



# North Dakota Department of Transportation

Thomas K. Sorel  
Director

Doug Burgum  
Governor

November 5, 2018

## ADDENDUM 3 – JOB 2

TO: All prospective bidders on Project SU-8-984(164), Job No. 2 scheduled for the November 9, 2018 bid opening.

The following plans and request for proposal revision shall be made:

Plan Revisions:

See attached summary from Adam Ruud, P.E. dated November 5, 2018 for an explanation.

Request for Proposal Revisions:

Remove and replace pages 5 thru 15 of 17 of the Proposal pages located at the beginning of the Request for Proposal with pages revised 11/5/2018.

The following changes were made to the Bid Items:

Spec	Code	Description	Unit	Previous Quantity	Revised Quantity
704	1000	TRAFFIC CONTROL SIGNS	UNIT	6,237	6,297
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	384	616
704	4011	PORTABLE CHANGEABLE MESSAGE SIGN	EA	0	2
762	0420	SHORT TERM 4IN LINE-TYPE R	LF	10,717	11,142
764	9010	ATTENUATING CRASH CUSHION TL-2	EA	5	0
764	9011	ATTENUATING CRASH CUSHION TL-3	EA	0	5

This addendum is to be incorporated into the bidder's proposal for this project. AASHTOWare Project Bids files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at <http://www.bidx.com/> and load it into the AASHTOWare Project Bids program.

PHILLIP MURDOFF, P.E. – CONSTRUCTION SERVICES ENGINEER

80: jwj

Enclosure

November 5, 2018

**To: All prospective bidders on Project SU-8-984(164), PCN 22007, scheduled for the November 9, 2018 bid opening.**

The following plan revisions shall be made:

**Remove and replace all sheets listed below, with the enclosed revised sheets.**

Section 2 Sheet 1	Revised Section 100 page numbers, added standard drawing D-754-10
Section 8 Sheet 2	Revised 704-1000 "Traffic Control Signs" from 6237 unit to 6297 unit Revised 704-1500 "Obliteration of Pavement Marking" 616 SF Added 704-4011 "Portable Changeable Message Sign" 2 EA
Section 8 Sheet 4	Revised 762-0420 "Short Term 4in Line-Type R" from 10717 LF to 11142 LF Removed 764-9010 "Attenuating Crash Cushion TL-2" 5 EA Added 764-9011 "Attenuating Crash Cushion TL-3" 5 EA
Section 100 Sheet 1	Added 704-1500 "Obliteration of Pvmt MK" 616 SF Added 704-4011 "Portable Changeable Message Sign" 2 EA Revised 762-0420 "Short Term 4in Line-Type R" from 10717 LF to 11142 LF
Section 100 Sheets 9 & 11	Updated striping lengths in callouts for temporary striping Added callouts for obliteration of pavement markings Removed Note 3 and revised numbering of Notes 4 and 5
Section 100 Sheets 15-18	Removed Note 3 and revised numbering of Notes 4, 5, and 6
Section 100 Sheets 19-20	Removed Note 3 and revised numbering of Notes 4, 5, and 6 Added callouts for obliteration of pavement markings
Section 100 Sheets 21-22	Removed Note 3 and revised numbering of Notes 4, 5, and 6
Section 100 Sheets 29-30	Added construction sign details
Section 130 Sheet 4	Removed 764-9010 "Attenuating Crash Cushion TL-2" 3 EA Added 764-9011 "Attenuating Crash Cushion TL-3" 3 EA

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Page 2 of 2  
November 5, 2018

Section 130 Sheet 5

Removed 764-9010 "Attenuating Crash Cushion TL-2" 2 EA  
Added 764-9011 "Attenuating Crash Cushion TL-3" 2 EA

Sincerely,

HOUSTON ENGINEERING, INC.



Adam M. Ruud

AMR:sh  
Enclosure

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BID ITEMS

Project: SU-8-984(164) (PCN-22007)

**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	201	0330	CLEARING & GRUBBING	L SUM	1.				
003	202	0105	REMOVAL OF STRUCTURE	L SUM	1.				
004	202	0114	REMOVAL OF CONCRETE PAVEMENT	SY	1,032.				
005	202	0130	REMOVAL OF CURB & GUTTER	LF	2,218.				
006	202	0136	REMOVAL OF PAVEMENT	TON	38,763.				
007	202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES	LF	2,444.				
008	202	0210	REMOVAL OF MANHOLES	EA	1.				
009	202	0231	REMOVE & RESET INLETS	EA	1.				
010	203	0101	COMMON EXCAVATION-TYPE A	CY	11,169.				
011	203	0109	TOPSOIL	CY	14,335.				
012	203	0138	COMMON EXCAVATION-SUBCUT	CY	1,683.				
013	203	0140	BORROW-EXCAVATION	CY	145,345.				
014	210	0099	CLASS 1 EXCAVATION	L SUM	1.				
015	210	0111	CLASS 2 EXCAVATION	L SUM	1.				
016	210	0127	CHANNEL EXCAVATION	L SUM	1.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
017	210	0411	FOUNDATION PREPARATION	L SUM	1.				
018	216	0100	WATER	M GAL	2,253.				
019	230	0165	SUBGRADE PREPARATION-TYPE A-12IN	STA	92.700				
020	251	0300	SEEDING CLASS III	ACRE	17.850				
021	251	2000	TEMPORARY COVER CROP	ACRE	17.850				
022	253	0201	HYDRAULIC MULCH	ACRE	17.850				
023	253	0301	BONDED FIBER MATRIX	ACRE	17.850				
024	255	0104	ECB TYPE 4	SY	503.				
025	256	0100	RIPRAP GRADE I	CY	42.				
026	256	0200	RIPRAP GRADE II	CY	722.				
027	258	0100	CONCRETE SLOPE PROTECTION	SY	452.				
028	260	0200	SILT FENCE SUPPORTED	LF	1,618.				
029	260	0201	REMOVE SILT FENCE SUPPORTED	LF	1,618.				
030	302	0101	SALVAGED BASE COURSE	CY	32,836.				
031	401	0050	TACK COAT	GAL	737.				
032	401	0060	PRIME COAT	GAL	1,591.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
033	430	0043	SUPERPAVE FAA 43	TON	2,313.				
034	430	1000	CORED SAMPLE	EA	16.				
035	430	5834	PG 58-34 ASPHALT CEMENT	TON	139.				
036	550	0310	10IN NON REINF CONCRETE PVMT CL AE-DOWELED	SY	63,559.				
037	602	0130	CLASS AAE-3 CONCRETE	CY	449.600				
038	602	1130	CLASS AE-3 CONCRETE	CY	389.700				
039	602	1133	CONCRETE BRIDGE APPROACH SLAB	SY	564.400				
040	602	1220	SINGLE SLOPE BARRIER	LF	675.600				
041	602	1250	PENETRATING WATER REPELLENT TREATMENT	SY	1,204.				
042	604	9610	PRESTRESSED BOX BEAM-27IN	LF	1,645.				
043	612	0115	REINFORCING STEEL-GRADE 60	LBS	36,382.				
044	612	0116	REINFORCING STEEL-GRADE 60-EPOXY COATED	LBS	93,166.				
045	616	5890	STRUCTURAL STEEL	L SUM	1.				
046	622	0012	STEEL H-PILE TIPS 10 X 42	EA	24.				
047	622	0014	STEEL H-PILING POINTS 12 X 53	EA	32.				
048	622	0020	STEEL PILING HP 10 X 42	LF	2,040.				

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						\$\$\$\$	000	\$\$\$\$	00
049	622	0040	STEEL PILING HP 12 X 53	LF	2,560.				
050	624	0123	PEDESTRIAN RAILING	LF	160.				
051	624	0151	RAILING	LF	432.				
052	702	0100	MOBILIZATION	L SUM	1.				
053	704	1000	TRAFFIC CONTROL SIGNS	UNIT	6,297.				
054	704	1037	ATTENUATION DEVICE-TYPE B-35	EA	2.				
055	704	1052	TYPE III BARRICADE	EA	53.				
056	704	1054	SIDEWALK BARRICADE	EA	8.				
057	704	1060	DELINEATOR DRUMS	EA	240.				
058	704	1072	FLEXIBLE DELINEATORS	EA	54.				
059	704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	2.				
060	704	1500	OBLITERATION OF PAVEMENT MARKING	SF	616.				
061	704	4011	PORTABLE CHANGEABLE MESSAGE SIGN	EA	2.				
062	706	0400	FIELD OFFICE	EA	1.				
063	706	0500	AGGREGATE LABORATORY	EA	1.				
064	706	0550	BITUMINOUS LABORATORY	EA	1.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
065	706	0600	CONTRACTOR'S LABORATORY	EA	1.				
066	708	1540	INLET PROTECTION-SPECIAL	EA	77.				
067	708	1541	REMOVE INLET PROTECTION-SPECIAL	EA	77.				
068	709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	86,121.				
069	709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	1,444.				
070	714	0115	PIPE CONC REINF 12IN CL III-STORM DRAIN	LF	100.				
071	714	0210	PIPE CONC REINF 15IN CL III-STORM DRAIN	LF	3,769.				
072	714	0315	PIPE CONC REINF 18IN CL III-STORM DRAIN	LF	1,308.				
073	714	0405	PIPE CONC REINF 21IN CL III-STORM DRAIN	LF	1,669.				
074	714	0620	PIPE CONC REINF 24IN CL III-STORM DRAIN	LF	1,861.				
075	714	0710	PIPE CONC REINF 27IN CL III-STORM DRAIN	LF	433.				
076	714	0910	PIPE CONC REINF 36IN CL III-STORM DRAIN	LF	497.				
077	714	1010	PIPE CONC REINF 42IN CL III-STORM DRAIN	LF	859.				
078	714	1110	PIPE CONC REINF 48IN CL III-STORM DRAIN	LF	235.				
079	714	1212	PIPE CONC REINF 54IN CL III-STORM DRAIN	LF	1,269.				
080	714	2111	PIPE CONC REINF ARCH 29IN X 18IN CL III-S DRAIN	LF	230.				



