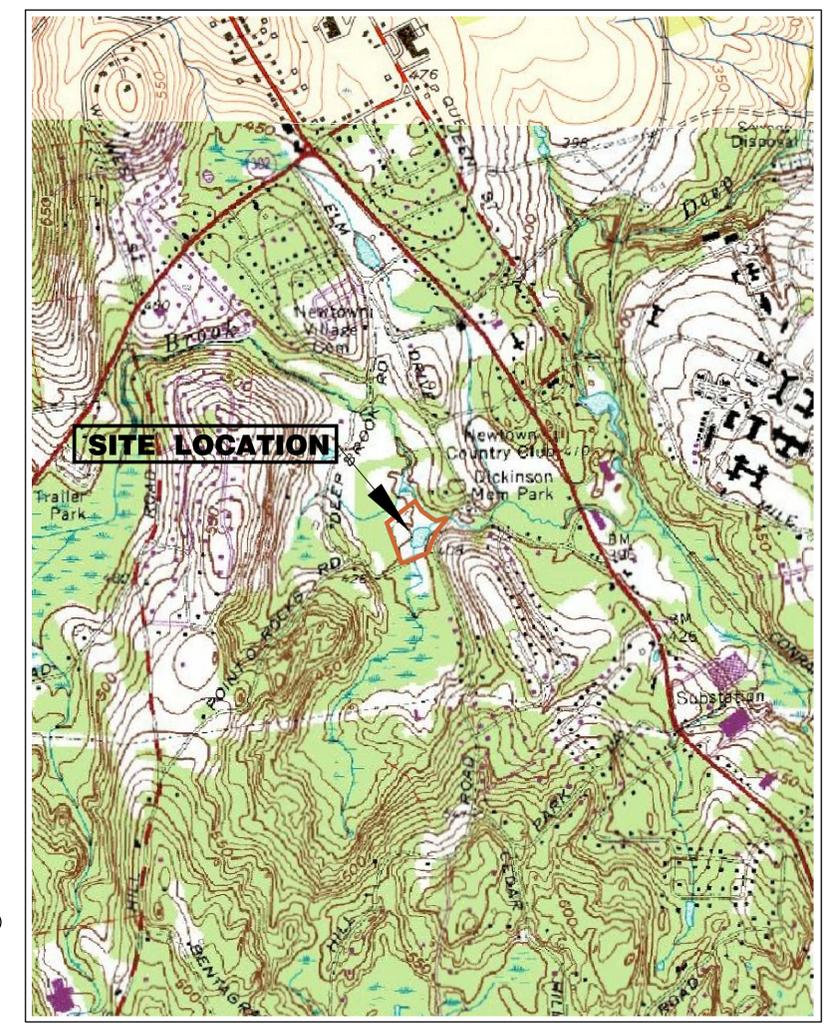


**CALL BEFORE YOU DIG**  
 TO INSURE SAFE TROUBLE-FREE EXCAVATING  
 TO LOCATE UNDERGROUND UTILITY PIPE  
 AND CABLE ANYWHERE IN CONNECTICUT  
 CALL TWO FULL WORKING DAYS IN ADVANCE  
 1-800-922-4455

# DEEP BROOK STREAM RESTORATION PROJECT TOWN OF NEWTOWN, FAIRFIELD COUNTY, CONNECTICUT

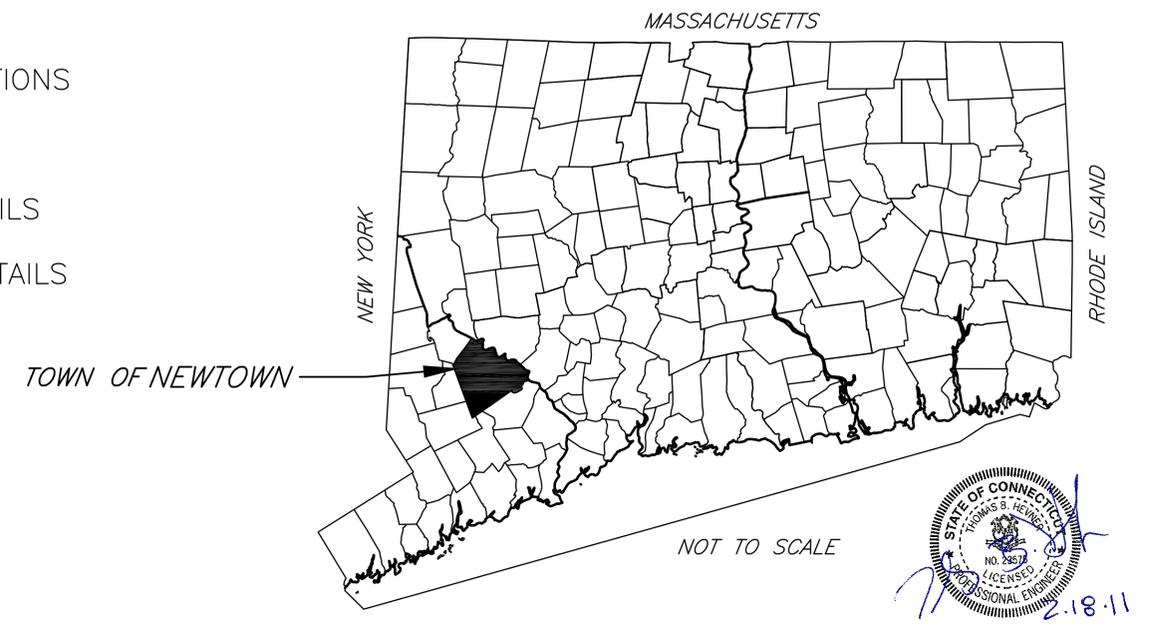
SPONSORED BY THE  
 TOWN OF NEWTOWN  
 &  
 THE CANDLEWOOD VALLEY TROUT UNLIMITED  
 WITH ASSISTANCE FROM THE  
 UNITED STATES DEPARTMENT OF AGRICULTURE  
 NATURAL RESOURCES CONSERVATION SERVICE  
 IN COOPERATION WITH MAGUIRE GROUP, INC.  
 TOLLAND, CONNECTICUT 2011



**LOCATION MAP**  
 POINT O' ROCKS ROAD  
 NEWTOWN, CONNECTICUT  
 Scale in Feet

## INDEX

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**MAGUIRE GROUP**  
 Maguire Group Inc.  
 Architects/Engineers/Planners  
 One Court Street  
 New Britain, Connecticut 06051

Date: 12/07/10  
 Designed: W. Young/R. Dyer  
 Drawn: R. Dyer  
 Checked: \_\_\_\_\_  
 Approved: \_\_\_\_\_

TITLE SHEET  
 Deep Brook Stream Restoration Project  
 Page 1 of 19  
 Town of Newtown, Fairfield County, Connecticut  
 Maguire Group, Inc.

**NRCS**  
 Natural Resources Conservation Service  
 United States Department of Agriculture

File No. 2010-12-07  
 Cover.dwg  
 Drawing No. G01  
 1/31/11 9:54 AM  
 Sheet 1 of 19

**LEGEND**

EXISTING	NEW	DESCRIPTION
		HANDICAPPED PARKING
		UTILITY POLE
		CATCH BASIN
		BORING
		STORM SEWER
		OVERHEAD WIRES
		CONTOUR
		SPOT GRADE
		BASELINE STATIONS
		BALED HAY EROSION CHECK AND/OR SILT FENCE
		CENTERLINE CHANNEL
		STONE WALL
		FENCE
		TREE
		SHRUB
		BOULDERS
		BOLLARDS
		SAWCUT
		EDGE OF FLAGGED WETLAND
		REMOVE & DISPOSE EXISTING DRAINAGE PIPE
		REMOVE & DISPOSE EXISTING FLARED END
		REMOVE & DISPOSE EXISTING FENCE
		OPEN WEAVE COIR EROSION CONTROL BLANKET
		MANHOLE
		DETAIL NUMBER/SHEET NUMBER
		DETAIL NUMBER
		FLOOD ZONE LINE & DESIGNATION (SFHAs)

**ABBREVIATIONS**

APPROX	APPROXIMATELY	LT	LEFT
CB	CATCH BASIN	MUTCD	MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES PROTECT & MAINTAIN
CONC.	CONCRETE	P&M	PERMANENT SEEDING DATES
D	DIAMETER, DRAINAGE	RCP	REINFORCED CONCRETE PIPE
E	EASTING	R&D	REMOVE & DISPOSE
EL, EL.	ELEVATION	S	SLOPE
EXIST.	EXISTING	STA	STATION
INV	INVERT	ST	STORM SEWER
N	NORTHING	UP	UTILITY PLAN
L	LENGTH	W	WATER

**EROSION AND SEDIMENT CONTROL NOTES**

- EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE PROVISIONS OF THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL
- PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, A CONTINUOUS UNINTERRUPTED LINE OF STAKED HAY BALES AND/OR SILT FENCING SHALL BE INSTALLED DOWNSTREAM, OUTSIDE THE LIMITS OF ANY PROPOSED CONSTRUCTION IN THE LOCATIONS SHOWN ON THE PLANS AND SHALL BE MAINTAINED IN EFFECTIVE CONDITION UNTIL DISTURBED AREAS HAVE BEEN STABILIZED WITH VEGETATION. FOLLOWING SUCCESSFUL STABILIZATION OF DISTURBED AREAS, ALL SILT FENCING AND HAY BALES SHALL BE REMOVED. PRIOR TO REMOVAL OF THE SILT FENCING AND HAY BALES, ALL ACCUMULATED TRAPPED SEDIMENTS MUST BE REMOVED TO A SUITABLE UPLAND SITE.
- UNTIL VEGETATIVE COVER IS ESTABLISHED AND DISTURBED AREAS ARE STABILIZED, ACCUMULATED SEDIMENTS SHALL BE REMOVED AS SOON AS SEDIMENTS HAVE ACCUMULATED TO A DEPTH OF SIX (6) INCHES.
- THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL MEASURES ON A WEEKLY BASIS DURING CONSTRUCTION AND AFTER STORMS OF GREATER THAN OR EQUAL TO 1" IN A 24 HOUR PERIOD. THE CONTRACTOR SHALL CHECK FOR UNDERMINING AND DETERIORATION. DAMAGED/DETERIORATED EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF NOTING THE DAMAGE/DETERIORATION.
- THE LIMITS OF ALL CLEARING, GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION.
- A STONE STABILIZATION PAD IS LOCATED AT THE SITE ENTRANCE TO REDUCE THE TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHT OF WAY.
- THE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE ENGINEER. ALL SEDIMENTS SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- AREAS BEYOND THE STAKED LIMITS OF DISTURBANCE SHALL BE TOTALLY UNDISTURBED.
- PIPE INLETS AND OUTFALLS SHALL BE PROTECTED BY HAY BALE FILTERS OR SILT FENCE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH VEGETATION.
- DENUDED SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED IN AREAS WHERE WORK IS TO CEASE FOR A PERIOD OF 14 DAYS OR GREATER AND WILL NOT RESUME WITHIN 21 DAYS OR DURING THE INACTIVE WINTER SEASON. AREAS EXPOSED FOR THE DESCRIBED PERIODS SHALL RECEIVE TEMPORARY VEGETATIVE COVER AND BE COMPLETELY COVERED WITH LOOSE HAY MULCH.
- SOIL STOCKPILES AND DEPOSITION AREAS FOR CONSTRUCTION MATERIALS SHALL BE LOCATED OUTSIDE WETLAND AREAS AND ASSOCIATED BUFFERS AND SHALL BE SURROUNDED BY A DOUBLE ROW OF STAKED HAY BALES.
- TEMPORARY TREATMENTS SHALL BE USED TO PROTECT BARE AREAS AND STOCKPILES FROM EROSION DURING CONSTRUCTION. BARE EARTH SLOPES AND SOIL STOCKPILES SHALL BE KEPT TO A MINIMUM AT ALL TIMES. TEMPORARY TREATMENTS SHALL BE INSTALLED ON ALL BARE EARTH PRIOR TO ENDING CONSTRUCTION FOR WINTER AND AS OTHERWISE NECESSARY.
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS) THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- AS SOON AS WEATHER PERMITS AFTER THE COMPLETION OF FINE GRADING, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH PLACEMENT OF THE MODIFIED TOP SOIL AND THE SPECIFIED GRASS SEED MIXTURE, AND COVERED WITH A MAT OF LOOSE HAY PRIOR TO THE COMPLETION OF THE PROJECT.
- THE PERMANENT SEED DESIGN MIX FOR UPLAND SOILS SHALL BE:
 

MIXTURE:	% BY WEIGHT
RED FESCUE	70
KENTUCKY BLUEGRASS	15
COLONIAL BENTGRASS	5
PERENNIAL RYEGRASS	10
- THE APPLICATION RATE IS A TOTAL OF 100 LBS/ACRE.
- PERMANENT SEEDING DATES SHALL BE AS FOLLOWS:
 

APRIL 1	-	JUNE 13
AUGUST 15	-	OCTOBER 15
- THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS, BEFORE MIXING AND PLANTING WITH APPROPRIATE INOCULUM FOR EACH VARIETY/
- TEMPORARY VEGETATION GRASS SHALL BE USED TO PROTECT STOCKPILES FROM WIND EROSION. STOCKPILES SHALL BE WATERED TO ESTABLISH AND MAINTAIN VEGETATIVE COVER. AVOID EXCESSIVE WATERING WHICH COULD PROMOTE EROSION. PLANTING OF GRASS SHALL BE ACCOMPLISHED BY THE CONTRACTOR AS EARLY AS POSSIBLE UPON COMPLETION OF GRADING AND CONSTRUCTION.
- STOCKPILES SHALL NOT BE LOCATED NEAR WATERWAYS. THEY SHALL HAVE SIDE SLOPES OF NO GREATER THAN 2:1 (H:V) AND SHALL BE TEMPORARILY SEEDED AND/OR STABILIZED.
- ALL GRASS PLANTED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE COMPLETION OF THE CONSTRUCTION AND ACCEPTANCE BY THE OWNER TO ENSURE SURVIVAL.
- THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY OF MAINTAINING THE EROSION CONTROL MEASURES AND THE DRAINAGE SYSTEM DURING CONSTRUCTION AND UP TO ACCEPTANCE BY THE OWNER.
- PLUG THE EXISTING WETLAND CULVERT INLET AND CUT THE NECESSARY SHEETING ONCE THE CHANNEL HAS BEEN COMPLETED AND IS READY TO ACCEPT FLOW.

**SEQUENCE AND STAGING OF LAND DISTURBING ACTIVITIES**

- SURVEY AND STAKE THE NEW CULVERT LOCATION, LIMIT OF WORK AND LOCATION OF THE SEDIMENTATION BARRIERS.
- PLACE SEDIMENTATION BARRIERS (HAYBALES/SILT FENCE) AS SHOWN ON THE PLANS AND STAKED IN THE FIELD. IN NO CASE SHALL THE WORK EXTEND BEYOND THE STAKED LIMIT OF WORK.
- INSTALL NEW DRIVEWAY APRON AS SHOWN.
- STRIPE NEW DRIVEWAY ENTRANCE AS INDICATED.
- INSTALL TEMPORARY CONSTRUCTION BARRIERS AND SIGNAGE CLOSING OFF THE SECTION OF PARKING WHERE WORK IS TO BE COMPLETED.
- SAWCUT AND REMOVE ASPHALT IN PARKING AREA AS INDICATED.
- INSTALL THE CONSTRUCTION ENTRANCE.
- REMOVE EXISTING CHAIN LINK FENCE AS INDICATED.
- STRIP AND STOCKPILE THE TOP AND SUB SOIL AS INDICATED ON THE PLANS.
- EXCAVATE AND GRADE NEW CHANNEL TO SUB-GRADE STARTING AT THE DOWNSTREAM END OF THE CHANNEL AND WORKING BACK TOWARDS POINT O ROCKS ROAD.
- EXCAVATE AND GRADE NEW DRAINAGE SWALE TO TIE INTO NEW CHANNEL.
- CUT EXISTING 18" RCP DRAINAGE PIPE COMING FROM THE WEST PARKING LOT AS INDICATED.
- REMOVE THE EASTERLY PORTION OF THE EXISTING PIPE.
- INSTALL THE NEW MANHOLE, NEW 18" RCP AND NEW CONCRETE HEADWALL.
- INSTALL MINIMUM 6" THICK FILTER LAYER - M03.01.2.C FINE AGGREGATE IN THE BOTTOM OF CHANNEL.
- INSTALL MINIMUM 6" THICK TRANSITION LAYER - CONN. DOT No. 67 AGGREGATE.
- INSTALL MINIMUM 12" STREAM ARMOR.
- INSTALL BioD-Mat OR APPROVED EQUAL ALONG THE CHANNELS FLOOD PLAIN TO A DISTANCE OF 6.5' TO 10' FROM THE BANK FULL ELEVATION ON EACH SIDE OF THE CHANNEL.
- INSTALL 6" LOAM AND SEED IN THE EXCAVATED AREA BEYOND THE BANK FULL DEPTH.
- FINE GRADE THE SURFACE IN ACCORDANCE WITH THE GRADING PLAN.
- INSTALL SURFACE TREATMENTS AS INDICATED ON SURFACE TREATMENT PLAN SHEET.
- EXCESS MATERIAL REMAINING IN THE STOCKPILE SHALL BE REMOVED AND DISPOSED OF OFF SITE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
- INSTALL GUARDRAIL.
- RESTORE THE TEMPORARY STOCKPILE AREA.
- SEED ALL DISTURBED AREAS DESIGNATED TO BE FINISHED WITH GRASS.
- INSTALL TEMPORARY BARRIER AND SIGNAGE, CLOSING OFF THE PORTION OF POINT O ROCKS ROAD TO BE RECONSTRUCTED.
- SAWCUT AND REMOVE ASPHALT IN POINT O ROCKS ROAD AS INDICATED.
- INSTALL NECESSARY SHEETING IN THE AREA OF THE NEW CULVERT.
- EXISTING CULVERT IS TO REMAIN ACTIVE DURING CONSTRUCTION.
- EXCAVATE FOR NEW CULVERT.
- INSTALL NEW CULVERT AND HEAD WALLS AND BACKFILL IN ACCORDANCE WITH THE SPECIFICATIONS.
- RAISE AND RE-GRADE POINT O ROCKS ROAD AS INDICATED TO ENSURE ADEQUATE COVER OVER THE NEW CULVERT.
- ONCE THE CULVERT IS INSTALLED AND THE CHANNEL IS READY TO ACCEPT FLOW, CUT SHEETING TO ALLOW FLOW AND BLOCK OFF EXISTING CULVERT.
- REMOVE AND DISPOSE OF THE EXISTING CULVERT PIPE TO THE WETLAND TO THE WEST OF DEEP BROOK.
- BACKFILL EXCAVATION AND RESTORE GRADE.
- FINAL GRADE POINT O ROCKS ROAD.
- INSTALL NEW BITUMINOUS CONCRETE PAVEMENT ON POINT O ROCKS ROAD AS INDICATED.
- REMOVE FRAME AND GRATE FROM EXISTING DRAINAGE STRUCTURE LOCATED ALONG THE NORTHERLY EDGE OF THE EXISTING PARKING AREA LOCATED AT STATION 1+06 19.4 FT RIGHT. REMOVE THE STRUCTURE TO 3 FT BELOW GRADE. BREAKUP THE BOTTOM AND BACKFILL WITH CLEAN GRAVEL.
- REMOVE AND DISPOSE TO 3 FT BELOW GRADE THE EXISTING STRUCTURE AT STATION 1+37 30 FT RIGHT. BREAKUP THE BOTTOM AND INSTALL CLEAN GRAVEL.
- REMOVE THE TEMPORARY CONSTRUCTION ENTRANCE.
- REMOVE THE SEDIMENTATION BARRIERS.
- SWEEP PARKING AREA
- RESTRIP PARKING SPACE AND INSTALL HANDICAPPED PARKING SYMBOL AS INDICATED.
- INSTALL HANDICAPPED PARKING SIGNS.

