ASSESSORS:
TAX MAP 19, LOT 39

ZONING:
BUSINESS B-4 DISTRICT
AQUIFER PROTECTION DISTRICT

RECORD OWNER:
MARSH HILL MANAGEMENT, LLC

REFERENCES:
DEED BOOK 37916, PAGE 93
PLAN BOOK 246, PLAN 17
PLAN BOOK 218, PLAN 49
PLAN BOOK 162, PLAN 114
1970 COUNTY LAYOUT OF CROSS ROAD
1900 COUNTY LAYOUT OF BRIDGE STREET

COMPREHENSIVE PERMIT SITE PLAN

2041 BRIDGE STREET
DRACUT, MASSACHUSETTS 01826
FOR
MARSH HILL MANAGEMENT, LLC

SURVEY NOTES:

1) THE VERTICAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). SAID DATUM WAS ESTABLISHED VIA GPS OBSERVATIONS UTILIZING NAD83 (NA2011) EPOCH 2010.00 (MYCS2) AND GEOID 18.
2) UNDERGROUND UTILITIES ARE SHOWN HEREON FROM FIELD LOCATIONS OF SURFACE VISIBLE STRUCTURES. OTHER UNDERGROUND UTILITIES MAY EXIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, SIZE & ELEVATION OF ALL UTILITIES WITHIN THE AREA OF PROPOSED WORK AND TO CONTACT "DIG-SAFE" AT 811 AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR CONSTRUCTION.
3) THE LIMIT OF BORDERING VEGETATED WETLANDS SHOWN HEREON WAS DELINEATED BY HANCOCK ASSOCIATES ON JULY 20, 2023 AND LOCATED VIA FIELD SURVEY BY HANCOCK ASSOCIATES ON AUGUST 17, 28 & 29, 2023.
4) THE SURVEYED PREMISES AS SHOWN HEREON IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA, OR OTHER FLOOD AREA, AS SHOWN ON FEMA NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 25017C0135E, HAVING AN EFFECTIVE DATE OF JUNE 4, 2010.
5) THIS PLAN IS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY HANCOCK ASSOCIATES IN AUGUST OF 2023.

REGULATORY NOTES

1. CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.
2. CONTRACTOR SHALL MAKE HIMSELF AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
3. ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATIONS SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.

GENERAL NOTES

1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.
2. UNLESS OTHERWISE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.
3. CONTRACTOR SHALL FURNISH CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS. THIS WORK SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR.
4. SAFETY MEASURES, CONSTRUCTION METHODS AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF CONTRACTOR.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND / OR REMOVAL HEREON. DAMAGED IMPROVEMENTS SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.
6. THIS PLAN IS NOT INTENDED TO SHOW AN ENGINEERED BUILDING FOUNDATION DESIGN, WHICH WOULD INCLUDE DETAILS AND FINAL ELEVATIONS OF FOOTINGS, WALLS AND SUBSURFACE DRAINAGE TO PREVENT INTERIOR FLOODING. SEE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.
7. ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.
8. RIM ELEVATIONS SHOWN FOR NEW STRUCTURES ARE APPROXIMATE AND ARE PROVIDED TO ASSIST CONTRACTOR WITH MATERIAL TAKEOFFS. FINISH RIM ELEVATIONS SHOULD MATCH PAVEMENT, GRADING OR LANDSCAPING, UNLESS SPECIFICALLY INDICATED OTHERWISE.
9. WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH OWNER REQUIREMENTS.
10. THE CONTRACTOR SHALL VERIFY THE LOCATION AND RELATIVE ELEVATION OF BENCH MARKS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
11. PROPOSED BUILDING FOUNDATION CONFIGURATION AND LOCATION ON THE LOT AS SHOWN ARE CONCEPTUAL AND SHALL BE VERIFIED AS TO CONFORMANCE WITH FINAL ARCHITECTURAL PLANS AND ZONING ORDINANCES PRIOR TO CONSTRUCTION.
12. SILT FENCE SHOWN HEREON SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS WITHIN BUFFER ZONE, AND SHALL SERVE AS THE LIMIT OF WORK.

EROSION CONTROL NOTES

BEST MANAGEMENT PRACTICES (BMP) FOR EROSION AND SEDIMENTATION CONTROL ARE STAKED SILT FENCE/STRAW WATTLE, HYDRO SEEDING, AND PHASED DEVELOPMENT. MANY STORMWATER BMP TECHNOLOGIES (E.G., INFILTRATION TECHNOLOGIES) ARE NOT DESIGNED TO HANDLE THE HIGH CONCENTRATIONS OF SEDIMENTS TYPICALLY FOUND IN CONSTRUCTION RUNOFF AND MUST BE PROTECTED FROM CONSTRUCTION-RELATED SEDIMENT LOADINGS. CONSTRUCTION BMP'S MUST BE MAINTAINED.

IN DEVELOPING THE PROPOSED PROJECT CERTAIN MEASURES WILL BE IMPLEMENTED TO MINIMIZE IMPACTS EROSION AND SEDIMENTATION COULD HAVE ON SURROUNDING AREAS. THIS SECTION ADDRESSES ITEMS THAT INVOLVE PHASED CONSTRUCTION ACTIVITIES, PROPER CONSTRUCTION TECHNIQUES, CLOSE SURVEILLANCE OF WORKMANSHIP, AND IMMEDIATE RESPONSE TO EMERGENCY SITUATIONS. THE DEVELOPER MUST BE PREPARED TO PROVIDE WHATEVER REASONABLE MEASURES ARE NECESSARY TO PROTECT THE ENVIRONMENT DURING CONSTRUCTION AND TO STABILIZE ALL DISTURBED AREAS AS SOON AS CONSTRUCTION EN

PRE-CONSTRUCTION

1. PRIOR TO CLEARING, EXCAVATION, CONSTRUCTION, OR ANY LAND DISTURBING ACTIVITY REQUIRING A PERMIT, THE APPLICANT, THE APPLICANT'S TECHNICAL REPRESENTATIVE, THE GENERAL CONTRACTOR, PERTINENT SUBCONTRACTORS, AND ANY PERSON WITH AUTHORITY TO MAKE CHANGES TO THE PROJECT, SHALL MEET WITH THE TOWN'S DESIGNATED AGENT AND TO REVIEW THE PERMITTED PLANS AND PROPOSED IMPLEMENTATION.
2. THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION ON-SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO STRAW WATTLES AND CRUSHED STONE.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED ON THE PLAN OR IN THE DECISIONS. THE CONTRACTOR IS TO INSTALL STRAW WATTLE FOR EROSION CONTROL BARRIERS UNLESS SPECIFIED OTHER WISE ON THIS PLAN.

PRELIMINARY SITE WORK

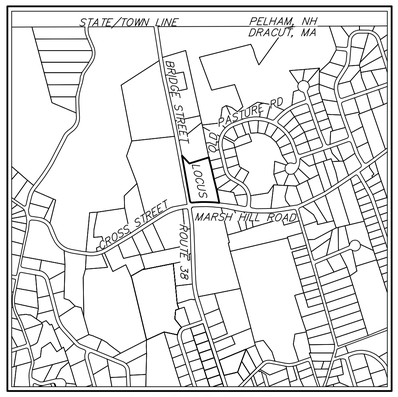
1. MATERIALS SUCH AS GRAVEL TO BE REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROL SHALL BE UTILIZED ALONG THE DOWN SLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN FOR MORE THAN THREE WEEKS.
2. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL STRAW BALE DIKES, SILT FENCES, OR ARMORED DIKES SHALL BE CONSIDERED

SITE INSPECTIONS DURING CONSTRUCTION

1. DURING CONSTRUCTION, THE PERMITTEE OR HIS/HER AGENT SHALL CONDUCT AND DOCUMENT INSPECTIONS OF ALL CONTROL MEASURES NO LESS THAN WEEKLY OR AS SPECIFIED IN THE PERMIT, AND PRIOR TO AND FOLLOWING ANTICIPATED STORM EVENTS. THE PURPOSE OF SUCH INSPECTIONS WILL BE TO DETERMINE THE OVERALL EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL PLAN, AND THE NEED FOR MAINTENANCE OR ADDITIONAL CONTROL MEASURES.

LANDSCAPING/SEEDING

1. LANDSCAPING/SEEDING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES.
2. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW THE ESTABLISHMENT OF VEGETATION, TEMPORARY MULCHING WITH STRAW, WOOD CHIPS WEIGHTED WITH SNOW FENCE OR BRANCHES, OR OTHER METHODS SHALL BE PROVIDED.
3. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED AND ITS SURFACE SMOOTHED TO THE SPECIFIED GRADES.
4. THE USE OF HERBICIDES IS STRONGLY DISCOURAGED.
5. HYDRO SEEDING IS ENCOURAGED FOR STEEP SLOPES. APPLICATION RATES ON SLOPES GREATER THAN 3:1 SHALL HAVE A MINIMUM SEEDING RATE OF 5-LBS/1000 SF. A LATEX OR FIBER TACKIFIER SHALL BE USED ON THESE SLOPES AT A MINIMUM RATE OF 50 LBS. OF TACKIFIER PER 500 GALLONS OF WATER USED.



