



North Dakota Department of Transportation

Grant Levi, P.E.
Director

Jack Dalrymple
Governor

November 6, 2014

ADDENDUM 4 – JOB 44

TO: All prospective bidders on project SS-SAP-8-046(027)105, Job No. 44 scheduled for the November 14, 2014 bid opening.

The following plan and proposal revisions shall be made:

Plan Revision:

**Remove and replace sheets 2-1, 8-1 and 100-1 with the enclosed sheets revised 11/7/14.
Add Standard Drawing D720-1 Standard Monuments and Right of Way Markers.**

Sheet 2-1: Added Standard Drawing D720-1 Standard Monuments and Right of Way Markers.

Sheet 8-1:

Item 720 0110 RIGHT OF WAY MARKERS has been added.

Item 762 0113 EPOXY PVMT MK 4IN LINE, quantity has been revised.

Item 704 1500 OBLITERATION OF PAVEMENT MARKING has been added.

Sheet 10-1:

Permanent Striping quantities and barrier stripe locations have been revised.

Request for Proposal Revisions:

Remove and replace page 8 of 10 of the Proposal Forms pages located at the beginning of the Request For Proposal, with the enclosed pages revised 11/7/14.

Page 8 of 10:

Item 704 1500 OBLITERATION OF PAVEMENT MARKING, quantity 554 SF, has been added.

Item 720 0110 RIGHT OF WAY MARKERS, quantity 76 EA, has been added.

Item 762 0113 EPOXY PVMT MK 4IN LINE, quantity has decreased from 189,501 to 182,112 LF.

This addendum is to be incorporated into the bidder's proposal for this project.

Expedite bid files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at <http://www.bidx.com/> or the Department's web page (<http://www.dot.nd.gov>) and load it into the Expedite program.

A handwritten signature in black ink, appearing to read "Cal J. Gendreau". The signature is written in a cursive style with a large, stylized initial "C".

CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER

80:dch

Enclosure

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Revised 11/07/14	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SS-SAP-8-046(027)105	2	1

INDEX OF DRAWINGS

<u>SECTION</u>	<u>SHEET</u>	<u>DESCRIPTION</u>
1	1	Title Sheet
2	1	Table of Contents
4	1	Scope of Work
6	1	Notes
6	2	Environmental Commitments
8	1	Quantities
10	1	Basis of Estimate
11	1 - 3	Data Tables
20	1 - 5	General Details
30	1 - 9	Typical Sections
82	1	Survey Data Layouts
100	1-2	Work Zone Traffic Control
120	1	Pavement Marking
180	1 - 2	Pit Plats and Borrow Areas

LIST OF STANDARD DRAWINGS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
D101-1,2,3	NDDOT Abbreviations
D101-10	NDDOT Utility Company Abbreviations
D101-20, 21	Linestyles
D101-30, 31, 32	Symbols
D-704-2	Traffic Control For Coring Of Hot Bituminous Pavement
D-704-5	Contractor Sign Detail
D-704-7	Breakaway Systems For Construction Zone Signs - Perforated Tube
D-704-8	Breakaway Systems For Construction Zone Signs - U-Channel Post
D-704-9	Construction Sign Details - Terminal And Guide Signs
D-704-10	Construction Sign Detail - Regulatory Signs
D-704-11	Construction Sign Detail - Warning Signs
D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-19	Road Closure And Lane Closure On A Two Way Road Layouts
D-704-20	Terminal And Seal Coat Sign Layouts
D-704-22	Construction Truck And Temporary Detour Layouts
D-704-26	Miscellaneous Sign Layouts
D-704-27	Traffic Control Plan For Moving Operations
D-704-50	Portable Sign Support Assembly
D-704-56	Mobile Operation (Grinding Shoulder Rumble Strips)
D-706-1	Bituminous Laboratory
D-720-1	Standard Monuments And Right Of Way Markers
D-762-1	Pavement Marking Message Details
D-762-3	Pavement Marking Standard 90 Degree Flared Intersections
D-762-4	Pavement Marking
D-762-6	Short-Term Pavement Marking

Special Provisions

24(14)

