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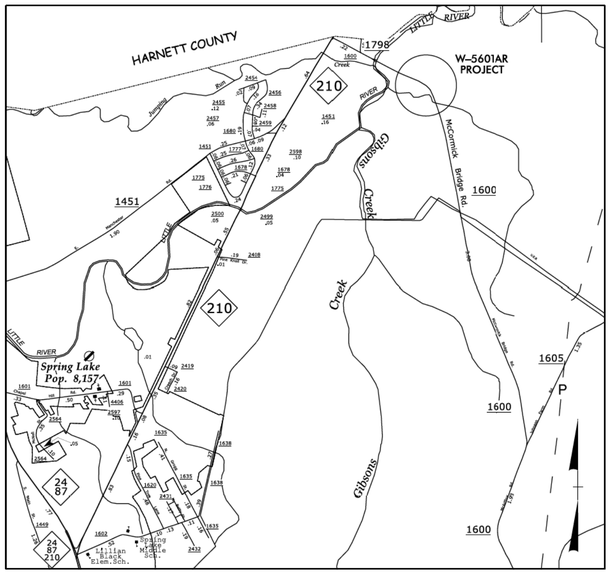
This file or an individual page shall not be considered a certified document.

09/08/99

TIP PROJECT: W-5601AR

CONTRACT: DF00140



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601AR	1	

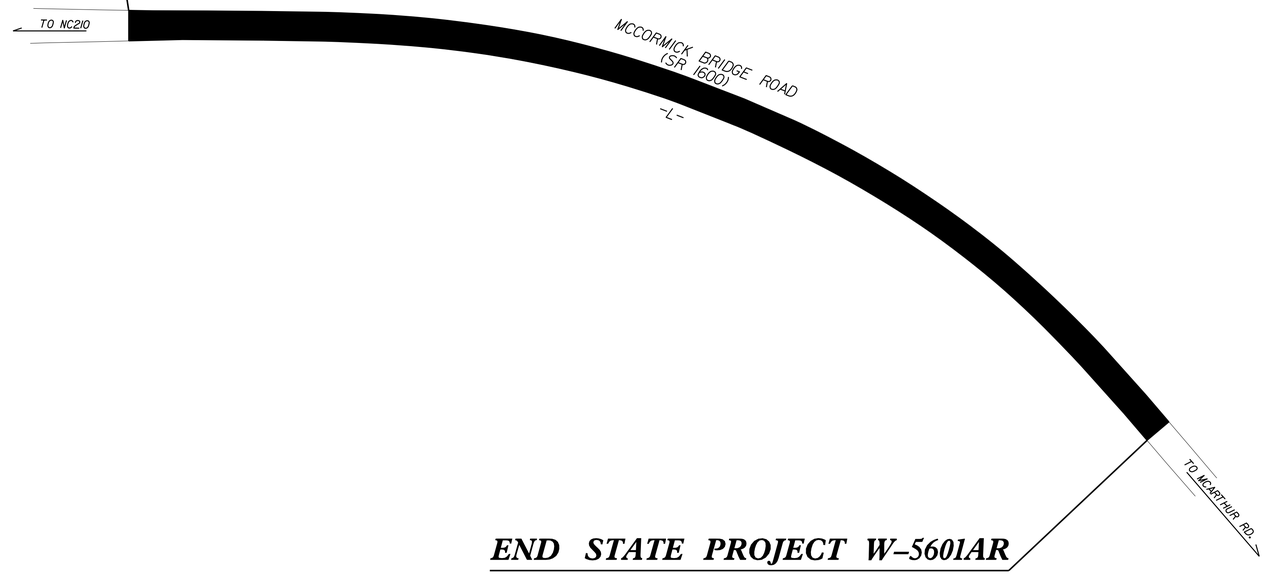
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50138.1.45	HSIP-1600(14)	P.E.
50138.2.45	HSIP-1600(014)	ROW /UTILS
50138.3.45	HSIP-1600(014)	CONSTR

LOCATION: McCORMICK BRIDGE ROAD (SR 1600) APPROXIMATELY 0.3 MILES SOUTHEAST OF SR 1798

TYPE OF WORK: WEDGING, RESURFACING AND PAVEMENT MARKINGS

NAD 83/NA 2011

BEGIN STATE PROJECT W-5601AR
-L- STA 20+00.00



END STATE PROJECT W-5601AR
-L- STA 31+00.00

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2017 = 4800
ADT 2037 = 8700

V = 55 MPH

PROJECT LENGTH

TOTAL PROJECT LENGTH W-5601AR = 0.208 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
431 Transportation Drive Fayetteville, NC 28301

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 30, 2016

LETTING DATE:
FEBRUARY 15, 2017

SEAN MATUSZEWSKI
PROJECT ENGINEER

NEIL BUTLER
PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

11-JAN-2017 10:55
H:\DDC\Projects\W-5601AR SR 1600 McCormick Bridge Rd Curve #1_Cumberland Co\Roadway\Proj\W5601AR_Rdy_tsh.dgn
$$$$USERNAME$$$$

04/06/15

PROJECT REFERENCE NO.	SHEET NO.
W-5601AR	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E.*) — W
- U/G Water Line LOS C (S.U.E.*) — W
- U/G Water Line LOS D (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

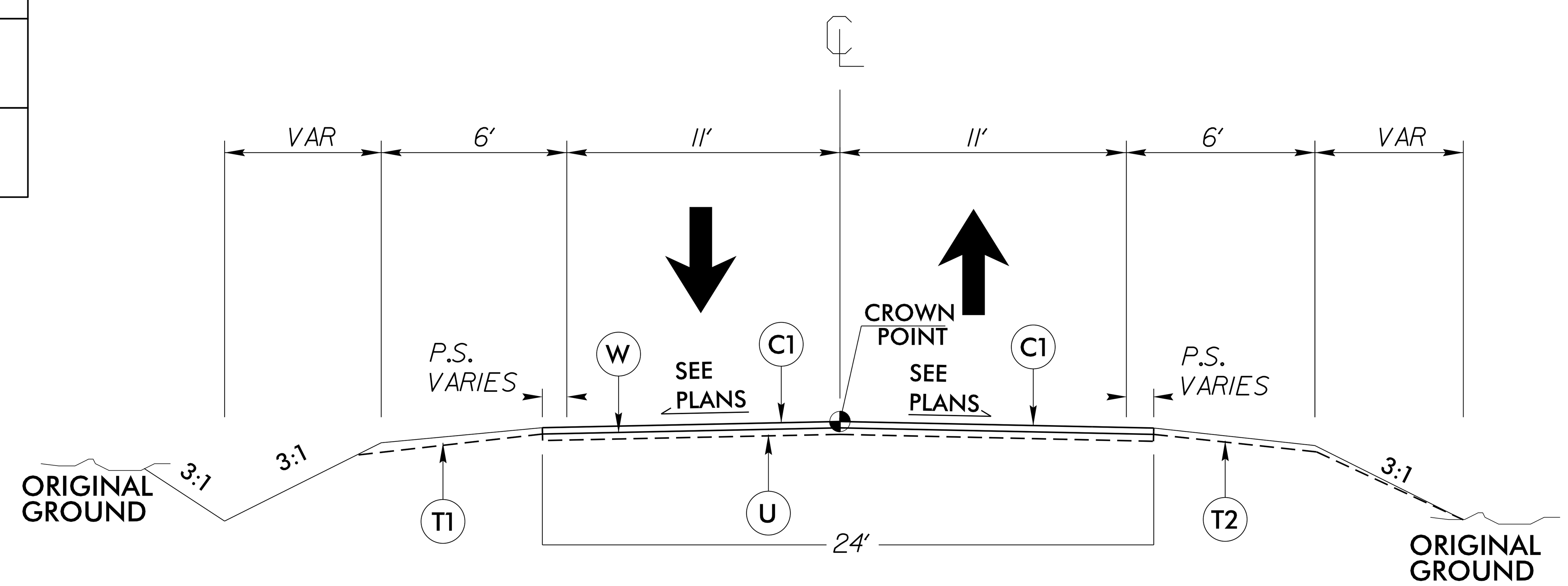
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
D2	PROP. VAR DEPTH ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2½" OR GREATER THAN 4" IN DEPTH.
E1	PROP. VAR. DEPTH ASPHALT CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT GREATER THAN 5½" IN DEPTH OR LESS THAN 3" IN DEPTH
T1	EARTH MATERIAL (HIGH SIDE OF CURVE)
T2	AGGREGATE SHOULDER BORROW (LOW SIDE OF CURVE)
U	EXISTING PAVEMENT
W	WEDGING



TYPICAL SECTION 1

-L- STA. 20+00.00 TO 31+00.00

PROJECT NOTES

1. The Contractor shall not work on both sides of the road simultaneously within the same area.
2. Ingress and egress shall be maintained to all businesses and dwellings on the project.
3. At the end of each workday, the Contractor shall be required to backfill any area adjacent to existing travelway that has been graded leaving no more than a 1" drop-off.
4. A minimum of two-way, two-lane traffic (plus all existing left and right turn lanes) shall be maintained during periods of construction inactivity.
5. The Contractor shall not be allowed to stop traffic for more than 5 minutes at a time in any one direction.
6. During periods of construction inactivity, the difference in elevation between lanes shall not exceed 1-1/2 inch.
7. Access to police and fire station, fire hydrants, and hospitals shall be maintained at all times.
8. During periods of construction inactivity, place cones/drums 3' from existing edge of pavement (travelway) as directed by the Engineer.
9. Channelizing devices in work areas shall be spaced not greater than 50' on center in tangent areas, 45' on center in tapers, and 10' on center in radii, and shall be set 3' off the edge of travelway, unless otherwise indicated on plans.
10. Contractor to install Erosion Control devices as directed by the Engineer.
11. Contractor shall coordinate with the Division Six Traffic Services Unit (910-486-1452) for placement of all pavement markings and signs.

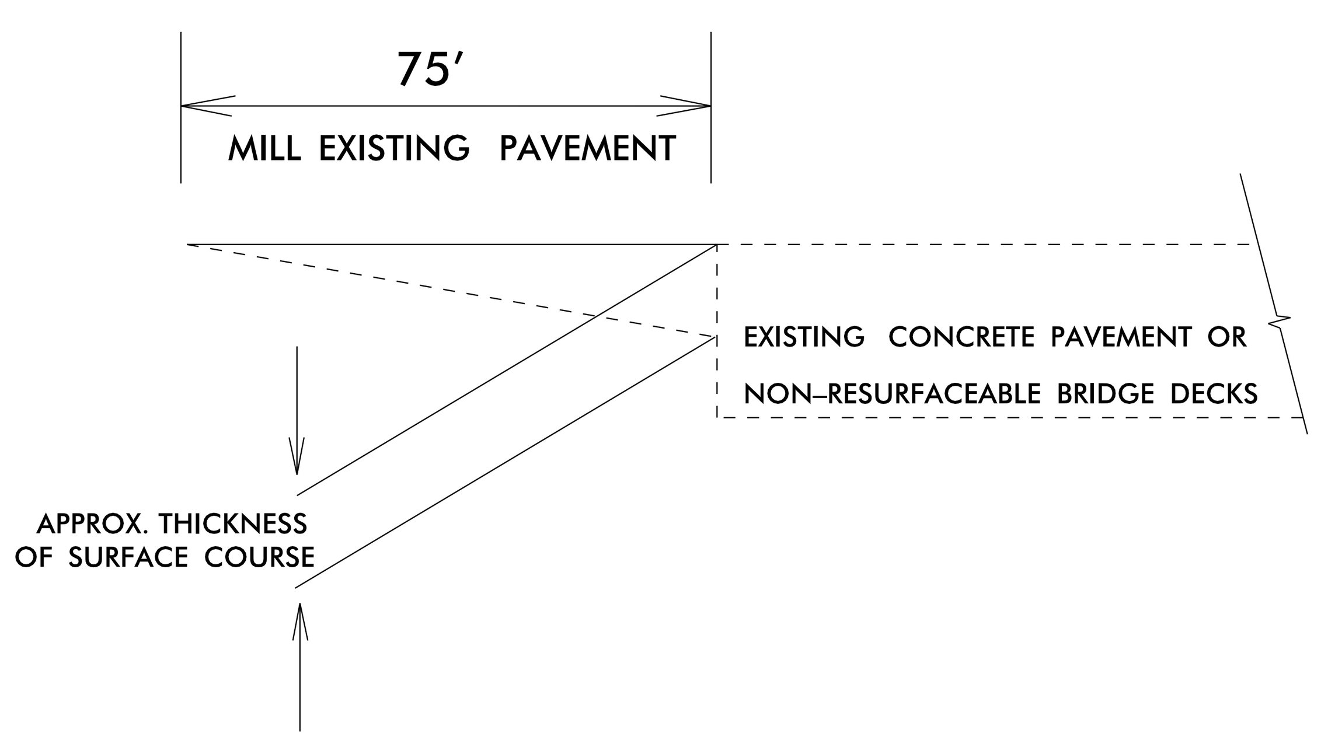
MILLING AT PAVEMENT TIE-INS

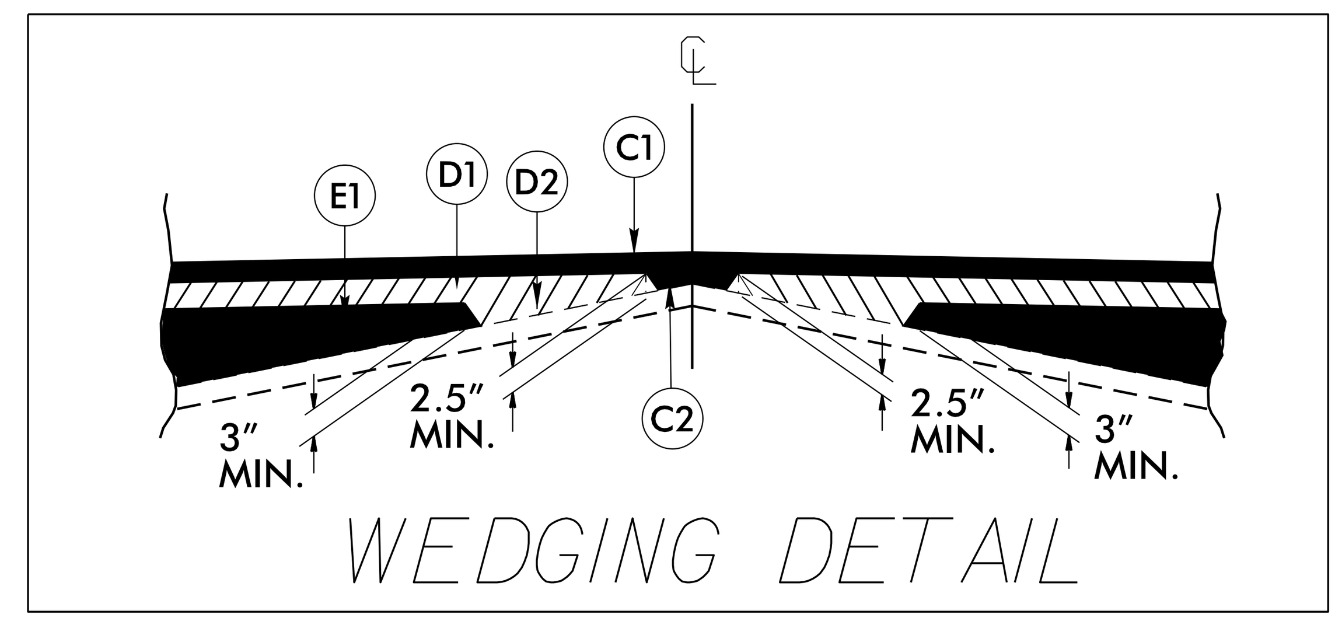
NOTES TO CONTRACTOR

For surface mixes over 1" in thickness, mill the existing pavement in accordance with the following sketch as directed by the Engineer.

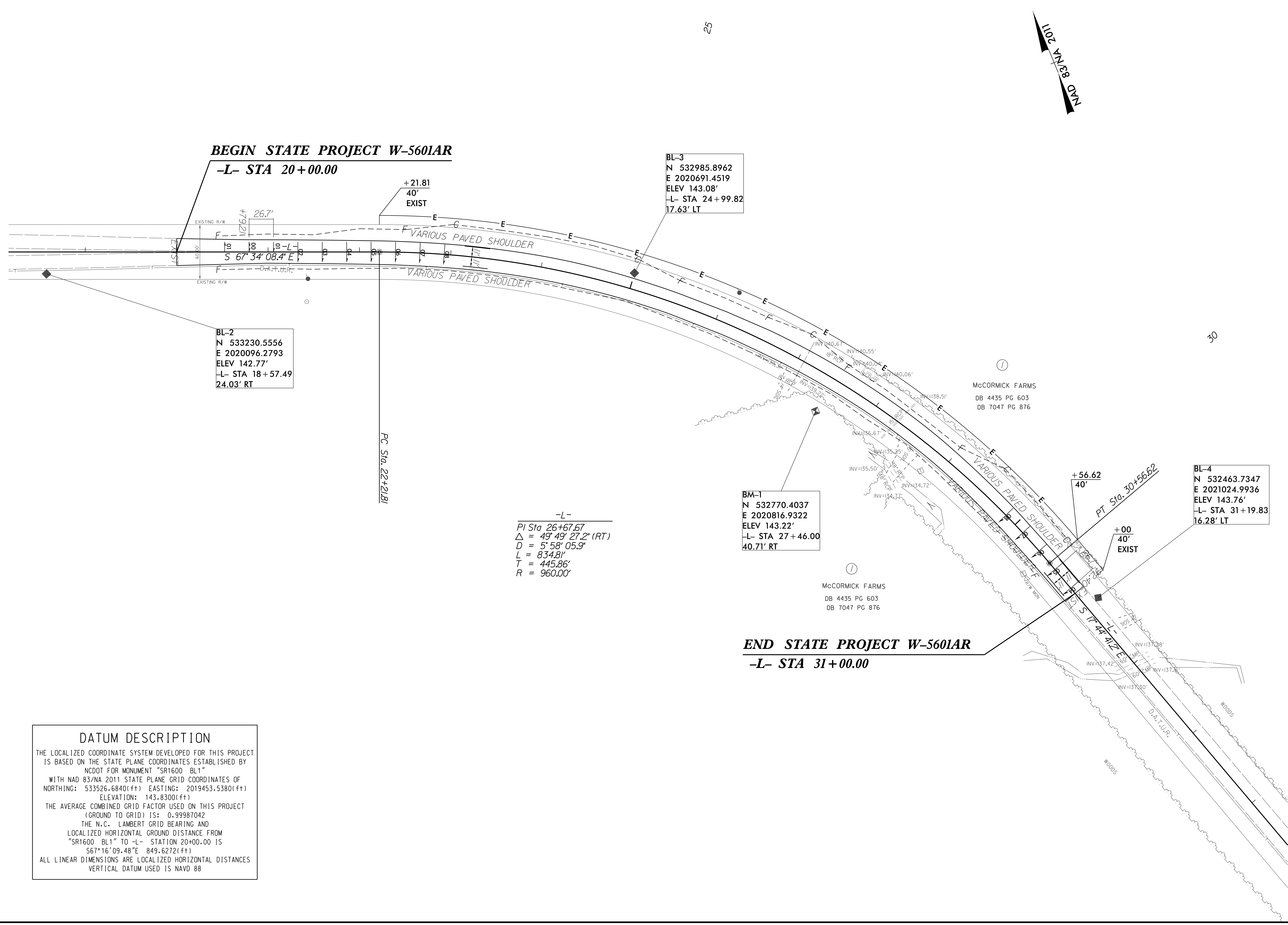
Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.