LOCUS MAP
SCALE: 1"=1000'

PROJECT TEAM

APPLICANT/OWNER
MARSH HILL MANAGEMENT, LLC
39 MYRTLE STREET
LOWELL, MASSACHUSETTS 01852

ARCHITECT
PROCON, INC.
1359 HOOKSETT ROAD
HOOKSETT, NEW HAMPSHIRE 03106

CIVIL ENGINEER
LAND SURVEYOR
WETLAND SCIENTIST
HANCOCK ASSOCIATES
34 CHELMSFORD STREET
CHELMSFORD, MASSACHUSETTS 01824

WAIVER LIST

PER THE "TOWN OF DRACUT ZONING BYLAWS, INCORPORATED FEBRUARY 26, 1701", WITH AMENDMENTS THOUGH NOVEMBER 13, 2023
SECTION 2.4 – SITE PLAN REVIEW
SECTION 3.3 – PERMITTED USES: MULTI-FAMILY DWELLING IN A B-4 DISTRICT
SECTION 4.4 – SIDE YARD SETBACK – (30 FT MIN REQUIRED, 29 FT PROPOSED)
SECTION 4.4 – MAXIMUM BUILDING HEIGHT – (45 FT MAX REQUIRED, 52 FT PROPOSED)
SECTION 4.4 – MAXIMUM BUILDING HEIGHT – (3.5 STORIES MAX REQUIRED, 4 STORIES PROPOSED)
SECTION 4.5.4 – BUFFERING AND SCREENING – (30 FT WIDTH REQUIRED, 5 FT PROPOSED)
SECTION 6.1.8.1.A – PARKING GENERAL STANDARDS – (NO PARKING IN FRONT YARD SETBACK, PARKING PROVIDED IN FRONT YARD SETBACK)
SECTION 6.1.8.1.D – PARKING DIMENSIONS – (10' STALL WIDTH REQUIRED, 9' STALL WIDTH PROVIDED)
SECTION 6.1.8.1.D – PARKING DIMENSIONS – (20 STALL DEPTH REQUIRED, 18' STALL DEPTH PROVIDED)
SECTION 6.1.10 – LANDSCAPING, PARKING -(30' MINIMUM DISTANCE TO TREE PLANTING, 50' PROVIDED)
SECTION 6.2 – SIGN REGULATIONS (OFF PREMISE SIGN REQUIRED AS DIRECTIONAL, PRIMARY SIGN PROPOSED)

PER THE "TOWN OF DRACUT WETLAND PROTECTION BYLAWS" & "TOWN OF DRACUT WETLAND BYLAW REGUALTIONS"
SECTION 5.1.4.1.2 – NO DISTURBANCE WITHIN 25 FEET OF A RESOURCE AREA
SECTION 5.1.4.1.3 – NO STRUCTURES, RETAINING WALLS, OR IMPERVIOUS SURFACES WITHIN 50 FEET OF A RESOURCE AREA
LOCAL SETBACKS FROM RESOURCE AREAS REQUESTED TO BE WAIVED FOR COMPLIANCE WITH MA 310 CMR 10.00 ONLY

PER THE "TOWN OF DRACUT BYLAWS -STORMWATER AND EROSION CONTROL BYLAW"
SECTION VI – STORMWATER PERMIT REQUIRED – REQUEST WAIVER OF FORMAL STORMWATER PERMIT FILING. STORMWATER MANAGEMENT HAS BEEN DESIGNED TO FULLY COMPLY WITH LOCAL REGULATIONS AND MA STORMWATER MANAGEMENT STANDARDS.

LEGEND

EXISTING	PROPOSED	
102	102	SURFACE CONTOUR
		STONE WALL
		RETAINING WALL
		FENCE
		(MGR) METAL GUARDRAIL
		EDGE OF PAVEMENT
86.75 x 86.25		CURB WITH TOP AND BOTTOM CURB ELEVATION
		EDGE OF WOODED AREA
S 8"CI S	S 8"CI S	SEWERLINE & MANHOLE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION
D 12"RCP D	D 12"RCP D	DRAINLINE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION, CATCHBASIN, MANHOLE & ROUND CATCHBASIN
W 6"CI	W 6"CI	WATER MAIN WITH SIZE, TEE, GATE VALVE & HYDRANT
G 10"DI		GAS MAIN WITH SIZE & GATE VALVE
UP 2 OHW		EXISTING UTILITY POLE WITH DESIGNATION OVERHEAD WIRES AND GUY POLE
79.3 WFA2		LIMIT OF BORDERING VEGETATED WETLAND WITH FLAG NUMBER AND ELEVATION
		LIMIT OF 100-FOOT WETLAND BUFFER ZONE
		LIMIT OF 50-FOOT WETLAND BUFFER ZONE
		MEAN ANNUAL HIGH WATER
x 100.7	x 100.7	SPOT ELEVATION
93.7 12"M		PROMINENT DECIDUOUS TREE WITH ELEVATION, SIZE AND SPECIES
		LIGHT POLE
		SIGN
DH		DRILL HOLE
DHSB		DRILL HOLE IN STONE BOUND
IP		IRON PIPE
BVW		BORDERING VEGETATED WETLAND
INV.		INVERT
SGC		SLOPED GRANITE CURB
TL		TRAFFIC LIGHT
TBM		TEMPORARY BENCH MARK
		RIP-RAP

DIMENSIONAL REQUIREMENTS

	REQUIRED	PROVIDED
LOT AREA	40,000 SF	230,868 SF
FRONTAGE	200 FT	658.29 FT
LOT WIDTH	50 FT	550± FT
FRONT YARD	50 FT	53± FT
SIDE YARD	30 FT	29± FT[1]
REAR YARD	40 FT	N/A FT[2]
MAXIMUM BUILDING HEIGHT	45 FT	52± FT[1]
MAXIMUM STORIES	3.5	4[1]
MAXIMUM LOT COVERAGE	65 %	22 %

[1] WAIVER REQUESTED
[2] NOT APPLICABLE, CORNER LOT (SECTION 4.3.6)
"CORNER LOTS ARE CONSIDERED TO HAVE TWO FRONT YARD SETBACKS AND TWO SIDE YARD SETBACKS."

SHEET INDEX

COMPREHENSIVE PERMIT SITE PLAN

PROPERTY ADDRESS:
2041 BRIDGE STREET
Dracut, Massachusetts 01826

PREPARED FOR:
Marsh Hill Management, LLC
39 Myrtle Street
Lowell, Massachusetts 01854

HANCOCK ASSOCIATES
Civil Engineers
Land Surveyors
Environmental Consultants
34 CHELMSFORD STREET, CHELMSFORD, MA 01824
VOICE (978) 244-0110, FAX (978) 244-1133
WWW.HANCOCKASSOCIATES.COM

COMMONWEALTH OF MASSACHUSETTS
BRIAN G. BEAUDREAU
CIVIL
No. 54486
REGISTERED PROFESSIONAL ENGINEER
10/28/25

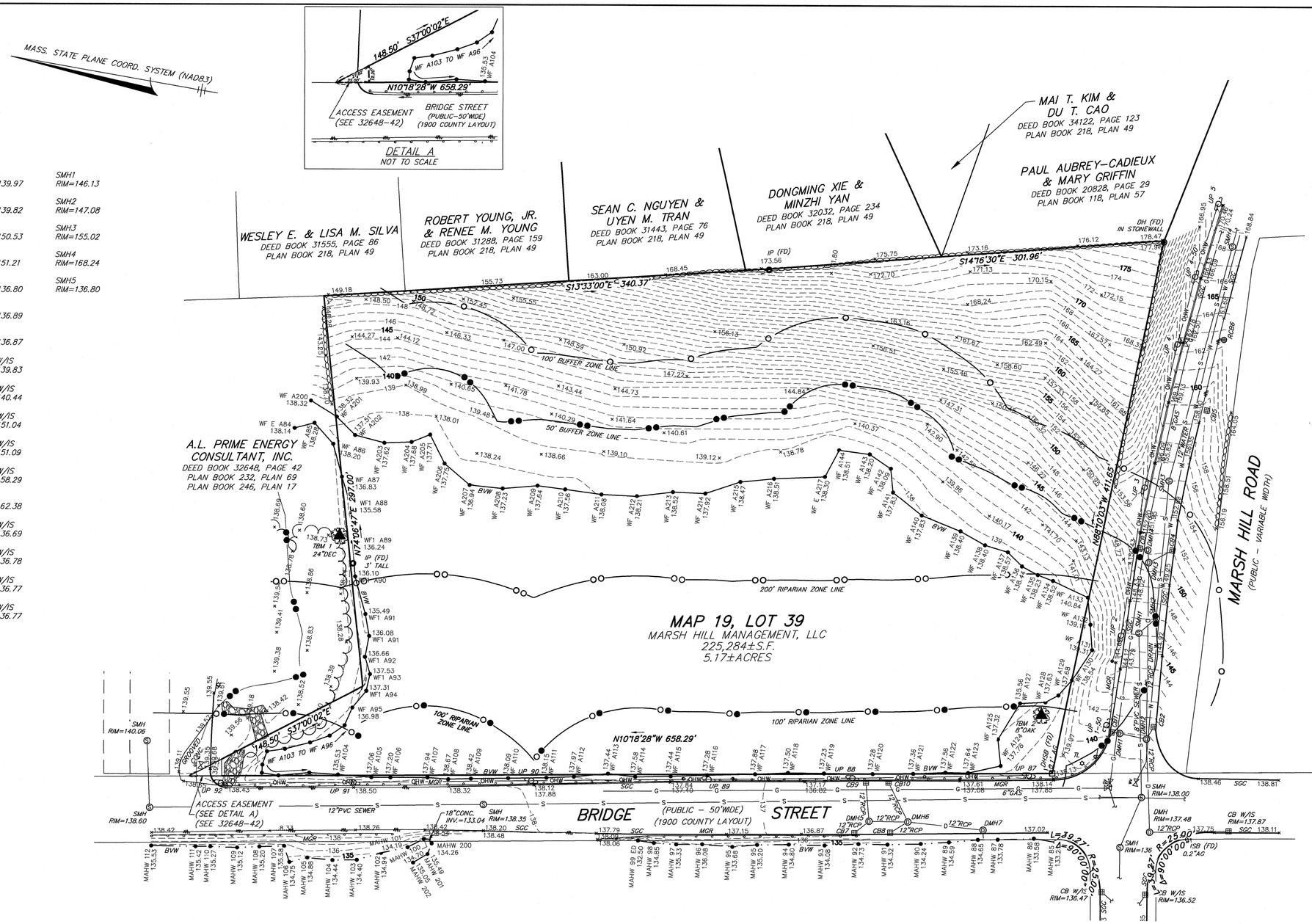
NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

