

LEGEND	
PROPERTY LINE	—
EXISTING MONUMENT	□
EXISTING IRON PIN OR PIPE	○
UTILITY POLE W/ANCHOR	⊕
WELL	⊙
CHAIN FENCE	—○—○—
STONE WALL	—○—○—
CATCH BASIN	⊞
BLDG. SETBACK LINE	—
WATERCOURSE	—
EXISTING CONTOUR	--- 310 ---
EXISTING SPOT ELEVATION	311.5
PROPOSED CONTOUR	--- 310 ---
PROPOSED SPOT ELEVATION	311+5
DEEP HOLE	⊞ 2
PERCOLATION TEST	⊞ PERC
TREE LINE	—
SEDIMENT FENCE/ LIMIT OF CONSTRUCTION	— GSF —
FLAGGED WETLANDS	WF 1
WETLANDS	W

04-28-21	POROUS PAVEMENT PARKING AREAS
DATE	REVISION

OVERALL SITE PLAN
PREPARED FOR
NORBROOK
NEW HARTFORD, LLC
LITCHFIELD TURNPIKE, RT. 202
NEW HARTFORD, CONNECTICUT

Hrica Associates LLC
Engineers **Surveyors**





















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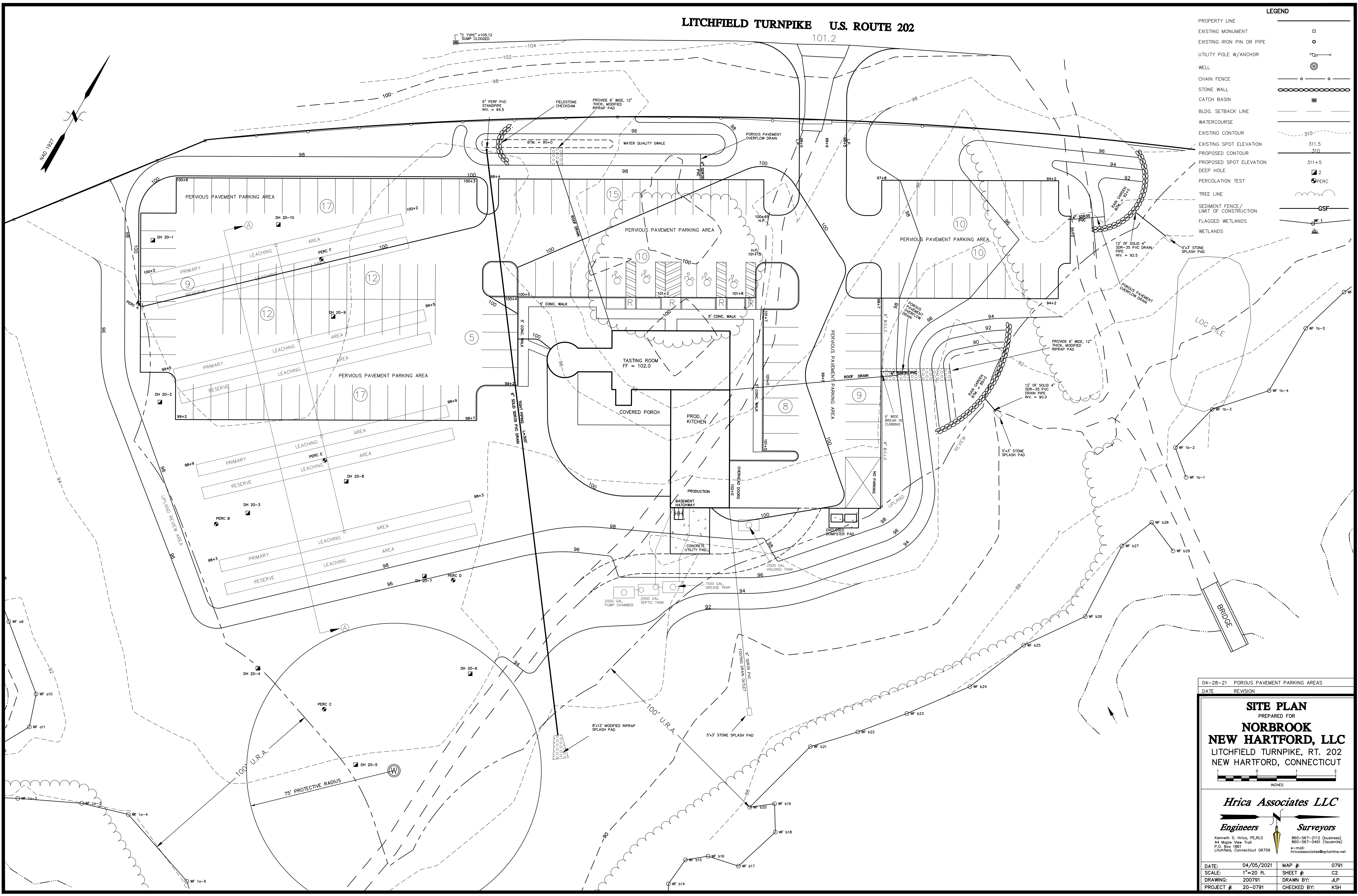
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DATE:	04/05/2021	MAP #:	0791
SCALE:	1"=40 ft.	SHEET #:	C1
DRAWING:	200791	DRAWN BY:	JLP
PROJECT #:	20-0791	CHECKED BY:	KSH

LITCHFIELD TURNPIKE U.S. ROUTE 202


LEGEND

- PROPERTY LINE 
- EXISTING MONUMENT 
- EXISTING IRON PIN OR PIPE 
- UTILITY POLE W/ANCHOR 
- WELL 
- CHAIN FENCE 
- STONE WALL 
- CATCH BASIN 
- BLDG. SETBACK LINE 
- WATERCOURSE 
- EXISTING CONTOUR 
- EXISTING SPOT ELEVATION 
- PROPOSED CONTOUR 
- PROPOSED SPOT ELEVATION 
- DEEP HOLE 
- PERCOLATION TEST 
- TREE LINE 
- SEDIMENT FENCE / LIMIT OF CONSTRUCTION 
- FLAGGED WETLANDS 
- WETLANDS 



