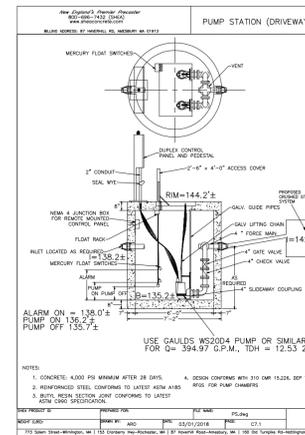
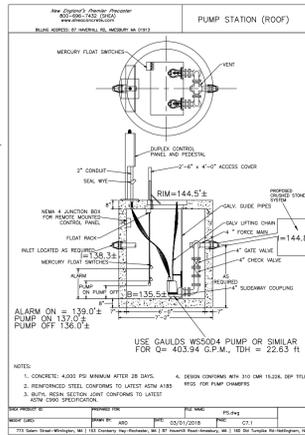






**GENERAL NOTES**

- THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.
- IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE OFFICERS.
- ALL WORK SHALL CONFORM TO TOWN OF MANSFIELD GENERAL CONSTRUCTION STANDARDS.
- THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR.
- THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTRACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4844.
- THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.
- NO LEDGE, BOULDERS, OR OTHER UNYIELDING MATERIALS ARE TO BE LEFT WITHIN 6" OF THE WATER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST 12" ABOVE THE PIPES.
- PAVEMENT AREA SHALL BE PAVED TO A THICKNESS AS SHOWN ON THE PLANS MEASURED AFTER COMPACTION, WITH A BINDER COURSE AND TOP COURSE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE 1-1.
- BASE MATERIAL SHALL BE CLEAN BANK RUN GRAVEL, CONFORMING TO M.D.P.W. M1.03.1, WITH NO STONES LARGER THAN THREE (3) INCHES IN DIAMETER AND SHALL BE PLACED AND ROLLED WITH AT LEAST A TEN TON ROLLER. THE SURFACES SHALL BE WET DURING ROLLING TO BIND THE MATERIAL. ALL STONES OF 4" DIAMETER OR LARGER SHALL BE REMOVED FROM THE SUB-BASE PRIOR TO PLACING BASE MATERIAL.
- ALL EXISTING PAVING TO BE DISTURBED SHALL BE CUT ALONG A STRAIGHT LINE THROUGH ITS ENTIRE THICKNESS. BUT THE NEW PAVING INTO THE EXISTING PAVEMENT TO REMAIN.
- ANY PAVEMENT REMOVED FOR UTILITY TRENCH EXCAVATION OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH A PAVEMENT SECTION TO MATCH EXISTING THICKNESS, OR A MINIMUM 3" BINDER AND 2" TOP, WHICHEVER OF THE TWO IS GREATER, OVERLYING A 6" COMPACTED GRAVEL BASE COURSE.
- THE CONTRACTOR SHALL APPLY FOR A STREET OPENING AND UTILITY CONNECTION PERMITS AND SIDEWALK CROSSING PERMIT WITH THE TOWN OF MANSFIELD DPW.
- CONTRACTOR TO ENSURE THAT ALL SURFACE WATER IS DIVERTED AWAY FROM BUILDING FOUNDATION DURING FINAL GRADING, WITH NO FLOW ENTERING SCHOOL STREET.
- ALL TRENCHES WITHIN THE RIGHT-OF-WAY WILL REQUIRE FLOW FILL AS BACKFILL MATERIAL.



**BUOYANCY CALCULATIONS**

**F=MG**  
F of Buoyancy (Fb) = Density\*Volume\*Gravity

**Chamber Dimensions**

External Diameter (D)	7.16 Ft
Internal Diameter (D)	6.00 Ft
Height (H)	9.00 Ft
Bottom and Top Thickness	0.66 Ft

**Volume of Chamber (V)**

Walls	107.91 Ft <sup>3</sup>
Top & Bottom	53.15 Ft <sup>3</sup>
Total (V)	161.05 Ft <sup>3</sup>

**Volume of displaced water (M)**

External Diameter (D)	7.16 Ft
Submersed Height (H)	6.00 Ft
Volume (V)	241.58 Ft <sup>3</sup>

**Mass of Chamber (M)**

Density of concrete (P)	145.00 Lbs/Ft <sup>3</sup>
Mass of chamber (M)	23,352.96 Lbs

**Mass of displaced water (M)**

Density of Water (P)	62.40 Lbs/Ft <sup>3</sup>
Mass of Water (M)	15,074.84 Lbs

**F of Buoyancy of Water** 485,409.93 Lbs  
**F of buoyancy of Chamber** 751,965.34 Lbs

Since Fb of Chamber (751,965.34 Lbs) > Fb of Water (485,409.93 Lbs) Chamber wont float.  
Therefore use the same Materials and Dimensions used on this calculations to build the chamber.  
For a more conservative analysis, friction between the walls of the chamber and soil was not considered.

**DRAINAGE AREA SUMMARY**

EXISTING ROOF AREA = 4,192.6 S.F.  
EXISTING LANDSCAPE AREA = 169,934.4 S.F.

PROPOSED ROOF AREA = 44,266 S.F.  
PROPOSED PAVED DRIVEWAY = 27,587.7 S.F.  
PROPOSED PAVED WALKWAY = 3,387.6 S.F.  
PROPOSED LANDSCAPE AREA = 98,885.7 S.F.

