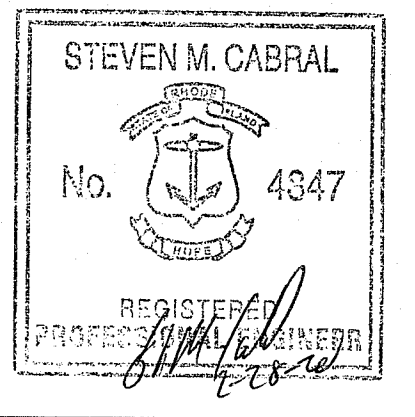


CROSSMAN ENGINEERING
 Rhode Island: 151 Centerville Road, Warwick, RI 02886, Phone: (401) 738-5660
 Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02763, Phone: (508) 895-1700
 Email: cel@crossmaneng.com

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KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 REVIEWED SITE PLAN APPLICATION NO.: 20-0052
 DATED MAY 15 2020
 SEE LETTER OF SAME DATE.

PROJECT TITLE:
**CAMP FOGARTY
 ARNOLD ROAD
 RECLAMATION AND
 RESURFACING PROJECT**
 2841 SOUTH COUNTY TRAIL
 EAST GREENWICH, RHODE ISLAND

PREPARED FOR:
**RHODE ISLAND
 ARMY NATIONAL GUARD**
 CONSTRUCTION and FACILITIES
 MANAGEMENT OFFICE
 645 NEW LONDON AVENUE
 CRANSTON, RI 02920

DRAWING TITLE:
AERIAL MAP

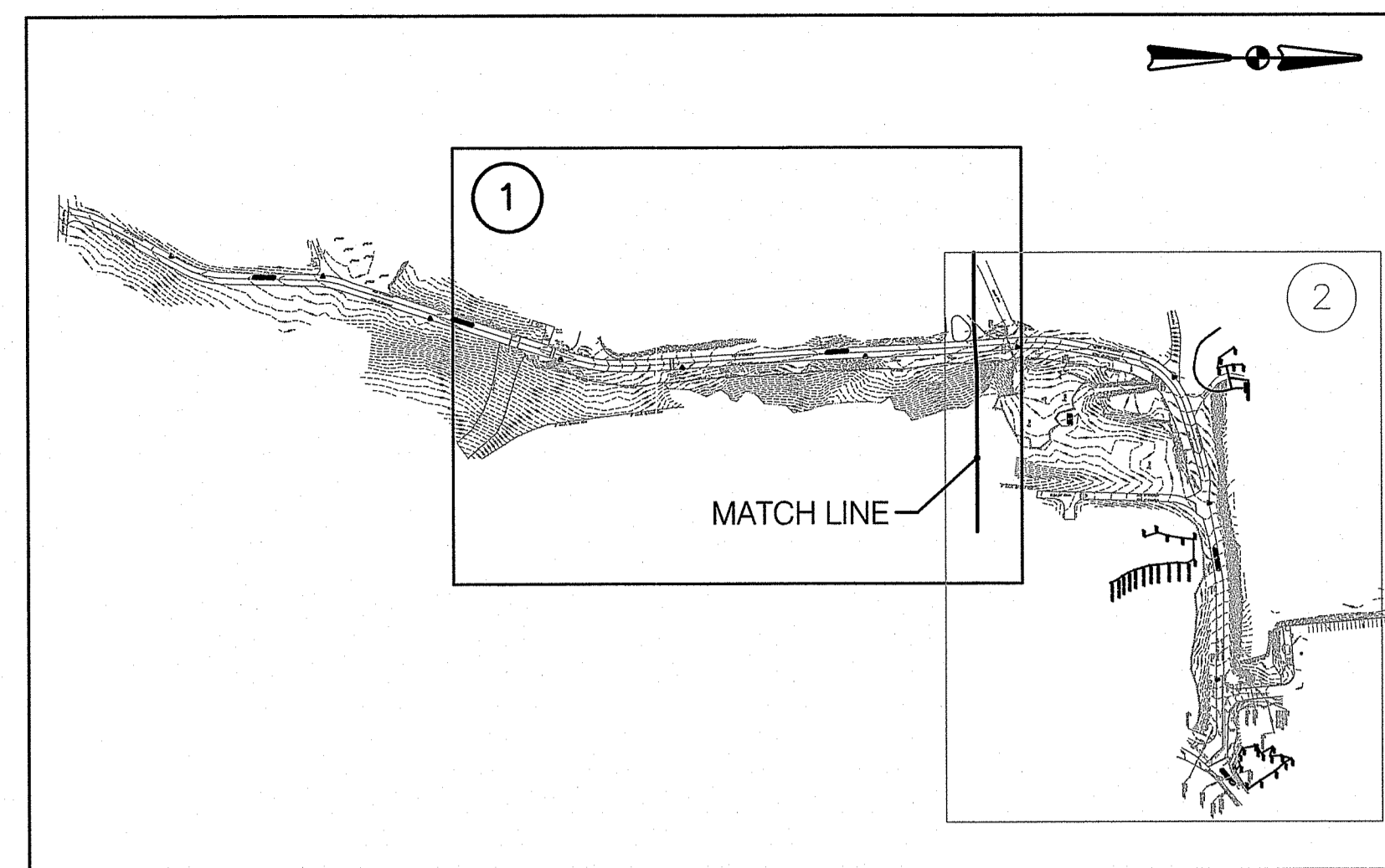
DATE: FEBRUARY 2020 SCALE: 1"=100'
 DWG. NAME: 2338-C02-AERIAL.dwg

REVISIONS

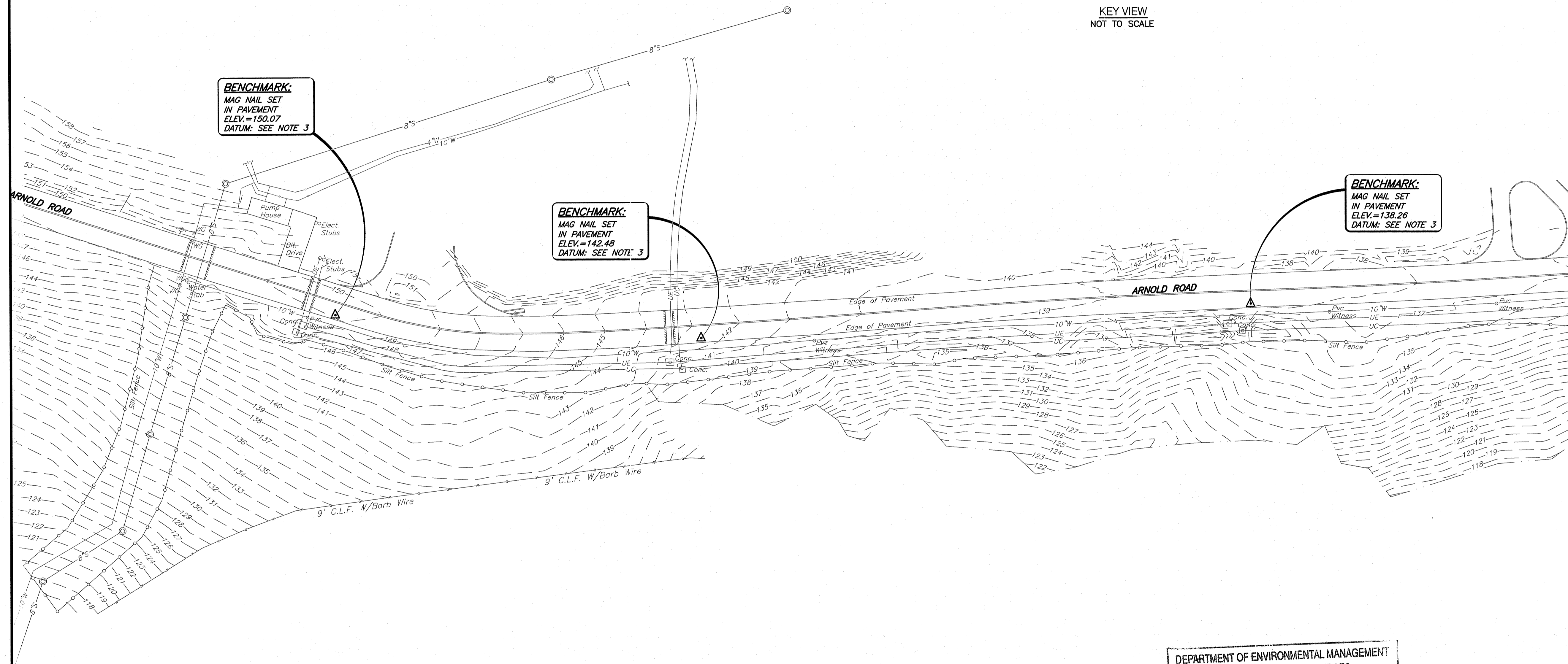
NUMBER	REMARKS	DATE

DRAWING NUMBER
C2
 SHEET: 4 OF 14

(SEE NOTE 3)



