

PROJECT ID: 5005-00-71
WITH: N/A

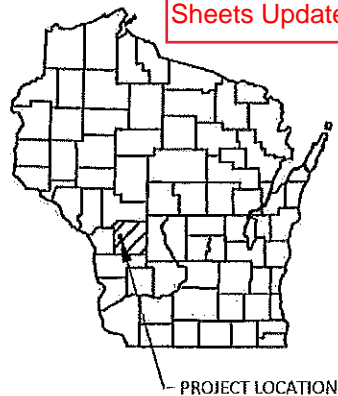
COUNTY: MONROE

ORDER OF SHEETS

Section No	1	Title
Section No	2	Typical Sections and Details (Includes Erosion Control Plans)
Section No	3	Estimate of Quantities
Section No	3	Miscellaneous Quantities
Section No	4	Right of Way Plat
Section No	5	Plan and Profile
Section No	6	Standard Detail Drawings
Section No	7	Sign Plates
Section No	6	Structure Plans
Section No	9	Computer Earthwork Data
Section No	9	Cross Sections

TOTAL SHEETS =

Original Total: 36
Sheets Deleted: 24, 30, 31, 32, 33, 34
New Sheets: 14.1, 24a, 30a, 31a, 32a, 33a, 34a
Sheets Updated: 9, 14, 14.1, 22, 24a



DESIGN DESIGNATION

A A D T.	(2019)	=	560
A A D T.	(2039)	=	590
D.H.V.		=	188
D D		=	60/40
T.		=	4.0%
DESIGN SPEED		=	50 MPH
ESALS		=	59,000

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	CAUTION
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	---

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 21 - CTH B
(BRANCH LA CROSSE RIVER BRIDGE C-41-0139)

CTH Q
MONROE COUNTY

STATE PROJECT NUMBER

5005-00-71

Structure

AS-BUILT PLAN
C-41-0139

SUPERVISOR: Jim Savoldelli
PROJECT MANAGER: Brian Meyer
PROJECT LEADER: Matt Palkowski
CONTRACTOR: Concrete Structures, Inc.
CONSTRUCTION STARTED: 04/01/2019
CONSTRUCTION COMPLETE: 06/21/2019

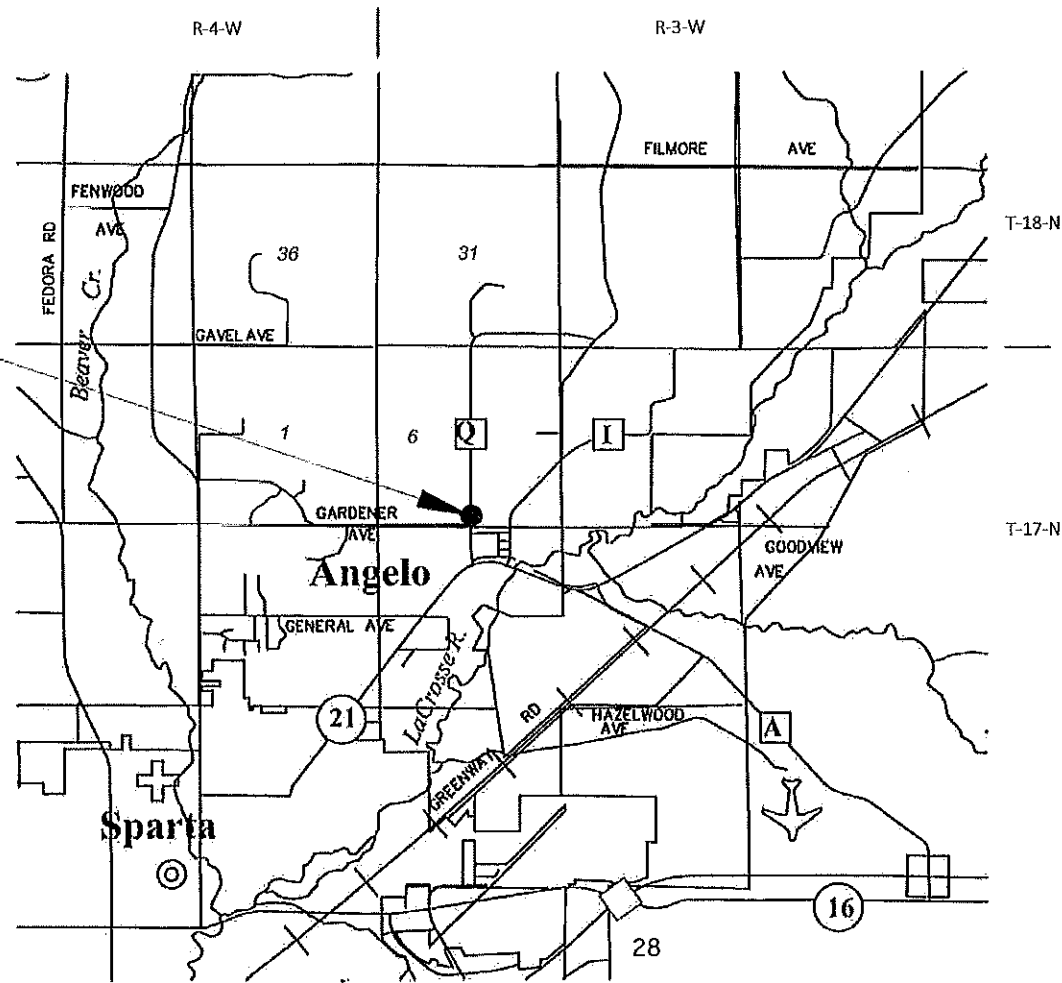
Subcontractor List

Brickline Inc.
Geo-Metra Surveying & Mapping, LLC
Mathy Construction Company
Mattison Contractors, Inc.
Safemark, LLC
St. Joseph Construction Co., Inc.

END PROJECT
STA 11+00.00

STRUCTURE C-41-0139
STA 10+00.00

BEGIN PROJECT
STA 9+00.00
Y=389709.420
X=634280.627



LAYOUT
SCALE 0 1 MI

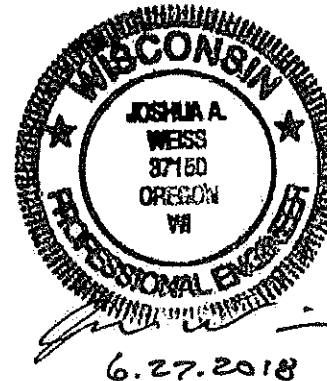
TOTAL NET LENGTH OF CENTERLINE = 0.038 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MONROE COUNTY, NAD83 (YEAR), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR
MONROE COUNTY
DATE 07/06/18
HIGHWAY COMMISSIONER
ORIGINAL PLANS PREPARED BY

