

01-15-2021 LETTING ITEM 090

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PROPOSED
BRIDGE PLANS**

C.H. 3 (BOULDER ROAD) OVER GIBBS CREEK
SECTION 16-00102-00-BR
STPBR FUNDS
PROJECT LR 8W (861)
BRIDGE IMPROVEMENT
CLINTON COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 3 (BOULDER ROAD)	16-00102-00-BR	CLINTON	20	1
		ILLINOIS	CONTRACT NO. 97746	

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES, STANDARDS, APPLICATION RATES, UTILITIES & COMMITMENTS
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTIONS
5. SCHEDULE OF QUANTITIES
6. PLAN AND PROFILE OF EXISTING AND PROPOSED ROADWAY
7. GUARDRAIL & RIP RAP
8. GENERAL PLAN & ELEVATION
9. GENERAL DATA STRUCTURE
10. SUPER STRUCTURE
11. 33" X 36" PPC DECK BEAMS
12. 33" X 36" PPC DECK BEAM DETAILS
13. ABUTMENT
14. STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE
15. HP PILE DETAILS
16. DETOUR MAP
- 17-18. SOIL BORING LOGS
- 19-20. CROSS SECTIONS EXISTING AND PROPOSED ROADWAY

DESIGN CLASSIFICATION

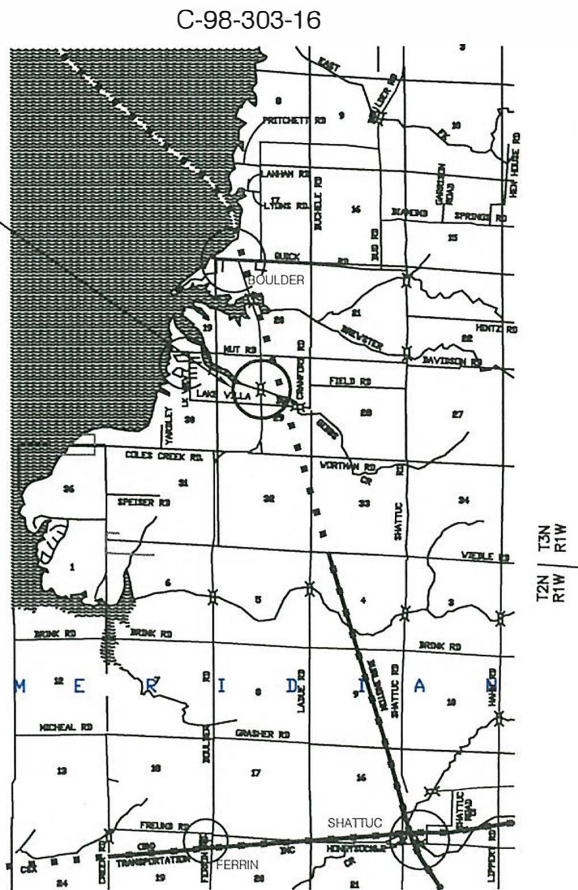
LOCAL ROAD
CURRENT A.D.T. = 550
DESIGN SPEED = 55 MPH
DESIGN A.D.T. = 550 (2017)

PROJECT LOCATION:

EXISTING STRUCTURE (S.N. 014-3006)
3 SPAN CHANNEL DECK BEAM BRIDGE
ON SPILL THROUGH TIMBER PILE ABUTS.
AND CONCRETE PILE BENT PIERS MEASURING
91'-5" BK/BK ABUTS AND 24' ROADWAY WIDTH.

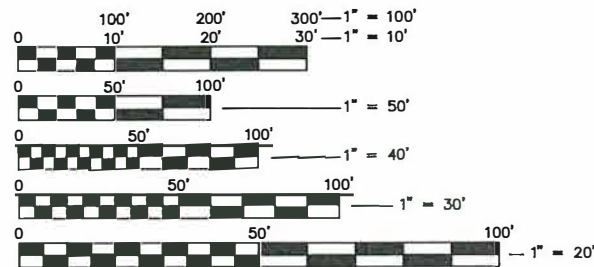
PROPOSED STRUCTURE (S.N. 014-5115)
SINGLE SPAN P.P.C. DECK BEAM BRIDGE
ON SPILL THROUGH STEEL "H" PILE ABUTS.
MEASURING 82'-6" BK/BK/ ABUTS. AND
30' ROADWAY WIDTH

BEGIN CONSTRUCTION STA. 343+75
END CONSTRUCTION STA. 348+50



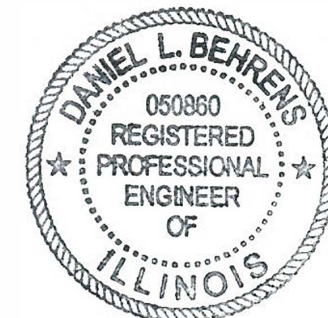
LOCATION MAP

GROSS LENGTH = 475 FT = 0.09 MILES
NET LENGTH = 475 FT = 0.09 MILES



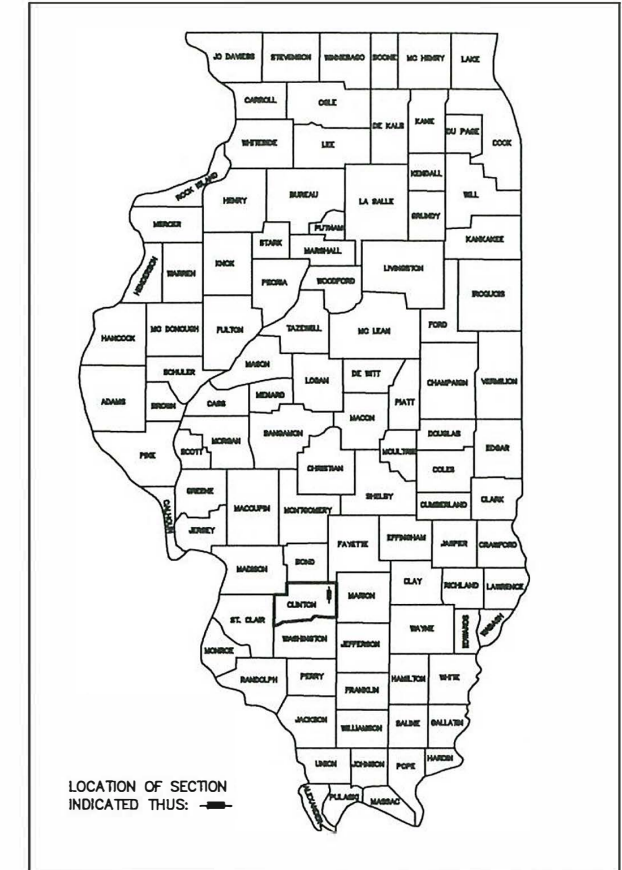
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED..

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811



Daniel L. Behrens
COUNTY ENGINEER
ILLINOIS P.E. # 62-50860 EXPIRES 11/30/21

THESE PLANS WERE PREPARED BY ME OR BY
A FULL TIME MEMBER OF MY STAFF WORKING
UNDER MY PERSONAL SUPERVISION.



LOCATION OF SECTION
INDICATED THIS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED 9-23 2020
Daniel L. Behrens
COUNTY ENGINEER

PASSED October 15 2020
Daniel L. Behrens
DISTRICT 8 ENGINEER OF LOCAL ROADS & STREETS

Releasing for Bid
Based on Limited
Review October 15 2020
Keith Roberts
REGION FIVE ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

LIST OF HIGHWAY STANDARDS

001001-02 AREAS OF REINFORCEMENT BARS
 515001-04 NAME PLATE FOR BRIDGES
 630001-12 STEEL PLATE BEAM GUARDRAIL
 630301-09 SHOULDER WIDENING FOR TYPE 1
 (SPECIAL) GUARDRAIL TERMINALS
 631032-09 TRAFFIC BARRIER TERMINAL, TYPE 6A
 701901-08 TRAFFIC CONTROL DEVICES
 725001-01 OBJECT AND TERMINAL MARKERS
 BLR 21-9 TYP APPLICATION OF
 TRAF CONTROL DEVICES
 FOR CONST ON RUAL
 LOCAL HIGHWAYS

KNOWN UTILITY COMPANIES

ELECTRIC:
 CLINTON COUNTY ELECTRIC COOP
 475 N. MAIN ST.
 BREESE, IL 62231
 PHONE: (618) 526-7282

AMEREN ILLINOIS
 1008 E. 14TH ST.
 CENTRALIA, IL 62801
 PHONE: (618) 545-6231
 1-800-755-5000

TELEPHONE:
 FRONTIER COMMUNICATIONS
 801 W. JACKSON ST.
 ALTAMONT, IL 62411
 PHONE: (618) 483-6961

WATER:
 CLINTON COUNTY EAST
 PUBLIC WATER
 891 FAIRFAX ST.
 CARLYLE, IL 62231
 PHONE: (618) 594-3367

GENERAL NOTES

1. ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM (NAVB85)
2. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUB-CONTRACTED WORK, REGARDLESS OF FUNDING SOURCE, THE SPECIAL PROVISIONS, SPECIFICATIONS, AND STANDARD SPECIFICATIONS SHALL GOVERN CONTRACTUAL REQUIREMENTS FOR SAID ARRANGEMENTS, THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION.
3. ALL ADVANCED WARNING SIGNS SHALL BE 48" FLUORESCENT ORANGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING TRAFFIC CONTROL DEVICES SO THESE ARE NOT HAZARDOUS TO TRAFFIC, AT ALL TIMES OF THE DAY AND NIGHT.
4. UNDERGROUND UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE RECORDS AND THEIR ACTUAL LOCATION IS NOT GUARANTEED TO BE AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING J.U.L.I.E. IN ALL AREAS TO BE DISTURBED WHETHER WITHIN PROJECT LIMITS OR NOT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING POSITIVE DRAINAGE IN THE DISTURBED AREAS, TO THE SATISFACTION OF THE ENGINEER.
6. ALL AREAS THAT ARE DISTURBED BEYOND THE SEEDING LIMITS SHALL BE GRADED, SEEDED, AND HAVE EROSION CONTROLS PLACED, BY THE CONTRACTOR AT HIS/HER EXPENSE, IN THE SAME MANNER AS FINAL GRADING WORK PER THE SPECIFICATION, TO THE SATISFACTION OF THE ENGINEER.
7. ANY LIMIT OF DEPICTED REMOVAL AREAS SHALL BE SAWN AND THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR REMOVAL WORK UNLESS PROVIDED FOR VIA A SEPARATE UNIT PAY ITEM.
8. ALL MATERIAL NOT UTILIZED, INCLUDING EARTH MATERIAL EXCAVATED IN ORDER TO ACHIEVE THE PROPOSED GROUND AND BASE ELEVATIONS SHOWN IN THE PLANS, OR INCORPORATED INTO THE PROJECT, SHALL BE REMOVED FROM THE SITE AT THE EXPENSE OF THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS.
9. THE CONTRACTOR SHALL CONTACT THE LOCAL POST OFFICE, AND ANY OTHER OWNERS OF MAILBOXES, WITHIN PROJECT LIMITS TO ARRANGE MODIFIED MAIL DELIVERY WITHIN THE PROJECT LIMITS.
10. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES.
11. TEMPORARY SEEDING AND FINAL SEEDING OF DISTURBED AREAS WILL BE DONE BY OTHERS.
12. FOR TEST BARS WITH MULTIPLE HEAT NUMBERS, A TEST BAR SHALL BE PROVIDED WITH EACH HEAT NUMBER FOR EACH BAR SIZE.
13. ALL STRIPING WILL BE DONE BY OTHERS.

APPLICATION RATES

AGGREGATE MATERIALS
 GRANULAR MATERIALS
 AGGREGATE (PRIME COAT); (SAND)

2.05 TONS/CU YD
 2.05 TONS/CU YD
 5 LBS/SQ YD (AGGREGATE SURFACE) OR
 3 LBS/SQ YD (CONCRETE OR BITUMINOUS SURFACE)

BITUMINOUS CONCRETE SURFACE & BINDER COURSE
 BITUMINOUS PRIME COAT

112 LBS/SQ YD/INCH OR 2.016 TONS/CU YD
 RESIDUAL ASPHALT RATE = 0.25 LBS/SQ FT (ON AGGREGATE SURFACE), OR
 RESIDUAL ASPHALT RATE = 0.05 LBS/SQ FT (ON MILLED SURFACES), OR
 RESIDUAL ASPHALT RATE = 0.025LBS/SQ FT (BETWEEN LIFTS OF ASPHALT)

FOR SEEDING AREAS
 NITROGEN FERTILIZER NUTRIENT
 PHOSPHORUS FERTILIZER NUTRIENT
 POTASSIUM FERTILIZER NUTRIENT
 AGRICULTURAL GROUND LIMESTONE
 TEMPORARY EROSION CONTROL SEEDING

90 LBS/ACRE
 90 LBS/ACRE
 90 LBS/ACRE
 2 TONS/ACRE
 100 LBS/ACRE

EXTRA BARS FOR TEST SAMPLES

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
h(o)	1	#4	30'-8"	—
v1(o)	1	#5	6'-0"	—
u(o)	1	#8	11'-1"	—
h1(o)	1	#7	15'-2"	—

80 LBS OF TEST BARS

COMMITMENTS

This project will have .02 acres of temporary wetlands impacts. These impacts will be mitigated on site through seeding conducted in accordance with Section 250 of IDOT's Standard Specifications for Roads and Bridges and are subject to a 1:1 ratio. A total of .02 acres shall be reseeded as shown on the Plan and Elevation Sheet (sheet 4 of 20) as the Seeding Mitigation site being 10' wide and located from Sta. 343+00 to Sta. 344+89 along the West R.O.W. line. A total of .02 acres shall be reseeded with a wetland seed mix, the Class 4B wetland grass and sedge mixture and the 5B, the wetland forb mixture. All seeding at this site shall be done by the Clinton County Highway Department after the contractor has completed his work on this contract.

MIXTURE USE	SURFACE	BINDER
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	See Sp. Prov.	See Sp. Prov.
DESIGN AIR VOIDS	4.0% @ Ndes=50	4.0% @ Ndes=50
MIX COMPOSITION (GRADUATION MIXTURE)	IL 9.5	IL 9.5
FRICTION AGG	MIXTURE C	N/A

PLAN	DATE

PROFILE	DATE

USER NAME =	DESIGNED --	REVISED -- WRK 8/27/2020
PLOT SCALE =	DRAWN -- WRK	REVISED --
PLOT DATE =	CHECKED -- DLB	REVISED --
	DATE -- 6/8/2020	REVISED --

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES, STANDARDS
 APPLICATION RATES, UTILITIES & COMMITMENTS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	2
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET 2 OF 20 SHEETS STA. TO STA.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20300100	CHANNEL EXCAVATION	CU YD	240
28100205	STONE RIPRAP, CLASS A3	TON	1350
40800280	BITUMINOUS MATERIALS (TACK COAT)	POUND	653
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	88
40602978	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50	TON	153
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	110
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	170
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	93
50300225	CONCRETE STRUCTURES	CU YD	34
50300280	CONCRETE ENCASEMENT	CU YD	4.2
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2435
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6400
Δ 50901050	STEEL RAILING, TYPE SM	FOOT	165
51201610	FURNISHING STEEL PILES HP12X63	FOOT	485
51202305	DRIVING PILES	FOOT	485
51203610	TEST PILE STEEL HP12X63	EACH	2
51500100	NAME PLATES	EACH	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	275

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	731
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	24.4
Δ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	294
67100100	MOBILIZATION	L SUM	1
Δ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
X2810808	STONE DUMPED RIPRAP, CLASS A4 (SPECIAL)	TON	332
X7010216	TRAFFIC CONTROL & PROTECTION, SPECIAL	L SUM	1
# Z0076600	TRAINEES	HOURL	500
# Z0076604	TRAINEES TRAINING GRADUATE PROGRAM	HOURL	500

Δ SPECIALTY ITEMS

= 0042

USER NAME =	DESIGNED --	REVISED -- 9/1/2020
	DRAWN -- WRK	REVISED --
PLOT SCALE = 1 = 10	CHECKED --	REVISED --
PLOT DATE =	DATE -- 4/28/2020	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

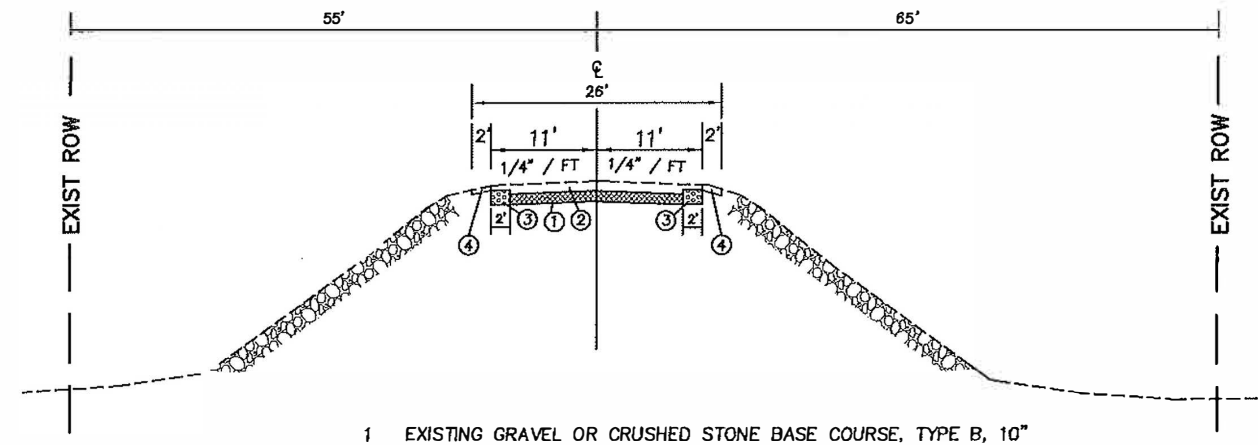
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	3
SCALE:			SHEET 3 OF 20 SHEETS STA. 345+75 TO STA. 348+50	
			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 97746	

