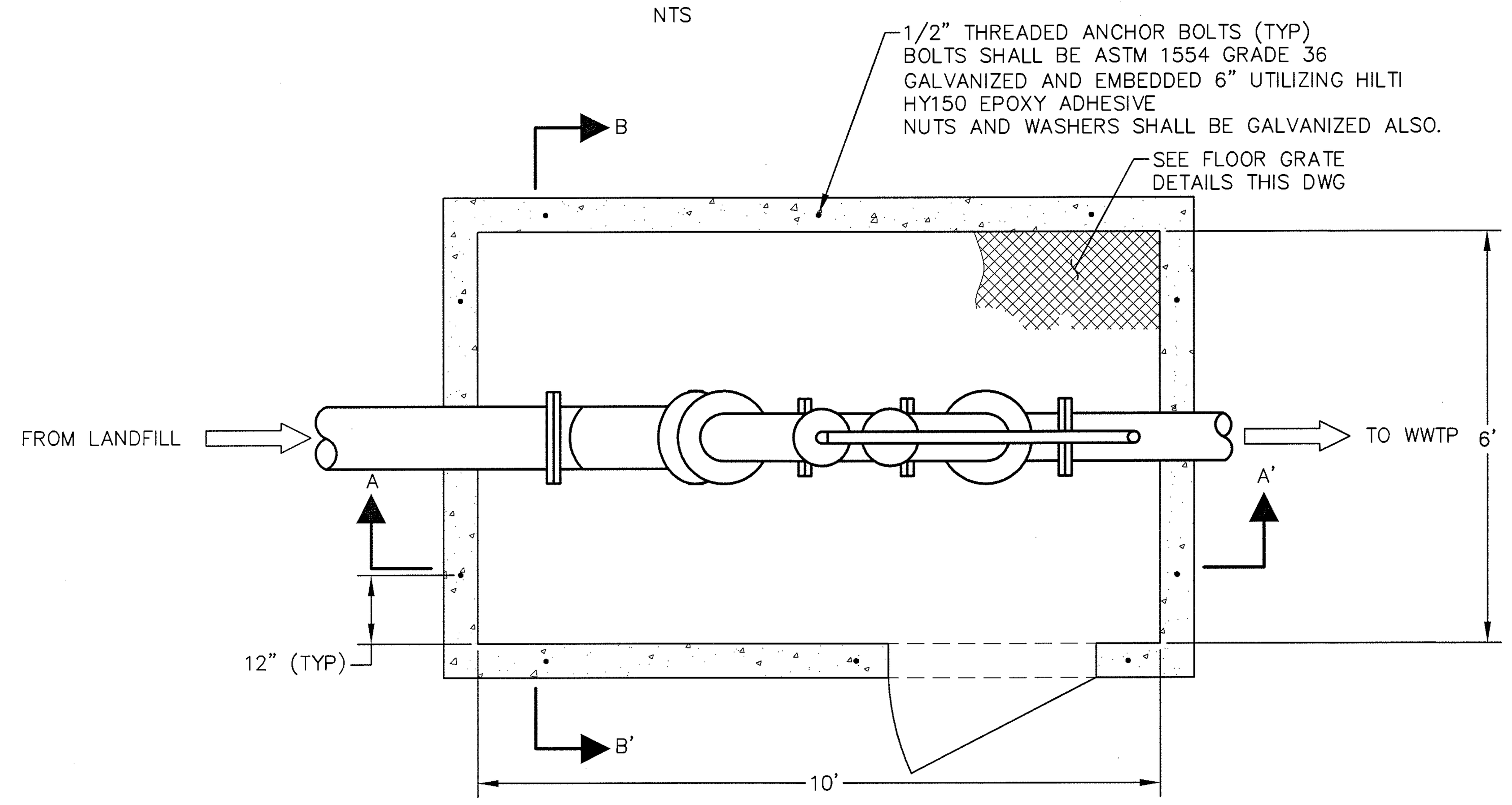
FLOW METER BUILDING NOTES:

1. ALL FLANGE FITTINGS SHALL HAVE SS NUTS AND BOLTS (TYP).
2. ALL PIPING SHALL BE PAINTED PER SPECIFICATIONS (SEE FLOOR GRATE NOTES).
3. THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

   PRODUCT DATA: SUBMIT PRODUCT DATA FOR ALL MATERIALS USED ON THE JOB FOR REVIEW FOR LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN CONTRACT DOCUMENTS.

   SHOP DRAWINGS: SUBMIT FOR REVIEW SHOP DRAWINGS OF ALL PRECAST UNITS. MANUFACTURER'S INFORMATION SHALL BE SUBMITTED FOR JOINT SEALANTS AND WATERPROOFING. MANUFACTURE SHALL PROVIDE ANTI-FLOTATION DESIGN SHOP DRAWINGS AND CALCULATIONS, INCLUDING ANY EXTENDED BASE SLABS AS NECESSARY, FOR PROPOSED MANHOLES. MANUFACTURER SHALL ASSUME GROUNDWATER LEVELS EQUAL TOP OF GROUND ELEVATIONS AND PROVIDE FOR A 1.2 FACTOR OF SAFETY AGAINST FLOTATION.

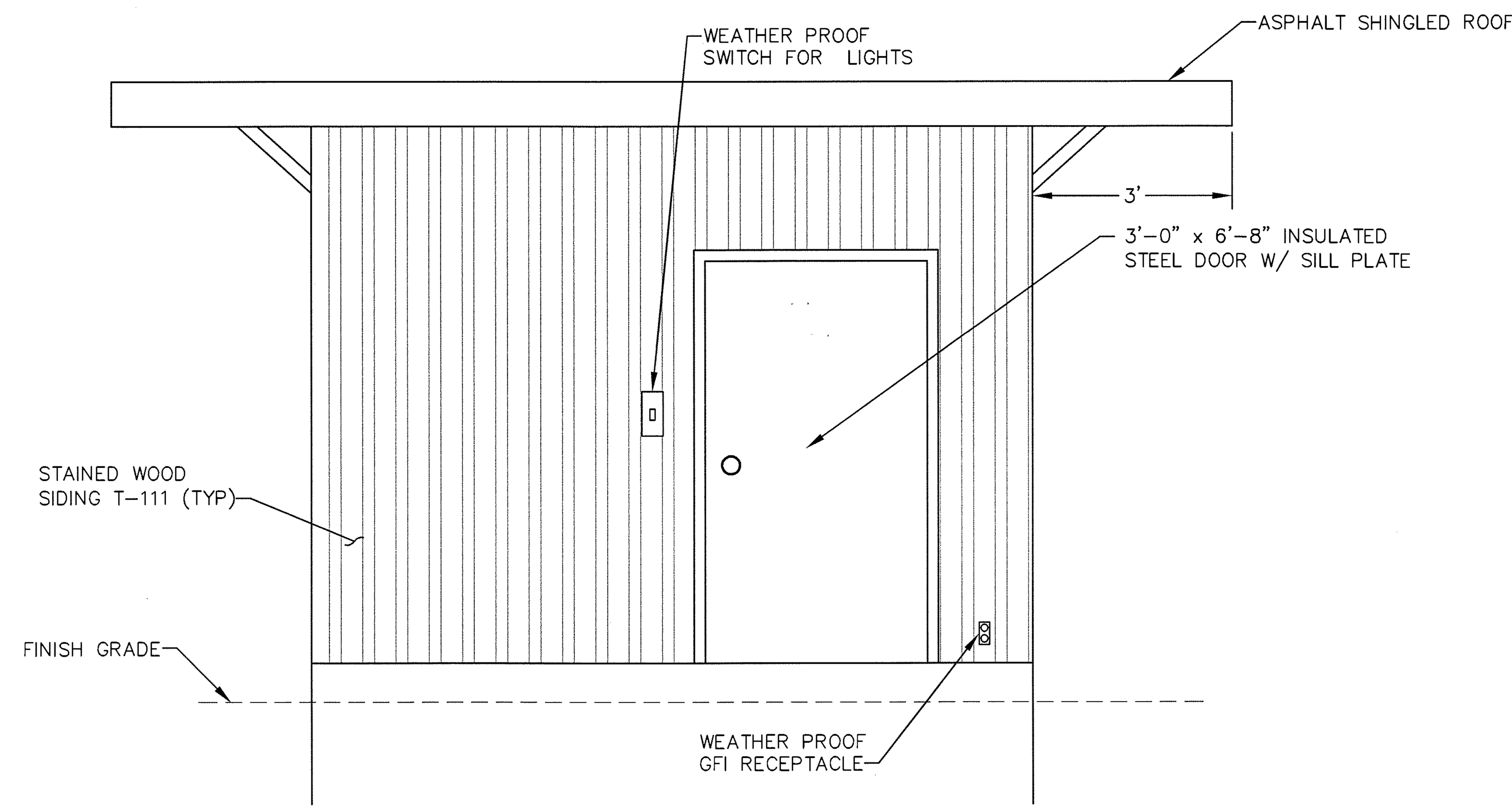
   SHOP DRAWINGS FOR ALUMINUM GRATING AND STRUCTURAL SUPPORTS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER (AT CONTRACTORS EXPENSE). SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO FABRICATION OF SUPPORT FRAMES AND GRATING. CONTRACTOR IS RESPONSIBLE FOR GRATING DIMENSIONS.



FLOW METER BUILDING NOTE:
ALL 8" AND 16" DIA SS PIPING AND FITTINGS SHALL BE SCHD 10 304L SS

FLOW METER BUILDING (MH27)

NTS



FRONT ELEVATION

NTS

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
EAST MILLINOCKET, MAINE

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STATE OF MAINE — GUY H. COTE, JR. — No. 5144 — LICENSED — PROFESSIONAL ENGINEER

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LMN:	LMN
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JOB NO. 14134.09 DWG FILE DETAILS C-301

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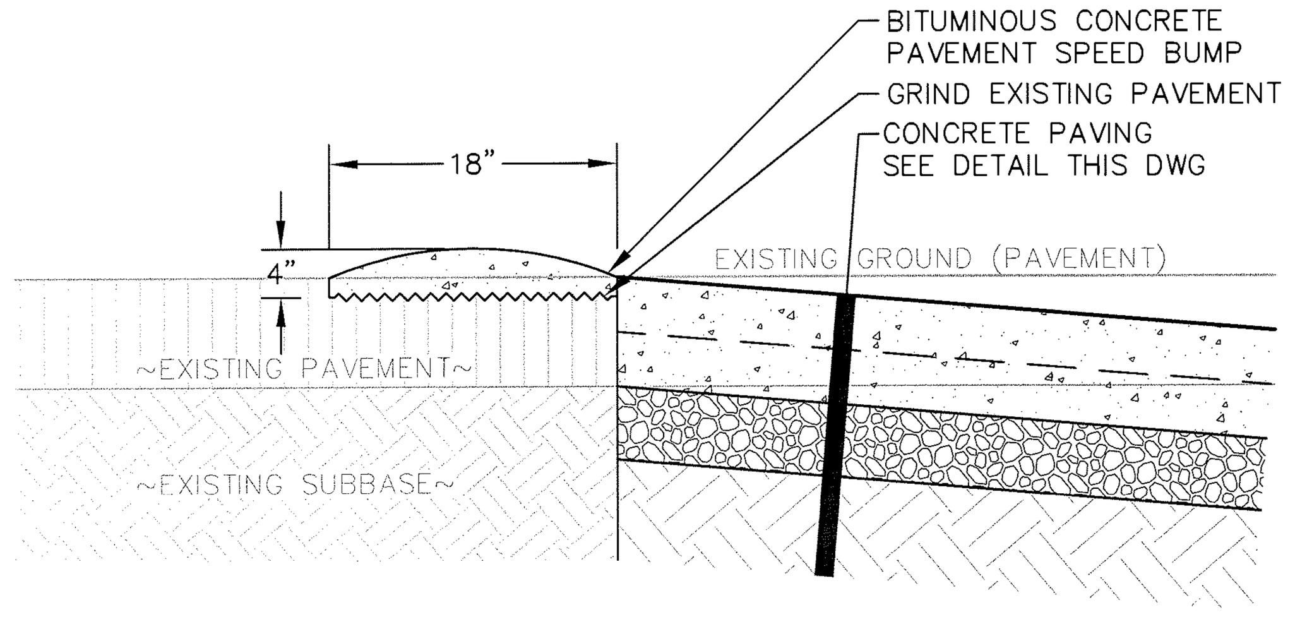
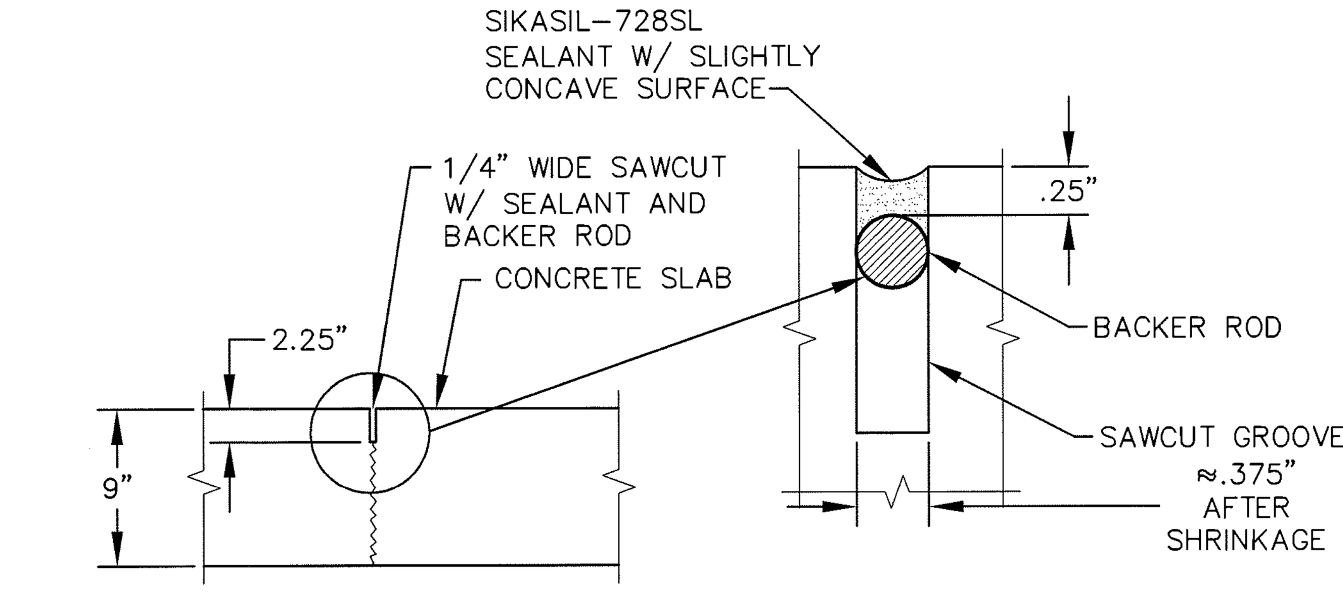
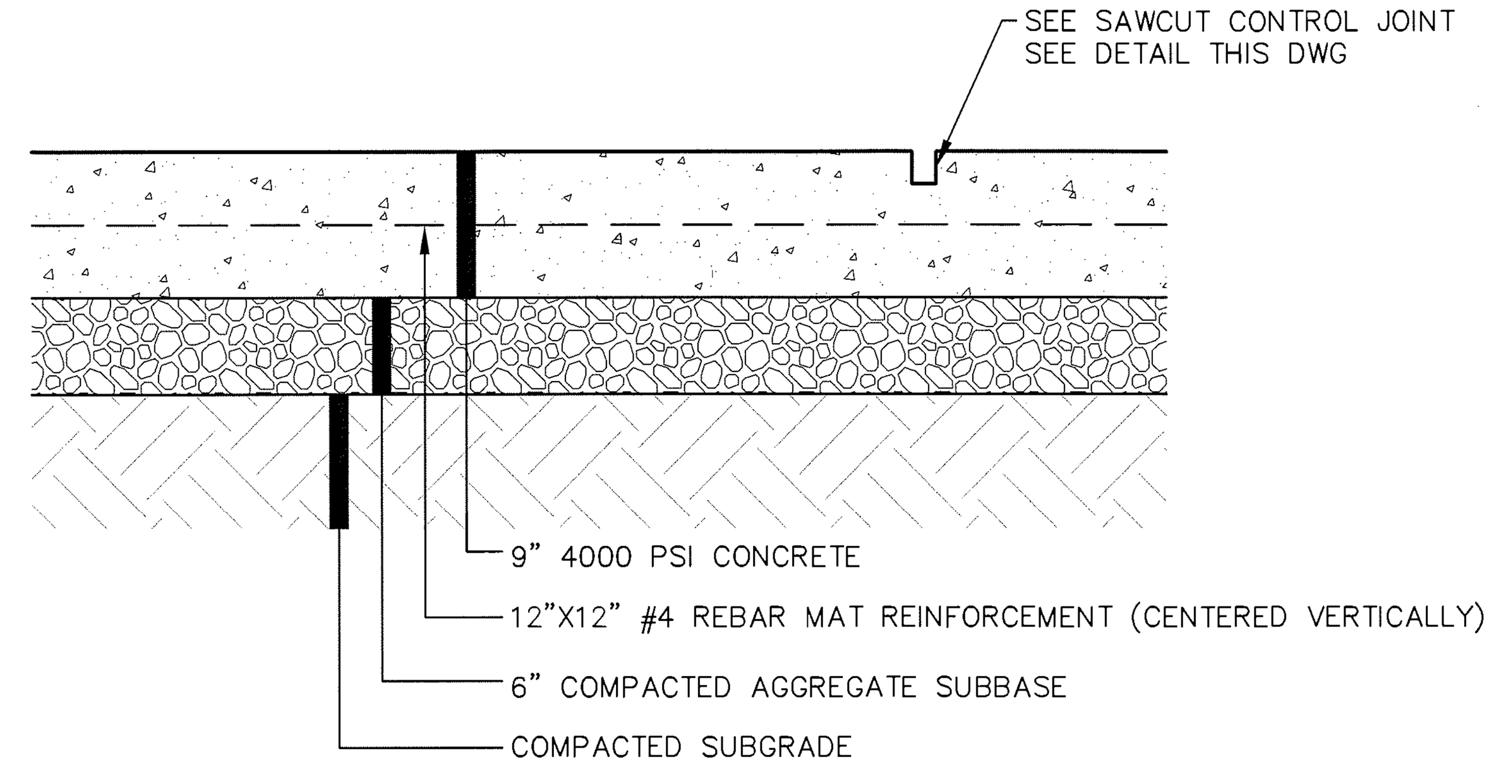


