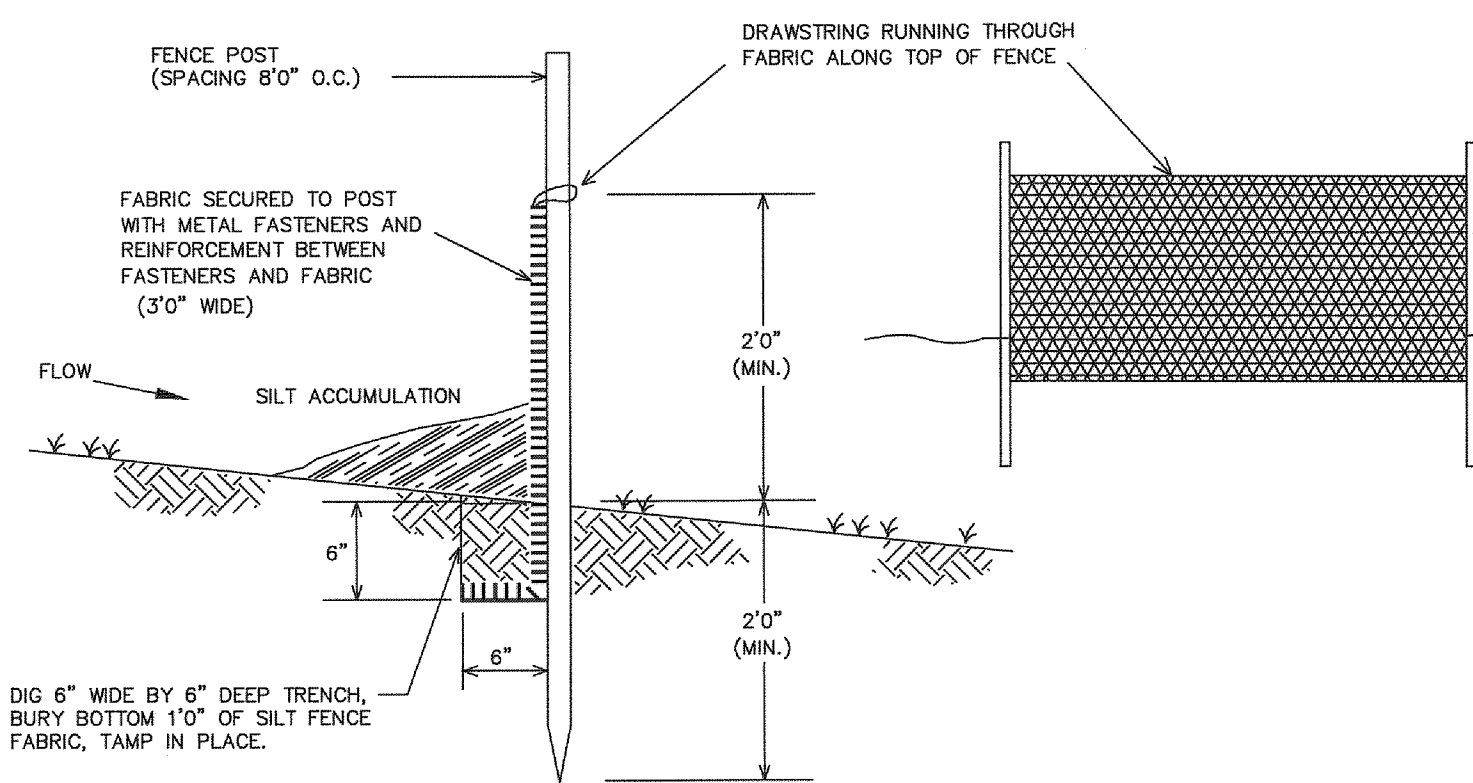


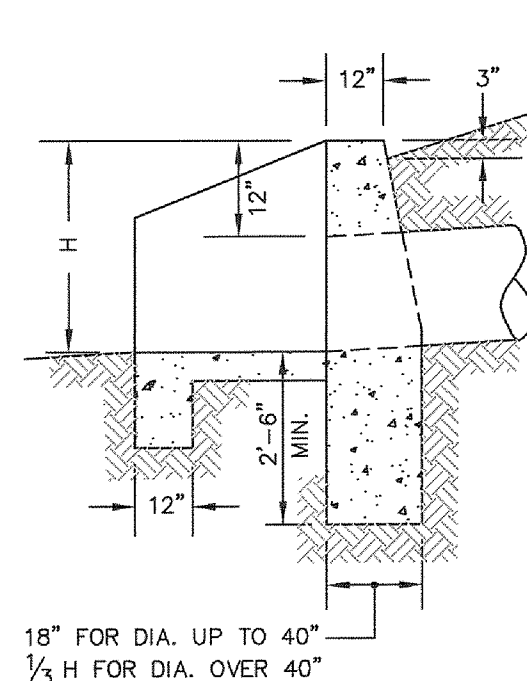
GABION PROTECTION

N.T.S.
C.O.P. @ FES15
 $L_4 = 18'$ $H_4 = 6'$ $Q_5 = 4'$ $S = 0 \%$
C.O.P. @ HW10 (GABION LINING)
 $L_4 = 24'$ $H_4 = 12'$ $Q_5 = 4'$



