

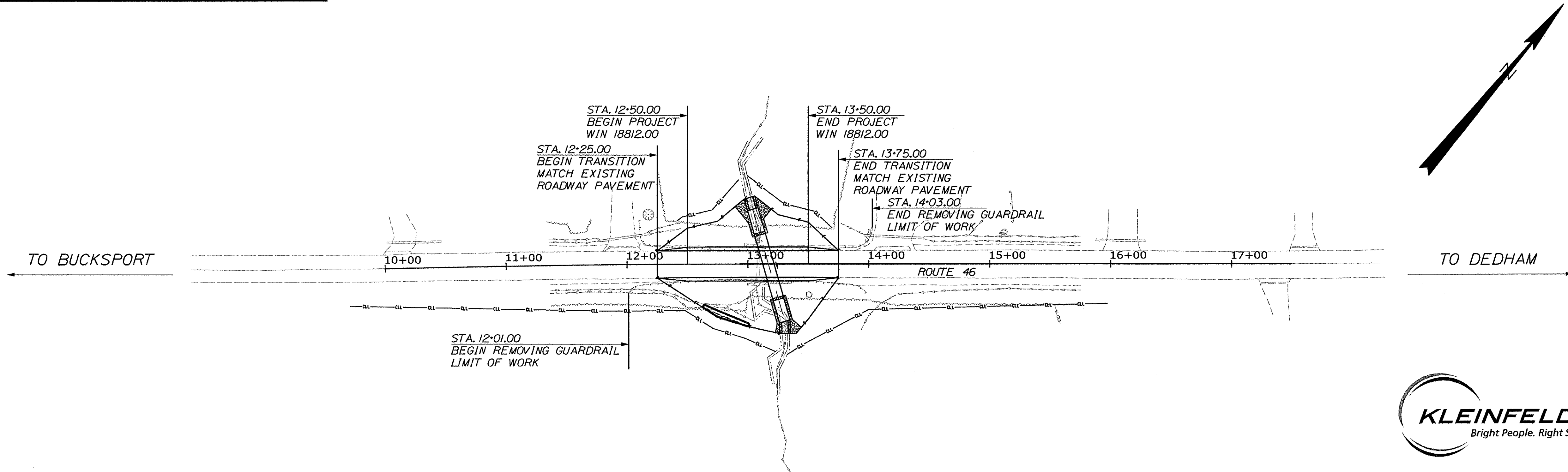
STATE OF MAINE DEPARTMENT OF TRANSPORTATION



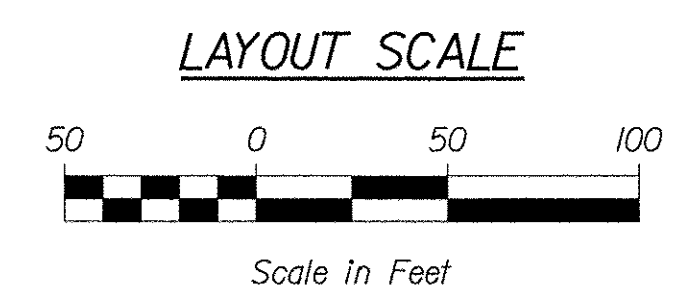
BUCKSPORT HANCOCK COUNTY ROUTE 46 PROJECT NO. 018812.00 PROJECT LENGTH : 0.02 MILES

| Description | Sheet No. |
|---|-----------|
| Title Sheet | 1 |
| Typical Sections | 2 |
| Estimated Quantities & General Notes | 3 |
| Special Details - Culvert | 4 |
| Special Details - Streambed Grading | 5 |
| Boring Location Plan & Interpretive Subsurface Profile with Boring Logs | 6 |
| Plan and Profile | 7 |
| Cross Sections | 8-11 |
| Right of Way Map | 12 |

| PLAN LEGEND | |
|----------------------------|---------------------------------|
| Town, County, State | Centerline-Existing |
| Property Lines | Centerline-Proposed |
| R/W Lines-Existing | Travelway-Existing |
| R/W Lines-Proposed | Travelway-Proposed |
| Culvert-Existing | Railroad |
| Culvert Proposed | Catch Basins Existing Proposed |
| Curbing Existing Proposed | Manholes Existing Proposed |
| Type 1 | Proposed Underdrain |
| Type 3 | Proposed Ditch |
| Type 5 | Existing Ditch |
| Outline of Bodies of Water | Utility Poles Existing Proposed |
| Boring HB-XXX-### | Fire Hydrants Existing Proposed |
| Pavement Core PC-# | Existing Water Line |
| Test Pit TP-XXX-### | Existing San. Sewer |
| Probe P-#. #X | Existing San. Sewer Manhole |
| #.# = Depth | Guardrail-Existing |
| X = W (Weathered Rock) | Guardrail-Proposed |
| R (Refusal) | Guardrail-Cable, Other |
| NR (No Refusal) | Exposed Bedrock |
| | Buildings |
| | Trees Conifer Deciduous |
| | Tree Line |
| | Clearing Limit Line |



| TRAFFIC DATA | |
|--------------------------------|------|
| Current (2018) AADT | 2050 |
| Future (2038) AADT | 2260 |
| DHV - % of AADT | 10% |
| Design Hour Volume | 226 |
| % Heavy Trucks (AADT) | 7% |
| % Heavy Trucks (DHV) | 4% |
| Directional Distribution (DHV) | 60% |
| 18 kip Equivalent P 2.0 | 132 |
| 18 kip Equivalent P 2.5 | 126 |
| Design Speed (mph) | 40 |
| Corridor Priority | 3 |



| | |
|--------------------------|---|
| PROJECT LOCATION: | BUCKSPORT, ROUTE 46, 0.37 MILES NORTHEAST OF HERITAGE PARK ROAD |
| PROGRAM AREA: | HIGHWAY |
| SCOPE OF WORK: | LARGE CULVERT REPLACEMENT |

| | | |
|--|--------------------|--------|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION | APPROVED | DATE |
| | <i>[Signature]</i> | 4/9/18 |
| COMMISSIONER: | | 4-9-18 |
| CHIEF ENGINEER: | <i>[Signature]</i> | |

| | | | |
|--|------------------|---------------|-------------------------|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION | SIGNATURE | P.E. NUMBER | DATE |
| <i>[Signature]</i> | TRAVIS J. WOLFEL | 13743 | 3/28/2018 |
| | DESIGNER | CONSULTANT | PROJECT RESIDENT |
| | RANDALL BARROWS | TRAVIS WOLFEL | KLEINFELDER |
| | PROGRAM MANAGER | CONTRACTOR | PROJECT COMPLETION DATE |

| | | |
|---------------------|-----------------|-------------------------|
| PROJECT INFORMATION | HIGHWAY | PROGRAM |
| | RANDALL BARROWS | DESIGNER |
| | TRAVIS WOLFEL | PROJECT RESIDENT |
| | KLEINFELDER | CONTRACTOR |
| | | PROJECT COMPLETION DATE |

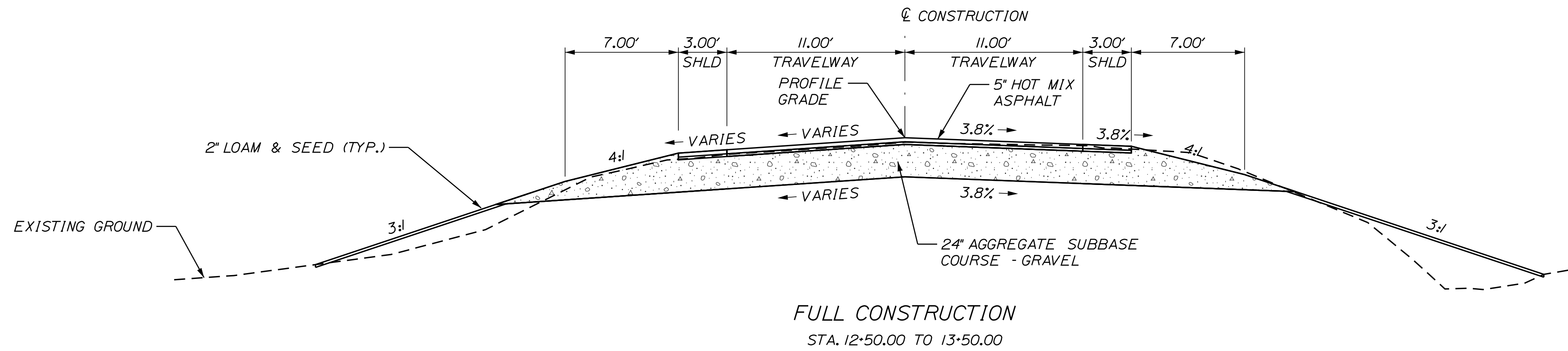
| | |
|-----------------------|--------------|
| BUCKSPORT ROUTE 46 | TITLE SHEET |
| WIN 18812.00 | SHEET NUMBER |
| | 1 |
| | OF 12 |

Date: 3/28/2018

Username: TWolfel

Division: HIGHWAY

Filename: ... \HIGHWAY\MSTA\001_Title.dgn



| ROUTE 46 CROSS SLOPES (e) | | | | |
|---------------------------|----------------|---------|----------------|----------------|
| LEFT % | | STATION | RIGHT % | |
| SHOULDER | TRAVELWAY | | TRAVELWAY | SHOULDER |
| MATCH EXISTING | MATCH EXISTING | 12+25 | MATCH EXISTING | MATCH EXISTING |
| -6.4 | -6.4 | 12+50 | -3.8 | -3.8 |
| -6.8 | -6.8 | 12+75 | -3.8 | -3.8 |
| -7.3 | -7.3 | 13+00 | -3.8 | -3.8 |
| -7.7 | -7.7 | 13+25 | -3.8 | -3.8 |
| -8.2 | -8.2 | 13+50 | -3.8 | -3.8 |
| MATCH EXISTING | MATCH EXISTING | 13+75 | MATCH EXISTING | MATCH EXISTING |

NOTES:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. THE STATIONING SHOWN UNDER EACH TYPICAL SECTION IS APPROXIMATE.

