MAD AUGUST 2013

PROJECT ID: 1204-08-60
WITH:

COUNTY: DANE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	5	Plan
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
~~Section No.~~	~~8~~	~~Structure Plans~~

TOTAL SHEETS = 36

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1204-08-60	WISC 2013373	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY REHABILITATION-MAINTENANCE PROJECT

MOUNT HOREB - MADISON

W JCT CTH MV TO E JCT CTH PD

USH 18

DANE COUNTY

STATE PROJECT NUMBER
1204-08-60

N

DESIGN DESIGNATION

A.A.D.T.	2013	=	21,800
A.A.D.T.	2023	=	26,600
D.H.V.		=	
D.D.		=	
T.		=	
DESIGN SPEED		=	70 MPH
ESALS		=	N/A

CONVENTIONAL SYMBOLS

PLAN

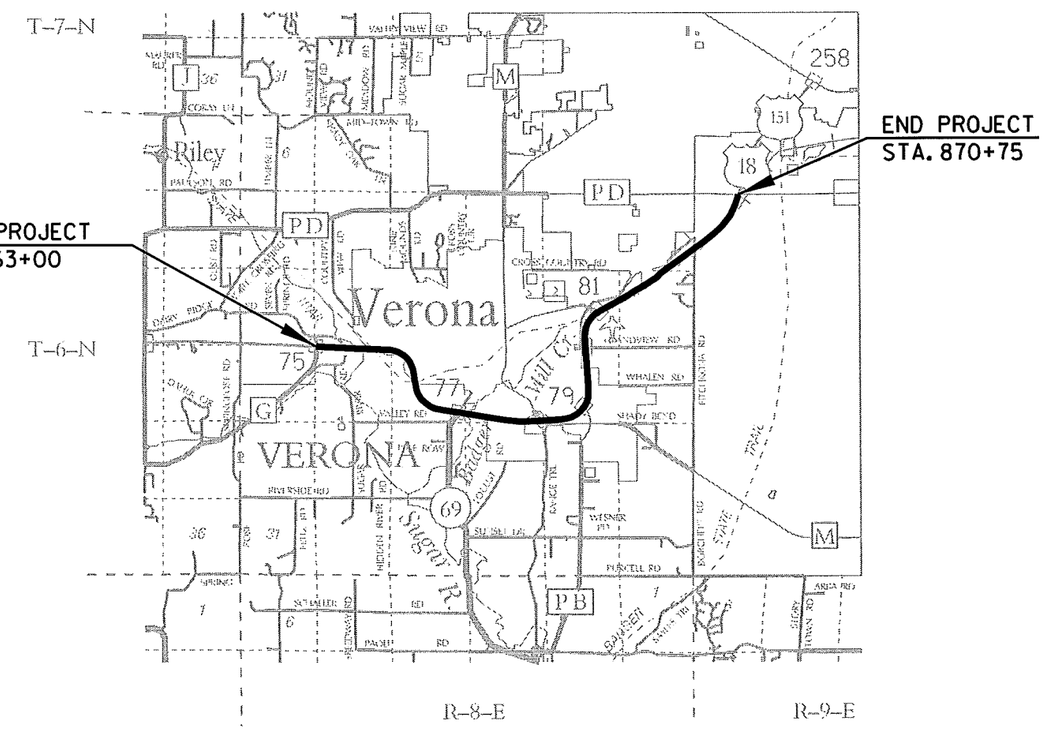
CORPORATE LIMITS

REFERENCE LINE

COMBUSTIBLE FLUIDS — CAUTION

UTILITIES

ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 7.723 MI.

ORIGINAL PLANS PREPARED BY

PEOPLE WHO CARE,
CREATING QUALITY TRANSPORTATION
TODAY AND TOMORROW

WISDOT SOUTHWEST REGION - MADISON OFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	
Designer	SHAUN ANDERSON
Project Manager	KRISTEN SOMMERS
Regional Examiner	
Regional Supervisor	CHRISTOPHER HODGES
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 4/28/13 (Signature)

E

GENERAL NOTES

RESTORE ALL EXISTING PAVEMENT MARKINGS AS DIRECTED BY SDD

DO NOT REMOVE TREES OR SHRUBS WITHOUT THE APPROVAL OF THE ENGINEER

NUMBER, LOCATION, AND SPACING OF SIGNS AND DEVICES, AS SHOWN IN THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

PRIOR TO THE INSTALLATION OF TRAFFIC CONTROL DEVICES THE CONTRACTOR SHALL PROVIDE THE ENGINEER THE DANE COUNTY SHERIFF WITH THE NAME AND TELEPHONE NUMBER OF A LOCAL PERSON RESPONSIBLE FOR EMERGENCY MAINTENANCE OF TRAFFIC CONTROL.

THE CONTRACTOR SHALL PLACE ALL TRAFFIC CONTROL SIGNS IN ADVANCE OF THE PROJECT TERMINI AND ON ALL INTERSECTING ROAD APPROACHES BEFORE BEGINNING ANY WORK ON THE HIGHWAY. THESE SIGNS SHALL REMAIN IN PLACE UNTIL ALL WORK IS COMPLETED AND PERMANENT MARKING IS IN PLACE.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

HMA PAVEMENT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

HMA PAVEMENT TYPE E-0.3 SHALL BE PLACED IN A SINGLE 1.75-INCH LIFT

APPLY TACK COAT TO THE MILLED PAVEMENT 'S HORIZONTAL AND VERTICAL SURFACES. TACK COAT CALCULATIONS ARE BASED ON THE RATE OF 0.025 GAL/SY

ALL WASTE MATERIAL RESULTING FROM THE VARIOUS CONSTRUCTION OPERATIONS SHALL BE ENTIRELY REMOVED AND PROPERLY DISPOSED OF IMMEDIATELY OR AS DIRECTED BY THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT OR MATERIALS IN WETLANDS OR WATERWAYS.

WISCONSIN DEPARTMENT OF NATURAL RESOURCES LIAISON

Eric Heggelund
DNR South Central Region HQ
3911 Fish Hatchery Road
Fitchburg, WI 53711
(608) 275-3301
eric.heggelund@wisconsin.gov

UTILITIES

Jason Hogan
Alliant Energy
Electricity
Suite 1000
4902 N Biltmore Lane
Madison, WI 53718
(608) 458-4871
jasonhogan@alliantenergy.com

Mike Olsen
ATC Management, Inc.
Electricity
801 O'keefe Rd
P.O. Box 6113
De Pere, WI 54115-6113
(920) 338-6582
molsen@atcllc.com

Ahnaray Bizjak
City of Fitchburg
Road Facility & Street Lighting
5520 Lacy Rd
Fitchburg, WI 53711
(608) 270-4262
Ahnaray.bizjak@city.fitchburg.wi.us

Ronald Rieder
City of Verona
Sewer & Water
410 Investment Ct
Verona, WI 53593-8745
(608) 845-6695
ron.rieder@ci.verona.wi.us

Tim Statz
Madison Gas And Electric Company
Electricity & Gas/Petroleum
P.O. Box 1231
Madison, WI 53701-1231
(608) 252-4727
tstatz@mge.com

Eric Hjellen
Madison Metropolitan Sewerage District
Sanitary Sewer
1610 Moorland Rd
Madison, WI 53713
(608) 222-1202
erich@madsewer.org

Tom Olszewski
TDS Telecom
Communication Line
110 Baker St
P.O. Box 218
Waunakee, WI 53597-1423
(920) 699-2045 Office
(920) 988-7572 Cell
Tom.olszewski@TDSTelecom.com

Wayne Cretton
Packerland Broadband
Communication Line
105 Kent St
Iron Mountain, MI 49801
(906) 282-3786
Wayne.cretton@plbb.us

Verona Air Park
Airport Facility
6654 Grandview Rd
Verona, WI 53593
(608) 845-7239

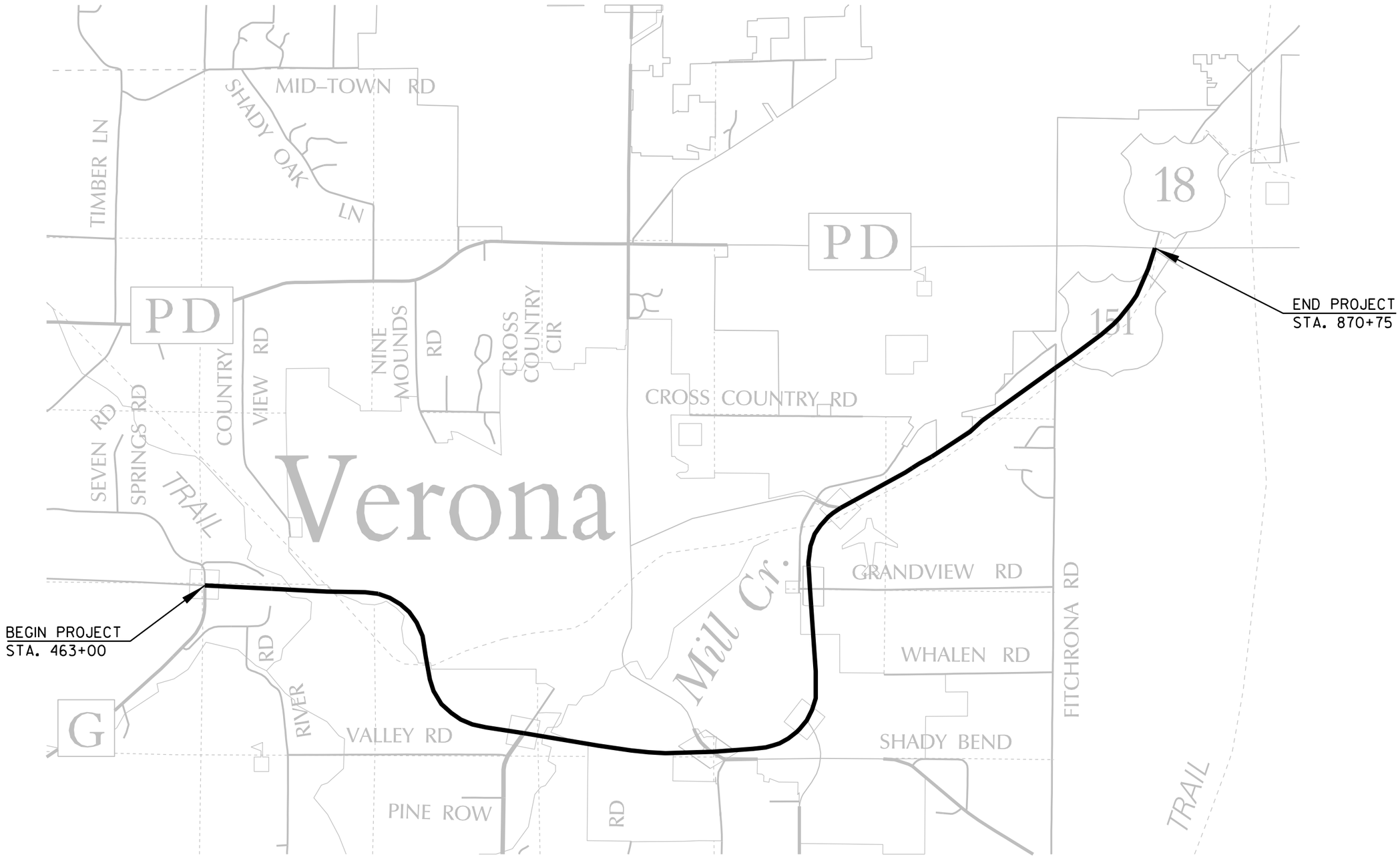
Terri Winans - Administrative Clerk
Waunona Sanitary District #2
Sanitary Sewer
3325 Thurber Ave
Madison, WI 53714-1631
(608) 249-0705
Waunona@sbcglobal.net