SILT FENCE SEDIMENT BARRIER

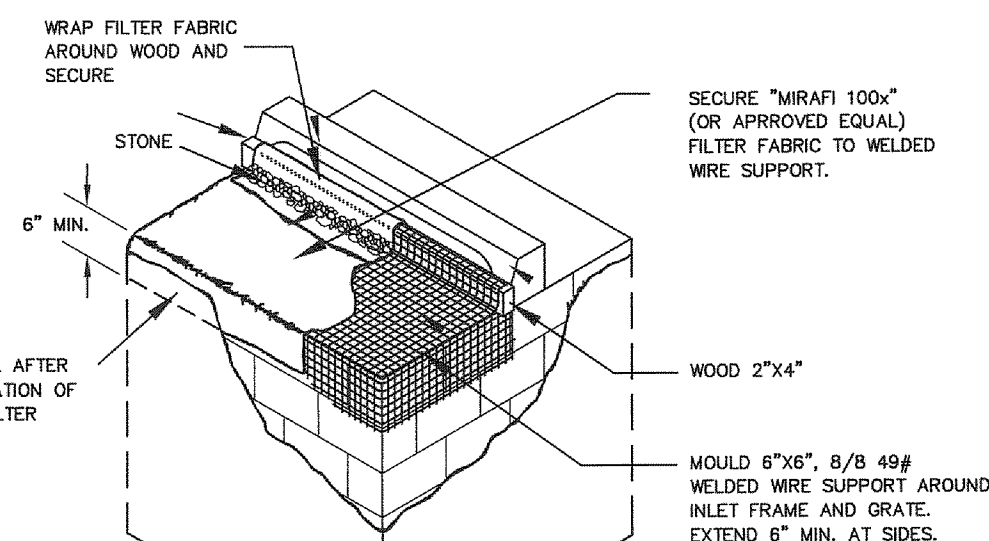
N.T.S.



STANDARD HEADWALL WITH WINGWALL DETAIL

N.T.S.

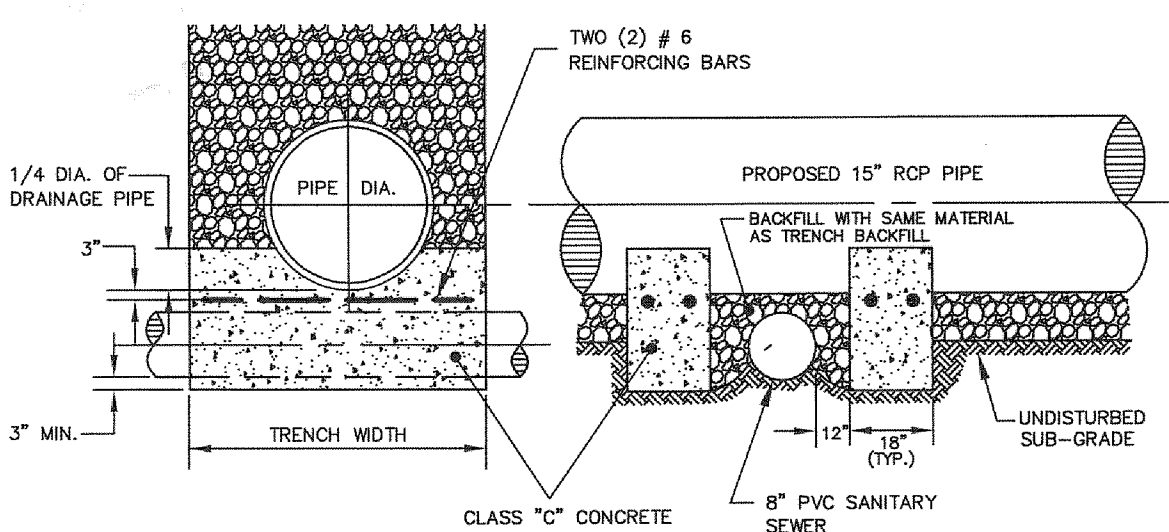
I.D.	HW	HW	HW10
A	4'	3'	5'
B	3.46'	2.59'	4.32'
C	6'	4.5'	7.5'
H	3'	2.5'	3.5'
D	2'	1.5'	2.5'