Date: 3/28/2018

Username: T.Wolfel

Division: HIGHWAY

Filename: ... \MSTA\002_Typical Sections.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018812.00

WIN

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

| PROJ. MANAGER | R. BARROWS | BY | DATE |
|------------------|------------|--------------|--------|
| DESIGN-DETAILED | T. WOLFEL | T. WOLFEL | 3/2018 |
| CHECKED-REVIEWED | E. WALTON | J. WENTWORTH | 3/2018 |
| DESIGN-DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

BUCKSPORT
ROUTE 46

TYPICAL SECTIONS

SHEET NUMBER

2

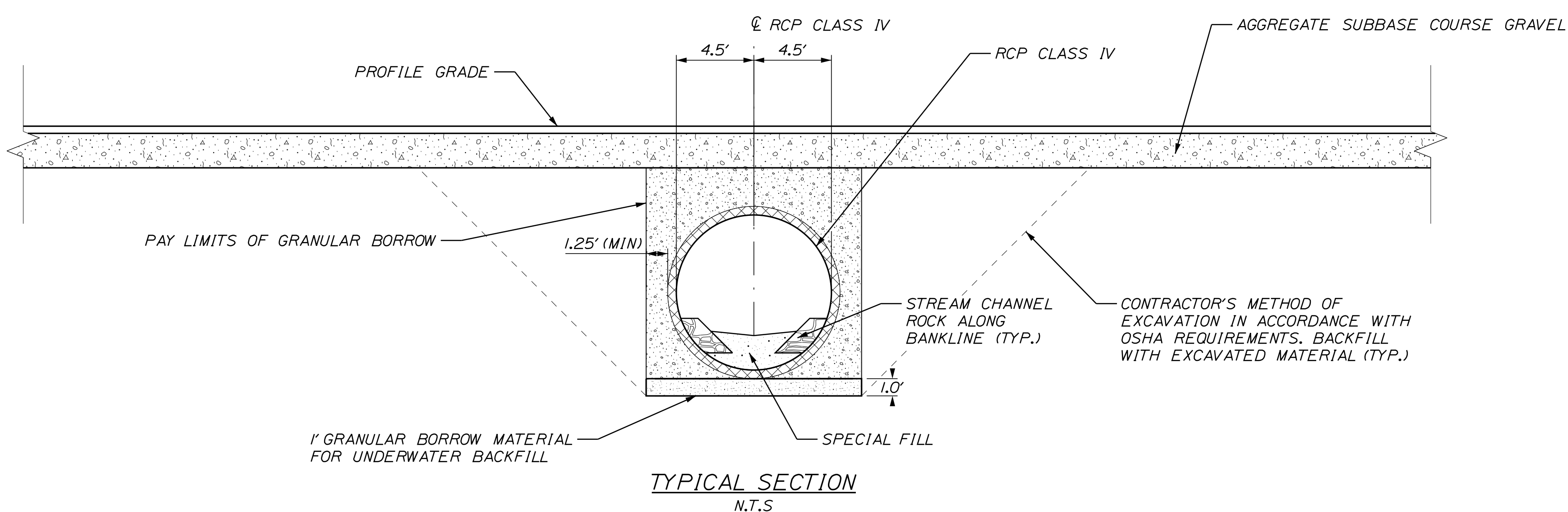
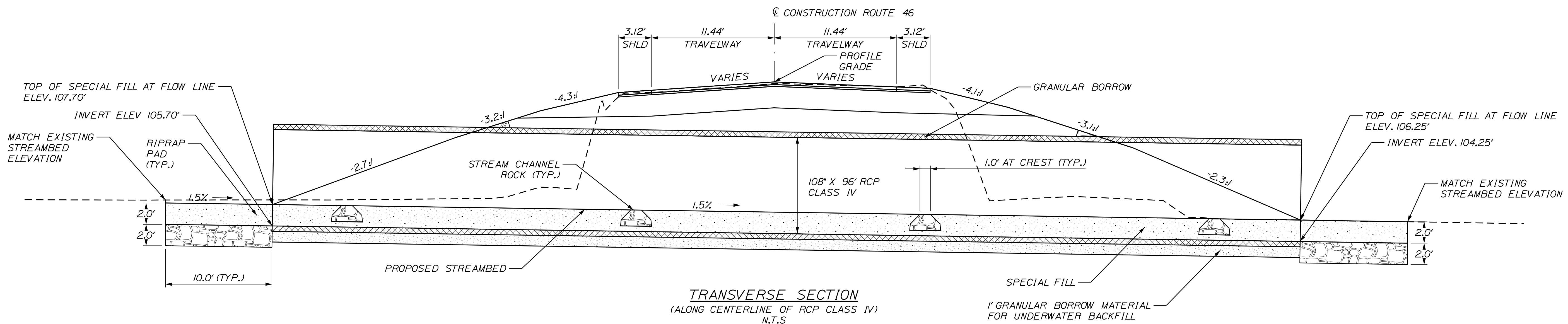
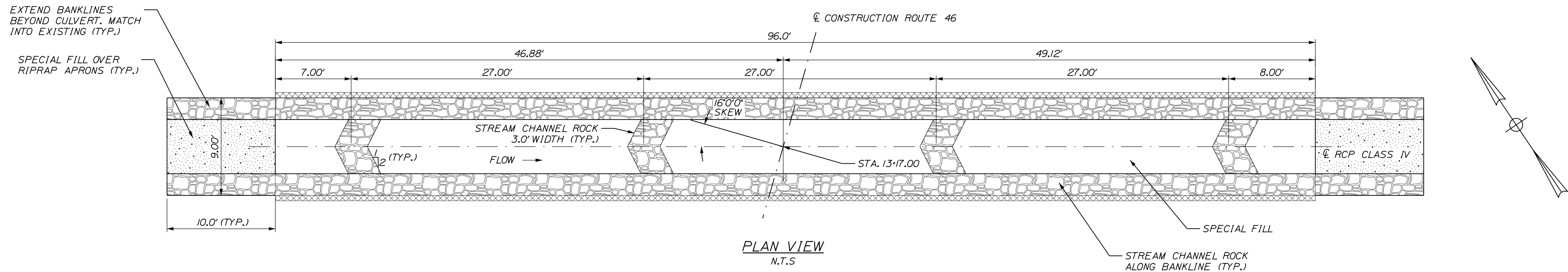
OF 12

Date: 3/28/2018

Username: T.Wolfel

Division: HIGHWAY

Filename: ... \MSTA\004_Culvert Details.dgn

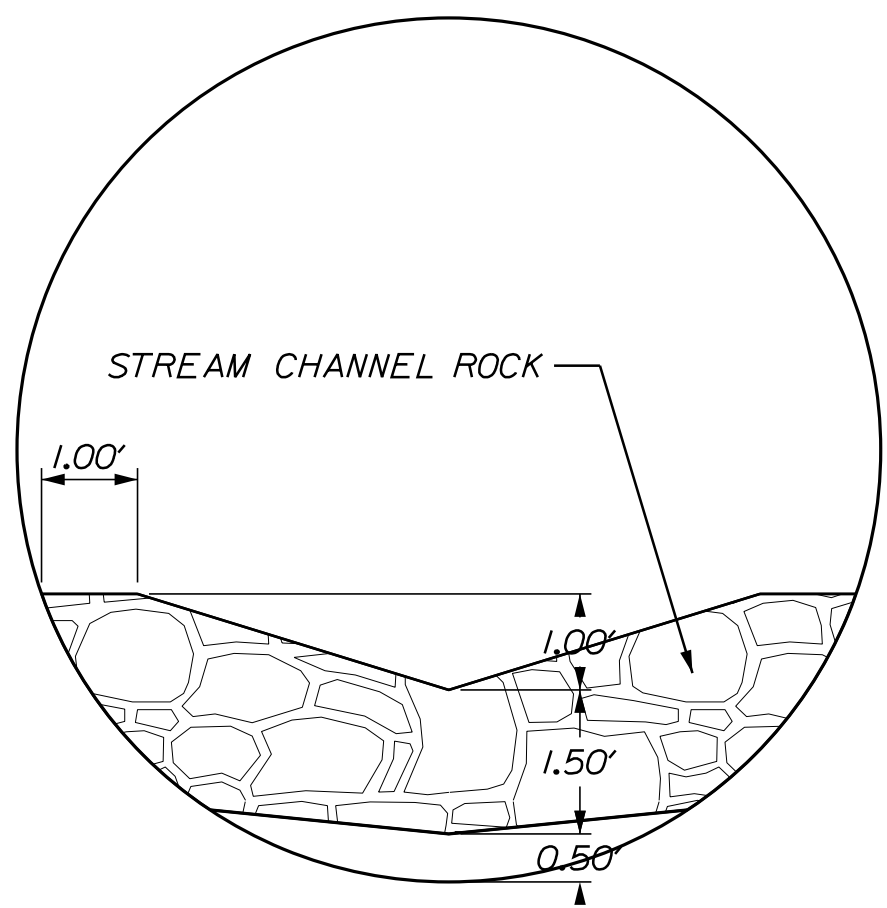
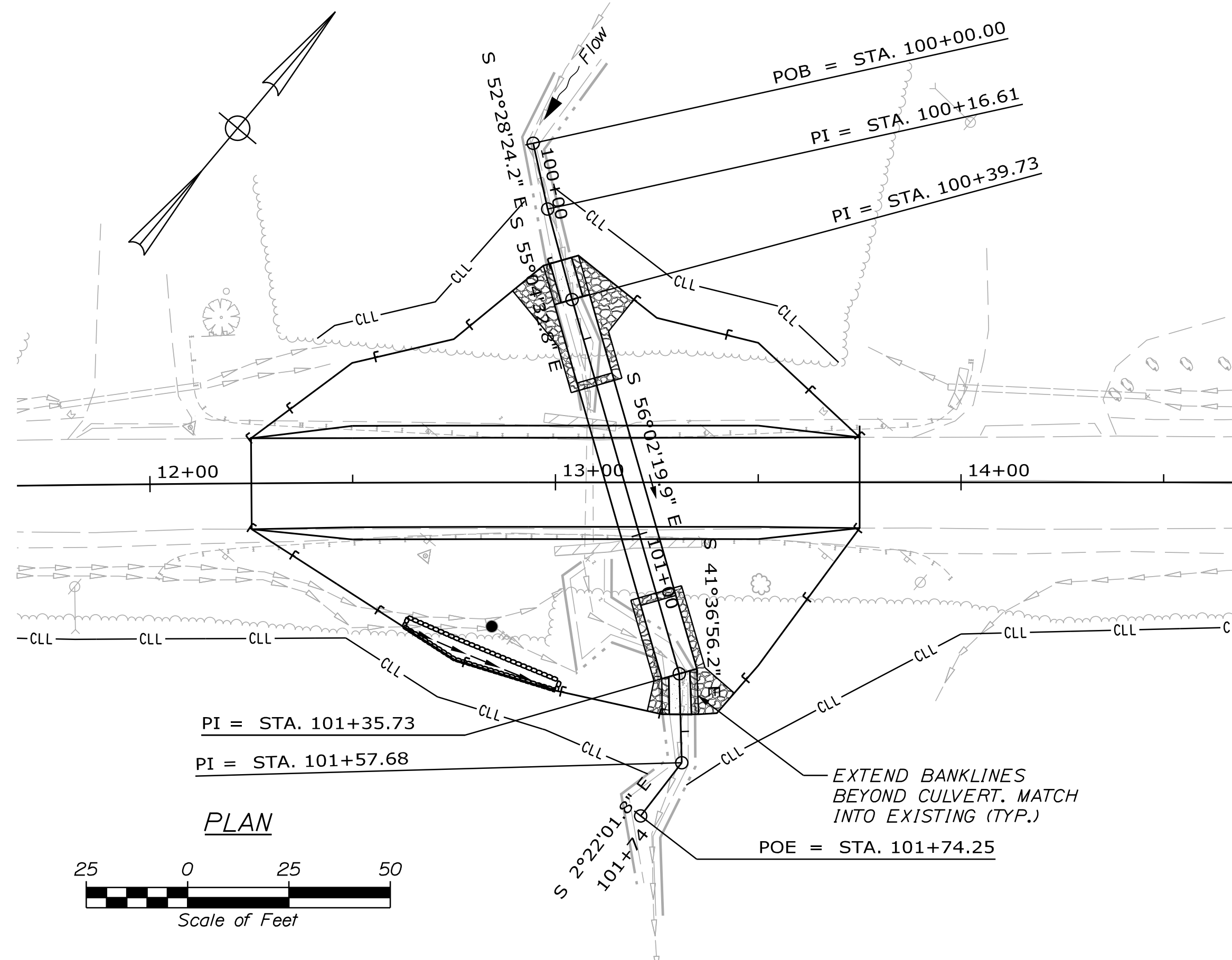


