

GRE

WITH:

PROJECT ID:

9995-03-61

COUNTY:

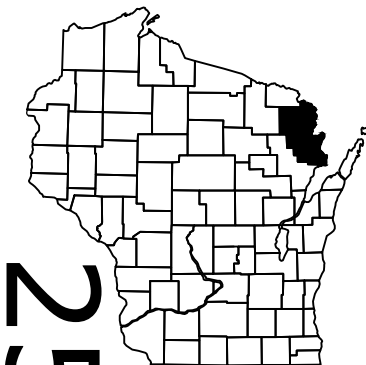
MARINETTE

APRIL 2017

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
<del>Section No. 4</del>	<del>Right of Way Plat</del>
<del>Section No. 5</del>	<del>Plan and Profile</del>
Section No. 6	Standard Detail Drawings
<del>Section No. 7</del>	<del>Sign Plates</del>
Section No. 8	Structure Plans
<del>Section No. 9</del>	<del>Computer Earthwork Data</del>
<del>Section No. 9</del>	<del>Cross Sections</del>

TOTAL SHEETS = 28



DESIGN DESIGNATION

A.A.D.T.	2012	=	5700
A.A.D.T.		=	N/A
D.H.V.		=	N/A
D.D.		=	N/A
T.		=	N/A
DESIGN SPEED		=	N/A
ESALS		=	N/A

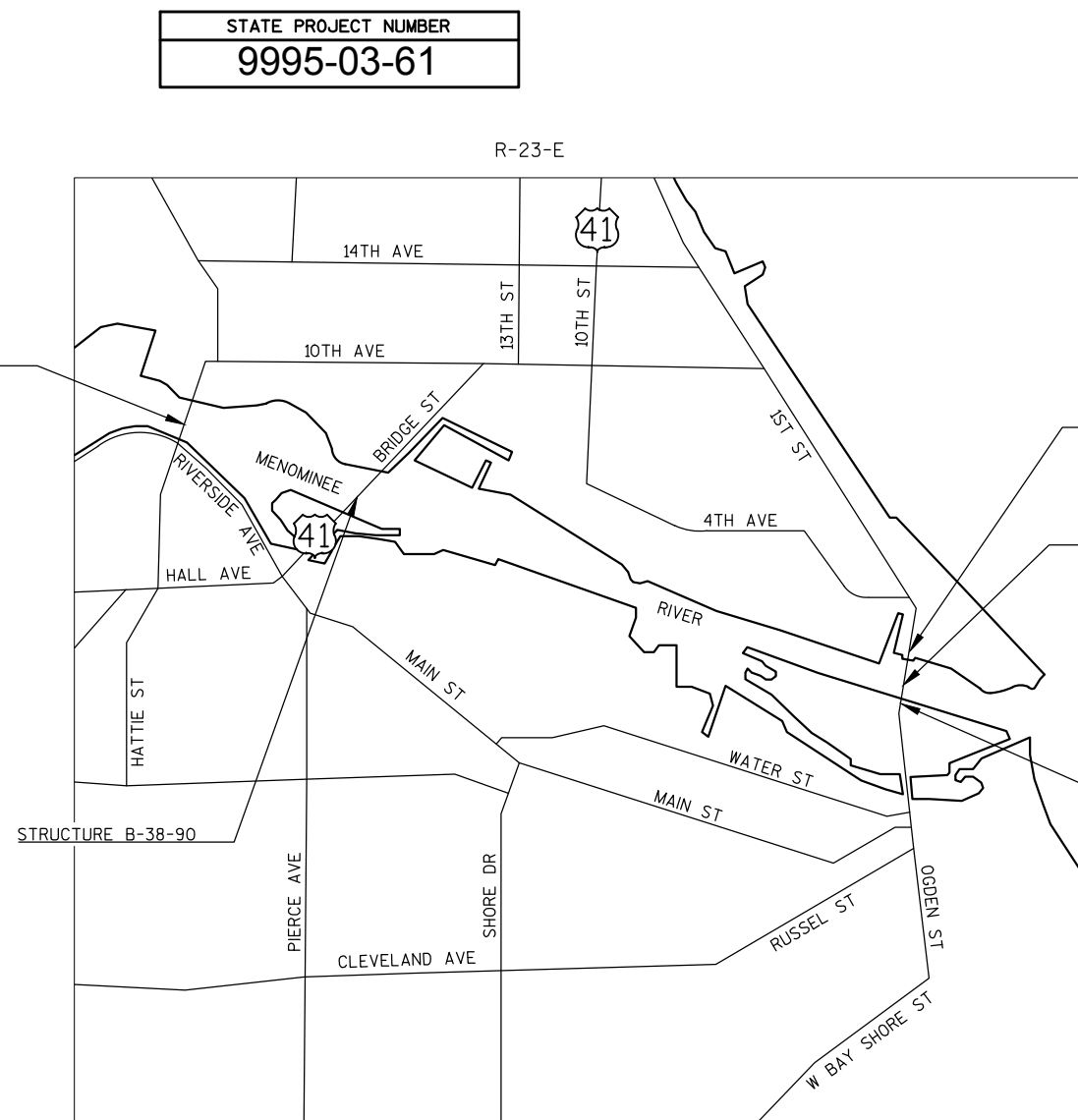
CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STRUCTURE B-38-21

STRUCTURE B-38-90



STATE PROJECT NUMBER  
9995-03-61

LAYOUT  
SCALE 0 1/2

TOTAL NET LENGTH OF CENTERLINE = 0.109 MI

HORIZONTAL AND VERTICAL ALIGNMENT DATA IS BASED ON AS-BUILT PLAN WITHOUT ANY FIELD SURVEY AND IS TO BE USED AS REFERENCE ONLY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF MARINETTE, LIFT STRUCTURE

OGDEN STREET BRIDGE, B-38-16 MENOMINEE RIVER 84.10

LOCAL STREET  
MARINETTE COUNTY

STATE PROJECT

9995-03-61

FEDERAL PROJECT

PROJECT

CONTRACT

ORIGINAL PLANS PREPARED BY:

exp U.S. Services Inc.  
t: +1.414.221.0088 | f: +1.414.221.0537  
241 North Broadway, Suite 203  
Milwaukee, WI 53202  
U.S.A.  
www.exp.com



• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •  
• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •



12/01/16  
(Date) (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor N/A  
Designer exp US Services, Inc.  
Project Manager Paul Zoellner, P.E.  
Regional Examiner  
Regional Supervisor Don Segerstrom

APPROVED FOR THE DEPARTMENT  
DATE: 2/1/17 (Signature)

STANDARD ABBREVIATIONS:

ASPH	ASPHALT
AVE.	AVENUE
APT.	APARTMENT
BAD	BASE AGGREGATE DENSE
BLDG.	BUILDING
BM#	BENCH MARK
C&g	CURB AND GUTTER
ε	CENTERLINE
CL	CLASS
CONC	CONCRETE
CONST.	CONSTRUCTION
COR.	CORNER
CP#	CONTROL POINT
CP	CULVERT PIPE
D/W	DRIVEWAY
EX.	EXISTING
EXC	EXCAVATION
FE	FIELD OF ENTRANCE
F.L	FLOWLINE
FT	FEET
GV	GAS VALVE
HS.	HOUSE
INL.	INLET
L.F	LINEAR FOOT
N.T.S	NOT TO SCALE
P.C	POINT OF CURVE
PCC.	PORTLAND CONCRETE CEMENT
PE	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECT
P.L.E	PERMANENT LIMITED EASEMENT
P.T	POINT OF TANGENCY
R	RADIUS
REQ'D	REQUIRED
REMO	REMOVE
R/W	RIGHT OF WAY
SEC	SECTION
S.F.	SQUARE FOOT
STH	STATE TRUNK HIGHWAY
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
VPC	VERTICAL POINT OF CURVE
VPT	VERTICAL POINT OF TANGENCY
W/L	WETLAND
WV	WATER VALVE

PROJECT CONTACTS

DESIGN CONTACT  
MR. JEFF ROEMER, P.E.  
exp US SERVICES, INC.  
241 NORTH BROADWAY, SUITE 203  
MILWAUKEE, WI 53202  
PHONE: (414) 221-0088  
EMAIL: jeff.roemer@exp.com

WISCONSIN DNR LIAISON  
MR. JIM DOPERALSKI, JR.  
2984 SHAWANO AVENUE  
GREEN BAY, WI 54313  
PHONE: (920) 662-5119  
EMAIL: james.doperalski@wisconsin.gov

UNITED STATES COAST GUARD  
9TH COAST GUARD DISTRICT  
1240 E NINTH ST  
CLEVELAND, OH 44199  
PHONE: (216) 902-6084

WATER RESOURCES DIVISION  
UPPER PENINSULA DISTRICT OFFICE  
JOHN GUSTAFSON  
1504 WEST WASHINGTON STREET  
MARQUETTE, MI 49855  
PHONE: (906) 203-98873  
EMAIL: gustafsonj2@michigan.gov

U.S. ARMY CORPS OF ENGINEERS  
RYAN J HUBER  
GREEN BAY FIELD OFFICE  
211 N. BROADWAY, SUITE 221  
GREEN BAY, WI 54303  
PHONE: (651) 290-5859  
EMAIL: ryan.j.huber@usace.army.mil

CITY OF MENOMONEE, MI  
DEPARTMENT OF PUBLIC WORKS  
VALERIE MELLON, PE  
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER  
CITY OF MENOMINEE  
PHONE: (906) 863-1751

WISCONSIN DOT - NORTHEAST REGION  
PAUL ZOELLNER  
944 VANDERPERREN WAY  
GREEN BAY, WI 54304  
PHONE: (920) 492-0132

GENERAL NOTES

THE LOCATION OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST THREE DAYS PRIOR TO BEGINNING OF WORK. EROSION CONTROL FEATURES ARE AT SUGGESTED LOCATIONS AND THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

UTILITY CONTACT LIST

WISCONSIN PUBLIC SERVICE - ELECTRIC  
MR. ROBERT FALASH  
700 N ADAMS ST  
P.O. BOX 19001  
GREEN BAY, WI 54307-9001  
PHONE: (906) 863-4319  
EMAIL: rjfalash@wisconsinpublicservice.com



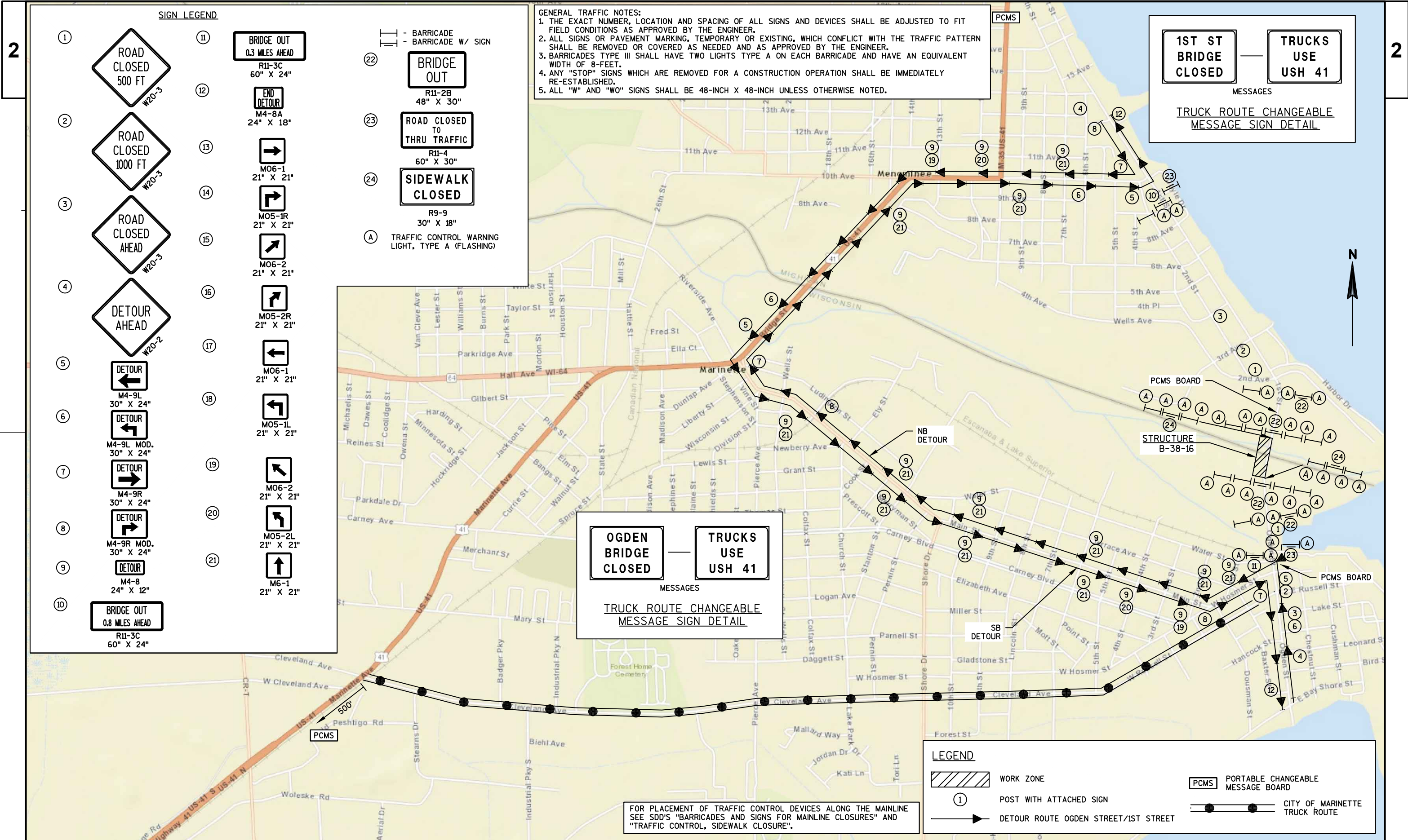
Dial 811 or (800) 242-8511  
www.DiggersHotline.com





PROJECT NO:9995-03-61	HWY:MENOMINEE RIVER BRIDGE	COUNTY:MARINETTE	PROJECT OVERVIEW	SHEET	E
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SIGN LEGEND

- ① ROAD CLOSED 500 FT W20-3
- ② ROAD CLOSED 1000 FT W20-3
- ③ ROAD CLOSED AHEAD W20-3
- ④ DETOUR AHEAD W20-2
- ⑤ DETOUR M4-9L 30" X 24"
- ⑥ DETOUR M4-9L MOD. 30" X 24"
- ⑦ DETOUR M4-9R 30" X 24"
- ⑧ DETOUR M4-9R MOD. 30" X 24"
- ⑨ DETOUR M4-8 24" X 12"
- ⑩ BRIDGE OUT 0.8 MILES AHEAD R11-3C 60" X 24"
- ⑪ BRIDGE OUT 0.3 MILES AHEAD R11-3C 60" X 24"
- ⑫ END DETOUR M4-8A 24" X 18"
- ⑬ M06-1 21" X 21"
- ⑭ M05-1R 21" X 21"
- ⑮ M06-2 21" X 21"
- ⑯ M05-2R 21" X 21"
- ⑰ M06-1 21" X 21"
- ⑱ M05-1L 21" X 21"
- ⑲ M06-2 21" X 21"
- ⑳ M05-2L 21" X 21"
- ㉑ M06-1 21" X 21"

- ㉒ - BARRICADE
- ㉓ - BARRICADE W/ SIGN
- ㉔ BRIDGE OUT R11-2B 48" X 30"
- ㉕ ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"
- ㉖ SIDEWALK CLOSED R9-9 30" X 18"
- Ⓐ TRAFFIC CONTROL WARNING LIGHT, TYPE A (FLASHING)

GENERAL TRAFFIC NOTES:  
1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.  
2. ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC PATTERN SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.  
3. BARRICADES TYPE III SHALL HAVE TWO LIGHTS TYPE A ON EACH BARRICADE AND HAVE AN EQUIVALENT WIDTH OF 8-FEET.  
4. ANY "STOP" SIGNS WHICH ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED.  
5. ALL "W" AND "WO" SIGNS SHALL BE 48-INCH X 48-INCH UNLESS OTHERWISE NOTED.

**OGDEN BRIDGE CLOSED** — **TRUCKS USE USH 41**

MESSAGES

TRUCK ROUTE CHANGEABLE MESSAGE SIGN DETAIL

- LEGEND
- WORK ZONE
  - ① POST WITH ATTACHED SIGN
  - DETOUR ROUTE OGDEN STREET/1ST STREET
  - PORTABLE CHANGEABLE MESSAGE BOARD
  - CITY OF MARINETTE TRUCK ROUTE

FOR PLACEMENT OF TRAFFIC CONTROL DEVICES ALONG THE MAINLINE SEE SDD'S "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "TRAFFIC CONTROL, SIDEWALK CLOSURE".



