



# North Dakota Department of Transportation

Grant Levi, P.E.  
*Director*

Jack Dalrymple  
*Governor*

December 7, 2015

## ADDENDUM 1 – JOB 9

TO: All prospective bidders on project SOIB-4-023(026)096, Job No. 9, scheduled for the December 16, 2015 bid opening.

The following plan revisions shall be made:

### Plan Revisions:

**Remove and replace sheets 6-2, 8-1, 8-2, 10-1, 11-1, 11-28, 30-14 and 82-10 with the enclosed sheets revised 12/2/2015, 12/5/2015, or 12/7/2015.**

#### Sheet 6-2:

Note 430-P03 EXCEPTION AREA has been added.

#### Sheet 8-1:

Item 203 0108 TOPSOIL-BORROW AREA quantity has increased from 5,650 to 53,134 CY.

Item 251 0200 SEEDING CLASS II quantity increased from 158.83 to 201.20 ACRE.

Item 253 0101 STRAW MULCH quantity increased from 310.66 to 353.03 ACRE.

Item 302 0100 SALVAGED BASE COURSE quantity increased from 168,058 to 179,670 TON.

Item 401 0050 TACK COAT increased from 22,447 to 23,303 GAL.

Item 430 0045 SUPERPAVE FAA 45 quantity increased from 72,993 to 74,861 TON.

Item 430 6434 PG 64-34 ASPHALT CEMENT quantity increased from 1,460 to 1,572 TON.

#### Sheet 8-2:

Item 760 0005 RUMBLE STRIPS-ASPHALT SHOULDER quantity increased from 17.48 to 18.94 MILE.

Item 760 0007 RUMBLE STRIPS-ASPHALT CENTERLINE quantity increased from 8.74 to 9.47 MILE.

Item 762 0113 EPOXY PVMT MK4IN LINE quantity increased from 159,763 to 168,426 LF.

Item 762 0430 SHORT TERM 4IN LINE-TYPE NR quantity increased from 271,696 to 273,621 LF.

#### Sheet 10-1:

Revised Topsoil-Borrow Area from 5,650 to 53,134 CY.

Revised Seeding & Mulching from 7 to 42.37 Acres.

Revised Rumble Strips-Asphalt Shoulder from 17.480 to 18.94 mile.

Revised Rumble Strips-Asphalt Centerline from 8.740 to 9.47 mile.

Sheet 11-1:

Material from Millings was removed from the Aggregate Summary table.  
Remove & Relay Blended Base Summary table was added.

Sheet 11-28: -

Mass Diagram has been revised.

Sheet 30-14:

Overlay – Exception Area typical section has been added.

Sheet 82-10:

Revised Precast Concrete Alignment Monuments to Alignment Monuments.

Request for Proposal Revisions:

**Remove and replace pages 5 to 7 and 10 of 13 of the Proposal pages located at the beginning of the Request for Proposal, with the enclosed page revised 12/7/2015.**

Page 5 of 13:

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Page 6 of 13:

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Page 7 of 13:

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**Add the enclosed BORROW AREA LIST.**

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.

For 

CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER

80:dch

Enclosure

BID ITEMS

Project: SOIB-4-023(026)096 (PCN-21340)

**Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.**

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
001	103	0100	CONTRACT BOND	L SUM	1.				
002	103	0200	ESCROW OF BID DOCUMENTATION	L SUM	1.				
003	201	0330	CLEARING & GRUBBING	L SUM	1.				
004	202	0153	SAW BITUMINOUS SURFACING-FULL DEPTH	LF	60.				
005	202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	28.				
006	202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES	LF	2,496.				
007	203	0101	COMMON EXCAVATION-TYPE A	CY	171,556.				
008	203	0108	TOPSOIL-BORROW AREA	CY	53,134.				
009	203	0109	TOPSOIL	CY	81,651.				
010	203	0121	TOPSOIL-WETLAND	CY	12,221.				
011	203	0138	COMMON EXCAVATION-SUBCUT	CY	7,047.				
012	203	0140	BORROW-EXCAVATION	CY	311,295.				
013	216	0100	WATER	M GAL	15,053.				
014	230	0165	SUBGRADE PREPARATION-TYPE A-12IN	STA	13.900				
015	251	0200	SEEDING CLASS II	ACRE	201.200				
016	251	1000	WETLAND SEED	ACRE	2.480				

BID ITEMS

Project: SOIB-4-023(026)096 (PCN-21340)

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
017	251	2000	TEMPORARY COVER CROP	ACRE	151.830				
018	253	0101	STRAW MULCH	ACRE	353.030				
019	255	0101	ECB TYPE 1	SY	7,653.				
020	256	0201	RIPRAP GRADE II	TON	26,581.				
021	260	0100	SILT FENCE UNSUPPORTED	LF	5,000.				
022	260	0101	REMOVE SILT FENCE UNSUPPORTED	LF	5,000.				
023	261	0112	FIBER ROLLS 12IN	LF	119,224.				
024	261	0113	REMOVE FIBER ROLLS 12IN	LF	49,061.				
025	261	0120	FIBER ROLLS 20IN	LF	8,000.				
026	262	0100	FLOTATION SILT CURTAIN	LF	18,738.				
027	262	0101	REMOVE FLOTATION SILT CURTAIN	LF	18,738.				
028	302	0100	SALVAGED BASE COURSE	TON	179,670.				
029	302	0113	AGGREGATE BASE COURSE CL 3	TON	25,671.				
030	306	0105	AGGREGATE CL 3M	TON	65,125.				
031	306	0370	REMOVE AND RELAY BLENDED MATERIAL	SY	45,517.				
032	306	0510	FULL DEPTH RECLAMATION	SY	153,150.				

BID ITEMS

Project: SOIB-4-023(026)096 (PCN-21340)

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
033	401	0050	TACK COAT	GAL	23,303.				
034	401	0060	PRIME COAT	GAL	76,029.				
035	401	0160	BLOTTER MATERIAL CL 44	TON	1,669.				
036	430	0045	SUPERPAVE FAA 45	TON	74,861.				
037	430	1000	CORED SAMPLE	EA	368.				
038	430	5828	PG 58-28 ASPHALT CEMENT	TON	2,920.				
039	430	6434	PG 64-34 ASPHALT CEMENT	TON	1,572.				
040	702	0100	MOBILIZATION	L SUM	1.				
041	704	0100	FLAGGING	MHR	4,000.				
042	704	1000	TRAFFIC CONTROL SIGNS	UNIT	7,904.				
043	704	1052	TYPE III BARRICADE	EA	30.				
044	704	1060	DELINEATOR DRUMS	EA	300.				
045	704	1067	TUBULAR MARKERS	EA	300.				
046	704	1080	STACKABLE VERTICAL PANELS	EA	500.				
047	704	1081	VERTICAL PANELS-BACK TO BACK	EA	30.				
048	704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	2.				

BID ITEMS

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
081	754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	1,003.				
082	754	0562	REFERENCE MARKER-TYPE B	EA	3.				
083	754	0563	REFERENCE MARKER-TYPE C	EA	6.				
084	754	0592	RESET SIGN PANEL	EA	6.				
085	754	0805	OBJECT MARKERS - CULVERTS	EA	95.				
086	760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	18.940				
087	760	0007	RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	9.470				
088	760	0009	RUMBLE STRIPS - INTERSECTION	EA	1.				
089	762	0112	EPOXY PVMT MK MESSAGE	SF	294.				
090	762	0113	EPOXY PVMT MK 4IN LINE	LF	168,426.				
091	762	0115	EPOXY PVMT MK 8IN LINE	LF	550.				
092	762	0117	EPOXY PVMT MK 24IN LINE	LF	28.				
093	762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	273,621.				
094	766	0120	RESET MAILBOX	EA	2.				
095	772	9010	AUTOMATIC TRAFFIC RECORDER SYSTEM	EA	1.				
096	772	9300	SURVEILLANCE CAMERA SYSTEM	EA	1.				

## BORROW AREA LIST

North Dakota Department of Transportation, Design Division  
SFN 9683 (Rev. 11-2011)

Project Control No.: 21340

Project: SOIB-4-023(026)096

Type of Project: Major Rehabilitation

Borrow Area No.:1

<u>Borrow</u>	<u>Entered</u>	<u>Approximate</u>	<u>Minimum</u>	<u>Cost Per</u>	
<u>Cu. Yd.</u>	<u>at Station</u>	<u>Topsoil</u>	<u>Payment</u>	<u>Cu. Yd.</u>	<u>Acreage</u>
24,850	5121+00	20,731	\$4,970	\$0.40	25.7

Location: The north 800 feet of the east 1400 feet of the NW ¼ of Section 19, T-152-N, R-84-W, less existing Highway 23 right of way.

