# TOWN OF LYME, NH
## *RIVER ROAD RE-CONSTRUCTION*

AUGUST 13, 2018

SITE LOCATION:

River Road; Lyme, New Hampshire

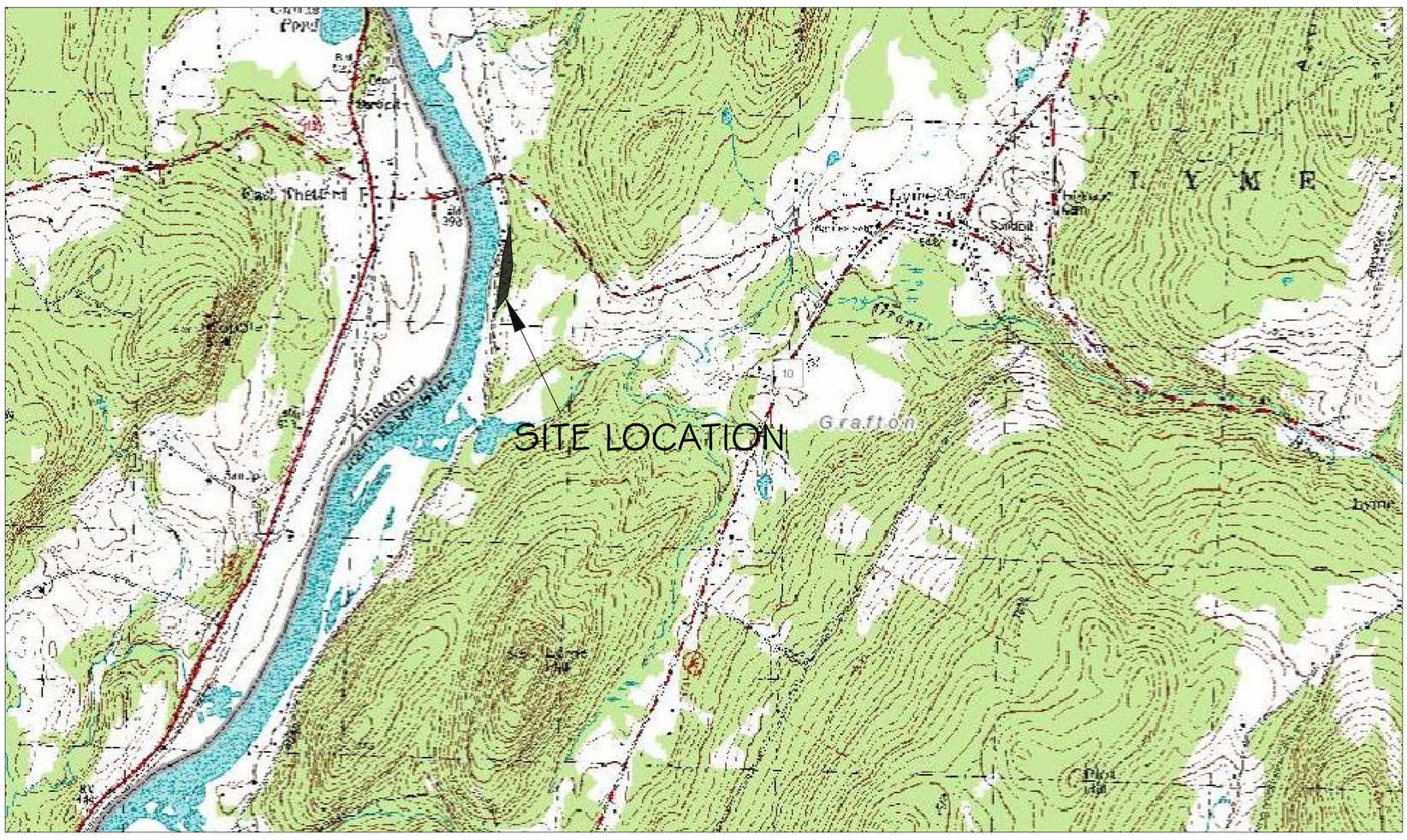

OWNER:
Town of Lyme
One High Street
P.O. Box 126
Lyme, NH 03768
(603) 795-4639
www.lymenh.gov

ENGINEER:
Right Angle Engineering, PLLC
Erin Darrow, P.E., C.P.E.S.C.
152 Main Street
New London, NH 03257
(603) 526-2807 office
(603) 443-7815 mobile
(603) 523-8811 fax
erin@rightangle.engineering
www.rightangle.engineering

CONTRACTOR:
Northern New England Field Services
Dennis & Laura Thompson, Owners
711 Piper Hill Road
Stewartstown, NH 03576
(603) 867-7536
nnefs@hughes.net

SURVEYOR:
York Land Services, LLC
Burke York, L.L.S.
3 Twelfth St # 3
Berlin, NH 03570
(603) 752-7282 phone

SOILS & WETLAND SCIENTIST:
Beaver Tracks, LLC
Jonathan Sisson, C.W.S., C.S.S.
21 Hale Hill Road
Swanzey, NH 03446
(603) 313-4925 office
beavertracksllc@yahoo.com


# LOCUS MAP
# NOT-TO-SCALE

TABLE OF CONTENTS:



| NO. | DATE | DESCRIPTION | BY |
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PLANSET PREPARED BY:
Right Angle Engineering, PLLC
New London, New Hampshire
Erin Darrow, P.E.


STATE OF NEW HAMPSHIRE
ERIN MICHELLE DARROW
No. 11767
LICENSED
PROFESSIONAL ENGINEER

ECONOMICALLY-EFFICIENT &
ENVIRONMENTALLY SOUND
CIVIL ENGINEERING SOLUTIONS

yls–plot 1”=50’




Existing Conditions Plan
RIVER ROAD
LYME, NH
Prepared for
RIGHT ANGLE ENGINEERING

BY YORK LAND SERVICES, LLC
August 11, 2018
DWG. #18–012

NOTES:

HORIZONTAL DATUM IS NH STATE PLANE NAD83 FROM OPUS DERIVED POSITION OF AN ON–SITE CONTROL POINT. VERTICAL DATUM IS NAVD88, ALSO FROM OPUS, VERIFIED WITH PUBLIC LIDAR DATA (GRANIT). PRIOR CLD ENGINEERING BENCHMARKS ARE APPROXIMATELY 1.5’ HIGHER.

SURVEY POINT NUMBERS 1–9272 ARE CLD ENGINEERING SURVEY POINTS (OBVIOUSLY ASSUMED COORDINATES ON A MAGNETIC NORTH SYSTEM) PROVIDED BY THE TOWN OF LYME. THESE POINTS HAVE BEEN TRANSFORMED AND ROTATED TO YLS NH STATE PLANE GRID COORDINATES. POINTS 10,000–11,000 ARE CONVENTIONAL TOTAL STATION SURVEY POINTS ORIENTED TO SURVEY GRADE GPS POINTS (11,005 & 11,006).

CONTOUR INTERVAL: 2’ (PERIPHERAL CONTOURS WEST OF TOP OF RIVER BANK, WEST OF EXISTING RIVER ROAD IS DIGITIZED LIDAR).

WETLANDS WERE DELINEATED BY JONATHAN SISSON OF BEAVERTRACKS, LLC ON MARCH 19, 2018 AND JUNE 2018.

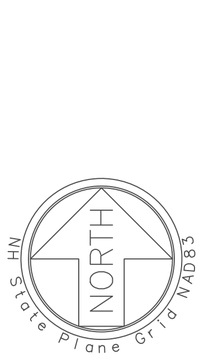
BOUNDARY LINES SHOWN ARE APPROXIMATE ONLY, AND ARE SHOWN BASED ON DEEDS, PLANS, FIELD EVIDENCE, AND LASTLY TAX MAP DATA.

RIVER ROAD RIGHT–OF–WAY IS SHOWN AS 2 RODS. THIS NEEDS TO BE VERIFIED.

TYPICAL YLS POINT CODES:
ERD: EDGE OF GRAVEL ROAD
EDR: EDGE OF GRAVEL DRIVE
GS: GENERAL GRADE/GROUND SHOT
WF: WETLAND FLAG
BB: BOTTOM OF BANK
TB: TOP OF BANK
STA: SURVEY STATION
TL: TREELINE
GW: GUY WIRE ANCHOR

ROAD NOTES:

RIVER ROAD LAYOUT THROUGH THE TOWNS OF HANOVER, LYME, ORFORD, AND PIERMONT WAS FOUND IN PIERMONT BOOK 1 PG. 311 AND BK. 6 PG. 23 AT NEW HAMPSHIRE STATE ARCHIVES. NO WIDTH FOUND IN LYME. MOST PHYSICAL EVIDENCE FOUND SUGGESTS A 2 ROD (33’) WIDTH. RIGHT–OF–WAY LINES BASED ON EXISTING PHYSICAL CENTERLINE ARE SHOWN ON THIS PLAN AS SUCH.




