

STATE OF CONNECTICUT

DANNEL P. MALLOY
GOVERNOR

PROJECT:

MILITARY VEHICLE COMPOUND EXPANSION

38 STOTT AVENUE
NORWICH, CONNECTICUT

PROJECT NUMBER: 13MIL22501

MILITARY DEPARTMENT

MAJOR GENERAL THADDEUS J. MARTIN
ADJUTANT GENERAL

LIST OF DRAWINGS

- T1.0 - TITLE SHEET
- C1.0 - SOIL BORING LOGS
- C2.0 - DEMOLITION PLAN
- C3.0 - SITE LAYOUT AND GRADING PLAN
- C4.0 - SEDIMENTATION AND EROSION CONTROL PLAN
- C5.0 - SITE DETAILS
- C5.1 - SITE DETAILS
- C5.2 - SITE DETAILS



STATE OF CONNECTICUT
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Military Department Project No.
12MIL22501

Architect/Engineer

PURCELL
ASSOCIATES
CONSULTING ENGINEERS •
civil - structural - transportation - surveying
Glastonbury, Connecticut
Boston, Massachusetts

REVISION		
Mark	Date	Description

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Scale: **AS NOTED**
File #:

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Project
**MILITARY VEHICLE
COMPOUND EXPANSION**
NORWICH ARMY; NORWICH, CT

