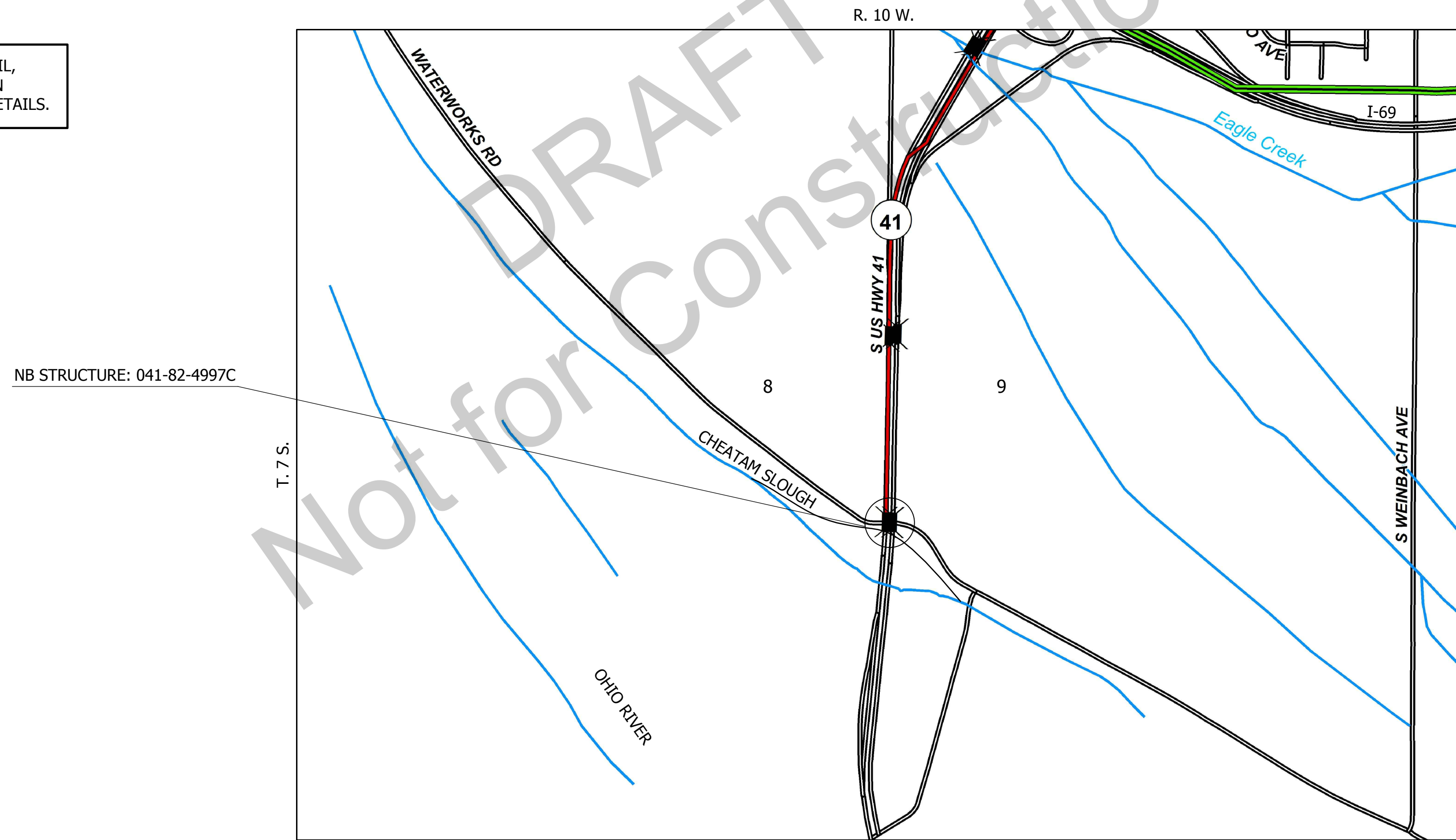


PROJECT	DESIGNATION
9620260	9620260
CONTRACT	BRIDGE FILE
B-33539	041-82-4997C

NORTHBOUND STRUCTURE				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
041-82-4997C	BUILT-UP STEEL PLATE GIRDER BRIDGE	1@85'-3" 3@86'-0" 1@43'-0" NO SKEW	CHEATAM SLOUGH	± STRUCTURE STA. 134+98.65

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
0100482	U.S. 41 over SB Cheatam Slough
9620260	U.S. 41 over NB Cheatam Slough
0200633	U.S. 41 over SB Ohio River Overflow
0200636	U.S. 41 over NB Ohio River Overflow
0200635	U.S. 41 over SB Eagle Creek
0200634	U.S. 41 over NB Eagle Creek
1298275	U.S. 41 over SB Ohio River
1592481	Roadway Plans from Cheatam Slough to Eagle Creek

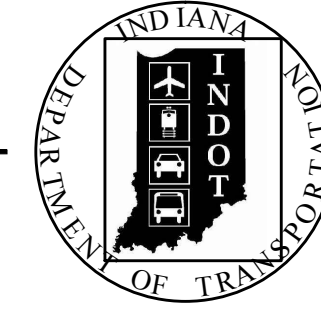
NOTE: SEE ROAD PLANS FOR REMOVAL OF EXISTING GUARDRAIL, PROPOSED GUARDRAIL, PAVEMENT MARKINGS, EROSION CONTROL MEASURES AND MAINTENANCE OF TRAFFIC DETAILS.



VICINITY MAP
VANDERBURGH COUNTY

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES.

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE REHABILITATION PLANS FOR SPANS OVER 20 FEET U.S. 41 NB OVER CHEATAM SLOUGH PROJECT NO. 9620260

DECK RECONSTRUCTION ON STRUCTURE: 041-82-4997C (NB), U.S. 41 OVER CHEATAM SLOUGH LOCATED APPROXIMATELY 1.06 MILES SOUTH OF THE U.S. 41 AND I-69 INTERCHANGE, IN SECTIONS 8 AND 9, TOWNSHIP 7 SOUTH, RANGE 10 WEST, VANDERBURGH COUNTY, INDIANA.

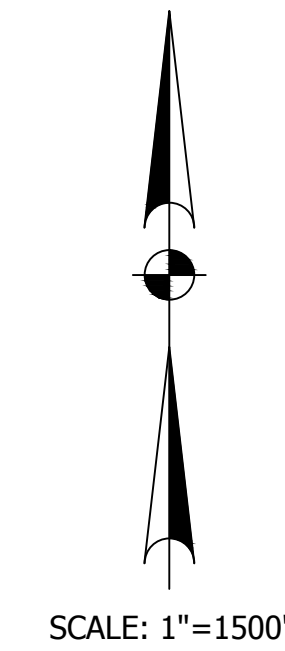
TRAFFIC DATA	
A.A.D.T. (2013)	20153 V.P.D.
A.A.D.T. (2017)	20380 V.P.D.
A.A.D.T. (2037)	25630 V.P.D.
DIRECTIONAL DISTRIBUTION	100 %
TRUCKS	11.6 % A.A.D.T.
DESIGN DATA	
DESIGN SPEED	50 M.P.H.
POSTED SPEED	50 M.P.H.
PROJECT DESIGN CRITERIA	3R NON-FREEWAY
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 37°55'23" N. & LONGITUDE: 87°32'55" W.

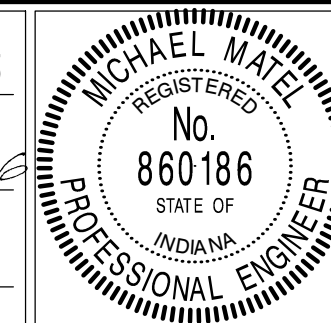
H.U.C. = 05140202010020

R.P. 0+39



U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B101NB.dwg Donald Sheetz Plot: 11/1/2016 1:10 PM Save: 11/1/2016 9:00 AM

PLANS PREPARED BY: Butler Fairman and Seufert Inc. (317)713-4615
PHONE
CERTIFIED BY: *Michael M. M...* 10/31/16
DATE
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE



INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2016 TO BE USED WITH THESE PLANS.

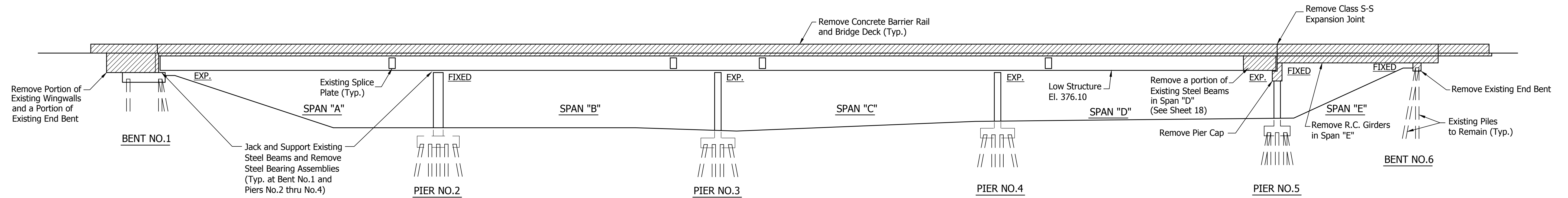
BRIDGE FILE	041-82-4997C
DESIGNATION	9620260
SURVEY BOOK	SHEET 1 OF 30
CONTRACT	PROJECT B-33539 9620260

BFS NO. 5605

ORIGINAL P.G. DATA
P.V.I. Sta. 131+00
El. 381.91
V.C.=400'
+0.16% -0.04%

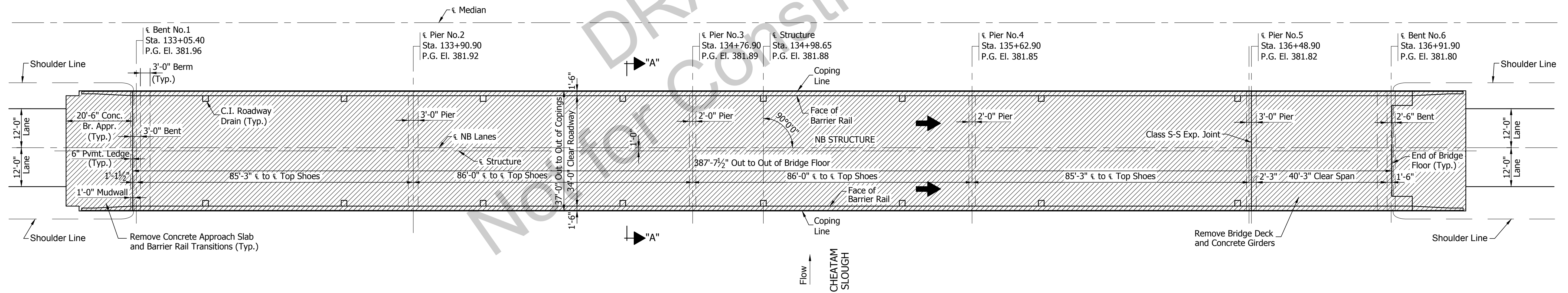
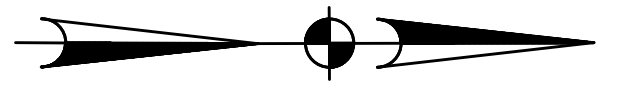
STRUCTURE IS BUILT ON A -0.04% GRADE

ORIGINAL P.G. DATA
P.V.I. Sta. 139+00
El. 381.59
V.C.=400'
-0.04% -0.16%



Note: Hatched Areas indicate Portions to be Removed.

ELEVATION
NB STRUCTURE
Scale: 1/16" = 1'-0"



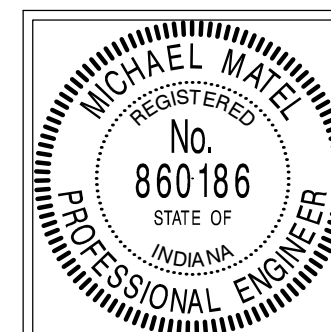
NOTE: SEE ROAD PLANS FOR REMOVAL OF EXISTING GUARDRAIL, PROPOSED GUARDRAIL, PAVEMENT MARKINGS, EROSION CONTROL MEASURES AND MAINTENANCE OF TRAFFIC DETAILS.

NOTES
See Sheet 4 for Proposed Structure General Plan.
See Sheet 5 for Section "A-A".

PLAN
NB STRUCTURE
Scale: 1/16" = 1'-0"

CONTINUOUS WELDED STEEL PLATE GIRDER AND R.C. GIRDER BRIDGE

5 SPANS: 1 AT 85'-3", 2 AT 86'-0", 1 AT 85'-3" AND 1 AT 40'-3", NO SKEW,
34'-0" CLEAR ROADWAY, ON U.S.41 NB OVER CHEATAM SLOUGH



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE
DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
CHECKED: M. MATEL CHECKED: M. MATEL

INDIANA
DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
EXISTING STRUCTURE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	3 OF 30
CONTRACT	PROJECT
B-33539	9620260

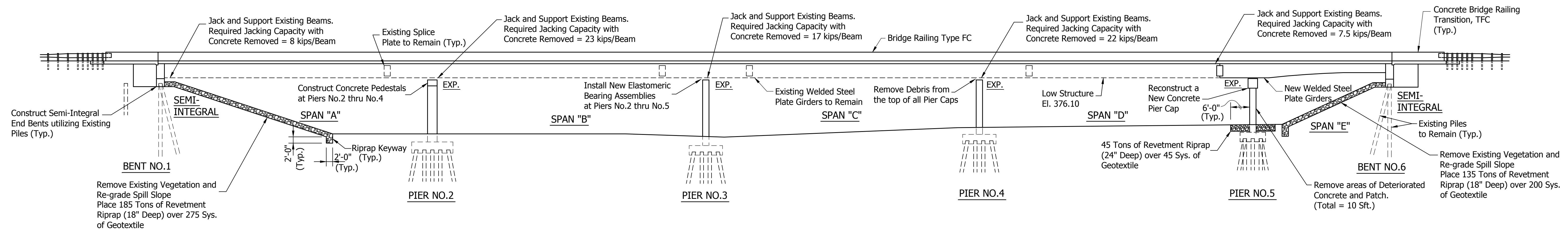
U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B721.dwg Donald Sheetz Plot: 11/1/2016 1:11 PM Save: 10/27/2016 5:54 AM

5605
BFS NO.

ORIGINAL P.G. DATA
 P.V.I. Sta. 131+00
 El. 381.91
 V.C.=400'
 +0.16% -0.04%

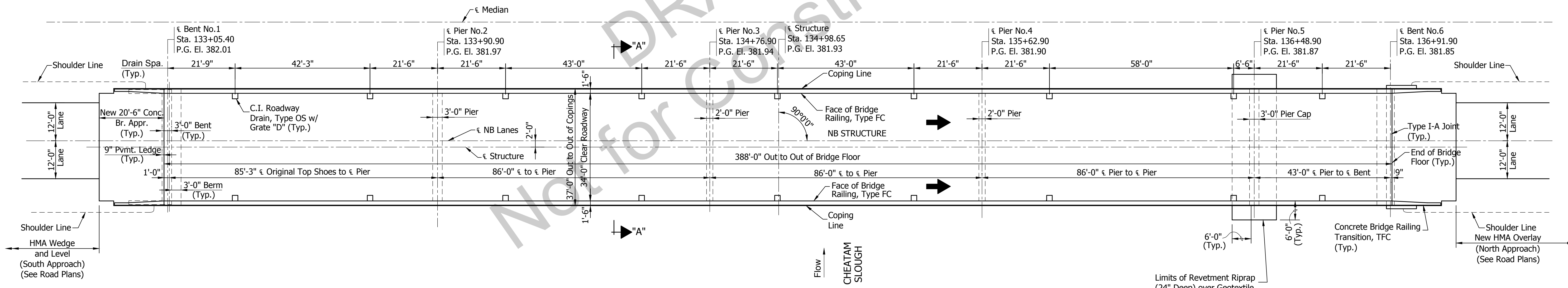
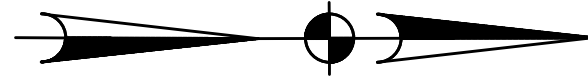
ORIGINAL P.G. DATA
 P.V.I. Sta. 139+00
 El. 381.59
 V.C.=400'
 -0.04% -0.16%

STRUCTURE IS BUILT ON A -0.04% GRADE



ELEVATION
 NB STRUCTURE
 Scale: 1/16" = 1'-0"

Note: Install 7 Snowplowable Raised Pavement Markers.



PLAN
 NB STRUCTURE
 Scale: 1/16" = 1'-0"

NOTE: SEE ROAD PLANS FOR REMOVAL OF EXISTING GUARDRAIL, PROPOSED GUARDRAIL, PAVEMENT MARKINGS, EROSION CONTROL MEASURES AND MAINTENANCE OF TRAFFIC DETAILS.

NOTES
 See Sheet 3 for Existing Structure General Plan.
 See Sheet 6 for Section "A-A", General Notes, Design Data and Construction Loading.

CONTINUOUS WELDED STEEL PLATE GIRDER BRIDGE

5 SPANS: 1 AT 85'-3", 3 AT 86'-0" AND 1 AT 43'-0", NO SKEW, 34'-0" CLEAR ROADWAY, ON U.S.A1 NB OVER CHEATAM SLOUGH

RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
 DESIGN ENGINEER DATE

DESIGNED: D. SHEETZ DRAWN: D. SHEETZ

CHECKED: M. MATEL CHECKED: M. MATEL

PROFESSIONAL ENGINEER
 No. 860186
 STATE OF INDIANA

INDIANA DEPARTMENT OF TRANSPORTATION

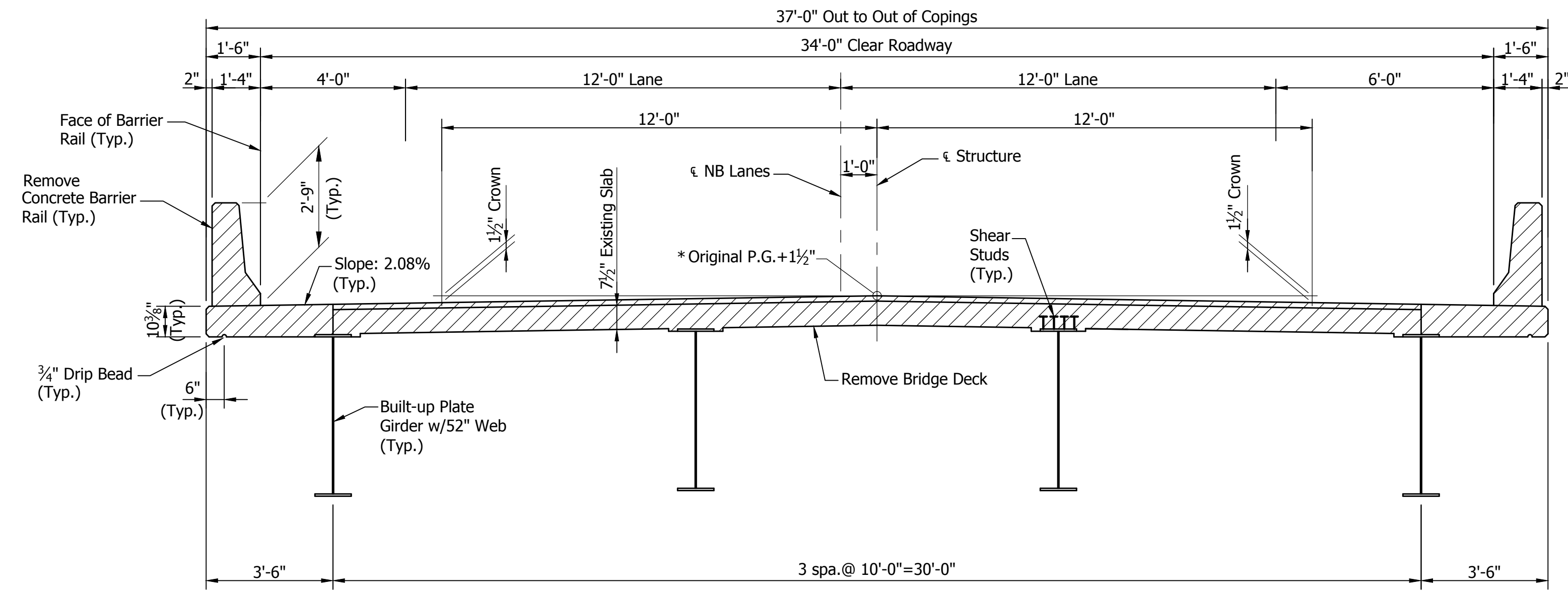
GENERAL PLAN
 PROPOSED STRUCTURE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	4 OF 30
CONTRACT	PROJECT
B-33539	9620260

U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B721A.dwg Donald Sheetz Plot:11/1/2016 1:11 PM Sves:10/27/2016 5:57 AM

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B723.dwg Donald Sheetz Plot: 11/1/2016 1:11 PM Save: 10/17/2016 8:20 AM

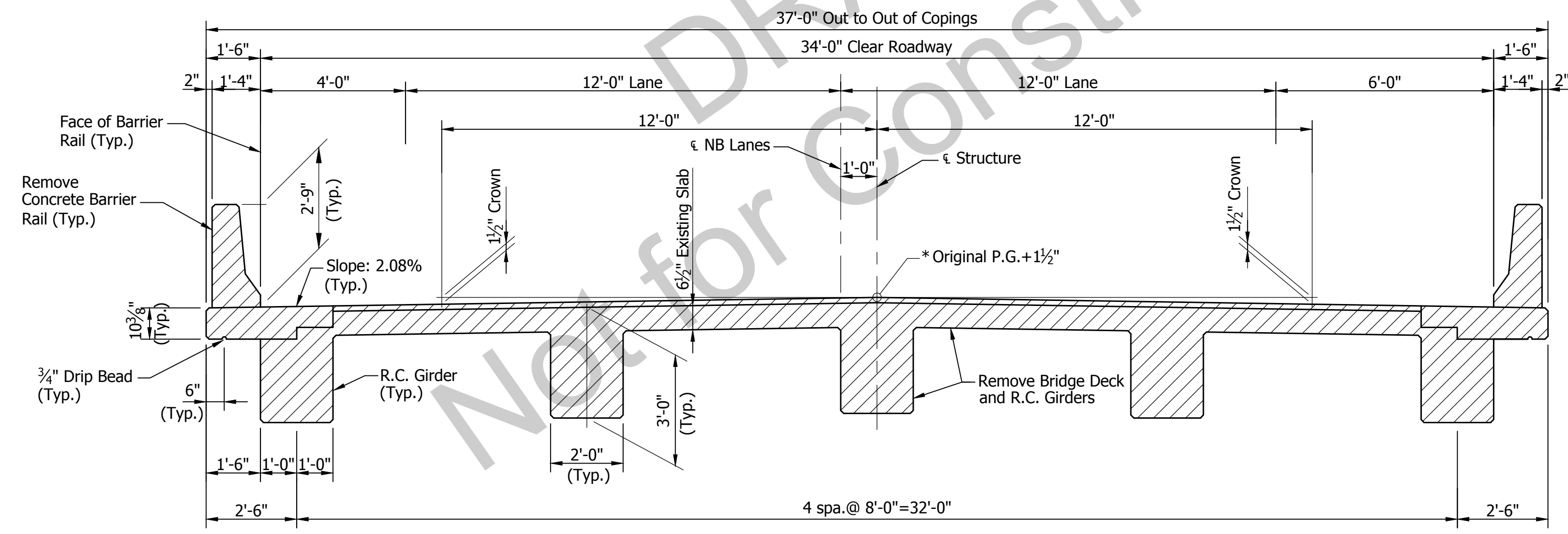


EXISTING SECTION "A-A"
SPANS "A" THRU "D"
NORTHBOUND STRUCTURE

Scale: 3/8" = 1'-0"

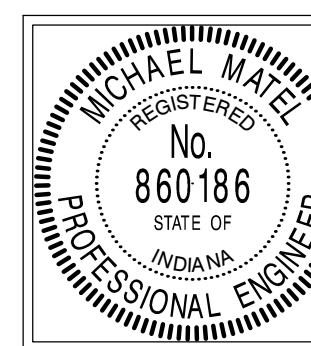
Note: Hatched Areas indicate Portions to be Removed.

* Original Plans dated July 17th, 1963



EXISTING SECTION "A-A"
SPAN "E"
NORTHBOUND STRUCTURE

Scale: 3/8" = 1'-0"



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
 CHECKED: M. MATEL CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS

HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	041-82-4997C
VERTICAL SCALE	AS NOTED	DESIGNATION	9620260
SURVEY BOOK	5	SHEET	30
CONTRACT	B-33539	PROJECT	9620260

5605
BFS NO.

GENERAL NOTES

Plans for the existing structure are on file with the Indiana Department of Transportation as Structure No. 41-A-4997 and Bridge Files: 41-93-4997A, 41-93-4997B and are available upon request.

Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field and report any errors or discrepancies to the Engineer and assume responsibility for their correctness and the fit of the new part to the old.

Epoxy coated reinforcing bars shall be required in various portions of the structure unless otherwise shown.

Reinforcing bars covering shall be 2½" in top of approach slabs.

Reinforcing bars covering shall be 2-1/2" in top and 1" in bottom of floor slabs and 2" in all other areas unless noted.

Reinforcing bars shall be A.S.T.M A615, Grade 60.

Concrete shall be Class C in top portions of the end bents and wingwalls as noted, floor slab and barrier railings.

Concrete shall be Class A in all portions of the project not noted above.

Chamfer exposed corners of concrete 1" unless noted.

Surface seal shall be required on various areas of the structure as shown. Estimated quantity = 23060 Sft. (Does not include Concrete Barrier Railing Transitions).

Excavation required for placement of Aggregate for End Bent Backfill at the bridge end bents beyond the limits of Foundation Excavation Unclassified shall not be paid for directly but shall be included in the cost of the Aggregate for End Bent Backfill.

DESIGN DATA

MATERIAL DESIGN STRENGTHS:

Class "C" Concrete F_c = 4,000 p.s.i.
 Class "A" Concrete F_c = 3,500 p.s.i.
 Reinforcing Bars (Grade 60) F_y = 60,000 p.s.i.

LIVE LOAD:

HS20-44 loading with distribution in accordance with 2002 A.A.S.H.T.O. Specifications. Load Factor = 2.17

DEAD LOAD:

Actual plus 35 pounds per square foot (composite) for future wearing surface and 15 pounds per square foot (non composite) for deck forms. Slab design with a 1/2" wearing surface and a structural depth of 7-1/2".

CONSTRUCTION LOADING

The exterior girder has been checked for strength, deflection and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior girder. The finishing machine was assumed to be supported 6 inches outside the vertical coping form. The top overhang brackets were assumed to be located 6 inches past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the girder bottom flange and web.

DECK FALSEWORK LOADS: Designed for 15 psf for deck forms and 2 ft. exterior walkway.

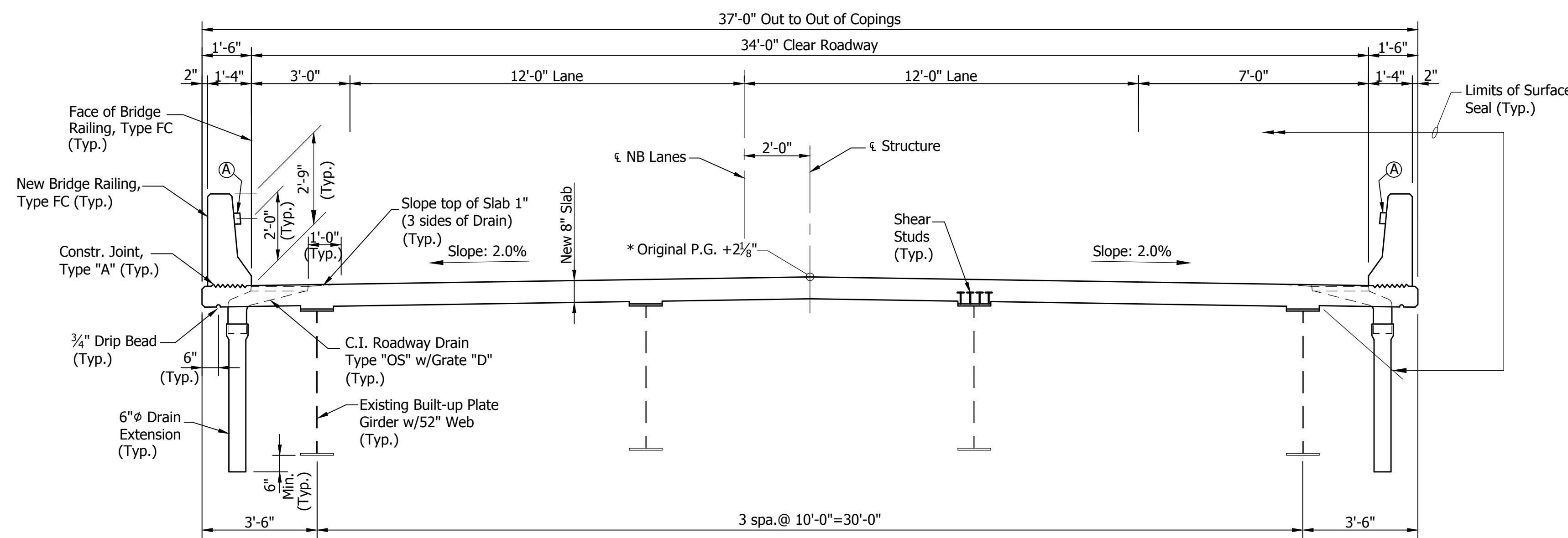
CONSTRUCTION LIVE LOAD: Designed for 20 psf extending 2 ft past the edge of coping and 75 plf vertical force applied at a distance of 6 inches outside the face of coping over a 30 ft length of the deck centered with the finishing machine.

FINISHING MACHINE LOAD: 4500 lbs. distributed over 10 feet along the coping.

WIND LOAD: Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

SEISMIC DATA

AASHTO LRFD Bridge Design Specifications, 6th Edition, 2012.
 Seismic Zone 2
 S_{D1} = 0.257
 Site Class D

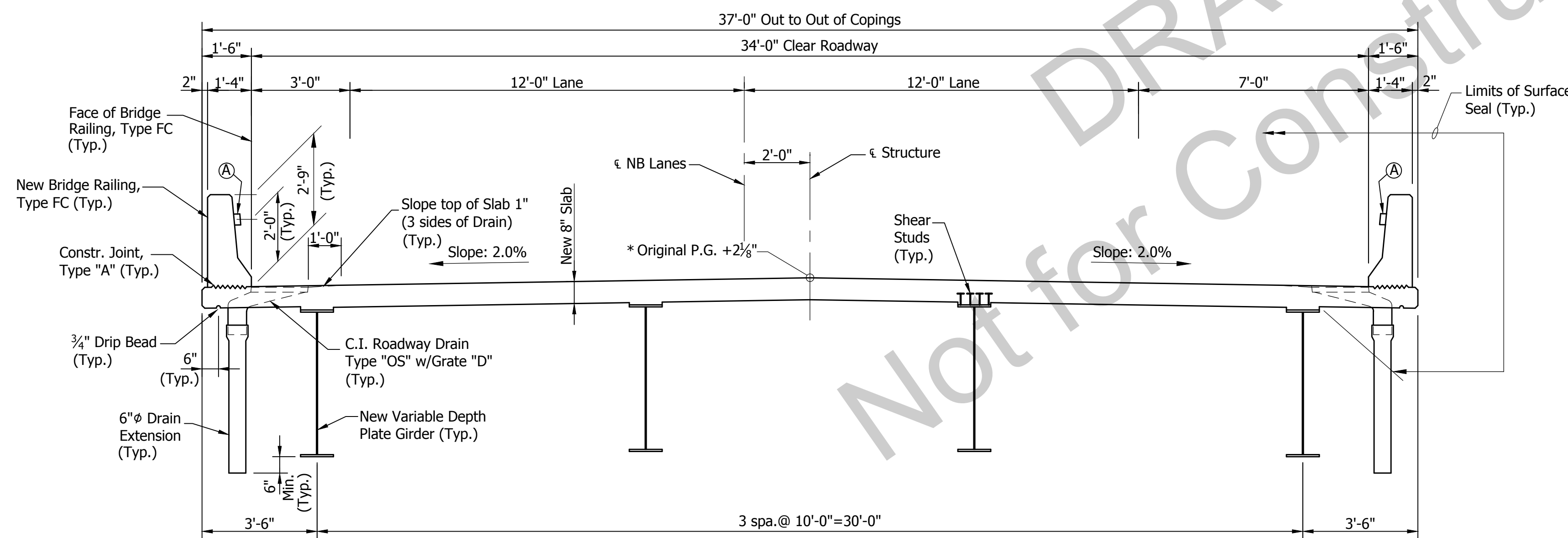


PROPOSED SECTION "A-A"
SPANS "A" THRU "D"
NORTHBOUND STRUCTURE

* Original Plans dated July 17, 1963

(A) Barrier Delineators @ 40'-0" Max. Spacing

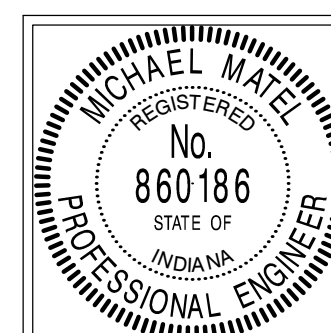
NOTE: SEE ROAD PLANS FOR REMOVAL OF EXISTING GUARDRAIL, PROPOSED GUARDRAIL, PAVEMENT MARKINGS, EROSION CONTROL MEASURES AND MAINTENANCE OF TRAFFIC DETAILS.