NOTES

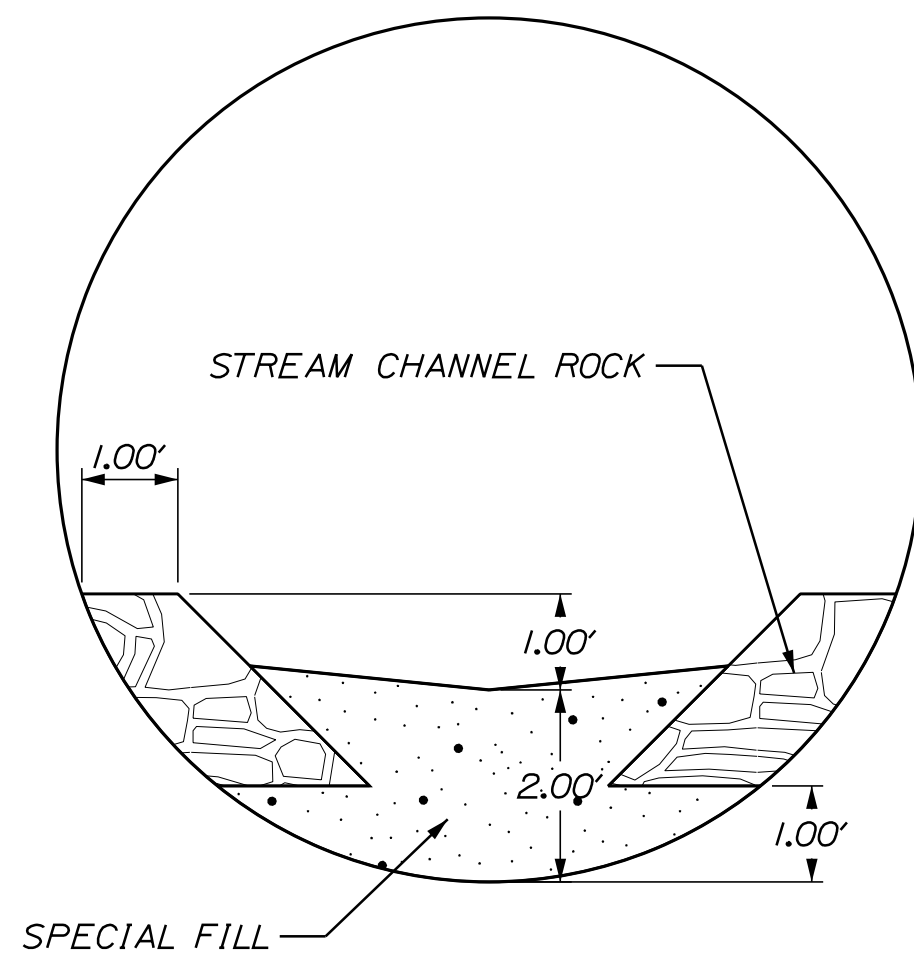
1. THE CULVERT SHALL BE BEDDED ON A 1-FOOT LAYER OF COMPACTED GRANULAR BORROW MATERIAL MEETING THE REQUIREMENTS FOR UNDERWATER BACKFILL.
2. COFFERDAMS ARE TO BE PLACED AT BOTH THE DOWNSTREAM AND UPSTREAM ENDS OF THE CULVERT TO ALLOW CONSTRUCTION OF THE CULVERT IN THE DRY.
3. RIPRAP WILL BE USED TO INSLOPE AROUND THE CULVERT ENDS AT BOTH THE INLET AND OUTLET. SEE PLAN AND PROFILE FOR LOCATIONS.
4. VOIDS IN RIPRAP APRONS SHALL BE FILLED WITH SPECIAL FILL WATERED-IN AND TAMPED PRIOR TO COVERING WITH 2 FEET OF SPECIAL FILL.
5. THE CULVERT SHALL BE LINED WITH 2 FEET OF SPECIAL FILL IN ACCORDANCE WITH SPECIAL PROVISION 203 AND STREAM CHANNEL ROCK IN ACCORDANCE WITH SPECIAL PROVISION 610.

| | | | | | | | | | | | |
|-----------------|------------|------------------------------|-----------|-------------------|--------|---------------|--|--------------|--|---------------|--|
| STATE OF MAINE | | DEPARTMENT OF TRANSPORTATION | | 018812.00 | | WIN | | 018812.00 | | HIGHWAY PLANS | |
| BUCKSPORT | | ROUTE 46 | | SPECIAL DETAILS - | | CULVERT | | SHEET NUMBER | | 4 | |
| PROJ. MANAGER | R. BARROWS | BY | T. WOLFEL | DATE | 3/2018 | SIGNATURE | | P.E. NUMBER | | DATE | |
| DESIGN-DETAILED | T. WOLFEL | CHECKED-REVIEWED | E. WALTON | DESIGN-DETAILED | | REVISIONS 1 | | REVISIONS 2 | | REVISIONS 3 | |
| DESIGN-DETAILED | | DESIGN-DETAILED | | REVISIONS 4 | | FIELD CHANGES | | | | | |