TYPE \"B\" INLET FILTER DETAIL

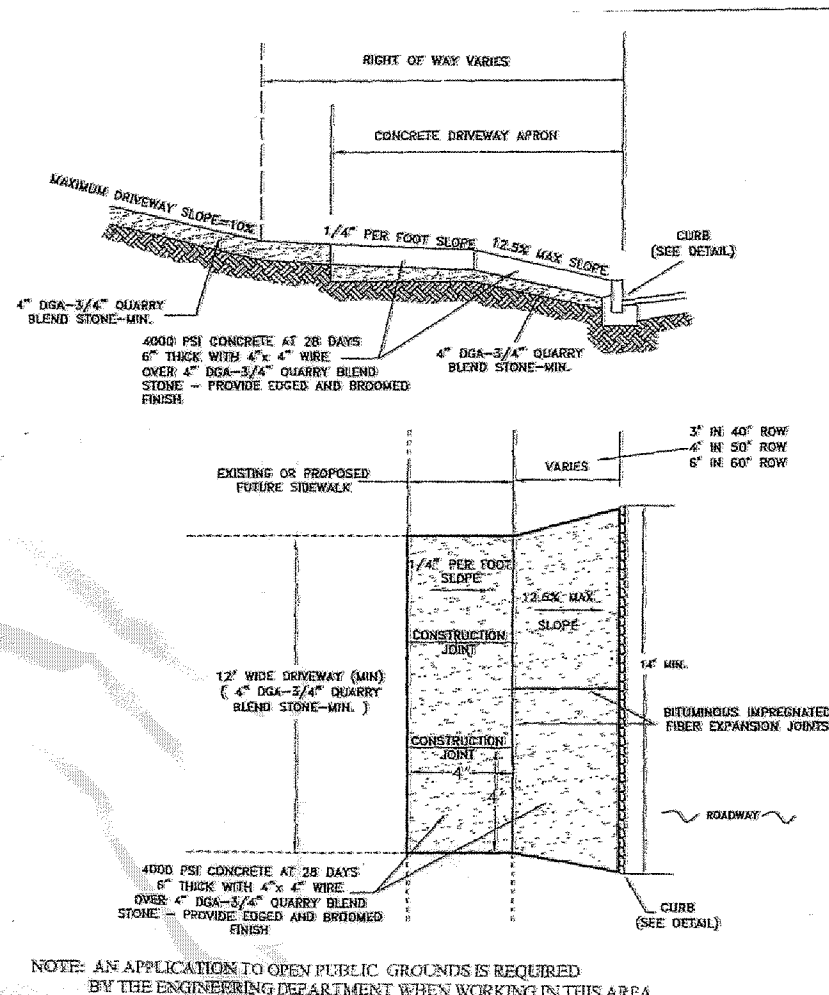
N.T.S.

- CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
- CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.



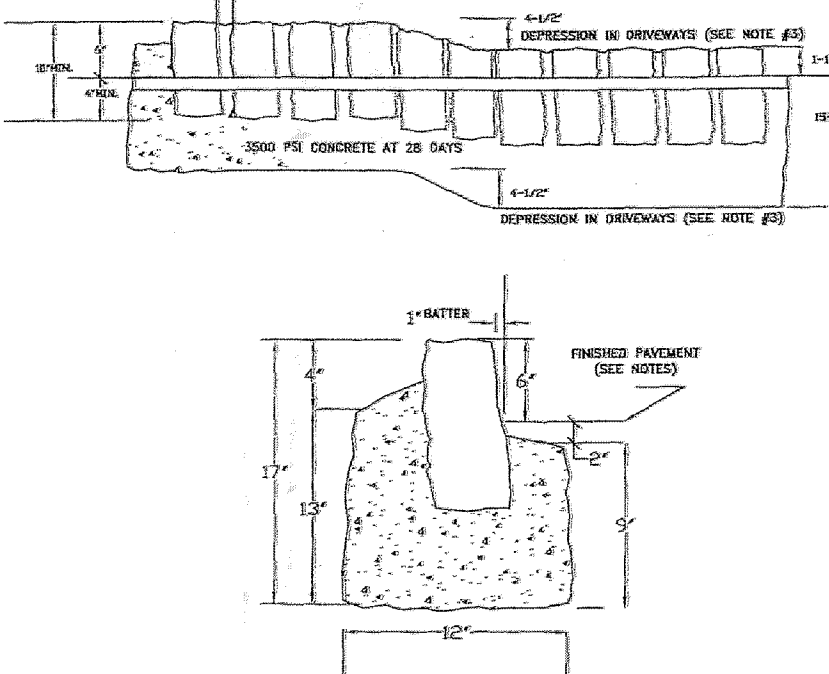
CONCRETE PIPE CRADLES

N.T.S.