04-28-21	POROUS PAVEMENT PARKING AREAS
DATE	REVISION

SITE PLAN
 PREPARED FOR
NORBROOK
NEW HARTFORD, LLC
 LITCHFIELD TURNPIKE, RT. 202
 NEW HARTFORD, CONNECTICUT

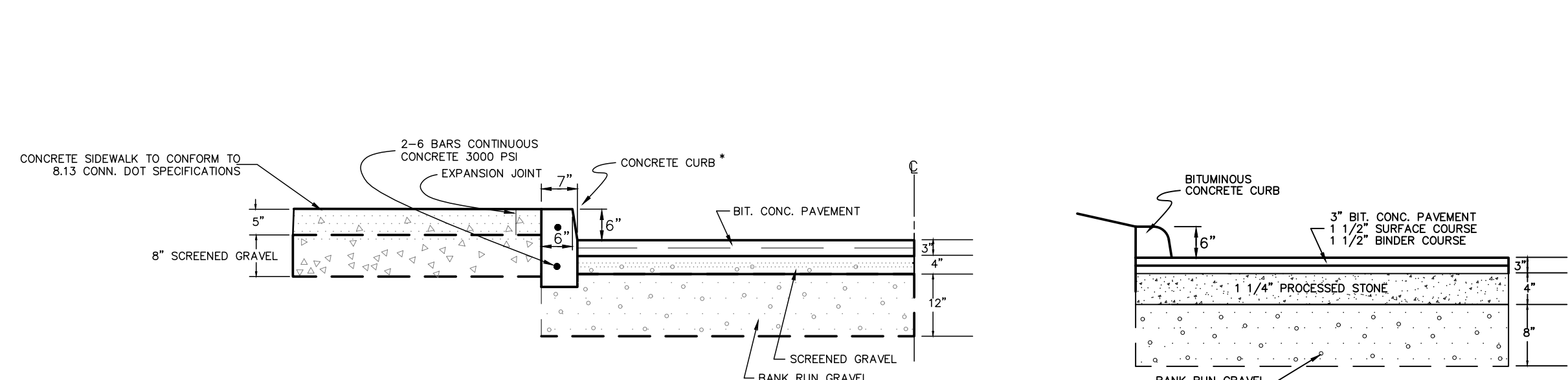


INCHES

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Engineers **Surveyors**

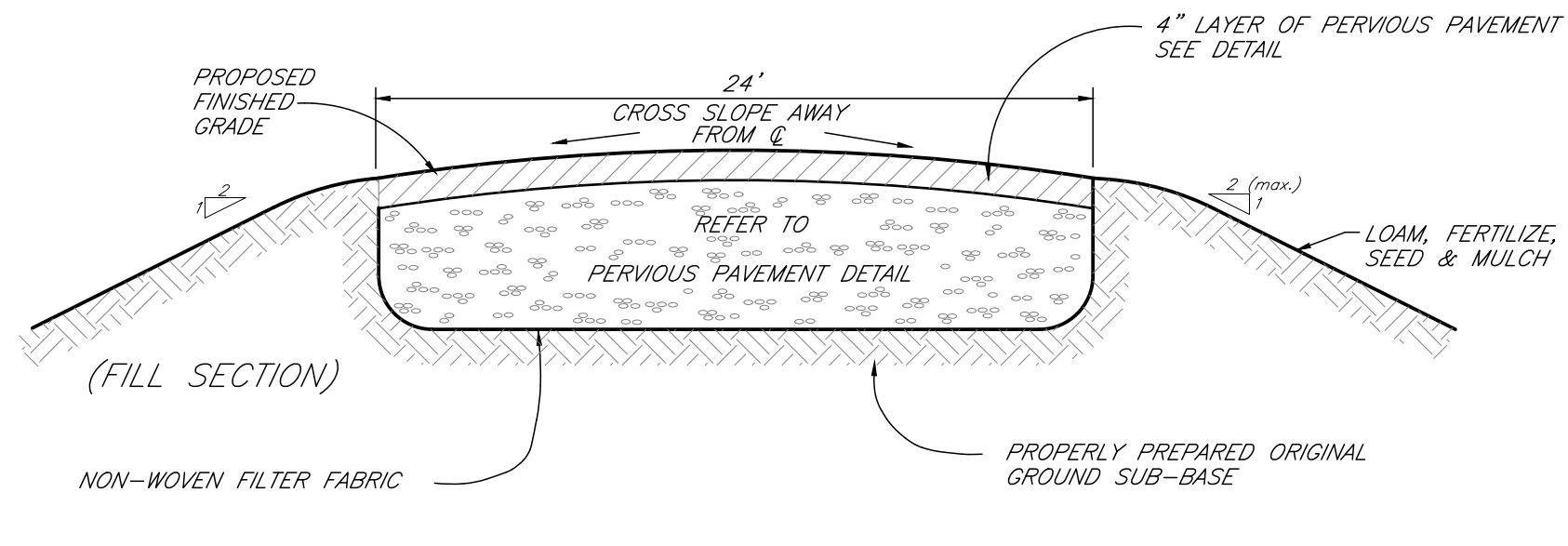
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DATE: 04/05/2021	MAP #: 0791
SCALE: 1"=20 ft.	SHEET #: C2
DRAWING: 200791	DRAWN BY: JLP
PROJECT #: 20-0791	CHECKED BY: KSH



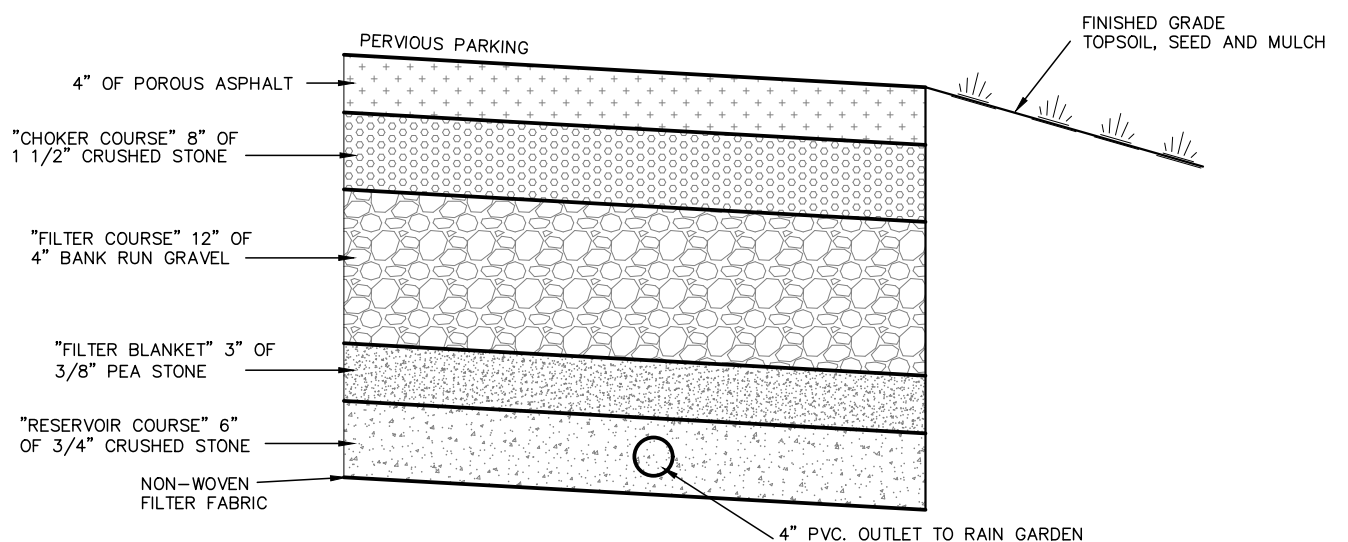
SIDEWALK, PARKING & DRIVEWAY DETAIL
N.T.S.

PARKING & DRIVEWAY DETAIL
N.T.S.



TYPICAL DRIVEWAY CROSS SECTION
NOT TO SCALE

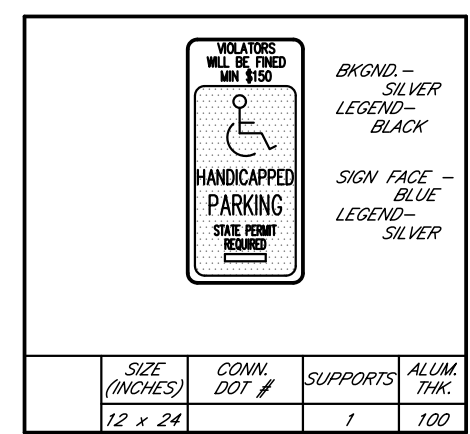
POROUS ASPHALT MIX	
SIEVE SIZE	% PASSING
1/2 IN.	100
3/8 IN.	95
#4	35
#8	15
#16	10
#30	2
PERCENT BITUMINOUS ASPHALT 5.75-6.0% BY WEIGHT	



POROUS PAVEMENT SECTION
NOT TO SCALE

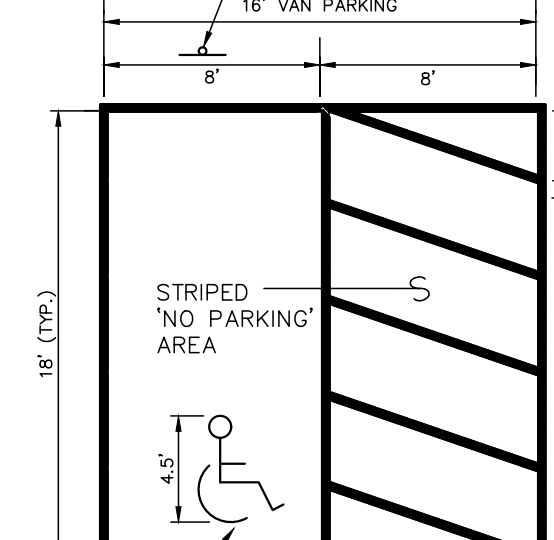
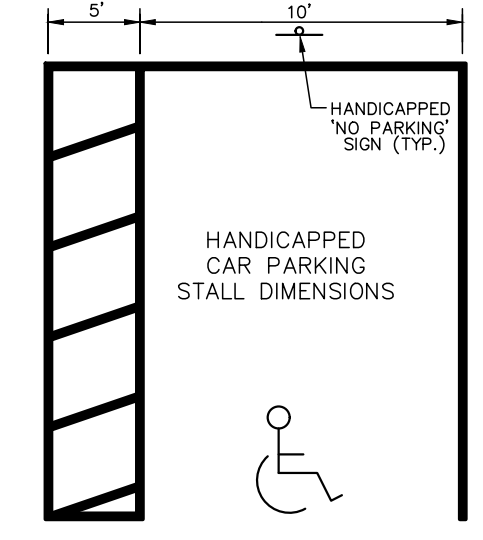
HANDICAP SPECIFICATIONS:

- PRIMARY ENTRANCE WALK & RAMP NOT TO EXCEED 1 IN 20 SLOPE.
- PROVIDE 5' LANDING AT PRIMARY ACCESS DOOR.
- LANDING WIDTH TO EXTEND 2' MIN ON LATCH SIDE OF DOOR.
- EACH H.C. SPACE TO HAVE ABOVE GRADE SIGN WITH SYMBOL & "STATE PERMIT REQUIRED".
- H.C. CURB CUTS TO BE CONSTRUCTED OF SLIP RESISTANT SURFACE, AT MAX. 1 IN 12 GRADIENT AND MINIMUM OF 4 FEET WIDE.
- H.C. ACCESS WALKS TO BE MINIMUM 4' WIDE WITH MIN. 5' PASSING ZONES WHERE REQUIRED.
- H.C. REQUIREMENTS TO CONFORM TO CT & ADA REQUIREMENTS.



NOTES:
-- ALL COLORS SHALL BE REFLECTORIZED & SIGN MOUNTING DETAILS FOR SIGN FACE SHEET ALUMINUM
-- FOR SPECIFIC LEGEND & SIGN DESIGN, REFER TO CONN. D.O.T. DETAILED DRAWINGS. FOR BOLT HOLE PATTERN REFER TO TOWN PUBLICATION STANDARD HIGHWAY SIGNS AS SPECIFIED IN THE MUTCD. SIGNS OF DIFFERENT DIMENSIONS TO BE ERRECTED ON THE SAME SUPPORTS MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.
-- SUPPORT CAPACITY -- 3 LB/FT²
-- SIGN TO BE BOLTED TO GALVANIZED U-CHEMEL SIGN POST SET 8" ABOVE FINISH GRADE TO CENTER OF SIGN

HANDICAP SIGN DETAIL
N.T.S.



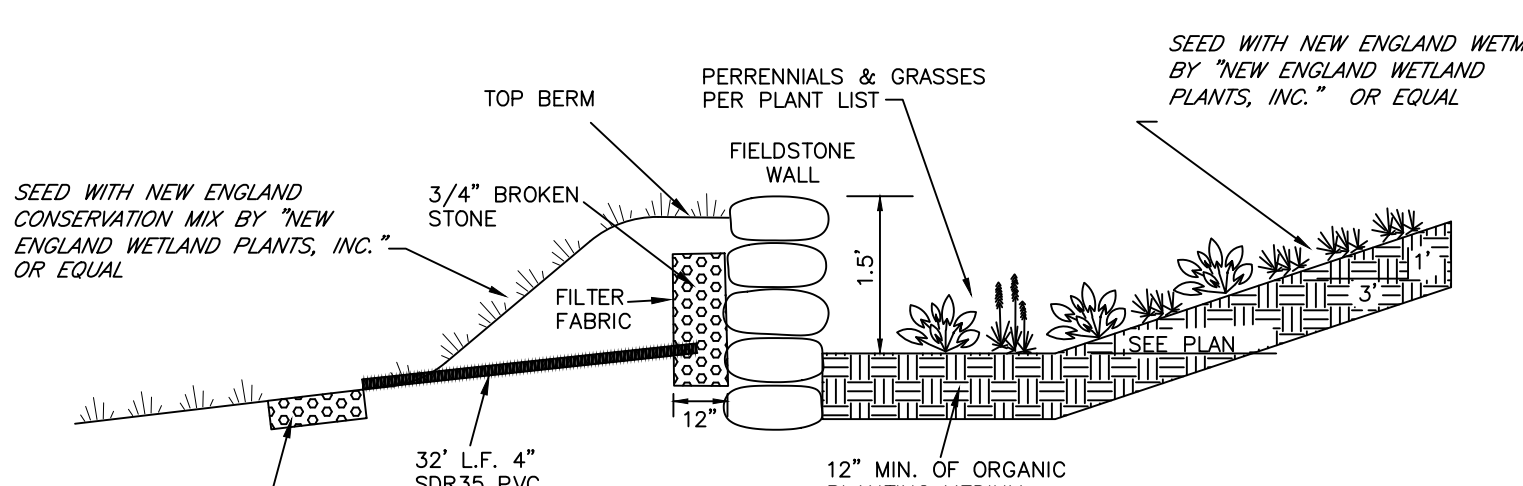
HANDICAPPED PARKING STALL LAYOUT
N.T.S.

Rain Garden Maintenance Procedures:

1. Rain garden plantings shall have 1" of water per week, either from natural rainfall or supplemental irrigation.
2. Visually inspect the overflow and inflow areas of the rain garden for erosion and sediment build-up. Make repairs as necessary.
3. Remove weeds regularly from rain garden.
4. Remove any dead branches from shrubs or trees and dead vegetation from perennials and grasses annually.
5. Inspect for plant material health and survival. Replace with same varieties or substitutes as recommended by the Landscape Architect.
6. Add 1-2" layer of organic mulch annually, as needed, being careful not to block overflow or inflow areas.

Proposed Rain Garden Vegetation List

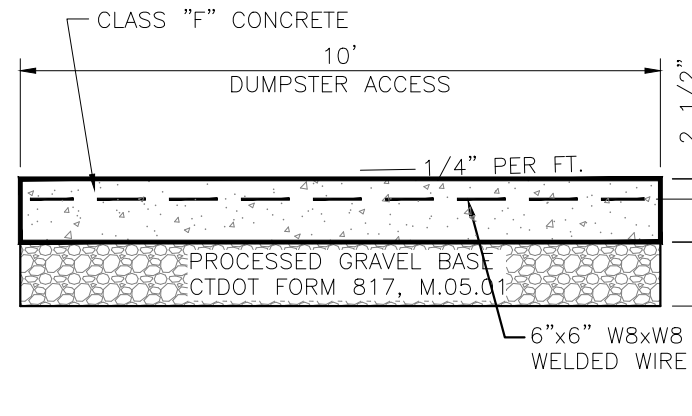
- Shrubs**
Ilex verticillata/ Winterberry
- Perennials**
Eupatorium fistulosum/ Joe Pye Weed
Iris versicolor/ Iris
Thelypteris palustris/ Marsh Fern
- Grasses**
Carex stricta/ Tussock Sedge
Panicum virgatum/ Switchgrass
Phalaris arundinacea/ Ribbon Grass



RAIN GARDEN SECTION
N.T.S.