Cedar
corporation

MENOMONIE - MADISON - GREEN BAY - CEDARBURG
www.cedarcorp.com
800-472-7372



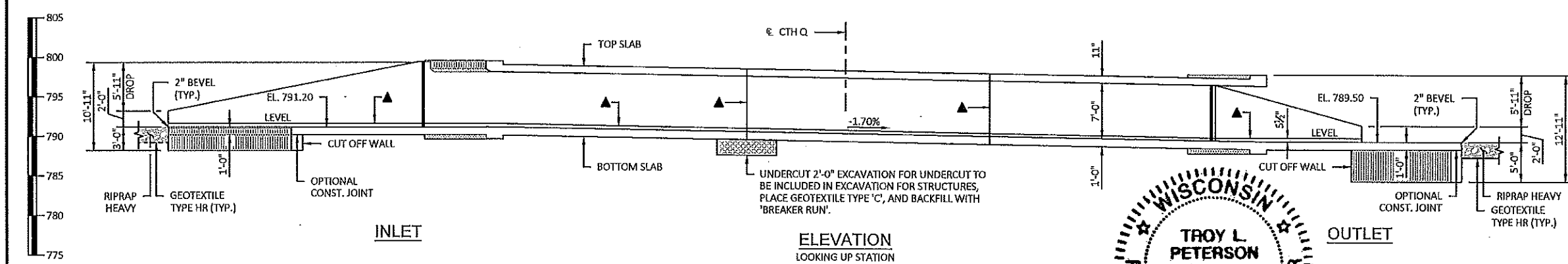
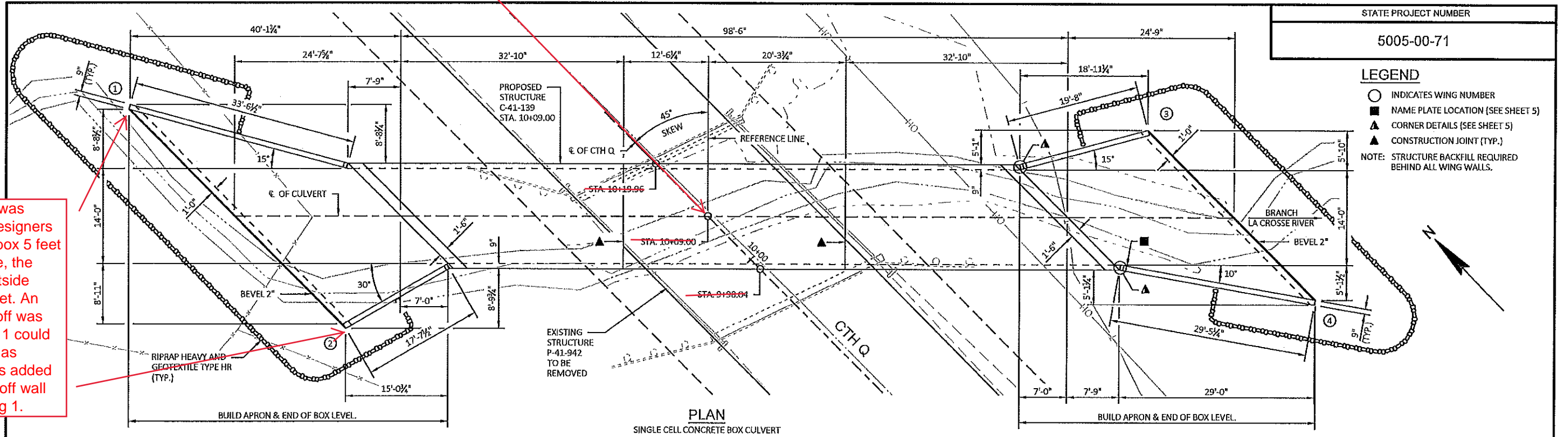
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor CEDAR CORPORATION
Designer CEDAR CORPORATION
Management Consultant KL ENGINEERING

APPROVED FOR THE DEPARTMENT
DATE 7/25/18
(Management Consultant Signature)

The whole box culvert was shifted 5 feet up station. The new center of box station is 10+14.

The inlet cutoff wall was poured before the designers decided to shift the box 5 feet up station. Therefore, the cutoff wall hangs outside wing 2 by about 5 feet. An extension to the cutoff was constructed so wing 1 could sit on the cutoff wall as designed. Rebar was added and drilled in the cutoff wall extension under wing 1.



DESIGN DATA	
LIVE LOAD:	
DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF = 1.05
OPERATING RATING FACTOR	RF = 1.35
WIS-SPV	255 KIPS
EARTH LOAD:	
DESIGNED FOR 5 FEET OF FILL	
MATERIAL PROPERTIES:	
CONCRETE MASONRY	f'c=3,500 P.S.I.
HIGH STRENGTH BAR STEEL	
REINFORCEMENT, GRADE 60	f_y=60,000 P.S.I.

HYDRAULIC DATA	
100 YEAR FREQUENCY	
Q ₁₀₀	470 C.F.S.
VEL.	10.26 F.P.S.
HW ₁₀₀	EL. 797.34
WATERWAY AREA	45.81 SQ. FT.
DRAINAGE AREA	1.5 SQ. MI.
ROADWAY OVERTOPPING	N/A
SCOUR CRITICAL CODE	8
2 YEAR FREQUENCY	
Q ₂ TOTAL	90 C.F.S.
VEL.	3.76 F.P.S.
HW ₂	EL. 794.25

TRAFFIC VOLUME	
CTH Q:	
A.A.D.T. (2019)	560
A.A.D.T. (2039)	590
DESIGN SPEED	50 M.P.H.

PROPOSED GRADE LINE CTH Q			
STA. 9+00.00	EL. 803.02	STA. 10+00.00	EL. 803.02
STA. 10+00.00	EL. 803.02	STA. 10+09.00	EL. 803.21
STA. 10+09.00	EL. 803.02	STA. 11+00.00	EL. 803.81
STA. 11+00.00	EL. 803.81	STA. 11+00.00	EL. 803.81
TOTAL ESTIMATED QUANTITIES			
ITEM NO.	BID ITEMS:	TOTAL	UNIT
203.0600.S	REMOVING OLD STRUCTURE WITH MINIMUM DEBRIS STA 10+00	1	LS
205.2000	EXCAVATION FOR STRUCTURES CULVERTS C-41-139	1	LS
210.2500	BACKFILL STRUCTURE TYPE B	2030	TON
311.0115	BREAKER RUN	240	CY
504.0100	CONCRETE MASONRY CULVERTS	212	CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	32560	LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	2950	LB
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	32	SY
606.0300	RIPRAP HEAVY	100	CY
645.0105	GEOTEXTILE TYPE C	360	SY
645.0120	GEOTEXTILE TYPE HR	190	SY
NON-BID ITEMS:			
	FILLER	3/4"	SIZE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ALL ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE EXISTING STRUCTURE (P-41-942) IS A 27.0' LONG SINGLE SPAN CONCRETE DECK GIRDER BRIDGE WITH TIMBER ABUTMENTS, TO BE REMOVED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-41-139" SHALL BE THE EXISTING GROUND LINE.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDER WATER IF THE EXCAVATION CANNOT BE DE-WATERED.

18" MINIMUM WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS.

PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

UNDERCUT 2'-0". EXCAVATIONS FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. BACKFILL WITH "BREAKER RUN".

LOCATE NAME PLATE ON NEAREST RIGHT WING TRAVELING UP STATION, FACE NAME PLATE UP STATION.

- STATE PROJECT NUMBER
5005-00-71
- LEGEND
- INDICATES WING NUMBER
 - NAME PLATE LOCATION (SEE SHEET 5)
 - ▲ CORNER DETAILS (SEE SHEET 5)
 - ▲ CONSTRUCTION JOINT (TYP.)
- NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.

LIST OF DRAWINGS

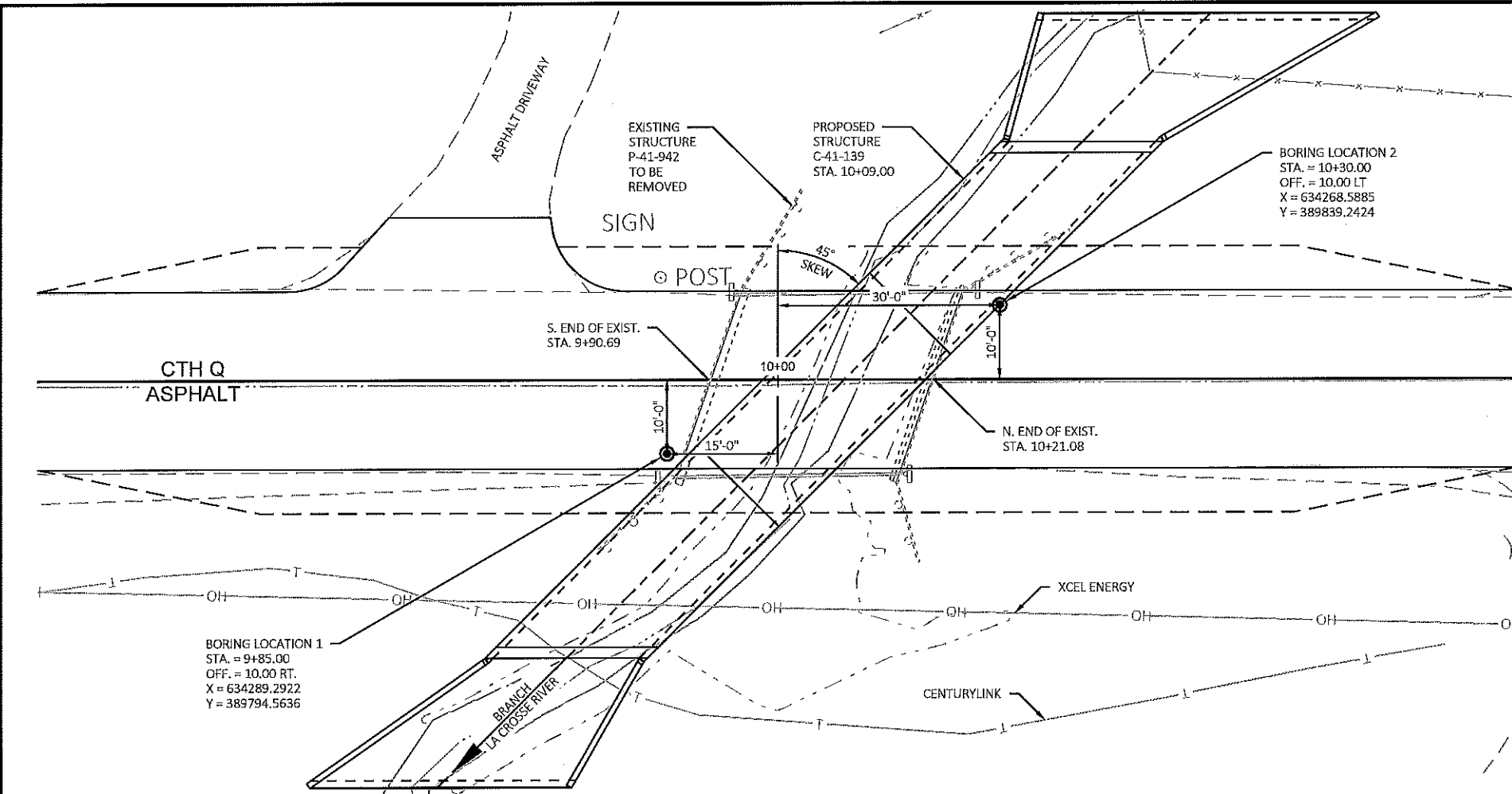
1. LAYOUT
2. SUBSURFACE EXPLORATION
3. BOX DETAILS 1
4. BOX DETAILS 2
5. INLET APRON DETAILS
6. INLET WING DETAILS
7. OUTLET APRON DETAILS
8. OUTLET WING DETAILS