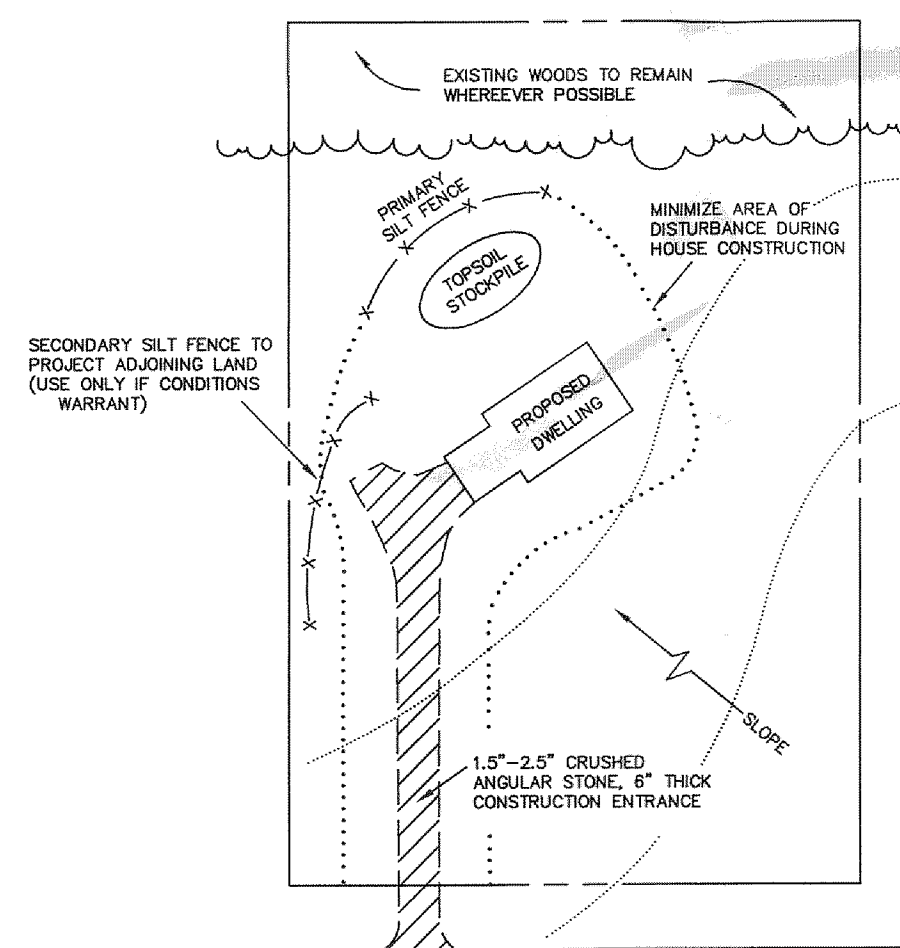
CONCRETE DRIVEWAY APRON

Not to Scale



BELGIAN BLOCK CURB

Not to Scale



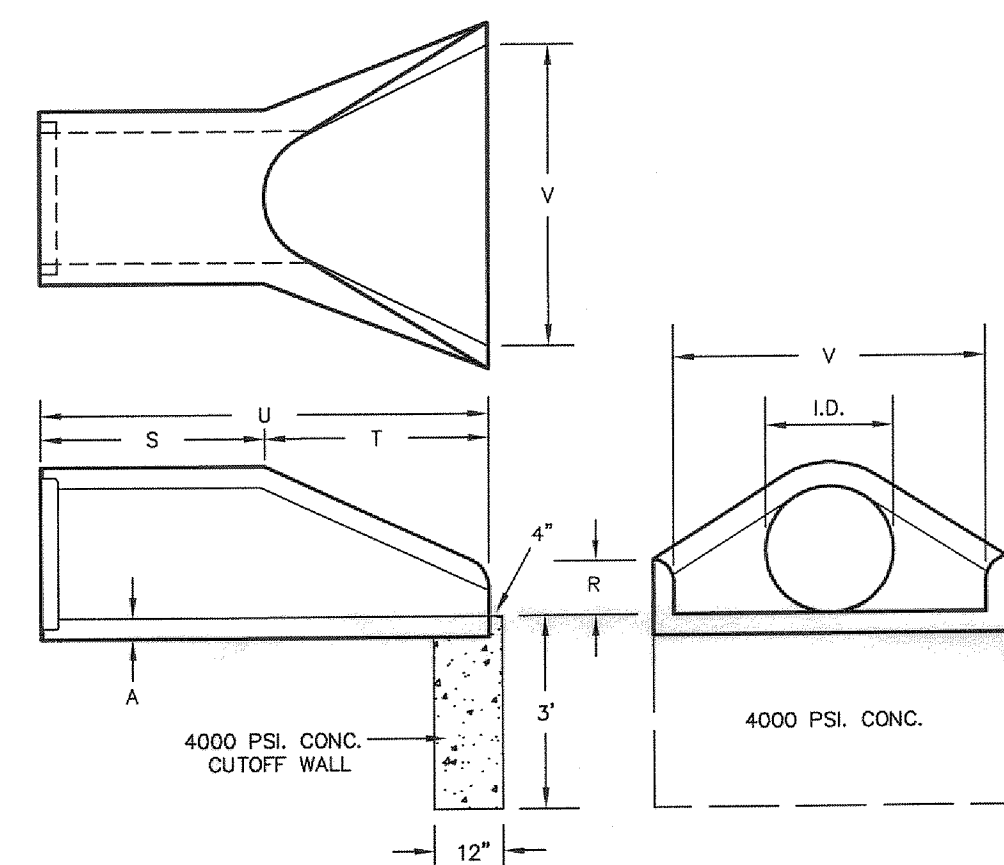
TYP. SOIL EROSION & SEDIMENT CONTROL PLAN