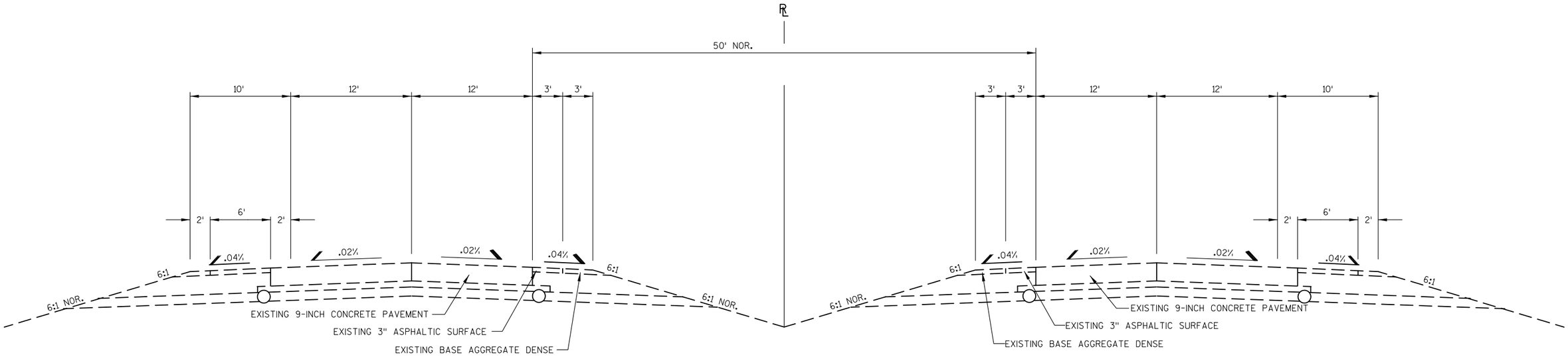
Scott Grinde
AT&T Wisconsin
Communication Line
221 W Washington St - 4th Floor
Appleton, WI 54911
(920) 735-3240 Office
(608) 695-5150 Cell
Sg5813@att.com

Brandon Storm
Charter Communications, inc.
Communication Line
2701 Daniels St
Madison, WI 53718

DIGGERS HOTLINE

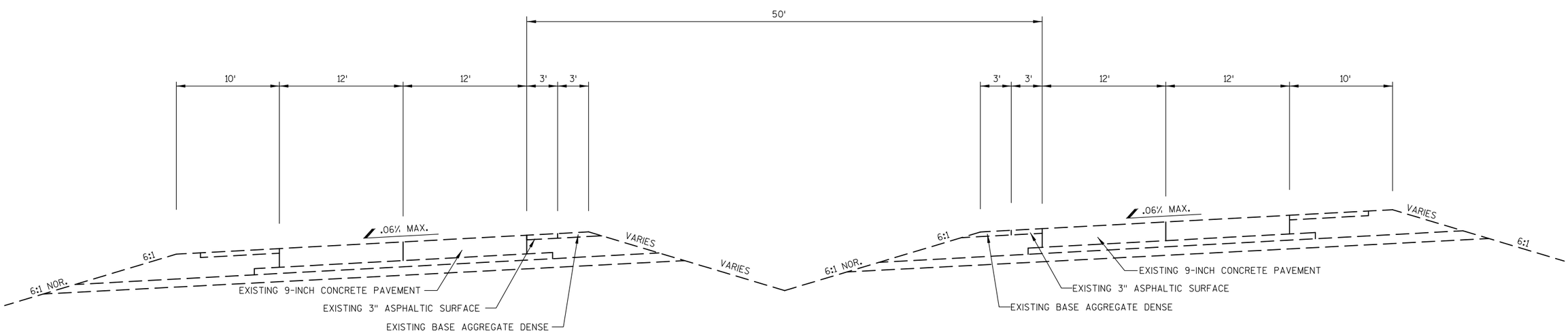
Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com


MID-TOWN RD
SHADY OAK LN
TIMBER LN
PD
PD
18
151
END PROJECT
STA. 870+75
NINE MOUNDS RD
CROSS COUNTRY CIR
COUNTRY VIEW RD
CROSS COUNTRY RD
SEVEN SPRINGS RD
TRAIL
Verona
Mill Cr.
GRANDVIEW RD
FITCHRONA RD
WHALEN RD
BEGIN PROJECT
STA. 463+00
G
RIVER RD
VALLEY RD
SHADY BEND
PINE ROW RD
TRAIL