Flexible Pavement Surface Tolerance SO

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-SAP-8-046(027)105	8	1

REVISED 11/07/2014

SPEC CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
-----	-----	-----	-----	-----
103	0100 CONTRACT BOND	L SUM	1	1
107	0100 RAILWAY PROTECTION INSURANCE	L SUM	1	1
203	0119 TOPSOIL-IMPORTED	CY	1,000	1,000
216	0100 WATER	M GAL	454	454
302	0100 SALVAGED BASE COURSE	TON	4,682	4,682
401	0050 TACK COAT	GAL	25,428.2	25,428.2
401	0060 PRIME COAT	GAL	1,638	1,638
411	0105 MILLING PAVEMENT SURFACE	SY	239,812	239,812
430	0140 RAP - SUPERPAVE FAA 40	TON	42,030.4	42,030.4
430	1000 CORED SAMPLE	EA	319	319
430	5828 PG 58-28 ASPHALT CEMENT	TON	2,107.9	2,107.9
702	0100 MOBILIZATION	L SUM	1	1
704	0100 FLAGGING	MHR	500	500
704	1000 TRAFFIC CONTROL SIGNS	UNIT	1,664	1,664
704	1067 TUBULAR MARKERS	EA	411	411
704	1185 PILOT CAR	HR	250	250
704	1500 OBLITERATION OF PAVEMENT MARKING	SF	554	554
706	0550 BITUMINOUS LABORATORY	EA	1	1
706	0600 CONTRACTOR'S LABORATORY	EA	1	1
720	0110 RIGHT OF WAY MARKERS	EA	76	76
760	0005 RUMBLE STRIPS - ASPHALT SHOULDER	MILE	28.8	28.8
760	0007 RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	14.4	14.4
762	0112 EPOXY PVMT MK MESSAGE	SF	313	313
762	0113 EPOXY PVMT MK 4IN LINE	LF	182,112	182,112
762	0115 EPOXY PVMT MK 8IN LINE	LF	580	580
762	0430 SHORT TERM 4IN LINE-TYPE NR	LF	111,642	111,642

BASIS OF ESTIMATE

Revised 11/7/14

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-SAP-8-046(027)105	10	1

Material	Unit	Stations				Stations				Stations		Stations		Stations	
		Width (ft)	Quantity per Station												
Water @ 20 Gal/Ton of Salvaged Base Course	MGal				0.11				0.10						
Tack Coat	Gal	28.94	16.08	28.32	15.73	38	21.11	29.54	16.41	43	23.89	31	17.22	26	14.44
Tack Coat	Gal	27.89	15.49	27.23	15.13	37	20.56	28.45	15.81	41.5	23.06				
Milling Pavement Surface	SY	28.94	321.56	28.32	314.67	29	322.22	29.54	328.22	43	477.78	31	344.44		
RAP-Superpave FAA 40	Ton	26.84	51.63	26.14	50.44	36	68.67	27.36	52.67	40	76.84	29.56	37.41	24	30.87
PG 58-28 Asphalt Cement @ 5.0% (1 st and 2 nd Lift)	Ton		2.58		2.52		3.43		2.63		3.84		1.87		1.54
Salvaged Base Course @1.875 Ton/CY	Ton			6' & 6'	5.69			5.3 & 5.3	5.00						

Short Term 4 IN Broken Line Paint Tape or Raised Marker		
Location	Basis	Quantity
Centerline – Top of 1 st Lift	Centerline Skips 1,320 LF/mile 4" Yellow Barrier Line single/dbl	18,706 LF 18,508 LF
Centerline – Top of 2 nd Lift	Centerline Skips 1,320 LF/mile 4" Yellow Barrier Line single/dbl	18,706 LF 18,508 LF
Rumble Strip Fog – Centerline Rumble Strip Fog – Barrier Stripe	Centerline Skips 1,320 LF/mile 4" Yellow Barrier Line single/dbl	18,706 LF <u>18,508 LF</u> 111,642 LF

Permanent Pavement Marking		
Location – Type	Basis	Quantity
Centerline – Epoxy Pvmt MK 4 IN Line	Centerline Skips 1,320 LF/mile Barrier Stripe 990 LF/mile	19,931 LF 2,461 LF
Edge Lines – Epoxy Pvmt MK 4 IN Line	10,560 LF/mile	159,720 LF

Barrier Stripe Locations:

Solid right: 5613+80 to 5624+69
 Double barrier: 5624+69 to 5626+04
 Solid left: 5626+04 to realignment 6+29