FOR INDIVIDUAL LOTS

N.T.S.

SEQUENCE OF CONSTRUCTION

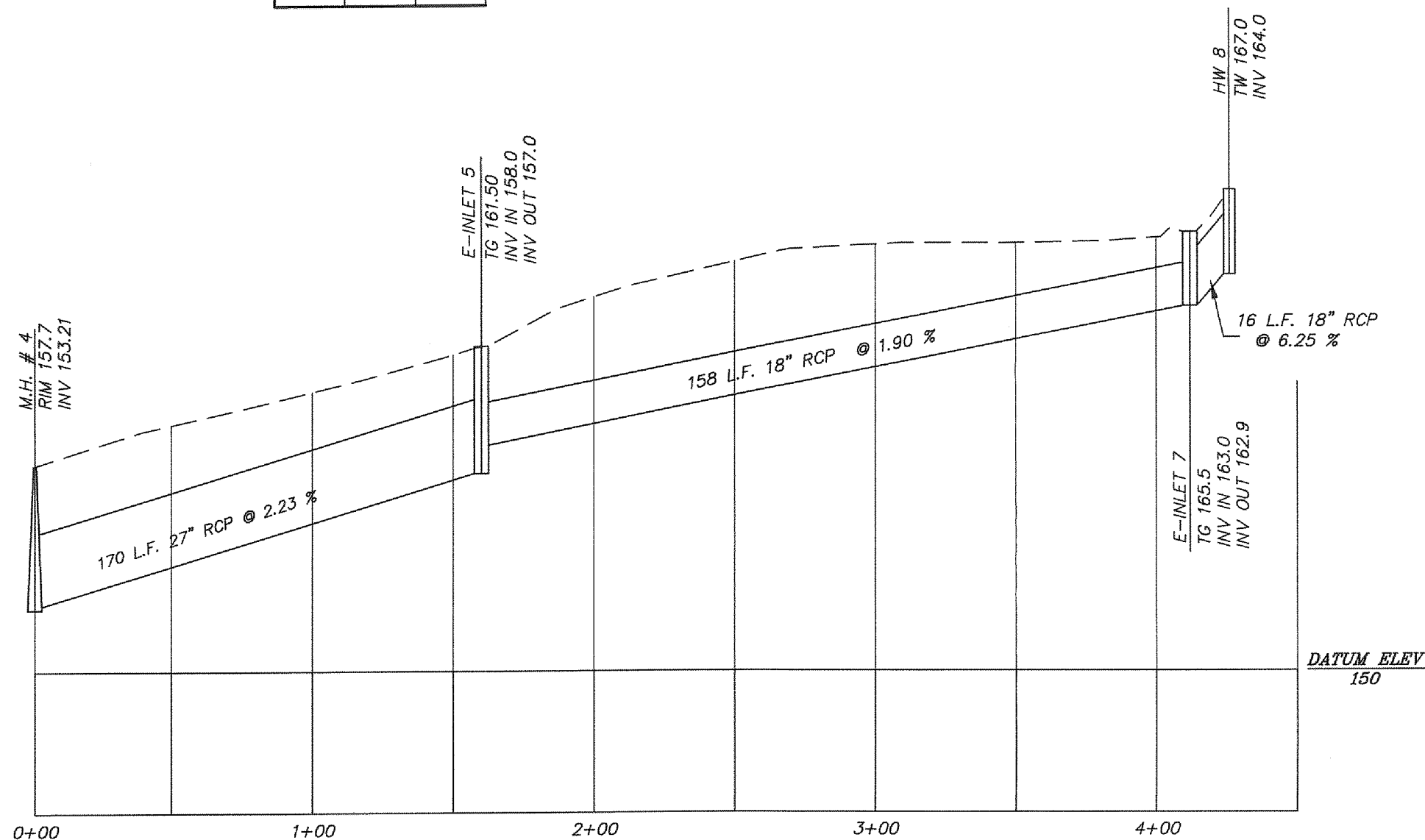
- 0-3 DAYS: INSTALL TRACKING PADS, SILT FENCES, STRIP AND STOCKPILE TOPSOIL (STABILIZE).
- 3-14 DAYS: CONSTRUCT TEMPORARY SILTATION BASIN AT ELEVATION 141.0 WITH A 1\"/>



