EASTPORT SUBSTATION

103 WALNUT STREET
ROCHESTER, NEW HAMPSHIRE

GENERAL INFORMATION

OWNER
PUBLIC SERVICE CO. OF NH
PO BOX 3430
MANCHESTER, NH 03105

APPLICANT
PUBLIC SERVICE CO. OF NH
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

PREPARED FOR
PUBLIC SERVICE CO. OF NH
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

RESOURCE LIST

ROCHESTER PLANNING/
ZONING DEPARTMENT
31 WAKEFIELD STREET
ROCHESTER, NH 03867-1917
603-335-1338
KENNETH N. ORTMANN

ROCHESTER PUBLIC WORKS
45 OLD DOVER ROAD
ROCHESTER, NH 03867
603-332-4096
MELODIE ESTERBERG, P.E.

ROCHESTER POLICE DEPT.
23 WAKEFIELD STREET
ROCHESTER, NH 03867
603-330-7127
POLICE CHIEF DAVID DUBOIS

ROCHESTER FIRE DEPT.
37 WAKEFIELD STREET
ROCHESTER, NH 03867
603-335-7545
NORM SANBORN JR. CHIEF

ABUTTERS

MAP 115, LOT 29
HANNAFORD BROS. CO.
PO BOX 188
PORTLAND, ME 04104

MAP 115, LOT 29-1
HOME DEPOT USA, INC.
PO BOX 2440
SPOKANE, WA 99210

MAP 115, LOT 31
MAURICE M. BROCK TRUST
PO BOX 2005
MANCHESTER, NH 03105

MAP 122, LOT 85
STATE OF NEW HAMPSHIRE
C/O CITYSIDE MANAGEMENT
5 MEDALLION CENTER, GREENLEY ST.
MERRIMACK, NH 03054

MAP 122, LOT 87
BERNARD F. BENNETT SR.
& SUSAN D. BENNETT
112 WALNUT STREET
ROCHESTER, NH 03867

MAP 122, LOT 92
A TREE HEALTH CO. INC.
C/O EDWARD HOPKINS
PO BOX 1631
ROCHESTER, NH 03866

MAP 122, LOT 94
PUBLIC SERVICE CO. OF NH
PO BOX 3430
MANCHESTER, NH 03105

MAP 122, LOT 95
GREG D. COLLINS
95 WALNUT STREET
ROCHESTER, NH 03867

MAP 122, LOT 96
RONNIE & MARION TAYLOR
36 TWOMBLY STREET
ROCHESTER, NH 03867

MAP 122, LOT 97
JAMES A. ST. CLAIR
34 TWOMBLY STREET
ROCHESTER, NH 03867

MAP 230, LOT 14-2
KRISTINE E. BIAGOTTI ETAL.
159A WALNUT STREET
ROCHESTER, NH 03867

MAP 230, LOT 14-3
JOHN L. & VICKI J. SULLIVAN
143 WALNUT STREET
ROCHESTER, NH 03867

MAP 230, LOT 15
DENNIS W. BOUSQUET SR.
119 WALNUT STREET
ROCHESTER, NH 03867

MAP 230, LOT 17
ROGER CLOITRE TRUST
C/O ROGER CLOITRE
10 INDUSTRIAL WAY
ROCHESTER, NH 03867

MAP 230, LOT 19
LAARS HEATING SYSTEMS CO.
C/O LORA HOWE
20 INDUSTRIAL WAY
ROCHESTER, NH 03867

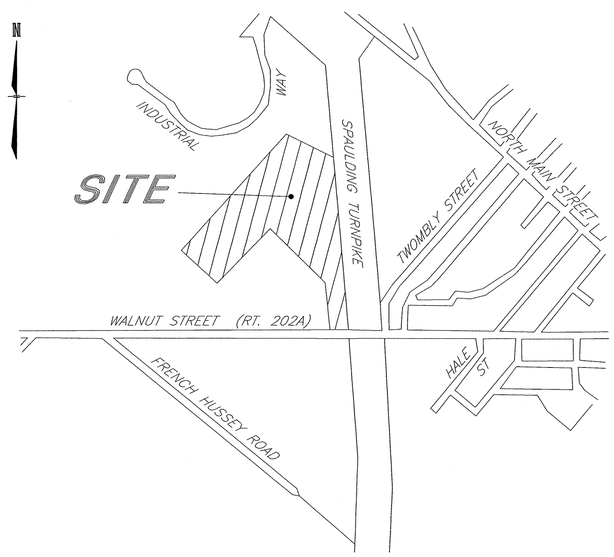
INDEX OF SHEETS

SHEET	SHEET TITLE
1	COVER SHEET
2	OVERALL EXISTING CONDITIONS
3	EXISTING CONDITIONS PLAN
4	PHASING PLAN
5	SITE PREPARATION PLAN
6	OVERALL SITE LAYOUT PLAN
7	SITE LAYOUT PLAN
8	GRADING & DRAINAGE PLAN
9	STORM WATER MANAGEMENT PLAN
10-13	DETAIL SHEETS
	CONTROL HOUSE ELEVATIONS (BY PSNH)

PERMITS / APPROVALS

	NUMBER	APPROVED	EXPIRES
NHDES SITE SPECIFIC	AoT-0011	6/3/09	6/3/14
NHDES WETLANDS	2009-0047	7/22/09	7/22/14
CITY SITE PLAN	122-93-12-09	9/14/09	10/8/13

VICINITY PLAN



800 400 0 800
SCALE: 1"=800'

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STATE OF NEW HAMPSHIRE
ROBERT E. DUVAL No. 7105
LICENSED PROFESSIONAL ENGINEER
27 OCT 2011

SITE PLAN

TAX MAP 122 LOT 93
COVER SHEET
EASTPORT SUBSTATION
103 WALNUT STREET, ROCHESTER, NH
OWNED BY AND PREPARED FOR
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101
SCALE: AS NOTED **FEBRUARY 3, 2009**

REV.	DATE	DESCRIPTION	DR	CK
6	10/25/11	REVISED PER CLIENT	MC	NCG
5	8/30/10	REVISED PER CLIENT	MC	NCG
4	4/27/09	CONDITIONS OF APPROVAL, SITE SPECIFIC SOILS	MC	JFP
3	3/10/09	REVISED PER CLIENT COMMENTS	SWS	NCG
2	2/24/09	TOWN & CLIENT COMMENTS	MC	NCG
1	2/16/09	TOWN COMMENTS & STORMWATER	JFP	NCG

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FILE	47004.00	DR SWS	FB	–	SHEET 1 OF 13
		CK NG	CADFILE	47004-00 Details	

FINAL APPROVAL BY ROCHESTER PLANNING BOARD
CERTIFIED BY _____ *DATE* _____

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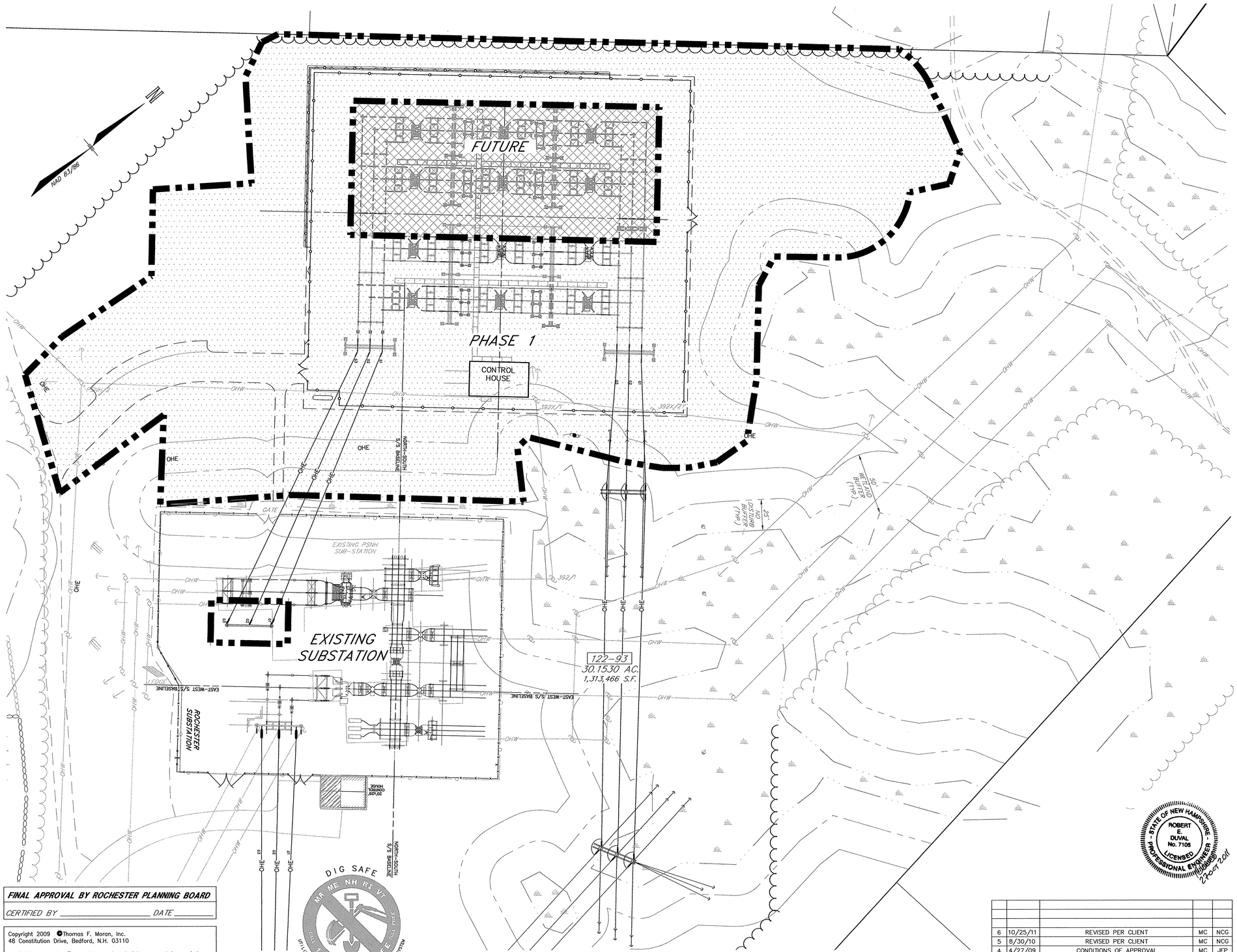
NOTE

THE PURPOSE OF THIS PLAN IS TO SHOW THE PHASED CONSTRUCTION OF THE PROPOSED SUBSTATION.

