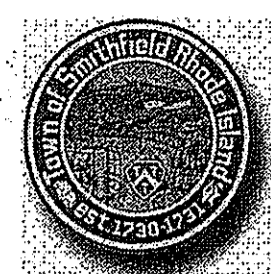


INDEX

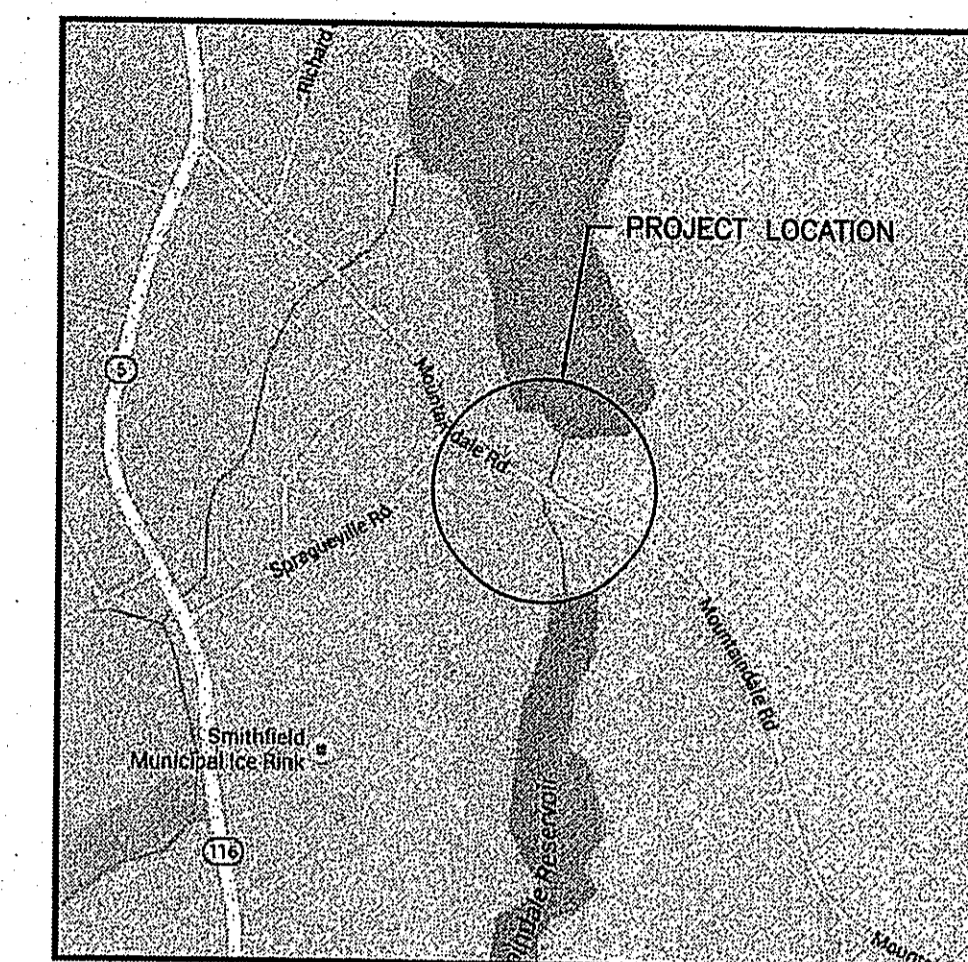
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	STANDARD PLAN SYMBOLS & STANDARD LEGEND
3	STANDARD NOTES
4	TYPICAL ROADWAY SECTIONS
5	GENERAL ROADWAY PLAN
6	ROADWAY PROFILE
7	GENERAL BRIDGE PLAN AND ELEVATION
8-9	CROSS SECTIONS
10	EROSION AND SEDIMENTATION CONTROL PLAN
11	WATER HANDLING PLAN & SUGGESTED SEQUENCE

TOWN OF SMITHFIELD



DEPARTMENT OF PUBLIC WORKS
 PLAN, PROFILE AND SECTIONS OF PROPOSED
 BRIDGE REPLACEMENT
 MOUNTAINDALE RD. BRIDGE NO.113601

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
-	RI	-	2015	1	11



LOCATION MAP
NOT TO SCALE

PAVEMENT STRUCTURES

- 3" MODIFIED CLASS 9.5 HMA FOR BRIDGE DECKS
 - 2" BITUMINOUS PAVEMENT BY MICRO MILLING AND APPLY ASPHALT
 - 2" MODIFIED CLASS 12.5 HMA SURFACE COURSE
 - 1.5" CLASS 12.5-12.5 HMA SURFACE COURSE
 - 2.5" CLASS 19 HMA BASE COURSE
 - 12" GRAVEL BORROW SUBBASE COURSE
- (PAVING TO BE COMPLETED BY THE TOWN OF SMITHFIELD.)

PROJECT LIMITS

STATION: 01+50 TO 04+75
 TOWN OF SMITHFIELD
 COUNTY OF PROVIDENCE
 PROJECT LENGTH 0.06 MILES

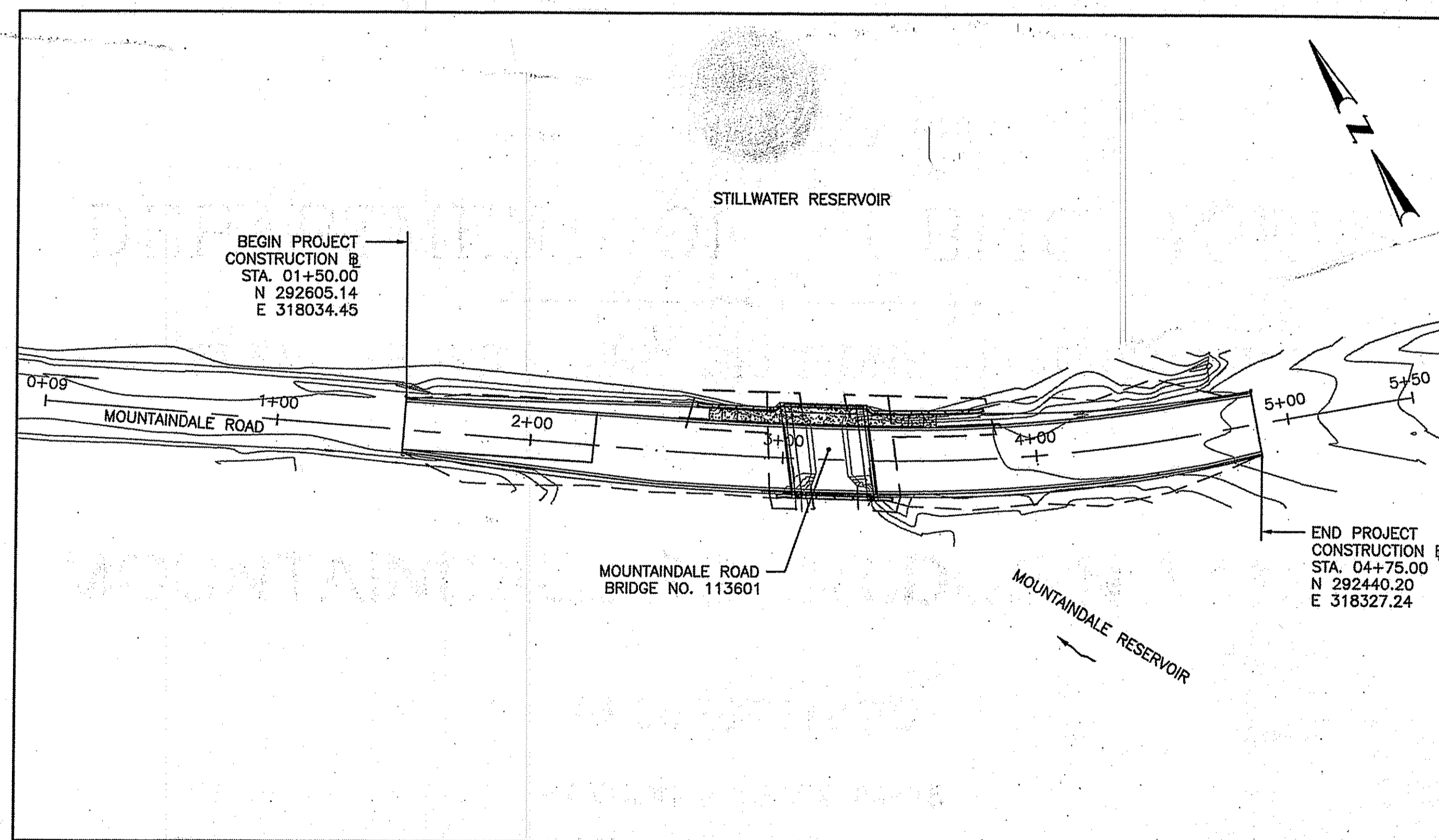
DESIGN DESIGNATION

AADT 4000 V.P.D. (2013)
 DESIGN SPEED 30 M.P.H.

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013, AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE UPDATED JULY 21 2015 BRIDGE DESIGN.



LAYOUT PLAN
SCALE: 1"=40'

SCALES OF DRAWINGS

Plans	1 inch = 20 feet
Profiles	1 inch = 20 feet Horizontal
Profiles	1 inch = 4 feet Vertical
Cross Sections	1 inch = 4 feet Horizontal
Cross Sections	1 inch = 4 feet Vertical

BASE OF LEVELS
 VERTICAL DATUM: NAVD 88
 HORIZONTAL DATUM: NAD 83

DEC 16 2016

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 23 2016 FILE # 16-0087
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

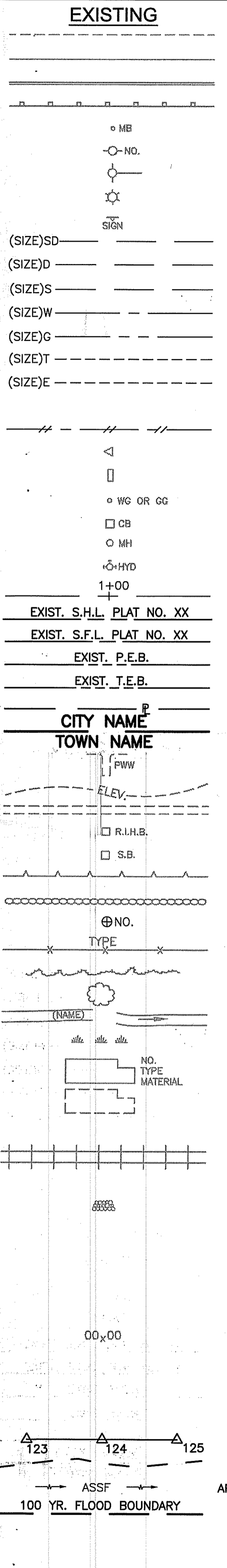
ROHIT PRADHAN
 No. 11418
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL

PLANS FOR ENVIRONMENTAL PERMIT

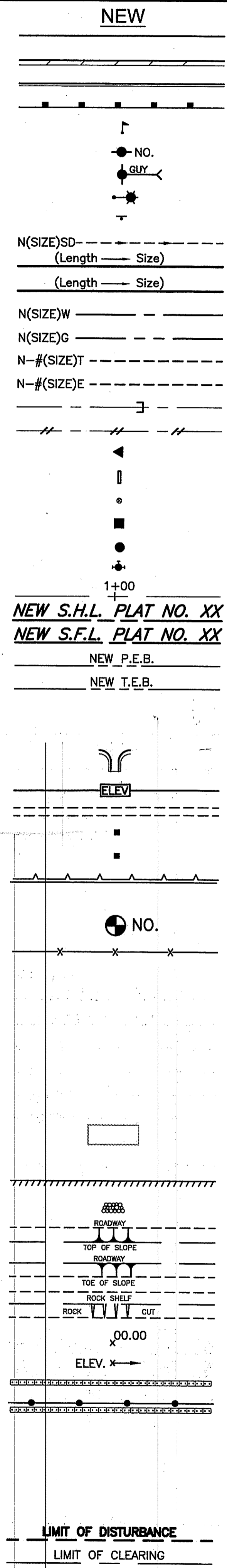


83 Sookenosset Cross Rd, Unit 4C
 Cranston, RI 02920
 401-970-5401 phone
 401-270-5403 fax
 www.aionline.com

Contract Number _____
 Number of Sheet 1
 Total Sheets 11



- EXISTING**
- EDGE OF PAVEMENT
 - BERM
 - CURB
 - GUARDRAIL
 - MAILBOX
 - UTILITY POLE
 - POLE GUY
 - LUMINARE
 - SIGN
 - SUBDRAIN
 - STORMDRAIN
 - SANITARY SEWER
 - WATER MAIN
 - GAS MAIN
 - TELEPHONE DUCT
 - ELECTRIC DUCT
 - PLUG AND CAP PIPE
 - ABANDONED UTILITY
 - FLARED END SECTION
 - HEADWALL
 - WATER OR GAS GATE
 - CATCH BASIN
 - MANHOLE
 - HYDRANT
 - BASELINE OR CENTERLINE
 - STATE HIGHWAY LINE
 - STATE FREEWAY LINE
 - PERMANENT EASEMENT LINE
 - TEMPORARY EASEMENT LINE
 - PROPERTY LINE
 - CITY OR TOWN LINE
 - PAVED WATERWAY
 - CONTOUR LINE
 - OPEN DITCH
 - R.I. HIGHWAY BOUND
 - STONE BOUND
 - RETAINING WALL
 - FIELD STONE WALL
 - BORINGS
 - FENCE
 - WOOD OR BRUSH LINE
 - TREES
 - RIVER OR STREAM
 - WETLAND AREA
 - BUILDING
 - FOUNDATION
 - BUILDING TO BE REMOVED
 - RAILROAD TRACKS
 - CUT AND MATCH
 - RIP-RAP
 - CUT SLOPE
 - FILL SLOPE
 - ROCK CUT
 - SPOT GRADE
 - AREA GRADED TO DRAIN
 - BALED HAY RI STD 9.1.0
 - BALED HAY & SILT FENCE RI STD. 9.3.0
 - EDGE OF WETLAND
 - WETLAND PERIMETER
 - AREA SUBJECT TO STORM FLOW
 - 100-YEAR FLOOD PLAIN
 - LIMIT OF DISTURBANCE
 - LIMIT OF CLEARING



- NEW**
- 1.1.0 UNDERDRAIN
 - 1.3.0 CONCRETE CONNECTING COLLAR
 - 2.1.0 CONCRETE HEADWALLS FOR PIPE CULVERTS
 - 2.2.0 STANDARD HEADWALLS FOR MULTIPLE 3'-6" TO 7'-0" PIPE CULVERTS
 - 2.3.0 (DIA.) PRECAST CONCRETE FLARED END SECTION
 - 3.2.0 BRICK/SOLID BLOCK 4'-0" ROUND MANHOLE
 - 3.2.1 (DIA.) BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE
 - 3.3.0 BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN
 - 3.3.2 BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN
 - 3.3.3 SOLID BLOCK FLUSH SQUARE CATCH BASIN
 - 3.4.0 BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN
 - 3.4.1 BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET
 - 3.4.2 BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN
 - 3.4.3 BRICK/SOLID BLOCK TYPE "R" CATCH BASIN
 - 3.4.4 SOLID BLOCK FLUSH ROUND CATCH BASIN
 - 3.4.5 (DIA.) BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND CATCH BASIN
 - 3.5.0 SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN
 - 3.5.1 (SIZE) SOLID BLOCK SHALLOW 5'-0" OR 6'-0" SQUARE CATCH BASIN
 - 3.6.0 BRICK/SOLID BLOCK DROP INLET
 - 3.7.0 (DIA.) BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'-0"
 - 4.2.0 PRECAST 4'-0" ROUND MANHOLE
 - 4.2.1 PRECAST 5'-0" ROUND MANHOLE
 - 4.2.2 PRECAST 6'-0" ROUND MANHOLE
 - 4.3.0 (SIZE) PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN
 - 4.4.0 (DIA.) PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
 - 4.5.0 PRECAST CONCRETE DROP INLET
 - 4.5.1 PRECAST CONCRETE DROP INLET LATERAL OUTLET
 - 4.5.2 PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET
 - 5.3.0 CATCH BASIN AND MANHOLE STEP
 - 5.4.0 CONCRETE COLLARS
 - 6.1.0 LIGHT-DUTY SQUARE FRAME AND ROUND COVER
 - 6.1.1 HEAVY DUTY SQUARE FRAME AND ROUND COVER
 - 6.2.0 LIGHT-DUTY ROUND FRAME AND COVER
 - 6.2.1 HEAVY-DUTY ROUND FRAME AND COVER
 - 6.3.0 SQUARE FRAME AND GRATE
 - 6.3.1 SQUARE FRAME AND GRATE
 - 6.3.2 SQUARE FRAME AND GRATE (BICYCLE SAFE)
 - 6.3.3 HIGH CAPACITY FRAME AND GRATE
 - 6.3.4 HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
 - 6.4.0 ROUND FRAME AND GRATE
 - 7.1.0S PRECAST CONCRETE CURB (STRAIGHT)
 - 7.1.0C PRECAST CONCRETE CURB (CIRCULAR)
 - 7.1.1 3'-0" PRECAST CONCRETE TRANSITION CURB
 - 7.1.2 6'-0" PRECAST CONCRETE TRANSITION CURB
 - 7.1.4 PRECAST 2'-0" RADIUS CORNER
 - 7.1.5 PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)
 - 7.1.6 PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)
 - 7.1.7 PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)
 - 7.1.8 PRECAST CONCRETE APRON STONE (FOR ROUND CATCH BASIN)
 - 7.2.0S PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)
 - 7.2.0C PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)
 - 7.2.1 PRECAST CONCRETE SLOPED FACE TRANSITION CURB
 - 7.2.2 PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SLOPED FACE)
 - 7.3.0S GRANITE CURB (STRAIGHT)
 - 7.3.0C GRANITE CURB (CIRCULAR)
 - 7.3.1 3'-0" GRANITE TRANSITION CURB
 - 7.3.2 6'-0" GRANITE TRANSITION CURB
 - 7.3.3 GRANITE WHEELCHAIR RAMP TRANSITION CURB
 - 7.3.4 GRANITE 2'-0" RADIUS CORNER
 - 7.3.5 GRANITE INLET STONE (FOR SQUARE CATCH BASIN)
 - 7.3.6 GRANITE INLET STONE (FOR ROUND CATCH BASIN)
 - 7.3.7 GRANITE APRON STONE (FOR SQUARE CATCH BASIN)
 - 7.3.8 GRANITE APRON STONE (FOR ROUND CATCH BASIN)
 - 7.4.0 GRANITE SLOPED FACE CURB
 - 7.4.1 GRANITE SLOPED FACE TRANSITION CURB
 - 7.4.2 GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)
 - 7.5.0 BITUMINOUS CONCRETE LIP CURB
 - 7.5.1A BITUMINOUS BERM (CONSTRUCTION METHOD A)
 - 7.5.1B BITUMINOUS BERM (CONSTRUCTION METHOD B)
 - 7.6.0 CURB SETTING DETAIL
 - 8.2.0 BITUMINOUS CONCRETE DITCH
 - 8.3.0 RIP-RAP DITCH
 - 8.4.0 PAVED WATERWAY
 - 9.1.0 BALED HAY EROSION CHECK
 - 9.2.0 SILT FENCE DETAIL
 - 9.3.0 BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED
 - 9.4.0 BALED HAY DITCH AND SWALE EROSION CHECK
 - 9.5.0 LOG AND HAY CHECK DAM
 - 9.7.0 DEWATERING BASIN
 - 9.8.0 BALED HAY CATCH BASIN INLET PROTECTION
 - 9.9.0 CONSTRUCTION ACCESS
 - 10.1.0 WET STONE MASONRY RETAINING WALL
 - 10.2.0 RUBBLE MASONRY WALL
 - 10.3.0 CONCRETE RETAINING WALL
 - 10.4.0 STONE MASONRY STEPS
 - 14.1.0 CONCRETE HIGHWAY BOUND
 - 15.1.0 POST AND MOUNTINGS FOR RURAL MAILBOX
 - 15.2.0 (NO.) POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES
 - 18.2.0 PRECAST TYPE "A" HANDHOLE
 - 18.2.2 HEAVY DUTY TYPE "H" HANDHOLE
 - 18.3.0 ALUMINUM LIGHTING STANDARDS
 - 20.2.0 BI-DIRECTIONAL CONTROL DEVICE
 - 24.6.1 STREET SIGN MOUNTING DETAIL
 - 26.2.0 POLYETHYLENE DRUM WITH MARKINGS
 - 26.3.0 PVC PLASTIC PIPE TYPE III BARRICADE
 - 31.1.0 CHAIN LINK FENCE 3'-0" TO 4'-0"
 - 31.2.0 CHAIN LINK FENCE 5'-0" TO 6'-0"
 - 31.2.1 CHAIN LINK FENCE 5'-0" TO 6'-0" INTERMEDIATE POST
 - 31.3.0 WOVEN WIRE RIGHT-OF-WAY FENCE (STEEL POST)
 - 34.1.0 TYPICAL GUARDRAIL INSTALLATION
 - 34.2.0 STEEL BEAM GUARDRAIL
 - 34.2.1 STEEL BEAM GUARDRAIL DETAILS
 - 34.2.2 STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY
 - 34.2.3 STEEL BEAM GUARDRAIL FIXTURES
 - 34.2.5 STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR
 - 34.3.1 GUARDRAIL END SECTION
 - 34.3.2 TERMINAL END SECTION (SINGLE FACE)
 - 34.3.3 ANCHORAGE DETAILS APPROACH END SECTION
 - 34.3.4 ANCHORAGE DETAILS TRAILING END SECTION
 - 34.4.0 STEEL BACKED TIMBER GUARDRAIL
 - 34.4.1 STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION-TYPE 1
 - 40.1.0 DOUBLE-FACED PRECAST MEDIAN BARRIER
 - 40.2.0 SINGLE-FACED PRECAST MEDIAN BARRIER
 - 40.2.1 SINGLE-FACED PRECAST MEDIAN BARRIER
 - 40.3.0 PRECAST MEDIAN BARRIER TRANSITION UNIT
 - 40.5.0 PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL
 - 43.1.0 CEMENT CONCRETE SIDEWALK
 - 43.2.0 BITUMINOUS CONCRETE SIDEWALK
 - 43.3.0 WHEELCHAIR RAMP
 - 43.3.1 WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS
 - 43.4.0 DRIVEWAY DEVELOPMENT FOR 3'-0" TRANSITION CURB
 - 43.4.1 DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB
 - 43.5.0 CEMENT CONCRETE DRIVEWAYS
 - 48.1.0 DETECTABLE WARNING SYSTEM
 - 51.1.0 TREE PROTECTION DEVICE
 - 51.1.1 DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES
 - 51.2.0 SHRUB PROTECTION DEVICE
 - 51.3.0 TREE WELL
 - 51.4.0 TREE WALL