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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
081	714	2118	PIPE CONC REINF ARCH 36IN X 23IN CL III-S DRAIN	LF	556.				
082	714	3000	END SECT-CONC REINF 12IN	EA	1.				
083	714	3010	END SECT-CONC REINF 18IN	EA	1.				
084	714	3050	END SECT-CONC REINF 54IN	EA	1.				
085	714	5045	PIPE CORR STEEL .064IN 36IN	LF	41.				
086	714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES	EA	1.				
087	714	9696	EDGEDRAIN NON PERMEABLE BASE	LF	26,671.				
088	714	9909	FLAP GATE 15IN	EA	1.				
089	714	9911	FLAP GATE 21IN	EA	1.				
090	714	9912	FLAP GATE 24IN	EA	1.				
091	722	0100	MANHOLE 48IN	EA	11.				
092	722	0110	MANHOLE 60IN	EA	14.				
093	722	0120	MANHOLE 72IN	EA	2.				
094	722	0130	MANHOLE 84IN	EA	6.				
095	722	0140	MANHOLE 96IN	EA	1.				
096	722	1100	MANHOLE RISER 48IN	LF	98.420				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
097	722	1110	MANHOLE RISER 60IN	LF	87.430				
098	722	1120	MANHOLE RISER 72IN	LF	15.160				
099	722	1130	MANHOLE RISER 84IN	LF	45.360				
100	722	1140	MANHOLE RISER 96IN	LF	6.740				
101	722	2490	MANHOLE STORM CONNECTION	EA	3.				
102	722	3300	SANITARY MANHOLE REPAIR	EA	4.				
103	722	3410	MANHOLE REPAIR	EA	6.				
104	722	3510	INLET-TYPE 2	EA	19.				
105	722	3520	INLET-TYPE 2 DOUBLE	EA	6.				
106	722	3701	INLET SPECIAL-TYPE 2 48IN	EA	18.				
107	722	3761	INLET SPECIAL-TYPE 2 60IN	EA	1.				
108	722	3825	INLET SPECIAL-TYPE 2 DOUBLE 84IN	EA	5.				
109	722	4005	INLET CATCH BASIN	EA	15.				
110	722	4108	INLET SPECIAL CATCH BASIN 48IN	EA	2.				
111	722	4110	INLET SPECIAL CATCH BASIN 60IN	EA	1.				
112	722	4112	INLET SPECIAL CATCH BASIN 72IN	EA	2.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
113	722	4114	INLET SPECIAL CATCH BASIN 84IN	EA	3.				
114	722	4116	INLET SPECIAL CATCH BASIN 96IN	EA	2.				
115	722	6140	ADJUST GATE VALVE BOX	EA	6.				
116	722	6240	ADJUST UTILITY APPURTENANCE	EA	1.				
117	724	0210	FITTINGS-DUCTILE IRON	LBS	3,446.				
118	724	0300	GATE VALVE & BOX 6IN	EA	5.				
119	724	0314	GATE VALVE & BOX 12IN	EA	8.				
120	724	0317	GATE VALVE & BOX 16IN	EA	1.				
121	724	0410	HYDRANT-INSTALL 5IN	EA	5.				
122	724	0426	HYDRANT EXTENSION	LF	8.450				
123	724	0430	REMOVE HYDRANT	EA	1.				
124	724	0810	WATERMAIN 6IN PVC	LF	67.				
125	724	0850	WATERMAIN 12IN PVC	LF	2,853.				
126	724	0852	WATERMAIN 16IN PVC	LF	207.				
127	724	0870	24IN WATERMAIN	LF	10.				
128	724	7014	REMOVE GATE VALVE BOX	EA	4.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$\$	000	\$\$\$\$\$	00
129	748	0140	CURB & GUTTER-TYPE I	LF	34,650.				
130	750	0030	PIGMENTED IMPRINTED CONCRETE	SY	4,187.				
131	750	0125	SIDEWALK CONCRETE 5IN	SY	16,018.				
132	750	0140	SIDEWALK CONCRETE 6IN	SY	770.				
133	750	0210	CONCRETE MEDIAN NOSE PAVING	SY	121.				
134	750	1000	DRIVEWAY CONCRETE	SY	341.				
135	750	2115	DETECTABLE WARNING PANELS	SF	734.				
136	752	0850	ORNAMENTAL FENCE	LF	432.				
137	752	0911	TEMPORARY SAFETY FENCE	LF	2,650.				
138	754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	446.				
139	754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	319.				
140	754	0193	FLEXIBLE DELINEATORS-TYPE D	EA	75.				
141	754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	1,073.				
142	762	0122	PREFORMED PATTERNED PVMT MK-MESSAGE(GROOVED)	SF	960.				
143	762	0420	SHORT TERM 4IN LINE-TYPE R	LF	11,142.				
144	762	0424	SHORT TERM 8IN LINE-TYPE R	LF	902.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
145	762	0426	SHORT TERM 24IN LINE-TYPE R	LF	27.				
146	762	0440	SHORT TERM MESSAGE-TYPE R	SF	64.				
147	762	1305	PREFORMED PATTERNED PVMT MK 4IN LINE-GROOVED	LF	5,264.				
148	762	1307	PREFORMED PATTERNED PVMT MK 6IN LINE-GROOVED	LF	27.				
149	762	1309	PREFORMED PATTERNED PVMT MK 8IN LINE-GROOVED	LF	14,538.				
150	762	1317	PREFORMED PATTERNED PVMT MK 16IN LINE-GROOVED	LF	342.				
151	762	1325	PREFORMED PATTERNED PVMT MK 24IN LINE-GROOVED	LF	1,730.				
152	762	1344	PREF PATT PVMT MK 7IN LINE CONTRAST-GROOVED	LF	4,102.				
153	764	0131	W-BEAM GUARDRAIL	LF	508.				
154	764	0145	W-BEAM GUARDRAIL END TERMINAL	EA	4.				
155	764	0151	REMOVE W-BEAM GUARDRAIL & POSTS	LF	336.				
156	764	2081	REMOVE END TREATMENT & TRANSITION	EA	4.				
157	764	9011	ATTENUATING CRASH CUSHION TL-3	EA	5.				
158	770	0003	LIGHTING SYSTEM A	EA	4.				
159	770	0004	LIGHTING SYSTEM B	EA	1.				
160	772	2800	INTERIM TRAFFIC SIGNALS	EA	1.				

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Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						\$\$\$\$	000	\$\$\$\$	00
161	772	2904	REVISE TRAFFIC SIGNAL SYSTEM	EA	1.				
162	772	3125	REMOVE TRAFFIC SIGNAL SYSTEM	EA	1.				
163	772	9200	IT SYSTEM	EA	1.				
164	772	9811	TRAFFIC SIGNAL SYSTEM - SITE 1	EA	1.				
165	772	9812	TRAFFIC SIGNAL SYSTEM - SITE 2	EA	1.				
166	910	0570	MODIFY MANHOLE	EA	1.				
167	930	3000	BRIDGE BENCH MARKS	SET	1.				
168	930	9537	ABUTMENT UNDERDRAIN SYSTEM	EA	4.				
169	970	0300	BENCH	EA	2.				
170	970	0320	TRASH RECEPTACLE	EA	2.				
171	990	0400	PIPE CLEANOUT	EA	20.				
			<b>TOTAL SUM BID</b>						

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Revised 10/26/2018	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 11/1/2018	ND	SU-8-984(164)	2	1

**PLAN SECTIONS**

Section	Page(s)	Description
1	1	Title Sheet
2	1	Table of Contents
4	1 - 6	Scope of Work
6	1 - 10	Notes
6	11	Environmental Notes
8	1 - 4	Quantities
10	1 - 2	Basis of Estimate
11	1 - 3	Data Tables
20	1 - 27	General Details
30	1 - 7	Typical Sections
40	1 - 10	Removals
50	1 - 5	Inlet and Manhole Summary
55	1 - 16	Drainage Layouts
60	1 - 18	Plan & Profile
75	1 - 8	Wetland Impacts
76	1 - 6	Temporary Erosion Control
77	1 - 6	Permanent Erosion Control
80	1 - 36	Layouts
90	1 - 13	Paving Layouts
100	1 - 30	Work Zone Traffic Control
110	1 - 16	Signing
120	1 - 9	Pavement Marking
130	1 - 5	Guardrail
140	1 - 20	Lighting
150	1 - 28	Signals
160	1 - 10	ITS
170	1 - 60	Bridges and Box Culverts
200	1 - 54	Cross Sections

**SPECIAL PROVISIONS**

Number	Description
SP 003(14)	Temporary Erosion and Sediment Best Management Practices
SP 004(14)	Federal Migratory Bird Treaty Act
SP 5221(14)	Permits and Environmental Considerations
SP 742(14)	Traffic Signal System
SP 743(14)	Painting Over Galvanized Steel

**LIST OF STANDARD DRAWINGS**

Number	Description
D-255-2	Erosion And Siltation Control - Erosion Control Blanket Installation
D-256-1	Erosion And Siltation Controls
D-258-1	Standard Slope Protection Under Bridges
D-260-1	Erosion And Siltation Controls - Silt Fence
D-261-1	Erosion Control - Fiber Roll Placement Details
D-622-1	Pile Splice Details
D-704-1	Attenuation Device
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 Details - Regulatory Signs
D-704-11, 11A	Construction Sign Details - Warning Signs
D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-21	Detour And Roadway Diversion Sign Layouts
D-704-24	Shoulder Closures And Bridge Painting Layouts
D-704-34	Sign Layout For One Lane Closure
D-714-18	Edgedrain Details
D-722-1B	Inlet - Special
D-754-10	Arrow Details for Lane Control and Arrow-Per-Lane Signs
D-754-23	Perforated Tube Assembly Details
D-754-24, 25	Mounting Details Perforated Tube
D-754-24A	Breakaway Coupler System For Perforated Tubes
D-754-26, 27, 28, 29, 31	Sign Punching, Stringer And Support Location Details Regulatory, Warning, And Guide Signs
D-754-77	Sign Punching, Stringer And Support Location Details - Divided Highway Control Signs
D-754-87	Sign Punching, Stringer And Support Location Details For Street Name Signs And 911 Signs
D-762-1	Pavement Marking Message Details
D-764-38	MGS Flared Energy Absorbing Terminal - Wood Post
D-764-39	MGS Slotted Rail Terminal - Steel Post
D-764-40	MGS W-Beam Guardrail General Details
D-764-48	Typical Grading at Bridge Ends with MGS W-Beam Guardrail
D-764-50	MASH SoftStop End Terminal - Steel Post
D-764-51	MASH Sequential Kinking Terminal - Wood Post
D-764-60	MGS W-Beam Transition with Approach Curb to Concrete Single Slope or Jersey Barrier
D-764-61	Single Slope to Thrie Beam Connector Plate Details
D-772-1	Feed Point - Traffic Signals
D-772-2	Traffic Signal Standards
D-772-3	Traffic Signal Standards (Mast Arm Type)
D-772-4	Traffic Signal Head Mounting
D-772-5	Loop Detector Details (Saw Slot)
D-772-5A	Loop Details
D-772-6	Span Wire Mounted Traffic Signals
D-900-1	Bridge Bench Marks

Estimated Quantities

Revised 10/30/2018	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 11/2/2018	ND	SU-8-984(164)	8	2

SPEC	CODE	ITEM DESCRIPTION	UNIT	Participating	Non-Participating	Drainage (76% Fed, 24% City)	TOTAL
622	20	STEEL PILING HP 10 X 42	LF	2040			2040
622	40	STEEL PILING HP 12 X 53	LF	2560			2560
624	123	PEDESTRIAN RAILING	LF	160			160
624	151	RAILING	LF	432			432
702	100	MOBILIZATION	L SUM	1			1
704	1000	TRAFFIC CONTROL SIGNS	UNIT	6297			6297
704	1037	ATTENUATION DEVICE-TYPE B-35	EA	2			2
704	1052	TYPE III BARRICADE	EA	53			53
704	1054	SIDEWALK BARRICADE	EA	8			8
704	1060	DELINEATOR DRUMS	EA	240			240
704	1072	FLEXIBLE DELINEATORS	EA	54			54
704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	2			2
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	616			616
704	4011	PORTABLE CHANGEABLE MESSAGE SIGN	EA	2			2
706	400	FIELD OFFICE	EA	1			1
706	500	AGGREGATE LABORATORY	EA	1			1
706	550	BITUMINOUS LABORATORY	EA	1			1
706	600	CONTRACTOR'S LABORATORY	EA	1			1
708	1540	INLET PROTECTION-SPECIAL	EA	77			77
708	1541	REMOVE INLET PROTECTION-SPECIAL	EA	77			77
709	151	GEOSYNTHETIC MATERIAL TYPE R1	SY	86121			86121
709	155	GEOSYNTHETIC MATERIAL TYPE RR	SY	1444			1444
714	115	PIPE CONC REINF 12IN CL III-STORM DRAIN	LF			100	100
714	210	PIPE CONC REINF 15IN CL III-STORM DRAIN	LF			3769	3769
714	315	PIPE CONC REINF 18IN CL III-STORM DRAIN	LF			1308	1308
714	405	PIPE CONC REINF 21IN CL III-STORM DRAIN	LF			1669	1669
714	620	PIPE CONC REINF 24IN CL III-STORM DRAIN	LF			1861	1861
714	710	PIPE CONC REINF 27IN CL III-STORM DRAIN	LF			433	433
714	910	PIPE CONC REINF 36IN CL III-STORM DRAIN	LF			497	497
714	1010	PIPE CONC REINF 42IN CL III-STORM DRAIN	LF			859	859
714	1110	PIPE CONC REINF 48IN CL III-STORM DRAIN	LF			235	235
714	1212	PIPE CONC REINF 54IN CL III-STORM DRAIN	LF			1269	1269
714	2111	PIPE CONC REINF ARCH 29IN X 18IN CL III-S DRAIN	LF			230	230
714	2118	PIPE CONC REINF ARCH 36IN X 23IN CL III-S DRAIN	LF			556	556
714	3000	END SECT-CONC REINF 12IN	EA	1			1
714	3010	END SECT-CONC REINF 18IN	EA	1			1
714	3050	END SECT-CONC REINF 54IN	EA	1			1
714	5045	PIPE CORR STEEL .064IN 36IN	LF	41			41
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES	EA	1			1
714	9696	EDGEDRAIN NON PERMEABLE BASE	LF	26671			26671
714	9909	FLAP GATE 15IN	EA	1			1
714	9911	FLAP GATE 21IN	EA	1			1
714	9912	FLAP GATE 24IN	EA	1			1
722	100	MANHOLE 48IN	EA	11			11
722	110	MANHOLE 60IN	EA	14			14
722	120	MANHOLE 72IN	EA	2			2
722	130	MANHOLE 84IN	EA	6			6



