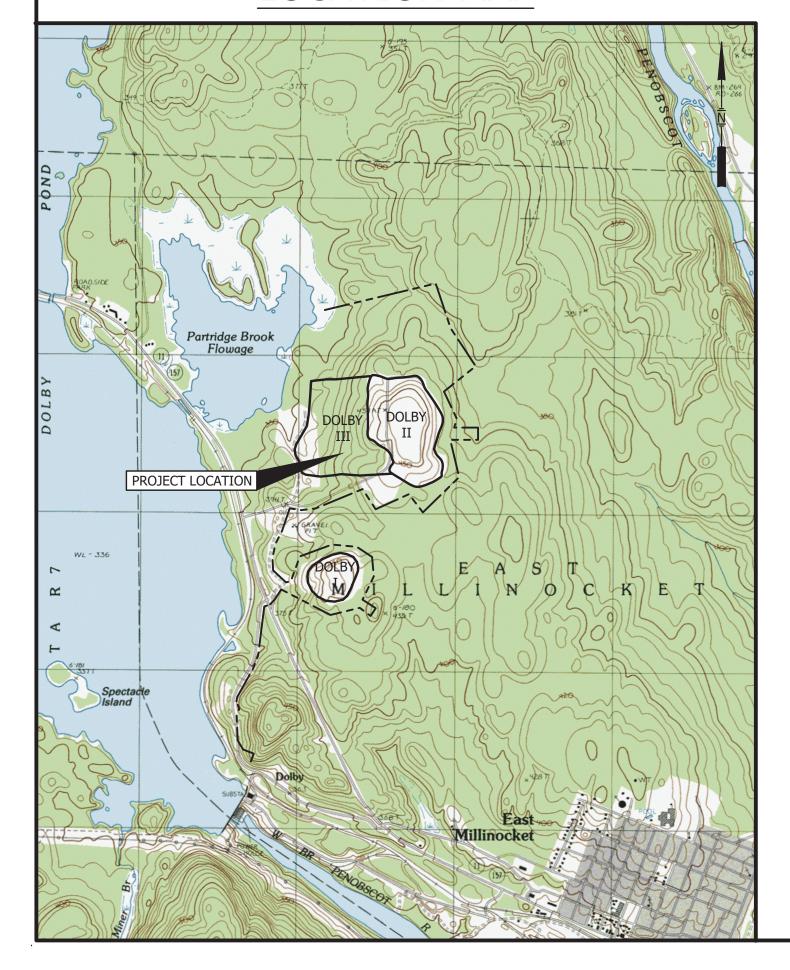
# MAINE BUREAU OF GENERAL SERVICES DOLBY LANDFILL COVER UPGRADE PHASES 2 AND 3 EAST MILLINOCKET, MAINE BGS PROJECT 3345

# LOCATION MAP



TITLE	DWG NO
COVER SHEET	
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# **SYMBOLS**

EXISTING	G PROPOSED		EXISTING	PROPOSED		EXISTING	PROPOSED	
	•	NORTH ARROW (TRUE)		<b>→</b> →	DRAINAGE COURSE (WITH DIRECTION)	——— G ———	——UG——	UNDERGROUND GAS MAIN
DATE	<b>X</b>	NORTH ARROW (MAGNETIC)			EDGE OF WATER	т	——— UT———	UNDERGROUND TELEPHONE LINE
N		NORTH ARROW (PLAN NORTH)			WATER ELEVATION (GROUND OR SURFACE)	—— Е ———	UE	UNDERGROUND ELECTRICAL LINE
25	25	CONTOUR LINES		• • •	FENCE LINE (WOOD)	OE	OE	OVERHEAD ELECTRICAL LINE
	INV 25.56	SPOT ELEVATION (INVERT ELEVATION)	xx	xx	FENCE LINE (WIRE)	ОТ	OT	OVERHEAD TELEPHONE LINE
	_	EXISTING GROUND			STONE WALL	—— 12" SS —— <b>▶</b>	—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	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		1 OR 2:1	SLOPE RATIO (HORIZONTAL TO VERTICAL)		——8" UD ——	UNDERDRAIN
	_	BOUNDARY LINE (State, County, Municipality)	TOP OF SLOPE	TOP OF SLOPE	SLOPES (WITH SLOPE RATIO)	6' PD	—6" PD —	PERIMETER DRAIN
0	•	SURVEY MONUMENT			EDGE OF ROAD	6" LT	—6" LT —	LEACHATE TRANSPORT