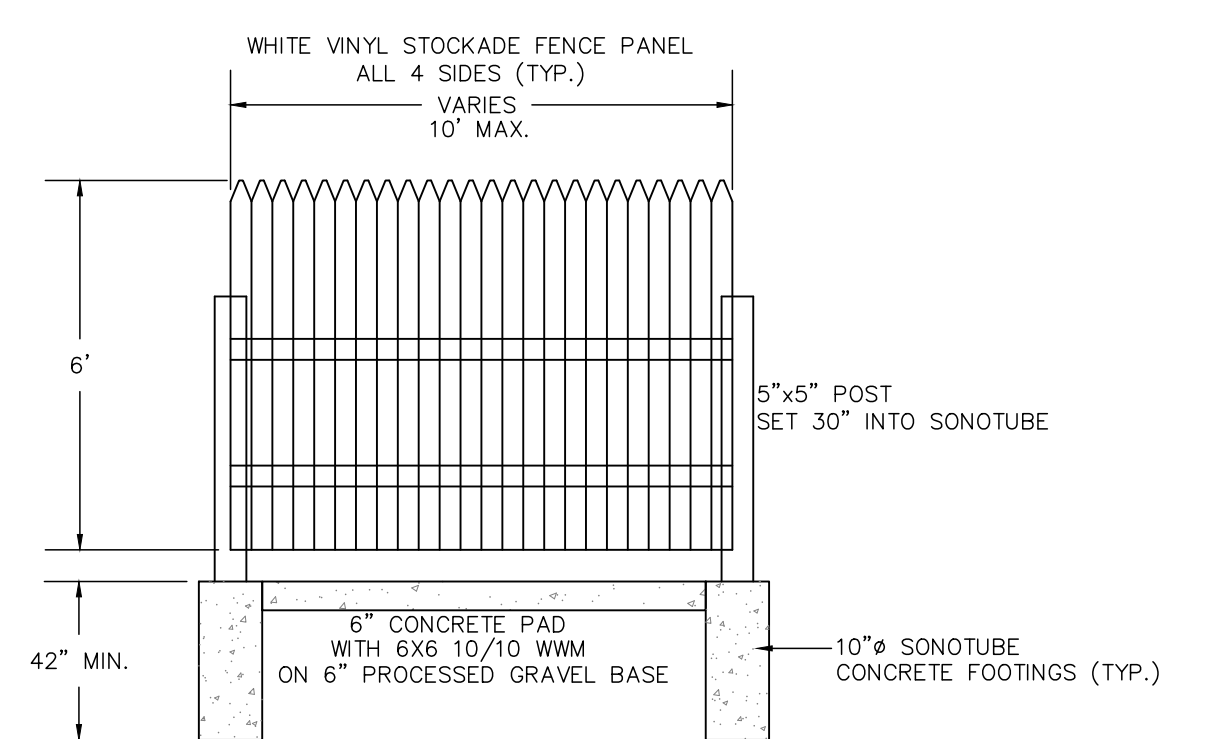
RAIN GARDEN PLANTING LEGEND

PLANT	SIZE	SYMBOL	QUANTITY
ASCLEPIAS TUBEROSA BUTTERFLY WEED	1 GAL.	AT	120
EUPATORIUM PURPUREUM JOE-PYE WEED	1 GAL.	EP	120
SPIREA TOMENTOSA STEEPLE BUSH	2 GAL.	ST	40

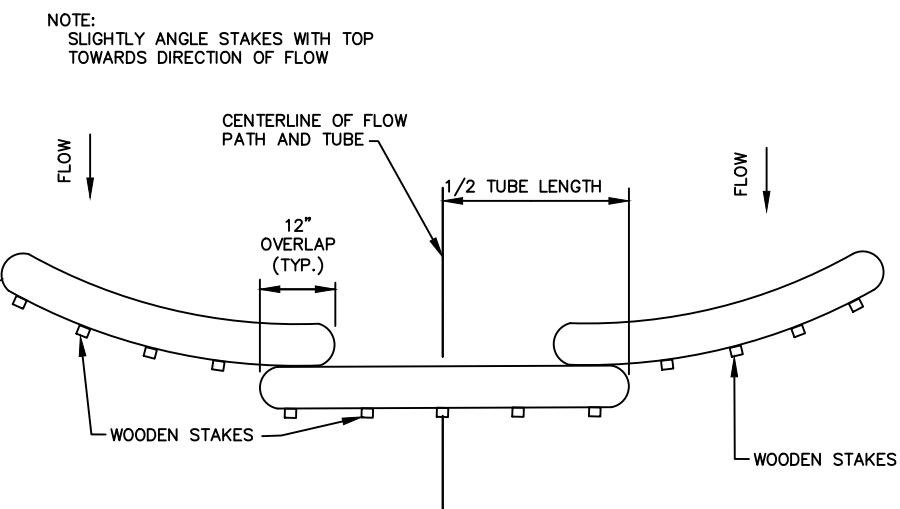


10' x 10' CONCRETE DUMPSTER PAD SECTION
NO SCALE

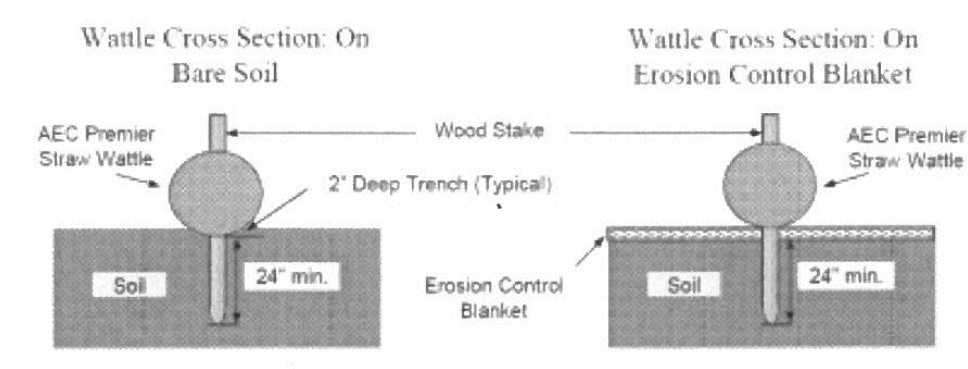
- NOTES:**
1. CONCRETE-M.0301 TO BE CLASS "F" CONCRETE, 4000 PSI. (28 DAYS)
 2. INSTALL 6"x6" W8.0XW8.0 WELDED WIRE FABRIC IN CONCRETE SECTIONS.
 3. SALTGUARD PROSOCCO SEALER.
 4. 1/2" X 12" STEEL DOWELS AT SIDEWALK
 5. VERIFY 12" MIN. BASE MATERIAL, SUPPLEMENT WITH MILLINGS OR PROCESSED GRAVEL AS NECESSARY.



DUMPSTER SCREENING VINYL FENCE DETAIL
N.T.S.

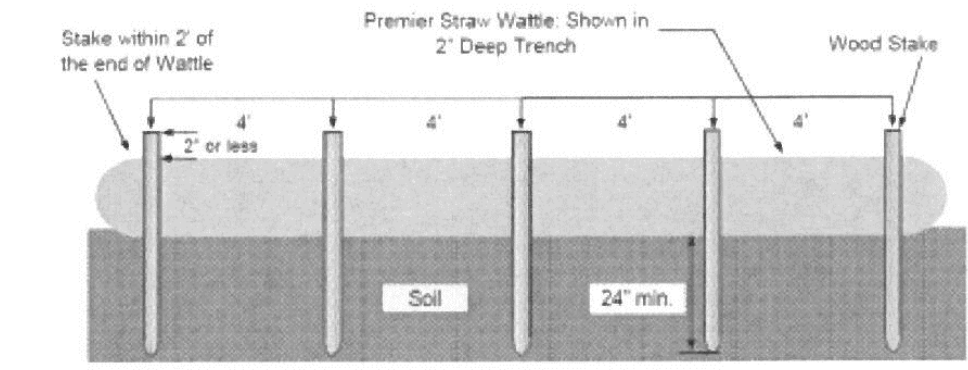


12\"/>

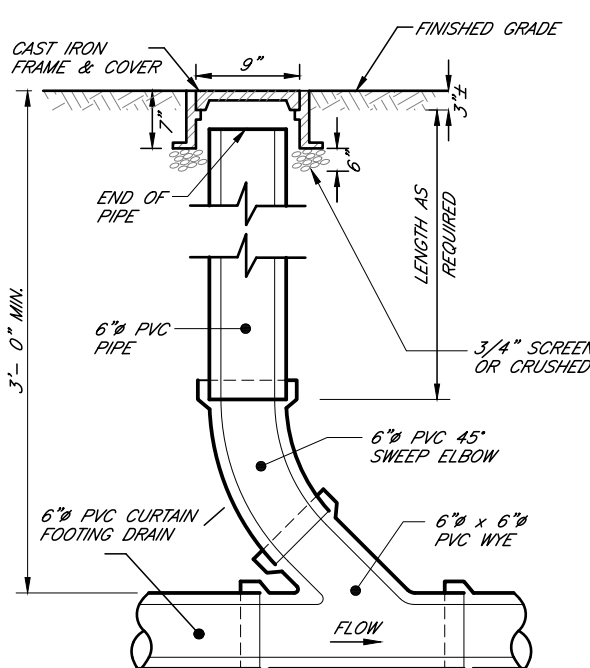


NOTES:
1. Drawings are not to scale
2. Ends of Wattles shall be turned slightly up slope
3. Recommended stakes are 1/2\"/>