PROPOSED SECTION "A-A"
SPAN "E"
NORTHBOUND STRUCTURE

Scale: 3/8" = 1'-0"

U:\5605\ProDevelopment\Design Drawings\CHETA\T.M. SLOUGH\5605B723A.dwg Donald Sheetz Plot:11/1/2016 1:12 PM Scale:11/2016 7:53 AM



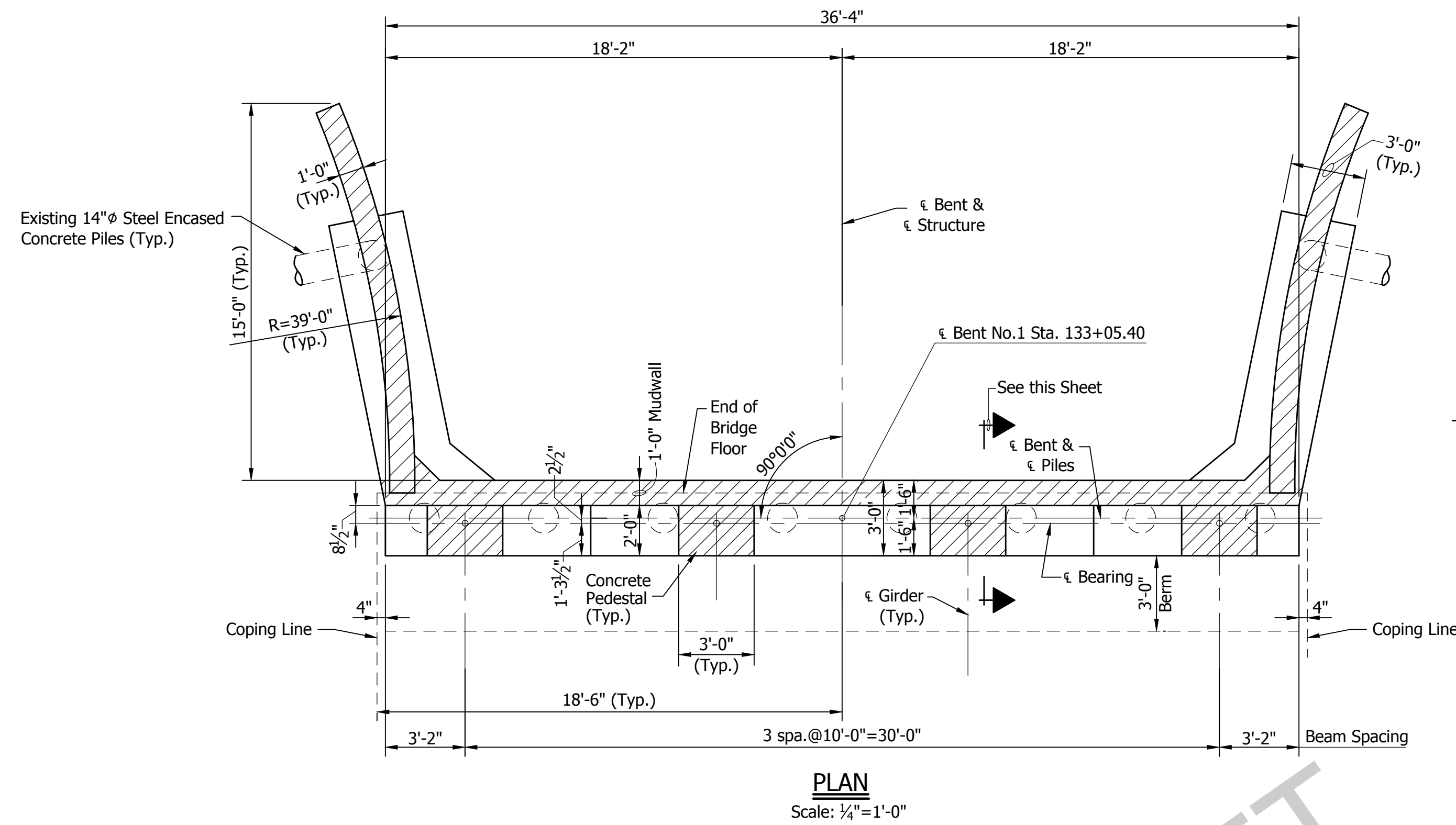
RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
 CHECKED: M. MATEL CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS

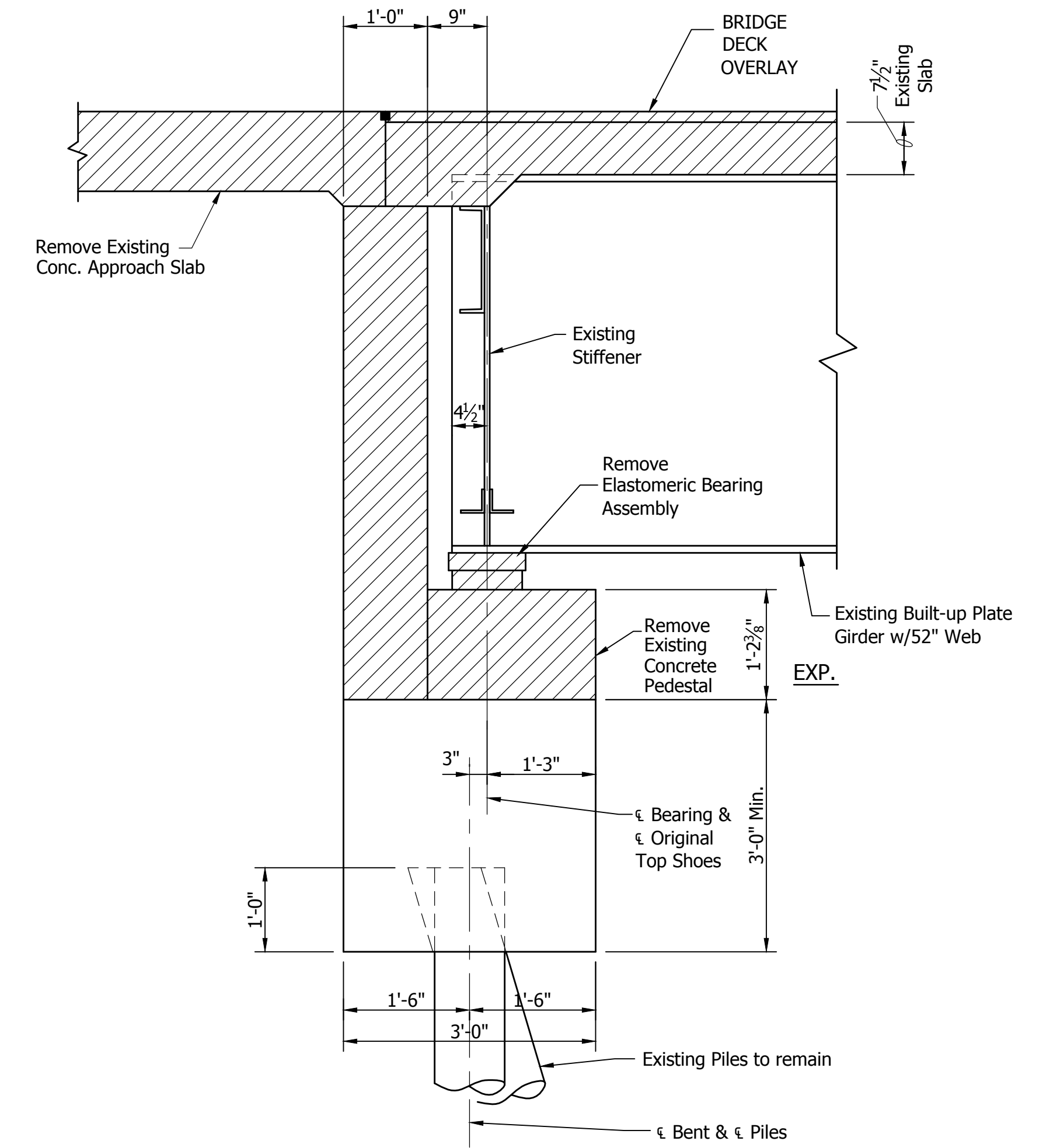
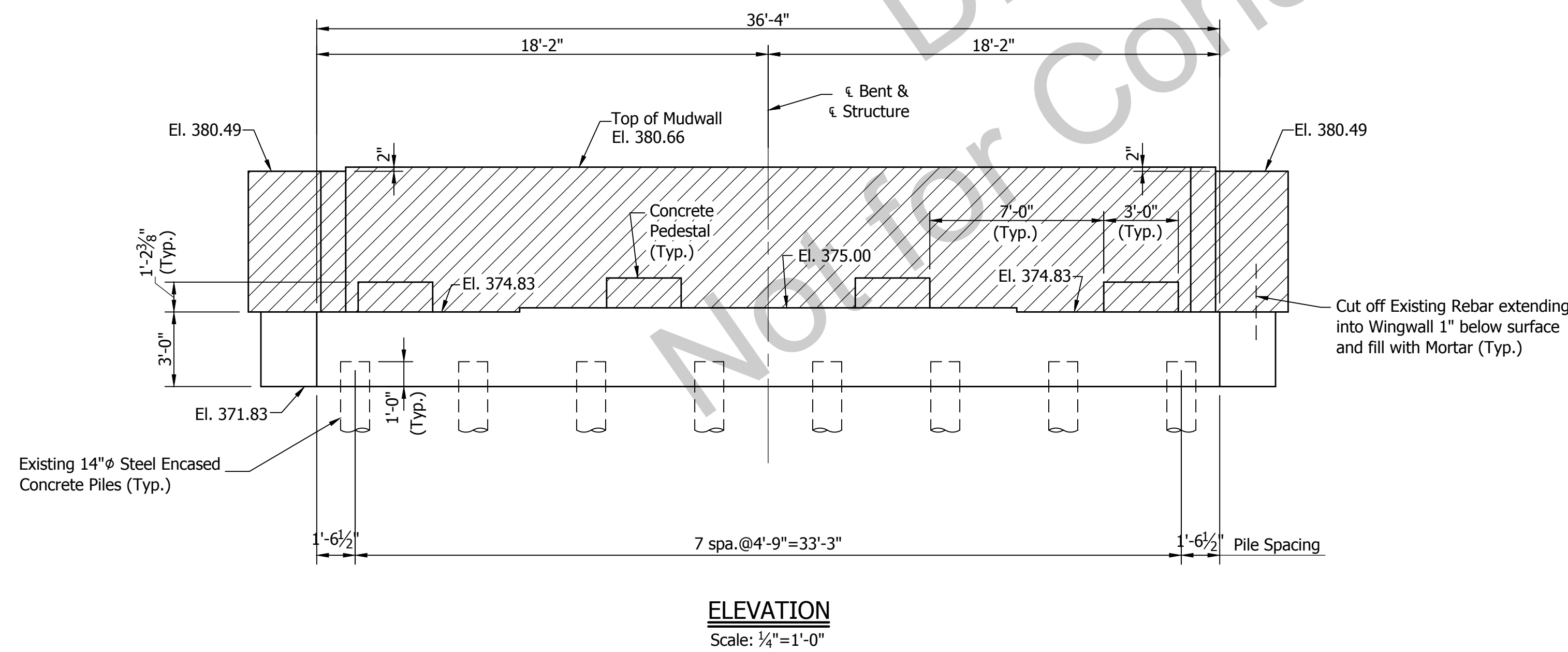
HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	041-82-4997C
VERTICAL SCALE	AS NOTED	DESIGNATION	9620260
SURVEY BOOK	6	SHEET	30
CONTRACT	B-33539	PROJECT	9620260

5605
BFS NO.

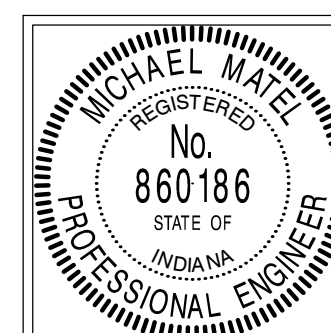
U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B7301B.dwg Donald Sheetz Plot: 11/1/2016 1:12 PM Save: 10/17/2016 8:20 AM



Note: Hatched Areas indicate portions to be Removed.



NOTE
See Sheets 8, 9 and 10 for Reconstruction Details.



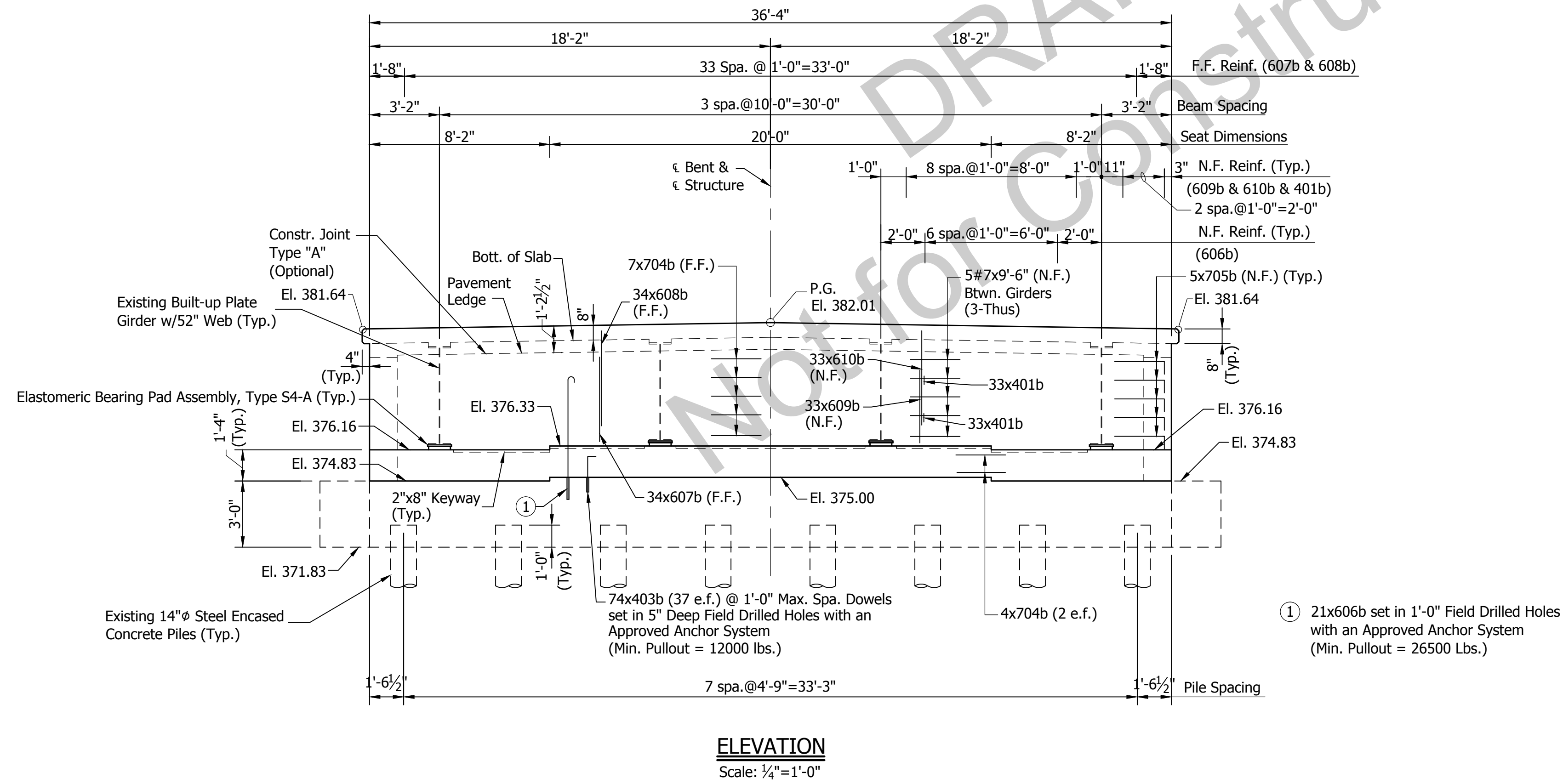
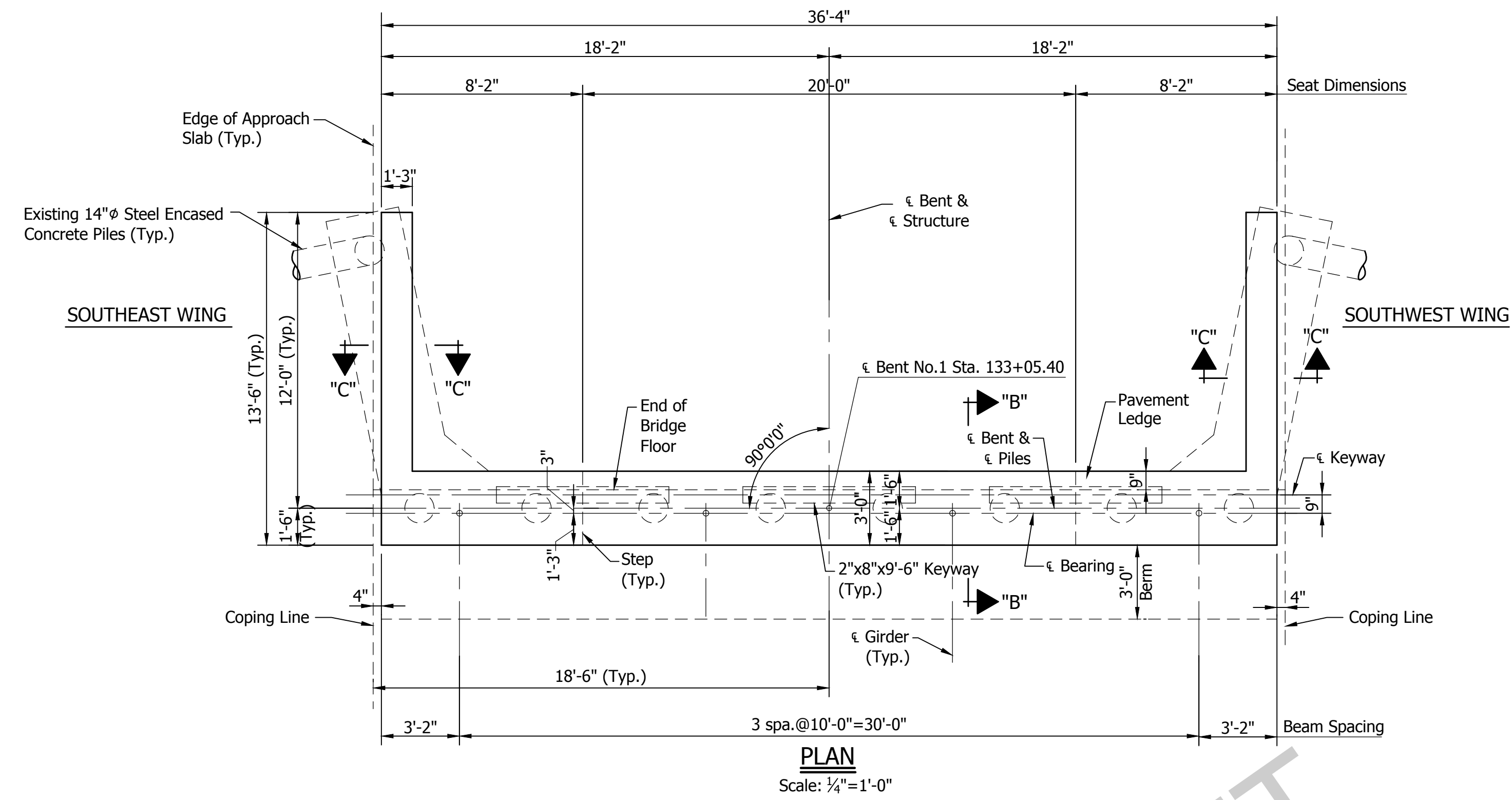
RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE
DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
BENT NO. 1 DETAILS
NORTHBOUND STRUCTURE

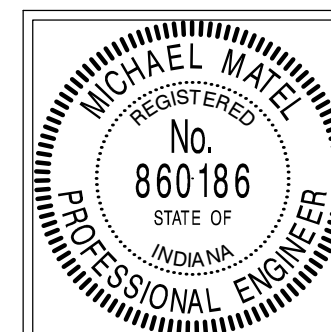
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	7 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHE1\T.M. SLOUGH\5605B730ANB.dwg Donald Sheetz Plot:1/1/2016 1:12 PM Save:10/17/2016 8:20 AM



NOTES
See Sheet 7 for Removal Details.
See Sheet 9 for Section "B-B".
See Sheet 10 for Wingwall Details and Section "C-C".
See Sheet 11 for Bar Bending Details and Bill of Materials.



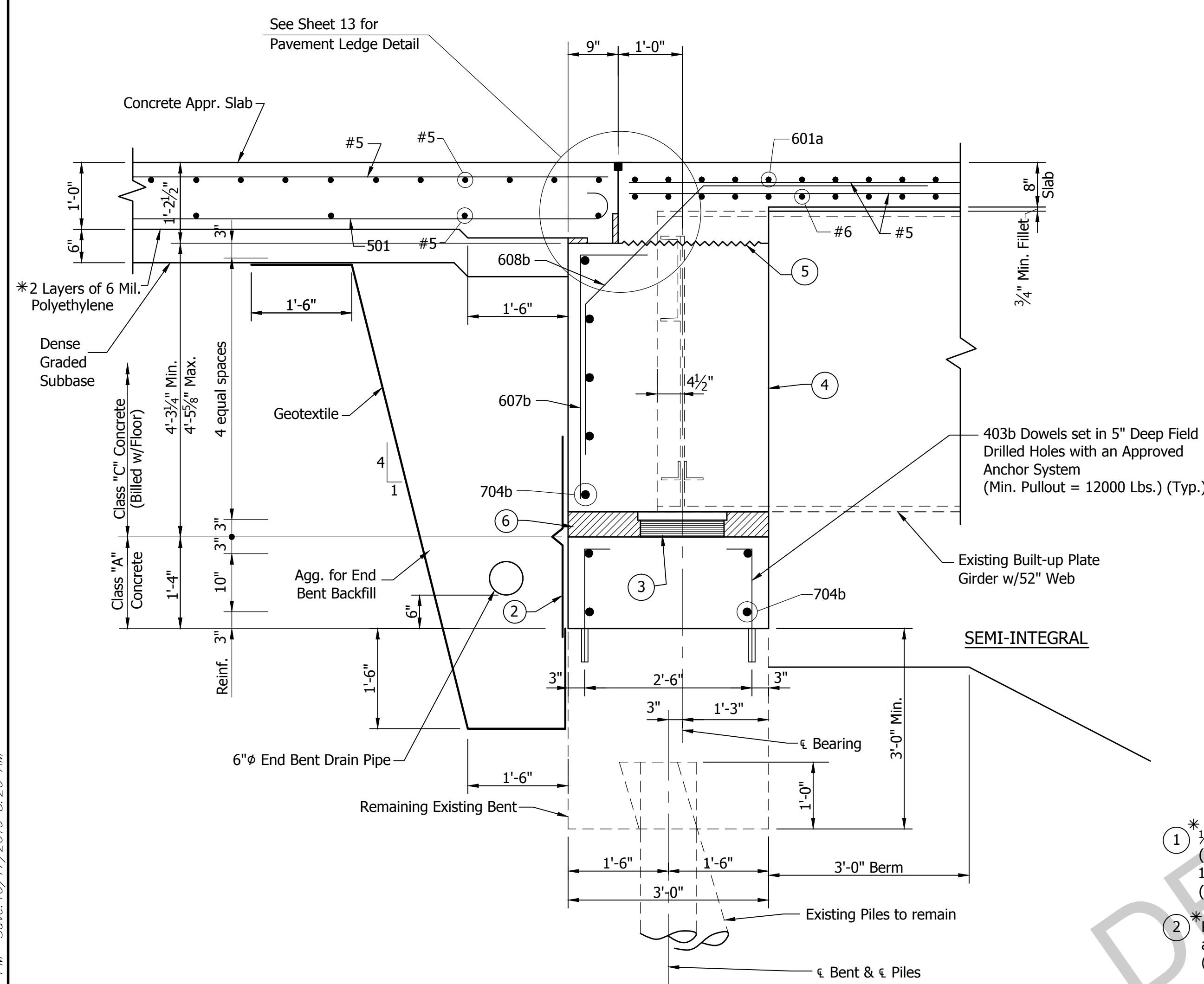
RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
DESIGN ENGINEER DATE
DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
BENT NO.1 DETAILS
NORTHBOUND STRUCTURE

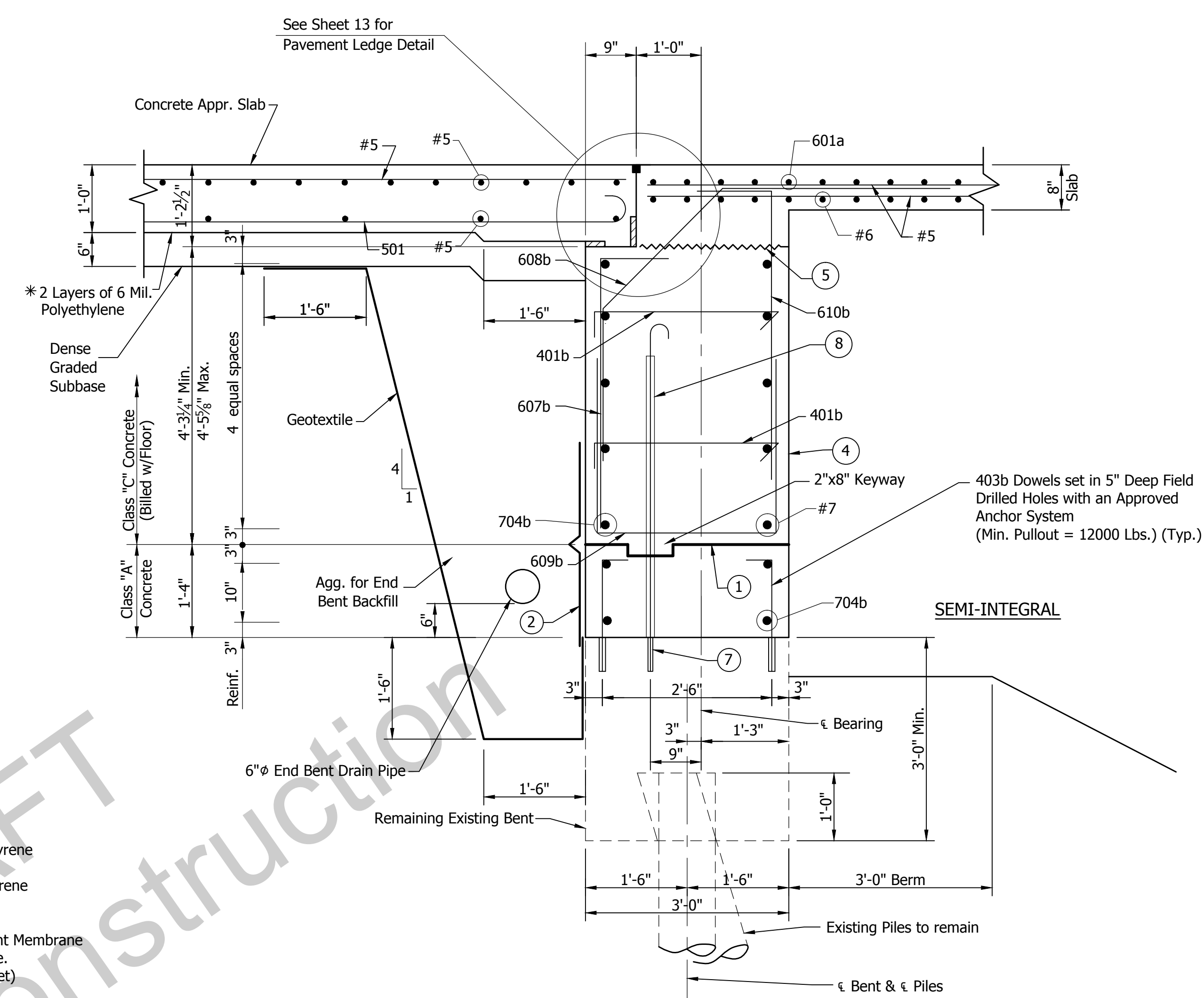
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	8 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.

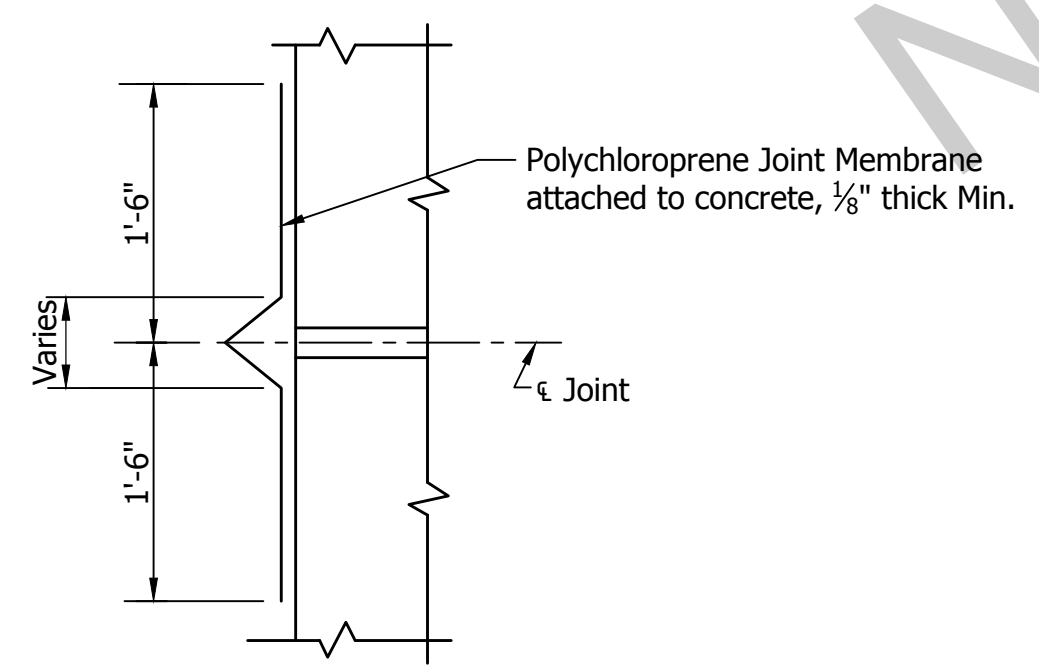
U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B730BIB.dwg Donald Sheetz Plot:11/1/2016 1:12 PM Save:10/17/2016 8:20 AM



SECTION "B-B"
AT BEAMS
Scale: 3/4"=1'-0"



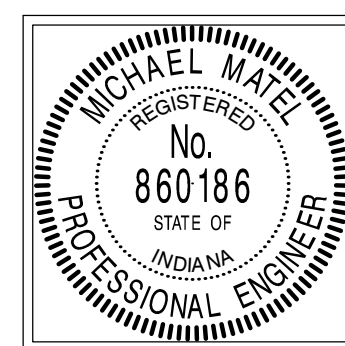
SECTION "B-B"
BETWEEN BEAMS
Scale: 3/4"=1'-0"



JOINT MEMBRANE DETAIL
Not to Scale

- 1 * 1/2" Expanded Polystyrene (Horizontal Face)
1" Expanded Polystyrene (Vertical Face)
 - 2 * Polychloroprene Joint Membrane attached to concrete. (See Detail this Sheet)
 - 3 Elastomeric Bearing Pad Assembly, Type S4-A (See Sheet 18 for Bearing Details) (See Special Provisions)
 - 4 Surface Seal required on face of Bent and exposed face of Wingwall (Billed with Floor)
 - 5 Optional Constr. Joint, Type "A"
 - 6 * Expanded Polystyrene cut to clear Bearing Pad by 1/2".
 - 7 606b set in 1'-0" Field Drilled Holes with an Approved Anchor System (Min. Pullout = 26500 Lbs.)
 - 8 * PVC Pipe Sleeve, 4" Dia. Schedule 40 Top of Sleeve to be Sealed before Concrete is Poured.
- * See Special Provisions

NOTES
See Sheet 7 for Removal Details.
See Sheet 11 for Bar Bending Details and Bill of Materials.



RECOMMENDED FOR APPROVAL: *Michael Mate* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

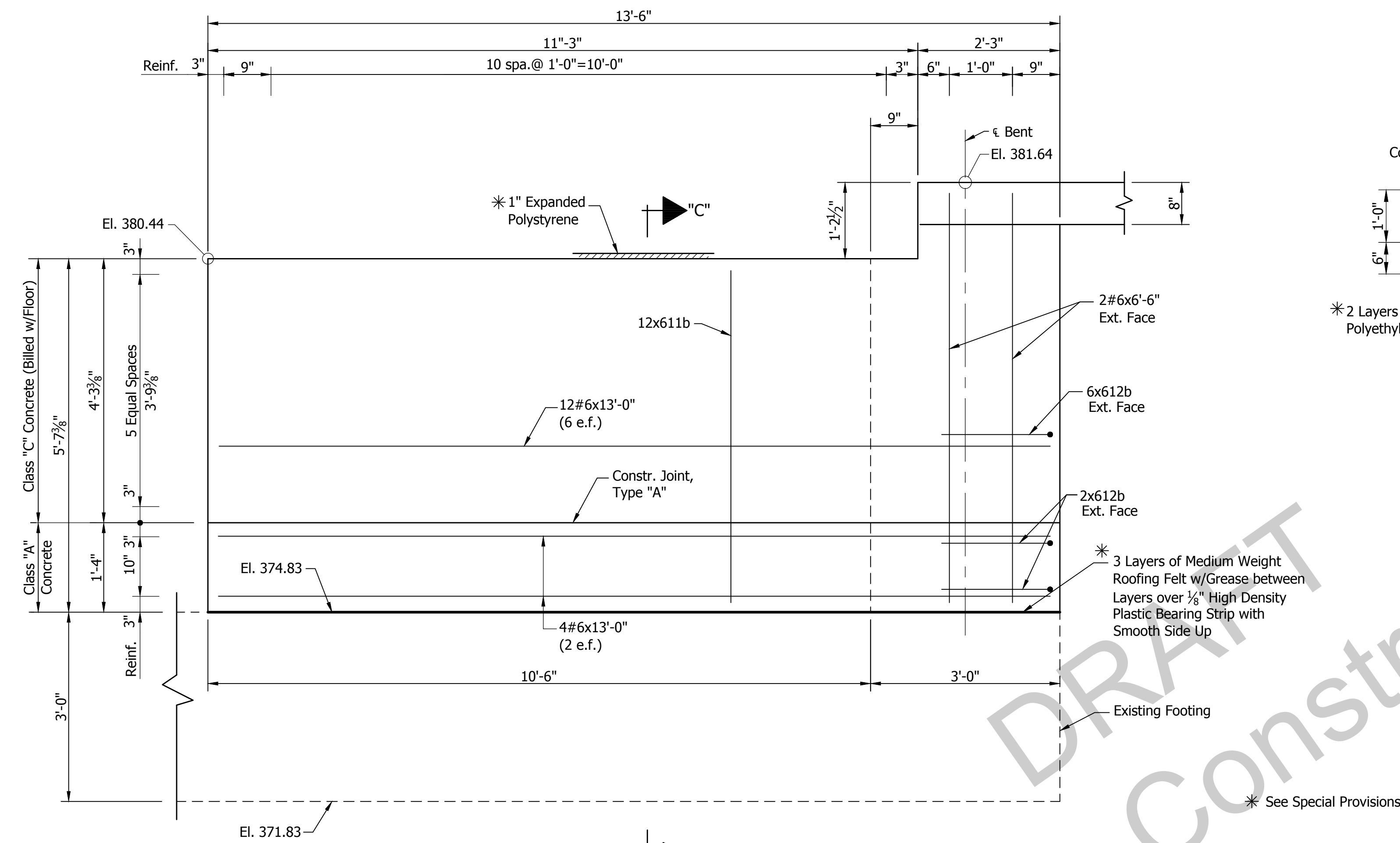
INDIANA DEPARTMENT OF TRANSPORTATION

BENT NO.1 DETAILS
NORTHBOUND STRUCTURE

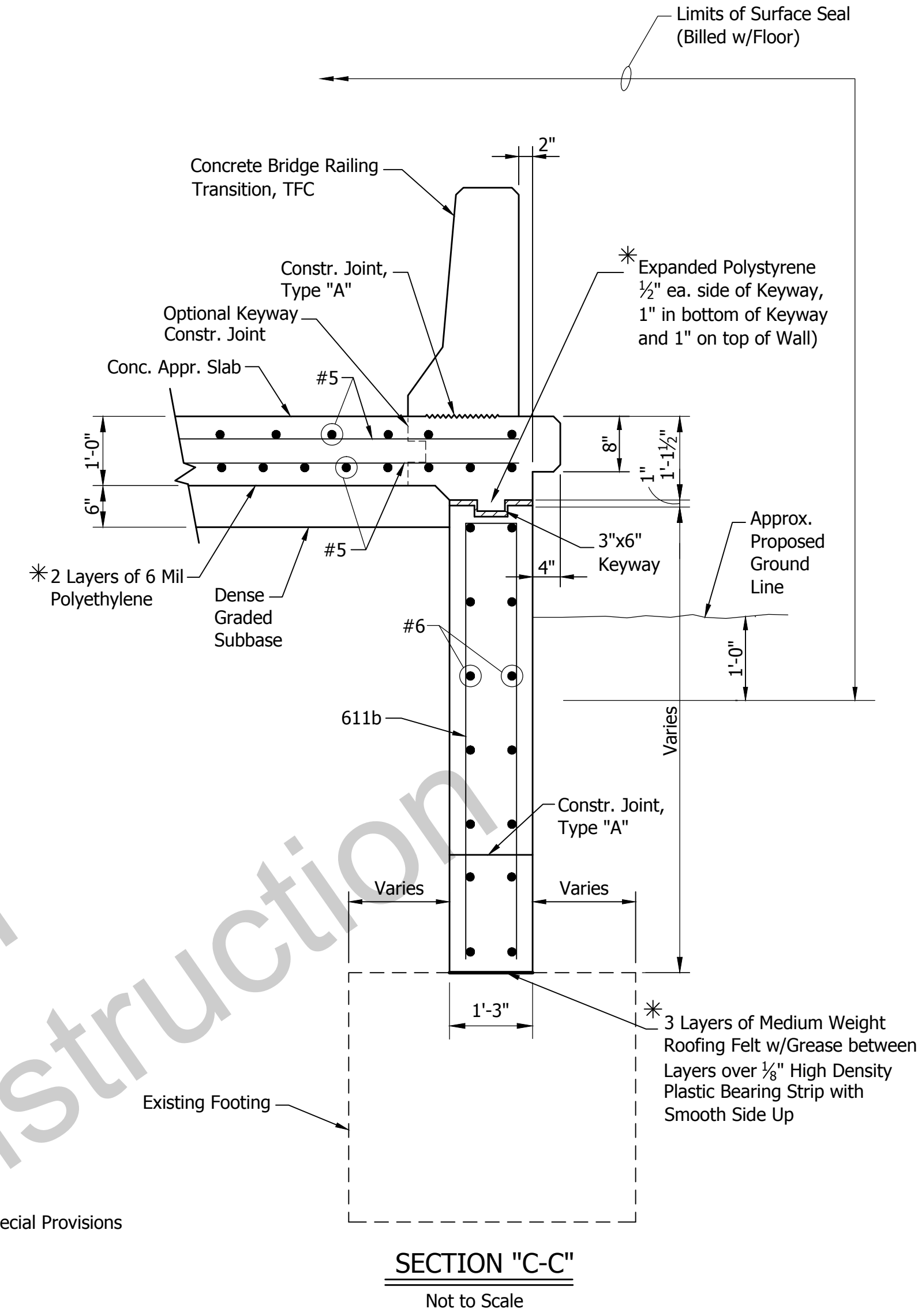
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	9 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B730CIB.dwg Donald Sheetz Plot:11/1/2016 1:13 PM Save:10/17/2016 8:20 AM



