GRE

NOV 2015

PROJECT ID: 1420-22-71

WITH: N/A

COUNTY: FOND DU LAC

19

ORDER OF SHEETS

TOTAL SHEETS = 702

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

FOND DU LAC BYPASS

CTH V INTERCHANGE

USH 151

FOND DU LAC COUNTY

STATE PROJECT NUMBER

1420-22-71

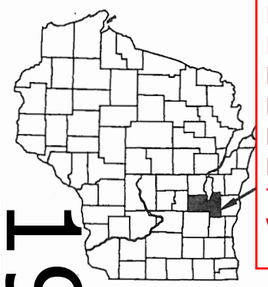
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1420-22-71	WISC 2015578	1

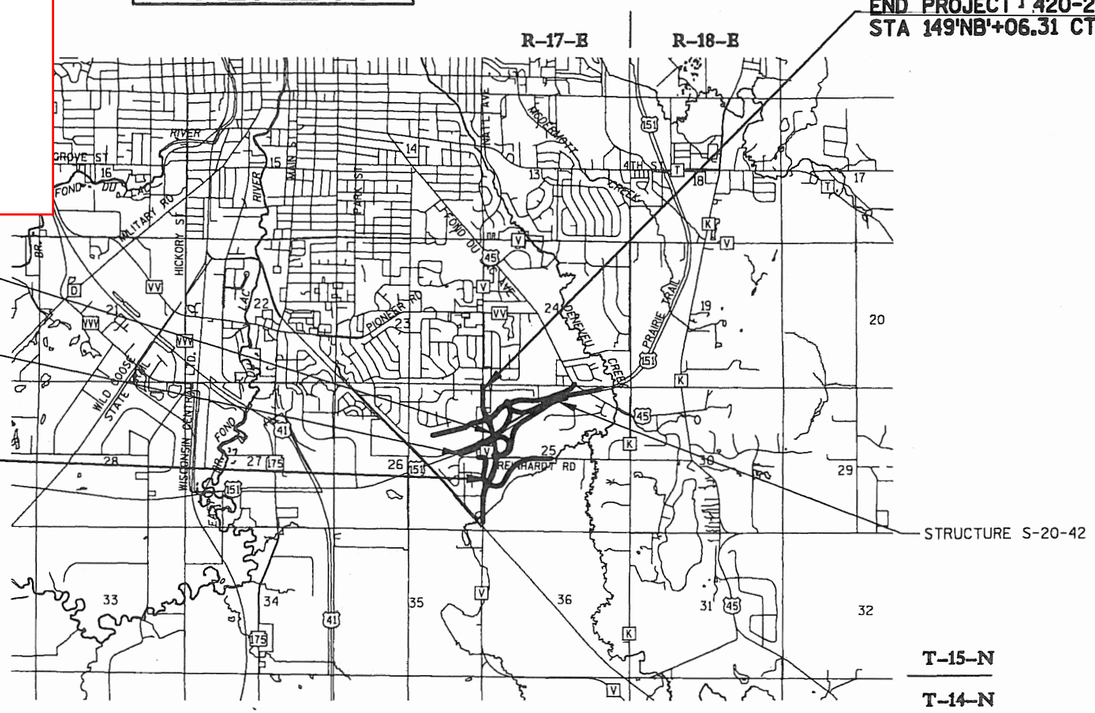
STRUCTURE

AS-BUILT PLAN

SUPERVISOR: Rob Wagner
PROJECT MANAGER: Bryan Learst
PROJECT LEADER: Zach Pilichowski
CONTRACTOR: Mashuda Contractors, Inc.
Work Started 4/16/2016
Work Completed 12/28/2016

Prime Contractor: Mashuda Contractors, INC
Subcontractors:
Bodart Electric Service
Fencing Plus INC
Interstate Sawing CO., INC
Iverson Construction, LLC
Mega Rentals, INC
North Farm Landscape, LLC
Northeast Asphalt, INC
Pheifer Bros Construction CO, INC
Treirweiler Construction and Supply Company
Wisconsin Land Surveying





DESIGN DESIGNATION

		CTH V	USH 151
A.A.D.T. (2006)	=	3000	= 11500
A.A.D.T. (2038)	=	4700	= 17000
D.H.V. (2038)	=	517	= 1870
D.D.	=	60/40	= 60/40
T. (DHV)	=	7.1	= 7.1
DESIGN SPEED	=	40 MPH	= 70 MPH
ESALS	=	905,200	-

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- 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 (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

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 1/2 MI. 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.645 MI. (CTH V)

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), FOND DU LAC COUNTY, NAD 1983 (97)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

ORIGINAL PLANS PREPARED BY

OMNI ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT/GREMMER & ASSOCIATES, INC
Designer	OMNNI ASSOCIATES, INC.
Project Manager	B. LEARST
Regional Examiner	-
Regional Supervisor	R. WAGNER
C.O. Examiner	-

