ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 16	21-00210 -01-BR	LIVINGSTON	24	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 87821	

03-08-2024 LETTING ITEM 095

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	TYPICAL CROSS SECTIONS
4.	PLAN AND PROFILE
5.	SHOULDER AND GUARDRAIL LAYOUT
6-15.	BRIDGE PLANS
16-19.	EXISTING PLANS
20-24.	STATION CROSS SECTIONS

HIGHWAY STANDARDS:

000001-08	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
630001-13	STEEL PLATE BEAM GUARDRAIL
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
701901-09	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITIES

AMERICAN WATER - STREATOR
1000 INTERNATIONAL PKWY
WOODRIDGE, IL. 60517

NICOR GAS
305 MARTIN LUTHER KING DR.
BLOOMINGTON, IL. 61701

FRONTIER COMMUNICATIONS
109 E MARKET STREET, 2ND FLOOR
BOOMINGTON, IL. 61701

COMED
PUBLIC RELOCATION DEPT.
ONE LINCOLN CENTRE, SUITE 600
OAKBROOK TERRACE, IL. 60181

0 100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

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.

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR
DESIGN SPEED: 30 MPH
DESIGN TRAFFIC: 650 ADT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

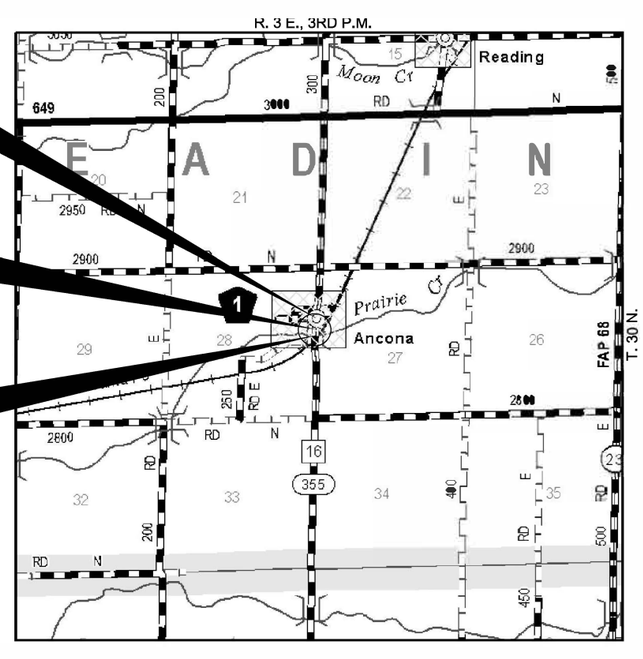
BRIDGE SUPERSTRUCTURE REPLACEMENT
LOCAL BRIDGE FUNDING PROGRAM

F.A.S. 355 / C.H. 16 / ANCONA ROAD
SECTION 21–00210–01–BR
PROJECT 2T7S(848)
PROPOSED STRUCTURE NO. 053–3449
BOONE BRIDGE
LIVINGSTON COUNTY
C–93–008–24

IMPROVEMENT ENDS STATION 31+50

STA. 30+00
THREE SPAN REINFORCED CONCRETE SLAB SUPERSTRUCTURE REPLACEMENT.
79'-9" BK.-BK. ABUTMENTS
30'-0" RDWY., SKEW = 0°
STRUCTURE NO. 053-3449

IMPROVEMENT BEGINS STATION 28+21



LOCATION MAP

APPROXIMATE SCALE: 0 ½ MILE

NET LENGTH OF SECTION = 269 FEET = 0.051 MILES

LOCATION OF SECTION INDICATED THUS: – ■ –

WARNING

CALL JULIE TOLL FREE 1-800-892-0123

CALL 811 BEFORE YOU DIG

DIG NO: X222082425

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED 12/29 20 23
Clay Metcalf
COUNTY ENGINEER

PASSED December 29, 20 23
DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review
December 29, 20 23
REGION TWO ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE: 12/28/2023
LICENSED PROFESSIONAL ENGINEER
STEVEN J. MEGGINSON
062-50051
STATE OF ILLINOIS
EXPIRES: 11/30/2025

HAMPTON, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS · STRUCTURAL ENGINEERS · LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com
184.000959
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