DATE	
BY	
REVISIONS	
DATE	
BY	
DESCRIPTION	
PLAN	
NOTE BOOK	

DATE	
BY	
REVISIONS	
DATE	
BY	
DESCRIPTION	
PROFILE	
NOTE BOOK	

EXISTING TYPICAL SECTION

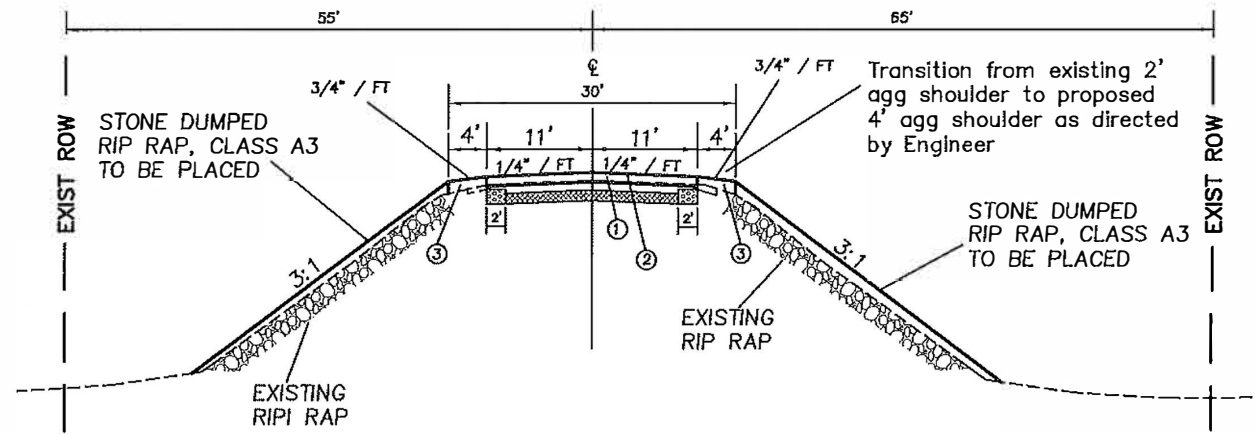
C.H. 3 (BOULDER ROAD)
STATION 343+75 TO STATION 344+75
&
STATION 347+60 TO 348+50



- 1 EXISTING GRAVEL OR CRUSHED STONE BASE COURSE, TYPE B, 10"
- 2 EXISTING 6-3/4" HOT MIX ASPHALT
- 3 EXISTING BITUMINOUS CONCRETE BASE COURSE WIDENING 8"
- 4 EXISTING 2' AGG SHOULDER
- 5 EXISTING 4' AGG SHOULDER

PROPOSED TYPICAL SECTION

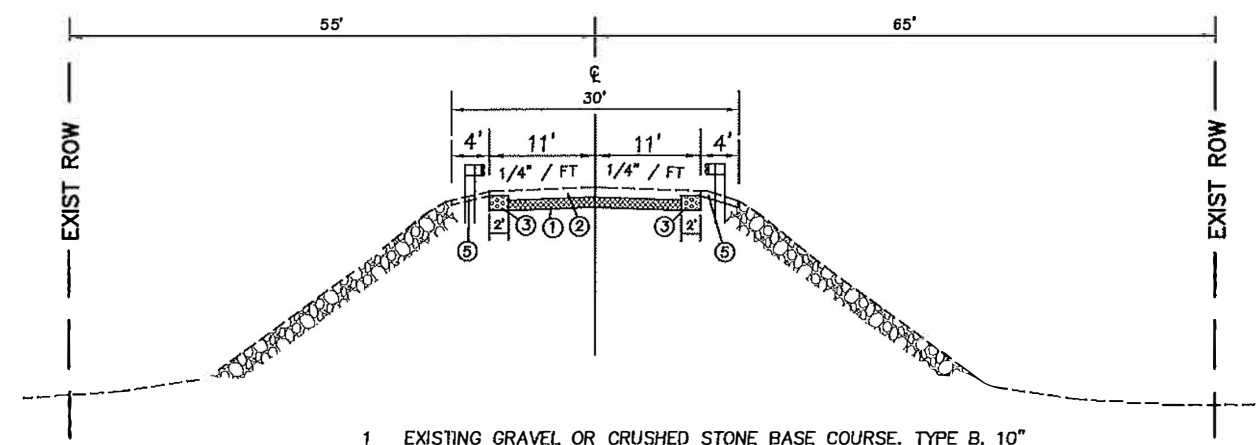
C.H. 3 (BOULDER ROAD)
STATION 343+75 TO STATION 345+34
&
STATION 348+11 TO STATION 348+50



- 1 PROPOSED HMA BINDER COURSE, IL-9.5, N50
- 2 PROPOSED HMA SURFACE COURSE, IL-9.5, MIX "C", N50
- 3 PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- 4 PROPOSED TRAFFIC BARRIER TERMINAL, TY 6A & TY 1 SPECIAL TAN.

EXISTING TYPICAL SECTION

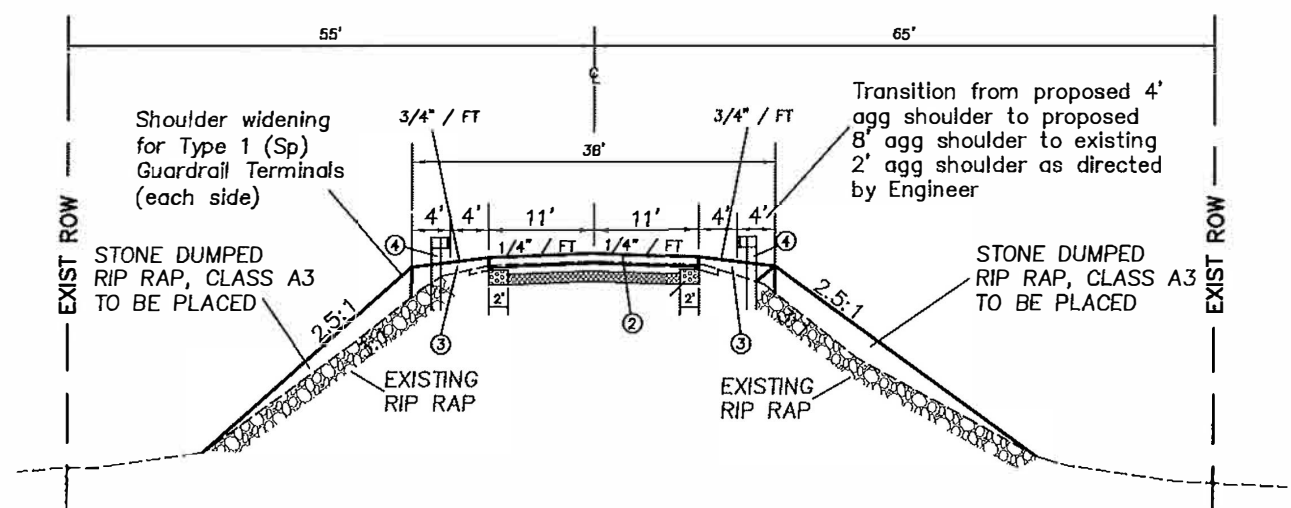
C.H. 3 (BOULDER ROAD)
STATION 344+75 TO STATION 347+60



- 1 EXISTING GRAVEL OR CRUSHED STONE BASE COURSE, TYPE B, 10"
- 2 EXISTING 6-3/4" HOT MIX ASPHALT
- 3 EXISTING BITUMINOUS CONCRETE BASE COURSE WIDENING 8"
- 4 EXISTING 2' AGG SHOULDER
- 5 EXISTING 4' AGG SHOULDER

PROPOSED TYPICAL SECTION

C.H. 3 (BOULDER ROAD)
STATION 345+34 TO STATION 348+11



- 1 PROPOSED HMA BINDER COURSE, IL-9.5, N50
- 2 PROPOSED HMA SURFACE COURSE, IL-9.5, MIX "C", N50
- 3 PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- 4 PROPOSED TRAFFIC BARRIER TERMINAL, TY 6A & TY 1 SPECIAL TAN.

USER NAME =	DESIGNED -	REVISED - WRK 8/28/2020
PLLOT SCALE =	DRAWN - WRK	REVISED -
PLLOT DATE =	CHECKED - DLB	REVISED -
	DATE - 8/4/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS	
SCALE:	SHEET 4 OF 20 SHEETS STA. 343+75 TO STA. 343+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	4
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				

EARTHWORK SCHEDULE

LOCATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION
	CU YD	CU YD
STA 346+72.5	240	
NORTH & SOUTH ABUTMENTS		93
TOTAL	240	93

GUARDRAIL SCHEDULE

LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT	TERMINAL MARKER DIRECT APPLIED	TRAFFIC BARRIER TERMINAL TYPE 6A	STEEL RAILING TYPE SM
	EACH	EACH	EACH	FEET
345+93.25 TO 346+31.25 LT & RT			2	
347+13.75 TO 347+51.75 LT & RT			2	
345+34.25 LT & RT		2		
348+10.75 LT & RT		2		
345+34.25 TO 345+93.25 LT & RT	2			
347+51.75 TO 348+10.75 LT & RT	2			
346+32.25 TO 347+13.75 LT (BRIDGE)				82.5
346+32.25 TO 347+13.75 RT (BRIDGE)				82.5
TOTALS	4	4	4	165

HOT-MIX ASPHALT SURFACE COURSE
IL-9.5 MIX C, N50

LOCATION/STATION	TON
STA 343+75 TO 348+50	110
TOTAL	110

STONE DUMPED
RIPRAP, CLASS A4 (SPECIAL)

LOCATION/STATION	TON
AT EXCAVATED CHANNEL STA. 346+33.75 TO 347+12.5	332
TOTAL	332

GUARDRAIL REMOVAL

LOCATION/STATION	FEET
STA 345+85.25 TO 346+31.25 LT	46
STA 347+13.75 TO 347+58.75 LT	45
STA 344+74.25 TO 348+31.25 RT	157
STA 347+13.75 TO 347+59.75 RT	46
TOTAL	294

HOT-MIX ASPHALT BINDER
COURSE, IL-9.5, N50

LOCATION/STATION	TON
STA. 343+99 TO 346+31	111
STA. 347+14 TO 348+38	42
TOTAL	153

STONE RIPRAP,
CLASS A3

LOCATION/STATION	TON
STA. 343+75 TO 346+31.25 LT.	380
STA. 343+75 TO 346+31.25 RT.	580
STA. 347+13.75 TO 348+50 LT.	170
STA. 347+13.75 TO 348+50 RT.	220
TOTAL	1350

AGGRAGATE WEDGE
SHOULDER, TYPE B

LOCATION/STATION	TON
STA. 343+75 TO 345+00 LT & RT	20
STA. 345+00 TO 346+31 LT & RT	80
STA. 347+14 TO 348+50 LT & RT	70
TOTAL	170

BITUMINOUS MATERIAL (TACK COAT)

LOCATION/STATION	POUND
STA 343+99 TO 346+31 @ .05 lb/ft	255
STA 347+13 TO 348+38 @ .05 lb/ft	137
STA 343+75 TO 348+50 @ .025 lb/ft	261
TOTAL	653

HMA SURFACE REMOVAL - BUTT JOINT

LOCATION/STATION	SQ YD
STA 343+75 to 343+99	59
STA 348+38 to 348+50	29
TOTAL	88

USER NAME =	DESIGNED -	REVISED - WRK 8/27/2020
	DRAWN - WRK	REVISED -
PLOT SCALE = 1 = 10	CHECKED - DLB	REVISED -
PLOT DATE =	DATE - 4/28/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

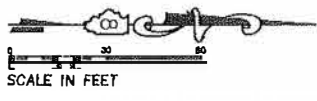
SCHEDULE OF QUANTITIES

SCALE: SHEET 5 OF 20 SHEETS STA. 345+75 TO STA. 348+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	5
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				

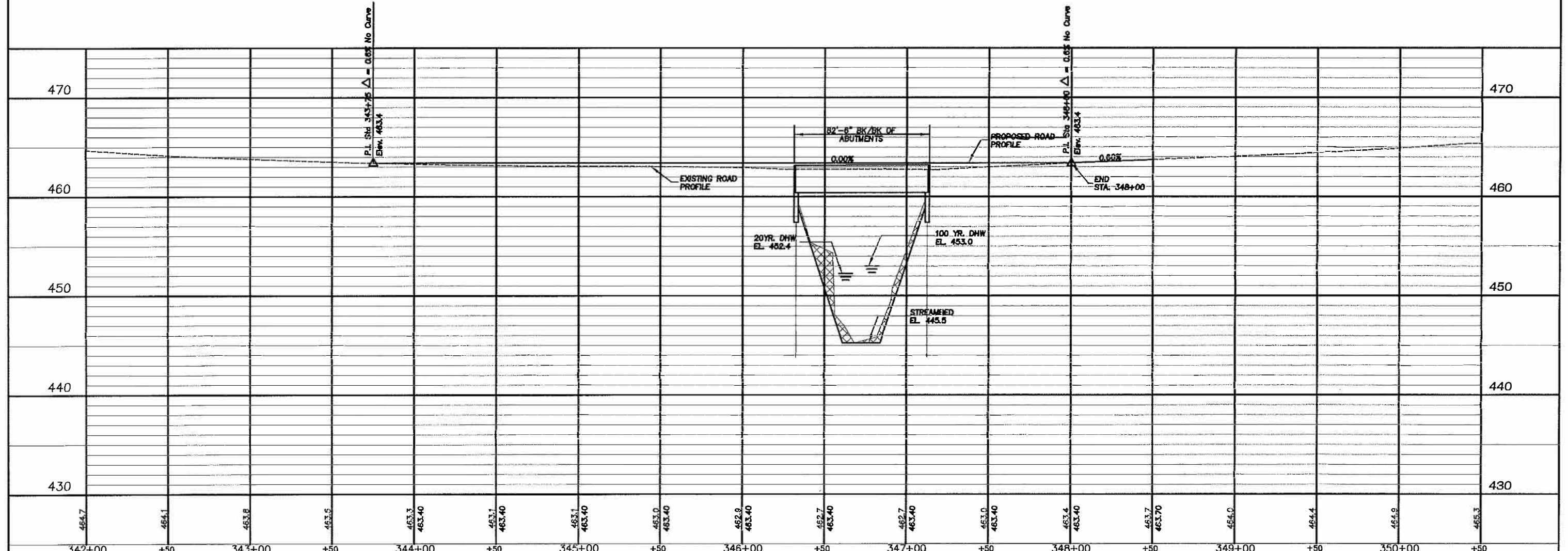
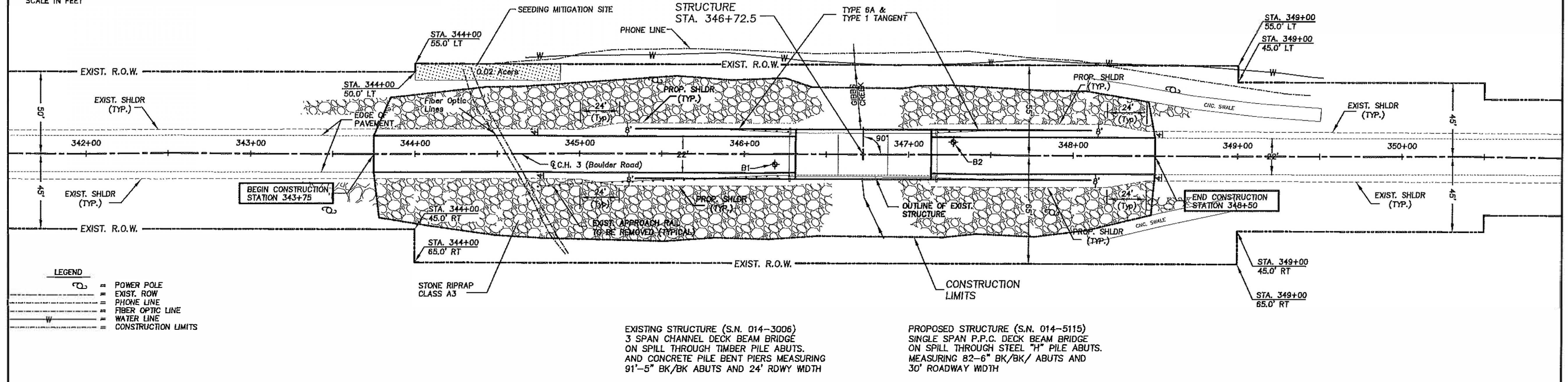
DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
BY	
PLAN	
NOTE BOOK NO.	

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
BY	
PROFILE	
NOTE BOOK NO.	