TYPICAL EXISTING SECTION

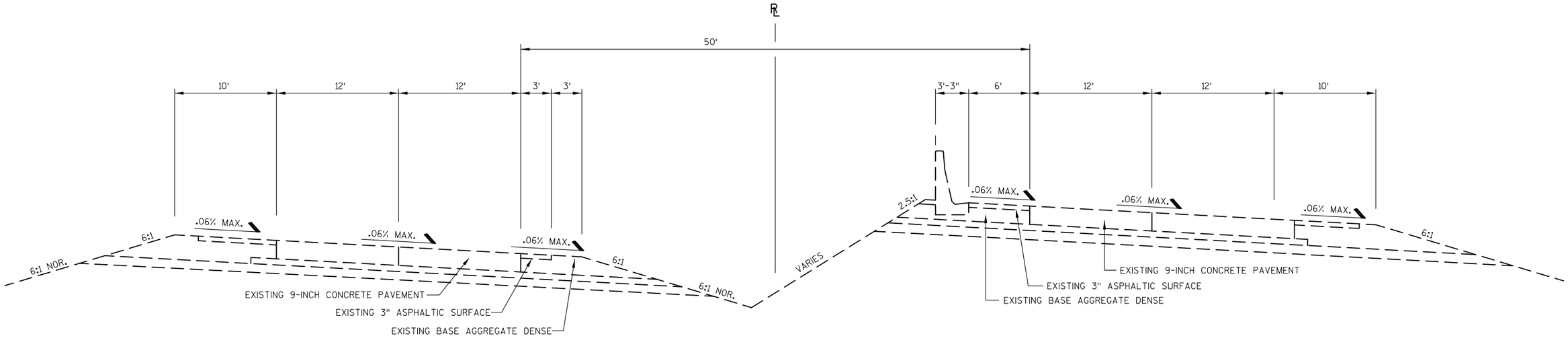
USH 18



TYPICAL EXSITING SECTION - SUPERELEVATED

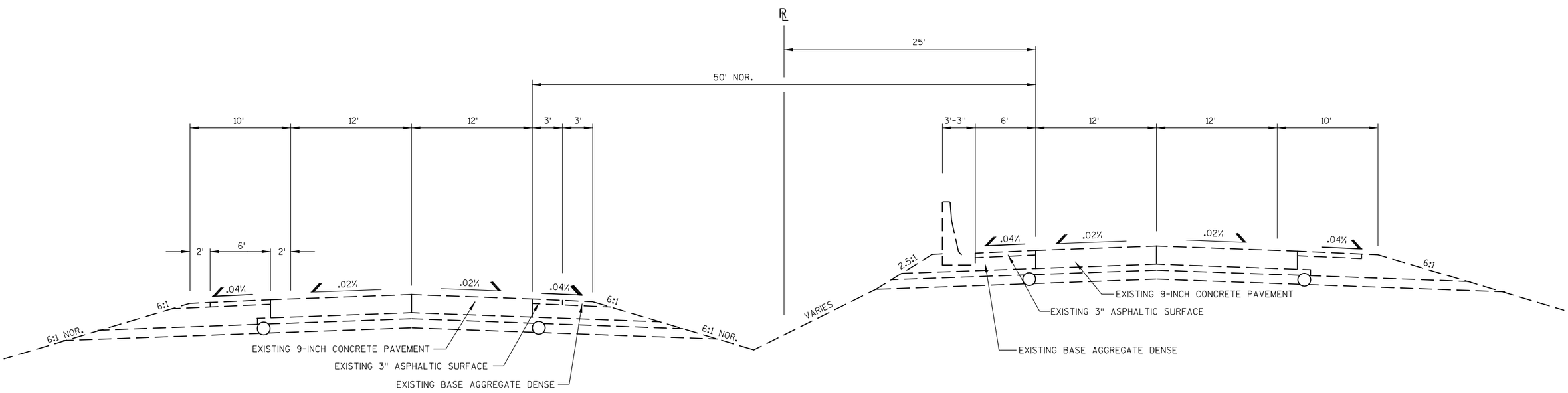
USH 18

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS	SHEET	E



TYPICAL EXSITING SECTION - SUPERELEVATED WITH BARRIER WALL

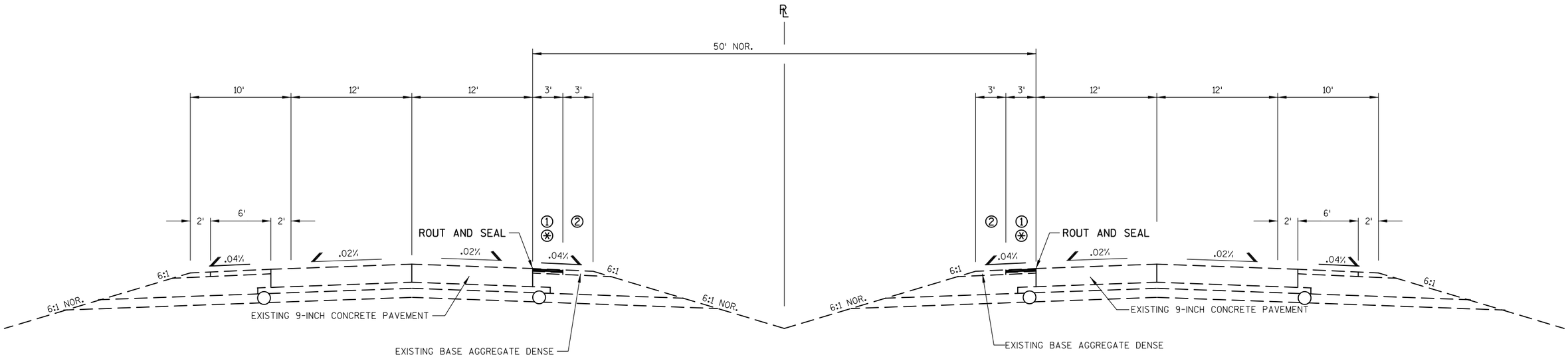
USH 18



TYPICAL EXISTING SECTION - WITH BARRIER WALL

USH 18

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS	SHEET	E



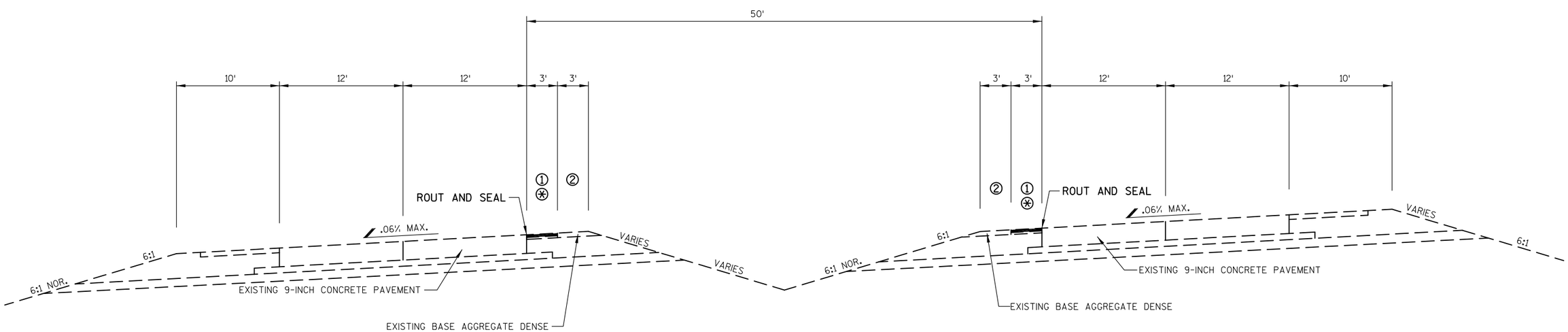
TYPICAL FINISHED SECTION

USH 18

① PAVED SHOULDER: REMOVING ASPHALTIC SURFACE MILLING TO 1.75" BELOW TOP OF CONCRETE PAVEMENT, AND REPLACE WITH 1.75" HMA PAVEMENT TYPE E-0.3. (STA. 687+50 - STA. 733+50 EB STA. 678+00 - STA. 684+00 WB)

② UNPAVED SHOULDER: BASE AGGREGATE DENSE 3/4-INCH AS NEEDED.

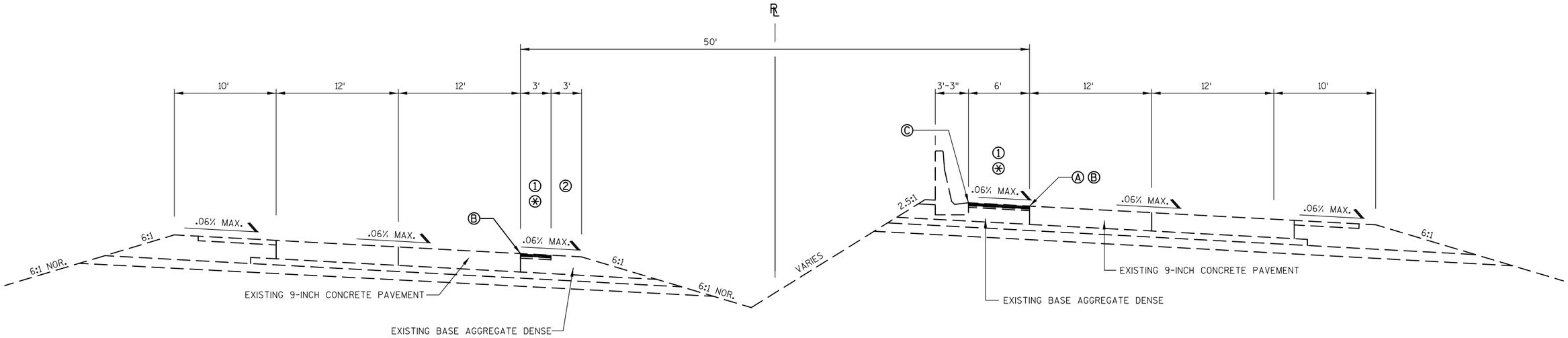
⊛ ASPHALTIC RUMBLE STRIP.



TYPICAL FINISHED SECTION - SUPERELEVATED

USH 18

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS	SHEET 6	E



TYPICAL FINISHED SECTION - SUPERELEVATED WITH BARRIER WALL

USH 18

① PAVED SHOULDER: REMOVING ASPHALTIC SURFACE MILLING TO 1.75" BELOW TOP OF CONCRETE PAVEMENT, AND REPLACE WITH 1.75" HMA PAVEMENT TYPE E-0.3. (STA. 687+50 - STA. 733+50 EB STA. 678+00 - STA. 684+00 WB)

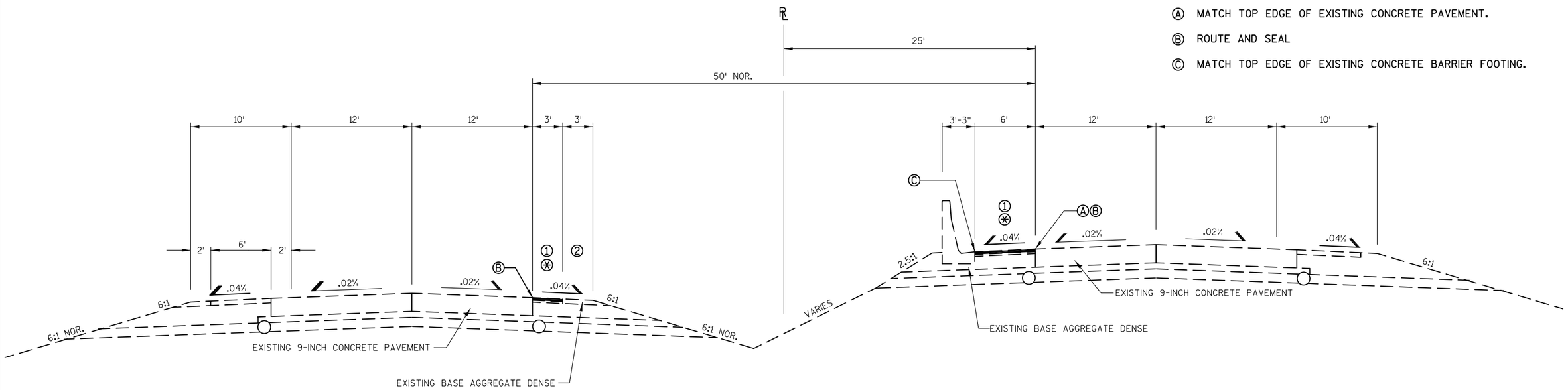
② UNPAVED SHOULDER: BASE AGGREGATE DENSE 3/4-INCH AS NEEDED.

⊛ ASPHALTIC RUMBLE STRIP.

Ⓐ MATCH TOP EDGE OF EXISTING CONCRETE PAVEMENT.

Ⓑ ROUTE AND SEAL

Ⓒ MATCH TOP EDGE OF EXISTING CONCRETE BARRIER FOOTING.



TYPICAL FINISHED SECTION - WITH BARRIER WALL

USH 18

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	TYPICAL SECTIONS	SHEET	E

2

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 8	E

2

2

PROJECT NO:1204-08-60	HWY:USH 18	COUNTY:DANE	PLAN DETAILS	SHEET 9	E

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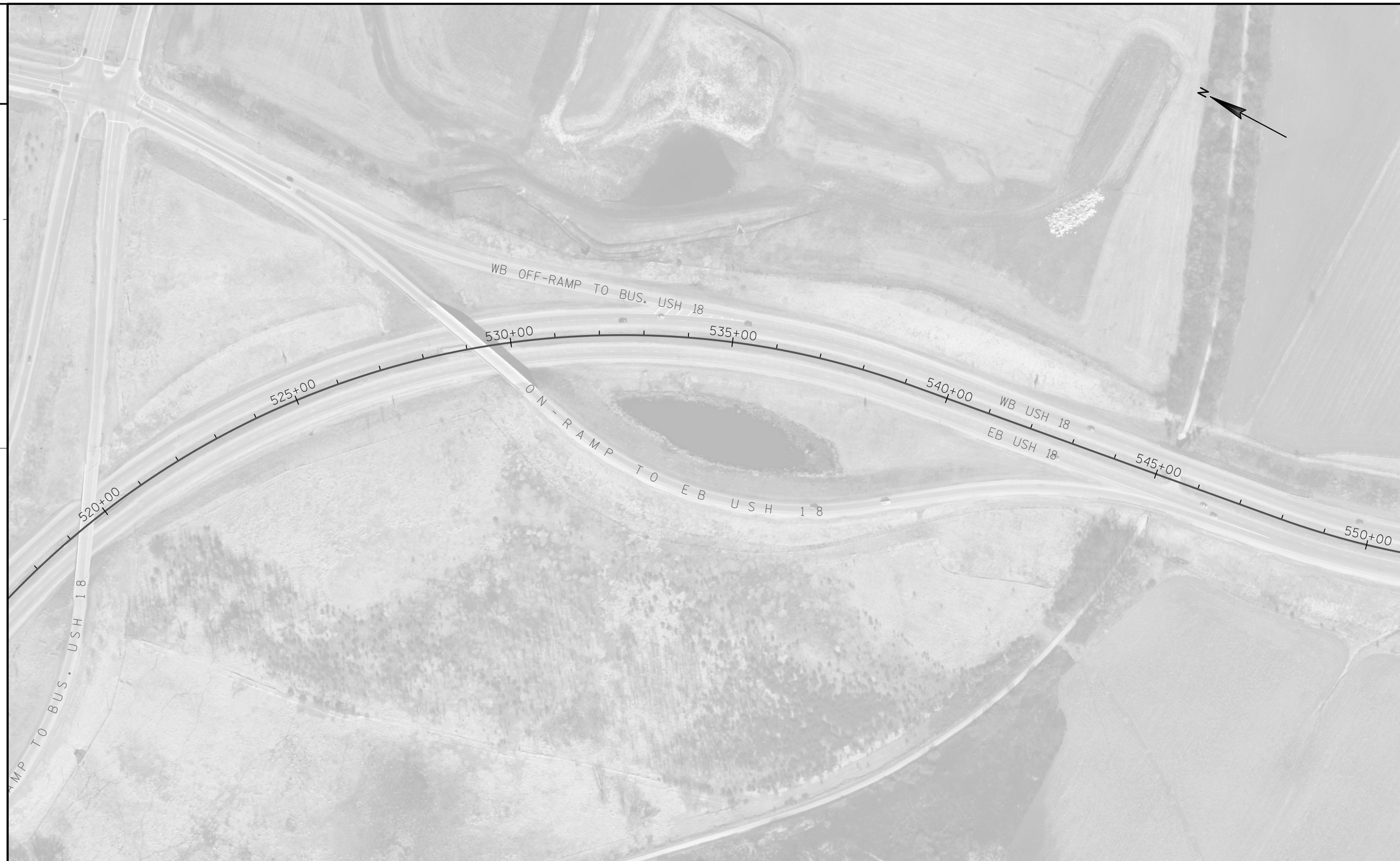
WISDOT/CADDS SHEET 42