Perform the work in accordance with Section 607 of the January 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.





PROJECT REFERENCE NO.	SHEET NO.
W-5601AR	4



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SR1600 BL1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 533526.6840(ft) EASTING: 2019453.5380(ft)
ELEVATION: 143.8300(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987042
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SR1600 BL1" TO -L- STATION 20+00.00 IS
S67°16'09.48"E 849.6272(ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

REVISIONS

ROW REVISION 12/2/2016 ;PROJECT LIMITS SHORTENED.CONSTRUCTION EASEMENT SHORTENED TO STATION 31+00 ON PARCEL 1,PDE ELIMINATED

02-DEC-2016 15:26
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PROJECT REFERENCE NO.	SHEET NO.
W-5601AR	5

BM-1
-L- STA 27+46.00
40.71' RT
ELEV 143.22'

BEGIN PROJECT
20+00.00
14403

END PROJECT
31+00.00
14358

EXISTING
15" RCP

EXISTING 60" CMP
TO BE EXTENDED

240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40

19+00 20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00

5/14/99

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PROJ. REFERENCE NO.	SHEET NO.
W-5601AR	X-1

8/23/99
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PROJ. REFERENCE NO.	SHEET NO.
W-5601AR	X-3

8/23/99

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8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601AR	X-4

EXIST

143.68

31+00.00

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141.27

143.22

30+50.00

3:1 3:1 0.075 0.075

140.98

142.78

30+00.00

3:1 3:1 0.080 0.080

140.70

142.39

29+50.00

3:1 0.080 0.080

142.04

29+00.00

-L-

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09/08/99

TIP PROJECT: W-5601DD

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

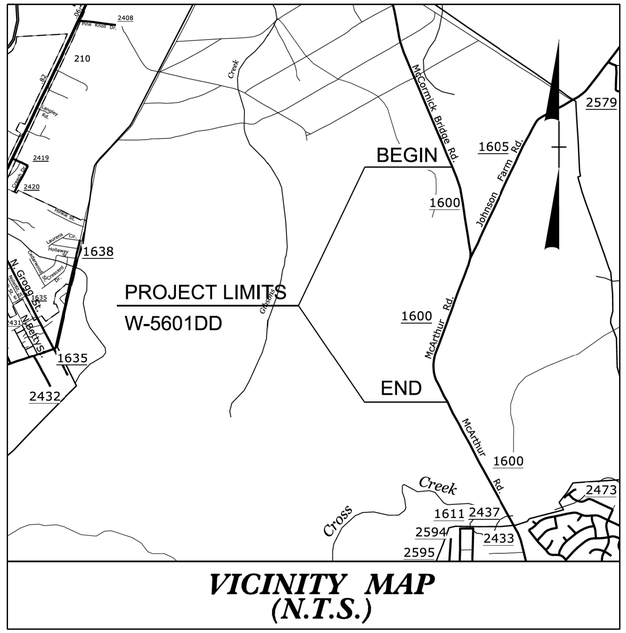
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601DD	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50138.1.109	HSIP-1600 (016)	P.E.
50138.2.109	HSIP-1600 (016)	ROW/UTIL
50138.3.109	HSIP-1600 (016)	CONST.

CUMBERLAND COUNTY

LOCATION: SR 1600 (McCORMICK BRIDGE RD/McARTHUR RD)

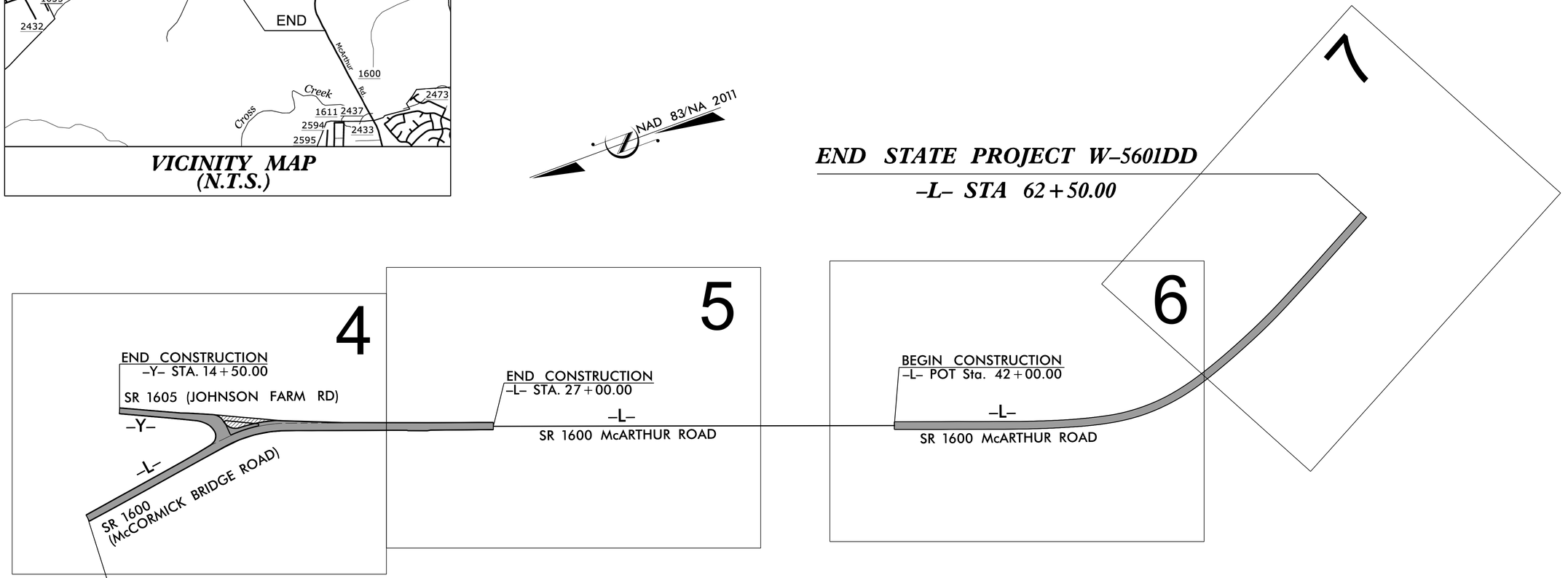
TYPE OF WORK: WIDENING, GRADING, PAVING, WEDGING AND PAVEMENT MARKINGS



VICINITY MAP
(N.T.S.)

NAD 83/NA 2011

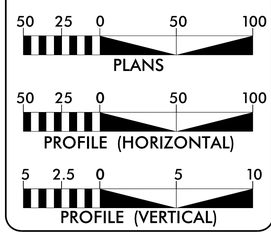
END STATE PROJECT W-5601DD
–L– STA 62+50.00



BEGIN STATE PROJECT W-5601DD
–L– STA 11+00.00

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2016 = 7,828
ADT 2036 = 14,138
V = 55 MPH

PROJECT LENGTH

PROJECT LENGTH = 0.975 MI

Prepared in the Office of:
DIVISION OF HIGHWAYS
431 TRANSPORTATION DRIVE, FAYETTEVILLE, NC 28301

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
FEBRUARY 15, 2017

SEAN MATUSZEWSKI
PROJECT ENGINEER

GLENDA SNIVELY
PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

09/08/09

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
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- Township Line
- City Line
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- Property Line
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- Property Corner
- Property Monument — ECM
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- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
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- Well — W
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- School
- Church
- Dam

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- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite Marker — RW
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- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Wheel Chair Ramp — WCR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole — HH
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

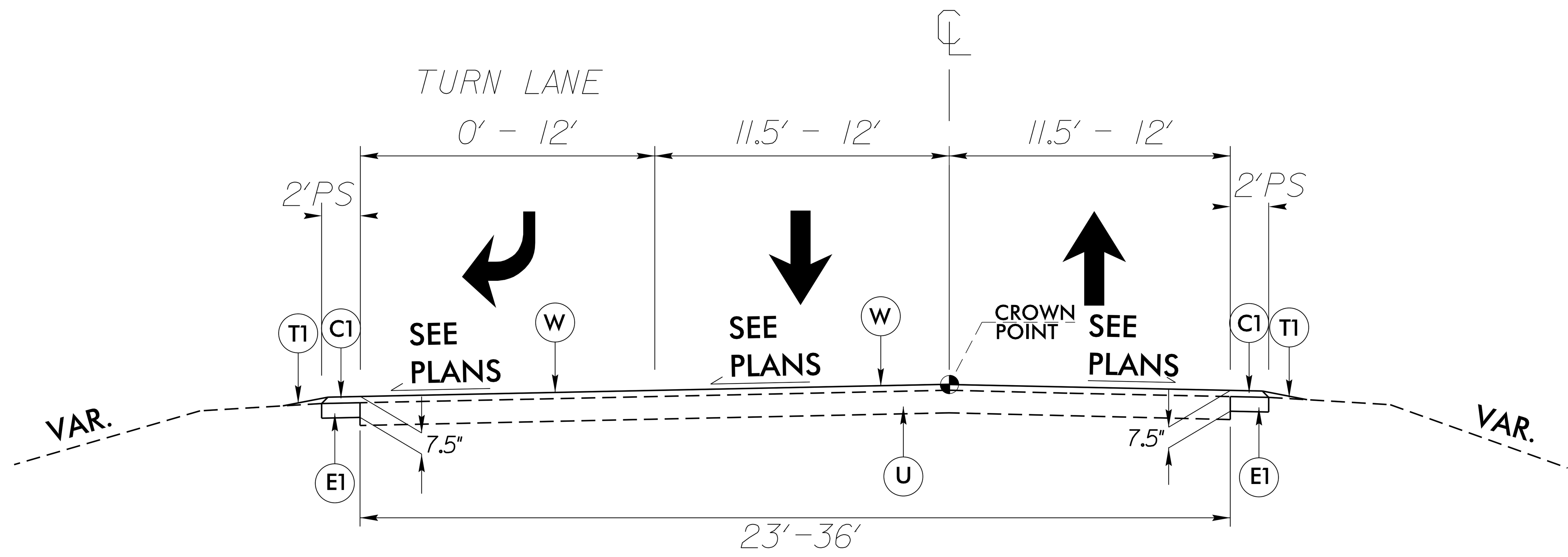
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- A/G Tank; Water, Gas, Oil
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

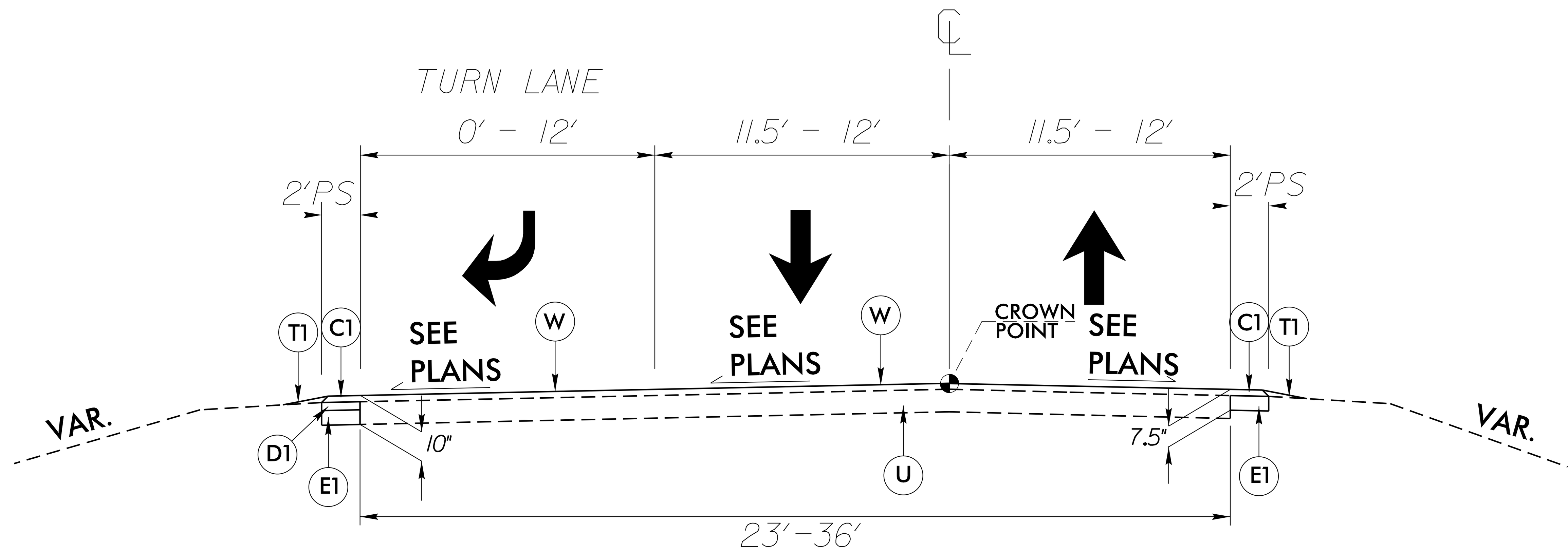
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH
D1	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH
E1	PROP. APPROX. 5 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH
T1	SHOULDER BORROW
U	EXISTING PAVEMENT
W	VAR. DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)



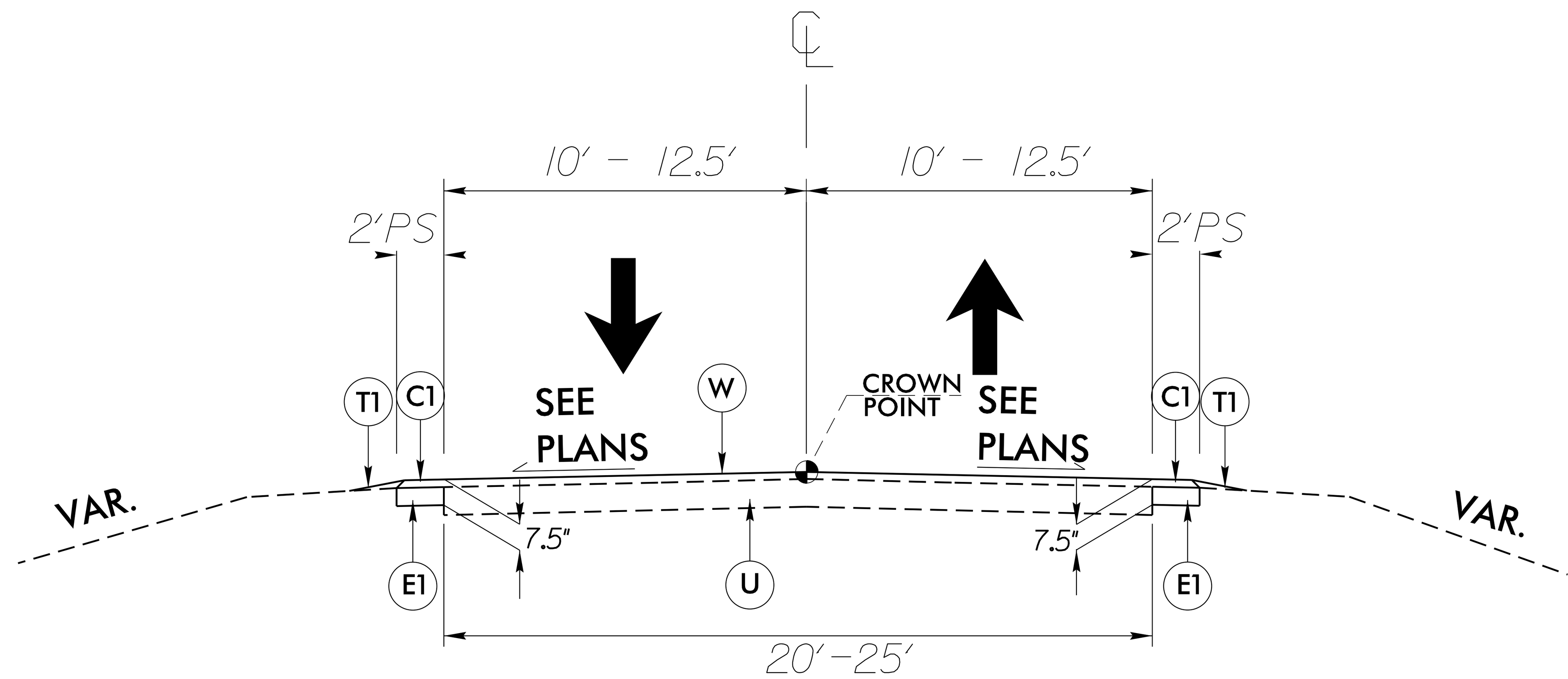
TYPICAL SECTION NO. 1

–L– STA 11+00.00 TO –L– STA 17+50.00
–L– STA 19+50.00 TO –L– STA 27+00.00
–L– STA 42+00.00 TO –L– STA 62+50.00



TYPICAL SECTION NO. 1

–L– STA 17+50.00 TO –L– STA 19+50.00



TYPICAL SECTION NO. 2

–Y– STA 10+50.00 TO –Y– STA 14+50.00

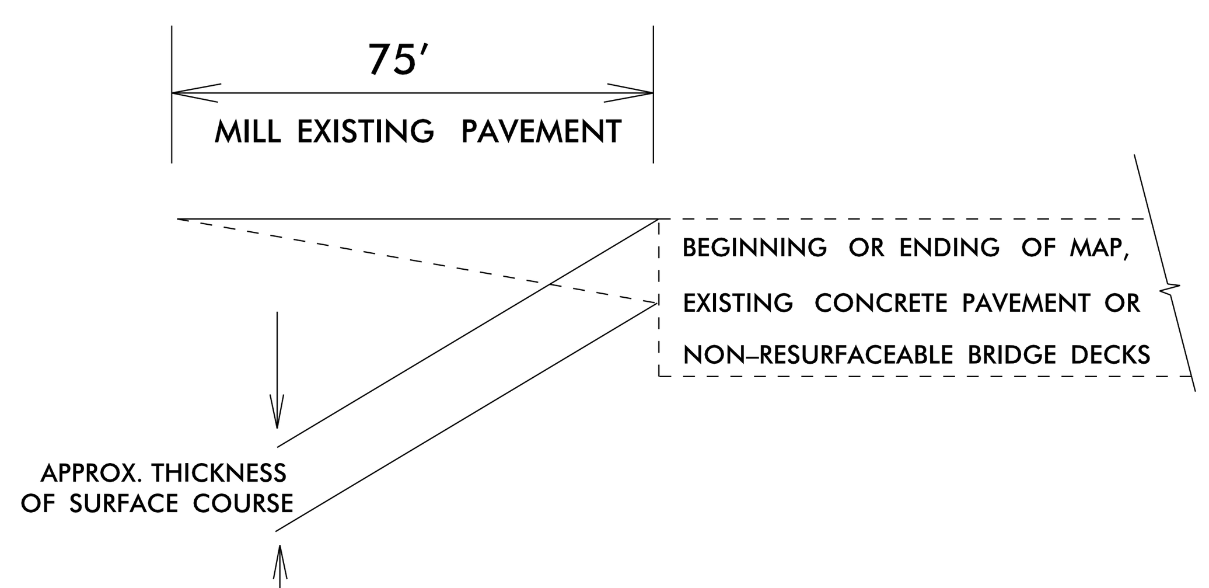
MILLING AT PAVEMENT TIE–INS

NOTES TO CONTRACTOR

For surface mixes over 1" in thickness, mill the existing pavement in accordance with the following sketch as directed by the Engineer.

Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.

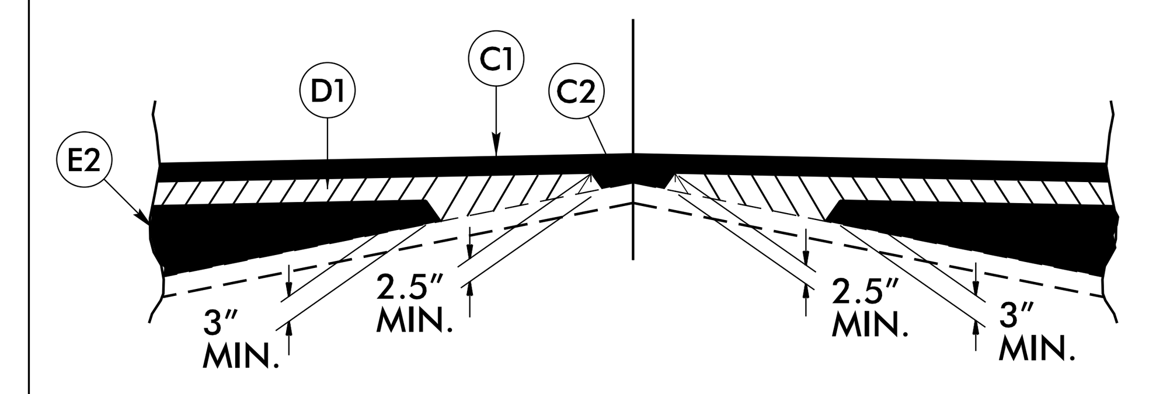
Perform the work in accordance with Section 607 of the January 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.



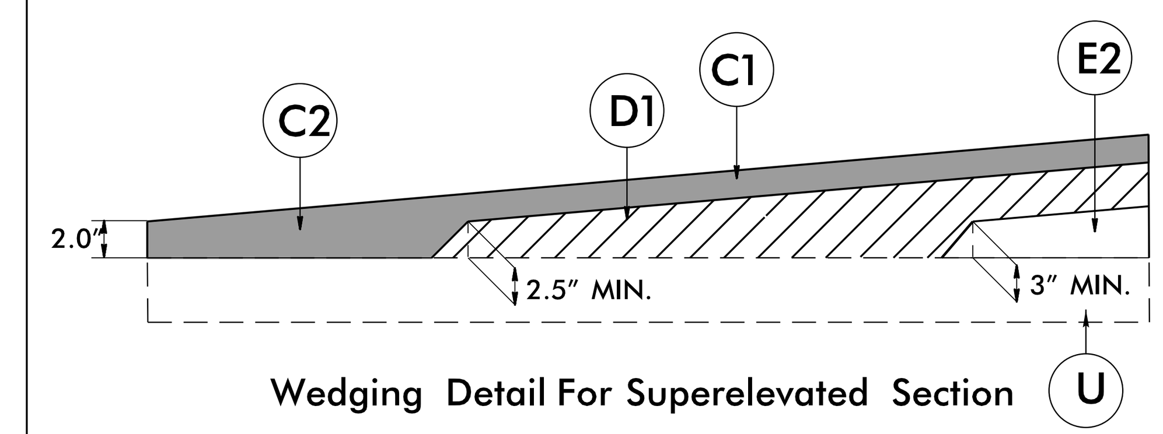
CONTRACTOR SHALL COORDINATE WITH LOCAL TRAFFIC SERVICES UNIT FOR PROPOSED SIGNAL DESIGN AND PLACEMENT OF ALL PAVEMENT MARKINGS.

FOR SIGNAL WORK, CONTACT TRAFFIC SERVICES 910-486-1452, 28 DAYS PRIOR TO PLACEMENT.

FOR PAVEMENT MARKINGS, CONTACT TRAFFIC SERVICES 910-486-1452, 14 DAYS PRIOR TO FINAL PLACEMENT.



WEDGING DETAIL



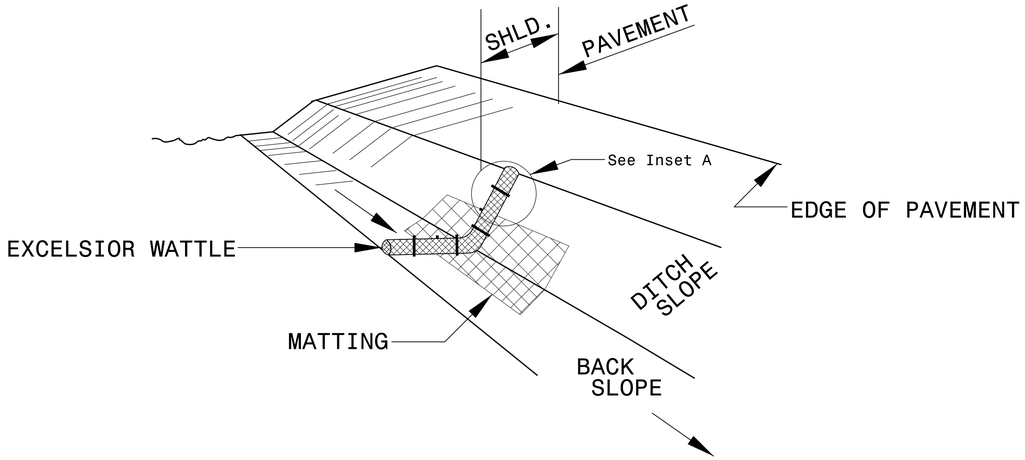
Wedging Detail For Superelevated Section

PROJECT NOTES

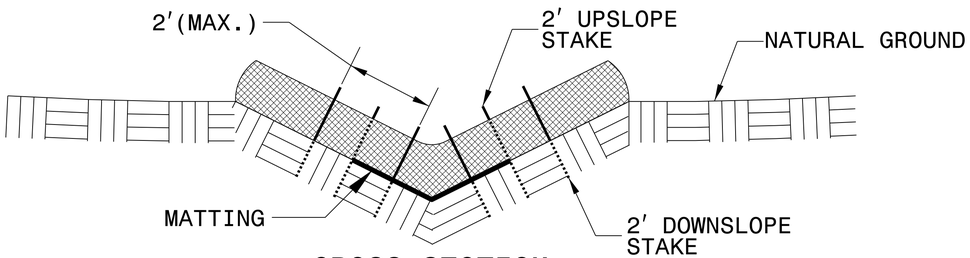
1. The contractor shall not work on both sides of the road simultaneously within the same area.
2. Ingress and egress shall be maintained to all businesses and dwellings on the project.
3. At the end of each workday, the contractor shall be required to backfill any area adjacent to existing travelway that has been graded, leaving no more than a 1" drop-off.
4. A minimum of two-way, two-lane traffic (plus all existing left and right turn lanes) shall be maintained during periods of construction inactivity.
5. The Contractor shall not be allowed to stop traffic for more than 5 minutes at a time in any one direction.
6. During periods of construction inactivity, the difference in elevation between lanes shall not exceed 1-1/2 inch.
7. Access to police and fire stations, fire hydrants, and hospitals shall be maintained at all times.
8. During periods of construction inactivity, place cones/drums 3' from existing edge of pavement (travelway) as directed by the Engineer.
9. Channelizing devices in work areas shall be spaced not greater than 50' on center in tangent areas, 45' on center in tapers, and 10' on center in radii, and shall be set 3' off the edge of travelway, unless otherwise indicated on plans.
10. Contractor to install Erosion Control devices as directed by the Engineer.
11. Contractor shall coordinate with the Division Six Traffic Services Unit (910-486-1452) for placement of all pavement markings and signs.
12. All right of way is to be monumented upon completion of project and will be paid for under construction surveying.

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

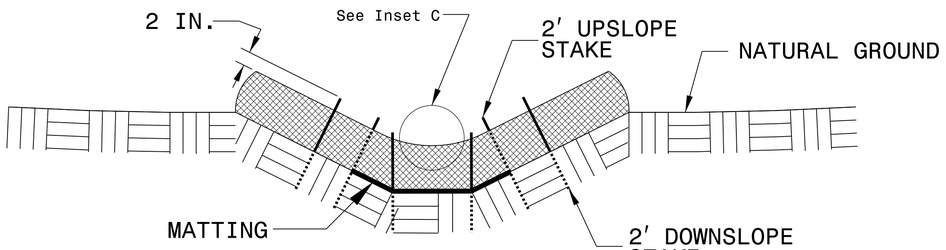
WATTLE WITH POLYACRYLAMIDE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

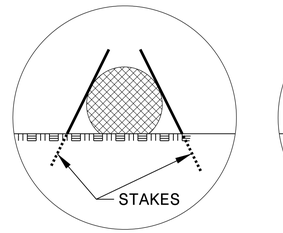
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

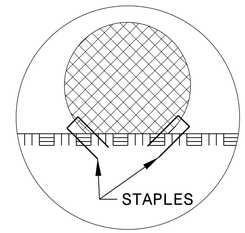
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

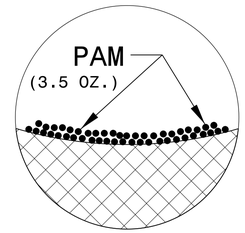
INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



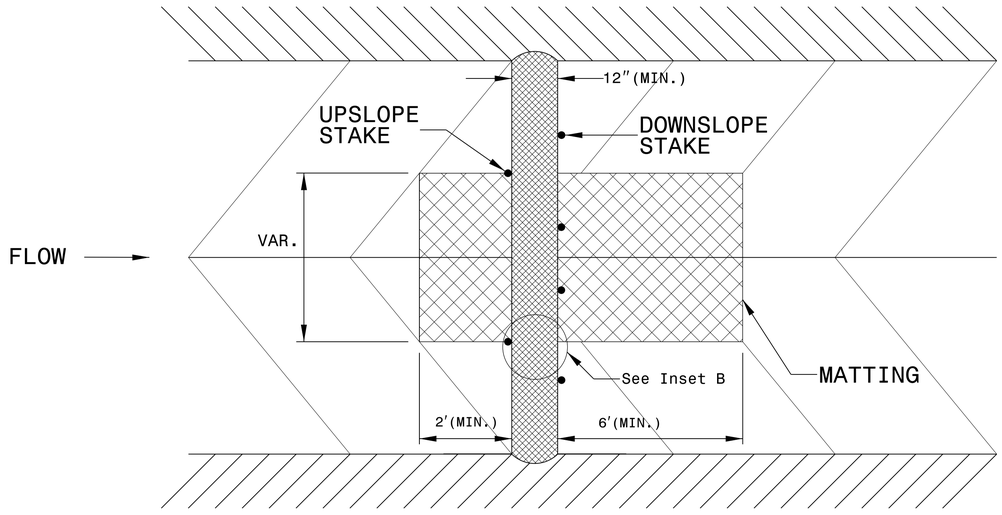
INSET A



INSET B



INSET C



TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	3

SUMMARY OF EARTHWORK

IN CUBIC YARDS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCL. EXCAV.	ROCK	UNDER-CUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. (+) 25%		ROCK	SUITABLE	UNSUIT.	TOTAL
11+00 (-L-)	62+50 (-L-)	759				759	1,200		1,200	1,500	741				
10+50 (-Y-)	14+50 (-Y-)	43				43	149		149	186	143				
TOTALS		802				802	1,349		1,349	1,686	884				
EST. 5% TO REP. TOP SOIL ON BORROW PIT											44				
GRAND TOTALS											928				
SAY											950				

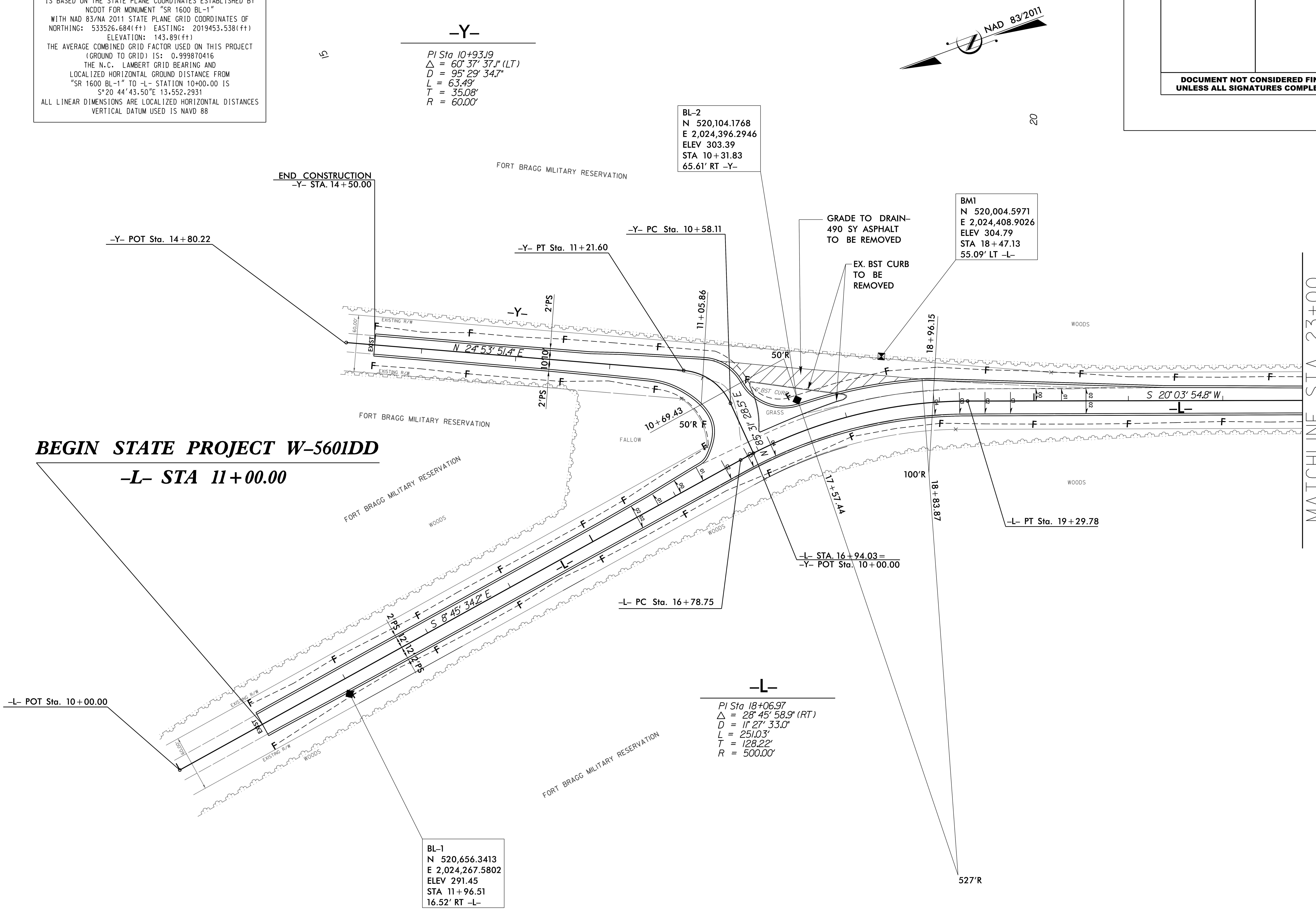
Earthwork quantities are calculated by the Roadway Design Unit.
No subsurface data provided by the Geotechnical Engineering Unit.

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SR 1600 BL-1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 533526.684(ft) EASTING: 2019453.538(ft)
ELEVATION: 143.89(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999870416
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SR 1600 BL-1" TO -L- STATION 10+00.00 IS S°20 44'43.50"E 13.552.2931
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88



REVISIONS

8/17/99

20-DEC-2016 15:00
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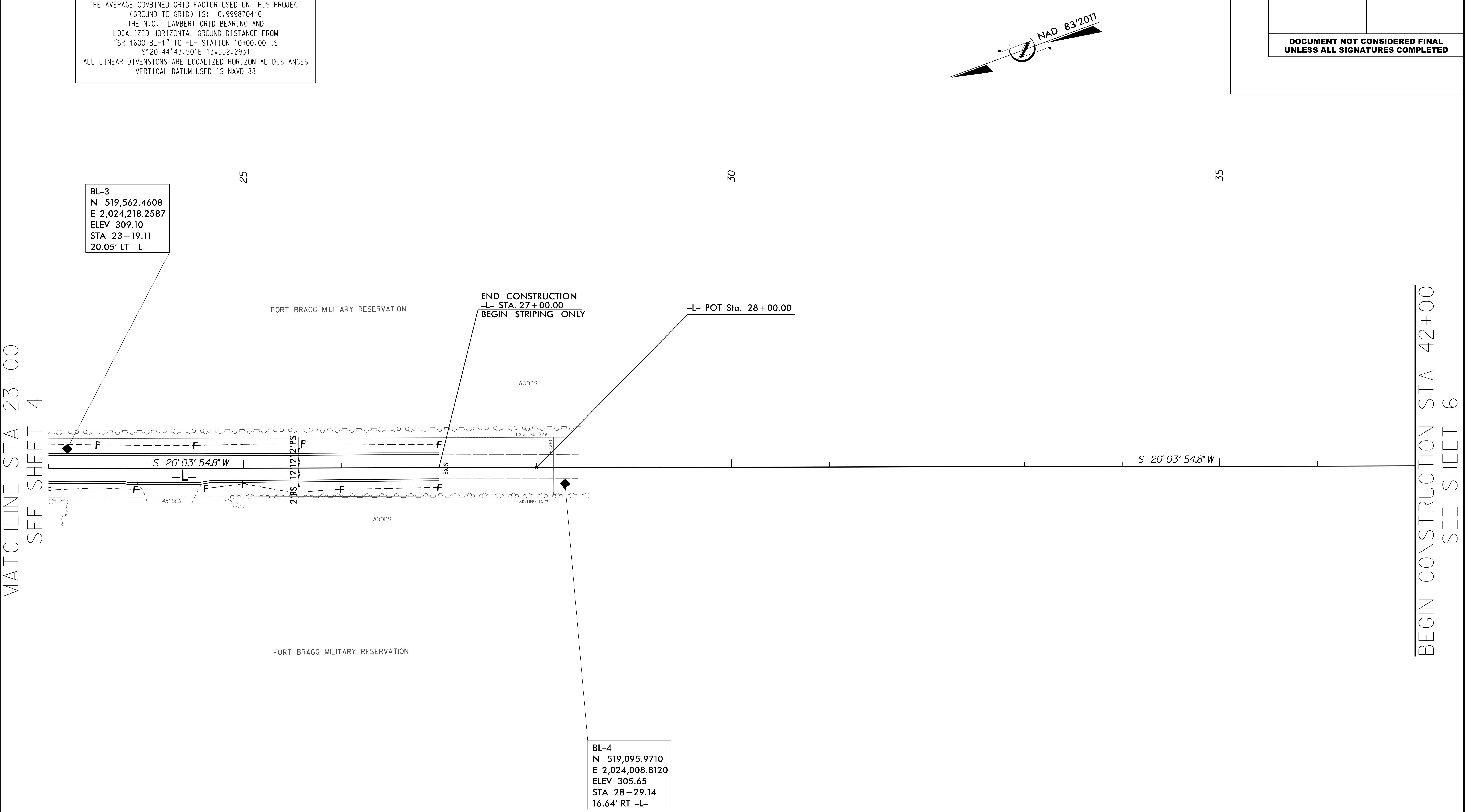
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SR 1600 BL-1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 533526.684(ft) EASTING: 2019453.538(ft)
ELEVATION: 143.89(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999870416
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SR 1600 BL-1" TO -L- STATION 10+00.00 IS S°20 44'43.50"E 13,552.2931
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88



