

	STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	24415	1	1

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

TAC-0434(059)
East River Road - Shared Use Path
Billings County
East River Road
South of Medora, ND
Grading, Sidewalk Concrete, Pedestrian Bridge, Incidentals

GOVERNING SPECIFICATIONS

Date Published and Adopted
by the North Dakota
Department of Transportation

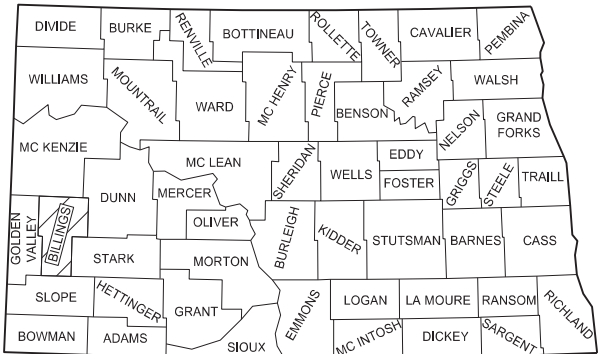
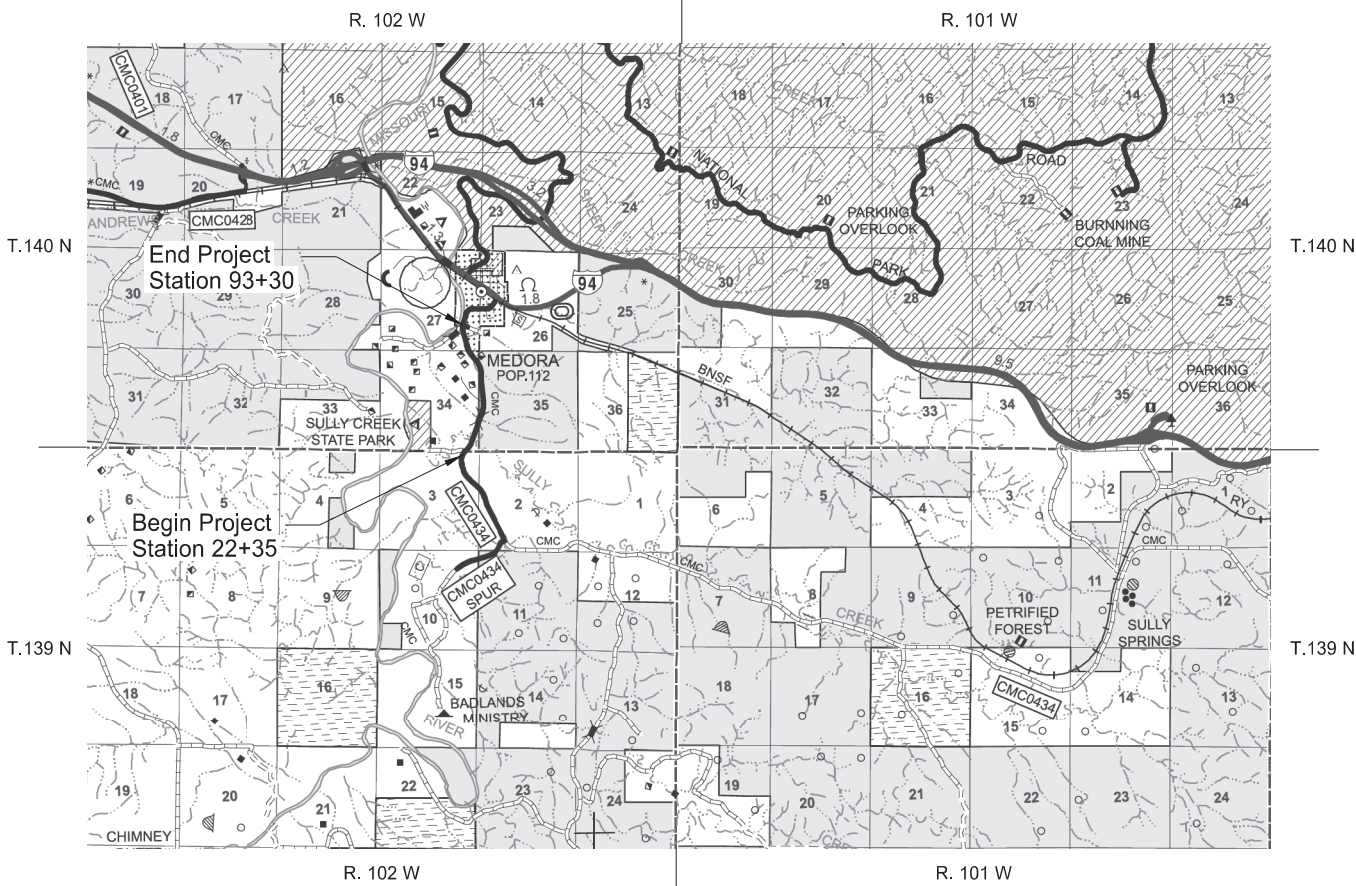
Standard Specifications

7/1/2025

Supplemental Specifications

NONE

PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
TAC-0434(059)	1.34	1.34



STATE COUNTY MAP

Little Missouri National Grassland
APPROVED CURTIS GRUDNIEWSKI
Grassland Engineer
DATE _____
Digitally signed by CURTIS GRUDNIEWSKI
Date: 2025.12.02 10:58:25 -07'00'

ND DEPARTMENT OF TRANSPORTATION
LOCAL GOVERNMENT DIVISION

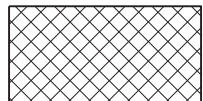
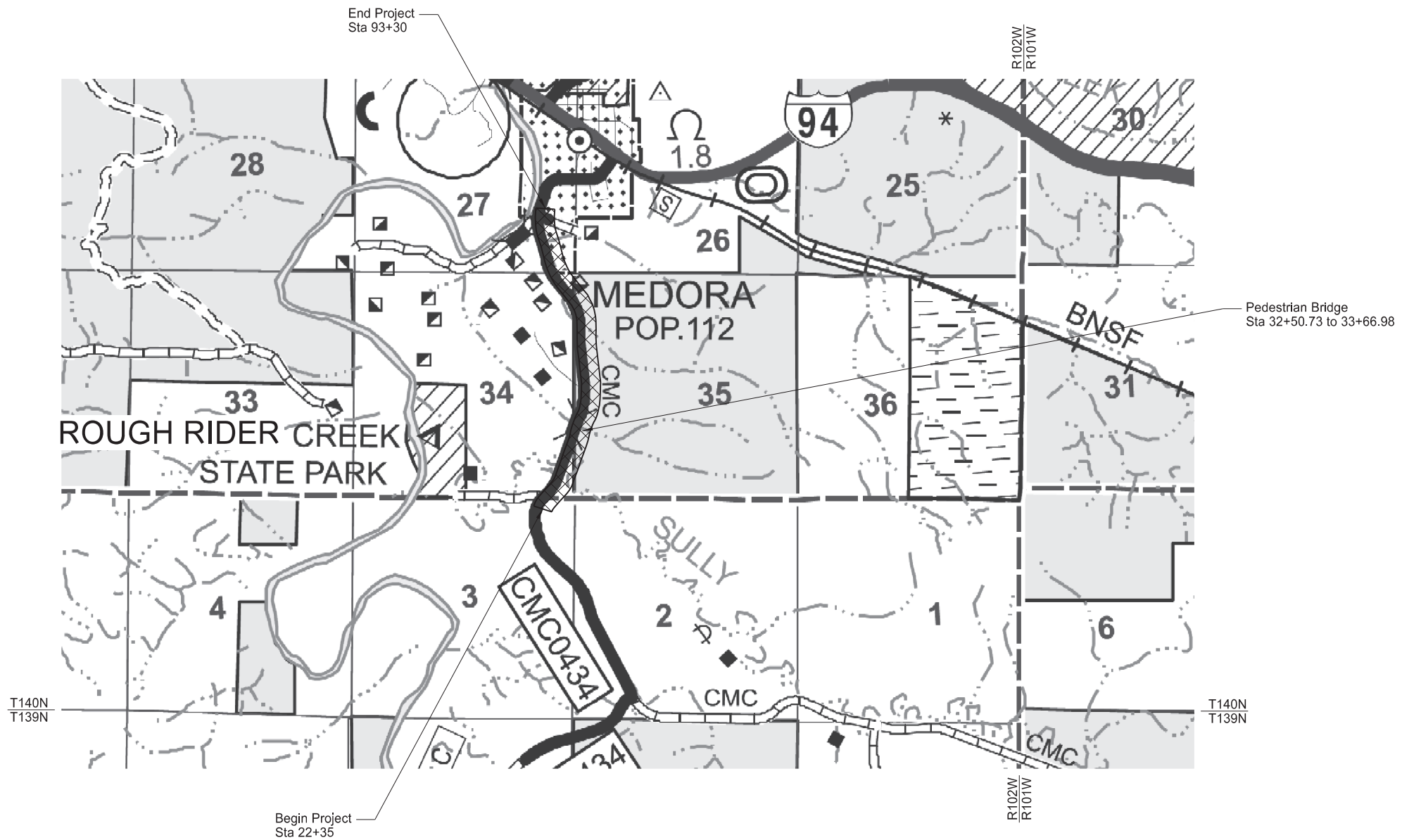
Brosz Engineering, Inc.



DESIGNER
Gayle Cox, PE
DESIGNER
Daniel Duppong
DESIGNER

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Shared Use Path Installation

Scope of Work
Shared Use Path
East River Road
Billings County



NOTES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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- 107-P01 EXISTING SURFACING: Use care to protect existing surfacing during construction activity. Any damage to existing surfacing will be the responsibility of the Contractor to repair.
- 201-P01 CLEARING AND GRUBBING: Include the cost to remove and dispose of all trees, stumps and brush within the construction area or wherever designated in the plans in the contract lump sum price for "Clearing and Grubbing." No field measurements will be taken. This includes the cost of removing and disposing of large trees. Exercise care in your construction operations to ensure that trees, shrubs and native grasses outside of the construction area are not disturbed.
- 203-010 SHRINKAGE: 25 percent additional volume is included for shrinkage in earth embankment.
- 203-385 HAUL: No average haul has been computed for this project.
- 251-P01 SEEDING CLASS III: Provide the minimum amount of seed per acre shown in the table below for Class III seed.

- 704-P01 TRAFFIC CONTROL: Install portable work zone traffic control devices for protection of the public and protection of work. Keep the shared use path closed to pedestrians until the project has been approved for use by the Engineer. Traffic control device quantities are based on Standard D-704-19, Type F and Standard D-704-24, Layout Type R.
- 762-050 PAVEMENT MARKING: If the Engineer and Contractor agree, plan quantity will be used as the measurement for payment for pavement marking items.

Seeding Rate Guidelines
Scenario #13 All Sites

Species	Preferred Cultivar, Ecotype, or Germplasm	Common Name	% of Mix	Number Seed per lb.	Number Seed per ft²	Number Seed per acre	Drilled PLS lb./acre
Cool Season Grasses: <i>Elymus canadensis</i> <i>Nassella viridula</i> <i>Pascopyrum smithii</i>	Mandan	Canada wildrye	0.15	115,000	7.5	326,700	2.8
	Lodorm	Green needlegrass	0.20	180,000	10.0	435,600	2.4
	Rodan	Western wheatgrass	0.25	112,000	12.5	544,500	4.9
Warm Season Grasses <i>Bouteloua gracilis</i> <i>Calamovilfa longifolia</i> <i>Schizachyrium scoparium</i>	Bad River	Blue grama	0.10	750,000	5.0	217,800	0.3
	Goshen	Prairie sandreed	0.10	275,000	5.0	217,800	0.8
	Badlands	Little bluestem	0.10	286,000	5.0	217,800	0.8
Alternate Warm Season (for one of above species) <i>Bouteloua curtipendula</i>	Pierre	Sideoats grama	0.10	180,000	5.0	217,800	1.2
Forbs <i>Dalea purpurea</i> OR <i>Dalea candida</i>	Local ¹	Purple prairieclover	0.04	290,000	1.8	78,408	0.25
<i>Helianthus pauciflorus</i> OR <i>Solidago rigida</i>	Antelope ¹	White prairieclover	0.04	278,000	1.8	78,408	0.3
<i>Echinacea angustifolia</i> OR <i>Ratibida columnifera</i>	Bismarek ¹	Stiff sunflower	0.03	85,000	1.4	60,984	0.7
	Local ¹	Stiff goldenrod	0.03	656,000	1.4	60,984	0.1
	Bismarek ¹	Purple coneflower	0.03	120,000	1.4	60,984	0.5
	Local ¹	Prairie coneflower	0.03	737,000	1.4	60,984	0.1
Totals			100%		49.6	Forbs 13.4 Alternate Forbs (12.5)	

Seeding Rates Formulas

- A - % of Mix
- B - Number of seeds per lb.
- C - Number of seeds per ft² (C = A x 50)
- D - Number of seeds per acre (D = C x 43560)
- E - Drilled Pure Live Seed (PLS) lb./acre (E = D / B)



ENVIRONMENTAL NOTES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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ENVIRONMENTAL NOTES (EN): Billings County has made environmental commitments to secure approval of the project. The following environmental notes are requirements to comply with these commitments:

EN-1 PRECONSTRUCTION MEETING: A preconstruction meeting including a US Forest Service Engineer, a representative from Billings County Roadway Department and the contractor will take place before construction begins. Contact Curt Grudniewski at 701-227-7855 to schedule the preconstruction meeting.

EN-2 THREATENED AND ENDANGERED SPECIES: If any threatened or endangered species are seen in the area during construction, construction should cease to avoid stress to the species until they have moved from the area and USFS should be notified.

EN-3 HAZARDOUS MATERIALS: In the event that previously unknown contaminants are discovered during construction, or spill occurs during construction, work would cease until the Contractor notifies the DEQ/Division of Emergency Management (800-472-2121). The National Response Center (800-424-8802) may also need to be contacted if the spill could affect navigable water of the United States. Any contaminated soil encountered would be temporarily stockpiled and sampled to determine disposal requirements.

EN-4 CULTURAL RESOURCES: If any construction activity results in discover of cultural resources on lands managed by US Forest Service or in the jurisdictional waterways, work shall cease until the Contractor notifies the US Forest Service or US Army Corps of Engineers, as appropriate. The Contractor would be required to protect the material until cultural resource concerns have been addressed. The appropriate agency will consult with SHPO to make decisions on the appropriate course of action in compliance with Section 106 of NHPA, NAGRPA, and the American Indian Religious Freedom Act. For inadvertent discoveries occurring on land managed by US Forest Service or containing a jurisdictional waterway, human remains are still protected, and if discovered, should be left in place and local law enforcement and the SHPO should be notified.

EN-5 US FOREST SERVICE LANDS BOTANY: Any sensitive or watch species that are identified within the working limits should be reported to the US Forest Service Billings Ranger District Office.

Vehicles and equipment used for construction will be cleaned prior to entering areas adjacent to lands managed by US Forest Service to remove all seeds and plant material in order to prevent the potential spread of invasive species.

Disturbance needs to be kept to a minimum to reduce impacts to suitable sensitive species habitat and native vegetation communities in general and also to reduce the spread of noxious and invasive species.

The project area must be reclaimed using US Forest Service Seeding Scenario #13.

If noxious weeds are found anywhere, they need to be treated, and if necessary reseeded. Field crews must be trained to correctly recognize noxious weeds and avoid effects to native species.

All waste generated liquid and or solid shall be disposed of off of Federals lands in accordance with local ordinances, state law and federal regulations

EN-6 PROJECT IMPACTS: All ground disturbing activities on US Forest Service Land will occur within the existing 150 foot roadway Right of Way Easement.

As required by 36 CFR 228.108(g)(3) surface use requirements, the operator must: control soil erosion and landslides, control water runoff; remove, control, solid wastes, toxic substance, and hazardous substances.

EN-7 TREE REMOVAL: No trees 3” DBH or greater shall be removed from April 1 through September 30 to avoid impacts to the Northern Long-Eared Bat.



Estimated Quantities						STATE	PROJECT NO.	SECTION NO.	SHEET NO.
					ND	TAC-0434(059)	8	1	
					Mainline				
SPEC	CODE	ITEM DESCRIPTION	UNIT						TOTAL
103	0100	CONTRACT BOND	L SUM	1					1
201	0330	CLEARING & GRUBBING	L SUM	1					1
202	0130	REMOVAL OF CURB & GUTTER	LF	65					65
202	0312	REMOVE EXISTING FENCE	LF	1130					1130
203	0102	COMMON EXCAVATION-TYPE B	CY	57					57
203	0109	TOPSOIL	CY	3058					3058
203	0140	BORROW-EXCAVATION	CY	19577					19577
210	0099	CLASS 1 EXCAVATION	L SUM	1					1
210	0127	CHANNEL EXCAVATION	L SUM	1					1
210	0201	FOUNDATION PREPARATION	EA	1					1
216	0100	WATER	M GAL	232					232
251	0200	SEEDING CLASS II	ACRE	3.3					3.3
251	0300	SEEDING CLASS III	ACRE	2.5					2.5
251	2000	TEMPORARY COVER CROP	ACRE	5.8					5.8
253	0101	STRAW MULCH	ACRE	11.6					11.6
261	0112	FIBER ROLLS 12IN	LF	4266					4266
261	0113	REMOVE FIBER ROLLS 12IN	LF	2133					2133
302	0120	AGGREGATE BASE COURSE CL 5	TON	1794					1794
602	1130	CLASS AE-3 CONCRETE	CY	27.6					27.6
602	1250	PENETRATING WATER REPELLENT TREATMENT	SY	127					127
612	0115	REINFORCING STEEL-GRADE 60	LBS	3514					3514
622	0012	STEEL H-PILE TIPS 10 X 42	EA	4					4
622	0020	STEEL PILING HP 10 X 42	LF	80					80
622	0393	STEEL TEST PILING HP 10 X 42	LF	90					90
624	0123	PEDESTRIAN RAILING	LF	35					35
702	0100	MOBILIZATION	L SUM	1					1
704	0100	FLAGGING	MHR	1500					1500
704	1000	TRAFFIC CONTROL SIGNS	UNIT	929					929
704	1060	DELINEATOR DRUMS	EA	120					120
704	1067	TUBULAR MARKERS	EA	111					111
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	14					14
709	0800	PERFORATED GEOCELL	SY	15					15
714	1510	PIPE CONC REINF 72IN CL III	LF	8					8
714	4106	PIPE CONDUIT 24IN-APPROACH	LF	56					56
714	5015	PIPE CORR STEEL .064IN 18IN	LF	50					50
714	5035	PIPE CORR STEEL .064IN 24IN	LF	112					112
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES	EA	10					10
750	0115	SIDEWALK CONCRETE 4IN	SY	7553					7553
750	0140	SIDEWALK CONCRETE 6IN	SY	82					82
750	2115	DETECTABLE WARNING PANELS	SF	151					151
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	293					293
754	0592	RESET SIGN PANEL	EA	21					21
762	0114	EPOXY PVMT MK 6IN LINE	LF	171					171
766	0100	MAILBOX-ALL TYPES	EA	1					1
930	9537	ABUTMENT UNDERDRAIN SYSTEM	EA	2					2
930	9750	PEDESTRIAN BRIDGE - PRE-FAB	EA	1					1

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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EARTHWORK SUMMARY				
Location	Common Excavation Type B *Pay Item	Embankment (CY)	Borrow - Excavation *Pay Item	Topsoil (CY) *Pay Item
Sta 22+35 to 93+30	57	19,634	19,577	3,058
Total	57	19,634	19,577	3,058

*Topsoil Volumes Computed from Surface Areas Measurements at a 4" Depth.
*Embankment Includes 25% Shrinkage

216 - 0100 WATER				
Description	Basis	Amount	Unit	Quantity
Aggregate	20 Gal/Ton	1,794.0	M GAL	36
Embankment	10 Gal/CY	19,634	M GAL	196
TOTAL:				232

Surfacing
Sidewalk Concrete @ 111.1 SY/Sta.
Aggregate Base Course CL5 @ 1.875 Ton/CY

Water
20 Gal/Ton for Aggregate
10 Gal/CY for Embankment

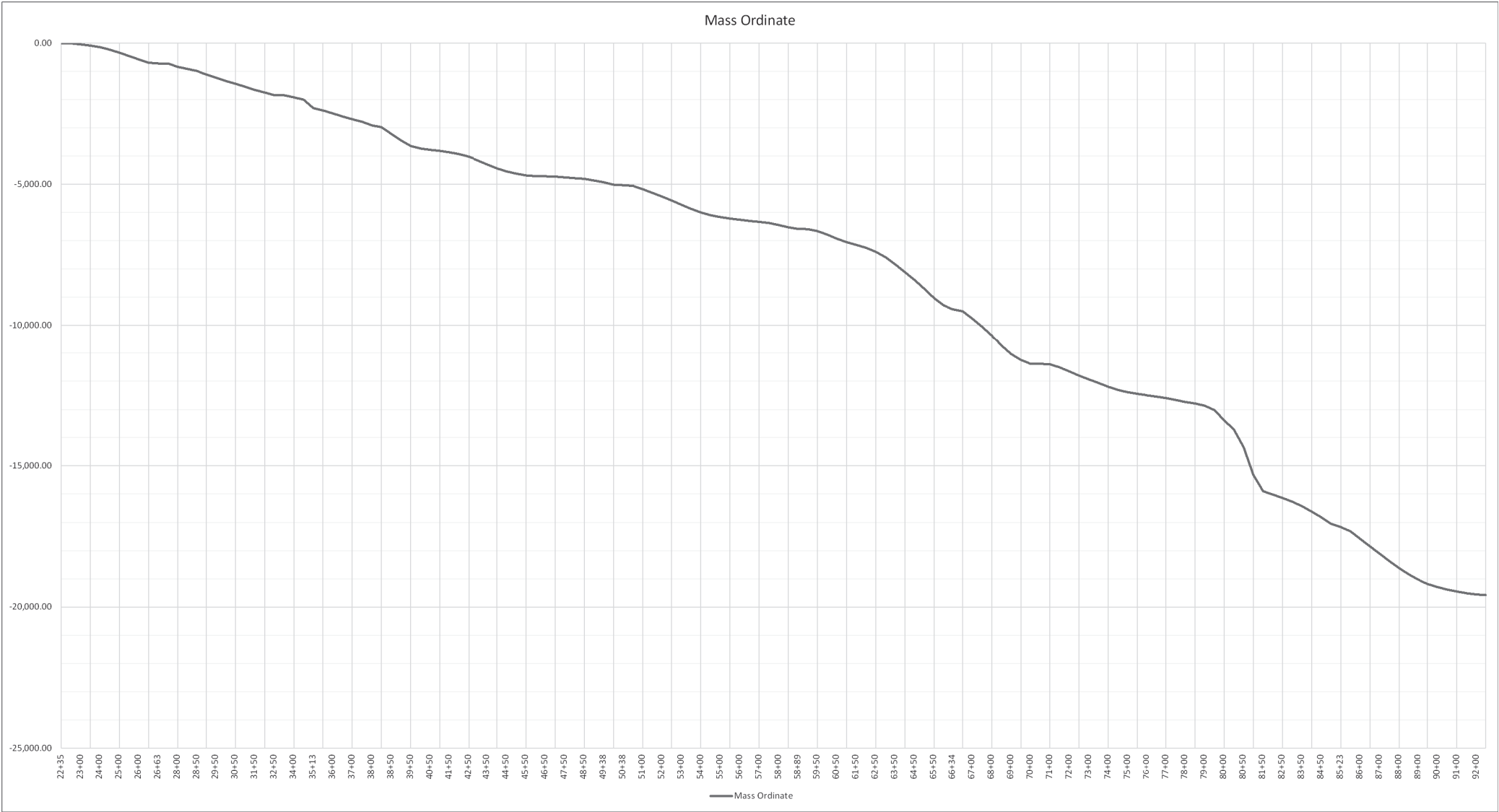
Mailbox Summary						
Existing Location		Proposed Location		Reset	Post Mount	Quantity (EA)
Station	Offset (ft)	Station	Offset (ft)			
27+43	24 RT	27+33	38 RT	1	1	1

Basis of Estimate
Shared Use Path
East River Road
Billings County



Station	Excavation (CY)	Embankment (CY)	Mass Ordinate
22+35	0.00	0.00	0.00
22+50	0.79	12.18	-11.39
23+00	2.47	39.99	-48.91
23+50	1.96	41.27	-88.21
24+00	1.87	59.77	-146.11
24+50	1.18	88.49	-233.42
25+00	0.34	109.97	-343.06
25+50	1.10	120.10	-462.07
26+00	1.99	122.82	-582.90
26+50	3.04	117.00	-696.86
26+63	0.92	29.15	-725.09
27+52	0.00	0.00	-725.09
28+00	0.63	118.16	-842.62
28+23	0.00	73.00	-915.61
28+50	0.00	75.13	-990.74
29+00	0.00	120.65	-1,111.39
29+50	0.00	114.53	-1,225.92
30+00	0.00	114.76	-1,340.67
30+50	0.00	101.53	-1,442.20
31+00	0.00	104.99	-1,547.19
31+50	0.00	114.31	-1,661.50
32+00	4.71	91.77	-1,748.56
32+50	14.36	116.33	-1,850.54
33+67	0.00	0.00	-1,850.54
34+00	0.00	71.07	-1,921.61
34+25	0.00	81.86	-2,003.47
35+13	0.00	299.42	-2,302.89
35+50	0.00	82.57	-2,385.46
36+00	0.00	105.07	-2,490.52
36+50	0.00	108.08	-2,598.60
37+00	0.00	100.38	-2,698.98
37+50	0.00	86.10	-2,785.09
38+00	0.00	126.03	-2,911.11
38+12	0.00	66.95	-2,978.06
38+50	0.00	232.92	-3,210.98
39+00	0.00	237.62	-3,448.60
39+50	0.00	195.40	-3,644.00
40+00	0.07	90.15	-3,734.08
40+50	0.07	46.71	-3,780.71
41+00	0.00	37.66	-3,818.37
41+50	0.00	50.67	-3,869.04
42+00	0.00	65.45	-3,934.49
42+50	0.00	90.52	-4,025.02
43+00	0.00	128.02	-4,153.03
43+50	0.00	145.91	-4,298.94
44+00	0.00	138.12	-4,437.06
44+50	0.06	107.89	-4,544.89
45+00	0.37	81.52	-4,626.03
45+50	0.39	58.68	-4,684.31
46+00	0.51	27.67	-4,711.47
46+50	0.96	8.71	-4,719.22
47+00	0.69	10.05	-4,728.58
47+50	0.16	25.10	-4,753.52
48+00	0.10	28.79	-4,782.20
48+50	0.10	23.53	-4,805.64
49+00	0.00	60.79	-4,866.42
49+38	0.00	60.87	-4,927.29
50+21	0.16	87.00	-5,014.12
50+38	0.03	19.34	-5,033.43
50+50	0.00	23.33	-5,056.76
51+00	0.00	117.68	-5,174.44
51+50	0.00	129.70	-5,304.14
52+00	0.00	132.11	-5,436.25
52+50	0.00	140.16	-5,576.40
53+00	0.00	148.84	-5,725.24
53+50	0.00	146.51	-5,871.75
54+00	0.00	127.84	-5,999.59
54+50	0.00	97.62	-6,097.21
55+00	0.00	66.02	-6,163.24
55+50	0.00	48.88	-6,212.12
56+00	0.00	44.20	-6,256.31
56+50	0.00	41.78	-6,298.09
57+00	0.07	33.09	-6,331.11
57+50	0.07	38.39	-6,369.42
58+00	0.00	72.48	-6,441.91
58+50	0.00	83.22	-6,525.13
58+89	0.00	52.90	-6,578.03
59+00	0.00	11.84	-6,589.86
59+50	0.00	70.75	-6,660.61
60+00	0.00	122.33	-6,782.94
60+50	0.00	142.65	-6,925.59
61+00	0.00	120.97	-7,046.56

Station	Excavation (CY)	Embankment (CY)	Mass Ordinate
61+50	0.00	99.32	-7,145.88
62+00	0.00	106.20	-7,252.08
62+50	0.00	137.03	-7,389.12
63+00	0.00	194.12	-7,583.24
63+50	0.00	254.49	-7,837.73
64+00	0.00	277.22	-8,114.95
64+50	0.00	275.11	-8,390.05
65+00	0.17	313.10	-8,702.99
65+50	0.43	328.42	-9,030.98
66+00	1.90	259.34	-9,288.42
66+34	2.63	145.19	-9,430.98
66+50	1.34	66.61	-9,496.25
67+00	2.25	263.61	-9,757.61
67+50	0.29	286.71	-10,044.04
68+00	0.74	312.87	-10,356.17
68+50	1.44	375.72	-10,730.44
69+00	0.79	303.67	-11,033.33
69+50	0.00	207.51	-11,240.84
70+00	0.00	140.68	-11,381.52
70+88	0.00	0.00	-11,381.52
71+00	0.17	16.97	-11,398.32
71+50	0.00	110.85	-11,509.18
72+00	0.00	146.05	-11,655.23
72+50	0.00	147.51	-11,802.74
73+00	0.00	132.51	-11,935.25
73+50	0.00	127.42	-12,062.68
74+00	0.00	134.94	-12,197.61
74+50	0.00	112.69	-12,310.30
75+00	0.00	77.63	-12,387.94
75+50	0.00	59.90	-12,447.83
76+00	0.00	48.98	-12,496.81
76+50	0.00	46.48	-12,543.29
77+00	0.00	54.13	-12,597.42
77+50	0.00	66.21	-12,663.63
78+00	0.00	73.12	-12,736.75
78+50	0.85	52.40	-12,788.30
79+00	0.87	82.85	-12,870.28
79+50	0.04	151.53	-13,021.77
80+00	0.02	365.56	-13,387.32
80+19	0.00	323.57	-13,710.88
80+50	0.00	626.86	-14,337.74
81+00	0.01	976.52	-15,314.25
81+50	0.06	584.38	-15,898.57
82+00	0.06	114.09	-16,012.60
82+50	0.01	124.23	-16,136.81
83+00	0.03	131.19	-16,267.98
83+50	0.03	159.63	-16,427.59
84+00	0.00	191.10	-16,618.69
84+50	0.00	202.34	-16,821.03
85+00	0.00	227.72	-17,048.75
85+23	0.00	119.03	-17,167.78
85+50	0.00	150.44	-17,318.22
86+00	0.00	266.05	-17,584.27
86+50	0.00	261.84	-17,846.11
87+00	0.00	264.79	-18,110.90
87+50	0.00	261.57	-18,372.48
88+00	0.00	246.80	-18,619.28
88+50	0.00	221.88	-18,841.16
89+00	0.00	195.15	-19,036.31
89+50	0.02	149.89	-19,186.18
90+00	0.03	103.99	-19,290.14
90+50	0.00	89.15	-19,379.29
91+00	0.19	74.85	-19,453.96
91+50	1.29	58.41	-19,511.08
92+00	1.94	46.76	-19,555.90
92+23	0.39	21.40	-19,576.90
TOTAL	57.16	19,634.06	



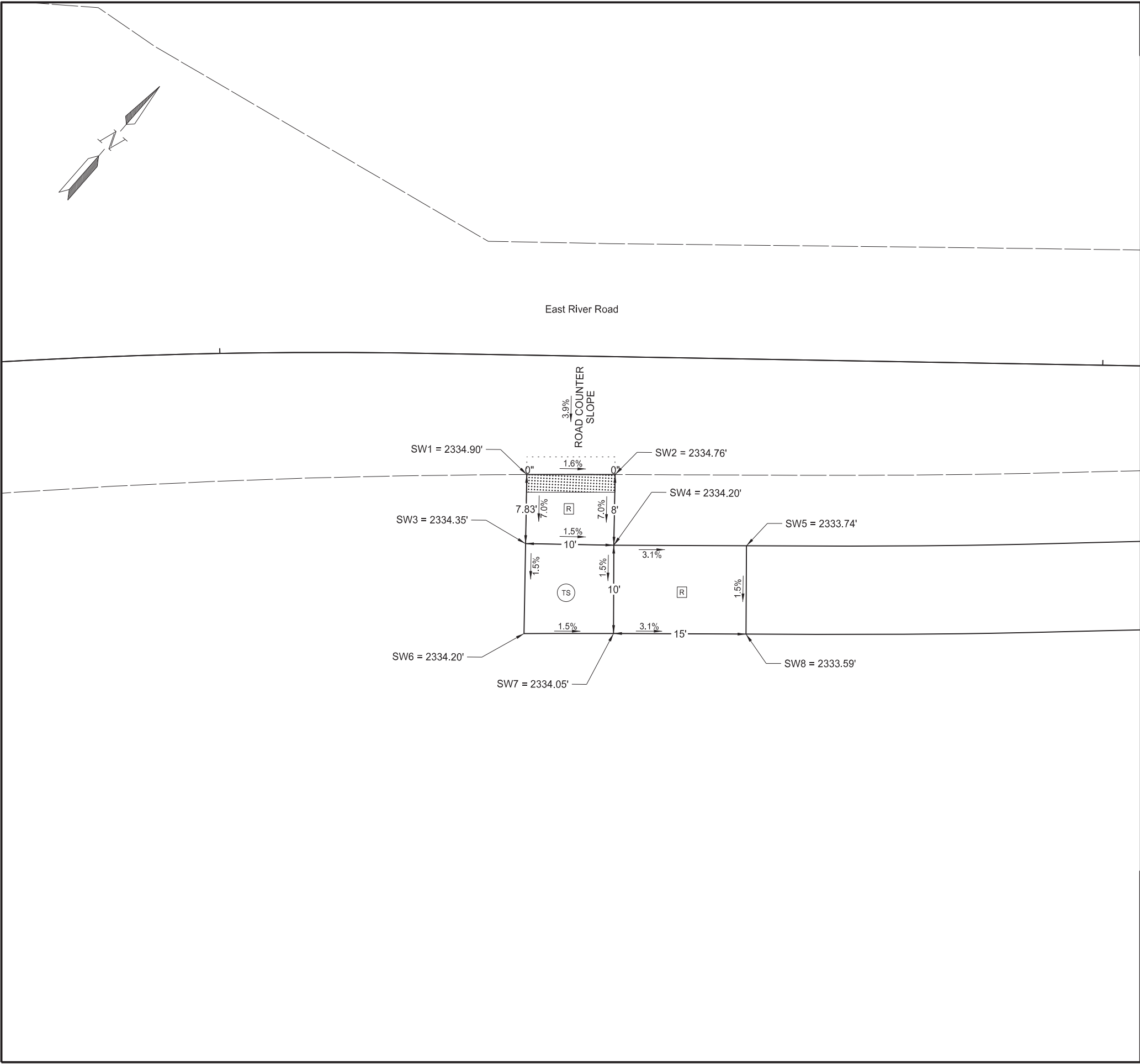
End Area Volumes

Shared Use Path

East River Road

Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	20	1


Point	Station	Offset
SW1	22+35.00	13.52' RT
SW2	22+45.00	13.34' RT
SW3	22+35.00	21.34' RT
SW4	22+45.00	21.34' RT
SW5	22+60.02	21.15' RT
SW6	22+35.00	31.52' RT
SW7	22+45.15	31.35' RT
SW8	22+60.15	31.15' RT

LEGEND

- (TS)** :Turning Space/Landing
Use at top of ramp or when changing directions
1.5% preferred slope (2% max. all directions)

(L) :Clear space outside traffic lanes of travel
4' long x width of EPF or 4' Min
1.5% Pref. Cross Slope
2.0% Max Cross Slope
4.7% Pref. Running Slope
5.0% Max Running Slope

PTA :Pedestrian Access Transition Area
Running Slope less than 4.9%
Transition Cross Slope at 0.5% per foot from the Ramp Area to Existing EPF.

 :Detectable Warning Panel
- (R)** :Preferred Ramp Grade = 5% to 7.5%
Maximum Constructed Grade = 8.3%
Preferred Cross Slope = 1.5%
Maximum Constructed Cross Slope = 2%
Maximum Length = 15 feet

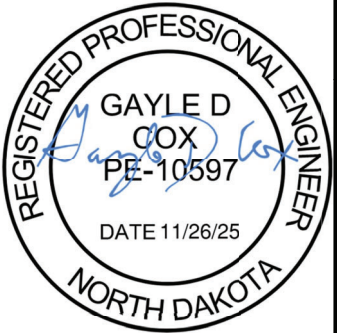
(B) :1.5% preferred cross slope
2% maximum constructed cross slope running slope consistent with the EPF
4.7% preferred max counter slope
5.0% max constructed counter slope

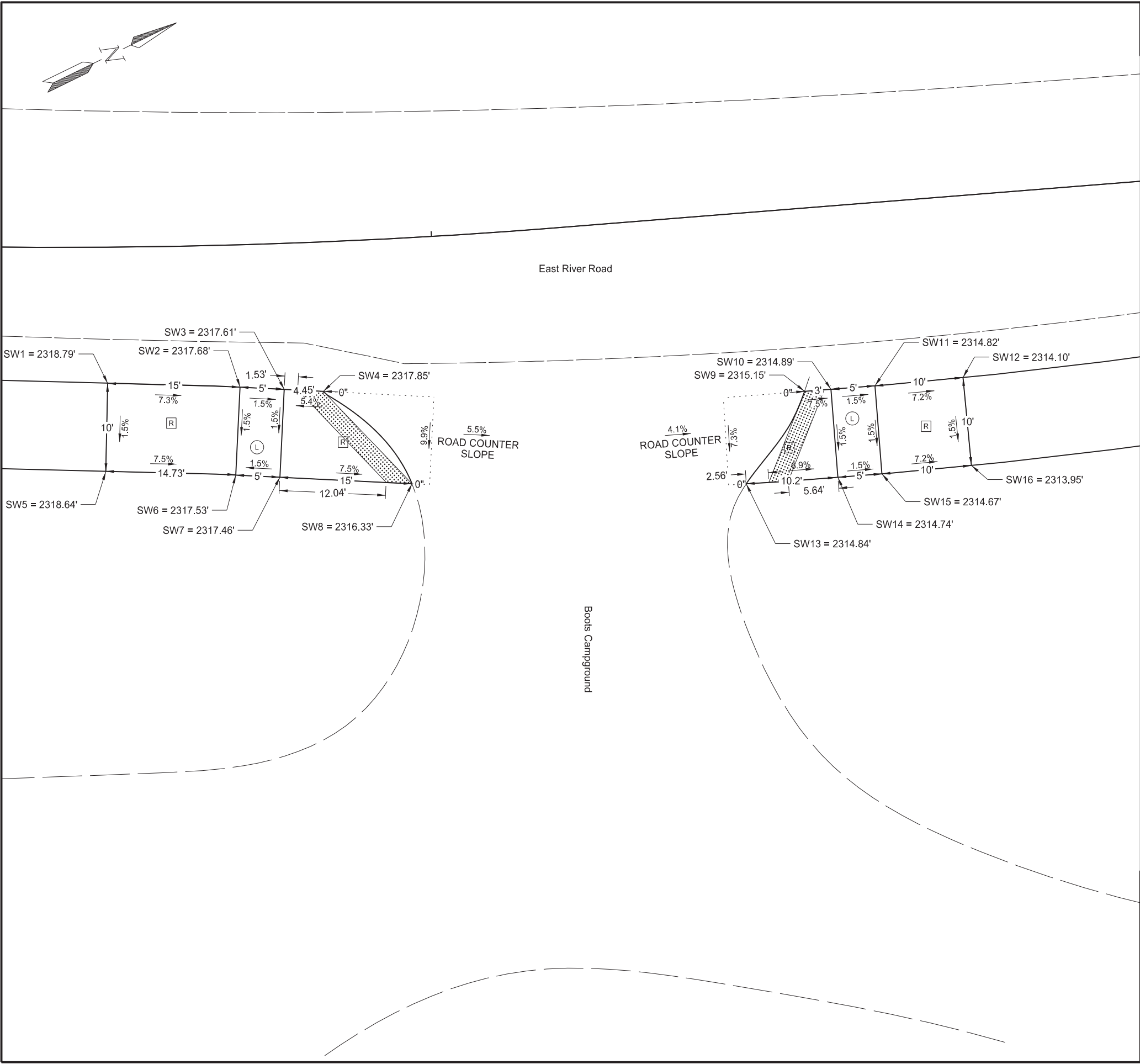
0", 3", 6" :Curb Height

(10) :10:1 Max Slope
(4) :4:1 Max Slope

H.P: High Point
L.P: Low Point
M.E.: Match Existing

ADA Ramp Details
Shared Use Path
East River Road
Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	20	2

Point	Station	Offset
SW1	26+63.19	15.43' RT
SW2	26+77.86	16.11' RT
SW3	26+82.73	16.52' RT
SW4	26+87.06	16.91' RT
SW5	26+62.91	25.42' RT
SW6	26+77.12	26.05' RT
SW7	26+81.92	26.45' RT
SW8	26+96.30	27.84' RT
SW9	27+40.73	20.69' RT
SW10	27+43.73	20.69' RT
SW11	27+48.73	20.70' RT
SW12	27+58.73	20.55' RT
SW13	27+33.31	30.61' RT
SW14	27+43.72	30.69' RT
SW15	27+48.72	30.70' RT
SW16	27+58.90	30.55' RT

LEGEND

- (TS)

(L)

:Turning Space/Landing
Use at top of ramp or when
changing directions
1.5% preferred slope (2% max. all directions)
- (R)

:Preferred Ramp Grade = 5% to 7.5%
Maximum Constructed Grade = 8.3%
Preferred Cross Slope = 1.5%
Maximum Constructed Cross Slope = 2%
Maximum Length = 15 feet
- (B)

:1.5% preferred cross slope
2% maximum constructed cross slope
running slope consistent with the EPF
4.7% preferred max counter slope
5.0% max constructed counter slope
- (PTA)

:Pedestrian Access Transition Area
Running Slope less than 4.9%
Transition Cross Slope at 0.5% per foot
from the Ramp Area to Existing EPF.
- [Pattern]

:Detectable Warning Panel
- 0", 3", 6"

:Curb Height
- (10)

(4)

:10:1 Max Slope
:4:1 Max Slope
- H.P:

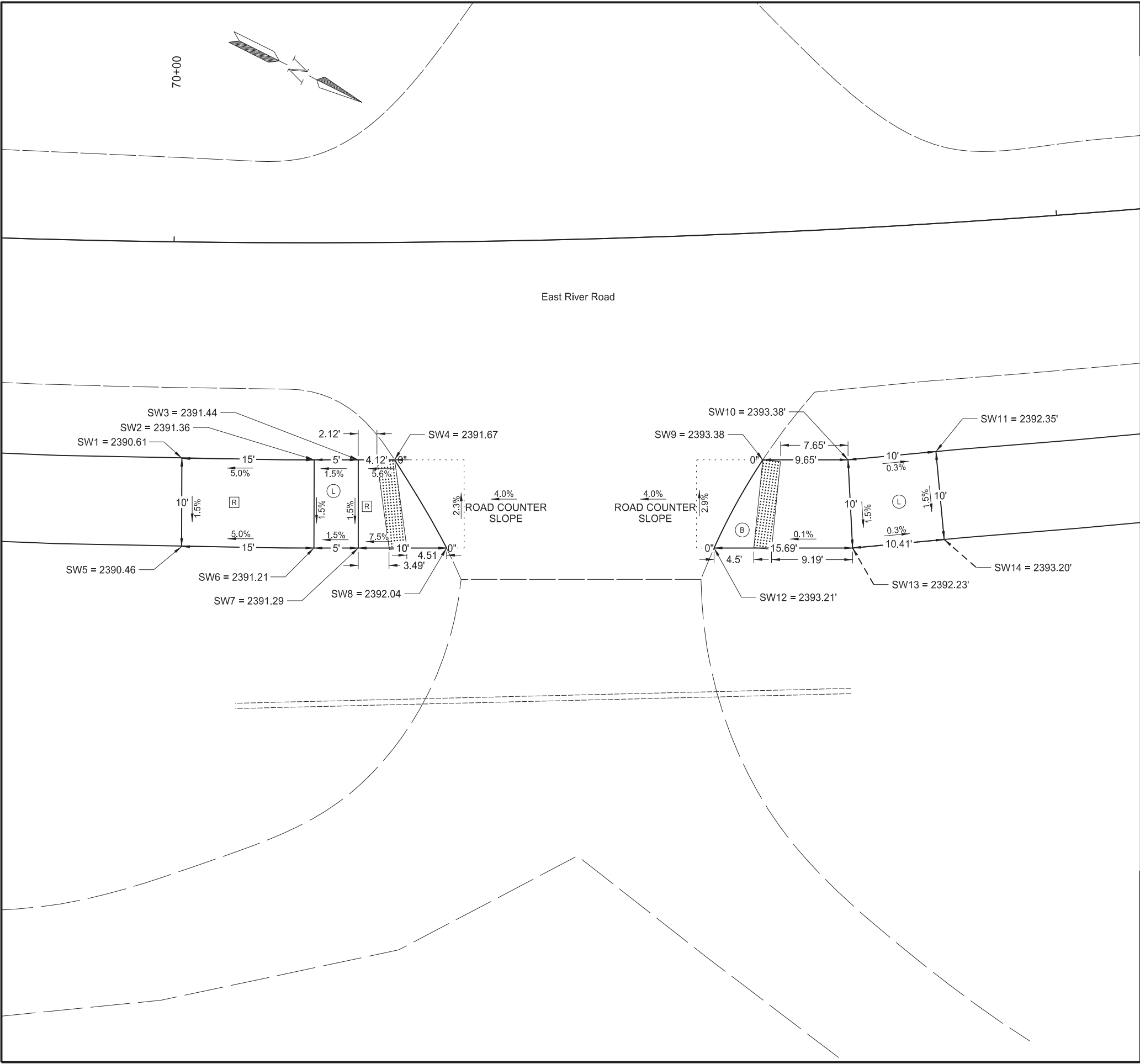
L.P:

M.E.:

High Point
Low Point
Match Existing

ADA Ramp Details
Shared Use Path
East River Road
Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	20	3

Point	Station	Offset
SW1	70+01.18	24.49' RT
SW2	10+15.86	24.57' RT
SW3	70+20.74	24.58' RT
SW4	70+24.77	24.61' RT
SW5	70+01.28	34.49' RT
SW6	70+15.83	34.57' RT
SW7	70+20.70	34.58' RT
SW8	70+30.40	34.67' RT
SW9	70+65.57	25.68' RT
SW10	70+75.00	26.14' RT
SW11	70+84.77	25.78' RT
SW12	70+59.80	35.44' RT
SW13	70+75.00	36.14' RT
SW14	70+85.08	35.77' RT

LEGEND

- (TS)

(L)

:Turning Space/Landing
Use at top of ramp or when
changing directions
1.5% preferred slope (2% max. all directions)
- (R)

:Preferred Ramp Grade = 5% to 7.5%
Maximum Constructed Grade = 8.3%
Preferred Cross Slope = 1.5%
Maximum Constructed Cross Slope = 2%
Maximum Length = 15 feet
- (B)

:1.5% preferred cross slope
2% maximum constructed cross slope
running slope consistent with the EPF
4.7% preferred max counter slope
5.0% max constructed counter slope
- (Clear space)

:Clear space outside traffic
lanes of travel
4' long x width of EPF or 4' Min
1.5% Pref. Cross Slope
2.0% Max Cross Slope
4.7% Pref. Running Slope
5.0% Max Running Slope
- (PTA)

:Pedestrian Access Transition Area
Running Slope less than 4.9%
Transition Cross Slope at 0.5% per foot
from the Ramp Area to Existing EPF.
- (Detectable Warning Panel)

:Detectable Warning Panel
- 0", 3", 6"

:Curb Height
- (10)

(4)

:10:1 Max Slope
:4:1 Max Slope
- H.P:

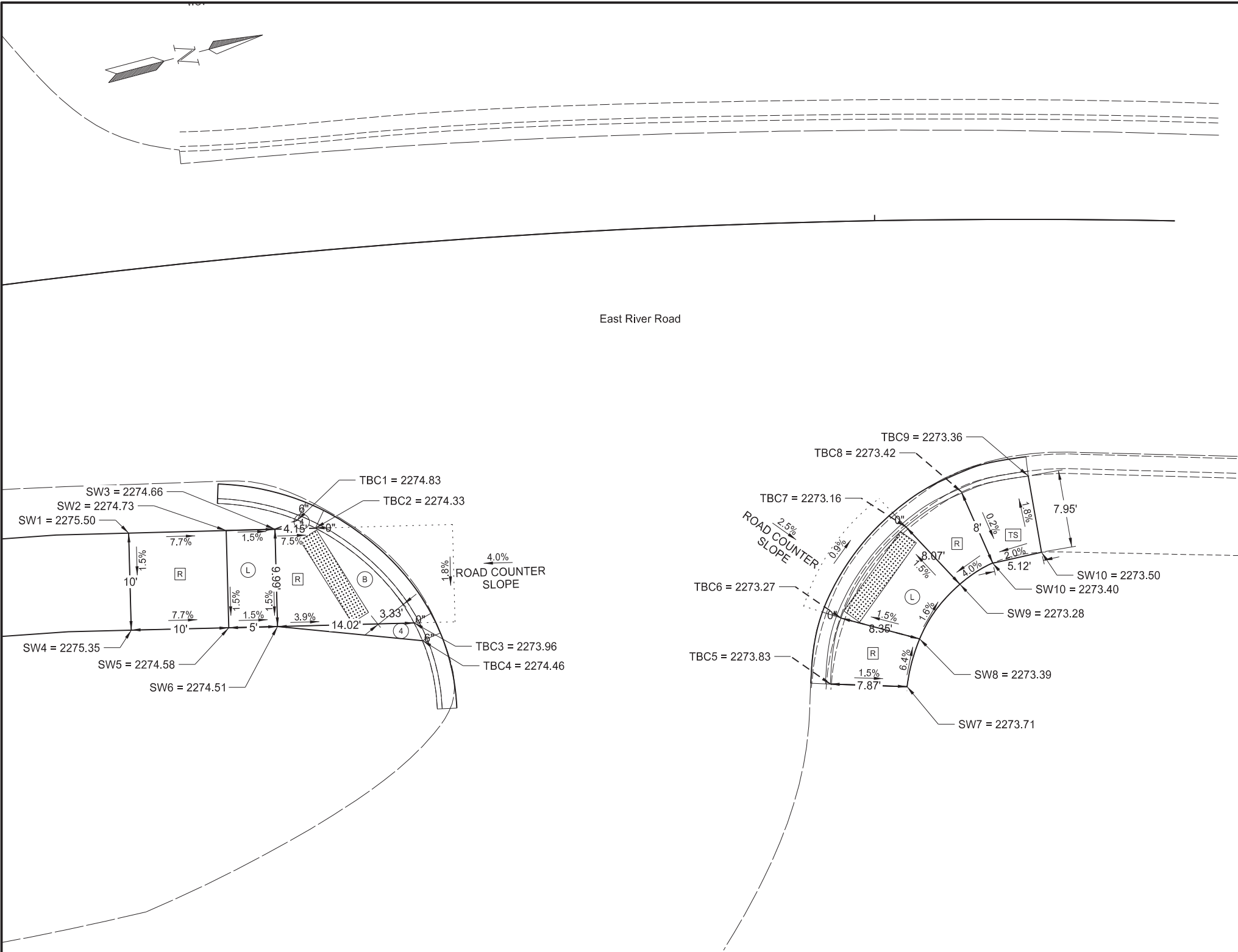
L.P:

M.E.:

High Point
Low Point
Match Existing

ADA Ramp Details
Shared Use Path
East River Road
Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	20	4

Point	Station	Offset
SW1	92+20.17	26.84' RT
SW2	92+30.48	27.67' RT
SW3	92+35.64	28.04' RT
TBC1	92+38.13	27.33'RT
TBC2	92+39.93	28.32' RT
SW4	92+19.24	36.77' RT
SW5	92+29.67	37.63' RT
SW6	92+34.90	38.01' RT
TBC3	92+49.58	38.88' RT
TBC4	92+50.32	40.76' RT
TBC5	92+94.24	47.41' RT
TBC6	92+95.57	40.67' RT
TBC7	93+02.73	31.46' RT
TBC8	93+08.66	27.92' RT
SW7	93+02.59	47.84' RT
SW8	93+04.03	42.96' RT
SW9	93+08.43	37.41' RT
SW10	93+11.97	35.27' RT

LEGEND

- (TS)

(L)

:Turning Space/Landing
Use at top of ramp or when
changing directions
1.5% preferred slope (2% max. all directions)
- (R)

:Preferred Ramp Grade = 5% to 7.5%
Maximum Constructed Grade = 8.3%
Preferred Cross Slope = 1.5%
Maximum Constructed Cross Slope = 2%
Maximum Length = 15 feet
- (B)

:1.5% preferred cross slope
2% maximum constructed cross slope
running slope consistent with the EPF
4.7% preferred max counter slope
5.0% max constructed counter slope
- [Dashed Box]

:Clear space outside traffic
lanes of travel
4' long x width of EPF or 4' Min
1.5% Pref. Cross Slope
2.0% Max Cross Slope
4.7% Pref. Running Slope
5.0% Max Running Slope
- (PTA)

:Pedestrian Access Transition Area
Running Slope less than 4.9%
Transition Cross Slope at 0.5% per foot
from the Ramp Area to Existing EPF.
- [Stippled Box]

:Detectable Warning Panel
- 0", 3", 6"

:Curb Height
- (10)

(4)

:10:1 Max Slope
:4:1 Max Slope
- H.P:

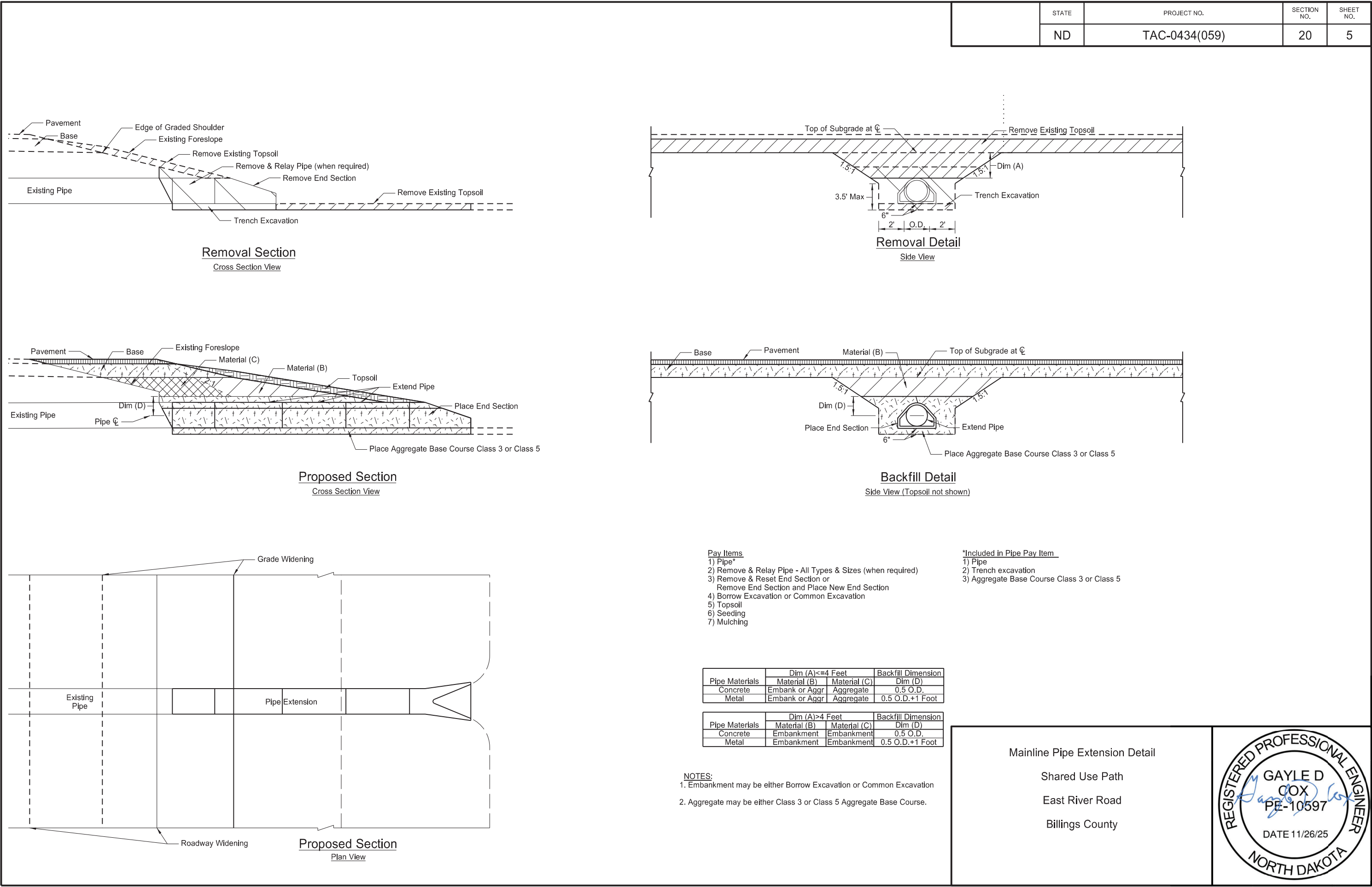
L.P:

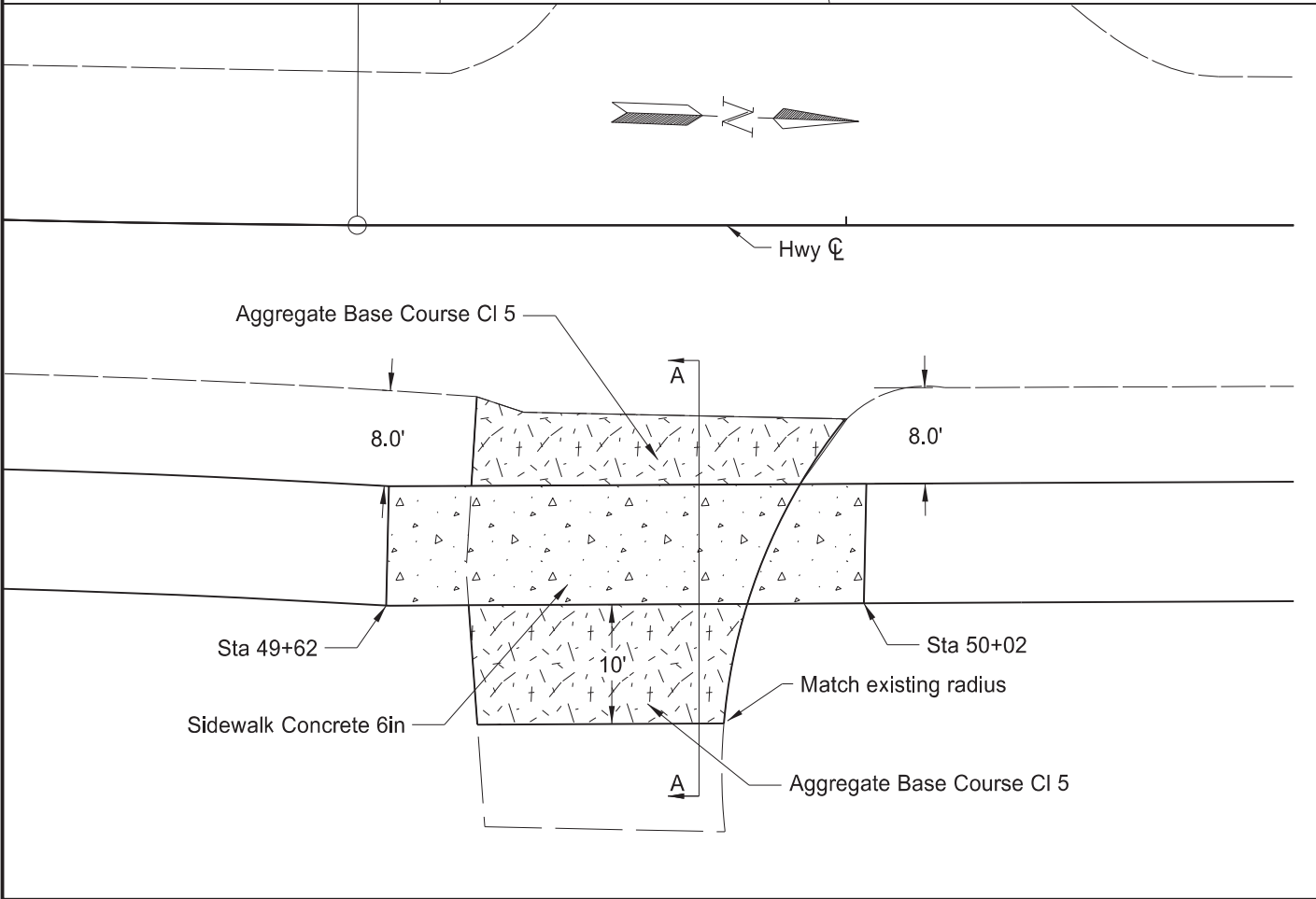
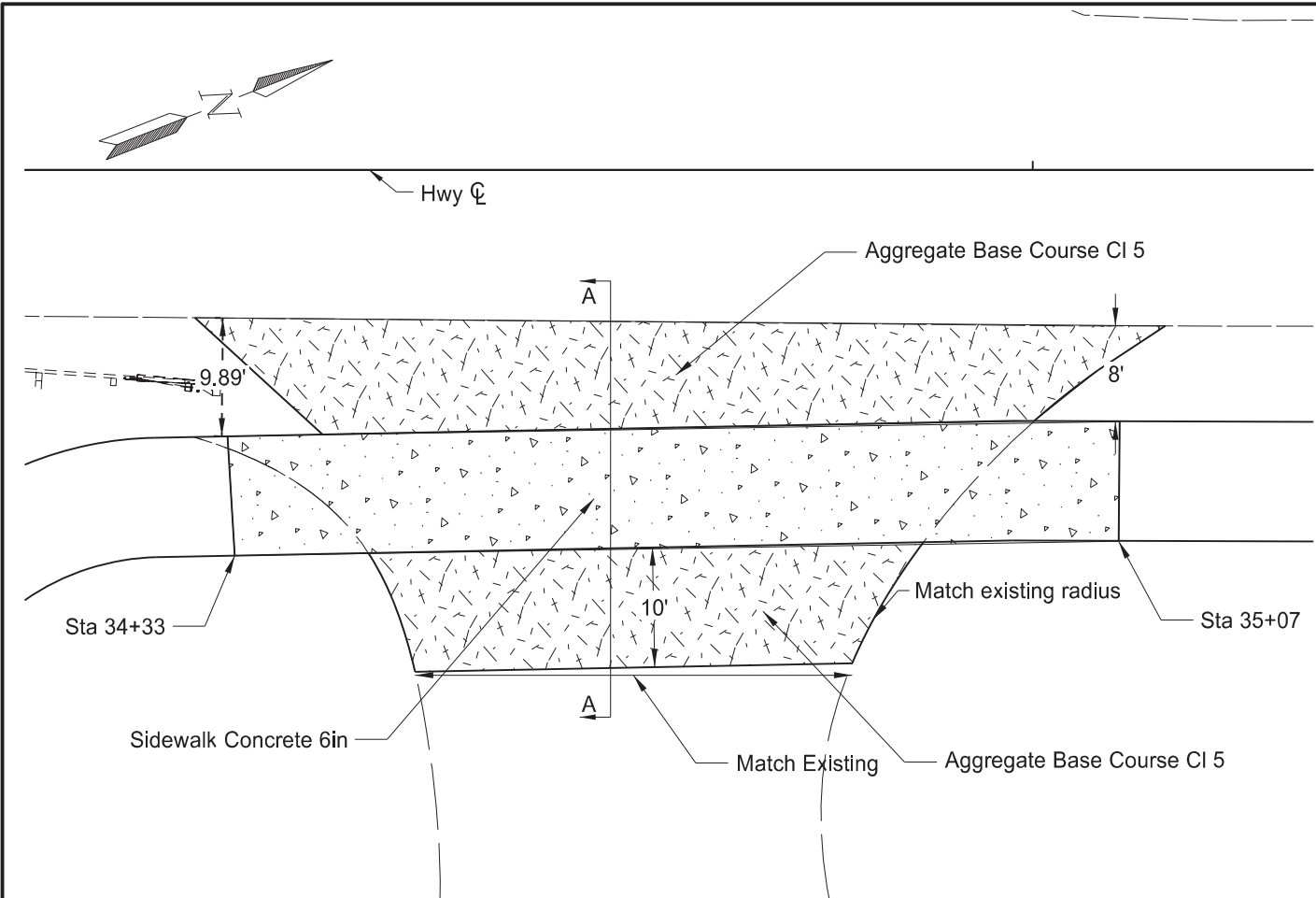
M.E.:

High Point
Low Point
Match Existing

ADA Ramp Details
Shared Use Path
East River Road
Billings County

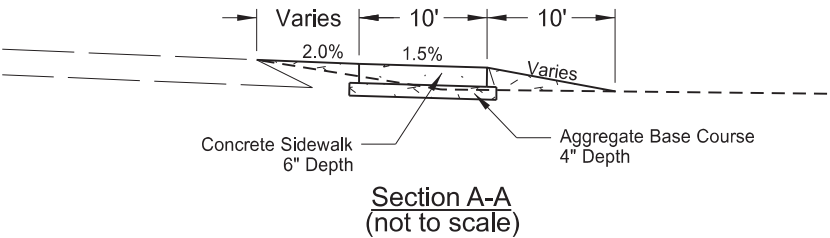






	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	20	6

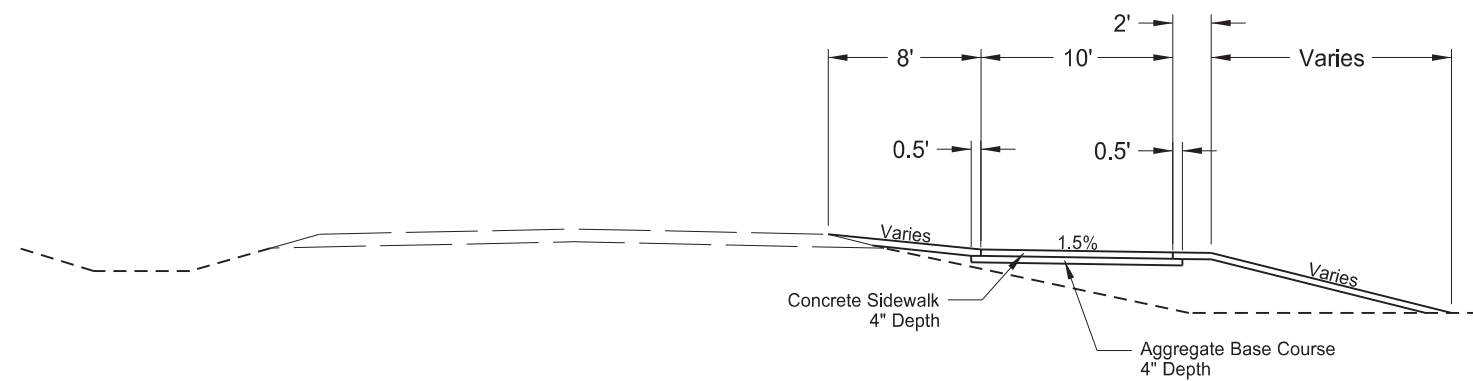
SPEC	CODE	BID ITEM	QUANTITY	UNIT
302	0120	AGGREGATE BASE COURSE CL 5		
		STA 34+33 TO 35+07	37	TON
		STA 49+62 TO 50+02	20	TON
750	0140	SIDEWALK CONCRETE 6IN		
		STA 34+33 TO 35+07	82	SY
		STA 49+62 TO 50+02	45	SY



Field Drive Approach Details
Shared Use Path
East River Road
Billings County



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	30	1



Proposed Typical
STA 23+00 to 93+30.79

Typical Section
Shared Use Path
East River Road
Billings County



Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item)			Allowable Material	Required Diameter	Steel Pipe Coatings	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness	(*) End Sections		Applicable Backfill Detail
												Begin	End	
				In	Bid Item	LF						In	Type	
27+51.7	49.1' RT	27+55.49	49.9' RT	24	Pipe Corr Steel .064IN 24IN	22.5° Bend (4)	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	-	Specification 714.04A
27+55.49	49.9' RT	27+61.0	52.3' RT	24	Pipe Corr Steel .064IN 24IN	6	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	R&R	Specification 714.04A
28+24.97	30.3' RT	28+26.18	48.3' RT	24	Pipe Corr Steel .064IN 24IN	18	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	R&R	Section 20 Sheet 5
30+78.9	52.2' RT	31+33.65	40.3' RT	24	Pipe Conduit - Approach	56	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	FES	FES	Specification 714.04A
33+88.52	42.1' RT	34+28.49	40.2' RT	18	Pipe Corr Steel .064IN 18IN	40	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	18	A	2-2/3" x 1/2"	0.064	R&R	-	Specification 714.04A
34+98.03	37.0' RT	35+01.91	37.6' RT	18	Pipe Corr Steel .064IN 18IN	22.5° Bend (4)	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	18	A	2-2/3" x 1/2"	0.064	-	-	Specification 714.04A
35+01.91	37.6' RT	35+07.55	39.6' RT	18	Pipe Corr Steel .064IN 18IN	6	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	18	A	2-2/3" x 1/2"	0.064	-	R&R	Specification 714.04A
38+70.48	55.9' RT	38+77.53	62.6' RT	72	Pipe Conc Reinf 72IN CL III	8	Reinforced Concrete Pipe CL III	72	-	-	-	-	R&R	Section 20 Sheet 5
50+19.51	31.2' RT	50+19.02	39.2' RT	24	Pipe Corr Steel .064IN 24IN	8	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	R&R	Section 20 Sheet 5
58+86.76	28.1' RT	58+85.93	40.1' RT	24	Pipe Corr Steel .064IN 24IN	12	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	R&R	Section 20 Sheet 5
80+85.18	35.9' RT	80+84.21	53.8' RT	24	Pipe Corr Steel .064IN 24IN	18	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	R&R	Section 20 Sheet 5
92+02.16	43.2' RT	92+17.49	29.6' RT	24	Pipe Corr Steel .064IN 24IN	24	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	R&R	-	Section 20 Sheet 5
92+17.49	29.6' RT	92+19.05	26.2' RT	24	Pipe Corr Steel .064IN 24IN	45° Bend (4)	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	-	Section 20 Sheet 5
92+11.15	43.2' RT	92+21.87	33.6' RT	24	Pipe Corr Steel .064IN 24IN	14	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	R&R	Section 20 Sheet 5
92+21.87	33.6' RT	92+23.43	30.3' RT	24	Pipe Corr Steel .064IN 24IN	45° Bend (4)	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	-	Section 20 Sheet 5
92+23.43	30.3' RT	92+23.53	26.3' RT	24	Pipe Corr Steel .064IN 24IN	4	All Corrugated Steel Pipe (CSP) shall be Aluminized Type 2	24	A	2-2/3" x 1/2"	0.064	-	-	Section 20 Sheet 5

Corrugations:

2 = 2-2/3"x1/2"

3 = 3"x1"

5 = 5"x1"

Coatings: **Z** = Zinc

A = Aluminum

P = Polymeric (over Zinc or Aluminum)

Spiral Ribs: **3/4** = 3/4"x3/4"@7-1/2"

1 = 3/4"x1"@11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.

