



**US Army Corps
of Engineers**®
New England District

696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Date: November 25, 2003
Comment Period Ends: December 30, 2004
File Number: 200302378
In Reply Refer To: Ted Lento

Tennessee Gas Pipeline Company, 8 Greenway Plaza, Houston, Texas 77048 has requested a Corps of Engineers permit under Section 404 of the Clean Water Act to place fill material within 7.21 acres of wetlands in Andover and Tewksbury, Massachusetts in conjunction with the installation of approximately 5.1 miles of an 8 inch diameter natural gas pipeline referred to as the Tewksbury - Andover Lateral Project.

The proposed pipeline lateral will commence at a point of interconnect with the existing Tennessee-owned Concord Lateral in the town of Tewksbury, Massachusetts and extend east to the Wyeth-Genetic facility. The majority of the project is located in Tewksbury, however, approximately 1,200 linear feet of pipeline is to be installed in the town of Andover. The Andover portion of the proposed pipeline alignment crosses under the Shawsheen River and Interstate Highway 93. Tennessee has incorporated a Horizontal Directional Drill (HDD) construction technique that will be utilized to avoid adverse impacts to the Shawsheen River and its associated wetland resource areas as well as the Interstate Highway 93 corridor. The portion of the pipeline alignment to be installed via conventional construction will have approximately 45 feet of temporary workspace and is located within or immediately adjacent to an existing New England Power Company (NEPCO) utility right-of-way to avoid potential impacts to the environment and abutting landowners.

Pipeline installation would require clearing and grading wetlands within the right of way, excavating a trench through wetlands and waterways, temporarily side casting the excavated material adjacent to the trench, and then, after pipeline installation is completed, restoring the wetland areas to pre-construction ground contours. This wetland area will be allowed to naturally re-vegetate and will be maintained to prevent succession of scrub shrub wetland to forested wetland. All wetlands crossed by the proposed project will be restored upon completion of construction, and there will be no permanent loss of wetland areas. The attached Tables entitled "TABLE 1 WETLANDS CROSSED BY THE PROPOSED TEWKSBURY-ANDOVER LATERAL" and "TABLE 2 SUMMARY INFORMATION OF WATERBODIES CROSSED BY THE PROPOSED TEWKSBURY-ANDOVER LATERAL PROJECT" present information on the location and size of wetland and waterways that will be impacted. Further details are depicted on the attached plans entitled, "PROPOSED NATURAL GAS PIPELINE 6" OR 8" TEWKSBURY/ANDOVER LATERAL" on 25 sheets dated 3/03.

The project purpose is to provide a sufficient reliable source of natural gas to the Wyeth-Genetic facility to meet the needs of the proposed additional power generation turbines and the research conducted at the Wyeth facility.

This project is located on the USGS Wilmington quadrangle sheet at UTM coordinates 42 36 52N and 71 14 10E.

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.

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.

**SEE NEXT PAGE FOR
DETAILS OF EVALUATION
FACTORS**

Brian E. Valiton
for **Crystal I. Gardner**
Chief, Permits & Enforcement Branch
Regulatory Division

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity in 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.

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.

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties listed in, or eligible for listing in, the National Register of Historic Places, and 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.

Pursuant to the Endangered Species Act, the District Engineer is hereby requesting that the appropriate Federal Agency provide comments regarding the presence of and potential impacts to listed species or its critical habitat.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice.

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

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

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved Coastal Zone Management Programs. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

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.

If you would prefer not to continue receiving public notices, please check here () and return this portion of the public notice to: U.S. Army Corps of Engineers – New England District, ATTN: Regulatory Branch, 696 Virginia Road, Concord, MA 01742-2751.

NAME:

ADDRESS:

TABLE 1
WETLANDS CROSSED BY THE PROPOSED TEWKSBURY-ANDOVER LATERAL

Town	Approximate Milepost	Wetland #	Wetland Classification	Crossing Length (linear feet)	Acreage Affected		Crossing Method
					Temp. ^a	Secondary. ^b	
Tewksbury / Andover	4.75	1	PEM/PSS	641	0	0	Horizontal Directional Drill
Tewksbury	4.34	2	PSS	607	0.42	0.14	Standard or Conventional
Tewksbury	3.87	3	PSS	300	0	0	Horizontal Directional Drill
Tewksbury	3.38	4	PEM/PSS	1277	0.88	0.29	Conventional or Push - Pull
Tewksbury	3.01	5	PSS	558	0.38	0.13	Conventional or Push - Pull
Tewksbury	2.98	6	PSS	0	0	0	Wetland avoided
Tewksbury	2.94	7	PSS	0	0	0	Wetland avoided
Tewksbury	2.76	8	PSS	453	0.31	0.10	Conventional or Push - Pull
Tewksbury	2.49	9	PEM	1492	1.03	0.34	Conventional or Push - Pull
Tewksbury	2.39	10	PSS	0	0	0	Wetland avoided
Tewksbury	2.34	11	PSS	0	0	0	Wetland avoided
Tewksbury	2.04	12	PSS	46	0.03	0.01	Standard or Conventional
Tewksbury	1.91	13	PSS	120	0.08	0.03	Standard or Conventional
Tewksbury	1.78	14	PSS	125	0.09	0.03	Standard or Conventional
Tewksbury	1.71	15	PSS	409	0.28	0.09	Standard or Conventional

TABLE 1

WETLANDS CROSSED BY THE PROPOSED TEWKSBURY-ANDOVER LATERAL

Town	Approximate Milepost	Wetland #	Wetland Classification	Crossing Length (linear feet)	Acreage Affected		Crossing Method
					Temp. ^a	Secondary. ^b	
Tewksbury	1.45	16	PEM	483	0.33	0.11	Standard or Conventional
Tewksbury	0.85	17	PEM/PSS	2085	1.44	0.48	Conventional or Push - Pull
Tewksbury	0.67	18	PSS/PEM	372	0.26	0.09	Standard or Conventional
Tewksbury	0.67	19	PSS/PEM	0	0	0	Wetland avoided
Tewksbury	0.32	20	PSS	996	0.69	0.23	Conventional or Push - Pull
Tewksbury	0.03	21	PEM/PSS	1439	0.99	0.33	Conventional or Push - Pull
TOTAL		21	-	11,403	7.21	2.40	-

*Legend: PEM = Palustrine Emergent Wetland; PSS = Palustrine Scrub-Shrub Wetland; PFO = Palustrine Forested Wetland

^a Temporary Acreage = permanent ROW (20 feet) and temporary workspace (10 feet)

^b Secondary Impact = 10' permanently maintained ROW through wetlands

TABLE 2

**SUMMARY INFORMATION OF WATERBODIES CROSSED BY THE
PROPOSED TEWKSBURY-ANDOVER LATERAL PROJECT**

Town	Channel #	Approximate Milepost	Waterbody	Stream Type	Crossing Width (feet)	Water Quality Classification	Fishery Classification	Crossing Method
Tewksbury / Andover	CH-1	4.85	Shawsheen River	P	0	B	CW	Horizontal Directional Drill
Tewksbury	CH-2	4.38	Tributary to Shawsheen River	I	2	B	WW	Open Cut
Tewksbury	CH-3*	3.94	Unnamed	I	4	B	WW	Open Cut
Tewksbury	CH-4	3.04	Pinnacle Brook	P	4	B	WW	Push - Pull
Tewksbury	CH-5	2.74	Pinnacle Brook	P	10	B	WW	Push - Pull
Tewksbury	CH-5A	2.53	Meadow Brook	P	8	B	WW	Push - Pull
Tewksbury	CH-6	2.35	Unnamed drainage	I	1	B	WW	Open Cut
Tewksbury	CH-7	1.30	Tributary to Strong Water Brook	I	6	B	WW	Open Cut
Tewksbury	CH-8	0.32	Tributary to Great Swamp	P	8	B	WW	Dry Ditch

Legend:

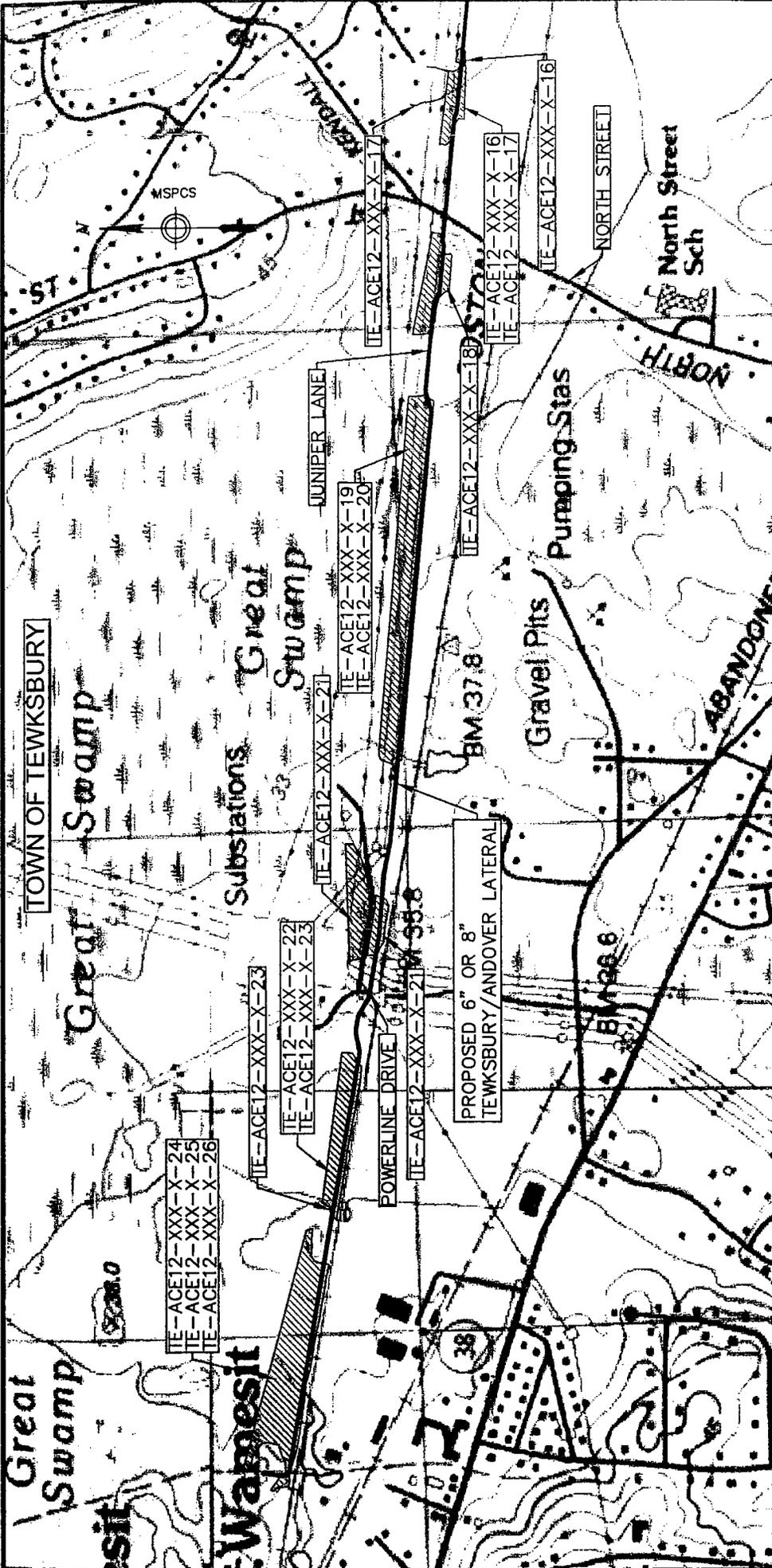
Stream Type: P = Perennial I = Intermittent

Fishery Classification: WW = Warmwater Fishery CW = Coldwater Fishery

Water Quality Classification: A - Waters designated as a source of public water supply.

B - Waters are designated as a habitat for fish, other aquatic life, and wildlife, and for primary and secondary contact recreation.

* Channel 3 was identified from aerial photography due to lack of property access at the time of the field delineation.



FILE No. TE-ACE12-10C-001

APPROVED BY

PROPOSED NATURAL GAS PIPELINE

6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE OVERVIEW DRAWING

MIDDLESEX COUNTY, MASSACHUSETTS

TENNESSEE GAS PIPELINE Co.

TE-ACE12-10C-001

GRAPHIC SCALE

1000 500 0 1000 FEET

DATE	DATE	DATE	DATE
03/03			

SCALE: 1" = 1000'

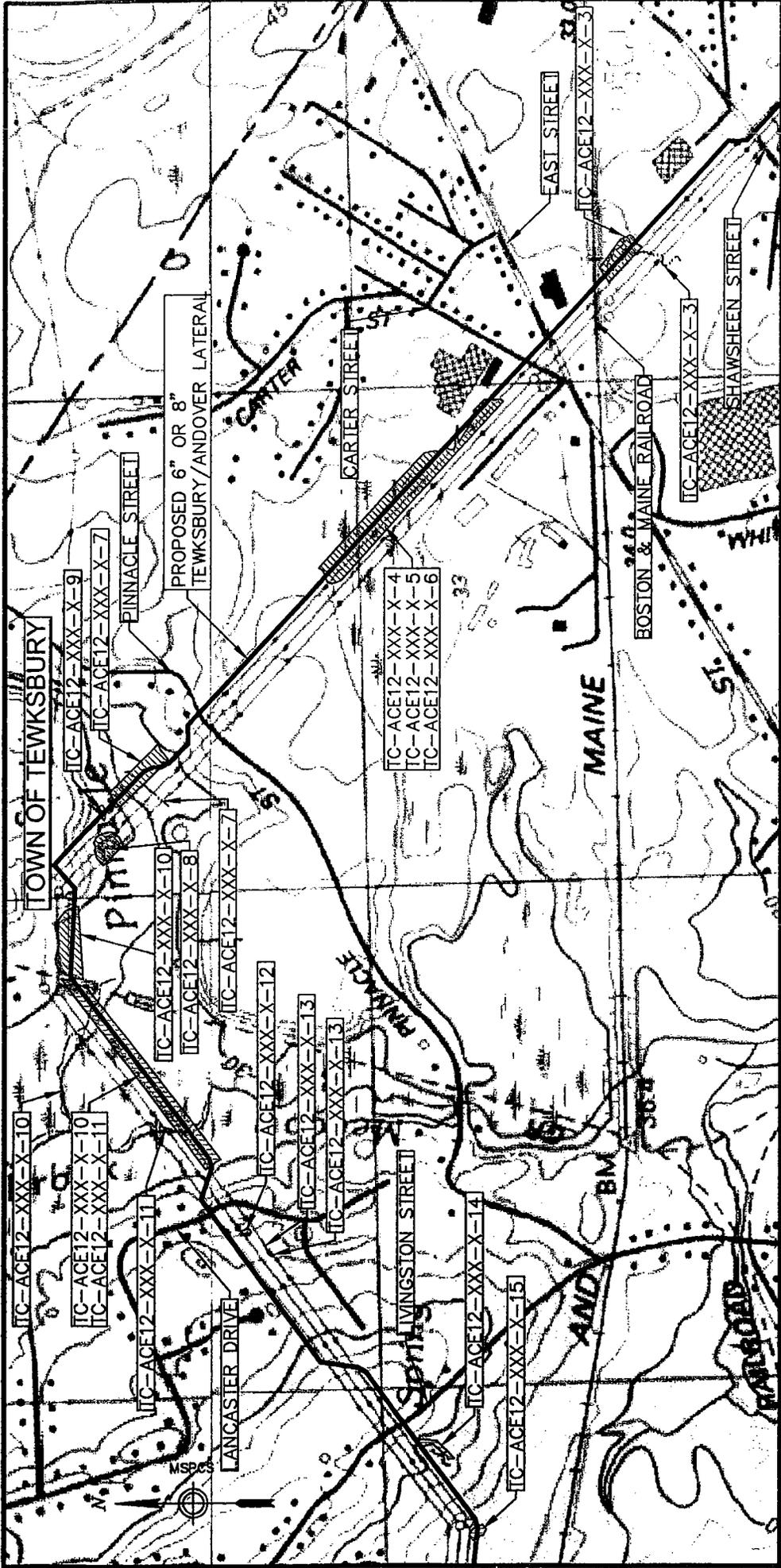
NO.	DATE	REV.	CRD.	APR.	REVISION

REFERENCE DRAWINGS

DRAWING NO.	TITLE
TE-012-XXXX-XX-1	USGS BILLERICA, MA. QUADRANGLE
TE-012-XXXX-XX-2	USGS READING, MA. QUADRANGLE
TE-012-XXXX-XX-3	USGS LAWRENCE, MA. QUADRANGLE

