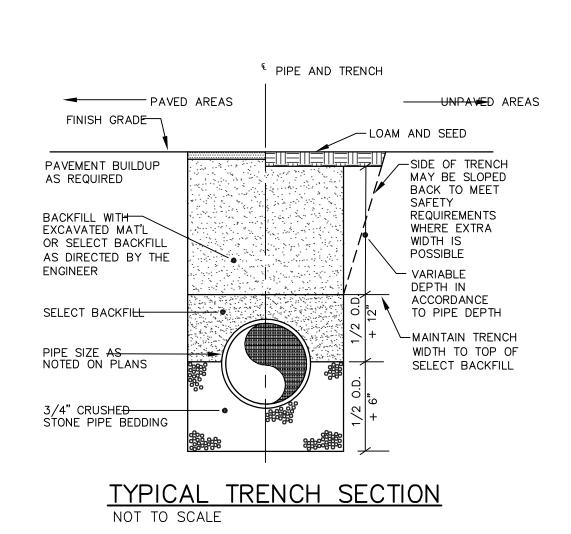
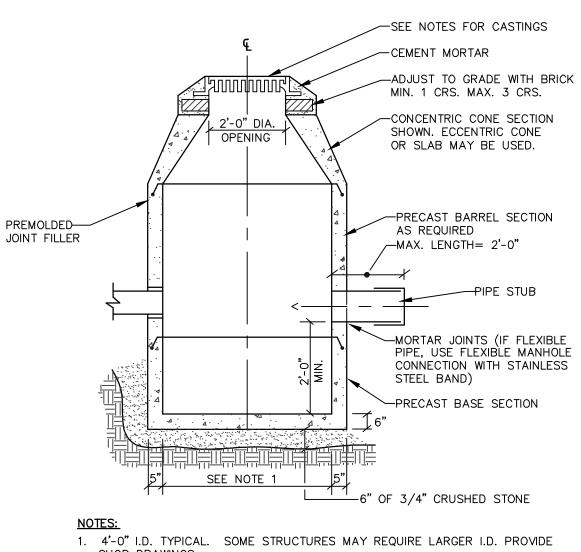


BITUMINOUS CURB SECTION NOT TO SCALE



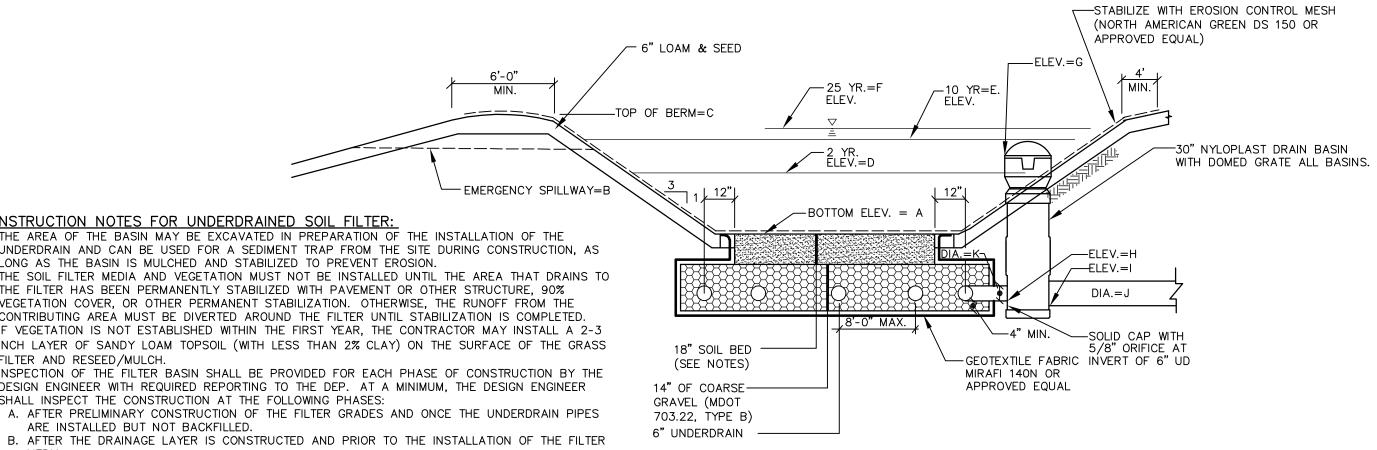


SHOP DRAWINGS.