RIVER

CONNECTICUT

Top of transducer post: 398.52’
water elevation 5–23–18: 384.39’±
Map 403 Lot 18
WILLIAM B. WEEKS
3766/388
YLS Control Point #10743:
Masonry Nail in Pavement
Map 403 Lot 17
DONALD A. GRAHAM
CAROL L. BARR
2325/701
YLS Control Point #10430:
Masonry Nail in Pavement
YLS Control Point #10741:
Masonry Nail in Pavement
BM = 10742
Horizontal Nail in Pole
ELEVATION = 398.53’
NET #15
NET #14
NET #13
NET #12
NET #11
NET #10
NET #9
NET #8
NET #7
NET #6
NET #5
NET #4
NET #3
NET #2
NET #1
large Oak (for R.A.E. & NNEFS reference)
large Hemlock (for R.A.E. & NNEFS reference)
Map 403 Lot 16
CAROL L. BARR
2426/460
service pole
pole #3A
4451
BM = 10444
Horizontal Nail in Pole
ELEVATION = 407.83’
Map 403 Lot 15
STUART V. SMITH
2715/278
YLS Control Point #10439:
Masonry Nail in Pavement
E4+00 GROUND ELEV.: 412.6’
BM = 10445
Horizontal Nail in Pole
ELEVATION = 412.07’
wire fence (westerly)
YLS Control Point #10436:
Mag Spike Flush With Ground
YLS Control Point #10437:
Large Spike Flush With Ground
Map 403 Lot 9
LYME FARMLAND, LLC
4257/480
YLS Control Point #10438:
Large Spike Flush With Ground
E7+00 GROUND ELEV.: 421.4’
BM = 10446
Horizontal Nail in Pole
ELEVATION = 420.77’
YLS Control Point #10444:
Large Spike Flush With Ground
P10 GROUND ELEV.: 450.1’
APPROXIMATE LIMITS OF WORK/ EXCAVATION, TYPICAL
Map 403 Lot 10A
LYME FARMLAND, LLC
4257/480
BM = 10464
Horizontal Masonry Nail
ELEVATION = 421.63’
YLS Control Point #10443:
Masonry Nail in Pavement
concrete waste–block headwall
18” CPP
water elevation 5–11–18: 383.76’
water elevation 4–5–18: 386.2±’
E12+00 GROUND ELEV.: 421.8’
YLS Control Point #10445:
Nail in Guard Rail
YLS Control Point #10465:
Large Spike Flush With Ground
YLS Control Point #10447:
Masonry Nail in Pavement
paved drive
mailbox
Deciduous Shrubs
low corral fence
Apple Trees
15” CMP

NORTH

NH State Plane Grid NAD83

## LEGEND

- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF ROAD
- APPROXIMATE PROPERTY LINE
- 414 — EXISTING 2' GRADE CONTOUR
- 412 — PROPOSED 2' GRADE CONTOUR
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING UTILITY POLE
- PROPOSED RETAINING WALL
- AVERAGE HIGH WATER MARK
- TOP OF RIVER BANK
- WETLAND BOUNDARY
- STRAW WADDLE
- CD—CD — COFFERDAM
- APPROX. HELICAL ANCHOR LOCATION
- LIMITS OF VEGETATED SLOPE STABILIZATION
- 50-FOOT SHORELAND BUFFER
- 150-FOOT SHORELAND BUFFER
- 250-FOOT SHORELAND BUFFER
- X X X — OVERHEAD UTILITY WIRE
- LIMITS OF RIPRAP OR LEDGE SLOPE STABILIZATION

RIVER

CONNECTICUT

AREA OF TEMPORARY IMPACT = 125 SF

EXISTING CULVERT TO BE REMOVED
DIAMETER = 15"
LENGTH = 42'
INVERT IN = 391.8'
INVERT OUT = 386.8'

CULVERT "A"
PROPOSED 48" RCP
REPLACEMENT CULVERT
INVERT IN = 390.5'
INVERT OUT = 386.8'
LENGTH = 65'
CONCRETE BLOCK HEADWALLS

PAVED DRIVEWAY ACCESS

CULVERT "B"
PROPOSED 15" RCP
REPLACEMENT CULVERT
INVERT IN = 392.0'
INVERT OUT = 391.0'
LENGTH = 40'
CONCRETE BLOCK HEADWALLS

AREA OF TEMPORARY IMPACT = 405 SF

AREA OF PERMANENT IMPACT = 1110 SF

TOTAL AREA OF SHORELAND IMPACT = 194,630 SF (4.468 ACRES)

TOTAL NEW IMPERVIOUS AREA = 29,345 SF (0.674 ACRES)

NEW DRIVEWAY ACCESS

PAVEMENT TO BE REMOVED AND AREA VEGETATED

PAVEMENT TO REMAIN FOR LOCAL PARKING

CULVERT "C"
PROPOSED 24" RCP
REPLACEMENT CULVERT
INVERT IN = 420.5'
INVERT OUT = 417.0'
LENGTH = 30'

12" CPP

EXISTING CULVERT & HEADWALLS TO BE REMOVED
DIAMETER = 15"
LENGTH = 40'
INVERT IN = 419.75'
INVERT OUT = 416.25'

CULVERT "D"
PROPOSED 24" RCP
REPLACEMENT CULVERT
INVERT IN = 420.5'
INVERT OUT = 417.0'
LENGTH = 66'

paved drive

NET #98

0+00 1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00 5+50 6+00 6+50 7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00

40 0 20 40 80 160

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SURVEYOR:
York Land Services, LLC
Burke York, L.L.S.
3 Twelfth St # 3
Berlin, NH 03570
(603) 752-7282 phone

STATE OF NEW HAMPSHIRE JONATHAN A. SISSON III No. 235 CERTIFIED WETLAND SCIENTIST

WETLAND SCIENTIST:
Beaver Tracks, LLC
Jonathan Sisson, C.W.S., C.S.S.
21 Hale Hill Road
Swanzey, NH 03446
(603) 313-4925 phone
BeaverTracksLLC@yahoo.com

STATE OF NEW HAMPSHIRE ERIN MICHELLE DARROW No. 11767 LICENSED PROFESSIONAL ENGINEER

ENGINEER:
Right Angle Engineering, PLLC
Erin Darrow, P.E.
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New London, NH 03257
(603) 526-2807 office
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SITE PLAN
RIVER ROAD RE-LOCATION
TOWN OF LYME, NH
AUGUST 13, 2018

PREPARED FOR OWNER:

TOWN OF LYME, NH
ONE HIGH STREET/PO BOX 126
LYME, NH 03768

CONTRACTOR:

NORTHERN NEW ENGLAND FIELD SERVICES
711 PIPER HILL ROAD
STEWARTSTOWN, NH 03576

NORTH

HN State Plane Grid NAD83

20 0 10 20 40 80

AREA OF TEMPORARY IMPACT = 125 SF

EXISTING CULVERT TO BE REMOVED
DIAMETER = 15"
LENGTH = 42'
INVERT IN = 391.8'
INVERT OUT = 386.8'

CULVERT "A"
PROPOSED 48" RCP
REPLACEMENT CULVERT
INVERT IN = 390.5'
INVERT OUT = 386.8'
LENGTH = 65'
CONCRETE BLOCK HEADWALLS

PAVED DRIVEWAY ACCESS

AREA OF TEMPORARY IMPACT = 405 SF

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PROPOSED 15" RCP
REPLACEMENT CULVERT
INVERT IN = 392.0'
INVERT OUT = 391.0"
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CONCRETE BLOCK HEADWALLS

AREA OF PERMANENT IMPACT = 1110 SF

TOTAL AREA OF SHORELAND IMPACT = 194,630 SF (4.468 ACRES)

TOTAL NEW IMPERVIOUS AREA = 29,345 SF (0.674 ACRES)

shrubs

shore speed 8.5' c.c.

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DETAILED SITE PLAN
RIVER ROAD RE-LOCATION
TOWN OF LYME, NH

AUGUST 13, 2018

PREPARED FOR OWNER:

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CONTRACTOR:

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NORTH

HN State Plane Grid NAD83

NEW DRIVEWAY ACCESS

PAVEMENT TO BE REMOVED AND AREA VEGETATED

PAVEMENT TO REMAIN FOR LOCAL PARKING

NET #9

CULVERT "C"
PROPOSED 24" RCP
REPLACEMENT CULVERT
INVERT IN = 420.5'
INVERT OUT = 417.0'
LENGTH = 30'

EXISTING CULVERT & HEADWALLS TO BE REMOVED
DIAMETER = 15"
LENGTH = 40'
INVERT IN = 419.75'
INVERT OUT = 416.25'

CULVERT "D"
PROPOSED 24" RCP
REPLACEMENT CULVERT
INVERT IN = 420.5'
INVERT OUT = 417.0'
LENGTH = 60'

20 0 10 20 40 80

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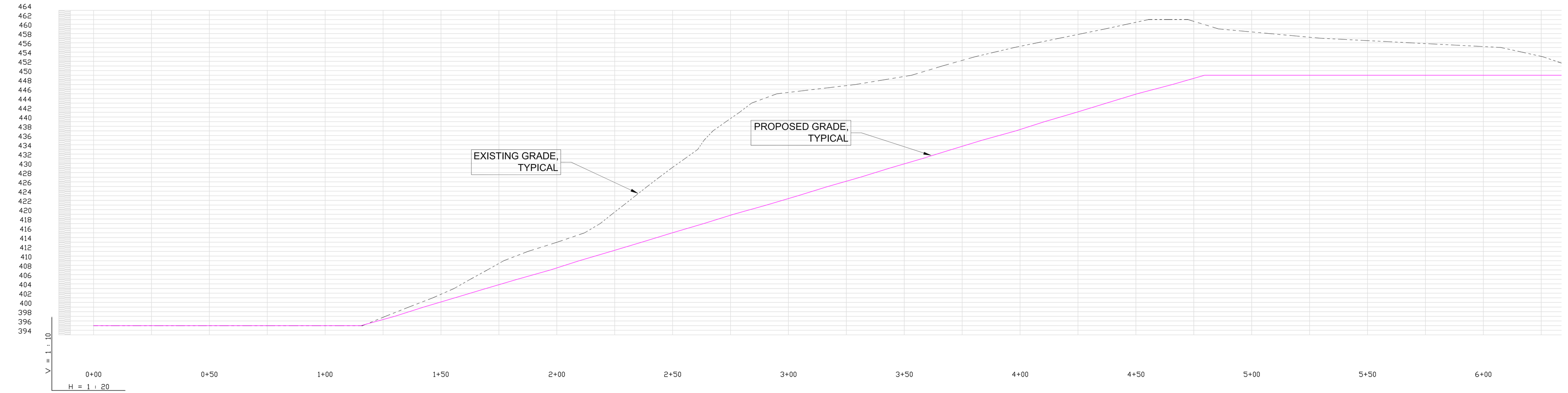
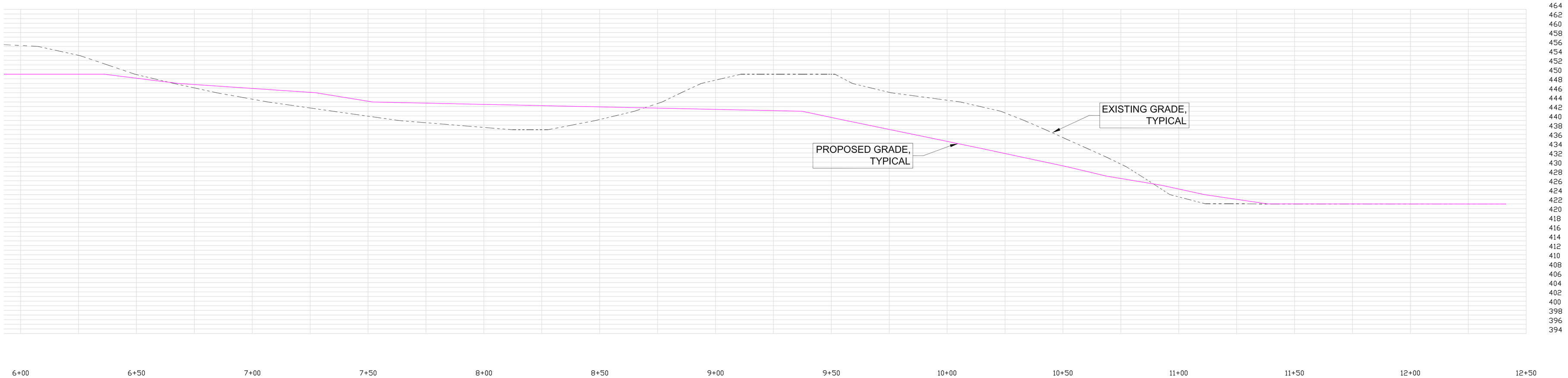
STEWARTSTOWN, NH 03576