AEC PREMIER STRAW WATTLES Staking Pattern Guide

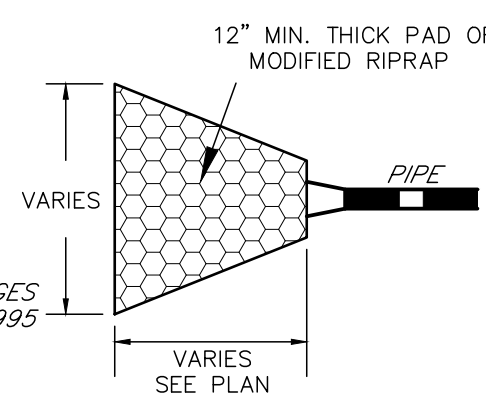


SILT SACK - COIR LOG (WATTLE) INSTALLATION DETAIL
N.T.S.

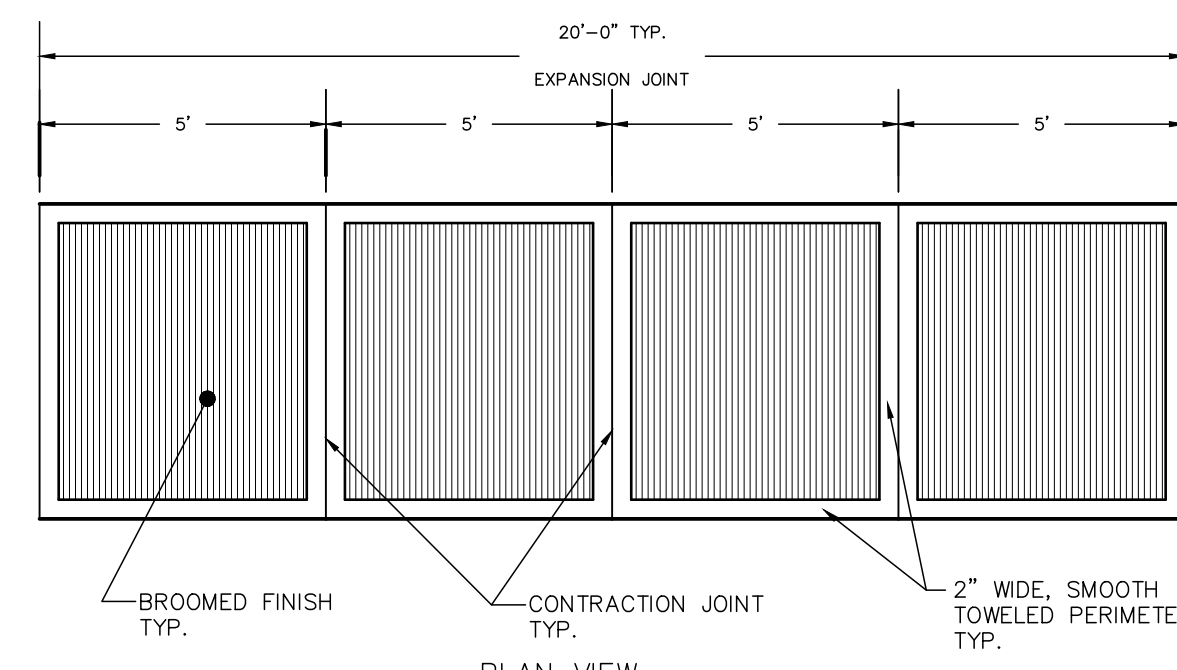


CURTAIN / FOOTING DRAIN CLEANOUT DETAIL
N.T.S.

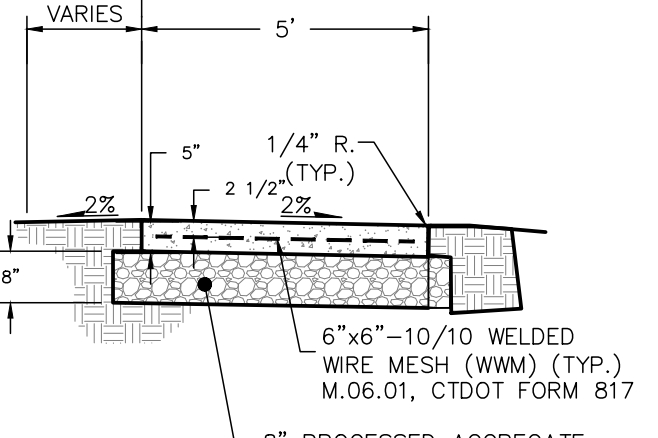
PAD NOTES:
-- SIDE SLOPES SHALL BE 2:1 OR FLATTER.
-- THERE SHALL BE NO OVERFALL AT THE END OF THE APRON OR AT THE END OF THE PIPE.
-- NO BENDS OR CURVES AT THE INTERSECTION OF THE PIPE AND APRON WILL BE PERMITTED.
-- RIPRAP MUST MEET THE GRADATION SPECIFIED BY IN SECTION M.02.06 OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS & BRIDGES AND INCIDENTAL CONSTRUCTION, FORM 815, 1995 AS AMENDED.



TYPICAL RIPRAP APRON
NOT TO SCALE

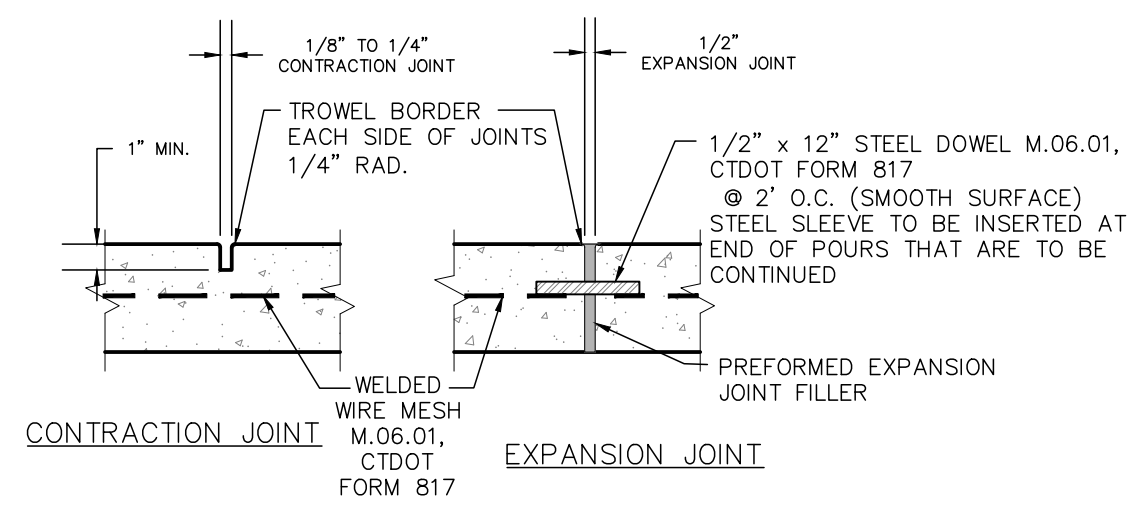


PLAN VIEW



SIDEWALK SECTION

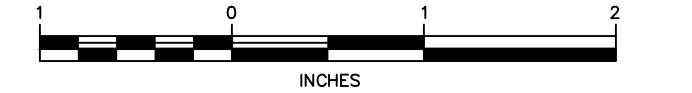
- NOTES:**
1. CLASS F 4000 PSI (28 DAYS) CONCRETE, M.03.01, CTDOT FORM 817, WITHIN 5% TO 7% ENTRAINED AIR CTDOT STD. SPEC 9.21
 2. WALKS NOT TO EXCEED 2% CROSS SLOPE.
 3. EXPANSION JOINTS, AASHTO M213, TO BE INSTALLED EVERY 20 FEET MAX.
 4. ALL CONCRETE WALKS AND CURBS ARE TO BE SEALED WITH "SALTGUARD"-A PROSOCCO CONCRETE SEALER OR APPROVED EQUAL AS DETAILED IN THE SPECIFICATIONS.
 5. PROCESSED AGGREGATE BASE TO BE COMPACTED TO 95% PROCTOR DENSITY.