PROJECT NUMBER: 21.0322.130 DATE: 12/28/2023

CONTRACT NO. 87821 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0013 UNIT	TOTAL QUANTITY
	20200100	EARTH EXCAVATION	CU YD	30
	28100807	STONE DUMPED RIPRAP, CLASS A4	TON	204
	40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	662
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	164
	44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	50
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	75
	40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	36
	50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
	50102400	CONCRETE REMOVAL	CU YD	6.0
	50300225	CONCRETE STRUCTURES	CU YD	3.4
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	136.9
	50300260	BRIDGE DECK GROOVING	SQ YD	248
	50300300	PROTECTIVE COAT	SQ YD	305
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	60,320
*	50900205	STEEL RAILING, TYPE S1	FOOT	163
	51500100	NAME PLATES	EACH	1
	59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	15
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
*	63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	3
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3
	67100100	MOBILIZATION	L SUM	1
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4
	X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25
*	X6311205	TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)	EACH	1
*	X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	13
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	40
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1

* SPECIALTY ITEMS

GENERAL NOTES

1) ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2022", (HERE IN AFTER REFERRED TO AS THE STANDARD SPECIFICATIONS; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE DETAILS IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE DOCUMENTS.

2) ALL CLEARING, GRUBBING, FENCE REMOVAL, PAVEMENT REMOVAL, AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. ALL AGGREGATE AND BITUMINOUS PAVEMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. REMOVAL AND DISPOSAL OF PAVEMENT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

3) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

4) ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF THE DEPARTMENT.

5) THE LOCATION ON THE PLANS OF EXISTING DRAINAGE STRUCTURES, TELEPHONE LINES, ELECTRIC LINES, WATER SERVICE LINES, GAS MAINS, AND OTHER UTILITY FACILITIES AS SHOWN ON THE PLANS ARE BASED ON FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.

6) THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES

AGGREGATE SHOULDERS	2.00 TON/CU YD
POROUS GRANULAR EMBANKMENT	2.00 TON/CU YD
HOT-MIX ASPHALT	112 LB/SQ YD/IN

BITUMINOUS MATERIALS APPLICATION RATES

SURFACE TYPE	RESIDUAL RATE
AGGREGATE BASE (PRIME COAT)	0.250 LB/SQ FT
MILLED HMA OR PCC (TACK COAT)	0.050 LB/SQ FT
EXISTING PAVEMENT (TACK COAT)	0.050 LB/SQ FT
TACK COAT (BETWEEN LIFTS)	0.025 LB/SQ FT

7) THE FINAL SURFACE OF ALL EMBANKMENT AREAS SHALL BE SEEDED. THE TOP 4 INCHES OF THE SEEDED AREAS SHALL BE TOPSOIL SUBJECT TO THE APPROVAL OF THE ENGINEER. THE COST OF SHAPING THE SLOPES AND PROVIDING TOP SOIL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

8) THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. SEEDING, CLASS 2 (SPECIAL) = 0.25 ACRES

9) ALL WASTE MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

10) ONLY SUITABLE MATERIAL FROM EXCAVATIONS MAY BE USED IN THE EMBANKMENT. EXCESS AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR. SAID DISPOSAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

11) THE CONTRACTOR MAY MINIMIZE FLAGGER REQUIREMENTS BY COMPLETING WORK ITEM, EQUIPMENT & MATERIAL STORE OF RAIL PROPERLY OR WITHIN 25 FT. OF TRACKS.

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION CU.YD.	SHRINKAGE FACTOR	PERCENT USED	EXCAVATION ADJUSTED FOR SHRINKAGE CU.YD.	EMBANKMENT REQUIRED CU.YD.	EARTHWORK BALANCE CU.YD.
CH 16 / ANCONA ROAD						
STA. 29+30.00 TO STA. 29+60.13	15	25.00%	100.00%	11	6	5
STA. 29+60.13 TO STA. 30+39.87		25.00%	20.00%	0		0
STA. 30+39.87 TO STA. 31+00.00	17	25.00%	100.00%	13	16	-3
TOTAL	32			24	22	2
USE	30					0