# PROFILE VIEW

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ROADWAY CROSS-SECTIONS
RIVER ROAD RE-LOCATION
TOWN OF LYME, NH

AUGUST 13, 2018

PREPARED FOR OWNER:
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LYME, NH 03768

CONTRACTOR:
NORTHERN NEW ENGLAND FIELD
SERVICES
711 PIPER HILL ROAD
STEWARTSTOWN, NH 03576

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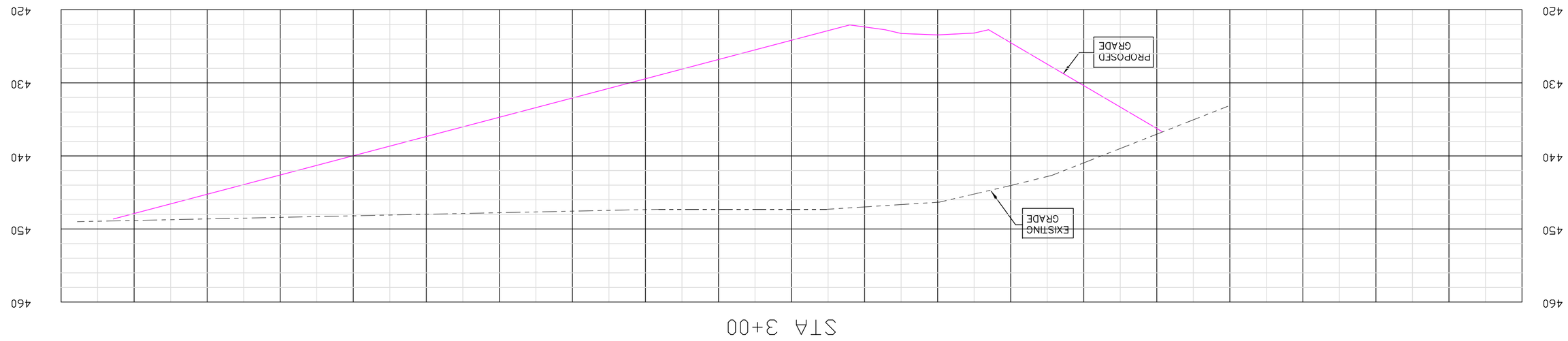