Estimate Of Quantities

9995-03-61					
Line	Item	Item Description	Unit	Total	Qty
0010	213.0100	Finishing Roadway (project) 01. 9995-03-61	EACH	1.000	1.000
0020	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-38-0016	LS	1.000	1.000
0030	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-38-0016	LS	1.000	1.000
0040	517.6001.S	Portable Decontamination Facility 01. B-38-0016	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0060	642.5001	Field Office Type B	EACH	1.000	1.000
0070	643.0100	Traffic Control (project) 01. 9995-03-61	EACH	1.000	1.000
0080	643.0300	Traffic Control Drums	DAY	140.000	140.000
0090	643.0410	Traffic Control Barricades Type II	DAY	710.000	710.000
0100	643.0420	Traffic Control Barricades Type III	DAY	2,200.000	2,200.000
0110	643.0705	Traffic Control Warning Lights Type A	DAY	3,680.000	3,680.000
0120	643.0900	Traffic Control Signs	DAY	1,170.000	1,170.000
0130	643.1050	Traffic Control Signs PCMS	DAY	50.000	50.000
0140	643.2000	Traffic Control Detour (project) 01. 9995-03-61	EACH	1.000	1.000
0150	643.3000	Traffic Control Detour Signs	DAY	6,130.000	6,130.000
0160	SPV.0090	Special 01. Waterseal Joint	LF	72.000	72.000
0170	SPV.0090	Special 02. Curb Repair Special	LF	166.000	166.000
0180	SPV.0105	Special 01. Sidewalk Repair	LS	1.000	1.000
0190	SPV.0105	Special 02. Enclosures And Seals	LS	1.000	1.000
0200	SPV.0105	Special 03. Machinery Rehabilitation	LS	1.000	1.000
0210	SPV.0105	Special 04. Electrical Work	LS	1.000	1.000



3

<div>FINISHING ROADWAY</div> <div>FINISHING ROADWAY 213.0100</div> <table><tr><th>LOCATION</th><th>EACH</th></tr><tr><td>OGDEN ST BRIDGE</td><td>1</td></tr><tr><td>TOTAL ID 9995-03-61 (0010)</td><td>1</td></tr></table>		LOCATION	EACH	OGDEN ST BRIDGE	1	TOTAL ID 9995-03-61 (0010)	1
LOCATION	EACH						
OGDEN ST BRIDGE	1						
TOTAL ID 9995-03-61 (0010)	1						
<div>MOBILIZATION</div> <div>MOBILIZATION 619.1000</div> <table><tr><th>LOCATION</th><th>EACH</th></tr><tr><td>OGDEN ST BRIDGE</td><td>1</td></tr><tr><td>TOTAL ID 9995-03-61 (0010)</td><td>1</td></tr></table>		LOCATION	EACH	OGDEN ST BRIDGE	1	TOTAL ID 9995-03-61 (0010)	1
LOCATION	EACH						
OGDEN ST BRIDGE	1						
TOTAL ID 9995-03-61 (0010)	1						
<div>FIELD OFFICE</div> <div>FIELD OFFICE TYPE B 642.5001</div> <table><tr><th>LOCATION</th><th>EACH</th></tr><tr><td>OGDEN ST BRIDGE</td><td>1</td></tr><tr><td>TOTAL ID 9995-03-61 (0010)</td><td>1</td></tr></table>		LOCATION	EACH	OGDEN ST BRIDGE	1	TOTAL ID 9995-03-61 (0010)	1
LOCATION	EACH						
OGDEN ST BRIDGE	1						
TOTAL ID 9995-03-61 (0010)	1						
PROJECT NO: 9995-03-61							

TRAFFIC CONTROL										
LOCATION	ESTIMATED DURATION TIME DAYS	TRAFFIC CONTROL (PROJECT) 9995-03-61 643.0100 EACH	TRAFFIC CONTROL DRUMS 643.0300 DAYS	TRAFFIC CONTROL BARRICADES TYPE II 643.0410 DAYS	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAYS	TRAFFIC CONTROL SIGNS 643.0900 DAYS	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAYS	TRAFFIC CONTROL DETOUR (PROJECT) 9995-03-61 643.2000 EACH	TRAFFIC CONTROL DETOUR SIGNS 643.3000 DAY
STAGE 1										
DETOUR ADVANCE	10	1	60	-	-	-	-	20	1	-
OGDEN STREET BRIDGE DETOUR	20	-	-	120	380	640	200	-	-	1,060
STAGE 2										
DETOUR ADVANCE	10	-	60	-	-	-	-	20	-	-
OGDEN STREET BRIDGE DETOUR	90	-	-	540	1,710	2,880	900	-	-	4,770
UNDISTRIBUTED	-	-	20	50	110	160	70	10	-	300
TOTALS ID 9995-03-61 (0010)		1	140	710	2,200	3,680	1,170	50	1	6,130

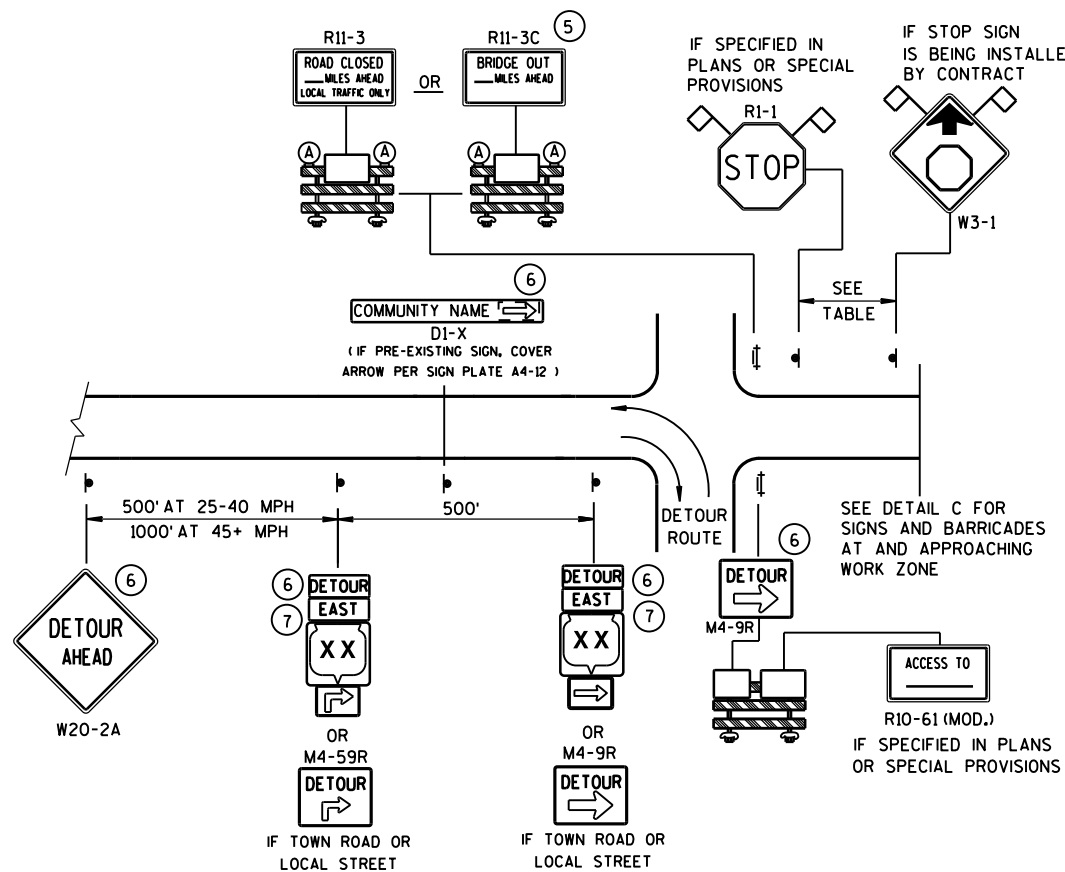
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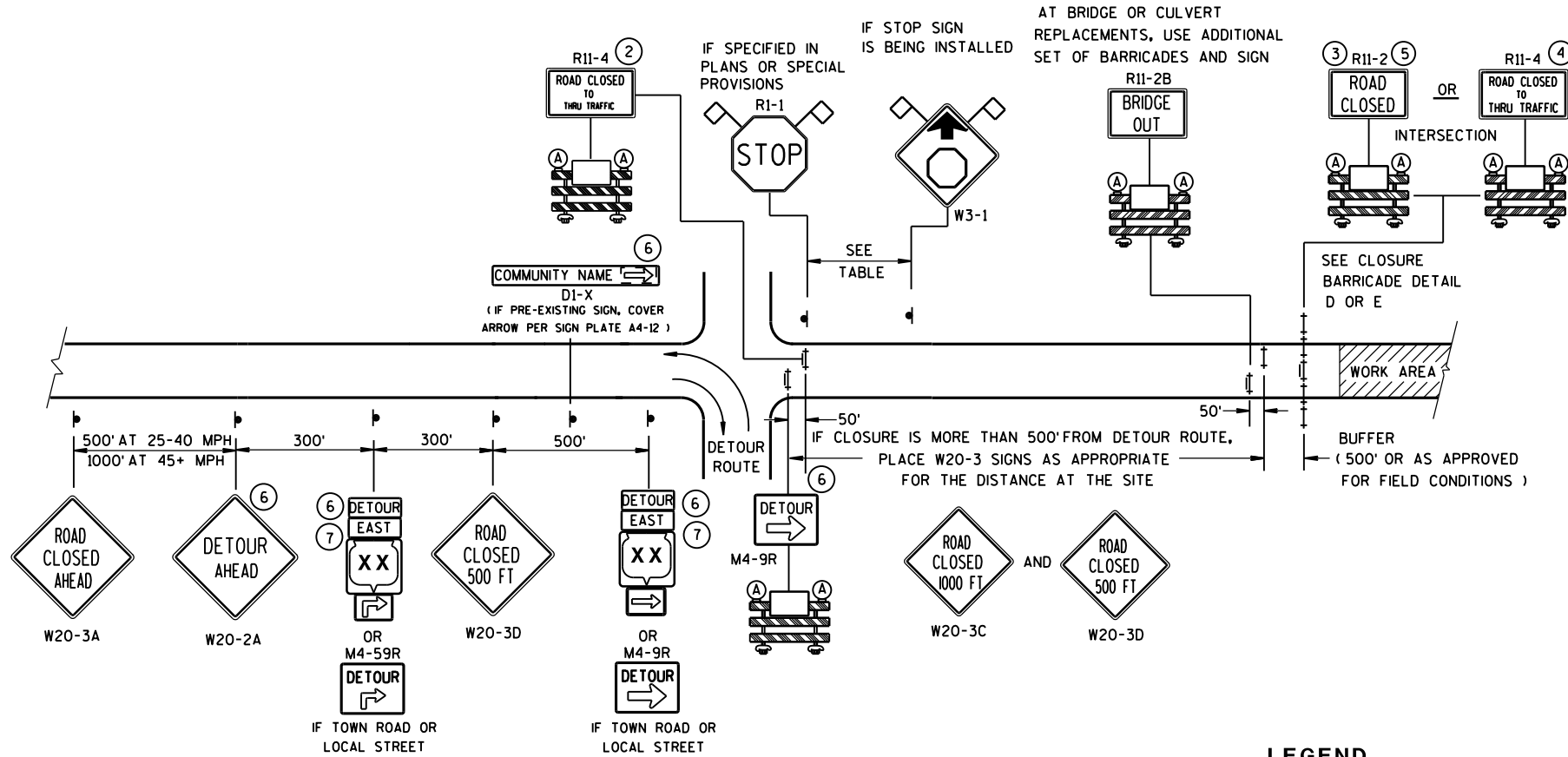
Standard Detail Drawing List

15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

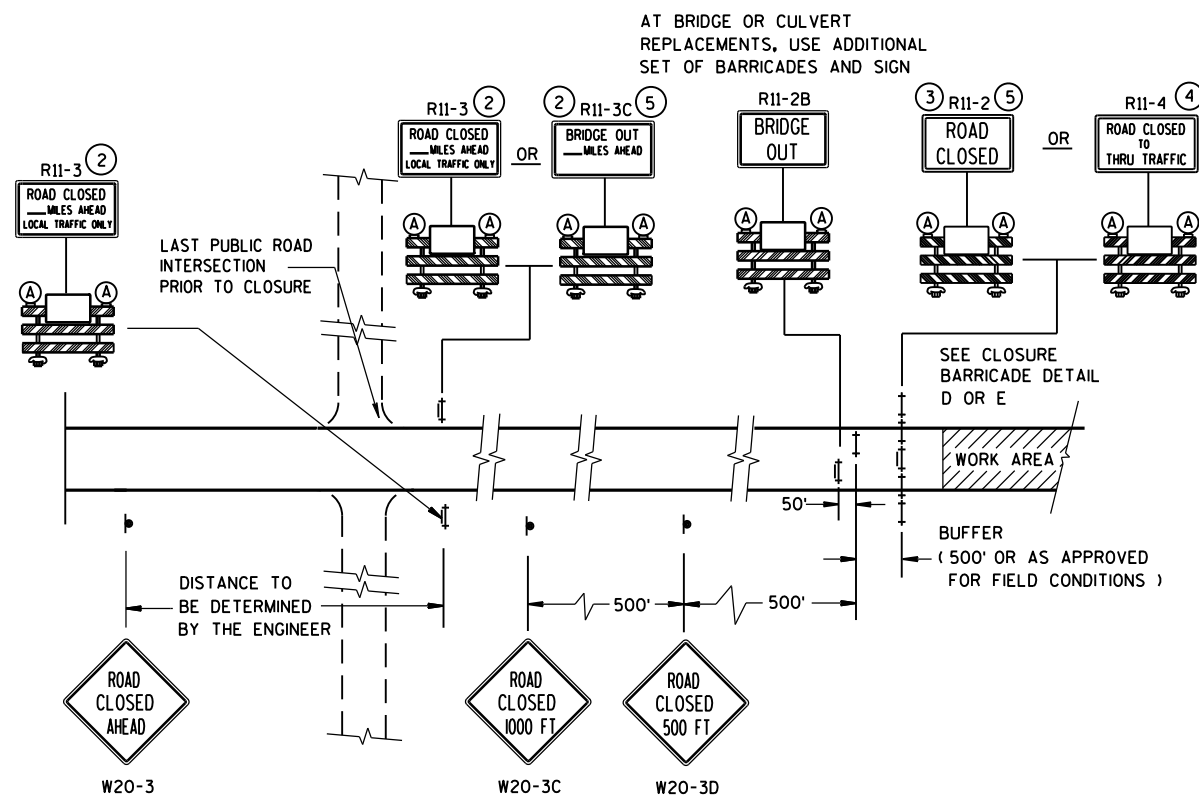




DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR  
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR  
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

- SIGN ON PERMANENT SUPPORT
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

DETOUR EAST M4-8 M3-X  
XX OR COUNTY XX OR XX  
M1-4 M1-5A M1-6

M05-1 OR M06-1

FLAGS, 16" X 16" MIN., (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

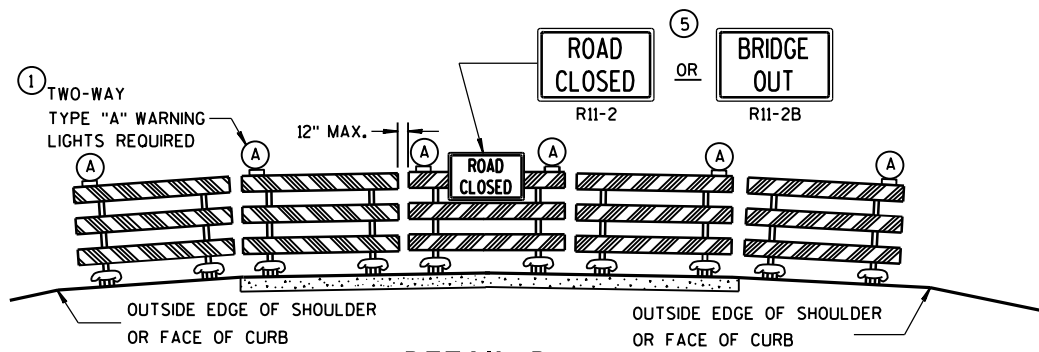
SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS  
FOR  
MAINLINE CLOSURES

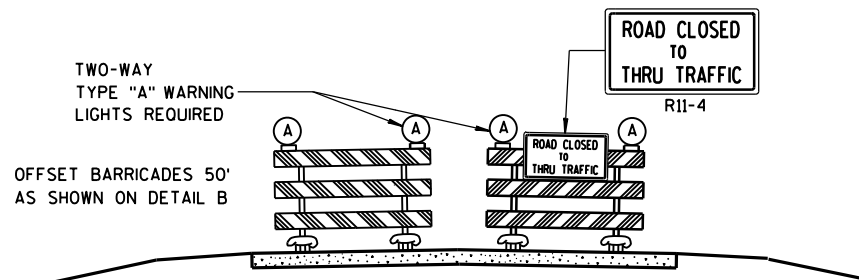
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amokobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER





DETAIL D  
ROAD CLOSURE BARRICADE DETAIL  
APPROACH VIEW



DETAIL E  
LANE CLOSURE BARRICADE DETAIL  
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

## GENERAL NOTES

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

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.