PHASE 1 – INCLUDES THE EASTPORT SUBSTATION YARD, EQUIPMENT AND POWER LINES FOR C129 LINE ROCHESTER TO DEERFIELD AND G128 LINE ROCHESTER TO MADBURY, AS WELL AS THE GRAVEL DRIVEWAY AND INFILTRATION BASIN/DRAINAGE STRUCTURES.

FUTURE PHASE – INCLUDES THE EXPANSION OF FUTURE EQUIPMENT WITHIN THE EASTPORT SUBSTATION CONSTRUCTED IN PHASE 1.



STATE OF NEW HAMPSHIRE – ROBERT E. DUVAL No. 7105 – LICENSED PROFESSIONAL ENGINEER – 2/04/2011

REV.	DATE	DESCRIPTION	DR	CK
6	10/25/11	REVISED PER CLIENT	MC	NCG
5	8/30/10	REVISED PER CLIENT	MC	NCG
4	4/27/09	CONDITIONS OF APPROVAL	MC	JFP
3	3/10/09	REVISED PER CLIENT COMMENTS	SWS	NCG
2	2/24/09	TOWN & CLIENT COMMENTS	MC	NCG
1	02/16/09	REVISE PHASING	JFP	NCG

TAX MAP 122 LOT 93

PHASING PLAN

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: 1"=40' **FEBRUARY 3, 2009**

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47004.00	SWS	NG	47004-00 Site	SHEET 4 OF 13

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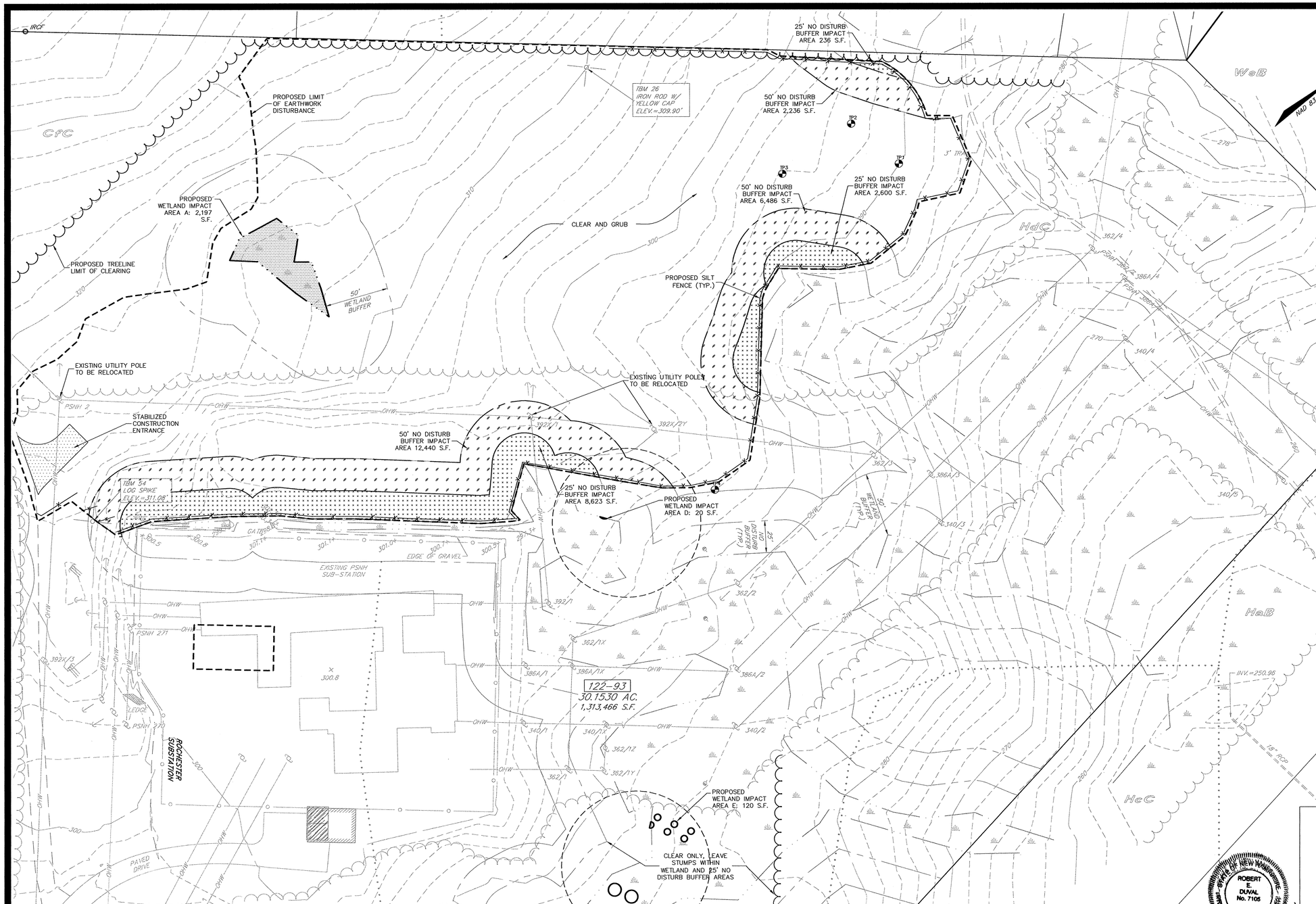

LEGEND

- EDGE OF GRAVEL
- CHAIN LINK FENCE
- UTILITY POLE
- SPOT GRADE ×200.5
- INDEX CONTOUR 200
- INTERMEDIATE CONTOUR 202
- EDGE OF WETLAND
- STONEWALL (BOUNDARY)
- EXISTING TREELINE
- OVERHEAD UTILITIES OHW
- PROPOSED SILT FENCE
- PROPOSED TREELINE
- PROPOSED WETLAND IMPACT
- PROPOSED 25' NO DISTURBANCE BUFFER IMPACT
- PROPOSED 50' WETLAND BUFFER IMPACT

NOTES

1. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
2. THE CONTRACTOR SHALL VERIFY ALL SURVEY INFORMATION IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. EXISTING UTILITY SERVICES TO BE DISCONTINUED ARE TO BE CAPPED AS REQUIRED BY THE RESPECTIVE UTILITY COMPANIES.
4. CONSTRUCTION DEBRIS SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A LEGAL MANNER.
5. PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PLACE ORANGE CONSTRUCTION FENCE AROUND EACH ISOLATED TREE OR AREA OF TREES TO BE SAVED. NO STOCK PILES OF MATERIAL ARE PERMITTED WITHIN THE DRIP LINE OF THE TREES TO BE SAVED.
6. REMOVAL OF ORANGE CONSTRUCTION FENCE BELOW THE DRIP LINE SHALL BE DONE BY HAND.
7. CONTACT OWNER IF ANY TREES ARE DAMAGED DURING CONSTRUCTION.
8. CONTRACTOR TO LIMIT AREA OF DISTURBANCE DURING CONSTRUCTION.
9. CONTRACTOR TO INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY SITE WORK.
10. AN ORANGE CONSTRUCTION FENCE MUST BE PLACED ALONGSIDE THE WETLANDS BUFFER PRIOR TO THE START OF CONSTRUCTION (THIS IS NOT REQUIRED IF THE REQUIRED SILT FENCE IS ORANGE).
11. EROSION AND SEDIMENTATION CONTROL MEASURES AND THE ORANGE CONSTRUCTION FENCE MUST BE IN PLACE PRIOR TO THE PRE-CONSTRUCTION MEETING IN ORDER THAT THEY MAY BE INSPECTED AT THE MEETING. CONTACT THE CITY PLANNING DEPARTMENT TO ARRANGE FOR THE PRE-CONSTRUCTION MEETING.
12. BUFFER MARKERS MUST BE INSTALLED ALONG THE OUTER EDGE OF THE WETLAND BUFFER ON ALL LOTS THAT CONTAIN A WETLAND BUFFER. THEY MUST BE PLACED AT EACH LOT LINE AND AT 25-FOOT INTERVALS BETWEEN LOT LINES. THE MARKERS MUST BE INSTALLED AT THE TIME THAT THE ORANGE CONSTRUCTION FENCE, ABOVE, IS REMOVED. THE MARKERS MUST BE IN PLACE IN ORDER FOR THE CERTIFICATE OF OCCUPANCY FOR THAT LOT TO BE ISSUED.
12. IT IS RECOMMENDED THAT BEST MANAGEMENT PRACTICES FOR REMOVAL OF OBSOLETE POWER POLES BE FOLLOWED.

TAX MAP 122 LOT 93

SITE PREPARATION PLAN

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: 1"=40' **FEBRUARY 3, 2009**