KEY VIEW
NOT TO SCALE



CERTIFICATION:

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

(a.) TYPE OF BOUNDARY SURVEY	MEASUREMENT SPECIFICATION
-THIS IS NOT A BOUNDARY SURVEY	NOT APPLICABLE
(b.) OTHER TYPE OF SURVEY	MEASUREMENT SPECIFICATION
-DATA ACCUMULATION SURVEY	CLASS III
-TOPOGRAPHICAL SURVEY	CLASS III
-TOPOGRAPHIC SURVEY ACCURACY	CLASS T-2
(c.) STATEMENT OF PURPOSE	

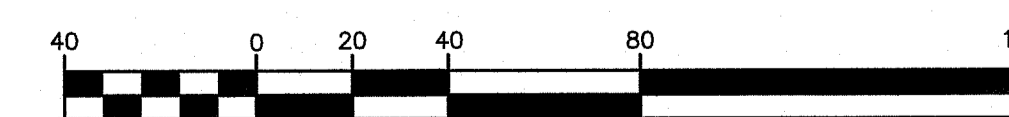
THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR PREPARATION OF THE PLAN IS FOR ENGINEERING DESIGN BY CROSSMAN ENGINEERING ONLY.

BY: _____
PLS: CROSSMAN ENGINEERING MARK D. BOYER #1888
COA: CROSSMAN ENGINEERING #A257

NOTES

- EXISTING CONDITIONS HAVE BEEN COMPILED FROM FIELD SURVEY WORK PERFORMED BY CROSSMAN ENGINEERING BETWEEN JANUARY AND OCTOBER OF 2019.
- UTILITY NOTE: THE UTILITIES INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USERS OF THIS PLAN SHOULD CONTACT DIGSAFE PRIOR TO ANY WORK. CROSSMAN ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
- THE HORIZONTAL DATUM IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD83) AND THE VERTICAL DATUM IS NAVD 88 UTILIZING GPS RTK NETWORK CONTROL.
- WETLAND FLAGS DELINEATED BY APPLIED BIO-SYSTEMS, INC. ON APRIL 10, 2019 AND JUNE 19, 2019 AND FIELD LOCATED BY CROSSMAN ENGINEERING.
- THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS FOR ENGINEERING DESIGN BY CROSSMAN ENGINEERING.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 20-0052
DATED MAY 15 2020
SEE LETTER OF SAME DATE.
Nancy L. Freeman



GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

MATCH LINE TO EXISTING CONDITIONS PLAN NO. 2

Environmental Management
FEB 28 2020
Office of Water Resources

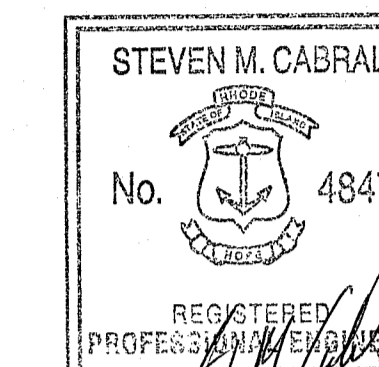
- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

Crossman Engineering

Rhode Island: 151 Centerville Road, Warwick, RI 02886, Phone (401) 738-5660
Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02763, Phone (508) 695-1700

Email: cel@crossmaneng.com

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KEY PLAN

PROJECT TITLE:
**CAMP FOGARTY
ARNOLD ROAD RECLAMATION
AND RESURFACING PROJECT**

2841 SOUTH COUNTY TRAIL
EAST GREENWICH, RHODE ISLAND

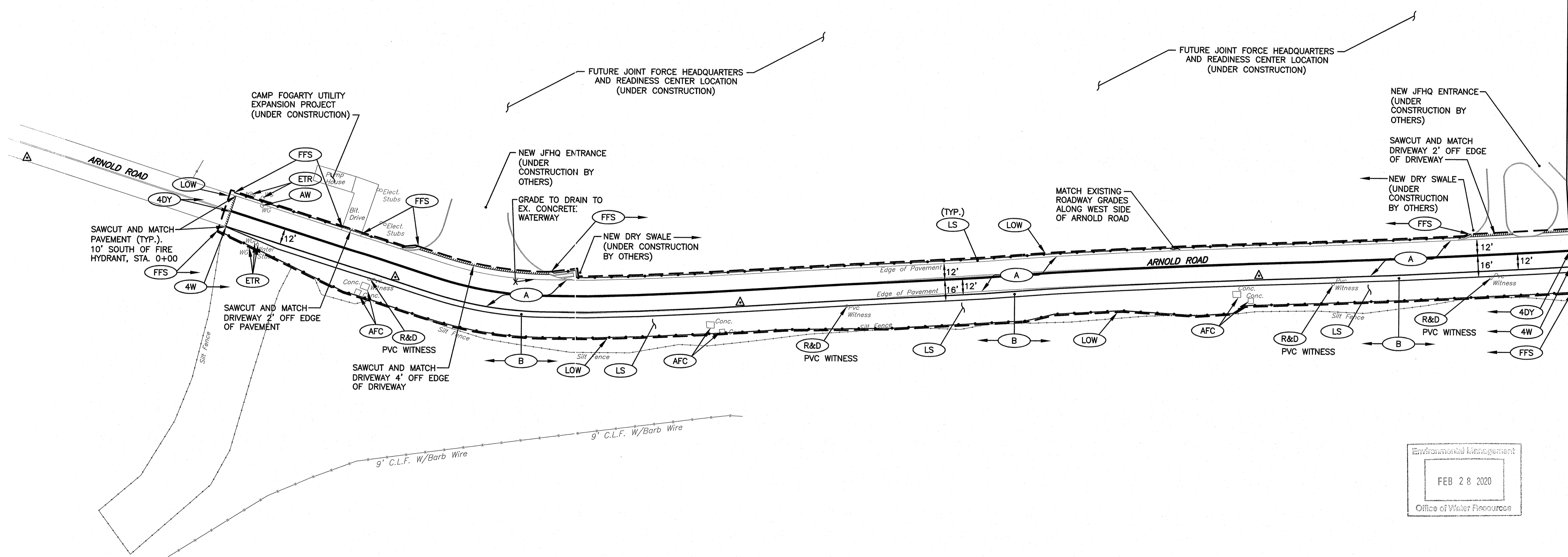
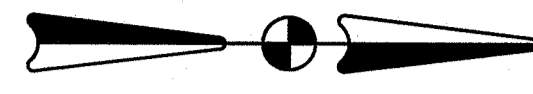
PREPARED FOR:
**RHODE ISLAND
ARMY NATIONAL GUARD
CONSTRUCTION and FACILITIES
MANAGEMENT OFFICE**
645 NEW LONDON AVENUE
CRANSTON, RI 02920