FLARED END SECTION

N.T.S.

I.D.	15	36
A	2 1/4	4
R	7 1/2	14
S	24	26
T	24	30
U	4'	5'-2"
V	28	72



DRAINAGE EASEMENT

LOTS 7.03 & 7.04

SCALE: 1\"/>

GENERAL NOTES FOR SOIL EROSION AND SEDIMENT CONTROL

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE IN ACCORDANCE WITH THE \"STANDARD FOR SOIL EROSION CONTROL IN NEW JERSEY\".
- WRITTEN NOTIFICATION SHALL BE GIVEN TO THE TOWNSHIP ENGINEER AND THE SOIL CONSERVATION DISTRICT 48 HOURS PRIOR TO THE START OF ANY LAND DISTURBANCE.
- THE SITE SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF A SIX INCH BLANKET OF 1.5 TO 2 INCH CRUSHED ANGULAR STONE (ASTM # 2 OR 3) FOR A LENGTH AS SPECIFIED ON THE SOIL EROSION PLAN. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED ADEQUATELY TO PREVENT TRACKING OF SEDIMENT OFF-SITE.
- ALL SOIL TO STOCKPILES FOR A PERIOD OF GREATER THAN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. STOCKPILES SHALL NOT BE LOCATED IN DRAINAGEWAYS AND SHALL BE PROTECTED BY SILT FENCE AS SHOWN ON THE SOIL EROSION PLAN.
- ALL DRAINAGE INLETS ARE TO BE PROTECTED DURING CONSTRUCTION OR UNTIL GROUND COVER IS ESTABLISHED. SUFFICIENTLY TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM. INLET PROTECTION SHALL BE IN ACCORDANCE WITH THE SOIL EROSION PLAN AND ADEQUATELY MAINTAINED DURING CONSTRUCTION.
- ALL STORM DRAINAGE OUTLETS TO BE STABILIZED AS SHOWN ON THE SOIL EROSION PLAN PRIOR TO BECOMING OPERATIONAL.
- ALL REVISIONS AFTER DISTRICT APPROVAL HAS BEEN GRANTED MUST BE FORWARDED TO THE DISTRICT FOR REVIEW.
- IN THAT N.J.S.A. 4:24-39 REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND SUBDIVISIONS WILL HAVE TO BE COMPLIED WITH PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

AGRONOMIC SPECIFICATIONS FOR LAWNS AND CONSTRUCTION SITES

GENERAL

- ALL DISTURBED AREAS THAT ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION, OR NOT SCHEDULED TO BE PERMANENTLY SEEDING WITHIN 30 DAYS MUST BE TEMPORARILY STABILIZED AS PER SPECIFICATIONS BELOW.
- ALL EXPOSED AREAS WHICH ARE TO BE PERMANENTLY VEGETATED ARE TO BE SEEDING AND MULCHED WITHIN 10 DAYS OF FINAL GRADING.
- STRAW MULCH (HAY MULCH MAY BE SUBSTITUTED IF APPROVED BY THE DISTRICT) IS TO BE APPLIED TO ALL SEEDINGS AT THE RATE OF 1.5 - 2 TONS PER ACRE. (APPROXIMATELY 100 - 130 BALES PER ACRE).
- MULCH ANCHORING IS REQUIRED AFTER MULCHING TO MINIMIZE LOSS BY WIND OR WATER. THIS IS TO BE DONE USING ONE OF THE METHODS (COMPOST, LIQUID MULCH BINDERS, NETTINGS, ETC.) IN THE \"STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY\".
- EXISTING WEEDY AND POORLY VEGETATED AREAS WITH LESS THAN 75 PERCENT PERENNIAL GRASS COVER MUST RECEIVE PERMANENT STABILIZATION AS SPECIFIED BELOW.
- ALL BAGS NEED TO BE SAVED FOR LIME, FERTILIZER, SEED AND LIQUID MULCH BINDER (IF MULCH ANCHORING METHOD). SUCH PRODS NEED TO BE SUBMITTED TO THE DISTRICT INSPECTOR FOR VERIFICATION OF MATERIALS AND QUANTITIES USED FOR ALL SEEDINGS.
- AN ADDITIONAL FEE OF \$100.00 PER INSPECTION WILL BE ASSESSED ON THOSE SITES WHERE ADDITIONAL INSPECTIONS ARE NECESSITATED AS A RESULT OF NON-COMPLIANCE WITH THE APPROVED PLAN. THIS INCLUDES ADDITIONAL INSPECTIONS PERFORMED AFTER THE FAILURE OF AN INITIAL REPORT OF COMPLIANCE. INSPECTION, THE ENTIRE PROJECT SITE IS INSPECTED AT THE TIME OF A REQUEST FOR REPORT COMPLIANCE.

