0 240 480
SCALE IN FEET
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

NOTES

1. TOPOGRAPHIC AND BATHYMETRIC DATA BASED ON SURVEY COLLECTED BY INTER-FLUVE OCTOBER 2020, NOVEMBER 2020, AND JANUARY 2021. BATHYMETRIC CONTOURS SHOULD BE CONSIDERED APPROXIMATE. LIDAR DATA OBTAINED FROM THE STATE OF MASSACHUSETTS, COLLECTED IN 2016, PROVIDES SUPPLEMENTAL TOPOGRAPHY OUTSIDE THE LIMITS OF THE TOPOGRAPHIC SURVEY.

2. HORIZONTAL AND VERTICAL COORDINATES ARE BASED ON MASSACHUSETTS STATE PLANE NAD83, MAINLAND ZONE. ELEVATIONS ARE BASED ON NAVD88.

SURVEY CONTROL

PT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
50	2718205.95	1006678.14	17.23	PK NAIL
100	2717571.54	1006529.44	8.64	CAPPED REBAR
102	2718091.54	1006825.64	10.15	CAPPED REBAR
103	2718931.21	1007379.20	8.99	PK NAIL
55	2718580.80	1008439.74	3.92	CAPPED REBAR
101	2718046.72	1006805.47	7.94	CAPPED REBAR
51	2718308.52	1006585.12	14.93	PK NAIL
52	2718077.29	1006803.75	11.14	PK NAIL
105	2719003.32	1007258.63	16.90	PK NAIL
208	2718632.48	1007492.32	7.64	CAPPED REBAR
209	2718694.75	1007623.99	5.72	CAPPED REBAR
210	2718776.14	1007477.95	6.75	CAPPED REBAR
212	2718859.85	1007430.32	7.14	CAPPED REBAR

LEGEND

EXISTING 1 FT. CONTOUR
EXISTING 5 FT. CONTOUR
CONTROL POINT
EXISTING ALIGNMENT
PARCEL LINE
ROADWAY

Preliminary
Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

MYS	SS, MYS, NN	CC
DRAWN	DESIGNED	CHECKED
-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

BASS RIVER HEADWATERS
YARMOUTH MA
FRIENDS OF THE BASS RIVER

inter-fluve
220 Concord Avenue, 2nd Floor
Cambridge, MA 02138
617.714.5537
www.interfluve.com

EXISTING CONDITIONS & SURVEY CONTROL

NOTES

1. TREES AND SHRUBS SHALL BE SALVAGED FROM THE STAGING AREAS WITH ROOTWADS INTACT TO USE ELSEWHERE WITHIN THE PROJECT LIMITS, SEE SPECIFICATIONS.

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- EXISTING ALIGNMENT
- CONSTRUCTION ACCESS
- STAGING AREA
- CONSTRUCTION ENTRANCE
- PARCEL LINE
- TURBIDITY CURTAIN
- SILT FENCE
- ROADWAY
- LIMIT OF DISTURBANCE

NO.	BY	DATE	REVISION DESCRIPTION

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-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

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ACCESS & STAGING PLAN

Preliminary
Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

DRAWN	DESIGNED	CHECKED
MYS	SS, MYS, NN	CC
APPROVED	**DATE**	**PROJECT**
-	09/30/22	20-05-16

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SITE PLAN

PLAN VIEW

NOTE:

DO NOT DISTURB TREES WITH DIAMETER AT BREAST HIEGHT OF 12 INCHES OR GREATER. ALL OTHER TREES AND SHRUBS SHALL BE SALVAGED FOR REUSE AS LARGE WOOD OR WOODY DEBRIS. SEE SPECIFICATIONS.

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- CONSTRUCTION ACCESS
- STAGING AREA
- CONSTRUCTION ENTRANCE
- OVERHEAD UTILITY
- GAS LINE
- SEWER LINE
- PARCEL LINE
- TURBIDITY CURTAIN
- SILT FENCE
- LIMITS OF DISTURBANCE

PROFILE VIEW

Preliminary Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

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-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

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CELLS 6 AND 7 GRADING PLAN & PROFILE

SHEET
5 OF 27

NOTE:

1. DO NOT DISTURB TREES WITH DIAMETER AT BREAST HIEGHT OF 12 INCHES OR GREATER. ALL OTHER TREES AND SHRUBS SHALL BE SALVAGED FOR REUSE AS LARGE WOOD OR WOODY DEBRIS. SEE SPECIFICATIONS.
2. CULVERTS INDICATED FOR REMOVAL AND ABANDONED FARM EQUIPMENT WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SPECIFICATIONS.

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- INVASIVE PLANT TREATMENT
- DITCH FILLING AND MICROTOPOGRAPHY
- PARCEL LINE
- LIMITS OF DISTURBANCE

NO.	BY	DATE	REVISION DESCRIPTION

MYS	SS, MYS, NN	CC
DRAWN	DESIGNED	CHECKED
-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

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CELLS 6 AND 7
TREATMENT PLAN (1 OF 2)

CUT-FILL TABLE

	ELEVATION CHANGE		
	MINIMUM ELEVATION CHANGE	MAXIMUM ELEVATION CHANGE	COLOR
CUT	-8	-3	
	-3	-2	
	-2	-1	
	-1	0	
FILL	0	1	
	1	2	
	2	3	
	3	7	

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PARCEL LINE
- LIMITS OF DISTURBANCE

Preliminary
Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

MYS	SS, MYS, NN	CC
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-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

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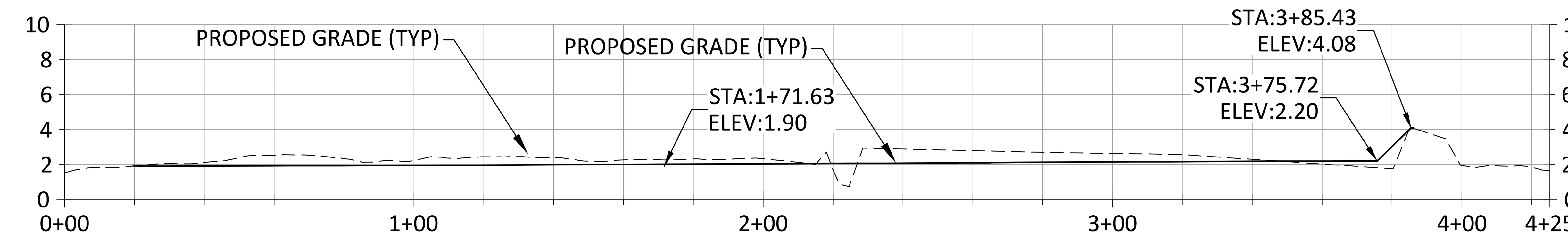
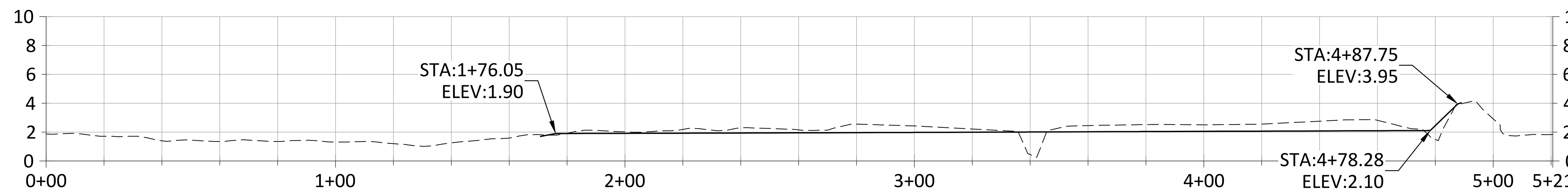
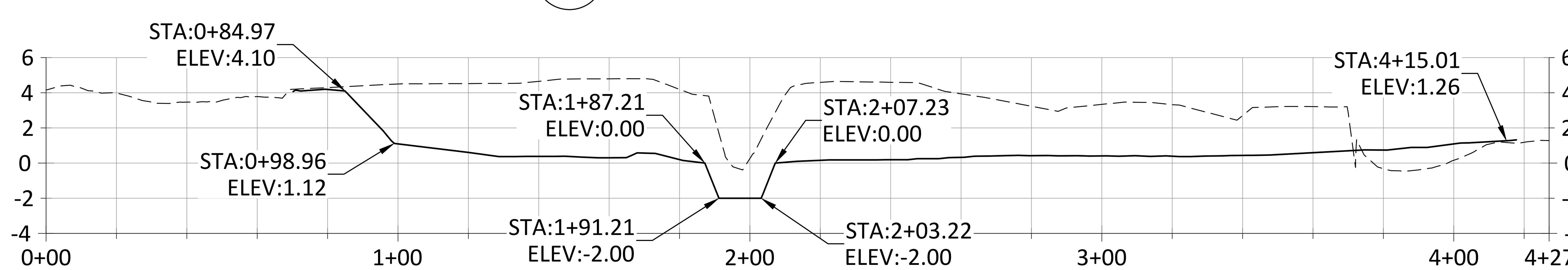
CELLS 6 AND 7
TREATMENT PLAN (2 OF 2)



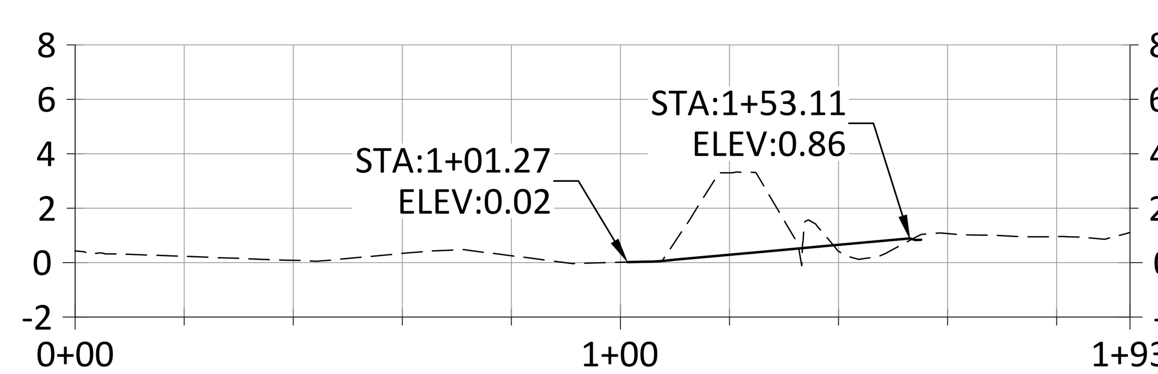
GRADING SECTION 1/8
CELL 7



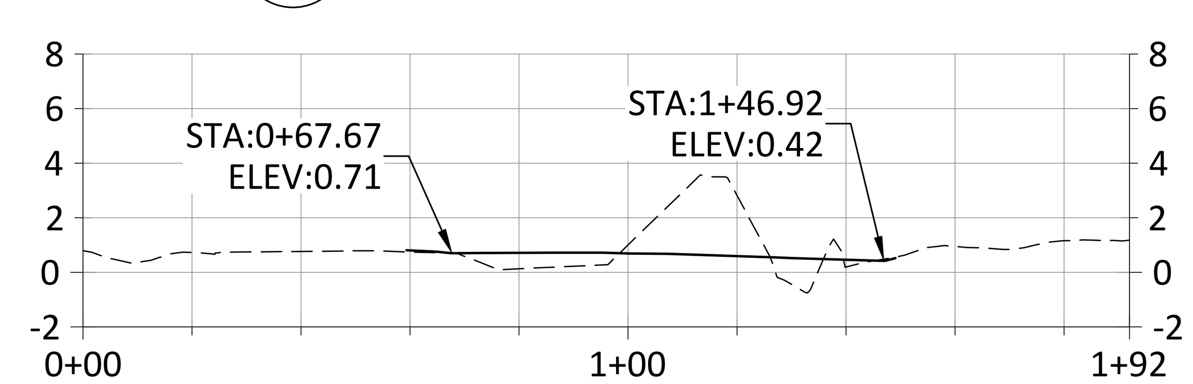
GRADING SECTION 2/8
CELL 7



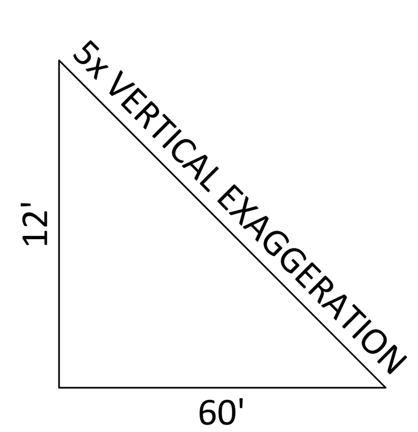
GRADING SECTION 3/8
STA 00+79.70



GRADING SECTION 4/8
STA 01+57.40



GRADING SECTION 5/8
STA 02+37.36



BAR LENGTHS MEASURE 2-INCHES ON 22 IN. X 34 IN. PRINT

NO.	BY	DATE	REVISION DESCRIPTION

DRAWN	DESIGNED	CHECKED
MYS	SS, MYS, NN	CC
APPROVED	**DATE**	**PROJECT**
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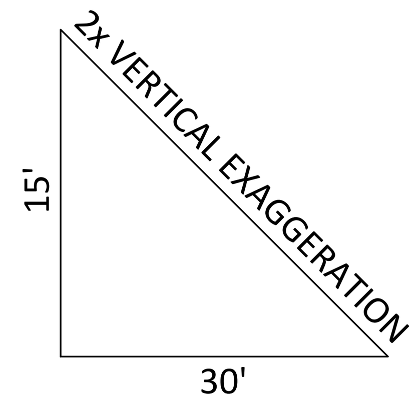
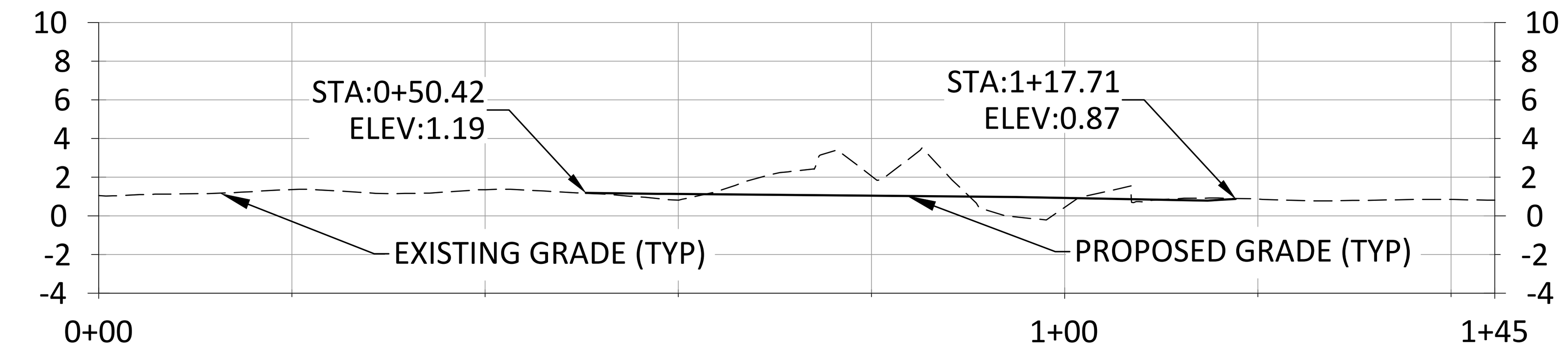
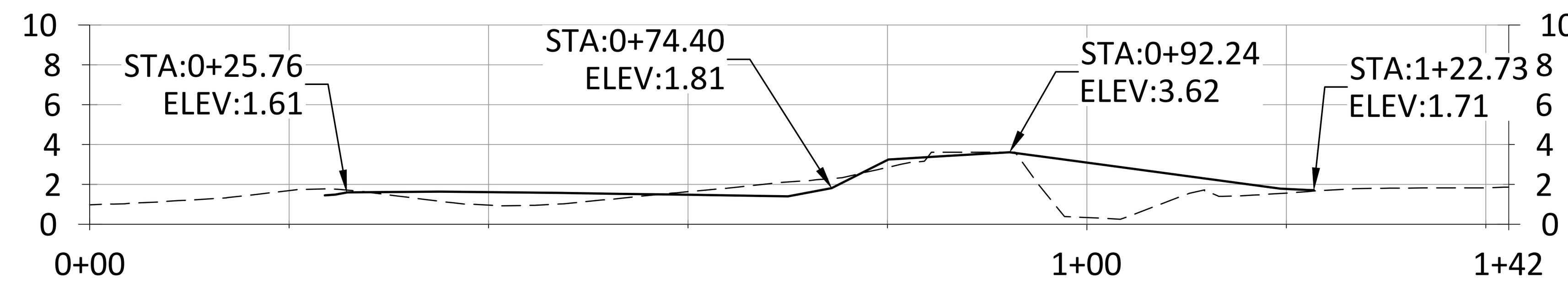
CELLS 6 AND 7
GRADING SECTIONS
(1 OF 3)



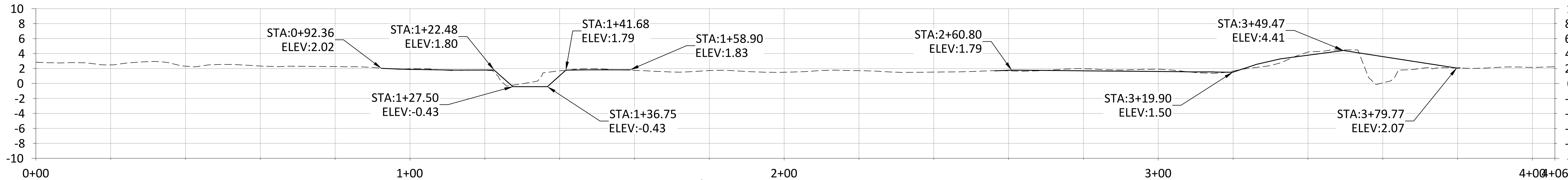
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT



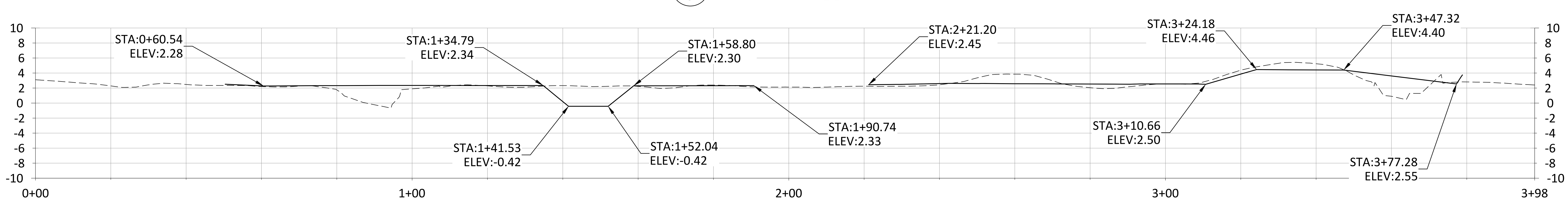
6
9
GRADING SECTION
STA 03+71.03



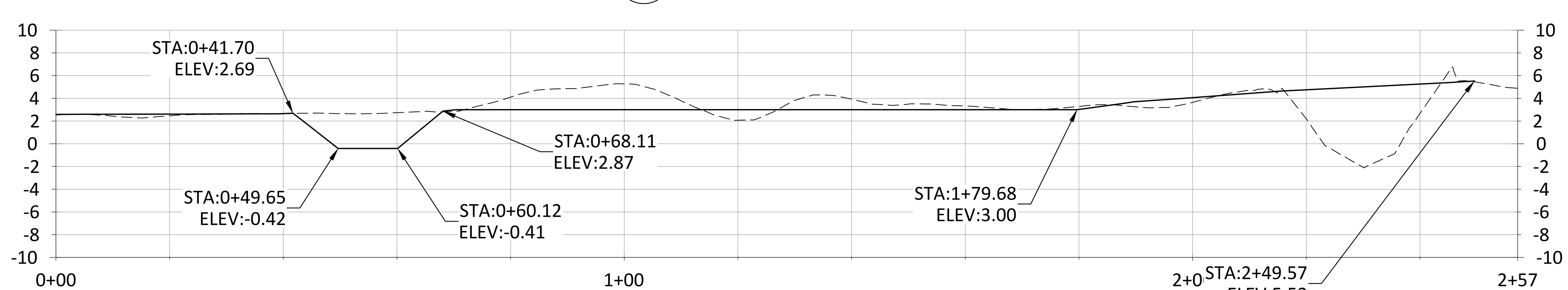
7
9
GRADING SECTION
STA 04+71.44



8
9
GRADING SECTION
STA 05+92.17



9
9
GRADING SECTION
STA 06+83.23



10
9
GRADING SECTION
STA 07+50.80

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-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

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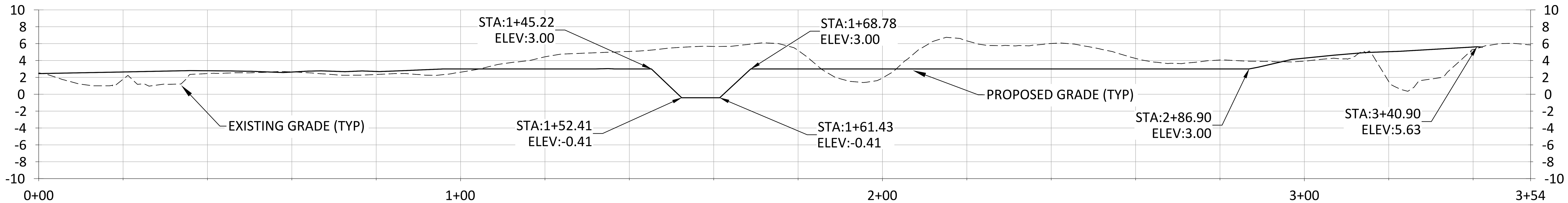
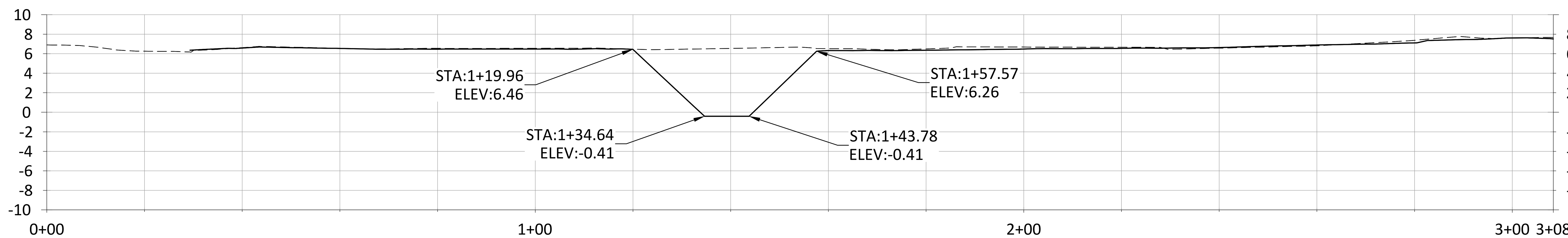
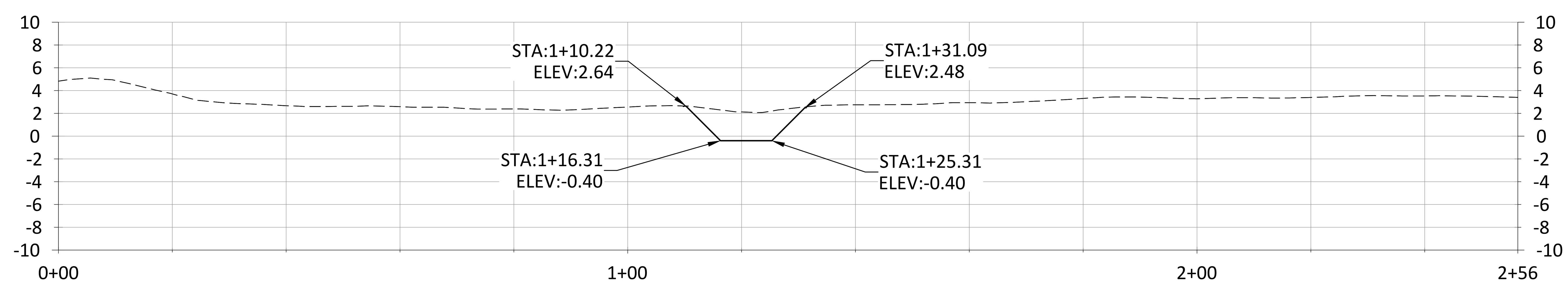
CELLS 6 AND 7
GRADING SECTIONS
(2 OF 3)



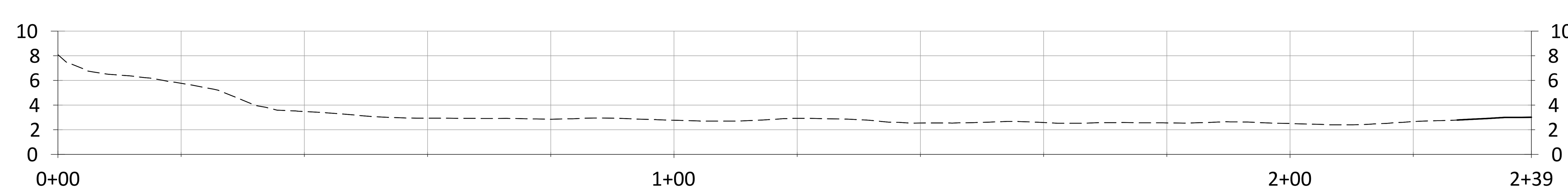
11
10
GRADING SECTION
STA 07+86.70



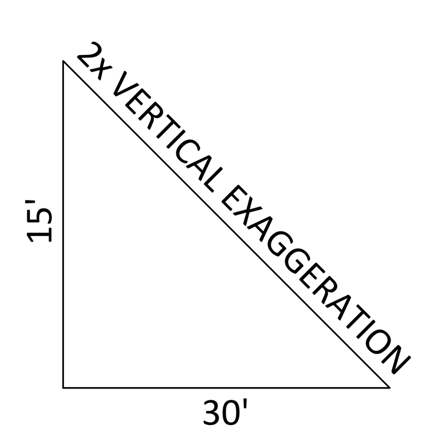
12
10
GRADING SECTION
STA 08+38.38



13
10
GRADING SECTION
STA 09+14.82



14
10
GRADING SECTION
STA 10+24.66



BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

Preliminary
Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

DRAWN	DESIGNED	CHECKED
MYS	SS, MYS, NN	CC

APPROVED	DATE	PROJECT
-	09/30/22	20-05-16

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CELLS 6 AND 7
GRADING SECTIONS
(3 OF 3)

SHEET
10 OF 27

0 120 240

SCALE IN FEET
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

NOTE:

DO NOT DISTURB TREES WITH DIAMETER AT BREAST HIEGHT OF 12 INCHES OR GREATER. ALL OTHER TREES AND SHRUBS SHALL BE SALVAGED FOR REUSE AS LARGE WOOD OR WOODY DEBRIS. SEE SPECIFICATIONS.

PLAN VIEW

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- CONSTRUCTION ACCESS
- STAGING AREA
- CONSTRUCTION ENTRANCE
- PARCEL LINE
- TURBIDITY CURTAIN
- SILT FENCE
- LIMITS OF DISTURBANCE

PROFILE VIEW

5x VERTICAL EXAGGERATION
12'
60'
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

NO.	BY	DATE	REVISION DESCRIPTION

DRAWN	DESIGNED	CHECKED
MYS	SS, MYS, NN	CC
APPROVED	**DATE**	**PROJECT**
-	09/30/22	20-05-16

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CELL 5 GRADING
PLAN & PROFILE

SHEET

NOTE:

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2. CULVERTS INDICATED FOR REMOVAL AND ABANDONED FARM EQUIPMENT WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SPECIFICATIONS.

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- INVASIVE PLANT TREATMENT
- DITCH FILLING & MICROTOPOGRAPHY
- PARCEL LINE
- LIMITS OF DISTURBANCE

Preliminary
Not for Construction

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APPROVED	**DATE**	**PROJECT**
-	09/30/22	20-05-16

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CELL 5 TREATMENT PLAN
(1 OF 2)

CUT-FILL TABLE

	ELEVATION CHANGE		
	MINIMUM ELEVATION CHANGE	MAXIMUM ELEVATION CHANGE	COLOR
CUT	-8	-3	
	-3	-2	
	-2	-1	
	-1	0	
FILL	0	1	
	1	2	
	2	3	
	3	7	

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PARCEL LINE
- LIMITS OF DISTURBANCE

Preliminary
Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

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-	09/30/22	20-05-16
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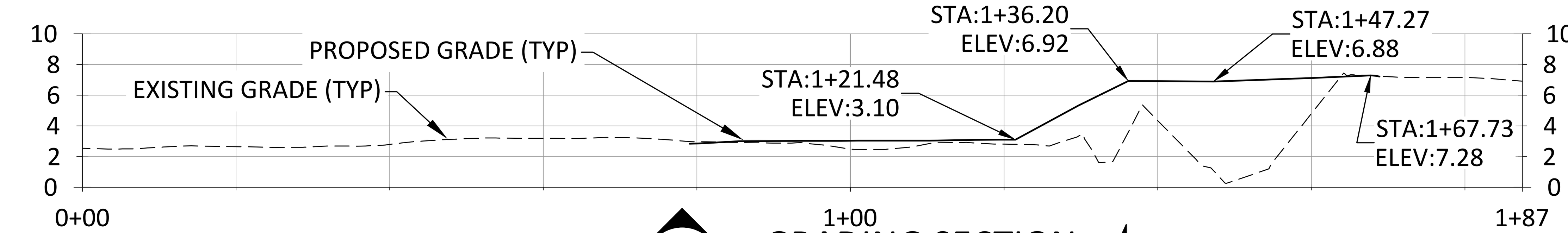
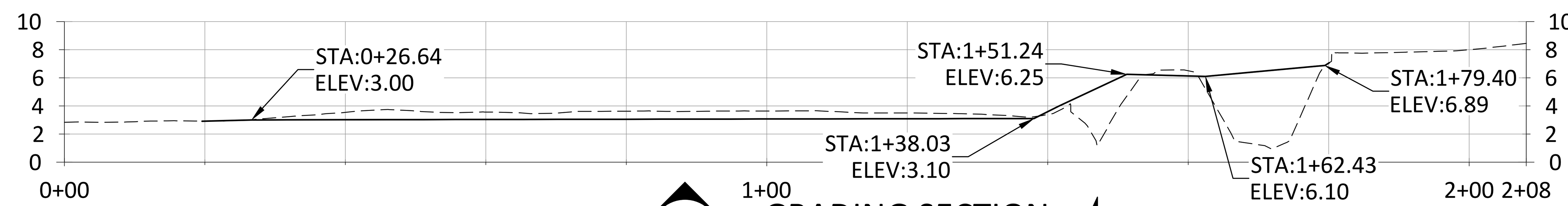
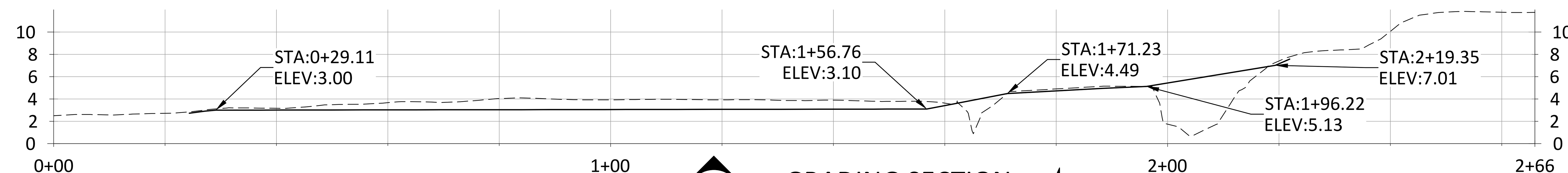
CELL 5 TREATMENT PLAN
(2 OF 2)



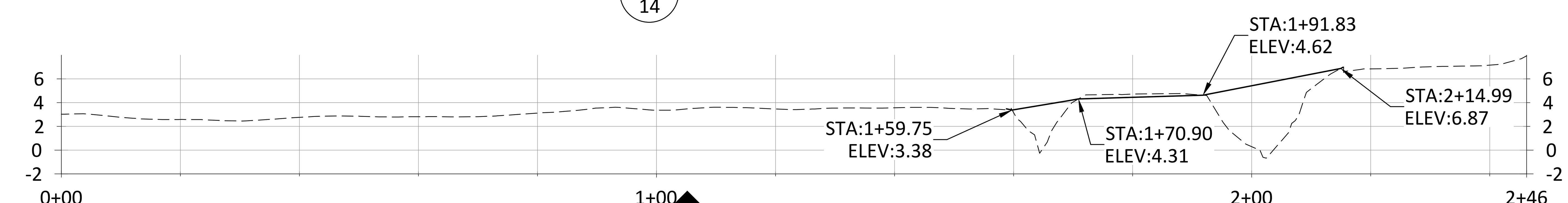
15 / 14 GRADING SECTION



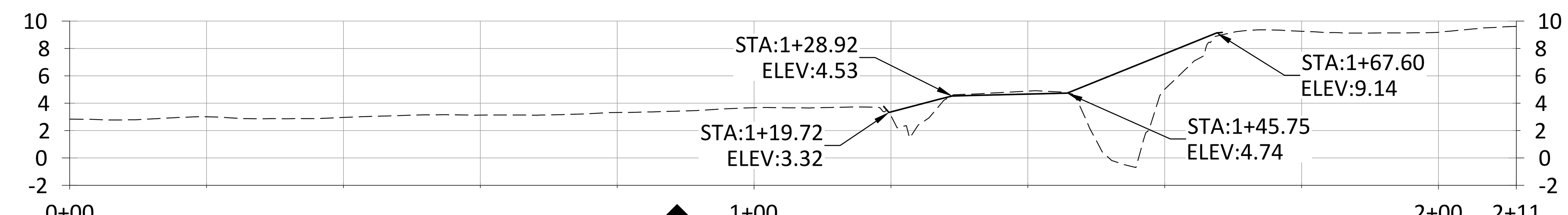
16 / 14 GRADING SECTION



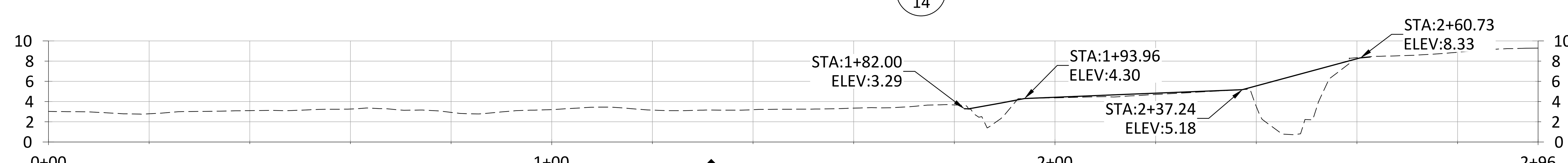
17 / 14 GRADING SECTION



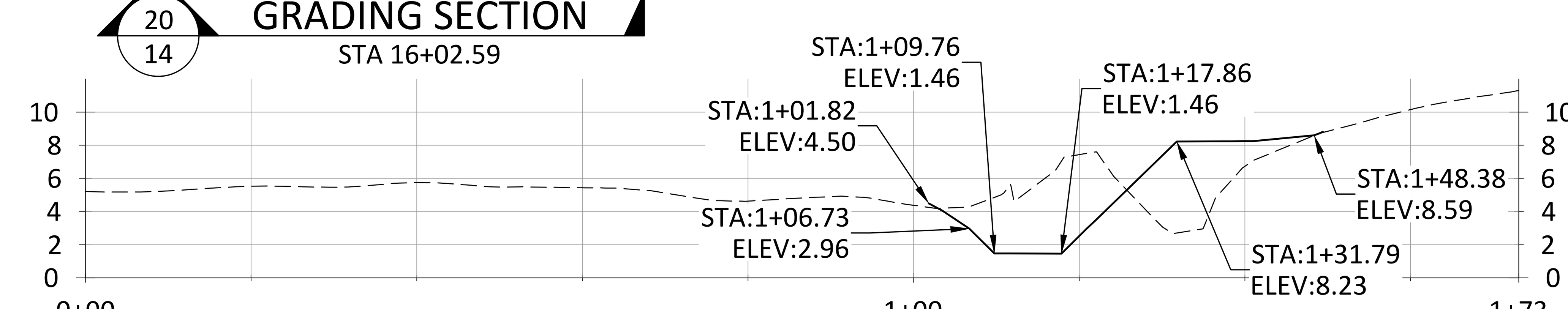
18 / 14 GRADING SECTION



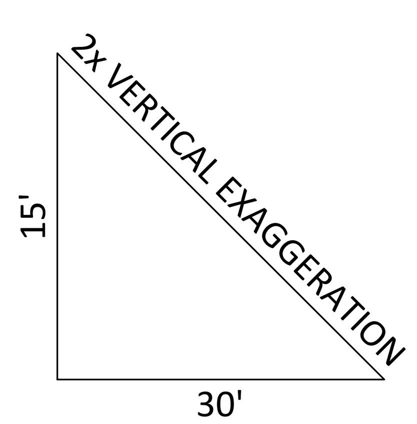
19 / 14 GRADING SECTION



20 / 14 GRADING SECTION
STA 16+02.59



21 / 14 GRADING SECTION
STA 18+08.76



BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

NO.	BY	DATE	REVISION DESCRIPTION

MYS (DRAWN) | SS, MYS, NN (DESIGNED) | CC (CHECKED)
- (APPROVED) | 09/30/22 (DATE) | 20-05-16 (PROJECT)

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YARMOUTH MA
FRIENDS OF THE BASS RIVER

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220 Concord Avenue, 2nd Floor
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617.714.5537
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CELL 5 GRADING SECTIONS

PLAN VIEW

NOTE:

DO NOT DISTURB TREES WITH DIAMETER AT BREAST HIEGHT OF 12 INCHES OR GREATER. ALL OTHER TREES AND SHRUBS SHALL BE SALVAGED FOR REUSE AS LARGE WOOD OR WOODY DEBRIS. SEE SPECIFICATIONS.