SOUTHEAST (SHOWN)
 SOUTHWEST (OPP. HAND)
TYPICAL WINGWALL DETAIL
 Scale: 3/4" = 1'-0"

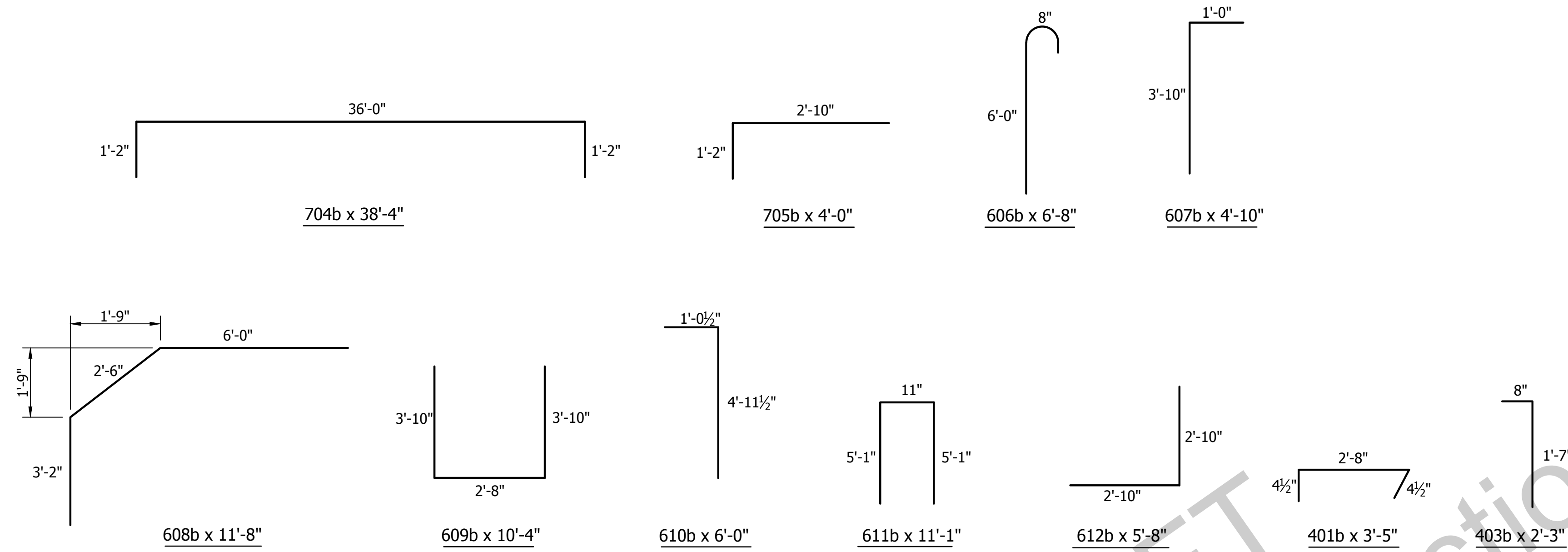


NOTES
 See Sheet 7 for Removal Details.
 See Sheet 11 for Bar Bending Details and
 Bill of Materials.

	RECOMMENDED FOR APPROVAL: <i>Michael Matel</i> 10/31/16 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION BENT NO.1 DETAILS NORTHBOUND STRUCTURE	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
	DESIGNED: C. OBRIEN DRAWN: D. SHEETZ		VERTICAL SCALE AS NOTED	DESIGNATION 9620260
	CHECKED: B. WRIGHT CHECKED: M. MATEL		SURVEY BOOK	SHEET 10 OF 30
			CONTRACT B-33539	PROJECT 9620260

5605
BFS NO.

U:\5605\Pro-Development\Design Drawings\CHEATAM_SLOUGH\5605B7300NB.dwg Donald Sheetz Plot:11/1/2016 1:13 PM Save:10/17/2016 8:20 AM



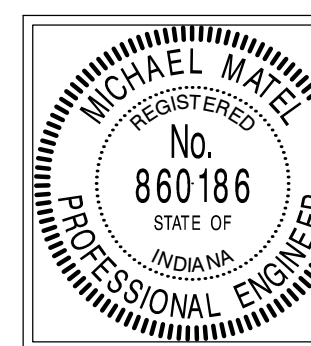
BAR BENDING DETAILS
Not to Scale

**BILL OF MATERIALS
BENT NO.1
NORTHBOUND STRUCTURE**

REINFORCING BARS

Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
704b	11	38'-4"	
705b	10	4'-0"	
#7	15	9'-6"	
Total #7 (Epoxy Coated)			1235
606b	21	6'-8"	
607b	34	4'-10"	
608b	34	11'-8"	
609b	33	10'-4"	
610b	33	6'-0"	
611b	24	11'-1"	
612b	16	5'-8"	
#6	32	13'-0"	
#6	4	6'-6"	
Total #6 (Epoxy Coated)			
401b	66	3'-5"	
403b	74	2'-3"	
Total #4 (Epoxy Coated)			262
Total Steel (Epoxy Coated)			4559
CONCRETE			
Class "A" in Substructure			6.7 Cys.
MISCELLANEOUS			
6" End Bent Drain Pipe			50 Lft.
Aggregate for End Bent Backfill			22 Cys.
Elastomeric Bearing Assembly			4 Each
Geotextile			45 Sys.
Field Drilled Holes in Concrete			95 Each

- ⊕ A.S.T.M. A615, Grade 60
- ⊗ Includes 90° Elbow



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

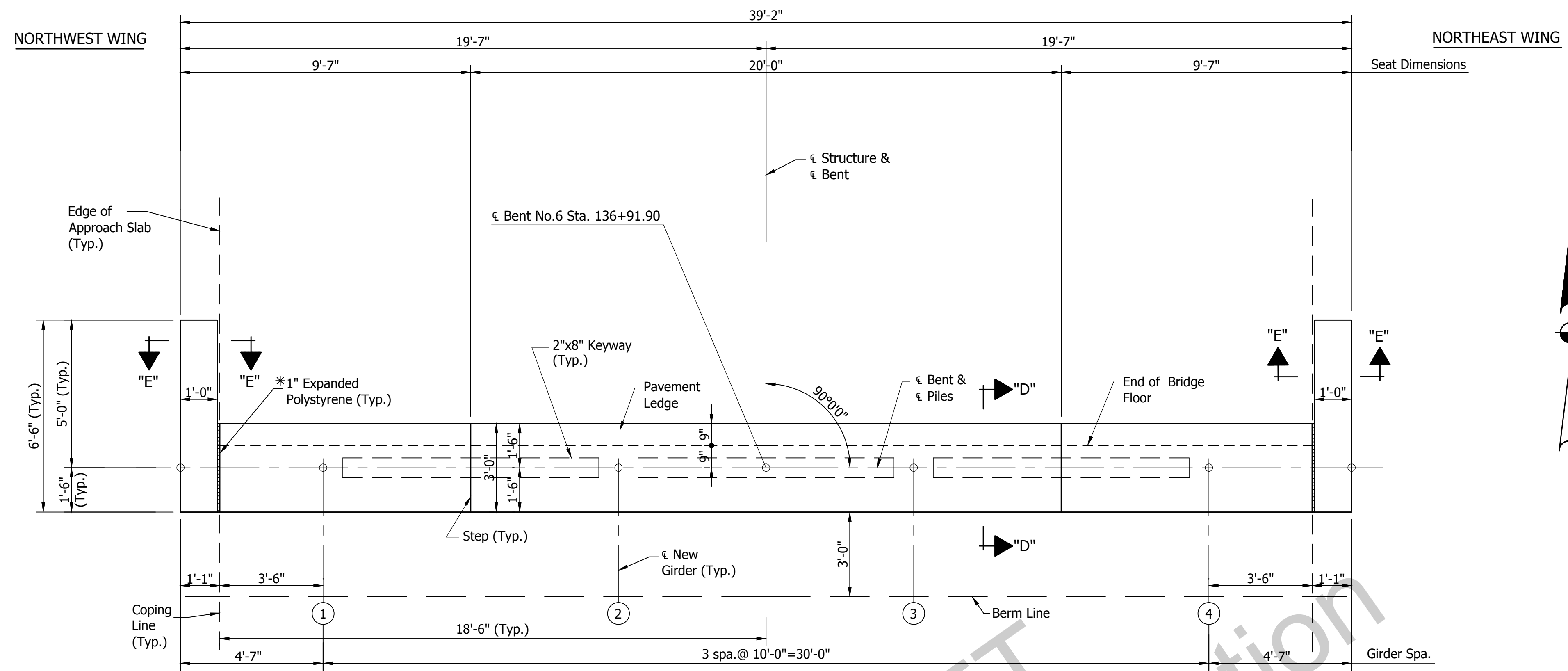
INDIANA
DEPARTMENT OF TRANSPORTATION

**BENT NO.1 DETAILS
NORTHBOUND STRUCTURE**

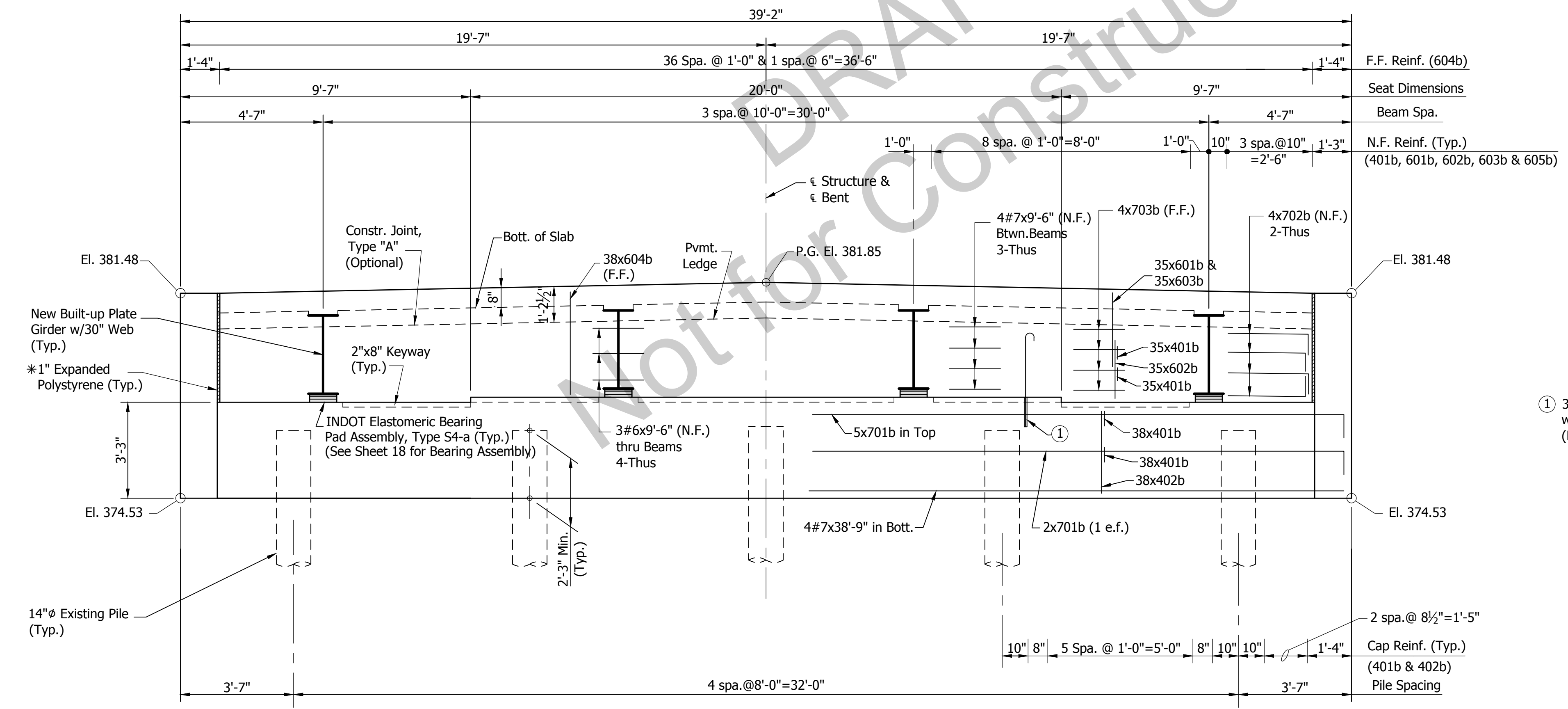
HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 11 OF 30
CONTRACT B-33539	PROJECT 9620260

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B731NB.dwg Donald Sheetz Plot: 11/1/2016 1:13 PM Save: 10/19/2016 10:58 AM



SEAT ELEVATIONS				
Beam No.	1	2	3	4
Bent No. 6 NB	377.78	377.95	377.95	377.78



① 35x605b set in 1'-0" Field Drilled Holes with an Approved Anchor System (Min. Pullout = 26500 Lbs.)

NOTES
See Sheet 13 for Section "D-D".
See Sheet 14 for Section "E-E", Wingwall Details, Bar Bending Details and and Bill of Materials.

RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

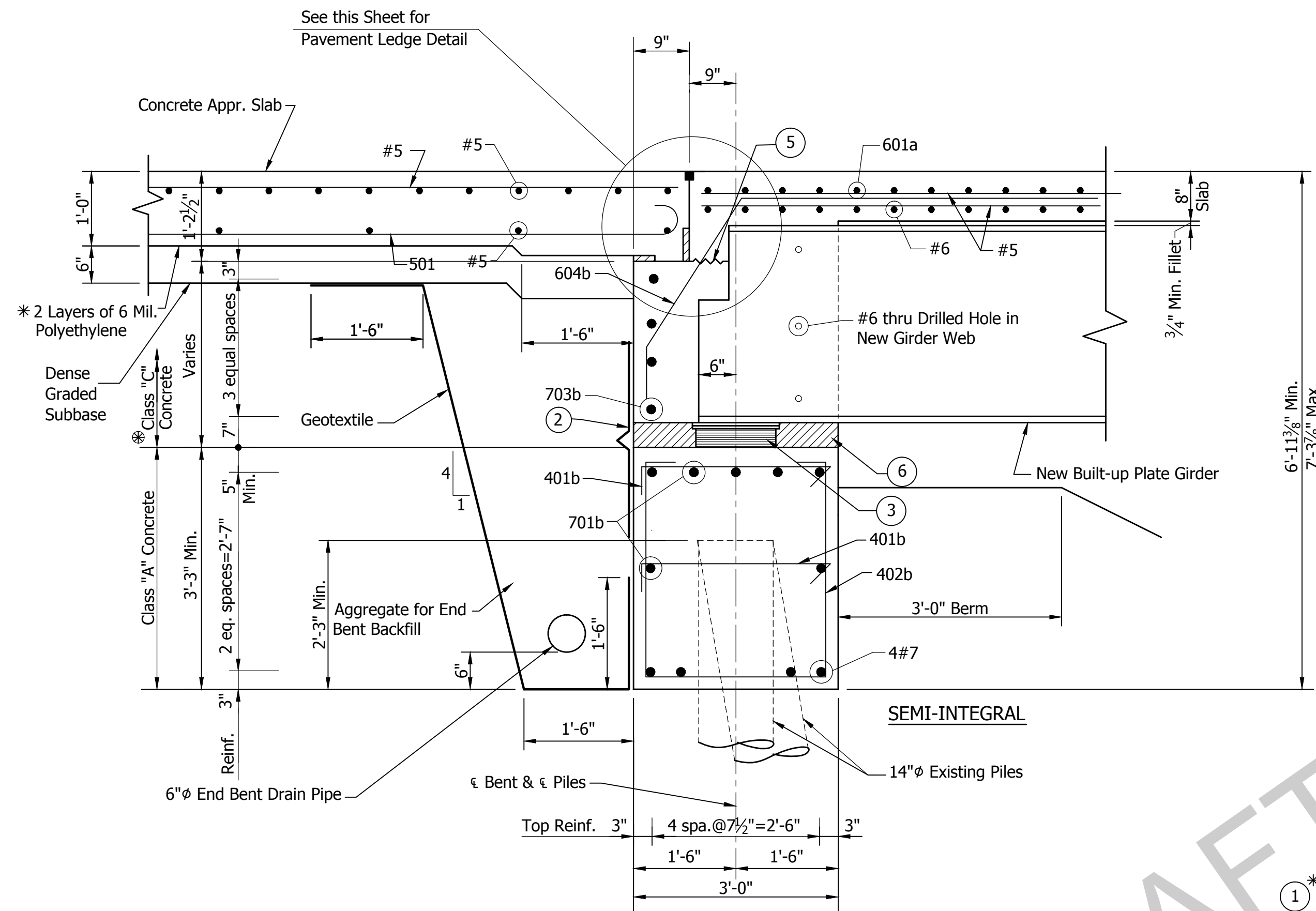
INDIANA DEPARTMENT OF TRANSPORTATION

BENT NO. 6 DETAILS
NORTHBOUND STRUCTURE

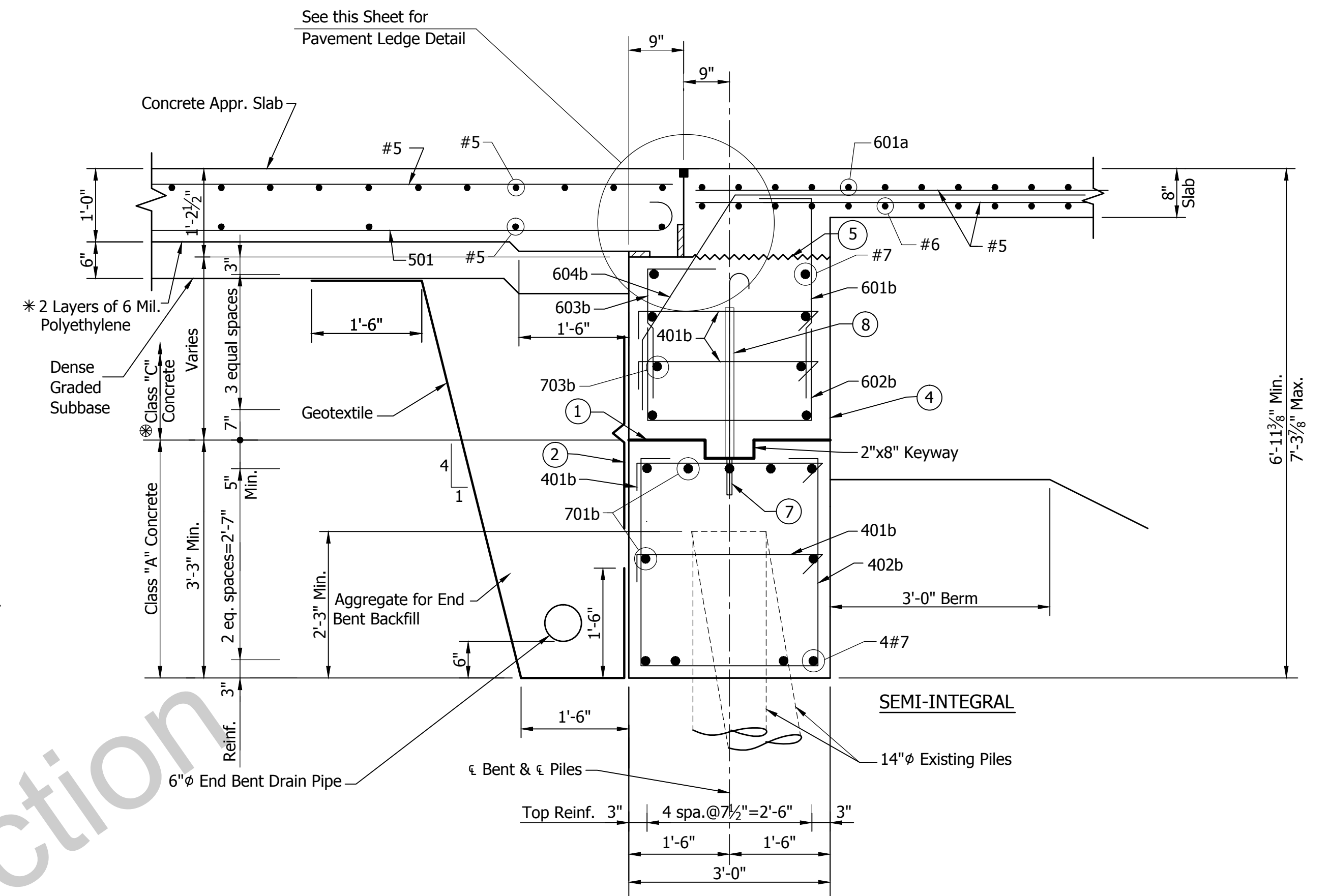
HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	041-82-4997C
VERTICAL SCALE	AS NOTED	DESIGNATION	9620260
SURVEY BOOK	12	SHEET	30
CONTRACT	B-33539	PROJECT	9620260

5605
BFS NO.

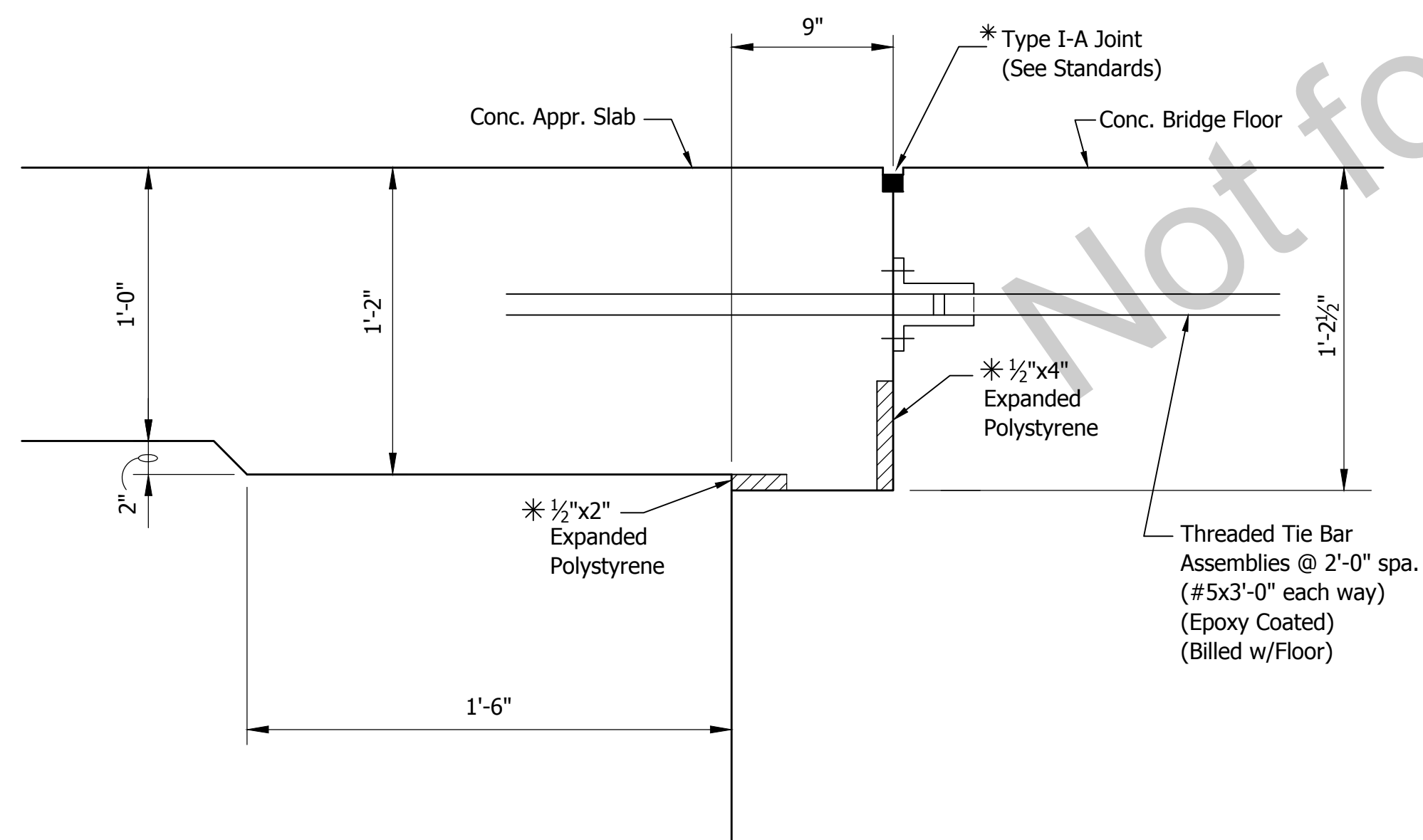
U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B732\IB.dwg Donald Sheetz Plot: 11/11/2016 1:13 PM Save: 10/19/2016 10:58 AM



**SECTION "D-D"
AT BEAMS**
Scale: 3/4"=1'-0"



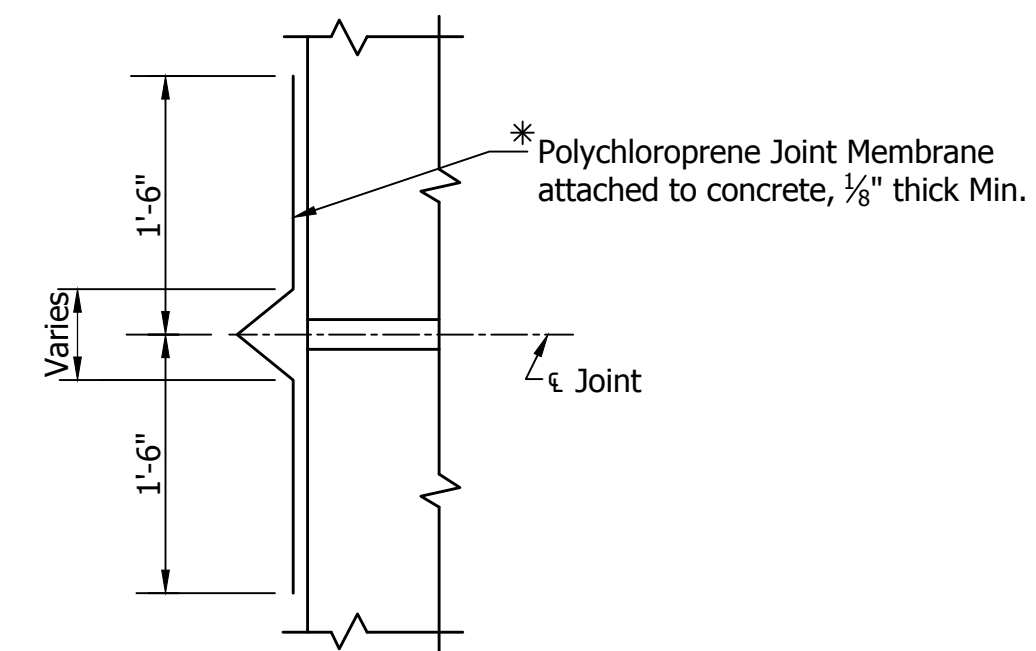
**SECTION "D-D"
BETWEEN BEAMS**
Scale: 3/4"=1'-0"



PAVEMENT LEDGE DETAIL
Not to Scale

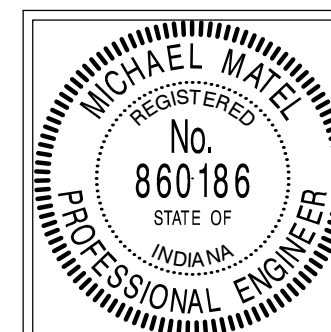
- 1 * 1/2" Expanded Polystyrene (Horizontal Face)
1" Expanded Polystyrene (Vertical Face)
- 2 * Polychloroprene Joint Membrane attached to concrete. (See Detail this Sheet)
- 3 * Elastomeric Bearing Pad Assembly, Type S4-A (See Sheet 18) (See Special Provisions)
- 4 * Surface Seal required on face of Bent and exposed face of Wingwall (Billed with Floor)
- 5 * Optional Constr. Joint, Type "A"
- 6 * Expanded Polystyrene cut to clear Bearing Pad by 1/2"
- 7 * 605b set in 1'-0" Field Drilled Holes with an Approved Anchor System (Min. Pullout = 26500 Lbs.)
- 8 * PVC Pipe Sleeve, 4" Dia. Schedule 40 Top of Sleeve to be Sealed before Concrete is Poured.

* See Special Provisions



JOINT MEMBRANE DETAIL
Not to Scale

NOTE
See Sheet 14 for Bar Bending Details and Bill of Materials.



