GENERAL INFORMATION

OWNER AND APPLICANT

BERTHA L. HUCKINS REVOCABLE TRUST C/O CINDY AND JOE CUSHING B HILLSIDE DRIVE STRAFFORD, NH 03884

PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST C/O CINDY AND JOE CUSHING B HILLSIDE DRIVE STRAFFORD, NH 03884

RESOURCE LIST

PLANNING/ZONING DEPARTMENT 12 MOUNTAIN VIEW DRIVE STRAFFORD, NH 03815

603-664-2192 BLAIR HANEY, PLANNER

CONSERVATION COMMISSION 12 MOUNTAIN VIEW DRIVE STRAFFORD, NH 03815 603-664-2192 X105 LIZ EVANS

BUILDING DEPARTMENT

PO BOX 23 12 MOUNTAIN VIEW DRIVE STRAFFORD, NH 03815 603-664-2192 X101 DAN HOWARD, BUILDING INSPECTOR

ROAD AGENT PO BOX 23 12 MOUNTAIN VIEW DRIVE STRAFFORD, NH 03815 603 948-5626

MATTHEW MESSENGER, TOWN ROAD AGENT POLICE DEPARTMENT 34 ROLLER COASTER ROAD

RANDY YOUNG, POLICE CHIEF FIRE DEPARTMENT

STRAFFORD, NH 03815

PO BOX 23 523 PROVINCE ROAD STRAFFORD, NH 03815 603-664-2579 CHIEF SCOTT WHITEHOUSE

ASSOCIATED PROFESSIONALS

ENVIRONMENTAL SERVICES TFMORAN, INC. 170 COMMERCE WAY, SUITE 102 PORTSMOUTH, NH 03801 603-431-2222 JASON AUBE, WETLAND SCIENTIST

CIVIL ENGINEERING/SURVEYING TFMORAN, INC.

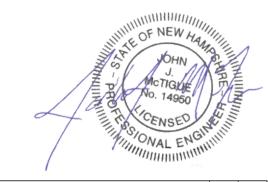
170 COMMERCE WAY, SUITE 102 PORTSMOUTH, NH 03801 603-431-2222

HUCKINS REVOCABLE TRUST SUBDIVISION

22 HILLSIDE DRIVE STRAFFORD, NEW HAMPSHIRE

MAY 9, 2023 (LAST REVISED AUGUST 28, 2023)

VICINITY PLAN HORIZONTAL SCALE 1"=500"



Updated revision date

DESCRIPTION

1 8/28/2023

REV DATE

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THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.

INDEX OF SHEETS

SHEET SHEET TITLE COVER C - 01NOTES & LEGEND S-1 & S-2 LOT LINE ADJUSTMENT SUBDIVISION PLAN AND EXISTING CONDITIONS C-02 to C-03PLAN AND PROFILE C-04 to C-06 CROSS SECTIONS C - 07EROSION CONTROL PLAN

EROSION CONTROL NOTES

DETAILS

C-08

C-09 to C-12

PERMITS/APPROVALS

	NUMBER	APPROVED	EXPIRES
STRAFFORD PLANNING BOARD SITE PLAN REVIEW APPROVAL	-	-	1
NHDES WETLAND PERMIT	_	-	_
EPA NPDES ENOI CGP & SWPPP	<u> </u>		_

WAIVERS

THE FOLLOWING WAIVERS FROM THE TOWN OF STRAFFORD SUBDIVISION REGULATIONS ARE

1. SECTION 2.6.5(F) -ALL STREET CONSTRUCTION SHALL CONFORM TO THE DIMENSIONS SHOWN ON THE TYPICAL SECTION (FIGURE 1, SECTION 2.6.5, AMENDED 1-27-2005).

STREET WITH SHALL BE 22' IN WIDTH. - PROPOSED STREET IS 20' IN WIDTH

2. SECTION 2.6.5(F) -ALL STREET CONSTRUCTION SHALL CONFORM TO THE DIMENSIONS SHOWN ON THE TYPICAL SECTION (FIGURE 1, SECTION 2.6.5, AMENDED 1-27-2005). SHOULDERS SHOWN TO BE 3' IN WIDTH - PROPOSED SHOULDER ARE 2' IN WIDTH (SEE

NOTE 3 ON TYPICAL. (SHEET C-06) 3. SECTION 2.6.5(F) -ALL STREET CONSTRUCTION SHALL CONFORM TO THE DIMENSIONS SHOWN ON

THE TYPICAL SECTION (FIGURE 1, SECTION 2.6.5, AMENDED 1-27-2005). 3" HIT BITUMINOUS PAVEMENT SHOWN - PROPOSED SURFACE IS 3" CRUSHED GRAVEL.

4. SECTION 2.6.5(F) -ALL STREET CONSTRUCTION SHALL CONFORM TO THE DIMENSIONS SHOWN ON

THE TYPICAL SECTION (FIGURE 1, SECTION 2.6.5, AMENDED 1-27-2005).

4:1 OR 2:1 SLOPES WITH GUARDRAIL SHOWN - 2 FILL AREAS PROPOSED WITH 3:1 SLOPES AND NO GUARDRAIL.

APPROVED BY THE TOWN OF STRAFFORD PLANNING BOARD

SUBDIVISION PLANS

TAX MAP 11 LOT 4

COVER

HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

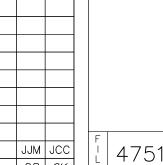
BERTHA L. HUCKINS REVOCABLE TRUST PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST

SCALE: NTS

Seacoast Division

MAY 9, 2023



CHAIRPERSON

Structural Engineers and Surveyors andscape Architects

170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

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47516-00_COVER

GENERAL NOTES

- 1. THESE PLANS ARE PERMIT DRAWINGS ONLY AND HAVE NOT BEEN DETAILED FOR CONSTRUCTION OR BIDDING.
- 2. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN. INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- 3. ALL IMPROVEMENTS SHOWN ON THE PLAN AND PROFILE SHEETS SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE TOWN OF STRAFFORD, NH.
- 4. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF STRAFFORD, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK TO CONFORM TO TOWN OF STRAFFORD STANDARD SPECIFICATIONS. ALL WORK WITHIN THE RIGHT-OF-WAY OF THE TOWN AND/OR STATE SHALL COMPLY WITH APPLICABLE STANDARDS. COORDINATE ALL WORK WITHIN THE RIGHT-OF-WAY WITH APPROPRIATE TOWN, COUNTY, AND/OR STATE AGENCY.
- 5. THE SITE CONTRACTOR SHALL ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE SECTIONS OF ENV-WQ 1500. THE SITE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CONSTRUCTION OF EACH STORMWATER FACILITY TO COORDINATE REQUIRED INSPECTIONS. THE CONTRACTOR SHALL TAKE PROGRESS PHOTOS DURING CONSTRUCTION I. PROTECT NEW AND EXISTING BURIED UTILITIES DURING INSTALLATION OF ALL STORMWATER DRAINAGE COMPONENTS AND SEND TO THE
- 6. SEE EXISTING CONDITIONS PLAN FOR THE HORIZONTAL AND VERTICAL
- 7. SEE SUBDIVISION PLAN FOR BENCHMARK INFORMATION. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
- 8. CONTACT EASEMENT OWNERS PRIOR TO COMMENCING ANY WORK WITHIN
- 9. PRIOR TO COMMENCING ANY SITE WORK, ALL LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD.
- 10. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.
- 11. TFMORAN, INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
- 12. TEMPORARY FENCING SHALL BE PROVIDED AND COVERED WITH A FABRIC L. IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS MATERIAL TO CONTROL DUST MITIGATION.
- 13. ALL DEMOLITION SHALL INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKWAYS, AND ANY OTHER ADJACENT OPERATING FACILITIES. PRIOR WRITTEN PERMISSION FROM THE OWNER/DEVELOPER AND LOCAL PERMITTING AUTHORITY IS REQUIRED IF CLOSURE/OBSTRUCTIONS TO ROADS, STREET, WALKWAYS, AND OTHERS IS DEEMED NECESSARY. CONTRACTOR TO PROVIDE ALTERNATE ROUTES AROUND CLOSURES/OBSTRUCTIONS PER LOCAL/STATE/FEDERAL REGULATIONS.
- 14. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- 15. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- 16. CONTRACTOR'S GENERAL RESPONSIBILITIES:
- A. BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS, AND STANDARDS AND CONDITIONS OF ALL PROJECT-SPECIFIC PERMITS AND APPROVALS AS LISTED ON THE COVER SHEET TO THESE PLANS OR OTHERWISE REQUIRED.

- B. NOTIFY ENGINEER IN WRITING OF ANY DISCREPANCIES OF PROPOSED LAYOUT AND/OR EXISTING FEATURES.
- C. EMPLOY A LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES AND LAYOUT OF SITE ELEMENTS.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE TO BECOME FAMILIAR WITH THE SITE AND ALL SURROUNDING CONDITIONS. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
- TAKE APPROPRIATE MEASURES TO REDUCE, TO THE FULLEST EXTENT POSSIBLE, NOISE, DUST, AND UNSIGHTLY DEBRIS. CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT BETWEEN THE HOURS OF 7:00 AM AND 10:00 PM, MONDAY THROUGH FRIDAY IN ACCORDANCE WITH THE APPLICABLE MUNICIPAL ORDINANCES AND REGULATIONS OF THE TOWN OF STRAFFORD, NEW HAMPSHIRE.
- F. MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY WORK AT
- G. IN ACCORDANCE WITH RSA 430:53 AND AGR 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
- H. COORDINATE WITH ALL UTILITY COMPANIES AND CONTACT DIGSAFE (811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
- OF ALL SITE ELEMENTS. DAMAGED UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
- J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS, OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.
- M. AT COMPLETION OF CONSTRUCTION, THE SITE CONTRACTOR SHALL PROVIDE A LETTER CERTIFYING THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND A LETTER STAMPED BY A QUALIFIED ENGINEER THAT THEY HAVE OBSERVED ALL UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS PRIOR TO BACKFILL, AND THAT SUCH SYSTEMS CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING DOCUMENTATION TO OWNER AND ENGINEER:
 - 1) IF ANY UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS WERE INSTALLED, FOR EACH
 - A) REPRESENTATIVE PHOTOGRAPHS OF THE SYSTEM AFTER
 - COMPLETION BUT PRIOR TO BACKFILLING; AND B) A LETTER SIGNED BY A QUALIFIED ENGINEER WHO OBSERVED THE SYSTEM PRIOR TO BACKFILLING, THAT THE SYSTEM CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.

GRADING & DRAINAGE NOTES

- 1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.
- 2. LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS, AND ALIGNMENTS.
- THE CONTRACTOR SHALL PROVIDE A GRAVEL ROAD SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE, RAMPS, AND LOADING
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE NHDOT STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE
- STORMWATER DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
- 6. NO FILL SHALL BE PLACED IN ANY WETLAND AREA, EXCEPT AS SPECIFIED BY A WETLAND
- 7. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE

CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.

- 8. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER, AND MULCH.
- 9. DENSITY REQUIREMENTS:

95%

MINIMUM DENSITY* LOCATION 95% BELOW PAVED OR CONCRETE AREAS

TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL BELOW LOAM AND SEED AREAS

90% *ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C. FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM D-6938.

UTILITY NOTES

- 1. LENGTH OF PIPE IS FOR CONVENIENCE ONLY. ACTUAL PIPE LENGTH SHALL BE DETERMINED
- 2. ALL PROPOSED UTILITY WORK, INCLUDING MATERIAL, INSTALLATION, TERMINATION. EXCAVATION, BEDDING, BACKFILL, COMPACTION, TESTING, CONNECTIONS, AND CONSTRUCTION SHALL BE COORDINATED WITH AND COMPLETED IN ACCORDANCE WITH THE APPROPRIATE REQUIREMENTS, CODES, AND STANDARDS OF ALL CORRESPONDING UTILITY ENTITIES AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE DIGGING.
- 4. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. THE EXACT LOCATION OF NEW UTILITY CONNECTIONS SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH UTILITY COMPANY, COUNTY AGENCY, AND/OR PRIVATE
- 6. THE ISDS (SEPTIC SYSTEM) SHALL RECEIVE ISDS APPROVAL FROM NHDES SUBSURFACE SYSTEMS BUREAU. PRIOR TO CONSTRUCTION AND PRIOR TO OPERATION OF THE ISDS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CONSTRUCTION APPROVAL AND APPROVAL TO OPERATE FROM NHDES SUBSYSTEMS BUREAU, AND ANY OTHER STATE AND LOCAL PERMITS AND APPROVALS.
- 7. UNLESS OTHERWISE SPECIFIED. ALL UNDERGROUND STRUCTURES, PIPES, CHAMBERS, ETC. SHALL BE COVERED WITH A MINIMUM OF 18" OF COMPACTED SOIL BEFORE EXPOSURE TO

8. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

DRAINAGE PRIVATE SEWER PRIVATE

WATER NOT AVAILABLE GAS ELECTRIC EVERSOURCE

TFI FPHONE TDS TELECOM CABLE TDS TELECOM, CONSOLIDATED

SUBDIVISION PLANS

TAX MAP 11 LOT 4

NOTES & LEGEND

HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

BERTHA L. HUCKINS REVOCABLE TRUST PREPARED FOR

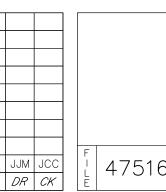
BERTHA L. HUCKINS REVOCABLE TRUST

SCALE: NTS

Seacoast Division

MAY 9, 2023

		/ Standillitte		
1	8/28/2023	No revisions this sheet	JJM	JCC
REV	8/28/2023 <i>DATE</i>	DESCRIPTION DESCRIPTION	DR	CK



Civil Engineers Structural Engineers Traffic Engineers and Surveyors Landscape Architects Scientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