DRAWING TITLE:
**EXISTING CONDITIONS
PLAN No. 1**

DATE: FEBRUARY 2020 SCALE: 1"=40'
DWG. NAME: 2338-C03-EXCN.dwg

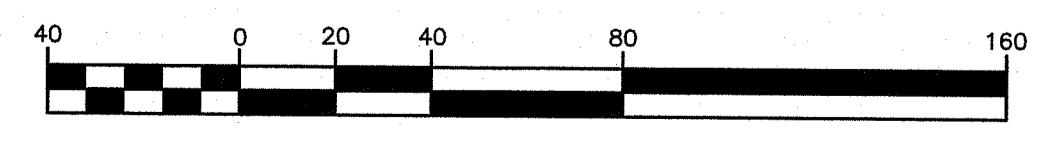
REVISIONS		
NUMBER	REMARKS	DATE
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DRAWING NUMBER
C3.1
SHEET: 5 OF 14



Environmental Management
 FEB 28 2020
 Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 REVIEWED SITE PLAN APPLICATION NO.: 20-0052
 DATED MAY 15 2020
 SEE LETTER OF SAME DATE.
Nancy L. Freeman

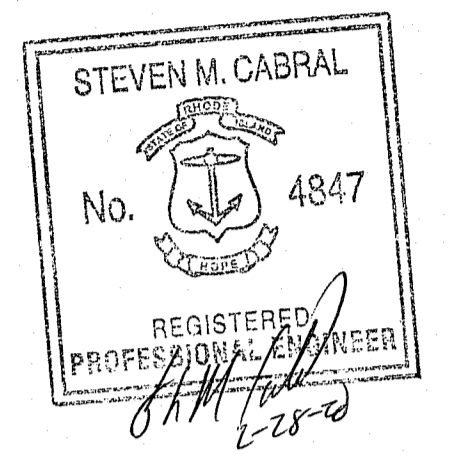


GRAPHIC SCALE
 (IN FEET)
 1 inch = 40 ft.

MATCHLINE TO SITE LAYOUT PLAN No. 2

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KEY PLAN

PROJECT TITLE:

**CAMP FOGARTY
 ARNOLD ROAD
 RECLAMATION AND
 RESURFACING**

2841 SOUTH COUNTY TRAIL
 EAST GREENWICH, RHODE ISLAND

PREPARED FOR:

**RHODE ISLAND
 ARMY NATIONAL GUARD
 CONSTRUCTION and FACILITIES
 MANAGEMENT OFFICE
 705 NEW LONDON AVENUE
 CRANSTON, RI 02920**

DRAWING TITLE:

SITE LAYOUT PLAN No. 1

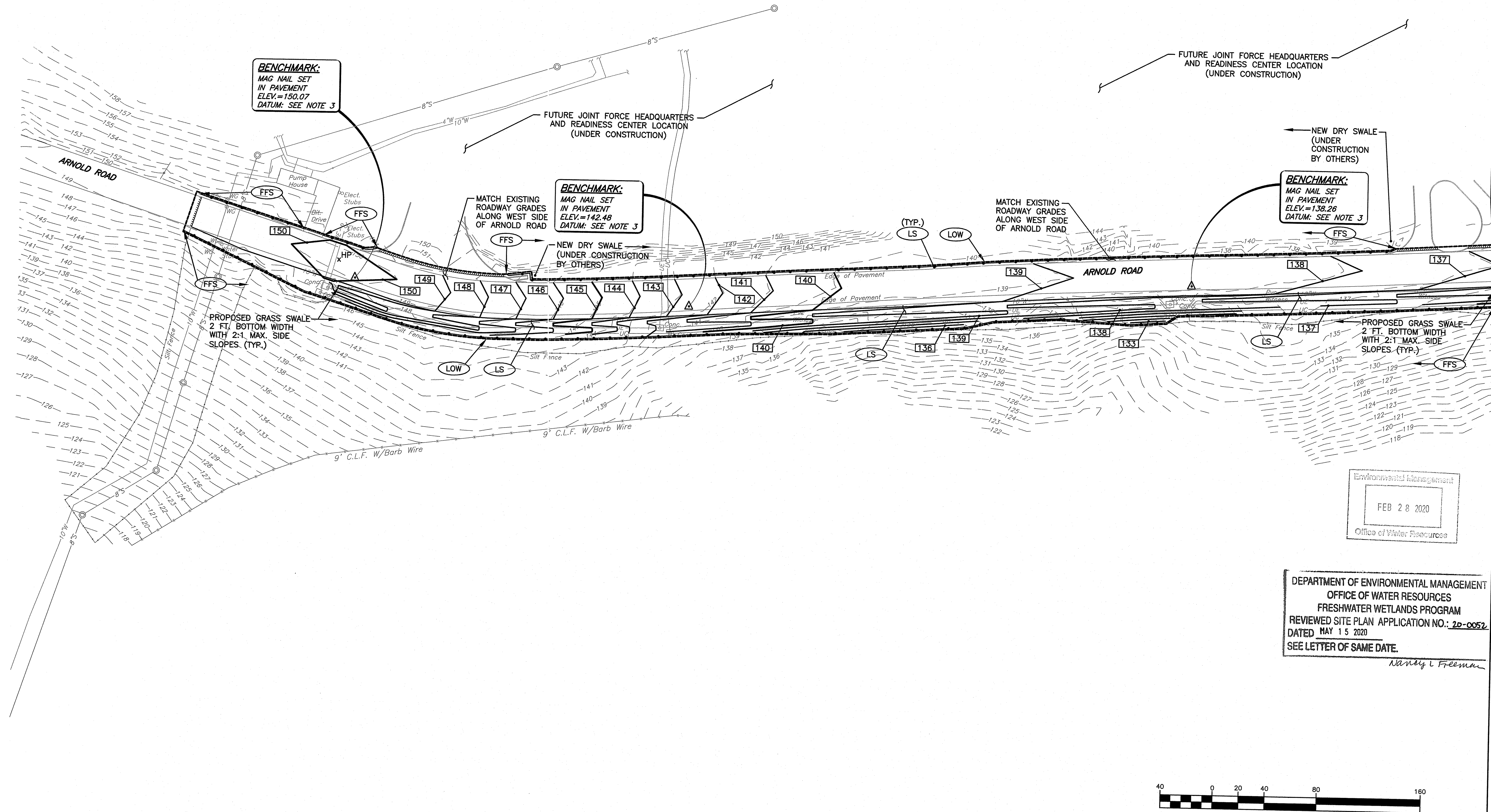
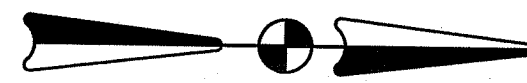
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DWG. NAME: 2338-C04-SITE.dwg

REVISIONS		
NUMBER	REMARKS	DATE
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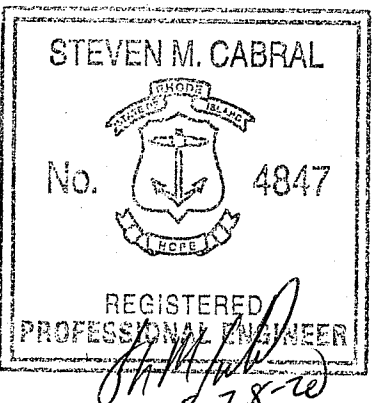
DRAWING NUMBER

C4.1
 SHEET: 7 OF 14



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KEY PLAN

PROJECT TITLE:
**CAMP FOGARTY
 ARNOLD ROAD
 RECLAMATION AND
 RESURFACING**
 2841 SOUTH COUNTY TRAIL
 EAST GREENWICH, RHODE ISLAND

PREPARED FOR:
**RHODE ISLAND
 ARMY NATIONAL GUARD
 CONSTRUCTION and FACILITIES
 MANAGEMENT OFFICE**
 705 NEW LONDON AVENUE
 CRANSTON, RI 02920

DRAWING TITLE:
**GRADING and DRAINAGE
 PLAN No. 1**

DATE: FEBRUARY 2020 SCALE: 1"=40'