- AB ADJUST CATCH BASIN TO GRADE
- ABM ADJUST CATCH BASIN TO MANHOLE
- AC ADJUST CURB STOP TO GRADE
- AD ADJUST DRAINAGE MANHOLE TO GRADE
- AE ADJUST ELECTRIC MANHOLE TO GRADE
- AFC ADJUST FRAME AND COVER TO GRADE
- AFG ADJUST FRAME AND GRATE TO GRADE
- AG ADJUST GAS GATE BOX TO GRADE
- AHH ADJUST HANDHOLE TO GRADE
- AS ADJUST SANITARY SEWER MANHOLE TO GRADE
- AT ADJUST TELEPHONE MANHOLE TO GRADE
- AW ADJUST WATER GATE BOX TO GRADE
- BCD BITUMINOUS CONCRETE DRIVEWAY
- BPS BUILD NEW STRUCTURE OVER EXISTING PIPE
- CCB CLEAN CATCH BASIN
- CCP CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
- CFP CLEAN AND FLUSH PIPE
- CG CLEARING AND GRUBBING
- CMH CLEAN MANHOLE
- CP (DEPTH) COLD PLANE
- CPP CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
- DB REMOVE AND DISPOSE BITUMINOUS CURB
- DC REMOVE AND DISPOSE CONCRETE CURB
- DCB REMOVE AND DISPOSE CATCH BASIN
- DDI REMOVE AND DISPOSE DROP INLET
- DF REMOVE AND DISPOSE FENCE
- DFC REMOVE AND DISPOSE FRAME AND COVER
- DFE REMOVE AND DISPOSE FLARED END SECTION
- DFG REMOVE AND DISPOSE FRAME AND GRATE
- DFH REMOVE AND DISPOSE FIRE HYDRANT
- DFP REMOVE AND DISPOSE FLEXIBLE PAVEMENT
- DG REMOVE AND DISPOSE GUARDRAIL
- DH REMOVE AND DISPOSE HEADWALL
- DHB REMOVE AND DISPOSE HIGHWAY BOUND
- DHH REMOVE AND DISPOSE HANDHOLE
- DL REMOVE AND DISPOSE LIGHT AND FOUNDATION
- DMB REMOVE AND DISPOSE MEDIAN BARRIER
- DMH REMOVE AND DISPOSE MANHOLE
- DMM REMOVE AND DISPOSE MEDIAN MARKER
- DOW REMOVE AND DISPOSE OBSERVATION WELL
- DP REMOVE AND DISPOSE PIPE
- DPB REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
- DRB REMOVE AND DISPOSE RIGID BASE
- DS REMOVE AND DISPOSE SIGN
- DSS REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
- DSW REMOVE AND DISPOSE SIDEWALK
- DTD REMOVE AND DISPOSE TELEPHONE DUCT BANKS
- DUP REMOVE AND DISPOSE UTILITY POLE
- DWW REMOVE AND DISPOSE PAVED WATERWAY
- FF FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
- GET FLARED GUARDRAIL END TREATMENT
- IA IMPACT ATTENUATOR
- IDL IMPERVIOUS DITCH LINER
- LOD LIMIT OF DISTURBANCE
- LOR LIMIT OF REGRADING
- LS 4" LOAM AND SEED

- NFH NEW FIRE HYDRANT WITH GATE VALVE
- NIC NOT IN THIS CONSTRUCTION CONTRACT
- NWB FURNISH AND INSTALL NEW WATER GATE VALVE BOX
- NWVB FURNISH AND INSTALL NEW WATER GATE VALVE AND BOX
- NWCB FURNISH AND INSTALL NEW WATER CURB STOP BOX
- NWSB FURNISH AND INSTALL NEW WATER CURB STOP AND BOX
- PCD PERMANENT CHECK DAM
- PS 4" PLANTABLE SOIL AND SEED
- RCB RECONSTRUCT TYPE "D" CATCH BASIN, TO CATCH BASIN WITH GUTTER INLET
- RCM R.I.D.O.T. COMMUNICATIONS MANHOLE
- RHH REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR (ALL TYPES)
- RLP RELOCATE LAMP POST
- RMB RELOCATE MAILBOX (BY OTHERS)
- RPM REMOVE PAVEMENT MARKINGS
- RRP RIP-RAP PAD (SEE DETAIL)
- RRS REMOVE AND RELOCATE SIGN
- RUP RELOCATE UTILITY POLE (BY OTHERS)
- SB STONE BAFFLE
- SBAE STEEL BEAM BRIDGE CONNECTION APPROACH END (W/O NESTED RAIL)
- SBTE STEEL BEAM BRIDGE CONNECTION TRAILING END (W/NESTED RAIL)
- SD- STRUCTURAL DISPOSITION - SEE CS PAGES OF SPECIFICATION
- SF REMOVE AND STOCKPILE FENCE
- SGA SPECIAL GRADED AGGREGATE
- SGC REMOVE AND STOCKPILE GRANITE CURB
- SGR REMOVE AND STOCKPILE GUARDRAIL
- SH REMOVE AND STOCKPILE HYDRANT
- SS REMOVE AND STOCKPILE SIGN
- STS REMOVE AND STOCKPILE TRAFFIC SIGNAL SYSTEM
- TB CONCRETE THRUST BLOCK
- TEP TIE EXISTING PIPE INTO NEW STRUCTURE
- TNP TIE NEW PIPE INTO EXISTING STRUCTURE
- TBT THRIE BEAM TRANSITION
- TBBC THRIE BEAM BRIDGE CONNECTION
- TT TREE TRIMMING
- WCM 4" WOOD CHIP MULCH
- 4DY 4" EPOXY RESIN PAVEMENT MARKINGS - DOUBLE YELLOW
- 6W 6" EPOXY RESIN PAVEMENT MARKINGS - WHITE
- 12W 12" EPOXY RESIN PAVEMENT MARKINGS - WHITE
- 6WT 6" PREFORMED PATTERNED MARKING (HIGH PERFORMANCE TAPE)
- 4Y 4" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
- 6Y 6" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
- P.G.L. PROFILE GRADE LINE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 23 2016 FILE # 16-0097
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DEC 16 2016

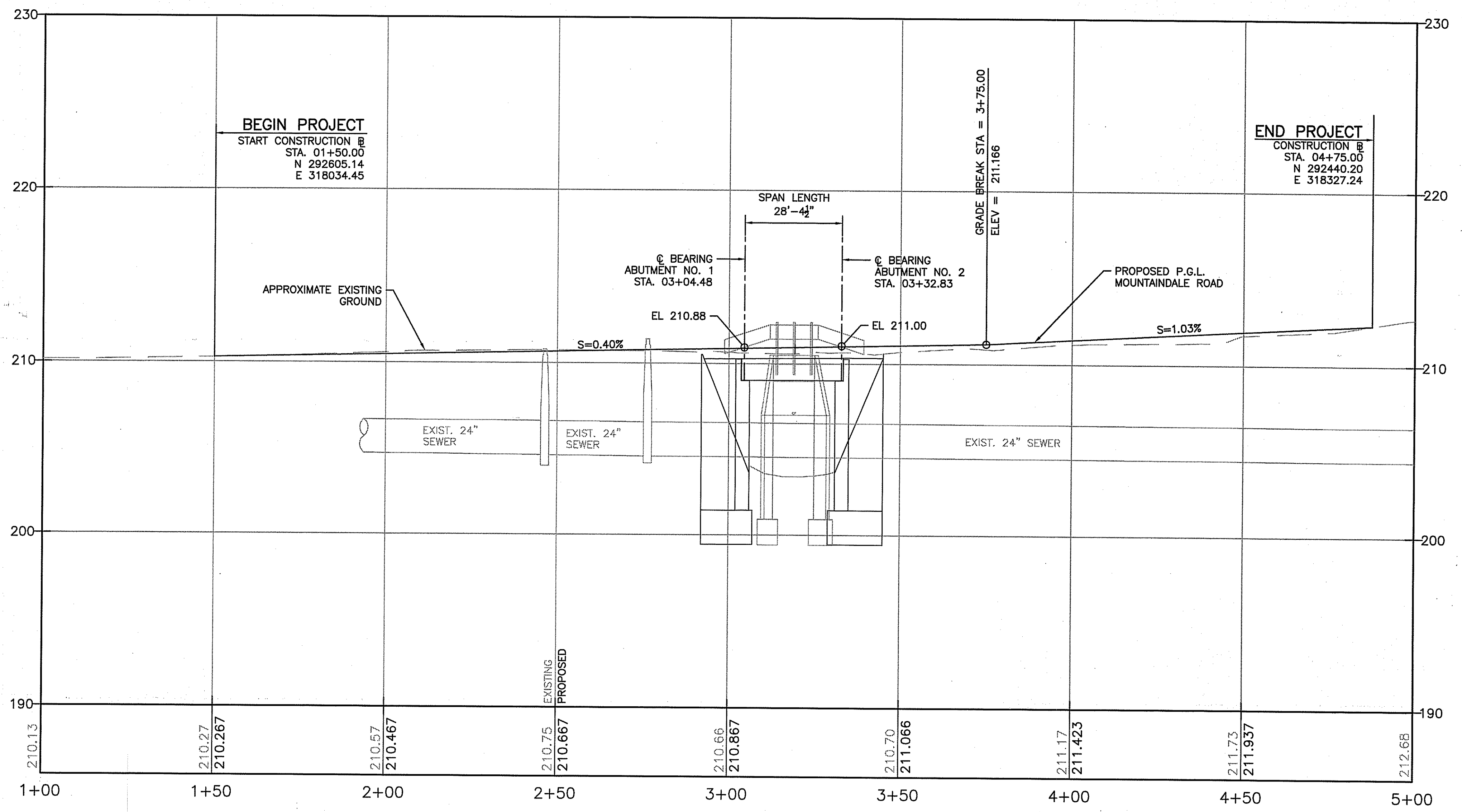
THIS PLAN SHALL NOT BE ALTERED

REVISIONS		
NO.	DATE	BY
1	6/07	TRB

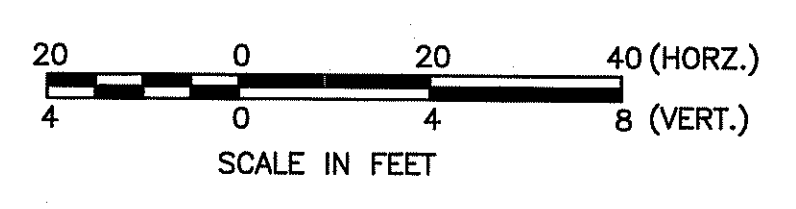
TOWN OF SMITHFIELD
DEPARTMENT OF PUBLIC WORKS
REPLACEMENT OF BRIDGE NO. 113601
MOUNTAINDALE ROAD
SMITHFIELD, RHODE ISLAND
STANDARD PLAN SYMBOLS & STANDARD LEGEND
CHECKED BY AG DATE 03/15/2016 SCALE NO SCALE
PERMIT_0693-1_V1_002_STDSYM

AI Engineers, Inc.
63 Sockanosset Cross Rd, Unit 4C
Cranston, RI 02920
401-270-5401 phone
401-270-5403 fax
www.aiengineers.com