Owner: John Novodvorsky Jr., John Novodvorsky III and Brenda Novodvorsky, 23101 114 St SW, Douglas, ND 58735

### Contractor's Responsibilities:

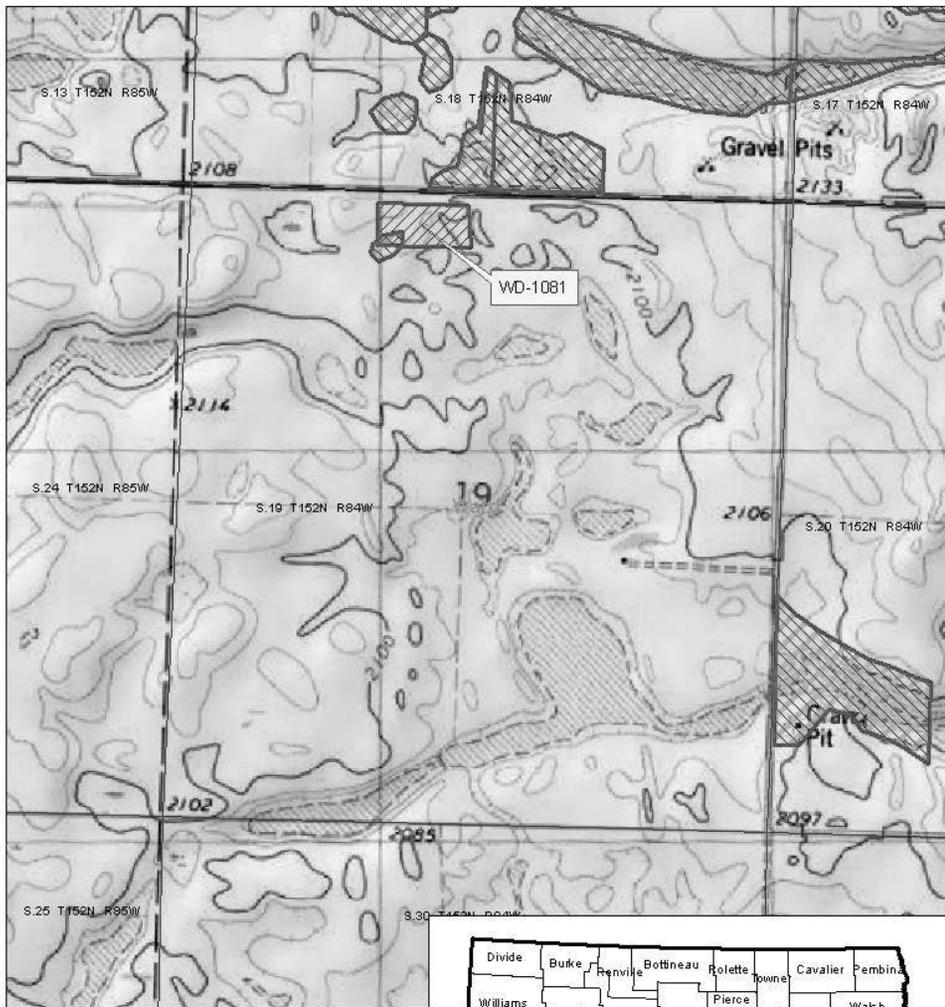
1. Make a minimum payment of \$4,970 equivalent to 50 percent of the estimated 24,850 cubic yardage. After the contractor has removed the minimum quantity estimated, the contractor shall pay the grantor 80 percent of the minimum payment within 30 days after NDDOT has made payment to the contractor. The balance of the royalty payment shall be paid to the grantor within 30 days after NDDOT makes final payment to the contractor and the contractor has obtained a pit release from the grantor.
2. The contractor will contact the landowner to determine final leveling requirements. A copy of the final plan signed by the owner and contractor will be submitted to the engineer before any borrow is removed.
3. In accordance with Section 203.02E of the Standard Specifications.
4. A minimum depth of 6" topsoil will be stripped. In those areas where topsoil depth is in excess of 6", a maximum of 12" will be stripped.
5. Royalty payments to John Novodvorsky Jr and rent or damages to John and Brenda Novodvorsky.
6. Borrow area to be fenced during use unless owners waive this.
7. Disturbed areas to be restored and reseeded back to grass.

### N.D. Department of Transportation Responsibilities:

1. Pay cash rent on the disturbed acreage at the rate of \$25.00 per acre. If the optioned area is still being utilized for borrow after May 15 of the following year, an additional year's cash rent will be paid.
2. Make an additional rehabilitation payment on the disturbed acreage in the sum of \$25.00 per acre.

Total estimated NDDOT responsibility = \$1,285

# NDDOT Material Source Certificate of Approval



Expires December 31st  
**2016**



**WD-1081**

Pit Name: 19152084

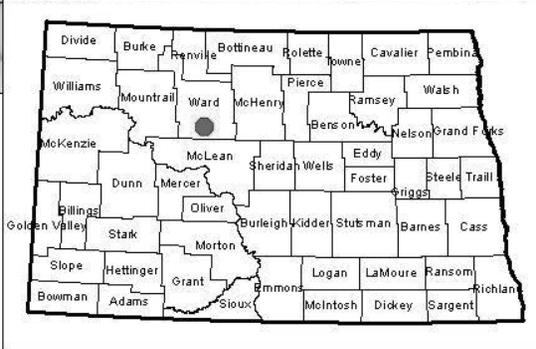
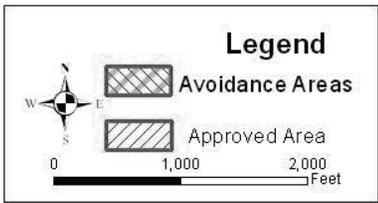
NNENW S. 19 T. 152 N, R 84 W

County: Ward

This location is approved for use, provided all avoidance areas shown on the map are avoided, and any Conditions listed above are complied with. NDDOT advises that all applicants (contractors or their representatives) may be subject to meeting certain legal responsibilities pursuant to one or more of the following authorities administered by the USFWS: Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.); Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.); and Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250). It is unclear at this time what effects, if any, material source activities may have on plants, fish, and/or wildlife species protected by the above-mentioned Acts. It is the responsibility of the applicants and/or any individual conducting activities at any approved site to fulfill the requirements of these Acts.

This approval does not imply landowner permission to acquire material at this location. An agreement with the landowner is still necessary. The contractor will be responsible for any impacts to wetlands, including permitting those impacts and mitigating the loss of the wetlands. As with all projects, if cultural artifacts and/or features (e.g., stone tools, fire hearths, stone circles, burials) are encountered, provisions outlined in Section 107.04 of the Standard Specifications for Road and Bridge Construction shall be followed.

If you have any questions regarding material sources please email [materialsourc@nd.gov](mailto:materialsourc@nd.gov)



## BORROW AREA LIST

North Dakota Department of Transportation, Design Division  
SFN 9683 (Rev. 11-2011)

Project Control No.: 21340

Project: SOIB-4-023(026)096

Type of Project: Major Rehabilitation

Borrow Area No.:2

<u>Borrow</u> <u>Cu. Yd.</u>	<u>Entered</u> <u>at Station</u>	<u>Approximate</u> <u>Topsoil</u>	<u>Minimum</u> <u>Payment</u>	<u>Cost Per</u> <u>Cu. Yd.</u>	<u>Acreage</u>
3,800	5262+00	2,960	\$1,900	\$0.40	3.67

Location: The north 400 feet of the west 400 feet lying 25 feet west of the NS tree row on the west side of this tree row located in N ½ NW ¼ of Section 22, T-152-N, R-84-W, less existing Highway 23 right of way.

Owner: Paul Berg, 8200 247<sup>th</sup> Ave SW, Douglas, ND 58735

### Contractor's Responsibilities:

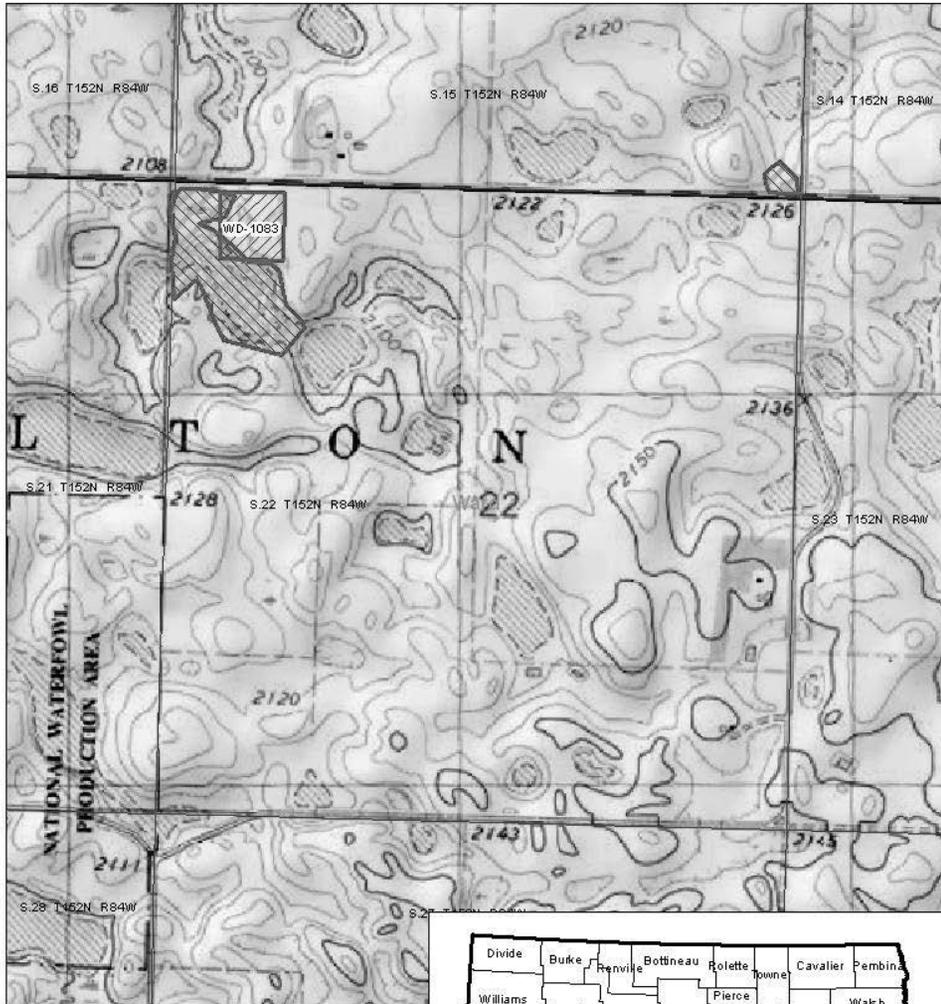
1. Make a minimum payment of \$1,900 equivalent to 50 percent of the estimated 3,800 cubic yardage. After the contractor has removed the minimum quantity estimated, the contractor shall pay the grantor 80 percent of the minimum payment within 30 days after NDDOT has made payment to the contractor. The balance of the royalty payment shall be paid to the grantor within 30 days after NDDOT makes final payment to the contractor and the contractor has obtained a pit release from the grantor.
2. The contractor will contact the landowner to determine final leveling requirements. A copy of the final plan signed by the owner and contractor will be submitted to the engineer before any borrow is removed.
3. In accordance with Section 203.02E of the Standard Specifications.
4. A minimum depth of 6" topsoil will be stripped. In those areas where topsoil depth is in excess of 6", a maximum of 12" will be stripped.
5. Disturbed areas to be restored and reseeded back to grass.