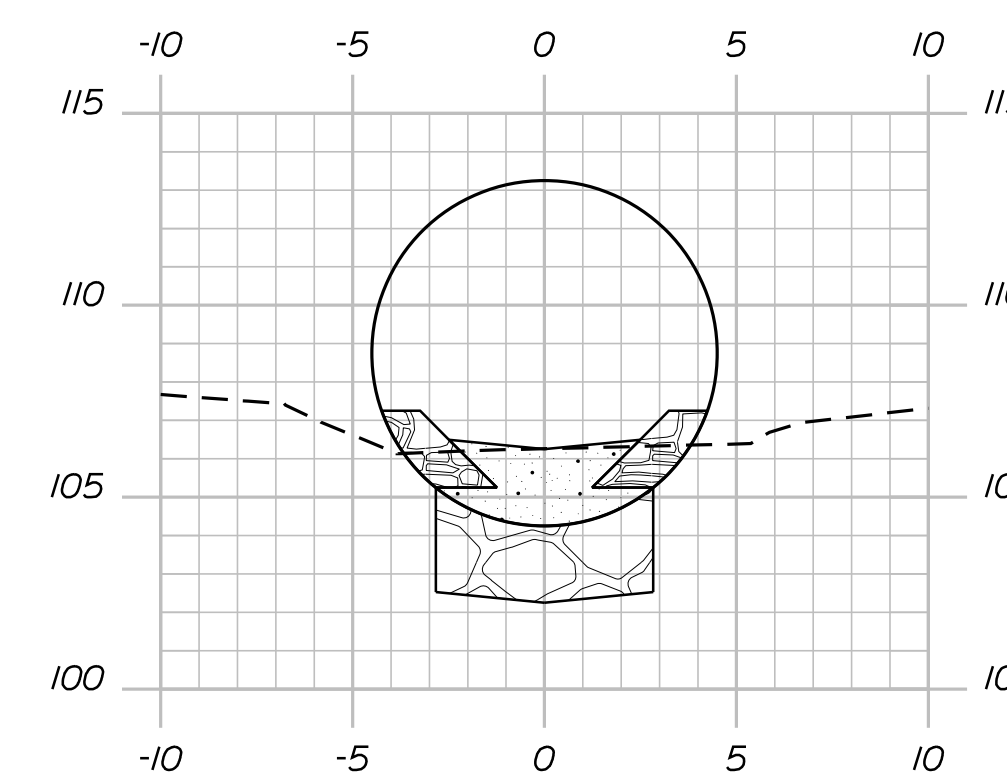
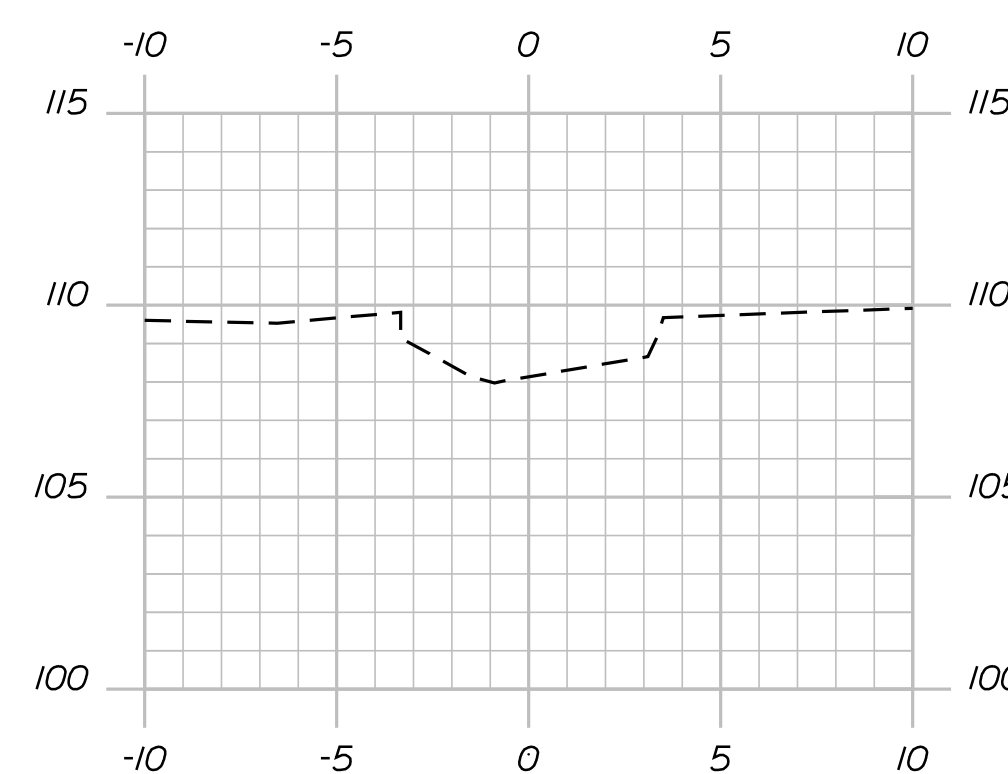
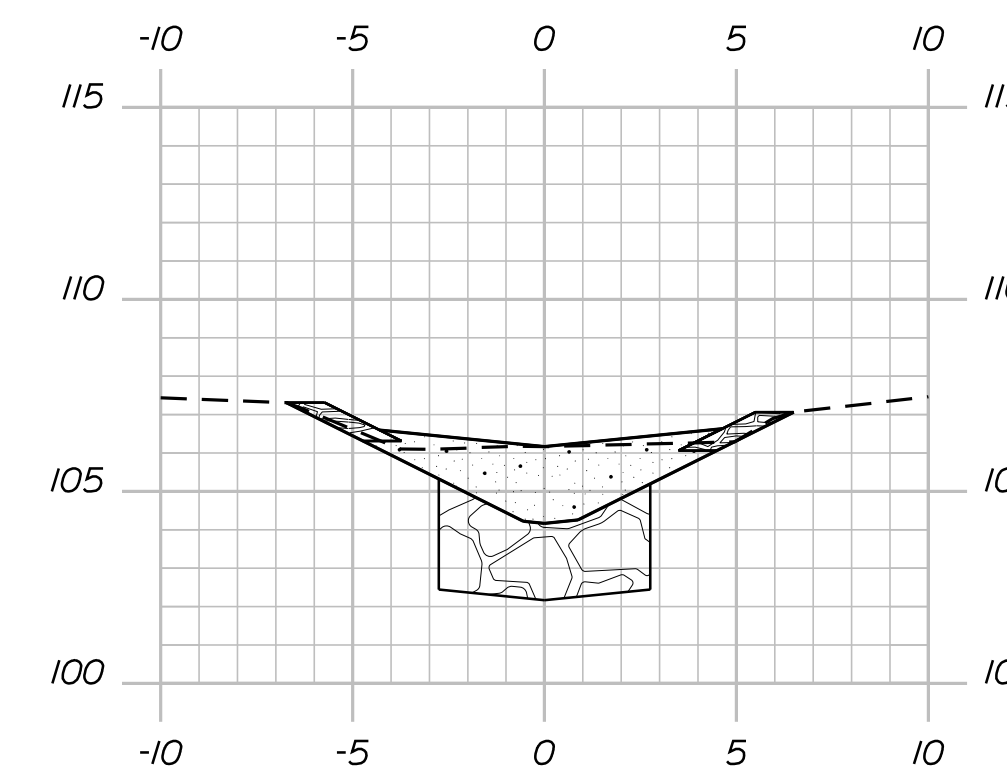
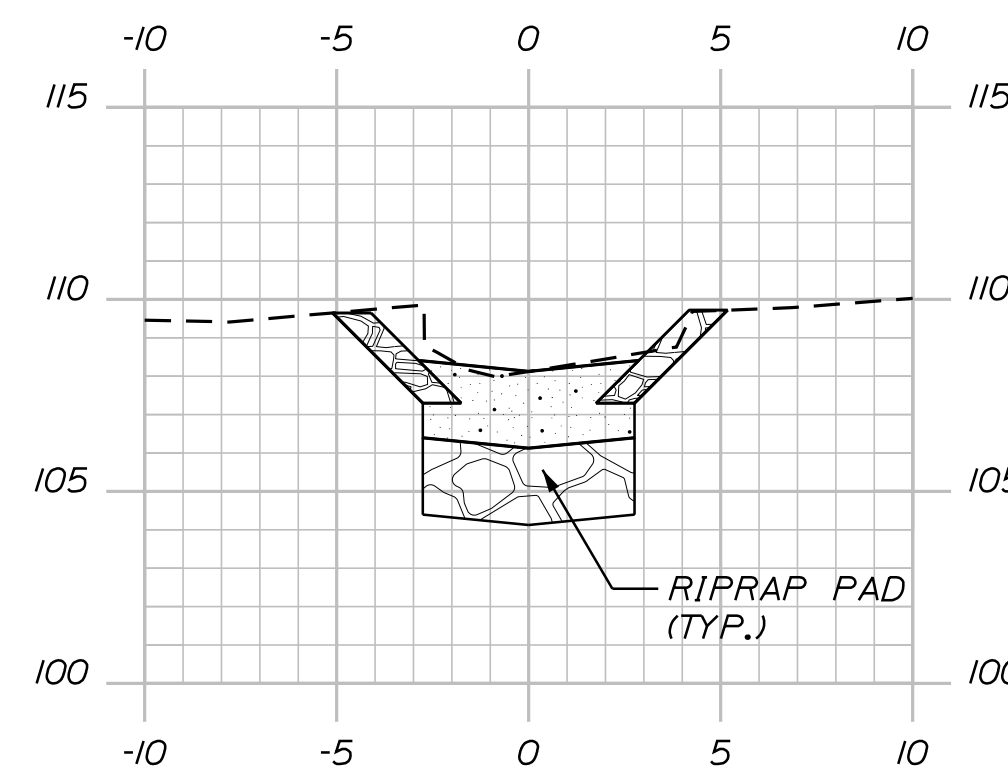
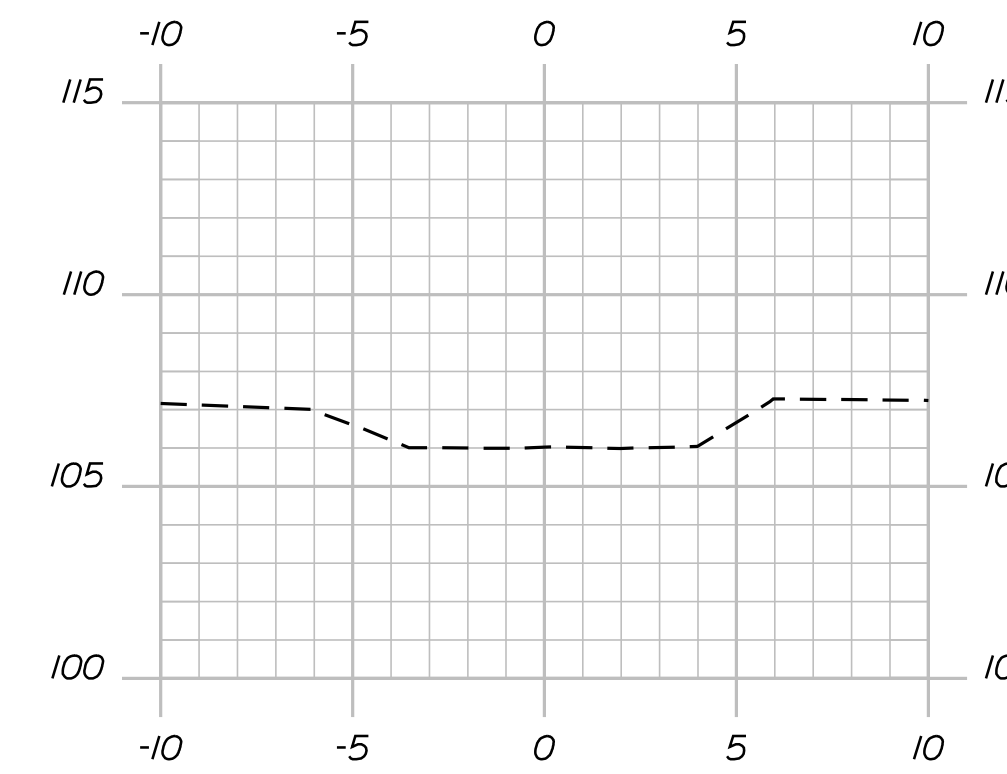
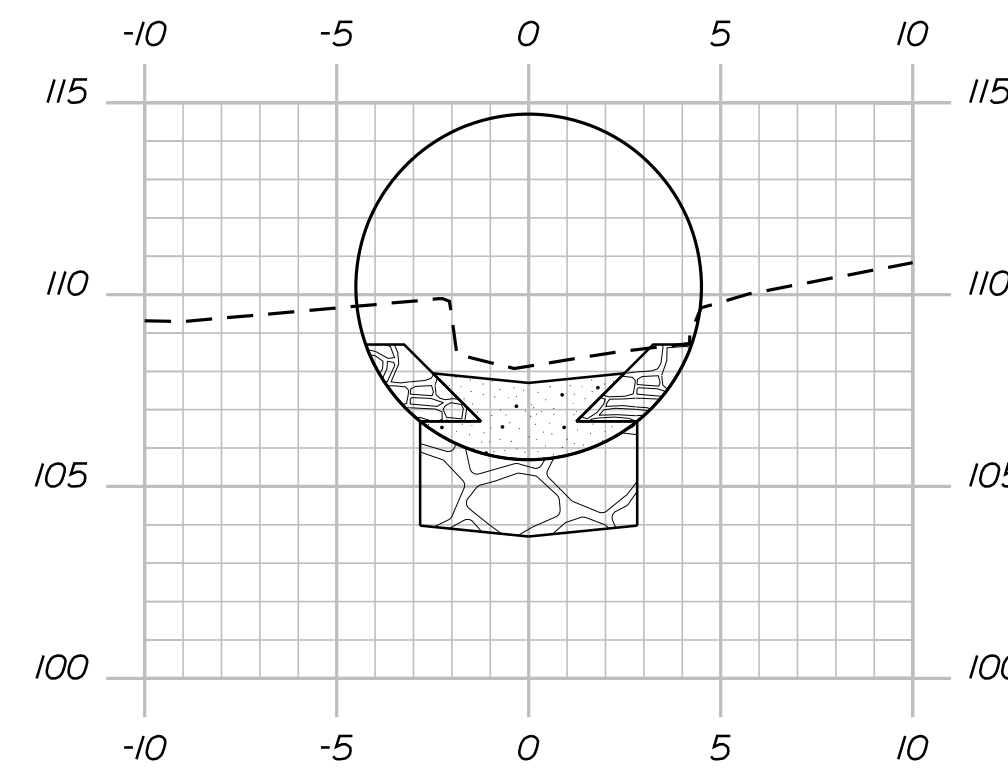
| CONTROL POINTS FOR STREAMBED ALIGNMENT | | | | | |
|--|-----------|----------|------------|-------------|------------|
| POINT | STATION | OFFSET | X-COORD | Y-COORD | |
| POB | 100+00.00 | 12+94.50 | 83.62' LT. | 1737707.515 | 392813.854 |
| PI | 100+16.61 | 12+98.08 | 67.39' LT. | 1737084.690 | 392803.734 |
| PI | 100+39.73 | 13+04.08 | 45.07' LT. | 1737103.643 | 392790.500 |
| PI | 101+35.73 | 13+30.54 | 47.21' RT. | 1737183.267 | 392736.872 |
| PI | 101+57.68 | 13+31.14 | 69.16' RT. | 1737197.849 | 392720.458 |
| POE | 101+74.25 | 13+21.02 | 82.28' RT. | 1737198.533 | 392703.902 |



