



PUBLIC NOTICE

**US Army Corps
of Engineers®**
New England District
696 Virginia Road
Concord, MA 01742-2751

Comment Period Begins: December 23, 2014
Comment Period Ends: January 22, 2015
File Number: NAE-2014-02154
In Reply Refer To: Lindsey Lefebvre
Phone: (978) 318-8295
E-mail: Lindsey.E.Lefebvre@usace.army.mil

The District Engineer has received a permit application to conduct work in waters of the United States from Massachusetts Electric Company d/b/a National Grid (Beverly Auxford-Paiva), 170 Medford Street, Malden, Massachusetts 02148. This work is proposed in an unnamed perennial stream at 1101 Turnpike Street, North Andover, Massachusetts. The site coordinates are: Latitude 42.652518°, Longitude -71.100676°.

Although this project may have only minimal impacts and may be eligible for authorization under the current Massachusetts General Permit, the work is not expected to begin until after the General Permit expires on January 20, 2015. The applicant is seeking an individual permit to allow for a full five years in which to complete the work.

The work involves the discharge of 1,892.5 square feet of fill material below Ordinary High Water (OHW) of an unnamed perennial stream associated with repairs to an existing culvert and headwall, and removal of one coniferous tree. Culvert 1 has been in place for 60 years and is extensively corroded and deformed. The project proposes to slip line the existing 66-inch CMP culvert with a 54-inch Innerflow high-density polyethylene culvert. Work within the stream bed will be limited to placing a support structure in stream to slip the pipe, and all other equipment and materials will be lowered into the work area from a stabilized construction entrance. Flow through the existing pipe will continue throughout the slip lining process with no diversion required. Water exiting the construction site will then flow through a siltation curtain where it will be filtered before reintroduction to the undisturbed reach of the area. The headwall at the outlet of culvert 2 is constructed out of boulders and due to the settlement and shifting of these stones, the ground behind the headwall has subsided, leaving holes and gaps behind the wall. The construction equipment for this repair will be situated within a 16 foot by 32 foot primary work area consisting of swamp mats and encircled by weed free bales and silt fence. A siltation curtain will also be provided immediately below the headwall. No in-water work will be required. The coniferous tree will be removed from the wetland by hand to avoid heavy machinery near the wetlands. The stump will be left in place. The total proposed impact, 1,892.5 square feet, is related to the repairs of Culvert 1.

The work is shown on the attached plans entitled "Proposed Culvert Repairs Permitting Plans," on 10 sheets, and dated "June 27, 2014."

In developing plans for replacing the culvert repairs, Massachusetts Electric Company considered ways to avoid and minimize impacts to waters of the United States, including wetlands. Steps to avoid and minimize impacts to wetlands and waterways include surface water immediately below the work area will flow through a siltation curtain before discharging to lower reaches of the stream to prevent sedimentation downstream, vegetation plantings along the stream bank where any direct impacts occurred, and the upland riparian zone that is temporarily disturbed will be hydro-seeded with a New England Conservation/Wildlife mix. No compensatory mitigation is proposed because the impacts are minimal.

AUTHORITY

Permits are required pursuant to:

Section 10 of the Rivers and Harbors Act of 1899

Section 404 of the Clean Water Act

Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

NATIONAL HISTORIC PRESERVATION ACT

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

ENDANGERED SPECIES CONSULTATION

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any Federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The following authorizations have been applied for, or have been, or will be obtained:

- Permit, License or Assent from State.
- Permit from Local Wetland Agency or Conservation Commission.
- Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Lindsey Lefebvre at (978) 318-8295, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.



**Karen Adams
Chief, Permits and Enforcement Branch
Regulatory Division**

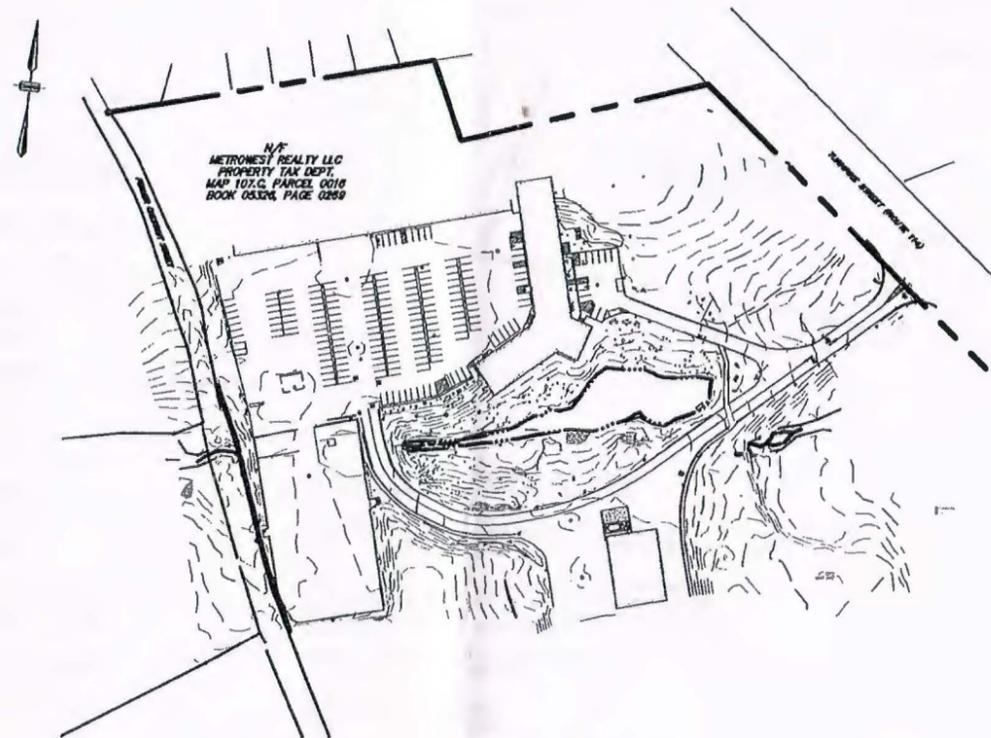
If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____
PHONE: _____

PROPOSED CULVERT REPAIRS PERMITTING PLANS 1101 TURNPIKE STREET NORTH ANDOVER, MA 01845



MASS GIS 2008 AERIAL PHOTO
SCALE: 1" = 800'



DESCRIPTION

SHEET

COVER SHEET	1
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PROPOSED CONDITIONS CULVERT 1 REPAIR	4
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EXISTING CONDITIONS CULVERT 2 REPAIR	6
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DETAIL SHEET	10

PREPARED FOR:

NATIONAL GRID
40 SYLVAN ROAD
WALTHAM, MA 02451



4 FIRST STREET, BRIDGEWATER, MASSACHUSETTS 02324
PHONE: 508.697.3191, FAX: 508.697.5996
WEBSITE: www.coneco.com

PREPARED ON:
JUNE 27, 2014

REVISED SEPTEMBER 12, 2014

ENGINEER:
TRACY L. DUARTE, P.E.
CONECO ENGINEERS & SCIENTISTS, INCORPORATED
BRIDGEWATER, MA 02324

MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER #48660

DATE: _____

REVISIONS			
NO.	DATE	DESCRIPTION	DR./OK
1	8/22/2014	REVISED WORK AREA AND TREE PLANTING	JEN/TLD
1	9/12/2014	A.C.O.E FORMATTING	JEN/JEN

LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	PROPERTY LINE
---	---	PROPERTY LINE ABUTTER
---	---	EASEMENT LINE
---	---	EDGE OF BANK
---	---	EDGE OF WETLAND
---	---	STREAM CENTERLINE
---	---	100' RIVERFRONT AREA
---	---	200' RIVERFRONT AREA
---	---	25' NO DISTURBANCE ZONE
---	---	50' NO BUILDING ZONE
---	---	100' WETLAND BUFFER
---	---	MAJOR GROUND CONTOUR
---	---	MINOR GROUND CONTOUR
---	---	EDGE OF PAVEMENT
---	---	CURB
---	---	CAPE COD BERM
---	---	BUILDING
---	---	TREE LINE
---	---	ROCK WALL
---	---	DRAINAGE LINE
---	---	CHAIN LINK FENCE
---	---	SEWER LINE
---	---	UNDERGROUND ELECTRIC
---	---	ELECTRIC MANHOLE
---	---	SEWER MANHOLE
---	---	DRAIN MANHOLE
---	---	CATCH BASIN
---	---	UTILITY POLE
---	---	LIGHT POLE
---	---	BOUND W/ DRILL HOLE
---	---	BANK/WETLAND FLAG
---	---	WATER VALVE
---	---	GAS VALVE
---	---	HYDRANT
---	---	PARKING SPACE COUNT
---	---	HAYBALE/SILT FENCE
---	---	FLARED END SECTION
---	---	SIGN

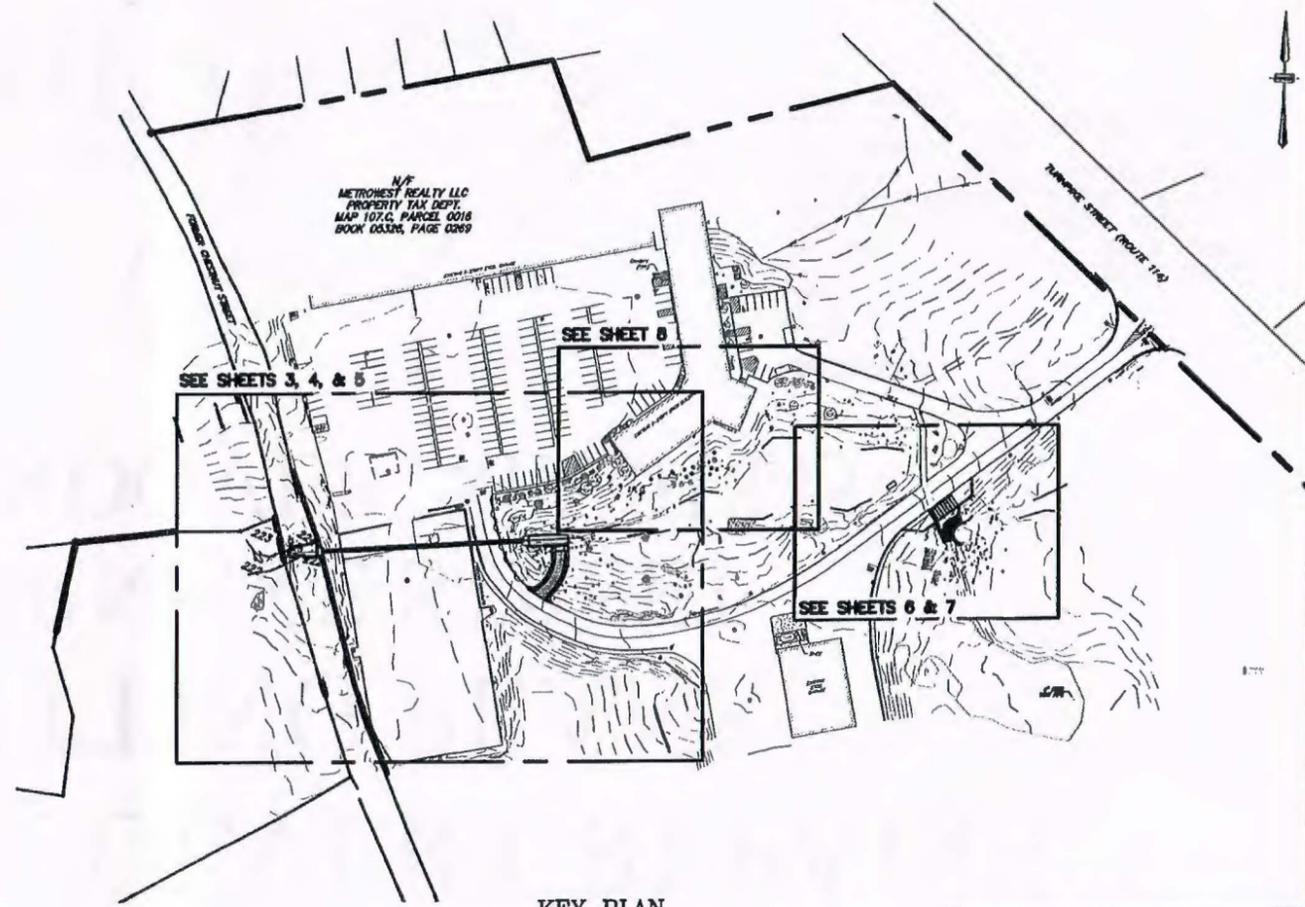
ABBREVIATIONS

ABBREV.	DESCRIPTION
ABAN	ABANDON
ADJ	ADJUST
ASB	ASBUILT
BC	BOTTOM OF CURB
BF	BANK FLAG
BIT.	BITUMINOUS
BM	BENCH MARK
BDS	BOTTOM OF SLOPE
BVW	BORDERING VEGETATED WETLAND
CB	CATCH BASIN
CBDH	CONCRETE BOUND DRILL HOLE
CCB	CAPE COD BERM
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON PIPE
CLDI	CEMENT LINED DUCTILE IRON PIPE
CLF	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CONC.	CONCRETE
CPD	CONCRETE PAD
CPP	CORRUGATED POLYETHYLENE PIPE
DH	DRILL HOLE
DMH	DRAIN MANHOLE
EHH	ELECTRIC HANDHOLE
ELEV.	ELEVATION
ELEC.	ELECTRIC
EOP	EDGE OF PAVEMENT
EOW	EDGE OF WETLANDS
FES	FLARED END SECTION
FF	FINISHED FLOOR
FPS	FEET PER SECOND
FT	FOOT OR FEET
GO	GAS GATE
GV	GATE VALVE
H	HEIGHT
HDPE	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
ID	INSIDE DIAMETER
IN	INCHES
INV., I	INVERT
IP	IRON PIPE
L	LENGTH
LUWW	LAND UNDER WATER BOOIES & WATERWAYS
LP	LIGHT POLE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MW	MONITORING WELL
N/E	NOT ENCOUNTERED
NTS	NOT TO SCALE
O.D.	OUTSIDE DIAMETER
OHW	OVERHEAD WIRE
PCC	PRECAST CONCRETE CURB
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PVC	POLYVINYL CHLORIDE PIPE
R	RIM
RCP	REINFORCED CONCRETE PIPE
S	SLOPE
SBDH	STONE BOUND DRILL HOLE
S.F.	SQUARE FEET
SMH	SEWER MANHOLE
SSLW	SINGLE STRIPED LINE WHITE
SSLY	SINGLE STRIPED LINE YELLOW
TB	TEST BORING
TC	TOP OF CURB
TMH	TELEPHONE MANHOLE
TOB	TOP OF BANK
TOF	TOP OF FOUNDATION
TOS	TOP OF SLOPE
TP	TEST PIT
TYP.	TYPICAL
UP	UTILITY POLE
WG/V	WATER GATE/VALVE
WM	WATER MAIN
WMH	WATER MANHOLE