<b>▲</b>		SURVEY CONTROL		C•	CUT OR FILL LINE	6" LC	—6" LC —	LEACHATE COLLECTION
0	•	PROPERTY PIN, DRILL HOLE, PK, OR STAKE			BITUMINOUS PAVEMENT	LD	—6" LD —▶	LEAK DETECTION
~~~	$\sim$	WOODS OR BRUSH LINE		4 4 4 4	CONCRETE	GC	——6" G ——▶	GAS COLLECTION
$\Box$		INDIVIDUAL TREE	B-12 MW-12 P-12	◆ B-12 MW-12 P-12	TEST BORING, MONITORING WELL, OR PIEZOMETER AND NUMBER	$\triangleright$	•	REDUCER
علاد علاد علاد علاد		MAPPED WETLAND	TP-12	- <b>T</b> P-12	TEST PIT AND NUMBER	E	<b>E</b> —	MECHANICAL CAP OR PLUG
Ф	•	GAS VENT	SW-12	<b>▲</b> SW-12	SURFACE WATER SAMPLE LOCATION		_=	COUPLING
•		GAS VENT (CAPPED)	<b>◆</b>	•	GAS EXTRACTION WELL	Ļ	Ц	BEND
0	0	CLEAN OUT STRUCTURE	0	•	MANHOLE	Ļ <u>Ţ</u>	ıЦ,	TEE
>	<b>←</b>	CULVERT	<b>o</b>	•	CATCH BASIN		***************************************	PIPE TO BE ABANDONED
++++++	#	RAILROAD	<b>→</b> ₩−	₩-	WATER OR GAS VALVE	<del> • </del>		RISER PIPE & INLET GRATE
<b>△</b>	۵	SLOPE INCLINOMETER	7	~	HYDRANT			STORM GRATE
	<b>⊠</b>	VIBRATING WIRE SETTLEMENT CELL		<u> </u>	AIR RELEASE VALVE		0	DRAINAGE INLET STRUCTURE
⊗	<b>⊗</b>	VERTICAL/HORIZONTAL DISPLACEMENT MONUMENT			SURGE RELEASE VALVE			UNDERDRAIN SUMP
	<b>▶</b>	VERTICAL DISPLACEMENT MONUMENT	Ø	<b>,</b>	UTILITY POLE		SF	SILTATION FENCE
*	€	LIQUID SETTLEMENT GAGE	*	*	LIGHT POLE		——CLL——	CLEARING OR CONSTRUCTION LIMIT LINE