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ABANDON

ABSOLUTE DIFFERENCE

BEST MANAGEMENT PRACTICE

ACRES

ADJUST

BUILDING

CONCRETE

DIAMETER

ELEVATION

COORDINATE

APPROXIMATE

BOOK & PAGE

BOTTOM OF SLOPE

EDGE OF PAVEMENT

BOTTOM OF WALL

APPROX

BLDG

BMP

BW

COORD

DIA

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GENERAL

FLARED END SECTION

FINISHED FLOOR ELEVATION

EXISTING

FOUNDATION

INVERT ELEVATION

LANDSCAPE AREA

INFILTRATION TEST

RATE OR CURVATURE

HIGH POINT

LENGTH

MAXIMUM

MINIMUM

LINEAR FEET

EXIST

FES

FFE

MAX

MIN

N/F

NTS NOT TO SCALE PERF PERFORATED PROPOSED PROP PVC POINT OF VERTICAL CURVE POINT OF VERTICAL INTERSECTION PVI PVT POINT OF VERTICAL TANGENCY RADIUS ROW RIGHT OF WAY SLOPE SQUARE FEET

ABBREVIATIONS

TBM

STATION TEST PIT TYPICAL UNDERGROUND WITH

TEMPORARY BENCHMARK

TYP UG

LIGHT POLE OUTLET CONTROL STRUCTURE OCS POLYVINYL CHLORIDE PIPE RCP

CMP

COND

DCB

FES

GT

HDPE

HW

HYD

REINFORCED CONCRETE PIPE ROOF DRAIN SEWER MANHOLE

UTILITIES

CORRUGATED METAL PIPE

DOUBLE CATCH BASIN

DUCTILE IRON PIPE

FRAME AND COVER

FLARED END SECTION

FRAME AND GRATE

GREASE TRAP

HANDHOLE

HEADWALL

HYDRANT

DRAIN MANHOLE

CATCH BASIN

CLEANOUT

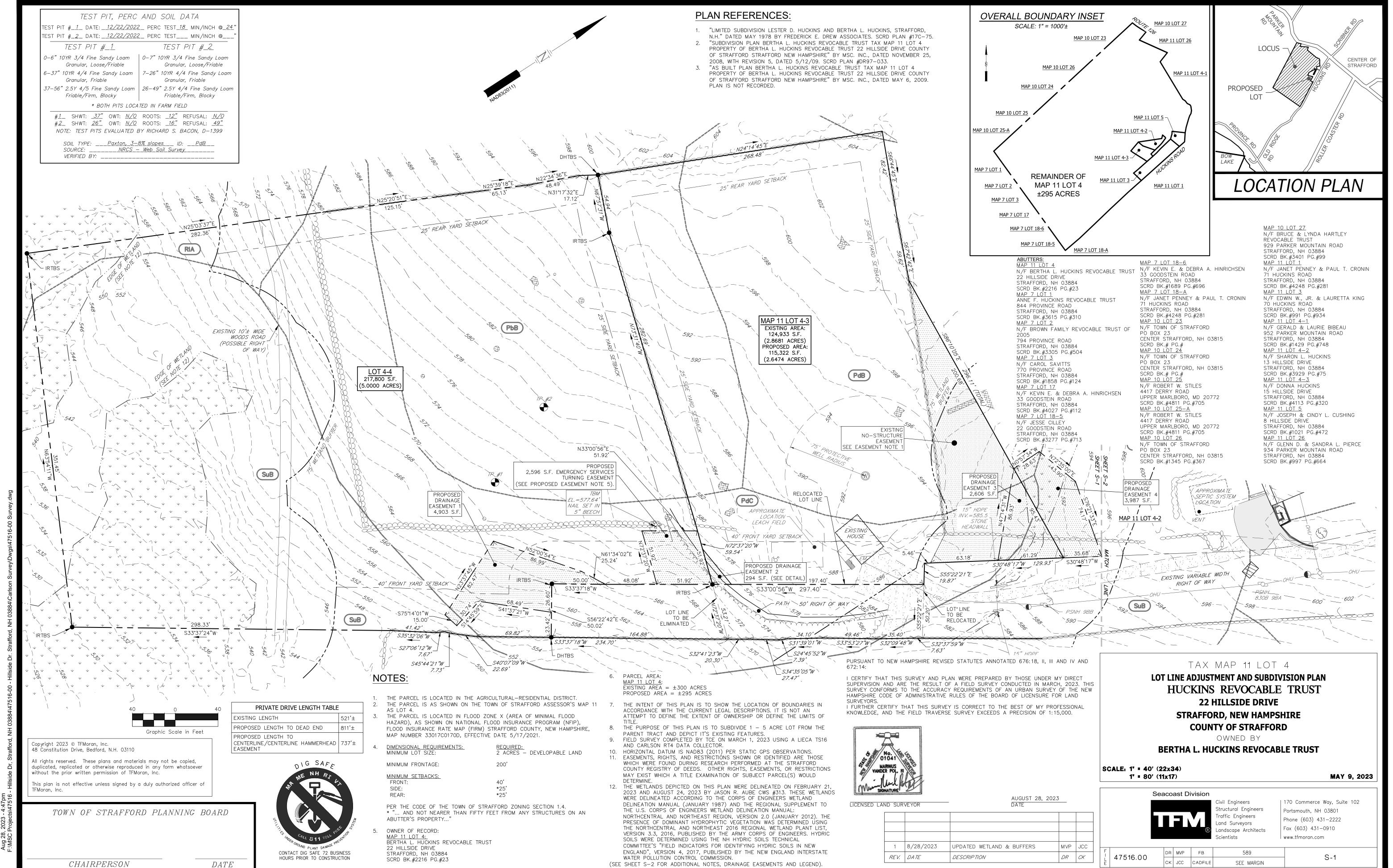
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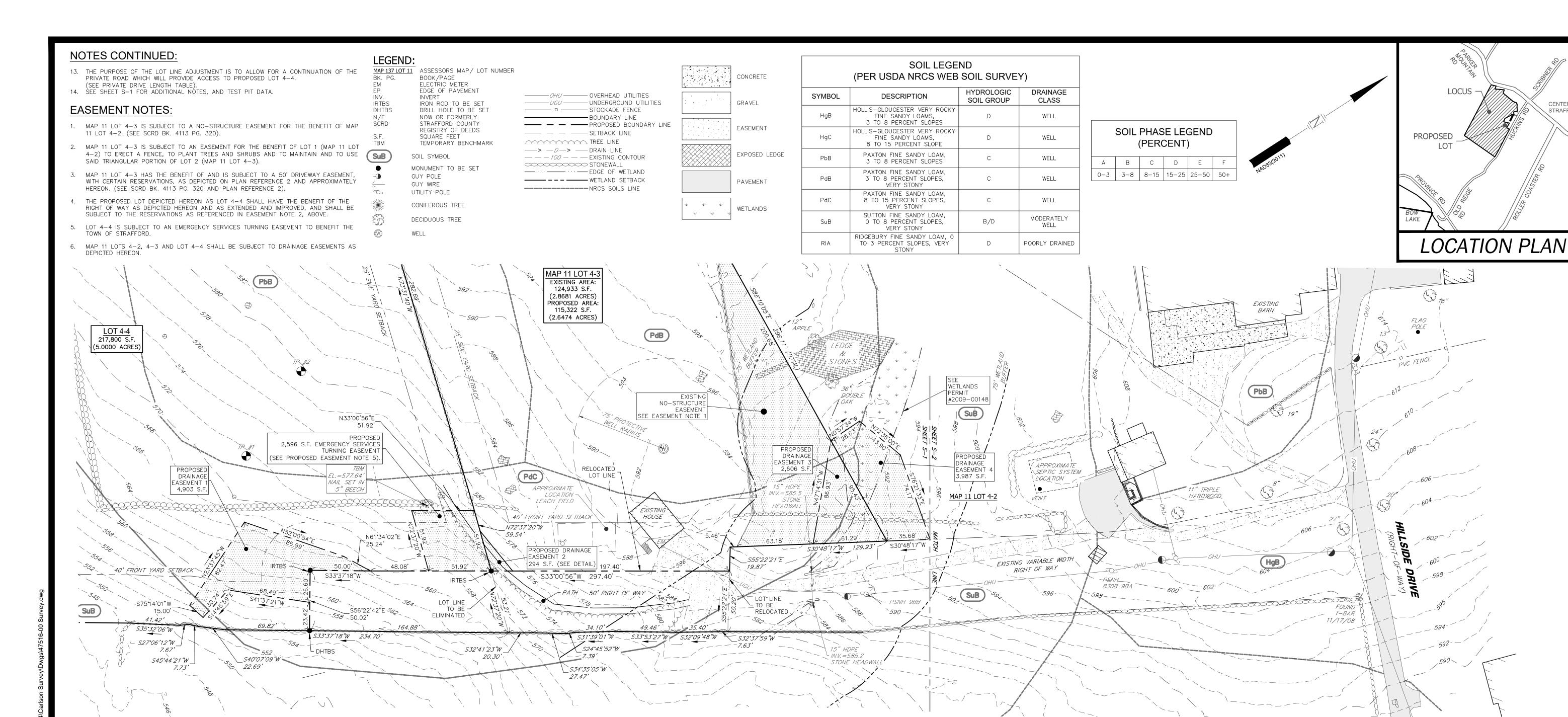
CAST IRON PIPE

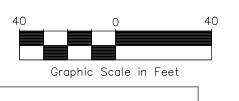
SOS SEDIMENT OIL SEPARATOR TAPPING SLEEVE, VALVE, AND BOX

HIGH DENSITY POLYETHYLENE PIPE

UTILITY POLE





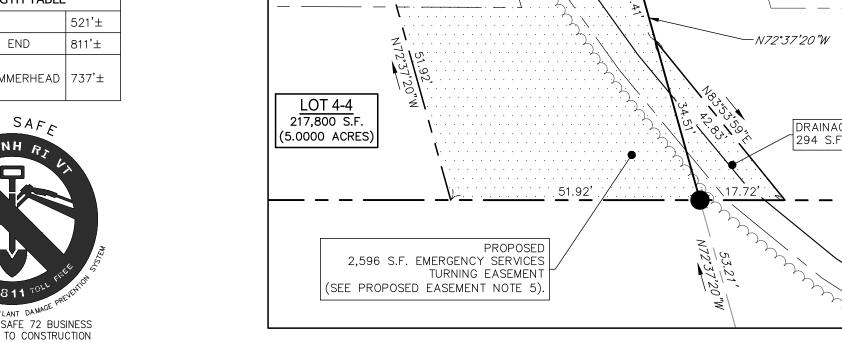


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PRIVATE DRIVE LENGTH TABLE EXISTING LENGTH 521'± PROPOSED LENGTH TO DEAD END PROPOSED LENGTH TO CENTERLINE/CENTERLINE HAMMERHEAD 737'± LEASEMENT

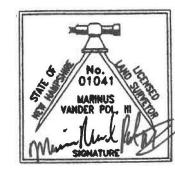




PURSUANT TO NEW HAMPSHIRE REVISED STATUTES ANNOTATED 676:18, II, III AND IV AND

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY THOSE UNDER MY DIRECT SUPERVISION AND ARE THE RESULT OF A FIELD SURVEY CONDUCTED IN MARCH, 2023. THIS SURVEY CONFORMS TO THE ACCURACY REQUIREMENTS OF AN URBAN SURVEY OF THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND

I FURTHER CERTIFY THAT THIS SURVEY IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, AND THE FIELD TRAVERSE SURVEY EXCEEDS A PRECISION OF 1:15,000.



ND SUR'	VEYOR	AUGUST 28, 2023 DATE		
1	8/28/2023	UPDATED WETLAND & BUFFERS	MVP	JCC
REV.	DATE	DESCRIPTION DESCRIPTION	DR	CK

TAX MAP 11 LOT 4

LOT LINE ADJUSTMENT AND SUBDIVISION PLAN **HUCKINS REVOCABLE TRUST** 22 HILLSIDE DRIVE STRAFFORD, NEW HAMPSHIRE **COUNTY OF STRAFFORD**

OWNED BY **BERTHA L. HUCKINS REVOCABLE TRUST**

SCALE: 1" = 40' (22x34) 1" = 80' (11x17)

MAY 9, 2023

CENTER OF

STRAFFORD



Structural Engineers and Surveyors Landscape Architects

170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

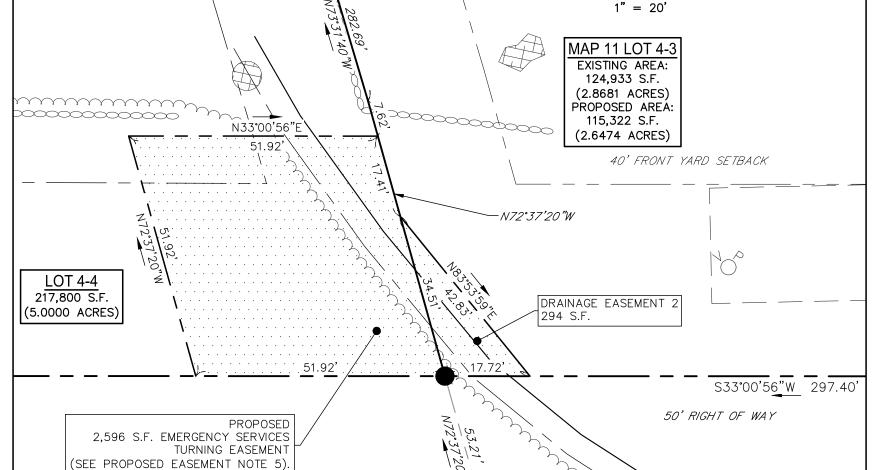
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TOWN OF STRAFFORD PLANNING BOARD