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

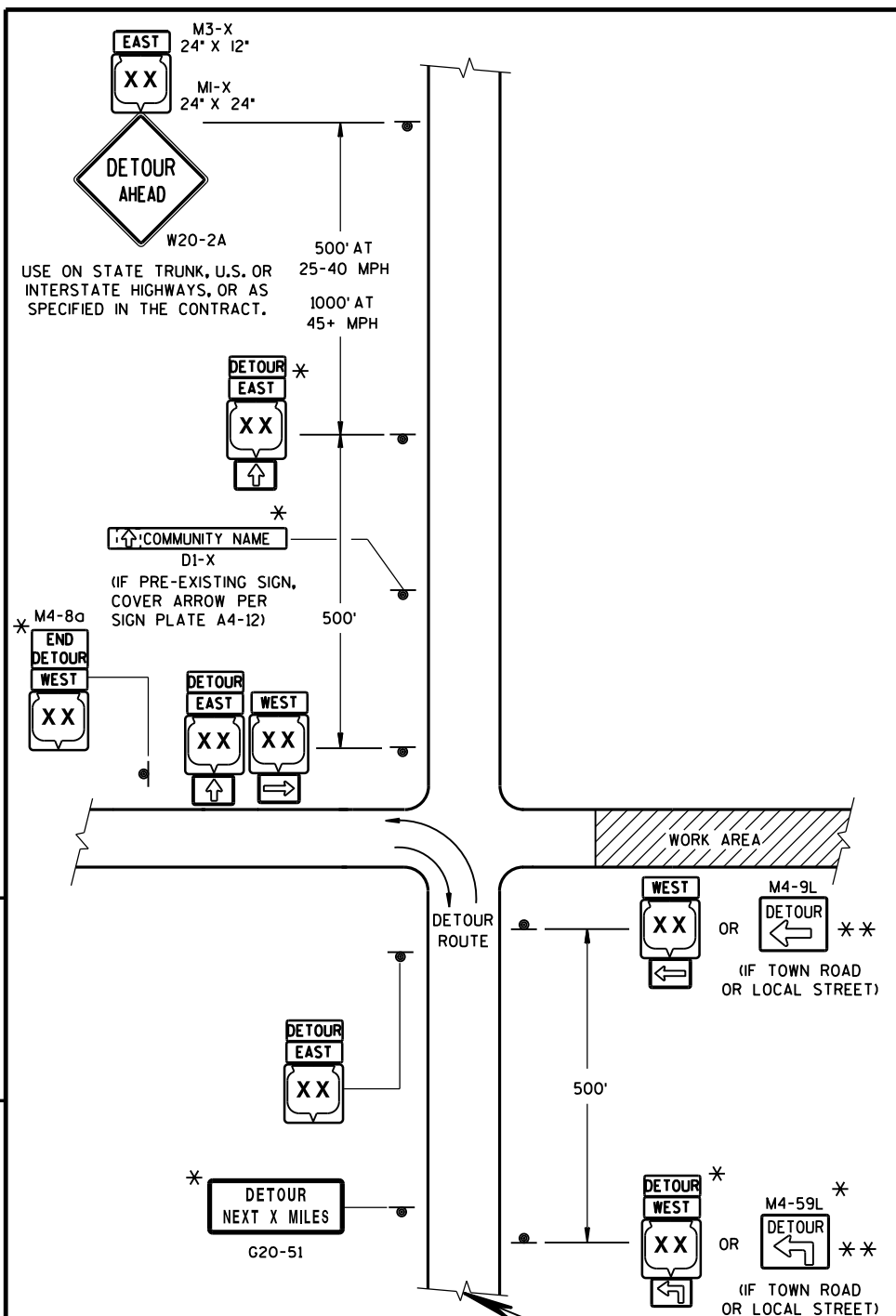
R1-1 SHALL BE 36" X 36".

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

## BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amokobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

DETAIL F  
DETOUR SIGNING

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

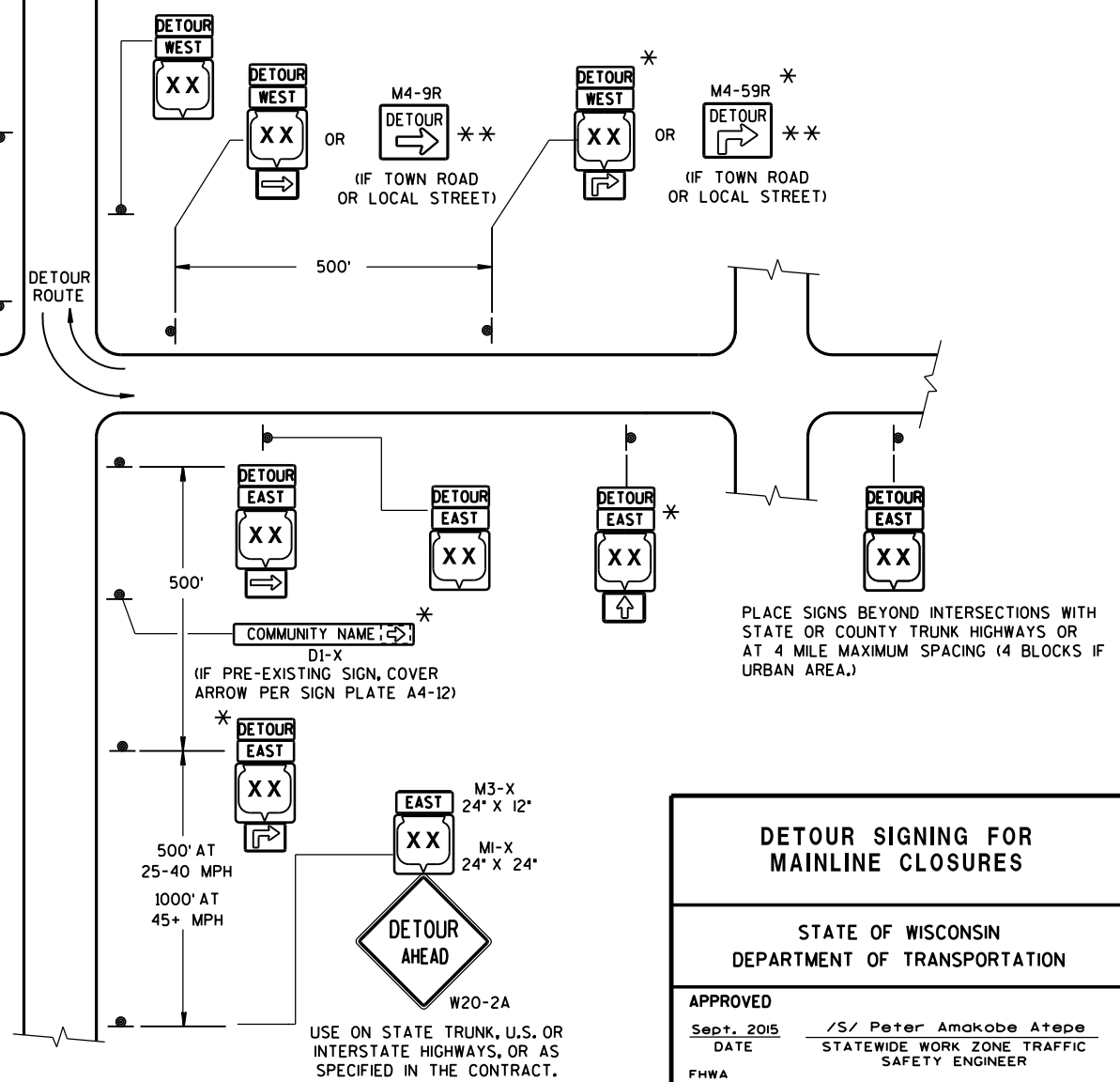
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

\* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

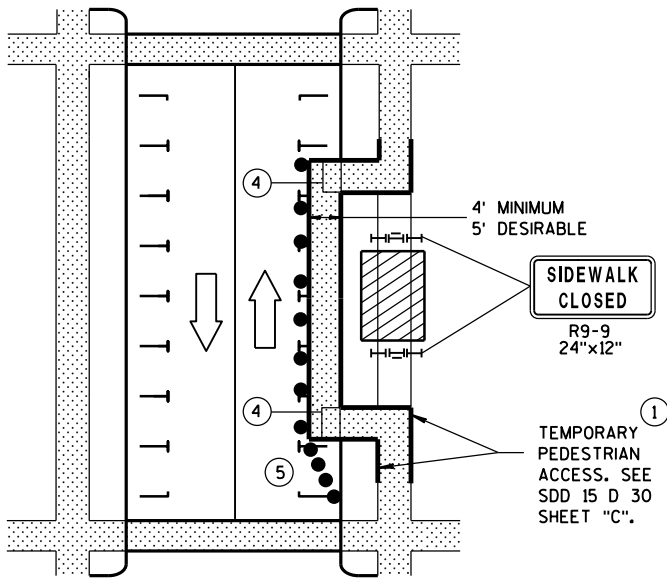
\*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



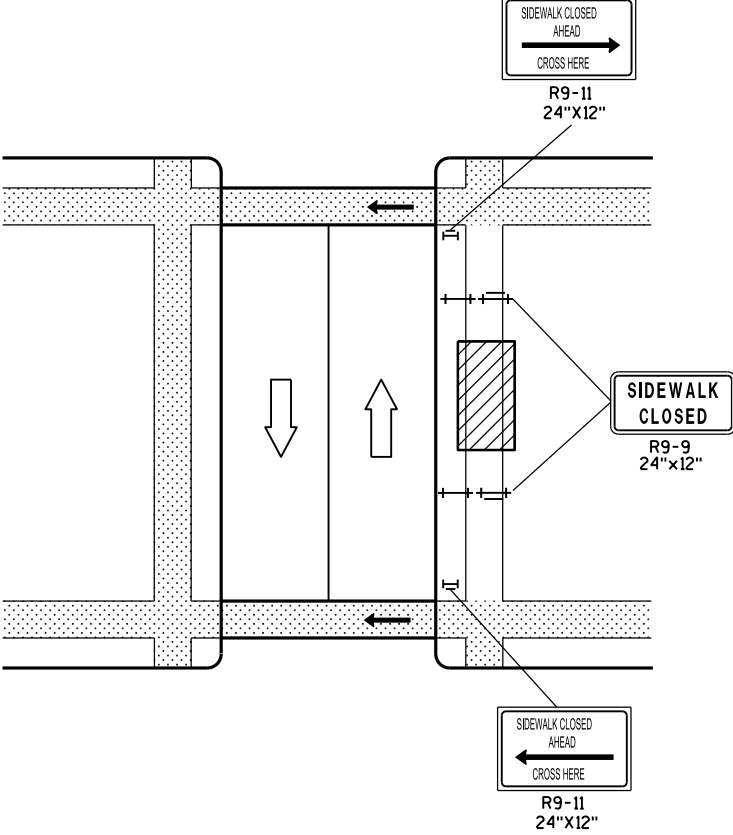
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FWHA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER



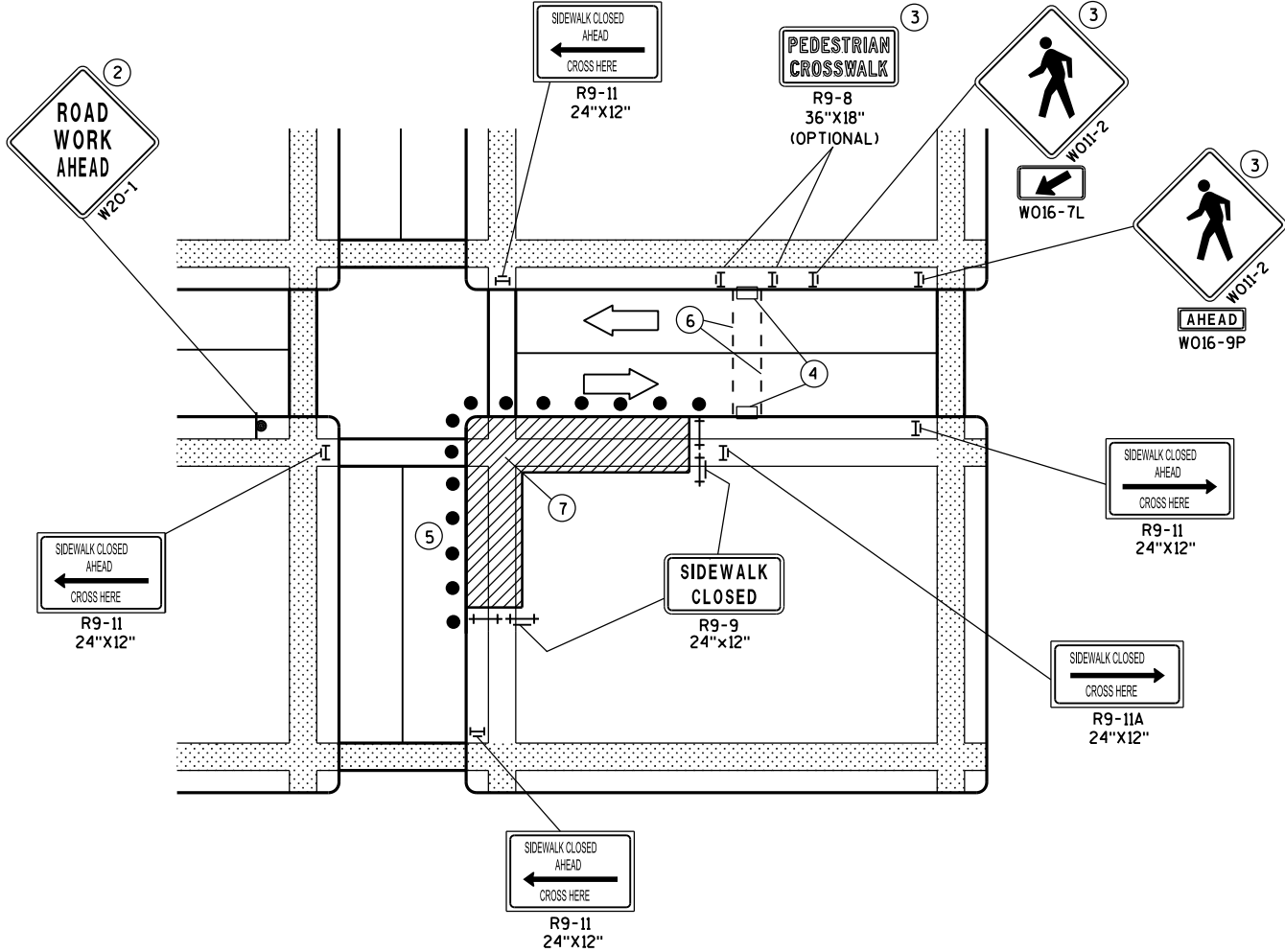
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

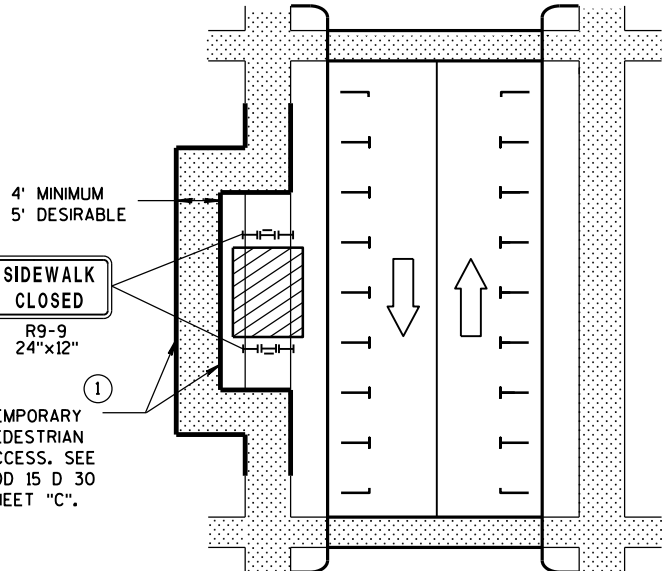


MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

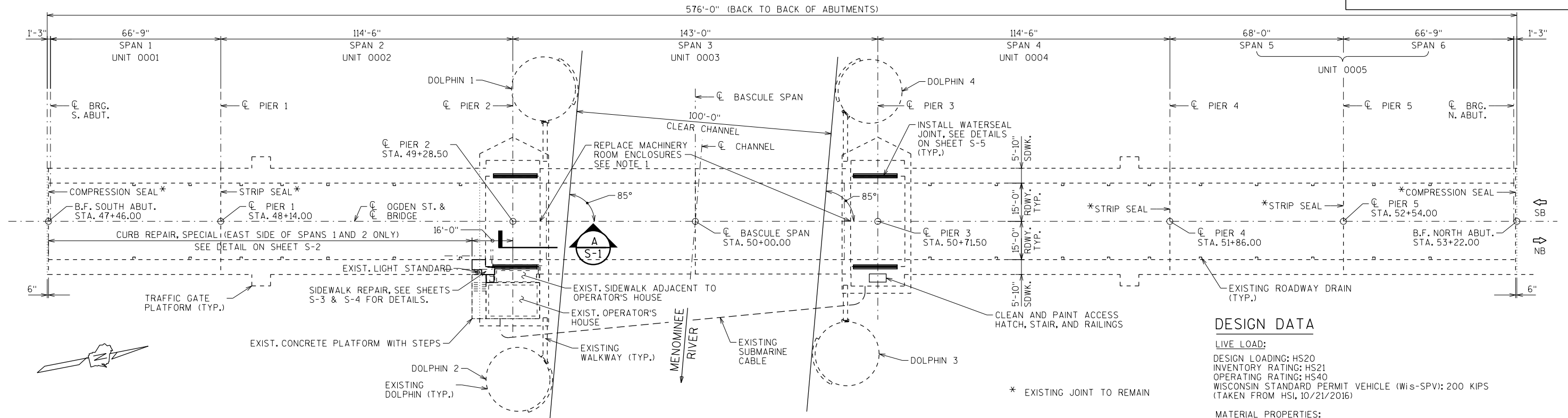
- 1 IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- 2 "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- 3 IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- 4 TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- 5 DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 6 TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- 7 LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

	SIGN ON PERMANENT SUPPORT		DIRECTION OF TRAFFIC
	UNDER PEDESTRIAN TRAFFIC		TRAFFIC CONTROL DRUM
	WORK AREA		
	PEDESTRIAN CHANNELIZATION DEVICE		
	TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)		
	TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)		

TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



PLAN

## DESIGN DATA

## LIVE LOAD:

DESIGN LOADING: HS20  
INVENTORY RATING: HS21  
OPERATING RATING: HS40  
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV): 200 KIPS  
(TAKEN FROM HSI, 10/21/2016)

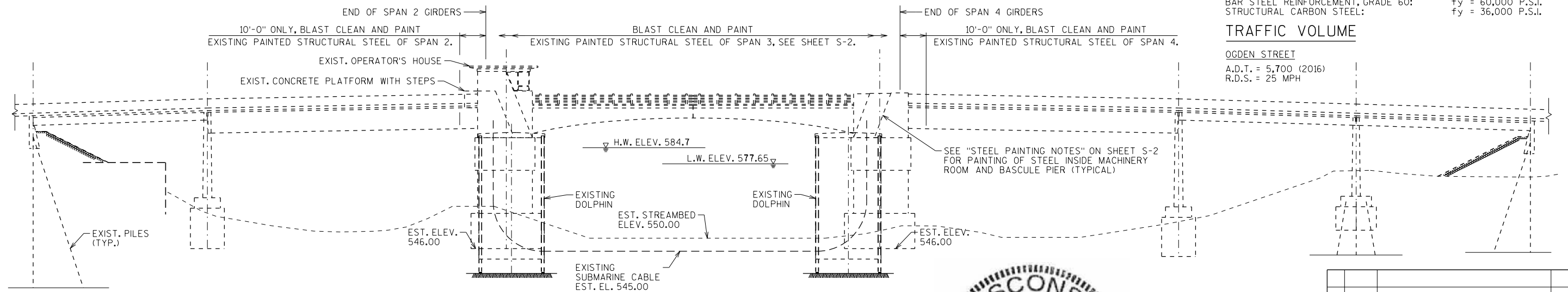
## MATERIAL PROPERTIES:

CONCRETE MASONRY: DECKS  $f'_c = 4,000$  P.S.I.  
ALL OTHER  $f'_c = 3,500$  P.S.I.  
BAR STEEL REINFORCEMENT, GRADE 60:  $f_y = 60,000$  P.S.I.  
STRUCTURAL CARBON STEEL:  $f_y = 36,000$  P.S.I.