STATE OF NEW HAMPSHIRE ROBERT E. DUVAL No. 7105 LICENSED PROFESSIONAL ENGINEER 12-OCT-2011

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

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40 20 0 40
Graphic Scale

REV.	DATE	DESCRIPTION	DR	CK
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4	4/27/09	CONDITIONS OF APPROVAL	MC	JFP
3	3/10/09	REVISED PER CLIENT COMMENTS	SWS	NCG
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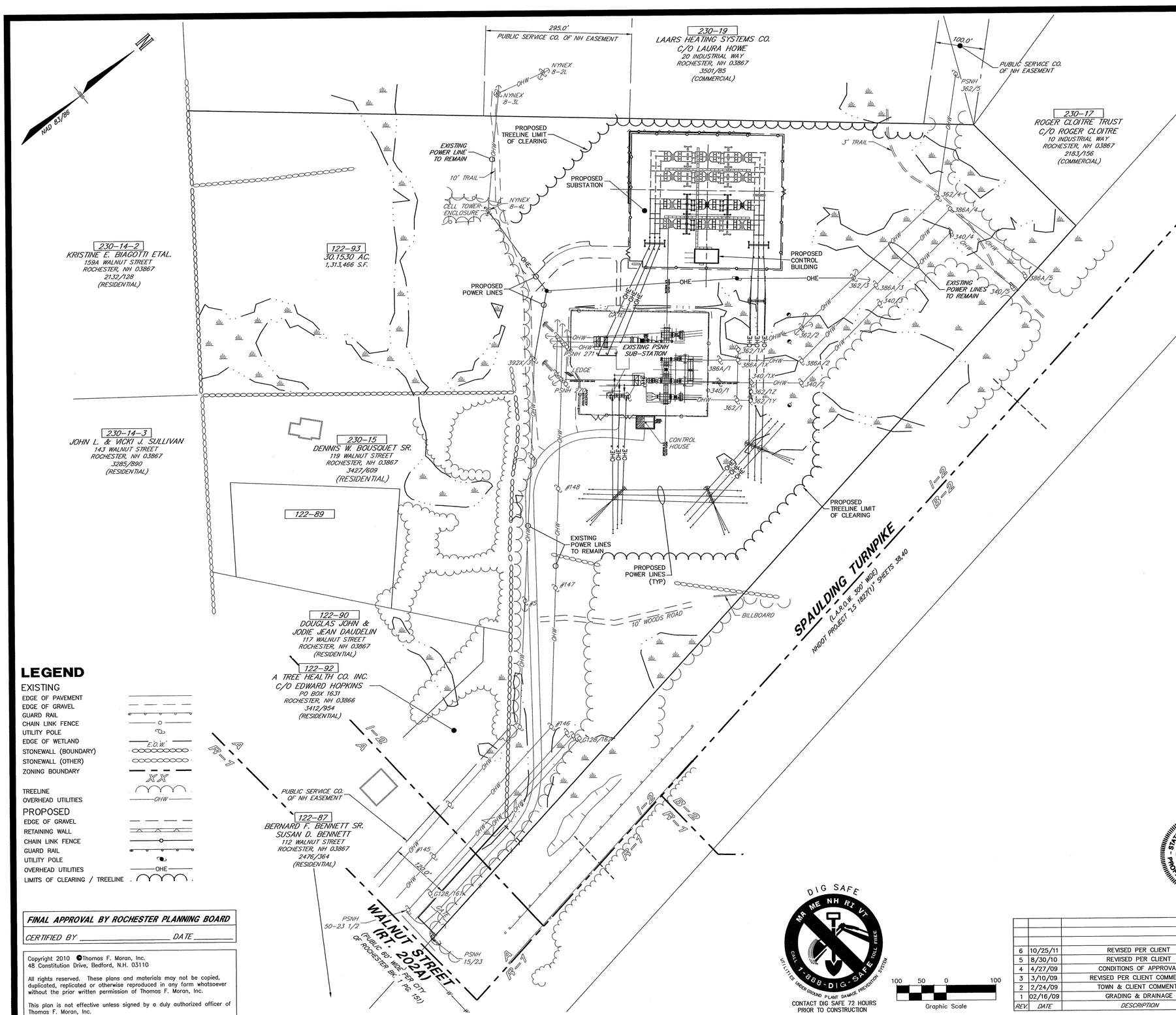
FILE	DR	FB		
47004.00	WNF		2011	SHEET 5 OF 13
	CK JWM	CADFILE	47004-00 Site	



NOTES

1. OWNER OF RECORD OF MAP 122 LOT 93: PUBLIC SERVICE CO. OF NH, PO BOX 3430, MANCHESTER, NH 03105.
   DEED REFERENCE TO PARCEL IS BK. 836 PG. 202
   AREA OF PARCEL = 1,313,466 S.F.± OR 30.1530 ACRES±
2. 122-93 INDICATES TAX MAP AND LOT NUMBER.
3. THE PURPOSE OF THIS PLAN IS TO PROPOSE A NEW SUBSTATION YARD WITH ACCESS DRIVE AND ASSOCIATED OVERHEAD LINES AND AN EXPANSION OF THE EXISTING SUBSTATION. SEE PHASING PLAN FOR PROJECT SEQUENCE.
4. CURRENT ZONING IS: INDUSTRY 2 (I-2) & AGRICULTURAL (A)

	REQUIRED	PROVIDED
MIN. LOT SIZE(I-2) & (A):	40,000 S.F.	1,313,466 S.F.
MIN. LOT FRONTAGE:	(I-2)N/A, (A)150'	50'
MIN. BUILDING SETBACKS:		
(I-2)		
FRONT	N/A	N/A
SIDE	6'	415'
REAR	25'	257'
(A)		
FRONT	35'	N/A
SIDE	25'	N/A
REAR	50'	N/A
MAX. BUILDING HEIGHT:	35'	1 STORY
MAX. LOT COVERAGE:	75%	<1%

5. PARKING CALCULATIONS:
   REQUIRED:
   WAREHOUSE: 1 SP./600 S.F. = 2 SPACES
   PROPOSED: 2 SPACES
6. THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:

DRAINAGE:	PRIVATE
SEWER:	NO SERVICE PROPOSED
WATER:	NO SERVICE PROPOSED
GAS:	NO SERVICE PROPOSED
ELECTRIC:	PSNH
TELEPHONE:	NO SERVICE PROPOSED
CABLE:	NO SERVICE PROPOSED

7. IN THE EVENT THAT THE SNOW STORAGE AREAS PROVIDED ON THE SITE ARE COMPLETELY UTILIZED, EXCESS SNOW SHALL BE TRANSPORTED OFF SITE FOR DISPOSAL IN ACCORDANCE WITH N.H.D.E.S. REGULATIONS. IF SNOW IS STORED WITHIN PARKING AREA KEEP CATCH BASINS CLEAR.
8. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS AND STANDARDS.
9. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
10. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE SITE AND ALL EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
13. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
14. LIGHTING, SIGNAGE, LANDSCAPING, AND SCREENING SHALL MEET THE REQUIREMENTS OF THE CITY ZONING ORDINANCE AND SITE PLAN REGULATIONS.
15. SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY PLAN. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.
16. ALL WORK IS TO CONFORM TO THE CITY OF ROCHESTER, DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS.
17. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
18. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
19. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
20. TFMORAN INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
21. FOR MORE INFORMATION ABOUT THIS SITE PLAN CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 31 WAKEFIELD STREET, ROCHESTER, NH 03867, (603) 335-1338.
22. ACCESS INTO THE SITE FOR FIRE APPARATUS MUST BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THIS IS THE SOLE RESPONSIBILITY OF THE APPLICANT/DEVELOPER TO MAINTAIN THIS ACCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 330-7182 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
23. THIS DEVELOPMENT MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW – INCLUDING PERTINENT PROVISIONS OF THE CITY OF ROCHESTER SITE PLAN REGULATIONS – UNLESS OTHERWISE WAIVED.
24. THE PROJECT PROPOSES TO DISTURB OVER ONE ACRE OF EXISTING GROUND COVER AND MEETS OTHER SPECIFIC REQUIREMENTS RELATED TO PERMIT CRITERIA FOR EPA NPDES COMPLIANCE. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTION AND MAINTENANCE OF SEDIMENT CONTROL MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION OF A NOTICE OF TERMINATION (NOT) TO EPA. THE CONTRACTOR IS ALSO RESPONSIBLE TO COMPLY WITH ANY OR ALL OTHER ASPECTS OF CURRENT FEDERAL, STATE AND LOCAL STORM WATER OR NPDES REGULATIONS OR REQUIREMENTS.
25. THE APPLICANT SHALL OBTAIN A STORMWATER MANAGEMENT PERMIT FROM THE PUBLIC WORKS DEPARTMENT (UNLESS DETERMINED TO BE UNNECESSARY BY THE CITY ENGINEER) AND FOLLOW THE REQUIREMENTS OF CITY ORDINANCE CHAPTER 50. THE PERMITTEE SHALL PREPARE A WRITTEN PLAN FOR MANAGING STORM WATER THAT ENTERS THE CONSTRUCTION SITE AND SHALL PRESENT IT TO THE INSPECTION ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE PERMITTEE SHALL FOLLOW BEST MANAGEMENT PRACTICES TO PREVENT EROSION IN AREAS WHERE THE SOIL HAS BEEN DISTURBED.

LEGEND

EXISTING
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- GUARD RAIL
- CHAIN LINK FENCE
- UTILITY POLE
- EDGE OF WETLAND (E.O.W.)
- STONEWALL (BOUNDARY)
- STONEWALL (OTHER)
- ZONING BOUNDARY
- TREELINE
- OVERHEAD UTILITIES (OHW)

PROPOSED
- EDGE OF GRAVEL
- RETAINING WALL
- CHAIN LINK FENCE
- GUARD RAIL
- UTILITY POLE
- OVERHEAD UTILITIES (OHE)
- LIMITS OF CLEARING / TREELINE

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY _____ DATE _____

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100 50 0 100
Graphic Scale

STATE OF NEW HAMPSHIRE
ROBERT E. DUVAL
No. 7105
LICENSED
PROFESSIONAL ENGINEER
2-3-2009

REV.	DATE	DESCRIPTION	DR	CK
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1	02/16/09	GRADING & DRAINAGE	JFP	NCG

TAX MAP 122 LOT 93

OVERALL SITE LAYOUT PLAN

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: 1"=100' **FEBRUARY 3, 2009**