COLER & COLANTONIO
ENGINEERS AND ARCHITECTS

Tennessee Gas Pipeline
an El Paso company



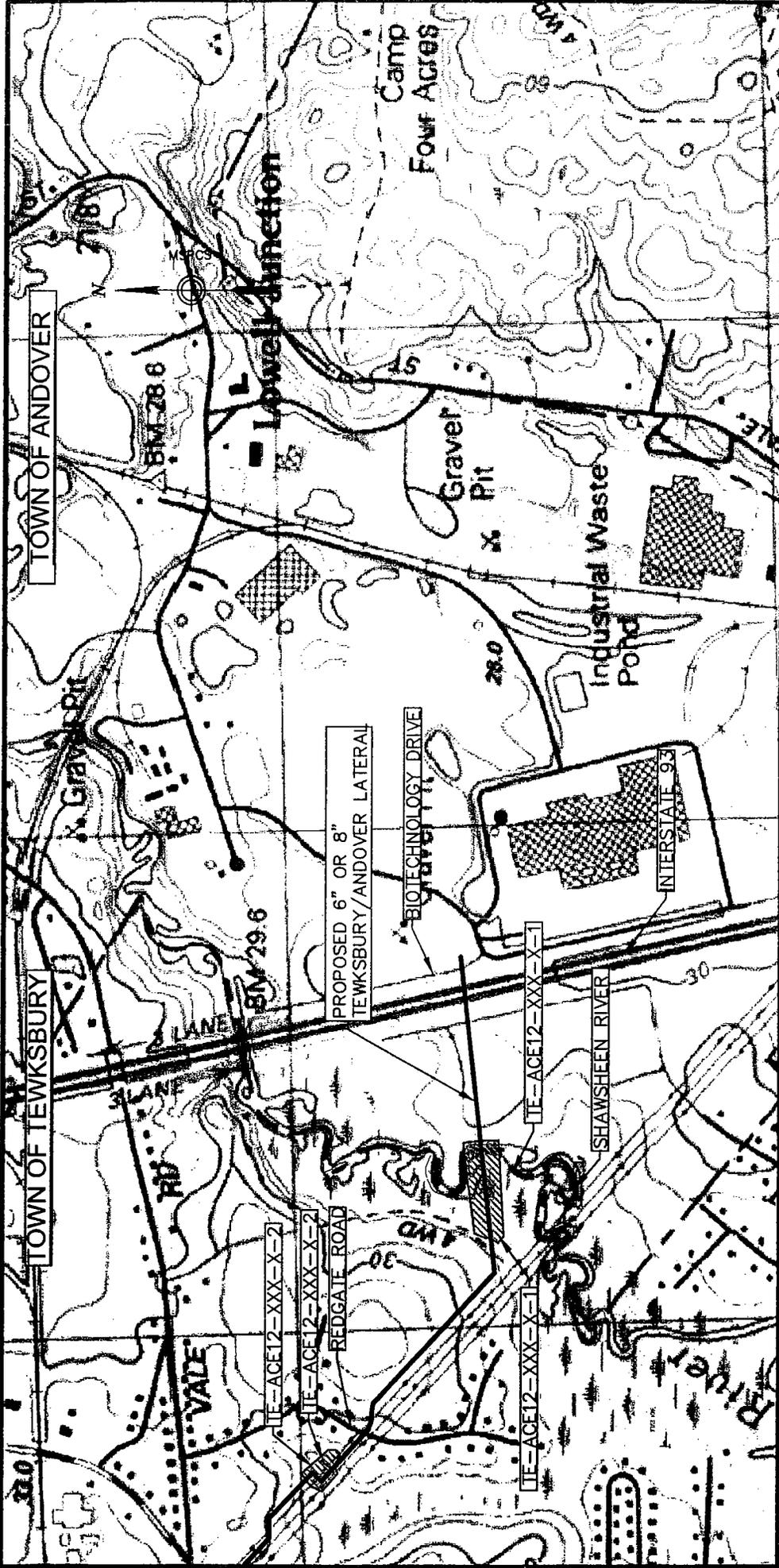
LEGEND

- PROPOSED PIPELINE
- ▨ DELINEATED WETLAND (BY COLER & COLANTONIO)

GRAPHIC SCALE: 1" = 1000'

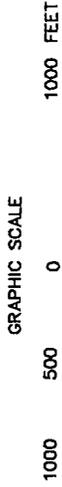
1000 500 0 1000 FEET

NO.	DATE	REV.	CD.	APR.	REVISION																
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REFERENCE DRAWINGS																					
DRAWING NO.	TITLE																				
TE-Q12-XXXX-XX-2	USGS READING, MA. QUADRANGLE																				
TE-Q12-XXXX-XX-3	USGS LAWRENCE, MA. QUADRANGLE																				
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DESIGN	CMC	DATE	03/03																		
CHECKED		DATE																			
APPROVED		DATE																			
SCALE: 1"=1000'																					
<p>COLER & COLANTONIO ENGINEERS AND SURVEYORS 100 STATE STREET LAWRENCE, MASSACHUSETTS 01840</p> <p>Tennessee Gas Pipeline an El Paso company</p>																					
<p>PROPOSED NATURAL GAS PIPELINE 6" OR 8" TEWKSBURY/ANDOVER LATERAL ACOE OVERVIEW DRAWING MIDDLESEX COUNTY, MASSACHUSETTS</p>																					
<p>Fig. No.: TE-ACE12-LOC-002</p> <p>APPROVED BY: _____</p> <p>DATE: _____</p> <p>TENNESSEE GAS PIPELINE Co. TE-ACE12-LOC-002</p>																					



LEGEND

- PROPOSED PIPELINE
- ▨ DELINEATED WETLAND (BY COLER & COLANTONIO)



NO.	DATE	REVISION	REV. DCD.	APR.
REFERENCE DRAWINGS				
DRAWING NO.	TITLE			
TE-Q12-XXXX-XX-2	USGS READING, MA. QUADRANGLE			

COLER & COLANTONIO & ASSOCIATES
 ENGINEERS AND SURVEYORS
 100-200-0000
 100-200-0000

Tennessee Gas Pipeline
 an El Paso company

DRAWN	CAC	DATE	03/03
CHECKED		DATE	
YES		DATE	
APPROVED		DATE	
SCALE: 1"=1000'			

File No.: TE-ACE12-LOC-003

APPROVED BY

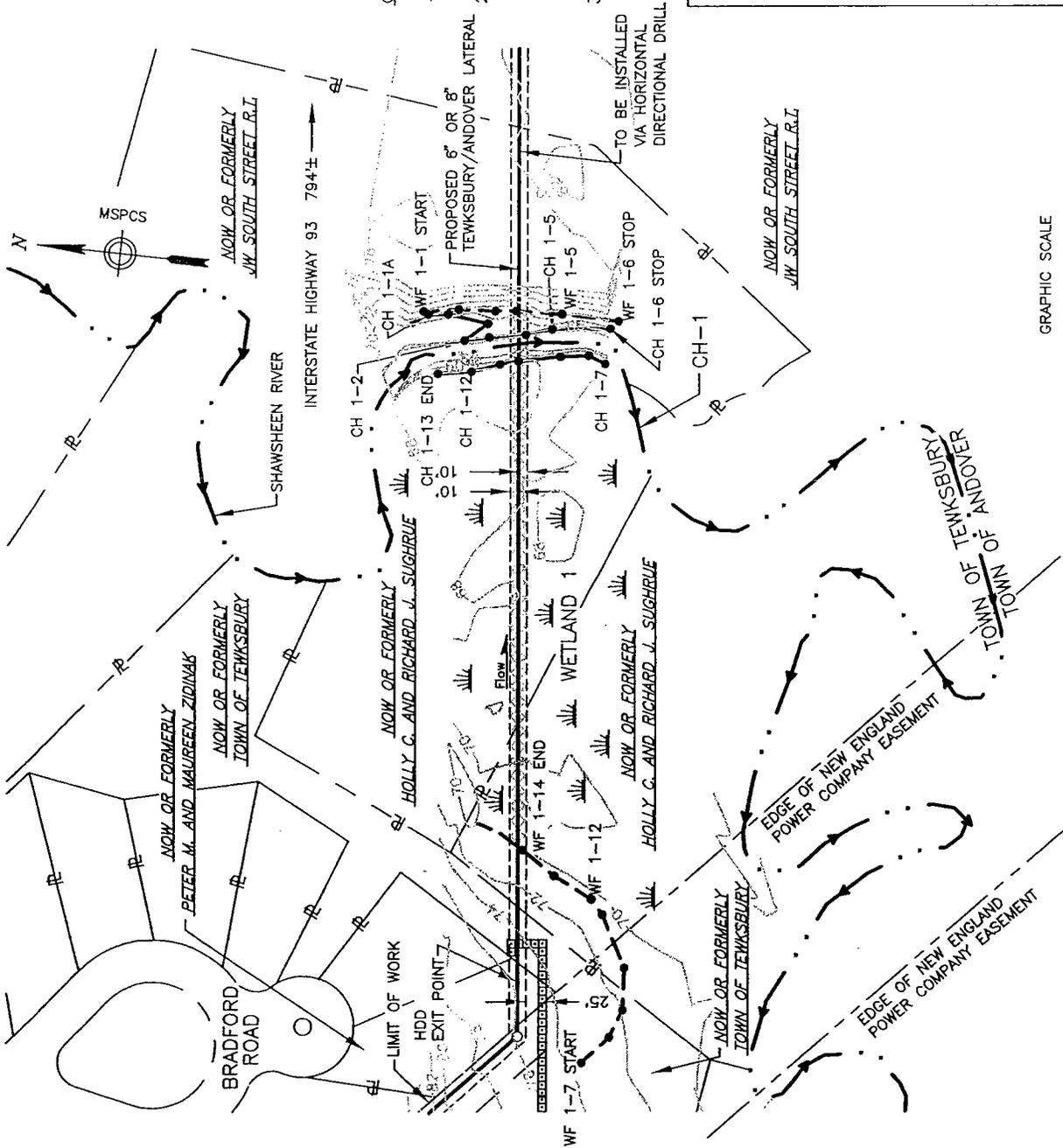
PROPOSED NATURAL GAS PIPELINE
 6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE OVERVIEW DRAWING
 MIDDLESEX COUNTY, MASSACHUSETTS

TEWKSBURY GAS PIPELINE Co.
 TE-ACE12-LOC-003

TOWN OF TEWKSBURY

TOWN OF ANDOVER



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
3. PROPERTY LINE INFORMATION SHOWN HEREON WAS COMPILED FROM ASSESSORS MAPS AND DOES NOT REPRESENT THE RESULT OF A PROPERTY RETRACEMENT SURVEY.

LEGEND

- PROPOSED PERMANENT EASEMENT
- PROPOSED TEMPORARY WORKSPACE (TWS)
- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
- WF 6-2 WETLAND FLAG AND NUMBER
- CH 2-2 CHANNEL FLAG AND NUMBER
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



Fig. No. 1, TE-ACE12-XXX-X-1

DATE	05/03
CHECKED	
DATE	
APPROVED	
DATE	
DATE	
DATE	
SCALE	1"=200'

COLER & COLANTONIO, INC.
 ENGINEERS AND ARCHITECTS
 100 WASHINGTON STREET
 TEWKSBURY, MASSACHUSETTS 01886
 TEL: 978-851-1111
 FAX: 978-851-1112

NO.	DATE	REV.	CHD.	APR.	REVISION

REFERENCE DRAWINGS

DRAWING NO.	TITLE
TE-E12-XXX-XXX-6	ALIGNMENT SHEET
WETLAND_1	WETLAND SITE SPECIFIC

APPROVED BY: PRELIMINARY
 DATE: _____
 TENSSESSEE GAS PIPELINE CO.
 TE-ACE12-XXX-X-1
 MIDDLESEX & ESSEX COUNTIES, MASSACHUSETTS
 ACOE PERMIT DRAWING



TOWN OF TEWKSBURY

GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN JULY 2003, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. IN JULY 2003 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
3. PROPERTY LINE INFORMATION SHOWN HEREON WAS COMPILED FROM ASSESSORS MAPS AND DOES NOT REPRESENT THE RESULT OF A PROPERTY RETRACEMENT SURVEY.