2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING. 3. PIPE SIZES AND INVERTS AS NOTED ON PLANS.

4. CATCH BASIN FRAME AND GRATE TO BE NEENAH FOUNDRY R-2554, OR APPROVED EQUAL.

TYPICAL CATCH BASIN



EMBANKMENT CONSTRUCTION NOTES:

. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATIONS 2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM 3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS 4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

POND DIMENSIONS											
UNDERDRAIN GRASS	ELEVATION IN FEET DIA (IN										(IN)
FILTER	Α	В	С	D	E	F	G	Н		J	K
USF-1	36.00	37.50	38.00	37.01	37.06	37.08	37.00	33.67	33.50	12	6

CONSTRUCTION NOTES FOR UNDERDRAINED SOIL FILTER: 1. THE AREA OF THE BASIN MAY BE EXCAVATED IN PREPARATION OF THE INSTALLATION OF THE UNDERDRAIN AND CAN BE USED FOR A SEDIMENT TRAP FROM THE SITE DURING CONSTRUCTION, AS LONG AS THE BASIN IS MULCHED AND STABILIZED TO PREVENT EROSION. 2. THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION. OTHERWISE, THE RUNOFF FROM THE CONTRIBUTING AREA MUST BE DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED. 3. IF VEGETATION IS NOT ESTABLISHED WITHIN THE FIRST YEAR, THE CONTRACTOR MAY INSTALL A 2-3 INCH LAYER OF SANDY LOAM TOPSOIL (WITH LESS THAN 2% CLAY) ON THE SURFACE OF THE GRASS FILTER AND RESEED/MULCH. 4. INSPECTION OF THE FILTER BASIN SHALL BE PROVIDED FOR EACH PHASE OF CONSTRUCTION BY THE DESIGN ENGINEER WITH REQUIRED REPORTING TO THE DEP. AT A MINIMUM, THE DESIGN ENGINEER SHALL INSPECT THE CONSTRUCTION AT THE FOLLOWING PHASES: A. AFTER PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.

DESIGN ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL A. SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE GRABS FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.

D. AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS, AND E. ALL MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN SHALL BE APPROVED BY

5. THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE

THE DESIGN ENGINEER AFTER TESTS BY A CERTIFIED LABORATORY SHOW THAT THEY ARE

FILTER MEDIA. ALL RESULTS OF THE FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE

- B. PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES, 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED BY HYDROMETER
- GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER. C. PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

<u>UNDERDRAINED FILTER NOTES:</u> 1. THE SOIL BED SHALL CONSIST OF A SILTY SAND SOIL OR SOIL MIXTURE

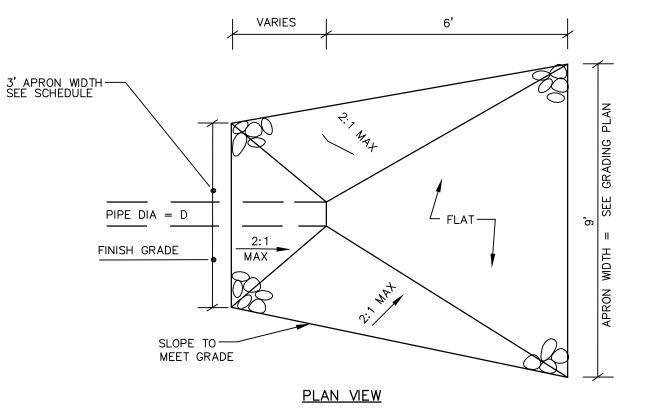
PASSING DEP SPECIFICATIONS.

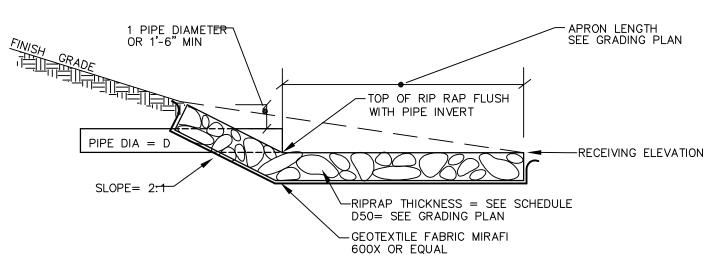
COMBINED WITH 20% TO 25% BY VOLUME OF A MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH. THE RESULTING MIXTURE MUST HAVE NO LESS THAN 8% PASSING THE 200 SIEVE AND SHALL HAVE A