FES = Flared End Section

TES = Traversable End Section

R&R = Remove & Relay End Section

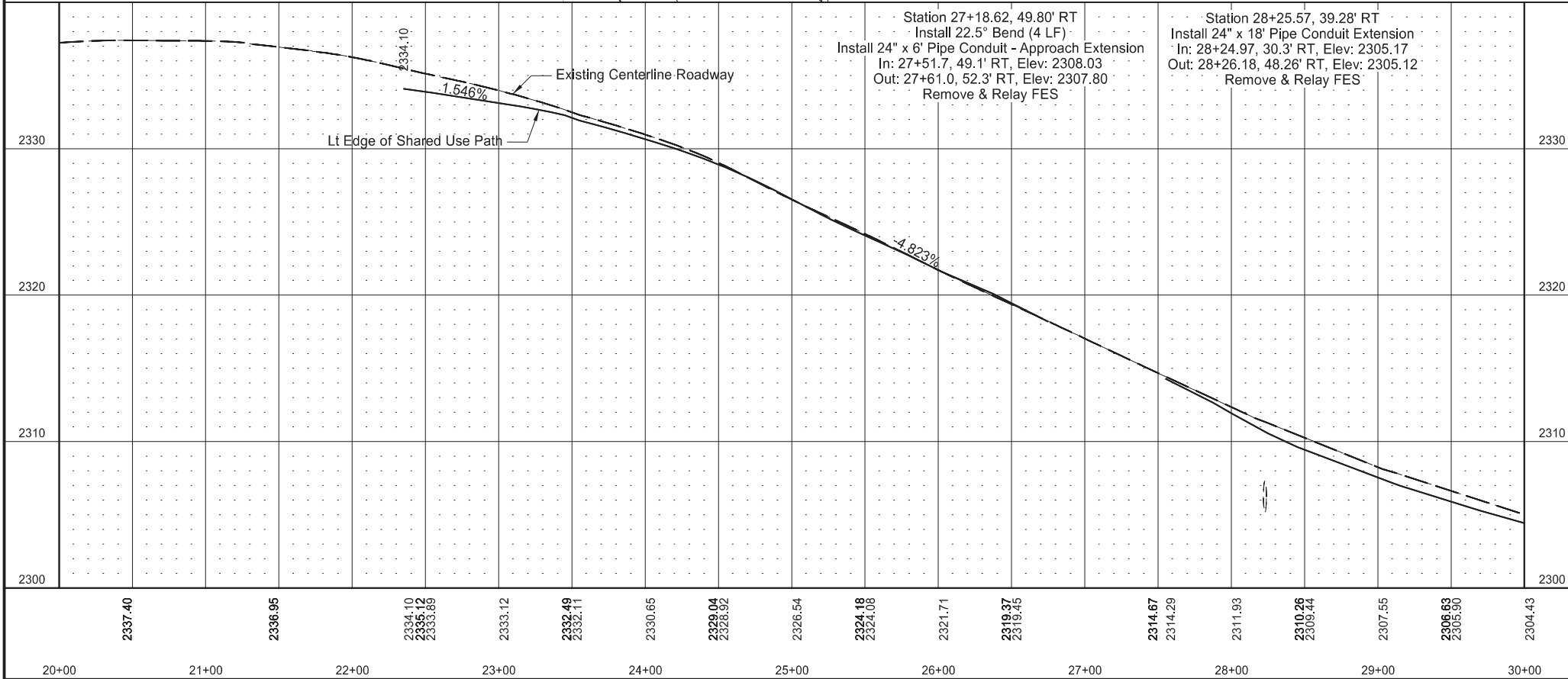
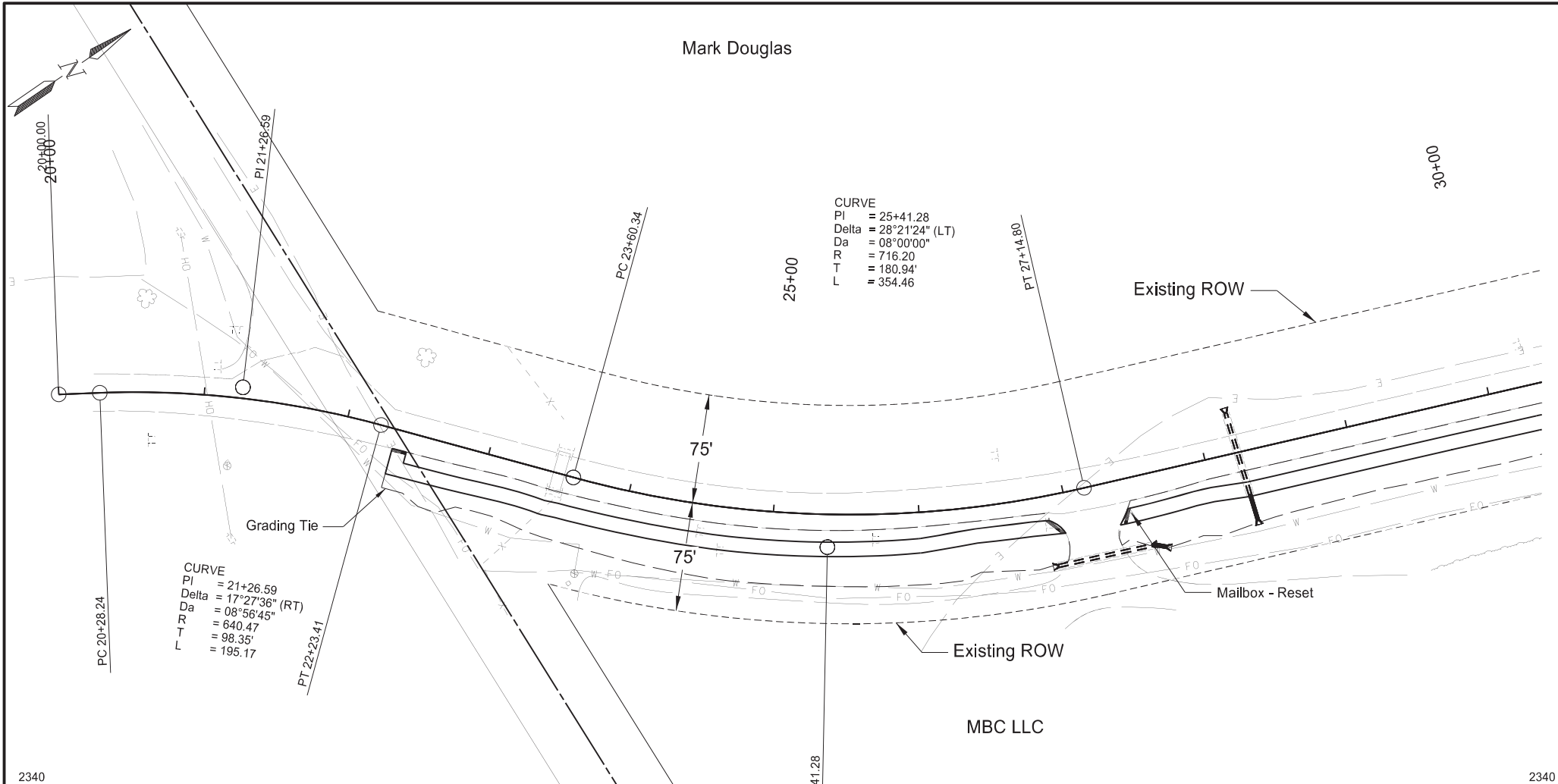
Allowable Pipe List

Shared Use Path

East River Road

Billings County





		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	TAC-0434(059)	60	1
SPEC	CODE	BID ITEM	QUANTITY	UNIT	
302	0120	AGGREGATE BASE COURSE CL 5			
		STA 22+35 TO 26+96.3 RT	121	TON	
		STA 27+33.3 TO 32+50.7 RT	132	TON	
714	5035	PIPE CORR STEEL .064IN 24IN			
		STA 27+52 RT	10	LF	
		STA 28+25 RT	18	LF	
714	9660	REMOVE & RELAY END SECTION-ALL TYPES AND SIZES			
		STA 27+61 RT	1	EA	
		STA 28+25 RT	1	EA	
750	0115	SIDEWALK CONCRETE 4IN			
		STA 22+35 TO 26+96.3 RT	530	SY	
		STA 27+33.3 TO 32+50.7 RT	577	SY	
750	2115	DETECTABLE WARNING PANELS			
		STA 22+40 RT	20	SF	
		STA 26+86.6 RT	29	SF	
		STA 27+40.6 RT	22	SF	
766	0100	MAILBOX-ALL TYPES			
		STA 27+43 RT	1	EA	

Plan and Profile

Shared Use Path

East River Road

Billings County

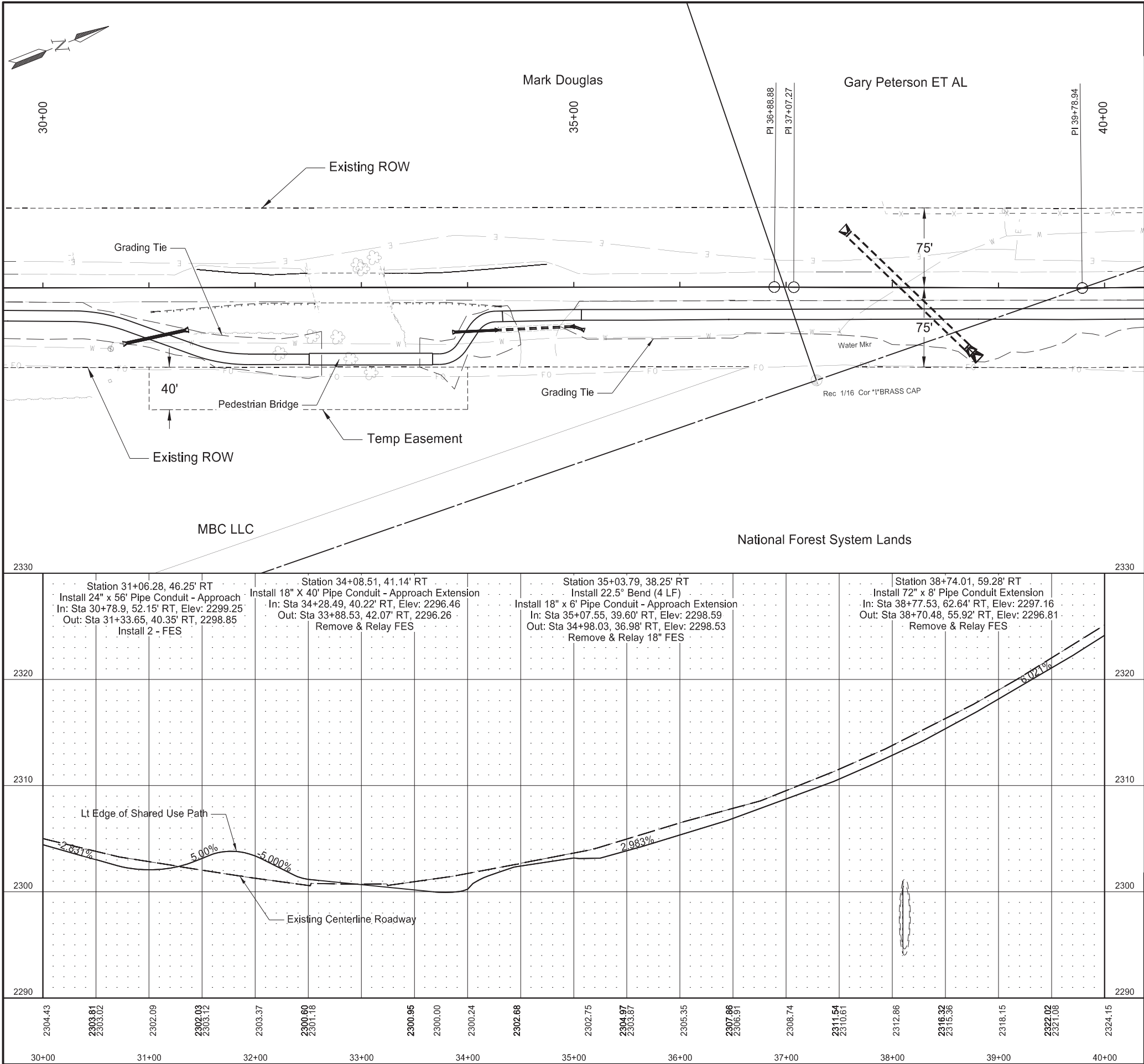
REGISTERED PROFESSIONAL ENGINEER

GAYLE D COX

PE-10597

DATE 11/26/25

NORTH DAKOTA



		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	TAC-0434(059)	60	2
SPEC	CODE	BID ITEM	QUANTITY	UNIT	
302	0120	AGGREGATE BASE COURSE CL 5			
		STA 33+67 TO 34+43.3 RT	24	TON	
		STA 34+91.6 TO 40+00 RT	129	TON	
714	1510	PIPE CONC REINF 72IN CL III			
		STA 38+72 RT	8	LF	
714	4106	PIPE CONDUIT 24IN-APPROACH			
		STA 31+06 RT	56	LF	
714	5015	PIPE CORR STEEL .064IN 18IN			
		STA 34+08 RT	40	LF	
		STA 35+04 RT	10	LF	
714	9660	REMOVE & RELAY END SECTION-ALL TYPES AND SIZES			
		STA 33+89 RT	1	EA	
		STA 35+04 RT	1	EA	
		STA 38+72 RT	1	EA	
750	0115	SIDEWALK CONCRETE 4IN			
		STA 33+67 TO 34+43.3 RT	103	SY	
		STA 34+91.6 TO 40+00 RT	561	SY	

Plan and Profile

Shared Use Path

East River Road

Billings County

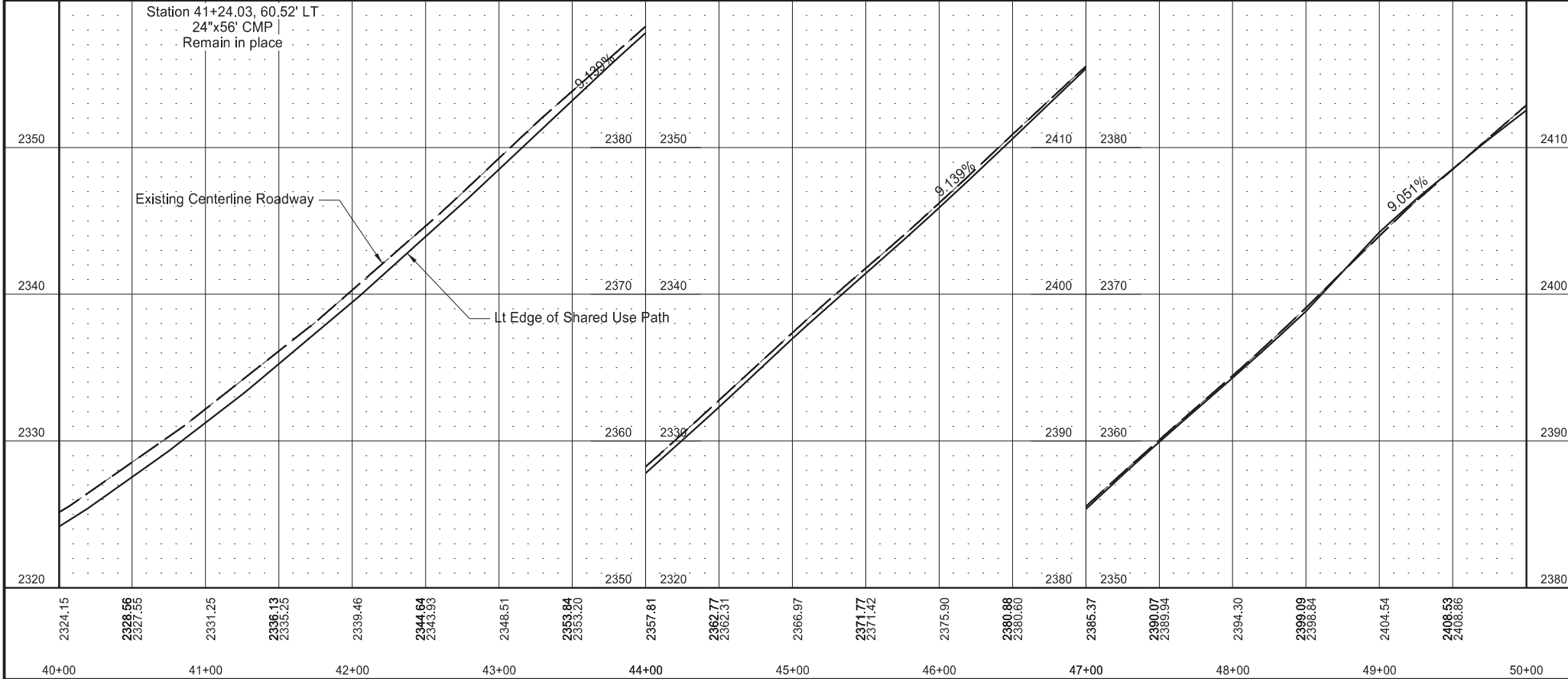
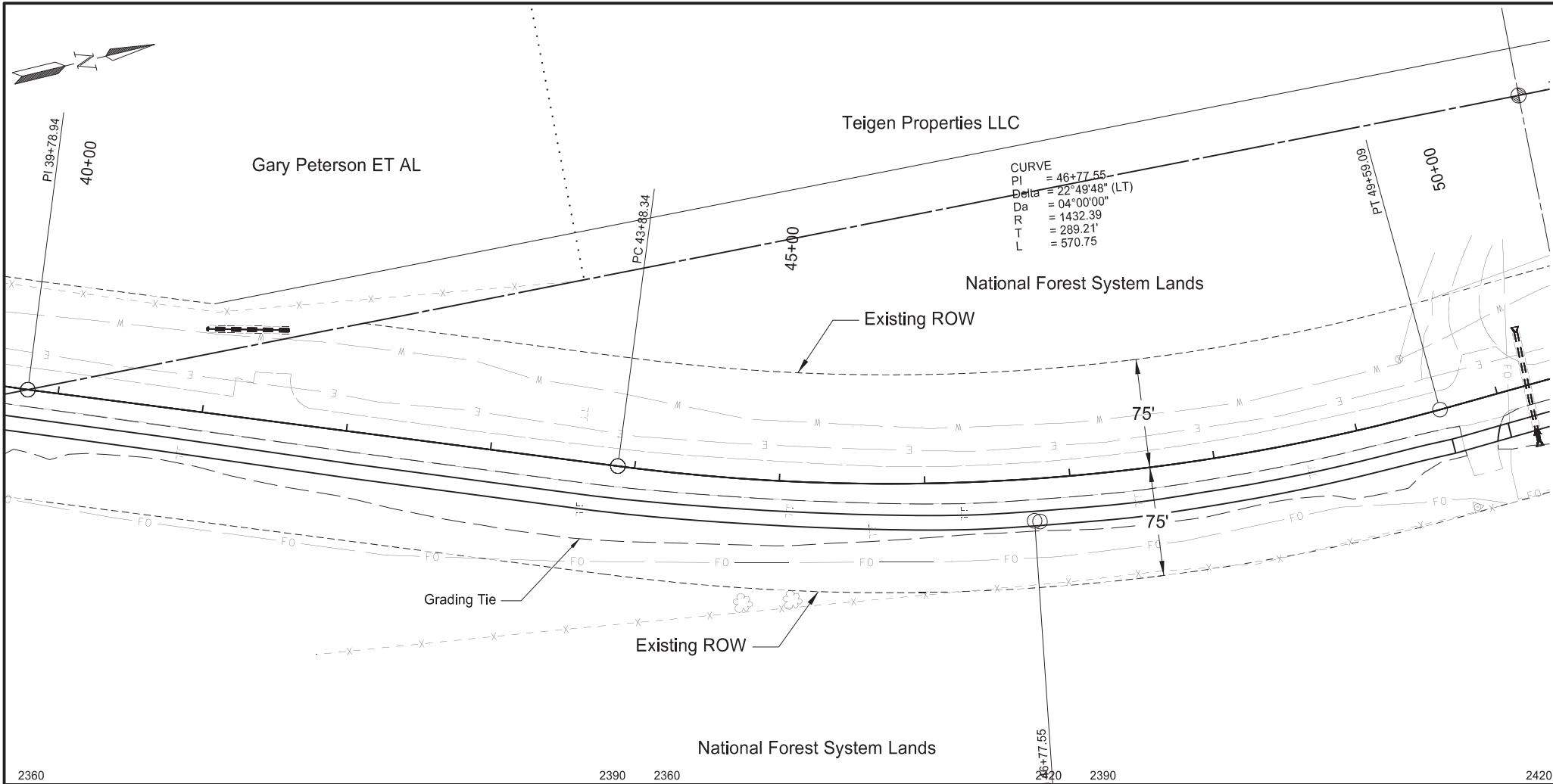
REGISTERED PROFESSIONAL ENGINEER

GAYLE D COX

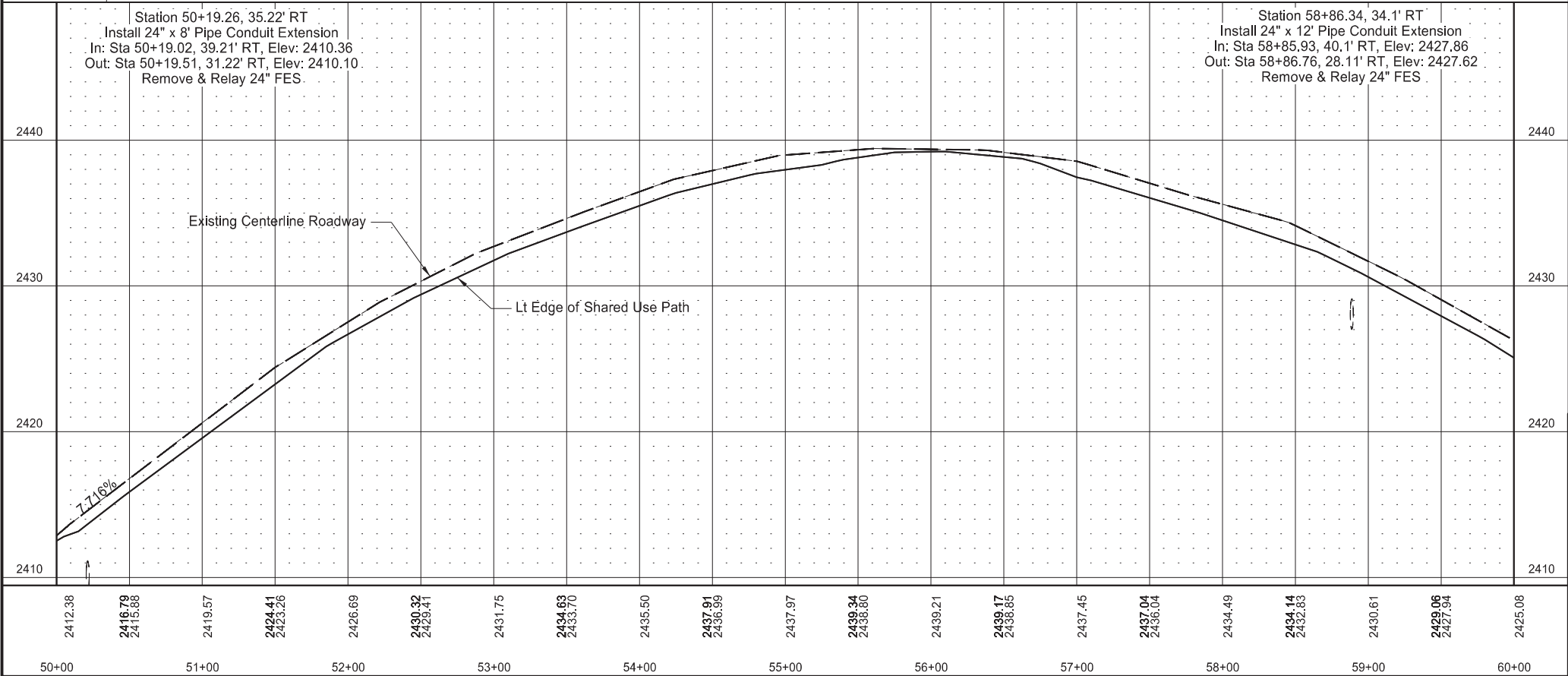
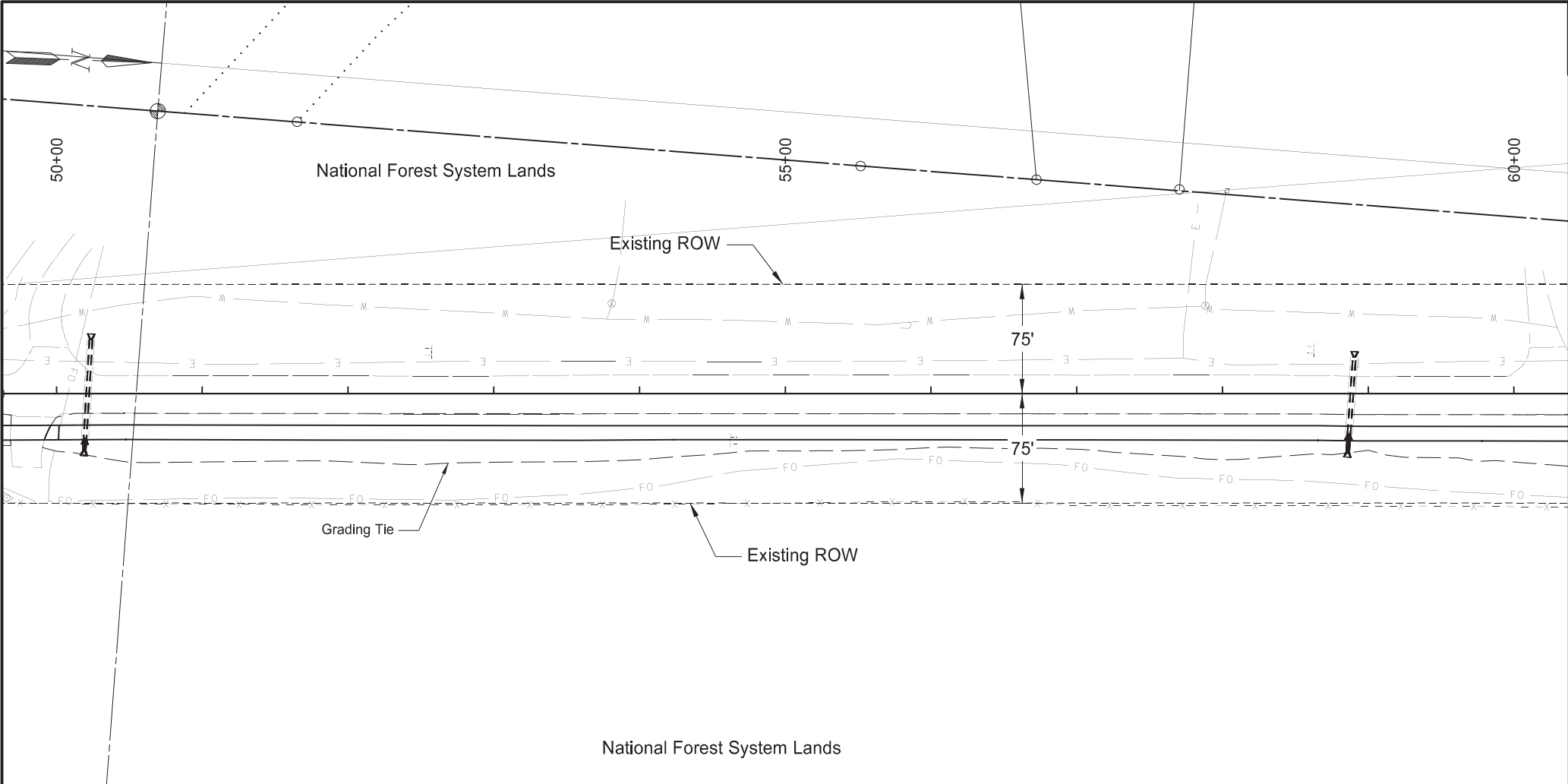
PE-10597

DATE 11/26/25

NORTH DAKOTA



		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	TAC-0434(059)	60	3
SPEC	CODE	BID ITEM	QUANTITY	UNIT	
302	0120	AGGREGATE BASE COURSE CL 5			
		STA 40+00 TO 49+68.5 RT	247	TON	
750	0115	SIDEWALK CONCRETE 4IN			
		STA 40+00 TO 49+68.5 RT	1076	SY	
Plan and Profile					
Shared Use Path					
East River Road					
Billings County					
<div>REGISTERED PROFESSIONAL ENGINEER GAYLE D COX PE-10597 DATE 11/26/25 NORTH DAKOTA</div>					



		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	TAC-0434(059)	60	4
SPEC	CODE	BID ITEM	QUANTITY	UNIT	
302	0120	AGGREGATE BASE COURSE CL 5			
		STA 49+91.7 TO 60+00 RT	256	TON	
714	5035	PIPE CORR STEEL .064IN 24IN			
		STA 50+20 RT	8	LF	
		STA 58+87 RT	12	LF	
714	9660	REMOVE & RELAY END SECTION-ALL TYPES AND SIZES			
		STA 50+20 RT	1	EA	
		STA 58+87 RT	1	EA	
750	0115	SIDEWALK CONCRETE 4IN			
		STA 49+91.7 TO 60+00 RT	1118	SY	

Plan and Profile

Shared Use Path

East River Road

Billings County

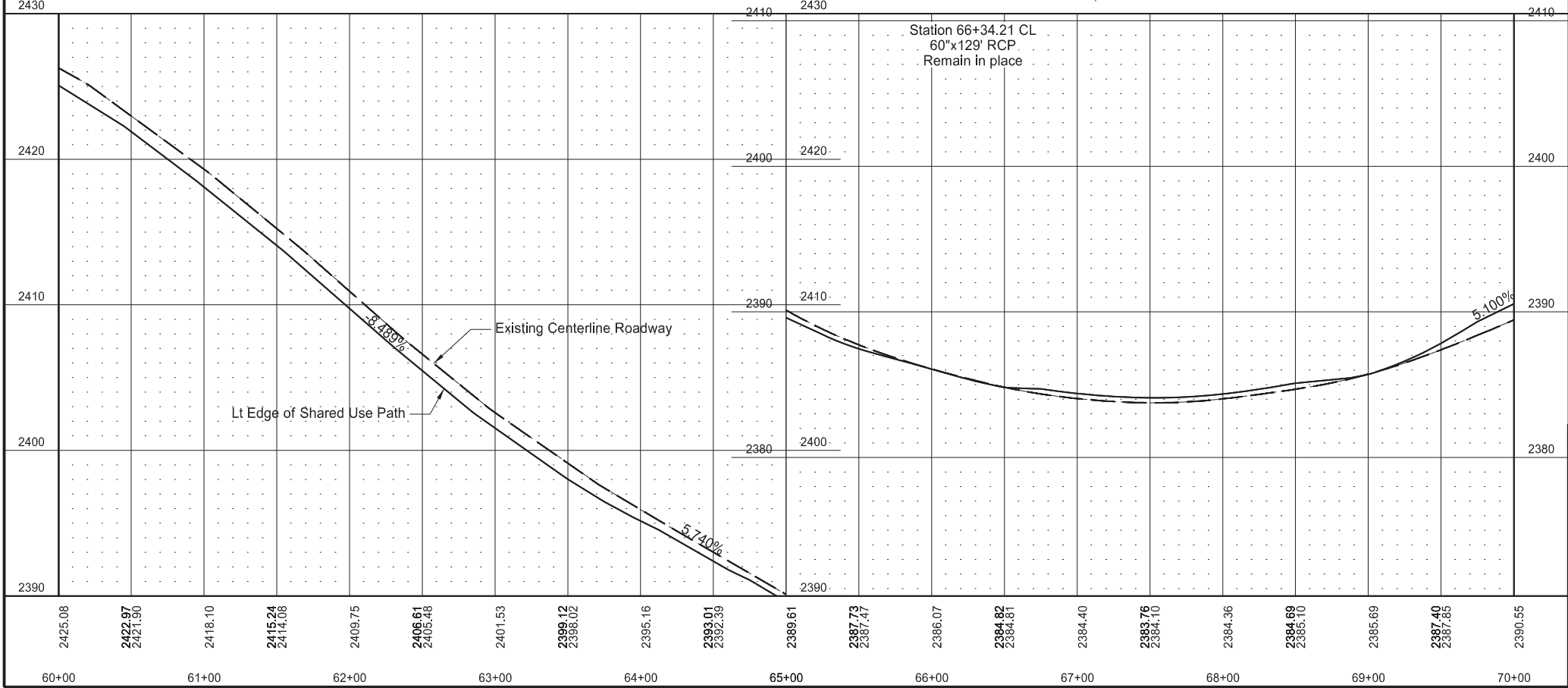
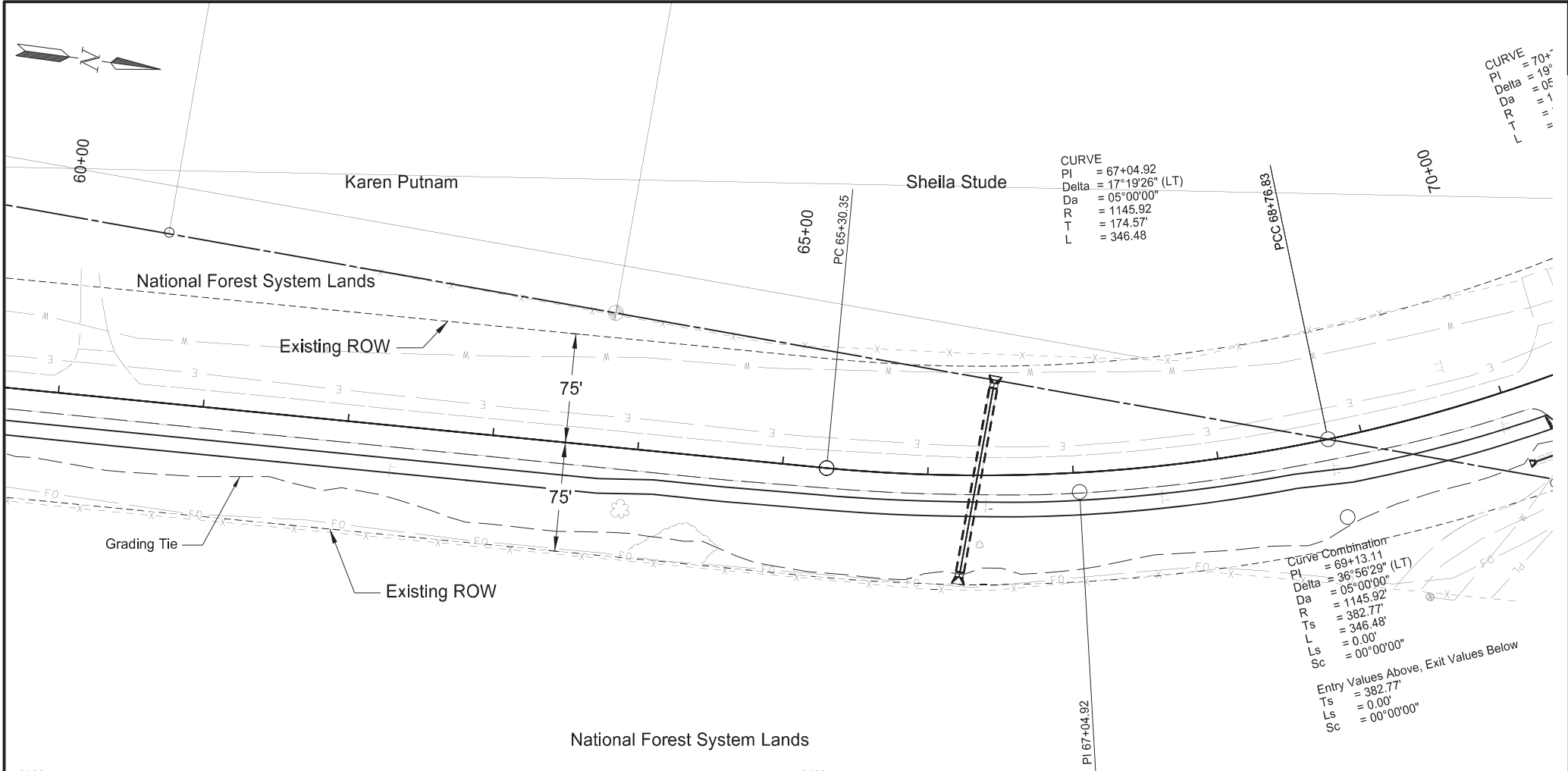
REGISTERED PROFESSIONAL ENGINEER

GAYLE D COX

PE-10597

DATE 11/26/25

NORTH DAKOTA

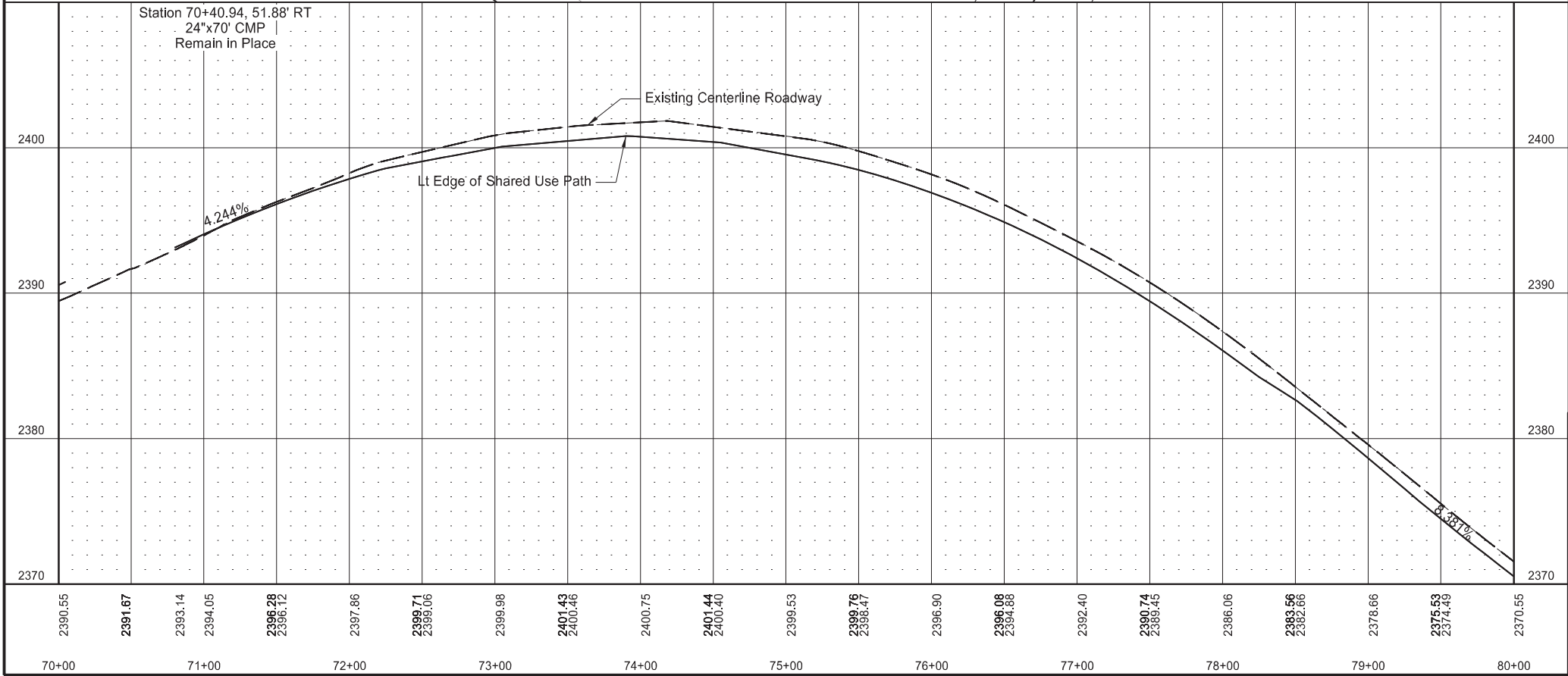
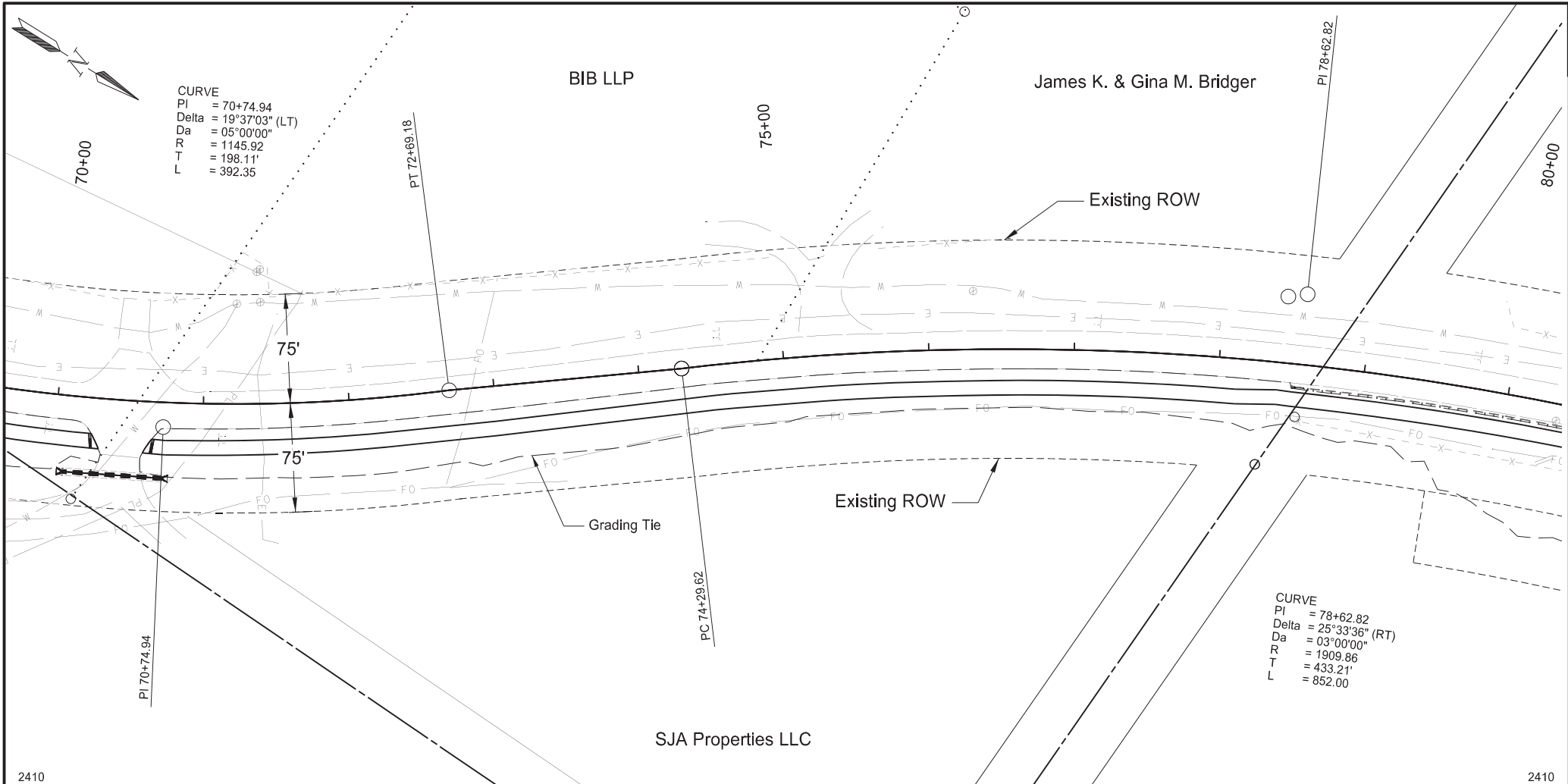


STATE		PROJECT NO.	SECTION NO.	SHEET NO.
ND		TAC-0434(059)	60	5

SPEC	CODE	BID ITEM	QUANTITY	UNIT
302	0120	AGGREGATE BASE COURSE CL 5		
STA 60+00 TO 70+30.4 RT			265	TON
750	0115	SIDEWALK CONCRETE 4IN		
STA 60+00 TO 70+30.4 RT			1154	SY

Plan and Profile
Shared Use Path
East River Road
Billings County

REGISTERED PROFESSIONAL ENGINEER
GAYLE D COX
PE-10597
DATE 11/26/25
NORTH DAKOTA



		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	TAC-0434(059)	60	6
SPEC	CODE	BID ITEM	QUANTITY	UNIT	
302	0120	AGGREGATE BASE COURSE CL 5			
		STA 70+59.8 TO 80+00 RT	238	TON	
750	0115	SIDEWALK CONCRETE 4IN			
		STA 70+59.8 TO 80+00 RT	1039	SY	
750	2115	DETECTABLE WARNING PANELS			
		STA 70+24.7 RT	20	SF	
		STA 70+65.4 RT	20	SF	

Plan and Profile

Shared Use Path

East River Road

Billings County

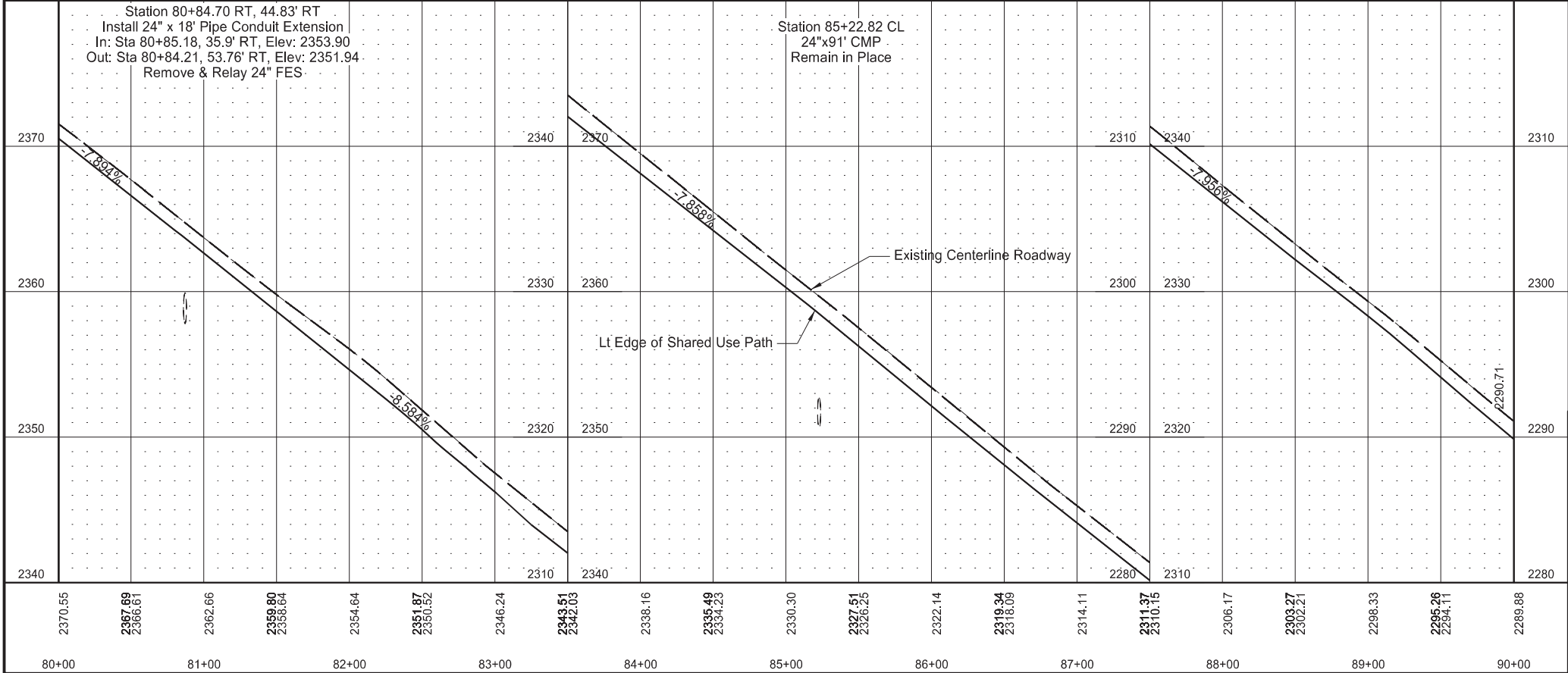
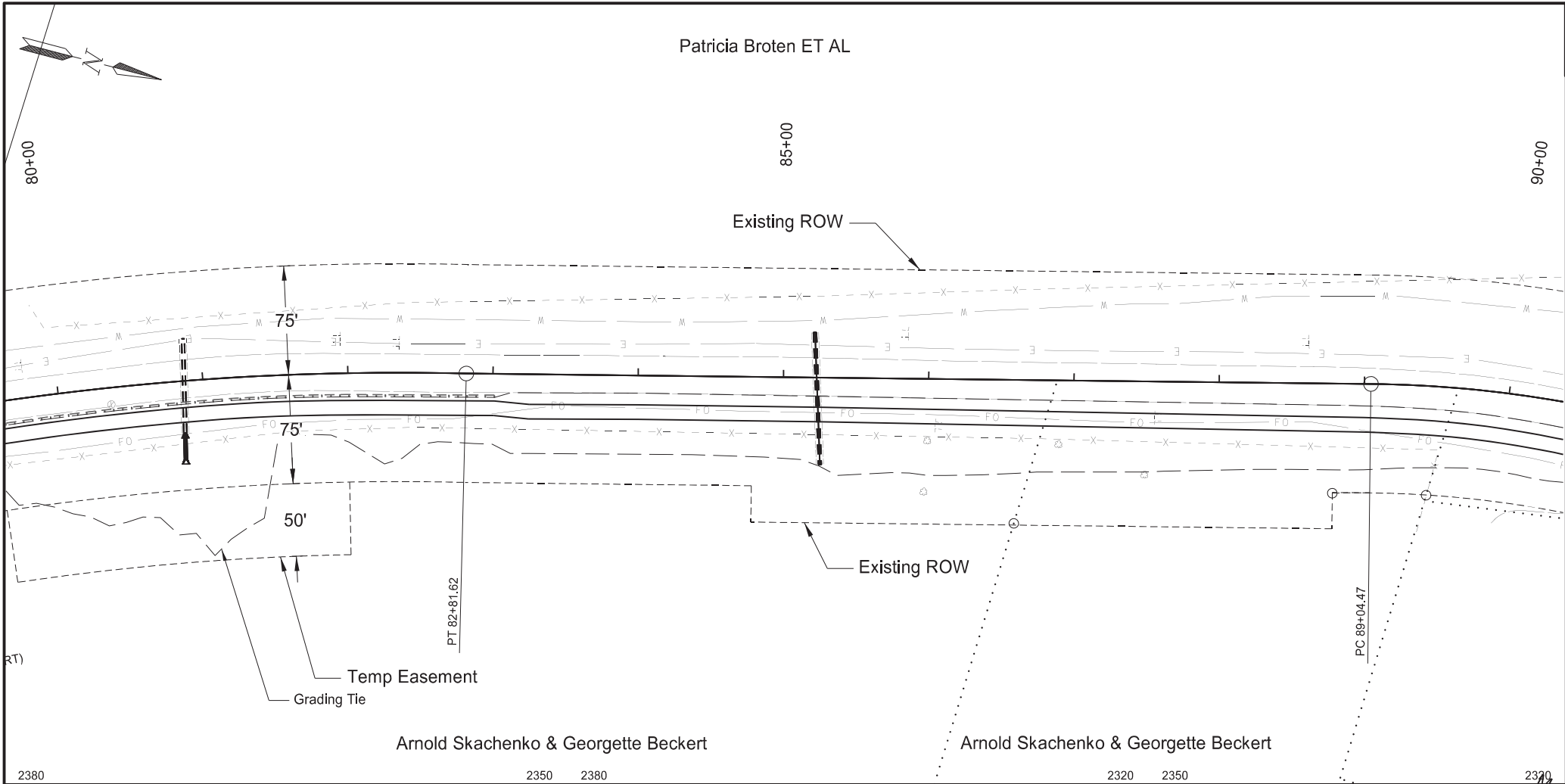
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GAYLE D COX

PE-10597

DATE 11/26/25

NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	60	7

SPEC	CODE	BID ITEM	QUANTITY	UNIT
302	0120	AGGREGATE BASE COURSE CL 5		
		STA 80+00 TO 90+00 RT	255	TON
714	5035	PIPE CORR STEEL .064IN 24IN		
		STA 80+85 RT	18	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPES AND SIZES		
		STA 80+85 RT	1	EA
750	0115	SIDEWALK CONCRETE 4IN		
		STA 80+00 TO 90+00 RT	1111	SY

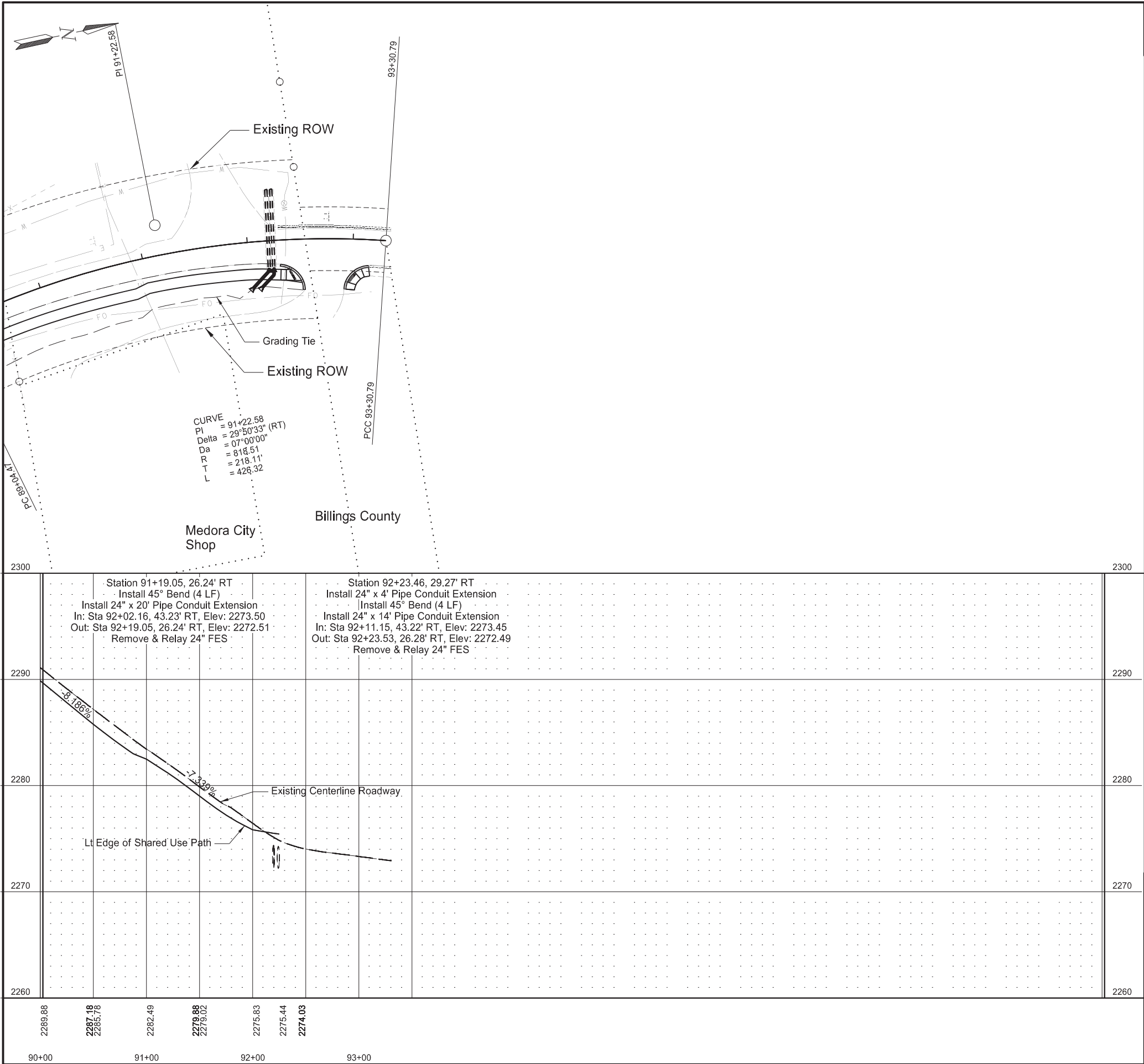
Plan and Profile
Shared Use Path
East River Road
Billings County

REGISTERED PROFESSIONAL ENGINEER

GAYLE D COX
PE-10597

DATE 11/26/25

NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	60	8

SPEC	CODE	BID ITEM	QUANTITY	UNIT
202	0130	REMOVAL OF CURB & GUTTER		
		STA 92+29.8 TO 92+51.3 RT	37	LF
		STA 92+94.3 TO 93+08.7 RT	28	LF
302	0120	AGGREGATE BASE COURSE CL 5		
		STA 90+00 TO 92+50.3 RT	61	TON
		STA 92+94.3 TO 93+12 RT	4	TON
714	5035	PIPE CORR STEEL .064IN 24IN		
		STA 92+02 RT	24	LF
		STA 92+11 RT	22	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPES AND SIZES		
		STA 92+02 RT	1	EA
		STA 92+11 RT	1	EA
748	0140	CURB & GUTTER-TYPE 1		
		STA 92+29.8 TO 92+51.3 RT	37	LF
		STA 92+94.3 TO 93+08.7 RT	28	LF
750	0115	SIDEWALK CONCRETE 4IN		
		STA 90+00 TO 92+50.3 RT	265	SY
		STA 92+94.3 TO 93+12 RT	19	SY
750	2115	DETECTABLE WARNING PANELS		
		STA 92+42.4 RT	20	SF
		STA 92+99.0 RT	20	SF

Plan and Profile

Shared Use Path

East River Road

Billings County

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NORTH DAKOTA

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

ND

TAC-0434(059)

75

1

Other Waters and Streams Impact Table

Number	Location	Type	Feature	USACE Jurisdictional ¹	Impacts to Other Waters						Other Water Mitigation		
					Acres			Linear Feet			Mitigation Proposed		
					Temp.	Perm. (Fill/Drain)	Perm. (Cut)	Temp.	Perm. (Fill/Drain)	Perm. (Cut)	EO 11990	USACE	USFWS
#OW 1A	Sec 34, T140N, R102W	Stream	Natural	Y	0.000	0.000	0.000	0.000	0.000	0.000	N	N	N
#OW 1B	Sec 34, T140N, R102W	Stream	Natural	Y	0.002	0.000	0.000	12.650	0.000	0.000	N	N	N
#OW 2A	Sec 34, T140N, R102W	Stream	Natural	Y	0.000	0.000	0.000	0.000	0.000	0.000	N	N	N
#OW 2B	Sec 34, T140N, R102W	Stream	Natural	Y	0.005	0.005	0.000	16.182	10.402	0.000	N	Y	N
Totals					0.007	0.005	0.000	28.8	10.4	0.0			

Other Waters-d Impact Table

Number	Location	Type	Feature	USACE Jurisdictional ¹	Impacts to Other Waters						Other Water Mitigation		
					Acres			Linear Feet			Mitigation Proposed		
					Temp.	Perm. (Fill/Drain)	Perm. (Cut)	Temp.	Perm. (Fill/Drain)	Perm. (Cut)	EO 11990	USACE	USFWS
#OW 3A-d	Sec 18 T-129-N R-95-W	Ephemeral Drainage Sw el		N	0.000	0.000	0.000	0.000	0.000	0.000	N	N	N
#OW 3B-d	Sec 19 T-129-N R-95-W	Ephemeral Drainage Sw el		N	0.033	0.014	0.000	34.973	10.725	0.000	N	N	N
Totals					0.033	0.014	0.000	35.0	10.7	0.0			

¹ A wetland Jurisdictional Determination was issued by the USACE on 12/18/2024; NWO-2024-01934-BIS.