### N.D. Department of Transportation Responsibilities:

1. Pay cash rent on the disturbed acreage at the rate of \$25.00 per acre. If the optioned area is still being utilized for borrow after May 15 of the following year, an additional year's cash rent will be paid.
2. Make an additional rehabilitation payment on the disturbed acreage in the sum of \$25.00 per acre.
3. Pay the owner \$1,500 for removal of corral holding pens.

Total estimated NDDOT responsibility = \$1,687.50

# NDDOT Material Source Certificate of Approval



Expires December 31st

## 2016



## WD-1083

Pit Name: 22152084

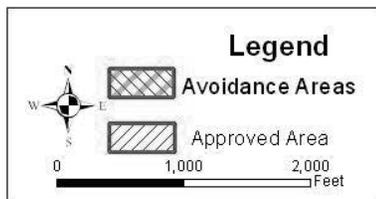
NNWNW S. 22 T. 152 N, R 84 W

County: Ward

This location is approved for use, provided all avoidance areas shown on the map are avoided, and any Conditions listed above are complied with. NDDOT advises that all applicants (contractors or their representatives) may be subject to meeting certain legal responsibilities pursuant to one or more of the following authorities administered by the USFWS: Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.); Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.); and Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250). It is unclear at this time what effects, if any, material source activities may have on plants, fish, and/or wildlife species protected by the above-mentioned Acts. It is the responsibility of the applicants and/or any individual conducting activities at any approved site to fulfill the requirements of these Acts.

This approval does not imply landowner permission to acquire material at this location. An agreement with the landowner is still necessary. The contractor will be responsible for any impacts to wetlands, including permitting those impacts and mitigating the loss of the wetlands. As with all projects, if cultural artifacts and/or features (e.g., stone tools, fire hearths, stone circles, burials) are encountered, provisions outlined in Section 107.04 of the Standard Specifications for Road and Bridge Construction shall be followed.

If you have any questions regarding material sources please email [materialsourc@nd.gov](mailto:materialsourc@nd.gov)



## BORROW AREA LIST

North Dakota Department of Transportation, Design Division  
SFN 9683 (Rev. 11-2011)

Project Control No.: 21340

Project: SOIB-4-023(026)096

Type of Project: Major Rehabilitation

Borrow Area No.:3

<u>Borrow</u>	<u>Entered</u>	<u>Approximate</u>	<u>Minimum</u>	<u>Cost Per</u>	
<u>Cu. Yd.</u>	<u>at Station</u>	<u>Topsoil</u>	<u>Payment</u>	<u>Cu. Yd.</u>	<u>Acreage</u>
97,400	5308+75	16,133	\$9,740	\$0.40	20

Location: The south 760 feet of the E ½ SE ¼, less existing Highway 23 right of way.

Owner: Paul Berg, Bryce and Wendy Berg, 8200 247<sup>th</sup> Ave SW, Douglas, ND 58735

### Contractor's Responsibilities:

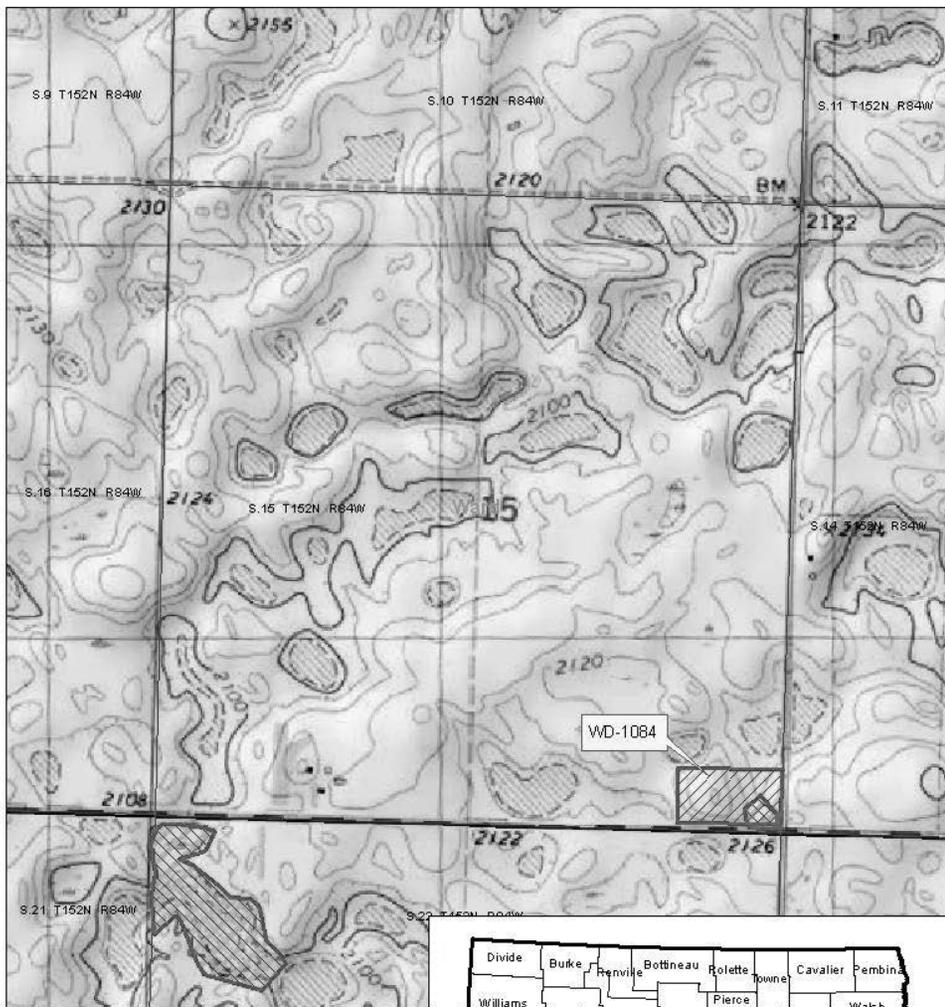
1. Make a minimum payment of \$9,740 equivalent to 25 percent of the estimated 97,400 cubic yardage. After the contractor has removed the minimum quantity estimated, the contractor shall pay the grantor 80 percent of the minimum payment within 30 days after NDDOT has made payment to the contractor. The balance of the royalty payment shall be paid to the grantor within 30 days after NDDOT makes final payment to the contractor and the contractor has obtained a pit release from the grantor.
2. The contractor will contact the landowner to determine final leveling requirements. A copy of the final plan signed by the owner and contractor will be submitted to the engineer before any borrow is removed.
3. In accordance with Section 203.02E of the Standard Specifications.
4. A minimum depth of 6" topsoil will be stripped. In those areas where topsoil depth is in excess of 6", a maximum of 12" will be stripped.
5. Temporary fence shall be installed prior to utilizing site.
6. Restore permanent fence in like condition.
7. Payments to be made to Bryce and Wendy Berg.
8. Disturbed areas to be restored and reseeded back to grass.

### N.D. Department of Transportation Responsibilities:

1. Pay cash rent on the disturbed acreage at the rate of \$25.00 per acre. If the optioned area is still being utilized for borrow after May 15 of the following year, an additional year's cash rent will be paid.
2. Make an additional rehabilitation payment on the disturbed acreage in the sum of \$25.00 per acre.

Total estimated NDDOT responsibility = \$1,000

# NDDOT Material Source Certificate of Approval



Expires December 31st

## 2016



## WD-1084

Pit Name: 15152084

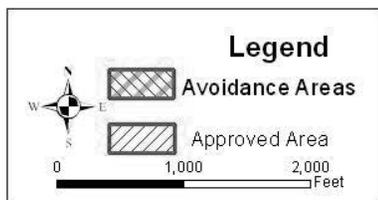
NNWNW S. 15 T. 152 N, R 84 W

County: Ward

This location is approved for use, provided all avoidance areas shown on the map are avoided, and any Conditions listed above are complied with. NDDOT advises that all applicants (contractors or their representatives) may be subject to meeting certain legal responsibilities pursuant to one or more of the following authorities administered by the USFWS: Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.); Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.); and Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250). It is unclear at this time what effects, if any, material source activities may have on plants, fish, and/or wildlife species protected by the above-mentioned Acts. It is the responsibility of the applicants and/or any individual conducting activities at any approved site to fulfill the requirements of these Acts.

