TOWN OF WESTBROOK, CONNECTICUT

ROAD AND DRAINAGE STANDARDS

Established September 19th, 2012
# TOWN OF WESTBROOK, CONNECTICUT
## ROAD AND DRAINAGE STANDARDS

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NOT TO SCALE

NOTES:
1. SIDEWALKS AS REQUIRED PER SECTION 4.6
2. IF SIDEWALK IS NOT REQUIRED, PROVIDE 3:1 CUT/FILL SLOPE.
3. ROCK CUT AS NECESSARY (SEE ROCK CUT DETAIL)
4. UTILITY CABINETS MIN 5'-0" FROM BACK OF CURB
TYPICAL CROSS SECTION AT PUBLIC RIGHT-OF-WAY

ROADWAY (ROAD)

INTERSECTING ROADWAY

EXISTING PAVEMENT

VARIES

MATCH EXISTING SLOPE (TYP.)

TACK COAT

MILL 2" & PROVIDE 2" HMA SO.5 WEARING SURFACE

EXISTING GUTTERLINE

SAWCAST TO DEPTH OF MILLING

EXISTING SLOPE VARIES

EXISTING PUBLIC RIGHT-OF-WAY

EXISTING BITUMINOUS ASPHALT

EXISTING SUBBASE

NOT TO SCALE
NOTES:
1. THIS DRAWING ONLY APPLIES TO WIDENING OF EXISTING ROADS.
2. BITUMINOUS CONCRETE LIP CURBING MAY BE USED WHERE ALLOWED.
3. THE PAVEMENT STRUCTURE SHALL BE BUILT IN ACCORDANCE WITH DWG. NOS. RDS-101, 102, 103 AND 104 DEPENDING ON THE CLASSIFICATION OF THE STREET BEING WIDENED OR MATCH EXISTING, WHICHEVER IS GREATER.
4. OWNER’S REPRESENTATIVE MAY DETERMINE IN THE FIELD THAT CONDITION OF EXISTING DRIVEWAY DOES NOT ALLOW MILLING, AND THE CONTRACTOR SHALL CUT EXISTING PAVEMENT 3’ FROM ROADWAY CURB LINE AND GRADE AND REPAVE DRIVEWAY APRON.
NOTES:

1. THE PAVEMENT STRUCTURE SHALL BE BUILT IN ACCORDANCE WITH DWG. NOS. RDS-101, 102, 103 AND 104 DEPENDING ON THE CLASSIFICATION OF THE STREET BEING TRENCHED OR MATCH EXISTING, WHICHEVER IS GREATER.

2. IF A TEMPORARY PATCH IS USED, OR REQUIRED, IT SHALL BE A MINIMUM OF 2 INCHES THICK BITUMINOUS CONCRETE (CLASS 1).
CONCRETE WALK/CURB

NOT TO SCALE

NOTE:
1) SIDEWALK TO BE 8" THICK WHEN CROSSING DRIVEWAY
NOTE:
1. USE BITUMINOUS CONCRETE CLASS 3 FOR CURBING.
6" BITUMINOUS CONCRETE LIP CURBING

NOTES:
1. PROVIDE SMOOTH TROWEL OR HAIR BRUSH FINISH TO ALL EXPOSED SURFACES.
2. PRECAST CONCRETE CURB MAY BE USED WITH APPROVAL BY THE TOWN.
   2A. PRECAST CURBING SIZE SHALL MEET THE SIZE SHOWN ABOVE
       (18" HEIGHT MAY BE USED).
   2B. STRAIGHT SECTIONS SHALL NOT BE USED FOR RADIi LESS THAN 100'.
   2C. CURBING SECTIONS SHALL BE PINNED TOGETHER.