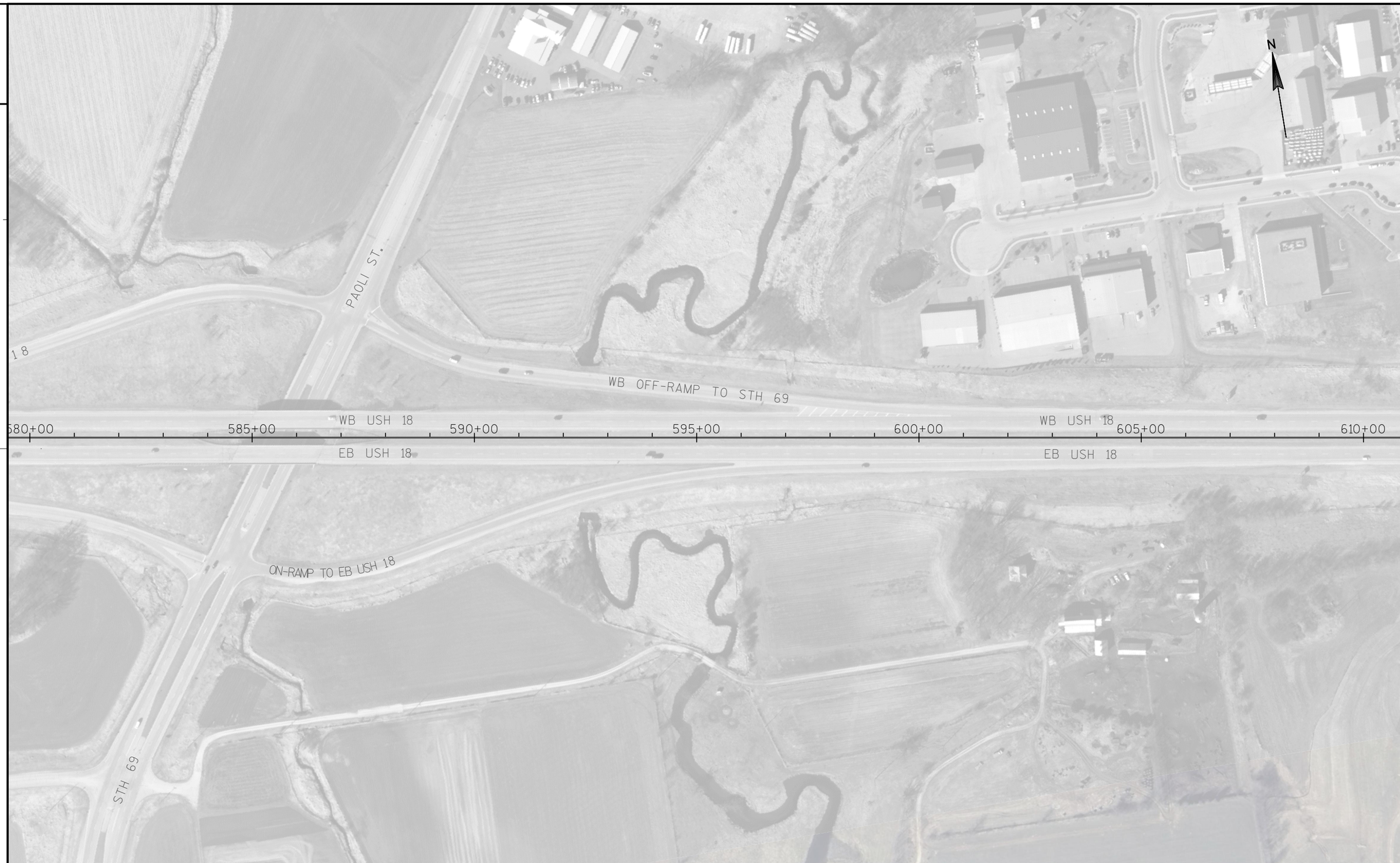


PROJECT NO:1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 10	E

2

2

PROJECT NO:1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 11	E



PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 12	E

2

2

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 13	E

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WISDOT/CADDS SHEET 42

2

2

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 14	E

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WISDOT/CADDS SHEET 42

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 15	E

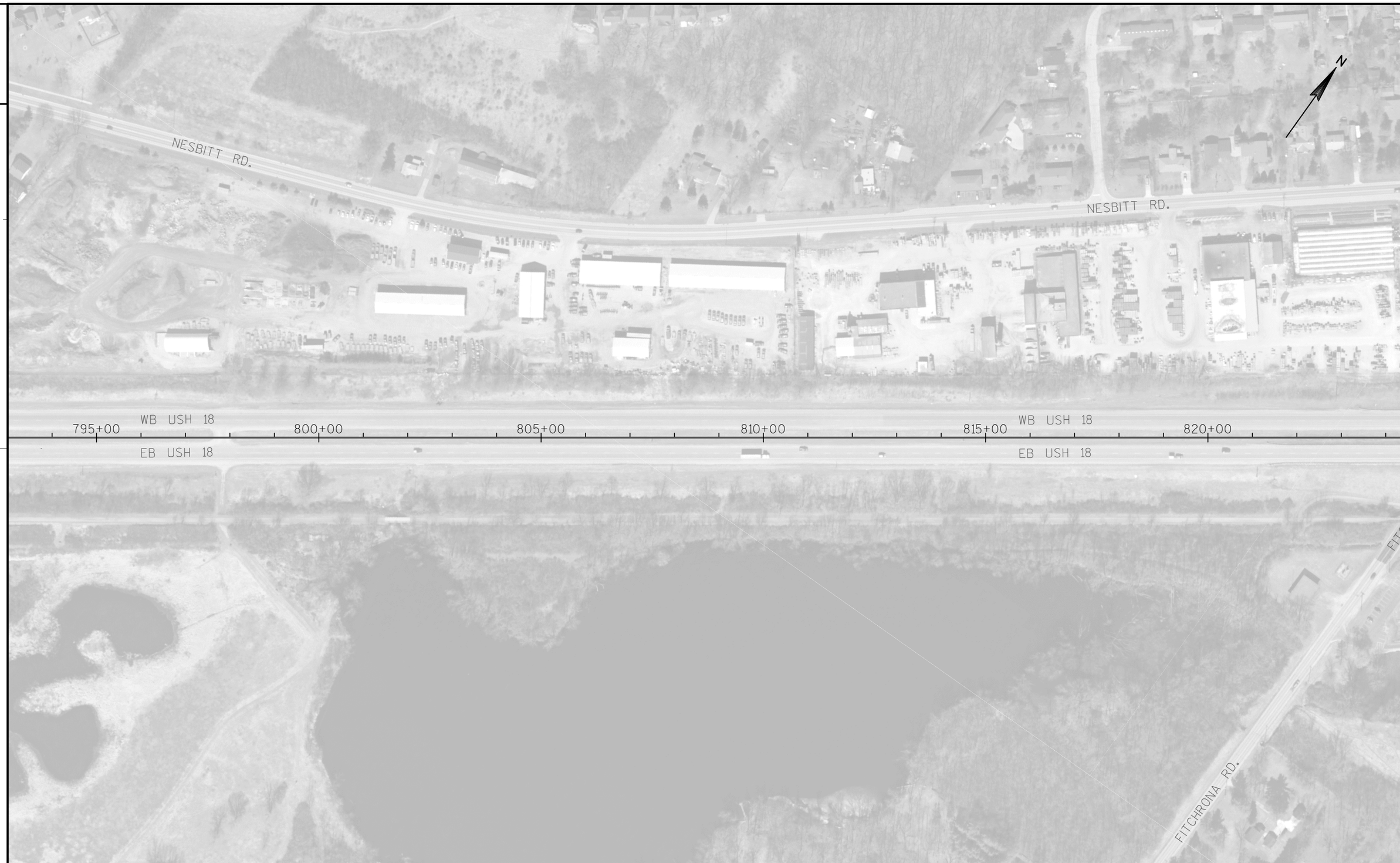
2

PROJECT NO:1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 16	E

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 17	E

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 18	E

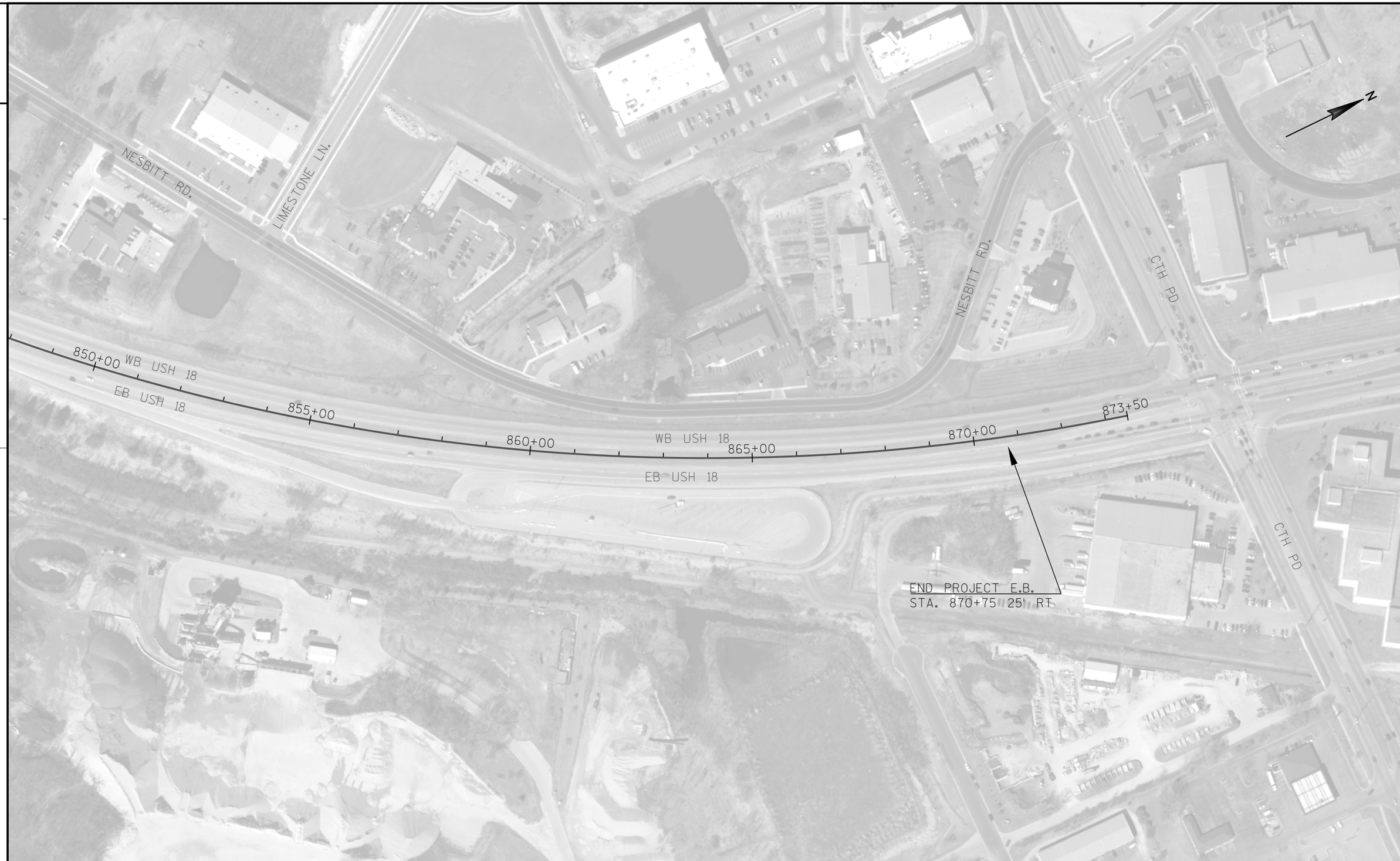
2



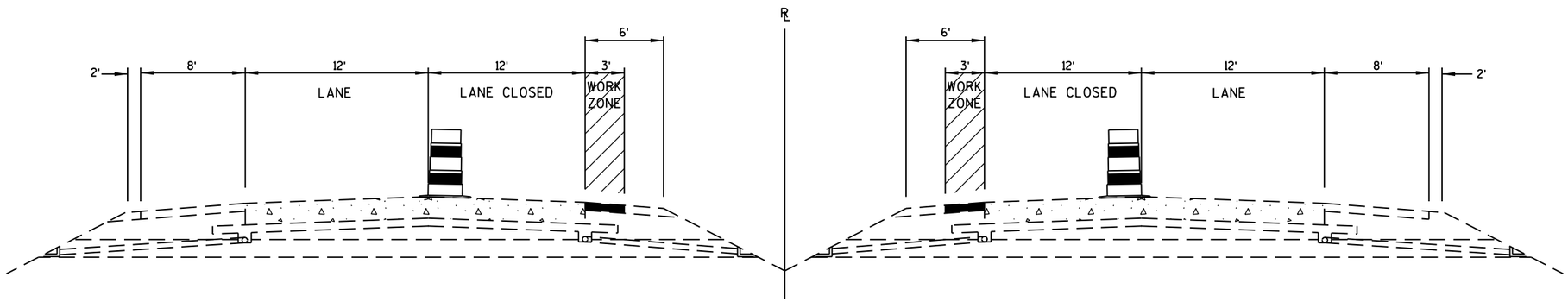
2

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 19	E

PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 20	E



PROJECT NO: 1204-08-60	HWY: USH 18	COUNTY: DANE	PLAN DETAILS	SHEET 21	E



TRAFFIC CONTROL USH 18 MEDIAN SHOULDER WORK

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H."

WORK ZONE

3

DATE 22MAY13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1204-08-60 QUANTITY
0010	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	25,260.000	25,260.000
0020	213.0100	FINISHING ROADWAY (PROJECT) 01. 1204-08-60	EACH	1.000	1.000
0030	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	2,805.000	2,805.000
0040	305.0500	SHAPING SHOULDERS	STA	760.000	760.000
0050	415.6000.S	ROUTE AND SEAL	LF	75,950.000	75,950.000
0060	455.0105	ASPHALTIC MATERIAL PG58-28	TON	153.200	153.200
0070	455.0605	TACK COAT	GAL	700.000	700.000
0080	460.1100	HMA PAVEMENT TYPE E-0.3	TON	2,803.000	2,803.000
0090	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	1,800.000	1,800.000
0100	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP	LF	75,950.000	75,950.000
0110	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1204-08-60	EACH	1.000	1.000
0120	619.1000	MOBILIZATION	EACH	1.000	1.000
0130	624.0100	WATER	MGAL	1.000	1.000
0140	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0150	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1204-08-60	EACH	1.000	1.000
0160	643.0300	TRAFFIC CONTROL DRUMS	DAY	15,104.000	15,104.000
0170	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	1,056.000	1,056.000
0180	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	512.000	512.000
0190	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	32.000	32.000
0200	643.0900	TRAFFIC CONTROL SIGNS	DAY	800.000	800.000
0210	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	46.000	46.000
0220	646.0805.S	PAVEMENT MARKING OUTFALL	EACH	247.000	247.000
0230	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	40,800.000	40,800.000
0240	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1204-08-60	LS	1.000	1.000

3

3

CONSTRUCTION STAKING RESURFACING REFERENCE

STATION	650.8000
	LF
463+00 - 870+75	40,800
TOTAL =	40,800

WATER

STATION	624.0100
	MGAL
463+00 - 870+75	1
TOTAL =	1

3

REMOVING ASPHALTIC SURFACE MILLING

STATION		204.0120
		SY
USH 18 WESTBOUND		
463+00 - 487+83	LT	830
489+89 - 584+71	LT	3,150
587+17 - 675+80	LT	2,950
678+24 - 690+83	LT	420
692+50 - 717+22	LT	820
718+66 - 743+72	LT	840
745+74 - 825+44	LT	2,650
826+74 - 840+75	LT	470
USH 18 EASTBOUND		
463+00 - 487+90	RT	830
489+88 - 584+35	RT	3,150
586+87 - 675+50	RT	2,950
677+84 - 690+72	RT	430
692+37 - 717+17	RT	830
718+62 - 744+14	RT	840