DATE: 02/28/25	DESIGN BY: RCT/MJS
SCALE: AS SHOWN	DRAWN BY: RCT/MJS
APPRV'D BY: BGG	CHECK BY: JP

TITLE SHEET

DWG: 27164-SP1.dwg
LAYOUT: TS(1)
SHEET: 1 OF 8
JOB NO.: 27164

1



LEGEND

- SURFACE CONTOUR
- STONE WALL
- (MGR) METAL GUARDRAIL
- EDGE OF PAVEMENT
- CURB WITH TOP AND BOTTOM CURB ELEVATION
- EDGE OF WOODED AREA
- SEWERLINE & MANHOLE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION
- DRAINLINE WITH PIPE SIZE, MATERIAL & FLOW DIRECTION, CATCHBASIN, MANHOLE & ROUND CATCHBASIN
- WATER MAIN WITH SIZE, TEE, GATE VALVE
- GAS MAIN WITH SIZE & GATE VALVE
- EXISTING UTILITY POLE WITH DESIGNATION OVERHEAD WIRES AND GUY POLE
- LIMIT OF BORDERING VEGETATED WETLAND WITH FLAG NUMBER AND ELEVATION
- LIMIT OF 100-FOOT WETLAND BUFFER ZONE
- LIMIT OF 50-FOOT WETLAND BUFFER ZONE
- MEAN ANNUAL HIGH WATER
- 200 FOOT RIPARIAN ZONE LINE
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- SPOT ELEVATION
- PROMINENT DECIDUOUS TREE WITH ELEVATION, SIZE AND SPECIES
- LIGHT POLE
- SEWER MANHOLE
- DRAIN MANHOLE
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- SIGN
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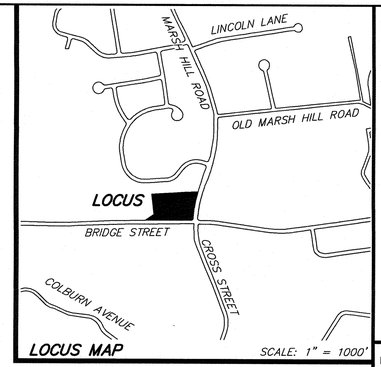
- IRON PIPE
- BORDERING VEGETATED WETLAND
- INVERT
- SLOPED GRANITE CURB
- TRAFFIC LIGHT
- TEMPORARY BENCH MARK
- RIP-RAP

ELEVATION BENCH MARKS

DATUM: (SEE NOTE 1)

NO.	DESCRIPTION	ELEV.
1	24" DECIDUOUS TREE - SPIKE SET 1' AG	139.82'
2	8" OAK - SPIKE SET 1' AG	139.67'



ASSESSORS:

TAX MAP 19, LOT 39

RECORD OWNER:

MARSH HILL MANAGEMENT, LLC

REFERENCES:

DEED BOOK 37916, PAGE 93
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PLAN BOOK 218, PLAN 49
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1970 COUNTY LAYOUT OF CROSS ROAD
1900 COUNTY LAYOUT OF BRIDGE STREET

ZONING:

BUSINESS B-4 DISTRICT
AQUIFER PROTECTION DISTRICT

NOTES:

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5) THIS PLAN IS THE RESULT OF AN ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY HANCOCK ASSOCIATES IN AUGUST OF 2023.

SCALE: 1" = 40'

0 40 80 160

SITE ADDRESS:

#2041 BRIDGE STREET

Dracut, Massachusetts

PREPARED FOR:

MARSH HILL MANAGEMENT LLC

39 Myrtle Street
Lowell, Massachusetts 01854

HANCOCK ASSOCIATES

Civil Engineers

Land Surveyors

Wetland Scientists

34 CHELMSFORD ST., CHELMSFORD, MA 01824
VOICE (978) 244-0110, FAX (978) 244-1133
WWW.HANCOCKASSOCIATES.COM

COMMONWEALTH OF MASSACHUSETTS
DOUGLAS W. ANDRYSICK
NO. 34905
REGISTERED PROFESSIONAL LAND SURVEYOR

2/25/25

NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

DATE: 2/19/2025 DRAWN BY: JAR
SCALE: 1"=40' CHECK BY: JMO

TOPOGRAPHIC PLAN OF LAND IN DRACUT, MASSACHUSETTS

PLOT DATE: Feb 25, 2025 2:36 pm
PATH: X:\27164-Marsh Hill Mgmt-Dracut\Surv\DWG\

DWG: 27164sv.dwg
LAYOUT: EC
SHEET: 1 OF 1

PROJECT NO.: 27164

PARKING REQUIREMENTS

PER THE "TOWN OF DRACUT ZONING BYLAWS, INCORPORATED FEBRUARY 26, 1701", WITH AMENDMENTS THOUGH NOVEMBER 7, 2022. SECTION 6.1.6 TABLE OF OFF STREET PARKING REQUIREMENTS & 6.1.8 PARKING DIMENSIONS.

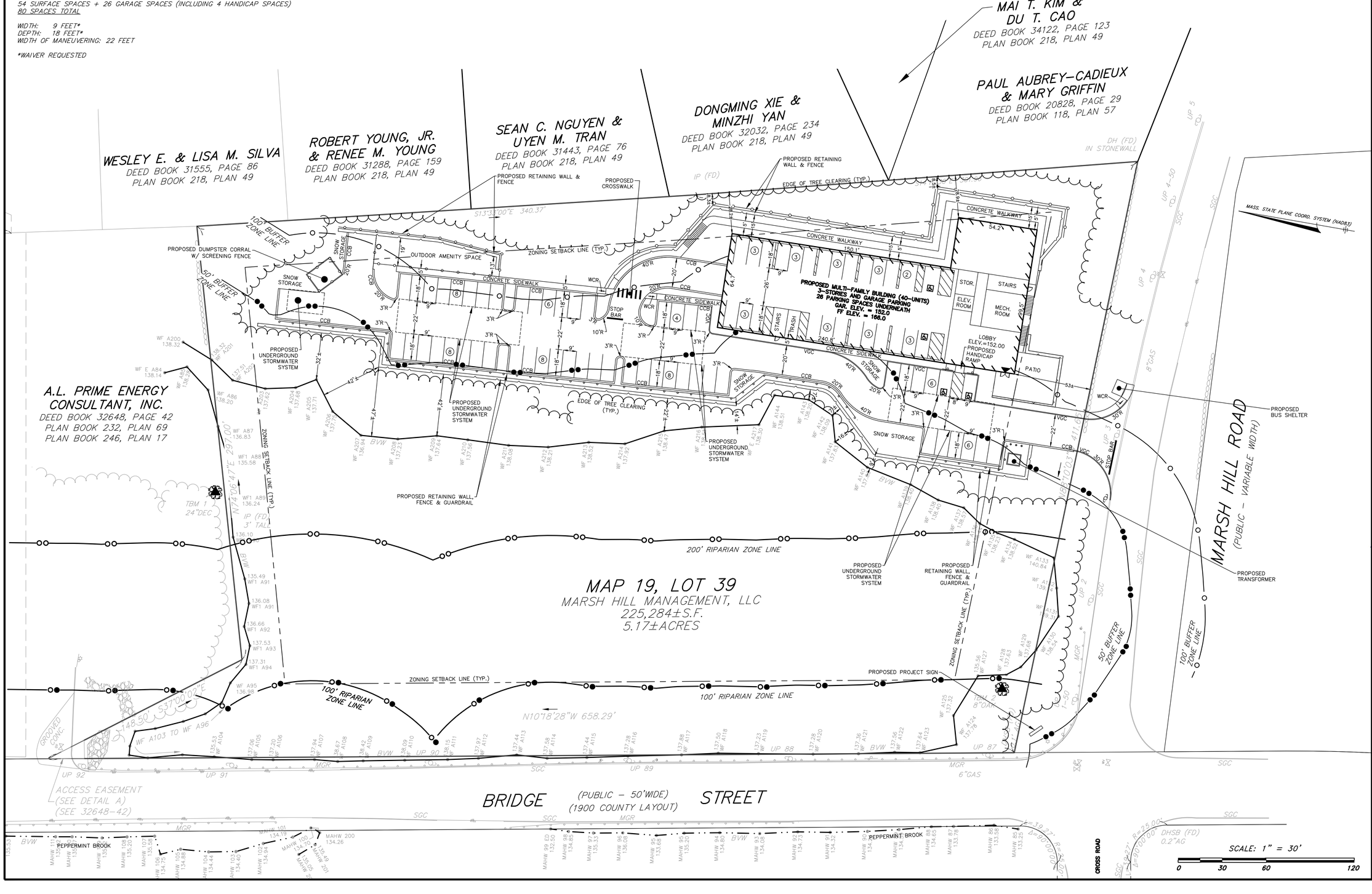
REQUIRED
USE: MULTI-FAMILY DWELLING = 2 SPACES PER DWELLING UNIT
40 UNITS x 2 SPACES PER DWELLING UNIT = 80 SPACES

WIDTH: 10 FEET
DEPTH: 20 FEET
WIDTH OF MANEUVERING: 22 FEET

PROPOSED
54 SURFACE SPACES + 26 GARAGE SPACES (INCLUDING 4 HANDICAP SPACES)
80 SPACES TOTAL

WIDTH: 9 FEET*
DEPTH: 18 FEET*
WIDTH OF MANEUVERING: 22 FEET

*WAIVER REQUESTED



COMPREHENSIVE PERMIT SITE PLAN

PROPERTY ADDRESS:
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Dracut, Massachusetts 01826

PREPARED FOR:
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39 Myrtle Street
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COMMONWEALTH OF MASSACHUSETTS
BRIAN G. BEAUDREAU
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2/28/25

NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

DATE:	02/28/25	DESIGN BY:	RCT/MJS
SCALE:	AS SHOWN	DRAWN BY:	RCT/MJS
APPR'D BY:	BGG	CHECK BY:	JP

LAYOUT AND MATERIALS PLAN

DWG: 27164-SP1.dwg	3
LAYOUT: LM(3)	
SHEET: 3 OF 8	
JOB NO.: 27164	

SOIL TESTING DATA

DATE: 05/09/2024
EVALUATOR: RUSSELL TEDFORD, SE# 14372
WITNESS: TOWN OF DRACUT DPW REPRESENTATIVE

TP-2024-1
DEPTH	HZ	TEXTURE
0-14"	Ap	SANDY LOAM
14-32"	Bw	LOAMY SAND
32-60"	C	FINE SAND

REFUSAL (BOULDERS), NO WATER, REDOX @ 50"