PAD TRANSITION
NTS



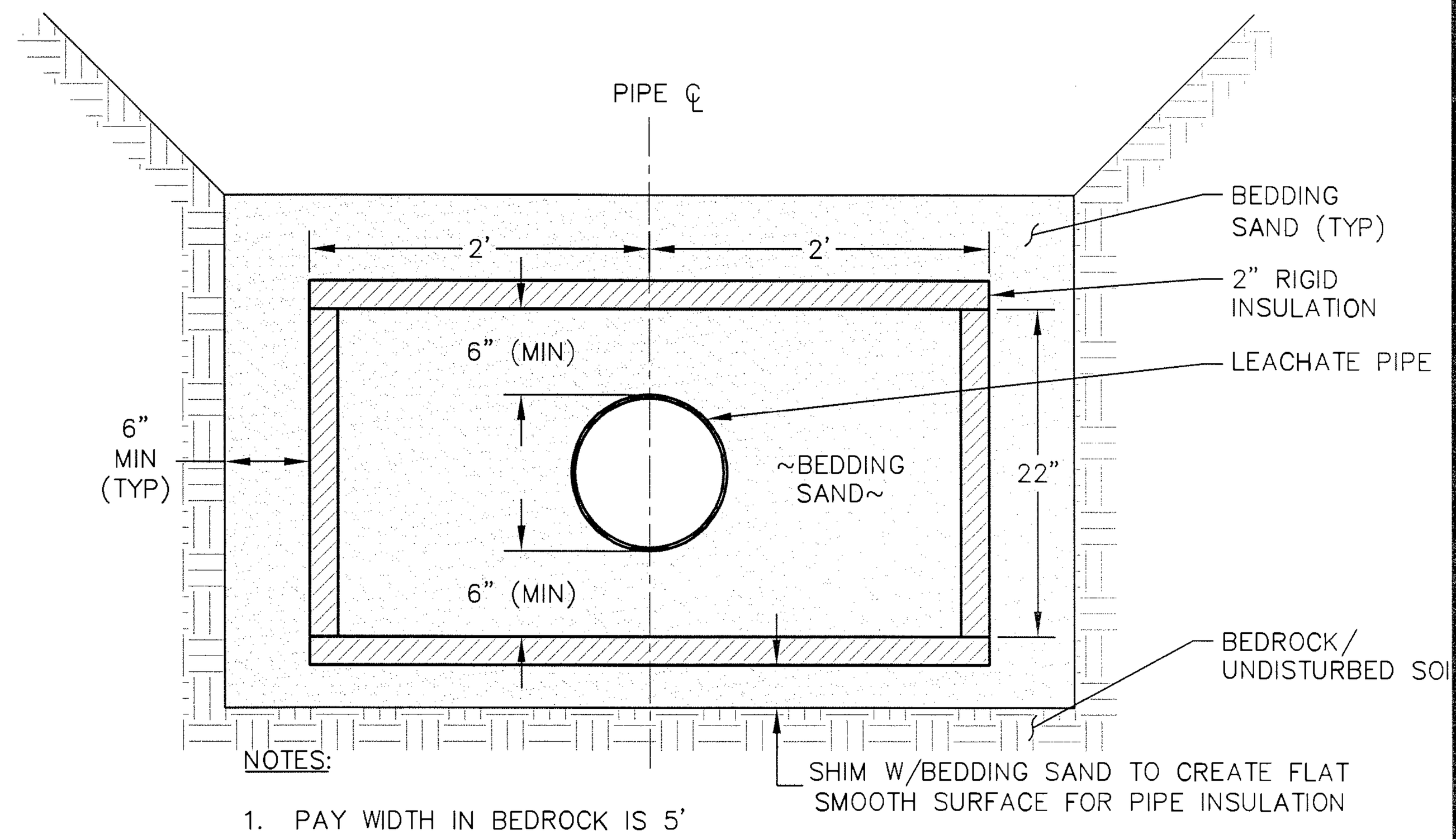
NOTE:
SAW CUT CONTROL JOINTS SHALL BE SPACED NO FURTHER THAN 20 FEET APART.

SAWCUT CONTROL JOINT
NTS



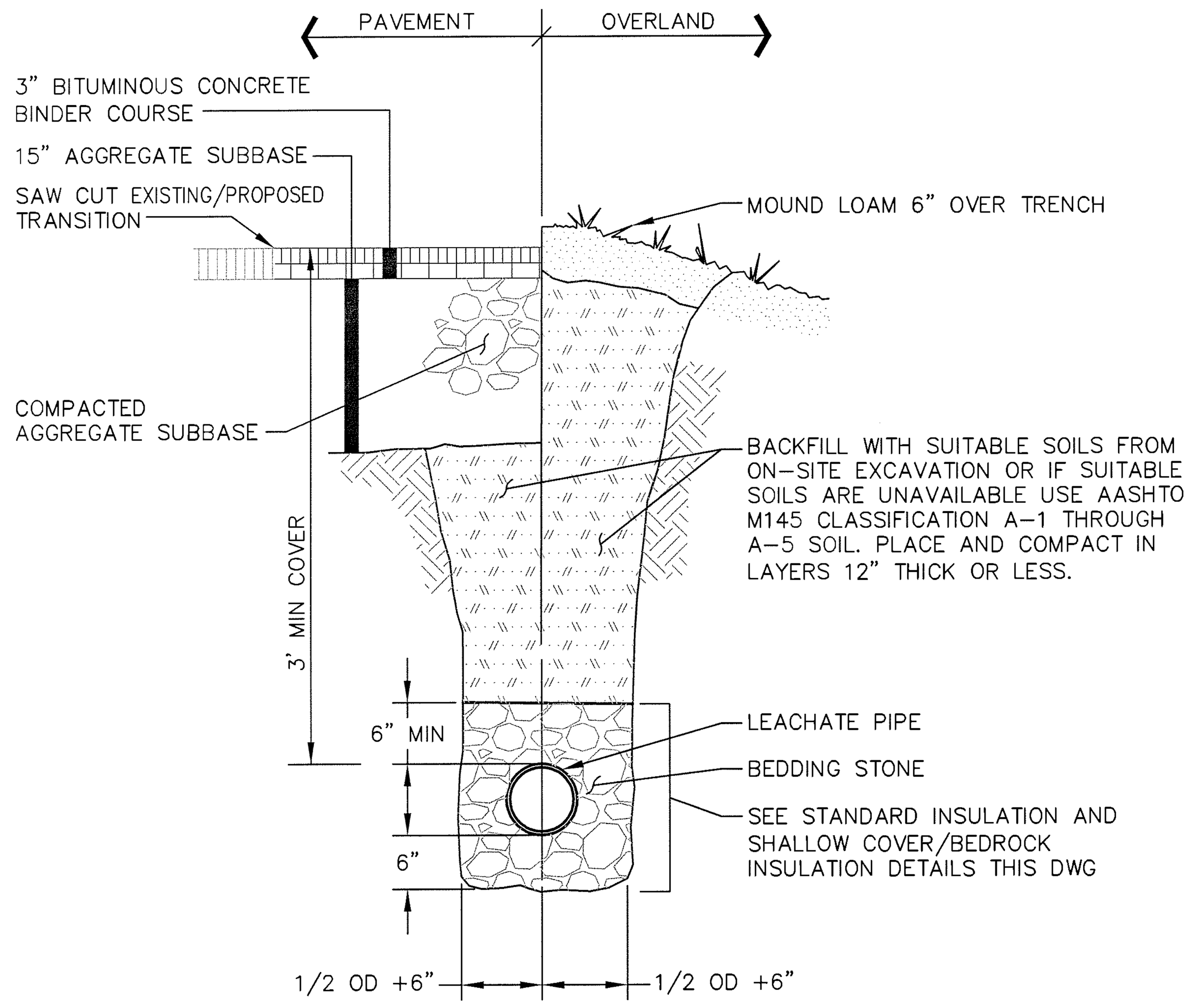
NOTE:
IMMEDIATELY AFTER FLOAT FINISHING, ROUGHEN TRAFFICKED SURFACE BY BROOMING WITH FIBER–BRISTLE BROOM PERPENDICULAR TO MAIN TRAFFIC DIRECTION.

CONCRETE PAVING
NTS



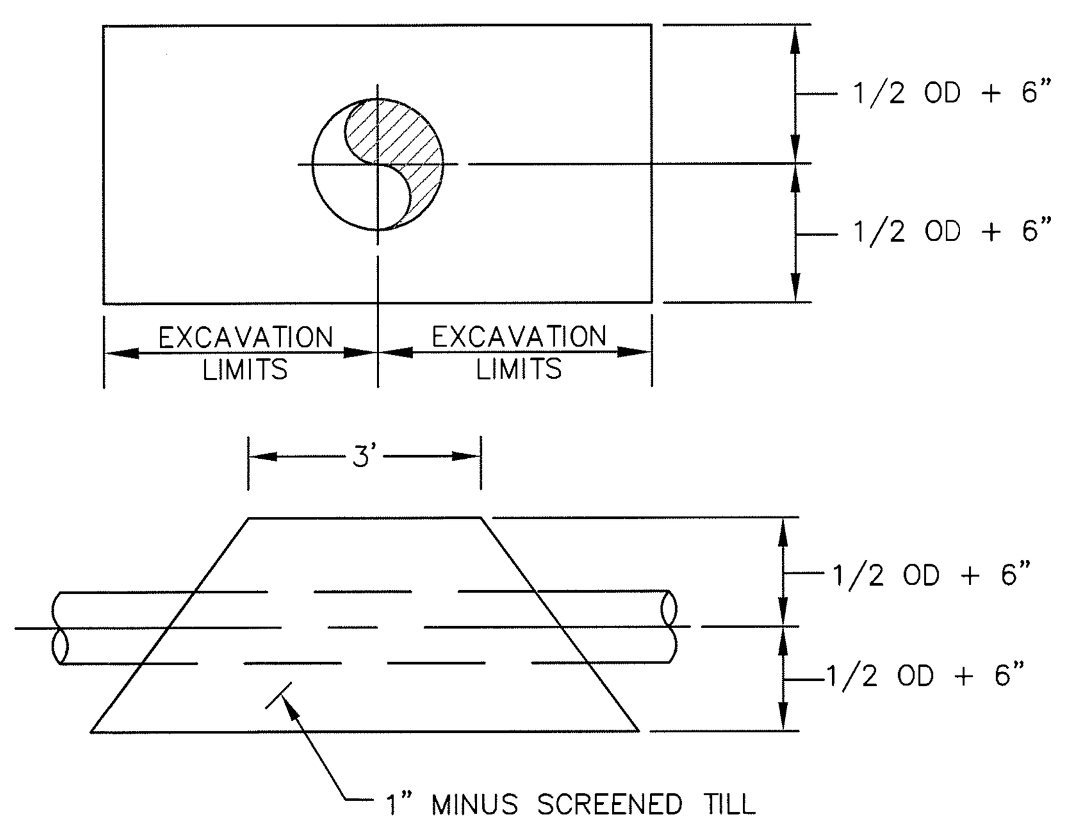
NOTES:
1. PAY WIDTH IN BEDROCK IS 5'
2. INSULATION SHALL BE 2" STYROFOAM BRAND SM EXTRUDED POLYSTYRENE FOAM INSULATION BY DOW BUILDING SOLUTIONS, INC. OR ENGINEER APPROVED EQUAL.