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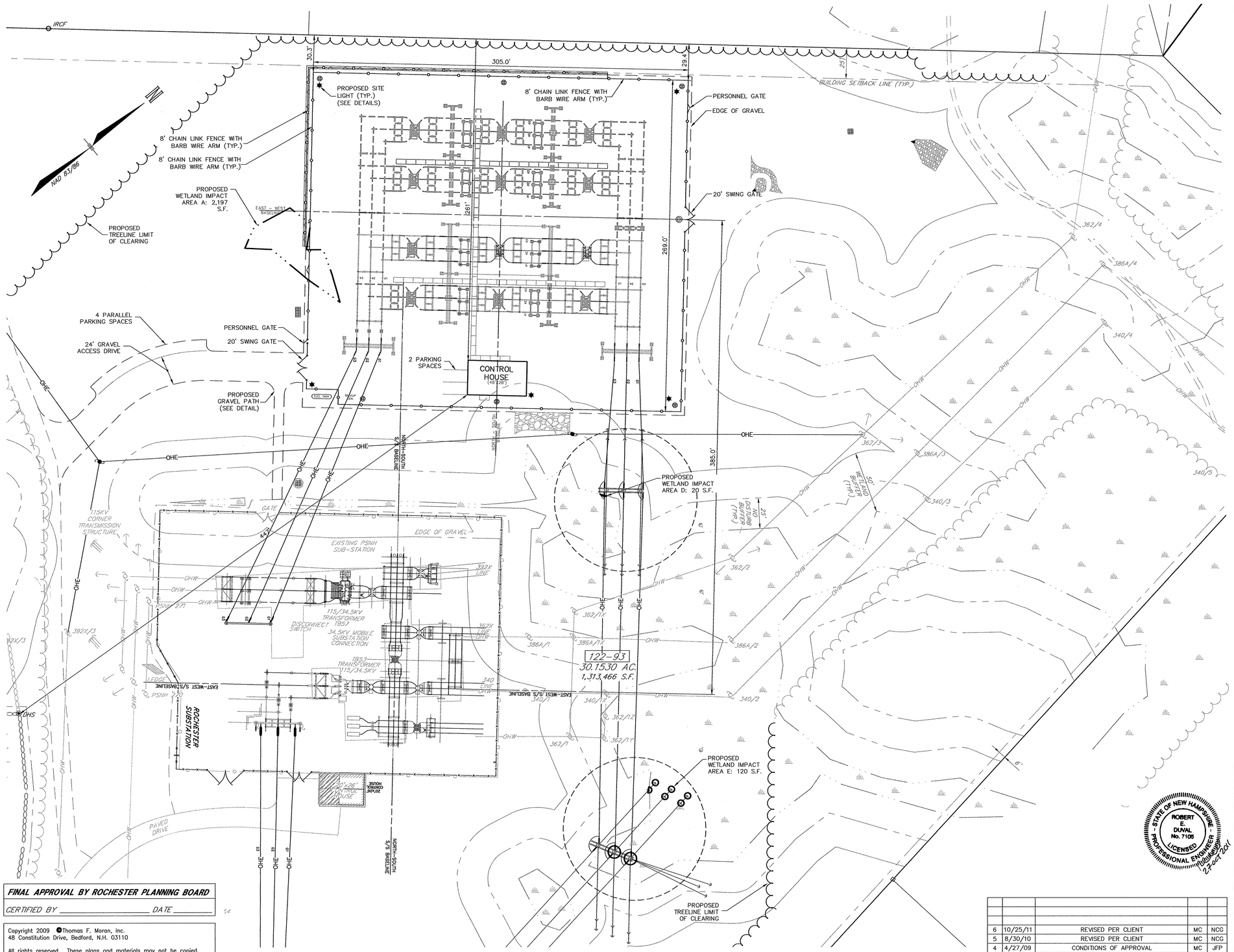
FILE	47004.00	DR	WNF	FB	2011	SHEET 6 OF 13
		CK	JWM	CADFILE	47004-00 Site	



NOTES

1. THE PURPOSE OF THIS PLAN IS TO SHOW DETAIL OF A PROPOSED NEW SUBSTATION YARD WITH ACCESS DRIVE AND ASSOCIATED OVERHEAD LINES, AND AN EXPANSION OF THE EXISTING SUBSTATION.
2. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
3. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
4. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
5. TFMORAN INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
6. THERE IS A 50-FOOT BUFFER REQUIREMENT FROM WETLANDS UNDER THE CITY OF ROCHESTER ZONING ORDINANCE AS SHOWN ON THIS PLAN. THERE MAY BE NO ENCROACHMENT WITHIN THESE BUFFERS EXCEPT AS PERMITTED UNDER THE ORDINANCE.

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CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION

LEGEND

PROPOSED		EXISTING
	EDGE OF GRAVEL	
	RETAINING WALL	
	CHAIN LINK FENCE	
	GUARDRAIL	
	STONEWALL (BOUNDARY)	
	EDGE OF WETLAND	E.O.W.
D	DRAIN MANHOLE	D
	FLARED END SECTION	
	UTILITY POLE	
	GUY WIRE	
OHE	OVERHEAD UTILITIES	OHW
	LIMITS OF CLEARING / TREELINE	

STATE OF NEW HAMPSHIRE
ROBERT E. DUVAL No. 7105 LICENSED
PROFESSIONAL ENGINEER
27 oct 2011

TAX MAP 122 LOT 93

SITE LAYOUT PLAN

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: 1"=40' **FEBRUARY 3, 2009**

REV.	DATE	DESCRIPTION	DR	CK
6	10/25/11	REVISED PER CLIENT	MC	NCG
5	8/30/10	REVISED PER CLIENT	MC	NCG
4	4/27/09	CONDITIONS OF APPROVAL	MC	JFP
3	3/10/09	REVISED PER CLIENT COMMENTS	SWS	NCG
2	2/24/09	TOWN & CLIENT COMMENTS	MC	NCG
1	2/16/09	GRADING & DRAINAGE	JFP	NCG

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Civil Engineers
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Traffic Engineers
Land Surveyors
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48 Constitution Drive
Bedford, NH 03110
Phone (603) 472-4488
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FILE	47004.00	DR	SWS	FB	–	SHEET 7 OF 13
		CK	NG	CADFILE	47004-00 Site	

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY _____ DATE _____

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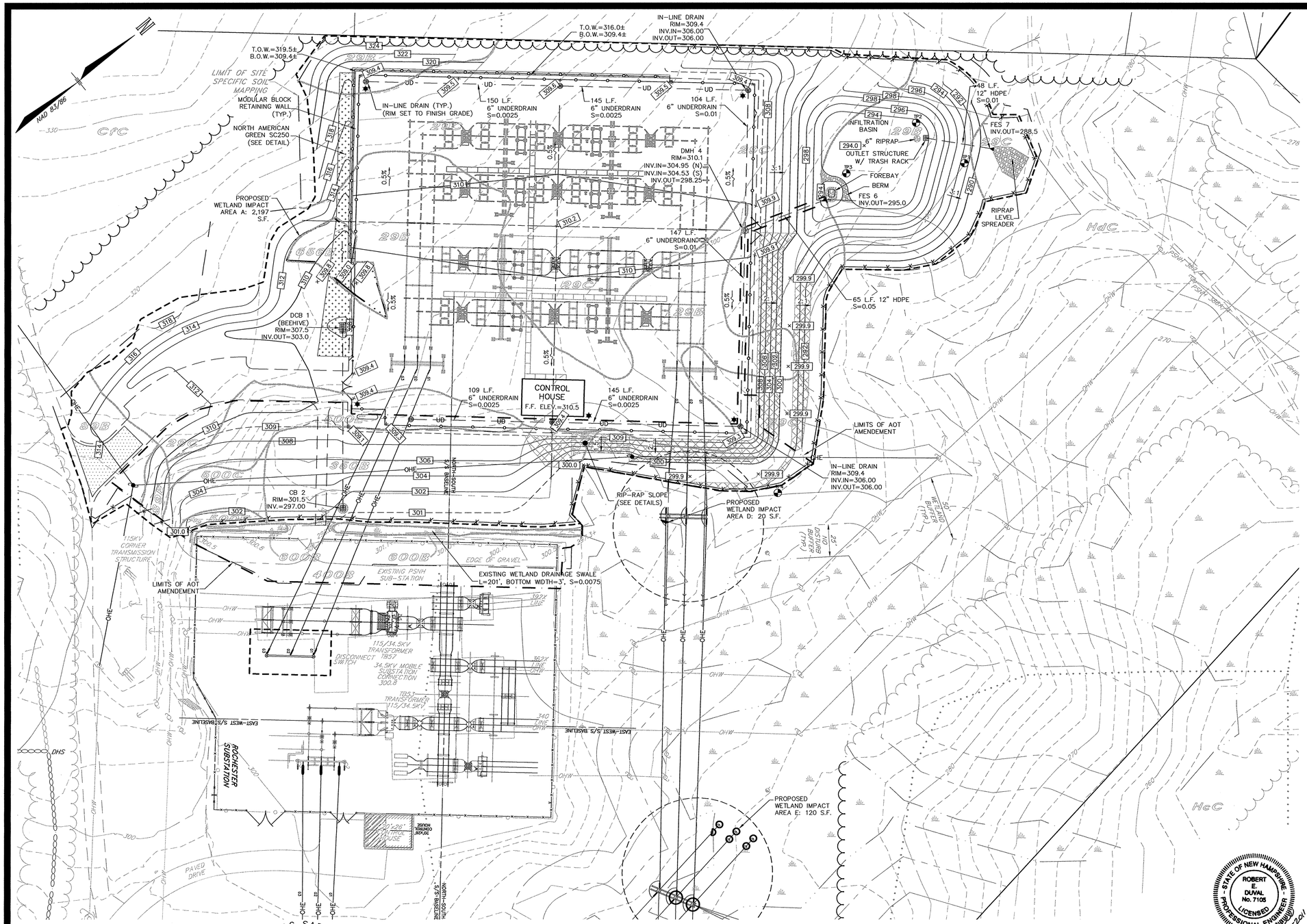

NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF ROCHESTER, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE SITE AND ALL EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTION AT LEAST 48 HOURS IN ADVANCE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (800-344-7233) AT LEAST 72 HOURS BEFORE DIGGING.
4. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
6. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE N.H.D.O.T. STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE NOTED.
7. ALL MANHOLES IN PAVEMENT SHALL HAVE RIMS SET TO FINISH GRADE REGARDLESS OF ANY ELEVATIONS OTHERWISE SHOWN.
8. ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN IN THE PLANS THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH APPLICABLE NHDES STANDARDS. THE DETAILS PROVIDED SERVE AS A GUIDE ONLY.
10. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
11. THE CONTRACTOR SHALL STABILIZE ALL DITCHES, SWALES, AND PONDS PRIOR TO DIRECTING STORM WATER RUN-OFF TO THEM.
12. REFER TO ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING AND LOCATION OF ALL BUILDING SERVICES.
13. REFER TO GEOTECHNICAL/STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.
14. LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS AND ALIGNMENTS.
15. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE CONDITIONS AT THE SITE. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT DISCREPANCIES TO THE ENGINEER.
16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.
17. VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
18. IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
19. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
20. THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
21. TFMORAN INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.