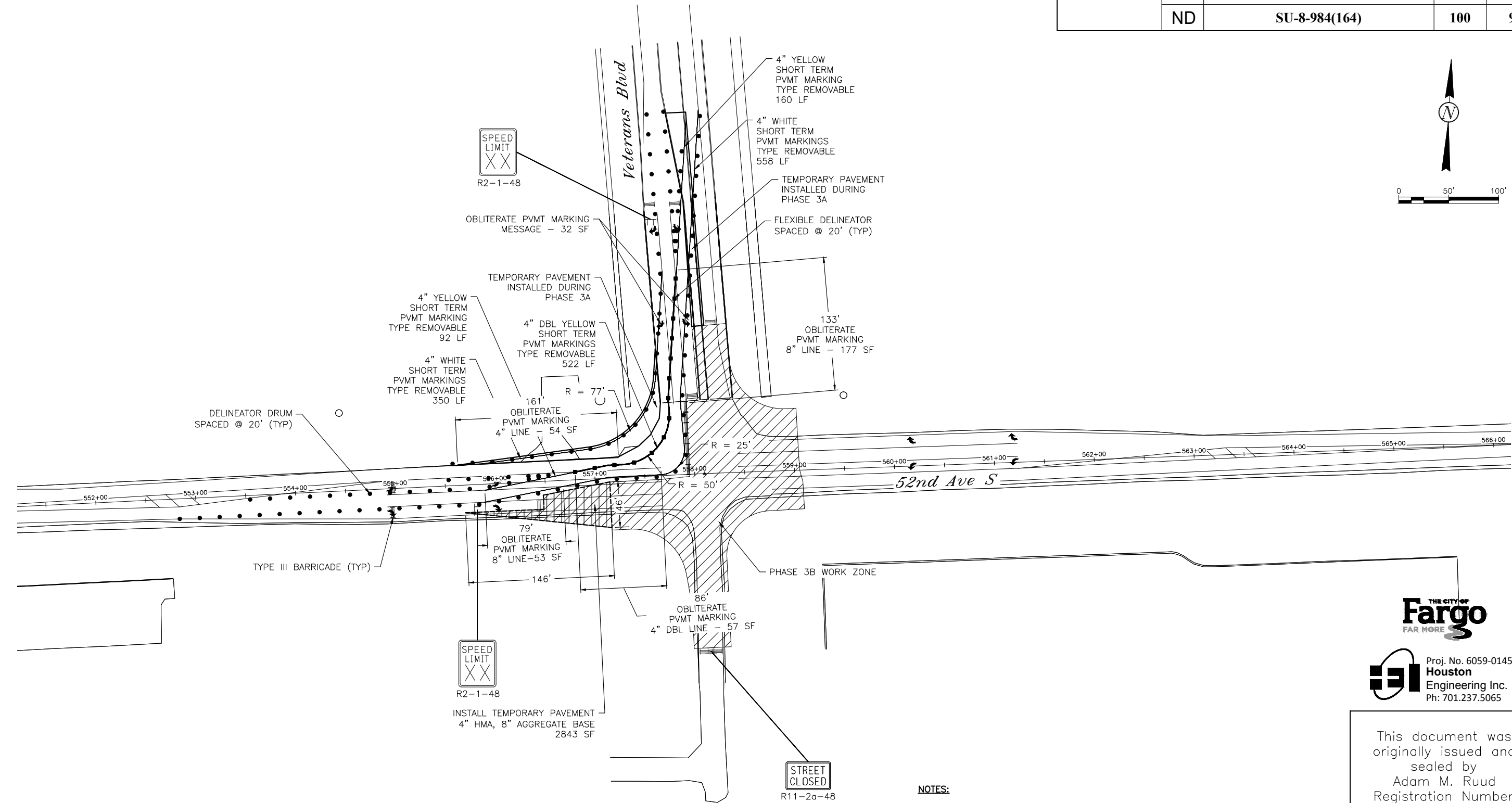
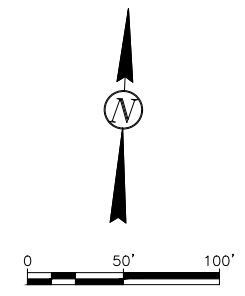
Estimated Quantities

Revised 10/30/2018	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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SPEC	CODE	ITEM DESCRIPTION	UNIT	Participating	Non-Participating	Drainage (76% Fed, 24% City)	TOTAL
762	122	PREFORMED PATTERNED PVMT MK-MESSAGE(GROOVED)	SF	960			960
762	420	SHORT TERM 4IN LINE-TYPE R	LF	11142			11142
762	424	SHORT TERM 8IN LINE-TYPE R	LF	902			902
762	426	SHORT TERM 24IN LINE-TYPE R	LF	27			27
762	440	SHORT TERM MESSAGE-TYPE R	SF	64			64
762	1305	PREFORMED PATTERNED PVMT MK 4IN LINE-GROOVED	LF	5264			5264
762	1307	PREFORMED PATTERNED PVMT MK 6IN LINE-GROOVED	LF	27			27
762	1309	PREFORMED PATTERNED PVMT MK 8IN LINE-GROOVED	LF	14538			14538
762	1317	PREFORMED PATTERNED PVMT MK 16IN LINE-GROOVED	LF	342			342
762	1325	PREFORMED PATTERNED PVMT MK 24IN LINE-GROOVED	LF	1730			1730
762	1344	PREF PATT PVMT MK 7IN LINE CONTRAST-GROOVED	LF	4102			4102
764	131	W-BEAM GUARDRAIL	LF	508			508
764	145	W-BEAM GUARDRAIL END TERMINAL	EA	4			4
764	151	REMOVE W-BEAM GUARDRAIL & POSTS	LF	336			336
764	2081	REMOVE END TREATMENT & TRANSITION	EA	4			4
764	9011	ATTENUATING CRASH CUSHION TL-3	EA	5			5
770	3	LIGHTING SYSTEM A	EA	4			4
770	4	LIGHTING SYSTEM B	EA	1			1
772	2800	INTERIM TRAFFIC SIGNALS	EA	1			1
772	2904	REVISE TRAFFIC SIGNAL SYSTEM	EA	1			1
772	3125	REMOVE TRAFFIC SIGNAL SYSTEM	EA	1			1
772	9200	IT SYSTEM	EA	1			1
772	9811	TRAFFIC SIGNAL SYSTEM - SITE 1	EA	1			1
772	9812	TRAFFIC SIGNAL SYSTEM - SITE 2	EA	1			1
910	570	MODIFY MANHOLE	EA	1			1
930	3000	BRIDGE BENCH MARKS	SET	1			1
930	9537	ABUTMENT UNDERDRAIN SYSTEM	EA	4			4
970	300	BENCH	EA	2			2
970	320	TRASH RECEPTACLE	EA	2			2
990	400	PIPE CLEANOUT	EA	20			20



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		ND	SU-8-984(164)	100	9



- PHASE 3B WORK ZONE
- TEMPORARY PAVEMENT  
4" HMA, 8" AGGREGATE BASE

**NOTES:**

1. PHASE 3B TRAFFIC CONTROL IS FOR THE RECONSTRUCTION OF THE NE, SE, AND SW QUADRANTS OF 52ND AVE S AND VETERANS BLVD INTERSECTION. INSTALL TEMPORARY PAVEMENT, 4" HMA AND 8" AGGREGATE BASE BETWEEN THE SW QUADRANT OF THE INTERSECTION AND THE EXISTING PAVEMENT TO MAINTAIN TRAFFIC DURING PHASE 3C.
2. TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 3B AND BRIDGE CONSTRUCTION.
3. PAVEMENT MARKINGS SHOWN ARE FOR REFERENCE ONLY (EXISTING OR DETAILED IN SECTION 120) UNLESS MARKING TYPE IS LABELED IN THE PLAN VIEW.
4. DELINEATOR DRUMS AND FLEXIBLE DELINEATORS SHALL BE SPACED AT 25 LF FOR TAPERS AND 50 LF FOR TANGENTS UNLESS SPECIFIED OTHERWISE.