Pavement Marking – RR Crossing

2 Railroad Crosses & Dual RR's 121 SF
 6 Bands for 12' Lanes 144 SF

Water: 25 MGal/Mile for Dust Palliative = 360 MGal

Coring:

76,032 LF/2,000 LF *2 Lifts *2 lanes = 152 sublots
 152 Sublots * 2 Cores/ Sublot = 304 cores

District Materials Coordinator Cores

14.4 miles * 1 core/mile = 15 cores

Rumble Strips – Asphalt Shoulder

Left Shoulder 14.4 Miles
 Right Shoulder 14.4 Miles
 28.8 Miles

Approach Quantities

Salvaged Base 658 Tons
 Tack Coat 542.2 Gal.
 RHBP 1191.8 Tons
 Asphalt Cement 59.6 Tons

Pavement Marking Obliteration Quantity

Stations 5923+58 to 5931+89 554 SF

This document was originally issued and sealed by Sarah BaeHurst, Registration Number PE-6239, on 11/07/14 and the original document is stored at the North Dakota Department of Transportation.

STANDARD MONUMENTS AND RIGHT OF WAY MARKERS

NOTES:

The construction and installation of Alignment Monuments, Iron Pin Reference Monuments, Iron Pin R/W Monuments, and Right of Way Markers (witness posts) shall conform to Section 720 of the Standard Specifications.

ALIGNMENT MONUMENTS:

Iron Pin or Precast Concrete Alignment Monuments with aluminum caps will be placed on the centerline alignment PI's, section corners, quarter corners, section line crossings, quarter line crossings, and at curve points (PC's, PT's, TS's, and ST's) on the centerline.

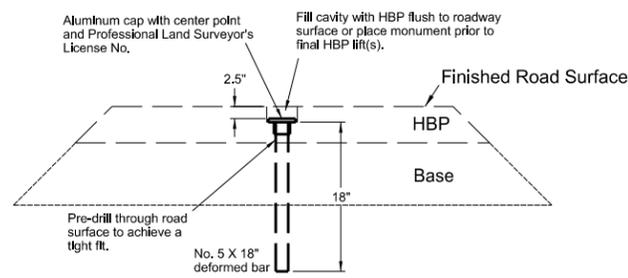
IRON PIN R/W MONUMENT:

Iron pins with aluminum caps (No. 5 X 18") will be placed at breaks on the Right of Way line, and at curve points (PC's, PT's, TS's and ST's) on the Right of Way line.

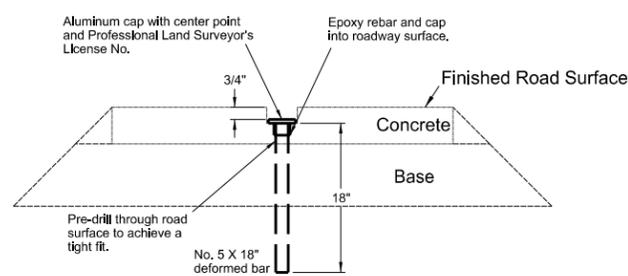
IRON PIN REFERENCE MONUMENT:

Iron Pins without aluminum caps (No. 5 X 18") will be placed as reference monuments on the Right of Way line at section corners, quarter corners, section line crossings, and quarter line crossings.

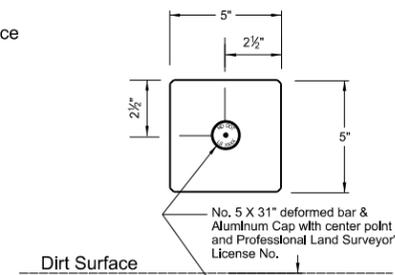
ALIGNMENT MONUMENT DETAILS



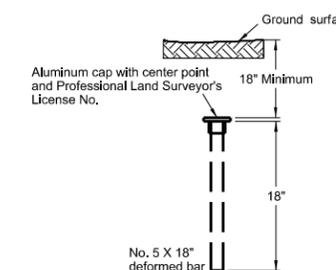
IRON PIN
(Within Finished Roadway Surface)