C. AFTER THE FILTER MEDIA HAS BEEN INSTALLED AND SEEDED.

- CLAY CONTENT OF LESS THAN 2%. THE SAND USED IN THE MIXTURE SHALL MEET THE FOLLOWING SPECIFICATIONS:
- SIEVE 3/8" 100 PERCENT PASSING
- SIEVE #4 95-100 PERCENT PASSING SIEVE #8 - 80-100 PERCENT PASSING
- SIEVE #16 50-85 PERCENT PASSING
- SIEVE #30 25-60 PERCENT PASSING
- SIEVE #60 10-30 PERCENT PASSING SIEVE #100 - 2-10 PERCENT PASSING
- SIEVE #200 0-5 PERCENT PASSING 2. COMPACTION OF THE SOIL BED MATERIAL SHALL BE AVOIDED. IF COMPACTION OCCURS, ROTOTILL AGAIN PRIOR TO SEEDING OR SODDING.

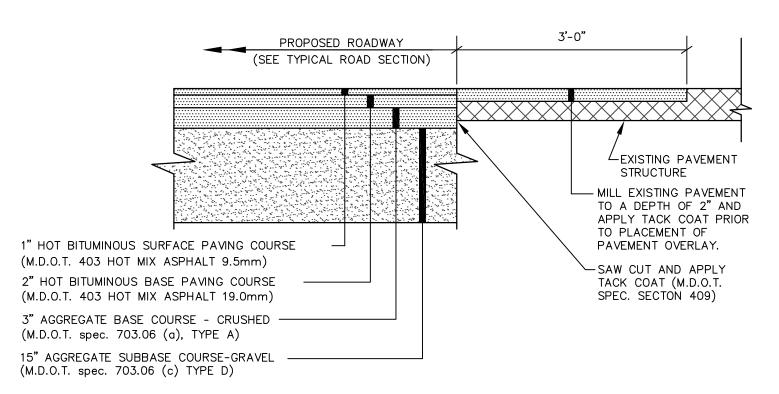
DETENTION BASIN WITH UNDERDRAINED GRASS FILTER NOT TO SCALE



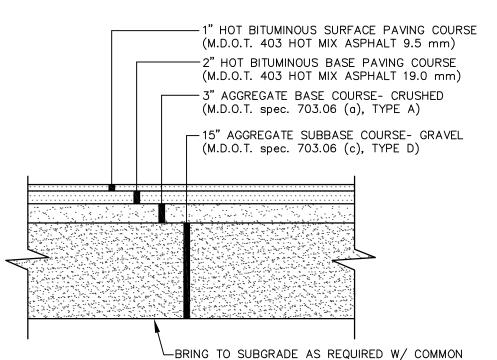


SECTION VIEW

- 1. RIPRAP TO BE PROCESSED ANGULAR ROCK
- 2. RIPRAP GRADIATION SHALL BE A WELL GRADED MIX FROM ABOUT 1.5 TIMES D SIZE TO 25 PERCENT OF THE D SIZE
- 3. THE RIPRAP STONES SHALL BE CAREFULLY PLACED FROM THE TOE OF THE SLOPE UPWARD
- 4. STONES SHALL BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12" ONTO THE GEOTEXTILE
- 5. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH, UNIFORMLY SLOPED SURFACE RIPRAP APRON NOT TO SCALE



TYPICAL PAVEMENT JOINT

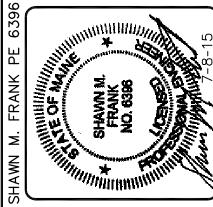


BORROW COMPACTED TO 90% OF MAXIMUM DENSITY.

- 1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
- 2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND
- FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE. 3. CONTRACTOR MAY REPLACE BITUMINOUS PAVING SECTION WITH TWO (2) 1-1/2" LIFTS OF 12.5mm SUPERPAVE MIX. SUBMIT PAVEMENT MIX

TYP. PAVED PARKING LOT SECTION

NOT TO SCALE



DESIGNED CHECKED DJS

ORTL ANSION CEN LOT PARKING

EXP

PROJECT NO. SCALE 07548 NTS

SHEET 6 OF 6