NOTES

- GENERAL:**
1. THE CONTRACTOR SHALL NOTIFY "DIGSAFE" (1-888-DIGSAFE) AT LEAST 72 HOURS (3 BUSINESS DAYS) BEFORE EXCAVATING.
 2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
 3. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS.
 4. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
 5. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER OR OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- UTILITIES:**
1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. FAILURE TO PROVIDE OR PERFORM THE ABOVE PRIOR TO PERFORMING ANY WORK SHALL NOT BE GROUNDS FOR EXTRA PAYMENTS TO THE CONTRACTOR.
- LANDSCAPING:**
1. ALL AREAS CLEARED AND/OR DISTURBED SHALL BE BROUGHT TO WITHIN 6 INCHES OF FINAL GRADE AND FINISHED WITH 6 INCHES OF LOAM AND SEED EXCEPT WHERE OTHER FINISHES ARE PROPOSED (REFER TO PLANS).
 2. CONTRACTOR IS RESPONSIBLE FOR REPLACING (IN KIND) ALL DEAD OR DYING PLANT MATERIAL FOR A PERIOD OF 2 YEARS AFTER INITIAL PLANTING.
- EXISTING CONDITIONS INFORMATION:**
1. VERTICAL DATUM: NAVD 88 (CORS)
BENCHMARK USED: CORS STA WASA
BENCHMARKS SET: AS NOTED

HORIZONTAL COORDINATES: PROJECTION: MA STATE PLANE
HORIZONTAL DATUM: NAD 83(2011), EPOCH 2010.00
 2. THE EXISTING CONDITIONS SHOWN IN THIS PLAN SET WERE CREATED BY THOMAS F. MORAN, INC., PLAN SET OF 1101 TURNPIKE STREET, NORTH ANDOVER, MASSACHUSETTS PREPARED FOR MASSACHUSETTS ELECTRIC COMPANY d/b/a NATIONAL GRID DATED FEBRUARY 14, 2014.
 3. EDGE OF BORDERING VEGETATED WETLAND AND BANK WERE DELINEATED AND FIELD LOCATED BY CONECO ENGINEERS AND SCIENTISTS INC. BETWEEN MAY 27TH & 30TH, 2014.
 4. PROJECT COORDINATES: LATITUDE: N 42.852518,
LONGITUDE: W 71.100676



REVISIONS

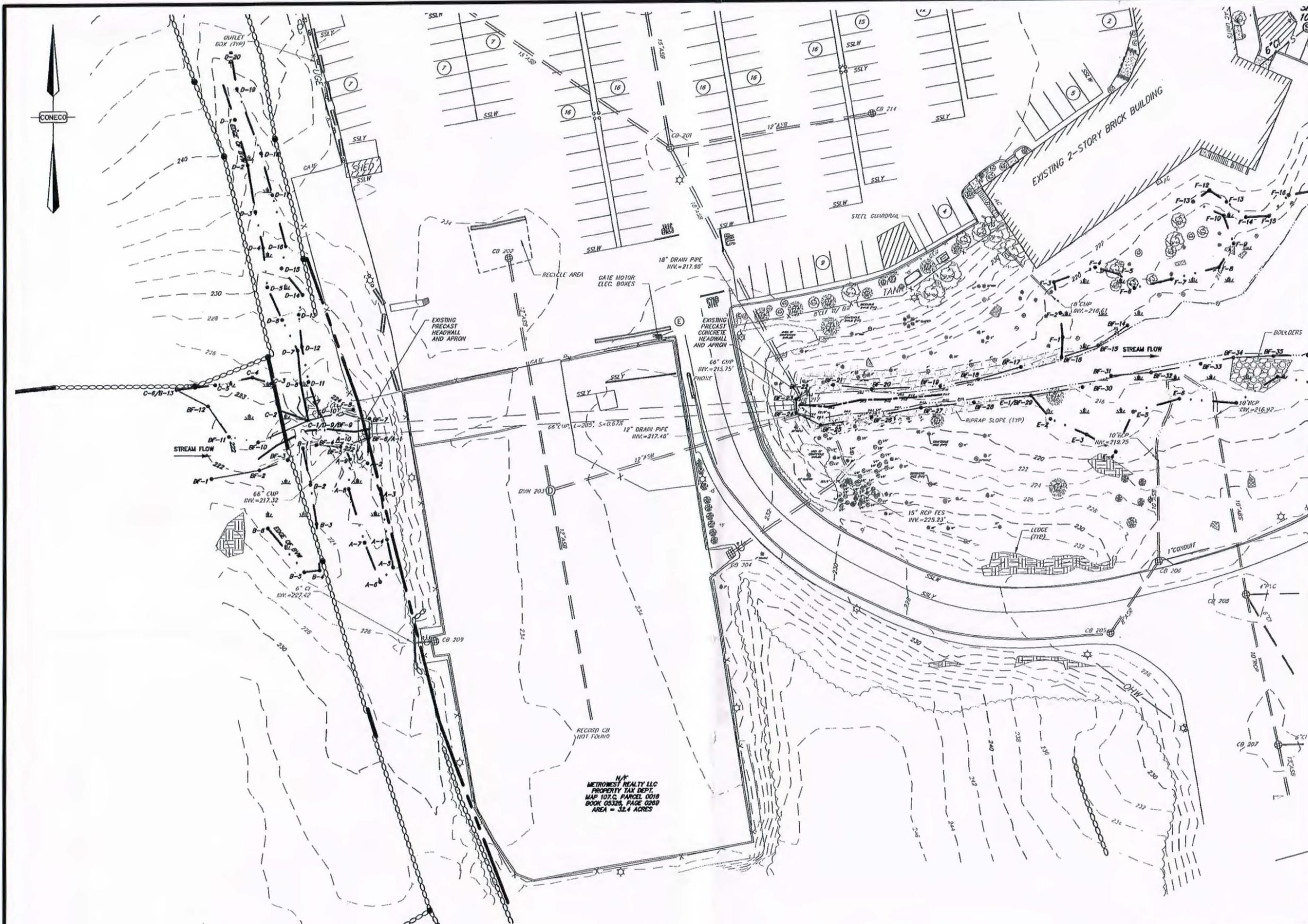
NO.	DATE	DESCRIPTION	BY/CHK	APP/EN
1	09/12/2014	AC-CLE FORMATING		

NATIONAL GRID
40 SYLVAN ROAD
WALTHAM, MA 02451

PROPOSED CULVERT REPAIRS
1101 TURNPIKE STREET
NORTH ANDOVER, MA 01845

CONECO
Engineers, Scientists & Surveyors
4 BOST. STREET, BOSTON, MASSACHUSETTS 02104
PHONE: 508-487-3101 OR 800-549-5358 FAX: 508-487-5995
WWW.CONECO.COM

DATE	09/27/2014
DESIGNED: TLD	CHECKED: JKH
DRAFTED: DJD	IN CHARGE: RTL
SCALE:	N/A
PROJECT NO.	5508.P
SHEET NO.	2



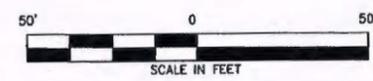
NO.	DATE	DESCRIPTION	BY/CHK
1	09/12/2014	SCALE FORMATTING	
2			