## TRAFFIC VOLUME

## OGDEN STREET

A.D.T. = 5,700 (2016)  
R.D.S. = 25 MPH

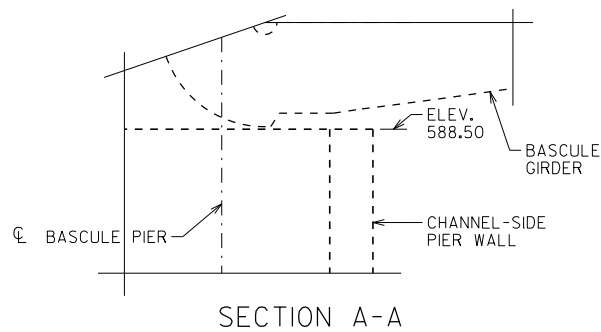


## ELEVATION

REFERENCE VERTICAL DATUM: TOP OF CHANNEL-SIDE PIER WALL UNDER BASCULE LEAF = EL. 588.50  
SEE SECTION A-A.

## LIST OF DRAWINGS

- S-1 GENERAL PLAN & ELEVATION  
S-2 GENERAL NOTES & QUANTITIES  
S-3 SIDEWALK REMOVAL  
S-4 NEW SIDEWALK  
S-5 WATERSEAL JOINT IN SIDEWALK  
S-6 MACHINERY ROOM ENCLOSURE DETAILS  
M-1 GENERAL PLAN MECH - ELECT MODIFICATIONS  
M-2 SPAN DRIVE MOTOR MODIFICATIONS  
M-3 TAIL LOCKS MODIFICATIONS  
M-4 TO M-9 EXISTING MACHINERY PLANS  
E-1 ELECTRICAL NOTES & SCHEMATIC




## NOTES:

- EXISTING CORRUGATED SHEETING ON THE CHANNEL SIDE FRAMING OF THE MACHINERY ROOMS TO BE REPLACED WITH NEW POLYCARBONATE STRUCTURAL SHEETING. SEE SHEET S-6.
- H.W. AND L.W. ELEVATIONS OBTAINED FROM ORIGINAL PLANS.
- ALL ELEVATIONS SHOWN ON THE PLANS ARE TIED TO EXISTING BRIDGE WITH TOP OF CHANNEL-SIDE PIER WALL AT ELEV. 588.50. SEE SECTION A-A.
- SEE GENERAL NOTES ON SHEET S-2.

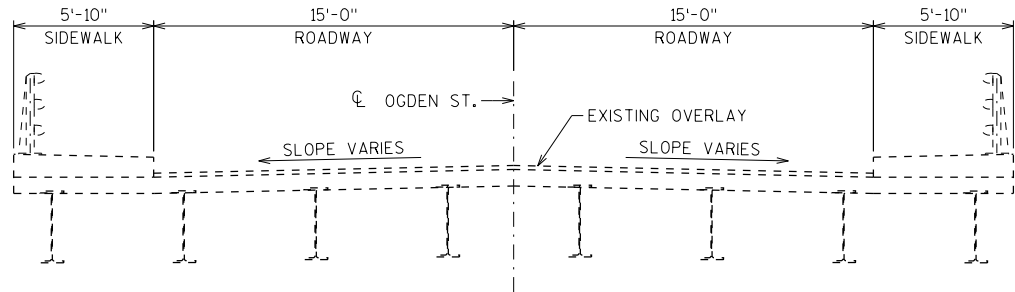


DATE: 12/01/2016

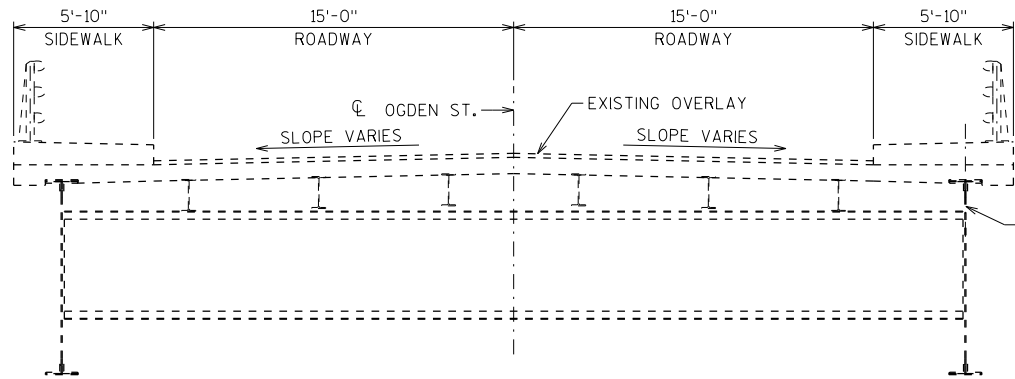
STRUCTURE DESIGN CONTACTS  
BRIDGE OFFICE: WILLIAM DREHER, P.E. (608) 266-8489  
CONSULTANT: VINOD PATEL, P.E. (312) 616-7395

NO.	DATE	REVISION	BY
<div> <b>exp U.S. Services Inc.</b> <b>Milwaukee, WI</b> BUILDINGS • EARTH &amp; ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY</div>			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> SDR CHIEF STRUCTURES DESIGN ENGINEER		01/23/17 DATE	
STRUCTURE B-38-16			
OGDEN STREET OVER MENOMINEE RIVER			
COUNTY	MARINETTE	TOWN/CITY/VILLAGE	MARINETTE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	VCP	DESIGN CK'D.	KK
DRAWN BY	YC	PLANS CK'D.	VCP
GENERAL PLAN & ELEVATION			SHEET S-1

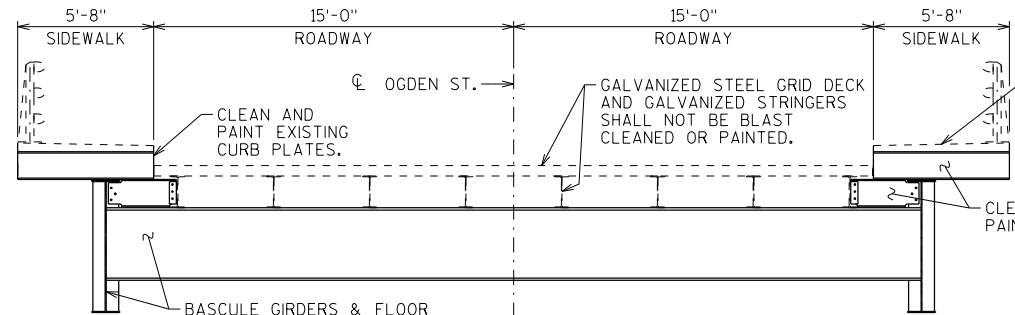




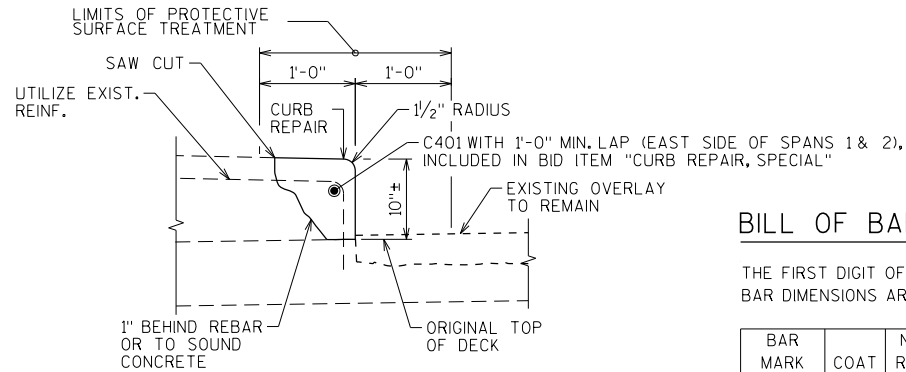
CROSS SECTION  
APPROACH SPANS 1, 5 & 6



CROSS SECTION  
APPROACH SPANS 2 & 4



CROSS SECTION  
BASCULE SPAN 3



CURB REPAIR, SPECIAL

BILL OF BARS -- FOR INFORMATION ONLY

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.  
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
C401	X	20	9'-4"			CURB REPAIR - EAST SIDE OF SPANS 1 & 2
---	-	-	--			---

UNCOATED: 0 LBS  
COATED: 130 LBS

STEEL PAINTING NOTES

BLAST CLEAN AND PAINT ALL EXPOSED AND ACCESSIBLE STRUCTURAL STEEL SURFACES IN THE BASCULE SPAN, EXCEPT FOR GALVANIZED STEEL STRINGERS, GALVANIZED STEEL GRID DECK, AND GALVANIZED STEEL SIDEWALK PLATES.

THE AREA TO BE BLAST CLEANED AND PAINTED INCLUDES THE BASCULE GIRDERS, THE BASCULE FLOOR BEAMS, THE STEEL AROUND THE TRUNNIONS AND COUNTERWEIGHTS ON THE MOVABLE LEAVES, TRACKS, AND ALL FIXED FRAMING IN THE BASCULE PIERS (ANCHOR FRAMES, RACK GIRDERS, ETC.).

BLAST CLEAN AND PAINT BASCULE SPAN STRUCTURAL STEEL WITHIN THE MACHINERY ROOMS (INCLUDING NEW SUPPORT ANGLES FOR M/C ROOM ENCLOSURES), MACHINERY SUPPORTS AND MACHINERY ROOM FLOOR. TAKE MEASURES TO PROTECT CONDUITS, ELECTRICAL BOXES, BEARINGS AND MACHINERY FROM DAMAGE OR CONTAMINATION DURING BLAST CLEANING AND PAINTING OPERATIONS.

CLEAN AND PAINT ALL STEEL PLATFORMS, STAIRS AND RAILINGS INSIDE THE MACHINERY ROOMS AND INSIDE THE BASCULE PIERS (EXCLUDING THOSE INSIDE THE BRIDGE HOUSE), ACCESS HATCH IN THE NORTHEAST SIDEWALK, AND OLD HAND RAILS ATTACHED TO THE TIMBER FENDER SYSTEM.

THERE IS EXISTING NETTING TO PREVENT BIRDS FROM ENTERING THE BASCULE PIERS. THE NETTING IS CLAMPED TO THE EXISTING STRUCTURAL STEEL. REMOVE AND REINSTALL THIS NETTING AS PART OF THE CLEANING AND PAINTING WORK.

THE STEEL STRINGERS AND STEEL GRID DECK OF THE BASCULE SPAN ARE CONSTRUCTED OF GALVANIZED STEEL. THIS STEEL SHALL NOT BE BLAST CLEANED OR PAINTED. MEASURES SHALL BE TAKEN TO PROTECT THE GALVANIZING COATING DURING BLAST CLEANING AND PAINTING OF THE BASCULE GIRDERS AND FLOOR BEAMS. STRINGER NO. 1 NEAR THE WEST JAW IS PAINTED STEEL AND SPLICED DUE TO SHIP DAMAGE REPAIRS. NORTH AND SOUTH SPLICE PLATES ARE NOT GALVANIZED AND SHALL BE PAINTED.

BLAST CLEAN AND PAINT A PORTION OF STRUCTURAL STEEL IN SPANS 2 AND 4, AS SHOWN ON SHEET S-1 AND THE CROSS SECTION ON SHEET S-2.

THE TOP COAT COLOR OF THE PAINT SYSTEM SHALL BE FEDERAL STANDARD NO. 595C. THE COLOR OUTSIDE OF MACHINERY ROOMS SHALL BE LIGHT GRAY (#26293), AND THE COLOR INSIDE OF MACHINERY ROOMS SHALL BE WHITE (#27925), OR AS DIRECTED BY THE FIELD ENGINEER.

CLEANING AND PAINTING OF MACHINERY IS SPECIFIED UNDER BID ITEM, "MACHINERY REHABILITATION".

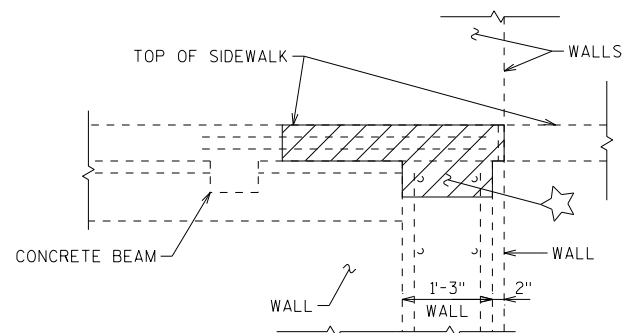
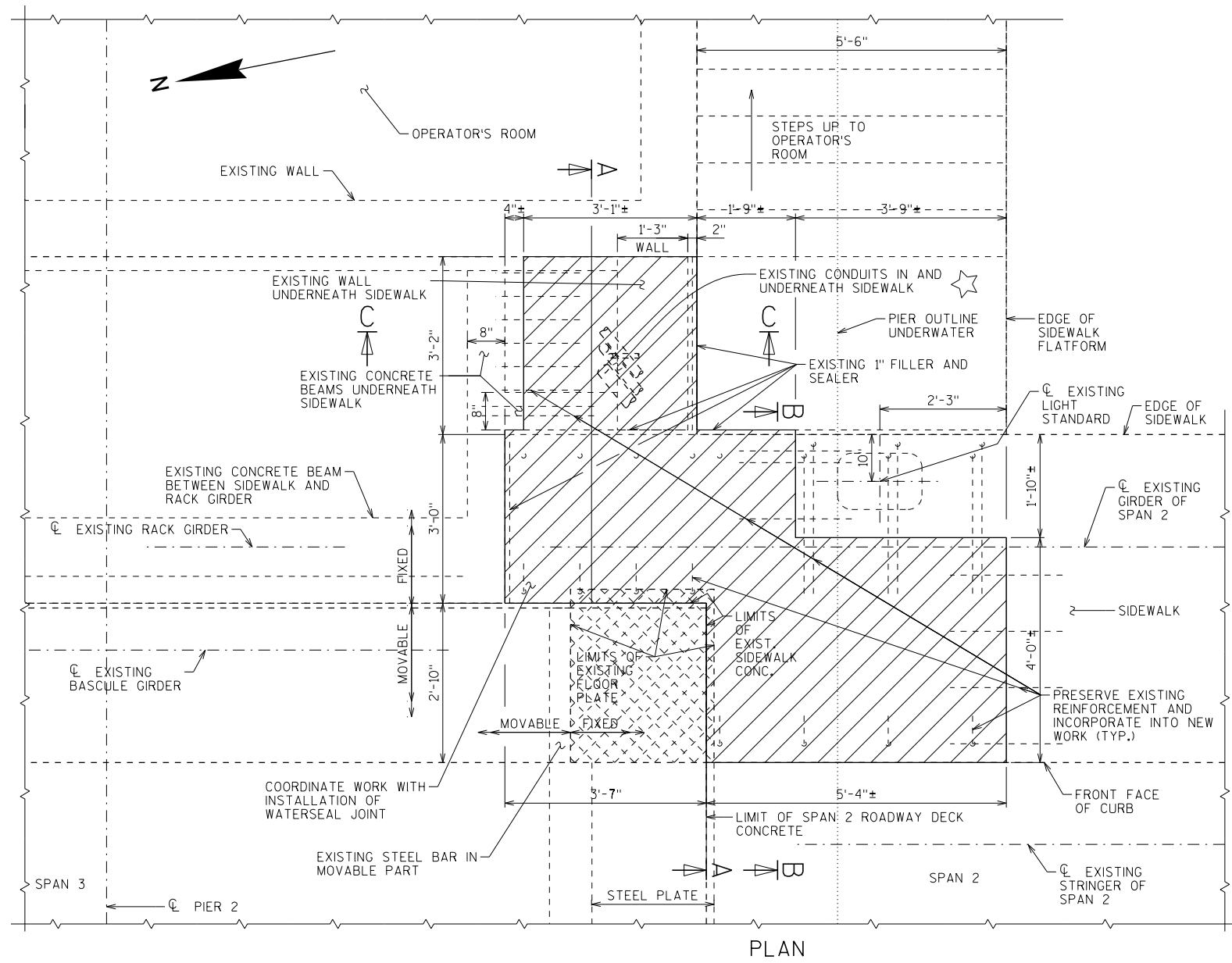
GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS, SHOP DRWAINGS, AND PREVIOUS REHABILITATION PLANS.
- ALL BOLTS AND NUTS SHALL BE GALVANIZED, UNLESS NOTED OTHERWISE.
- REFER TO SPECIFICATIONS FOR REQUIREMENTS TO MAINTAIN NAVIGATION CHANNEL AND TO PERFORM WORK WITH BASCULE LEAF IN OPEN POSITION.
- UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND MINIMUM 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