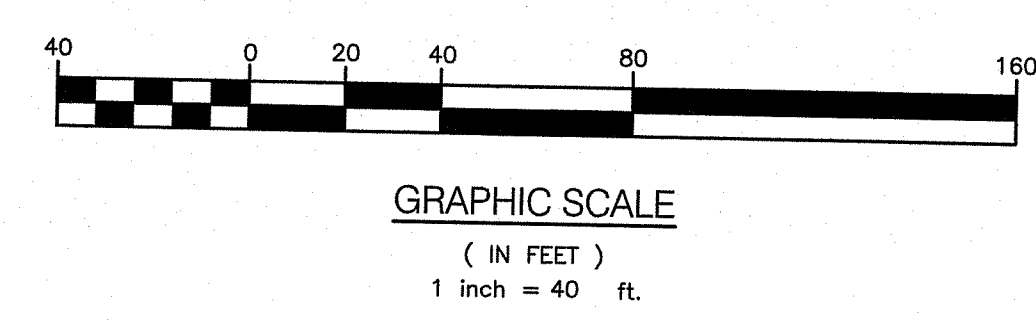
DWG. NAME: 2338-C05-GRADE.dwg

REVISIONS

NUMBER	REMARKS	DATE

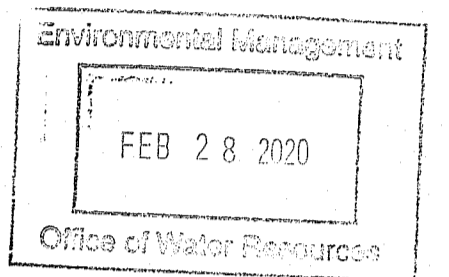
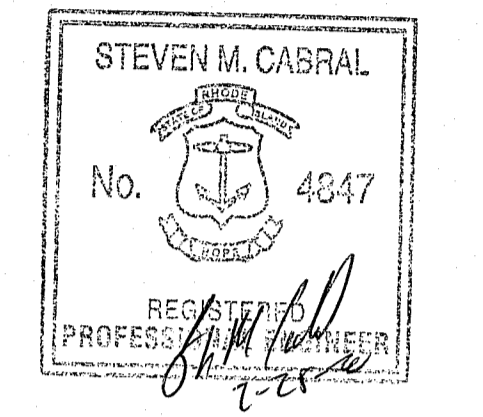
DRAWING NUMBER
C5.1
 SHEET: 9 OF 14

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 REVIEWED SITE PLAN APPLICATION NO.: 20-0052
 DATED MAY 15 2020
 SEE LETTER OF SAME DATE.
Nancy L. Freeman



MATCHLINE TO GRADING and DRAINAGE PLAN No. 2

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**CAMP FOGARTY
 ARNOLD ROAD
 RECLAMATION AND
 RESURFACING PROJECT**

2841 SOUTH COUNTY TRAIL
 EAST GREENWICH, RHODE ISLAND

PREPARED FOR:
**RHODE ISLAND ARMY NATIONAL
 GUARD**
 CONSTRUCTION AND FACILITIES
 MANAGEMENT OFFICE
 645 NEW LONDON AVENUE
 CRANSTON, R.I. 02920