SEED-BED PREPARATION FOR ALL SEEDINGS

SUB-SOIL PREPARATION: IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHOULD BE SCARIFIED TO A DEPTH OF 6\"/>

TOPSOILING: AREAS TO BE SEEDING SHOULD HAVE A MINIMUM OF 5\"/>

FINAL GRADING: GRADING IS TO BE SMOOTH OF RITS AND FREE OF OBJECTIONABLE STONES, DEPRESSIONS, VEHICLE TRACKS, AND ROUGH EDGES. THERE IS TO BE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND DWELLINGS. REFUSE FROM SEEDBED PREPARATION (ROOTS, STICKS, STONES, CONSTRUCTION DEBRIS) MUST BE DISPOSED OF PROPERLY.

LIMING/FERTILIZING: APPLY LIMESTONE AND FERTILIZER TO SOIL TEST RECOMMENDATIONS OR AS FOLLOWS:
A. LIME IS TO BE APPLIED AT THE RATE OF 2 TONS (4,000 LBS.) PER ACRE. LIME MAY BE ANY PRODUCT TYPE AS LONG AS THE OCE CALCIUM CARBONATE EQUIVALENCY = 2 TONS PER ACRE. PELLETED AND LIQUID PRODUCTS MAY BE PREFERRED BECAUSE OF THEIR LACK OF DUST AND EASE OF HANDLING BUT MUST MEET THE FORE-MENTIONED CRITERIA.
B. STARTER FERTILIZER, SPECIFIED AS 10-20-10, IS TO BE APPLIED AT 500 LBS. PER ACRE.
C. LIME AND FERTILIZER ARE TO BE WORK INTO THE SOIL TO A DEPTH OF 4 INCHES.

TEMPORARY STABILIZATION WITH MULCH ONLY

STRAW MULCH (HAY MULCH MAY BE SUBSTITUTED IF APPROVED BY THE DISTRICT) IS TO BE SPREAD UNIFORMLY AT THE RATE OF 2 TO 2-1/2 TONS PER ACRE (TOTAL GROUND SURFACE COVERAGE). THIS PRACTICE IS TO BE LIMITED TO PERIODS WHEN VEGETATIVE COVER CANNOT BE ESTABLISHED DUE TO THE SEASON OR OTHER CONDITIONS. MULCH MUST BE ANCHORED IN ACCORDANCE WITH NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL. MULCH ALONE CAN ONLY BE USED FOR SHORT PERIODS AND WILL REQUIRE MAINTENANCE AND RENEWAL. OTHER MULCH MATERIALS MAY BE UTILIZED IF APPROVED BY THE DISTRICT.

TEMPORARY SEEDING

TEMPORARY SEEDING IS TO BE USED ON ALL DISTURBED AREAS WHERE PERMANENT STABILIZATION WILL NOT BE ACCOMPLISHED FOR A PERIOD OF UP TO 6 MONTHS.

PRODUCT	RATE	RECOMMENDED OPTIMUM SEEDING DATES
PERENNIAL RYEGRASS	100 LBS. PER ACRE	3/15-5/15 & 8/15-10/1
SPRING OATS	90 LBS. PER ACRE	3/15-6/1 & 8/1-10/1
WINTER CEREAL RYE	112 LBS. PER ACRE	8/1-11/15
WINTER BARLEY	90 LBS. PER ACRE	8/15-10/1
PEARL MILLET	20 LBS. PER ACRE	5/15-8/15
GERMAN OR HUNGARIAN MILLET	30 LBS. PER ACRE	5/15-8/15

STABILIZATION WITH SOD

STABILIZATION WITH SOD IS PERMITTED IN AREAS WHERE MAINTENANCE AND IRRIGATION ARE ADEQUATE TO INSURE PROPER ESTABLISHMENT AND LONGEVITY. SEEDBED PREPARATION IS TO BE CONSISTENT WITH ANY OTHER STABILIZATION REQUIREMENTS. LIME AND FERTILIZER BAGS ARE TO BE RETAINED FOR DISTRICT INSPECTION. ON SLOPES GREATER THAN 1 TO 1, SOD MUST BE PROPERLY ANCHORED TO THE SLOPE IN ACCORDANCE WITH THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.