CULVERT TYPICAL ROCK BAND SECTION
N.T.S.



CULVERT TYPICAL SECTION
N.T.S.



Date: 3/28/2018

Username: T.Wolfel

Division: HIGHWAY

Filename: ... \005_SpecialDetails_Streambed.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
018812.00
WIN
018812.00
HIGHWAY PLANS

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE
3/2018
3/2018

BY
T. WOLFEL
J. WENTWORTH

SIGNATURE
P.E. NUMBER
DATE

BUCKSPORT
ROUTE 46
SPECIAL DETAILS -
STREAMBED GRADING

SHEET NUMBER
5
OF 12

ITEM 606,369 - GUARDRAIL REMOVED AND STACKED STATION TO STATION LENGTH

12-01.17 TO 13-97.66 RT. 201 LF
 12-10.07 TO 14-03.00 LT. 219 LF

N/F

NATHANIAL GRAY
 JEANNE GRAY

EDWARD A. RANKIN, JR.
 ITEM NO. (2)
 TEMP. CONST. RIGHTS = 569± S.F. (1)
 TOTAL AREA = 9.08± AC. (PER TOWN)

STA. 12-50.00
 END TRANSITION
 BEGIN PROJECT
 WIN 18812.00

STA. 13-50.00
 BEGIN TRANSITION
 END PROJECT
 WIN 18812.00

EDWARD A. RANKIN, SR.
 MARGARET A. RANKIN
 ITEM NO. (3)
 SLOPE EASE. = 1204± S.F. (1)
 DRAINAGE EASE. = (1)
 TEMP. CONST. RIGHTS = 0.06± AC. (1)
 TOTAL AREA = 2.02± AC. (PER TOWN)