BRIDGE OFFICE CONTACT
WILLIAM DREHER
(608) 266-8489

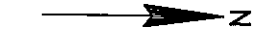
CONSULTANT CONTACT
TROY L. PETERSON
(715) 235-9081

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
Cedar corporation www.cedarcorp.com 800-472-7372			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE _____			
STRUCTURE C-41-139			
CTH Q OVER BRANCH LA CROSSE RIVER			
COUNTY	MONROE	TOWN/ERTH/VILLAGE	ANGELO
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS		
DESIGNED BY	ATA	DESIGN CK'D.	TLP
DRAWN BY	NJT	PLANS CK'D.	TLP
LAYOUT			SHEET 1 OF 8

The alternate cutoff wall was used for the outlet side. There was a spring at the outlet end that prevented a poured cutoff wall to be constructed; therefore, sheeting was installed. See sheet 14.1 for more information about the natural spring and new ditch.



PLAN



SUBSURFACE NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORINGS & REPORT COMPLETED BY:

CHOSEN VALLEY TESTING, INC.

WISCONSIN OFFICE
135 BUCKNER PLACE
LA CROSSE, WI 54603
(608) 782-5505

MINNESOTA OFFICE
1410 7TH STREET NW
ROCHESTER, MN 55901
(507) 281-0968

BORINGS PERFORMED ON:
12/14/2017 - B1
12/14/2017 - B2

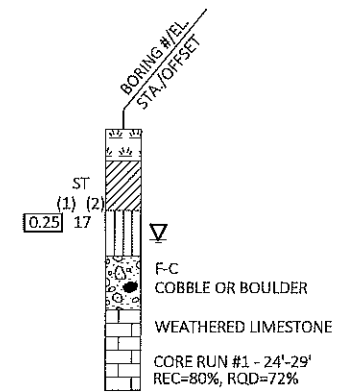
STATE PROJECT NUMBER

5005-00-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



- (1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)
- (2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

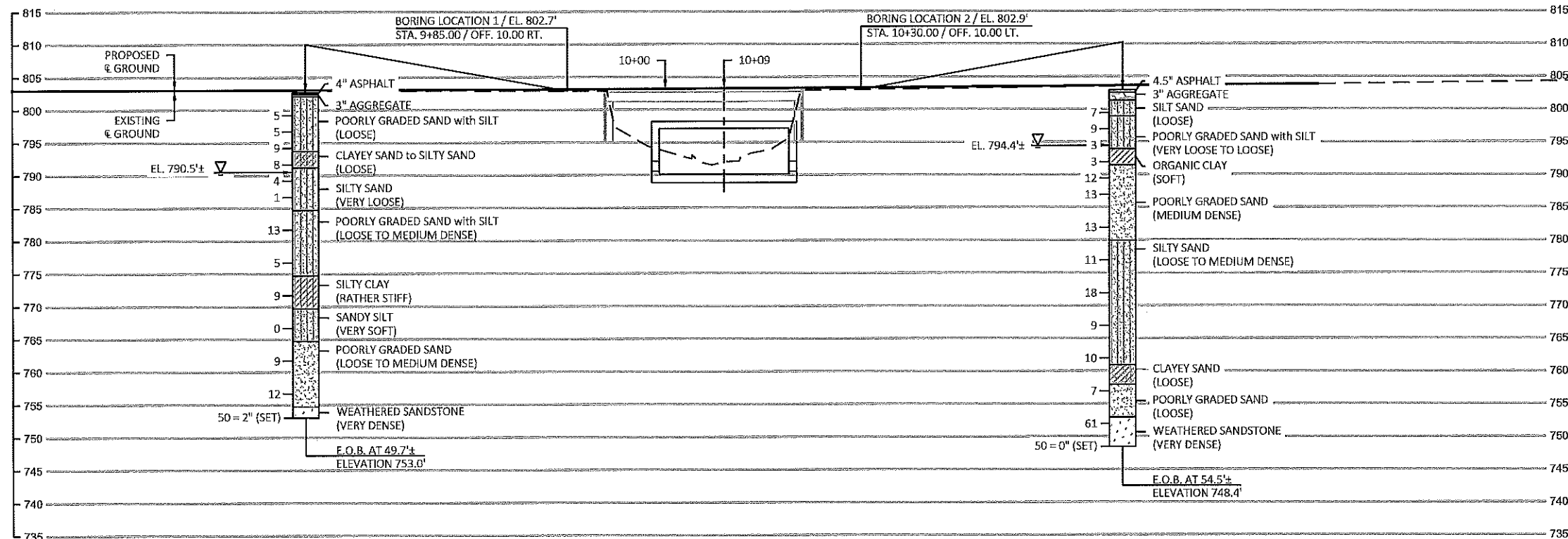
- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.



ELEVATION

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY NJT		PLANS CK'D. TLP	
SUBSURFACE EXPLORATION		SHEET 2 OF 8	

SCALE = 1:1

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQUIRED	LENGTH
B703	4 SERIES OF 22	1'-4" TO 14'-8"
B409	4 SERIES OF 9	27'-0" TO 38'-0"
B411	2 SERIES OF 12	24'-9" TO 40'-1"
B415	2 SERIES OF 7	2'-0" TO 8'-6"

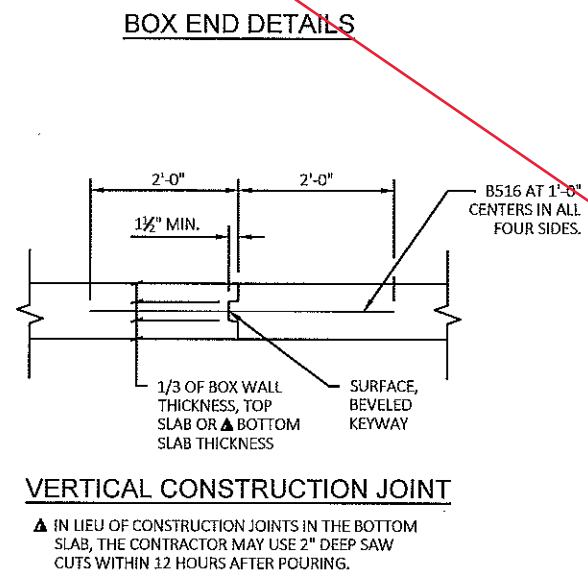
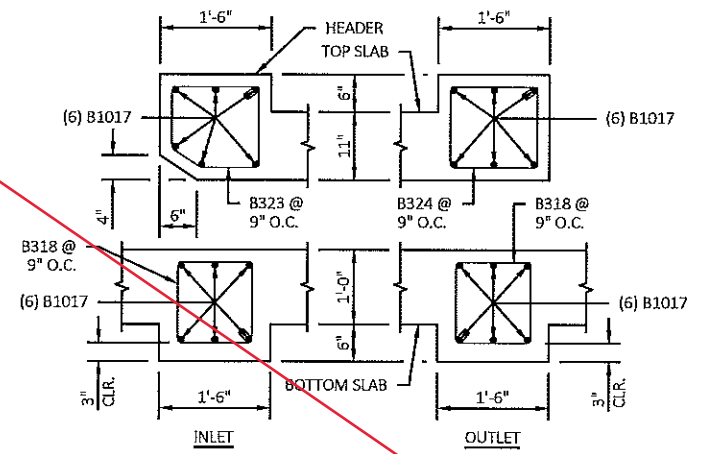
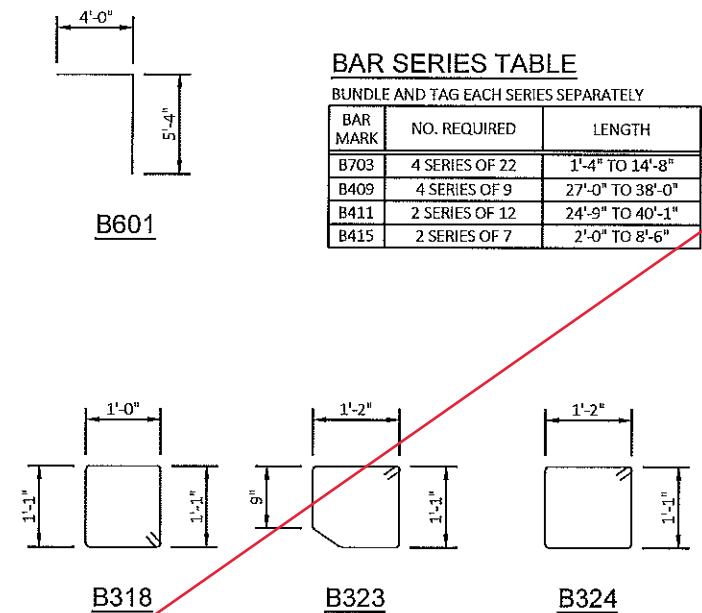
BILL OF BARS