PERMANENT SEEDING

- SEED IS TO BE INCORPORATED INTO THE SOIL 1/4 INCH TO 1/2 INCH.
- LAWN SEEDINGS ARE TO BE A MIXTURE OF BLUEGRASSES, TURF-TYPE FESCUES AND TURF-TYPE PERENNIAL GRASS. SEEDING TEST DATE OF MORE THAN 12 MONTHS OLD UNLESS RETESTED.
- PERMANENT SEED MIXTURES ARE TO BE APPLIED AT A MINIMUM RATE OF 200 LBS. PER ACRE OF PERENNIAL SEED.
- SEED MIXTURE (AS SPECIFIED BELOW) IS TO BE APPLIED AT A MINIMUM RATE OF 200 LBS. PER ACRE OF PERENNIAL SEED.
- OPTIMUM SEEDING PERIOD FOR COUNTY IS FROM MARCH 1 TO MAY 15 AND AUGUST 15 TO OCTOBER 1. OUTSIDE OF THOSE PERIODS, THE SEEDING RATES ARE TO BE INCREASED BY 50 % (I.E. : 300 LBS. PER ACRE OF PERENNIAL SEED INSTEAD OF THE REQUIRED 200 LBS. PER ACRE DURING OPTIMUM PERIODS).
- SEEDINGS SHOULD RECEIVE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR EQUIVALENT AT 400 LBS. PER ACRE, APPROXIMATELY 150 MONTHS AFTER FIRST APPLICATION.

SEEDING MIXTURE FOR GENERAL SEEDING	(EXAMPLE : LAWNS)
40 % TURF-TYPE TALL FESCUE	60 % KENTUCKY BLUEGRASS
10 % CREEPING RED FESCUE	20 % TURF-TYPE PERENNIAL RYEGRASS
10 % CHEWINGS FESCUE	20 % CHEWINGS FESCUE
10 % KENTUCKY BLUEGRASS	
30 % TURF-TYPE PERENNIAL RYEGRASS	

SEEDING MIXTURE FOR HIGH TRAFFIC & CRITICAL AREAS

SEEDING MIXTURE FOR HIGH TRAFFIC & CRITICAL AREAS	(EXAMPLE : ATHLETIC FIELDS, WATERWAYS, DIVERSIONS, ETC.)
80 % TURF-TYPE TALL FESCUE	
10 % KENTUCKY BLUEGRASS	
10 % TURF-TYPE PERENNIAL RYEGRASS	

OTHER SEED MIXTURES, SUCH AS BLENDED VARIETIES OF PERENNIAL TURF-TYPE RYE GRASS, TURF-TYPE TALL FESCUES, OR BLUEGRASS MAY ALSO BE ACCEPTABLE IF APPROVED BY THE DISTRICT.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE TOWNSHIP OF BRANCHBURG STANDARD CONSTRUCTION DETAILS

REVISION	DATE
PER APPROVAL	6-2-06
PER D.E.P.	5-18-07
PER REVIEW	10-1-07
PER REVIEW	12-12-07
PER DEP REVIEW	10-13-14
ENGINEERS REVIEW	3-29-15
ENGINEERS REVIEW	7-10-15
ENGINEERS REVIEW	8-31-15
ENGINEERS REVIEW	10-14-15

Templin Engineering Associates
Engineering - Surveying

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BRIDGEWATER, NJ 08807

PHONE: (908) 231-1616

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Robert J. Templin
Robert J. Templin
PROFESSIONAL ENGINEER AND LAND SURVEYOR
N.J. LIC. # 25136

PROFILE - DRAINAGE EASEMENTS / DETAILS

PRELIMINARY MAJOR SUBDIVISION OF
BLOCK 60 LOT 7

FLATWATER DEVELOPMENT, INC.

BRANCHBURG TOWNSHIP, SOMERSET COUNTY
NEW JERSEY

DESIGNED BY :	CHECKED BY :	FILE NO. 03-013	SHEET NO.
DRAWN BY : T.M.	SCALE : N.T.S.	DATE : 2-17-04	7/11