Drawing Title
TITLE SHEET

Date: **2/24/2012**
Project No.: **NW 11001**
Drawing No.: **T1.0**

LOCATION PLAN

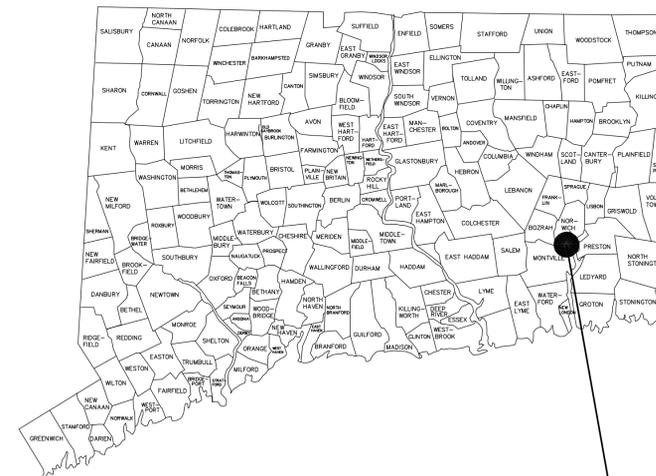


**EXISTING PARKING
LOT**

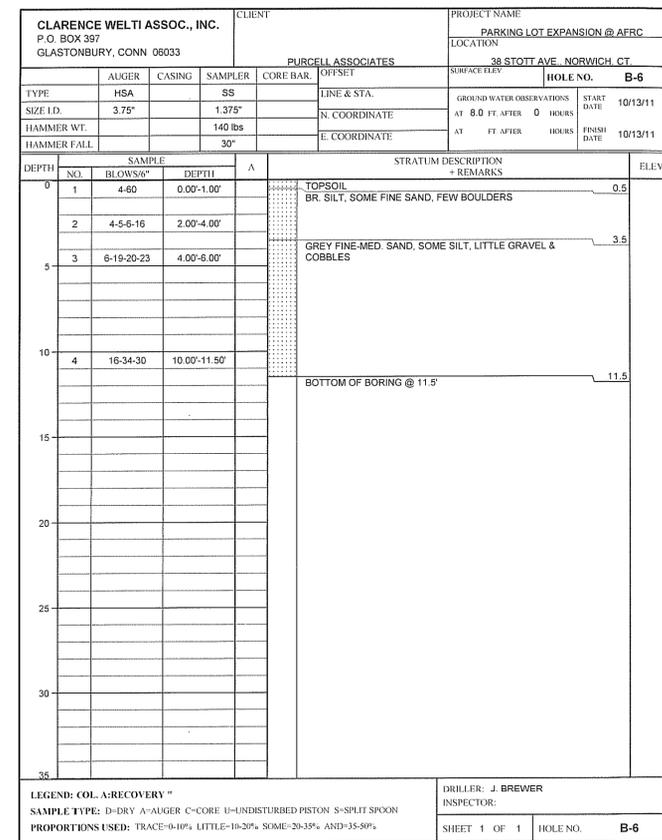
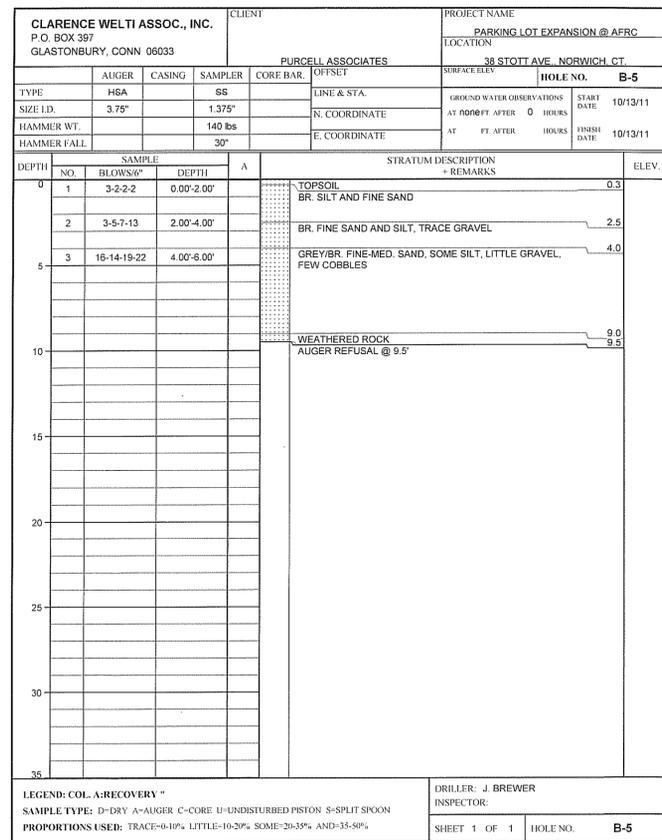
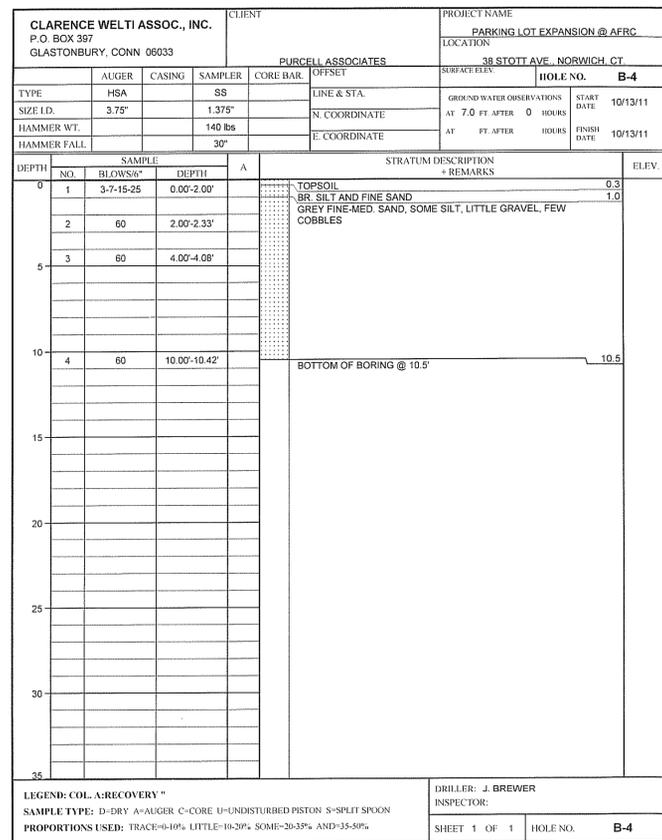
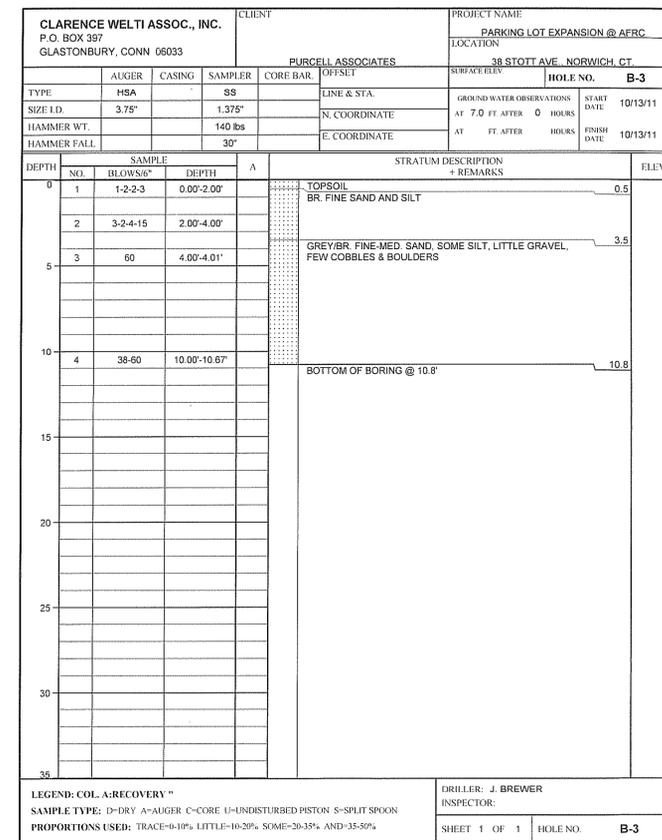
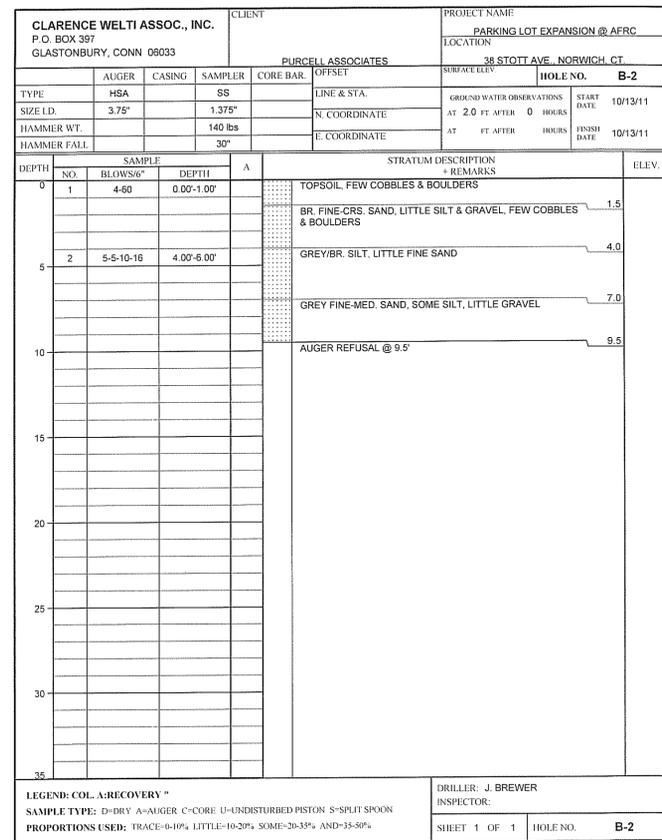
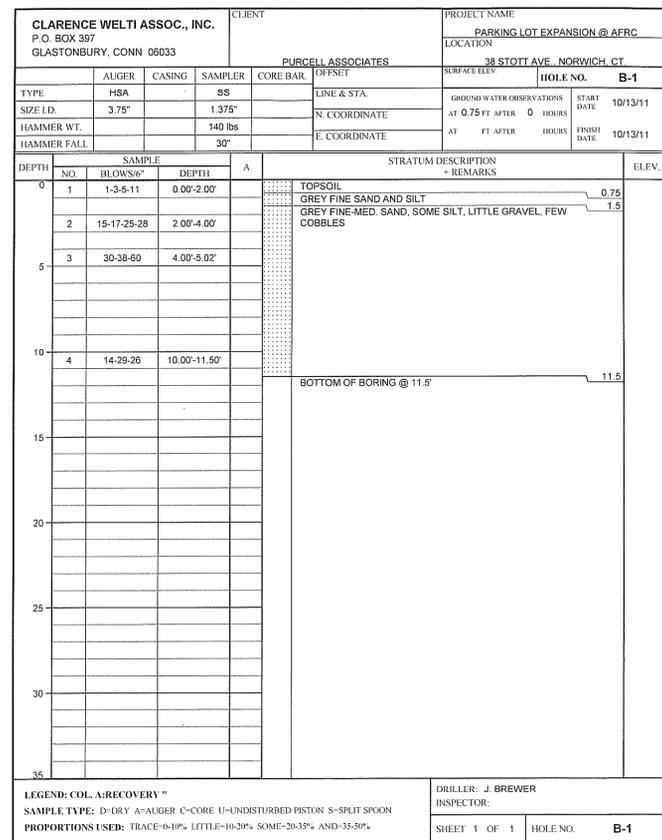
**PROJECT
LOCATION**