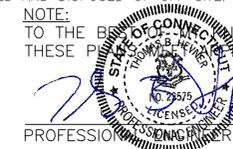
**GENERAL NOTES**

- REFERENCE IS MADE TO THE CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS AND SPECIFICATIONS. ALL PROJECT SITE IMPROVEMENTS SHALL CONFORM TO THESE REGULATIONS AND THE SUB-REFERENCES INCORPORATED THEREIN.
- THE TOWN OF NEWTOWN SHALL MAKE APPLICATION FOR AND PAY ALL FEES FOR ANY/ALL OTHER PERMITS REQUIRED BY THE STATE OF CONNECTICUT
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS, STANDARD AND SPECIAL DETAILS, INVITATION TO BID, AND STANDARD SPECIFICATIONS. ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN.
- CONSTRUCTION WILL BE SUBJECT TO INSPECTION BY THE NATURAL RESOURCES CONSERVATION SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE.
- THE TOWN SHALL BE IMMEDIATELY NOTIFIED OF ANY DIRECTION RECEIVED FROM UTILITY COMPANIES, STATE OR TOWN EMPLOYEES WHICH COULD AFFECT THE QUALITY OR COST OF WORK (INCREASE OR DECREASE).
- UPON COMPLETION OF THE WORK AND PRIOR TO FINAL ACCEPTANCE BY THE NRCS, AN AS-BUILT SURVEY SHALL BE PERFORMED BY NRCS TO ACCURATELY DEPICT AS-BUILT CONDITIONS.
- EXISTING UTILITIES HAVE BEEN PLOTTED FROM BEST AVAILABLE DATA AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITY OR COMPANY. EXTREME CAUTION SHALL BE USED WHEN WORKING IN THE VICINITY OF EXISTING UTILITIES. THE CONTRACTOR SHALL ADHERE TO CALL BEFORE YOU DIG NOTIFICATION REQUIREMENTS AND SHALL CONTACT CALL BEFORE YOU DIG A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION AT 1-800-922-4455.
- LOCATIONS AND DEPTHS OF EXISTING UNDERGROUND PIPES, CONDUITS, AND STRUCTURES, AS SHOWN, ARE APPROXIMATE ONLY, BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL MAKE, AT HIS EXPENSE, TEST PITS, TO DETERMINE THE EXACT LOCATIONS OF UTILITIES AND STRUCTURES ESPECIALLY FOR CONNECTIONS TO EXISTING UTILITIES. ANY EXPENSE AND/OR DELAY OCCASIONED BY UTILITIES AND STRUCTURES, OR DAMAGE THERETO, INCLUDING THOSE NOT SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE TOWN. CARE SHALL BE USED AROUND UTILITIES TO PREVENT ANY DAMAGE.
- THE CONTRACTOR SHALL MAINTAIN ALL EXCAVATION IN A DRY CONDITION. NO SEPARATE PAYMENT OR ALLOWANCE SHALL BE MADE FOR DEWATERING.
- ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR SHALL BE LOAMED AND SEEDING OR SODDED IF SO DIRECTED, AND RETURNED TO THEIR ORIGINAL CONDITION; ALL OTHER VEGETATED OR WOODED AREAS DISTURBED SHALL BE LOAMED AND SEEDING.
- ALL EXISTING PAVEMENT NOT DESIGNATED FOR REMOVAL WHICH IS DISTURBED SHALL BE IMMEDIATELY REPAIRED WITH TEMPORARY PAVEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE TEMPORARY PAVEMENT UNTIL SUCH TIME AS THE PERMANENT PAVEMENT IS INSTALLED. PAYMENT FOR TEMPORARY PATCH WILL BE FOR 2" x 6" x THE LENGTH OF EXCAVATION. PERMANENT PAVEMENT SHALL MEET CONNECTICUT DEPARTMENT OF TRANSPORTATION REQUIREMENTS AND SPECIFICATIONS.
- ALL EXISTING CURBING, SIDEWALK AND OTHER PAVEMENT DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REPLACED AND RESTORED, IN KIND.
- CONTRACTOR SHALL INSTALL AND MAINTAIN SHEETING AND BRACING OR OTHER SUITABLE TRENCH PROTECTION AS NECESSARY TO PROTECT WORKMEN AND THE PUBLIC ON OR NEAR THE SITE; PREVENT INJURIOUS CAVING OR EROSION, OR LOSS OF GROUND; MAINTAIN AT ALL TIMES PEDESTRIAN AND VEHICULAR TRAFFIC; AND PROTECT ADJACENT STRUCTURES.
- CONTINUOUS DUST CONTROL, USING CALCIUM CHLORIDE OR OTHER APPROVED METHODS, SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS AND SURFACES OF BACKFILLED TRENCHES, AS DIRECTED AND SPECIFIED.
- SURVEYS PROVIDED IN THE DRAWINGS SHALL BE ASSUMED TO ACCURATELY REPRESENT THE EXISTING GROUND SURFACE. THE CONTRACTOR MAY AT HIS/HER OWN EXPENSE MAKE NEW SURVEYS. ANY DIFFERENCES BETWEEN THE ELEVATIONS SHOWN ON THE DRAWINGS AND THOSE MEASURED BY THE CONTRACTOR SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE TOWN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL TESTING, LAYOUT OF WORK, HORIZONTAL AND VERTICAL CONTROL, AND SHOP DRAWINGS.
- THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH ALL PERMITS, LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN AND SPECIFIED.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL CONSTRUCTION ACTIVITIES FOLLOW OSHA SAFETY RULES AND GUIDELINES AS APPROPRIATE.
- SURPLUS MATERIAL IS TO BE USED TO BACKFILL THE AREA OF THE EXISTING PIPE OUTSIDE OF THE ROADWAY. SURPLUS MATERIAL REMAINING AFTER BACKFILLING IS COMPLETE SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF SITE.
- NO BLASTING IS ALLOWED.
- NECESSARY PRECAUTIONS ARE TO BE TAKEN WHEN WORKING IN THE AREA OF THE EXISTING OVERHEAD WIRES AND UTILITY POLE #3590.

**GENERAL DRAINAGE AND UTILITY NOTES**

- DUE TO THE POSSIBILITY OF IGNITION FROM ESCAPING GAS DURING CONSTRUCTION AND PRESENCE OF OTHER TYPES OF POTENTIALLY HAZARDOUS GASES, ETC., SMOKING AND OPEN FLAMES SHALL BE PROHIBITED IN ALL OPEN TRENCHES AND OTHER UNDERGROUND SPACES. IN ADDITION FOR OSHA DEFINED CONFINED SPACES THE CONTRACTOR SHALL HAVE ON HAND AND SHALL UTILIZE GAS DETECTION DEVICES TO CHECK AND MONITOR ALL SUCH SPACES BEFORE AND DURING WORKING IN THESE AREAS. GAS DETECTION DEVICES SHALL BE SUPPLIED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL DEMONSTRATE EXTREME CARE WHEN WORKING IN THE AREA OF EXISTING UTILITIES, PIPES AND DRAINAGE STRUCTURES SO AS NOT TO DAMAGE THEM.
- EXCAVATED ON SITE MATERIAL DESIGNATED FOR REMOVAL SHALL BE REMOVED AND DISPOSED OF OFF SITE.

NOTE:  
TO THE BEST OF OUR KNOWLEDGE, JUDGEMENT AND BELIEF, THESE PLANS COMPLY WITH ALL APPLICABLE NRCS STANDARDS.



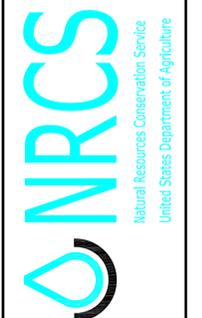
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LICENSE #

2-18-11  
DATE

Date 12/07/10  
Designed W. Young/R. Dyer  
Drawn R. Dyer  
Checked #  
Approved #

GENERAL NOTES, SYMBOLS & LEGEND  
Deep Brook Stream Restoration Project  
Page 2 of 19

Town of Newtown, Fairfield County, Connecticut  
Maguire Group, Inc.



File No. 2010-12-29  
General-Notes.dwg

Drawing No. 602

12/29/10 11:52 AM  
Sheet 2 of 19



**GAROFALO**  
 GAROFALO & ASSOCIATES, INC.  
 CIVIL & STRUCTURAL ENGINEERS/SURVEYORS  
 LAND PLANNERS/ENVIRONMENTAL SCIENTISTS  
 85 CORLISS STREET, P.O. BOX 6145 PROVIDENCE, RI 02940  
 401-273-6000



**NOTES:**

1.) THE PROJECT SITE IS LOCATED WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AND PARTS IN ZONE-X (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.), FLOODWAY AREAS IN ZONE-AE (THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREA THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS) AND SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD (THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. AREAS OF SPECIAL FLOOD HAZARD INCLUDE ZONES A, AE, AH, AO, AR, A99, V AND VE. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD). AS SHOWN ON FIRM, FLOOD INSURANCE RATE MAP FOR THE TOWN OF NEWTOWN, CONNECTICUT, FAIRFIELD COUNTY, PANEL NO. 18 OF 80, MAP NUMBER 0900110018C, MAP REVISED: APRIL 16, 2003.

2.) THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. (PLEASE CONTACT DIGSAFE PRIOR TO CONSTRUCTION @ 1-888-344-7233)

3.) DATUM - HORIZONTAL: NAD 83  
 VERTICAL: NAVD 88

**CERTIFICATION:**

Type of Survey: Topography  
 Boundary Determination Category: None Intended  
 Class of Accuracy: V-2, T-2

To My Knowledge and Belief, this map is substantially correct as noted hereon. This Survey was prepared pursuant to the Regulations of Connecticut State Agencies, Sections 20-300b-1 through 20-300b-20 and the "Standards for Survey and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996.

Samuel A. White, Jr. P.L.S. Date: \_\_\_\_\_

**BENCHMARK:**  
 NAIL SET IN UTILITY  
 POLE no #, EL.=401.31  
 (NAVD 88)

TRAV. POINT  
 NO. 1  
 N 705635.8150  
 E 848716.7700

TRAV. POINT  
 NO. 3  
 N 705753.1610  
 E 848780.1350

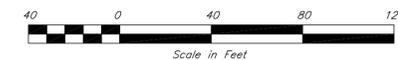
TRAV. POINT  
 NO. 2  
 N 705789.2460  
 E 848912.8200

TRAV. POINT  
 NO. 4 (MAG. NAIL SET)  
 N 705756.2558  
 E 848962.6987

**BENCHMARK:**  
 MAG. NAIL SET  
 EL.=398.74  
 (NAVD 88)

**LEGEND:**

- WETLAND LINE
- WETLAND FLAG
- CHAIN LINK FENCE
- CONTOUR 1'
- CONTOUR 5'
- SPOT SHOTS
- UTILITY POLE
- FLARED END SECTION
- HANDICAP PARKING SPACE
- WATER LINE
- DRAIN LINE
- GUY WIRE
- ZONE LINE
- OVERHEAD WIRES



NOTE: TO THE BEST OF MY KNOWLEDGE, JUDGEMENT AND BELIEF, THESE PLANS MEET APPLICABLE NRCS STANDARDS.

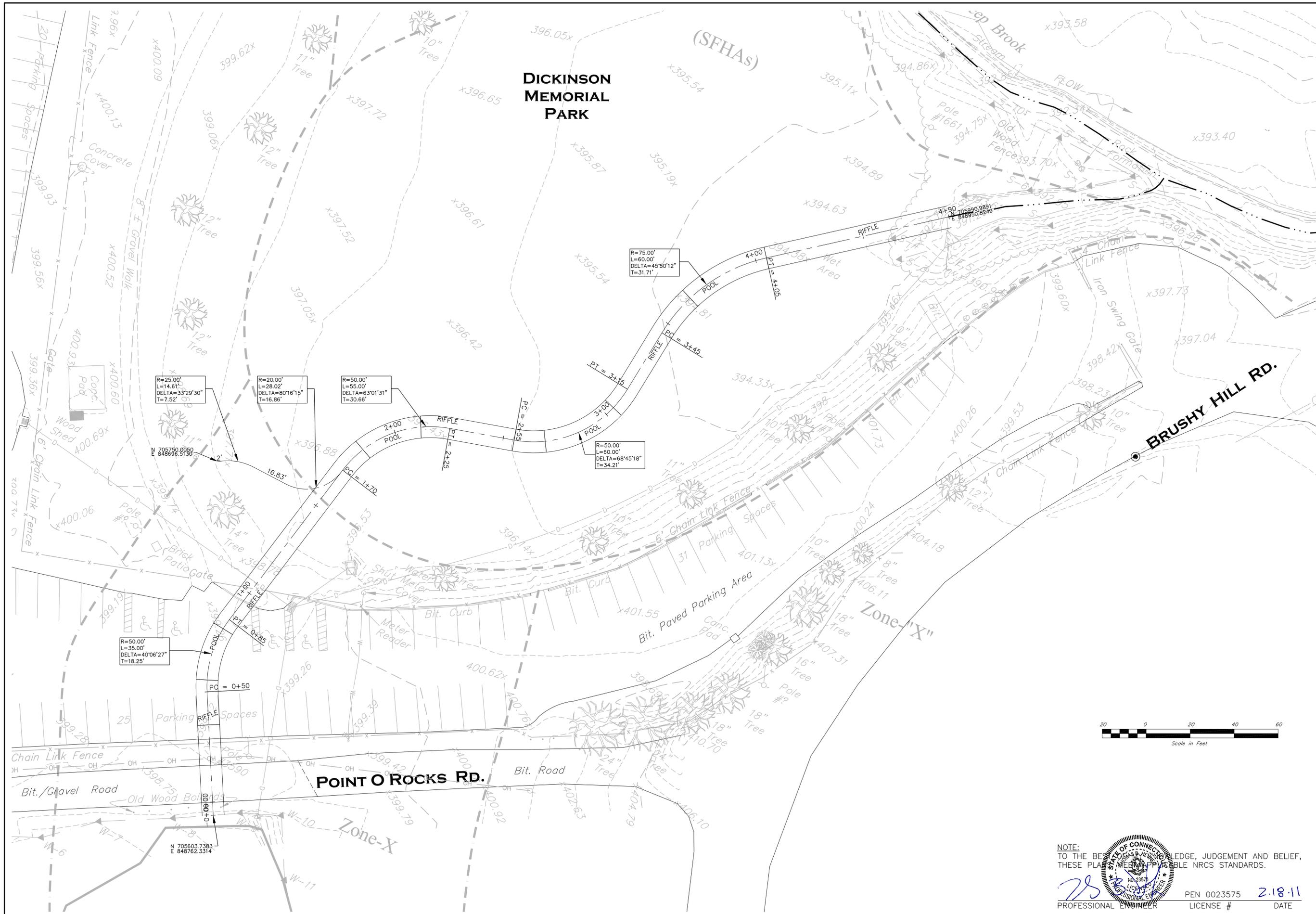
PROFESSIONAL ENGINEER  
 LICENSE # 0023575  
 DATE 2-18-11

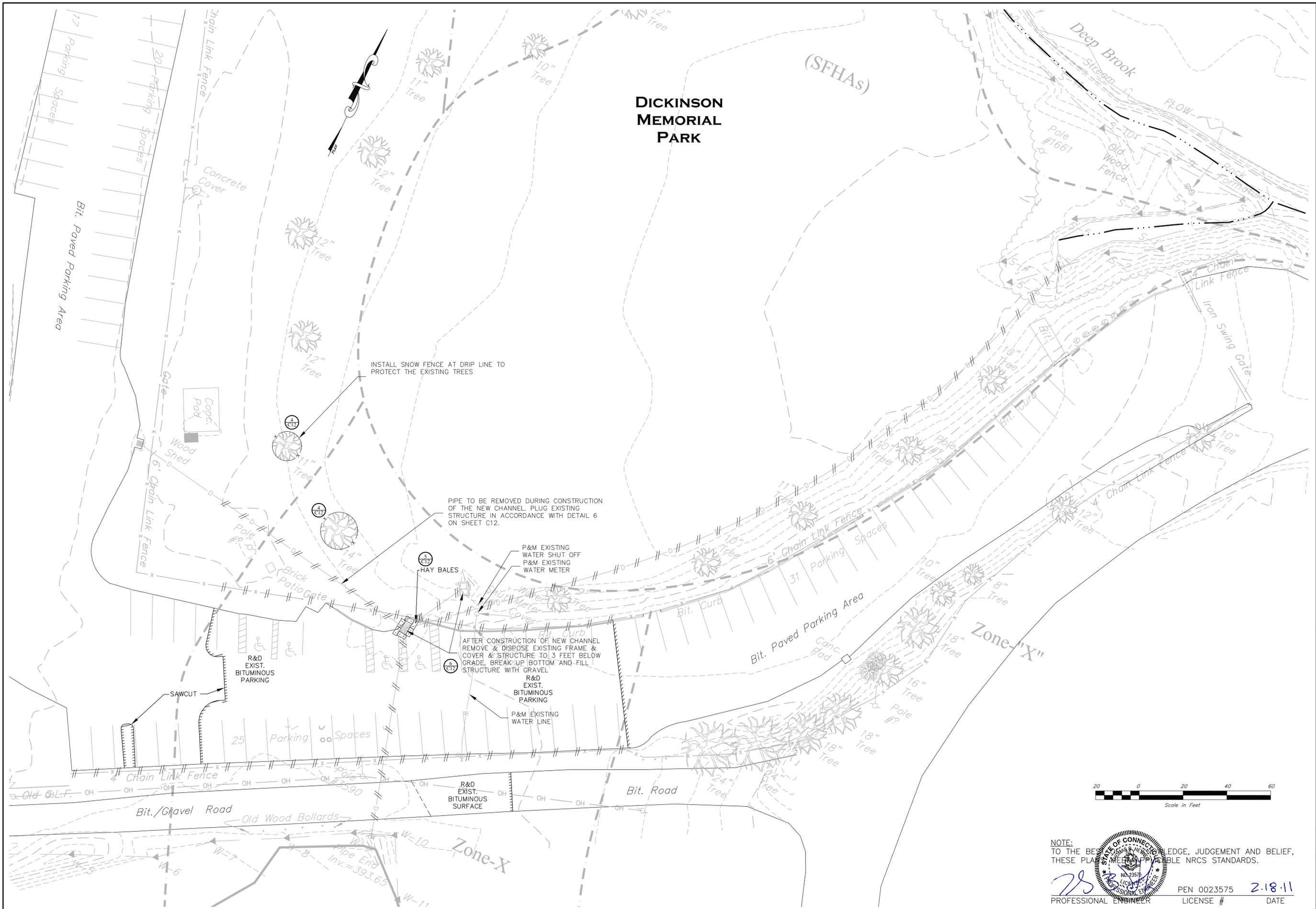
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 Deep Brook Stream Restoration Project

Date 12/07/10  
 Designed W. Young/R.Dyer  
 Drawn R.Dyer  
 Checked #  
 Approved #

Maguire Group, Inc. Town of Newtown, Fairfield County, Connecticut

File No. 2010-12-16 Deep Brook.dwg  
 Drawing No. C01  
 1/18/11 2:45 PM  
 Sheet 3 of 19





**DICKINSON  
MEMORIAL  
PARK**

(SFHAS)

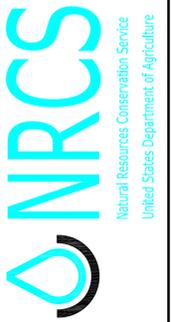


NOTE:  
TO THE BEST OF MY KNOWLEDGE, JUDGEMENT AND BELIEF,  
THESE PLANS MEET ALL APPLICABLE NRCS STANDARDS.