REV DESCRIPTION APPROVED BY DATE
12” SOLID WHITE LINE (EACH SIDE)

12” CONCRETE EDGE RESTRAINT (EACH SIDE)

“CHARCOAL” SOLDIER COURSE BRICK PAVERS (EACH SIDE)

3 1/8” 45° HERRINGBONE PATTERN "BOSTON COLONIAL BEACON HILL BLEND" BRICK PAVERS

NOTE: BITUMINOUS CURB AT NORTH END OF CROSSWALK, CUT BRICKS TO FIT. PRECAST CONCRETE CURB AT SOUTH END OF THE CROSSWALK, CUT BRICKS TO FIT.
NOTE:
GRANITE CURBING IS AN ADD ALTERNATE BID ITEM NO. 1.
BASE BID ITEM IS 6" PRECAST CONCRETE CURBING. (SEE DETAIL.)
EDGE TREATMENT TO BE "SNAP EDGE" OR EQUAL ALONG AND ADJACENT TO LAWN OR UNSUPPORTED EDGES, USE 12" MIN. SPIKE

PREVIOUS UNIT PAVERS, SEE LANDSCAPE PLANS

1" SAND BASE

4" CHOKER COURSE, 3/8" CRUSHED STONE

12" DRAINAGE COURSE, 1 1/2" CRUSHED STONE

LOAM AND SEED

CLEAN COMMON BORROW

EXISTING GROUP 2 SOILS

6" PERFORATED UNDERDRAIN (SEE PLANS)

GEOTEXTILE FILTER FABRIC OVER

CONTRACTOR TO MAINTAIN 12" CLEAN FILL MATERIAL OVER EXISTING GROUP 2 SOILS

NOT TO SCALE
5" Pervious Concrete

4" Choker Course, 3/8" Crushed Stone

12" Drainage Course, 1-1/2" Crushed Stone

Loam and Seed

Clean Common Borrow

Existing Group 2 Soils

6" Perforated Underdrain (See Plans)

Geotextile Filter Fabric Over

Contractor to maintain 12"
Clean Fill Material over
Existing Group 2 Soils
NOTE:

5' MAX DISTANCE BETWEEN TOOLED JOINTS
**TYPICAL DRIVEWAY CROSS SECTION**

WITHOUT SIDEWALK FOR MILL & FILL

**NOTE:**

In areas where existing driveway pavement is less than 2", remove existing pavement. If more than 2" deep, mill 2".

- MILL 2" & PROVIDE 2" HMA 0.5" WEARING SURFACE
- SAWCUT EXISTING PAVEMENT
- EXISTING GRADE
- EXISTING SLOPE OF APRON VARIES
- TO PROPERTY LINE OR 6' MAX. REQUIRED
- 1 1/2"
- MATCH EXISTING SLOPE (TYP.)
- EXISTING GUTTERLINE
- TACK COAT
- EXISTING SUBBASE
- EXISTING SUBBASE

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**TYPICAL DRIVEWAY CROSS SECTION**

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**NOT TO SCALE**

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**REV | DESCRIPTION | APPROVED BY | DATE**
ACCESSIBLE CURB RAMP NOTES:

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5% (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%.
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE ALL CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. DETECTABLE WARNING SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. TRUNCATED DOMES AND ALL RELATED INSTALLED SURFACES TO BE INSTALLED ACCORDING TO MANUFACTURES SPECIFICATIONS. ALL DETECTABLE WARNING SURFACE INSTALLATIONS SHALL BE AT MINIMUM, AT LEAST AS NON SKID AS THE SURROUNDING PEDESTRIAN SURFACES.

**TRUNCATED DOMES (PLAN VIEW)**

**TRUNCATED DOMES (PROFILE)**

*DIMENSIONS ARE CENTER TO CENTER

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**ACCESSIBLE CURB RAMP (ACR)**

Town of Westbrook
Westbrook, Connecticut

Road and Drainage Standards

DWG-211
NOTE:

1. ACCESSIBLE CURB RAMP NOTES PROVIDED UNDER "ACCESSIBLE CURB RAMP – TYPE 'A' DETAIL ON THIS SHEET ARE APPLICABLE.

NOTE: ACCESSIBLE CURB RAMP NOTES PROVIDED UNDER "ACCESSIBLE CURB RAMP – TYPE 'B' DETAIL ON ACR TYPE 'B' 2 ARE APPLICABLE.
ACCESSIBLE CURB RAMP NOTES:

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5% (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT-obstacle IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.)
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE ALL CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
NOTE: THE CUL-DE-SACS SHOWN ARE ONLY TWO MINIMUM ARRANGEMENTS OUT OF MANY POSSIBILITIES. CUL-DE-SACS SHALL BE DESIGNED SO AS TO PROPERLY HANDLE THE TYPE AND AMOUNT OF TRAFFIC INVOLVED.
PAVEMENT STRUCTURE (SEE UTILITY TRENCH PATCH FOR EXISTING ROADS) 4" LOAM & SEED IN LAWN AREAS