BENCHMARK #1 : STA. 346.27.95 12.5' LT.
CHISELED X ON SW HUBRAIL.
ELEV = 463.34

BENCHMARK #2 : STA. 347+16.47 13.02' RT.
CHISELED X ON NE
HUBRAIL. ELEV = 463.32



PLAN	DATE
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	

PROFILE	DATE
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	

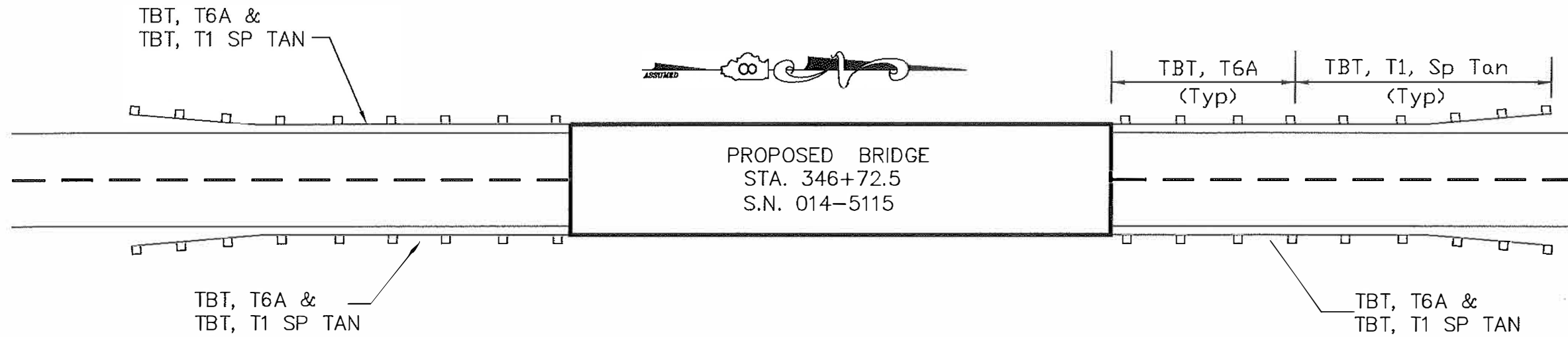
USER NAME -	DESIGNED -	REVISED - 8/27/2020
PLOT SCALE = 1" = 30'	DRAWN - WRK	REVISED -
PLOT DATE = 4/28/2020	CHECKED - DLB	REVISED -
	DATE - 4/28/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	6
SCALE: 1" = 30' SHEET 6 OF 20 SHEETS STA. 343+75 TO STA. 348+50				

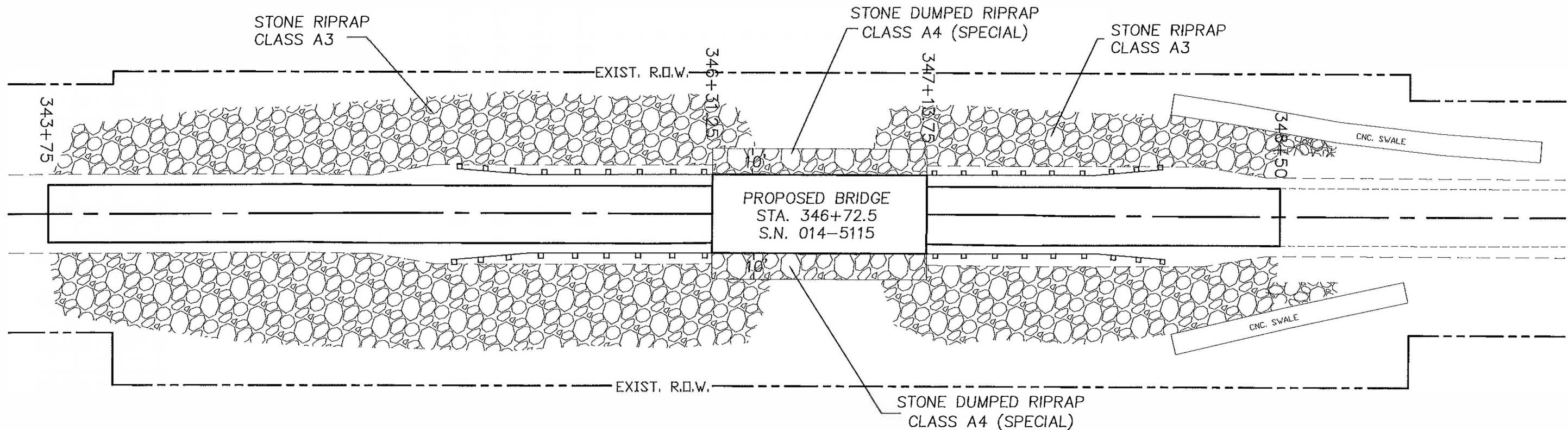
CONTRACT NO. 97746	
ILLINOIS FED. AID PROJECT	

GUARDRAIL AT STRUCTURE



STONE RIPRAP, CLASS A3 & R4

STATION 343+75 TO 348+50



DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

USER NAME =	DESIGNED -	REVISED -
	DRAWN - WRK	REVISED -
	CHECKED - DLB	REVISED -
	DATE - 6/23/2020	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GUARDRAIL & RIP RAP

SCALE: SHEET 7 OF 20 SHEETS STA. 343+75 TO STA. 348+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	7
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				

BENCHMARK:

- TBM Chiseled X on SW Hubrail Exist. Struct.
Sta 346+27.95, 12.5' Lt.
EI 463.34
- TBM Chiseled X on NE Hubrail Exist. Struct.
Sta 347+16.47, 13.02' Rt.
EI 463.32

EXISTING STRUCTURE:

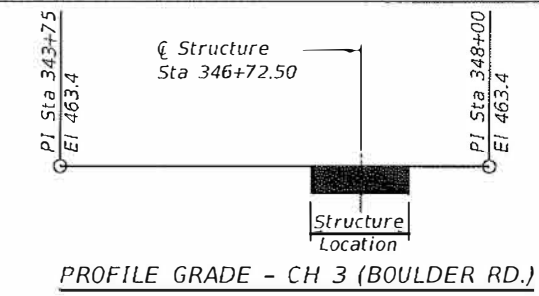
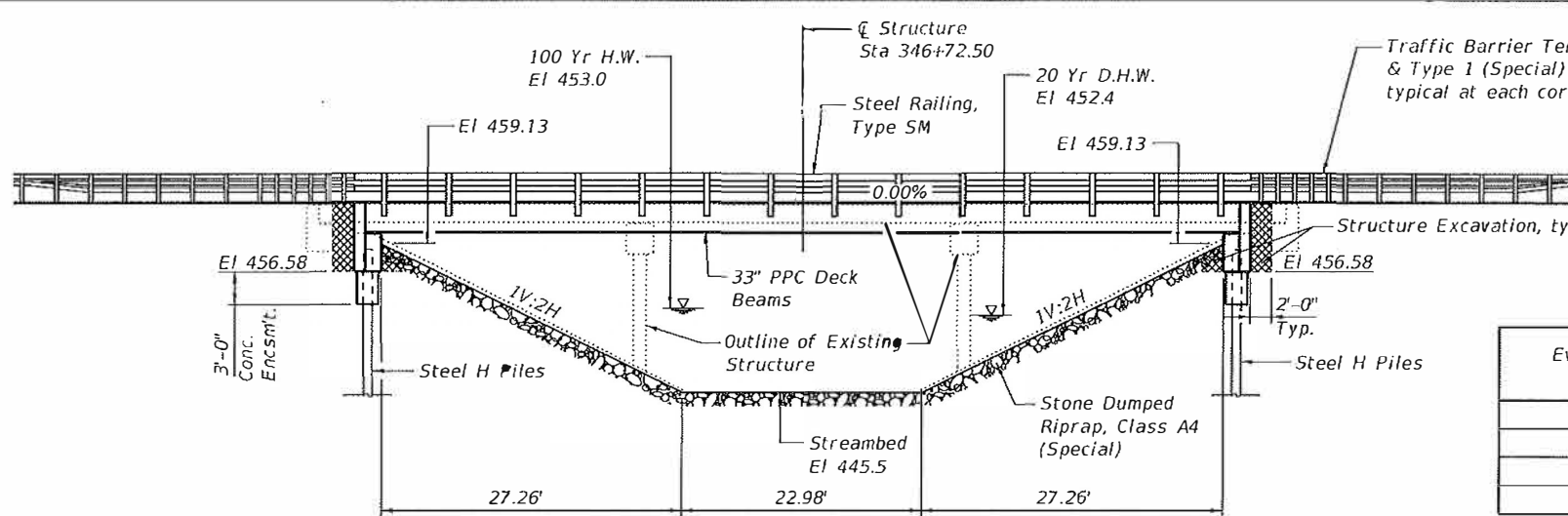
The existing structure, constructed in 1963, consists of a three-span channel beam deck supported by spill thru concrete abutments with timber piles and spill thru concrete piers with precast concrete piles. The existing structure measures 91'-5" back to back of abutments and 26'-0" out to out of bridge deck.

The Contractor shall remove and dispose of the existing structure in accordance with Section 501 of the Standard Specifications.

The existing roadway will be closed to traffic during the construction period.

SALVAGE:

The approach railing shall be removed and stockpiled on site and shall become the property of the County. County personnel shall remove railing from site.

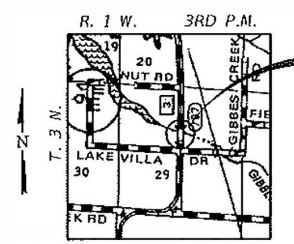


Event/Limit State	Design Scour Elevation (Ft)		Item 113
	S. Abut.	N. Abut.	
Q100	-----	-----	8
Q200	-----	-----	
Design	456.58	456.58	
Check	456.58	456.58	

ELEVATION

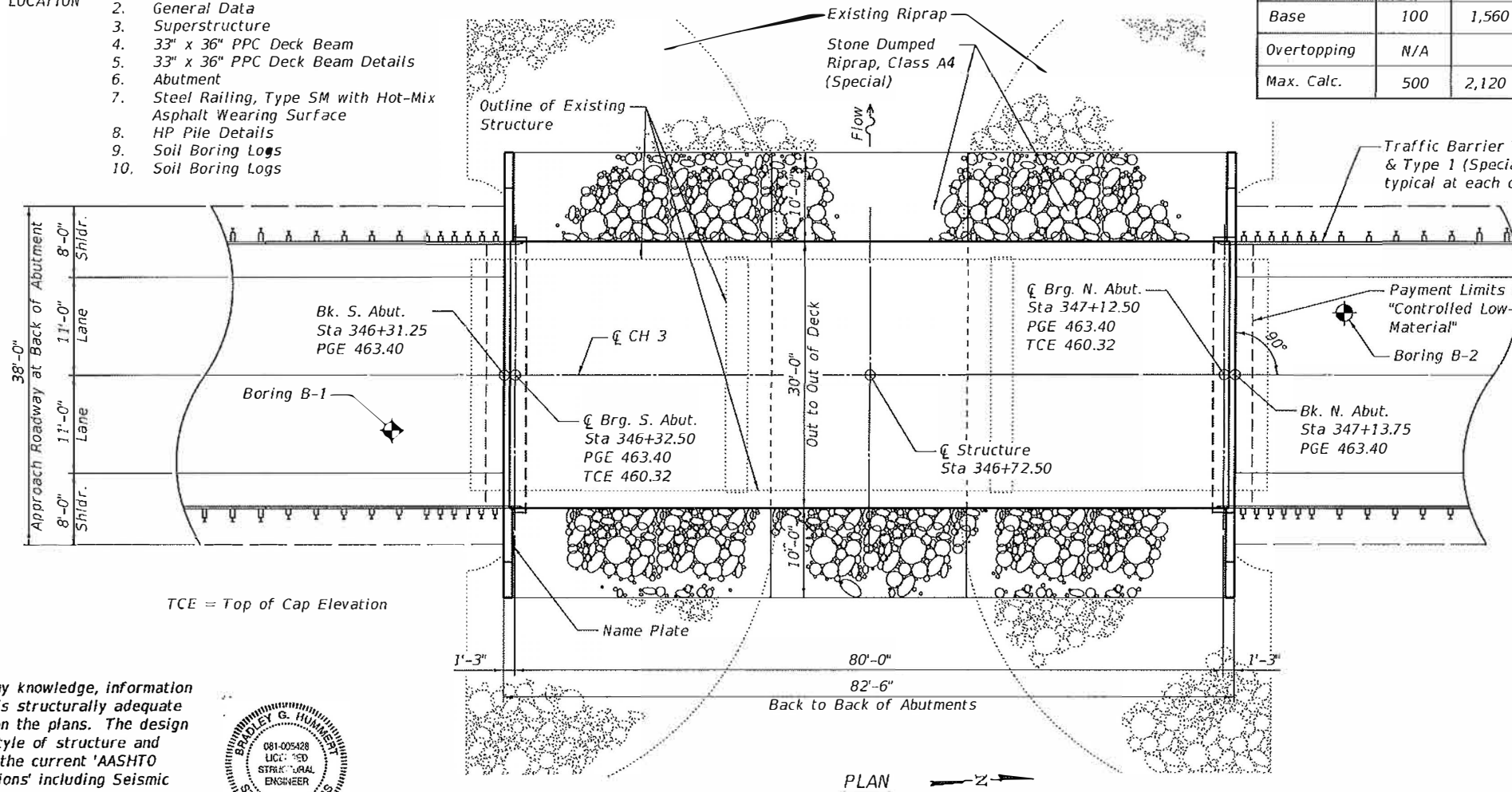
WATERWAY INFORMATION

Drainage Area = 3.1 Sq Mi		Low Grade EI = 463.4		@ Sta 346+72.50					
Flood	Freq. Yr.	Q CFS	Opening Sq Ft		Head - Ft		Headwater EI		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	20	1,053	188	253	452.4	0.4	0.1	452.8	452.5
Base	100	1,560	217	284	453.0	1.2	0.3	454.2	453.3
Overtopping	N/A								
Max. Calc.	500	2,120	247	317	453.6	1.9	0.6	455.5	454.2



INDEX OF BRIDGE SHEETS

1. General Plan & Elevation
2. General Data
3. Superstructure
4. 33" x 36" PPC Deck Beam
5. 33" x 36" PPC Deck Beam Details
6. Abutment
7. Steel Railing, Type SM with Hot-Mix Asphalt Wearing Surface
8. HP Pile Details
9. Soil Boring Logs
10. Soil Boring Logs



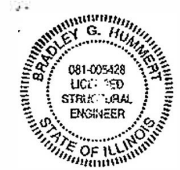
PLAN

DESIGN SPECIFICATIONS
 2017 AASHTO LRFD Bridge Design Specifications with 2018 Interims
LOADING HL-93
 Allow 50 p.s.f. for future wearing surface
DESIGN STRESSES
PRECAST PRESTRESSED UNITS **FIELD UNITS**
 f'c = 7,000 psi f'c = 3,500 psi
 f'ci = 6,000 psi fy = 60,000 psi (reinf.)
 f's = 270,000 psi fy = 50,000 psi
 (1/2" Strands) (M270 Gr. 50)
 f'si = 201,960 psi
 (1/2" Strands)
SEISMIC DATA
 Seismic Performance Zone (SPZ): 2
 Design Spectral Acceleration at 1.0 sec. (S₁): = 0.183 g
 Design Spectral Acceleration at 0.2 sec. (S_{0.2}): = 0.483 g
 Soil Site Class = C

GENERAL PLAN & ELEVATION

C.H. 3 (BOULDER ROAD)
 OVER GIBBS CREEK
 SECTION 16-00102-00-BR
 CLINTON COUNTY
 STATION 346+72.50
 STRUCTURE NO. 014-5115

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO LRFD Bridge Design Specifications' including Seismic Design."
 Date: 9/22/20
 Bradley G. Hummert
 Licensed Structural Engineer
 in Illinois No. 081-005428
 Expires: November 30, 2020



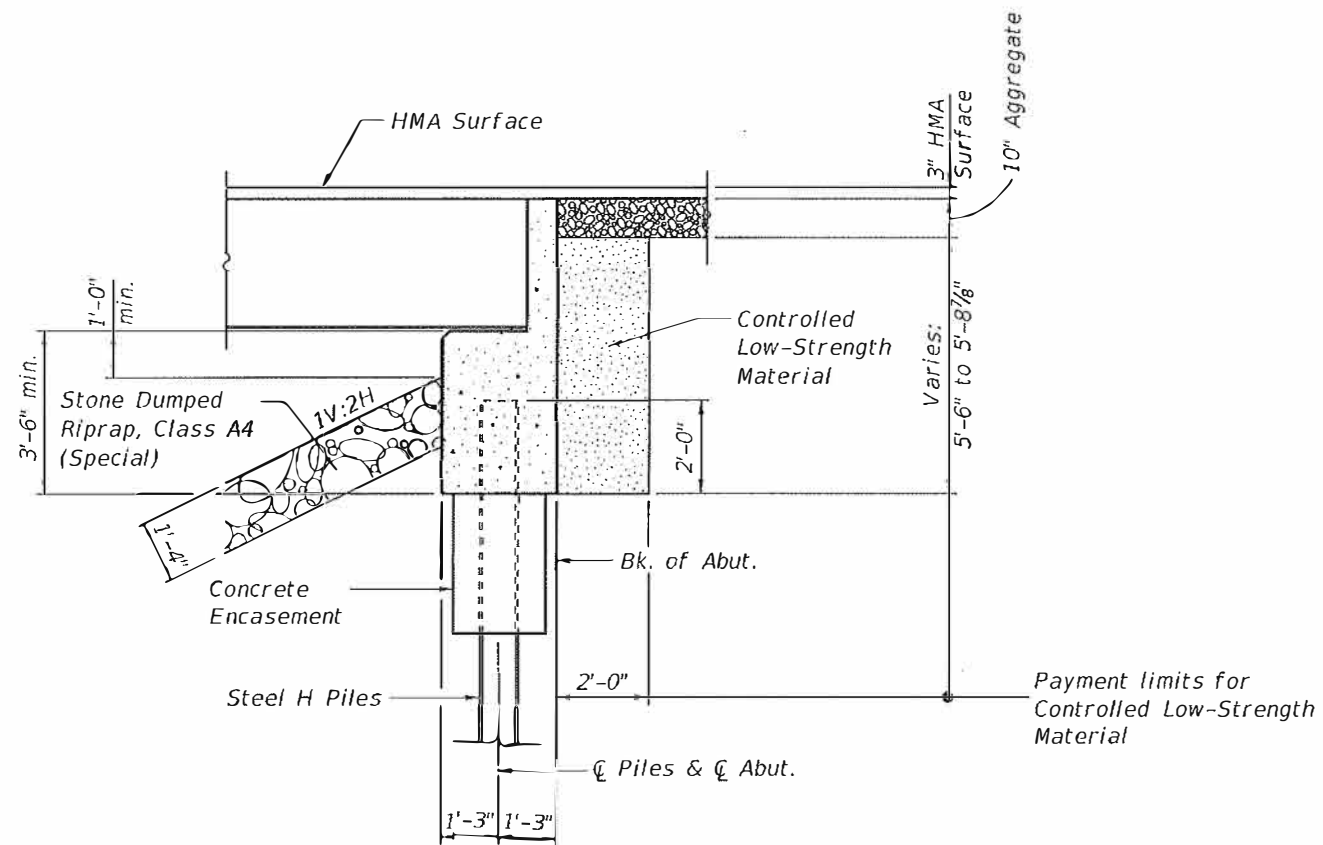
USER NAME	DESIGNED	REVISIONS
KMM	KMM	
LJG	LJG	
KHL	KHL	
KMM	KMM	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
 SHEET 1 OF 10 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	16-00102-00-BR	CLINTON	20	8

CONTRACT NO. 97746
 ILLIN. CONF. AND PROJECT



SECTION THRU ABUTMENT

Gibbs Creek
 Built 202 by
 Clinton County
 Section 16-00102-00-BR
 Proj. No. _____
 Station 346+72.50
 SN 014-5115 Loading HL 93

NAME PLATE

Locate Name Plate as shown in
 Plan View. See Std. 515001.