NATIONAL GRID
 40 SILVAN ROAD
 WALTHAM, MA 02461

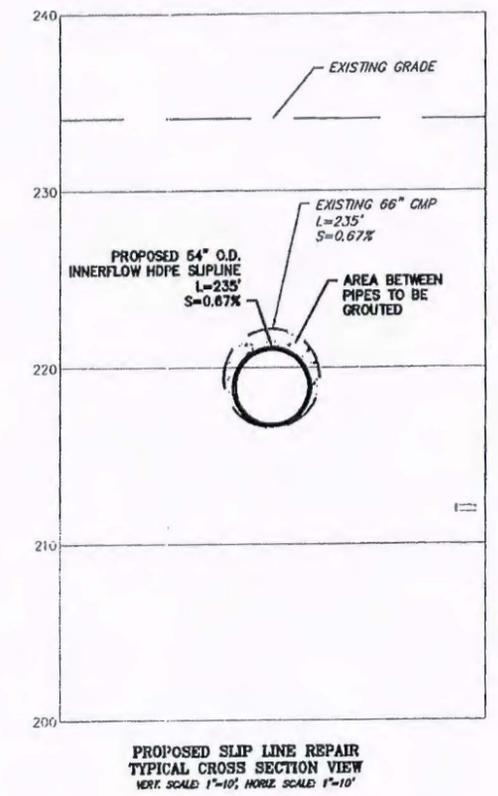
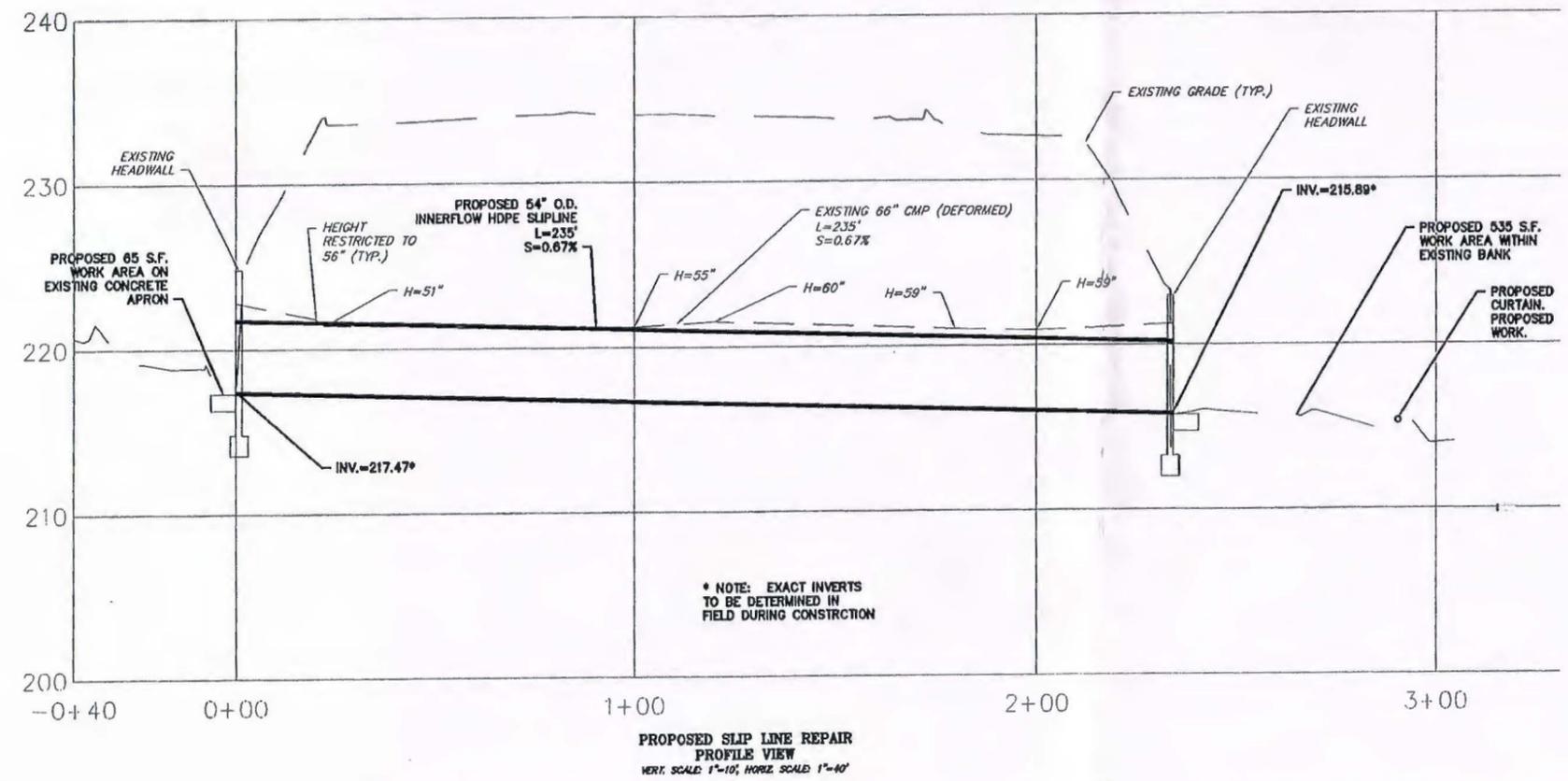
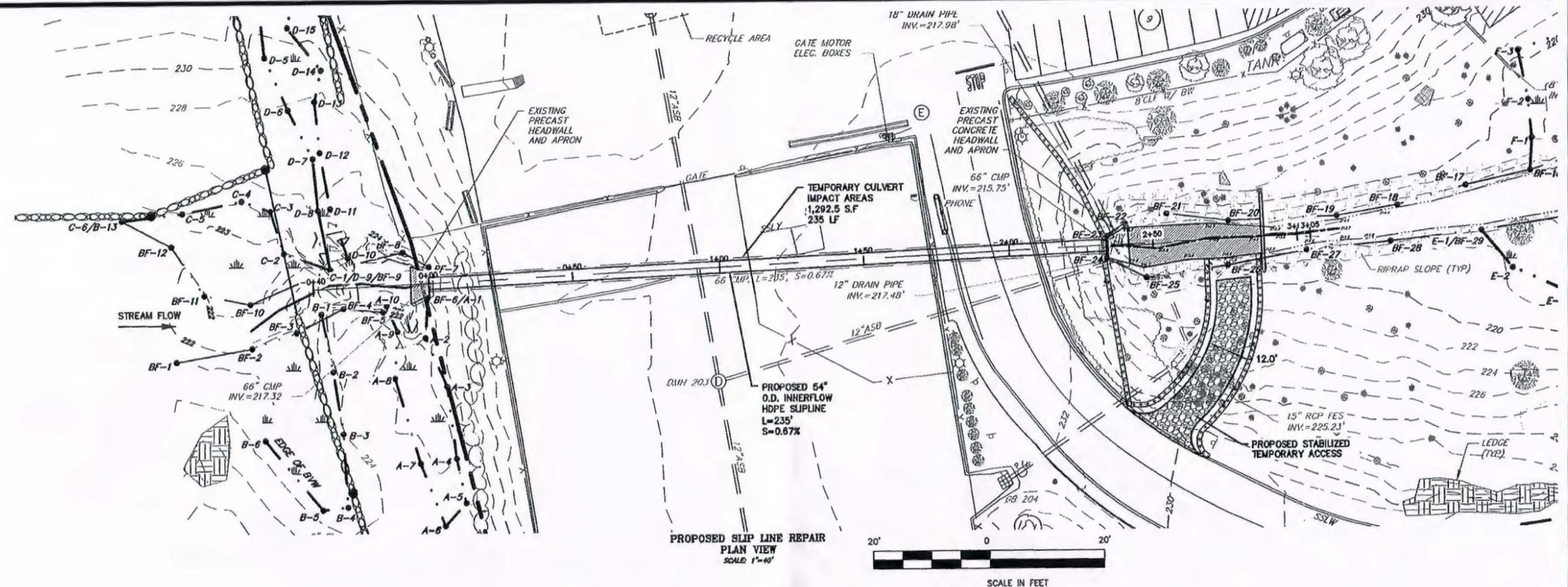
PROPOSED CULVERT REPAIRS
 1101 TURNPIKE STREET
 NORTH ANDOVER, MA 01845