APPROVED FOR THE DEPARTMENT

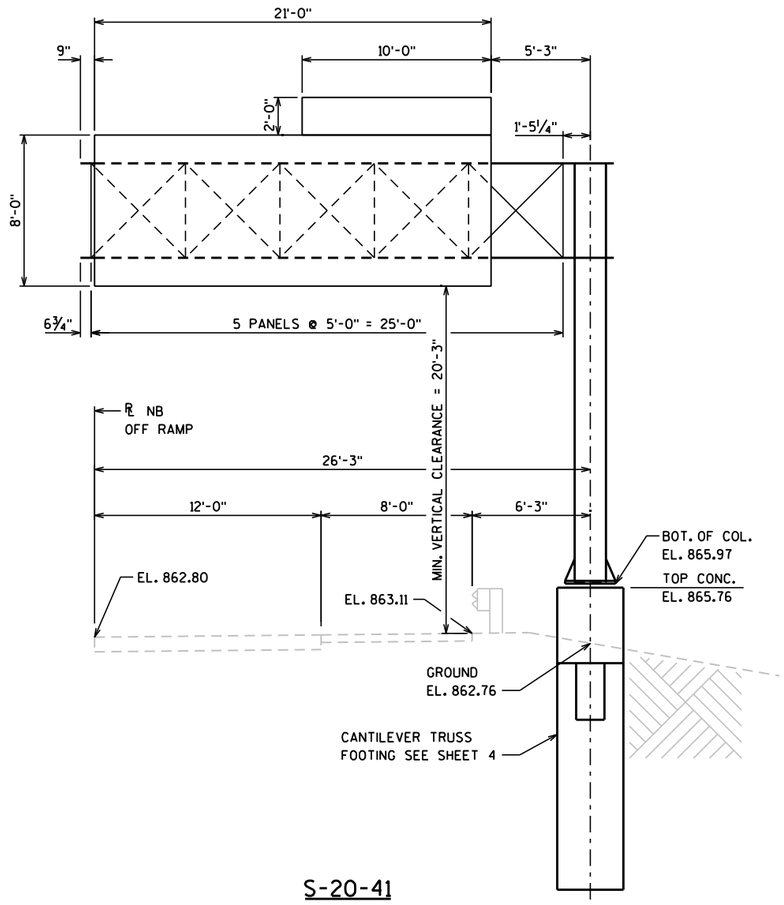
DATE: 04/23/15 (Signature)