ACCMP ACP AC AGG ALUM APPD APPROX ARMH ASB ASP	ASPHALT COATED CMP ASBESTOS CEMENT PIPE ACRE AGGREGATE ALUMINUM APPROVED APPROXIMATE AIR RELEASE MANHOLE ASBESTOS ASPHALT	D DEGREE OF CURVE DBL DOUBLE DEG OR ° DEGREE DEPT DEPARTMENT DI DUCTILE IRON DIA OR DIAMETER DIM DIMENSION DIST DISTANCE DN DOWN DR DRAIN	HDPE HORIZ HP HYD  ID IN OR " INV INV EL	HIGH DENSITY POLYETHYLER HORIZONTAL HORSEPOWER HYDRANT INSIDE DIAMETER INCHES INVERT INVERT ELEVATION	PERF PERFORATED PP POWER POLE PSI POUNDS PER SQUARE INC PVC POLYVINYL CHLORIDE PVMT PAVEMENT  QTY QUANTITY  RCP REINFORCED CONCRETE ROW RIGHT OF WAY		VIEW	MARKERS & IDENTIFICATION  DETAIL TITLE  MANHOLE

MISC

MON

NTS

NO OR #

DRAWING

**ELEVATION** 

EQUIPMENT

ESTIMATED

EXCAVATE

EXISTING

FINISH GRADE

**FIBERGLASS** 

**FOUNDATION** 

FEET PER SECOND

FLEXIBLE

FOOTING

**GAUGE** 

GALLON

GALVANIZED

GALLONS PER DAY

GALLONS PER MINUTE

FLANGE

FLOOR

EDGE OF PAVEMENT

**ELBOW** 

EOP EQUIP EST

EXIST

FBRGL FDN FLEX FLG FLR

FT OR '

FTG

GAL

GALV GPD GPM

EXISTING GROUND OR GRADE

LEAK DETECTION

LINEAR FEET

LOCATION

MANHOLE

MINIMUM

LEACHATE COLLECTION

LEACHATE TRANSPORT

MECHANICAL JOINT

MANUFACTURE

MISCELLANEOUS

NOT TO SCALE

ON CENTER