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
-	RI	-	2016	6	11



PROFILE



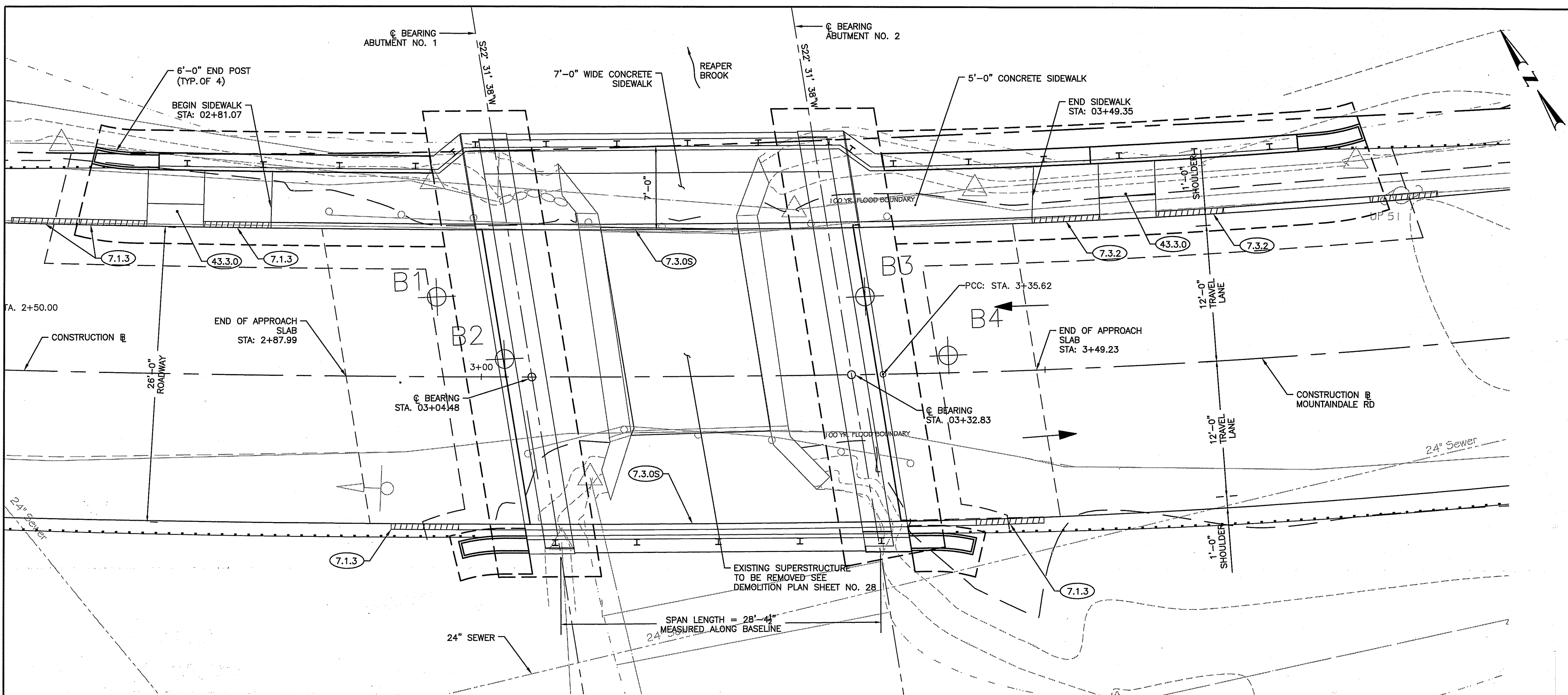
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DATED DEC 23 2016 FILE # 16-0087
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DEC 16 2016

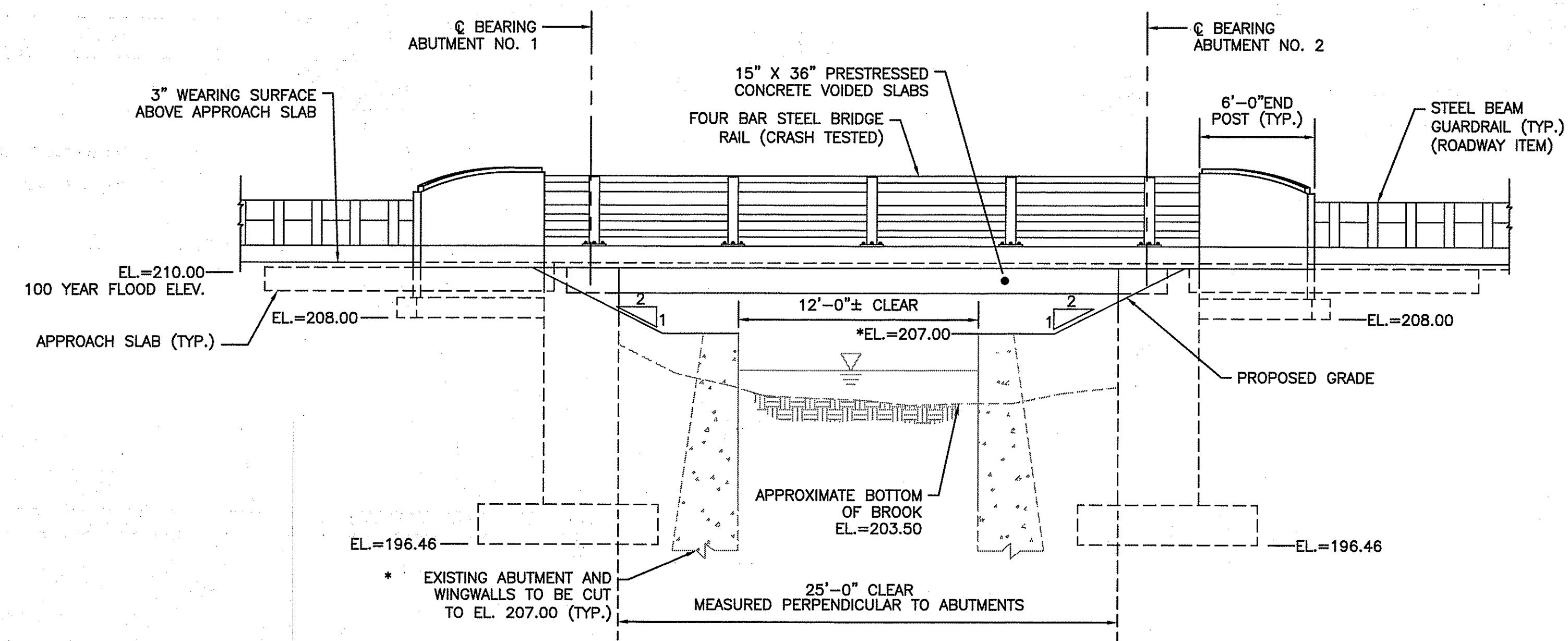
REVISIONS			TOWN OF SMITHFIELD DEPARTMENT OF PUBLIC WORKS
NO.	DATE	BY	
			REPLACEMENT OF BRIDGE NO. 113601 MOUNTAINDALE ROAD
			SMITHFIELD, RHODE ISLAND
			ROADWAY PROFILE
			CHECKED BY AG/SG DATE 11/02/2016 SCALE AS SHOWN

AI Engineers, Inc.
63 Sockanosset Cross Rd, Unit 4C
Cranston, RI 02920
401-270-5401 phone
401-270-5403 fax
www.aiengineers.com

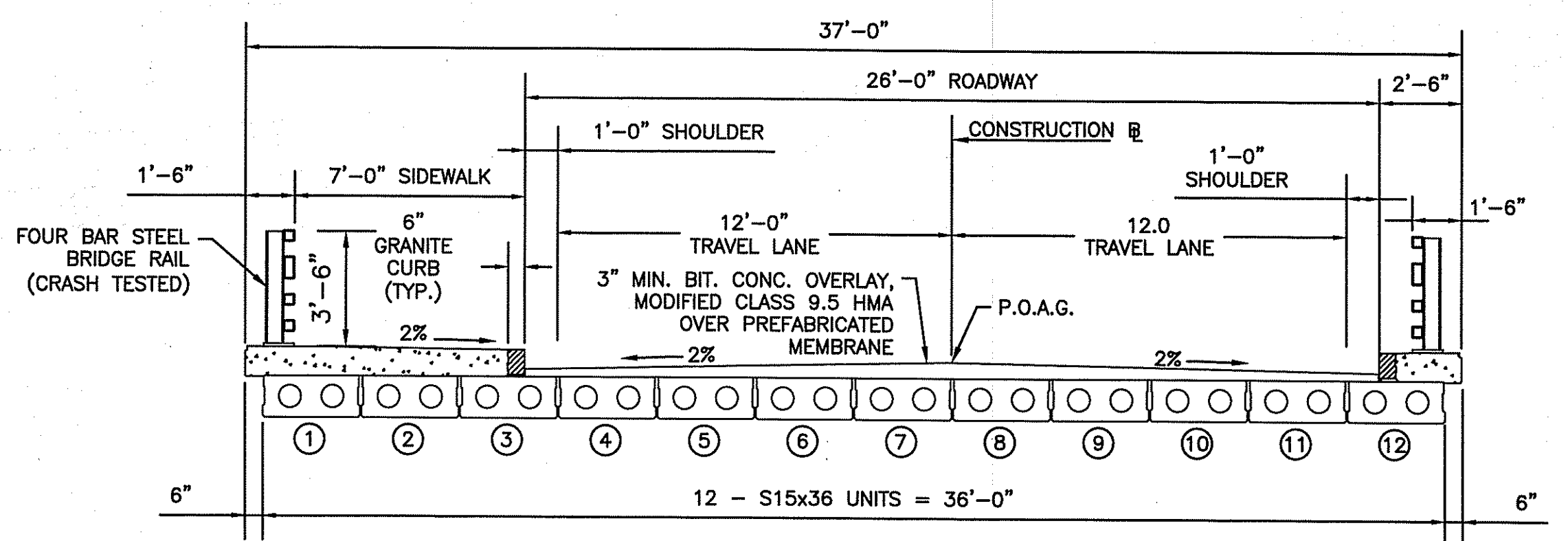
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
-	RI	-	2016	7	11



BRIDGE PLAN
SCALE: 1"=5'



ELEVATION
SCALE: 1"=5'



TYPICAL BRIDGE SECTION
SCALE: 1/4"=1'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 23 2016 FILE # 16-0087
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

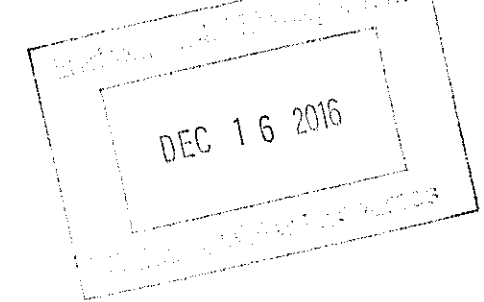
Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

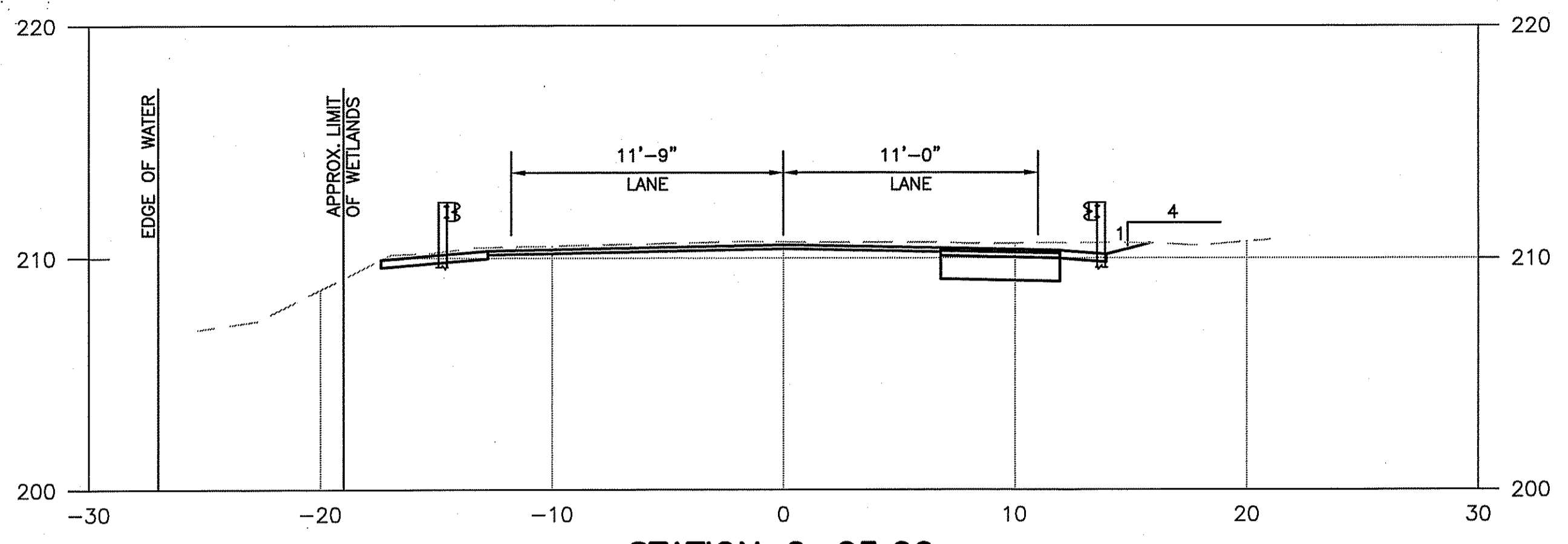
AI Engineers, Inc.
63 Sockanosset Cross Rd, Unit 4C
Cranston, RI 02920
401-270-5401 phone
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REVISIONS		
NO.	DATE	BY