LEGEND

PROPOSED		EXISTING
	EDGE OF GRAVEL	
	RETAINING WALL	
	CHAIN LINK FENCE	
	STONEWALL	
	SILT FENCE	
	DRAIN MANHOLE	
	CATCH BASIN	
	IN-LINE DRAIN	
	UTILITY POLE	
202.5	SPOT GRADE	
200	INDEX CONTOUR	200
202	INTERMEDIATE CONTOUR	202
	EDGE OF WETLAND	
	SOILS BOUNDARY	29B
	LIMITS OF CLEARING / TREELINE	
	DRAINAGE FLOW	
	RIP-RAP	
UD	UNDERDRAIN LINE	
D	DRAIN LINE	
OHE	OVERHEAD UTILITIES	OHW

TAX MAP 122 LOT 93

GRADING & DRAINAGE PLAN

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SCALE: 1"=40' **FEBRUARY 3, 2009**

STATE OF NEW HAMPSHIRE ROBERT E. DUVAL No. 7105 LICENSED PROFESSIONAL ENGINEER 27 OCT 2011

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

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DIG SAFE — MA ME NH RI VT — CALL 1-888-DIG-SAFE (344-7233) — UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM

CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION

40 20 10 0 40
Graphic Scale

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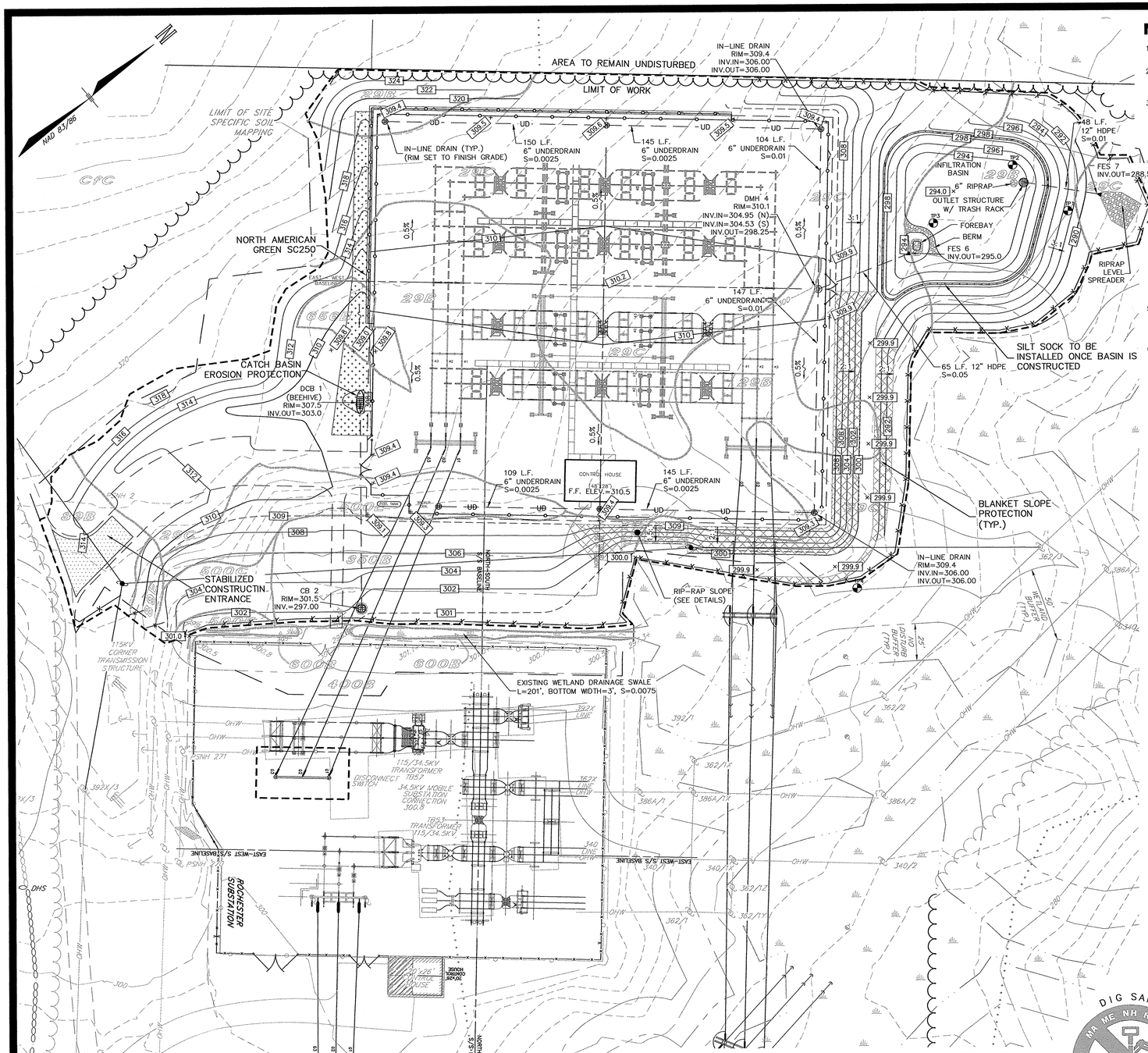

NOTES

1. IT IS BEING PROPOSED TO CONSTRUCT A NEW SUBSTATION YARD WITH ACCESS DRIVE AND ASSOCIATED OVERHEAD LINES AND AN EXPANSION OF THE EXISTING SUBSTATION.

2. TOTAL SITE AREA: 30.15 AC.
   TOTAL AREA OF DISTURBANCE: 4.5 AC.
   AREA OF AMENDMENT: 1.2 AC.

3. SOILS SHOWN WITHIN THE LIMIT OF DISTURBANCE ARE FROM SITE SPECIFIC SOIL MAPPING PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC ON APRIL 15, 2009 TO THE TECHNICAL SPECIFICATIONS OF THE NATIONAL COOPERATIVE SOIL SURVEY.
   29B – WOODBRIDGE FINE SANDY LOAM, 0–8% SLOPES, MODERATELY WELL DRAINED, HSG B
   29C – WOODBRIDGE FINE SANDY LOAM, 8–15% SLOPES, MODERATELY WELL DRAINED, HSG C
   89B – CHATFIELD LOAM, 0–8% SLOPES, WELL DRAINED, HSG B
   89E – CHATFIELD LOAM, 25% SLOPES, WELL DRAINED, HSG B
   350B – UDIPSAMMENTS, WET SUBSTR., 0–8% SLOPES, SOMEWHAT POORLY DRAINED, HSG D
   400B – UDORTHENTS, SANDY, 0–8% SLOPES, MODERATELY WELL DRAINED, HSG B
   500C – UDORTHENTS, LOAMY, 8–15% SLOPES, MODERATELY WELL DRAINED, HSG C
   500E – UDORTHENTS, LOAMY, 25% SLOPES, MODERATELY WELL DRAINED, HSG C
   600B – ENDOAQUENTS, LOAMY, 0–8% SLOPES, POORLY DRAINED, HSG D
   656B – RIDGEBURY FINE SANDY LOAM, 0–8% SLOPES, POORLY DRAINED, HSG D

4. SOILS SHOWN OUTSIDE OF THE LIMIT OF DISTURBANCE ARE FROM THE NATIONAL COOPERATIVE SOIL SURVEY OF STRAFFORD COUNTY, NEW HAMPSHIRE, PREPARED BY THE NATURAL RESOURCES CONSERVATION SERVICE.
   CfB – CHARLTON FINE SANDY LOAM, 3–8%
   CfC – CHARLTON FINE SANDY LOAM, 8–15%
   CsB – CHARLTON VERY STONY FINE SANDY LOAM, 3–8%
   HcC – HOLLIS–CHARLTON FINE SANDY LOAM, 8–15%
   HdC – HOLLIS–CHARLTON VERY ROCKY FINE SANDY LOAM, 8–15%
   WgB – WOODBRIDGE FINE SANDY LOAM, 0–8%
   WsB – WOODBRIDGE VERY STONY FINE SANDY LOAM, 0–8%

5. STORM WATER DRAINAGE SYSTEM IS SHOWN ON THE PLAN. SEE GRADING & DRAINAGE FOR RIM, INVERT, PIPE LENGTH AND SLOPE INFORMATION.
   POST–CONSTRUCTION RUNOFF COEFFICIENT: C=0.40
   IMPERVIOUS SURFACE AREA: 0.14± AC. (GRAVEL DRIVEWAY & BUILDING)

6. STABILIZATION PRACTICES FOR EROSION AND SEDIMENTATION CONTROLS:

   TEMPORARY STABILIZATION – TOPSOIL STOCKPILES AND DISTURBED AREAS OF THE CONSTRUCTION SITE THAT WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE MUST BE STABILIZED BY THE 14TH DAY AFTER THE LAST DISTURBANCE. THE TEMPORARY SEED SHALL BE ANNUAL RYE APPLIED AT THE RATE OF 1.1 LBS PER 1,000 SQUARE FEET. PRIOR TO SEEDING, A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS PER ACRE OF 10–20–20 FERTILIZER SHALL BE APPLIED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 1.5 TONS PER ACRE OF HAY MULCH. MULCH TO BE ANCHORED IN PLACE WHERE NECESSARY. AREAS OF THE SITE THAT WILL BE PAVED WILL TEMPORARILY BE STABILIZED BY APPLYING GEOTEXTILES AND A STONE SUB–BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED. CALCIUM CHLORIDE SHALL BE USED FOR DUST CONTROL IF NEEDED.

   PERMANENT STABILIZATION – DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE PERMANENT SEED MIX SHALL CONSIST OF 0.45 LBS/1,000 S.F. TALL FESCUE, 0.20 LBS/1,000 S.F. CREEPING RED FESCUE, AND 0.20 LBS/1,000 S.F. BIRDSFOOT TREFOIL. PRIOR TO SEEDING, A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS PER ACRE IF 10–20–20 FERTILIZER SHALL BE APPLIED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 1.5 TONS PER ACRE OF HAY MULCH. MULCH TO BE ANCHORED IN PLACE WHERE NECESSARY.

7. STRUCTURAL PRACTICES FOR EROSION AND SEDIMENTATION CONTROL

   SILT FENCE – WILL BE CONSTRUCTED AROUND THE PERIMETER OF THE DISTURBED AREAS AND WILL DELINEATE THE LIMITS OF WORK FOR THE PROPOSED CONSTRUCTION. THE SILT FENCE WILL BE INSTALLED BY STRETCHING REINFORCED FILTER FABRIC BETWEEN POSTS WITH AT LEAST 8 INCHES OF THE FABRIC BURIED BELOW THE GROUND SURFACE TO PREVENT GAPS FROM FORMING NEAR THE GROUND SURFACE. RUNOFF WILL FLOW THROUGH THE OPENINGS IN THE FILTER FABRIC WHILE RETAINING THE SEDIMENT WITHIN THE CONSTRUCTION AREA.

   STABILIZED CONSTRUCTION ENTRANCE – WILL BE INSTALLED IN ACCORDANCE WITH THE DETAIL AT THE ENTRANCE TO THE CONSTRUCTION SITE TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS OFF THE SITE. THE STABILIZED ENTRANCE WILL BE 20 FEET WIDE AND FLARE AT THE ENTRANCE TO THE PAVED ROAD AND HAVE A DEPTH OF 6 INCHES OF STONE. THE STABILIZED ENTRANCE SHALL BE MAINTAINED UNTIL THE REMAINDER OF THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED. THE PAVED STREET ADJACENT TO THE SITE SHALL BE SWEPT ON A WEEKLY BASIS TO REMOVE EXCESS MUD AND DIRT FROM BEING TRACKED FROM THE SITE. TRUCKS HAULING MATERIAL TO AND/OR FROM THE SITE SHALL BE COVERED WITH A TARPAULIN.