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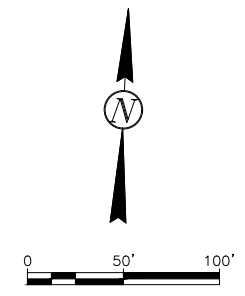
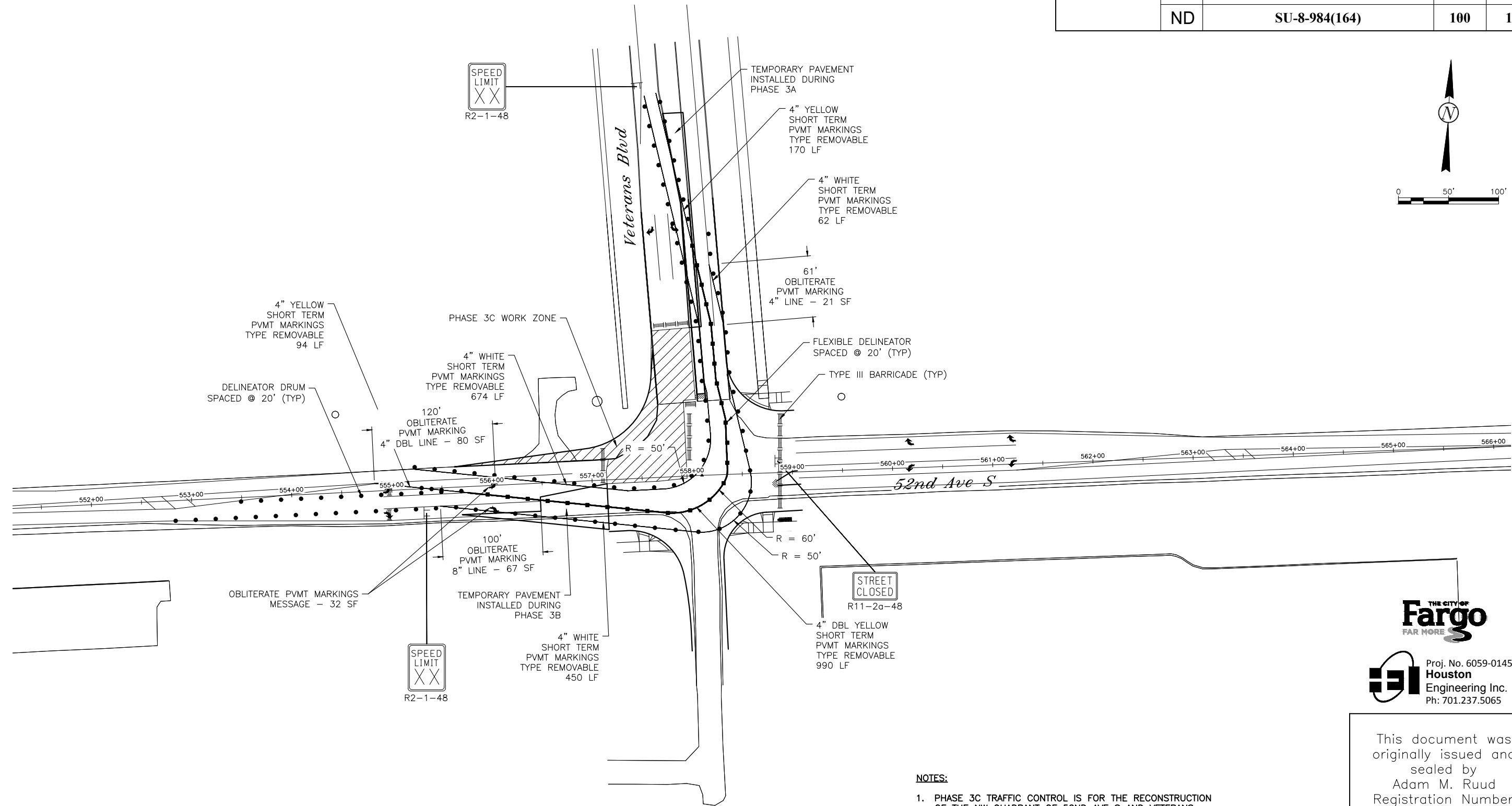
**Work Zone Traffic Control - Phase 3B**

**52nd Ave S - West of 63rd St S to 45th St S**

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Revised Revised	10/26/18 11/2/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SU-8-984(164)	100	11

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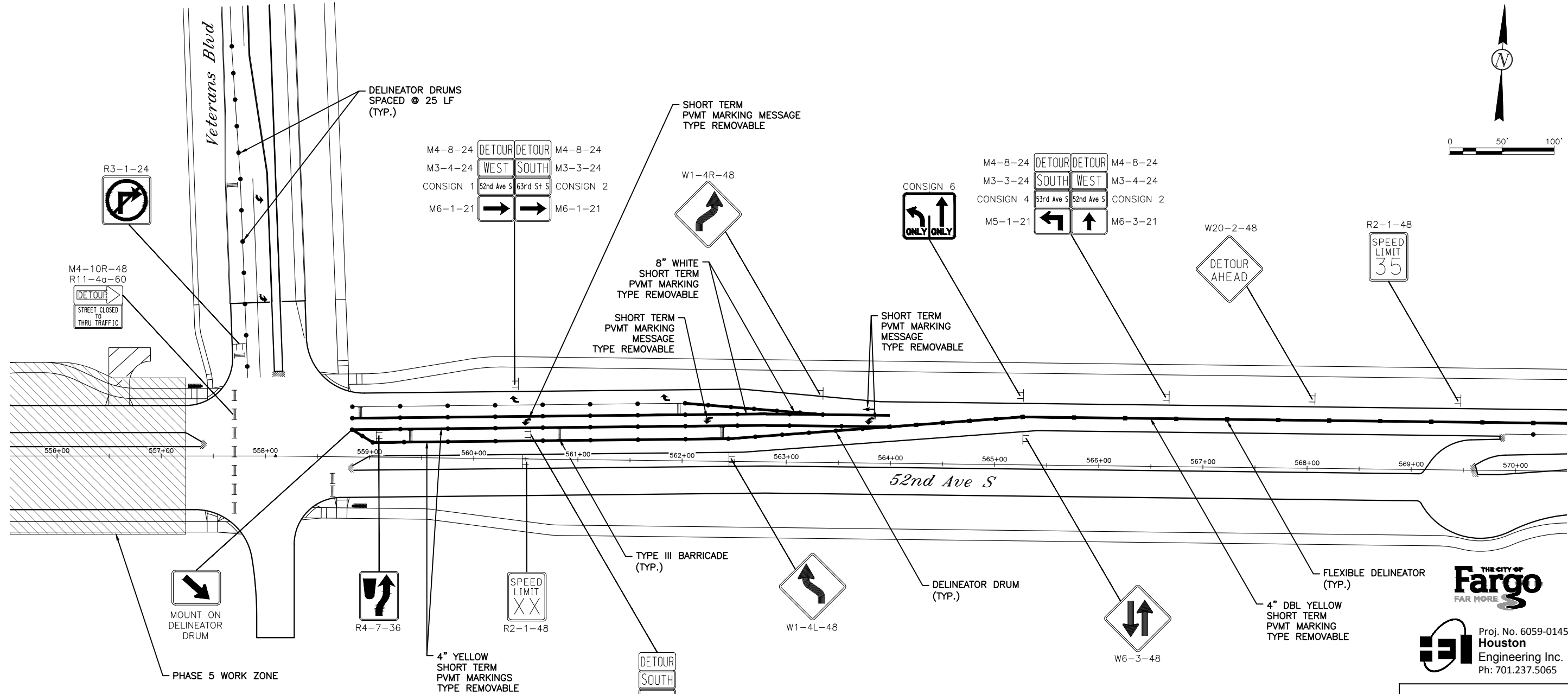
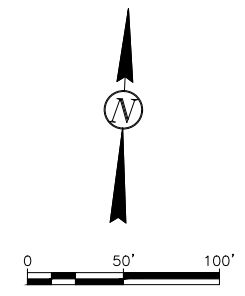
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- NOTES:**
1. PHASE 3C TRAFFIC CONTROL IS FOR THE RECONSTRUCTION OF THE NW QUADRANT OF 52ND AVE S AND VETERANS BLVD INTERSECTION.
  2. TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 3C AND BRIDGE CONSTRUCTION.
  3. UPON COMPLETION OF PHASE 3C, INSTALL PERMANENT PAVEMENT MARKINGS. INCLUDE ALL COSTS IN THE PRICE BID FOR THE APPLICABLE MARKING.
  4. PAVEMENT MARKINGS SHOWN ARE FOR REFERENCE ONLY (EXISTING OR DETAILED IN SECTION 120) UNLESS MARKING TYPE IS LABELED IN THE PLAN VIEW.
  5. DELINEATOR DRUMS AND FLEXIBLE DELINEATORS SHALL BE SPACED AT 25 LF FOR TAPERS AND 50 LF FOR TANGENTS UNLESS SPECIFIED OTHERWISE.

**Work Zone Traffic Control - Phase 3C**

**52nd Ave S - West of 63rd St S to 45th St S**

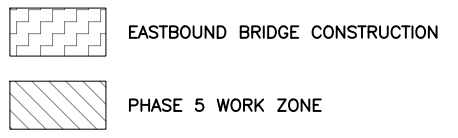


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**NOTES:**

1. PHASE 5 TRAFFIC CONTROL IS FOR CONSTRUCTION OF 52ND AVE S FROM 63RD ST S TO VETERANS BLVD.
2. TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 5 AND EASTBOUND BRIDGE CONSTRUCTION.
3. UPON COMPLETION OF PHASE 5, INSTALL PERMANENT PAVEMENT MARKINGS. INCLUDE ALL COSTS IN THE PRICE BID FOR THE APPLICABLE MARKING.
4. PAVEMENT MARKINGS SHOWN ARE FOR REFERENCE ONLY (EXISTING OR DETAILED IN SECTION 120) UNLESS MARKING TYPE IS LABELED IN THE PLAN VIEW.
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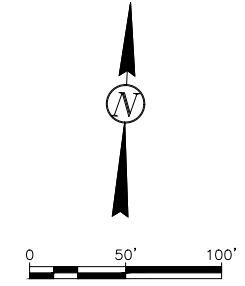
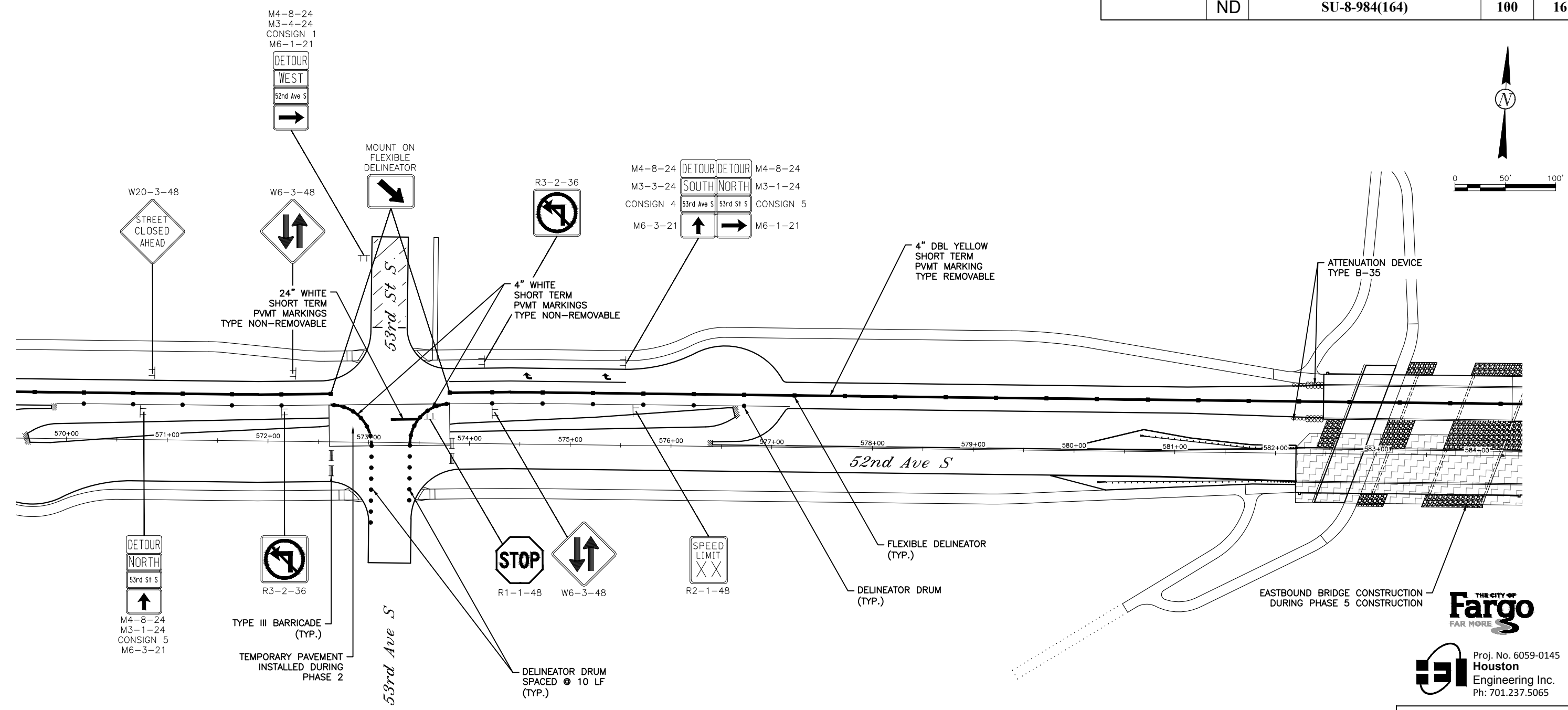
**Work Zone Traffic Control - Phase 5**