RECOMMENDED FOR APPROVAL:	<i>Michael M. Matel</i>	10/31/16
DESIGNED:	C. OBRIEN	DRAWN: D. SHEETZ
CHECKED:	B. WRIGHT	CHECKED: M. MATEL

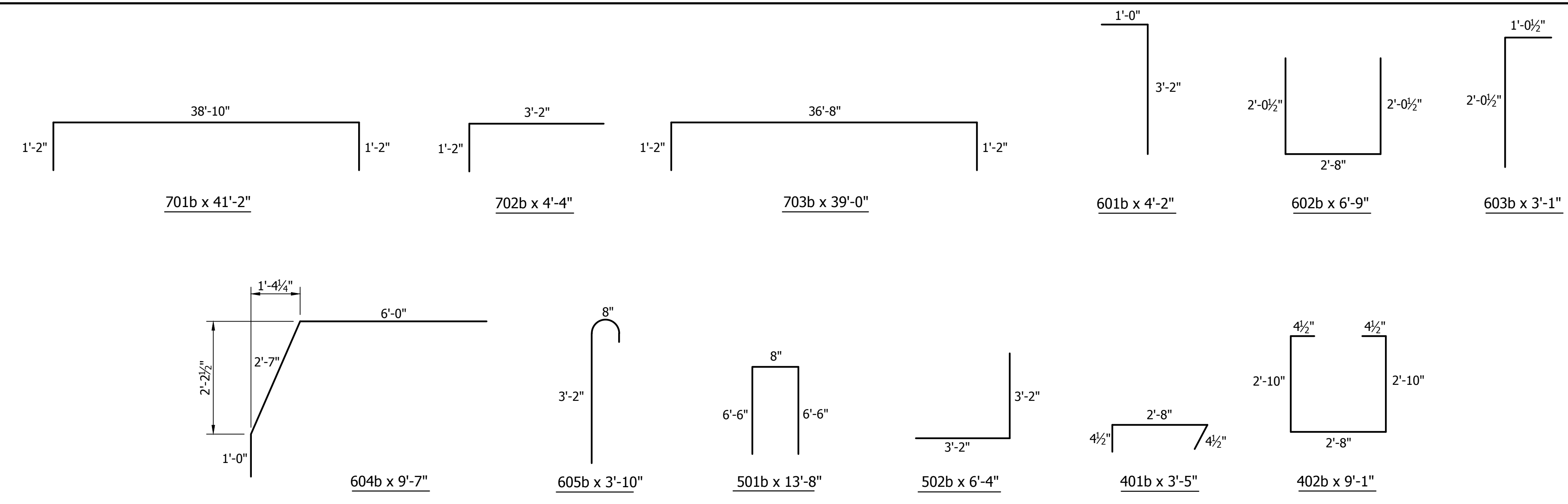
**INDIANA
DEPARTMENT OF TRANSPORTATION**

**BENT NO.6 DETAILS
NORTHBOUND STRUCTURE**

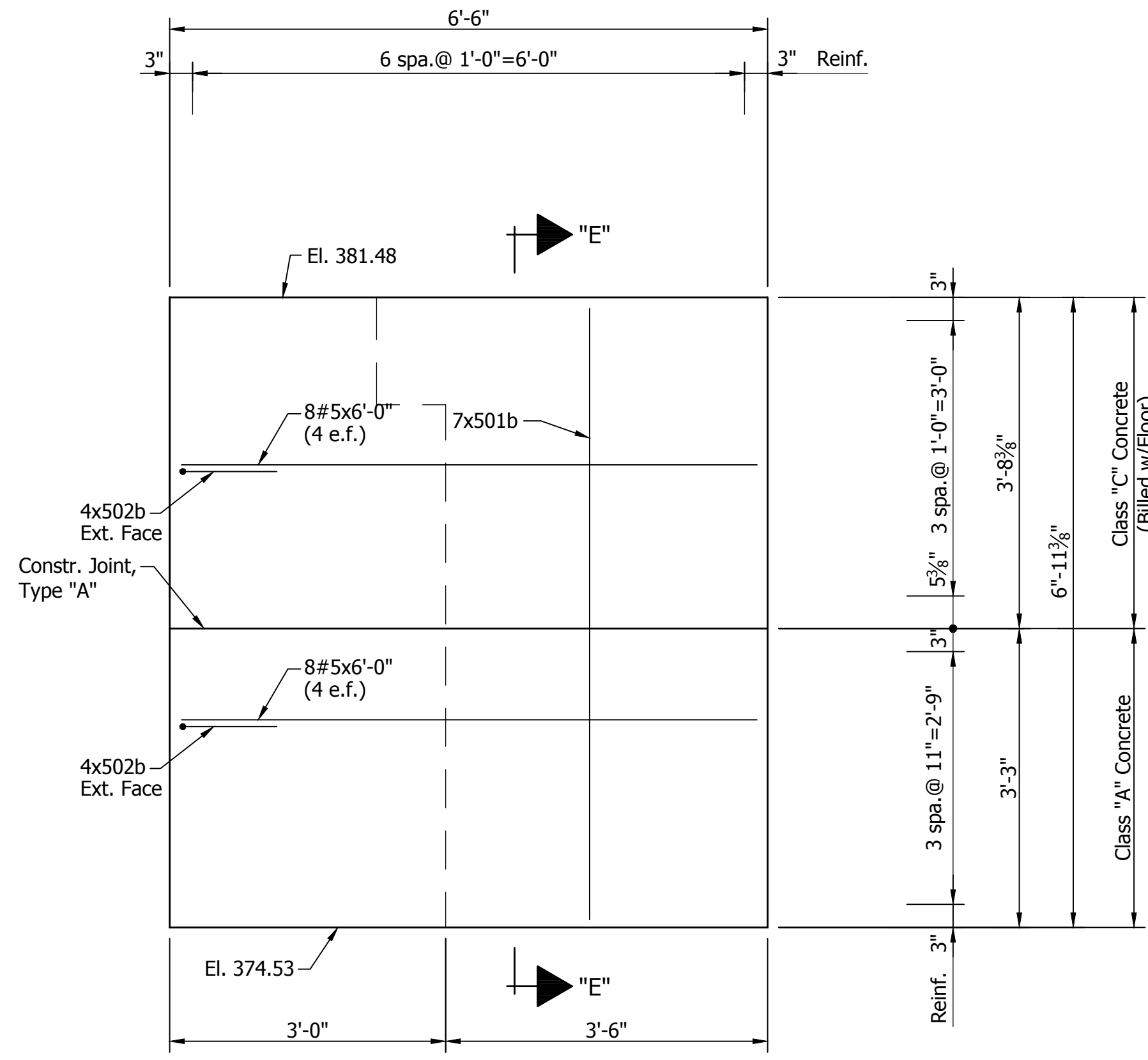
HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	041-82-4997C
VERTICAL SCALE	AS NOTED	DESIGNATION	9620260
SURVEY BOOK		SHEET	13 OF 30
CONTRACT	B-33539	PROJECT	9620260

5605

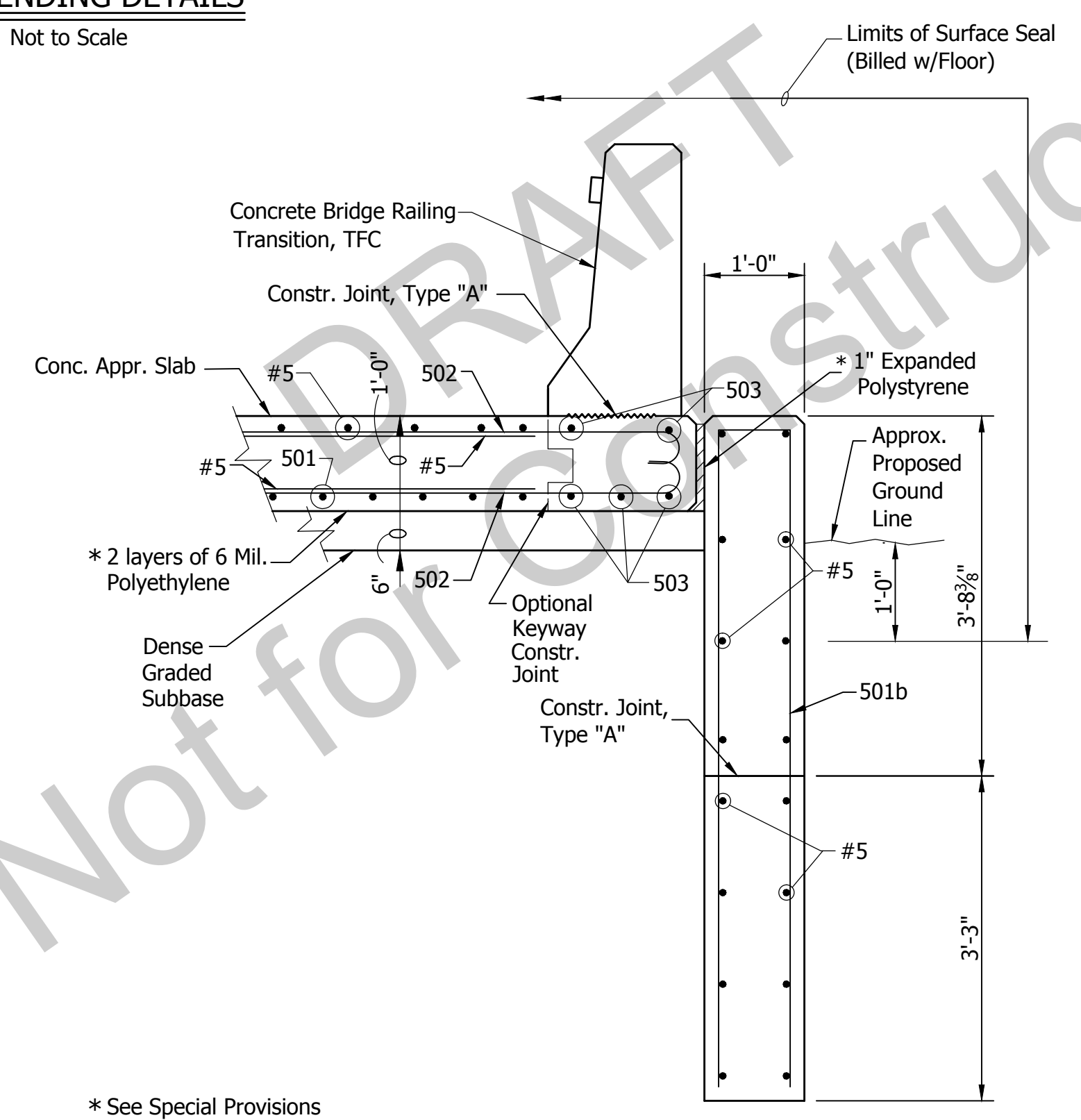
U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B7331B.dwg Donald Sheetz Plot: 11/1/2016 1:14 PM Save: 10/19/2016 10:58 AM



BAR BENDING DETAILS
Not to Scale



TYPICAL WINGWALL DETAIL
Scale: 3/4"=1'-0"



SECTION "E-E"
Scale: 3/4"=1'-0"

BILL OF MATERIALS			
BENT NO.6			
NORTHBOUND STRUCTURE			
REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
701b	7	41'-2"	
702b	8	4'-4"	
703b	4	39'-0"	
#7	4	38'-9"	
#7	12	9'-6"	
Total #7 (Epoxy Coated)			1529
601b	35	4'-2"	
602b	35	6'-9"	
603b	35	3'-1"	
604b	38	9'-7"	
605b	35	3'-10"	
#6	12	9'-6"	
Total #6 (Epoxy Coated)			1656
501b	14	13'-8"	
502b	16	6'-4"	
#5	32	6'-0"	
Total #5 (Epoxy Coated)			506
401b	146	3'-5"	
402b	38	9'-1"	
Total #4 (Epoxy Coated)			564
Total Steel (Epoxy Coated)			4255
CONCRETE			
Class "A" in Substructure			
Cap			13.7 Cys.
Wingwalls			1.6 Cys.
Total Class "A" Concrete			15.3 Cys.
MISCELLANEOUS			
6" End Bent Drain Pipe			56 Lft.
Aggregate for End Bent Backfill			18 Cys.
Geotextile			45 Sys.
Field Drilled Holes in Concrete			35 Each

⊕ A.S.T.M. A615, Grade 60
⊗ Includes 90° Elbow
Note: See Special Provisions for Elastomeric Bearing Assembly.

RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. O'BRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

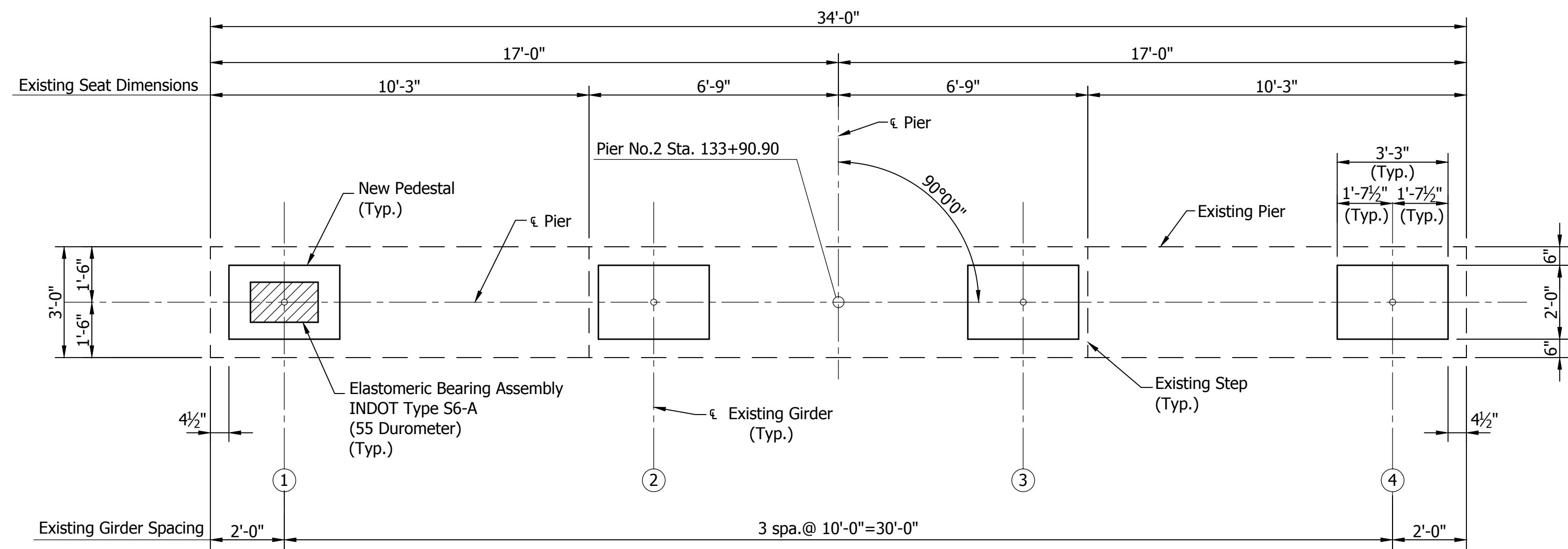
INDIANA DEPARTMENT OF TRANSPORTATION

BENT NO.6 DETAILS
NORTHBOUND STRUCTURE

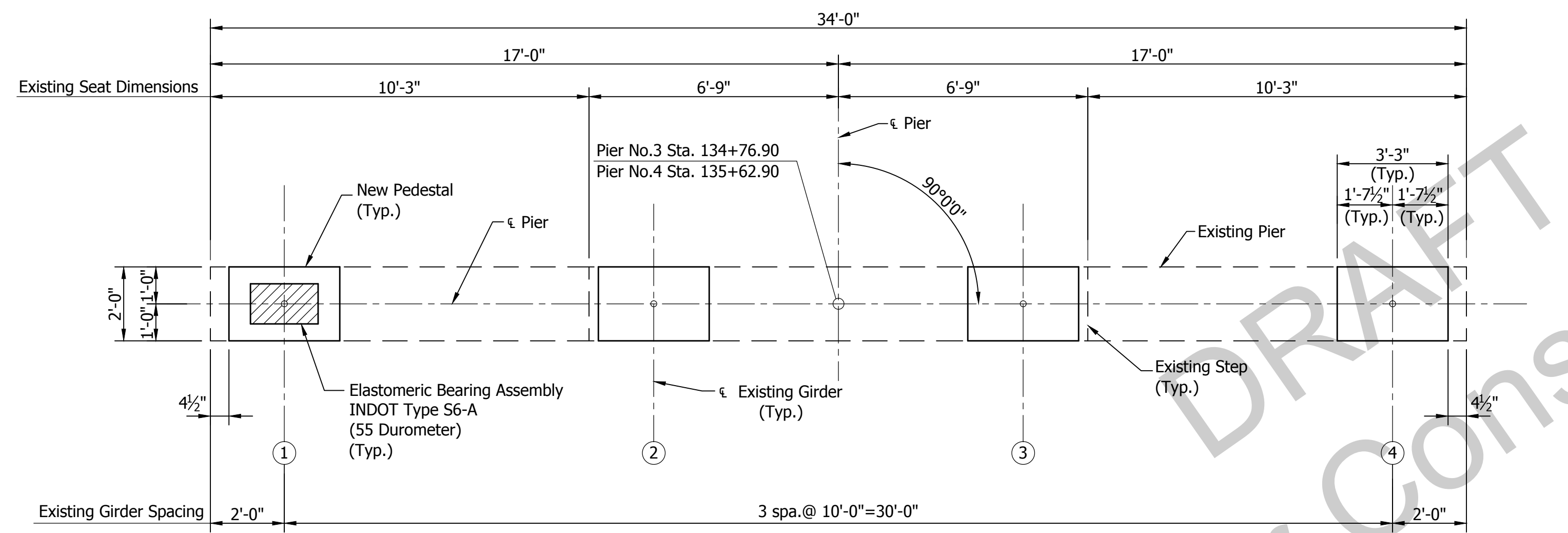
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	14 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.

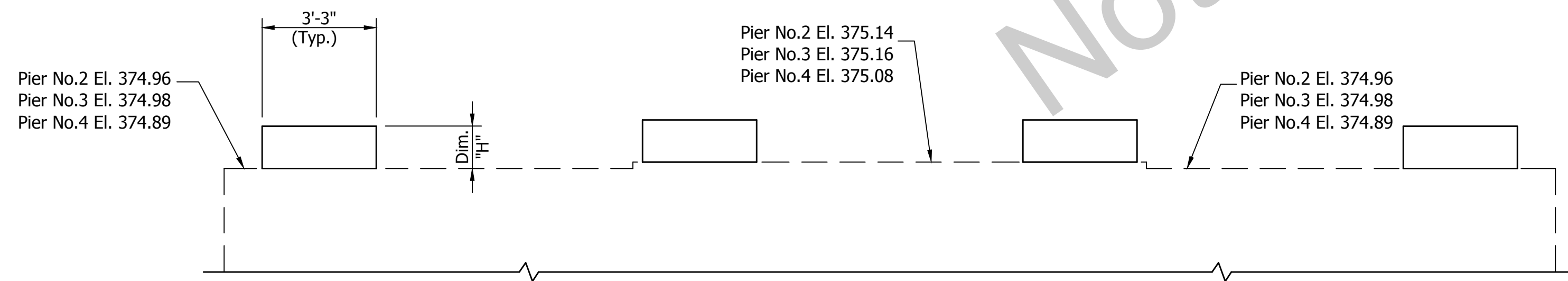
U:\5605\Pro-Development\Design Drawings\CHEA\T.M. SLOUGH\5605B741NB.dwg Donald Sheetz Plot: 11/1/2016 1:14 PM Save: 10/19/2016 10:58 AM



PLAN-PIER NO.2
Scale: 3/8"=1'-0"



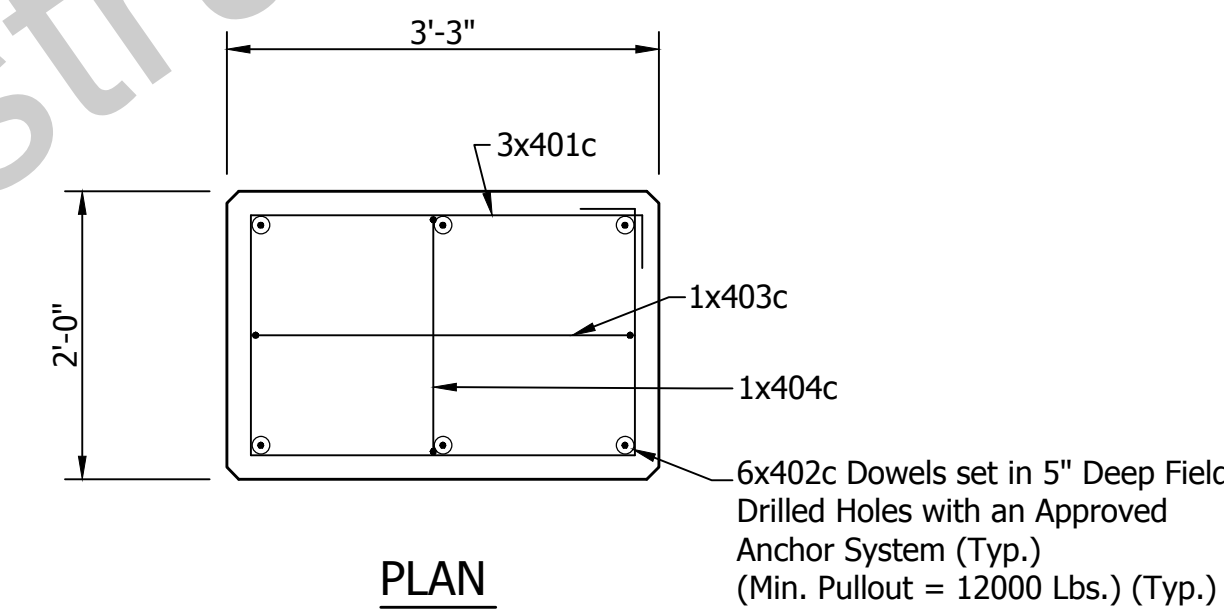
PLAN-PIER NO.3 OR NO.4
Scale: 3/8"=1'-0"



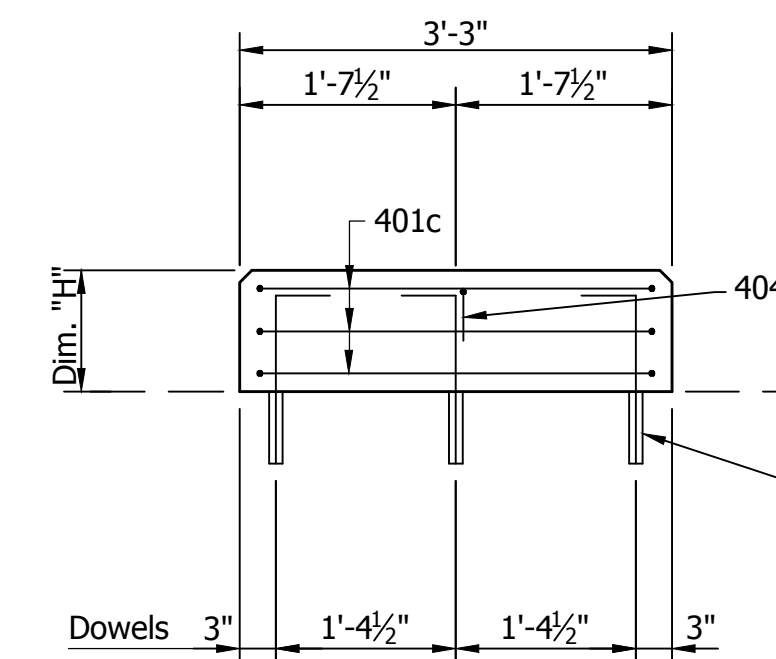
ELEVATION-PIER NO.2, NO.3 OR NO.4
Scale: 3/8"=1'-0"

PIER NO.2 NB				
Girder No.	①	②	③	④
Elevation	375.83	376.01	376.01	375.83
Dimension "H"	10 1/2"	10 1/2"	10 1/2"	10 1/2"
PIER NO.3 NB				
Girder No.	①	②	③	④
Elevation	375.85	376.03	376.03	375.85
Dimension "H"	10 1/2"	10 1/2"	10 1/2"	10 1/2"
PIER NO.4 NB				
Girder No.	①	②	③	④
Elevation	375.77	375.95	375.95	375.77
Dimension "H"	10 1/2"	10 1/2"	10 1/2"	10 1/2"

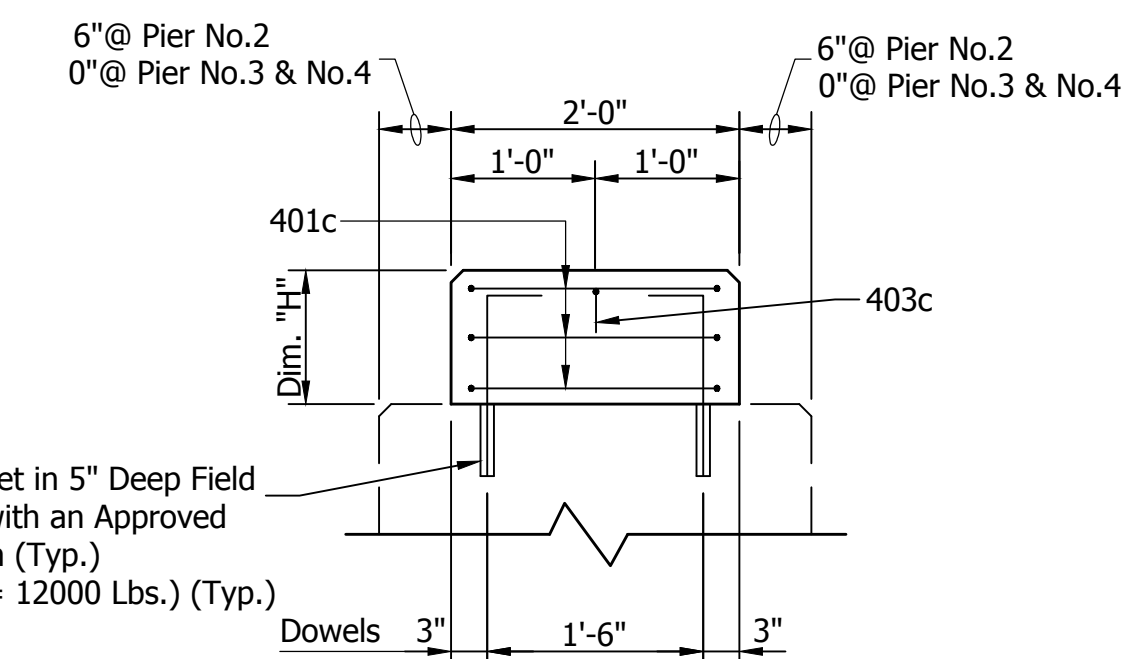
Note: Remove all Existing Pedestals at Piers No.3 and No.4



PLAN
Scale: 3/4"=1'-0"



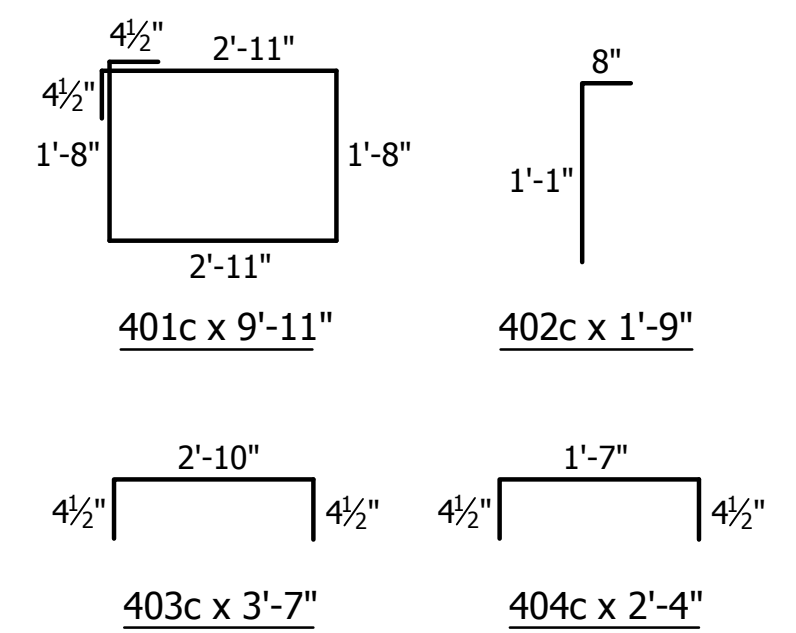
ELEVATION
Scale: 3/4"=1'-0"



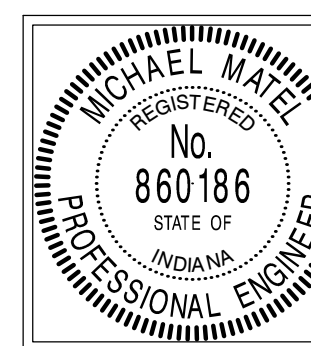
SECTION
Scale: 3/4"=1'-0"

BILL OF MATERIALS			
PEDESTALS			
PIERS NO.3 AND NO.4 SAME			
NORTHBOUND STRUCTURE			
REINFORCING BARS			
Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
401c	12	9'-11"	
402c	24	1'-9"	
403c	4	3'-7"	
404c	4	2'-4"	
Total Steel (Plain)			123
CONCRETE			
Class "A" in Substructure			0.9 Cys.
MISCELLANEOUS			
Elastomeric Bearing Assembly			4 Each
Field Drilled Holes in Concrete			24 Each

A.S.T.M. A615, Grade 60



BAR BENDING DETAILS
Not to Scale



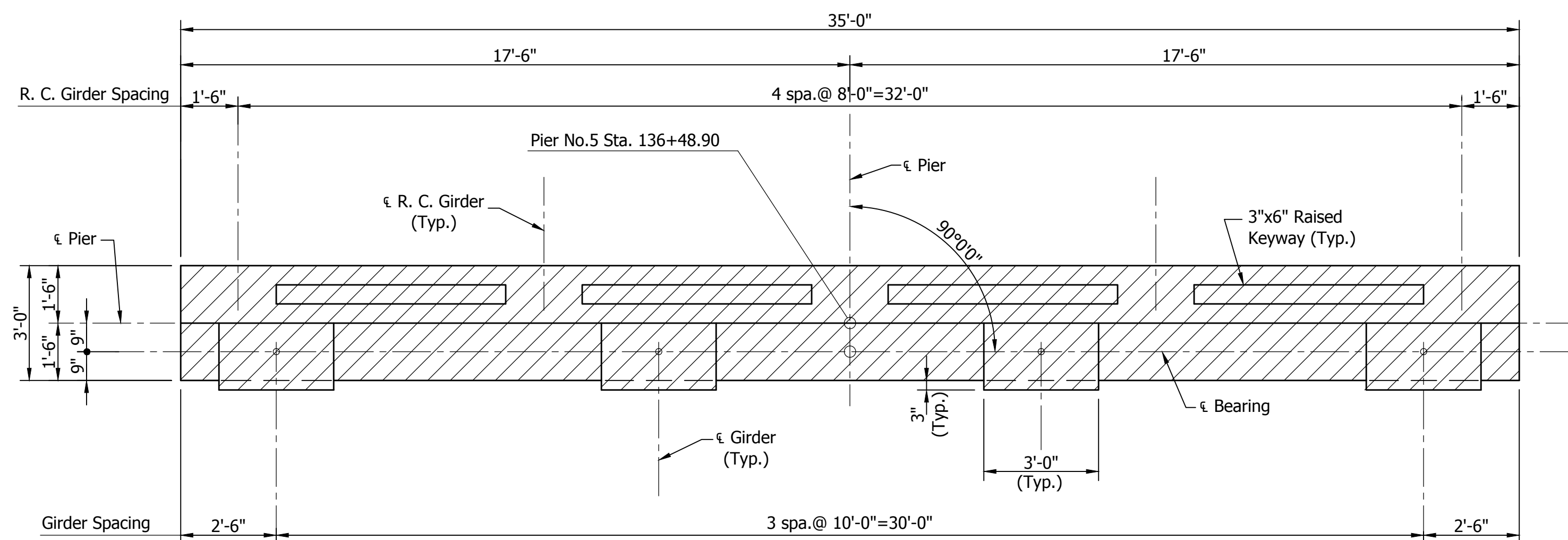
RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
DESIGN ENGINEER DATE
DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
PEDESTAL DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	15 OF 30
CONTRACT	PROJECT
B-33539	9620260

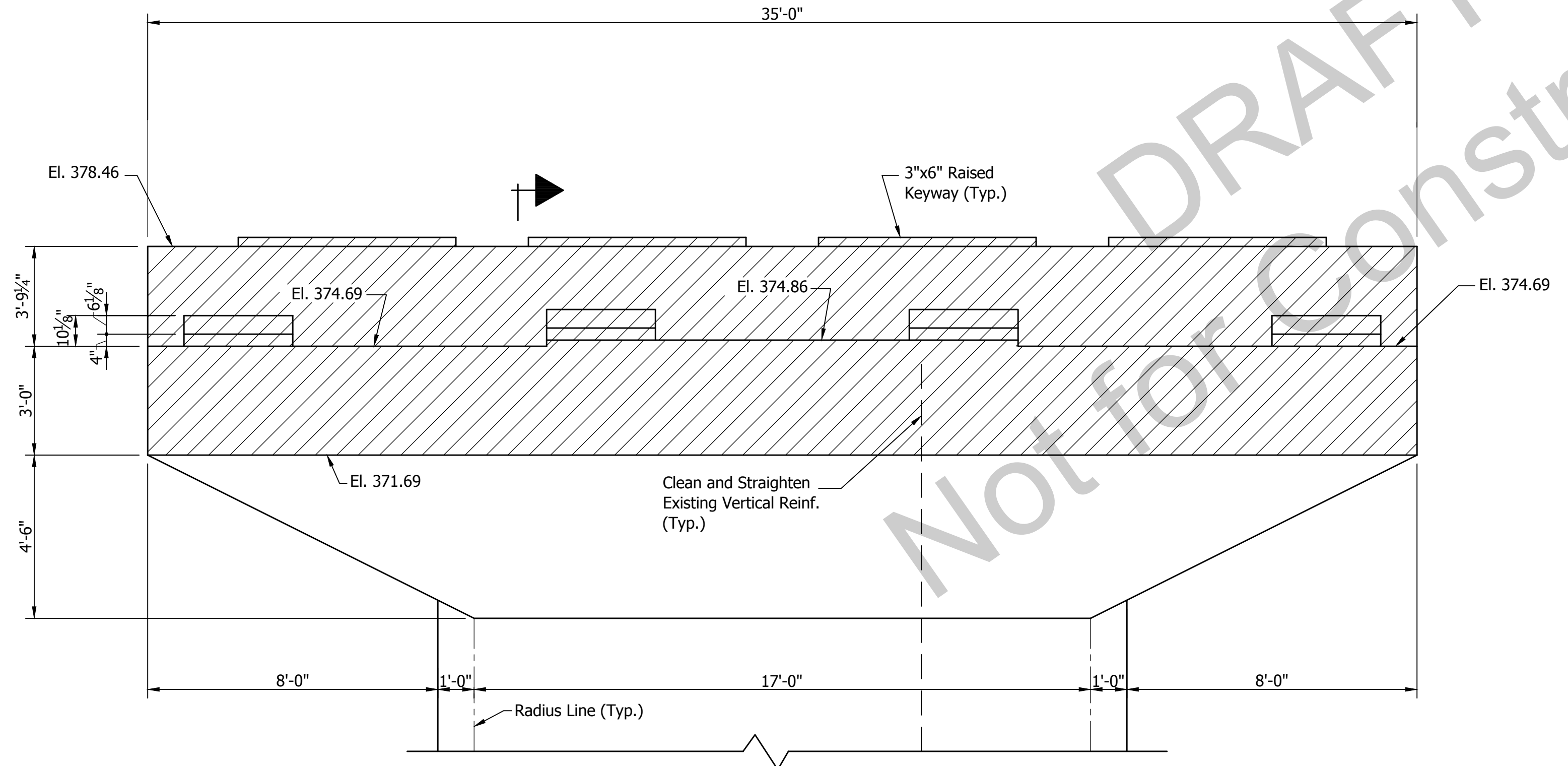
5605

U:\5605\Pro-Development\Design Drawings\CHEATM_SLOUGH\5605B7421B.dwg Donald Sheetz Plot: 11/1/2016 1:14 PM Save: 10/19/2016 10:56 AM



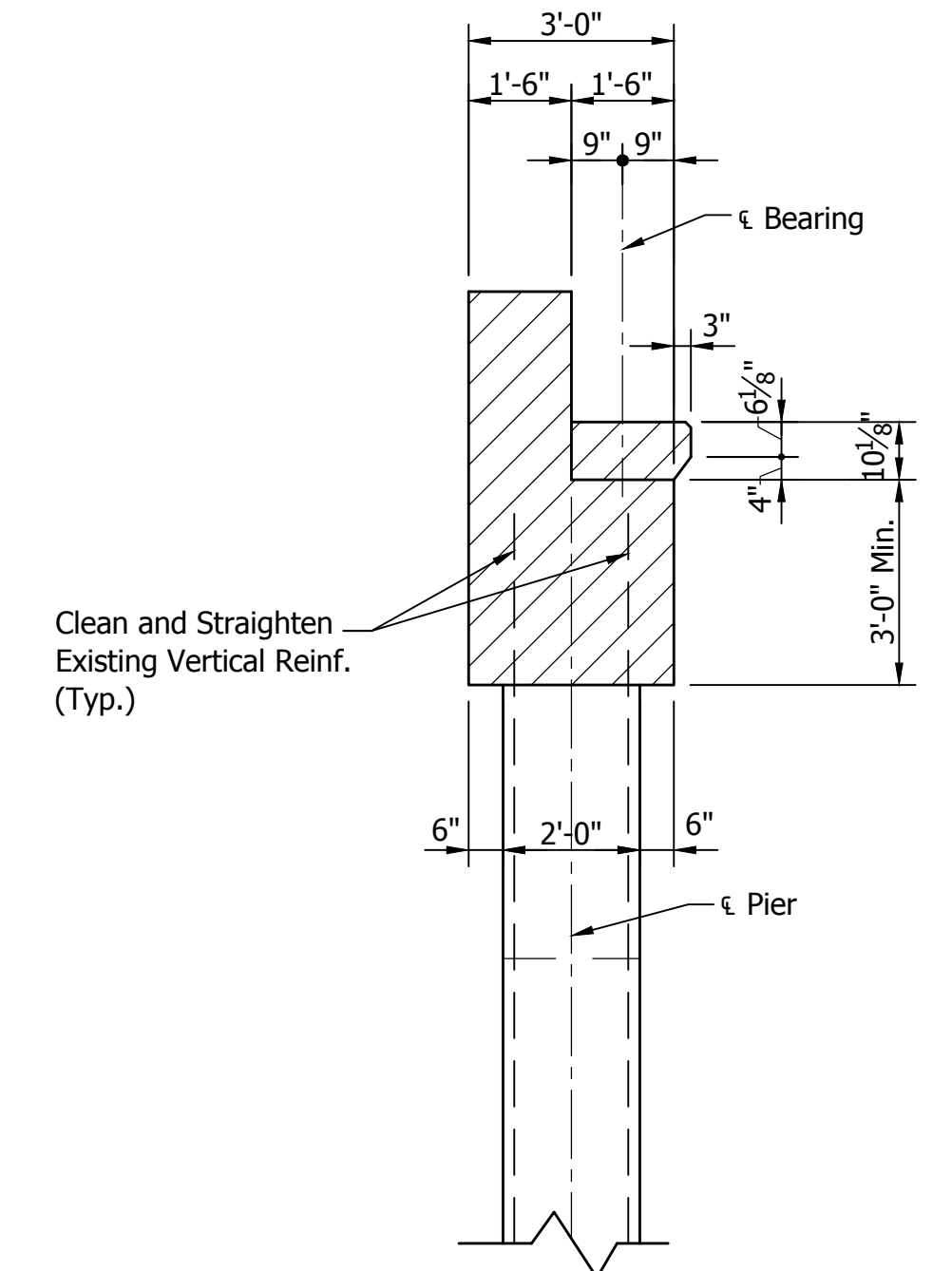
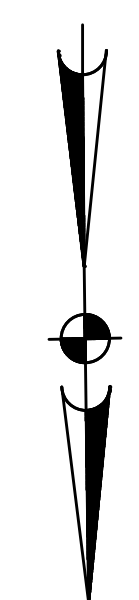
PLAN
Scale: 3/8"=1'-0"

Note: Hatched Areas indicate portions to be Removed.