PROFESSIONAL ENGINEER  
LICENSE # 0023575  
DATE 2-18-11

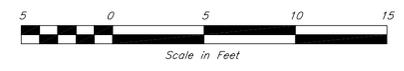
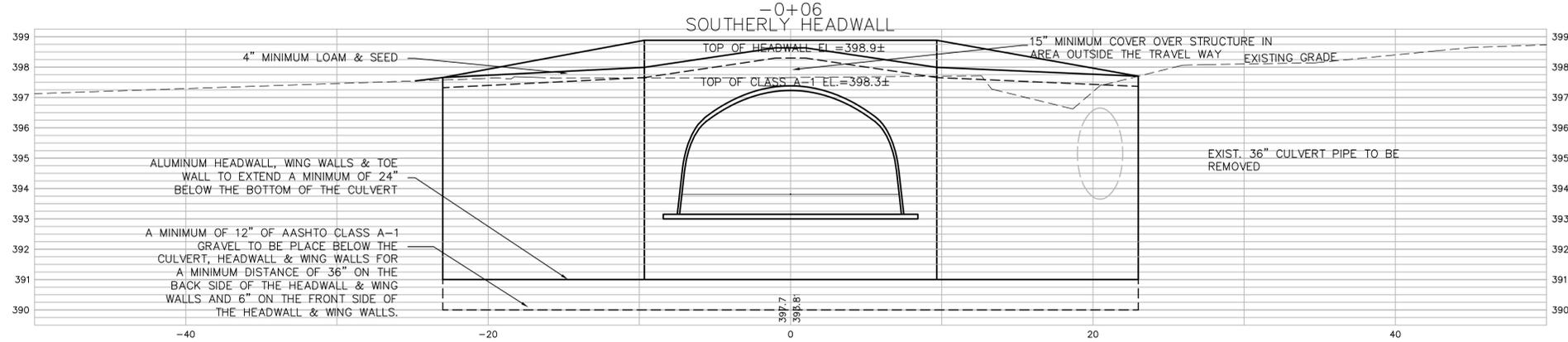
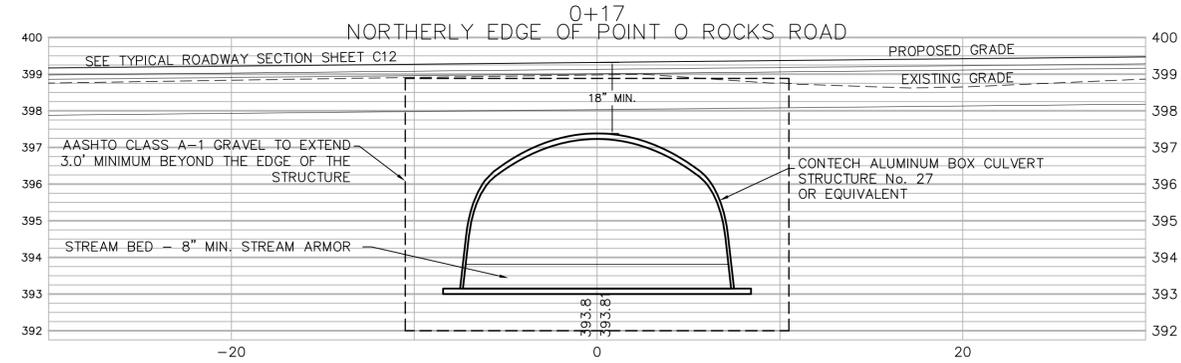
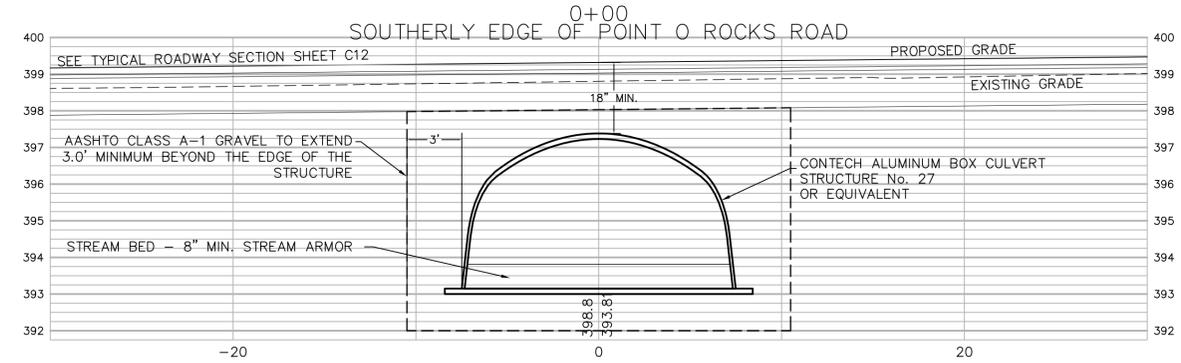
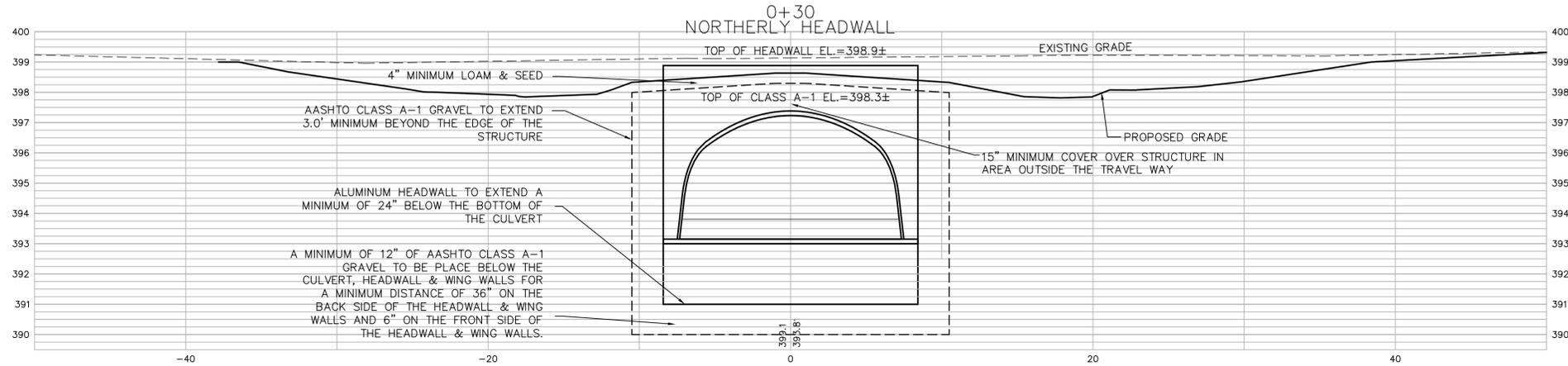
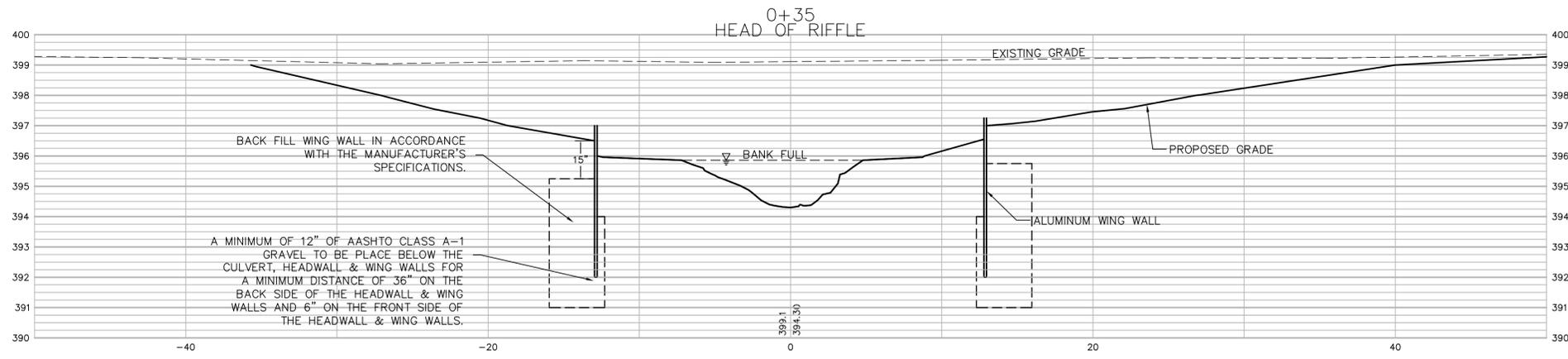
Date 12/07/10  
Designed W. Young/R. Dyer  
Drawn R. Dyer  
Checked #  
Approved #

**SITE PREPARATION PLAN**  
Deep Brook Stream Restoration Project  
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Maguire Group, Inc. Town of Newtown, Fairfield County, Connecticut



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Drawing No. C03  
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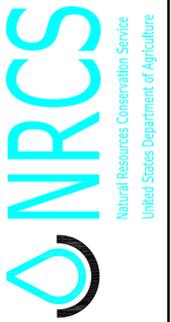


NOTE:  
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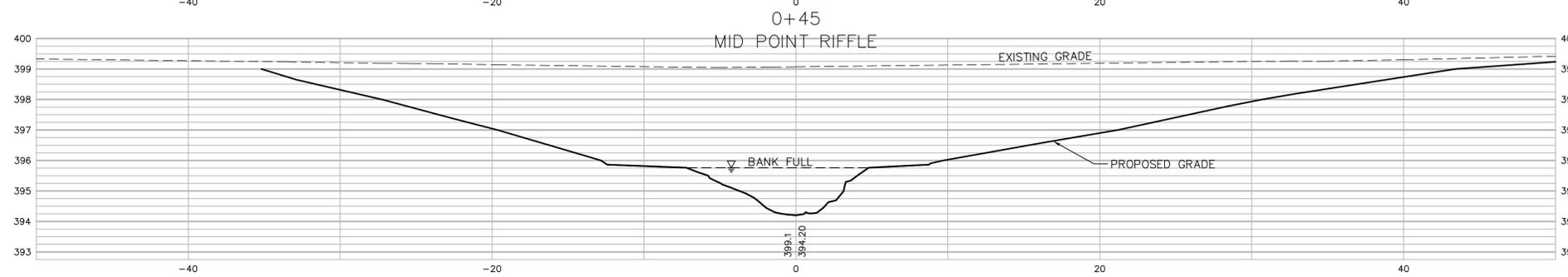
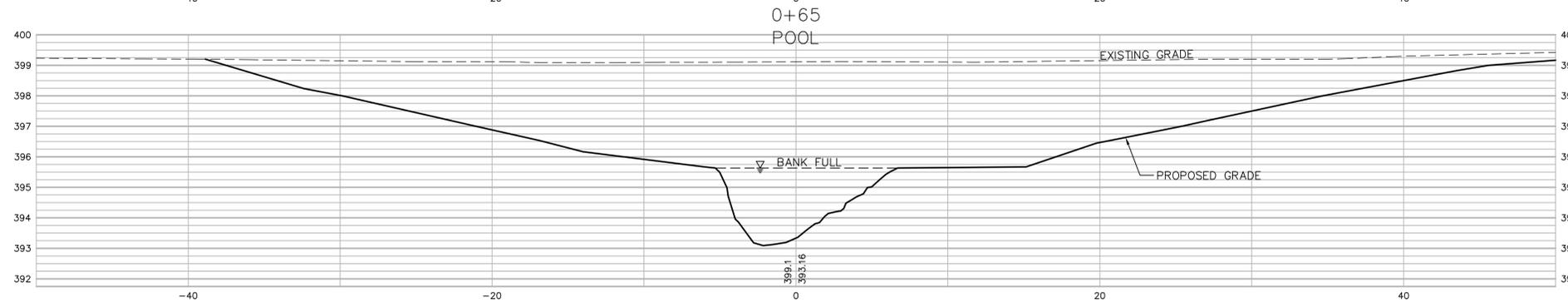
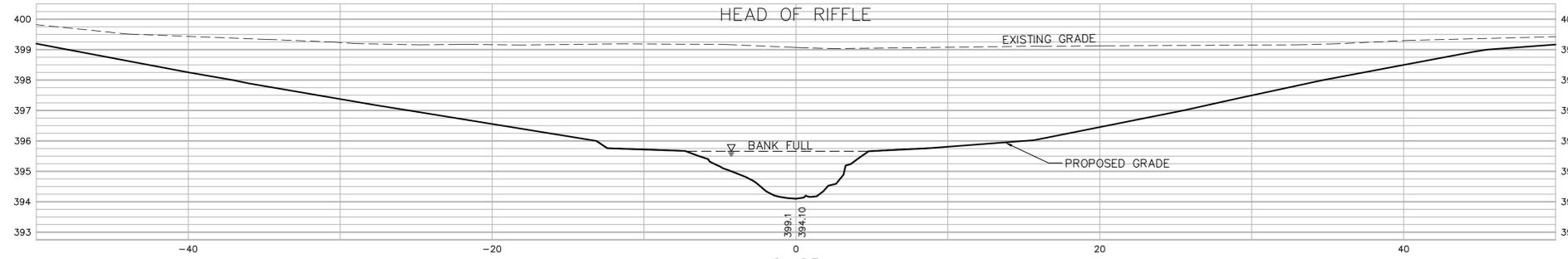
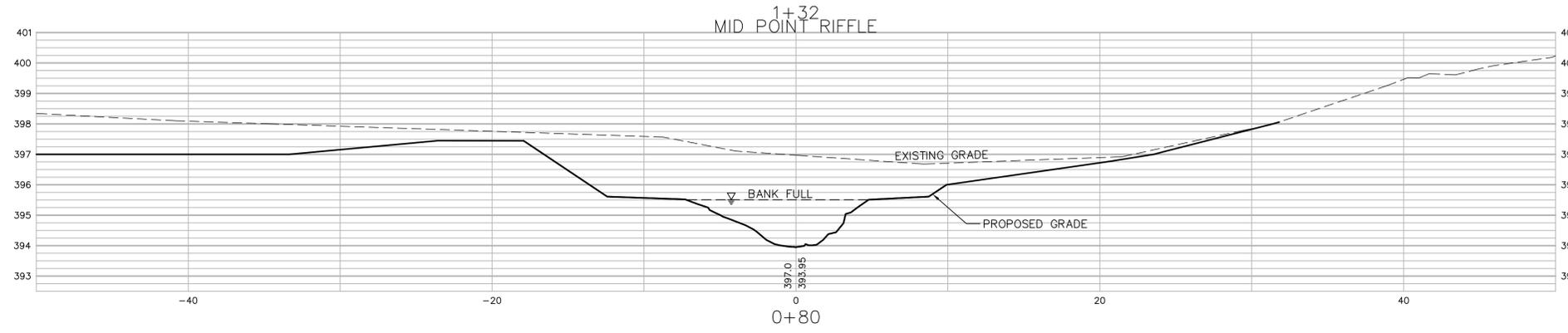
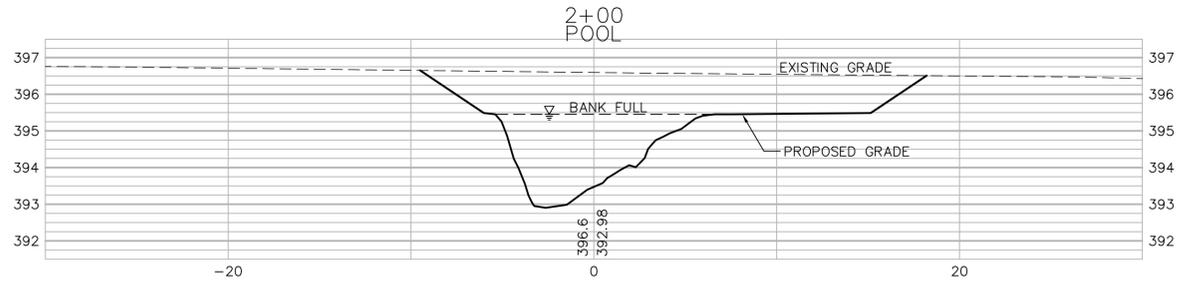
PROFESSIONAL ENGINEER  
LICENSE # 0023575  
DATE 2-18-11

Date 12/07/10  
Designed W. Young/R. Dyer  
Drawn R. Dyer  
Checked #  
Approved #

CROSS SECTION PLAN 01  
Deep Brook Stream Restoration Project  
Page 7 of 19  
Maguire Group, Inc.  
Town of Newtown, Fairfield County, Connecticut



File No. 2010-12-16 Deep Brook.dwg  
Drawing No. C05  
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Sheet 7 of 19

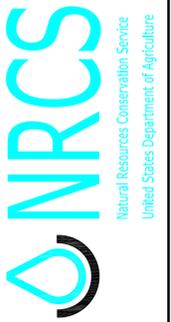


NOTE:  
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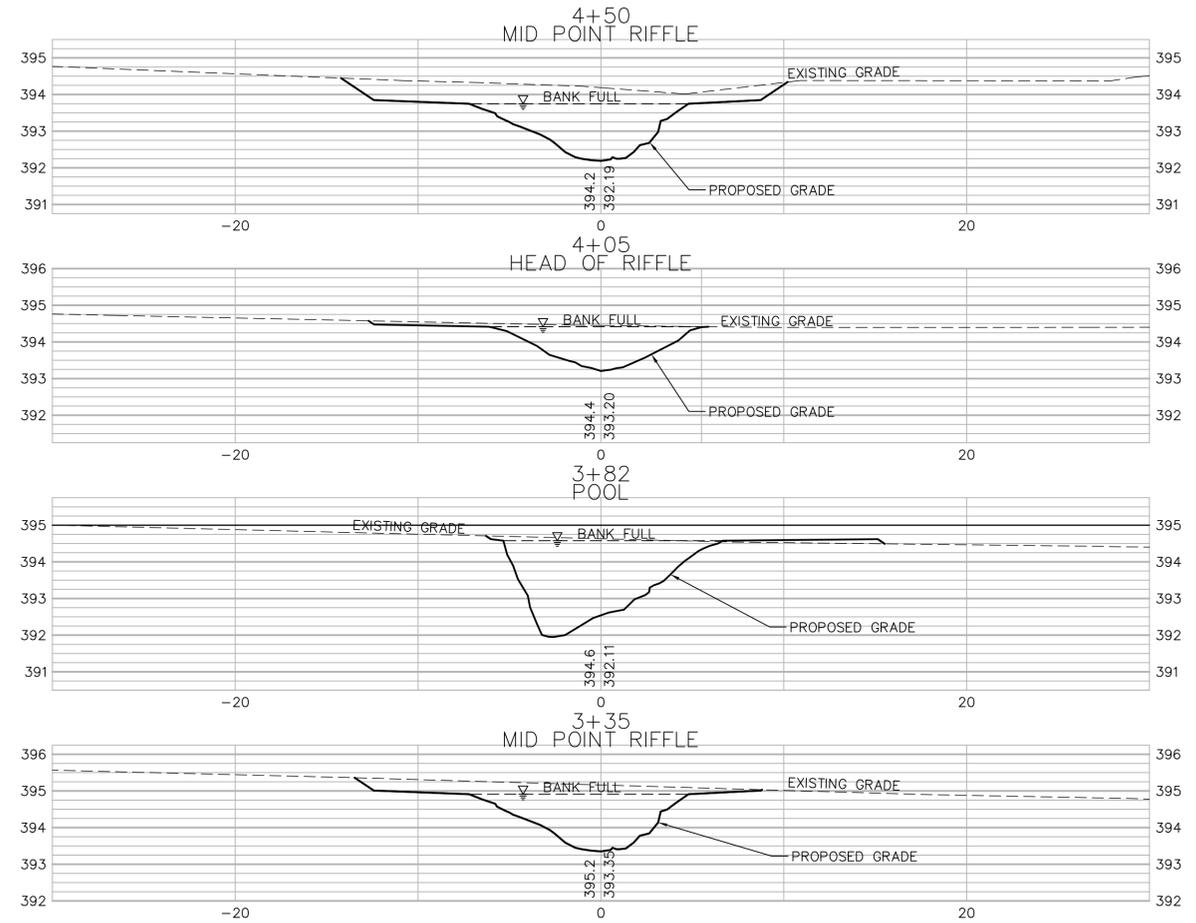
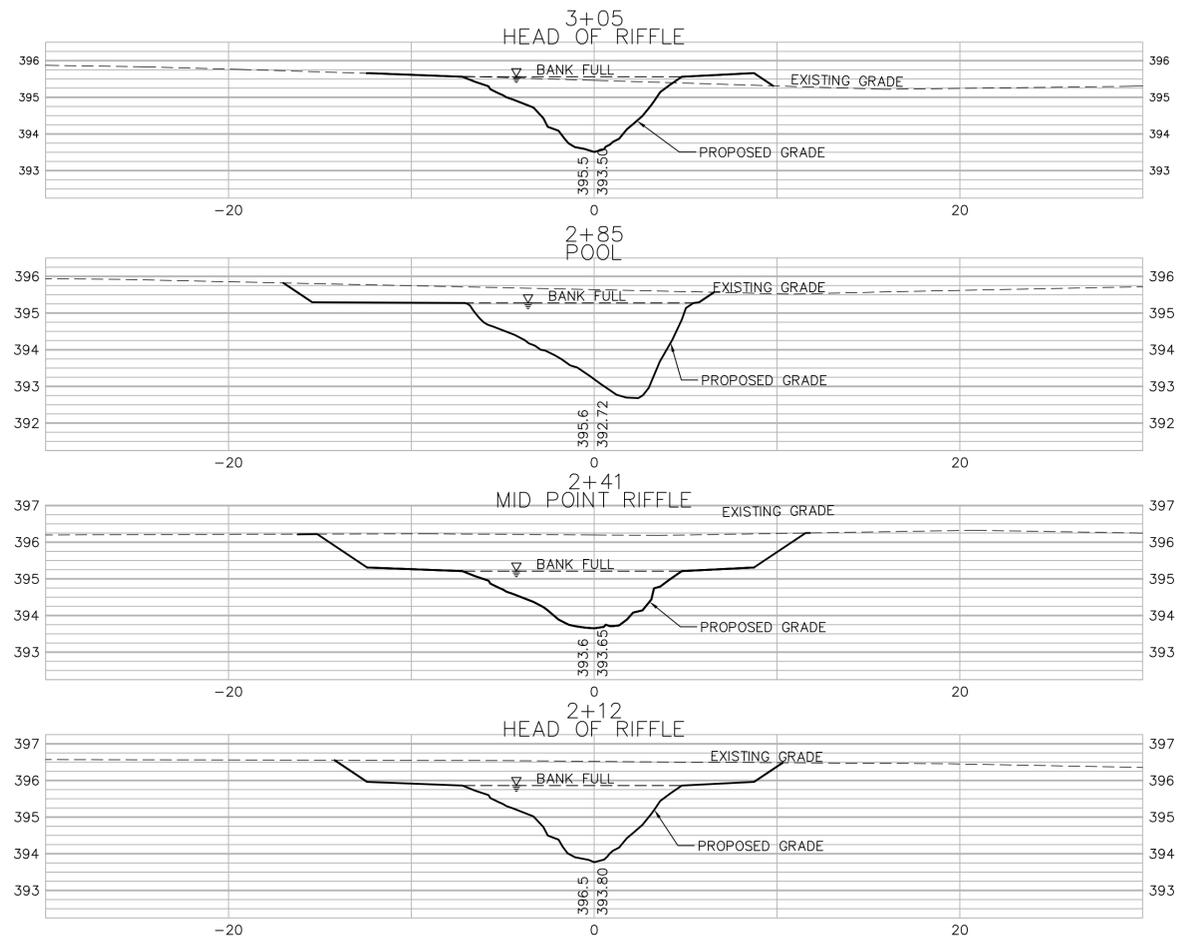