TP-2024-2
DEPTH	HZ	TEXTURE
0-15"	Ap	SANDY LOAM
15-22"	Bw	LOAMY SAND
22-67"	C	FINE SAND

REFUSAL (BOULDERS), WEEPING @ 46", REDOX @ 32"

TP-2024-3
DEPTH	HZ	TEXTURE
0-12"	Ap	SANDY LOAM
12-24"	Bw	LOAMY SAND
24-52"	C	LOAMY SAND

REFUSAL (BOULDERS), NO REDOX OBSERVED

TP-2024-4
DEPTH	HZ	TEXTURE
0-11"	Ap	SANDY LOAM
11-32"	Bw	LOAMY SAND
32-74"	C	LOAMY SAND

REFUSAL (BOULDERS), REDOX @ 59"

TP-2024-5
DEPTH	HZ	TEXTURE
0-15"	Ap	SANDY LOAM
15-35"	Bw	LOAMY SAND
35-55"	C1	SAND
55-80"	C2	LOAMY SAND

REFUSAL (BOULDERS), NO REDOX

TP-2024-6
DEPTH	HZ	TEXTURE
0-14"	Ap	SANDY LOAM
14-29"	Bw	LOAMY SAND
29-55"	C1	SAND
55-66"	C2	LOAMY SAND

REFUSAL (BOULDERS), REDOX @ 45"

TP-2024-7
DEPTH	HZ	TEXTURE
0-12"	Ap	SANDY LOAM
12-26"	Bw	LOAMY SAND
26-42"	C1	LOAMY SAND
42-74"	C2	SAND

REFUSAL (BOULDERS), NO REDOX

DRAINAGE PIPE SCHEDULE

PIPE ID	MATERIAL	LENGTH & SLOPE
P.CB1 -> P.DMH1	12" HDPE	5 LF; 7.00%
P.CB2 -> P.DMH1	12" HDPE	5 LF; 7.00%
P.DMH1 -> P.UIS1	12" HDPE	4 LF; 9.75%
P.UIS1 -> P.OCS1	12" HDPE	10 LF; 1.00%
P.OCS1 -> P.DMH11	12" HDPE	15 LF; 1.33%
P.DMH11 -> P.FES1	18" HDPE	33 LF; 3.90%
P.DMH10 -> P.DMH11	12" HDPE	43 LF; 1.40%
P.DCB1 -> P.DMH10	12" HDPE	131 LF; 15.27%
P.AD1 -> P.DMH13	12" HDPE	7 LF; 1.43%
P.DMH13 -> P.DMH2	12" HDPE	308 LF; 5.98%
P.AD2 -> P.DMH6	12" HDPE	12 LF; 1.25%
P.AD3 -> P.DMH7	12" HDPE	10 LF; 1.00%
P.DMH6 -> P.DMH7	12" HDPE	29 LF; 1.03%
P.AD5 -> P.DMH12	12" HDPE	11 LF; 1.00%
P.DMH12 -> P.DMH2	12" HDPE	208 LF; 1.00%
P.DMH7 -> P.DMH8	12" HDPE	147 LF; 1.02%
P.DMH8 -> P.DMH2	12" HDPE	68 LF; 10.07%
P.DMH2 -> P.UIS2	12" HDPE	4 LF; 6.00%
P.UIS2 -> P.OCS2	12" HDPE	4 LF; 1.00%

DRAINAGE PIPE SCHEDULE, CONT.

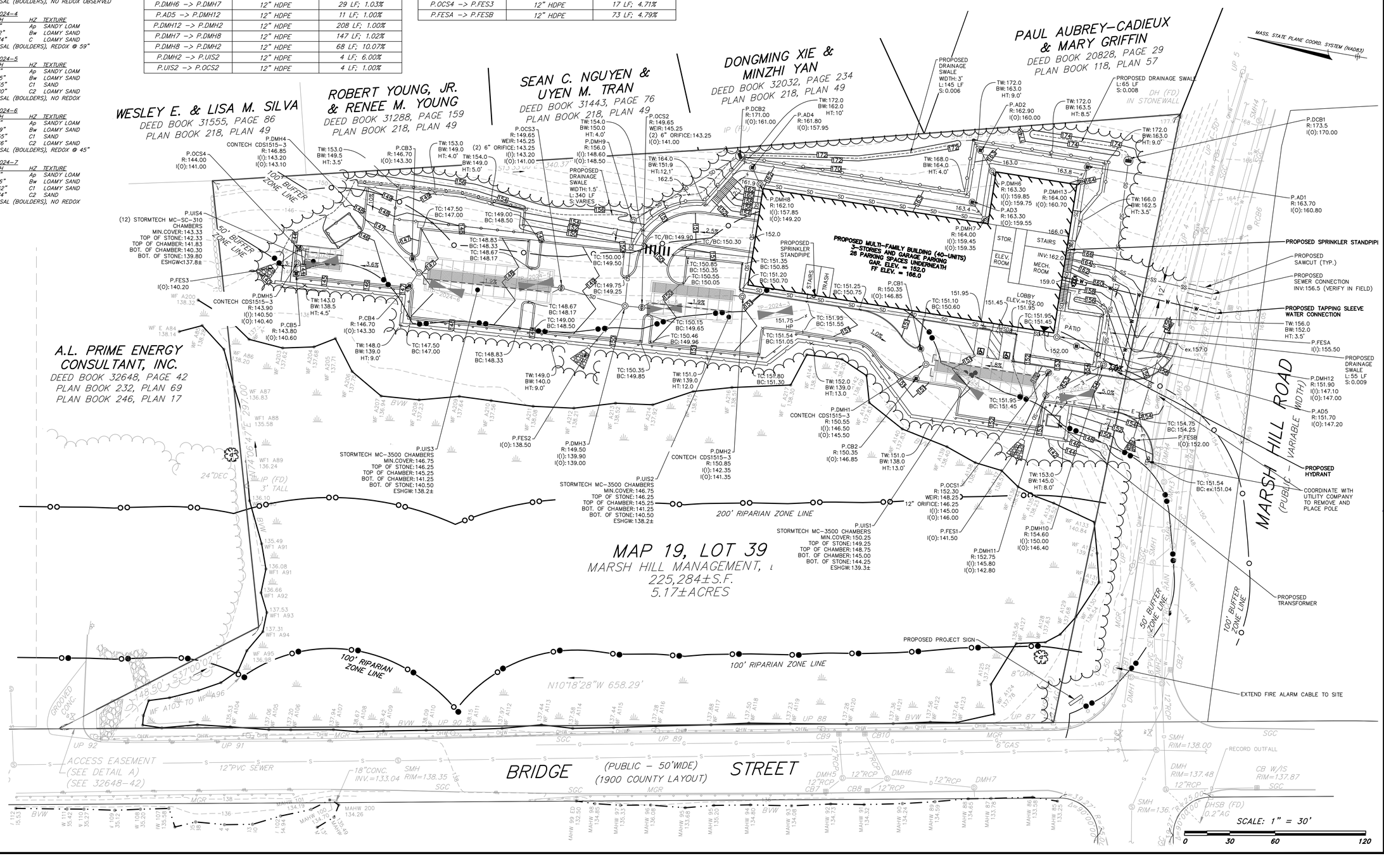
PIPE ID	MATERIAL	LENGTH & SLOPE
P.OCS2 -> P.DMH3	12" HDPE	7 LF; 15.70%
P.DMH3 -> P.FES2	18" HDPE	35 LF; 1.43%
P.DCB2 -> P.DMH9	12" HDPE	78 LF; 15.90%
P.DMH9 -> P.DMH3	12" HDPE	53 LF; 16.23%
P.CB3 -> P.DMH4	12" HDPE	5 LF; 2.00%
P.CB4 -> P.DMH4	12" HDPE	6 LF; 1.67%
P.DMH4 -> P.UIS3	12" HDPE	4 LF; 2.50%
P.UIS3 -> P.OCS3	12" HDPE	4 LF; 2.50%
P.OCS3 -> P.DMH3	12" HDPE	45 LF; 2.44%
P.CB5 -> P.DMH5	12" HDPE	4 LF; 2.50%
P.DMH5 -> P.UIS4	12" HDPE	4 LF; 2.50%
P.UIS4 -> P.OCS4	12" HDPE	4 LF; 2.50%
P.OCS4 -> P.FES3	12" HDPE	17 LF; 4.71%
P.FESA -> P.FESB	12" HDPE	73 LF; 4.79%

UTILITY NOTES:

ALL UTILITY CONNECTIONS SHOWN HEREON ARE TO BE COORDINATED WITH THE RESPECTIVE DEPARTMENTS TO FOLLOW THEIR RULES AND REGULATIONS FOR INSTALLATION PRIOR TO CONSTRUCTION.