Impact Summary Table

Permanent Impact Summary		Temporary Impacts and additional information	
Wetland Type	Total Acre(s)	WaterType	Total Acre(s)
Natural/JD (Fill/Drain)		Temporary Wetland JD	
Natural/Non-JD (Fill/Drain)		Non-JD Wetland Temporary	
Artificial/JD (Fill/Drain)			
Artificial /Non-JD (Fill/Drain))		Permanent OW	0.005
Total	0.000	Temporary OW	0.007
JD Natural (Cut)		Permanent OW-d	0.014
JD Artificial (Cut)		Temporary OW-d	0.033
Non-JD Natural (Cut)			
Non-JD Artificial (Cut)			
Total	0.000		

Wetland Impacts

Shared Use Path

East River Road

Billings County

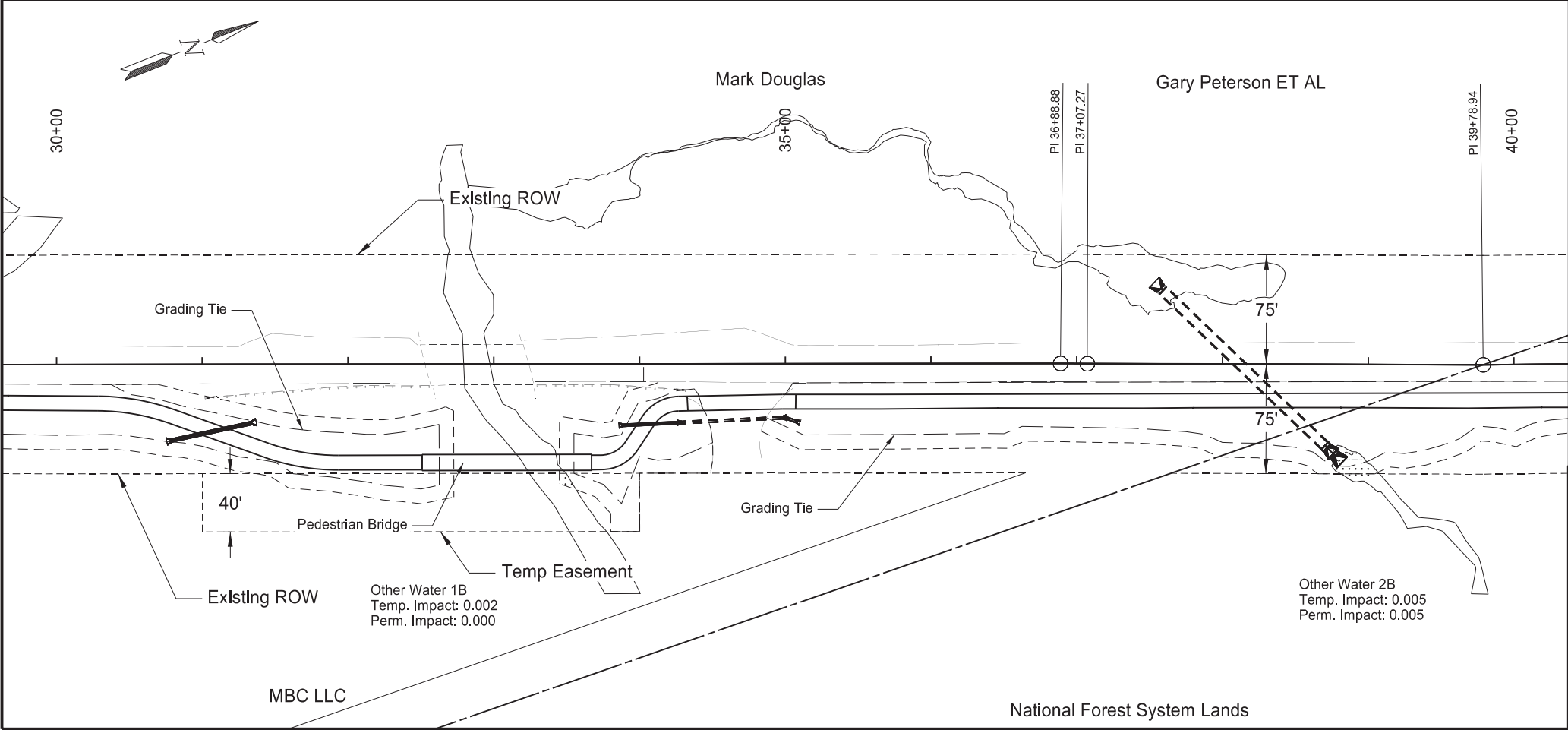
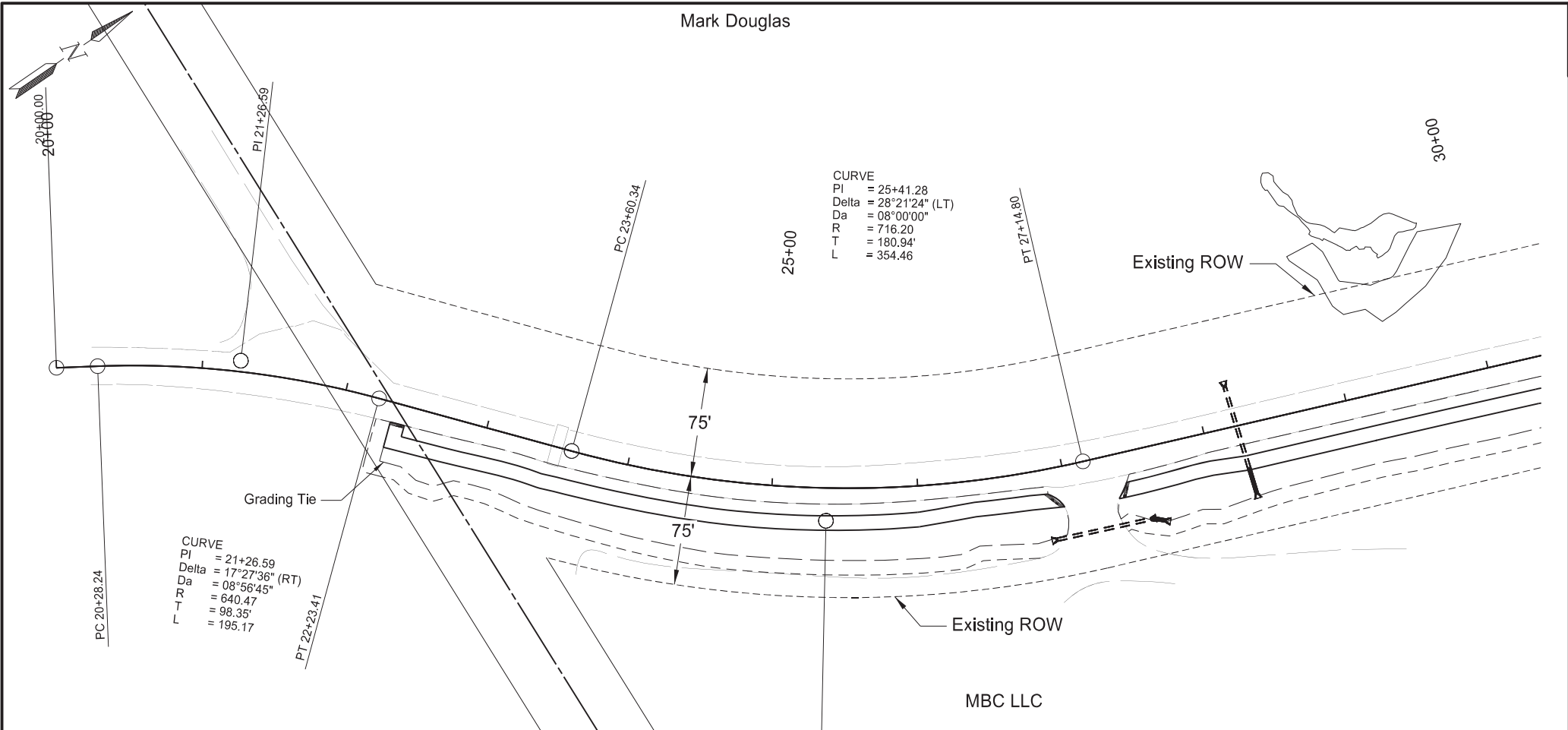
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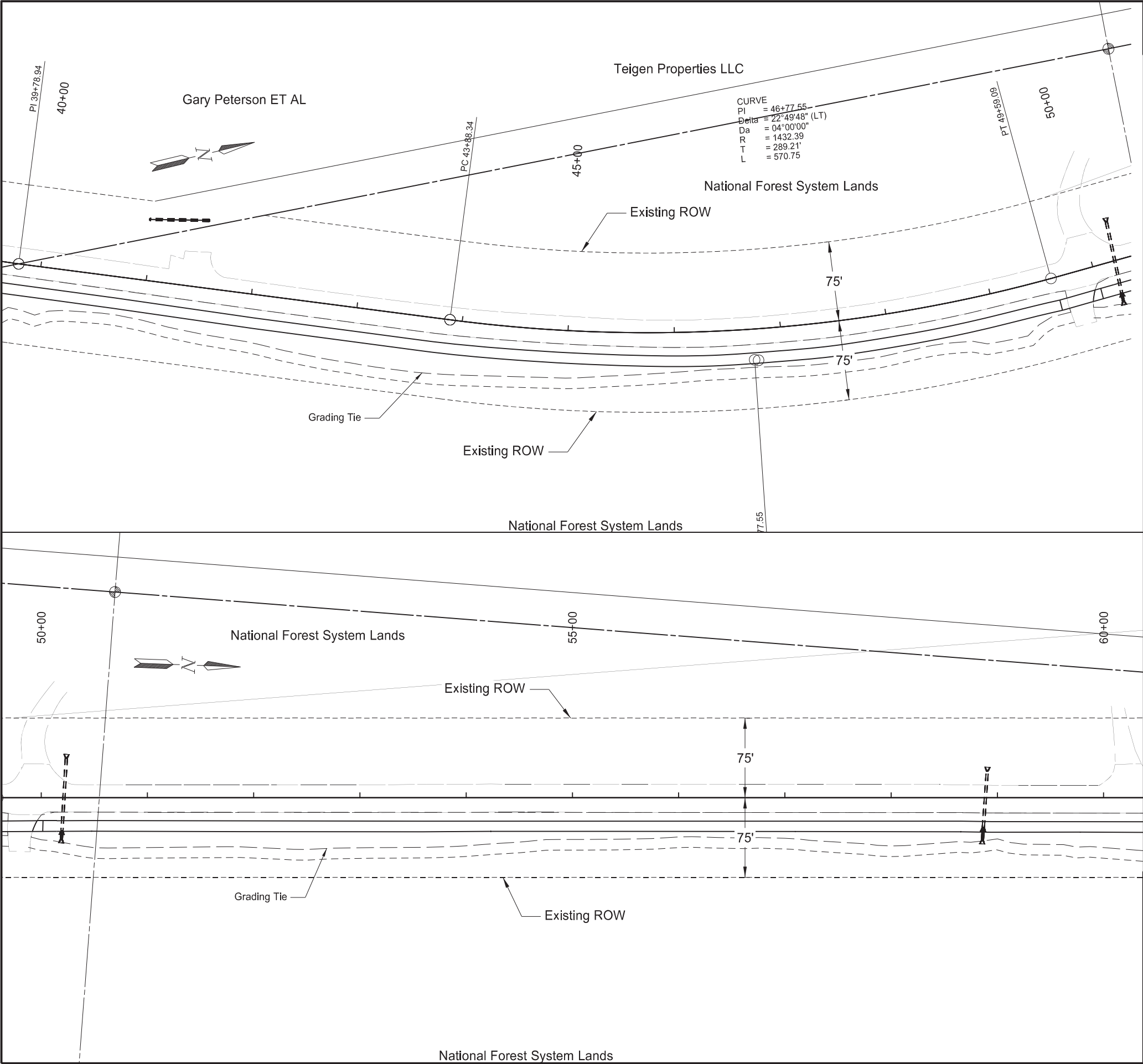
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	75	2

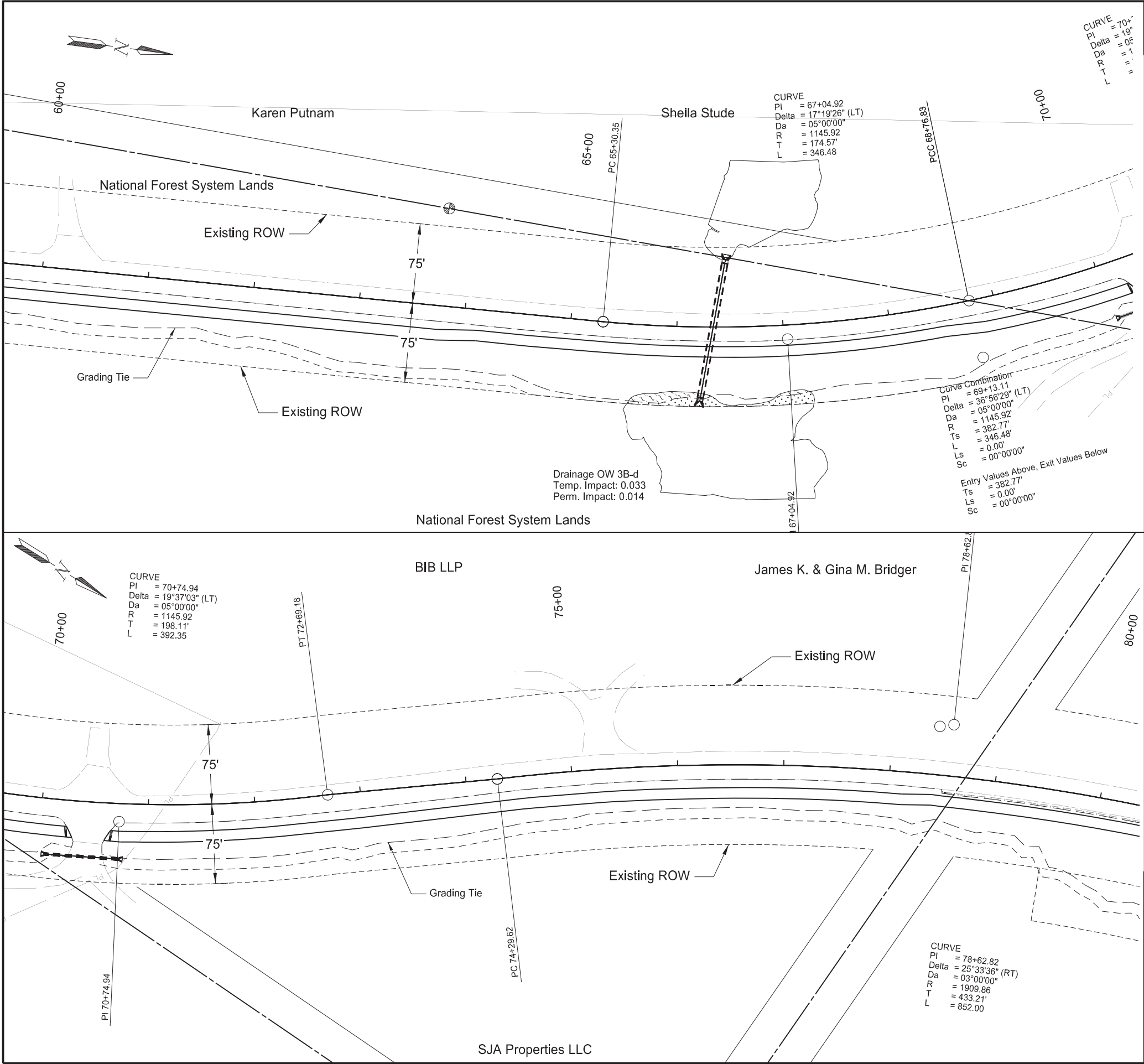
LEGEND

- Other Water Permanent Impact
- Other Water Temporary Impact
- Existing Delineated Other Water
- Existing Delineated Wetland

Wetland Impacts
Shared Use Path
East River Road
Billings County

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PE-10597
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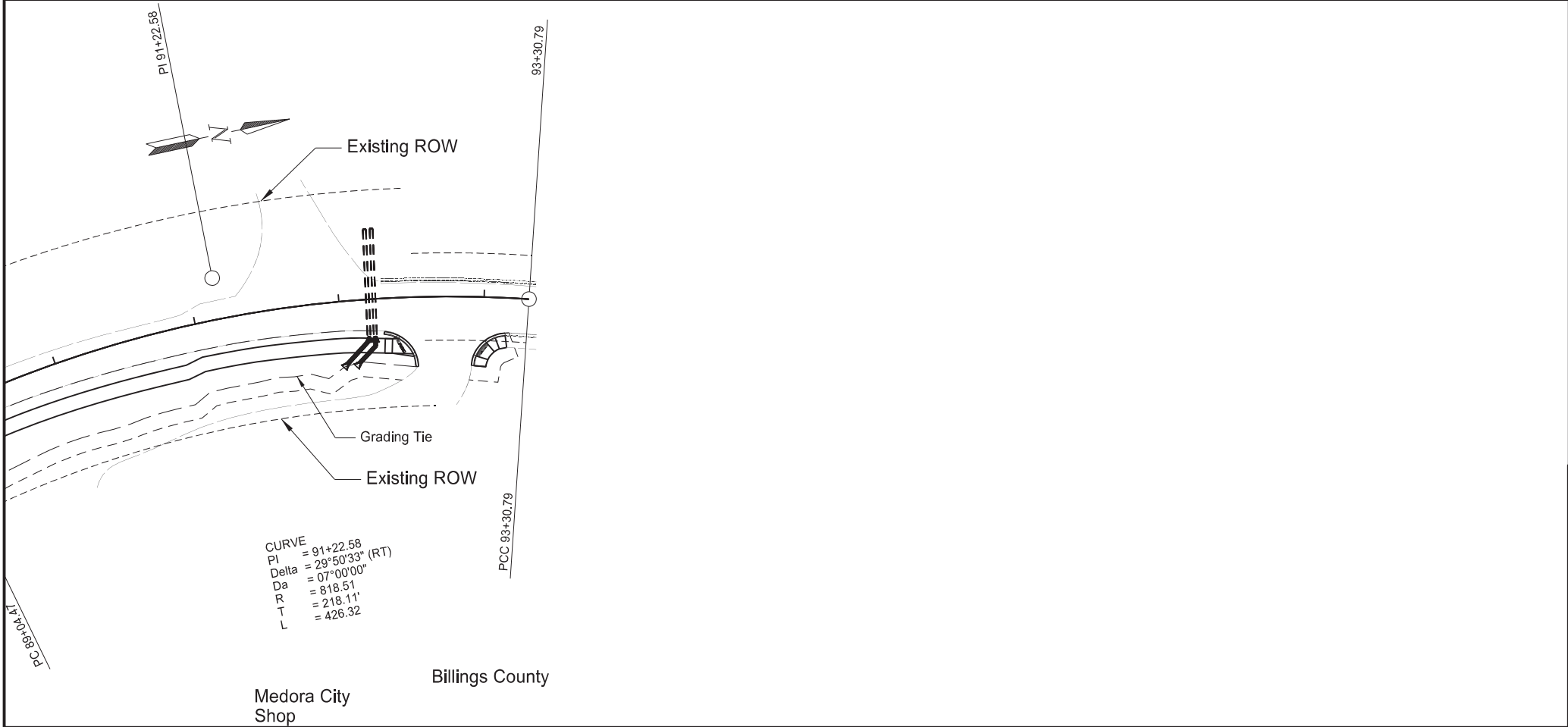
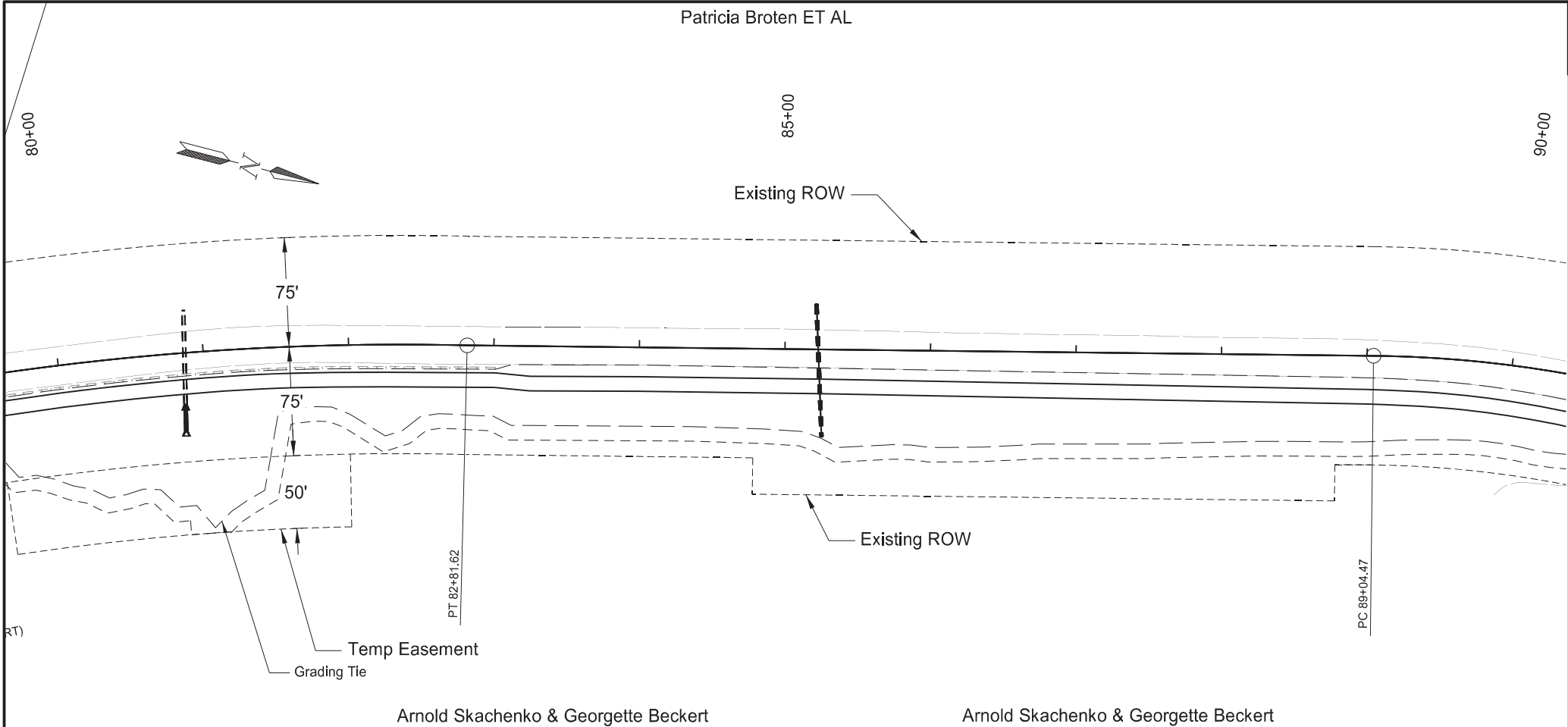
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	75	4

LEGEND

- Other Water Permanent Impact
- Other Water Temporary Impact
- Existing Delineated Other Water
- Existing Delineated Wetland

Wetland Impacts
Shared Use Path
East River Road
Billings County

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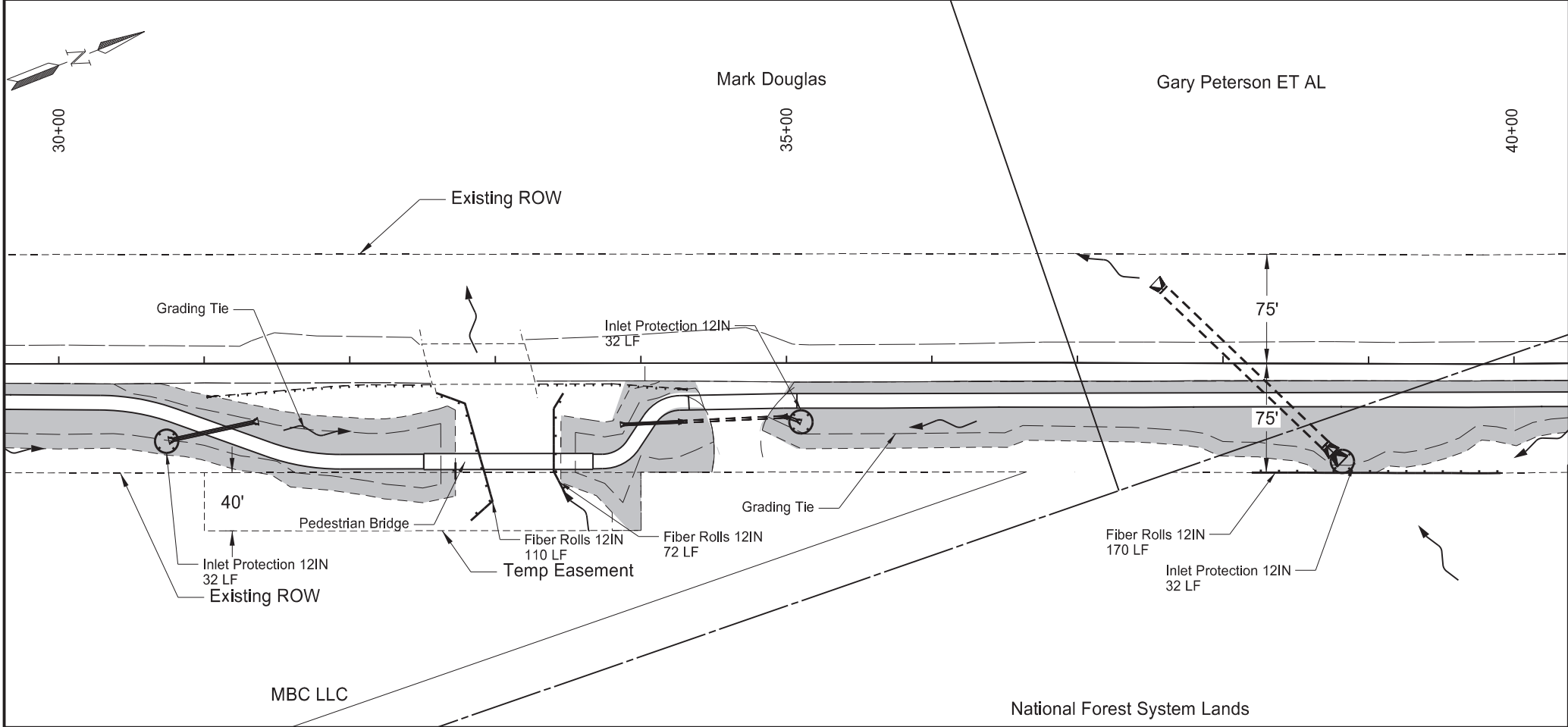
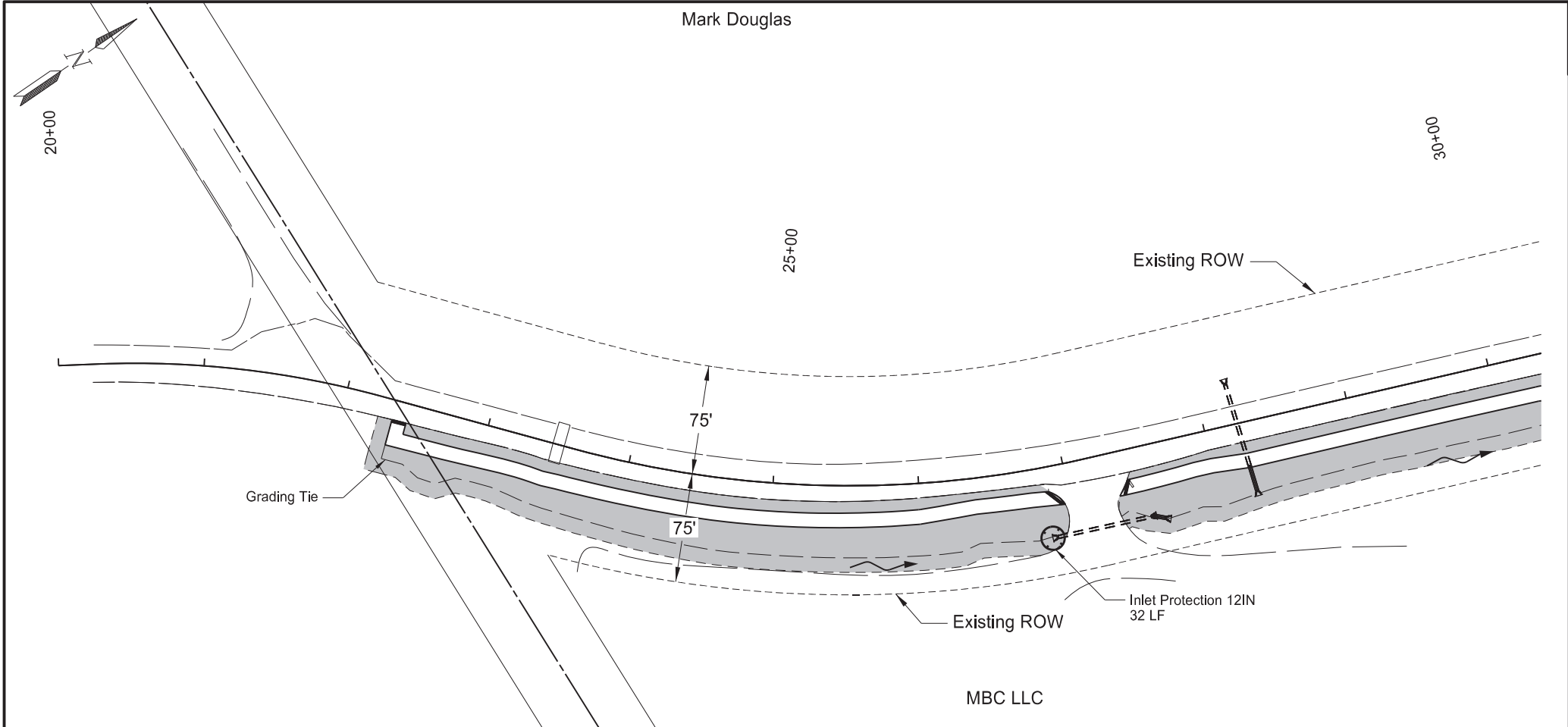


STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	75	5

LEGEND	
	Other Water Permanent Impact
	Other Water Temporary Impact
	Existing Delineated Other Water
	Existing Delineated Wetland

Wetland Impacts
Shared Use Path
East River Road
Billings County





STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	76	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	2000	TEMPORARY COVER CROP		
		STA 20+00 to 40+00 RT	1.43	ACRE
253	0101	STRAW MULCH		
		STA 20+00 to 40+00 RT	1.43	ACRE
261	112	FIBER ROLLS 12IN		
		STA 20+00 to 40+00 RT	182	LF
		Culvert Inlet Protection (32 LF EA)	128	LF
261	113	REMOVE FIBER ROLLS 12IN		
		STA 20+00 to 40+00 RT	182	LF
		Culvert Inlet Protection(32 LF EA)	128	LF

Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

LEGEND

- Fiber Rolls 12IN
- Flow Arrow
- Temporary Cover Crop & Straw Mulch

Temporary Erosion Control

Shared Use Path

East River Road

Billings County

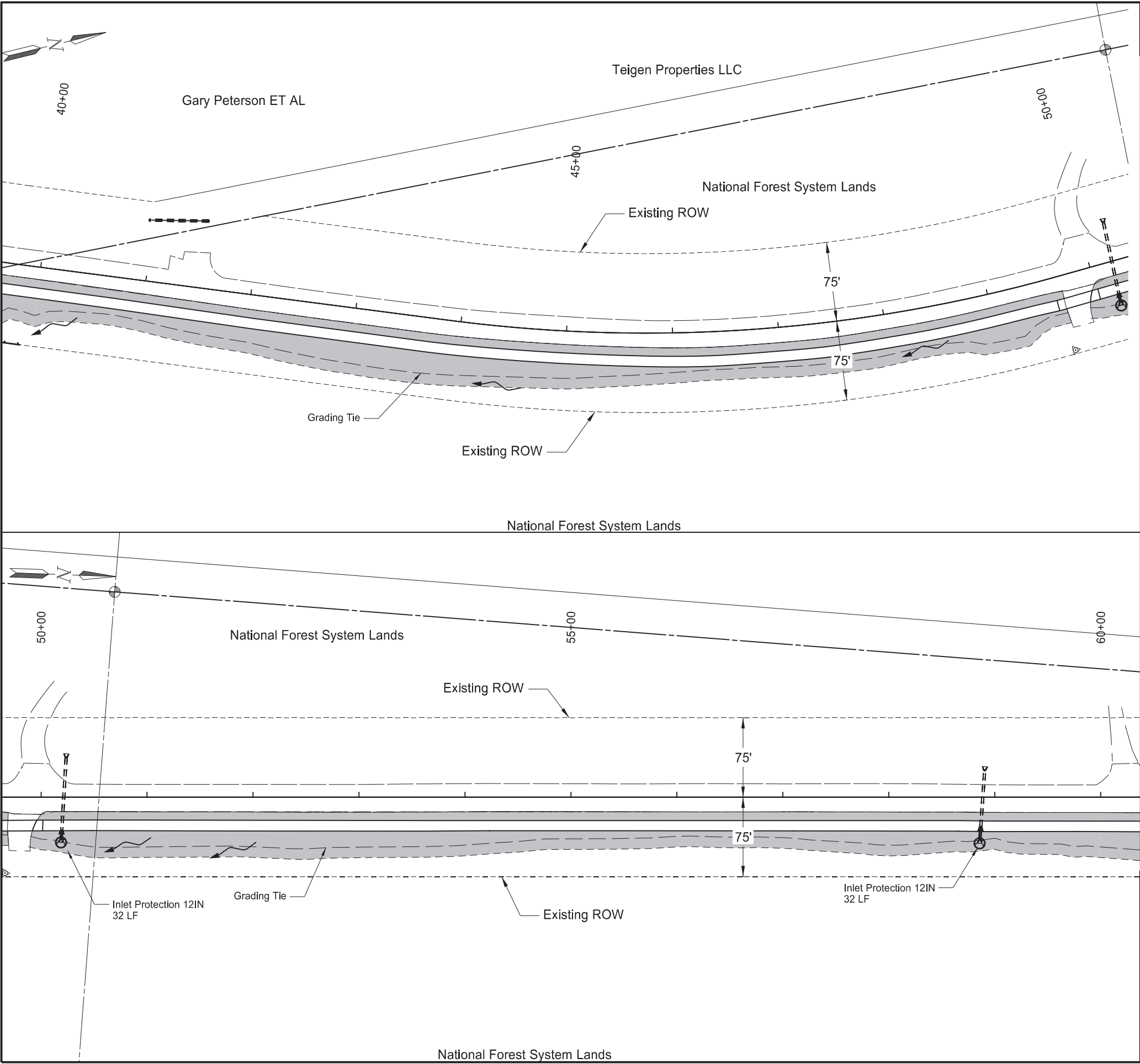
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GAYLE D COX

PE-10597

DATE 11/26/25

NORTH DAKOTA



		STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	TAC-0434(059)	76	2
SPEC	CODE	BID ITEM		QUANTITY	UNIT
251	2000	TEMPORARY COVER CROP			
		STA 40+00 to 60+00 RT		1.33	ACRE
253	0101	STRAW MULCH			
		STA 40+00 to 60+00 RT		1.33	ACRE
261	112	FIBER ROLLS 12IN			
		Culvert Inlet Protection(32 LF EA)		64	LF
261	113	REMOVE FIBER ROLLS 12IN			
		Culvert Inlet Protection(32 LF EA)		64	LF

LEGEND

Fiber Rolls 12IN

Flow Arrow

Temporary Cover Crop & Straw Mulch

DITCH FIBER ROLL SPACING	
Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

Temporary Erosion Control

Shared Use Path

East River Road

Billings County

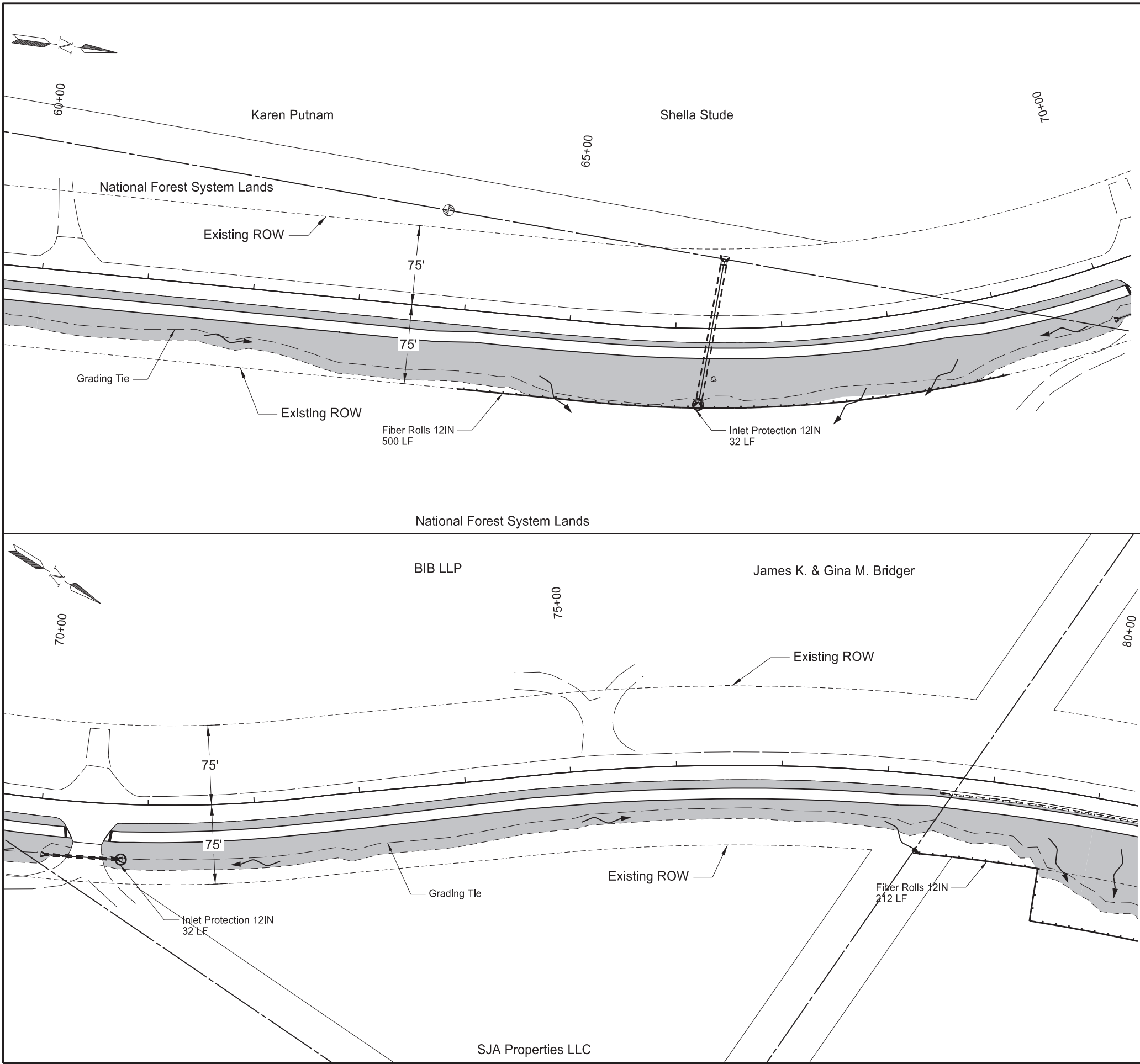
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PE-10597

DATE 11/26/25

NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	76	3

SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	2000	TEMPORARY COVER CROP		
		STA 60+00 to 80+00 RT	1.78	ACRE
253	0101	STRAW MULCH		
		STA 60+00 to 80+00 RT	1.78	ACRE
261	112	FIBER ROLLS 12IN		
		STA 60+00 to 80+00 RT	712	LF
		Culvert Inlet Protection (32 LF EA)	64	LF
261	113	REMOVE FIBER ROLLS 12IN		
		STA 60+00 to 80+00 RT	712	LF
		Culvert Inlet Protection(32 LF EA)	64	LF

DITCH FIBER ROLL SPACING

Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

LEGEND

Fiber Rolls 12IN

Flow Arrow

Temporary Cover Crop & Straw Mulch

Temporary Erosion Control

Shared Use Path

East River Road

Billings County

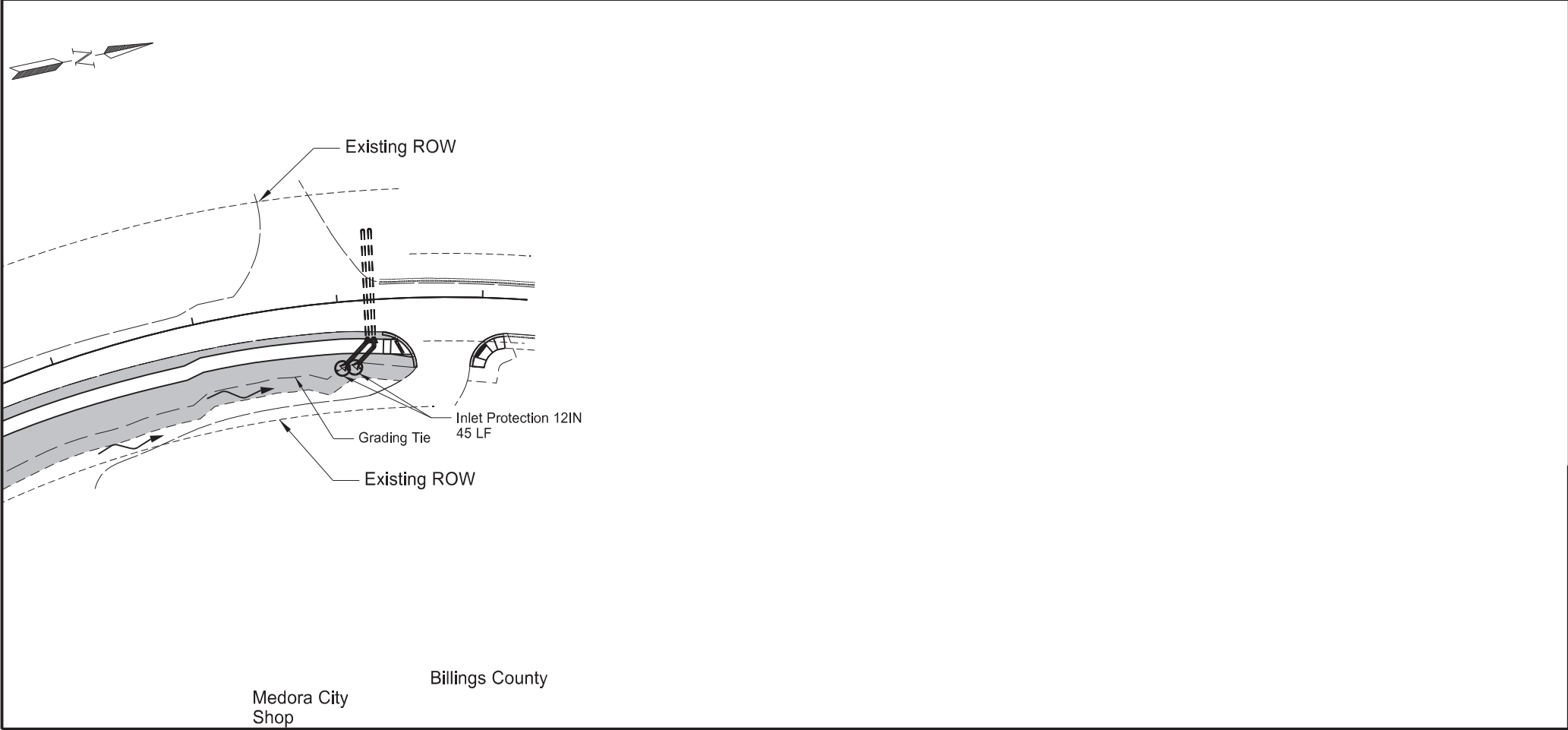
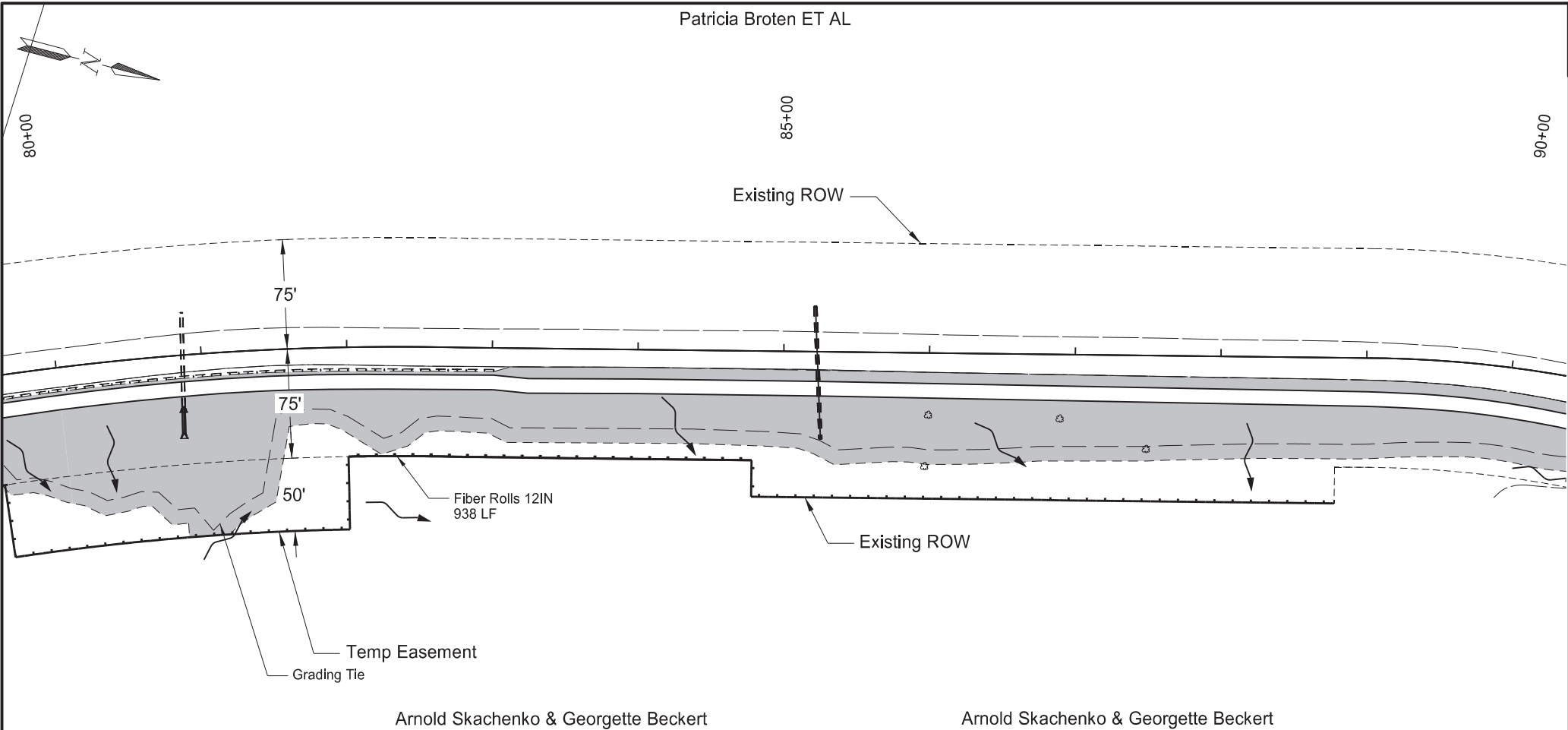
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PE-10597

DATE 11/26/25

NORTH DAKOTA



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	76	4

SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	2000	TEMPORARY COVER CROP		
		STA 80+00 to 100+00 RT	1.30	ACRE
253	0101	STRAW MULCH		
		STA 80+00 to 100+00 RT	1.30	ACRE
261	112	FIBER ROLLS 12IN		
		STA 80+00 to 100+00 RT	938	LF
		Culvert Inlet Protection	45	LF
261	113	REMOVE FIBER ROLLS 12IN		
		STA 80+00 to 100+00 RT	938	LF
		Culvert Inlet Protection	45	LF

Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

LEGEND

- Fiber Rolls 12IN
- Flow Arrow
- Temporary Cover Crop & Straw Mulch

Temporary Erosion Control

Shared Use Path

East River Road

Billings County

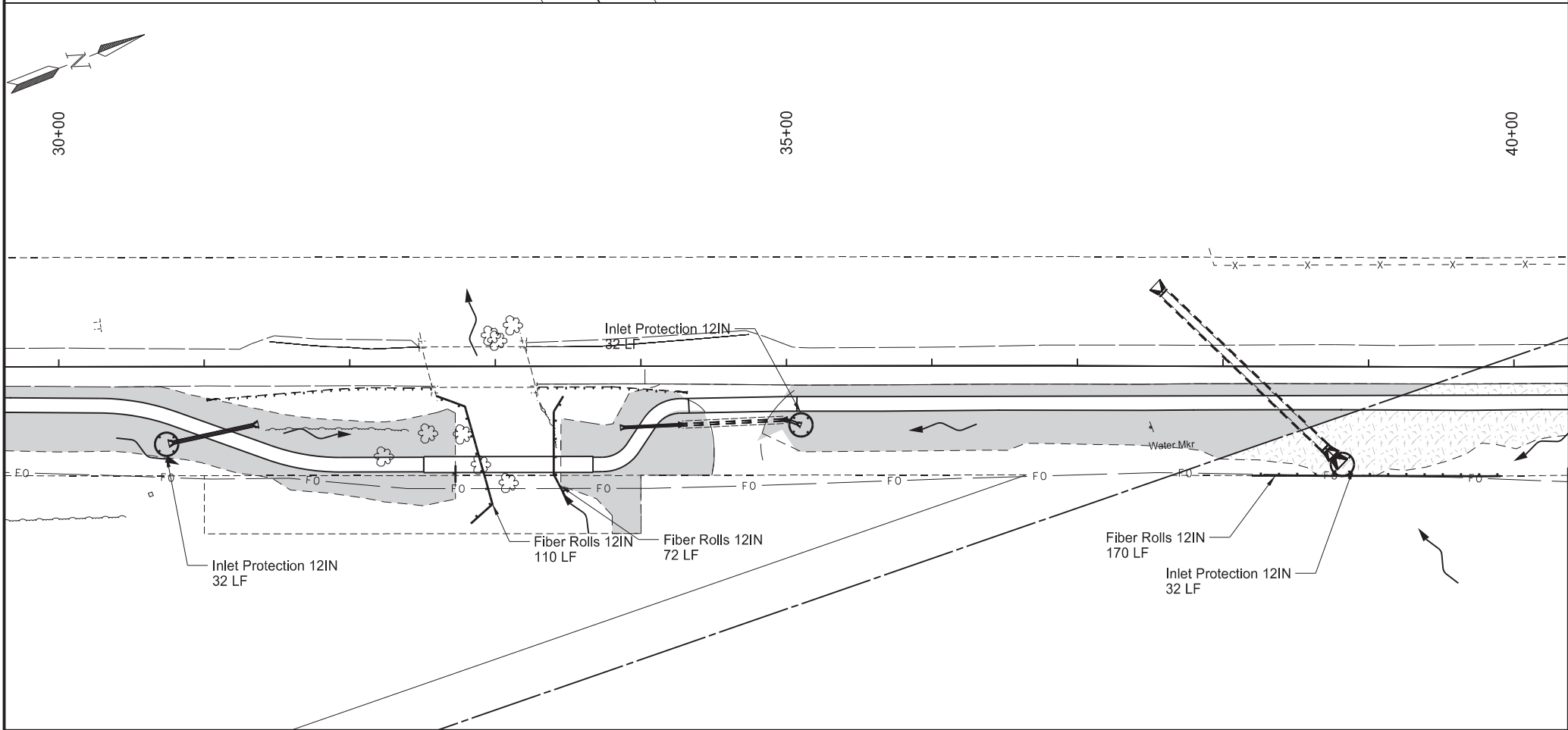
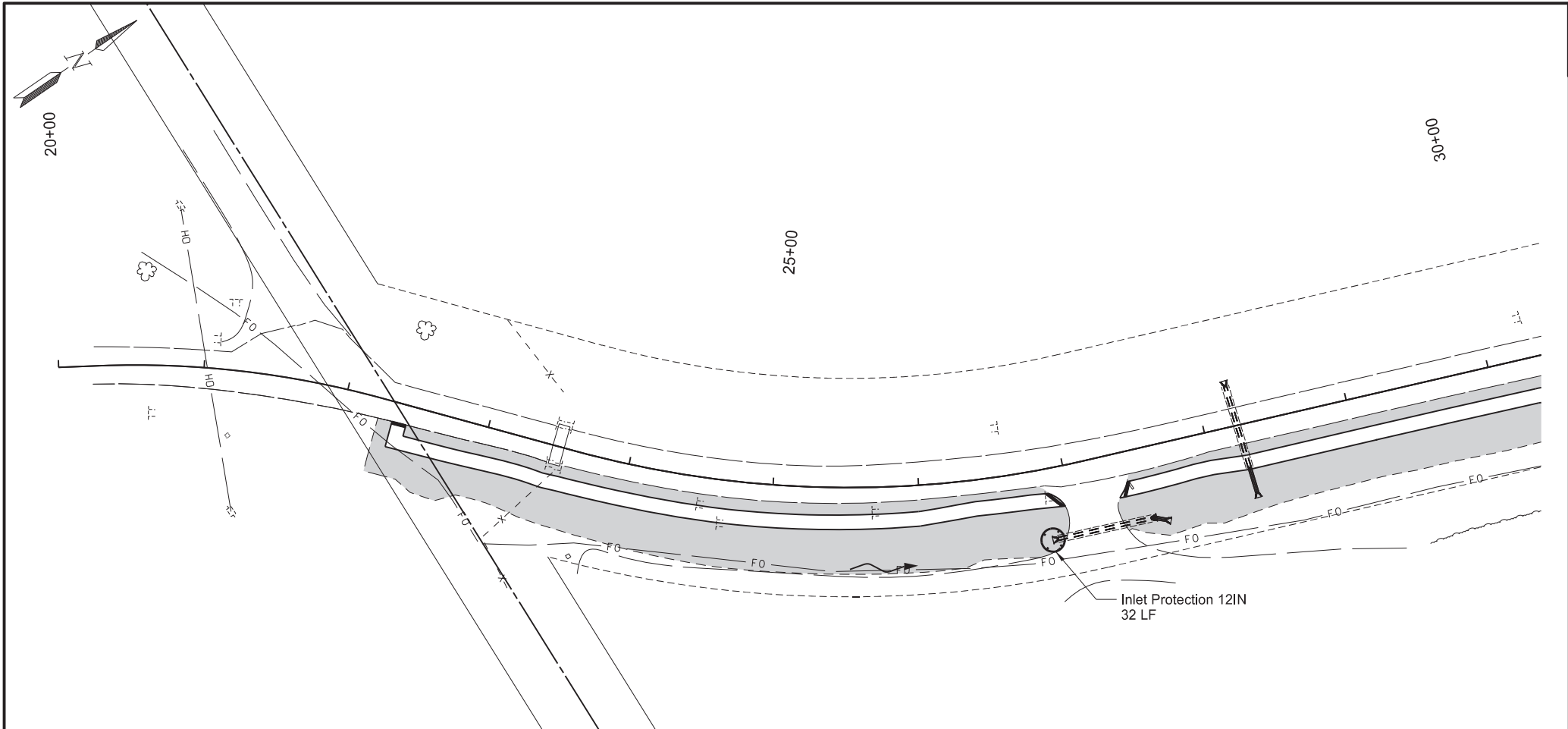
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PE-10597

DATE 11/26/25

NORTH DAKOTA



STATE		PROJECT NO.	SECTION NO.	SHEET NO.
ND		TAC-0434(059)	77	1

SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	0200	SEEDING CLASS II		
		STA 20+00 to 40+00 RT	1.28	ACRE
251	0300	SEEDING CLASS III		
		STA 20+00 to 40+00 RT	0.15	ACRE
253	0101	STRAW MULCH		
		STA 20+00 to 40+00 RT	1.43	ACRE
261	112	FIBER ROLLS 12IN		
		STA 20+00 to 40+00 RT	182	LF
		Culvert Inlet Protection (32 LF EA)	128	LF

Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

Permanent Erosion Control
Shared Use Path
East River Road
Billings County

LEGEND

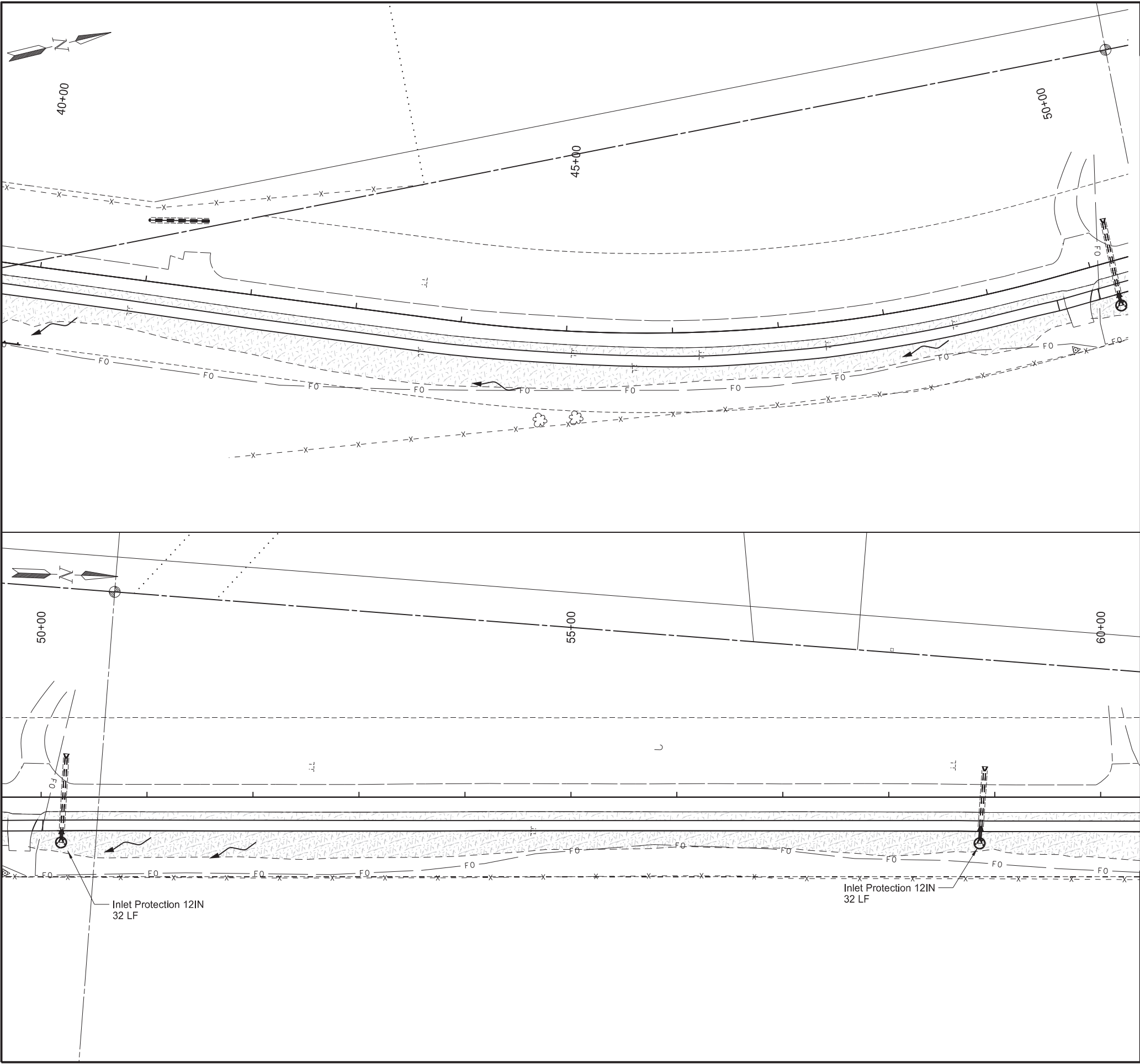
- Fiber Rolls 12IN
- Flow Arrow
- Seeding Class II & Straw Mulch
- Seeding Class III & Straw Mulch

REGISTERED PROFESSIONAL ENGINEER

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PE-10597

DATE 11/26/25

NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	77	2

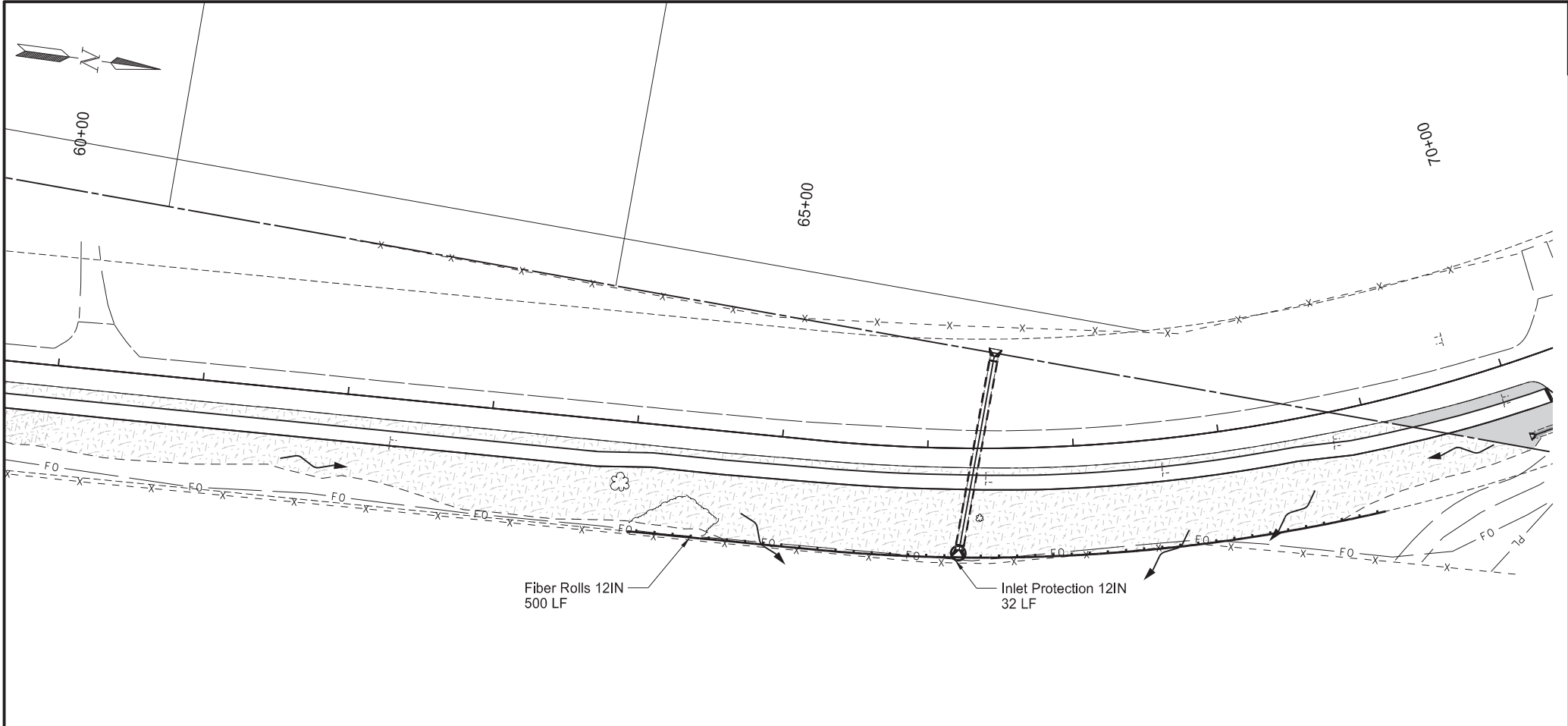
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251	0300	SEEDING CLASS III		
		STA 40+00 to 60+00 RT	1.33	ACRE
253	0101	STRAW MULCH		
		STA 40+00 to 60+00 RT	1.33	ACRE
261	112	FIBER ROLLS 12IN		
		Culvert Inlet Protection(32 LF EA)	64	LF

DITCH FIBER ROLL SPACING	
Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

- LEGEND
- Fiber Rolls 12IN
 - Flow Arrow
 - Seeding Class II & Straw Mulch
 - Seeding Class III & Straw Mulch

Permanent Erosion Control
Shared Use Path
East River Road
Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	77	3

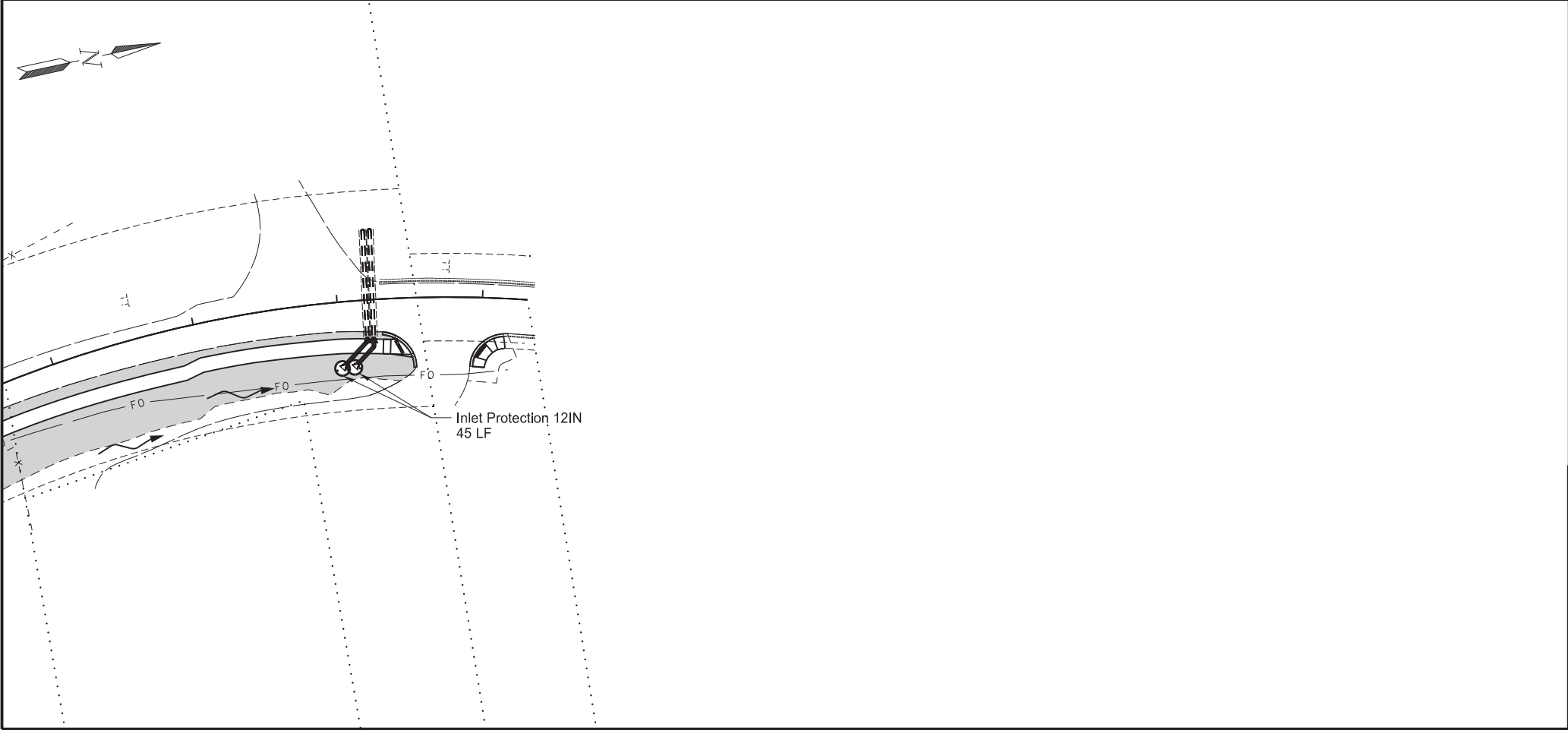
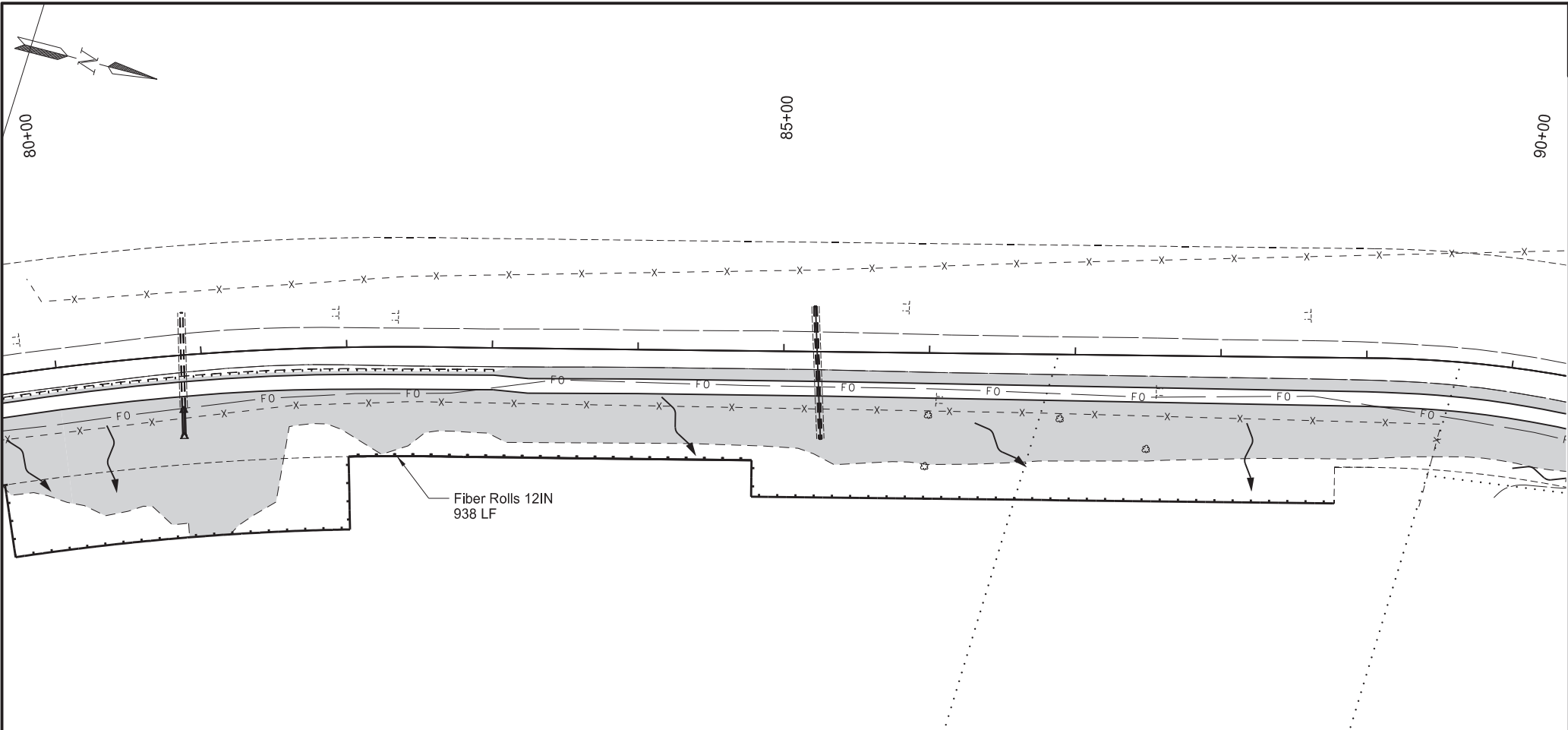
SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	0200	SEEDING CLASS II		
		STA 60+00 to 80+00 RT	0.77	ACRE
251	0300	SEEDING CLASS III		
		STA 60+00 to 80+00 RT	1.02	ACRE
253	0101	STRAW MULCH		
		STA 60+00 to 80+00 RT	1.79	ACRE
261	112	FIBER ROLLS 12IN		
		STA 60+00 to 80+00 RT	712	LF
		Culvert Inlet Protection (32 LF EA)	64	LF