This approval does not imply landowner permission to acquire material at this location. An agreement with the landowner is still necessary. The contractor will be responsible for any impacts to wetlands, including permitting those impacts and mitigating the loss of the wetlands. As with all projects, if cultural artifacts and/or features (e.g., stone tools, fire hearths, stone circles, burials) are encountered, provisions outlined in Section 107.04 of the Standard Specifications for Road and Bridge Construction shall be followed.

If you have any questions regarding material sources please email [materialsourc@nd.gov](mailto:materialsourc@nd.gov)



## BORROW AREA LIST

North Dakota Department of Transportation, Design Division  
SFN 9683 (Rev. 11-2011)

Project Control No.: 21340

Project: SOIB-4-023(026)096

Type of Project: Major Rehabilitation

Borrow Area No.:4

<u>Borrow</u>	<u>Entered</u>	<u>Approximate</u>	<u>Minimum</u>	<u>Cost Per</u>	
<u>Cu. Yd.</u>	<u>at Station</u>	<u>Topsoil</u>	<u>Payment</u>	<u>Cu. Yd.</u>	<u>Acreage</u>
23,730	5361+65	13,310	\$4,746	\$0.40	16.5

Location: The N ½ of the NW ¼ NW ¼ of Section 24, T-152-N, R-84-W.

Owner: Marvin and Judith Ness, 25600 72<sup>nd</sup> St SW, Douglas, ND 58735

### Contractor's Responsibilities:

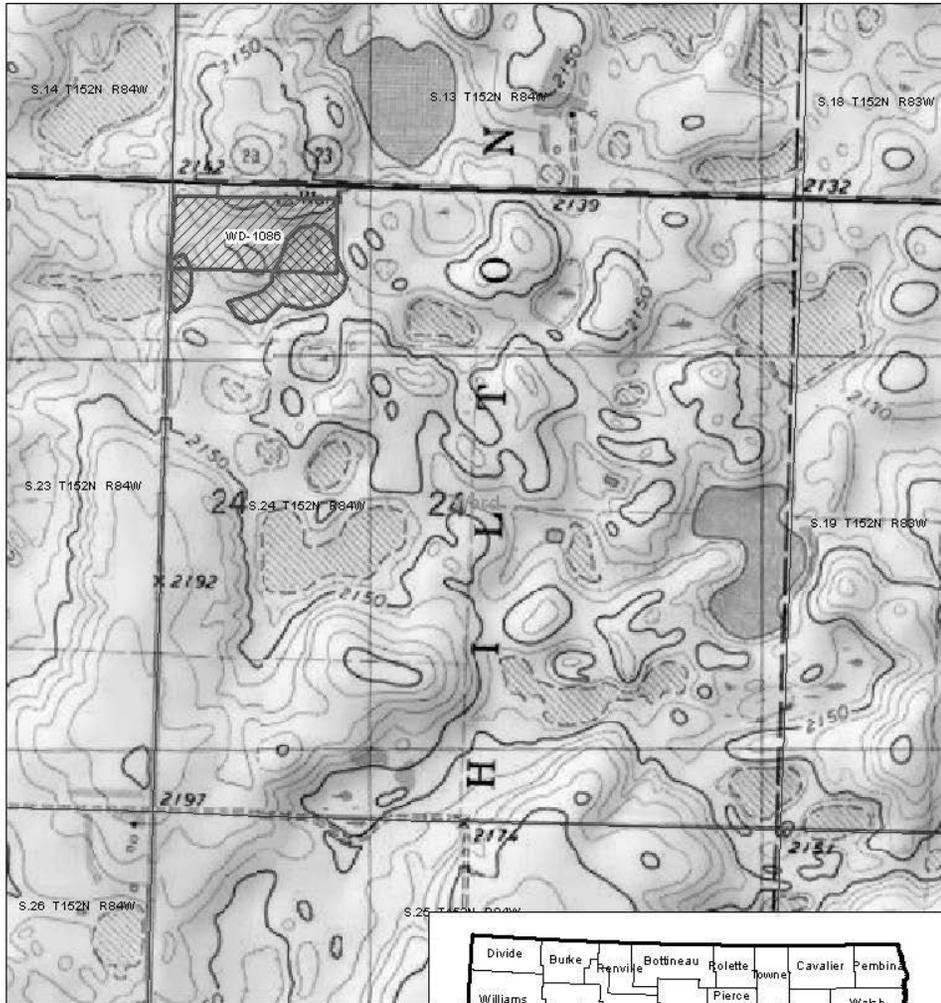
1. Make a minimum payment of \$4,746 equivalent to 50 percent of the estimated 23,730 cubic yardage. After the contractor has removed the minimum quantity estimated, the contractor shall pay the grantor 80 percent of the minimum payment within 30 days after NDDOT has made payment to the contractor. The balance of the royalty payment shall be paid to the grantor within 30 days after NDDOT makes final payment to the contractor and the contractor has obtained a pit release from the grantor.
2. The contractor will contact the landowner to determine final leveling requirements. A copy of the final plan signed by the owner and contractor will be submitted to the engineer before any borrow is removed.
3. In accordance with Section 203.02E of the Standard Specifications.
4. A minimum depth of 6" topsoil will be stripped. In those areas where topsoil depth is in excess of 6", a maximum of 12" will be stripped.
5. Cultivate hardpan prior to placement of topsoil.

### N.D. Department of Transportation Responsibilities:

1. Pay cash rent on the disturbed acreage at the rate of \$50.00 per acre. If the optioned area is still being utilized for borrow after May 15 of the following year, an additional year's cash rent will be paid.
2. Make an additional rehabilitation payment on the disturbed acreage in the sum of \$50.00 per acre.

Total estimated NDDOT responsibility = \$1,650

# NDDOT Material Source Certificate of Approval



Expires December 31st

## 2016

### WD-1086



Pit Name: 24152084

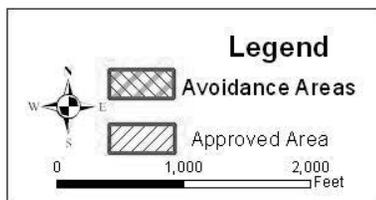
NNWNW S. 24 T. 152 N, R 84 W

County: Ward

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If you have any questions regarding material sources please email [materialsourc@nd.gov](mailto:materialsourc@nd.gov)



**NOTES**

Revised 12/5/15	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-4-023(026)096	6	2

203-P05 KEYWAY/BERM: A keyway/berm shall be constructed in areas where the inslope extends into the water at locations as shown on the plans. The keyway/berm shall be constructed as shown in the details and typical sections in the plans. The keyway/berm shall be removed in its entirety at pipe locations after the new pipes have been installed. In addition, the keyway/berm shall be removed to one foot below the existing water elevation after the riprap is placed. The contractor is required to remove this described embankment and will not be allowed to push the embankment into the water so it is below the water elevation. The removed embankment shall then become property of the contractor and shall be disposed of outside the highway right of way in accordance with Section 107.17.

If the contractor elects to dispose of the removed keyway/berm embankment within other areas on the project, the contractor will not be paid for this material a second time. The contractor will only be paid for borrow material removed from the borrow site.

All costs of material, dewatering, construction, removal, and disposal of the keyway, berm shall be included in the price bid for "Borrow-Excavation". The quantity of borrow needed to construct the keyway/berm is included in the quantities for "Borrow-Excavation".

203-P06 DISCRETIONARY SUBCUT: An additional 2,000 LF of 18" subcut has been included to be used at the Engineer's discretion. All discretionary subcut shall be paid for as "Common Excavation-Subcut". An additional quantity of 8,000 SY of Geosynthetic Material Type R1 has been included to be used in lieu of Subgrade Preparation-Type A-12IN at the Engineer's discretion.

203-P07 DEPARTMENT OPTIONED BORROW: Department-Optioned borrow sites shown in the plans have been approved for use by the Contractor. All borrow site agreements will expire over the duration of the project as listed below:

- Site 1 February 8, 2017
- Site 2 October 20, 2016
- Site 3 October 20, 2016
- Site 4 October 20, 2016

All sites must be opened prior to the dates listed above or the contracts will expire.

The remaining borrow material shall be Contractor-Furnished and shall meet all requirements as specified in Section 203 of the Standard Specifications. All costs associated for obtaining, hauling, placing and compacting borrow material shall be included in the price bid for "Borrow-Excavation".

230-P01 SUBGRADE PREPARATION-TYPE A-12IN: Subgrade preparation Type A-12" will be required for the reconstruction areas identified in the plans.

230-P02 SUBGRADE PREPARATION: If the top of subgrade for the proposed shoulders is higher than the top of subgrade of the existing roadway, the Contractor shall match the existing subgrade elevation and install additional aggregate material to allow for subgrade drainage. All costs associated with the manipulation of the existing subgrade shall be included in the price bid for other items.

261-P01 EROSION CONTROL: Erosion control has been provided for placement prior to disturbing the topsoil or as indicated by the engineer. Locations are shown in the erosion control plan. 7,000 LF of 20" Fiber Rolls and 7 acres of seeding and mulching has been provided for the State Optioned Borrow Areas. An additional 2,000 LF of 12" Fiber Rolls, 1,000 LF of 20" Fiber Rolls, and 5,000 LF of Silt Fence Unsupported have been provided to be used at the engineer's discretion.

302-P01 SURFACE TOLERANCE: The surface of the completed base shall meet specifications for Surface Tolerance Type B.