0 80 160

SCALE IN FEET
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

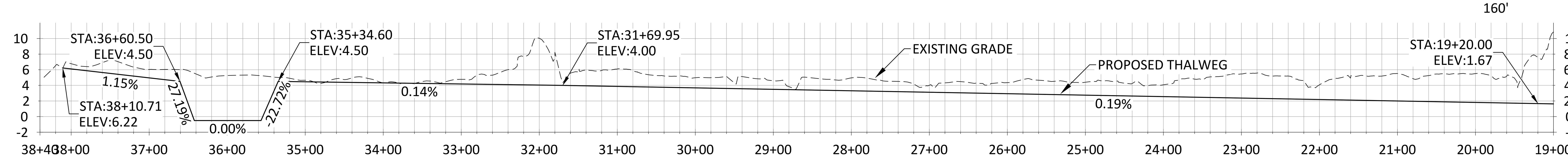
LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- CONSTRUCTION ACCESS
- STAGING AREA
- CONSTRUCTION ENTRANCE
- PARCEL LINE
- LIMITS OF DISTURBANCE

PROFILE VIEW

10x VERTICAL EXAGGERATION
16'
160'

BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT



NO.	BY	DATE	REVISION DESCRIPTION

MYS	SS, MYS, NN	CC
DRAWN	DESIGNED	CHECKED
-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

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CELLS 1-4 GRADING PLAN & PROFILE

NOTE:

1. DO NOT DISTURB TREES WITH DIAMETER AT BREAST HIEGHT OF 12 INCHES OR GREATER. ALL OTHER TREES AND SHRUBS SHALL BE SALVAGED FOR REUSE AS LARGE WOOD OR WOODY DEBRIS. SEE SPECIFICATIONS.
2. CULVERTS INDICATED FOR REMOVAL AND ABANDONED FARM EQUIPMENT WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SPECIFICATIONS.
3. LARGE WOOD IS A FIELD SET ITEM TO BE COMPLETED WITH ONSITE OBSERVATION AND DIRECT INPUT FROM THE ENGINEER ON INSTALLATION DETAILS, CONFIGURATIONS, AND ADJUSTMENTS TO CONFORM THE WORK TO DESIGN INTENT, BASED ON CONDITIONS AT THE TIME OF CONSTRUCTION. LARGE WOOD TO BE INSTALLED ALONG CHANNEL, SEE LARGE WOOD TABLE, TYPICAL DETAILS, AND SPECIFICATIONS

0 80 160

SCALE IN FEET
BAR LENGTHS MEASURE 2-INCHES ON 22 IN. X 34 IN. PRINT

LEGEND

	EXISTING 1 FT. CONTOUR
	EXISTING 5 FT. CONTOUR
	PROPOSED 1 FT. CONTOUR
	PROPOSED 5 FT. CONTOUR
	PROPOSED ALIGNMENT
	MICROTOPOGRAPHY
	PARCEL LINE
	LIMITS OF DISTURBANCE
	RIFFLE BED
	FES LIFT

Preliminary
Not for Construction

NO.	BY	DATE	REVISION DESCRIPTION

MYS	SS, MYS, NN	CC
DRAWN	DESIGNED	CHECKED
-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

BASS RIVER HEADWATERS
YARMOUTH MA
FRIENDS OF THE BASS RIVER

inter-fluve
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Cambridge, MA 02138
617.714.5537
www.interfluve.com

CELLS 1-4
TREATMENT PLAN
(1 OF 2)

SHEET
16 OF 27

ELEVATION CHANGE			
	MINIMUM ELEVATION CHANGE	MAXIMUM ELEVATION CHANGE	COLOR
CUT	-8	-3	
	-3	-2	
	-2	-1	
	-1	0	
FILL	0	1	
	1	2	
	2	3	
	3	7	

LEGEND

- EXISTING 1 FT. CONTOUR
- EXISTING 5 FT. CONTOUR
- PROPOSED 1 FT. CONTOUR
- PROPOSED 5 FT. CONTOUR
- PROPOSED ALIGNMENT
- PARCEL LINE
- LIMITS OF DISTURBANCE

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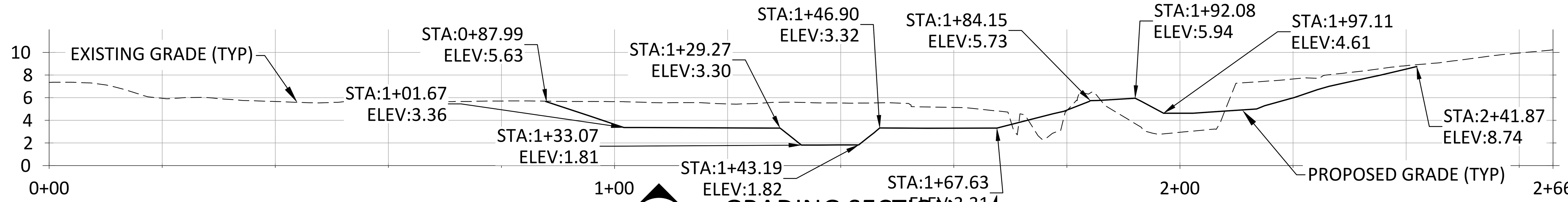
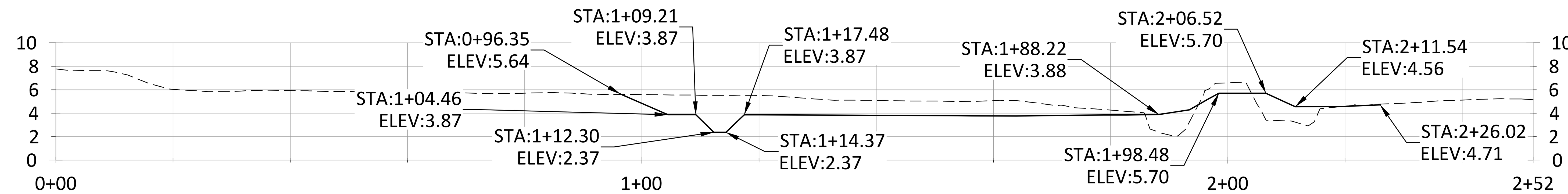
CELLS 1-4
TREATMENT PLAN
(2 OF 2)



22
18
GRADING SECTION
STA 19+95.92



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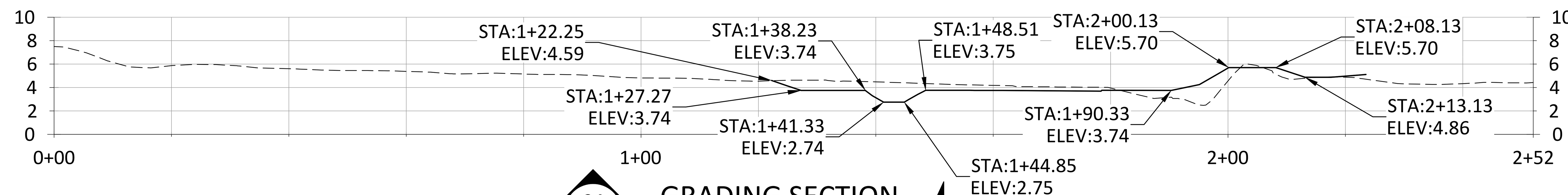
GRADING SECTION
STA 22+95.57



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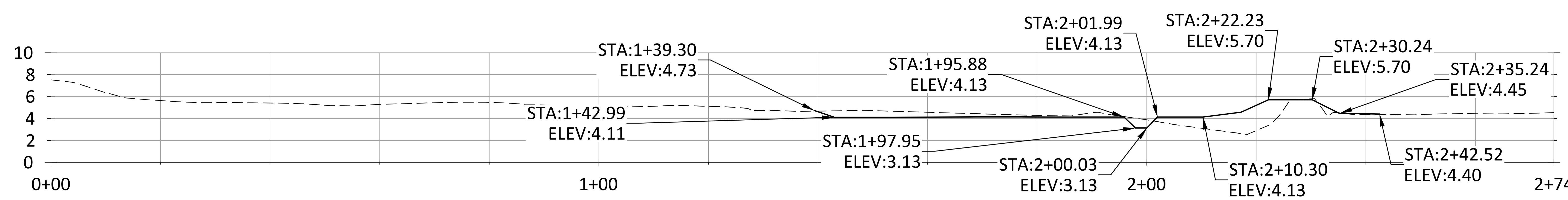
GRADING SECTION
STA 24+97.71



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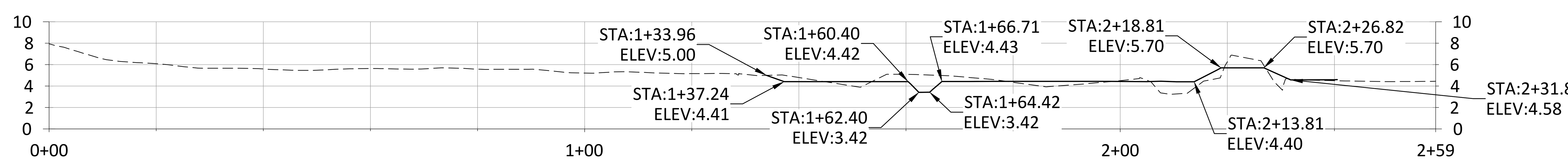
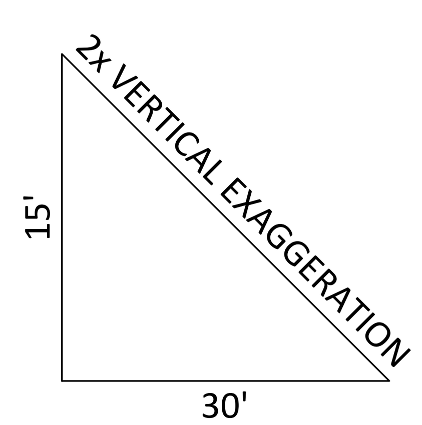
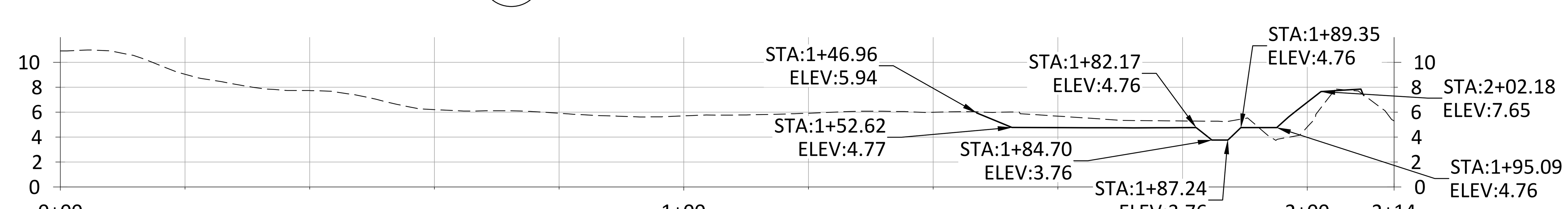
18
GRADING SECTION
STA 27+03.93



26
18
GRADING SECTION
STA 28+61.77



BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT



27
18
GRADING SECTION
STA 30+43.75

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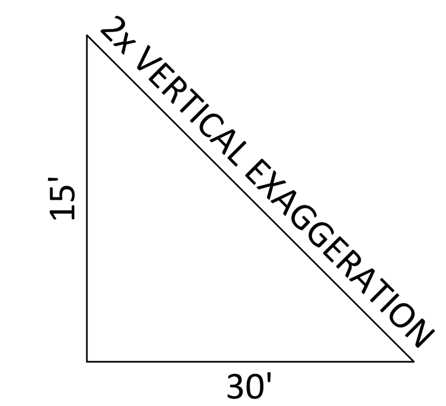
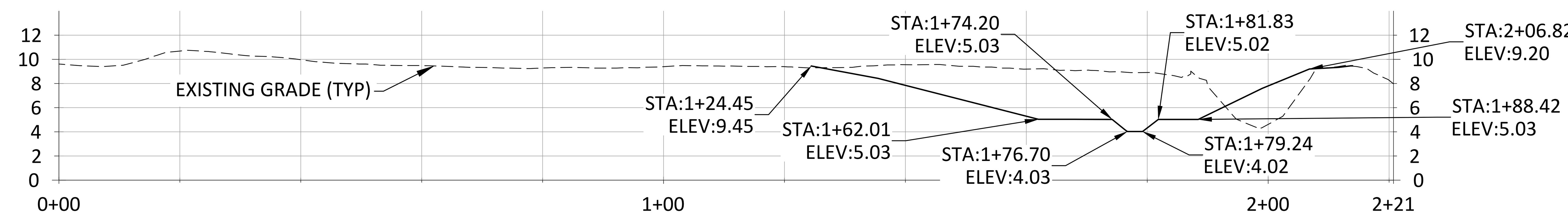
CELLS 1-4
GRADING SECTIONS
(1 OF 2)

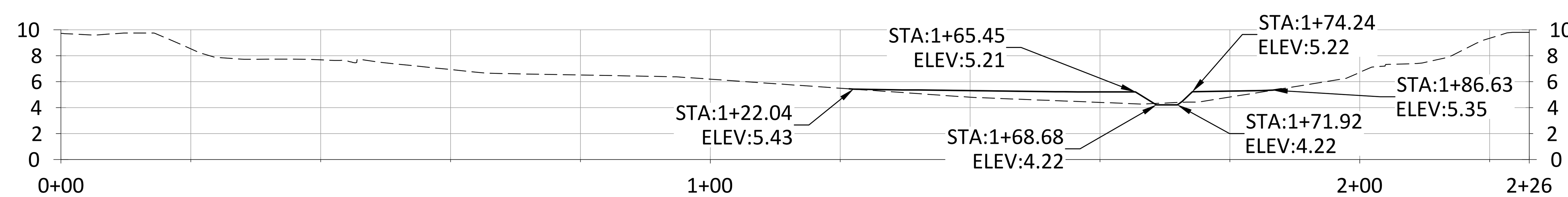
SHEET
18 OF 27



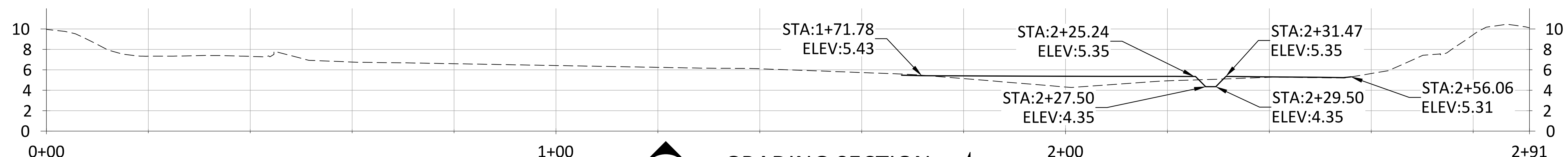
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT



28
19
GRADING SECTION
STA 31+89.94



29
19
GRADING SECTION
STA 33+30.09



30
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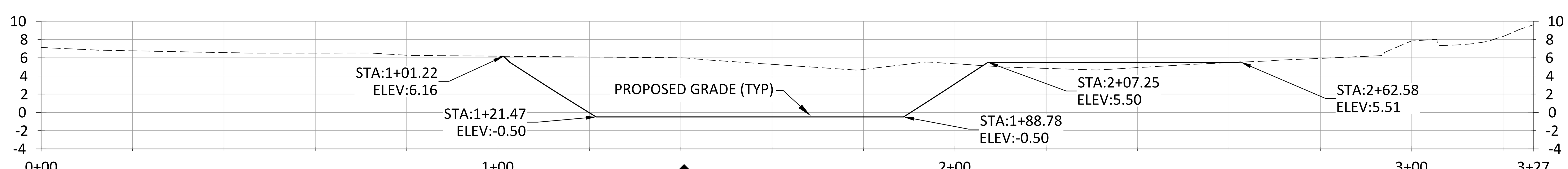
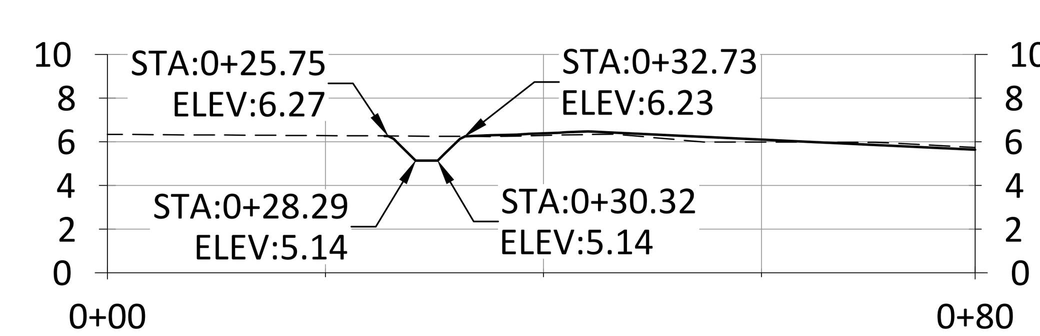
GRADING SECTION
STA 34+27.19



31
19
GRADING SECTION
STA 35+91.04



32
19
GRADING SECTION
STA 37+15.98

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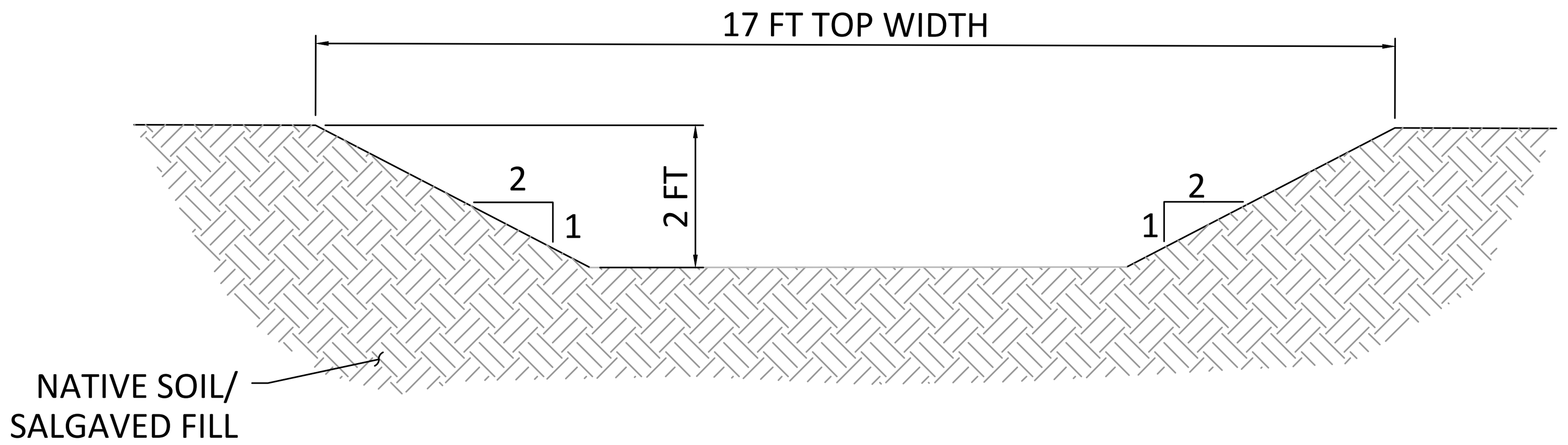
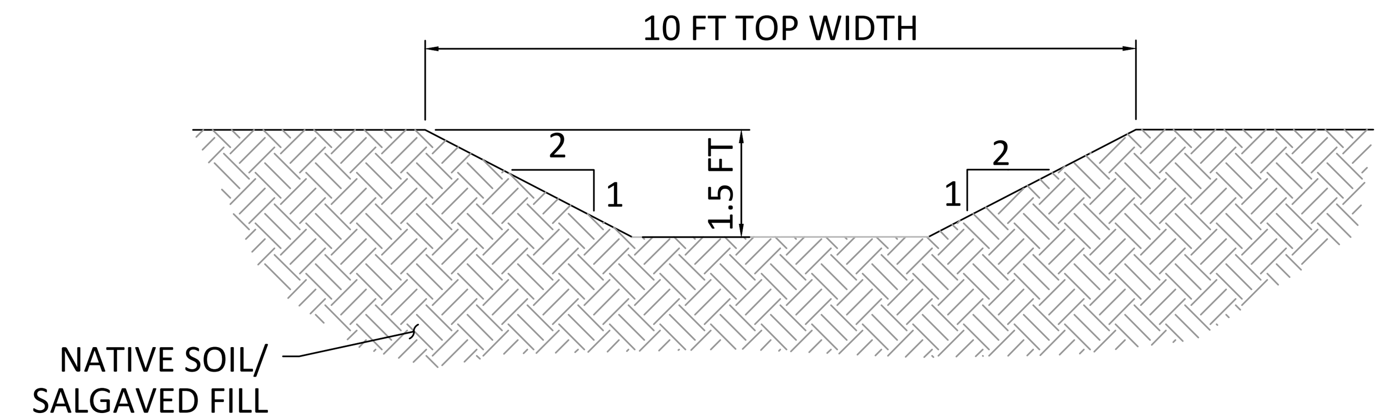
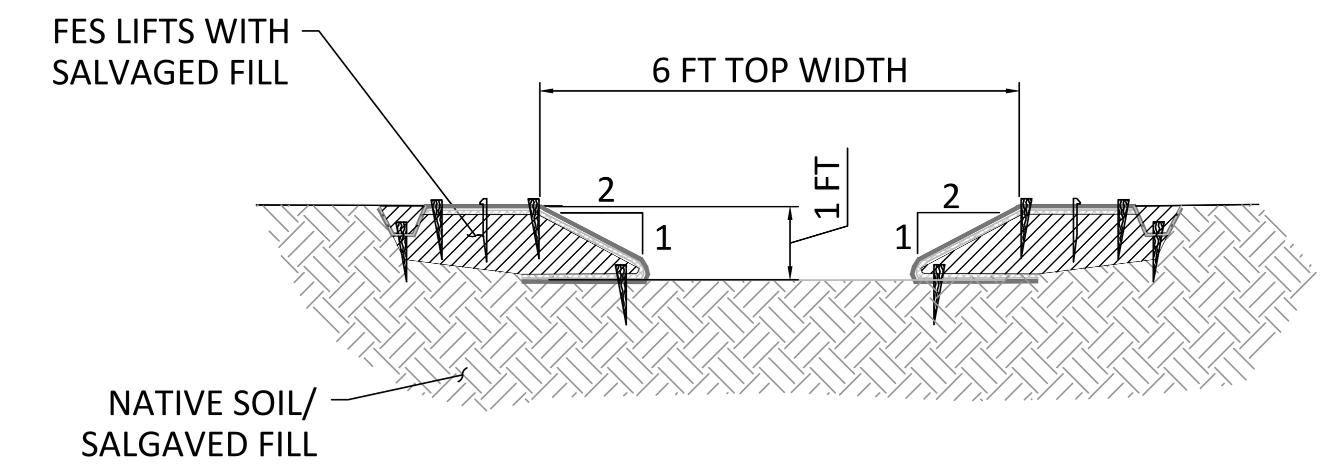
CELLS 1-4
GRADING SECTIONS
(2 OF 2)



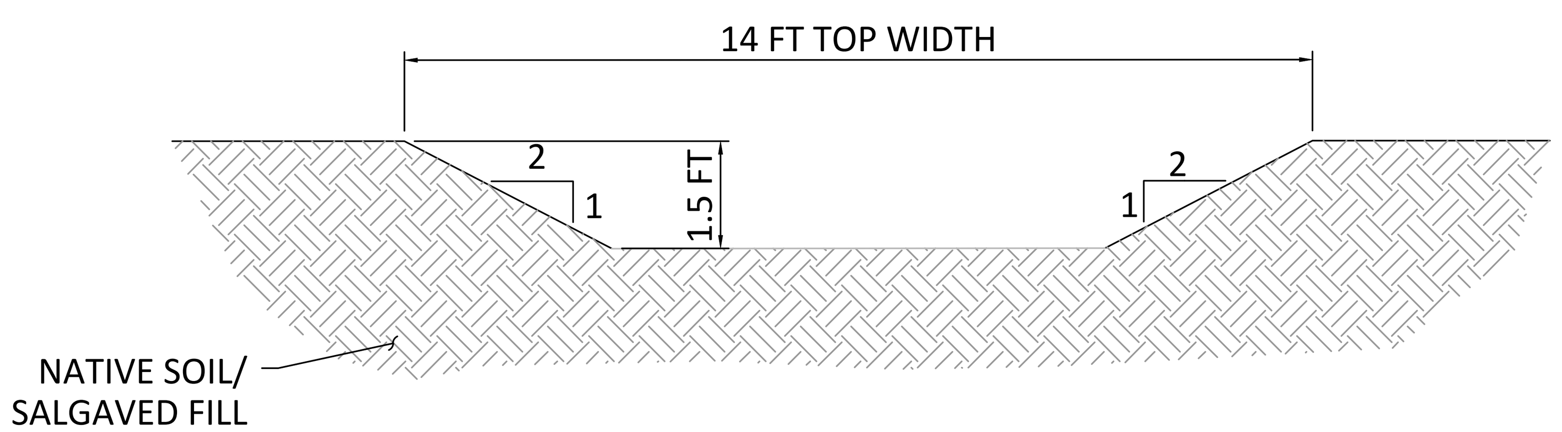
1/20 TYPICAL CHANNEL SECTION
STA 5+57.32 TO STA 9+83.89
NOT TO SCALE



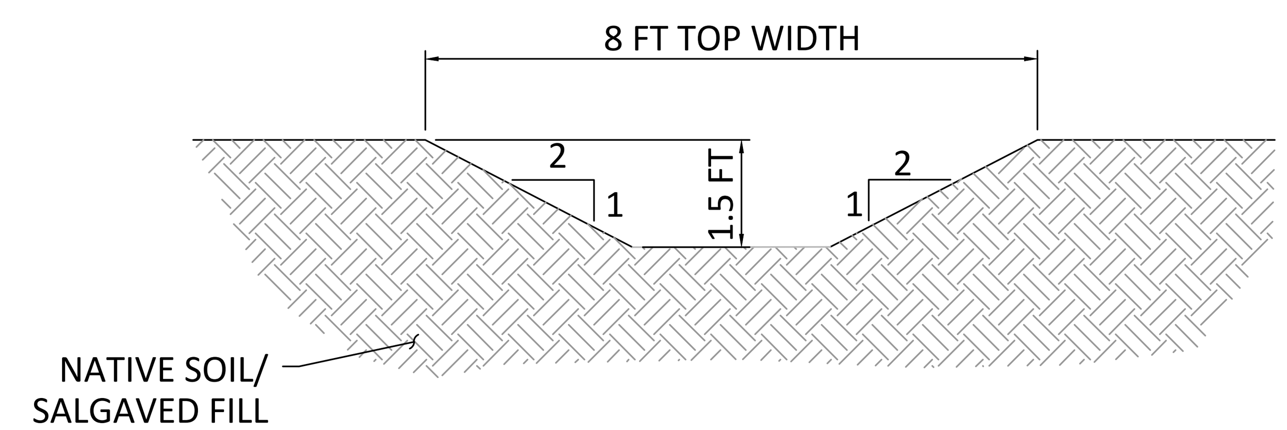
4/20 TYPICAL CHANNEL SECTION
STA 21+50.00 TO STA 22+00.00
NOT TO SCALE



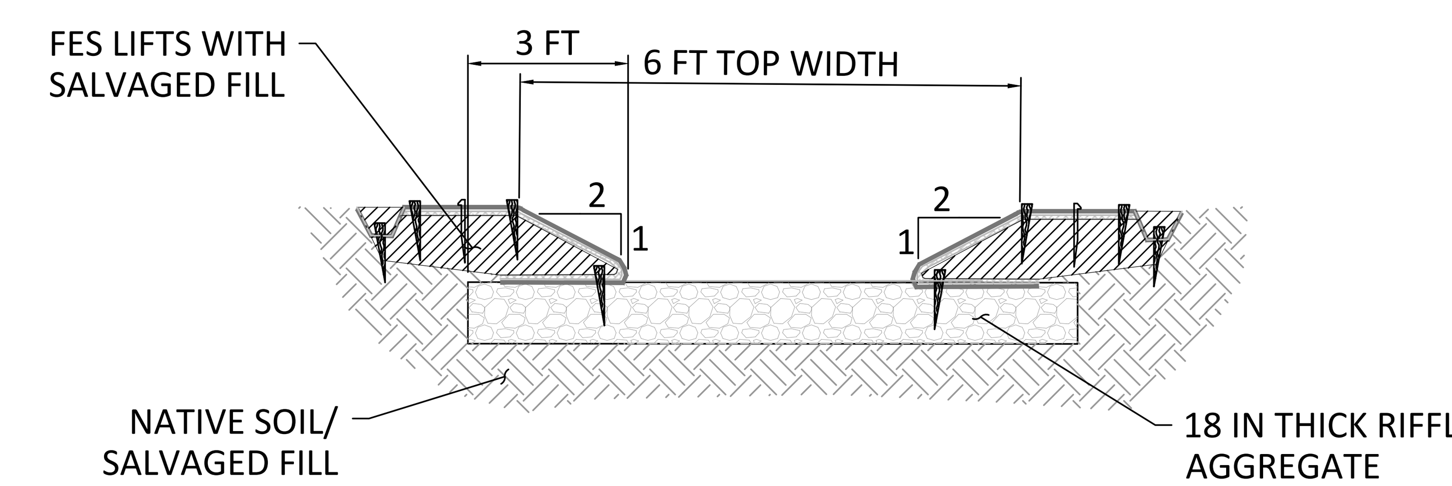
7/20 TYPICAL CHANNEL SECTION - FES LIFT TREATMENT
STA 32+43.06 TO STA 35+34.60
NOT TO SCALE



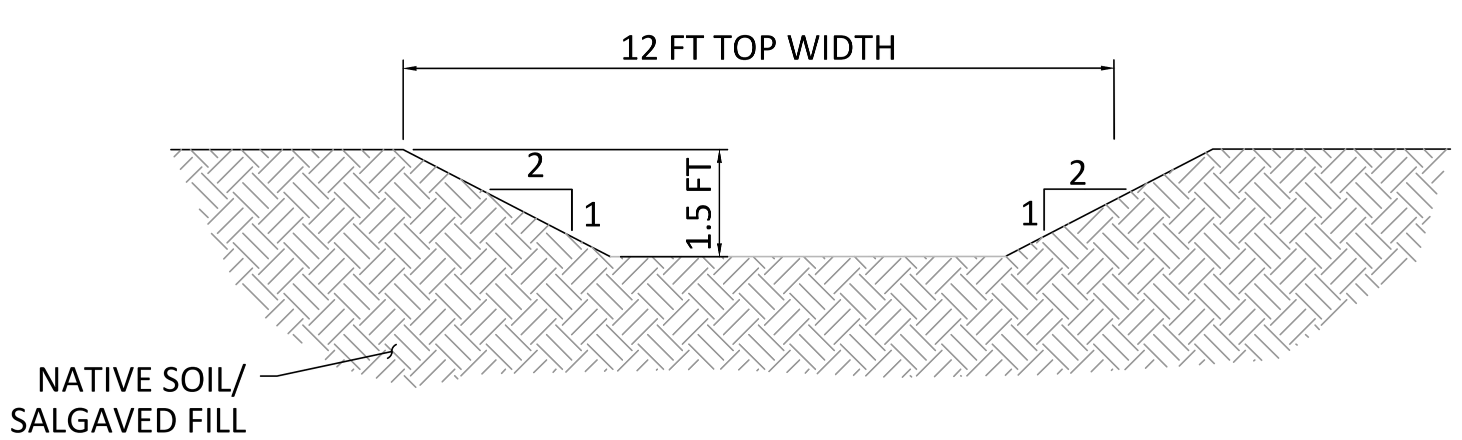
2/20 TYPICAL CHANNEL SECTION
STA 17+55.35 TO STA 18+72.56, STA 19+04.30 TO STA 20+00.00
NOT TO SCALE



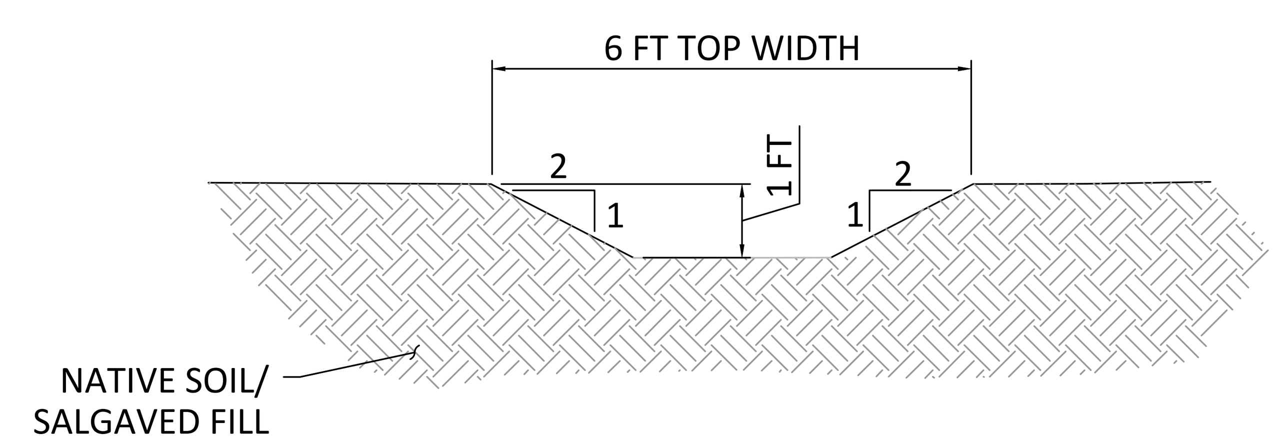
5/20 TYPICAL CHANNEL SECTION
STA 22+50.00 TO STA 23+50.00
NOT TO SCALE