REVISIONS

8/17/99

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8/17/99

REVISIONS

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "SR 1600 BL-1" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 533526.684(ft) EASTING: 2019453.538(ft) ELEVATION: 143.89(ft)
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VERTICAL DATUM USED IS NAVD 88

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011

END CONSTRUCTION STA 28+00.00
SEE SHEET 5

MATCHLINE STA 54+00
SEE SHEET 7

40 45 50

BEGIN CONSTRUCTION
-L- POT Sta. 42+00.00
END STRIPING ONLY

-L- PC Sta. 46+67.67

-L- PCC Sta. 50+05.86

-L- PCC Sta. 53+21.86

FORT BRAGG MILITARY RESERVATION

WOODS

EXISTING R/W

60.00'

EXIST

S 20°03'54.8" W

-L-

2 PS

12

12

2 PS

20' BST

24" RCP

INV=271.88'

INV=273.80'

INV=265.95'

INV=268.47'

COMUNICATIONS MH

22.50'

COLLAR & EXTEND 24" RCP PIPE

COLLAR & EXTEND 15" RCP PIPE

BL-5
N 517,862.6610
E 2,023,557.9770
ELEV 284.04
STA 41+42.27
16.97' RT -L-

BL-6
N 517,257.6460
E 2,023,339.2800
ELEV 277.09
STA 47+84.81
17.66' RT -L-

BL-7
N 516,716.6180
E 2,023,288.6430
ELEV 267.44
STA 53+25.58
19.40' RT -L-

-L-

PI Sta 48+37.01
Δ = 7°35'27.2" (LT)
D = 2°14'40.5"
L = 338.19'
T = 169.34'
R = 2,552.64'

PI Sta 51+66.59
Δ = 25°50'56.1" (LT)
D = 8°10'48.5"
L = 316.00'
T = 160.73'
R = 700.43'

PI Sta 55+93.31
Δ = 11°41'22.1" (LT)
D = 2°09'38.3"
L = 541.02'
T = 271.45'
R = 2,651.78'

20-DEC-2016 14:58
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PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATUM DESCRIPTION

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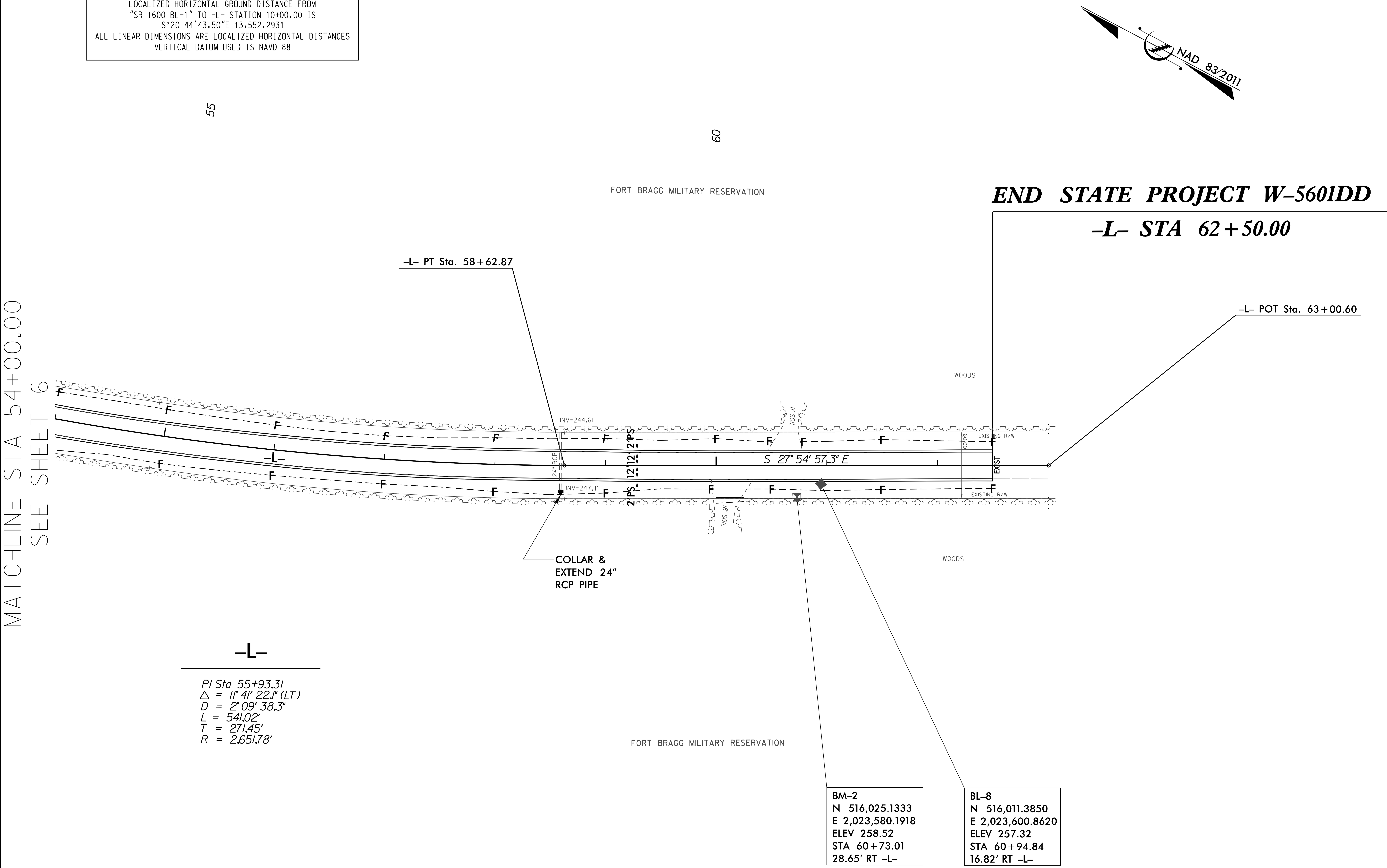
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88



-L-

PI Sta 55+93.31
Δ = 11° 41' 22.1" (LT)
D = 2° 09' 38.3"
L = 541.02'
T = 271.45'
R = 2,651.78'

20-DEC-2016 15:00
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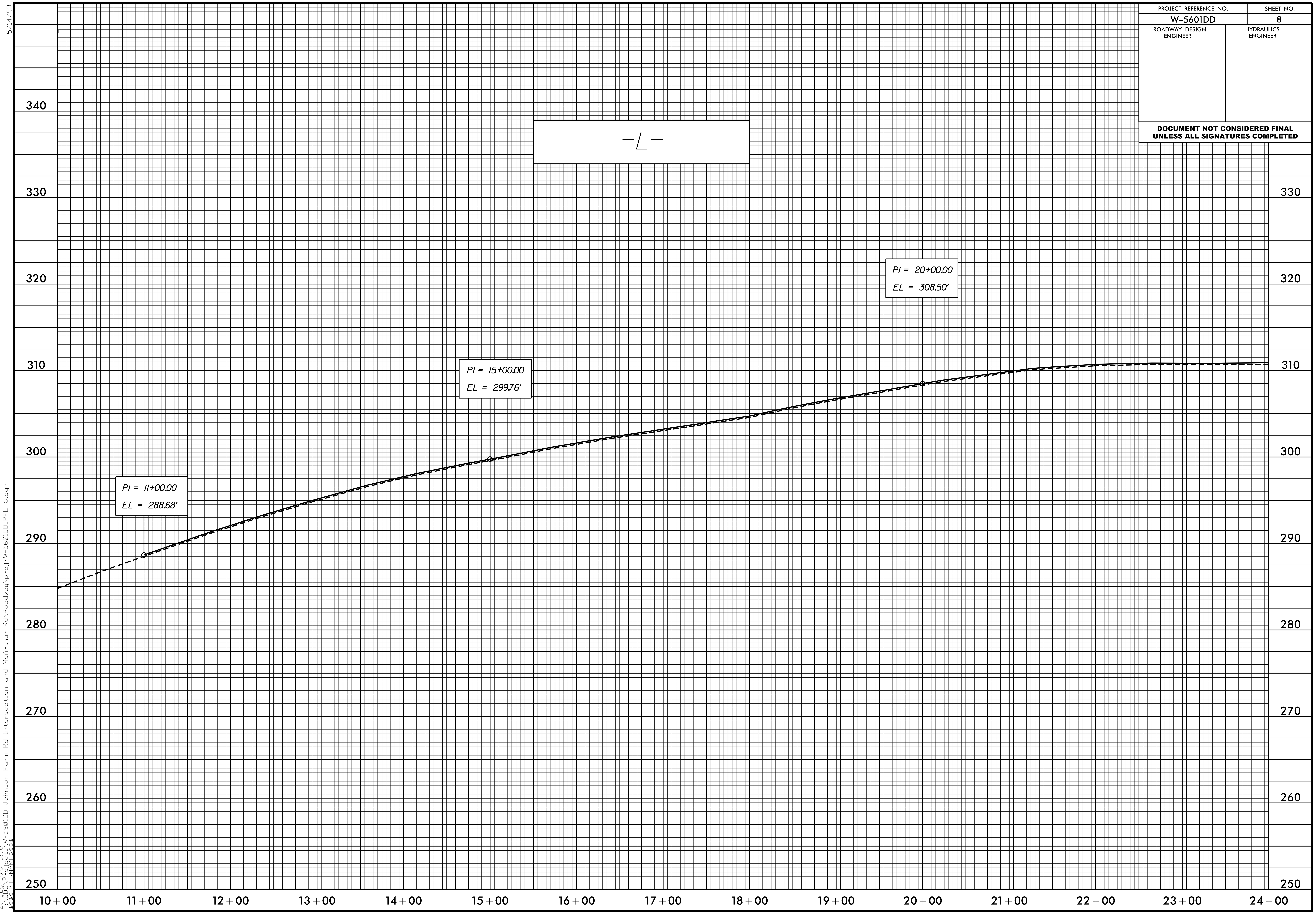
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	8

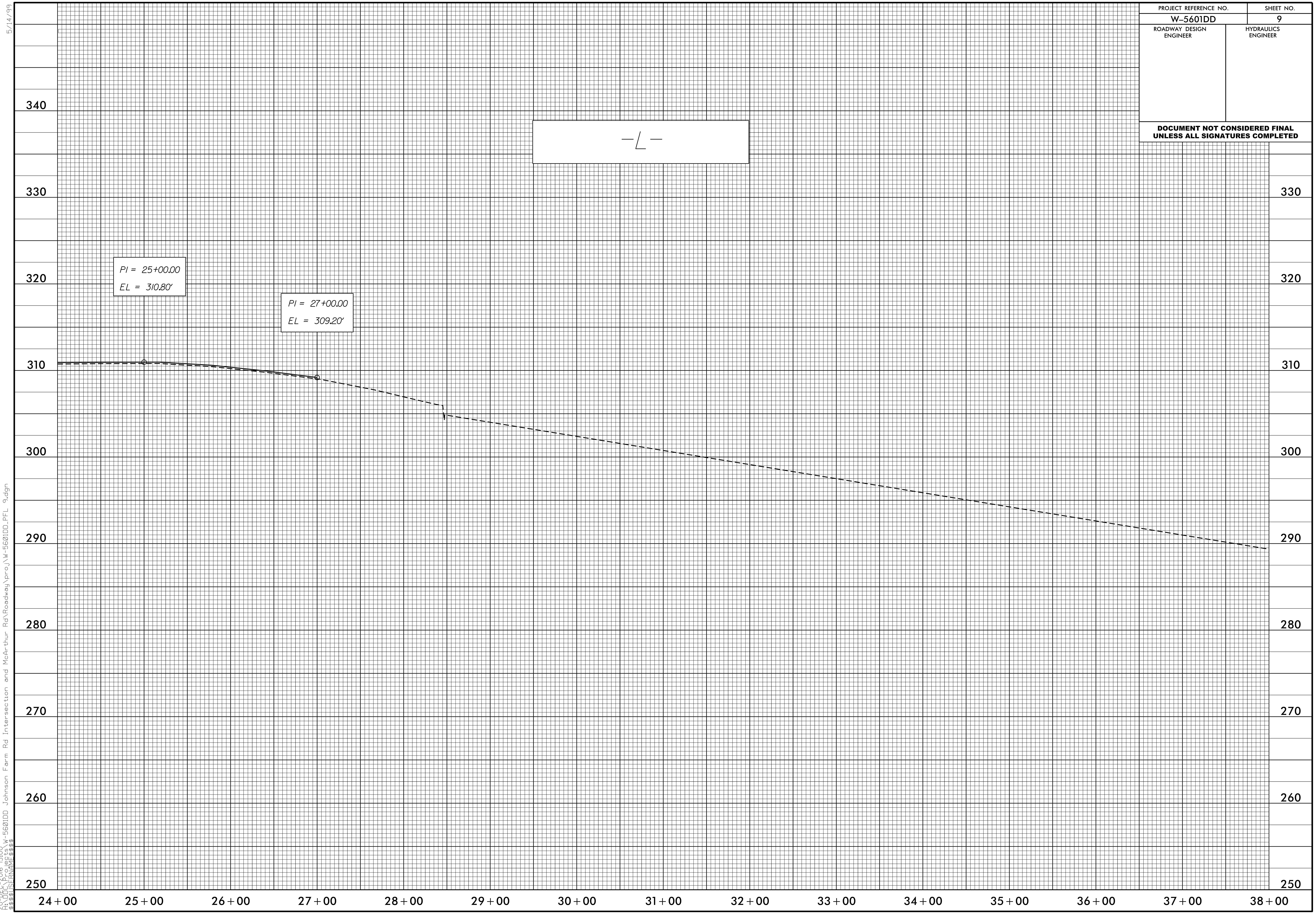
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/14/99

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

—L—

PI = 42+00.00
EL = 284.19'

PI = 45+00.00
EL = 281.20'

PI = 50+00.00
EL = 274.13'

320
310
300
290
280
270
260
250
240
230

38+00 39+00 40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00

20-DEC-2016 15:00
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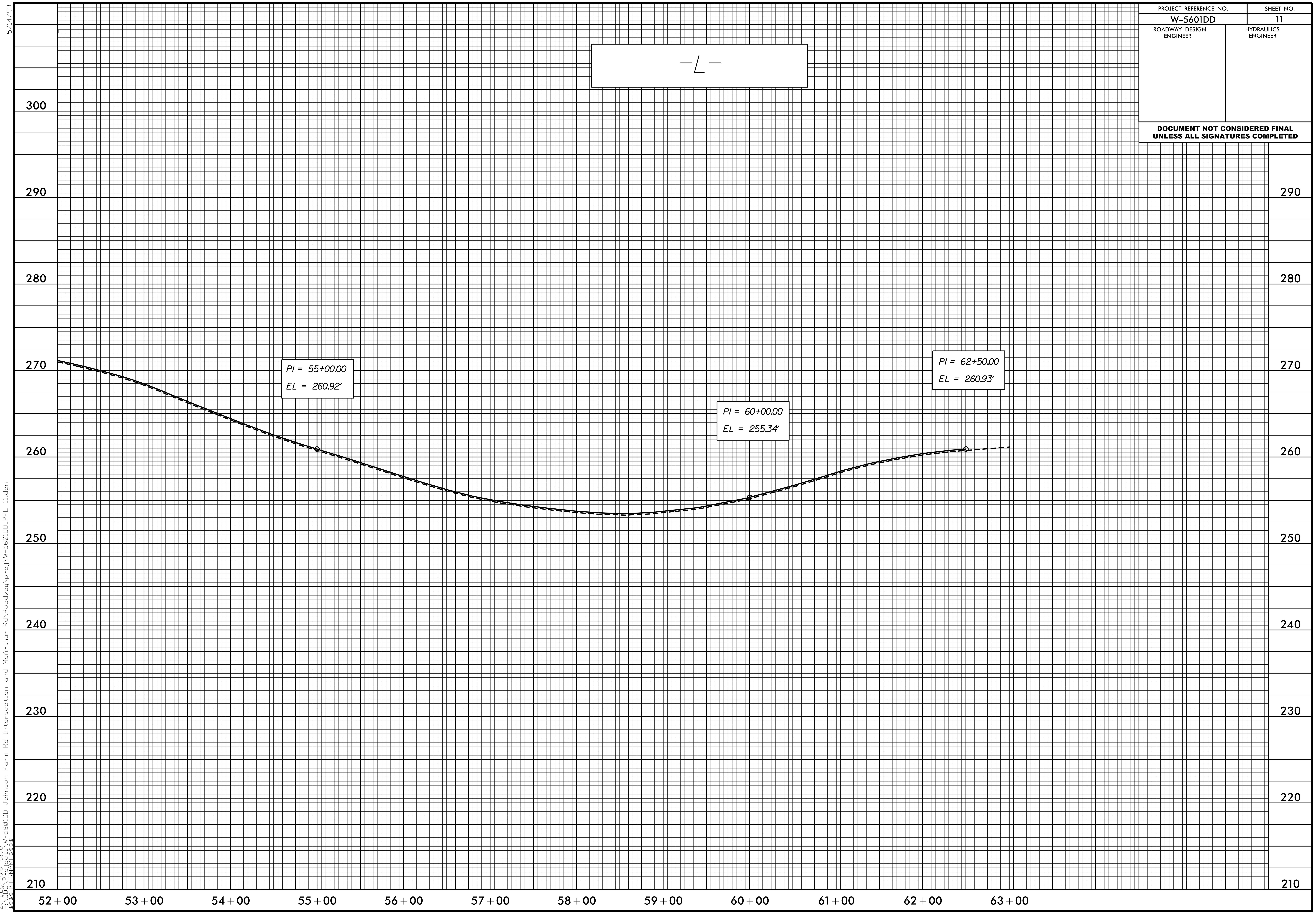
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	11