GENERAL NOTES

1. The Contractor shall drive two (2) test piles, one at each Substructure Unit in permanent locations, as directed by the Engineer, before ordering remaining piles.
2. Hot-mix asphalt surface course overlay for the bridge deck shall be constructed in accordance with applicable portions of Section 582 of the Standard Specifications.
3. Waterproofing membrane system for the bridge shall be in accordance with material and construction requirements of the applicable portions of Section 581 of the Standard Specifications.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Beams shall be cleaned to the satisfaction of the Engineer before placing the waterproofing membrane system.
6. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	25	—	25
Removal of Existing Structures	Each	—	—	1
Channel Excavation	Cu Yd	—	240	240
Structure Excavation	Cu Yd	—	93	93
Stone Dumped Riprap, Class A4 (Special)	Ton	—	332	332
Concrete Structures	Cu Yd	—	34.0	34.0
Concrete Encasement	Cu Yd	—	4.2	4.2
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq Ft	2,435	—	2,435
* Reinforcement Bars, Epoxy Coated	Pound	—	6,400	6,400
Furnishing Steel Piles HP 12x63	Foot	—	485	485
Driving Piles	Foot	—	485	485
Test Pile Steel HP 12x63	Each	—	2	2
Steel Railing, Type SM	Foot	165	—	165
Name Plates	Each	—	—	1
Waterproofing Membrane System	Sq Yd	275	—	275
Portland Cement Mortar Fairing Course	Foot	731	—	731
Controlled Low-Strength Material	Cu Yd	—	24.4	24.4

* Quantity includes 80 lbs. for test bars. See sheet 2 for "Extra Bars for Test Bars".

MODEL: Default
 FILE NAME: H:\1283 Clinton Co_Boulder Rd\17283_1_FinalDesign\CADD Sheets\17283-1_SHE_Bridge_02_data.dgn
 9/22/2020 8:26:49 AM

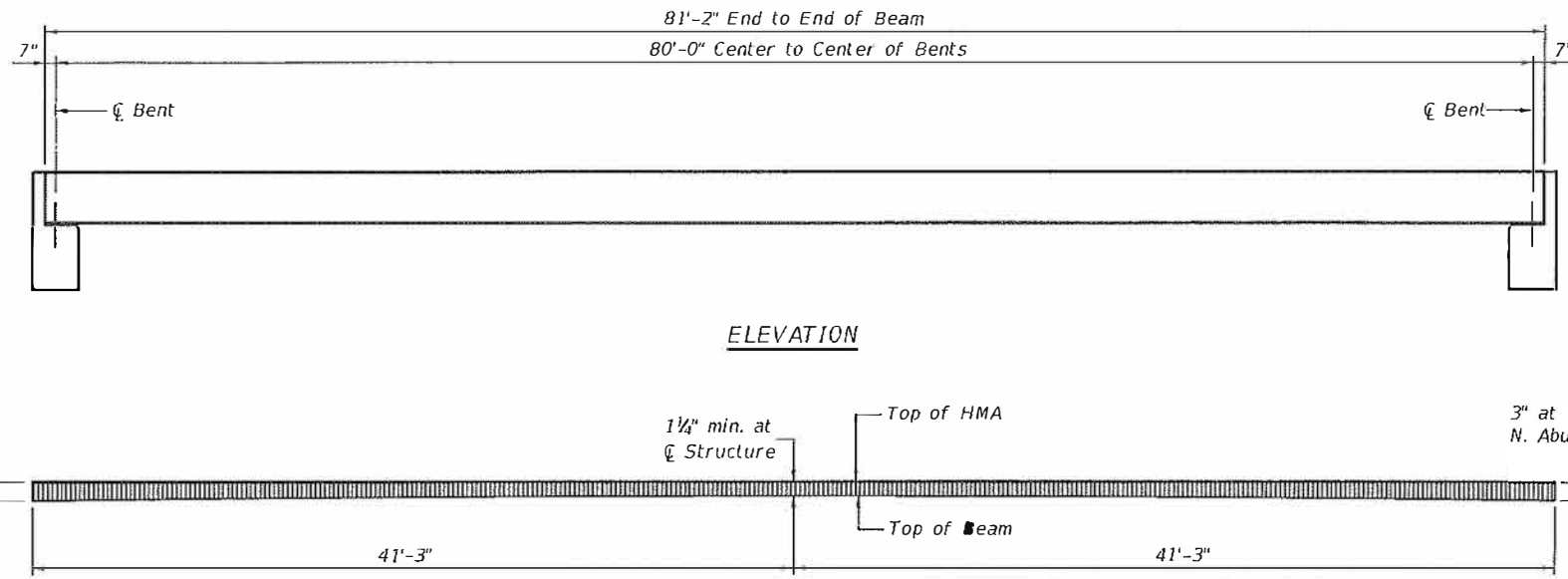
USER NAME =	DESIGNED - KMM	REVISION -
	CHECKED - LDG	REVISION -
PLOT SCALE =	DRAWN - KHL	REVISION -
PLOT DATE =	CHECKED - KMM	REVISION -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

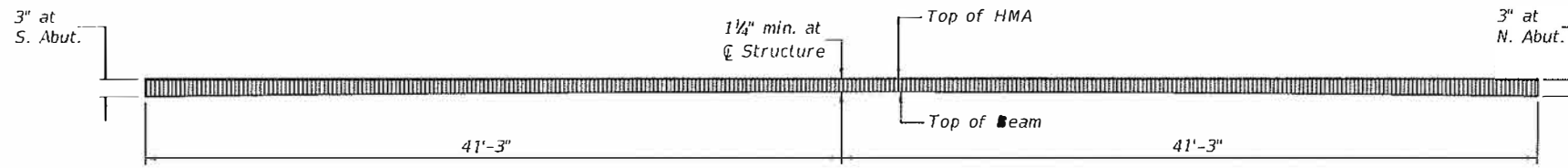
GENERAL DATA
 STRUCTURE NO. 014-5115

SHEET 2 OF 10 SHEETS

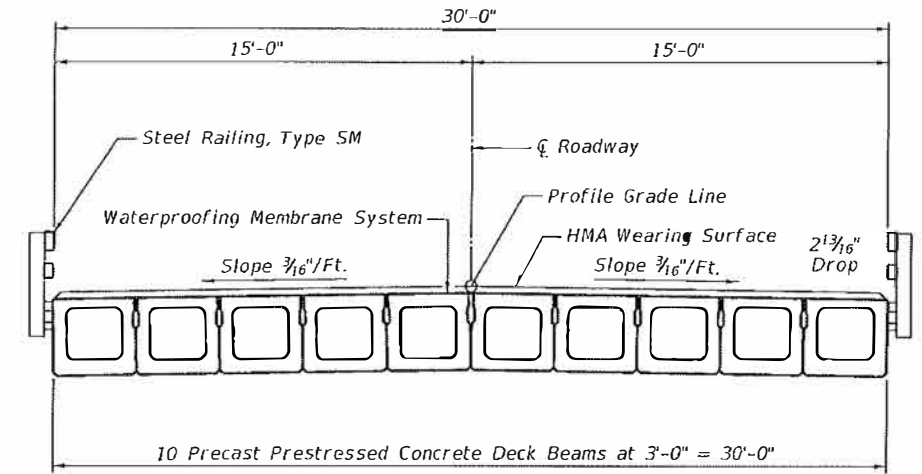
C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	16-00102-00-BR	CLINTON	20	9
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				



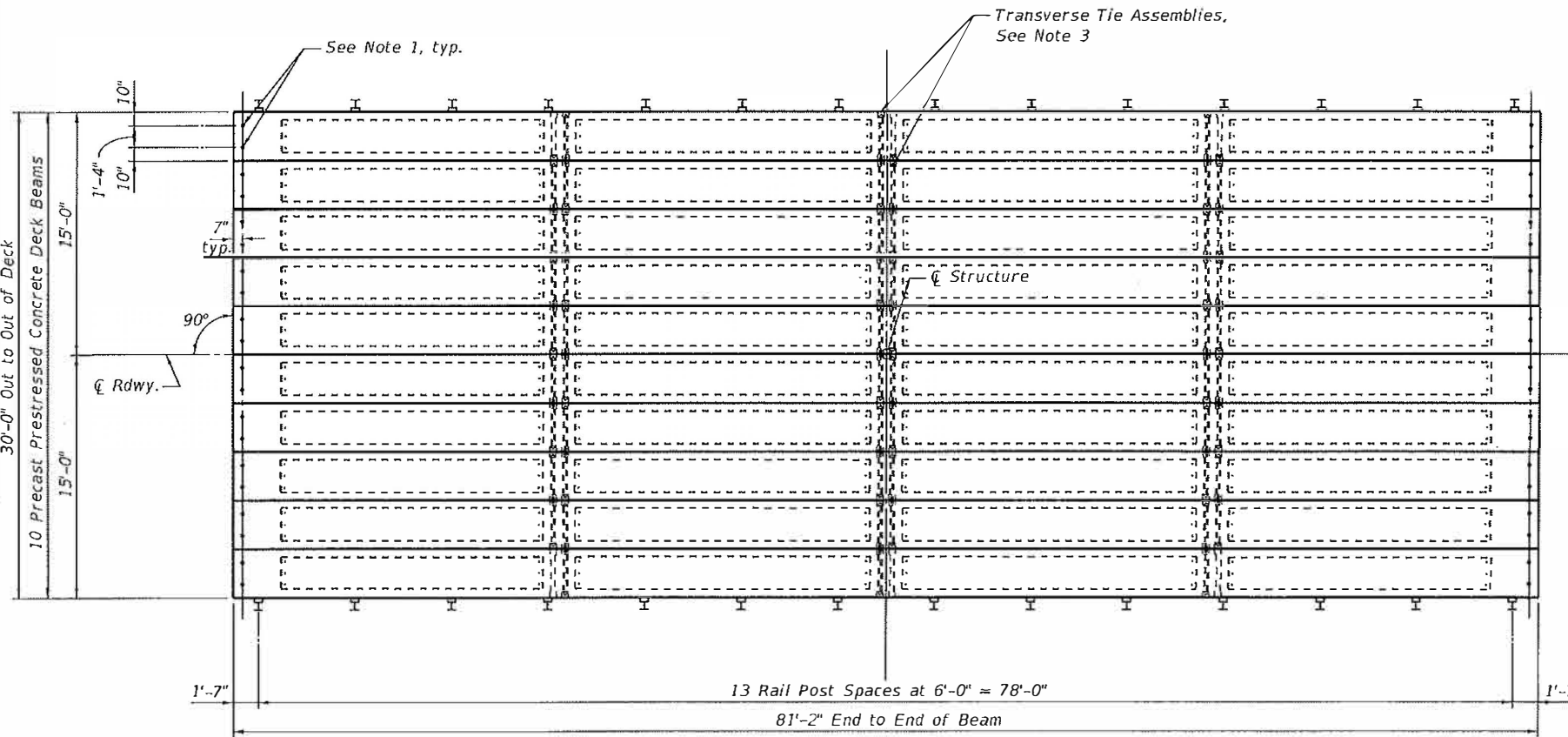
ELEVATION



PROFILE OF OVERLAY



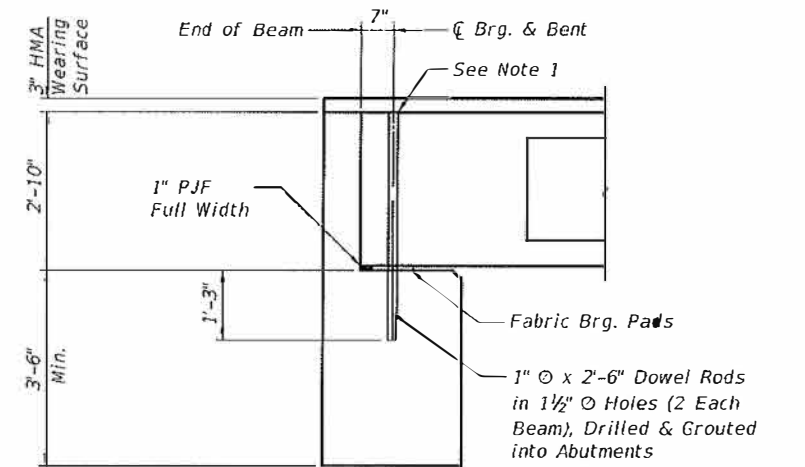
CROSS SECTION



PLAN

NOTES

- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
- Longitudinal keys shall be grouted.
- The 1" \odot rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bars outside shall be filled with grout after transverse tie assembly is in place.



SECTION AT ABUTMENTS
(Along ζ Beams)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Portland Cement Mortar Fairing Course	Foot	731
Waterproofing Membrane System	Sq Yd	275
Hot-Mix Asphalt Surf. Cse., Mix "C", N50	Ton	25

MODEL: Default
FILE NAME: H:\283 Clinton Co Boulder Rd\7283_1_FinalDesign\CADD Sheets\7283-1_Sht_Bridgs_03.dgn