746+37 - 825+07	RT	2,600
826+37 - 870+75	RT	1,500
	TOTAL =	25,260

SHAPING SHOULDERS

STATION		305.0500
		STA
USH 18 WESTBOUND		
463+00 - 487+83	LT	25
489+89 - 584+71	LT	95
587+17 - 675+80	LT	89
678+24 - 690+83	LT	13
692+50 - 717+22	LT	25
718+66 - 743+72	LT	26
745+74 - 825+44	LT	80
826+74 - 840+75	LT	14
USH 18 EASTBOUND		
463+00 - 487+90	RT	25
489+88 - 584+35	RT	95
586+87 - 675+50	RT	89
677+84 - 690+72	RT	13
692+37 - 717+17	RT	25
718+62 - 744+14	RT	26
746+37 - 825+07	RT	79
826+37 - 870+75	RT	45
	TOTAL =	760

BASE AGGREGATE DENSE 3/4 - INCH

STATION		305.0110
		TON
USH 18 WESTBOUND		
463+00 - 487+83	LT	90
489+89 - 584+71	LT	350
587+17 - 675+80	LT	330
678+24 - 690+83	LT	45
692+50 - 717+22	LT	90
718+66 - 743+72	LT	95
745+74 - 825+44	LT	300
826+74 - 840+75	LT	50
USH 18 EASTBOUND		
463+00 - 487+90	RT	90
489+88 - 584+35	RT	350
586+87 - 675+50	RT	330
677+84 - 690+72	RT	50
692+37 - 717+17	RT	90
718+62 - 744+14	RT	95
746+37 - 825+07	RT	290
826+37 - 870+75	RT	160
	TOTAL =	2,805

3

HMA PAVEMENT AND RUMBLE STRIP

		455.0105 ASPHALTIC MATERIAL PG58-28	455.0605 TACK COAT	460.1100 HMA PAVEMENT TYPE E-0.3	415.6000.S. ROUT AND SEAL	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP
		TON	GAL	TON	LF	LF
USH 18 WESTBOUND						
463+00 - 487+83	LT	5.0	20	92	2,500	2,500
489+89 - 584+71	LT	19	90	350	9,500	9,500
587+17 - 675+80	LT	18	80	325	8,850	8,850
678+24 - 690+83	LT	2.5	10	46	1,250	1,250
692+50 - 717+22	LT	5.0	20	91	2,450	2,450
718+66 - 743+72	LT	5.1	30	93	2,550	2,550
745+74 - 825+44	LT	16	80	295	7,950	7,950
826+74 - 840+75	LT	2.8	10	52	1,400	1,400
USH 18 EASTBOUND						
463+00 - 487+90	RT	5.1	20	92	2,500	2,500
489+88 - 584+35	RT	19	90	350	9,450	9,450
586+87 - 675+50	RT	18	80	330	8,900	8,900
677+84 - 690+72	RT	2.6	10	48	1,300	1,300
692+37 - 717+17	RT	5.0	20	91	2,500	2,500
718+62 - 744+14	RT	5.1	30	93	2,550	2,550
746+37 - 825+07	RT	16	70	290	7,850	7,850
826+37 - 870+75	RT	9.0	40	165	4,450	4,450
	TOTAL =	153.2	700	2,803	75,950	75,950

3

PAVEMENT MARKING OUTFALL

STATION	LOCATION	646.0805.S EACH
476+60	LT	1
	RT	1
482+00	LT	1
	RT	1
500+00	LT	1
	RT	1
502+50	LT	1
	RT	1
505+00	LT	1
	RT	1
507+50	LT	1
	RT	1
510+00	LT	1
	RT	1
512+50	LT	1
	RT	1
513+50	LT	1
	RT	1
515+00	LT	1
518+00	LT	1
520+50	LT	1
230+00	LT	1
525+50	LT	1
528+00	LT	1
530+50	LT	1
533+00	LT	1
535+50	LT	1
538+00	LT	1
	RT	1
540+50	LT	1
	RT	1
543+00	LT	1
	RT	1
545+50	LT	1
	RT	1
548+00	LT	1
	RT	1
549+00	RT	1
550+50	RT	1
553+00	RT	1
555+50	RT	1
558+00	RT	1
560+50	RT	1
563+00	RT	1
565+50	RT	1
568+00	RT	1
570+50	RT	1

CONT. PAVEMENT MARKING OUTFALL

STATION	LOCATION	646.0805.S EACH
573+00	RT	1
575+50	LT	1
	RT	1
578+00	LT	1
	RT	1
580+50	LT	1
	RT	1
583+00	LT	1
	RT	1
585+50	LT	1
	RT	1
588+00	LT	1
	RT	1
590+50	LT	1
	RT	1
593+00	LT	1
	RT	1
595+50	LT	1
	RT	1
597+50	LT	1
	RT	1
600+00	LT	1
	RT	1
602+50	LT	1
	RT	1
605+00	LT	1
	RT	1
607+00	LT	1
	RT	1
609+50	LT	1
	RT	1
612+00	LT	1
	RT	1
614+50	LT	1
	RT	1
616+00	RT	1
617+00	RT	1
619+50	RT	1
622+00	RT	1
624+50	RT	1
627+00	RT	1
629+50	RT	1
632+00	RT	1
634+50	RT	1
637+00	RT	1
639+50	RT	1
640+50	RT	1

CONT. PAVEMENT MARKING OUTFALL

STATION	LOCATION	646.0805.S EACH
643+00	LT	1
	RT	1
645+50	LT	1
	RT	1
648+00	LT	1
	RT	1
649+00	LT	1
	RT	1
650+50	LT	1
	RT	1
653+00	LT	1
	RT	1
655+50	LT	1
	RT	1
658+00	LT	1
	RT	1
660+50	RT	1
663+00	RT	1
665+50	RT	1
668+00	RT	1
670+50	RT	1
673+00	RT	1
675+50	RT	1
678+00	RT	1
680+50	RT	1
683+00	RT	1
685+50	RT	1
688+00	RT	1
690+50	LT	1
	RT	1
693+00	LT	1
	RT	1
695+50	LT	1
	RT	1
698+00	LT	1
	RT	1
700+50	LT	1
	RT	1
703+00	LT	1
	RT	1
705+50	LT	1
	RT	1
708+00	LT	1
	RT	1
710+50	LT	1
	RT	1
713+00	LT	1
	RT	1