30570# UNCOATED

BAR MARK	QTY	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B601		796	9'-2"	X		BOX CORNER
B702		332	14'-9"			BOX TOP & BOTTOM SLAB TRANS.
B703		112	8'-0"			BOX TOP & BOTTOM SLAB TRANS.
B404		202	7'-6"			BOX WALLS VERTICAL
B405		202	2'-4"			BOX WALLS VERTICAL DOWELS
B406		14	32'-6"			BOX WALLS LONGITUDINAL
B407		14	39'-6"			BOX WALLS LONGITUDINAL
B408		18	32'-6"			BOX TOP & BOTTOM SLAB LONG.
B409		36	32'-6"			BOX TOP & BOTTOM SLAB LONG.
B410		12	32'-6"			BOX TOP SLAB LONGITUDINAL
B411		24	32'-5"			BOX TOP SLAB LONGITUDINAL
B412		6	32'-6"			BOX LONGITUDINAL
B413		4	24'-9"			BOX LONG. BOTTOM CORNER
B414		58	10'-0"			BOX TOP SLAB TRANSVERSE
B415		14	5'-3"			BOX TOP SLAB TRANSVERSE
B516		96	4'-0"			BOX CONSTRUCTION JOINT DOWEL
B1017		24	21'-5"			BOX HEADERS
B318		58	4'-7"	X		BOX HEADERS BOTTOM SLAB
B419		14	24'-9"			BOX WALL LONGITUDINAL
B420		2	28'-3"			BOX LONGITUDINAL BOTTOM
B421		2	36'-0"			BOX LONGITUDINAL BOTTOM
B422		2	39'-6"			BOX LONGITUDINAL BOTTOM
B323		29	4'-7"	X		BOX HEADER TOP INLET STIRRUP
B324		29	4'-11"	X		BOX HEADER STIRRUP OUTLET

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

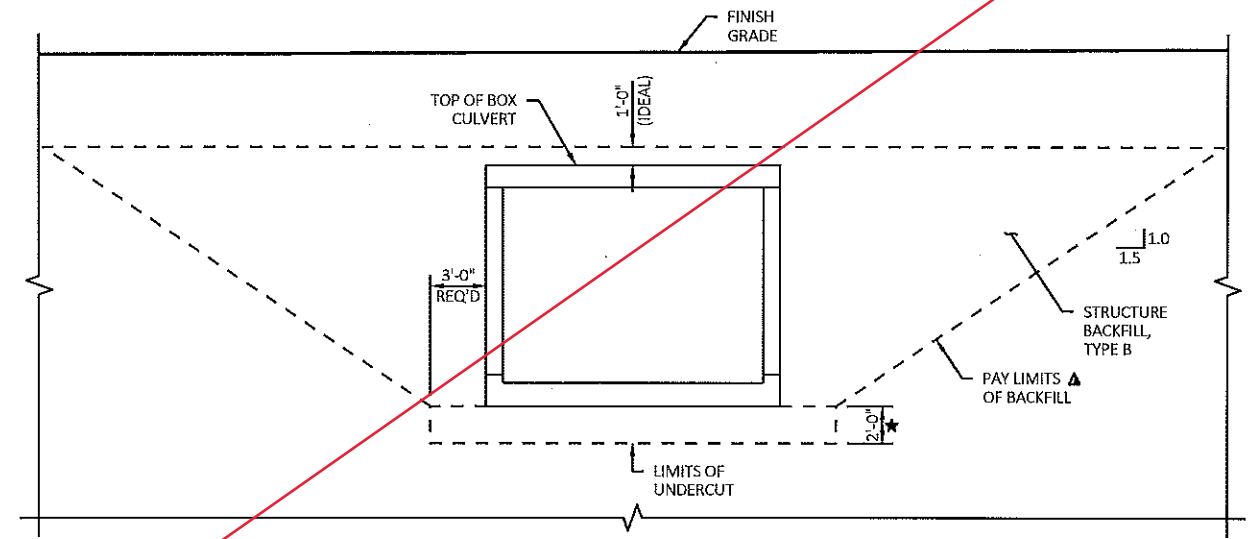
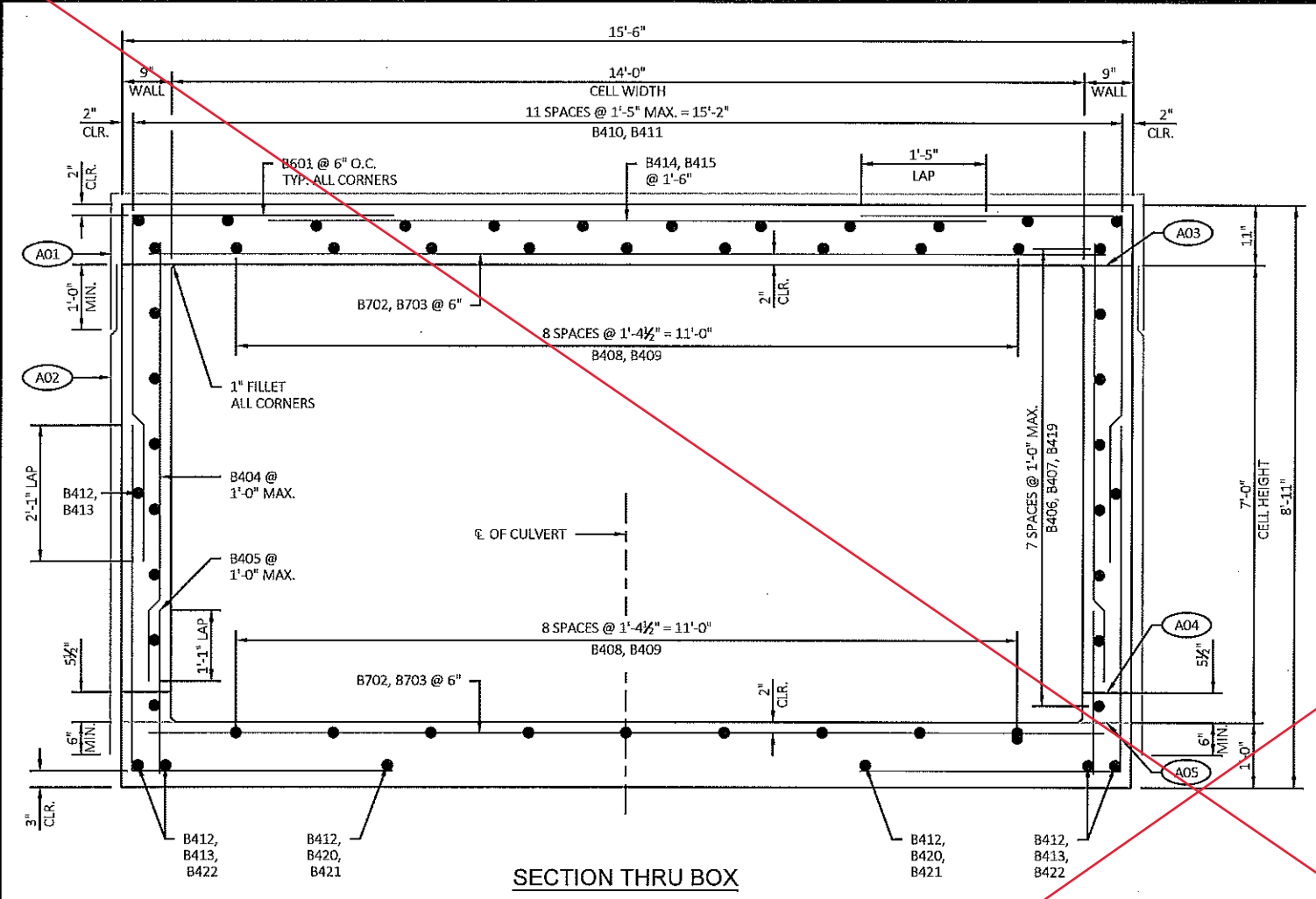
LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