TO BE INSTALLED VIA HORIZONTAL DIRECTIONAL DRILL

NOW OR FORMERLY HOLT AND BURGEE COMPANY

EDGE OF NEW ENGLAND POWER COMPANY EASEMENT

PROPOSED 6" OR 8" TEWKSBURY/ANDOVER LATERAL

LIMIT OF WORK

EROSION CONTROL

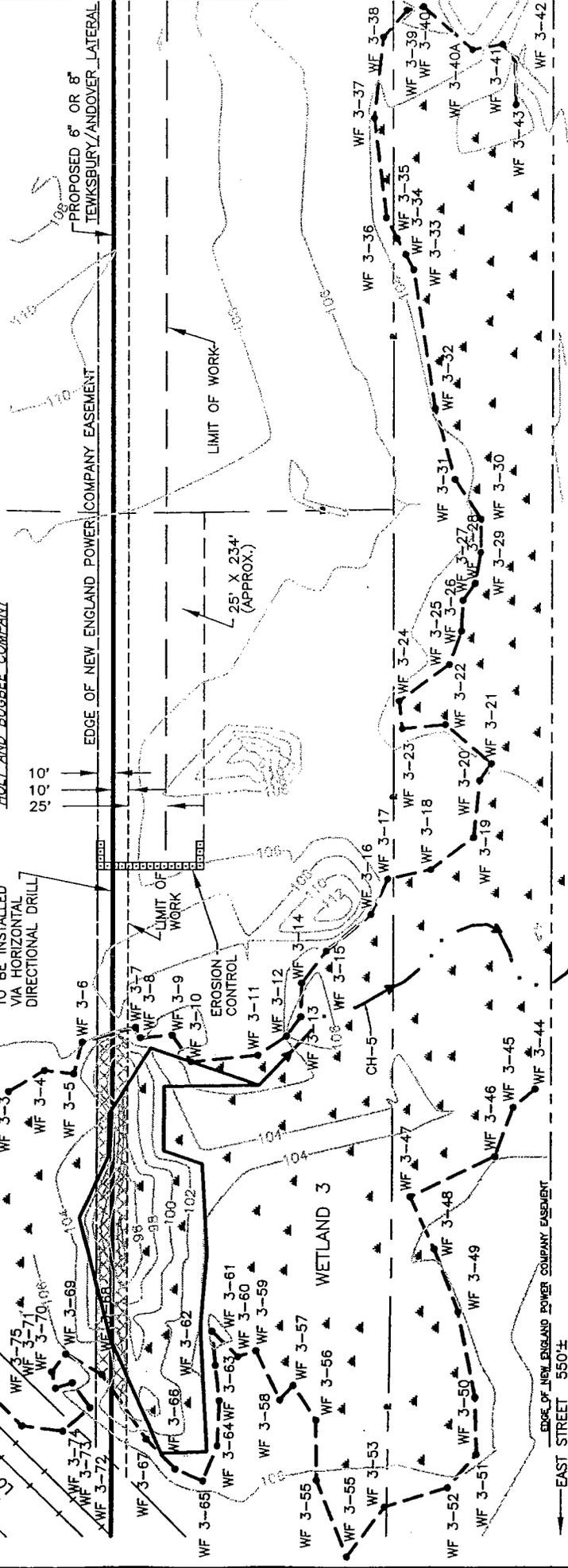
WETLAND 3

EDGE OF NEW ENGLAND POWER COMPANY EASEMENT

EAST STREET 550'

25' X 234' (APPROX.)

LEGEND	
	PROPOSED PERMANENT EASEMENT
	PROPOSED TEMPORARY WORKSPACE (TWS)
	PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
	PROPOSED PIPELINE
	PROPERTY LINE
	DELINEATED WETLAND EDGE
	CHANNEL LINE
	WETLAND SYMBOL
	WETLAND FLAG AND NUMBER
	CHANNEL FLAG AND NUMBER
	EROSION CONTROL BARRIER
	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



APPROVED BY
PRELIMINARY
DATE: _____

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL
ACOE PERMIT DRAWING
MIDDLESEX COUNTY, MASSACHUSETTS

Fig. No. TE-E12-XXX-X-3

TE-E12-XXX-XXX-4
TE-E12-XXX-XXX-5
TE-E12-HOD-BMRR

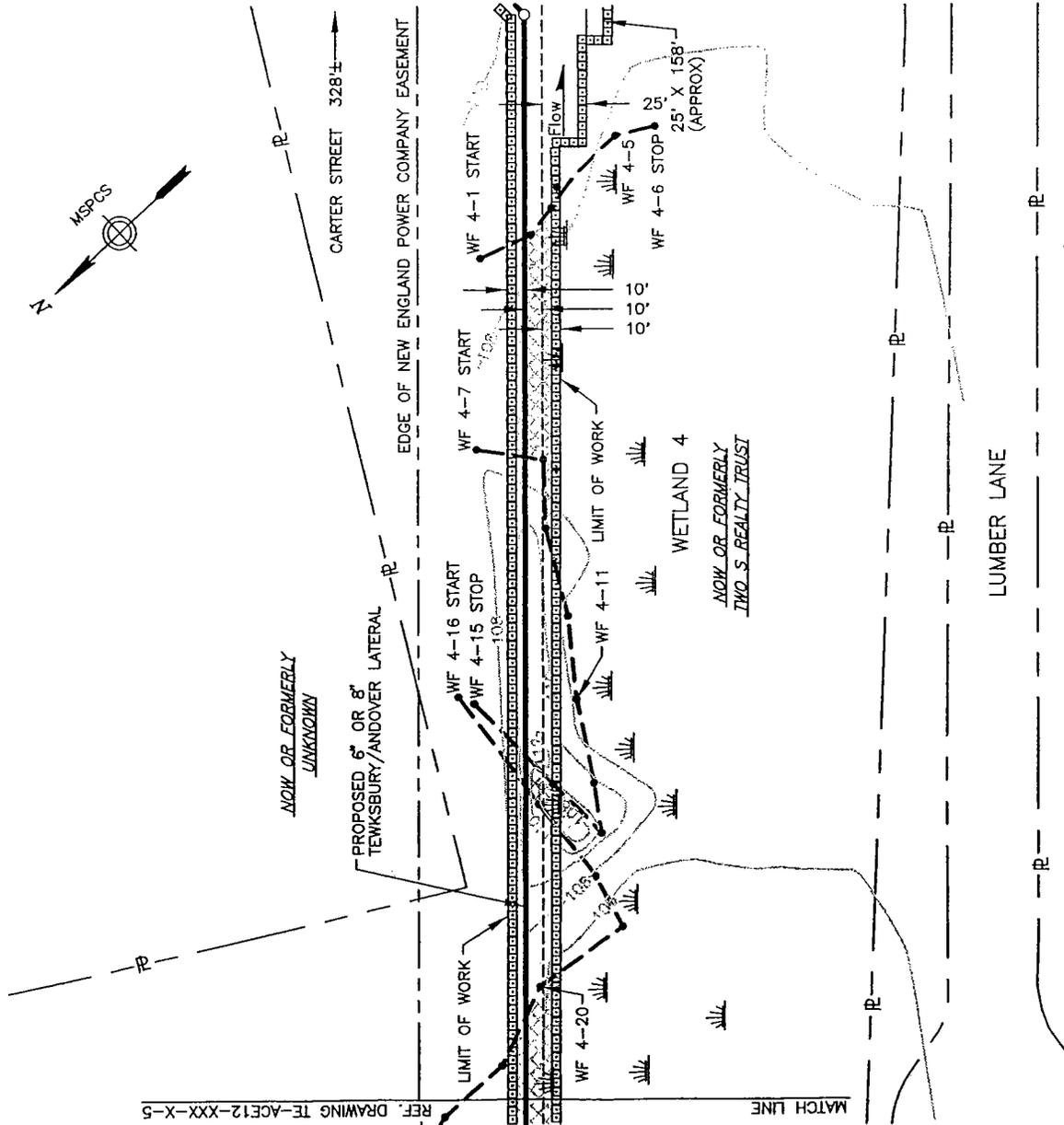
DATE 07/03
DATE
DATE
DATE

DRAWN CAC
CHECKED YES
APPROVED DATE
SCALE: 1"=100'

Tennessee Gas Pipeline Co.
an BP Pipe company

NO.	DATE	REVISION	REV.	CHKD.	APR.
REFERENCE DRAWINGS					
DRAWING NO.	TITLE				
TE-E12-XXX-XXX-4	ALIGNMENT SHEET				
TE-E12-XXX-XXX-5	ALIGNMENT SHEET				
TE-E12-HOD-BMRR	HDD DESIGN				

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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LEGEND	
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---	PROPOSED TEMPORARY WORKSPACE (TWS)
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---	DELINEATED WETLAND EDGE
---	CHANNEL LINE
	WETLAND SYMBOL
● WF 6-2	WETLAND FLAG AND NUMBER
● CH 2-2	CHANNEL FLAG AND NUMBER
-----	EROSION CONTROL BARRIER
-----	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

NO.	DATE	REV.	CHKD.	APR.	REVISION

REFERENCE DRAWINGS	
DRAWING NO.	TITLE
TE-E12-XXX-XXX-4	ALIGNMENT SHEET
WETLAND 4A	WETLAND SITE SPECIFIC

DRAWN	CAC	DATE	05/03
CHECKED		DATE	
YES		DATE	
APPROVED		DATE	
		DATE	

SCALE: 1"=100'

APPROVED BY **PRELIMINARY**

DATE: _____

PROPOSED NATURAL GAS PIPELINE

6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE PERMIT DRAWING

MIDDLESEX COUNTY, MASSACHUSETTS

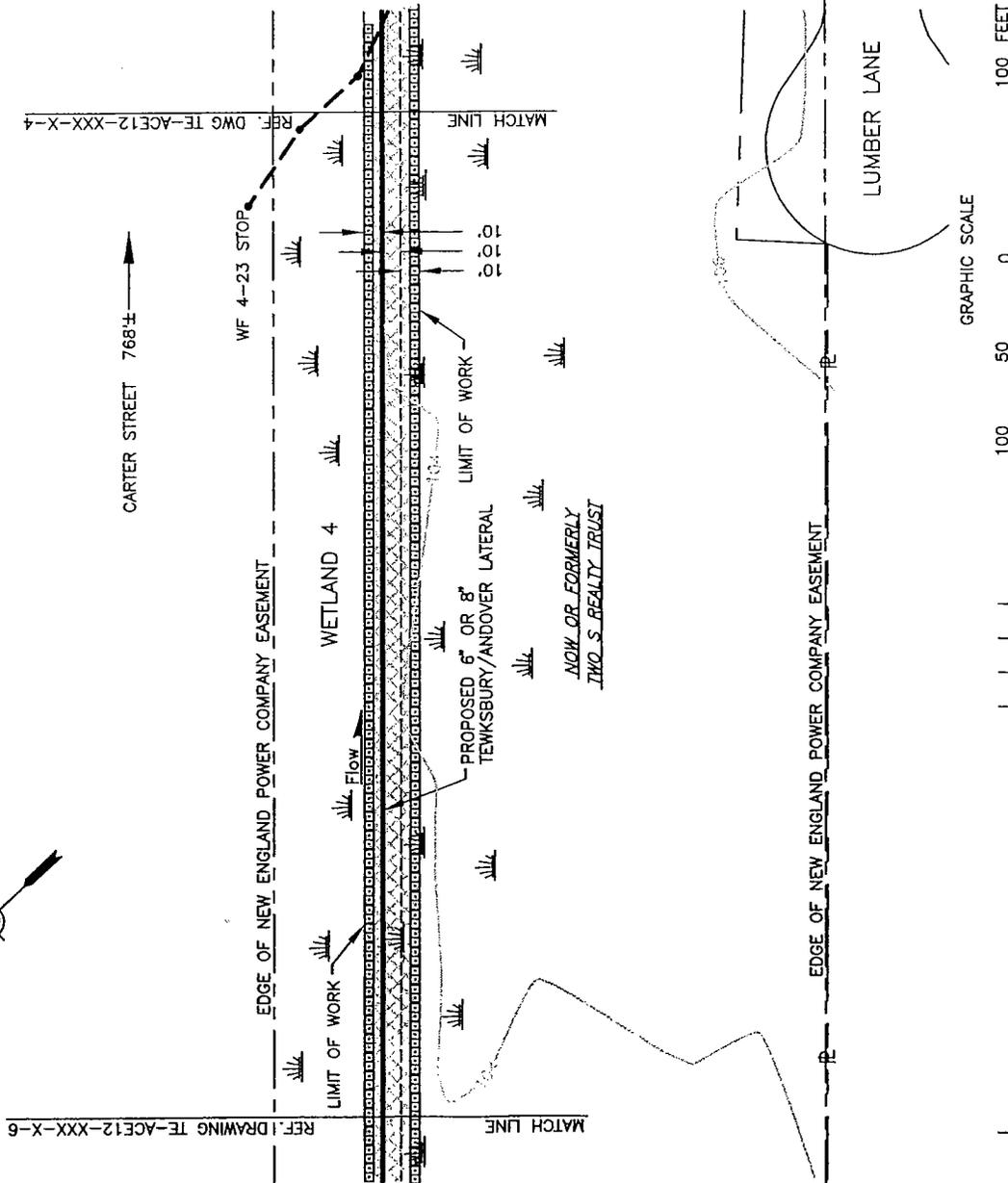
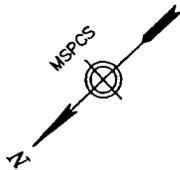
TF-ACF17-XXX-X-4

TENNESSEE GAS PIPELINE CO.