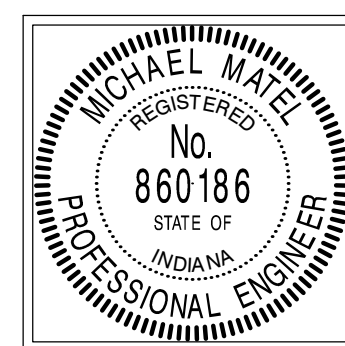
ELEVATION
Scale: 3/8"=1'-0"

See this Sheet



SECTION
Scale: 3/8"=1'-0"

NOTE
See Sheet 17 for Reconstruction Details.



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE
DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
CHECKED: M. MATEL CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
PIER NO.5 DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	041-82-4997C
VERTICAL SCALE	AS NOTED	DESIGNATION	9620260
SURVEY BOOK	16	SHEET	30
CONTRACT	B-33539	PROJECT	9620260

BFS NO. 5605

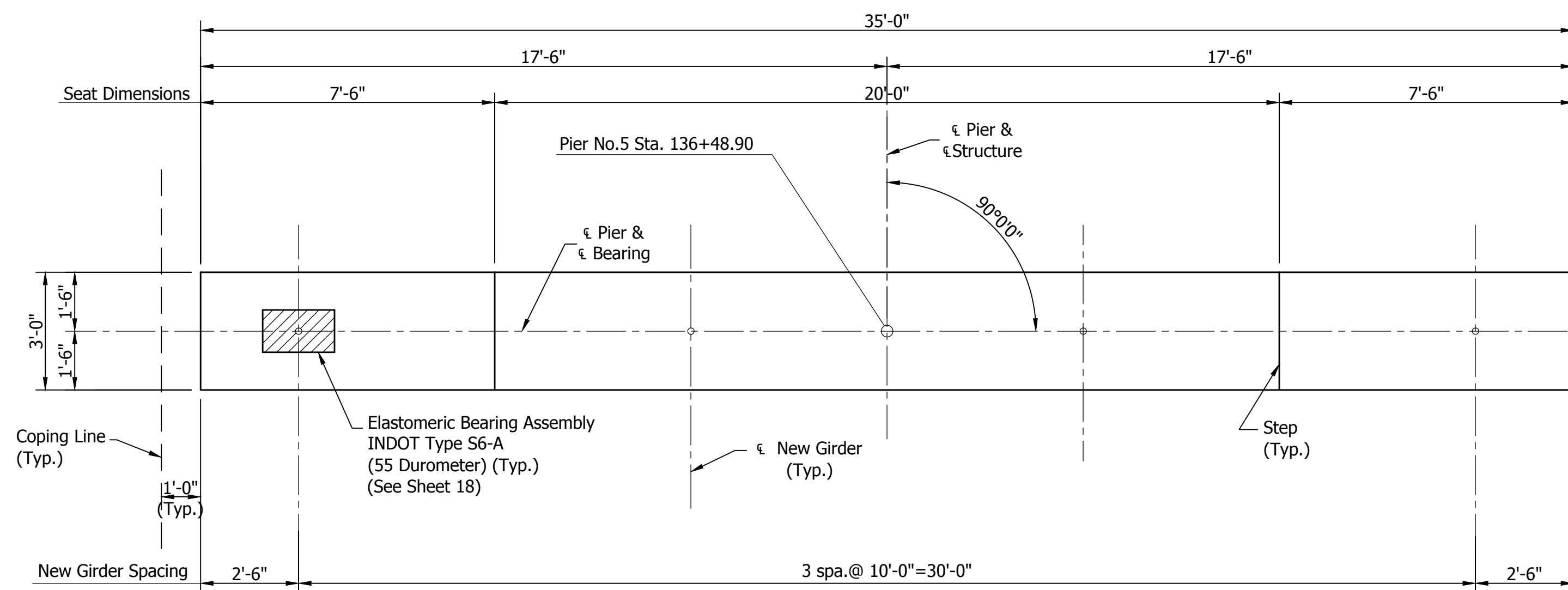
**BILL OF MATERIALS
PIER NO.5
NORTHBOUND STRUCTURE**

REINFORCING BARS

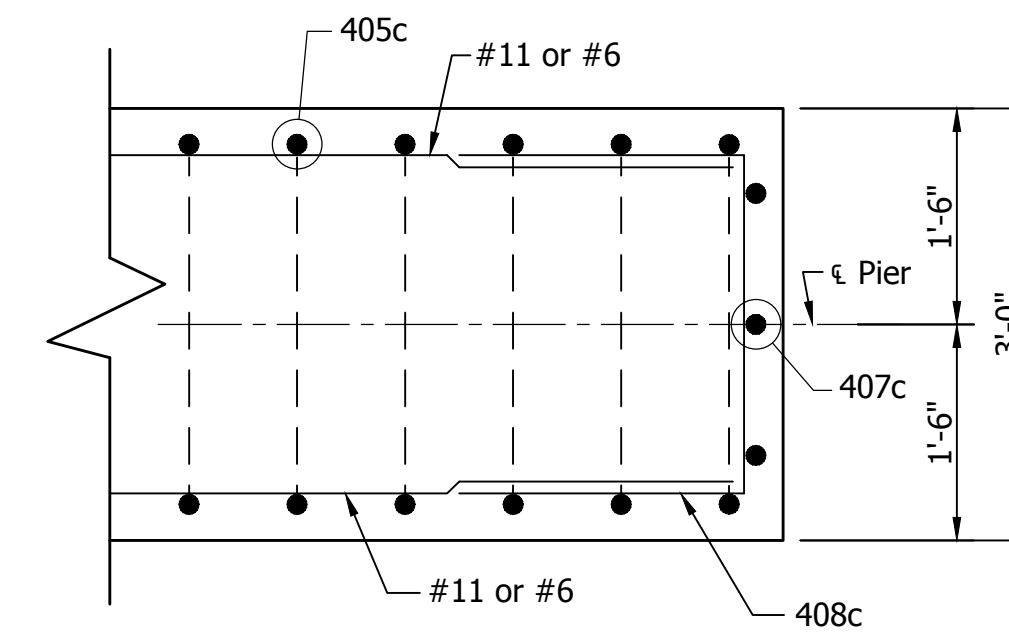
Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
#11	16	34'-6"	
Total #11 (Plain)			2933
#6	4	34'-6"	
Total #6 (Plain)			207
405c	49	11'-1"	
406c	49	3'-5"	
407c	6	4'-6"	
408c	10	6'-7"	
Total #4 (Plain)			537
Total Steel (Plain)			3677
CONCRETE			
Class "A" in Substructure			16.3 Cys.

A.S.T.M. A615, Grade 60

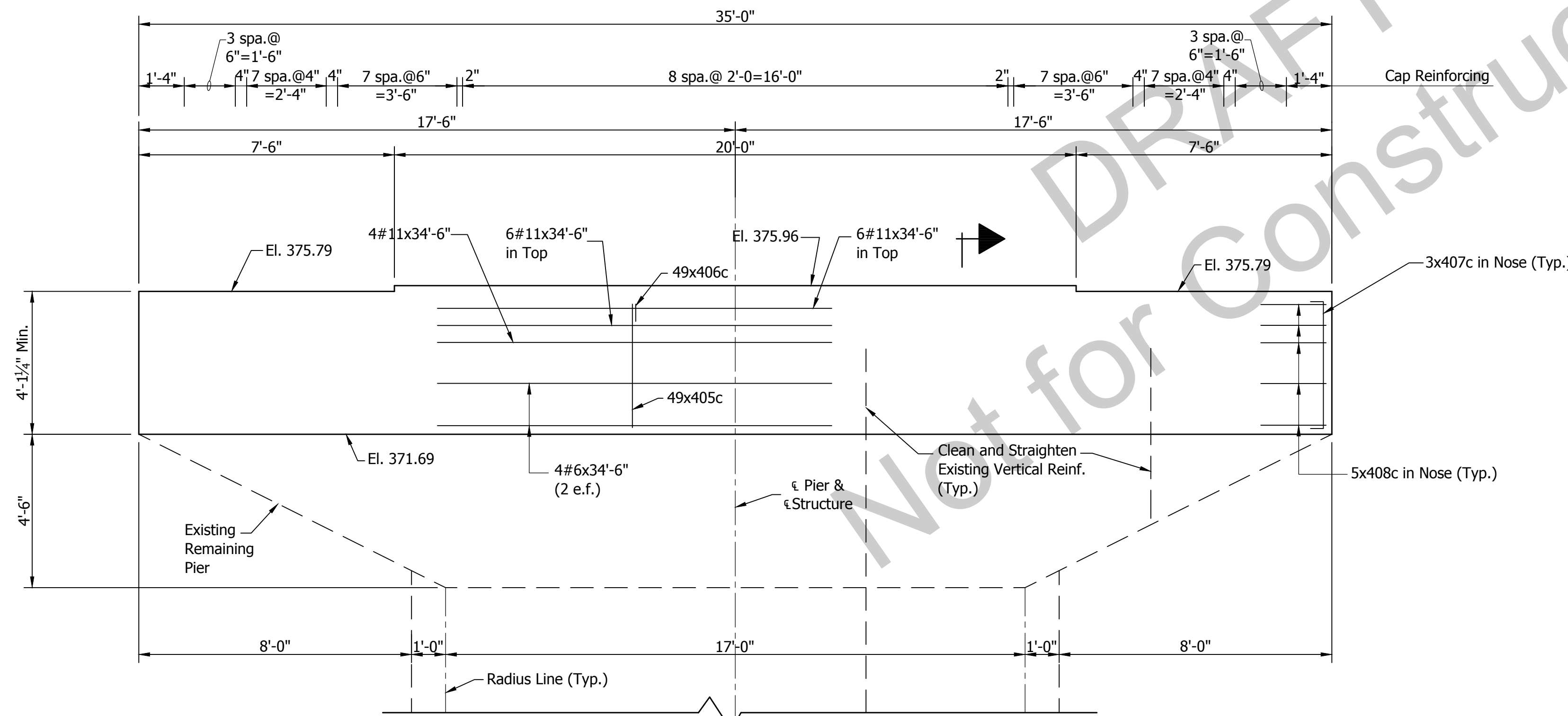
Note: See Special Provisions for Elastomeric Bearing Assembly.



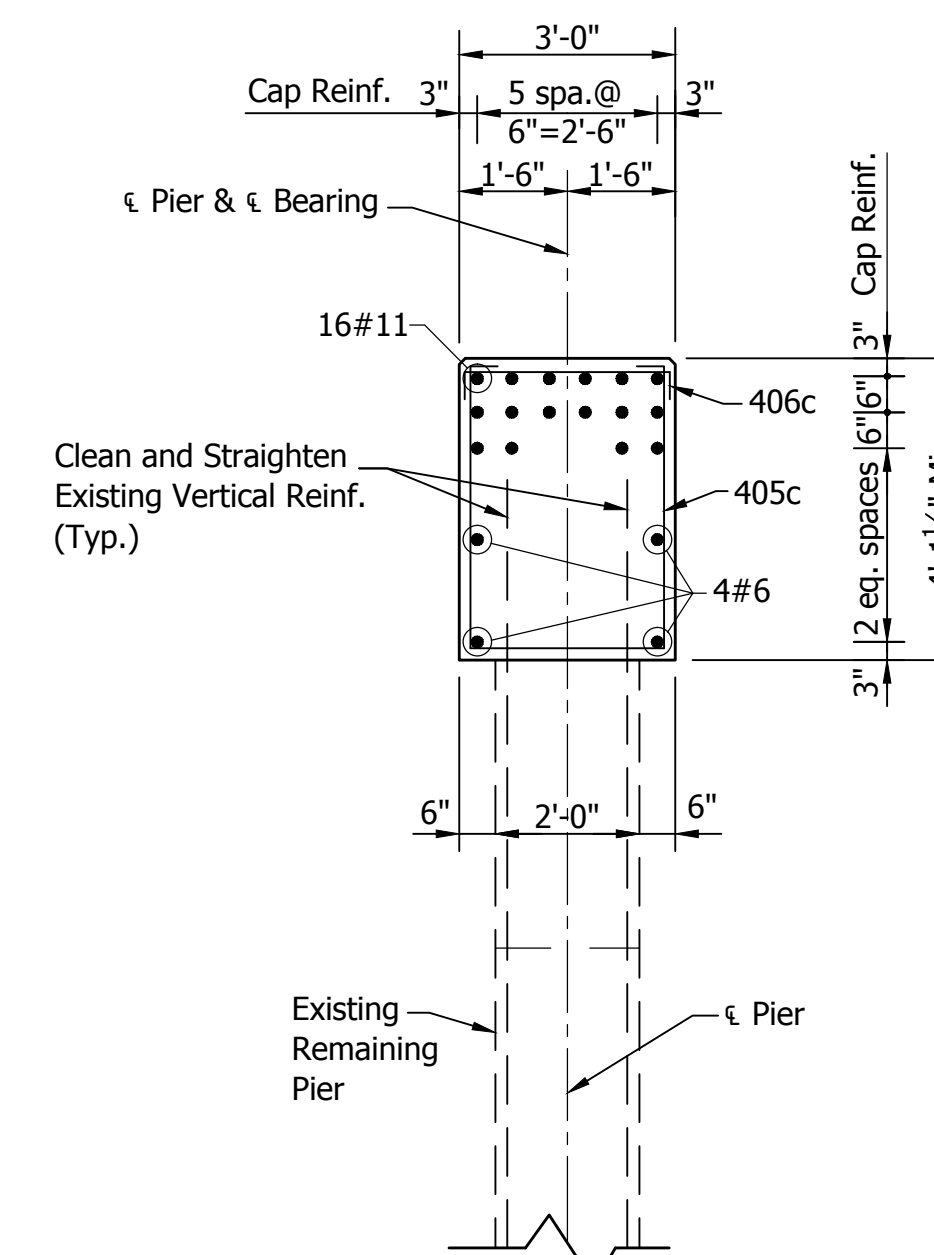
CAP PLAN
Scale: 3/8"=1'-0"



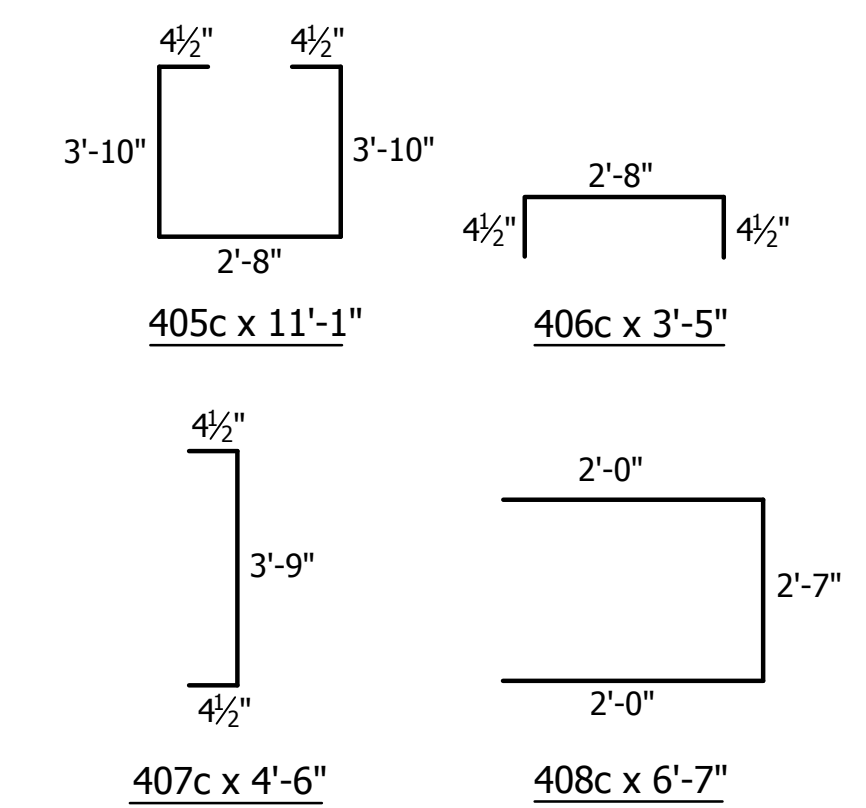
**PLAN-SECTION
CAP NOSE**
Scale: 3/4"=1'-0"



ELEVATION
Scale: 3/8"=1'-0"

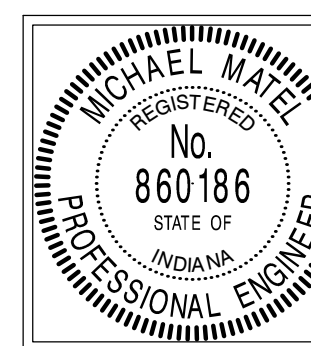


SECTION
Scale: 3/8"=1'-0"



BAR BENDING DETAILS
Not to Scale

U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B7431B.dwg Donald Sheetz Plot: 11/1/2016 1:14 PM Save: 10/19/2016 10:56 AM



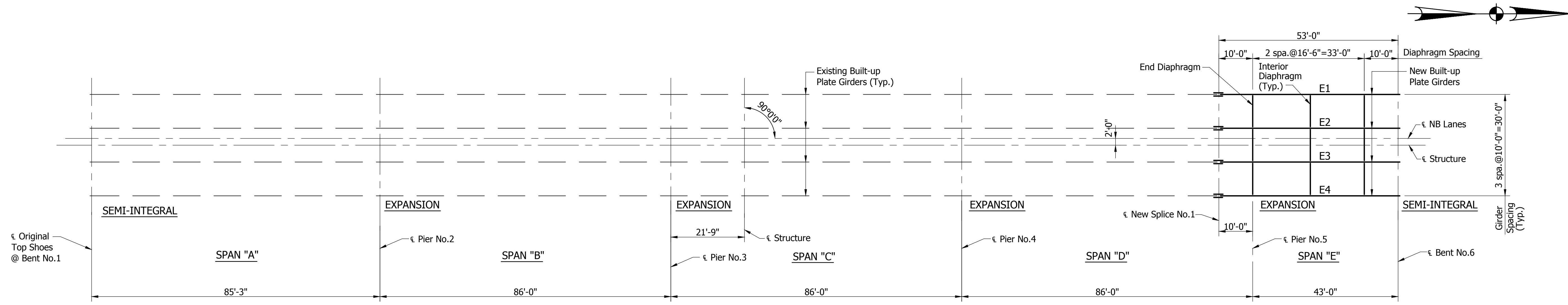
RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
DESIGN ENGINEER DATE
DESIGNED: B. WRIGHT DRAWN: D. SHEETZ
CHECKED: C. OBRIEN CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
**PIER NO.5 DETAILS
NORTHBOUND STRUCTURE**

HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 17 OF 30
CONTRACT B-33539	PROJECT 9620260

5605
BFS NO.

U:\5605\Pro-Development\Design Drawings\CHEATM_SLOUGH\5605B751NB.dwg Donald Sheets Plot: 11/1/2016 1:15 PM Save: 10/24/2016 12:47 PM



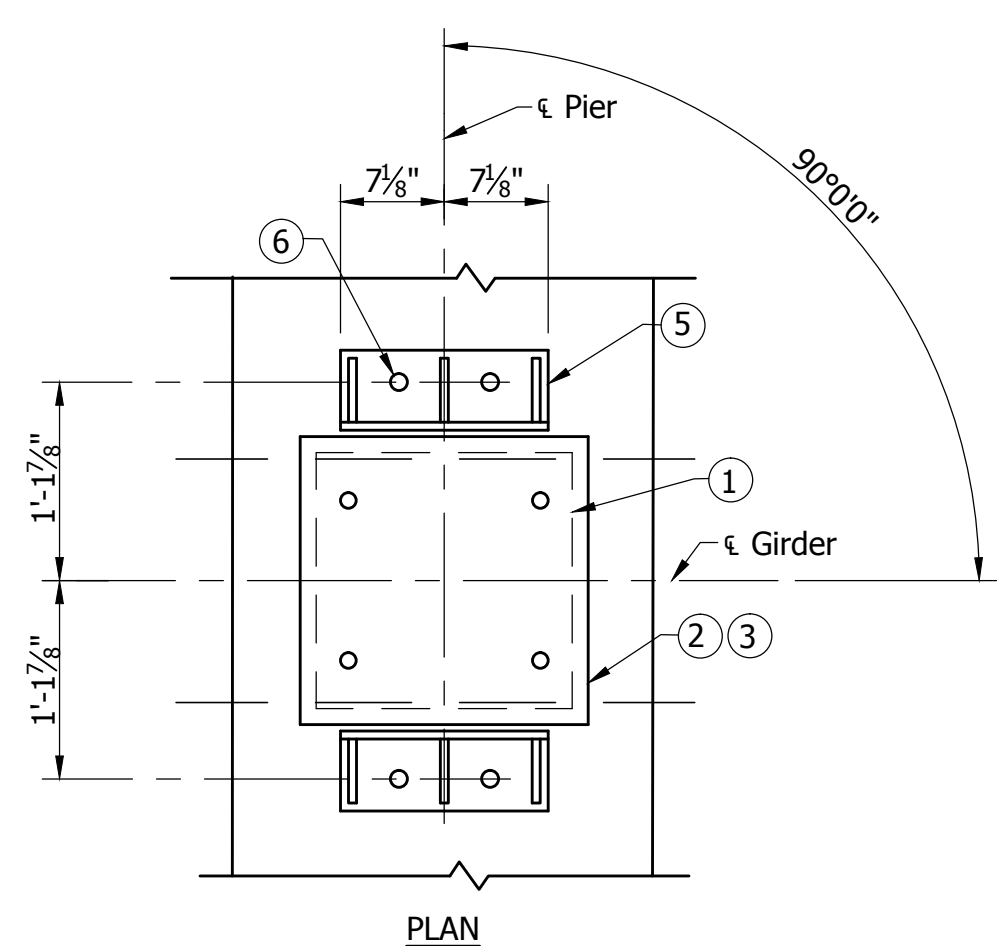
STRUCTURAL STEEL FABRICATION NOTES

All Structural Steel shall be A.S.T.M. A709, Grade 50 unless otherwise noted.

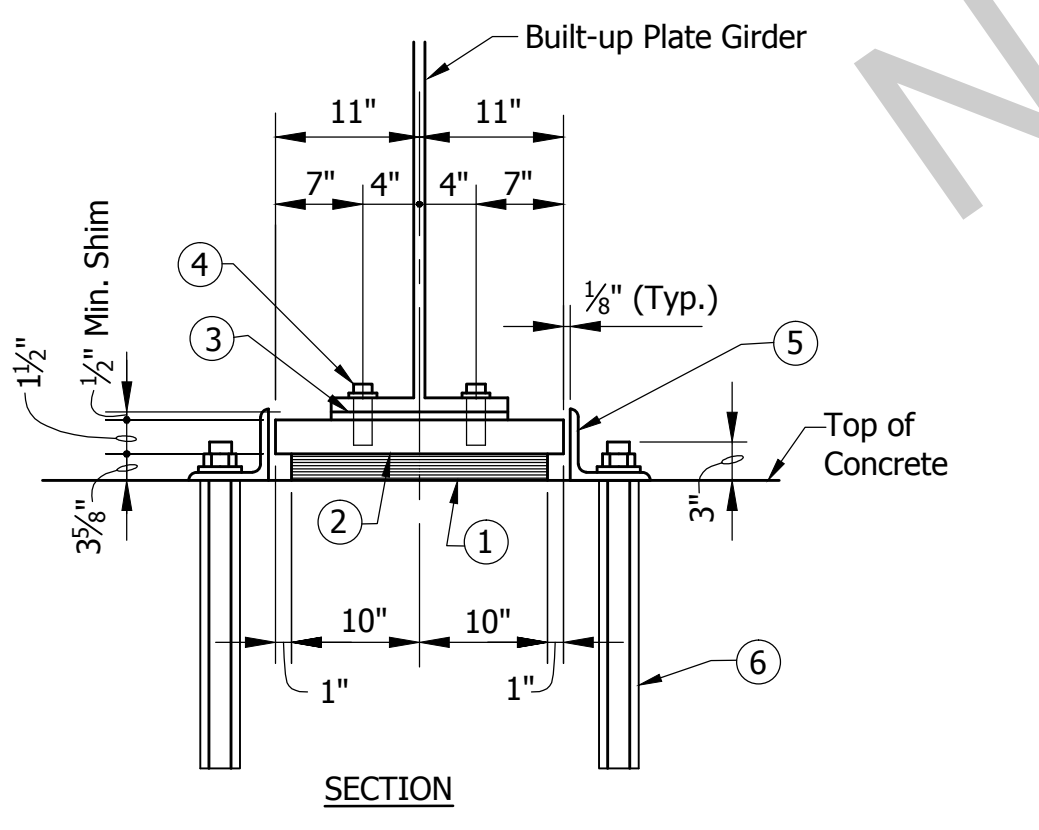
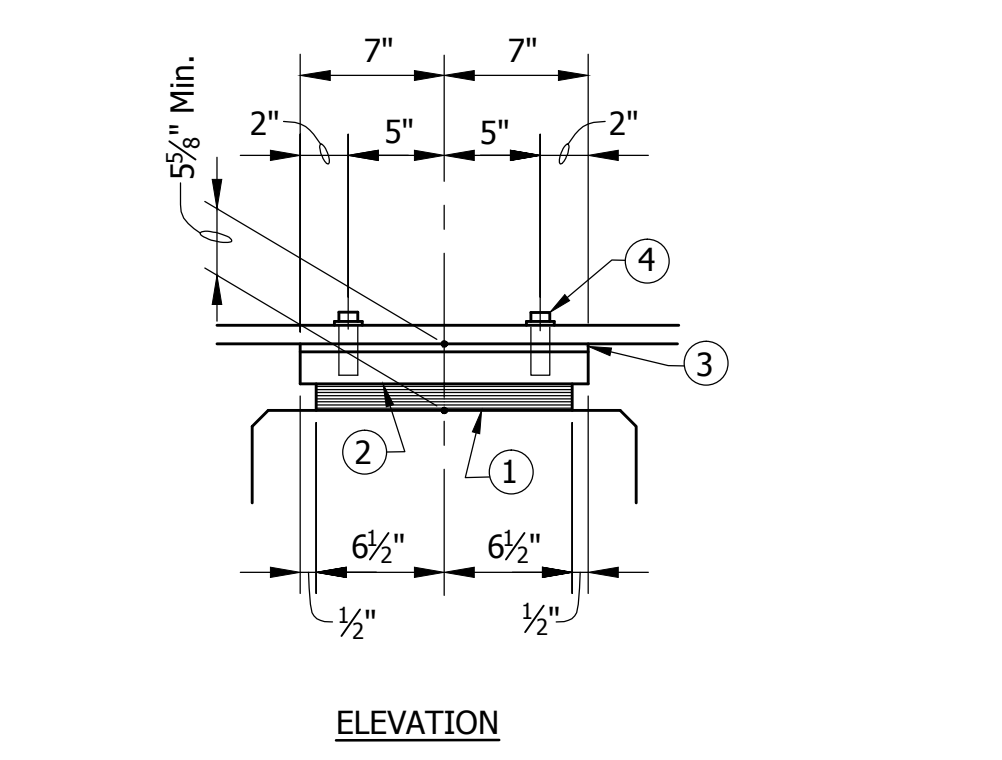
All bolts shall be 7/8"φ A325 High Strength and all holes shall be 15/16"φ unless otherwise noted.

Estimated weight of Structural Steel of 38,584 pounds includes 5491 pounds of Grade 36 and 33,093 pounds of Grade 50. The weight of high strength bolts is not included in the estimated weight of Structural Steel. The cost of these bolts shall be included in the cost of Structural Steel.

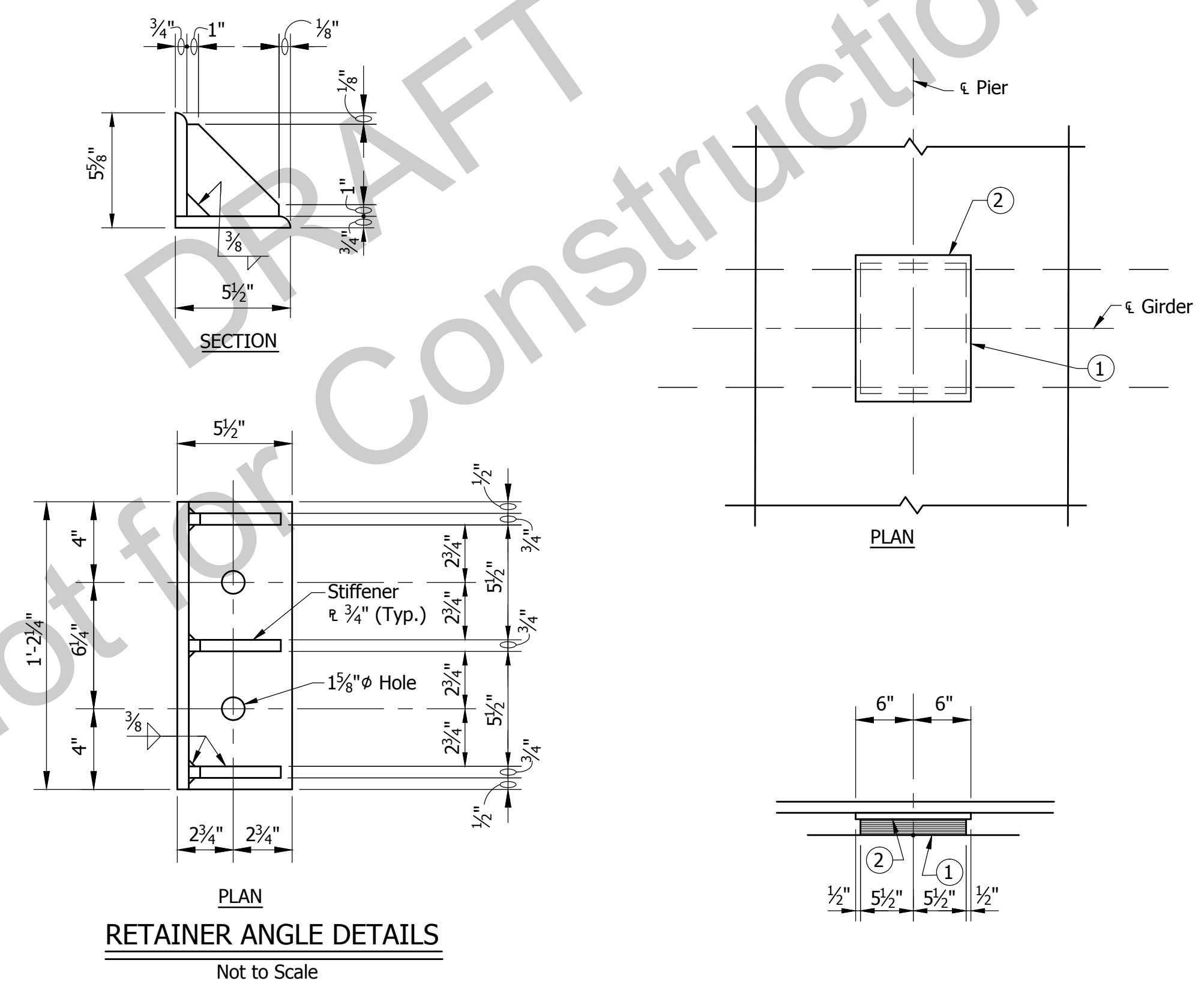
The dimensions for these detail plans are based on construction plans and/or shop drawings of the original structure. It is the Contractor's responsibility to verify controlling dimensions in the field prior to fabrication.



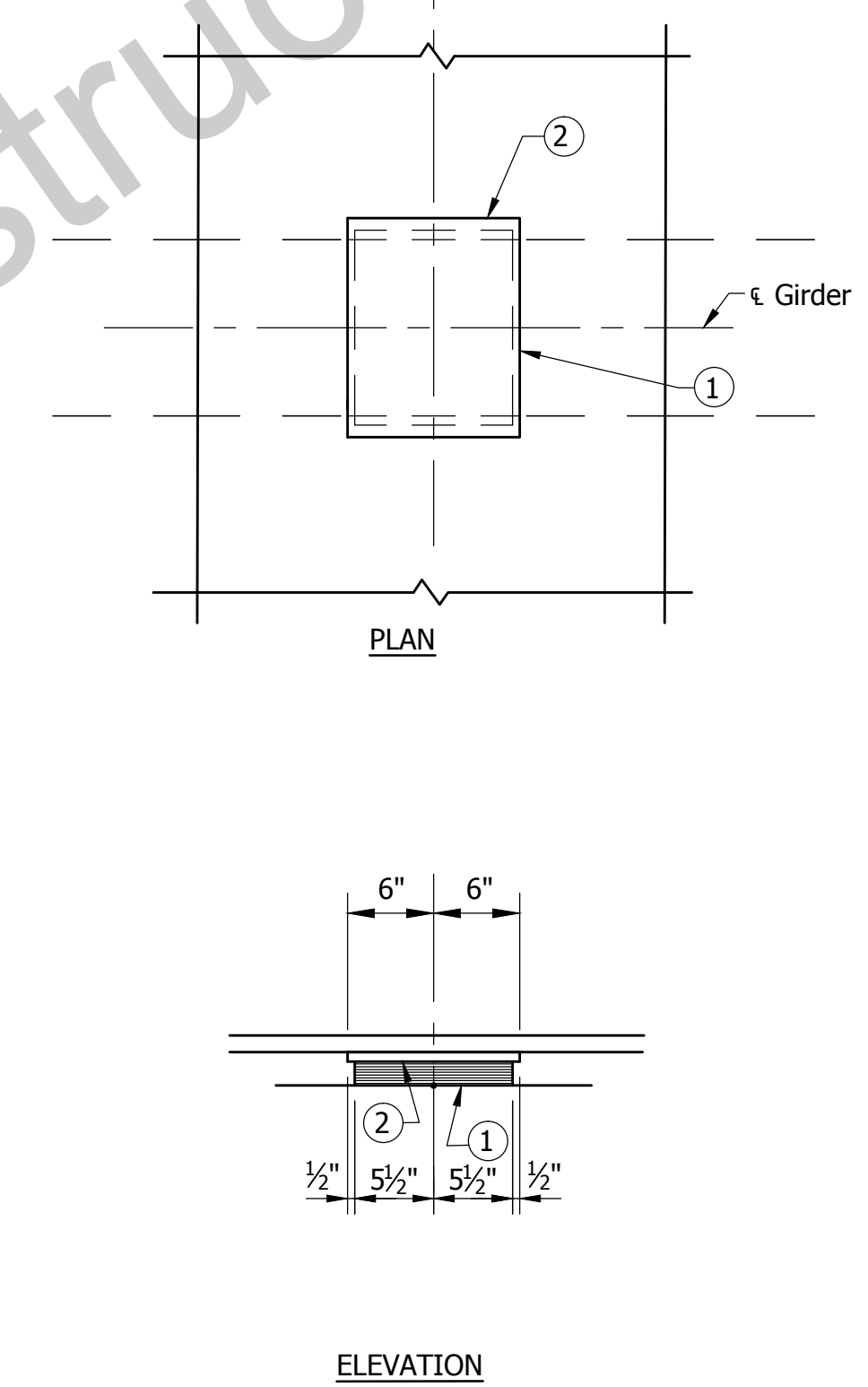
- ① Elastomeric Bearing Assembly INDOT Type S6-A (55 Durometer) (Bonded to Top Plate)
- ② 1 1/2"x1'-2"x1'-10" Top Plate Drill and Tap 1" Deep for 3/4"φ Bolts
- ③ 1'-2"x1'-0" Shim Plates with 7/8"φ Holes (Thickness = 1/2" Min.)
- ④ 3/4"φ Hex Bolt (A325) with Lock Washer (Typ.)
- ⑤ Retainer Angle (See Detail this Sheet) (Typ.)
- ⑥ 1 1/2"φx1'-6" Threaded Anchor Rod (A307) with Hex Nut and Washer. (See Detail this Sheet) Set in 1'-3" Deep Field Drilled Hole with an Approved Anchor System. (Min. Pullout = 106,000 Lbs.) (Typ.) Weight of Threaded Anchor Rods is not included in the Estimated Weight of Structural Steel.



