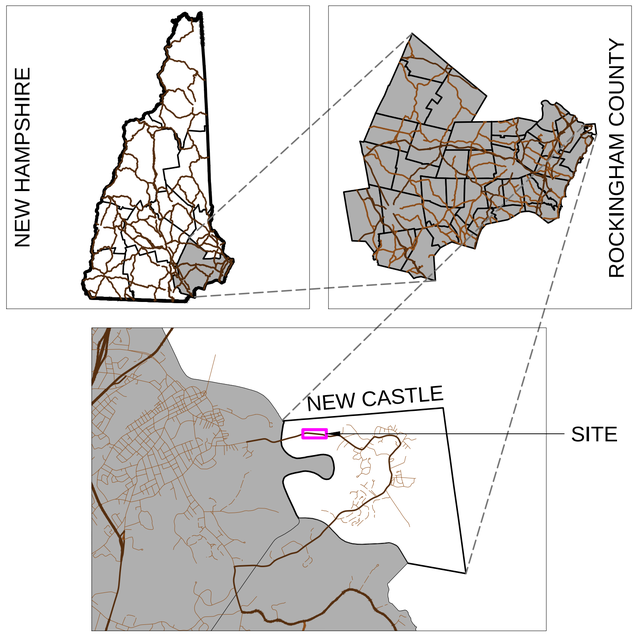
ROUTE 1B COASTAL RESILIENCE PROJECT

CONCEPTUAL DESIGN OPTIONS

ROUTE 1B NEAR GOAT ISLAND, BETWEEN PORTSMOUTH AND NEW CASTLE, NEW HAMPSHIRE



VICINITY MAP
NOT TO SCALE

SITE MAP
NOT TO SCALE

LIST OF SHEETS

NO	SHEET ID	SHEET TITLE
1.	X-OVIEW	SITE OVERVIEW
2.	P-OVIEW	CONCEPTUAL SITE OVERVIEW
3.	P-AERIAL	SITE OVERVIEW WITH AERIAL
4.	XS800a	CONCEPTUAL DESIGN SECTION 8+00 a
5.	XS800b	CONCEPTUAL DESIGN SECTION 8+00 b
6.	XS1100a	CONCEPTUAL DESIGN SECTION 11+00 a
7.	XS1100b	CONCEPTUAL DESIGN SECTION 11+00 b

University of New Hampshire

University of New Hampshire
CHaRT
Coastal Habitat Restoration Team

NOTES

1. THESE ARE CONCEPTUAL DRAWINGS, AND ARE NOT TO BE USED FOR ANY OTHER PURPOSE.
2. ALL TIDAL ELEVATIONS SHOWN ARE ESTIMATED FROM NOAA STATION 8423898 - FORT POINT NH, WHICH IS LOCATED 1 MILE EAST OF THE SITE, IN NEW CASTLE AND ON THE PISCATAQUA RIVER, AND ARE REFERENCED TO THE NAVD88 DATUM.
3. THE ONLY TOPOGRAPHIC DATA AVAILABLE DURING THE DEVELOPMENT OF THESE PLANS IS 2-FOOT LiDAR CONTOUR DATA, REFERENCED TO NAVD88 AND NH83F (NEW HAMPSHIRE STATE PLANE, US FEET) DATUMS. THE CONTOURS DO NOT GO BELOW ELEVATION 0.0'.
4. PENDING A SITE SURVEY, ALL TOPOGRAPHIC DATA IS ESTIMATED FROM THE LiDAR CONTOURS, AND THE DESIGNS OPTIONS ARE SET BASED OFF THIS DATA. DESIGNS MAY BE ALTERED SLIGHTLY WHEN BETTER DATA IS OBTAINED.
5. USE OF SHEET PILES MAY BE PREFERRED OVER 3:1 SLOPE DIMENSIONS OR RESTORATION QUANTITIES WOULD REQUIRE APPROPRIATE ADJUSTMENT TO THE AREAS AS DEPICTED ON THIS PLAN.

NOTE: A SEWER LINE EXISTS IN THE CAUSEWAY, BUT IS NOT SHOWN AND SHOULD NOT BE AFFECTED BY PROJECT. ALL DATA SHOWN, OTHER THAN THE LiDAR SURFACE WAS PROVIDED BY NHDOT IN THE FORM OF MICROSTATION UNDERLAYS. THIS INFORMATION IS SHOWN FOR REFERENCE ONLY.

