

☉ CURVE DATA

CURVE #9  
 R=160.00'  
 L=211.13'  
 D=75°60'49"  
 PC=6+04.83  
 PT=8+15.96

STORMDRAIN STRUCTURES

CB#1 RIM 49.05  
 18" INV. OUT 46.17  
 CB#2 RIM 52.88  
 15" INV. OUT 50.38  
 FI#1 RIM 47.00  
 6" INV. OUT 45.86

STORMDRAIN PIPES

P3 - 12" S.D., L=298', S=0.005'/FT.  
 P4 - 6" S.D., L=50', S=0.002'/FT.

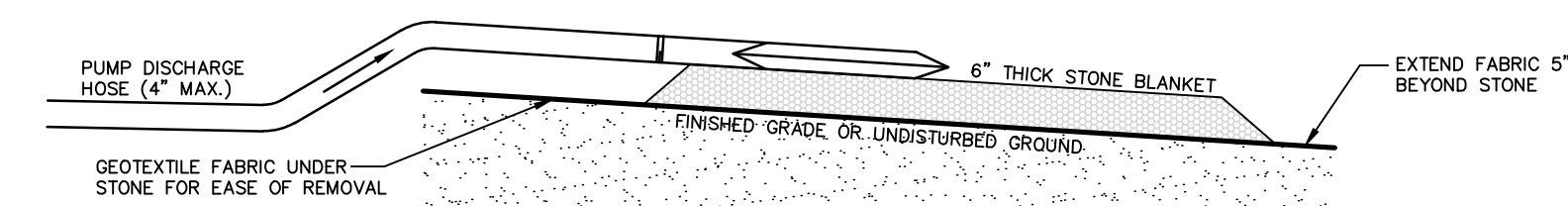
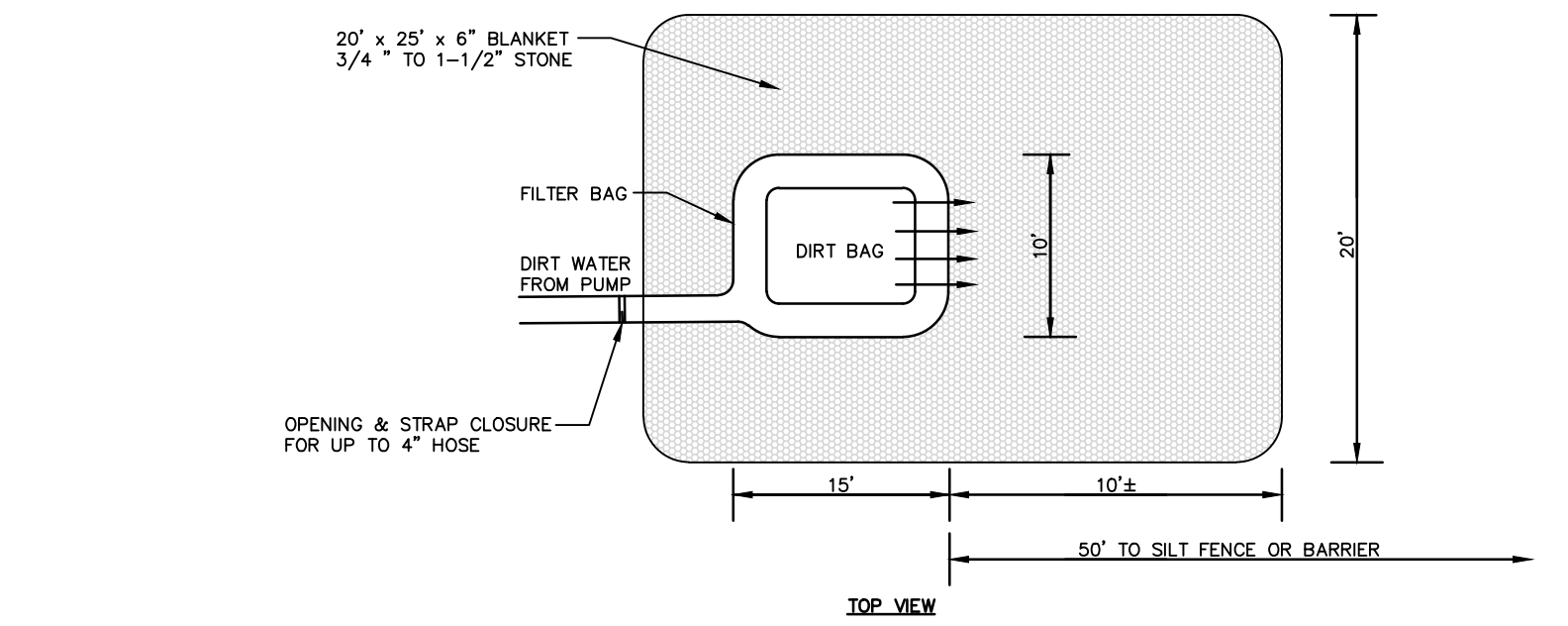
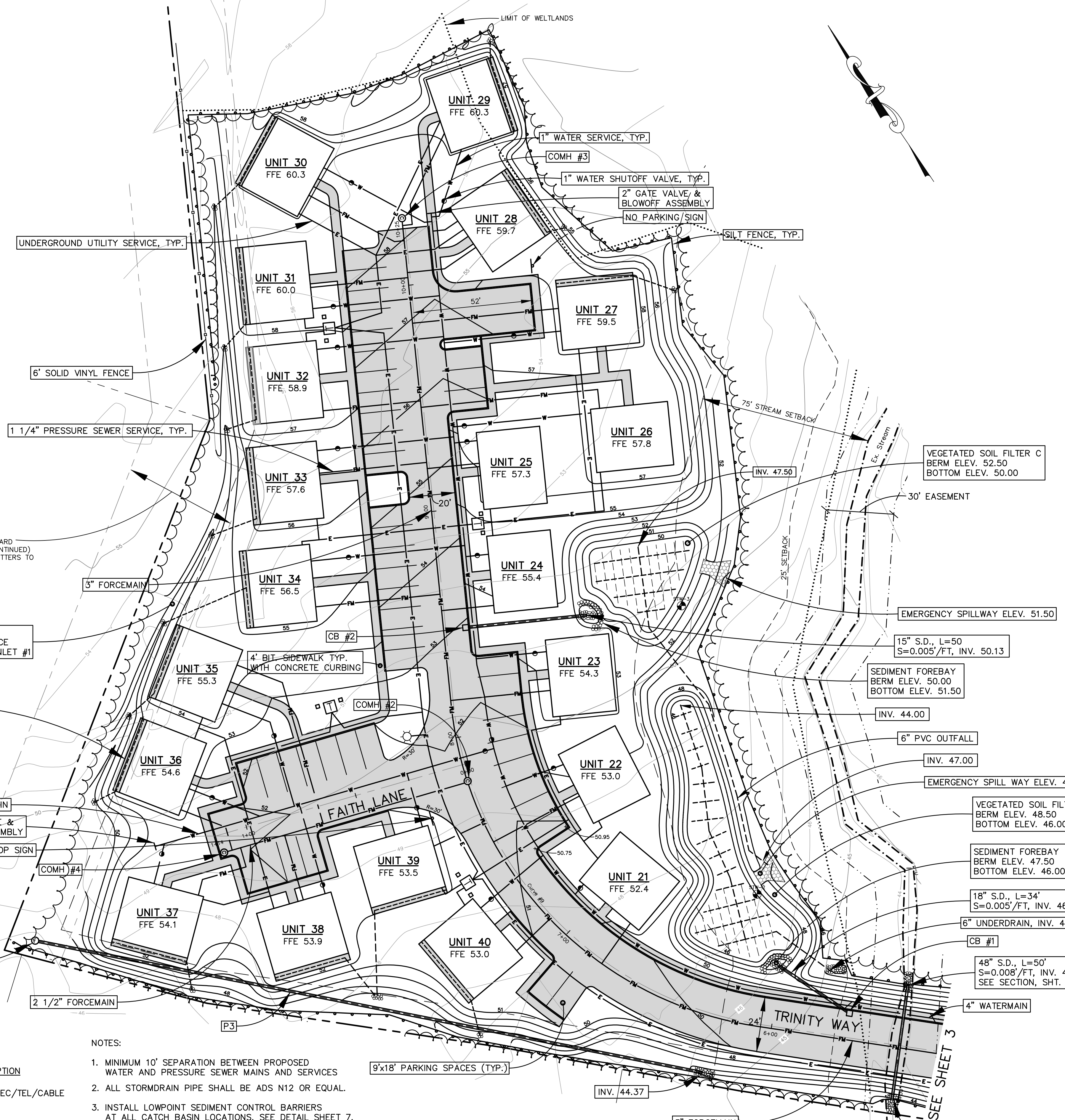
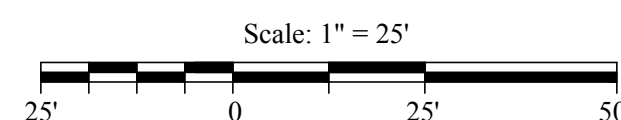
SEWER STRUCTURES