N/F

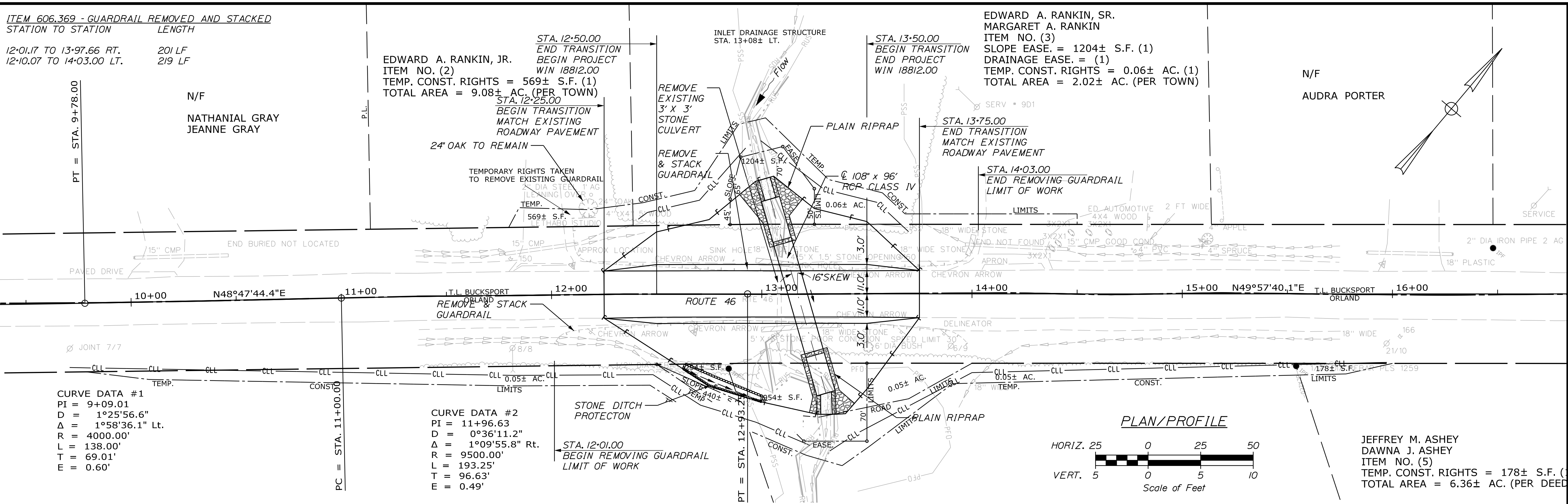
AUDRA PORTER

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

018812.00

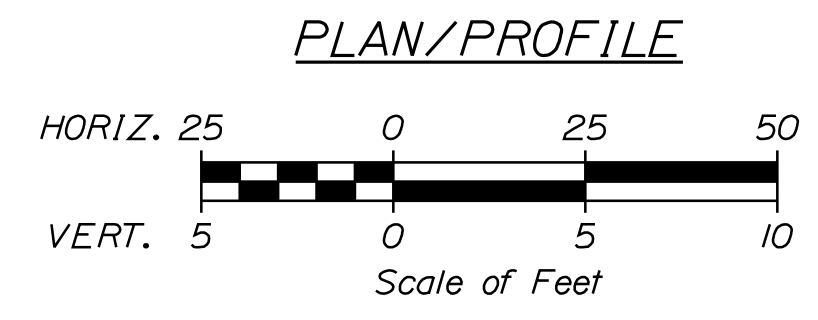
WIN 018812.00

HIGHWAY PLANS

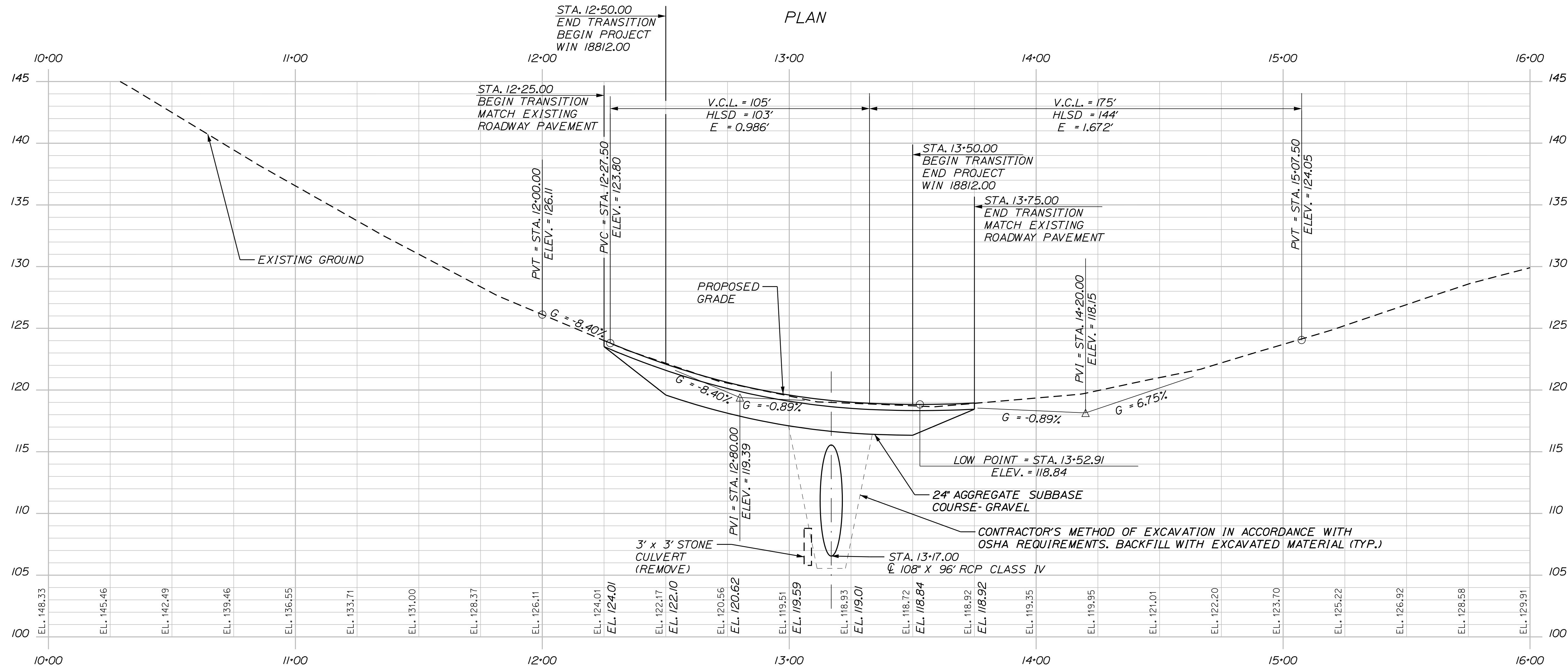


CURVE DATA #1
 PI = 9+09.01
 D = 1°25'56.6"
 Δ = 1°58'36.1" Lt.
 R = 4000.00'
 L = 138.00'
 T = 69.01'
 E = 0.60'

CURVE DATA #2
 PI = 11+96.63
 D = 0°36'11.2"
 Δ = 1°09'55.8" Rt.
 R = 9500.00'
 L = 193.25'
 T = 96.63'
 E = 0.49'



JEFFREY M. ASHEY
 DAWNA J. ASHEY
 ITEM NO. (5)
 TEMP. CONST. RIGHTS = 178± S.F. (1)
 TOTAL AREA = 6.36± AC. (PER DEED)



| PROJ. MANAGER | BY | DATE | SIGNATURE |
|------------------|--------------|--------|-----------|
| DESIGN-DETAILED | T. WOLFEL | 3/2018 | |
| CHECKED-REVIEWED | E. WALTON | 3/2018 | |
| DESIGN-DETAILED | J. WENTWORTH | 3/2018 | |
| DESIGN-DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

BUCKSPORT
 ROUTE 46
 PLAN AND PROFILE

SHEET NUMBER

7

OF 12

Date: 3/28/2018

Username: TWolfel

Division: HIGHWAY

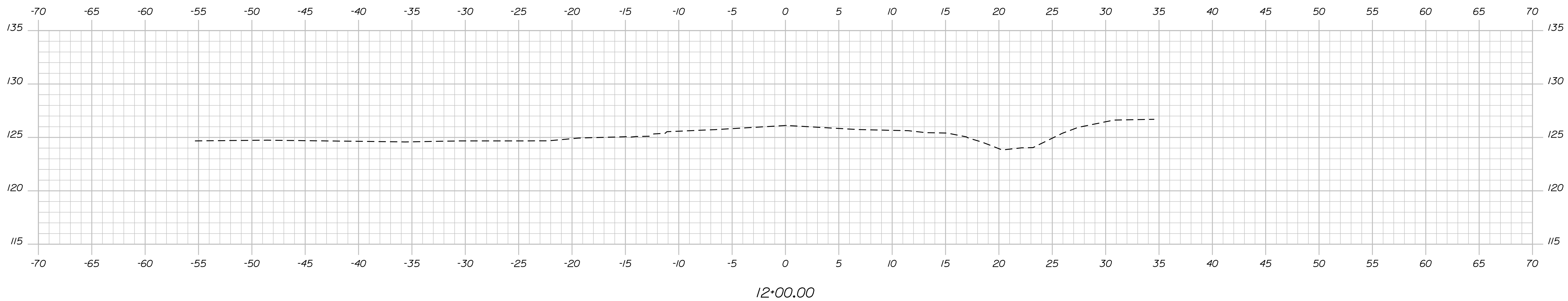
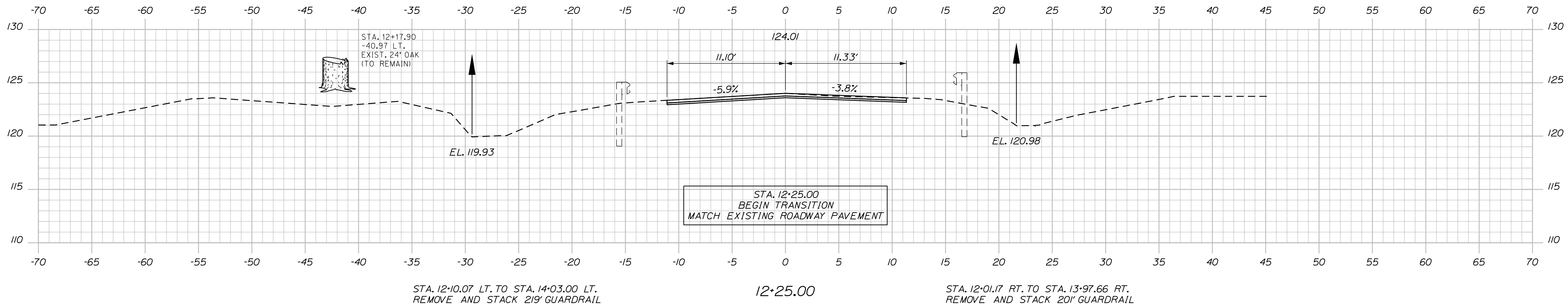
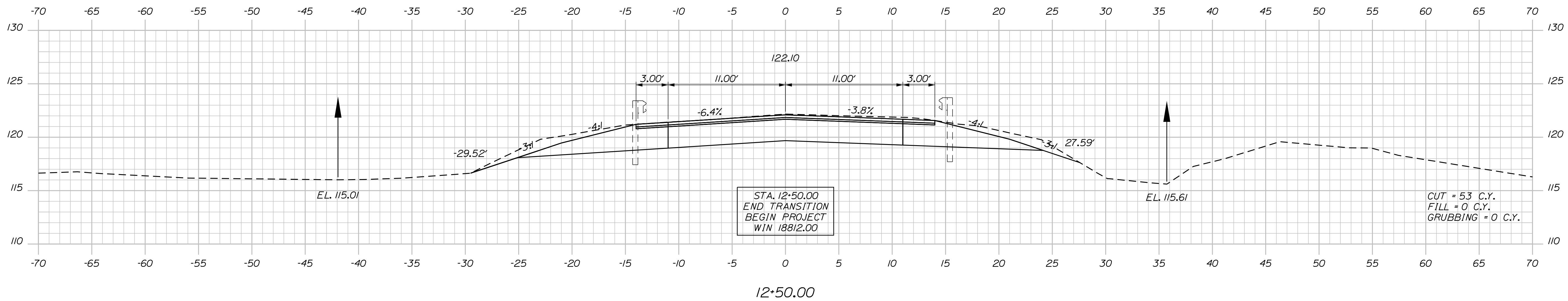
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Date: 3/28/2018

Username: T.Wolfel

Division: HIGHWAY

Filename: ... \HIGHWAY\MSTA\sect.dgn



| | | | | |
|--|--|----------------|------------------|---------------|
| STATE OF MAINE DEPARTMENT OF TRANSPORTATION | | 018812.00 | WIN 018812.00 | HIGHWAY PLANS |
| BUCKSPORT ROUTE 46 | | CROSS SECTIONS | | |
| SHEET NUMBER | | 8 | | |
| OF 12 | | OF 12 | | |

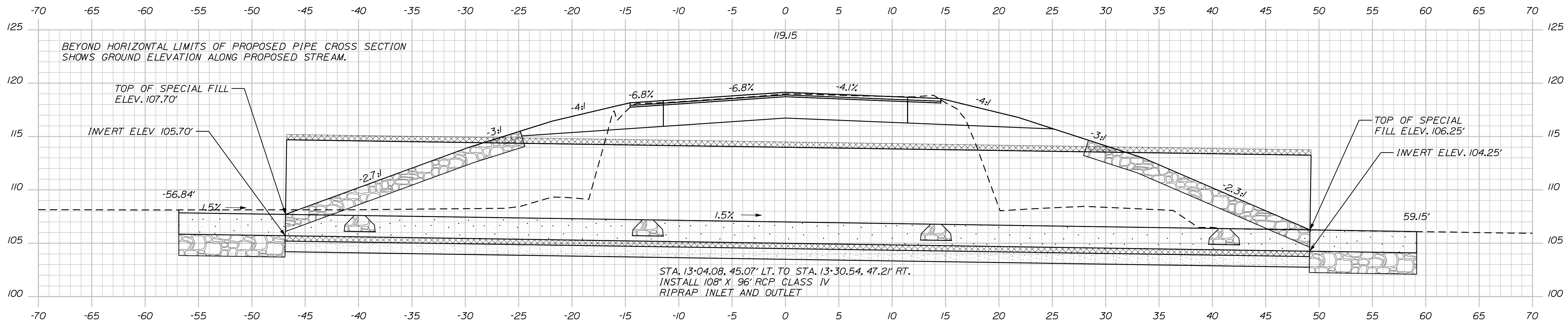
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|------------------|--------------|-------------|-----------|
| PROJ. MANAGER | R. BARROWS | DATE | 3/2018 |
| DESIGN-DETAILED | T. WOLFEL | BY | T. WOLFEL |
| CHECKED-REVIEWED | E. WALTON | DATE | 3/2018 |
| DESIGN-DETAILED | J. WENTWORTH | SIGNATURE | |
| REVISIONS 1 | | P.E. NUMBER | |
| REVISIONS 2 | | DATE | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