CONECCO
 Engineers, Scientists & Surveyors
 4 FIRST STREET, ANDOVER, MASSACHUSETTS 01824
 PHONE: 978-687-3101 OR 800-545-3302 FAX: 978-687-4998
 WEBSITE: www.conecco.com

DATE	05/27/2014
DESIGNER: TLD	CHECKED: JEN
DRAFTED: DJD	IN CHARGE: RTL
SCALE:	1" = 50'
PROJECT NO.	0568 P
SHEET NO.	3 OF 10



N/A
 METROWEST REALTY LLC
 PROPERTY TAX DEPT.
 MAP 107-C, PARCEL 0018
 BOOK 00326, PAGE 0040
 AREA = 32.4 ACRES



NO.	DATE	DESCRIPTION	BY/CHK	REVISED WORK AREA & TREE PLANTING	REVISED WORK AREA & TREE PLANTING
1	08/22/2014				
2	09/12/2014				

NATIONAL GRID
40 SYLVAN ROAD
WALTHAM, MA 02451

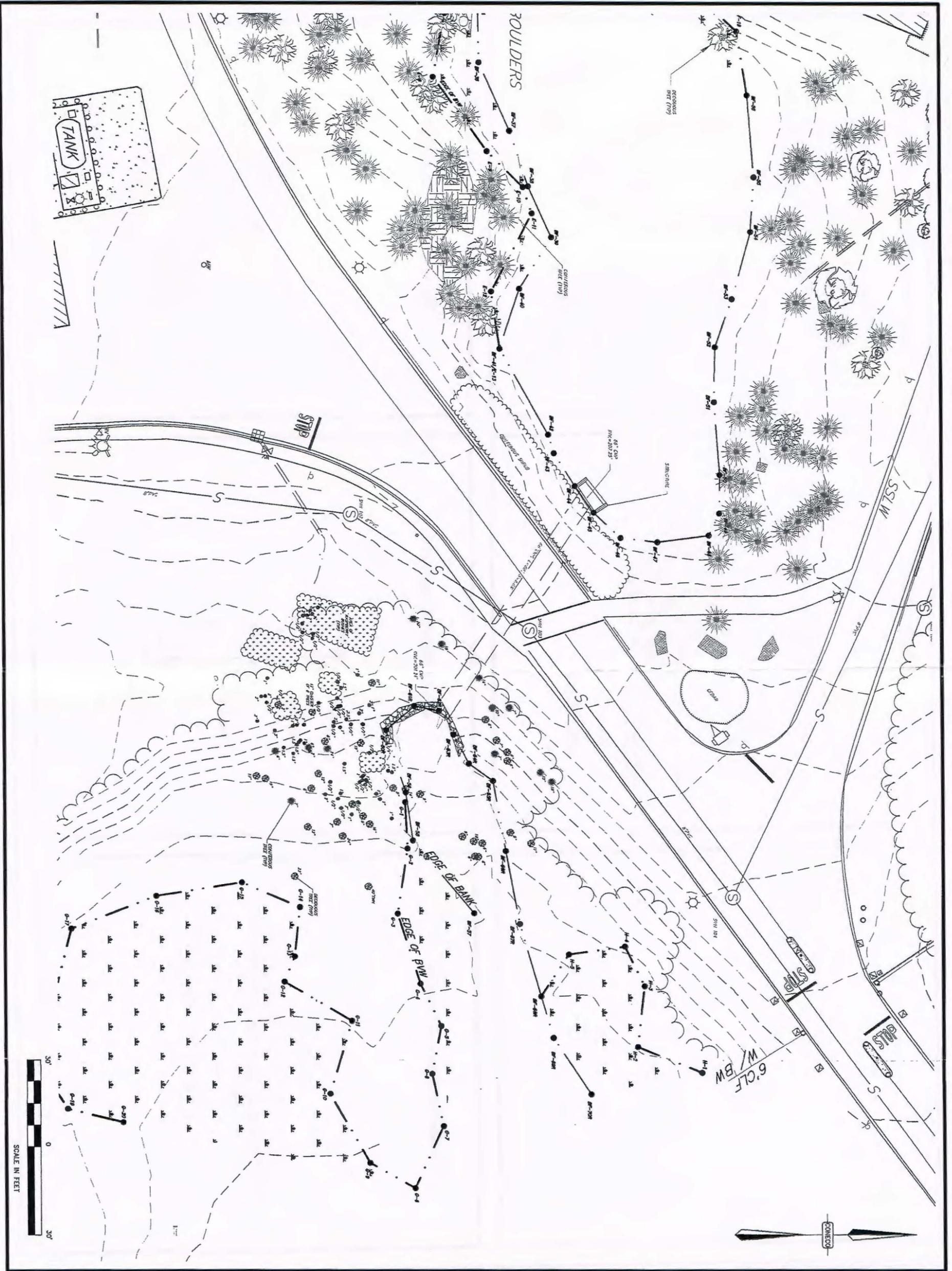
PLAN & PROFILE
CULVERT 1 REPAIR

PROPOSED CULVERT REPAIRS
1101 TURNPIKE STREET
NORTH ANDOVER, MA 01845

PERMITTING PLANS

CONECCO
Engineers, Scientists & Surveyors
4 FIRST STREET, BROOKFIELD, MASSACHUSETTS 02224
PHONE: 508-877-7101 OR 508-548-3325 FAX: 508-877-5095
WEBSITE: www.conecco.com

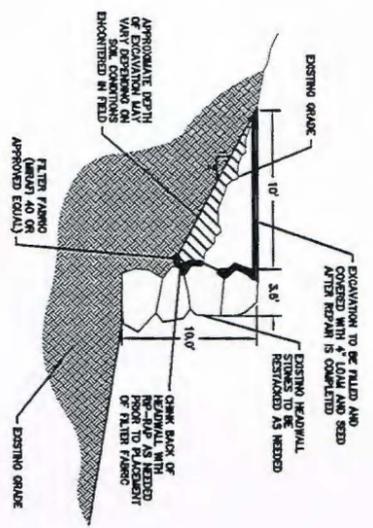
DATE	08/27/2014
DESIGNED: TLD	CHECKED: JMN
DRAFTED: DJD	IN CHARGE: RTL
SCALE:	AS NOTED
PROJECT NO.	5598.P
SHEET NO.	5



6 OF 10 SHEET NO. 5504A	CONECO Engineers, Scientists & Surveyors 4 FIRST STREET, BRIDGEWATER, MASSACHUSETTS 02324 PHONE: 508-897-3101 OR 800-548-3335; FAX 508-897-3095 WEBSITE: www.coneco.com	PROJECT NO. 5504A	DATE: 09/27/2014	PROPOSED CULVERT REPAIRS 1101 TURNPIKE STREET NORTH ANDOVER, MA 01845			NATIONAL GRID 40 SYLVAN ROAD WALTHAM, MA 02451																									
		DESIGNER: TJD CHECKED: JEN DRAWN: DDO IN CHARGE: JTL SCALE: 1" = 30' PROJECT NO. 5504A	PERMIT NO.	PERMIT TYPE:	PERMITTING PLANS			EXISTING CONDITIONS CULVERT 2 REPAIR																								
			REVISIONS			<table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DR/CHK</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>09/12/2014</td> <td>A.C.G.E. FORMATTING</td> <td>JEN/JEN</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			NO.	DATE	DESCRIPTION	DR/CHK	2	09/12/2014	A.C.G.E. FORMATTING	JEN/JEN																
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2	09/12/2014	A.C.G.E. FORMATTING	JEN/JEN																													