 W. Young, R. Dyer  
 PROFESSIONAL ENGINEER  
 LICENSE # 0023575  
 DATE 2.18.11

Date 12/07/10  
 Designed W. Young/R. Dyer  
 Drawn R. Dyer  
 Checked #  
 Approved #

**CROSS SECTION PLAN 02**  
 Deep Brook Stream Restoration Project  
 Page 8 of 19  
 Maguire Group, Inc. Town of Newtown, Fairfield County, Connecticut



File No. 2010-12-16 Deep Brook.dwg  
 Drawing No. C06  
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 Sheet 8 of 19



NOTE:  
 TO THE BEST OF MY KNOWLEDGE, JUDGEMENT AND BELIEF,  
 THESE PLANS MEET ALL APPLICABLE NRCS STANDARDS.

78  
 PROFESSIONAL ENGINEER

NO. 23576  
 LICENSE #

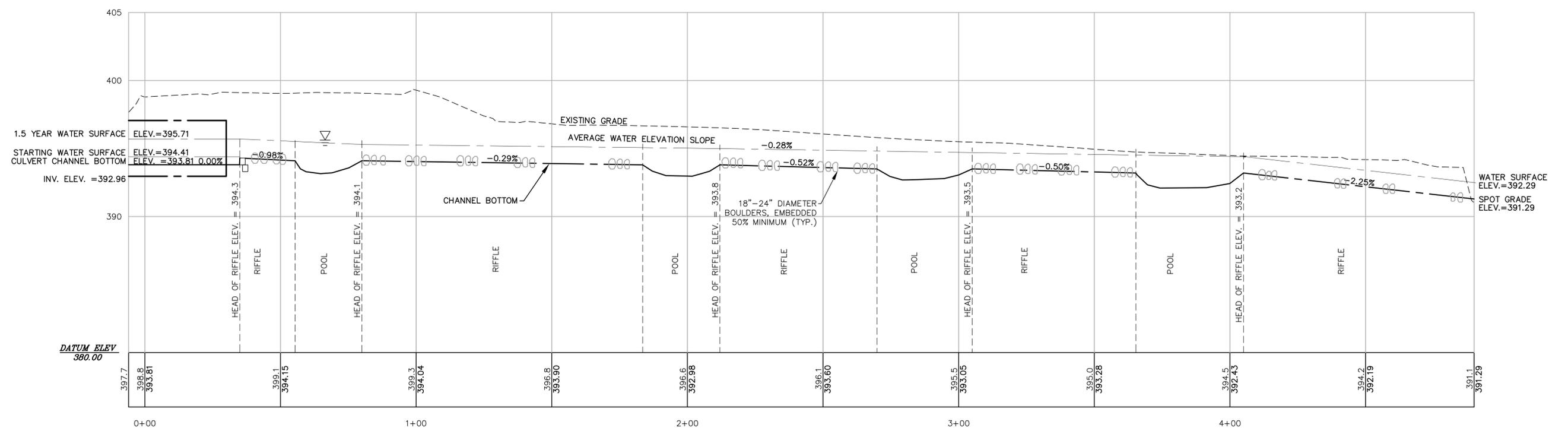
2-18-11  
 DATE

Designed W. Young/R. Dyer Date 12/07/10  
 Drawn R. Dyer #            #             
 Checked # #             
 Approved # #           

CROSS SECTION PLAN 03  
 Deep Brook Stream Restoration Project  
 Page 9 of 19  
 Maguire Group, Inc. Town of Newtown, Fairfield County, Connecticut



File No. 2010-12-16 Deep Brook.dwg  
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 Sheet 9 of 19



NOTE: TO THE BEST OF MY KNOWLEDGE, JUDGEMENT AND BELIEF, THESE PLANS MEET ALL APPLICABLE NRCS STANDARDS.

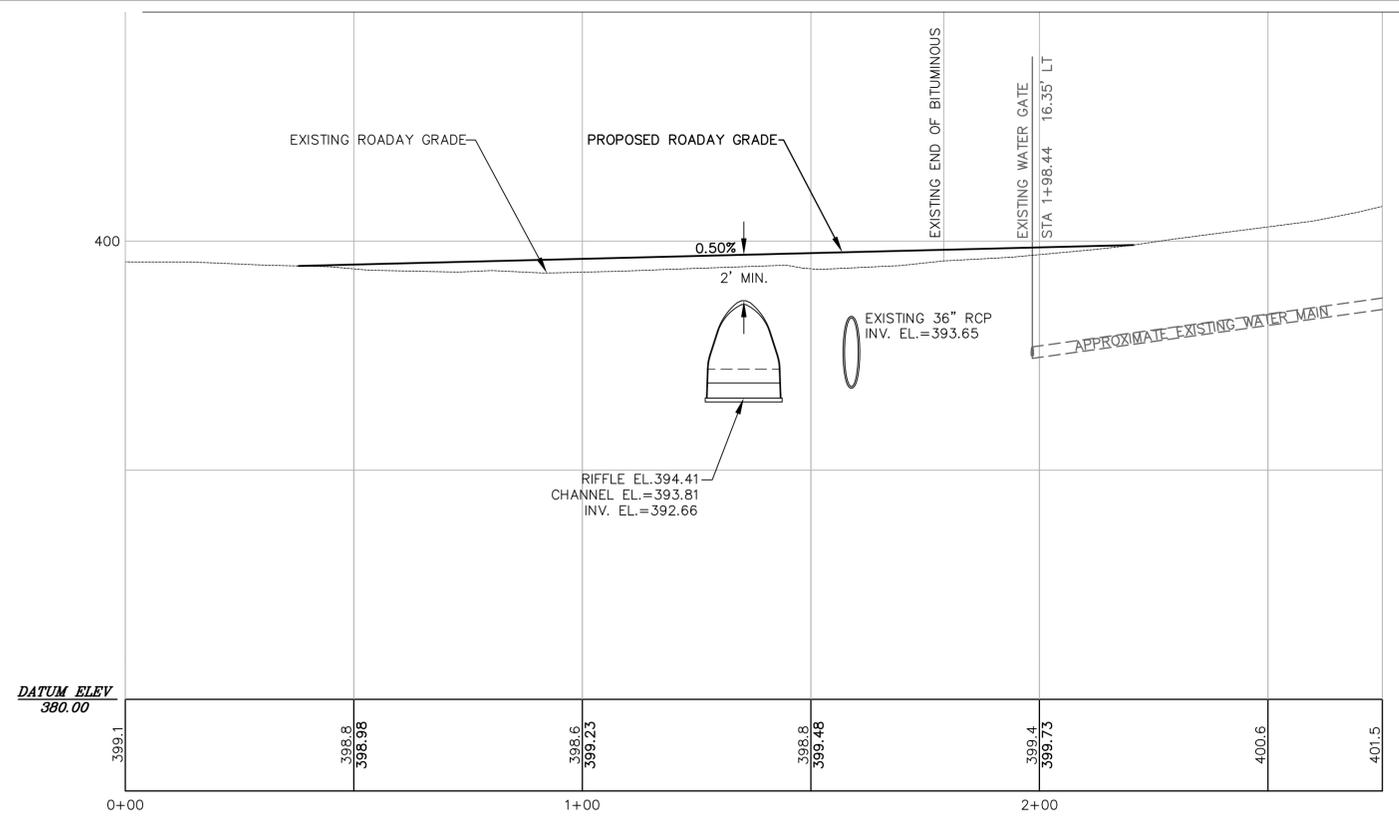
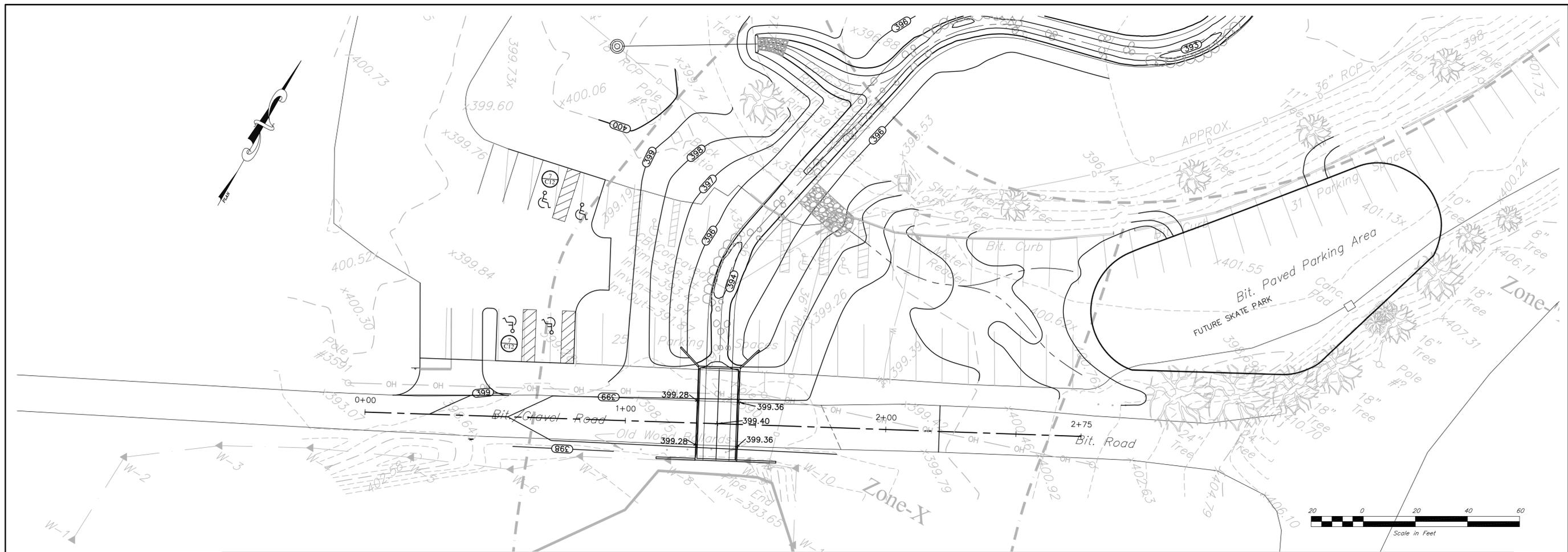
PROFESSIONAL ENGINEER  
 LICENSE # 0023575  
 DATE 2-18-11

Designed W.Young/R.Dyer  
 Drawn R.Dyer  
 Checked #  
 Approved #  
 Date 12/07/10  
 12/07/10  
 #

PLAN & PROFILE 01  
 Deep Brook Stream Restoration Project  
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 Maguire Group, Inc. Town of Newtown, Fairfield County, Connecticut



File No. 2010-12-16 Deep Brook.dwg  
 Drawing No. C08  
 1/18/11 2:45 PM  
 Sheet 10 of 19



NOTE: TO THE BEST OF MY KNOWLEDGE, JUDGEMENT AND BELIEF, THESE PLANS MEET ALL APPLICABLE NRCS STANDARDS.

PROFESSIONAL ENGINEER LICENSE # 0023575 DATE 2-18-11

Date 12/07/10  
 Designed W. Young/R. Dyer  
 Drawn R. Dyer  
 Checked #  
 Approved #

**PLAN & PROFILE 02**  
**Deep Brook Stream Restoration Project**  
 Page 11 of 19  
 Maguire Group, Inc. Town of Newtown, Fairfield County, Connecticut



File No. 2010-12-16 Deep Brook.dwg  
 Drawing No. C09  
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**NOTES:**

**GENERAL:**

1. THE EXISTING SITE INFORMATION WAS TAKEN FROM A PLAN PREPARED BY MAGUIRE GROUP, INC. TITLED "SURFACE TREATMENT PLAN", AT A SCALE OF 1"=20', DATED 4/15/10, REV. SHEET C 04".
2. THIS PLAN IS TO BE USED FOR THE SELECTION, LOCATION AND INSTALLATION OF PLANT MATERIALS ONLY AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
3. WRITTEN DIMENSIONS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION. DIG-SAFE SHALL BE CONTACTED AT LEAST 72 HOURS BEFORE EXCAVATION. DIG-SAFE CAN BE REACHED AT 1-888-344-7233.

**PLANTING:**

1. PROVIDE QUALITY PLANTS IN THE GENUS, SPECIES AND VARIETY INDICATED IN THE PLANT SCHEDULE, COMPLYING WITH APPLICABLE REQUIREMENTS OF "ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK."
2. PROVIDE PLANTS IN THE SIZE AND NUMBER INDICATED IN THE PLANT SCHEDULE. PLANTS SHALL BE GROWN IN NURSERIES LOCATED IN THE NORTHEASTERN U.S.
3. DELIVER FRESH DUG TREES WHICH ARE BALLED AND BURLAPPED, AND SHRUBS WHICH ARE BALLED AND BURLAPPED OR IN NURSERY CONTAINERS. ALL PLANTS ARE TO BE HEALTHY, VIGOROUS AND FREE OF INSECTS AND DISEASE.
4. PLANTS ARE TO BE INSTALLED AS SPECIFIED IN THE PLANTING DETAILS WITH ADEQUATE WATER PROVIDED DURING PLANTING TO ALLOW COMPACTION OF THE PLANTING SOIL TO PREVENT ANY AIR POCKETS OR SETTLEMENT AFTER PLANTING.
5. ALL PLANTING BEDS ARE TO BE COVERED WITH 2" SHREDDED PINE BARK MULCH.
6. ALL DECIDUOUS AND EVERGREEN TREES OVER 5' TALL ARE TO BE STAKED AS SHOWN IN THE PLANTING DETAILS. TREES ARE TO REMAIN PLUMB AND SHALL BE ADJUSTED AS NEEDED. ALL STAKES, GUY WIRES AND OTHER HARDWARE ARE TO BE MAINTAINED AND REMOVED WHEN NO LONGER NEEDED.
7. RECOMMENDED PLANTING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
8. PLANT SUBSTITUTIONS SHALL BE ALLOWED BASED ON AVAILABILITY ONLY WITH DIRECT APPROVAL FROM THE LANDSCAPE ARCHITECT.

**MAINTENANCE & WARRANTY:**

1. THE CONTRACTOR SHALL WARRANTY ALL PLANTS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH.
2. AFTER PLANTING IS COMPLETED, THE OWNER SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE WATER TO ENSURE HEALTHY AND VIGOROUS GROWTH.
3. ANY PLANT WHICH IS NOT HEALTHY AND GROWING VIGOROUSLY AFTER ONE YEAR SHALL BE REPLACED BY THE CONTRACTOR IN CONFORMANCE WITH THE PLANTING SPECIFICATIONS.
4. IF NECESSARY, THE CONTRACTOR SHALL OVERSEED ANY AREAS WHICH ARE NOT SUBSTANTIALLY COVERED BY ADEQUATE GRASS OR RIPARIAN BUFFER MIX GROWTH FOR ONE YEAR AFTER THE INITIAL SEED APPLICATION.

**LANDSCAPE NARRATIVE:**

**PROPOSED LANDSCAPE DESIGN**

THE PROPOSED LANDSCAPE FOR THIS PROJECT AIMS TO CREATE A RIPARIAN BUFFER ALONG THE NEW STREAM, IN ORDER TO PROMOTE FISH HABITAT, WILDLIFE, PROMOTE CLEAN WATER AND PROVIDE BANK STABILIZATION.

1. THE USE OF NATIVE AND NATURALIZED VEGETATION ALONG THE STREAM BANK WILL CREATE A BUFFER ZONE WHICH WILL PROVIDE FISH AND WILDLIFE HABITAT, THROUGH THE PROVISION OF SHADE, FOOD PRODUCTION AND SPECIES DIVERSITY.
2. THE PROPOSED TREES, UNDERSTORY, AND SEED MIXES ARE INTENDED TO RECREATE THE STRUCTURAL AND SPECIES DIVERSITY THAT NATURALLY OCCUR ALONG A RIPARIAN BUFFER. THIS IS CREATED BY INTRODUCING PLANTING POCKETS OF SPECIES THAT NATURALLY OCCUR IN THESE AREAS. IN ADDITION TO THE PLANTING OF LARGE TREES AND SHRUBS, A RIPARIAN SEED MIX HAS BEEN SELECTED TO BE INCORPORATED THROUGHOUT THE BUFFER, THUS INCREASING SPECIES DIVERSITY, SHELTER, AND FOOD SUPPLY. THE CURVILINEAR DESIGN WILL ALSO PROMOTE GREATER HABITAT AND SPECIES DIVERSITY BY PROVIDING A LONGER EDGE CONDITION BETWEEN THE VEGETATED BUFFER AND THE FIELD.

**CONSTRUCTION SEQUENCE**

AFTER THE STREAM IS ESTABLISHED, THE BUFFER AREAS ON EITHER SIDE OF THE STREAM SHALL BE STAKED OUT (VARYING FROM 20'-25' ON EITHER SIDE, REFER TO THE PLAN).

