

LOCUS MAP  
(NOT TO SCALE)

# SITE DEVELOPMENT PLANS FOR APPLE HILL ESTATES 31 HUNTING LANE SHERBORN, MA 01770

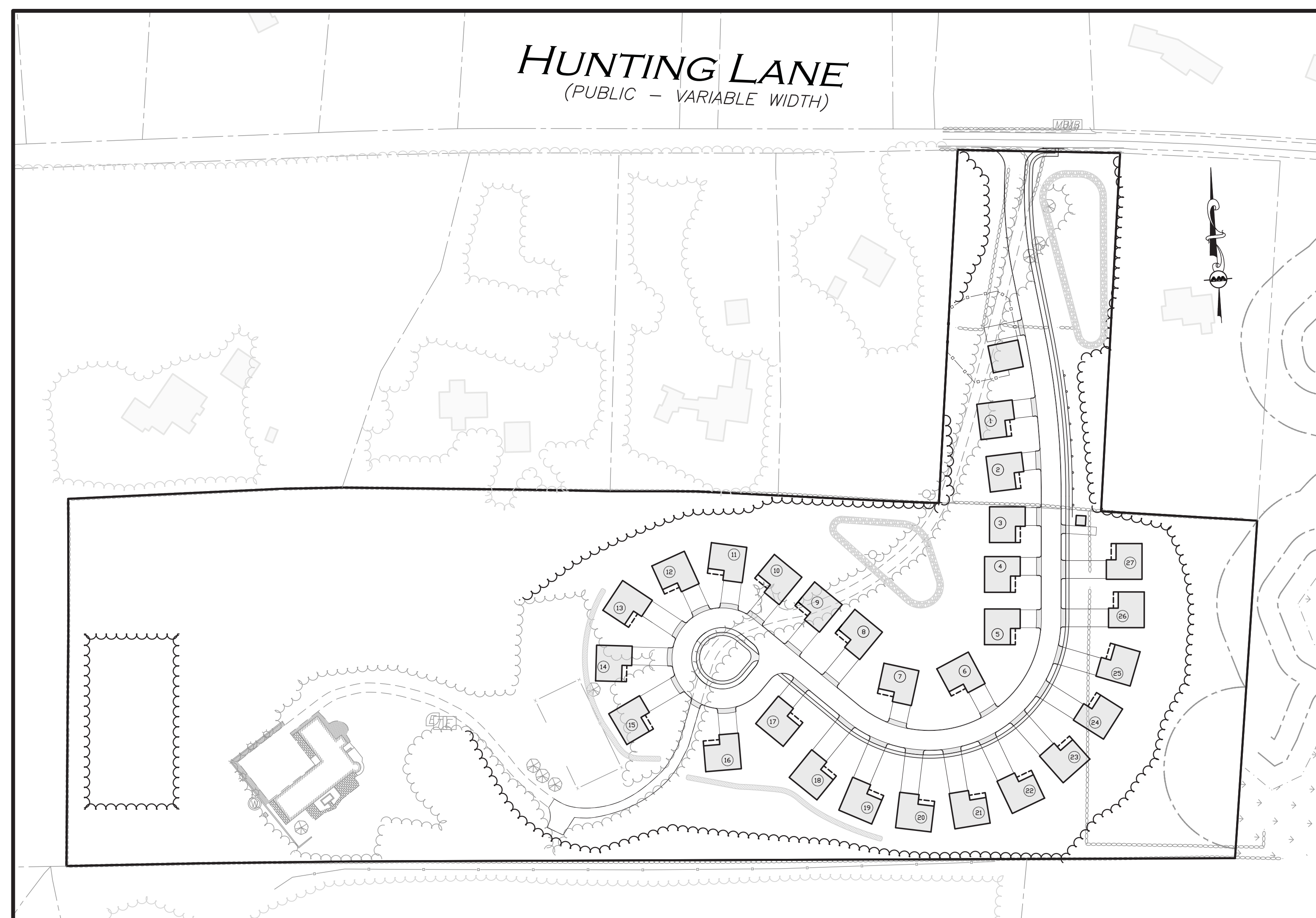
**OWNER/APPLICANT:**  
BARKSKY ESTATE REALTY TRUST  
23 HUNTING LANE  
SHERBORN, MA 01770

**SITE ENGINEER & LAND SURVEYOR:**  
ALLEN & MAJOR ASSOCIATES, INC.  
100 COMMERCE WAY  
WOBBURN, MA 01801

**40B CONSULTANT**  
LDS CONSULTING GROUP, LLC  
233 NEEDHAM STREET  
NEWTON, MA 02464

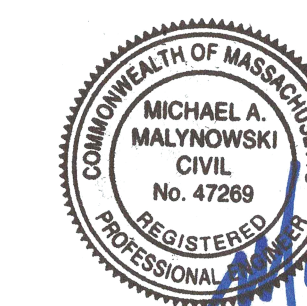
**TRAFFIC ENGINEER:**  
VANASSE & ASSOCIATES INC  
35 NEW ENGLAND BUSINESS CENTER DR  
SUITE 140  
ANDOVER, MA 01810

**WASTEWATER & DRINKING WATER ENGINEER:**  
ONSITE ENGINEERING, INC.  
279 EAST CENTRAL STREET, PMB 241  
FRANKLIN, MA 02038



## LIST OF DRAWINGS

DRAWING TITLE	SHEET NO.	ISSUED	REVISED
EXISTING CONDITIONS	V-101	09-01-20	-
BY-RIGHT SUBDIVISION PLAN - OPTION 2	C-101	10-01-20	04-09-21
LAYOUT & MATERIALS PLAN	C-102	10-01-20	04-09-21
GRADING & DRAINAGE PLAN	C-103	10-01-20	04-09-21
UTILITIES PLAN	C-104	10-01-20	04-09-21
EASEMENT PLAN	C-105	10-01-20	04-09-21
DETAILS	C-501	10-01-20	04-09-21
DETAILS	C-502	10-01-20	04-09-21
DETAILS	C-503	10-01-20	04-09-21
DETAILS	C-504	10-01-20	04-09-21
DETAILS	C-505	04-09-21	-
LANDSCAPE PLAN	L-101	10-01-20	04-09-21
LANDSCAPE DETAILS	L-102	10-01-20	04-09-21



Digitally signed by Michael  
Malynowski  
Date: 2021.04.09 12:51:14 -04'00'  
PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

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1-888-344-7233

PREPARED BY:



**ALLEN & MAJOR  
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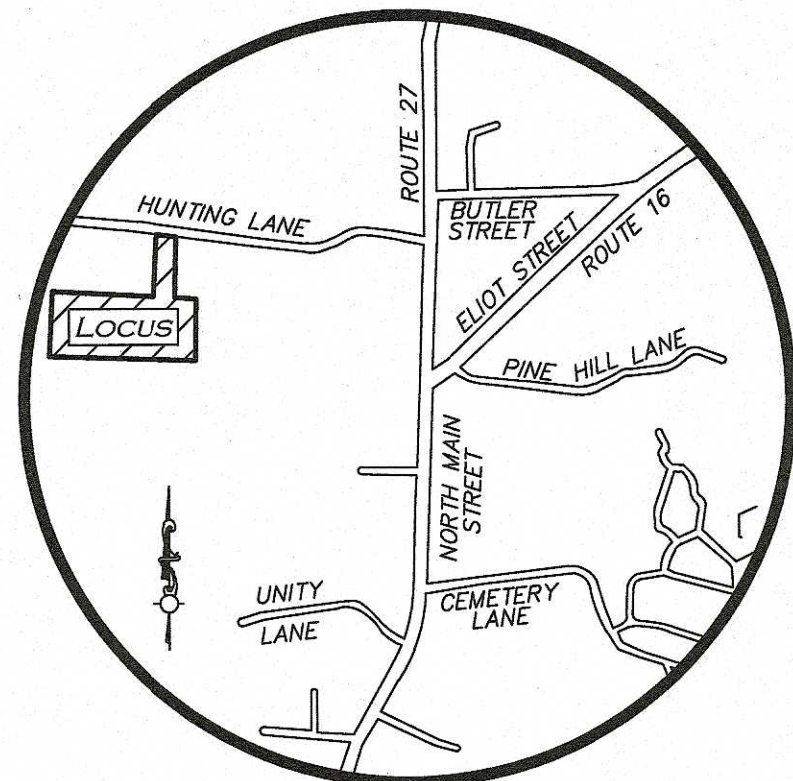
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ISSUED FOR ZBA APPLICATION: OCTOBER 1, 2020  
UPDATED ZBA APPLICATION: MARCH 1, 2021

**UPDATED ZBA APPLICATION: APRIL 9, 2021**

R:\PROJECTS\2513-02\CIVIL\DRAWINGS\CURRENT\C-2513-02\_COVER SHEET.DWG





LOCUS MAP  
(NOT TO SCALE)

## LEGEND

DRILL HOLE (DH)	⊙
SEWER MANHOLE (SMH)	⊙
TELEPHONE BOX	⊙
ELECTRIC BOX	⊙
ELECTRIC METER	⊙
IRRIGATION CONTROL VALVE	⊙
TREE	⊙
AREA DRAIN	⊙
UTILITY POLE	⊙
UTILITY POLE W/ RISER	⊙
CATCH BASIN (CB)	⊙
MAILBOX	⊙
2' CONTOUR	---268---
10' CONTOUR	---270---
PROPERTY LINE	---
STONE WALL	⊖⊖⊖⊖⊖⊖
ABUTTERS LINE	⊖⊖⊖⊖⊖⊖
TREE LINE	⊖⊖⊖⊖⊖⊖
EDGE OF PAVEMENT	---
CHAIN LINK FENCE	x
WOOD FENCE	⊖⊖⊖⊖⊖⊖
OVERHEAD WIRES	---OHW---
FINISHED FLOOR ELEVATION	FFE
NOW OR FORMERLY	N/F
BOOK	BK.
PAGE	PG.

## LOCUS REFERENCES

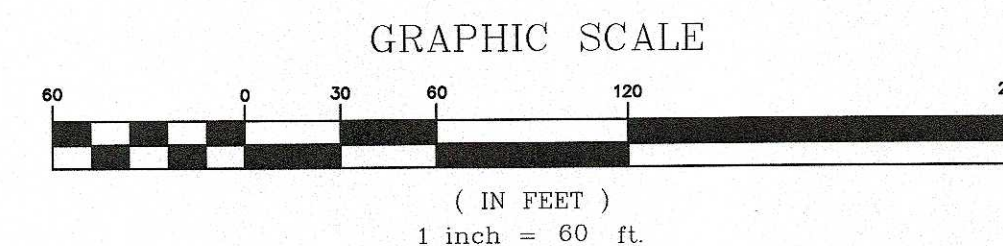
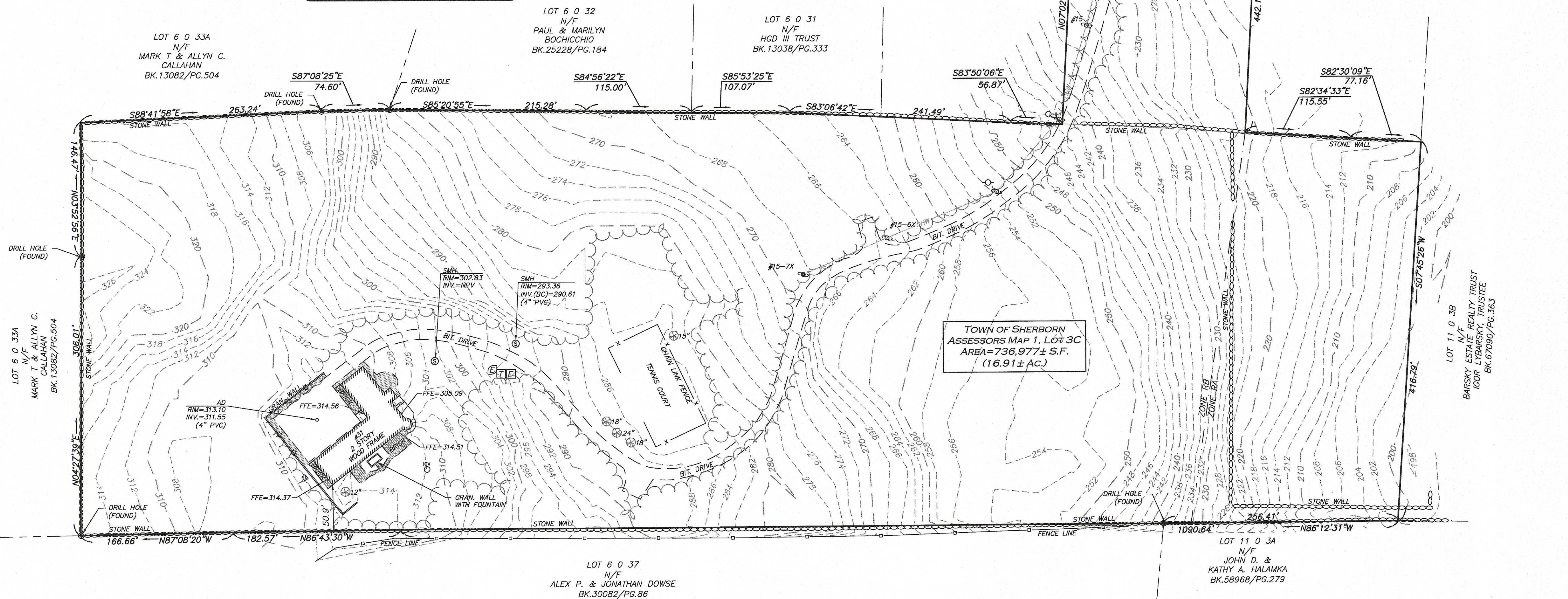
- TOWN OF SHERBORN ASSESSORS MAP 11, LOT 03c
- RECORD OWNER: BARSKY ESTATE REALTY TRUST
- DEED BOOK 67090, PAGE 363
- PLAN 194 OF 1994

## PLAN REFERENCES

- PLAN 853 OF 1963
- PLAN 1206 OF 1976
- PLAN 401 OF 1994

## NOTES

1. NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM MIDDLESEX (SOUTH) REGISTRY OF DEEDS IN CAMBRIDGE, MA.
3. VERTICAL DATUM IS NAVD 88 ESTABLISHED USING RTK GPS OBSERVATION.
4. CONTOUR INTERVAL IS ONE FOOT (2').



N:\PROJECTS\2513-02\SURVEY\DRAWINGS\CURRENT\5-2513-02-EC.DWG

WE HEREBY CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN JULY 15, 2020 AND JULY 22, 2020.

PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.



REV	DATE	DESCRIPTION
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APPLICANT/OWNER:

BARSKY ESTATE REALTY TRUST  
23 HUNTING LANE  
SHERBORN, MA 01770

PROJECT:

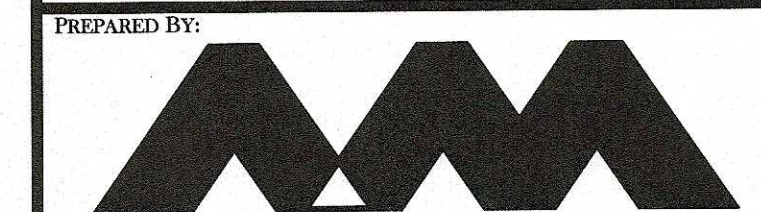
31 HUNTING LANE  
SHERBORN, MA

PROJECT NO. 2513-02 DATE: 09/01/20

SCALE: 1" = 60' DWG. NAME: S-2513-02-EC

DRAFTED BY: AIR CHECKED BY: NIL

PREPARED BY:



ALLEN & MAJOR ASSOCIATES, INC.

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DRAWING TITLE: SHEET No.

EXISTING CONDITIONS V-101

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REQUIRED RELIEF:

1. RULES AND REGULATIONS  
1.1. § 4.1.4 MAXIMUM OF ONE SINGLE FAMILY RESIDENTIAL DWELLING PER LOT  
1.2. § 4.3.7.b. MAXIMUM LENGTH OF DEAD-END STREET. 600 FEET ALLOWED, 1,150 FEET PROPOSED

GENERAL NOTES:

1. THIS PROJECT WILL BE SERVED BY PUBLIC TELEPHONE, CABLE AND ELECTRIC. ALL UTILITY LINES WILL BE INSTALLED UNDERGROUND. SANITARY SEWER WILL BE PROVIDED BY ON-SITE SUBSURFACE DISPOSAL SYSTEM. WATER WILL BE PROVIDED BY PRIVATE WELL.
2. ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTIES DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
3. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. ALL PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED AND RESTORED BY A SURVEYOR REGISTERED IN THE STATE OF MASSACHUSETTS AT THE CONTRACTORS EXPENSE.
5. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING WITH THE TOWN, THE APPROPRIATE UTILITY COMPANIES, THE OWNER AND OWNER'S REPRESENTATIVE. THE MEETING SHALL TAKE PLACE PRIOR TO THE START OF CONSTRUCTION AND THE CONTRACTOR MUST PROVIDE 48 HOURS NOTICE TO ALL ATTENDEES PRIOR TO THE START OF THE MEETING.
6. APPROPRIATE WARNING SIGNS, MARKERS, BARRICADES AND/OR FLAGMEN SHALL BE PROVIDED TO REGULATE TRAFFIC. CONSTRUCTION TRAFFIC CONTROL SHALL BE IMPLEMENTED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LOCAL AUTHORITY.
7. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ADDITIONAL BENCHMARK INFORMATION IF REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING BENCHMARKS. IF IT IS NECESSARY TO RELOCATE A BENCHMARK, IT SHALL BE RELOCATED BY A MASSACHUSETTS PROFESSIONAL LAND SURVEYOR AND DONE SO AT THE CONTRACTOR'S EXPENSE.
8. ALL PERMITS AND APPROVALS NECESSARY FROM AGENCIES GOVERNING THE WORK SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES, OR REGULATORY AGENCIES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE OWNER.
10. CONSTRUCTION DURING WET WEATHER OR WINTER CONDITIONS IS TO BE ANTICIPATED AND PROVISIONS TO ADEQUATELY ADDRESS THESE CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING THE TOWN, MADOT, MADEP, MUTCD, AND AASHTO.
12. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES 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, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), STATE, AND LOCAL REGULATIONS.
13. GRANITE CURBING REMOVED FROM PUBLIC ROADS SHALL BE STOCKPILED AND RETURNED TO THE RESPECTIVE TOWN DPW.
14. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COSTS SHALL BE INCLUDED IN BASE BID.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN'S GOVERNING AUTHORITY'S SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COSTS SHALL BE INCLUDED IN BASE BID.
16. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK. THE CONTRACTOR SHALL ALSO CONTACT THE CITY DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF LOCAL UTILITIES.

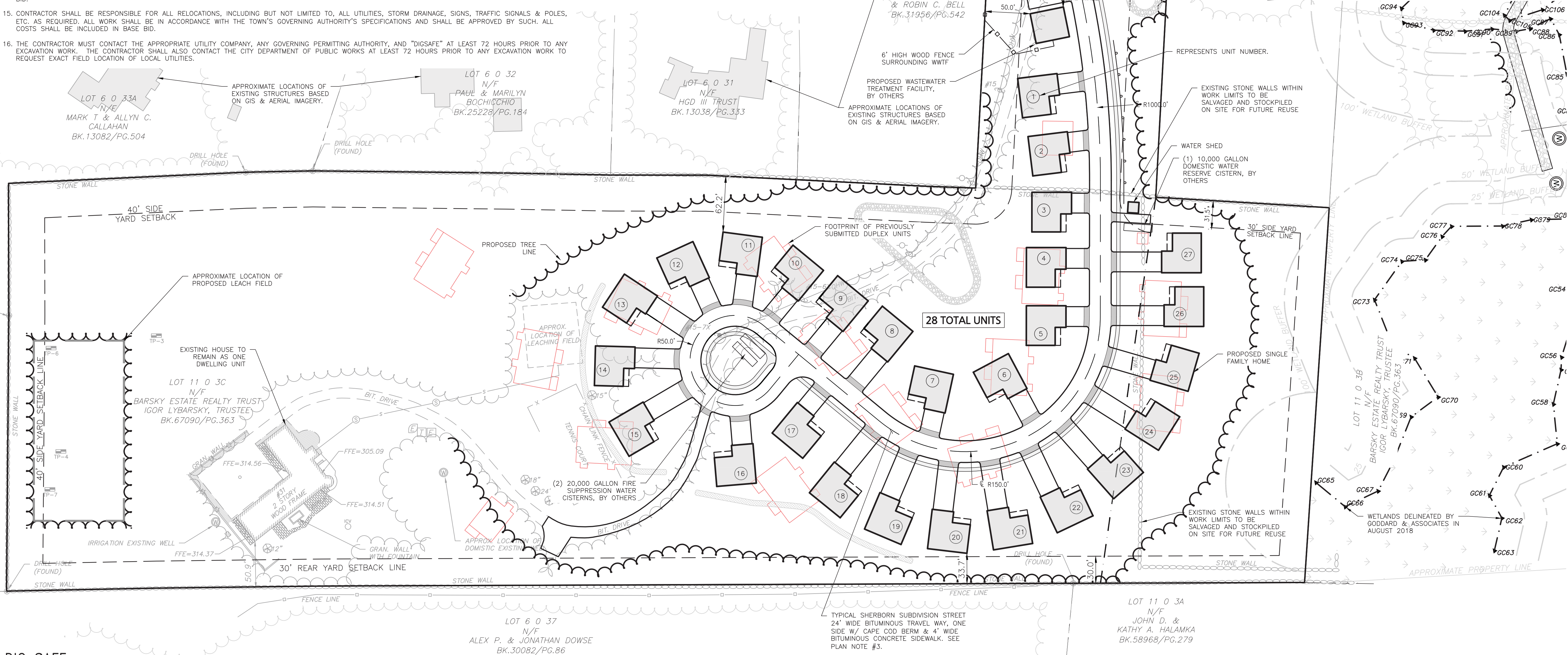
PLAN NOTES:

1. EXISTING CONDITIONS WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES AS WELL AS AVAILABLE RECORD PLANS OBTAINED FROM THE TOWN ENGINEERING DEPARTMENT AND OTHER SOURCES.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
3. SLOPED GRANITE CURBING SHALL BE INSTALLED AT ALL STREET INTERSECTIONS ON THE CURVE AND EXTENDING AT LEAST EIGHT FEET BEYOND THE TANGENT POINT. SLOPED GRANITE CURBING SEGMENTS AT LEAST EIGHT FEET IN LENGTH SHALL ALSO BE INSTALLED AT ALL CATCH BASINS SO AS TO EXTEND NOT LESS THAN FOUR FEET IN EITHER DIRECTION FROM THE CATCH BASIN CENTER LINE.
4. ALL DIMENSIONS AND RADI ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
5. WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS OR CONDITIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR. ALL SITE ITEMS SHALL BE LAID OUT AND AS BUILT BY A LICENSED LAND SURVEYOR.
6. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

ZONING SUMMARY TABLE RESIDENTIAL A & RESIDENTIAL B (RA & RB) DISTRICT			
ITEM	REQUIRED		PROPOSED
	RA DISTRICT	RB DISTRICT	MAP 11 LOT 3C
MINIMUM LOT AREA	1 ACRE	2 ACRES	16.91 ACRES
MINIMUM FRONTAGE	150 FEET	200 FEET	200 FEET
MINIMUM LOT WIDTH	150 FEET	200 FEET	200 FEET
MINIMUM LOT DEPTH	N/A	N/A	N/A
MINIMUM FRONT SETBACK	60 FEET	60 FEET	232.8 FEET
MINIMUM SIDE SETBACK	30 FEET	40 FEET	62.2 FEET
MINIMUM REAR SETBACK	30 FEET	30 FEET	33.7 FEET
MAXIMUM HEIGHT (STORIES)	2.5	2.5	2 STORIES
MAXIMUM HEIGHT (FEET)	35 FEET	35 FEET	<35 FEET
MAXIMUM LOT COVERAGE	N/A	N/A	N/A

ZONING SUMMARY TABLE NOTES:

1. MINIMUM LOT WIDTH SHALL BE MEASURED AT FRONT SETBACK LINE AND AT BUILDING LINE. AT NO POINT BETWEEN THE REQUIRED FRONTAGE AND THE BUILDING LINE SHALL LOT WIDTH BE REDUCED TO LESS THAN 50 FEET, WITHOUT EXCEPTION FROM THE PLANNING BOARD.