6" PROCESSED GRAVEL IN ROADS

BANK RUN GRAVEL OR APPROVED GRAVEL BACKFILL MATERIAL

3/4" CRUSHED STONE OR PROCESSED GRAVEL (85% COMPACTION)

REINFORCED CONCRETE PIPE (RCP) (AASHTO M170 CLASS IV, V)
OR
HIGH DENSITY POLYETHYLENE (HDPE) PIPE (AASHTO M294 TYPE S)

NOTE:
1. IF PIPE IS PLACED IN OR ON LEDGE, ALL LEDGE WITHIN 12" OF PIPE SHALL BE REMOVED AND REPLACED WITH PIPE BEDDING.
NOTE:
1. SLOTS SHALL BE PLACED DOWN.
2. FILTER FABRIC SHALL BE MIRAFI 140NS, EXXON 150EX, AMOCO 4545, TREVIRA 1114 OR APPROVED EQUAL.
NOTES:
1. PERFORATIONS SHALL BE PLACED DOWN.
2. PIPE SHALL NOT BE PLACED WITHIN 36" OF ANY UTILITY POLE.
3. FILTER FABRIC SHALL BE MIRAFI 140NS, EXXON 150EX, AMOCO 4545, TREVIRA 1114 OR APPROVED EQUAL.
NOTE: 5’ OR 6’ DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. PRECAST REDUCERS WILL BE PLACED ABOVE THE 5’ AND 6’ BASES AS DIRECTED BY THE ENGINEER. WALL THICKNESS TO INCREASE 1” FOR EACH 1” OF INSIDE DIAMETER INCREASE.

PRECAST CONCRETE DRAINAGE MANHOLE

Town of Westbrook
Westbrook, Connecticut

Road and Drainage Standards

规模不适用
1/2" DIAMETER STEEL REINFORCEMENT (GRADE 60)

COPOLYMER POLYPROPYLENE PLASTIC

GROUT, CAST OR SET IN MANHOLE WALL

1/2" DIAMETER STEEL REINFORCEMENT (GRADE 60)

COPOLYMER POLYPROPYLENE PLASTIC

GROUT, CAST OR SET IN MANHOLE WALL
NOTES:
1. IN PRECAST RISER SECTIONS, THE KNOCKOUTS OR OPENINGS AROUND THE PIPES SHALL BE MORTARED TO 6".
2. PRECAST REDUCER SHALL BE SPECIFICALLY SIZED & PLACED FOR THE TYPE OF TOP USED.
3. PLACE ALL PRECAST UNITS, TOPS AND CONCRETE BLOCKS IN A CEMENT MORTAR BED.
4. PRECAST UNITS SHALL BE REINFORCED WITH WELDED WIRE FABRIC.

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PRECAST CATCH BASIN TOP
(TYPE AS REQUIRED-
TYPE "CL" SHOWN)

PRECAST RISER OR
8" CONCRETE UNITS

RISER VARIES
(1' MIN.)

24" 6" 6" 3/4 CRUSHED STONE

3/4" TYPE "C"
11'-10" TYPE "CL"

2'-4" TYPE "C"

KNOCKOUTS FOR PIPES MIN. 4"
FROM TOP & BOTTOM OF RISER

SECTION A-A

SECTION B-B

REV DESCRIPTION APPROVED BY DATE NOT TO SCALE
NOTES:
1. CATCH BASIN GRATE SHALL CONFORM TO CONNECTICUT D.O.T. STANDARD DRAWING #507K TYPE-A.
2. STEEL FRAMES AND GRATES SHALL BE GALVANIZED IN ACCORDANCE WITH M.06.03 OF D.O.T. FORM 816.
3. ALL BARS SHALL BE WELDED AT ALL INTERSECTIONS.
4. ALL METAL UNITS SUBJECT TO MANUFACTURING TOLERANCES.
5. ONLY LOW HYDROGEN ELECTRODES SHALL BE USED.
6. DIMENSIONAL TOLERANCES MAY BE ±1/16”.
7. WELDING WILL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION.
### Pipe Size and Pattern Numbers

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<td>24&quot;</td>
<td>2568A</td>
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<td>30&quot; &amp; Larger</td>
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**Notes:**
1. Use cast iron hood for pipe sizes up to 24".
2. Use galvanized fabricated steel hood for pipe sizes 24" and larger.