COMH#2 RIM 51.56  
 INV. 46.30  
 COMH#3 RIM 58.45  
 INV. OUT 53.20  
 COMH#4 RIM 51.97  
 INV. IN 46.30

SYMBOL	LEGEND	DESCRIPTION
51456	SPOT GRADE	
---	UNDERGROUND ELEC./TEL./CABLE	
---	WATERMAIN	
---	PRESSURE SEWER	
---	SANITARY SEWER	
---	SILT FENCE	
---	STONE CHECK DAM	
---	TRANSFORMER PAD	
---	HYDRANT	
---	UTILITY POLE	
---	SANITARY SEWER MANHOLE	

NOTES:

- MINIMUM 10' SEPARATION BETWEEN PROPOSED WATER AND PRESSURE SEWER MAINS AND SERVICES
- ALL STORMDRAIN PIPE SHALL BE ADS N12 OR EQUAL.
- INSTALL LOWPOINT SEDIMENT CONTROL BARRIERS AT ALL CATCH BASIN LOCATIONS, SEE DETAIL SHEET 7.
- UNITS 21 TO 40 WILL BE CONSTRUCTED WITH EONE GRINDER PUMPS - SEE DETAILS
- TRINITY WAY WIDTH TRANSITION FROM 24' TO 20' AT STA. 8+00
- INSTALL ROOF DRIP EDGE FILTERS AT UNITS 27 THRU 40 AS SHOWN. SEE DETAIL SHEET 7.



NOTES:

- DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E. FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS/CLAYS A NON-WOVEN MATERIAL.
- DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
- LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES AND POINTS OF CONCENTRATED FLOW.
- DOWN GRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G. FOREST FLOOR OR COARSE GRAVEL/STONE.
- DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY. SECONDARY CONTAINMENT MAY BE REQUIRED.

PUMPED DISCHARGE SEDIMENT CONTROL DEVICE ("DIRT BAG")

DEWATERING PROCEDURE:

SITE DEWATERING SHOULD BE COMPLETED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL - BMP SECTION G-3 (CONSTRUCTION DEWATERING) DATED MARCH 2003 AS SUMMARIZED BELOW:

CONSIDERATIONS:

- THE DISCHARGE AREAS SHOULD BE CHOSEN WITH CAREFUL CONSIDERATION TO DOWN GRADIENT WATER RESOURCES AND THE LANDSCAPE ABILITY TO TREAT WATER FLOWS FROM THE DEWATERING PROCESS. A WOODED BUFFER IS BEST. ALL BUFFER REQUIREMENTS ARE FOUND IN THE VEGETATED BUFFER BMP SECTION. THE DISCHARGE SHOULD BE STOPPED IMMEDIATELY IF THE RECEIVING AREA IS SHOWING ANY SIGNS OF UNSTABILITY OR EROSION.
- IF THE COLLECTED RUNOFF IS CONTAMINATED WITH OIL, GREASE OR OTHER PETROLEUM PRODUCTS, OIL/WATER SEPARATOR OR A FILTRATION MECHANISM MAY BE NECESSARY PRIOR TO THE DISCHARGE. ANOTHER METHOD OF DISPOSAL SUCH AS CONTAINMENT AND TRUCKING AWAY BY A MAINE DEP LICENSED TRANSPORTER WILL NEED TO BE IMPLEMENTED IF THE WATER HAS BEEN CONTAMINATED BY TOXIC AND HAZARDOUS MATERIALS.
- ALL REQUIREMENTS OF STATE LAW AND PERMIT REQUIREMENTS OF LOCAL, STATE AND FEDERAL AGENCIES MUST BE MET.

SPECIFICATIONS:

DEWATERING EXCAVATED AREAS MUST BE IN TWO DISTINCT PHASES. THE REMOVAL OF THE COLLECTED WATER WITHIN THE EXCAVATION AND THE TREATMENT OF THE COLLECTED WATER.

PHYSICAL DEWATERING

THE REMOVAL OF WATER FROM THE EXCAVATED AREA CAN BE ACCOMPLISHED BY NUMEROUS METHODS. THE MOST COMMON OF THESE ARE: GRAVITY DRAIN THROUGH DAYLIGHT CHANNELS, MECHANICAL PUMPING, SIPHONING, AND USING THE BUCKET OF CONSTRUCTION EQUIPMENT TO SCOOP AND DUMP WATER FROM THE EXCAVATION.

- CHANNELS DUG DISCHARGING WATER FROM THE EXCAVATED AREA NEED TO BE STABLE. IF FLOW VELOCITIES CAUSE EROSION WITHIN THE CHANNEL THEN DITCH LINING SHOULD BE USED.
- BUCKETED WATER SHOULD BE DISCHARGED IN A STABLE MANNER TO THE SEDIMENT REMOVAL AREA. A SPLASH PAD OF RIPRAP UNDERLAIN WITH GEOTEXTILE MAY BE NECESSARY TO PREVENT SCOURING OF THE SOIL IN THE BASIN.
- DEWATERING IN PERIODS OF INTENSE, HEAVY RAIN, WHEN THE INFILTRATIVE CAPACITY OF THE SOIL IS EXCEEDED, SHOULD BE AVOIDED.