DITCH FIBER ROLL SPACING	
Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

- LEGEND**
- Fiber Rolls 12IN
 - Flow Arrow
 - Seeding Class II & Straw Mulch
 - Seeding Class III & Straw Mulch

Permanent Erosion Control
Shared Use Path
East River Road
Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	77	4

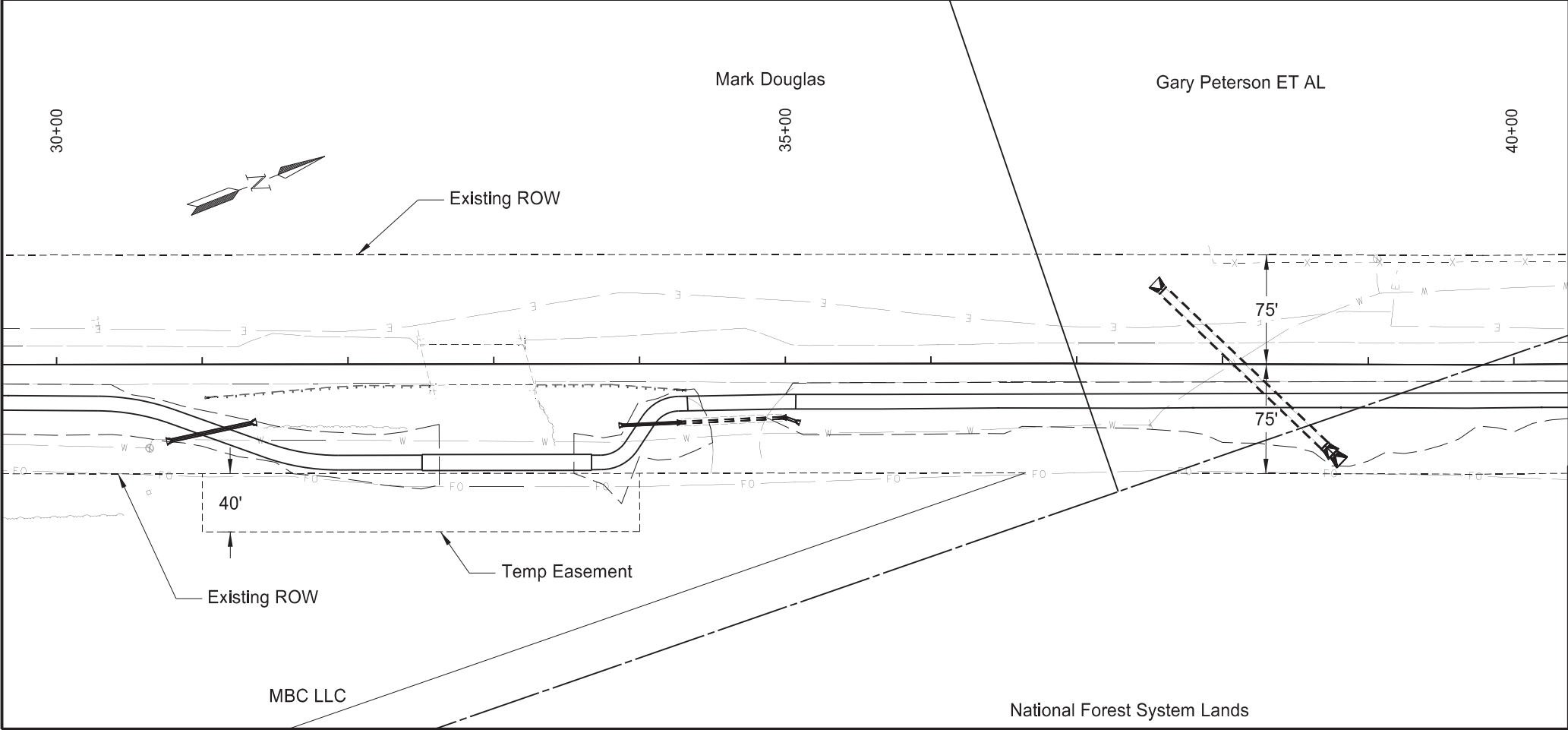
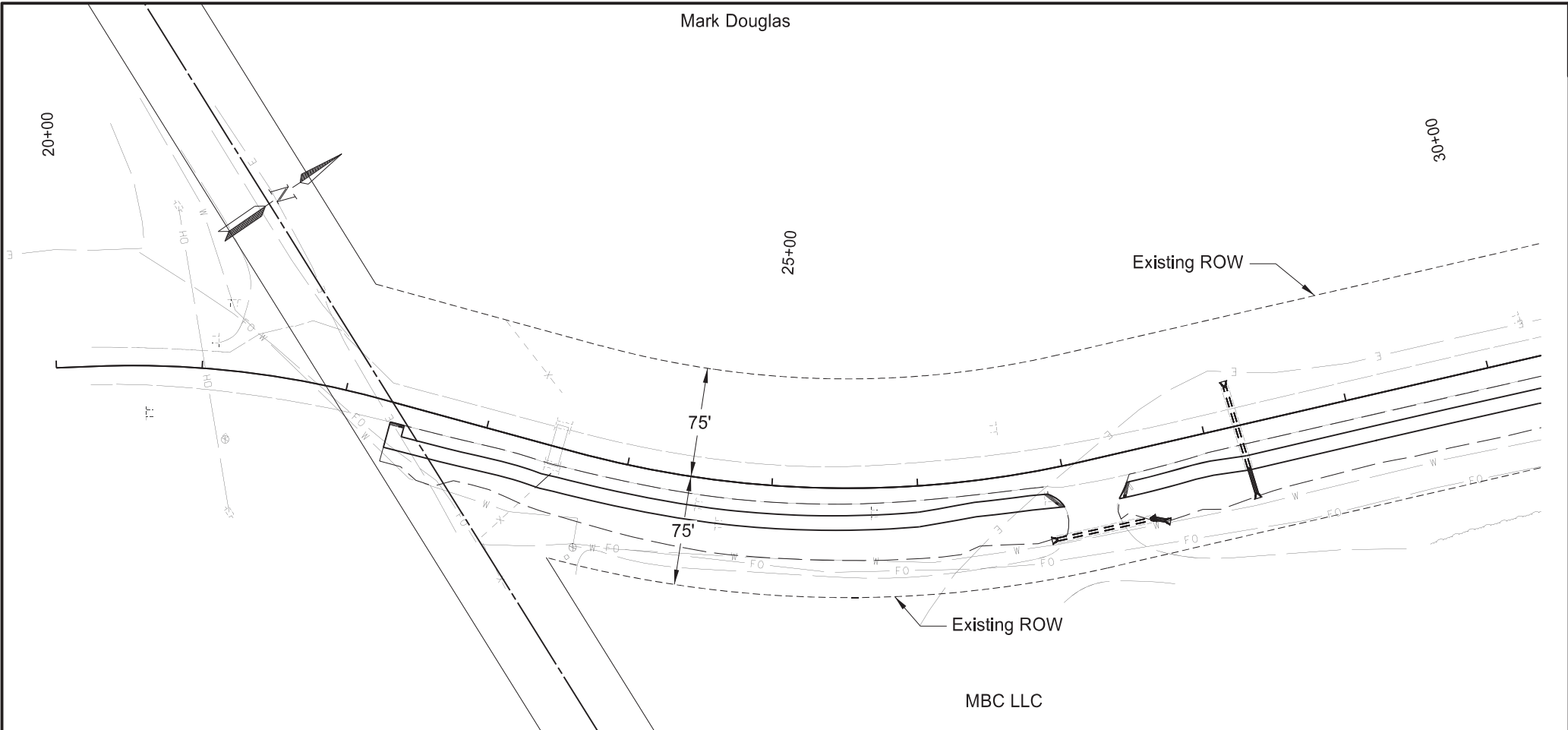
SPEC	CODE	BID ITEM	QUANTITY	UNIT
251	0200	SEEDING CLASS II		
		STA 80+00 to 100+00 RT	1.30	ACRE
253	0101	STRAW MULCH		
		STA 80+00 to 100+00 RT	1.30	ACRE
261	112	FIBER ROLLS 12IN		
		STA 80+00 to 100+00 RT	938	LF
		Culvert Inlet Protection	45	LF

DITCH FIBER ROLL SPACING	
Ditch Grade	Spacing
1%	200
2%	100
3%	65
4%	50
5%	40

LEGEND	
	Fiber Rolls 12IN
	Flow Arrow
	Seeding Class II & Straw Mulch
	Seeding Class III & Straw Mulch

Permanent Erosion Control
Shared Use Path
East River Road
Billings County





STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	80	1

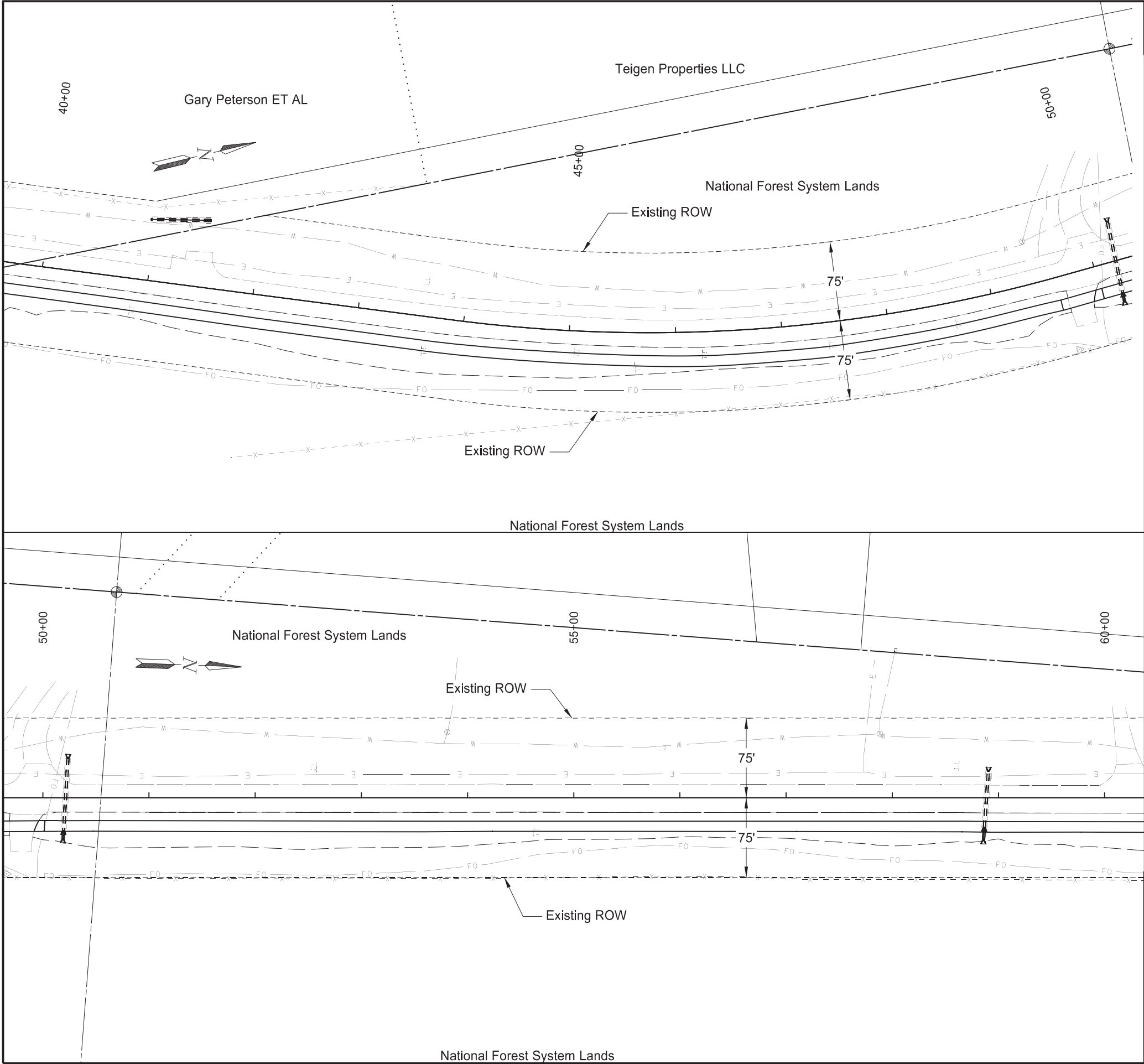
SPEC	CODE	BID ITEM	QUANTITY	UNIT
202	0312	REMOVE EXISTING FENCE		
		STA 23+50	RT	30
				LF

LEGEND

— REMOVE — Remove Existing Fence

Fencing
Shared Use Path
East River Rd
Billings County

REGISTERED PROFESSIONAL ENGINEER
GAYLE D COX
PE-10597
DATE 11/26/25
NORTH DAKOTA



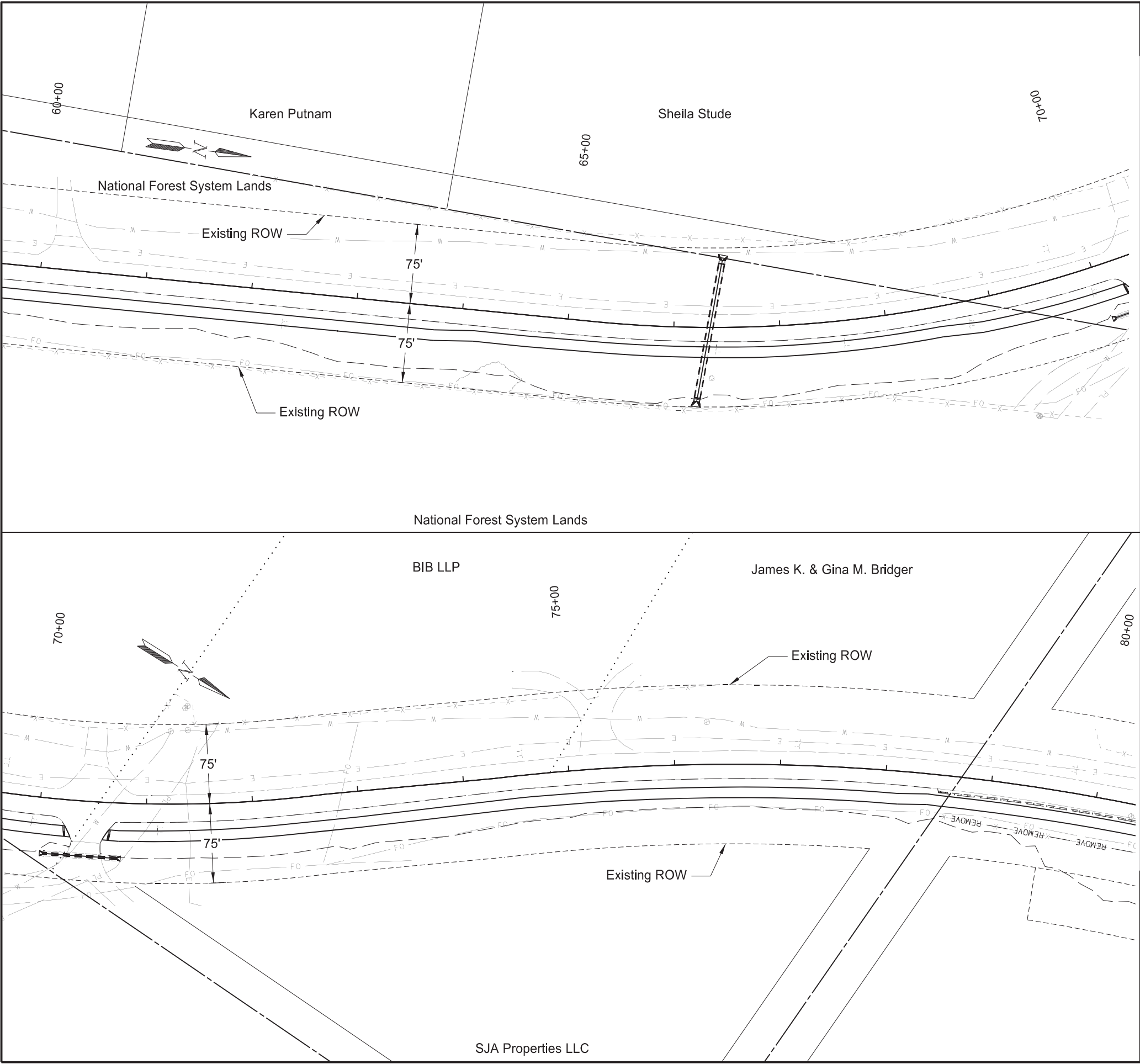
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ND	TAC-0434(059)	80	2

LEGEND

— REMOVE — Remove Existing Fence

Fencing
Shared Use Path
East River Rd
Billings County





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	80	3

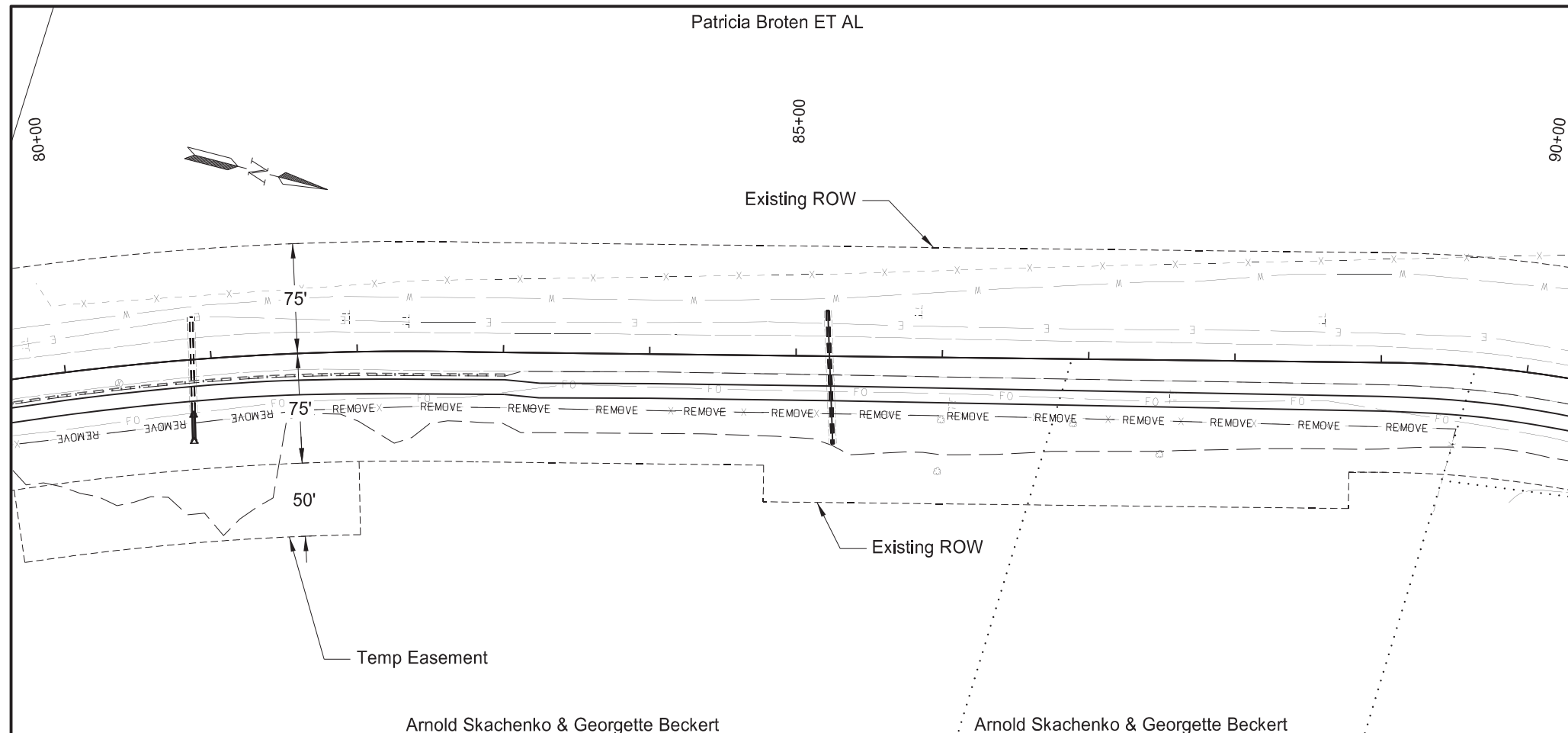
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202	0312	REMOVE EXISTING FENCE		
		STA 78+50 to 80+00 RT	150	LF

LEGEND

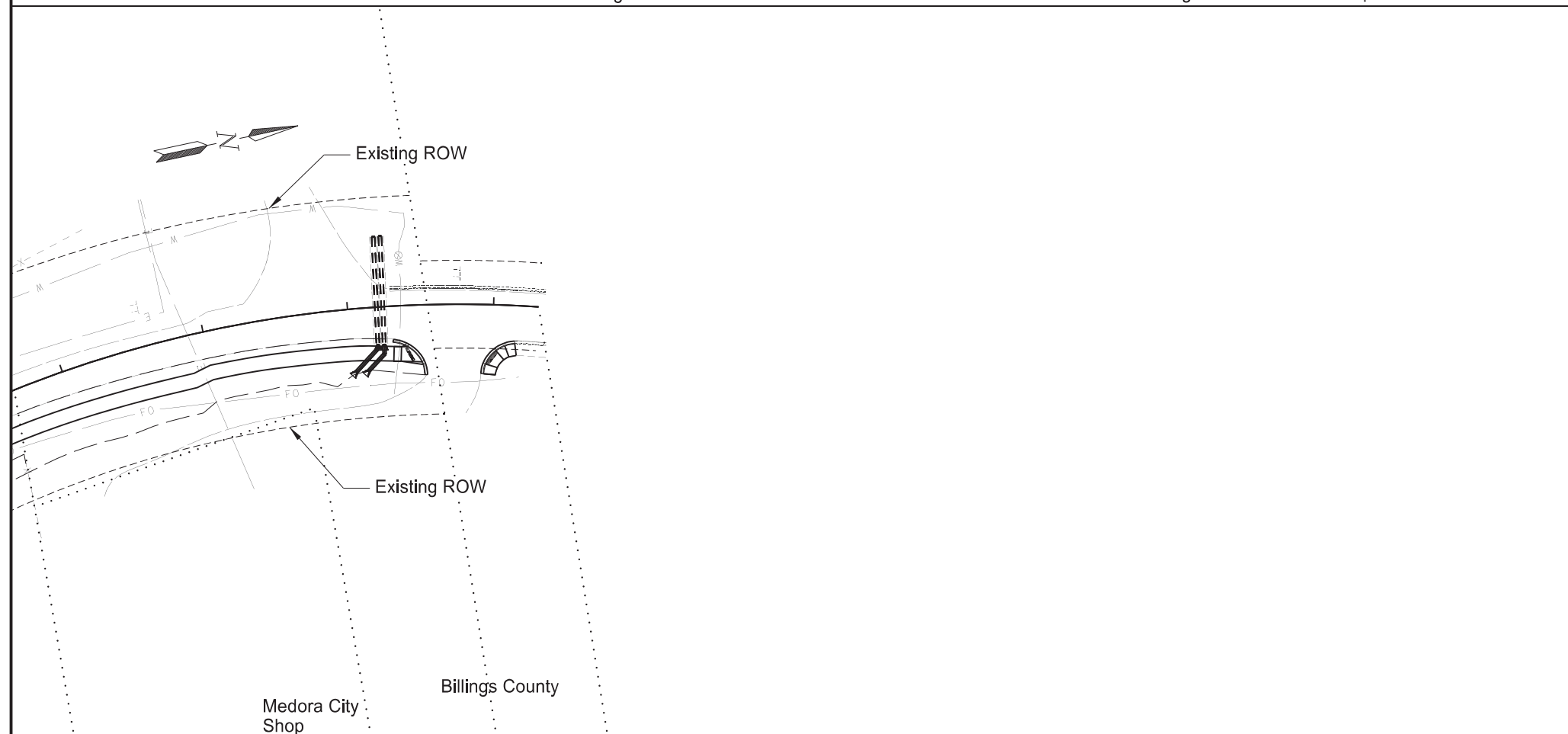
— REMOVE — Remove Existing Fence

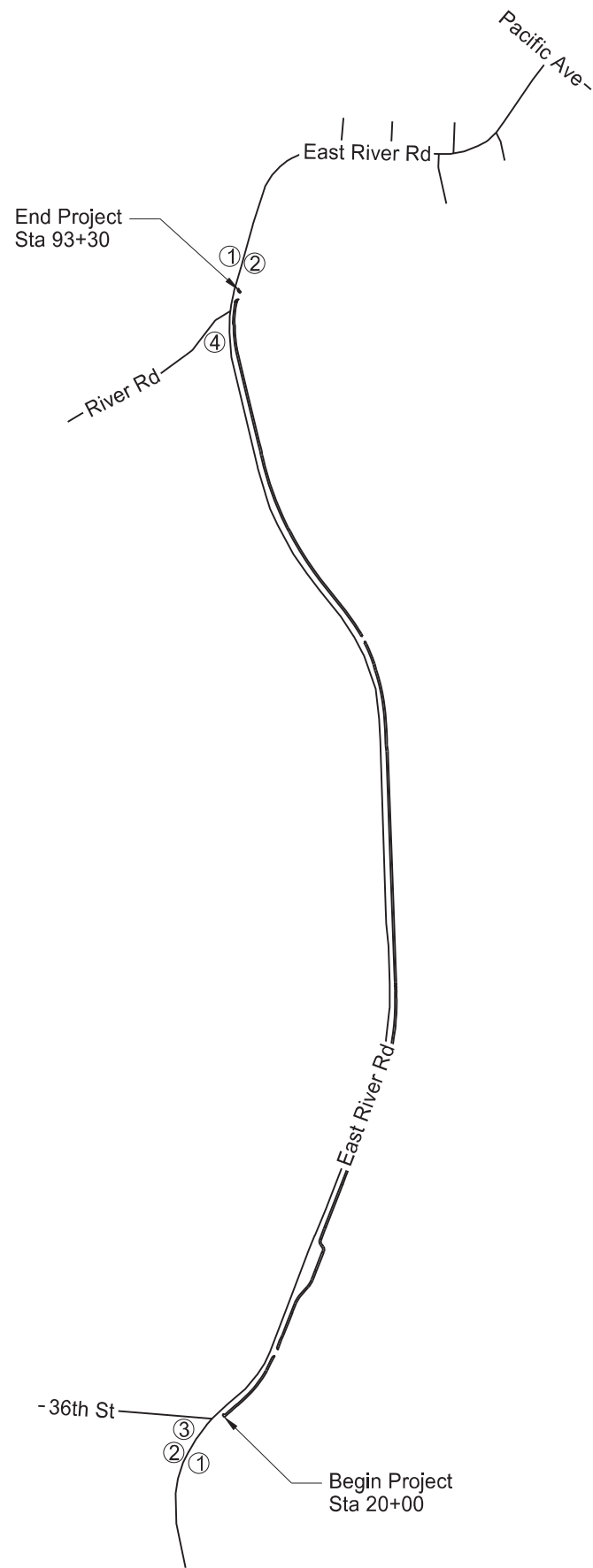
Fencing
Shared Use Path
East River Rd
Billings County

REGISTERED PROFESSIONAL ENGINEER
GAYLE D COX
PE-10597
DATE 11/26/25
NORTH DAKOTA

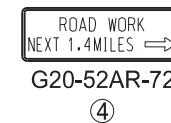
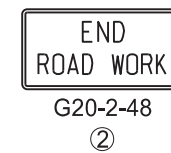
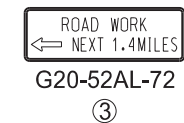
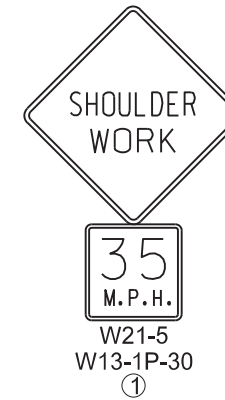


SPEC	CODE	BID ITEM	QUANTITY	UNIT
202	0312	REMOVE EXISTING FENCE		
		STA 80+00 to 89+50 RT	950	LF





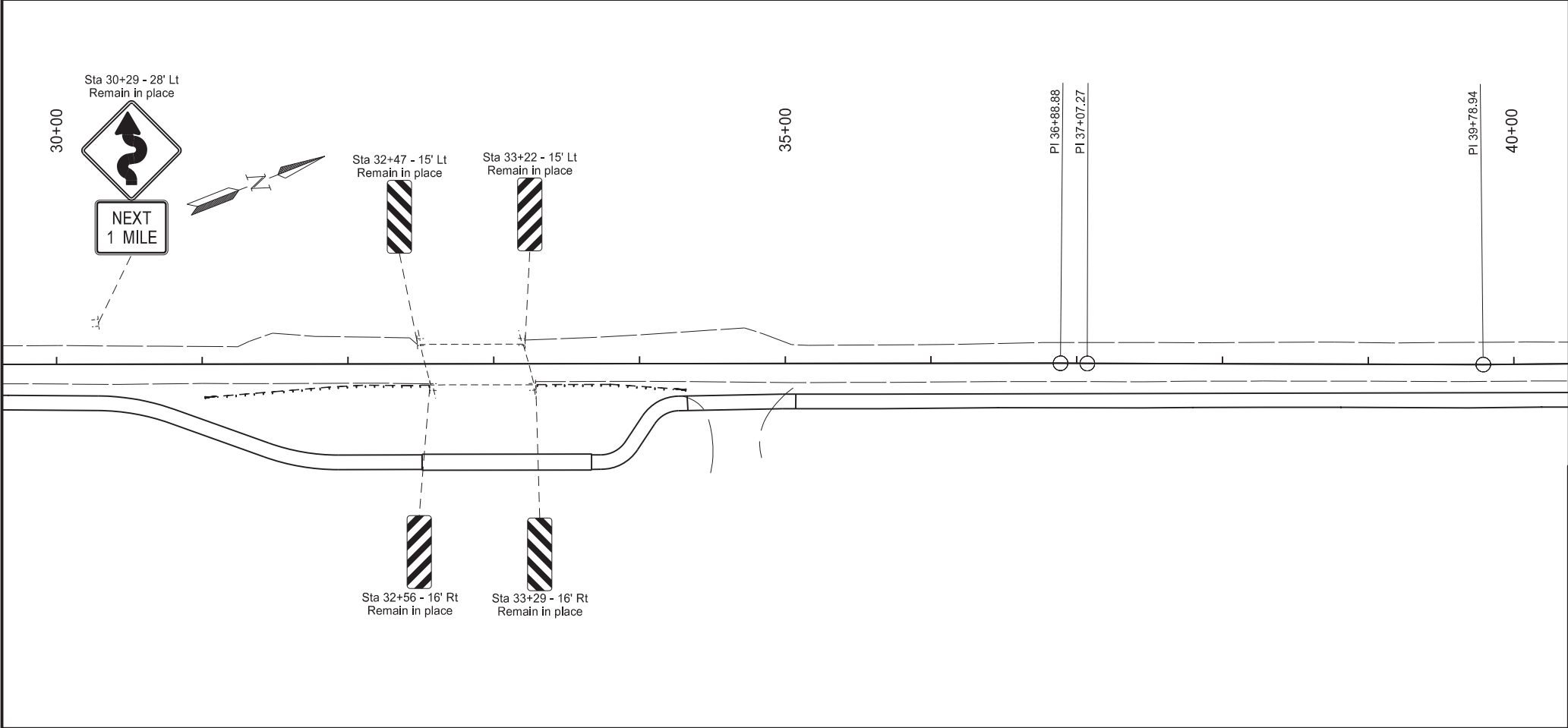
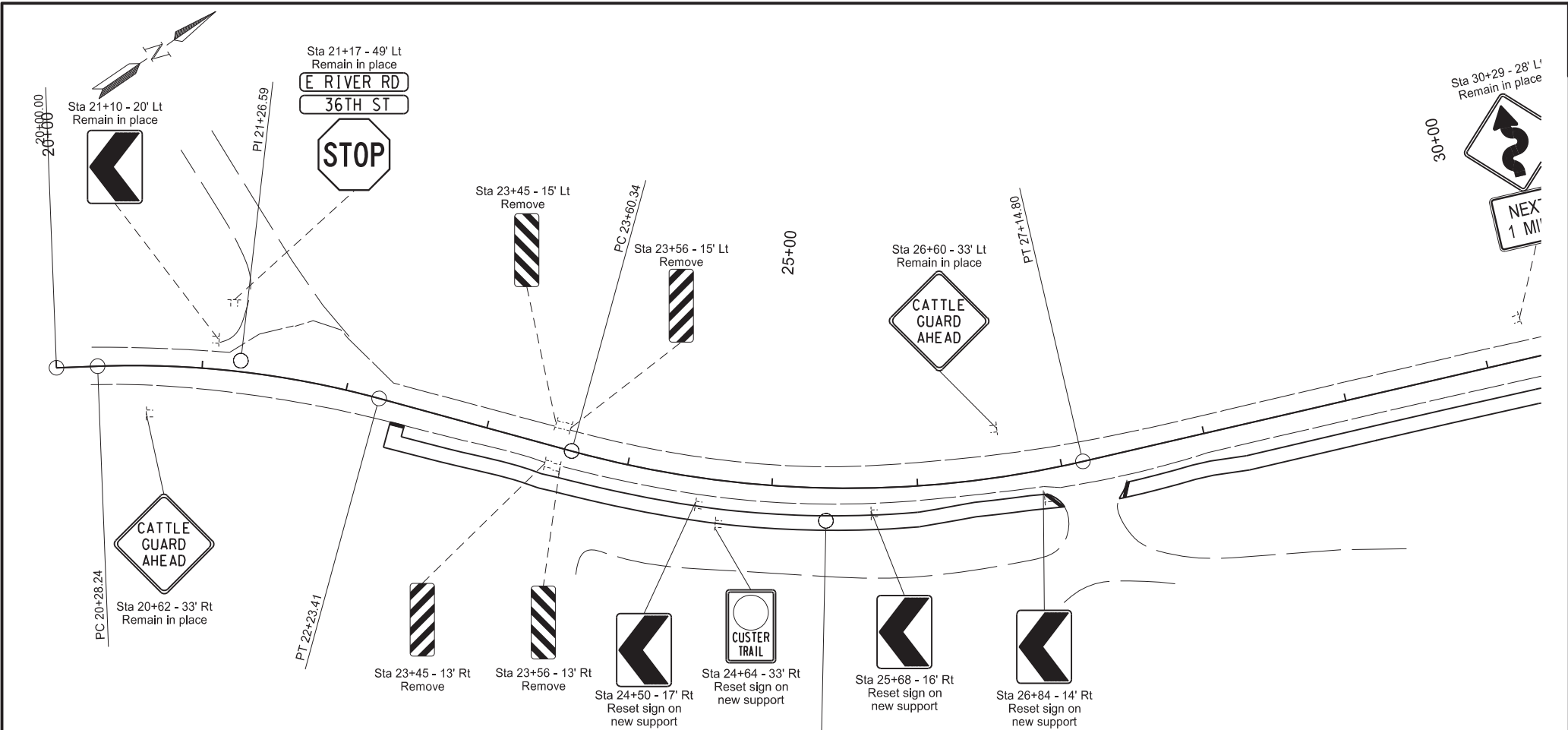
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	ND	TAC-0434(059)	100	2



Traffic Control
Shared Use Path
East River Road
Billings County



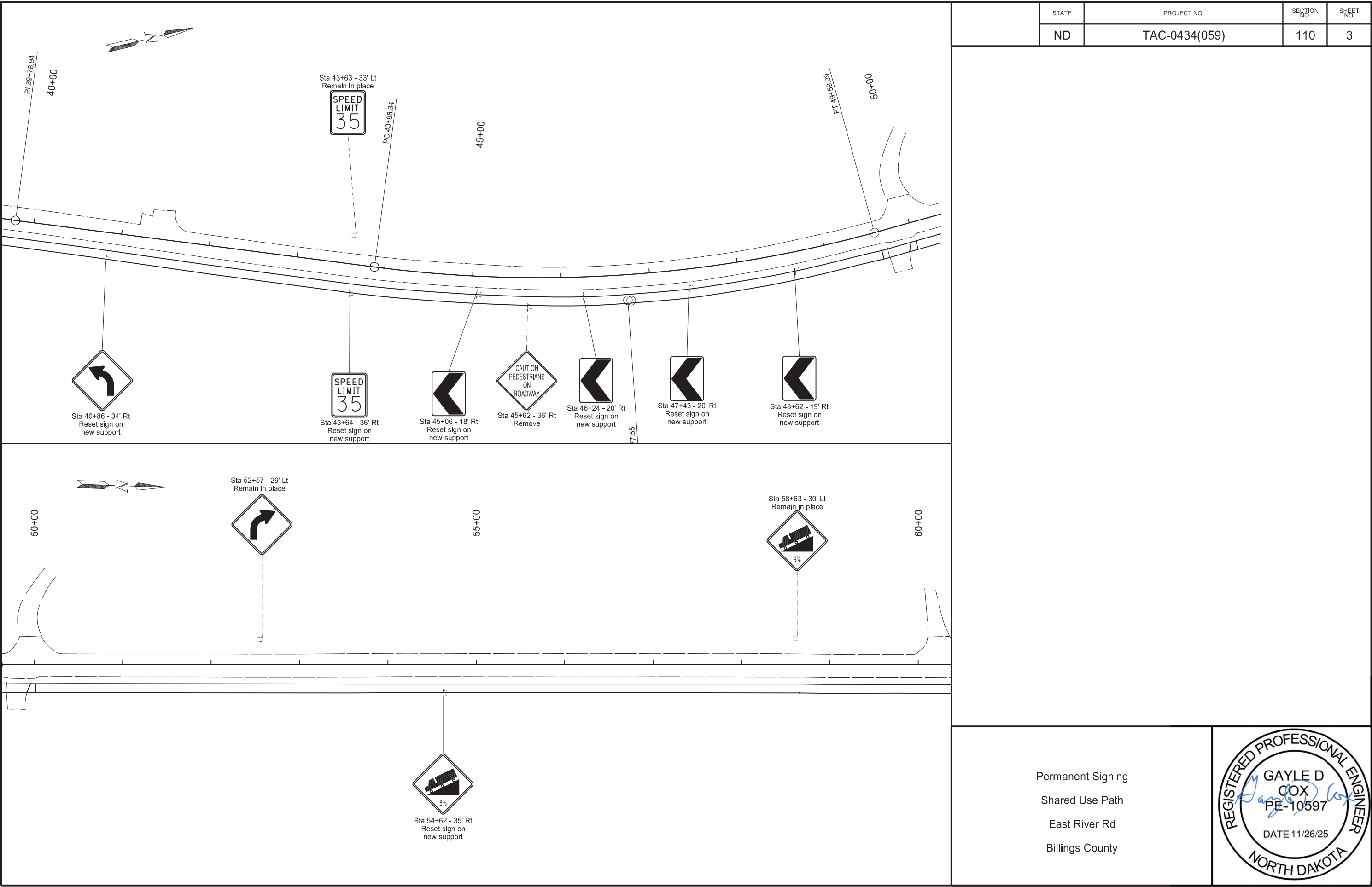
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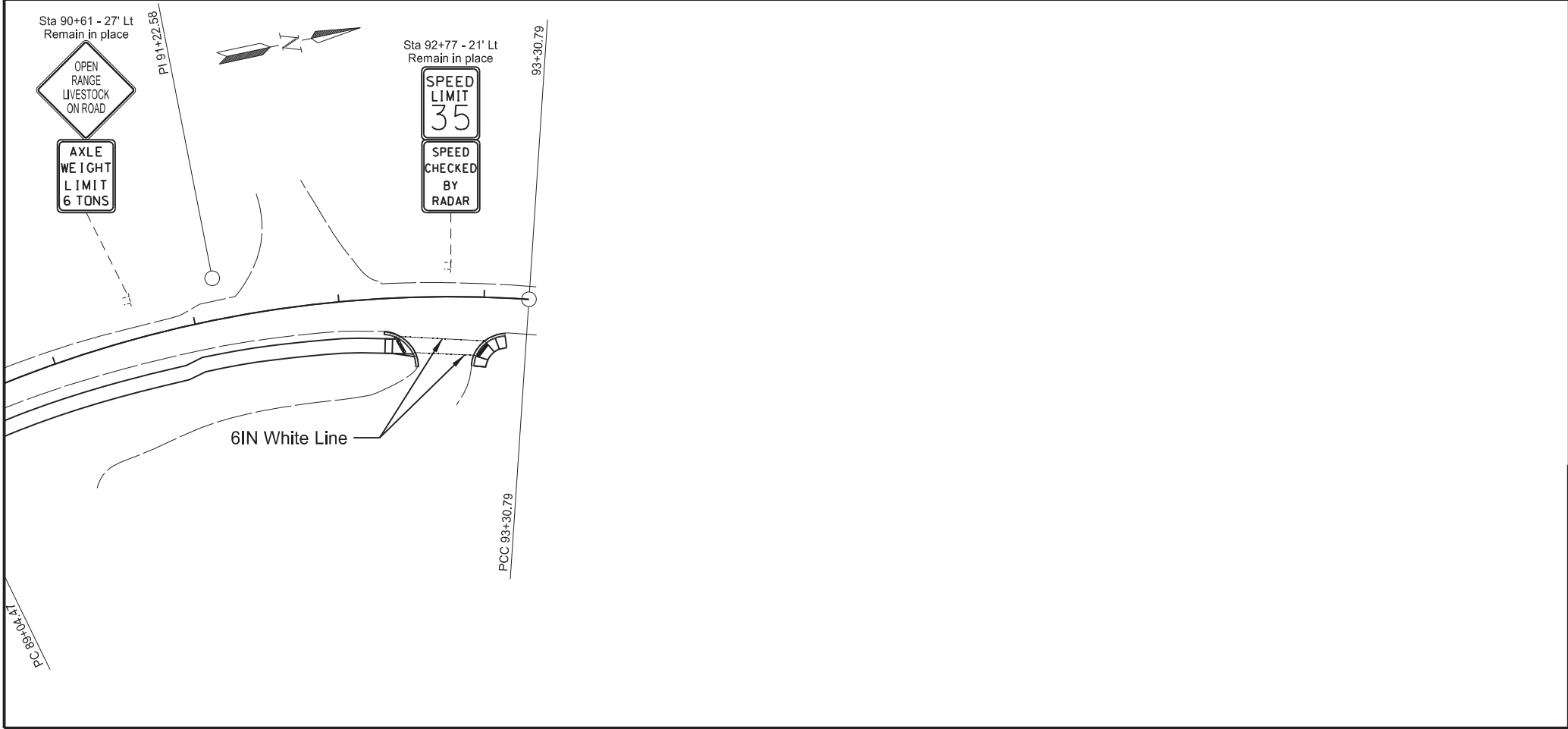
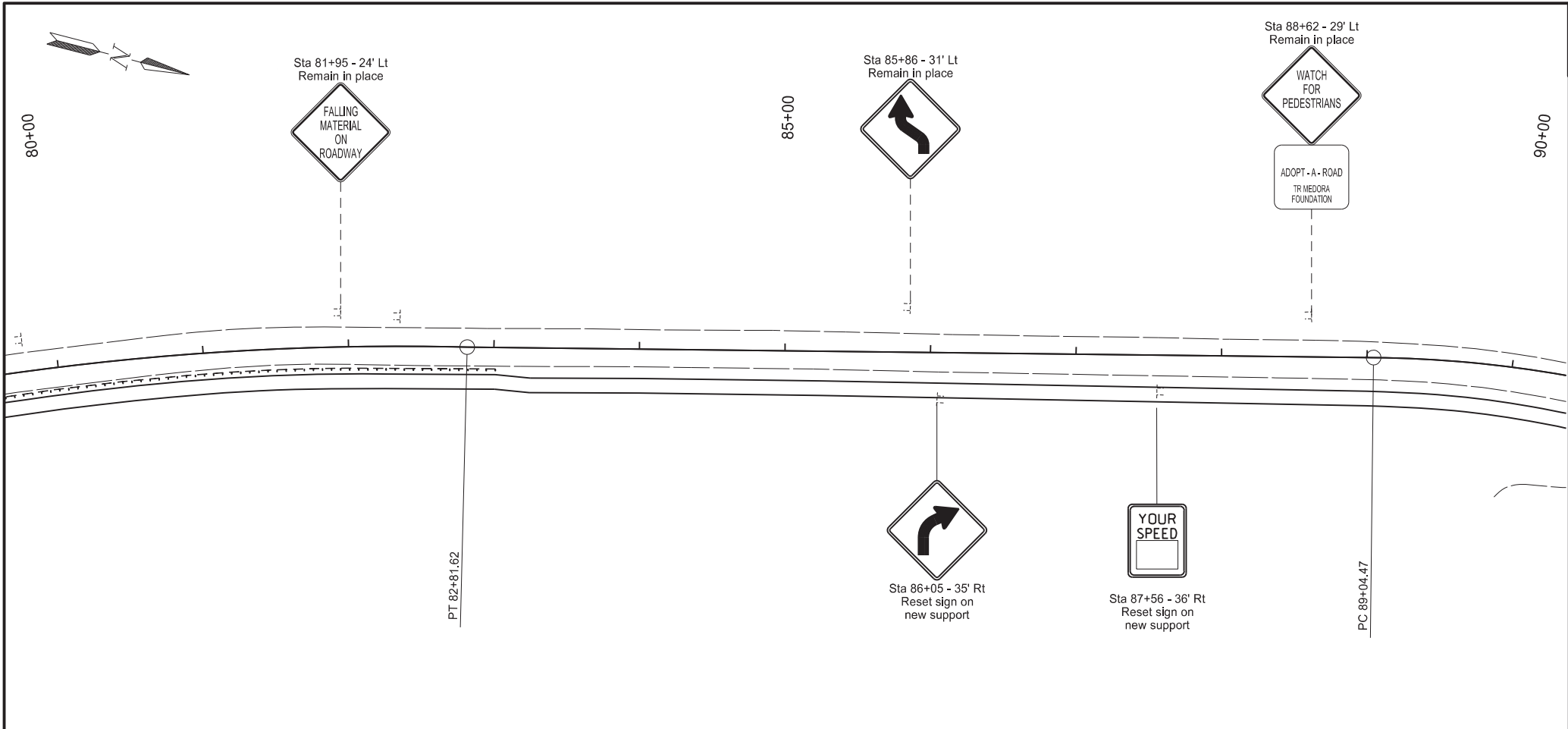


STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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Permanent Signing
Shared Use Path
East River Rd
Billings County







STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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Permanent Signing

Shared Use Path

East River Rd

Billings County

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	TAC-0434(059)	170	1

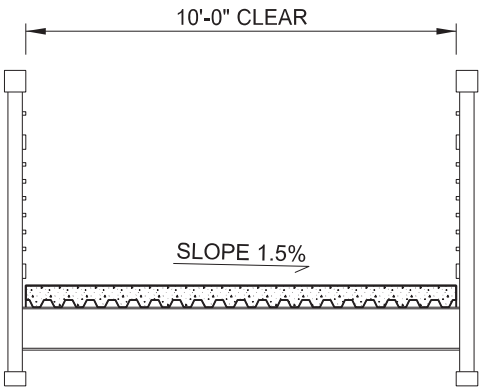
HYDRAULIC DATA:

Drainage Area	29.0	sq mi
Stream Gradient	0.0029	ft/ft
Design Frequency	25	yr
Design Discharge	1270	cfs
Design Headwater Stage	2293.51	ft
Design Tailwater Stage	2292.91	ft
Velocity Through Bridge	3.35	fps
100-Year Frequency Discharge	1970	cfs
100-Year Frequency Headwater	2295.17	ft
Overtopping Stage	2300.70	ft
Overtopping Discharge	4975	cfs

DESIGN STRENGTHS:

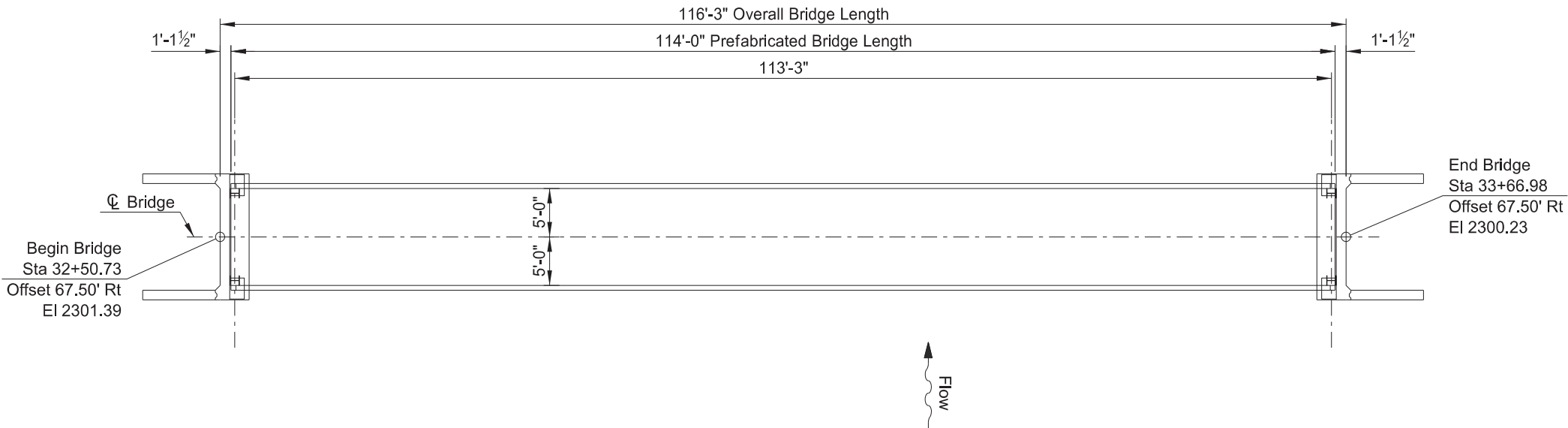
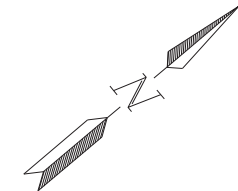
f'c = 4,000 psi ~ Class AE-3 Concrete
fy = 60,000 psi ~ Reinforcing Steel

Load & Resistance Factor Design

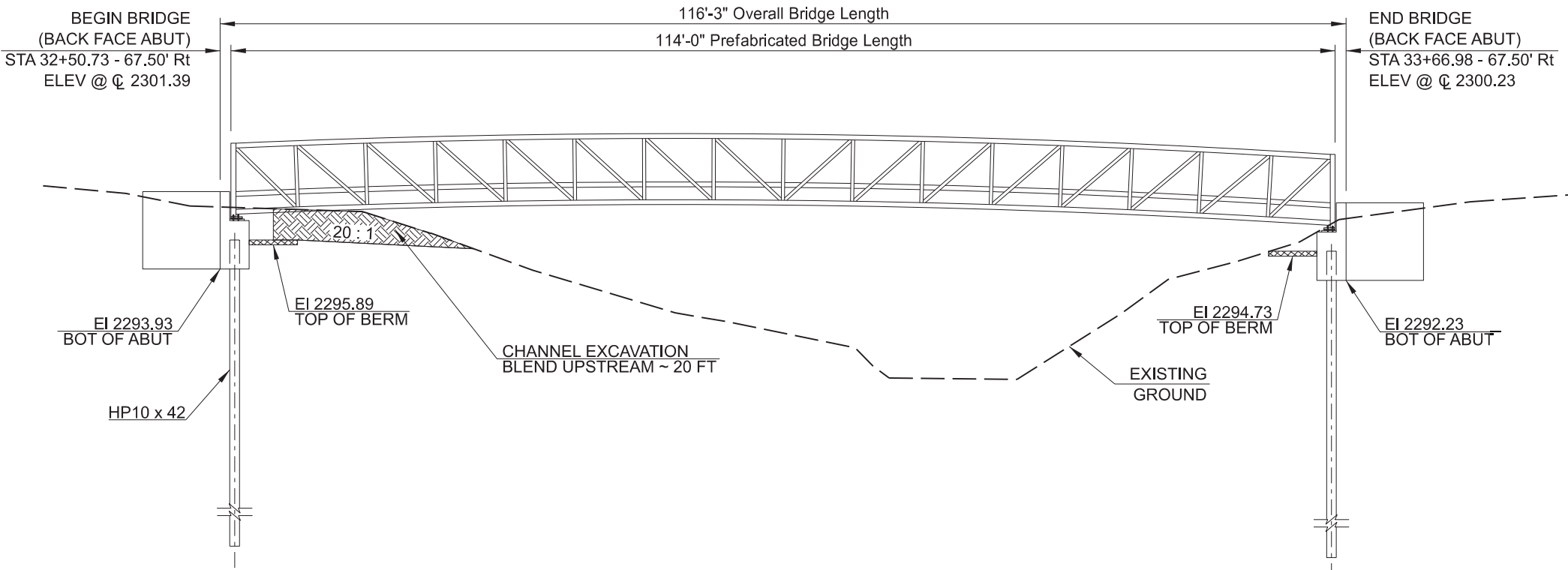


TYPICAL SECTION

SPECIAL PROVISIONS	
SSP 2	MIGRATORY BIRD TREATY ACT
STANDARD DRAWINGS	
D-622-1, D-714-18	
H5/90 PSF DESIGN LOADING	
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
EAST RIVER ROAD PEDESTRIAN BRIDGE OVER SULLY CREEK BRIDGE LAYOUT	
PROJECT: TAC-0434(059) STATION: 33+08.86 BILLINGS COUNTY	
DATE	BRIDGE ENGINEER



PLAN



ELEVATION



23 U.S.C. § 407 Documents NDDOT Reserves All Objections			STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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STRUCTURAL NOTES

100-P01

SCOPE OF WORK: This project consists of building a new prefabricated steel pedestrian bridge supported by concrete abutments.

100-P02

GENERAL: The cost of furnishing and placing preformed expansion joint filler, concrete inserts, grout pads and other miscellaneous items will be included in the bid price for "CLASS AE-3 CONCRETE".

All exposed concrete corners will be chamfered 3/4" unless noted otherwise.

210-P01

EXCAVATION: The excavation at the abutments, as shown, will be included in the lump sum bid item "CLASS 1 EXCAVATION".

For informational purposes, the quantity of Class 1 Excavation is estimated at 117 cubic yards. The quantities are based on the plan shown dimensions and will not be measured.

210-P02

CHANNEL EXCAVATION: Any unsuitable or excess channel excavation material will be disposed of at a location determined by the contractor and acceptable to the Engineer. All costs associated with excavating, hauling, and leveling the material will be included in the unit bid price for "CHANNEL EXCAVATION".

210-P03

SELECT BACKFILL: Select back fill will meet the requirements of Section 816.02, Class 3. The backfill will be placed in layers of not more than 6 inches, moistened or dried as required, and thoroughly compacted with mechanical tamping equipment. Moisture and density controls will be in accordance with Section 203.04G Type A of the Standard Specifications. All costs associated with hauling, leveling, and compacting the material will be included in the unit bid price for "ABUTMENT UNDERDRAIN SYSTEM".

210-P04

FOUNDATION PREPARATION: High groundwater elevations may be present on this project. Dewatering may be required in the wet areas to handle water seeping. Fluctuations in the groundwater level may occur due to rainfall, spring thaw, drainage, or other factors. Bidders should recognize the possibility of changes in the existing water conditions. The bidder is responsible for examining the site of the proposed work, becoming familiar with the site conditions, both soil and water conditions, before submitting a proposal. The County assumes no responsibility for the soil and water conditions encountered during construction. The submission of a bidding proposal will be considered conclusive evidence that the bidder is satisfied with the conditions to be encountered in performing the work and as to the requirements of the proposed contract.

All costs relating to and incorporated with dewatering will be considered included in the bid item "Foundation Preparation", Lump Sum.

602-P01

ENDWALLS: The end walls/top of the abutments above the construction joint will be placed at the same time as the deck. The tops of the abutment will have a broomed finish.

602-P02

DECK CONCRETE SLAB CURING: The deck will be cured by the wet-cure method. The surface will be kept moist between the final finish and the beginning of the wet-cure by means of a light fog spray. The wet cure material will be placed and the wet-cure started not later than 30 minutes after the finish of the completed area unless directed otherwise by the Engineer. The wet-cure method will consist of covering the deck with a double thickness of burlap or a geotextile fabric capable of retaining moisture. The burlap or fabric will be kept continuously moist for the next seven days. The burlap or fabric will be moistened at a minimum every four hours. If strong winds or high temperatures are present, the watering

rate will be increased. Covering the deck with curing compounds will not be allowed. No vehicles or equipment not required in the curing process will be on the bridge deck.

602-P03

PENETRATING WATER REPELLENT TREATMENT: Penetrating water repellant will be applied to the entire concrete deck surface.

612-P01

REINFORCING STEEL: All reinforcing steel will be grade 60, FY=60 ksi. Dimensions are given out to out and to tangent unless noted otherwise. Fabrications and tolerances will follow the CRSI manual of Standard Practice. Minimum clear cover will be 2 inches unless noted otherwise.

622-P01

PILING: Piling will meet AASHTO M 270, Grade 50. Pile shoes are required on all piling.

622-P02

PILING: Piling will be driven with air, steam or diesel hammers, gravity hammers will not be allowed. Piling will be driven with a hammer with a rated energy and ram weight not less than 30,00 foot-pound-tons, as computed by the formula W(E-8,085) + 0.598E, where W is the weight of the ram in tons and E is the rated hammer energy. In no case will the ram weight be less than 4,000 pounds. The hammer will be run at an energy that produces an average penetration at bearing between 1/2" and 3 inches.

Submit to the Engineer the certification and information concerning the performance of the pile hammer to be used a minimum of (1) week prior to use.

624-P01

RAILING: Railings will be furnished and installed as shown in the details for Pedestrian Railing. All equipment, labor, and materials, including bolts, hardware and grout, will be incidental to the unit price bid per lineal foot for "Pedestrian Railing." The pay limits will be as shown on the drawings. It will be the contractor's responsibility to verify that the plate/bolt assemblies are installed at the proper location and elevation to assure that the bolts are of proper length and projection.

709-P01

PERFORATED GEOCELL: Perforated Geocell will be from the following company or equivalent:

Company:

Agtec

Phone:

1-818-724-7657

Website:

<http://www.agtec.com>

Perforated Geocell will be 6 inches tall with Geosynthetic Fabric-Type RR underlying the Perforated Geocell. Installation will adhere to the manufacturer's recommendations.

Perforated Geocell will be filled with Class 5 Aggregate meeting the requirements of Section 816.02, Class 5.

Perforated Geocell will be paid for at the contract unit price per square foot. Payment will be full compensation for furnishing and installing the Perforated Geocell.

The Class 5 Aggregate will be paid for at the contact unit price per ton of material furnished. Payment will be full compensation for furnishing, loading, hauling, and placing the Class 5 Aggregate.

REGISTERED PROFESSIONAL ENGINEER

JAMIE D. VAN ZEE

PE-41116

DATE 11/26/2025

NORTH DAKOTA

STRUCTURAL NOTES

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WORK DRAWINGS: Submit the following work drawings to the Engineer via email at jamiev@broszengineering.com or paper at Brosz Engineering Inc., 704 E Havens Avenue Mitchell, SD 57301 for review:

- 1. Prefabricated Pedestrian Bridge
- 2. Pedestrian Rail-Steel



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NOTE:

For double acting or single acting diesel hammers, calculate the safe bearing value of piles by the following formula:

$$P = \frac{4.5E}{S + 0.2} \times \frac{W + 0.2M}{W + M}$$

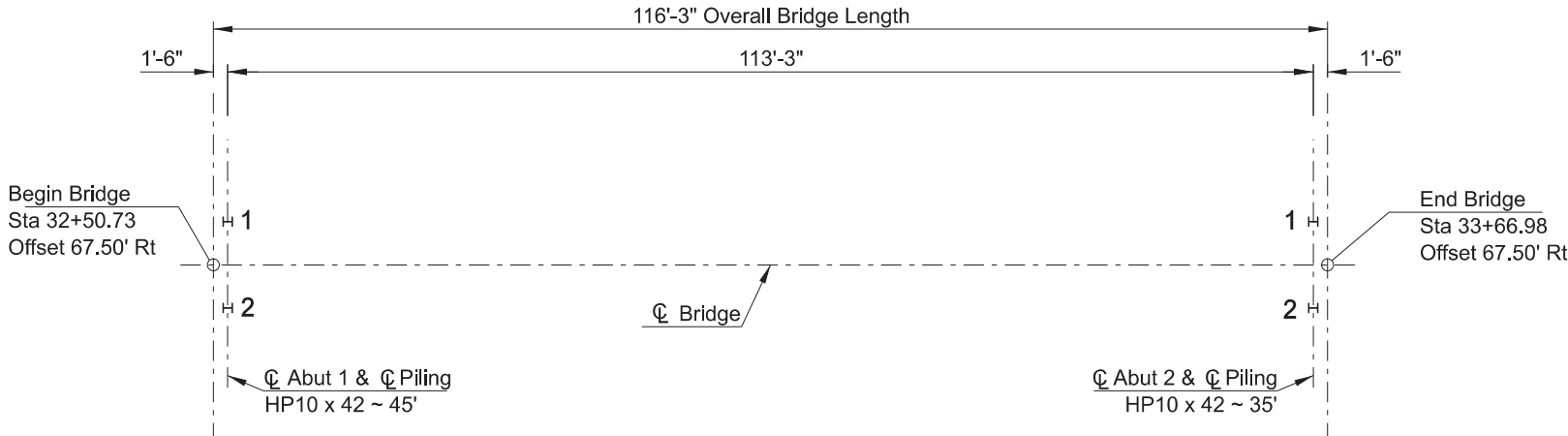
Where:

- P = Safe bearing value, in pounds.
W = Weight of striking parts (ram), in pounds.
M = Weight of parts being driven, in pounds. Includes pile weight, anvil (if any), driving cap, etc.
E = Energy per blow, in foot-pounds.
S = Average penetration of pile in inches per blow for last ten blows.

For single acting hammers, calculate E by multiplying observed stroke (ft) and W (lbs).

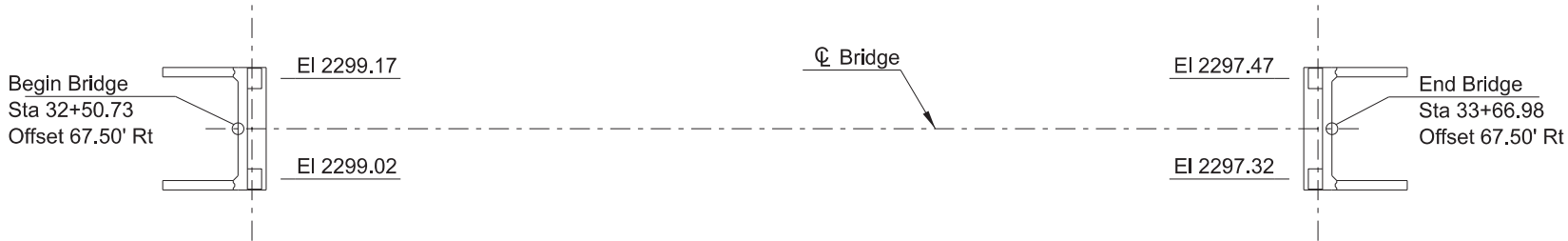
PILE COORDINATES

	PILE	NORTHING	EASTING
ABUT 1	1	461,463.05	1,212,416.49
	2	461,459.76	1,212,424.86
ABUT 2	1	461,568.46	1,212,457.88
	2	461,565.17	1,212,466.26



HP10 x 42 Pile shall be driven to 105 tons.

PILING LAYOUT



Elevations shown are to top of finished concrete.