TOTAL EXISTING IMPERVIOUS AREA = 4,192.6 S.F.  
TOTAL PROPOSED IMPERVIOUS AREA = 75,241.3 S.F.

TOTAL INCREASE IN IMPERVIOUS AREA = 71,048.7 S.F.

- LEGEND**
- TOW TOP OF WALL
  - BOW BOTTOM OF WALL
  - FG FINISHED GRADE
  - SG SPOT GRADE
  - TH#1 DEEP TEST HOLE
  - PT#1 PERCOLATION TEST
  - 71.4 X SPOT ELEVATION
  - 71 PROPOSED CONTOUR
  - 71 EXISTING CONTOUR
  - D DRAIN LINE
  - W WATER LINE
  - SS SEWER LINE
  - G GAS LINE
  - X FENCE
  - UTILITY POLE
  - WATER GATE
  - HYDRANT
  - GAS GATE
  - SEWER MANHOLE
  - DRAIN MANHOLE
  - CATCH BASIN
  - TREE
  - LIGHT POLE
  - SIGN
  - TBR TO BE REMOVED
  - TBA TO BE ABANDONED

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Email: espruhan@gmail.com

**500 SCHOOL STREET,  
MANSFIELD,  
MASSACHUSETTS**

**CIVIL PLANS**

**REVISION BLOCK**

DESCRIPTION	DATE
REVISED AS PER TOWN OF MANSFIELD COMMENTS	6/5/2020
REVISED AS PER TOWN OF MANSFIELD COMMENTS	7/14/2020
REVISED AS PER TOWN OF MANSFIELD COMMENTS	7/30/2020
REVISED AS PER TOWN OF MANSFIELD COMMENTS	8/26/2020
REVISED AS PER ADVANCE CONCEPTS ENGINEERING CORP COMMENTS	9/4/2020
REVISED AS PER TOWN OF MANSFIELD COMMENTS	9/15/2020

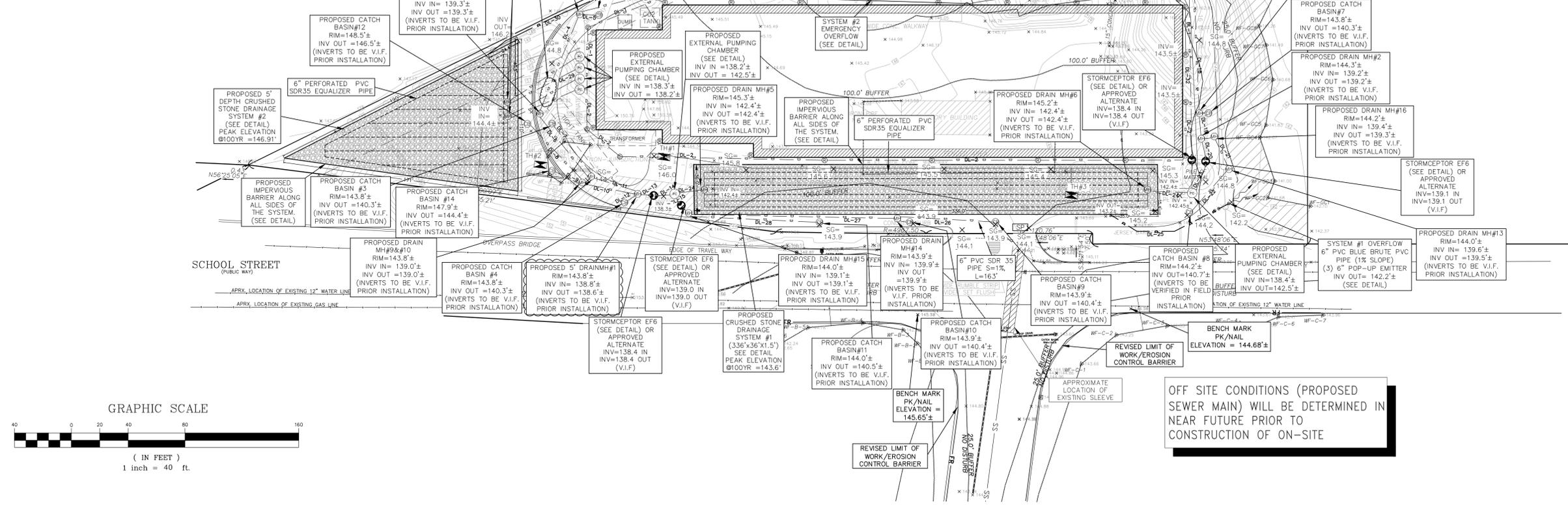
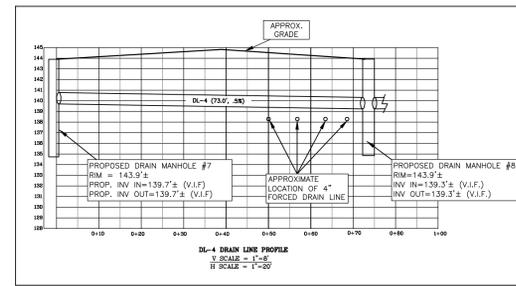
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EDMUND P. SPRUHAN  
PROFESSIONAL ENGINEER  
MASSACHUSETTS