COLER & COLANTONIO
 ENGINEERS AND SURVEYORS
 70-100-1000
 1000 WEST 100TH STREET
 SUITE 100
 WESTLAKE, OHIO 44140

TOWN OF TEWKSBURY



GENERAL NOTES:

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- WF 6-2
- CH 2-2
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

APPROVED BY **PRELIMINARY**
 DATE: _____
 TENSSESSE GAS PIPELINE CO.
 TF--ACF19-XXX-X-5

PROPOSED NATURAL GAS PIPELINE
 6" OR 8" TEWKSBURY/ANDOVER LATERAL
 ACOE PERMIT DRAWING
 MIDDLESEX COUNTY, MASSACHUSETTS

FILE NO.	TE--ACF12-XXX-X-5
DRAWN	CAC
CHECKED	DATE 05/03
YES	DATE
APPROVED	DATE
SCALE: 1" = 100'	

REFERENCE DRAWINGS

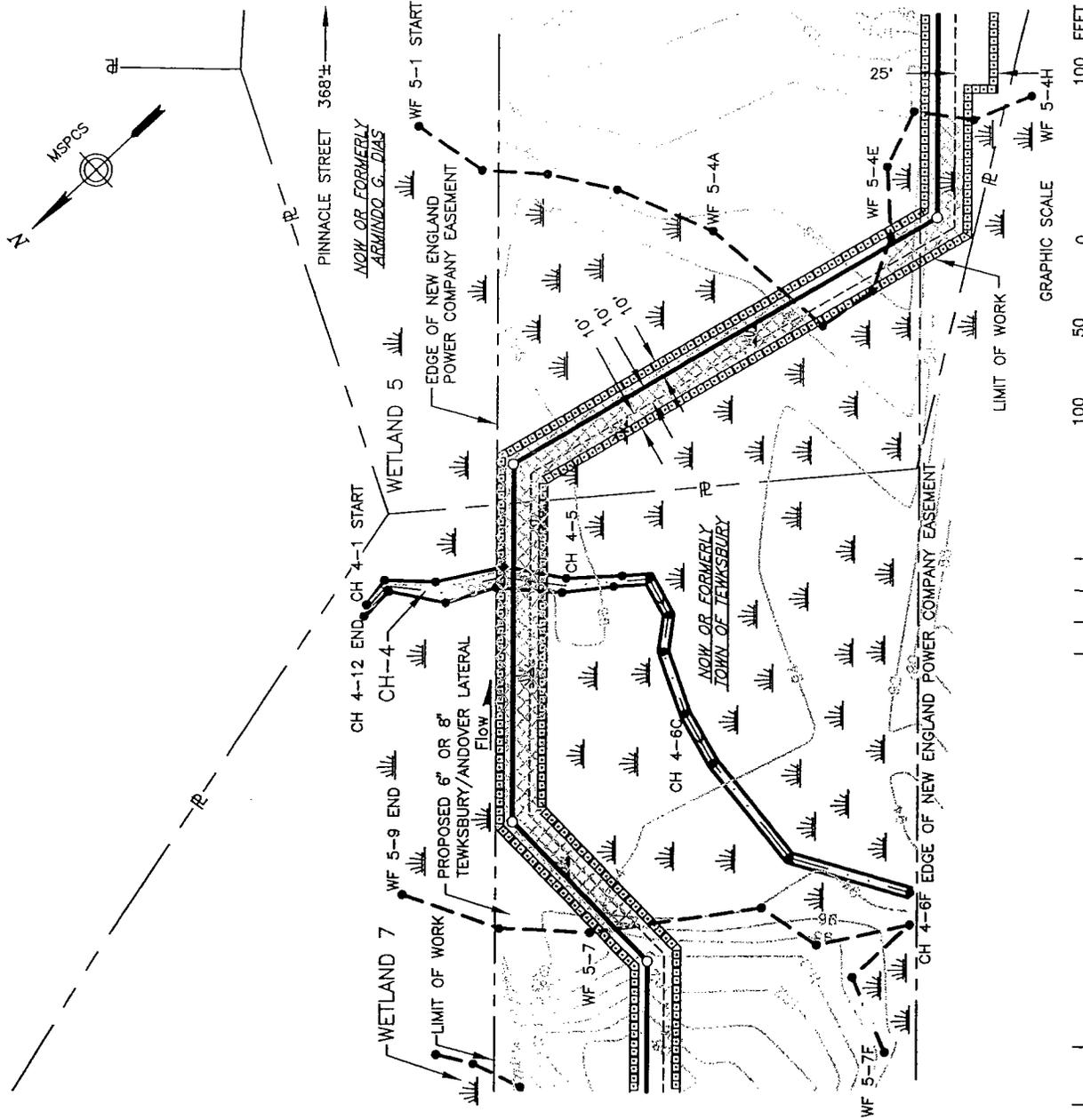
NO.	DATE	REVISION	REV. CHD. APR.

COLER & COLANTONIO, INC.
 ENGINEERS AND ARCHITECTS
 100 STATE STREET, SUITE 200
 TEWKSBURY, MASSACHUSETTS 01886
 TEL: 978-265-1400 FAX: 978-265-1401

Tennessee Gas Pipeline
 an El Paso company

DRAWING NO.	TE-E12-XXX-XXX-4	TITLE	ALIGNMENT SHEET
WETLAND_4A			WETLAND SITE SPECIFIC
WETLAND_4B			WETLAND SITE SPECIFIC

TOWN OF TEWKSBURY



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---	PROPERTY LINE
---	DELINEATED WETLAND EDGE
---	CHANNEL LINE
---	WETLAND SYMBOL
● WF 6-2	WETLAND FLAG AND NUMBER
● CH 2-2	CHANNEL FLAG AND NUMBER
---	EROSION CONTROL BARRIER
---	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

Fig. No. TE-ACE12-XXX-X-7

APPROVED BY	PRELIMINARY
DATE	
TENNESSEE GAS PIPELINE Co.	
TE-ACE12-XXX-X-7	

PROPOSED NATURAL GAS PIPELINE	6" OR 8" TEWKSBURY/ANDOVER LATERAL
ACOE PERMIT DRAWING	MIDDLESEX COUNTY, MASSACHUSETTS

NO.	DATE	REV.	CHKD.	APR.	REVISION
REFERENCE DRAWINGS					
DRAWING NO.	TITLE				
TE-E12-XXX-XXX-4	ALIGNMENT SHEET				
WETLAND_5-6-7	WETLAND SITE SPECIFIC				

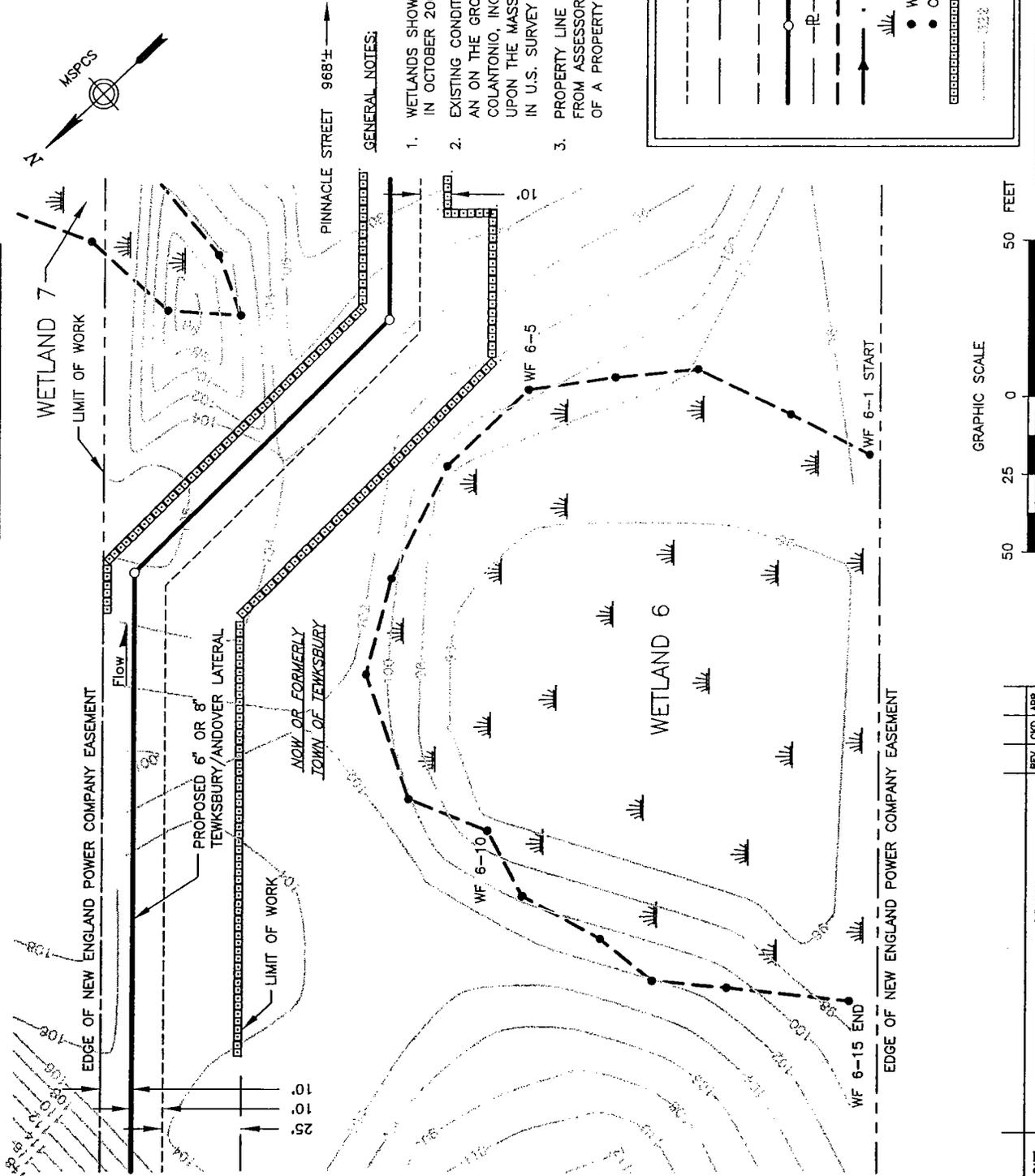
Tennessee Gas Pipeline
 an E.P. Energy company

DRAWN	CAC	DATE	07/03
CHECKED		DATE	
APPROVED		DATE	
SCALE:	1"=100'		

GRAPHIC SCALE	0	50	100	100 FEET
---------------	---	----	-----	----------

COLER & COLANTONIO	REGISTERED PROFESSIONAL ENGINEERS
TEWKSBURY, MASSACHUSETTS	

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
3. PROPERTY LINE INFORMATION SHOWN HEREON WAS COMPILED FROM ASSESSORS MAPS AND DOES NOT REPRESENT THE RESULT OF A PROPERTY RETRACEMENT SURVEY.

LEGEND	
---	PROPOSED PERMANENT EASEMENT
- - -	PROPOSED TEMPORARY WORKSPACE (TWS)
- - -	PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
—○—	PROPOSED PIPELINE
—R—	PROPERTY LINE
- - -	DELINEATED WETLAND EDGE
- - -	CHANNEL LINE
	WETLAND SYMBOL
● WF 6-2	WETLAND FLAG AND NUMBER
● CH 2-2	CHANNEL FLAG AND NUMBER
—○—	EROSION CONTROL BARRIER
	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

GRAPHIC SCALE
 0 25 50 100 FEET

NO.	DATE	REVISION	REV.	CHKD.	APR.

DRAWN	CAC	DATE	07/03
CHECKED		DATE	
APPROVED		DATE	
		DATE	

REFERENCE DRAWINGS
 DRAWING NO. TITLE
 TE-E12-XXX-XXX-3 ALIGNMENT SHEET
 WETLAND_5-6-7 WETLAND SITE SPECIFIC

COLER & COLANTONIO, INC.
 ENGINEERS AND SURVEYORS
 700 WEST MAIN STREET
 TEWKSBURY, MASSACHUSETTS 01886
 TEL: 978-265-8800 FAX: 978-265-8801

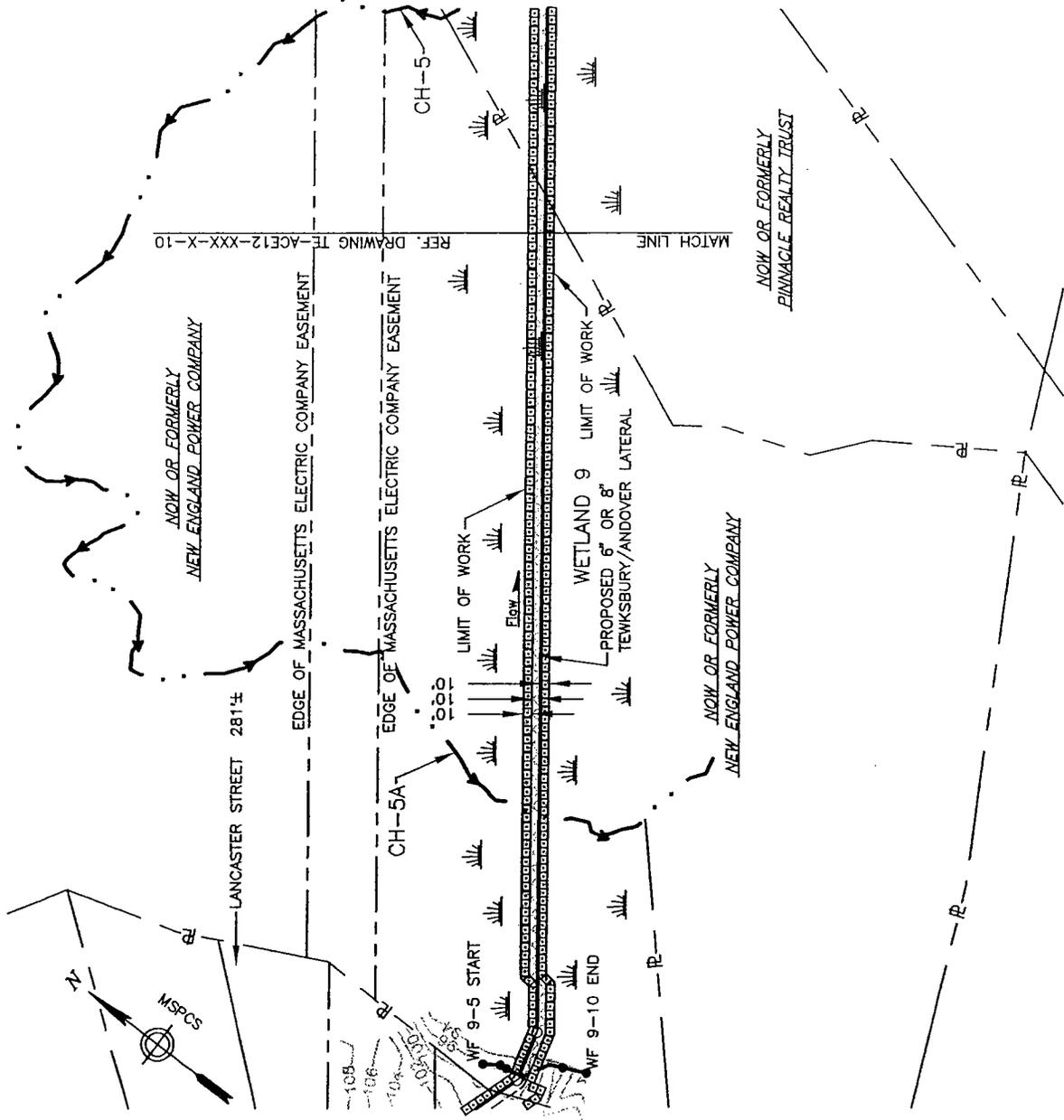


APPROVED BY
PRELIMINARY
 DATE: _____
 TENSASSEE GAS PIPELINE CO.
 TE-ACE12-XXX-X-3

PROPOSED NATURAL GAS PIPELINE
 6" OR 8" TEWKSBURY/ANDOVER LATERAL
 ACOE PERMIT DRAWING
 MIDDLESEX COUNTY, MASSACHUSETTS

File No.: TE-ACE12-XXX-X-3

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
3. PROPERTY LINE INFORMATION SHOWN HEREON WAS COMPILED FROM ASSESSORS MAPS AND DOES NOT REPRESENT THE RESULT OF A PROPERTY RETRACEMENT SURVEY.