SHALLOW COVER/BEDROCK INSULATION
NTS

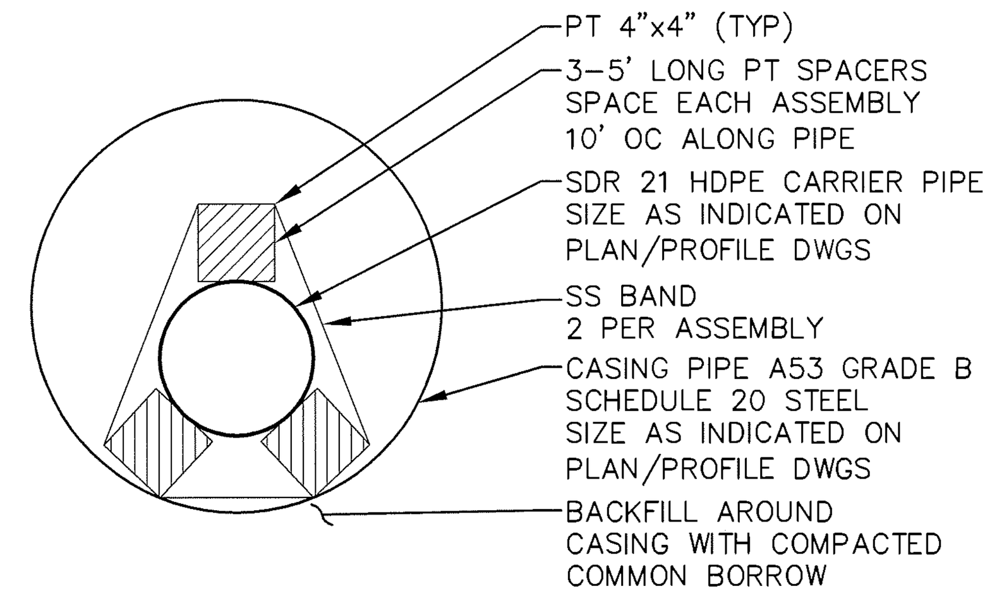


PIPE TRENCH
NTS

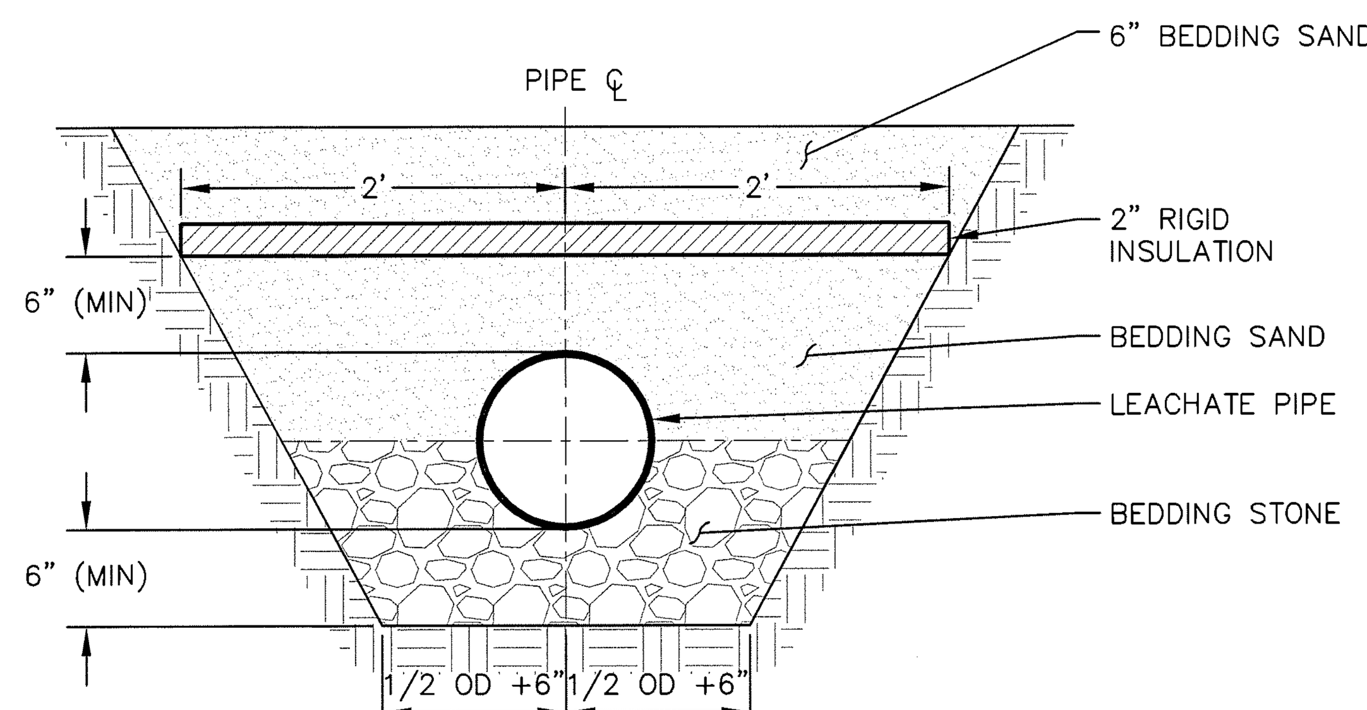
NOTE: DAMS SPACED AS SHOWN ON PLAN DRAWINGS



TILL DAM
NTS

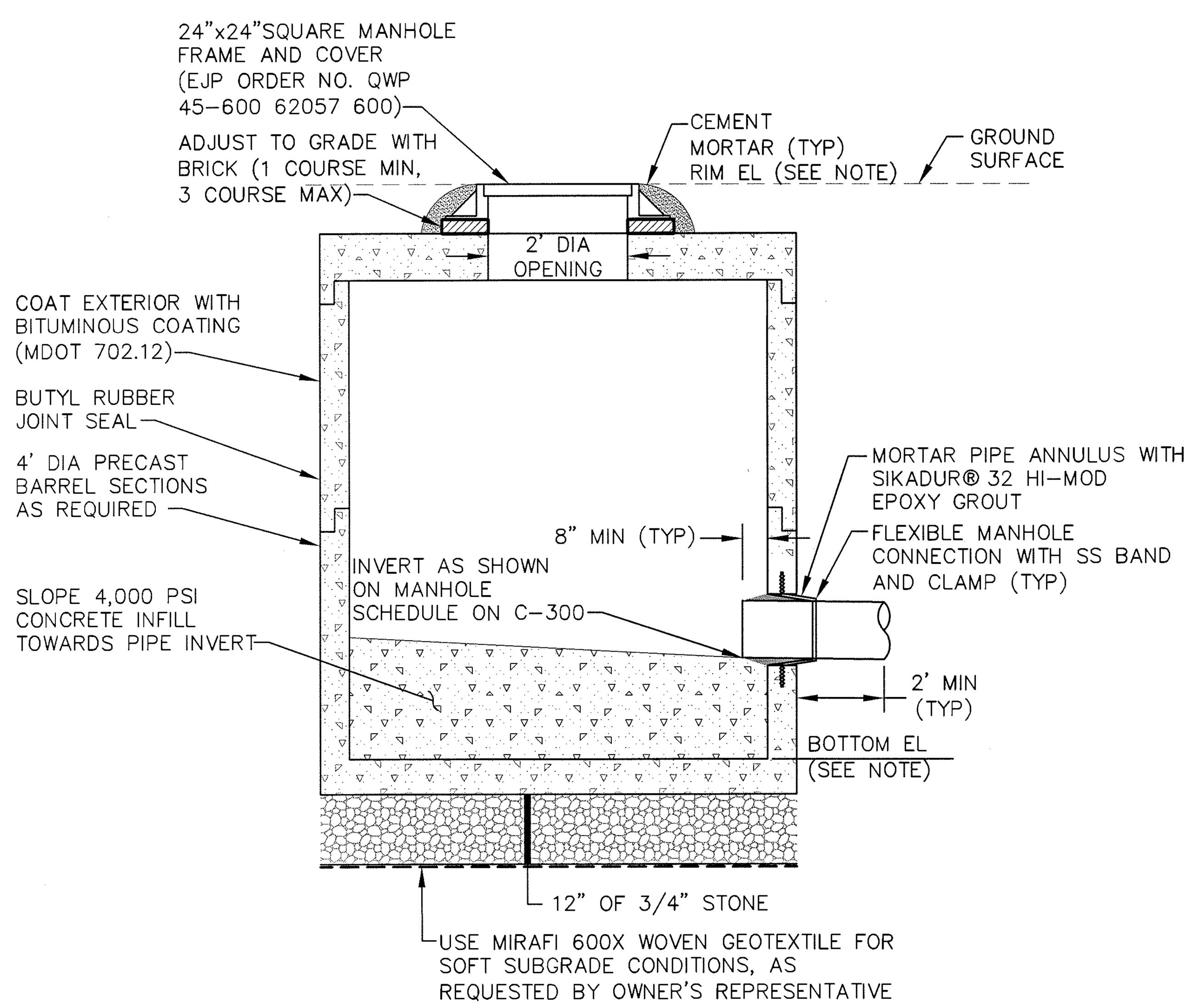


RAILROAD CROSSING PIPE ENCASEMENT
NTS



NOTE:
1. INSULATION SHALL BE 2" STYROFOAM BRAND SM EXTRUDED POLYSTYRENE FOAM INSULATION BY DOW BUILDING SOLUTIONS, INC. OR ENGINEER APPROVED EQUAL.

STANDARD INSULATION
NTS



NOTE:
SEE MANHOLE SCHEDULE DWG C–300.

EMERGENCY CATCH BASIN (ECB)
NTS

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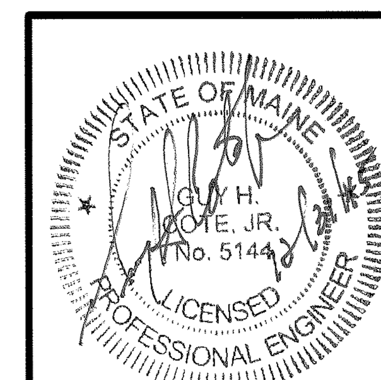

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JOB NO. 14134.09 DWG FILE DETAILS

C–302

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), March 2003. (2) The project Erosion and Sediment Control Plan.

2. The Maine Department of Economic & Community Development (MEDECD) or their agent will be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized.

3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.

4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.

B. TEMPORARY MEASURES

1. SILT FENCE

a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.

b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

c. Silt fences will be inspected immediately after each rainfall of 0.5 inches or more and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.

d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

2. STONE CHECK DAMS

Stone check dams will be installed in grass-lined swales and ditches during construction.

3. BARK MULCH SEDIMENT BARRIER

a. Where approved, bark mulch sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.

b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

4. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade for a year or less and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

5. TEMPORARY MULCHING

Use temporary mulch in the following locations and/or circumstances:
- Temporary mulch will be applied within 7 days of exposing spill or prior to any storm event.
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas, which have been temporarily or permanently seeded, will be mulched immediately following seeding.
- Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the growing season.
- Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April 15).

The following materials may be used for temporary mulch:

a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of ground surface.

b. Erosion Control Mix: It can be used as a stand-alone reinforcement:
- on slopes 2 horizontal to 1 vertical or less;
- on frozen ground or forested areas; and
- at the edge of gravel parking areas and areas under construction.

c. Erosion control mix alone is not suitable:
- on slopes with groundwater seepage;
- at low points with concentrated flows and in gullies;
- at the bottom of steep perimeter slopes exceeding 100 feet in length;
- below culvert outlet aprons; and around catch basins and closed storm systems.

d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.

e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15 to September 15) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways;
- steep slopes (15 percent or greater); and
- any disturbed soil within 100 feet of lakes, streams, or wetlands.

During the late fall and winter (September 15 to April 15) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting) on:
- sideslopes of grassed waterways; and
- moderate slopes (between 8 and 15 percent).

6. TEMPORARY DUST CONTROL

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

7. CONSTRUCTION DE-WATERING

a. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, catch basins, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, ADirt Bag 55" sediment filter bag, or other approved Best Management Practices (BMP's). De-watering liquids shall not be discharged to Town of East Millinocket Sanitary Sewer System.

C. PERMANENT MEASURES

1. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving ,riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.

a. Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

b. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and September 15. Areas not seeded or which do not obtain satisfactory growth by September 15, will be seeded with Winter Rye and mulched. After October 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

PERMANENT SEEDING SPECIFICATIONS

Mixture:	(lbs/acre)
Kentucky Bluegrass	55
White Clover	5
Creeping Red Fescue	55
Perennial Ryegrass	15

c. Mulch in accordance with specifications for temporary mulching.

d. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

2. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.

D. WINTER CONSTRUCTION AND STABILIZATION

1. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day prior to any snow event. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

2. Natural Resource Protection: During winter construction, a double-row of sediment barriers (i.e., silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Projects crossing the natural resource will be protected a minimum distance of 100 feet on either side from the resource.

3. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

4. Mulching: All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.

Mulch will not be spread on top of snow.

After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control matting.

Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.

5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources.

6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of two times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

If dormant seeding is not used for the site, all disturbed areas will be revegetated in the spring.

7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, the site contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

Following the temporary and/or final seeding and mulching, the contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

E. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES

1. Stabilization of Disturbed Soil: By September 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the contractor fails to stabilize these soils by this date, then the contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.

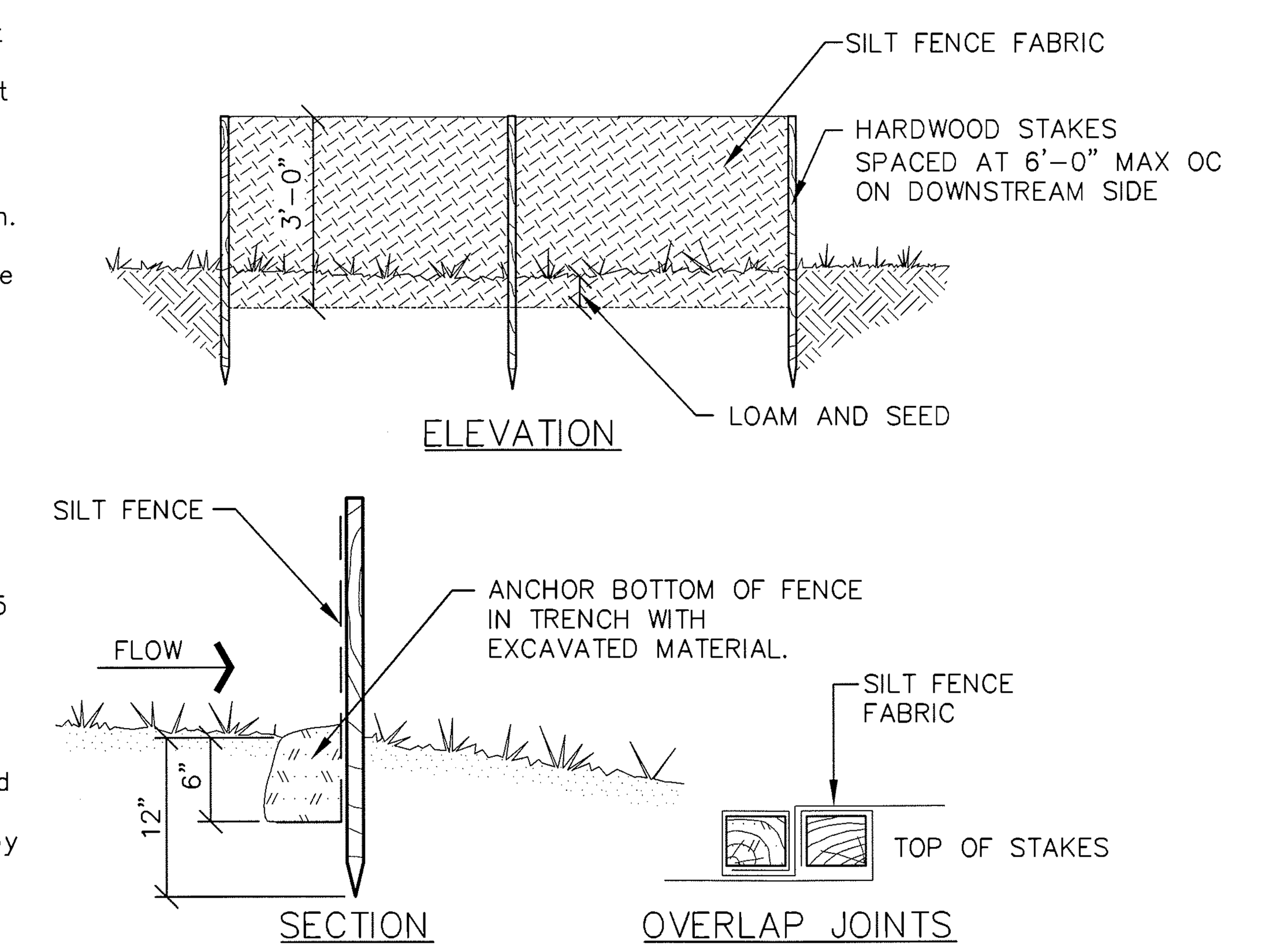
2. Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by September 15. The owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:

a. Stabilize the soil with temporary vegetation and erosion control mesh.
b. Stabilize the slope with erosion control mix.
c. Stabilize the slope with stone riprap.