1 E

142022_010101_ti

WISDOT/CADDS SHEET 15

STATE PROJECT NUMBER
1420-22-71

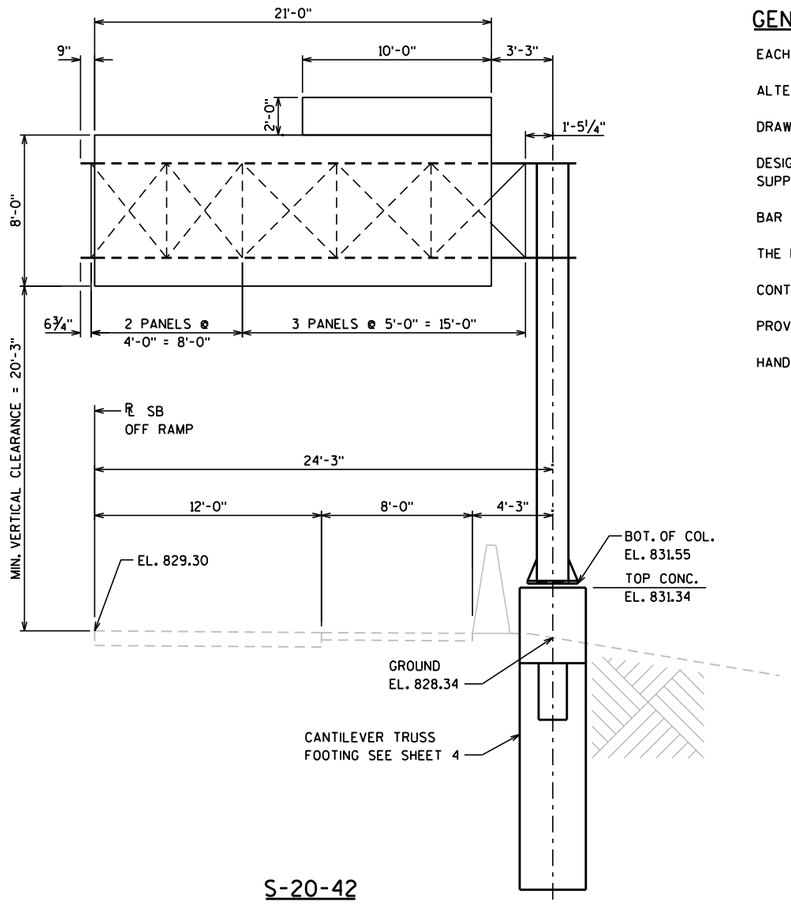


S-20-41

STA 266+03.50 VAA

(NB OFF-RAMP)
LOOKING EAST

26'-3" RT OF
R/L USH 151 NB OFF RAMP



S-20-42

STA 308+00 VCC

(SB OFF-RAMP)
LOOKING WEST

~~24'-3" LT OF~~
~~R/L USH 151 SB OFF RAMP~~

25'-3" LT OF
R/L USH 151 SB
OFF RAMP

GENERAL NOTES

EACH LOCATION OF THE SIGN BRIDGE SHALL BE DIRECTED BY THE ENGINEER.

ALTERNATE DESIGNS ARE NOT ALLOWED.

DRAWINGS SHALL NOT BE SCALED.

DESIGNED ACCORDING TO A.A.S.H.T.O STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.

PROVIDE SIGN BRIDGE IDENTIFICATION PLAQUE, INCIDENTAL TO SIGN BRIDGE.

HANDHOLES ARE NOT REQUIRED.

LIST OF DRAWINGS

1. SIGN BRIDGE LAYOUTS
2. GALVANIZED STEEL CANTILEVER SIGN TRUSS
3. GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS
4. CANTILEVER TRUSS FOOTING

ESTIMATED QUANTITIES

641.1200	SIGN BRIDGE CANTILEVER	S-20-41	1 L.S.
641.1200	SIGN BRIDGE CANTILEVER	S-20-42	1 L.S.
636.0100	SIGN SUPPORTS CONCRETE MASONRY		16 C.Y.
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT		1960 LB.

DESIGN DATA

SIGN STRUCTURE	PROPOSED SIGN SIZE FT X FT	MAX. DESIGN SIGN AREA SF	MAX. SIGN DEPTH FT
S-20-41	8'-0" X 21'-0"	264	12'
S-20-42	8'-0" X 21'-0"	264	12'

NO LIGHTS, NO CATWALK

11/13/14

CONSULTANT CONTACT

KRISTOFER OLSON
OMNNI ASSOCIATES, INC.
(920) 735-6900

BRIDGE OFFICE CONTACT

WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

OMNNI ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 07/30/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE S-20-41 & S-20-42

USH 151

COUNTY	TOWN
FOND DU LAC	FOND DU LAC

DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 4th EDITION — LOAD 90 MPH WIND

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BRE	KRO	BRE	KRO

SIGN BRIDGE LAYOUTS

SHEET 1 OF 4

2

8

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STATE PROJECT NUMBER
1420-22-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DESIGNED ACCORDING TO A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC "SIGNALS"

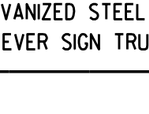
WIND VELOCITY = 90 M.P.H. (3-SECOND GUST SPEED)

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT END OF TRUSS SHOWN IN "CAMBER DIAGRAM". DO NOT RAKE VERTICAL UPRIGHT BY ADJUSTMENT OF LEVELING NUTS.