- LEGEND
- A01 18" MIN. WIDTH WATERPROOFING AT CONSTRUCTION JOINTS. EXTEND WATERPROOFING 1'-0" MIN. BELOW BOTTOM OF THE TOP SLAB.
 - A02 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.) UP WALLS AT VERTICAL CONSTRUCTION JOINTS. EXTEND R.M.W. 6" MIN. BELOW THE TOP OF THE BOTTOM SLAB.
 - A03 OPTIONAL CONSTRUCTION JOINT. OMIT 1" FILLET IF OPTIONAL CONSTRUCTION JOINT IS USED.
 - A04 CONSTRUCTION JOINT
 - A05 ALTERNATE CONSTRUCTION JOINT. OMIT 1" FILLET IF ALTERNATE CONSTRUCTION JOINT IS USED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY		PLANS CK'D	TLP
BOX DETAILS 1		SHEET 3 OF 8	

SCALE = 1:1



▲ BACKFILL PAY LIMITS, BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES, LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

★ UNDER CUT 2'-0", EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

STATE PROJECT NUMBER

5005-00-71

Updated Rebar Quantities from the Designers

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

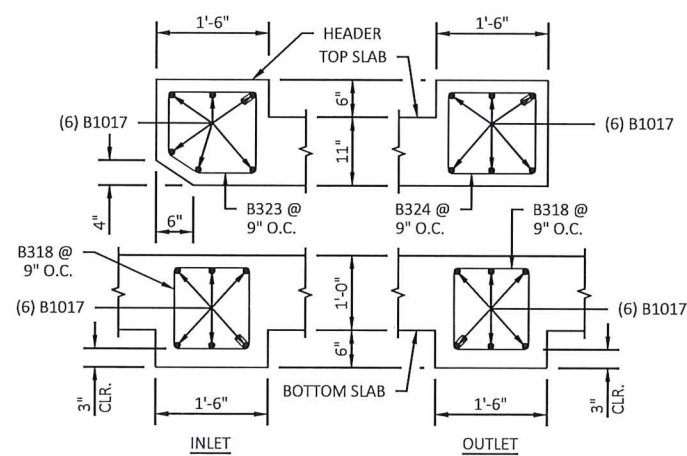
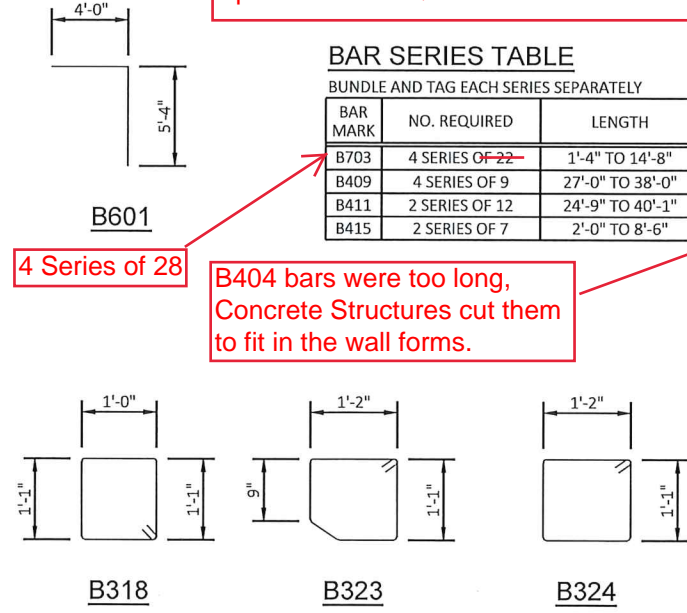
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BILL OF BARS

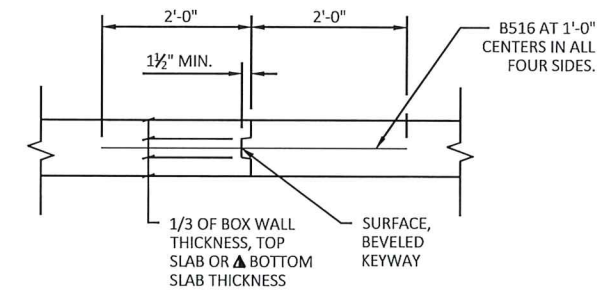
30570#UNCOATED

BAR MARK	COM	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
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NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.
X LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BOX END DETAILS



VERTICAL CONSTRUCTION JOINT

IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

LEGEND

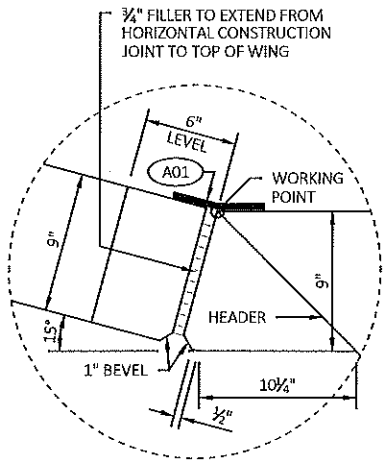
- A01 18" MIN. WIDTH WATERPROOFING AT CONSTRUCTION JOINTS. EXTEND WATERPROOFING 1'-0" MIN. BELOW BOTTOM OF THE TOP SLAB.
- A02 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.) UP WALLS AT VERTICAL CONSTRUCTION JOINTS. EXTEND R.M.W. 6" MIN. BELOW THE TOP OF THE BOTTOM SLAB.
- A03 OPTIONAL CONSTRUCTION JOINT. OMIT 1" FILLET IF OPTIONAL CONSTRUCTION JOINT IS USED.
- A04 CONSTRUCTION JOINT
- A05 ALTERNATE CONSTRUCTION JOINT. OMIT 1" FILLET IF ALTERNATE CONSTRUCTION JOINT IS USED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY NJT		PLANS CKD. TLP	
BOX DETAILS 1		SHEET 3 OF 8	