TEMPORARY IMPACT TABLE	
BANK	0 FT
WATERCOURSE (BELOW OHW)	0 SQ FT

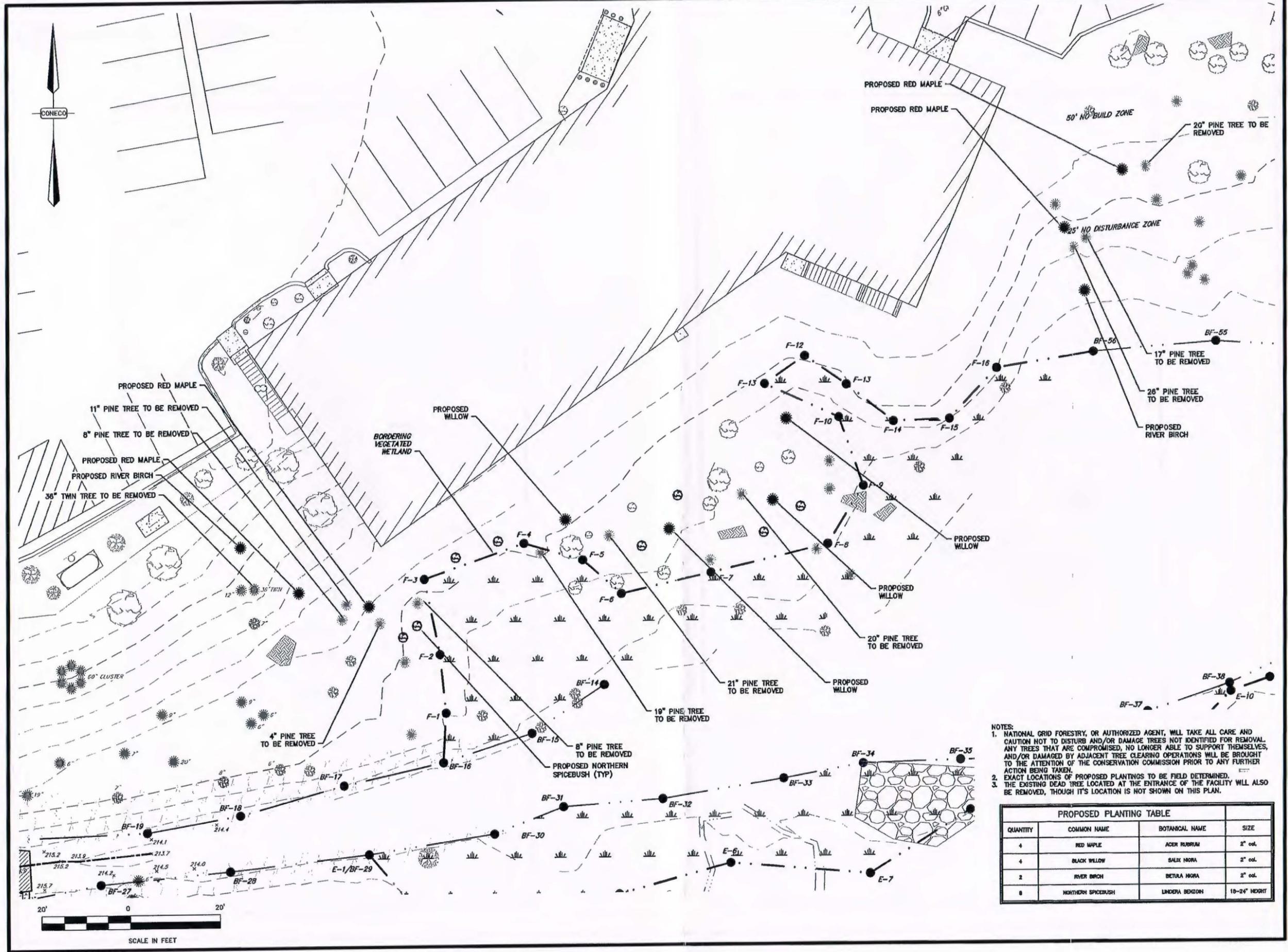
NOTE
 *EXACT TREE CLEARING LIMITS TO BE INVENTORIED PRIOR TO CONSTRUCTION



HEADWALL SECTION A-A
 N.T.S.



	PROJECT: PROPOSED CULVERT REPAIRS 1101 TURNPIKE STREET NORTH ANDOVER, MA 01845	NATIONAL GRID 40 SYLVAN ROAD WALTHAM, MA 02451	<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DR/CK</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>09/12/2014</td> <td>A.C.G.E. FORMATTING</td> <td>JEN/JEN</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS				NO.	DATE	DESCRIPTION	DR/CK	2	09/12/2014	A.C.G.E. FORMATTING	JEN/JEN																																
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DATE: 09/27/2014 DESIGNED: TJD CHECKED: JEN DRAFTER: DJO IN CHARGE: NTL SCALE: 1" = 30' PROJECT NO.: 05847 SHEET NO.: 7 OF 10	PERMITS: PERMITTING PLANS	PROPOSED CONSTRUCTION ACCESS AND WORK PLATFORM HEADWALL REPAIR																																													



NOTES:
 1. NATIONAL GRID FORESTRY, OR AUTHORIZED AGENT, WILL TAKE ALL CARE AND CAUTION NOT TO DISTURB AND/OR DAMAGE TREES NOT IDENTIFIED FOR REMOVAL. ANY TREES THAT ARE COMPROMISED, NO LONGER ABLE TO SUPPORT THEMSELVES, AND/OR DAMAGED BY ADJACENT TREE CLEARING OPERATIONS WILL BE BROUGHT TO THE ATTENTION OF THE CONSERVATION COMMISSION PRIOR TO ANY FURTHER ACTION BEING TAKEN.
 2. EXACT LOCATIONS OF PROPOSED PLANTINGS TO BE FIELD DETERMINED.
 3. THE EXISTING DEAD TREE LOCATED AT THE ENTRANCE OF THE FACILITY WILL ALSO BE REMOVED, THOUGH ITS LOCATION IS NOT SHOWN ON THIS PLAN.

PROPOSED PLANTING TABLE			
QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE
4	RED MAPLE	ACER RUBRUM	2" cal.
4	BLACK WILLOW	SALIX NIGRA	2" cal.
2	RIVER BIRCH	BETULA NIGRA	2" cal.
8	NORTHERN SPICEBUSH	LINDERA BENZOIN	10-24" HEIGHT