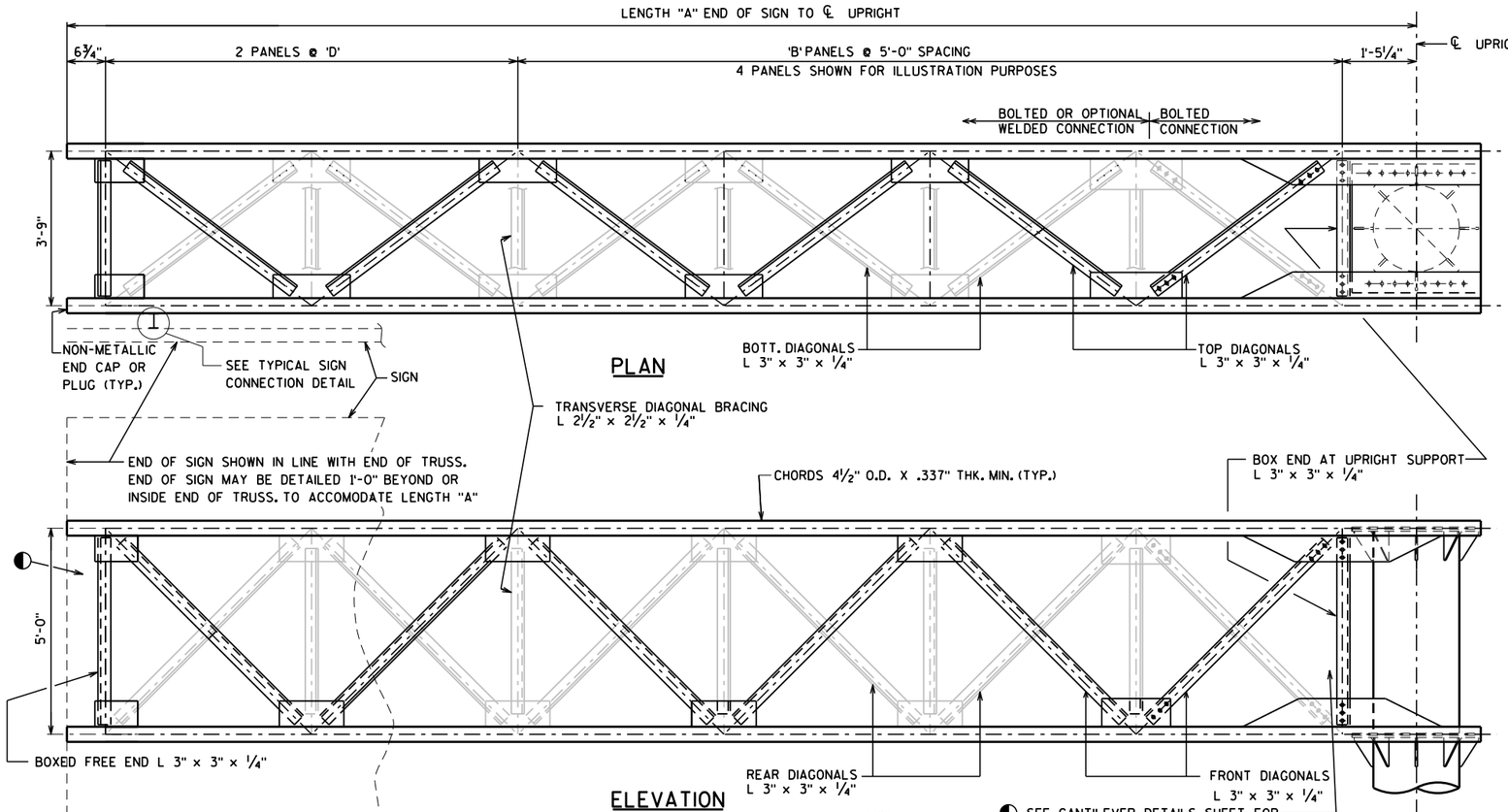
ALLOWABLE DESIGN STRESSES

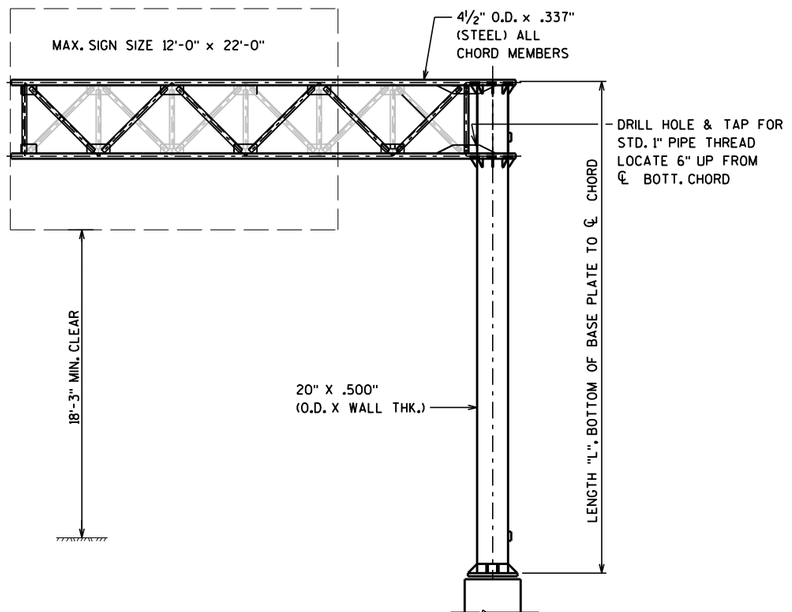
CHORDS & COLUMN (INCLD. HANDHOLE)	API-5L-X42	fy=42,000 P.S.I.
STRUCTURAL ANGLES	A.S.T.M. A709 GRADE 36	fy=36,000 P.S.I.
PLATES & BARS	A.S.T.M. A709 GRADE 36	fy=36,000 P.S.I.
ANCHOR BOLTS	A.A.S.H.T.O. M314	fy=55,000 P.S.I.
HIGH STRENGTH BOLTS	A325	fy=92,000 P.S.I.
STRUCTURAL MEMBERS GALVANIZED A123		
HARDWARE GALVANIZED		A153 CLASS C