BEARING ELEVATIONS

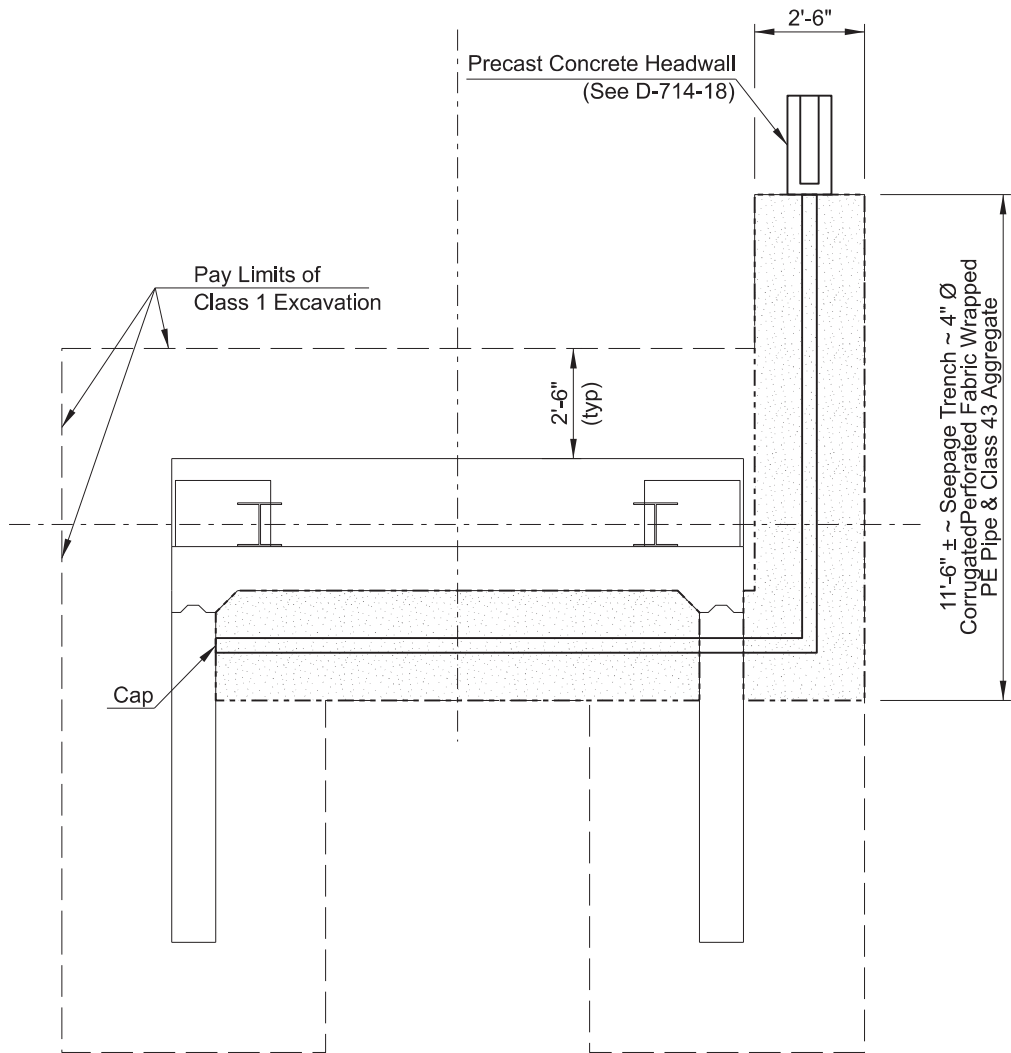
BRIDGE BID ITEMS

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
210	0099	CLASS 1 EXCAVATION	L SUM	1
210	0127	CHANNEL EXCAVATION	L SUM	1
210	0201	FOUNDATION PREPARATION	L SUM	1
302	0120	AGGREGATE BASE COURSE CL 5	TON	4.6
602	1130	CLASS AE-3 CONCRETE	CY	27.6
602	1250	PENETRATING WATER REPELLENT TREATMENT	SY	127
612	0115	REINFORCING STEEL-GRADE 60	LBS	3,514
622	0012	STEEL H-PILE TIPS 10 X 42	EA	4
622	0020	STEEL PILING HP 10 X 42	LF	80
622	0393	STEEL TEST PILING HP 10 X 42	LF	90
624	0123	PEDESTRIAN RAILING	LF	35
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	14
709	0800	PERFORATED GEOCELL	SY	15
930	9537	ABUTMENT UNDERDRAIN SYSTEM	EA	2
930	9750	PEDESTRIAN BRIDGE - PRE-FAB	EA	1

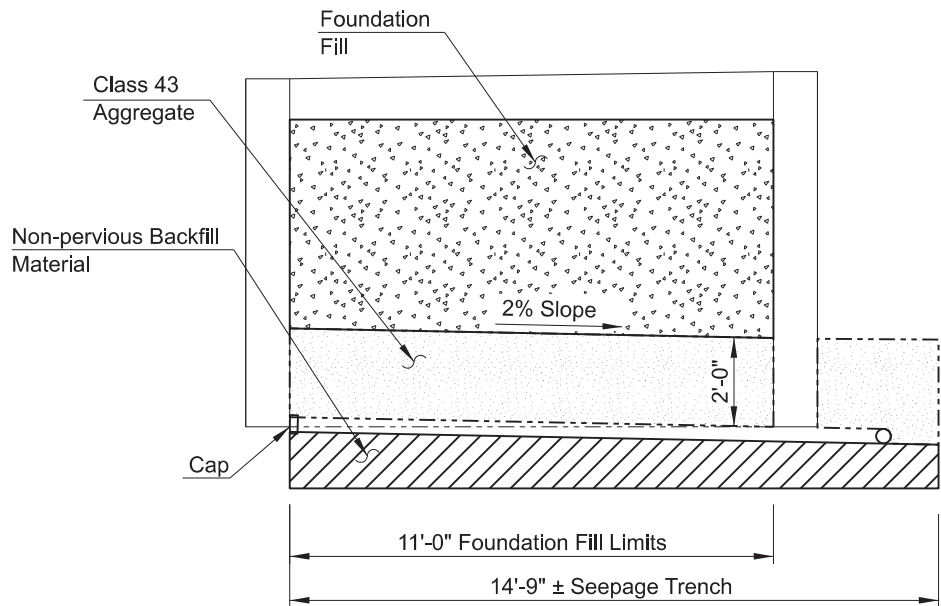


EAST RIVER ROAD PEDESTRIAN BRIDGE
OVER SULLY CREEK

PILING LAYOUT, BEARING ELEVATIONS,
& BID ITEM QUANTITIES

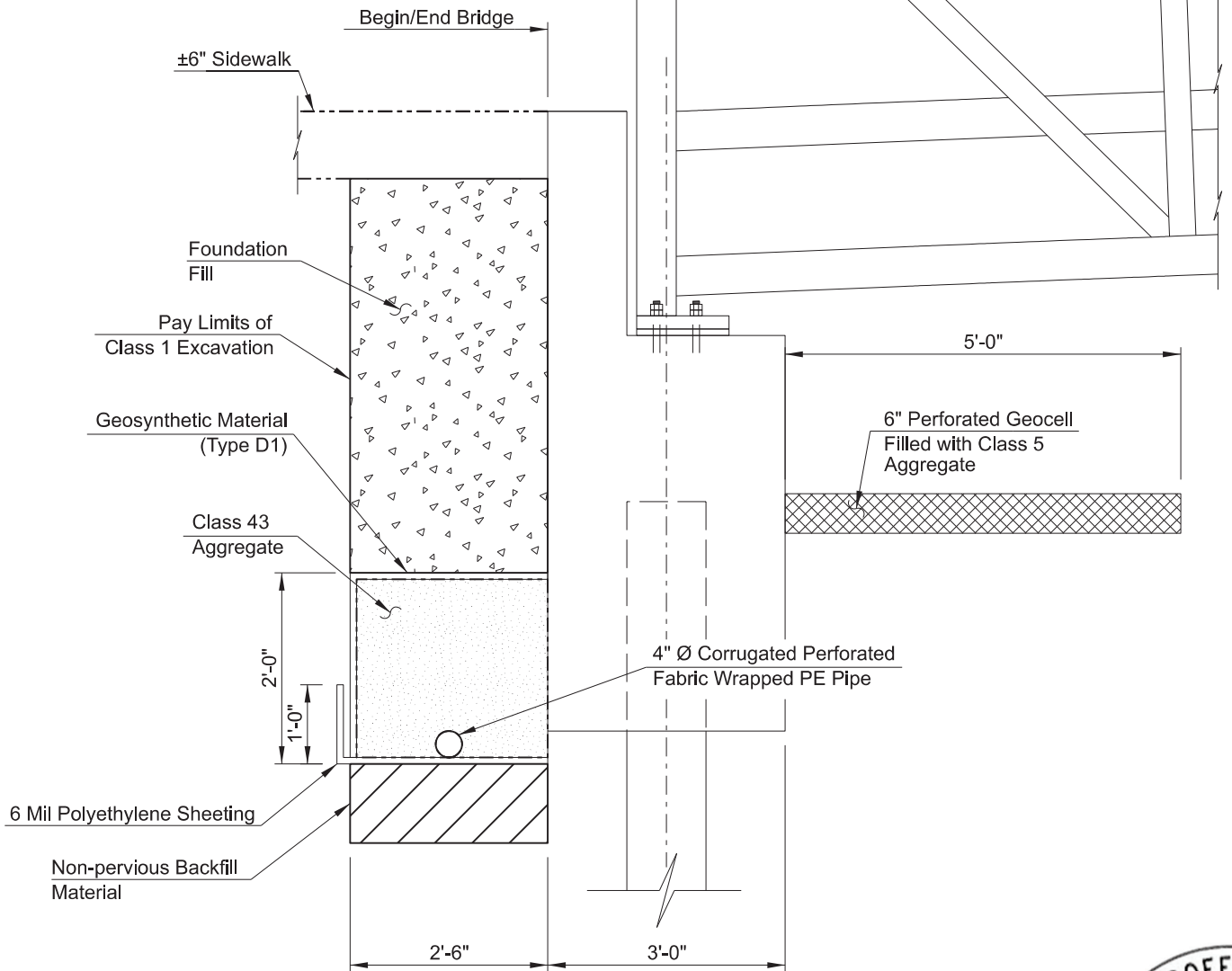


ABUTMENT PLAN



ABUTMENT ELEVATION

NOTE: Underdrain will discharge
on west side of both abutments.



DETAIL AT ABUTMENT

NOTES:

Use corrugated perforated fabric wrapped PE pipe that meets the requirements of Section 830.03 A.4. Provide fabric wrapping for the pipe that meets the requirements of Section 858.01 for D3 or D4 drainage fabric. Provide aggregate that meets the requirements of Section 816.03, Class 43. Provide foundation fill that meets the requirements of Section 210.

Include the cost to furnish and place the foundation fill, aggregate, corrugated perforated pipe and headwalls in the pay item "Abutment Underdrain System."

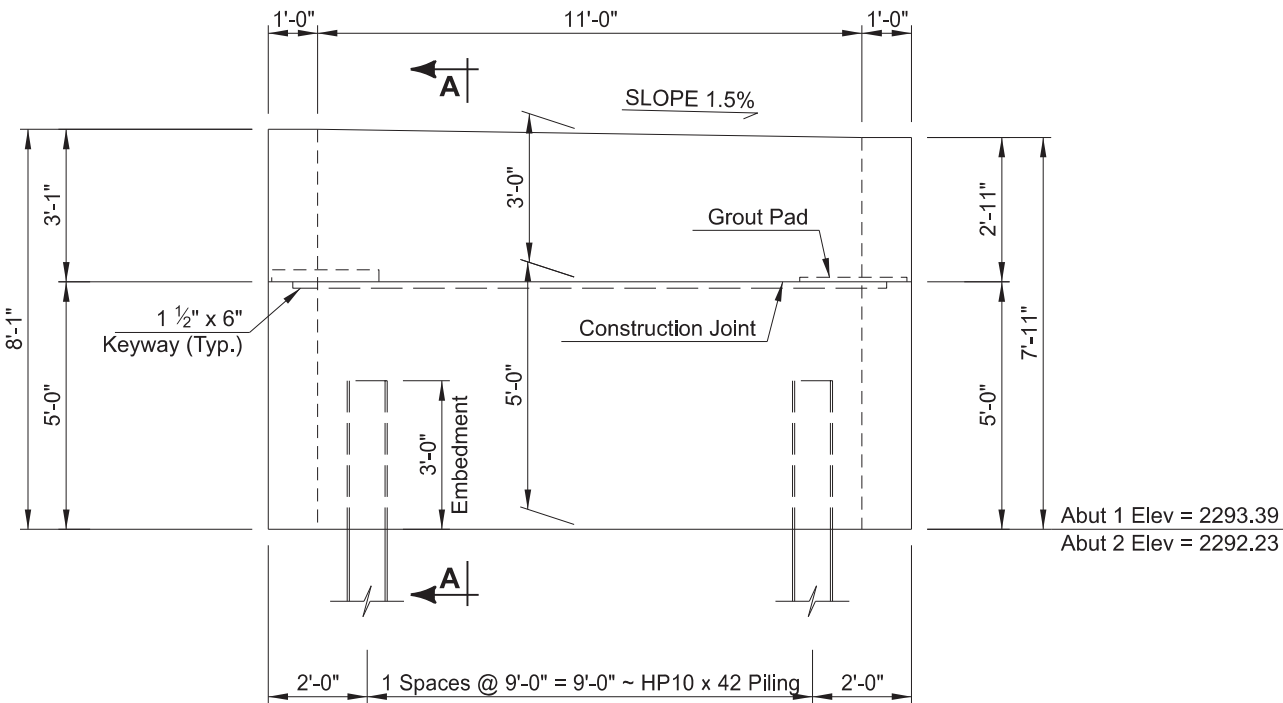
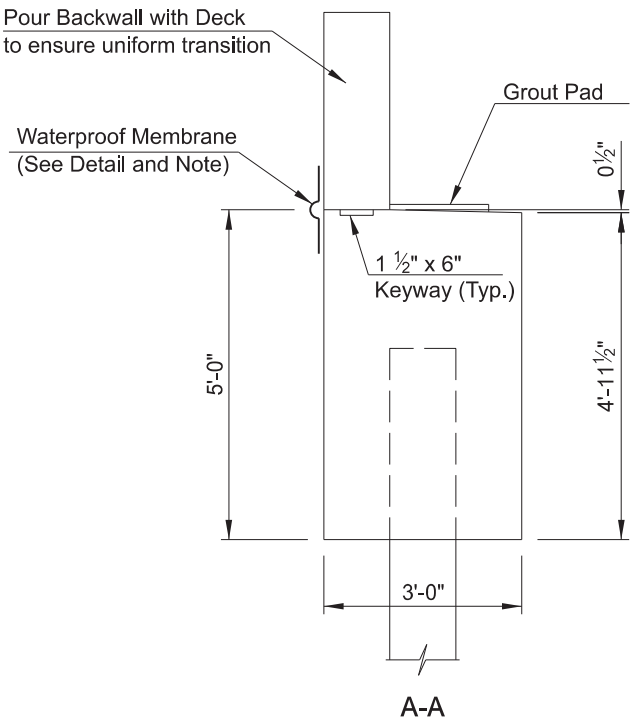
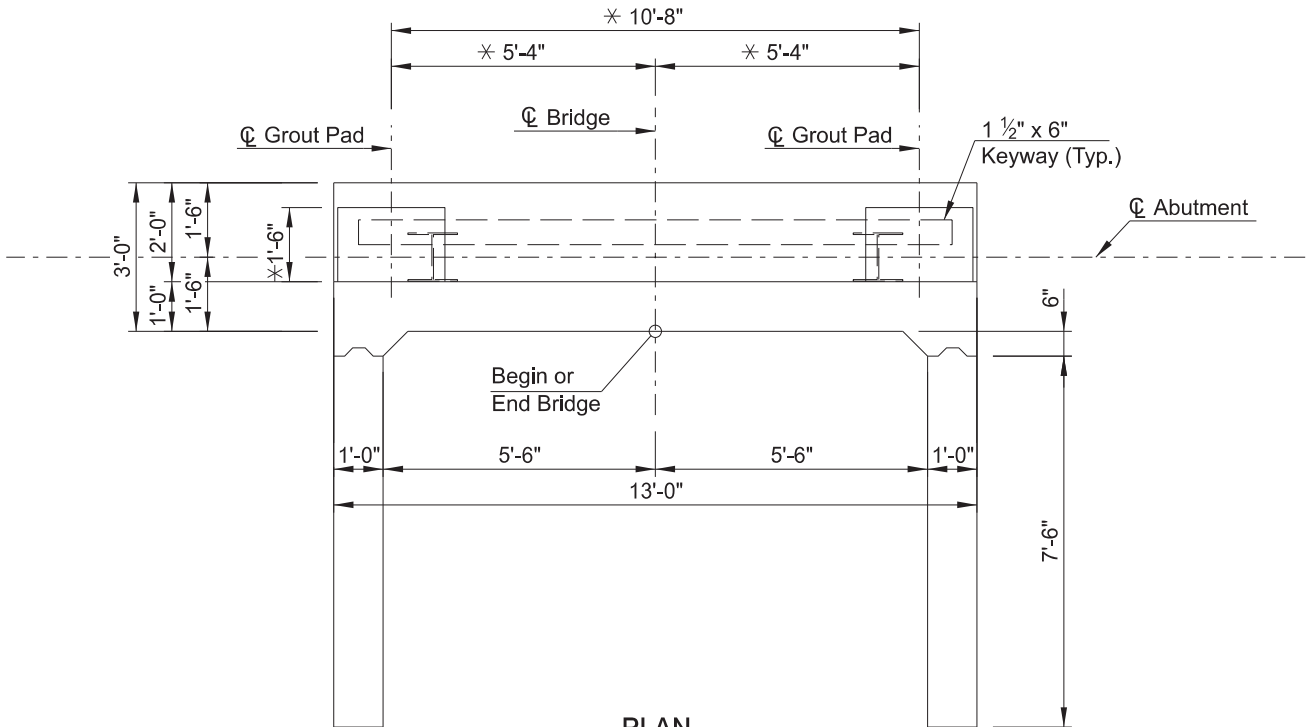


EAST RIVER ROAD PEDESTRIAN BRIDGE
OVER SULLY CREEK
ABUTMENT UNDERDRAIN &
EXCAVATION DETAILS

NDDOT Reserves All Objections

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* Dimensions are subject to change. Refer to the prefabricated bridge plans by others for final dimensions. Final dimensions to be approved by the Engineer.



QUANTITIES

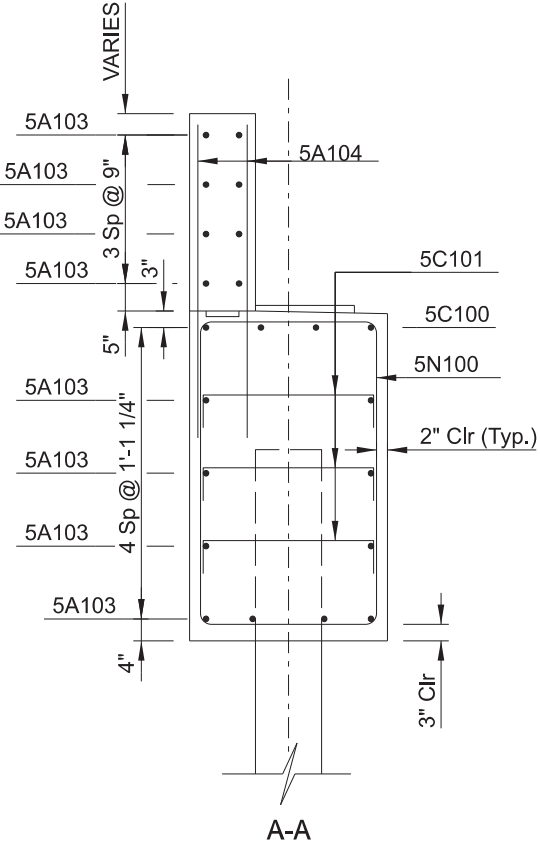
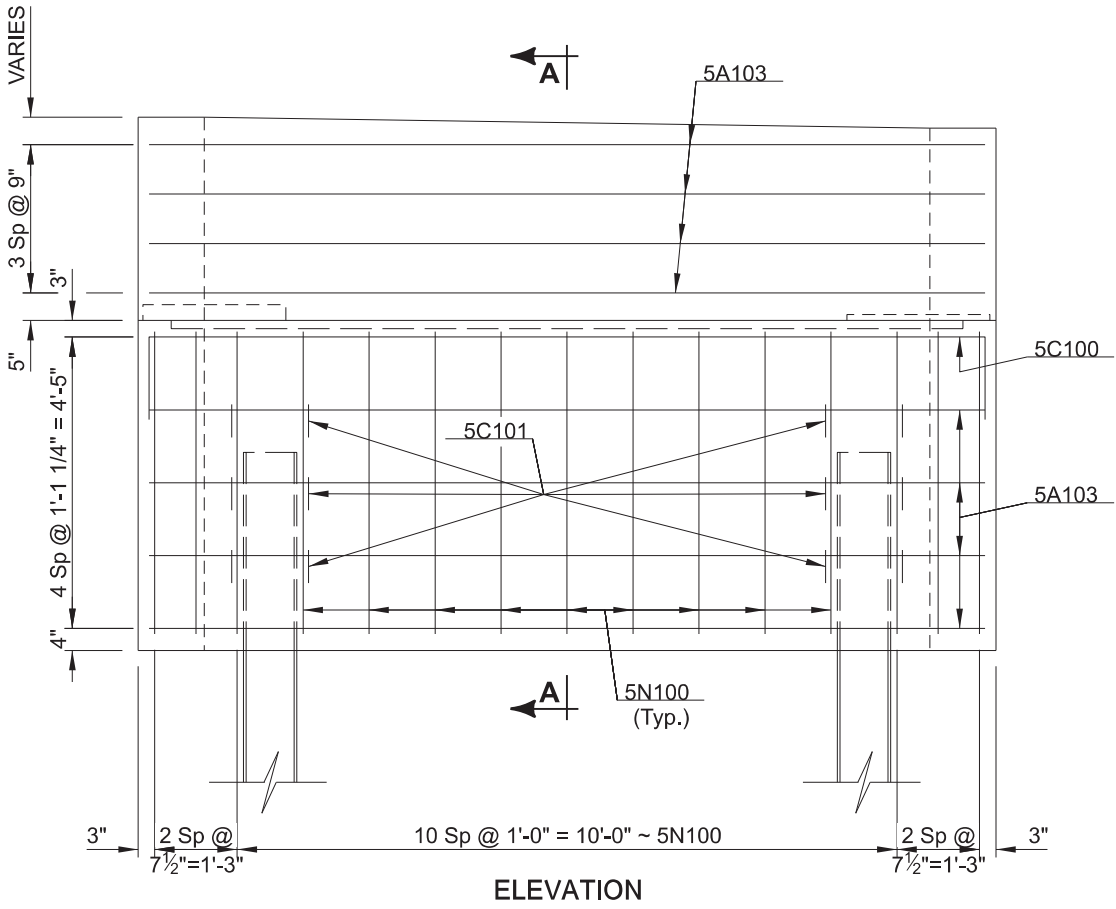
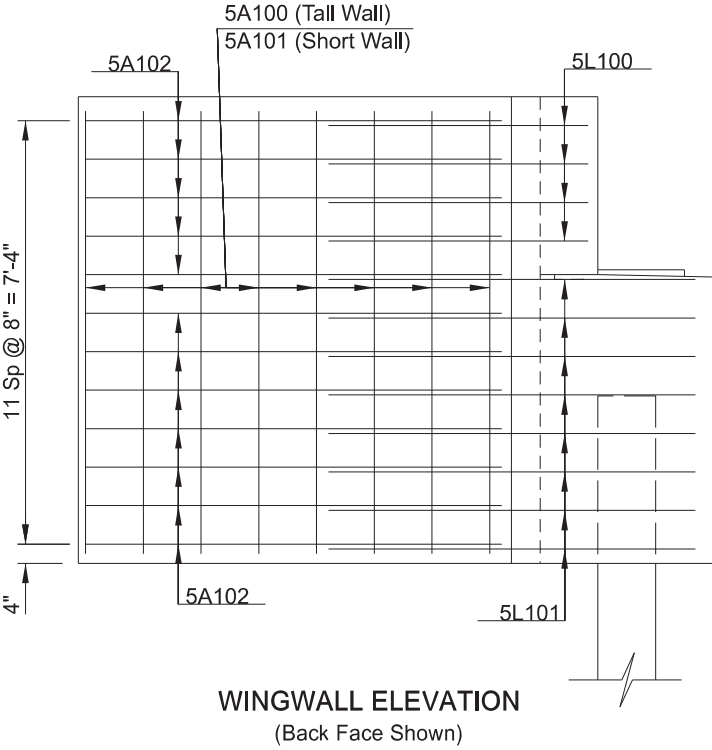
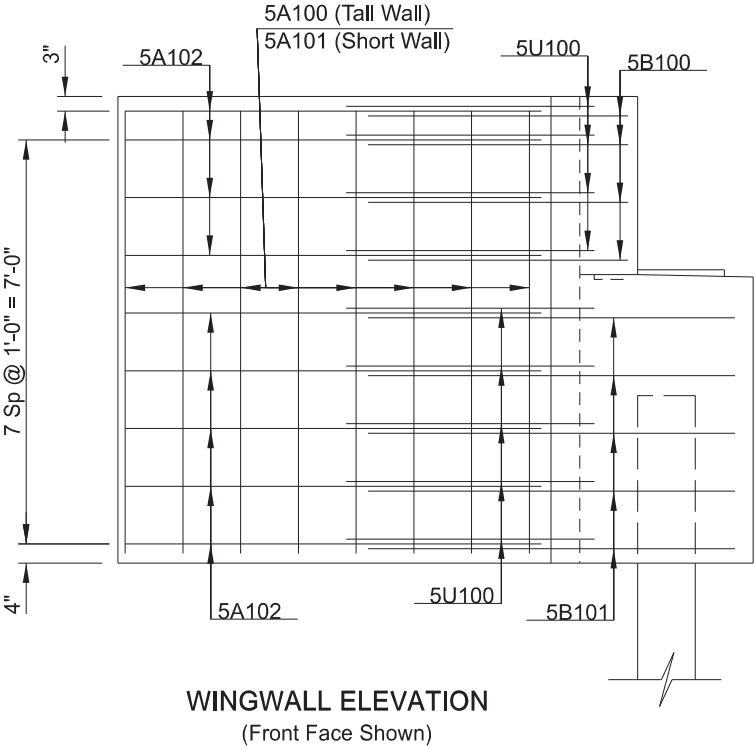
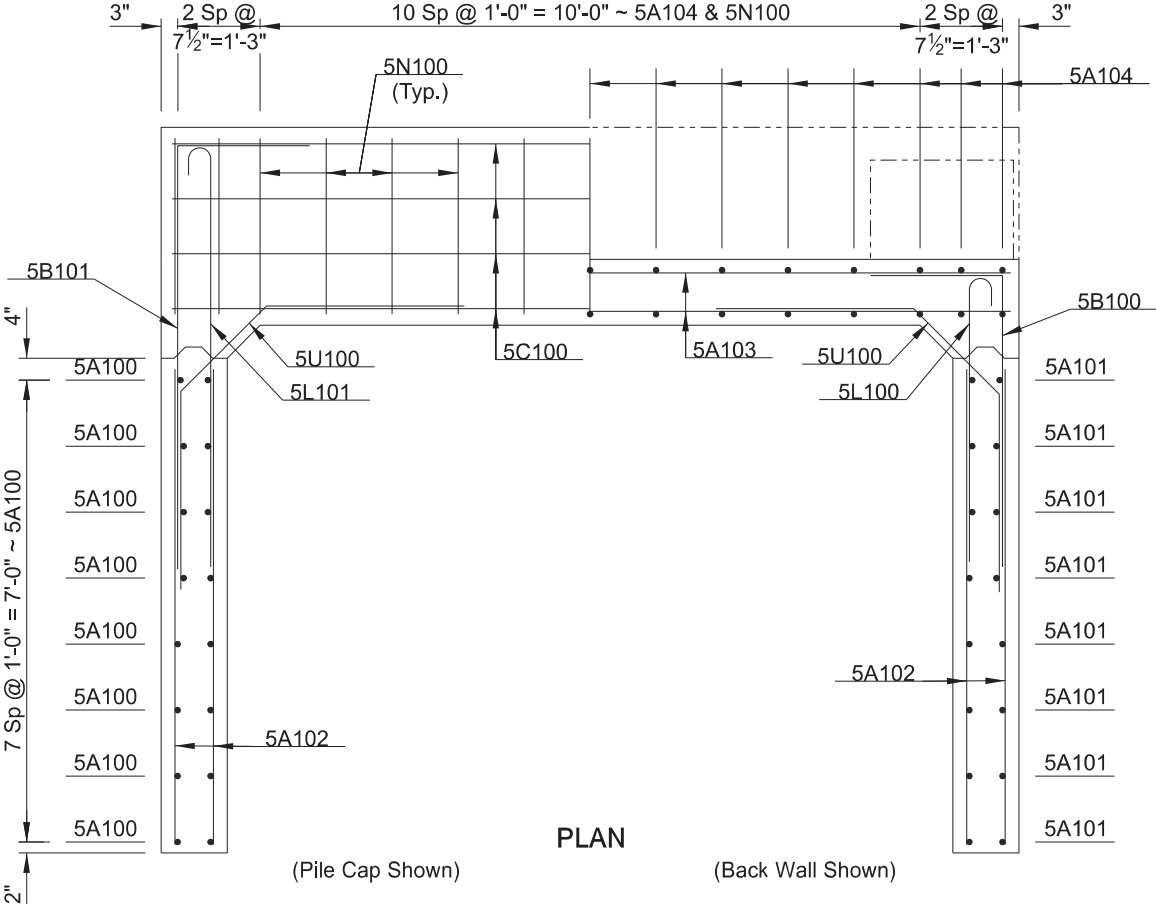
SEE DWG 170-13

EAST RIVER ROAD PEDESTRIAN BRIDGE OVER SULLY CREEK

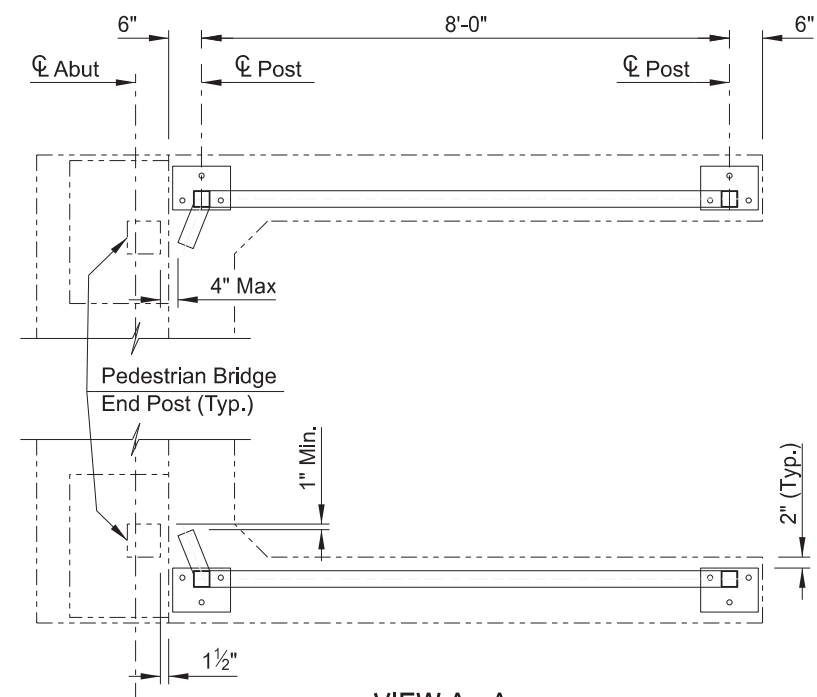
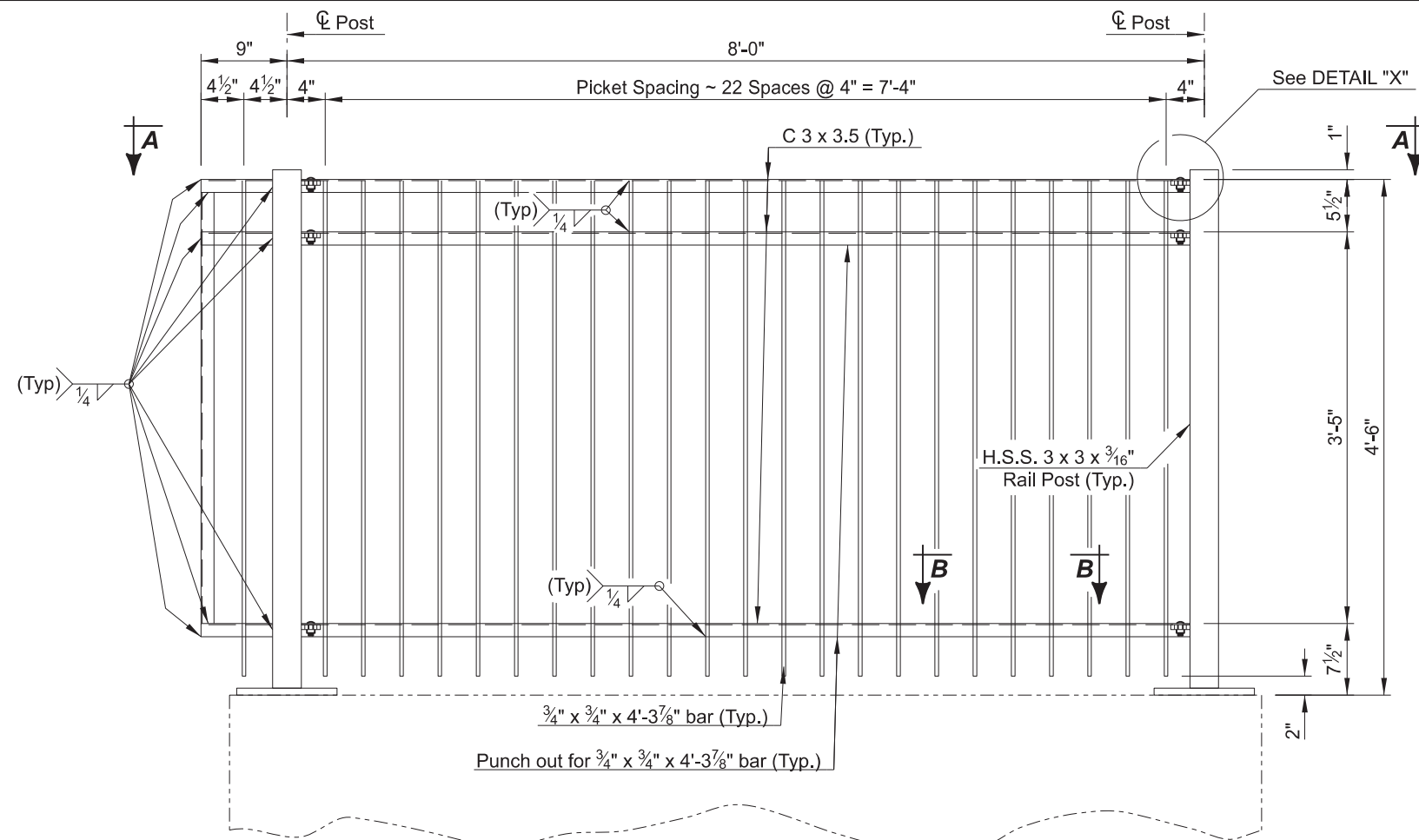
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ABUTMENT DETAILS

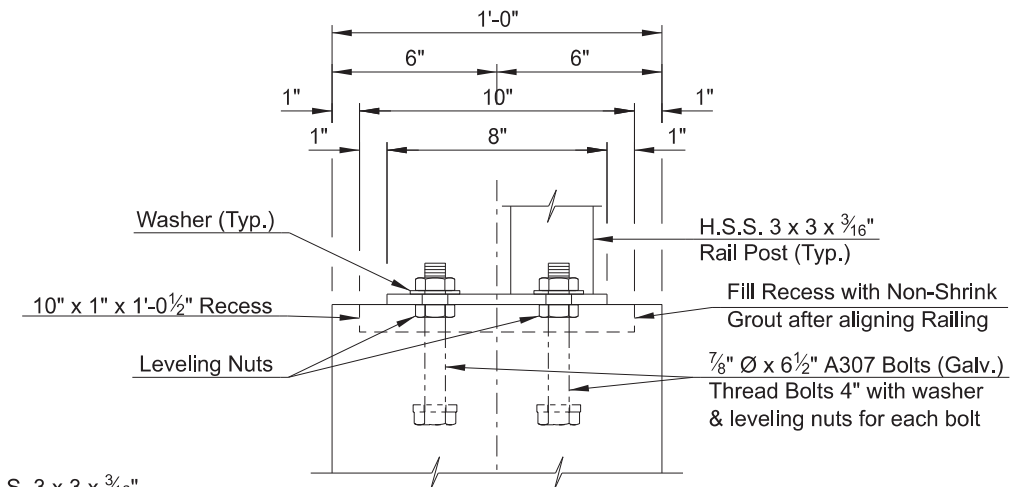
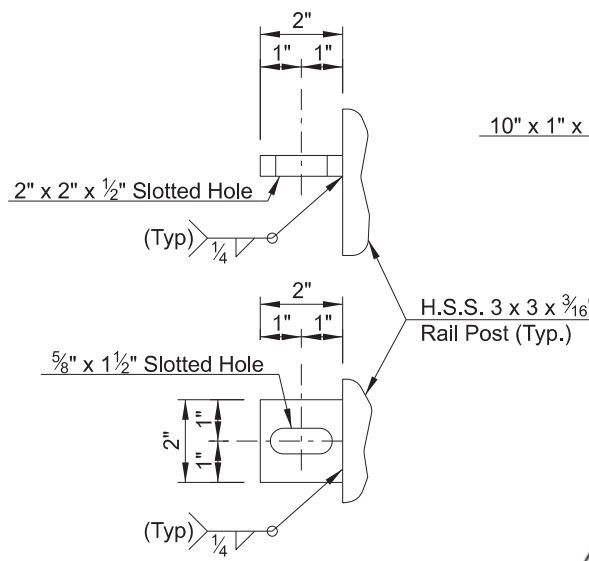
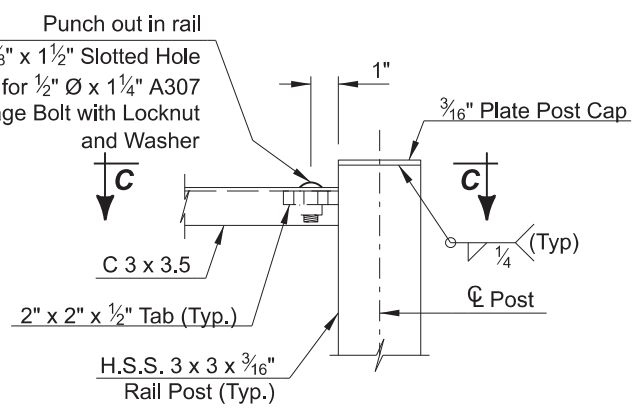
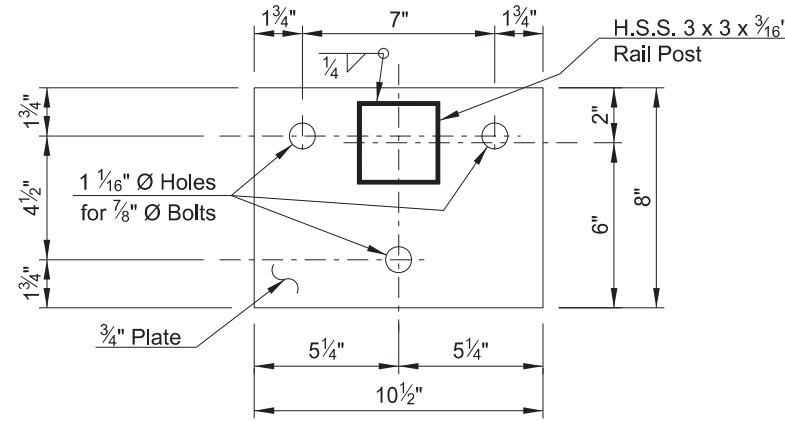
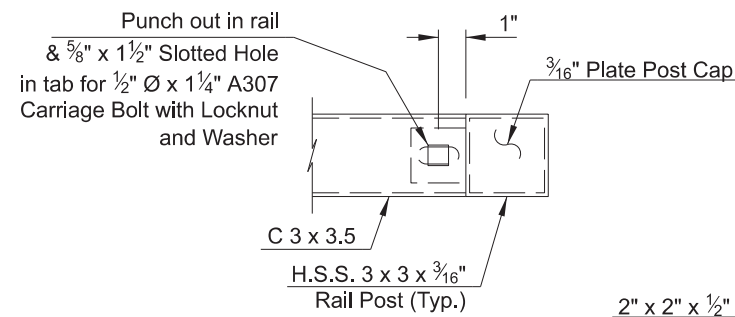
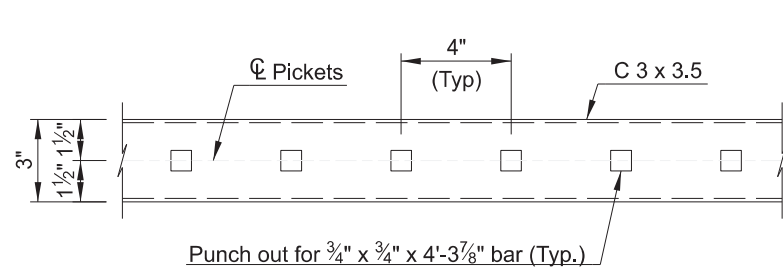
STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
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QUANTITIES	(ONE ABUTMENT)
CLASS AE-3 CONCRETE	13.8 CY
REINFORCING STEEL	1,757 LBS
EAST RIVER ROAD PEDESTRIAN BRIDGE OVER SULLY CREEK	
(SHOWING REINFORCING) ABUTMENT DETAILS	



- ## NOTES:
1. All rail and fence posts will be built vertical.
 2. All structural steel parts for railing will conform to ASTM A500, Grade B. Material less than $\frac{1}{4}$ " thick may be ASTM A1011, Grade 36. Rail post base plates will conform to ASTM A36.
 3. Anchor bolts and nuts for railing will conform to ASTM A307. Washers will conform to ASTM F436 and all components will be galvanized in accordance with ASTM F2329. The bolts will be hex head "Structural" type with heavy hex nuts and round washers.
 4. Non-shrink grout used to fill the recess beneath the rail post base plates will be a commercially available non-shrink grout containing no metallic particles and capable of attaining a 28-day compressive strength of 3000 psi. The non-shrink grout will be mixed according to the manufacturer's recommendations.
 5. All steel railing will be galvanized in accordance with ASTM A123 or ASTM A153.
 6. Welding and Weld Inspection will be done in accordance with the current edition of AWS D1.5 Bridge Welding Code.



QUANTITIES		(2 ABUTMENTS)
PEDESTRIAN RAILING		35 LF

<p align="center">EAST RIVER ROAD PEDESTRIAN BRIDGE OVER SULLY CREEK</p> <p align="center">(SHOWING REINFORCING)</p> <p align="center">ABUTMENT DETAILS</p>		
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East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

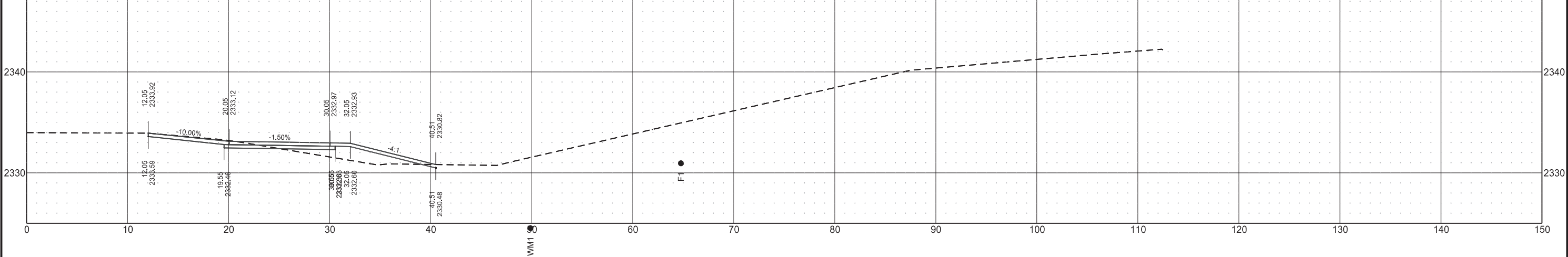
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TAC-0434(059)

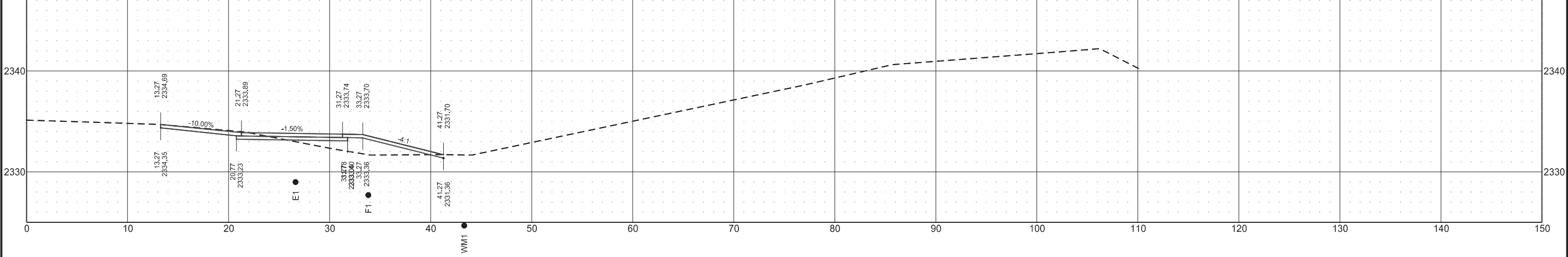
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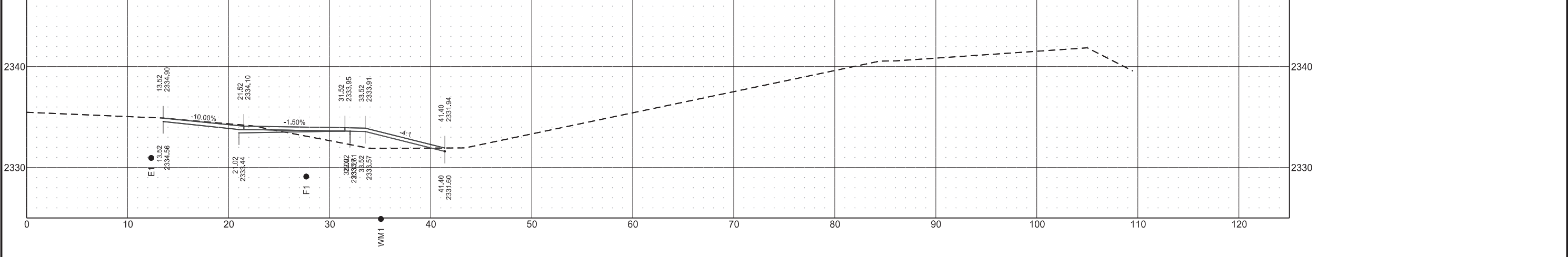
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Sta 22+50.00



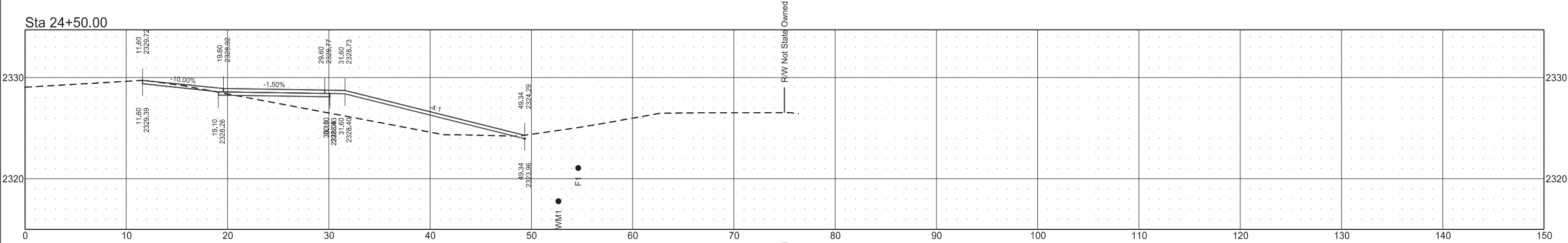
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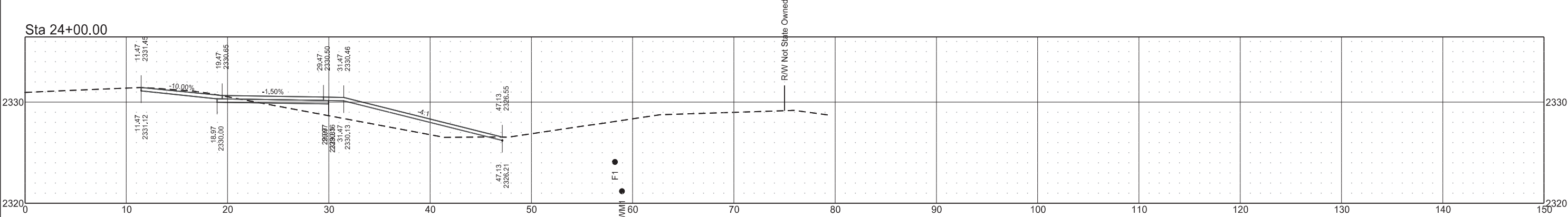
East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	2

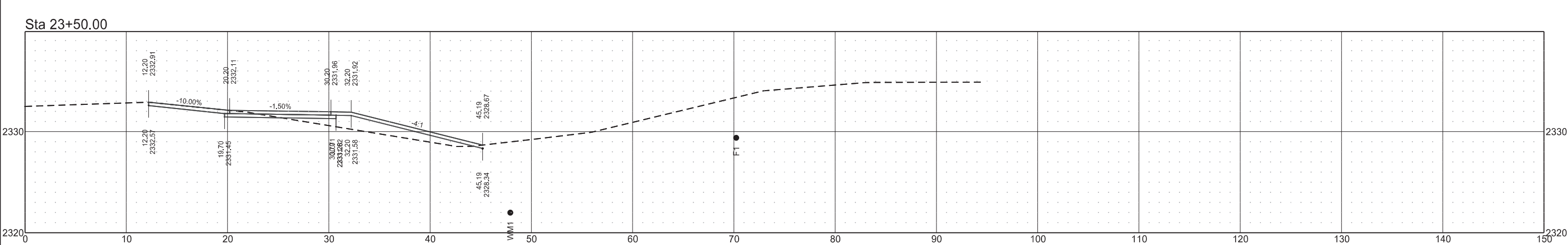
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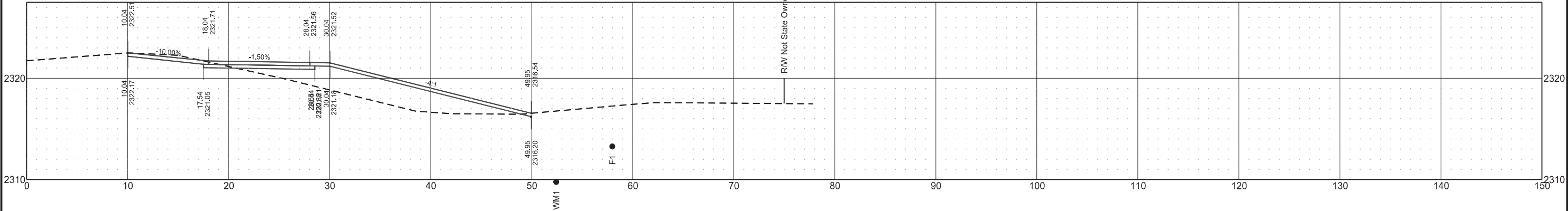
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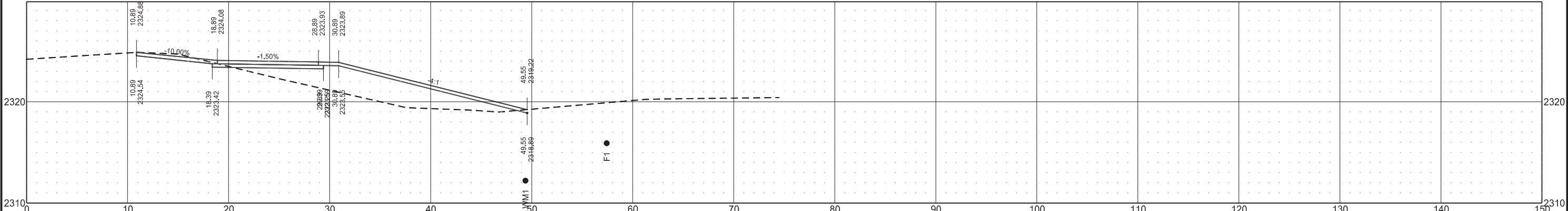
East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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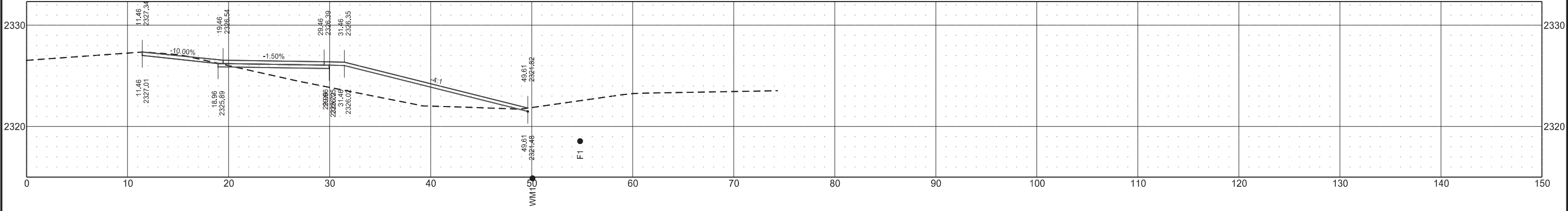
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Sta 25+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

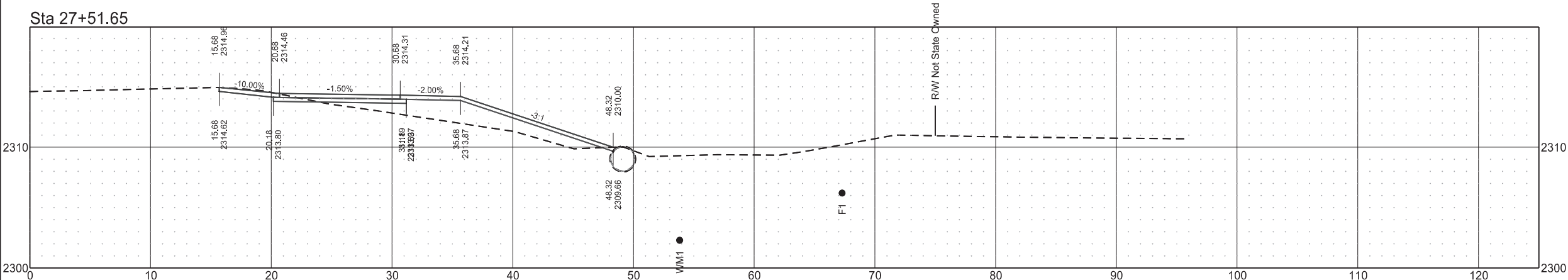
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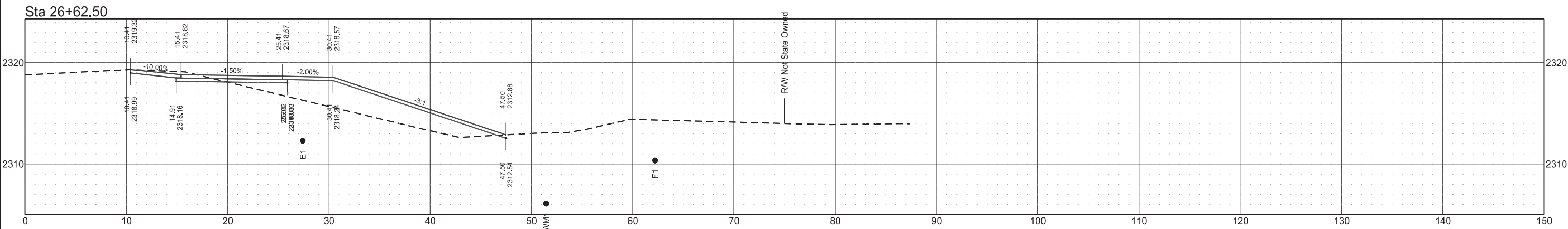
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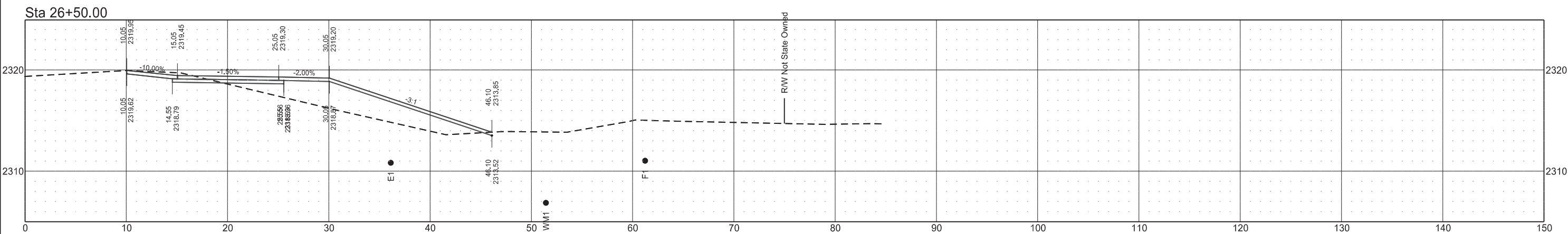
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Sta 26+62.50



Sta 26+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

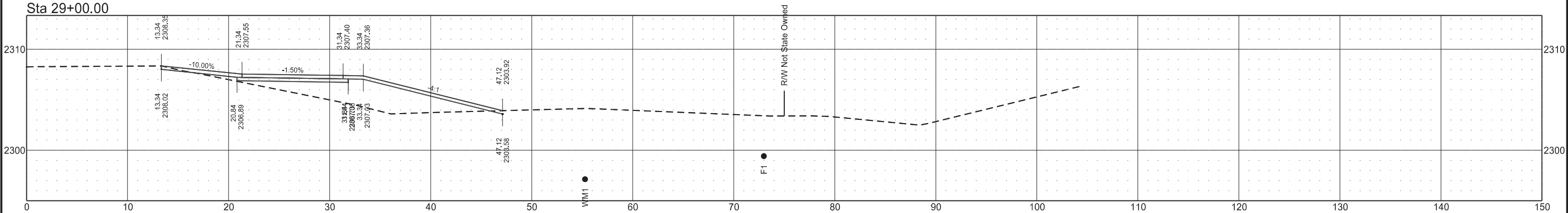
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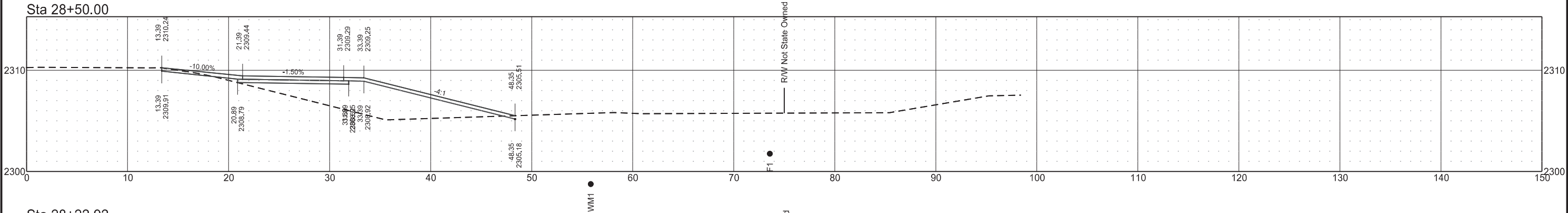
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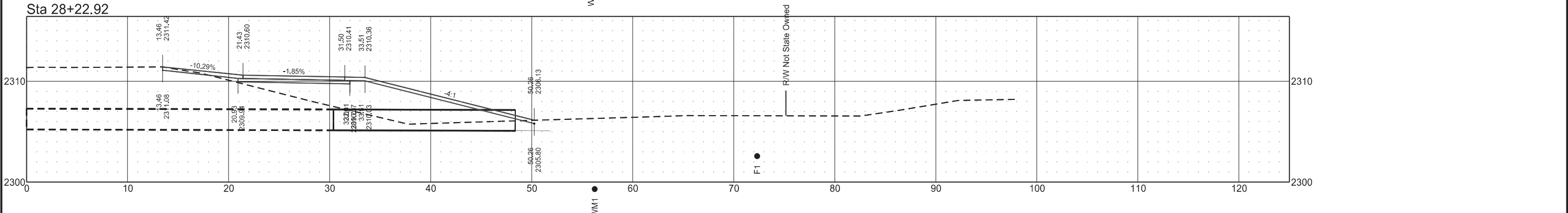
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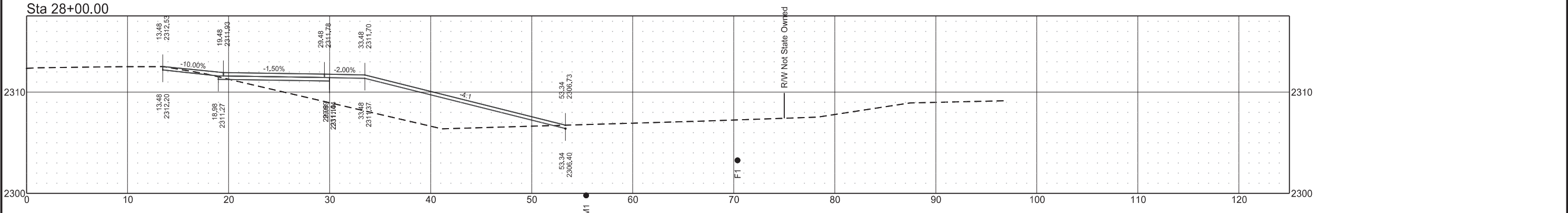
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Sta 28+22.92



Sta 28+00.00



East River Road
Shared Use Path

STATE

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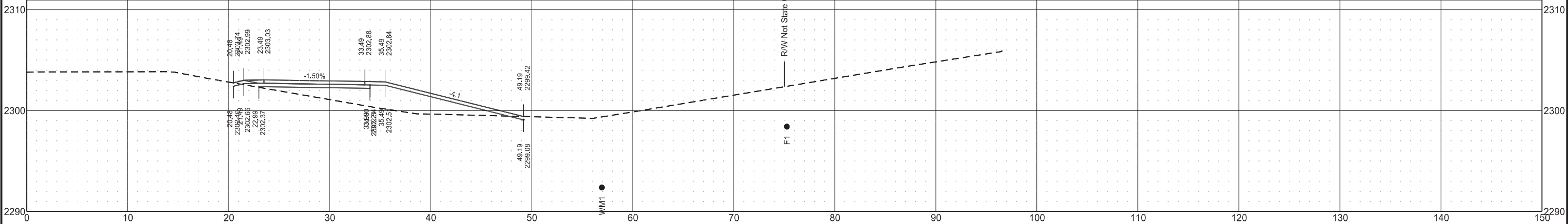
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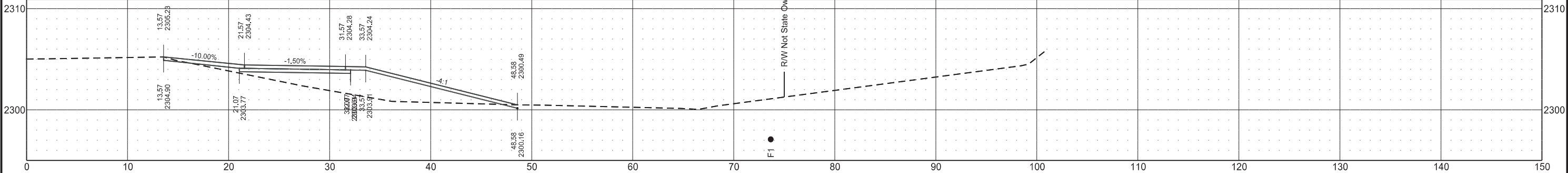
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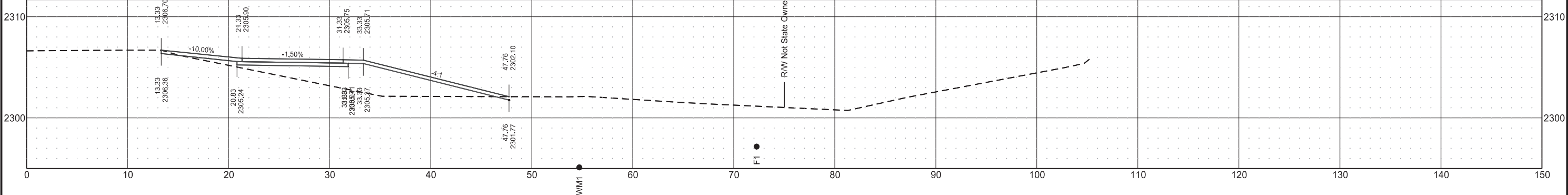
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Sta 30+00.00



Sta 29+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
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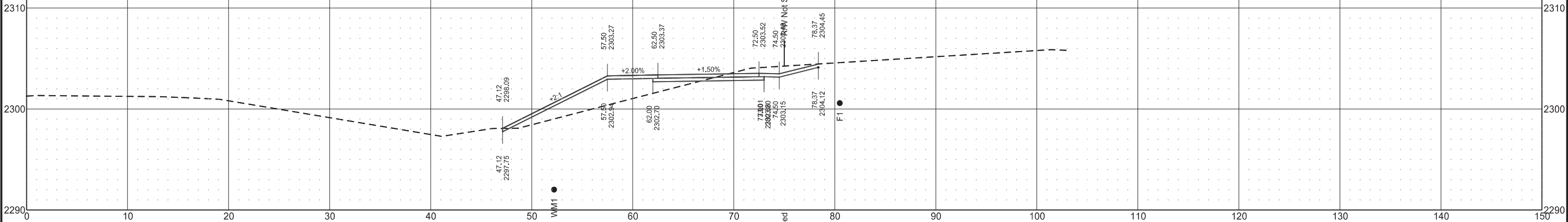
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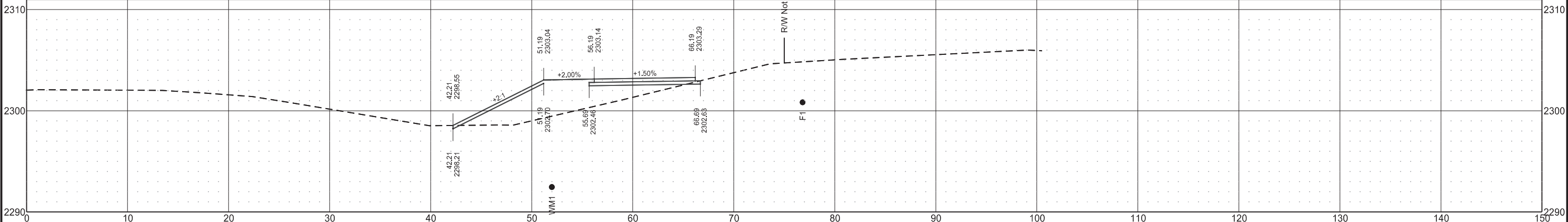
200