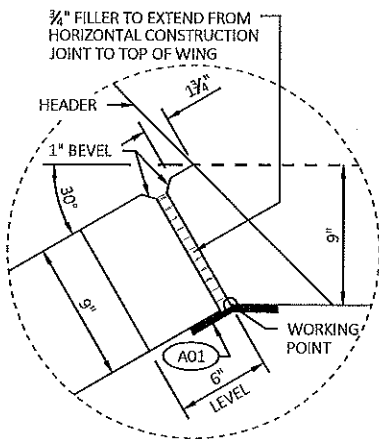
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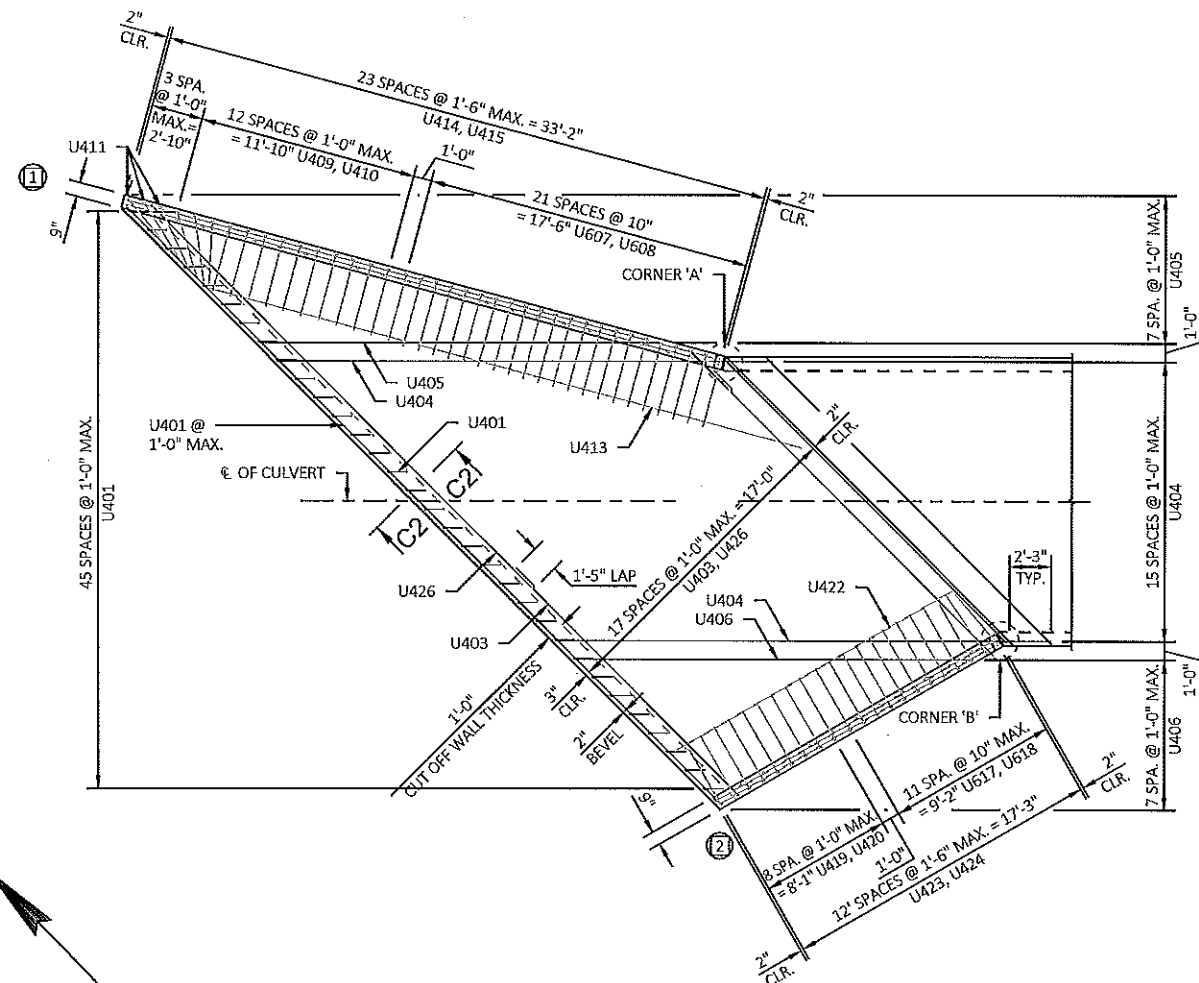
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
	DRAWN BY	NJT	PLANS CK'D. TLP
BOX DETAILS 2		SHEET 4 OF 8	



CORNER 'A'



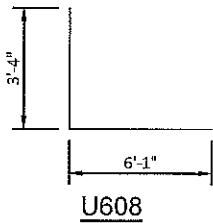
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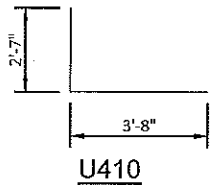
INLET APRON REINFORCEMENT



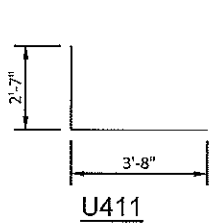
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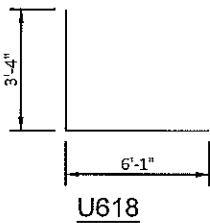
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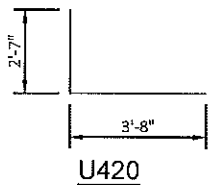
U410



U411



U618



U420

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQUIRED	LENGTH
U426	1 SERIES OF 18	2'-7" TO 24'-2"
U405	1 SERIES OF 8	2'-5" TO 21'-7"
U406	1 SERIES OF 8	2'-5" TO 21'-7"
U607	1 SERIES OF 22	4'-0" TO 7'-2"
U409	1 SERIES OF 13	1'-8" TO 3'-10"
U412	2 SERIES OF 4	8'-6" TO 33'-2"
U414	1 SERIES OF 24	1'-4" TO 7'-2"
U617	1 SERIES OF 12	4'-0" TO 7'-2"
U419	1 SERIES OF 8	1'-4" TO 3'-8"
U421	2 SERIES OF 4	4'-6" TO 17'-3"
U423	1 SERIES OF 13	1'-4" TO 7'-2"

BILL OF BARS

1500# COATED		1030# UNCOATED				BAR SERIES	LOCATION
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT			
U401		46	3'-6"	X			CUTOFF WALL VERTICAL
U402		3	44'-4"				CUTOFF WALL HORIZONTAL
U403		18	21'-7"				APRON TRANSVERSE
U404		16	26'-8"				APRON LONGITUDINAL
U405		8	12'-0"				APRON LONGITUDINAL
U406		8	12'-0"				APRON LONGITUDINAL
U607	X	22	5'-7"				WING 1 VERTICAL BACK FACE
U608	X	22	9'-3"	X			WING 1 CORNER
U409	X	13	2'-9"				WING 1 VERTICAL BACK FACE
U410	X	13	6'-2"	X			WING 1 CORNER
U411	X	3	6'-2"	X			WING 1 CORNER
U412	X	8	20'-10"				WING 1 HORIZONTAL
U413	X	3	33'-2"				WING 1 HORIZONTAL
U414	X	24	4'-3"				WING 1 VERTICAL FRONT FACE
U415	X	24	2'-7"				WING 1 VERTICAL F.F. DOWELS
U516	X	2	33'-9"				WING 1 HORIZONTAL
U617	X	12	5'-7"				WING 2 VERTICAL BACK FACE
U618	X	12	9'-3"	X			WING 2 CORNER
U419	X	8	2'-6"				WING 2 VERTICAL BACK FACE
U420	X	8	6'-2"	X			WING 2 CORNER
U421	X	8	10'-10"				WING 2 HORIZONTAL
U422	X	3	17'-3"				WING 2 HORIZONTAL
U423	X	13	4'-3"				WING 2 VERTICAL FRONT FACE
U424	X	13	2'-1"				WING 2 VERTICAL F.F. DOWELS
U525	X	2	18'-3"				WING 2 HORIZONTAL
U426		18	13'-2"				APRON TRANSVERSE
U427	X	2	33'-2"				WING 1 HORIZONTAL
U428	X	2	17'-3"				WING 2 HORIZONTAL




NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.
X LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

LEGEND

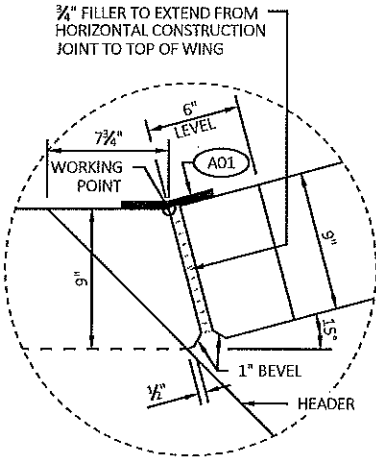
- INDICATES WING NUMBER
- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN WING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY		NJT	PLANS CK'D. TLP
INLET APRON DETAILS		SHEET 5 OF 8	

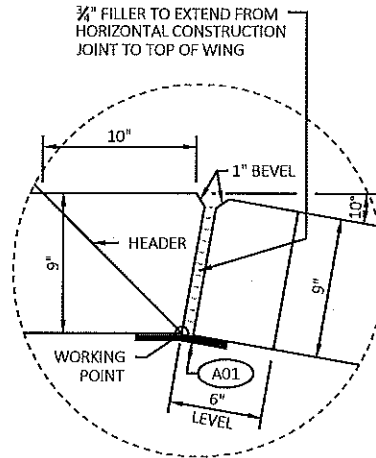


- | | |
|---|---|
|  | INDICATES WING NUMBER |
|  | 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN WING. |
|  | HORIZONTAL CONSTRUCTION JOINT |

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY		NUT	PLANS CK'D. TLP
INLET WING DETAILS		SHEET 6 OF 8	



CORNER 'A'

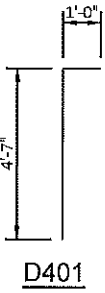


CORNER 'B'

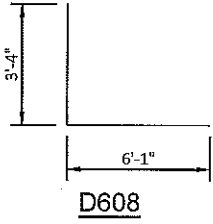
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY

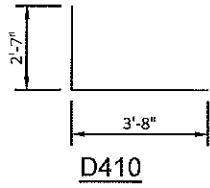
BAR MARK	NO. REQUIRED	LENGTH
D403	1 SERIES OF 19	21'-6" TO 34'-10"
D405	1 SERIES OF 5	4'-2" TO 23'-2"
D406	1 SERIES OF 5	4'-6" TO 23'-2"
D607	1 SERIES OF 13	4'-3" TO 7'-3"
D409	1 SERIES OF 10	1'-4" TO 4'-2"
D411	2 SERIES OF 4	5'-0" TO 19'-4"
D413	1 SERIES OF 14	1'-4" TO 7'-2"
D616	1 SERIES OF 19	4'-2" TO 7'-2"
D418	1 SERIES OF 14	1'-4" TO 4'-2"
D420	2 SERIES OF 4	7'-6" TO 29'-0"
D422	1 SERIES OF 21	1'-4" TO 7'-2"



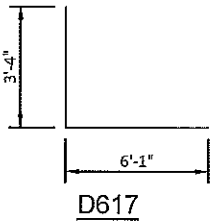
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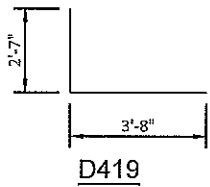
D608



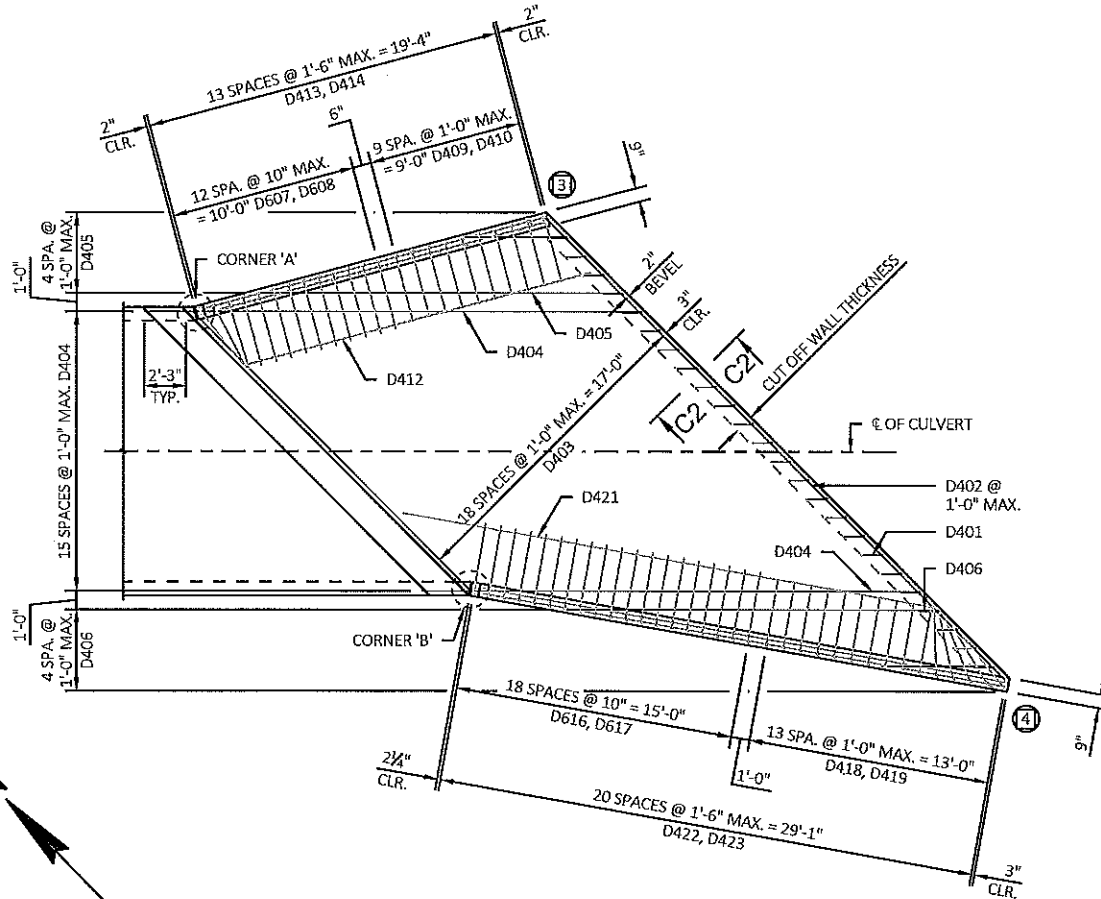
D410



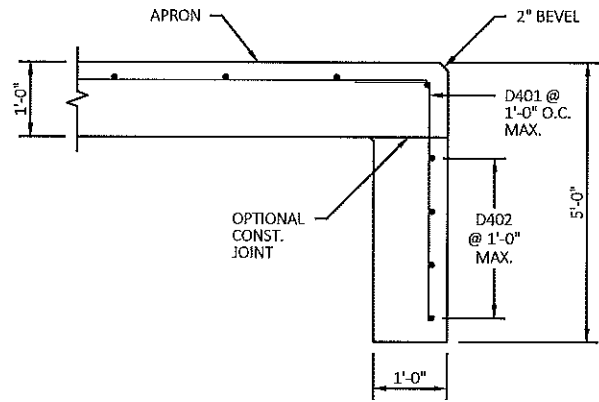
D617



D419



OUTLET APRON REINFORCEMENT



CUT-OFF WALL
SECTION C2

BILL OF BARS

1450# COATED		960# UNCOATED				LOCATION
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	
D401		36	5'-6"	X		CUTOFF WALL VERTICAL
D402		4	35'-0"			CUTOFF WALL HORIZONTAL
D403		19	28'-2"			APRON TRANSVERSE
D404		16	26'-10"			APRON LONGITUDINAL
D405		5	13'-8"			APRON LONGITUDINAL
D406		5	13'-10"			APRON LONGITUDINAL
D607	X	13	5'-9"			WING 3 VERTICAL BACK FACE
D608	X	13	9'-3"	X		WING 3 CORNER
D409	X	10	2'-9"			WING 3 VERTICAL BACK FACE
D410	X	10	6'-1"	X		WING 3 CORNER
D411	X	8	12'-2"			WING 3 HORIZONTAL
D412	X	3	19'-4"			WING 3 HORIZONTAL
D413	X	14	4'-3"			WING 3 VERTICAL FRONT FACE
D414	X	14	2'-7"			WING 3 VERTICAL F.F. DOWELS
D515	X	2	20'-2"			WING 3 HORIZONTAL
D616	X	19	5'-8"			WING 4 VERTICAL BACK FACE
D617	X	19	9'-3"	X		WING 4 CORNER
D418	X	14	2'-9"			WING 4 VERTICAL BACK FACE
D419	X	14	6'-1"	X		WING 4 CORNER
D420	X	8	18'-3"			WING 4 HORIZONTAL
D421	X	3	29'-1"			WING 4 HORIZONTAL
D422	X	21	4'-3"			WING 4 VERTICAL FRONT FACE
D423	X	21	2'-7"			WING 4 VERTICAL F.F. DOWELS
D524	X	2	29'-9"			WING 4 HORIZONTAL
D425	X	2	19'-4"			WING 3 HORIZONTAL
D426	X	2	29'-0"			WING 4 HORIZONTAL