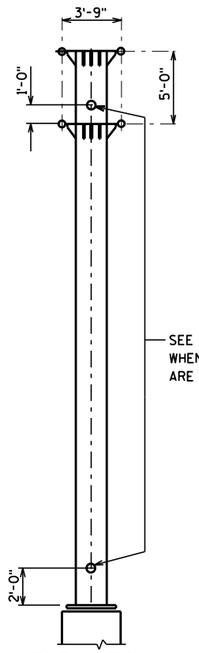
STRUCTURE	"A"	"L"	"B"	"D"	"Y"
S-20-41	26'-3"	23'-10¾"	5	---	1½"
S-20-42	24'-3"	24'-6"	3	4'-0"	1¼"

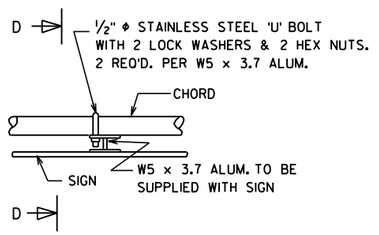


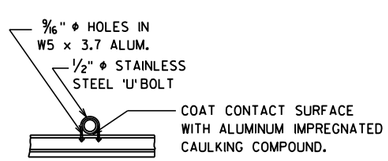
CAMBER DIAGRAM





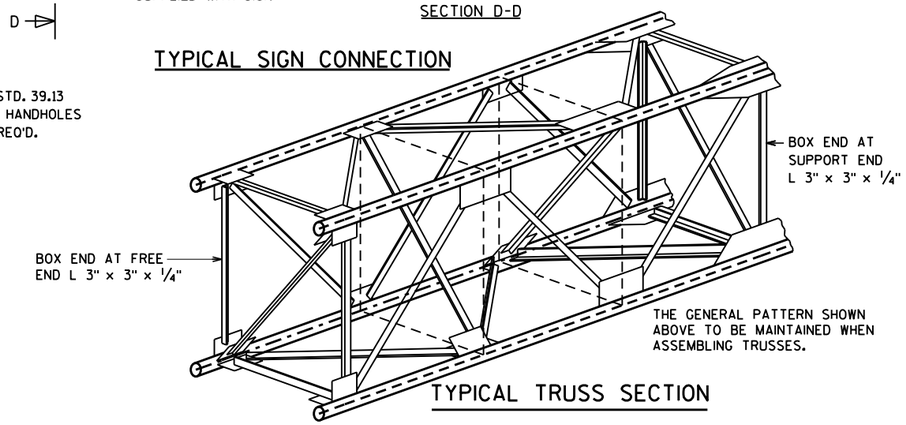






SECTION D-D

TYPICAL SIGN CONNECTION



TYPICAL TRUSS SECTION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-20-41 & S-20-42

DRAWN BY BRE | PLANS CK'D. CAB

GALVANIZED STEEL CANTILEVER SIGN TRUSS

SHEET 2 OF 4

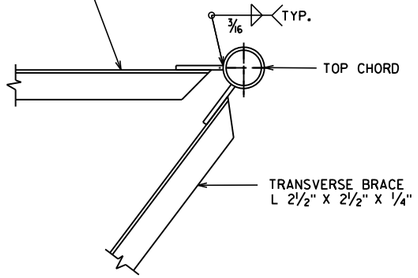
3

FILE NAME : F:±TR±JOBS±E2017A12±Structure±Sign structures±S-20-41 02 details.dgn PLOT BY : epleyb PLOT DATE: 11/10/2014 1:52:10 PM

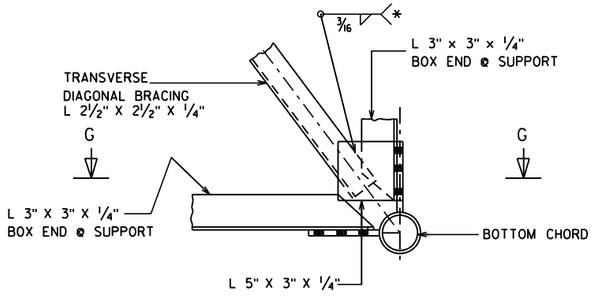
STATE PROJECT NUMBER
1420-22-71

HORIZONTAL WEB
L 3" X 3" X 1/4"

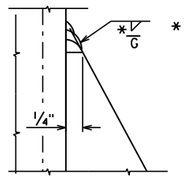
* ANGLE	WELD LENGTH (MIN.)
L 2 1/2" X 2 1/2" X 1/4"	7"
L 3" X 3" X 1/4"	8"