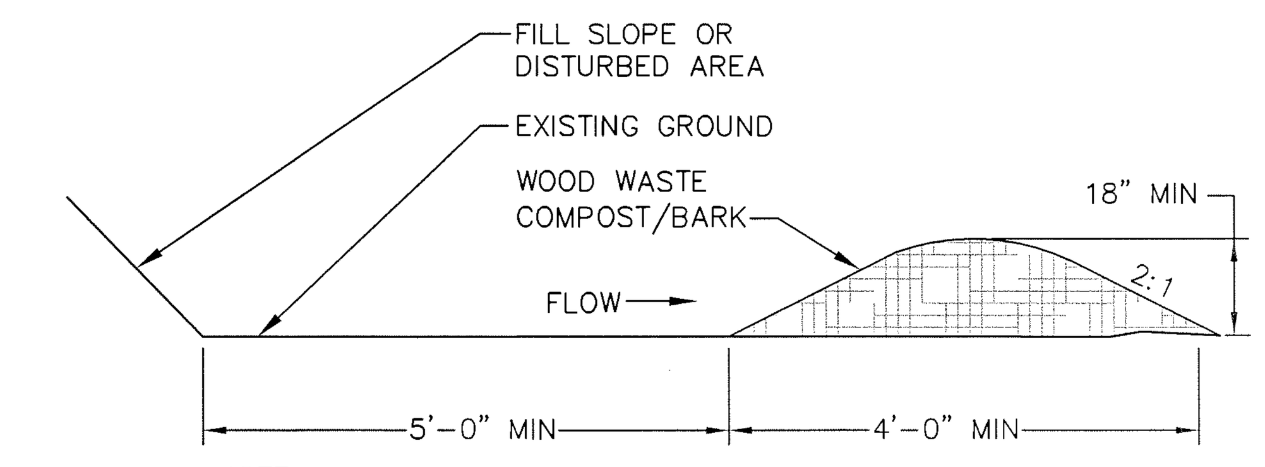
3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by October 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

F. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

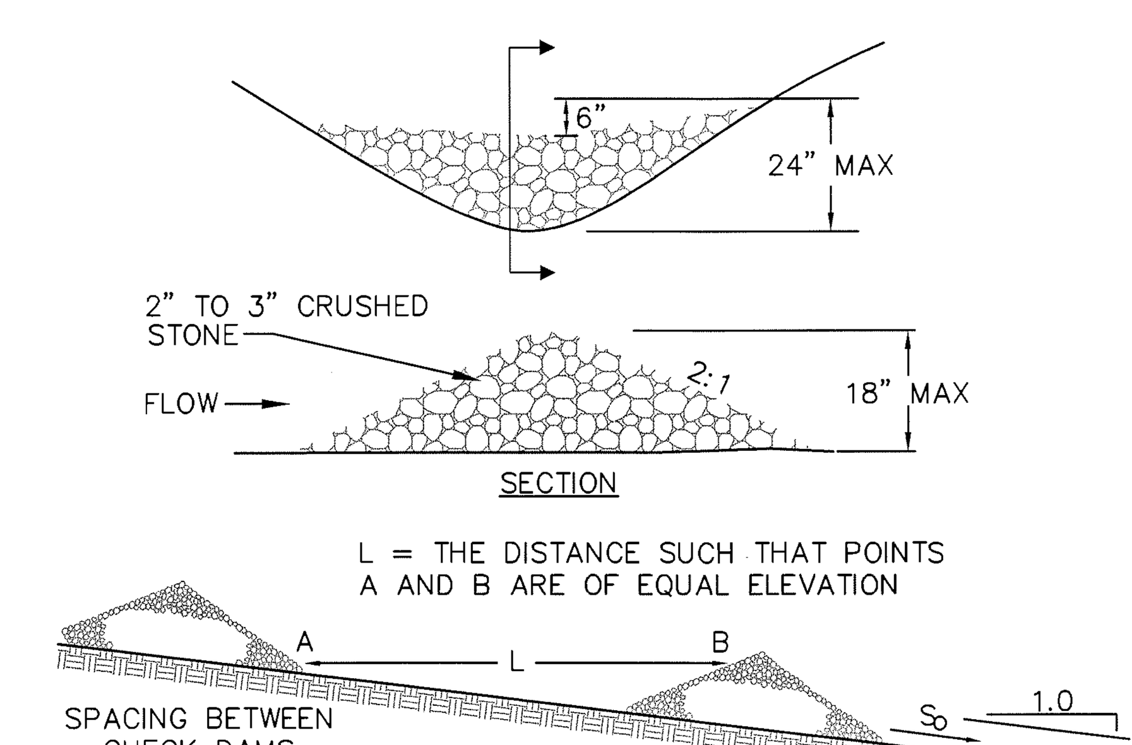


SILT FENCE
NTS



NOTE:
BARK MULCH SEDIMENT BARRIERS MAY BE USED AS AN ALTERNATE TO SILT FENCE WHEN APPROVED BY THE ENGINEER.

BARK MULCH SEDIMENT BARRIER
NTS



SPACING BETWEEN CHECK DAMS

So (FT/FT)	L (FT)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	10

NOTE:
USE AT ALL NEWLY CONSTRUCTED GRASS LINED DITCHES AS A TEMPORARY EROSION CONTROL MEASURE AND WHERE OTHERWISE NOTED ON PLANS.

STONE CHECK DAM
NTS

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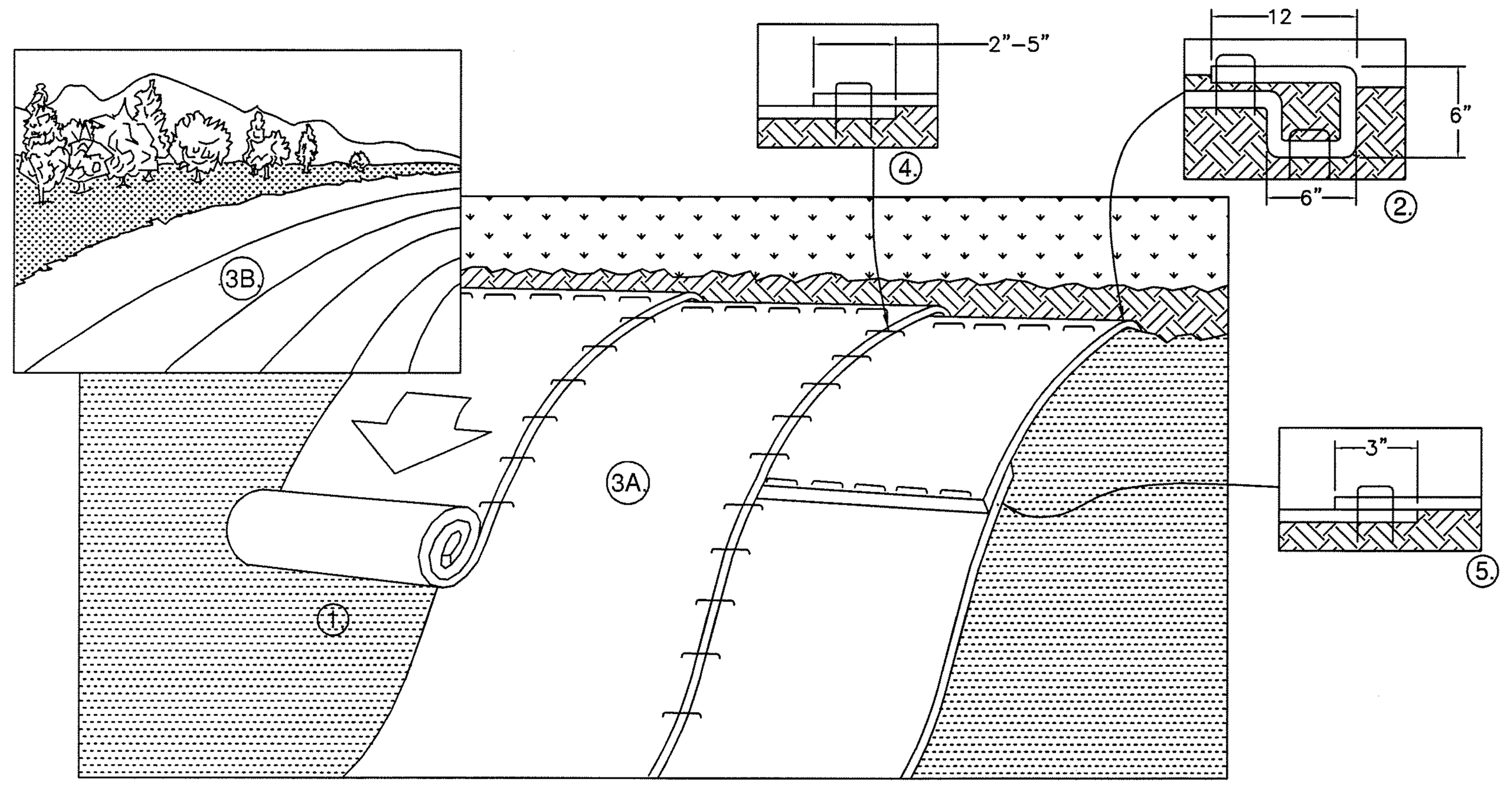


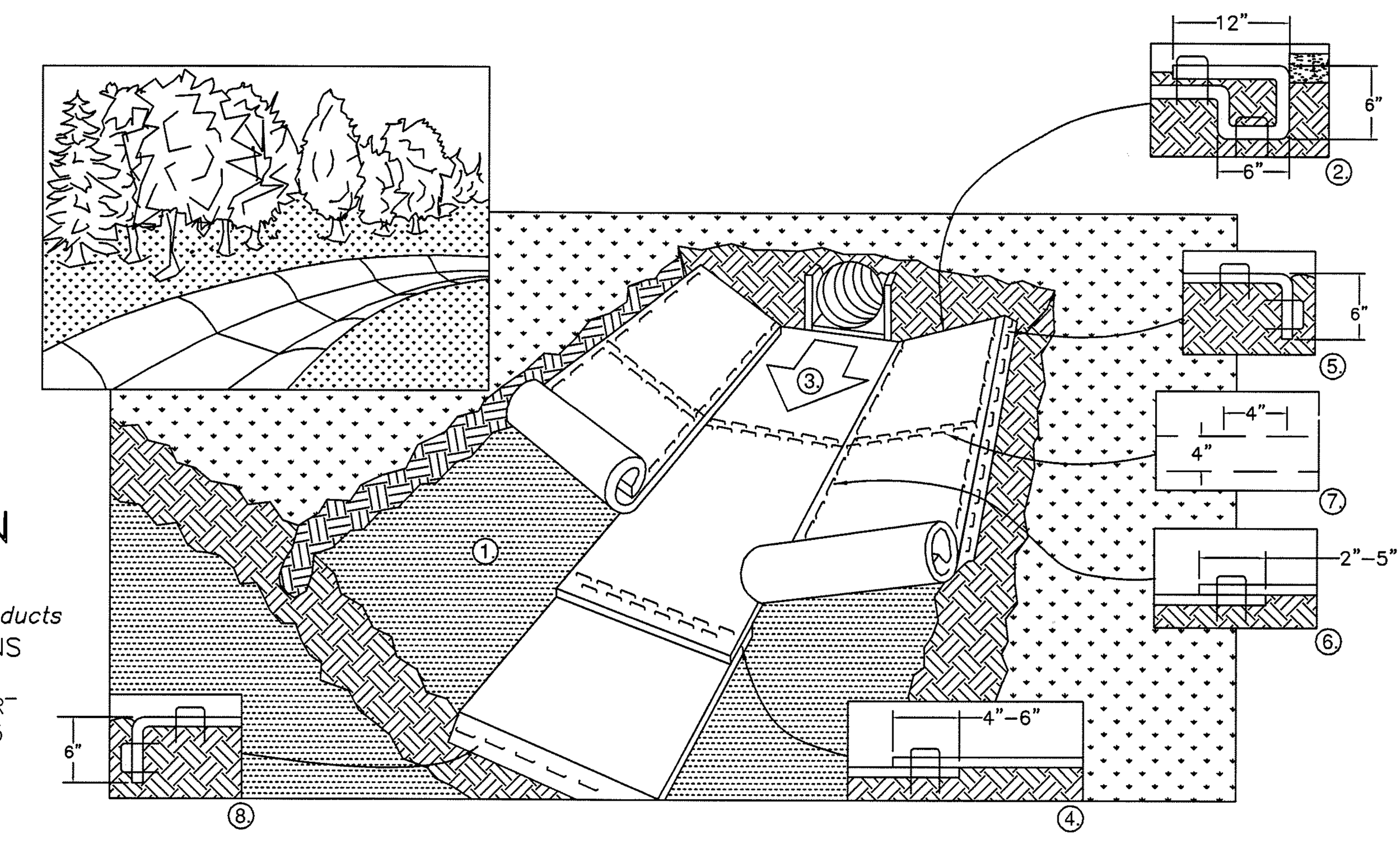
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™ , STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP's WIDTH.

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

SLOPE INSTALLATION
NTS

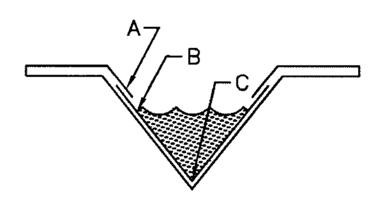
NORTH AMERICAN GREEN
EROSION CONTROL *Products*
Guaranteed SOLUTIONS

14649 HIGHWAY 41 NOR
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMAPCT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES SPACED APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NOTE:
* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.



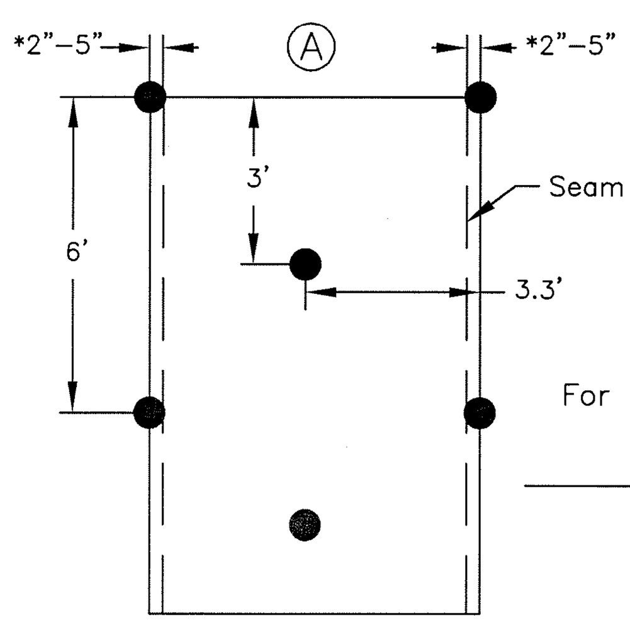
CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

CHANNEL INSTALLATION
NTS

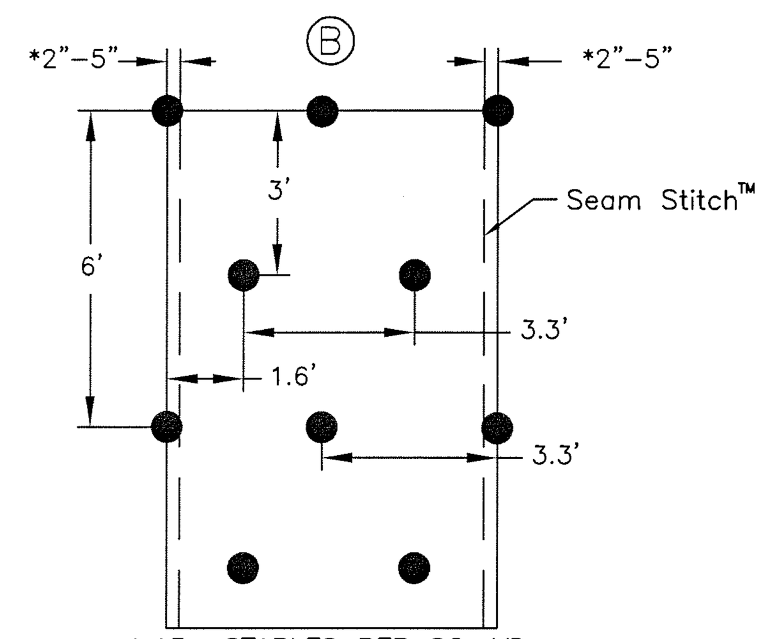
NORTH AMERICAN GREEN
EROSION CONTROL *Products*
Guaranteed SOLUTIONS

14649 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com



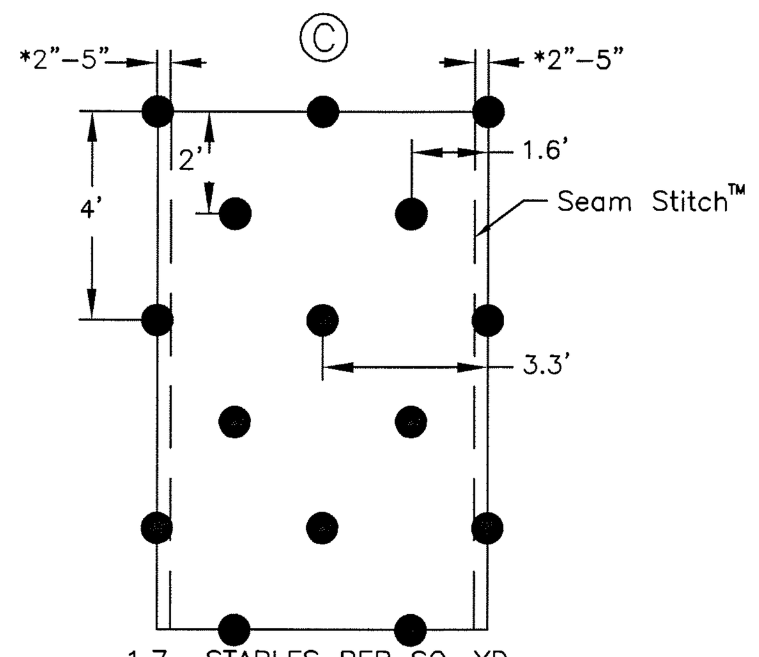
0.7 STAPLES PER SQ. YD.