*Campbell Foundry Co. Pattern Numbers*

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**NOT TO SCALE**

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**Catch Basin Hood**

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**Town of Westbrook**

**Road and Drainage Standards**

**DWG-309**
NOTE:
1. TYPE 'C' CATCH BASIN TOP SHALL CONFORM TO CONNECTICUT DEPT. OF TRANSPORTATION STANDARD SPECIFICATION FORM 816 SECTION: M.08.02-4.
NOTE:
1. TYPE 'CL' CATCH BASIN TOPS SHALL CONFORM TO CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FORM 816 SECTION: M.08.02-4.
WRAP INLET GRATE WITH 1/2” HARDWARE CLOTH COVERED WITH FILTER FABRIC, INSERT INTO FRAME
CATCH BASIN INLET FRAME

NOTE: STRUCTURE, FRAME, AND GRATE MAY BE ROUND OR SQUARE

PAVED & UNPAVED AREAS

PLACE SILT FENCE AROUND STRUCTURE. FINE GRADE AND ESTABLISH TURF IN DISTURBED AREAS.

STORM DRAINAGE STRUCTURE

BURY FABRIC 6”

SECTION UNPAVED AREAS ONLY

NOT TO SCALE
NOTES:
1. SECURE SILT FENCE TIGHTLY AROUND CULVERT.
2. SECURE BOTTOM OF FENCE WITH CRUSHED STONE OR INSTALL BOTTOM OF SILT FENCE PER TYPICAL SILT FENCE INSTALLATION.
NOTE:
1. CURB INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CONNECTICUT D.O.T. STANDARDS.
NOTE:

1. CULVERT END (FLARED END) SECTIONS SHALL CONFORM TO CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FORM 816 SECTION: M.08.01–22.
NOTE:
1. WHEN USING HDPE PIPE, CONCRETE FLARED ENDS MUST BE USED. HDPE FLARED ENDS WILL NOT BE ALLOWED.
2. FLARED END SHALL CONFORM TO FLARED ENDS DETAIL.
NOTES:
1. ALL SIZES SHOWN Lg, W, D0 AND d50 SHALL BE CALCULATED USING CONNECTICUT GUIDELINES FOR SOIL EROSION & SEDIMENT CONTROL.
2. FILTER FABRIC SHALL BE MIRAFI 500X, EXXON GTF200, AMOCO 2199 OR APPROVED EQUAL.
3. RIP RAP PROTECTION SHALL BE PLACED AT ALL DRAINAGE INLETS AND OUTLETS.
EXPOSED HEIGHT OF BACK OF WALL ABOVE SLOPE TO BE —
7” FOR SLOPE OF 1-1/2:1 & 4:1
9” FOR SLOPE OF 2:1

EMBANKMENT

FLOW LINE

CLASS 'A' CONCRETE OR CEMENT RUBBLE MASONRY

WALL AT FOOT OF SLOPE

FRONT ELEVATION

WALL AT SHOULDER

All edges of exposed surfaces shall be chamfered one inch.

### DIMENSIONS & QUANTITIES FOR ONE END WALL BASED ON S = D + 2’

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<td>10'-6&quot;</td>
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<td>2'-3&quot;</td>
<td>3.79</td>
</tr>
<tr>
<td>36</td>
<td>3'-2&quot;</td>
<td>6'-6&quot;</td>
<td>12'-6&quot;</td>
<td>3&quot;</td>
<td>2'-7 1/2&quot;</td>
<td>5.45</td>
</tr>
<tr>
<td>42</td>
<td>3'-8&quot;</td>
<td>7'-0&quot;</td>
<td>14'-6&quot;</td>
<td>3&quot;</td>
<td>2'-9&quot;</td>
<td>6.40*</td>
</tr>
<tr>
<td>48</td>
<td>4'-2&quot;</td>
<td>7'-6&quot;</td>
<td>16'-6&quot;</td>
<td>3&quot;</td>
<td>2'-10 1/2&quot;</td>
<td>8.00*</td>
</tr>
</tbody>
</table>