THE BUFFER AREA SHALL THEN BE EXCAVATED AND PREPARED AS FOLLOWS:

1. AFTER ROUGH GRADING IS COMPLETED, ALL DISTURBED AREAS WHICH ARE TO BE PLANTED WITH THE URI #2 SEED MIX OR THE RIPARIAN BUFFER MIX SHALL BE AT AN ELEVATION OF 6" BELOW THE PROPOSED FINISHED GRADE. IF COMPACTED, THE SUBGRADE IS TO BE SCARIFIED TO A DEPTH OF 12" WITH THE TEETH OF A BACKHOE OR A POWER RAKE TO RESULT IN AN UNCOMPACTED SUBSOIL. 6" OF GOOD QUALITY TOPSOIL IS THEN TO BE APPLIED AND RAKED TO FINISHED GRADE.
2. EXISTING SOIL WHICH IS EXCAVATED FROM THE STREAM BED AND STOCKPILED ON SITE MAY BE USED AS TOPSOIL, IF IT MEETS THE DESCRIPTIONS AS SET FORTH IN THE GEOTECHNICAL MEMORANDUM, DATED MAY 14, 2010, PREPARED BY THE MAGUIRE GROUP. OTHERWISE, TOPSOIL IS TO BE GOOD QUALITY LOAM, FERTILE AND FREE OF WEEDS, STICKS AND STONES OVER 3/4".
3. THE PLANTS SHALL THEN BE INSTALLED IN ACCORDANCE WITH THE PLANTING DETAILS.

**SEEDING**

ANY DISTURBED AREA IN THE VICINITY OF THE NEW SKATE PARK AND THE EXISTING PARKING LOT THAT ARE NOT IN THE FLOOD PLAIN SHALL BE SEEDDED WITH URI #2. THE AREA WITHIN THE FLOODPLAIN OF THE PROPOSED STREAM BED SHALL BE SEEDDED WITH THE RIPARIAN MIX WHERE SHOWN ON THE PLAN. THE AREAS LABELED AS "GRASS" SHALL RECEIVE MOWING ON A REGULAR BASIS. THE AREAS SEEDDED WITH THE RIPARIAN SEED MIX WILL NOT BE MOWED AS DELINEATED BY THE 'LIMIT OF MOWING' LINE.

AFTER THE PLANTS ARE INSTALLED THE SEEDING SHALL OCCUR AS FOLLOWS:

1. AFTER THE SEED BED IS PREPARED, SEED IS TO BE BROADCAST EVENLY OVER THE SURFACE AND WORKED INTO THE TOP 1" OF SOIL. AREAS LABELED AS 'GRASS' SHALL BE SEEDDED WITH APPROVED URI #2 (AVAILABLE FROM ALLEN'S SEED STORE, SOUTH COUNTY TRAIL, EXETER, RI; PHONE: 800-521-3898 OR 401-294-2722) OR APPROVED EQUAL. APPLY AT A RATE OF 4-5 LBS. PER 1000 SQUARE FEET.
2. URI #2 IMPROVED SEED MIX:

% BY WEIGHT;

- 40% CREEPING RED FESCUE
- 20% IMPROVED PERENNIAL RYEGRASS
- 20% IMPROVED KENTUCKY BLUEGRASS
- 20% KENTUCKY BLUEGRASS

RECOMMENDED SEEDING DATES ARE MARCH 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.

RATHER THAN SEEDING AS DESCRIBED ABOVE, THE CONTRACTOR MAY HYDROSEED USING AN APPROVED EQUIVALENT SEED MIX.

**3. RIPARIAN BUFFER MIX**

AREAS LABELED AS 'RIPARIAN SEED MIX' SHALL BE PLANTED WITH RIPARIAN BUFFER MIX - ERNMX-17B OR APPROVED EQUAL AS FOLLOWS:

% BY WEIGHT

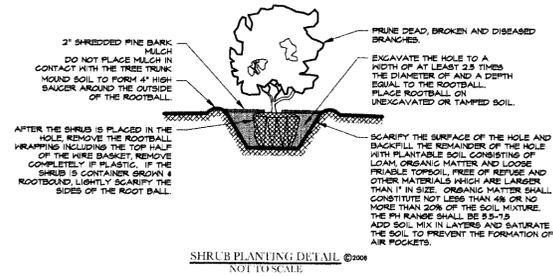
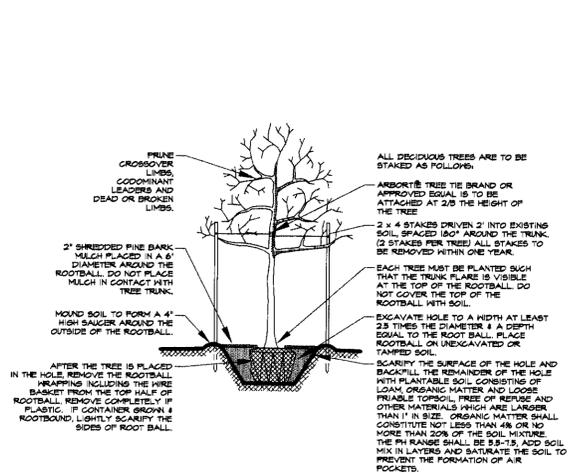
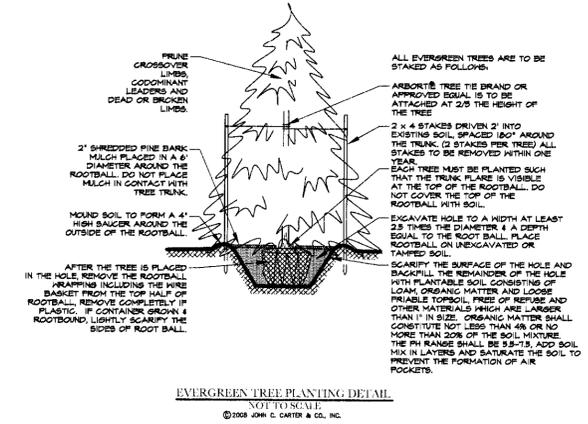
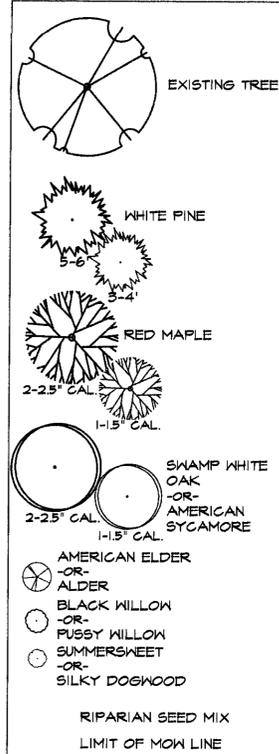
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|----------------------------------|-----------------------------|
| 10% CAREX VULPINOIDEA,           | FOX SEDGE                   |
| 8% ELYMUS RIPARIS                | RIVERBANK WILD RYE          |
| 8% ELYMUS VIRGINICUS             | VIRGINIA WILD RYE           |
| 8% PANICUM CLANDESTINUM          | DEERTONGUE 'TIOGA'          |
| 8% SCHIZACHYRIUM SCOPARIUM       | LITTLE BLUESTEM             |
| 7% SORGHASTRUM N. 'PRAIRIE VIEW' | INDIANGRASS 'PRAIRIE GRASS' |
| 6% CHAMAECRISTA FASCICULA        | PATRIDGE PEA                |
| 5% ANDROPOGON GERARDII           | BIG BLUESTEM 'NIAGARA'      |
| 5% VERBENA HASTATA               | BLUE VERVAIN                |
| 4% CORNUS AMOMUM                 | SILKY DOGWOOD               |
| 4% PANICUM VIRGATUM 'SHELTER'    | SWITCHGRASS 'SHELTER'       |
| 2% ASCLEPIAS SYRIACA             | COMMON MILKWEED             |
| 2% EUPATORIUM FISTULOSUM         | JOE PYE WEED                |
| 2% EUPATORIUM MACULATUM          | SPOTTED JOE PYE WEED        |
| 2% EUPATORIUM PERFOLIATUM        | BONESET                     |
| 2% EUTHAMIA GRAMINIFOLIA         | GRASS LEAVED GOLDENROD      |
| 2% HELIOPSIS HELIANTHOIDES       | OX EYE SUNFLOWER            |
| 2% JUNCUS EFFUSUS                | SOFT RUSH                   |
| 2% MONARDA FISTULOSA             | WILD BERGAMOT               |
| 2% PENSTEMON DIGITALIS           | TALL WHITE BEARDE Tongue    |
| 2% RHUS TYPHINA                  | STAGHORN SUMAC              |
| 2% RUDBEKIA HIRTA                | BLACK EYED SUSAN            |
| 2% VIBURNUM DENTATUM             | ARROW WOOD                  |
| 1% BAPTISIA AUSTRALIS            | BLUE FALSE INDIGO           |
| 1% HELENIUM AUTUMNALE            | COMMON SNEEZEWEED           |
| 1% VERNONIA GIGANTEA             | GIANT IRONWEED              |

MIX IS TO BE APPLIED AT A RATE OF 15 LBS. PER ACRE OR 1/3 - 1/2 LB. PER 1000 SQ. FT. MIX IS AVAILABLE AT ERNST CONSERVATION SEEDS, 9006 MERCER PIKE, MEADVILLE, PA (800) 873-3321.

**PLANT SCHEDULE**

BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	NOTES
ACER RUBRUM	RED MAPLE	6-8"	6	SIZE IN HEIGHT, MULTISTEM
ACER RUBRUM	RED MAPLE	2-2.5"	8	SIZE IN CALIFER, B & B
ALNUS SERRULATA	SPECKLED ALDER	18-24"	23	
CLETHRA ALNIFOLIA	SUMMERSHEET	1 GAL	75	
CORNUS AMOMUM	SILKY DOGWOOD	1 GAL	49	
PINUS STROBUS	WHITE PINE	3-4"	12	SIZE IN HEIGHT, B & B
PINUS STROBUS	WHITE PINE	5-6"	8	SIZE IN HEIGHT, B & B
PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	1-1.5"	4	SIZE IN CALIFER, B & B
PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2-2.5"	3	SIZE IN CALIFER, B & B
QUERCUS BICOLOR	SWAMP WHITE OAK	1-1.5"	2	SIZE IN CALIFER, B & B
QUERCUS BICOLOR	SWAMP WHITE OAK	2-2.5"	4	SIZE IN CALIFER, B & B
SALIX DISCOLOR	PUSSY WILLOW	1 GAL	32	
SALIX NIGRA	BLACK WILLOW	1 GAL	46	
SAMBUCUS CANADENSIS	AMERICAN ELDER	18-24"	18	

**LEGEND**



John Carter  
7/27/2010

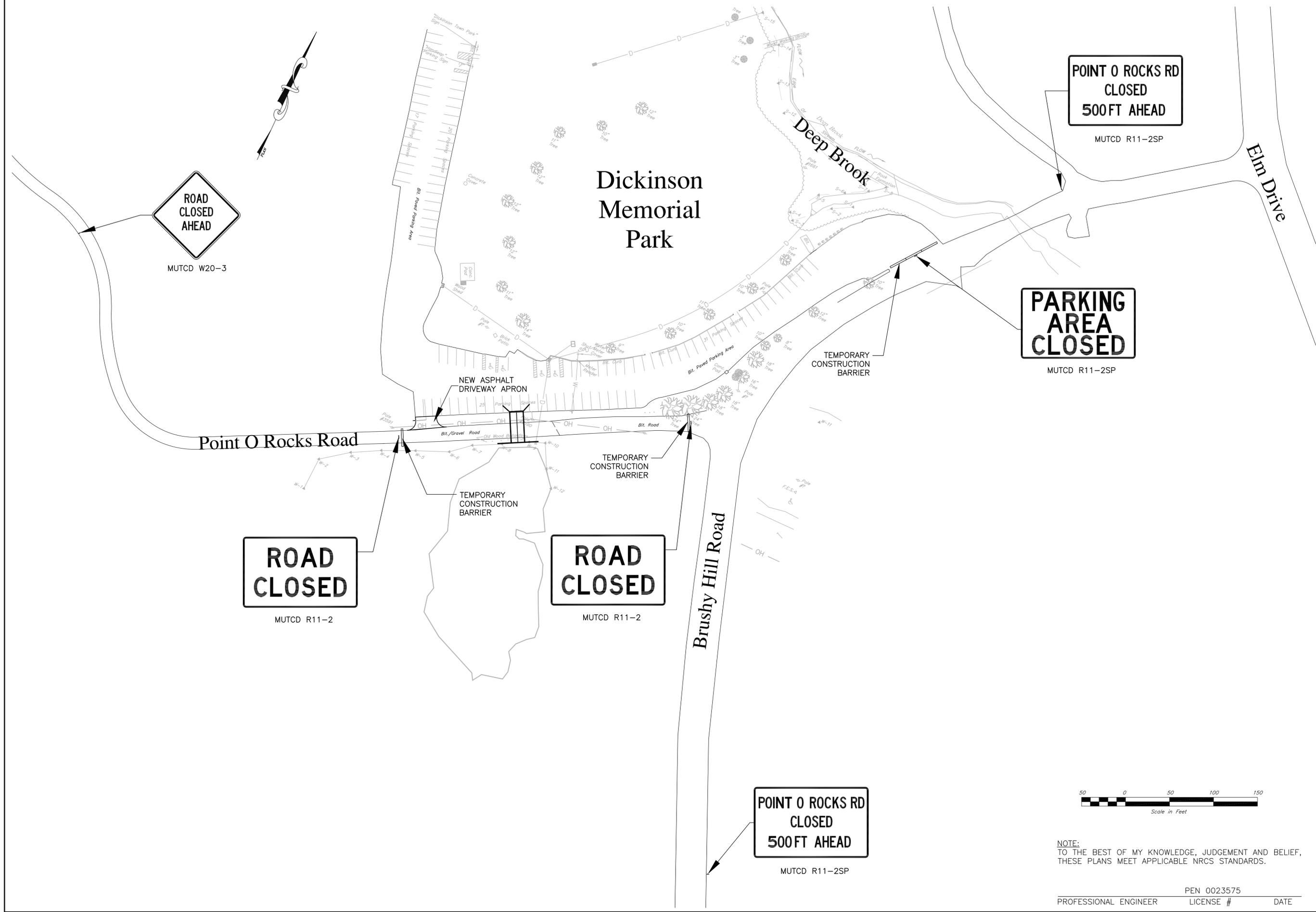
**JOHN C. CARTER & CO., INC.**  
LANDSCAPE ARCHITECTS  
960 BOSTON NECK ROAD  
NARRAGANSETT, RHODE ISLAND  
4011 783-3500

Date 7/14/10  
Designed J.Carter  
Drawn K.Kaczmarek  
Checked J.Carter  
Approved J.Carter

**PLANTING NOTES & DETAILS**  
**Deep Brook Stream Restoration Project**  
Page 13 of 19  
Town of Newtown, Fairfield County, Connecticut

File No. JCC LANDSCAPE PLAN 7-7-10.dwg  
Drawing No. C09  
7/27/10 7:44 AM  
Sheet 13 of 19

# Dickinson Memorial Park



**ROAD CLOSED AHEAD**  
MUTCD W20-3

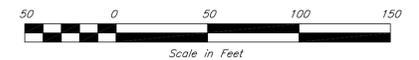
**ROAD CLOSED**  
MUTCD R11-2

**ROAD CLOSED**  
MUTCD R11-2

**PARKING AREA CLOSED**  
MUTCD R11-2SP

**POINT O ROCKS RD CLOSED 500FT AHEAD**  
MUTCD R11-2SP

**POINT O ROCKS RD CLOSED 500FT AHEAD**  
MUTCD R11-2SP



NOTE:  
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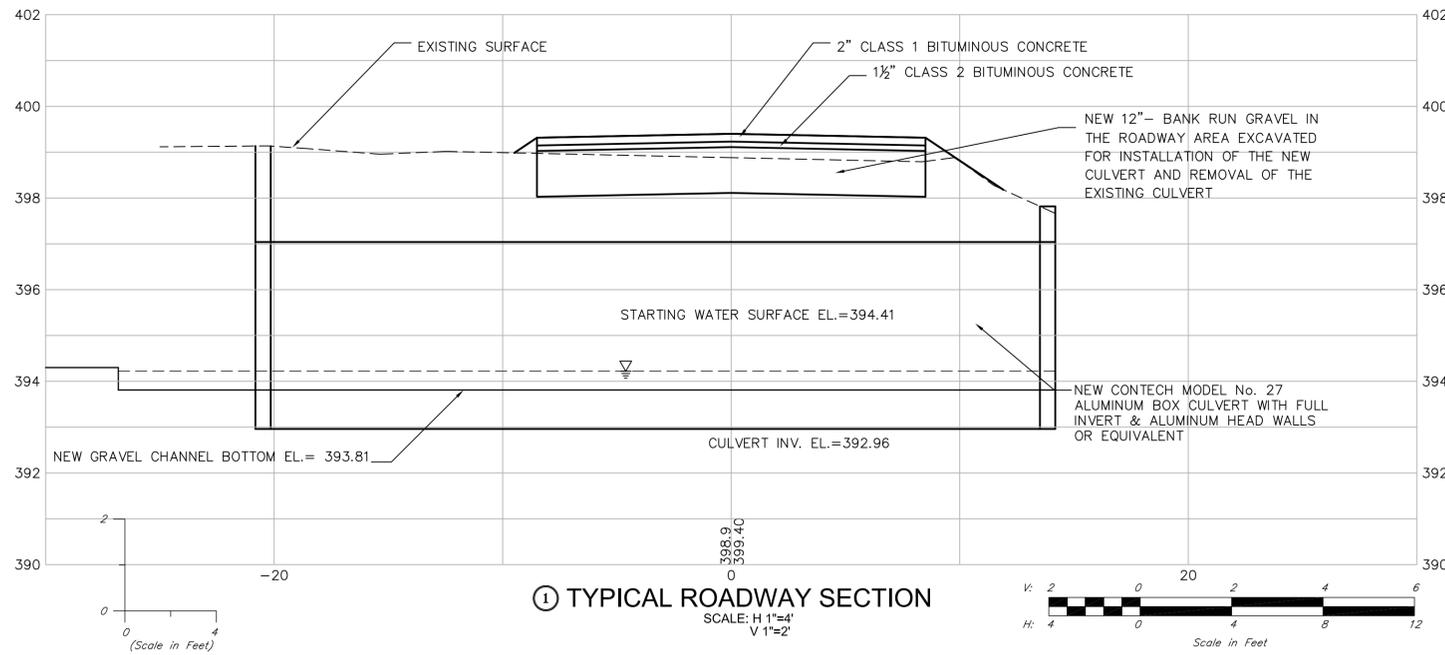
PROFESSIONAL ENGINEER      PEN 0023575      DATE  
LICENSE #

Date	12/07/10
Designed	W.Young/R.Dyer
Drawn	R.Dyer
Checked	#
Approved	#

**TRAFFIC MANAGEMENT PLAN PHASE I**  
Deep Brook Stream Restoration Project  
Page 14 of 19  
Maguire Group, Inc.      Town of Newtown, Fairfield County, Connecticut



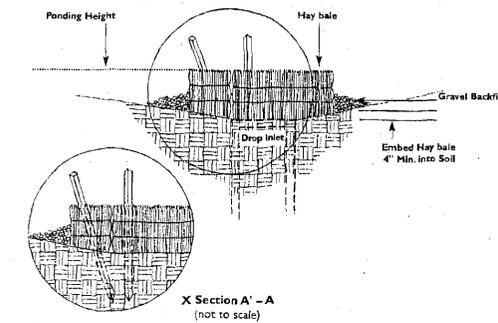
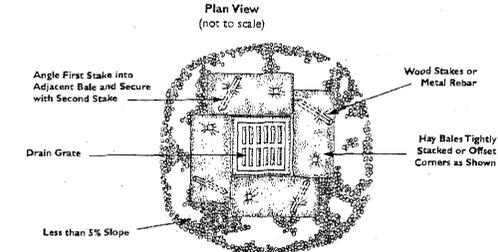
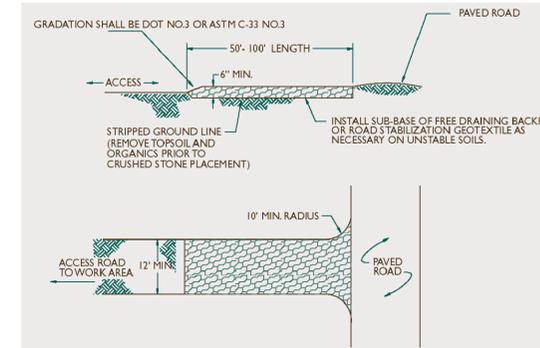
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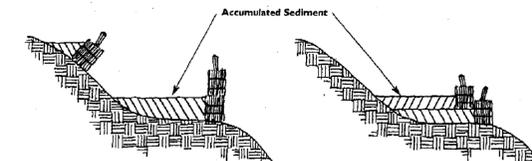
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2"		
1"	100	
3/4"	90-100	
1/2"	70-100	100
3/8"	60-82	90-100
1/4"		
No. 4	40-65	55-80
No. 8	28-50	40-64
No. 30	10-32	16-36
No. 50	6-26	8-26
No. 200	3-8	3-8
ASPHALT CONTENT %	5.0-6.5	5.0-8.0