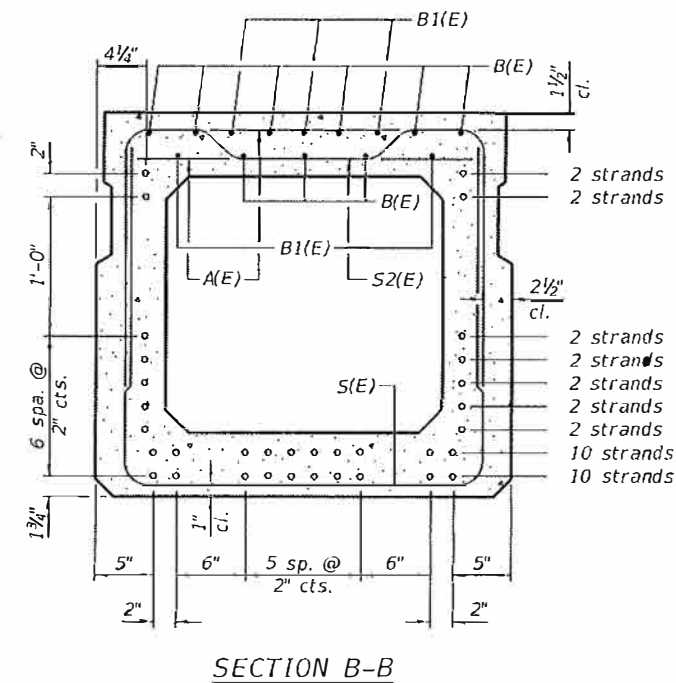
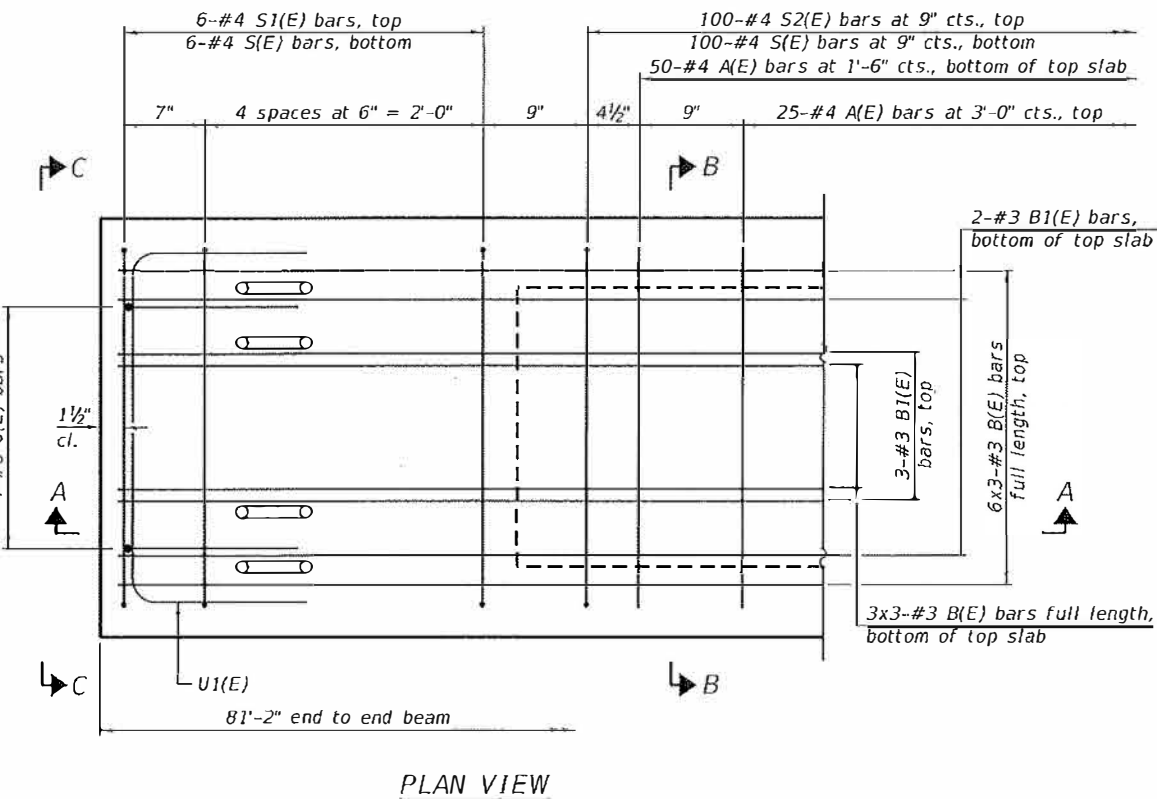
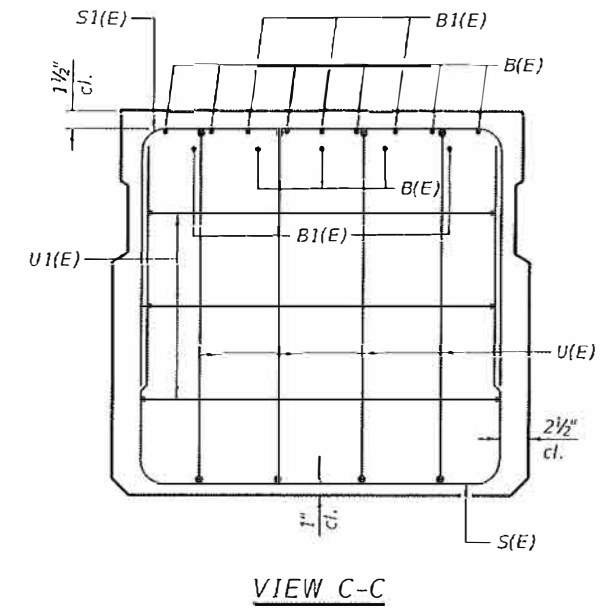
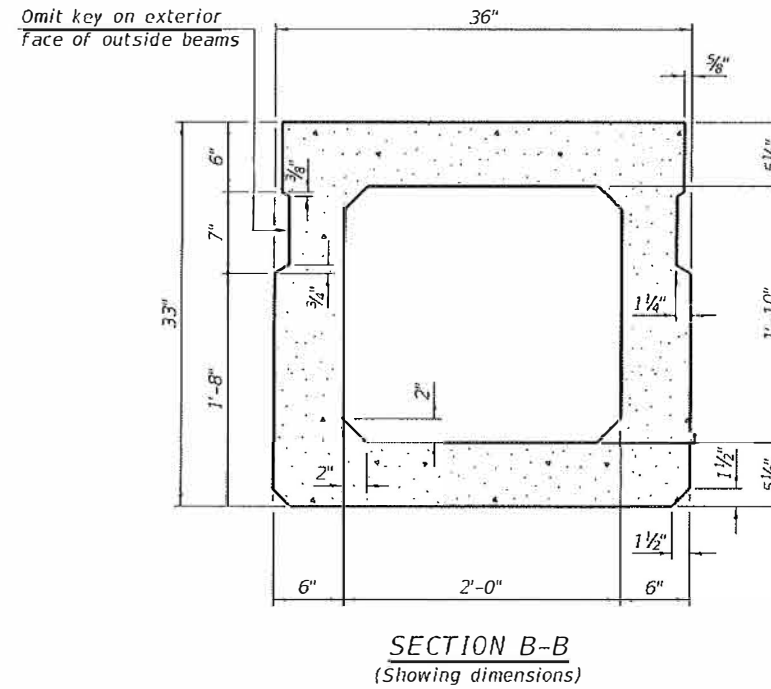
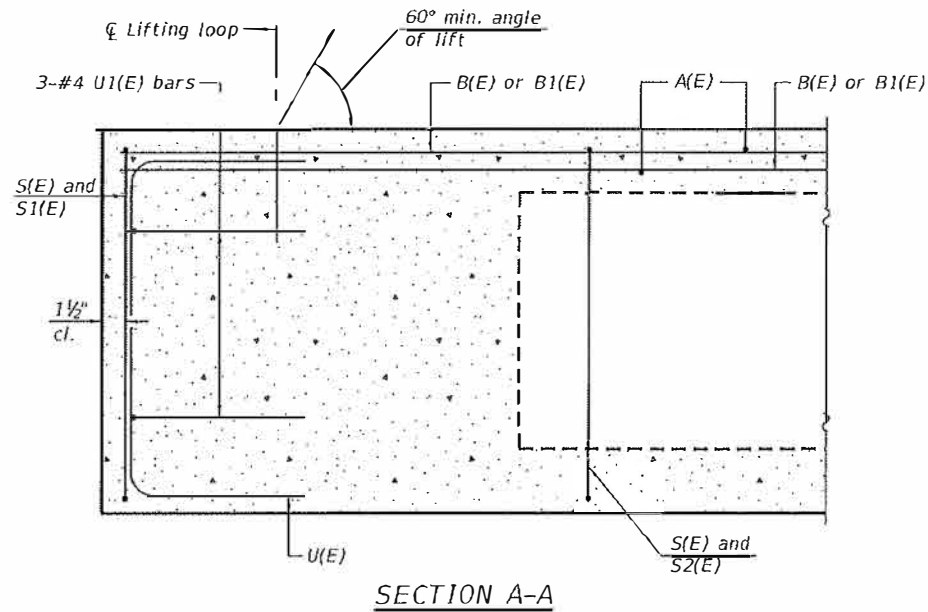
USER NAME =	DESIGNED - KMM	REVISED -
PLOT SCALE =	CHECKED - LDG	REVISED -
PLOT DATE =	DRAWN - KHL	REVISED -
	CHECKED - KMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 014-5115

SHEET 3 OF 10 SHEETS

C.H. RTE. 3	SECTION 16-00102-00-HR	COUNTY CLINTON	TOTAL SHEETS 20	SHEET NO. 10
ILLINOIS FED. AID PROJECT				
CONTRACT NO. 97746				



BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	75	#4	2'-7"	—
B(E)	27	#3	28'-0"	—
B1(E)	10	#3	10'-0"	—
S(E)	112	#4	7'-8"	U
S1(E)	12	#4	6'-5"	U
S2(E)	100	#4	6'-8"	U
U(E)	8	#6	5'-0"	U
U1(E)	6	#4	5'-0"	U

Note:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP
#3 bar = 1'-6"

SECTION B-B
(Showing reinforcement and permissible strand locations)
34 Strands
(10 strands 1 3/4" up, 10 strands 3 3/4" up, 2 strands 5 3/4" up, 2 strands 7 3/4" up, 2 strands 9 3/4" up, 2 strands 11 3/4" up, 2 strands 13 3/4" up, 2 strands 25 3/4" up, 2 strands 27 3/4" up)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MODEL: Default
FILE NAME: H:\7283 Clinton Co Boulder Rd\7283_1_FinalDesign\CADD Sheets\7283-1_Sht_Bridge_04_beam.dgn

PD-3336-0

1-1-2020

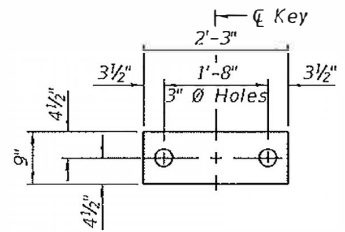
USER NAME =	DESIGNED - KMM	REVISION =
PLOT SCALE =	CHECKED - LDG	REVISED -
PLOT DATE =	DRAWN - KHL	REVISED -
	CHECKED - KMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

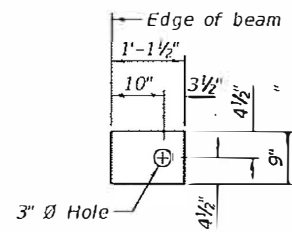
33" x 36" PPC DECKBEAM
STRUCTURE NO. 014-5115

SHEET 4 OF 10 SHEETS

C.H. DISTRICT	SUBDIVISION	COUNTY	TOTAL SHEETS	SHEET NO.
3	16-00102-00-BR	CLINTON	20	11
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				



FABRIC BEARING PAD
(Interior)

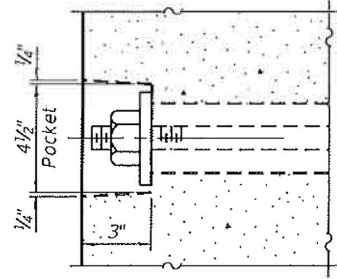


FABRIC BEARING PAD
(Exterior)

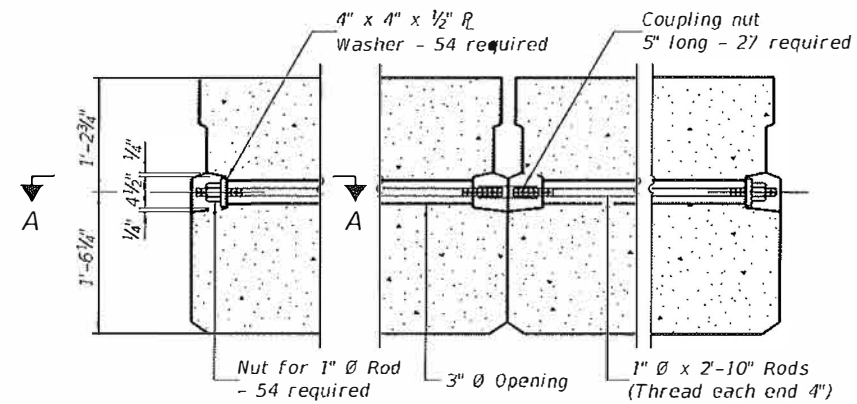
FIXED

Notes:

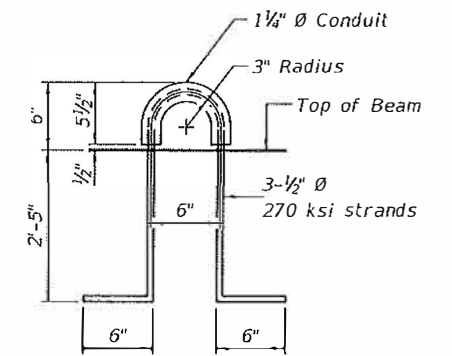
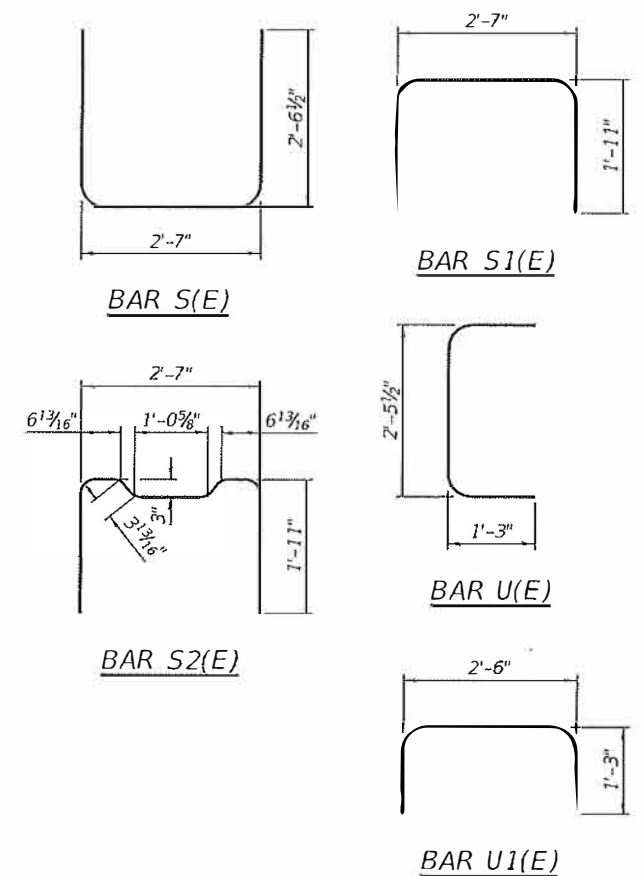
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.



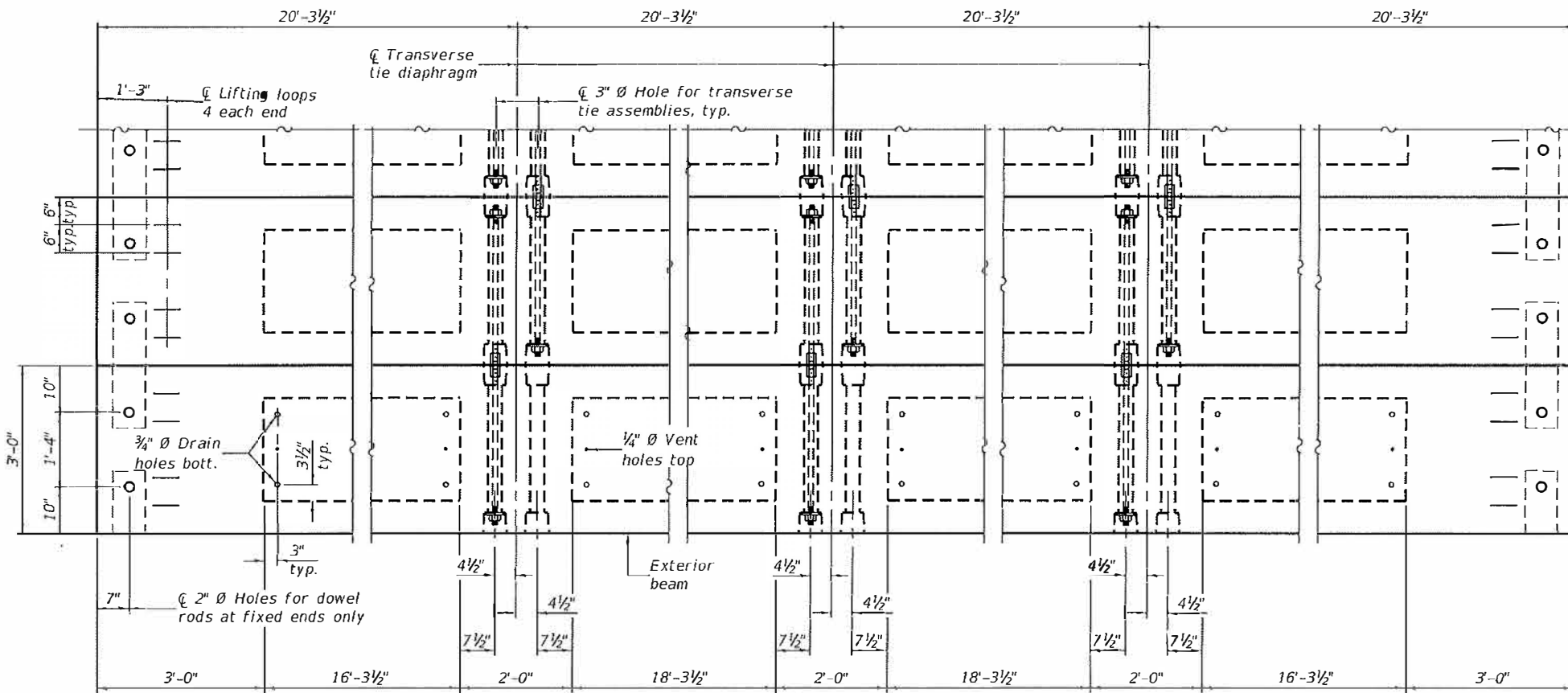
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



LIFTING LOOP DETAIL



PLAN VIEW

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 7000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 6000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (33" depth)	Sq Ft	2,435
---	-------	-------

Note:
Connect beams in pairs with the transverse tie configuration shown.