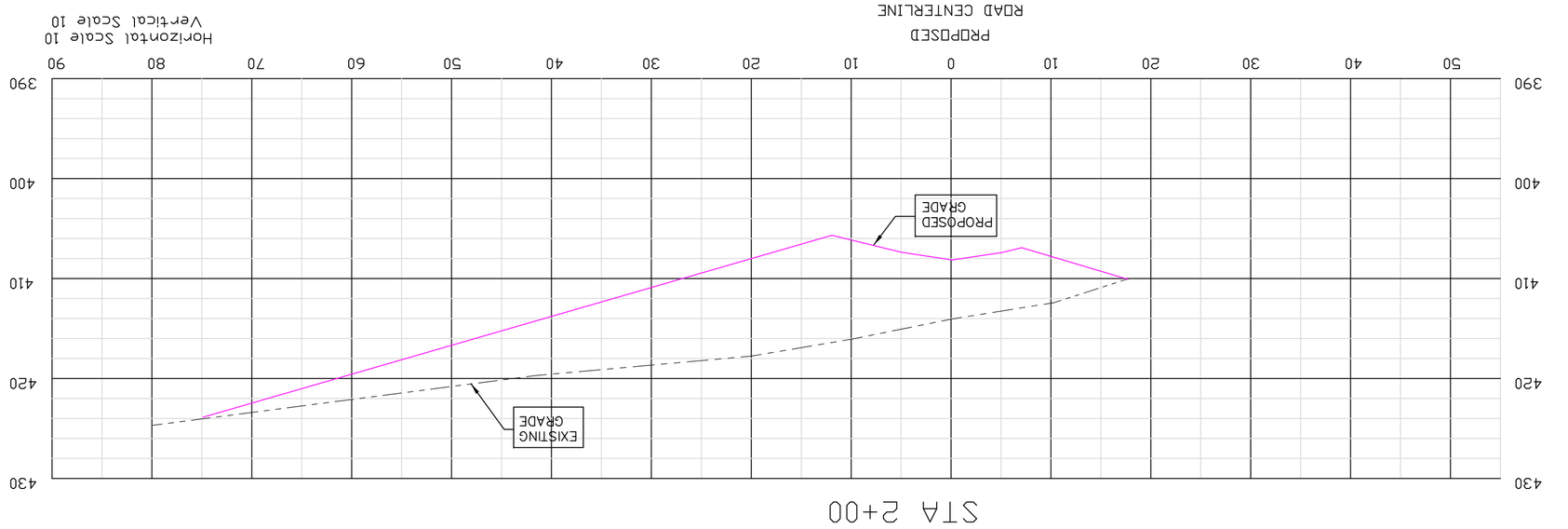


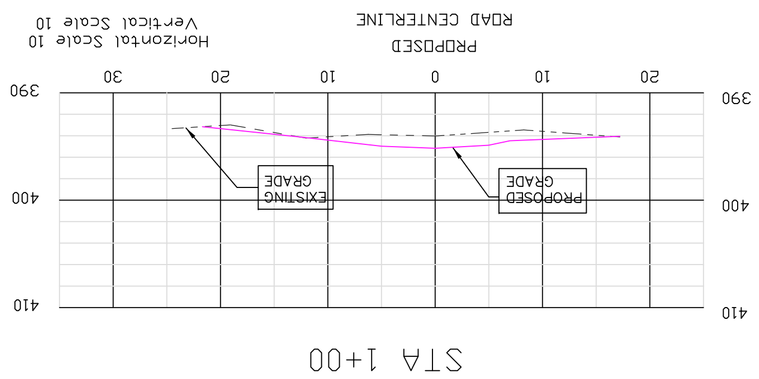


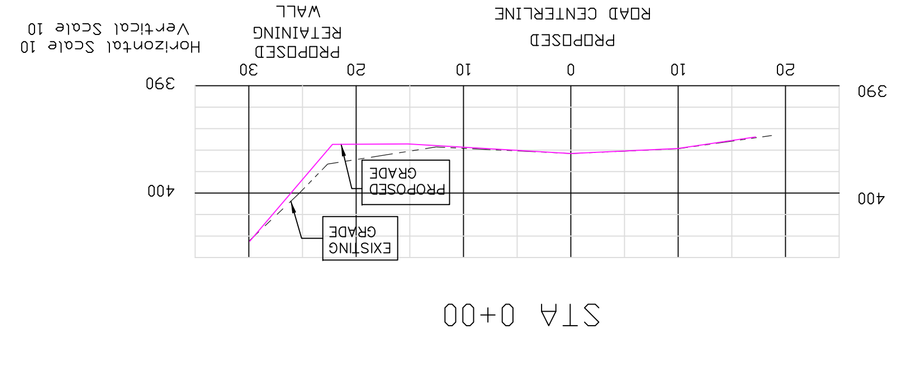



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(603) 752-7262 phone

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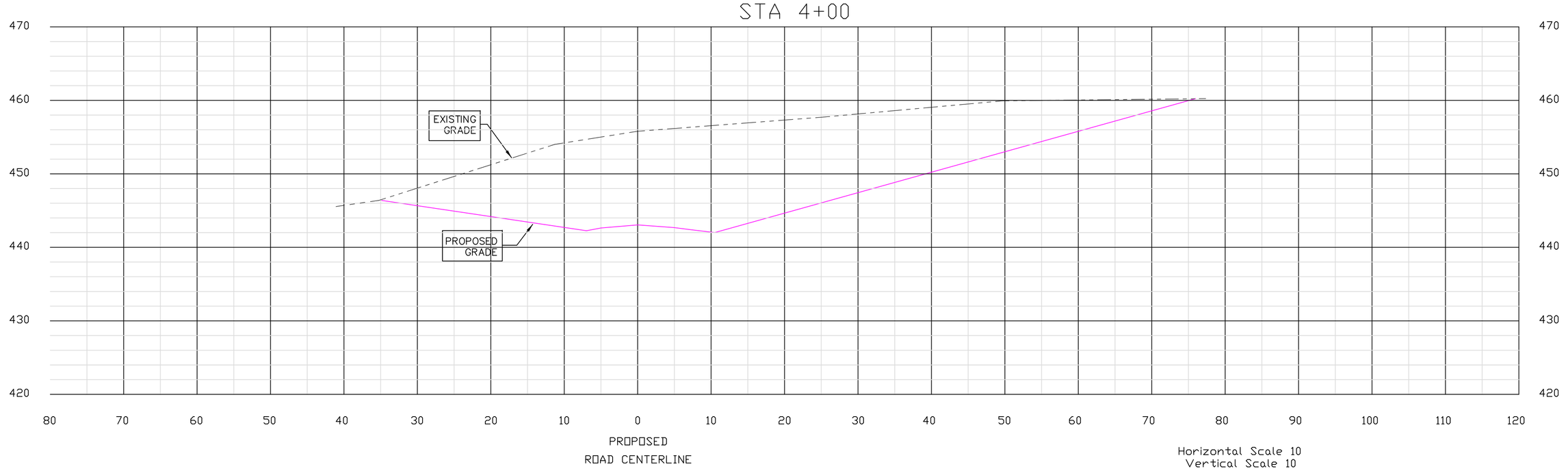
## STA 4+00

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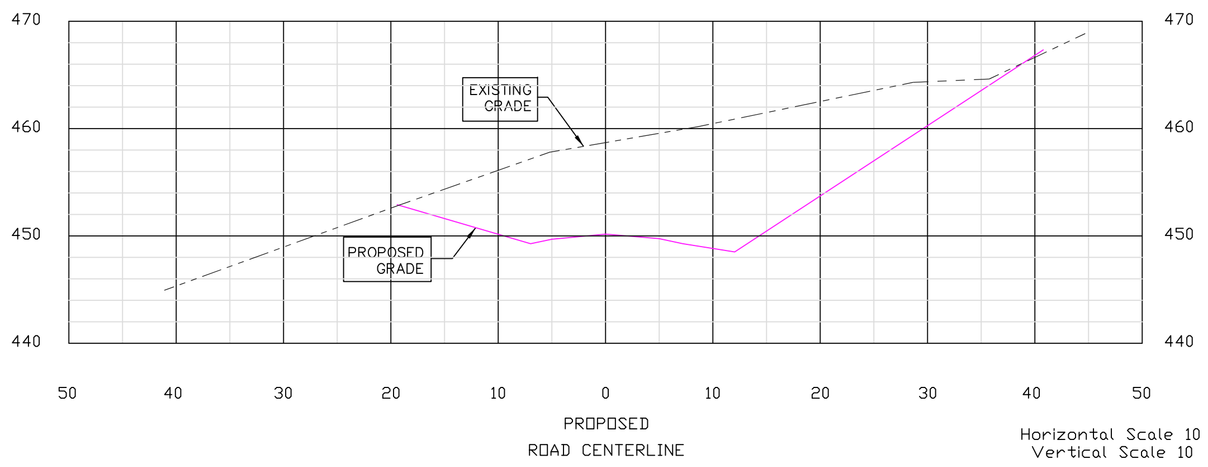


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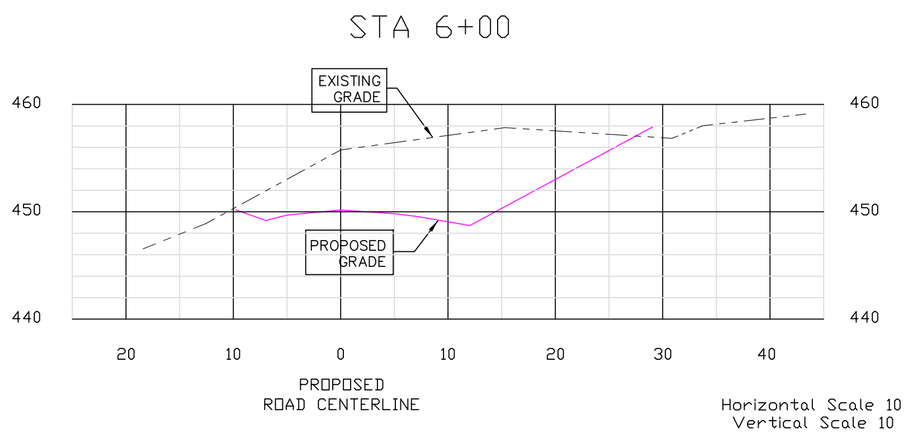


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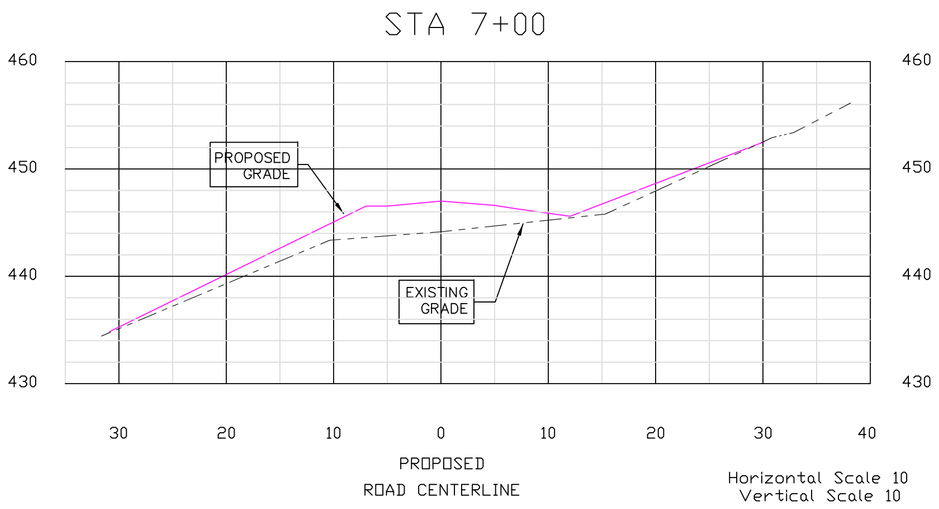


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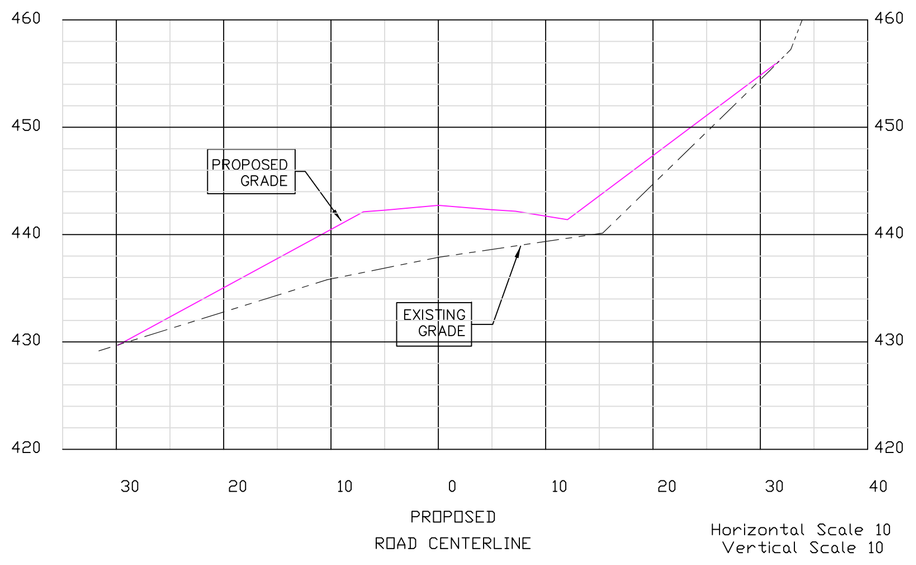


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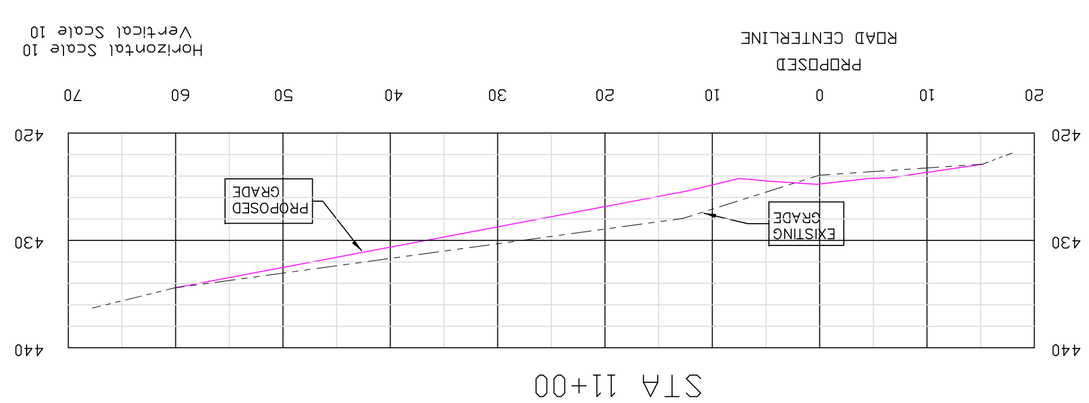