Note: All Steel for Expansion Bearing Assemblies shall be A36 unless noted.



- ① Elastomeric Bearing Assembly INDOT Type S4-A (55 Durometer) (Bonded to Top Plate)
- ② 1'-0"x1'-5" Top Plate



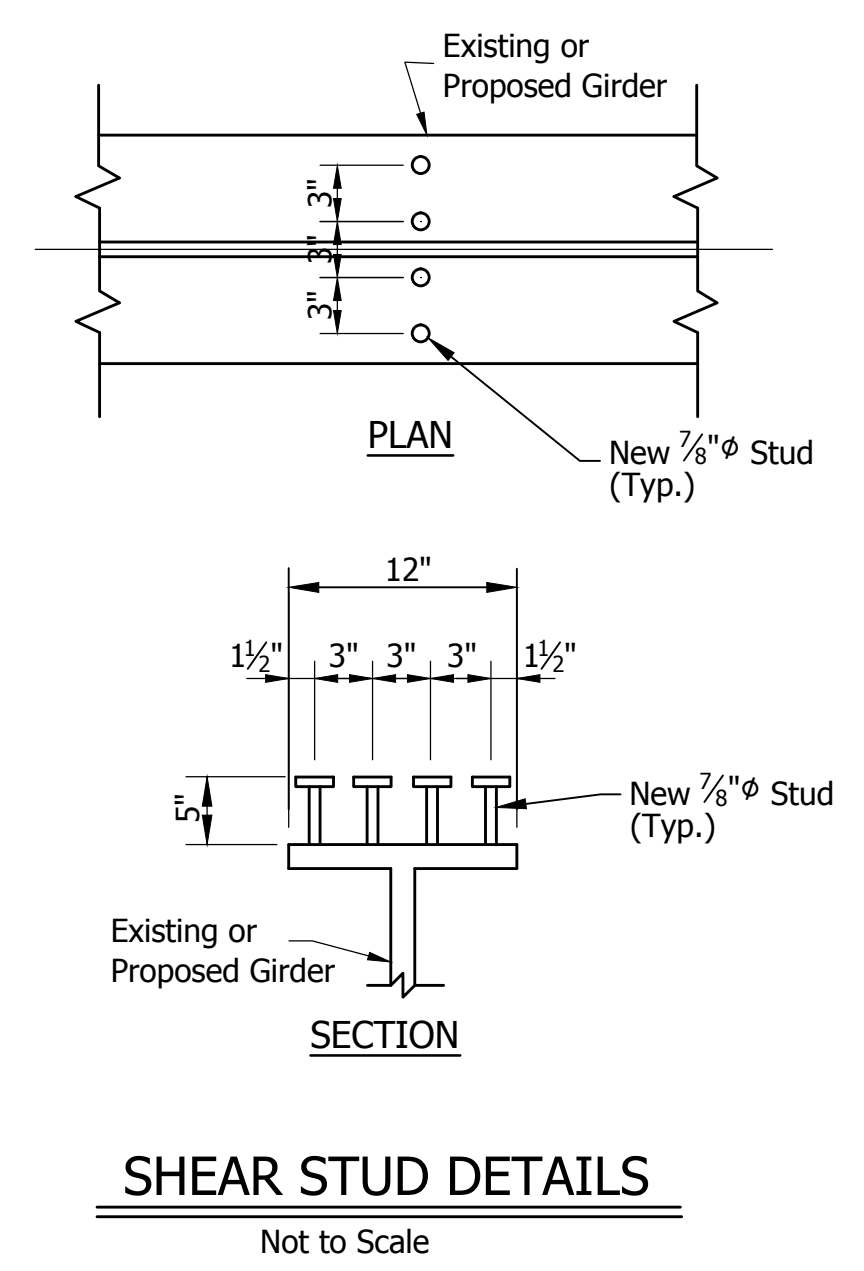
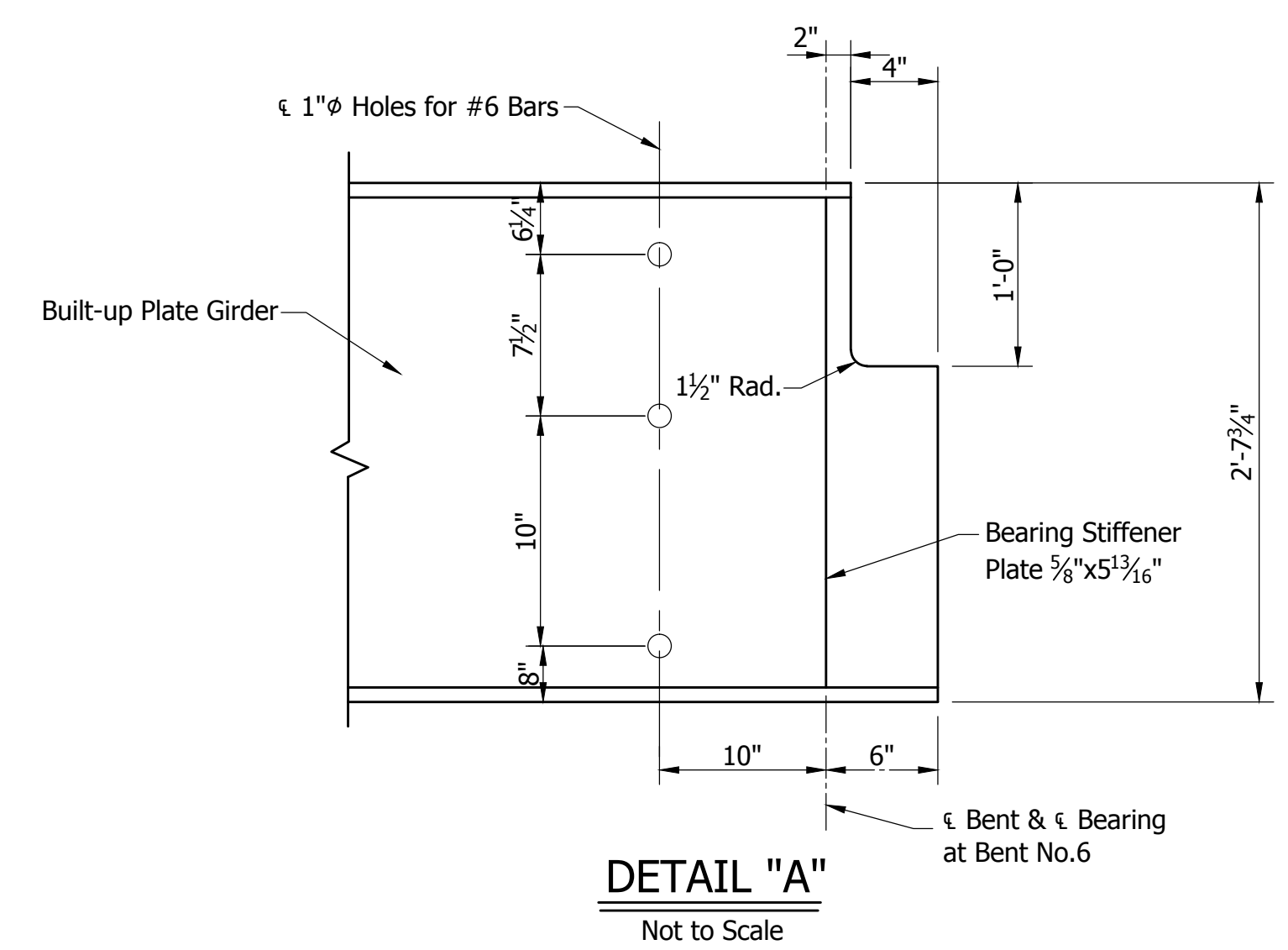
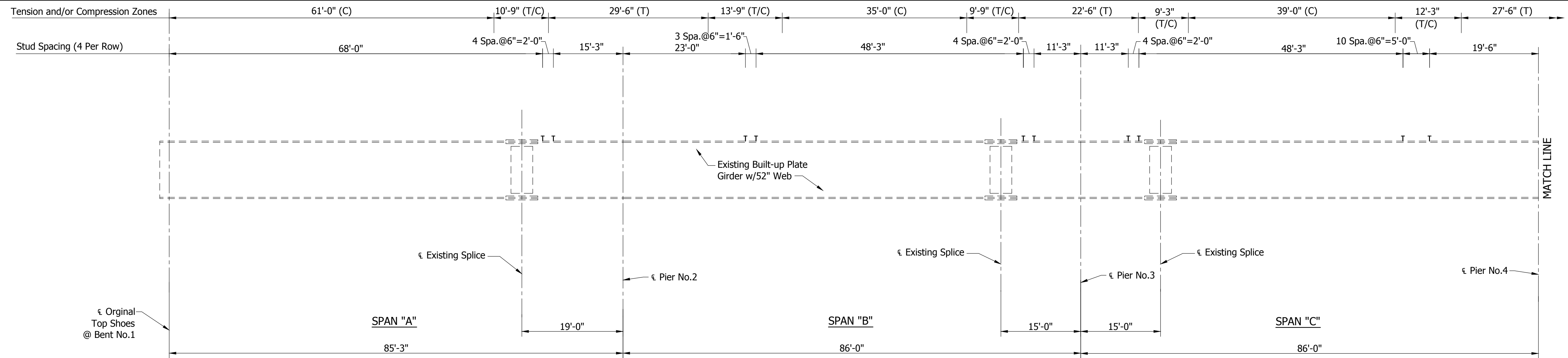
NOTES

See Sheet 19 for Girder Elevations and Shear Stud Details.
See Sheet 20 for Splice Details.
See Sheet 21 for Cross Frame Diaphragm Details.
See Sheet 22 for No Load Camber and Reaming Diagrams.
See Sheet 25 for Section "A-A".

	RECOMMENDED FOR APPROVAL: <i>Michael M. Matel</i> 10/31/16 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION STRUCTURAL STEEL DETAILS NORTHBOUND STRUCTURE	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
	DESIGNED: C. OBRIEN DRAWN: D. SHEETZ CHECKED: B. WRIGHT CHECKED: M. MATEL		VERTICAL SCALE AS NOTED	DESIGNATION 9620260
			SURVEY BOOK	SHEET 18 OF 30
			CONTRACT B-33539	PROJECT 9620260

5605

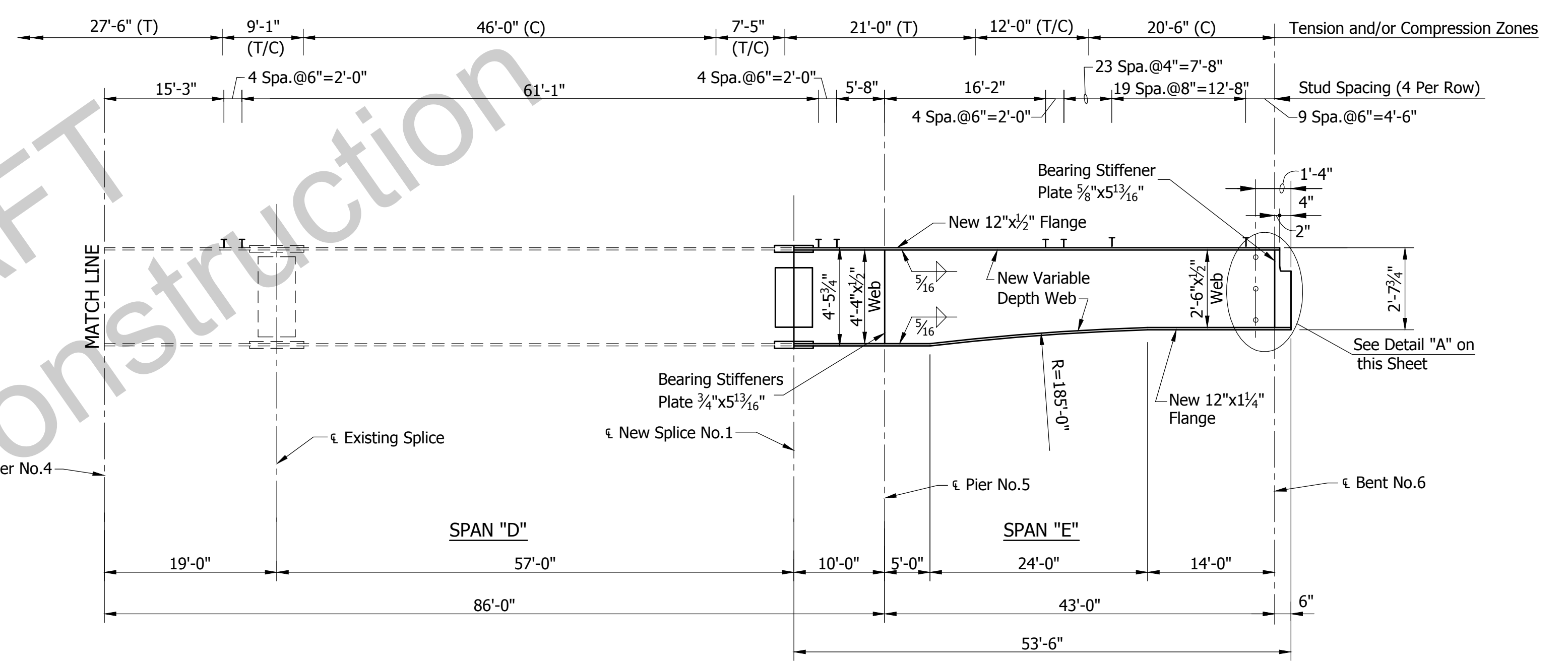
U:\5605\ProDevelopment\Drawings\CHE1\T.M. SLOUGH\5605B7531B.dwg Donald Sheetz Plot: 11/1/2016 1:15 PM Save: 10/19/2016 10:57 AM



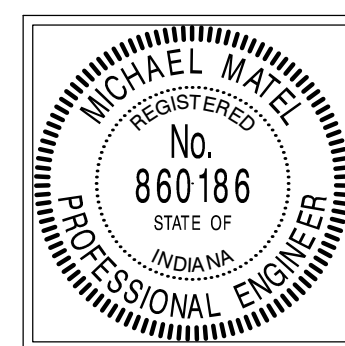
Notes:
 Top of Beams shall be cleaned prior to installation of Shear Studs per Section 619.
 The cost and installation of 7/8" Shear Studs on Existing Beams shall be paid for as "Shear Stud Connector, Each."
 Shear Stud Connectors on Existing Beams:
 Total = 560 Each
 The cost and installation of 7/8" Shear Studs on New Beams shall be included in the cost of Structural Steel.
 Shear Stud Connectors on New Beams:
 Total = 976 Each

DRAFT Not for Construction

ELEVATION
EXISTING GIRDERS AND NEW GIRDERS E1 THRU E4
 Not To Scale



NOTES
 See Sheet 18 for Framing Plan and Structural Steel Fabrication Notes.
 See Sheet 20 for Splice Detail.



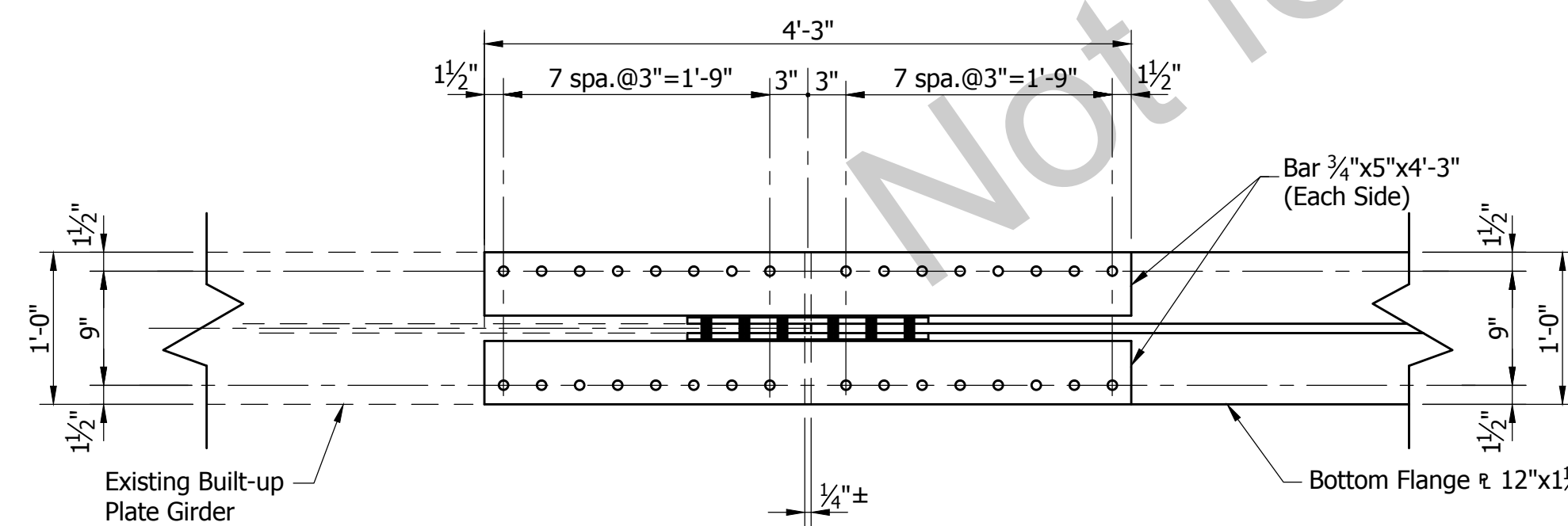
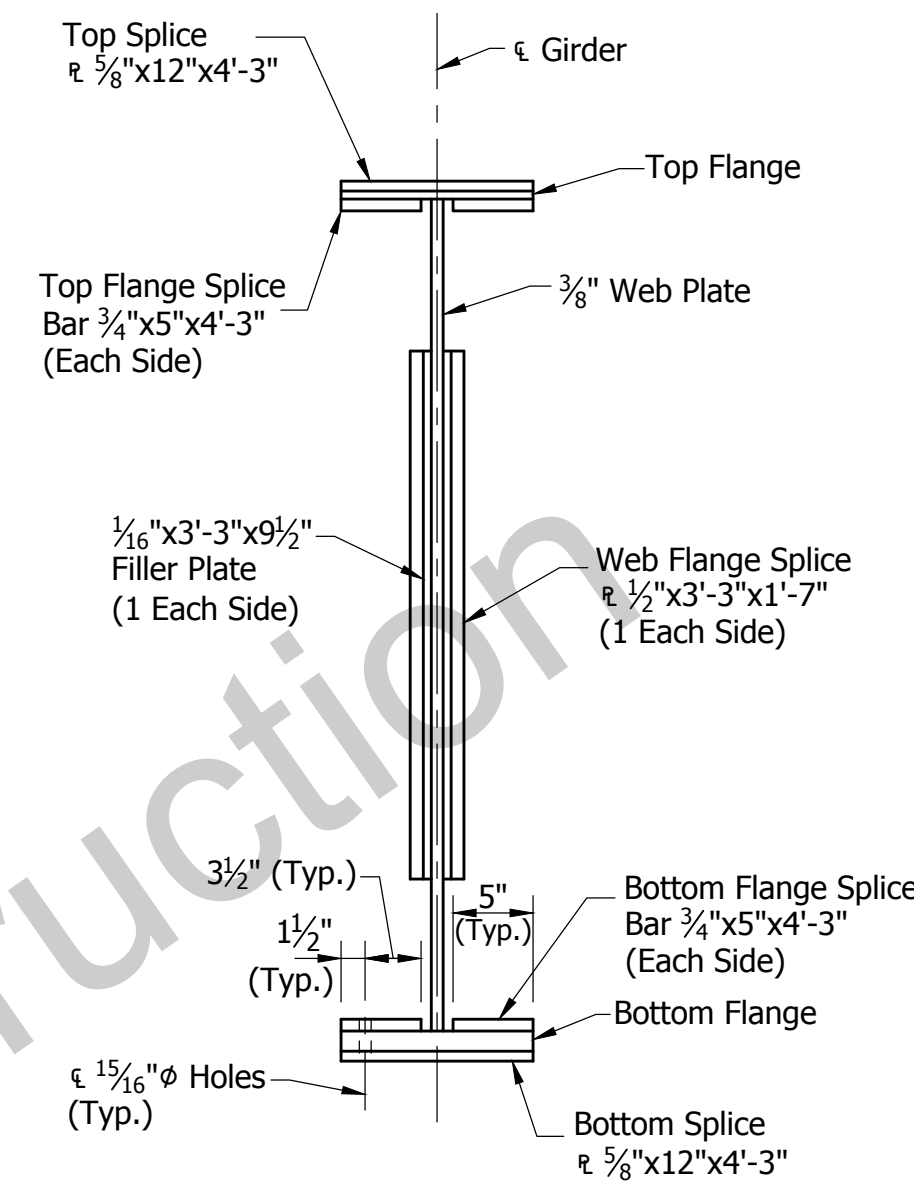
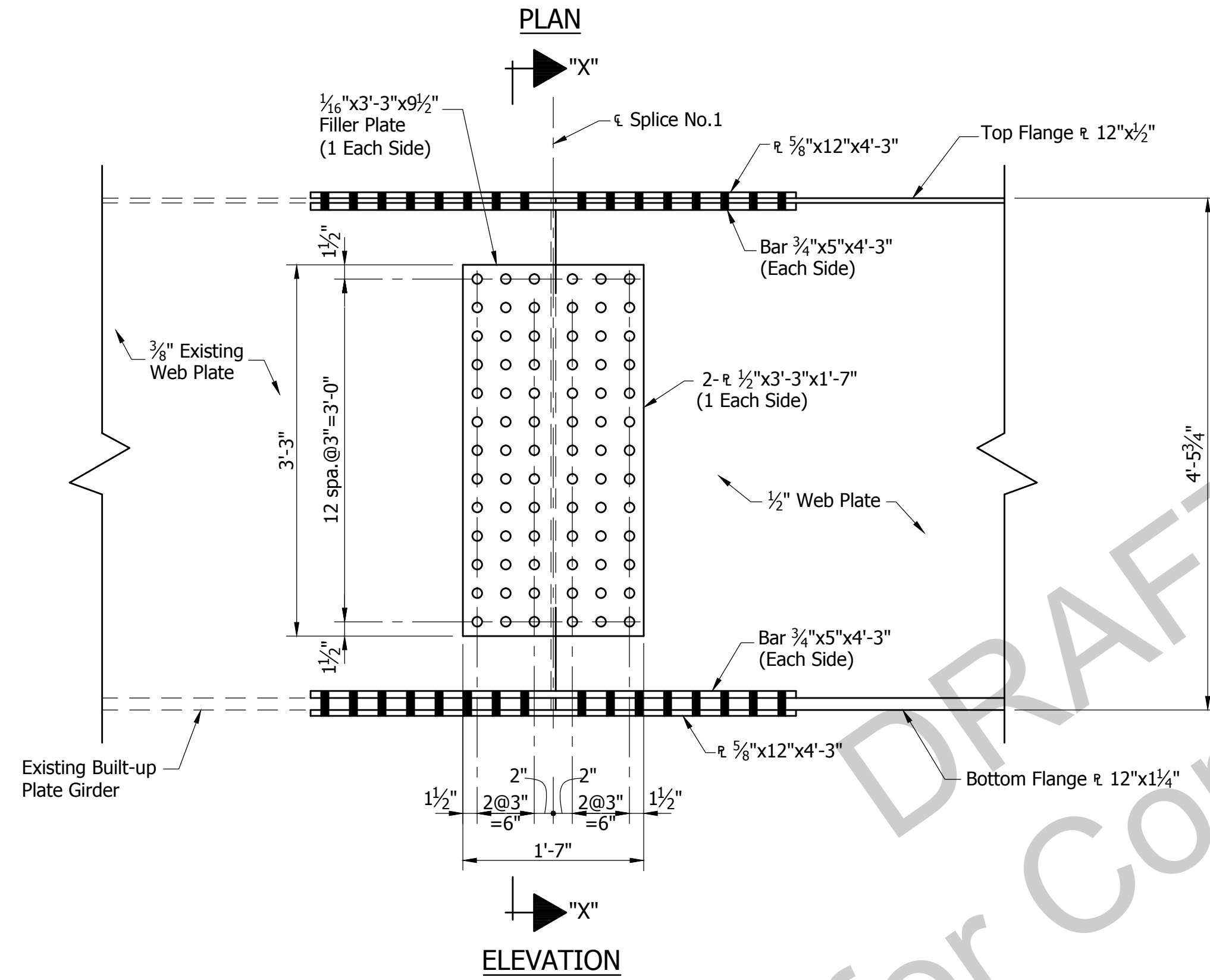
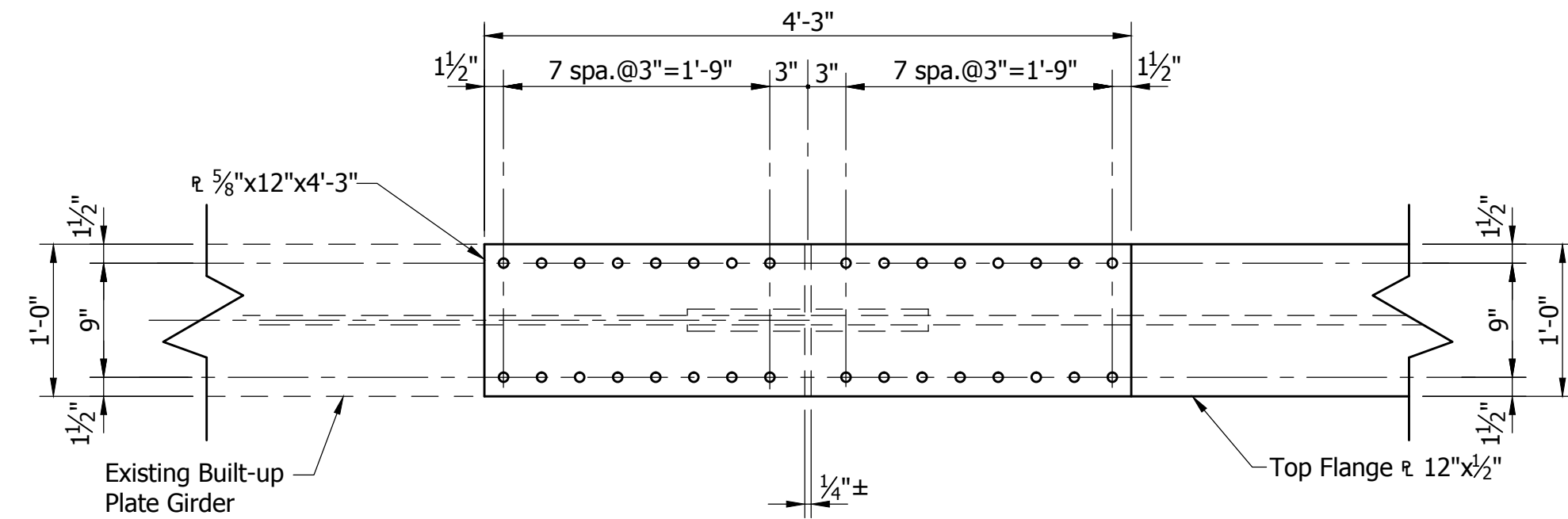
RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
 CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA
 DEPARTMENT OF TRANSPORTATION
 STRUCTURAL STEEL DETAILS
 NORTHBOUND STRUCTURE

HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 19 OF 30
CONTRACT B-33539	PROJECT 9620260

5605 B.F.S. NO.

U:\5605\Pro-Development\Design Drawings\CHEATAM_SLOUGH\5605B\521B.dwg Donald Sheetz Plot: 11/1/2016 1:15 PM Save: 10/27/2016 10:50 AM

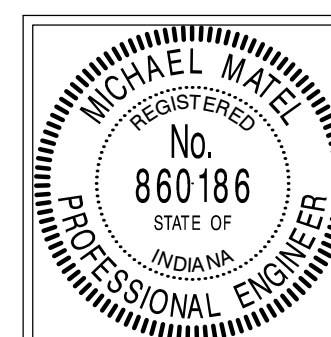


SPLICE NO. 1 DETAILS
Scale: 1" = 1'-0"

TOP OF SPLICE ELEVATIONS	
GIRDER	SPLICE NO. 1
E1	380.68
E2	380.86
E3	380.86
E4	380.68

Notes:
Splice Elevations shown in Table are with falsework removed and allow for steel dead load only.
Top of Splice Plates shall be adjusted to the Elevations shown in Table before field splices are bolted.

NOTE
See Sheet 18 for Framing Plan and Structural Steel Fabrication Notes.



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. OBRIEN DRAWN: D. SHEETZ

CHECKED: B. WRIGHT CHECKED: M. MATEL

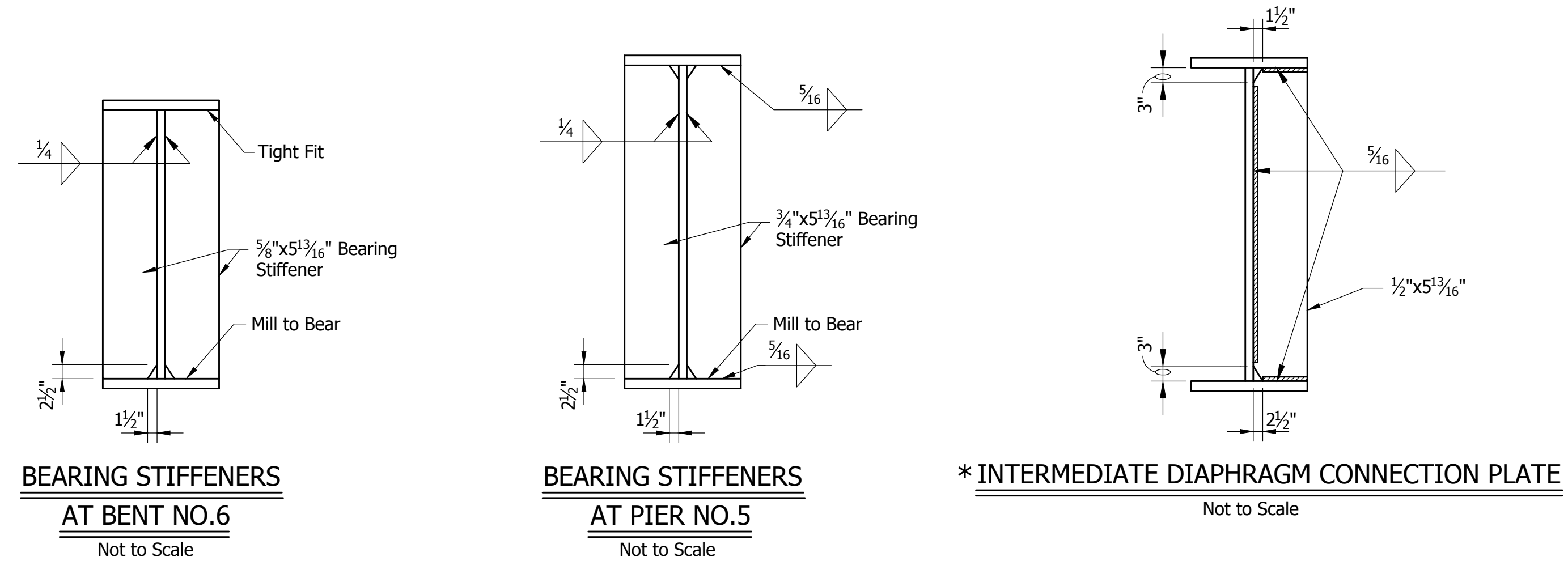
INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
NORTHBOUND STRUCTURE

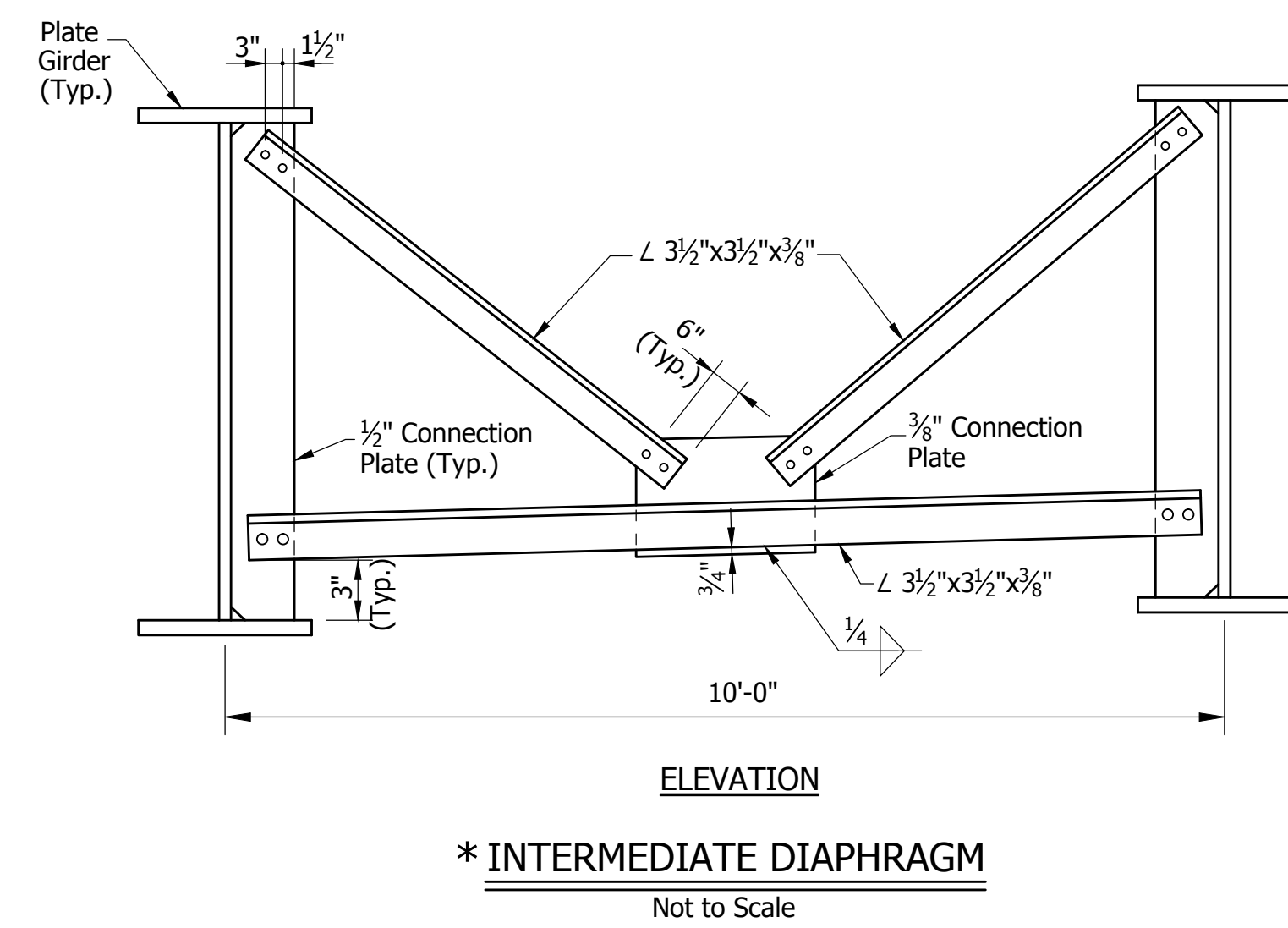
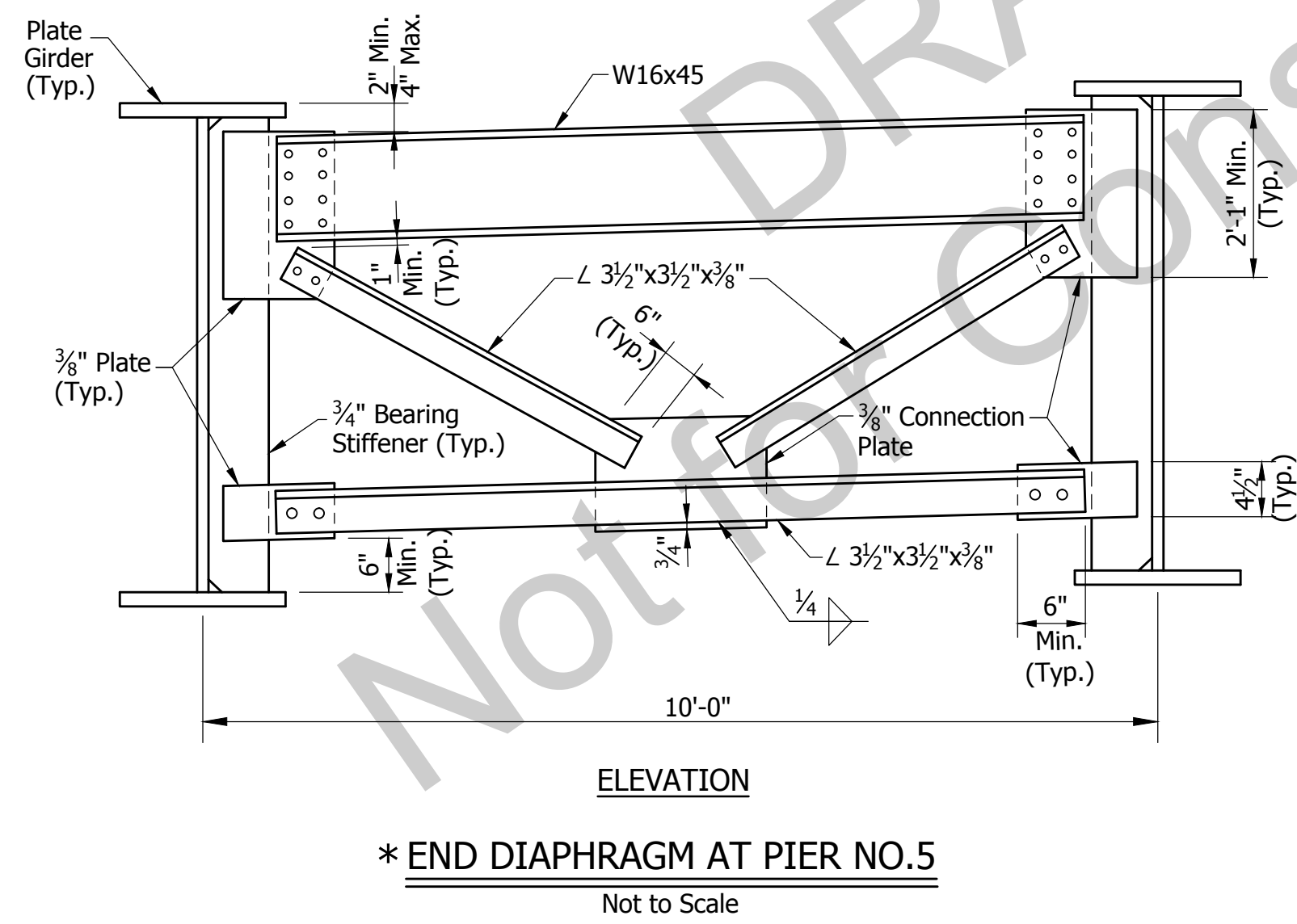
HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 20 OF 30
CONTRACT B-33539	PROJECT 9620260

5605
BFS NO.

U:\5605\Pro-Development\Design Drawings\CH&TAM_SLOUGH\5605B754MB.dwg Donald Sheetz Plot: 11/1/2016 1:15 PM Save: 10/19/2016 11:04 AM



* Note: All Structural Steel for the End and Intermediate Diaphragms shall be Grade 36 Steel.