GRADATION OF GRAVEL ROADWAY BASE	
SIEVE SIZE	CLASS B - BANK RUN GRAVEL PERCENT PASSING
5"	100
3 1/2"	90-100
1 1/2"	55-95
3/4"	
1/4"	25-60
No. 10	15-45
No. 40	5-25
No. 100	0-10
No. 200	0-5

**POINT O ROCKS ROAD - ROADWAY GRADATIONS**



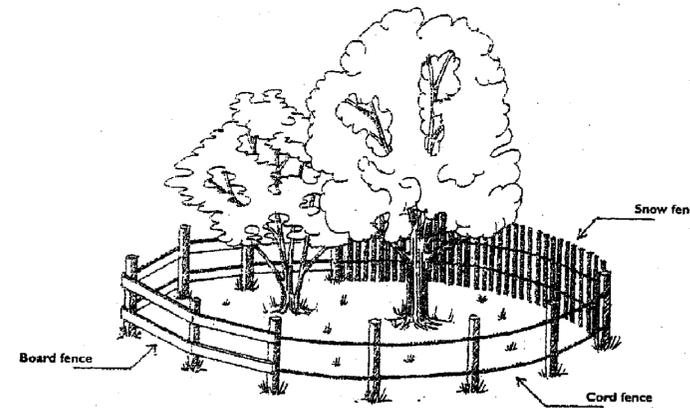
**5 HAY BALE BARRIER AT CATCH BASIN IN HOLLOW (N.T.S.)**



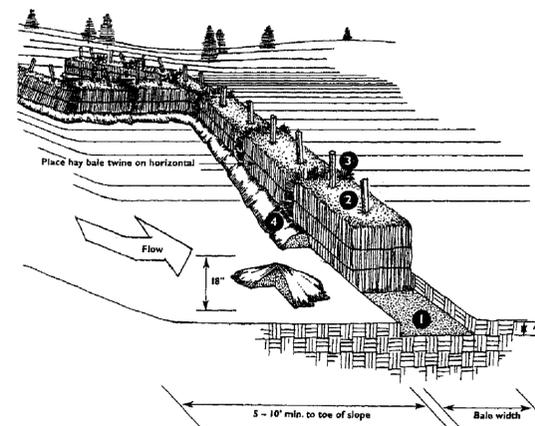
**9 ADDING BACKUP HAY BALE BARRIER (N.T.S.)**

PROBLEM	CAUSE	CORRECTION
UNDERCUTTING	INADEQUATE TRENCHING	RESET BALES PROPERLY OR FOR SMALL FAILURES BACKFILL DOWNSLOPE RILLS, FILL & COMPACT UNDER FAILING BALE, FILL JOINTS WITH HAY, BACKFILL UP SLOPE SIDE OF BALE WITH 4" WEDGE OF WOOD CHIPS OR COMPACTED SOIL.
	SPACES BETWEEN BALES	
RILLING AROUND END	BARRIER NOT ON THE CONTOUR, RUNOFF FLOWING ALONG UPSLOPE SIDE OF BARRIER	SAME AS ABOVE, AND INSTALL PERPENDICULAR WINGS TO BREAK FLOW LINE SUCH THAT BOTTOM END OF WING IS HIGHER THAN TOP OF BARRIER.
	NOT EXTENDING END OF HAY BALE BARRIER FAR ENOUGH UPSLOPE	EXTEND HAY BALE BARRIER FAR ENOUGH UPSLOPE SO THAT BOTTOM OF LAST BALE IS HIGHER THAN TOP OF LOWEST BALE.
HAY BALES MOVED	WATERSHED TOO LARGE	CHANGE TO STONE BARRIER.
	FLOWS TOO CONCENTRATED	CHANGE TO GEOTEXTILE SILT FENCE OR STONE BARRIER.
	INADEQUATELY STAKED	FILL AND COMPACT ANY RILLS AT HAY BALE BARRIER, REINSTALL HAY, FILL JOINTS, BACKFILL AND COMPACT, INCREASE STAKING DEPTHS.

**HAY BALE BARRIER TROUBLE SHOOTING GUIDE**



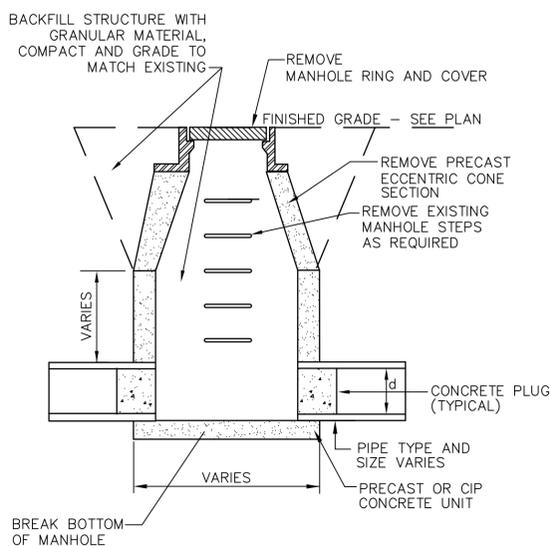
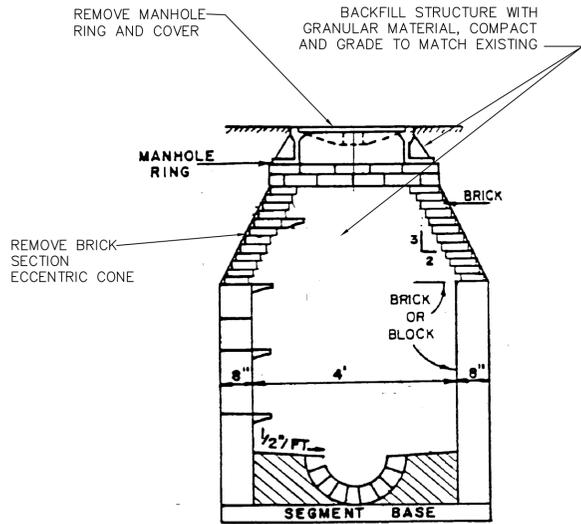
**4 MECHANICAL TREE PROTECTION (N.T.S.)**



**INSTALLATION NOTES:**

- EXCAVATE TRENCH 4" DEEP AND PLACE FILL UP-SLOPE OF TRENCH.
- PLACE HAYBALE AND STAKE FIRST STAKE AT ANGLE TOWARDS FIRST BALE. STAKES ARE 18" MIN. INTO GROUND.
- WEDGE LOOSE HAY BETWEEN BALES.
- BACKFILL & COMPACT EXCAVATED FILL ALONG HAY BALES.
- PLACE HAY BALES ON CONTOURS AND WING LAST HAY BALES UPSLOPE SO THAT TOP OF LAST SEVERAL HAY BALES ARE HIGHER THAN THE LINE OF HAYBALES

**8 PLACEMENT & CONSTRUCTION OF A HAY BALE BARRIER (N.T.S.)**



**6 ABANDONMENT OF DRAINAGE STRUCTURE (N.T.S.)**

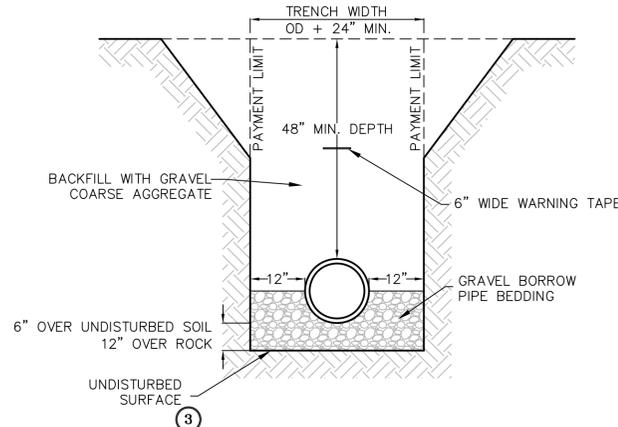


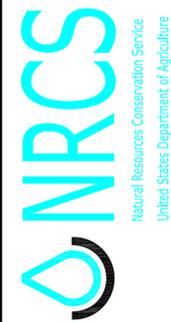
FIGURE 3B-19 INTERNATIONAL SYMBOL OF ACCESSIBILITY PARKING SPACE MARKING WITH BLUE BACKGROUND AND WHITE BORDER OPTIONS



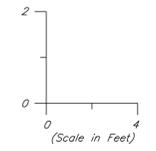
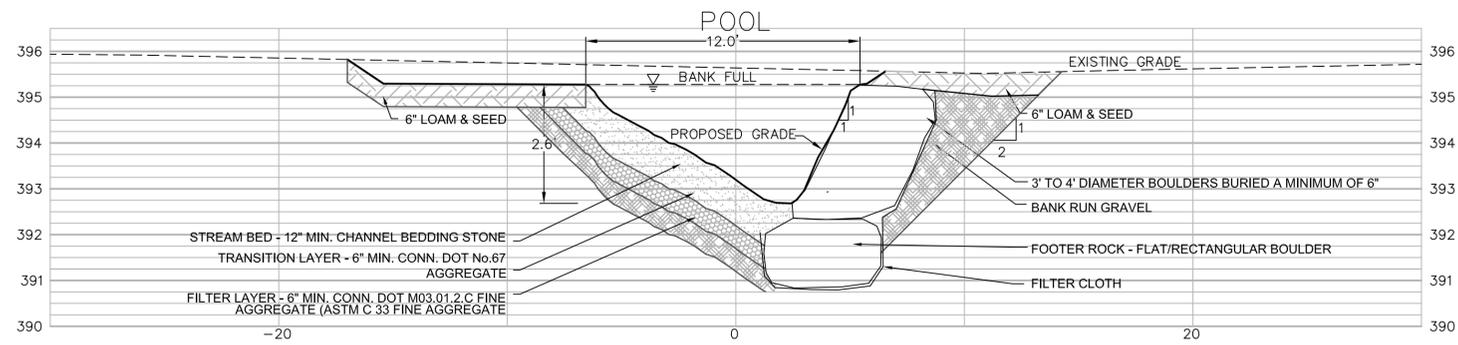
**7 HANDICAPPED SYMBOL (N.T.S.)**

Date 12/07/10  
 Designed W. Young/R. Dyer  
 Drawn R. Dyer  
 Checked #  
 Approved #

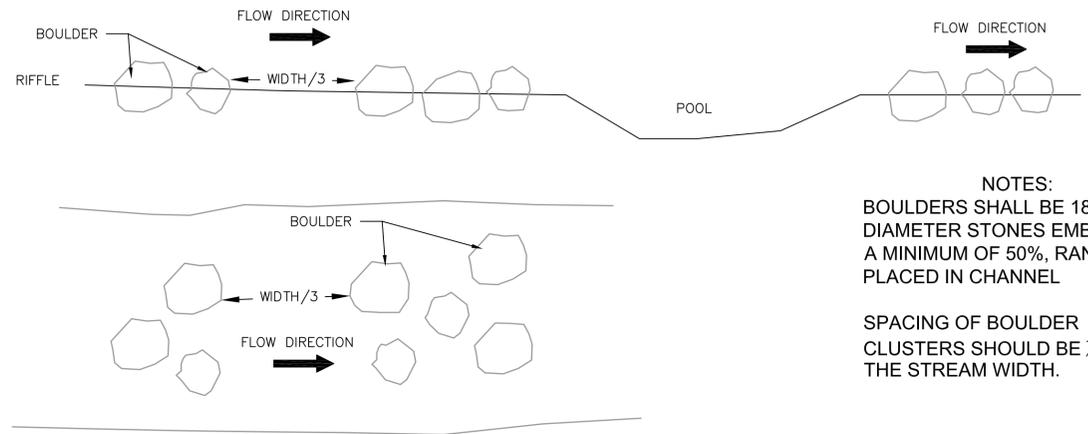
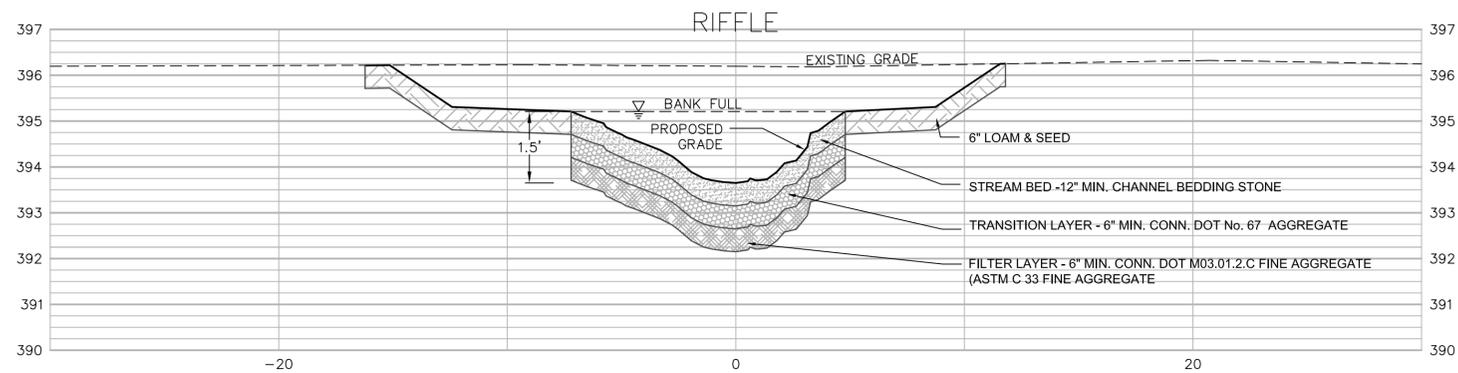
GENERAL DETAILS  
 Deep Brook Stream Restoration Project  
 Page 15 of 19  
 Town of Newtown, Fairfield County, Connecticut  
 Maguire Group, Inc.



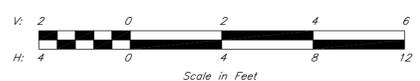
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 Sheet 15 of 19



GRADATION OF CHANNEL MATERIALS			
SIEVE SIZE	CHANNEL BEDDING STONE PERCENT PASSING	TRANSITION LAYER CONN DOT No. 67 AGGREGATE PERCENT PASSING	FILTER LAYER - CONN DOT M03.01.2.C FINE AGGREGATE PERCENT PASSING
7"	100		
5"	50		
4"	15		
2"	0		
1"		100	
3/4"		90-100	
1/2"			100
3/8"		20-55	95-100
No. 4		0-10	80-100
No. 8		0-5	50-85
No. 16			25-60
No. 30			10-30
No. 50			2-10
No. 100			

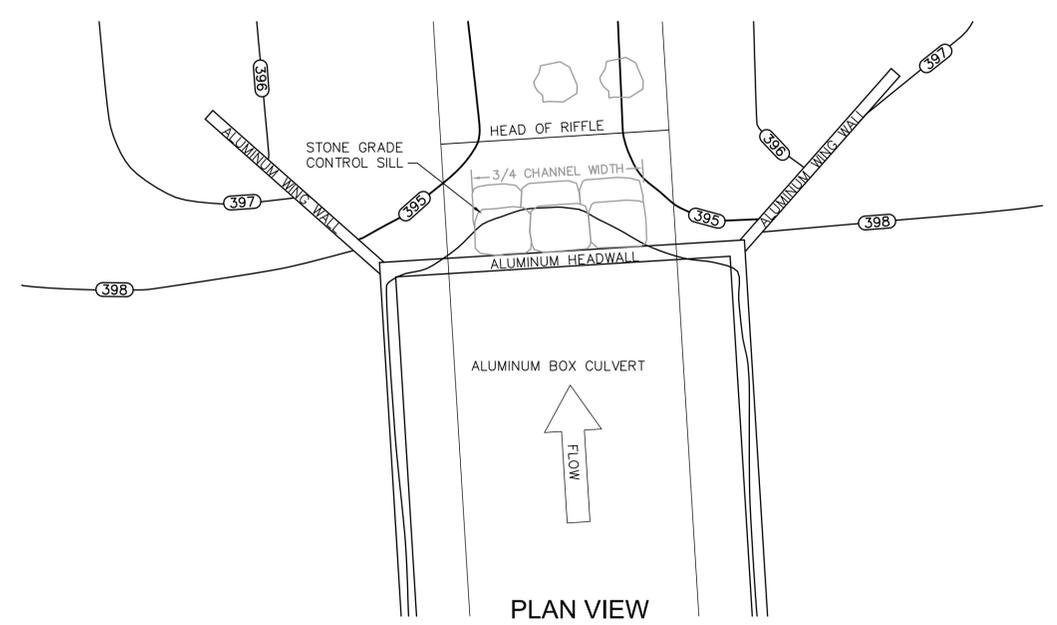


NOTES:  
BOULDERS SHALL BE 18" - 24" DIAMETER STONES EMBEDDED A MINIMUM OF 50%, RANDOMLY PLACED IN CHANNEL  
SPACING OF BOULDER CLUSTERS SHOULD BE 1/3 OF THE STREAM WIDTH.

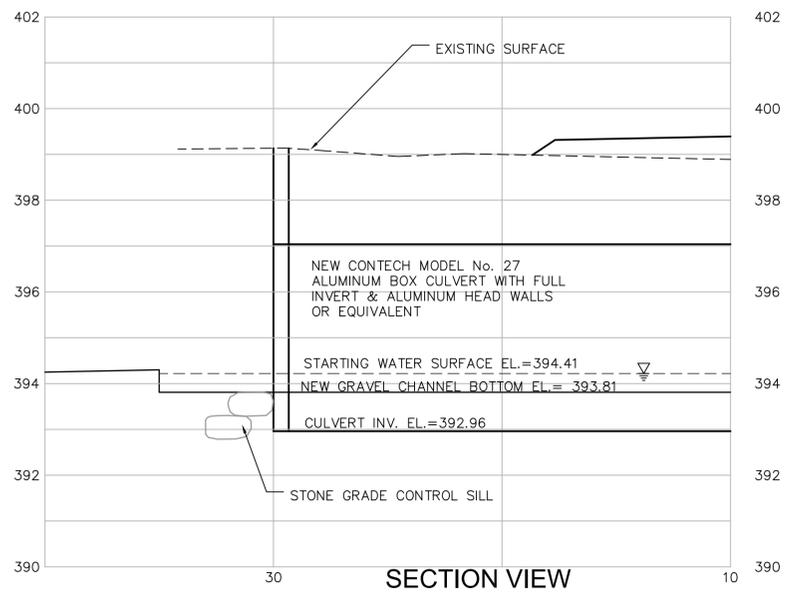


TYPICAL CHANNEL SECTIONS  
SCALE: H 1"=4'  
V 1"=2'

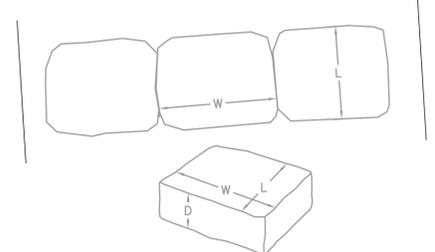
TYPICAL BOULDER CLUSTERS  
SCALE: NTS



GRADE CONTROL SILL  
SCALE: H 1"=4'  
V 1"=2'



- NOTES:
- EXCAVATE A TRENCH 3/4 THE WIDTH OF THE CHANNEL.
  - USE LARGE FLAT RECTANGULAR BOULDERS. (APPROX. 2FT(L) x 2.5FT(W) x 6IN(D))
  - BOULDERS ARE TO BE PLACED IN THE TRENCH SO THAT THEY ARE TOUCHING.
  - THE DEPTH OF THE TRENCH SHALL BE 2 TIMES THE THICKNESS OF A BOULDER.
  - THE TOP STONE SHALL OVERLAP THE BOTTOM ROW OF STONE BY 1/2 THE LENGTH OF THE STONE.