LOCATION PLAN

NORWICH CONNECTICUT



PROJECT LOCATION



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Boston, Massachusetts

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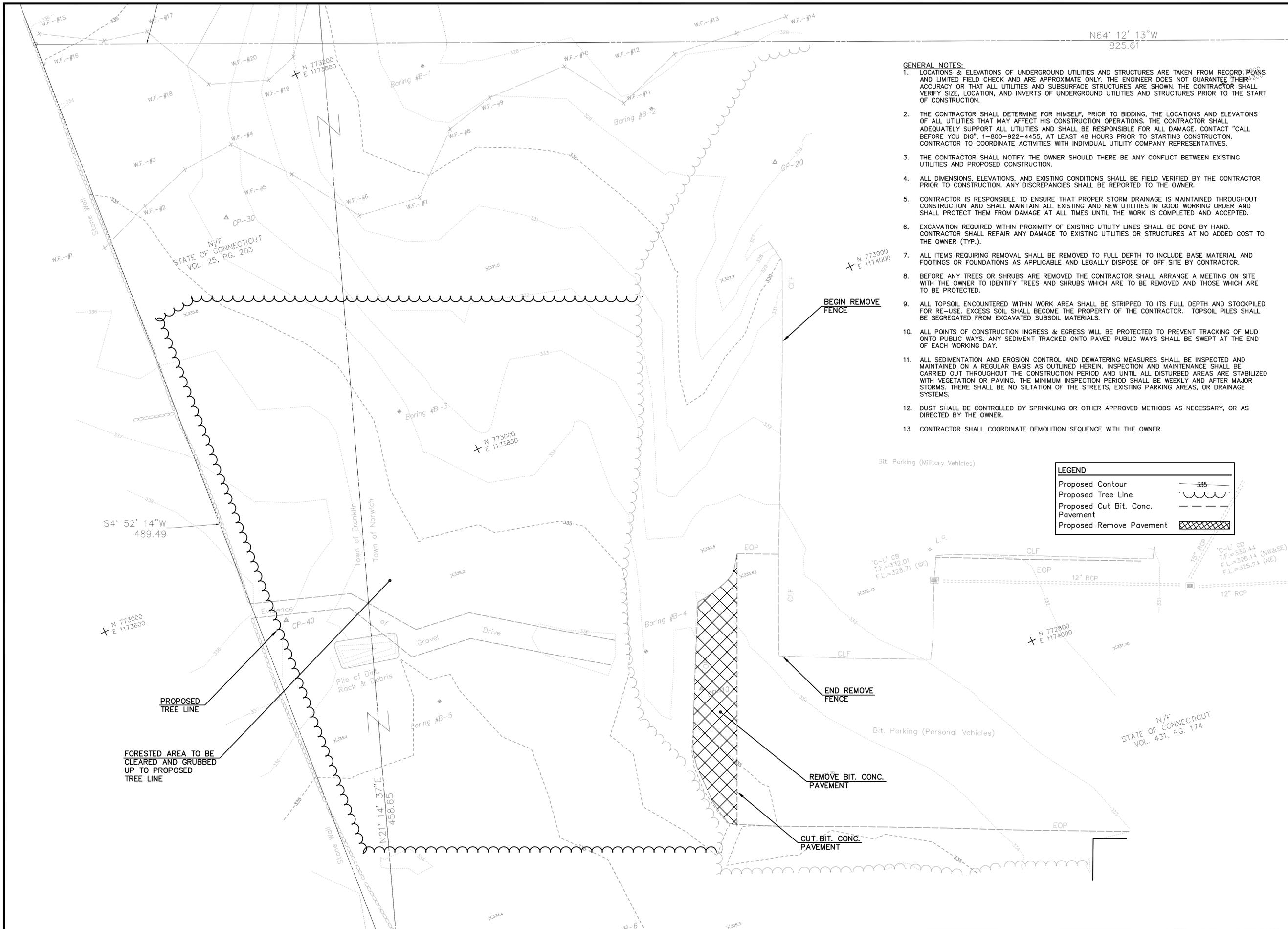
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Project
**MILITARY VEHICLE
COMPOUND EXPANSION**
NORWICH ARMY; NORWICH, CT