LEGEND

- PROPOSED PERMANENT EASEMENT
- PROPOSED TEMPORARY WORKSPACE (TWS)
- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
 - WF 6-2
 - CH 2-2
- WETLAND FLAG AND NUMBER
- CHANNEL FLAG AND NUMBER
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



FILE NO. TE-AGP12-008-X-10
APPROVED BY
PRELIMINARY
DATE:

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL
ACOE PERMIT DRAWING
MIDDLESEX COUNTY, MASSACHUSETTS

DRAWN	CAC	DATE	05/03
CHECKED		DATE	
YES		DATE	
APPROVED		DATE	
SCALE:	1" = 200'		

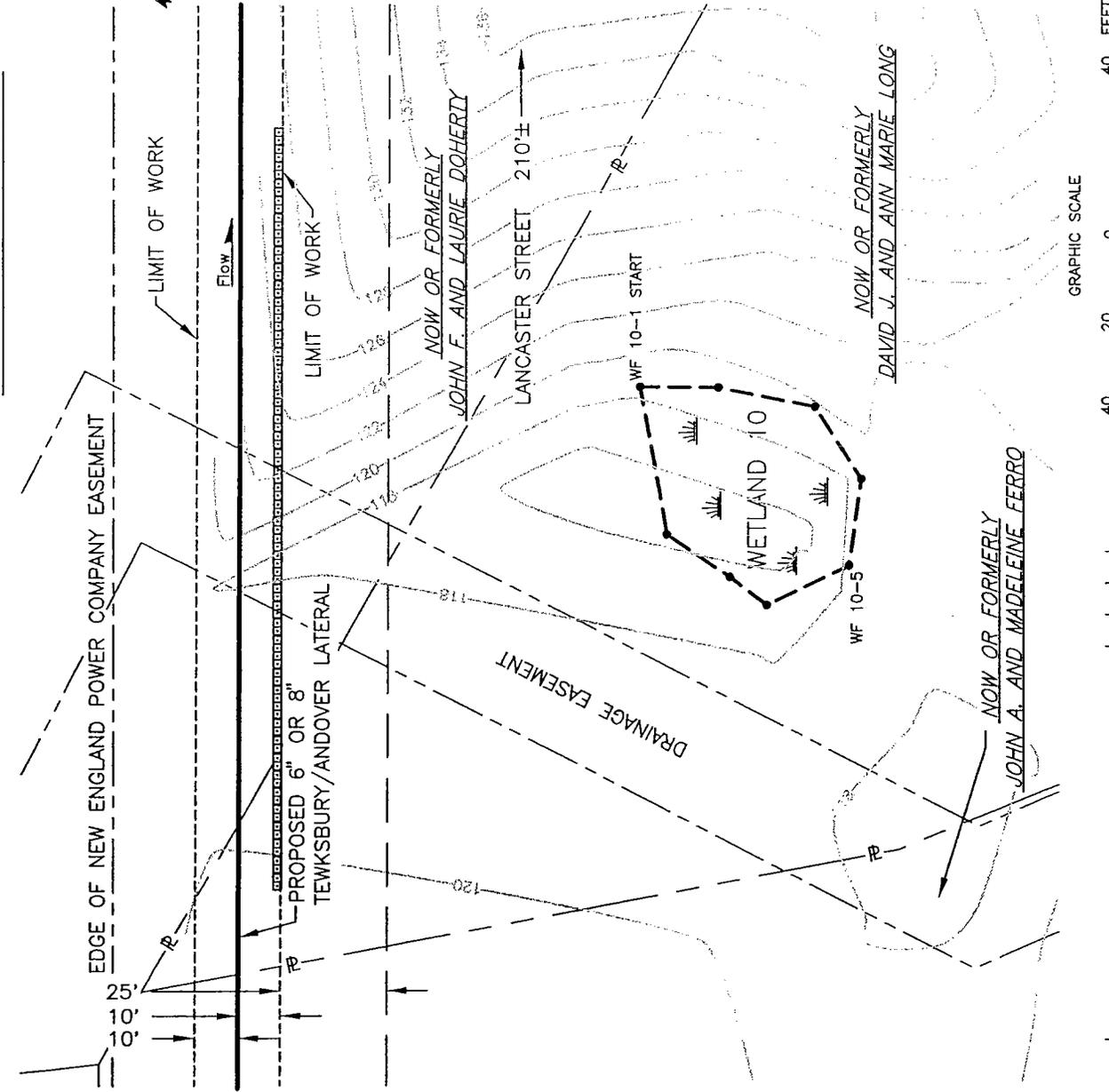
COLER & COLANTONIO, INC.
 ENGINEERS AND SURVEYORS
 1000 WASHINGTON STREET, SUITE 200
 TEWKSBURY, MASSACHUSETTS 01886
 TEL: 978-852-1100 FAX: 978-852-1101

NO.	DATE	REVISION	REV. CND.	APR.
REFERENCE DRAWINGS				
DRAWING NO.	TITLE			
TE-E12-XXX-XXX-3	ALIGNMENT SHEET			
WETLAND_8-9A	WETLAND SITE SPECIFIC			
WETLAND_9B	WETLAND SITE SPECIFIC			
WETLAND_9C-10-11	WETLAND SITE SPECIFIC			



APPROVED BY
PRELIMINARY
 DATE:
TEWKSBURY GAS PIPELINE CO.
TF-ACF19-XXX-X-10

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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LEGEND	
---	PROPOSED PERMANENT EASEMENT
---	PROPOSED TEMPORARY WORKSPACE (TWS)
---	PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
—○—	PROPOSED PIPELINE
—P—	PROPERTY LINE
---	DELINEATED WETLAND EDGE
—••—	CHANNEL LINE
	WETLAND SYMBOL
•	WETLAND FLAG AND NUMBER
•	CHANNEL FLAG AND NUMBER
—•••••	EROSION CONTROL BARRIER
□□□□□	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

Fig. No. TE-ACE12-XXX-X-11

DATE	BY	DESCRIPTION
05/03	CAC	CHECKED
		APPROVED

DATE	BY	DESCRIPTION
		CHECKED
		APPROVED

NO.	DATE	REV.	CHD.	APR.	REVISION

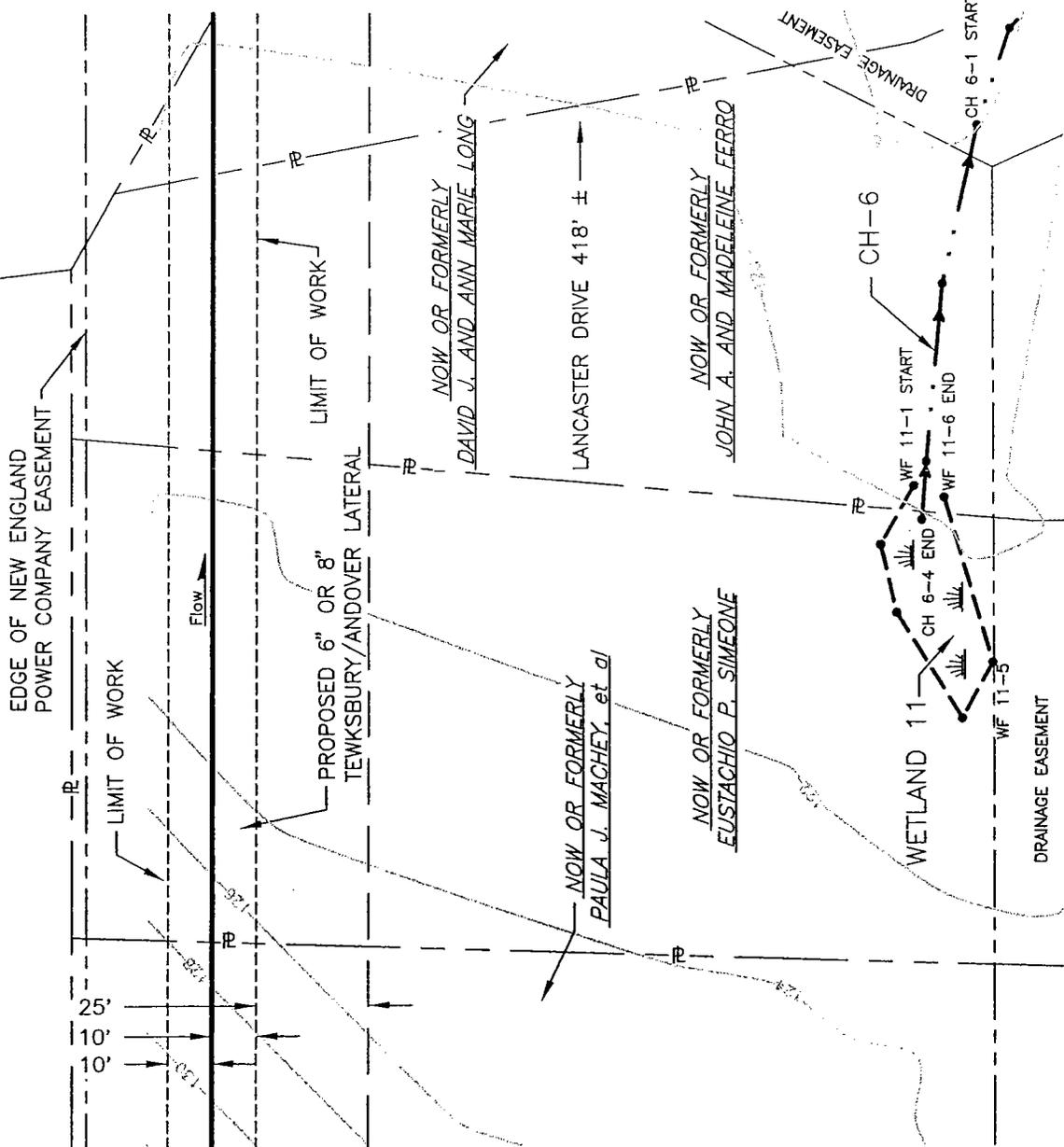
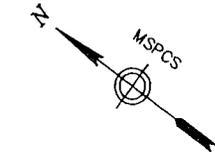
COLER & COLANTONIO, INC.
 REGISTERED PROFESSIONAL ENGINEERS
 100 WEST STREET, SUITE 200
 TEWKSBURY, MASSACHUSETTS 01886



APPROVED BY
PRELIMINARY
 DATE: _____
 TENNESSEE GAS PIPELINE Co.
 TE-ACE12-XXX-X-11

PROPOSED NATURAL GAS PIPELINE
 6" OR 8" TEWKSBURY/ANDOVER LATERAL
 ACOE PERMIT DRAWING
 MIDDLESEX COUNTY, MASSACHUSETTS

TOWN OF TEWKSBURY

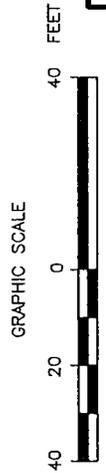


GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
 - WF 6-2
 - CH 2-2
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



File No. TE-ACE12-XXX-X-12

APPROVED BY _____ DATE _____

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOEE PERMIT DRAWING
MIDDLESEX COUNTY, MASSACHUSETTS

TE-ACE12-XXX-X-12
TENNESSEE GAS PIPELINE Co.

DRAWN	C&C	DATE	05/03
CHECKED		DATE	
YES		DATE	
APPROVED		DATE	
		DATE	
SCALE: 1"=40'			

REFERENCE DRAWINGS

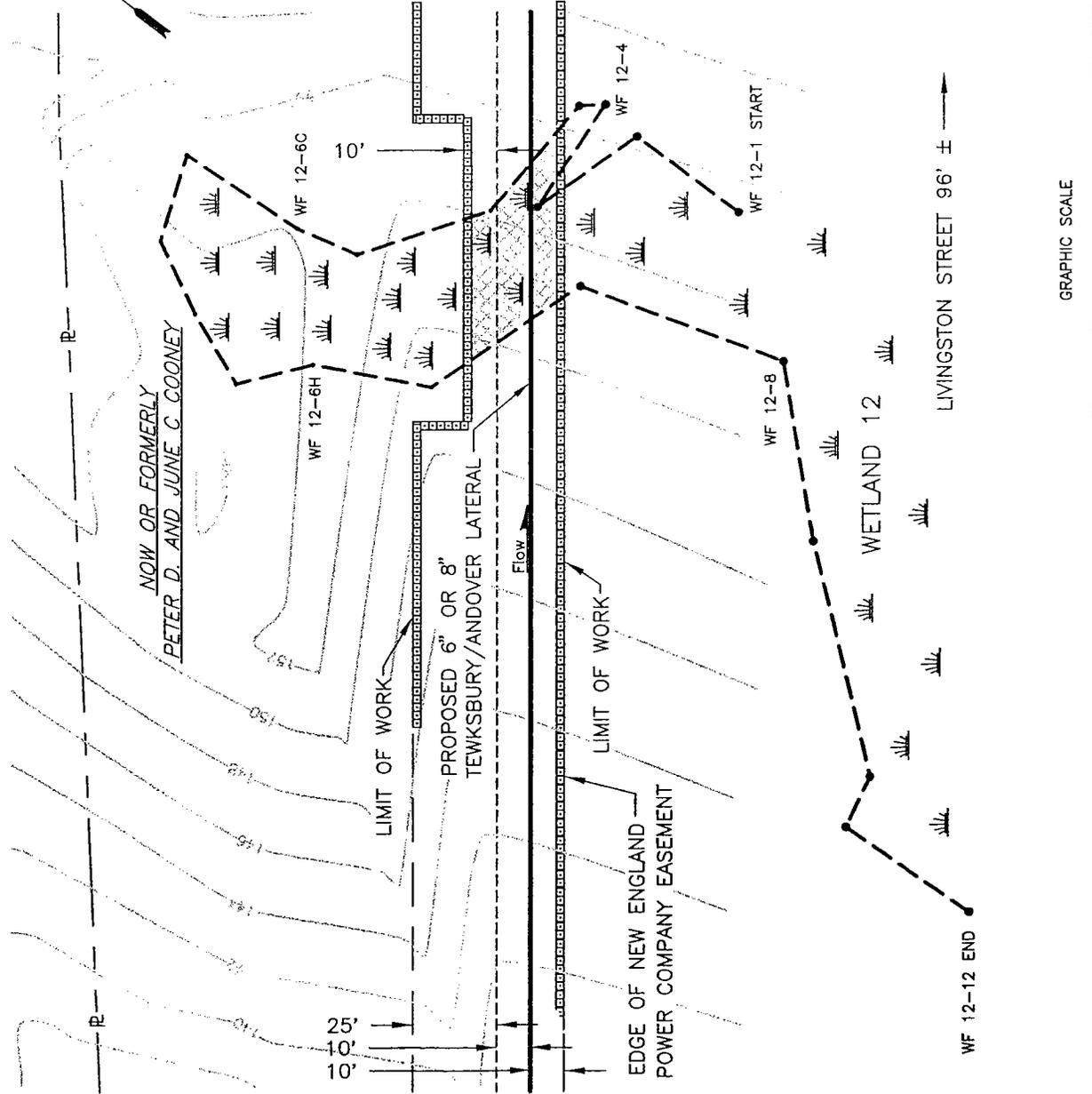
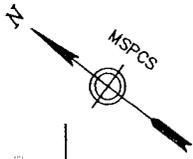
NO.	DATE	REVISION	REV. CHKD.	APPR.