8/20 TYPICAL CHANNEL SECTION - RIFFLE WITH FES LIFT TREATMENT
STA 36+60.50 TO STA 38+10.65
NOT TO SCALE



3/20 TYPICAL CHANNEL SECTION
STA 20+50.00 TO STA 21+00.00
NOT TO SCALE



6/20 TYIPICAL CHANNEL SECTION
STA 24+00.00 TO STA 32+43.06
NOT TO SCALE

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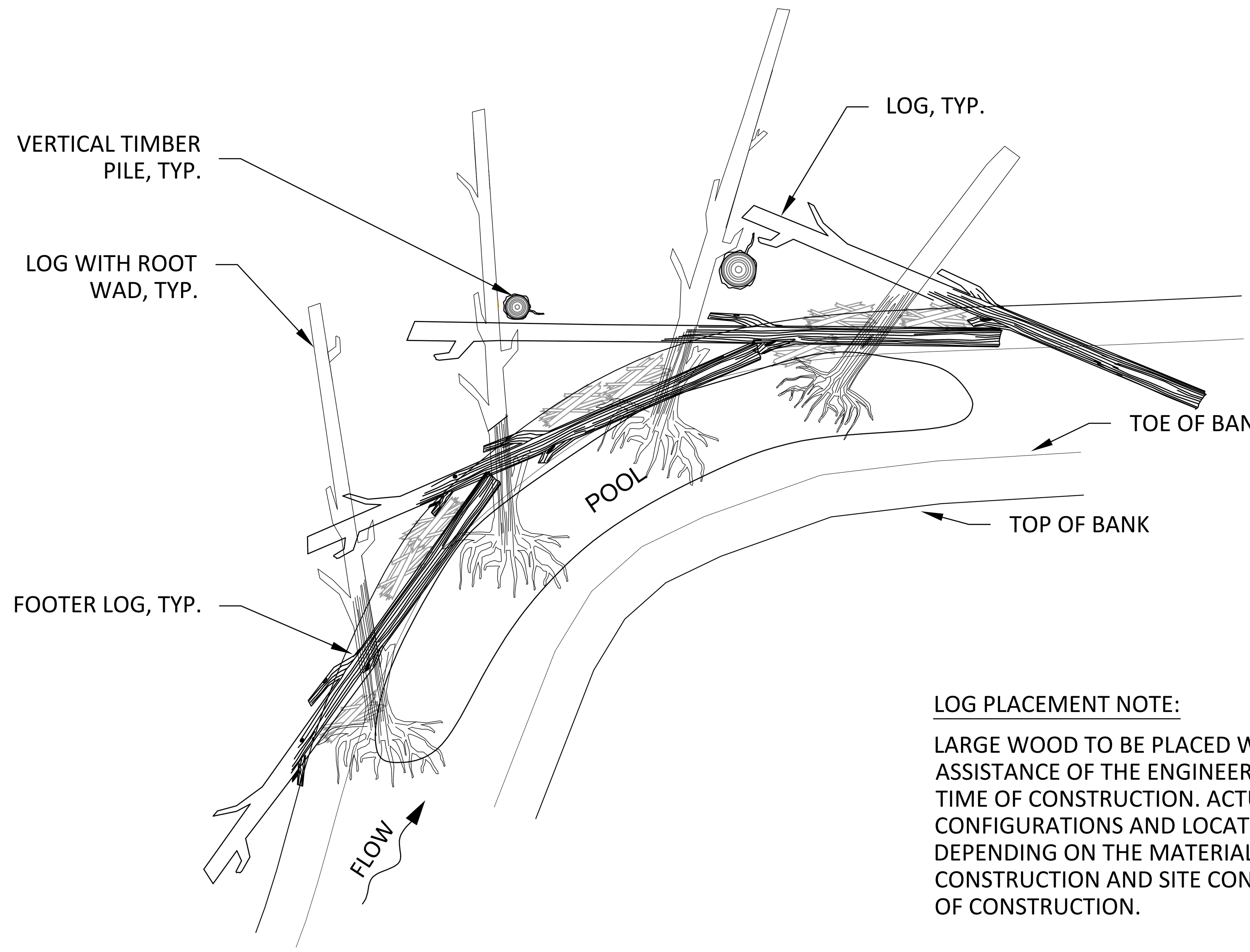
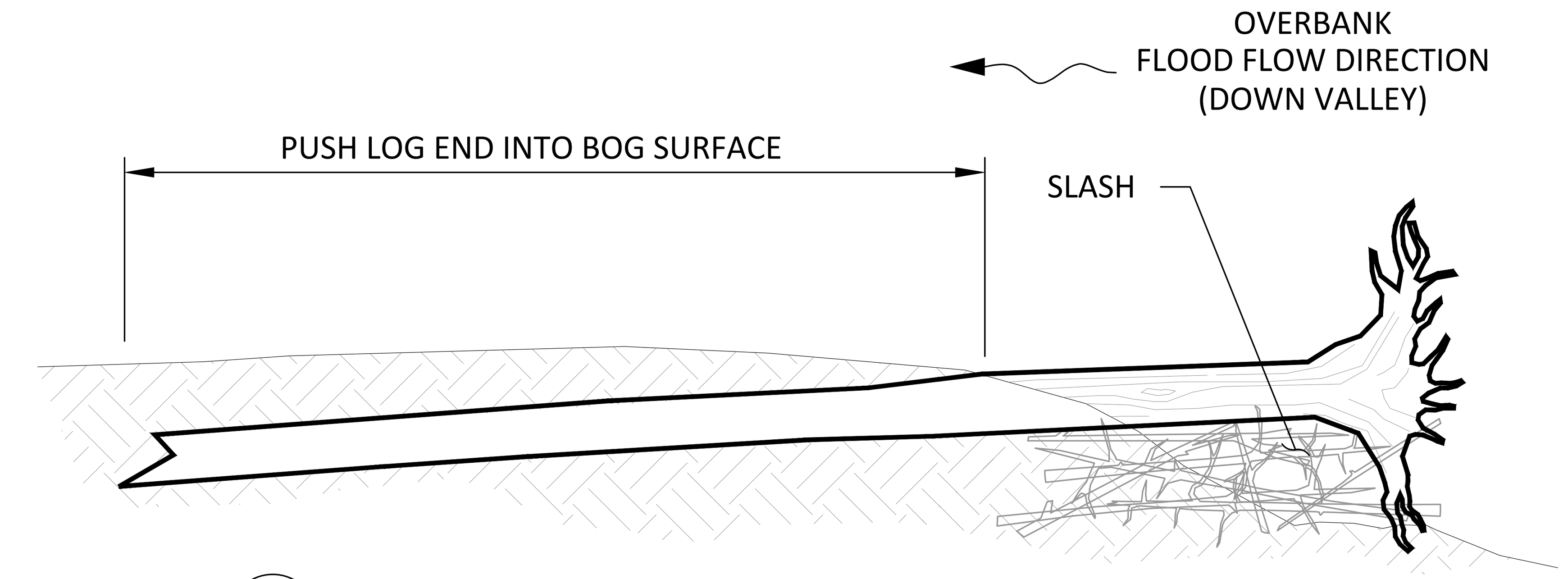
CHANNEL DETAILS



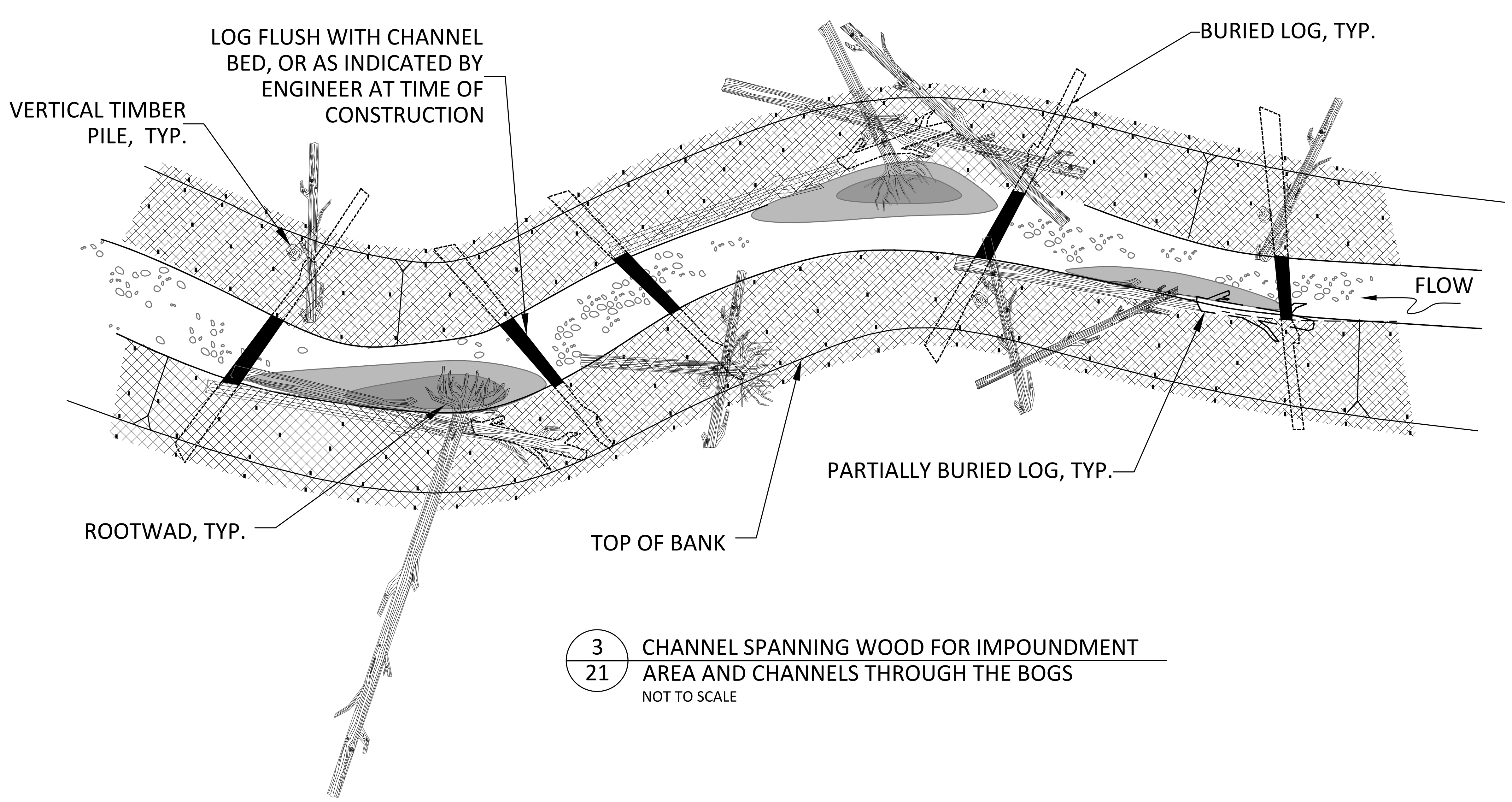
LOG PLACEMENT NOTE:

LARGE WOOD TO BE PLACED WITH THE ASSISTANCE OF THE ENGINEER AT THE TIME OF CONSTRUCTION. ACTUAL CONFIGURATIONS AND LOCATIONS MAY VARY DEPENDING ON THE MATERIALS AVAILABLE FOR CONSTRUCTION AND SITE CONDITIONS AT TIME OF CONSTRUCTION.

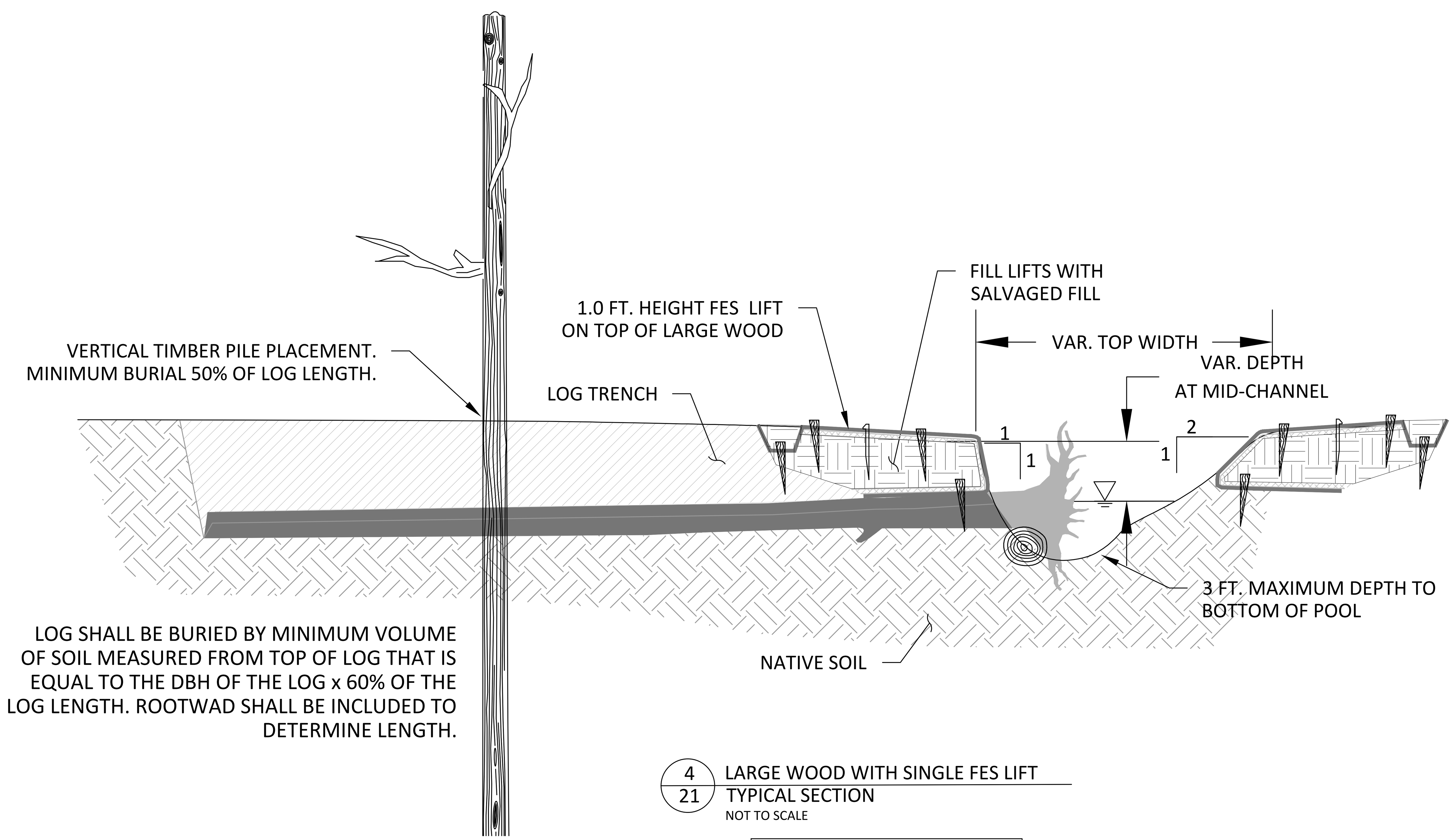
1/21 TYPICAL WOOD PLACEMENT
NOT TO SCALE



2/21 TYPICAL WOOD PLACEMENT
BOG SURFACE AND EDGES OF OPEN WATER
NOT TO SCALE



3/21 CHANNEL SPANNING WOOD FOR IMPOUNDMENT
AREA AND CHANNELS THROUGH THE BOGS
NOT TO SCALE



LOG SHALL BE BURIED BY MINIMUM VOLUME OF SOIL MEASURED FROM TOP OF LOG THAT IS EQUAL TO THE DBH OF THE LOG x 60% OF THE LOG LENGTH. ROOTWAD SHALL BE INCLUDED TO DETERMINE LENGTH.

4/21 LARGE WOOD WITH SINGLE FES LIFT
TYPICAL SECTION
NOT TO SCALE

SEE: FABRIC ENCAPSULATED SOIL (FES) LIFT INSTALLATION DETAILS, SHEETS 22-23.