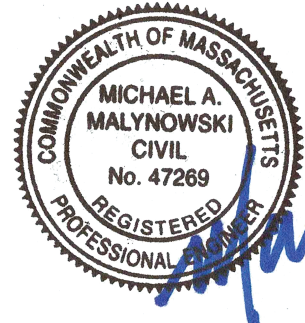


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Digitally signed by Michael Malynowski  
Date: 2021.04.09 12:57:14 -04'00'

PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
5	04-09-2021	REVS PER PEER REVIEW
4	02-25-2021	CONVERSION TO SINGLE FAMILY HOMES
3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASSHOUSING & ABUTTER WALK
1	01-21-2020	MISCELLANEOUS REVISIONS

APPLICANT/OWNER:

BARSKY ESTATE REALTY TRUST  
23 HUNTING LANE  
SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES  
31 HUNTING LANE  
SHERBORN, MA 01770

PROJECT NO.	2513-02	DATE:	10-23-20
SCALE:	1" = 60'	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:

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DRAWING TITLE:	SHEET NO.
LAYOUT & MATERIALS PLAN	C-102

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# GRADING & DRAINAGE NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING LOCAL, MDOT, MADEP, MUTCD, AND AASHTO.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES 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, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE
- ALL ELEVATIONS REFER TO NAVD 88.
- PIPE DIMENSIONS ARE MEASURED FROM THE CENTER OF THE STRUCTURE.
- CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.

- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- ROOF DRAINS SHALL BE COLLECTED BY GUTTER SYSTEM AND DIRECTED TO A LOCAL SUBSURFACE INFILTRATION SYSTEM.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES. WATER SERVICES SHALL BE ENCASED IN CONCRETE REGARDLESS OF CLEARANCE WHEN PASSING BELOW STORM DRAIN LINES. ENCASEMENT SHALL EXTEND ALONG WATER SERVICE A MINIMUM DISTANCE OF TEN FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

ASSOCIATED WITH CONSTRUCTION ACTIVITIES.

- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH COUNTY SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- ALL CATCH BASINS ON-SITE SHALL BE EQUIPPED WITH HOODS AND 4 FOOT SUMPS AND SHALL CONFORM TO LOCAL DRAINAGE REQUIREMENTS.
- A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES. WATER SERVICES SHALL BE ENCASED IN CONCRETE REGARDLESS OF CLEARANCE WHEN PASSING BELOW STORM DRAIN LINES. ENCASEMENT SHALL EXTEND ALONG WATER SERVICE A MINIMUM DISTANCE OF TEN FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- ALL DRAINAGE SHALL CONFORM TO LOCAL AND MADEP REQUIREMENTS.

- PRIOR TO CONSTRUCTION OF IMPERVIOUS AREAS, ALL DRAINAGE STRUCTURES, PIPES AND BASINS SHALL BE INSTALLED AND INSPECTED FOR PROPER FUNCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.

- THE TOWN'S ENGINEER AND THE DESIGN ENGINEER SHALL BE NOTIFIED TO INSPECT AND APPROVE SUBGRADE WITHIN THE AREAS OF THE PROPOSED INFILTRATION SYSTEM(S) TO CONFIRM THAT THE ON-SITE CONDITIONS ARE CONSISTENT WITH THE MODELED INFILTRATION RATE PRIOR TO THE SYSTEM INSTALLATION.
- THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF SHERBORN DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.
- DIGSAFE: 1-800-344-7233  
SHERBORN DEPARTMENT OF PUBLIC WORKS: 508-651-7878
- AS-BUILT DRAWINGS SHALL BE PROVIDED NO LATER THAN TWO YEARS AFTER COMPLETION OF CONSTRUCTION.
- THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

STRUCTURE	STRUCTURE DETAILS
CB-01	RIM=259.43 INV.OUT=256.20 (DMH-01) 33LF, 12"HDPE, S=3.32%
CB-02	RIM=258.73 INV.OUT=255.50 (DMH-01) 9LF, 12"HDPE, S=1.80%
CB-03	RIM=261.72 INV.OUT=257.60 (DMH-02) 27LF, 12"HDPE, S=3.00%
CB-04	RIM=261.26 INV.OUT=257.46 (DMH-02) 22LF, 12"HDPE, S=3.00%
CB-05	RIM=254.15 INV.OUT=250.71 (DMH-03) 21LF, 12"HDPE, S=1.00%
CB-06	RIM=254.22 INV.OUT=250.61 (DMH-03) 11LF, 12"HDPE, S=1.00%
CB-07	RIM=247.48 INV.OUT=243.46 (DMH-06) 20LF, 12"HDPE, S=2.00%
CB-08	RIM=246.68 INV.OUT=243.40 (DMH-06) 17LF, 12"HDPE, S=2.00%

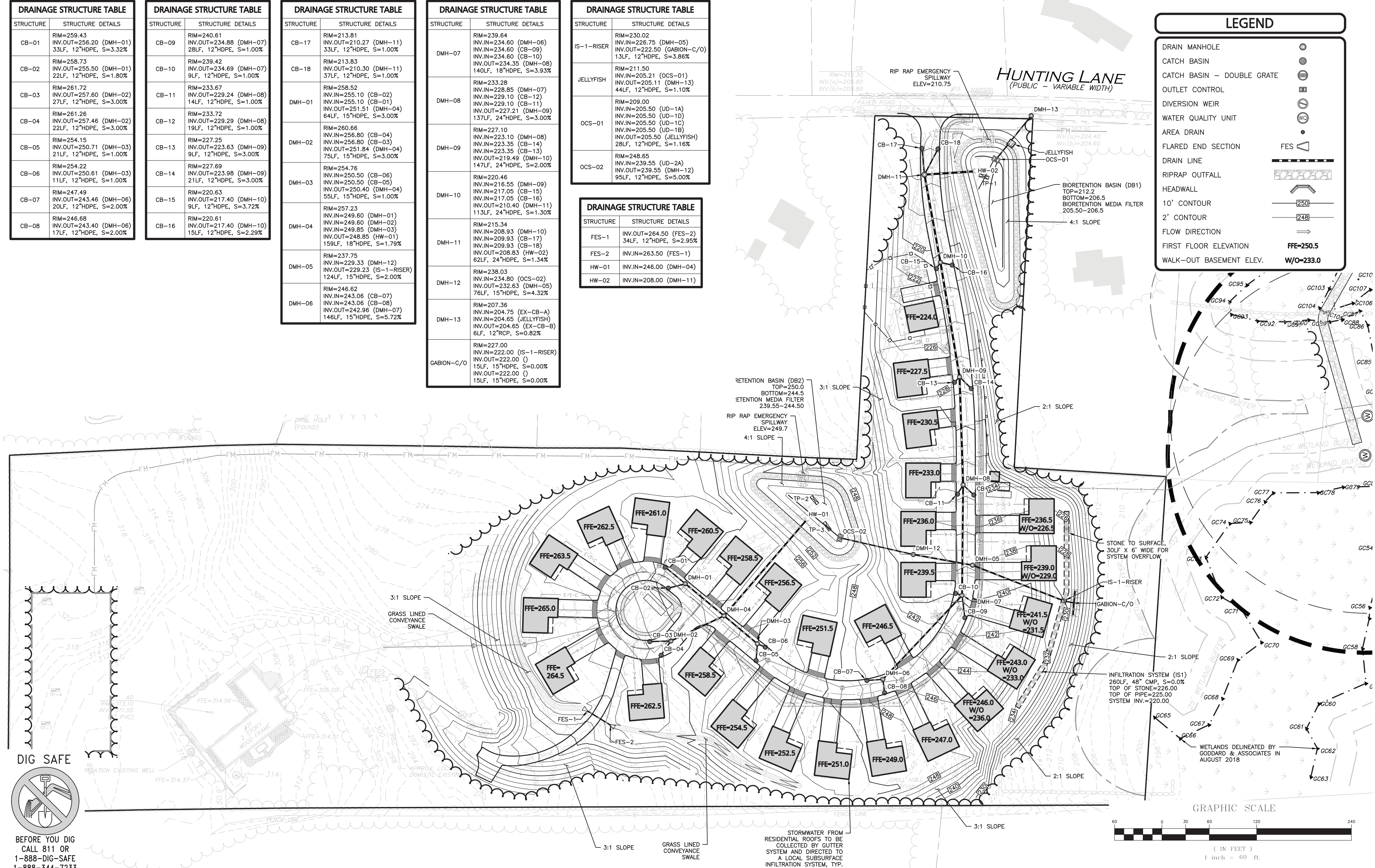
STRUCTURE	STRUCTURE DETAILS
CB-09	RIM=240.61 INV.OUT=234.88 (DMH-07) 28LF, 12"HDPE, S=1.00%
CB-10	RIM=239.42 INV.OUT=234.69 (DMH-07) 9LF, 12"HDPE, S=1.00%
CB-11	RIM=233.67 INV.OUT=229.24 (DMH-08) 14LF, 12"HDPE, S=1.00%
CB-12	RIM=233.72 INV.OUT=229.29 (DMH-08) 19LF, 12"HDPE, S=1.00%
CB-13	RIM=227.25 INV.OUT=223.63 (DMH-09) 9LF, 12"HDPE, S=3.00%
CB-14	RIM=227.69 INV.OUT=223.98 (DMH-09) 21LF, 12"HDPE, S=3.00%
CB-15	RIM=220.63 INV.OUT=217.40 (DMH-10) 9LF, 12"HDPE, S=3.72%
CB-16	RIM=220.61 INV.OUT=217.40 (DMH-10) 15LF, 12"HDPE, S=2.29%

STRUCTURE	STRUCTURE DETAILS
CB-17	RIM=213.81 INV.OUT=210.27 (DMH-11) 33LF, 12"HDPE, S=1.00%
CB-18	RIM=213.83 INV.OUT=210.30 (DMH-11) 37LF, 12"HDPE, S=1.00%
DMH-01	RIM=258.52 INV.IN=255.10 (CB-01) INV.IN=251.51 (DMH-04) 64LF, 15"HDPE, S=3.00%
DMH-02	RIM=260.66 INV.IN=256.80 (CB-04) INV.IN=251.84 (DMH-04) 75LF, 15"HDPE, S=3.00%
DMH-03	RIM=254.76 INV.IN=250.50 (CB-06) INV.IN=250.50 (CB-08) INV.OUT=250.40 (DMH-04) 55LF, 15"HDPE, S=1.00%
DMH-04	RIM=257.23 INV.IN=249.60 (DMH-01) INV.IN=249.60 (DMH-02) INV.OUT=248.85 (HW-01) 159LF, 18"HDPE, S=1.79%
DMH-05	RIM=237.75 INV.IN=229.33 (DMH-12) INV.OUT=229.23 (IS-1 RISER) 124LF, 15"HDPE, S=2.00%
DMH-06	RIM=246.62 INV.IN=243.06 (CB-07) INV.IN=243.06 (CB-08) INV.OUT=242.96 (DMH-07) 148LF, 15"HDPE, S=5.72%

STRUCTURE	STRUCTURE DETAILS
DMH-07	RIM=239.64 INV.IN=234.60 (DMH-06) INV.IN=234.60 (CB-09) INV.IN=234.60 (CB-10) INV.OUT=234.35 (DMH-08) 140LF, 18"HDPE, S=3.93%
DMH-08	RIM=233.28 INV.IN=228.85 (DMH-07) INV.IN=229.10 (CB-12) INV.IN=229.10 (CB-11) INV.OUT=227.21 (DMH-09) 137LF, 24"HDPE, S=3.00%
DMH-09	RIM=227.10 INV.IN=223.10 (DMH-08) INV.IN=223.35 (CB-14) INV.IN=223.35 (CB-13) INV.OUT=219.49 (DMH-10) 147LF, 24"HDPE, S=2.00%
DMH-10	RIM=220.46 INV.IN=216.55 (DMH-09) INV.IN=217.05 (CB-15) INV.IN=217.05 (CB-16) INV.OUT=210.40 (DMH-11) 113LF, 24"HDPE, S=1.30%
DMH-11	RIM=215.34 INV.IN=208.93 (DMH-10) INV.IN=209.93 (CB-17) INV.IN=209.93 (CB-18) INV.OUT=208.83 (HW-02) 62LF, 24"HDPE, S=1.34%
DMH-12	RIM=238.03 INV.IN=234.80 (OCS-02) INV.OUT=232.63 (DMH-05) 76LF, 15"HDPE, S=4.32%
DMH-13	RIM=207.36 INV.IN=204.75 (EX-CB-A) INV.IN=204.65 (JELLYFISH) INV.OUT=204.65 (EX-CB-B) 6LF, 12"RCP, S=0.82%
GABION-C/O	RIM=227.00 INV.IN=222.00 (IS-1 RISER) INV.OUT=222.00 () 15LF, 15"HDPE, S=0.00%

STRUCTURE	STRUCTURE DETAILS
IS-1-RISER	RIM=230.02 INV.IN=226.75 (DMH-05) INV.OUT=222.50 (GABION-C/O) 13LF, 12"HDPE, S=3.86%
JELLYFISH	RIM=211.50 INV.IN=205.21 (OCS-01) INV.OUT=205.11 (DMH-13) 44LF, 12"HDPE, S=1.10%
OCS-01	RIM=209.00 INV.IN=205.50 (UD-1A) INV.IN=205.50 (UD-1C) INV.IN=205.50 (UD-1B) INV.OUT=205.50 (JELLYFISH) 28LF, 12"HDPE, S=1.16%
OCS-02	RIM=248.65 INV.IN=239.55 (UD-2A) INV.OUT=239.55 (DMH-12) 95LF, 12"HDPE, S=5.00%

STRUCTURE	STRUCTURE DETAILS
FES-1	INV.OUT=264.50 (FES-2) 34LF, 12"HDPE, S=2.95%
FES-2	INV.IN=263.50 (FES-1)
HW-01	INV.IN=246.00 (DMH-04)
HW-02	INV.IN=208.00 (DMH-11)



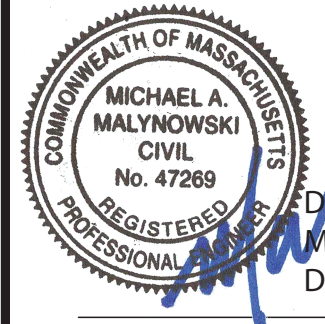
### LEGEND

- DRAIN MANHOLE
- CATCH BASIN
- CATCH BASIN - DOUBLE GRATE
- OUTLET CONTROL
- DIVERSION WEIR
- WATER QUALITY UNIT
- AREA DRAIN
- FLARED END SECTION
- DRAIN LINE
- RIPRAP OUTFALL
- HEADWALL
- 10' CONTOUR
- 2' CONTOUR
- FLOW DIRECTION
- FIRST FLOOR ELEVATION
- WALK-OUT BASEMENT ELEV.

FES

FFE=250.5

W/O=233.0



Digitally signed by Michael A. Malynowski  
Date: 2021.04.09 12:56:20 -04'00'  
PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

5	04-09-2021	REVS PER PEER REVIEW
4	02-25-2021	CONVERSION TO SINGLE FAMILY HOMES
3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASSHOUSING & ABUTTER WA
1	01-21-2020	MISCELLANNEOUS REVISIONS
REV	DATE	DESCRIPTION

APPLICANT/OWNER:  
**BARSKY ESTATE REALTY TRUST**  
23 HUNTING LANE  
SHERBORN, MA 01770

PROJECT:  
**APPLE HILL ESTATES**  
31 HUNTING LANE  
SHERBORN, MA 01770

PROJECT NO.	2513-02	DATE:	10-23-20
SCALE:	1" = 60'	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:

**ALLEN & MAJOR ASSOCIATES, INC.**  
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DRAWING TITLE:	SHEET NO.
<b>GRADING &amp; DRAINAGE PLAN</b>	<b>C-103</b>

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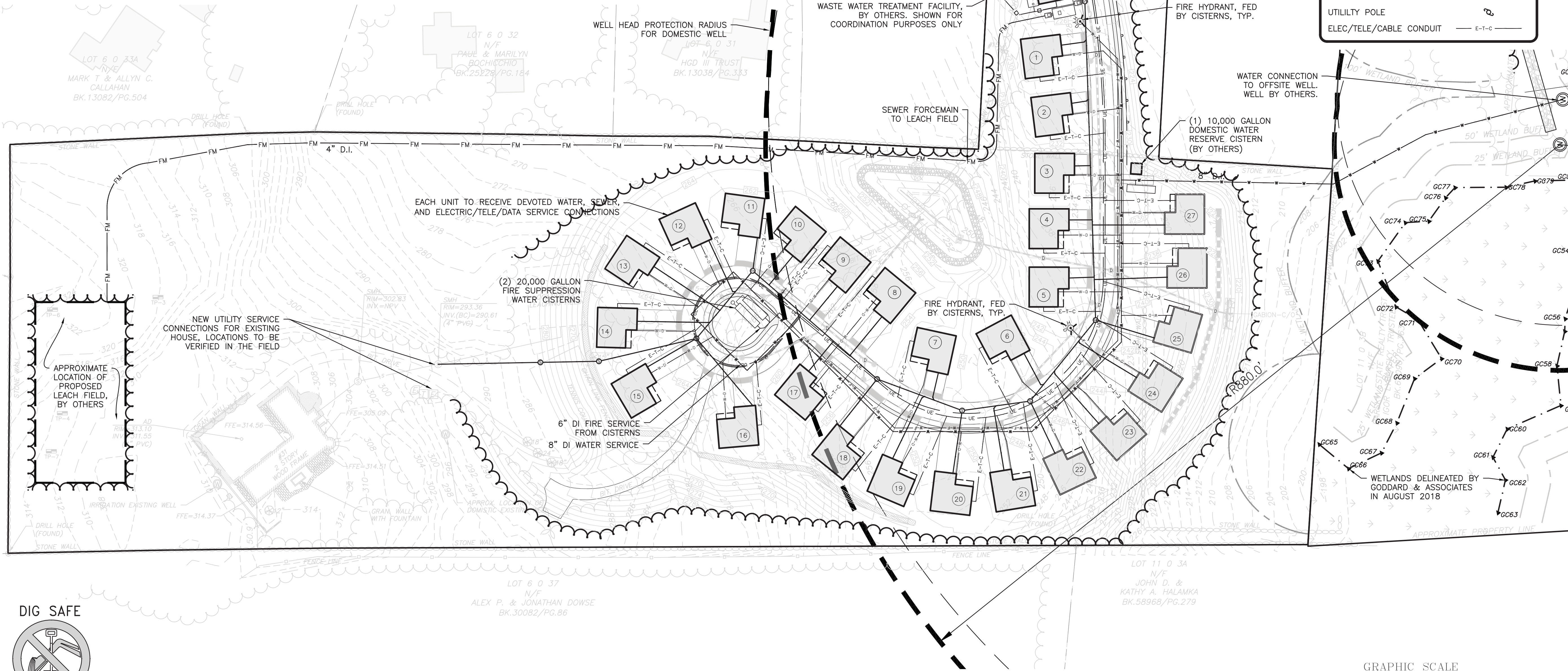
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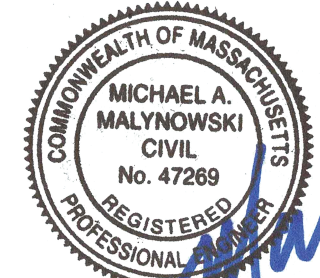
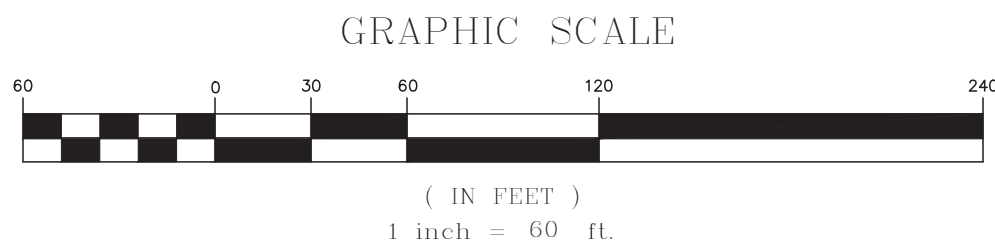
UTILITY NOTES:

1. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER MAINS AND/OR STORM DRAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE DIFFERENCE IN ELEVATION BETWEEN THE WATER MAIN AND THE SEWER MAIN SHALL BE AT LEAST 18 INCHES.
2. IN THE CASE THAT WATER MAINS CROSS SANITARY SEWER MAINS AND ARE SEPARATED BY LESS THAN 18" OF VERTICAL CLEARANCE, THE SEWER MAIN SHALL BE ENCASED IN CONCRETE FOR THE ENTIRE WIDTH OF THE TRENCH AND FOR A DISTANCE OF 8 LINEAR FEET CENTERED ON THE CROSSING.
3. THE CONTRACTOR SHALL REFER TO ARCHITECTS PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL ROOF DRAIN LATERALS AND UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRIC, TELEPHONE, AND OIL/GAS SERVICE. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND COORDINATE WITH THE PROPER AGENCY THE LOCATION AND SCHEDULING OF CONNECTIONS WITH THEIR FACILITIES.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION. THE ENGINEER WILL THEN PROVIDE RESOLUTION TO UTILITY CONFLICTS WITHOUT DELAY.
5. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS INCLUDING LOCAL, MADOT, MADEP, MUTCD, AND AASHTO.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS OF THE SITE. THESE PLANS PREPARED BY ALLEN & MAJOR ASSOCIATES, INC., DO NOT EXTEND TO, NOR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THE EMPLOYEES, AGENTS OF REPRESENTATIVES IN PERFORMANCE OF THE WORK. THE SEAL OF THE ARCHITECT 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 OF OBTAIN THE APPROPRIATE SAFETY AND HEATH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
7. ALL ELEVATIONS REFER TO NAVD 88.

8. PIPE DIMENSIONS ARE MEASURED FROM THE INSIDE FACE OF THE STRUCTURE.
9. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
10. LOCATION OF PROPOSED ELECTRICAL/COMMUNICATION SERVICE IS SCHEMATIC IN NATURE AND FOR COORDINATION PURPOSES ONLY. SPECIFIC ALIGNMENTS ARE TO BE DESIGNED BY OTHERS AND REVIEWED BY THE UTILITY PROVIDING SERVICE. PROPOSED ELECTRICAL SERVICE TO BE BURIED IN ACCORDANCE WITH LOCAL REGULATIONS AND ELECTRIC COMPANY.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
12. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.
13. THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF SHERBORN DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.  
  
DIGSAFE: 1-800-344-7233  
SHERBORN DEPARTMENT OF PUBLIC WORKS: 508-651-7878
14. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.