EXISTING UTILITY STRUCTURE SCHEDULE

DMH1 RIM=139.97	DMH6 RIM=136.89	CB4 W/IS RIM=151.09	CB9 W/IS RIM=136.77	SMH1 RIM=146.13
DMH2 RIM=139.82	DMH7 RIM=136.87	CB5 W/IS RIM=158.29	CB9 W/IS RIM=136.77	SMH2 RIM=147.08
DMH3 RIM=150.53	CB1 W/IS RIM=139.83	RCB6 RIM=162.38		SMH3 RIM=155.02
DMH4 RIM=151.21	CB2 W/IS RIM=140.44	CB7 W/IS RIM=136.69		SMH4 RIM=168.24
DMH5 RIM=136.80	CB3 W/IS RIM=151.04	CB8 W/IS RIM=136.78		SMH5 RIM=136.80



COMPREHENSIVE PERMIT SITE PLAN

PROPERTY ADDRESS:
2041 BRIDGE STREET
Dracut, Massachusetts 01826

PREPARED FOR:
Marsh Hill Management, LLC
39 Myrtle Street
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HANCOCK ASSOCIATES
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COMMONWEALTH OF MASSACHUSETTS
BRIAN G. GEAUDREAU
CIVIL
No. 54486
REGISTERED PROFESSIONAL ENGINEER

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GRADING, DRAINAGE, AND UTILITIES PLAN

DWG: 27164-SP1.dwg	4
LAYOUT: GDU(4)	
SHEET: 4 OF 8	
JOB NO.: 27164	

EROSION CONTROL NOTES

BEST MANAGEMENT PRACTICES (BMP) FOR EROSION AND SEDIMENTATION CONTROL ARE STAKED SILT FENCE/STRAW WATTLE, HYDRO SEEDING, AND PHASED DEVELOPMENT. MANY STORMWATER BMP TECHNOLOGIES (E.G., INFILTRATION TECHNOLOGIES) ARE NOT DESIGNED TO HANDLE THE HIGH CONCENTRATIONS OF SEDIMENTS TYPICALLY FOUND IN CONSTRUCTION RUNOFF AND MUST BE PROTECTED FROM CONSTRUCTION-RELATED SEDIMENT LOADINGS. CONSTRUCTION BMP'S MUST BE MAINTAINED.

IN DEVELOPING THE PROPOSED PROJECT CERTAIN MEASURES WILL BE IMPLEMENTED TO MINIMIZE IMPACTS EROSION AND SEDIMENTATION COULD HAVE ON SURROUNDING AREAS. THIS SECTION ADDRESSES ITEMS THAT INVOLVE PHASED CONSTRUCTION ACTIVITIES, PROPER CONSTRUCTION TECHNIQUES, CLOSE SURVEILLANCE OF WORKMANSHIP, AND IMMEDIATE RESPONSE TO EMERGENCY SITUATIONS. THE DEVELOPER MUST BE PREPARED TO PROVIDE WHATEVER REASONABLE MEASURES ARE NECESSARY TO PROTECT THE ENVIRONMENT DURING CONSTRUCTION AND TO STABILIZE ALL DISTURBED AREAS AS SOON AS CONSTRUCTION EN

PRE-CONSTRUCTION

1. PRIOR TO CLEARING, EXCAVATION, CONSTRUCTION, OR ANY LAND DISTURBING ACTIVITY REQUIRING A PERMIT, THE APPLICANT, THE APPLICANT'S TECHNICAL REPRESENTATIVE, THE GENERAL CONTRACTOR, PERTINENT SUBCONTRACTORS, AND ANY PERSON WITH AUTHORITY TO MAKE CHANGES TO THE PROJECT, SHALL MEET WITH THE TOWN'S DESIGNATED AGENT AND TO REVIEW THE PERMITTED PLANS AND PROPOSED IMPLEMENTATION.
2. THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION ON-SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO STRAW WATTLES AND CRUSHED STONE.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED ON THE PLAN OR IN THE DECISIONS. THE CONTRACTOR IS TO INSTALL STRAW WATTLE FOR EROSION CONTROL BARRIERS UNLESS SPECIFIED OTHER WISE ON THIS PLAN.

PRELIMINARY SITE WORK

1. MATERIALS SUCH AS GRAVEL TO BE REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROL SHALL BE UTILIZED ALONG THE DOWN SLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN FOR MORE THAN THREE WEEKS.
2. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL STRAW BALE DIKES, SILT FENCES, OR ARMORED DIKES SHALL BE CONSIDERED

SITE INSPECTIONS DURING CONSTRUCTION

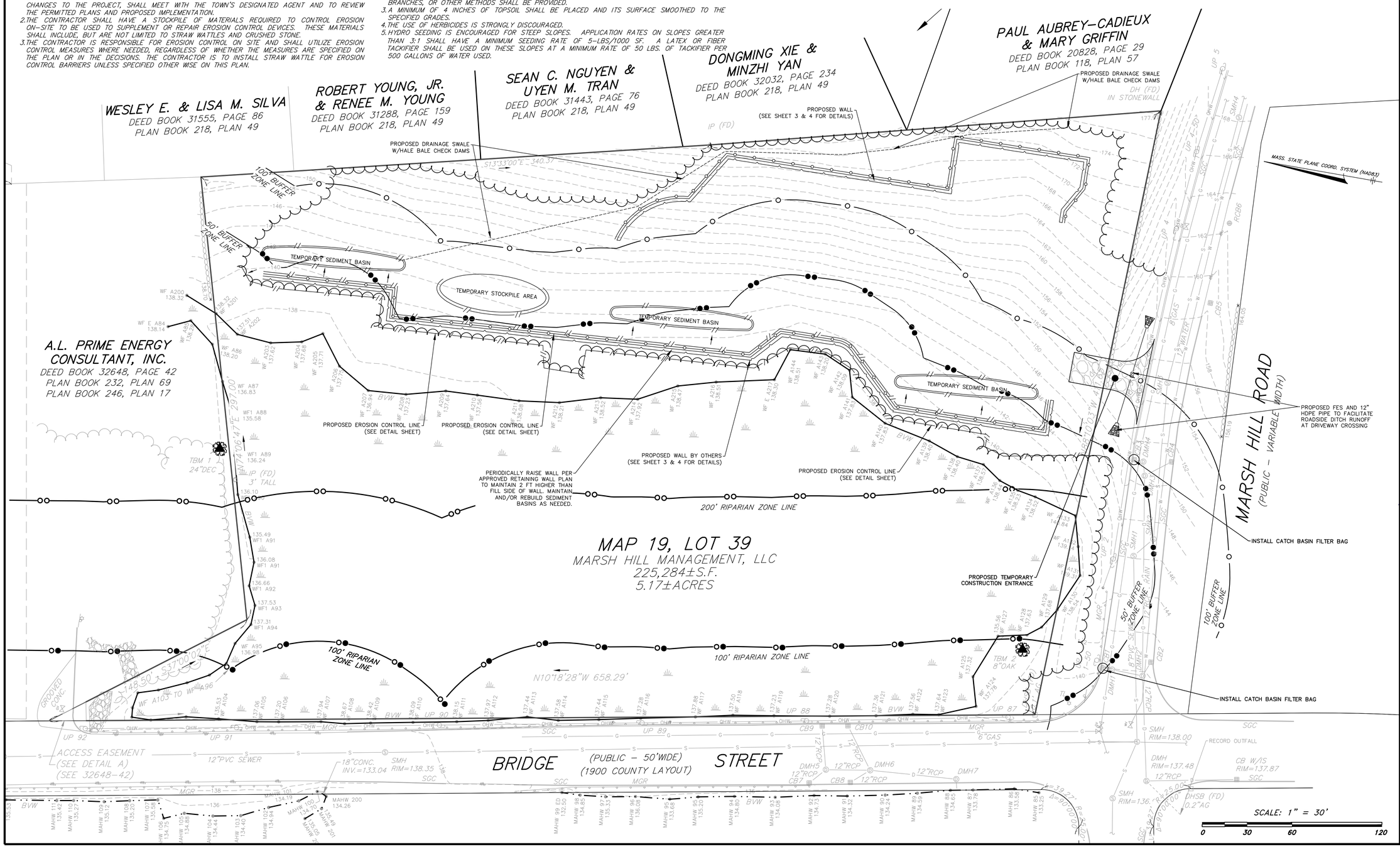
1. DURING CONSTRUCTION, THE PERMITTEE OR HIS/HER AGENT SHALL CONDUCT AND DOCUMENT INSPECTIONS OF ALL CONTROL MEASURES NO LESS THAN WEEKLY OR AS SPECIFIED IN THE PERMIT, AND PRIOR TO AND FOLLOWING ANTICIPATED STORM EVENTS. THE PURPOSE OF SUCH INSPECTIONS WILL BE TO DETERMINE THE OVERALL EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL PLAN, AND THE NEED FOR MAINTENANCE OR ADDITIONAL CONTROL MEASURES.

LANDSCAPING/SEEDING

1. LANDSCAPING/SEEDING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES.
2. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW THE ESTABLISHMENT OF VEGETATION, TEMPORARY MULCHING WITH STRAW, WOOD CHIPS WEIGHTED WITH SNOW FENCE OR BRANCHES, OR OTHER METHODS SHALL BE PROVIDED.
3. A MINIMUM OF 4 INCHES OF TOPSOIL SHALL BE PLACED AND ITS SURFACE SMOOTHED TO THE SPECIFIED GRADES.
4. THE USE OF HERBICIDES IS STRONGLY DISCOURAGED.
5. HYDRO SEEDING IS ENCOURAGED FOR STEEP SLOPES. APPLICATION RATES ON SLOPES GREATER THAN 3:1 SHALL HAVE A MINIMUM SEEDING RATE OF 5-LBS/1000 SF. A LATEX OR FIBER TACKIFIER SHALL BE USED ON THESE SLOPES AT A MINIMUM RATE OF 50 LBS. OF TACKIFIER PER 500 GALLONS OF WATER USED.