SCALE:	1:40
DATE:	2/17/2020
DRAWN BY:	G.P
CHECKED BY:	E.S
APPROVED BY:	E.S

**DRAINAGE PLAN**

PIPE	MATERIAL	LENGTH	SLOPE	PIPE	MATERIAL	LENGTH	SLOPE
DL-1	12" BLUE BRUTE	500.20	1%	DL-16	12" RCP	109.7	2%
DL-2	12" BLUE BRUTE	521.87	1%	DL-17	12" RCP	9.40	2.1%
DL-3	12" RCP	112.87	2%	DL-18	12" RCP	87.7	2%
DL-4	12" RCP	73.07	5%	DL-19	12" RCP	13.4	2%
DL-5	12" RCP	7.4	8%	DL-20	12" RCP	10.7	2%
DL-6	12" RCP	55.1	5%	DL-21	12" RCP	20.0	2%
DL-7	12" RCP	42.7	3%	DL-22	12" RCP	37.4	3.5%
DL-8	12" RCP	23.9	1.6%	DL-23	12" RCP	19.8	2%
DL-9	12" RCP	18.7	14%	DL-24	4" DL LINE	13.7	FORCED
DL-10	12" RCP	38.2	5%	DL-25	6" BLUE BRUTE	94.3	2%
DL-11	12" RCP	31.0	5%	DL-26	12" RCP	66.2	2%
DL-12	12" RCP	8.0	2.3%	DL-27	12" RCP	148.0	2%
DL-13	12" RCP	5.4	2%	DL-28	12" RCP	91.0	2%
DL-14	12" RCP	8.0	5%	DL-29	4" DL LINE	35.0	FORCED
DL-15	12" RCP	2.3	5%	DL-30	6" BLUE BRUTE	182.0	2%
DL-31	12" RCP			DL-32	12" RCP	214	5%
DL-33	12" RCP			DL-34	12" RCP	133.9	5%





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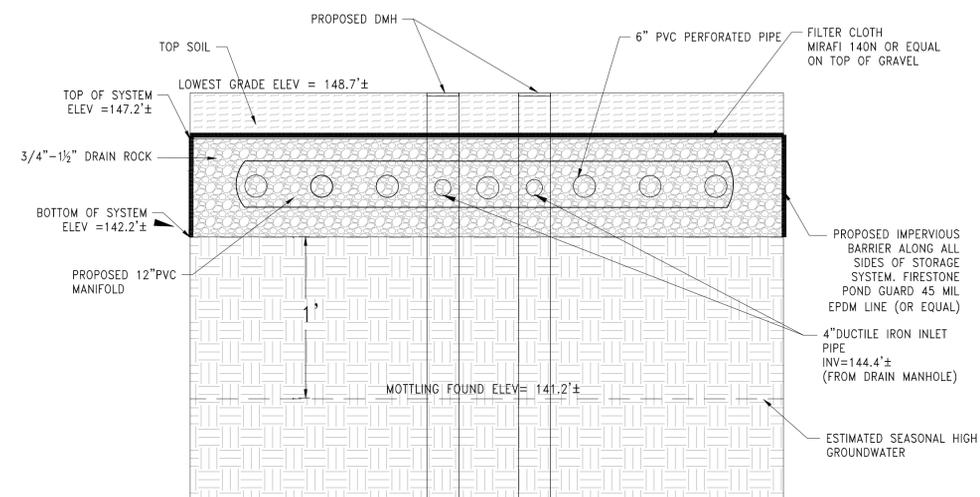
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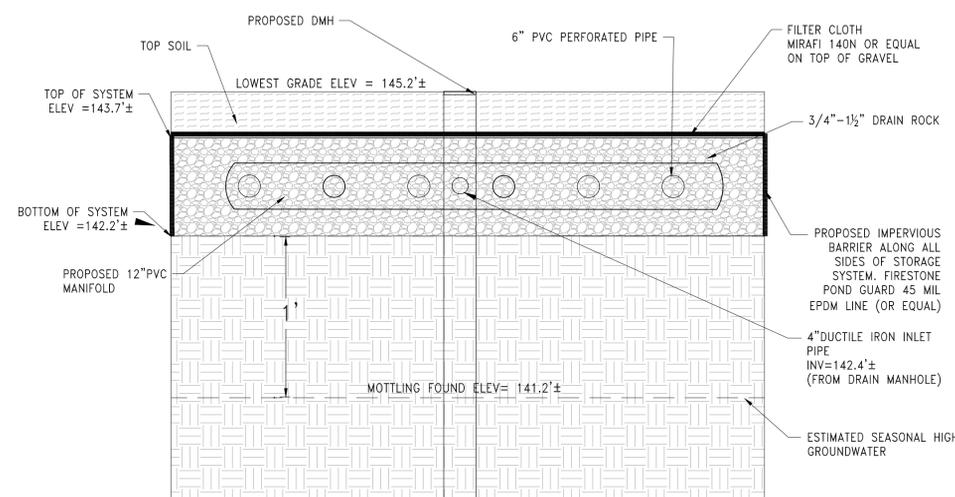
CIVIL PLANS