CHAIRPERSON

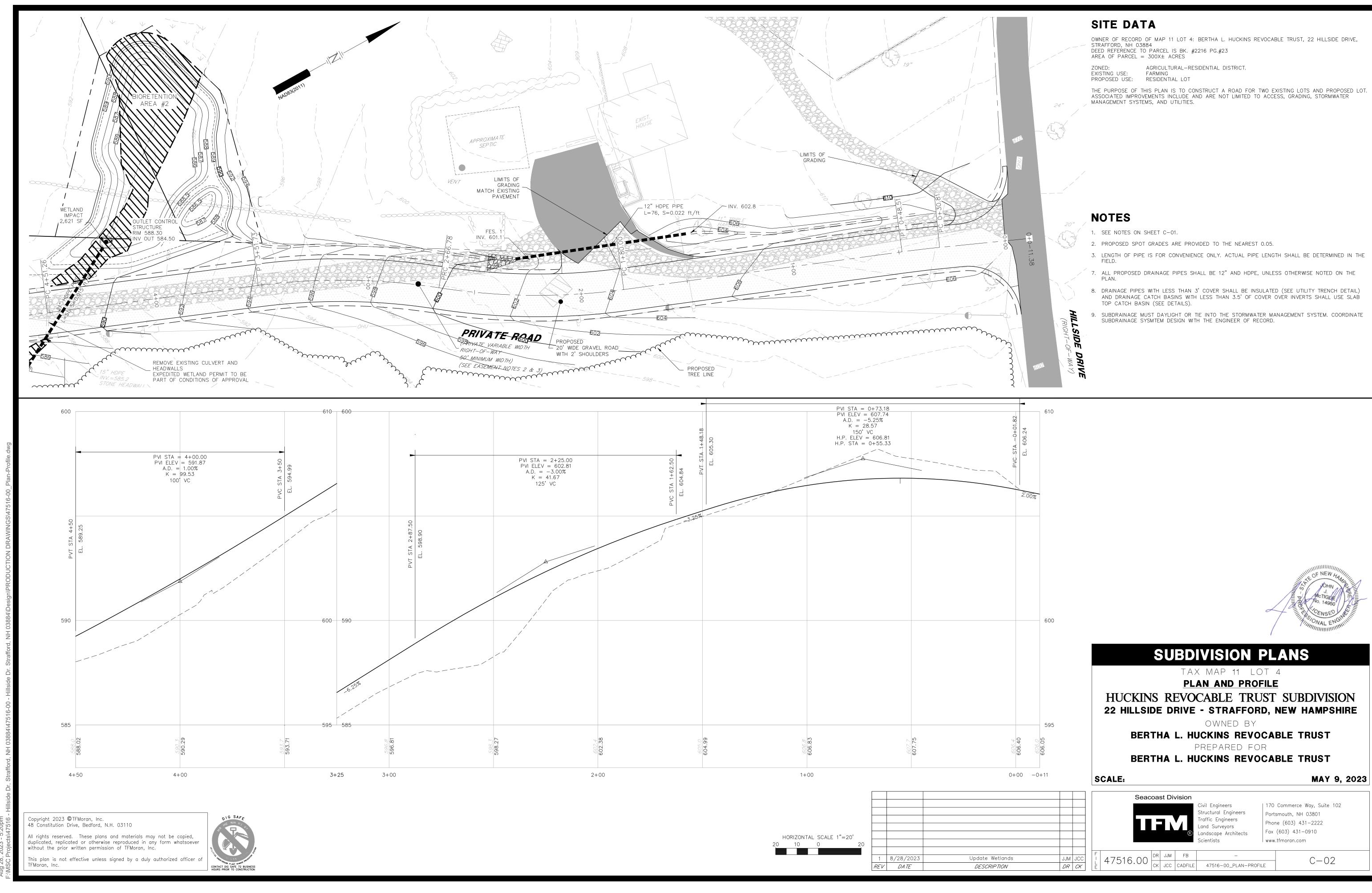
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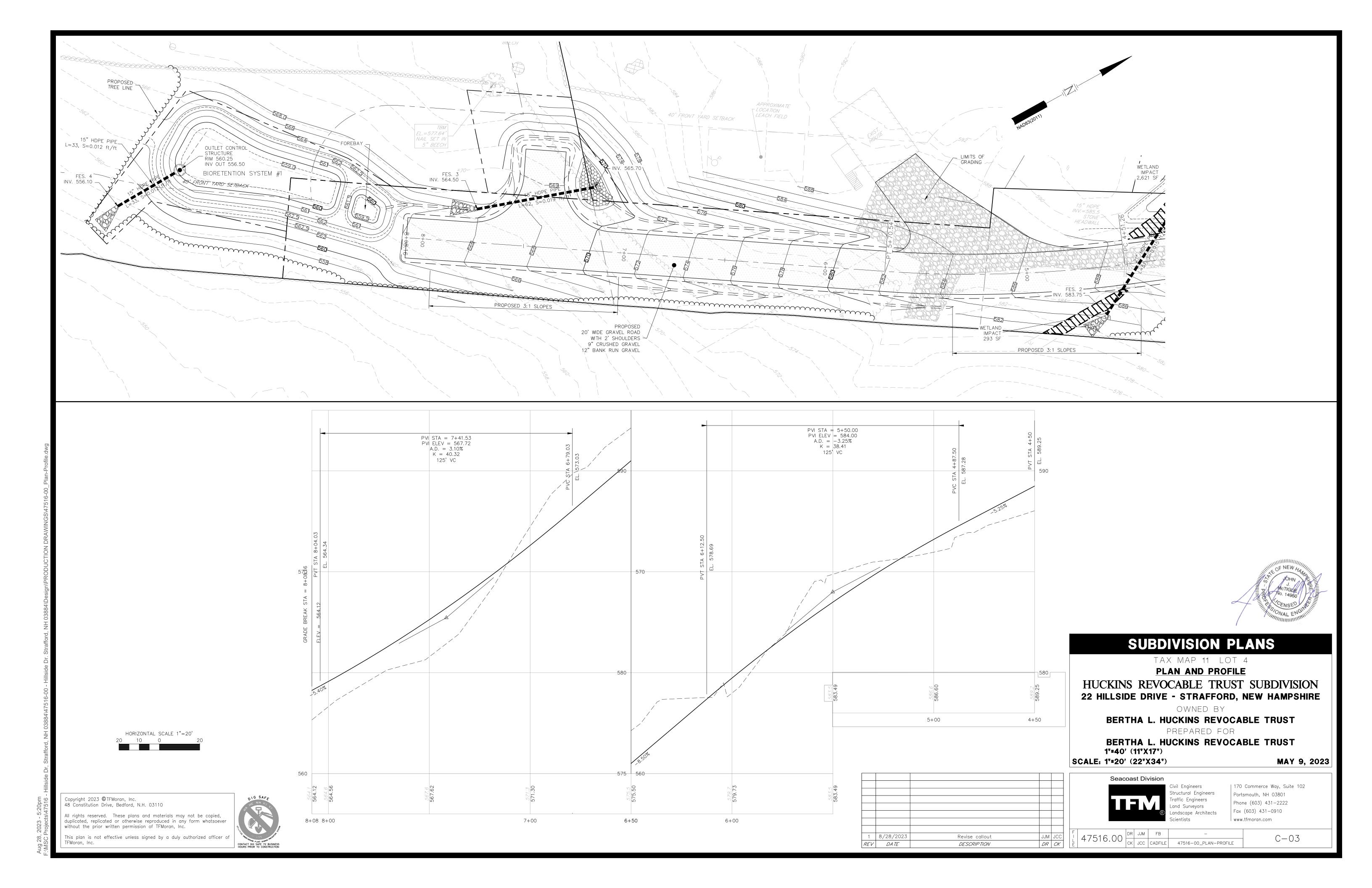


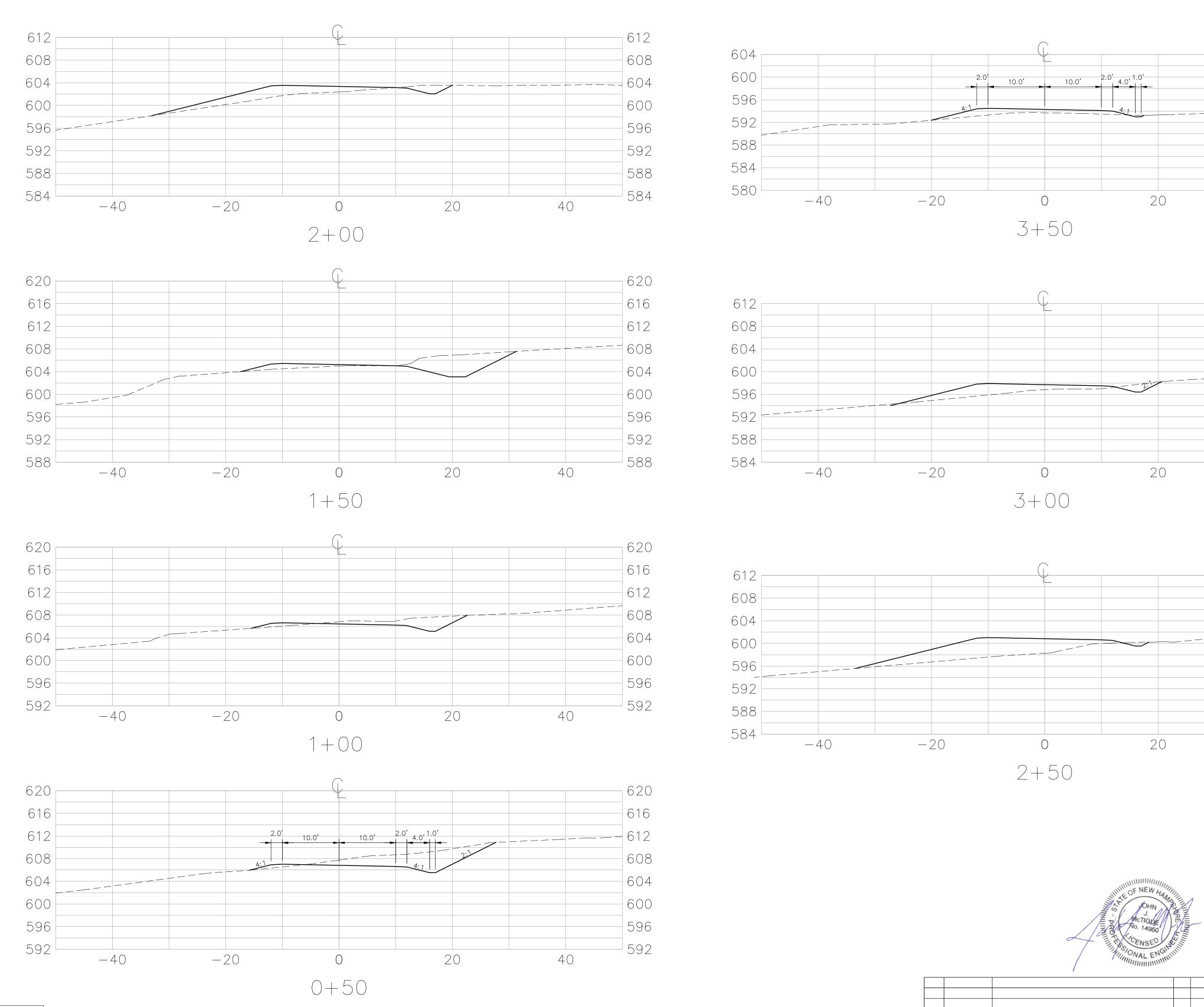
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LICENSED LANI

ND SURVEYOR		VEYOR	DATE		
	1	8/28/2023	UPDATED WETLAND & BUFFERS	MVP	JCC
	REV.	DA TE	DESCRIPTION DESCRIPTION	DR	CK







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SUBDIVISION PLANS

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TAX MAP 11 LOT 4 **CROSS SECTION**

HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

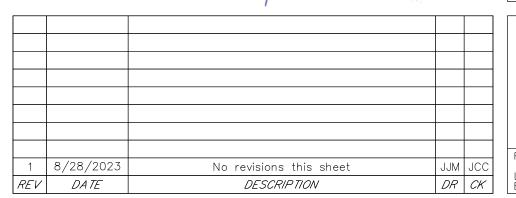
BERTHA L. HUCKINS REVOCABLE TRUST

PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST 1"=20' (11"x17")

SCALE: 1"=10' (22"x34")