CONSTRUCTION SEQUENCE:

1. INSTALL PERIMETER CONTROLS AND CATCH BASIN FILTER BAGS AS SHOWN ON THE PLAN. LAND SURVEYOR TO STAKE OUT LOCATIONS.
2. CLEAR AND GRUB 10' WIDE AREA FOR RETAINING WALL. EXCAVATE TOP AND SUB LAYERS OF SOIL, INSTALL STONE BASE, AND AT LEAST 2 COURSES OF GRAVITY BLOCK WALL.
3. FLARE END SECTIONS (FES) AND 12" HDPE PIPE TO BE INSTALLED TO FACILITATE DRIVEWAY CONSTRUCTION. TEMPORARY CONSTRUCTION ENTRANCE TO BE BUILT AND EARTH WORK TO COMMENCE FOR BUILDING AND RETAINING WALL CONSTRUCTION. CONTRACTOR TO RETAIN REQUIRED TOP SOIL FOR FUTURE USE AND HAUL EXCESS MATERIAL OFFSITE.
4. CONTRACTOR TO CONSTRUCT A DRAINAGE SWALE WITH HAY BALE CHECK DAMNS ALONG EASTERN PROPERTY LINE TO CAPTURE OFFSITE STORMWATER AND DIRECT RUNOFF TO TEMPORARY SEDIMENT BASIN.
5. COMMENCE CUT/FILL OPERATIONS, RAISING WALL TO MAINTAIN MINIMUM 2 FEET HIGHER THAN FILL SIDE OF WALL. MAINTAIN AND/OR REBUILD SEDIMENT PONDS AND DIVERSION SWALES TO SUIT.
6. RETURN AREA BELOW WALL TO NATURAL WITH EROSION CONTROL SEED MIX.
7. PONDS SHALL BE DRAINED AS REQUIRED, WITH DISCHARGE BEING TREATED PRIOR TO RELEASE ABOVE SEDIMENT CONTROL LINE.
8. BUILDING FOUNDATION AND WALL CONSTRUCTION ADJACENT TO EASTERN PROPERTY LINE SHALL BE BUILT NEXT. FALL PROTECTION FOR WALL TO BE INSTALLED
9. CONTINUE WITH WALL CONSTRUCTION ACROSS THE SITE. ADJUST TEMPORARY SEDIMENT BASIN TO DISCHARGE AROUND PROPOSED WALL.
10. AT THE CONCLUSION OF WALL CONSTRUCTION ADJACENT TO WETLANDS AND MARSH HILL ROAD, DISTURBED AREAS AT THE BASE OF WALL SHALL BE STABILIZED. SEDIMENT CONTROL SHALL BE CONSTRUCTED AT THE TOP OF WALL.



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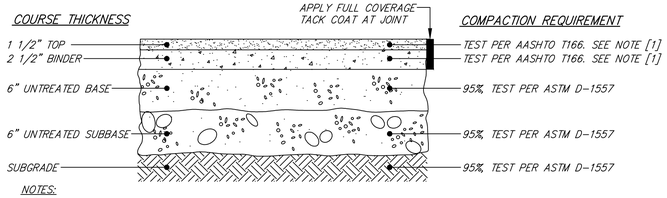
EROSION AND SEDIMENTATION CONTROL PLAN

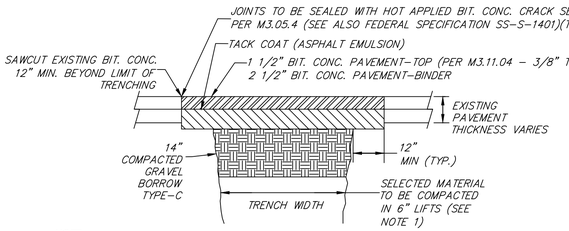
DWG: 27164-SP1.dwg	5
LAYOUT: ESC(5)	
SHEET: 5 OF 8	
JOB NO.: 27164	



NOTES:
[1] COMPACT TO TEST AVERAGE OF 96%, NO TEST LOWER THAN 94%
[2] SPECIFICATIONS PER MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS-2022 (MDTSS)

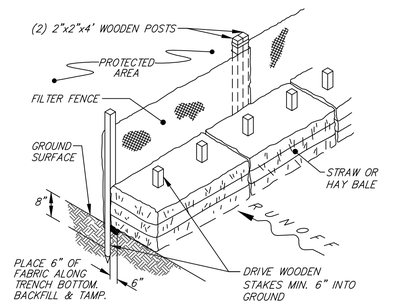
MATERIAL	SPECIFICATION	MAXIMUM AGGREGATE OR PARTICLE SIZE (IN.)
TOP - BITUMINOUS CONCRETE	AASHTO M 323	1/2
BINDER- BITUMINOUS CONCRETE	AASHTO M 320	1
BASE - GRAVEL BORROW	MDTSS M1.03.0 TYPE C	2
SUBBASE - GRAVEL BORROW	MDTSS M1.03.1	2
UNSUITABLE SUBGRADE - ORDINARY BORROW	AASHTO M 145 A-1, A-2-4, OR A-3	12

BITUMINOUS CONCRETE PAVEMENT
TYPICAL CROSS SECTION
NOT TO SCALE

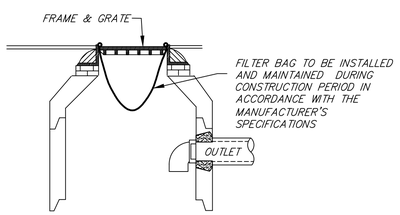


NOTE:
COMPACTION EQUIPMENT SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS TO OBTAIN THE COMPACTION STANDARDS DESCRIBED IN THE CONSTRUCTION NOTES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. IN PROXIMITY TO STRUCTURES, A JUMPING JACK COMPACTOR SHALL BE REQUIRED.

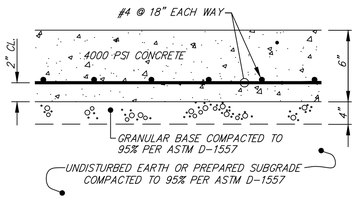
FINAL TRENCH PATCH PAVING
TYPICAL SECTION
NOT TO SCALE



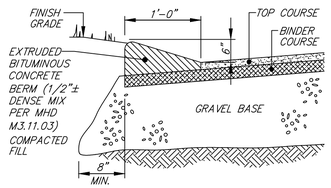
HAY BALE AND SILT FENCE BARRIER
ISOMETRIC VIEW
NOT TO SCALE



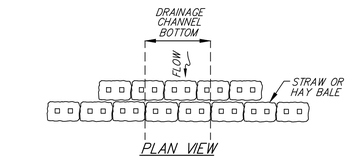
CATCH BASIN FILTER BAG
TYPICAL CROSS SECTION - NOT TO SCALE



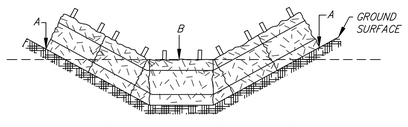
CONCRETE PAD
TYPICAL CROSS SECTION
NOT TO SCALE



CAPE COD BERM
CROSS SECTION
NOT TO SCALE



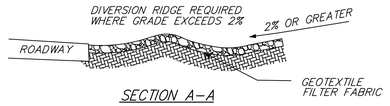
PLAN VIEW



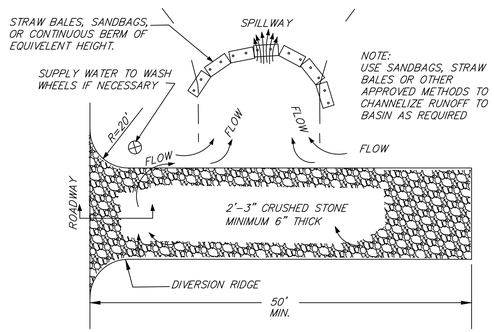
POINTS "A" SHALL BE HIGHER THAN POINT "B"

CROSS SECTION

HAY BALE CHECK DAM
NOT TO SCALE



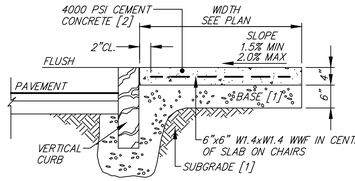
SECTION A-A



PLAN

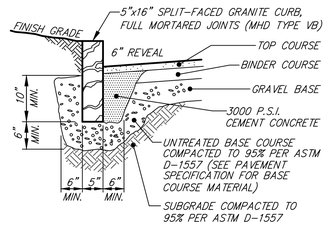
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE

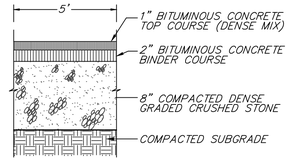


NOTES:
[1] COMPACT TO 95% PER ASTM D-1557
[2] CONTROL JOINT EVERY 5 LF, EXPANSION JOINT EVERY 50 LF.

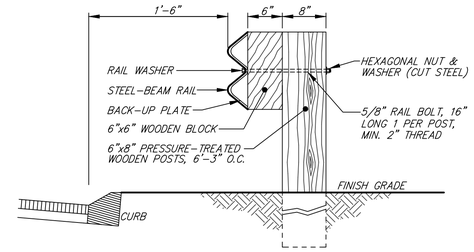
CEMENT CONCRETE WALK
CROSS SECTION
NOT TO SCALE



VERTICAL GRANITE CURB
CROSS SECTION
NOT TO SCALE

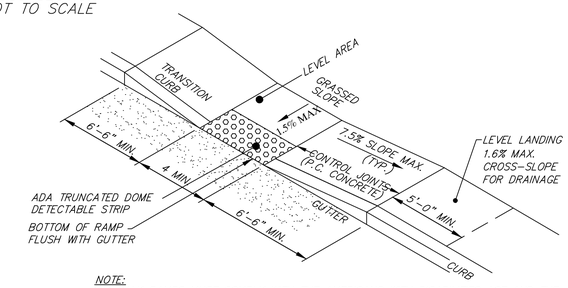


BITUMINOUS CONCRETE WALKWAY
TYPICAL CROSS SECTION - NOT TO SCALE



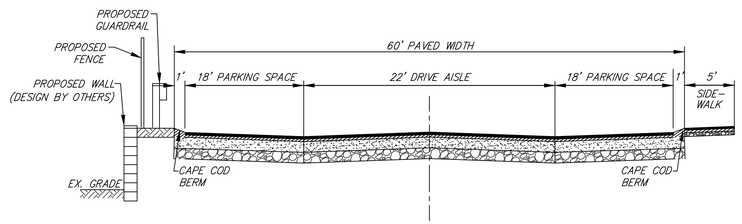
NOTES: 1. FOR LOCATION, SEE SHEET ___.
2. ALL HARDWARE TO BE GALVANIZED.

STEEL-BEAM GUARDRAIL w/WOOD POST
TYPICAL CROSS SECTION
NOT TO SCALE

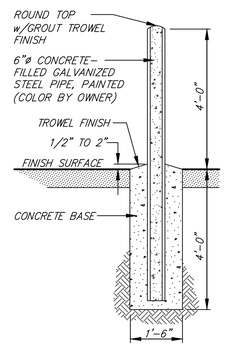


NOTE:
SIDEWALK RAMPS MUST COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND THE MASSACHUSETTS HIGHWAY DEPARTMENT WHEELCHAIR RAMP STANDARDS, LATEST REVISION.