DRAWING TITLE:
**MISCELLANEOUS
 DETAILS PLAN NO. 3**

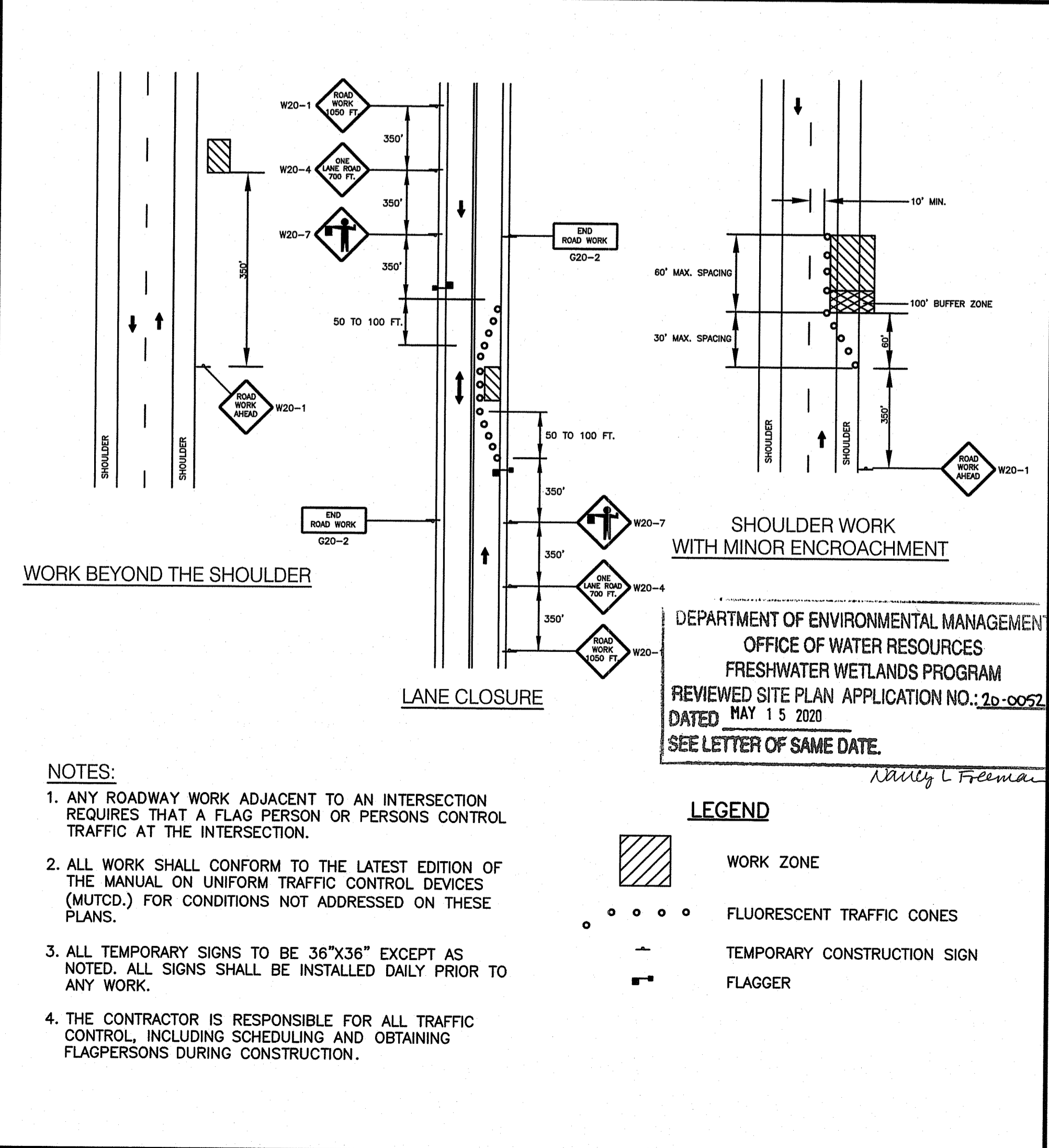
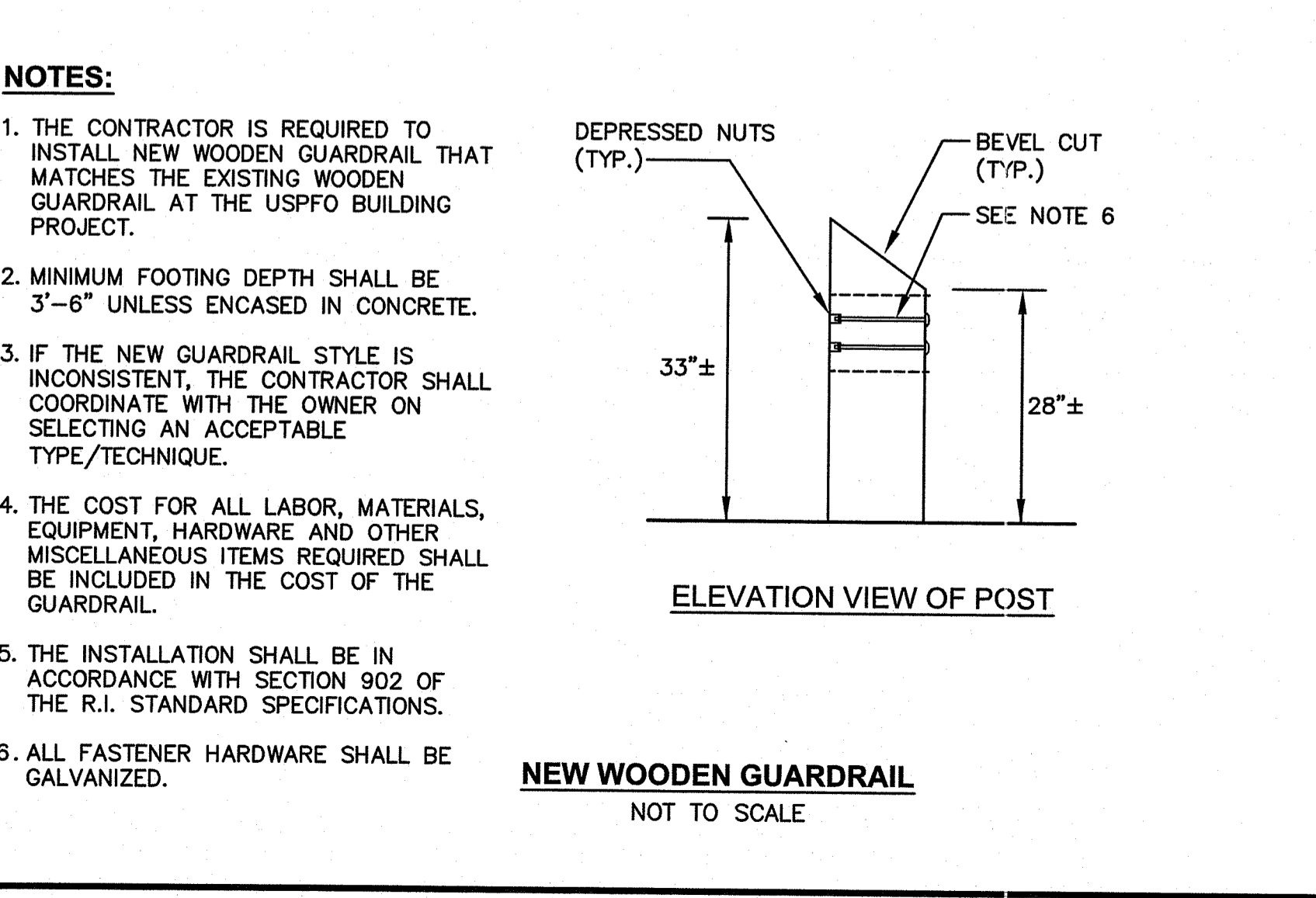