CONT. PAVEMENT MARKING OUTFALL

STATION	LOCATION	646.0805.S EACH
715+50	LT	1
	RT	1
718+00	LT	1
	RT	1
720+50	LT	1
	RT	1
723+00	LT	1
	RT	1
725+50	LT	1
	RT	1
728+00	LT	1
729+50	LT	1
732+00	LT	1
734+50	LT	1
737+00	LT	1
739+50	LT	1
742+00	LT	1
745+50	LT	1
747+00	LT	1
	RT	1
749+50	LT	1
	RT	1
752+00	LT	1
	RT	1
754+50	LT	1
	RT	1
757+00	LT	1
	RT	1
759+50	RT	1
762+00	RT	1
764+50	RT	1
767+00	RT	1
769+50	RT	1
772+00	RT	1
774+50	RT	1
777+00	RT	1
779+50	RT	1
782+00	RT	1
784+50	RT	1
787+00	RT	1
789+50	RT	1
792+00	RT	1
794+50	RT	1
797+00	RT	1
757+00 - 840+75	LT	33
797+00 - 870+75	RT	30
	TOTAL:	**247**

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TRAFFIC CONTROL ITEMS

	LENGTH CALENDAR DAYS	643.0100 TRAFFIC CONTROL EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
PREWARNING	7		---	---	---	---	---	14
STAGE 1	16	1	15,104	1,056	512	32	800	32
TOTAL =	23	1	15,104	1,056	512	32	800	46

TYPICAL TRAFFIC CONTROL ITEMS PER DAY (FOR INFORMATIONAL PURPOSES ONLY)

	643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	643.0800 TRAFFIC CONTROL ARROW BOARDS	643.0900 TRAFFIC CONTROL SIGNS
STAGE 1	944	66	32	2	50

Standard Detail Drawing List

08D15-04A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
15D12-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-01	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

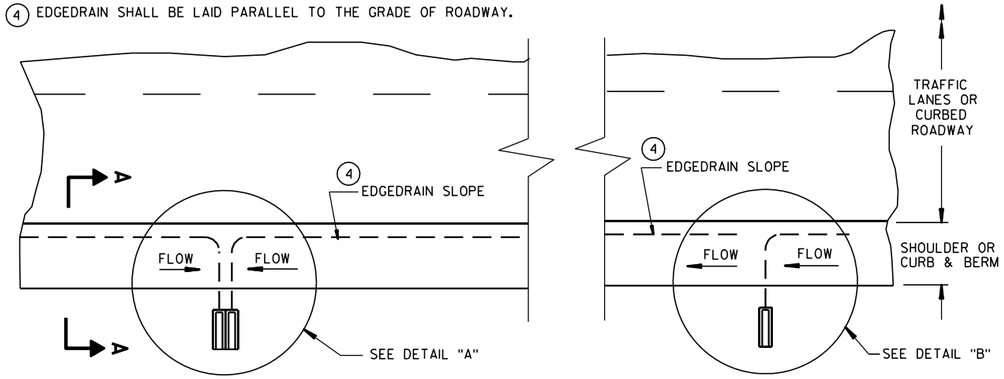
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

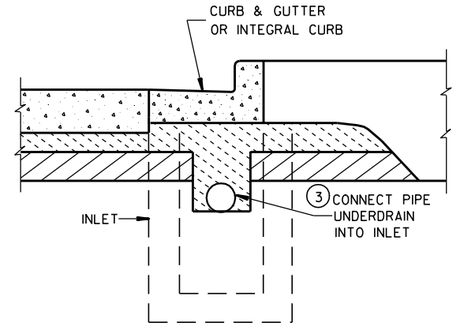
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

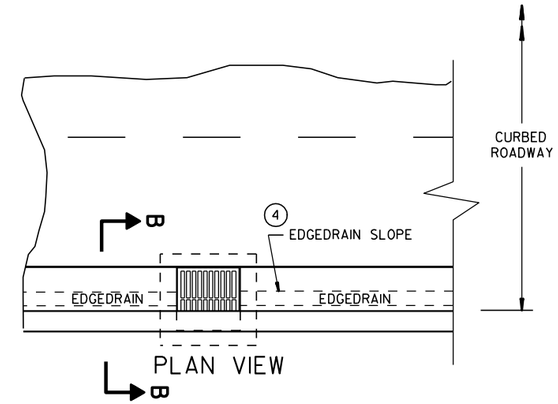
ROADWAY WITH SHOULDERS OR CURBS

(EDGEDRAIN OUTLETS TO ROADSIDE)(2)



SECTION B-B

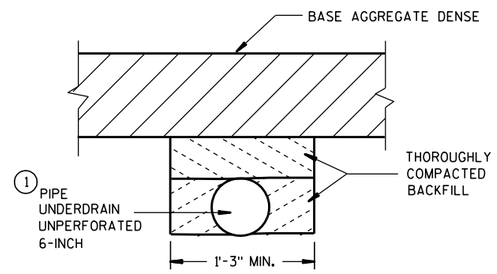
URBAN CROSS SECTION



PLAN VIEW

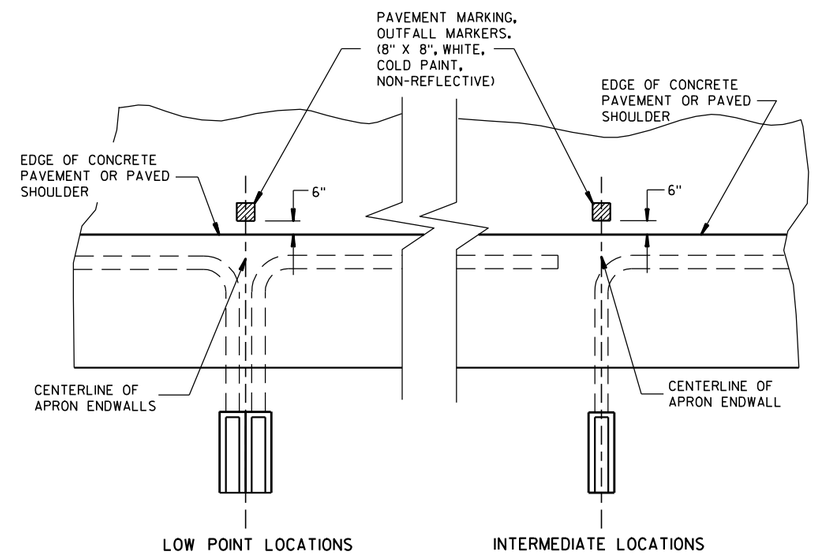
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



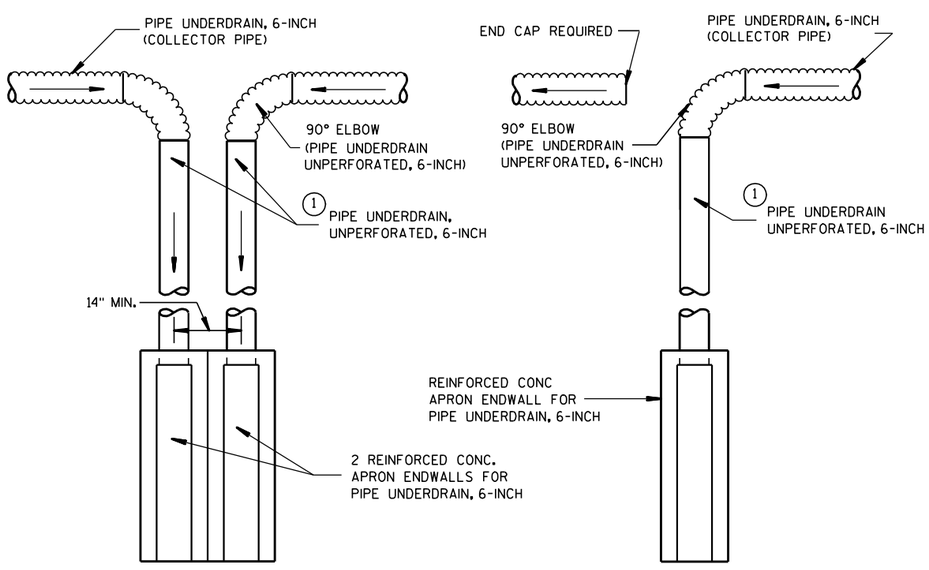
SECTION C-C

(TRENCH FOR OUTFALL PIPE)



PLAN VIEW

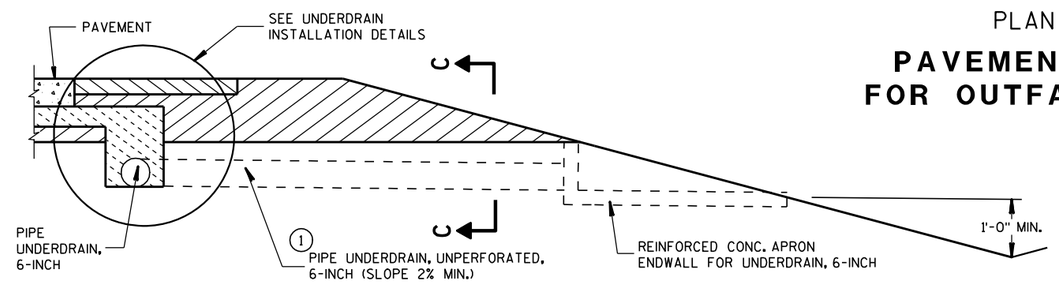
PAVEMENT MARKING FOR OUTFALL MARKERS



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



SECTION A-A

RURAL CROSS SECTION

EDGEDRAIN OUTLET AND OUTFALL MARKERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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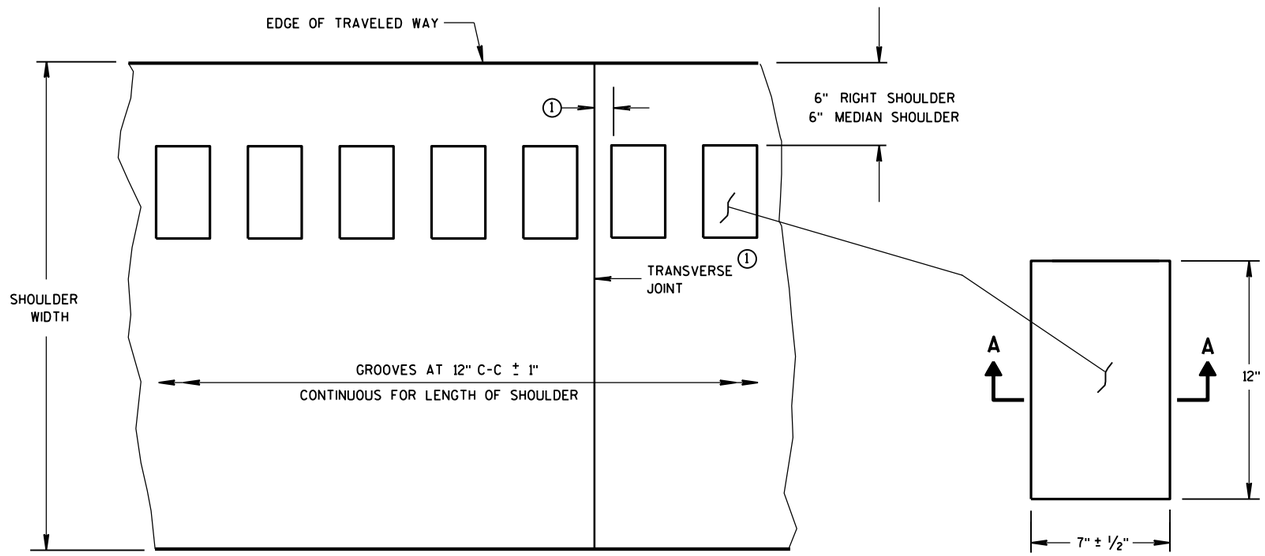
S.D.D. 8 D 15-4a