SECTION B-B

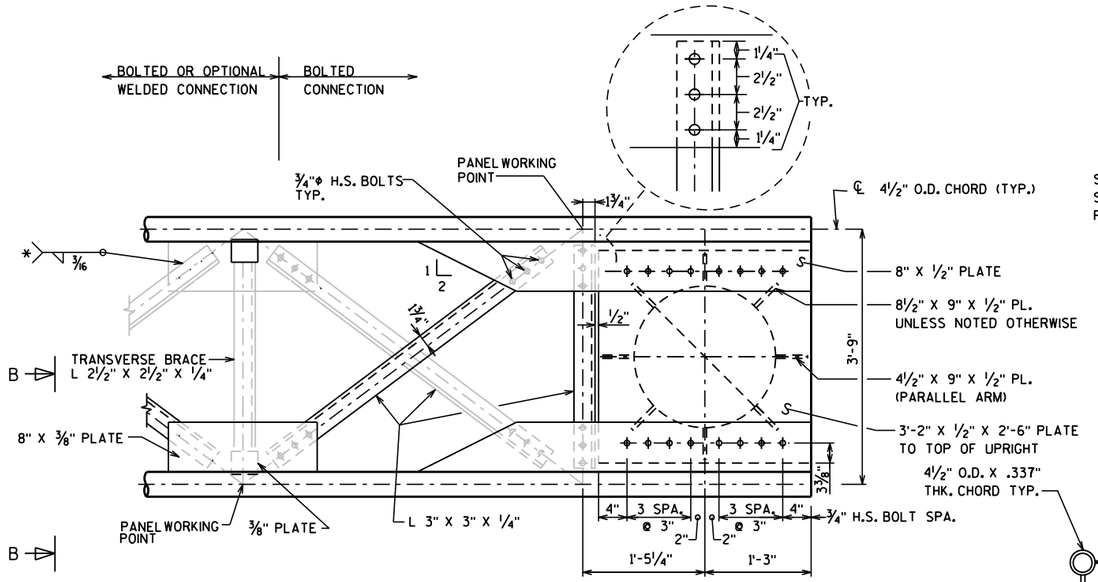


SECTION H-H

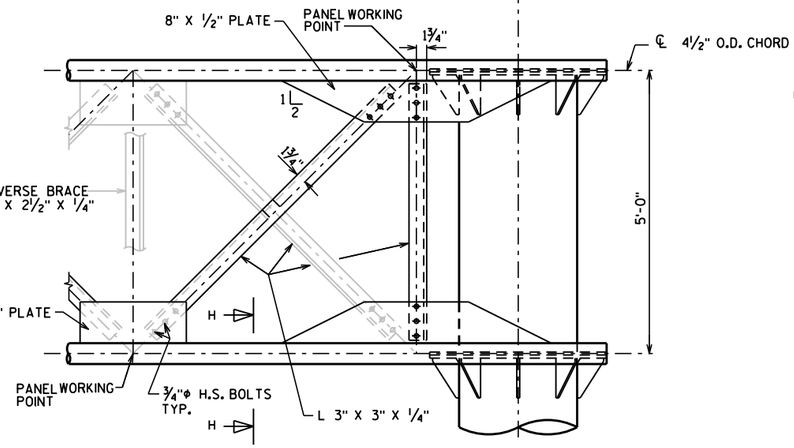


DETAIL 'A'