LEGEND	
SEWER MANHOLE	
SEWER CLEANOUT	
SEWER LINE	
SEWER FORCEMAIN	
CONCRETE PIPE ENCASEMENT	
WATER MAIN	
FIRE WATER LINE	
DOMESTIC WATER LINE	
WATER VALVE	
WATER LINE REDUCER	
FIRE HYDRANT	
SEPTIC/HOLDING TANK	
OVER HEAD WIRE	
UTILITY POLE	
ELEC/TELE/CABLE CONDUIT	



Digitally signed by Michael Malynowski  
Date: 2021.04.09 12:55:34 -04'00'  
PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
5	04-09-2021	REVS PER PEER REVIEW
4	02-25-2021	CONVERSION TO SINGLE FAMILY HOMES
3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASSHOUSING & ABUTTER WALK
1	01-21-2020	MISCELLANEOUS REVISIONS

APPLICANT/OWNER:  
**BARSKY ESTATE REALTY TRUST**  
**23 HUNTING LANE**  
**SHERBORN, MA 01770**

PROJECT:  
**APPLE HILL ESTATES**  
**31 HUNTING LANE**  
**SHERBORN, MA 01770**

PROJECT NO.	2513-02	DATE:	10-23-20
SCALE:	1" = 60'	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:

**ALLEN & MAJOR ASSOCIATES, INC.**  
civil engineering • land surveying  
environmental consulting • landscape architecture  
www.allenmajor.com  
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DRAWING TITLE:	SHEET No.
<b>UTILITIES PLAN</b>	<b>C-104</b>

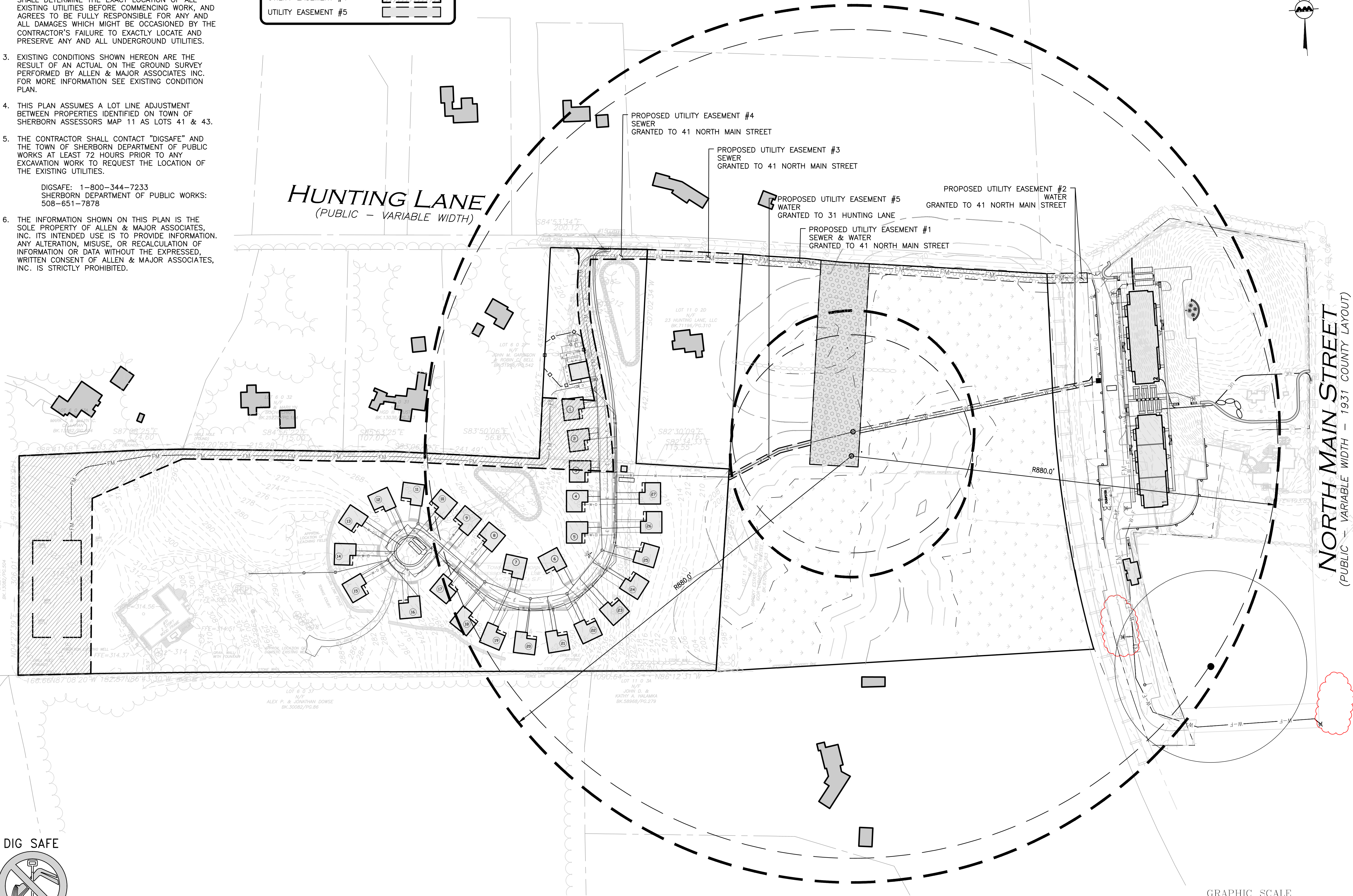


NOTES:

1. THIS EASEMENT PLAN IS CONCEPTUAL IN NATURE AND IS NOT INTENDED FOR CONSTRUCTION. IT IS UNDERSTOOD THE DESIGN MAY BE REVISED AS THE PROJECT PROGRESSES.
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
3. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES INC. FOR MORE INFORMATION SEE EXISTING CONDITION PLAN.
4. THIS PLAN ASSUMES A LOT LINE ADJUSTMENT BETWEEN PROPERTIES IDENTIFIED ON TOWN OF SHERBORN ASSESSORS MAP 11 AS LOTS 41 & 43.
5. THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF SHERBORN DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.  
  
DIGSAFE: 1-800-344-7233  
SHERBORN DEPARTMENT OF PUBLIC WORKS: 508-651-7878
6. THE INFORMATION SHOWN ON THIS PLAN IS THE SOLE PROPERTY OF ALLEN & MAJOR ASSOCIATES, INC. ITS INTENDED USE IS TO PROVIDE INFORMATION. ANY ALTERATION, MISUSE, OR RECALCULATION OF INFORMATION OR DATA WITHOUT THE EXPRESSED, WRITTEN CONSENT OF ALLEN & MAJOR ASSOCIATES, INC. IS STRICTLY PROHIBITED.

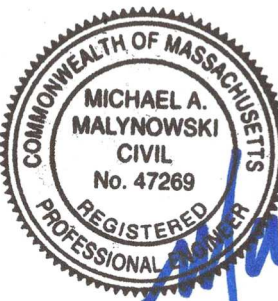
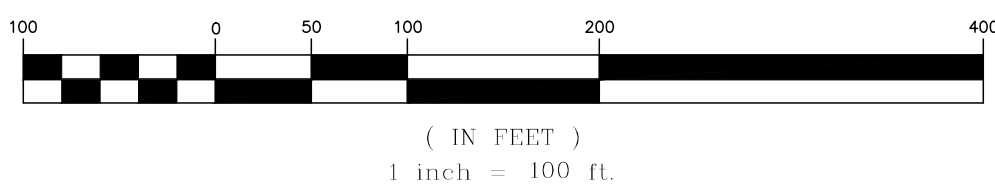
LEGEND

UTILITY EASEMENT #1	
UTILITY EASEMENT #2	
UTILITY EASEMENT #3	
UTILITY EASEMENT #4	
UTILITY EASEMENT #5	



BEFORE YOU DIG  
CALL 811 OR  
1-888-DIG-SAFE  
1-888-344-7233

GRAPHIC SCALE



Digitally signed by Michael  
Malynowski  
Date: 2021.04.09 12:57:41 -04'00'

PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
5	04-09-2021	REVS PER PEER REVIEW
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APPLICANT/OWNER:

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SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES  
31 HUNTING LANE  
SHERBORN, MA 01770

PROJECT NO. 2513-02 DATE: 10-23-20

SCALE: 1" = 100' DWG. NAME: C2513-02

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

**ALLEN & MAJOR ASSOCIATES, INC.**  
civil engineering • land surveying  
environmental consulting • landscape architecture  
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DRAWING TITLE:

PROPOSED EASEMENT PLAN

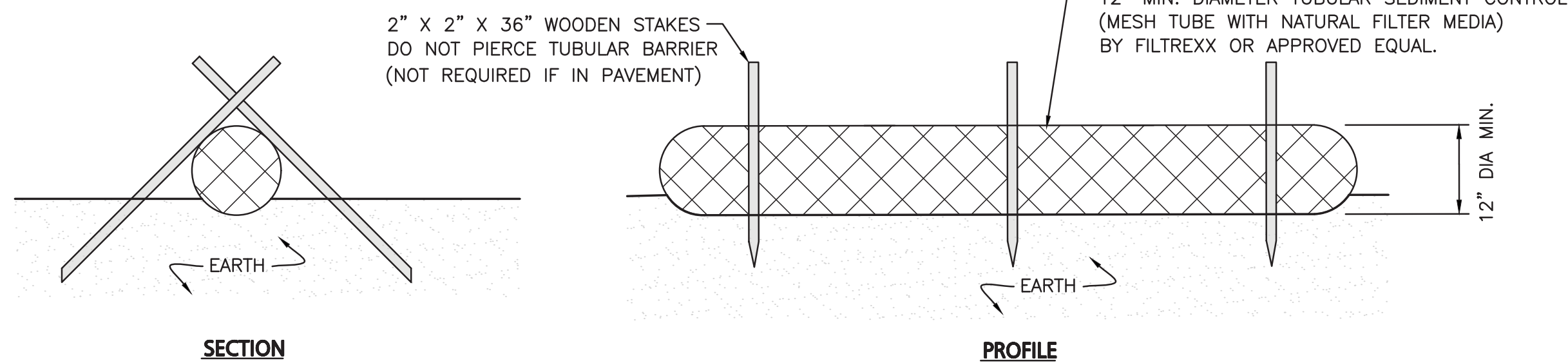
SHEET No.

C-105

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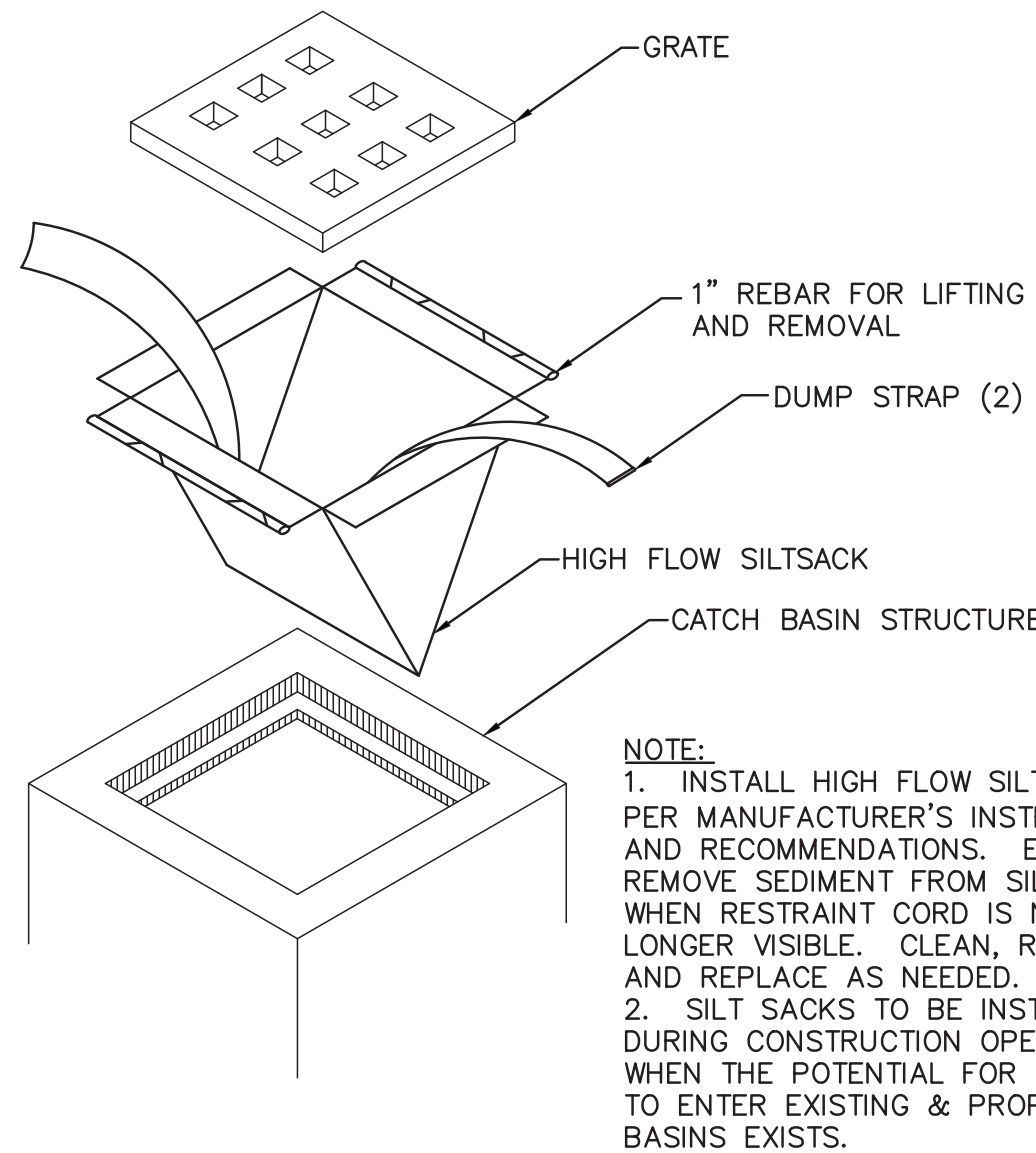
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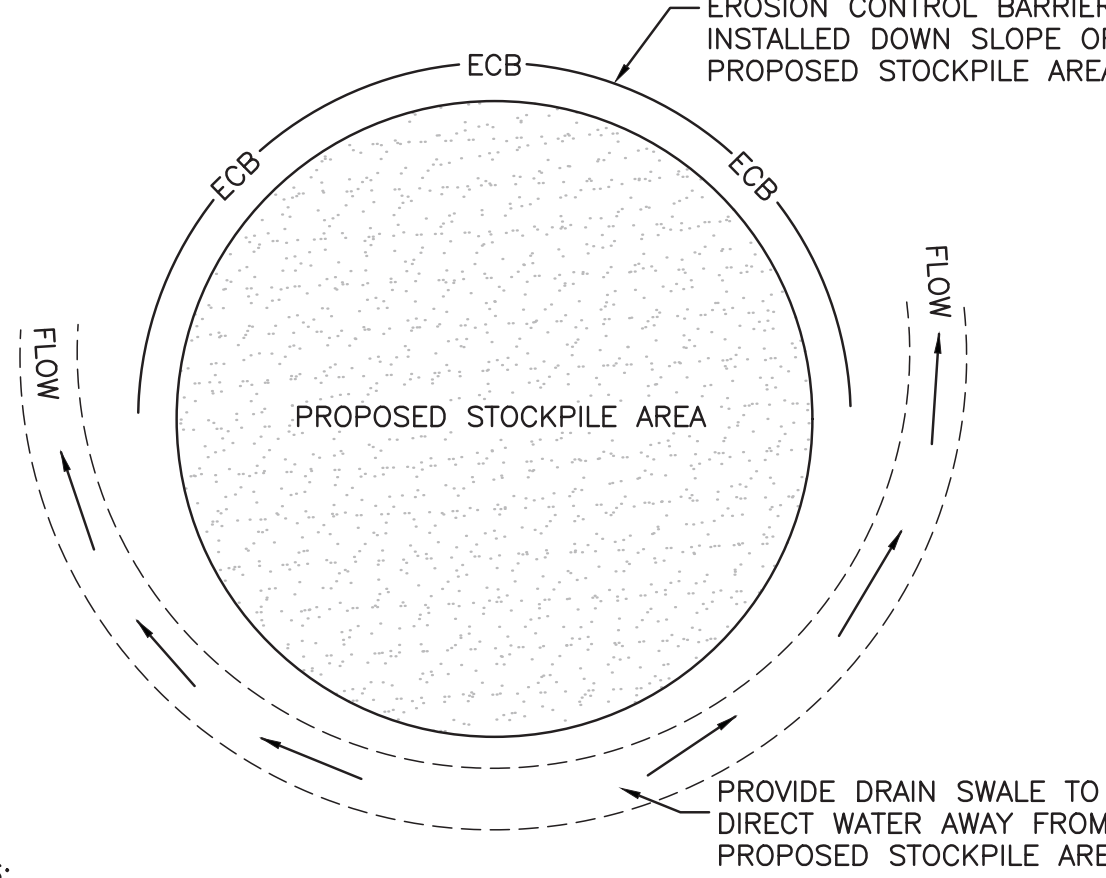
NOTES:

1. ALL MATERIALS TO MEET MANUFACTURERS SPECIFICATIONS.
2. INSTALL WOODEN STAKES IN A CRISS-CROSS PATTERN EVERY 8' ON CENTER.
3. OVERLAP TUBULAR BARRIER SEGMENTS A MINIMUM OF 12".
4. THE CONTRACTOR SHALL MAINTAIN THE TUBULAR BARRIERS IN A FUNCTIONAL CONDITION AT ALL TIMES. THE CONTROLS SHALL BE ROUTINELY INSPECTED BY THE CONTRACTOR.
5. WHERE THE TUBULAR BARRIERS REQUIRE REPAIR OR SEDIMENT REMOVAL, IT WILL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST.
6. AT A MINIMUM, THE CONTRACTOR SHALL REMOVE SEDIMENTS COLLECTED AT THE BASE WHEN THEY REACH 1/3 THE EXPOSED HEIGHT OF THE BARRIER.

TUBULAR SEDIMENT BARRIER  
NOT TO SCALE

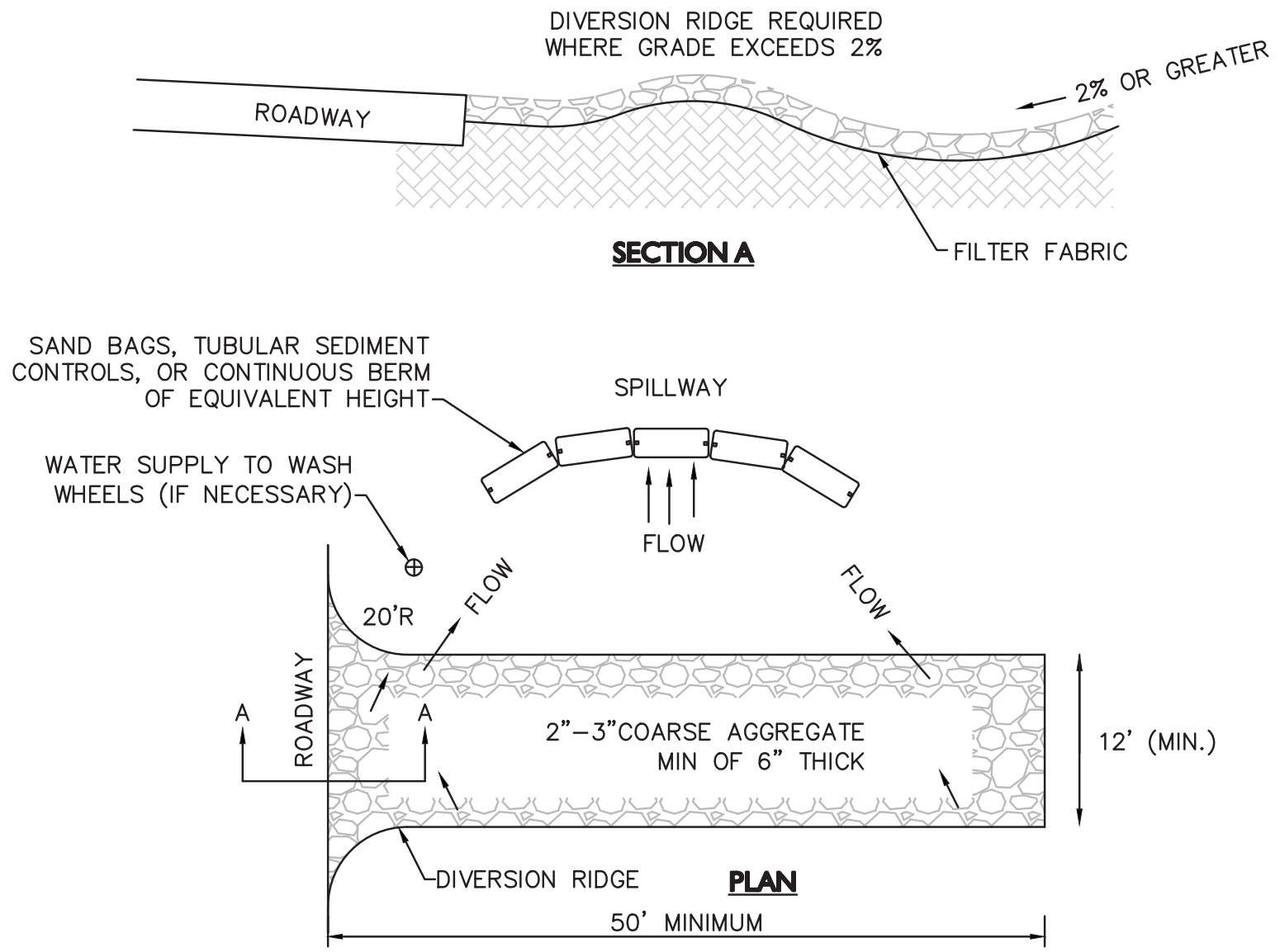


SILTSACK INLET DETAIL  
NOT TO SCALE



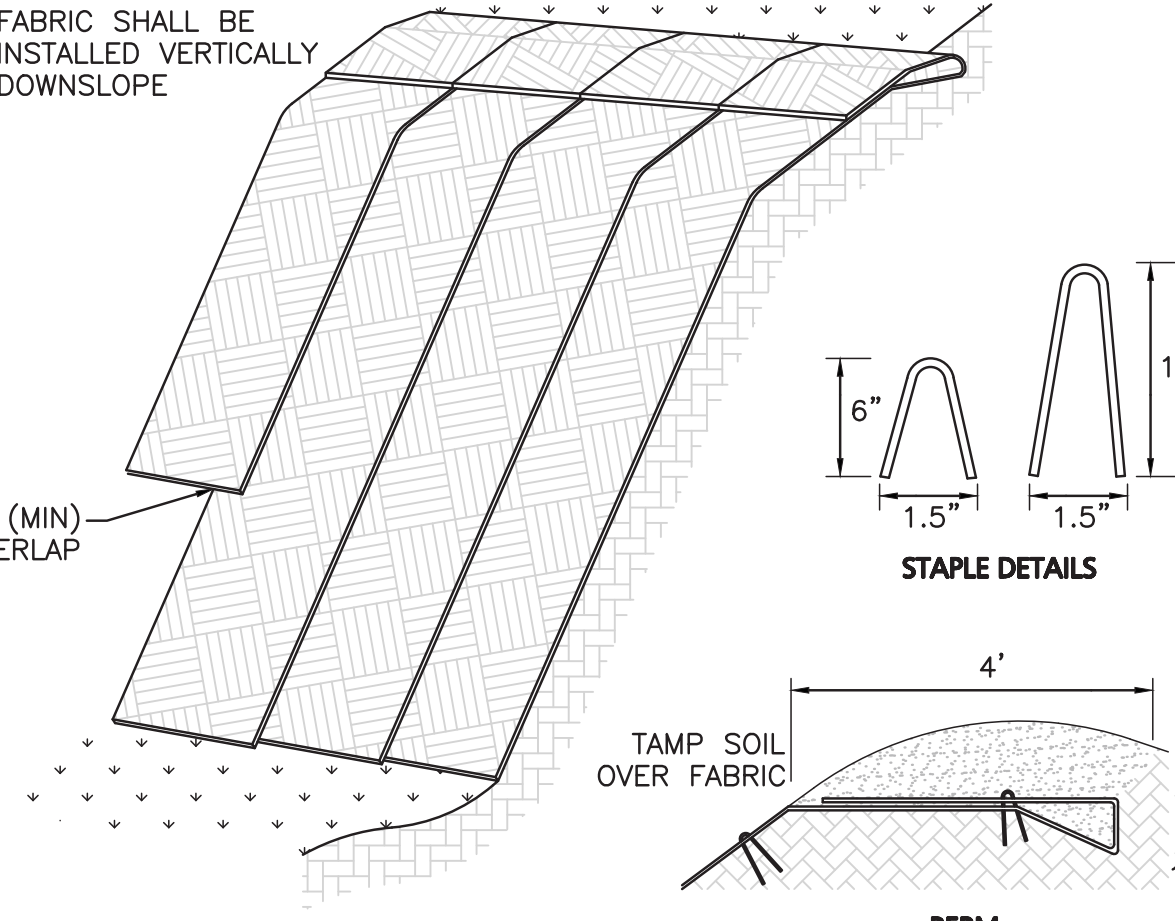
- NOTES:
1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH STRAW AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
  2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH STRAW MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