NOW OR FORMERLY

OUTSIDE DIAMETER

POINT OF CURVE

PERIMETER DRAIN

POINT OF INTERSECTION

POST INDICATOR VALVE

POINT OF TANGENT

NOT IN THIS CONTRACT

MONUMENT

**RADIUS** 

REQUIRED

RIGHT

SLOPE

SCHEDULE

STREET

SQUARE FEET

SQUARE YARD

TANGENT

TEMPORARY

UNDERDRAIN

TYPICAL

VERTICAL

WATER GATE

WITHOUT

WITH

YARD

SANITARY MANHOLE

TOTAL DYNAMIC HEAD

VALVE ANCHORING TEE

ROUTE

VA TEE

AUTOMATIC

BITUMINOUS

BUILDING

BOTTOM

BEARING

BALL VALVE

CATCH BASIN

CEMENT LINED

CLEAN OUT

CUBIC FEET

CAST IRON

CONCRETE

CONSTRUCTION

CONTRACTOR

CURB STOP

CUBIC YARD

CENTER

COPPER

BITUMINOUS COATED CMP

CORRUGATED METAL PIPE

CUBIC FEET PER SECOND

AUXILIARY

**AVENUE** 

AUTO

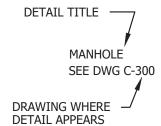
**BCCMP** 

BLDG

CEM LIN

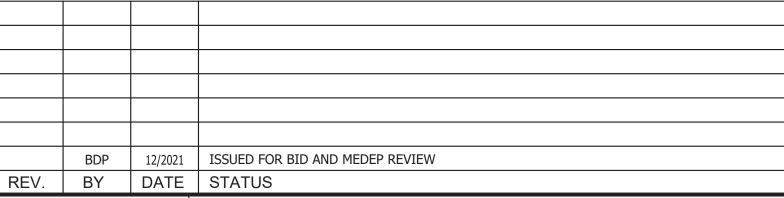
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### **GENERAL NOTES**

- 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
  - 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.





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

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

JOB NO. 21588.07 DWG FILE SYMSHT

CTB: SME-STD C-100

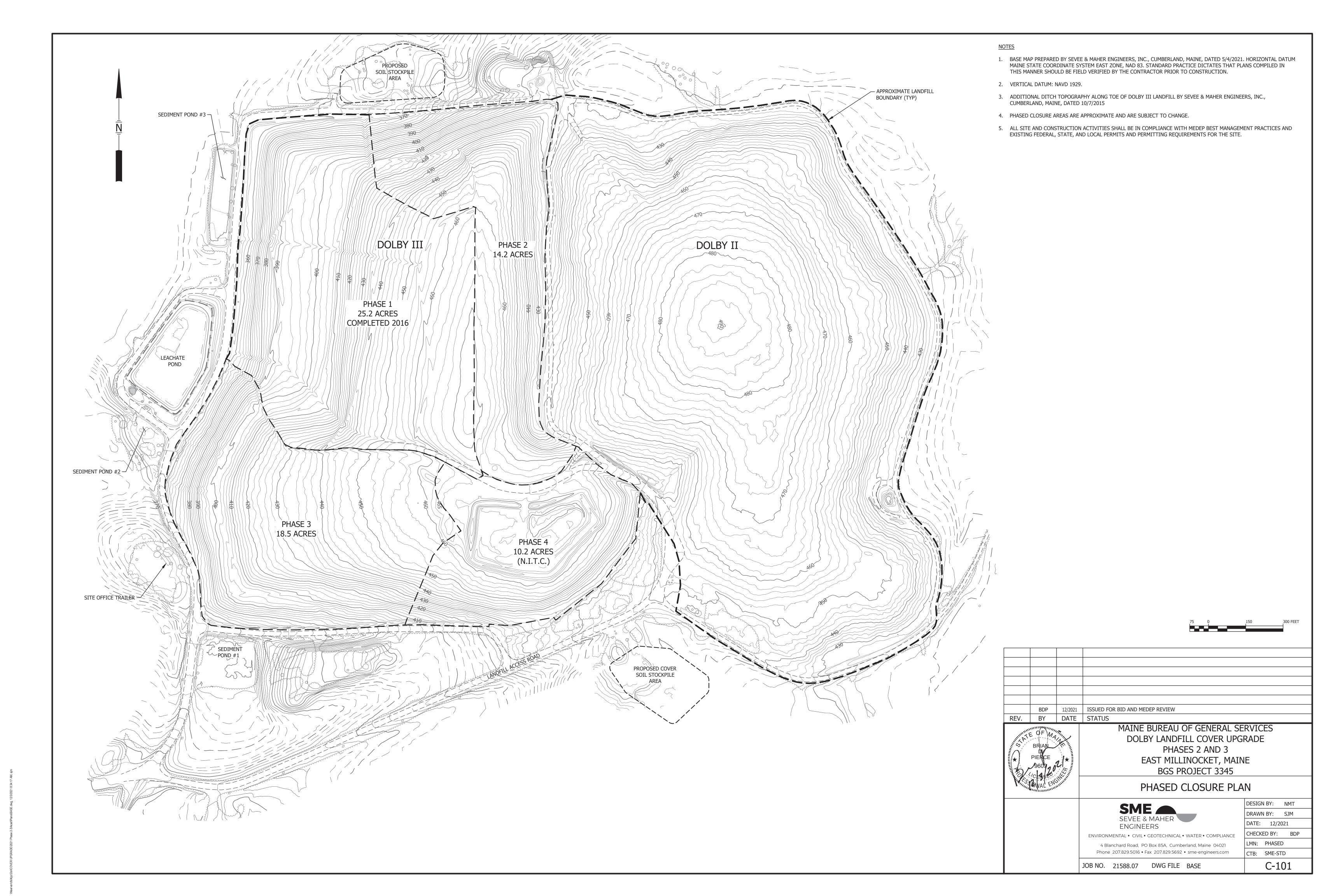
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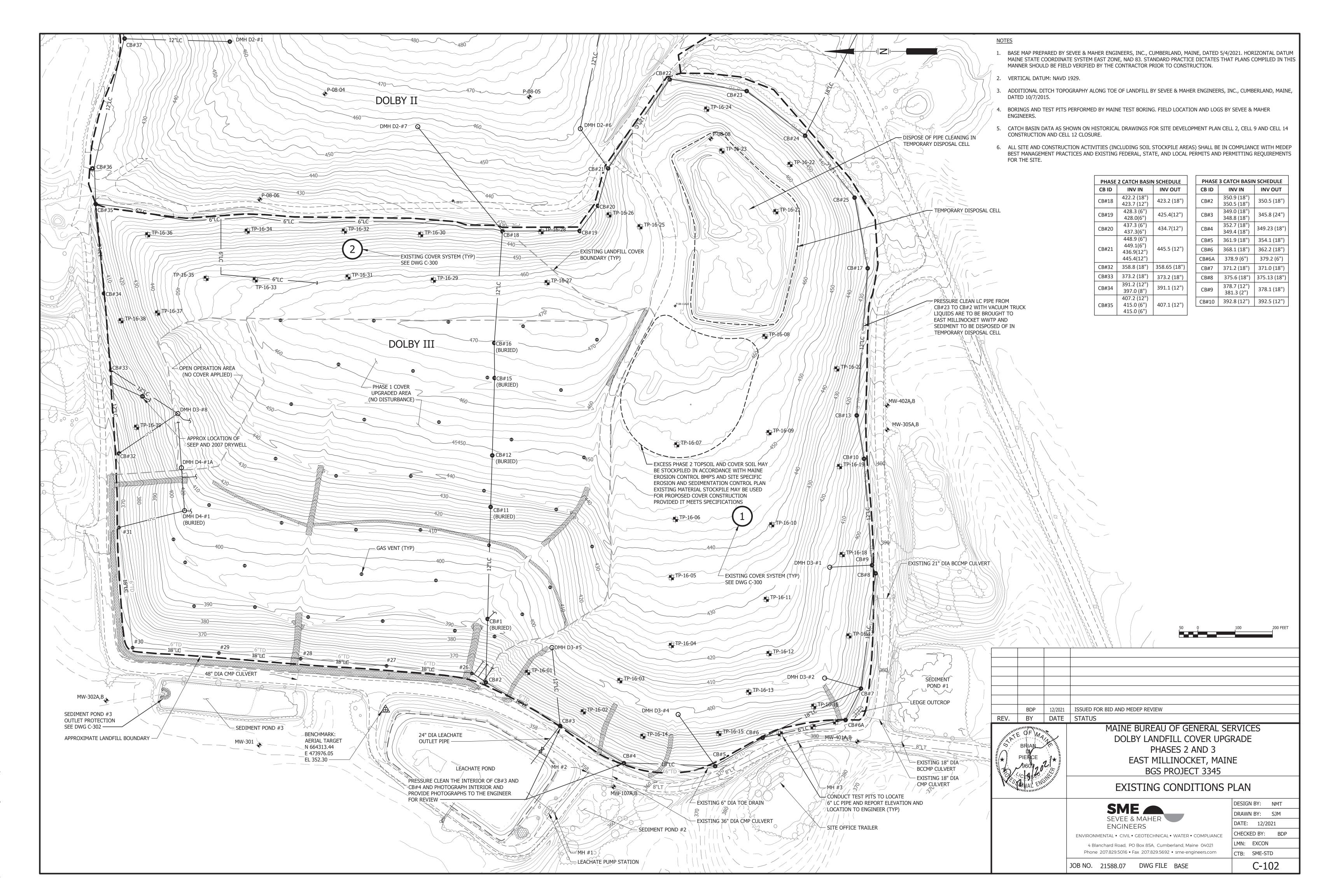