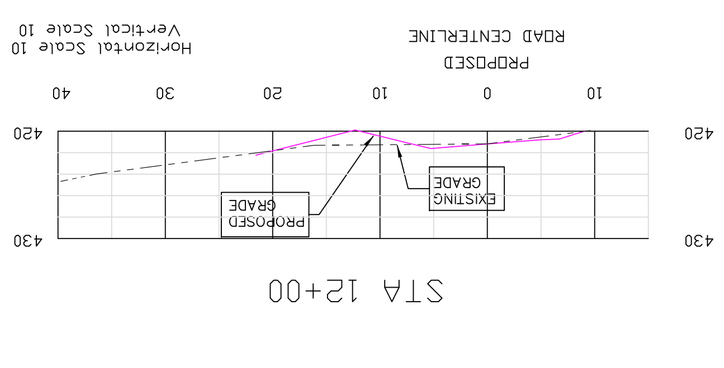


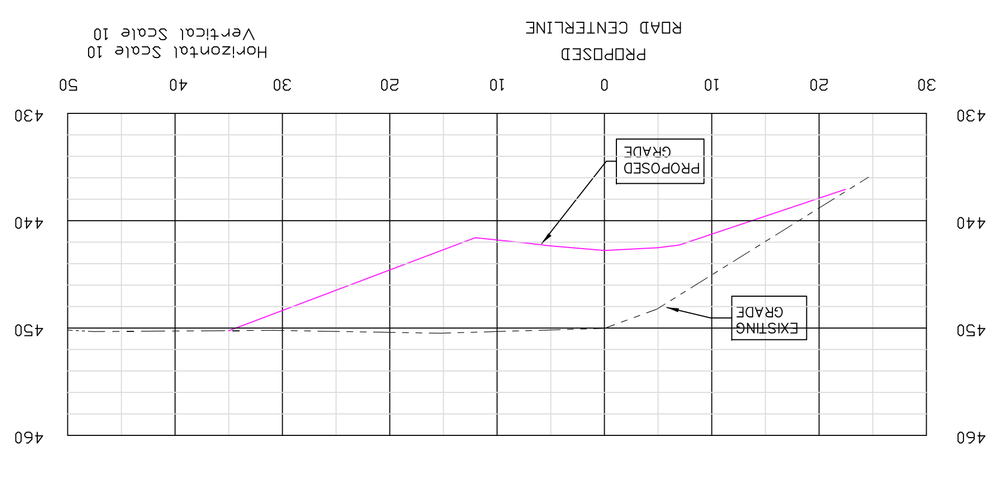


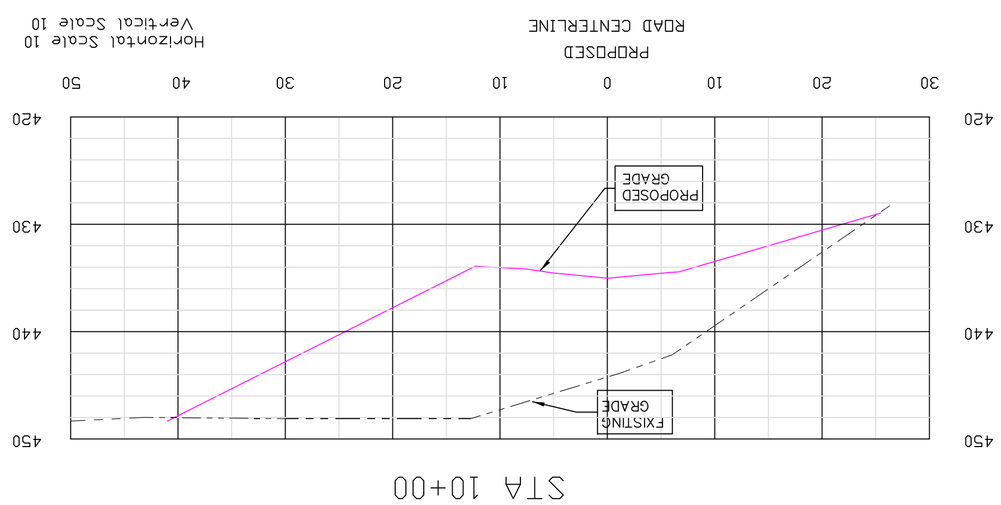


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ROADWAY CROSS-SECTIONS
RIVER ROAD RE-LOCATION
TOWN OF LYME, NH
AUGUST 13, 2018

PREPARED FOR OWNER:
TOWN OF LYME, NH
ONE HIGH STREET/PO BOX 126
LYME, NH 03768

CONTRACTOR:
NORTHERN NEW ENGLAND FIELD SERVICES
711 PIPER HILL ROAD
STEWARTSTOWN, NH 03576


SURVEYOR:
York Land Surveys, LLC
Dunbe York, L.L.S.
3 Twelfth St # 3
Berlin, NH 03570
(603) 752-7282 phone

WETLAND SCIENTIST:
Beaver Tracks, LLC
Jonathan Deson, C.W.S., C.S.S.
21 Hale Hill Road
Swanzey, NH 03446
(603) 313-4925 phone
BeaverTracksLLC@yahoo.com

ENGINEER:
Right Angle Engineering, PLLC
Erin Darrow, P.E.
152 Main Street
New London, NH 03257
(603) 526-2607 office
(603) 443-7615 mobile
(603) 523-8611 fax
*Erin@RightAngle.Engineering*


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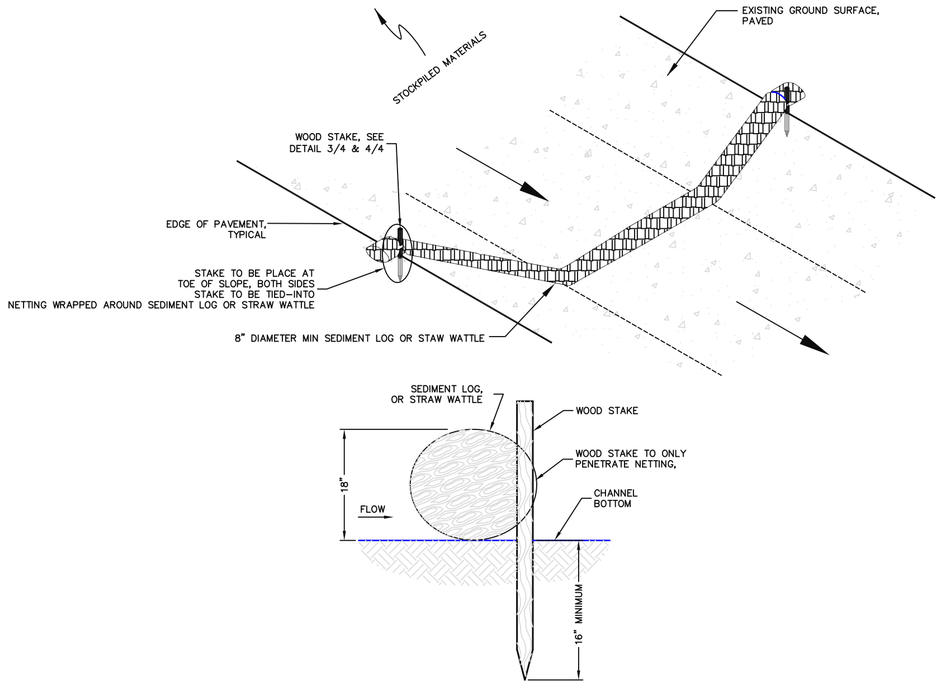
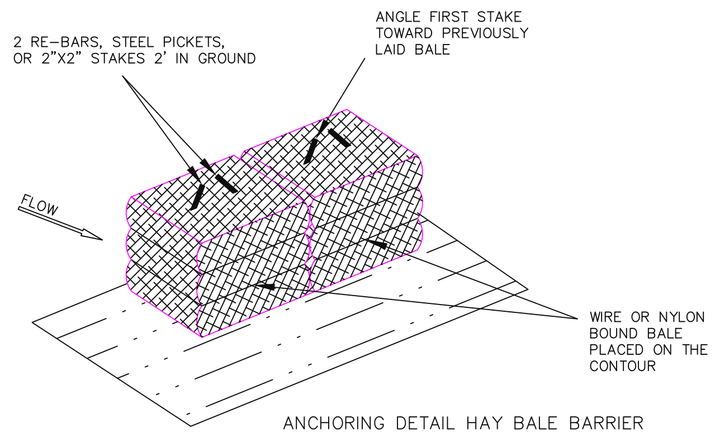
## SEDIMENT LOG OR STRAW WATTLE BARRIER

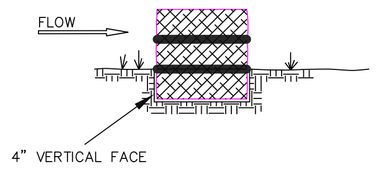
NOT-TO-SCALE




## HAY BALE




ANCHORING DETAIL HAY BALE BARRIER




EMBEDDING DETAIL

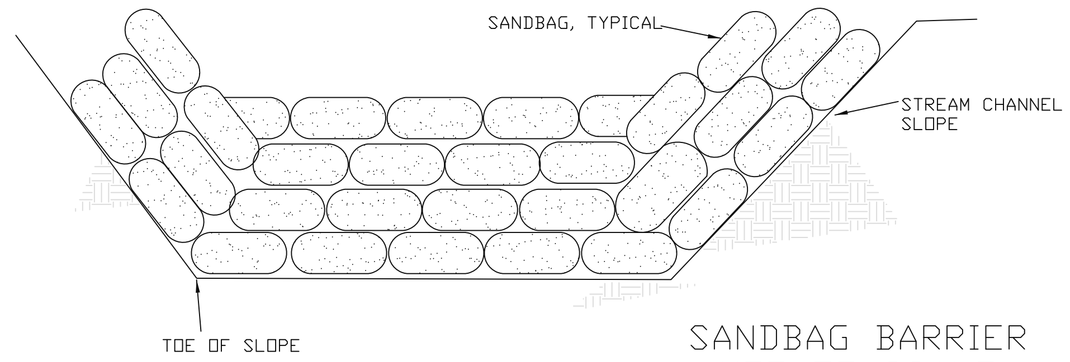
INSTALLATION PROCEDURE FOR HAY BALES

1. Place bales 5 feet beyond the toe of slope or on the contour and in a row with ends tightly abutting the adjacent bales, with no gaps, wedge loose bale material between bales.