STOCKPILE PROTECTION DETAIL  
NOT TO SCALE



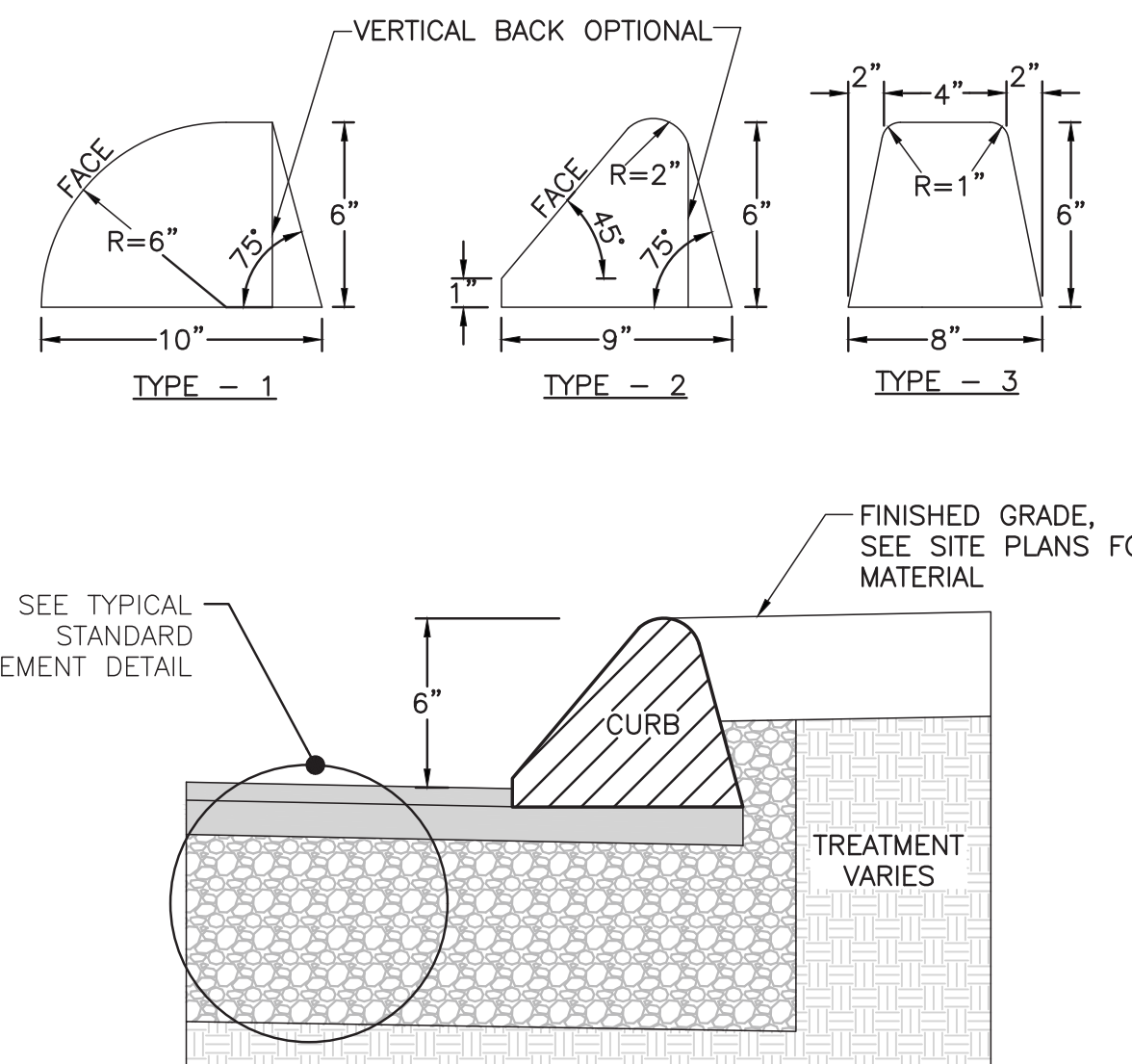
- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTERING THE PUBLIC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

TEMPORARY CONSTRUCTION ENTRANCE/EXIT  
NOT TO SCALE

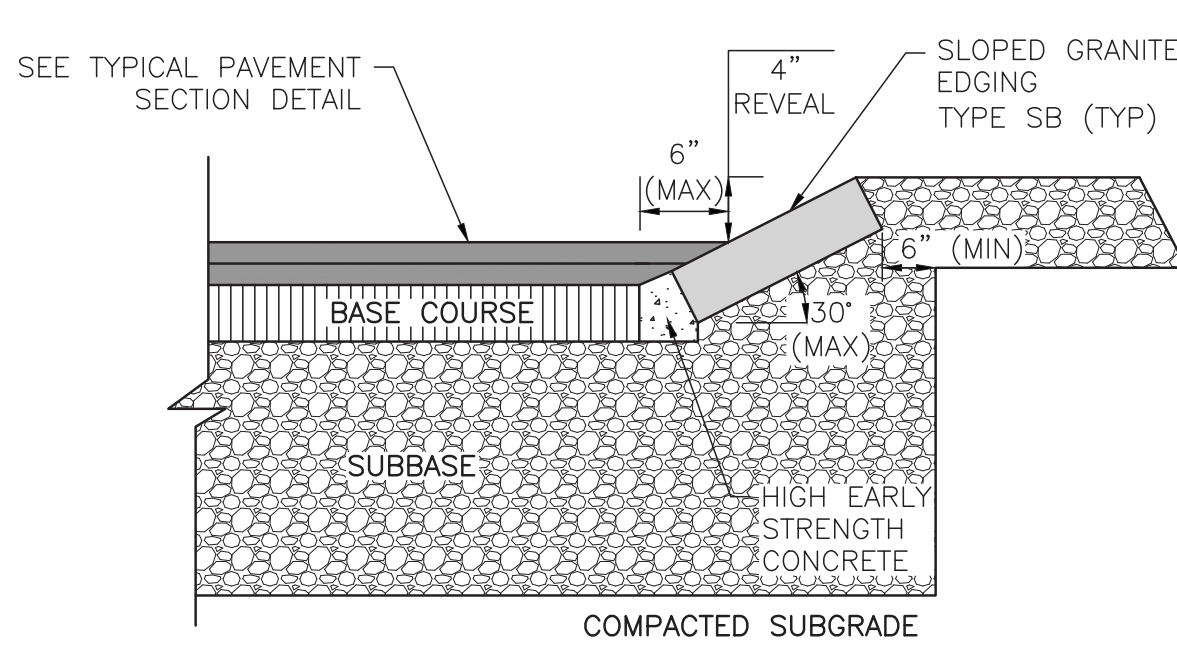


- NOTE:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. FABRIC SHALL HAVE GOOD SOIL CONTACT.
  2. APPLY PERMANENT SEEDING BEFORE PLACING FABRIC.
  3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
  4. CHOOSE MATERIAL BASED ON SLOPE, SOILS, AND APPLICATION.

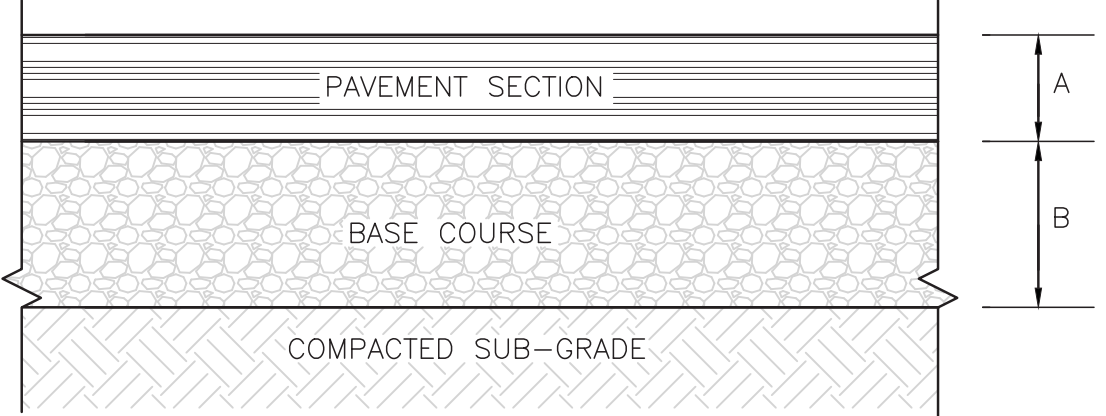
EROSION CONTROL FABRIC  
NOT TO SCALE



BITUMINOUS CONCRETE CURB  
NOT TO SCALE



SLOPED GRANITE CURB  
NOT TO SCALE



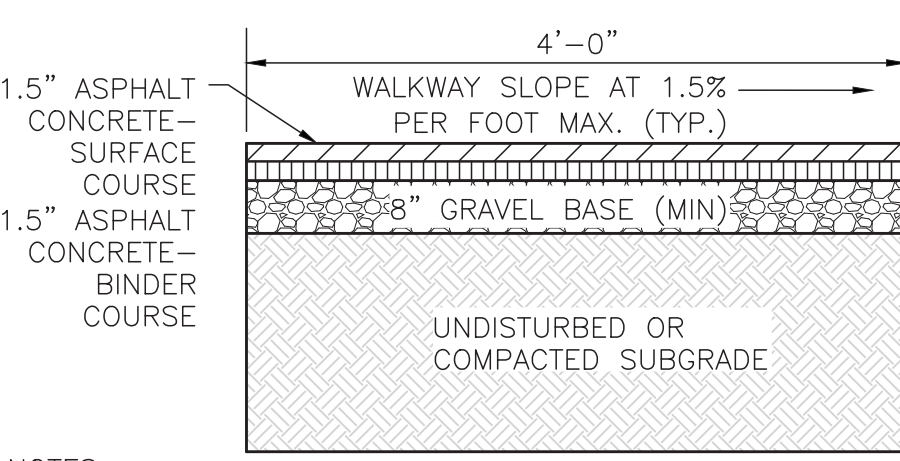
- NOTES:
1. PAVEMENT SECTION, BASE COURSE, AND SUBGRADE SHALL BE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IN THE ABSENCE OF A GEOTECHNICAL ENGINEER'S RECOMMENDATION, THE MATERIALS AND THICKNESS SHALL BE AS SHOWN HEREON.
  2. SUBGRADE SHALL BE COMPACTED TO 95% OF PROCTOR
  3. EXISTING SUBSURFACE SOILS SHALL BE PROOF-ROLLED.

MATERIALS AND THICKNESSES:

A = 1.5" ASPHALT CONCRETE - SURFACE COURSE (M3.11.0, TABLE A, TOP COURSE)  
3.0" ASPHALT CONCRETE - BINDER COURSE (M3.11.0, TABLE A, BINDER COURSE)

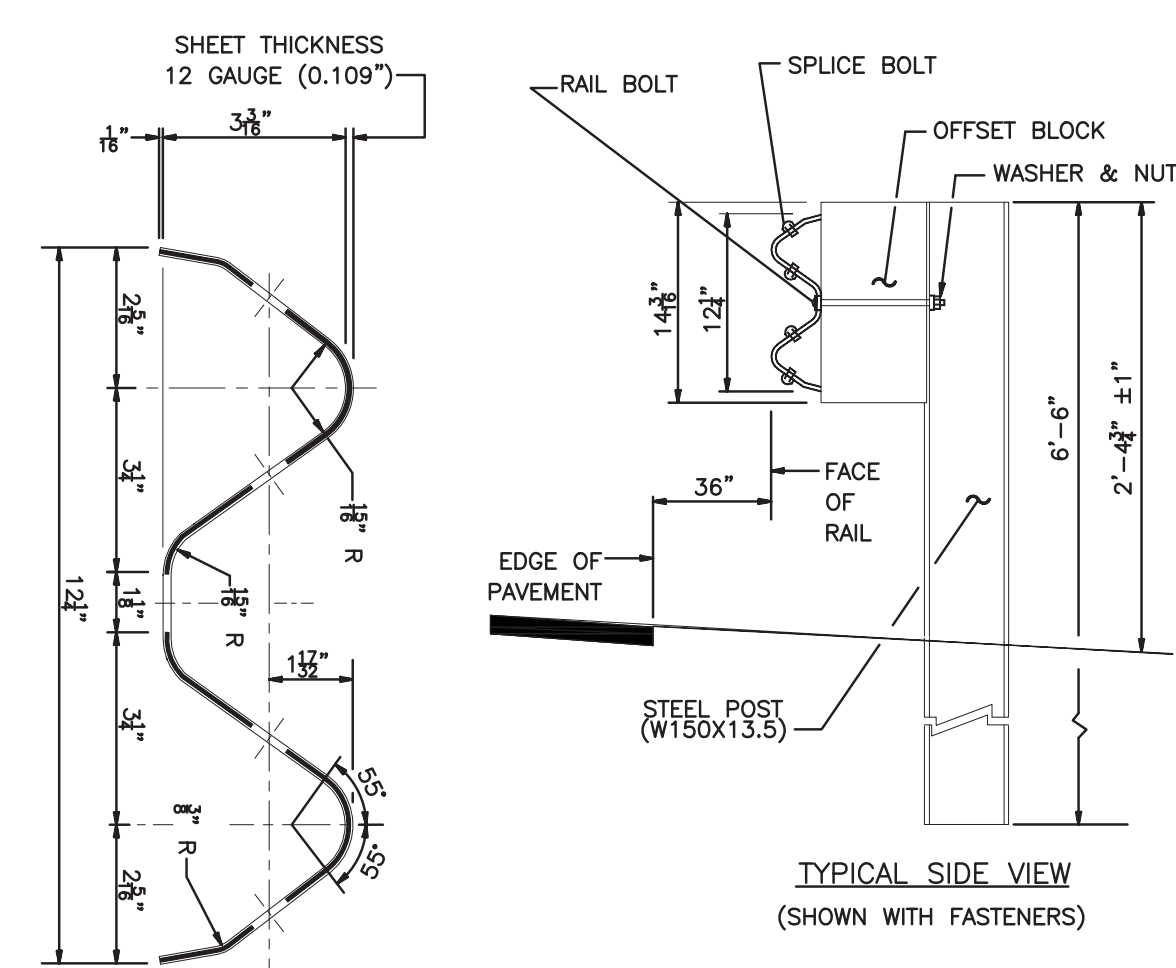
B = 14" PROCESSED GRAVEL BASE (MHD M2.01.7)

ASPHALT PAVEMENT SECTION  
NOT TO SCALE



- NOTES:
1. REFERENCE PLANS FOR ELEVATIONS.
  2. COMPACT SOIL SUBGRADE UNIFORMLY TO AT LEAST 95% OF ASTM D 1557 LABORATORY DENSITY.
  3. PROOF-ROLL PREPARED SUBGRADE TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY GEOTECHNICAL ENGINEER AND REPLACE WITH COMPACTED BACKFILL OR FILL AS DIRECTED.
  4. CONTRACTOR SHALL COORDINATE SURFACE, BINDER, AND BASE COURSES WITH GEOTECHNICAL OR SOILS REPORT. REFER TO REPORT FOR RECOMMENDATIONS FOR LOCAL SOILS OR DRAINAGE CONDITIONS AND/OR METHODS.
  5. BASE COURSE SHALL EXTEND 6 INCHES BEYOND WALKWAY EDGE WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.
  6. WALKWAY EDGES SHALL BE TAMPED WHERE WALKWAY DOES NOT ABUT DEEP CURB, WALL, STEPS, OR FIXED OBJECT.

BITUMINOUS CONCRETE SIDEWALK  
NOT TO SCALE



STEEL GUARDRAIL DETAIL  
NOT TO SCALE



Professionally signed by Michael  
Malynowski  
Date: 2021.04.09 12:55:08 -04'00'

PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

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REV	DATE	DESCRIPTION

APPLICANT/OWNER:

BARSKY ESTATE REALTY TRUST  
23 HUNTING LANE  
SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES  
31 HUNTING LANE  
SHERBORN, MA 01770

PROJECT NO. 2513-02 DATE: 10-23-20

SCALE: AS SHOWN DWG. NAME: C2513-02

DESIGNED BY: SM CHECKED BY: MAM

PREPARED BY:

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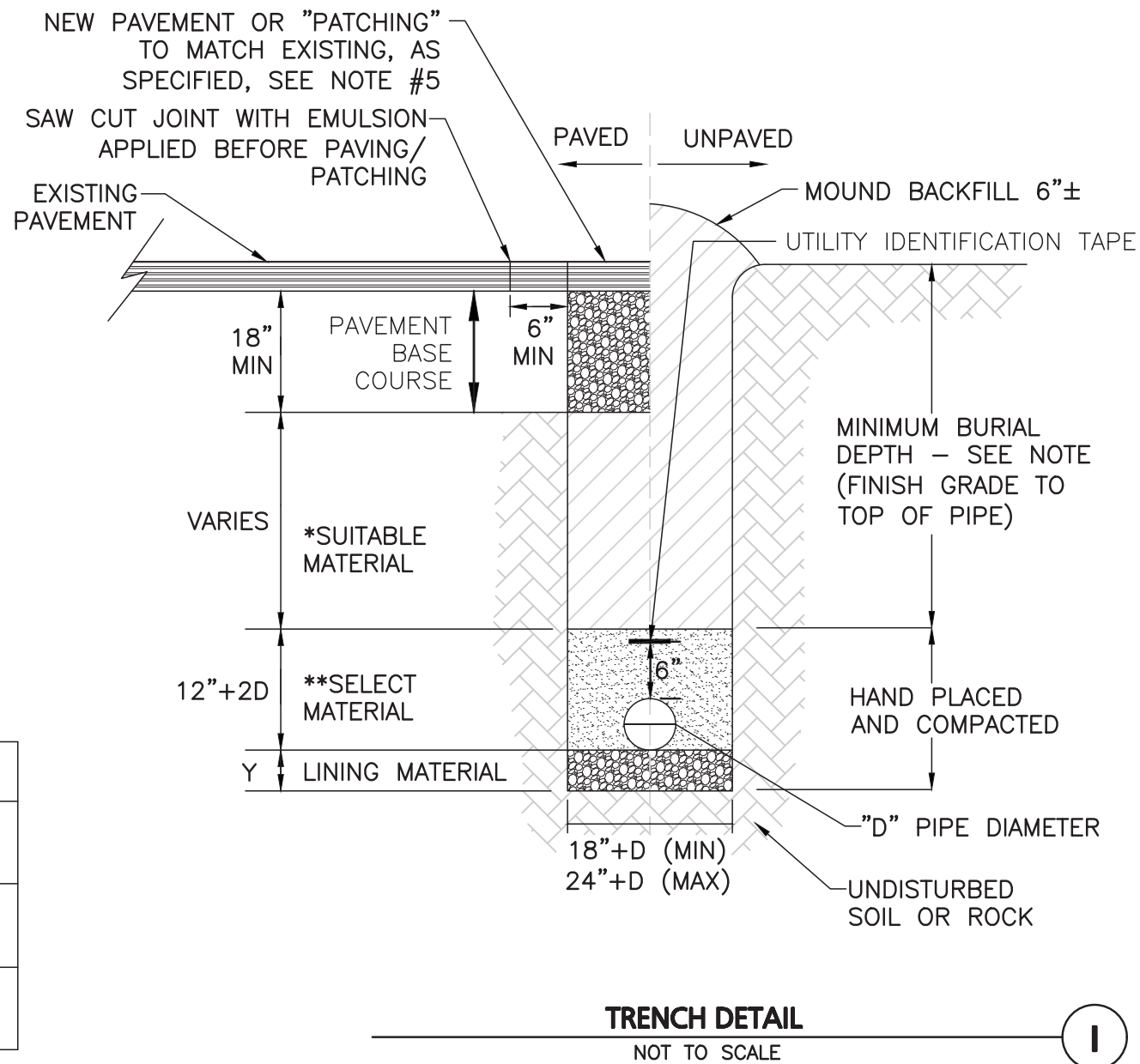
SHEET NO.

C-501

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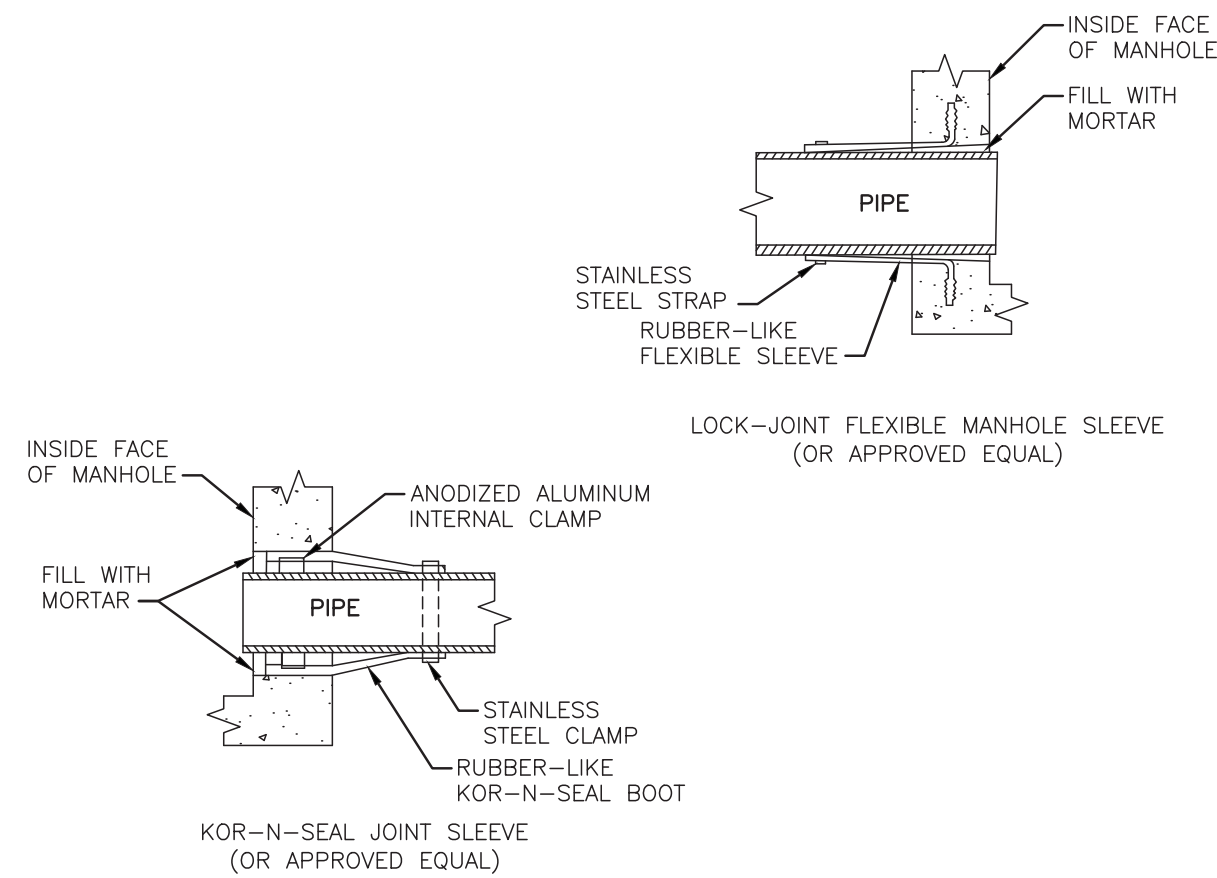
1. MINIMUM BURIAL DEPTH (FINISH GRADE TO TOP OF PIPE)  
GRAVITY PIPE (SEWER & DRAIN) – SEE PLAN OR PROFILE  
PRESSURE PIPE UNDER PAVING – 4’  
PRESSURE PIPE BENEATH UNPAVED – 3’  
WATER PIPE – 5’
2. WHERE BACKFILL IS DESIGNATED AS COMPACTED, THIS MEANS 90 TO 95% STANDARD PROCTOR, AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT.
3. TRENCHES WITHIN PUBLIC RIGHT OF WAY MAY REQUIRE FLOWABLE FILL. VERIFY WITH MUNICIPAL ENGINEER.
4. WHERE WASTE FILLS ARE ENCOUNTERED AT SUBGRADE LEVEL FOR NEW UTILITIES, THE FILL SHOULD BE OVER-EXCAVATED, THE SUBGRADE SHOULD BE RE-COMPACTED, AND BACKFILL CONSISTING OF PIPE BEDDING MATERIAL, CRUSHED STONE OR OTHER SUITABLE GRANULAR FILL SHOULD BE PLACED TO A SUFFICIENT DEPTH TO CREATE A FIRM AND STABLE SUBGRADE (TYPICALLY 12 TO 18 INCHES OVER-EXCAVATION).
5. REFER TO PAVING, CURBS, WALKS AND DRIVEWAY DETAILS.
6. REFER TO LANDSCAPING DETAILS.



	FILTER FABRIC USE	
	SOIL TYPE	
	SILT OR CLAY	GRANULAR SOIL
ABOVE GROUND WATER	FILTER FABRIC NOT REQUIRED	FILTER FABRIC NOT REQUIRED
BELOW GROUND WATER	FILTER FABRIC REQUIRED	FILTER FABRIC NOT REQUIRED

CONDITION & PIPE	**SELECT MATERIAL	LINING MATERIAL	Y-DIMENSION
DUCTILE IRON "ORDINARY SOIL"	TYPE I, II, OR III	SAND OR TYPE III	3"
RCP "ORDINARY SOIL"	TYPE II OR III	SAND OR TYPE III	3"
ALL PIPE OVER BEDROCK OR LEDGE	TYPE II OR III	SAND OR TYPE III	12"
DUCTILE IRON IN CLAY OR MUCK	TYPE II OR III	SAND	4"
RCP IN CLAY	TYPE II OR III	SAND	8"
ALL PLASTICS	TYPE III	SAND OR TYPE III	6"

\*\*\*TYPE III MATERIAL SHALL BE CLEAN, HARD, CRUSHED STONE FREE FROM COATINGS AND THOROUGHLY WASHED WITH A GRADATION BY WEIGHT OF 100% PASSING A 1" SQUARE OPENING, AND 0 TO 5% PASSING A 1/4" SQUARE OPENING.