302-P02 SALVAGED BASE COURSE: A temporary aggregate wedge shall be placed at both ends of all the regrade sections to provide a smooth transition from the existing pavement to the top of the new aggregate base. Transitions shall be placed at 50 feet per inch and shall be maintained until paved. All costs to install, remove, and maintain these aggregate wedges shall not be bid separately but included in the unit price bid for "Salvaged Base Course".

302-P03 SALVAGED BASE COURSE: An additional 16,650 tons of salvaged base course has been provided for maintaining traffic. The aggregate shall be used for temporary widening and as directed by the Engineer in the field.

302-P04 SALVAGED BASE COURSE: The Contractor shall maintain a stockpile of 500 tons of salvaged base course on the project for use in repairing the roadway to maintain traffic through the project.

302-P05 SALVAGED BASE COURSE: A vertical edge (coulter cut) shall be created in all widening areas as shown in Section 30. All costs associated with constructing the vertical edge and removing existing material shall not be paid for separately but included in the price bid for Salvaged Base Course.

401-100 TACK COAT: When MS-1 is used for tack coat, it may be diluted by the supplier or the Contractor.

430-P01 HOT BITUMINOUS PAVEMENT: The 5.5 inch pavement section shall be paver laid in three lifts. The bottom two lifts shall be PG 58-28 Asphalt Cement. The top lift shall be PG 64-34 Asphalt Cement.

430-P02 PAVING SEAMS: All seams must be at least 11.5' from the centerline of the roadway unless a hot seam is used. Hot seams can be located at any offset distance. A hot seam will be defined as a seam created when two pavers are paving at the same time, with no more than 300' between the pavers. The seam must be rolled in a way to join and hide the seam so it is not visible to the traveling public.

430-P03 EXCEPTION AREA: Pave the exception area with a 2" HMA overlay as shown in the plans.

704-016 TRAFFIC CONTROL SUPERVISOR: A traffic control supervisor shall be provided on this project.

704-P02 TRAFFIC CONTROL PHASING: Traffic control was developed in two phases for the project.

Phase 1 consists of maintaining head to head traffic on the existing roadway while the Contractor widens the roadway to one side.

Phase 2a consists of head to head traffic shifted to the widened side of the roadway, while the Contractor places embankment, aggregate base and the blended base operation on the opposite half of the roadway.

Phase 2b consists of head to head traffic shifted to the side of the roadway blended in Phase 2a, while the Contractor places embankment, aggregate base and the blended base operation on the opposite half of the roadway.

Phases 2c and 2d consist of head to head traffic on one half of the roadway, while the other half is paved.

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SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	1	1
103	0200	ESCROW OF BID DOCUMENTATION	L SUM	1	1
201	0330	CLEARING & GRUBBING	L SUM	1	1
202	0153	SAW BITUMINOUS SURFACING-FULL DEPTH	LF	60	60
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	28	28
202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES	LF	2,496	2,496
203	0101	COMMON EXCAVATION-TYPE A	CY	171,556	171,556
203	0108	TOPSOIL-BORROW AREA	CY	53,134	53,134
203	0109	TOPSOIL	CY	81,651	81,651
203	0121	TOPSOIL-WETLAND	CY	12,221	12,221
203	0138	COMMON EXCAVATION-SUBCUT	CY	7,047	7,047
203	0140	BORROW-EXCAVATION	CY	311,295	311,295
216	0100	WATER	M GAL	15,053	15,053
230	0165	SUBGRADE PREPARATION - TYPE A - 12IN	STA	13.90	13.90
251	0200	SEEDING CLASS II	ACRE	201.20	201.20
251	1000	WETLAND SEED	ACRE	2.48	2.48
251	2000	TEMPORARY COVER CROP	ACRE	151.83	151.83
253	0101	STRAW MULCH	ACRE	353.03	353.03
255	0101	ECB TYPE I	SY	7,653	7,653
256	0201	RIPRAP GRADE II	TON	26,581	26,581
260	0100	SILT FENCE UNSUPPORTED	LF	5,000	5,000
260	0101	REMOVE SILT FENCE UNSUPPORTED	LF	5,000	5,000
261	0112	FIBER ROLLS 12 IN	LF	119,224	119,224
261	0113	REMOVE FIBER ROLLS 12IN	LF	49,061	49,061
261	0120	FIBER ROLLS 20 IN	LF	8,000	8,000
262	0100	FLOTATION SILT CURTAIN	LF	18,738	18,738
262	0101	REMOVE FLOTATION SILT CURTAIN	LF	18,738	18,738
302	0100	SALVAGED BASE COURSE	TON	179,670	179,670
302	0113	AGGREGATE BASE COURSE CL 3	TON	25,671	25,671
306	0105	AGGREGATE CL 3M	TON	65,125	65,125
306	0370	REMOVE AND RELAY BLENDED MATERIAL	SY	45,517	45,517
306	0510	FULL DEPTH RECLAMATION	SY	153,150	153,150
401	0050	TACK COAT	GAL	23,303	23,303
401	0060	PRIME COAT	GAL	76,029	76,029
401	0160	BLOTTER MATERIAL CL 44	TON	1,669	1,669
430	0045	SUPERPAVE FAA 45	TON	74,861	74,861
430	1000	CORED SAMPLE	EA	368	368
430	5828	PG 58-28 ASPHALT CEMENT	TON	2,920	2,920
430	6434	PG 64-34 ASPHALT CEMENT	TON	1,572	1,572
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	4,000	4,000
704	1000	TRAFFIC CONTROL SIGNS	UNIT	7,904	7,904
704	1052	TYPE III BARRICADE	EA	30	30
704	1060	DELINEATOR DRUMS	EA	300	300
704	1067	TUBULAR MARKERS	EA	300	300
704	1080	STACKABLE VERTICAL PANELS	EA	500	500
704	1081	VERTICAL PANELS-BACK TO BACK	EA	30	30
704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	2	2
704	1185	PILOT CAR	HR	2,000	2,000
704	1500	OBLITERATION OF PVMT MK	SF	67	67
704	4011	PORTABLE CHANGEABLE MESSAGE SIGN	EA	4	4
706	0400	FIELD OFFICE	EA	1	1
706	0500	AGGREGATE LABORATORY	EA	1	1
706	0550	BITUMINOUS LABORATORY	EA	1	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
706	0600	CONTRACTOR'S LABORATORY	EA	1	1
709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	55,935	55,935
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	38,820	38,820
714	0615	PIPE CONC REINF 24IN CL III	LF	164	164
714	0820	PIPE CONC REINF 30IN CL III	LF	338	338
714	3020	END SECT-CONC REINF 24IN	EA	1	1
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN	EA	7	7
714	3030	END SECT-CONC REINF 30IN	EA	18	18
714	4105	PIPE CONDUIT 24IN	LF	88	88
714	4106	PIPE CONDUIT 24IN-APPROACH	LF	720	720
714	4110	PIPE CONDUIT 30IN	LF	2,010	2,010
714	4113	PIPE CONDUIT 30IN-APPROACH	LF	332	332
714	4120	PIPE CONDUIT 42IN	LF	146	146
714	9200	CATTLE PASS CONC INTERMED SECTION	LF	188	188
714	9350	END SECT CONC CATTLE PASS	EA	2	2
714	9611	REMOVE & RELAY CONC CATTLE PASS END SECTION	EA	4	4
720	0100	MONUMENTS	EA	18	18
720	0110	RIGHT OF WAY MARKERS	EA	150	150
720	0130	IRON PIN R/W MONUMENTS	EA	150	150
752	0100	FENCE BARBED WIRE 3 STRAND	LF	1,139	1,139
752	0910	SAFETY FENCE	LF	200	200
752	0922	FENCE REMOVE & RESET	LF	4,860	4,860
752	3140	CORNER ASSEMBLY BARBED WIRE	EA	10	10
754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	221	221
754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	303	303
754	0150	DELINEATORS-TYPE A	EA	24	24
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	1,003	1,003
754	0562	REFERENCE MARKER-TYPE B	EA	3	3
754	0563	REFERENCE MARKER-TYPE C	EA	6	6
754	0592	RESET SIGN PANEL	EA	6	6
754	0805	OBJECT MARKERS - CULVERTS	EA	95	95
760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	18.94	18.94
760	0007	RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	9.47	9.47
760	0009	RUMBLE STRIPS - INTERSECTION	EA	1	1
762	0112	EPOXY PVMT MK MESSAGE	SY	294	294
762	0113	EPOXY PVMT MK 4IN LINE	LF	168,426	168,426
762	0115	EPOXY PVMT MK 8IN LINE	LF	550	550
762	0117	EPOXY PVMT MK 24IN LINE	LF	28	28
762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	273,621	273,621
766	0120	RESET MAILBOX	EA	2	2
772	9010	AUTOMATIC TRAFFIC RECORDER SYSTEM	EA	1	1
772	9300	SURVEILLANCE CAMERA SYSTEM	EA	1	1

Revised 12/5/15	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-4-023(026)096	10	1

## BASIS OF ESTIMATE

### Seeding Class II, Temporary Cover Crop and Straw Mulching

Class II, temporary cover crop and straw mulching shall be placed from the edge of the disturbed area or riprap to the edge of the proposed shoulder.