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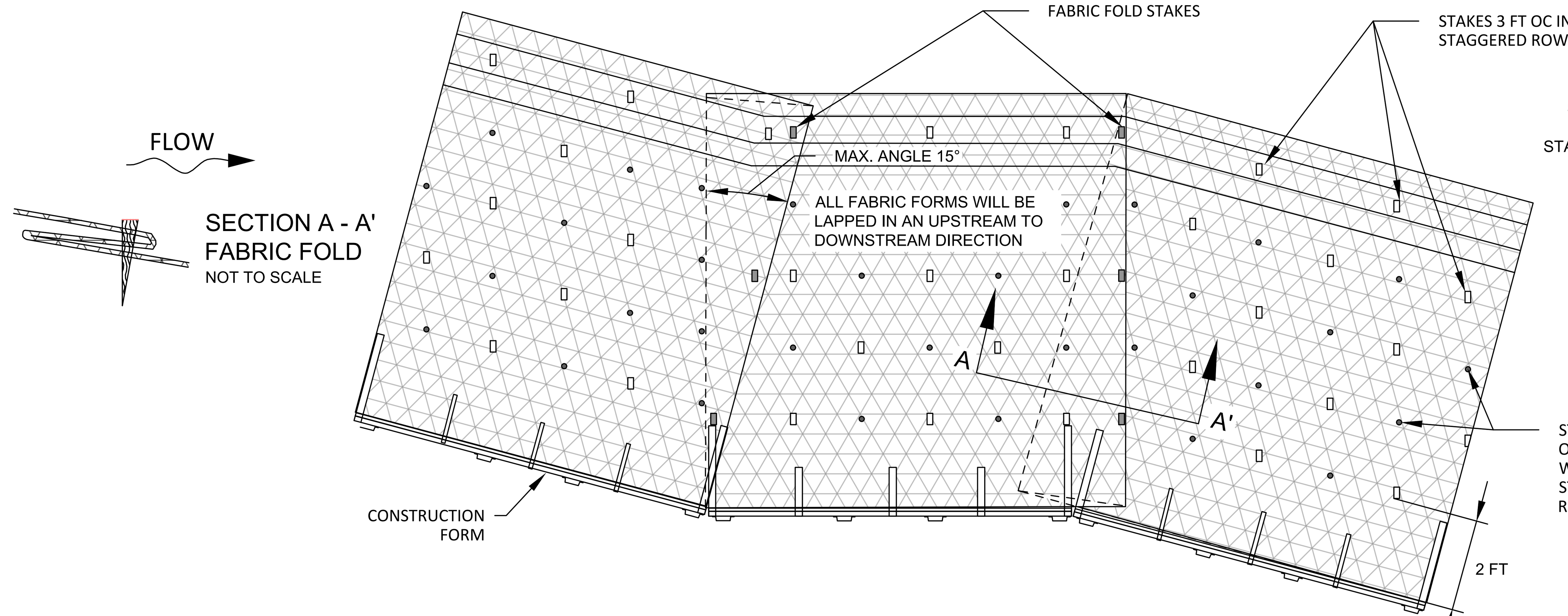
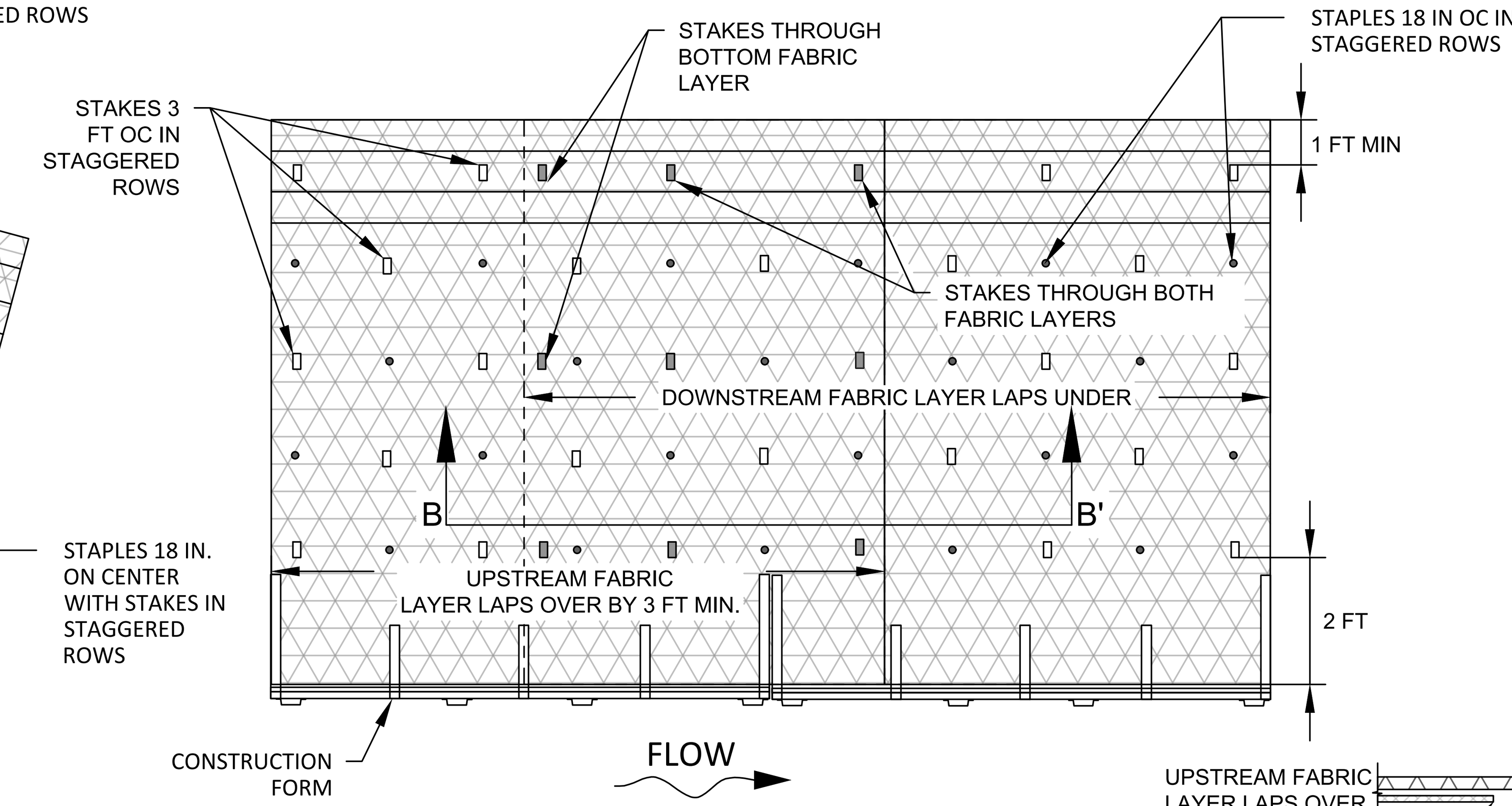
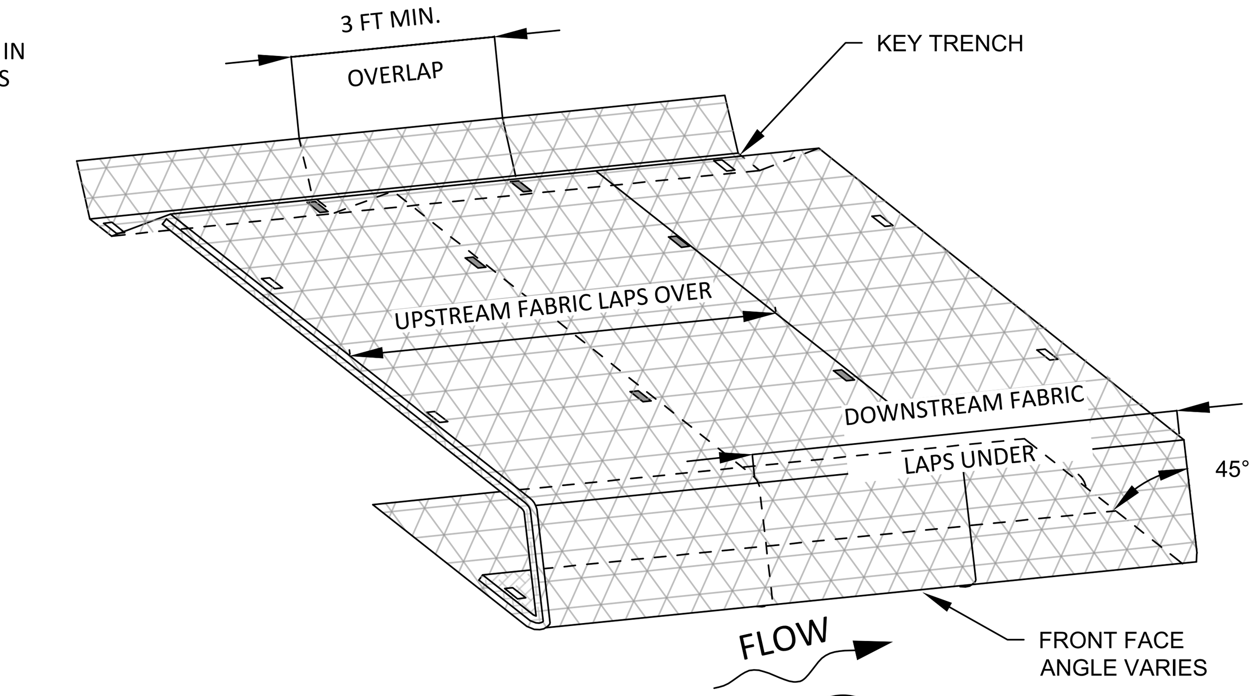
LARGE WOOD DETAILS



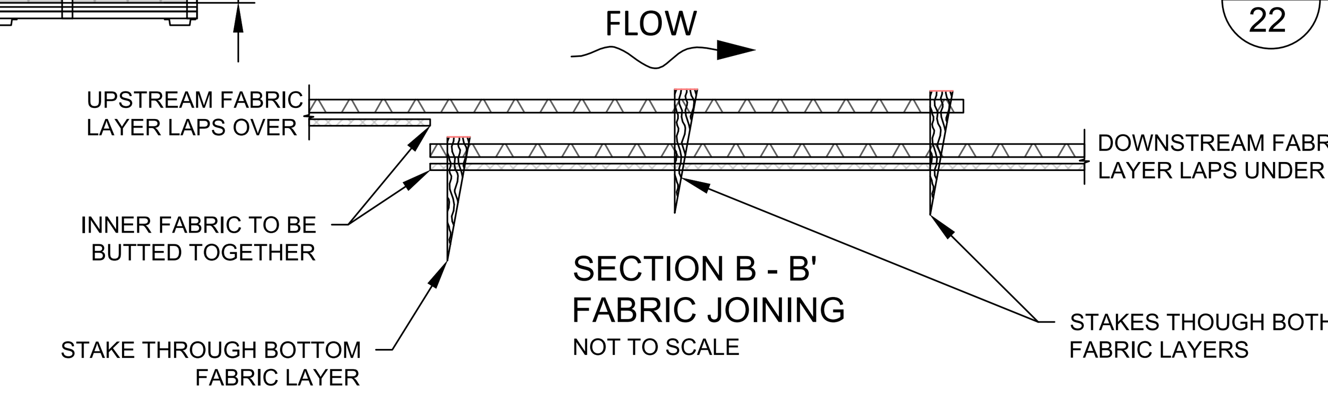
1 / 22 TYPICAL DETAIL
FOLDING OF OUTER FABRIC
NOT TO SCALE



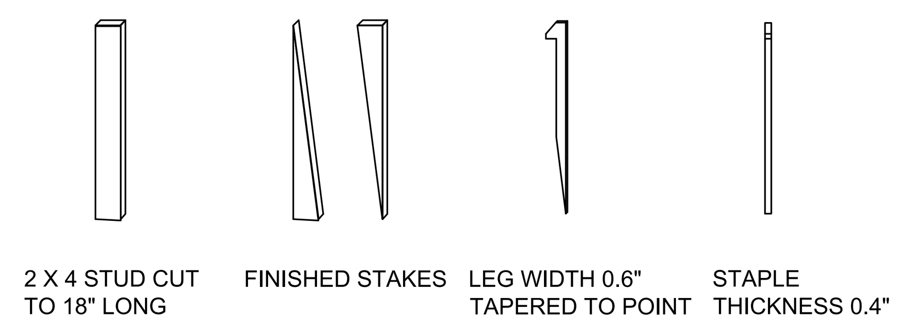
2 / 22 TYPICAL DETAIL
FABRIC JOINING
NOT TO SCALE



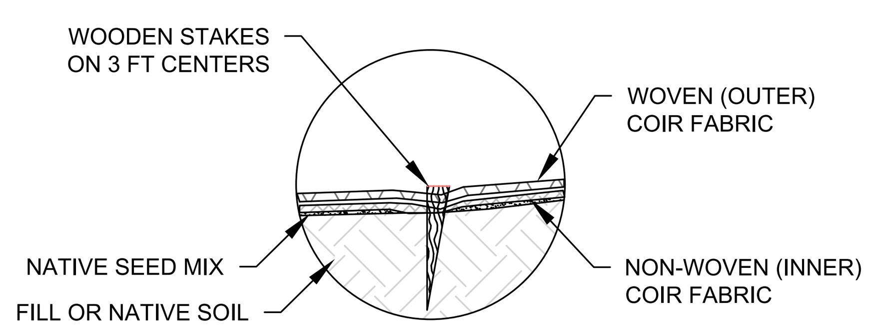
3 / 22 ISOMETRIC DETAIL
FABRIC JOINING
NOT TO SCALE



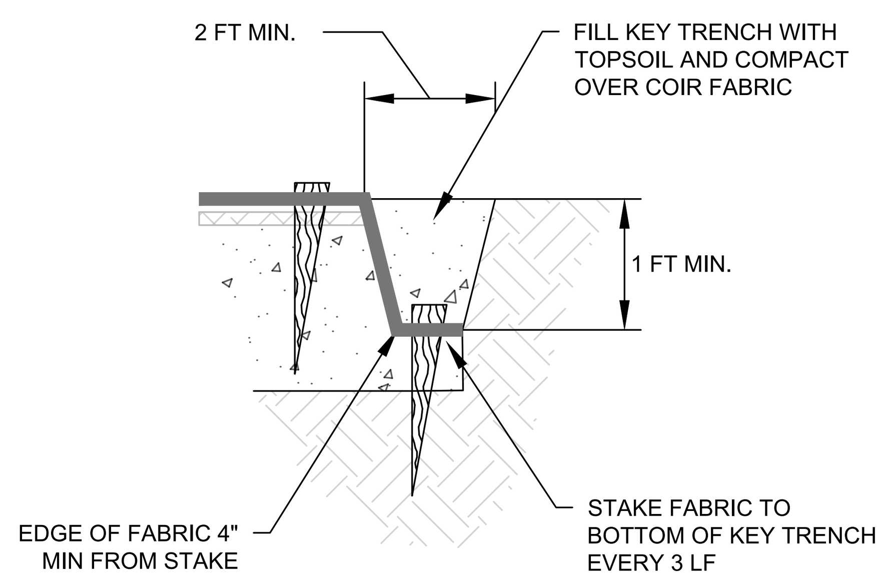
SECTION B - B'
FABRIC JOINING
NOT TO SCALE