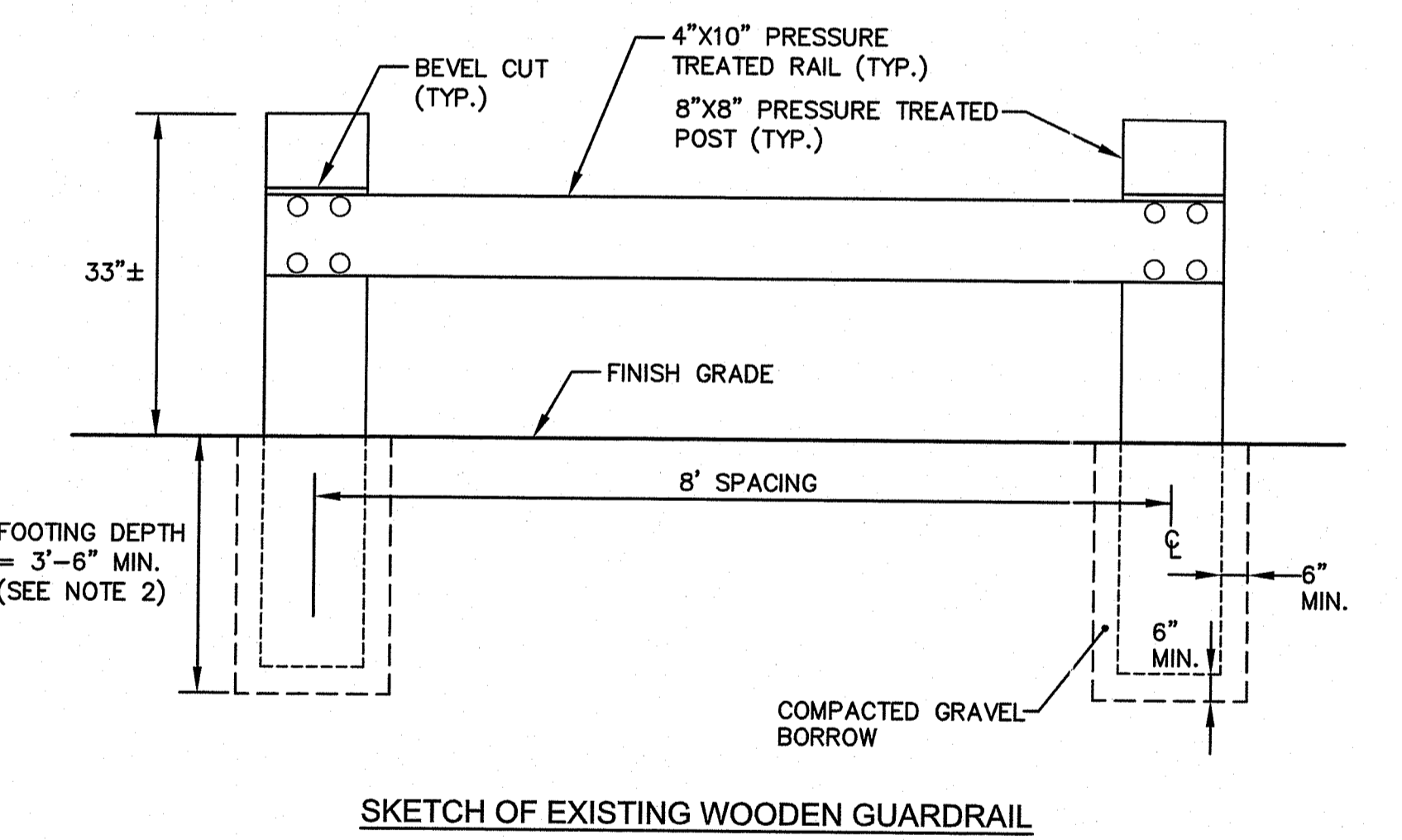
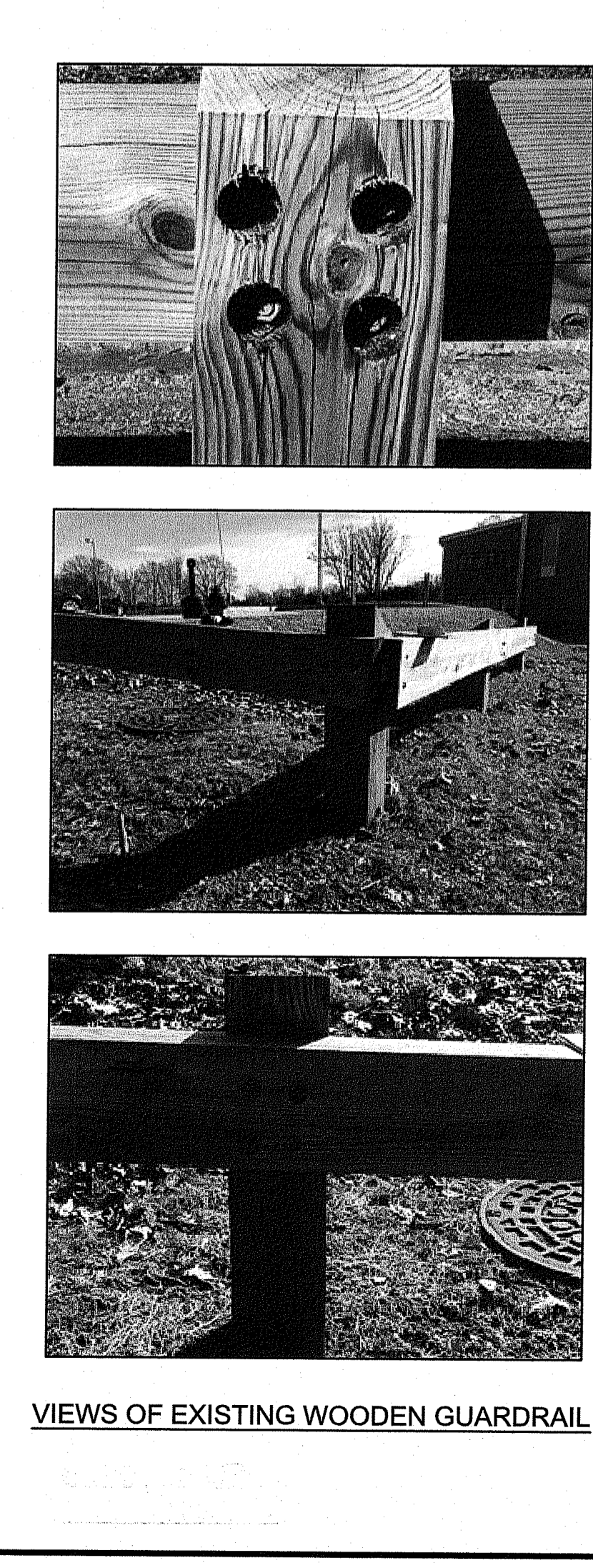
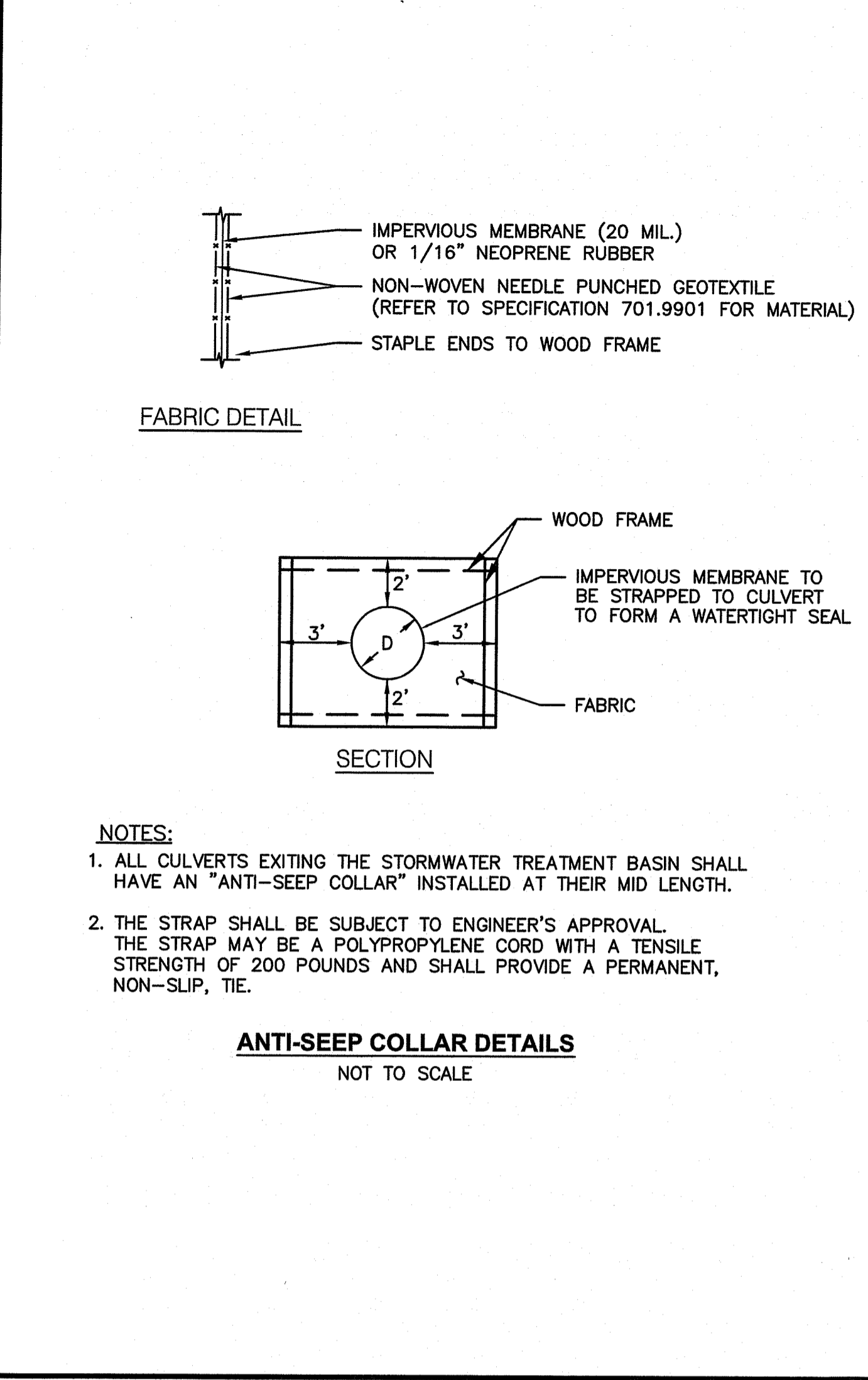
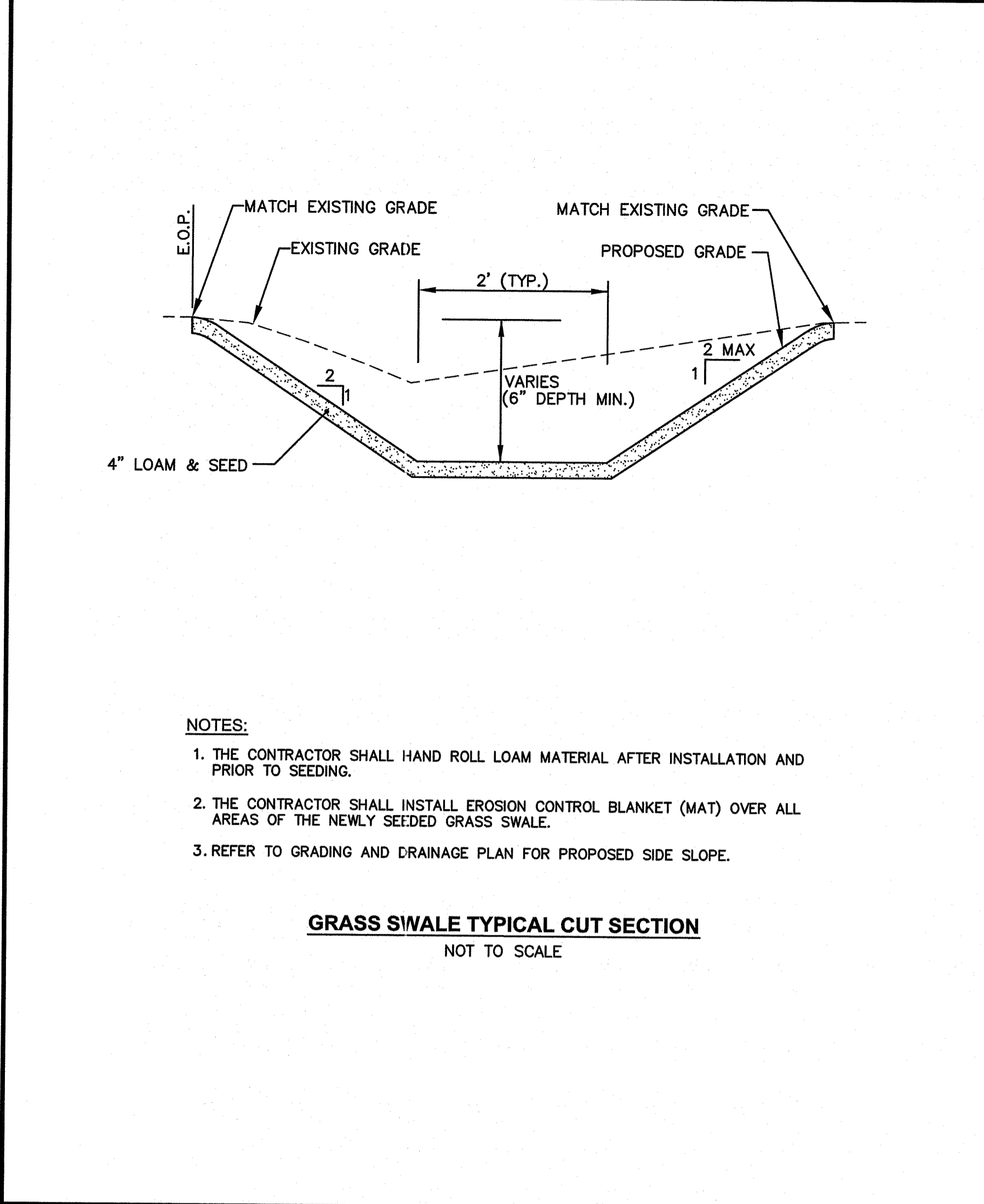