SEDIMENT REMOVAL:

MANY METHODS OF SETTLING OR FILTERING SEDIMENT ARE AVAILABLE FOR THE CONTRACTOR TO CONSIDER:

- FLOW TO THE SEDIMENT REMOVAL STRUCTURE MAY NOT EXCEED THE SEDIMENT REMOVAL STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR THE STRUCTURE'S VOLUME CAPACITY.
- SEDIMENT REMOVAL BASINS SHOULD DISCHARGE WHEREVER POSSIBLE TO A WELL-VEGETATED BUFFER THROUGH SHEET FLOW AND SHOULD MAXIMIZE THE DISTANCE TO THE NEAREST WATER RESOURCE AND MINIMIZING THE SLOPE OF THE BUFFER AREA.
- VARIOUS BASINS HAVE BEEN PROPOSED IN PAST PROJECTS:
  - AN ENCLOSURE OF JERSEY BARRIERS WITH A LARGE PIECE OF SILT TAPE GEOTEXTILE.
  - A TEMPORARY ENCLOSURE CONSTRUCTED WITH HAY BALES, SILT FENCE, OR BOTH. EROSION CONTROL MIX ALSO MAY BE INCORPORATED WITH SILT FENCE OR HAY BALES.
  - DIRECT DISCHARGE TO A MANUFACTURED/PRE-MADE STRUCTURE SPECIFICALLY DESIGNED FOR SEDIMENT REMOVAL, LIKE SILT SAK, SILT BAG, OR OTHER SIMILAR PRODUCT.
  - CONCRETE OR STEEL SETTLING CHAMBERED SYSTEMS FOR SEDIMENT REMOVAL.
  - EXCAVATED OR BERMED SEDIMENTATION PONDS OR STRUCTURES. SIDE SLOPES NO GREATER THAN 2 TO 1, OR WITH A COMBINED INTERIOR AND EXTERIOR SLOPE OF NO GREATER THAN 5 TO 1. SEE THE SEDIMENT TRAP BMP SECTION.
  - A STORMWATER DETENTION POND MAY BE USED AS A STILLING BASIN DURING CONSTRUCTION. HOWEVER, A SEDIMENT BARRIER NEEDS TO BE INSTALLED TO THE OUTLET STRUCTURE TO PREVENT THE DISCHARGE OF SEDIMENT. SEE THE SEDIMENT POND CONSTRUCTION BMP SECTION.

INSTALLATION REQUIREMENTS:

- FOR TRENCH EXCAVATION, LIMIT THE TRENCH LENGTH TO 500 FEET AND PLACE THE EXCAVATED MATERIAL ON THE UP GRADIENT SIDE OF THE TRENCH.
- INSTALL DIVERSION DITCHES OR BERMS TO MINIMIZE THE AMOUNT OF CLEAN STORMWATER RUNOFF ALLOWED INTO THE EXCAVATED AREA.
- NEVER DISCHARGE TO AREAS THAT ARE BARE OR NEWLY VEGETATED.

MAINTENANCE:

DURING THE ACTIVE DEWATERING PROCESS, INSPECTION OF THE DEWATERING FACILITY SHOULD BE REVIEWED FREQUENTLY. SPECIAL ATTENTION SHOULD BE PAID TO THE BUFFER AREA FOR ANY SIGN OF EROSION AND CONCENTRATION OF FLOW THAT MAY COMPROMISE THE BUFFER AREA. OBSERVE WHERE POSSIBLE THE VISUAL QUALITY OF THE EFFLUENT AND DETERMINE IF ADDITIONAL TREATMENT CAN BE PROVIDED.

NO.	DATE	REVISION	DESCRIPTION
1	3/12/18		Rev'd Per Maine Water Review
2	4/2/18		Rev'd Per Maine Water Review



**BH2M**  
 Engineers, Surveyors  
 Berry, Huff, MacDonald, Milligan Inc.  
 28 State Street  
 Portland, Maine 04108  
 Tel: (207) 859-9771  
 Fax: (207) 859-8250

FOR  
 Church Street LLC  
 2 Field Drive  
 Old Orchard Beach, Maine

**SITE UTILITIES & GRADING PLAN**  
 TRINITY WAY & FAITH LANE  
 CHURCH STREET STATION  
 SACO AVENUE  
 OLD ORCHARD BEACH, MAINE

DESIGNED	DATE
W. Pelkey	April 2016
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
A. Morrell	15134

SHEET
4

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**CONSTRUCTION**