WASTE 0 CU YDS

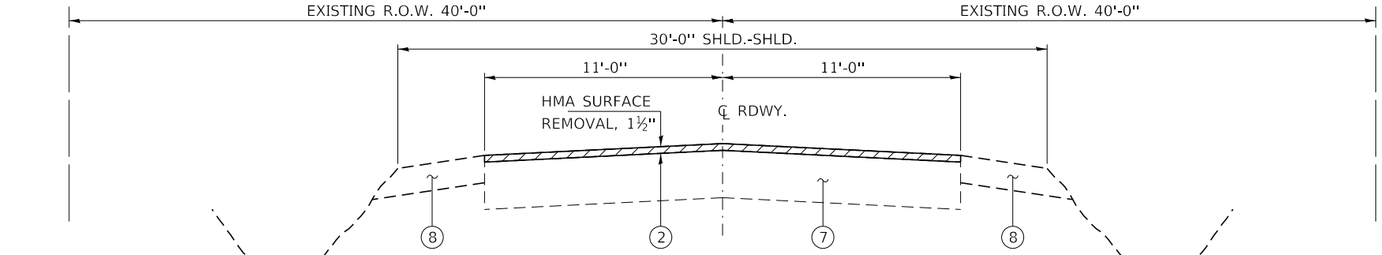
FILE NAME = 210322-eht-summary.dgn	USER NAME = gmetcalf	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 221 SPRINGFIELD, ILLINOIS 62703		DRAWN - R.D.H.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LB / PE / SE CORP 184.002919	PLOT SCALE = $SCALES	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

SUMMARY OF QUANTITIES

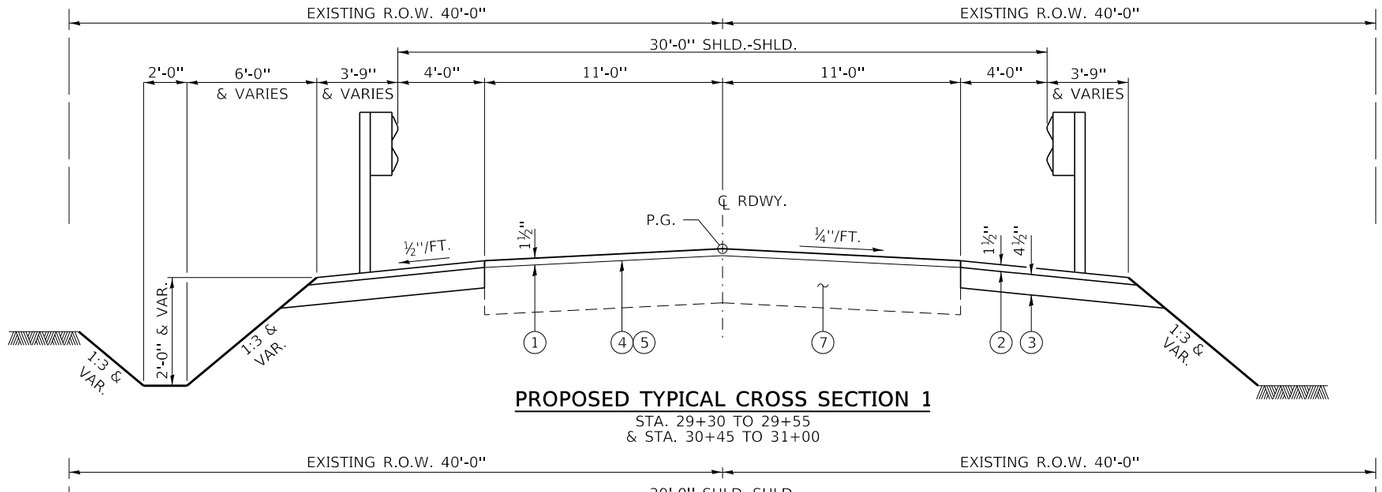
SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	2
BOONE BRIDGE		CONTRACT NO. 87821		
ILLINOIS	FED. AID PROJECT 2T7S(848)			