7

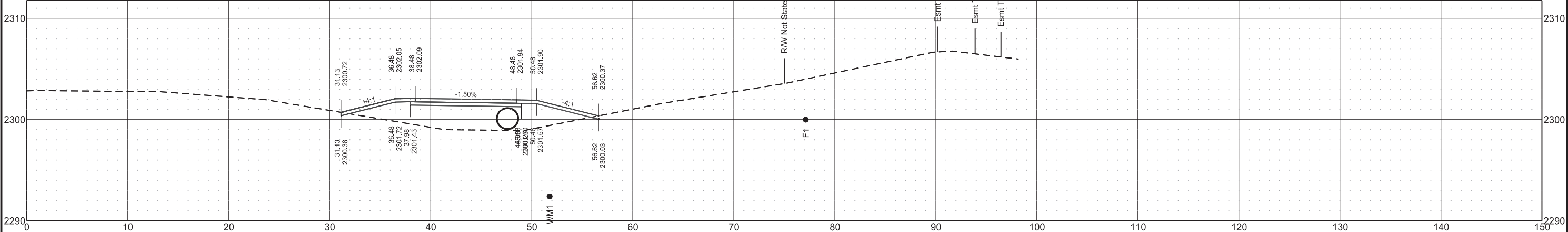
Sta 32+00.00



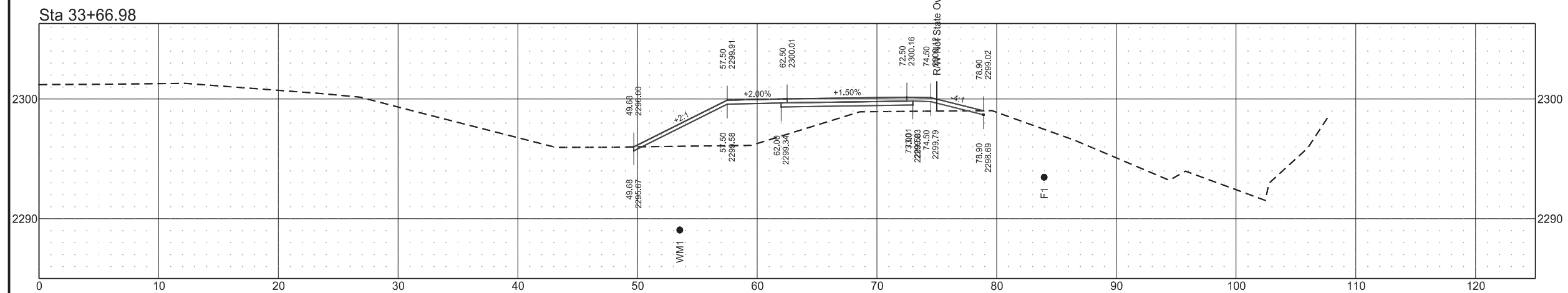
Sta 31+50.00



Sta 31+00.00



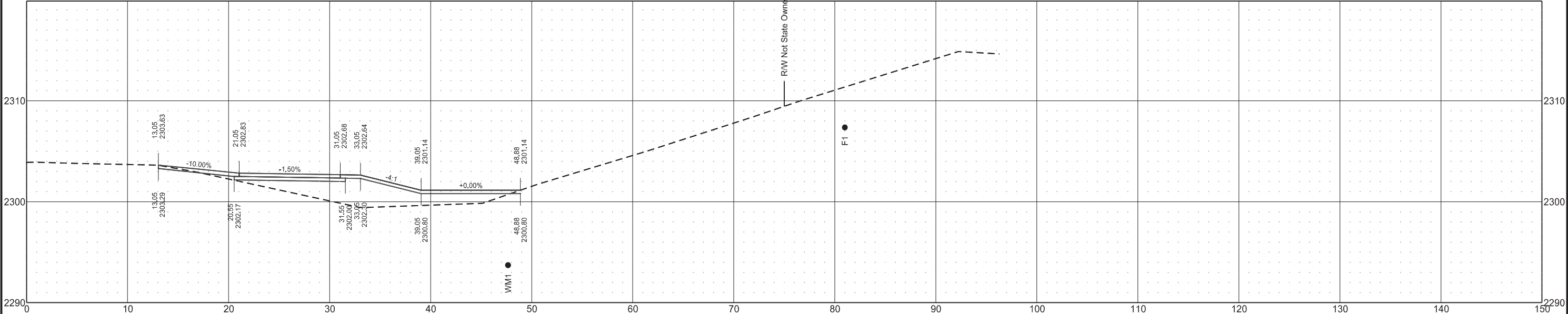
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	8



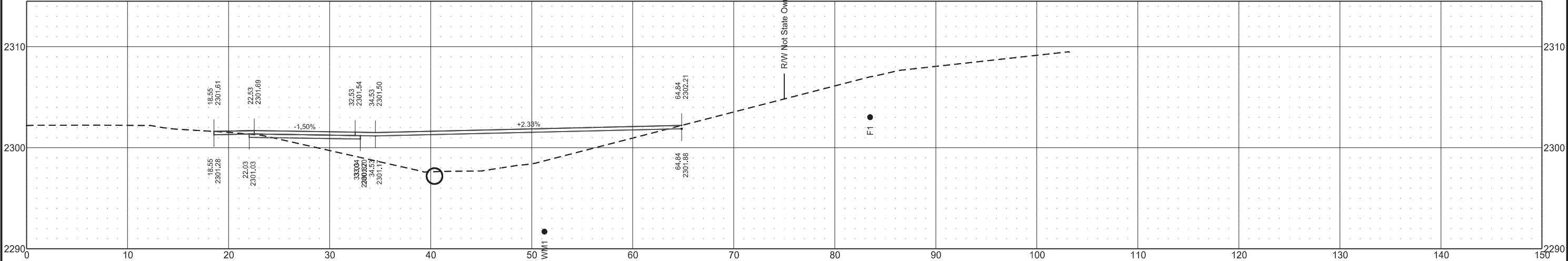
East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	9

Sta 35+12.50



Sta 34+25.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

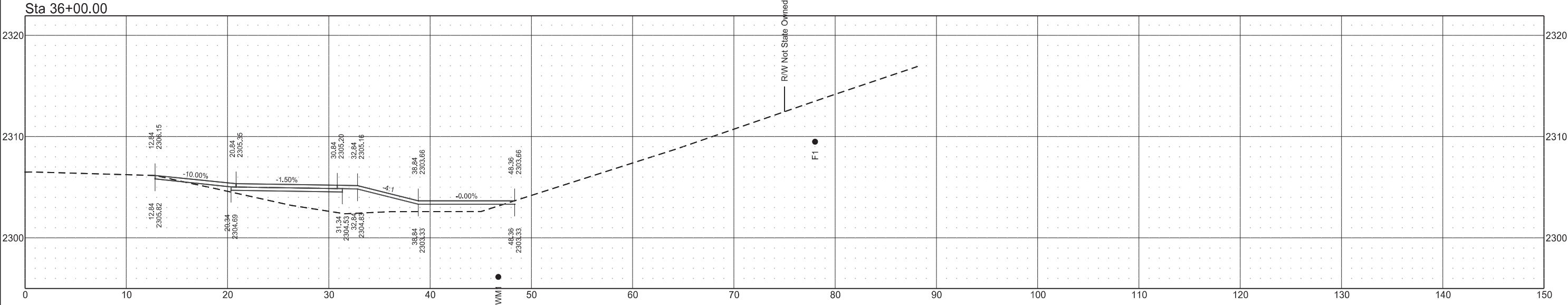
ND

TAC-0434(059)

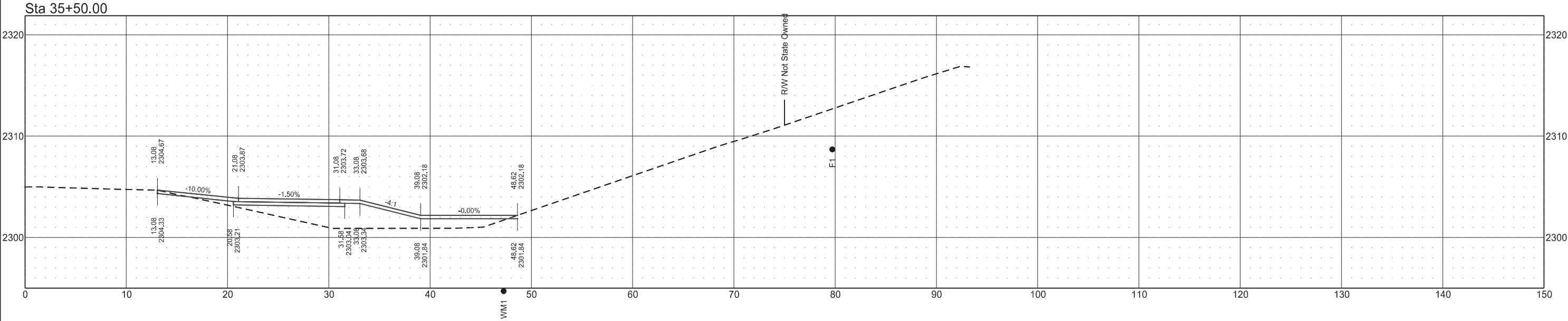
200

10

Sta 36+00.00



Sta 35+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

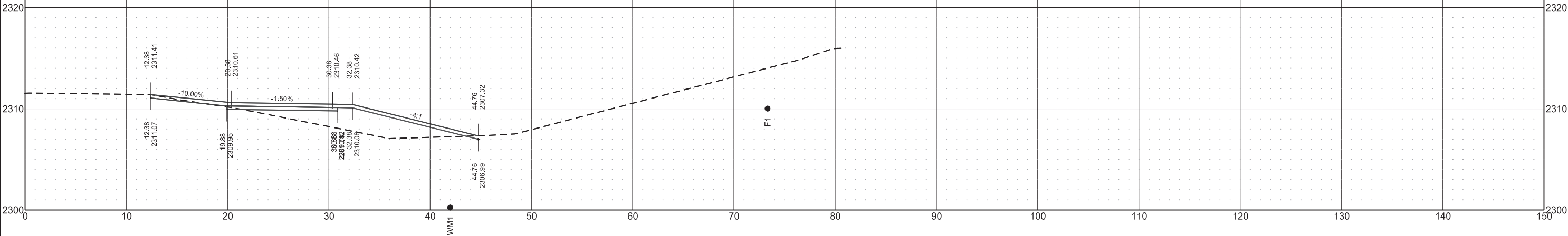
ND

TAC-0434(059)

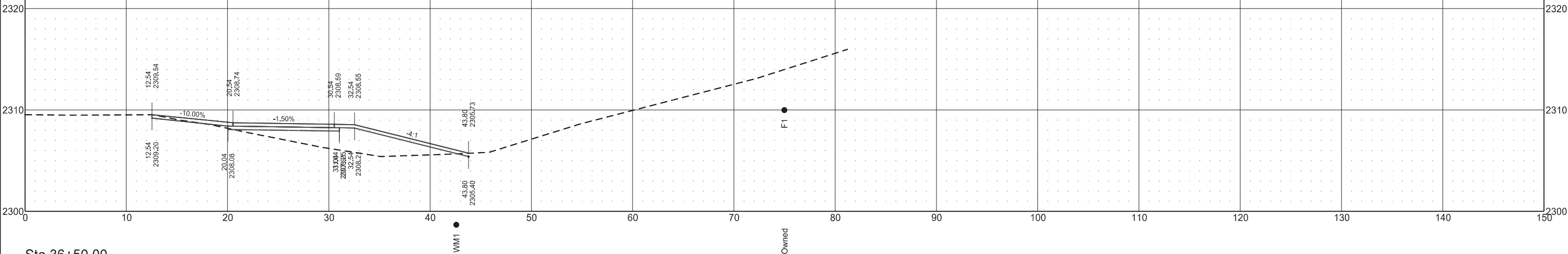
200

11

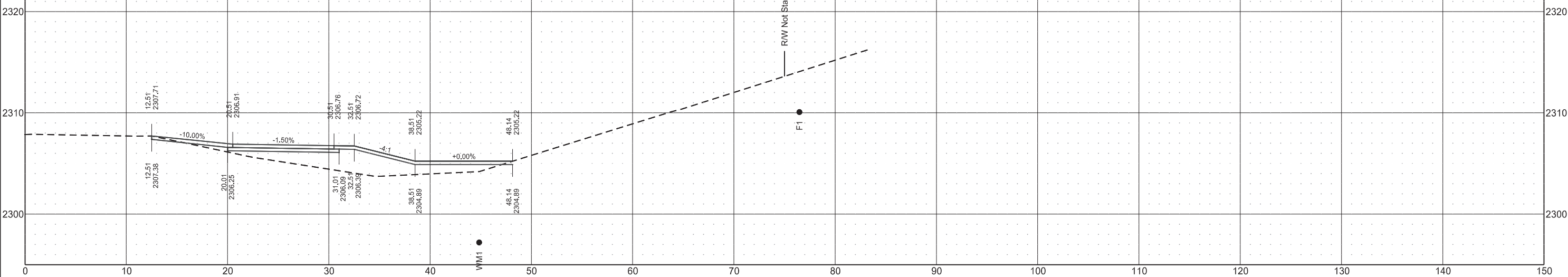
Sta 37+50.00



Sta 37+00.00

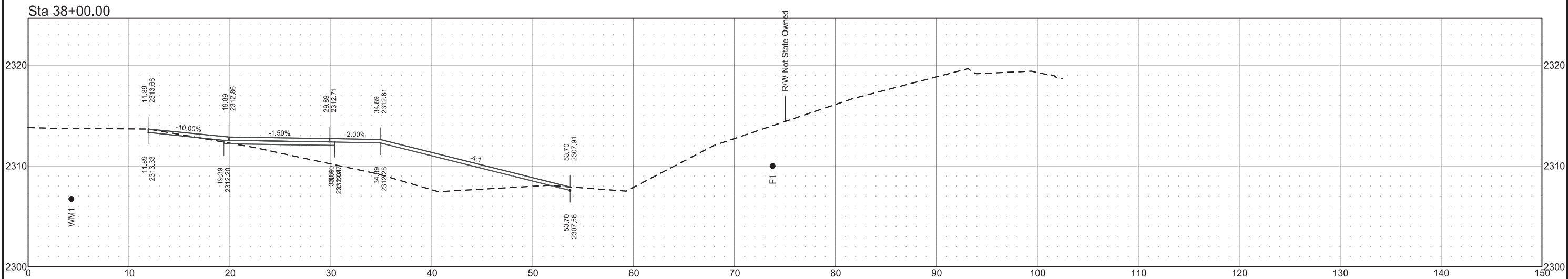
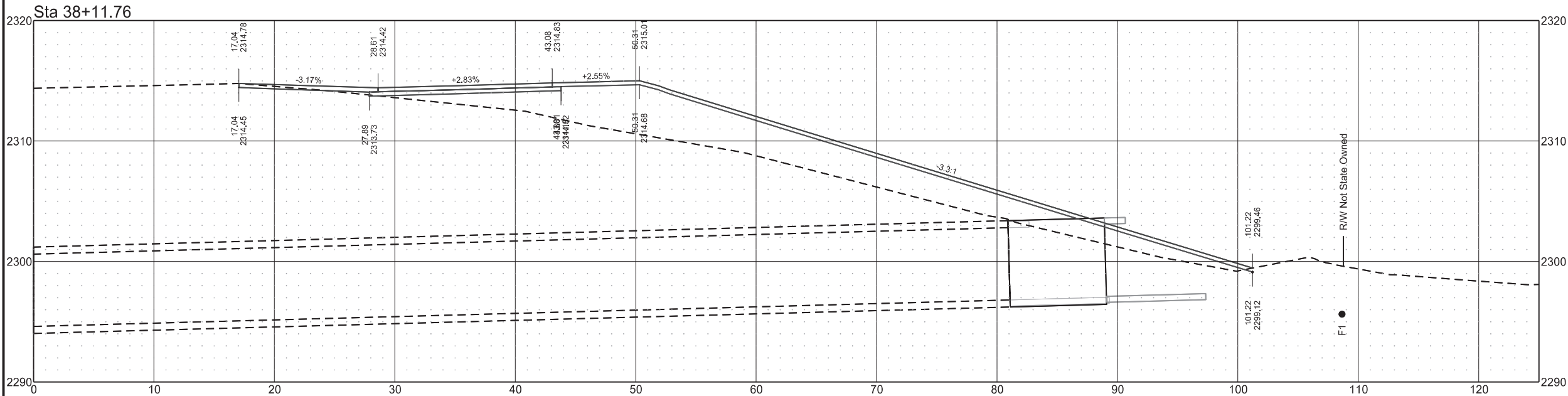


Sta 36+50.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	12



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

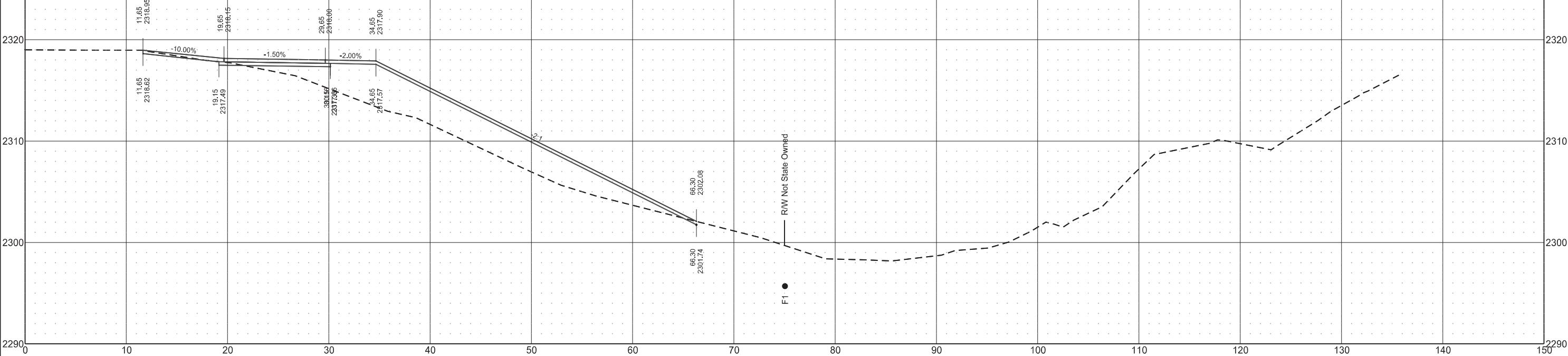
ND

TAC-0434(059)

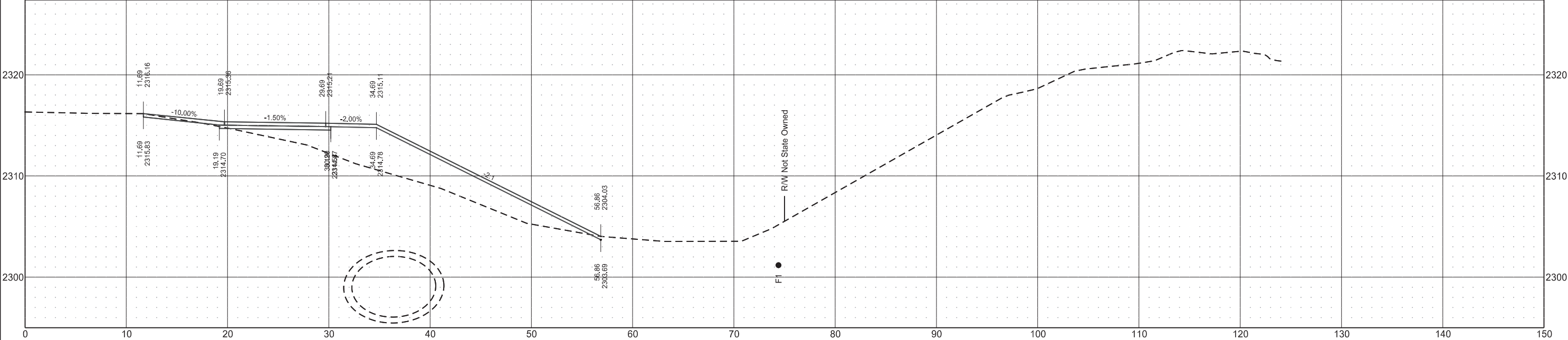
200

13

Sta 39+00.00



Sta 38+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

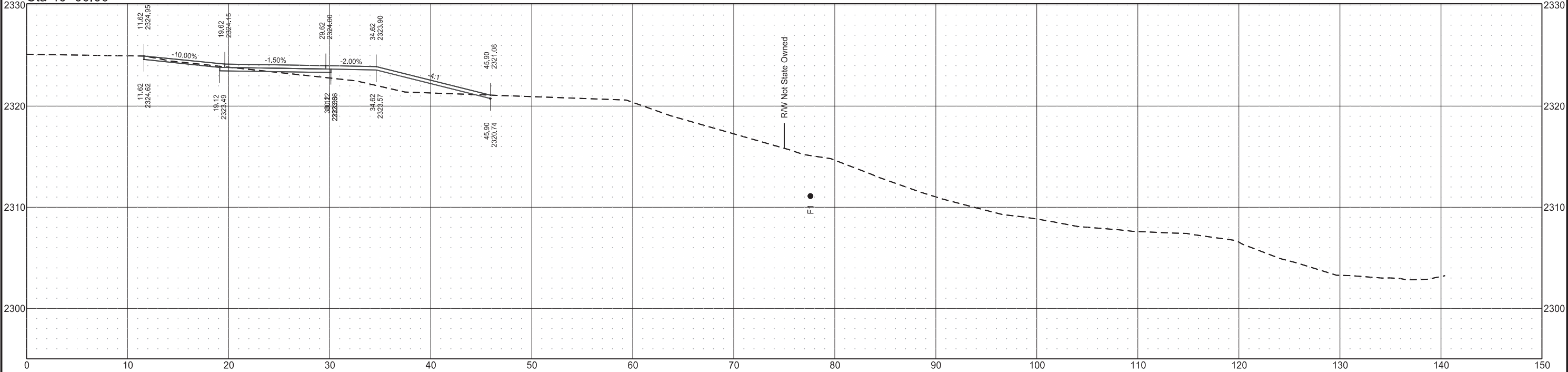
ND

TAC-0434(059)

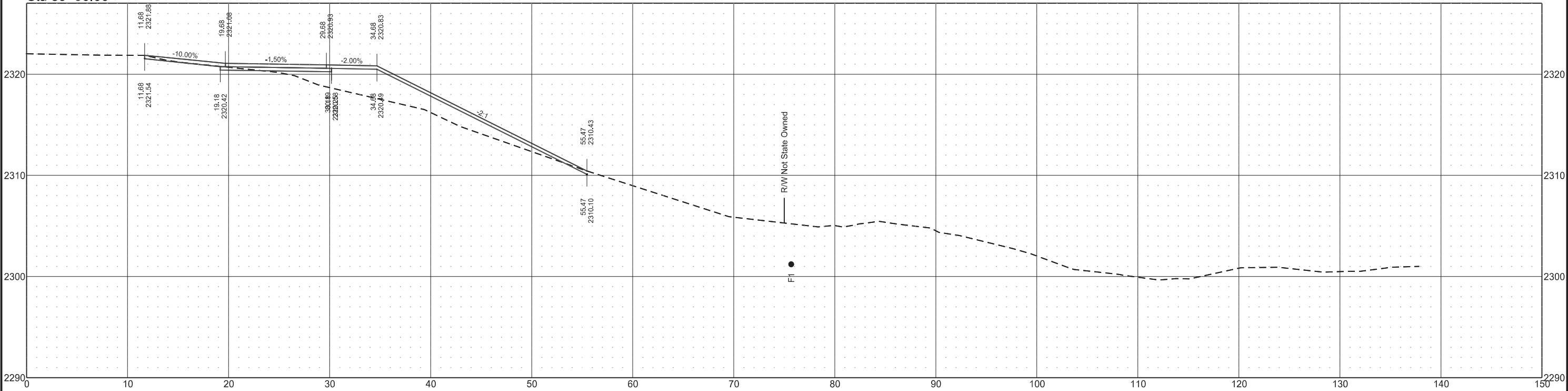
200

14

Sta 40+00.00



Sta 39+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

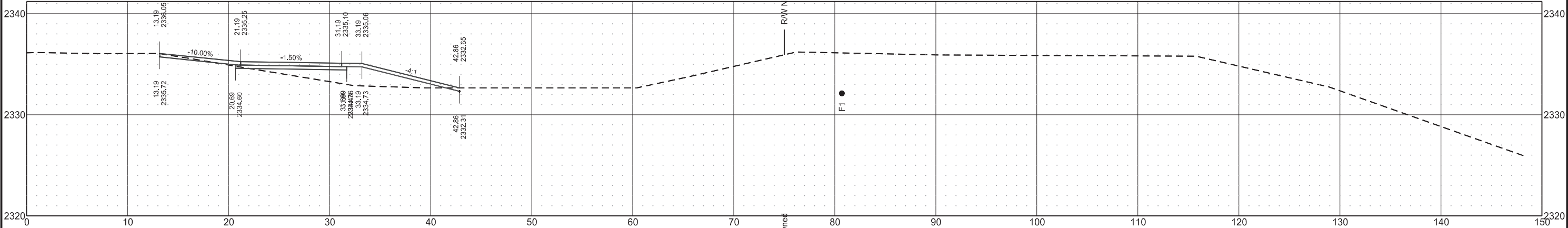
ND

TAC-0434(059)

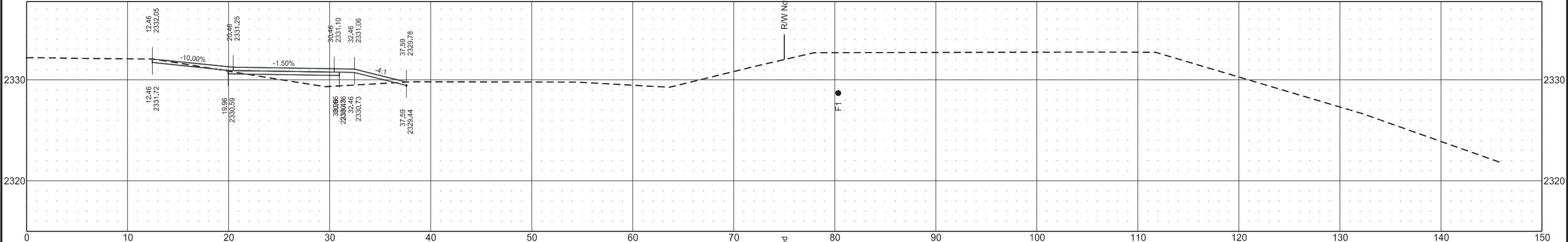
200

15

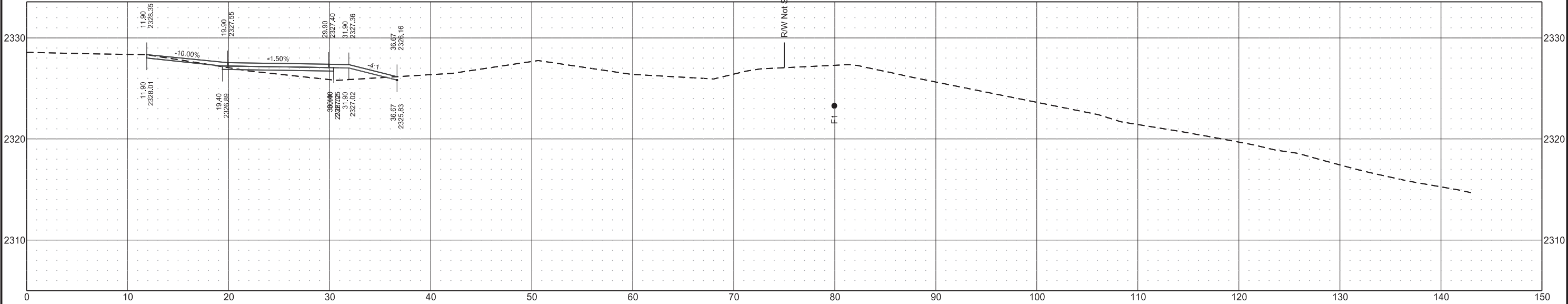
Sta 41+50.00



Sta 41+00.00



Sta 40+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

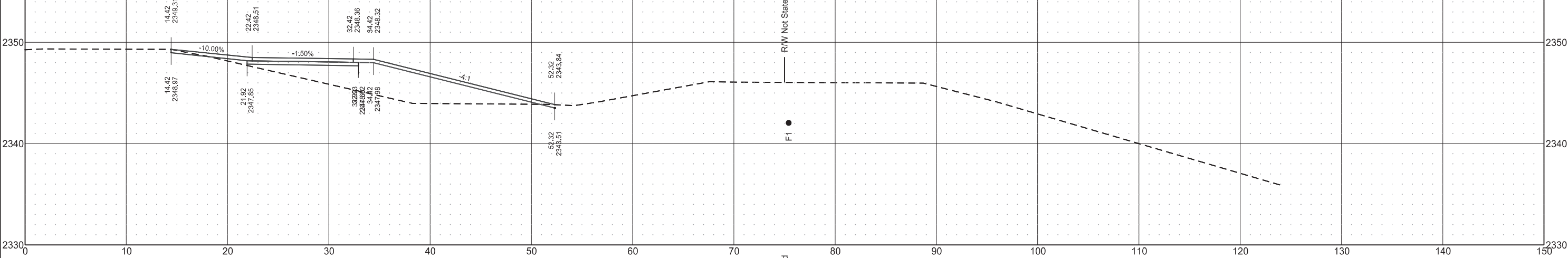
ND

TAC-0434(059)

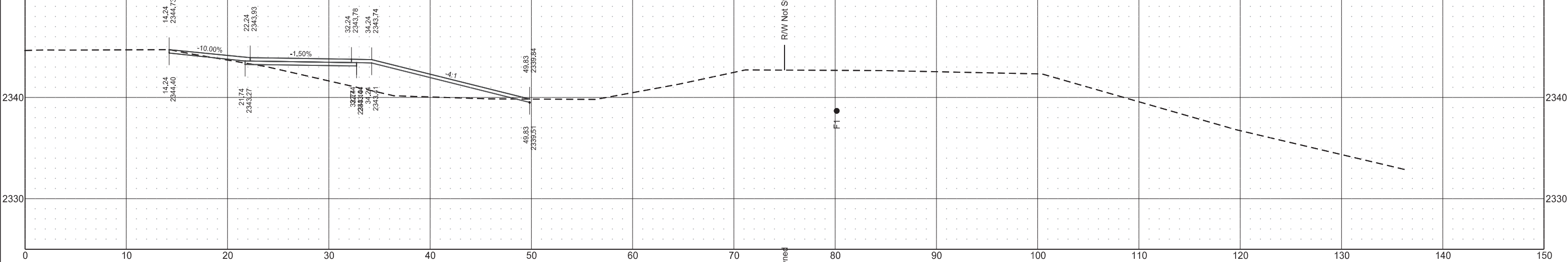
200

16

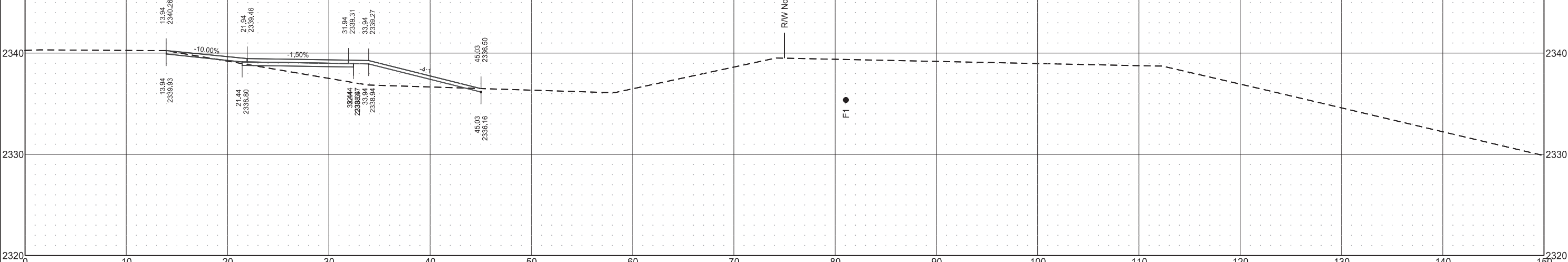
Sta 43+00.00



Sta 42+50.00



Sta 42+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

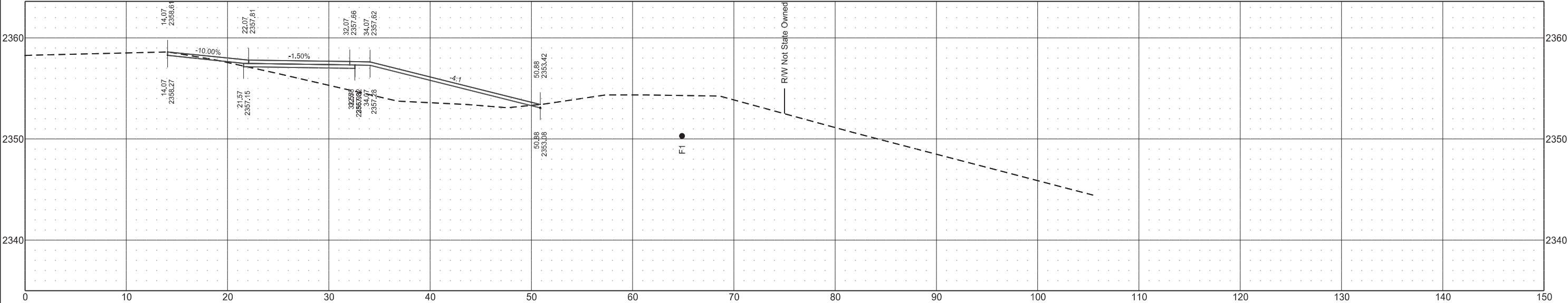
ND

TAC-0434(059)

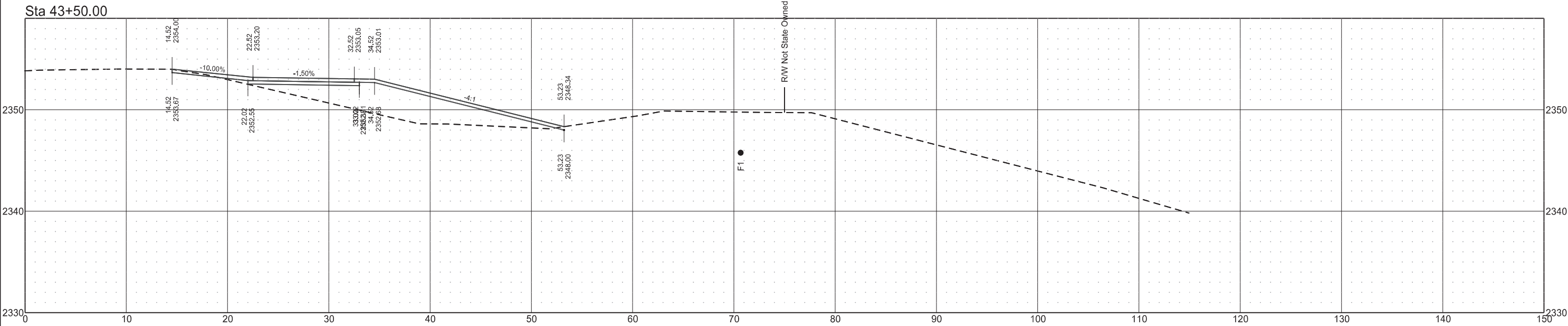
200

17

Sta 44+00.00



Sta 43+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

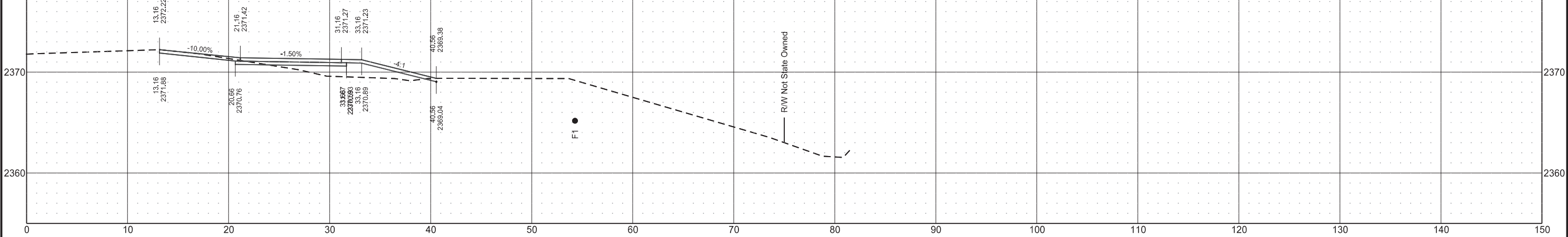
ND

TAC-0434(059)

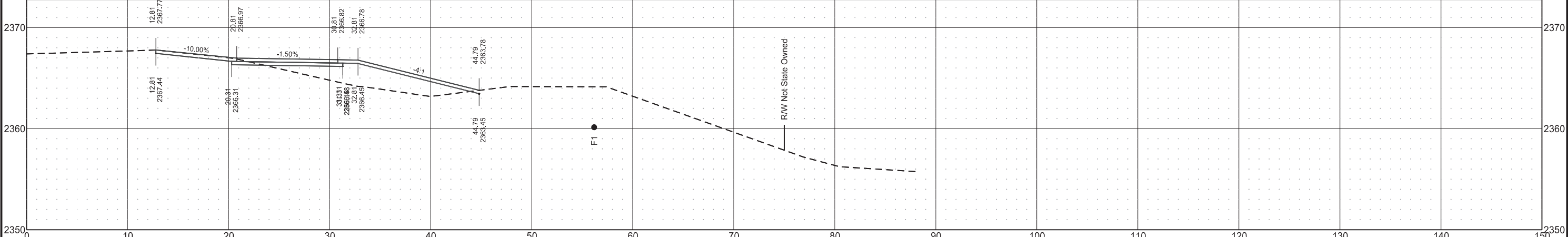
200

18

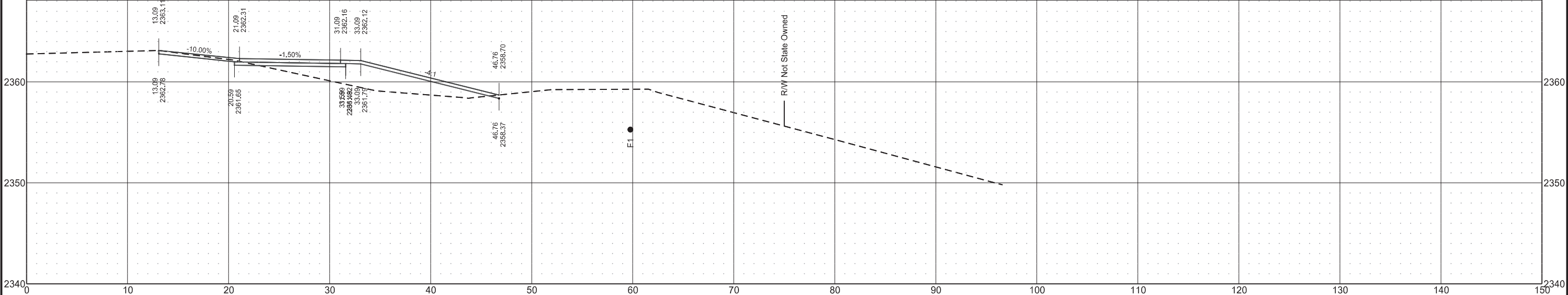
Sta 45+50.00



Sta 45+00.00



Sta 44+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

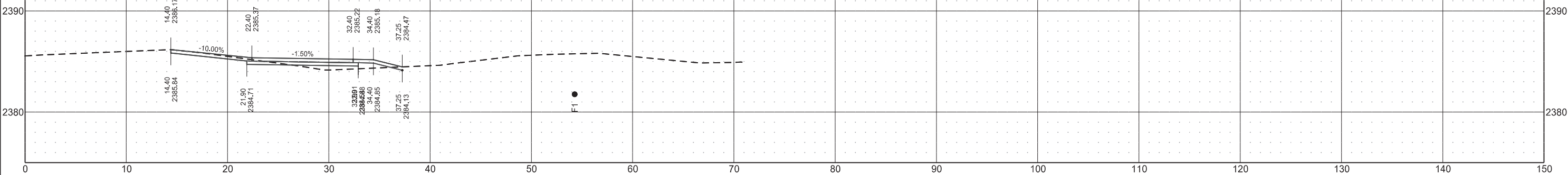
ND

TAC-0434(059)

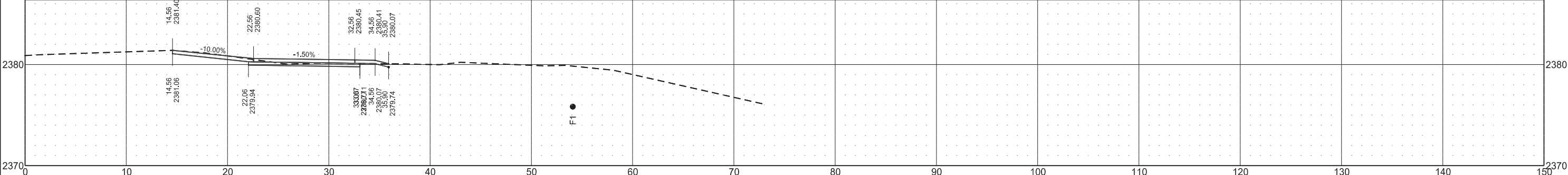
200

19

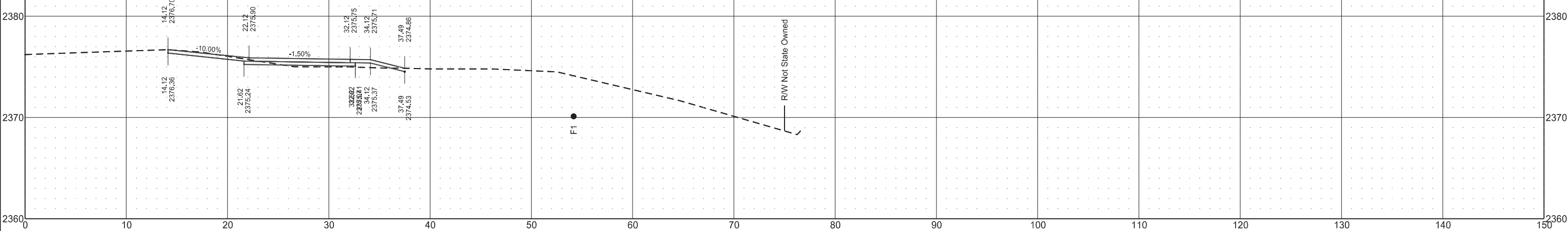
Sta 47+00.00



Sta 46+50.00



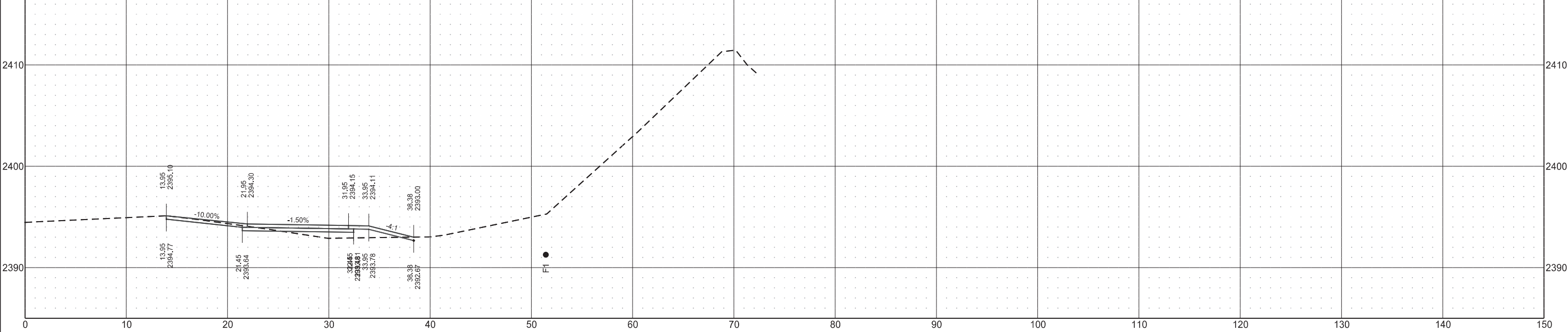
Sta 46+00.00



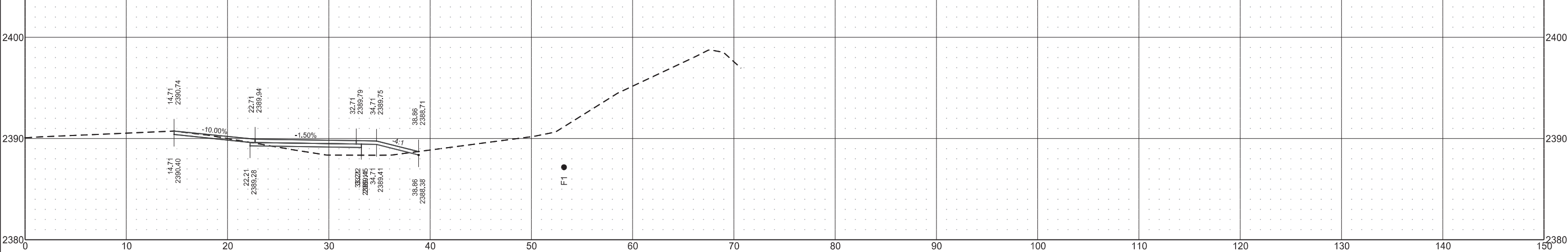
East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	20

Sta 48+00.00



Sta 47+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

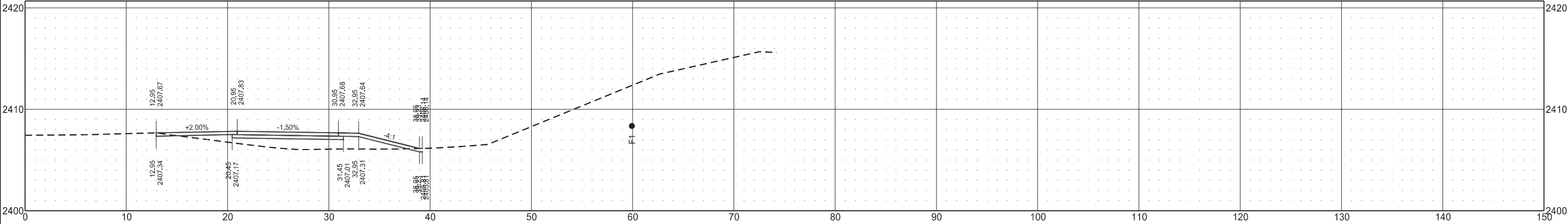
ND

TAC-0434(059)

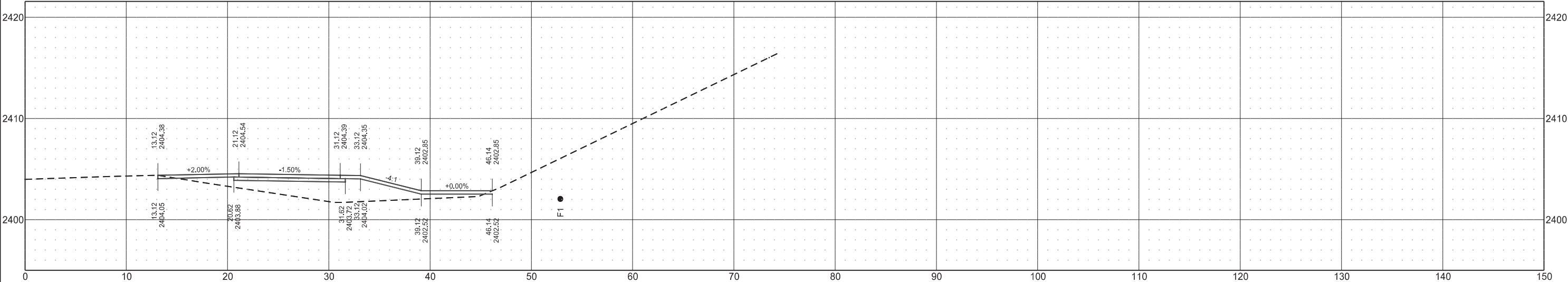
200

21

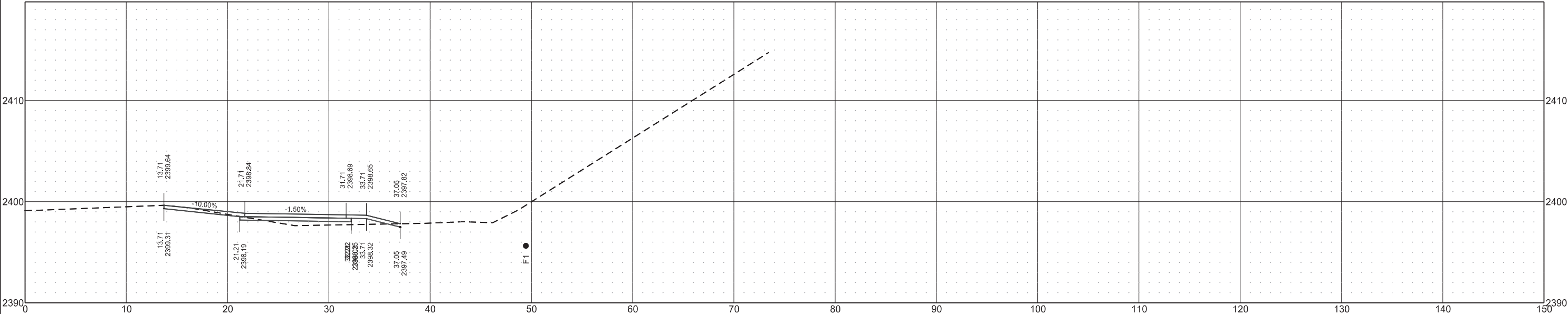
Sta 49+37.50



Sta 49+00.00



Sta 48+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

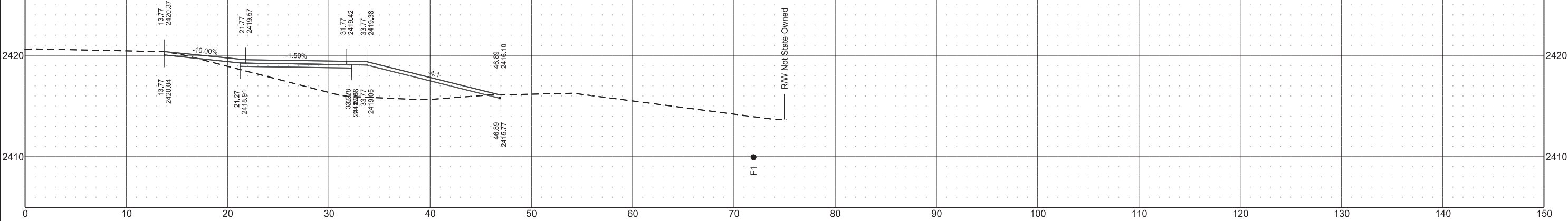
ND

TAC-0434(059)

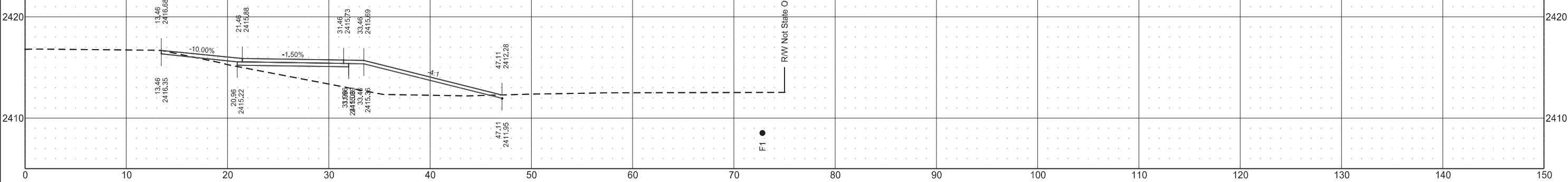
200

22

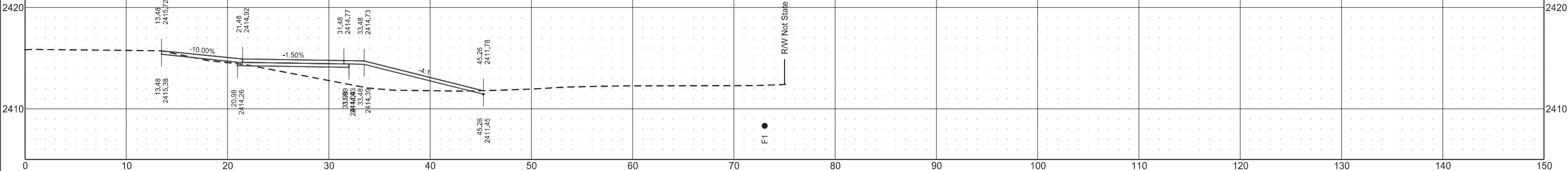
Sta 51+00.00



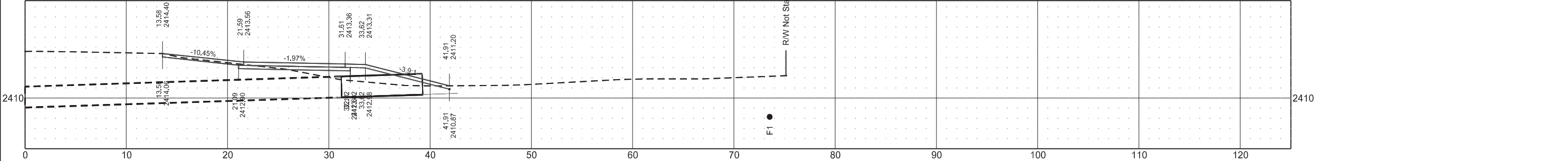
Sta 50+50.00



Sta 50+37.50



Sta 50+21.40



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

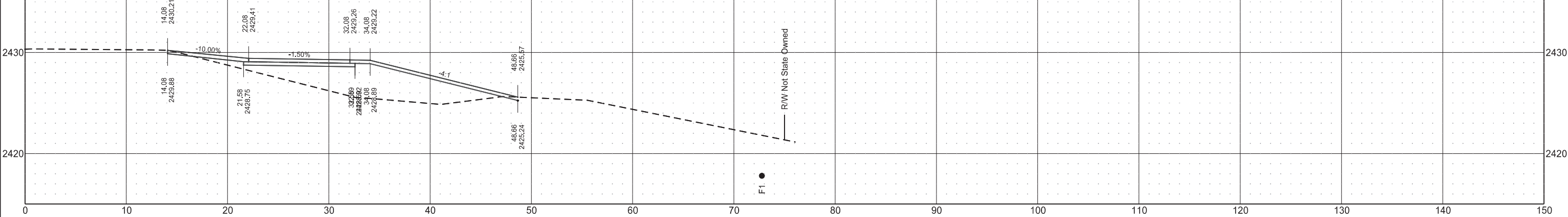
ND

TAC-0434(059)

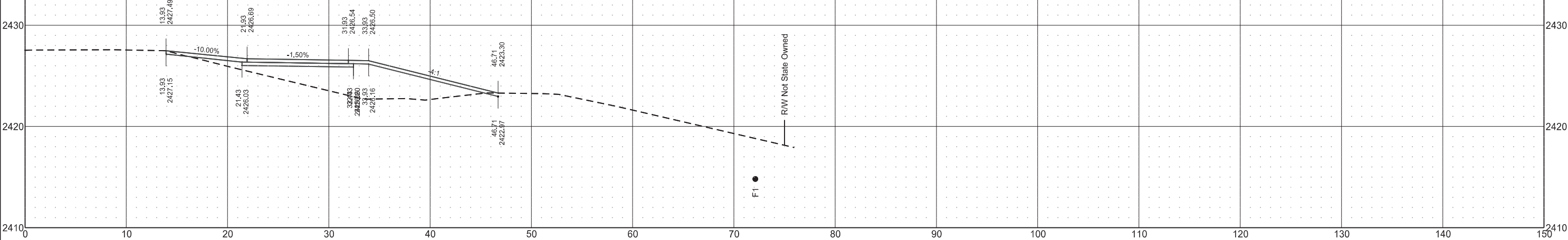
200

23

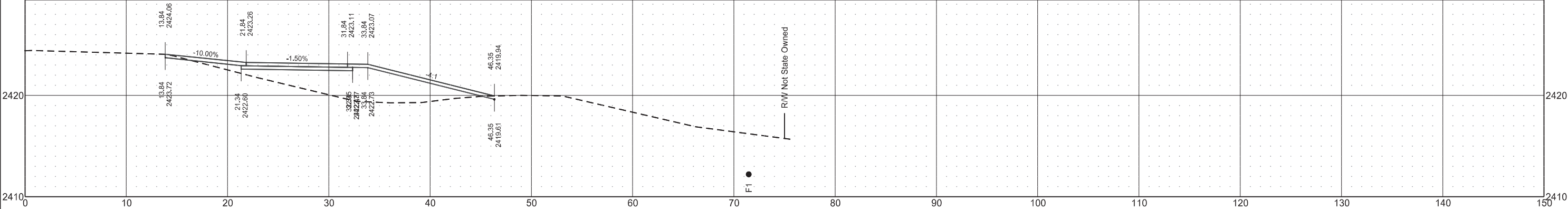
Sta 52+50.00



Sta 52+00.00



Sta 51+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

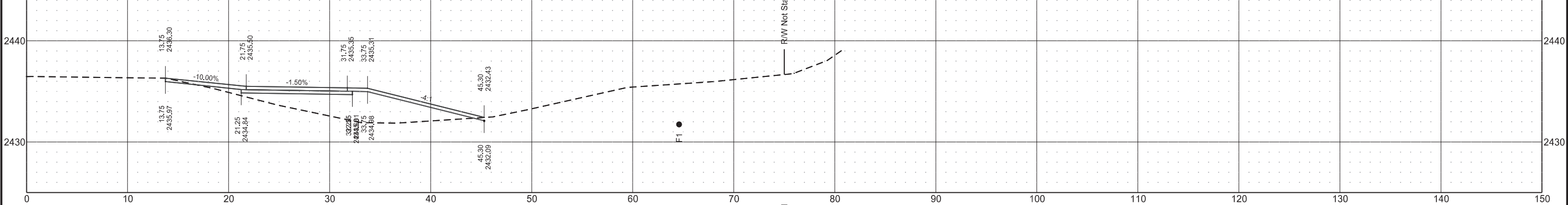
ND

TAC-0434(059)

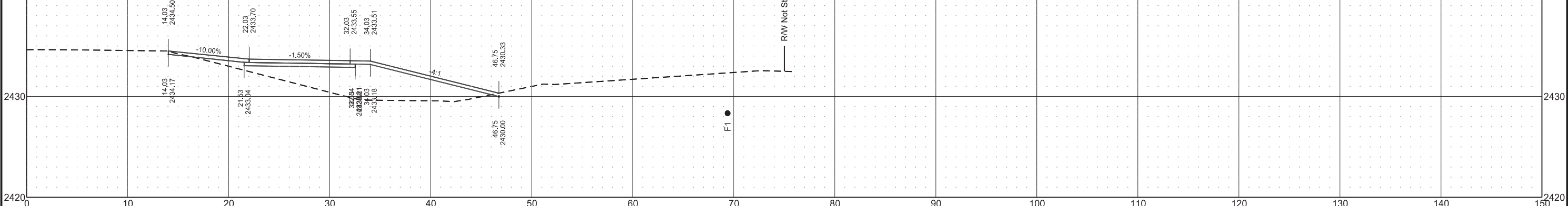
200

24

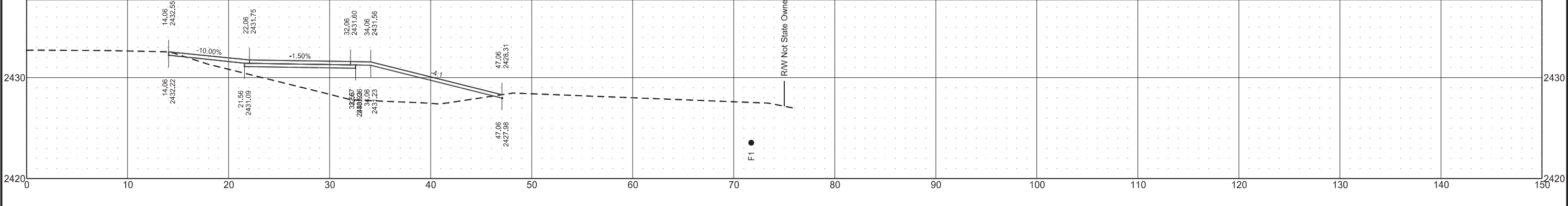
Sta 54+00.00



Sta 53+50.00



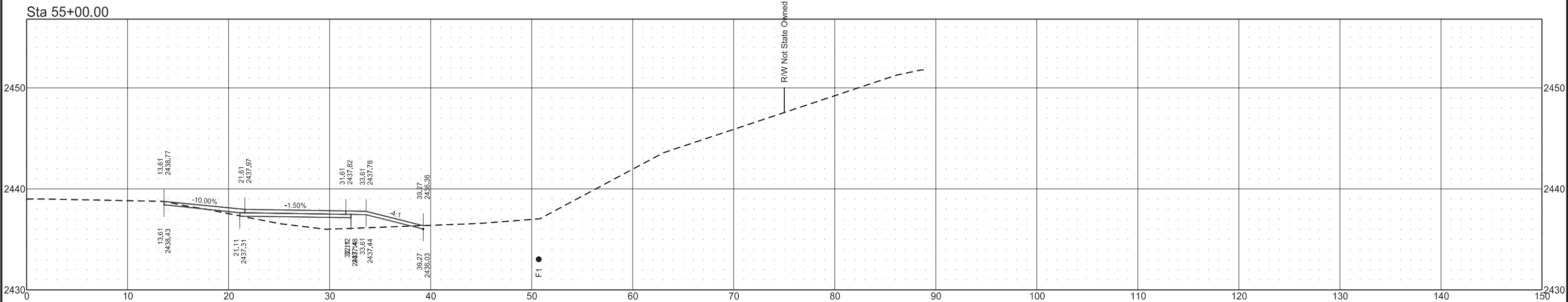
Sta 53+00.00



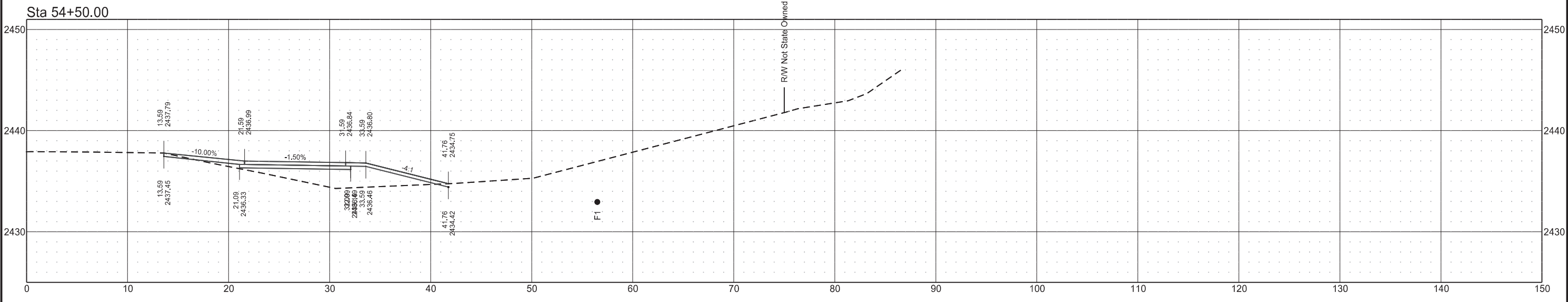
East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	25

Sta 55+00.00



Sta 54+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

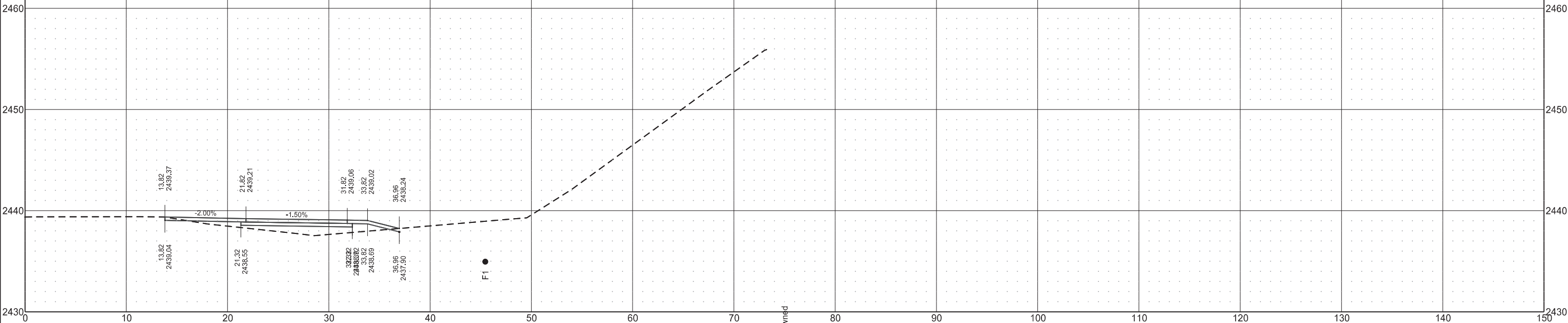
ND

TAC-0434(059)

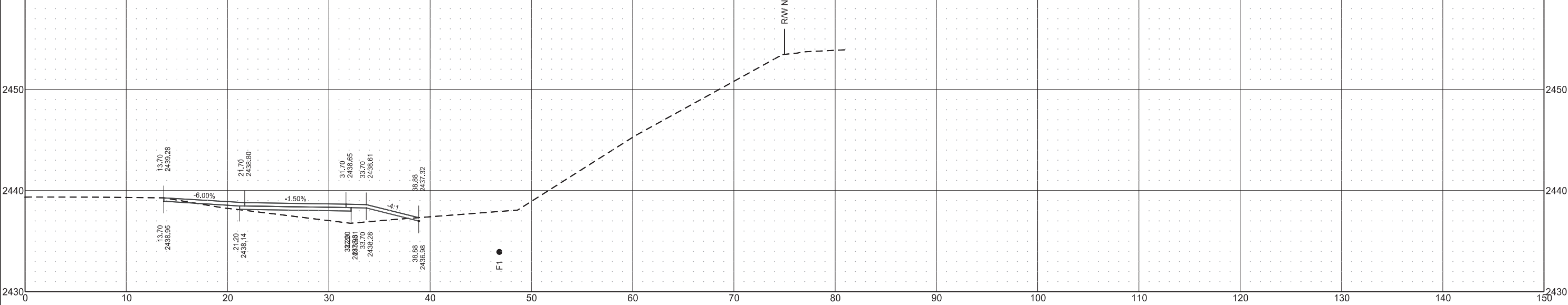
200

26

Sta 56+00.00



Sta 55+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

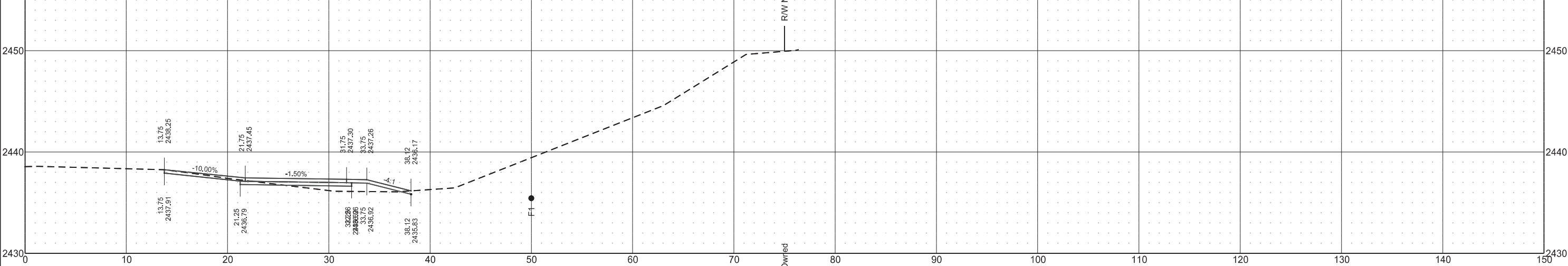
ND

TAC-0434(059)