### Hot Bituminous Pavement

Superpave FAA 45 @ 2 Ton/CY

PG 58-28 Asphalt Cement @ 6.0%

PG 64-34 Asphalt Cement @ 6.0%

Salvaged Base Course and Aggregate CL 3M @ 1.875 Ton/CY

SS1H Tack Coat @ 0.05 Gal/SY/Lift

Prime Coat @ 0.25 Gal/SY First Application

- Mainline (2 - 12' lanes and 8' Shoulders) – 45,970 Ft x 40 Ft x 1 SY/9 SF = 204,311 SY  
204,311 SY x 0.25 Gal/SY = 51,078 Gal
- Auxiliary Lanes (Lanes and Tapers) – 20,211 SY x 0.25 Gal/SY = 5,051 Gal

Prime Coat @ 0.15 Gal/SY Second Application

- Mainline (2 - 12' lanes and 8' Shoulders) – 45,970 Ft x 26 Ft x 1 SY/9 SF = 132,802 SY  
132,802 SY x 0.15 Gal/SY = 19,920 Gal

Blotter Material CL 44 @ 15 LB/SY

### State Optioned Borrow Pits – Erosion Control

Fiber Rolls 20 IN = 7,000 LF

Topsoil-Borrow Area @ 6" = 53,134 CY

Seeding & Mulching = 42.37 Acres

### Water

Water for compaction:

- 20 Gal/TON for Salvaged Base Course
- 15 Gal/TON for Blended Base
- 10 Gal/CY for Borrow

Water for dust palliative @ 25 MGal/Mile:

- 8.740 Miles x 25 MGal/Mile = 219 MGal

### Riprap – Grade II

Riprap – Grade II @ 1.7 Ton/CY

### Rumble Strips

Asphalt Shoulder

9.47 mile x 2 = **18.94 Mile**

Asphalt Centerline

9.47 mile = **9.47 Mile**

Intersection

ND 23 & US 83 = **1 EA**

### Salvaged Base Course for Traffic Service Gravel

Grade Raise Areas

Width 24', Depth 6", 9,990' Length x 2 = **16,650 Ton**

Stockpile for Emergency Repairs = **500 Ton**

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Fencing Summary

Begin Station	End Station	Fence Remove & Reset	Fence Barbed Wire 3 Strand	Corner Assembly Barbed Wire
		LF	LF	EA
Cattle Pass 5121+29				
5136+45	5137+50	105	-	-
5191+10	5195+10	400	-	-
Cattle Pass 5191+30				
5198+75	5200+00	125	-	-
5200+50	5202+25	175	-	-
5204+50	5208+25	375	-	-
5216+25	5217+00	75	-	-
5235+00	5236+25	125	-	-
5233+75	5236+25	250	-	-
5241+75	5246+25	450	-	-
5253+00	5255+85	285	-	-
5256+70	5257+55	85	-	-
5257+05	5262+15	510	-	-
5255+25	5261+25	600	-	-
5265+75	5266+75	100	-	-
5284+25	5285+00	75	-	-
Cattle Pass 5453+33				
5473+50	5477+25	375	-	-
5478+50	5485+00	650	-	-
5492+40	5493+40	100	-	-
5522+50	5524+75	225	-	-
<b>Totals</b>		<b>4,860</b>	<b>1,139</b>	<b>10</b>

Subcut Aggregate Summary

Begin Station	End Station	Subcut Depth (IN)	Aggregate CL 3	
			Volume (CY)	Mass (Ton)
5111+25	5117+70	36	1,531	5,577
5130+05	5131+75	36	499	1,820
5342+20	5344+40	36	608	2,215
Discretionary Subcut (2000 LF)		18	4,409	16,059
<b>Totals</b>			<b>7,047</b>	<b>25,671</b>

Embankment at Extended Centerline Pipes

Station	Volume	
	Left	Right
5121+29	132.3	76.7
5124+30	83.5	101.4
5191+30	56.7	190.7
5300+11	109.1	78.7
5328+31	174.3	103.6
5328+31	0.7	-
5465+50	155.0	122.4
<b>Total</b>	<b>711.6</b>	<b>673.5</b>

Revised	12/2/15	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SOIB-4-023(026)096	11	1

Aggregate Summary

Item	Aggregate CL 3M		Aggregate CL 3		Salvaged Base Course	
	Area	Mass	Area	Mass	Area	Mass
	(SY)	(Ton)	(SY)	(Ton)	(SY)	(Ton)
Blended Base	153,150	34,439	-	-	-	-
Widen Left	-	-	-	-	-	80,840
Widen Right	-	-	-	-	-	78,985
Reconstruction	-	30,686	-	-	-	-
Remove & Relay Blended Base	45,517	-	-	-	-	-
Section Line Approaches	-	-	-	-	-	1,920
Private Drive Approaches	-	-	-	-	-	150
Field Drives	-	-	-	-	-	625
Approach Radii	-	-	-	-	-	500
Subcut Areas	-	-	-	25,671	-	-
Temporary Traffic Control	-	-	-	-	-	16,650
<b>Totals</b>		<b>65,125</b>		<b>25,671</b>		<b>179,670</b>

Object Marker - Culvert Location Summary

Station	Location	Station	Location
5073+79	Lt & Rt	5309+25	Lt
5085+29	Lt & Rt	5328+31	Lt & Rt
5100+30	Lt & Rt	5331+33	Lt
5107+60	Lt & Rt	5331+91	Lt
5116+60	Lt	5338+00	Lt & Rt
5121+29	Lt & Rt	5354+31	Lt & Rt
5124+30	Lt & Rt	5361+02	Rt
5136+67	Rt	5361+28	Lt
5137+45	Rt	5362+04	Lt
5141+41	Lt	5362+20	Rt
5142+11	Lt	5384+32	Lt & Rt
5150+79	Lt & Rt	5394+30	Lt & Rt
5168+29	Lt & Rt	5395+44	Lt
5177+80	Lt & Rt	5396+12	Lt
5191+30	Lt & Rt	5396+51	Rt
5202+64	Rt	5397+29	Rt
5202+74	Lt	5408+28	Lt & Rt
5203+44	Lt	5414+16	Lt
5203+54	Rt	5414+90	Lt
5215+60	Lt & Rt	5432+31	Lt & Rt
5232+30	Lt & Rt	5438+31	Lt & Rt
5252+50	Lt & Rt	5449+80	Lt & Rt
5260+50	Lt & Rt	5453+33	Lt & Rt
5266+01	Rt	5455+33	Lt & Rt
5266+77	Rt	5465+50	Lt & Rt
5269+13	Lt	5469+07	Lt
5269+93	Lt	5469+87	Lt
5276+31	Lt & Rt	5498+13	Lt & Rt
5293+31	Lt & Rt	5503+33	Lt & Rt
5300+11	Lt & Rt	5518+73	Lt & Rt
5308+19	Lt & Rt		
5309+17	Rt	<b>TOTAL= 95</b>	

Riprap Placement Summary

Grade Raise	Begin Station	End Station	Rip Rap	
			Quantity (CY)	Quantity (Ton)
RP 99.5	5247+00	5263+00	3,628	6,168
RP 101.3	5323+50	5361+00	6,436	10,942
RP 103.5	5445+00	5468+40	5,532	9,405
Culvert Erosion Control			39	66
<b>Totals</b>			<b>15,635</b>	<b>26,581</b>