BOLTED OR OPTIONAL WELDED CONNECTION | BOLTED CONNECTION

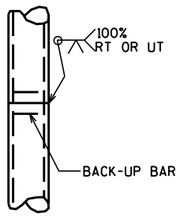


PLAN TRUSS TO UPRIGHT

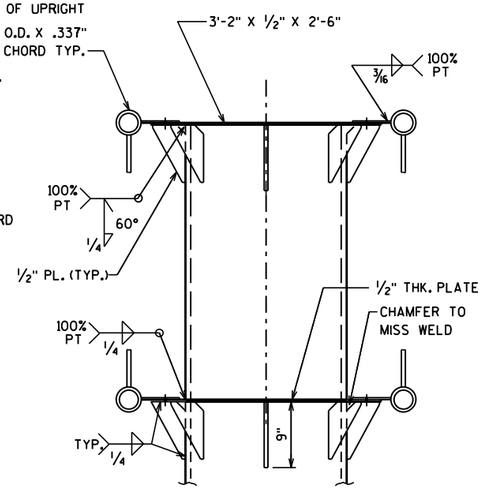


ELEVATION TRUSS TO UPRIGHT

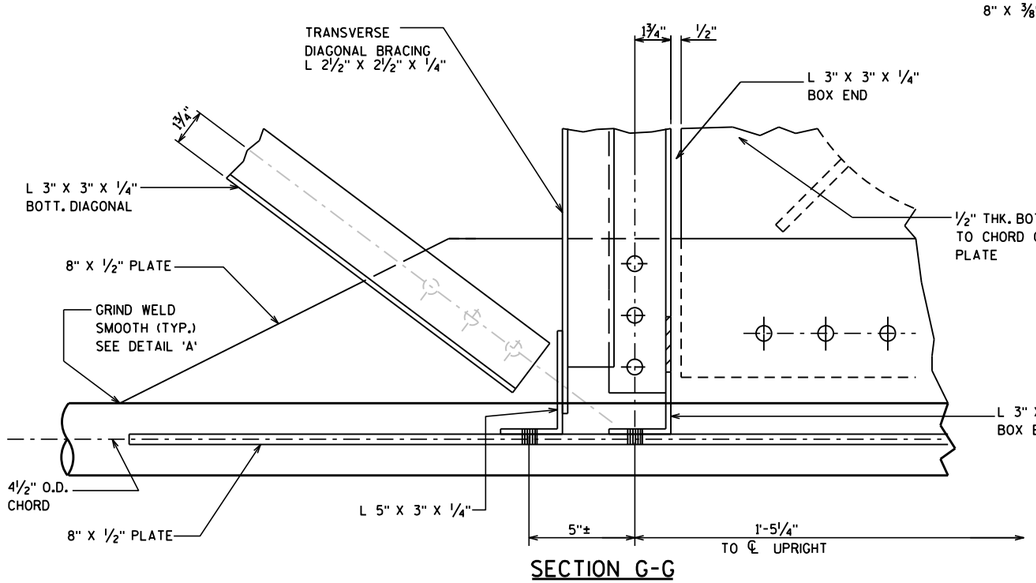
SEPARATE OPTIONAL SPLICE FROM GUSSET PLATES BY 6" MIN.



OPTIONAL COLUMN OR CHORD SPLICE DETAIL

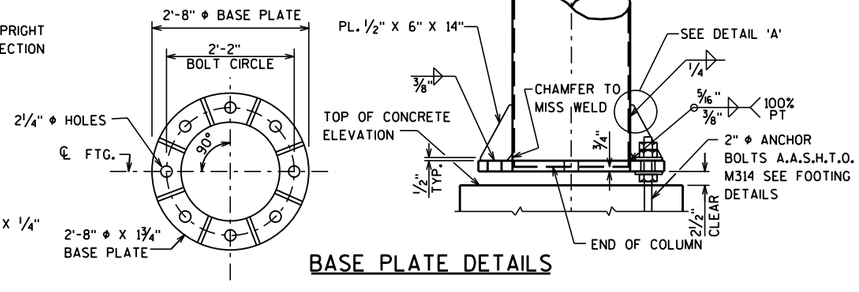


END VIEW
TRUSS TO UPRIGHT



SECTION G-G

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)