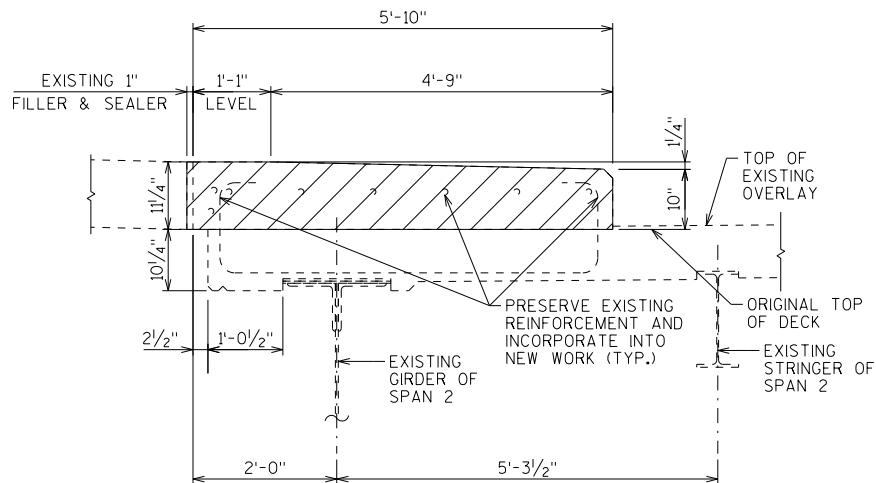
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	TOTALS
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-38-16	LS	-	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-38-16	LS	-	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	1
SPV.0090.01	WATERSEAL JOINT	LF	72	72
SPV.0090.02	CURB REPAIR, SPECIAL	LF	166	166
SPV.0105.01	SIDEWALK REPAIR	LS	1	1
SPV.0105.02	ENCLOSURES AND SEALS	LS	1	1
SPV.0105.03	MACHINERY REHABILITATION	LS	-	1
SPV.0105.04	ELECTRICAL WORK	LS	-	1
NON-BID ITEMS				
	PREFORMED JOINT FILLER	SIZE	-	1"

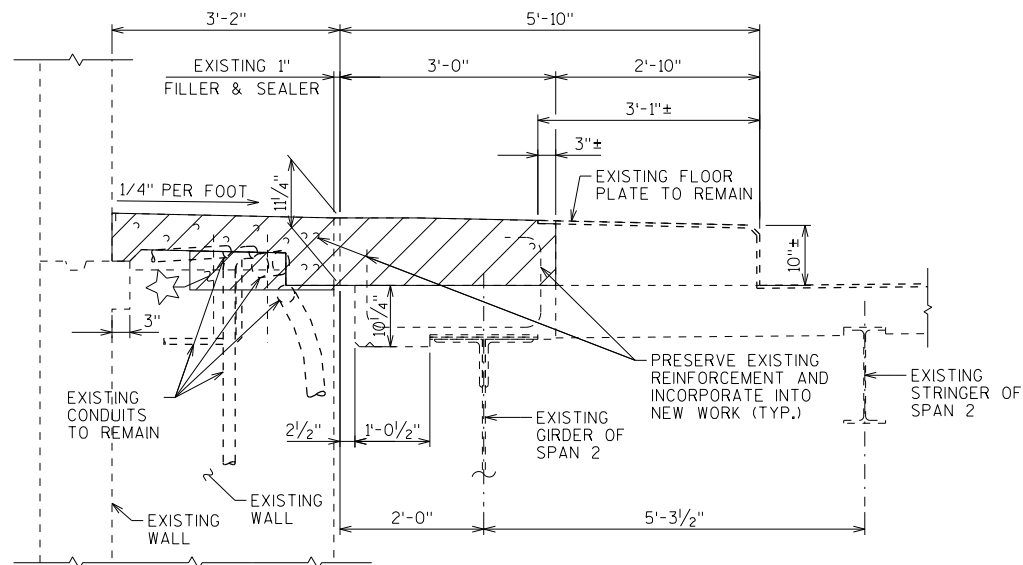
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
		DRAWN BY YC	PLANS CK'D. VCP
GENERAL NOTES & QUANTITIES		SHEET S-2	



SECTION C-C  
LOOKING EAST



SECTION B-B  
LOOKING SOUTH



SECTION A-A  
LOOKING SOUTH

#### NOTES

- DEACTIVATE ELECTRICAL WIRES AND CABLES IN THE CONDUITS BEFORE STARTING CONCRETE REMOVAL. ACTIVATE WIRES AND CABLES AFTER NEW CONCRETE HAS BEEN CURED FOR AT LEAST 3 DAYS.
- REMOVE CONCRETE AROUND THE CONDUITS IN THE SIDEWALK AND EXTENDING INTO THE PIER WALL BELOW AS NECESSARY TO LOWER THE CONDUITS SO AS TO PROVIDE MINIMUM 2 1/2" CONCRETE COVER OVER THE NEW REINFORCING STEEL MAT IN THE SIDEWALK SLAB.
- AFTER CONDUITS HAVE BEEN LOWERED, FORM REPLACEMENT CONCRETE SURFACES (BOTH VERTICAL AND HORIZONTAL FACES WHERE NEW CONCRETE WILL NOT BE PLACED AGAINST EXISTING CONCRETE SURFACE) TO THE ENGINEER'S SATISFACTION BEFORE PLACEMENT OF REINFORCING STEEL AND NEW CONCRETE. SEAL CONDUIT JOINTS WATER-TIGHT WITHIN THE NEW CONCRETE.
- ALL WORK FOR SIDEWALK REPAIR, INCLUDING LOWERING OF THE CONDUITS SHALL BE INCLUDED IN BID ITEM "SIDEWALK REPAIR" PAID AS L.S.

#### LEGEND



REMOVAL LIMIT



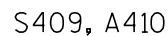
REMOVE EXISTING WALL AS NECESSARY TO LOWER CONDUITS. SEE NOTE 2 ON THIS SHEET AND SPECIAL PROVISION FOR "SIDEWALK REPAIR".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY YC		PLANS CK'D. VCP	
SIDEWALK REMOVAL		SHEET S-3	





LOOKING EAST  
EXISTING CONDUITS NOT SHOWN



LOOKING SOUTH



LOOKING SOUTH  
EXISTING CONDUITS NOT SHOWN

### LEGEND

ADHESIVE ANCHORS NO. 4 BAR.  
EMBED BARS 5 1/2" INTO EXISTING CONCRETE.  
ADJUST SPACING TO PLACE BARS 4" MIN. CLEAR OF  
EXISTING CONDUITS.

■ FILL WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
		DRAWN BY YC	PLANS CK'D. VCP
NEW SIDEWALK		SHEET S-4	

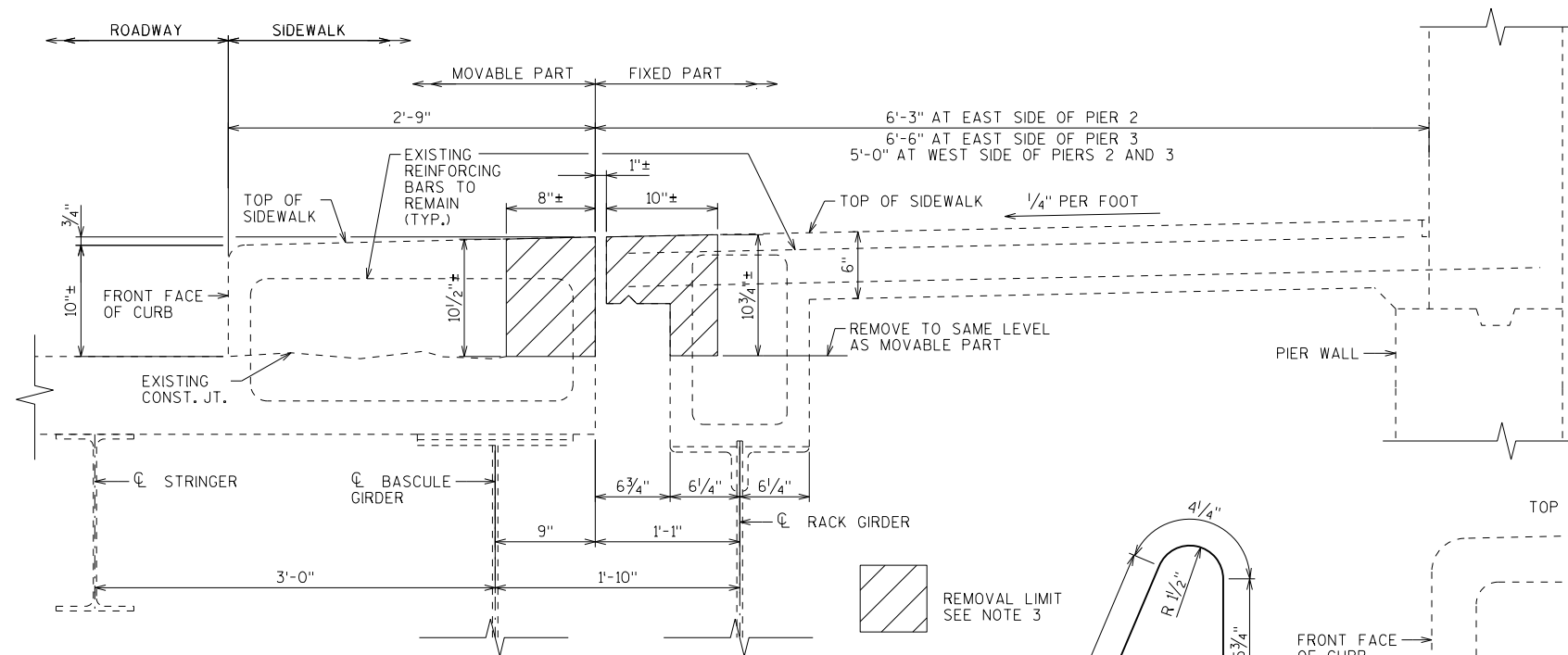
BILL OF BARS -- FOR INFORMATION ONLY

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.  
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

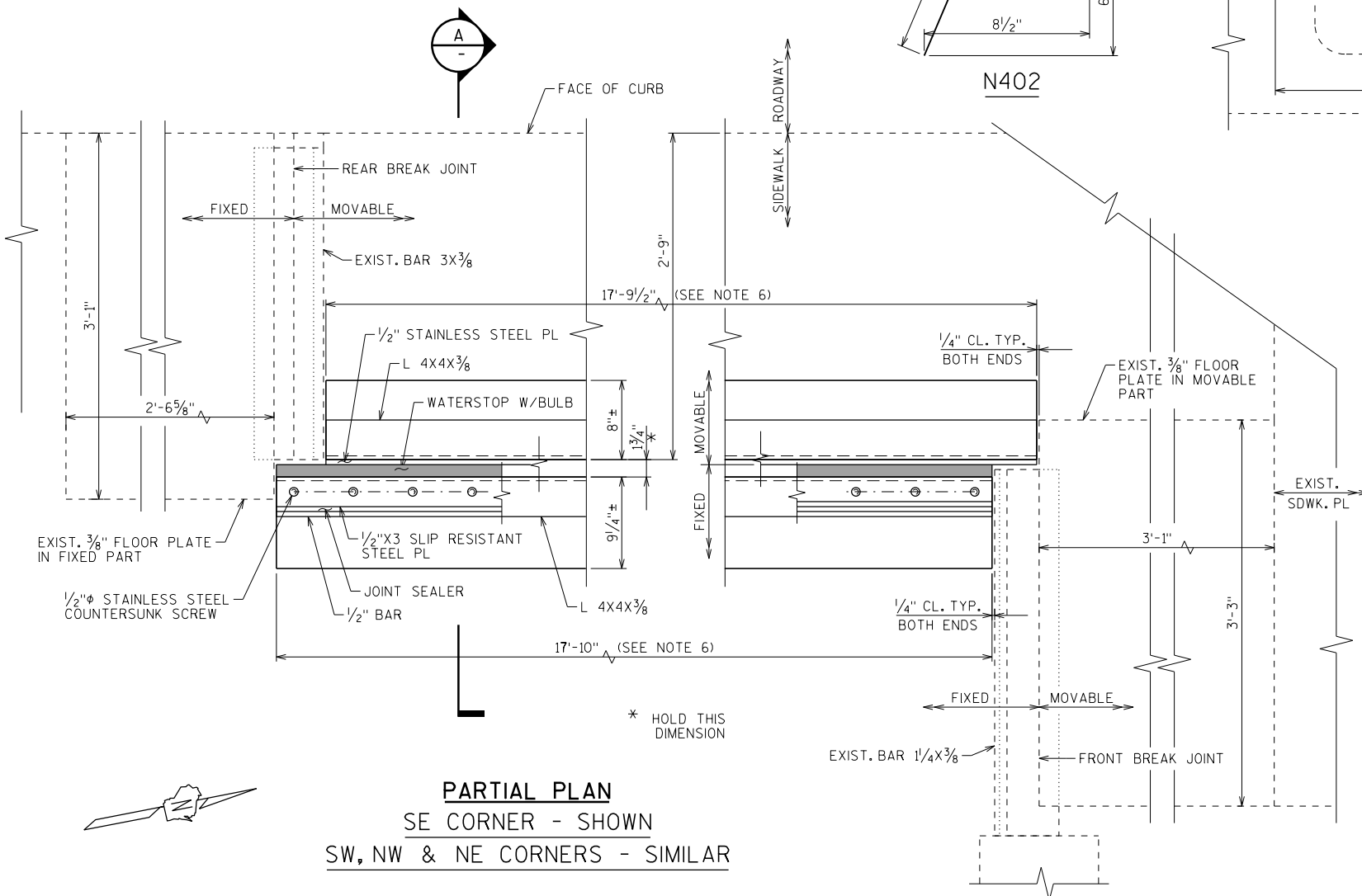
	SIDEWALK
UNCOATED:	0 LBS
COATED:	170 LBS

BAR MARK	COAT	NO. REQ'D SIDEWALK	LENGTH	BENT	BAR SERIES	LOCATION
						LOCATION
S601	X	4	2'-9"			BEAM - HORIZ. - TOP & BOT.
S402	X	4	2'-4"	X		BEAM - VERT. - STIRRUP
S403	X	12	2'-9"			SIDEWALK - HORIZ. - TOP & BOT.
S404	X	9	2'-9"			SIDEWALK - HORIZ. - TOP & BOT.
S405	X	8	2'-1"	X		SIDEWALK - DOWEL
S406	X	3	2'-0"	X		SIDEWALK - DOWEL
S407	X	15	3'-2"			SIDEWALK - HORIZ. - TOP & BOT.
S408	X	2	6'-8"			SIDEWALK - HORIZ. - TOP & BOT.
S409	X	7	3'-9"	X		SIDEWALK - HORIZ.
S410	X	3	6'-7"	X		SIDEWALK - HORIZ.
S411	X	5	3'-9"			SIDEWALK - HORIZ.
- - -	-	-	--			- - -

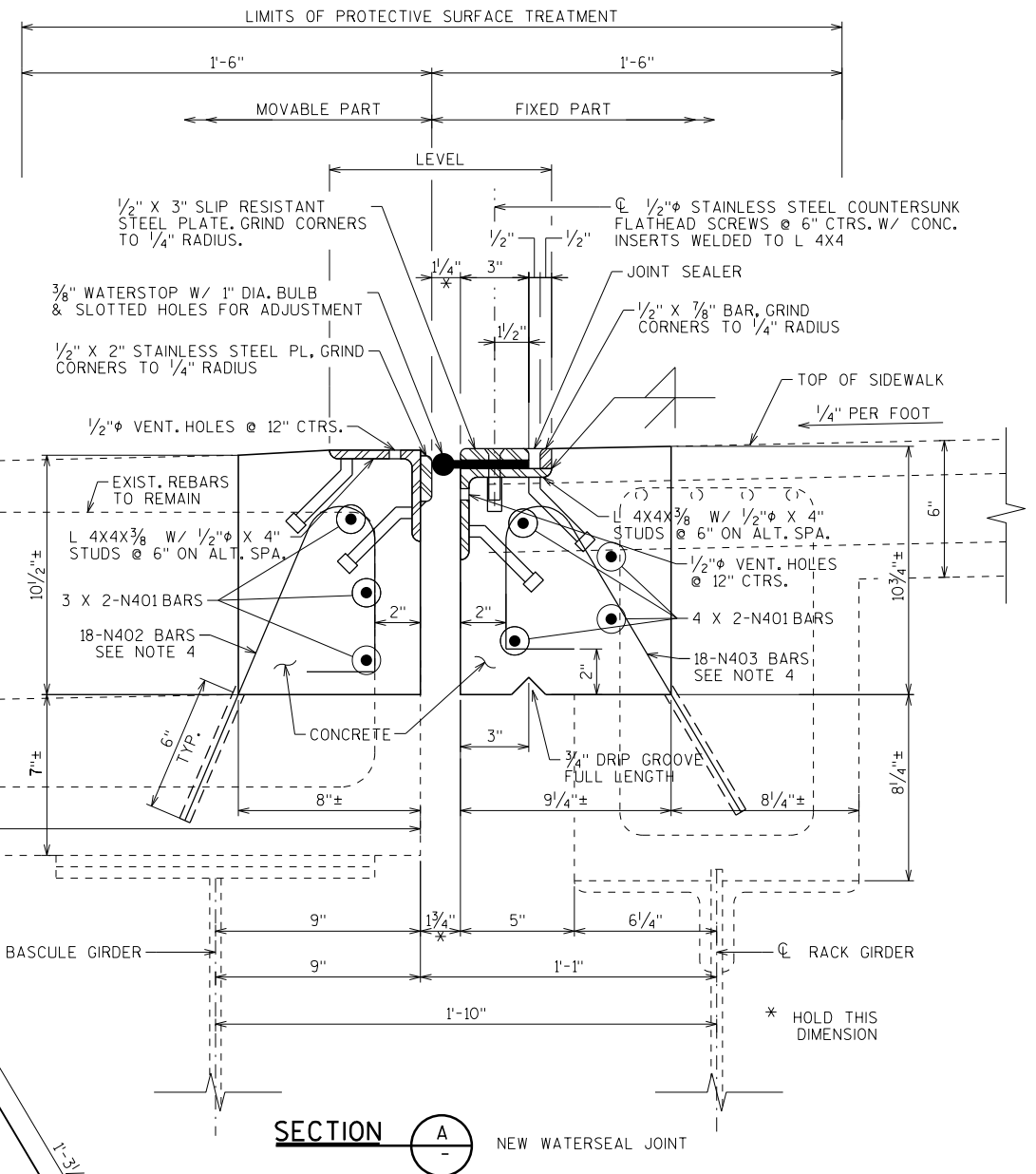
ADHESIVE ANCHORS NO. 4 BAR.