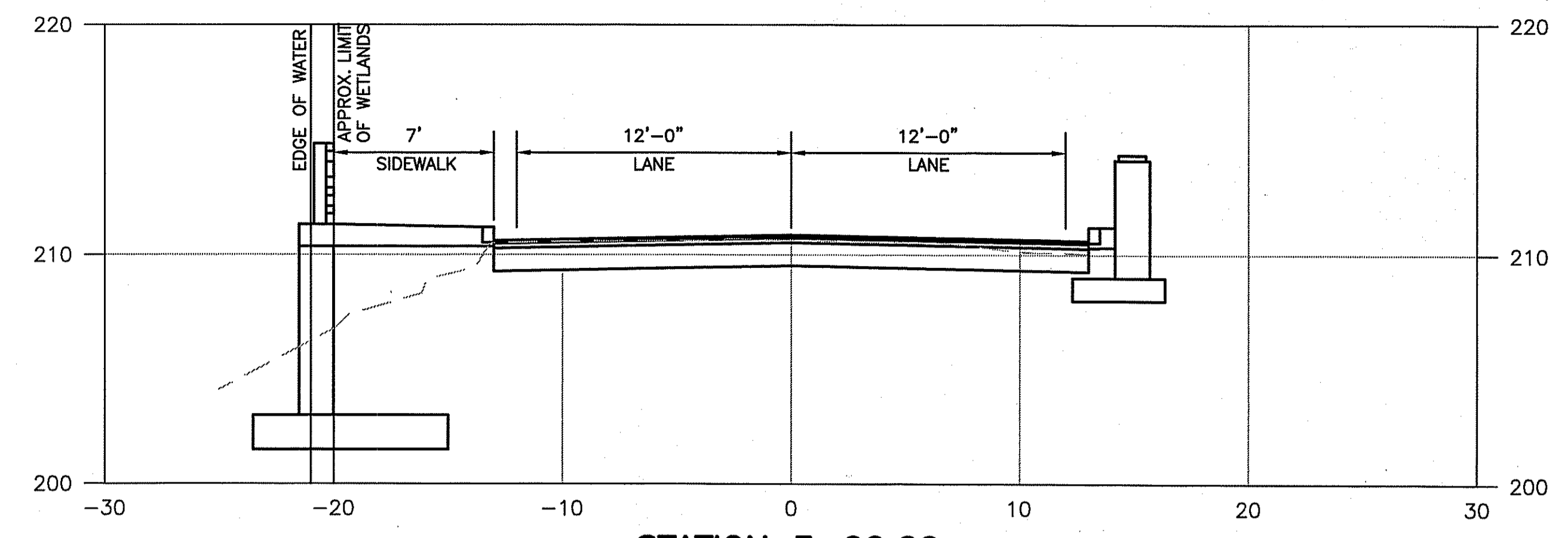
TOWN OF SMITHFIELD
DEPARTMENT OF PUBLIC WORKS
REPLACEMENT OF BRIDGE NO. 113601
MOUNTAINDALE ROAD
SMITHFIELD, RHODE ISLAND

GENERAL BRIDGE
PLAN AND ELEVATION
CHECKED BY AG/SG DATE 11/02/2016 SCALE AS NOTED

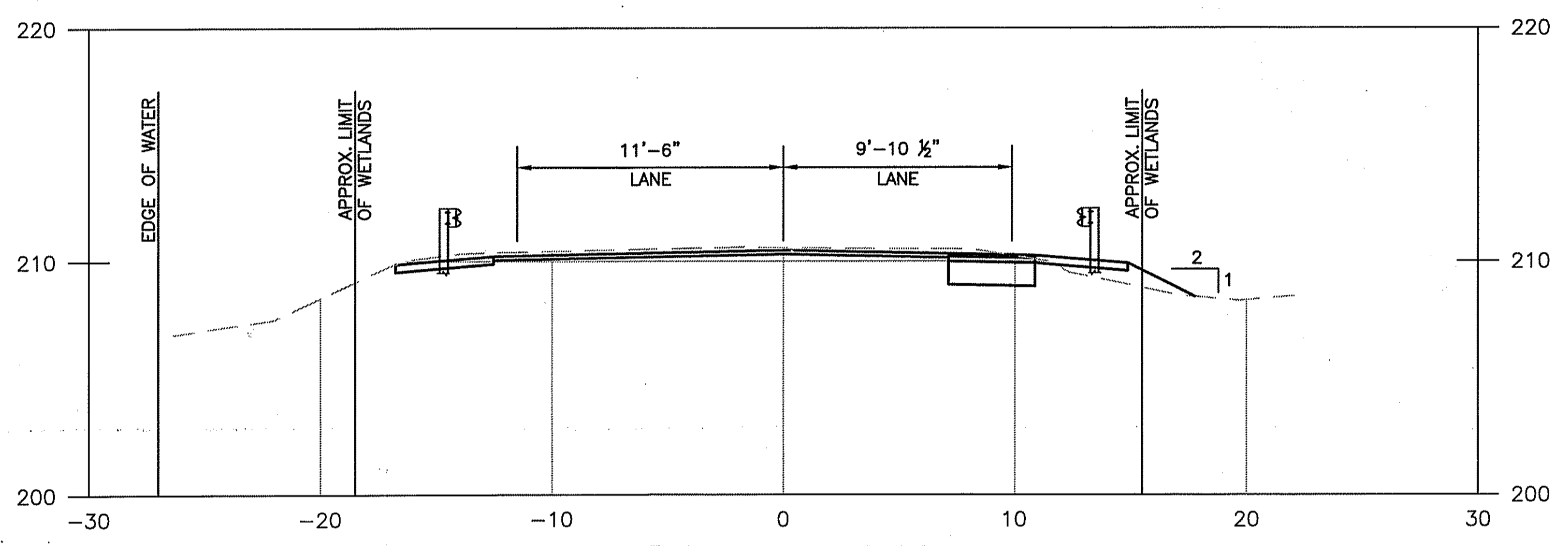




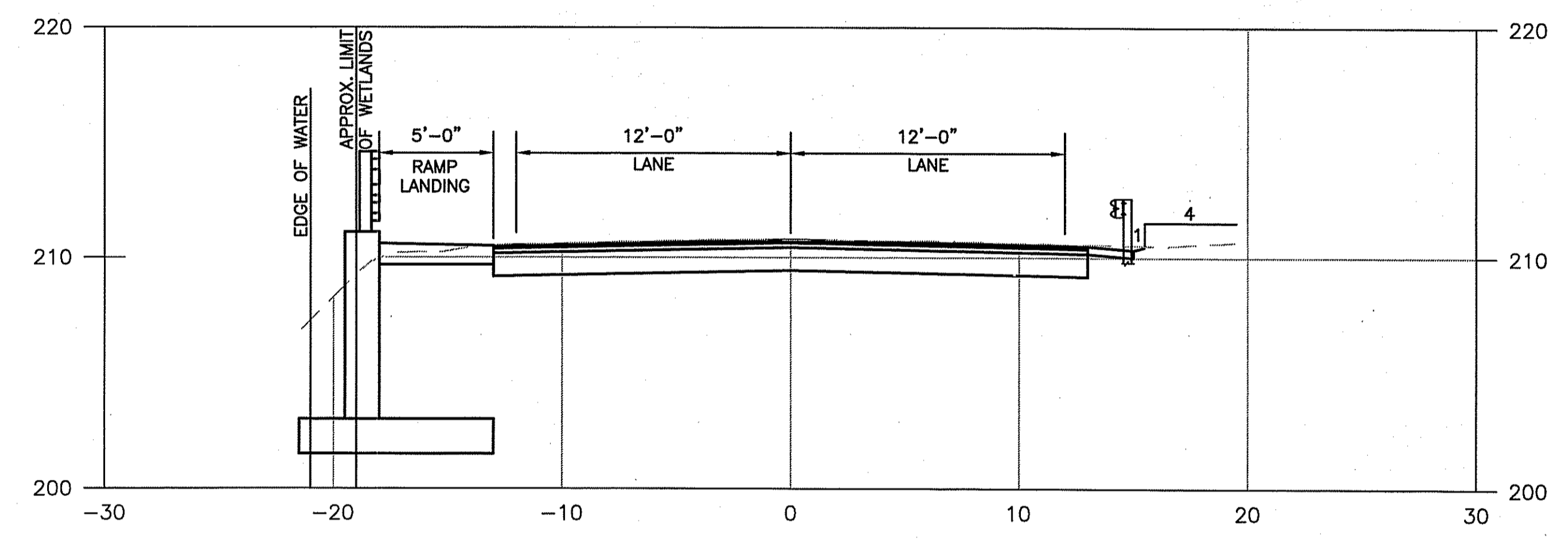
STATION 2+25.00
SCALE: 1" = 5'-0"



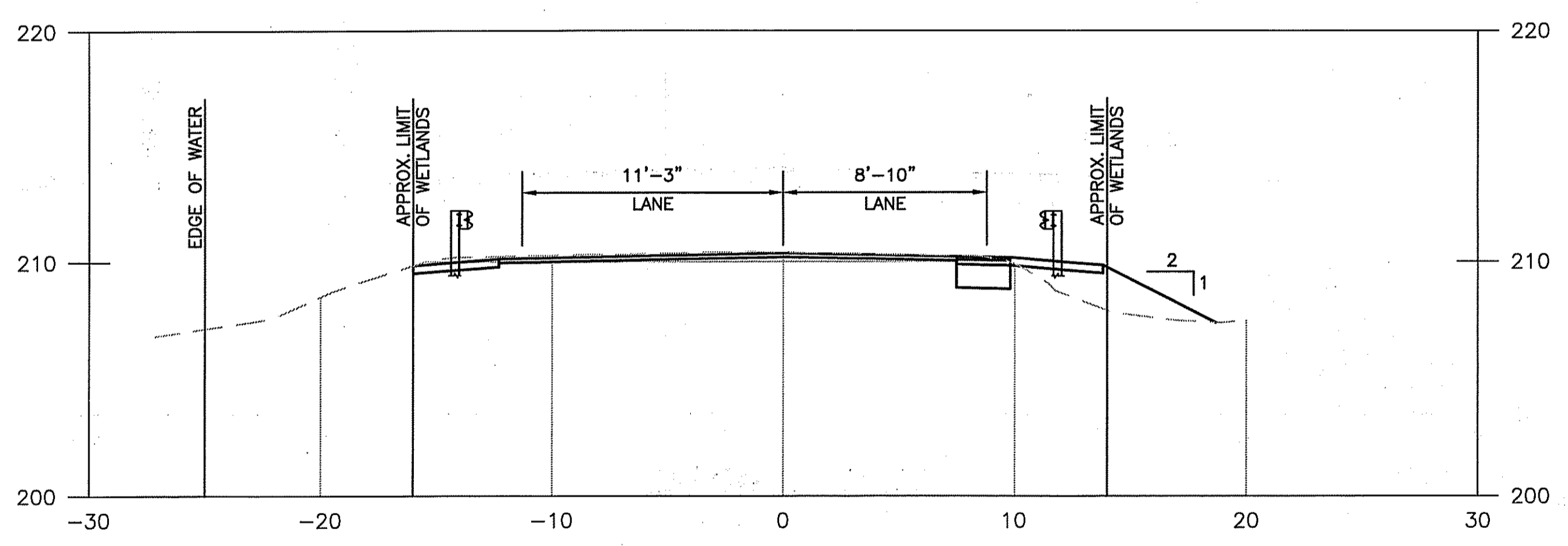
STATION 3+00.00
SCALE: 1" = 5'-0"