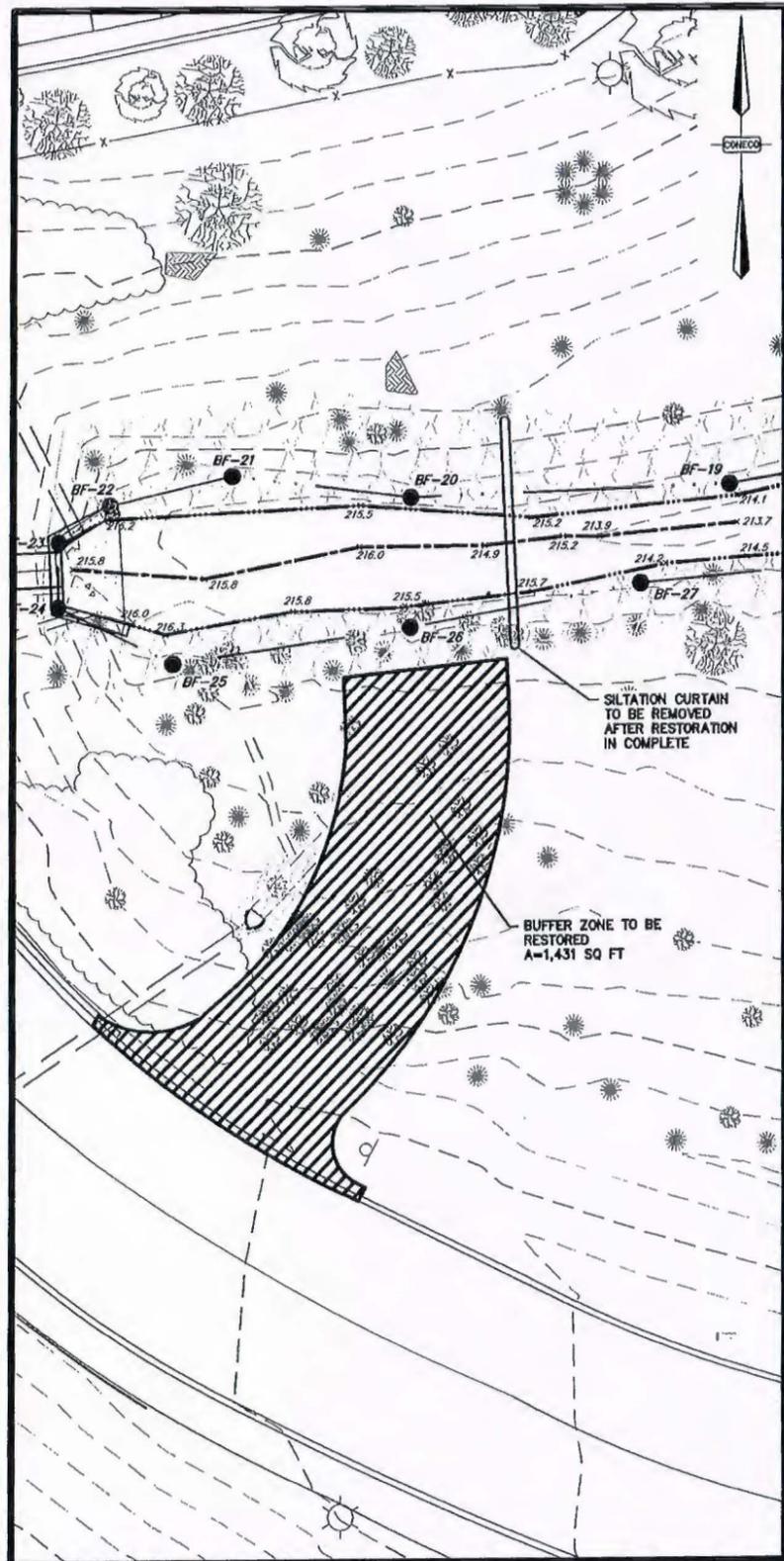
REVISIONS	
NO.	DATE
1	06/22/2014
2	08/12/2014

NATIONAL GRID
 40 SYLVAN ROAD
 WALTHAM, MA 02451

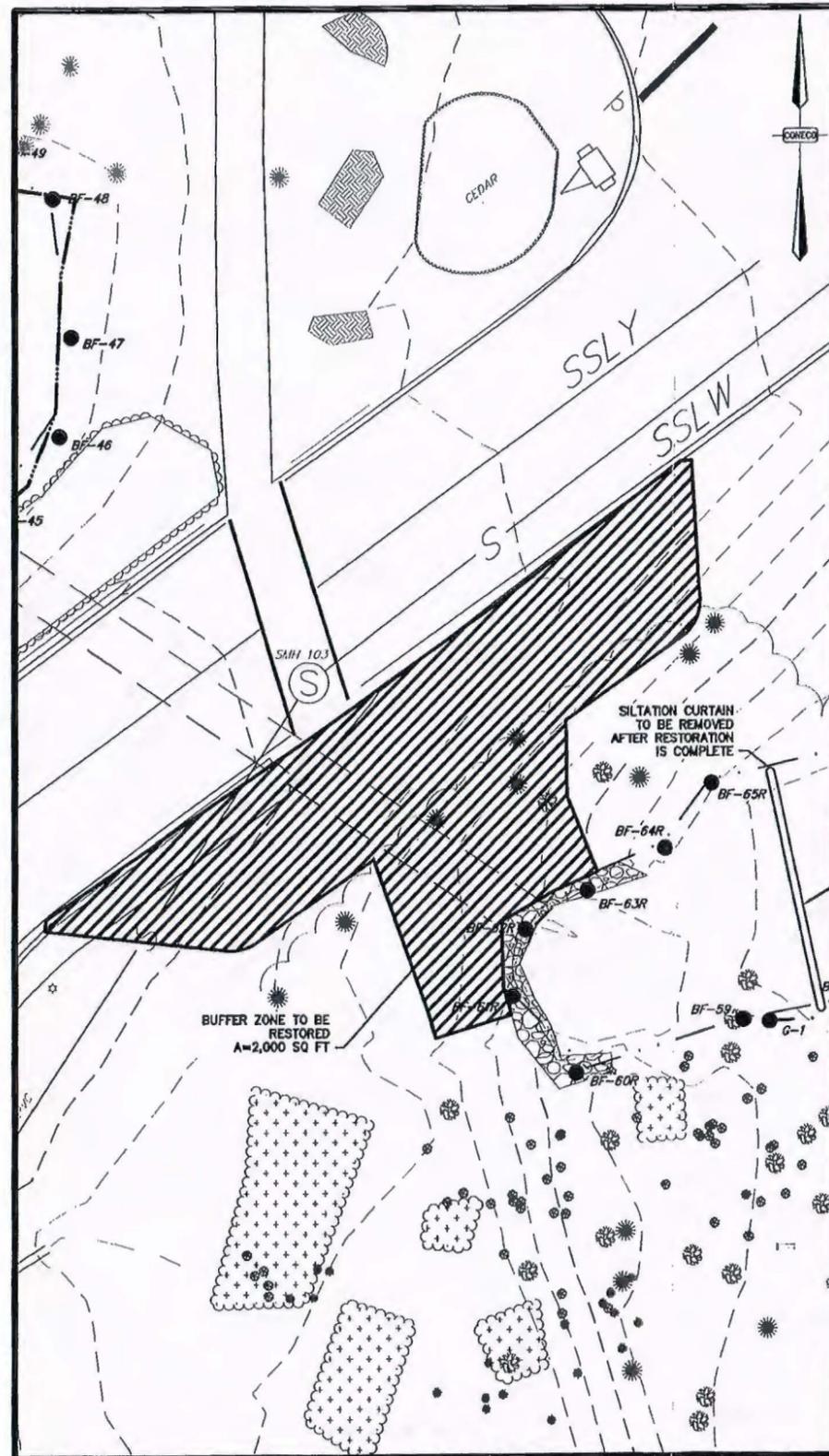
PROPOSED CULVERT REPAIRS
 1101 TURNPIKE STREET
 NORTH ANDOVER, MA 01845

CONECO
 Engineers, Scientists & Surveyors
 4 FIRST STREET, BOSTON, MASSACHUSETTS 02114
 PHONE: 300-997-3701 OR 300-946-3305 FAX: 300-997-5000
 WWW.CONECO.COM

DATE: 08/27/2014
 DESIGNED: JEN CHECKED: JEN
 DRAFTED: JEN IN CHARGE: RLL
 SCALE: 1" = 20'
 PROJECT NO. 859B.P
 SHEET NO. 8 OF 10



SLIP LINE REPAIR DOWNSTREAM ACCESS AREA



HEADWALL REPAIR

WETLANDS TO BE RESTORED

BUFFER ZONE TO BE RESTORED

NOTES:

1. ALL RESTORATION OF WETLANDS, BUFFER ZONE AND STREAM BED SHALL BE IN ACCORDANCE WITH GUIDELINES SET FORTH IN NOTICE OF INTENT BY CONECO ENGINEERS AND SCIENTIST, INC. DATED JUNE 27, 2014