REVISION BLOCK

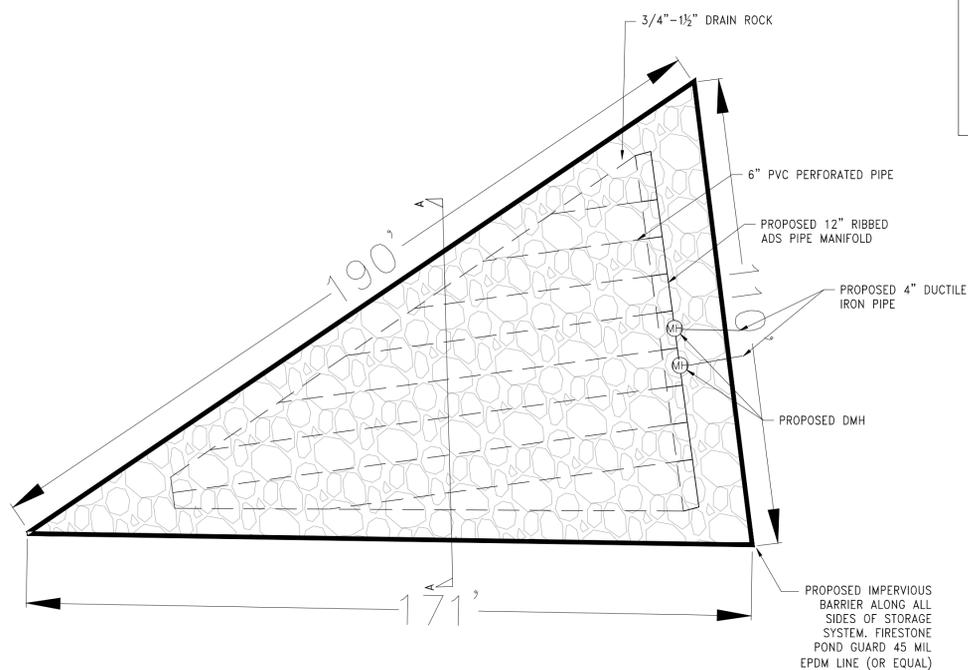
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REVISED AS PER TOWN OF MANSFIELD COMMENTS	8/26/2020
REVISED AS PER TOWN OF MANSFIELD COMMENTS	9/15/2020



SECTION A-A VIEW  
SECTION DETAIL FOR #2 DRAINAGE SYSTEM  
N.T.S.



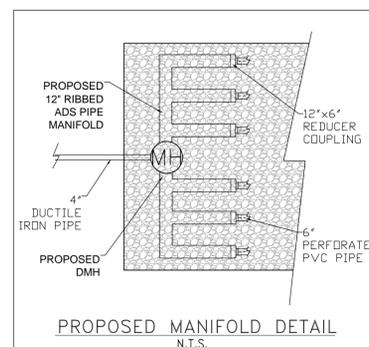
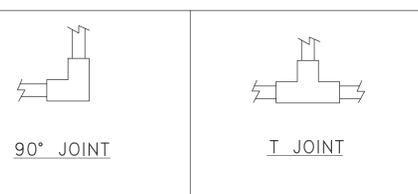
SECTION A-A VIEW  
SECTION DETAIL FOR #1 DRAINAGE SYSTEM  
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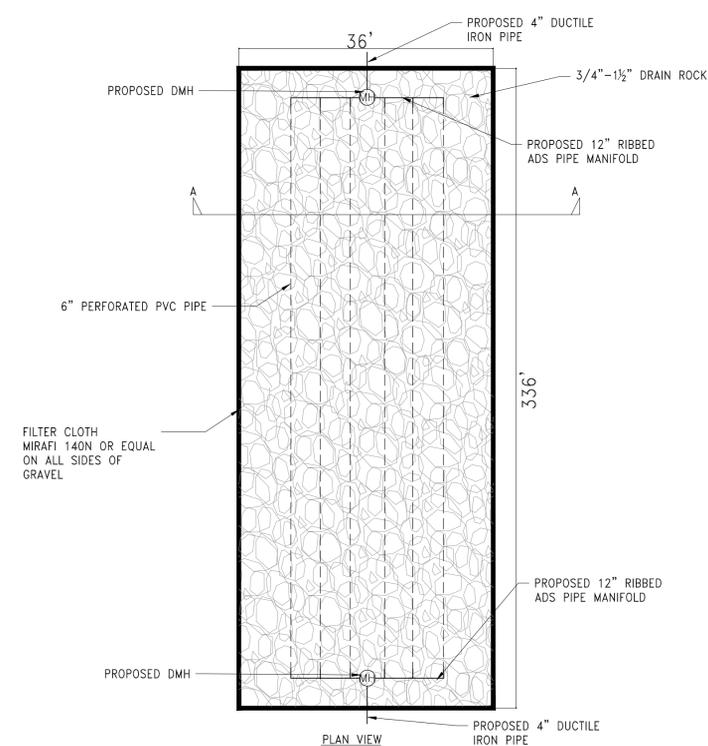
#2 DRAINAGE SYSTEM DETAIL  
N.T.S.

DRAINAGE SYSTEM NOTES:

- ENTIRE SYSTEM SHALL BE ENCASED IN FILTER FABRIC.
- LOCATION OF SYSTEM PER PLANS.
- DESIGN ENGINEER WILL INSPECT AND CERTIFY IN WRITING THAT ALL DRAINAGE WORK WAS INSTALLED IN ACCORDANCE WITH APPROVED PLANS. CONTRACTOR TO NOTIFY ENGINEER AT LEAST 72 HOURS IN ADVANCE FOR DRAINAGE SYSTEM INSPECTION PRIOR TO BACKFILLING.



PROPOSED MANIFOLD DETAIL  
N.T.S.



#1 DRAINAGE SYSTEM DETAIL  
N.T.S.