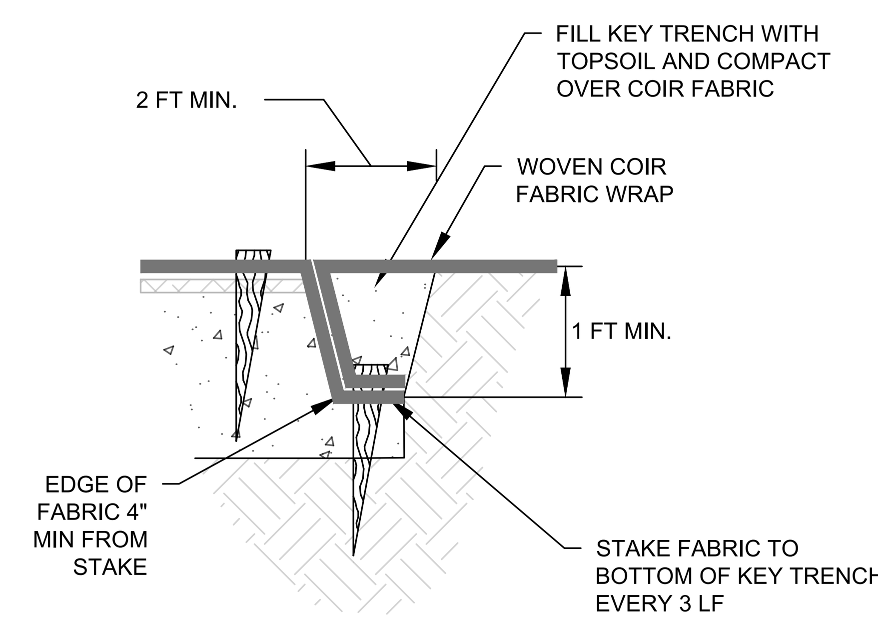
4 / 22 WOODEN STAKE AND STAPLES
FABRICATING DETAIL
NOT TO SCALE



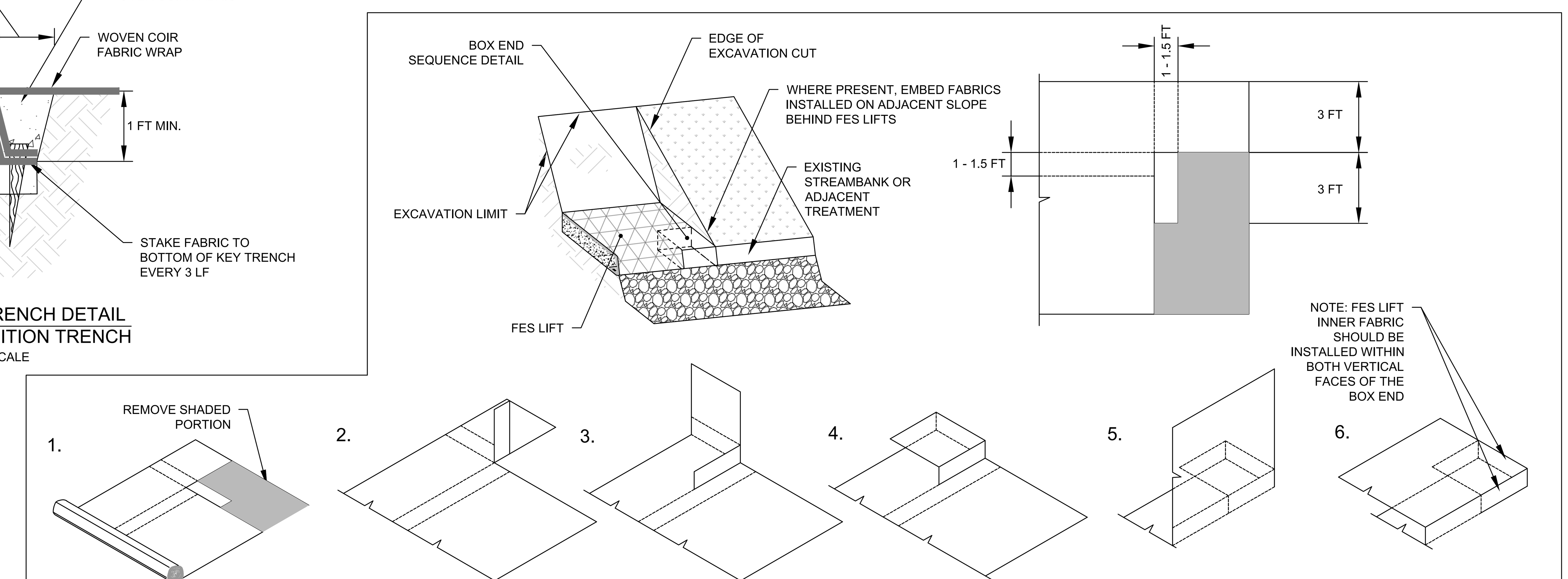
5 / 22 TOE DETAIL
BIODEGRADABLE FABRICS AND STAKES
NOT TO SCALE



6 / 22 KEY TRENCH DETAIL
TERMINATION TRENCH
NOT TO SCALE



7 / 22 KEY TRENCH DETAIL
TRANSITION TRENCH
NOT TO SCALE



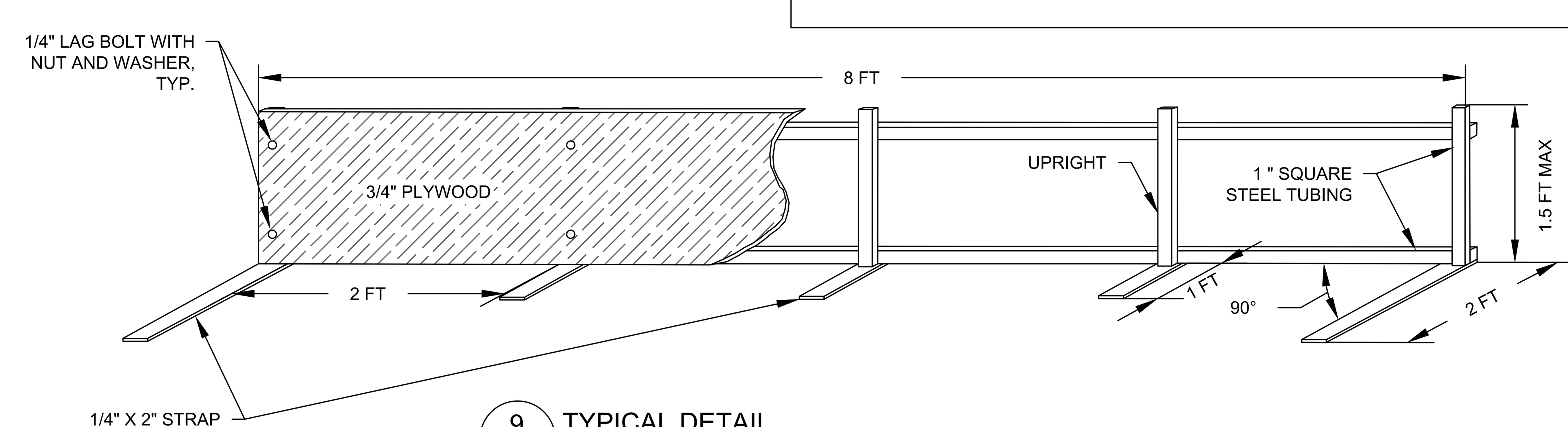
8 / 22 SUGGESTED CONSTRUCTION SEQUENCE
FES LIFT - BOX ENDS
NOT TO SCALE

GENERAL NOTES ON SECURING COIR FABRIC

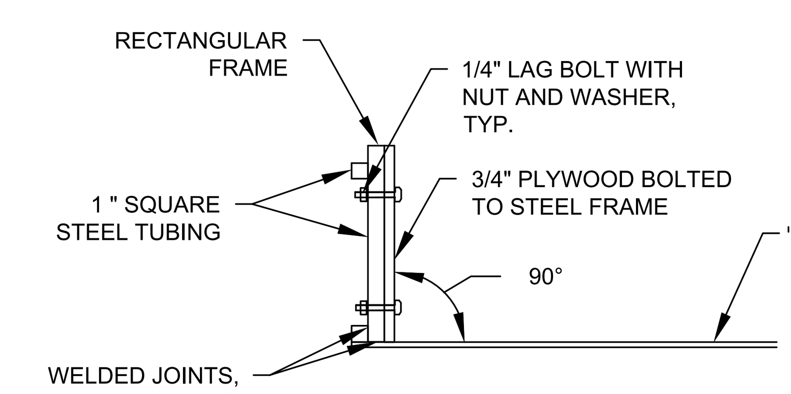
1. SECURE THE OUTER FABRIC (WOVEN, WHERE APPLICABLE), WITH A WOODEN STAKE THROUGH THE FABRIC ON 3 FT CENTERS (SEE DETAIL VIEWS 1 - 3) NOTE: THE HOLES FOR STAKES SHALL NOT BE PRECUT. ALLOW THE STAKE TO BREAK THE MINIMUM NUMBER OF STRANDS AS IT IS BEING DRIVEN IN. DRIVE STAKES SO THAT 2" TO 3" OF THE TOP OF THE STAKE IS LEFT EXPOSED.

2. OUTER FABRIC ENDS SHALL BE JOINED BY LAPPING THE UPSTREAM PIECE OF FABRIC OVER THE DOWNSTREAM PIECE AS SHOWN IN DETAILS 1-3. OVERLAPS SHALL BE A MINIMUM OF 3 FT, INNER FABRIC ENDS SHALL BE BUTTED TOGETHER, NOT OVERLAPPED. OVERLAPS SHALL BE STAGGERED FROM LIFT TO LIFT BY A MINIMUM OF 15 FT.

3. STAKING SPACING IS DEFINED IN SPECIFICATIONS FOR FES LIFT AND SURFACE FABRIC.



9 / 22 TYPICAL DETAIL
STREAM BANK CONSTRUCTION FORM - FES LIFT
NOT TO SCALE



10 / 22 TYPICAL DETAIL
STREAM BANK CONSTRUCTION FORM - FES LIFT
NOT TO SCALE

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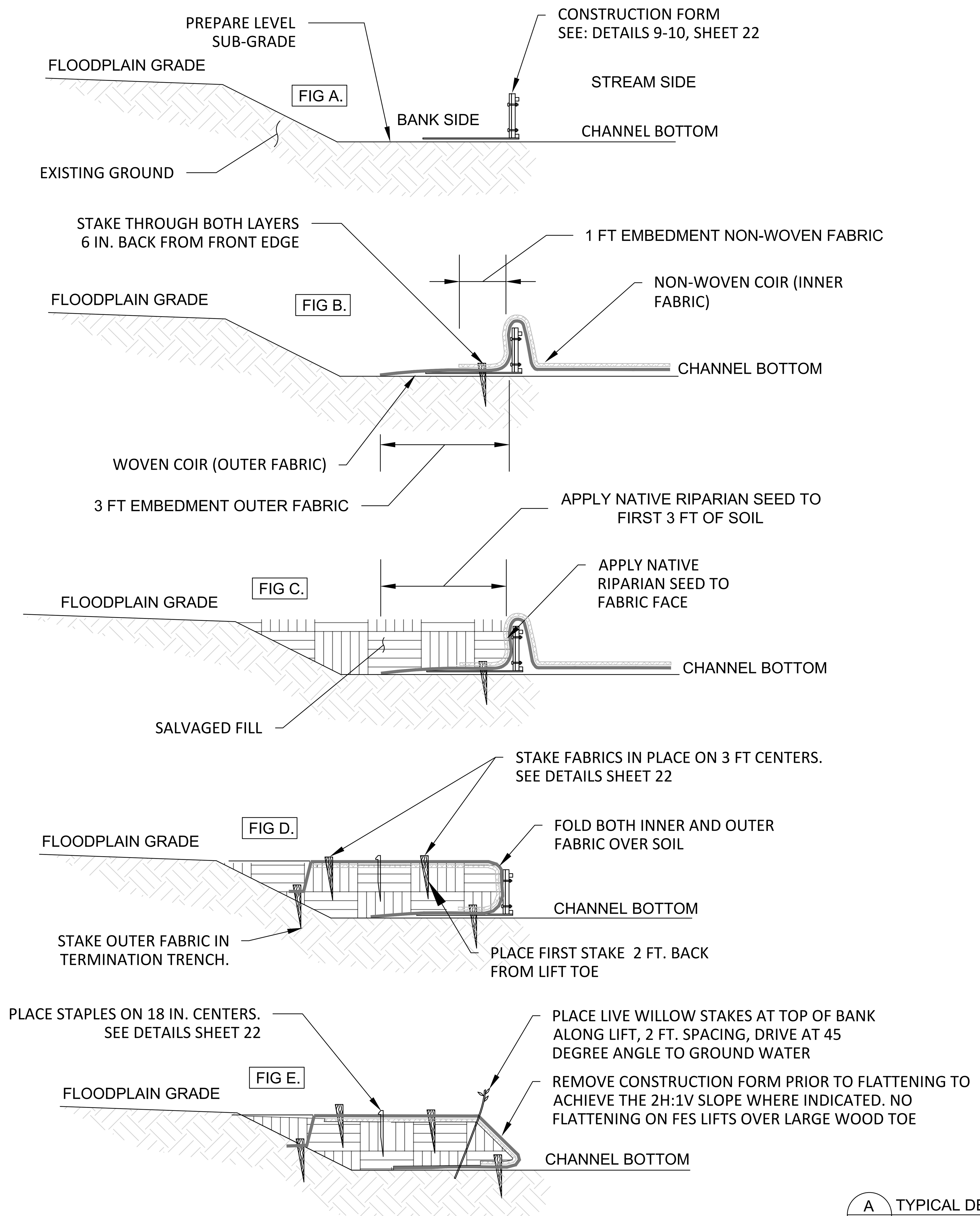
FES LIFT DETAILS (1 OF 2)



GENERAL INSTRUCTIONS FOR FABRIC ENCAPSULATED LIFTS

1. BANKS MAY BE CONSTRUCTED IN EITHER AN UPSTREAM OR DOWNSTREAM DIRECTION, AS LONG AS THE FABRIC IS OVERLAPPED IN THE PROPER DIRECTION.
2. PLACE A SERIES OF THREE OR MORE FORMS ON THE GROUND SO THAT THE FORMS FOLLOW THE PROPOSED STREAM BANK ALIGNMENT. BUTT THE ENDS OF THE FORMS TIGHTLY TOGETHER.
3. UNROLL THE OUTER FABRIC PARALLEL TO THE LONG AXIS OF THE CHANNEL AND POSITION IT SO THAT 3 FEET EXTENDS FOR EMBEDMENT ON THE BANK SIDE OF THE FORMS (FIG B), AND A MINIMUM 3 FEET EXTENDS LENGTHWISE BEYOND THE LAST FORM FOR OVERLAP. DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE (FIG B).
4. UNROLL THE INNER FABRIC OVER THE TOP OF THE WOVEN COIR FABRIC (FIG B) AND POSITION IT SO THAT AT LEAST 1 FOOT OF THE INNER FABRIC EXTENDS AS AN EMBEDMENT LENGTH ON THE BANK SIDE OF THE FORMS (FIG B). DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE AND ALIGN THE LONG EDGES OF THE FABRICS. STRETCH AND PULL THE FABRIC LAYERS TO REMOVE WRINKLES.
5. APPLY NATIVE RIPARIAN SEED MIX TO INNER FABRIC ALONG VERTICAL EDGE OF LIFT (FIG C). PLACE SPECIFIED FILL OVER THE FABRIC ON THE BANK SIDE OF THE FORMS. LEVEL THE FILL AND COMPACT TO 85-90 PERCENT RELATIVE COMPACTION (FIG C).
6. APPLY NATIVE RIPARIAN SEED MIX TO TOP OF FILL FROM THE FRONT OF THE LIFT TO 3 FT BACK FROM FRONT OF THE LIFT (FIG C).
7. FOLD THE LOOSE ENDS OF THE TWO COIR FABRIC LAYERS BACK OVER THE COMPACTED FILL MATERIAL AND STRETCH TIGHTLY TO REMOVE WRINKLES (FIG D). SECURE WITH WOODEN STAKES 1 PER 3 LF ALONG THE BACK EDGE AND INTO UNDISTURBED SOIL.
8. WHERE THE TOP OF THE LIFT MEETS THE GROUND SURFACE, EXCAVATE A KEY TRENCH 1.5 FEET WIDE AND 1 FOOT DEEP ALONG THE EDGE OF THE OUTER FABRIC LAYER, PARALLEL TO THE FORMS. SEED ENTIRE AREA OF TOP LIFT. SECURE FABRIC IN THE KEY TRENCH WITH WOODEN STAKES, 3 FT O.C. (FIG D)
9. BACKFILL THE KEY TRENCH WITH TOPSOIL AND CONTINUE TO APPLY SALVAGED FILL TO SMOOTHLY MERGE WITH EXISTING CONTOURS. APPLY NATIVE RIPARIAN SEED MIX TO KEY TRENCH AREA. (FIG D)
10. SUPPLEMENT LIFT STAKING WITH ADDITIONAL WOODEN STAPLES ON 18" CENTERS EXCEPT WHERE WOODEN STAKES HAVE ALREADY BEEN PLACED. REMOVE THE FORMS FROM THE FRONT OF THE COMPLETED LIFT AND FLATTEN FACE (FIG E).
11. DRIVE WILLOW STAKES AS SHOWN OR AS RECOMMENDED BY ENGINEER IN FIELD.

Preliminary
Not for Construction

A / 23 TYPICAL DETAIL
FES LIFT CONSTRUCTION SEQUENCE
NOT TO SCALE

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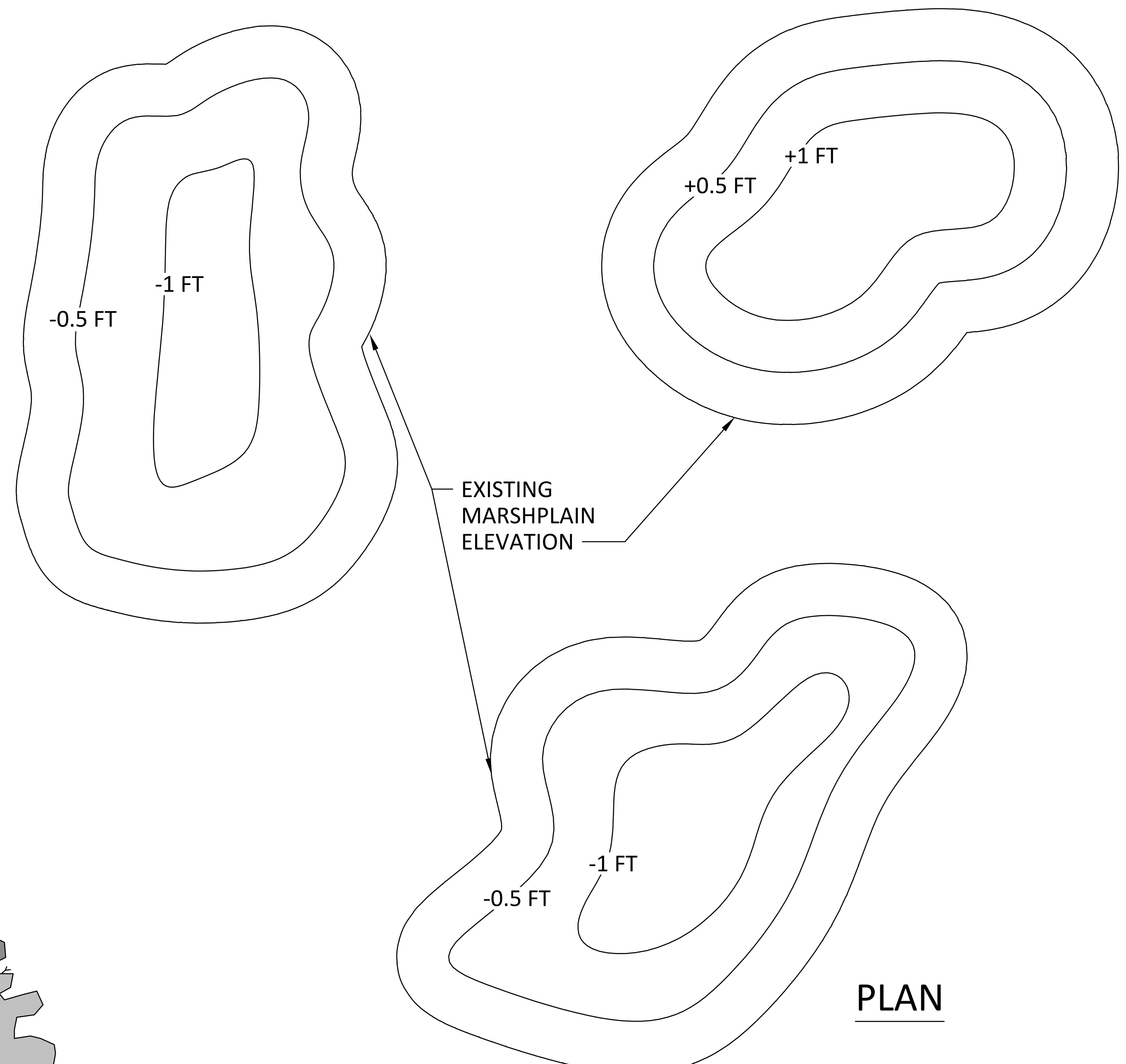
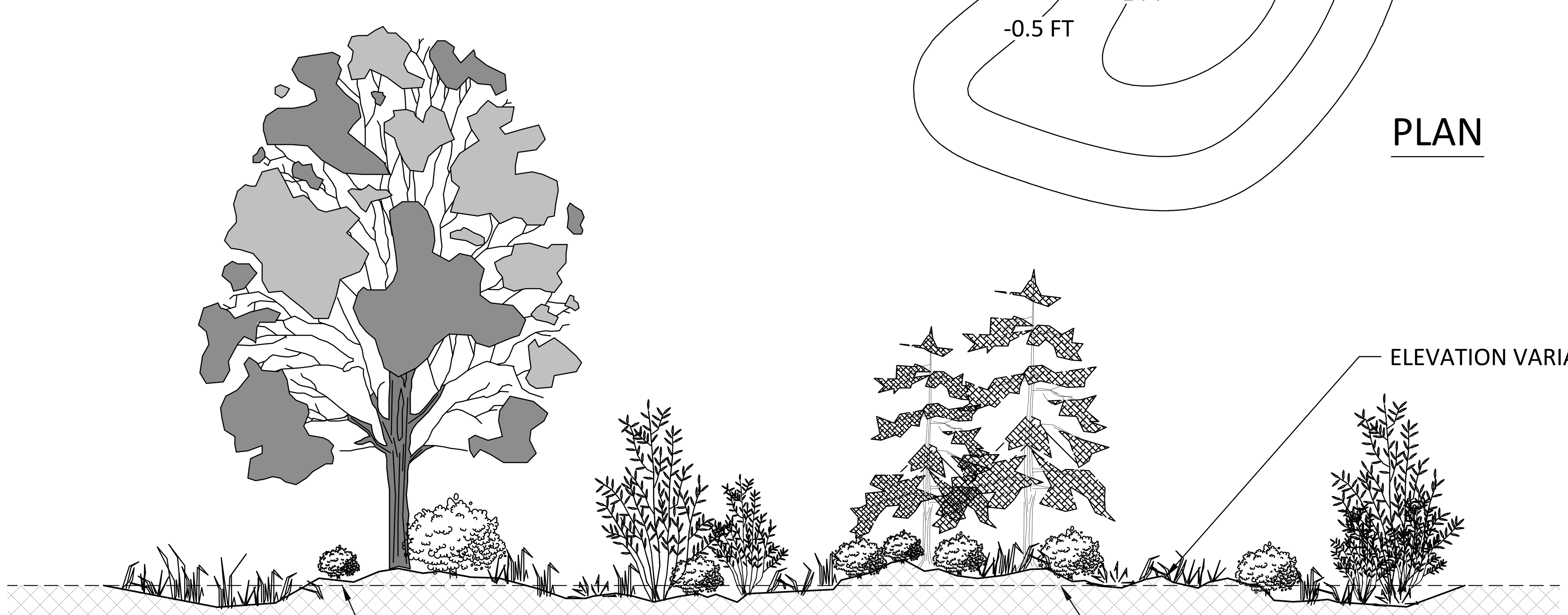
FES LIFT DETAILS (2 OF 2)