**52nd Ave S - West of 63rd St S to 45th St S**

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Revised	10/26/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	11/2/18	ND	SU-8-984(164)	100	16

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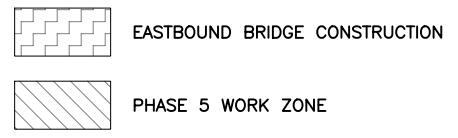


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**NOTES:**

1. PHASE 5 TRAFFIC CONTROL IS FOR CONSTRUCTION OF 52ND AVE S FROM 63RD ST S TO VETERANS BLVD.
2. TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 5 AND EASTBOUND BRIDGE CONSTRUCTION.
3. UPON COMPLETION OF PHASE 5, INSTALL PERMANENT PAVEMENT MARKINGS. INCLUDE ALL COSTS IN THE PRICE BID FOR THE APPLICABLE MARKING.
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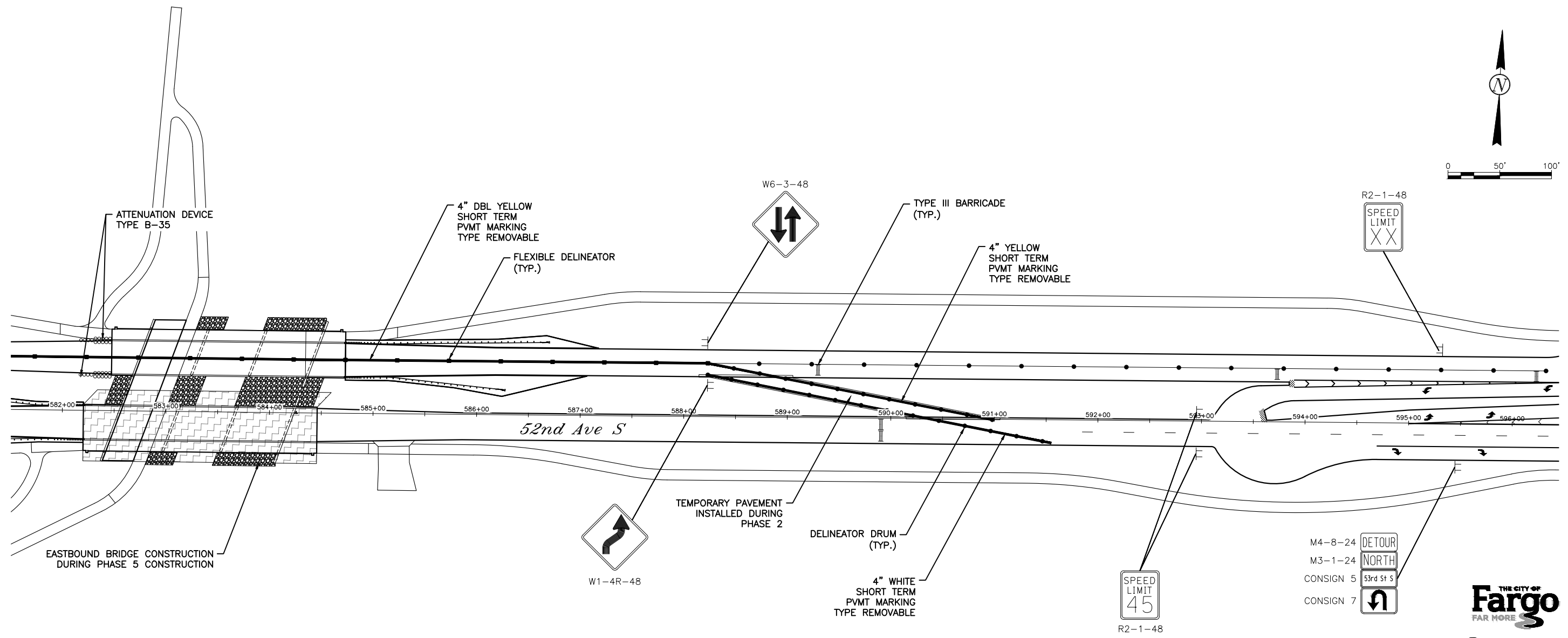


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**Work Zone Traffic Control - Phase 5**

**52nd Ave S - West of 63rd St S to 45th St S**

Revised	10/26/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	11/2/18				

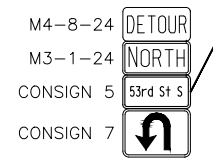


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-  EASTBOUND BRIDGE CONSTRUCTION
-  PHASE 5 WORK ZONE

**NOTES:**

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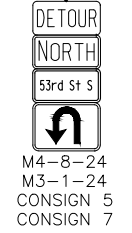
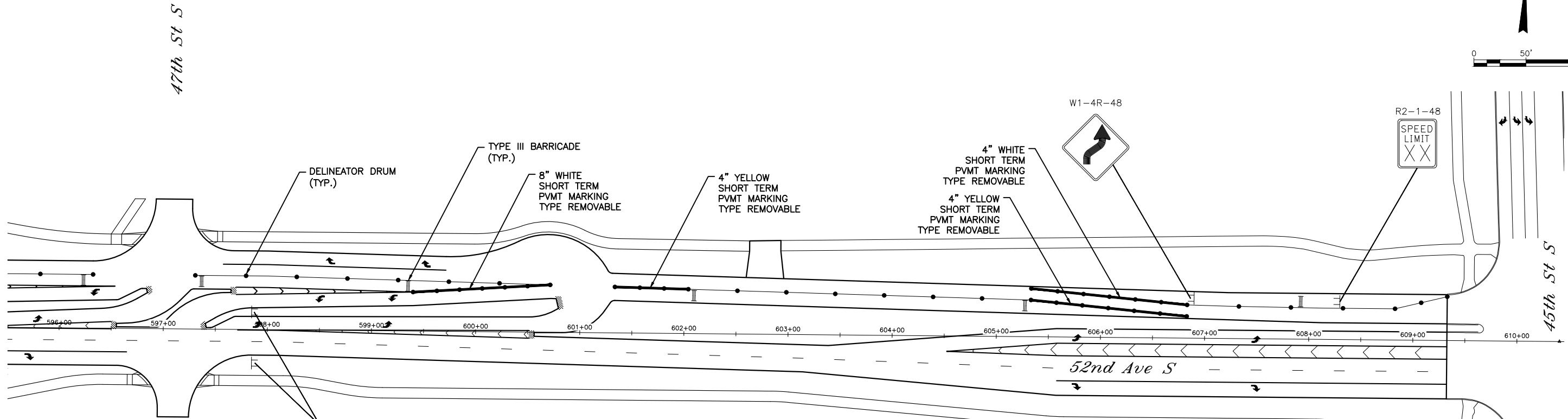
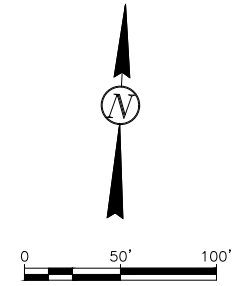
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**Work Zone Traffic Control - Phase 5**

**52nd Ave S - West of 63rd St S to 45th St S**

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		ND	SU-8-984(164)	100	18




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ALL ELEVATIONS ARE BASED ON  
 THE U.S.G.S. VERTICAL DATUM OF 1988.  
 (UNLESS NOTED OTHERWISE)

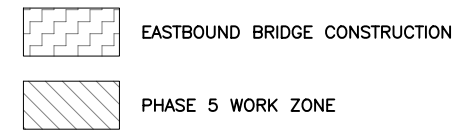
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**Work Zone Traffic Control - Phase 5**

**52nd Ave S - West of 63rd St S to 45th St S**

**NOTES:**

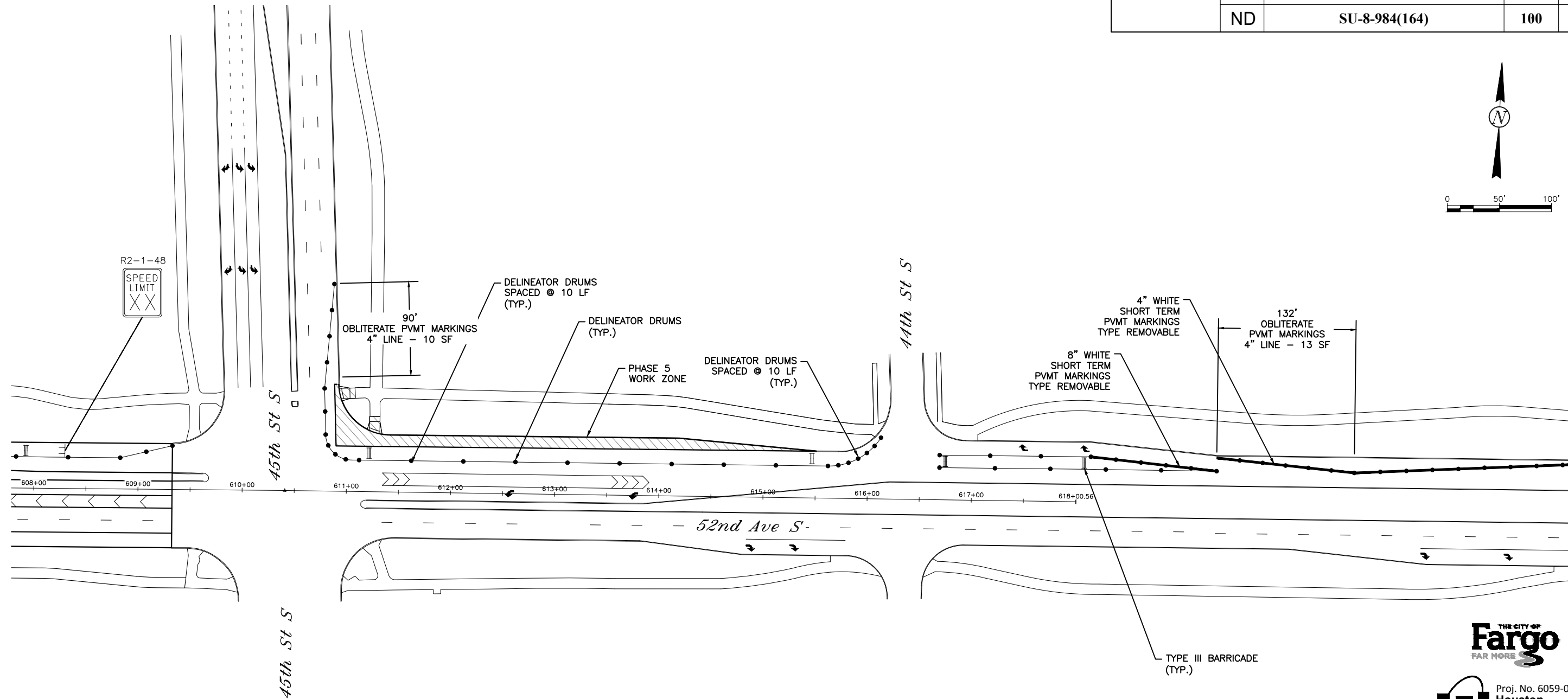
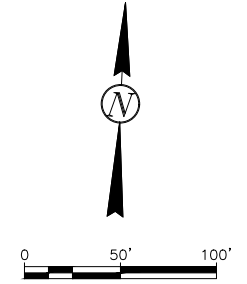
1. PHASE 5 TRAFFIC CONTROL IS FOR CONSTRUCTION OF 52ND AVE S FROM 63RD ST S TO VETERANS BLVD.
2. TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 5 AND EASTBOUND BRIDGE CONSTRUCTION.
3. UPON COMPLETION OF PHASE 5, INSTALL PERMANENT PAVEMENT MARKINGS. INCLUDE ALL COSTS IN THE PRICE BID FOR THE APPLICABLE MARKING.
4. PAVEMENT MARKINGS SHOWN ARE FOR REFERENCE ONLY (EXISTING OR DETAILED IN SECTION 120) UNLESS MARKING TYPE IS LABELED IN THE PLAN VIEW.
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Revised	11/2/18		ND	SU-8-984(164)	100