PDD-3336-0

1-1-2020

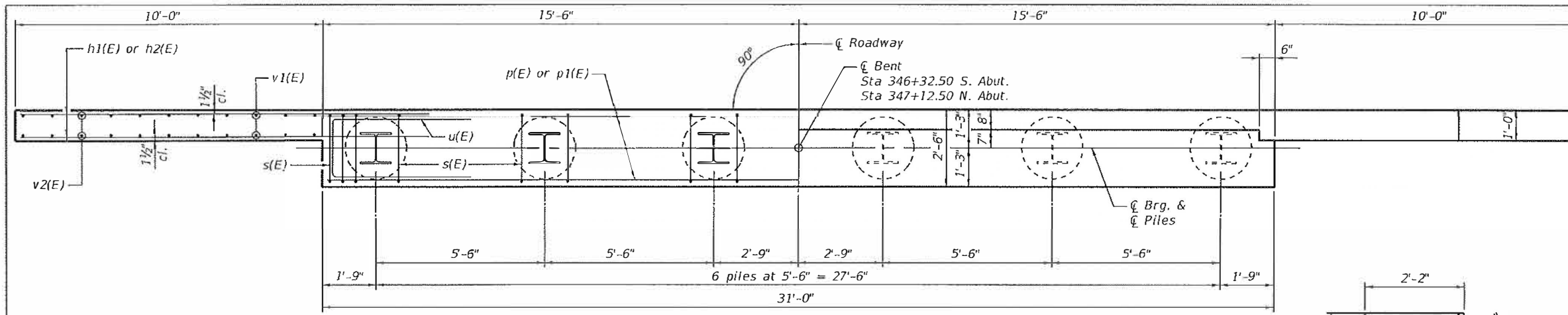
USER NAME =	J DESI (200) - KMM	REVISED -
CHECKED =	LDG	REVISED -
DRAWN =	KHL	REVISED -
CHECKED =	KMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

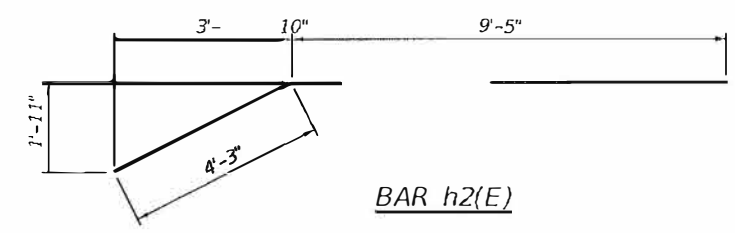
3" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 014-5115

SHEET 5 OF 10 SHEETS

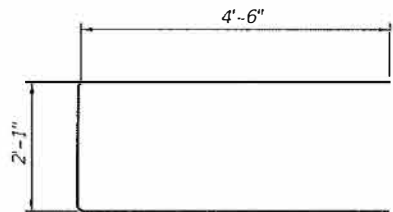
C.H. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
3	16-00102-00-BR	CLINTON	20 12
			CONTRACT NO. 97746
ILLINOIS FED. AID PROJECT			



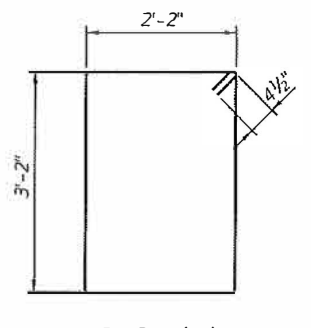
PLAN



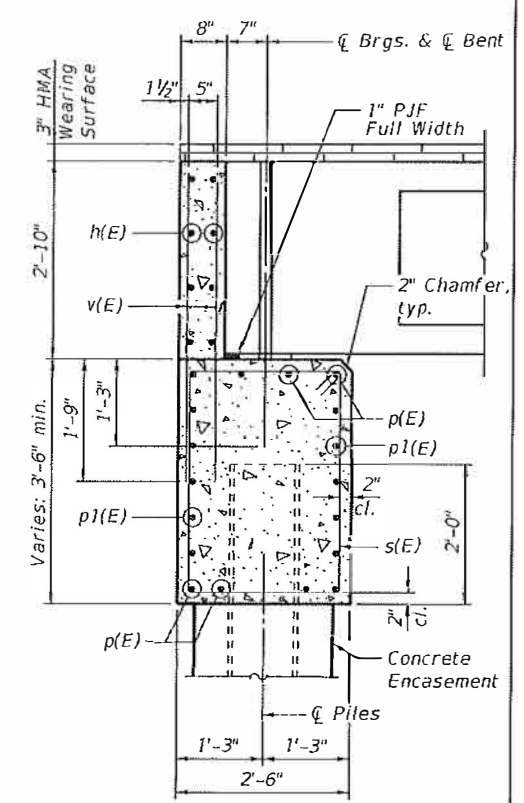
BAR h2(E)



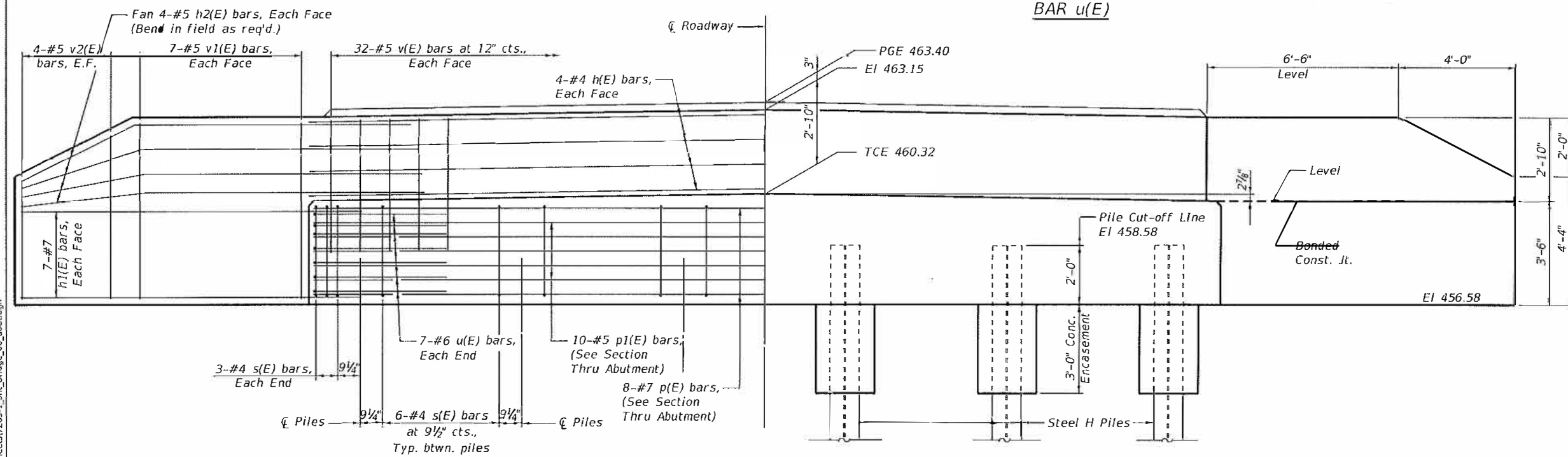
BAR u(E)



BAR s(E)



SECTION THRU ABUTMENT



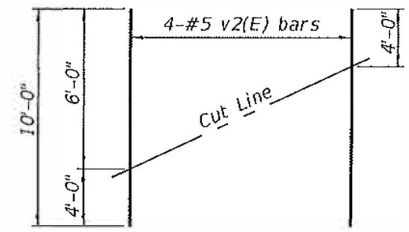
ELEVATION

BILL OF MATERIAL FOR ONE ABUTMENT

Bar	No.	Size	Length	Shape
h(E)	8	#4	30'-8"	—
h1(E)	28	#7	15'-2"	—
h2(E)	16	#5	13'-8"	—
p(E)	8	#7	30'-8"	—
p1(E)	10	#5	30'-8"	—
s(E)	36	#4	11'-5"	□
u(E)	14	#6	11'-1"	—
v(E)	64	#5	4'-7"	—
v1(E)	28	#5	6'-0"	—
v2(E)	8	#5	10'-0"	—
Concrete Structures		Cu. Yd.	17.0	
Concrete Encasement		Cu. Yd.	2.1	
Reinforcement Bars, Epoxy Coated		Pound	3,160	
Furnishing Steel Piles HP 12x63 - N. Abut.		Foot	235	
Furnishing Steel Piles HP 12x63 - S. Abut.		Foot	250	
Driving Piles-N. Abut.		Foot	235	
Driving Piles-S. Abut.		Foot	250	
Test Pile Steel HP 12x63		Each	1	

PILE DATA

	S. ABUT.	N. ABUT.
Type	HP 12x63	HP 12x63
Nominal Required Bearing	497 k	497 k
Factored Resistance Available	273 k	273 k
Estimated Length	50 FT.	47 FT.
No. Production Piles	5	5
No. Test Piles	1	1



FIELD CUTTING DIAGRAM
Order v2(E) bars full length. Cut as shown and use remainder of bars in opposite face.

NOTES:

- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beams.
- Space reinforcement in cap to miss dowel rods.

Notes:
For details of piles and Concrete Encasement, see sheet 8 of 10.

MODEL: Default
FILE NAME: \\17283 Clinton Co. Boulder Rd\7283_1_TrafficDesign\CADD Sheets\7283-1_Sht. Bridge_06_abut.dgn
9/21/2020 2:42:12 PM

USER NAME	DESIGNED	KMM	REVISION
	CHECKED	LDG	REVISION
	DRAWN	KHL	REVISION
	CHECKED	KMM	REVISION

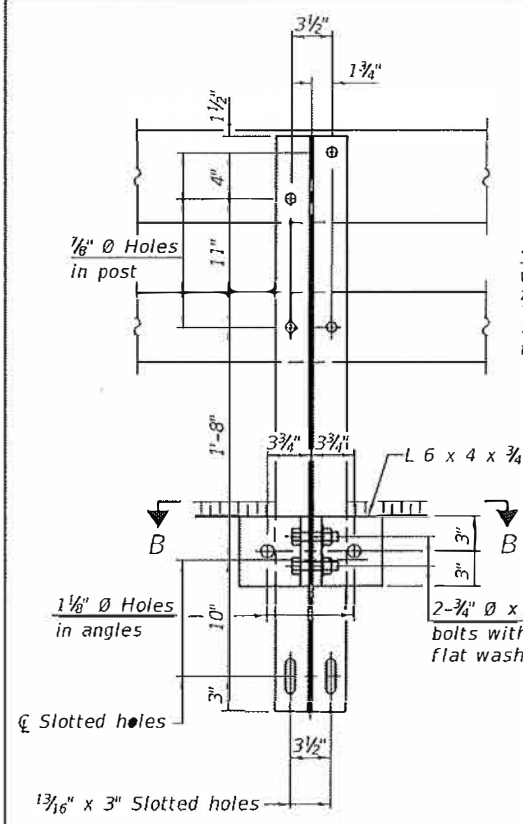
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT
STRUCTURE NO. 014-5115

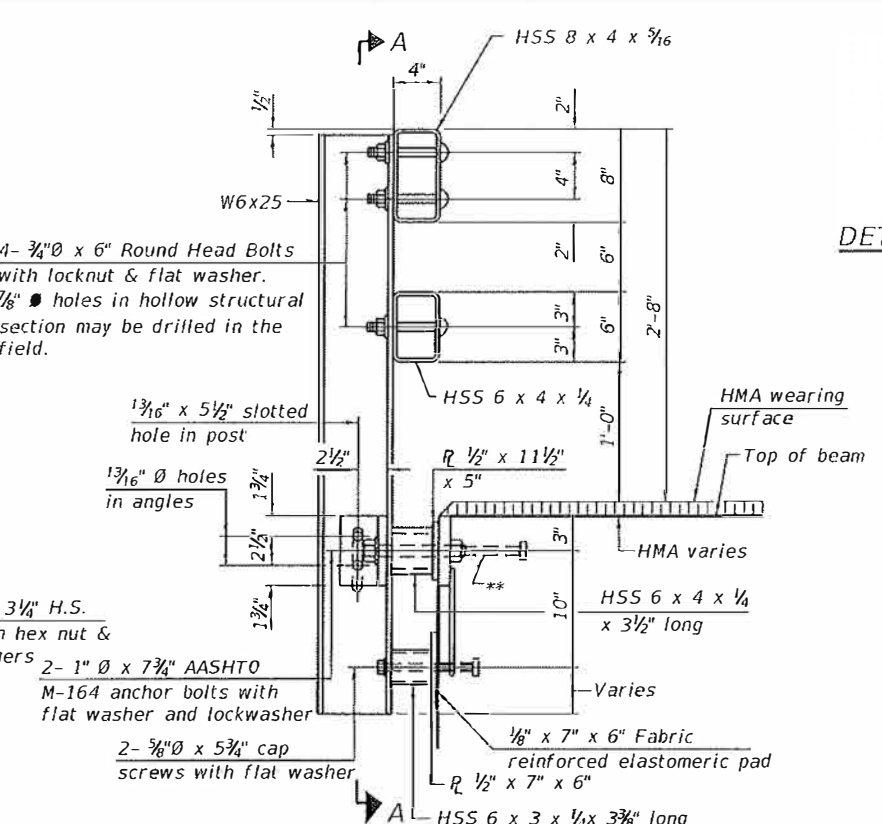
SHEET 6 OF 10 SHEETS

C.H. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	16-00102-00-BR	CLINTON	20	13

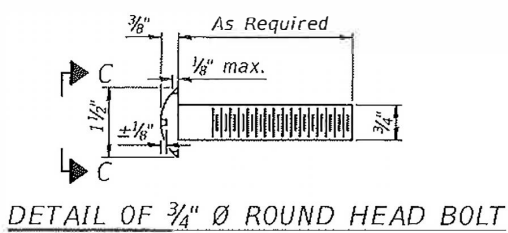
CONTRACT NO. 97746
ILLINOIS FED. AID PROJECT



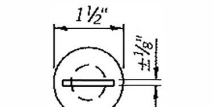
SECTION A-A



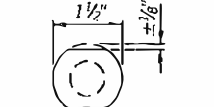
SECTION AT RAIL POST



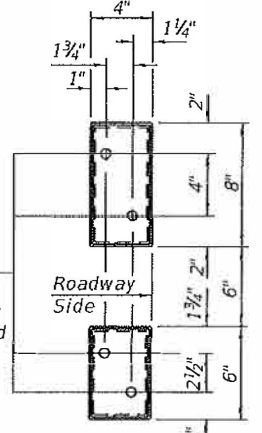
DETAIL OF 3/4" Ø ROUND HEAD BOLT



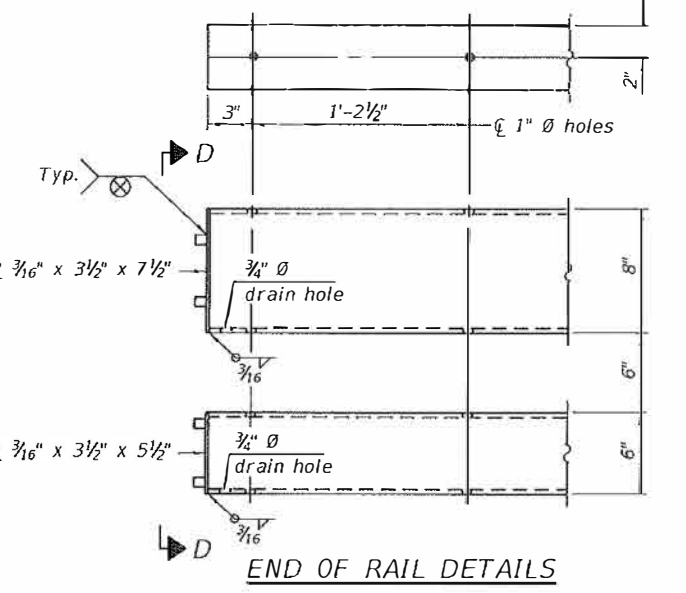
VIEW C-C



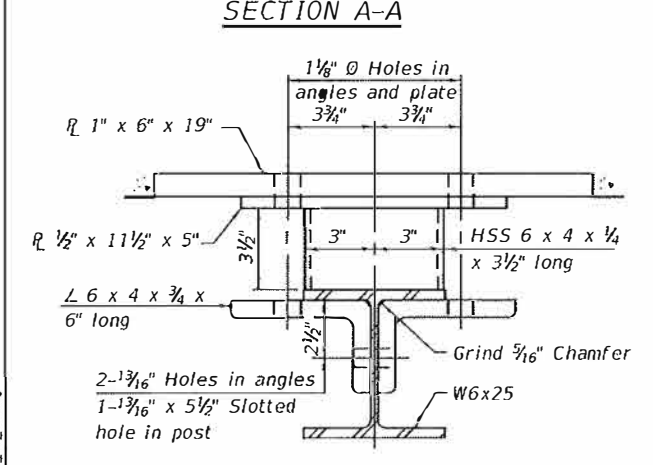
VIEW C-C



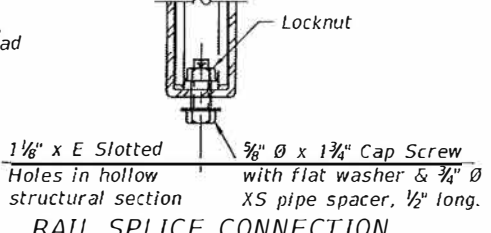
VIEW D-D



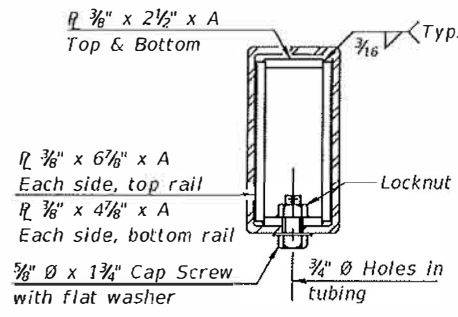
END OF RAIL DETAILS



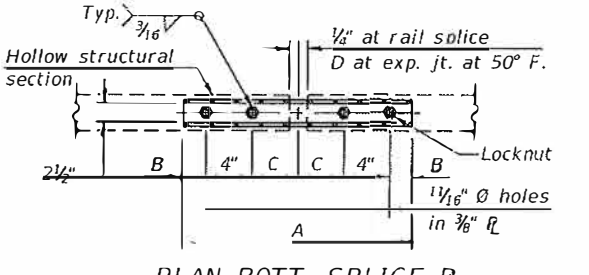
SECTION B-B



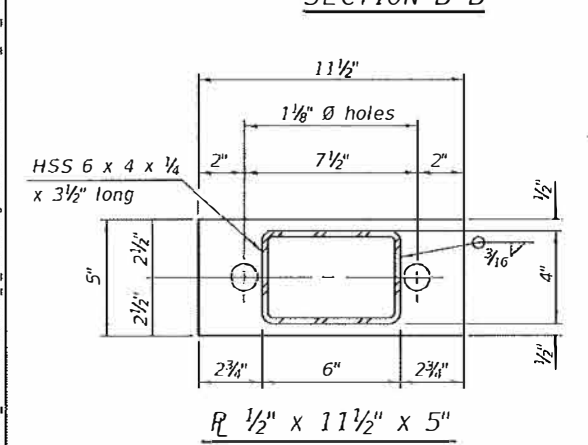
RAIL SPLICE CONNECTION AT EXPANSION JT.