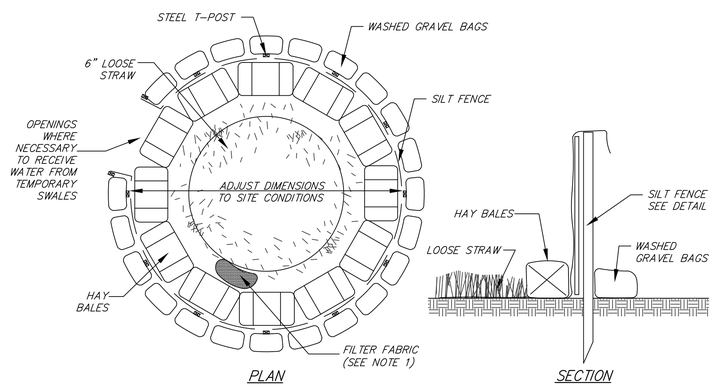
HANDICAP RAMP/WHEEL CHAIR RAMP (WCR)
ISOMETRIC VIEW
NOT TO SCALE



TYPICAL ROADWAY CROSS SECTION
NOT TO SCALE



BOLLARD
TYP. CROSS SECTION
NOT TO SCALE



PLAN SECTION

NOTES:
1. FILTER FABRIC SHALL BE GEOTEXTILE SILT FENCE AS NOTED ON EROSION AND SEDIMENTATION PLAN.

TEMPORARY SEDIMENT BASIN
NOT TO SCALE

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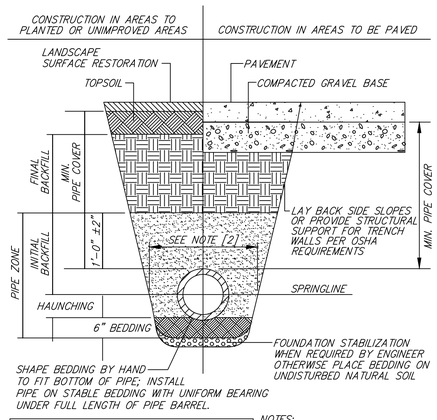
DETAIL SHEET (1 OF 3)

DWG: 27164-SP1.dwg	6
LAYOUT: DET(6)	
SHEET: 6 OF 8	
JOB NO.: 27164	



FOUNDATION, BEDDING, & BACKFILL MATERIALS	HDP, PVC	RC, DI
PIPE MATERIAL		
FOUNDATION STABILIZATION	[6]	[6]
BEDDING	[1]	[1]
HAUNCHING	[1]	[1]
INITIAL BACKFILL	[1]	[1]
FINAL BACKFILL	[4]	[4]
MIN. PIPE COVER	[5]	[5]

NOTES:

[1] PLACE 3/4"± GRADED GRANULAR BACKFILL AT OPTIMUM MOISTURE IN HORIZONTAL, 8"–DEEP, LOOSE LAYERS; COMPACT TO 95% PER ASTM D–1557.

[2] MINIMUM WIDTH OF TRENCH MEASURED AT THE SPRINGLINE OF THE PIPE, INCLUDING ANY NECESSARY SHEATHING:

PIPE I.D.	WIDTH
LESS THAN 21"	O.D. + 12"
21" TO 42"	O.D. + 24"
GREATER THAN 42"	O.D. + 30"

[3] INSTALL PIPE IN CENTER OF TRENCH.

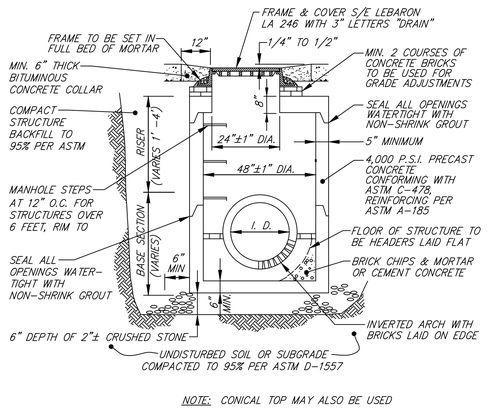
[4] IN PLANTED OR UNIMPROVED AREAS, USE ON–SITE EXCAVATED MATERIAL FOR FINAL BACKFILL. COMPACT TO 95% PER ASTM D–1557. IN PAVED AREAS, OBTAIN ENGINEER APROVAL OF ON–SITE EXCAVATED MATERIALS FOR USE AS FINAL BACKFILL.

[5] MINIMUM COVER OVER TOP OF PIPE:

PIPE MATERIAL	HDP, PVC	RC, DI
WATER	5'–0"	5'–0"
SEWER	4'–0"	4'–0"
DRAIN	1'–6"	1'–0"

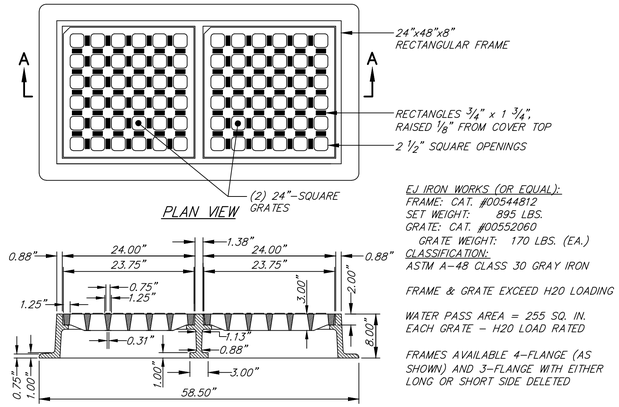
[6] FOR FOUNDATION STABILIZATION, USE 2"± CRUSHED STONE.

PIPE TRENCH
TYPICAL CROSS SECTION
NOT TO SCALE



NOTE: CONICAL TOP MAY ALSO BE USED

DRAIN MANHOLE
TYPICAL CROSS SECTION
NOT TO SCALE



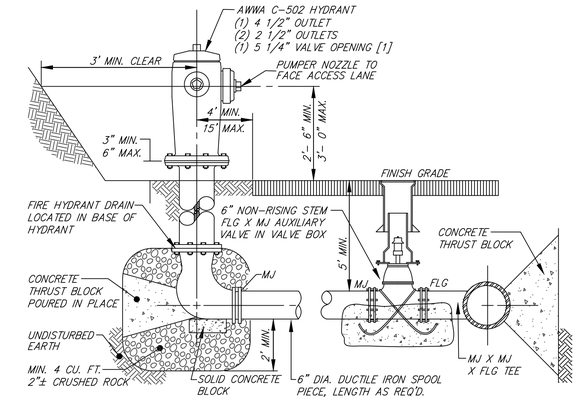
EJ IRON WORKS (OR EQUAL):
FRAME: CAT. #00544812
SET WEIGHT: 895 LBS.
GRATE: CAT. #00552060
GRATE WEIGHT: 170 LBS. (EA.)
CLASSIFICATION:
ASTM A–48 CLASS 30 GRAY IRON

FRAME & GRATE EXCEED H20 LOADING

WATER PASS AREA = 255 SQ. IN. EACH GRATE – H20 LOAD RATED

FRAMES AVAILABLE 4–FLANGE (AS SHOWN) AND 3–FLANGE WITH EITHER LONG OR SHORT SIDE DELETED

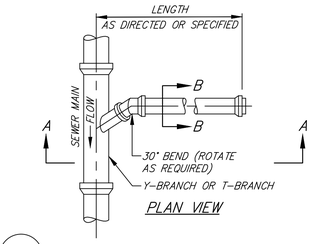
DOUBLE GRATE FOR CATCH BASINS
NOT TO SCALE

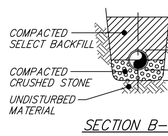


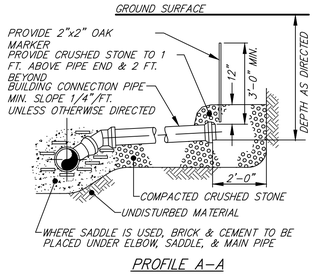
NOTES:

[1] SHALL COMPLY WITH TOWN OF DRACUT WATER SUPPLY DISTRICT REQUIREMENTS

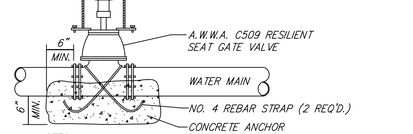
FIRE HYDRANT ASSEMBLY
TYPICAL CROSS SECTION
NOT TO SCALE







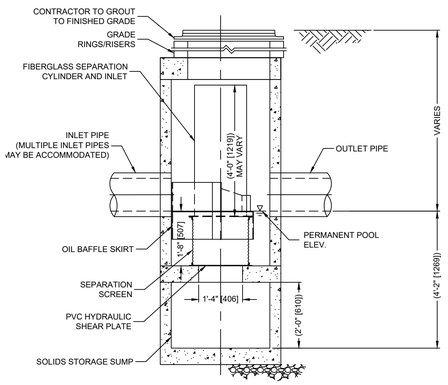
SEWER CONNECTION
NOT TO SCALE



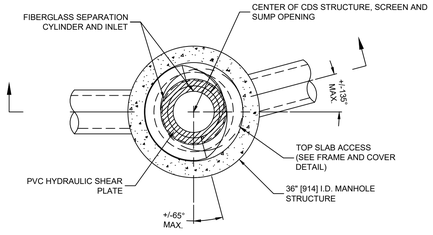
NOTES:

[1] SHALL COMPLY WITH TOWN OF DRACUT WATER SUPPLY DISTRICT REQUIREMENTS

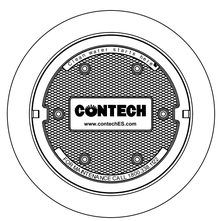
GATE VALVE
TYPICAL CROSS SECTION
NOT TO SCALE



ELEVATION A–A
N.T.S.



PLAN VIEW B-B
N.T.S.