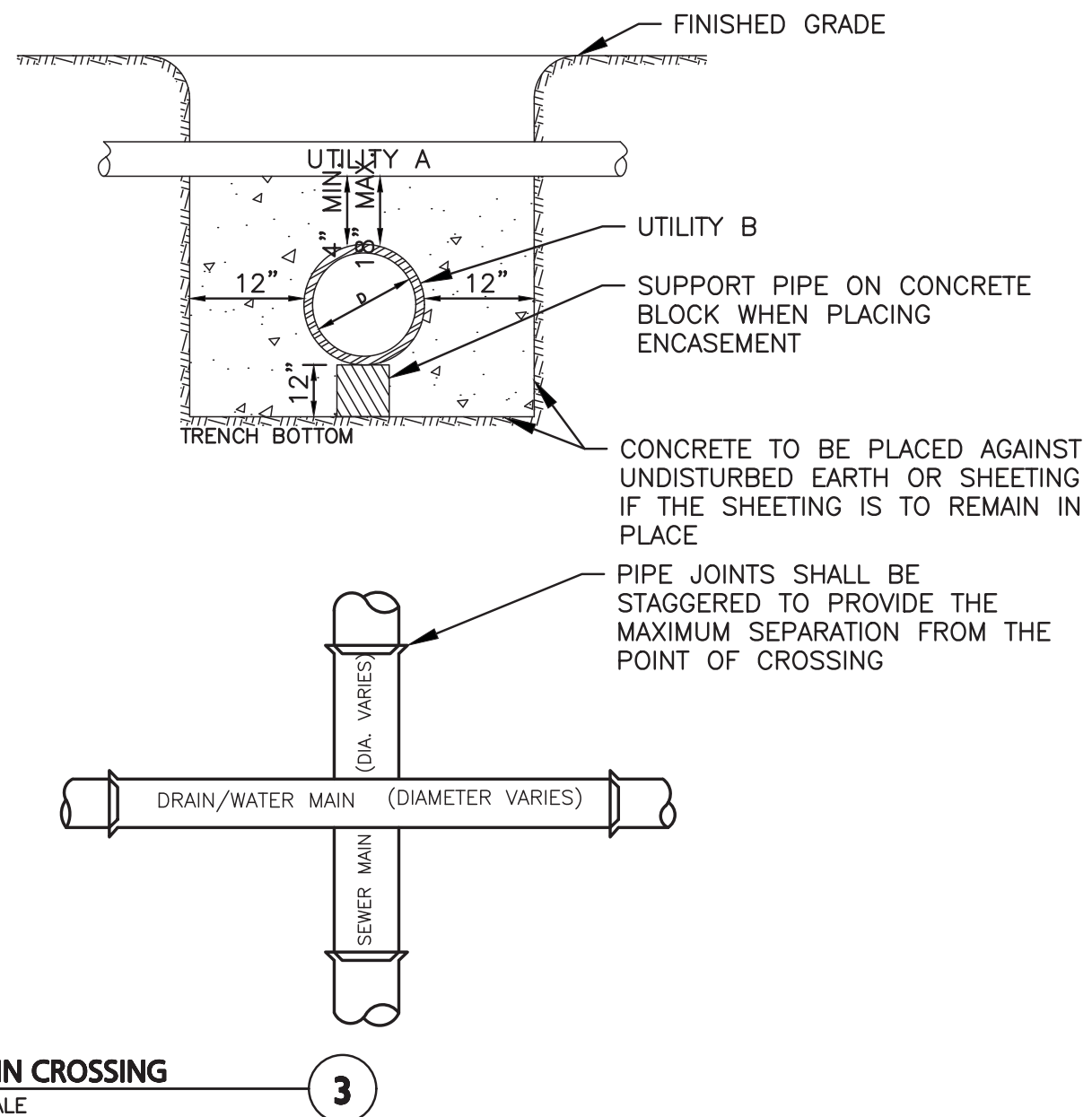


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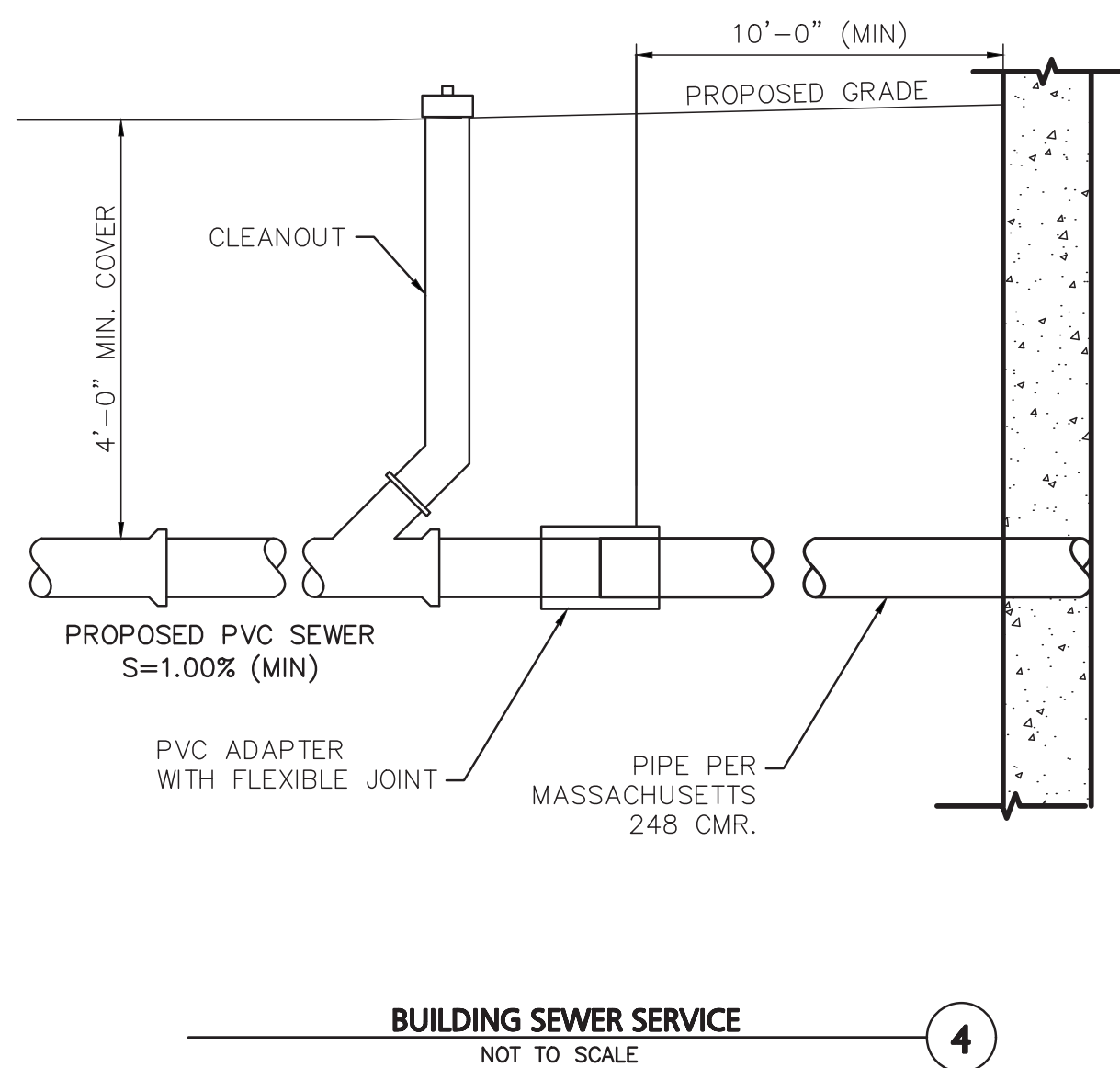
1. PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND IN GENERAL, WILL DEPEND FOR WATER TIGHTNESS UPON ELASTOMERIC SEALANT
2. NON-SHRINKING MORTAR SHALL ONLY BE USED WHERE SPECIFICALLY APPROVED BY THE ENGINEER.

**PIPE CONNECTIONS TO SEWER MANHOLE** 2

8. PIPE MUST BE BRACED VERTICALLY AND HORIZONTALLY TO PREVENT FLOATATION DURING PLACEMENT OF CONCRETE.

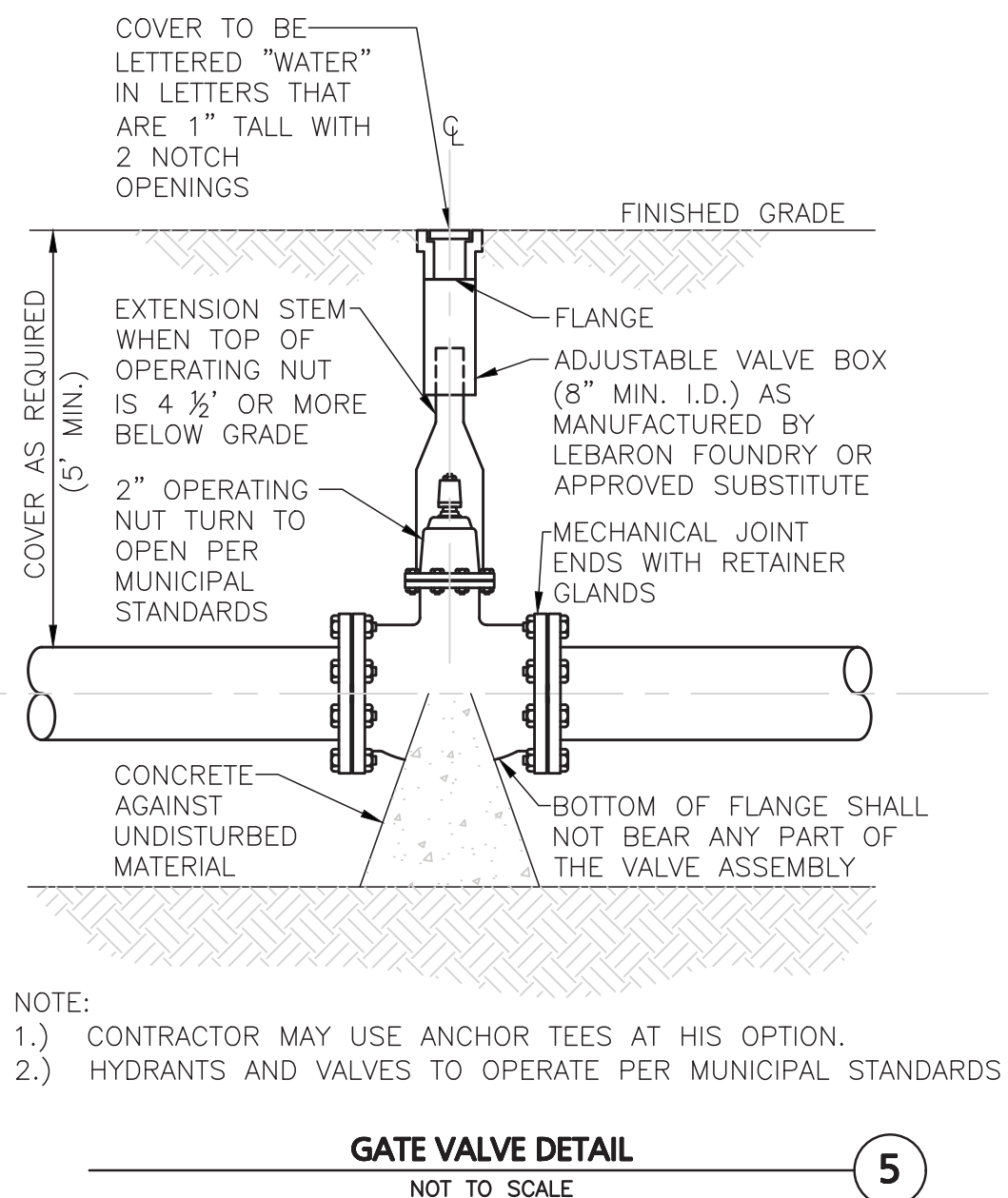


**SEWER/WATER/DRAIN CROSSING**  
NOT TO SCALE



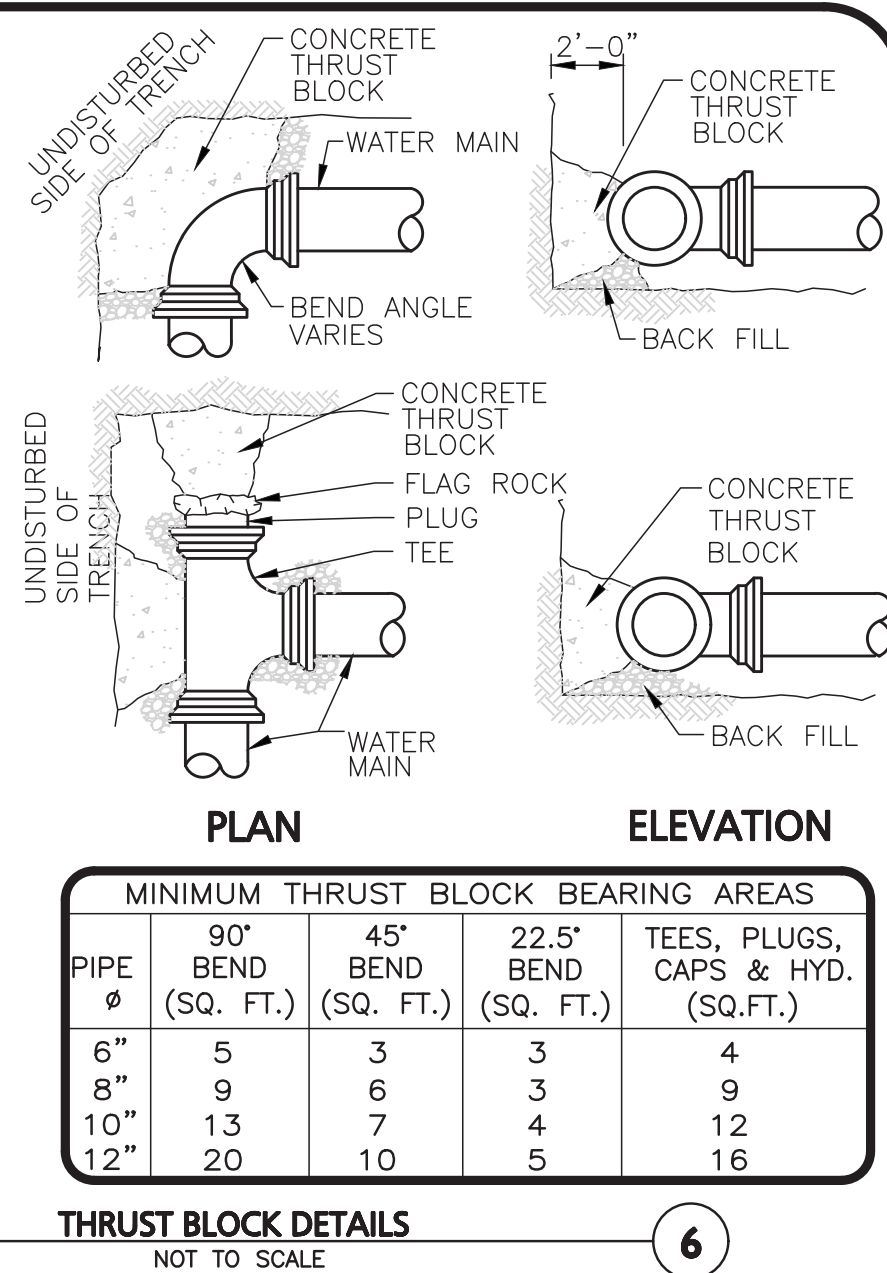
**BUILDING SEWER SERVICE** 4

NOT TO SCALE

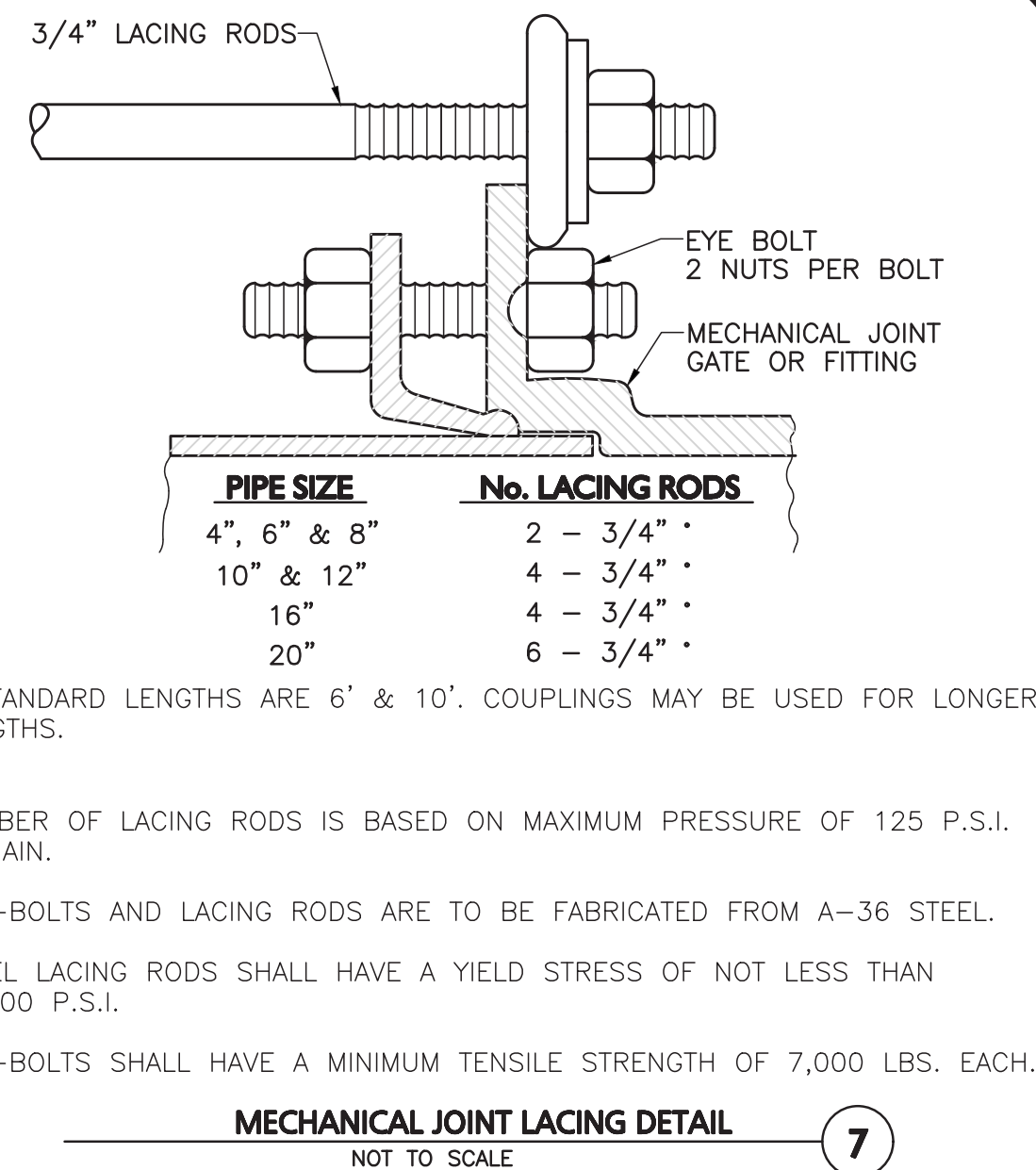


**GATE VALVE DETAIL** 5

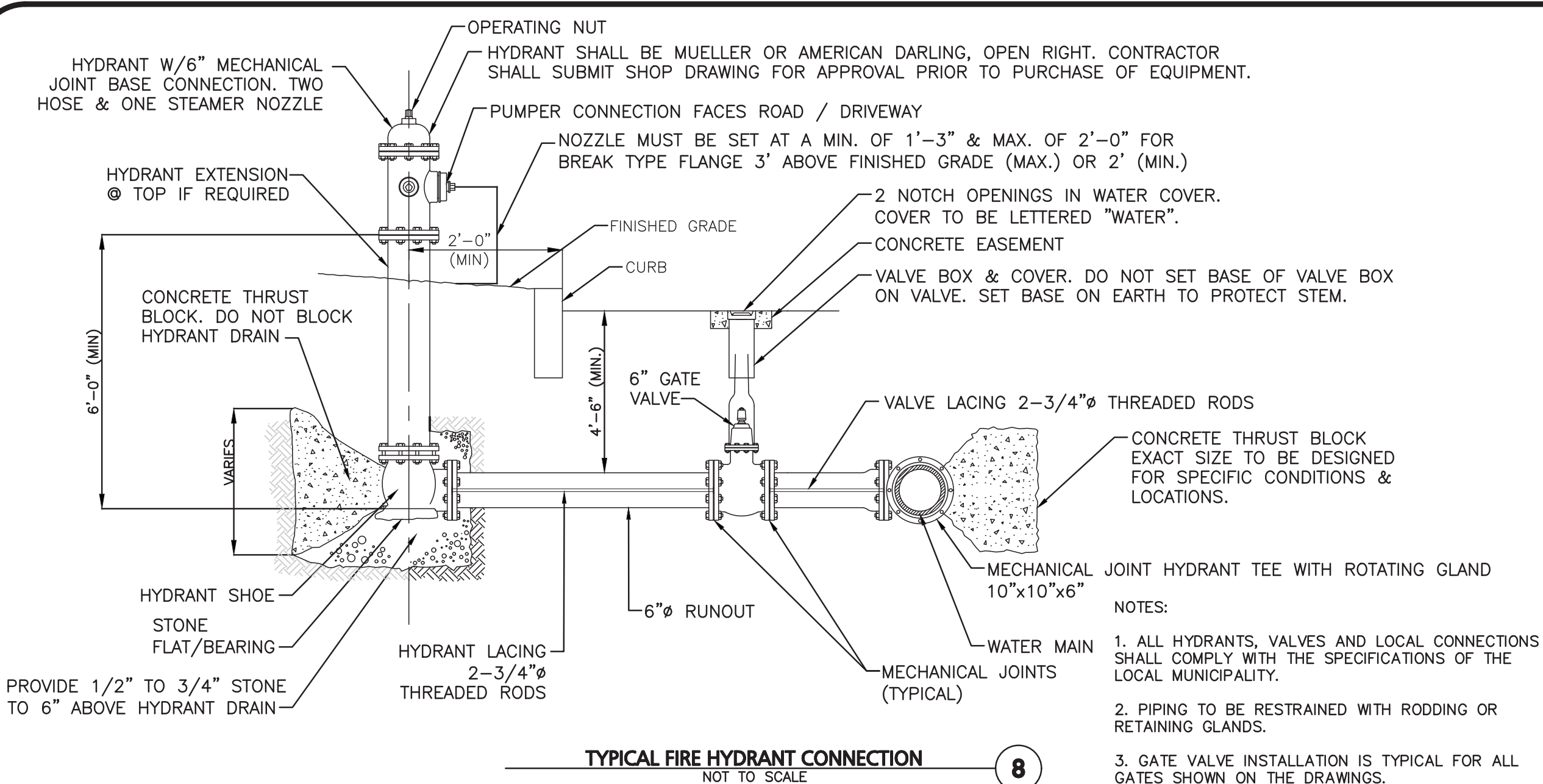
6. THE BELOW  
PREDICATED ON A  
WATER PRESSURE OF  
225 PSI AND A SOIL  
RESISTANCE OF 2000  
PSF (TILL). FOR OTHER  
SOILS THE VALUES IN  
THE ABOVE TABLE  
SHALL BE MULTIPLIED  
BY:



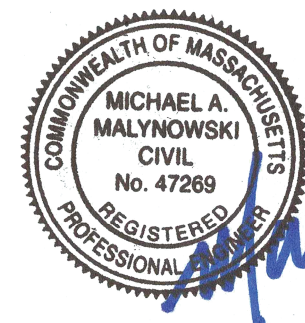
**THRUST BLOCK DETAILS**  
NOT TO SCALE



**MECHANICAL JOINT LACING DETAIL** 7  
NOT TO SCALE



**TYPICAL FIRE HYDRANT CONNECTION**  
NOT TO SCALE



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31 HUNTING LANE  
SHERBORN, MA 01770