For blankets with the North American Green DOT System™ place staples through each of the dots.



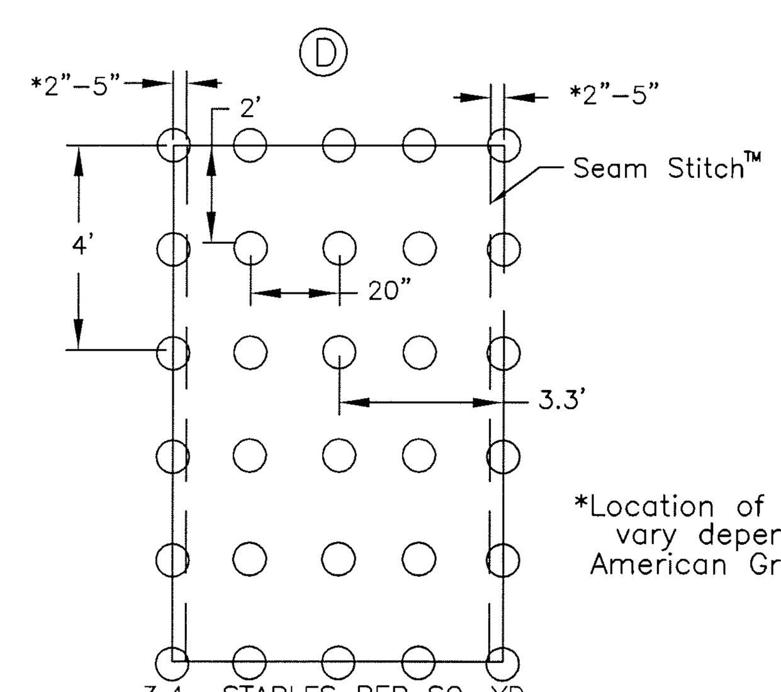
1.15 STAPLES PER SQ. YD.

For blankets with the North American Green DOT System™ place staples through each of the dots.



1.7 STAPLES PER SQ. YD.

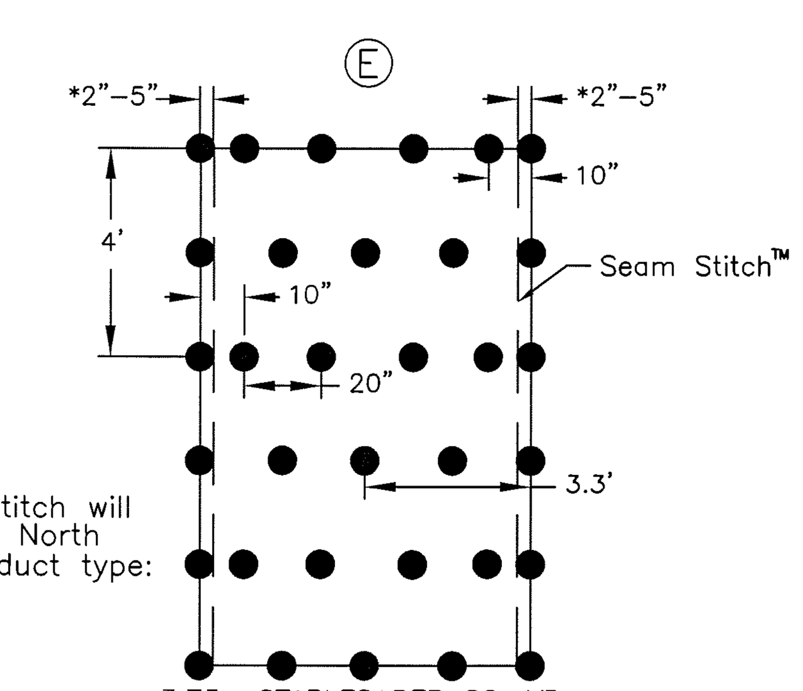
For blankets with the North American Green DOT System™ place staples through each of the dots.



3.4 STAPLES PER SQ. YD.

For blankets with the North American Green DOT System™ place staples through each of the dots.

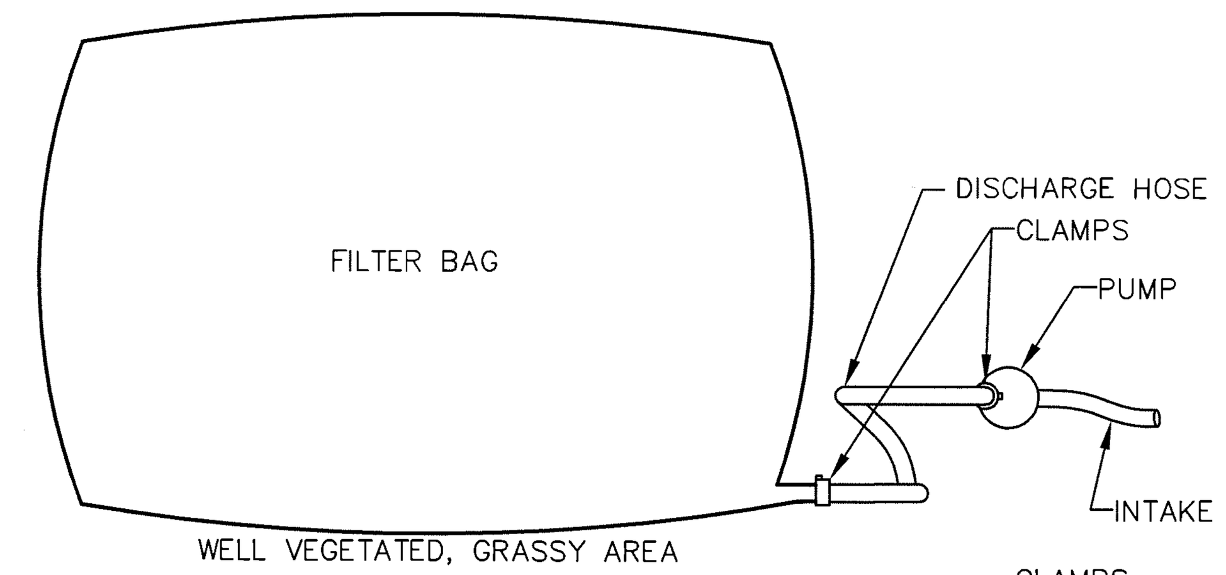
*Location of Seam Stitch will vary depending on North American Green product type:



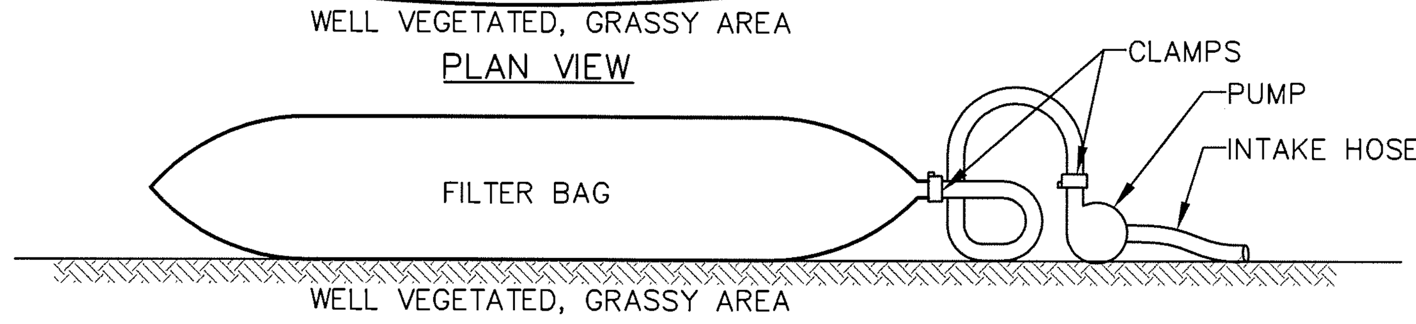
3.75 STAPLES PER SQ. YD.

For blankets with the North American Green DOT System™ place staples through each of the dots.

DOT SYSTEM™ STAPLE PATTERN GUIDE
NTS



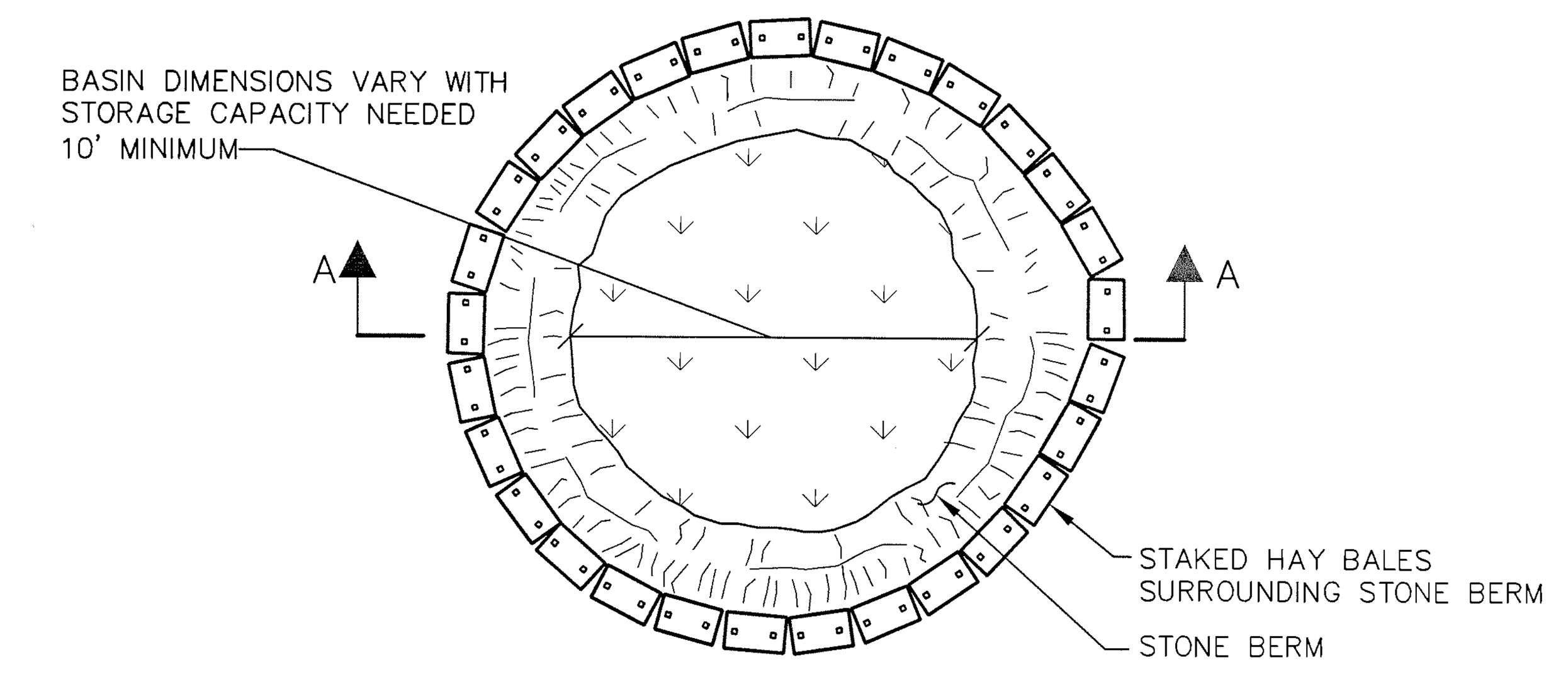
PLAN VIEW



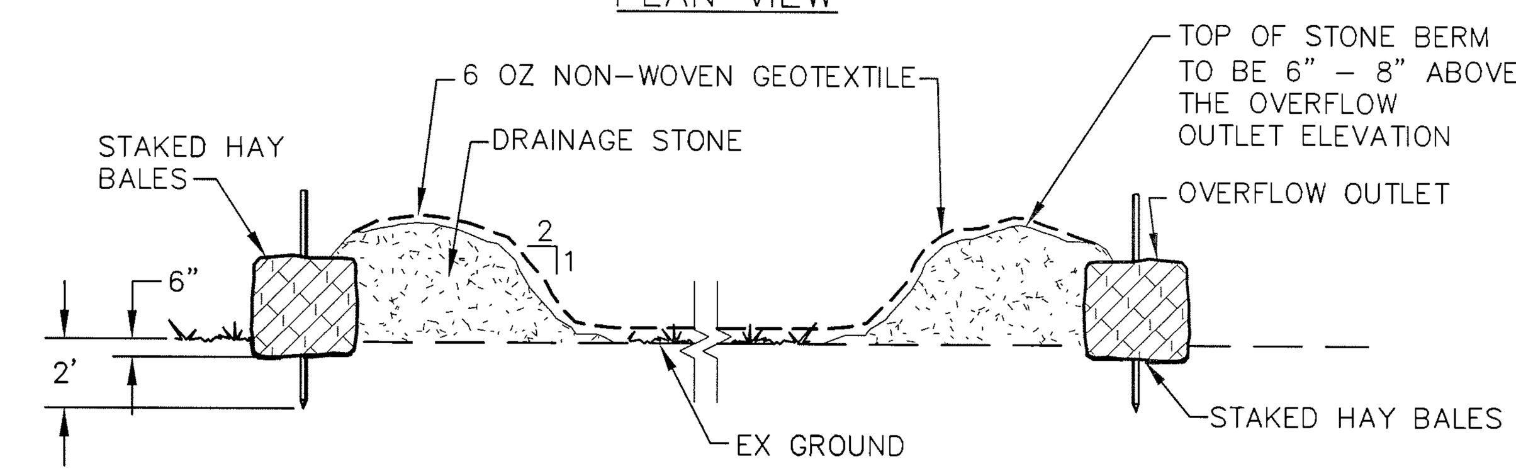
ELEVATION VIEW

NOTES:
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

PUMPED WATER FILTER BAG
NTS

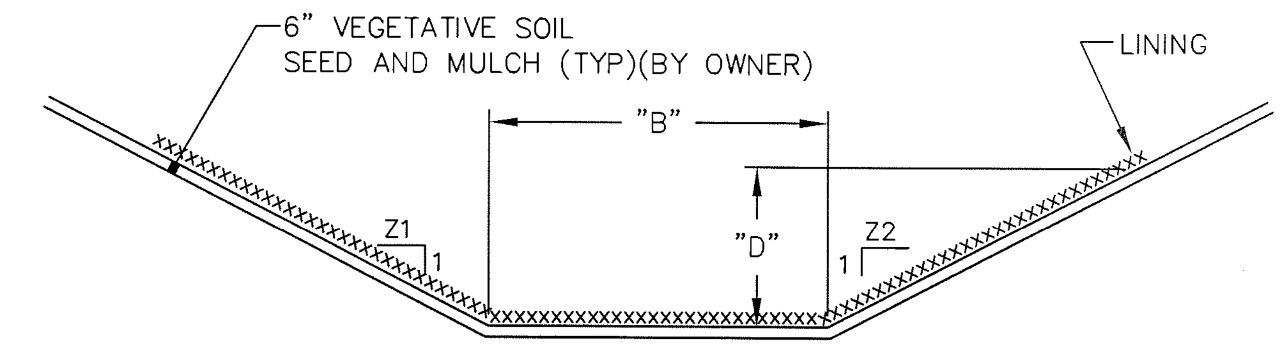


PLAN VIEW



SECTION A–A

DEWATERING FILTER
NTS



GRASS CHANNEL	TYPE	B (FT)	D (FT)	Z1	Z2	LINING
1	ROAD DITCH	2	2	2	2	NAG SC250 W/STAPLE D
2	ROAD DITCH	2	2	2	2	NAG SC250 W/STAPLE D

*SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, AND VEGETATIVE STABILIZATION SPECIFICATIONS FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION.