BASE PLATE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-20-41 & S-20-42

DRAWN BY BRE | PLANS CK'D. CAB

GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS

SHEET 3 OF 4

4

8

8

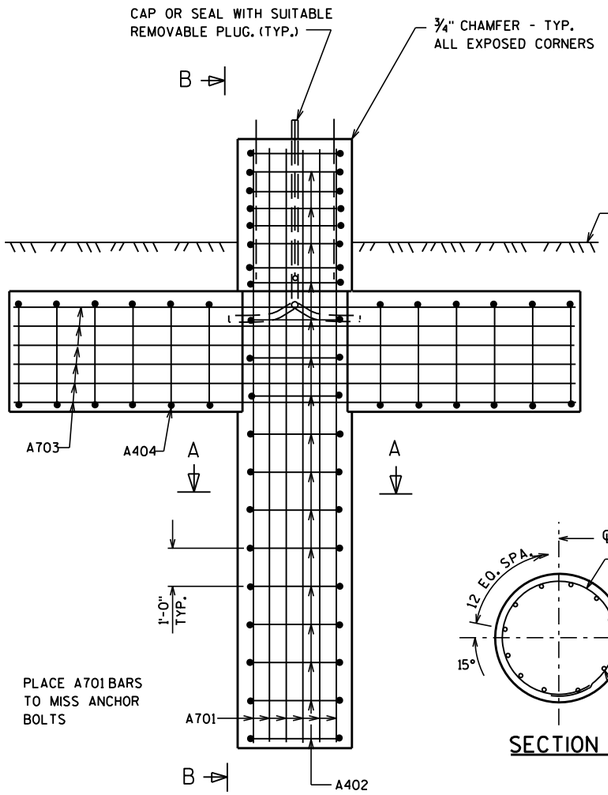
STATE PROJECT NUMBER
1420-22-71

NOTE:
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS

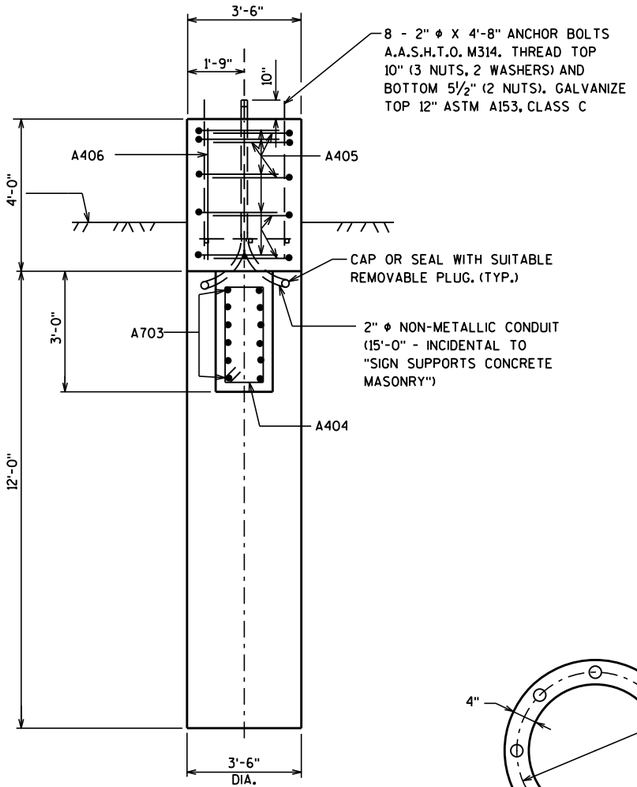
980 LB.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
A701		12	15'-6"				FOOTING - COLUMN/TOP
A402		16	10'-6"	X			FOOTING - COLUMN/TOP
A703		12	15'-0"				FOOTING - WINGS
A404		12	7'-6"	X			FOOTING - WINGS
A405		10	7'-11"	X			FOOTING - TOP
A406		4	3'-6"				FOOTING - TOP - COLUMNS

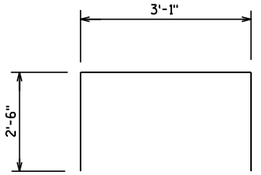


ELEVATION
(8 C.Y.)

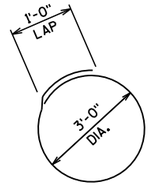
SECTION A



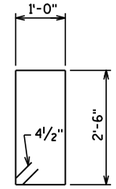
SECTION B



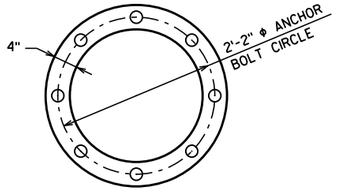
A405



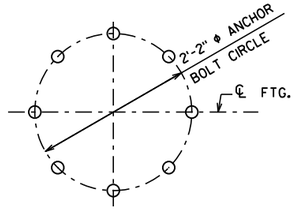
A402

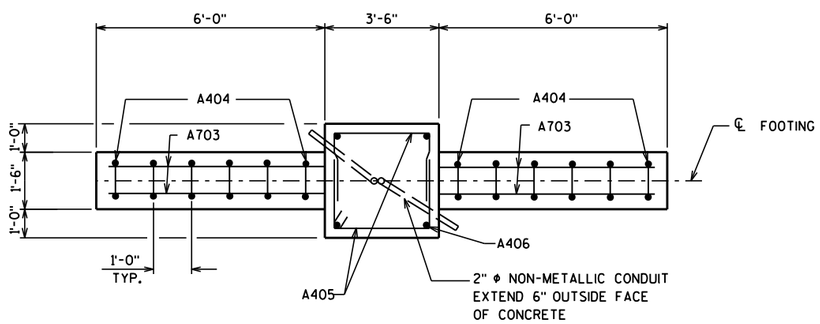


A404
(STIRRUP)

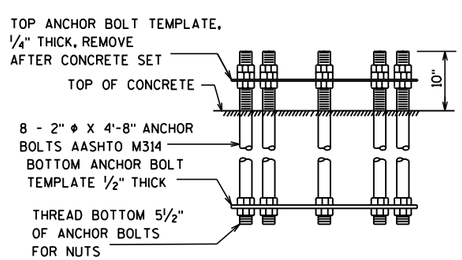


TOP VIEW OF TOP & BOTTOM TEMPLATES





PLAN



ANCHOR BOLT DETAILS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.

ALLOWABLE DESIGN STRESSES

CONCRETE MASONRY — f'c=3,500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy=60,000 P.S.I.
ANCHOR BOLTS A.A.S.H.T.O. M314 — fy=55,000 P.S.I.

FOUNDATION DATA

ALLOWABLE SOIL BEARING PRESSURE = 2T/SQ. FT.

TOTAL ESTIMATED QUANTITIES (1 FTG.)

SIGN SUPPORTS CONCRETE MASONRY	8 C.Y.
SIGN SUPPORTS STEEL REINFORCEMENT HS	980 LB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-20-41 & S-20-42

DRAWN BY KRO | PLANS CK'D. CAB

CANTILEVER TRUSS FOOTING

SHEET 4 OF 4

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