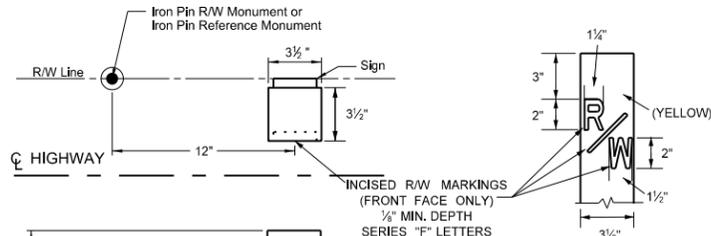
IRON PIN
(Within Finished Roadway Surface)



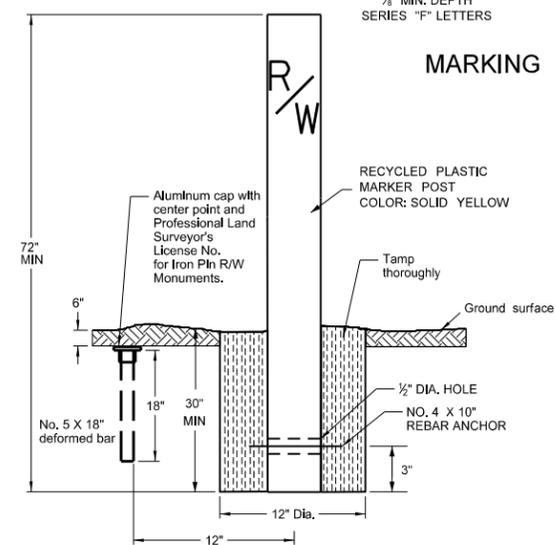
PRECAST CONCRETE
(Outside Finished Roadway Surface)
(Inside R/W Limits)



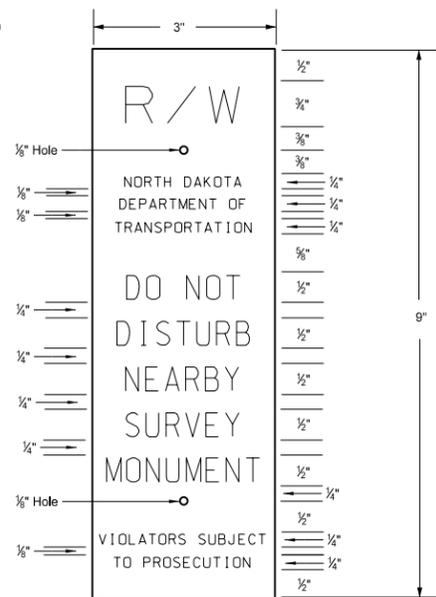
IRON PIN
(Outside Finished Roadway Surface)
(Outside R/W Limits)



MARKING DETAIL



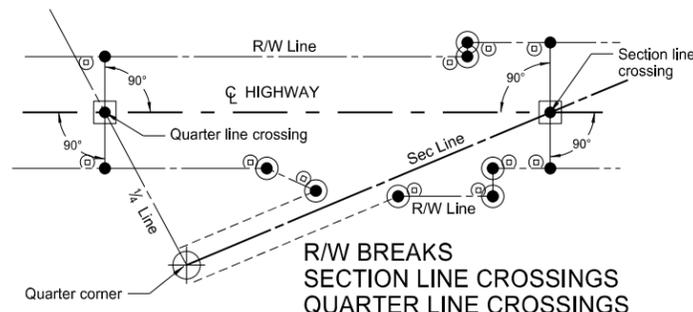
RECYCLED PLASTIC
RIGHT OF WAY MARKER
(WITNESS POST) DETAILS
&
IRON PIN REFERENCE AND R/W
MONUMENT DETAILS



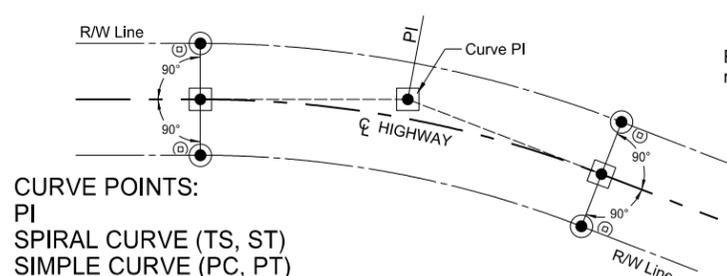
SIGN DETAIL

Black letters on orange high intensity background sheeting meeting ASTM D-4956 Type III or higher on 80 gauge 5052-H38 aluminum. Silk screen graphics. One color print. Sign shall be attached by drilling two holes in the face of the post (side facing the private owner, away from the Department of Transportation right of way). Put inserts into the holes and mount the sign with #4 vandal proof screws. Sign shall be installed 2" from top of post.