H = TOTAL HEIGHT OF ENDWALL
B = BASE
D = INSIDE DIAMETER OF PIPE
S = HEIGHT OF SLOPE ABOVE FLOW LINE

WHEN ONE ENDWALL IS TO BE USED FOR TWO PIPES, THE DIMENSIONS OF THAT ENDWALL SHALL CONFORM TO THOSE REQ'D FOR THE LARGER PIPE, EXCEPT THE DIMEN. "L" SHALL BE INCREASED BY THE OUTSIDE DIAMETER OF THE SMALLER PIPE PLUS TWO FEET.

* - VOLUME OF PIPE WITHIN ENDWALL HAS BEEN DEDUCTED.
TYPE II ENDWALL

NOTE:
WHEN ONE ENDWALL IS TO BE USED FOR TWO PIPES, THE DIMENSIONS OF THAT ENDWALL SHALL CONFORM TO THOSE REQUIRED FOR THE LARGER PIPE, EXCEPT THE DIMENSION 'B' SHALL BE INCREASED BY THE OUTSIDE DIAMETER OF THE SMALLER PIPE PLUS TWO FEET.

D = DIAMETER OF PIPE

<table>
<thead>
<tr>
<th>D</th>
<th>B</th>
<th>VOLUME OF ENDWALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN.</td>
<td>FT. &amp; IN.</td>
<td>CU. YDS.</td>
</tr>
<tr>
<td>12</td>
<td>3'-0&quot;</td>
<td>0.49</td>
</tr>
<tr>
<td>15</td>
<td>3'-9&quot;</td>
<td>0.63</td>
</tr>
<tr>
<td>18</td>
<td>4'-6&quot;</td>
<td>0.77</td>
</tr>
<tr>
<td>21</td>
<td>5'-3&quot;</td>
<td>0.95</td>
</tr>
<tr>
<td>24</td>
<td>6'-0&quot;</td>
<td>1.09</td>
</tr>
<tr>
<td>30</td>
<td>7'-6&quot;</td>
<td>1.35</td>
</tr>
<tr>
<td>36</td>
<td>8'-0&quot;</td>
<td>1.55</td>
</tr>
<tr>
<td>42</td>
<td>8'-6&quot;</td>
<td>1.69</td>
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<tr>
<td>48</td>
<td>9'-0&quot;</td>
<td>1.82</td>
</tr>
<tr>
<td>54</td>
<td>9'-6&quot;</td>
<td>1.95</td>
</tr>
<tr>
<td>60</td>
<td>10'-0&quot;</td>
<td>2.08</td>
</tr>
<tr>
<td>72</td>
<td>11'-0&quot;</td>
<td>2.34</td>
</tr>
</tbody>
</table>

CLASS 'A' CONCRETE OR CEMENT RUBBLE MASONRY WITH PIPE TO BE SET IN MORTAR BED.
2x2 STAKE AT 3'-0" O.C. MIN.

SEDIMENT BARRIER

STAPLE AT 12" O.C.

STAPLE AT 12" O.C.

SECTION

SEDIMENT CONTROL BARRIER SHALL BE A MINIMUM OF 8 INCHES IN HEIGHT AND SHALL CONSIST OF A EROSION CONTROL BLANKET ROLL.

3'-0" O.C. MIN.

12" O.C.

12" OVER 7'-0"

TERMINAL ENDS OF BARRIERS SHALL BE SECURED TO ENSURE CONTAINMENT OF FILL MATERIAL AND PREVENT CHANNELIZATION.

NOT TO SCALE
STAKE AS NEEDED TO HOLD BARRIER IN PLACE

SEDIMENT CONTROL BARRIER SHALL BE A minimum OF 8 INCHES IN HEIGHT AND SHALL CONSIST OF A EROSION CONTROL BLANKET ROLL.

TERMINAL ENDS OF BARRIERS SHALL BE SECURED TO ENSURE CONTAINMENT OF FILL MATERIAL AND PREVENT CHANNELIZATION.
FENCE POST (SPACING 10'-0" C. TO C.)