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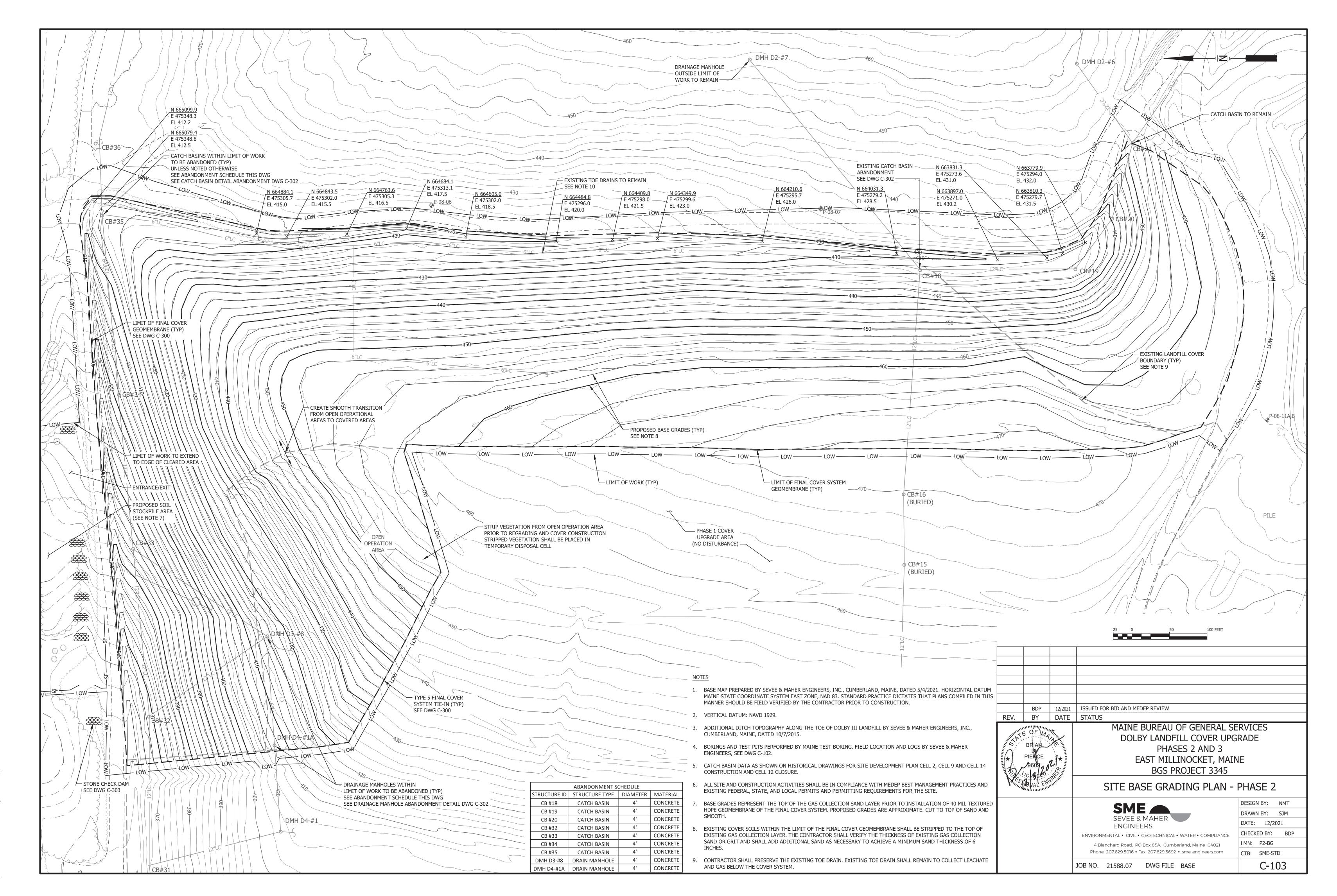
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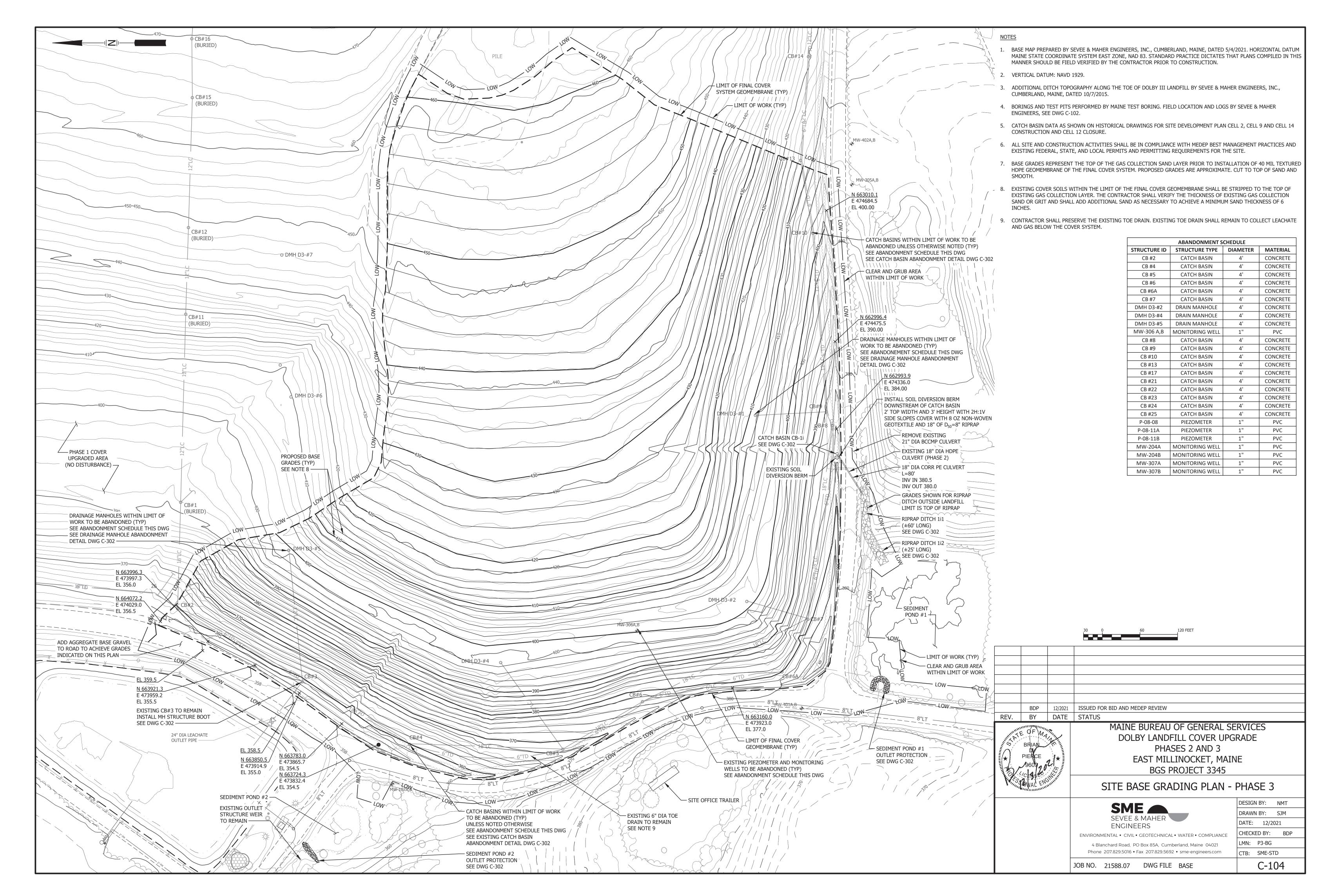


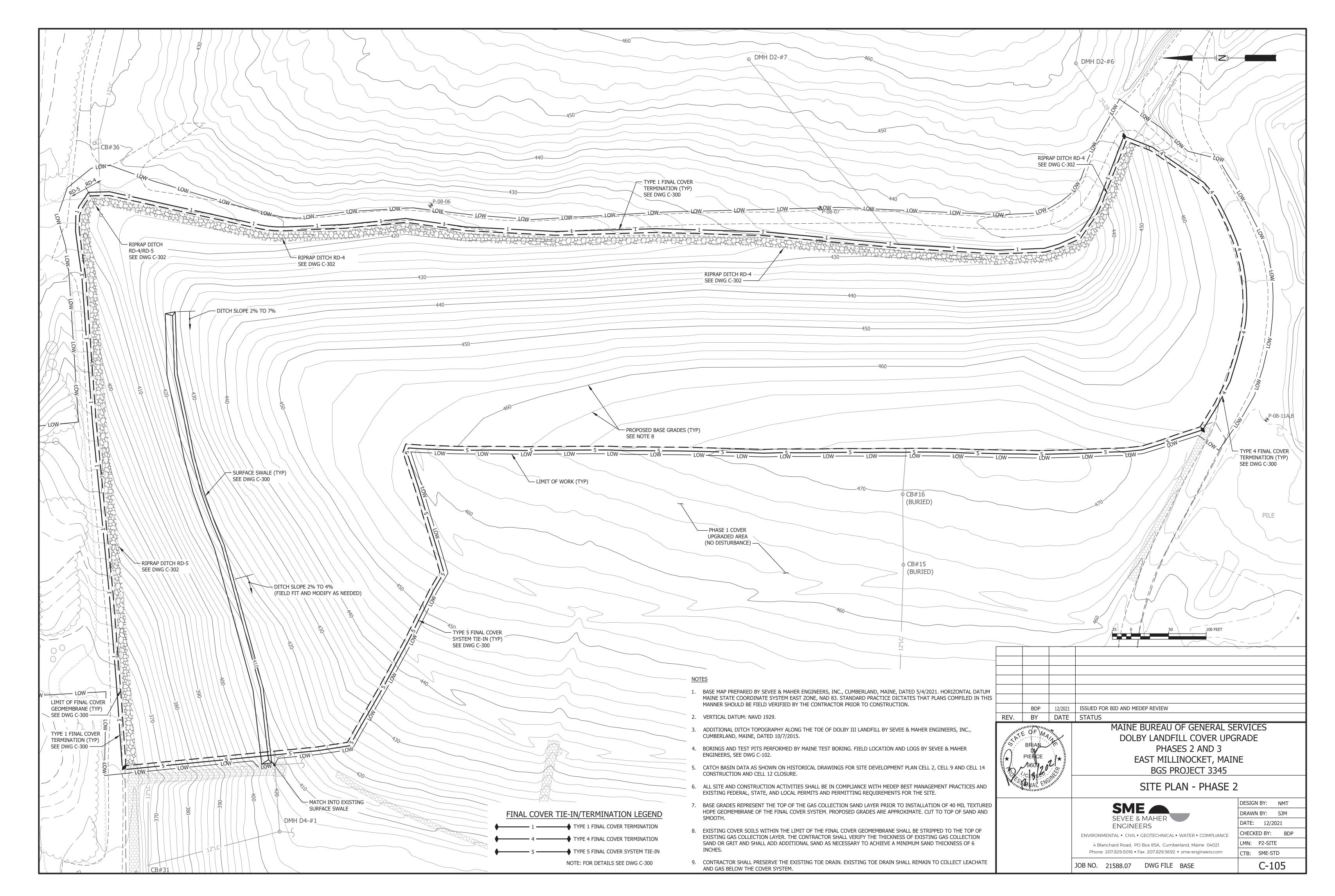


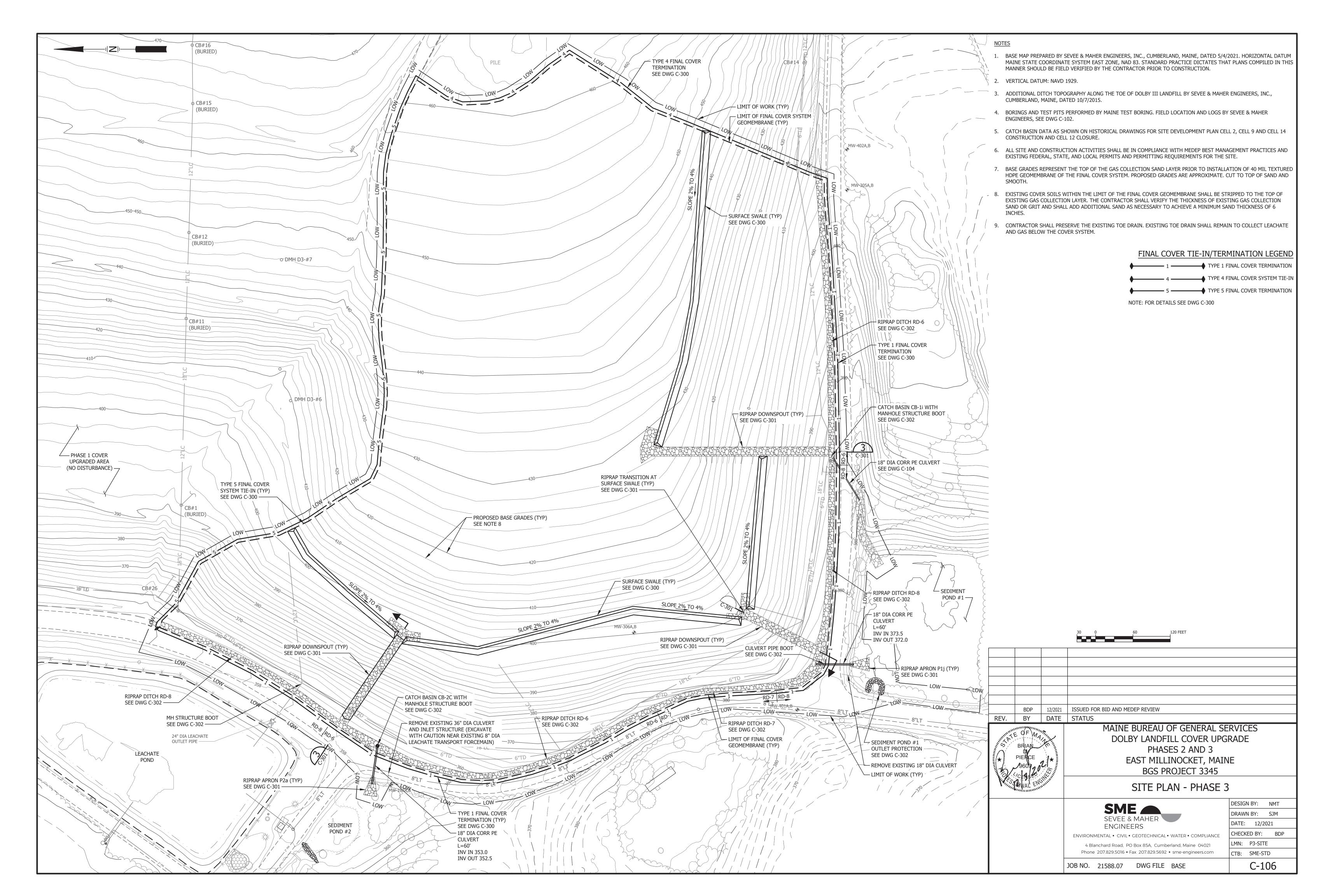
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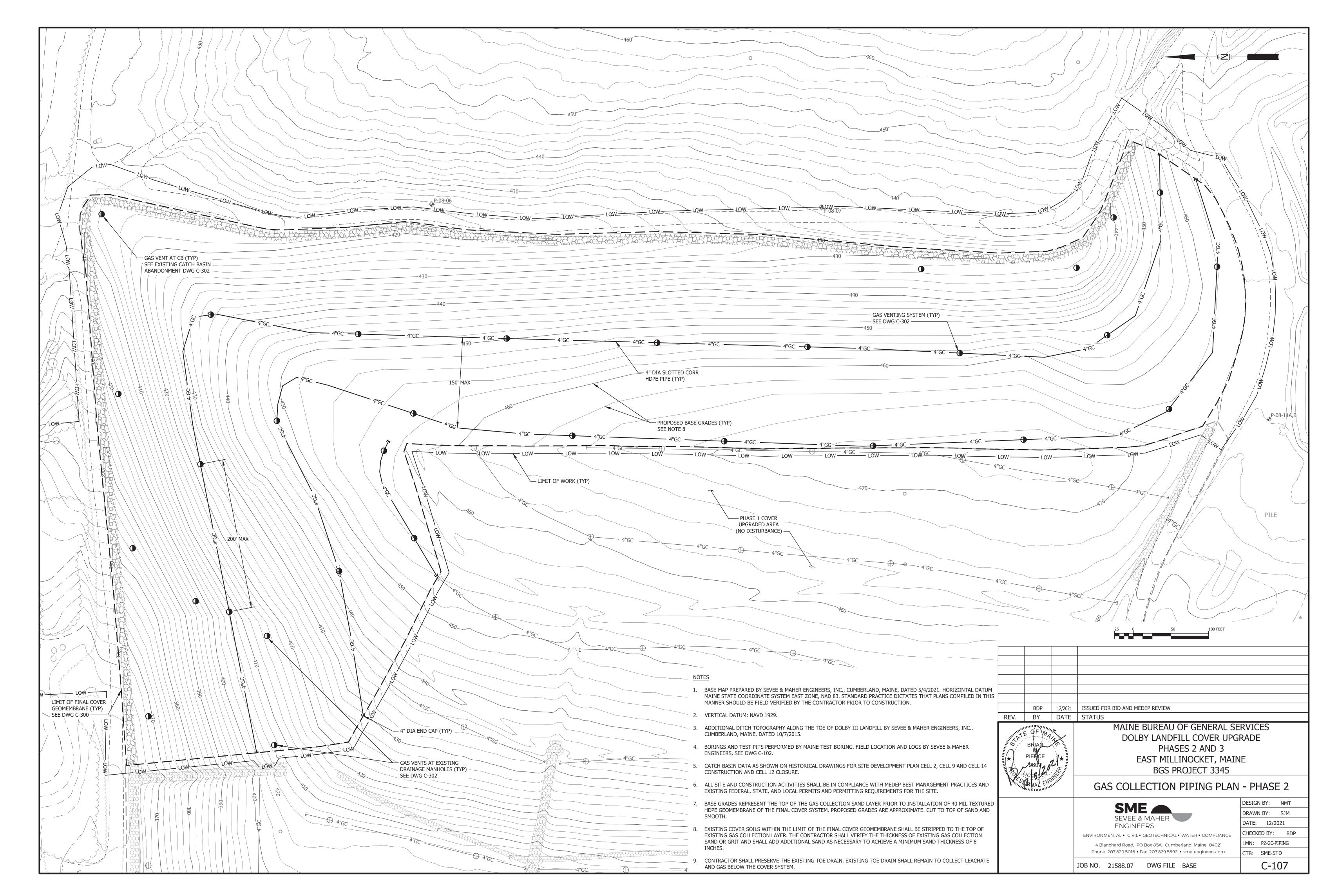
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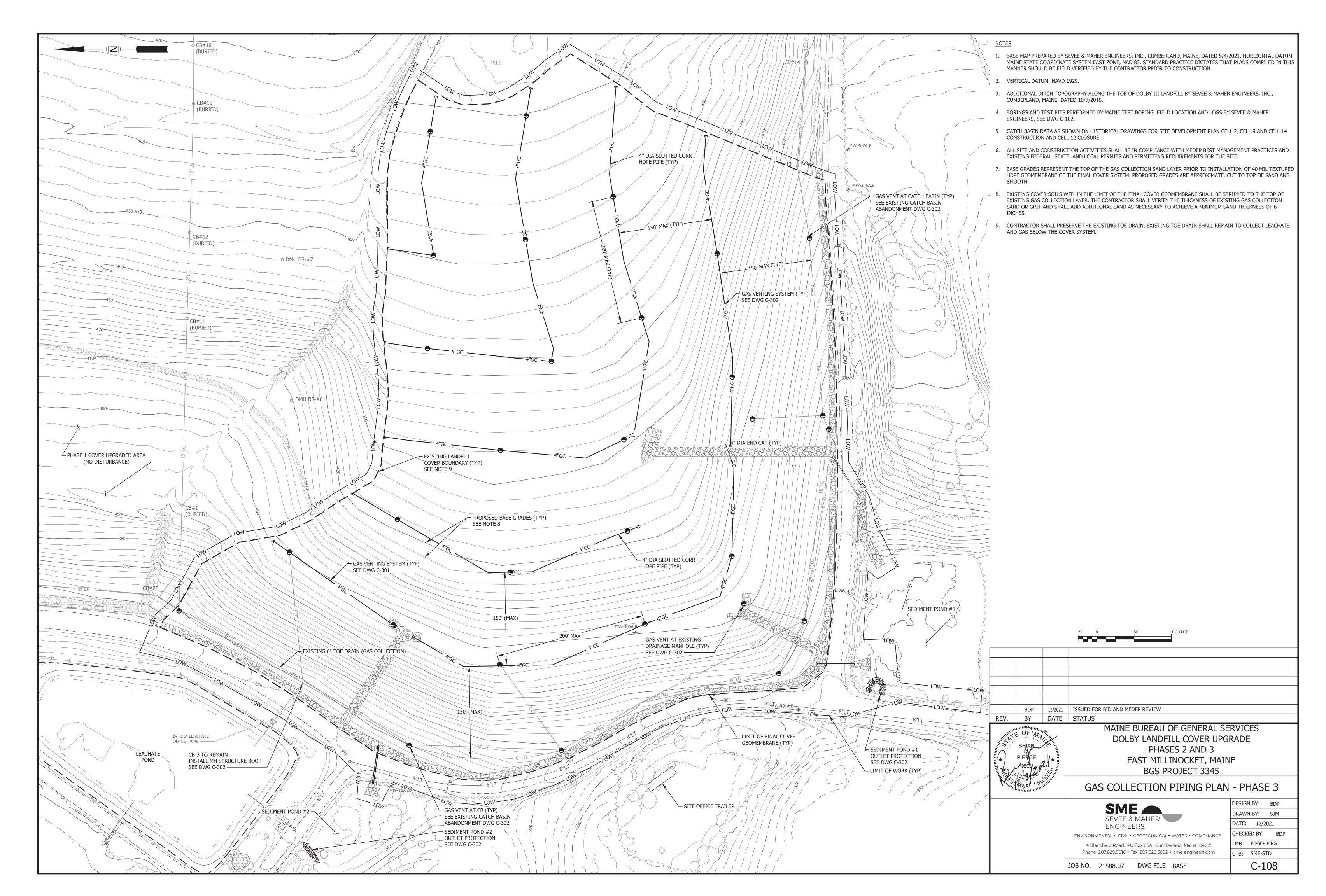




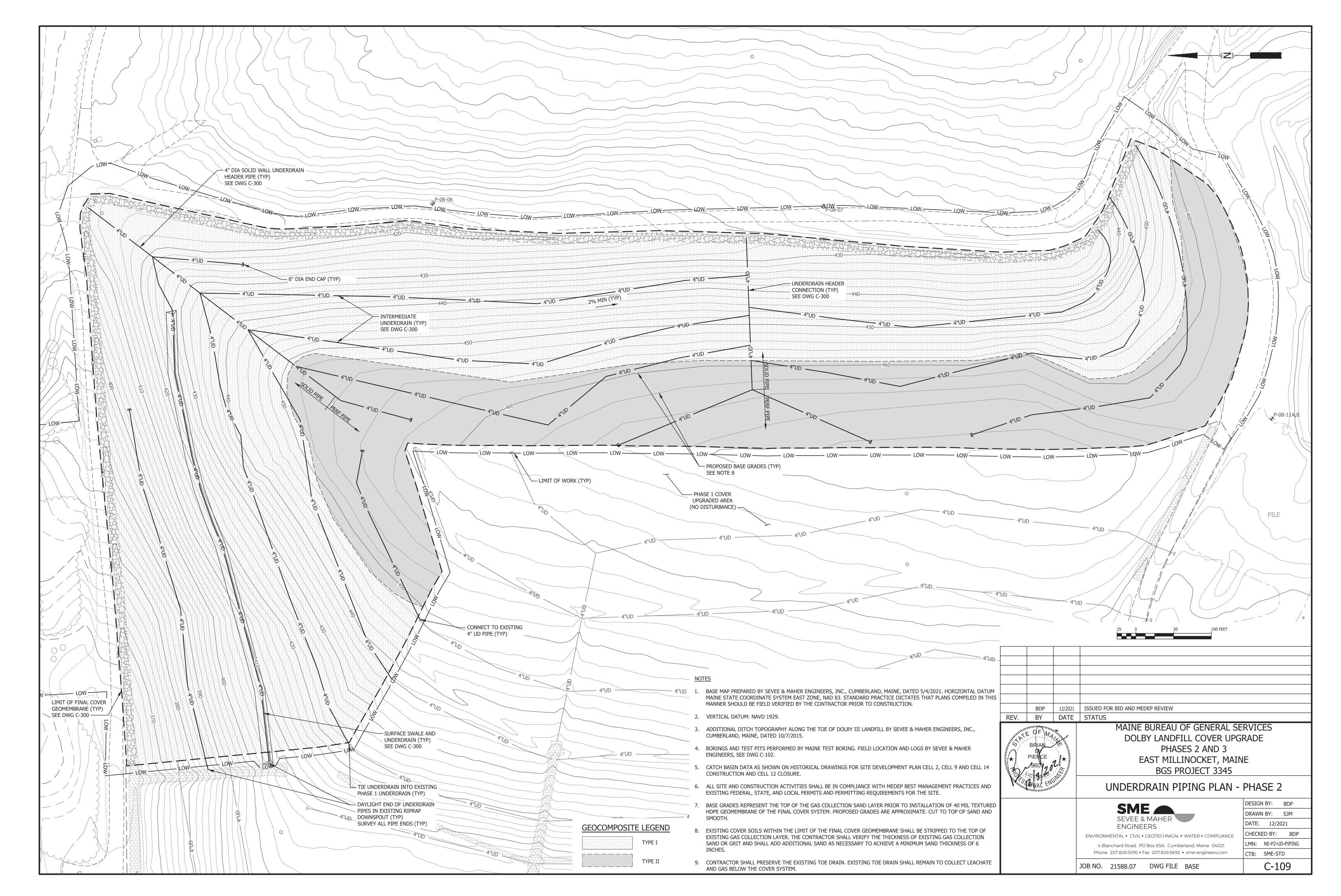
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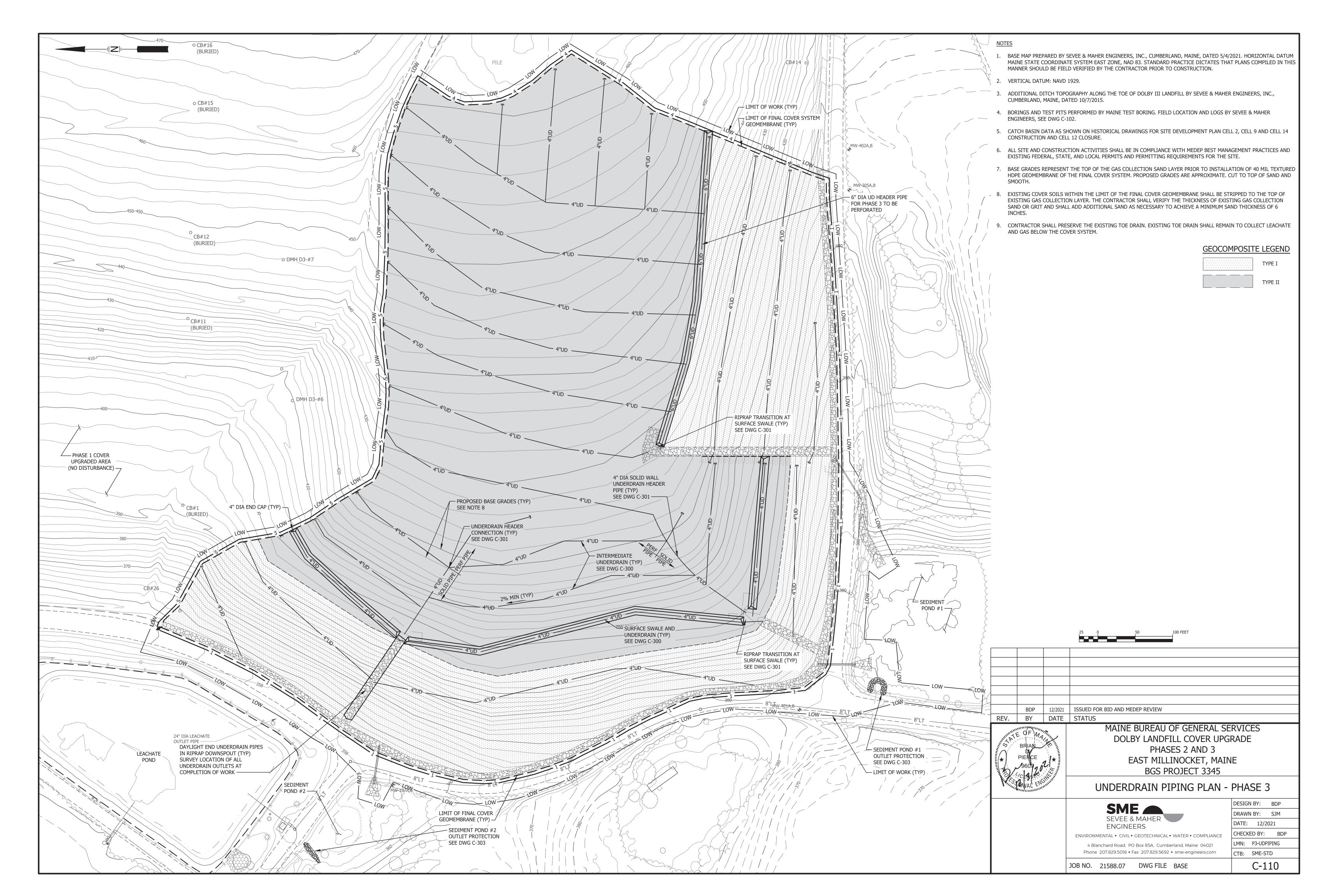
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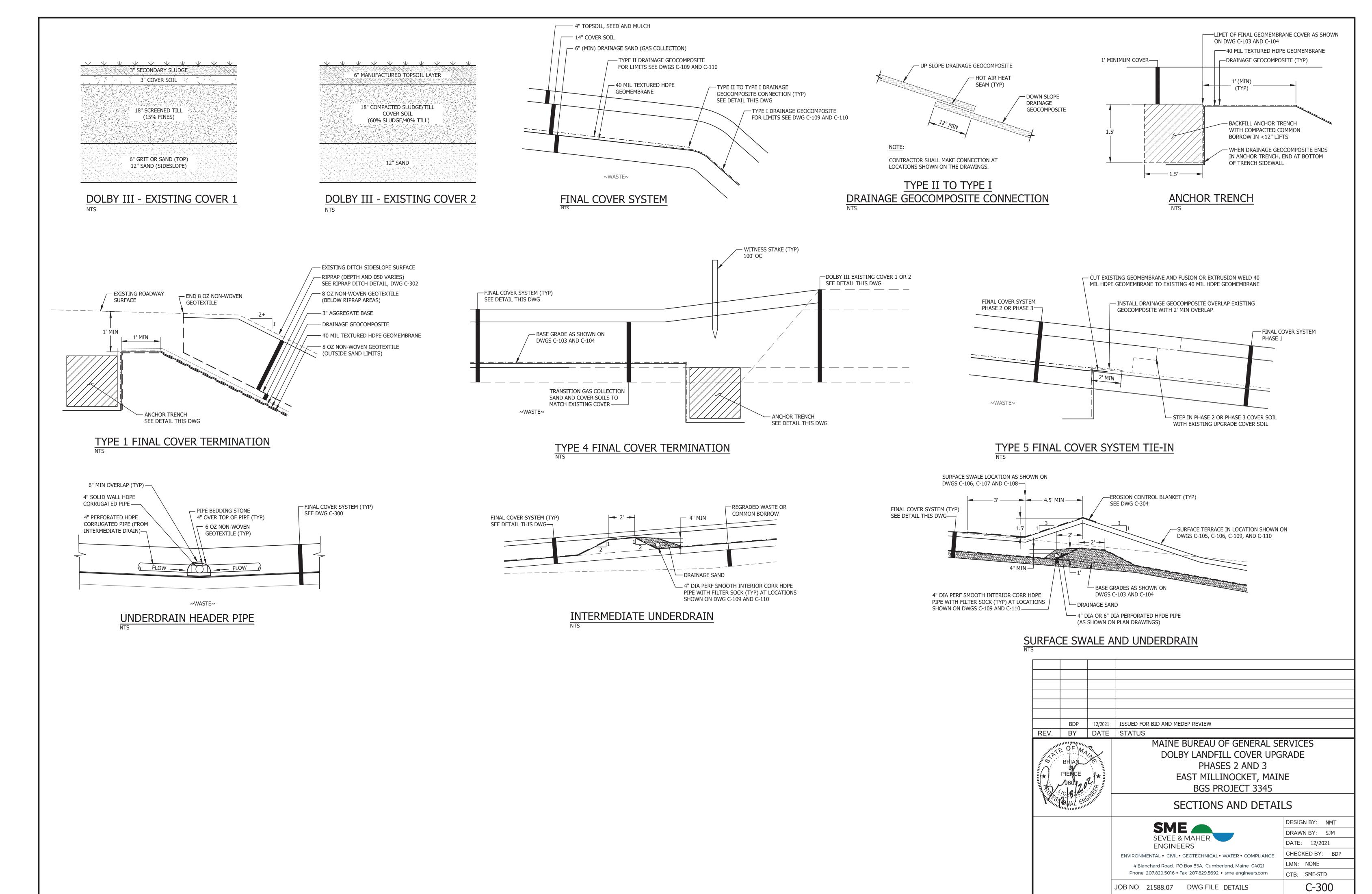
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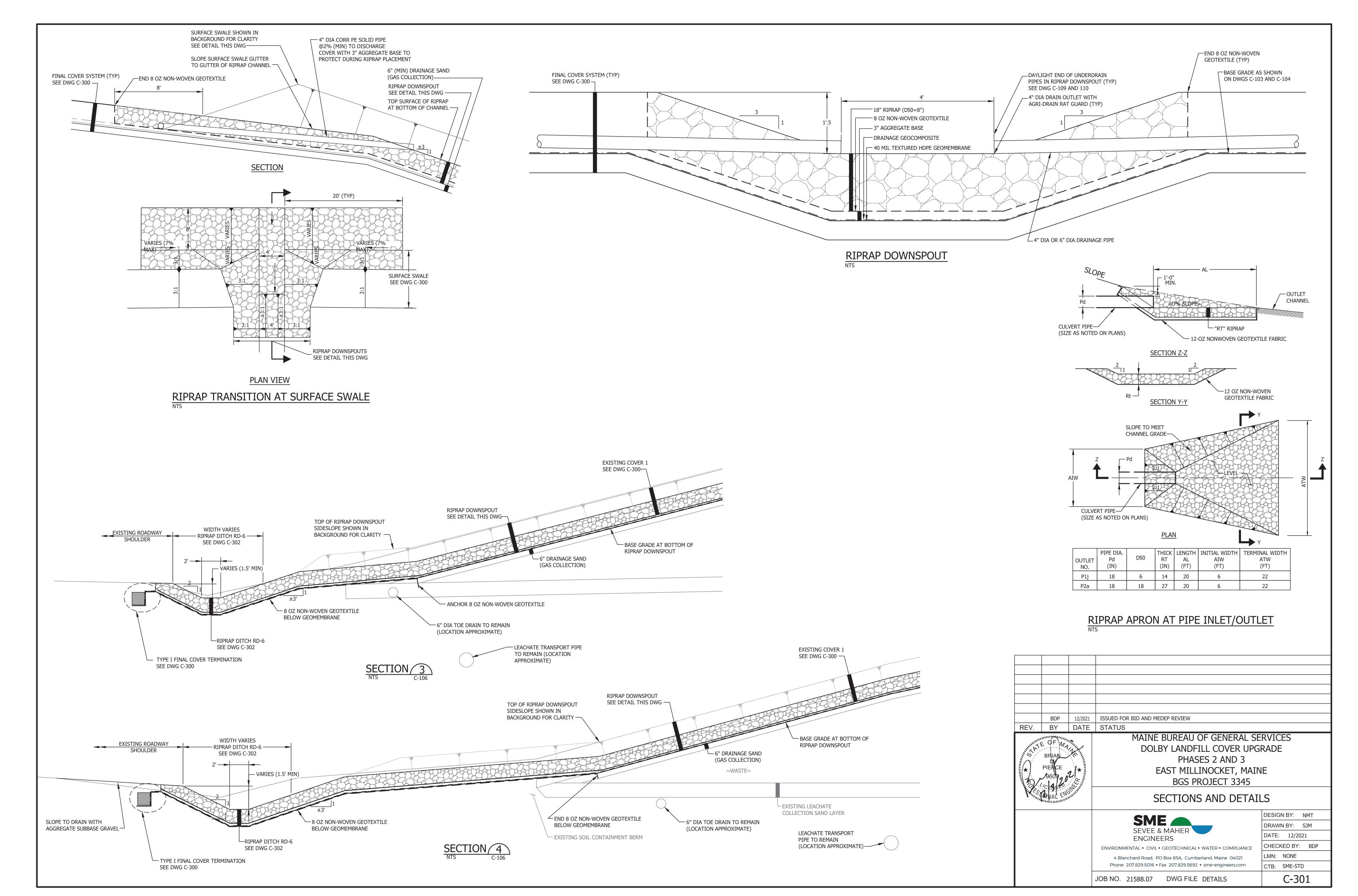
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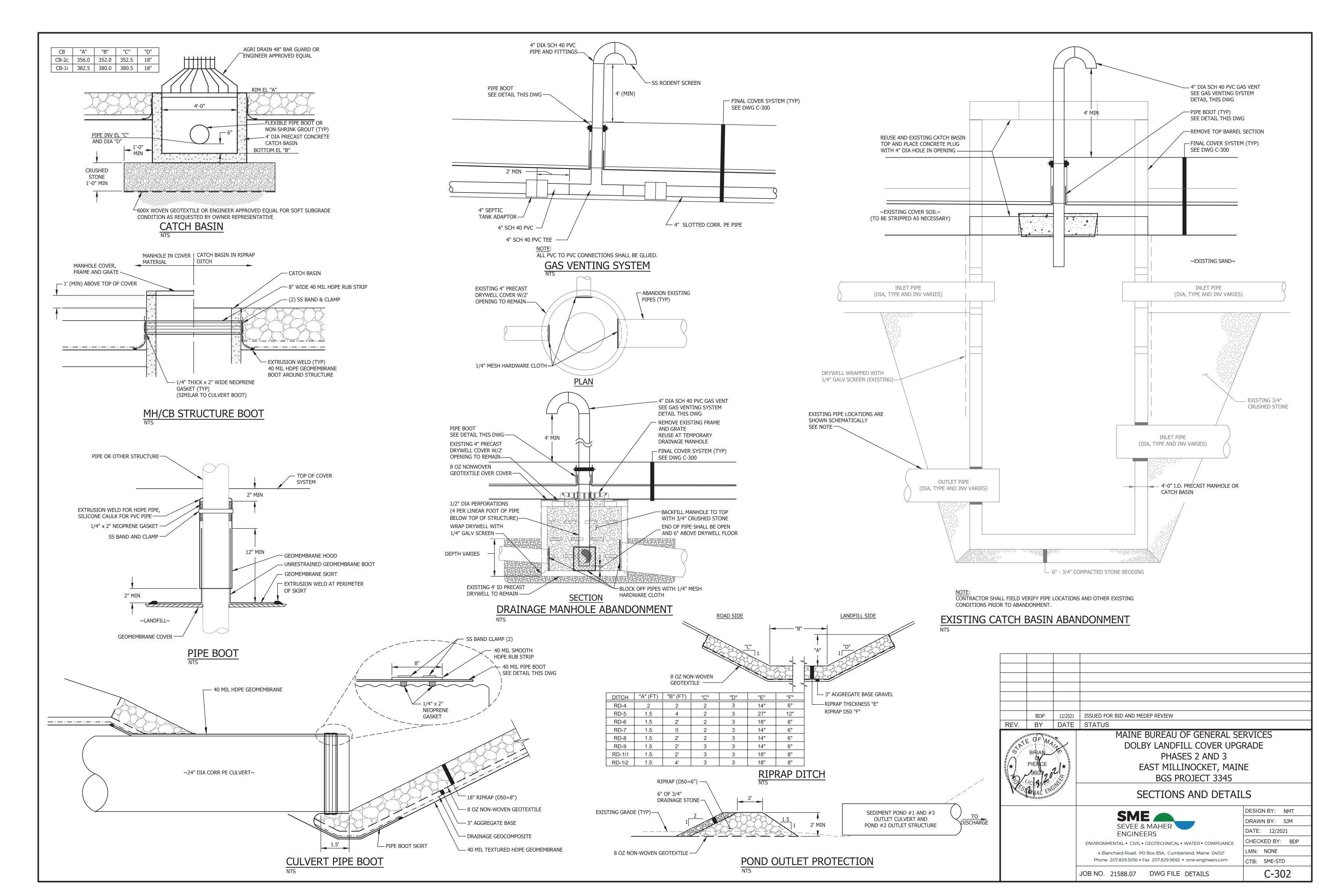


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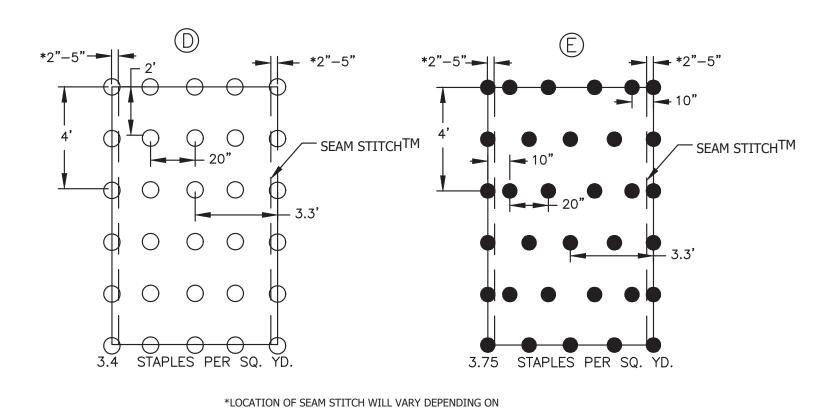


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NORTH AMERICAN GREEN PRODUCT TYPE FOR BLANKETS WITH THE NORTH AMERICAN GREEN DOT SYSTEM<sup>TM</sup> PLACE

ECB STAPLE PATTERN GUIDE

PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME,

BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6"DEEPx6"WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S

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

5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3"

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

APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED

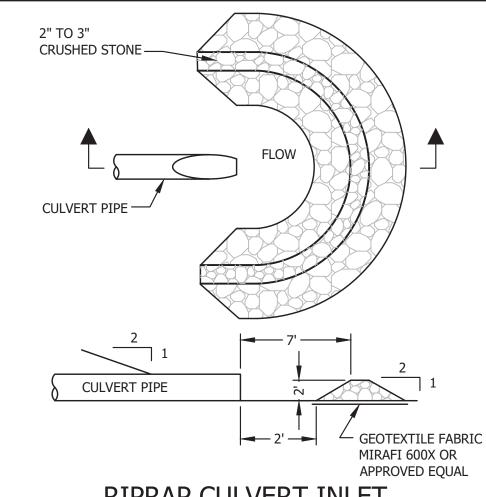
TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER

AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM<sup>TM</sup>, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

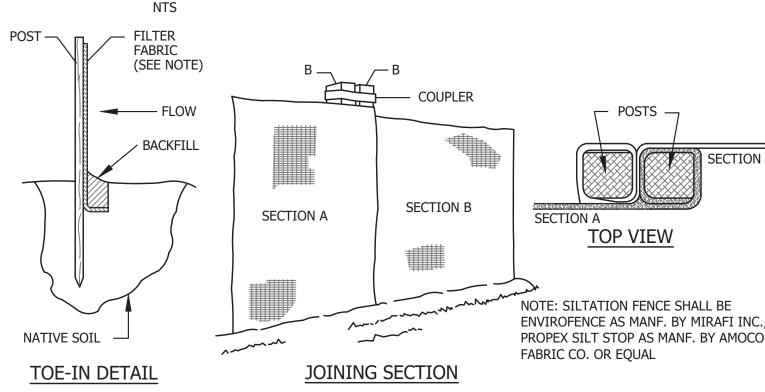
EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES

4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.

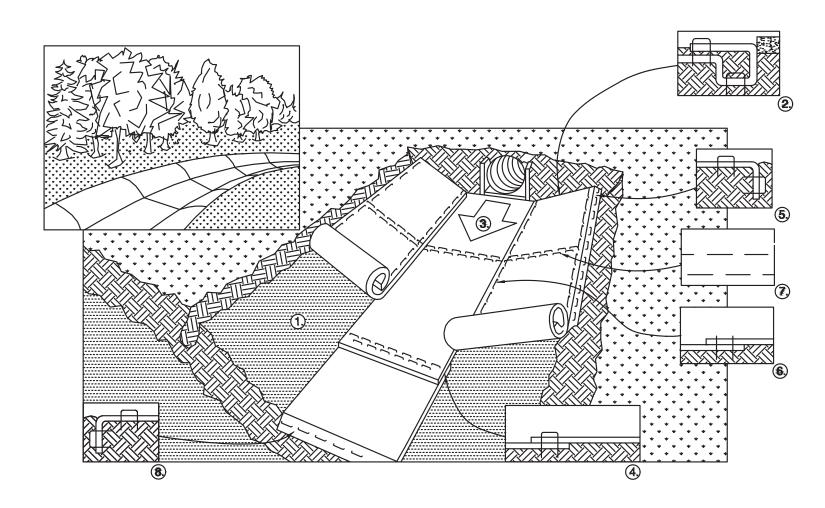
OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.



# RIPRAP CULVERT INLET PROTECTION (TEMPORARY



SILTATION FENCE



1. PREPARE BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S). INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER

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<sup>TM</sup>, STAPLES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS

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 OVERLAPS AND SEAMS PROJECTED WATER LINE CHANNEL BOTTOM/SIDE SLOPE VERTICES