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/14/99

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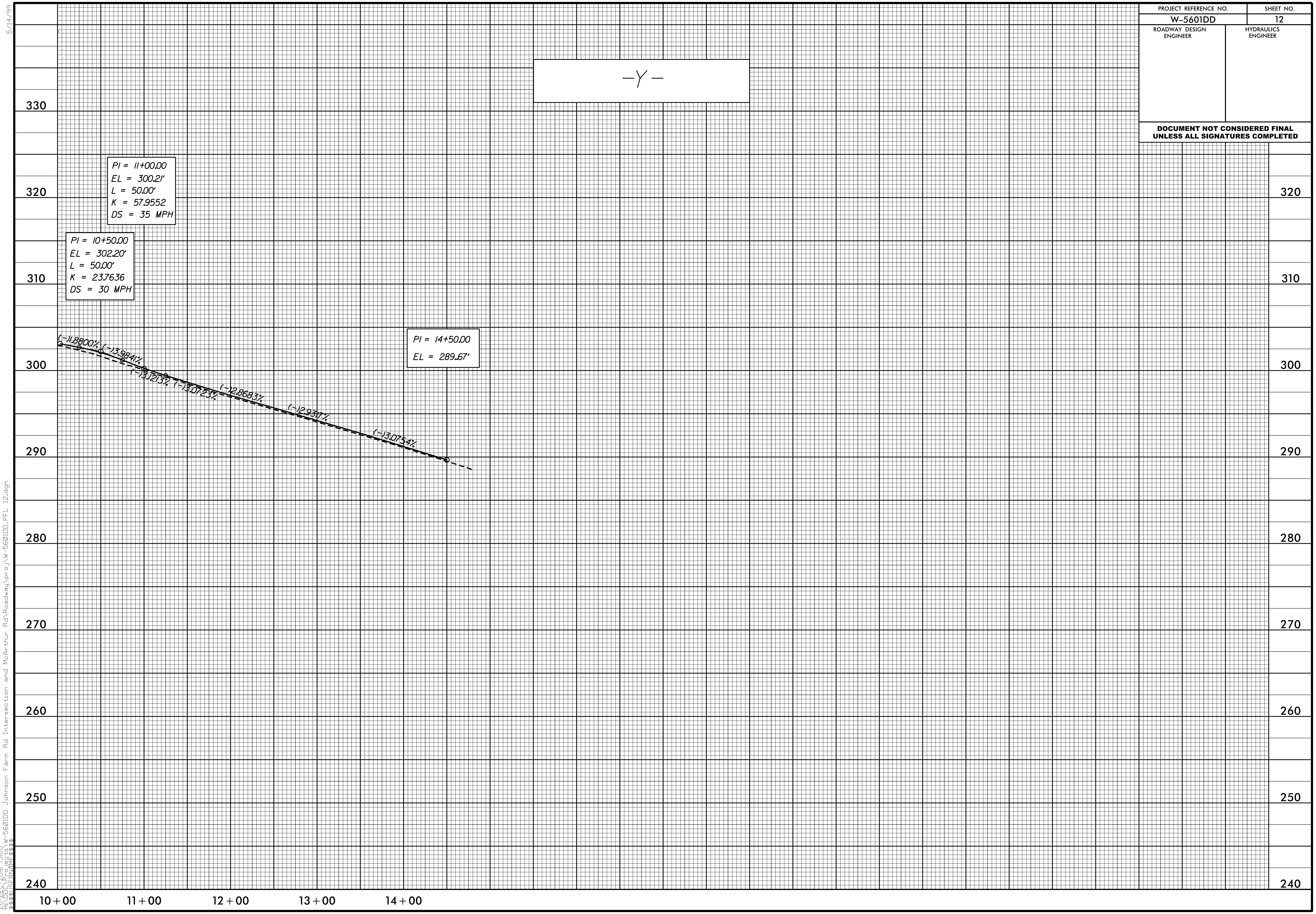
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	12

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y-



5/14/99

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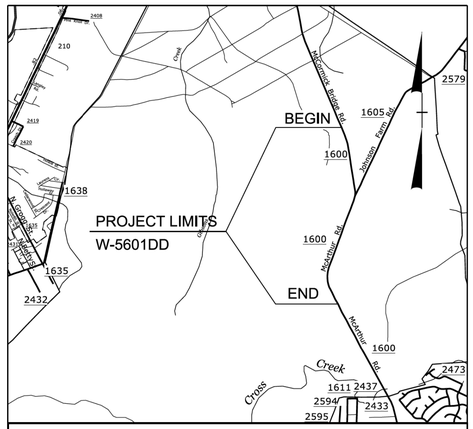


PROJECT: W–5601DD

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601DD	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50138.1.109	HSIP–1600(016)	P.E.
50138.2.109	HSIP–1600(016)	R / W & UTILITIES
50138.3.109	HSIP–1600(016)	CONST

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

CUMBERLAND COUNTY

VICINITY MAP
(N.T.S.)

LOCATION: SR 1600 (McCORMICK BRIDGE RD/McARTHUR RD)

TYPE OF WORK: WIDENING, GRADING, PAVING, WEDGING AND PAVEMENT MARKINGS

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	▶
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

GRAPHIC SCALE

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG–010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

PLANS PREPARED BY:
DIVISION OF HIGHWAYS
431 TRANSPORTATION DRIVE, FAYETTEVILLE, NC 28301

2012 STANDARD SPECIFICATIONS

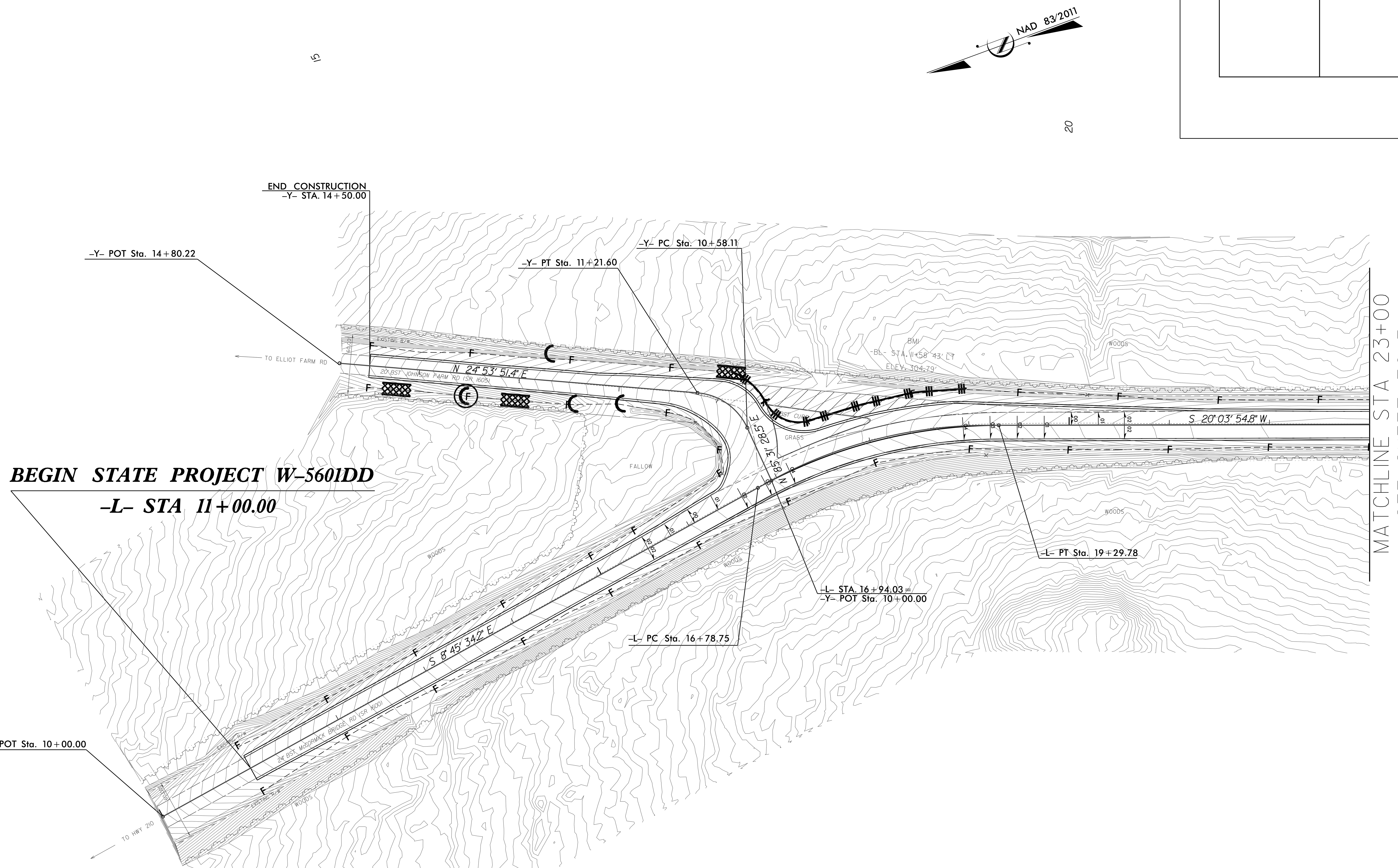
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drains
1630.01	Riser Basin
1630.02	Silt Basin Type B
1630.03	Temporary Silt Ditch
1630.04	Stilling Basin
1630.05	Temporary Diversion
1630.06	Special Stilling Basin
1631.01	Matting Installation
1632.01	Rock Inlet Sediment Trap Type A
1632.02	Rock Inlet Sediment Trap Type B
1632.03	Rock Inlet Sediment Trap Type C
1633.01	Temporary Rock Silt Check Type A
1633.02	Temporary Rock Silt Check Type B
1634.01	Temporary Rock Sediment Dam Type A
1634.02	Temporary Rock Sediment Dam Type B
1635.01	Rock Pipe Inlet Sediment Trap Type A
1635.02	Rock Pipe Inlet Sediment Trap Type B
1640.01	Coir Fiber Baffle
1645.01	Temporary Stream Crossing

FINAL EROSION CONTROL PLANS
$DATE$

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER


NAD 83/2011
15
20
END CONSTRUCTION
-Y- STA. 14+50.00
-Y- POT Sta. 14+80.22
-Y- PT Sta. 11+21.60
-Y- PC Sta. 10+58.11
TO ELLIOT FARM RD
N 24° 53' 51.4" E
20' BST JOHNSON FARM RD (SR 1605)
BM1
-BL- STA. 11+58 43' LT
ELEV. 304.79'
WOODS
S 20° 03' 54.8" W
GRASS
FALLOW
N 85° 3' 28.5" E
BEGIN STATE PROJECT W-5601DD
-L- STA 11+00.00
MATCHLINE STA 23+00
SEE SHEET EC-3
-L- PT Sta. 19+29.78
-L- STA. 16+94.03 =
-Y- POT Sta. 10+00.00
-L- PC Sta. 16+78.75
S 8° 45' 34.2" E
24' BST McCORMICK BRIDGE RD (SR 1600)
-L- POT Sta. 10+00.00
TO HWY 210

REVISIONS

8/17/99

20-DEC-2016 15:00
H:\DOT Projects\W-5601DD Johnson Farm Rd Intersection and McArthur Rd\Roadway\proj\W-5601DD_Rdy_EC2.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	EC-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/2011

25

30

35

FORT BRAGG MILITARY RESERVATION

END CONSTRUCTION
-L- STA. 27+00.00
BEGIN STRIPING ONLY

-L- POT Sta. 28+00.00

WOODS

EXISTING R/W

S 20° 03' 54.8" W

25' BST MCARTHUR RD (SR 1801)

TO RAMSEY ST

S 20° 03' 54.8" W

45' SOIL

EXISTING R/W

WOODS

FORT BRAGG MILITARY RESERVATION

MATCHLINE STA 23+00
SEE SHEET EC-2

MATCHLINE STA 42+00
SEE SHEET EC-4

BEGIN CONSTRUCTION STA 42+00

REVISIONS

8/17/99

20-DEC-2016 15:00
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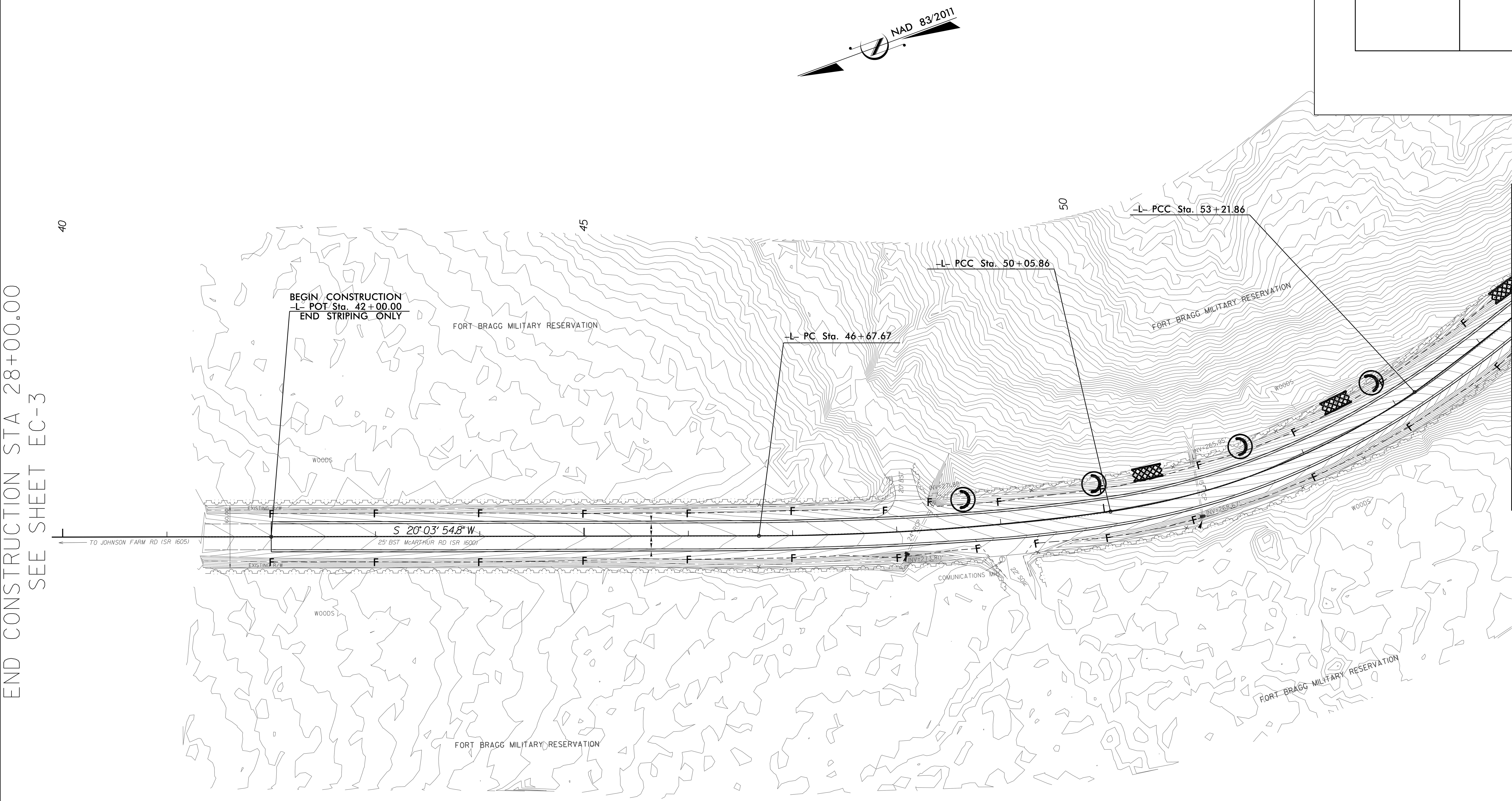
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	EC-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

8/17/99

20-DEC-2016 15:00
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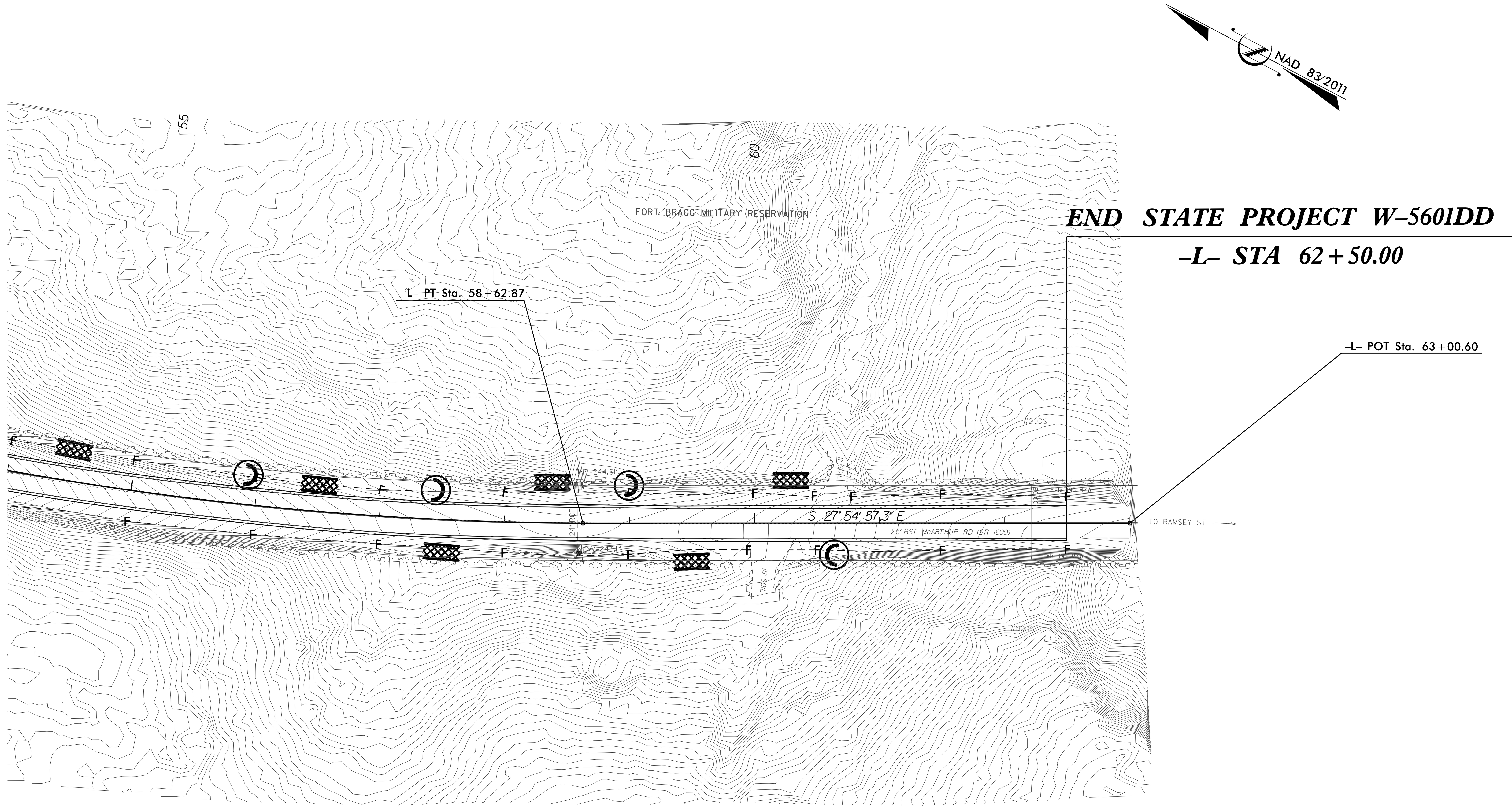
PROJECT REFERENCE NO.	SHEET NO.
W-5601DD	EC-5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE STA 54+00.00
SEE SHEET EC-4