TYPICAL SILL STONES  
SCALE: NTS

NOTE:  
TO THE BEST OF HIS KNOWLEDGE, JUDGEMENT AND BELIEF, THESE PLANS MEET ALL APPLICABLE NRCS STANDARDS.

78  
PROFESSIONAL ENGINEER  
STATE OF CONNECTICUT  
NO. 23575  
LICENSE #

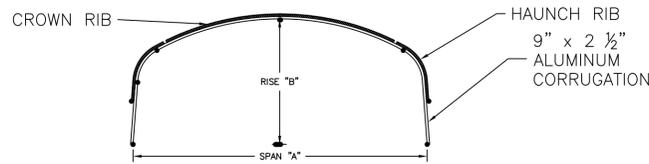
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LICENSE #  
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DATE

Date 12/07/10  
Designed W.Young/R.Dyer  
Drawn R.Dyer  
Checked #  
Approved #

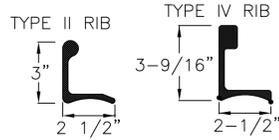
TYPICAL CROSS SECTIONS  
Deep Brook Stream Restoration Project  
Page 16 of 19  
Town of Newtown, Fairfield County, Connecticut  
Maguire Group, Inc.



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Sheet 16 of 19



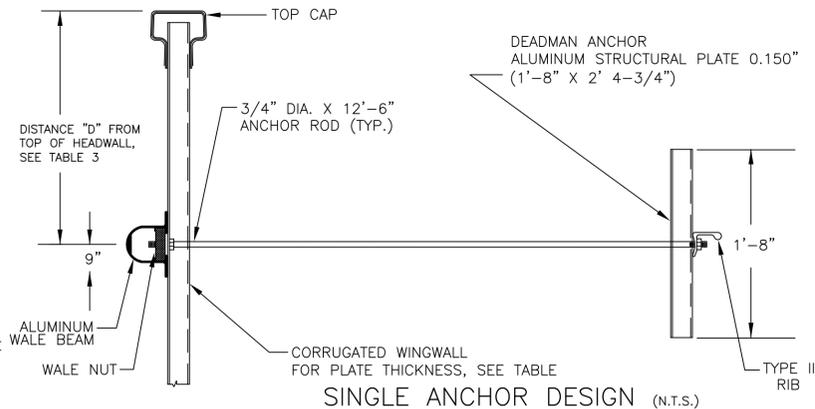
BOX CULVERT SHELL CROSS SECTION (N.T.S.)  
(REFER TO TABLE FOR SPECIFIC DIMENSIONAL DATA)



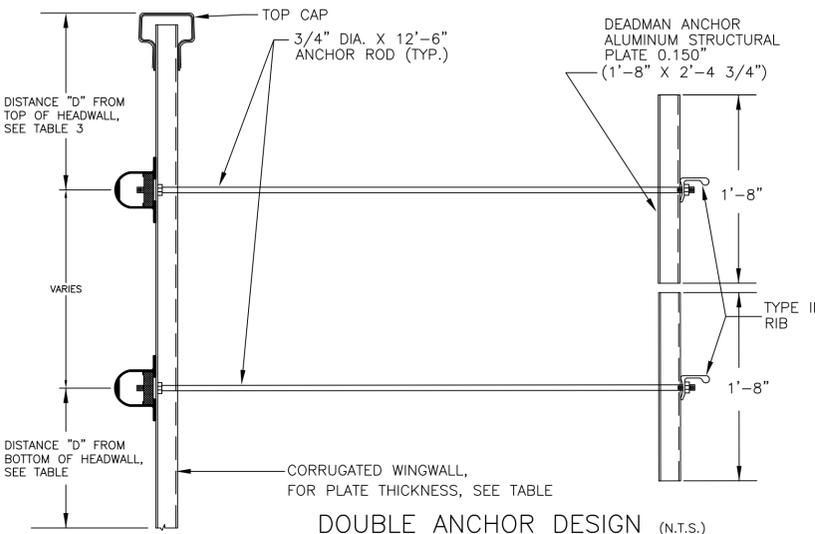
RIB GEOMETRY (N.T.S.)

NOTES:

- ALL RIBS ARE TYPE IV, EXCEPT HAUNCH RIBS FOR STRUCTURES 1-39 WHICH ARE TYPE II.
- IN THE TABLE 1, THE HG\CG DESIGNATION INDICATES THICKNESS OR GAGE OF HAUNCH (HG) AND CROWN (CG) PLATES AS FOLLOWS:  
2=.125", 3=.150, 4=.175", 5=.200", 6=.225", 7=.250".  
EXAMPLE: 3/6 = .150" HAUNCH AND .225" CROWN PLATE THICKNESS.  
THE HRS\CRS DESIGNATION INDICATES THE RIB SPACING ON THE HAUNCH (HRS) AND CROWN (CRS) PLATES.  
EXAMPLE: 27/9 = 27" HAUNCH AND 9" O.C. CROWN.
- ALLOWABLE COVER (MINIMUM AND MAXIMUM) IS MEASURED FROM THE OUTSIDE VALLEY OF CROWN PLATE TO BOTTOM OF FLEXIBLE PAVEMENT OR FROM THE OUTSIDE VALLEY OF CROWN PLATE TO TOP OF RIGID PAVEMENT. MINIMUM COVER IS MEASURED AT THE LOWEST FILL AREA SUBJECT TO POSSIBLE WHEEL LOADS (TYPICALLY AT THE ROADWAY SHOULDER). THE ROADWAY SURFACE MUST BE MAINTAINED TO ENSURE MINIMUM COVER TO PREVENT HIGH-IMPACT LOADS BEING IMPARTED TO THE STRUCTURE. MAXIMUM COVER IS MEASURED AT THE HIGHEST FILL AND/OR PAVEMENT ELEVATION.
- ALUMINUM BOX CULVERTS, AS SHOWN ON THIS DRAWING, ARE DESIGNED TO MEET OR EXCEED THE AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES SECTION 12.8 FOR STANDARD HIGHWAY HS-20 WHEEL LOADS.
- THESE PRODUCTS ARE COVERED BY U.S. PATENT 4,141,666.
- STRUCTURES WITH FULL INVERTS AND FOOTING PADS ARE LIMITED TO 4 FEET OR LESS MAXIMUM COVER. SPECIAL FULL INVERT AND FOOTING PAD DESIGNS OR SLOTTED CONCRETE FOOTING CAN ACCOMMODATE MAXIMUM COVERS TO THE LIMITS SHOWN IN TABLE.

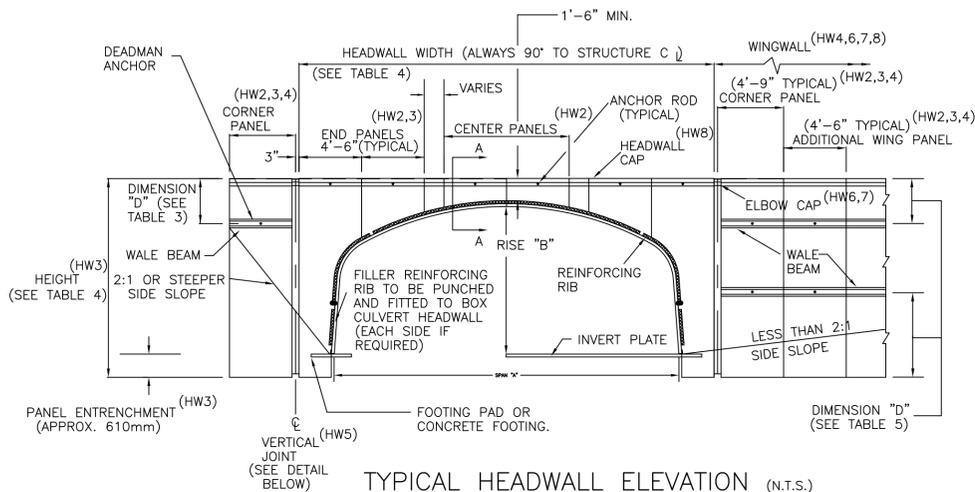


SINGLE ANCHOR DESIGN (N.T.S.)



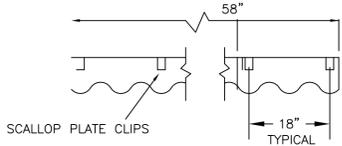
DOUBLE ANCHOR DESIGN (N.T.S.)

PLATE AND RIB COMBINATIONS WITH ALLOWABLE HEIGHT OF COVER - TABLE 1																				
HS-25 LOADING																				
CAT-EGORY NUMBER	(3) STRUCT. NUMBER	SPAN "A" (FT-IN)	RISE "B" (FT-IN)	AREA (SQ. FT)	F		G		H		I		J							
					HG\CG (GA.)	HRS\CRS (GA.)	MIN (FT.)	MAX (FT.)	HG\CG (GA.)	HRS\CRS (GA.)	MIN (FT.)	MAX (FT.)	HG\CG (GA.)	HRS\CRS (GA.)	MIN (FT.)	MAX (FT.)				
4B	27	14-8	4-1	51.5	3/6	27/18	3.0	5.0	3/4	27/9	2.0	5.0	4/3	18/9	1.7	5.0	5/7	27/9	1.4	5.0

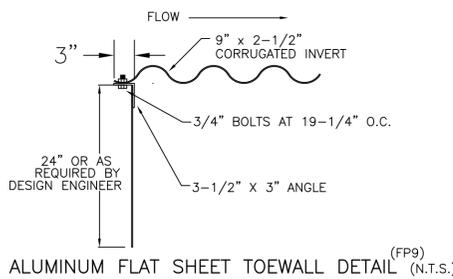


TYPICAL HEADWALL ELEVATION (N.T.S.)

FULL INVERT - TABLE 2 (FP3)				
CATE. NUMBER	STRUCT. NUMBER	(FP1,6) WIDTH "F" (N)	SUPPLEMENTAL PLATES (FP5)	
			HS-20 LOADING (FP1) GAGE (IN.)	HS-25 LOADING (FP1) WIDTH (N)
4B	27	21	0.100	2



ALUMINUM SCALLOP PLATE (FP10) (FULL INVERT ONLY) (N.T.S.)

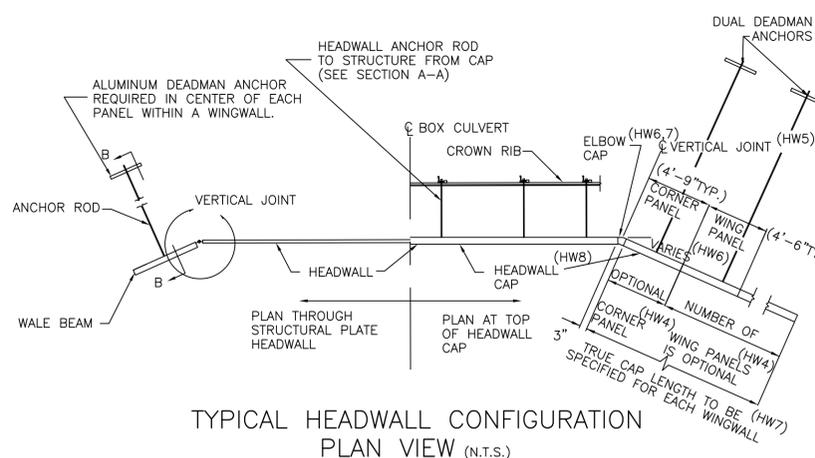


ALUMINUM FLAT SHEET TOEWALL DETAIL (FP9) (N.T.S.)

Wall Height	WING WALL THICKNESS - TABLE 3			
	Single Anchor Design		Dual Anchor Design	
	D	Wingwall Panel Thickness	D	Wingwall Panel Thickness
6'-0" to 8'-7"	36"	.125"	30"	.125"
9'-5" to 11'-10"	42"	.150"	36"	.125"
12'-7" to 14'-3"	N/A	N/A	42"	.150"

HEADWALL (HW) NOTES:

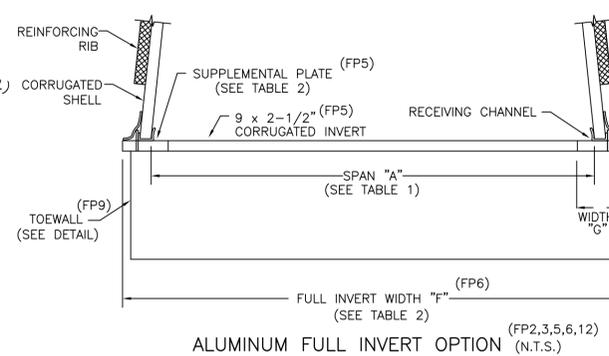
- ALL PANELS ARE FABRICATED FROM ALUMINUM STRUCTURAL PLATE AS SPECIFIED IN ASTM B746.
- CENTER PANELS ABOVE THE BOX CULVERT CROWN RADIUS ARE 0.100" THICKNESS FOR STRUCTURES 1-39 AND 0.125" FOR STRUCTURES 40-87. ALL OTHER PANELS ARE 0.150" THICKNESS. SEE TABLE 5 FOR DETAILS.
- HEIGHT OF HEADWALL LISTED IN TABLE 4 PERMITS APPROXIMATELY 24" ENTRENCHMENT DEPTH BELOW THE INVERT. ALL HEADWALL PANELS MUST BE TRENCHED INTO EXISTING GROUND. IF STABLE ROCK FOUNDATION IS ENCOUNTERED, THE PANELS MAY BE TRIMMED AND PLACED INTO A CEMENT-GROUTED KEYWAY.
- NUMBER OF CORNER PANELS AND ADDITION WING PANELS IS OPTIONAL.
- A VERTICAL JOINT IS USED ONLY WHEN A WINGWALL IS AT AN ANGLE WITH RESPECT TO THE HEADWALL. HEADWALL CAP MUST BE FIELD-DRILLED AND BOLTED TO THE HEADWALL PANELS. SEE ASSEMBLY DRAWINGS FOR MORE DETAILS.
- STANDARD HEADWALLS SHOWN ARE FOR VERTICAL AND SQUARE ORIENTATION ONLY. ANY DESIGN, OTHER THAN VERTICAL AND SQUARE ORIENTATION, MUST BE REVIEWED BY THE DESIGN ENGINEER.
- IF SIDE SLOPE IS FLATTER THAN 2:1, A DOUBLE TIEBACK ASSEMBLY IS REQUIRED FOR EACH DEADMAN.
- STANDARD HEADWALLS ARE SHOWN. WHEEL LOADS MUST BE KEPT A MINIMUM OF 36" FROM THE WALL FACE.
- CENTER OF DEADMAN ANCHOR IS PLACED 9" BELOW CENTER OF WALE BEAM.
- THE CROWN RIB USED TO CONNECT THE HEADWALL MUST BE ORIENTED SO THAT THE FLAT SURFACE IS FACING AWAY FROM THE HEADWALL. THIS MAXIMIZES THE LOAD CARRYING CAPABILITY OF THE CONNECTION SHOWN IN SECTION A-A.



TYPICAL HEADWALL CONFIGURATION PLAN VIEW (N.T.S.)

ALUMINUM HEADWALL - TABLE 4

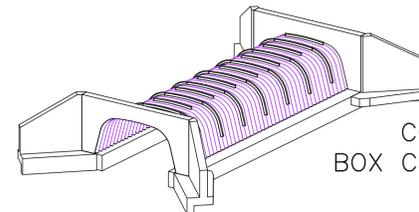
CAT NUMBER	STRUCT. NUMBER	SPAN "A" (FT-IN)	RISE "B" (FT-IN)	BASEWALL			WINGWALL		
				WIDTH (FT-IN)	(3) HEIGHT (FT-IN)	NO. OF ANCHOR RODS TO STRUCTURE FROM CAP (EA.)	WEIGHT (LB./EA.)	CORNER PANEL (LB./EA.)	WING PANEL (LB./EA.)
4B	27	14-8	4-1	19-4	7-10	4	430	196	159



DETAIL OF INVERTS AND FOOTINGS FOR ALUMINUM BOX CULVERTS (N.T.S.)

FULL INVERT & FOOTING PADS (FP) NOTES:

- N = 9.625 INCHES.
- MINIMUM ALLOWABLE SOIL-BEARING PRESSURE IS 4,000 LB./SQ. FT. THIS APPLIES SPECIFICALLY FOR WIDTH "G" BELOW THE RECEIVING CHANNEL.
- STRUCTURES WITH FULL INVERTS AND FOOTING PADS ARE LIMITED TO 4 FT. OR LESS MAXIMUM COVER. SPECIAL FULL INVERT AND FOOTING PAD DESIGNS OR SLOTTED CONCRETE FOOTINGS CAN ACCOMMODATE MAXIMUM COVERS SHOWN IN TABLE 1.
- FULL INVERT PLATES ARE 0.100 INCHES THICK. WHEN REACTIONS TO THE INVERT REQUIRE ADDITIONAL THICKNESS, SUPPLEMENTAL PLATES OF THE THICKNESS AND WIDTH LISTED IN TABLE 2 ARE FURNISHED TO BOLT BETWEEN THE FULL INVERT AND THE RECEIVING CHANNEL.
- INVERT WIDTHS, 20N AND GREATER, ARE TWO-PIECES.
- WHEN THE THICKNESS LISTED IS GREATER THAN 0.250 INCHES, THE FOOTING PADS WILL BE TWO OR MORE PIECES EQUALING THE COMPOSITE THICKNESS REQUIRED. SEE TABLE 3.
- FLAT SHEET TOEWALLS ARE PROVIDED FOR BOTH END OF STRUCTURES USING A FULL CORRUGATED ALUMINUM INVERT TO HELP PREVENT WATER FROM UNDERMINING THE STRUCTURE.
- AN ALUMINUM SCALLOP PLATE DOES NOT MAKE A JOINT TIGHT ENOUGH TO PREVENT INFILTRATION OF FINE SILTS AND SANDS. IF THE BACKFILL INCLUDES SUCH MATERIAL, SOME ADDITIONAL STEPS SHOULD BE TAKEN AFTER ASSEMBLY, BUT PRIOR TO BACKFILLING. GEOTEXTILE IS PROVIDED FOR THIS PURPOSE.
- GROUT SHOULD BE NON-METALLIC, NON-SHRINK MATERIAL AND SHOULD CONTAIN NO CORROSION-PROMOTING AGENTS.
- THE TOTAL FLOW AREA OF ALL BOX CULVERTS INCLUDES THE AREA FROM THE CROWN TO THE INVERT OR FOOTING PADS IF THE PADS ARE BURIED, A REDUCTION IN THE TOTAL AREA SHOULD BE TAKEN INTO CONSIDERATION.
- INVERT PLATES OR FOOTING PADS MUST NOT BE OVERLAPPED ON ADJACENT STRUCTURES.
- STRUCTURES WITH .5 N TO 1.5 N LEG LENGTH REQUIRE FOOTING SPACING OR SLOT WIDTH TO ALLOW CLEARANCE FOR REINFORCING RIB EXTENDING INTO FOOTING SLOT



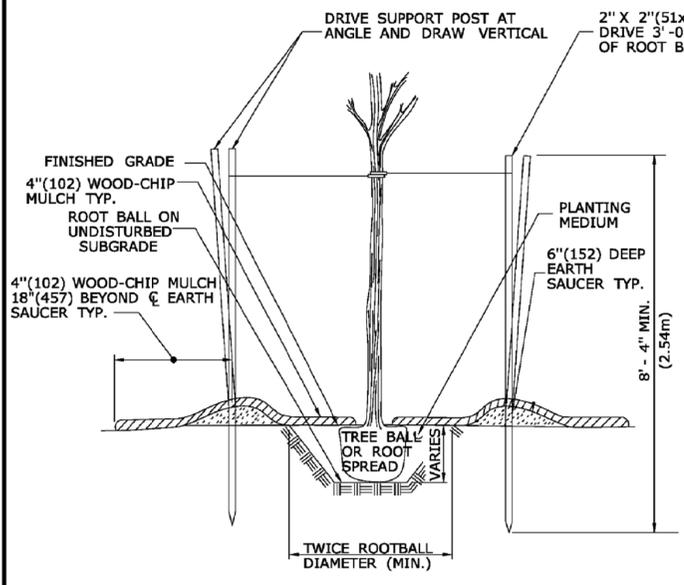
CONTECH ALUMINUM BOX CULVERT OR EQUIVALENT (N.T.S.)