2. Place bales with bindings horizontal and securely anchor in place by driving two stakes through the bale.

3. During and after runoff event(s) inspect hay bales frequently and repair/replace promptly as needed or as directed. Remove sediment when accumulation reaches one half the bale height or as directed.

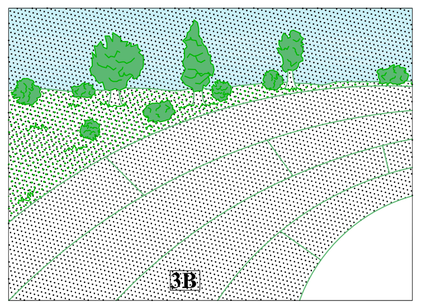
4. Remove bales, as directed, when they are no longer needed. Before bales are removed, stabilize with vegetation any sediment which is permitted to remain in place. When bales are removed, fill trench with suitable earth material and stabilize with vegetation.

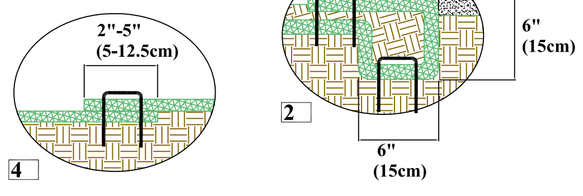



SANDBAG BARRIER
NOT-TO-SCALE

SANDBAG BARRIER NOTES:

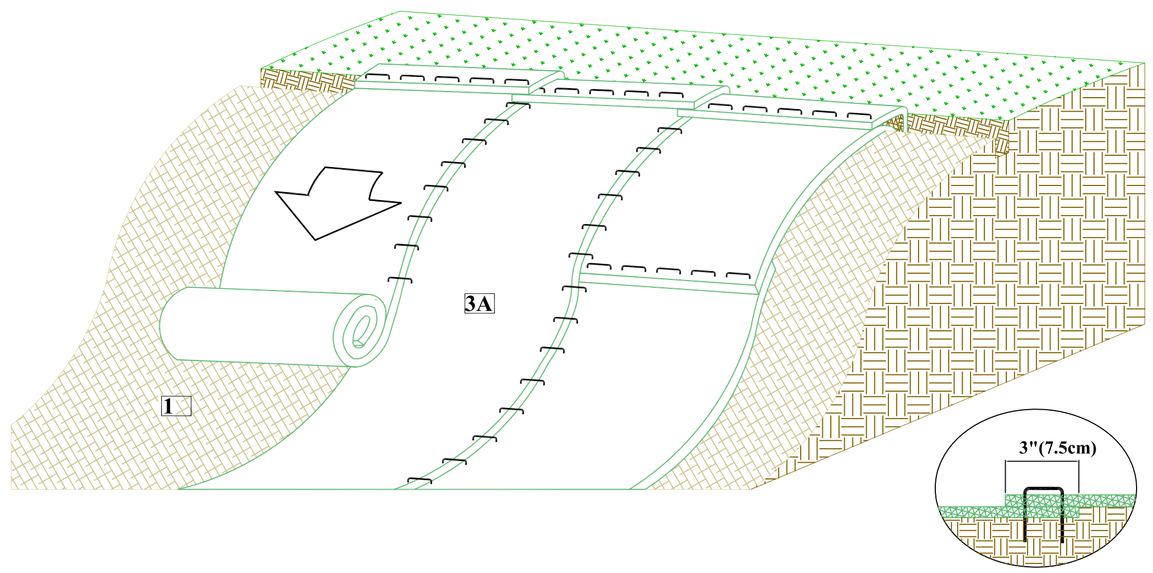
1. Place filled sandbags tightly across stream channel to prevent the passage of water.
2. Dimensions may vary depending on locations along stream channel, and the geometry of stream at said locations.
3. Sandbag barrier shall be a minimum of three bags high.
4. The end of the barrier shall be turned up slope.
5. Sandbag rows and layers shall be staggered to eliminate gaps.
6. An upstream liner shall be installed with cofferdam.

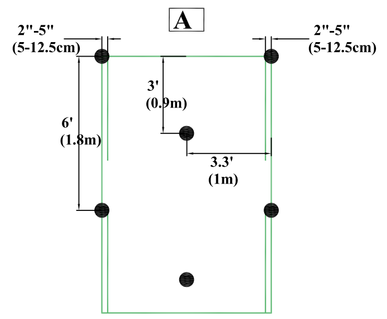


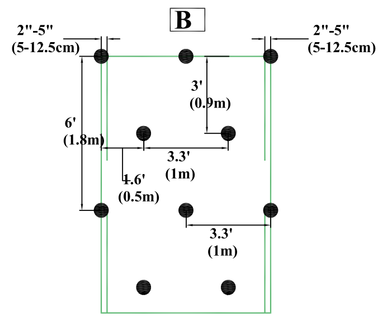

## SLOPE INSTALLATION DETAIL

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12" (30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel RECPs must be stapled with approximately 2" - 5" (5-12.5cm) overlap depending on the RECPs type.
5. Consecutive RECPs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire RECPs width.

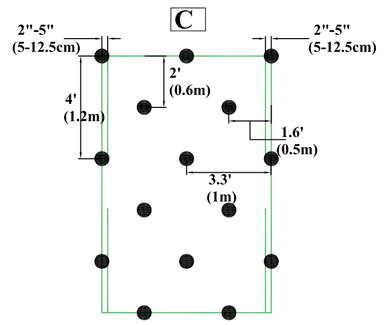


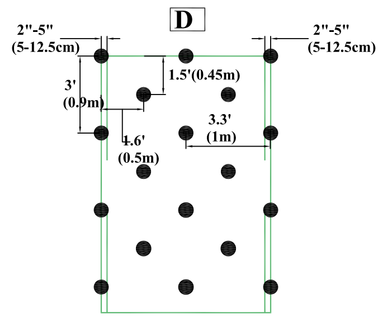

0.7 Anchors per SQ.YD.
(0.8 Anchors per SQ. M.)




1.15 Anchors per SQ.YD.
(1.35 Anchors per SQ. M.)




1.7 Anchors per SQ.YD.
(2.0 Anchors per SQ. M.)




2.3 Anchors per SQ.YD.
(2.7 Anchors per SQ. M.)

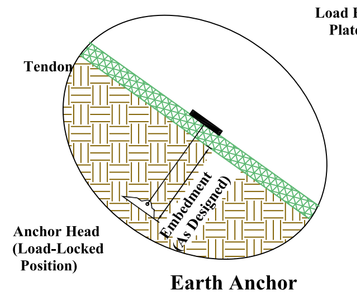
**NOTES:**

* The performance of ground anchoring devices is highly dependent on numerous site/project specific variables. It is the sole responsibility of the project engineer and/or contractor to select the appropriate anchor type and length. Anchoring shall be selected to hold the mat in intimate contact with the soil subgrade and resist pullout in accordance with the project's design intent.

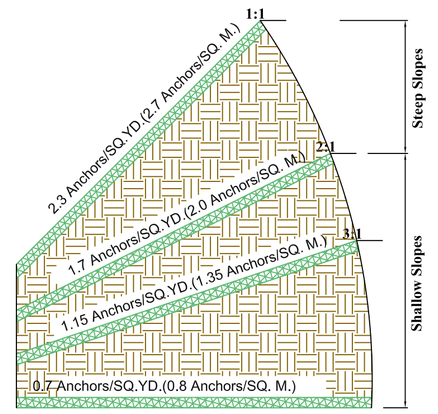
* Anchor Pattern Guide can vary based on earth anchor and blanket selection.

* If desired, the system can be soil-filled and sodded after TRM installation. Sod should be staples/staked according to plan specifications.

**Drawing Not To Scale**




**Earth Anchor Detail**




**Channel & Shoreline Slopes**

**CRITICAL POINTS**

A. Overlaps and Seams
B. Projected Water Line
C. Channel Bottom/Side Slope Vertices


## SLOPE INSTALLATION EARTH ANCHOR (EA) DETAIL

1. Prepare soil before installing high-performance turf reinforcement mats (HP-TRMs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the HP-TRMs in a 6" (15 cm) deep x 6" (15cm) wide trench with approximately 12" (30 cm) of HP-TRMs extended beyond the up-slope portion of the trench. Anchor the HP-TRMs with a row of staples and anchors 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 HP-TRMs back over seed and compacted soil. Secure HP-TRMs over compacted soil with a row of staples/stakes spaced approximately 12" (30 cm) apart across the width of the HP-TRMs.
3. Roll the HP-TRMs (A) down or (B) horizontally across the slope. HP-TRMs will unroll with appropriate side against the soil surface. All HP-TRMs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel HP-TRMs must be stapled with approximately 2" - 5" (5-12.5cm) overlap depending on the HP-TRM type.
5. Consecutive HP-TRMs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire HP-TRM width.

*NOTE:
In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the HP-TRMs.