GRASS CHANNEL
NTS

REV.	BY	DATE	STATUS
	BDP	12/15	RECORD DRAWING
	BDP	7/15	ISSUED FOR CONSTRUCTION
	BDP	6/15	ISSUED FOR BID

STATE OF MAINE
GUY H. COTE, JR.
No. 5144
LICENSED PROFESSIONAL ENGINEER

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
EAST MILLINOCKET, MAINE

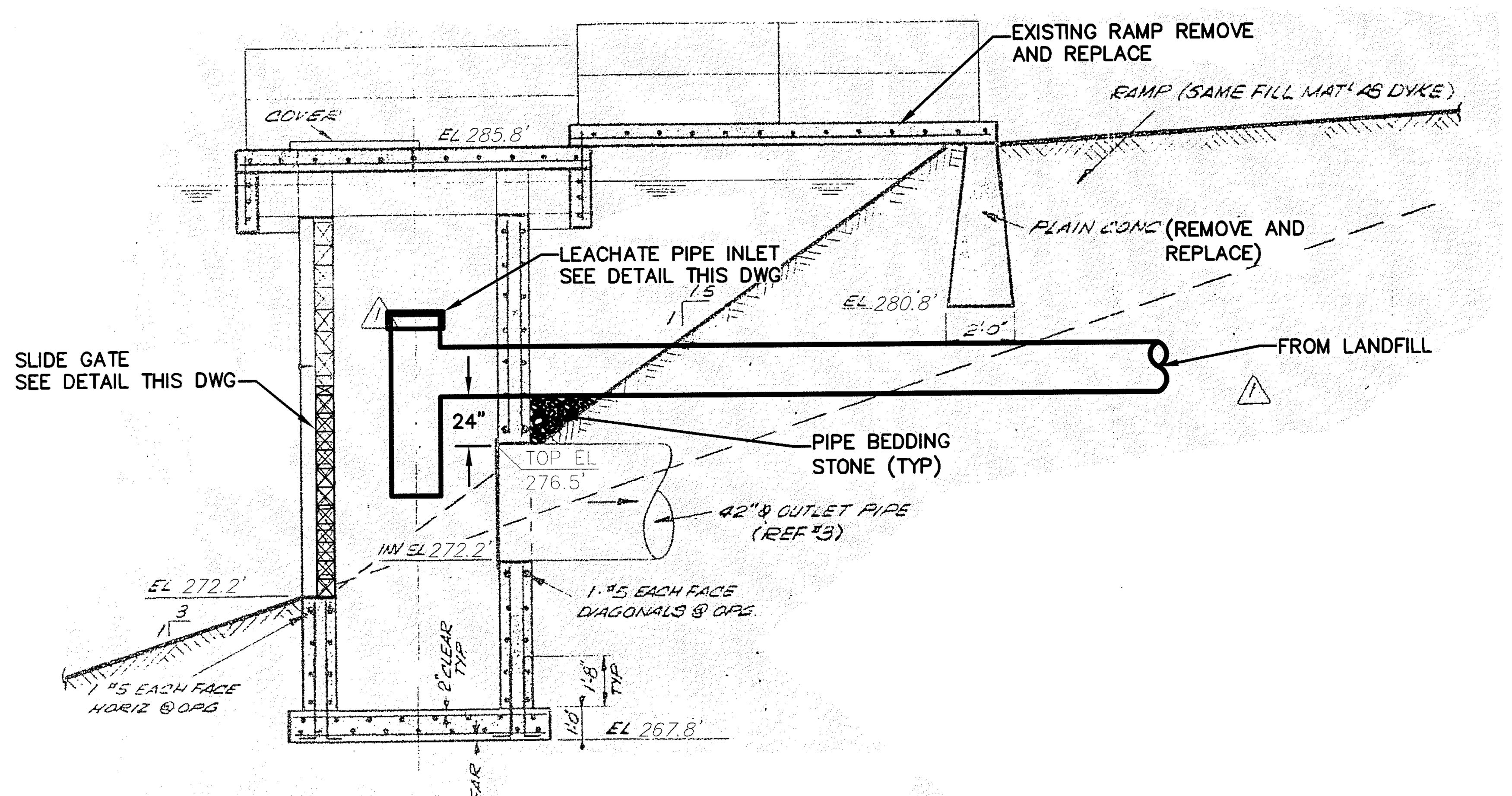
SECTIONS AND DETAILS

SME
Sevee & Maher Engineers, Inc.
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

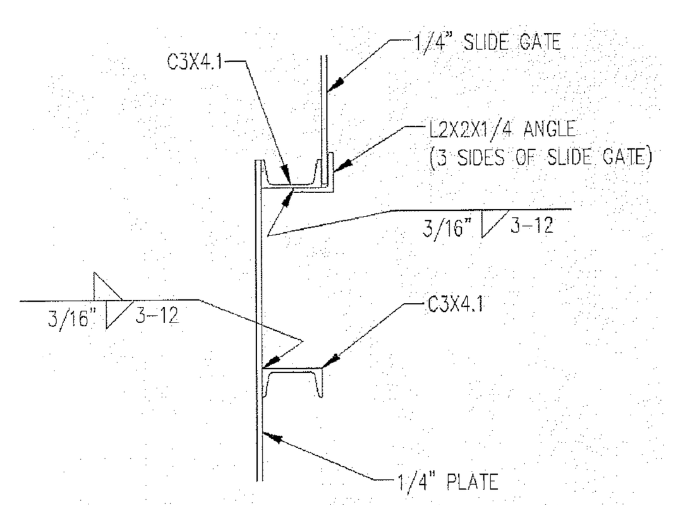
DESIGN BY: BDP
DRAWN BY: JRL
DATE: 5/28/2015
CHECKED BY: BDP
LMN: LMN
CTB: SME-STD