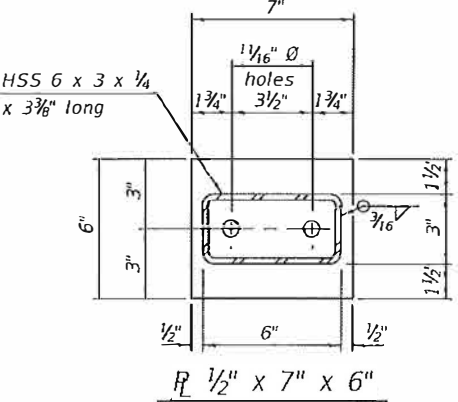
SECTION AT RAIL SPLICE



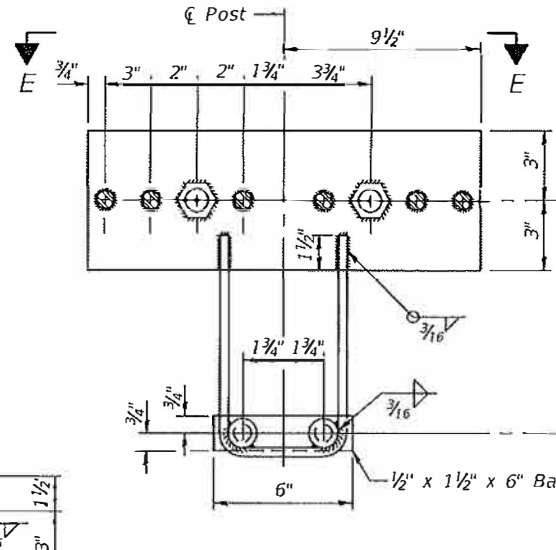
PLAN-BOTT. SPLICE R TYPICAL



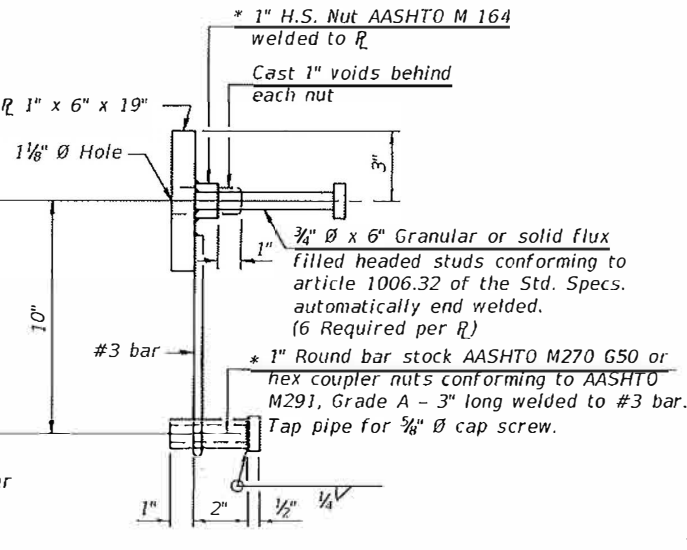
SECTION B-B



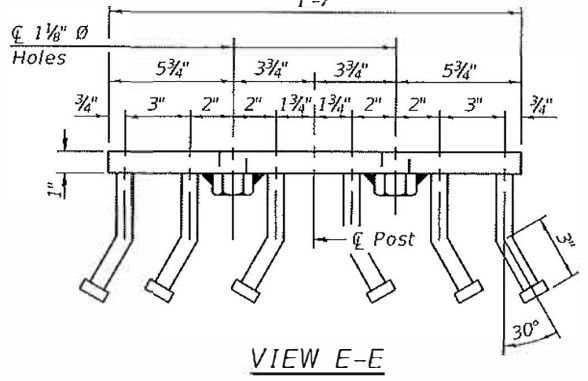
SECTION B-B



ANCHOR DEVICE



SPLICE DIMENSIONS



VIEW E-E

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.

Notes:
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 ** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	165

MODEL: Default
 FILE NAME: H:\7283 Clinton Co. Boulder - R07283_1_Firm\Design\CADD_Sheets\7283-1_Sht_Bridge_07_rdt.dgn
 9/21/2020 2:43:13 PM

R-34HMAWS

2-17-2017 (6'-3" Maximum Post Spacing) (1 1/4" minimum to 3 3/8" maximum HMA thickness)

USER NAME	DESIGNED -	REVISION
	KMM	
	LDG	
	KHL	
	KMM	

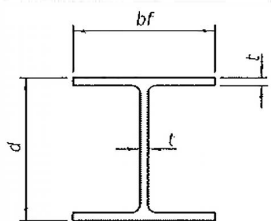
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE - STRUCTURE NO. 014-5115

SHEET 7 OF 10 SHEETS

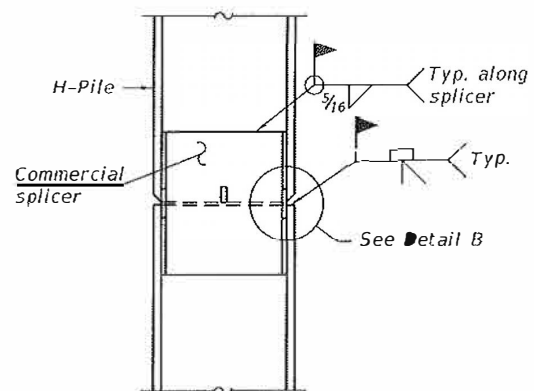
C.H. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	16-00102-00-DR	CLINTON	20	14

CONTRACT NO. 97746
 ILLINOIS FED. AID PROJECT

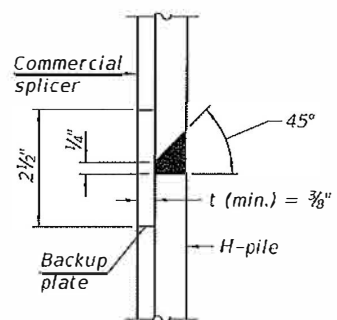


STEEL PILE TABLE

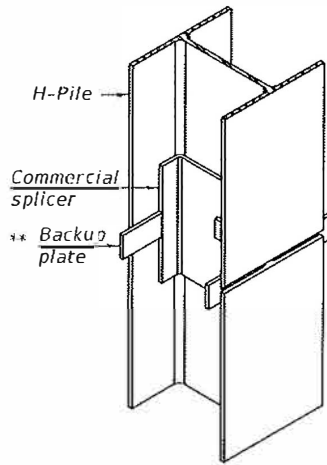
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 3/8"	14 3/8"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	5/8"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

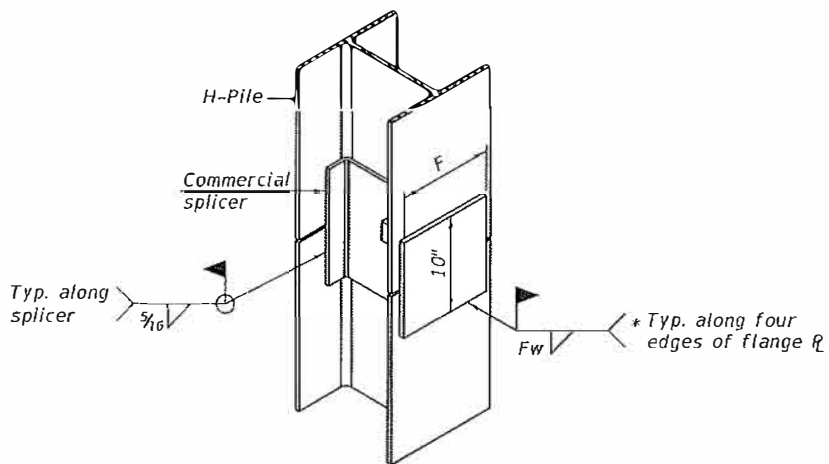


DETAIL "B"



ISOMETRIC VIEW

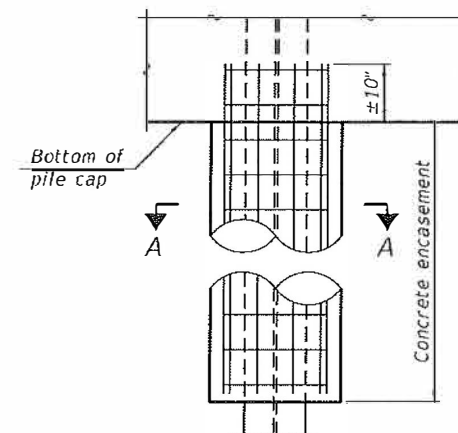
WELDED COMMERCIAL SPLICE



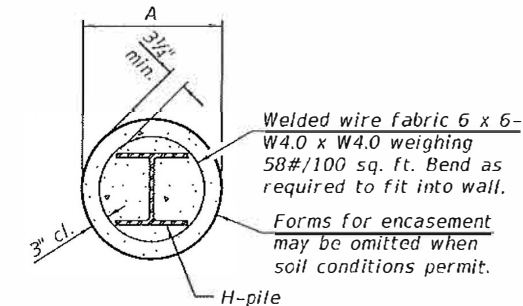
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (3/16" min.).

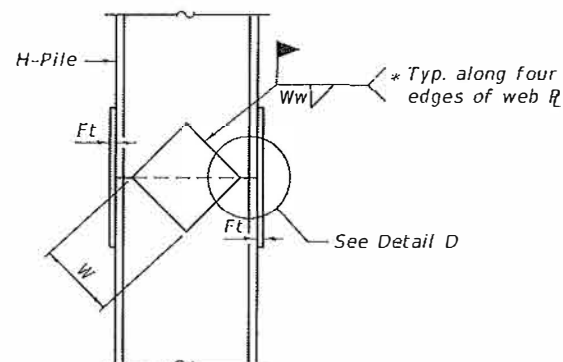


ELEVATION

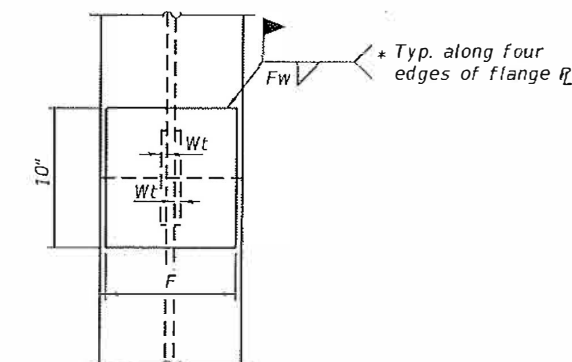


SECTION A-A

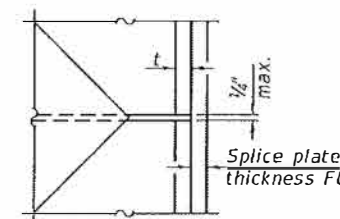
INDIVIDUAL PILE CONCRETE ENCASUREMENT (when specified)



ELEVATION



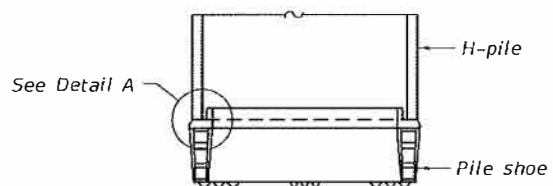
END VIEW



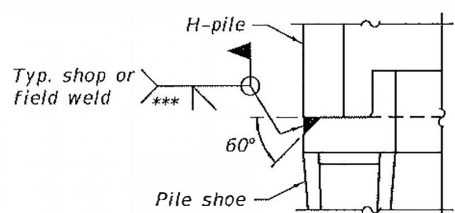
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	5/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	3/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	5/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	5/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"



ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP

1-1-2020

USER NAME =	DESIGNED - KMM	REVISED -
PLOT SCALE =	CHECKED - LDC	REVISED -
PLOT DATE =	DRAWN - KHL	REVISED -
	CHECKED - KMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 014-5115

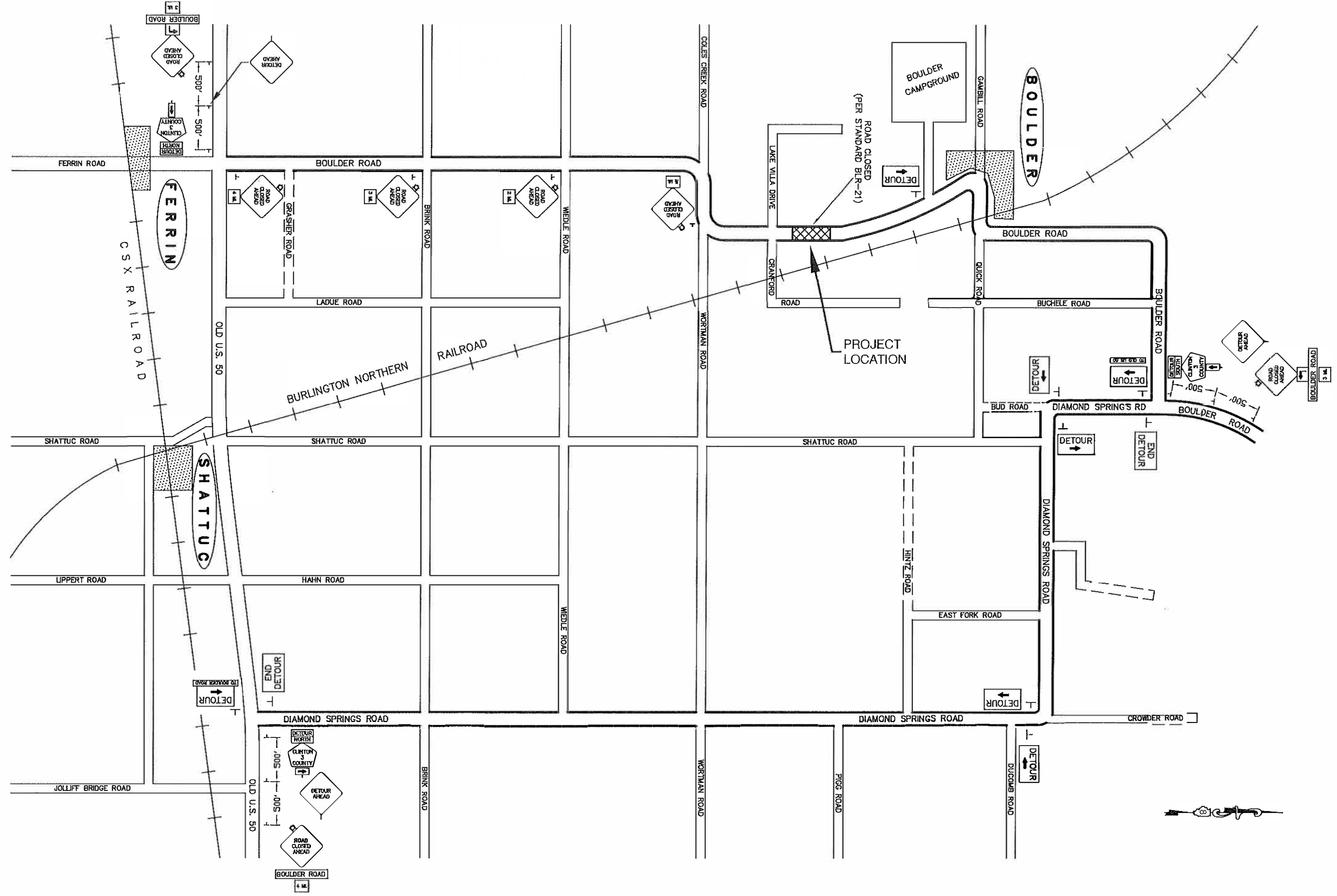
SHEET 8 OF 10 SHEETS

C.H. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	16-00102-00-BR	CLINTON	20	15
			CONTRACT NO. 97746	
ILLINOIS FED. AID PROJECT				

MODEL: Default
FILE NAME: H:\7283 Clinton Co_Boulder Rd\7283_1_FinalDesign\CADD Sheets\7283-1_Sht_Bridge_08_piles.dgn
9/21/2020 2:44:31 PM

PLAN	DATE
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	

PROFILE	DATE
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	



BOULDER RD DETOUR.DWG

USER NAME =	DESIGNED -	REVISED -	8/27/20
PLLOT SCALE =	DRAWN -	REVISED -	
PLLOT DATE =	CHECKED -	REVISED -	
	DATE -	REVISED -	4/2/2020

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: N.T.S.		SHEET 16 OF 20 SHEETS		STA. TO STA.	
---------------	--	-----------------------	--	--------------	--

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 3	16-00102-00-BR	CLINTON	20	16
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				