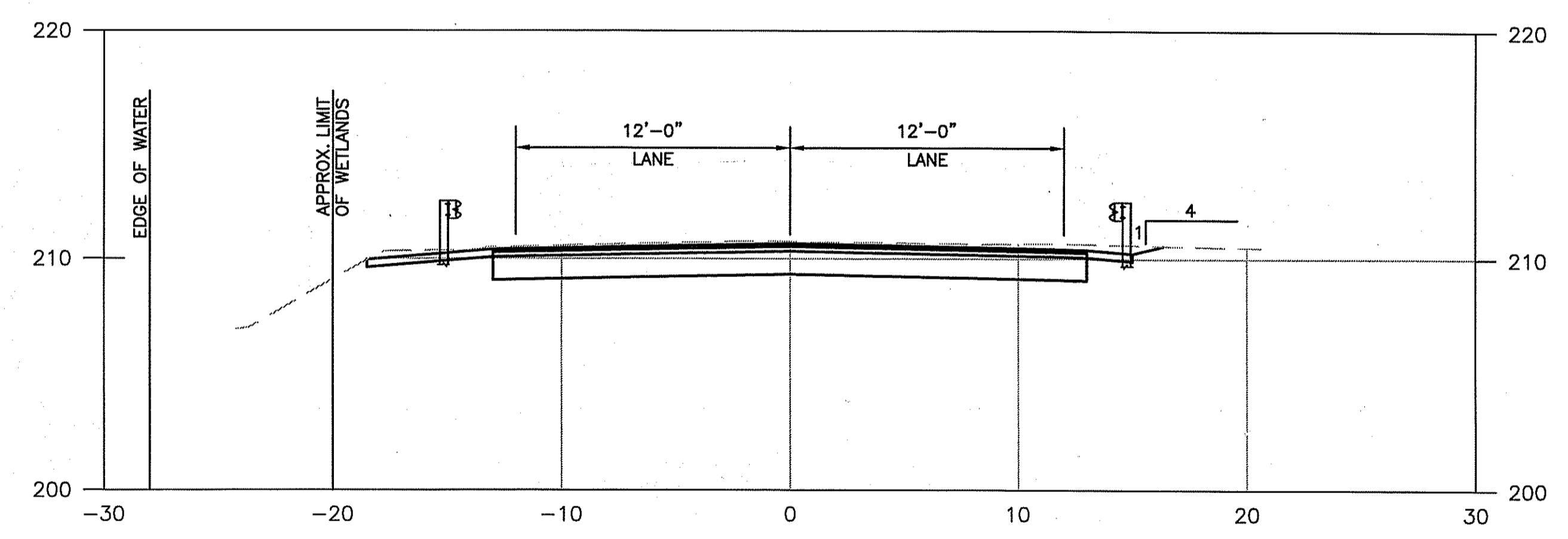
STATION 2+00.00
SCALE: 1" = 5'-0"



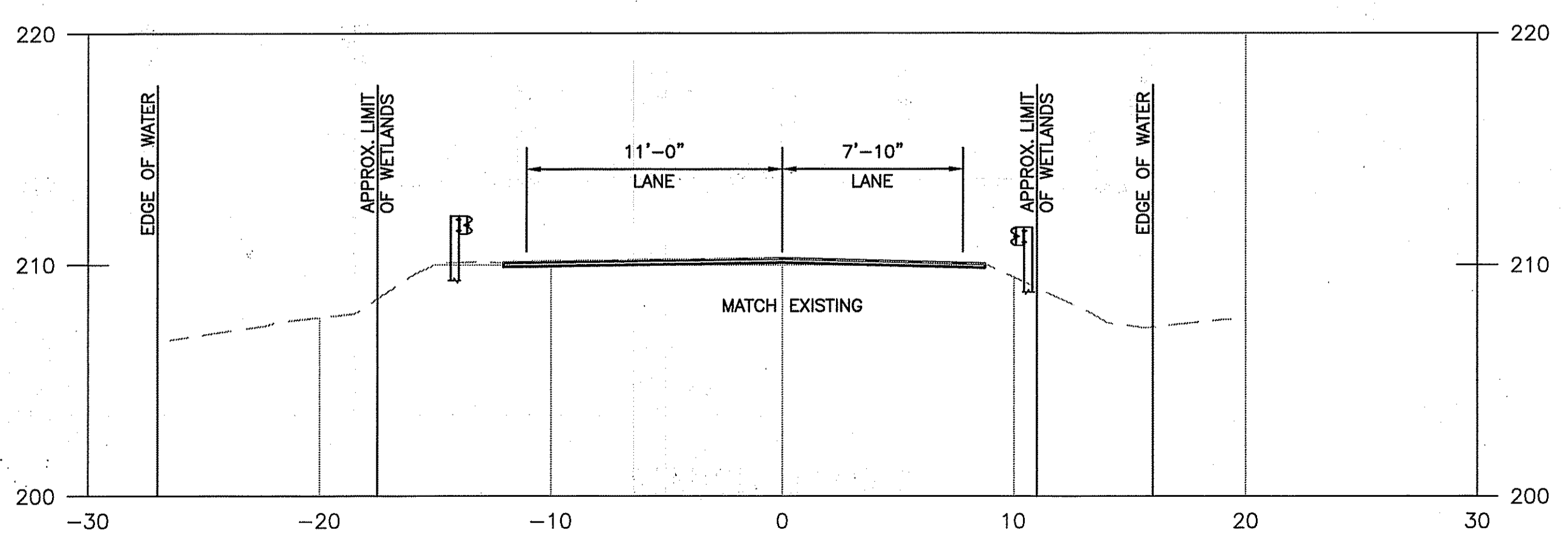
STATION 2+75.00
SCALE: 1" = 5'-0"



STATION 1+75.00
SCALE: 1" = 5'-0"

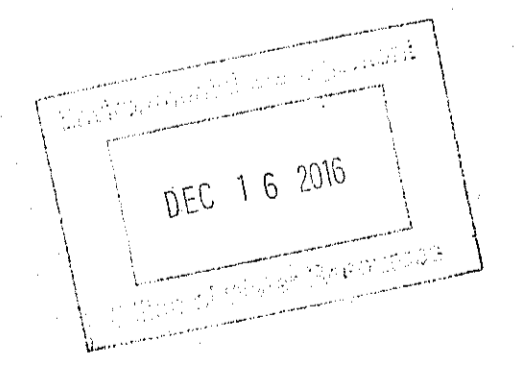


STATION 2+50.00
SCALE: 1" = 5'-0"



STATION 1+50.00
SCALE: 1" = 5'-0"