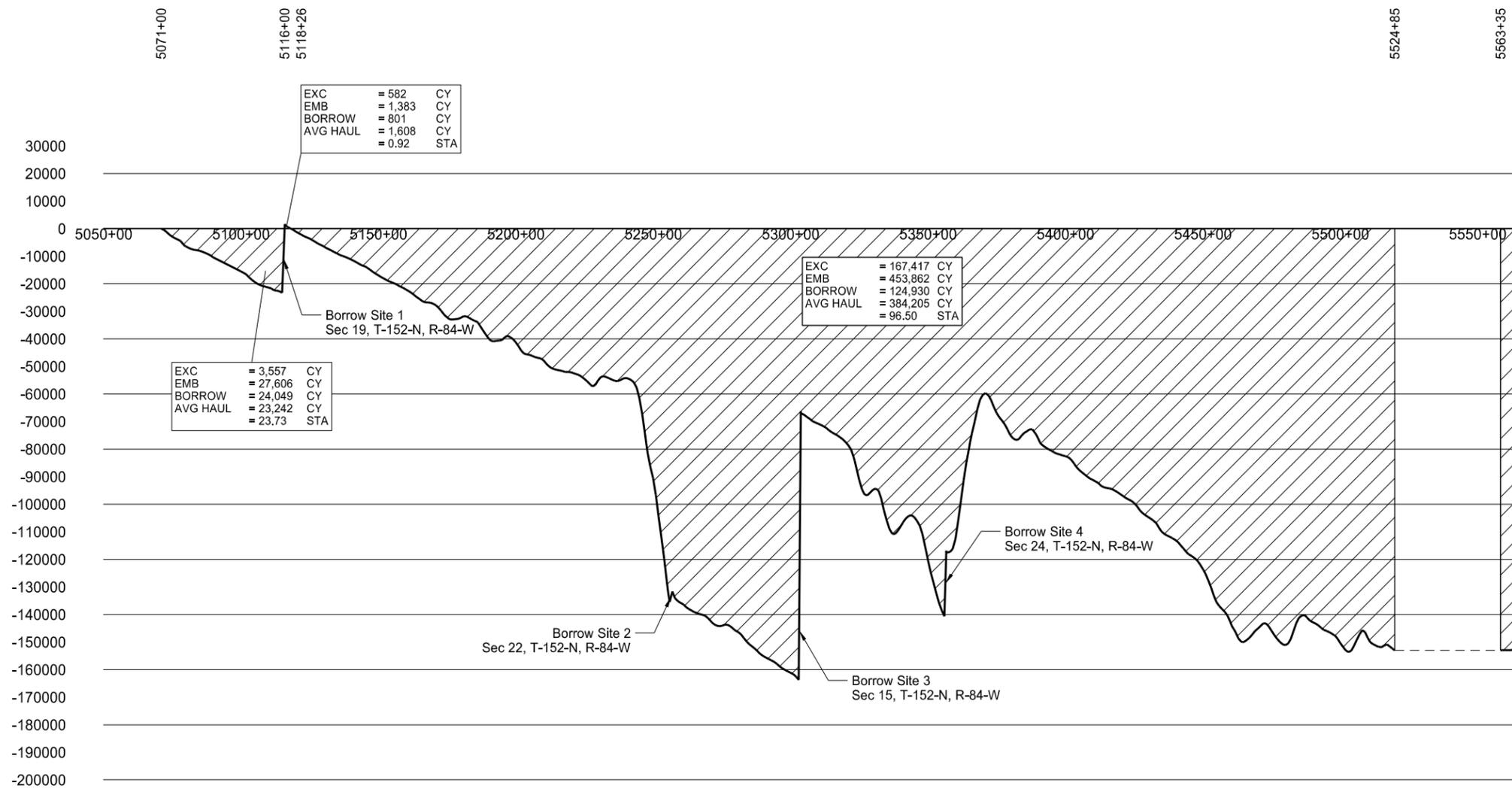
Remove & Relay Blended Base

Begin Sta	End Sta	Length (Ft)	Width (Ft)	Area (SY)
5111+25	5117+70	645	30	2,150
5130+05	5131+75	170	30	567
5243+40	5268+60	2,520	30	8,400
5320+20	5383+95	6,375	30	21,250
5441+70	5471+80	3,010	30	10,033
5518+85	5524+85	600	30	2,000
5567+65	5571+00	335	30	1,117
<b>Total</b>				<b>45,517</b>

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Data Tables

Aggregate Summary Table  
ND 23 - East of County Rd 13 to US 83



\*Length of dead haul through exception area  
SER-4-023(022)105 not included in average haul  
(Sta. 5524+85 - 5563+35)

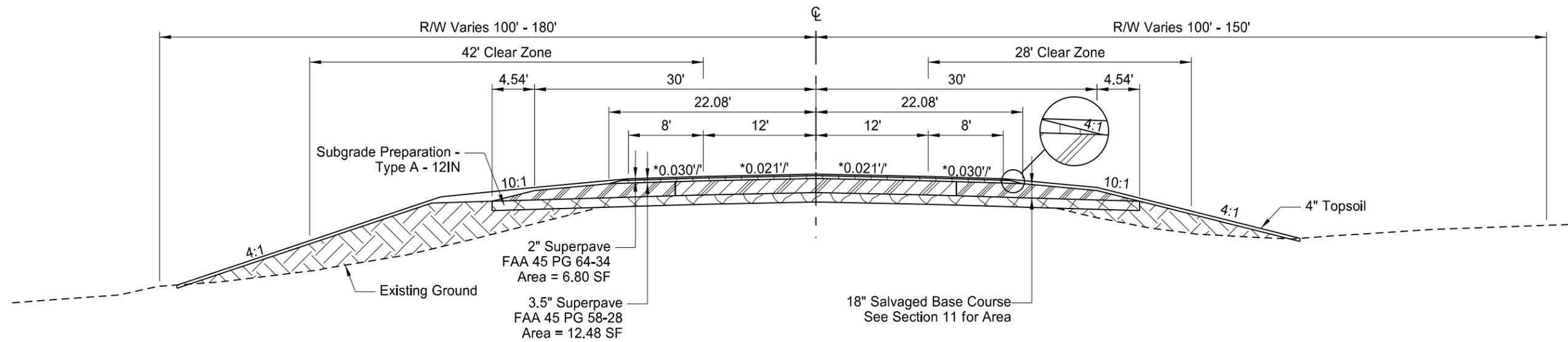
PROJECT TOTALS		
EXC	= 171,556	CY
EMB	= 482,851	CY
BORROW	= 149,780	CY
AVG HAUL	= 409,055	CY
	= 121.15	STA

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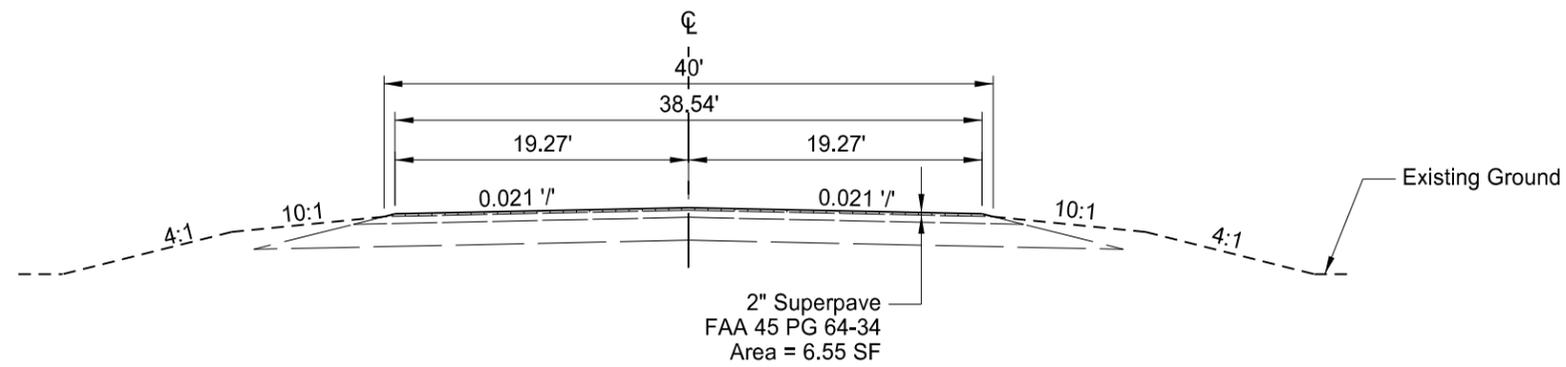
Mass Diagram

ND 23 - East of County Rd 13 to US 83

Revised	12/5/15	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SOIB-4-023(026)096	30	14



**GRADE RAISE - GRADE TRANSITION RIGHT**  
 Sta 5245+80.00 to 5247+00.00  
 Sta 5263+10.00 to 5265+25.00



**OVERLAY - EXCEPTION AREA**  
 Sta. 5563+35.00 to 5568+15.00

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Typical Sections Proposed  
 ND 23 - East of County Rd 13 to US 83

Iron Pins			
Point	Sta	Offset	Description
9300	5072+35.53	-100.00	IRON PIN - QUARTER LINE
9302	5072+35.53	100.00	IRON PIN - QUARTER LINE
9301	5074+35.43	-100.00	IRON PIN - QUARTER LINE
9303	5074+35.63	100.00	IRON PIN - QUARTER LINE
9311	5098+76.35	-100.00	IRON PIN - SEC LINE
9313	5098+76.35	100.00	IRON PIN - SEC LINE
9314	5100+76.14	100.00	IRON PIN - SEC LINE
9312	5100+76.56	-100.00	IRON PIN - SEC LINE
9316	5122+82.59	-100.00	IRON PIN - QUARTER LINE
9318	5122+82.59	100.00	IRON PIN - QUARTER LINE
9317	5124+82.40	-100.00	IRON PIN - QUARTER LINE
9319	5124+82.77	100.00	IRON PIN - QUARTER LINE
9342	5149+25.55	-100.00	IRON PIN - SEC LINE
9344	5149+25.55	100.00	IRON PIN - SEC LINE
9345	5151+25.33	100.00	IRON PIN - SEC LINE
9343	5151+25.81	-100.00	IRON PIN - SEC LINE
9347	5175+65.97	-100.00	IRON PIN - QUARTER LINE
9349	5175+65.97	100.00	IRON PIN - QUARTER LINE
9350	5177+65.82	100.00	IRON PIN - QUARTER LINE
9348	5177+66.13	-100.00	IRON PIN - QUARTER LINE
9360	5195+30.32	100.00	IRON PIN - EX R/W
9361	5195+30.32	140.00	IRON PIN - EX R/W
9366	5201+66.72	140.00	IRON PIN - SEC LINE
9364	5202+06.72	-100.00	IRON PIN - SEC LINE
9365	5204+06.94	-100.00	IRON PIN - SEC LINE
9367	5204+21.47	115.00	IRON PIN - SEC LINE
9368	5208+75.00	115.00	IRON PIN - R/W
9369	5208+75.00	100.00	IRON PIN - R/W
9371	5223+30.73	-100.00	IRON PIN - EX R/W
9372	5223+30.73	-120.00	IRON PIN - EX R/W
9373	5228+36.53	-120.00	IRON PIN - QUARTER LINE
9375	5228+56.53	100.00	IRON PIN - QUARTER LINE
9379	5229+56.25	120.00	IRON PIN - EX R/W
9378	5229+56.30	100.00	IRON PIN - EX R/W
9376	5230+76.42	120.00	IRON PIN - QUARTER LINE
9374	5230+76.65	-120.00	IRON PIN - QUARTER LINE
9380	5236+30.73	-120.00	IRON PIN - EX R/W
9381	5236+30.73	-100.00	IRON PIN - EX R/W
9382	5236+30.73	120.00	IRON PIN - EX R/W
9383	5236+30.73	100.00	IRON PIN - EX R/W
9400	5253+30.77	-100.00	IRON PIN - EX R/W
9401	5253+30.77	-140.00	IRON PIN - EX R/W
9402	5254+63.27	-140.00	IRON PIN - SEC LINE
9404	5255+03.27	100.00	IRON PIN - SEC LINE
9407	5255+69.70	164.52	IRON PIN - R/W
9408	5256+35.77	220.00	IRON PIN - R/W
9405	5257+23.55	120.00	IRON PIN - SEC LINE
9403	5257+30.77	-127.79	IRON PIN - SEC LINE
9409	5261+25.00	120.00	IRON PIN - R/W
9410	5261+25.00	100.00	IRON PIN - R/W