DRAINAGE SYSTEM NOTES:

- ENTIRE SYSTEM SHALL BE ENCASED IN FILTER FABRIC.
- LOCATION OF SYSTEM PER PLANS.
- DESIGN ENGINEER WILL INSPECT AND CERTIFY IN WRITING THAT ALL DRAINAGE WORK WAS INSTALLED IN ACCORDANCE WITH APPROVED PLANS. CONTRACTOR TO NOTIFY ENGINEER AT LEAST 72 HOURS IN ADVANCE FOR DRAINAGE SYSTEM INSPECTION PRIOR TO BACKFILLING.

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DATE:	2/17/2020
DRAWN BY:	G.P
CHECKED BY:	E.S
APPROVED BY:	E.S

DETAILS





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REVISION BLOCK

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REVISED AS PER TOWN OF MANSFIELD COMMENTS	9/15/2020

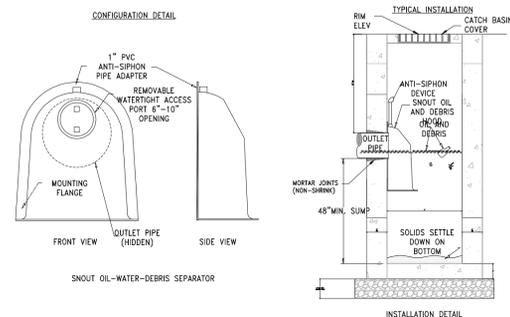
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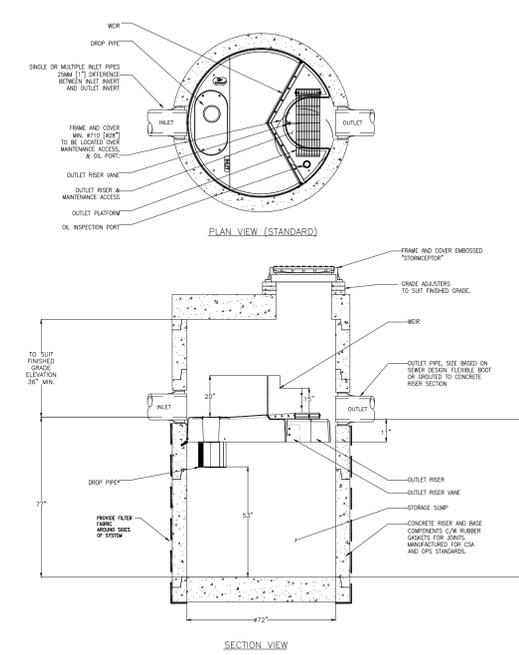
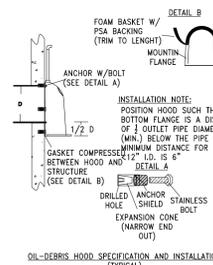
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DRAWN BY: G.P.  
CHECKED BY: E.S.  
APPROVED BY: E.S.

DETAILS

6 OF 7

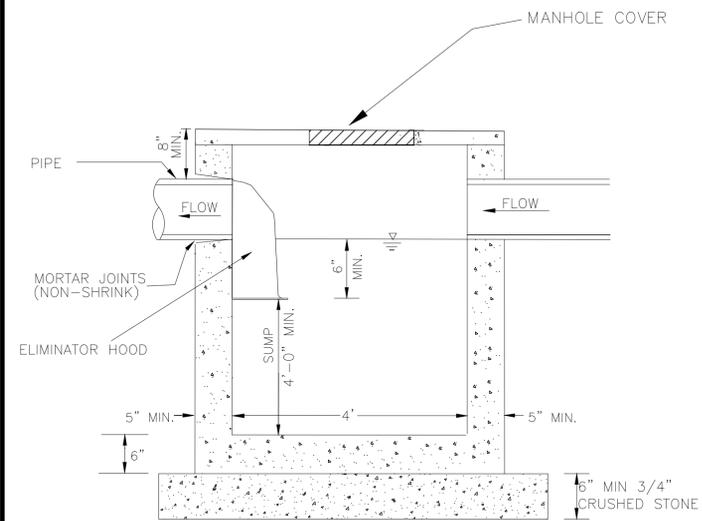


- NOTES:
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS INC., 53 MT. ARCHER RD., LYME, CT 06371 (860) 434-0277, (860)434-3195 FAX TOLL FREE: (800) 504-8008 OR (888)354-7585 WEB SITE: www.bmproducts.com OR PRE-APPROVED EQUAL.
  - ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
  - ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
  - THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
  - THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 3/4 THE OUTLET PIPE DIAMETER WITH A MAXIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
  - THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
  - THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
  - THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER (SEE INSTALLATION DETAILS).
  - INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION SHALL INCLUDE:  
A. INSTALLATION INSTRUCTIONS  
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER  
C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING  
D. 3/8" STAINLESS STEEL BOLTS  
E. ANCHOR SHIELDS