COLER & COLANTONIO, INC.
DIRECTORS AND ENGINEERS
1000 WASHINGTON STREET, SUITE 200
TEWKSBURY, MASSACHUSETTS 01886
TEL: 978-852-1100 FAX: 978-852-1101

Tennessee Gas Pipeline
an EPCOR company

DRAWING NO.	TE-E12-XXX-XXX-3 ALIGNMENT SHEET
TITLE	WETLAND_12-13 WETLAND SITE SPECIFIC

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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- PROPOSED TEMPORARY WORKSPACE (TWS)
- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- Wetland Symbol
- WF 6-2
- CH 2-2
- WETLAND FLAG AND NUMBER
- CHANNEL FLAG AND NUMBER
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

GRAPHIC SCALE
 50 0 50 FEET

APPROVED BY **PRELIMINARY**
 DATE _____
 TENSSESEE GAS PIPELINE CO.
 TE-ACE12-XXX-X-13

PROPOSED NATURAL GAS PIPELINE
 6" OR 8" TEWKSBURY/ANDOVER LATERAL
 ACOE PERMIT DRAWING
 MIDDLESEX COUNTY, MASSACHUSETTS

FILE No. TE-ACE12-XXX-X-13

DRAWN	C&C	DATE	05/03
CHECKED		DATE	
APPROVED		DATE	
SCALE: 1"=50'			

COLER & COLANTONIO, INC.
 ENGINEERS AND SURVEYORS
 100 WEST MAIN STREET
 TEWKSBURY, MASSACHUSETTS 01886
 TEL: 978-852-8888 FAX: 978-852-8889

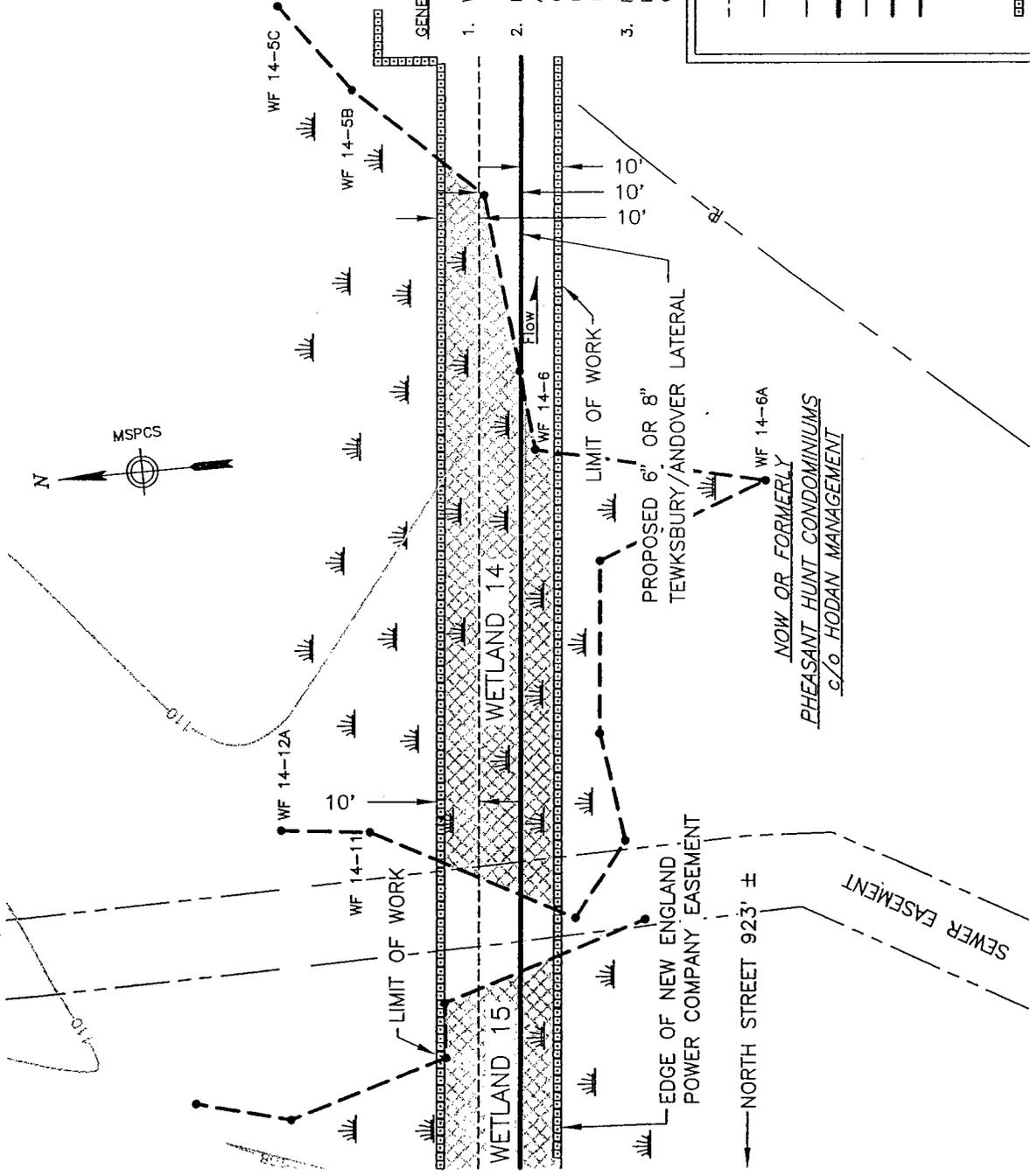
Tennessee Gas Pipeline
 an El Paso company

NO.	DATE	REV.	CHKD.	APR.	REVISION

REFERENCE DRAWINGS

DRAWING NO.	TITLE
TE-E12-XXX-XXX-3	ALIGNMENT SHEET
WETLAND_12-13	WETLAND SITE SPECIFIC

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
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- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
- WF 6-2
- CH 2-2
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

GRAPHIC SCALE
0 20 40 40 FEET

DATE	05/03
DATE	
DATE	
DATE	
DATE	

NO.	DATE	REV.	CHKD.	APPR.

REFERENCE DRAWINGS	
DRAWING NO.	TITLE
TE-E12-XXX-XXX-2	ALIGNMENT SHEET
WETLAND_14-15	WETLAND SITE SPECIFIC

COLER & COLANTONIO, INC.
ENGINEERS AND ARCHITECTS
100 WEST MAIN STREET
TEWKSBURY, MASSACHUSETTS 01886
TEL: 978-852-1100
FAX: 978-852-1101



APPROVED BY: **PRELIMINARY**

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE PERMIT DRAWING

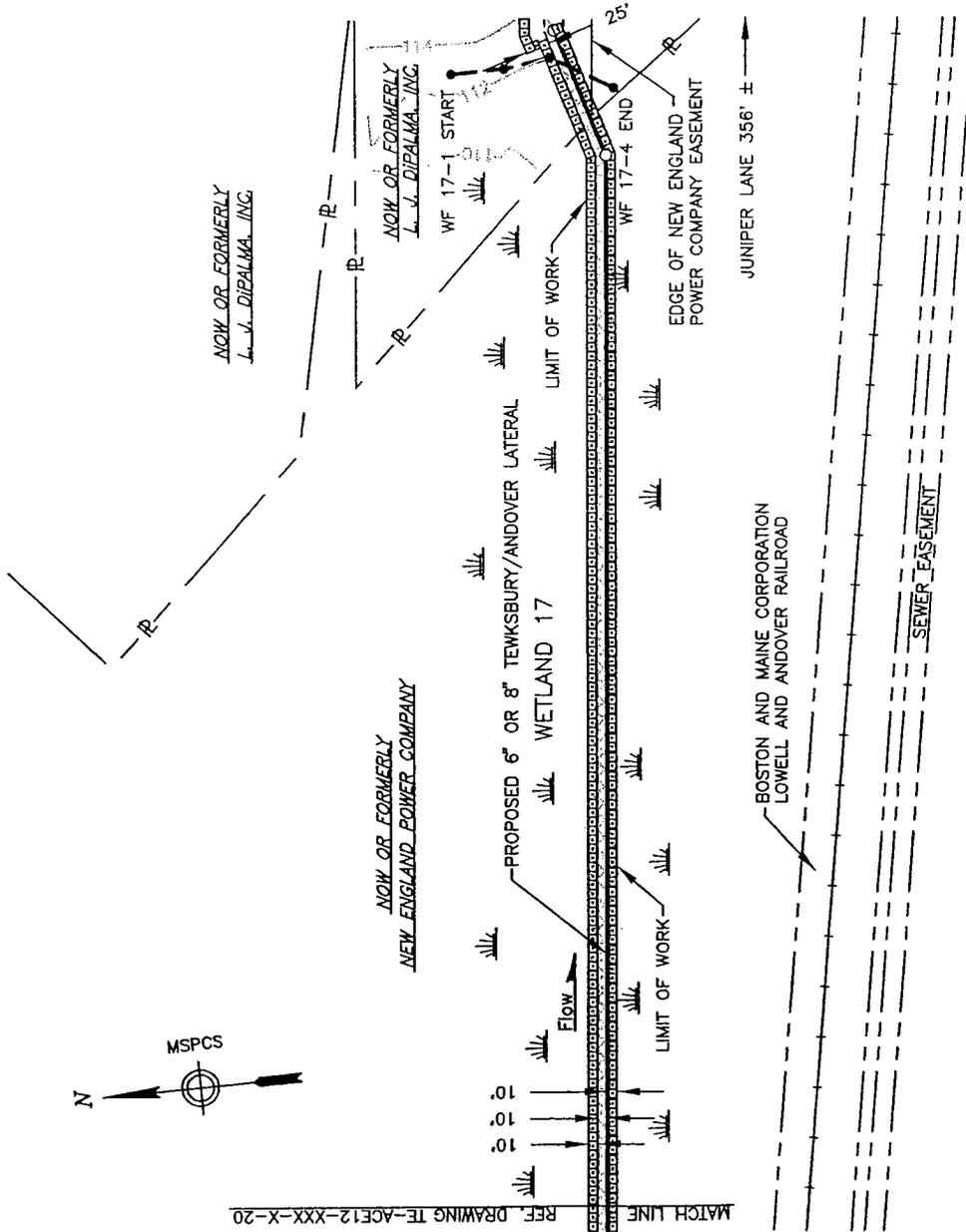
MIDDLESEX COUNTY, MASSACHUSETTS

TE-ACF12-XXX-X-15

DATE: _____

TENNESSEE GAS PIPELINE CO.

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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- PROPOSED TEMPORARY WORKSPACE (TWS)
- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
- WETLAND FLAG AND NUMBER
- CHANNEL FLAG AND NUMBER
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



Fig. No. TF-4517-XXX-X-18

APPROVED BY
PRELIMINARY
 DATE: _____
 TENSSESSEE GAS PIPELINE Co.
 TF-ACF17-XXX-X-18

PROPOSED NATURAL GAS PIPELINE
 6" OR 8" TEWKSBURY/ANDOVER LATERAL
 ACOE PERMIT DRAWING
 MIDDLESEX COUNTY, MASSACHUSETTS

NO.	DATE	REV.	CRD.	APR.

NO.	DATE	REV.	CRD.	APR.

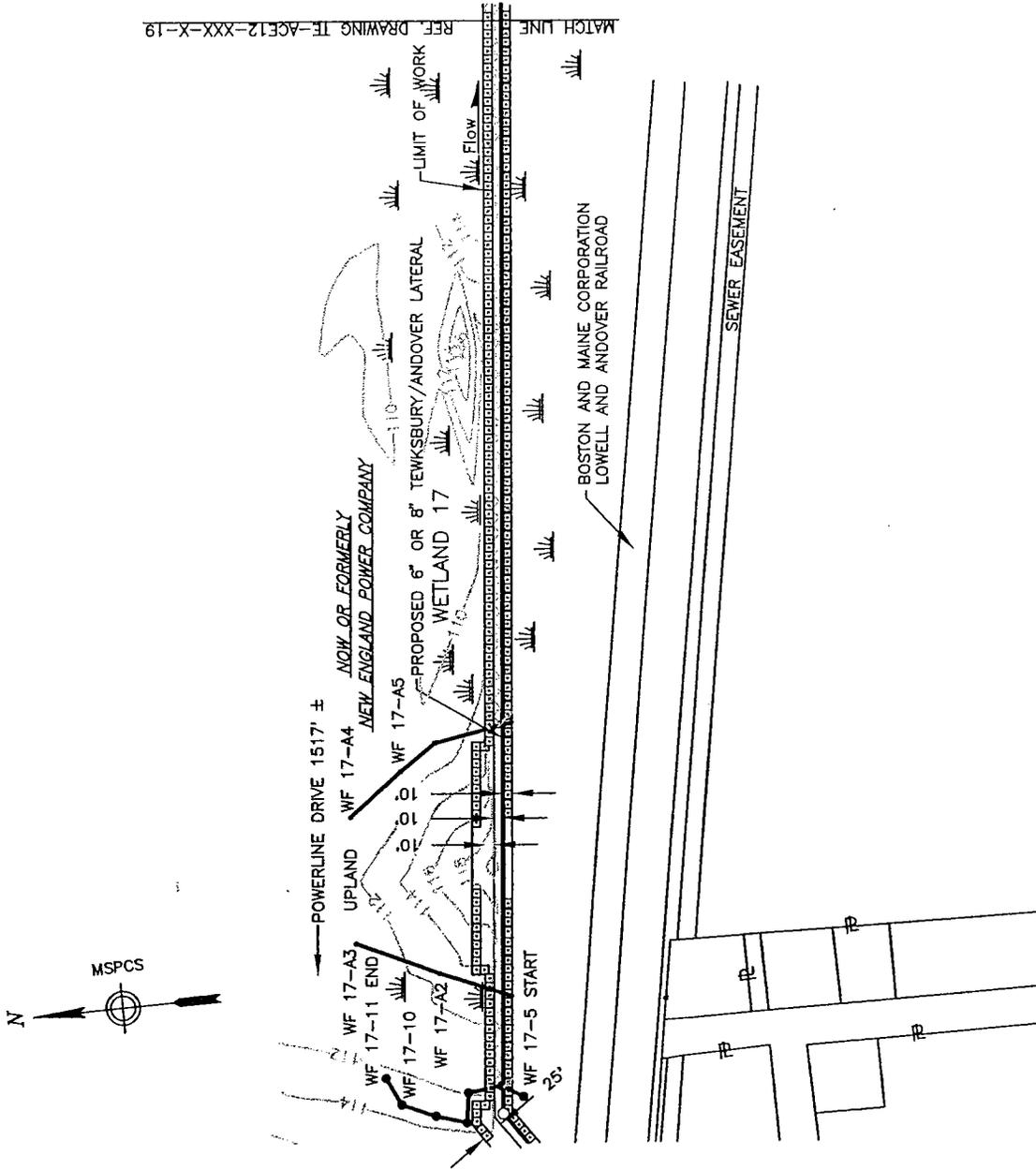
REFERENCE DRAWINGS

DRAWING NO.	TITLE
TE-E12-XXX-XXX-2	ALIGNMENT SHEET
WETLAND_17A	WETLAND SITE SPECIFIC

COLE & COLANTONIO, INC.
 ENGINEERS AND ARCHITECTS
 100 STATE STREET, SUITE 200
 TEWKSBURY, MASSACHUSETTS 01876
 TEL: 978-852-4444
 FAX: 978-852-4444

Tennessee Gas Pipeline
 an El Paso company

TOWN OF TEWKSBURY

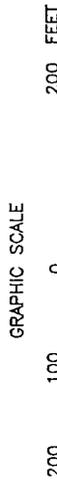


REF. DRAWING TE-ACE12-XXX-X-19
MATCH LINE

GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002, AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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LEGEND	
	PROPOSED PERMANENT EASEMENT
	PROPOSED TEMPORARY WORKSPACE (TWS)
	PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
	PROPOSED PIPELINE
	PROPERTY LINE
	DELINEATED WETLAND EDGE
	CHANNEL LINE
	WETLAND SYMBOL
	WETLAND FLAG AND NUMBER
	CHANNEL FLAG AND NUMBER
	EROSION CONTROL BARRIER
	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



FILE NO. TE-ACE12-XXX-X-28
DATE 05/03
CHECKED
DATE
APPROVED
DATE
DATE
DATE
SCALE: 1"=200'

APPROVED BY **PRELIMINARY**

DATE: _____

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE PERMIT DRAWING

MIDDLESEX COUNTY, MASSACHUSETTS

TE-ACE12-XXX-X-19

TENNESSEE GAS PIPELINE Co.