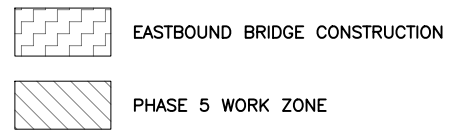
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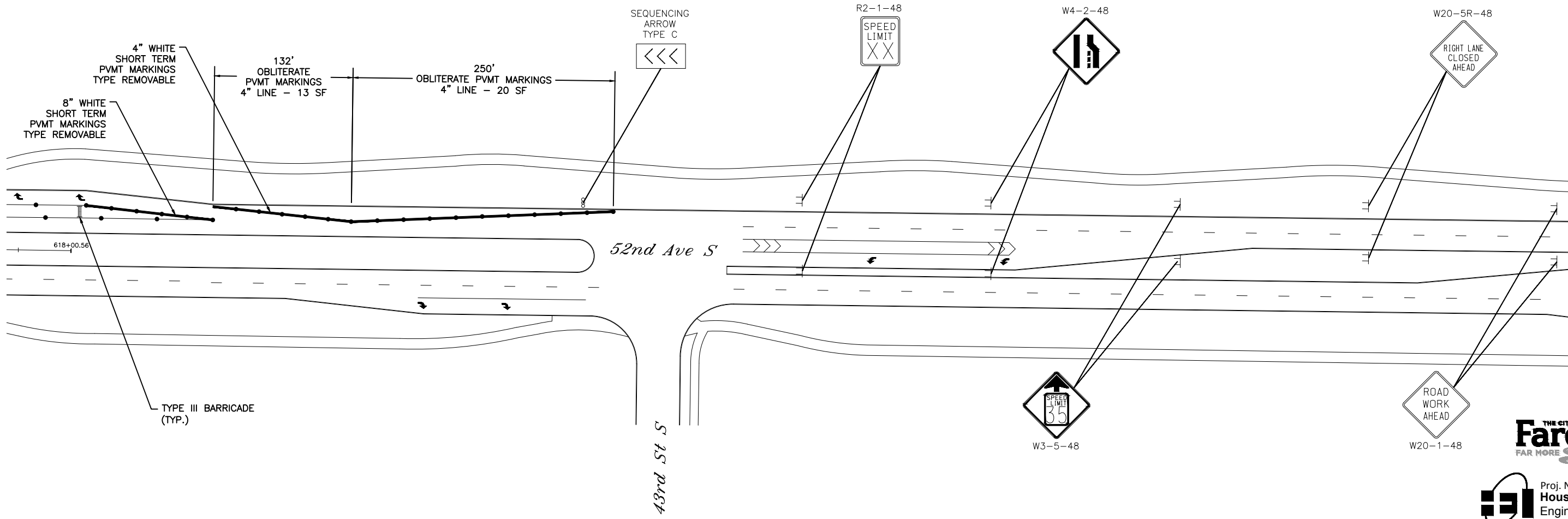
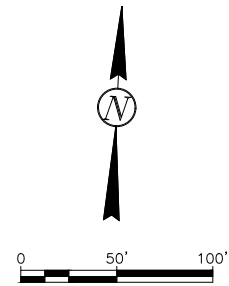
- NOTES:**
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  2. TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 5 AND EASTBOUND BRIDGE CONSTRUCTION.
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**Work Zone Traffic Control - Phase 5**

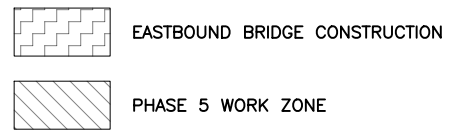
**52nd Ave S - West of 63rd St S to 45th St S**

Revised	10/26/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	11/2/18		ND	SU-8-984(164)	100



**NOTES:**

1. PHASE 5 TRAFFIC CONTROL IS FOR CONSTRUCTION OF 52ND AVE S FROM 63RD ST S TO VETERANS BLVD.
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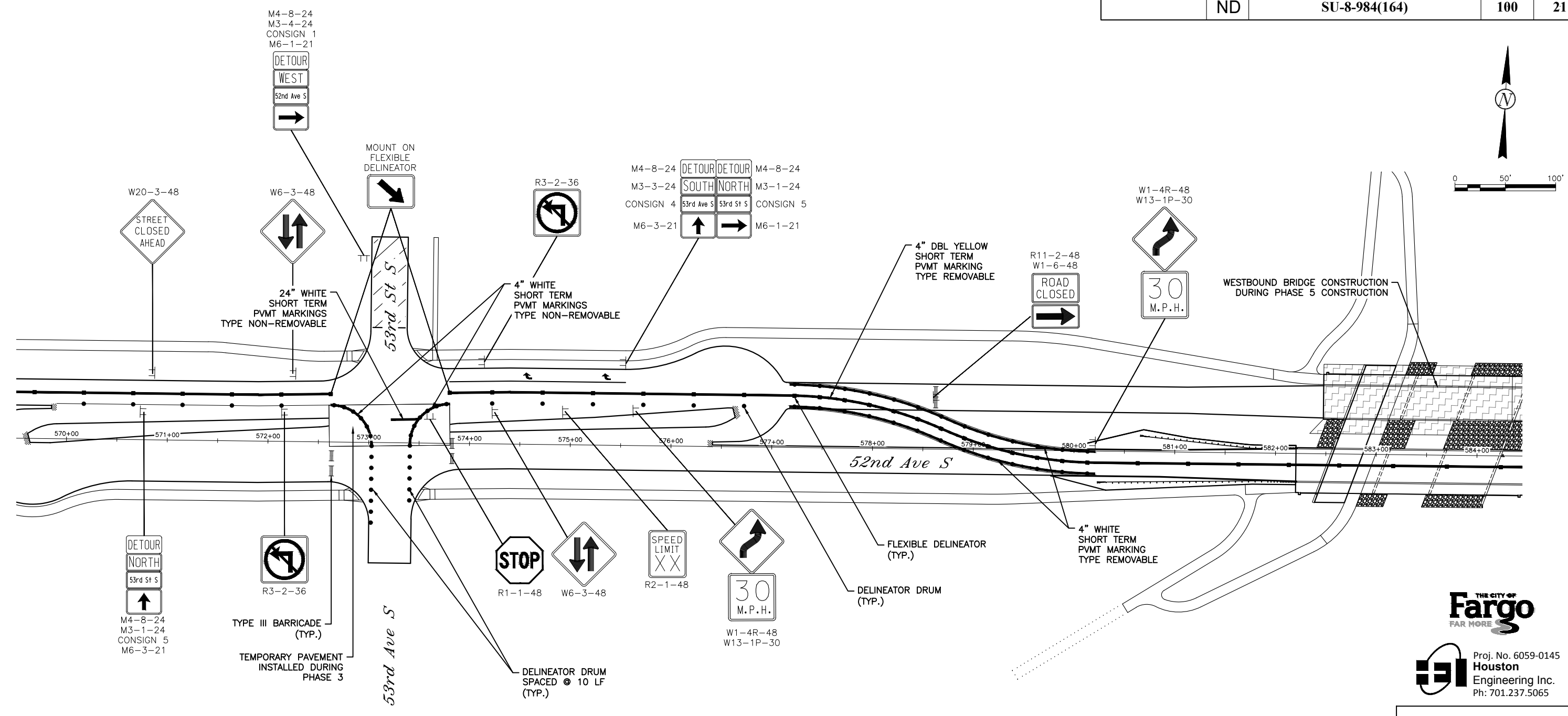
**Work Zone Traffic Control - Phase 5**

**52nd Ave S - West of 63rd St S to 45th St S**

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Revised Revised	10/26/18 11/2/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SU-8-984(164)	100	21

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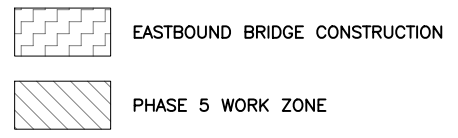
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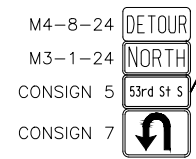
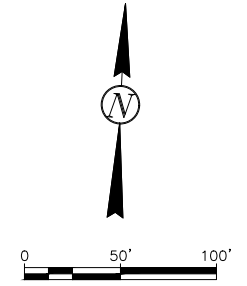
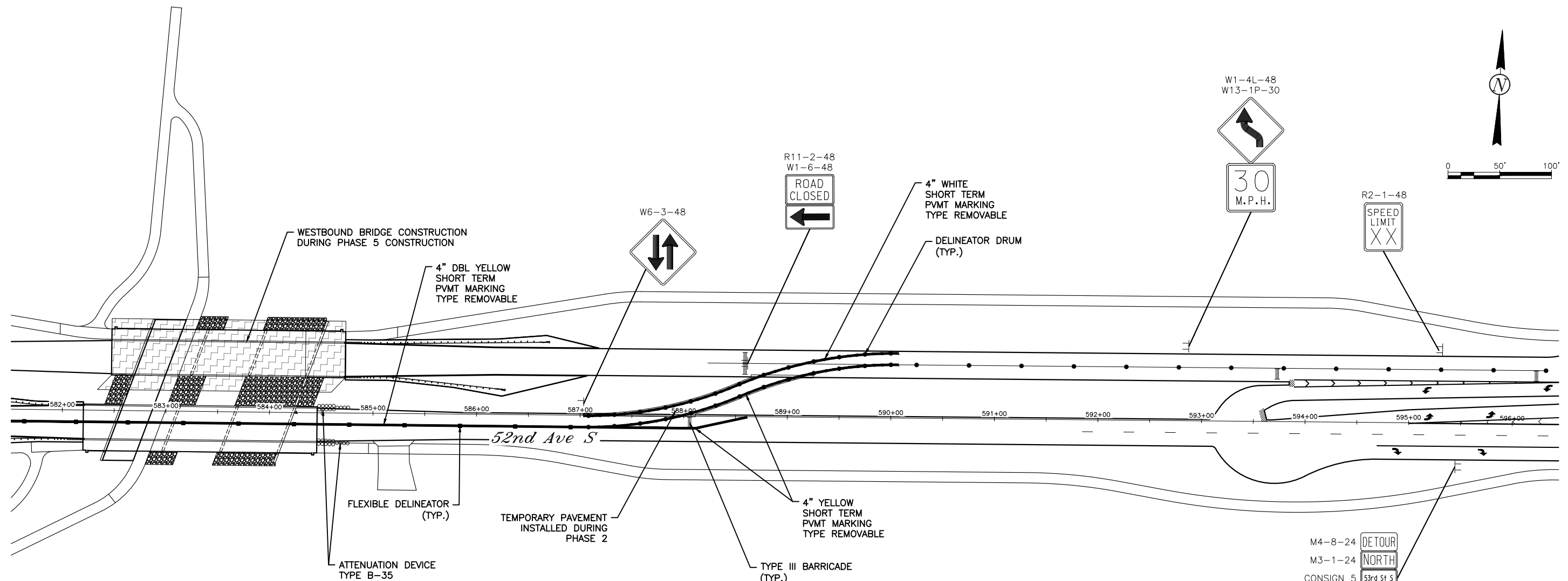
1. PHASE 5 TRAFFIC CONTROL IS FOR CONSTRUCTION OF 52ND AVE S FROM 63RD ST S TO VETERANS BLVD. THIS ALTERNATIVE IS FOR IF THE EASTBOUND BRIDGE IS COMPLETED PRIOR TO THE WESTBOUND BRIDGE.
2. ALTERNATE TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 5 AND WESTBOUND BRIDGE CONSTRUCTION.
3. UPON COMPLETION OF PHASE 5, INSTALL PERMANENT PAVEMENT MARKINGS. INCLUDE ALL COSTS IN THE PRICE BID FOR THE APPLICABLE MARKING.
4. PAVEMENT MARKINGS SHOWN ARE FOR REFERENCE ONLY (EXISTING OR DETAILED IN SECTION 120) UNLESS MARKING TYPE IS LABELED IN THE PLAN VIEW.
5. DELINEATOR DRUMS AND FLEXIBLE DELINEATORS SHALL BE SPACED AT 25 LF FOR TAPERS AND 50 LF FOR TANGENTS UNLESS SPECIFIED OTHERWISE.