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

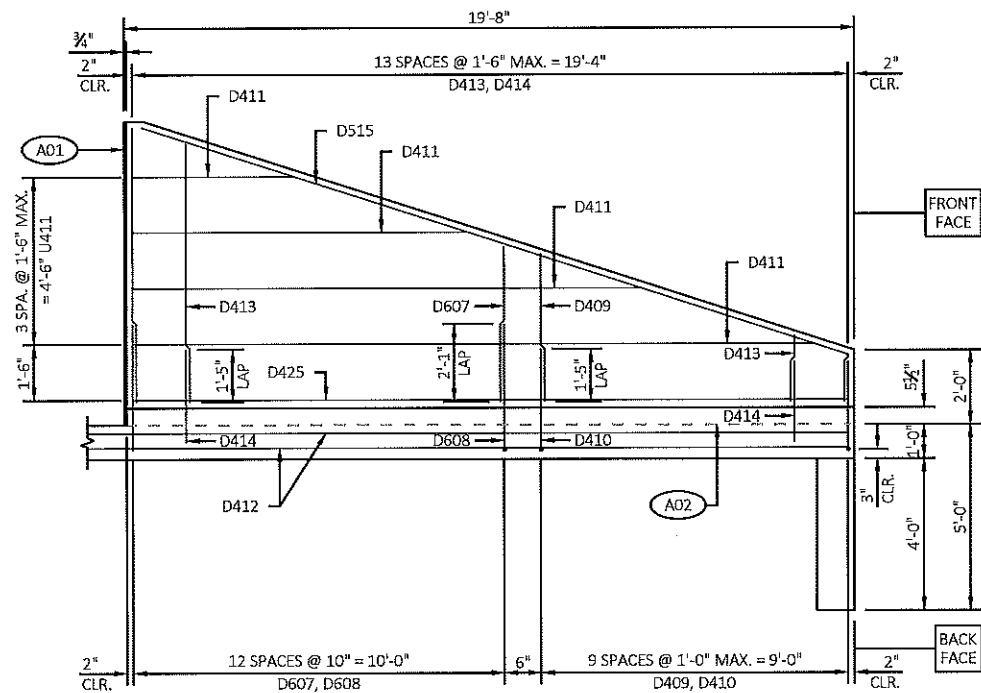
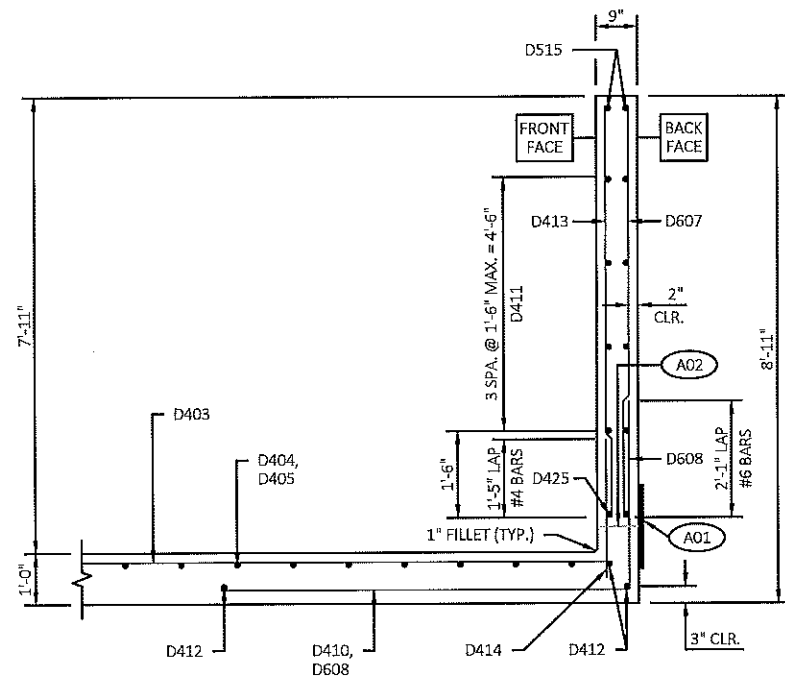
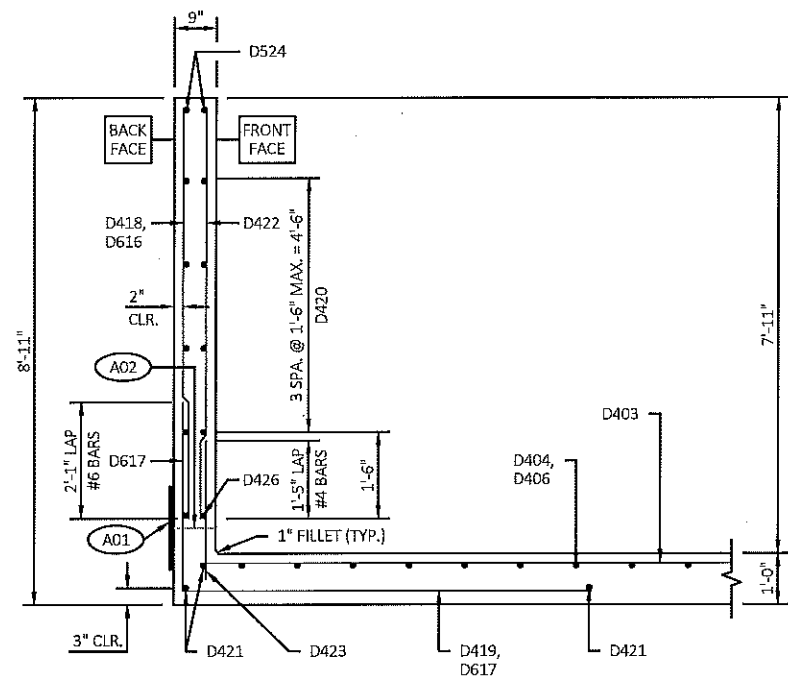
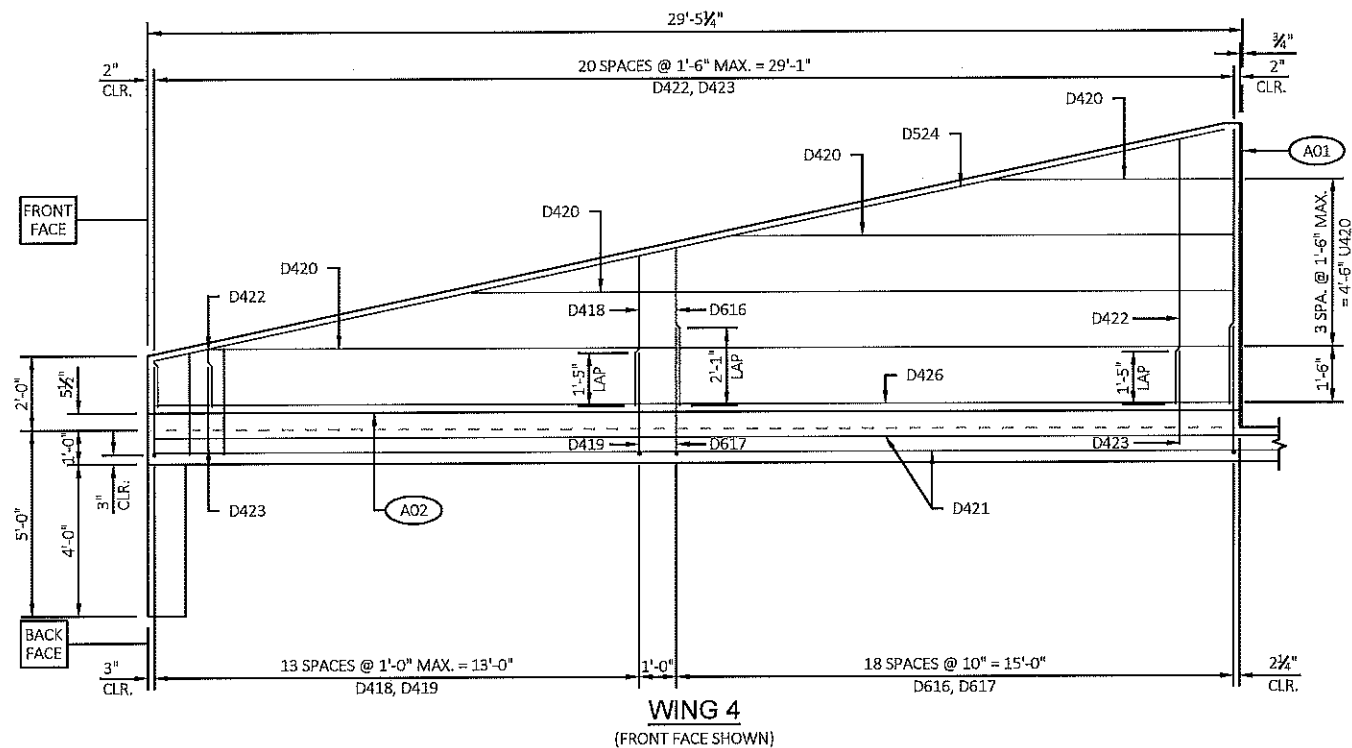
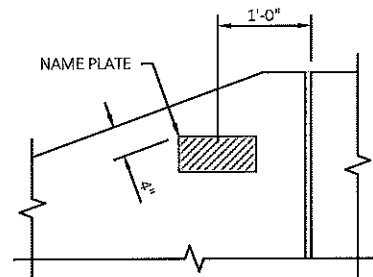
LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

LEGEND

⊙	INDICATES WING NUMBER
A01	18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN WING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY		NJT	PLANS CK'D. TLP
OUTLET APRON DETAILS		SHEET 7 OF 8	

SCALE = 1:1



LEGEND

- INDICATES WING NUMBER
- 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN WING.
- HORIZONTAL CONSTRUCTION JOINT

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-41-139			
DRAWN BY		NET	PLANS CK'D.
OUTLET WING DETAILS		SHEET 8 OF 8	