Drawing Title
SOIL BORING LOGS

Date: 2/24/2012
Project No.: NW 11001
Drawing No.: C1.0



- GENERAL NOTES:**
1. LOCATIONS & ELEVATIONS OF UNDERGROUND UTILITIES AND STRUCTURES ARE TAKEN FROM RECORD PLANS AND LIMITED FIELD CHECK AND ARE APPROXIMATE ONLY. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR THAT ALL UTILITIES AND SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND INVERTS OF UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE START OF CONSTRUCTION.
 2. THE CONTRACTOR SHALL DETERMINE FOR HIMSELF, PRIOR TO BIDDING, THE LOCATIONS AND ELEVATIONS OF ALL UTILITIES THAT MAY AFFECT HIS CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL ADEQUATELY SUPPORT ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE. CONTACT "CALL BEFORE YOU DIG", 1-800-922-4455, AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. CONTRACTOR TO COORDINATE ACTIVITIES WITH INDIVIDUAL UTILITY COMPANY REPRESENTATIVES.
 3. THE CONTRACTOR SHALL NOTIFY THE OWNER SHOULD THERE BE ANY CONFLICT BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION.
 4. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER.
 5. CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PROPER STORM DRAINAGE IS MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL MAINTAIN ALL EXISTING AND NEW UTILITIES IN GOOD WORKING ORDER AND SHALL PROTECT THEM FROM DAMAGE AT ALL TIMES UNTIL THE WORK IS COMPLETED AND ACCEPTED.
 6. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES AT NO ADDED COST TO THE OWNER (TYP.).
 7. ALL ITEMS REQUIRING REMOVAL SHALL BE REMOVED TO FULL DEPTH TO INCLUDE BASE MATERIAL AND FOOTINGS OR FOUNDATIONS AS APPLICABLE AND LEGALLY DISPOSE OF OFF SITE BY CONTRACTOR.
 8. BEFORE ANY TREES OR SHRUBS ARE REMOVED THE CONTRACTOR SHALL ARRANGE A MEETING ON SITE WITH THE OWNER TO IDENTIFY TREES AND SHRUBS WHICH ARE TO BE REMOVED AND THOSE WHICH ARE TO BE PROTECTED.
 9. ALL TOPSOIL ENCOUNTERED WITHIN WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR RE-USE. EXCESS SOIL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. TOPSOIL PILES SHALL BE SEGREGATED FROM EXCAVATED SUBSOIL MATERIALS.
 10. ALL POINTS OF CONSTRUCTION INGRESS & EGRESS WILL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS. ANY SEDIMENT TRACKED ONTO PAVED PUBLIC WAYS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.
 11. ALL SEDIMENTATION AND EROSION CONTROL AND DEWATERING MEASURES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AS OUTLINED HEREIN. INSPECTION AND MAINTENANCE SHALL BE CARRIED OUT THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH VEGETATION OR PAVING. THE MINIMUM INSPECTION PERIOD SHALL BE WEEKLY AND AFTER MAJOR STORMS. THERE SHALL BE NO SILTATION OF THE STREETS, EXISTING PARKING AREAS, OR DRAINAGE SYSTEMS.
 12. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER.
 13. CONTRACTOR SHALL COORDINATE DEMOLITION SEQUENCE WITH THE OWNER.

LEGEND

Proposed Contour	335
Proposed Tree Line	
Proposed Cut Bit. Conc. Pavement	
Proposed Remove Pavement	



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Boston, Massachusetts

REVISION

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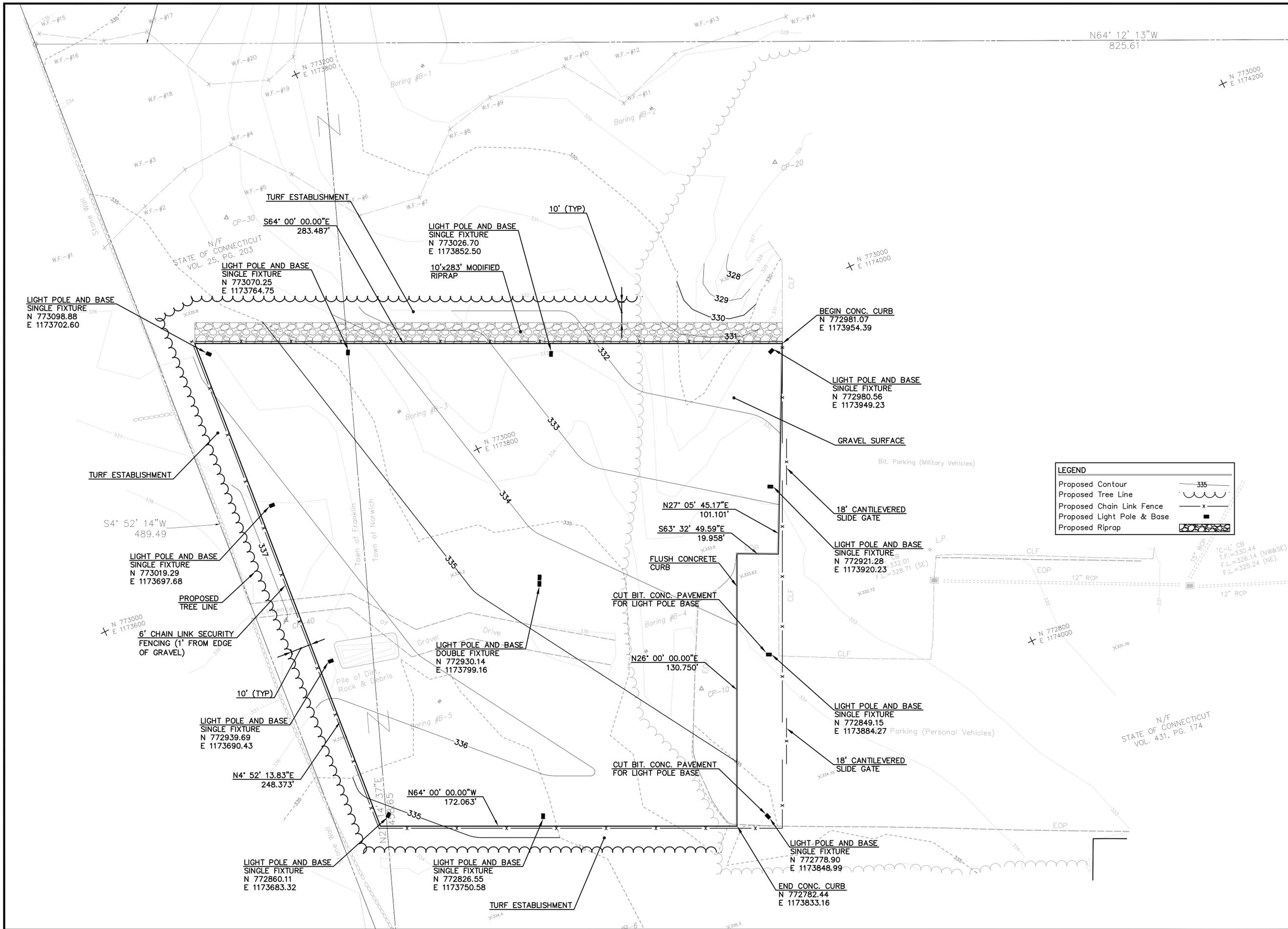
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Scale: **N=20'**
File #:

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Project
MILITARY VEHICLE
COMPOUND EXPANSION
NORWICH ARMY; NORWICH, CT

Drawing Title
DEMOLITION
PLAN

Date: **2/24/2012**
Project No.: **NW 11001**
Drawing No.: **C2.0**



N64° 12' 13"W
825.61

N 773000
E 1174200



LEGEND	
Proposed Contour	335
Proposed Tree Line	~
Proposed Chain Link Fence	x
Proposed Light Pole & Base	■
Proposed Riprap	▨

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Mark	Date	Description

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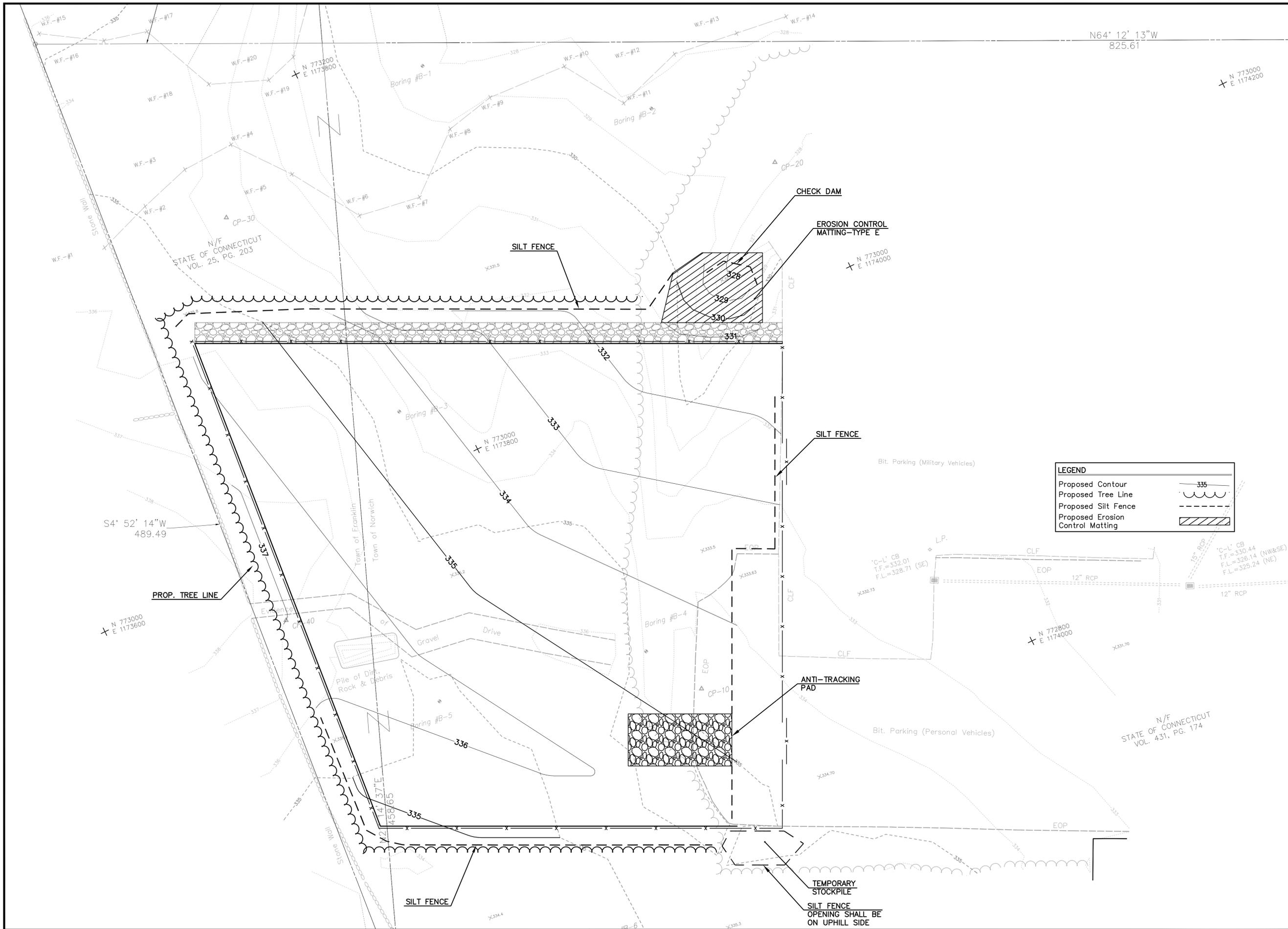
Project
MILITARY VEHICLE
COMPOUND EXPANSION
NORWICH ARMY; NORWICH, CT