PROJECT NO.	2513-02	DATE:	10-23-20
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DESIGNED BY:	SM	CHECKED BY:	MAM



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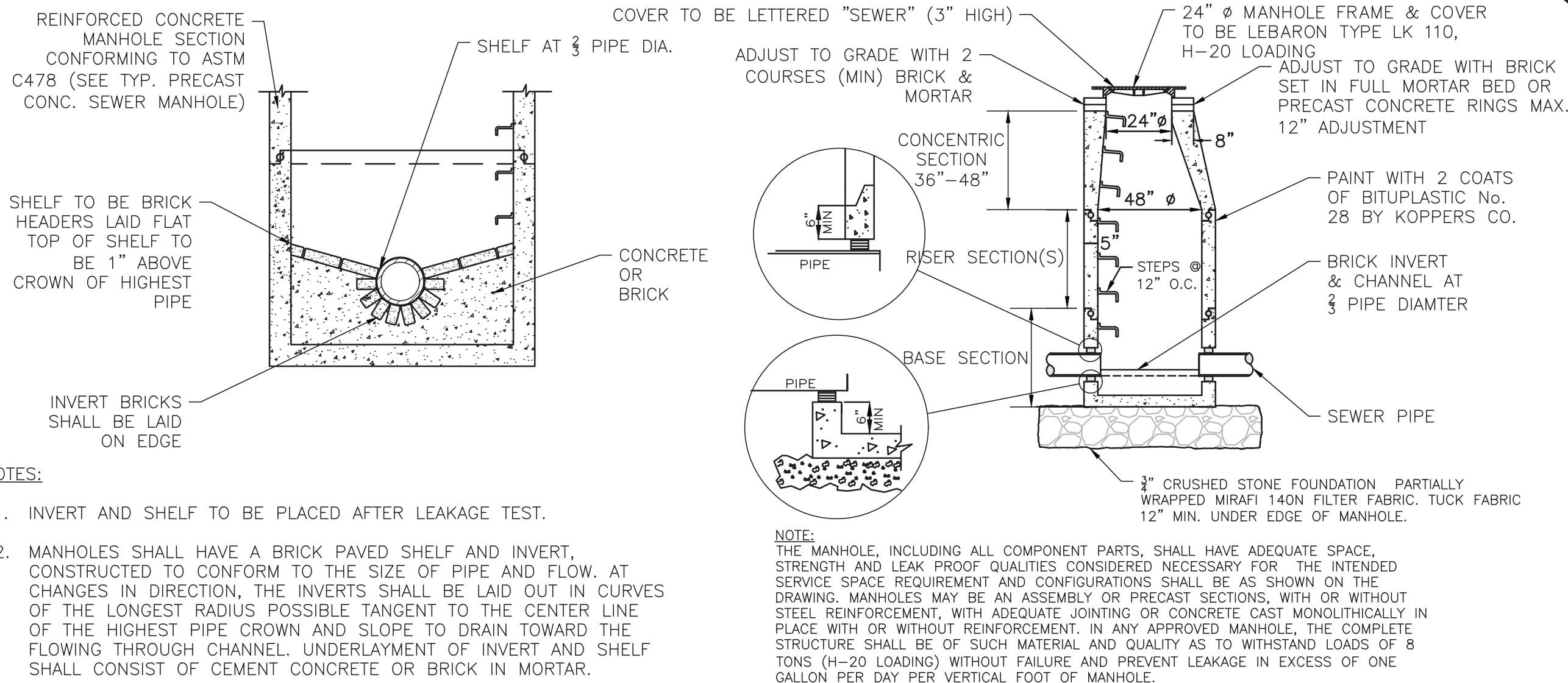
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DETAILS	C-502
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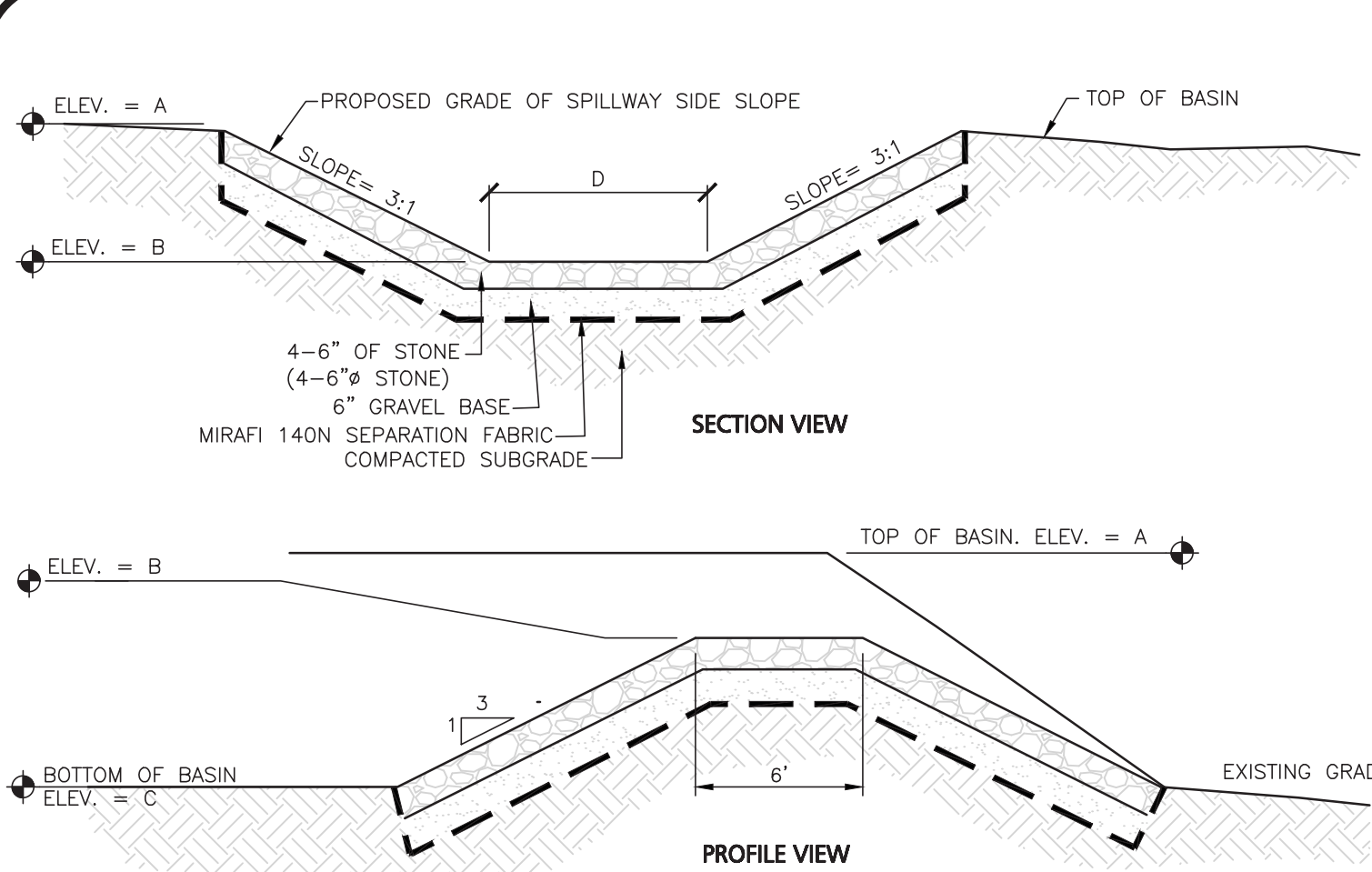


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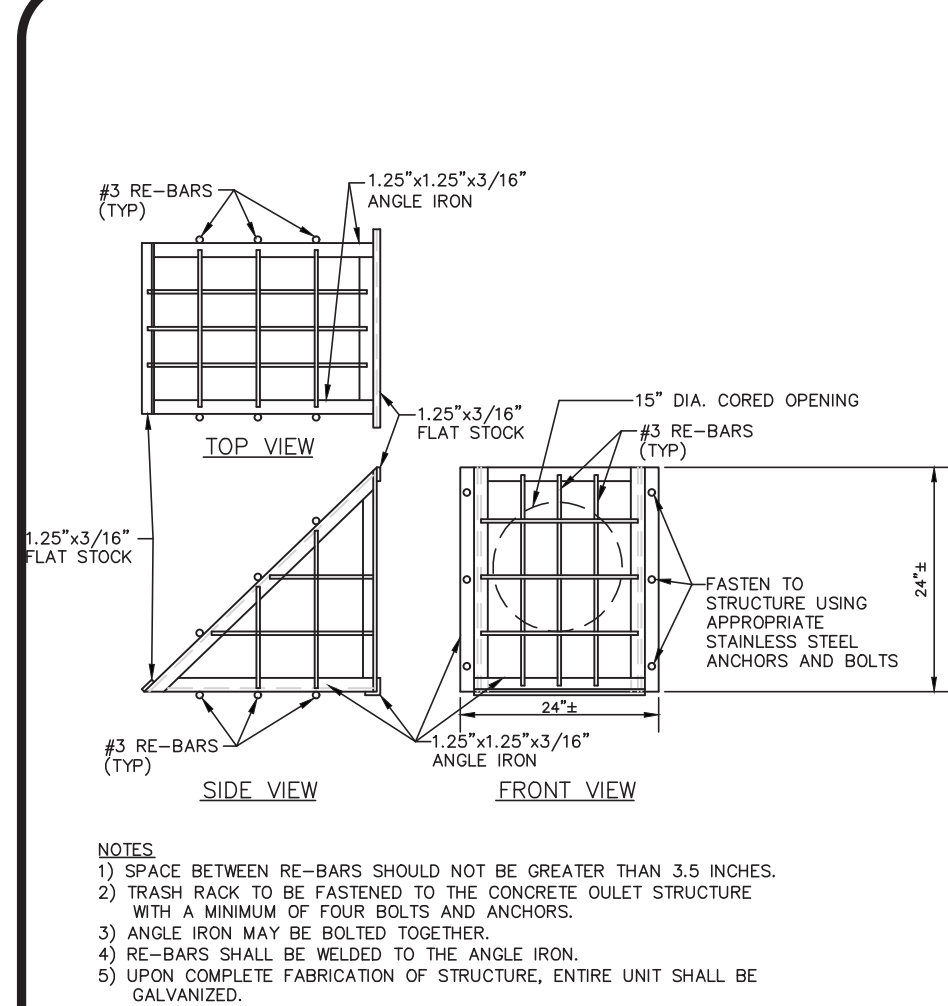
PRECAST CONCRETE SEWER MANHOLE  
NOT TO SCALE

1



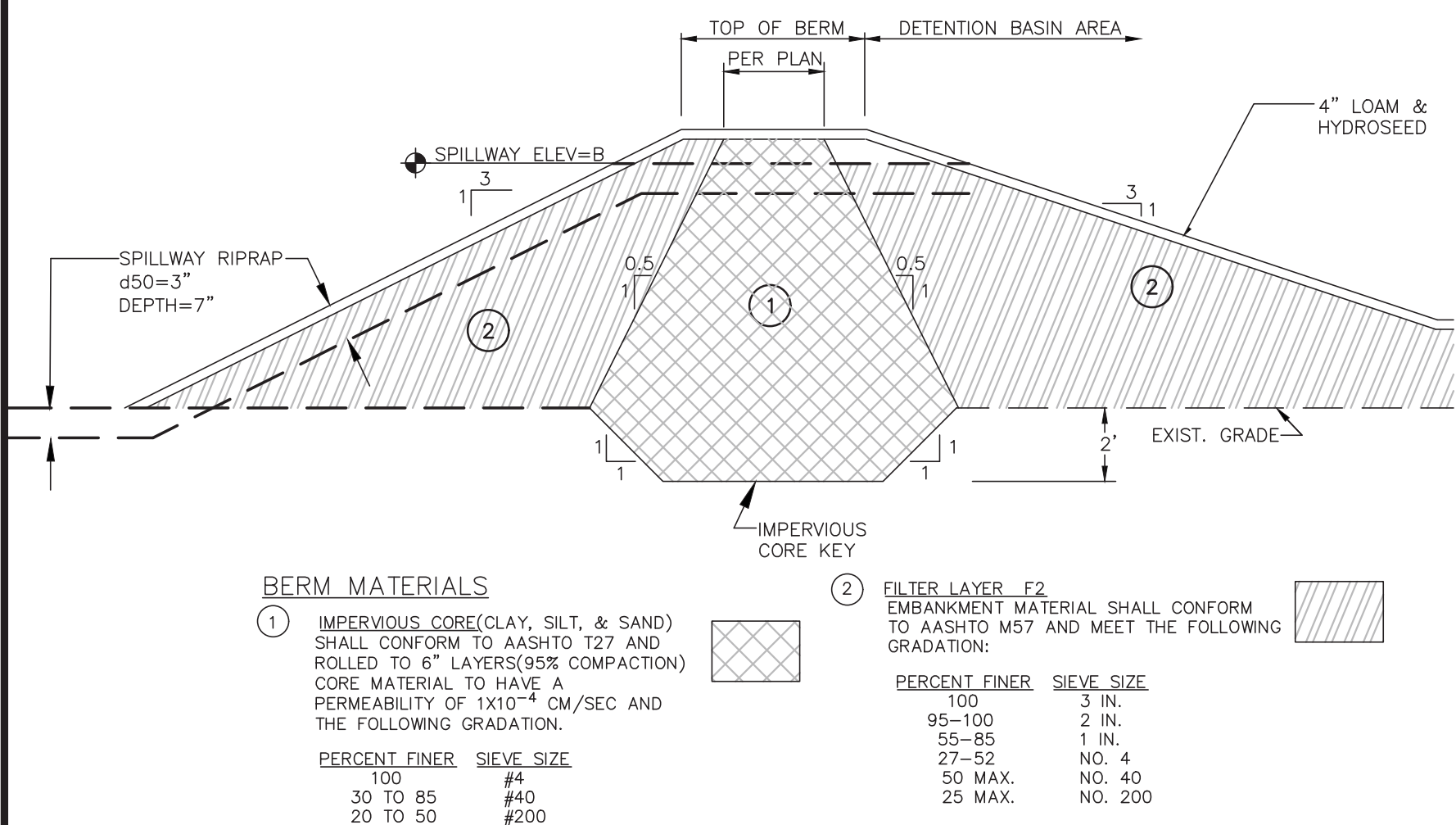
TYPICAL SECTION & PROFILE OF EMERGENCY SPILLWAY  
NOT TO SCALE

2



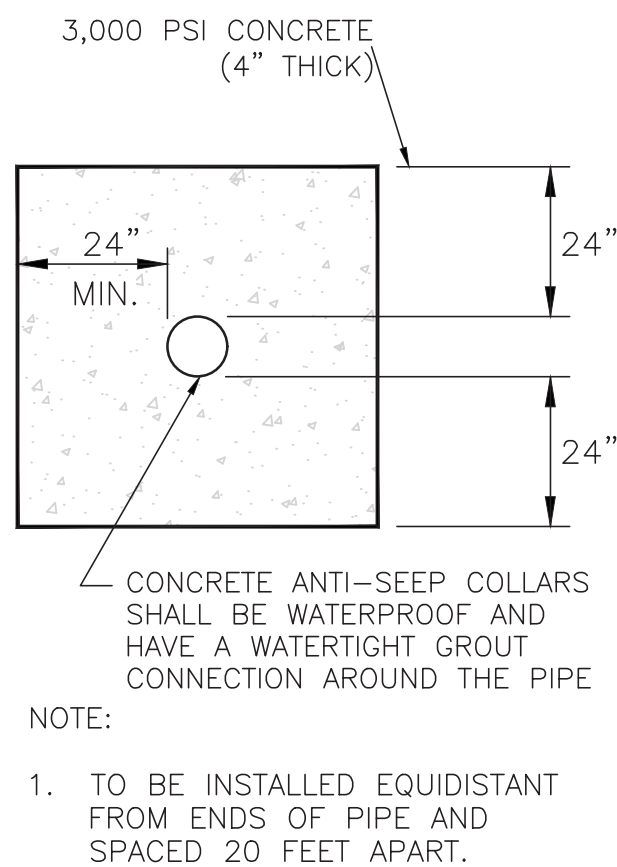
TRASH RACK  
NOT TO SCALE

3



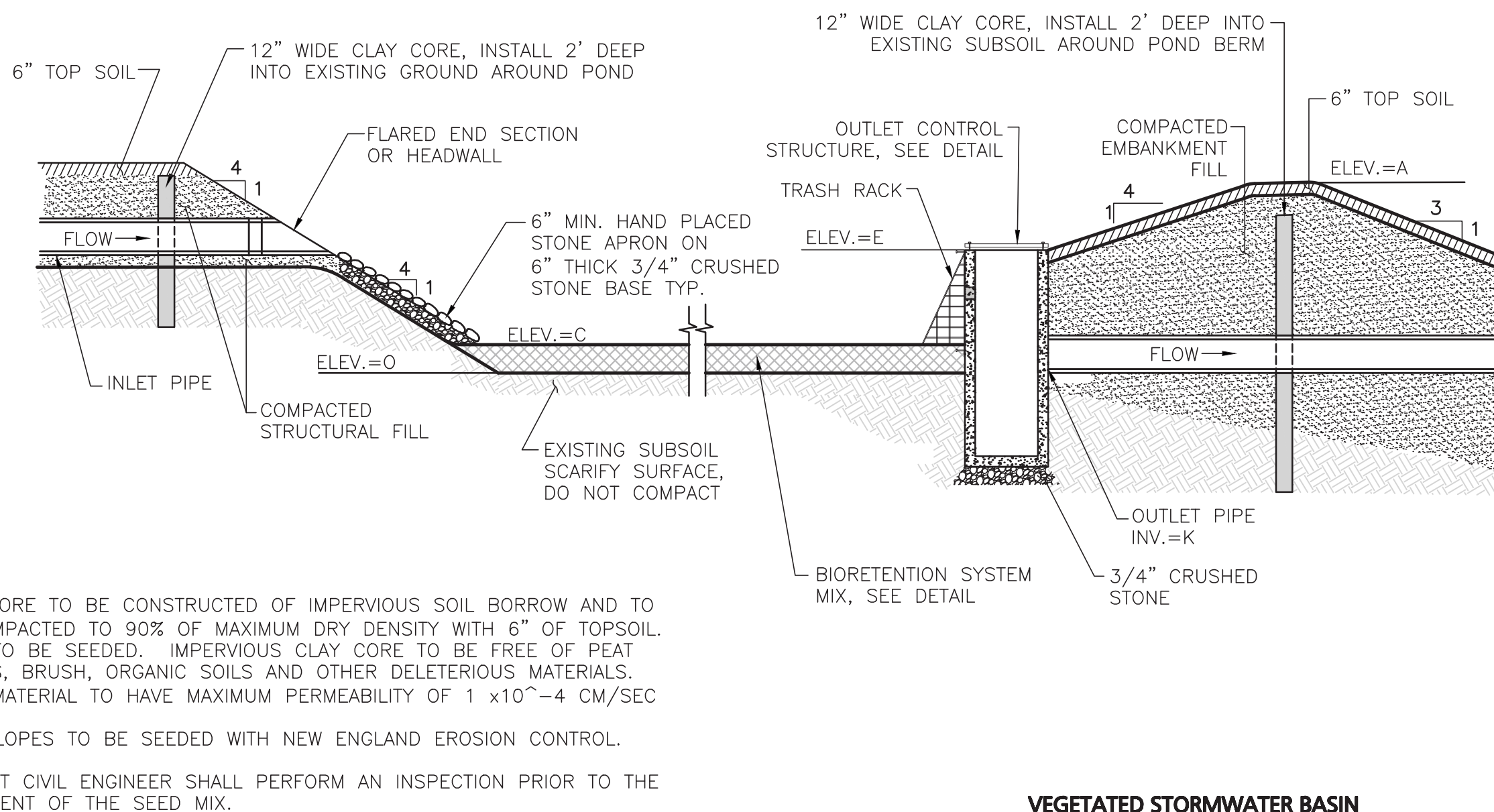
TYPICAL BASIN EMBANKMENT CROSS SECTION  
NOT TO SCALE

4



ANTI-SEEP COLLAR FOR BASIN OUTLET  
NOT TO SCALE

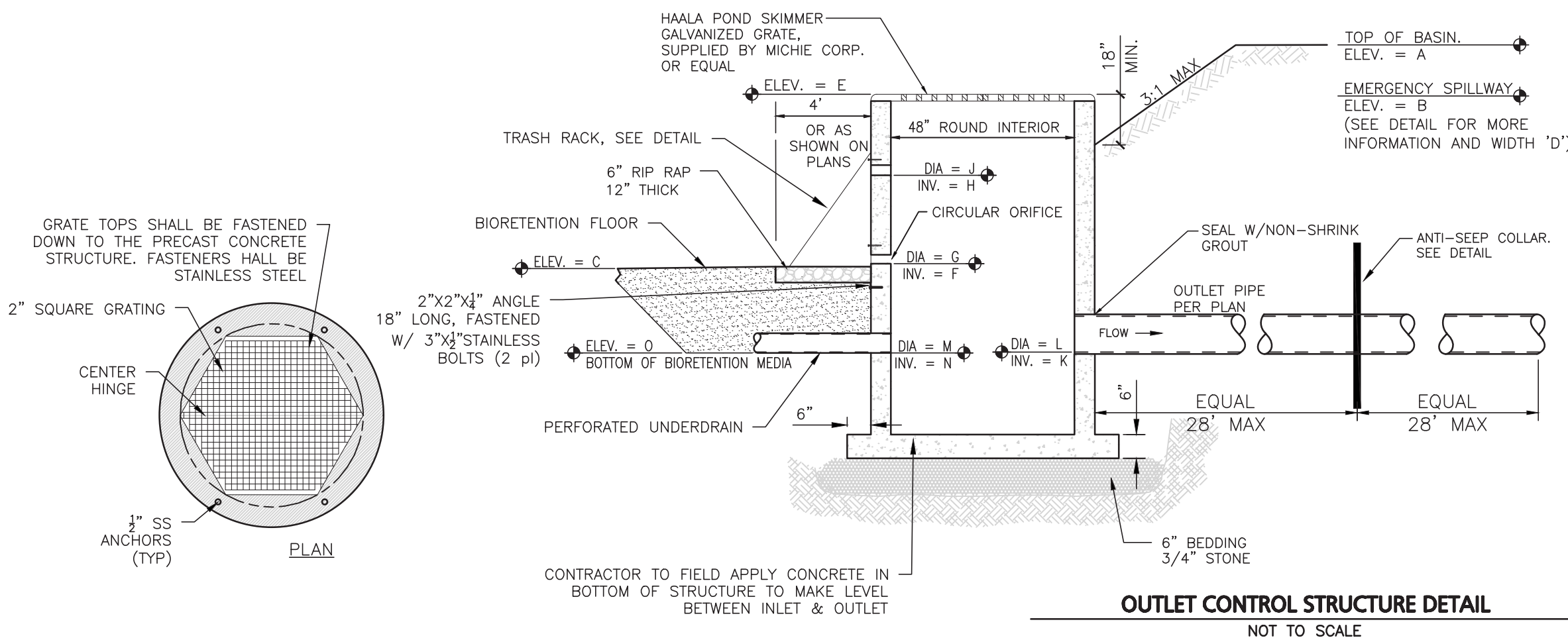
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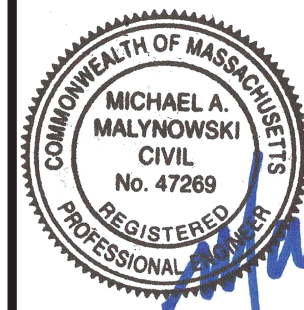
VEGETATED STORMWATER BASIN  
NOT TO SCALE

6

	A	B	C	D	E	F	G	H	J	K	L	M	N	O
	(Elev.)	(Elev.)	(Elev.)	(feet)	(Elev.)	(Elev.)	(Dia)	(Elev.)	(Dia)	(Elev.)	(Dia)	(Dia)	(Elev.)	(Elev.)
DB1	212.20	210.75	205.50	10.0	208.90	N/A	N/A	N/A	N/A	205.50	12"	4" x4	205.50	205.50
DB2	250.00	249.70	244.50	10.0	248.65	N/A	N/A	N/A	N/A	239.55	12"	6"	239.55	239.55



8



Digitally signed by Michael A. Malynowski  
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PROFESSIONAL ENGINEER FOR  
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APPLICANT/OWNER:

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23 HUNTING LANE  
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PROJECT:

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SHERBORN, MA 01770

PROJECT NO. 2513-02 DATE: 10-23-20

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PREPARED BY:

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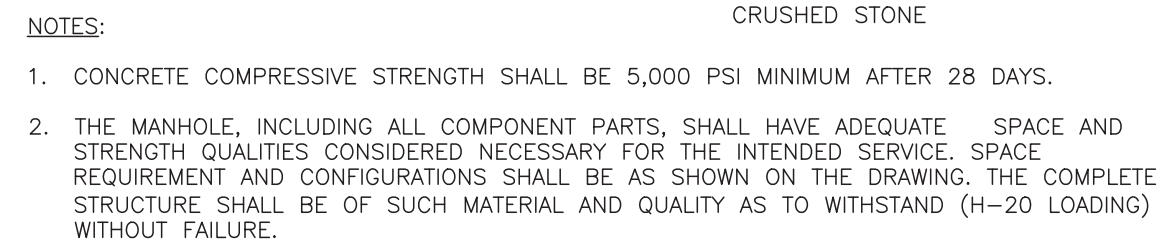
DETAILS

SHEET NO.