MAY 9, 2023

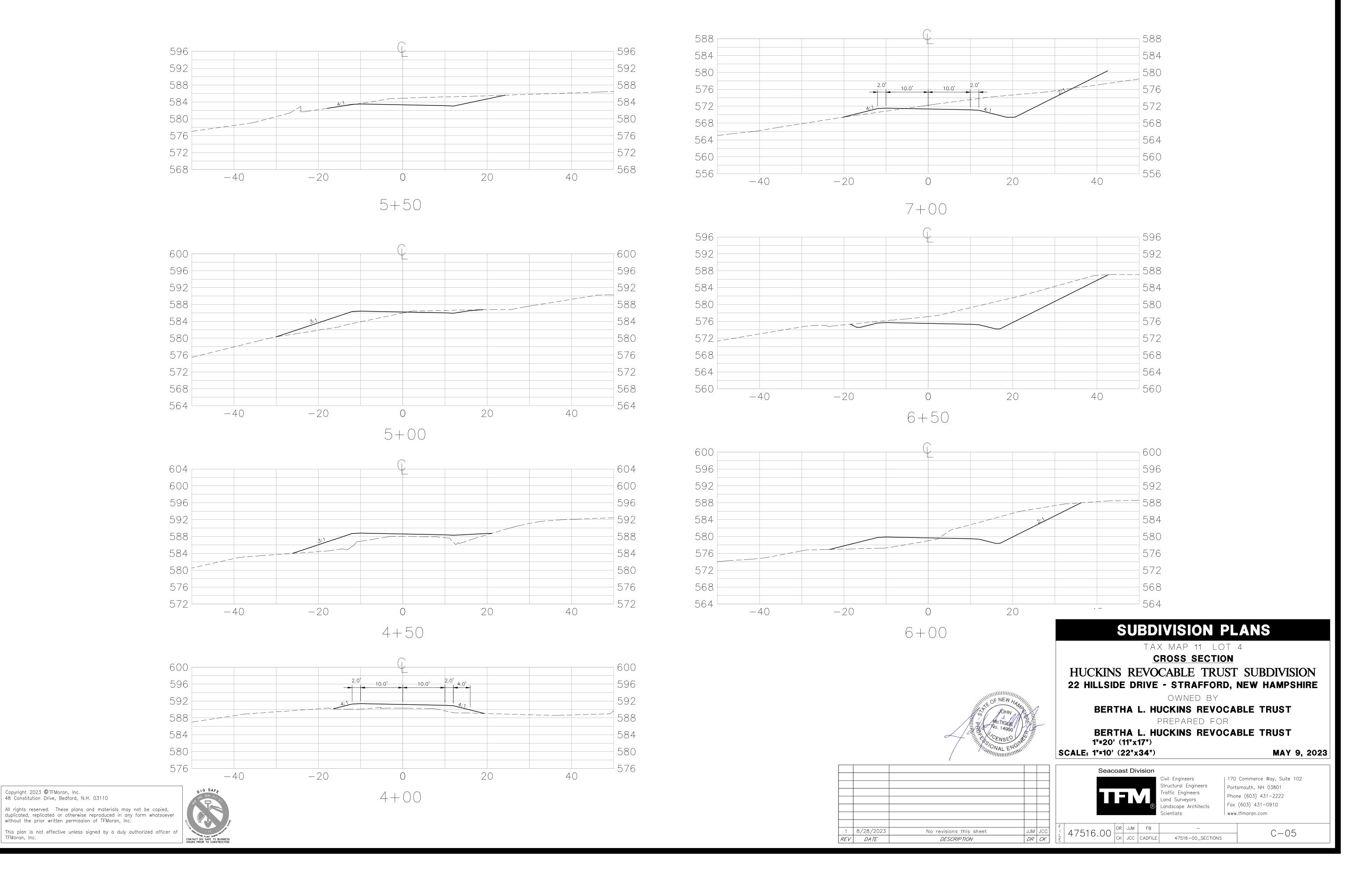




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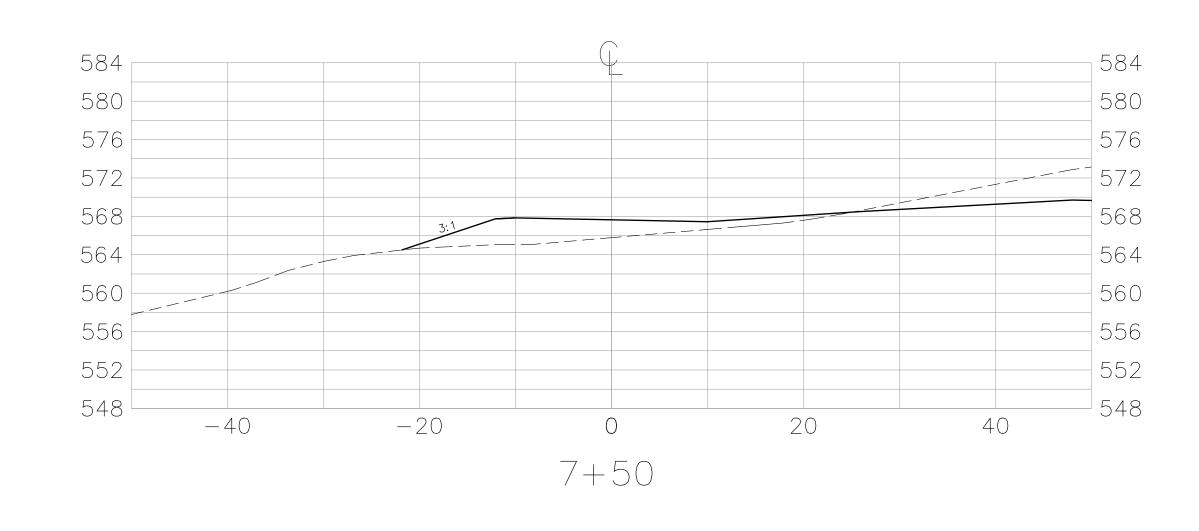
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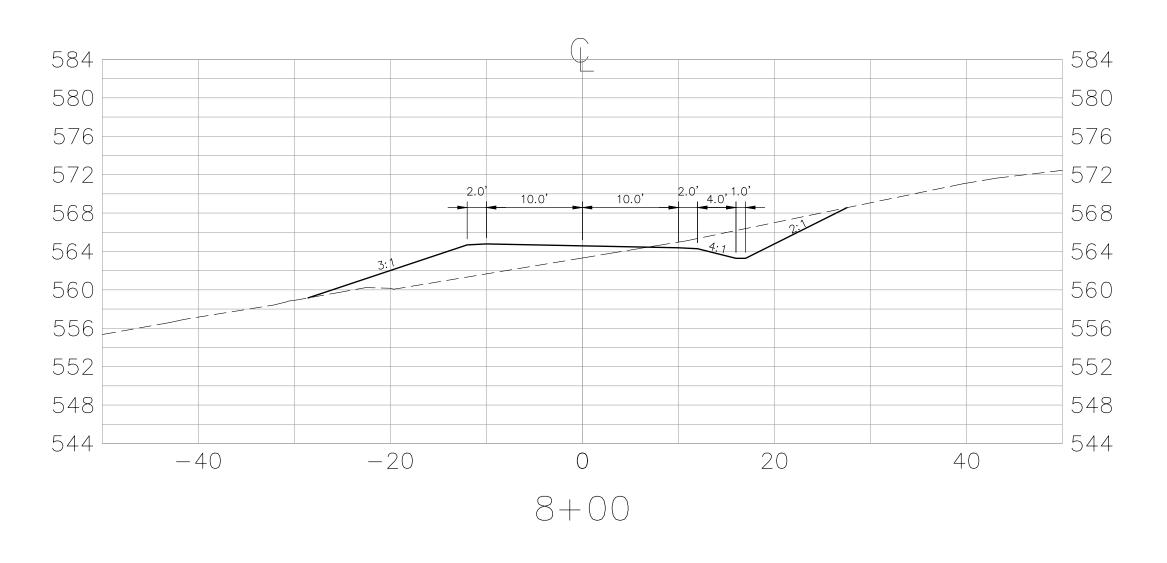
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SUBDIVISION PLANS

TAX MAP 11 LOT 4

CROSS SECTION

HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

BERTHA L. HUCKINS REVOCABLE TRUST

PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST

1"=20' (11"x17")
SCALE: 1"=10' (22"x34")
MAY 9, 2023

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Civil Engineers
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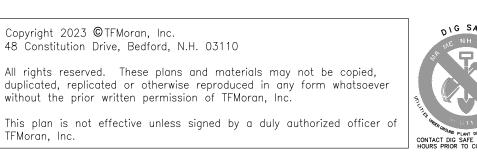
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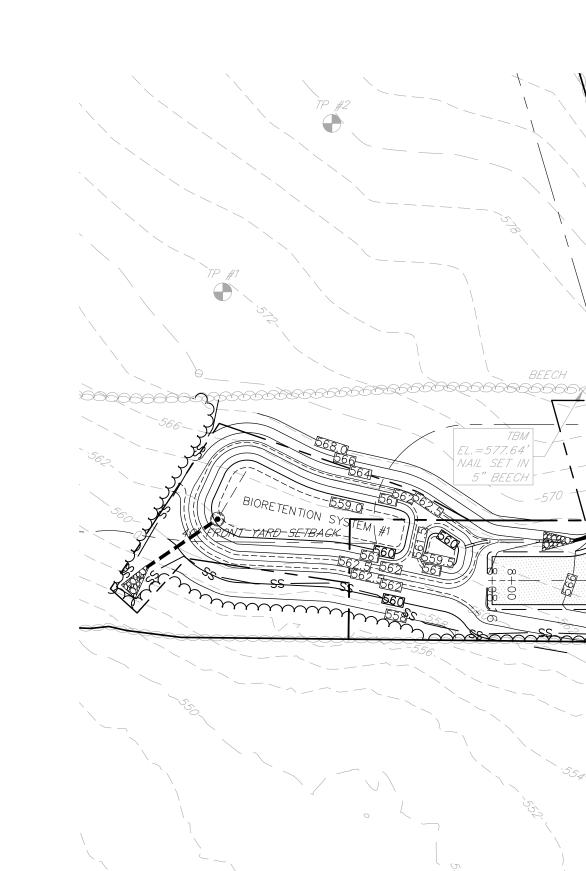
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NOTES

1. SEE NOTES ON SHEET C-01, EROSION CONTROL NOTES ON SHEETS C-05, EROSION CONTROL DETAILS ON SHEETS C-06 AND C-07, AND THE APPROVED SWPPP, AS APPLICABLE.

Secretary States of States

- 2. INSTALL SILT BARRIER ALONG THE PERIMETER OF THE AREA TO BE DISTURBED AS FIRST ORDER OF
- 3. EROSION CONTROL MIX BERM (SEE DETAILS) MAY BE USED IN PLACE OF SILT BARRIER.
- 4. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS WITHIN THE WORK LIMITS AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED. INLET PROTECTION BARRIERS SHALL BE IN PLACE AT ALL CATCH BASINS PRIOR TO THE DISTURBANCE OF SOIL.
- 5. DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. IT SHALL BE ACCOMPLISHED BY THE UNIFORM APPLICATION OF CALCIUM CHLORIDE AT THE RATE OF 1-1/2 POUNDS PER SQUARE YARD BY MEANS OF A LIME SPREADER OR OTHER APPROVED METHOD. WATER MAY ALSO BE USED FOR DUST CONTROL, AND APPLIED BY SPRINKLING WITH WATER TRUCK DISTRIBUTORS, AS REQUIRED.
- 6. THE SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION SINCE THE DISTURBANCE EXCEEDS ONE ACRE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT WHICH SHALL REMAIN ON SITE AND MADE ACCESSIBLE TO THE PUBLIC. THE SITE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTEE IS RESPONSIBLE FOR. OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- 7. SILT PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS CONTAINED
- 8. CONSTRUCT JUTE MATTING ON ALL SLOPES STEEPER THAN 3:1, DISTURBED AREAS SLOPING TOWARDS WETLANDS AND ALL LOCATIONS SHOWN ON PLAN.
- 9. INSPECT EROSION CONTROL MEASURES WEEKLY AND AFTER EACH RAIN STORM OF 0.10" OR GREATER. REPAIR/MODIFY SILT BARRIER AS NECESSARY TO MAXIMIZE FILTER EFFICIENCY. REMOVE SEDIMENT WHEN SEDIMENT IS 1/3 THE STRUCTURE HEIGHT.
- PROJECT OR UNTIL VEGETATION BECOMES ESTABLISHED ON SLOPES. EROSION PROTECTION BELOW FILL SLOPES SHALL BE PLACED IMMEDIATELY AFTER CLEARING, PRIOR TO EMBANKMENT

10. PROVIDE SILT BARRIERS AT THE BASE OF CUT AND FILL SLOPES UNTIL COMPLETION OF THE

- 11. ALL DISTURBED AREAS SHALL BE REVEGETATED AS QUICKLY AS POSSIBLE. ALL CUT AND FILL SLOPES SHALL BE SEEDED WITHIN 72 HOURS AFTER GRADING.
- 12. ALL WORK AREAS TO BE STABILIZED AT THE END OF EACH WORK DAY AND PRIOR TO ANY PREDICTED SIGNIFICANT RAIN EVENT.
- 13. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED: A. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, ARE INSTALLED IN AREAS TO BE PAVED
- B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN
- INSTALLED D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- 13. ALL CATCH BASINS, MANHOLES, AND DRAIN LINES SHALL BE THOROUGHLY CLEANED OF ALL SEDIMENT AND DEBRIS AFTER ALL AREAS HAVE BEEN STABILIZED.
- 14. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY DURING CONSTRUCTION.
- 15. THE EROSION CONTROL PRACTICES SHOWN ON THESE PLANS ARE ILLUSTRATIVE ONLY AND SHALL BE SUPPLEMENTED BY THE SITE CONTRACTOR AS NEEDED.

TAX MAP 11 LOT 4 **EROSION CONTROL PLAN** HUCKINS REVOCABLE TRUST SUBDIVISION

22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

SUBDIVISION PLANS

OWNED BY

CONSTRUCTION -ENTRANCE

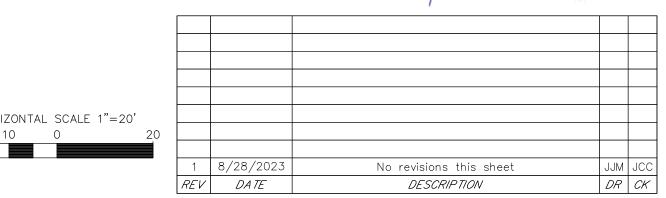
BERTHA L. HUCKINS REVOCABLE TRUST

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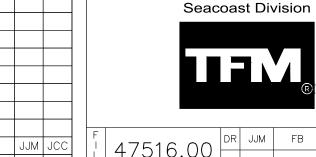
BERTHA L. HUCKINS REVOCABLE TRUST 1"=40' (11"X17")

SCALE: 1"=80' (22"X34")

MAY 9, 2023



(SILT SOCK, SILT FENCE, OR EROSION CONTROL MIX BERM)



Civil Engineers Structural Engineers Traffic Engineers _and Surveyors Landscape Architects Scientists

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HORIZONTAL SCALE 1"=20'

C - 07

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 58,300 SQUARE FEET (1.345 ACRES). CONSTRUCTION SHALL BE PHASED TO LIMIT DISTURBED AREAS TO LESS THAN 5 ACRES.

CRITICAL NOTE: THIS DRAWING IS PROVIDED FOR GENERAL GUIDANCE. ALL SPECIAL EROSION CONTROL MEASURES MUST BE EXECUTED IN ACCORDANCE WITH APPLICABLE CURRENT STATE AND LOCAL REGULATIONS, APPROVED SWPPP, AND PERMIT REQUIREMENTS.