SCALE IN FEET

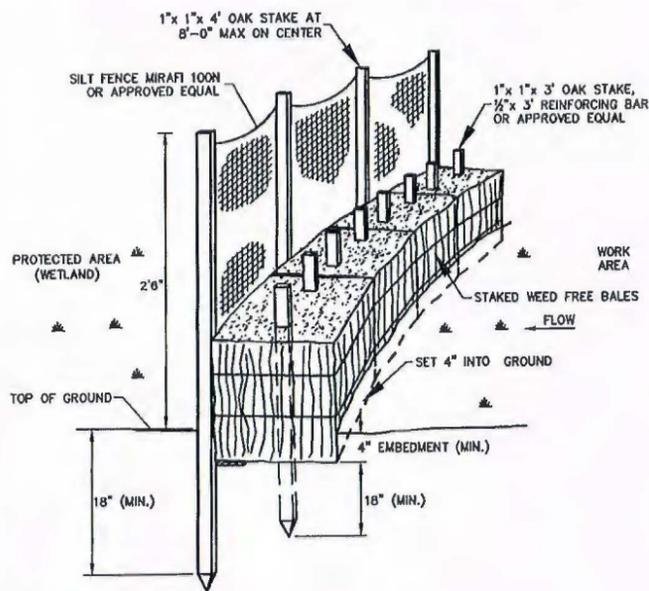
REVISIONS			
NO.	DATE	DESCRIPTION	BY/CHK
1	06/22/2014	REVISED WORK AREA & TREE PLANTING	JEN/TLD
2	09/12/2014	A.C.O.G.E FORMATTING	JEN/JEN

NATIONAL GRID
40 STILVAN ROAD
WALTHAM, MA 02451

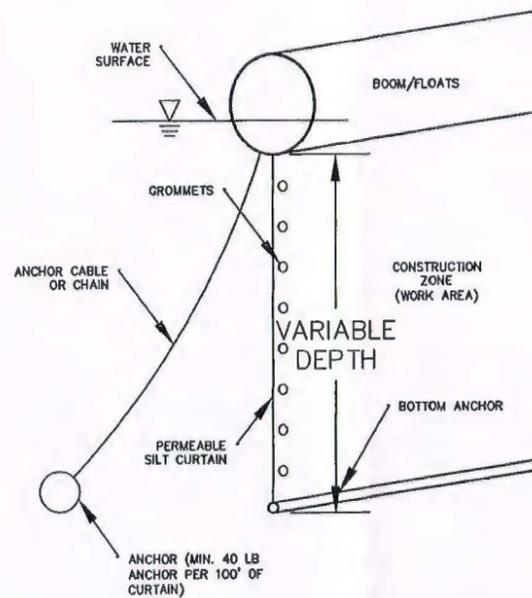
PROPOSED CULVERT REPAIRS
1101 TURNPIKE STREET
NORFOLK, MA 01845

CONECO
Engineers, Scientists & Surveyors
4 FIRST STREET, BROCKMONT, MASSACHUSETTS 0224
PHONE 508-897-3101 OR 800-548-3332 FAX 508-897-3008
WEBSITE: www.coneco.com

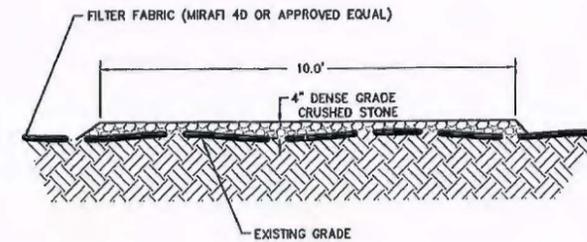
DATE	09/27/2014
DESIGNED: TLD	CHECKED: RTL
DRAFTED: DJD	IN CHARGE: RTL
SCALE:	1" = 20'
PROJECT NO.	5596.P
SHEET NO.	9



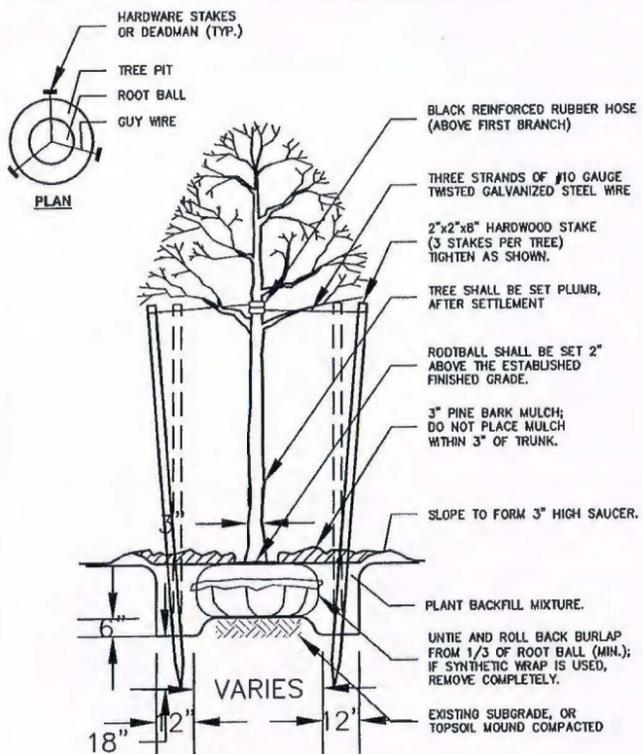
SILT FENCE / HAY BALE BARRIER
N.T.S.



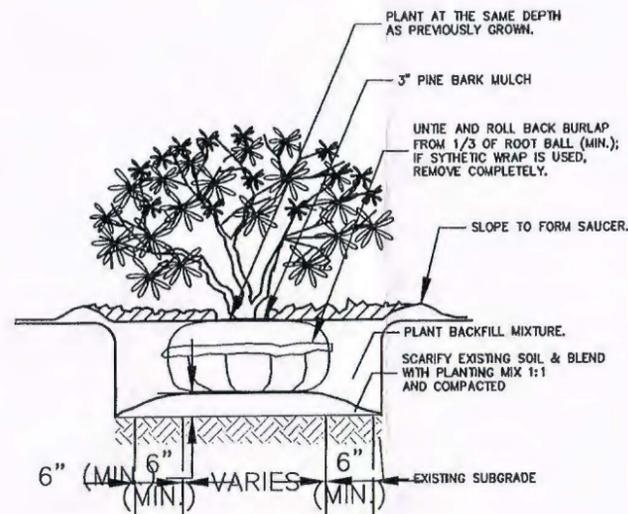
FLOATING SILTATION CURTAIN
N.T.S.



TEMPORARY ACCESS ROAD SECTION
N.T.S.



TREE PLANTING (FOR TREES UNDER 4" CALIPER)
N.T.S.



SHRUB PLANTING
N.T.S.

REVISIONS	
NO.	DATE
1	06/27/2014
2	06/12/2014

NATIONAL GRID
40 STUYVAN ROAD
WALTHEAM, MA 02451

DETAIL SHEET

PROPOSED CULVERT REPAIRS
11101 TUBBING STREET
NORFOLK ANDOVER, MA 01845

PERMITTING PLANS

CONECO
Engineers, Scientists & Surveyors
4 FIRST STREET, DORCHESTER, MASSACHUSETTS 02124
PHONE 508-687-3181 OR 508-688-3300; FAX 508-687-5808
WWW.CONECO.COM

DATE	06/27/2014
DESIGNED: TLD	CHECKED: JEH
DRAFTED: DJD	IN CHARGE: RTL
SCALE	N.T.S.
PROJECT NO.	5098P
SHEET NO.	10