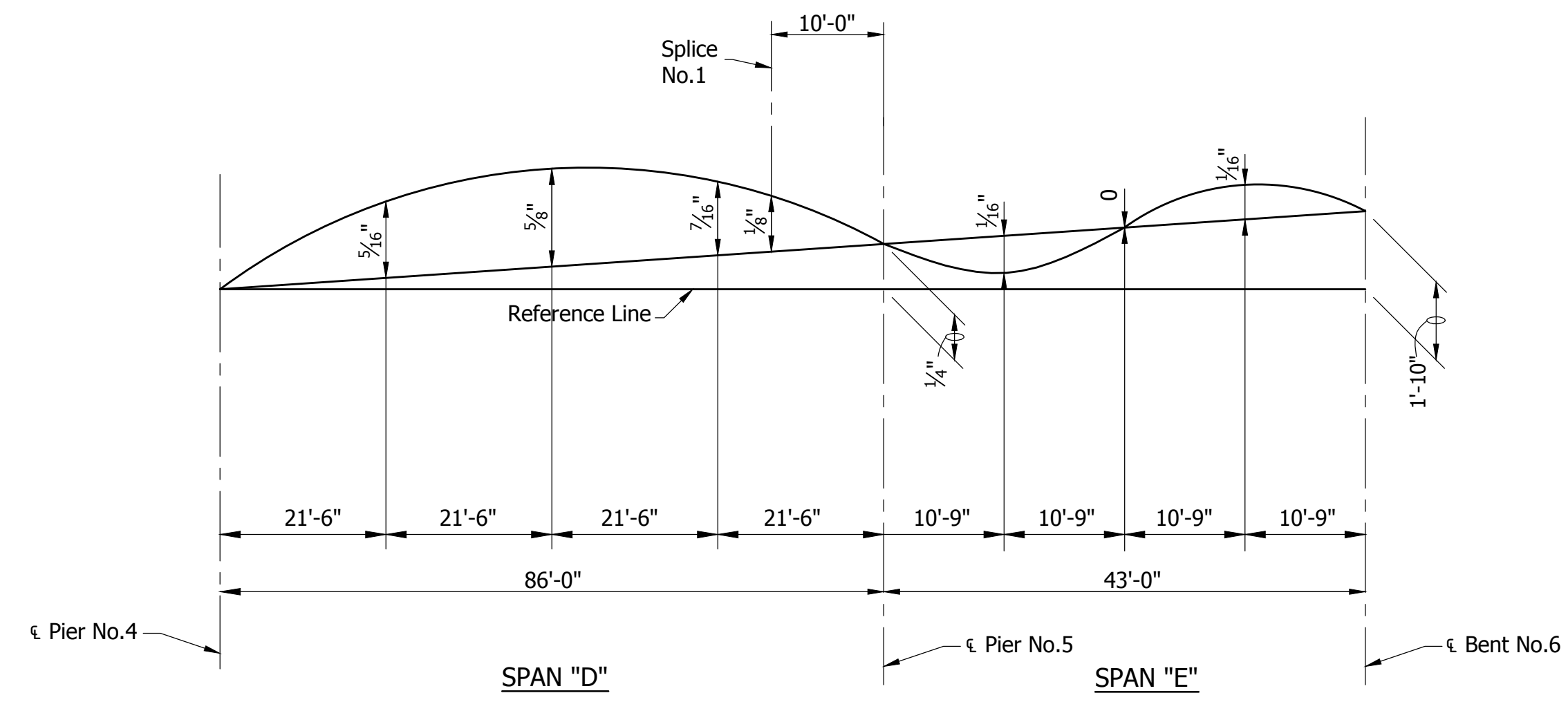


NOTE
See Sheet 18 for Framing Plan and Structural Steel Fabrication Notes.

	RECOMMENDED FOR APPROVAL: <i>Michael M. Mate</i> 10/31/16 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION STRUCTURAL STEEL DETAILS NORTHBOUND STRUCTURE	HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
	DESIGNED: C. OBRIEN DRAWN: D. SHEETZ		VERTICAL SCALE AS NOTED	DESIGNATION 9620260
	CHECKED: B. WRIGHT CHECKED: M. MATEL		SURVEY BOOK	SHEET 21 OF 30
			CONTRACT B-33539	PROJECT 9620260

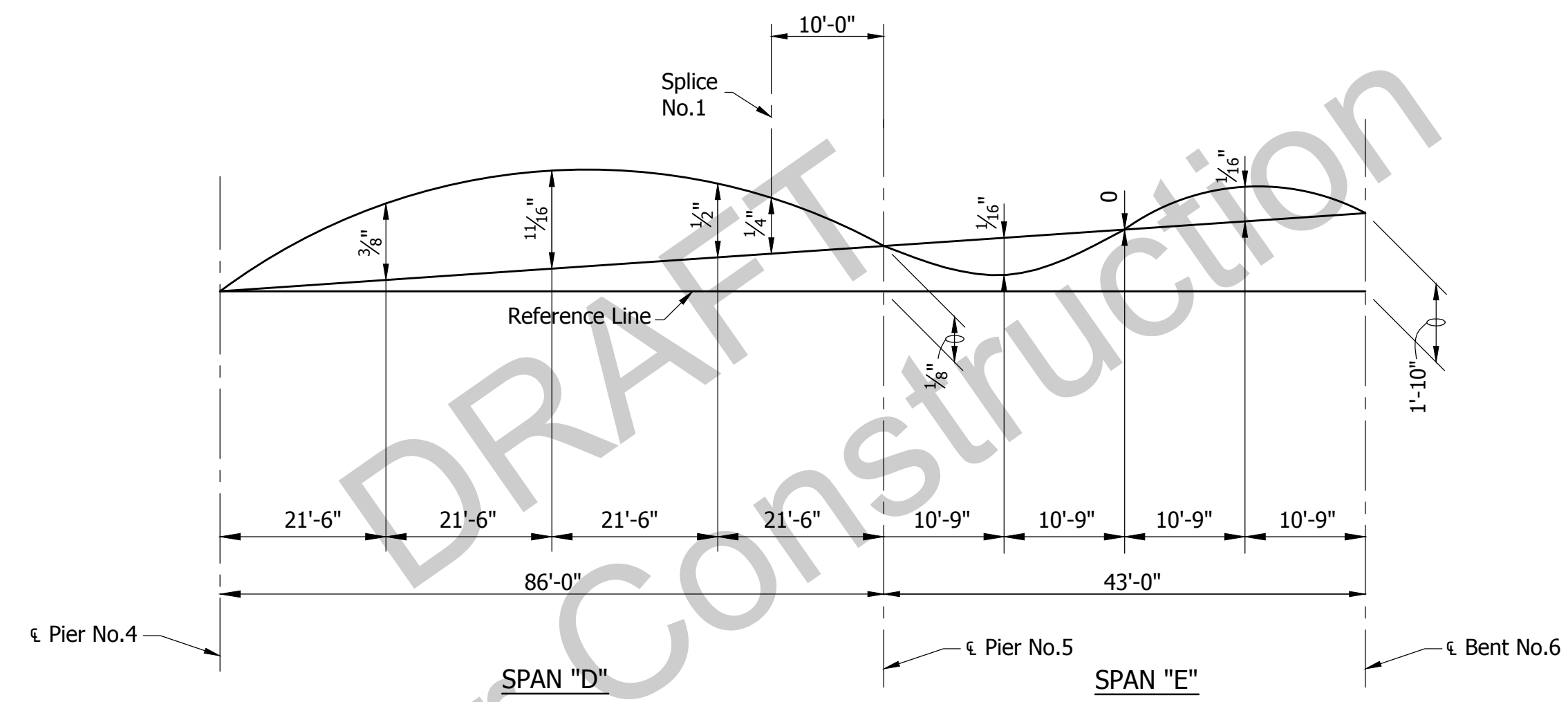
5605
BFS NO.

U:\5605\Pro-Development\Design Drawings\CH&T\M_SLOUGH\5605B7551B.dwg - Donald Sheetz Plot: 11/1/2016 1:16 PM Save: 10/19/2016 11:04 AM



NO LOAD CAMBER AND REAMING DIAGRAM (EXTERIOR GIRDERS)

Not to Scale



NO LOAD CAMBER AND REAMING DIAGRAM (INTERIOR GIRDERS)

Not to Scale

TABLE OF CAMBERS (EXTERIOR GIRDERS)							
	SPAN "D"				SPAN "E"		
	¼ PT.	½ PT.	¾ PT.	ϵ Splice No.1	¼ PT.	½ PT.	¾ PT.
DEAD LOAD STEEL	1/16"	1/16"	1/16"	1/16"	0	0	0
DEAD LOAD CONCRETE	1/4"	9/16"	3/8"	1/16"	-1/16"	0	1/16"
SUBTOTAL	5/16"	5/8"	7/16"	1/8"	-1/16"	0	1/16"
VERTICAL CURVE	0	0	0	0	0	0	0
TOTAL	5/16"	5/8"	7/16"	1/8"	-1/16"	0	1/16"

TABLE OF CAMBERS (INTERIOR GIRDERS)							
	SPAN "D"				SPAN "E"		
	¼ PT.	½ PT.	¾ PT.	ϵ Splice No.1	¼ PT.	½ PT.	¾ PT.
DEAD LOAD STEEL	1/16"	1/16"	1/16"	1/8"	0	0	0
DEAD LOAD CONCRETE	5/16"	5/8"	7/16"	1/8"	-1/16"	0	1/16"
SUBTOTAL	3/8"	1 1/16"	1/2"	1/4"	-1/16"	0	1/16"
VERTICAL CURVE	0	0	0	0	0	0	0
TOTAL	3/8"	1 1/16"	1/2"	1/4"	-1/16"	0	1/16"

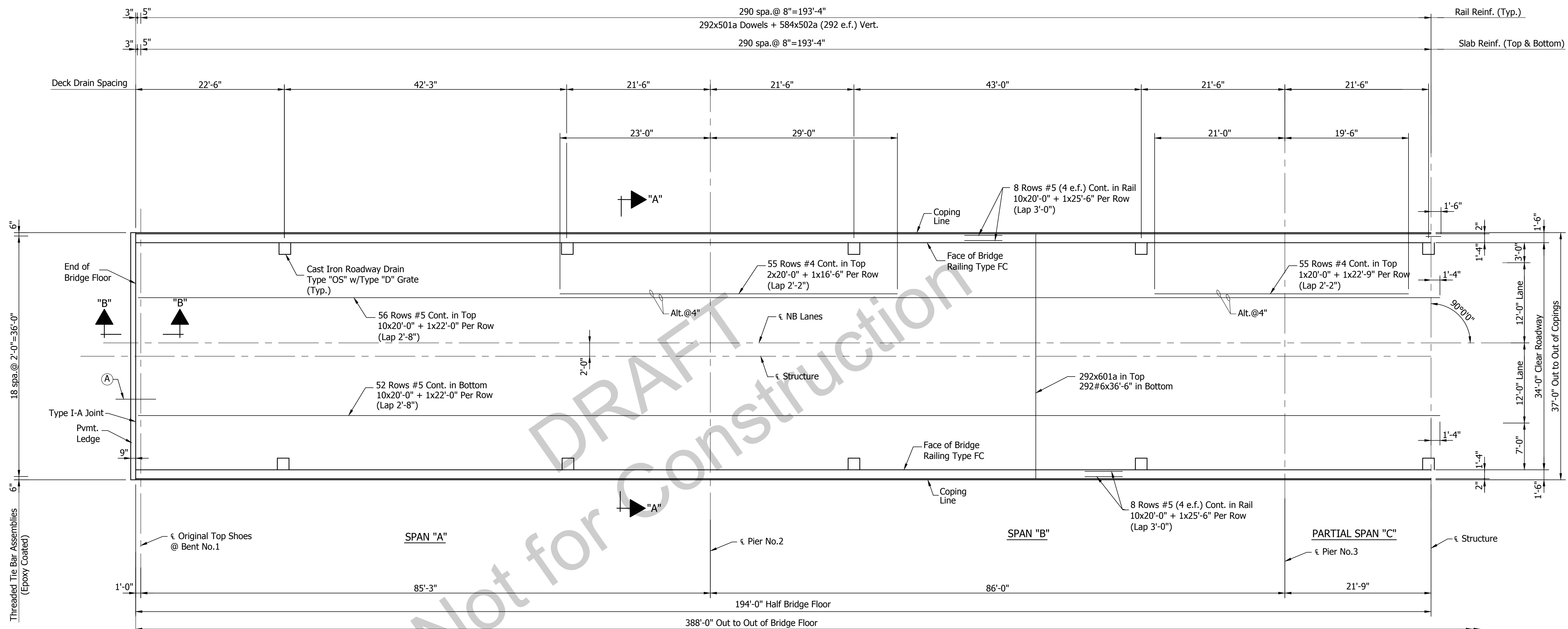
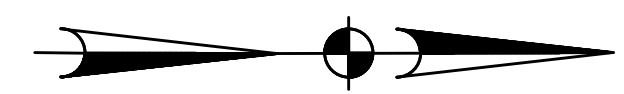


RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
 CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
STRUCTURAL STEEL DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 22 OF 30
CONTRACT B-33539	PROJECT 9620260

BFS NO. 5605



(A) 19-Threaded Tie Bar Assemblies
 (#5x3'-0" each way)
 (Epoxy Coated)

- NOTES**
- See Sheet 9 for Section "B-B".
 - See Sheet 24 for Balance of Plan.
 - See Sheet 25 for Section "A-A" and Additional Notes.
 - See Sheet 26 for Concrete Dead Load Deflection Diagram and Screed Plan.
 - See Sheet 27 for Screed Elevations
 - See Sheet 28 for Bar Bending Details and Bill of Materials.

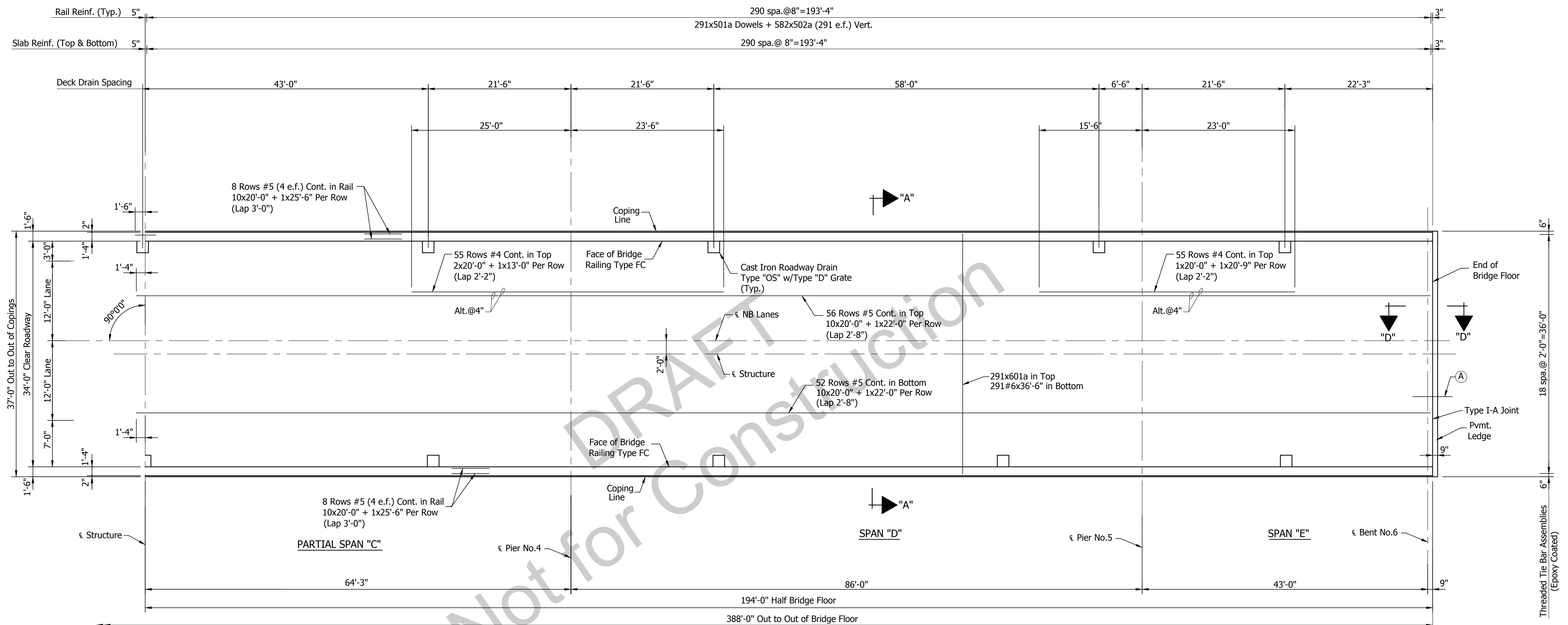
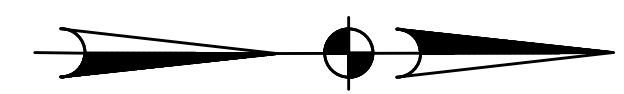
U:\5605\Pro-Development\Design Drawings\CHEATAM_SLOUGH\5605B77MB.dwg Donald Sheetz Plot: 11/1/2016 1:16 PM Save: 10/19/2016 11:04 AM

	RECOMMENDED FOR APPROVAL:	<i>Michael Matel</i>	10/31/16	
		DESIGN ENGINEER	DATE	
	DESIGNED:	C. OBRIEN	DRAWN:	D. SHEETZ
	CHECKED:	B. WRIGHT	CHECKED:	M. MATEL

INDIANA
DEPARTMENT OF TRANSPORTATION
FLOOR DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	23 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.

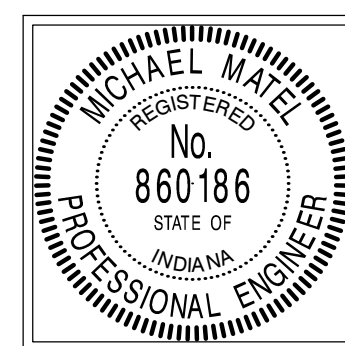


PLAN
PARTIAL SPAN "C", SPAN "D" AND SPAN "E"
 Scale: 1/8" = 1'-0"

(A) 19-Threaded Tie Bar Assemblies (#5x3'-0" each way) (Epoxy Coated)

NOTES
 See Sheet 13 for Section "B-B".
 See Sheet 23 for Balance of Plan.
 See Sheet 25 for Section "A-A" and Additional Notes.
 See Sheet 26 for Concrete Dead Load Deflection Diagram and Screed Plan.
 See Sheet 27 for Scree Elevations
 See Sheet 28 for Bar Bending Details and Bill of Materials.

U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B771ANB.dwg Donald Sheetz Plot:11/1/2016 1:16 PM Save:10/19/2016 11:00 AM



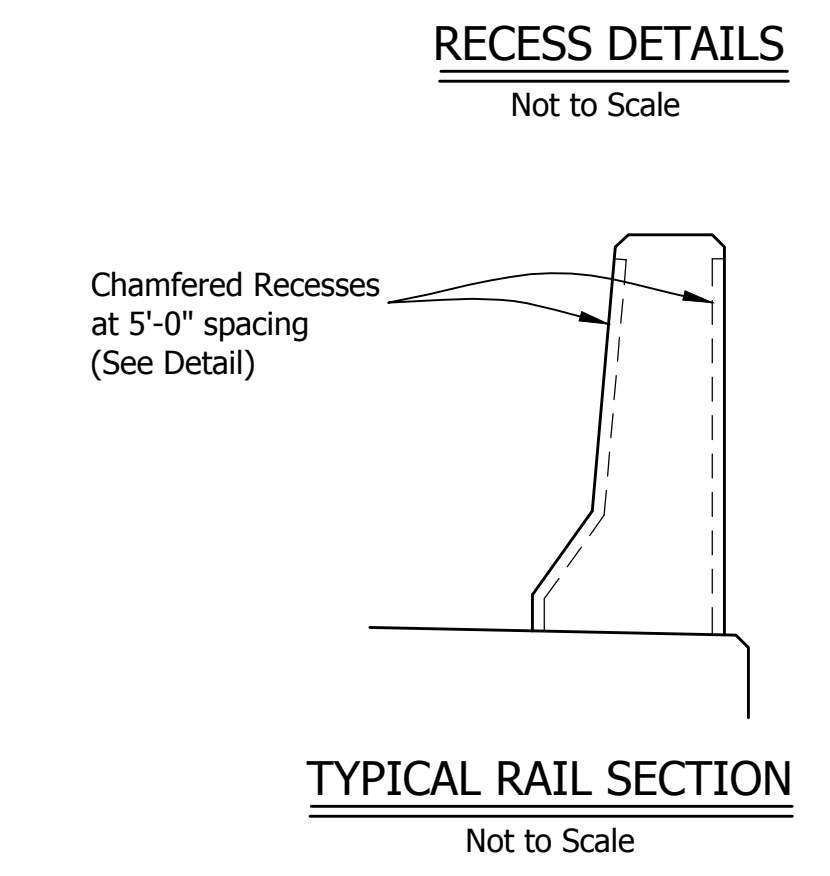
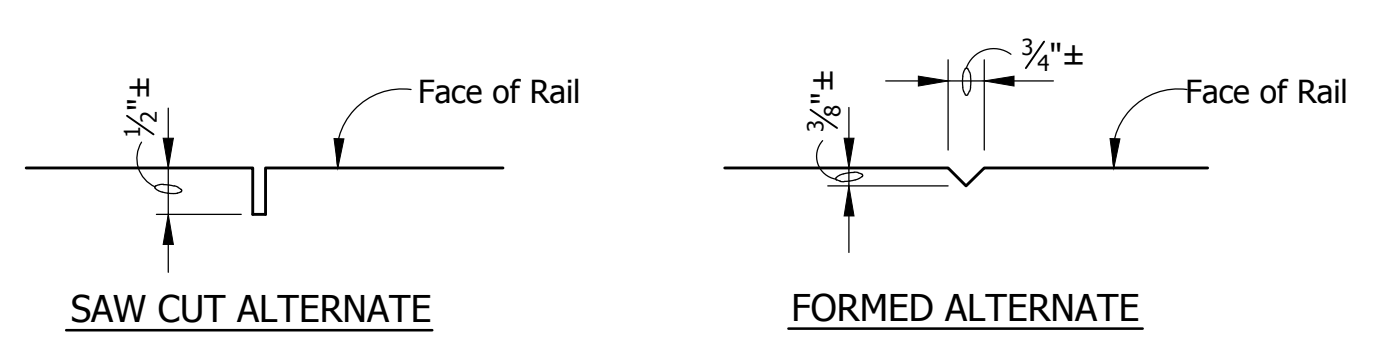
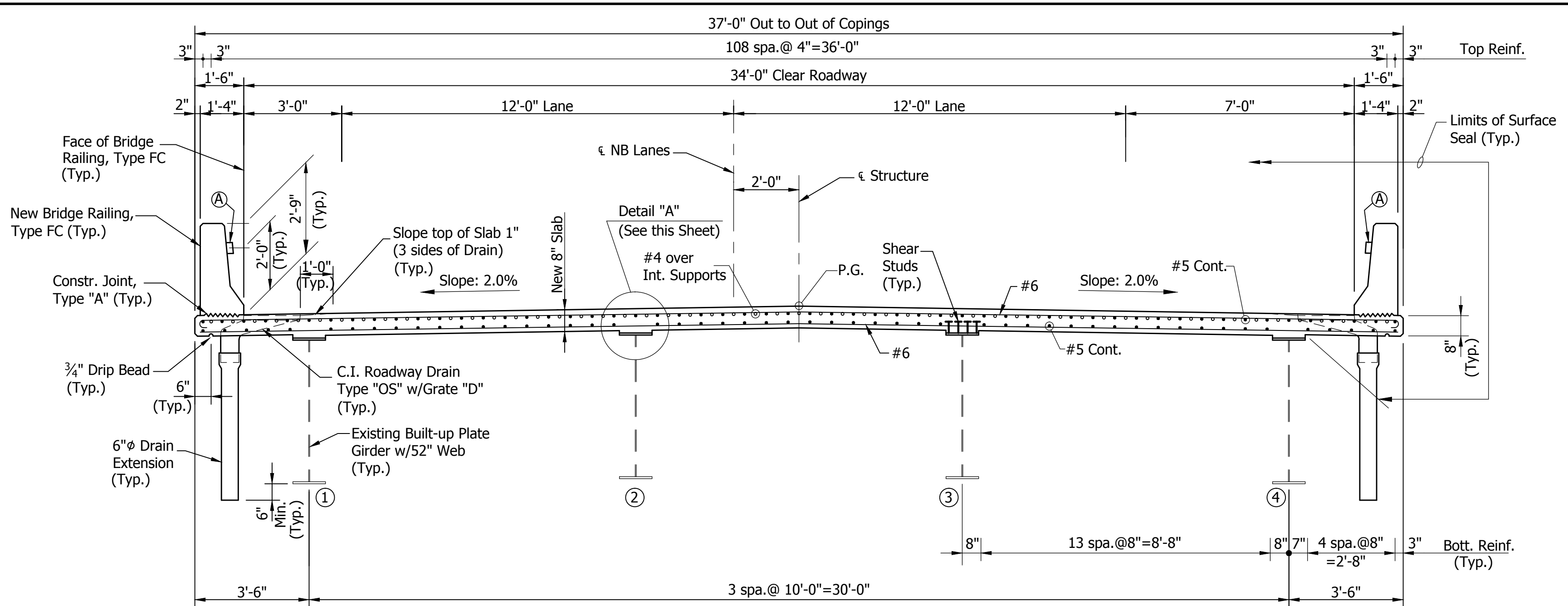
RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
 CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA
DEPARTMENT OF TRANSPORTATION
FLOOR DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	24 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHEA\TAM_SLOUGH\5605B722\B.dwg Donald Sheetz Plot: 11/11/2016 1:16 PM Save: 10/19/2016 11:00 AM



FLOOR NOTES

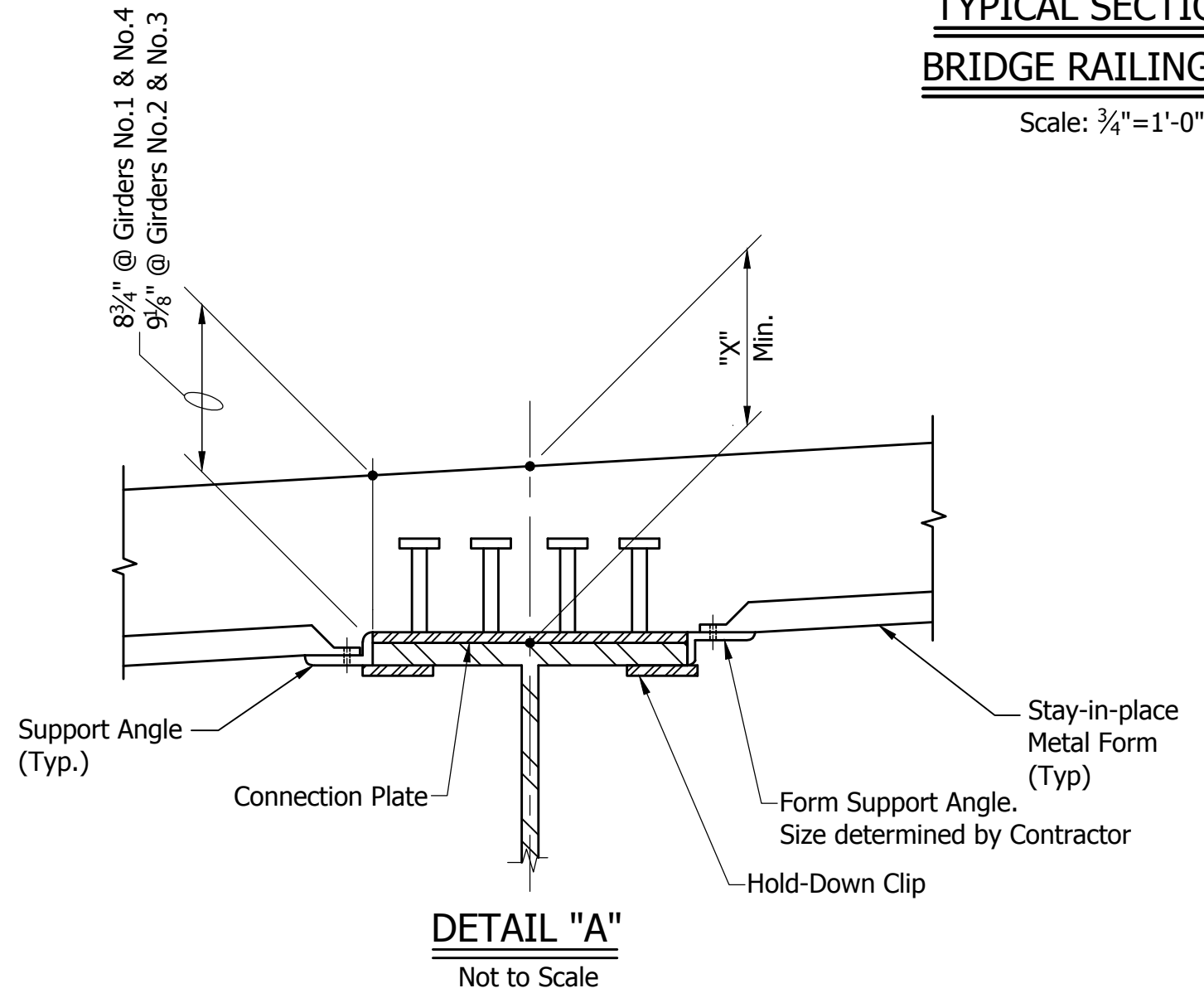
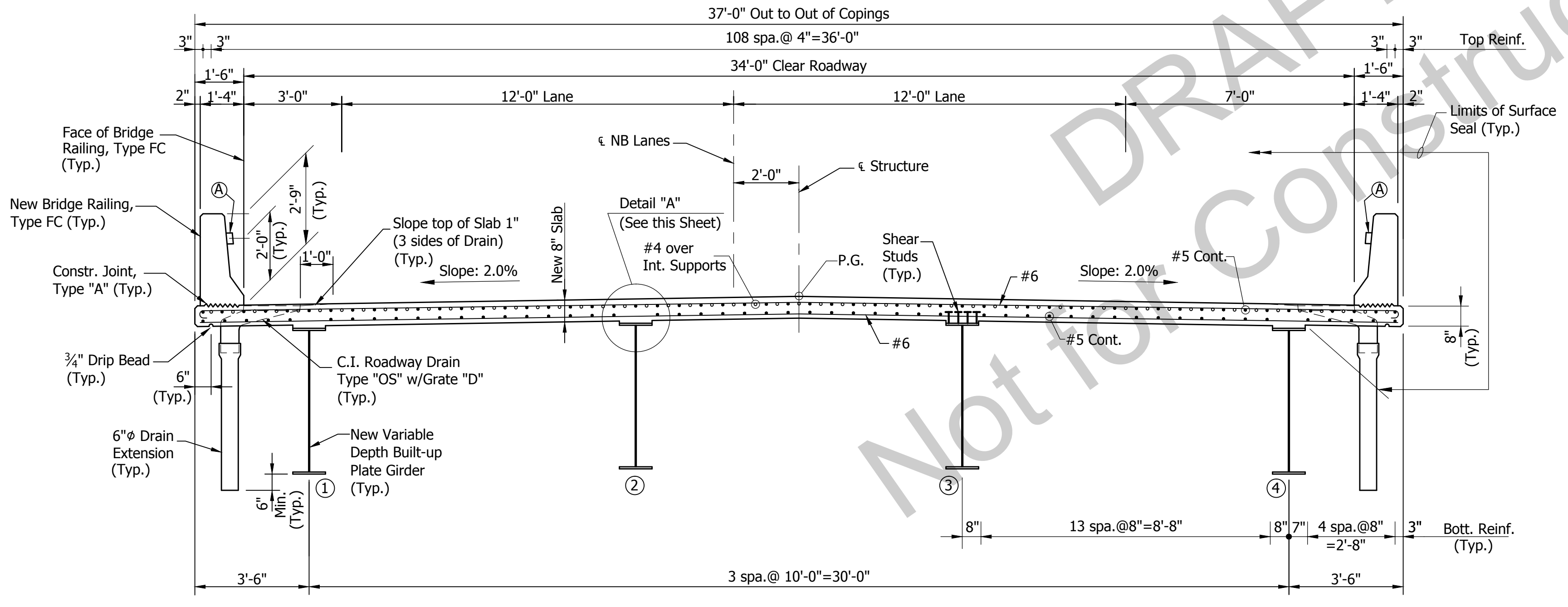
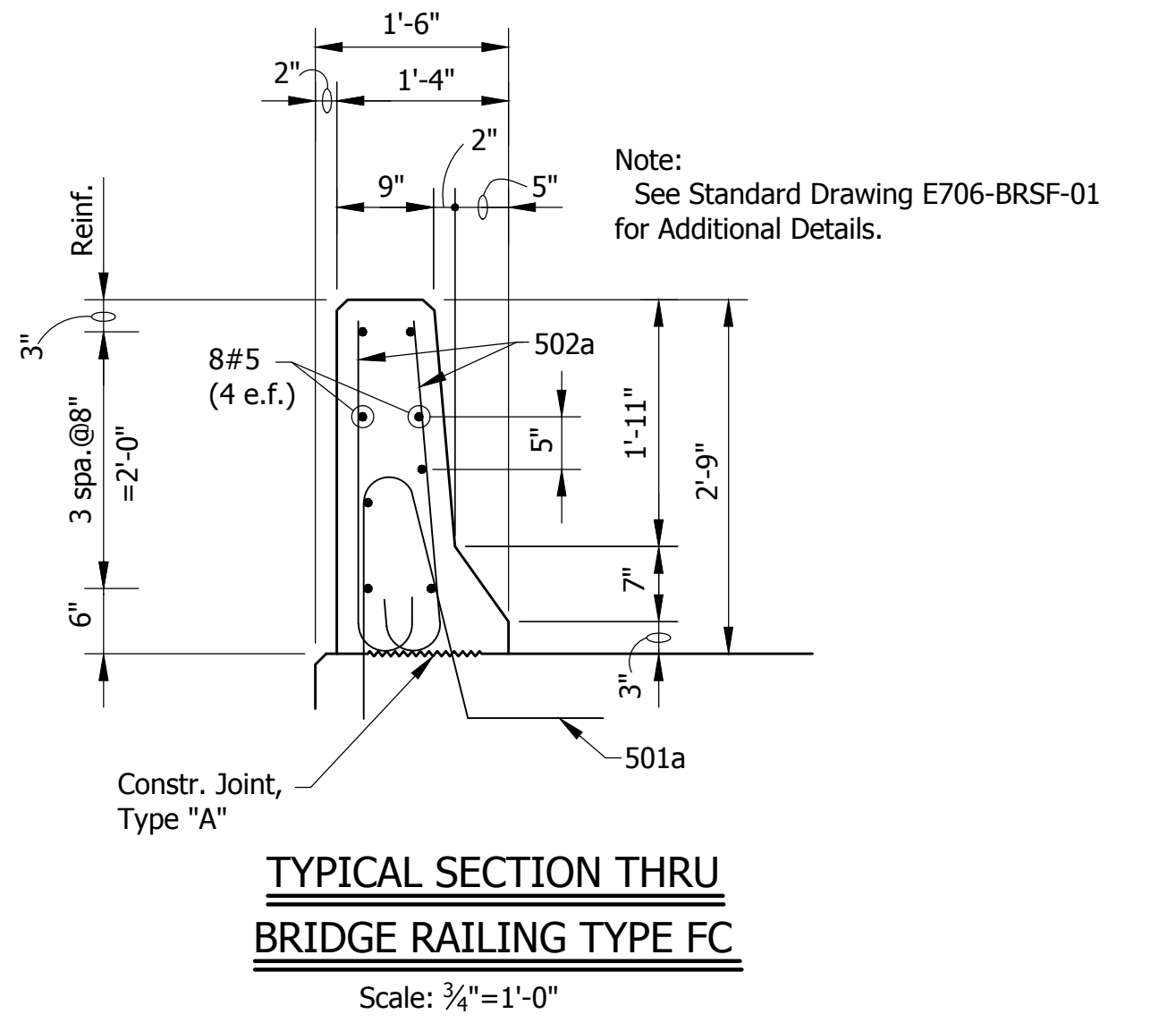
After the beams have been erected, concrete forms shall not be blocked against the end of beams in making any pours adjacent to the beam spans.