   CATCH BASINS – WILL BE CLEANED ON AN ANNUAL BASIS TO REMOVE ALL SEDIMENTS FROM THE CATCH BASIN SUMPS.

   CATCH BASIN PROTECTION – WILL BE INSTALLED AT ALL CATCH BASINS WITHIN THE CONSTRUCTION AREA. FILTER FABRIC WILL BE INSTALLED AROUND THE GRATES OF CATCH BASINS THAT ARE LOCATED IN THE TRAVEL WAY AND STONE/FILTER FABRIC PROTECTION WILL BE INSTALLED AT THE CATCH BASINS FOUND WITHIN THE PARKING AREA AND GRASS.

   BLANKET SLOPE PROTECTION – SHALL BE INSTALLED ON ALL 2:1 SLOPES OR STEEPER ON SITE. ANCHOR THE TOP OF THE BLANKET BY ANCHORING THE BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING. ROLL THE BLANKET IN THE DIRECTION OF STORM WATER FLOW. WHERE 2 OR MORE STRIPS OF BLANKET ARE REQUIRED, A MINIMUM OF 4" OF OVERLAP SHALL BE PROVIDED.

   STONE CHECK DAMS – WILL BE INSTALLED IN EXISTING AND PROPOSED GRASS SWALES TO REDUCE THE VELOCITY OF CONCENTRATED STORM WATER FLOWS AND PREVENT EROSION OF THE SWALE.

   STORM WATER MANAGEMENT

8. STORM WATER DRAINAGE FOR DEVELOPED AREAS WILL BE COLLECTED BY A PIPE AND CATCH BASIN CLOSED DRAINAGE SYSTEM. APPROXIMATELY 25.75 ACRES OF THE 30.15 ACRE SITE WILL REMAIN UNTOUCHED AND IN ITS NATURAL STATE.

9. ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURE DUMPSTERS OR APPROVED ENCLOSURE AND REMOVED FROM THE SITE ON A WEEKLY BASIS. NO CONSTRUCTION WASTE SHALL BE BURIED ON SITE. PORTABLE TOILET SANITARY WASTE FACILITIES WILL BE PROVIDED DURING CONSTRUCTION AND MAINTAINED/DISPOSED OF ON A REGULAR BASIS IN ACCORDANCE WITH TOWN AND STATE REGULATIONS.

NOTES CONTINUED

10. A LIST OF CONSTRUCTION ITEMS AND OTHER PRODUCTS USED ON THIS PROJECT SHALL BE KEPT ON RECORD WITH THIS PLAN ONSITE. ALL CHEMICALS, PETROLEUM PRODUCTS AND OTHER MATERIALS USED DURING CONSTRUCTION SHALL BE STORED IN A SECURE AREA, AND PRECAUTIONS USED TO PREVENT POTENTIAL SOURCES OF CONTAMINATION OR POLLUTION. ANY SPILL OF THESE TYPES OF SUBSTANCES SHALL BE CLEANED UP AND DISPOSED OF IN A LEGAL MANNER AS SPECIFIED BY STATE REGULATIONS AND THE MANUFACTURER. ANY SPILL IN AMOUNTS EQUAL TO OR EXCEEDING REPORTABLE QUANTITY AS DEFINED BY THE EPA SHALL TAKE THE FOLLOWING STEPS:
    – NOTIFY THE NATIONAL RESPONSE CENTER IMMEDIATELY AT (800) 424–8802; IN WASHINGTON, D.C., CALL (202) 426–2675.
    – WITHIN 14 DAYS, SUBMIT A WRITTEN DESCRIPTION OF THE RELEASE TO THE EPA REGIONAL OFFICE PROVIDING THE DATE AND CIRCUMSTANCES OF THE RELEASE AND THE STEPS TO BE TAKEN TO PREVENT ANOTHER RELEASE.
    – MODIFY THE POLLUTION PREVENTION PLAN TO INCLUDE THE INFORMATION LISTED ABOVE.

    GOOD HOUSEKEEPING:
    THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.
    – AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB;
    – ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE;
    – PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL;
    – SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
    – WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER;
    – MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED;
    – THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

    HAZARDOUS PRODUCTS:
    THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
    – PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
    – ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION;
    – IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

    PRODUCT SPECIFIC PRACTICES:
    THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:

    PETROLEUM PRODUCTS:
    ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

    FERTILIZERS:
    FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOLID TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

    PAINTS;
    ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

    CONCRETE TRUCKS:
    EXCESS CONCRETE SHALL BE USED IN AREAS DESIGNATED BY THE SITE CONTRACTOR. WASH WATER SHALL BE DISPOSED OF USING BEST MANAGEMENT PRACTICES. BUILDING CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL DRUM WASH WATER ASSOCIATED WITH CONCRETE FOR THE BUILDING PAD. SITE CONTRACTOR TO COORDINATE AND PROVIDE BUILDING CONTRACTOR WITH AN AREA FOR DRUM WASH WATER.

    SPILL CONTROL PRACTICES:
    IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
    – MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
    – MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
    – ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
    – THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
    – SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
    – THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
    – THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY–TO–DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THEY WILL DESIGNATE AT LEAST THREE OTHER SITE PERSONNEL WHO WILL EACH RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

11. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN RECORDS OF CONSTRUCTION ACTIVITIES, INCLUDING DATES OF MAJOR GRADING ACTIVITIES, DATES WHEN CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED ON A PORTION OF THE SITE, DATES WHEN WORK IS COMPLETED ON A PORTION OF THE SITE, AND DATES WHEN STABILIZATION MEASURES ARE INITIATED ONSITE.

12. THE CONTRACTOR SHALL PERFORM INSPECTIONS OR HAVE A CONSULTING ENGINEER PERFORM INSPECTIONS EVERY FOURTEEN (14) DAYS AND WITHIN 24 HOURS AFTER A STORM OF 0.5 INCH OR GREATER. INSPECTIONS REPORTS ARE TO BE KEPT ON FILE AT THE SITE WITH THIS PLAN. MAINTENANCE OR MODIFICATION SHALL BE IMPLEMENTED AND ADDED TO THE PLAN AS RECOMMENDED BY THE QUALIFIED INSPECTOR.

CONSTRUCTION GENERAL PERMIT

1. THE OWNER, IN CONJUNCTION WITH THE CONTRACTOR (OPERATORS), NEEDS TO OBTAIN A CONSTRUCTION GENERAL PERMIT (CGP) FOR LARGE CONSTRUCTION ACTIVITIES (FIVE OR MORE ACRES) OR SMALL CONSTRUCTION ACTIVITIES (GREATER THAN ONE ACRE BUT LESS THAN FIVE ACRES) FROM THE ENVIRONMENTAL PROTECTION AGENCY (EPA). AS PART OF THE CGP, A STORM WATER NOTICE OF INTENT (NOI) WILL NEED TO BE SUBMITTED TO THE EPA AT LEAST 7 DAYS PRIOR TO COMMENCING CONSTRUCTION. THE NOI WILL NEED TO BE SUBMITTED TO STORM WATER NOTICE OF INTENT (4203M), USEPA, 1200 PENNSYLVANIA AVE. NW, WASHINGTON, DC 20460.

2. THE CGP OUTLINES A SET OF PROVISIONS MANDATING THE OWNER AND CONTRACTOR TO COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER REGULATIONS, INCLUDING, BUT NOT LIMITED TO, STORM WATER POLLUTION PREVENTION PLANS (SWPPP'S), IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROLS, EQUIPMENT MAINTENANCE GUIDELINES, ETC. PLEASE CONTACT USEPA OFFICE OF WASTEWATER MANAGEMENT AT 202–564–9545 OR AT WWW.EPA.GOV/NPDES/STORMWATER FOR ADDITIONAL INFORMATION. IN ADDITION, ONE CAN CONTACT ABBY SWAINE OF NEW ENGLAND'S EPA REGION 1 AT 617–918–1841.

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3	3/10/09	REVISED PER CLIENT COMMENTS	SWS	NCG
2	2/24/09	TOWN & CLIENT COMMENTS	MC	NCG
1	02/16/09	GRADING & DRAINAGE	JFP	NCG

TAX MAP 122 LOT 93

STORM WATER MANAGEMENT PLAN

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: 1"=40' **FEBRUARY 3, 2009**

TFM®
Civil Engineers
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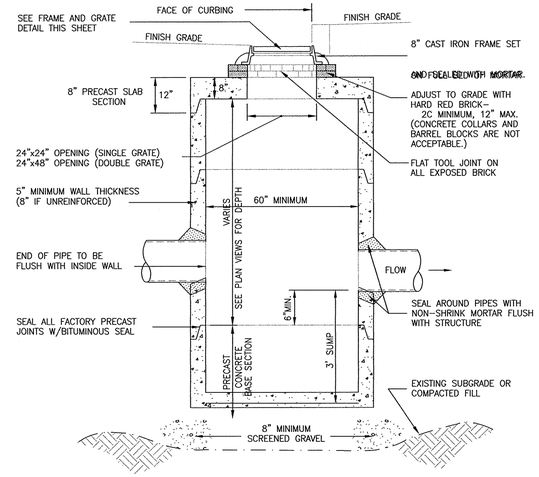
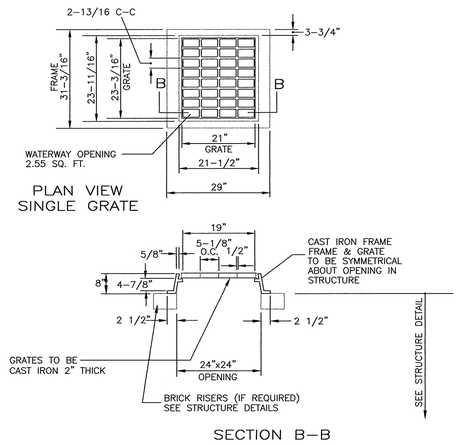
FILE	DR	SWS	FB	–	
47004.00	CK	NG	CADFILE	47004–00 Site	SHEET 9 OF 13