SEQUENCE OF MAJOR ACTIVITIES

- 1. INSTALL PERIMETER CONTROLS, STABILIZED CONSTRUCTION ENTRANCE, AND TEMPORARY EROSION CONTROL MEASURES PER APPROVED SITE DEVELOPMENT PLANS, PERMITS, OR SWPPP IF REQUIRED, PRIOR TO EARTH
- MOVING OPERATIONS. INSTALL STORMWATER TREATMENT PONDS AND SWALES BEFORE ROUGH GRADING THE SITE.
- INSTALL STORMWATER TREATMENT PONDS AND SWALES BEFORE GRADING THE SITE.
- COMPLETE MAJOR GRADING OF SITE, INCLUDING PRIVATE ROAD
- 5. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND SITE IS STABILIZED, REMOVE ALL INLET PROTECTION, SILT BARRIERS, AND SEDIMENT THAT HAS BEEN TRAPPED BY THESE DEVICES.
- 6. CONSULT APPLICABLE REGULATIONS, PERMITS, CONDITIONS, AND APPROVED SWPPP FOR CONDITIONS RELATED TO NOTICE OF TERMINATION, IF REQUIRED.

EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY WILL NOT OCCUR FOR MORE THAN TWENTY ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPÓRARILY CEASED IN THAT AREA. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- 1. BASE COURSE GRAVELS, WHICH MEET THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2, HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- 2. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- 3. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR 4. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT BARRIERS. ALL STORM DRAIN INLETS SHALL BE PROVIDED WITH BARRIER FILTERS. STONE RIPRAP SHALL BE PROVIDED AT THE OUTLETS OF DRAINAGE PIPES WHERE EROSIVE VELOCITIES ARE ENCOUNTERED.

<u>OFF SITE VEHICLE TRACKING</u>

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED.

NSTALLATION, MAINTENANCE, AND INSPECTION OF EROSION AND SEDIMENT CONTROLS

THESE ARE THE GENERAL INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO IMPLEMENT THE PLAN.

- 1. STABILIZATION OF ALL SWALES, DITCHES, AND PONDS IS REQUIRED PRIOR TO DIRECTING FLOW TO THEM.
- 2. THE SMALLEST PRACTICAL PORTION OF THE SITE WILL BE DENUDED AT ONE TIME. (5 AC MAX)
- 3. ALL CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH APPLICABLE REGULATIONS, PERMITS, AND CONDITIONS AND AT LEAST EVERY 7 DAYS <u>OR</u> EVERY 14 DAYS AND AFTER A 0.25 INCHES RAIN EVENT OR
- 4. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
- 5. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT BARRIER WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF
- 6. ALL DIVERSION DIKES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
- 7. TEMPORARY SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND UNHEALTHY
- 8. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.
- 9. THE CONTRACTOR'S SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

FILTERS / BARRIERS

1. SILT SOCKS

A. KNOTTED MESH NETTING MATERIAL SHALL BE DELIVERED TO SITE IN A 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" MATERIAL, FILLED WITH COMPOST CONFORMING TO THE FOLLOWING REQUIREMENTS:

<u>EST</u> <u>REQUIREMENTS</u> MECC 04.11-A 5.0 TO 8.0 TMECC 02.02-B 2" SIEVE AND MIN. 60% GREATER PARTICLE SIZE THAN THE 3" SIEVE

MOISTURE CONTENT

MATERIAL SHALL BE RELATIVELY FREE OF INERT OR FOREIGN MAN-MADE MATERIALS

MATERIAL SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, FREE FROM ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH.

STND TESTING < 60%

- B. SEDIMENT COLLECTED AT THE BASE OF THE SILT SOCK SHALL BE REMOVED ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE SILT SOCK.
- C. SILT BARRIER SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREAS HAS BEEN PERMANENTLY STABILIZED.

2. SEQUENCE OF INSTALLATION

SEDIMENT BARRIERS SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM.

3. MAINTENANCE

- A. SILT BARRIERS SHALL BE INSPECTED WEEKLY AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
- B. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- C. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD (1/3) THE HEIGHT OF THE BARRIER.
- D. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFIRM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

IN ORDER FOR MULCH TO BE EFFECTIVE, IT MUST BE IN PLACE PRIOR TO MAJOR STORM EVENTS. THERE ARE TWO (2) TYPES OF STANDARDS WHICH SHALL BE USED TO ASSURE THIS:

A. APPLY MULCH PRIOR TO ANY STORM EVENT.

THIS IS APPLICABLE WHEN WORKING WITHIN 100' OF WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS, USUALLY BY CONTACTING THE NATIONAL WEATHER SERVICE, TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.

B. REQUIRED MULCHING WITHIN A SPECIFIED TIME PERIOD.

THE TIME PERIOD CAN RANGE FROM 14 TO 21 DAYS OF INACTIVITY ON AN AREA, WHERE THE LENGTH OF TIME VARIES WITH SITE CONDITIONS. PROFESSIONAL JUDGMENT SHALL BE USED TO EVALUATE THE INTERACTION OF SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES, ETC.) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS TO CHOOSE AN APPROPRIATE TIME RESTRICTION.

2. GUIDELINES FOR WINTER MULCH APPLICATION.

WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON) IT SHALL BE AT A RATE OF 6,000 POUNDS OF HAY OR STRAW PER ACRE. A TACKIFIER MAY BE ADDED TO THE MULCH.

MULCH

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE

D. VEGETATIVE PRACTICE

- SHALL BE SCARIFIED TO A DEPTH OF 4". THEN, FURNISH AND INSTALL A LAYER OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THICKNESS AS SPECIFIED IN THESE DIAMS AND DEPRESSIONS WITHOUT THE SERVICE OF LOAM PROVIDING A ROLLED THE SERVICE OF LOAMS AND DEPRESSIONS WITH THE SERVICE 1. AFTER ROUGH GRADING OF THE SUBGRADE HAS BEEN COMPLETED AND APPROVED, THE SUB GRADE SURFACE THICKNESS AS SPECIFIED IN THESE PLANS. ANY DEPRESSIONS WHICH MAY OCCUR DURING ROLLING SHALL BE FILLED WITH ADDITIONAL LOAM, REGRADED AND REROLLED UNTIL THE SURFACE IS TRUE TO THE FINISHED LINES AND GRADES. ALL LOAM NECESSARY TO COMPLETE THE WORK UNDER THIS SECTION SHALL BE SUPPLIED BY
- 2. ALL LARGE STIFF CLODS, LUMPS, BRUSH, ROOTS, DEBRIS, GLASS, STUMPS, LITTER, AND OTHER FOREIGN MATERIAL, AS WELL AS STONES OVER 1" IN DIAMETER, SHALL BE REMOVED FROM THE LOAM AND DISPOSED OF OFF SITE. THE LOAM SHALL BE RAKED SMOOTH AND EVEN.
- 3. THE LOAM SHALL BE PREPARED TO RECEIVE SEED BY REMOVING STONES, FOREIGN OBJECTS AND GRADING TO ELIMINATE WATER POCKETS AND IRREGULARITIES PRIOR TO PLACING SEED. FINISH GRADING SHALL RESULT IN STRAIGHT UNIFORM GRADES AND SMOOTH, EVEN SURFACES WITHOUT IRREGULARITIES TO LOW POINTS.
- 4. SHAPE THE AREAS TO THE LINES AND GRADES REQUIRED. THE SITE SUBCONTRACTOR'S ATTENTION IS DIRECTED TO THE SCHEDULING OF LOAMING AND SEEDING OF GRADED AREAS TO PERMIT SUFFICIENT TIME FOR THE STABILIZATION OF THESE AREAS. IT SHALL BE THE SITE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE AREAS DURING THE CONSTRUCTION PERIOD AND REGRADE, LOAM AND RESEED ANY DAMAGED AREAS.
- 5. ALL AREAS DISTURBED BY CONSTRUCTION WITHIN THE PROPERTY LINES AND NOT COVERED BY STRUCTURES, PAVEMENT, OR MULCH SHALL BE LOAMED AND SEEDED.
- 6. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF 2 TONS PER ACRE IN F. WHENEVER POSSIBLE ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER. ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
- 7. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 500 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
- 8. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM LOAM SHALL BE RAKED LINTIL THE SURFACE IS FINELY PULVERIZED SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4 1/2 POUNDS AND 5 1/2 POUNDS PER INCH OF WIDTH.
- 9. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN, IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH 2. PRODUCT SPECIFICATION PRACTICES NOT OVER 1/4" AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF
- 10. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AT A RATE OF 1.5 TO 2 TONS PER ACRE. MULCH THAT BLOWS OR WASHES AWAY SHALL BE REPLACED IMMEDIATELY AND ANCHORED USING APPROPRIATE TECHNIQUES FROM THE EROSION AND SEDIMENT CONTROL HANDBOOK.
- 11. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED.
- 12. THE SITE SUBCONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED, INCLUDING CUTTING, AS SPECIFIED HEREIN AFTER UNDER MAINTENANCE AND PROTECTION.
- 13. UNLESS OTHERWISE APPROVED, SEEDING SHALL BE DONE DURING THE APPROXIMATE PERIODS OF EARLY SPRING TO SEPTEMBER 30, WHEN SOIL CONDITIONS AND WEATHER ARE SUITABLE FOR SUCH WORK. IN NO CASE SHALL THE WEED CONTENT EXCEED 1 PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. FOR TEMPORARY PLANTINGS AFTER SEPTEMBER 30, TO EARLY SPRING AND FOR TEMPORARY PROTECTION
- A. FOLLOW ABOVE SLOPE, LOAM DEPTH AND GRADING REQUIREMENTS. B. FERTILIZER SHALL BE SPREAD AND WORKED INTO THE SURFACE AT A RATE OF 500 POUNDS PER ACRE.

MULCHING AND SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES: WINTER RYE (FALL SEEDING) 2.5 LBS/1,000 SF OATS (SPRING SEEDING)

2.0 LBS/1,000 SF 1.5 TONS/ACRE

E. <u>WINTER CONSTRUCTION SEQUENCE</u>

- 1. ALL PROPOSED POST-DEVELOPMENT LANDSCAPED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1 AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING
- 2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- 3. AFTER OCTOBER 15TH, INCOMPLETE PARKING AREAS WHERE ACTIVE CONSTRUCTION HAS STOPPED FOR THE WINTER ALL TRAVEL SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3" OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOWFALL AFTER EACH STORM EVENT.

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, SILT BARRIERS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CLEARING OR GRADING OF THE SITE. STRUCTURAL CONTROLS SHALL BE INSTALLED CONCURRENTLY WITH THE APPLICABLE ACTIVITY. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN TWENTY ONE (21) DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN FOURTEEN (14) DAYS OF THE LAST DISTURBANCE. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, SILT BARRIERS AND ANY EARTH/DIKES WILL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.

FOR SINGLE/DUPLEX FAMILY SUBDIVISIONS, WHEN LOT DEVELOPMENT IS NOT PART OF THE PERMIT, THEN LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

WASTE DISPOSAL

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN A DUMPSTER. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

HAZARDOUS WASTE ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE

SANITARY WASTE ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES BY THE

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO

GOOD HOUSEKEEPING: THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION

- A. AN EFFORT WILL BE MADE TO STORE ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB.
- B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- C. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- D. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
- E. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

THE FOLLOWING PRACTICES WILL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

- A. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- B. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
- C. SURPLUS PRODUCT THAT MUST BE DISPOSED OF WILL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
- THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

ALL ON SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS. ONCE

APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS WILL DISCHARGE AND WASH OUT SURPLUS CONCRETE OR DRUM WASH WATER IN A CONTAINED AREA DESIGNATED ON SITE.

1 8/28/2023

REV DATE

No revisions this sheet

DESCRIPTION

CLEANUP SUPPLIES.

SPILL CONTROL PRACTICES

IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND
- B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM RECURRING AND HOW TO CLEANUP THE SPILL IF IT RECURS. A DESCRIPTION OF THE SPILL, ITS CAUSE, AND THE CLEANUP MEASURES WILL BE INCLUDED.
- G. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL METHODS SHALL INCLUDE, BUT NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

SUBDIVISION PLANS

TAX MAP 11 LOT 4

EROSION CONTROL NOTES HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

> OWNED BY BERTHA L. HUCKINS REVOCABLE TRUST

> > PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST

SCALE: NTS

DR CK

Seacoast Division ivil Engineers raffic Engineers and Surveyors

Structural Engineers andscape Architects cientists

| 170 Commerce Way, Suite 102 Portsmouth, NH 03801 Phone (603) 431-2222 Fax (603) 431-0910 www.tfmoran.com

MAY 9, 2023

DR JJM FB 47516.00 | CK | JCC | CADFILE | 47516-00_EROSION-CONTROL

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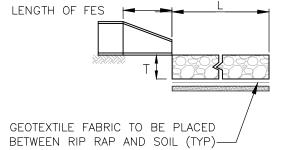
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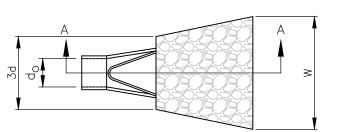


THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION

CONSTRUCTION SPECIFICATIONS:

- 1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- 2. THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED
- 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF
- 4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
- 5. ADD ANIMAL SCREEN TO FLARED END SECTION OUTLET.