C-503

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**PRECAST CONCRETE HEADWALL DETAIL**  
NOT TO SCALE

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Malynowski  
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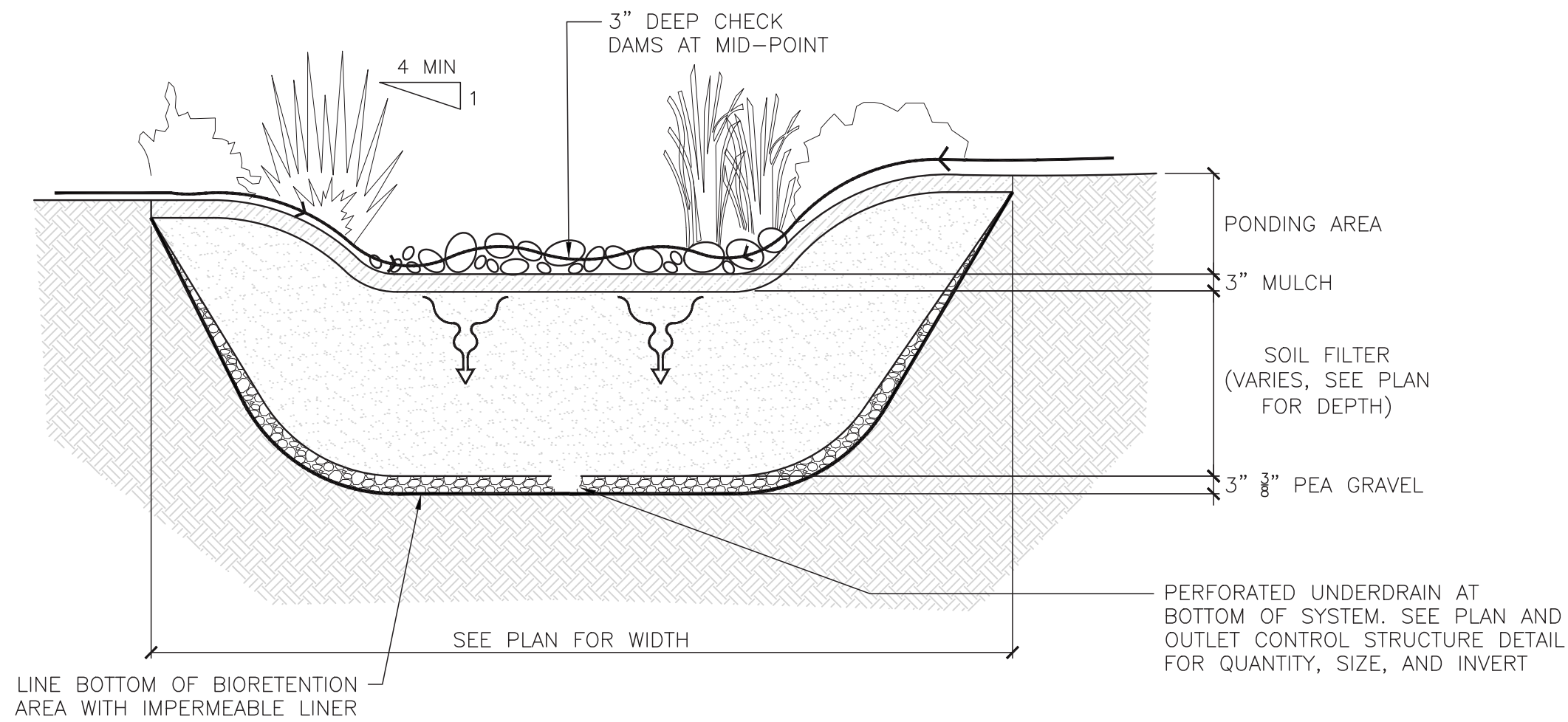
## DETAILS

SHEET No.

C-504



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NOTES:

1. GRADING, AND PLANTING OF BIORETENTION SHALL BE COMPLETED IN EARLY PHASES OF CONSTRUCTION. PLANTS AND SEED ON SLOPES AND BOTTOM OF BASIN MUST BE ESTABLISHED PRIOR TO CONNECTING STORM DRAINAGE SYSTEM OUTLETS TO BIORETENTION AREA. PLANTS AND SEED MIX SHALL HAVE A MINIMUM OF 6 MONTHS GROWING, BE ESTABLISHED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO CONNECTING STORM DRAINAGE SYSTEM OUTLETS TO BIORETENTION AREA.
2. EXCAVATION, FILLING AND PLANTING SHALL OCCUR IN THE DRY. WATER LEVELS MUST BE LOWERED IN THE BIORETENTION AREA BY RELYING ON DRY SEASON AND OR DRY SPELLS; OR MAY BE ACCOMPLISHED THROUGH THE USE OF DEWATERING METHODS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ANY DEWATERING METHODS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. WATER FROM ANY DEWATERING OPERATION SHALL BE TREATED TO REDUCE TOTAL SUSPENDED SOLIDS AND BE IN COMPLIANCE WITH STATE AND FEDERAL STANDARDS.
4. TOPSOIL COMPONENT SHALL BE A SANDY LOAM, LOAMY SAND, OR LOAM TEXTURE.
5. THE COMPOST COMPONENT MUST BE PROCESSED FROM YARD WASTE IN ACCORDANCE WITH MASSDEP GUIDELINES. THE COMPOST SHALL NOT CONTAIN BIOSOLIDS.

SOIL FILTER MIX	
GRADATION OF MATERIAL	
AMOUNT	COMPONENT
40%	SAND
20-30%	TOPSOIL
30-40%	COMPOST

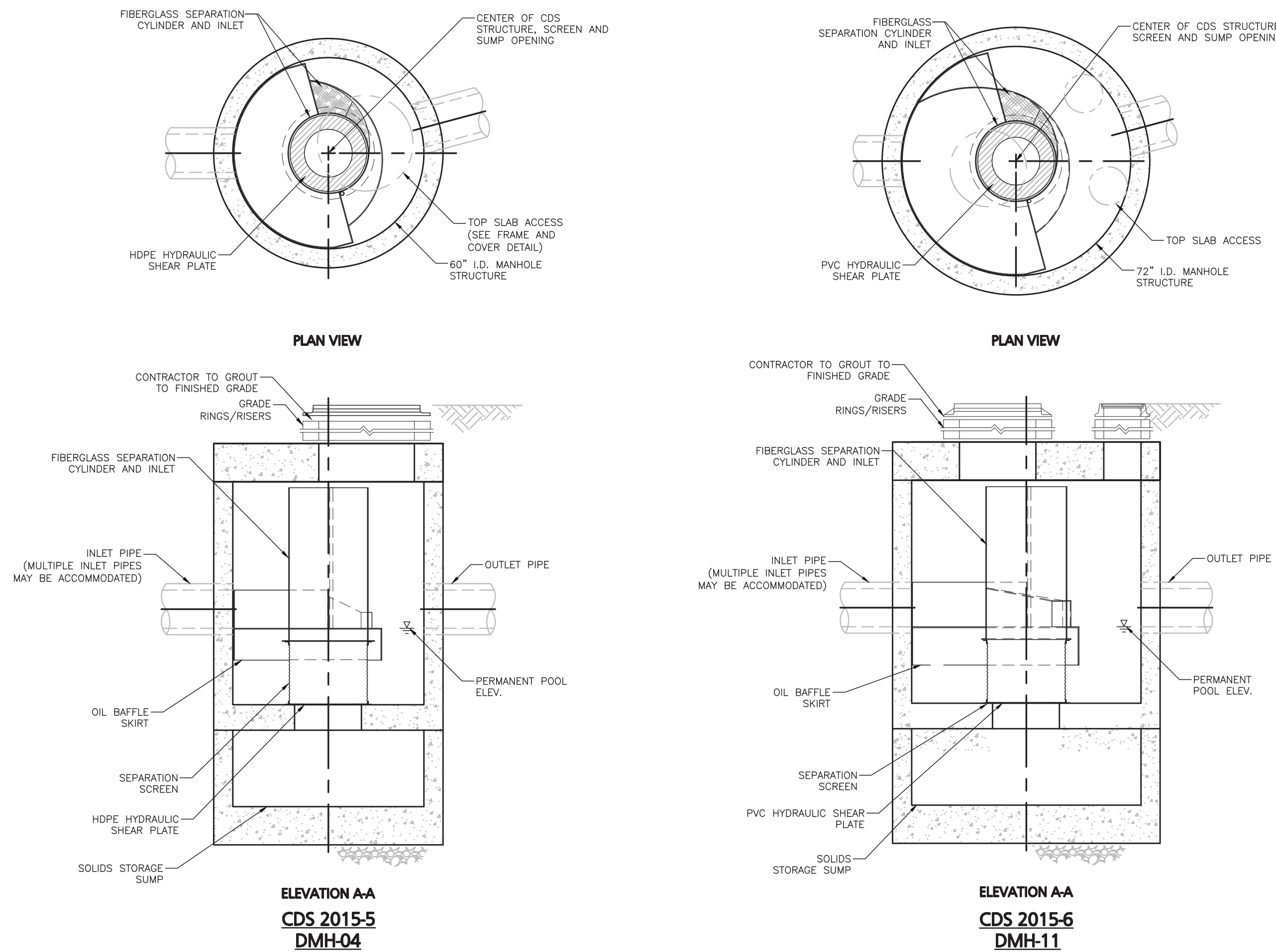
SAND GRADATION	
GRADATION OF MATERIAL	
SIEVE NO.	% PASSING
2-INCH	100
3/4-INCH	70-700
1/4-INCH	50-80
NO. 40	15-40
NO. 200	0-3

BIORETENTION SYSTEM DETAIL  
NOT TO SCALE

1

NOT USED  
NOT TO SCALE

2



- GENERAL NOTES
1. 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.
  2. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION.
  3. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- INSTALLATION NOTES
- A. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
  - B. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
  - C. 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.
  - D. 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.

HYDRODYNAMIC WATER QUALITY DEVICES  
NOT TO SCALE

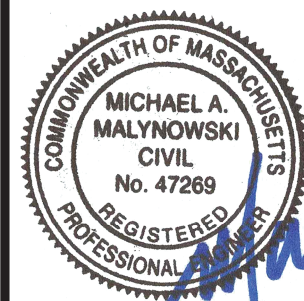
3

NOT USED  
NOT TO SCALE

4

NOT USED  
NOT TO SCALE

5



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Date: 2021.04.09 13:09:00 -04'00'  
PROFESSIONAL ENGINEER FOR  
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DRAWING TITLE:	SHEET No.
DETAILS	C-505



LOAM AND SEEDING NOTES (GENERAL LAWN MIX):

CONTRACTOR SHALL SEED ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER MATERIALS, AND AT AREAS SHOWN ON THE PLAN PER SPECIFICATIONS BELOW

GENERAL LAWN MIX

SCIENTIFIC NAME	COMMON NAME	PROPORTION BY WEIGHT	PERCENT PURITY	PERCENT GERMINATION
FESTUCA RUBRA "RUBRA"	CREeping RED FESCUE	37%	95%	90%
PAO PRAENTENSIS "BARON"	BARON KENTUCKY BLUEGRASS	40%	85%	90%
LOLIUM PERENNE "PALMER"	PALMER PERENNIAL RYEGRASS	15%	95%	90%
FESTUCA RUBRA COMMUTATA WILMA	WILMA CHEWINGS	8%	95%	80%

1. SEED TO BE SPREAD AT MINIMUM RATE OF 5 LBS. PER 1000 SQ. FT.
2. ALL SEEDING (INCLUDING NEW ENGLAND WETLAND MIX SEEDS) TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RE-SEEDING OF BARE SPOTS. AT ALL SLOPED AREAS CONTRACTOR TO INSTALL COCONUT FIBER JUTE MESH NETTING ON ALL SLOPES 3:1 AND OVER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLUX TERRA HP-FGM SOIL STABILIZER" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS AT NO ADDITIONAL COST TO OWNER & UNTIL SLOPES ARE FULLY STABLE. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER. AFTER SEEDING, SEEDED AREAS TO BE LIGHTLY MULCHED WITH WEED FREE STRAW & CONTINUALLY WATERED EVERY DAY FOR 2 MONTHS (USE NO HAY) SO THAT SEED IS KEPT MOIST.
3. COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE SPREAD AT THE RATE OF 100 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIZE SOURCES OF UREAFORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.
4. LAWN AREAS TO BE SEEDDED BY SOWING EVENLY WITH AN APPROVED MECHANICAL SEEDER AT THE RATE OF TEN POUNDS PER 1000 SQUARE FEET.
5. CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RESEEDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.

ADDITIONAL SEED MIX SPECIFICATIONS FOR SLOPES AREAS (AS NOTED ON THE PLAN):

SEE NOTE #22 ON SHEET L-102 FOR RATE OF APPLICATION & ADDITIONAL INFORMATION

WWW.NEWP.COM OR  
Ph: (413) 548-8000 | Fx: (413) 549-4000 | info@newp.com  
New England Wetland Plants, Inc.  
820 West Street  
Amherst, MA 01002

NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DRY SITES:

- |                                     |                         |
|-------------------------------------|-------------------------|
| 1. UPLAND BENTGRASS                 | AGROSTIS PERENNANS      |
| 2. ROUGH BENTGRASS/TICKLEGRASS      | AGROSTIS SCABRA         |
| 3. BLUE GRAMA                       | BOUTELOUA GRACILIS      |
| 4. CANADA WILD RYE                  | ELYMUS CANADENSIS       |
| 5. CREEPING RED FESCUE              | FESTUCA RUBRA           |
| 6. ANNUAL RYEGRASS (NATURALIZED)    | LOLIUM MULTIFLORUM      |
| 7. PERRENIAL RYEGRASS (NATURALIZED) | LOLIUM PERENNE          |
| 8. LITTLE BLUESTEM                  | SCHIZACHYRIUM SCOPARIUM |
| 9. INDIAN GRASS                     | SORGHASTRUM NUTANS      |

(BY NEW ENGLAND WETLAND PLANTS INC)

EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES:

- |                            |                      |
|----------------------------|----------------------|
| A. ELYMUS VIRGINICUS       | VIRGINIA WILD RYE    |
| B. FESTUCA RUBRA           | CREEPING RED FESCUE  |
| C. SCHIZACHYRIUM SCOPARIUM | LITTLE BLUESTEM      |
| D. ANDROPOGON GERARDII     | BIG BLUESTEM         |
| E. PANICUM VIRGATUM        | SWITCH GRASS         |
| F. VERBENA HASTATA         | BLUE VERVAIN         |
| G. AGROSTIS SCABRA         | ROUGH BENTGRASS      |
| H. ASTER NOVAE-ANGLIAE     | NEW ENGLAND ASTER    |
| I. EUPATORIUM MACULATUM    | SPOTTED JOE PYE WEED |
| J. EUPATORIUM PERFORIATUM  | BONESET              |
| K. JUNCUS EFFUSUS          | SOFT RUSH            |
| L. SCIRPUS CYPERINUS       | WOOL GRASS           |

SHOWY NEW ENGLAND WILDFLOWER MIX

- |   |   |       |
|---|---|-------|
| SCHIZACHYRIUM SCOPARIUM   | LITTLE BLUESTEM   | FACU  |
| CHAMAECRISTA FASCICULATA  | PARTRIDGE PEA   | FACU  |
| SORGHASTRUM NUTANS  | INDIAN GRASS  | UPL   |
| FESTUCA RUBRA   | RED FESCUE  | FACU  |
| ELYMUS CANADENSIS   | CANADA WILD RYE   | FACU+ |
| ELYMUS RIPARIUS   | RIVERBANK WILD RYE  | FACW  |
| HELIOPSIS HELIANTHOIDES   | OX EYE SUNFLOWER  | UPL   |
| COREOPSIS LANCEOLATA  | LANCE LEAVED COREOPSIS  | FACU  |
| RUDBECKIA HIRTA   | BLACK EYED SUSAN  | FACU  |
| LIATRIS SPICATA SPIKED GAYFEATHER/MARSH BLAZING STAR            | COMMON MILKWEED   | FACU+ |
| ASCLEPIAS SYRIACA   | NEW YORK IRONWEED   | FACW+ |
| VERNONIA NOVEBORACENSIS   | ASTER NOVAE-ANGLIAE (SYMPHYOTRICHUM NOVAE-ANGLIA NEW ENGLAND ASTER FACW |       |
| EUPATORIUM PURPUREUM (EUTROCHIUM MACULATUM) PURPLE JOE PYE WEED | FAC   |       |
| ASCLEPIAS TUBEROSA  | BUTTERFLY MILKWEED  | NI    |
| SOLIDAGO JUNCEA   | EARLY GOLDENROD   |       |
| EUPATORIUM PERFORIATUM  | BONESET   | FACW  |

6" LOAM & SEED BOTTOM, TOP, & SIDE SLOPES OF BASIN WITH BOTH NEW ENGLAND EROSION CONTROL MIX FOR DETENTION BASINS & MOIST SITES AND NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DRY SITES. SEE NOTE #22 ON SHEET L-102 & SEED SPECIFICATIONS ON L-101. IMPORTANT TO GRADE & SEED AT EARLY STAGE IN CONSTRUCTION TO ALLOW SEED 6 MONTHS TO ESTABLISH & MINIMIZE EROSION PRIOR TO DISCHARGING STORMWATER.

LOAM & SEED ALL DISTURBED AREAS, TYP USE EROSION CONTROL BLANKET ON 2:1 SLOPES OR GREATER

LOAM & SEED 50% SHOWY NEW ENGLAND WILDFLOWER MIX, 50% EROSION CONTROL MIX USE EROSION CONTROL BLANKET ON 2:1 SLOPES OR GREATER

6" LOAM SEED & GENERAL LAWN MIX FOR FLAT AREAS

LOAM & SEED 50% SHOWY NEW ENGLAND WILDFLOWER MIX, 50% EROSION CONTROL MIX USE EROSION CONTROL BLANKET ON 2:1 SLOPES OR GREATER

6" LOAM SEED & GENERAL LAWN MIX FOR FLAT AREAS, TYP.

LOAM & SEED 50% SHOWY NEW ENGLAND WILDFLOWER MIX, 50% EROSION CONTROL MIX USE EROSION CONTROL BLANKET ON 2:1 SLOPES OR GREATER

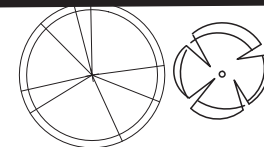
LOAM & SEED 50% SHOWY NEW ENGLAND WILDFLOWER MIX, 50% EROSION CONTROL MIX USE EROSION CONTROL BLANKET ON 2:1 SLOPES OR GREATER

TOWN OF SHERBORN LANDSCAPE REGULATIONS

ZONING BYLAWS OF THE TOWN OF SHERBORN	REQUIRED	PROVIDED
5.1.5 SCREENING OF PARKING AREAS A STRIP (4) FEET WIDE, DENSELY PLANTED WITH SHRUBS OR TREES AT LEAST FOUR (4) FEET IN HEIGHT;	REQUIREMENT AS NOTED	TREES & SHRUBS WILL BE DENSELY PLANTED AT LEAST FOUR (4) FEET IN HEIGHT, IN A BUFFER STRIP GREATER THAN FOUR (4) FEET WIDE  AS APPLICABLE AT PUBLIC PARKING ONLY AT WASTE WATER TREATMENT FACILITY

LEGEND

DECIDUOUS TREE



EVERGREEN TREE

SHRUBS

PERENNIALS/GROUNDCOVER

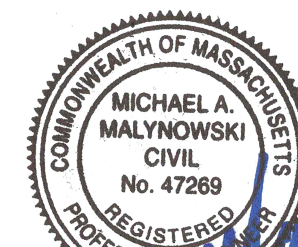
WETLAND SEED MIX

EROSION CONTROL SEED MIX

TREELINE

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2. THIS PLAN WAS PREPARED USING AVAILABLE SITE INFORMATION FROM SEVERAL SOURCES, SOME OF WHICH IS UNCONFIRMED. THE EXISTING CONDITIONS SURVEY BASE WAS TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS" PREPARED BY ALLEN & MAJOR ASSOCIATES, INC.
3. ALL LANDSCAPED AREAS WITH SHRUBS, TREES, AND PERENNIALS TO HAVE 18" MINIMUM DEPTH OF TOPSOIL. EIGHTEEN INCHES OF TOPSOIL AROUND TREES AND SHRUBS DOES NOT INCLUDE AMENDED PLANTING SOIL WITHIN TREE / SHRUB PIT FOR FULL DEPTH OF ROOTBALLS. SEE PLANTING DETAILS FOR PLANTING DEPTH AT SHRUBS AND TREES. ALL AREAS OF LOAM AND SEED OR LOAM & SOD TO HAVE 6" MINIMUM DEPTH OF TOPSOIL. TOPSOIL TO BE TESTED BY CONTRACTOR, AND APPROVED BY A&M PRIOR TO PURCHASE AND OR PLACEMENT. GENERAL CONTRACTOR DEMOLITION CONTRACTOR, AND LANDSCAPE CONTRACTOR TO COORDINATE PROPER DEPTH OF EXISTING MATERIAL REMOVAL ACROSS SITE SO THAT 18" MINIMUM AND 6" MINIMUM DEPTHS OF PROPOSED TOPSOIL NOTED ABOVE ARE MET AT NO ADDITIONAL COST TO OWNER. SEE TOPSOIL DETAIL.
4. SEE SHEET L-102 FOR ADDITIONAL LANDSCAPE INFORMATION.



Digitally signed by Michael Malynowski  
Date: 2021.04.09 13:08:37 -04'00'

PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
5	04-09-2021	REVS PER PEER REVIEW
4	02-25-2021	CONVERSION TO SINGLE FAMILY HOMES
3	10-01-2020	ISSUED FOR ZBA APPLICATION
2	05-19-2020	MISC. REV. PER MASSHOUSING & ABUTTER WALK
1	01-21-2020	MISCELLANNEOUS REVISIONS

APPLICANT/OWNER:

BARSKY ESTATE REALTY TRUST  
23 HUNTING LANE  
SHERBORN, MA 01770

PROJECT:

APPLE HILL ESTATES  
31 HUNTING LANE  
SHERBORN, MA 01770

PROJECT NO.	2513-02	DATE:	10-23-20
SCALE:	1" = 60'	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:

**ALLEN & MAJOR ASSOCIATES, INC.**  
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DRAWING TITLE:

LANDSCAPE PLAN

SHEET NO.