FABRIC (3'-0" WIDE)

DIRECTION OF FLOW

BURY TOE OF FILTER FABRIC IN TRENCH (4" MIN) AND BACKFILL

NOT TO SCALE

REV DESCRIPTION APPROVED BY DATE
### Seed Mixture for Permanent Seedings

<table>
<thead>
<tr>
<th>Variety</th>
<th>Lbs/1,000 Sq.Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunny Area Seed Mixture (Variety)</td>
<td></td>
</tr>
<tr>
<td>Kentucky Bluegrass</td>
<td>.45</td>
</tr>
<tr>
<td>Creeping Red Fescue (Penlawn, Wintergreen)</td>
<td>.45</td>
</tr>
<tr>
<td>Perennnial Ryegrass (Norlea, Manhattan)</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.00</strong></td>
</tr>
<tr>
<td>Shaded Area Seed Mixture (Variety)</td>
<td></td>
</tr>
<tr>
<td>Creeping Red Fescue (Penlawn, Wintergreen)</td>
<td>.35</td>
</tr>
<tr>
<td>Flatpea (Lathco) with Inoculant</td>
<td>.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.10</strong></td>
</tr>
</tbody>
</table>
### Table "A"

<table>
<thead>
<tr>
<th>Curvature (Degree or Radius)</th>
<th>Post Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 26° (220° Rad or more)</td>
<td>12'-6&quot;</td>
</tr>
<tr>
<td>219 ft. to 111 ft.</td>
<td>*</td>
</tr>
<tr>
<td>110 ft. to 76 ft.</td>
<td>*</td>
</tr>
<tr>
<td>75 ft. to 50 ft.</td>
<td>*</td>
</tr>
<tr>
<td>Less than 50 ft.</td>
<td>*</td>
</tr>
</tbody>
</table>

*Use Not Recommended*

*For curves with radii of 1500 or less, all rail members shall be fabricated to the proper radius.*

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**NOTES:**

1. Concrete End Anchor and all rail components are detailed on, and shall conform to, Connecticut D.O.T. DWG. 910-C.
2. All rails, posts and components shall be galvanized.
3. Type I end anchorage shown. Type II end anchorage (see detail) may be used where necessary.
4. **Offset dimensions as shown for R-I end anchorage type I apply to trailing end. Location of leading end anchorage as directed.**
NOTES:

1. CONCRETE END ANCHOR AND ALL RAIL COMPONENTS ARE DETAILED ON, AND SHALL CONFORM TO, CONNECTICUT D.O.T. DWG. 910—C.

2. BACK UP PIECES TO BE CLASS A (12 GA.) FOR ALL RAIL, AND TO BE PLACED BEHIND RAIL ELEMENTS AT NON-SPICE POSTS.

3. FOR CURVES WITH RADII OF 150' OR LESS ALL RAIL MEMBERS SHALL BE FABRICATED TO THE PROPER RADIUS.

4. STRUCTURAL SHAPE W6 X 9 MAY BE USED IN PLACE OF W6 X 8.5 FOR POSTS OR BRACKETS.

5. TYPE I END ANCHORAGE SHOWN. TYPE II END ANCHORAGE (SEE DETAIL) MAY BE USED WHERE NECESSARY.

6. ALL RAILS, POSTS AND COMPONENTS SHALL BE GALVANIZED.

** OFFSET DIMENSIONS AS SHOWN FOR R–B END ANCHORAGE TYPE I APPLY TO TRAILING END ONLY. LOCATION OF LEADING END ANCHORAGE AS DIRECTED.
LAP RAIL SECTIONS IN DIRECTION OF TRAFFIC

SECTION A-A
NORMAL HEIGHT

SECTION B-B
HEIGHT WITH CURBING

NOTE:
* WHERE THIS DIMENSION IS LESS THAN 2'-0" THE HEIGHT WILL BE MEASURED FROM THE GUTTER LINE (AS SHOWN) AND WHERE IT IS GREATER THAN 2'-0"
THE NORMAL 27" HEIGHT WILL BE MEASURED FROM THE GROUND LINE (SECTION A-A).
WORKING POINT

TERMINAL ELEMENT

OBJECT MARKER

11'±

PLAN

R-B OR R-I
RAIL AND POST

SHOP CURVED RAIL
(TWISTED 90°)
SEE DETAIL "A"

3'-4"±

ELEVATION

3'-6"±
R = 20'

10'-0"±
R = 20'

DETAIL "A"
SHOP CURVED RAIL

NOTES:

1. CONCRETE END ANCHOR AND ALL RAIL
   COMPONENTS ARE DETAILED ON, AND SHALL
   CONFORM TO, CONNECTICUT D.O.T. DWG. 910-C.