EXISTING SURFACE TOPOGRAPHY BUILT FROM LiDAR DATA OBTAINED FROM NHGRANIT

ROUTE 1B

PORTSMOUTH AVE

EXISTING WATER MAIN

Curve No. 3
PI= 109+32.23
N = 209736.34
E = 1234509.10
Δ = 13°-35'-29.8" RT
T = 77.46'
R = 650.00'
L = 154.19'
E = 4.60'

PENN FAMILY REALTY HOLDING TRUST, PHILIP R. PENN, TRUSTEE

TOWN OF RIVERSIDE

= Approx. Loc. 1926 Layout

Designed By:	JCB, TPB
Drawn By:	JCB
Checked By:	TPB
Date:	10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:	Date:	Revision #:

Sheet Title: SITE OVERVIEW

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

N

SCALE: 1" = 30'

0 15 30 45

Sheet ID: X-OVIEW

Sheet Number: 01 OF 07

NOTE: A SEWER LINE EXISTS IN THE CAUSEWAY, BUT IS NOT SHOWN AND SHOULD NOT BE AFFECTED BY PROJECT.

STATIONS AND ALIGNMENT RELATIVE TO THE RESTORATION SECTION OF THE PROJECT; NOT THE SAME STATIONING AS DOT DRAWING FILES

EXISTING SURFACE TOPOGRAPHY BUILT FROM LiDAR DATA OBTAINED FROM NHGRANIT

CONCEPTUAL CROSS SECTION AT STATION 8+00; SEE SHEET XS800 FOR MORE DETAIL

BUILD OUT SALT MARSH 40 FEET FROM TOP OF EXISTING BANK; APPROXIMATE LINEAR LENGTH OF 600 FEET

CONCEPTUAL CROSS SECTION AT STATION 11+00; SEE SHEET XS1100 FOR MORE DETAIL

ROUTE 1B

PORTSMOUTH AVE

EXISTING WATER MAIN

EXCAVATE FOR SEA GRASS – GRASS MUST BE AT LEAST 2' BELOW MLLW; USE EXCAVATED MATERIAL FOR SALT MARSH FILL

EXCAVATE FOR SEA GRASS – GRASS MUST BE AT LEAST 2' BELOW MLLW; USE EXCAVATED MATERIAL FOR SALT MARSH FILL

= Approx. Loc. 1926 Layout

Designed By:	JCB, TPB
Drawn By:	JCB
Checked By:	TPB
Date:	10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:

Revision #	Date:

Sheet Title: CONCEPTUAL SITE OVERVIEW

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

N

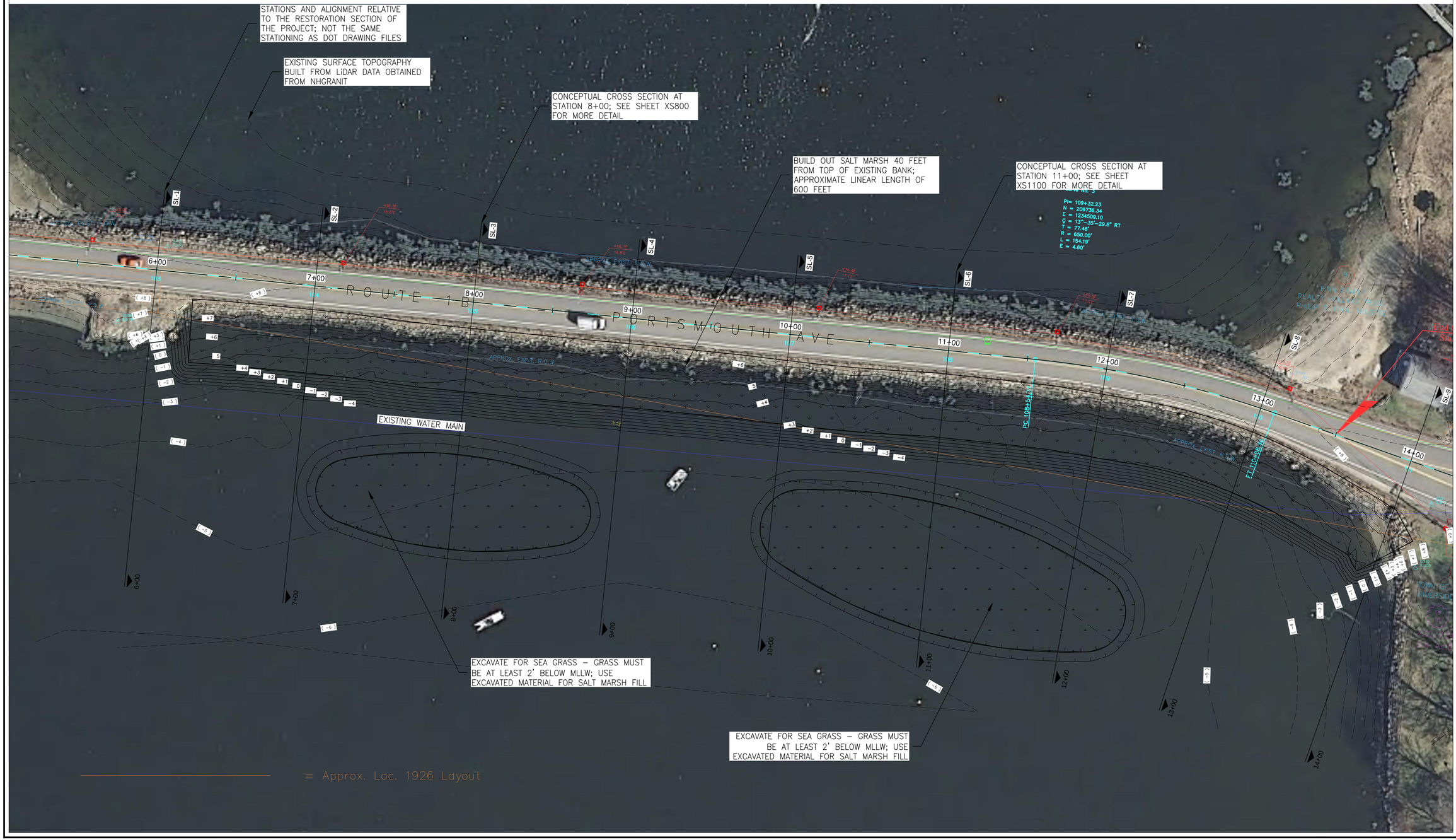
SCALE: 1" = 30'

0 15 30 45

Sheet ID: P-OVIEW

Sheet Number: 02 OF 07

NOTE: A SEWER LINE EXISTS IN THE CAUSEWAY, BUT IS NOT SHOWN AND SHOULD NOT BE AFFECTED BY PROJECT.



Designed By: JCB, TPB
Drawn By: JCB
Checked By: TPB
Date: 10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:

Date:

Revision #:

Sheet Title: PROPOSED OVERVIEW WITH AERIAL

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

N

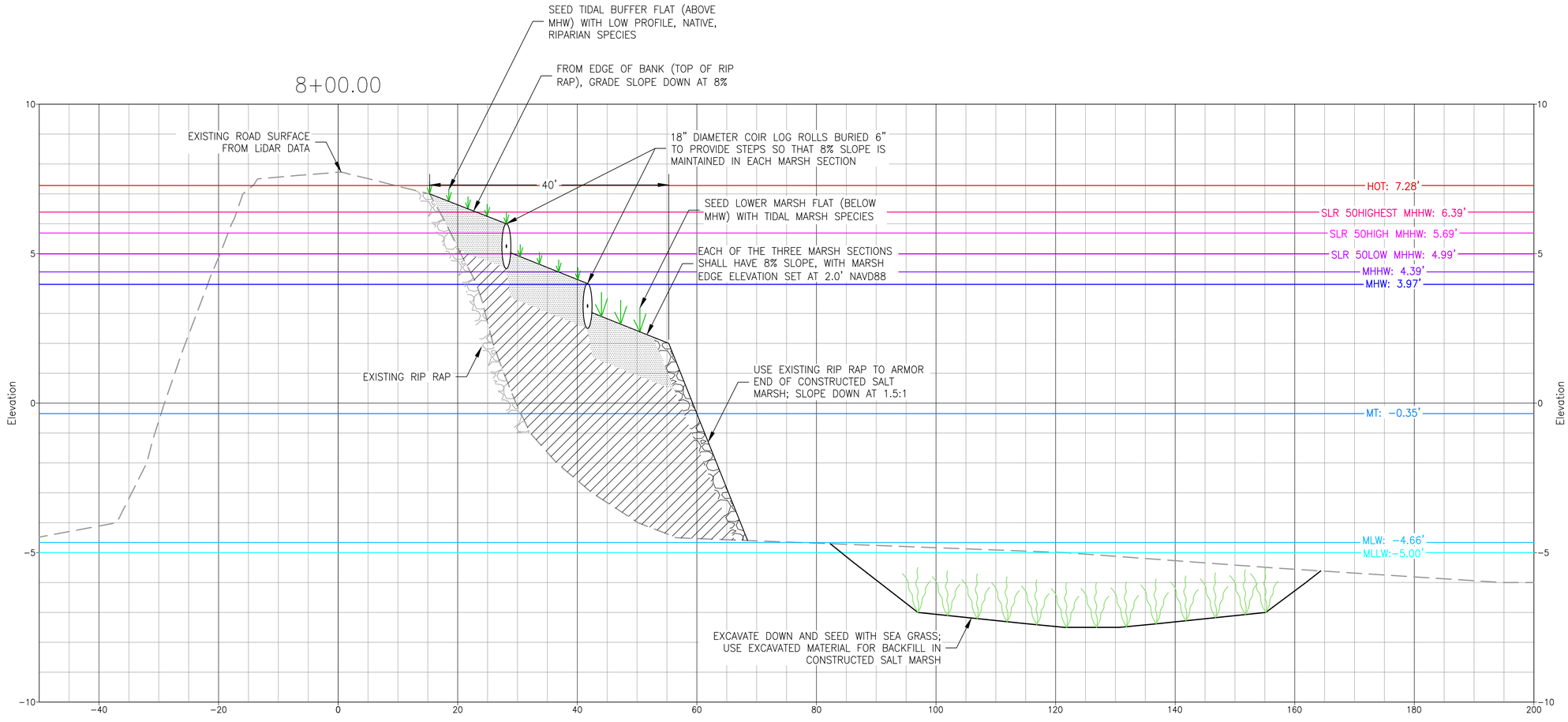
SCALE: 1" = 30'

0 15 30 45

Sheet ID: P-AERIAL

Sheet Number: 03 OF 07

NOTE: FOR PLANNING PURPOSES,
MID-CENTURY SLR = 1.3', AND
END-OF-CENTURY SLR = 3.9'



Designed By: JCB, TPB
Drawn By: JCB
Checked By: TPB
Date: 10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:

Date:

Revision #:

Sheet Title: CONCEPTUAL DESIGN SECTION 8+00 a

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

VERTICAL EXAGGERATION: 5V:1H

SCALE: 1" = 10'