**Work Zone Traffic Control - Phase 5  
Alternate Bridge Crossing**

**52nd Ave S - West of 63rd St S to 45th St S**

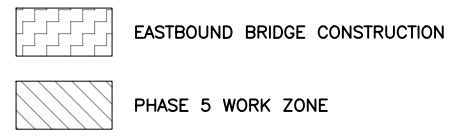
Revised Revised	10/26/18 11/2/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SU-8-984(164)	100	22



Proj. No. 6059-0145  
Houston  
Engineering Inc.  
Ph: 701.237.5065

**NOTES:**

1. PHASE 5 TRAFFIC CONTROL IS FOR CONSTRUCTION OF 52ND AVE S FROM 63RD ST S TO VETERANS BLVD. THIS ALTERNATE IS FOR IF THE EASTBOUND BRIDGE IS COMPLETED PRIOR TO THE WESTBOUND BRIDGE.
2. ALTERNATE TRAFFIC CONTROL LAYOUT ASSUMES CONCURRENT PHASE 5 AND WESTBOUND BRIDGE CONSTRUCTION.
3. UPON COMPLETION OF PHASE 5, INSTALL PERMANENT PAVEMENT MARKINGS. INCLUDE ALL COSTS IN THE PRICE BID FOR THE APPLICABLE MARKING.
4. PAVEMENT MARKINGS SHOWN ARE FOR REFERENCE ONLY (EXISTING OR DETAILED IN SECTION 120) UNLESS MARKING TYPE IS LABELED IN THE PLAN VIEW.
5. DELINEATOR DRUMS AND FLEXIBLE DELINEATORS SHALL BE SPACED AT 25 LF FOR TAPERS AND 50 LF FOR TANGENTS UNLESS SPECIFIED OTHERWISE.



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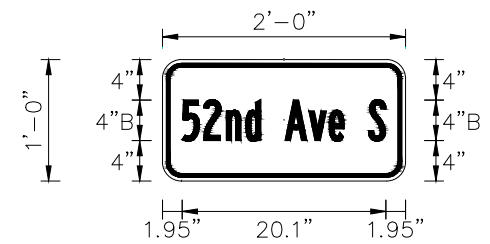
**Work Zone Traffic Control - Phase 5  
Alternate Bridge Crossing**

**52nd Ave S - West of 63rd St S to 45th St S**

11/02/18 02:09:55PM H:\Fargo\JBN\6000\6059\18\_6059\_145 - 52nd Ave. Design\CAD\Plans\100-Traffic Control\_Phase 5 Detailed\_Alt Bridge Crossing.dwg

SIGN NUMBER	Consign 1
WIDTH x HEIGHT	2'-0" x 1'-0"
BORDER WIDTH	0.38" (inset 0.38")
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Type XI Reflective COLOR: Fluorescent Orange
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

STATION(S): AREA: 2.0 Sq.Ft.



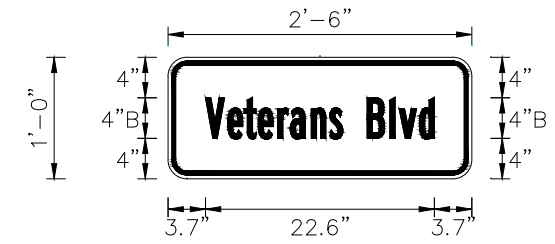
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: SS\_Const\_Special\_Street.ssi

SYMBOL	X	Y	WID	HT	ANG

LETTER POSITION (X)										LENGTH	SIZE	SERIES
5	2	n	d	A	v	e	S			20.1	4/3	B 2000
1.9	4.1	6.3	8.2	12.1	14.5	16.5	20.3					

SIGN NUMBER	Consign 3
WIDTH x HEIGHT	2'-6" x 1'-0"
BORDER WIDTH	0.38" (inset 0.38")
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Type XI Reflective COLOR: Fluorescent Orange
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

STATION(S): AREA: 2.5 Sq.Ft.



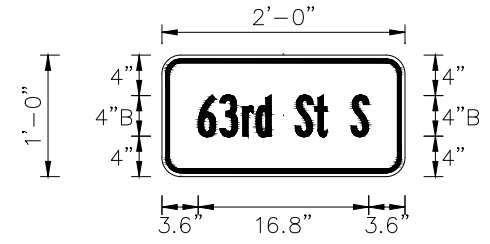
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: SS\_Const\_Special\_Street.ssi

SYMBOL	X	Y	WID	HT	ANG

LETTER POSITION (X)												LENGTH	SIZE	SERIES			
V	e	t	e	r	a	n	s	B	l	v	d				22.6	4/3	B 2000
3.7	5.9	7.5	8.9	10.8	12.1	14.1	16	19.7	21.9	22.8	24.8						

SIGN NUMBER	Consign 2
WIDTH x HEIGHT	2'-0" x 1'-0"
BORDER WIDTH	0.38" (inset 0.38")
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Type XI Reflective COLOR: Fluorescent Orange
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

STATION(S): AREA: 2.0 Sq.Ft.



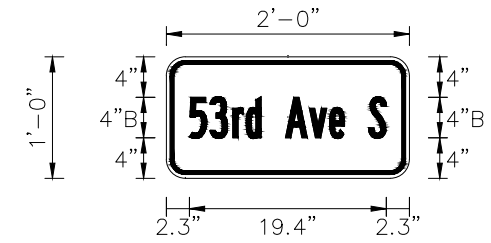
Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: SS\_Const\_Special\_Street.ssi

SYMBOL	X	Y	WID	HT	ANG

LETTER POSITION (X)										LENGTH	SIZE	SERIES
6	3	r	d	S	t	S				16.8	4/3	B 2000
3.6	5.7	8	9.3	13.2	15.1	18.7						

SIGN NUMBER	Consign 4
WIDTH x HEIGHT	2'-0" x 1'-0"
BORDER WIDTH	0.38" (inset 0.38")
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Type XI Reflective COLOR: Fluorescent Orange
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

STATION(S): AREA: 2.0 Sq.Ft.



Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: SS\_Const\_Special\_Street.ssi

SYMBOL	X	Y	WID	HT	ANG

LETTER POSITION (X)										LENGTH	SIZE	SERIES
5	3	r	d	A	v	e	S			19.4	4/3	B 2000
2.3	4.3	6.6	7.9	11.8	14.1	16.1	20					



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Construction Sign Details

52nd Ave S - West of 63rd St S to 45th St S

<b>SIGN NUMBER</b>	Consign 5
<b>WIDTH x HEIGHT</b>	2'-0" x 1'-0"
<b>BORDER WIDTH</b>	0.38" (inset 0.38")
<b>CORNER RADIUS</b>	1.5"
<b>MOUNTING</b>	Ground
<b>BACKGROUND</b>	TYPE: Type XI Reflective COLOR: Fluorescent Orange
<b>LEGEND/BORDER</b>	TYPE: Non-Reflective COLOR: Black

**STATION(S):** \_\_\_\_\_ **AREA: 2.0 Sq.Ft.**

Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: SS\_Const\_Special\_Street.ssi

LETTER POSITION (X)								LENGTH	SIZE	SERIES
5	3	r	d	S	t	S		16.7	4/3	B 2000
3.6	5.7	7.9	9.2	13.1	15	18.6				

<b>SIGN NUMBER</b>	Consign 7
<b>WIDTH x HEIGHT</b>	1'-9" x 1'-6"
<b>BORDER WIDTH</b>	0.63" (inset 0.38")
<b>CORNER RADIUS</b>	1.5"
<b>MOUNTING</b>	Ground
<b>BACKGROUND</b>	TYPE: Type XI Reflective COLOR: Fluorescent Orange
<b>LEGEND/BORDER</b>	TYPE: Non-Reflective COLOR: Black

**STATION(S):** \_\_\_\_\_ **AREA: 2.6 Sq.Ft.**

Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: ND\_Reg\_18\_Small.ssi

LETTER POSITION (X)								LENGTH	SIZE	SERIES

<b>SIGN NUMBER</b>	Consign 6
<b>WIDTH x HEIGHT</b>	3'-0" x 2'-6"
<b>BORDER WIDTH</b>	0.75" (inset 0.5")
<b>CORNER RADIUS</b>	1.88"
<b>MOUNTING</b>	Ground
<b>BACKGROUND</b>	TYPE: Type XI Reflective COLOR: White
<b>LEGEND/BORDER</b>	TYPE: Non-Reflective COLOR: Black

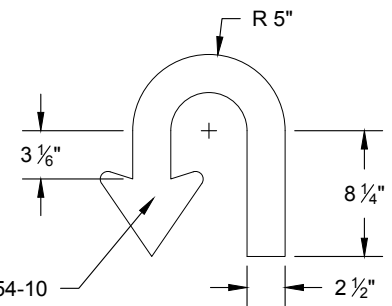
**STATION(S):** \_\_\_\_\_ **AREA: 7.5 Sq.Ft.**

Dimensions are in inches.tenths Letter locations are panel edge to lower left corner  
PANEL STYLE: ND\_Reg\_30\_Med.ssi

LETTER POSITION (X)								LENGTH	SIZE	SERIES
0	N	L	Y					13	4	D 2000
3	6.5	9.9	12.6							
0	N	L	Y					13	4	D 2000
20	23.5	26.9	29.6							