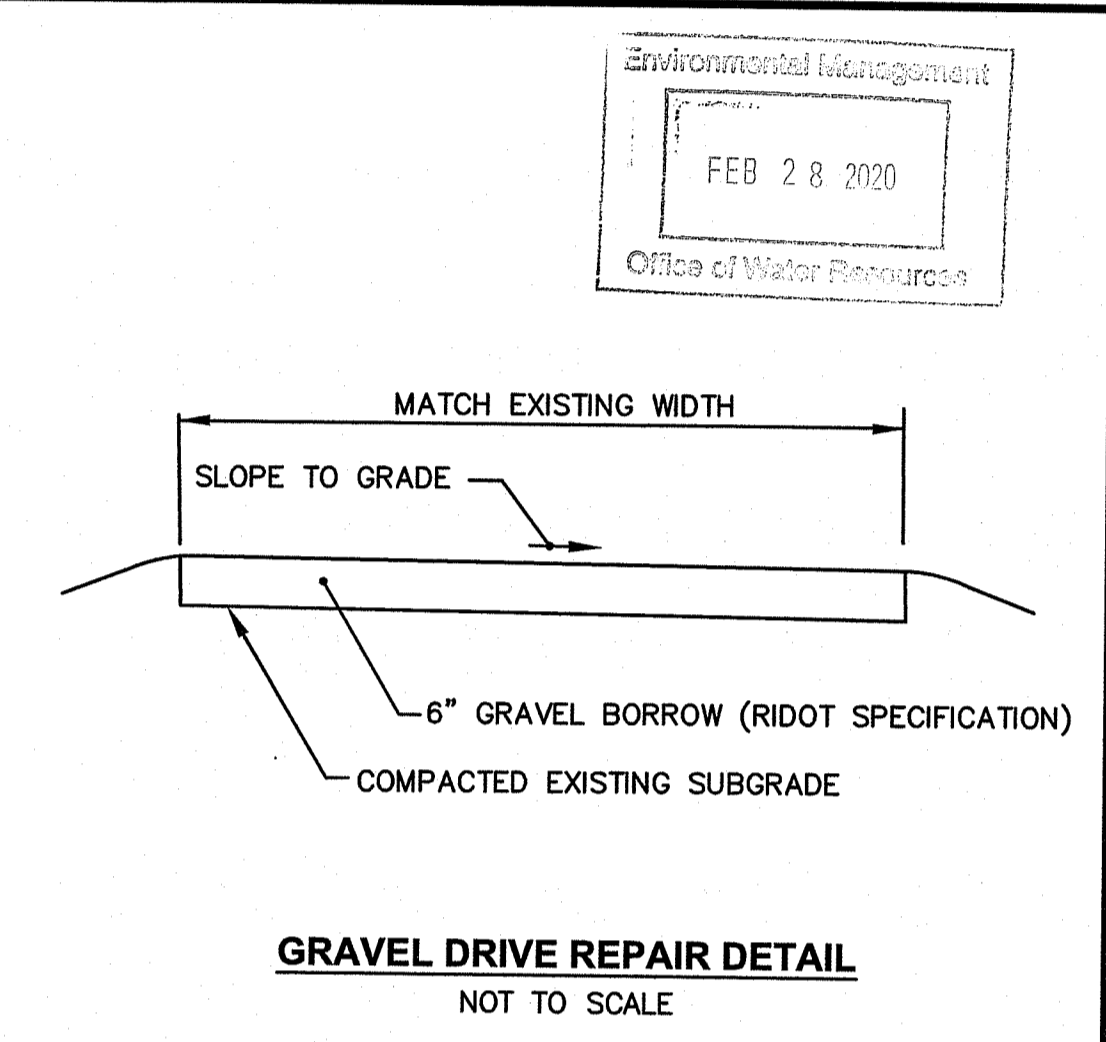
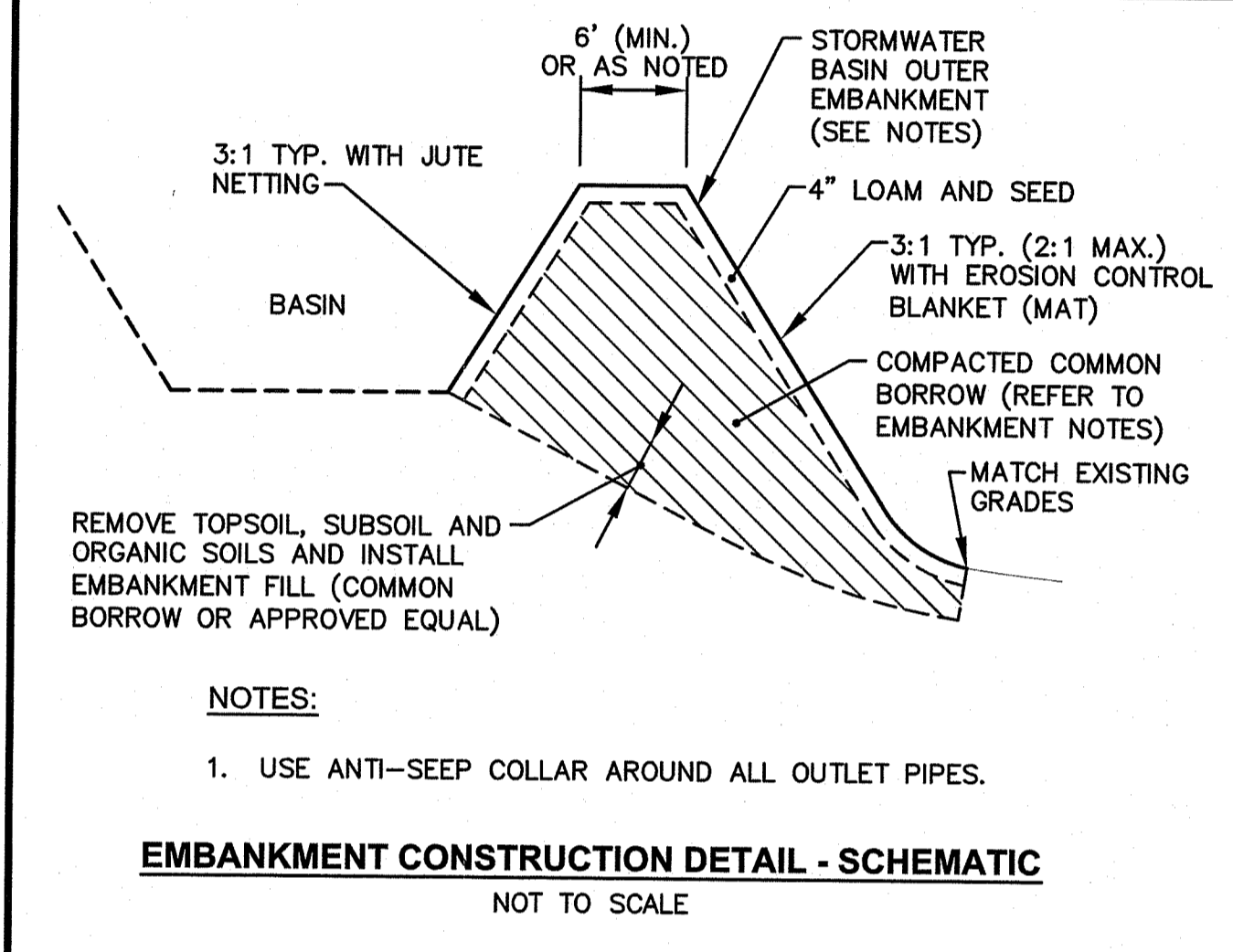
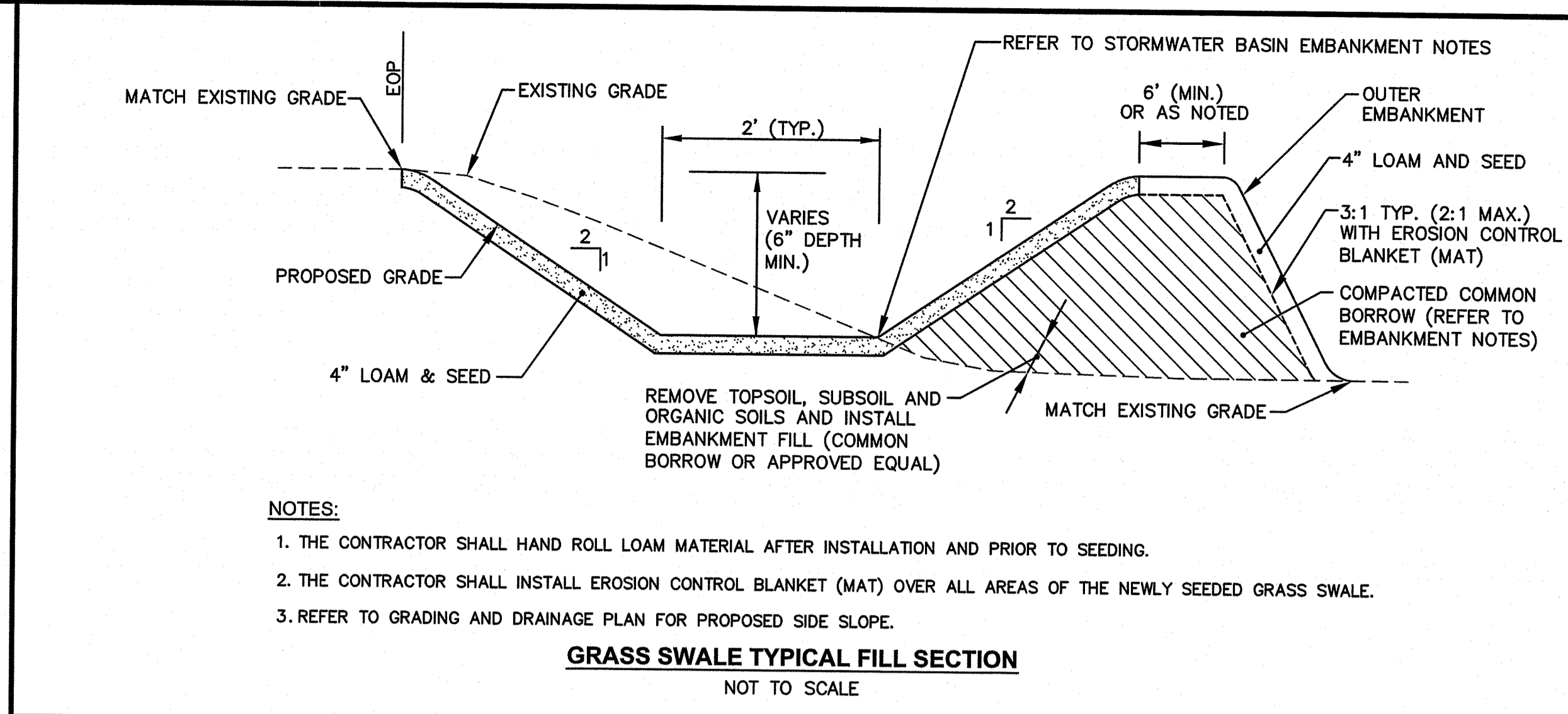
DATE: FEBRUARY 2020 SCALE: AS NOTED