FORT BRAGG MILITARY RESERVATION

20-DEC-2016 15:00
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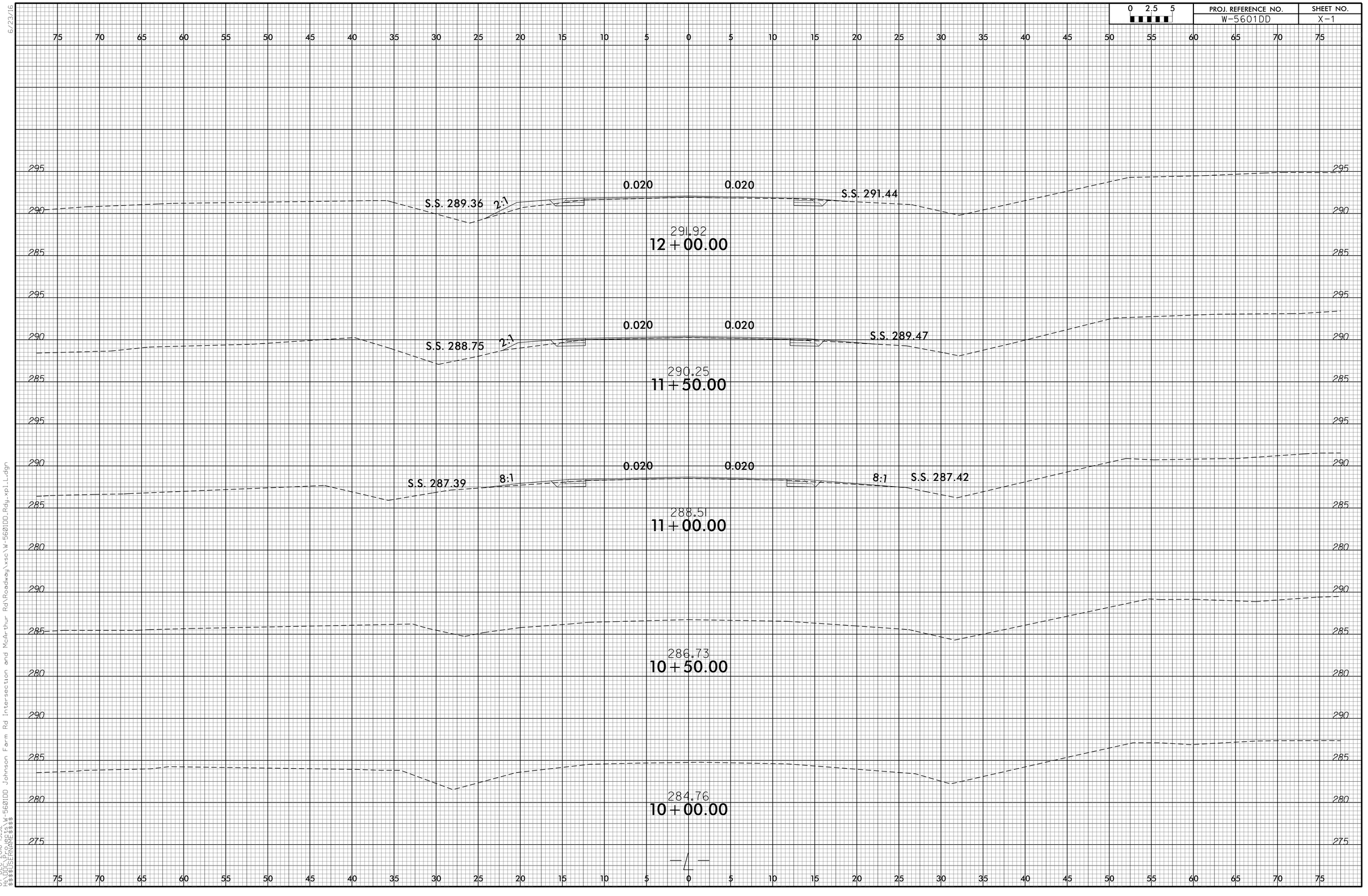
6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601DD	X-1



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6/23/16

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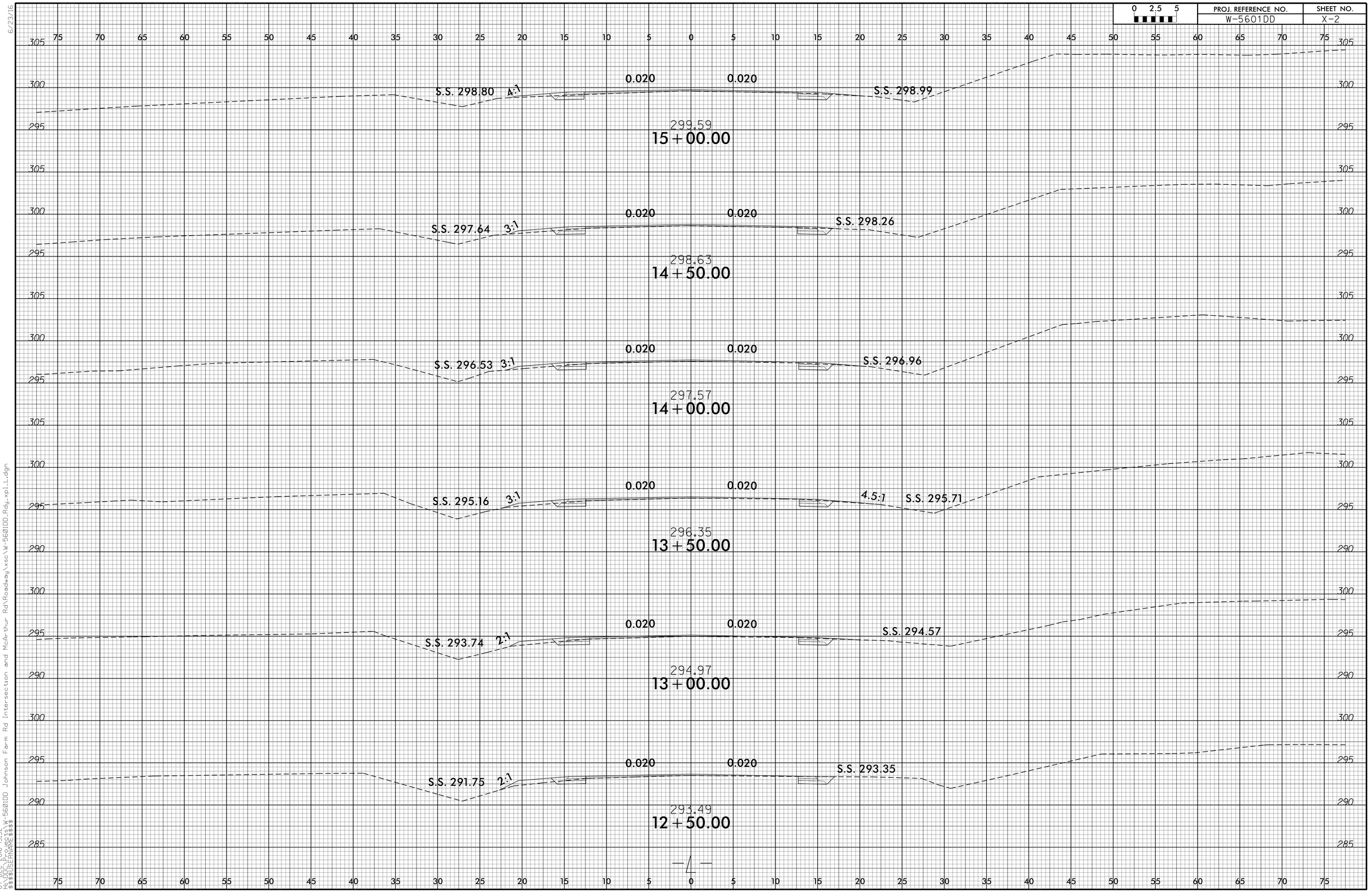

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6/23/16

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	W-5601DD	X-3

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310 / 305 / 300 / 295

S.S. 303.06 — 3:1 — 0.000 — 0.040 — 0.040 — 8.5:1 — S.S. 302.27

303.81
17+50.00

310 / 305 / 300

0.051 — 0.015 — 0.035 — 0.035 — 12.5:1 — S.S. 301.82

303.06
17+00.00

310 / 305 / 300

4'

S.S. 301.04 — 2:1 — 0.046 — 0.016 — 0.020 — 3:1 — S.S. 301.57

302.30
16+50.00

310 / 305 / 300

S.S. 299.37 — 2:1 — 0.003 — 0.020 — 2:1 — S.S. 300.53

301.46
16+00.00

310 / 305 / 300

S.S. 299.49 — 3:1 — 0.020 — 0.020 — 3:1 — S.S. 299.56

300.55
15+50.00

295

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27-DEC-2016 15:32
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PROJ. REFERENCE NO.	SHEET NO.
W-5601DD	X-4

6/23/16

07-DEC-2016 15:32
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6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601DD	X-5

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315 310 305

S.S. 308.19 2:1 0.020 0.020 3:1 S.S. 309.73

310.69
23+00.00

315 310 305

S.S. 308.07 2:1 0.020 0.020 2:1 S.S. 309.27

310.67
22+50.00

315 310 305

S.S. 308.43 2:1 0.020 0.020 2:1 S.S. 309.51

310.55
22+00.00

315 310 305

S.S. 308.00 2:1 0.020 0.020 2:1 S.S. 308.69

310.25
21+50.00

315 310 305

S.S. 307.91 2:1 0.020 0.020 2:1 S.S. 307.77

309.73
21+00.00

315 310 305 300

S.S. 306.46 2:1 0.001 0.018 0.020 2:1 S.S. 306.90

309.07
20+50.00

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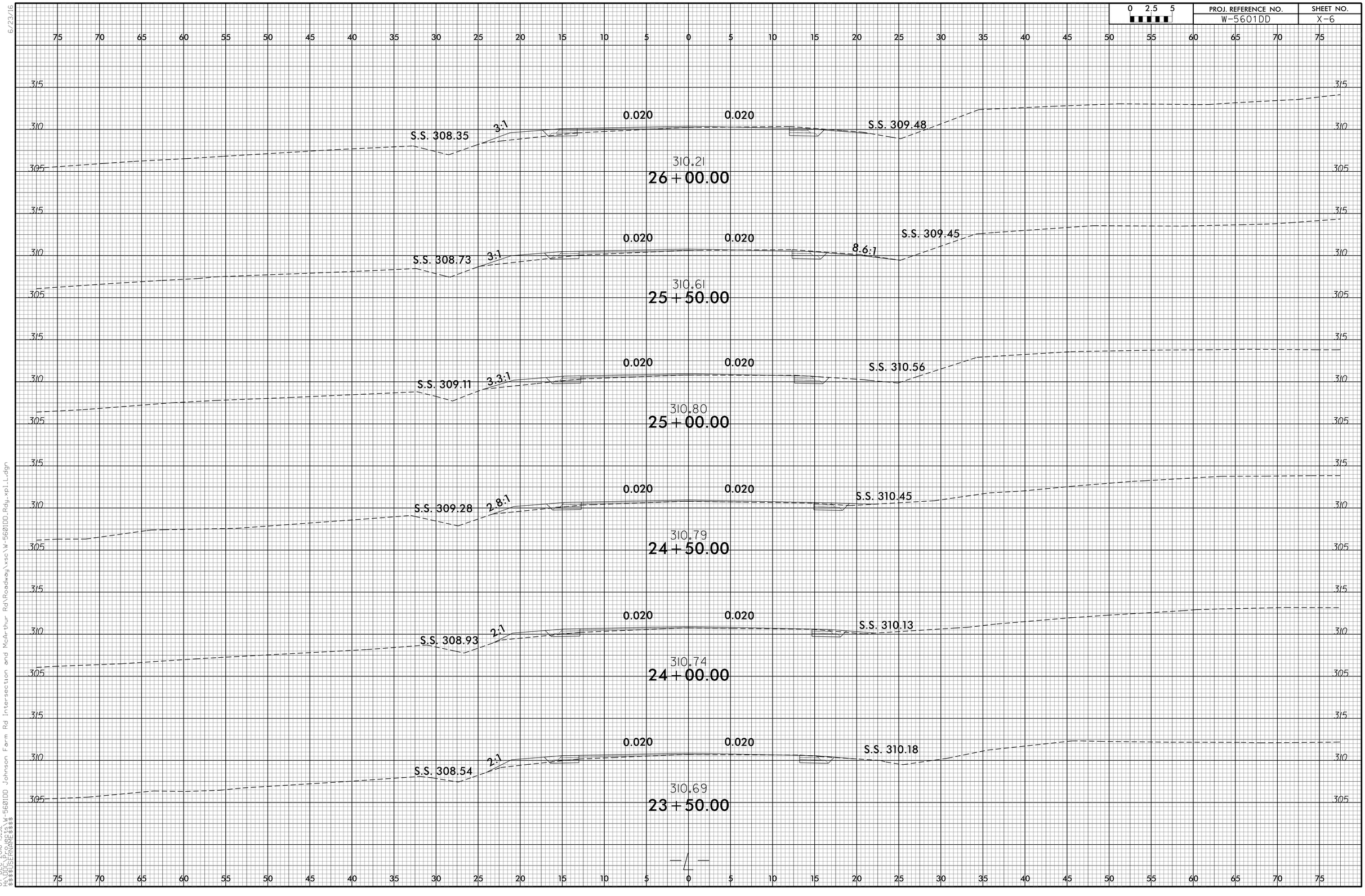
	W-5601DD	X-6



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W-5601DD	X-7

6/23/16

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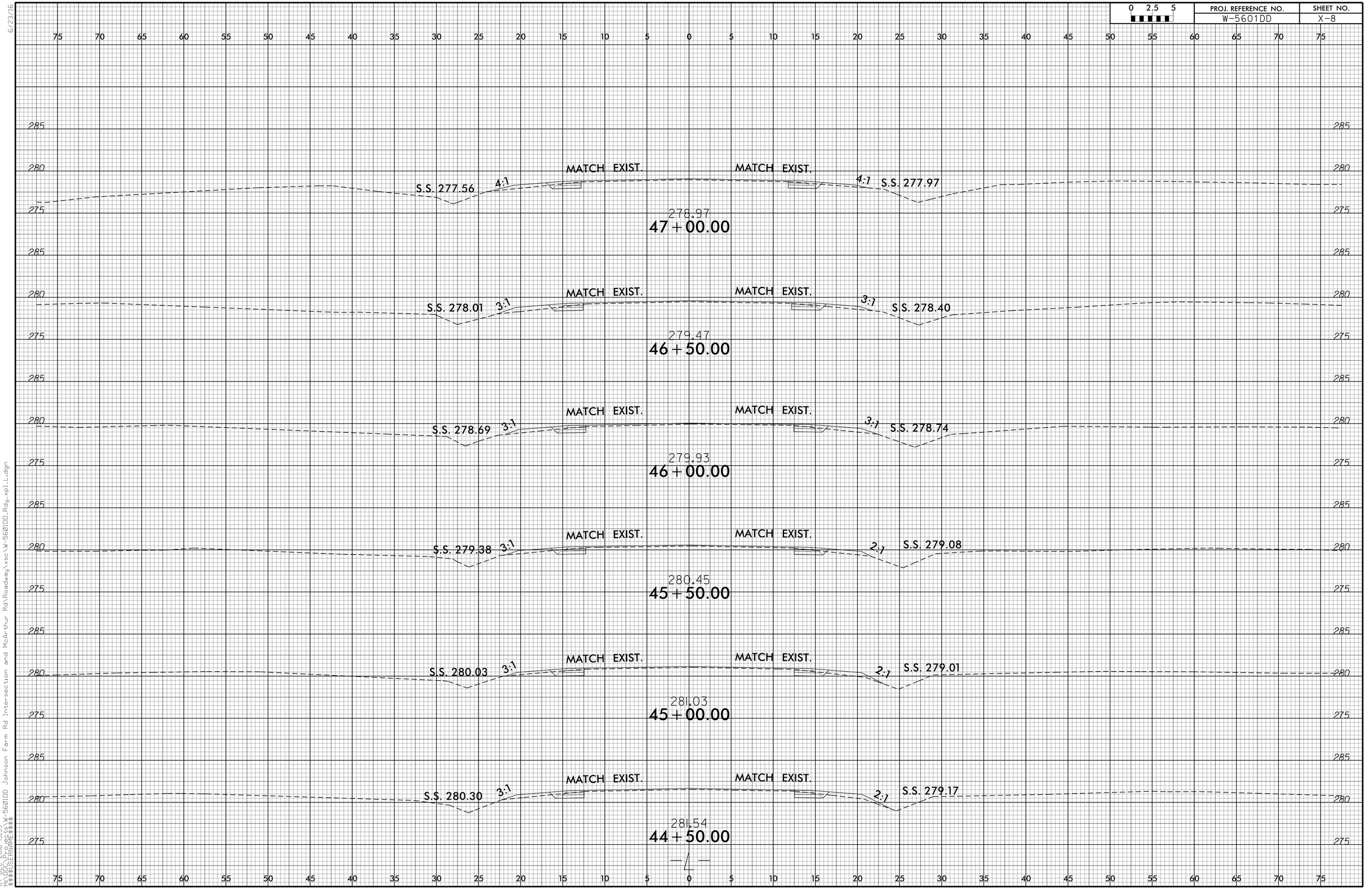
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601DD	X-8



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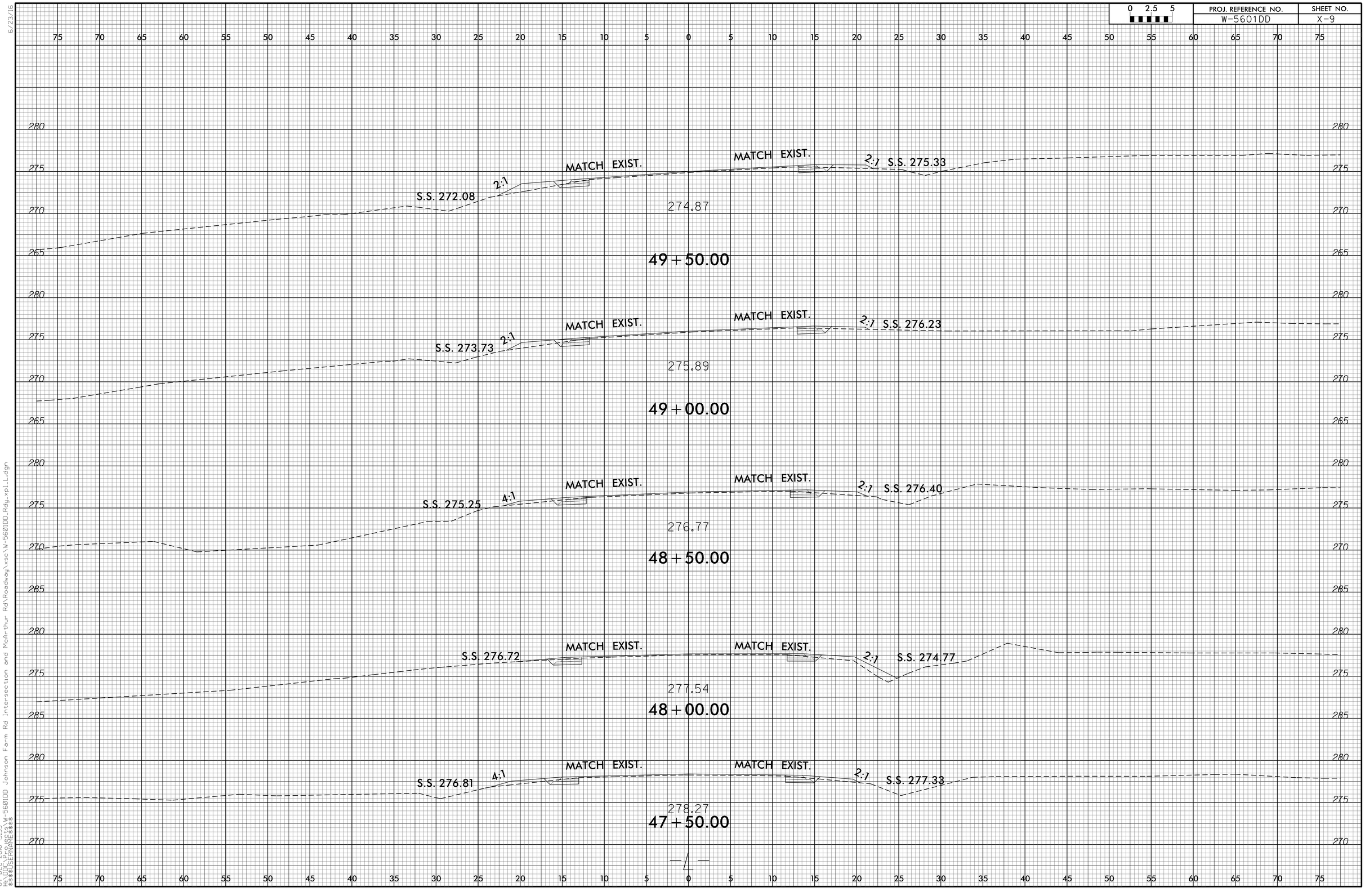
	W-5601DD	X-9