Date: 3/28/2018

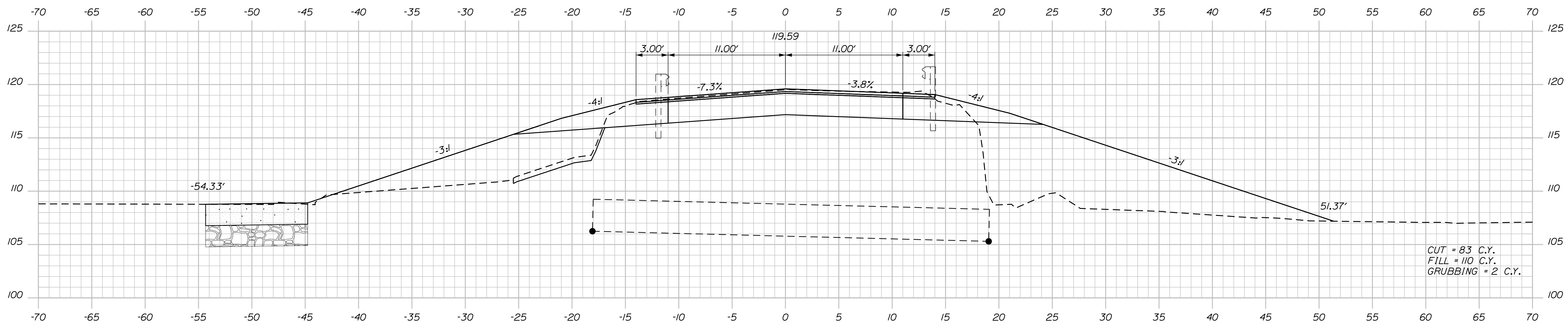
Username: T.Wolfel

Division: HIGHWAY

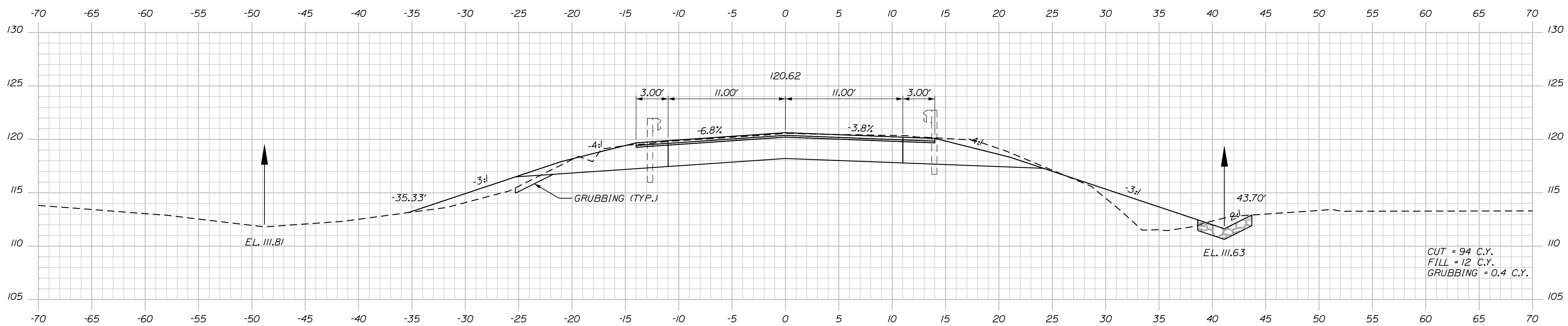
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13+17.00 (16° SKEW)



13+00.00



12+75.00

STA. 12+62 RT. TO STA. 13+00 RT.
INSTALL STONE DTICH PROTECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
018812.00
WIN
018812.00
HIGHWAY PLANS

| PROJ. MANAGER | R. BARROWS | BY | DATE |
|------------------|------------|--------------|--------|
| DESIGN-DETAILED | T. WOLFEL | T. WOLFEL | 3/2018 |
| CHECKED-REVIEWED | E. WALTON | J. WENTWORTH | 3/2018 |
| DESIGN-DETAILED | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

BUCKSPORT
ROUTE 46
CROSS SECTIONS

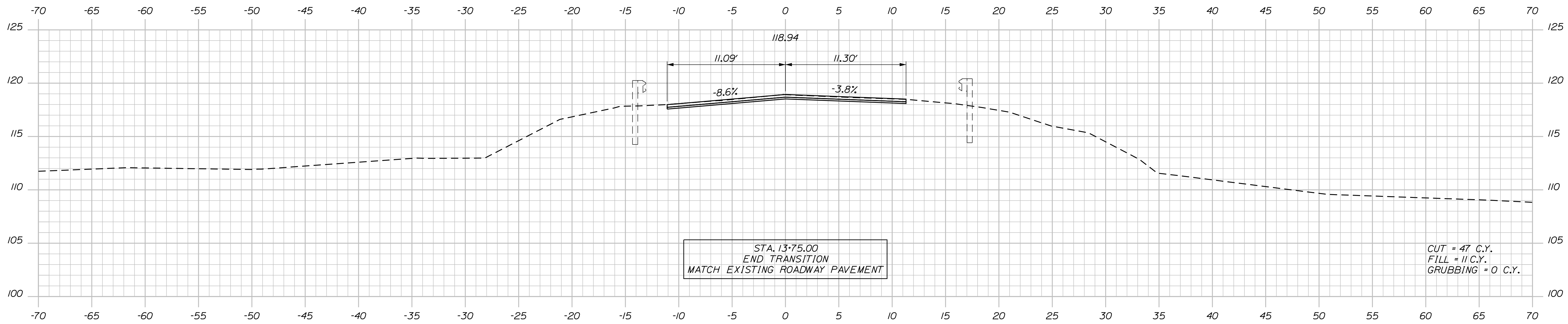
SHEET NUMBER
9
OF 12

Date: 3/28/2018

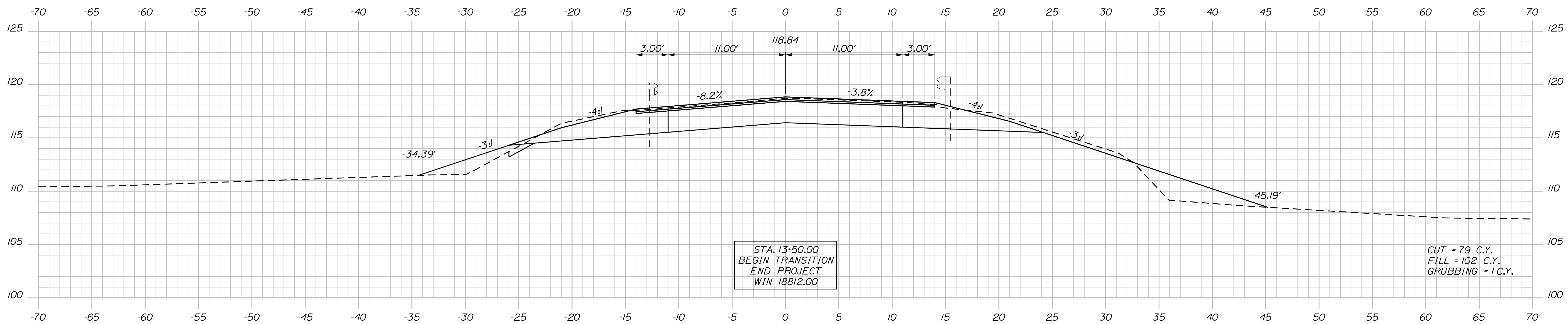
Username: T.Wolfel

Division: HIGHWAY

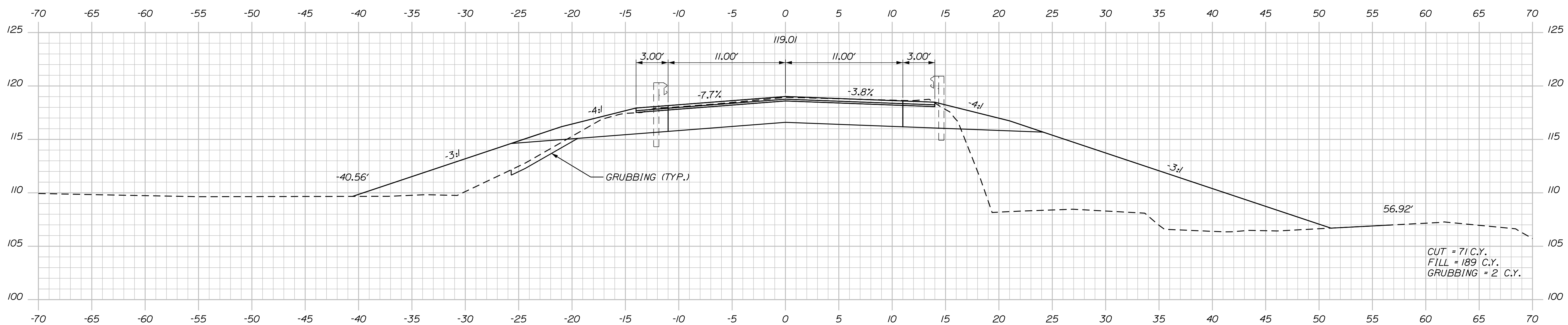
Filename: ... \HIGHWAY\MSTA\Xsect.dgn



13+75.00



13+50.00



13+25.00

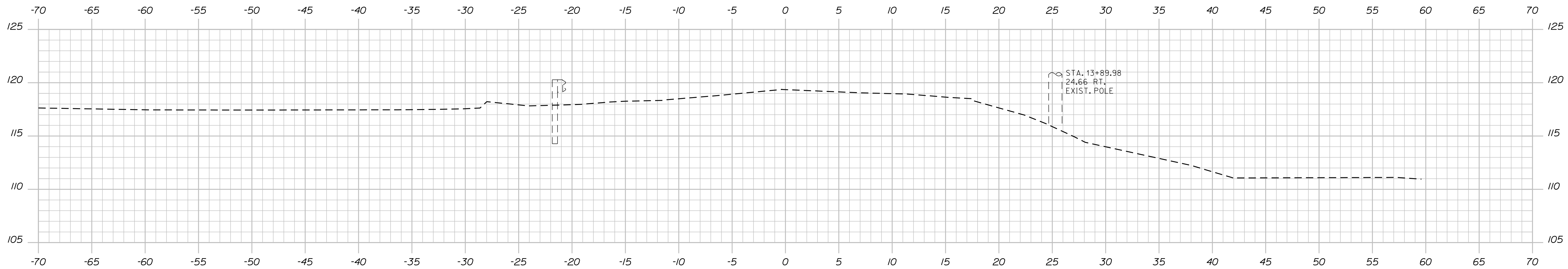
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
018812.00
WIN 018812.00
HIGHWAY PLANS