**SECTION A**  
-  
SHOWING REMOVAL LIMITS OF CONCRETE  
FOR INSTALLATION OF WATERSEAL JOINT



**PARTIAL PLAN**  
SE CORNER - SHOWN  
SW, NW & NE CORNERS - SIMILAR



**SECTION A**  
-  
NEW WATERSEAL JOINT

**BILL OF BARS - ONE JOINT ONLY (4 REQUIRED)**

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
N401	X	14	10'-0"			HORIZONTAL
N402	X	18	2'-3"	X		ANCHOR BARS
N403	X	18	2'-3"	X		ANCHOR BARS

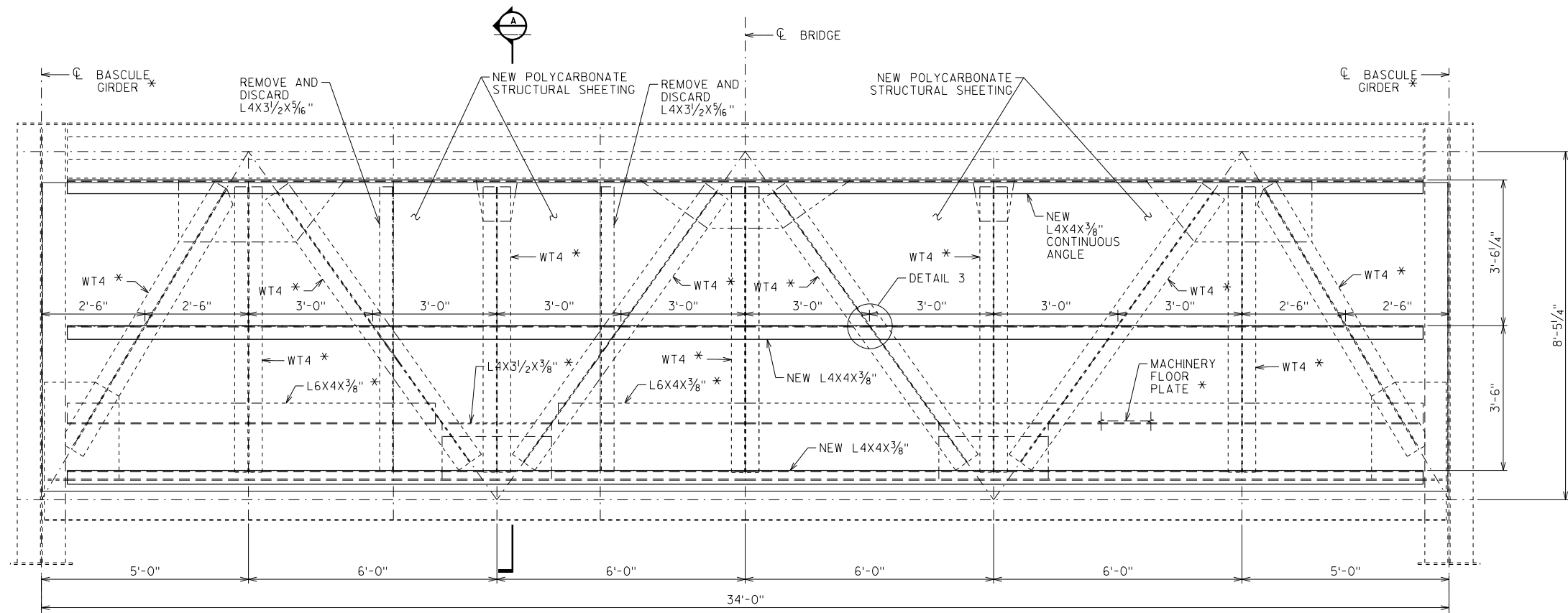
THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.  
ALL BAR DIMENSIONS ARE OUT TO OUT OF BAR.

#### NOTES:

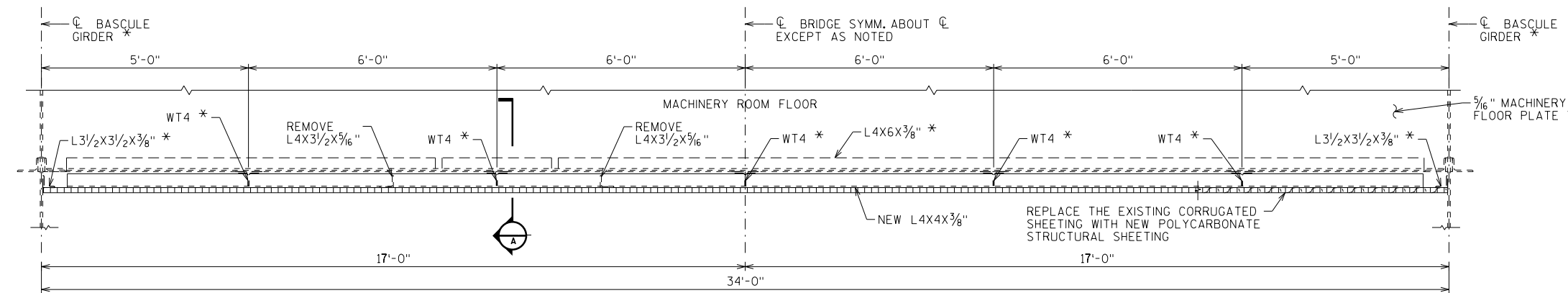
- ALL WORK RELATED TO INSTALLATION OF NEW WATERSEAL JOINT SHALL BE INCLUDED IN BID ITEM "WATERSEAL JOINT", TO BE PAID PER "LIN FT".
- ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS.
- WHILE REMOVING CONCRETE, ANY ANCHOR PLATES OR STUDS FOR THE EXISTING REAR AND FRONT BREAK JOINTS SHALL NOT BE DAMAGED OR REMOVED. REMOVE CONCRETE AROUND IF SUCH ANCHORAGE ELEMENTS ARE ENCOUNTERED.
- NO.4 ADHESIVE ANCHORS SPACED AT 1'-0".
- IF EXISTING REINFORCING BARS ARE DAMAGED AND/OR REMOVED, NOTIFY ENGINEER, AND SUBMIT PROPOSAL TO ADD DOWELS AND/OR REINFORCING BARS EQUIVALENT TO THE DAMAGED AND/OR REMOVED BARS.
- THE LENGTH DIMENSIONS ARE BASED ON EXISTING PLANS. THE CONTRACTOR SHALL INDICATE ACTUAL REQUIRED LENGTHS AT EACH JOINT BASED ON FIELD MEASURED DIMENSIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY YC, HBJ		PLANS CK'D. VCP	
WATERSEAL JOINT IN SIDEWALK		SHEET S-5	





ELEVATION OF MACHINERY ROOM TRUSS  
LOOKING TOWARD THE MACHINERY ROOM FROM THE CHANNEL SIDE

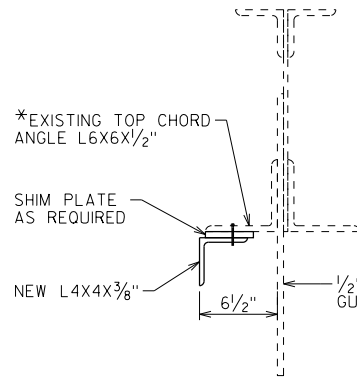


PLAN AT MACHINERY ROOM FLOOR

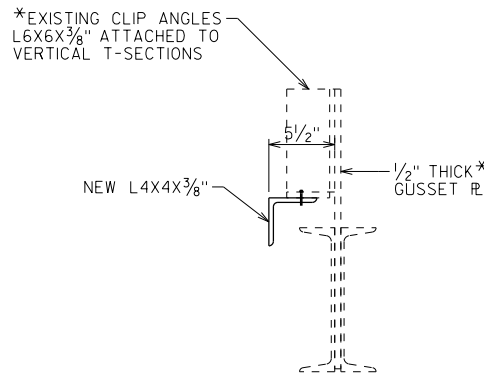
NOTES

1. PROVIDE NEW ENCLOSURE AT EACH MACHINERY ROOM. TWO (2) REQUIRED.
2. REFER TO SPECIAL PROVISIONS "ENCLOSURES AND SEALS" FOR SPECIFICATIONS AND REQUIREMENTS.
3. REMOVE EXISTING CORRUGATED SIDING AND INSTALL NEW 5/8" POLYCARBONATE STRUCTURAL SHEETING.
4. REMOVE THE TOP AND BOTTOM HORIZONTAL ANGLES OF EXISTING SHEETING FRAME. INSTALL NEW ANGLES AS SHOWN IN DETAILS. USE THE SAME CONNECTION HOLES AS THE EXISTING ANGLES TO INSTALL NEW ANGLES.
5. MACHINERY ROOM SHALL BE SEALED BIRDPROOF. SEAL OPEN AREAS WITH JOINT FILLER AND/OR STAINLESS STEEL FLASHING. NO CONNECTION TO GIRDERS PERMITTED.
6. INSTALL NEW ENCLOSURE AFTER CLEANING AND PAINTING OF EXISTING AND NEW STRUCTURAL STEEL.
7. PROVIDE SEALS OR GASKETS BETWEEN SHEETING AND STEEL MEMBERS AS REQUIRED BY THE SHEETING MANUFACTURER.
8. ALL WORK RELATED TO REPLACEMENT OF MACHINERY ROOM ENCLOSURES SHALL BE INCLUDED IN BID ITEM "ENCLOSURES AND SEALS" PAID AS LUMP SUM.

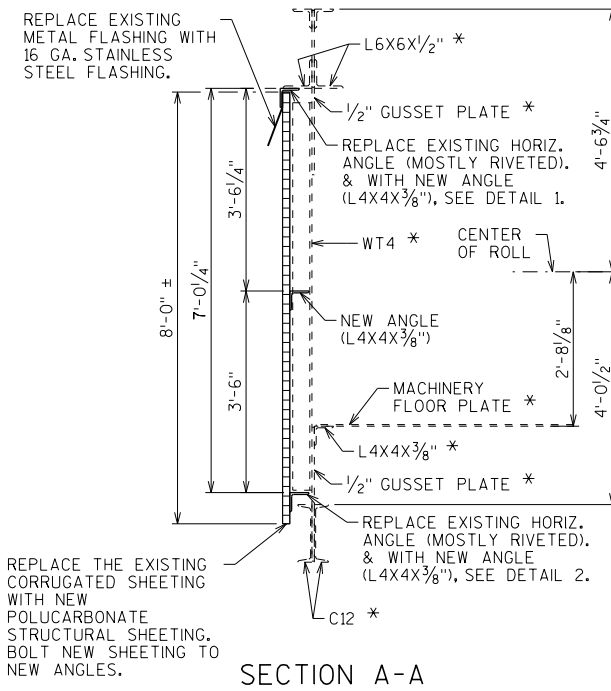
- \* EXISTING STEEL MEMBERS TO REMAIN  
\*\* NOTCH NEW L4X4 AND WELD TO VERTICAL AND DIAGONAL T-SECTIONS OF TRUSS



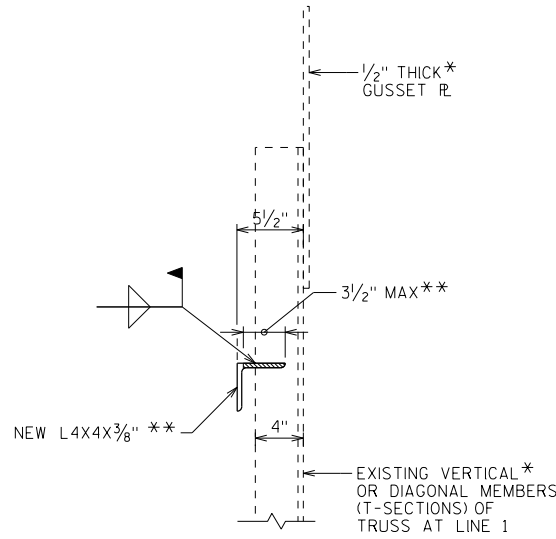
DETAIL 1



DETAIL 2

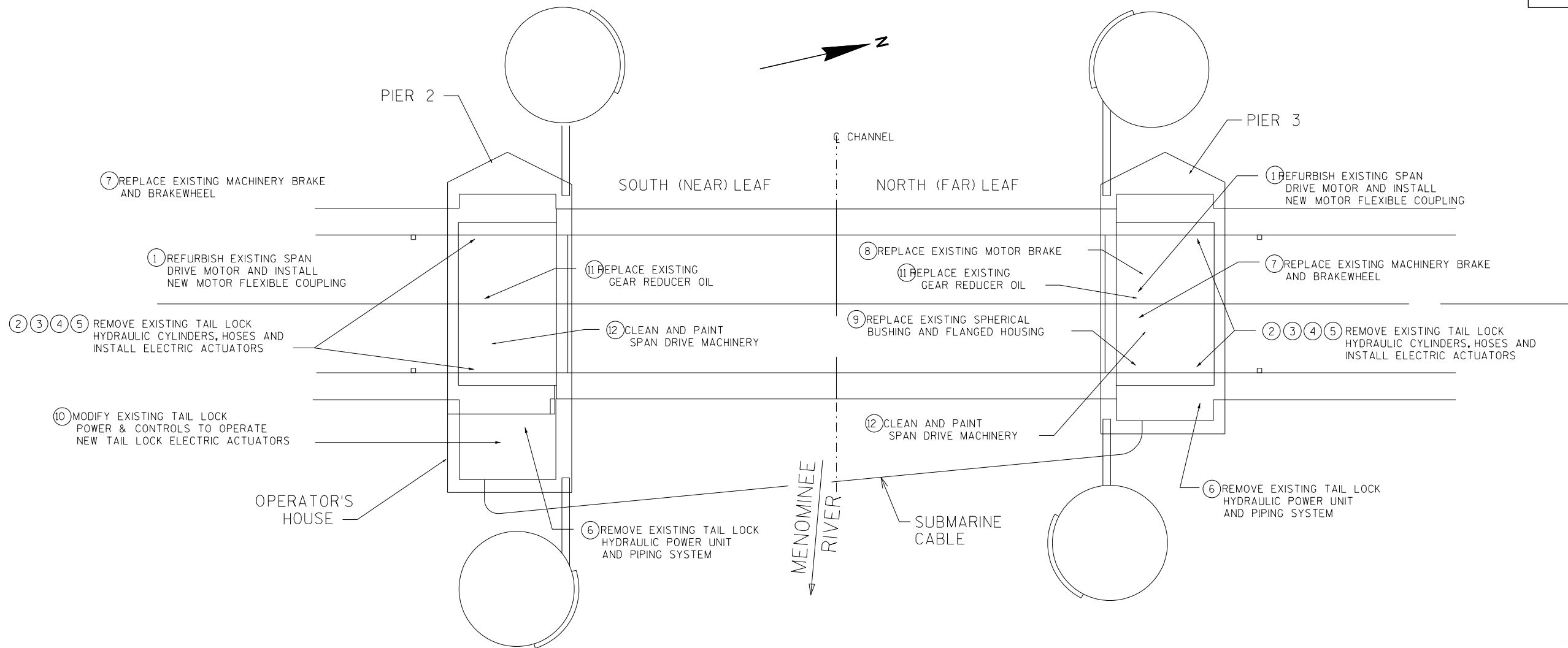


SECTION A-A



DETAIL 3

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY YC		PLANS CK'D. VCP	
MACHINERY ROOM ENCLOSURE DETAILS		SHEET S-6	



GENERAL PLAN OF BASCULE SPAN  
DO NOT SCALE



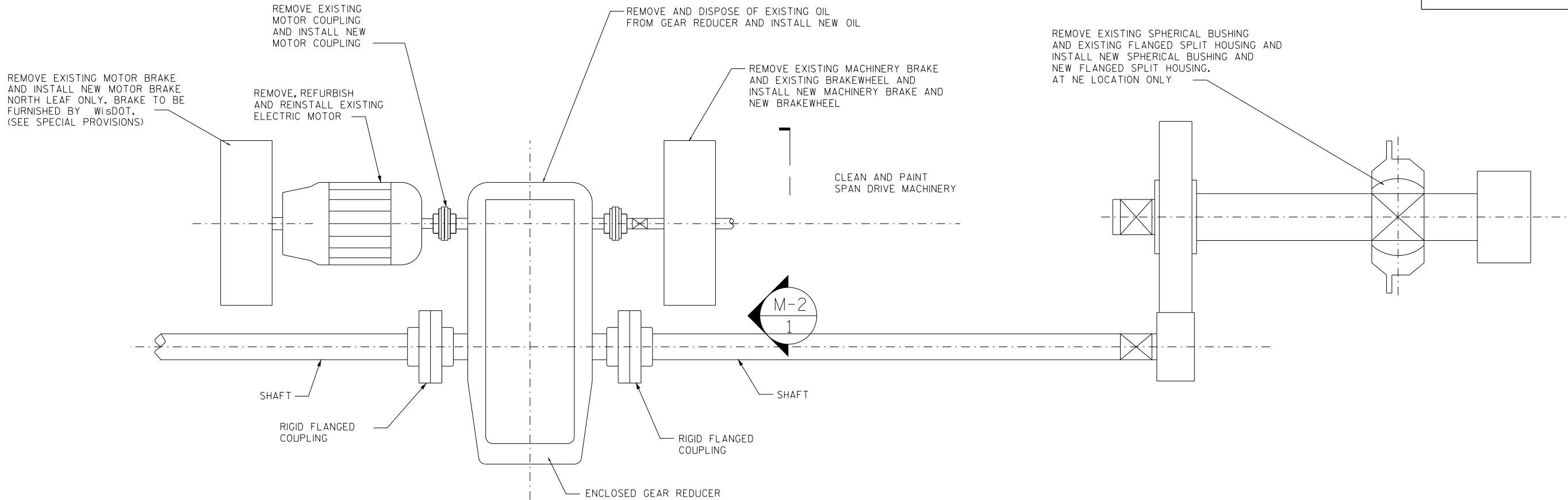
*George N. Pavlakis*  
DATE: 11/01/16

MECHANICAL - ELECTRICAL WORK SUMMARY (2 BASCULE LEAVES)		
ITEM	DESCRIPTION	QUANTITY
1	REFURBISH EXISTING SPAN DRIVE MOTORS AND INSTALL NEW MOTOR COUPLINGS	2
2	REMOVE EXISTING TAIL LOCK HYDRAULIC CYLINDERS & INSTALL NEW ELECTRIC ACTUATORS	4
3	MODIFY EXISTING SUPPORTS FOR NEW ACTUATORS	4
4	REPLACE EXISTING PIVOT PINS WITH NEW PINS	4
5	CLEAN AND PAINT TAIL LOCK MACHINERY	4
6	REMOVE EXISTING TAIL HYDRAULIC POWER UNITS & PIPING SYSTEMS	2
7	REPLACE EXISTING MACHINERY BRAKES AND BRAKEWHEELS	2
8	REPLACE EXISTING MOTOR BRAKE	1
9	REPLACE EXISTING SPHERICAL BUSHING AND FLANGED SPLIT HOUSING PILLOW BLOCK	1
10	MODIFY EXISTING TAIL LOCKS POWER & CONTROLS FOR NEW ELECTRIC ACTUATORS	L.S.
11	REPLACE EXISTING GEAR REDUCER OIL	2
12	CLEAN AND PAINT SPAN DRIVE MACHINERY	