2. END ANCHORAGE TYPE II WILL BE USED ONLY
   WHERE NARROW OPENINGS ARE REQUIRED ALONG
   THE GUIDE RAILING ALIGNMENT, SUCH AS DRIVEWAYS.

3. OTHER RADIUS CONFIGURATIONS WHICH CAN BE
   DEMONSTRATED TO PROVIDE THE INSTALLATIONS
   SHOWN IN END ANCHORAGES TYPE II MAY BE
   APPROVED.
MAILBOX TO MEET U.S. POSTAL SERVICE REGULATIONS. SECURELY ATTACH TO POST.

MAXIMUM POST SIZE:
- 4" X 4" WOOD
- 2" DIAMETER STEEL OR ALUMINUM

ROAD

GRASS

EDGE OF PAVEMENT

24" MAX.

DO NOT SET POST IN CONCRETE

NOT TO SCALE
MAILBOX TO MEET U.S. POSTAL SERVICE REGULATIONS, SECURELY ATTACH TO POST.

MAXIMUM POST SIZE:
- 4” X 4” WOOD
- 2” DIAMETER STEEL OR ALUMINUM

DO NOT SET POST IN CONCRETE

24” MAX.

FACE OF ASPHALT CURB

ROAD

GRASS

6-8”

41-45”

NOT TO SCALE
MAILBOX TO MEET U.S. POSTAL SERVICE REGULATIONS. SECURELY ATTACH TO POST.

MAXIMUM POST SIZE–
- 4 X 4 WOOD
- 2" DIAMETER STEEL OR ALUMINUM

ROAD

FACE OF CONCRETE CURB

GRASS

24" MAX.

DO NOT SET POST IN CONCRETE

41-45"

6-8"
NOTE:
1. FILTER FABRIC SHALL BE MIRAFI 500X, EXXON GTF 200, AMOCO 1199 OR APPROVED EQUAL.
A. BURY THE TOP END OF THE JUTE STRIP IN A TRENCH 6" OR MORE IN DEPTH.

B. TAMP THE TRENCH FULL OF SOIL. SECURE WITH ROW OF STAPLES, 6" SPACING, 4" DOWN FROM THE TRENCH.

C. OVERLAP—BURY UPPER END OF LOWER STRIP AS IN "A" AND "B". OVERLAP END OF TOP STRIP 4" AND STAPLE.

D. EROSION STOP—FOLD OF JUTE BURIED IN SLIT TRENCH AND TAMPPED; DOUBLE ROW OF STAPLES.

NOTES:
1. 4" OVERLAP OF JUTE STRIPS WHERE TWO OR MORE STRIP WIDTHS ARE REQUIRED. STAPLES ON 18" CENTERS.
2. STAPLE OUTSIDE ON 2' CENTERS.
TRAFFIC CONTROL NOTES:

1. REGULATE TRAFFIC IN THE AREA OF WORK BEING PERFORMED.

2. PERFORM WORK IN A MANNER TO PROVIDE SAFE PASSAGE FOR THE PUBLIC AT ALL TIMES WITH A MINIMUM OF OBSTRUCTION TO TRAFFIC.

3. THE LOCAL POLICE DEPARTMENT, AND FIRE DEPARTMENT WILL DETERMINE IF SAFE PASSAGE IS BEING MAINTAINED. THE CONTRACTOR SHALL PERFORM ADDITIONAL WORK IF REQUIRED TO MAINTAIN SAFE PASSAGE.

4. PROVIDE ACCESS FOR RESIDENTS AND ABUTTING LANDOWNERS ALONG THE PROJECT TO DRIVEWAYS AND OTHER NORMAL OUTLETS FROM ADJACENT PROPERTY.