DRAWING NO. _____

TE-E12-XXX-XXX-1 ALIGNMENT SHEET

TE-E12-XXX-XXX-2 ALIGNMENT SHEET

WETLAND_17B WETLAND SITE SPECIFIC

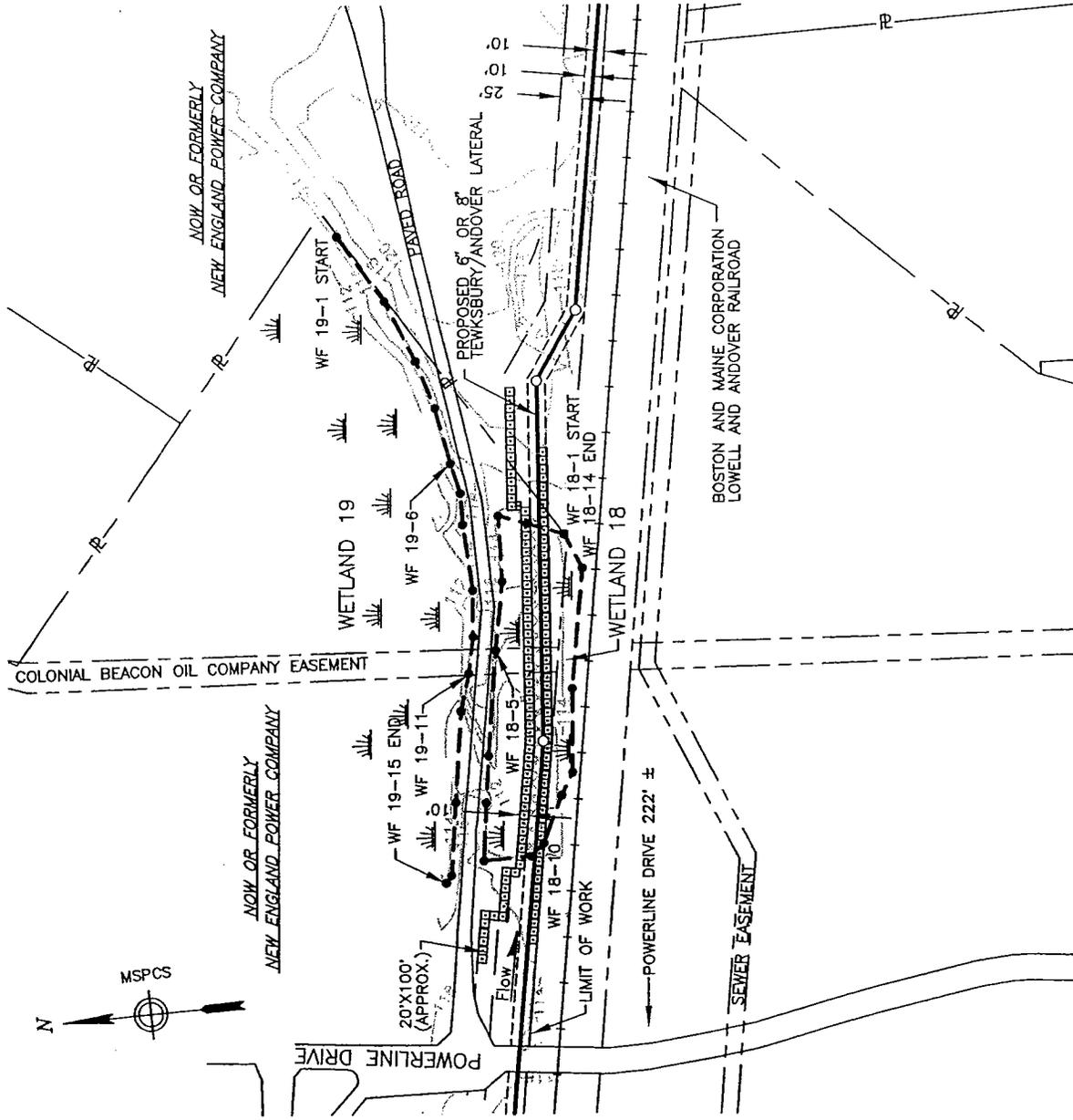
REFERENCE DRAWINGS

NO.	DATE	REVISION	REV.	CHKD.	APPL.

COLE & COLANTONIO, INC.
ENGINEERS AND SURVEYORS
100 WASHINGTON STREET, SUITE 200
TEWKSBURY, MASSACHUSETTS 01886
TEL: 978-235-1100 FAX: 978-235-1101

Tennessee Gas Pipeline
an BP Energy company

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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LEGEND

- PROPOSED PERMANENT EASEMENT
- PROPOSED TEMPORARY WORKSPACE (TWS)
- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
- WF 6-2 WETLAND FLAG AND NUMBER
- CH 2-2 CHANNEL FLAG AND NUMBER
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



FILE NO.:	TE-ACE12-XXX-X-20
DRAWN	C&C
CHECKED	
TYS	
APPROVED	
DATE	09/03
DATE	
DATE	
DATE	
SCALE:	1"=200'

NO.	DATE	REVISION

REFERENCE DRAWINGS	
DRAWING NO.	TITLE
TE-E12-XXX-XXX-1	ALIGNMENT SHEET
WETLAND_18-19	WETLAND SITE SPECIFIC

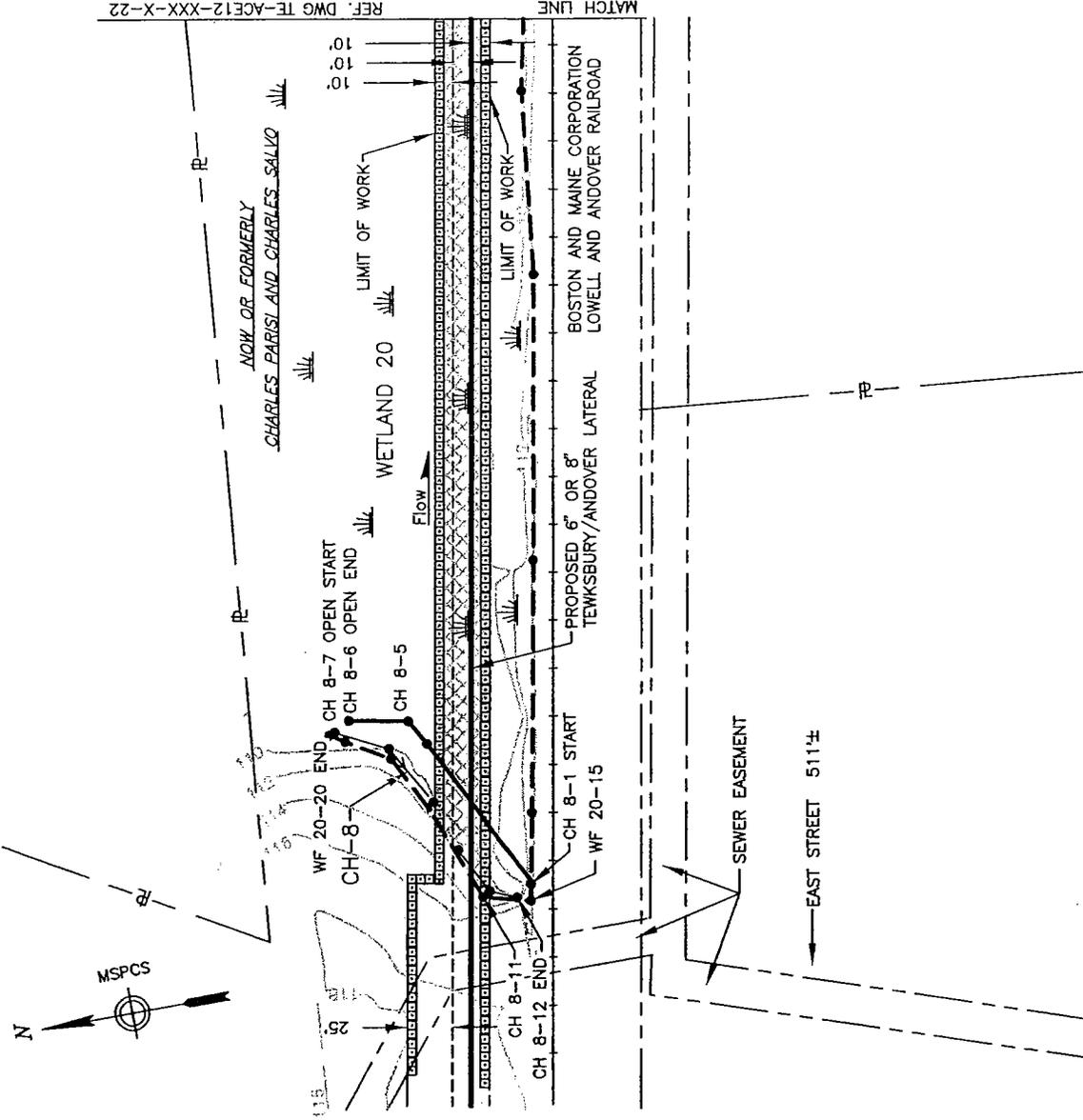
COLER & COLANTONIO, INC.
ENGINEERS AND SURVEYORS
1000 W. MAIN STREET
TEWKSBURY, MA 01876
TEL: 978-852-1111
FAX: 978-852-1112



APPROVED BY
PRELIMINARY
DATE:
TENNESSEE GAS PIPELINE Co.
TE-ACE12-XXX-X-20

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL
ACOE PERMIT DRAWING
MIDDLESEX COUNTY, MASSACHUSETTS

TOWN OF TEWKSBURY



REF. DWG TE-ACE12-XXX-X-22

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
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- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
- WETLAND FLAG AND NUMBER
- CHANNEL FLAG AND NUMBER
- EROSION CONTROL BARRIER
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)



NO.	DATE	REV.	CHKD.	APR.	REVISION

REFERENCE DRAWINGS	TITLE
TE-E12-XXX-XXX-1	ALIGNMENT SHEET
WETLAND_20	WETLAND SITE SPECIFIC

APPROVED BY

PRELIMINARY

DATE: _____

TE-ACE12-XXX-X-22

PROPOSED NATURAL GAS PIPELINE

6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE PERMIT DRAWING

MIDDLESEX COUNTY, MASSACHUSETTS

TENNESSEE GAS PIPELINE CO.

TF-ACF17-XXX-X-77

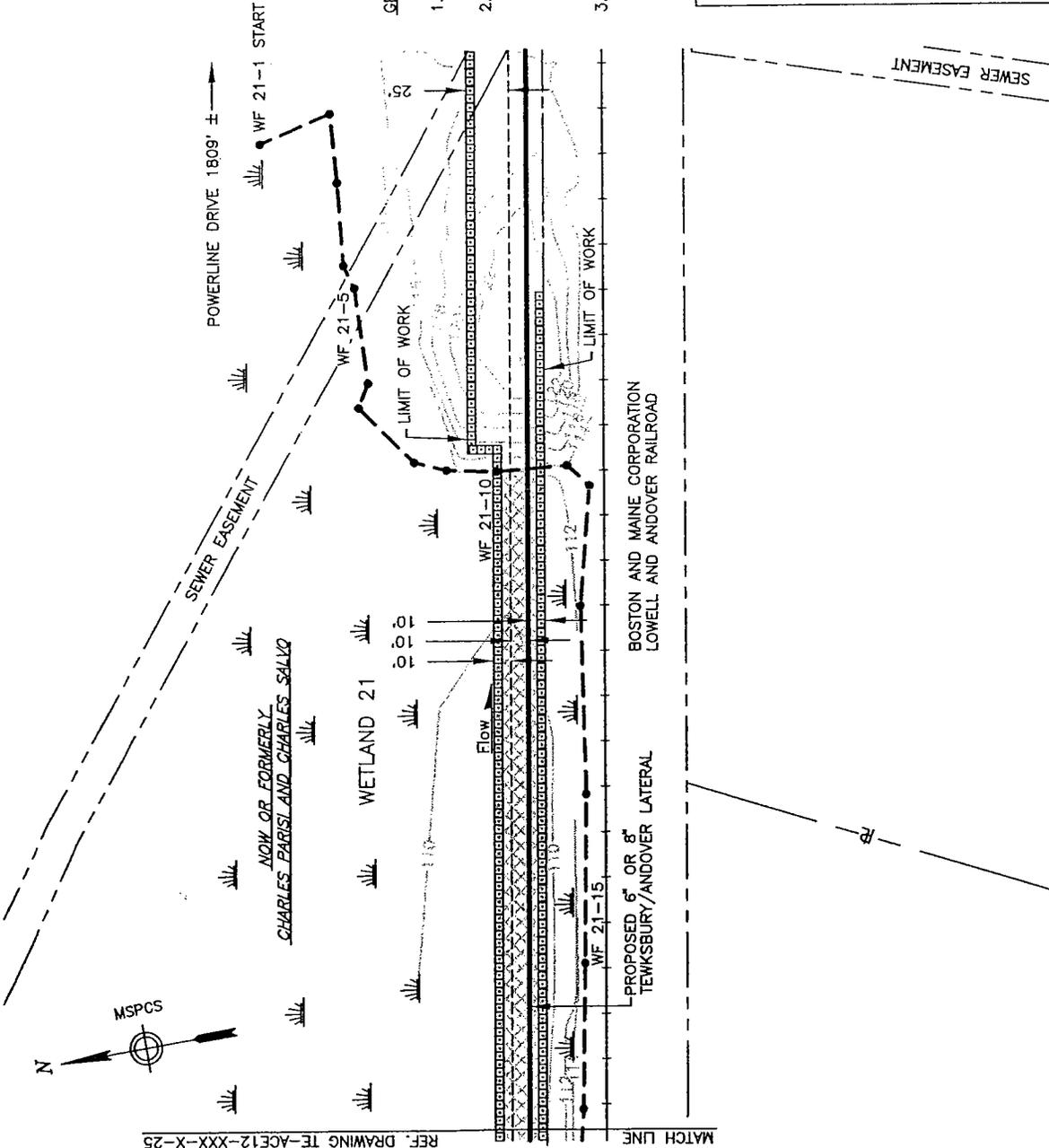


COLER & COLANTONIO, INC.