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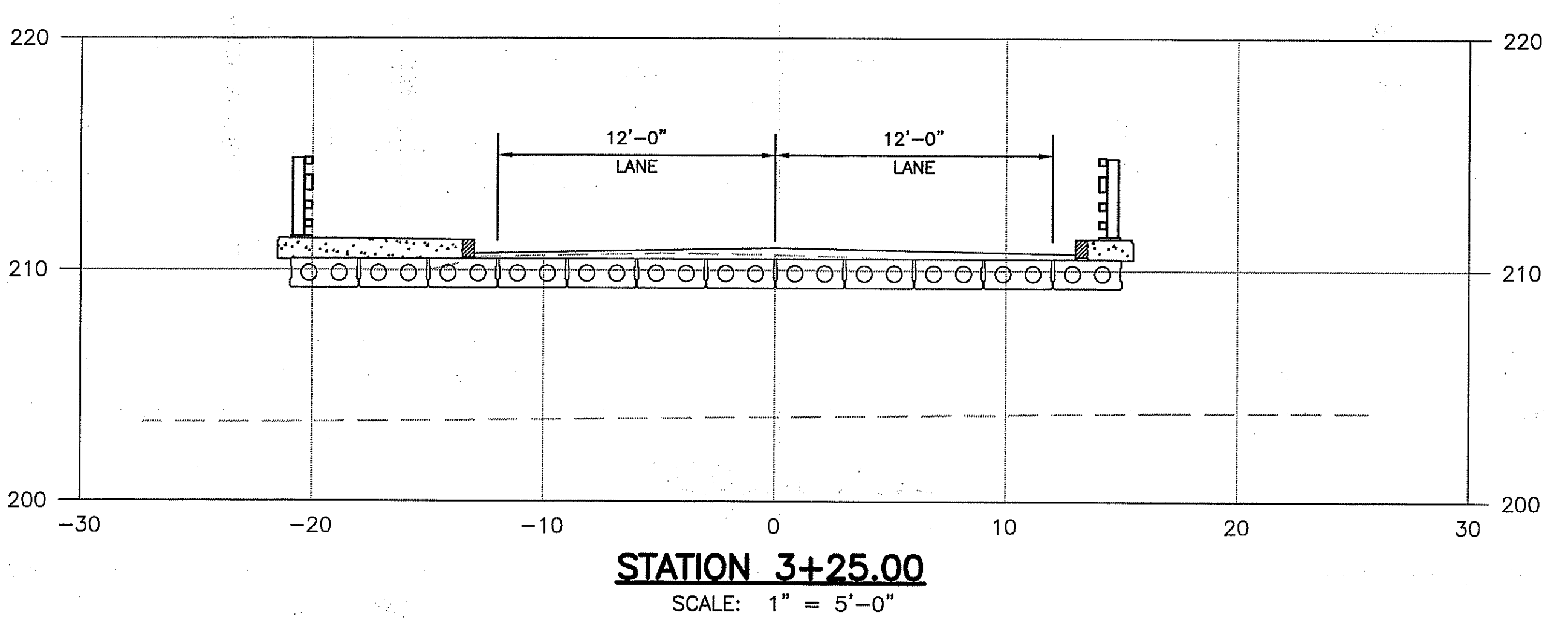
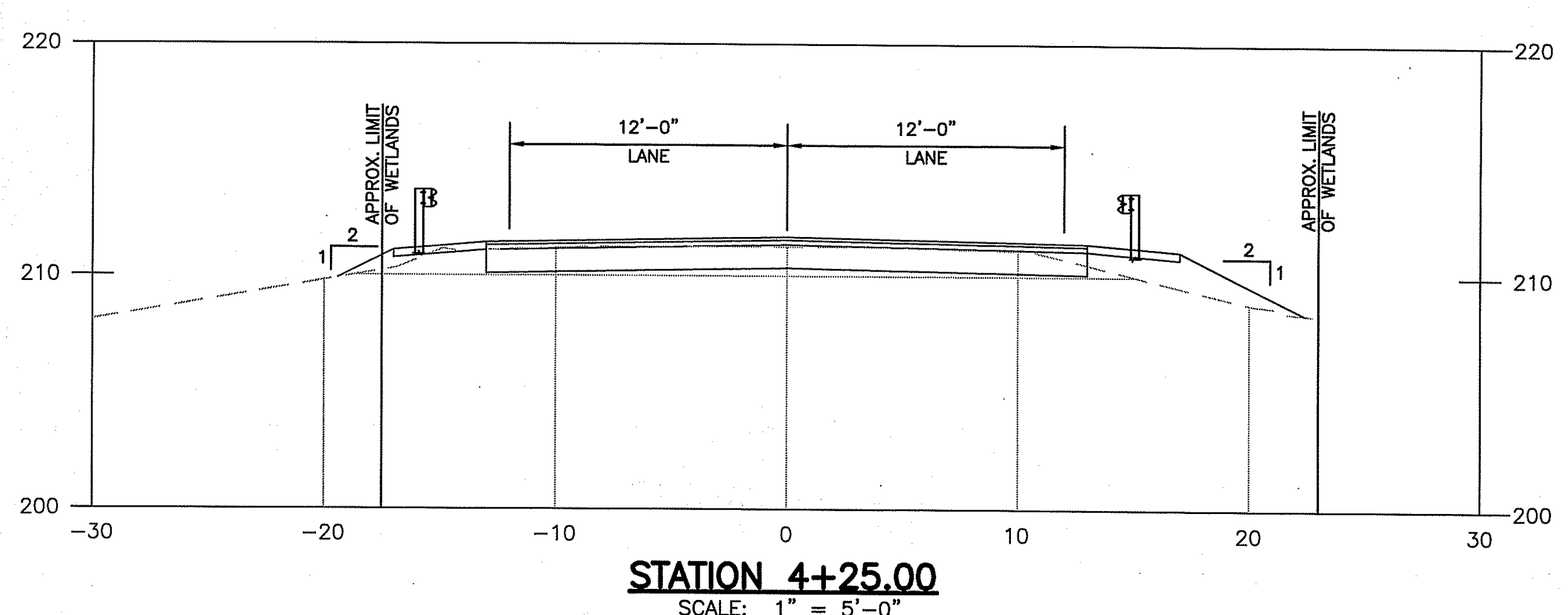
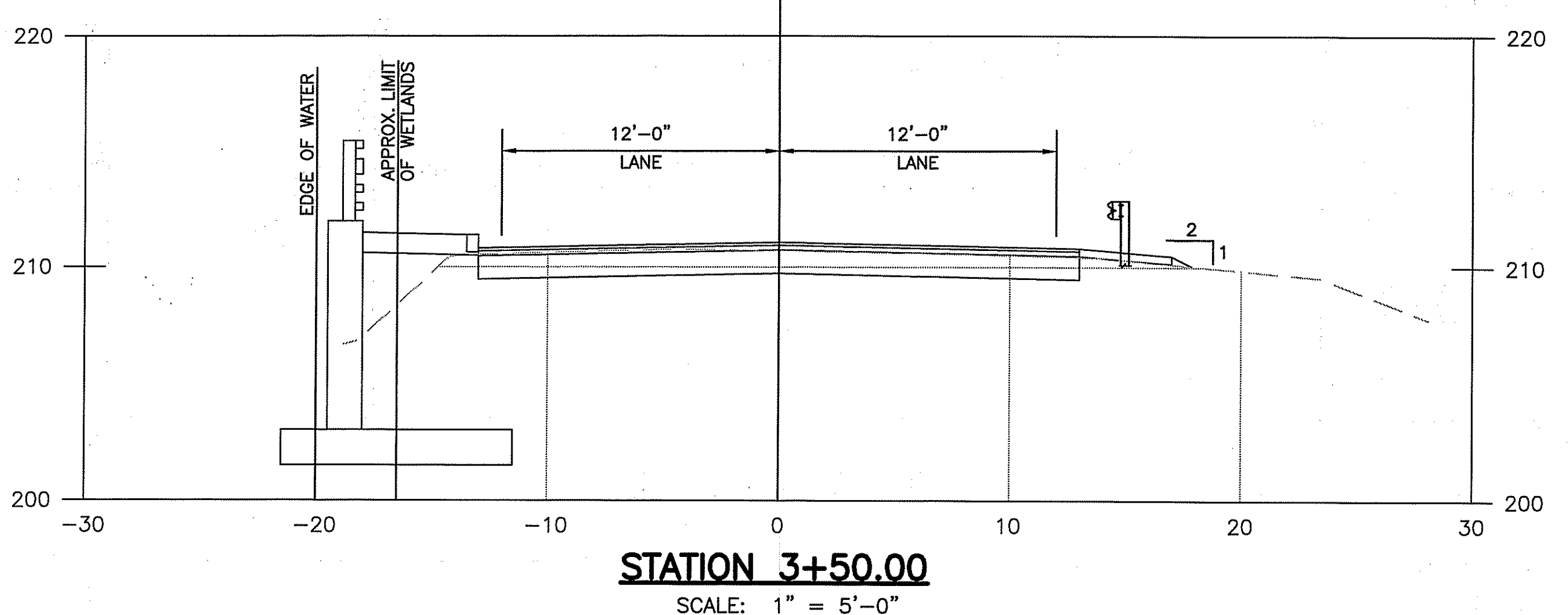
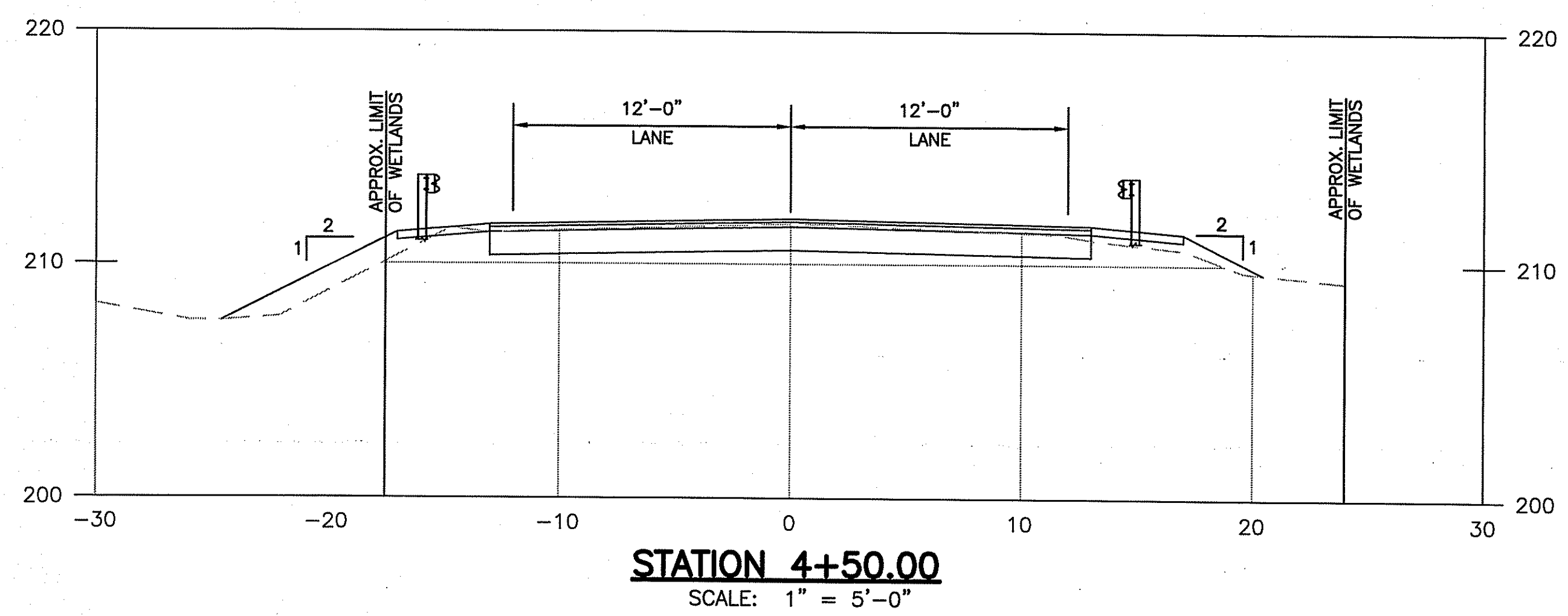
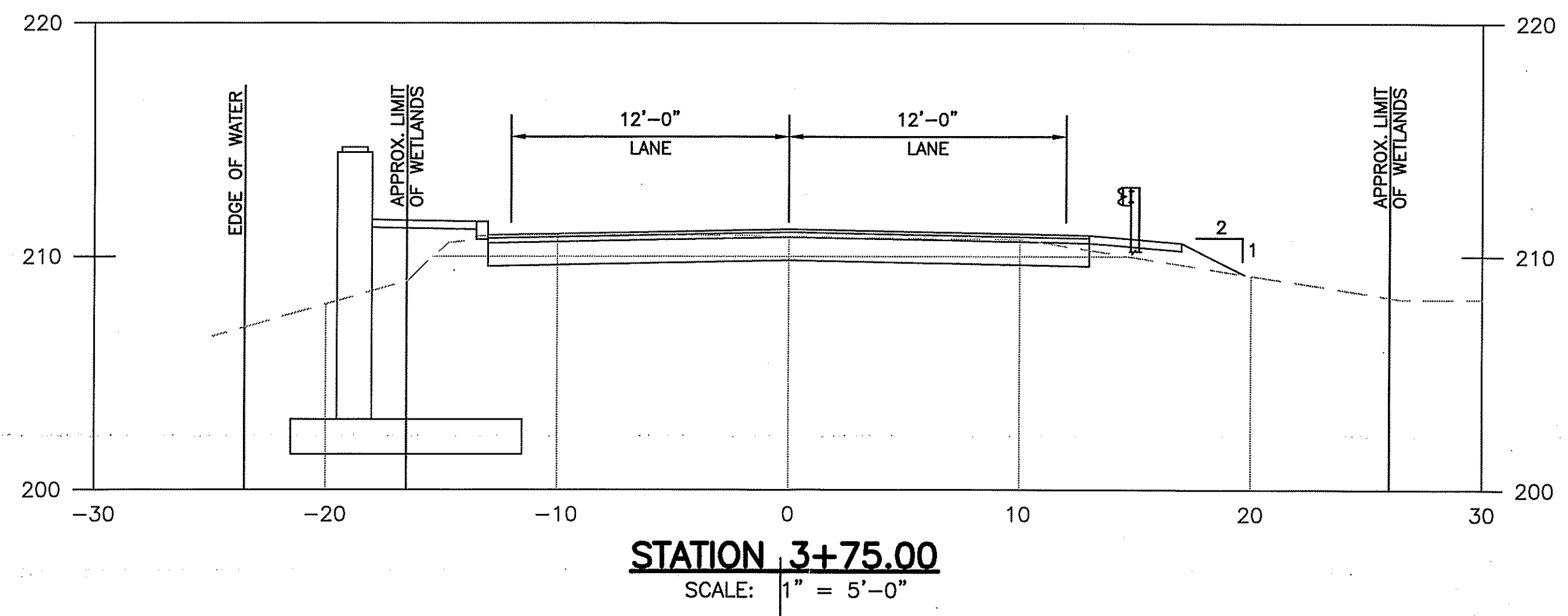
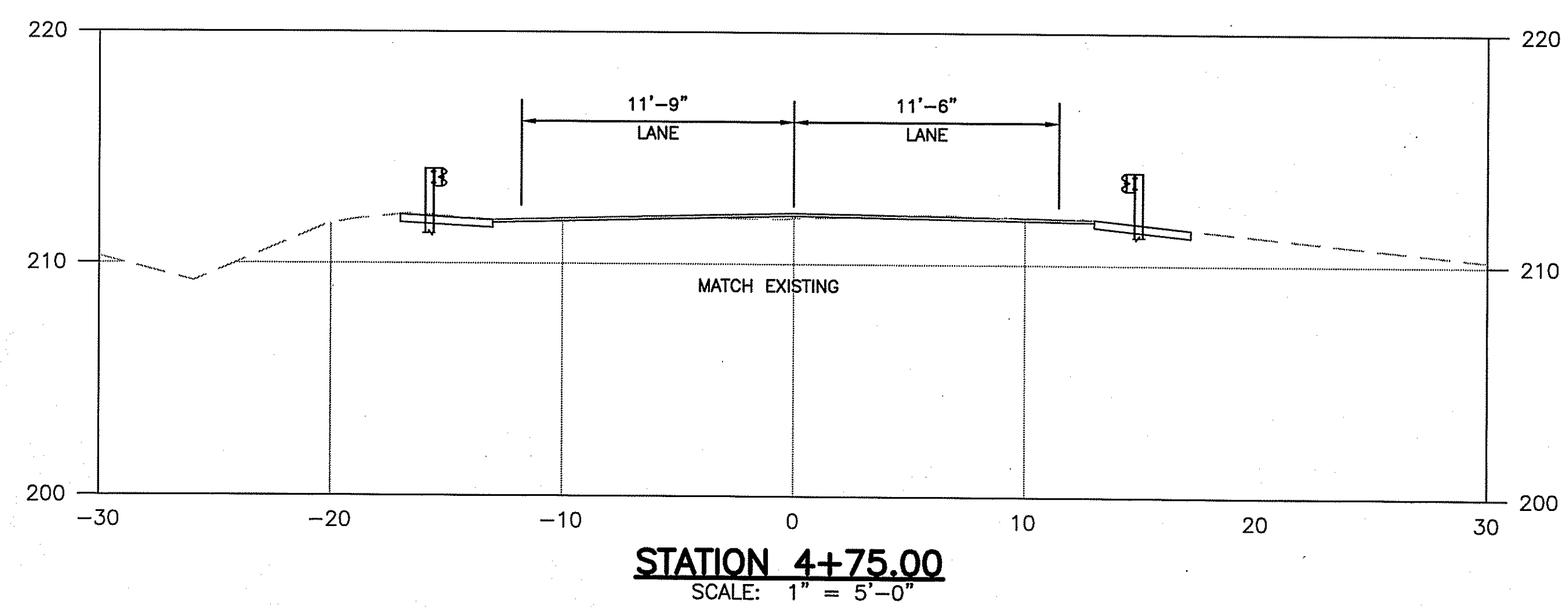
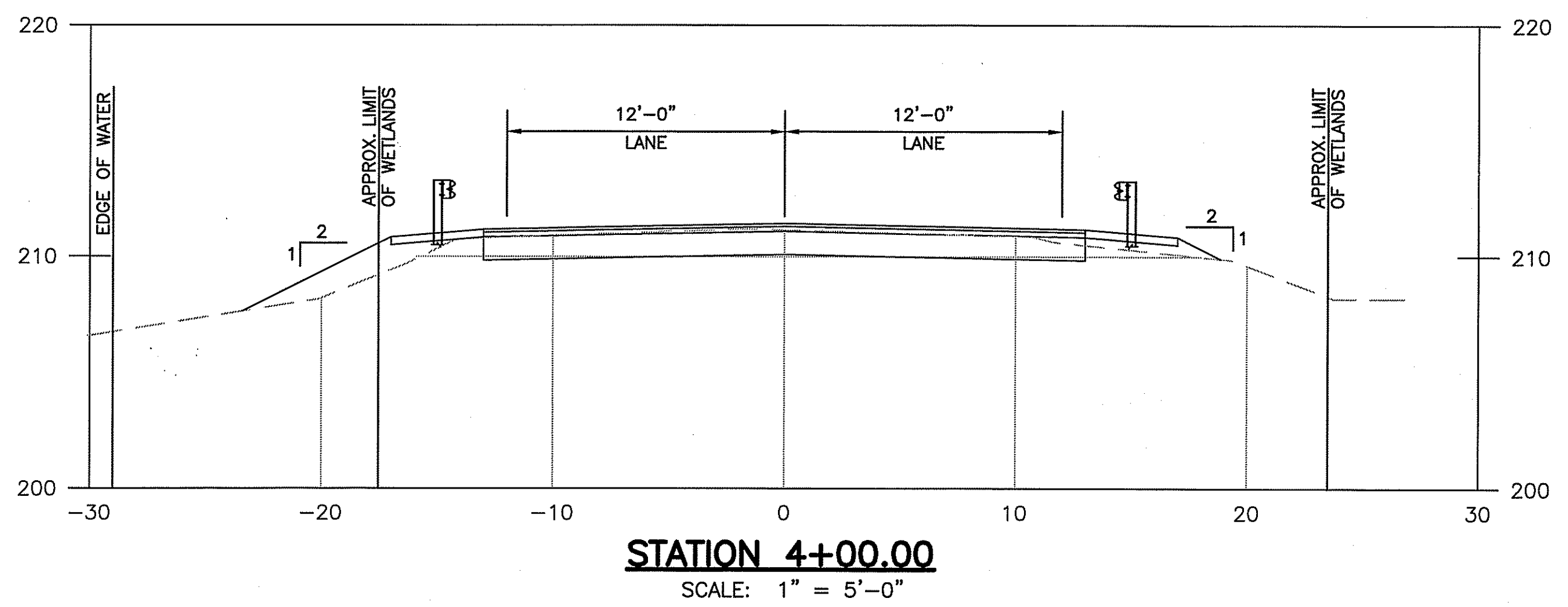
REVISIONS		
NO.	DATE	BY