NOTE: ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478

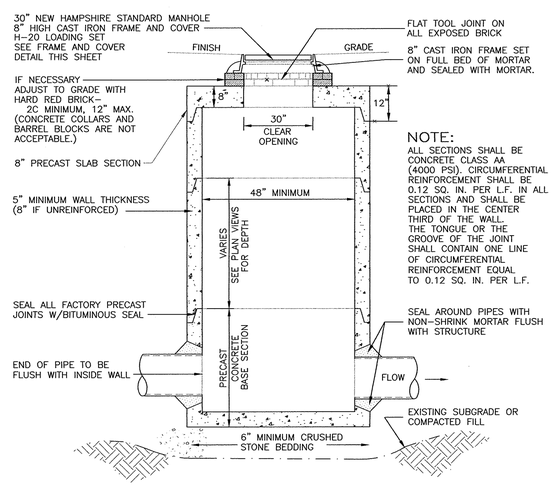
CATCH BASIN

SLAB TOP (FOR USE IN DOUBLE GRATE APPLICATIONS) NOT TO SCALE



FRAME AND GRATE

NHDOT TYPE B ALT 1 NOT TO SCALE

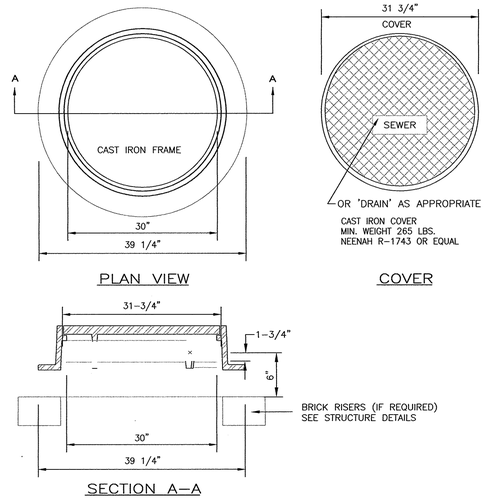


NOTE:
ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.

NOTE: ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478

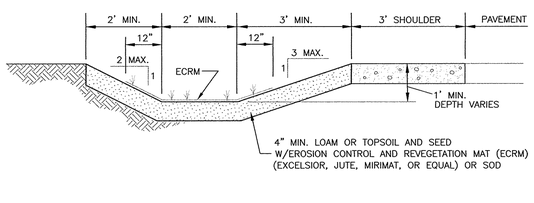
DRAIN MANHOLE

SLAB TOP NOT TO SCALE



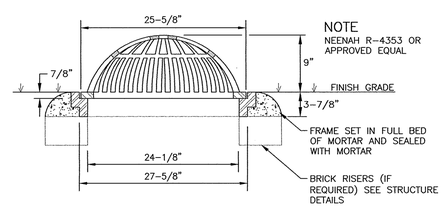
MANHOLE FRAME & COVER

HEAVY DUTY NOT TO SCALE



GRASS LINED SWALE

FOR USE WHERE VELOCITIES ARE 3 CFS OR LESS NOT TO SCALE



NOTE
NEENAH R-4353 OR APPROVED EQUAL

BEEHIVE FRAME AND GRATE

LIGHT DUTY – FOR USE IN GRASSED AREAS NOT TO SCALE

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CONSTRUCTION SPECIFICATIONS

PREPARE BEDDING:

BACKFILL MATERIAL AROUND THE END SECTION MAY BE THE SAME AS THE MATERIAL AROUND THE PIPE. PLACE A FEW INCHES OF BACKFILL MATERIAL IN THE TRENCH OR DITCH WHERE THE END SECTION WILL BE PLACED. COMPACT AND CONTOUR THIS BEDDING MATERIAL TO GENERALLY MATCH THE END SECTION. EXCAVATE AN AREA IN THE BEDDING WHERE TOE TROUGH WILL SEAT SO THAT THE END SECTION WILL BE LEVEL WITH THE BOTTOM OF THE TRENCH OR DITCH IN THE FINISHED INSTALLATION.

PLACE END SECTION OF PIPE:

OPEN THE END SECTION COLLAR AND SEAT IT OVER THE TWO PIPE CONNECTIONS. ONCE THE END SECTION IS POSITIONED, CHECK TO MAKE SURE THAT THE INVERT OF THE END SECTION MATCHES THE INVERT OF THE PIPE AND THAT THE END SECTION IS LEVEL WITH THE TRENCH OR DITCH BOTTOM.

SECURE THE END SECTION:

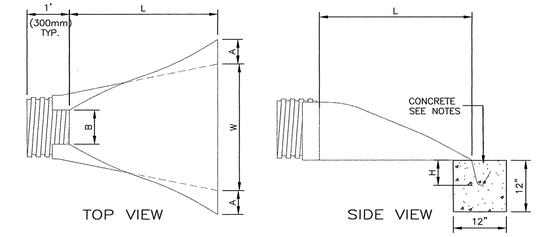
SLIP THE STAINLESS STEEL ROD THROUGH THE PRE-DRILLED HOLES AT THE TOP OF THE COLLAR. THE ROD SHOULD BE BETWEEN THE CROWNS OF THE TWO PIPE CONNECTIONS. PLACE A WASHER ON EITHER END OF THE ROD. PLACE A NUT ON EITHER END OF THE ROD AND TIGHTEN WITH A WRENCH.

SECURE THE TOE TROUGH:

TO PREVENT WASHOUTS FROM HIGH VELOCITY FLOW, IT IS RECOMMENDED THAT THE TROUGH BE SECURED WITH CONCRETE. POUR CONCRETE IN THE TROUGH UP TO THE LEVEL OF THE TRENCH OR DITCH BOTTOM AND ALONG THE ENTIRE LENGTH OF THE TROUGH.

FINISH BACKFILL:

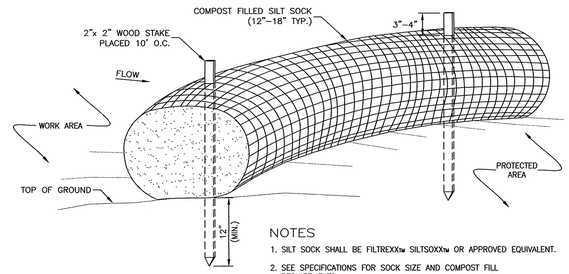
SHOVEL BACKFILL AROUND THE END SECTION IN 6 TO 9 INCH LAYERS EQUALLY ON BOTH SIDES, KNIFING IT TO ELIMINATE VOIDS. TAMP WITH A SMALL-FACED COMPACTOR OR OTHER EQUIPMENT SUITABLE FOR SMALL AREAS. CONTINUE PLACING, KNIFING, AND COMPACTING BACKFILL LAYERS TO THE TOP OF THE END SECTION TO SEAT IT WELL INTO THE BACKFILL.



	DIMENSIONS, INCHES (mm)					
PIPE DIAMETER	PART NO.	A, ±1 (25)	B MAX	H, ±1 (25)	L, ±1/2 (13)	W, ±2 (50)
12", 15" (300,375)	1210 NP	6.5 (165)	10 (254)	6.5 (165)	25 (635)	29 (736)
18" (450)	1810 NP	7.5 (190)	15 (380)	6.5 (168)	32 (812)	35 (890)
24" (600)	2410 NP	7.5 (190)	18 (450)	6.5 (165)	36 (900)	45 (1140)
30" (750)	3010 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)
36" (900)	3610 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)

FLARED END SECTION

HIGH DENSITY POLYETHYLENE (HDPE) NOT TO SCALE

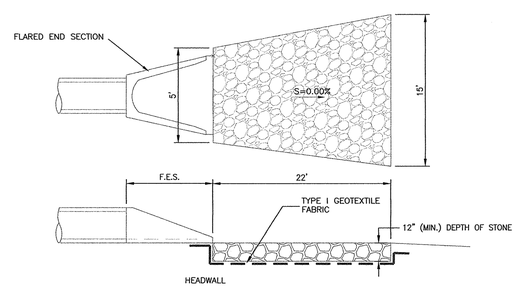


NOTES

1. SILT SOCK SHALL BE FILTREXX® SILTSOXX™ OR APPROVED EQUIVALENT.
2. SEE SPECIFICATIONS FOR SOCK SIZE AND COMPOST FILL REQUIREMENTS.
3. SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED AS NEEDED.
4. COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.

SILT SOCK

NOT TO SCALE

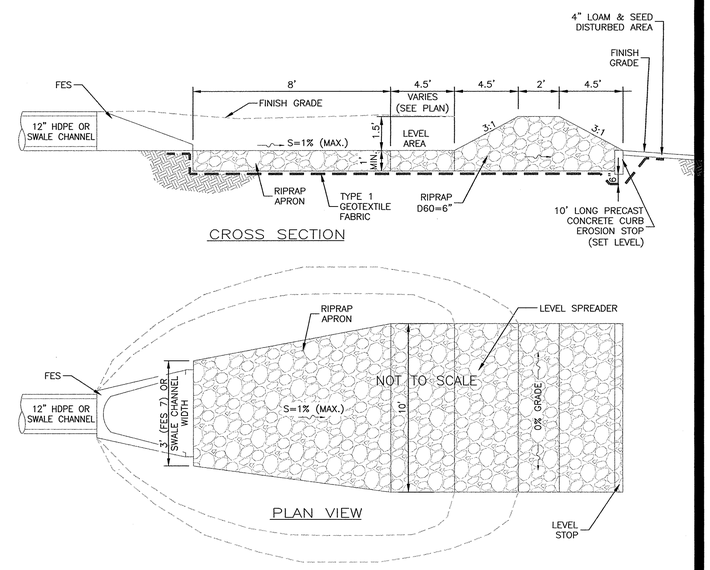


CONSTRUCTION SPECIFICATIONS:

1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP-RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK USED FOR RIP-RAP SHALL CONFORM TO NHDOT CLASS C STONE.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

OUTLET APRON

FES 6 NOT TO SCALE



RIPRAP LEVEL SPREADER

NOT TO SCALE

STATE OF NEW HAMPSHIRE
ROBERT E. DUVAL
No. 7105
LICENSED
PROFESSIONAL ENGINEER
27 Oct 2011

TAX MAP 122 LOT 93

DETAIL SHEET

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: AS NOTED **FEBRUARY 3, 2009**

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY _____ *DATE* _____

REV.	DATE	DESCRIPTION	DR	CK
6	10/25/11	REVISED PER CLIENT	WBL	NCG
5	8/30/10	REVISED PER CLIENT	MC	NCG
4	4/27/09	CONDITIONS OF APPROVAL	MC	JFP
1	2/16/09	STORMWATER	MAC	JFP