Drawing Title
SITE LAYOUT &
GRADING PLAN

Date
2/24/2012

Project No.
NW 11001

Drawing No.
C3.0



N64° 12' 13"W
825.61

N 773000
E 1174200

N 773000
E 1173800

N 773000
E 1174000

S4° 52' 14"W
489.49

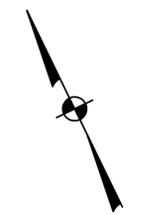
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N 772800
E 1174000

N/F
STATE OF CONNECTICUT
VOL. 431, PG. 174

N/F
STATE OF CONNECTICUT
VOL. 25, PG. 203

LEGEND	
Proposed Contour	
Proposed Tree Line	
Proposed Silt Fence	
Proposed Erosion Control Matting	



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Boston, Massachusetts

REVISION		
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Project
**MILITARY VEHICLE
COMPOUND EXPANSION**
NORWICH ARMY; NORWICH, CT

Drawing Title
**SEDIMENTATION &
EROSION CONTROL PLAN**

Date: **2/24/2012**
Project No.: **NW 11001**
Drawing No.: **C40**

TEMPORARY STOCKPILE
SILT FENCE
OPENING SHALL BE ON UPHILL SIDE

**EROSION AND SEDIMENTATION CONTROL NARRATIVE FOR:
NORWICH ARMORY PARKING LOT EXPANSION
NORWICH, CONNECTICUT**

I. INTRODUCTION

The erosion and sediment control plan has been prepared as part of the construction plans for the Parking Lot Expansion located at the Norwich Armory in Norwich, Connecticut. Information relating to sedimentation and erosion control is included in these Drawings.

II. NARRATIVE

A. DESCRIPTION OF DEVELOPMENT

The site is located on Stott Avenue in the City of Norwich. The proposed development will construct a new gravel parking lot with a perimeter fence. Approximately 1.5 acres of the site will be disturbed during construction.

B. CONSTRUCTION AND GRADING SCHEDULE

1. GENERAL

a. The following schedule is to serve as a general guide to the sequence of construction activities for sediment and erosion control measures. It is not intended to take the place of the contractor's responsibility for detailed scheduling of all construction activities. However, the schedule will be incorporated into the contract documents and no substantial deviation from this schedule shall occur without prior approval of the Construction Manager.

b. The dates given below are approximate to give an indication of overall construction sequence. The contractor is required to meet the dates and deadlines established in their contract executed with the Construction Manager.

Start Construction	Spring 2012
Establish Erosion Controls	Spring 2012
Partial Grading	Spring 2012
Final Grading	Summer 2012
End Construction	Summer 2012

The contractor is required to meet the dates and deadlines established in their contract executed with the owner.

2. CONSTRUCTION SEQUENCE

a. Erosion and Sediment Control

- (1.) Install haybales and silt fence as shown on the drawing or as directed by the Construction Manager.
- (2.) Provide temporary sedimentation traps as necessary to control runoff. Provide 134 cy of storage per acre of disturbed area. Direct overland flow with the use of channels and berms to the basin location. Relocate temporary sedimentation basins as site conditions warrant. Construct sedimentation basins per CT DEP guidelines and details shown.
- (3.) Install Temporary Construction Entrance as shown on the drawings or as directed by the Construction Manager.

b. Clearing and Grubbing

- (1.) Strip and clear area for the proposed improvements.
- (2.) Clear all trees and appurtenances within the proposed project area that are not designated to remain. Contractor shall verify with the Construction Manager removal of any trees over 12" in diameter. Dispose of cleared items at an approved off-site disposal area.

c. Site Excavation and Grading

- (1.) Strip and Stockpile topsoil. Install silt fence around stockpile as required. The side slopes of stockpiled material shall be no steeper than 2:1. Stockpiles that are not to be used within 30 days shall be seeded and mulched immediately after formation of the stockpile or as directed by the Construction Manager.
- (2.) Relocate or install additional silt fence or hay bales to fully enclose and control all work areas as directed by the Construction Manager.
- (3.) As site grading progresses, provide temporary channels, settling basins, or berms as necessary to direct site runoff to the proposed or existing drainage structures as directed by the Architect at no additional cost to the owner.
- (4.) The contractor shall stockpile all excess excavated material as directed by the Construction Manager. Silt fence shall be placed around the perimeter of all stockpiles. Excess material that will not be reused shall be taken offsite immediately.
- (5.) Replace clogged sedimentation controls as required and clean sediment from basins when accumulation sediment exceeds 8" in depth at no additional cost to the owner.
- (6.) Sediment build-up along silt fence protection shall be removed when it is half the height of the silt fence.

d. Dust Control

- (1.) Provide water for dust control as necessary, or as directed by the Construction Manager.

e. Storm Drainage Structures

- (1.) As soon as possible construct storm drainage systems on-site.
- (2.) Following construction of catch basins and other inlets, provide hay bales around all inlets to prevent sediment from entering newly constructed or existing drainage systems.

f. Utility Installation

- (1.) Construct new sanitary sewers, water lines, electrical services.

g. Rough Grading

- (1.) Sediment and erosion controls shall remain until a stable vegetative growth has been established on all slopes or until directed by the Construction Manager.

h. Final Items

- (1.) Clean all catch basins and storm manholes of all accumulated sediment as directed by the Construction Manager.
- (2.) Remove all silt fence barriers unless directed otherwise by the Construction Manager.