SECTION A-A

RIP RAP DIMENSIONS

THAN THE GIVEN SIZE

OCATION	FES-01	FES-02	FES-03	FES-04
50 STONE SIZE:	6"	6"	6"	6"
ENGTH OF APRON (L):	10.0'	22.5	10.0'	22.0'
WIDTH OF APRON (W):	7.0'	14.5'	4.5	12.5
DEPTH OF RIP RAP (T):	9"	9"	9"	9"
% OF WEIGHT SMALLER				

SIZE OF STONE (INCHES) 9.00 TO 12.00 7.80 TO 10.80 6.00 TO 9.00 1.80 TO 3.00

NOT TO SCALE

TRAVEL LANE

2% —**—**

TYPICAL - GRAVEL ROADWAY

TRAVEL LANE

-9" CRUSHED GRAVEL ITEM 304.3

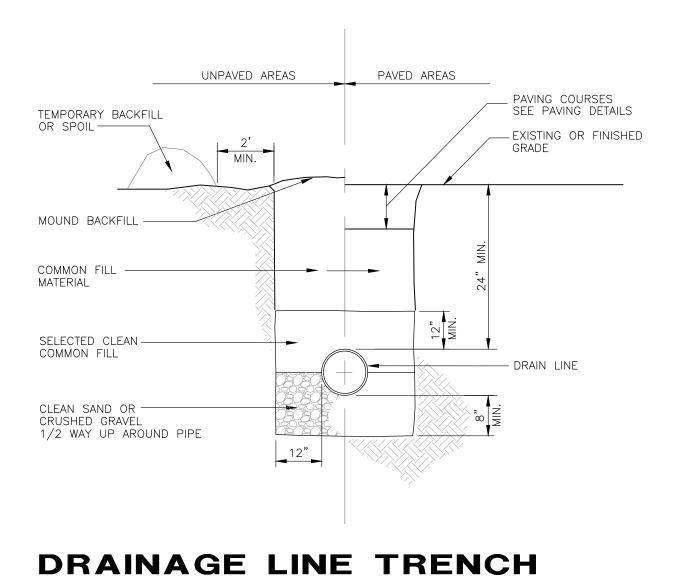
12" BANK RUN GRAVEL ITEM 304.2

SHLDR

5% ———

NOT TO SCALE

RIP RAP AND FLARED END SECTION WITH OUTLET PROTECTION



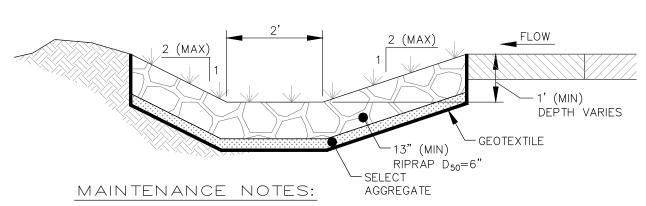
DEPTH VARIES LOAM AND SEED

MAINTENANCE

- 1. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION, HOWEVER IT SHOULD NOT BE MOWED TO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT.
- 2. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
- 3. THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE.
- 4. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
- 5. SLOPE TO BE FULLY STABILIZED BEFORE DIRECTING STORM FLOWS ONTO IT.

CONVEYANCE SWALE

FOR STORMWATER RUNOFF NOT TO SCALE



- 1. RIPRAP LINED SWALE SHOULD BE CHECKED ANNUALLY.
- 2. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY.
- 3. THE SWALE SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS AND SEDIMENT THAT COULD CHANGE FLOW
- 4. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL

RIPRAP GRADATION

KIFKAF GRADA HON						
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE FROM	ТО				
100%	9 INCHES	12	INCHES			
85%	7.8 INCHES	9.2	INCHES			
50%	5.7 INCHES	6.9	INCHES			
15%	3.7 INCHES	5.2	INCHES			

STONE DITCH PROTECTION

GROUND

FOR STORMWATER RUNOFF

NOT TO SCALE

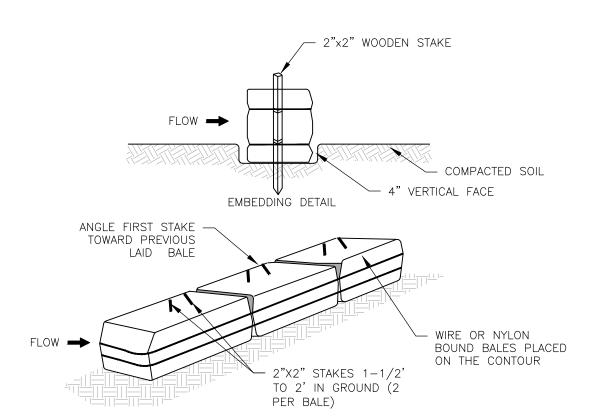
MAINTENANCE

- 1. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION.
- 2. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE BERM BECOMING A SOURCE OF POLLUTION.
- 3. THE BERM SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE BERM.
- 4. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
- 5. SLOPE TO BE FULLY STABILIZED BEFORE DIRECTING STORM FLOWS TO IT.

DIVERSIONARY BERM

FOR STORMWATER RUNOFF

NOT TO SCALE



ANCHORING DETAIL

STRAW OR HAY BALE BARRIER

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4". 3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID

5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT

- BALE TO FORCE BALES TOGETHER.
- 4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

SUBDIVISION PLANS TAX MAP 11 LOT 4

DETAILS

HUCKINS REVOCABLE TRUST SUBDIVISION

OWNED BY

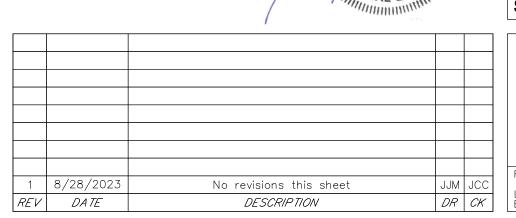
22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

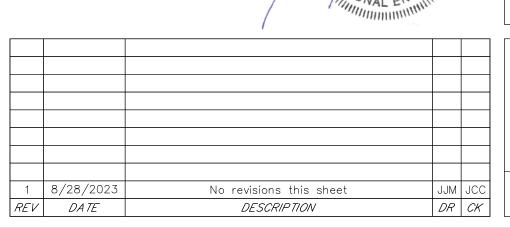
BERTHA L. HUCKINS REVOCABLE TRUST PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST

SCALE: NTS

MAY 9, 2023





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| 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com

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ORIGINAL GROUND

NOTES 1. SILT SOCK SHALL BE FILTREXXTM SILTSOXXTM OR APPROVED EQUIVALENT.

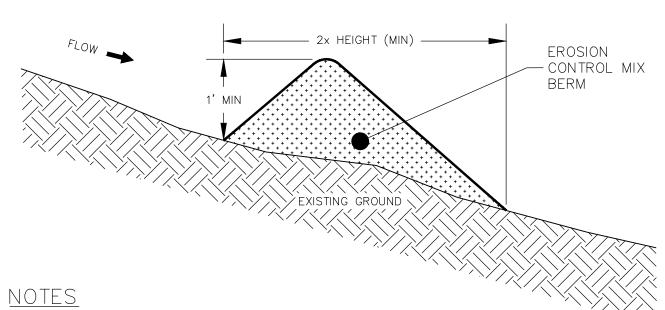
2. SEE SPECIFICATIONS FOR SOCK SIZE AND COMPOST FILL REQUIREMENTS.

REPLACEMENT SHALL BE PERFORMED AS NEEDED. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.

SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR

SILT SOCK

NOT TO SCALE

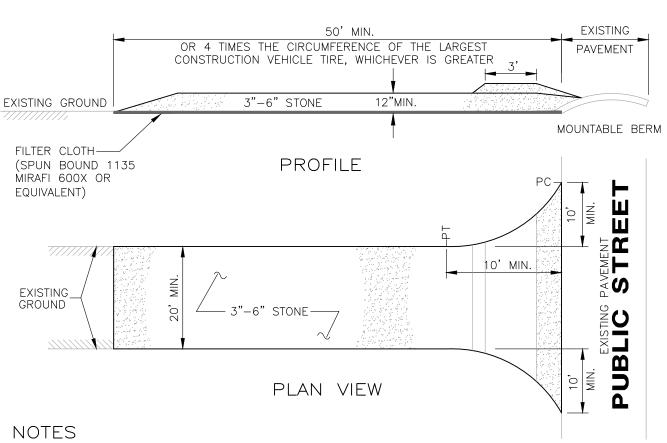


. COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:

- EROSION CONTROL MIX SHOULD 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 SHOULD MEET THE
- THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25% AND 65%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 3" SCREEN, 90% TO 100% PASSING A 1" SCREEN, 70% TO 100% PASSING A $\frac{3}{4}$ " SCREEN, AND A MAXIMUM OF 30% TO 75% PASSING A $\frac{1}{4}$ " SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
- SOLUBLE SALTS CONTENT SHOULD BE < 4.0 mmhos/cm.
- THE pH SHOULD BE BETWEEN 5.0 AND 8.0.
- 2. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. 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.
- 3. THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE.
- 4. THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED.

EROSION CONTROL MIX BERM

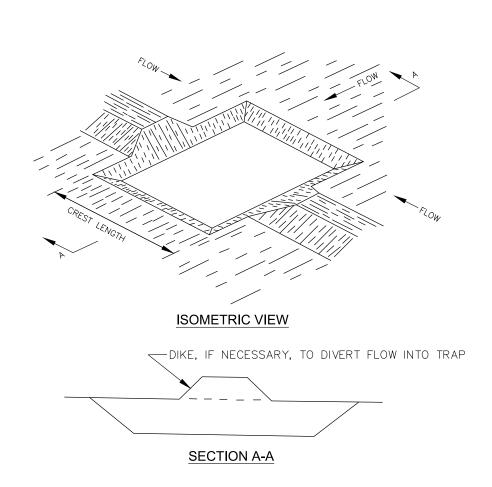
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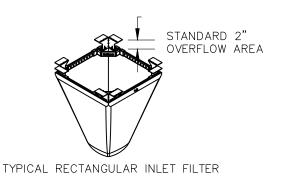
- 1. FILTER CLOTH WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE SURFACE.
- 2. WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL
- 3. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 4. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN STORM EVENT.

STABALIZED CONSTRUCTION **ENTRANCE**

NOT TO SCALE



EXCAVATED EARTH OUTLET SEDIMENT TRAP



FLEXSTORM CATCH-IT FILTERS

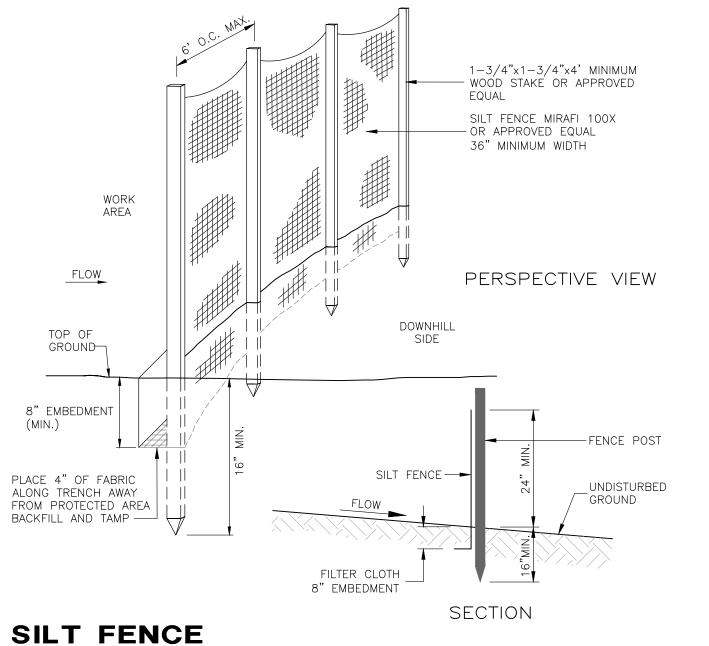
NOTES:

- 1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
- 2. INSPECTION SHOULD OCCUR FOLLOWING ANY RAIN EVENT $> \frac{1}{2}$ ".
- 3. EMPTY THE SEDIMENT BAG PER MANUFACTURER'S SPECIFICATIONS. 4. REMOVED CAKED ON SILT FROM SEDIMENT BAG AND FLUSH WITH MEDIUM
- SPRAY WITH OPTIMAL FILTRATION. 5. REPLACE BAG IF TORN OR PUNCTURED TO $> \frac{1}{2}$ " DIAMETER ON LOWER
- PIPE PROTECTION, INC. A DIVISION OF ADS, INC. WWW.INLETFILTERS.COM (866) 287-8655 INFO@INLETFILTERS.COM

ALL PRODUCTS MANUFACTURED BY INLET &

INLET PROTECTION

NOT TO SCALE



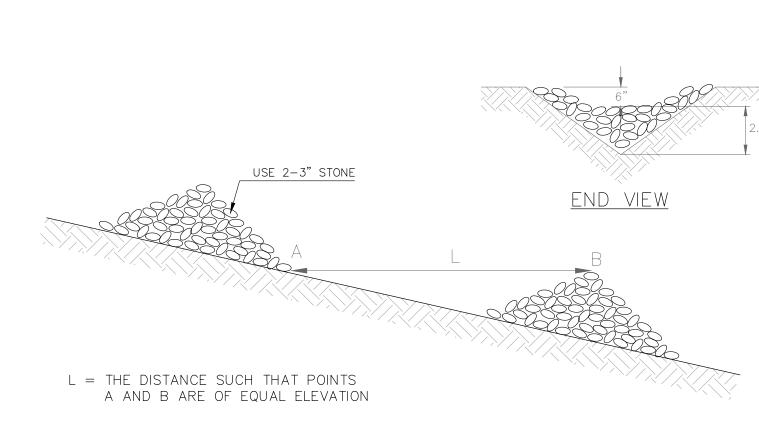
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"OVERLAP¶

(MIN.)

- BACKFILL AND COMPACT TRENCH AFTER INSTALLATION

(MIN.)

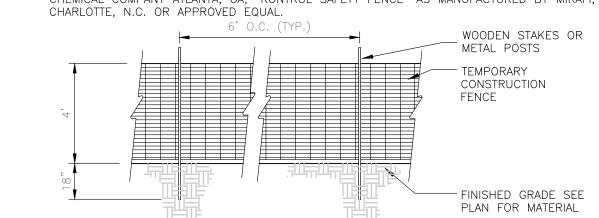


CHECK DAM

STONE CHECK DAM

IN SWALE NOT TO SCALE

1. CONSTRUCTION FENCE TO BE "VISUAL BARRIER FENCE" AS MANUFACTURED BY EXXON CHEMICAL COMPANY ATLANTA, GA; "KONTROL SAFETY FENCE" AS MANUFACTURED BY MIRAFI,



TEMPORARY CONSTRUCTION FENCE

NOTES

- 1. BEGIN AT THE TOP OF BLANKET INSTALLATION AREA BY ANCHORING BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING.
- 2. ROLL THE BLANKET DOWN THE SWALE IN THE DIRECTION OF THE WATER FLOW.
- 3. THE EDGES OF BLANKETS MUST BE STAPLED WITH APPROX. 4 INCH OVERLAP WHERE 2 OR MORE STRIP WIDTHS ARE REQUIRED.
- 4. WHEN BLANKETS MUST BE SPLICED DOWN THE SWALE, PLACE BLANKET END OVER END WITH 6 INCH (MIN.) OVERLAP AND ANCHOR DOWN SLOPE BLANKET IN A 6 INCH DEEP TRENCH.
- 5. BLANKET SHALL BE NORTH AMERICAN GREEN SC-150 OR APPROVED EQUAL.
- 6. THERE SHALL BE NO PLASTIC. OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED.