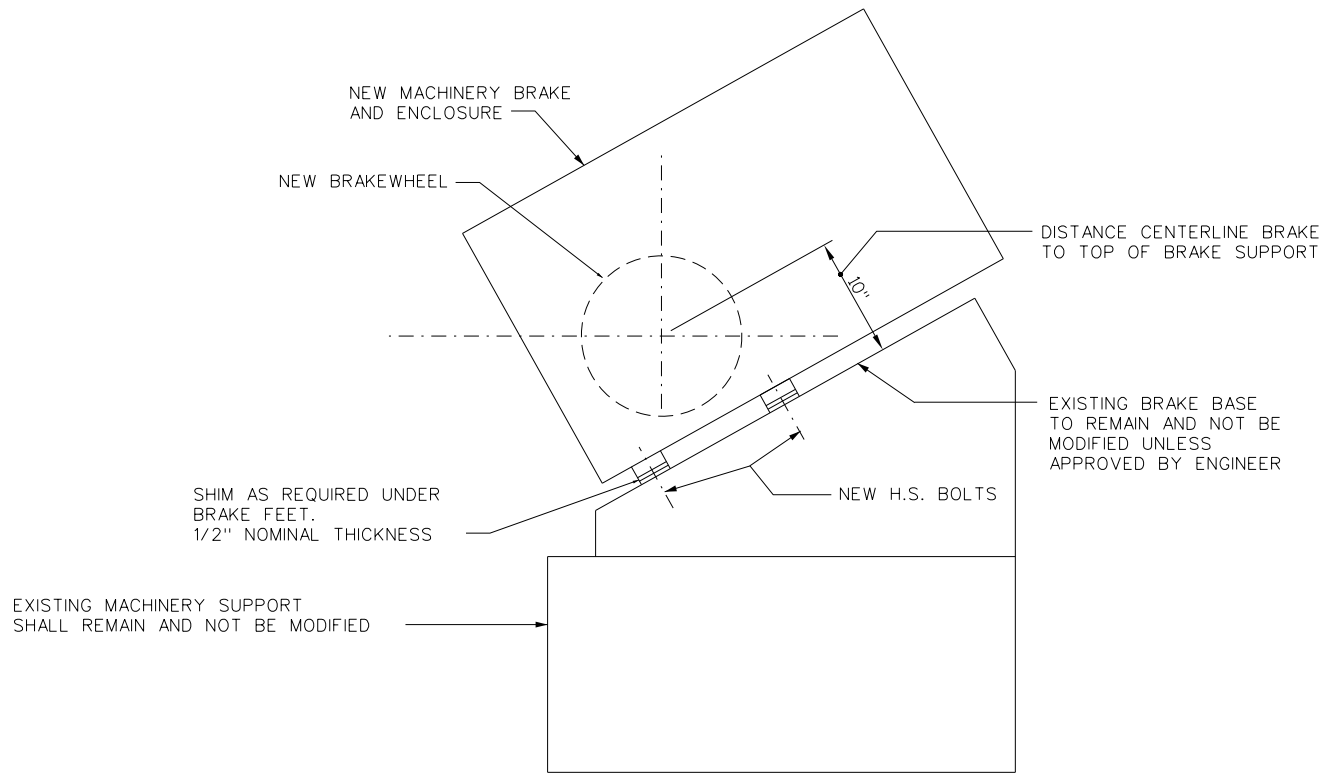
**NOTES**

1. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS AND DETAILED INFORMATION FOR MECHANICAL SCOPE.
2. SEE MECHANICAL DRAWINGS AND SPECIAL PROVISIONS FOR SPECIFIC LOCATIONS AND DETAILS OF INSTALLATION.
3. SEE ELECTRICAL PLANS & SPECIAL PROVISIONS FOR DETAILS OF ELECTRICAL WORK.
4. COORDINATE ALL MECHANICAL, ELECTRICAL & STRUCTURAL WORK.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY GNP		PLANS CK'D. VP	
GENERAL PLAN MECH - ELECT MODIFICATIONS		SHEET M-1	



PLAN - EXISTING MACHINERY  
ONE LEAF SHOWN, OTHER LEAF SIMILAR



SECTION  
NO SCALE

1  
M-2

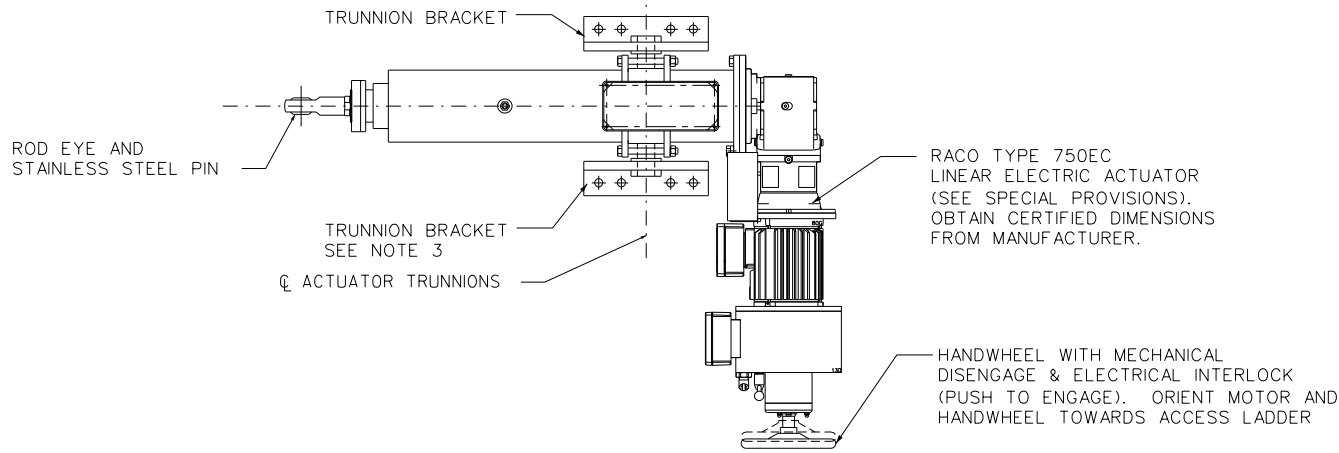
- MACHINERY NOTES**
1. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS AND DETAILED INFORMATION FOR MACHINERY WORK.
  2. SEE SPECIAL PROVISIONS FOR ALTERNATE EQUIPMENT.
  3. ALL MACHINERY SHOWN AND INDICATED ARE EXISTING AND SHALL REMAIN IN PLACE AND UNMODIFIED UNLESS OTHERWISE NOTED.
  4. NEW MOTOR COUPLINGS SIZES SHALL BE COMPATIBLE WITH EXISTING MOTOR SHAFTS, EXISTING GEAR REDUCER SHAFTS, AND AUX MOTOR SHAFTS. PROVIDE KEYS AND KEYWAYS TO MATCH.
  5. DIMENSIONS OF NEW MACHINERY BRAKES SHALL MATCH DIMENSIONS OF EXISTING MACHINERY BRAKES TO ALLOW REUSE OF EXISTING MOTOR SUPPORTS WITH MINOR OR NO MODIFICATIONS.
  6. SEE EXISTING MACHINERY SHOP DRAWINGS FOR SHAFT AND BUSHING DIMENSIONS, TOLERANCES AND DETAILS FOR SPHERICAL BEARING BUSHINGS AND HOUSINGS, AND OTHER EXISTING MACHINERY DETAILS.



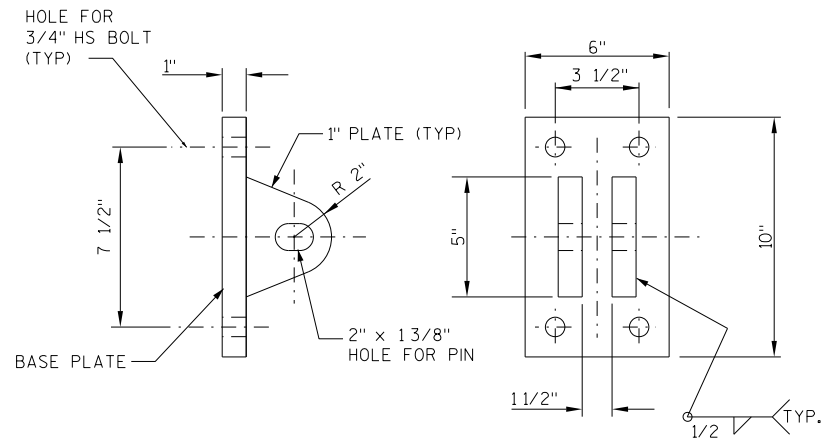
*George N. Pavlakis*  
DATE: 11/01/16

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY GNP		PLANS CK'D. VP	
SPAN DRIVE MOTOR MODIFICATIONS		SHEET M-2	



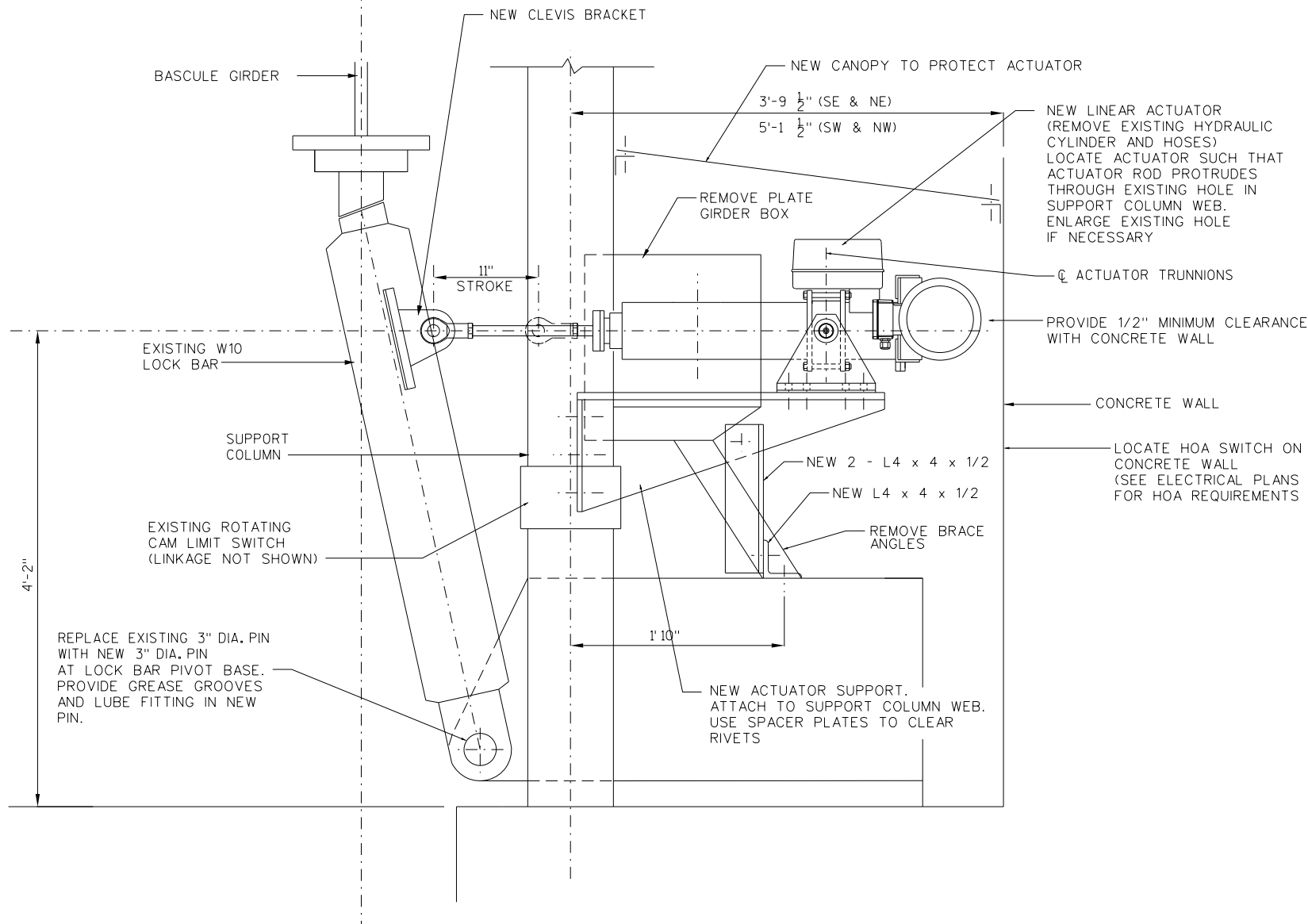


PLAN - NEW LINEAR ACTUATOR  
ONE LOCK SHOWN, OTHER 3 SIMILAR  
TWO UNITS AS SHOWN, TWO OTHERS OPPOSITE HAND  
(NEW ACTUATOR SUPPORT AND CANOPY NOT SHOWN)

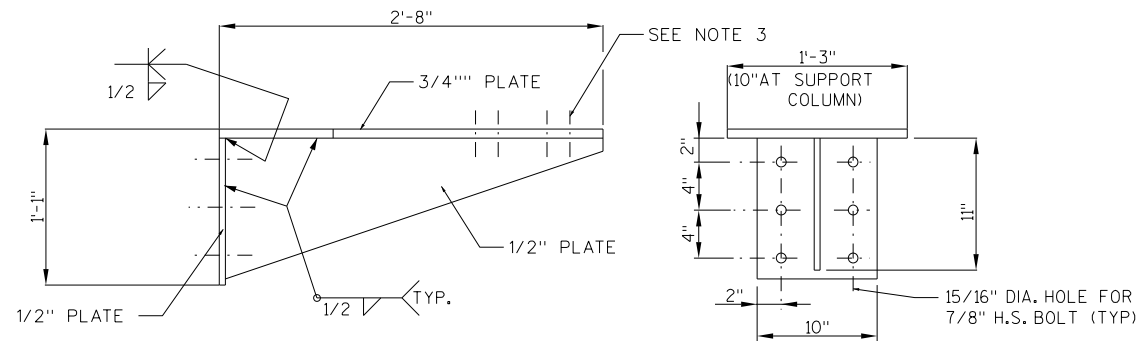


NEW CLEVIS BRACKET

MATERIAL: ASTM A36  
(4 REQUIRED)  
DIMENSIONS SHALL ACCOMMODATE NEW  
ACTUATOR ROD EYE AND NEW PIN DIMENSIONS.  
LOCATIONS OF BASE BOLT HOLES SHALL  
MATCH EXISTING HOLE LOCATIONS.



ELEVATION - TAIL LOCK  
ONE LOCK SHOWN, OTHER 3 SIMILAR



ACTUATOR SUPPORT

MATERIAL: ASTM A36  
(4 REQUIRED)

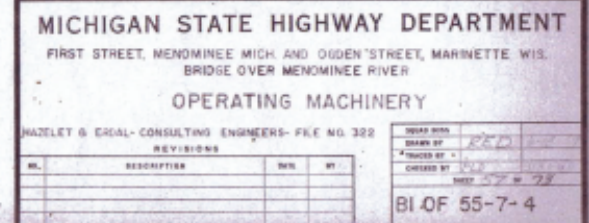
MACHINERY NOTES

1. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS AND DETAILED INFORMATION FOR TAIL LOCK MACHINERY.
2. SEE SPECIAL PROVISIONS FOR ALTERNATE EQUIPMENT.
3. SEE SPECIAL PROVISIONS FOR TRUNNION BRACKETS AND THEIR INSTALLATION ON ACTUATOR SUPPORTS.
4. ALL MACHINERY AND STRUCTURAL SUPPORTS SHOWN AND INDICATED ARE EXISTING AND SHALL REMAIN IN PLACE AND UNMODIFIED UNLESS OTHERWISE NOTED.
5. NEW ACTUATORS SHALL BE COMPATIBLE WITH EXISTING LOCK BARS AND SUPPORTS EXCEPT AS NOTED.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AS REQUIRED.
7. DIMENSIONS OF NEW ACTUATOR SUPPORTS SHALL BE COMPATIBLE WITH THE NEW ACTUATORS AND ALL EXISTING SUPPORTS AND MACHINERY TO REMAIN. ADJUST DIMENSIONS AS REQUIRED.
8. SEE SPECIAL PROVISIONS FOR TAIL LOCK CANOPY REQUIREMENTS.
9. COORDINATE NEW ACTUATOR DETAILS AND INSTALLATION WITH ELECTRICAL WORK.
10. EXISTING LIMIT SWITCHES AND LINKAGE SHALL REMAIN AND NOT BE DISTURBED DURING LOCK RENNOVATION.