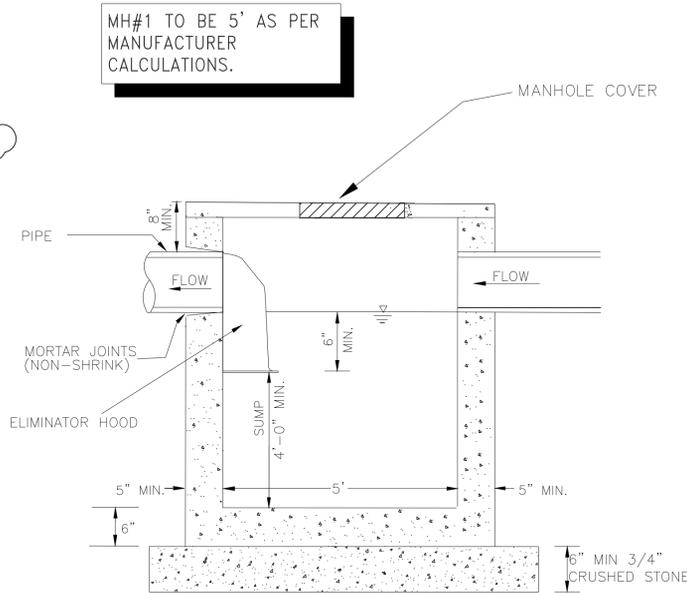
STORMCEPTOR EF6 (OIL/GRIT SEPARATOR) DETAIL

DEEP SUMP CATCH BASIN WITH DEBRIS COLLECTOR DETAIL  
N.T.S.

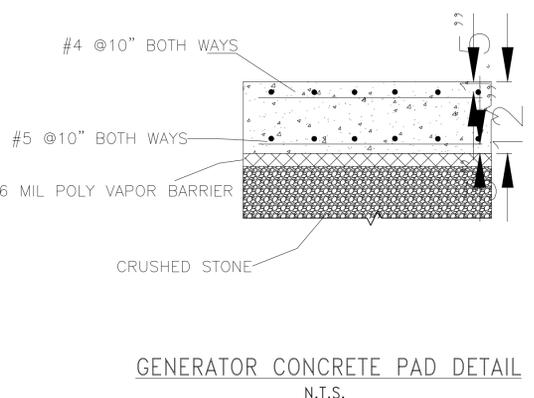


TYPICAL 4' PRECAST CONCRETE MANHOLE FOR SURFACE DRAIN RUNOFF  
N.T.S.

MH	RIM	INV IN	INV OUT
#1	143.8'	138.8'	138.6'
#2	144.3'	139.2'	139.2'
#3	148.5'	144.5'	144.5'
#4	148.5'	144.5'	144.5'
#5	145.3'	142.5'	142.5'
#6	145.2'	142.5'	142.5'
#7	143.9'	139.7'	139.7'
#8	143.9'	139.3'	139.3'
#9	143.8'	139.0'	139.0'
#10	143.8'	139.0'	139.0'
#11	144.1'	139.8'	139.8'
#12	144.5'	139.3'	139.3'
#13	144.0'	139.4'	139.4'
#14	143.9'	139.9'	139.9'
#15	144.0'	139.1'	139.1'
#16	144.2'	139.4'	139.3'
#17	144.2'	139.0'	139.0'

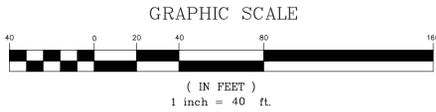


TYPICAL 5' PRECAST CONCRETE MANHOLE FOR SURFACE DRAIN RUNOFF  
N.T.S.