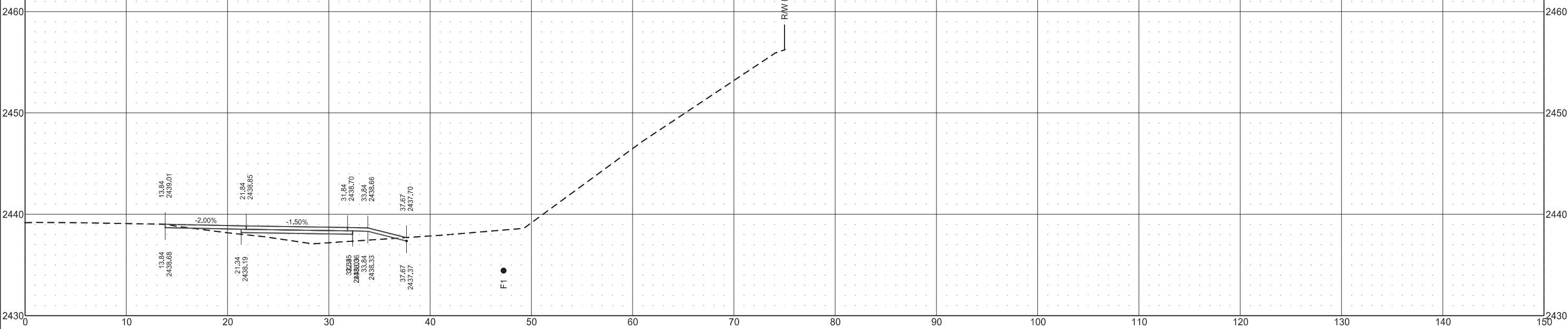
200

27

Sta 57+00.00



Sta 56+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

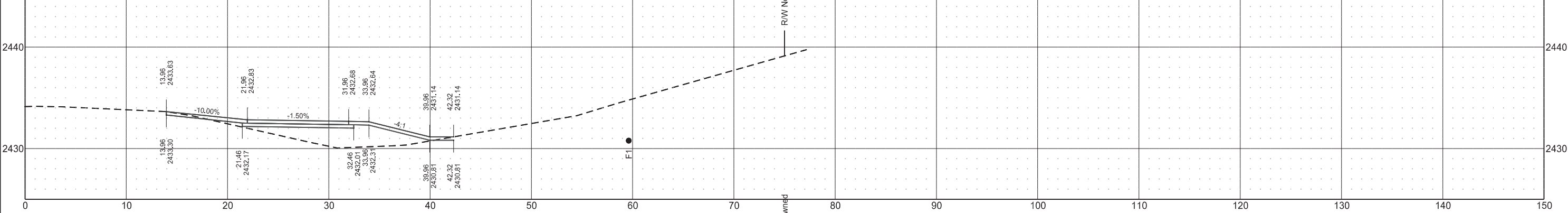
ND

TAC-0434(059)

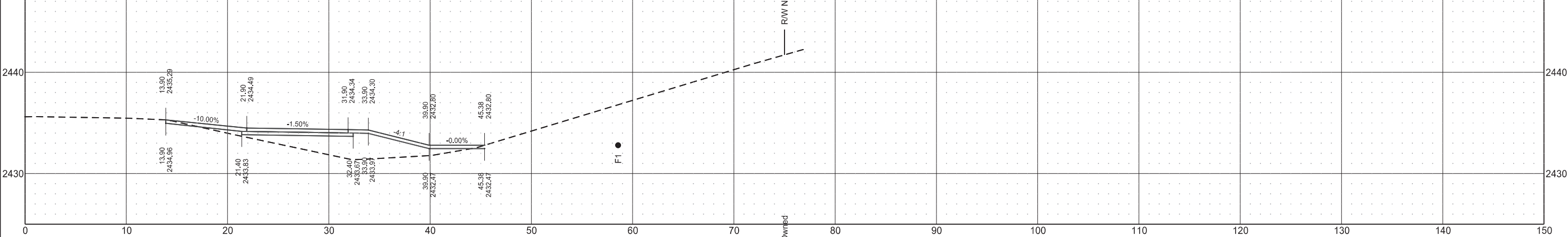
200

28

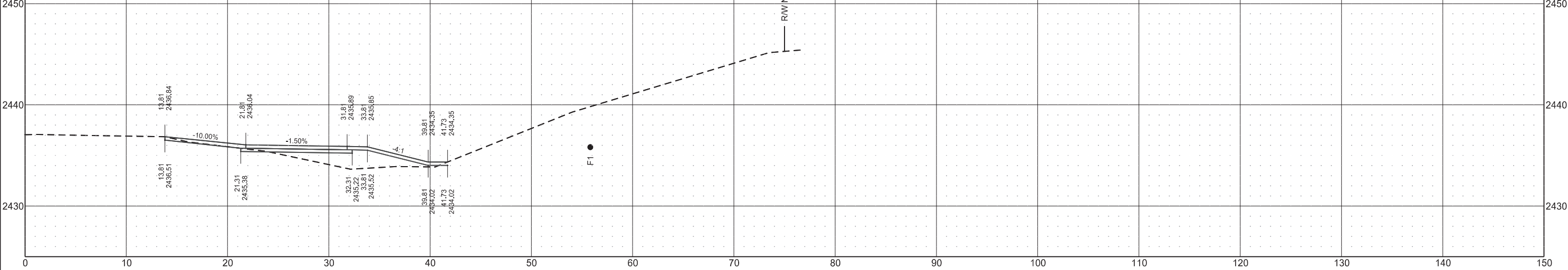
Sta 58+50.00



Sta 58+00.00



Sta 57+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

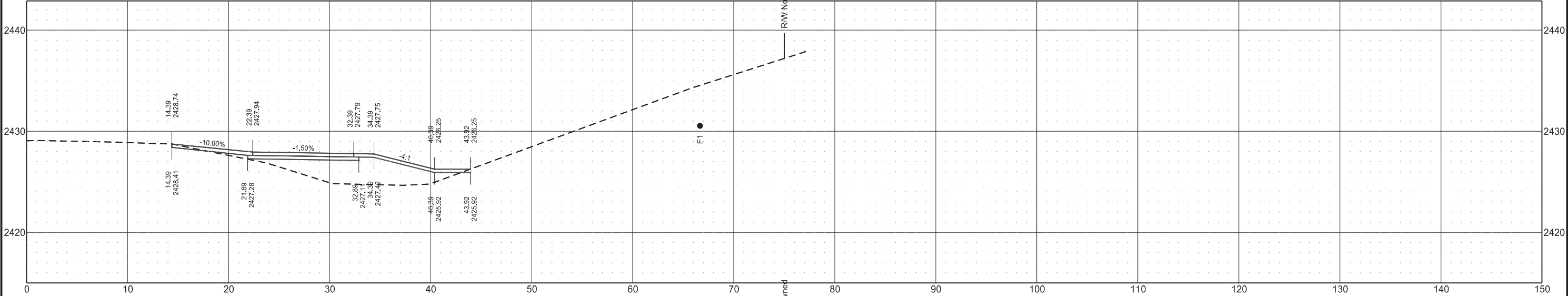
ND

TAC-0434(059)

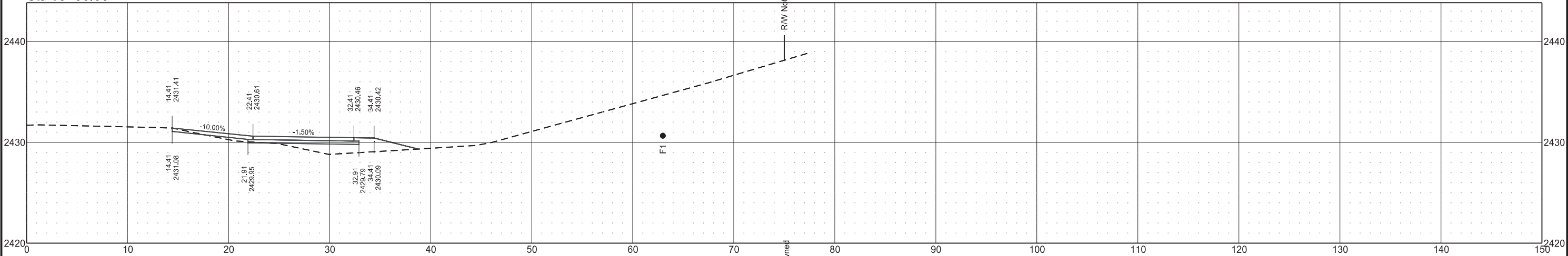
200

29

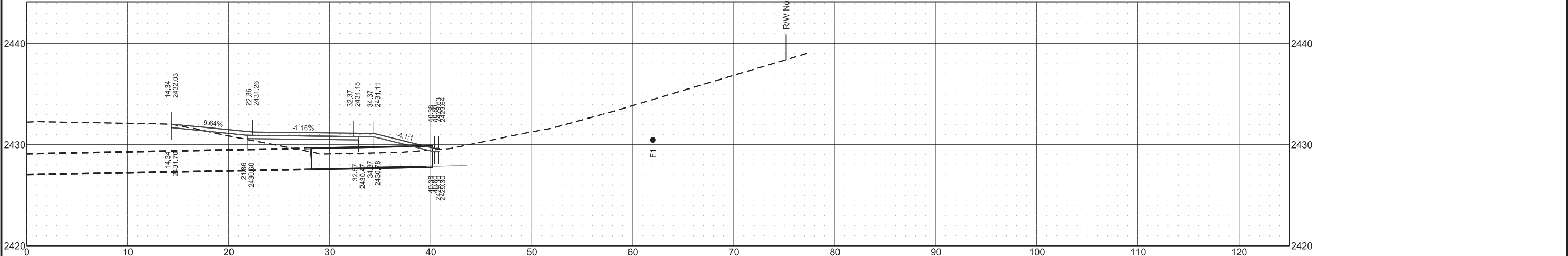
Sta 59+50.00



Sta 59+00.00



Sta 58+88.73



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

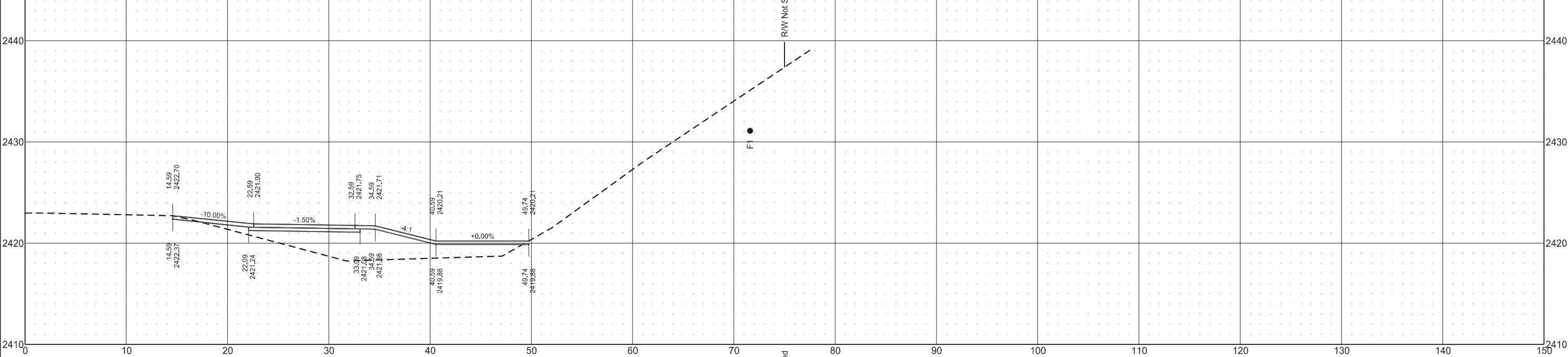
ND

TAC-0434(059)

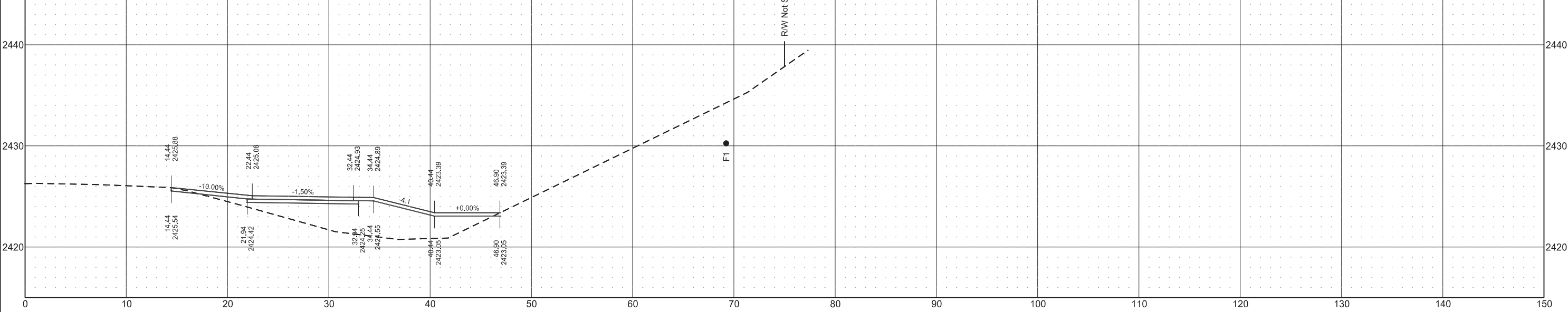
200

30

Sta 60+50.00



Sta 60+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

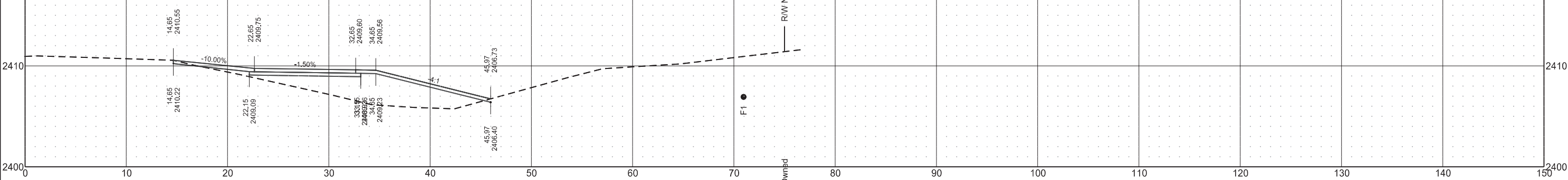
ND

TAC-0434(059)

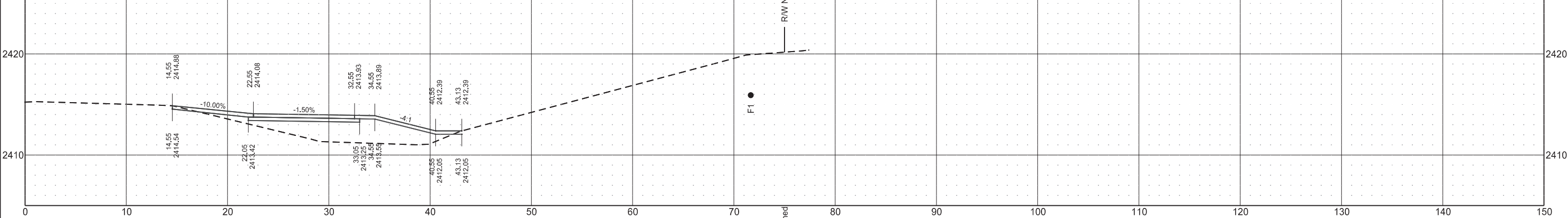
200

31

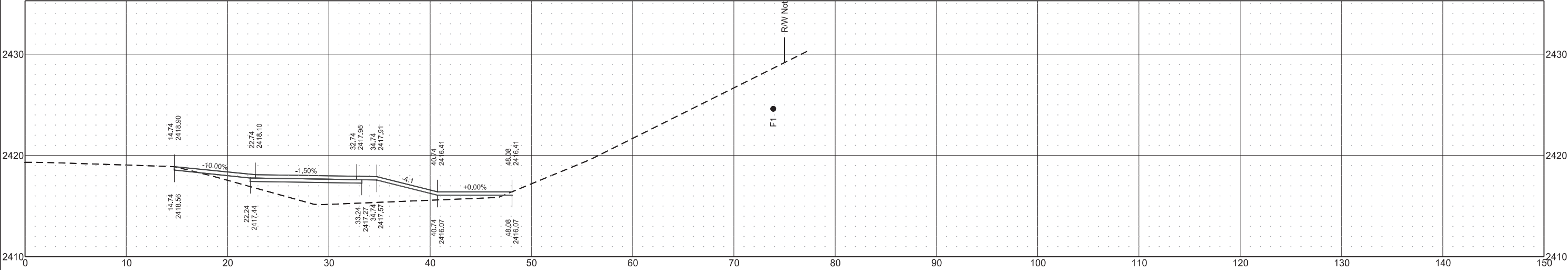
Sta 62+00.00



Sta 61+50.00



Sta 61+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

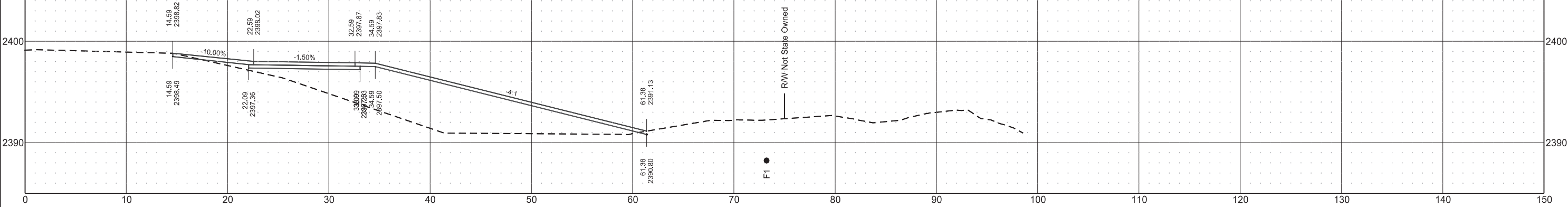
ND

TAC-0434(059)

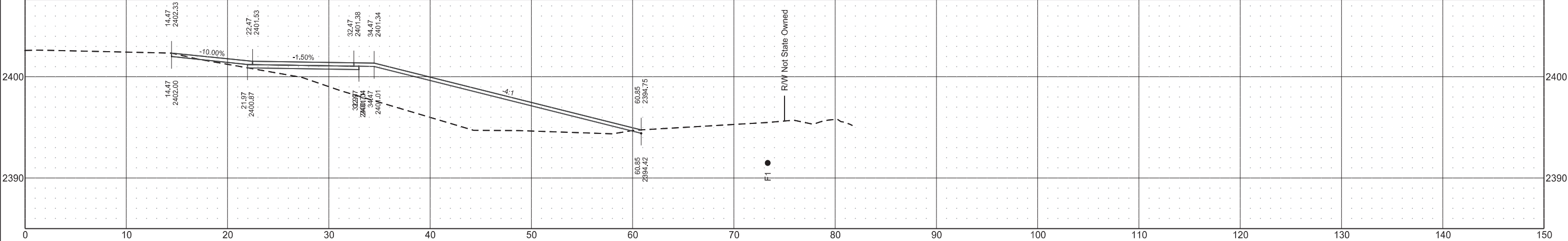
200

32

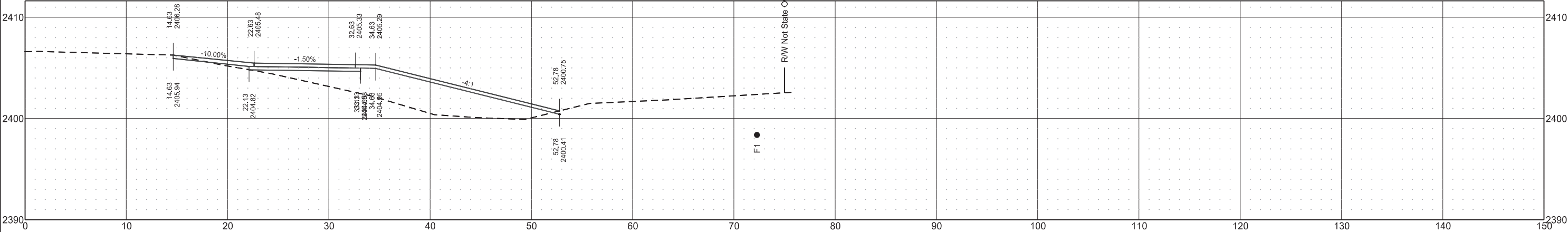
Sta 63+50.00



Sta 63+00.00



Sta 62+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

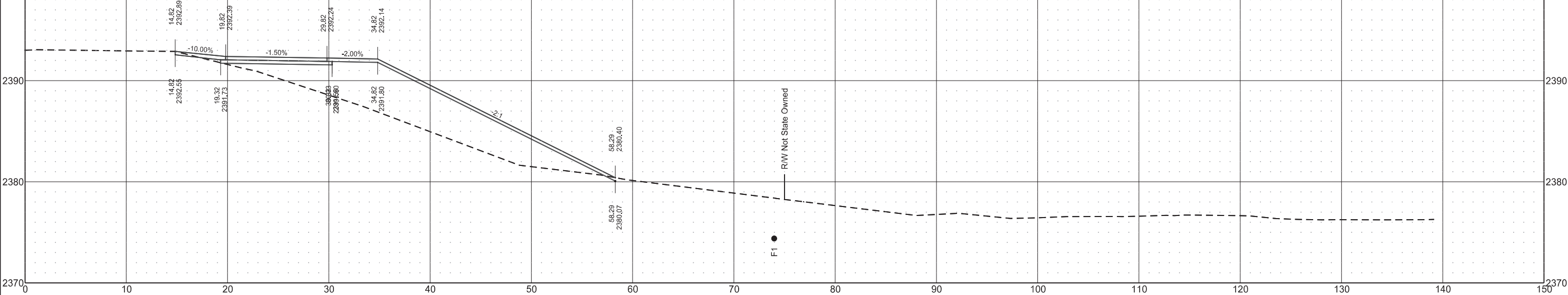
ND

TAC-0434(059)

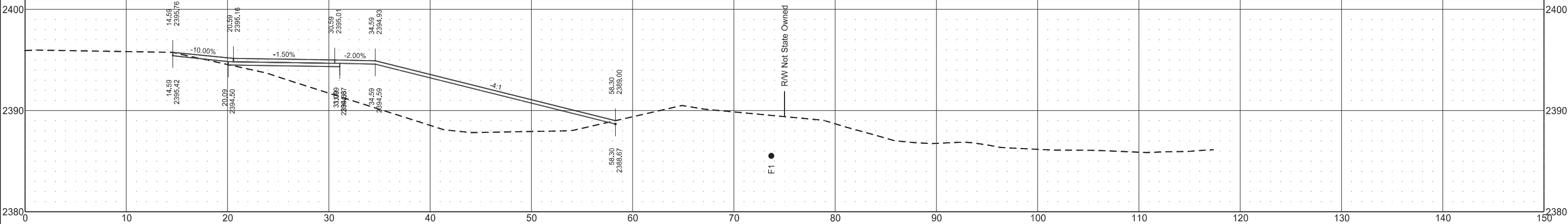
200

33

Sta 64+50.00



Sta 64+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

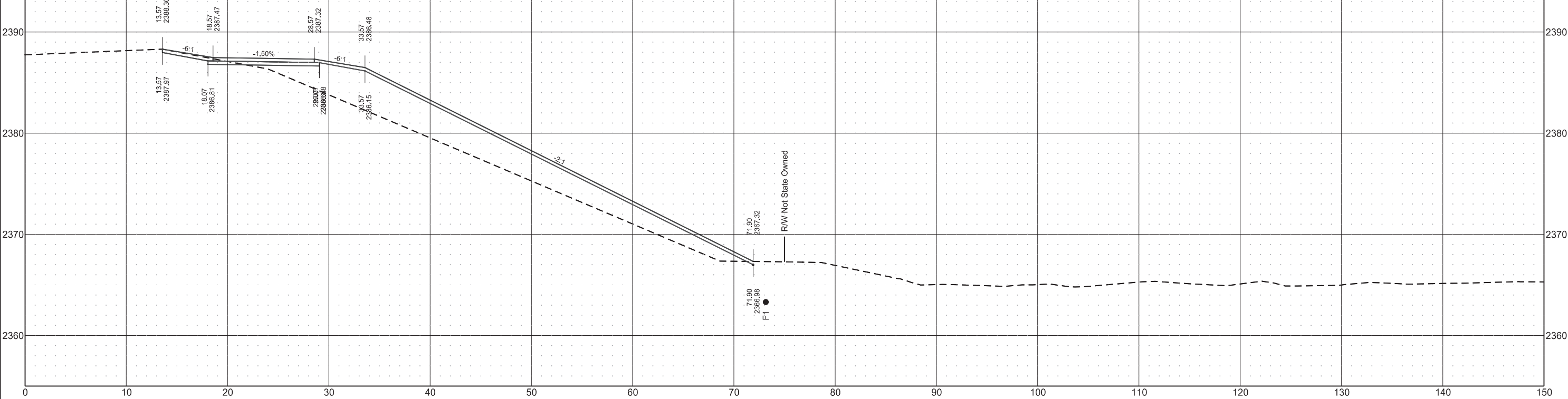
ND

TAC-0434(059)

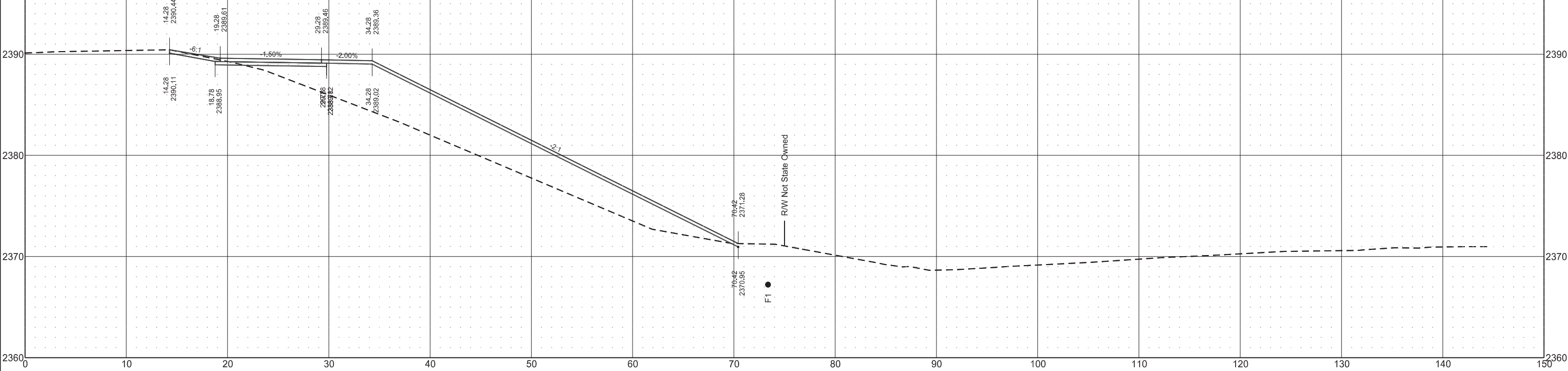
200

34

Sta 65+50.00



Sta 65+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

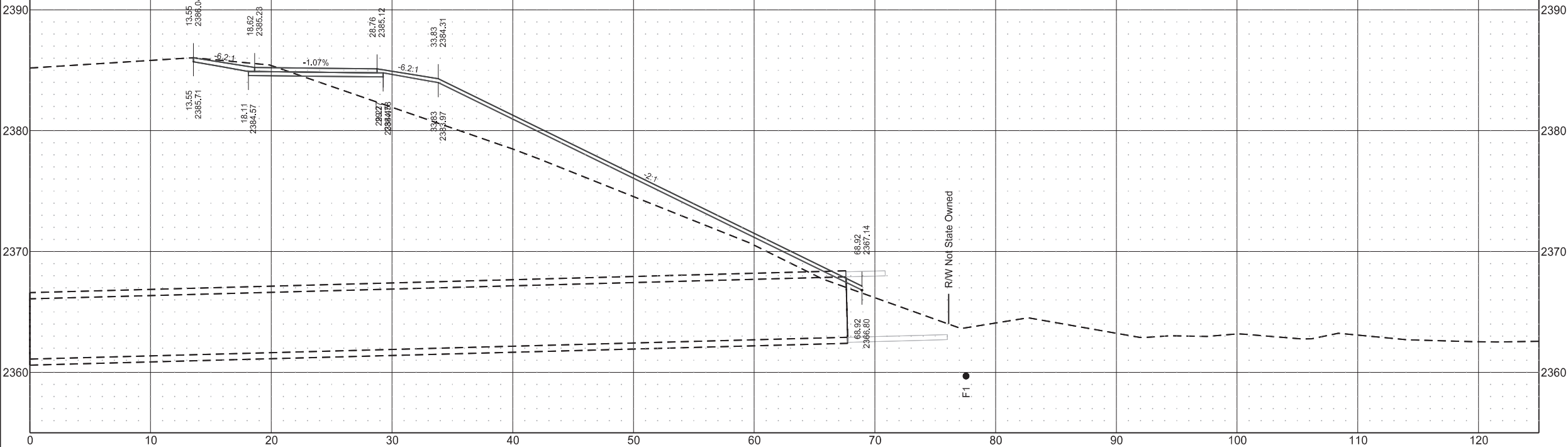
ND

TAC-0434(059)

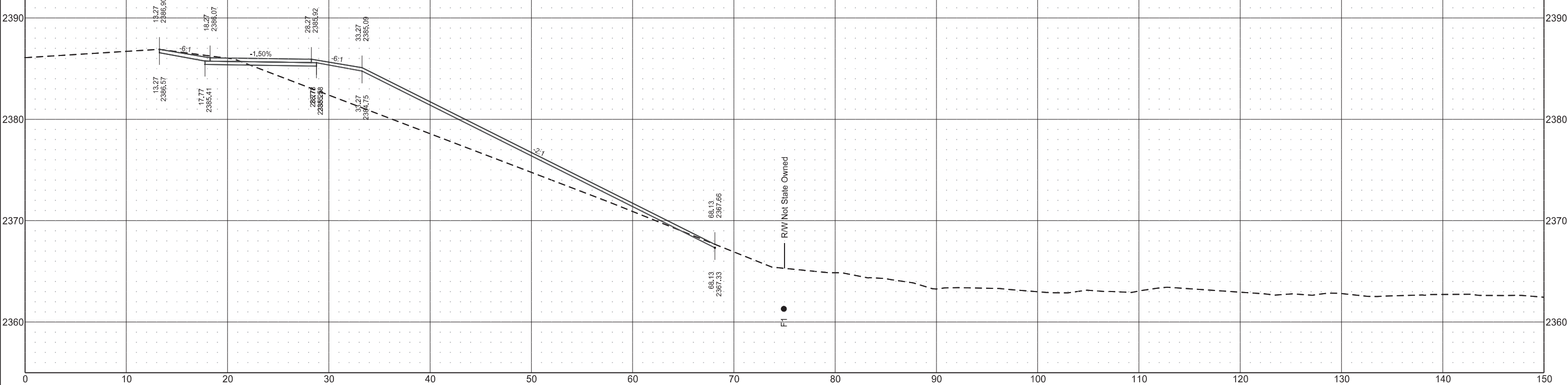
200

35

Sta 66+34.27



Sta 66+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

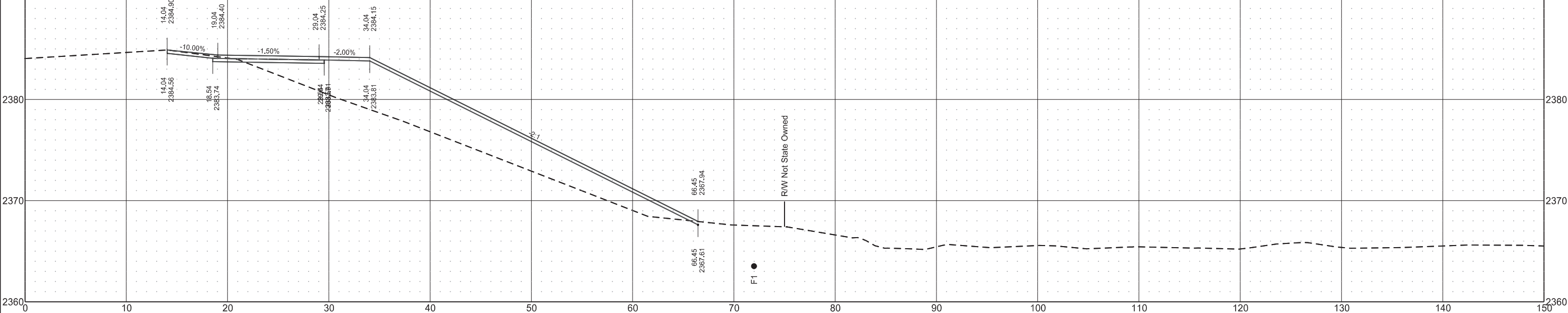
ND

TAC-0434(059)

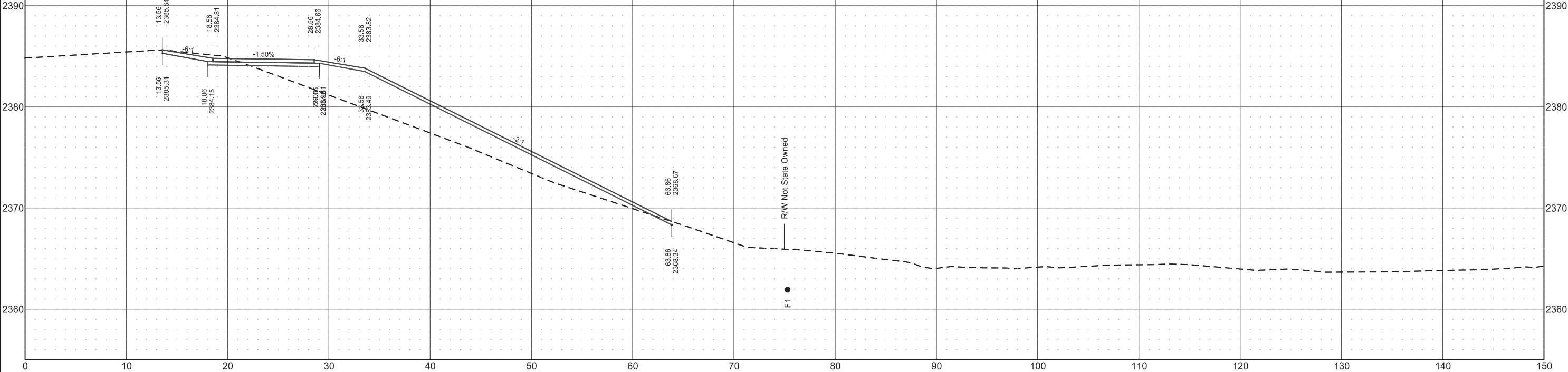
200

36

Sta 67+00.00



Sta 66+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

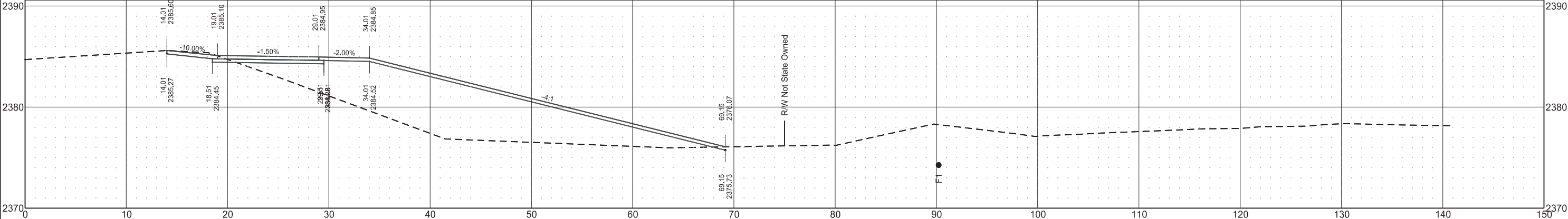
ND

TAC-0434(059)

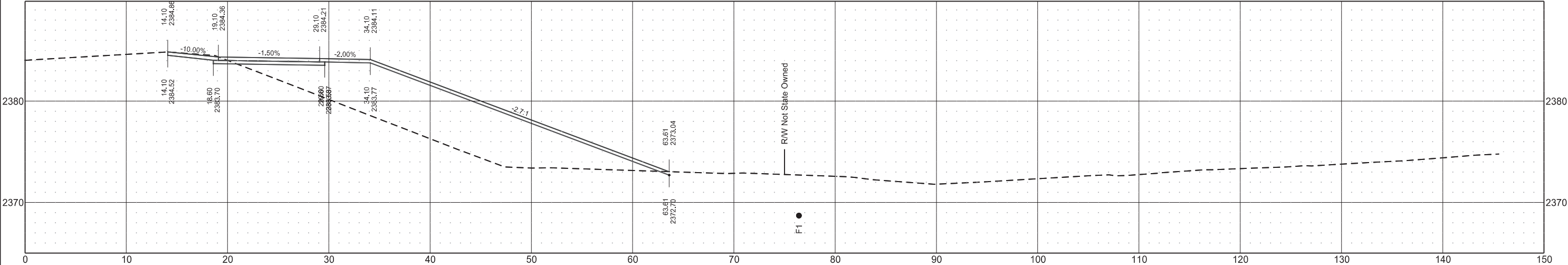
200

37

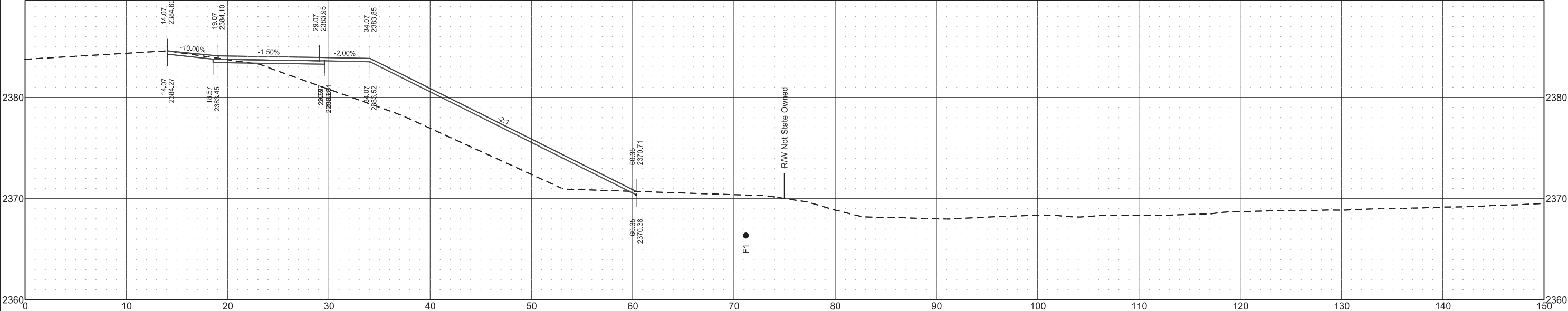
Sta 68+50.00



Sta 68+00.00



Sta 67+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

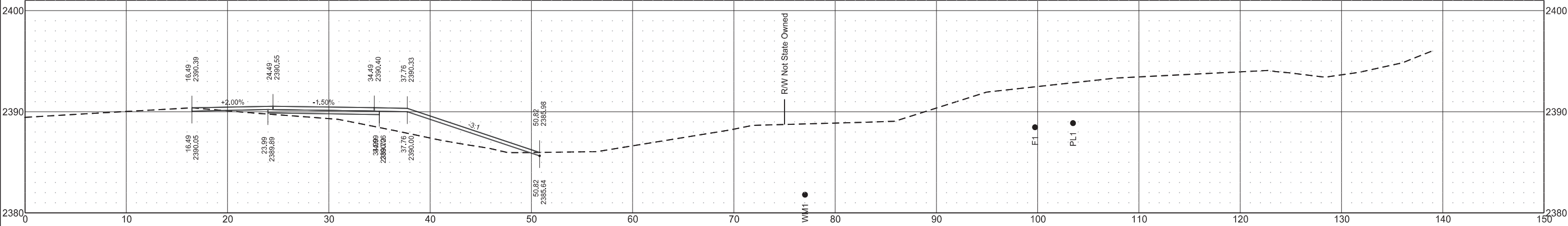
ND

TAC-0434(059)

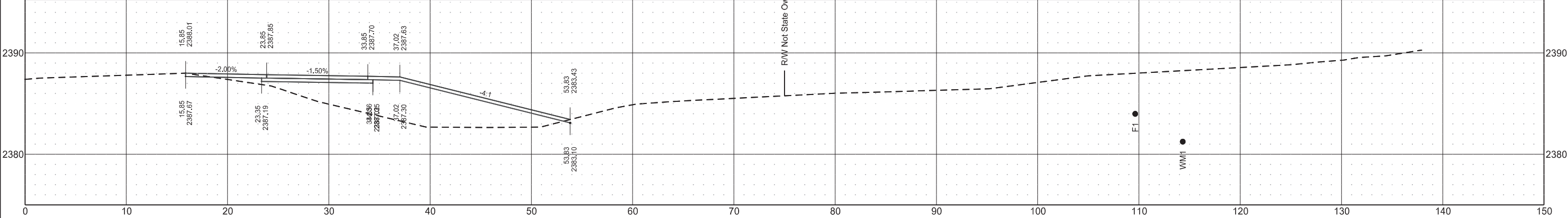
200

38

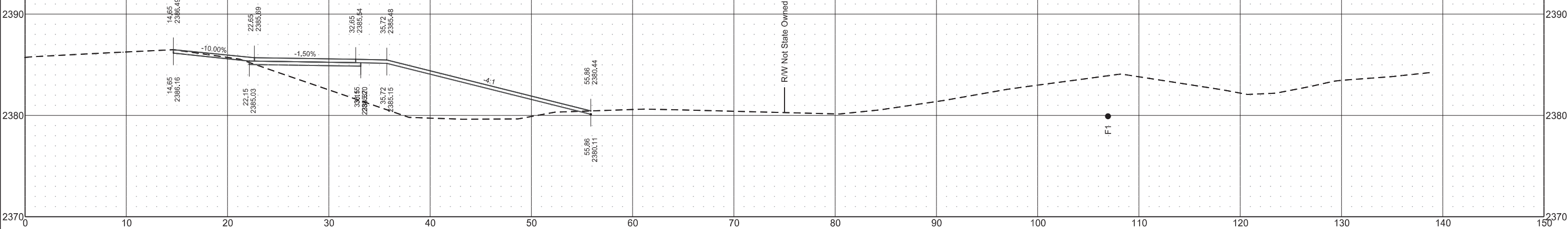
Sta 70+00.00



Sta 69+50.00



Sta 69+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

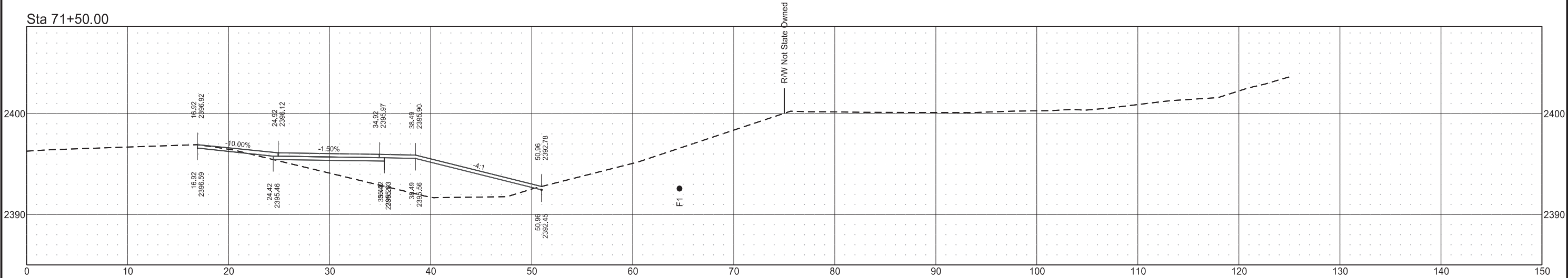
ND

TAC-0434(059)

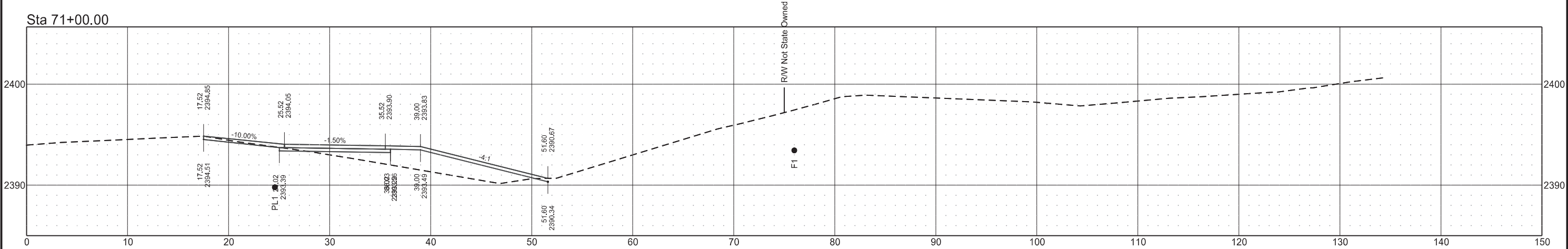
200

39

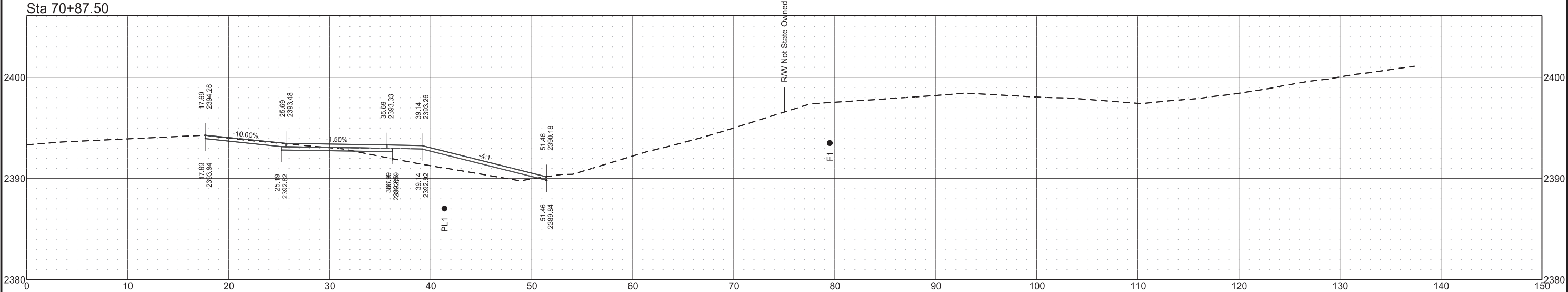
Sta 71+50.00



Sta 71+00.00



Sta 70+87.50



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

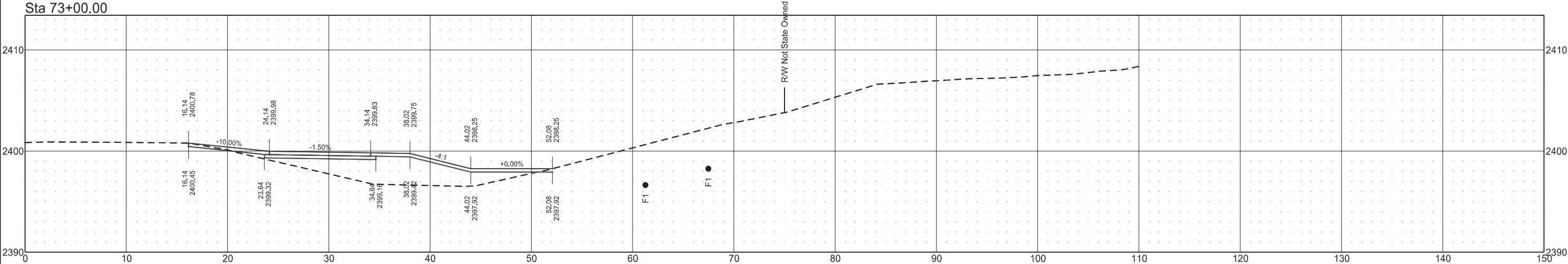
ND

TAC-0434(059)

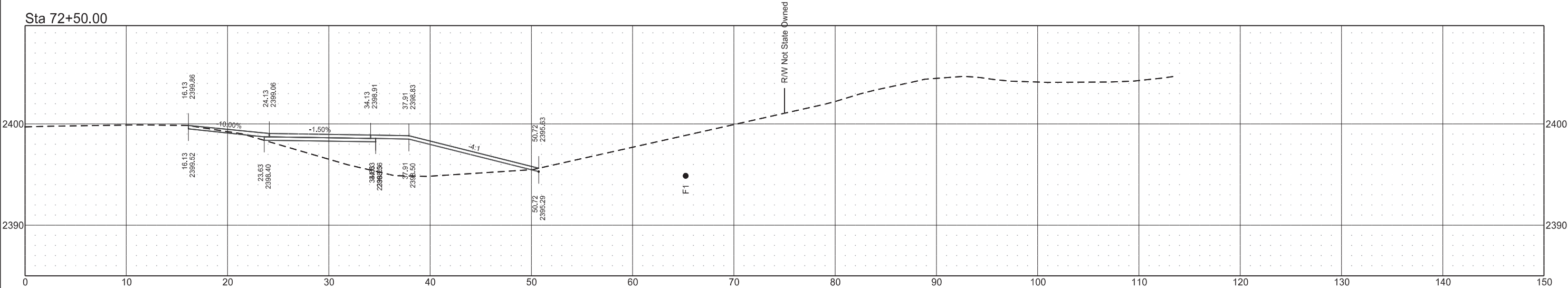
200

40

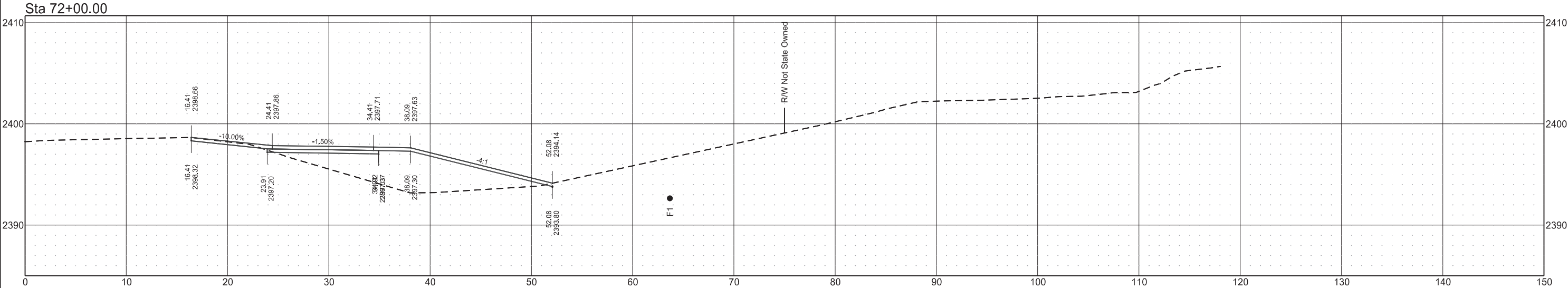
Sta 73+00.00



Sta 72+50.00



Sta 72+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

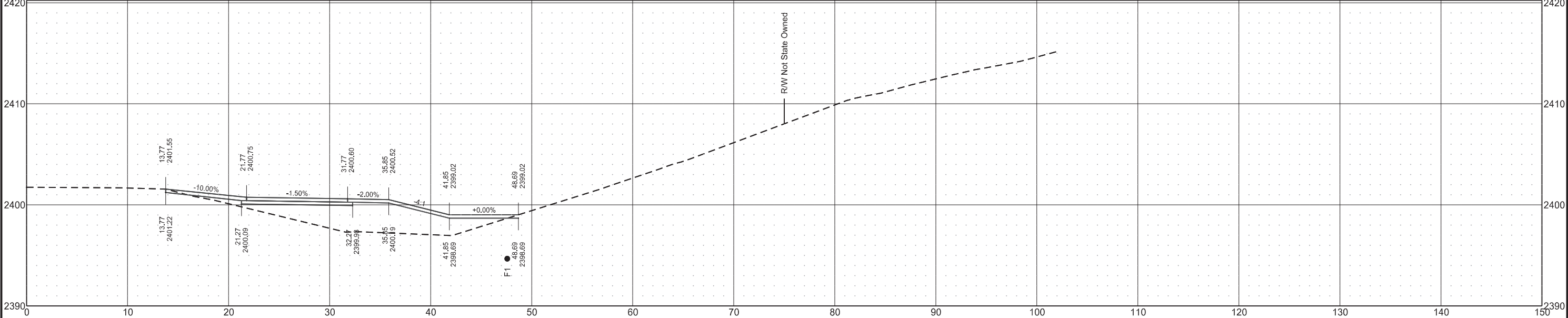
ND

TAC-0434(059)

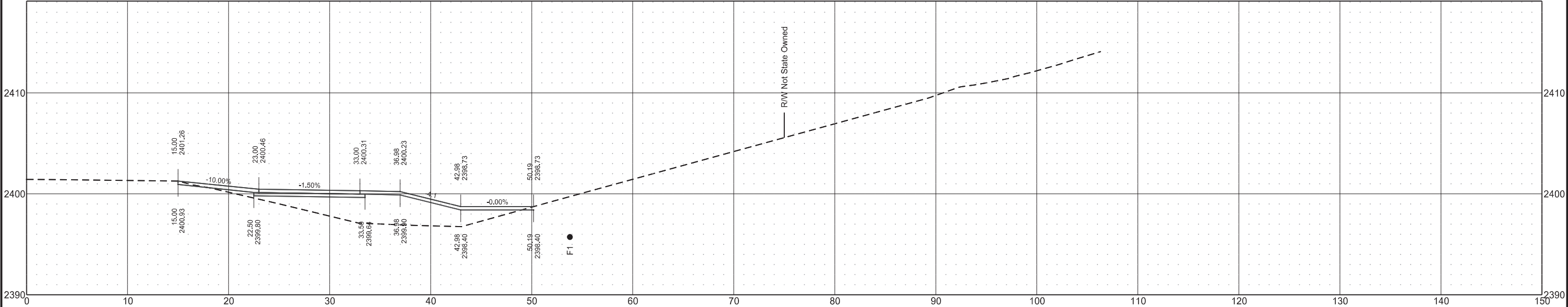
200

41

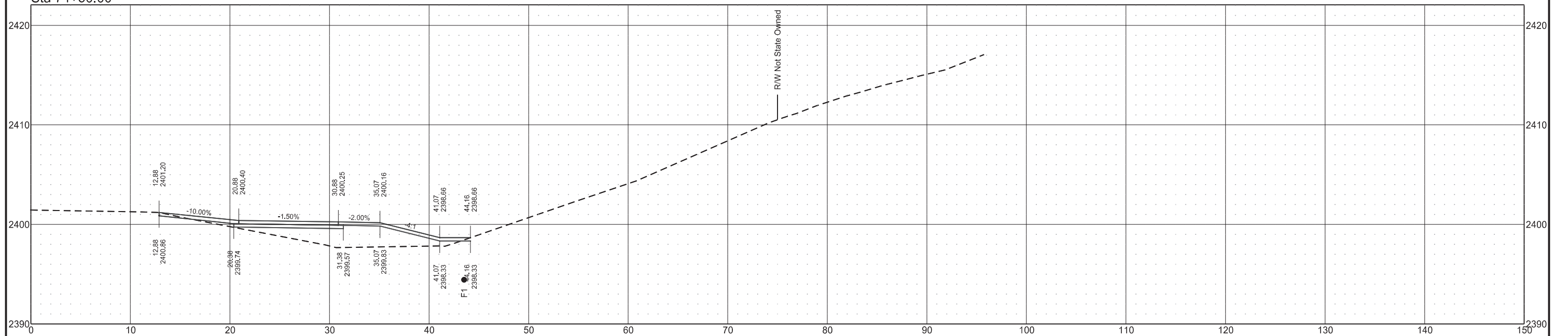
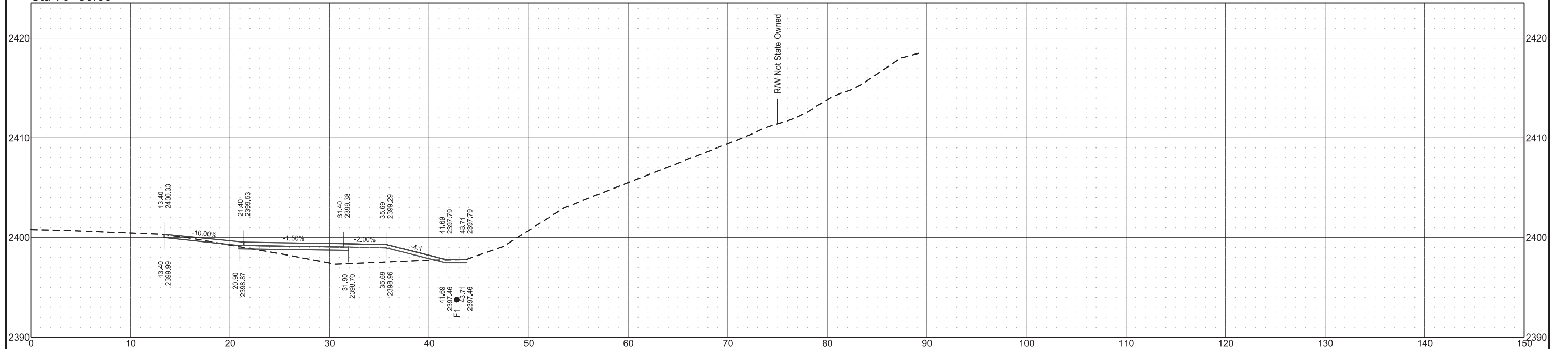
Sta 74+00.00



Sta 73+50.00



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	42



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

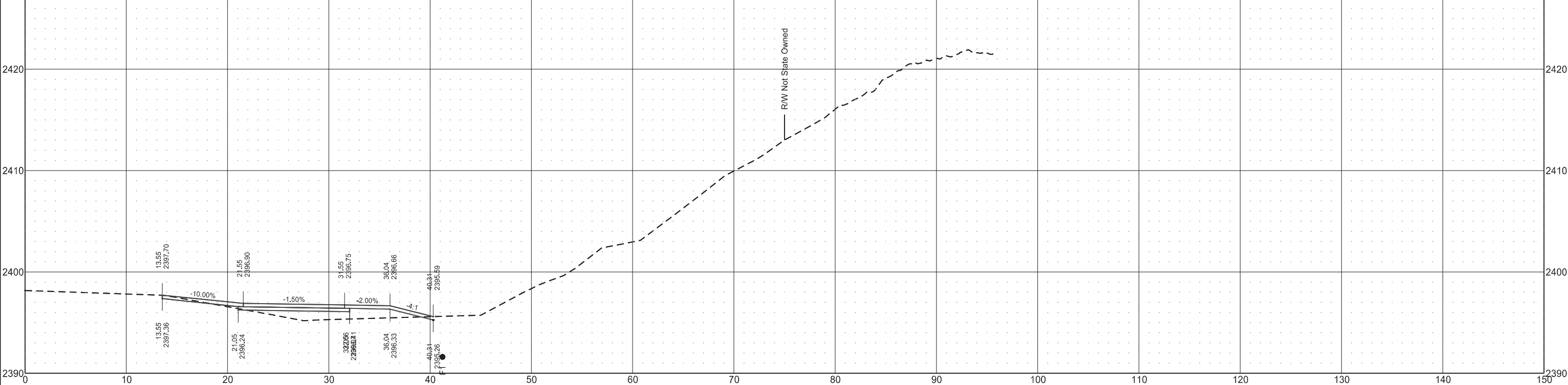
ND

TAC-0434(059)

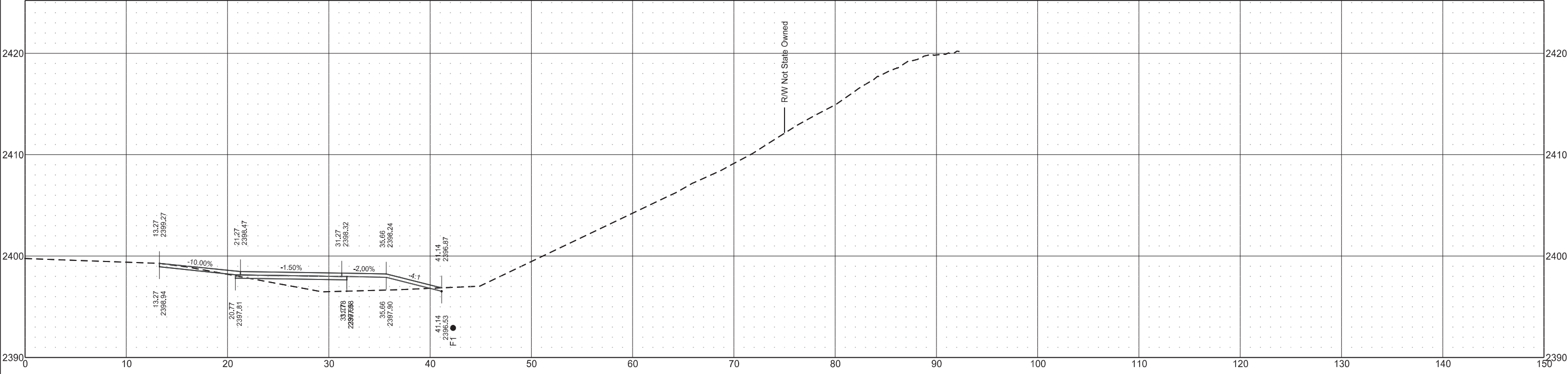
200

43

Sta 76+00.00



Sta 75+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

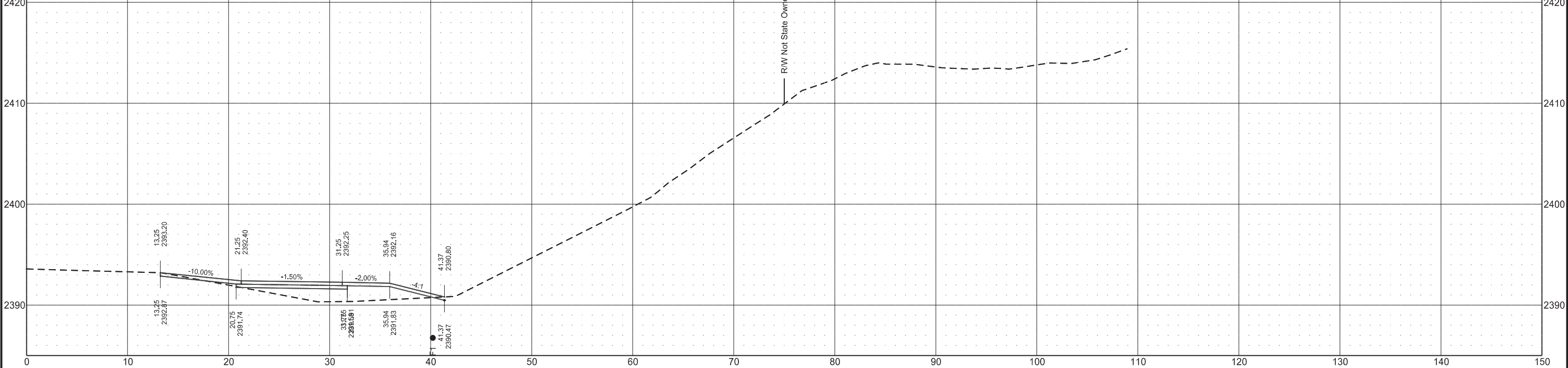
ND

TAC-0434(059)

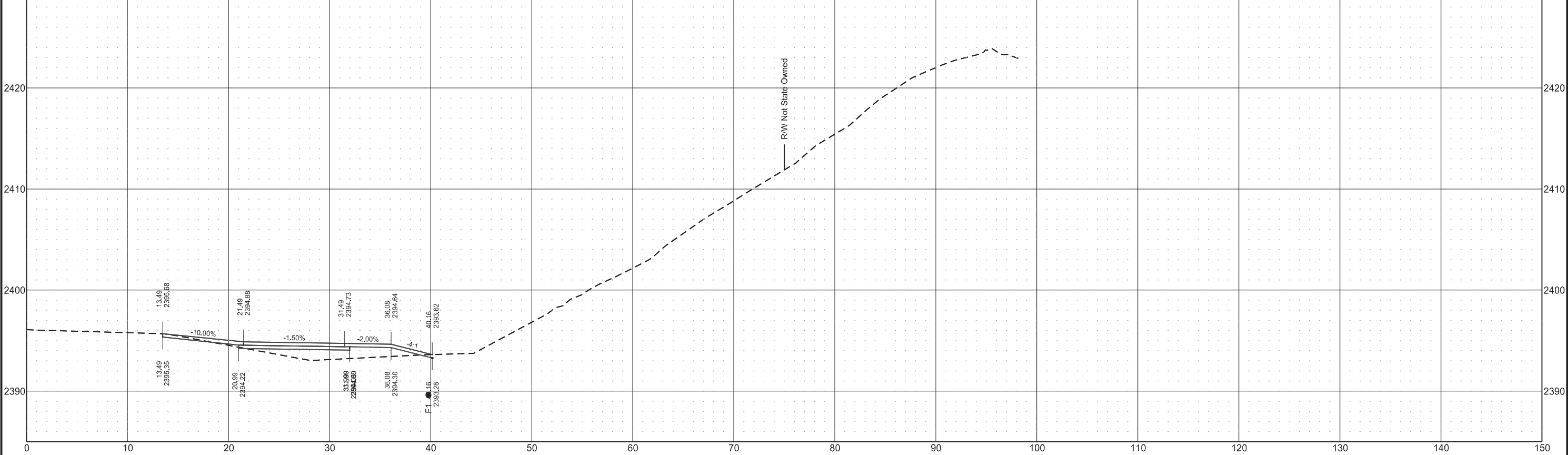
200

44

Sta 77+00.00



Sta 76+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

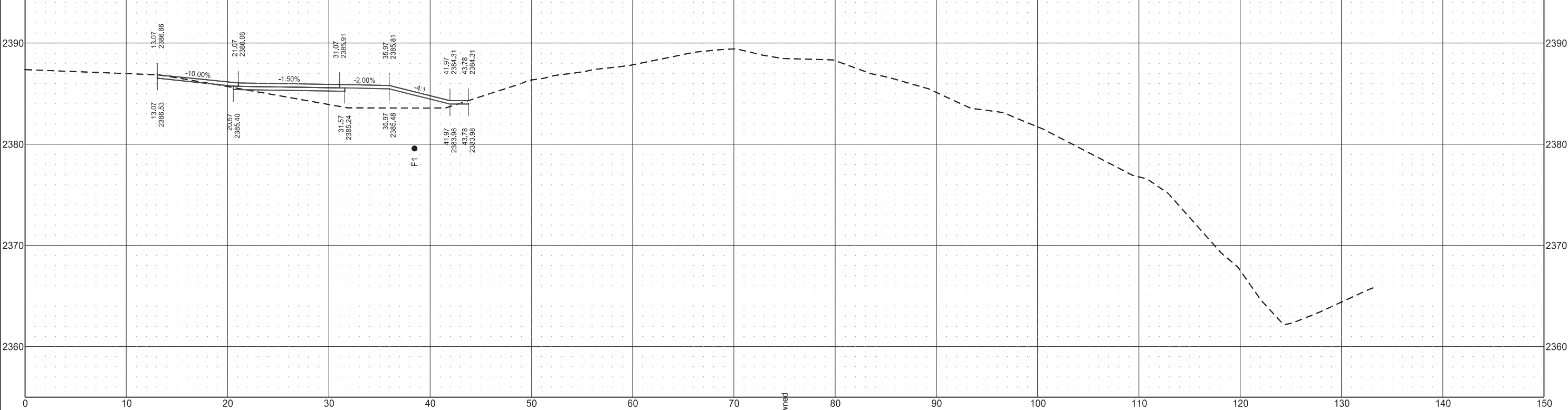
ND

TAC-0434(059)