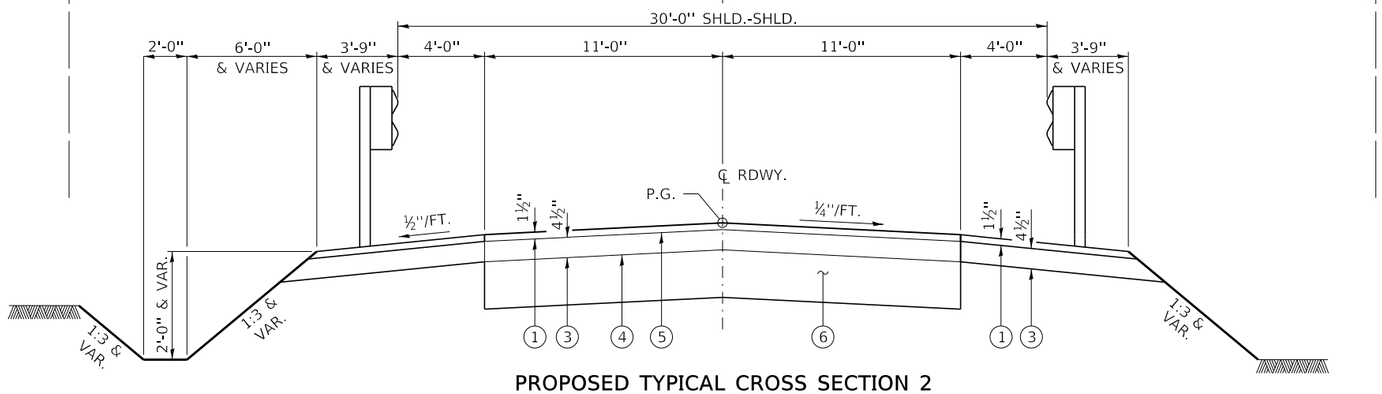
EXISTING TYPICAL CROSS SECTION

STA. 29+30 TO 31+00



PROPOSED TYPICAL CROSS SECTION 1

STA. 29+30 TO 29+55
& STA. 30+45 TO 31+00



PROPOSED TYPICAL CROSS SECTION 2

STA. 29+55 TO 29+60
& STA. 30+40 TO 30+45

LEGEND

1. HMA SURFACE COURSE, MIX C, N50, IL-9.5 (PAVEMENT)
2. HMA SURFACE REMOVAL, 1½"
3. HMA BINDER COURSE, IL.-19.0, N50
4. BITUMINOUS MATERIALS (PRIME COAT)
5. BITUMINOUS MATERIALS (TACK COAT)
6. CONTROLLED LOW-STRENGTH MATERIAL BEHIND ABUTMENT
7. EXISTING PAVEMENT (HMA ON AGGREGATE BASE)
8. EXISTING AGGREGATE SHOULDERS

NOTE: GUARDRAIL POST SHALL BE INSTALLED THROUGH DRILLED HOLES IN THE HMA SHOULDERS. SHOULDERS SHALL BE BACKFILLED WITH HMA. COST INCLUDED WITH THE HMA PAY ITEM.

HMA MIXTURE REQUIREMENT TABLE

LOCATIONS:	ENTIRE PROJECT	ENTIRE PROJECT	ENTIRE PROJECT	ENTIRE PROJECT
MIXTURE USE(S):	HMA SURFACE COURSE	HMA BINDER COURSE	HMA SHOULDER BOTTOM LIFT(S)	HMA SHOULDER TOP LIFT
BINDER GRADE (PG):	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N50	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 9.5	IL 19.0	IL 19.0	IL 9.5
FRICTION AGGREGATE:	MIXTURE C	N/A	N/A	MIXTURE C
MIXTURE WEIGHT:	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QC/QA	QC/QA	QC/QA	QC/QA
SUBLOT SIZE:	N/A	N/A	N/A	N/A
DENSITY TEST METHOD:	LR1030-2	LR1030-2	LR1030-2	LR1030-2
MATERIAL TRANSFER DEVICE (REQUIRED):	NO	NO	NO	NO

FILE NAME = 210322-sht-typsections.dgn	USER NAME = gmetcalf	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC.		DRAWN - R.D.H.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

TYPICAL CROSS SECTIONS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	3
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		

OWNERS
E½, SW¼, SEC 27, T. 30 N., R. 3 E., 3RD P.M.

MAG NAIL
20.14'
73.90'
24.13'
MAG NAIL IN 6" TREE
CP3

P.O.T. STA. 26+50.00
MAG NAIL SET
N. 1592719.063
E. 835520.966

EXISTING RAILROAD R.O.W. LINE
BNSF RR
GRASS
℄ PROPOSED IMPROVEMENT
C.H. 16 / ANCONA ROAD
EXISTING HMA SURFACE
80' EXIST. R.O.W.
E2860 N ROAD
CONSTRUCTION LIMITS
29+93.02
36.90' LT.
CREEK
TIMBER
STA. 30+00
REINFORCED CONCRETE SLAB SUPERSTRUCTURE
3 SPANS: 25'-7½", 26'-0", 25'-7½"
30' ROADWAY; SKEW = 0°
MAG NAIL IN FENCE POST
33.85'
1.48'
45.02'
BM#2
CP2
P.O.T. STA. 33+49.98
MAG NAIL (SET)
N. 1593417.869
E. 835561.521
GRAPHIC SCALE
0 20' 40'
90°
CP1
12" PVC
22'
27 28 29 30 31 32 33
BM#3
BM#1
BM#2
IMPROVEMENT BEGINS
STATION 28+81
PAVEMENT BEGINS
STATION 29+30
29+64.45
43.25' LT.
PRAIRIE
PAVEMENT ENDS
STATION 31+00
IMPROVEMENT ENDS
STATION 31+50
PIPE UNDERDRAIN AND HEADWALL
TO REMAIN IN PLACE.
STA. 29+58, 21' LT.
TREES
OWNER
E½, SW¼, SEC 27, T. 30 N., R. 3 E., 3RD P.M.