| | | | |
|-----------------|------------|------------------|--------------|
| PROJ. MANAGER | R. BARROWS | DATE | 3/2018 |
| DESIGN-DETAILED | T. WOLFEL | CHECKED-REVIEWED | J. WENTWORTH |
| DESIGN-DETAILED | E. WALTON | DESIGN-DETAILED | |
| REVISIONS 1 | | REVISIONS 2 | |
| REVISIONS 3 | | REVISIONS 4 | |
| FIELD CHANGES | | | |

| | | |
|-----------|-------------|------|
| SIGNATURE | P.E. NUMBER | DATE |
| | | |

BUCKSPORT
ROUTE 46
CROSS SECTIONS

SHEET NUMBER
10
OF 12



14+00.00

Sta. 14+00.00 to Sta. 14+00.00

BUCKSPORT
ROUTE 46

CROSS SECTIONS

SHEET NUMBER

11

OF 12

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018812.00

WIN

018812.00

HIGHWAY PLANS

DATE

3/2018

BY

T. WOLFEL

R. BARROWS

T. WOLFEL

E. WALTON

J. WENTWORTH

3/2018

SIGNATURE

P.E. NUMBER

DATE

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

Town, County, State _____
 Approx. Property Lines _____ P.L.
 Existing Right of Way _____
 Limits of Wrought Portion _____ L.O.W.P.
 Control Of Access _____ C.O.A.
 New Right of Way _____
 New Easement _____
 New Temporary Rights _____
 New R/W Within Existing R/W _____

New R/W Along Existing R/W _____
 Building _____
 Trees Conifer _____
 Tree Line _____
 Water Edge _____
 Ledge _____
 Fence CHAIN LINK _____
 Sign _____
 Clearing Limit Line _____
 Bush Line _____
 Rock/Boulder _____
 Flag Pole _____
 BARB WIRE _____
 STOCKADE _____
 WELL _____
 Mailbox _____

PLAN LEGEND

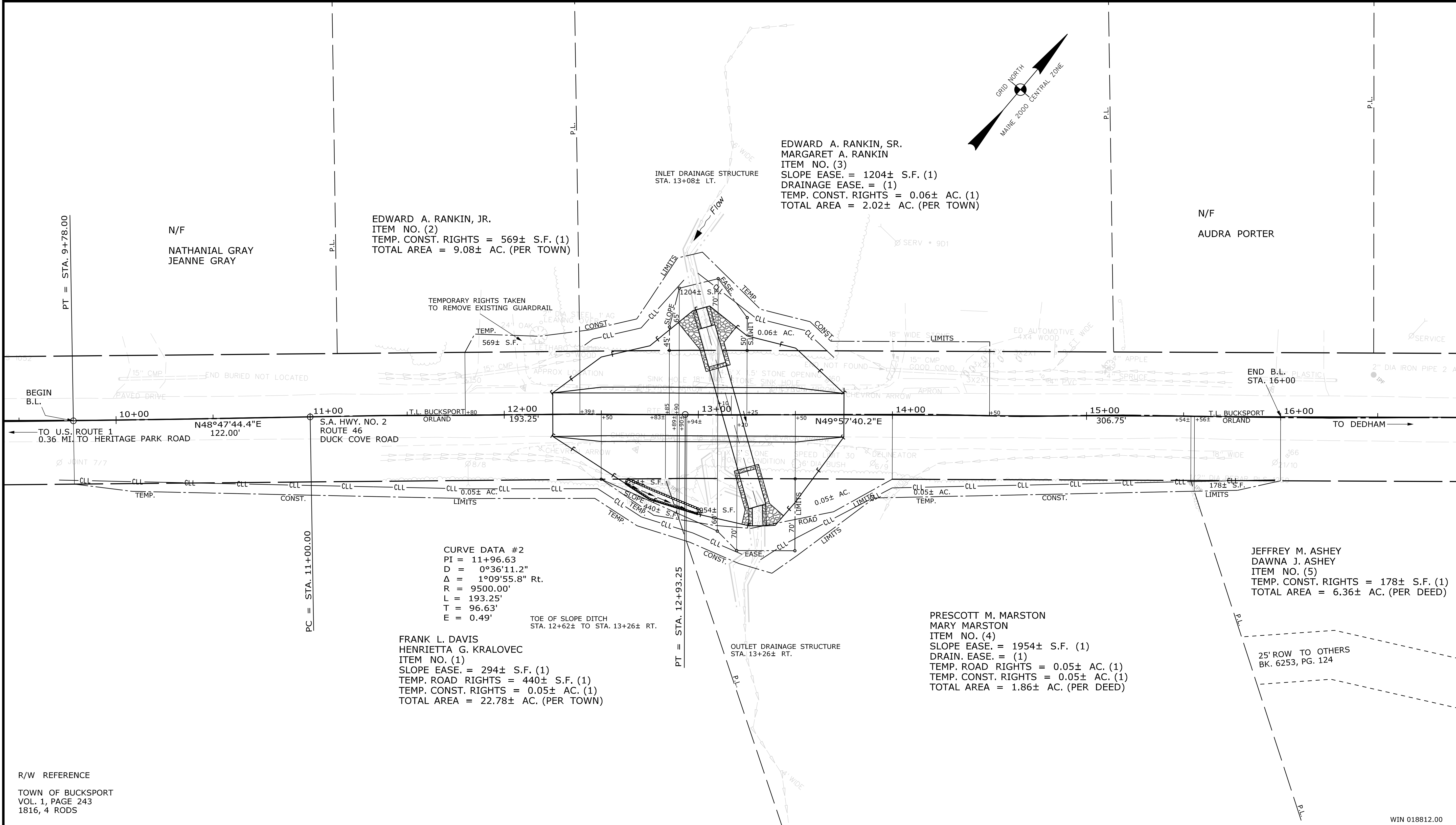
| | | |
|-----------------|----------|----------|
| Sanitary Sewer | Existing | Proposed |
| Telephone Line | Existing | Proposed |
| Electric Line | Existing | Proposed |
| Water Line | Existing | Proposed |
| Underdrain Line | Existing | Proposed |
| Gas Line | Existing | Proposed |
| Guardrail | Existing | Proposed |
| Culvert | Existing | Proposed |
| Traveled Way | Existing | Proposed |
| Ditch | Existing | Proposed |
| Catch Basin | Existing | Proposed |
| Manhole | Existing | Proposed |
| Sewer Manhole | Existing | Proposed |
| Utility Pole | Existing | Proposed |
| Fire Hydrant | Existing | Proposed |
| Curbing | Existing | Proposed |

Cut Line C-C
 Stonewall
 Baseline 10+00
 Monument
 Iron Rod Found IRF
 Replacement Pin Set
 Fill Line F-F
 Retaining Wall
 11+00
 Traverse Point
 Pipe Found IPF

STATE OF MAINE
 REGISTRY OF DEEDS
 COUNTY RECEIVED _____
 at _____ h _____ m _____ M and recorded in _____
 Plan Book _____, Page _____
 Attest: _____ REGISTER

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ADJACENT PROPERTY OWNERS.

25 0 25 50 75 100
 Scale of Feet



R/W REFERENCE
 TOWN OF BUCKSPORT
 VOL. 1, PAGE 243
 1816, 4 RODS

| REVISIONS | | | PLAN FILED IN PLAN BOOK | | | | PAGE COUNTY RECORD | | | | |
|-----------|------|-------------|-------------------------|---------|------------|------|--------------------|------|--|--|--|
| NO. | DATE | DESCRIPTION | NO. | GRANTOR | INSTRUMENT | DATE | BOOK | PAGE | | | |
| | | | | | | | | | | | |

DAVID BERNHARDT
 COMMISSIONER
 JOYCE NOEL TAYLOR
 CHIEF ENGINEER
 DATE _____

STATE AID HIGHWAY NO. 2
 ROUTE 46 DUCK COVE ROAD
 BUCKSPORT / ORLAND HANCOCK COUNTY
 STATE PROJECT NO. 18812.00
 DECEMBER 2017 RIGHT-OF-WAY MAP
 SCALE 1" = 25' SHEET 1 OF 1
 D.O.T. FILE NO. 5-306

SHEET NUMBER
12
 OF 12

Date: 3/21/2018
 Username: betina.martin
 Division: ROW
 Filename: ... \00\ROW\MSTA001_RWP\LAN1.dgn

| ITEM | TECH | CHECKED |
|-------------------------|------|---------|
| EXISTING CONDITION PLAN | BDM | |
| FINAL RIGHT OF WAY | BDM | |
| AREAS | BDM | |

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
 BUCKSPORT / ORLAND
 RIGHT OF WAY MAP

WIN 018812.00