ENGINEERS AND SURVEYORS

107 WEST MAIN STREET
TEWKSBURY, MA 01886-1000
TEL: 978-852-4400

TOWN OF TEWKSBURY



REF. DRAWING TE-ACE12-XXX-X-25

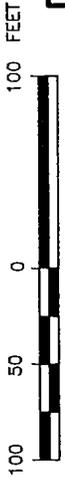
GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
2. EXISTING CONDITIONS SHOWN HEREON ARE THE RESULT OF AN ON THE GROUND SURVEY PERFORMED BY COLER & COLANTONIO, INC. NOVEMBER 2002 AND ARE BASED UPON THE MASSACHUSETTS MAINLAND STATE PLANE, NAD 83 IN U.S. SURVEY FEET.
3. PROPERTY LINE INFORMATION SHOWN HEREON WAS COMPILED FROM ASSESSORS MAPS AND DOES NOT REPRESENT THE RESULT OF A PROPERTY RETRACEMENT SURVEY.

LEGEND

- PROPOSED PERMANENT EASEMENT
- PROPOSED TEMPORARY WORKSPACE (TWS)
- PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
- PROPOSED PIPELINE
- PROPERTY LINE
- DELINEATED WETLAND EDGE
- CHANNEL LINE
- WETLAND SYMBOL
- WF 6-2
- CH 2-2
- TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

GRAPHIC SCALE



NO.	DATE	REV.	OK'D.	APPR.	REVISION

REFERENCE DRAWINGS	TITLE
TE-E12-XXX-XXX-1	ALIGNMENT SHEET
WETLAND_21A	WETLAND SITE SPECIFIC

COLER & COLANTONIO
ENGINEERS AND ARCHITECTS
100 WEST MAIN STREET
TEWKSBURY, MA 01886
TEL: 978-265-8800
FAX: 978-265-8801



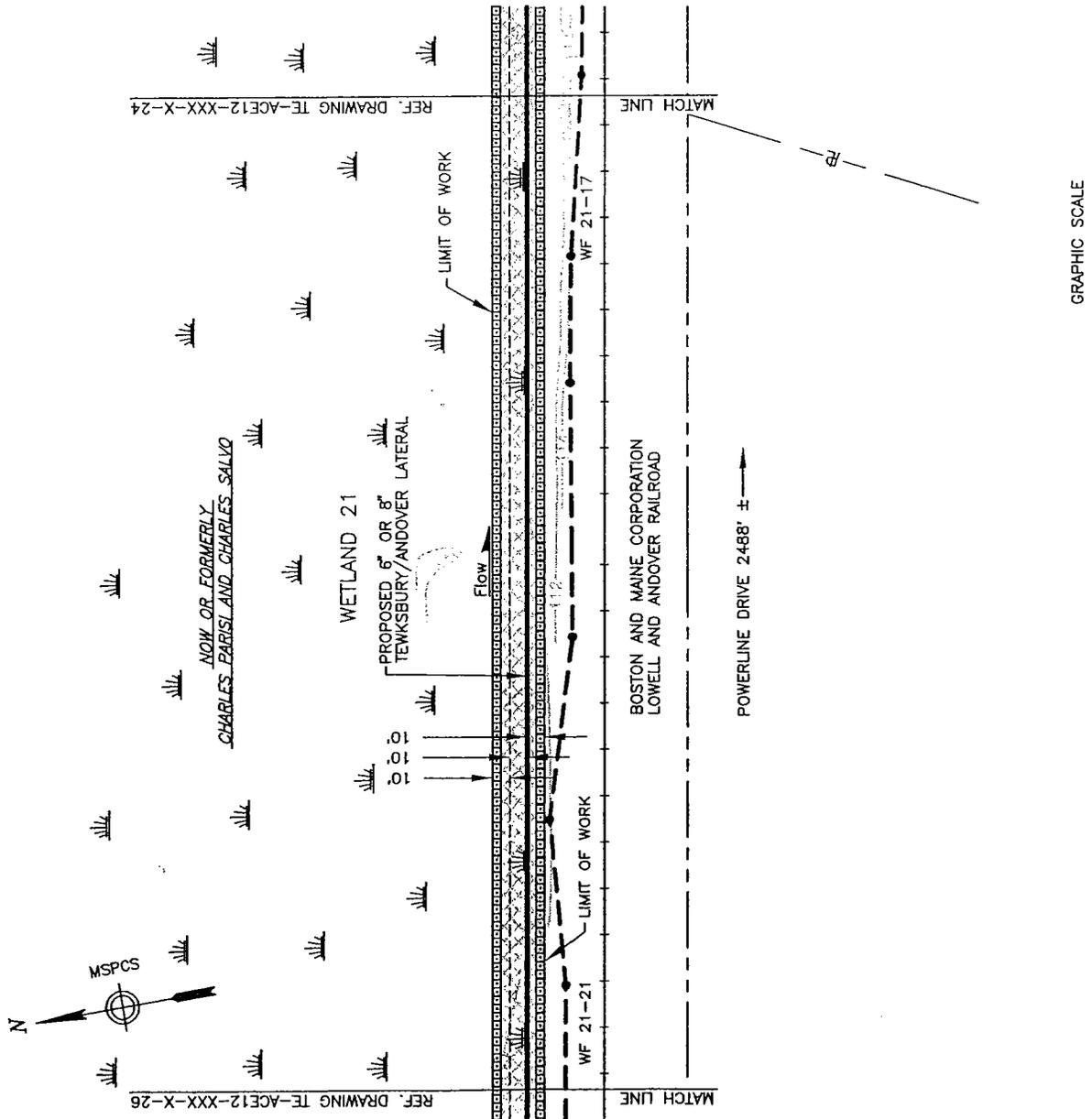
DATE	DATE	DATE	DATE
DRAWN	C&C	C&C	05/03
CHECKED			
APPROVED			

File No.: TE-ACE12-XXX-X-23

APPROVED BY
PRELIMINARY
DATE:
TENNESSEE GAS PIPELINE Co.
TE-ACE12-XXX-X-23

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL
ACOE PERMIT DRAWING
MIDDLESEX COUNTY, MASSACHUSETTS

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
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LEGEND	
	PROPOSED PERMANENT EASEMENT
	PROPOSED TEMPORARY WORKSPACE (TWS)
	PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
	PROPOSED PIPELINE
	PROPERTY LINE
	DELINEATED WETLAND EDGE
	CHANNEL LINE
	WETLAND SYMBOL
	WETLAND FLAG AND NUMBER
	CHANNEL FLAG AND NUMBER
	EROSION CONTROL BARRIER
	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

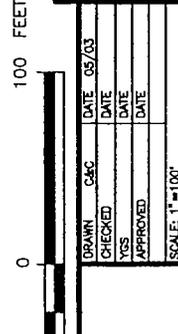


Fig. No.: TE-ACE12-XXX-X-24

APPROVED BY
PRELIMINARY
DATE: _____
TENNESSEE GAS PIPELINE Co.
TE-ACE12-XXX-X-24

PROPOSED NATURAL GAS PIPELINE
6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE PERMIT DRAWING
MIDDLESEX COUNTY, MASSACHUSETTS

SCALE: 1" = 100'

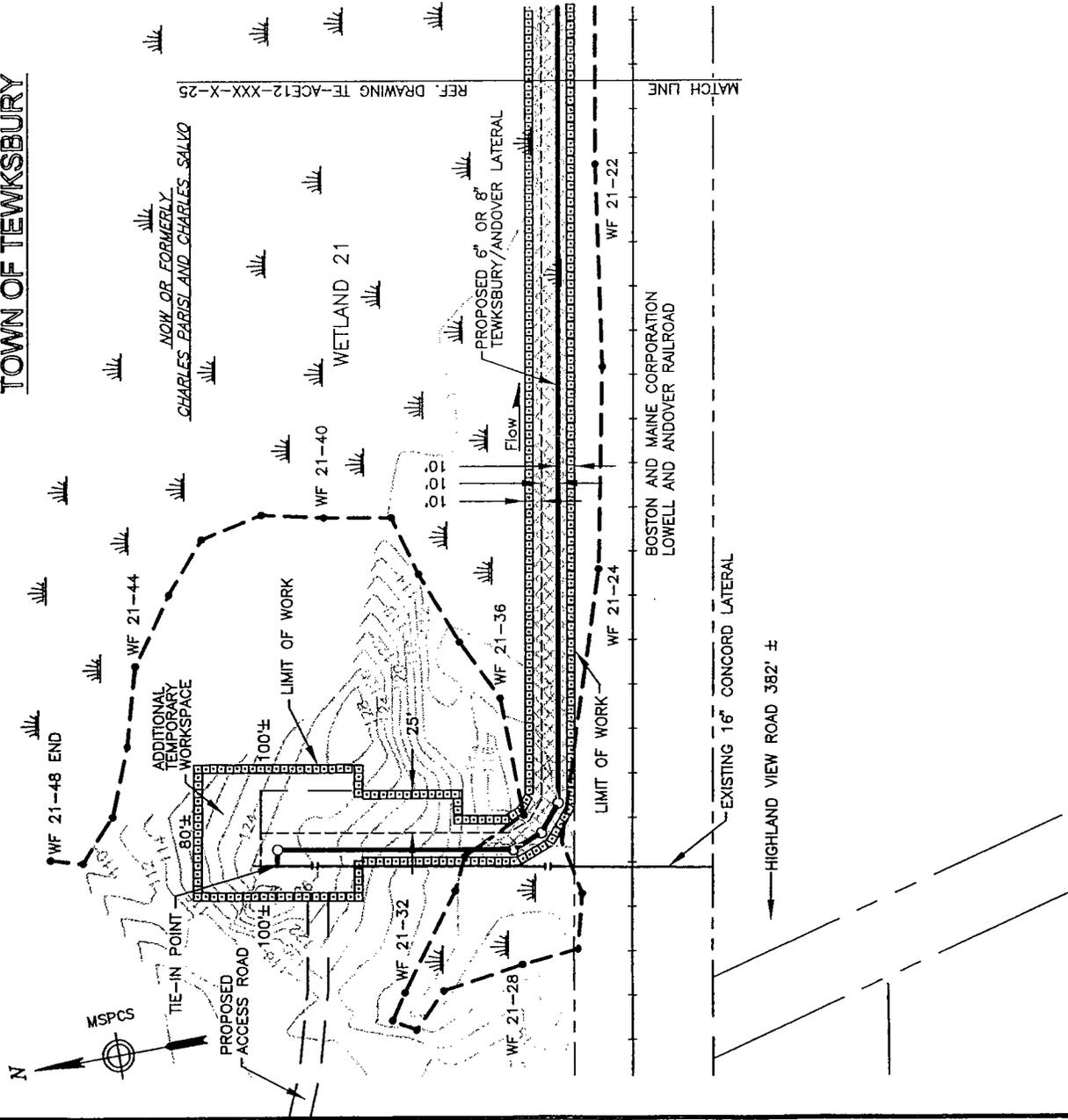
COLE & COLANTONIO, INC.
CONSULTING ENGINEERS AND SURVEYORS
100 WEST MAIN STREET
TEWKSBURY, MASSACHUSETTS 01886
TEL: 978-852-2200 FAX: 978-852-2201

Tennessee Gas Pipeline
an E.P.S.O. company

NO.	DATE	REV.	CRD.	APR.	REVISION

DRAWING NO.	TITLE
TE-E12-XXX-XXX-1	ALIGNMENT SHEET
WETLAND_21B	WETLAND SITE SPECIFIC

TOWN OF TEWKSBURY



GENERAL NOTES:

1. WETLANDS SHOWN HEREON WERE DELINEATED AND LOCATED IN OCTOBER 2002, BY COLER & COLANTONIO, INC.
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LEGEND

---	PROPOSED PERMANENT EASEMENT
---	PROPOSED TEMPORARY WORKSPACE (TWS)
---	PROPOSED ADDITIONAL TEMPORARY WORKSPACE (ATWS)
---	PROPOSED PIPELINE
---	PROPERTY LINE
---	DELINEATED WETLAND EDGE
---	CHANNEL LINE
	WETLAND SYMBOL
● WF 6-2	WETLAND FLAG AND NUMBER
● CH 2-2	CHANNEL FLAG AND NUMBER
-----	EROSION CONTROL BARRIER
-----	TOPOGRAPHIC CONTOUR (INTERVAL 2 FT.)

GRAPHIC SCALE
 100 50 0 100 FEET

NO.	DATE	REV.	CHKD.	APR.

DRAWN	CAC	DATE	05/03
CHECKED		DATE	
YES		DATE	
APPROVED	PRELIMINARY	DATE	
SCALE: 1"=100'			

REFERENCE DRAWINGS	
TE-E12-XXX-XXX-1	ALIGNMENT SHEET
WETLAND_21B	WETLAND SITE SPECIFIC

APPROVED BY

PRELIMINARY

DATE:

TE-ACT17-XXX-X-75

PROPOSED NATURAL GAS PIPELINE

6" OR 8" TEWKSBURY/ANDOVER LATERAL

ACOE PERMIT DRAWING

MIDDLESEX COUNTY, MASSACHUSETTS

COLER & COLANTONIO, INC.

ENGINEERS AND SCIENTISTS

100 WASHINGTON STREET, SUITE 200, TEWKSBURY, MA 01886

Tennessee Gas Pipeline
an El Paso company