6/23/16

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W-5601DD Johnson Farm Rd Intersection and McArthur Rd\Roadway\xsc\W-5601DD_Rdy_xp1_L.dgn

PROJ. REFERENCE NO.	SHEET NO.
W-5601DD	X-10

6/23/16

07-DEC-2016 15:33
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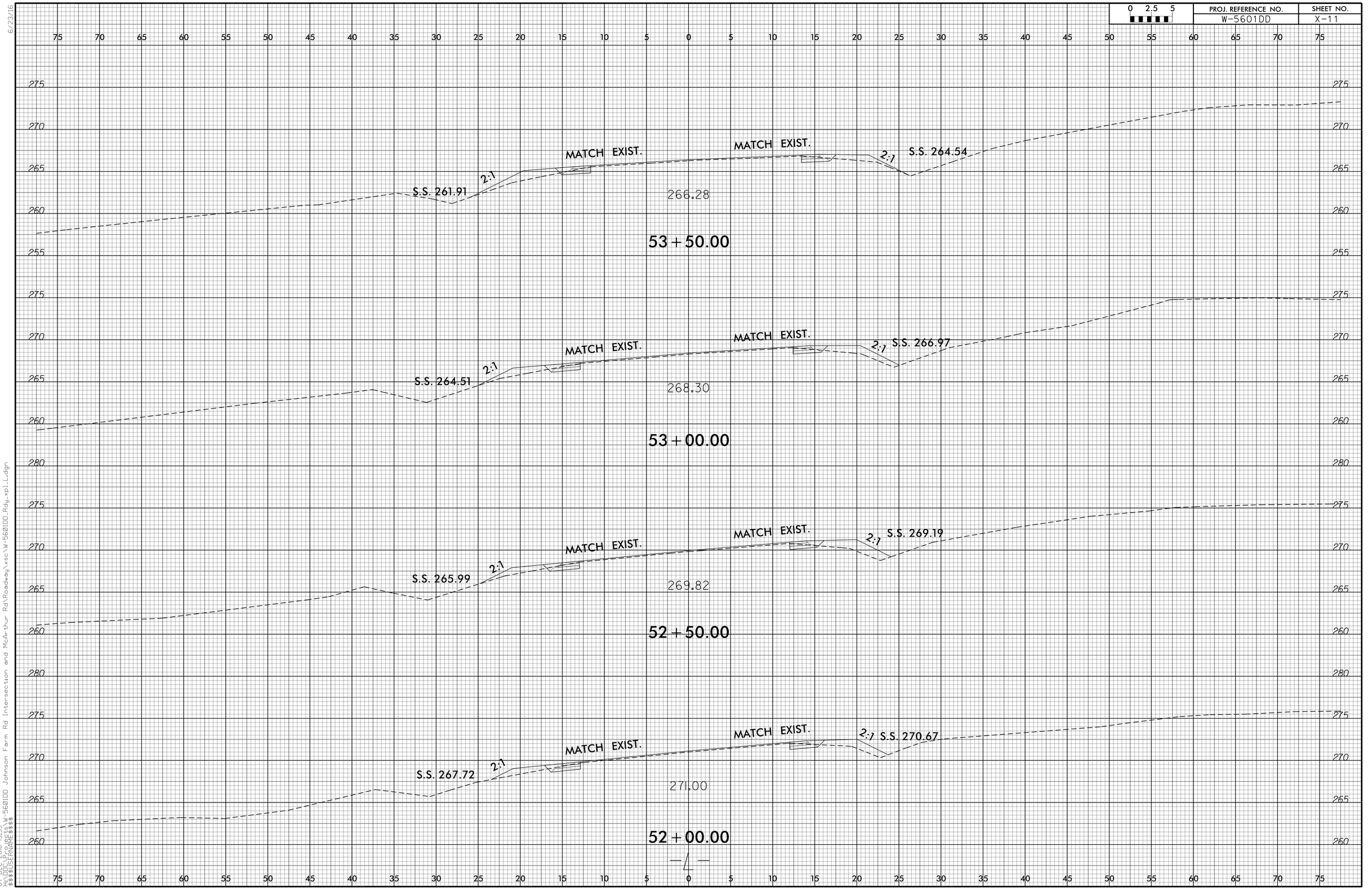
	W-5601DD	X-11



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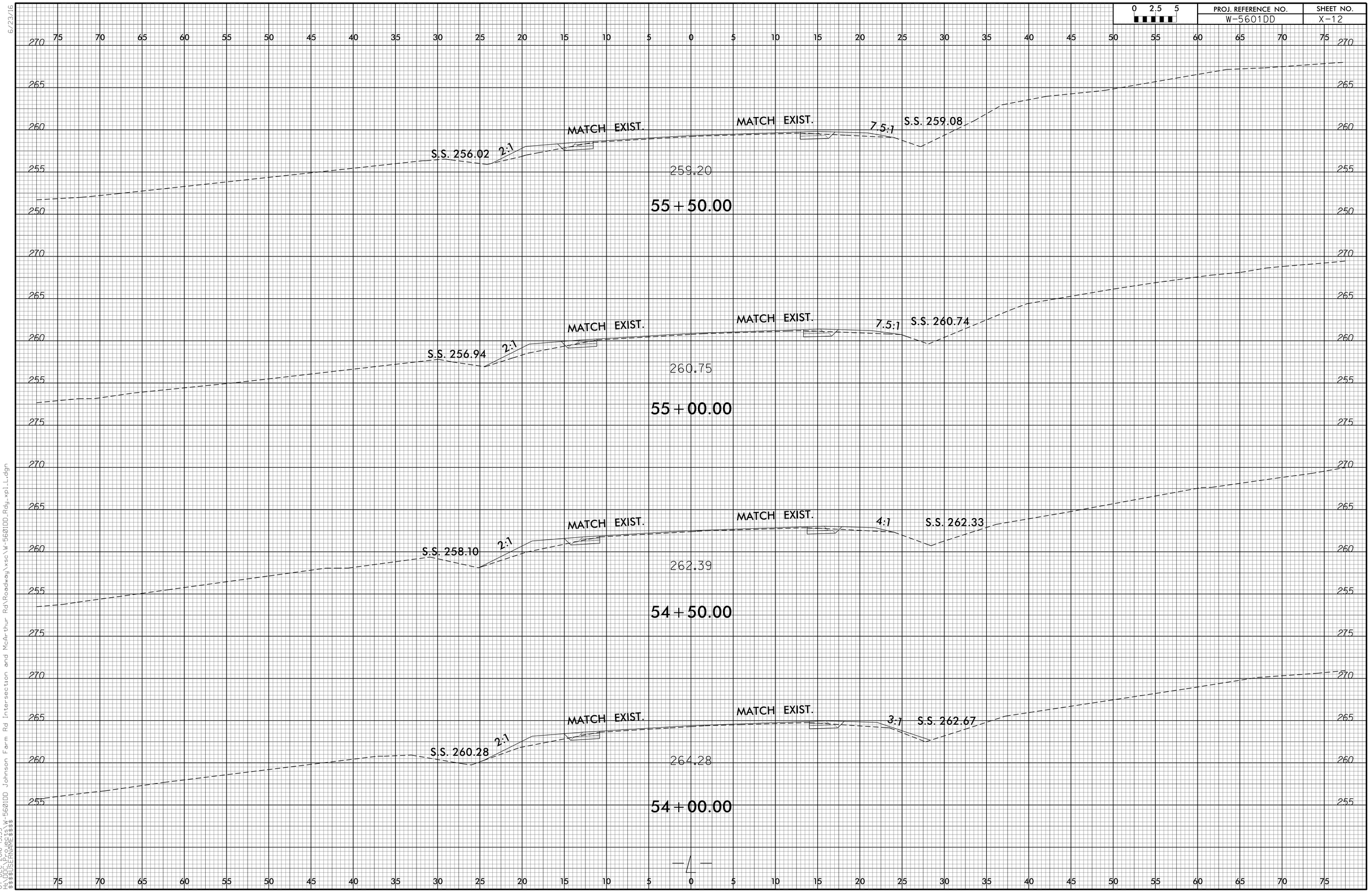
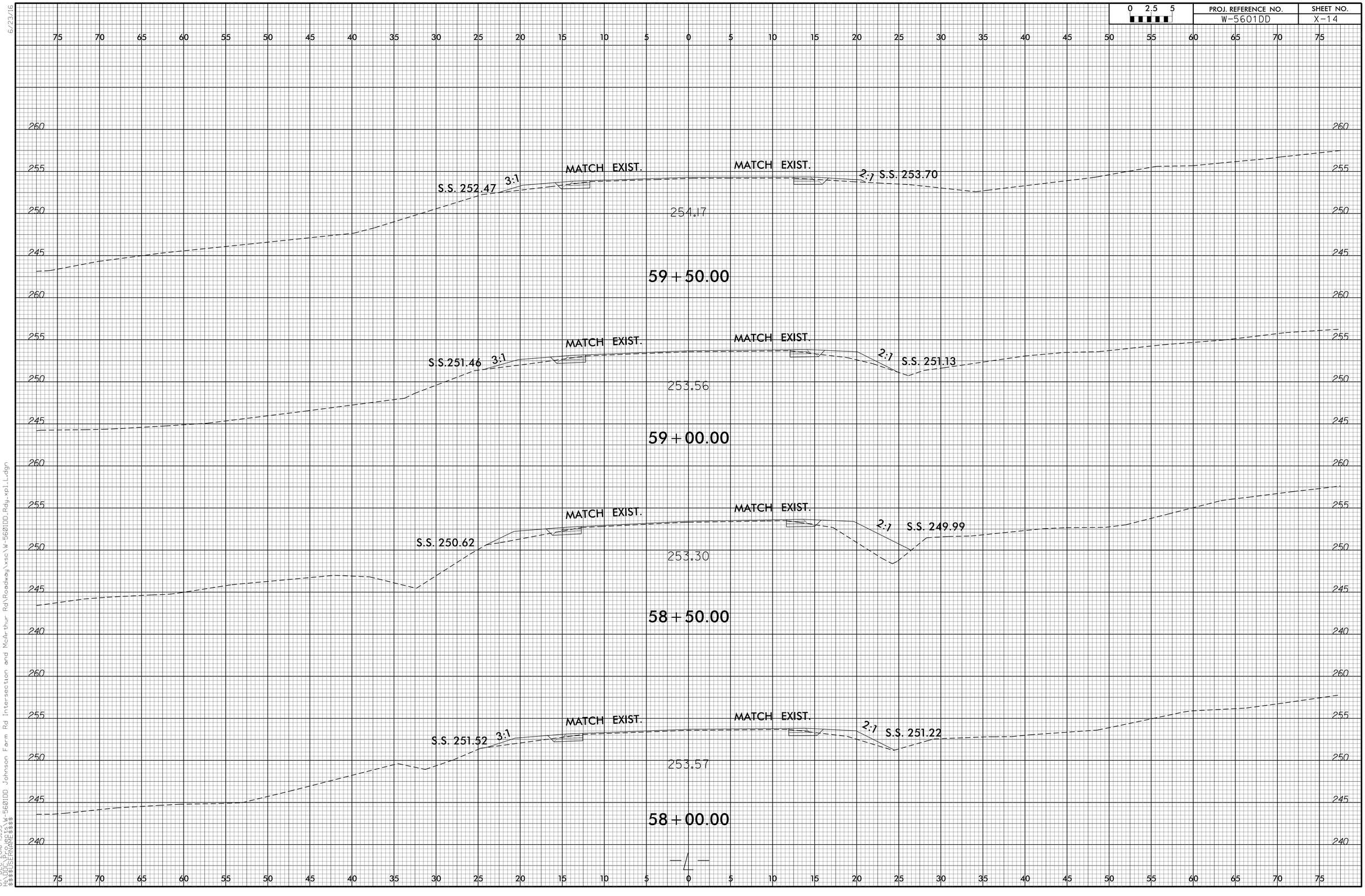
	W-5601DD	X-12




PROJ. REFERENCE NO.
W-5601DD
SHEET NO.
X-13
S.S. 252.44
2:1
MATCH EXIST.
MATCH EXIST.
2:1
S.S. 253.06
254.13
57+50.00
S.S. 253.47
2:1
MATCH EXIST.
MATCH EXIST.
2:1
S.S. 254.15
254.91
57+00.00
S.S. 254.42
2:1
MATCH EXIST.
MATCH EXIST.
2:1
S.S. 255.69
256.07
56+50.00
S.S. 255.27
2:1
MATCH EXIST.
MATCH EXIST.
4:1
S.S. 257.34
257.59
56+00.00

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601DD	X-14



6/23/16

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	W-5601DD	X-15

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

275 270 265 260 255 250

S.S. 256.54 2:1 MATCH EXIST. MATCH EXIST. 2:1 S.S. 258.42

259.32

61+50.00

265 260 255 250

S.S. 256.13 2:1 MATCH EXIST. MATCH EXIST. 2:1 S.S. 256.78

258.04

61+00.00

260 255 250

S.S. 254.99 2:1 MATCH EXIST. MATCH EXIST. 2:1 S.S. 255.95

256.53

60+50.00

260 255 250 245

S.S. 253.49 5.5:1 MATCH EXIST. MATCH EXIST. S.S. 255.30

255.17

60+00.00

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	W-5601DD	X-16

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

270 265 260 255 275

MATCH EXIST.

MATCH EXIST.

261.15
63+00.00

S.S. 259.16

2:1

MATCH EXIST.

MATCH EXIST.

2:1

S.S. 260.49

260.76
62+50.00

S.S. 258.02

2:1

MATCH EXIST.

MATCH EXIST.

2:1

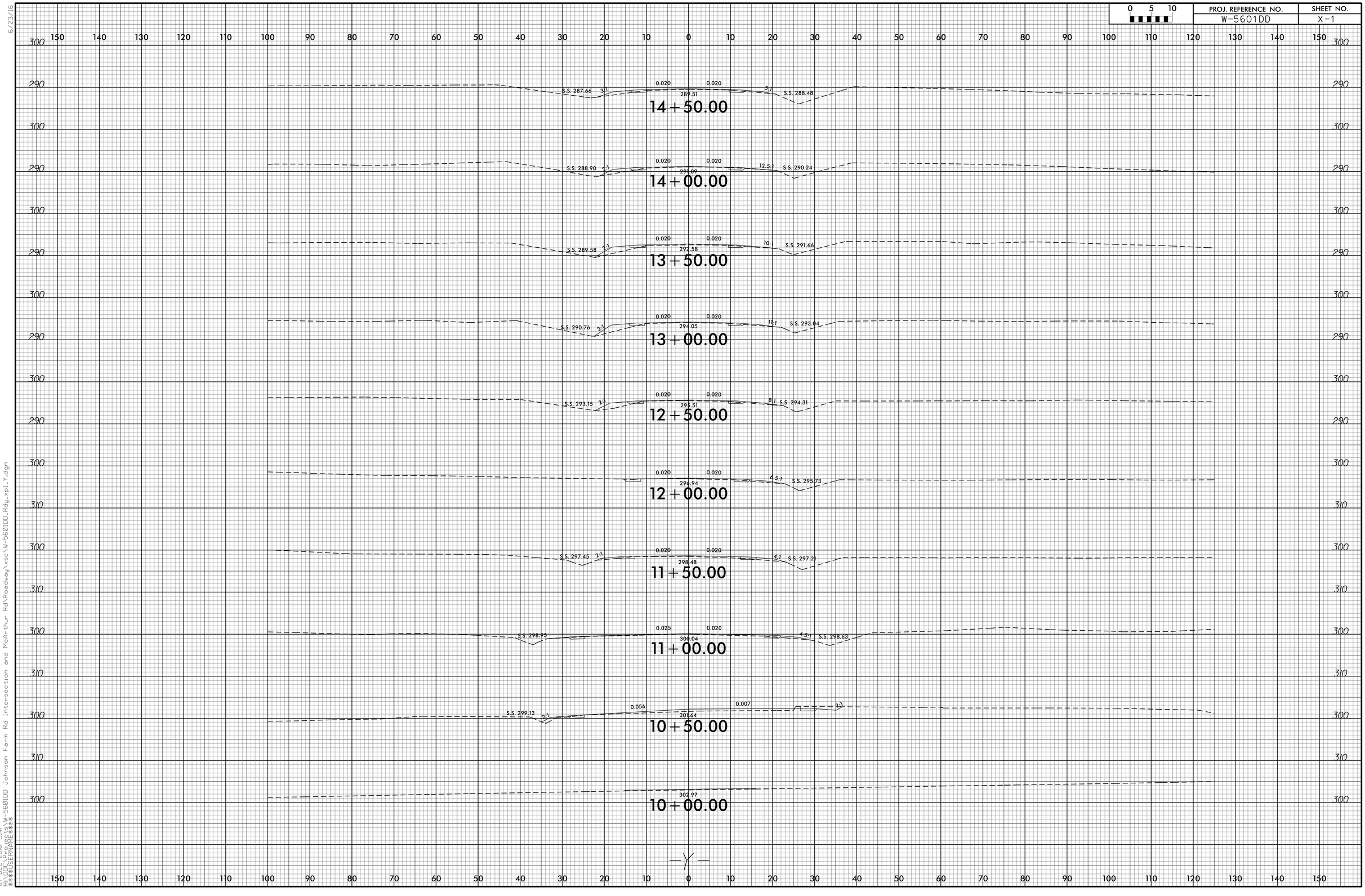
S.S. 259.57

260.23
62+00.00

—4—

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5601DD	X-1



6/23/16

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$$$$USERNAME$$$$

09/08/99

TIP PROJECT: W-5601FX

WBS: 50138.3.181

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

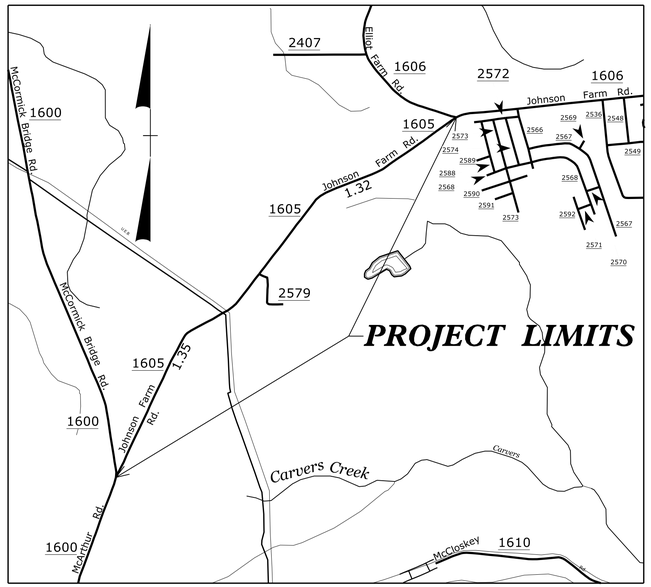
CUMBERLAND COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601FX	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50138.1.181	HSIP-1605(007)	P.E.
50138.2.181	HSIP-1605(007)	RW & UTIL
50138.3.181	HSIP-1605(007)	CONSTR

LOCATION: SR 1605 (JOHNSON FARM RD) FROM SR 1600 (McARTHUR RD) TO SR 1606 (ELLIOT FARM RD)

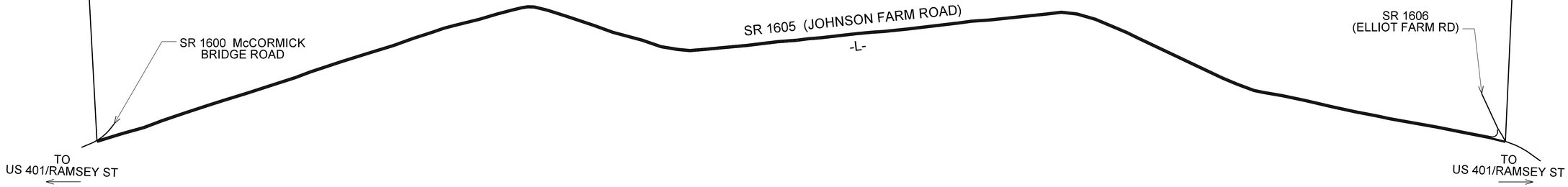
TYPE OF WORK: 2' WIDENING, RESURFACING AND PAVEMENT MARKINGS



VICINITY MAP (N.T.S.)