CONCRETE SIDEWALK DETAIL
N.T.S.

DATE	REVISION
04-28-21	POROUS PAVEMENT PARKING AREAS

CONSTRUCTION NOTES AND DETAILS
PREPARED FOR
NORBROOK NEW HARTFORD, LLC
LITCHFIELD TURNPIKE, RT. 202
NEW HARTFORD, CONNECTICUT



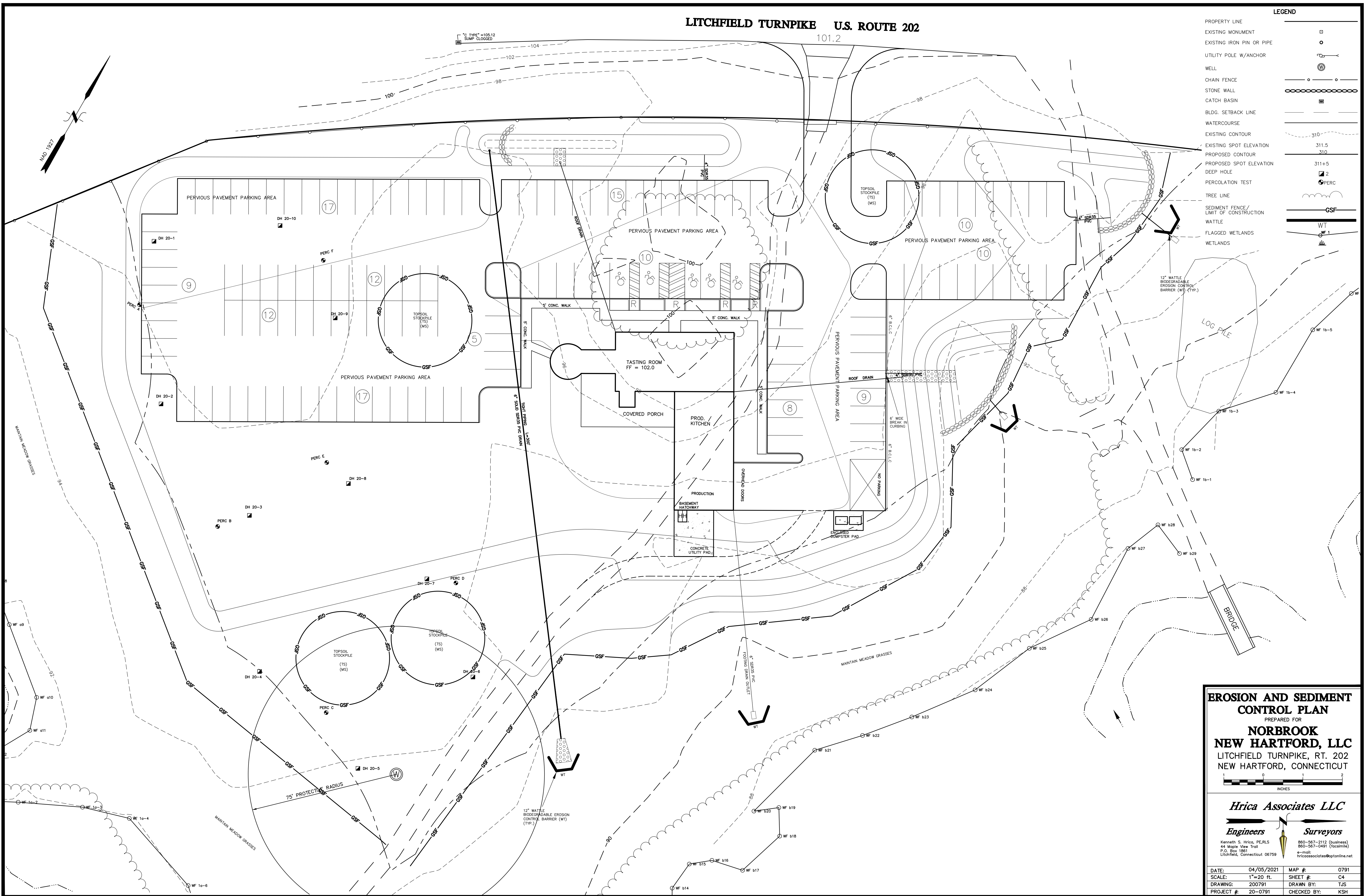
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DATE:	04/05/2021	MAP #:	0791
SCALE:	N/A	SHEET #:	C3
DRAWING:	200791	DRAWN BY:	JLP
PROJECT #:	20-0791	CHECKED BY:	KSH

LITCHFIELD TURNPIKE U.S. ROUTE 202

LEGEND

PROPERTY LINE	—
EXISTING MONUMENT	□
EXISTING IRON PIN OR PIPE	○
UTILITY POLE W/ANCHOR	⊕
WELL	⊙
CHAIN FENCE	—○—
STONE WALL	—●—
CATCH BASIN	⊞
BLDG. SETBACK LINE	—
WATERCOURSE	—
EXISTING CONTOUR	—310—
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PROPOSED CONTOUR	310
PROPOSED SPOT ELEVATION	311+5
DEEP HOLE	⊞
PERCOLATION TEST	⊞
TREE LINE	—
SEDIMENT FENCE / LIMIT OF CONSTRUCTION	—
WATTLE	WT
FLAGGED WETLANDS	WF 1
WETLANDS	WF 2



EROSION AND SEDIMENT CONTROL PLAN
 PREPARED FOR
NORBROOK
NEW HARTFORD, LLC
 LITCHFIELD TURNPIKE, RT. 202
 NEW HARTFORD, CONNECTICUT

1" = 20'
 INCHES

Hrica Associates LLC
Engineers **Surveyors**

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DATE: 04/05/2021	MAP #: 0791
SCALE: 1"=20 ft.	SHEET #: C4
DRAWING: 200791	DRAWN BY: TJS
PROJECT #: 20-0791	CHECKED BY: KSH

(TO) TOPSOILING

MATERIALS
SITE INVESTIGATIONS SHALL BE MADE TO DETERMINE IF THERE IS SUITABLE TOPSOIL OF GOOD QUALITY TO JUSTIFY STRIPPING. HIGH QUALITY TOPSOIL SHALL BE FRAGILE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM). OTHER SOIL TYPES WITH HIGH ORGANIC CONTENT MAY BE FOUND SUITABLE AFTER TESTING. IT SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS, AND NOODS. IT SHALL GIVE EVIDENCE OF BEING ABLE TO SUPPORT HEALTHY VEGETATION. IT SHALL CONTAIN NO SUBSTANCE THAT IS POTENTIALLY TOXIC TO PLANT GROWTH.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY FOR THE FOLLOWING AND SHALL MEET THE REQUIREMENTS GIVEN:

CONTAINING NOT LESS THAN 6% AND NOT MORE THAN 20% ORGANIC MATTER AS DETERMINED BY LOSS-ON-IGNITION OF OVEN DRIED SAMPLES DRIED AT 105 DEGREES CENTIGRADE.
PH RANGE SHALL BE 6.0-7.5. IF PH IS LESS THAN 6.0, LIME SHALL BE ADDED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.
SOLUBLE SALTS SHALL NOT EXCEED 500 PPM.

IF ADDITIONAL OFF-SITE TOPSOIL IS NEEDED, IT MUST MEET THE STANDARDS STATED ABOVE.

STRIPPING
STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4 TO 8 INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. ALL PERMETER DIKES, BASINS, AND OTHER SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO STRIPPING.

STOCKPILES
TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE WILL BE CAUSED BY STOCKPILES.
TOPSOIL STOCKPILES NEED TO BE LOCATED AWAY FROM ALL CONSTRUCTION ACTIVITIES.