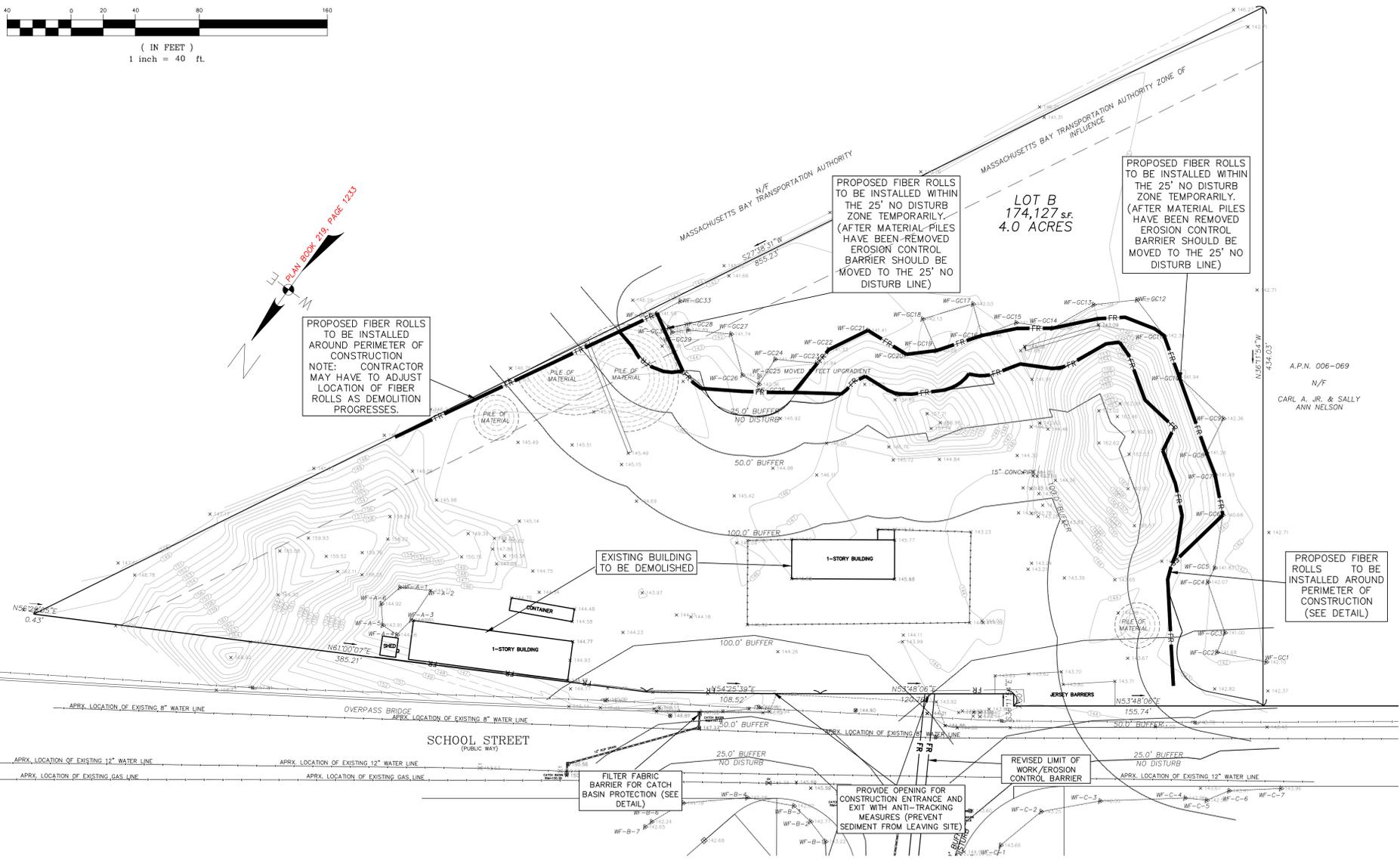


GENERATOR CONCRETE PAD DETAIL  
N.T.S.

MH#1 TO BE 5' AS PER MANUFACTURER CALCULATIONS.



PLAN BOOK 219, PAGE 1233



**EROSION CONTROL NOTES**

1. THE EROSION CONTROL PLANS IN THIS SET SHALL BE REVIEWED AND IMPLEMENTED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL WORK WITH THE PROJECT'S ENGINEER THROUGHOUT CONSTRUCTION TO ENSURE THE SITE IS PROPERLY PROTECTED FROM POSSIBLE POLLUTANTS. THE ENGINEER HAS AUTHORIZATION TO ADD OR REMOVE BMP MEASURES THROUGHOUT CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING SITE EROSION CONTROL AT ALL TIMES.
3. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND THE PERMITEE TO ENSURE THAT EROSION DOES NOT OCCUR FROM ANY ACTIVITY DURING OR AFTER PROJECT CONSTRUCTION. ADDITIONAL MEASURES, BEYOND THOSE SPECIFIED, MAY BE REQUIRED BY THE PLANNING DIRECTOR AS DEEMED NECESSARY TO CONTROL ACCELERATED EROSION.
4. AT THE END OF EACH WORKDAY, AT THE END OF EACH WORKWEEK, THE CONTRACTOR SHALL IMPLEMENT ALL TEMPORARY MEASURES NECESSARY TO PREVENT EROSION AND SILTATION, UNTIL THE PROJECT HAS BEEN FINALIZED. THESE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, DIRECT SEEDING OF THE AFFECTED AREAS, STRAW MULCHING, AND/OR INSTALLATION OF STRAW BALES DAMS/SILT FENCES.
5. DURING CONSTRUCTION, NO TURBID WATER SHALL BE PERMITTED TO LEAVE THE SITE. USE OF SILT AND GREASE TRAPS, FILTER BERMS, HAY BALES OR SILT FENCES SHALL BE USED TO PREVENT SUCH DISCHARGE.
6. ALL AREAS ON- AND OFF-SITE EXPOSED DURING CONSTRUCTION ACTIVITIES, IF NOT PERMANENTLY LANDSCAPED PER PLAN, SHALL BE PROTECTED BY MULCHING AND/OR SEEDING.
7. ALL EXCAVATED MATERIAL SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE OR DISPOSED OF ON-SITE IN A MANNER THAT WILL NOT CAUSE EROSION.
8. ANY MATERIAL STOCKPILED, FOR LONGER THAN 14 DAYS, DURING CONSTRUCTION SHALL BE COVERED WITH PLASTIC.
9. UPON COMPLETION OF CONSTRUCTION, ALL REMAINING EXPOSED SOILS SHALL BE PERMANENTLY REVEGETATED.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ADDITIONAL MEASURES NECESSARY TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF-SITE ARE IMPLEMENTED.
11. ALL SPILLS AND/OR LEAKS SHALL BE IMMEDIATELY CLEANED UP AND MITIGATED.

**CONSTRUCTION MATERIALS**

- ALL LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL, SPOILS, AGGREGATE, FLY-ASH, STUCCO, HYDRATED LIME, ETC.) SHALL BE COVERED AND BERMED.
- ALL CHEMICALS SHALL BE STORED IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED (COMPLETELY ENCLOSED).
- EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE MATERIALS AND EQUIPMENT THAT ARE DESIGNED TO BE OUTDOORS AND EXPOSED TO ENVIRONMENTAL CONDITIONS (I.E. POLES, EQUIPMENT PADS, CABINETS, CONDUCTORS, INSULATORS, BRICKS, ETC.).
- BEST MANAGEMENT PRACTICES TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS SHALL BE IMPLEMENTED.