JOB NO. 14134.09 DWG FILE DETAILS

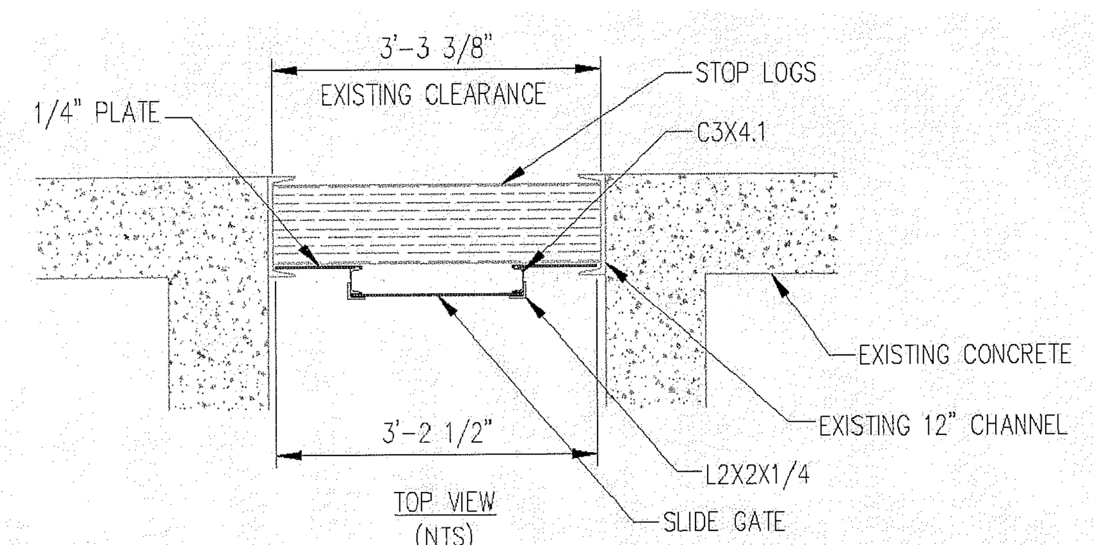
C-304

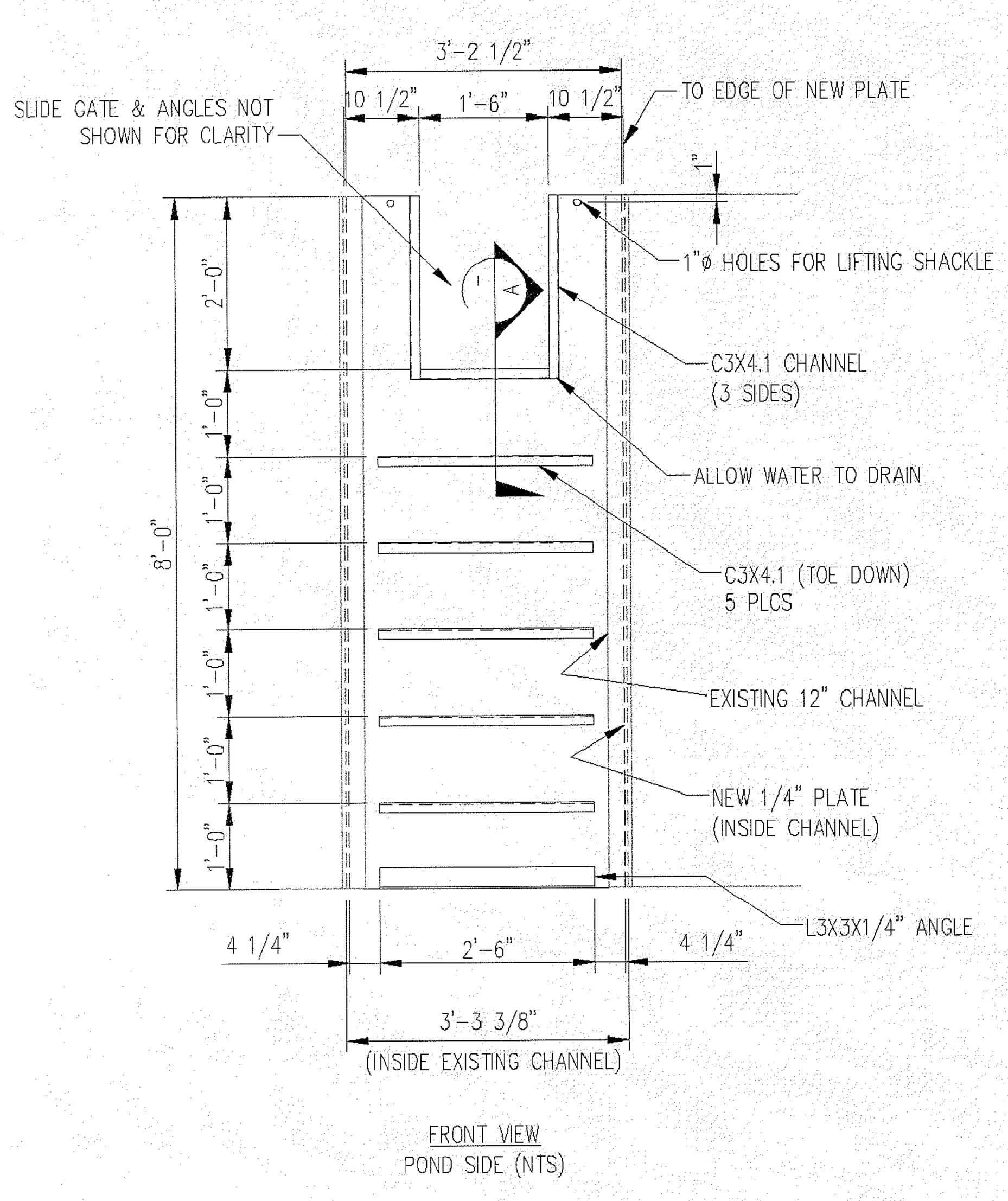


OUTLET BOX
NTS

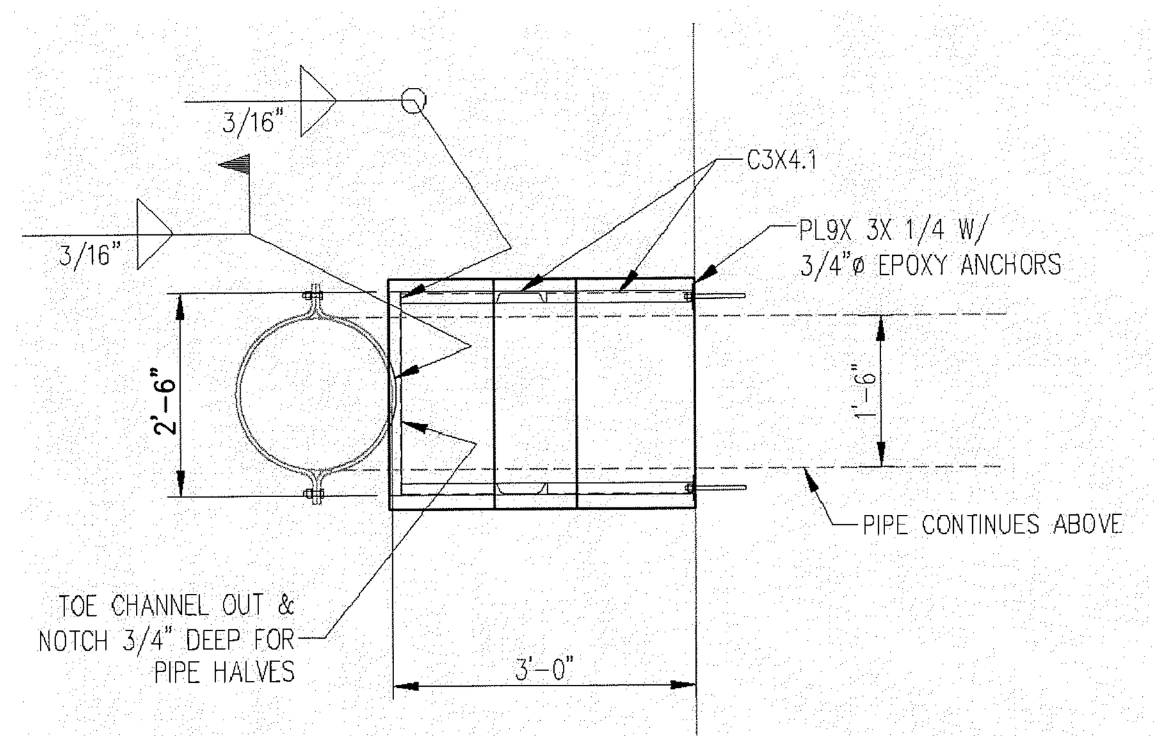


SECTION A
NTS

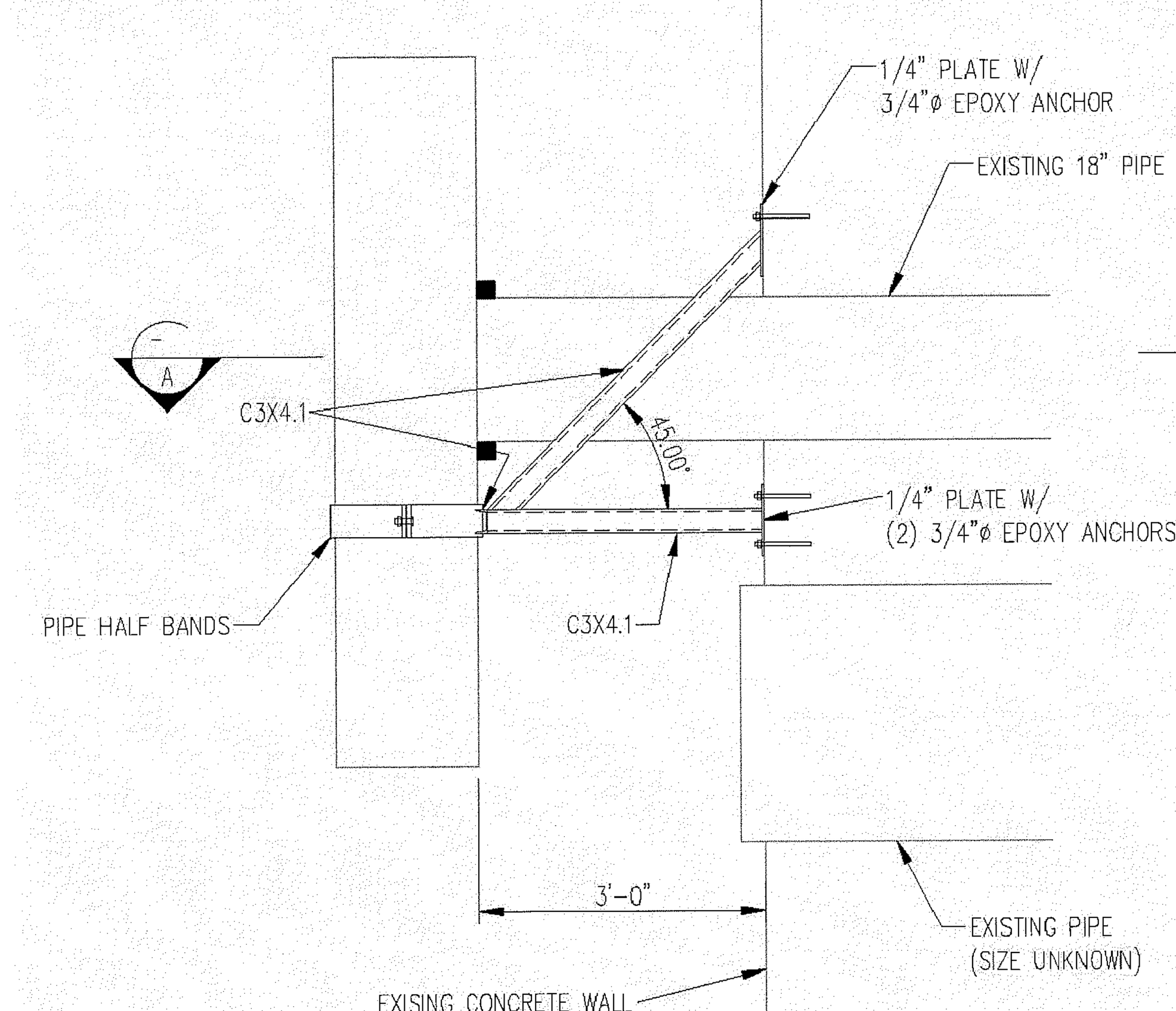




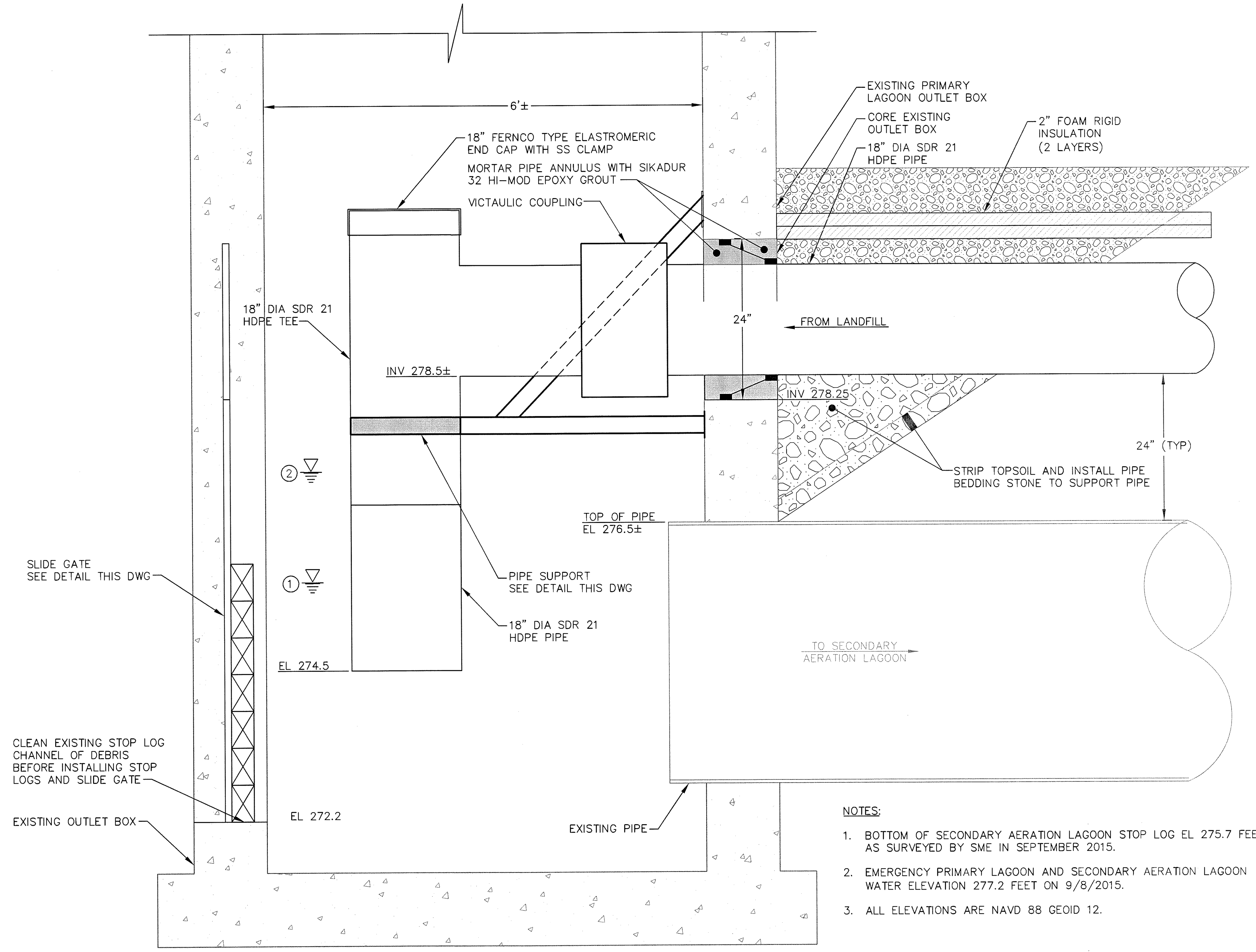
SLIDE GATE
NTS



SECTION A
NTS



PIPE SUPPORT
NTS



NOTES:

1. BOTTOM OF SECONDARY AERATION LAGOON STOP LOG EL 275.7 FEET AS SURVEYED BY SME IN SEPTEMBER 2015.
2. EMERGENCY PRIMARY LAGOON AND SECONDARY AERATION LAGOON WATER ELEVATION 277.2 FEET ON 9/8/2015.
3. ALL ELEVATIONS ARE NAVD 88 GEOID 12.

LEACAHTE PIPE INLET
NTS

REV.	BY	DATE	STATUS
	BDP	12/15	RECORD DRAWING
	BDP	9/15	ISSUED PER CHANGE ORDER 3

STATE OF MAINE — GUY H. COTE, JR. No. 5144 LICENSED PROFESSIONAL ENGINEER

MAINE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
EAST MILLINOCKET, MAINE

SECTIONS AND DETAILS

SME
Sevee & Maher Engineers, Inc.
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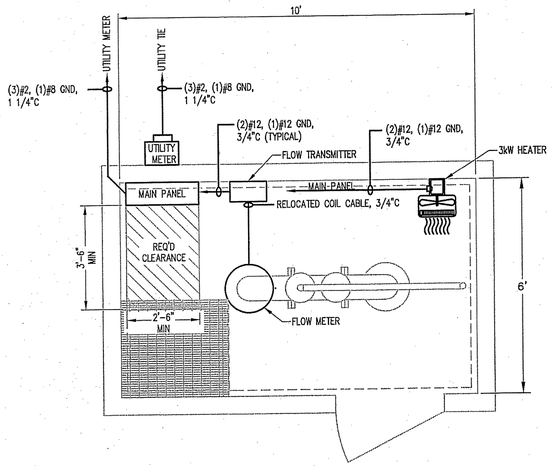
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

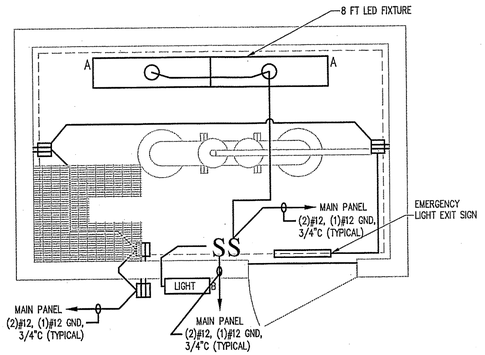
DESIGN BY: BDP
DRAWN BY: JRL
DATE: 5/28/2015
CHECKED BY: BDP
LMN: LMN
CTB: SME-STD

JOB NO. 14134.09 DWG FILE DETAILS

C-305



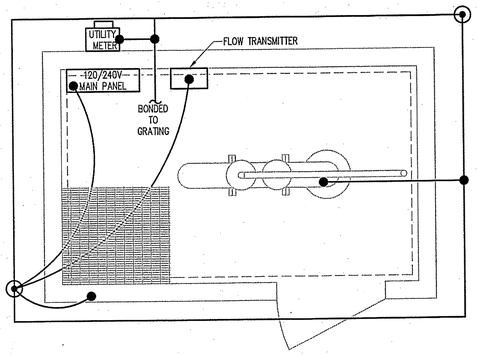
POWER PLAN – UPPER
FLOW METER BUILDING (MH27)
SCALE: NTS



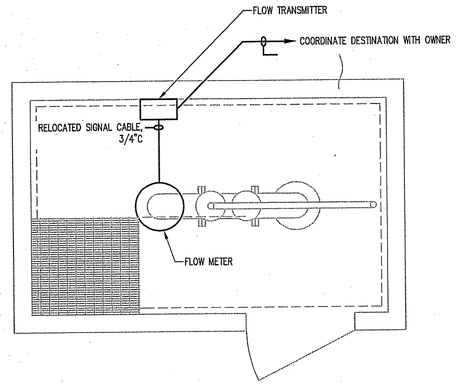
LIGHTING PLAN
FLOW METER BUILDING (MH27)
SCALE: NTS

CIRCUIT DIRECTORY			
1	LEFT OF PANEL - RECEPTICLES TOWNSIDE	2	INSIDE & OUTSIDE LIGHTS
3		4	RIGHT OF PANEL RECEPTICLES
			EXIT-EMERGENCY LIGHT
5		6	ELECTRIC SPACE HEATER
7		8	ELECTRIC SPACE HEATER
9		10	FLOW METER
11		12	
13		14	

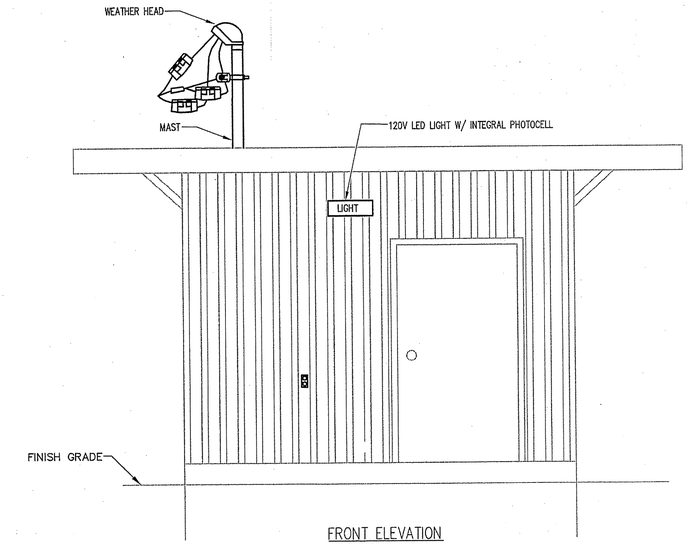
PANEL SCHEDULE
MAIN PANEL



GROUNDING PLAN
FLOW METER BUILDING (MH27)
SCALE: NTS



I&C PLAN
FLOW METER BUILDING (MH27)
SCALE: NTS



FRONT ELEVATION
SCALE: NTS

NOTES:

1. TYPE "A" FIXTURES SHOWN SHALL BE MODEL NUMBER LUN4-248T8HO-EU-PEBA AS MANUFACTURED BY COLUMBIA LIGHTING, OR APPROVED EQUAL. PROVIDE BACKUP BATTERY PACK FOR EGRESS LIGHTING REQUIREMENTS.
2. TYPE "B" FIXTURE SHOWN SHALL BE MODEL NUMBER LMC-18LU-SW-E-2-PC(1) WITH PHOTOCELL AND POLYCARBONATE SHIELD AS MANUFACTURED BY HUBBELL OUTDOOR LIGHTING, OR APPROVED EQUAL.
3. PROVIDE ELECTRICAL SERVICE AND UTILITY METER PER ALL ELECTRICAL UTILITY (EMERA) REQUIREMENTS. COORDINATE WITH EMERA FOR ALL ELECTRICAL SERVICE WORK.
4. MAINTAIN MINIMUM REQUIRED CLEARANCE IN FRONT OF MAIN PANEL AS INDICATED.
5. GFCI RECEPTACLES SHOWN SHALL BE PROVIDED WITH WEATHERPROOF IN-USE RATED COVERS.
6. ELECTRICAL EQUIPMENT SHALL BE SURFACE MOUNTED.
7. MAIN PANEL SHALL HAVE 100A RATED MAIN CIRCUIT BREAKER AND 100A RATED BUSES. IT SHALL HAVE 16 CIRCUITS MINIMUM AND BE RATED NEMA 12.
8. BOND BUILDING REBAR, UTILITY METER, TRANSMITTER, PIPE AND PANEL TO SINGLE GROUND ROD ADJACENT TO BUILDING.
9. RELOCATE EXISTING FLOW TRANSMITTER FROM PRESENT LOCATION. LOCATE TRANSMITTER ADJACENT TO FLOW METER SUCH THAT EXISTING CABLE CAN BE RE-PURPOSED. COORDINATE FLOW TRANSMITTER OUTPUT SIGNAL REQUIREMENTS WITH OWNER.

DISCLAIMER:

EXISTING BUILDING INFORMATION REPRODUCED FROM ORIGINAL PRINT.

MID-SOUTH ENGINEERING HAS NOT VERIFIED THE ACCURACY OF THE INFORMATION SUPPLIED FROM THIS DRAWING.

RECORD DRAWING

THIS DRAWING DEPICTS INFORMATION BASED ON OWNER'S RECORD COPY OF DRAWINGS, SPECIFICATIONS, CHANGE ORDERS, WORK CHANGE DIRECTIVES, FIELD ORDERS, AND OTHER WRITTEN INTERPRETATIONS AND CLARIFICATIONS, AS DELIVERED TO MID-SOUTH ENGINEERING AND ANNOTATED BY OWNER TO SHOW CHANGES MADE DURING CONSTRUCTION. THESE CHANGES MADE DURING CONSTRUCTION HAVE NOT BEEN VERIFIED BY MID-SOUTH ENGINEERING. THEREFORE MID SOUTH ENGINEERING CANNOT SEAL THIS DRAWING. USE OF THIS INFORMATION SHALL BE AT THE USER'S RISK.