SIDE SLOPES
THE SIDE SLOPES OF ALL STOCKPILES SHALL NOT EXCEED 2 TO 1.
SEDIMENT BARRIER
A SEDIMENT BARRIER OF GEOSYNTHETIC SILT FENCE SHALL SURROUND ALL TOPSOIL STOCKPILES.

TEMPORARY SEEDING
TEMPORARY SEEDING OF STOCKPILES SHALL BE COMPLETED WITHIN 30 DAYS OF THE FORMATION OF THE STOCKPILE, IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE COVER MEASURE.

SITE PREPARATION
BEFORE TOPSOILING, ESTABLISH NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, WATERWAYS, SILT FENCE AND SEDIMENT BASINS. THESE MEASURES MUST BE MAINTAINED DURING TOPSOILING.

GRADING
THE REUSUALLY ESTABLISHED GRAD ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN.

LIME
WHERE THE PH OF THE SUBSOIL IS 6.0 OR LESS, GROUND AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST OF THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.

BONDING
AFTER THE AREA TO BE TOPSOILED HAS BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENEED BY DISING SCRAPING OR TRACKING TO A DEPTH OF AT LEAST 4 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.

APPLYING TOPSOIL
TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY CAUSE THE TOPSOIL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. THE TOPSOIL SHALL BE EVENLY DISTRIBUTED TO A MINIMUM EXPOSED DEPTH OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A UNIFORM FIRM SURFACE FOR THE ESTABLISHED VEGETATIVE COVER MEASURE.

TOPSOIL AND HERBICIDES
PERMANENT SEEDINGS OR SOIL WILL NOT BE ESTABLISHED IN TOPSOIL SURFACE THAT HAS BEEN TREATED WITH HERBICIDES WHICH WOULD INHIBIT GRASS GROWTH. TOPSOIL SO TREATED WILL BE STOCKPILED FOR ONE YEAR TO ALLOW BREAKDOWN OF HERBICIDE RESIDUES OR TOPSOIL WILL BE COVERED WITH 6 INCHES OF UNTREATED TOPSOIL TO SERVE AS A SEEDBED.

TIMING

SEED WITH A PERMANENT SEED MIXTURE WITHIN 7 DAYS AFTER ESTABLISHING FINAL GRADES OR WHEN GRADING WORK WITHIN A DISTURBED AREA IS TO BE SUSPENDED FOR A PERIOD OF MORE THAN 1 YEAR. SEEDING IS RECOMMENDED FROM APRIL 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1.

FOR THE COASTAL TOWNS AND IN THE CONNECTICUT RIVER VALLEY FINAL FILL SEEDING DATES CAN BE EXTENDED AN ADDITIONAL 15 DAYS. AREAS AND PLAYGROUNDS OR DRIVING AND ARCHERY RANGES, NATURE TRAILS, CAMPING AND PARKING, NATURE TRAILS (SHADED) 19,21, OR 23

A. SITE PREPARATION
GRADE IN ACCORDANCE WITH THE SITE GRADING PLAN. INSTALL ALL SURFACE WATER CONTROL DEVICES TO BE MOVED REMOVE ALL STONES 2 INCHES OR LARGER. REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

NOTE: ON AREAS WHERE WOOD CHIPS AND/OR BARK MULCH WAS PREVIOUSLY APPLIED, EITHER REMOVE THE MULCH OR INCORPORATE IT INTO THE SOIL WITH A NITROGEN FERTILIZER. ADDED NITROGEN APPLICATION RATE IS DETERMINED BY SOIL TEST AT TIME OF SEEDING. ANTICIPATE 120# NITROGEN PER TON OF WOOD CHIPS AND/OR BARK MULCH.

DO NOT USE PERMANENT SEEDING ON SLOPES STEEPER THAN 2 TO 1.

B. SEEDBED PREPARATION
APPLY TOPSOIL IF NECESSARY.
APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF CONNECTICUT SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COUNTY SOIL CONSERVATION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIOUS SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7.5 POUNDS PER 1,000 SQUARE FEET USING 10-10-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS OF 38-0-0 PER ACRE EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED FOR TOPDRESSING. APPLY GROUND LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS:

SOIL TEXTURE TONS/AC. LBS./1000 SQ.FT.
CLAY, CLAY LOAM AND HIGH ORGANIC SOIL 3 135
SANDY LOAM, LOAM, LOAMY SAND, SAND 2 90

REFER TO COUNTY SOIL SURVEY REPORT FOR SOIL TEXTURES AT THE SITE.
WORK LIME AND FERTILIZE INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COURSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHERE FEASIBLE.

REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
INSPECT SEEDBED JUST BEFORE SEEDING. TRAFFIC HAS LEFT THE SOIL COMPACTED. THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

D. SEEDING
SELECT A MIXTURE FROM BELOW OR USE MIXTURE RECOMMENDED BY THE SOIL CONSERVATION SERVICE. INDICATE ALL LEGUME SEEDS WITH THE CORRECT TYPE AND AMOUNT OF INOCULANT.
APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPAN TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDINGS WHICH ARE MULCHED MAY BE LEFT ON SOIL SURFACE.

WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT GRAD. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.

HYDRAULIC APPLICATION (HYDROSEEDING), IS A SUITABLE METHOD FOR USE IN CRITICAL AREAS. WHEN HYDROSEEDING, A SEEDBED IS PREPARED IN THE CONVENTIONAL WAY OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN SIX INCHES IN DIAMETER, AND SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY). A WELL-SORTED FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY MULCH IN PLACE). FIBER MULCH PROVIDE ADEQUATE SEED PROTECTION. BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR SOIL STONES PER ACRE OF WOOD FIBER MULCH. SEEDING RATES MUST BE INCREASED TO PERCENT WHEN HYDROSEEDING.

SEED WARM SEASON GRASSES DURING THE SPRING PERIOD ONLY.

APPLY MULCH ACCORDING TO THE TEMPORARY MULCHING MEASURE OF THE GUIDELINES.
IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, USE THE TEMPORARY MULCHING MEASURE IN THE GUIDELINES TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

Maintenance
INITIAL ESTABLISHMENT
INSPECT SEEDED AREA AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF THE STORM WITH A RAINFALL AMOUNT OF 0.5 INCH OR GREATER DURING THE GROWING SEASON.
WHERE SEED HAS BEEN REMOVED OR WHERE SOIL EROSION HAS OCCURRED DETERMINE THE CAUSE OF THE FAILURE. THE CAUSE MAY BE PROBLEM IF MULCH WAS APPLIED TO THINLY TO PROTECT SEED. RE-SEED AND RE-MULCH. IF MOVEMENT WAS THE RESULT OF WIND, REPAIR EROSION DAMAGE ANY, REPAIR EROSION DAMAGE ANY, AND APPLY MULCH ANCHORING FAILURE WAS CAUSED BY CONCENTRATED WATER. (1) INSTALL ADDITIONAL MEASURES TO CONTROL WATER AND SEDIMENT MOVEMENT, (2) REPAIR EROSION DAMAGE, (3) RE-SEED AND (4) RE-APPLY MULCH WITH ANCHORING OR USE TEMPORARY EROSION CONTROL BLANKET AND/OR PERMANENT MULCHING MEASURE.

CONTINUE INSPECTION UNTIL AT LEAST 100 PLANTS PER SQUARE FOOT HAVE GROWN AT LEAST 6 INCHES TALL OR UNTIL THE FIRST MOWING.