Date: 12/07/10  
Designed: W. Young/R. Dyer  
Drawn: R. Dyer  
Checked: #  
Approved: #

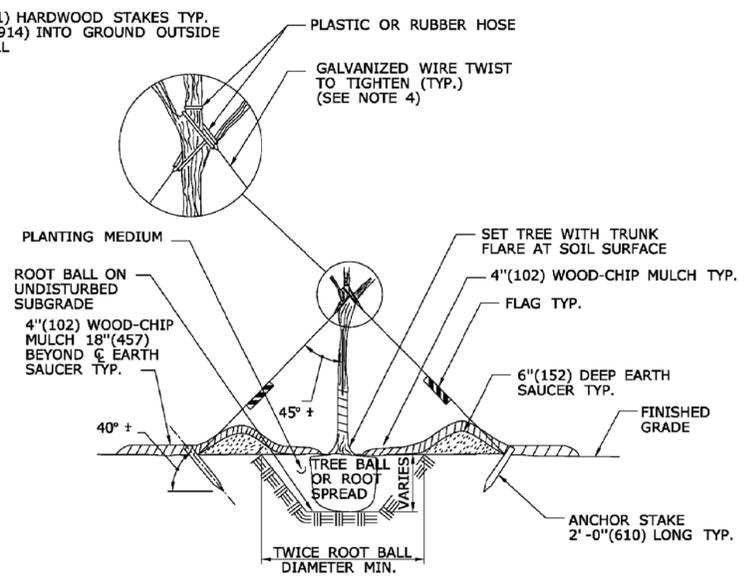
CULVERT DETAILS  
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**SECTION A**



**SECTION B**

EXAMPLES OF MINIMUM SIZE OF ROOT BALL FOR NURSERY GROWN PLANTS.

CALIPER* INCHES(mm)	BALL DIAMETER INCHES(mm)	PLANTING PIT SIZE INCHES(mm)
-	8(203)	16(406)
-	10(254)	20(508)
1/2(12.5)	12(304)	24(610)
3/4(19)	14(356)	28(711)
1(25)	16(406)	32(813)
1 1/2(38)	20(508)	40(1016)
2(50)	24(610)	48(1219)
2 1/2(65)	28(711)	56(1422)
3(75)	32(813)	64(1626)
3 1/2(90)	38(965)	76(1930)
4(100)	42(1166)	84(2134)
5(125)	54(1372)	108(2743)
6(150)**	-	-

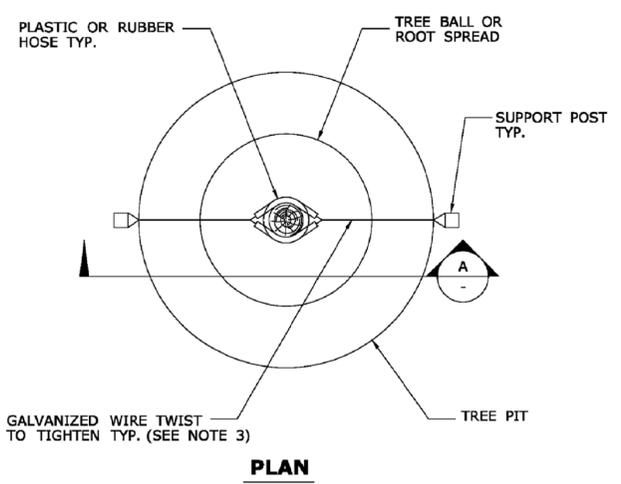
\* THE CALIPER OF THE TRUNK IS MEASURED 6"(152) ABOVE THE GROUND UP TO AND INCLUDING 4"(102) SIZES AND 12"(305) ABOVE THE GROUND FOR LARGER SIZES OR AS SPECIFIED IN THE MOST RECENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

\*\* TREES GREATER THAN OR EQUAL TO 6"(152) CALIPER SHALL HAVE A ROOT BALL DIAMETER EQUAL TO 10"(254) PER INCH(25mm) OF TRUNK CALIPER (A 7"(178) CALIPER TREE SHOULD HAVE A ROOT BALL DIAMETER EQUAL TO 70"(1778)).

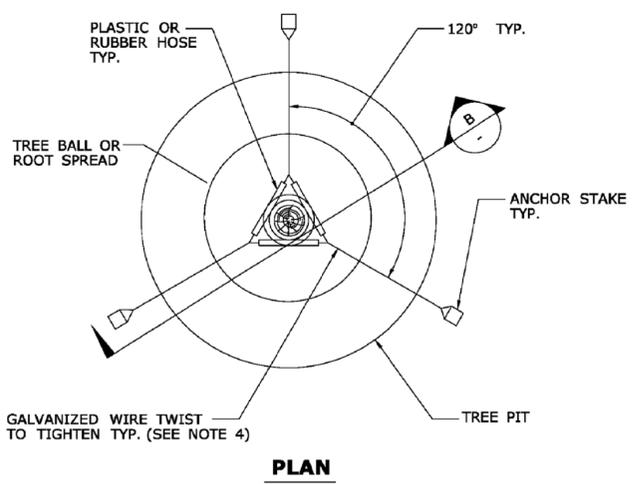
- GENERAL NOTES:**
1. THE PLANTING PIT SIZE SHALL BE TWICE THE DIAMETER OF THE ROOT BALL IN WIDTH AND 2"(51) LESS THAN THE HEIGHT OF THE ROOT BALL.
  2. ALL EXTERIOR PACKAGING MATERIAL APPLIED TO PLANTS SHALL BE REMOVED AFTER THE PLANT IS LOCATED IN THE PLANTING PIT. CUT AND REMOVE TWINE, BURLAP OR WIRE BASKETS FROM THE TOP 2/3RDS OF THE ROOT BALL.
  3. USE DOUBLE STRAND NO. 12 WIRE FOR DECIDUOUS TREES GREATER THAN OR EQUAL TO 3"(76) CALIPER AND USE DOUBLE STRAND NO. 10 WIRE FOR EVERGREEN TREES GREATER THAN OR EQUAL TO 8"(203) CALIPER.
  4. TREE TRUNK WRAPPING MATERIAL SHALL BE USED AS DIRECTED BY THE ENGINEER.
  5. PLANTING PITS FOR INDIVIDUAL SHRUBS ON SLOPES SHALL BE THREE TIMES THE DIAMETER OF THE ROOT BALL IN WIDTH.

NOTE:  
USE 3 POSTS FOR STAKING DECIDUOUS TREES 3"(76) CALIPER OR GREATER AND EVERGREEN TREES 8'(2.4m) HIGH OR GREATER. USE 2 POSTS FOR STAKING DECIDUOUS TREES LESS THAN 3"(76) CALIPER AND EVERGREEN TREES LESS THAN 8'(2.4m) HIGH.

**GUYING PLAN**

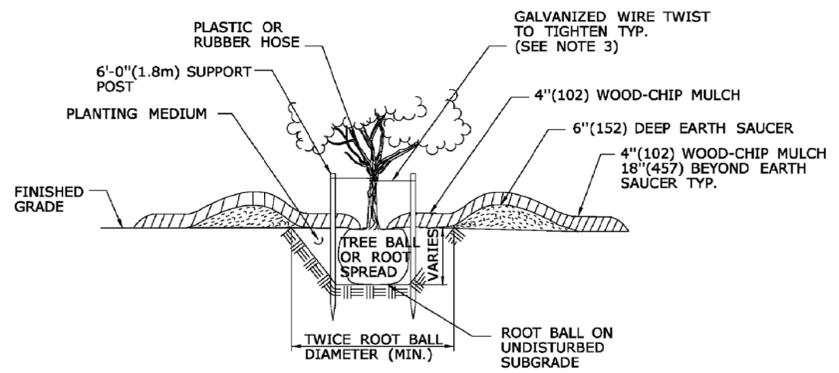


**PLAN**

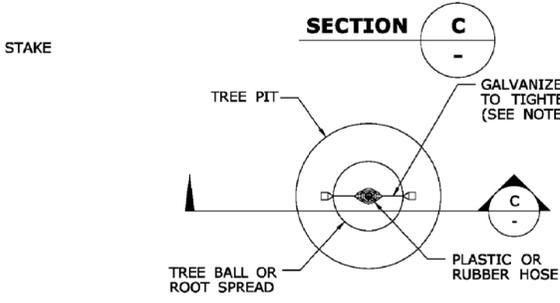


**PLAN**

**STAKING PLAN**

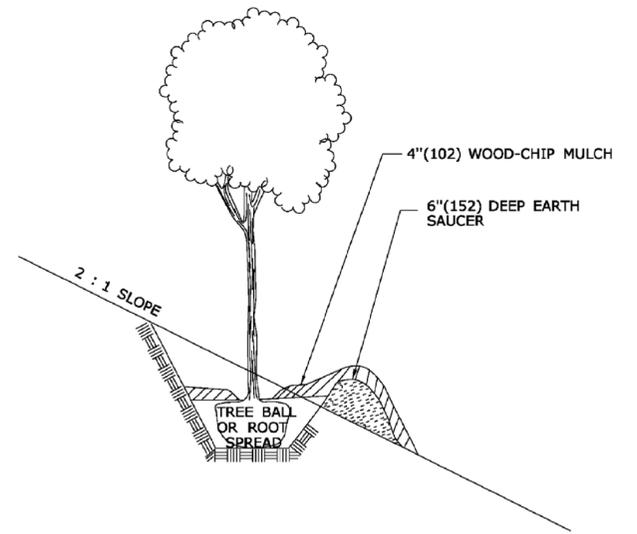


**SECTION C**



**PLAN**

**STAKING PLAN FOR LOW BRANCHING DECIDUOUS AND EVERGREEN TREES FROM 5'(1.5m) TO 8'(2.4m) HIGH.**



**GRADING PLAN FOR TREES ON SLOPES**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

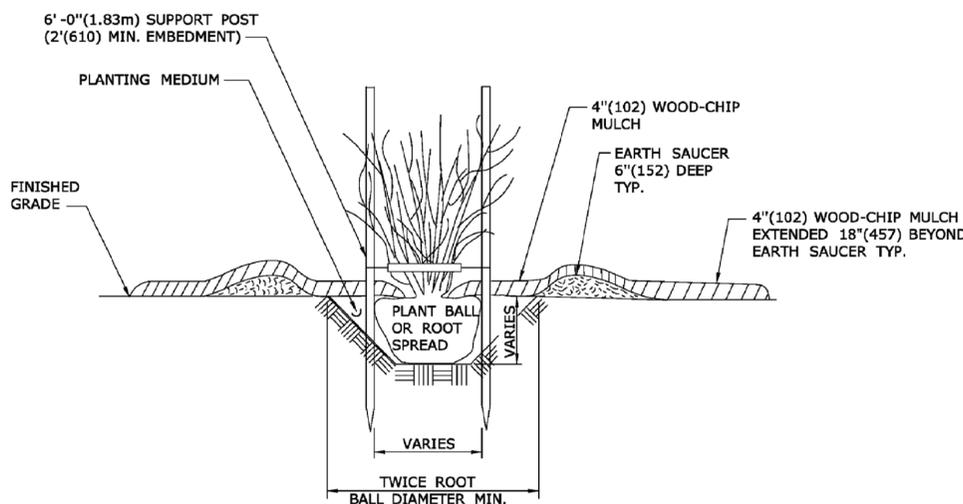
<p>REVISIONS:</p> <table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>REVISION DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	REV.	DATE	REVISION DESCRIPTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<p>THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.</p> <p>Plotted Date: 9/11/2009</p>	<p>NOT TO SCALE</p>	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p> <p>Filename: CTDOT_HIGHWAY_STD.dgn Model: HW-949_01</p>	<p>SUBMITTED BY: Timothy M. Wilson 2009.09.16 11:25:01 -04'00'</p> <p>APPROVED BY: James H. Norman 2009.09.18 14:31:21 -04'00'</p>	<p>CTDOT STANDARD SHEET OFFICE OF ENGINEERING</p>	<p>STANDARD SHEET TITLE: <b>PLANTING DETAILS FOR TREES</b></p>	<p>STANDARD SHEET NO.: <b>HW-949_01</b></p>
REV.	DATE	REVISION DESCRIPTION																										
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Date: 12/07/10  
Designed: W. Young/R. Dyer  
Drawn: R. Dyer  
Checked: #  
Approved: #

**TREE PLANTING DETAILS**  
Deep Brook Stream Restoration Project  
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Town of Newtown, Fairfield County, Connecticut  
Maguire Group, Inc.

**NRCS**  
Natural Resources Conservation Service  
United States Department of Agriculture

File No. 2010-12-16  
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Drawing No. C16  
1/18/11 2:45 PM  
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**SECTION A**

EXAMPLES OF MINIMUM CONTAINER SIZES FOR NURSERY GROWN PLANTS

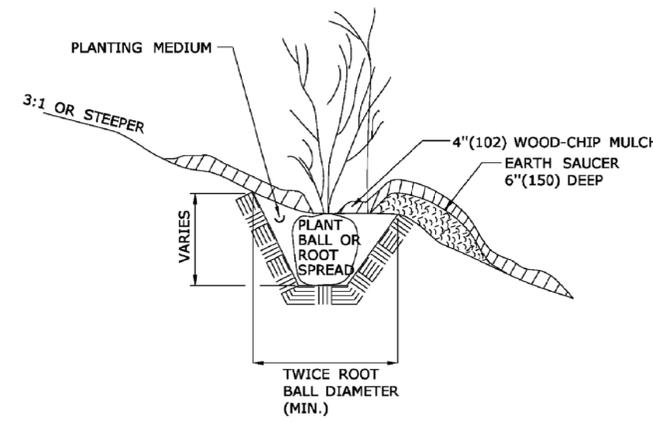
CALIPER* INCHES(mm)	HEIGHT** FEET(mm)	CONTAINER SIZE GALLONS(LITERS)
-	1(305)	0.7-1.1(2.6-4.2)
-	2(610)	0.7-1.1(2.6-4.2)
-	3(914)	0.7-1.1(2.6-4.2)
-	4(1219)	1.4-2.0(5.3-7.6)
-	5(1524)	3.4-4.2(12.9-15.9)
-	6(1829)	4.7-5.4(17.8-20.4)
1(25)	7(2134)	5.8-7.8(21.9-29.5)
-	8(2438)	9.0-11.5*34.1-43.5)
1½(38)	-	12.0-16.0(45.4-60.6)
2(51)	-	25.0-29.7(94.6-112.4)
2½(64)	-	25.0-29.7(94.6-112.4)

\* THE CALIPER IS MEASURED 4"(102) ABOVE GROUND LEVEL.  
 \*\* ONLY DECIDUOUS SHRUBS ARE INCLUDED IN THIS TABLE. EVERGREEN SHRUBS ARE MEASURED BY HEIGHT BUT, CONTAINER SIZE DEPENDS ON BOTH SIZE AND SHAPE AND ARE GENERALLY 1 TO 2 SIZES LARGER THAN DECIDUOUS PLANTS.

**TABLE FOR SHRUBS**

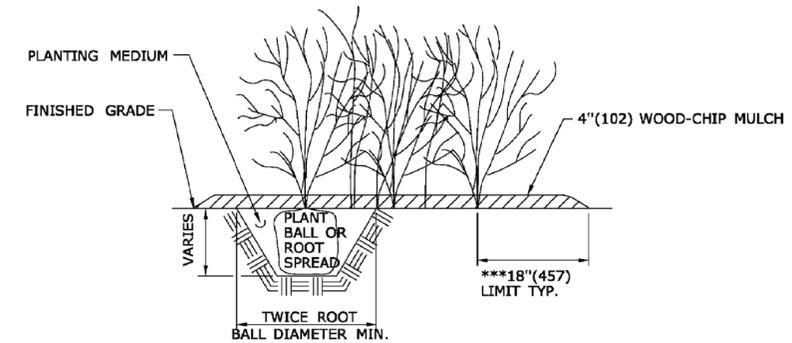
**GENERAL NOTES:**

1. THE PLANTING PIT SIZE SHALL BE TWICE THE DIAMETER OF THE ROOT BALL IN WIDTH AND 2"(51) LESS THAN THE HEIGHT OF THE ROOT BALL.
2. ALL EXTERIOR PACKAGING MATERIAL APPLIED TO PLANTS SHALL BE REMOVED AFTER THE PLANT IS LOCATED IN THE PLANTING PIT. CUT AND REMOVE TWINE, BURLAP OR WIRE BASKETS FROM THE TOP 2/3RDS (17) OF THE ROOT BALL.
3. USE DOUBLE STRAND NO. 12 WIRE FOR DECIDUOUS TREES GREATER THAN OR EQUAL TO 3"(76) CALIPER AND USE DOUBLE STRAND NO. 10 WIRE FOR EVERGREEN TREES GREATER THAN OR EQUAL TO 8"(203) CALIPER.
4. TREE TRUNK WRAPPING MATERIAL SHALL BE USED AS DIRECTED BY THE ENGINEER.
5. PLANTING PITS FOR INDIVIDUAL SHRUBS ON SLOPES SHALL BE THREE TIMES THE DIAMETER OF THE ROOT BALL IN WIDTH.



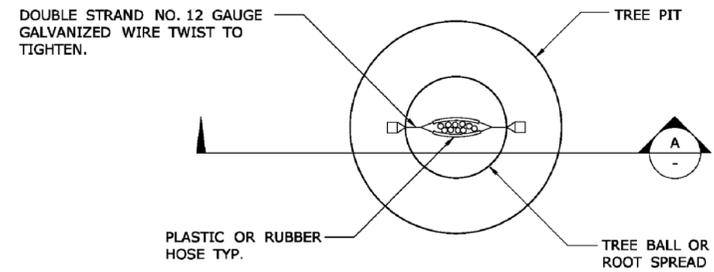
**SECTION**

**PLANTING FOR SHRUBS IN INDIVIDUAL PITS ON SLOPES**



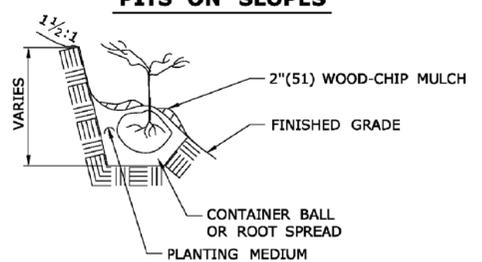
\*\*\* UNLESS OTHERWISE DIRECTED, WOOD-CHIP MULCH SHALL BE PLACED TO A LIMIT OF 18"(457) BEYOND THE CENTER OF THE OUTERMOST SHRUBS IN SHRUB BED.

**PLANTING FOR SHRUBS IN BEDS**



**PLAN**

**STAKING FOR MULTI-STEMMED DECIDUOUS TREES FROM 5'(1.5m) TO 10'(3.0m) HIGH**



NOTE: PLACE PLANTS AT THE SAME DEPTH THAT THE SEEDLING WAS GROWN IN THE NURSERY.

**PLANTING FOR SEEDLINGS, VINES AND GROUND COVER PLANTS IN PITS ON SLOPES**

ALL METRIC DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED

REV. DATE	REVISION DESCRIPTION	Plotted Date: 9/11/2009	NOT TO SCALE	<p>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</p>	SUBMITTED BY: Timothy M. Wilson 2009.09.16 11:26:03 -04'00' APPROVED BY: James H. Norman 2009.09.18 14:31:42 -04'00'	STANDARD SHEET TITLE: <b>PLANTING DETAILS FOR SHRUBS</b>	STANDARD SHEET NO.: <b>HW-949_02</b>
		Filename: CTDOT-HIGHWAY_STD.dgn	Model: HW-949_02	<b>CTDOT STANDARD SHEET</b> <b>OFFICE OF ENGINEERING</b>			

Date: 12/07/10  
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SHRUB PLANTING DETAILS  
 Deep Brook Stream Restoration Project  
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 Maguire Group, Inc.  
 Town of Newtown, Fairfield County, Connecticut



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