5. MAINTAIN AT LEAST ONE-WAY TRAFFIC THROUGH THE WORK AREA DURING WORKING HOURS AND TWO-WAY TRAFFIC DURING THE NIGHT AND ON WEEKENDS AND HOLIDAYS.

6. PROVIDE ADEQUATE WARNING SIGNS, BARRIACES, SIGNAL LIGHTS, AND TAKE OTHER NECESSARY PRECAUTIONS FOR THE SAFETY OF THE PUBLIC. THESE WARNING INDICATION MARKINGS SHALL NOT IMPede THE ACCESS AND EXIT AS WELL AS LINE-OF-SIGHT TO ANY ROADWAYS AND DRIVEWAYS.

7. ALL SIGNS, BARRIACES, AND WARNING DEVICES MUST COMPLY WITH REQUIREMENTS IN "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY DEPT. OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION, AND REQUIREMENTS OF CONNECTICUT DEPT. OF TRANSPORTATION.

8. MAINTAIN NECESSARY SIGNS, AS REQUIRED BY THE OWNER, BARRIACES, LIGHTS, AND OTHER SAFETY PRECAUTIONS AT ALL TIMES, INCLUDING DURING AUTHORIZED SUSPENSION OF THE WORK, WEEKENDS, HOLIDAYS, OR OTHER TIMES WHEN CONSTRUCTION WORK IS NOT IN PROGRESS.

9. PROVIDE AND ILLUMINATE SUITABLE WARNING SIGNS TO SHOW WHERE CONSTRUCTION, BARRIACES, OR DETOURS EXIST.

10. ILLUMINATE ALL BARRIACES AND OBSTRUCTIONS FROM SUNSET TO SUNRISE.

11. PROVIDE UNIFORMED TRAFFIC GUARDS DURING CONSTRUCTION.

12. EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED, INCLUDING THOSE PAVEMENT MARKINGS OUTSIDE OF TRAVEL WAY.

13. EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED, REMOVED, OR REVISED TO MEET FIELD CONDITIONS.

14. ALL TEMPORARY CONSTRUCTION SIGNS SHALL HAVE A MINIMUM SIGN FACE AREA OF 62 SQ. FT.

15. EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED, INCLUDING THOSE PAVEMENT MARKINGS OUTSIDE OF TRAVEL WAY.

16. EXISTING SIGNS ARE TO BE RELOCATED AS NEEDED AND AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION, SO THAT THEY ARE IN THE APPROPRIATE LOCATION AND VISIBLE TO MOTORISTS. SOME SIGNS MAY HAVE TO BE TEMPORARILY RELOCATED WITHIN THE WORK AREA.

17. THE LOCATIONS OF TEMPORARY SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET FIELD CONDITIONS.

18. TEMPORARY SIGNS SHALL BE MOUNTED ON POSTS WHEN FEASIBLE.
GENERAL CONSTRUCTION REQUIREMENTS:

1.) THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.

2.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INSPECTIONS, BONDS, ETC. AND OTHER APPROVAL RELATED ITEMS WITH THE TOWN OF WESTBROOK. NO CONSTRUCTION SHALL COMMENCE UNTIL SUCH PERMITS HAVE BEEN SECURED.

3.) METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE CONNECTICUT DEPARTMENT OF TRANSPORTATION AND THE TOWN OF WESTBROOK.

4.) DEVIATIONS OR CHANGES FROM THESE PLANS WILL NOT BE ALLOWED UNLESS APPROVED BY THE ENGINEER/OWNER.

5.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.

6.) AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.

7.) CONTRACTOR AGREES THAT HE OR SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER."

8.) THE CONTRACTOR IS RESPONSIBLE TO INSTALL AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL DEVICES.

9.) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE SITE PLANS AND CONSTRUCTION SPECIFICATIONS ISSUED BY THIS FIRM, AND INCORPORATE SUBSEQUENT ISSUED PLAN REVISIONS. ANY DEVIATIONS FROM THESE DOCUMENTS SHALL REQUIRE NOTIFICATION TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF OR CONSTRUCTION ANY CHANGE. WITHOUT NOTIFICATION TO THE ENGINEER, THE CONTRACTOR WILL BE WORKING AT HIS OR HER OWN RISK.