Iron Pins			
Point	Sta	Offset	Description
9411	5262+50.00	-115.00	IRON PIN - R/W
9412	5262+50.00	-99.14	IRON PIN - R/W
9417	5281+40.55	-100.00	IRON PIN - QUARTER LINE
9419	5281+40.55	100.00	IRON PIN - QUARTER LINE
9418	5283+40.43	-100.00	IRON PIN - QUARTER LINE
9420	5283+40.67	100.00	IRON PIN - QUARTER LINE
9442	5307+77.83	-100.00	IRON PIN - SEC LINE
9444	5307+77.83	100.00	IRON PIN - SEC LINE
9443	5309+77.62	-100.00	IRON PIN - SEC LINE
9445	5309+78.03	100.00	IRON PIN - SEC LINE
9447	5327+50.00	-100.00	IRON PIN - R/W
9448	5327+50.00	-120.00	IRON PIN - R/W
9450	5331+29.94	-140.00	IRON PIN - EX R/W
9451	5331+29.94	100.00	IRON PIN - EX R/W
9452	5331+29.94	140.00	IRON PIN - EX R/W
9449	5331+29.94	-120.00	IRON PIN - R/W
9453	5333+81.90	-140.00	IRON PIN - QUARTER LINE
9455	5333+81.90	140.00	IRON PIN - QUARTER LINE
9454	5336+61.82	-140.00	IRON PIN - QUARTER LINE
9456	5336+61.97	140.00	IRON PIN - QUARTER LINE
9458	5342+30.03	-140.00	IRON PIN - EX R/W
9459	5342+30.03	-100.00	IRON PIN - EX R/W
9460	5342+30.03	140.00	IRON PIN - EX R/W
9461	5342+30.03	160.00	IRON PIN - EX R/W
9462	5349+30.07	160.00	IRON PIN - EX R/W
9463	5349+30.07	100.00	IRON PIN - EX R/W
9480	5360+65.97	-100.00	IRON PIN - SEC LINE
9482	5360+65.97	100.00	IRON PIN - SEC LINE
9483	5363+05.65	140.00	IRON PIN - SEC LINE
9481	5363+16.32	-150.00	IRON PIN - SEC LINE
9485	5375+30.46	-150.00	IRON PIN - EX R/W
9489	5375+30.46	140.00	IRON PIN - EX R/W
9490	5375+30.46	100.00	IRON PIN - EX R/W
9486	5375+30.46	-130.00	IRON PIN - R/W
9487	5380+50.00	-130.00	IRON PIN - R/W
9488	5380+50.00	-100.00	IRON PIN - R/W
9491	5384+10.60	-100.00	IRON PIN - EX R/W
9492	5384+10.60	-180.00	IRON PIN - EX R/W
9493	5384+50.60	-180.00	IRON PIN - EX R/W
9494	5384+50.60	-100.00	IRON PIN - EX R/W
9496	5386+30.63	-100.00	IRON PIN - EX R/W
9497	5386+30.63	-130.00	IRON PIN - EX R/W
9498	5386+81.14	-130.00	IRON PIN - QUARTER LINE
9500	5387+11.14	100.00	IRON PIN - QUARTER LINE
9505	5387+30.65	100.00	IRON PIN - EX R/W
9506	5387+30.65	150.00	IRON PIN - EX R/W
9499	5389+41.09	-130.00	IRON PIN - QUARTER LINE
9501	5389+61.20	150.00	IRON PIN - QUARTER LINE
9503	5389+80.66	-130.00	IRON PIN - EX R/W
9504	5389+80.66	-100.00	IRON PIN - EX R/W

Iron Pins			
Point	Sta	Offset	Description
9507	5392+80.66	150.00	IRON PIN - EX R/W
9508	5392+80.66	100.00	IRON PIN - EX R/W
9517	5413+56.29	-100.00	IRON PIN - SEC LINE
9518	5413+56.31	100.00	IRON PIN - SEC LINE
9531	5415+56.02	100.00	IRON PIN - SEC LINE
9530	5415+56.62	-100.00	IRON PIN - SEC LINE
9532	5438+80.23	-100.00	IRON PIN - QUARTER LINE
9533	5438+80.23	-100.00	IRON PIN - QUARTER LINE
9534	5438+80.23	100.00	IRON PIN - QUARTER LINE
9537	5439+80.23	100.00	IRON PIN - EX R/W
9538	5439+80.23	110.00	IRON PIN - EX R/W
9535	5440+90.34	110.00	IRON PIN - QUARTER LINE
9539	5442+31.63	-100.00	IRON PIN - EX R/W
9540	5442+31.63	-150.00	IRON PIN - EX R/W
9541	5444+31.63	110.00	IRON PIN - EX R/W
9542	5444+31.63	100.00	IRON PIN - EX R/W
9545	5464+70.31	-150.00	IRON PIN - SEC LINE
9547	5464+70.32	150.00	IRON PIN - SEC LINE
9546	5467+50.39	-130.00	IRON PIN - SEC LINE
9548	5467+70.28	150.00	IRON PIN - SEC LINE
9560	5479+31.50	150.00	IRON PIN - EX R/W
9561	5479+31.50	130.00	IRON PIN - EX R/W
9562	5486+31.50	-130.00	IRON PIN - EX R/W
9563	5486+31.50	-150.00	IRON PIN - EX R/W
9564	5490+31.50	-150.00	IRON PIN - EX R/W
9565	5490+31.50	-100.00	IRON PIN - EX R/W
9570	5490+31.50	130.00	IRON PIN - EX R/W
9571	5490+31.50	100.00	IRON PIN - EX R/W
9566	5491+77.55	-100.00	IRON PIN - QUARTER LINE
9568	5491+77.55	100.00	IRON PIN - QUARTER LINE
9569	5493+77.44	100.00	IRON PIN - QUARTER LINE
9567	5493+77.67	-100.00	IRON PIN - QUARTER LINE
9577	5508+31.11	-100.00	IRON PIN - EX R/W
9578	5508+31.11	-150.00	IRON PIN - EX R/W
9579	5508+31.11	100.00	IRON PIN - EX R/W
9580	5508+31.11	130.00	IRON PIN - EX R/W
9581	5517+31.11	130.00	IRON PIN - EX R/W
9582	5517+31.11	110.00	IRON PIN - EX R/W
9583	5517+73.08	-150.00	IRON PIN - SEC LINE
9585	5518+13.09	110.00	IRON PIN - SEC LINE
9584	5520+42.74	-120.00	IRON PIN - SEC LINE
9586	5521+03.62	180.00	IRON PIN - SEC LINE
9588	5524+75.00	-120.00	IRON PIN - R/W
9589	5524+75.00	-100.00	IRON PIN - R/W
9600	5567+33.27	-100.00	IRON PIN - EX R/W
9602	5567+58.71	130.00	IRON PIN - EX R/W
9604	5568+99.71	271.01	IRON PIN - SEC LINE
9605	5569+01.26	-269.47	IRON PIN - SEC LINE
9603	5569+95.12	366.42	IRON PIN - EX R/W
9601	5570+29.71	-399.05	IRON PIN - EX R/W
Iron Pins = 150			
R/W Markers = 150			

Alignment Monuments			
Point	Sta	Offset	Description
9304	5073+35.54	0.00	MONUMENT - QUARTER LINE
9315	5099+76.35	0.00	MONUMENT - SEC LINE
9320	5123+82.59	0.00	MONUMENT - QUARTER LINE
9346	5150+25.55	0.00	MONUMENT - SEC LINE
9351	5176+65.98	0.00	MONUMENT - QUARTER LINE
9370	5203+06.72	0.00	MONUMENT - SEC LINE
9377	5229+56.54	0.00	MONUMENT - QUARTER LINE
9406	5256+03.27	0.00	MONUMENT - SEC LINE
9421	5282+40.55	0.00	MONUMENT - QUARTER LINE
9446	5308+77.83	0.00	MONUMENT - SEC LINE
9457	5335+21.90	0.00	MONUMENT - QUARTER LINE
9484	5361+65.97	0.00	MONUMENT - SEC LINE
9502	5388+11.14	0.00	MONUMENT - QUARTER LINE
9519	5414+56.29	0.00	MONUMENT - SEC LINE
9536	5439+80.22	-0.04	MONUMENT - QUARTER LINE
9549	5466+20.32	0.00	MONUMENT - SEC LINE
9572	5492+77.56	0.00	MONUMENT - QUARTER LINE
9587	5519+23.09	0.00	MONUMENT - SEC LINE
Monuments = 18			

This document was originally issued and sealed by Jeffrey T. Lansink Registration Number PE- 5244, on 12/2/15 and the original document is stored at the North Dakota Department of Transportation

R/W Marker and Concrete Monument Locations  
ND 23 - East of County Rd 13 to US 83