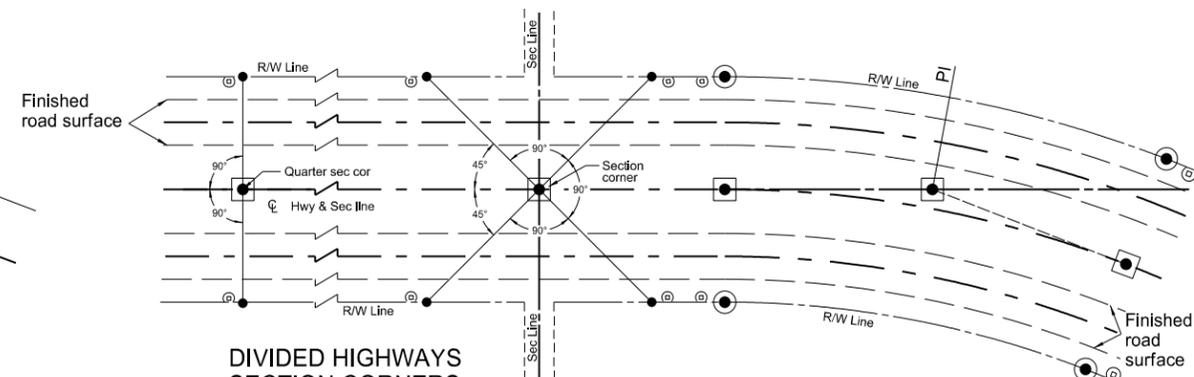
VARIOUS MONUMENT AND MARKER PLACEMENTS



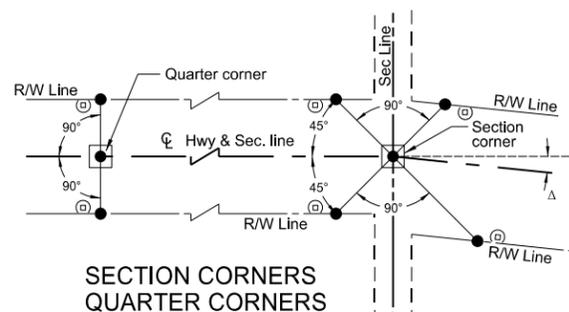
R/W BREAKS
SECTION LINE CROSSINGS
QUARTER LINE CROSSINGS



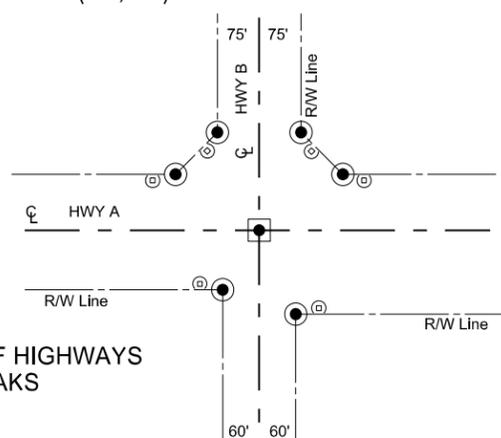
CURVE POINTS:
PI
SPIRAL CURVE (TS, ST)
SIMPLE CURVE (PC, PT)



DIVIDED HIGHWAYS
SECTION CORNERS
QUARTER CORNERS



SECTION CORNERS
QUARTER CORNERS



INTERSECTION OF HIGHWAYS
FLARED R/W BREAKS

LEGEND

- Iron Pin Reference Monument
- ⊙ R/W Marker (witness post)
- Alignment Monument
- Iron Pin R/W Monument

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION	
10-3-2013	
REVISIONS	
DATE	CHANGE
11/12/13	Note for SIGN DETAIL modified to meet ASTM D-4956 Type III or higher on 80 gauge 5052-H38

This document was originally issued and sealed by
Roger Weigel
Registration Number
PE-2930,
on 11/12/13 and the original document is stored at the
North Dakota Department
of Transportation