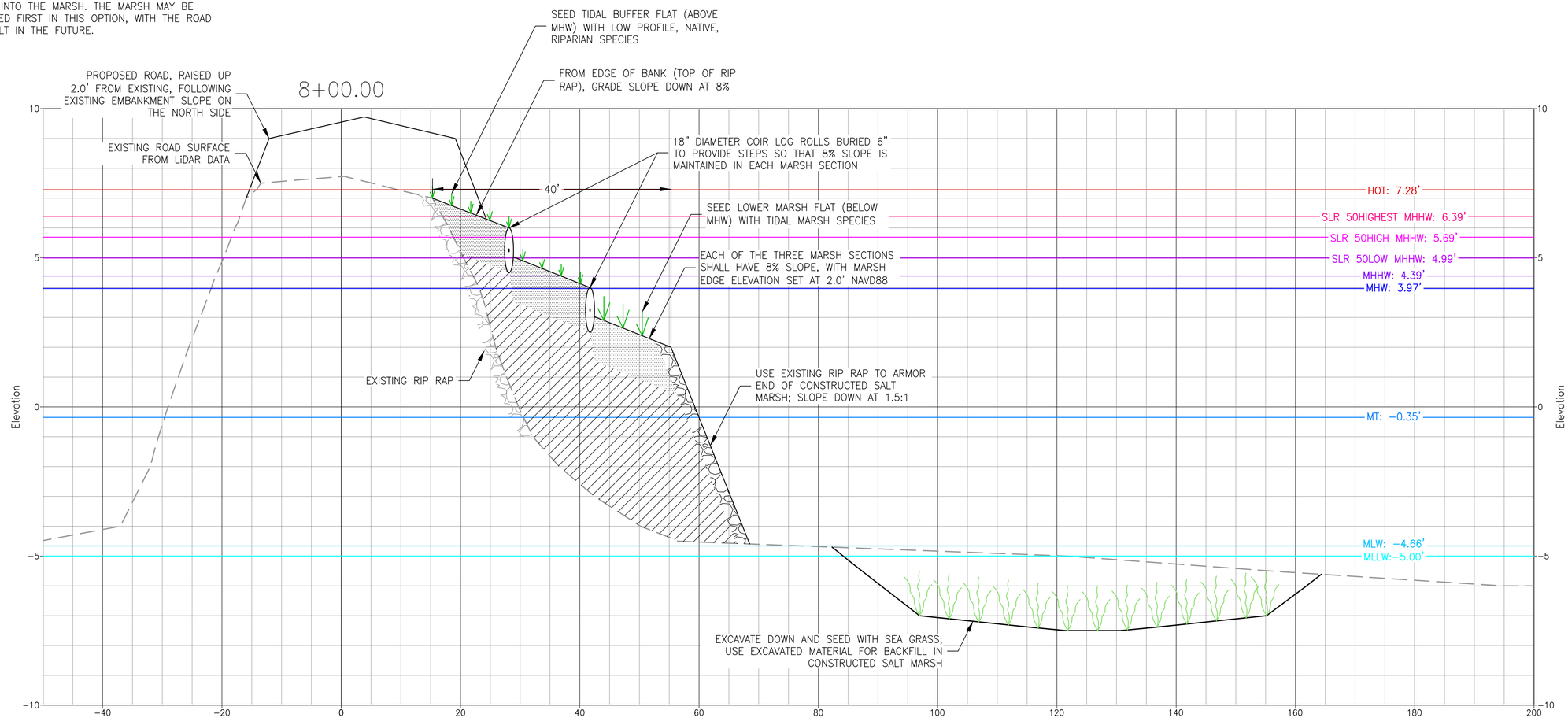
0 5 10 15

Sheet ID: XS800a

Sheet Number: 04 OF 07

NOTE: FOR PLANNING PURPOSES,
MID-CENTURY SLR = 1.3', AND
END-OF-CENTURY SLR = 3.9'

NOTE: XS 8+00 b IS THE SAME AS XS 8+00 a, BUT SHOWING THE EXISTING ROAD RAISED UP 2.0', FOLLOWING THE EXISTING SLOPE OF THE EMBANKMENT TO THE NORTH SIDE OF THE ROAD, AND TYING INTO THE MARSH. THE MARSH MAY BE CONSTRUCTED FIRST IN THIS OPTION, WITH THE ROAD OPTION BUILT IN THE FUTURE.



Designed By: JCB, TPB
Drawn By: JCB
Checked By: TPB
Date: 10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:

Date:

Revision #:

Sheet Title: CONCEPTUAL DESIGN SECTION 8+00 b

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

VERTICAL EXAGGERATION: 5V:1H

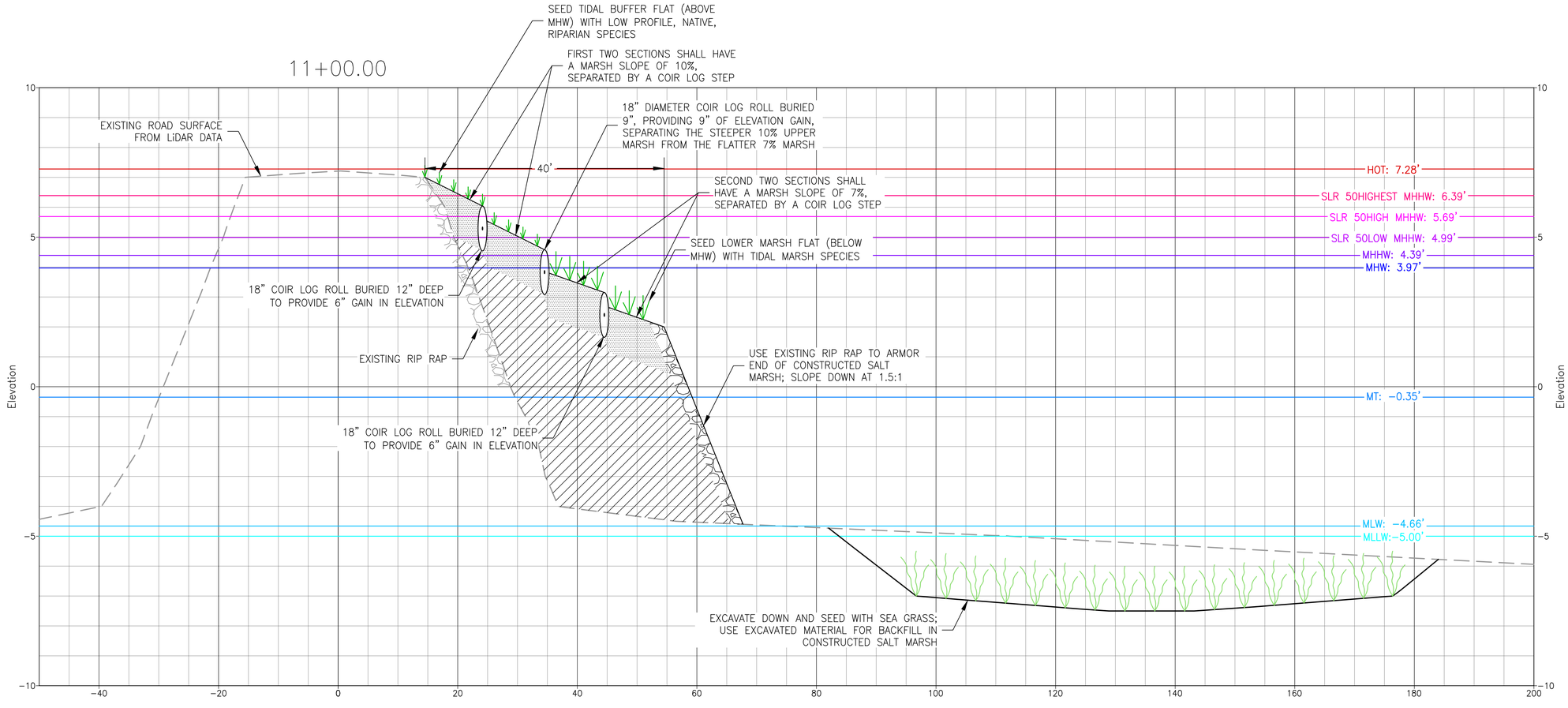
SCALE: 1" = 10'

0 5 10 15

Sheet ID: XS800b

Sheet Number: 05 OF 07

NOTE: FOR PLANNING PURPOSES,
MID-CENTURY SLR = 1.3', AND
END-OF-CENTURY SLR = 3.9'



Designed By:	JCB, TPB
Drawn By:	JCB
Checked By:	TPB
Date:	10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:

Date:

Revision #:

Sheet Title: CONCEPTUAL DESIGN SECTION 11+00 a

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

VERTICAL EXAGGERATION: 5V:1H

SCALE: 1" = 10'