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STATE OF NEW HAMPSHIRE JONATHAN A. SISSON III No. 235 CERTIFIED WETLAND SCIENTIST

WETLAND SCIENTIST:
Beaver Tracks, LLC
Jonathan Sisson, C.W.S., C.S.S.
21 Hale Hill Road
Swanzey, NH 03446
(603) 313-4925 phone
BeaverTracksLLC@yahoo.com

STATE OF NEW HAMPSHIRE ERIN MICHELLE DARROW No. 11767 LICENSED PROFESSIONAL ENGINEER

ENGINEER:
Right Angle Engineering, PLLC
Erin Darrow, P.E.
152 Main Street
New London, NH 03257
(603) 526-2807 office
(603) 443-7615 mobile
(603) 523-8811 fax
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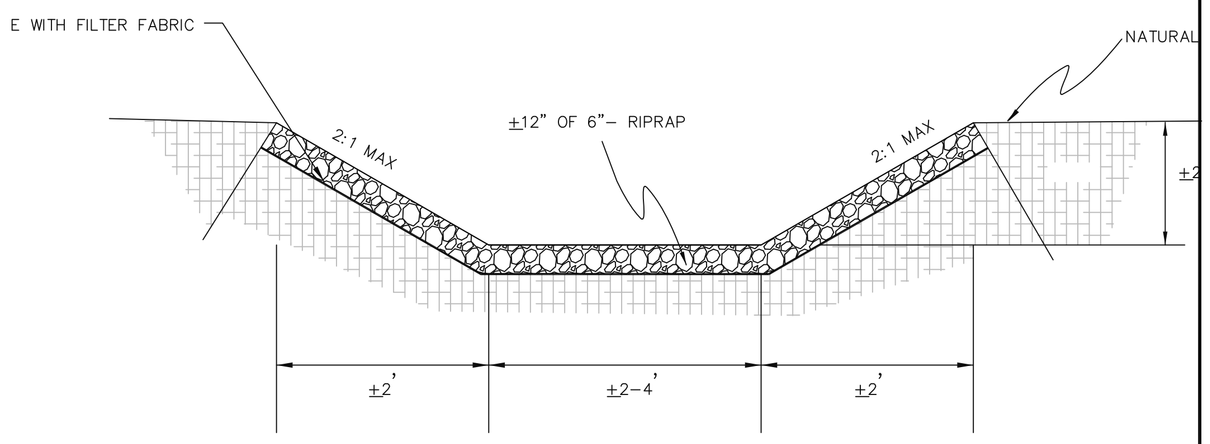
## STONE–LINED SWALE
## NOT–TO–SCALE




### VEGETATIVE MEASURES

TOPSOIL STOCKPILING: TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ON CRITICAL AREAS AND ALL OTHER AREAS TO BE SEEDED. THE STOCK PILE WILL NOT BE COMPACTED AND SHALL BE STABILIZED AGAINST EROSION WITH TEMPORARY SEEDING.

TEMPORARY SEEDING:

A) BEDDING: REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT THREE INCHES TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.

B) FERTILIZER: FERTILIZER SHOULD BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. A 10–10–10 MIX OF FERTILIZER SHOULD BE APPLIED AT A RATE OF 300 POUNDS PER ACRE (OR 7 POUNDS PER 1,000 S.F.)

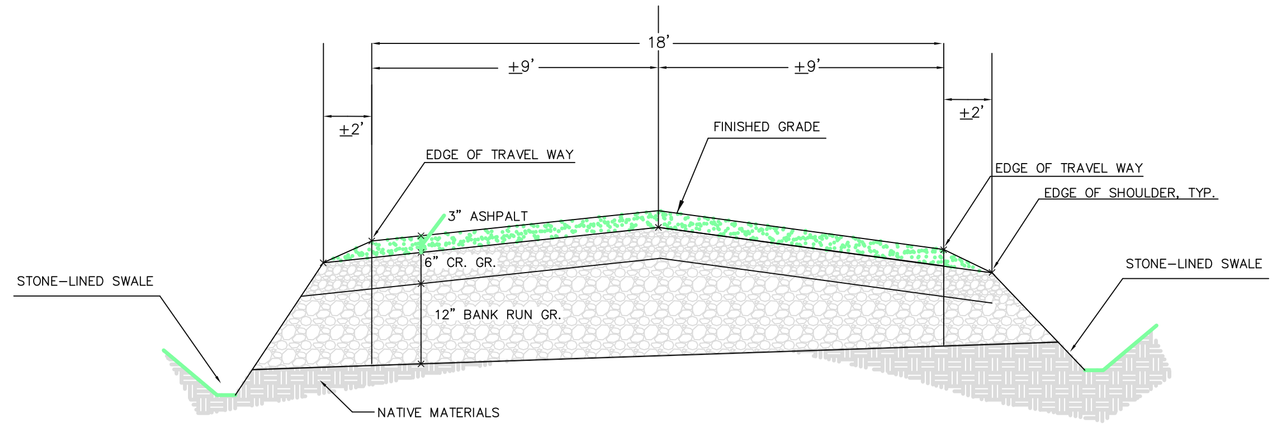
C) SEED MIXTURE: USE ANY OF THE FOLLOWING:

| SPECIES | PER ACRE | PER 1000 S.F. | DATES |
|---|---|---|---|
| WINTER RYE | 112 LBS. | 2.6 LBS. | 8/15 – 10/1 (FALL) |
| OATS | 80 LBS. | 2.0 LBS. | 4/1 – 7/1 ; 8/15 – 9/15 |
| RYEGRASS (ANNUAL) | 40 LBS. | 1.0 LBS. | 4/1 – 6/1 |
| RYEGRASS (PERENIAL) | 30 LBS. | 0.7 LBS. | 4/1 – 6/1 ; 8/15 – 9/15 |

D) MULCHING: MULCH SHALL BE USED ON HIGHLY ERODABLE SOIL, ON CRITICALLY ERODING AREAS, AND ON AREAS WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT.

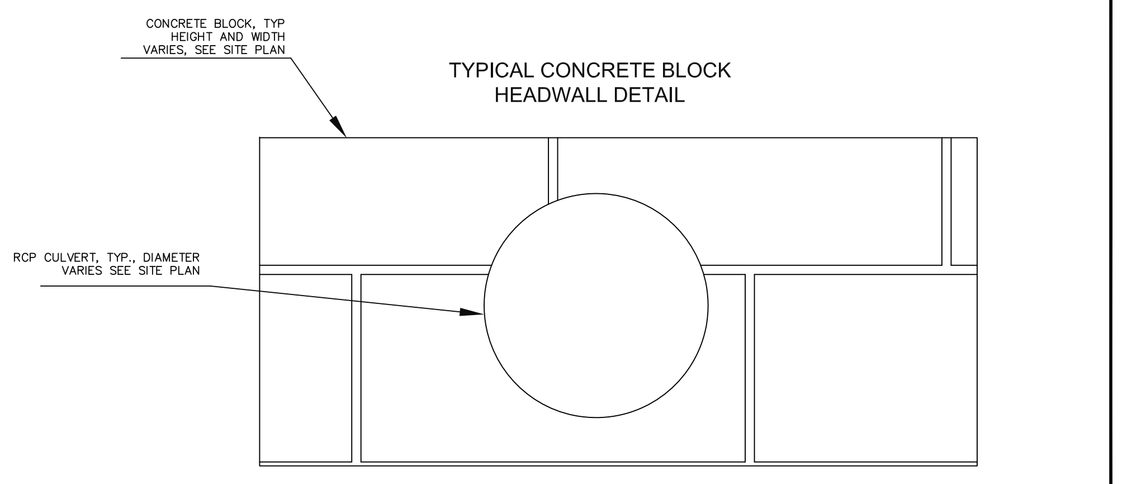
| TYPE | RATE PER 1,000 S.F. | USE AND COMMENTS |
|---|---|---|
| HAY OR STRAW | 70 TO 90 LBS. | MUST BE DRY AND FREE |
| | | OF MOLD. MAY BE USED |
| | | WITH PLANTINGS. |
| | | |
| WOOD CHIPS OR | 160 TO 920 LBS. | USED MOSTLY WITH TREES |
| BARK MULCH | | AND SHRUBS PLANTINGS. |
| | | |
| JUTE AND FIBROUS | AS PER MANUFACTURERS | USED IN SCOPE AREAS. |
| MATTING | SPECIFICATIONS | WATER COURSED AND |
| | | OTHER AREAS. |
| | | |
| CRUSHED STONE | SPREAD MORE THAN | EFFECTIVE IN CONTROLLING |
| ½" TO 1½ DIA. | ½" THICK | WIND AND WATER EROSION. |

Typical Road
Cross–Section
NOT–TO–SCALE




### CONSTRUCTION SEQUENCE NOTES:

1. INSTALL SEDIMENT AND EROSION CONTROL FACILITIES. ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
2. ALL SEDIMENT AND EROSION CONTROL SHALL BE IN ACCORDANCE WITH NEW HAMPSHRE DEPARTMENT OF ENVIRONMENTAL SERVICES BEST MANAGEMENT PRACTICES.
3. INSPECT SITE REGULARLY TO ENSURE PROPER FUNCTION OF SEDIMENT AND EROSION CONTROLS. SITE SHALL BE INSPECTED WEEKLY, AT A MINIMUM, AND ALSO AFTER/DURING SEVERE STORM EVENT(S), AFTER/DURING ANY RAINFALL THAT EXCEEDS ½ INCH IN 24 HOURS.
4. FINAL SEDIMENT AND EROSION CONTROL, AND SITE DEWATERING PLANS SHALL BE PROVIDED BY ENGINEER PRIOR TO INSTALLATION.
5. INSTALL HELICAL ANCHORS.
6. REMOVE OVERBURDEN MATERIALS.
7. REMOVE LEDGE. NO BLASTING SHALL OCCUR FOR LEDGE REMOVAL.
8. INSTALL NEW ROAD.
9. INSTALL NEW CULVERTS.
10. ALL WORK IN WETLANDS SHALL OCCUR DUING LOW–FLOW STREAM CONDITIONS, AS PRACTICABLE.
11. INSTALL STONE–LINED DITCHES.
12. LOAM AND SEED SITE AREA, AS APPLICABLE.
13. IREMOVE SEDIMENT AND EROSION CONTROL MEASURES UPON SITE STABILIZATION.
14. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF UTILITIES AND AVOIDING DAMAGE DURING CONSTRUCTION.