200

45

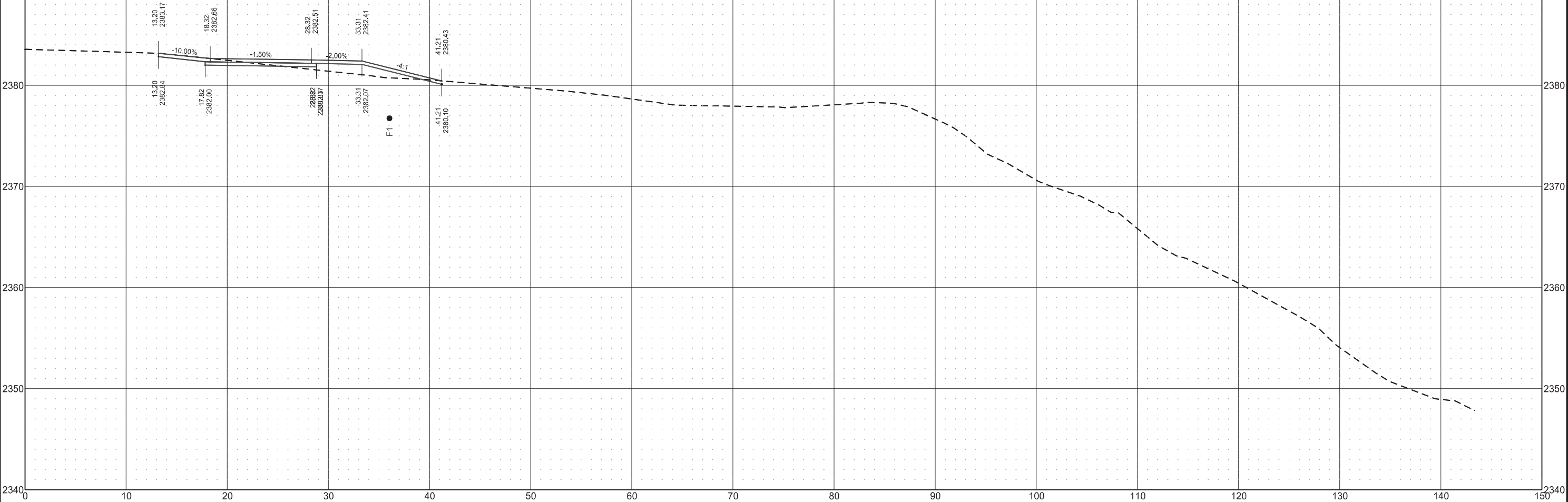
Sta 78+00.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	46

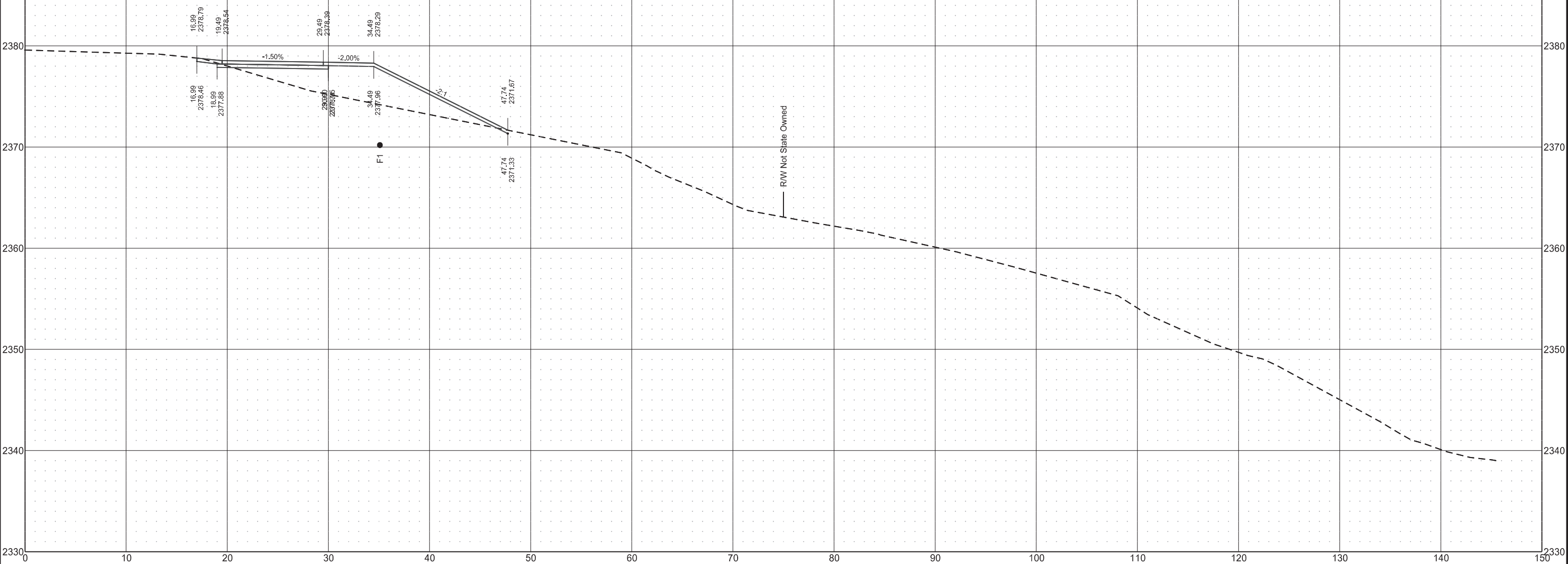
Sta 78+50.00



East River Road
Shared Use Path

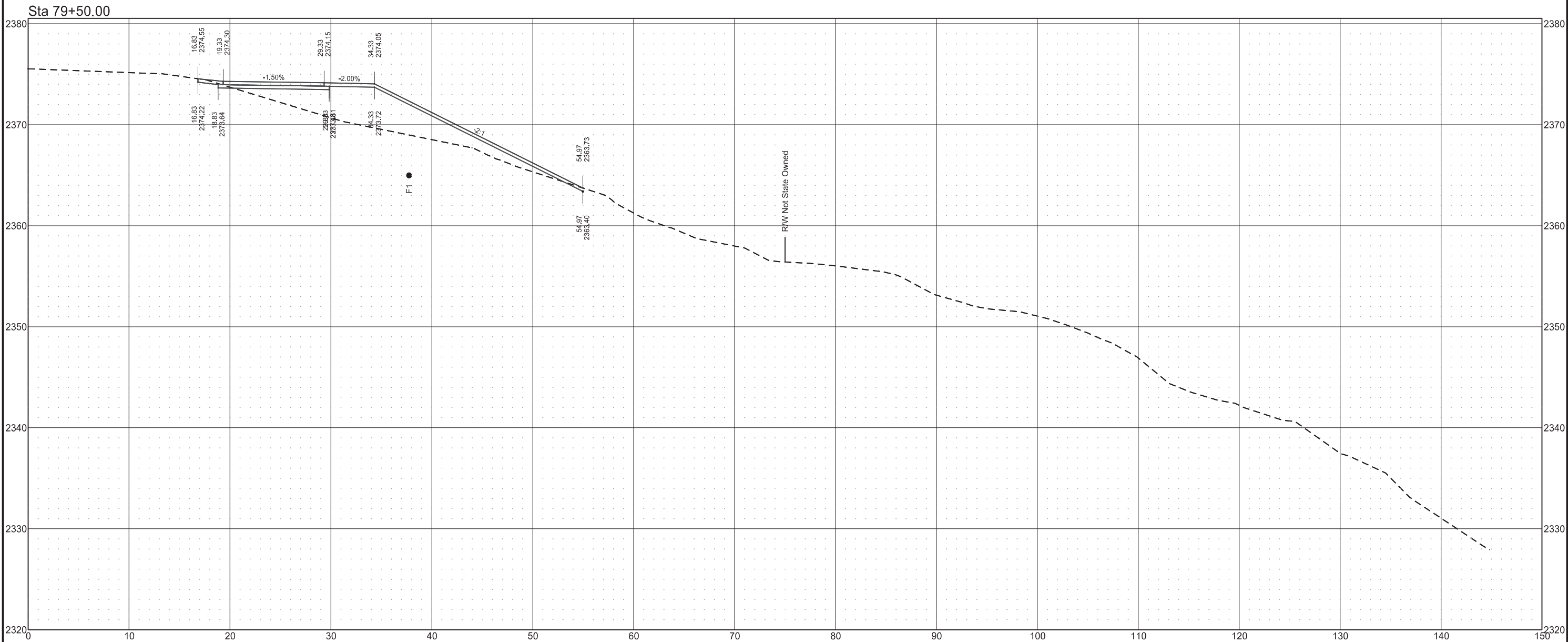
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	47

Sta 79+00.00



East River Road
Shared Use Path

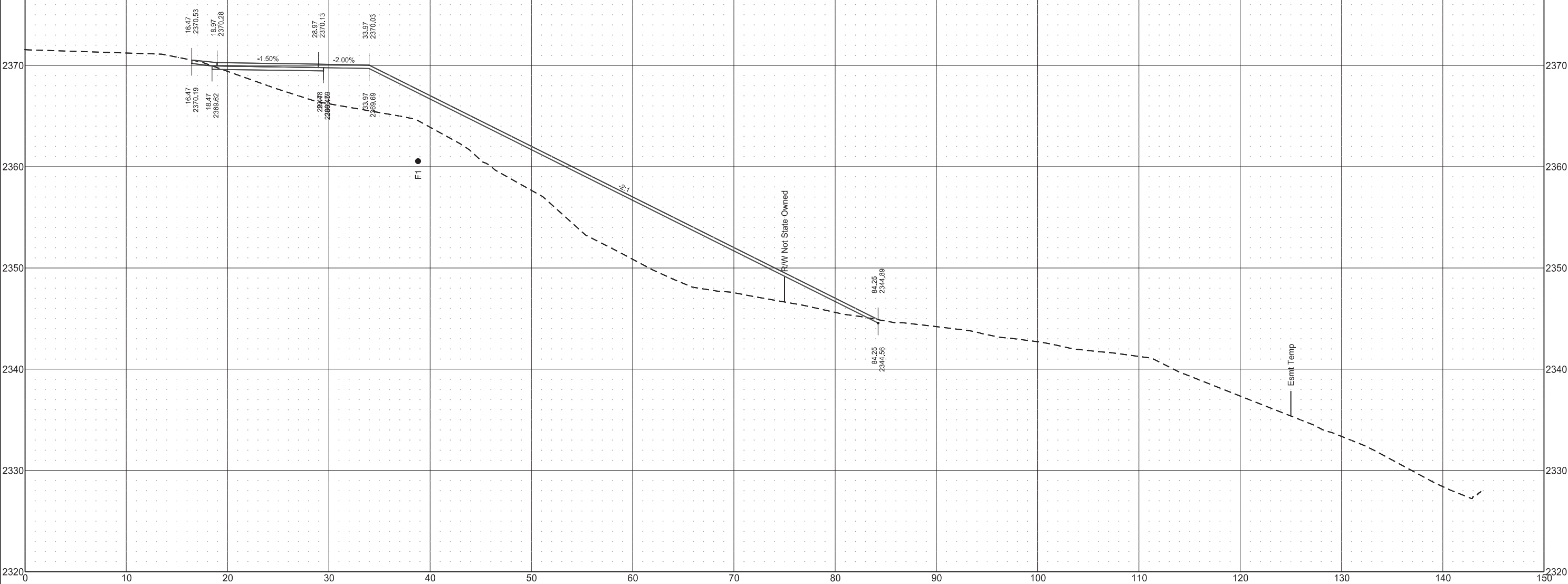
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	48



East River Road
Shared Use Path

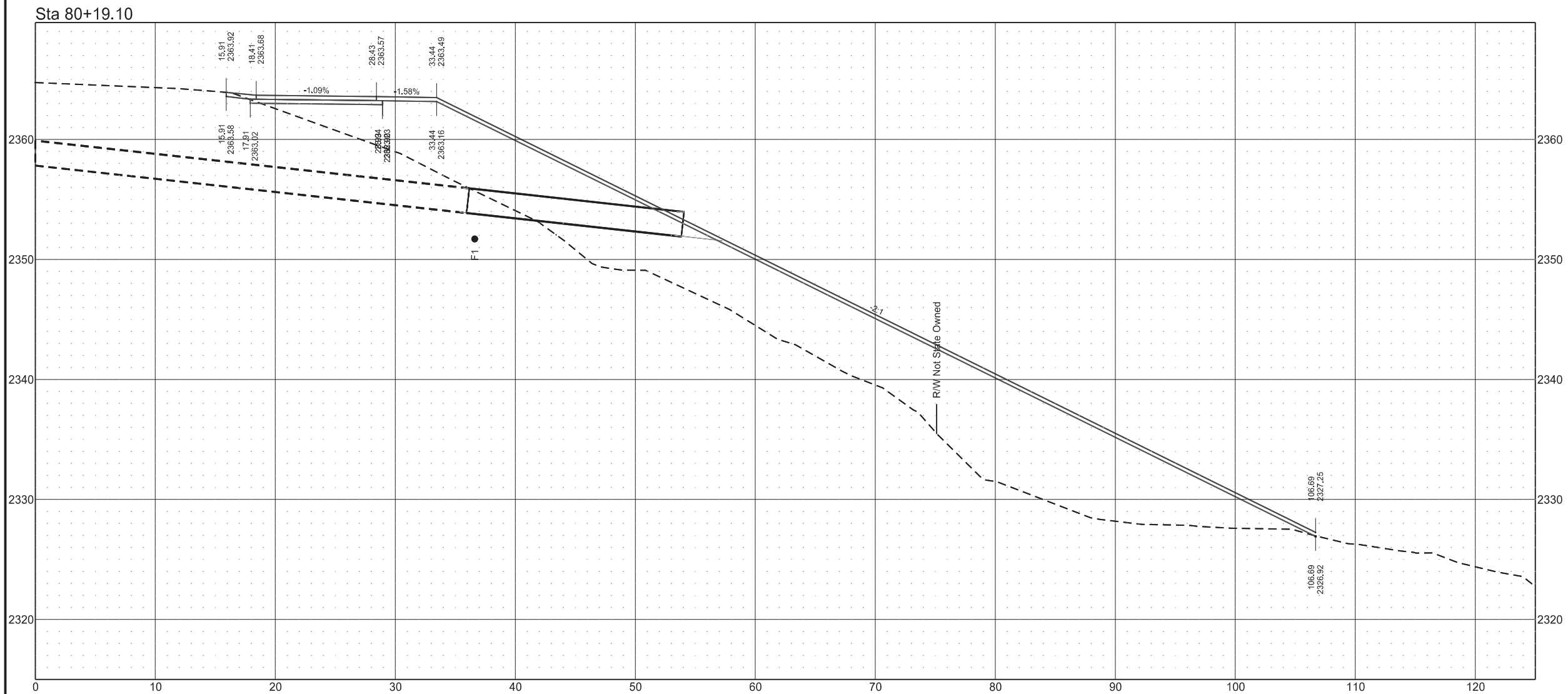
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	49

Sta 80+00.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	50



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

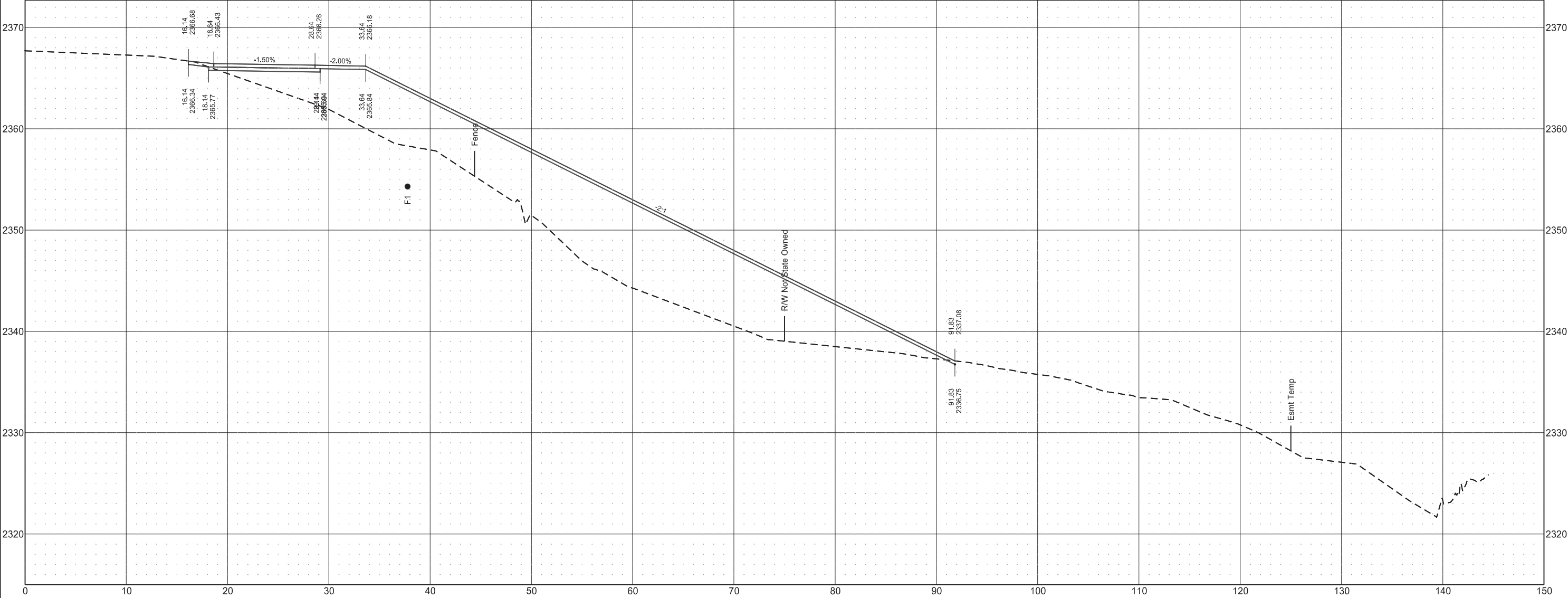
ND

TAC-0434(059)

200

51

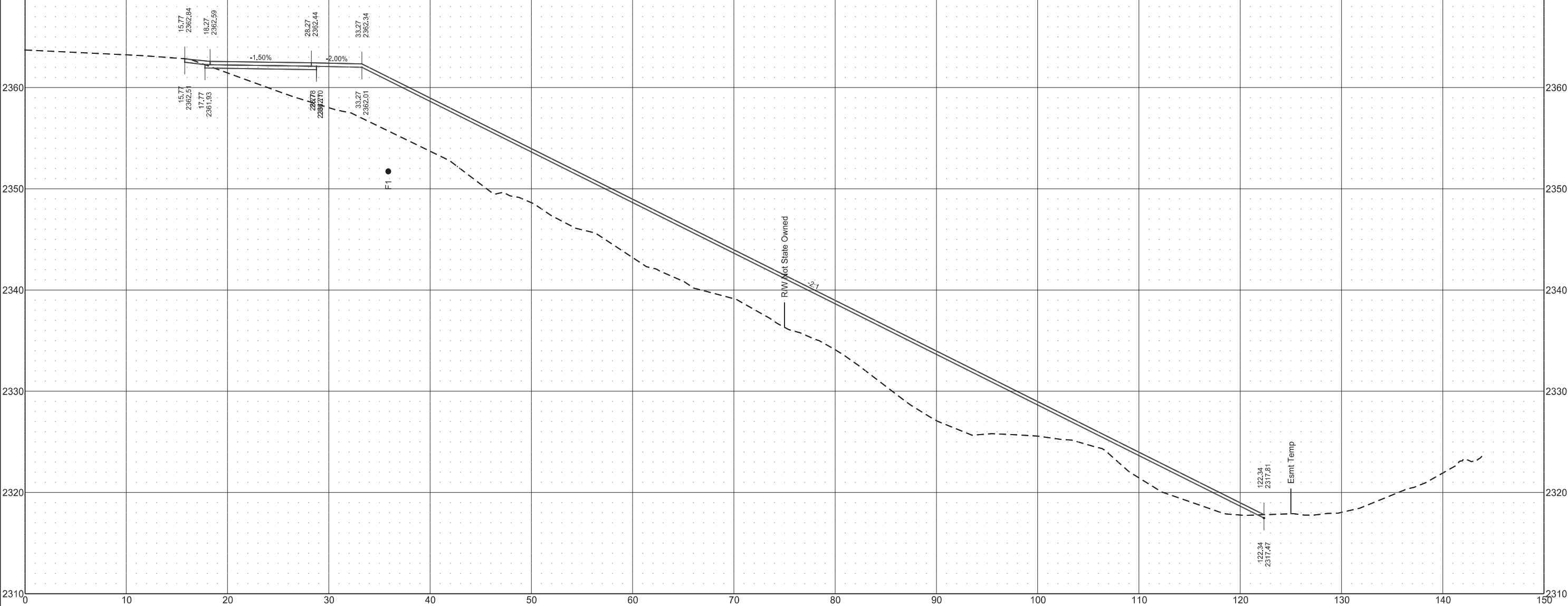
Sta 80+50.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	52

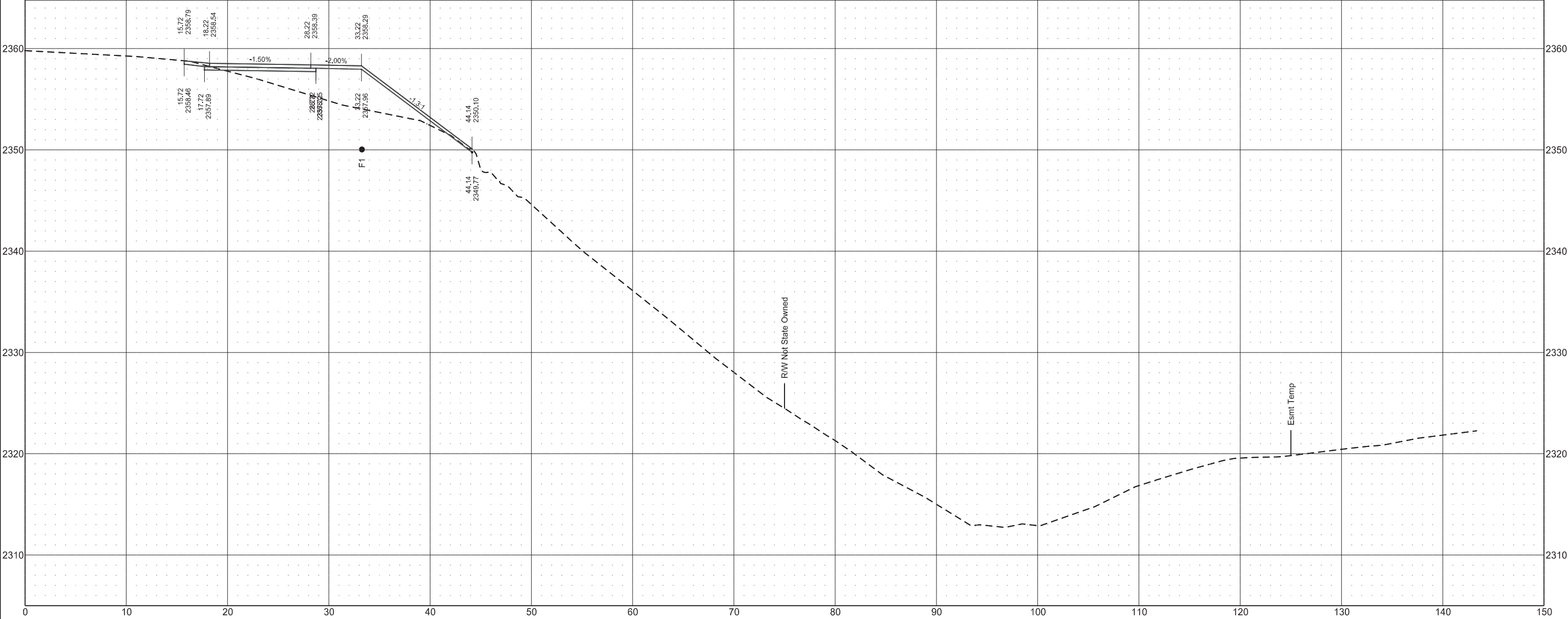
Sta 81+00.00



East River Road
Shared Use Path

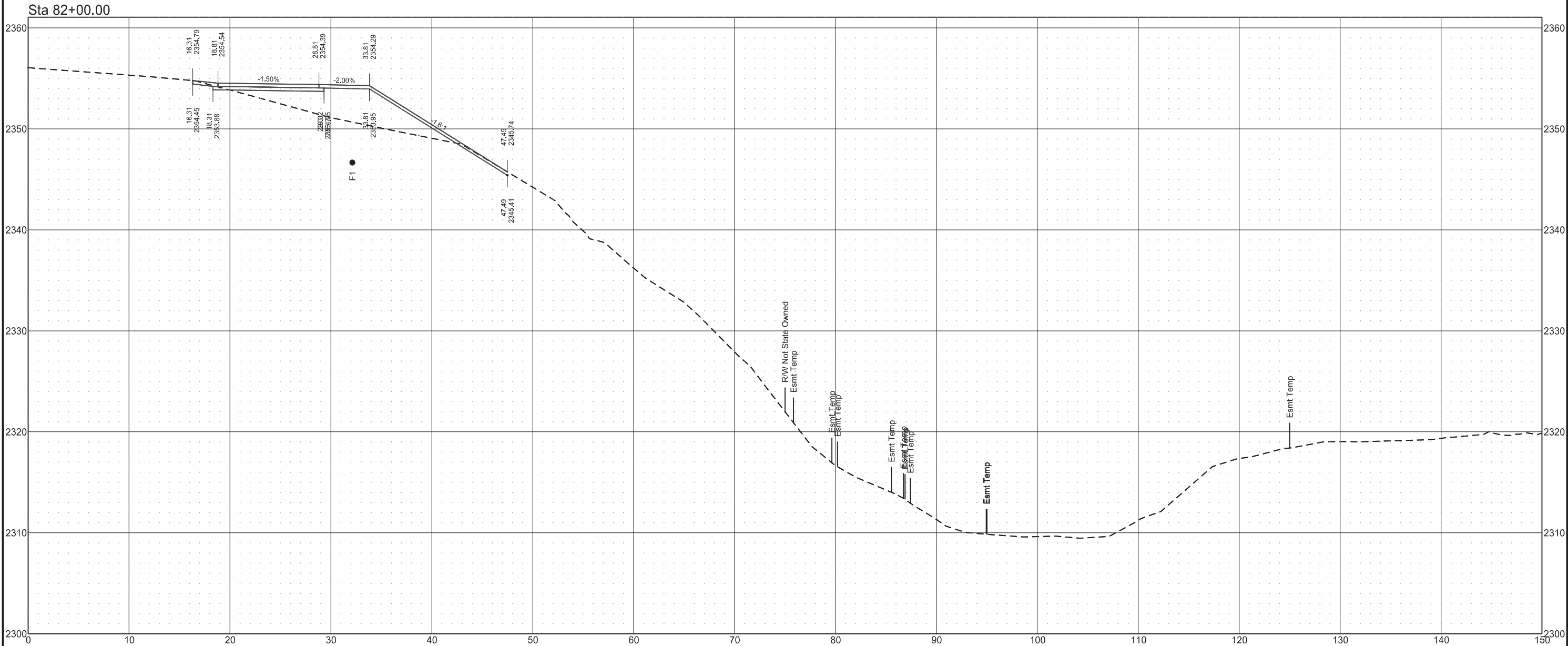
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	53

Sta 81+50.00



East River Road
Shared Use Path

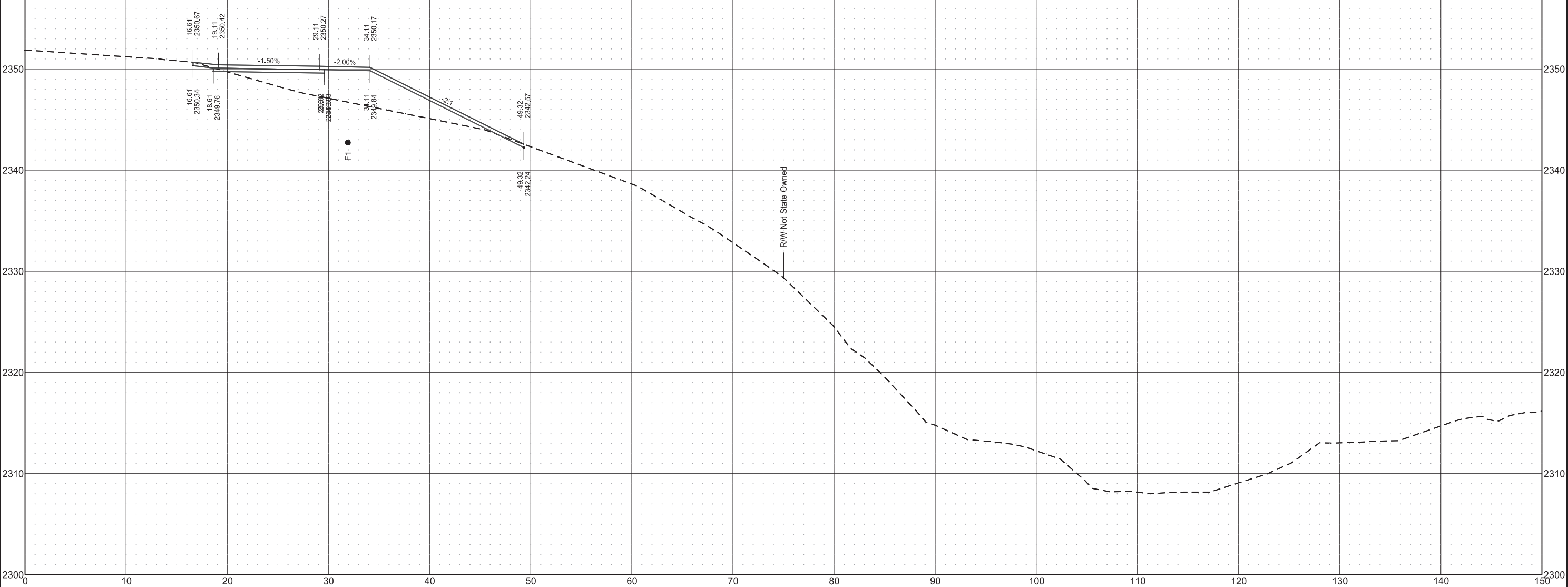
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	54



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	55

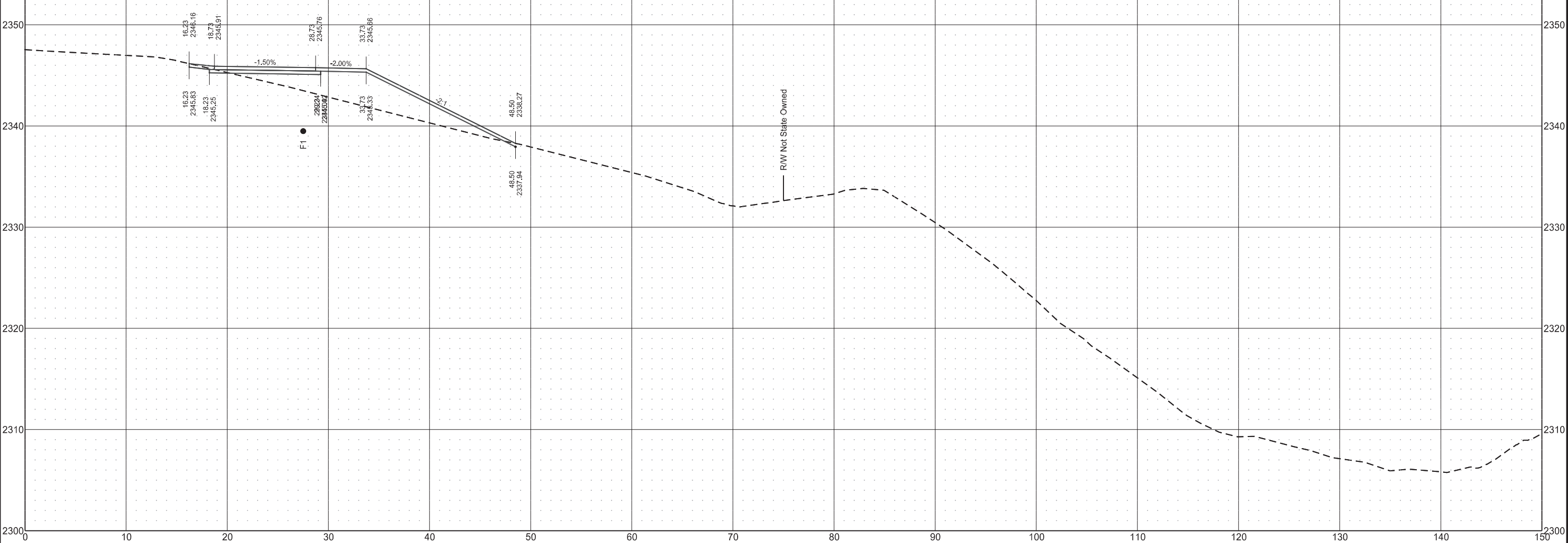
Sta 82+50.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	56

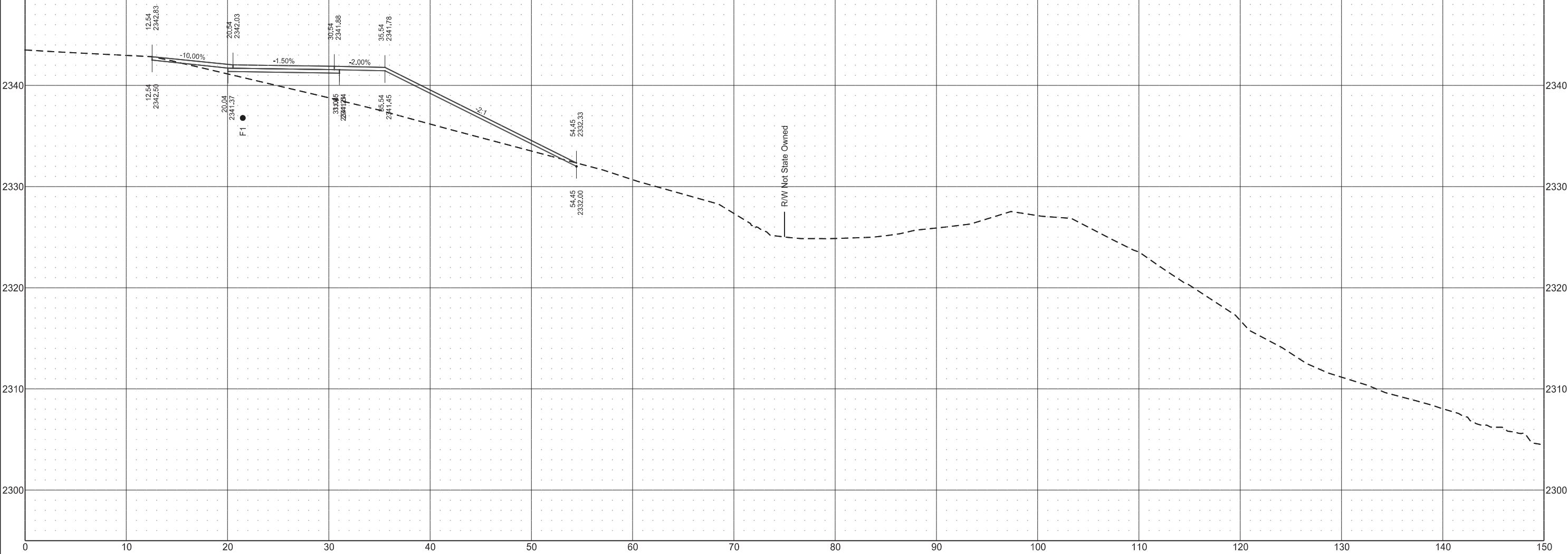
Sta 83+00.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	57

Sta 83+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

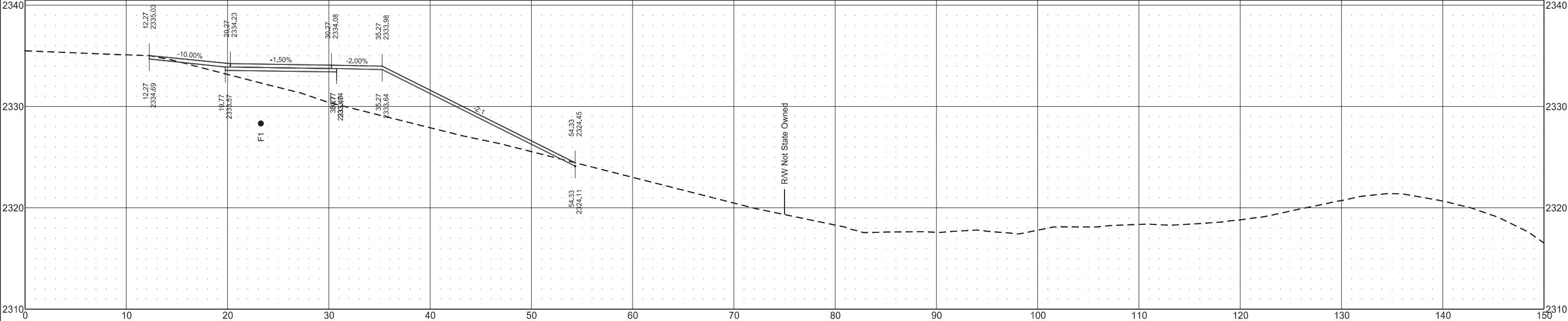
ND

TAC-0434(059)

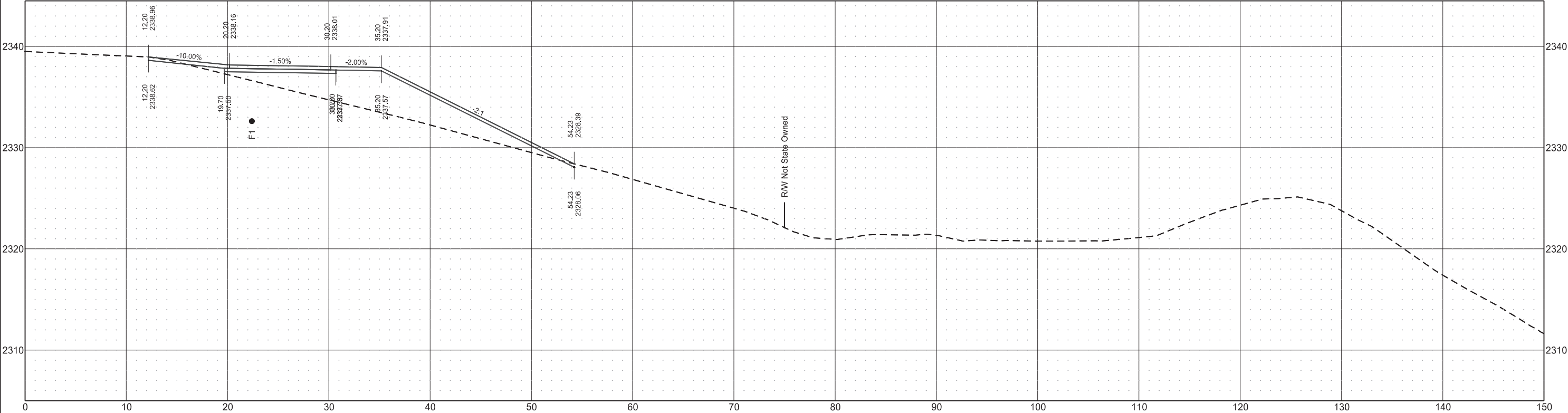
200

58

Sta 84+50.00



Sta 84+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

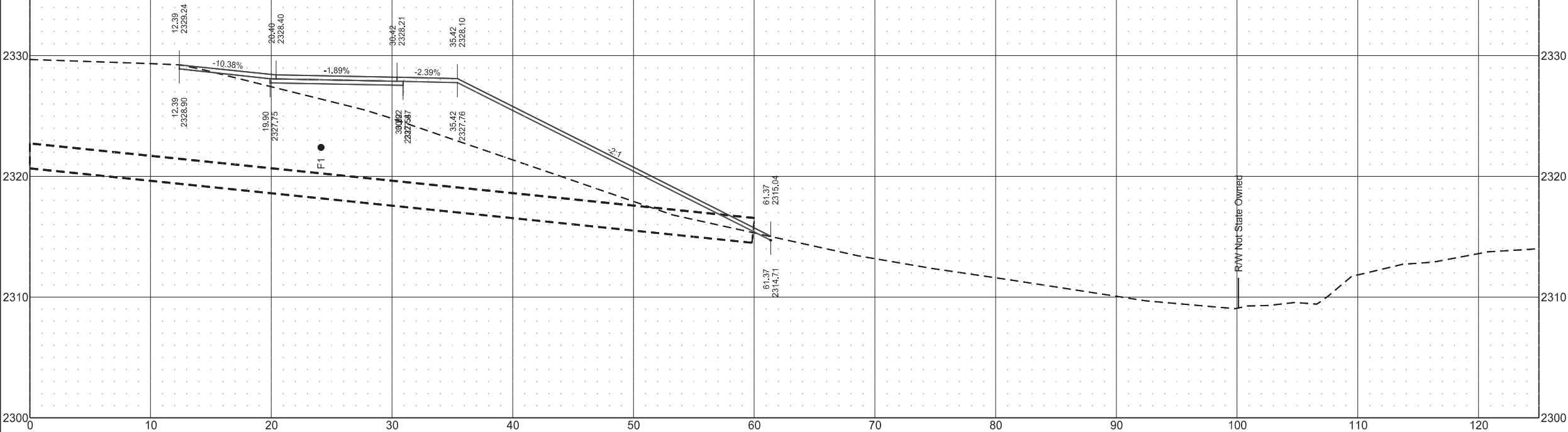
ND

TAC-0434(059)

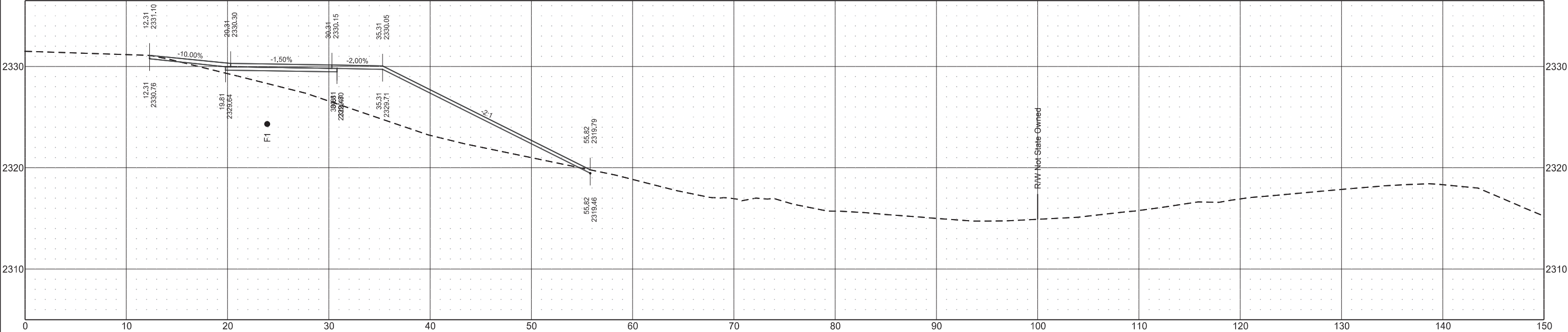
200

59

Sta 85+22.82



Sta 85+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

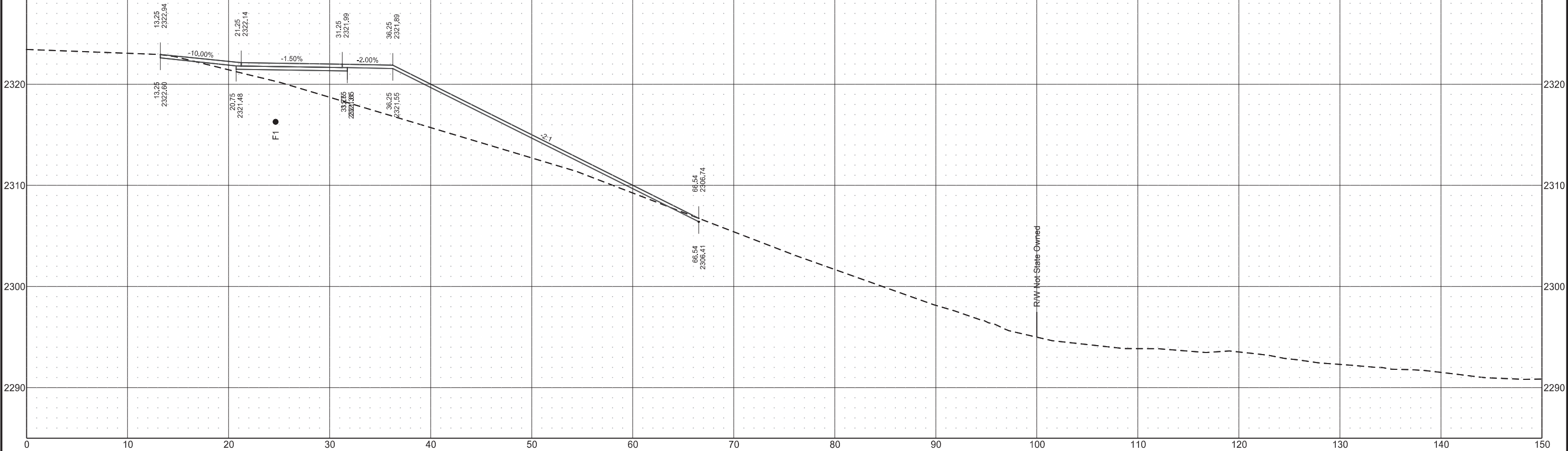
ND

TAC-0434(059)

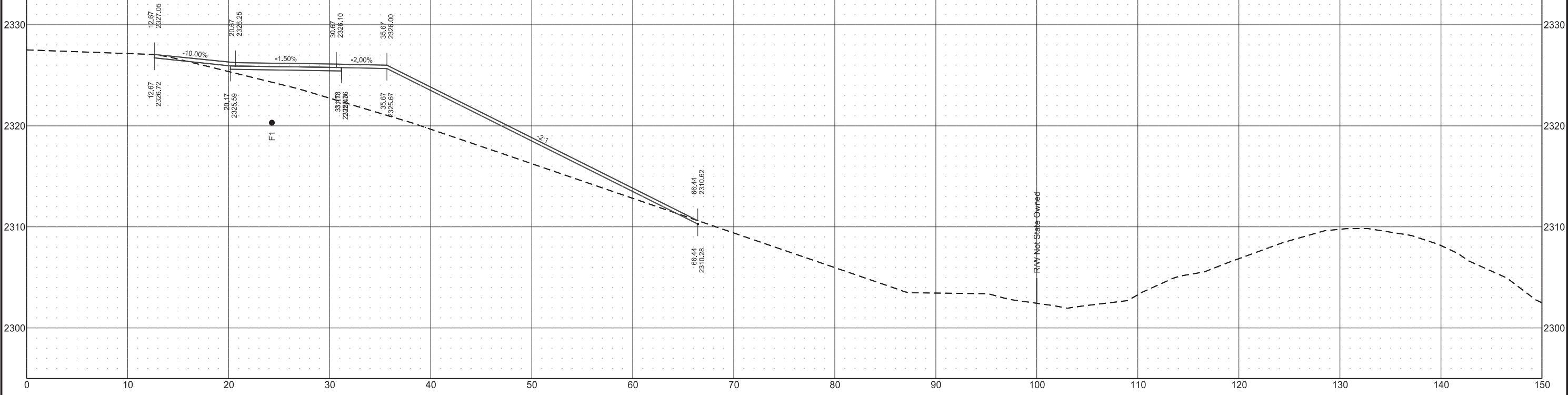
200

60

Sta 86+00.00



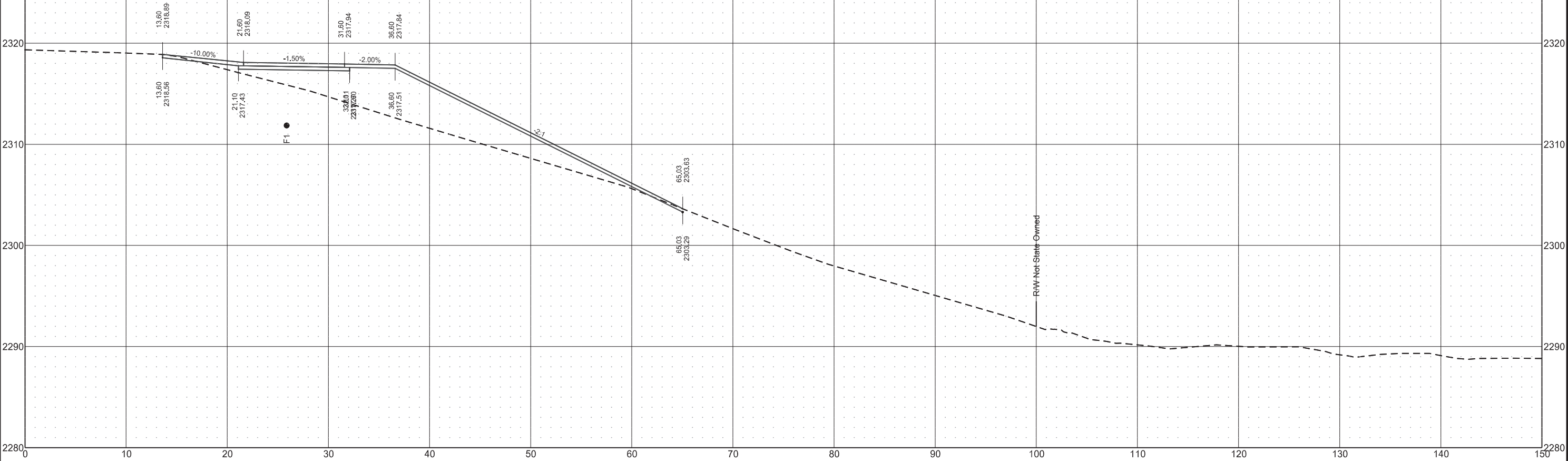
Sta 85+50.00



East River Road
Shared Use Path

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	TAC-0434(059)	200	61

Sta 86+50.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

ND

TAC-0434(059)

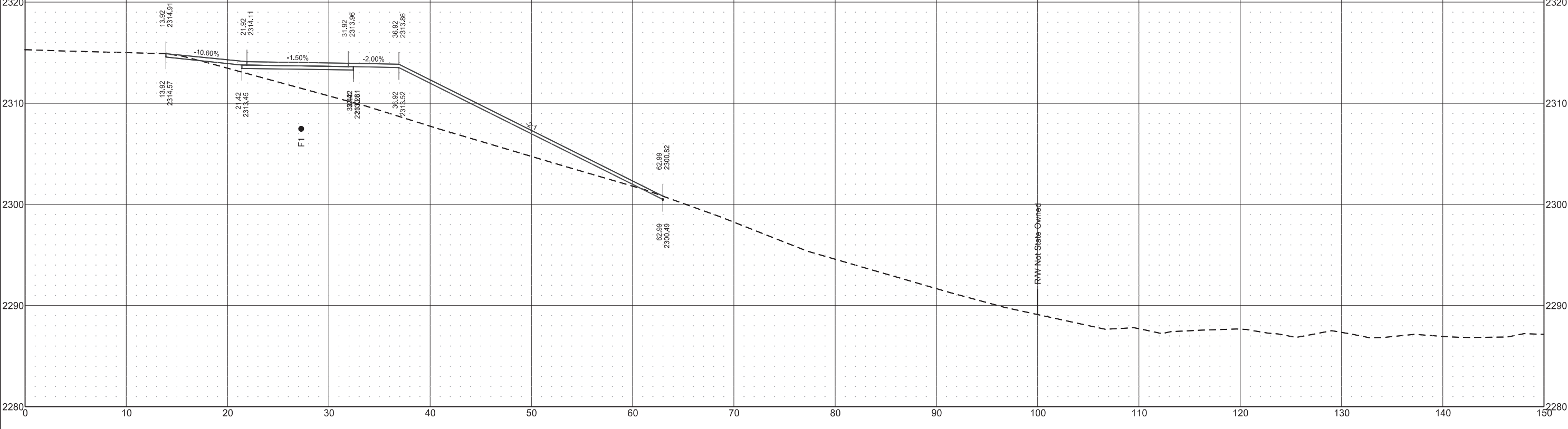
200

62

Sta 87+50.00



Sta 87+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

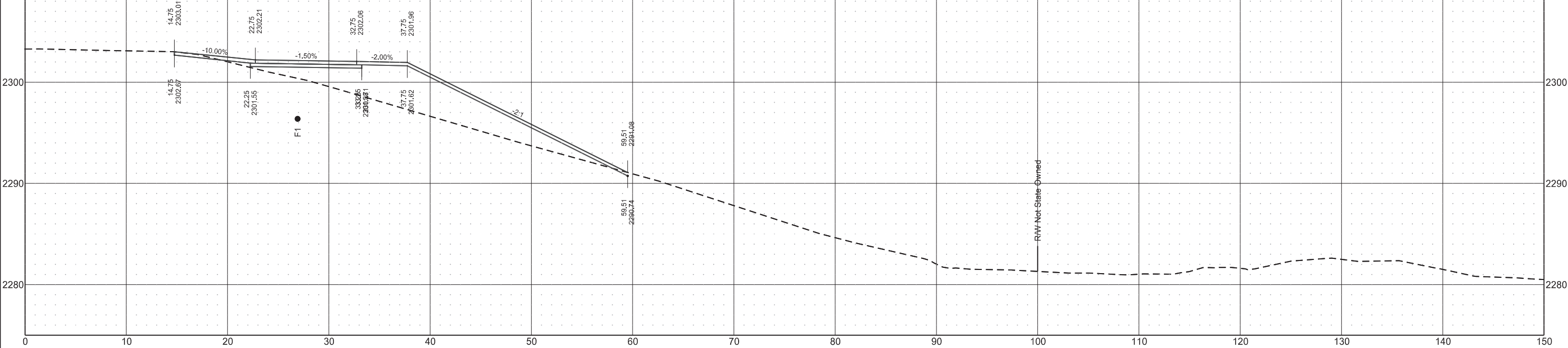
ND

TAC-0434(059)

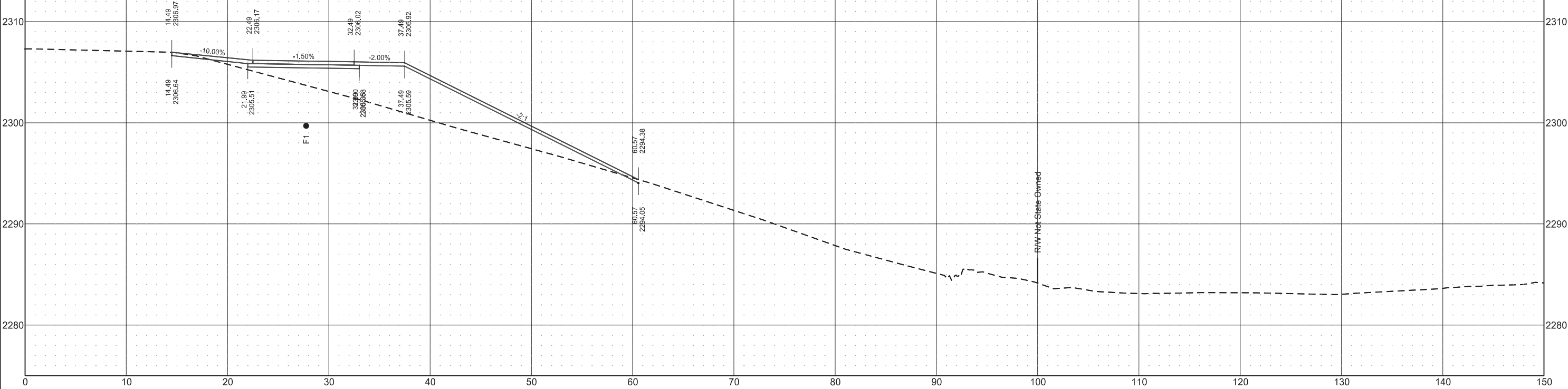
200

63

Sta 88+50.00



Sta 88+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

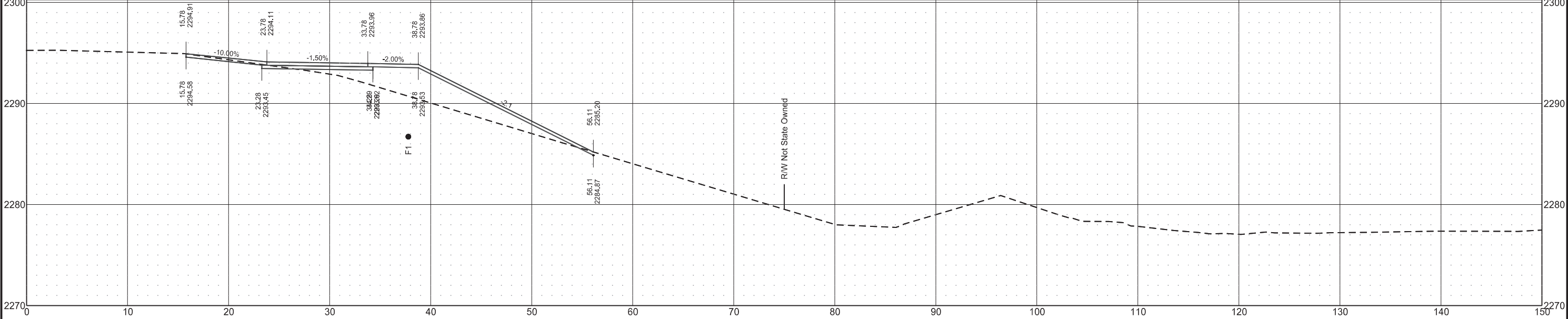
ND

TAC-0434(059)

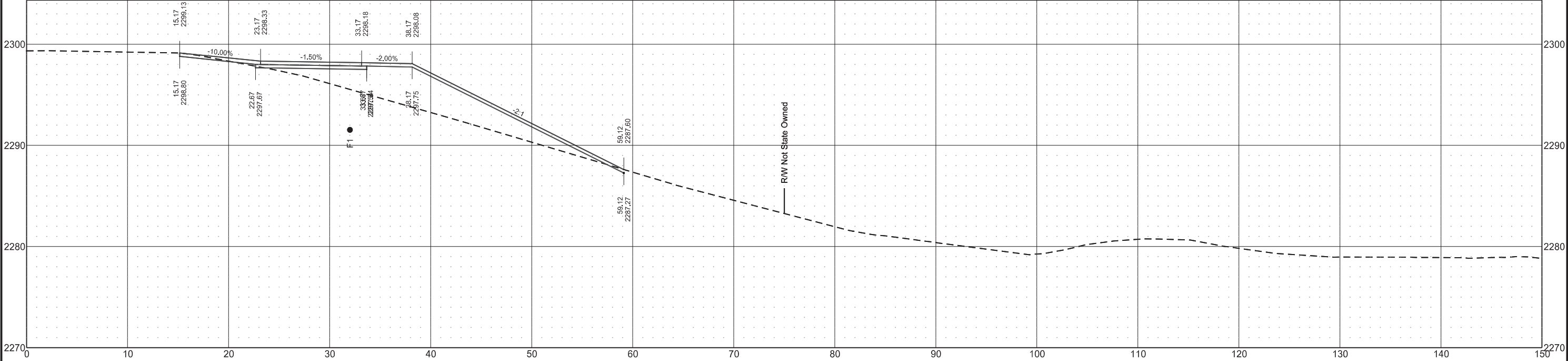
200

64

Sta 89+50.00



Sta 89+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION NO.

SHEET NO.

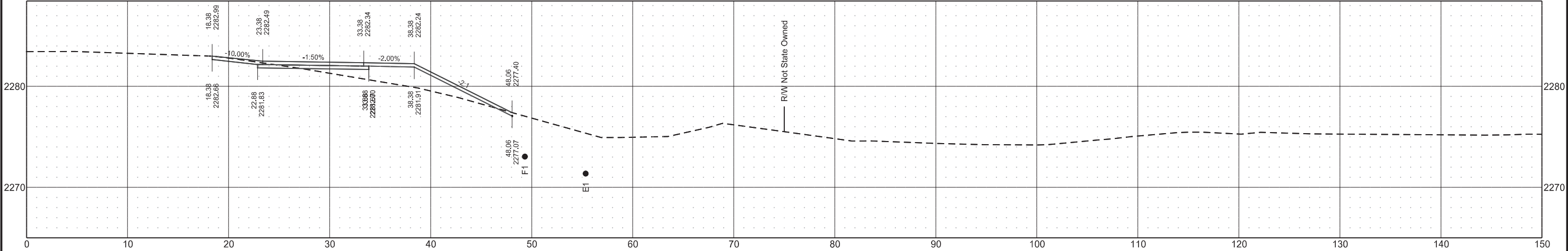
ND

TAC-0434(059)

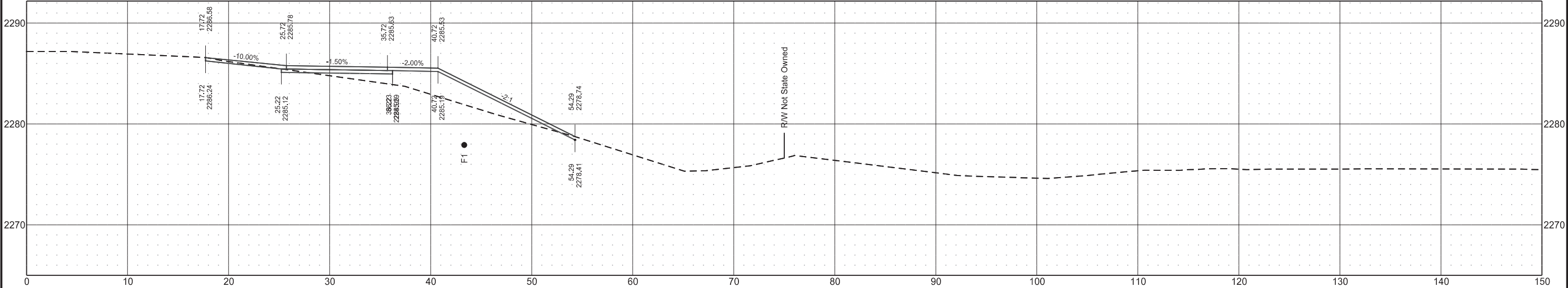
200

65

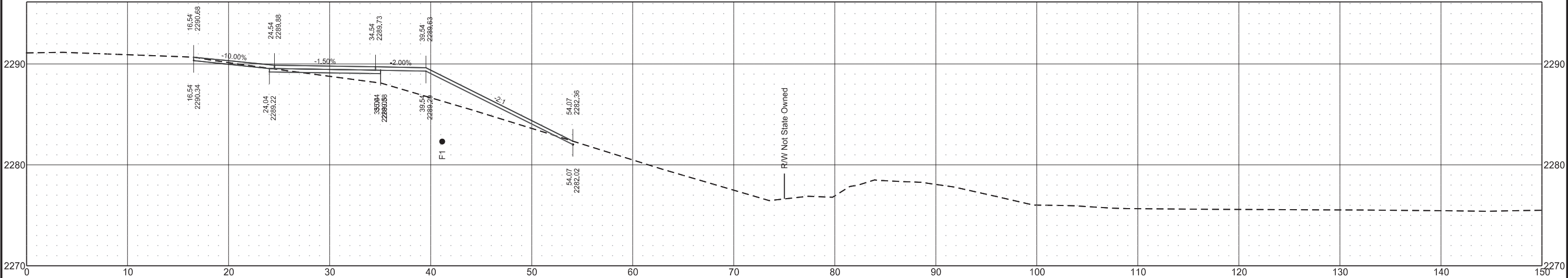
Sta 91+00.00



Sta 90+50.00



Sta 90+00.00



East River Road
Shared Use Path

STATE

PROJECT NO.

SECTION
NO.

SHEET
NO.

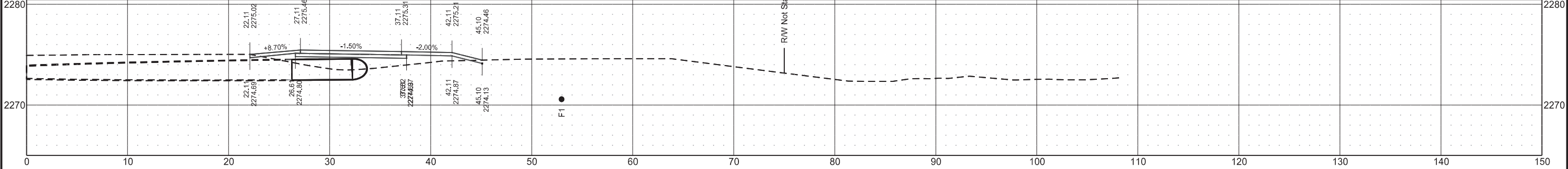
ND

TAC-0434(059)

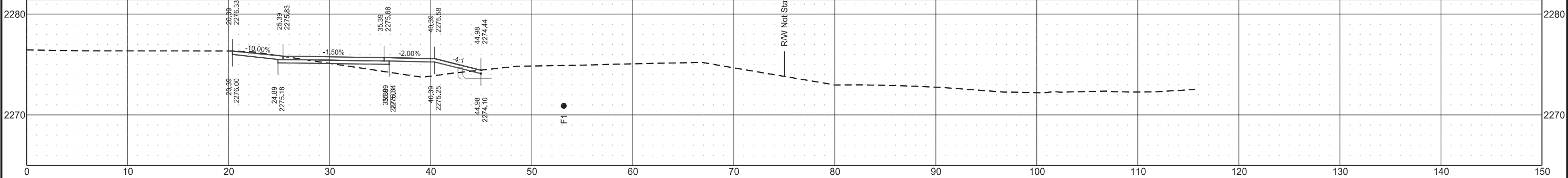
200

66

Sta 92+23.38



Sta 92+00.00



Sta 91+50.00