3. CONTINGENCY PLANS FOR FAILED EROSION AND SEDIMENTATION CONTROL MEASURES

1. Failed erosion and sedimentation control measures will be evaluated on a case by case basis by the Construction Manager and appropriate measures taken. These measures may include cleaning and/or replacement of defective facilities or installation of new or supplemental facilities at no additional cost to the owner.

C. DESIGN CRITERIA

The following design references were followed for the preparation of storm drainage design and erosion and sediment control plans:

1. "Connecticut Department of Transportation Drainage Manual"
2. "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" by The Connecticut Council on Soil and Water Conservation in Cooperation with the Connecticut Department of Environmental Protection, DEP Bulletin 34.

D. CONSTRUCTION DETAILS

Construction details for the proposed project are presented on the detail sheets. Additional details can be found in Chapter 5 of the "2002 Connecticut Guidelines for Soil Erosion and Sediment Control"

E. INSTALLATION PROCEDURES

The installation procedures for stormwater management facilities and erosion and sedimentation control measures are presented in the projects technical specifications for Drainage; and Sedimentation and Erosion Control. Additional installation procedures are shown on the construction details both graphically and by use of construction notes.

F. OPERATION AND MAINTENANCE

1. DURING CONSTRUCTION

As contained in the Sedimentation and Erosion Control Specifications, operations and maintenance during construction will consist of periodic replacement, relocation, and/or cleaning of clogged hay bales, silt fence, temporary sedimentation basins and construction entrances at no additional cost to the owner. All drainage structures shall be inspected on daily basis and any necessary corrective action taken, at no additional cost to the owner.

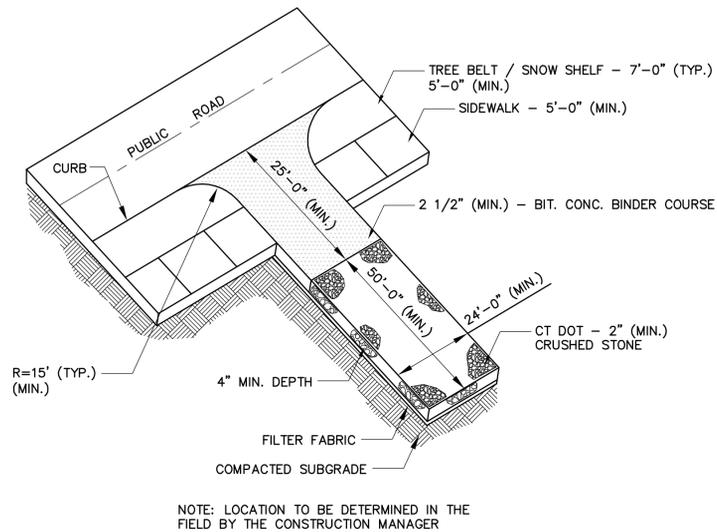
2. LONG TERM

Upon completion of construction all catch basins and stormwater manholes will be cleaned of all accumulated sediment. Thereafter, an inspection should be made by the owner after each storm event and each spring following the end of all pavement sanding operations. Sediment shall be removed whenever the thickness of accumulated sediment reaches 12" or more. More frequent inspection and cleaning may be required and will be determined once the system is in operation.

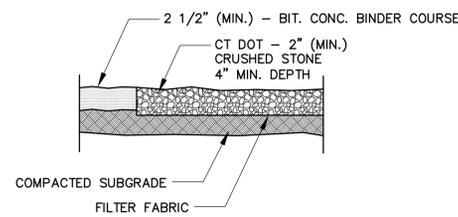
All paved surfaces should be cleaned on a regular basis to avoid added sediment clogging of basin tops or pipes.

G. DESIGNATED ON-SITE AGENT

1. The Construction Manager or his designated on-site agent shall inspect and repair as necessary all erosion and sedimentation controls at least once a week and after each storm event of 0.1 inches or greater. Detailed inspection reports shall be kept on file at an on-site location during the entire length of the construction phase.

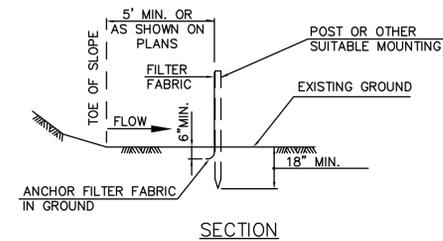


PLAN

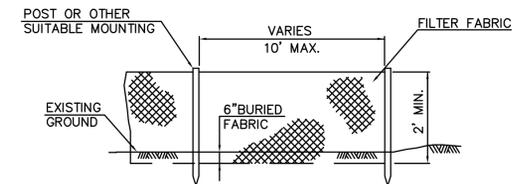


SECTION

**ANTI-TRACKING PAD
NOT TO SCALE**

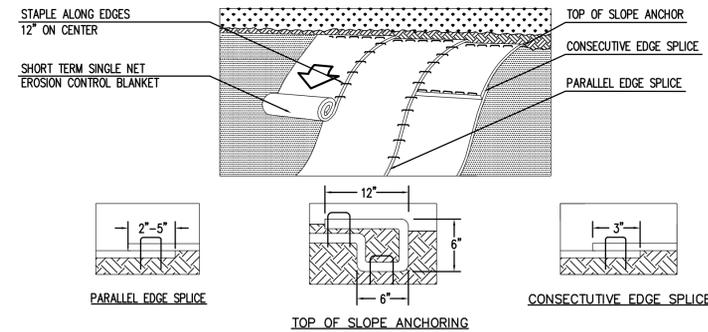


SECTION



ELEVATION

**SILT FENCE
NOT TO SCALE**



**EROSION CONTROL MATTING - TYPE E
NOT TO SCALE**



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Project
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COMPOUND EXPANSION
NORWICH ARMORY, NORWICH, CT**