BEGIN STATE PROJECT W-5601FX
INTERSECTION OF SR 1600 AND 1605

END STATE PROJECT W-5601FX
INTERSECTION OF SR 1605 AND SR 1606



GRAPHIC SCALES

50 25 0 50 100
PLANS

DESIGN DATA

ADT 2014 = 2,600
ADT 2034 = 4,696

V = 55 MPH

PROJECT LENGTH

TOTAL LENGTH FOR STATE PROJECT W-5601FX = 2.68 mi

Prepared In the Office of:
DIVISION OF HIGHWAYS
431 Transportation Dr., Fayetteville NC, 28301

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
FEBRUARY 15, 2017

SEAN MATUSZEWSKI
PROJECT ENGINEER

GLENDA SNIVELY
PROJECT DESIGN ENGINEER

14-DEC-2016 15:33
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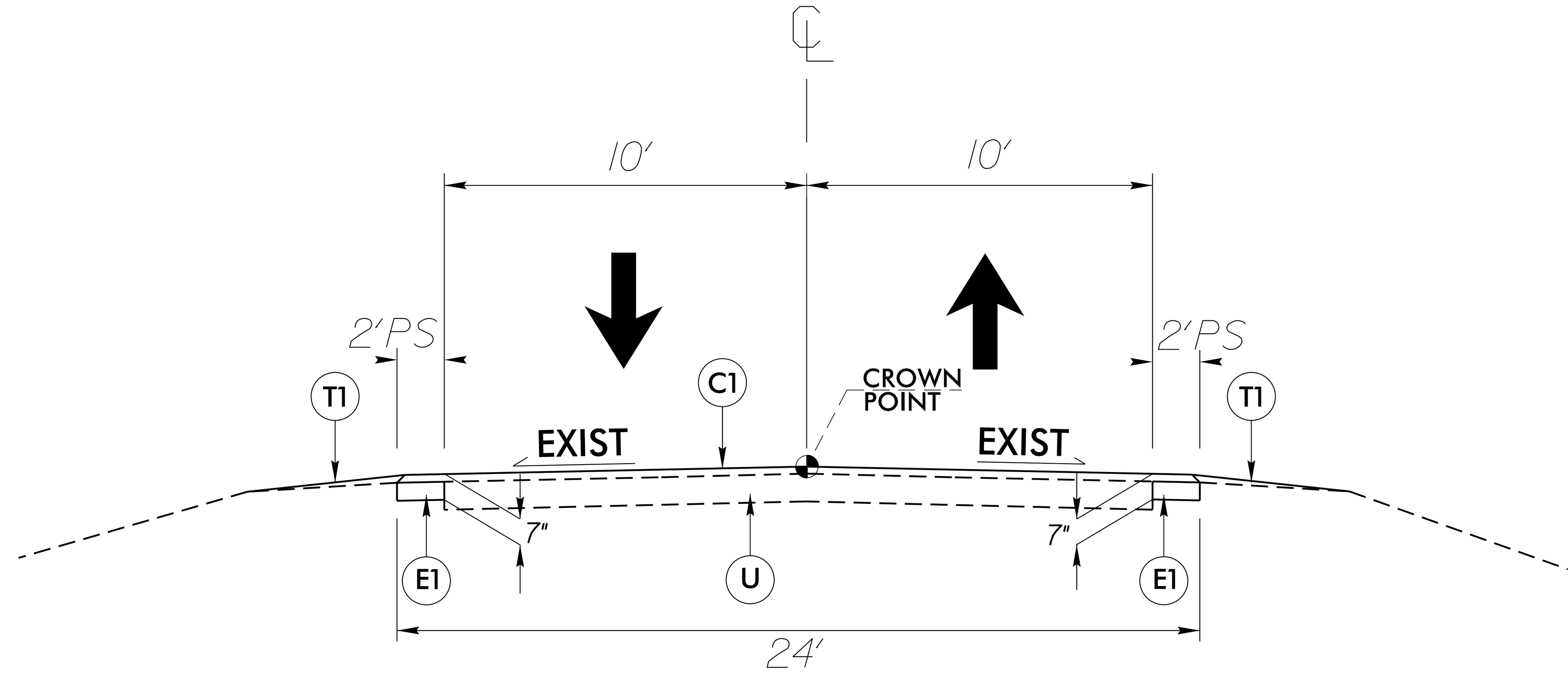
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5601FX	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PAVEMENT SCHEDULE	
C1	PROP. APPROX. $1\frac{1}{2}$" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. APPROX. 5 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT



TYPICAL SECTION NO. 1

Begin at Intersection of SR 1600 and SR 1605
to Intersection of SR 1605 and SR 1606

CONTRACTOR SHALL COORDINATE WITH LOCAL TRAFFIC SERVICES UNIT FOR PROPOSED SIGNAL DESIGN AND PLACEMENT OF ALL PAVEMENT MARKINGS.

FOR SIGNAL WORK, CONTACT TRAFFIC SERVICES 910-486-1452, 28 DAYS PRIOR TO PLACEMENT.

FOR PAVEMENT MARKING, CONTACT TRAFFIC SERVICES 910-486-1452, 14 DAYS PRIOR TO FINAL PLACEMENT.

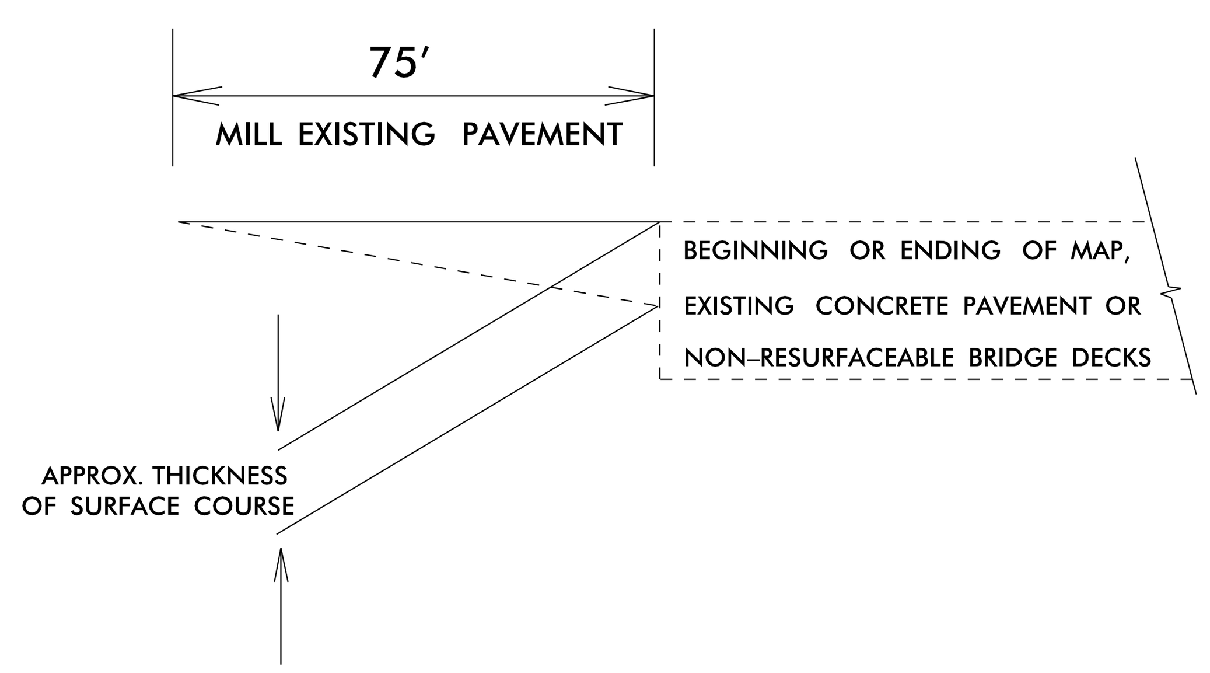
MILLING AT PAVEMENT TIE–INS

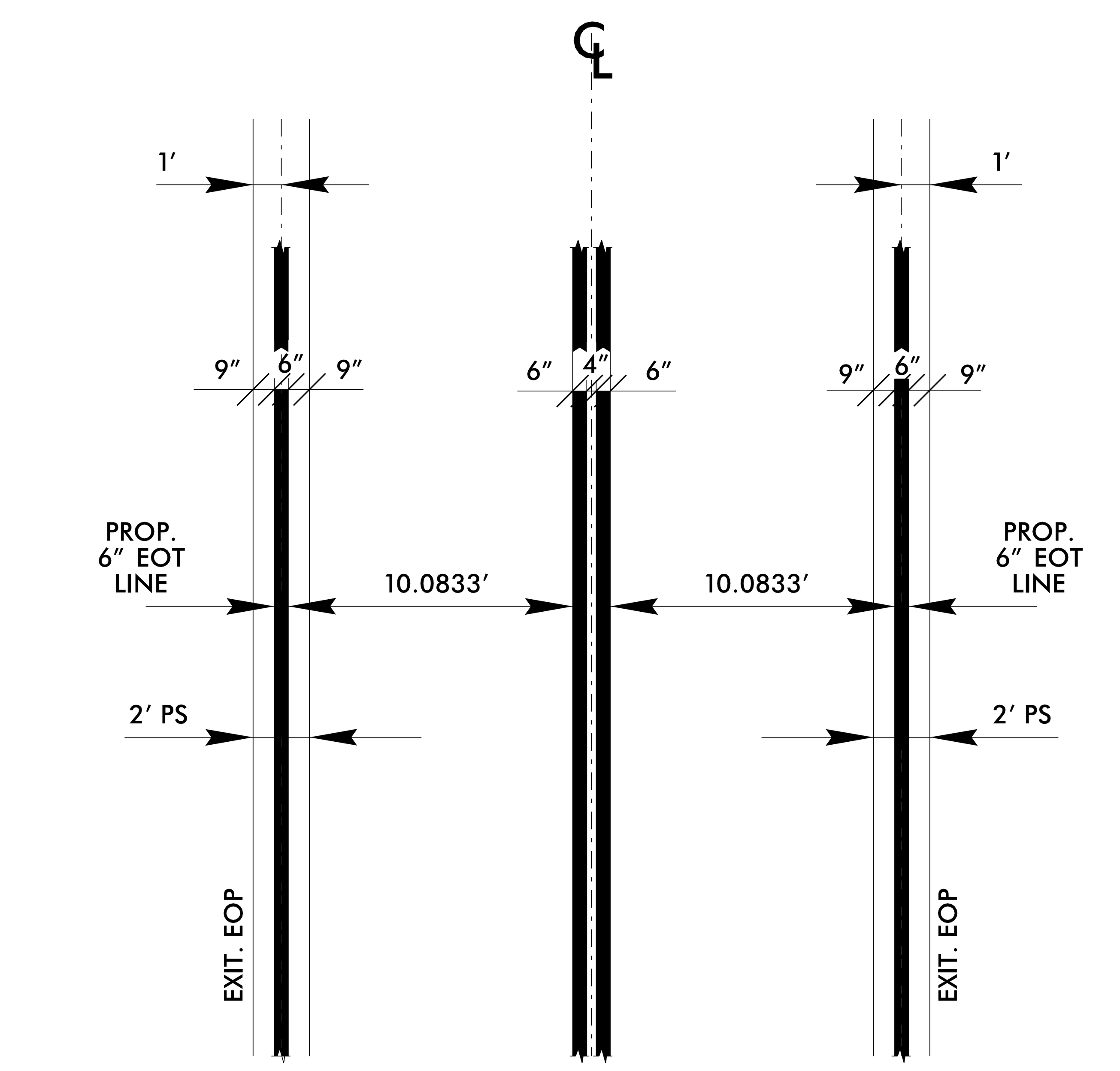
NOTES TO CONTRACTOR

For surface mixes over 1" in thickness, mill the existing pavement in acoordance with the following sketch as directed by the Engineer.

Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.

Perform the work in accordance with Section 607 of the January 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.





6" THERMO PAVEMENT MARKING LINES
FOR PROPOSED EOT AND
CENTERLINES

PROJECT NOTES

1. The Contractor shall not work on both sides of the road simultaneously within the same area.
2. Ingress and egress shall be maintained to all businesses and dwellings on the project.
3. At the end of each workday, the Contractor shall be required to backfill any area adjacent to existing travelway that has been graded leaving no more than a $1\frac{1}{2}$" drop-off.
4. A minimum of two-way, two-lane traffic (plus all existing left and right turn lanes) shall be maintained during periods of construction inactivity.
5. The Contractor shall not be allowed to stop traffic for more than 5 minutes at a time in any one direction.
6. During periods of construction inactivity, the difference in elevation between lanes shall not exceed 1-1/2 inch.
7. Access to police and fire station, fire hydrants, and hospitals shall be maintained at all times.
8. During periods of construction inactivity, place cones/drums 3' from existing edge of pavement (travelway) as directed by the Engineer.
9. Contractor to install Erosion Control devices as directed by the Engineer.
10. Contractor shall coordinate with the Division Six Traffic Services Unit (910-486-1452) for placement of all pavement markings and signs.

6/2/99

14-DEC-2016 15:33
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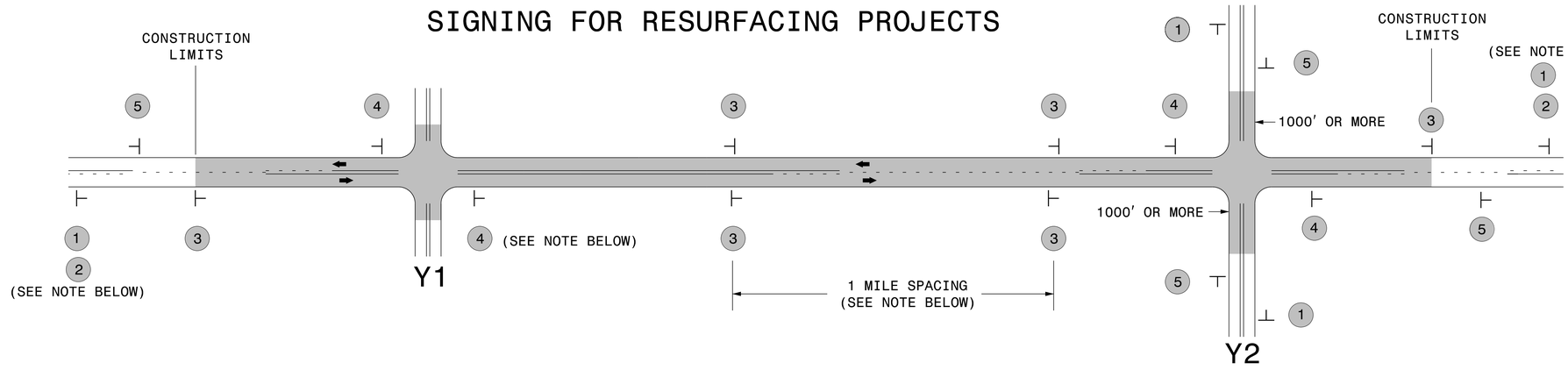
PROJ. REFERENCE NO.	SHEET NO.
W-5601FX	SIGN-1

SIGNING FOR RESURFACING PROJECTS



TEE INTERSECTION

LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 — ROAD WORK AHEAD, W20-1, 48″ X 48″

PLACE 1000′ PRIOR TO BEGINNING OF CONSTRUCTION LIMITS.
ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000′ ALONG -Y- LINE.

2 — NEXT XX MILES, W7-3aP, 24″ X 18″

#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH.
ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)

3 — LOW/SOFT SHOULDER, SP 13107, 48″ X 48″

- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.

4 — ROAD UNDER CONST, SP 13106, 48″ X 48″

- THESE ARE FOR -Y- LINES THAT ARE ″THROUGH″ ROADWAYS.
- DEAD END AND SUBDIVISION ROADS ARE NOT ″THROUGH″ ROADWAYS.
- INSTALL 500′ +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.
- FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500′ OF EACH APPROACH.
- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM ″END ROAD WORK″ SIGN.
- FOR TEE INTERSECTIONS, INSTALL WITHIN 500′ +/- OF THE INTERSECTION ALONG -L- LINE.

5 — END ROAD WORK, G20-2 A, 48″ X 24″

PLACE 500′ FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

1) LESS THAN 1000′ OF RESURFACING ALONG -Y- LINE
2) SUBDIVISION ROADS
3) DEAD END ROADS

WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD, W20-1, 48″ X 48″ — PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A, 48″ X 48″ — PLACED 250′ IN ADVANCE OF FLAGGER.

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2 LANE ROADWAYS

4/20/2016
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User:rmgarrett