TOWN OF SMITHFIELD
DEPARTMENT OF PUBLIC WORKS
REPLACEMENT OF BRIDGE NO. 113601
MOUNTAINDALE ROAD
SMITHFIELD, RHODE ISLAND

AI Engineers, Inc.
83 Soockanisset Cross Rd, Unit 4C
Cranston, RI 02920
401-270-5401 phone
401-270-5403 fax
www.aiengineers.com

CROSS SECTIONS - 1
CHECKED BY AG/SG DATE 11/02/2016 SCALE 1" = 5'

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
-	RI	-	2016	9	11



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DEC 16 2016

REVISIONS		
NO.	DATE	BY

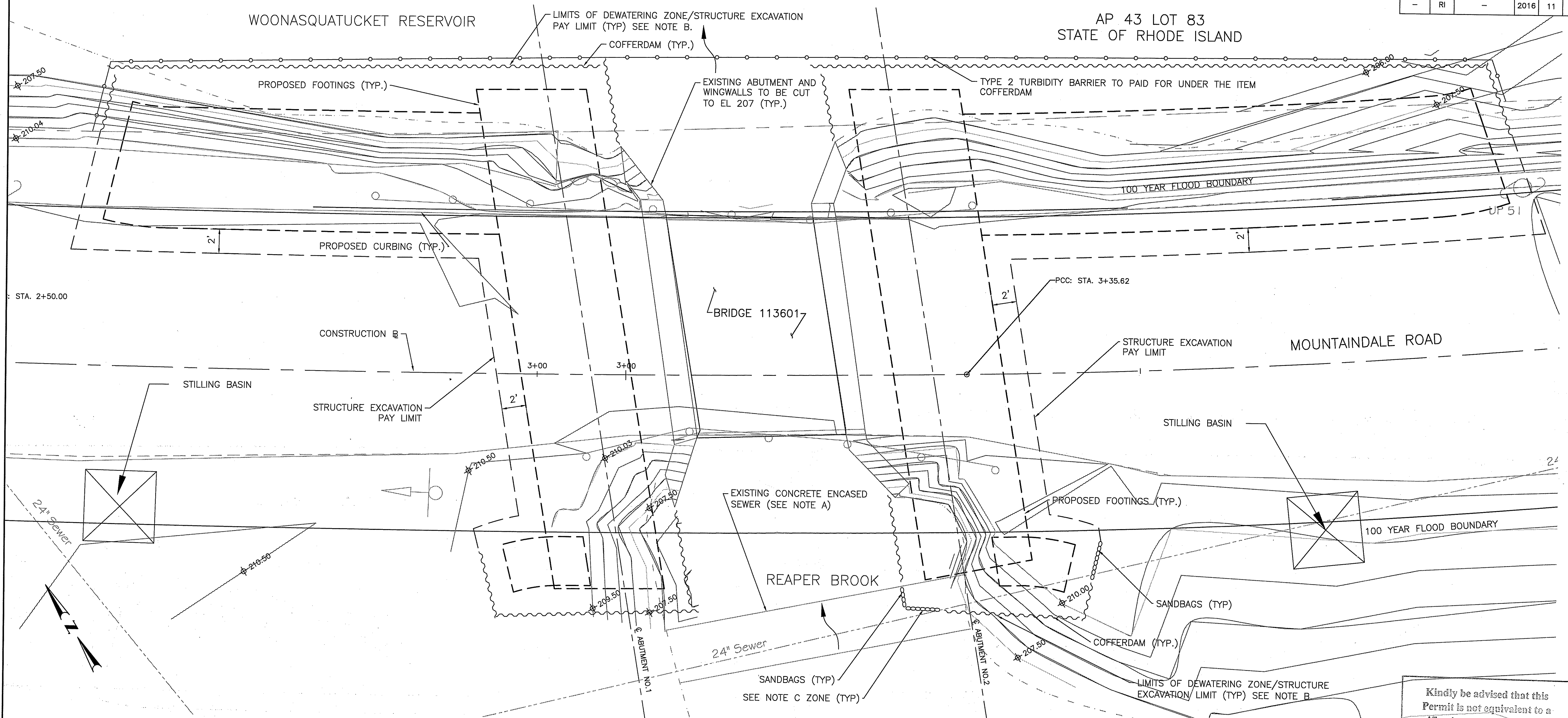
TOWN OF SMITHFIELD
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63 Sockanosset Cross Rd, Unit 4C
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CROSS SECTIONS - 2
CHECKED BY: AG/SG DATE 11/02/2016 SCALE 1" = 5'

WOONASQUATUCKET RESERVOIR

AP 43 LOT 83
STATE OF RHODE ISLAND



WATER-HANDLING PLAN
SCALE: 1/4" = 1'-0"

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

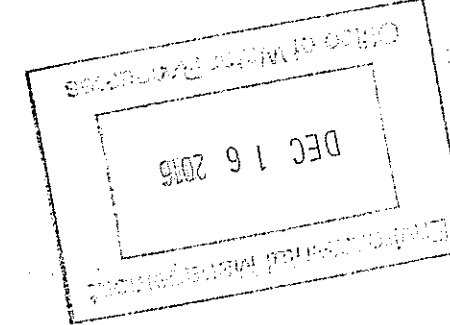
LEGEND

	COFFERDAM/LIMITS OF STRUCTURE EXCAVATION
	STRUCTURE EXCAVATION PAY LIMIT
	SANDBAGS
	STILLING BASIN

- SUGGESTED SEQUENCE OF CONSTRUCTION**
1. ESTABLISH DETOUR ROUTE & ASSOCIATED SIGNS.
 2. INSTALL EROSION & SEDIMENTATION CONTROLS.
 3. REMOVE TREES AS NECESSARY FOR ACCESS.
 4. INSTALL COFFERDAM DAM AT FOUR CORNERS OF THE BRIDGE AS SHOWN (SAND BAG OR EQUAL SYSTEM ANTICIPATED)
 5. DEWATER FROM WITHIN THE COFFERDAM TO CREATE DRY WORKING AREA.
 6. INSTALL DEBRIS SHIELD UNDER EXISTING DECK SLAB.
 7. REMOVE EXISTING DECK & RAILINGS.
 8. REMOVE DEBRIS SHIELD & DEBRIS.
 9. REMOVE TOP PORTION OF EXISTING ABUTMENTS TO THE REQUIRED ELEVATION.
 10. OPEN EXCAVATE BEHIND EXISTING ABUTMENTS FOR CONSTRUCTION OF NEW ABUTMENTS (SEE NOTE C & NOTE D). BENCH BACK SO EXCAVATION IS STABLE.
 11. CONSTRUCT BOTH ABUTMENTS AND WINGWALLS AT FOUR CORNERS.
 12. INSTALL PRESTRESSED VOIDED SLAB.
 13. BACKFILL BEHIND ABUTMENTS AND WINGWALLS.
 14. REMOVE COFFERDAMS.

- NOTES:**
- A) CONTRACTOR TO PROTECT AND SUPPORT EXISTING SEWER DURING EXCAVATION TO ENSURE IT IS NOT DAMAGED.
 - B) THE LIMITS OF POTENTIAL DEWATERING ZONE AT FOUR CORNERS OF THE BRIDGE ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL SUBMIT A DEWATERING AND WATER HANDLING PLAN TO THE TOWN FOR APPROVAL WITH ACTUAL LIMITS FOR DEWATERING ZONES PRIOR TO EXCAVATION ALONG WITH DETAILS OF COFFERDAMS.
 - C) THE COFFERDAM INSTALLATION IN STEP 4 SHALL ACCOUNT FOR THE PRESENCE OF THE EXISTING SEWER & ITS PROXIMITY TO THE NEW FOOTING IN THE SOUTHWEST & SOUTHEAST CORNERS.
 - D) CONTRACTOR SHALL EXERCISE CAUTION WHILE EXCAVATING BEHIND EXISTING ABUTMENTS SO AS NOT TO UNDERMINE THE EXISTING ABUTMENT FOOTINGS. THE EXISTING ABUTMENTS MUST BE KEPT STABLE DURING EXCAVATION.

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**WATER HANDLING PLAN &
SUGGESTED SEQUENCE**

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CHECKED BY: AG/SG DATE: 11/02/2016 SCALE: AS NOTED