L-101

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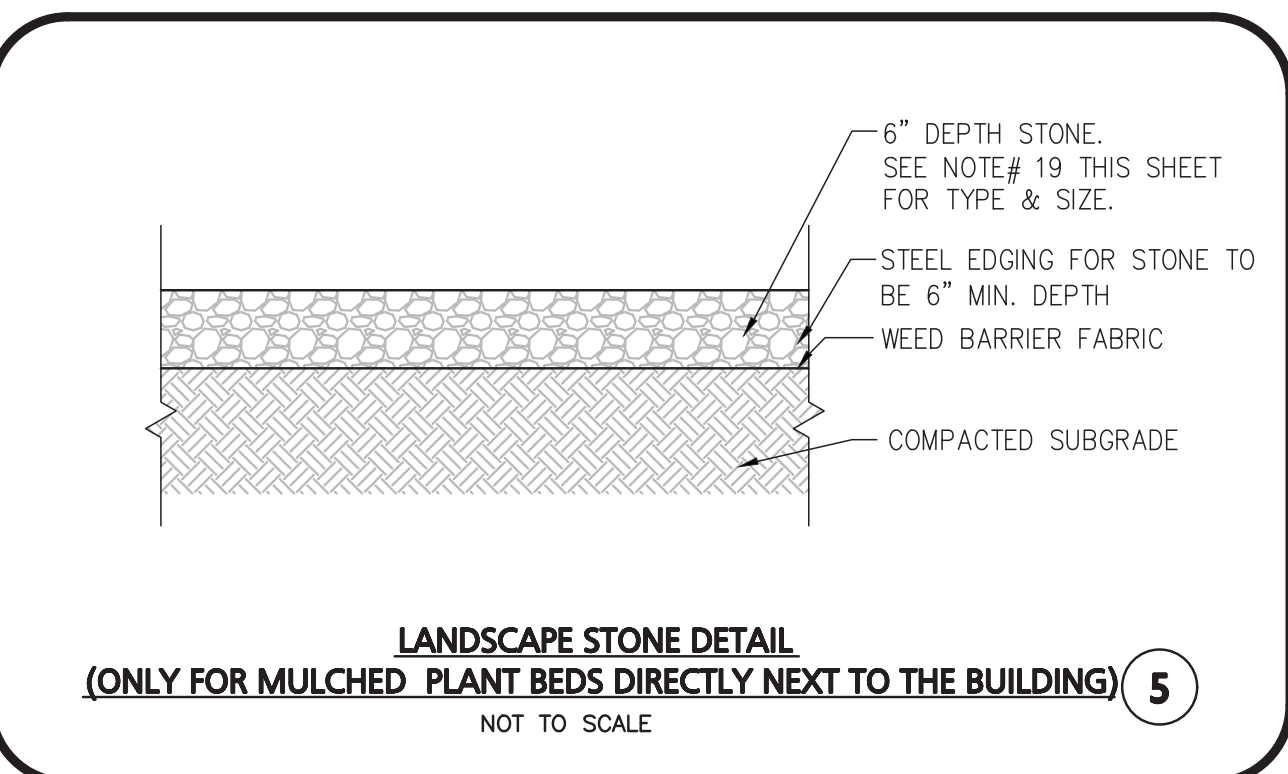
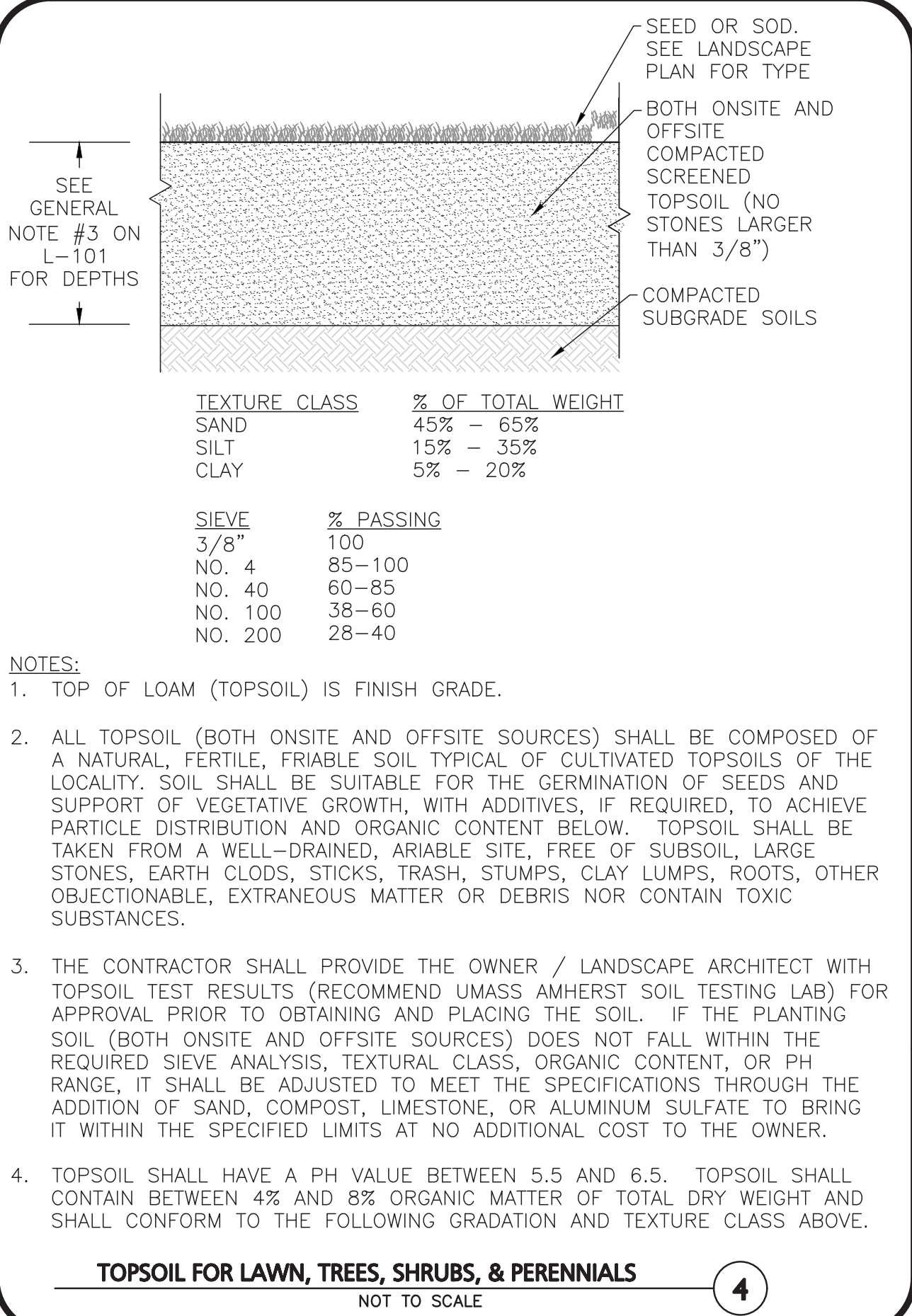
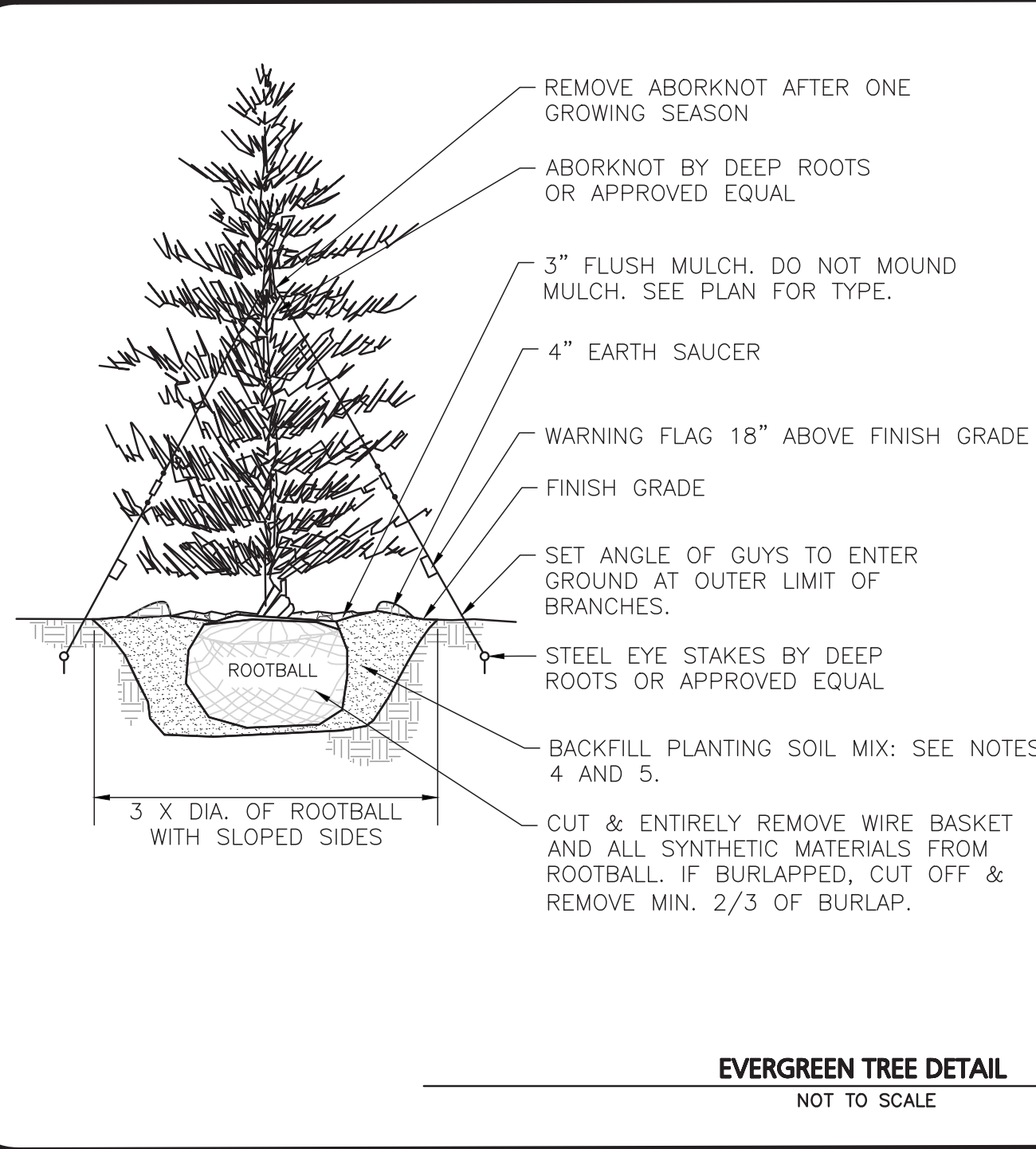
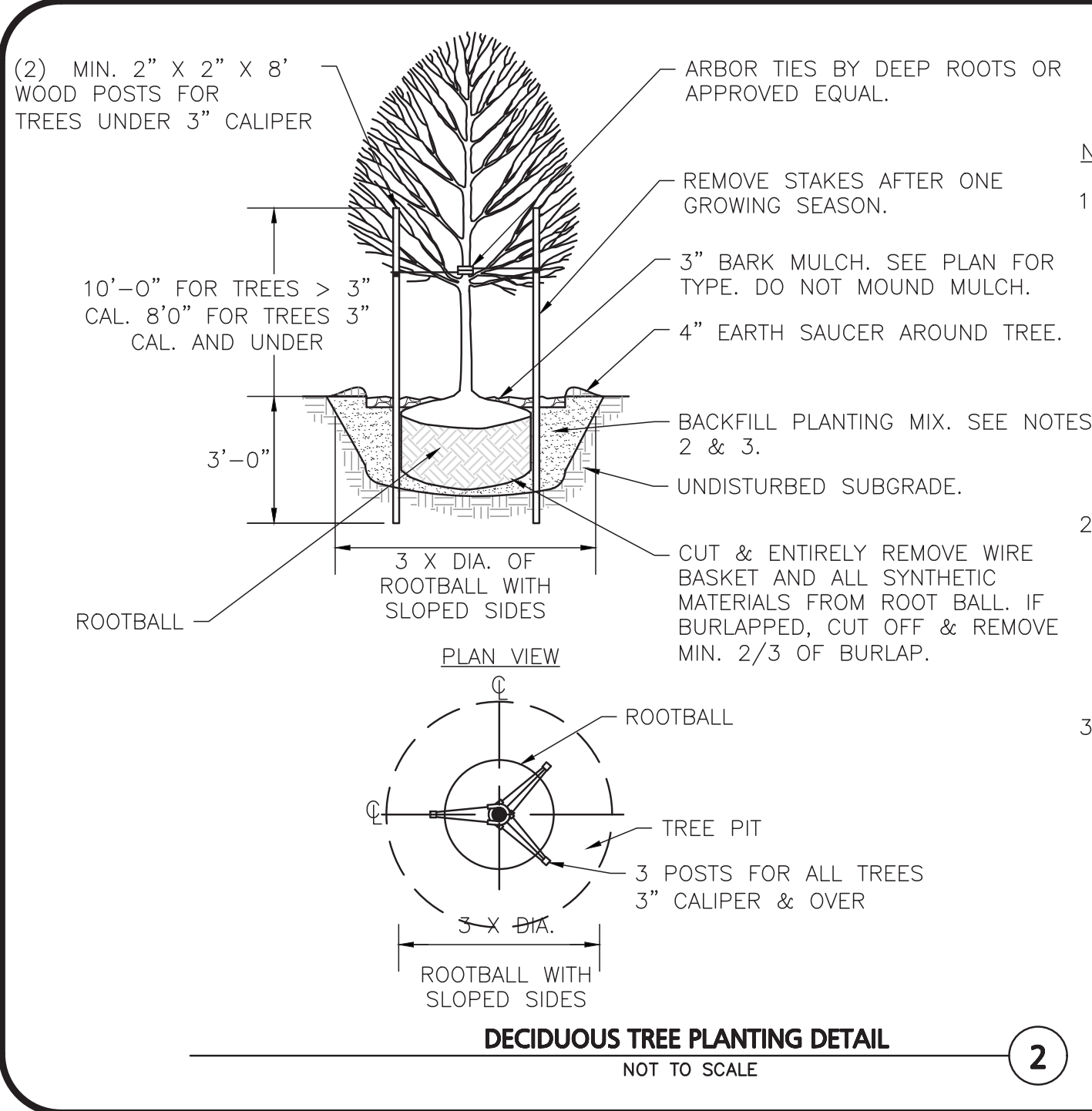
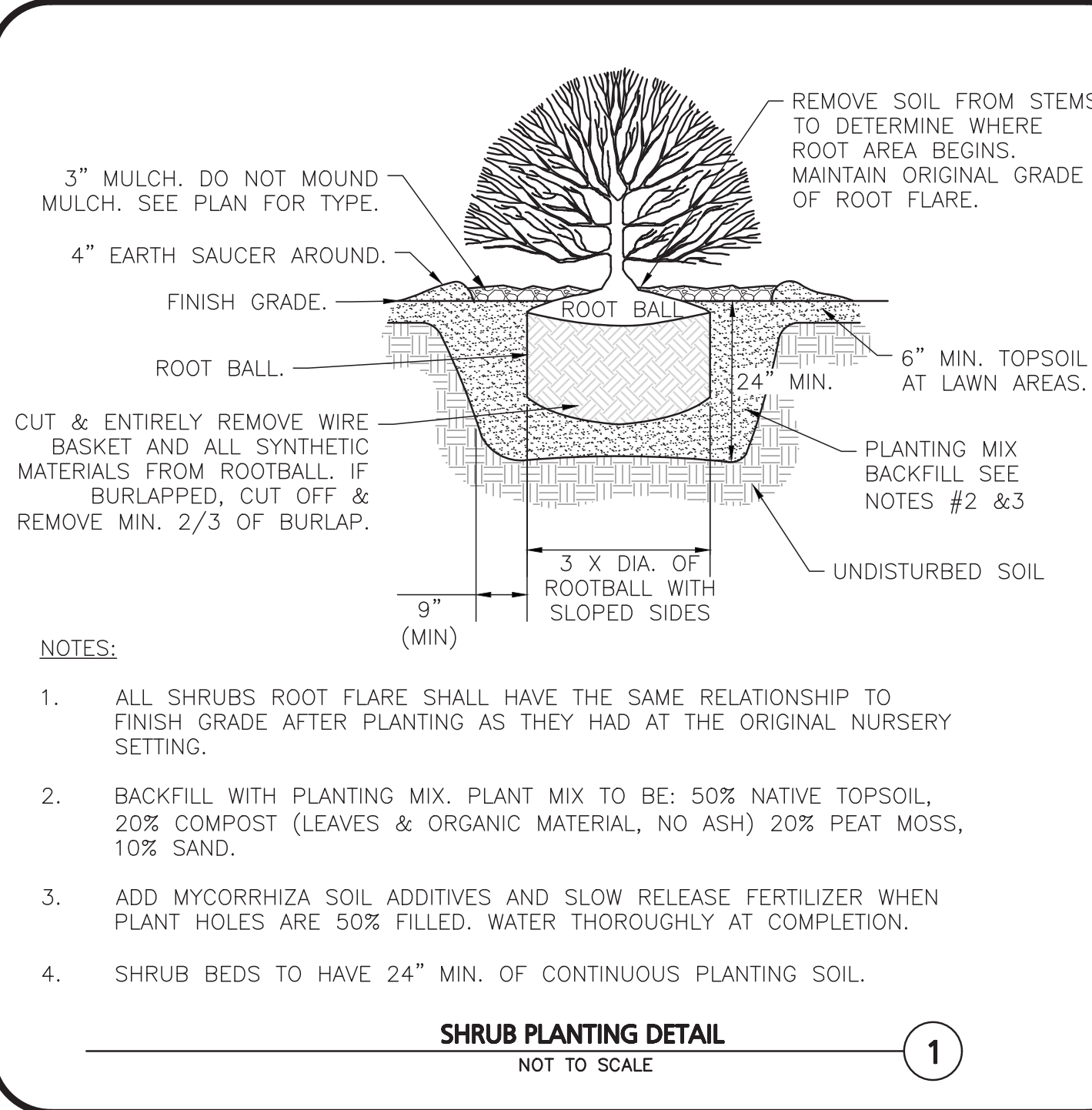
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## LANDSCAPE NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF SHERBORN, MA.
- PLANTING PLAN IS DIAGRAMMATIC IN NATURE. FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, ANY PERMITTING AGENCIES, AND "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS IN ADVANCE OF ANY WORK THAT WILL REQUIRE EXCAVATION. CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY CONFLICTS IN WRITING.
- NO PLANT MATERIAL SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA, ANY TREES NOTED AS "SEAL OR SELECTED SPECIMEN" SHALL BE TAGGED AND SEALED BY THE LANDSCAPE ARCHITECT.
- ALL TREES SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT LIST. QUANTITIES SHOWN ON PLANS SHALL GOVERN OVER PLANT LIST.
- ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT PRIOR TO PURCHASE.
- ALL PLANT MATERIALS INSTALLED SHALL MEET THE GUIDELINES ESTABLISHED BY THE STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE. ANY PLANT MATERIALS WHICH DIE WITHIN THE ONE YEAR PLANT GUARANTEE PERIOD WILL BE REPLACED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNERS. OWNERS TO COORDINATE DIRECTLY WITH THE LANDSCAPE CONTRACTOR FOR REPLACEMENT PLANTINGS.
- ALL DISTURBED AREAS NOT OTHERWISE NOTED SHALL RECEIVE 6" OF SUITABLE LOAM & SEED. LAWNS WITH 3:1 OR GREATER SLOPES SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET.
- ANY FALL TRANSPLANTING HAZARD PLANTS SHALL BE DUG IN THE SPRING AND STORED FOR FALL PLANTING.
- TREES SHALL HAVE A MINIMUM CALIPER AS INDICATED ON THE PLANTING SCHEDULE TAKEN ONE FOOT ABOVE THE ROOT CROWN.
- ALL PLANT BEDS AND TREE SAUCERS TO RECEIVE 3" OF PINE BARK MULCH. GROUND COVER AREAS SHALL RECEIVE 1" OF PINE BARK MULCH
- ALL DECIDUOUS TREES ADJACENT TO WALKWAYS AND ROADWAYS SHALL HAVE A BRANCHING PATTERN TO ALLOW FOR A MINIMUM OF 7' OF CLEARANCE BETWEEN THE GROUND AND THE LOWEST BRANCH.
- ALL TREE STAKES SHALL BE STAINED DARK BROWN.
- CONTRACTOR RESPONSIBLE FOR WATERING, AND RESEEDING OF BARE SPOTS UNTIL A UNIFORM STAND OF VEGETATION IS ESTABLISHED AND ACCEPTED.
- ALL PARKING ISLANDS PLANTED WITH SHRUBS SHALL HAVE 18" OF TOP SOIL. FINISH GRADE SHALL BE EQUAL TO THE TOP OF CURB.
- SOIL SAMPLES, TESTS, AND SHOP DRAWINGS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT OR THE OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.
- AN MINIMUM 18" WIDE BARRIER OF 1-1/2" GRAY OR TAN PEASTONE SHALL BE INSTALLED IN ALL PLANT BEDS WHICH DIRECTLY ABUT THE BUILDINGS. NO MULCH IS ALLOWED WITHIN 18" OF ALL BUILDINGS PER THE LATEST EXECUTIVE OFFICE OF PUBLIC SAFETY AND SECURITY DEPARTMENT OF FIRE SERVICES REGULATION (527 CMR 17.00). INSTALL 6" DEEP OF PEASTONE WITH MIRAFI WEED FABRIC BENEATH AND STEEL EDGING BETWEEN THE PEASTONE AND ADJACENT MULCH BED. PROVIDE SHOP DRAWINGS TO A&M FOR APPROVAL PRIOR TO PURCHASE OF PEASTONE, MIRAFI WEED FABRIC & STEEL EDGING.
- AS THERE IS NO PROPOSED UNDERGROUND IRRIGATION SYSTEM, AFTER PLANTINGS & LAWNS & SEEDED AREAS HAVE BEEN INSTALLED, LANDSCAPE CONTRACTOR RESPONSIBLE TO TEMPORARILY WATER ALL INSTALLED PLANTINGS, SEEDDED AREAS, & LAWN AREAS MIN. 4 TIMES A WEEK DURING INITIAL ESTABLISHMENT PERIOD OF 6 MONTHS AFTER ALL LANDSCAPING IS INSTALLED. BUILDING TO INCLUDE HOSE BIBS EVERY 50 FT. FOR WATERING WITH HOSE AND SPRINKLERS OF LANDSCAPING. CONTRACTOR'S OPTION TO ALSO WATER FROM WATERING TRUCK.
- PRIOR TO LAYING TOPSOIL, ALL SUBSOIL (BELOW PROPOSED TOPSOIL) TO BE TILLED TO A DEPTH OF AT LEAST 18" TO REMOVE CONSTRUCTION COMPACTION AND ALLOW FOR PROPER DRAINAGE OF TOPSOILS.

## PLANTING SCHEDULE- TREES, SHRUBS, & PERENNIALS

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	SPACING	COMMENTS
DECIDUOUS TREES						
AR	12	ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	2" CAL.	AS SHOWN	B&B
TC	23	TILIA CORDATA	LITTLELEAF LINDEN	2.5" CAL.	AS SHOWN	B&B
EVERGREEN TREES						
AC	31	ABIES CONCOLOR	WHITE FIR	8'-10'	AS SHOWN	B&B
TT	51	THUJA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	8'-10'	AS SHOWN	B&B
SHRUBS						
AM	23	AMELANCHIER CANADENSIS	SERVICEBERRY	5-6' HT.	AS SHOWN	B&B
CA	27	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	2'-2.5' HT.	AS SHOWN	B&B
HQ	17	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	2'-3' HT.	AS SHOWN	B&B
HP	12	HYDRANGEA PANICULATA	PANICLE HYDRANGEA	#10	AS SHOWN	POTTED
PO	18	PHYSOCARPUS OPULFOLIUS	NINEBARK	2'-3' HT.	AS SHOWN	POTTED
RA	10	RHUS AROMATICA	FRAGRANT SUMAC	1'-2' HT.	AS SHOWN	POTTED
RR	28	RHODODENDRON ROSEUM ELEGANS	RHODODENDRON	3'-4' HT.	AS SHOWN	B&B
PERENNIALS						
AT	21	ASCLEPIAS TUBEROSA	BUTTERFLYWEED	1 GAL.	24" O.C.	STAGGERED
EC	10	ECHINACEA PURPUREA	PURPLECONE FLOWER	1 GAL.	24" O.C.	STAGGERED
HH	10	HEMEROCALLIS 'STEPHANIE RETURNS'	DAYLILY, STEPHANIE RET.	1 GAL.	24" O.C.	STAGGERED
LR	20	LIRIOPE MUSCARI 'VARIEGATA'	LIRIOPE	1 GAL.	12" O.C.	STAGGERED

- SEEDING OF SLOPE AREAS:  
SEEDING SHALL OCCUR IN THE DRY & AFTER SLOPES ARE COMPACTED. IT IS IMPORTANT THAT THE SLOPES ARE SEEDED AT THE BEGINNING OF THE PROJECT. THE SEED WILL NEED A MIN. OF 6 MONTHS TO INITIALLY ESTABLISH PRIOR TO OCCUPANCY SO THAT THERE IS LIMITED EROSION & SLOPE FAILURE. INSTALL NEW ENGLAND EROSION CONTROL /RESTORATION MIX FOR DRY SITES, WILDFLOWER MIX, AND DETENTION MIX PER PLAN AND SPREAD AT A RATIO OF 1 LB PER 600 SQ. FT. LIGHTLY RAKE SOIL TO ENSURE GOOD SEED-TO-SOIL CONTACT.

ALL SEEDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RE-SEEDING OF BARE SPOTS. AT ALL SLOPED AREAS CONTRACTOR TO INSTALL COCONUT FIBER JUTE MESH NETTING ON ALL SLOPES EQUAL TO 3:1 AND GREATER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER "FLUX TERRA HP-FGM SOIL STABILIZER" AS MANUFACTURED BY "PROFILE" TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SEEDING ALL DISTURBED, ERODED, OR BARE SPOTS AT NO ADDITIONAL COST TO OWNER & UNTIL SLOPES ARE FULLY STABLE. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER.

AFTER SEEDING, ALL AREAS TO BE LIGHTLY MULCHED WITH WEED FREE STRAW & CONTRACTOR RESPONSIBLE TO KEEP WATERED EVERY DAY UNTIL SEED IS ESTABLISHED & APPROVED BY A&M LANDSCAPE ARCHITECT (USE NO HAY) SO THAT SEED IS KEPT MOIST. FOR SPREADING OF THE SEED WITH DRY DETENTION BASINS, WATER LEVELS MAY BE LOWERED IN THE DETENTION AREAS BY RELYING ON DRY SEASON AND OR DRY SPELLS; OR MAY BE ACCOMPLISHED THROUGH THE USE OF DEWATERING METHODS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ANY DEWATERING METHODS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. WATER FROM ANY DEWATERING OPERATION SHALL BE TREATED TO REDUCE TOTAL SUSPENDED SOLIDS AND BE IN COMPLIANCE WITH STATE AND FEDERAL STANDARDS.



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**SHERBORN, MA 01770**

PROJECT:

**APPLE HILL ESTATES**

**31 HUNTING LANE**

**SHERBORN, MA 01770**

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SCALE:	NTS	DWG. NAME:	C2513-02
DESIGNED BY:	SM	CHECKED BY:	MAM

PREPARED BY:

**ALLEN & MAJOR ASSOCIATES, INC.**

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