TYPICAL CONCRETE BLOCK
HEADWALL DETAIL

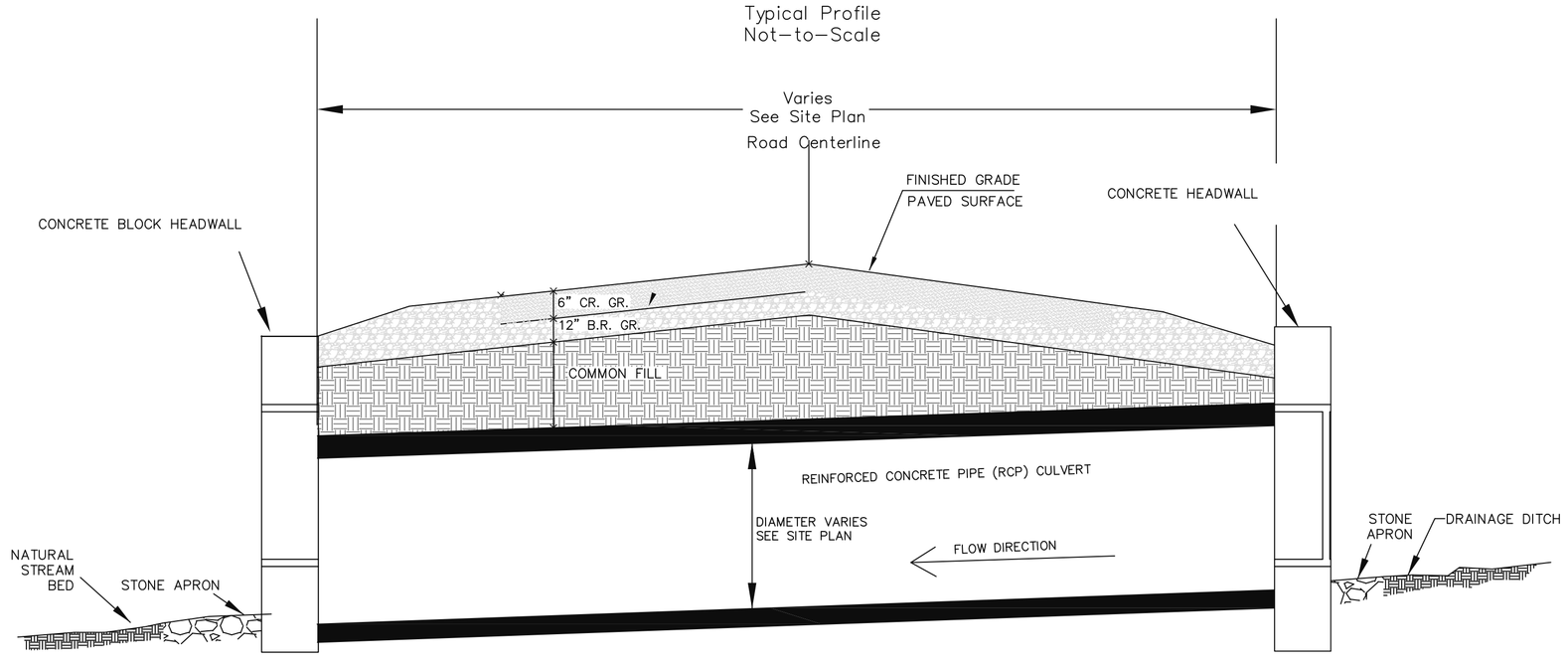
### NOTES:

1. CULVERT SHALL BE INSTALLED PER MANUFACTURER SPECIFICATIONS AND DIRECTIONS.
2. TESTING RESULTS FOR ALL GRAVELS AND/OR STONE INSTALLED SHALL BE PROVIDED BY CONTRACTOR. THIS INCLUDES BOTH SIEVE ANALYSIS AND COMPACTION (I.E. 95% MODIFIED STANDARD PROCTOR DENSITY) STANDARDS BY A CERTIFIED TESTING AGENCY.
3. CULVERT SHALL BE CAPABLE OF WITHSTANDING HS–25 LOADING CONDITIONS.
4. SITE LOCATION CHALL BE DEWATERED FOR DURATION OF CONSTRUCTION.
5. ALL CONDITIONS OF THE NHDES DREDGE AND FILL PERMIT ARE THE RESPONSIBILITY OF THE CONTRACTOR.
6. ALL GRAVEL MATERIALS SHALL BE INSTALLED PER NEW HAMPSHIRE DEPARTMENT OF TRANSPORATION (NHDOT) CONSTRUCTION STANDARDS.

### WINTER STABILIZATION NOTES:

- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETEDD IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

Typical Profile
Not–to–Scale

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WETLAND SCIENTIST:
Beaver Tracks, LLC
Jonathan Sisson, C.W.S., C.S.S.
21 Hale Hill Road
Swanzey, NH 03446
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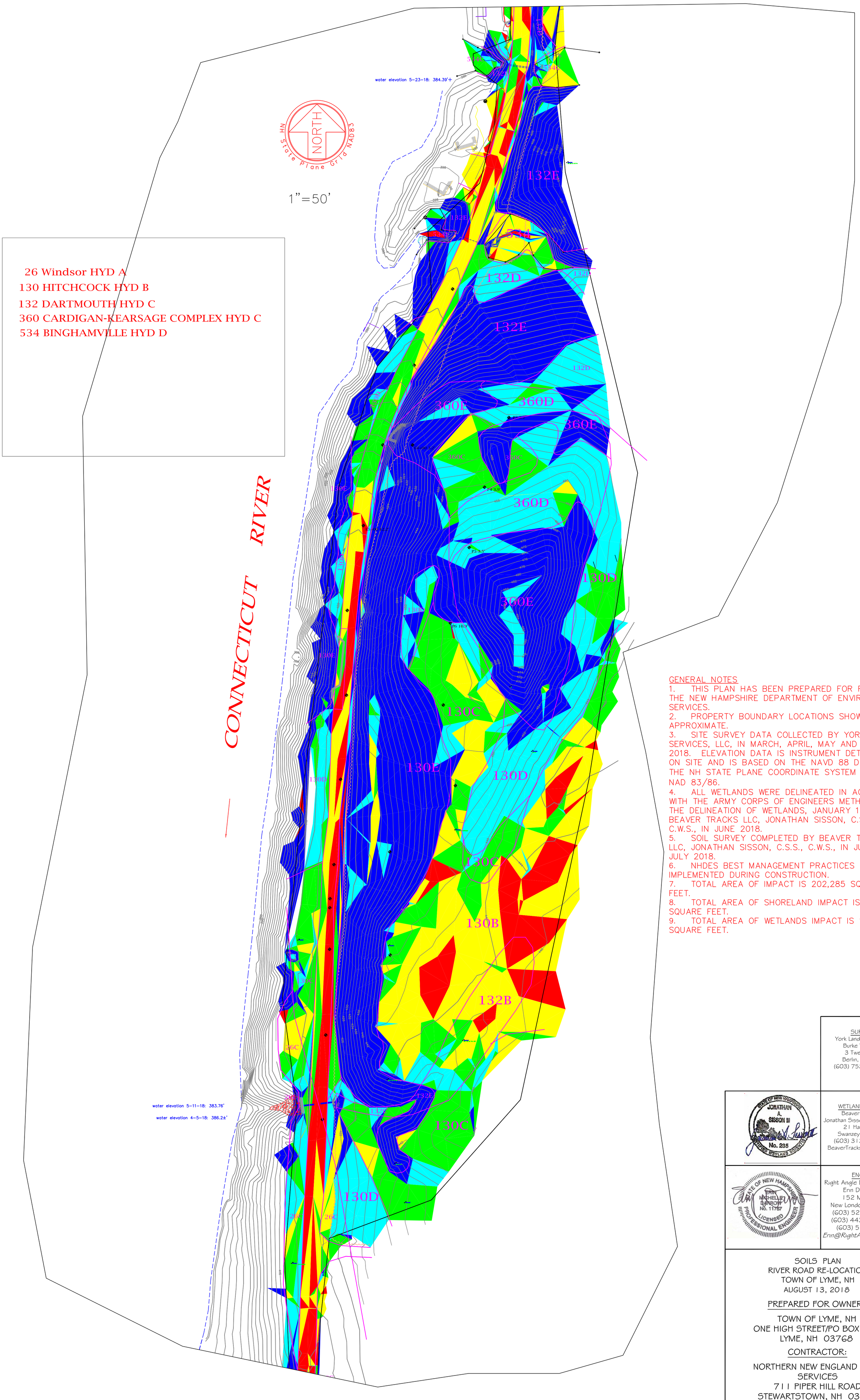


GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED FOR REVIEW BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
2. PROPERTY BOUNDARY LOCATIONS SHOWN ARE APPROXIMATE.
3. SITE SURVEY DATA COLLECTED BY YORK LAND SERVICES, LLC, IN MARCH, APRIL, MAY AND JUNE 2018. ELEVATION DATA IS INSTRUMENT DETERMINED ON SITE AND IS BASED ON THE NAVD 88 DATUM, IN THE NH STATE PLANE COORDINATE SYSTEM (US FEET), NAD 83/86.
4. ALL WETLANDS WERE DELINEATED IN ACCORDANCE WITH THE ARMY CORPS OF ENGINEERS METHOD FOR THE DELINEATION OF WETLANDS, JANUARY 1987, BY BEAVER TRACKS LLC, JONATHAN SISSON, C.S.S., C.W.S., IN JUNE 2018.
5. SOIL SURVEY COMPLETED BY BEAVER TRACKS LLC, JONATHAN SISSON, C.S.S., C.W.S., IN JUNE AND JULY 2018.
6. NHDES BEST MANAGEMENT PRACTICES TO BE IMPLEMENTED DURING CONSTRUCTION.
7. TOTAL AREA OF IMPACT IS 202,285 SQUARE FEET.
8. TOTAL AREA OF SHORELAND IMPACT IS 194,630 SQUARE FEET.
9. TOTAL AREA OF WETLANDS IMPACT IS 1,640 SQUARE FEET.


SURVEYOR:
York Land Services, LLC
Burke York, L.L.S.
3 Twelfth St # 3
Berlin, NH 03570
(603) 752-7282 phone

WETLAND SCIENTIST:
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SOILS PLAN
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