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

SLOPE INSTALLATION

# CHANNEL INSTALLATION

### 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

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.

### B. TEMPORARY MEASURES

# 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.

Anchoring not required

(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

(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.

(I) 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

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

dam is lower than the edges.

3. Wood Waste Compost/Bark Filter Berms

(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

(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.

(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. <u>Erosion Control Measures</u>

(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

shown on the Drawings.

be at least 2.5.

1. Riprapped Ditches, Aprons and Plunge Pools

(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

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

(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

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

when placing the stones.

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

methods may be used to perform a dormant seeding:

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

(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

(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.

(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.

### 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.

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.

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.

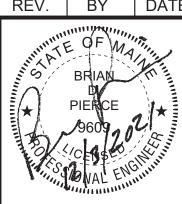
4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

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.

Non-stormwater discharges. Identify and prevent contamination by non-stormwater

Additional requirements. Additional requirements may be applied on a site-specific

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DOLBY LANDFILL COVER UPGRADE PHASES 2 AND 3 EAST MILLINOCKET, MAINE **BGS PROJECT 3345** 

# SECTIONS AND DETAILS

DESIGN BY: NMT

DRAWN BY: SJM

**ENGINEERS** 

DATE: 12/2021 CHECKED BY: BDP ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE \_MN: NONE 4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com CTB: SME-STD C-303

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