EXISTING STRUCTURE NO. 053-3449
STATION 30+00 - THREE SPAN PRECAST CONCRETE SLAB BRIDGE ON PILE BENT ABUTMENTS AND PIERS
79.8' BK.BK. ABUTS; 30.0' o.-o. DECK

PLAN
SURVEYED
PLOTTED
PLANS CHECKED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

BM#3 - BENCH TIE IN METER POLE
26' RT., STA. 29+08
ELEV. 628.63

BM#1 - CHISLED "⊠" IN S.E. WINGWALL
17' RT., STA. 29+62
ELEV. 627.96

BM#2 - BENCH TIE IN POWER POLE
26' RT., STA. 32+06
ELEV. 623.10

VPC STA. 28+37
ELEV. 632.19

VPI STA. 29+37
ELEV. 627.70

K = 50
200' V.C.

VPC STA. 30+37
ELEV. 627.25

100 YEAR H.W. ELEV. 625.7
20 YEAR H.W. ELEV. 624.5
PROPOSED ℄ GRADE
EXISTING ℄ GRADE
-4.49%
-0.45%
-0.35%
+0.50%
+0.30%
EXISTING STONE RIPRAP, TO BE SALVAGED
STONE DUMPED RIPRAP, CLASS A4
SPECIAL DITCH RT.
SPECIAL DITCH LT.
621.6 RT.
621.1 LT.
621.1 RT.
620.8 LT.

645 640 635 630 625 620 615 610 605

635.44 633.85 631.88 629.98 629.89 628.90 628.37 628.41 627.60 627.55 627.18 627.20 627.03 627.03 626.77 626.62 626.45 626.33

27+50 28+00 28+50 29+00 29+50 30+00 30+50 31+00 31+50 32+00 32+50 33+00

PROFILE
SURVEYED
PLOTTED
PLANS CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

FILE NAME = 210322-sht-planprf.dgn	USER NAME = gmetcalf	DESIGNED - S.A.A.	REVISED -
		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

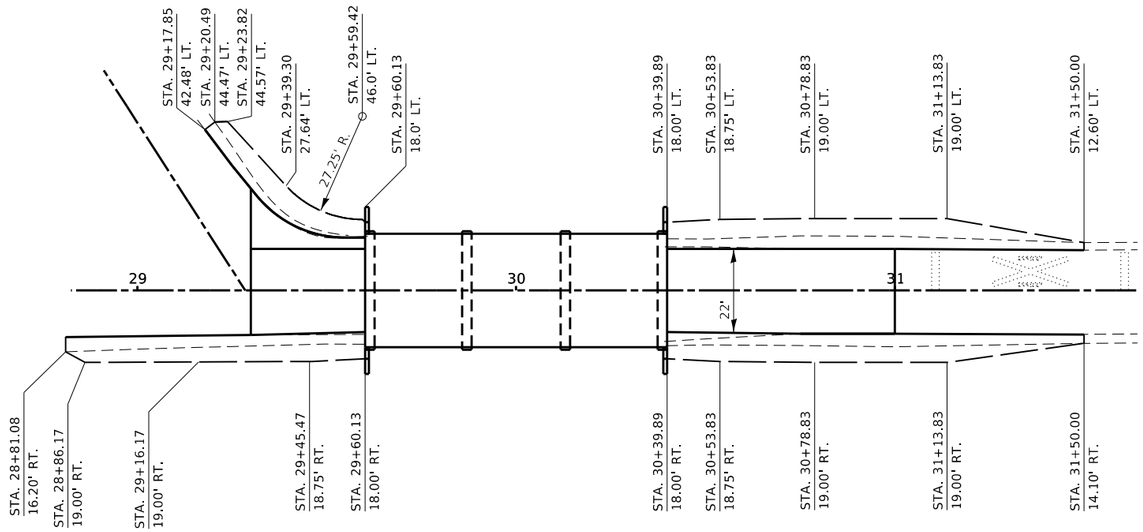
HAMPTON, LENZINI AND RENWICK, INC.
3065 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000969