BLANKET SLOPE PROTECTION

FOR EROSION CONTROL

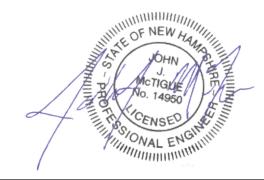
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ON CENTER

─STAPLE 12"`

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SUBDIVISION PLANS

TAX MAP 11 LOT 4

DETAILS

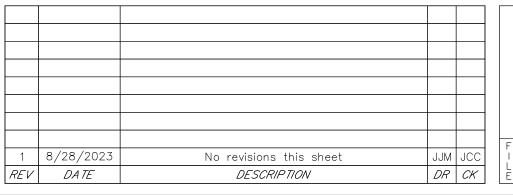
HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

BERTHA L. HUCKINS REVOCABLE TRUST PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST

SCALE: NTS MAY 9, 2023





| 170 Commerce Way, Suite 102 Civil Engineers Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 and Surveyors _andscape Architects cientists

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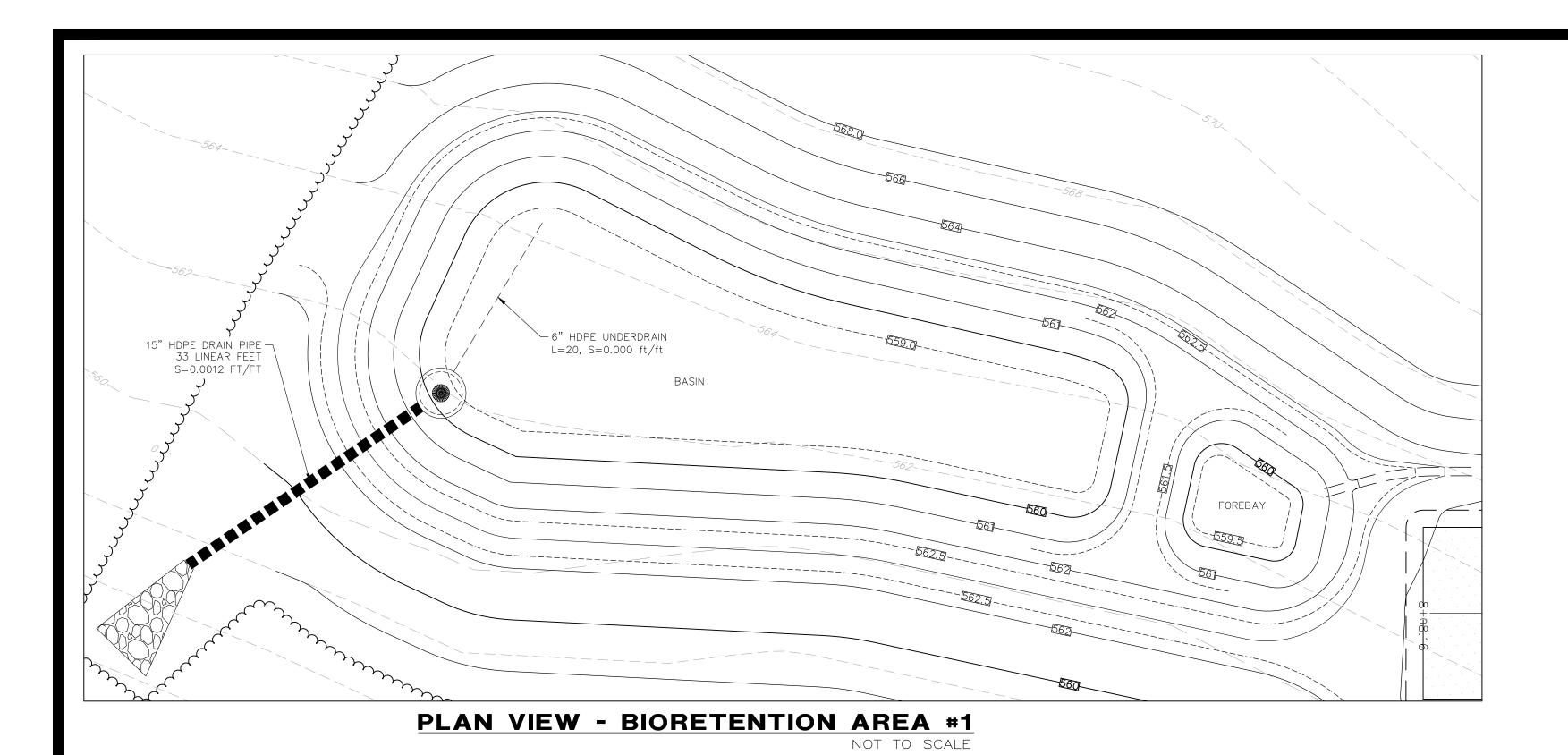
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OULTET PIPE UPPER ORIFICE SEE ELEVATION TABLE

TOP VIEW - OUTLET CONTROL STRUCTURE FOR BIORETENTION AREAS WITH ISR

6" SCH. 40 THREADED END CAP

CAP W/ CONTROL ORIFICE

GRADATION OF MATERIAL COMPONENT MATERIAL | % OF MIXTURE | SIEVE | % BY WEIGHT NO. | PASSING STANDARD | BY VOLUME SIEVE BIORETENTION FILTER MEDIA OPTION A ASTM C-33 CONCRETE LOAMY SAND TOPSOIL 15 TO 25 200 WITH FINES AS MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH 20-30 200 <5 WITH FINES AS INDICATED

3/8" WASHED	CRUSHED STONE*	3/4" WASHED CRUSHED STONE*		
SIEVE SIZE	% PASSING BY WIGHT	SIEVE SIZE	% PASSING BY WIGHT	
1/2"	100	1"	100	
3/8"	95-100	3/4"	90-100	
#4	22-55	1/2"	15-55	
#8	0-10	#10	0-5	
*EQUIVALENT T	O STANDARD WASHED	*EQUIVALENT	TO STANDARD WASHED	
STONE-SECTION	N 702 OF NHDOT	STONE-SECTION 702 OF NHDOT		
STANDARD SPE	CIFICATIONS	STANDARD SPECIFICATIONS		

HYBRID BIORETENTION AREA MIX:

THE GRASS THAT IS PLANTED WITHIN A BIO-FILTRATION SYSTEM WITHIN THE BIO-MEDIA MUST CONSIST OF A COMBINATION OF WARM SEASON GRASS SEED AND COLD SEASON GRASS SEED IN ORDER FOR THE GRASS TO START GROWING FOR STABILIZATION AND CONTINUE GROWING IN THE SANDY WELL-DRAINED ENVIRONMENT. PLANTING SPECIFICATION WILL MEET REQUIREMENTS AS OUTLINED IN 'VEGETATION NEW HAMPSHIRE SAND AND GRAVEL PITS' MIX 1 (WARM SEASON GRASSES) (15 LBS/AC) AND INCLUDE ANNUAL AND PERENNIAL RYE GRASS SEED (15 LBS/AC); THE NEW ENGLAND NATIVE WARM SEASON GRASS MIX (23 LBS/AC) BY NEW ENGLAND WETLAND PLANTS, INC.; RAIN GARDEN MIX 180 (15 LBS/AC & 15 LBS/AC OF RYE)/RAIN GARDEN GRASS MIX 180 (20 LBS/AC & 10 LBS/AC OF RYE) BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL.

- 1. WHEN CONTRACTOR EXCAVATES BIORETENTION AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
- 2. SOIL BIORETENTION FILTER MEDIA SHALL BE AS SHOWN ABOVE. "BIO-MEDIA" MEANS BIORETENTION FILTER
- 3. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATION) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
- 5. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF INFILTRATION COMPONENTS OF THE
- 6. WHERE BIORETENTION AREA BOTTOM IS UNLINED, IT TO BE ROTOTILLED PRIOR TO INSTALLING
- PEA GRAVEL OR COARSE SAND. 7. A PROFESSIONAL ENGINEER SHALL BE PRESENT DURING THE CONSTRUCTION OF THE RAIN GARDENS TO ENSURE THAT ALL OF THE CRITERIA ARE MET AND THAT A REPORT BE SUBMITTED TO NHDES WHEN CONSTRUCTION OF THE BIORETENTION AREAS ARE COMPLETED.

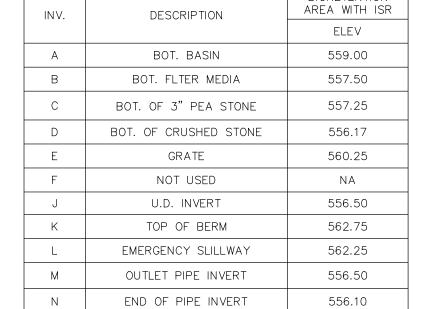
MAINTENANCE REQUIREMENTS

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- BUT NOT LIMITED TO REMOVAL OF ACCUMULATED OF SEDIMENTS OR RECONSTRUCTION OF FILTER 4. VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY AND MAINTAINED IN HEALTHY CONDITION, INCLUDING PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES:

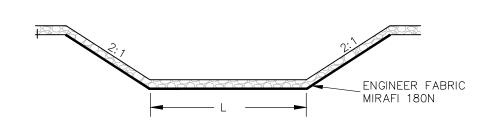
- 1. UNH STORMWATER CENTER
- 2. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

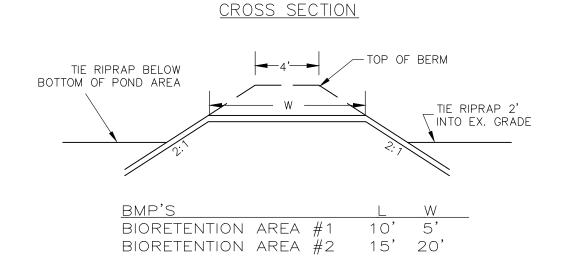
BIORETENTION AREA NOTES



BIORETENTION AREA

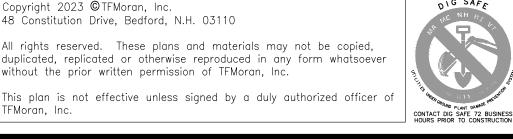
ELEVATION TABLE



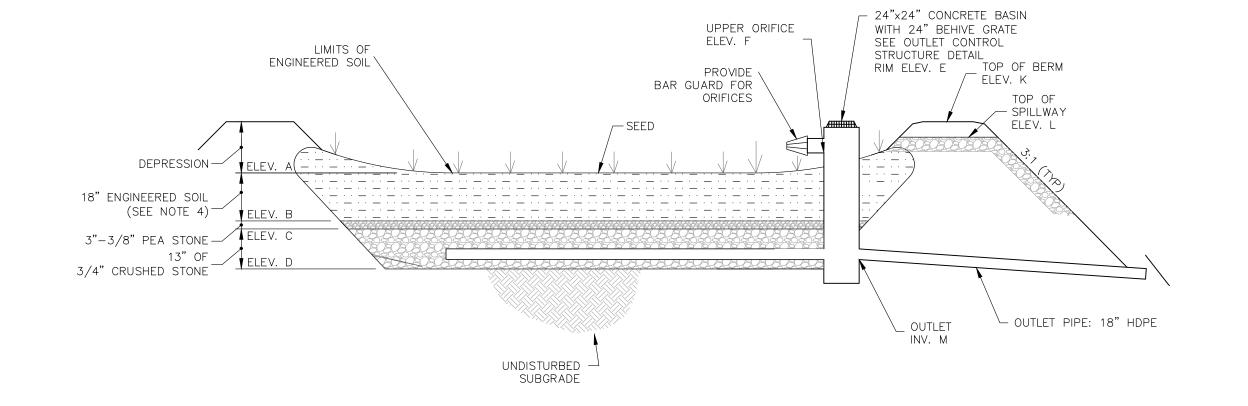


EMERGENCY SPILLWAY PROFILE

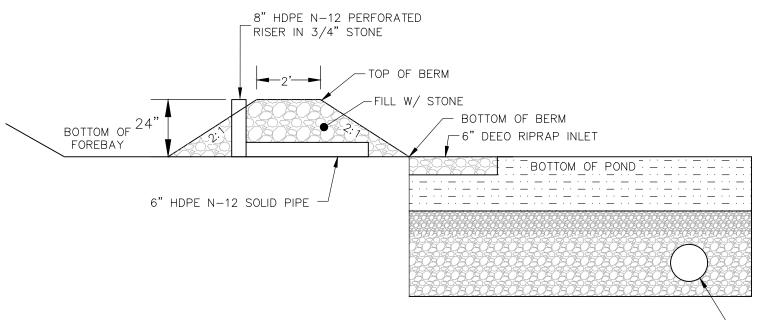
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NOT TO SCALE