NO.	DATE	BY	DESCRIPTION
1	12/23/15	CJB	ISSUED RECORD DRAWING
0	6/23/15	GAG	ISSUED FOR CONSTRUCTION

REVISIONS

MID-SOUTH ENGINEERING
1658 Malvern Ave.
Hot Springs, Arkansas 71901
200 Mackenan Drive
Cary, North Carolina 27511
70 Spring Street, Suite 3
Millinocket, Maine 04462
WWW.MSECO.COM

LEACHATE PIPELINE RELOCATION
GNP MILL FACILITY
ELECTRICAL PLAN

SEVEE & MAHER ENGINEERS, INC.
EAST MILLINOCKET, MAINE

SCALE				DRAWING NO.
NTS	DRN.	GAG	6/17/15	6312-14001-E03
	CKD.	DDM	6/17/15	
	APP.	DDM	6/18/15	

APPENDIX C

INSPECTION LOGS

SME
SEVEE & MAHER
ENGINEERS

DOLBY LANDFILL
LANDFILL INSPECTION CHECKLIST

Date: _____ Time:
Weather: _____ Inspected By:

ITEM	CONDITION	
DOLBY I LANDFILL	**Ok**	**Not Ok**
COVER SYSTEM		
Erosion, Channeling, Eruptions		
Poor Drainage, Ponding		
Excessive Set ling, Crack Development		
Grass Die-off-Failure to Thrive		
Mowing Required		
Germination of Trees, Deep Root Vegetation		
Animal Burrowing		
COLLECTION PONDS		
West End Pond Level (low, medium, or high)		
East End Pond Level (low, medium, or high)		
Vegetative Build-up in Ponds (Cat Tails and Trees)		
ACCESS GATES		
Gates Secured and Working Properly (Facility Main Gates)		
Road Accessible by Vehicle		
DOLBY II LANDFILL		
COVER SYSTEM		
Erosion, Channeling, Eruptions		
Poor Drainage, Ponding		
Excessive Set ling, Crack Development		
Grass Die-off, Failure to Thrive		
Mowing Required (Mowing Should Occur Next Year due to Woody Vegetation)		
Germination of Trees, Deep Root Vegetation		
Animal Burrowing		
PERIMETER DRAIN CATCH BASINS		
Build-up Sediment in Catch Basins		
Flow Conditions (low, medium, or high)		
Catch Basins Intact and Serviceable		
LEACHATE HOLDING POND		
Iron Staining (wooded area east of pond)		
Holding Pond Level		
DOLBY III LANDFILL		
COVER SYSTEM		
Erosion, Channeling, Eruptions		
Excessive Set ling, Crack Development		
Grass Die-off-Failure to Thrive		
Mowing Required		
Germination of Trees, Deep Root Vegetation		
Poor Drainage, Ponding		

SME
SEVEE & MAHER
ENGINEERS

ITEM	CONDITION	
DOLBY III LANDFILL (Cont'd)	**Ok**	**Not Ok**
Animal Burrowing		
Access Road Condition		
Gas Vent Pipes		
Active Area Berm		
PERIMETER DRAIN AND CATCH BASINS		
Build-up of Sediment in Catch Basins		
Valves Functioning Properly (free turning)		
LEACHATE COLLECTION POND	**Ok**	**Not OK**
LINER		
Condition of Liner (rips, holes, torn seams)		
LEACHATE PUMP STATION		
Build-up Sediment in Wetwells or Leachate Pond		
Pumps Functioning Properly (amps, noises)		
Valves Functioning Properly (free turning)		
Flow Conditions (low, medium, or high)		
Properly Vented		
Electrical Panel Inspection (corrosion, etc.)		
Flow Meter Inspection		
Transducer		
LEAK DETECTION SYSTEM		
Pump functioning properly (amps, noises)		
Flow Conditions (low, medium, high)		
Flow Meter Inspection		
Control Panel Inspection		
UNDERDRAIN PUMPING SYSTEM		
Pump functioning properly		
Flow Conditions		
SITE SEDIMENTATION STRUCTURES		
NORTHWEST SEDIMENT POND (SEDIMENT POND 3)		
Check Outlet Structure for Condition		
Water Level (low, medium, or high)		
WEST SEDIMENT POND (SEDIMENT POND 2)		
Check Outlet Structure for Condition		
Water Level (low, medium, or high)		
SOUTHWEST SEDIMENT POND (SEDIMENT POND 1)		
Check Outlet Structure for Condition		
Water Level (low, medium, or high)		
SITE ROADWAYS AND DRAINAGE		
Check Catch Basins for Build-up of Sediment		
Check Culverts for Blocked Drainage and/or damage		
Check Monitoring Wells for Visual Damage		
General condition of Perimeter Roadways		
LEACHATE PIPELINE		
Check Manhole Exterior Condition		
Check Transition Station Exterior Condition		
Check Aboveground Utility Line to the Transition Station		
General condition of Leachate Pipeline Access Road		

SME
SEVEE & MAHER
ENGINEERS

First Inspection

COMMENTS:

1.

RECOMMENDED ACTIONS:

1.

SME
SEVEE & MAHER
ENGINEERS

Manhole Inspection
Dolby Landfill, East Millinocket, Maine
Month Day, Year

DOLBY LANDFILL

CONCRETE MANHOLE INSPECTION FORM

Manhole / Catch Basin No: CB #

Landfill Location:

Date: Time:

Weather: Inspected by:

Date of last inspection:

Exterior Condition (Comments):

Cracks:

Holes:

Flaking:

Seeps:

Other:

Interior Condition (Comments):

Cracks:

Holes:

Flaking:

Seeps:

Other:

Corrective Action required (Y/N):

Date and Details of Corrective Actions (if needed):

Attachments: Photos

Manhole Inspection
Dolby Landfill, East Millinocket, Maine
Month Day, Year

CB-# Exterior

CB-# Interior

APPENDIX D

ACTION LEAKAGE RATE/RESPONSE ACTION PLAN FOR LEACHATE POND LINER

SME
SEVEE & MAHER
ENGINEERS

ACTION LEAKAGE RATE/RESPONSE ACTION PLAN
FOR LEACHATE POND LINER

Note to Reader: This plan is an update of the Action Leakage Rate/Response Action Plan prepared for the Dolby leachate pond in 2006. The update did not change the calculations used for determining the action leakage rate. At the time of this plan, in 2006, the existing leachate pond had not been constructed. The narrative for this plan recognizes that the leachate pond was subsequently constructed in 2007.

A leak detection system was included in the leachate pond construction to monitor the performance of the primary liner. The leak detection system consists of a drainage geocomposite layer below the primary 60-mil HDPE geomembrane. Beneath the leak detection system is a secondary 60-mil HDPE geomembrane overlying a geosynthetic clay liner (GCL), followed by a 12-inch-thick compacted clay layer. At the south end of the leak detection system is a 6-inch diameter SDR-17 HDPE perforated pipe buried in a 12-inch-thick layer of 3/4-inch drainage stone (i.e., a sump). Sample tubing is provided in the leak detection piping system so that the landfill operator can sample the contents of the sump. All water collected in the leak detection system drains to the leak detection sump. The leak detection sump is equipped with a 1/2-HP submersible pump, which is activated by a transducer system. The discharge line from the pump contains a flow meter for recording discharge from the leak detection layer. The pump discharges to the leachate pump station sump where it is pumped off-site. The engineering drawings for the leachate pond are appended to the Post-Closure Monitoring and Maintenance Plan for Dolby Landfill.

Estimated Liner Leakage Rates. The amount of leakage through the primary liner depends on several factors, including the following:

- The number and size of holes or imperfections in the geomembrane liner;
- The head above the primary liner;
- The uniformity of contact between the geomembrane liner and underlying geocomposite; and
- The hydraulic conductivity of the material in contact with the primary liner.

Typically, two-hole or imperfections sizes are used in defining leakage rates through a geomembrane liner system. Small holes (i.e., $3x10^{-6}$ m^2) roughly equal to the thickness of the geomembrane should be considered representative of actual field conditions and more typical of operating conditions. A larger hole (i.e., $1x10^{-4}$ m^2) should be used to size the hydraulic capacity of the leak detection layer (ref. Cell and Liner System Detailed Design (Design Examples), J.P. Giroud/Geosyntec Consultants, 1992).

For the leachate pond, Sevee & Maher Engineers, Inc. (SME) calculated leakage rates through the primary liner using the larger hole size. The frequency of imperfections in a geomembrane is associated with the degree of QA/QC associated with the manufacture and installation of the membrane. Because a detailed geomembrane QA/QC program was developed for the project (ref. "Contract Documents and Construction Specifications for Leachate Pond Redevelopment, Dolby Ill Landfill", SME, Revised May

2006), a minimal number of defects are anticipated. Giroud et al. suggests that for liner installation with good QA/QC, between one and three manufacture holes per acre and one installation defect per acre can be expected. SME calculated total leakage rates through the primary liner for one hole per acre (with a size of $1x10^{-4}$ m^2) to predict the hydraulic capacity of the leak detection system.

The second variable affecting flow through the primary geomembrane liner is hydraulic head on the liner. SME used a hydraulic head for a pond level at a normal operating depth of two feet to determine the leak detection time.

The last two variables that affect leakage rate through the primary liner are the hydraulic conductivity of the materials in contact with the liner and the contact conditions. Calculated flow estimates were based on the proposed liner design. For primary liner, which will be underlain by a drainage geocomposite and secondary liner, flow rates were estimated based on analytical models developed by Giroud and Bonaparte (1989b) for flow through composite liners. Giroud and Bonaparte defined two conditions corresponding to the contact made between the geomembrane and underlying material that affect the flow through the geomembrane liner. A good contact is defined by Bonaparte et al. as a membrane installed with few wrinkles on top of a low hydraulic conductivity soil layer. Poor contact is defined as a geomembrane installed with a certain number of wrinkles and/or placed on a low-hydraulic conductivity soil layer that has not been well compacted and does not appear smooth. SME developed estimates of leakage through the primary geomembrane liner system for a single geomembrane underlain by a high permeability material (drainage geocomposite). Based on these variables, leakage rates through the primary geomembrane liner systems were calculated for the worst case. SME also evaluated hydraulic capacities of the leak detection system to handle the calculated flows and the time of travel for these flows in the leak detection systems. For the conditions described above, the calculations demonstrate that the leak detection system has the capacity to both handle worst case design flows and detect leaks in an approximate 20-hour period. This exceeds the regulatory requirement of detecting leaks from a leachate pond liner system within 24-hours.

An action leakage rate (ALR) of 20 gallons per acre per day (gpad) was established for the leachate pond. This is the standard action leakage rate value used by the U.S.EPA and the MEDEP. The ALR represents the minimum rate of leakage that will trigger interaction between the landfill owner and the MEDEP to determine the appropriate response action for the leakage.

Monitoring Frequency

The total flows will be obtained daily from a flow meter installed on the discharge lines for the leak detection system. Leak detection water quality samples will be collected during the regular water quality sampling rounds three times per year. The water quality samples of the leak detection sump will be collected using a peristaltic pump. The data will be incorporated into the submittals to the MEDEP.

Reporting Procedures

The landfill operator will submit a yearly report presenting all of the data collected during the preceding year and any recommended changes to the monitoring program, such as adjustments of the UAL values.

Response Actions

The landfill operator will record daily flow measurements from the leak detection discharge pipe and notify the MEDEP within 5 working days of obtaining four consecutive readings suggesting primary liner seepage is in exceedance of ALR. As weather conditions allow, the landfill operator will drain the leachate pond and visually inspect the liner and repair damaged areas within 15 days and no more than 30 days after notifying the MEDEP. If the visual inspection and subsequent repairs fail to reduce the seepage rate below the ALR, the landfill operator will consult with the MEDEP regarding other remedial measures.

The landfill operator will prepare a report summarizing the results of the inspection and repairs and submit it to the MEDEP for its review. The report will contain recommendations for continuation of the sampling program.[1]

[1] The leak detection calculations were transmitted in a letter to MEDEP (Lou Pizzuti) dated May 17, 2006.

APPENDIX E

POST-CLOSURE COST ESTIMATE

SME
SEVEE & MAHER
ENGINEERS

SME
SEVEE & MAHER ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016

Project Name: Dolby Landfill Post Closure Cost Estimate
Project Location: East Millinocket, Maine
Project No.: 240002.05
By: TJM
Date: 12/23/2024
Checked By: NMT
Date: 4/2/2025

OPINION OF POST-CLOSURE COST

ITEM	DESCRIPTION	YEARS	COST/YEAR	ESTIMATED TOTAL COST
1. LANDFILL MAINTENANCE COSTS				
a.	General Site Repairs and Maintenance			
	Required repairs will include erosion repairs of the cover system, siltation removal from the stormwater conveyance system, surface repairs to the roads, and culvert maintenance every year.	1-15	$ 2,200.00	$ 11,000.00
		15-30	$ 2,200.00	$ 44,000.00
b.	Mowing			
	Approximately 133 acres of the landfill facility will require mowing. Mowing will occure once every other year. Trimming trees along leachate transport pipeline every 5 years.	1-30	$ 22,600.00	$ 339,000.00
c.	Snow Removal			
	Road maintenance during the winter months will include plowing, sanding, and shoveling	1-30	$ 6,200.00	$ 186,000.00
d.	Gas Control System			
	This item provides for the replacement of one gas vent riser every 2 years. The cost will include repairs to the geomembrane and documentation of the repairs.	1-30	$ 1,500.00	$ 22,500.00
e.	Groundwater Monitoring System			
	This item provides the cost to replace two monitoring wells over the 30-year post-closure period. The cost includes drilling, installation, development, and documentation.	1-30	$ 17,700.00	$ 17,700.00
		SUBTOTAL LANDFILL MAINTENANCE =		$ 620,200.00
2. LANDFILL INSPECTIONS				
a.	Independent Engineering Firm			
	Cost associated with this item assumes "local" inspections performed once per week during 30-year post-closure period. Includes three annual site visits by an independent engineering firm.	1-15	$ 34,000.00	$ 782,000.00
		15-30	$ 34,000.00	$ 782,000.00
b.	Geotechnical Inspections			
	Includes aerial survey every fifth year for 30-year post-closure to evaluate landfill settlement.	1-15	$ 2,200.00	$ 6,600.00
		15-30	$ 2,200.00	$ 6,600.00
		SUBTOTAL INSPECTION COST =		$ 1,577,200.00
3. LEACHATE MANAGEMENT				
a.	General Cost			
	General cost associated with general repairs and maintenance to the pump station structure, pumps, fittings, valves, meters, and lighting.	1-30	$ 1,600.00	$ 48,000.00
b.	Leachate Pipe Flushing and Leachate Pond Mainetenance			
	This item includes cost to perform inspection and repair/maintenance of air release valves, pipeline cleaning, pond cleaning, and pump rebuilding/maintenance every third year during post closure period. This annual cost is expected to become lower as leachate flows from landfill diminishes and the need for pipeline and pump capacity are reduced.	1-15	$ 166,000.00	$ 830,000.00
		15-30	$ 166,000.00	$ 830,000.00
		SUBTOTAL LEACHATE MANAGEMENT =		$ 1,708,000.00
4. ENGINEERING DESIGN SUPPORT				
	Cost associated with engineering design support includes oversight of subcontractors, interaction with owner and regulatory agencies, quality control, project management, and administration.	1-15	$ 13,000.00	$ 195,000.00
		15-30	$ 13,000.00	$ 195,000.00
		SUBTOTAL ENGINEERING DESIGN SUPPORT =		$ 390,000.00
4. Gas Monitoring & Water Quality Monitoring, Testing, and Reporting				
	Costs associated with water quality monitoring, testing, and reporting include field sampling, laboratory analysis, reporting, equipment cost, milage , hotel, and meal cost and miscellaneous materials cost. This item also includes gas monitoring that will coincide with the water quality sampling. The water sampling will be at a rate of two times a year for the first five years and once per year for a reduced number of wells and parameters for the next twenty five years.	1-5	$ 60,000.00	$ 300,000.00
		6-30	$ 30,000.00	$ 750,000.00
		SUBTOTAL GAS AND WATER QUALITY MONITORING =		$ 300,000.00
		TOTAL POST CLOSURE MONITORING AND MAINTENANCE COST - 30 YEARS =		$ 4,595,400.00

Notes:
1. All values are in 2024 dollars. Does not include electrical costs for the leachate transport pipeline and the leachate treatment at municipally owned wastewater treatment plant in East Millinocket. All costs are estimated average annual costs.
2. New leachate pumps average cost $40,000. Pumps typically last 20 years. Replacement cost for pumps are considered unforeseen.
3. Actual costs may vary.
4. Assumes no additional cover upgrade projects to occur in 30-year post-closure period. If Dolby II receives an upgrade to the existing cover, monitoring and maintenance costs may increase for the duration of the cover upgrade project.