REFER TO NDDOT STANDARD DRAWING D-754-10 FOR ARROW DETAILS

REFER TO NDDOT STANDARD DRAWING D-754-10 FOR DESIGN OF ARROW



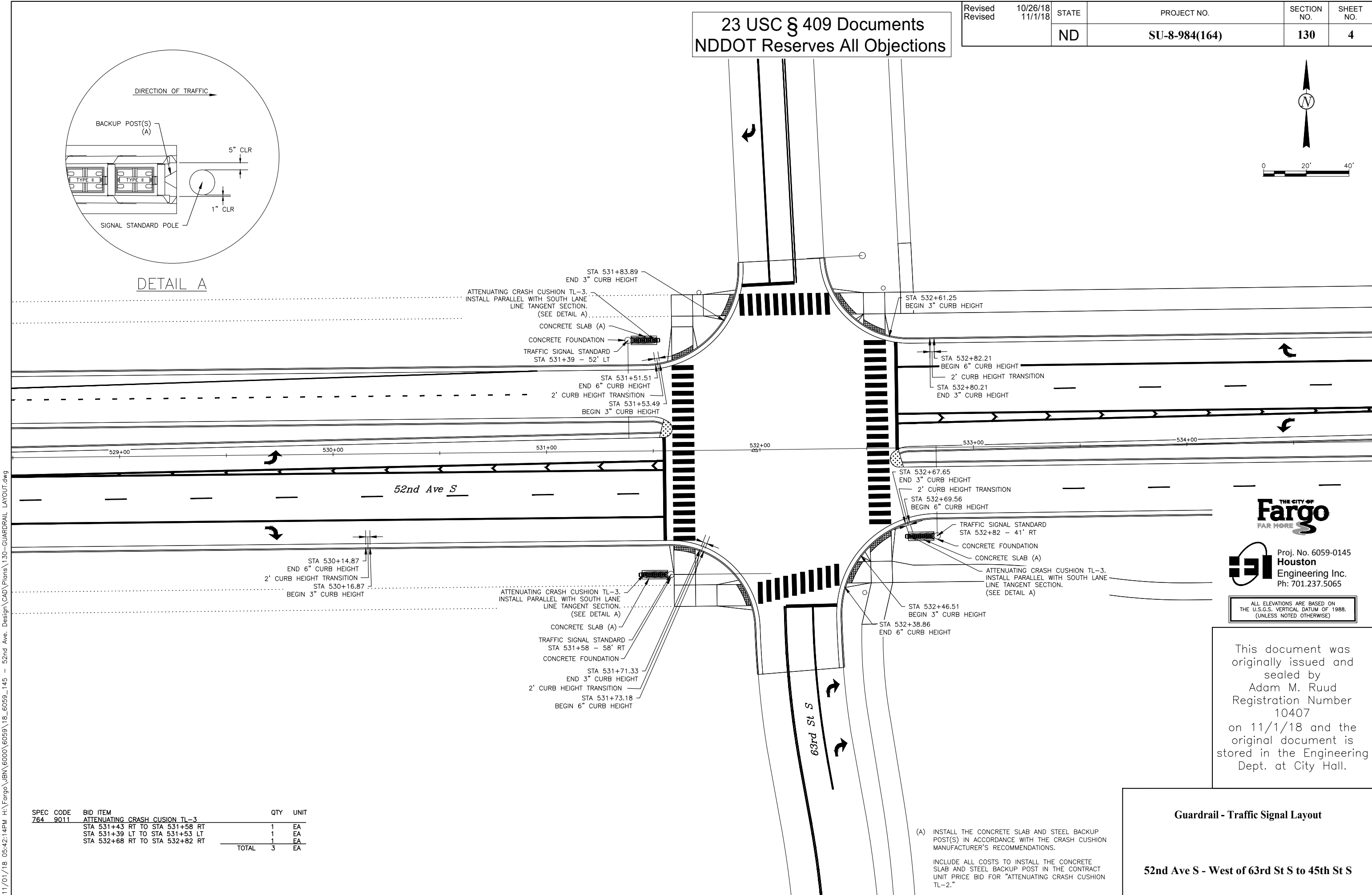
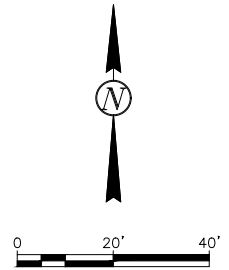
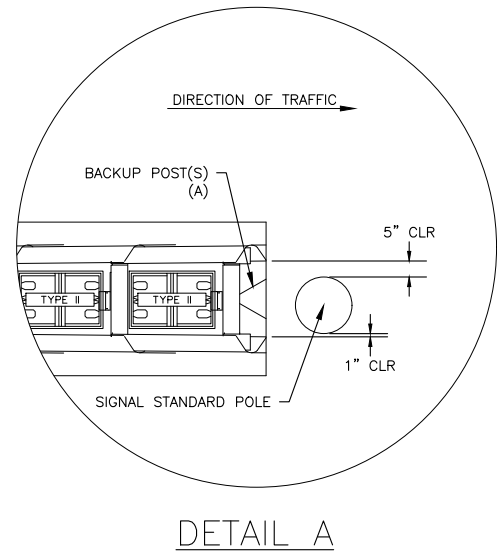
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**Construction Sign Details**

**52nd Ave S - West of 63rd St S to 45th St S**

23 USC § 409 Documents  
NDDOT Reserves All Objections

Revised	10/26/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	11/1/18	ND	SU-8-984(164)	130	4



Proj. No. 6059-0145  
Houston  
Engineering Inc.  
Ph: 701.237.5065

ALL ELEVATIONS ARE BASED ON  
THE U.S.G.S. VERTICAL DATUM OF 1988.  
(UNLESS NOTED OTHERWISE)

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SPEC CODE	BID ITEM	QTY	UNIT
764 9011	ATTENUATING CRASH CUSION TL-3		
	STA 531+43 RT TO STA 531+58 RT	1	EA
	STA 531+39 LT TO STA 531+53 LT	1	EA
	STA 532+68 RT TO STA 532+82 RT	1	EA
	TOTAL	3	EA

(A) INSTALL THE CONCRETE SLAB AND STEEL BACKUP POST(S) IN ACCORDANCE WITH THE CRASH CUSHION MANUFACTURER'S RECOMMENDATIONS.  
INCLUDE ALL COSTS TO INSTALL THE CONCRETE SLAB AND STEEL BACKUP POST IN THE CONTRACT UNIT PRICE BID FOR "ATTENUATING CRASH CUSHION TL-2."

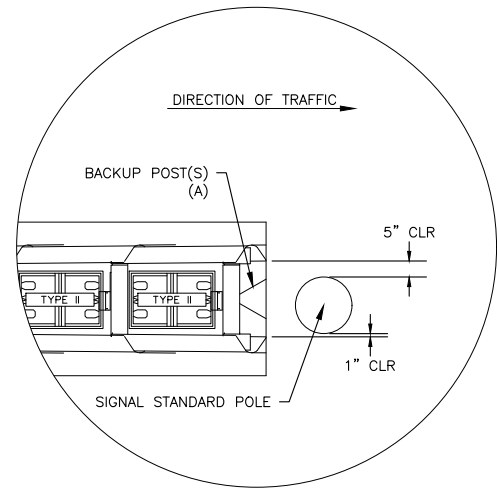
Guardrail - Traffic Signal Layout

52nd Ave S - West of 63rd St S to 45th St S

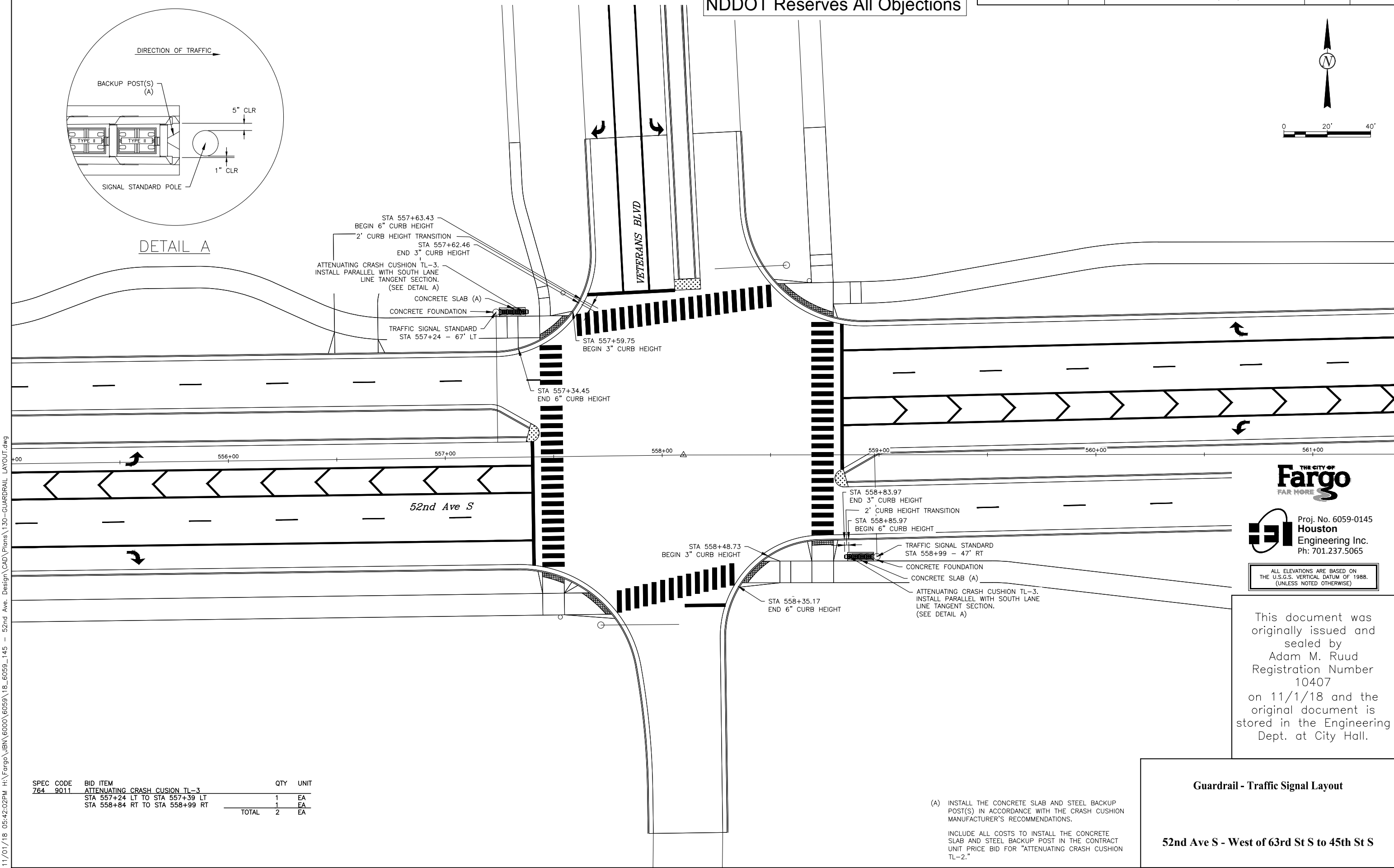
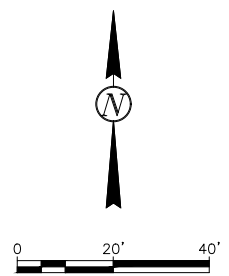
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23 USC § 409 Documents  
 NDDOT Reserves All Objections

Revised	10/26/18	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised	11/1/18	ND	SU-8-984(164)	130	5



DETAIL A



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 Ph: 701.237.5065

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SPEC CODE	BID ITEM	QTY	UNIT
764 9011	ATTENUATING CRASH CUSHION TL-3		
	STA 557+24 LT TO STA 557+39 LT	1	EA
	STA 558+84 RT TO STA 558+99 RT	1	EA
	TOTAL	2	EA

(A) INSTALL THE CONCRETE SLAB AND STEEL BACKUP POST(S) IN ACCORDANCE WITH THE CRASH CUSHION MANUFACTURER'S RECOMMENDATIONS.  
 INCLUDE ALL COSTS TO INSTALL THE CONCRETE SLAB AND STEEL BACKUP POST IN THE CONTRACT UNIT PRICE BID FOR "ATTENUATING CRASH CUSHION TL-2."

Guardrail - Traffic Signal Layout

52nd Ave S - West of 63rd St S to 45th St S

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