S.D.D. 8 D 15-4a



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

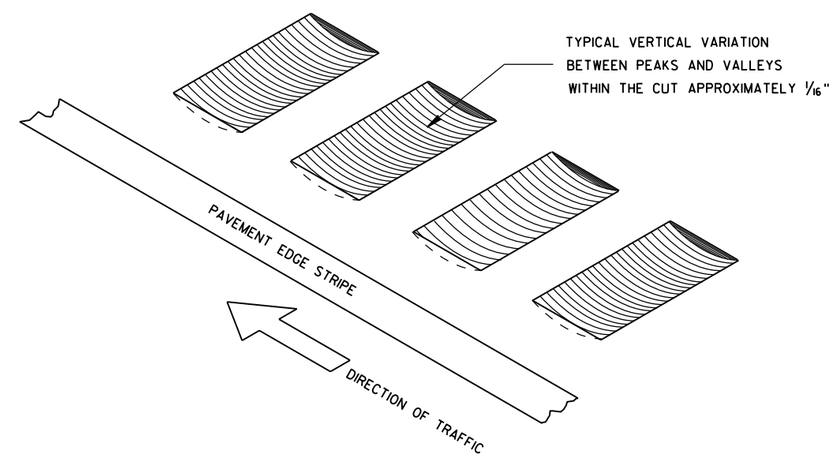
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

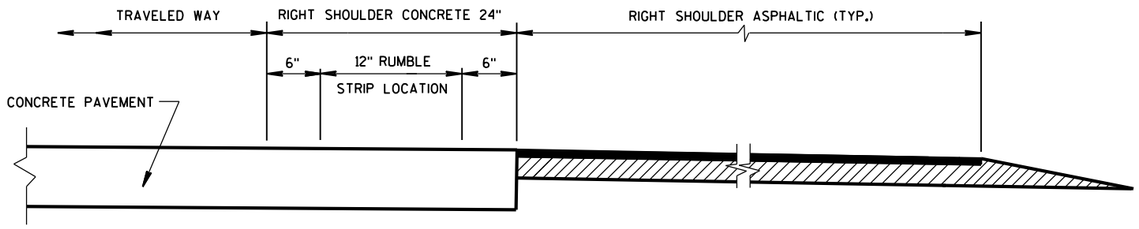
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

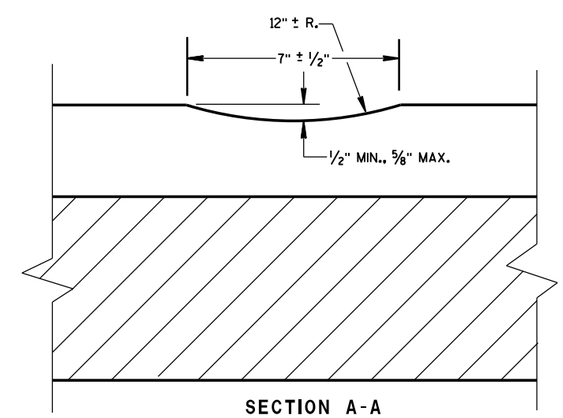
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



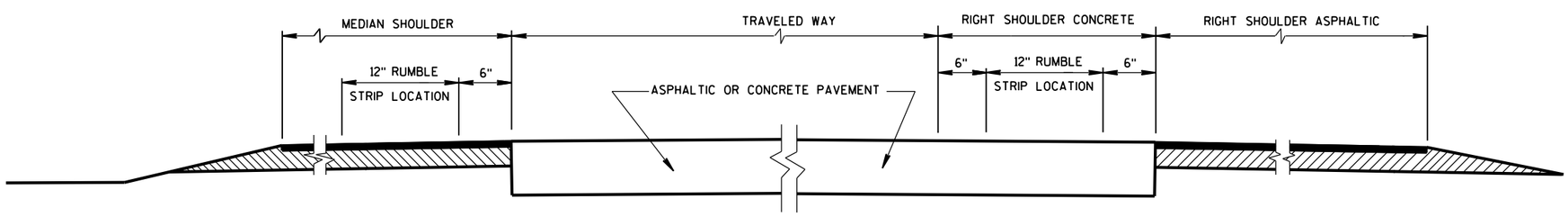
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS

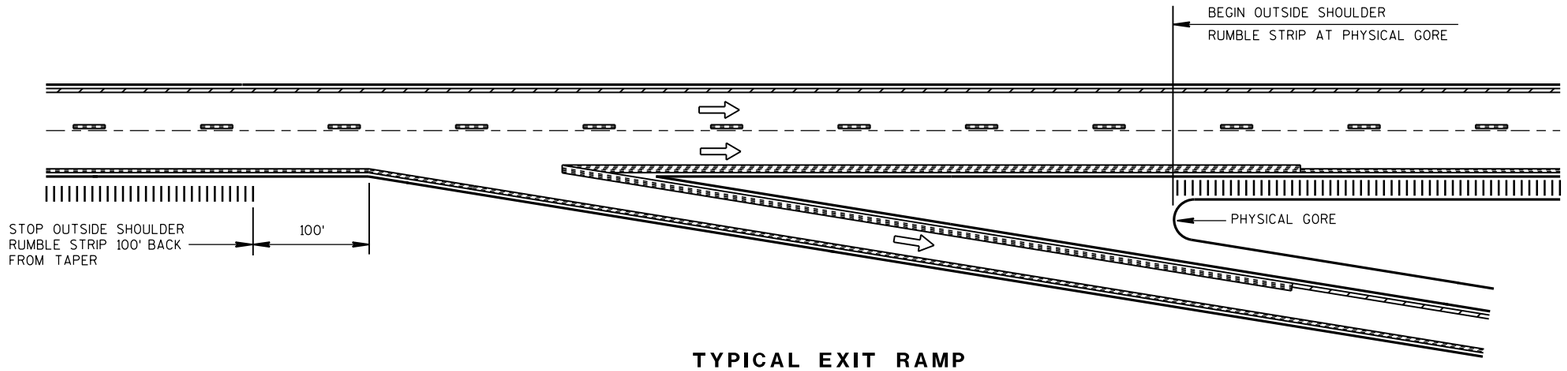
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 A 5-5a



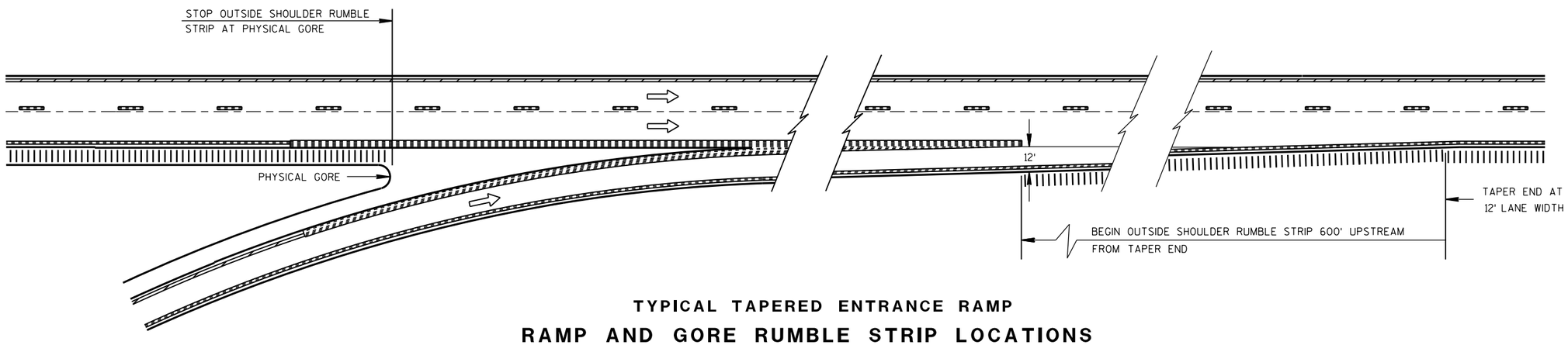
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

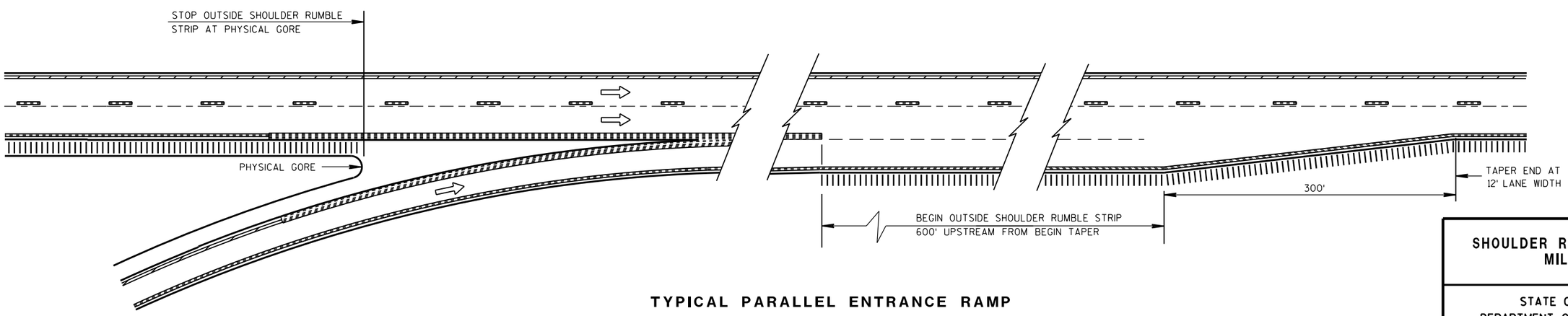
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

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S.D.D. 13 A 5-5b

S.D.D. 13 A 5-5b

LEGEND

- POST WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN IN DRUM
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- 8' TYPE III BARRICADE
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES :

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

(1) CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

GENERAL NOTES CONTINUED:

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

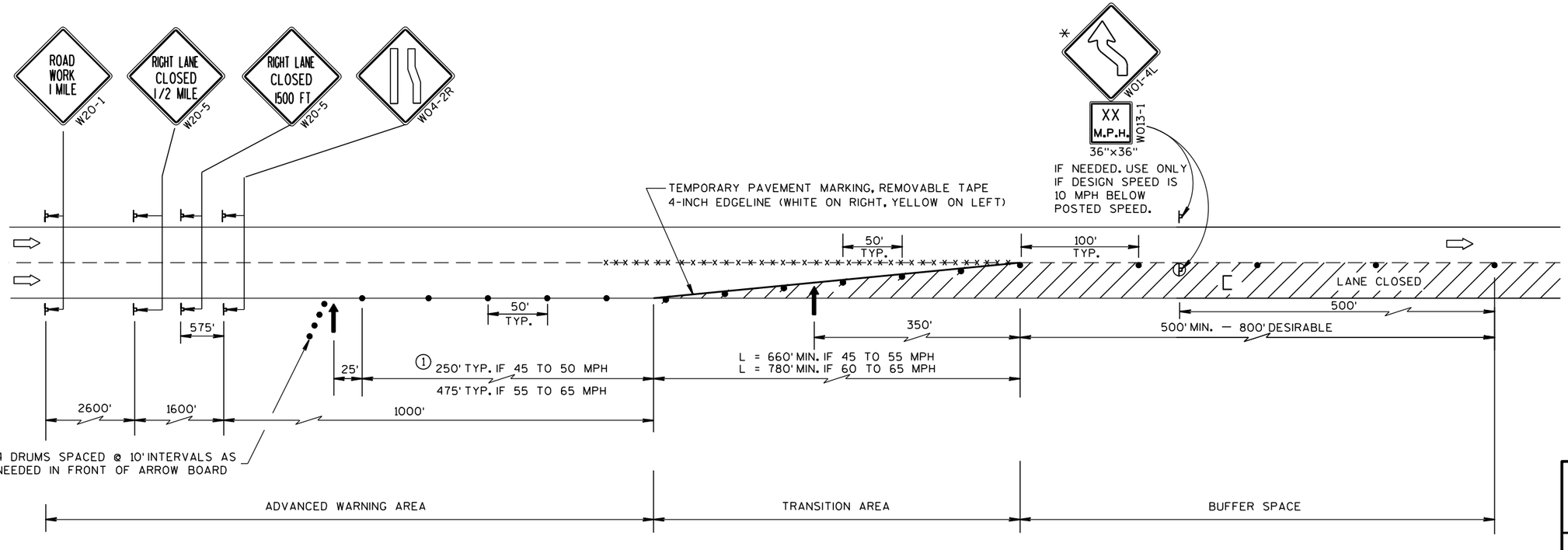
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

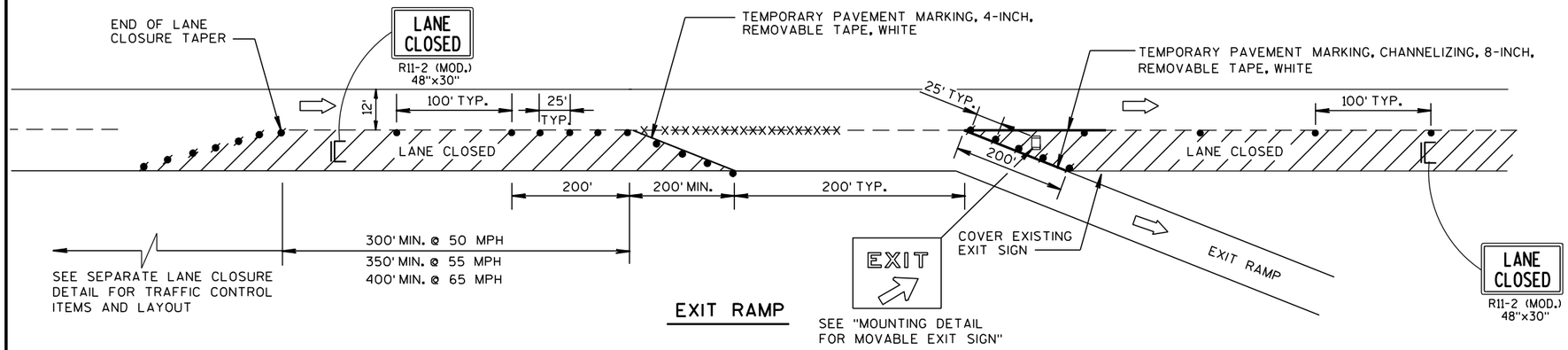
* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



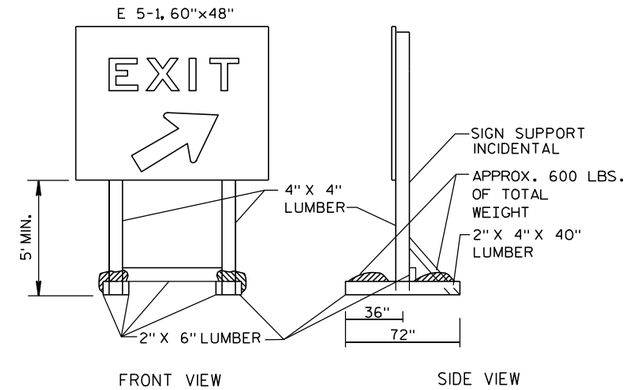
TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-7-95 — DATE
/S/ Chester J. [illegible] — DIRECTOR, OFFICE O[illegible]
FHWA

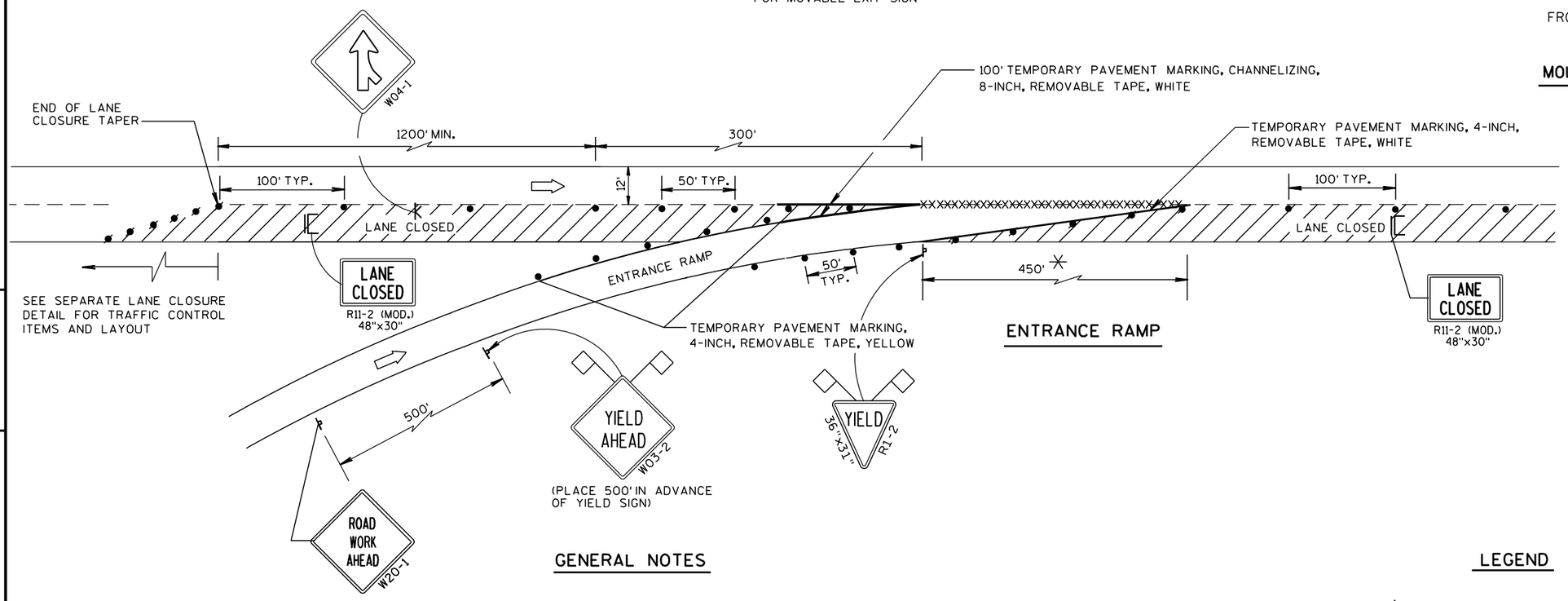


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 — DATE
/S/ Chester J. [illegible] — CHIEF SIGNS AND MAR[illegible]INEER
FHWA

6

S.D.D. 15 D 15-1

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

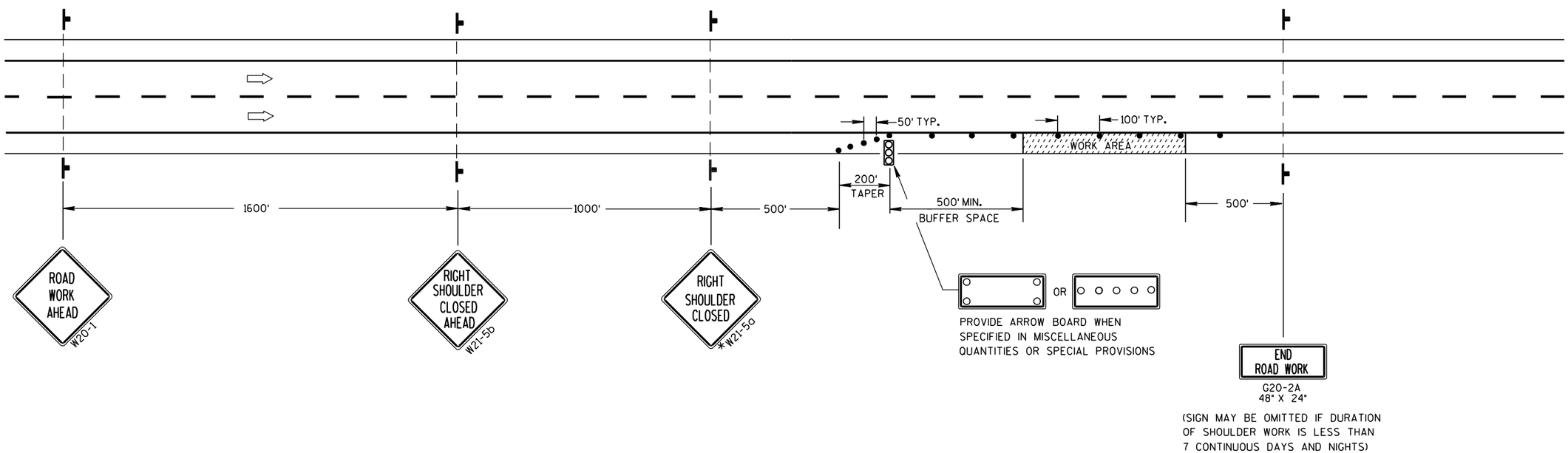
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.

SYMBOLS

- TRAFFIC CONTROL DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW
- ARROW BOARD IN CAUTION MODE



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 — DATE

/S/ Chester J Sasse — CHIEF SIGNS AND MAR INEER

FHWA

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Notes

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