FIRST MOWING
ALLOW THE MAJORITY OF PLANTS TO ACHIEVE A HEIGHT OF AT LEAST 6 INCHES BEFORE MOWING THE FIRST TIME. DO NOT MOW WHILE THE SURFACE IS WET. MOWING WHILE THE SURFACE IS WET WILL PULL MANY SEEDLINGS FROM THE SOIL AND OPEN LEGS A SERIES OF UNNECESSARY RAYS. THE FIRST MOWING SHOULD REMOVE APPROXIMATELY ONE THIRD OF THE GROWTH, DEPENDING ON THE TYPE OF GRASS AND WHERE IT IS BEING USED. DO NOT MOW GRASS BELOW 3 INCHES. IF THE SEEDING WAS MULCHED, DO NOT ATTEMPTED TO RAKE OUT THE MULCHING MATERIAL. NORMAL MOWING WILL GRADUALLY REMOVE ALL UNWANTED DEBRIS.
ONE THIRD OF THE GROWTH, DEPENDING ON THE TYPE OF GRASS

LONG TERM MAINTENANCE
MOW AND FERTILIZE AT A RATE THAT SUSTAINS AN AREA CONDITION THAT SUPPORTS THE INTENDED USE. IF APPROPRIATE THE HEIGHT OF THE CUT MAY BE ADJUSTED DOWNWARD, BY DEGREES, AS NEW PLANTS BECOME ESTABLISHED. CAREFUL FERTILIZATION PROGRAM IS REQUIRED ACCORDANCE WITH APPROVED SOIL TEST THAT DETERMINE THE PROPER AMOUNT OF LIME AND FERTILIZER WATER TO MAINTAIN A VIGOROUS SOIL YET PREVENT EXCESSIVE LEACHING OF NUTRIENTS TO THE GROUND-WATER OR RUNOFF TO SURFACE WATER.

ALTHOUGH WEEDS MAY APPEAR TO BE A PROBLEM, THEY SHADE THE SOIL AND HELP CONSERVE SURFACE MOISTURE. THEY DO NOT APPLY WEED CONTROL UNTIL THE NEW SEEDLING HAVE BEEN MOWED AT LEAST FOUR TIMES.

SELECTING SEED MIX TO MATCH NEED
AREA TO BE SEEDED MIXTURE NUMBER

BORROW AREAS, ROADSIDES, DIKES, LEVES, POND BANKS AND OTHER SLOPES AND BANKS TRACED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY. MINIMUM LENGTH OF ENTRANCE: A 50 FOOT MINIMUM LENGTH EXCEPT AT POND OR DRAINAGE LOCATIONS SURFACE DRAINAGE SHOULD BE INSTALLED BEFORE INSTALLING THE STABILIZED CONSTRUCTION ENTRANCE.

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE RIGHT-OF-WAY OR PAVED AREAS. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANUP OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

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IF GRADE OF CONSTRUCTION ENTRANCE DRAINS TO THE PAVED SURFACE AND EXCEEDS 2% CONSTRUCT A WATER BAR WITHIN THE ENTRANCE AND REPAIR AND/OR CLEANUP OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

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(PS) PERMANENT SEEDING

(IF TOXIC SUBSTANCES AND PHYSICAL PROPERTIES NOT LIMITING) SHORELINES (FLUCTUATING WATER LEVELS) 5 OR 6	4.10	
SOIL SLOPES 1.2,3,4,6,7, OR 8	1.2, 3, 4, 6, 7, OR 8	
SUNNY EXPOSURE AREAS 1,2, OR 23		
(PICNIC AREAS AND PLAYGROUNDS, OR DRIVING AND ARCHERY RANGES, NATURE TRAILS) 19,21, OR 23		
CAMPING AND PARKING, NATURE TRAILS (SHADED) 19,21, OR 23		
SAND DUNES (BLOWING SAND) 25		
WOOD ACCESS ROADS, SKI TRAILS AND LOG YARDING AREAS 9,10,16,22,26		
LAWNS AND HIGH MAINTENANCE 1,19,21,OR 29		

FOOTNOTES:
1 THE NUMBERS FOLLOWING IN THESE COLUMNS REFER TO SEED MIXTURES IN FOLLOWING TABLE. MIXES FOR SHADY AREAS ARE IN BOLD ITALICS PRINT (INCLUDING MIXES 20 THROUGH 24).
2 SEE COUNTY SOIL SURVEY FOR DRAINAGE CLASS. SOIL SURVEYS ARE AVAILABLE FROM THE COUNTY SOIL AND WATER CONSERVATION DISTRICT OFFICE.
3 USE MIX 26 WHEN SOIL PASSING A 200 MESH SIZE IS LESS THAN 15% OF TOTAL WEIGHT. USE MIX 26 & 27 WHEN SOIL PASSING A 200 MESH SIZE IS BETWEEN 15 AND 20% OF TOTAL WEIGHT. USE MIX 26,27 & 28 WHEN SOIL PASSING A 200 MESH SIZE IS ABOVE 20% OF TOTAL WEIGHT.

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
15	KENTUCKY BLUEGRASS	20	.45
	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	.45
	PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	5	.10
	TOTAL 45	1.00	
25	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	.45
	REDTOP (STRECKER, COMMON)	2	.05
	TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN)	20	.45
	TOTAL 42	.95	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
35	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	.45
	BIRDS FOOT TREFOL (EMPIRE, VIKING) WITH INOCULANT	8	.20
	TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN)	20	.45
	TOTAL 48	1.10	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
45	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	.45
	REDTOP (STRECKER, COMMON)	2	.05
	TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN)	20	.45
	TOTAL 42	.95	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
55	WHITE CLOVER	10	.25
	PERENNIAL RYE GRASS	12	.30
	TOTAL 22	.55	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
65	CREEPING RED FESCUE	20	.45
	REDTOP (STRECKER, COMMON)	2	.05
	PERENNIAL RYE GRASS	20	.45
	TOTAL 42	1.00	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
75	SMOOTH BROMEGRASS (SARATOGA, LINCOLN)	15	.35
	PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	5	.10
	BIRDS FOOT TREFOL (EMPIRE, VIKING) W/INOCULANT	5	.25
	TOTAL 30	.70	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
85	SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK)	101	.25
	WETTING LOVEGRASS	3	.07
	LITTLE BLUESTEM (BLAZE, ALDOUS, CAMPER)	101	.25
	TOTAL 203	.57	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
95	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	10	.25
	CROWN VETCH (CHEUMING, PENNGIFT) WITH INOCULANT	15	.35
	OR (FLATPEA (LATHCO) WITH INOCULANT)	30	.75
	TALL FESCUE (KENTUCKY 31) OR SMOOTH BROMEGRASS (SARATOGA, LINCOLN) REDTOP (STRECKER, COMMON)	2	.05
	TOTAL 42 (OR 57)	1.00 (OR 1.25)	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
105	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	.45
	REDTOP (STRECKER, COMMON)	2	.05
	CROWN VETCH (CHEUMING, PENNGIFT) WITH INOCULANT	15	.35
	OR (FLATPEA (LATHCO) WITH INOCULANT)	30	.75
	TOTAL 37 (OR 52)	.85 (OR 1.25)	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
115	BIRDS FOOT TREFOL (EMPIRE, VIKING) WITH INOCULANT	8	.20
	CROWN VETCH (CHEUMING, PENNGIFT) WITH INOCULANT	15	.35
	CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	15	.35
	TOTAL 38	.90	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
126	SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK)	101	.25
	PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	5	.10
	CROWN VETCH (CHEUMING, PENNGIFT) WITH INOCULANT	15	.35
	TOTAL 121	3.00	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
136	CROWN VETCH (CHEUMING, PENNGIFT) WITH INOCULANT	10	.25
	OR (FLATPEA (LATHCO) WITH INOCULANT)	30	.75
	SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK)	51	.10
	PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	5	.10
	TOTAL 20 (OR 45)	.45 (OR .95)	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
146	CROWN VETCH (CHEUMING, PENNGIFT) WITH INOCULANT	15	.35
	OR (FLATPEA (LATHCO) WITH INOCULANT)	30	.75
	PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	10	.25
	TOTAL 25 (OR 40)	.60 (OR 1.00)	

NO.	SEED MIXTURE (VARIETY)	LBS./ACRE	LBS./1,000 SQ. FT.
156	SWITCHGRASS (BLACKWELL, SHELTER, CAVE-IN-ROCK)	5	.10
	BIG BLUESTEM (NIAGARA, KAW) OR LITTLE BLUESTEM (BLAZE, ALSOUS,CAMPER)	5	.10
	PERENNIAL RYEGRASS (NORLEA, MANHATTAN)	5	.10
	BIRDS FOOT TREFOL (EMPIRE, VIKING) WITH INOCULANT	20	.40
	TOTAL 20	.40	

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