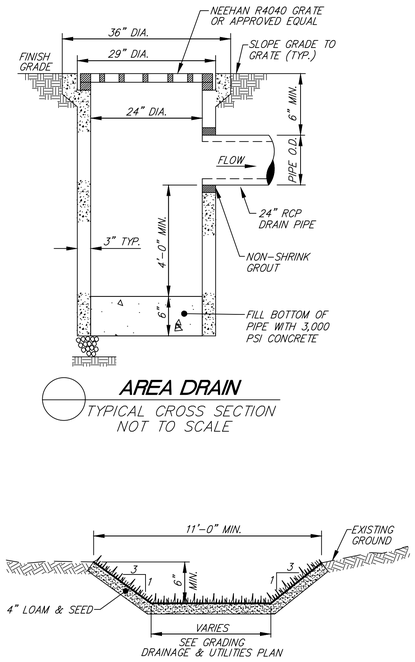


FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

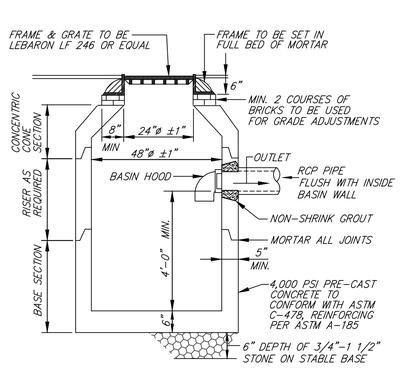
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH CDS1515-3-C ONLINE CDS STANDARD DETAIL
NOT TO SCALE

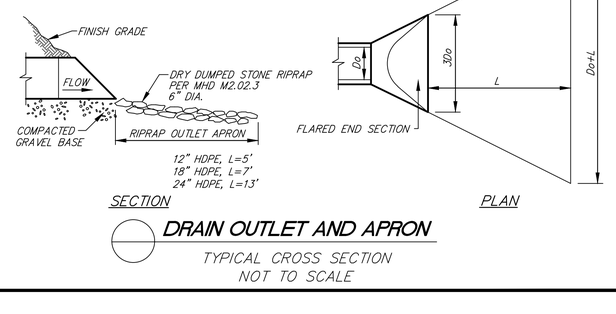


AREA DRAIN
TYPICAL CROSS SECTION
NOT TO SCALE



CATCH BASIN WITH HOOD
TYPICAL CROSS SECTION – NOT TO SCALE

GRASS DRAINAGE SWALE
NOT TO SCALE



DRAIN OUTLET AND APRON
TYPICAL CROSS SECTION
NOT TO SCALE

COMPREHENSIVE PERMIT SITE PLAN

PROPERTY ADDRESS:
2041 BRIDGE STREET
Dracut, Massachusetts 01826

PREPARED FOR:
Marsh Hill Management, LLC
39 Myrtle Street
Lowell, Massachusetts 01854

HANCOCK ASSOCIATES
Civil Engineers
Land Surveyors
Environmental Consultants
34 CHELMSFORD STREET, CHELMSFORD, MA 01824
VOICE (978) 244–0110, FAX (978) 244–1133
WWW.HANCOCKASSOCIATES.COM

BRIAN G. OSALOWSKI CIVIL No. 54498 REGISTERED PROFESSIONAL ENGINEER
2/28/25
27164

NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

DATE:	02/28/25	DESIGN BY:	RCT/MJS
SCALE:	AS SHOWN	DRAWN BY:	RCT/MJS
APPRV'D BY:	BGG	CHECK BY:	JP

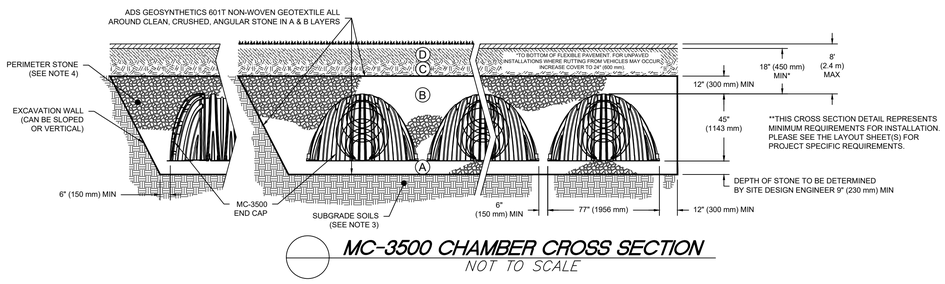
DETAIL SHEET (2 OF 3)

DWG: 27164–SP1.dwg	7
LAYOUT: DET(7)	
SHEET: 7 OF 8	
JOB NO.: 27164	

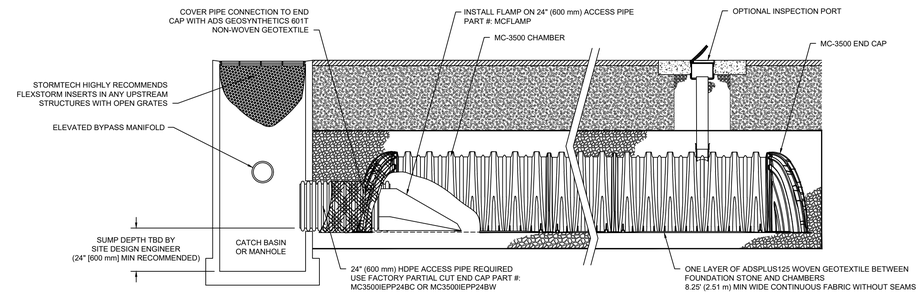
ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 & SC-310 CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

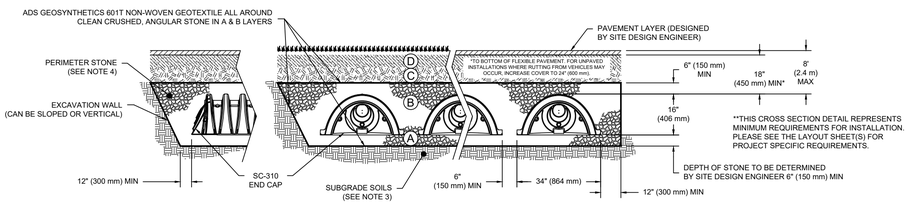
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



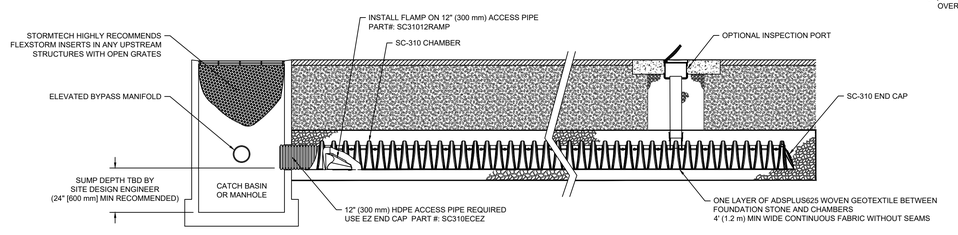
MC-3500 CHAMBER CROSS SECTION
NOT TO SCALE



MC-3500 CHAMBER ISOLATOR ROW DETAIL
NOT TO SCALE



SC-310 CHAMBER CROSS SECTION
NOT TO SCALE



SC-310 CHAMBER ISOLATOR ROW DETAIL
NOT TO SCALE

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

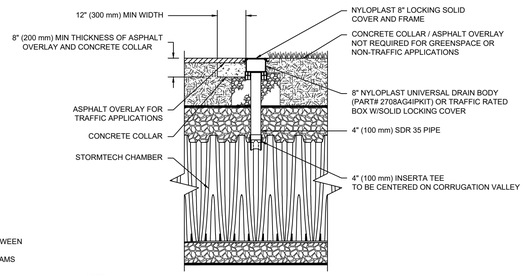
1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2922 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

SC-310 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-310.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE OR POLYETHYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2922 (POLETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2922 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

INSTALLATION NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
   CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT
NOT TO SCALE

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310 SYSTEM

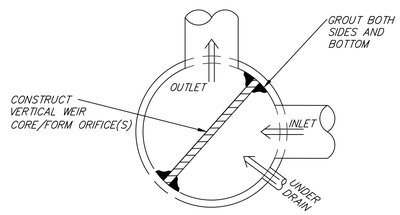
1. STORMTECH SC-310 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

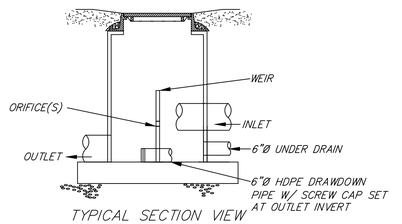
1. STORMTECH SC-310 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



TYPICAL PLAN VIEW
SEE SITE PLAN FOR INDIVIDUAL SYSTEM LAYOUTS & INVERTS



TYPICAL SECTION VIEW

NOTE: 1. SEE DRAIN MANHOLE DETAIL FOR STANDARD MANHOLE CONSTRUCTION SPEC'S
2. SEE PLAN FOR INVERT ELEVATIONS

OUTLET CONTROL STRUCTURE (P.OCS)
NOT TO SCALE

COMPREHENSIVE PERMIT SITE PLAN

PROPERTY ADDRESS:
2041 BRIDGE STREET
Dracut, Massachusetts 01826

PREPARED FOR:
Marsh Hill Management, LLC
39 Myrtle Street
Lowell, Massachusetts 01854

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COMMONWEALTH OF MASSACHUSETTS
BRIAN G. CEALIDHEAU
CIVIL
No. 54486
REGISTERED PROFESSIONAL ENGINEER
2/28/25
27164

NO.	BY	APP	DATE	ISSUE/REVISION DESCRIPTION

DATE: 02/28/25 | DESIGN BY: RCT/MJS
SCALE: AS SHOWN | DRAWN BY: RCT/MJS
APPRV'D BY: BGG | CHECK BY: JP

DETAIL SHEET (3 OF 3)

DWG: 27164-SP1.dwg
LAYOUT: DET(8)
SHEET: 8 OF 8
JOB NO.: 27164

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