DWG. NAME: 2338-C7.4-DET04.dwg

REVISIONS

NUMBER	REMARKS	DATE

DRAWING NUMBER
C7.3
 SHEET 14 OF 14



STORMWATER BASIN EMBANKMENT NOTES:

- THE STORMWATER BASIN EMBANKMENTS ARE TO BE CONSTRUCTED WITH APPROVED COMMON BORROW. NO SOIL/ROCK GRATER THAN 3" SHALL BE UTILIZED. COMMON BORROW SHALL MEET OR EXCEED AN IN-PLACE DENSITY OF 100 LB./CF. ALL MATERIAL SHALL BE PLACED IN 8 TO 12 INCH LIFTS AND COMPACTED TO 95% MAXIMUM DENSITY. FILL MATERIAL WILL NOT CONTAIN FROZEN MATERIALS OR BE PLACED ON FROZEN SURFACES. COMMON BORROW SHALL MEET MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS.
- UPON COMPLETION OF CLEARING AND GRUBBING OPERATIONS, THE EMBANKMENT AREAS ARE TO BE EXCAVATED. IF ANY ORGANIC OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR REVIEW OF EXCAVATION AREA. THE DEPTH OF EXCAVATION WILL BE DETERMINED BY THE ENGINEER BASED UPON THE LOCAL CONDITIONS. NO FILL MATERIAL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION HAS BEEN COMPLETED. ALL WATER SHALL BE REMOVED FROM THE FOUNDATION PRIOR TO PLACING THE EMBANKMENT.
- THE FILL MATERIAL MUST BE SPREAD IN UNIFORM LAYERS AND FALL WITHIN THE SPECIFIED OPTIMUM WATER CONTENT RANGE IN ORDER TO ACHIEVE THE REQUIRED COMPACTION. EACH LAYER IS TO BE COMPACTED PRIOR TO LAYING AN ADDITIONAL LAYER. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER HIS SELECTED METHOD OF COMPACTION, COMPACTION EQUIPMENT AND THE SEQUENCE OF OPERATIONS NECESSARY TO OBTAIN THE REQUIRED DENSITY. THE WATER CONTENT AT COMPACTION SHALL BE IN THE RANGE BETWEEN ONE PERCENTAGE POINT BELOW AND TWO PERCENTAGE POINTS ABOVE STANDARD AASHTO OPTIMUM WATER CONTENT. THE MATERIAL SHALL BE PROCESSED TO A UNIFORM WATER CONTENT BY ADDING WATER TO THE MATERIAL IN ADVANCE OF THE FILL PLACEMENT.
- BACKFILL MATERIAL AROUND STRUCTURES AND PIPE IS TO BE PLACED TO PREVENT THE MOVEMENT OF WATER. THE OPTIMUM WATER CONTENT MUST BE MAINTAINED IN THE SAME RANGE AS IN THE EMBANKMENT. THE BACKFILL MUST BE PLACED IN LAYERS LESS THAN 4 INCHES IN THICKNESS AND DISTRIBUTED UNIFORMLY AROUND THE STRUCTURE/PIPE. ALL COMPACTION WILL BE TO 95% MAXIMUM DENSITY AND MAY REQUIRE HAND TAMPERS OR SMALL POWER EQUIPMENT.
- EMBANKMENT DAMAGE COMMONLY RESULTS FROM IMPROPER CONSTRUCTION OF CONDUIT AND STRUCTURAL BACKFILL WITHIN THE EMBANKMENT BECAUSE SEEPAGE WILL OCCUR WITH IMPROPER BACKFILL AND COMPACTION. THEREFORE, STRUCTURES AND PIPES ARE TO BE CONSTRUCTED AS THE EMBANKMENT CONSTRUCTION RISES TO THE RESPECTIVE PIPE OR STRUCTURE. THIS WILL PREVENT THE DISTURBANCE OF CONSTRUCTED EMBANKMENT MATERIAL. PIPES FROM THE OUTLET STRUCTURE TO THE OUTFALL SHALL HAVE AN ANTI-SEEP COLLAR.