**WASTE MANAGEMENT**

- DISPOSAL OF ANY RINSE OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
  - SANITATION FACILITIES SHALL BE CONTAINED (E.G. PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER, AND SHALL BE LOCATED A MINIMUM 20 FEET AWAY FROM AN INLET, STREET OR DRIVEWAY, STREAM, RIPARIAN AREA OR OTHER DRAINAGE FACILITY.
  - SANITATION FACILITIES SHALL BE INSPECTED REGULARLY FOR LEAKS AND SPILLS AND CLEANED OR REPLACED AS NECESSARY.
  - COVER WASTE DISPOSAL CONTAINERS AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT.
  - DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE PREVENTED.
  - STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.
- PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED. EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE AND THAT SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY; AND
- CONCRETE WASHOUT AREAS AND OTHER WASHOUT AREAS THAT MAY CONTAIN ADDITIONAL POLLUTANTS SHALL BE CONTAINED SO THERE IS NO DISCHARGE INTO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.

**FIBER ROLL CONSTRUCTION SPECIFICATIONS**

1. PREPARE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
2. DIG SMALL TRENCHES ACROSS SLOPE ON CONTOUR, TO PLACE WATTLES IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE WATTLE. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE WATTLE 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE. IT IS CRITICAL THAT WATTLES ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.
3. START BUILDING TRENCHES AND INSTALL WATTLES FROM THE BOTTOM OF THE SLOPE AND WORK UP.
4. CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF THREE TO EIGHT FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES.
5. LAY THE WATTLE ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WOODEN STAKES.
6. DRIVE THE STAKE THROUGH THE PREPARED HOLE INTO THE SOIL. LEAVE ONLY ONE OR TWO INCHES OF STAKE EXPOSED ABOVE WATTLE. IF USING WILLOW STAKES REFER TO USDA SOIL CONSERVATION SERVICE TECHNICAL GUIDE, BIOENGINEERING, FOR GUIDELINES TO PREPARING LIVE WILLOW MATERIAL.
7. INSTALL STAKES AT LEAST EVERY FOUR FEET APART THROUGH WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWNSLOPE SIDE OF THE TRENCHES ON HIGHLY ERODIBLE OR VERY STEEP SLOPES.

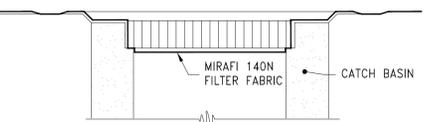
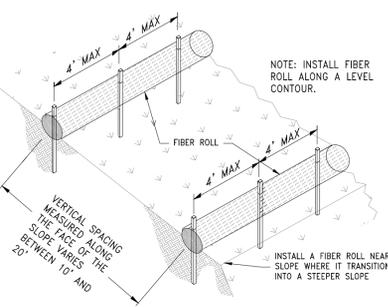
**FIBER ROLL INSTALLATION AND MAINTENANCE**

8. INSPECT THE STRAW WATTLE AND THE SLOPES AFTER SIGNIFICANT STORMS. MAKE SURE THE WATTLES ARE IN CONTACT WITH THE SOIL.
9. REPAIR ANY RILLS OR GULLIES PROMPTLY.
10. RESEED OR REPLANT VEGETATION IF NECESSARY UNTIL THE SLOPE IS STABILIZED.



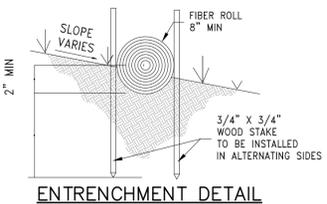
**LANDSCAPE MATERIALS**

- CONTAIN STOCKPILED MATERIALS SUCH AS MULCHES AND TOPSOIL WHEN THEY ARE NOT ACTIVELY BEING USED
- CONTAIN FERTILIZERS AND OTHER LANDSCAPE MATERIALS WHEN THEY ARE NOT ACTIVELY BEING USED.
- DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIODS OF PRECIPITATION.
- APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURE RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL.
- STACK ERODIBLE LANDSCAPE MATERIAL ON PALLETS AND COVERING OR STORING SUCH MATERIALS WHEN NOT BEING USED OR APPLIED.



**CATCH BASIN PROTECTION**

- INSPECTION AND MAINTENANCE:**
1. FILTER FABRIC BARRIERS SHALL BE INSPECTED WEEKLY AFTER EACH SIGNIFICANT STORM - 1 INCH RAINFALL (25.4 MM) IN 24 HOUR PERIOD. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  2. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 0.5" MAXIMUM HEIGHT. AT THAT TIME INSPECT THE FILTER MATERIAL FOR TEARS AND CLEAN OR REPLACE AS REQUIRED.
  3. THE REMOVED SEDIMENT SHALL BE DISTRIBUTED EVENLY ACROSS AREAS ON-SITE, CONFORM WITH THE EXISTING GRADE AND BE REVEGETATED OR OTHERWISE STABILIZED PER EROSION CONTROL NOTES.



**FIBER ROLLS**

NTS

**VEHICLE STORAGE AND MAINTENANCE**

- MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS OR SURFACE WATERS.
- ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED AND STORED ONSITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPs.
- LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.



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MANSFIELD,  
MASSACHUSETTS

**CIVIL PLANS**

**REVISION BLOCK**

DESCRIPTION	DATE
REVISED AS PER TOWN OF MANSFIELD COMMENTS	7/14/2020
REVISED AS PER TOWN OF MANSFIELD COMMENTS	9/15/2020

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SCALE:	1:40
DATE:	2/17/2020
DRAWN BY:	G.P.
CHECKED BY:	E.S.
APPROVED BY:	F.S.

**DEMOLITION & EROSION CONTROL PLAN**