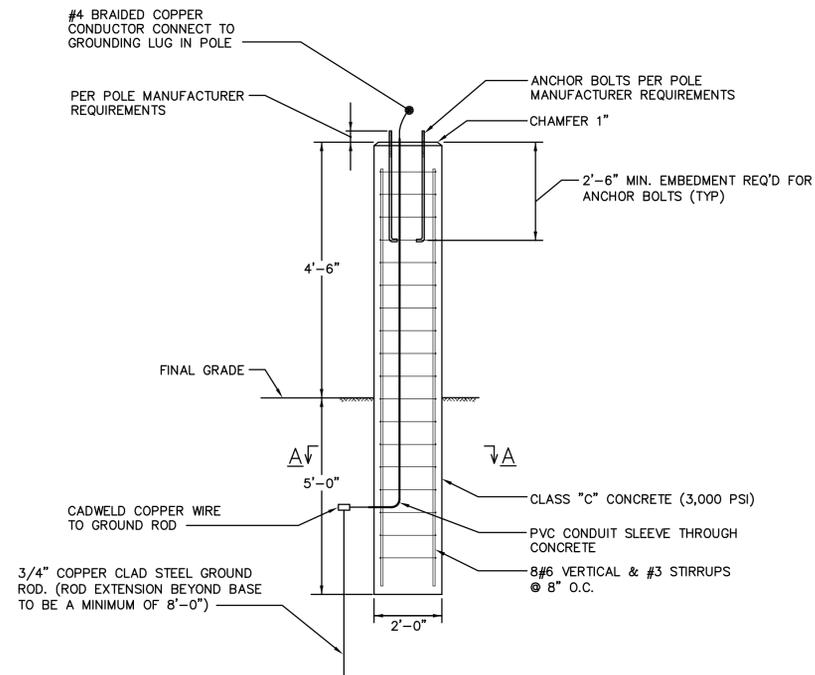
Drawing Title
SITE DETAILS

Date
2/24/2012

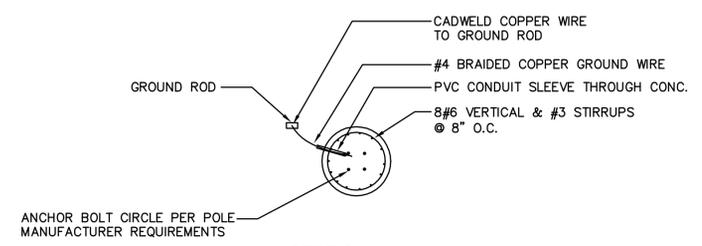
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Project No.
NW 11001

C5.1



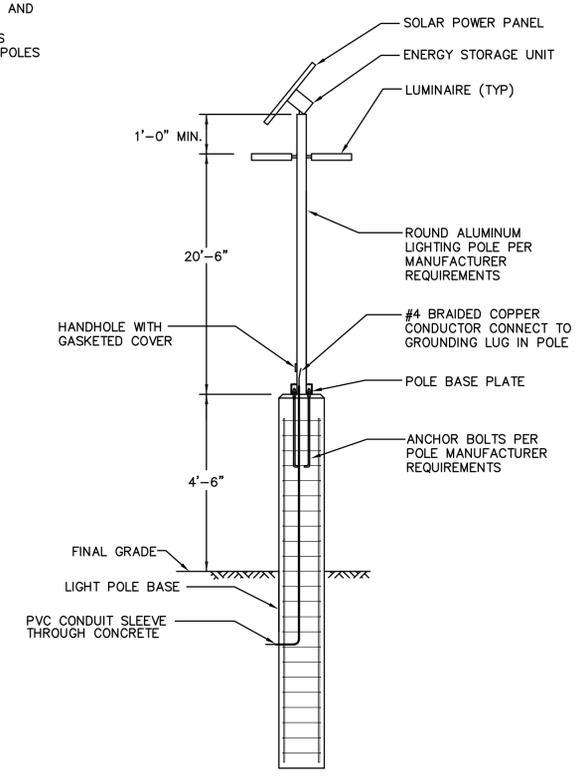
ELEVATION



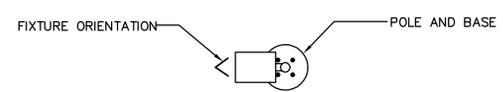
SECTION A-A

LIGHT POLE BASE
NOT TO SCALE

- NOTES:
1. LIGHT POLE, LUMINAIRE, SOLAR POWER UNIT, ENERGY STORAGE UNIT, AND ALL ACCESSORIES SHALL BE SOL INC. 20/20 SERIES OR APPROVED EQUAL.
 2. FINAL MOUNTING HEIGHT FOR THE LIGHT FIXTURE SHALL BE 25' ABOVE FINISHED GRADE.
 3. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE AND BASE PER THE MANUFACTURER REQUIREMENTS.
 4. THE CONTRACTOR SHALL REVIEW THE MANUFACTURER'S INSTALLATION MANUAL BEFORE INSTALLING THE LIGHT POLES AND BASES.



ELEVATION



PLAN FOR SINGLE FIXTURE

LIGHTING FIXTURE DETAIL
NOT TO SCALE



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NORWICH ARMORY, NORWICH, CT

Drawing Title
SITE DETAILS

Date 2/24/2012	Drawing No.
Project No. NW 11001	C5.2