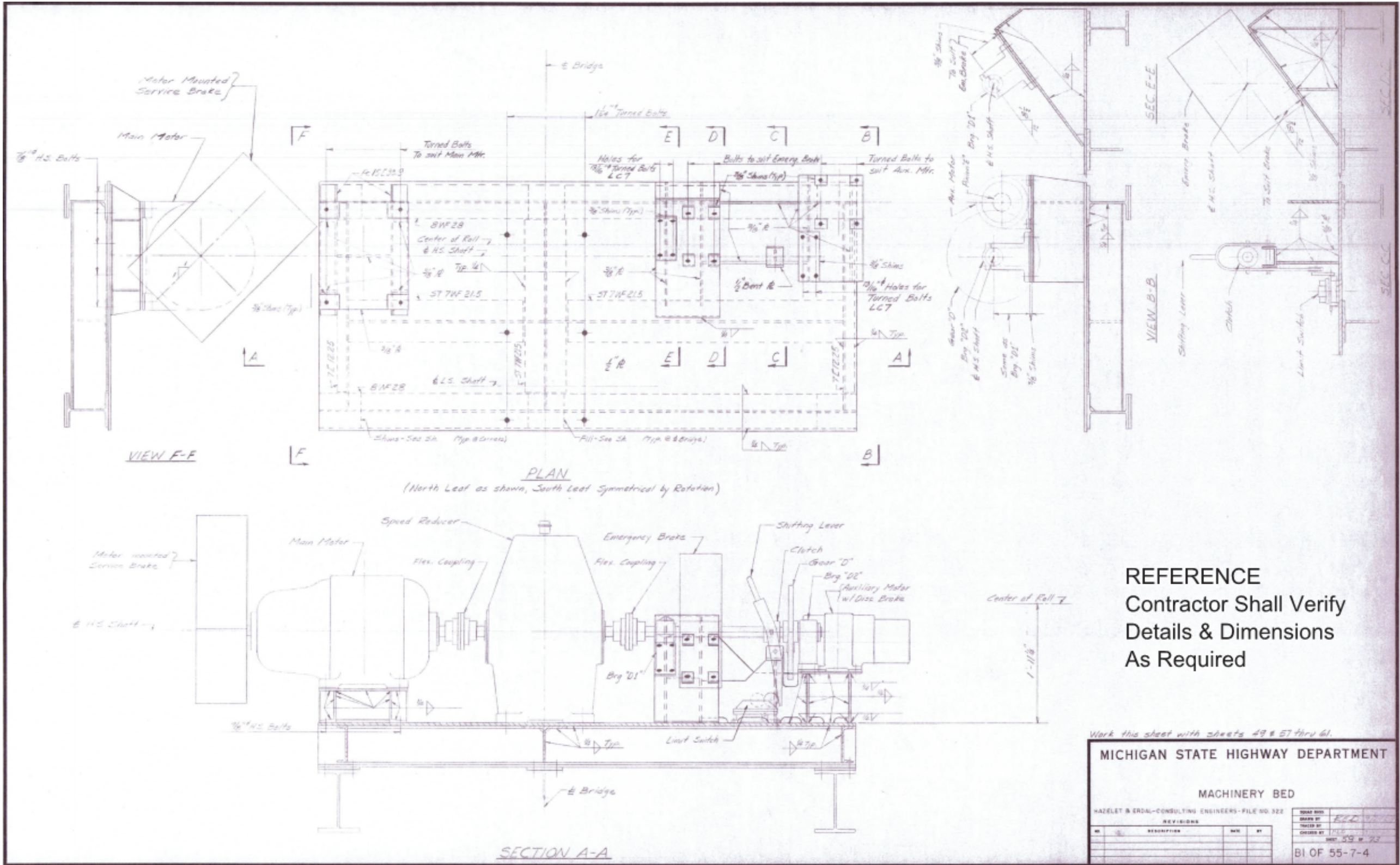


George N. Pavlakis  
DATE: 11/01/16

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY GNP		PLANS CK'D. VP	
TAIL LOCKS MODIFICATIONS			SHEET M-3







\\PCHAPP004\AM\VAUL\I.D-TRANS\_07\TDCWIS\00209341-A0\STRUCT\CAD\P2 OGDEN PHASE I\IA EXP\SHET\05\_M01.SHT

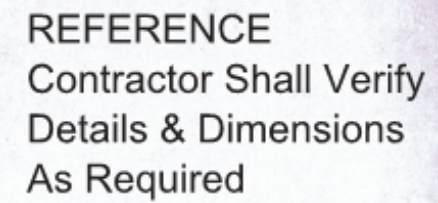
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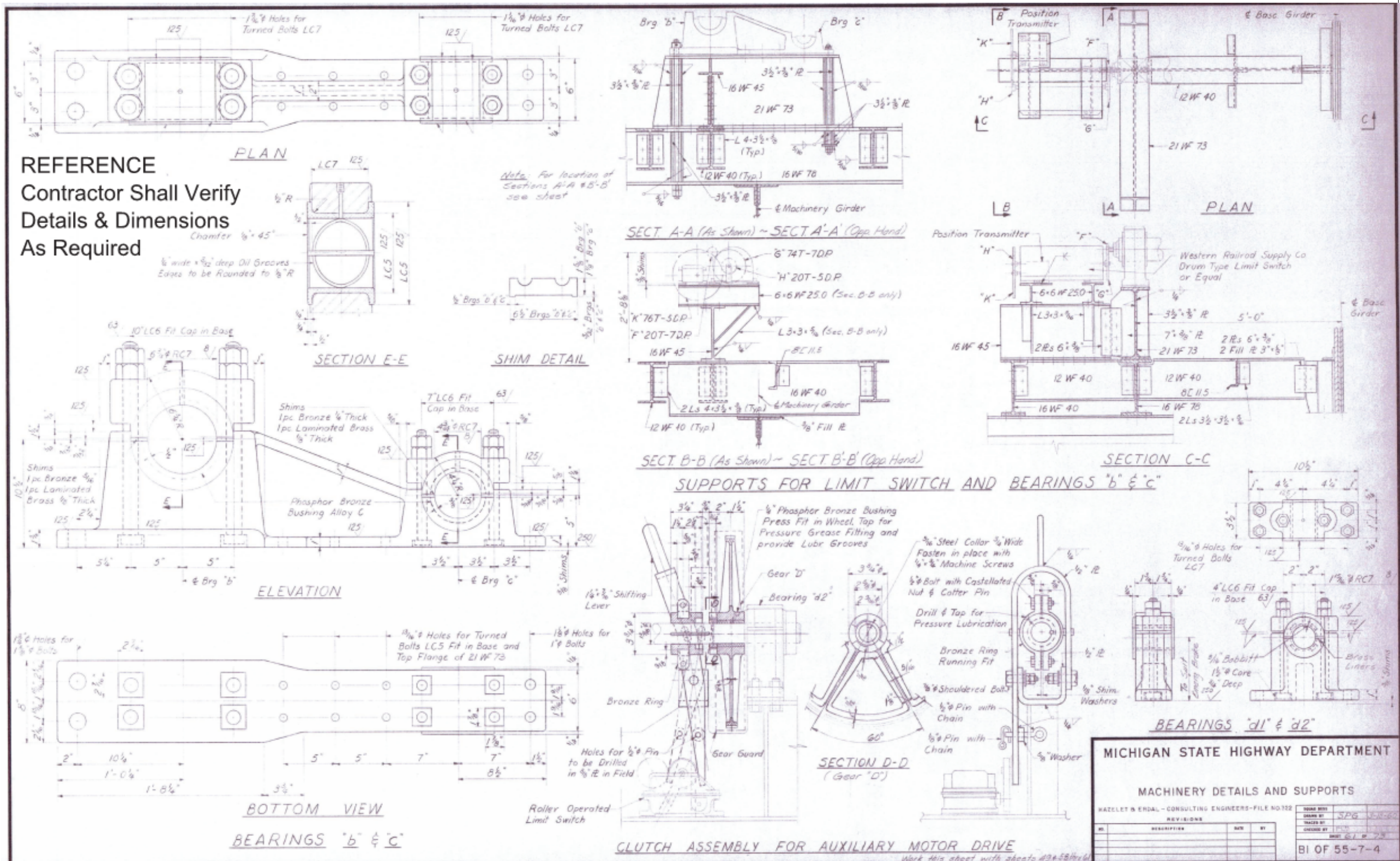
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY GNP		PLANS CK'D. CHECKED	
EXISTING MACHINERY PLANS		SHEET M-5	



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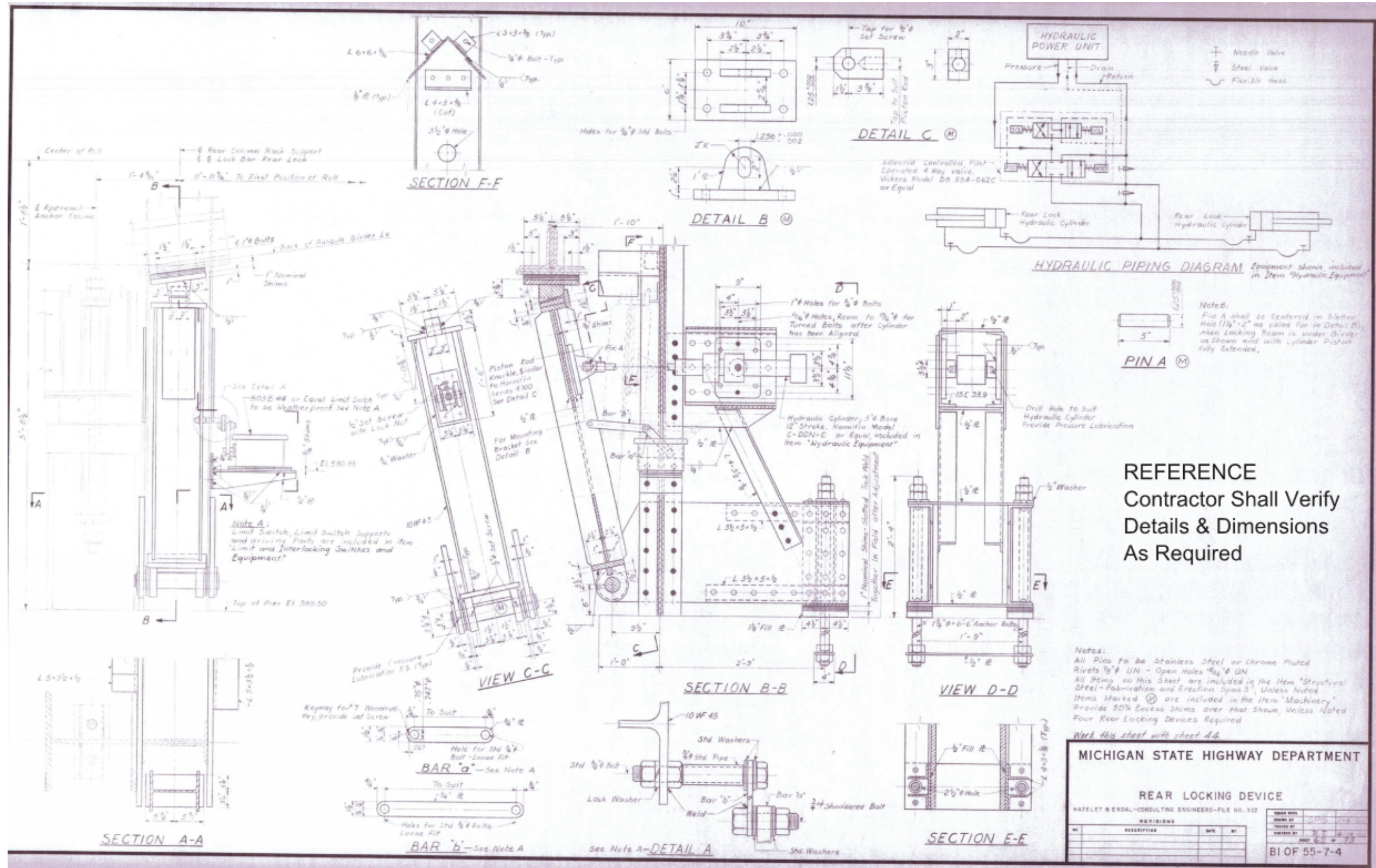
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
DRAWN BY GNP		PLANS CK'D. CHECKED	
EXISTING MACHINERY PLANS		SHEET M-6	





NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
		DRAWN BY GNP	PLANS CK'D. CHECKED
EXISTING MACHINERY PLANS		SHEET M- 7	





REFERENCE  
Contractor Shall Verify  
Details & Dimensions  
As Required

MICHIGAN STATE HIGHWAY DEPARTMENT

REAR LOCKING DEVICE

HAZELET & ERDAL-CONSULTING ENGINEERS-FLE NO. 302

REVISED			
NO.	DESCRIPTION	DATE	BY

DRAWN BY	SCHWAB
CHECKED BY	TRACY
DATE	JUN 8 1967
PROJECT	55-7-4

B I OF 55-7-4

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
		DRAWN BY GNP	PLANS Ck'D. CHECKED
EXISTING MACHINERY PLANS		SHEET M-8	





NO.	DATE	REVISION	BY
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STRUCTURE B-38-16			
		DRAWN BY GNP	PLANS CK'D. CHECKED
EXISTING MACHINERY PLANS		SHEET M-9	

SCHEMATIC LEGEND

- MOTOR SPACE HEATER
- INDICATOR LIGHT - LED TYPE  
G - GREEN, Y-YELLOW, R-RED, W-WHITE
- CONTROL RELAY 0101  
10A, 120V, DIN RAIL MOUNTED.  
CONTACTS AS REQUIRED.  
MACHINE TOOL RELAY OR STARTER COIL  
WHERE INDICATED.
- MULTI-POLE SELECTOR  
SWITCH
- SWITCH
- THERMOSTAT
- 15 AMP  
FUSE
- MOTOR STARTER OVERLOAD  
RELAY
- POWER SYSTEM  
GROUND CONNECTION
- FIELD WIRING
- INTERNAL WIRING
- CONTROL RELAY 0101 NORMALLY  
CLOSED CONTACT
- CONTROL RELAY 0101 NORMALLY  
OPEN CONTACT
- PBI - PUSHBUTTON 1  
NORMALLY OPEN CONTACT
- LS1 - LIMIT SWITCH 1  
HELD CLOSED CONTACT
- LS1 - LIMIT SWITCH 1  
NORMALLY OPEN CONTACT
- TERMINAL AT TAIL LOCK  
COMBINATION STARTER

TAIL LOCK CONDUIT SCHEMATIC - TYP. OF NEAR AND FAR SIDE

NOTE: NEAR SIDE SHOWN, FAR SIDE SIMILAR

ELECTRICAL PLAN NOTES - THIS SHEET

NOTE: ALL EQUIPMENT SHOWN IS NEW UNLESS PRECEDED BY THE WORD "EXISTING".

- 1 THE EXISTING HYDRAULIC POWER UNIT (HPU) RECEIVES 480V POWER FROM THE EXISTING MOTOR CONTROL CENTER IN THE BRIDGE HOUSE. DISCONNECT STARTER IN EXISTING MOTOR CONTROL CENTER AND MAINTAIN EXISTING CIRCUIT BREAKER. CONNECT EXISTING HPU 480V POWER (ONE CIRCUIT) TO THE TWO LOCK COMBINATION STARTERS. EXTEND CONDUIT AND WIRING AS REQUIRED. THE EXISTING HPU S TO BE REMOVED. (TYP. OF NEAR AND FAR SIDE.)
- 2 THE EXISTING HPU SOLENOIDS (DRIVE AND WITHDRAW) RECEIVE POWER FROM THE EXISTING CONTROL CONSOLE. DISCONNECT THE EXSTING SOLENOIDS AND EXTEND THE CIRCUITS TO THE TWO LOCK COMBINATION STARTERS CONTROL RELAYS AS SHOWN. EXTEND CONDUIT AND WIRING AS REQUIRED. THE EXISTING HPU IS TO BE REMOVED. (TYP. OF NEAR AND FAR SIDE.)
- 3 CONNECT TO WIRING FROM HPU DRIVE AND WITHDRAW SOLENOIDS. (TYP. OF NEAR AND FAR SIDE.)

GENERAL ELECTRICAL NOTES

1. SEE MECHANICAL PLANS FOR LOCATION OF TAIL LOCKS.
2. FIELD LOCATE TAIL LOCK COMBINATION STARTERS WITHIN SIGHT OF THE ASSOCIATED TAIL LOCK. PROVIDE WAL. OR STRUT MOUNTING AS REQUIRED. REVIEW THE PROPOSED LOCATION WITH THE OWNER.
3. FIELD ROUTE CONDUITS IS REQUIRED.
4. PROVIDE DISCONNECTION OF OLD BRAKES AND CONNECTION OF NEW BRAKES (SEE MECHANICAL). REUSE EXISTING POWER AND CONTROL WIRING. EXTEND CONDUIT AND WIRING AS REQUIRED.
5. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS OF ELECTRICAL AND MECHANICAL WORK.
6. EXISTING TAIL LOCK LIMIT SWITCHES SHALL REMAIN.



DATE: 11/01/2016

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-38-16			
		DRAWN BY WJH	PLANS CK'D. SH
ELECTRICAL NOTES & SCHEMATIC		SHEET E-1	
		DATE: 11/01/16	

TAIL LOCK COMBINATION MOTOR STARTER SCHEMATIC - TYP. OF 4

TYPICAL OF FOUR ACTUATORS:  
SOUTH (NEAR) LEAF WEST ACTUATOR  
SOUTH (NEAR) LEAF EAST ACTUATOR  
NORTH (FAR) LEAF WEST ACTUATOR  
NORTH (FAR) LEAF EAST ACTUATOR



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