NOTES:

- MOUND CONFIGURATION WILL VARY DEPENDING ON EXISTING VEGETATION AND ACCESS CONSIDERATIONS. MAINTAIN EXISTING MATURE WOODY VEGETATION
- TOPOGRAPHIC MOUNDS ARE INTENDED TO MIMICK NATURAL BOG MICROTOPOGRAPHY. MOUNDS SHALL BE SHAPED TO MIMIC BOG HUMMOCKS CREATED BY NATIVE SHRUBS, HERBACEOUS PLANTS, AND NURSE LOGS.
- TYPICAL MOUND DIMENSIONS ARE APPROXIMATELY 3' TO 8' ACROSS.
- PEAKS OF MOUNDS SHALL BE 10 TO 20 FEET APART



PLAN



SECTION

1 / 24 TYPICAL DETAIL - MICROTOPOGRAPHY

NOT TO SCALE

NATURAL EXAMPLES OF MICROTOPOGRAPHY

NO.	BY	DATE	REVISION DESCRIPTION

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- APPROVED | 09/30/22 DATE | 20-05-16 PROJECT

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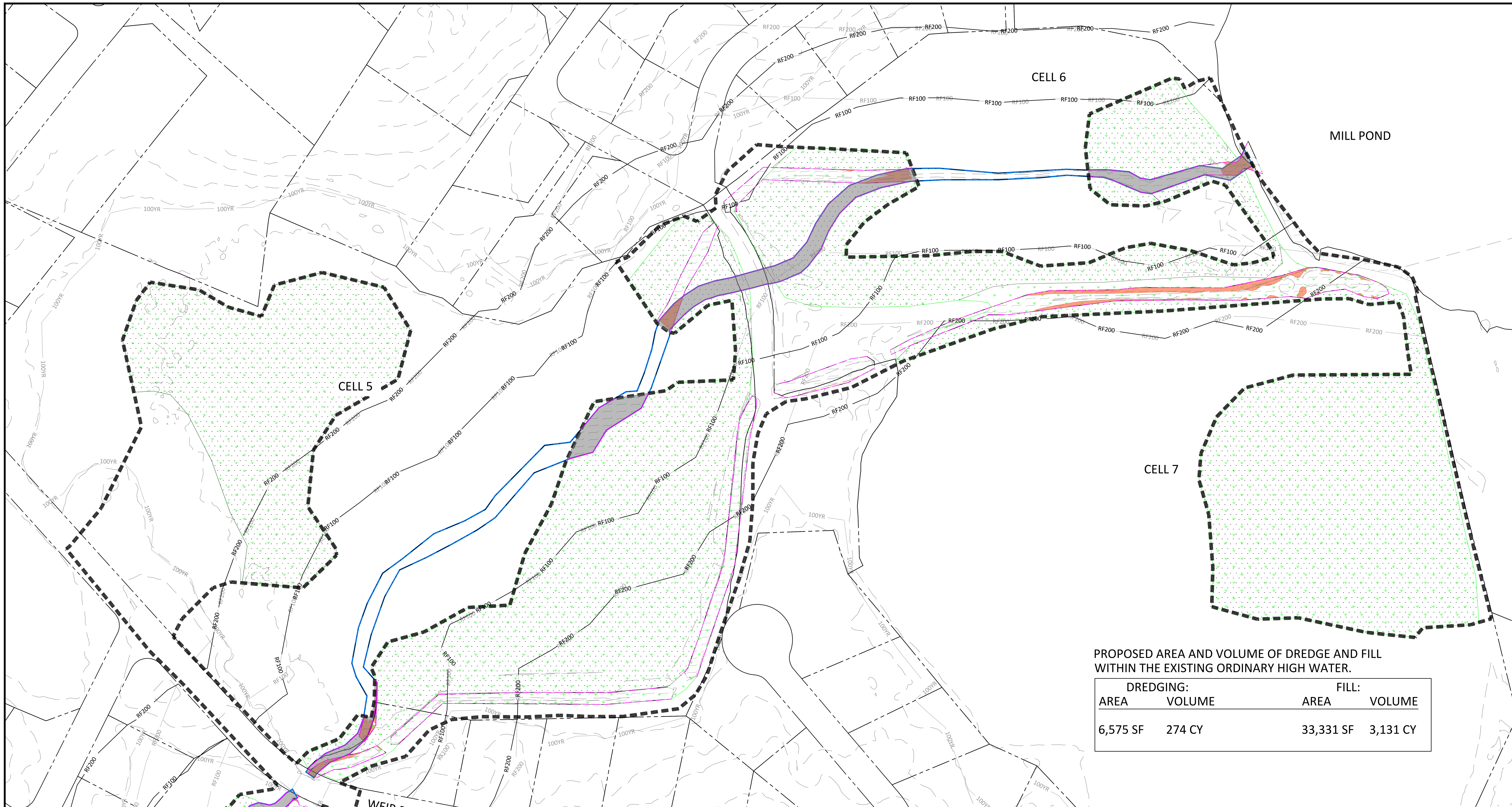
MYS	SS, MYS, NN	CC
DRAWN	DESIGNED	CHECKED
-	09/30/22	20-05-16
APPROVED	DATE	PROJECT

BASS RIVER HEADWATERS
YARMOUTH MA
FRIENDS OF THE BASS RIVER

inter·fluve
220 Concord Avenue, 2nd Floor
Cambridge, MA 02138
617.714.5537
www.interfluve.com

REVEGETATION PLANS



PROPOSED AREA AND VOLUME OF DREDGE AND FILL WITHIN THE EXISTING ORDINARY HIGH WATER.

DREDGING: AREA	VOLUME	FILL: AREA	VOLUME
6,575 SF	274 CY	33,331 SF	3,131 CY

0 160 320

SCALE IN FEET
BAR LENGTHS MEASURE
2-INCHES ON 22 IN. X 34 IN.
PRINT

NOTES

1. TOPOGRAPHIC AND BATHYMETRIC DATA BASED ON SURVEY COLLECTED BY INTER-FLUVE OCTOBER 2020, NOVEMBER 2020, AND JANUARY 2021. BATHYMETRIC CONTOURS SHOULD BE CONSIDERED APPROXIMATE. LIDAR DATA OBTAINED FROM THE STATE OF MASSACHUSETTS, COLLECTED IN 2016, PROVIDES SUPPLEMENTAL TOPOGRAPHY OUTSIDE THE LIMITS OF THE TOPOGRAPHIC SURVEY.
2. HORIZONTAL AND VERTICAL COORDINATES ARE BASED ON MASSACHUSETTS STATE PLANE NAD83, MAINLAND ZONE. ELEVATIONS ARE BASED ON NAVD88.
3. EXISTING WETLAND AREAS DEPICTED ON THIS SHEET ARE MASSDEP WETLAND AREAS ACCESSED 06/2021.
4. EXISTING 100 YR FLOOD INUNDATION EXTENTS DEPICTED ON THIS SHEET IS THE FEMA 100 YR EVENT ACCESSED 06/2021.
5. PROPOSED 100 YR FLOOD INUNDATION EXTENTS DEPICTED ON THIS SHEET IS BASED ON SIMULATIONS USING THE FINAL PROJECT HYDRAULIC MODEL. THIS MODEL INCLUDES UPDATES TO THE BASS RIVER CROSSING AT N DENNIS RD IN YARMOUTH MA WHICH IS NOT A PART OF THIS PROJECT.

LEGEND

- EXISTING 5 FT. CONTOUR
- PARCEL BOUNDARIES
- LIMIT OF DISTURBANCE
- ORDINARY HIGH WATER (EXISTING CONDITION)
- ORDINARY HIGH WATER (PROPOSED CONDITION)
- VEGETATED WETLANDS (EXISTING CONDITION)
- VEGETATED WETLANDS (PROPOSED CONDITION)
- 100YR COASTAL STORM FLOWAGE EXTENTS
- RF100 100 FT RIVERFRONT (EXISTING CONDITION)
- RF100 100 FT RIVERFRONT (PROPOSED CONDITION)
- RF200 200 FT RIVERFRONT (EXISTING CONDITION)
- RF200 200 FT RIVERFRONT (PROPOSED CONDITION)
- LAND UNDER WATER (EXISTING CONDITION)
- LAND UNDER WATER (PROPOSED CONDITION)
- BANK (EXISTING CONDITION)
- BANK (PROPOSED CONDITION)
- DREDGE AREA

Downstream: Cells 5-8	Existing Resource Areas	Permanent Changes	
		ADD	LESS
Bank (LF)	5580		3703
Bordering Vegetated Wetland (AC)	10.6	0.8	
Land Under Water (AC)	1.2		0.8
Riverfront Area 100 ft (AC)	8.6		0.3
Riverfront Area 200 ft (AC)	16.9		0.4

NOTES:
1. RIVERFRONT RESOURCE AREAS ARE SHOWN AND QUANTIFIED THROUGH THE ENTIRE REACH FROM MILL POND TO WEIR ROAD.
2. BANK, LAND UNDER WATER, AND BORDERING VEGETATED WETLAND RESOURCES ARE SHOWN AND QUANTIFIED WITHIN THE BOUNDS OF THE AREA OF DISTURBANCE FOR BOTH EXISTING AND PROPOSED CONDITIONS.

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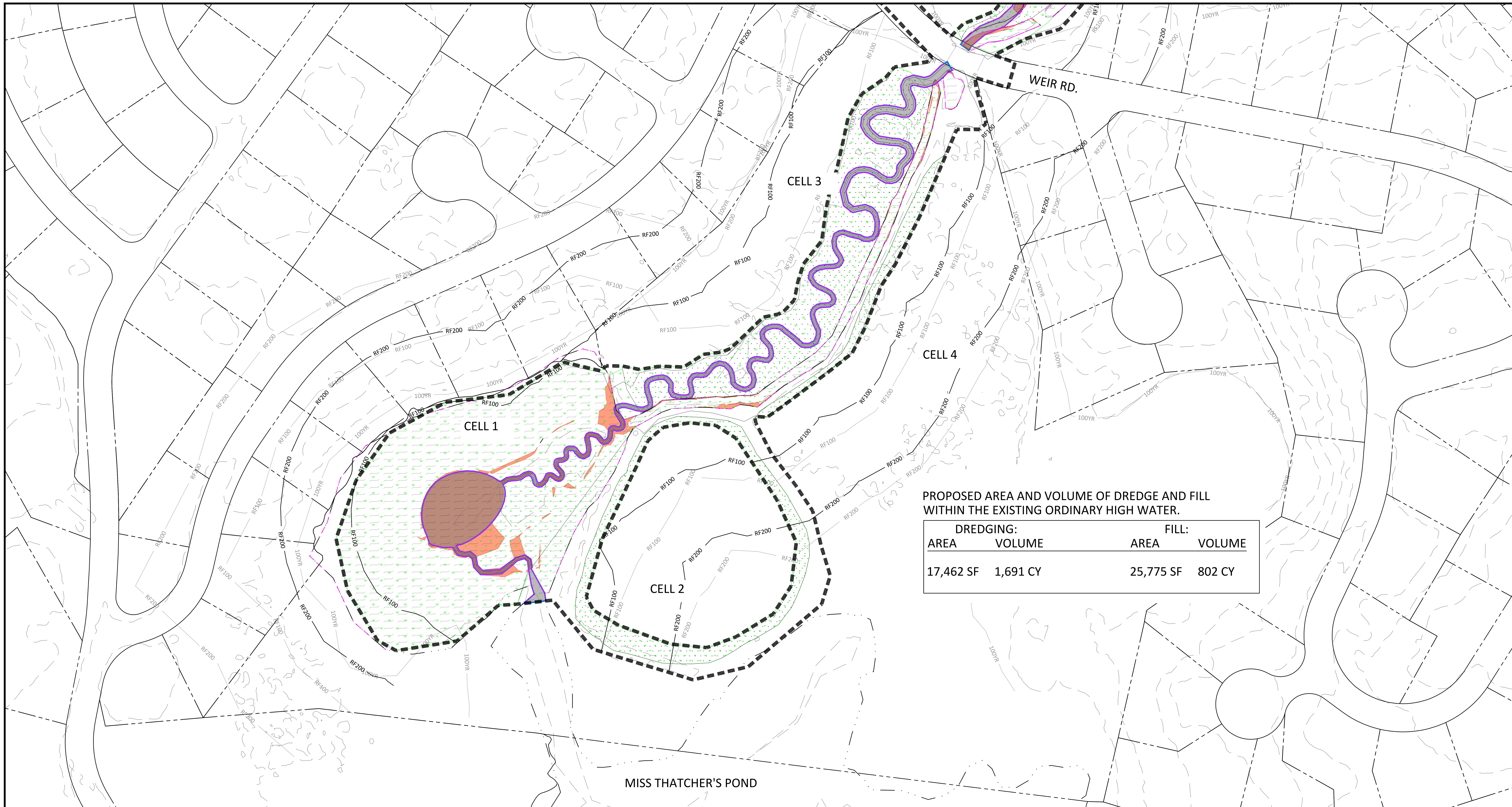
RESOURCE AREA IMPACTS
CELLS 5-7



PROPOSED AREA AND VOLUME OF DREDGE AND FILL WITHIN THE EXISTING ORDINARY HIGH WATER.

DREDGING:		FILL:	
AREA	VOLUME	AREA	VOLUME
17,462 SF	1,691 CY	25,775 SF	802 CY

0 160 320

SCALE IN FEET
BAR LENGTHS MEASURE 2-INCHES ON 22 IN. X 34 IN. PRINT

NOTES

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3. EXISTING WETLAND AREAS DEPICTED ON THIS SHEET ARE MASSDEP WETLAND AREAS ACCESSED 06/2021.
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LEGEND

- EXISTING 5 FT. CONTOUR
- PARCEL BOUNDARIES
- LIMIT OF DISTURBANCE
- ORDINARY HIGH WATER (EXISTING CONDITION) ***
- ORDINARY HIGH WATER (PROPOSED CONDITION) ***
- VEGETATED WETLANDS (EXISTING CONDITION) *
- VEGETATED WETLANDS (PROPOSED CONDITION)
- 100YR — COASTAL STORM FLOWAGE EXTENTS
- RF100 — 100 FT RIVERFRONT BUFFER (EXISTING CONDITION)
- RF100 — 100 FT RIVERFRONT BUFFER (PROPOSED CONDITION)
- RF200 — 200 FT RIVERFRONT BUFFER (EXISTING CONDITION)
- RF200 — 200 FT RIVERFRONT BUFFER (PROPOSED CONDITION)
- LAND UNDER WATER (EXISTING CONDITION) **
- LAND UNDER WATER (PROPOSED CONDITION)
- BANK (EXISTING CONDITION)
- BANK (PROPOSED CONDITION)
- DREDGE AREA

Upstream: Cells 1-4	Existing Resource Areas	Permanent Changes	
		ADD	LESS
Bank (LF)	2700	1294	
Bordering Vegetated Wetland (AC)	1.7	2.2	
Land Under Water (AC)	2.7		2.2
Riverfront Area 100 ft (AC)	6.3	0.2	
Riverfront Area 200 ft (AC)	12.8		0.5

NOTES:
1. RIVERFRONT RESOURCE AREAS ARE SHOWN AND QUANTIFIED THROUGH THE ENTIRE REACH FROM WEIR ROAD TO THE OUTLET OF MISS THATCHER'S POND.
1. BANK, LAND UNDER WATER, AND BORDERING VEGETATED WETLAND RESOURCES ARE SHOWN AND QUANTIFIED WITHIN THE BOUNDS OF THE AREA OF DISTURBANCE FOR BOTH EXISTING AND PROPOSED CONDITIONS.

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RESOURCE AREA IMPACTS CELLS 1-4