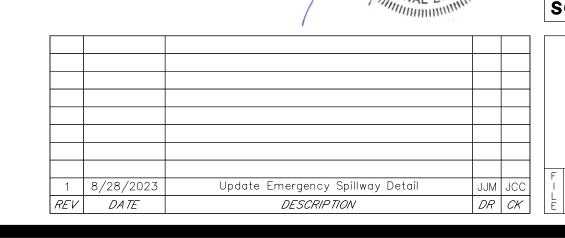


BIORETENTION AREA NOT TO SCALE



RIPRAP SEDIMENT FOREBAY SPILLWAY PROFILE FOR BIORETENTION AREA NOT TO SCALE

6" PERFORATED UNDERDRAIN



SUBDIVISION PLANS

TAX MAP 11 LOT 4

DETAILS

HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

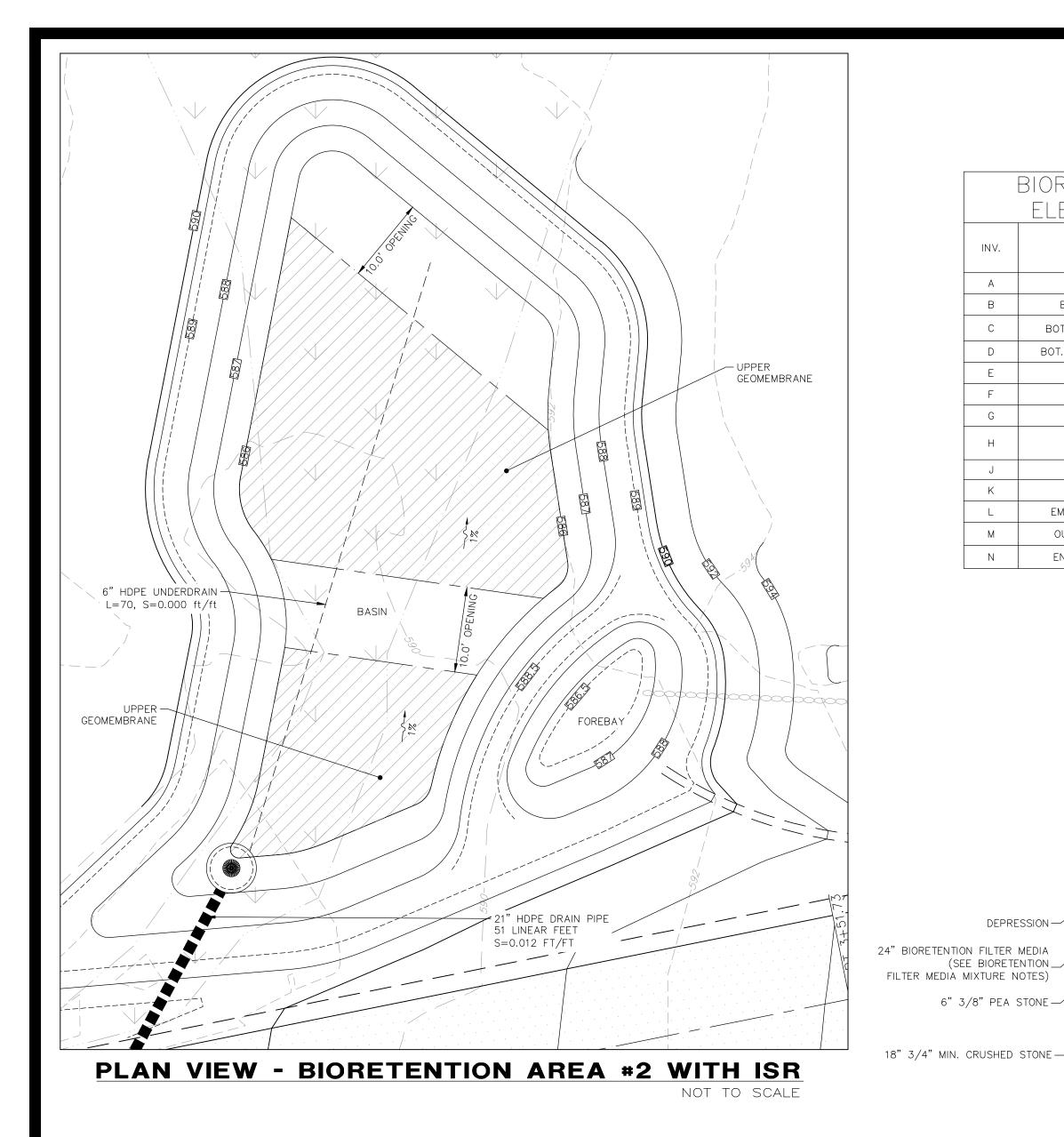
BERTHA L. HUCKINS REVOCABLE TRUST PREPARED FOR

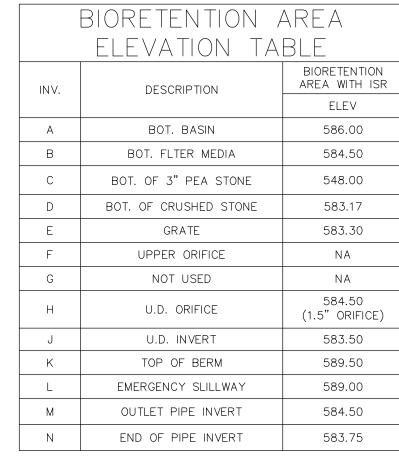
BERTHA L. HUCKINS REVOCABLE TRUST

MAY 9, 2023 SCALE: NTS



TFMoran, Inc.

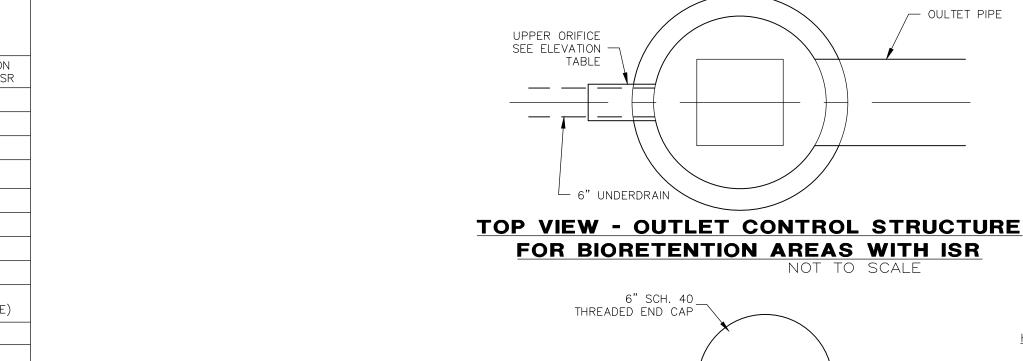


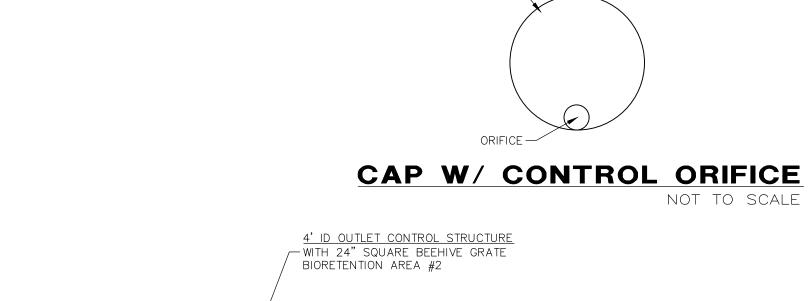


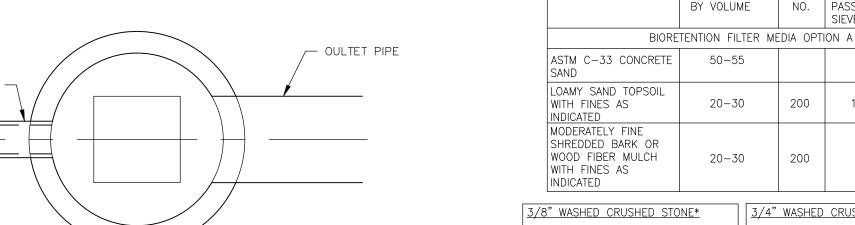
DEPRESSION —

(SEE BIORETENTION ___

6" 3/8" PEA STONE -







3/8" WASHED	CRUSHED STONE*	3/4" WASHED	CRUSHED STONE*
SIEVE SIZE	% PASSING BY WIGHT	SIEVE SIZE	% PASSING BY WIGHT
3/8"	95-100	3/4"	90-100
#4 #8	22-55 0-10	1/2"	15-55 0-5
*EQUIVALENT T	O STANDARD WASHED	*EQUIVALENT	TO STANDARD WASHED
STONE—SECTIONSTANDARD SPE	N 702 OF NHDOT CIFICATIONS	STONE-SECTIONS STANDARD SP	ON 702 OF NHDOT ECIFICATIONS

COMPONENT MATERIAL | % OF MIXTURE | SIEVE | % BY WEIGHT

50-55

20-30

GRADATION OF MATERIAL

NO. PASSING STANDARD

15 TO 25

<5

SIEVE

200

200

HYBRID BIORETENTION AREA MIX:

THE GRASS THAT IS PLANTED WITHIN A BIO-FILTRATION SYSTEM WITHIN THE BIO-MEDIA MUST CONSIST OF A COMBINATION OF WARM SEASON GRASS SEED AND COLD SEASON GRASS SEED IN ORDER FOR THE GRASS TO START GROWING FOR STABILIZATION AND CONTINUE GROWING IN THE SANDY WELL-DRAINED ENVIRONMENT. PLANTING SPECIFICATION WILL MEET REQUIREMENTS AS OUTLINED IN 'VEGETATION NEW HAMPSHIRE SAND AND GRAVEL PITS' MIX 1 (WARM SEASON GRASSES) (15 LBS/AC) AND INCLUDE ANNUAL AND PERENNIAL RYE GRASS SEED (15 LBS/AC); THE NEW ENGLAND NATIVE WARM SEASON GRASS MIX (23 LBS/AC) BY NEW ENGLAND WETLAND PLANTS, INC.; RAIN GARDEN MIX 180 (15 LBS/AC & 15 LBS/AC OF RYE)/RAIN GARDEN GRASS MIX 180 (20 LBS/AC & 10 LBS/AC OF RYE) BY ERNST CONSERVATION SEEDS, OR APPROVED EQUAL.

- 1. WHEN CONTRACTOR EXCAVATES BIORETENTION AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
- 2. SOIL BIORETENTION FILTER MEDIA SHALL BE AS SHOWN ABOVE. "BIO-MEDIA" MEANS BIORETENTION FILTER
- 3. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM
- EXCAVATION) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION. 5. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF INFILTRATION COMPONENTS OF THE
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BUT NOT LIMITED TO REMOVAL OF ACCUMULATED OF SEDIMENTS OR RECONSTRUCTION OF FILTER

DESIGN REFERENCES:

- 2. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

BIORETENTION AREA NOTES

BIORETENTION AREA (WITH ISR)

PROVIDE

ORIFICES

BAR GUARD FOR

NOT TO SCALE

LINER NOTES
ACCEPTABLE OPTIONS INCLUDE:

6" PERFORATED -

UNDERDRAIN

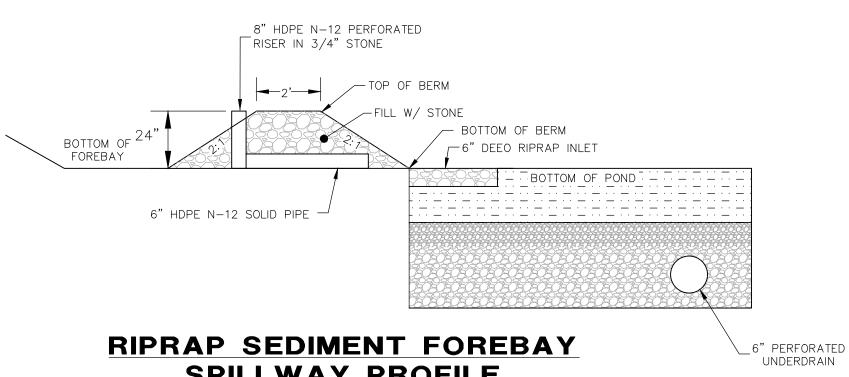
A. 6-12" IN CLAY SOIL (MINIMUM 15% PASSING #200 SIEVE AND A MAXIMUM PERMEABILITY OF 1X10⁻⁵ CM/S)

) 。 。 。 。 。 。 |

SEAL AROUND -

LINER TO PIPE

* A 40 MIL PVC LINER WITH SAND BEDDING AND NON-WOVEN GEOTEXTILE



40 MIL HDPE GEOMEMBRANE

40 MIL HDPE IMPERMEABLE LINER -

WITH MIRAFI 140N LAID ON TOP

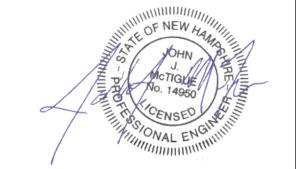
NO BREAKS OR OPENINGS,

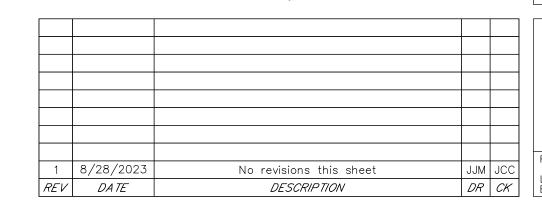
SEAMS TO BE SEALED.

SEE PLAN VIEW ON THIS \ SHEET FOR LIMITS OF

GEOMEMBRANE

SPILLWAY PROFILE FOR BIORETENTION AREA NOT TO SCALE





BIORETENTION AREA #2: 21" HDPE

6" PVC SCH. 40 THREADED END CAP. ORIFICE SIZI

PER ELEVATION TABLE

THREADED 90° ELBOW

PRESSURE FITTING

WITH 3/4" WASHED

-3' SUMP FILLED

STONE

48" DIA. CONCRETE

MANHOLE

SUBDIVISION PLANS

TAX MAP 11 LOT 4

DETAILS

HUCKINS REVOCABLE TRUST SUBDIVISION 22 HILLSIDE DRIVE - STRAFFORD, NEW HAMPSHIRE

OWNED BY

BERTHA L. HUCKINS REVOCABLE TRUST PREPARED FOR

BERTHA L. HUCKINS REVOCABLE TRUST

SCALE: NTS MAY 9, 2023

Seacoast Division | 170 Commerce Way, Suite 102 Structural Engineers Portsmouth, NH 03801 Traffic Engineers Phone (603) 431-2222 Land Surveyors Fax (603) 431-0910 Landscape Architects www.tfmoran.com cientists 47516.00 | CK | JCC | CADFILE | DR JJM FB C - 1247516-00_DETAILS

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