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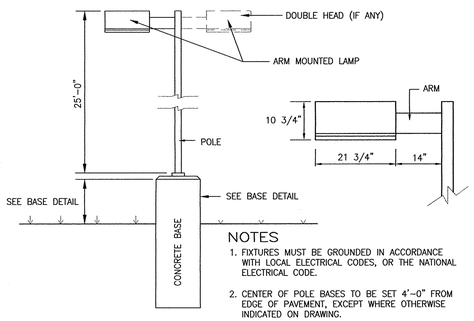
FILE	47004.00	DR	SWS	FB	–	SHEET 12 OF 13
		CK	NG	CADFILE	47004-00 Details	

LIGHTING SCHEDULE				
MANU.	PART NO.	TYPE	WATT	STOCK CODE
LITHONIA	TFA–1000S–TA–TB–IS–TFAUV–FRWB	FLOOD	1000	448008
LITHONIA	TFA–750S–TA–TB–IS–TFAUV–FRWB	FLOOD	750	448009
LITHONIA	TFA–400S–TA–TB–IS–TFAUV–FRWB	FLOOD	400	448010
LITHONIA	CHM–400S–R2–DLG–TB–CWA–PEU–PLI	STREET	400	448011
LITHONIA	TFR–250S–TA–TB–IS–FPMB	FLOOD	250	448012

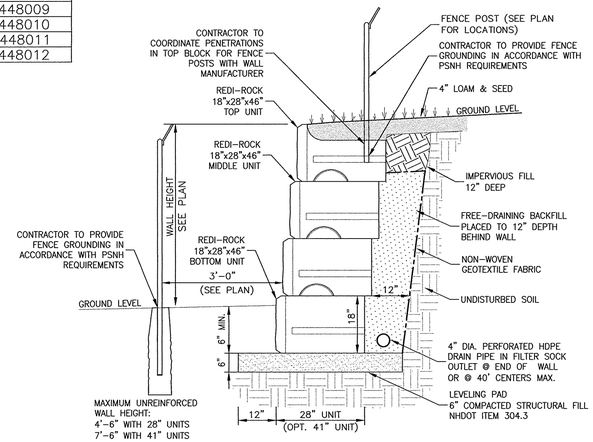


NOTES

1. FIXTURES MUST BE GROUNDED IN ACCORDANCE WITH LOCAL ELECTRICAL CODES, OR THE NATIONAL ELECTRICAL CODE.
2. CENTER OF POLE BASES TO BE SET 4'–0" FROM EDGE OF PAVEMENT, EXCEPT WHERE OTHERWISE INDICATED ON DRAWING.
3. LIGHTING SHOWN HERE IS AREA LIGHTING, SUPPLEMENTAL BUILDING–MOUNTED FIXTURES AT DOORWAYS, ETC. MAY BE REQUIRED.
4. SEE LIGHTING PLAN FOR FIXTURE SCHEDULE.

LIGHT POLE

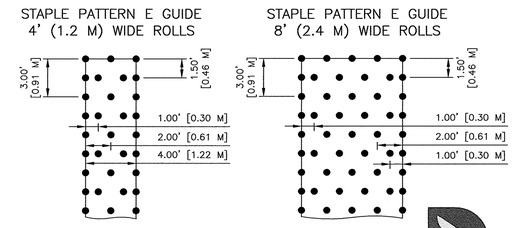
NOT TO SCALE



REDI-ROCK RETAINING WALL

UNREINFORCED

NOT TO SCALE



STAPLE NOTES

INSTALL USING 3.6 STAPLES/YD² (4.3 STAPLES/M²), 6–– IN. (15.2 CM), 11 GA. WIRE "U" SHAPED STAPLES. LONGER STAPLES MAY BE REQUIRED FOR LOOSE SOIL CONDITIONS. LARGER GAUGE STAPLES MAY BE REQUIRED FOR COMPACTED OR ROCKY SOILS. SECURE RECPS BY PLACING STAPLES/STAKES USING THE NOTED SPACING.

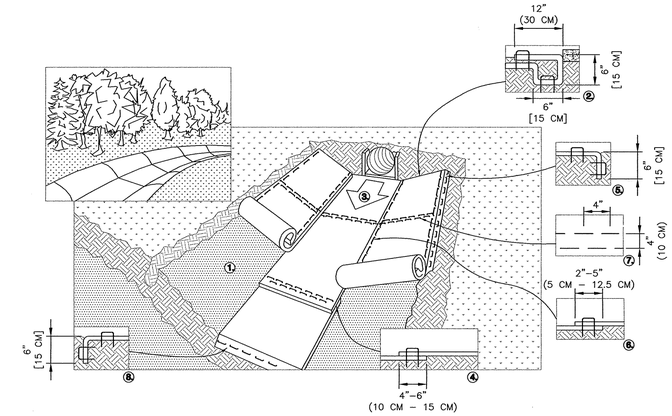
NORTH AMERICAN GREEN
14649 HIGHWAY 41 NORTH
EVANSVILLE, IN 47725
800-772-2040
www.nagreen.com

STAPLE PATTERN E

NORTH AMERICAN GREEN

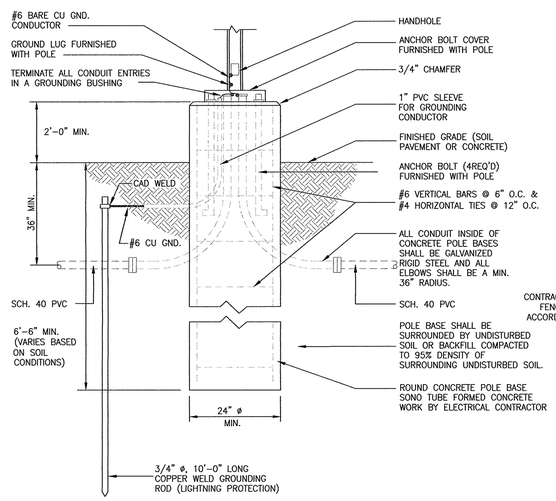
REV. 1/2004

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4" – 6" (10 CM –15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (5 CM –12.5 CM) (DEPENDING ON BLANKET TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M – 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

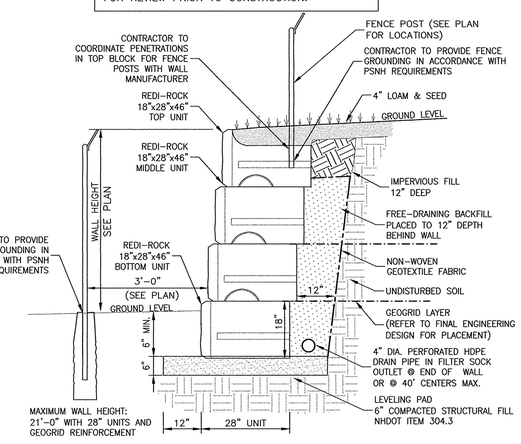
NOTE:
* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.



LIGHT POLE BASE

NOT TO SCALE

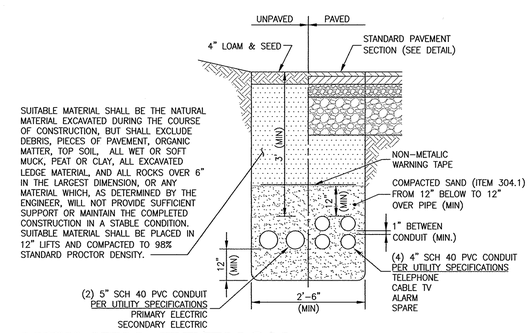
RETAINING WALLS SHALL BE DESIGNED BY A NEW HAMPSHIRE PROFESSIONAL STRUCTURAL ENGINEER AND STAMPED PLANS PROVIDED TO TFMORAN INC. FOR REVIEW PRIOR TO CONSTRUCTION.



REDI-ROCK RETAINING WALL

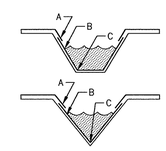
REINFORCED WITH GEOGRID

NOT TO SCALE



UTILITY TRENCH

NOT TO SCALE



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

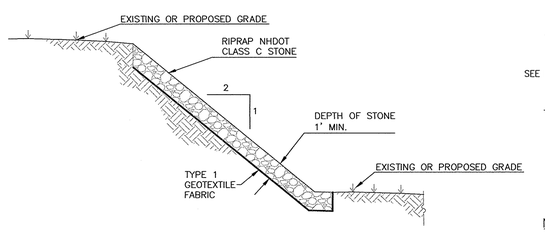
NORTH AMERICAN GREEN

CHANNEL INSTALLATION

NORTH AMERICAN GREEN – SC250

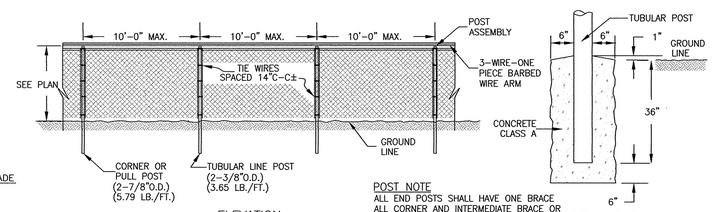
REV. 1/2004

NOT TO SCALE



RIPRAP SLOPE PROTECTION

NOT TO SCALE



NOTE
ALL FENCING TO MEET PSNH REQUIREMENTS

POST NOTE
ALL END POSTS SHALL HAVE ONE BRACE
ALL CORNER AND INTERMEDIATE BRACE OR PULL POSTS SHALL HAVE TWO BRACES, WITH A MAXIMUM SPACING OF BETWEEN POST ASSEMBLIES OF 500 FEET.

CHAIN LINK FENCE

NOT TO SCALE

STATE OF NEW HAMPSHIRE
ROBERT E. DUVAL
No. 7106
LICENSED
PROFESSIONAL ENGINEER
12 Feb 2011

TAX MAP 122 LOT 93

DETAIL SHEET

EASTPORT SUBSTATION

103 WALNUT STREET, ROCHESTER, NH

OWNED BY AND PREPARED FOR

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
780 NORTH COMMERCIAL STREET
MANCHESTER, NH 03101

SCALE: AS NOTED **FEBRUARY 3, 2009**

REV.	DATE	DESCRIPTION	DR	CK
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FILE	47004.00	DR	SWS	FB	–	SHEET 13 OF 13
		CK	NG	CADFILE	47004–00 Details	

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This plan is not effective unless signed by a duly authorized officer of Thomas F. Moran, Inc.

FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY _____ *DATE* _____