Soil Boring Log

Route: _____ Structure No.: Boulder Road over Gibbs Creek Date: 5/28/2019 Page: 1 of 2
 Section: _____ Description: Proposed South Abutment
 County: Clinton Drilling Method: CME 550, HSA Hammer Type: Automatic SPT Hammer

Boring No.: B-1 Logged by: Midwest Drilling, Inc. (JT)
 Station: 546+18.55
 Offset: 624' RT
 Latitude: 38.676750
 Longitude: -89.222883
 Ground Surface El.: 468.7 ft

Soil Type, Description & Observations	E (ft)	D (ft)	B (ft)	U. C. S. (tsf)	M O I S T. (%)	Soil Type, Description & Observations	E (ft)	D (ft)	B (ft)	U. C. S. (tsf)	M O I S T. (%)
12" Asphalt Pavement						Dark gray, CLAY, A-7 (cont.)					
6" Crushed Rock Subbase											
No sample recovery			7						2		
			3	N/A					3	0.99	26
			2						3	B/20%	
FILL: Dark Gray, SILTY CLAY, A-6			2			Becomes brown			3		
			2	0.5	40				4	2.17	22
			-5	2	B/20%				-25	4	B/20%
FILL: Dark gray, SILTY CLAY LOAM, A-4			0			Becomes gray			3		
			4	2.75	21				4	2.0	25
				P							
Gray, SANDY LOAM, A-2			7						8		
Becomes brown			6	4.5+	15				11	N/C	20
			-10	6	P				-30	13	
Gray, CLAY, A-6 (Glacial Till)			14								
Becomes dark gray			13	7.11	27						
			7	S/15%							
Brownish-gray, CLAY LOAM, A-6			1						17		
			2	0.5	21				28	9.67	10
			-15	3	P				-35	38	S/10%
Becomes gray			2								
			2	0.90	20						
			2	B/20%							
Dark gray, CLAY, A-7			2						18		
			2	2.12	25				23	16.37	11
			-20	2	B/20%				-40	34	S/15%

The U.C.S. Qu column represents the Unconfined Compressive Strength using either the IDOT Rimac Test Procedure or AASHTO 208. The Qu failure mode is indicated by B for Bulge or S for Shear. P is shown when sample disturbance only allows Penetrometer testing. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

File Name: BBS 137.docx Printed: 6/4/2019 9:38 AM BBS 137 (Rev. 01/04/2012)

Soil Boring Log

Route: _____ Structure No.: Boulder Road over Gibbs Creek Date: 5/28/2019 Page: 2 of 2
 Section: _____ Description: Proposed South Abutment
 County: Clinton Drilling Method: CME 550, HSA Hammer Type: Automatic SPT Hammer

Boring No.: B-1 Logged by: Midwest Drilling, Inc. (JT)
 Station: _____
 Offset: _____
 Latitude: 38.67750
 Longitude: -89.222883
 Ground Surface El.: _____ ft

Soil Type, Description & Observations	E (ft)	D (ft)	B (ft)	U. C. S. (tsf)	M O I S T. (%)	Soil Type, Description & Observations	E (ft)	D (ft)	B (ft)	U. C. S. (tsf)	M O I S T. (%)
Gray, CLAY, A-6 (Glacial Till) (cont.)											
			11								
			15	6.03	13						
			-45	20	B/20%				-65		
			21								
			36	7.45	10						
			-50	50/4"	S/15%				-70		
Dark gray, SHALE			50/5"	4.5+	12						
				P							
			50/2"	4.5+	12						
				P							
			-55						-75		
			50/2"		10						
Boring terminated at 56.17 ft.											
Boring drilled 9 feet south of existing southern bridge abutment, 6 feet east of existing centerline											
			-60						-80		

The U.C.S. Qu column represents the Unconfined Compressive Strength using either the IDOT Rimac Test Procedure or AASHTO 208. The Qu failure mode is indicated by B for Bulge or S for Shear. P is shown when sample disturbance only allows Penetrometer testing. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 206.

File Name: BBS 137.docx Printed: 6/4/2019 9:39 AM BBS 137 (Rev. 01/04/2012)

MODEL: Default FILE NAME: H:\2183 Clinton Co_Boulder Rd\17283_1_Final\Design\CADD_Sheets\17283-1_Sht_borings.dgn

USER NAME =	DESIGNED - KMM	REVISED -
PLAT SCALE =	CHECKED - LDG	REVISED -
PLAT DATE =	DRAWN - KHL	REVISED -
	CHECKED - KMM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 014-5115

C.H. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
3	16-00102-00-BR	CLINTON	20 17
			CONTRACT NO. 97746

SHEET 9 OF 10 SHEETS

ILLINOIS FED. AID PROJECT

Soil Boring Log

Route: _____ Structure No.: Boulder Road over Gibbs Creek Date: 5/28/2019 Page: 1 of 2
 Section: _____ Description: Proposed North Abutment
 County: Clinton Drilling Method: CME 550, HSA Hammer Type: Automatic SPT Hammer
 Boring No.: B-2 Logged by: Midwest Drilling, Inc. (JT)

Soil Type, Description & Observations	E (ft)	D (ft)	B /6 in.	U. C. S. Qu	M O S T.	Soil Type, Description & Observations	E (ft)	D (ft)	B /6 in.	U. C. S. Qu	M O S T.	Surface Water Elev.: _____ ft	E L E V.	D E P T H	B L O W S	U. C. S. Qu	M O S T.	
												Groundwater Elev.						
12" Asphalt Pavement						Gray and brown, SANDY CLAY, A-6 (cont.)						10.0 ft						
6" Crushed Rock Subbase						Brown, SANDY LOAM, A-2												
No sample recovery																		
FILL: Dark Gray, CLAY LOAM, A-6																		
FILL: Dark gray, CLAY, A-7						Gray, CLAY, A-6 (Glacial Till)												
FILL: Dark gray, CLAY LOAM, A-6						Gray, CLAY, A-7												
Dark gray, SILTY CLAY LOAM, A-6																		
Gray and brown, SANDY CLAY, A-6																		

The U.C.S. Qu column represents the Unconfined Compressive Strength using either the IDOT Rimac Test Procedure or AASHTO 208. The Qu failure mode is indicated by B for Bulge or S for Shear. P is shown when sample disturbance only allows Penetrometer testing. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 208.

File Name: BBS 137.docx Printed: 6/4/2019 9:39 AM BBS 137 (Rev. 01/04/2012)

Soil Boring Log

Route: _____ Structure No.: Boulder Road over Gibbs Creek Date: 5/28/2019 Page: 2 of 2
 Section: _____ Description: Proposed North Abutment
 County: Clinton Drilling Method: CME 550, HSA Hammer Type: Automatic SPT Hammer
 Boring No.: B-2 Logged by: Midwest Drilling, Inc. (JT)

Soil Type, Description & Observations	E (ft)	D (ft)	B /6 in.	U. C. S. Qu	M O S T.	Soil Type, Description & Observations	E (ft)	D (ft)	B /6 in.	U. C. S. Qu	M O S T.	Surface Water Elev.: _____ ft	E L E V.	D E P T H	B L O W S	U. C. S. Qu	M O S T.	
												Groundwater Elev.						
Gray, CLAY, A-7 (cont.)												10.0 ft						
Brown and gray, CLAY, A-7 (Glacial Till)																		
Brown, CLAY LOAM, A-6 (Glacial Till)																		
Dark gray, SHALEY CLAY, A-7																		
Dark gray, SHALE																		
Boring terminated at 55 ft.																		

The U.C.S. Qu column represents the Unconfined Compressive Strength using either the IDOT Rimac Test Procedure or AASHTO 208. The Qu failure mode is indicated by B for Bulge or S for Shear. P is shown when sample disturbance only allows Penetrometer testing. The Standard Penetration Test (SPT) N value is the sum of the second and third Blows /6 in. values in each sample using AASHTO T 208.

File Name: BBS 137.docx Printed: 6/4/2019 9:39 AM BBS 137 (Rev. 01/04/2012)

MODEL: Default
 FILE NAME: H:\7283 Clinton Co_Boulder Rd\7283_1_Final\Design\CADD_Sheets\7283_1_Sht_Bridge_10_borings.dgn
 9/21/2020 2:47:02 PM

USER NAME =	DESIGNED = KMM	REVISED =
CHECKED =	DRAWN = KHL	REVISED =
PLOT SCALE =	CHECKED = KMM	REVISED =
PLOT DATE =		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 014-5115

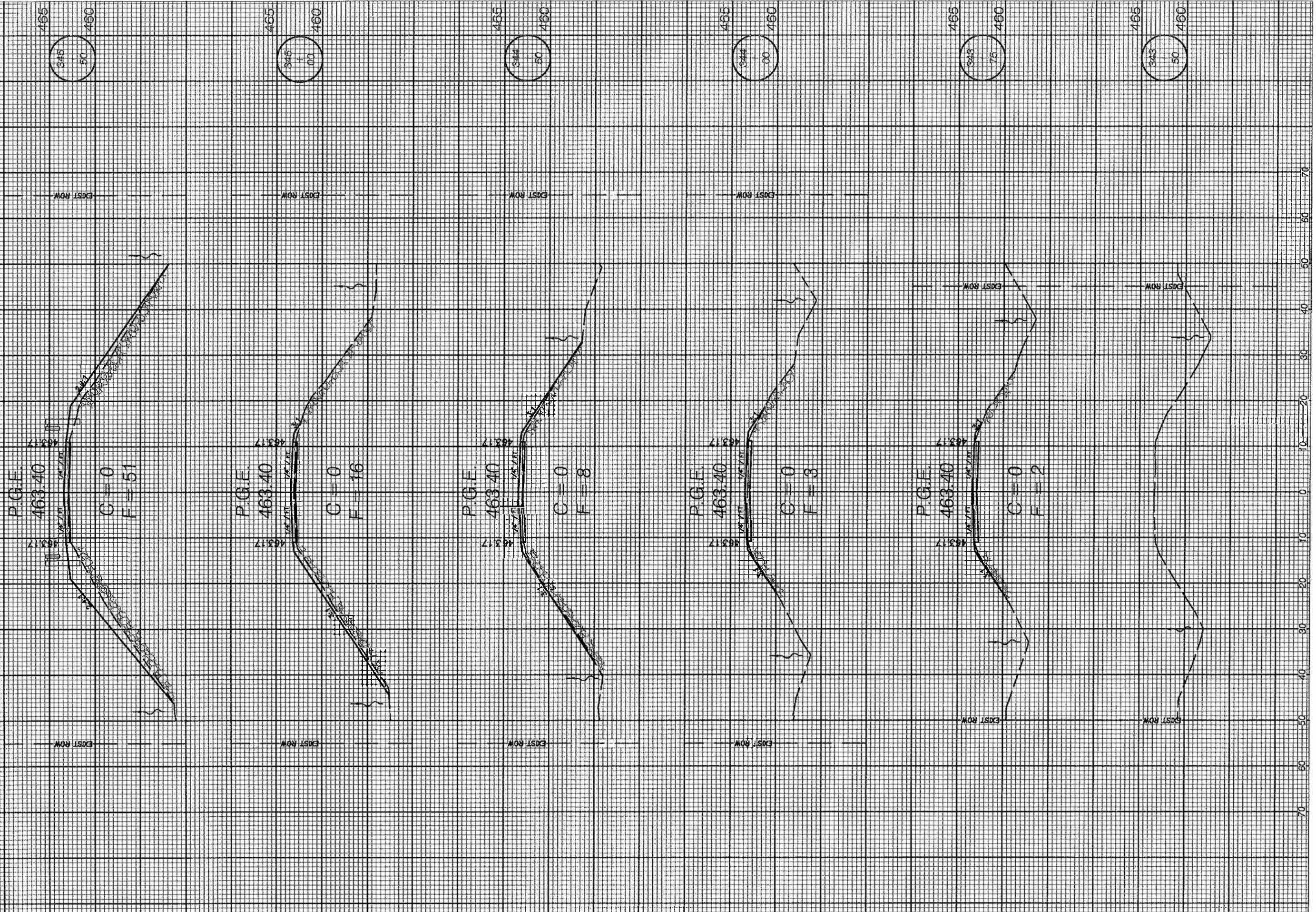
C.H. ITRF	SECTION	COUNTY	TOTAL SHEET NO.
3	16-00102-00-BR	CLINTON	20 18

SHEET 10 OF 10 SHEETS

CONTRACT NO. 97746
 ILLINOIS FED. AID PROJECT

PLAN	DESIGNED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	AMOUNT CHECKED		
	PLANT DATE		

PROFILE	DESIGNED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	AMOUNT CHECKED		
	PLANT DATE		



USER NAME	DESIGNED	WRK	REVISION	DATE
	WRK		B/27/2020	
PLOT SCALE	CHECKED	DLB	REVISION	
PLOT DATE	DATE	4/30/2020	REVISION	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

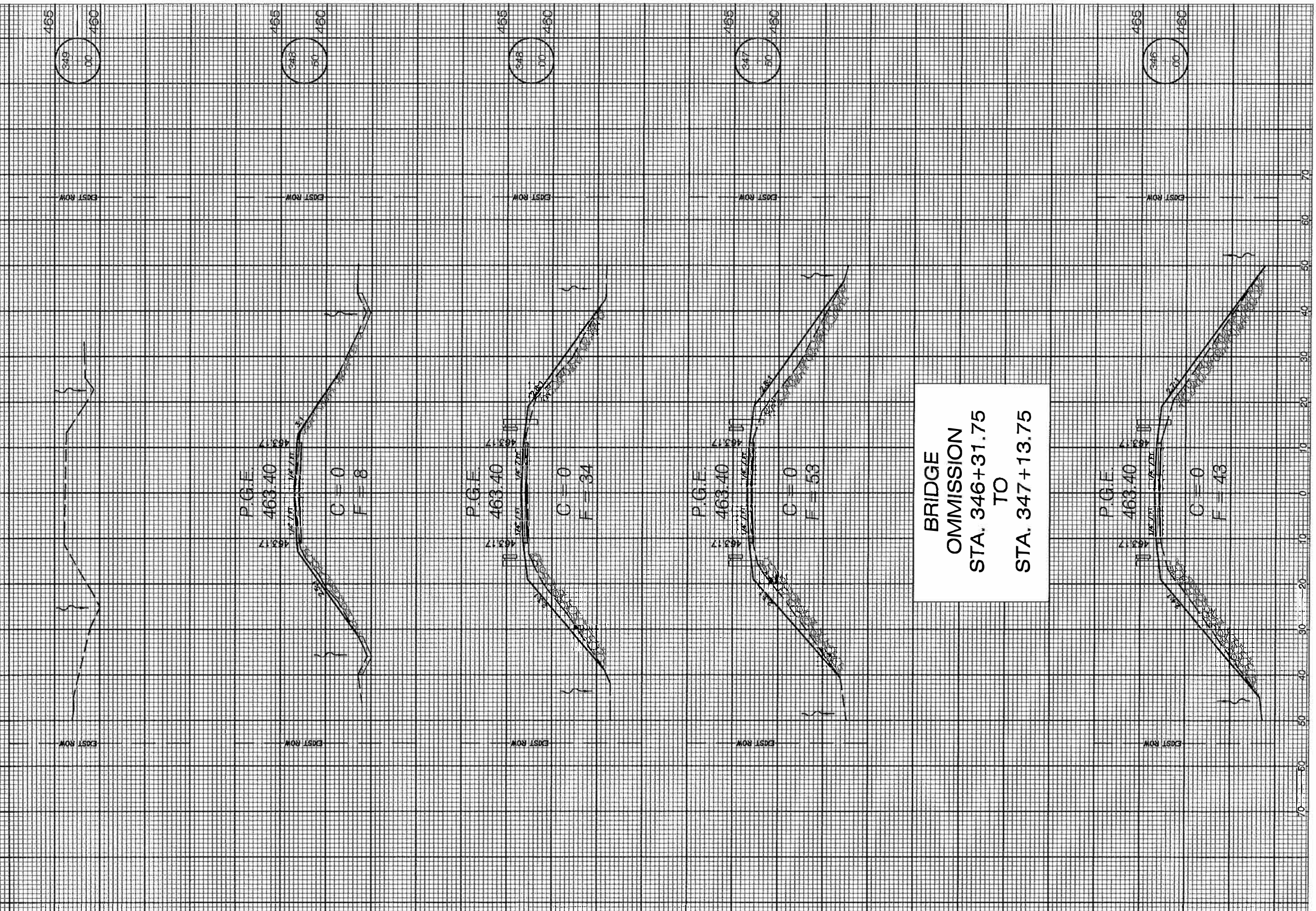
C.H. 3 (BOULDER RD) OVER GIBBES CREEK

SCALE: 1" = 10' | SHEET 19 OF 20 SHEETS | STA. 343+75 TO STA. 348+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	19
CONTRACT NO. 97746				
ILLINOIS FED. AID PROJECT				

PLAN	DESIGNED	BY	DATE
	NOTED		
	APPROVED		
	PROJECT		
	NO. _____		
	DATE _____		

PROFILE	DESIGNED	BY	DATE
	NOTED		
	APPROVED		
	PROJECT		
	NO. _____		
	DATE _____		



USER NAME =	DESIGNED -	REVISED -- WRK 8/27/2020
	DRAWN - WRK	REVISED -
PLOT SCALE =	CHECKED - DLB	REVISED -
PLOT DATE =	DATE - 4/30/2020	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

C.H. 3 (BOULDER RD) OVER GIBBES CREEK
SCALE: 1" = 10' SHEET 20 OF 20 SHEETS STA. 343+75 TO STA. 348+50

F.A.P. R/E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	10-00102-00-BR	CLINTON	20	20
CONTRACT NO. 97746			ILLINOIS FED. AID PROJECT	