Suitable restraint shall be provided to prevent the rotation of the outside beams from construction loads such as finishing machines, forms, etc.

The top reinforcing in the slab shall be securely tied down to the slab forms and/or the beams to prevent lifting during concrete placement.

The Contractor shall space the reinforcing bars so to ensure a continuous bar is at the edge of each coping.

The Contractor shall have the option of using permanent metal deck forms in lieu of removable deck forms.

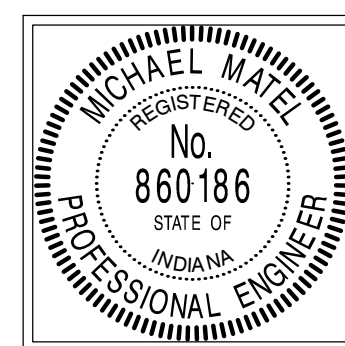


BEAM NO.	"X" INCHES
1	Varies 8 3/8" to 10"
2	Varies 8 7/8" to 10 1/4"
3	Varies 8 7/8" to 10 3/4"
4	Varies 8 3/8" to 10"

Note: Sides of the unpainted Top Flanges shall not be exposed.

NOTES

See Sheet 26 for Concrete Dead Load Deflection Diagram and Screed Plan.
See Sheet 27 for Screed Elevations.
See Sheet 28 for Bar Bending Details and Bill of Materials.



RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

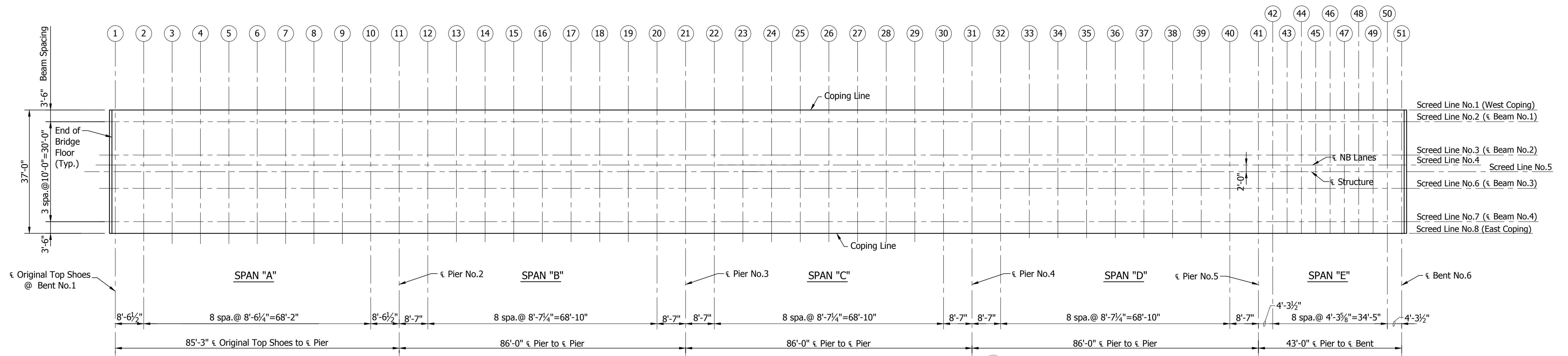
INDIANA
DEPARTMENT OF TRANSPORTATION

FLOOR DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 25 OF 30
CONTRACT B-33539	PROJECT 9620260

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B72B\NB.dwg Donald Sheetz Plot:11/1/2016 1:17 PM Save:10/19/2016 11:01 AM



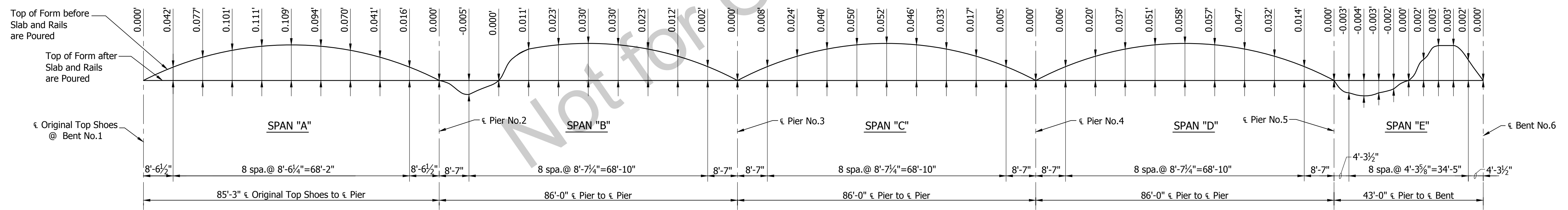
SCREED NOTES

Screed elevations will be given for screeds and coping forms so that the slab and copings will be at the required elevations after all the concrete has been poured.

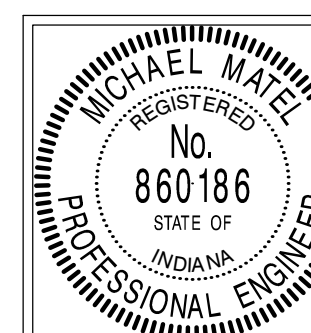
Take elevations at the screed and coping points on top of adjacent beams, subtract these elevations from the given elevations and use resulting dimensions as the height for setting the screed or coping forms above that point. This dimension remains unchanged regardless of how much or what order the concrete is poured.

No concrete shall be poured until the above operation is completed.

Do not set screeds or coping forms by leveling.



NOTE
See Sheet 27 for Screed Elevations.



RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION

FLOOR DETAILS
NORTHBOUND STRUCTURE

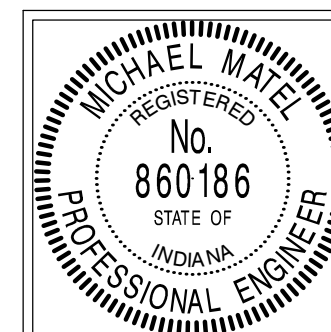
HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	041-82-4997C
VERTICAL SCALE	AS NOTED	DESIGNATION	9620260
SURVEY BOOK	26	SHEET	30
CONTRACT	B-33539	PROJECT	9620260

5605
BFS NO.

U:\5605\ProDevelopment\Design Drawings\CHEATM_SLOUGH\5605B7ZCNB.dwg Donald Sheetz Plot:11/1/2016 1:17 PM Save:10/19/2016 11:01 AM

		Point:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
SCREED LINE	1	Top of Coping Form	381.635	381.675	381.705	381.725	381.730	381.725	381.710	381.680	381.650	381.620	381.600	381.595	381.595	381.600	381.610	381.615	381.610	381.600	381.585	381.570	381.565	381.570	381.585	381.595	381.605	381.600	381.590	381.575	
		Top of Exterior Beam																													
		Top of Beam to Top of Coping																													
	2	Top of Screed	381.705	381.745	381.775	381.795	381.800	381.795	381.780	381.750	381.720	381.690	381.670	381.665	381.665	381.670	381.680	381.685	381.680	381.670	381.655	381.640	381.635	381.640	381.655	381.665	381.675	381.670	381.660	381.645	
		Top of Beam																													
		Top of Beam to Top of Screed																													
	3	Top of Screed	381.905	381.945	381.975	381.995	382.000	381.995	381.980	381.950	381.920	381.890	381.870	381.865	381.865	381.870	381.880	381.885	381.880	381.870	381.855	381.840	381.835	381.840	381.855	381.865	381.875	381.870	381.860	381.845	
		Top of Beam																													
		Top of Beam to Top of Screed																													
	4	Top of Screed	381.965	382.005	382.035	382.055	382.060	382.055	382.040	382.010	381.980	381.950	381.930	381.925	381.925	381.930	381.940	381.945	381.940	381.930	381.915	381.900	381.895	381.900	381.915	381.925	381.935	381.930	381.920	381.905	
		Top of Beam																													
		Top of Beam to Top of Screed																													
	5	Top of Screed	382.005	382.045	382.075	382.095	382.100	382.095	382.080	382.050	382.020	381.990	381.970	381.965	381.965	381.970	381.980	381.985	381.980	381.970	381.955	381.940	381.935	381.940	381.955	381.965	381.975	381.970	381.960	381.945	
		Top of Beam																													
		Top of Beam to Top of Screed																													
	6	Top of Screed	382.105	382.145	382.175	382.195	382.200	382.195	382.180	382.150	382.120	382.090	382.070	382.065	382.065	382.070	382.080	382.085	382.080	382.070	382.055	382.040	382.035	382.040	382.055	382.065	382.075	382.070	382.060	382.045	
		Top of Beam																													
		Top of Beam to Top of Screed																													
	7	Top of Screed	382.305	382.345	382.375	382.395	382.400	382.395	382.380	382.350	382.320	382.290	382.270	382.265	382.265	382.270	382.280	382.285	382.280	382.270	382.255	382.240	382.235	382.240	382.255	382.265	382.275	382.270	382.260	382.245	
		Top of Beam																													
		Top of Beam to Top of Screed																													
	8	Top of Coping Form	382.375	382.415	382.445	382.465	382.470	382.465	382.450	382.420	382.390	382.360	382.340	382.335	382.335	382.340	382.350	382.355	382.350	382.340	382.325	382.310	382.305	382.310	382.325	382.335	382.345	382.340	382.330	382.315	
		Top of Exterior Beam																													
		Top of Beam to Top of Coping																													

		Point:	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51		
SCREED LINE	1	Top of Coping Form	381.555	381.540	381.530	381.535	381.545	381.560	381.570	381.570	381.570	381.555	381.535	381.515	381.500	381.495	381.490	381.490	381.490	381.490	381.490	381.490	381.485	381.485	381.480		
		Top of Exterior Beam																									
		Top of Beam to Top of Coping																									
	2	Top of Screed	381.625	381.610	381.600	381.605	381.615	381.630	381.640	381.640	381.640	381.625	381.605	381.585	381.570	381.565	381.560	381.560	381.560	381.560	381.560	381.560	381.560	381.555	381.555	381.550	
		Top of Beam																									
		Top of Beam to Top of Screed																									
	3	Top of Screed	381.825	381.810	381.800	381.805	381.815	381.830	381.840	381.840	381.840	381.825	381.805	381.785	381.770	381.765	381.760	381.760	381.760	381.760	381.760	381.760	381.760	381.755	381.755	381.750	
		Top of Beam																									
		Top of Beam to Top of Screed																									
	4	Top of Screed	381.885	381.870	381.860	381.865	381.875	381.890	381.900	381.900	381.900	381.885	381.865	381.845	381.830	381.825	381.820	381.820	381.820	381.820	381.820	381.820	381.820	381.815	381.815	381.810	
		Top of Beam																									
		Top of Beam to Top of Screed																									
	5	Top of Screed	381.925	381.910	381.900	381.905	381.915	381.930	381.940	381.940	381.940	381.925	381.905	381.885	381.870	381.865	381.860	381.860	381.860	381.860	381.860	381.860	381.860	381.855	381.855	381.850	
		Top of Beam																									
		Top of Beam to Top of Screed																									
	6	Top of Screed	382.025	382.010	382.000	382.005	382.015	382.030	382.040	382.040	382.040	382.025	382.005	381.985	381.970	381.965	381.960	381.960	381.960	381.960	381.960	381.960	381.960	381.955	381.955	381.950	
		Top of Beam																									
		Top of Beam to Top of Screed																									
	7	Top of Screed	382.225	382.210	382.200	382.205	382.215	382.230	382.240	382.240	382.240	382.225	382.205	382.185	382.170	382.165	382.160	382.160	382.160	382.160	382.160	382.160	382.160	382.155	382.155	382.150	
		Top of Beam																									
		Top of Beam to Top of Screed																									
	8	Top of Coping Form	382.295	382.280	382.270	382.275	382.285	382.300	382.310	382.310	382.310	382.295	382.275	382.255	382.235	382.230	382.225	382.225	382.225	382.225	382.225	382.225	382.225	382.220	382.220	382.215	
		Top of Exterior Beam																									
		Top of Beam to Top of Coping																									



RECOMMENDED FOR APPROVAL: *Michael M. Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: C. OBRIEN DRAWN: D. SHEETZ
 CHECKED: B. WRIGHT CHECKED: M. MATEL

INDIANA
 DEPARTMENT OF TRANSPORTATION
 FLOOR DETAILS
 NORTHBOUND STRUCTURE

HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 27 OF 30
CONTRACT B-33539	PROJECT 9620260

**BILL OF MATERIALS
SUPERSTRUCTURE
SPANS "A" THRU "E"
NORTHBOUND STRUCTURE**

REINFORCING BARS

Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
601a	583	38'-0"	
#6	583	36'-6"	
Total #6 (Epoxy Coated)			65237
501a	1166	5'-6"	
502a	2332	3'-2"	
#5	32	25'-6"	
#5	216	22'-0"	
#5	2480	20'-0"	
Total #5 (Epoxy Coated)			71931
#4	55	22'-9"	
#4	55	20'-9"	
#4	330	20'-0"	
#4	55	16'-6"	
#4	55	13'-0"	
Total #4 (Epoxy Coated)			
Total Steel (Epoxy Coated)			144259

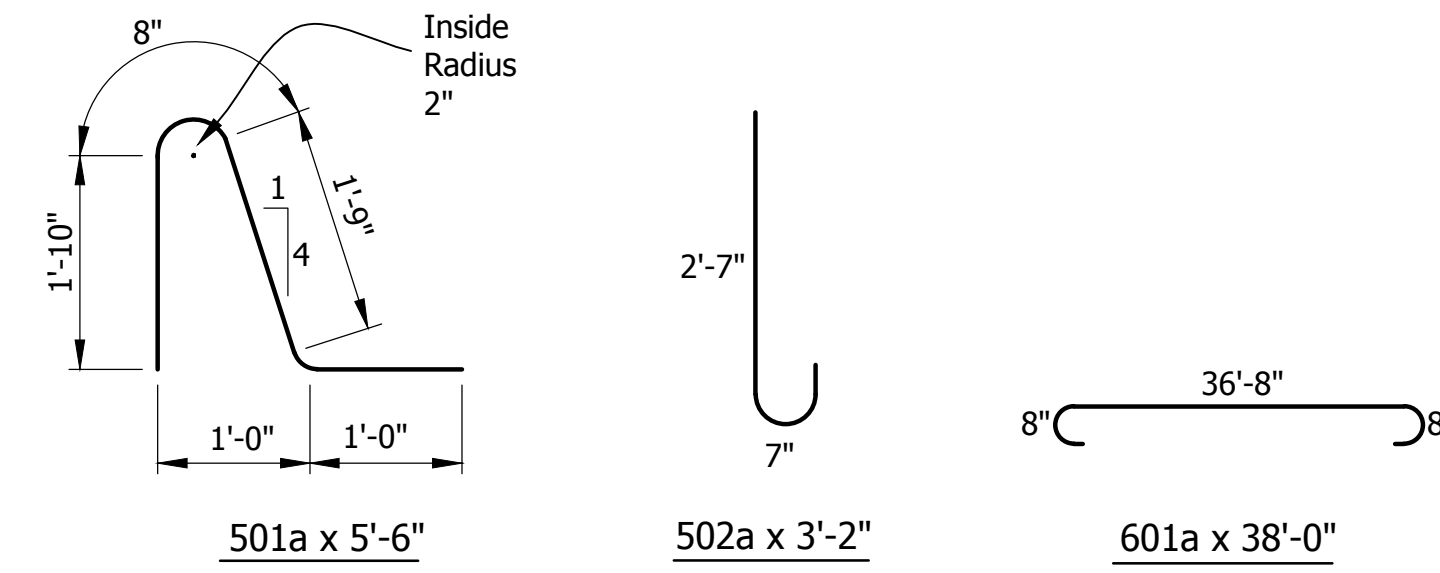
CONCRETE

Class "C" in Superstructure	
Pour No.1	75.7 Cys.
Pour No.2	80.9 Cys.
Pour No.3	80.9 Cys.
Pour No.4	92.2 Cys.
Pour No.5	73.1 Cys.
Total Class "C" in Superstructure	402.8 Cys.
Class "C" in Railing	
	74.2 Cys.

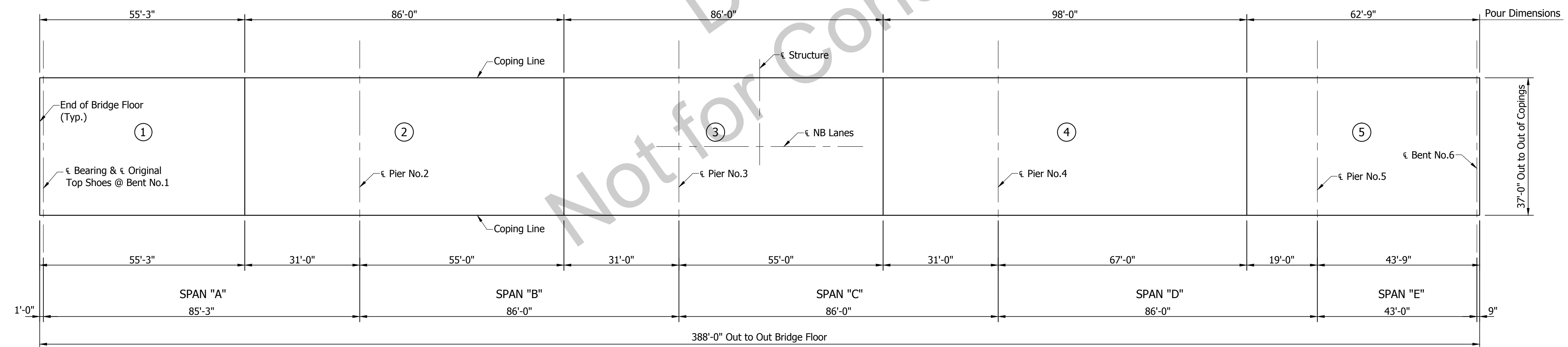
MISCELLANEOUS

Barrier Delineators	22 Each
Threaded Tie Bar Assemblies (#5x3'-0" each way) (Epoxy Coated)	38 Each
Surface Seal	21630 Sft.
Cast Iron Roadway Drains Type "OS-D"	18 Each
6"ø Drain Pipe Casting Extension	18 Each

⊕ A.S.T.M. A615, Grade 60



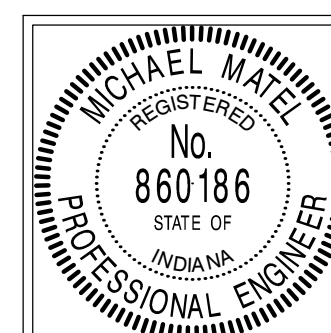
BAR BENDING DETAILS
Not to Scale



Note: Pour Numbers Indicate Sequence of Pours.

SEQUENCE OF POURS DIAGRAM
Scale: 1/16" = 1'-0"

U:\5605\Pro-Development\Design Drawings\CHETA\TAM_SLOUGH\5605B73\NB.dwg Donald Sheetz Plot: 11/1/2016 1:17 PM Save: 10/19/2016 11:04 AM



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: C. O'BRIEN DRAWN: D. SHEETZ
CHECKED: B. WRIGHT CHECKED: M. MATEL

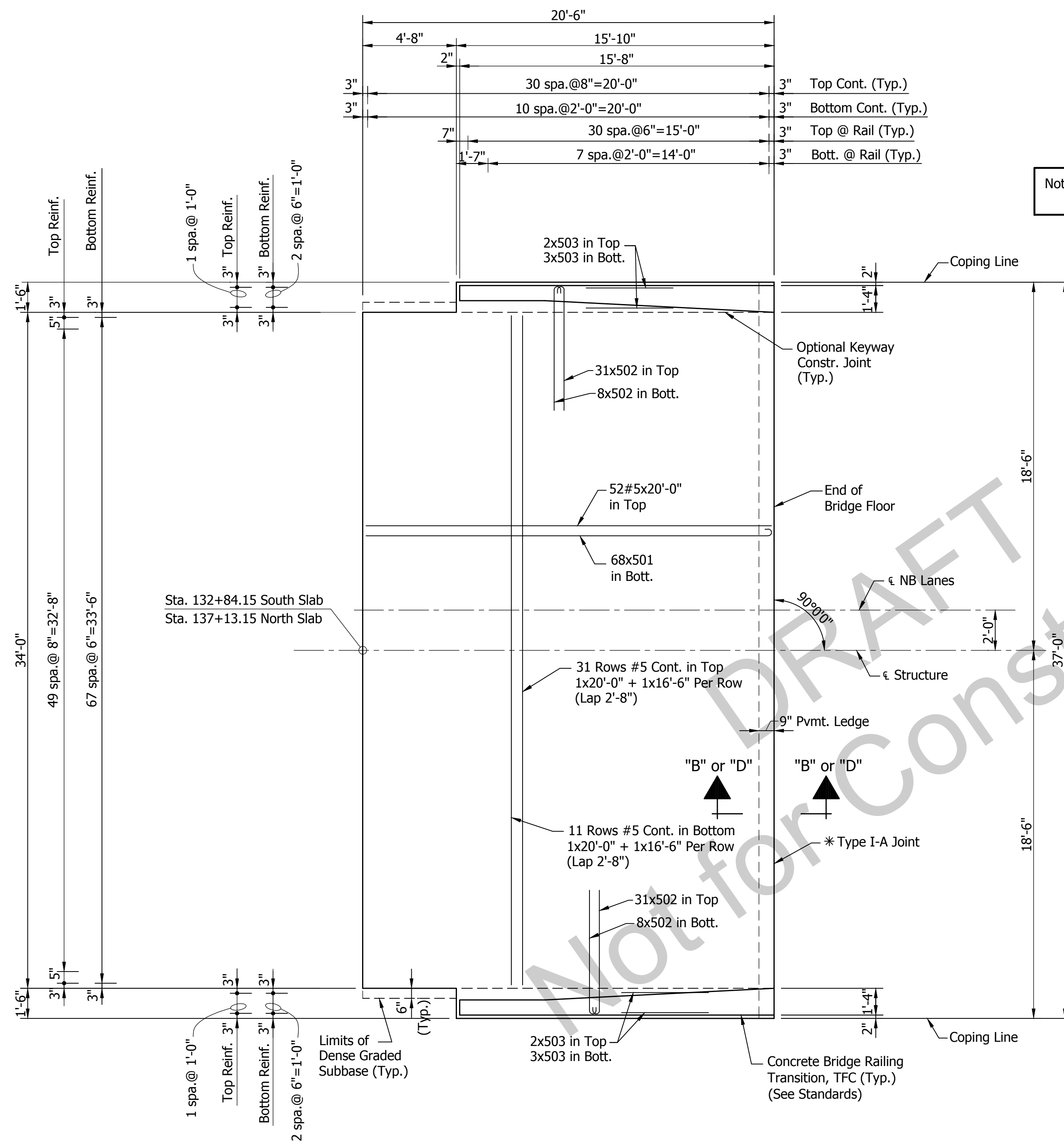
INDIANA
DEPARTMENT OF TRANSPORTATION

FLOOR DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE AS NOTED	BRIDGE FILE 041-82-4997C
VERTICAL SCALE AS NOTED	DESIGNATION 9620260
SURVEY BOOK	SHEET 28 OF 30
CONTRACT B-33539	PROJECT 9620260

5605
BFS NO.

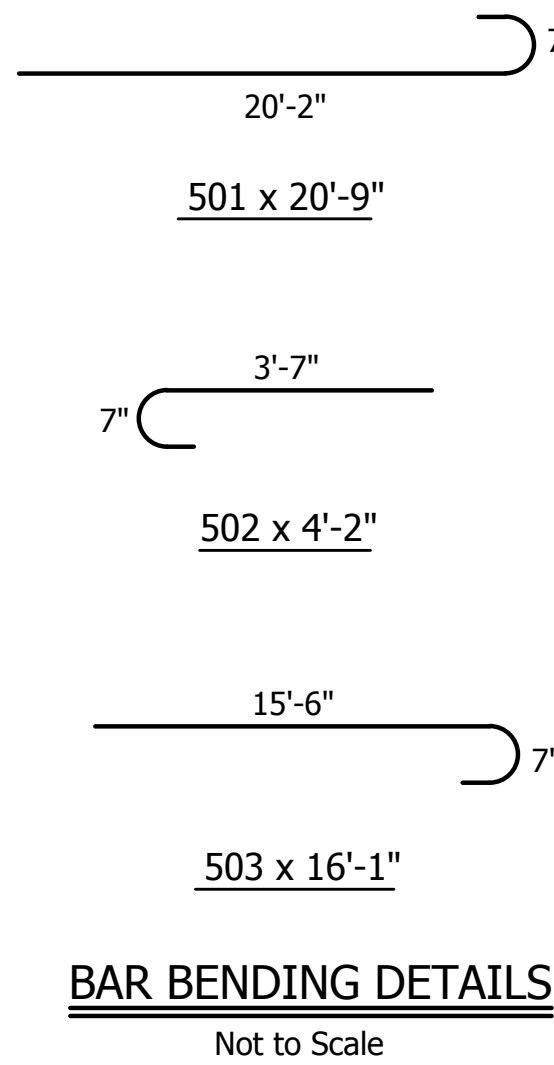
U:\5605\ProDevelopment\Design Drawings\CHE17.M_SLOUGH\5605B781NB.dwg Donald Sheetz Plot: 11/1/2016 1:18 PM Save: 10/19/2016 11:03 AM



PLAN
SOUTH APPROACH SLAB (SHOWN)
NORTH APPROACH SLAB (OPP. HAND)
 Scale: 1/4"=1'-0"

Note: See Bent No. 1 and Bent No. 6 Details for locations of Wingwalls.

* See Special Provisions



BILL OF MATERIALS
SOUTH APPR. SLAB
NORTH APPR. SLAB (SAME)
NORTHBOUND STRUCTURE

REINFORCING BARS

Mark or Size	No. of Bars	Length (Ft.)	Weight (Lbs.)
501	68	20'-9"	
502	78	4'-2"	
503	10	16'-1"	
#5	94	20'-0"	
#5	42	16'-6"	
Total Steel (Epoxy Coated)			4662

CONCRETE

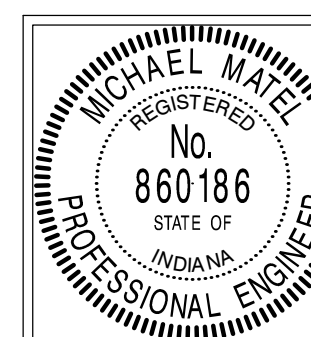
Reinforced Concrete	
Bridge Approach (12")	83 Sys.

MISCELLANEOUS

Dense Graded Subbase	14 Cys.
Concrete Bridge Railing	
Transition, TFC	2 Each
Surface Seal	715 Sft.

- ⊕ A.S.T.M. A615, Grade 60
- ⊖ Does not include Bridge Railing Transition

NOTES
 See Sheet 9 for Section "B-B".
 See Sheet 13 for Section "D-D".



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
 DESIGN ENGINEER DATE
 DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
 CHECKED: M. MATEL CHECKED: M. MATEL

INDIANA DEPARTMENT OF TRANSPORTATION
APPROACH SLAB DETAILS
NORTHBOUND STRUCTURE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	041-82-4997C
VERTICAL SCALE	DESIGNATION
AS NOTED	9620260
SURVEY BOOK	SHEET
	29 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
 BPS NO.

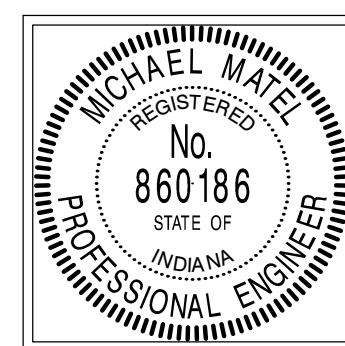
U:\5605\ProDevelopment\Design Drawings\CHEATAM_SLOUGH\5605B901MB.dwg Donald Sheetz Plot: 11/1/2016 1:18 PM Save: 10/19/2016 11:04 AM

STRUCTURE QUANTITIES

ITEM	CONCRETE				DENSE GRADED SUBBASE	REINF. CONC. BRIDGE APPR. 12"	CONC. RAILING, FC	REINF. BARS (PLAIN)	REINF. BARS (EPOXY COATED)	EST. WEIGHT STR. STEEL	PILE, STEEL PIPE, 0.312 IN. 14 IN.	ELASTOMERIC BEARING ASSEMBLY	FIELD DRILLED HOLES IN CONCRETE	CAST IRON DRAIN TYPE "OS-D"	6"Ø DRAIN PIPE CASTING EXTENSION	EST. AREA SURFACE SEAL	CONCRETE BRIDGE RAILING TRANSITION TFC	6"Ø END BENT DRAIN PIPE	AGGREGATE FOR END BENT BACKFILL	GEOTEXTILE	STEEL DIAPHRAGMS	THREADED TIE BAR ASSEMBLIES (EPOXY COATED)	BARRIER DELINEATORS
	CLASS C IN SUPERSTR.	CLASS C IN SUBSTR.	CLASS B IN FOOTING	CLASS A IN SUBSTR.																			
SUPERSTRUCTURE																							
Spans "A" thru "E"	402.8						74.2		144259	38584				18	18	21630						38	22
SUBSTRUCTURE																							
Bent No.1				6.7					4559			4	95					50	22	45			
Pier No.2				0.9				123				4	24										
Pier No.3				0.9				123				4	24										
Pier No.4				0.9				123				4	24										
Pier No.5				16.3				3677															
Bent No.6				15.3					4255				35					56	18	45			
APPROACH SLABS																							
South					14	83			4662							715	2						
North					14	83			4662							715	2						
BARRIER RAIL TRANSITIONS																							
South									1102														
North									1102														
TOTALS	402.8			41.0	28	166	74.2	⊕ 4046	⊕ 164601	38584		16	202	18	18	23060	4	106	40	90		38	22

⊕ A.S.T.M. A615, Grade 60

DRAFT
Not for Construction



RECOMMENDED FOR APPROVAL: *Michael Matel* 10/31/16
DESIGN ENGINEER DATE

DESIGNED: D. SHEETZ DRAWN: D. SHEETZ
CHECKED: M. MATEL CHECKED: M. MATEL

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**BRIDGE SUMMARY
NORTHBOUND STRUCTURE**

HORIZONTAL SCALE	BRIDGE FILE
NONE	041-82-4997C
VERTICAL SCALE	DESIGNATION
NONE	9620260
SURVEY BOOK	SHEET
	30 OF 30
CONTRACT	PROJECT
B-33539	9620260

5605
BFS NO.