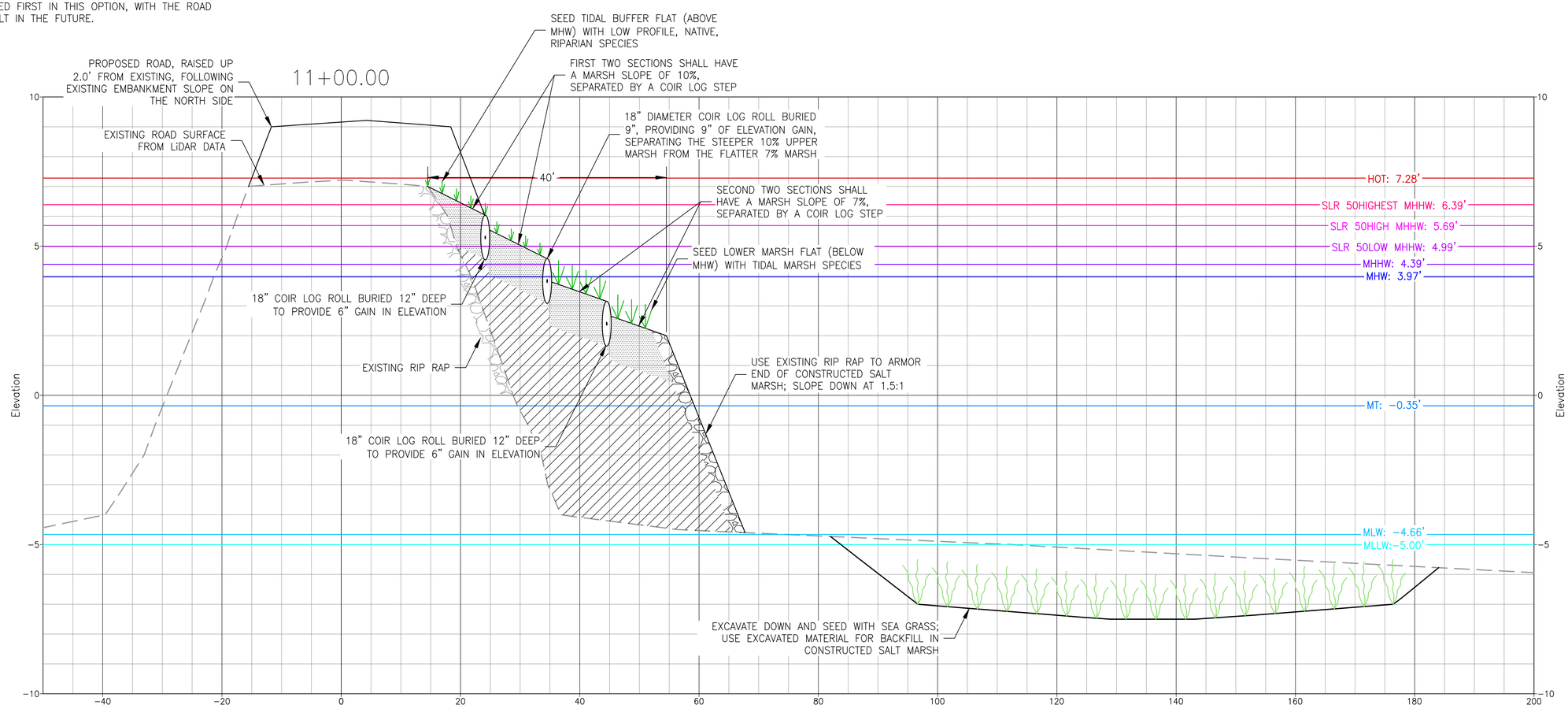
0 5 10 15

Sheet ID: XS1100a

Sheet Number: 06 OF 07

NOTE: FOR PLANNING PURPOSES,
MID-CENTURY SLR = 1.3', AND
END-OF-CENTURY SLR = 3.9'

NOTE: XS 11+00 b IS THE SAME AS XS 11+00 a, BUT SHOWING THE EXISTING ROAD RAISED UP 2.0', FOLLOWING THE EXISTING SLOPE OF THE EMBANKMENT TO THE NORTH SIDE OF THE ROAD, AND TYING INTO THE MARSH. THE MARSH MAY BE CONSTRUCTED FIRST IN THIS OPTION, WITH THE ROAD OPTION BUILT IN THE FUTURE.



Designed By: JCB, TPB
Drawn By: JCB
Checked By: TPB
Date: 10 OCT 2017

University of New Hampshire

University of New Hampshire
CHART
Coastal Habitat Restoration Team

Notes:

Date:

Revision #:

Sheet Title: CONCEPTUAL DESIGN SECTION 11+00 b

Sheet Set: CONCEPTUAL DESIGN OPTIONS

Project Name: ROUTE 1B COASTAL RESILIENCE PROJECT

Project Location: ROUTE 1B NEAR GOAT ISLAND IN NEW CASTLE, NH

VERTICAL EXAGGERATION: 5V:1H

SCALE: 1" = 10'

0 5 10 15

Sheet ID: XS1100b

Sheet Number: 07 OF 07