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

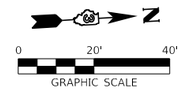
PLAN & PROFILE
C.H. 16 / ANCONA ROAD

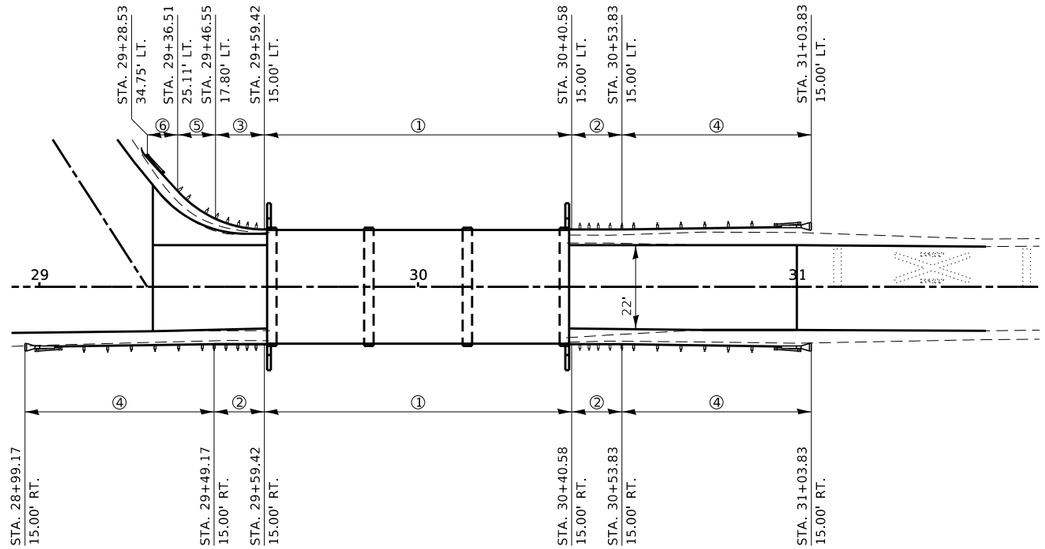
SCALE: 20H:5V | SHEET NO. 1 OF 1 SHEETS | STA. 27+00 | TO STA. 33+00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	4
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS FED. AID PROJECT 2T7S(848)			

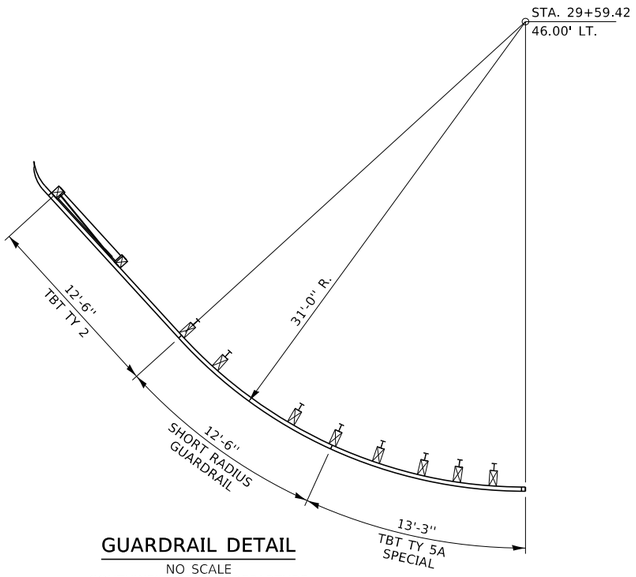


SHOULDER LAYOUT





GUARDRAIL LAYOUT



GUARDRAIL DETAIL

NO SCALE
SOUTHWEST BRIDGE DEPARTURE

LEGEND

① STEEL RAILING, TYPE S-1
② TBT TY 5A
③ TBT TY 5A (SPECIAL)
④ TBT TY 1, SPECIAL TANGENT
⑤ SPBGR (SHORT RADIUS) (13')
⑥ TBT TY 2

FILE NAME = 210322-sht-shdgrdtl.dgn	USER NAME = gmetcalf	DESIGNED - J.W.F.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - R.D.H.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

SHOULDER AND GUARDRAIL LAYOUT

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

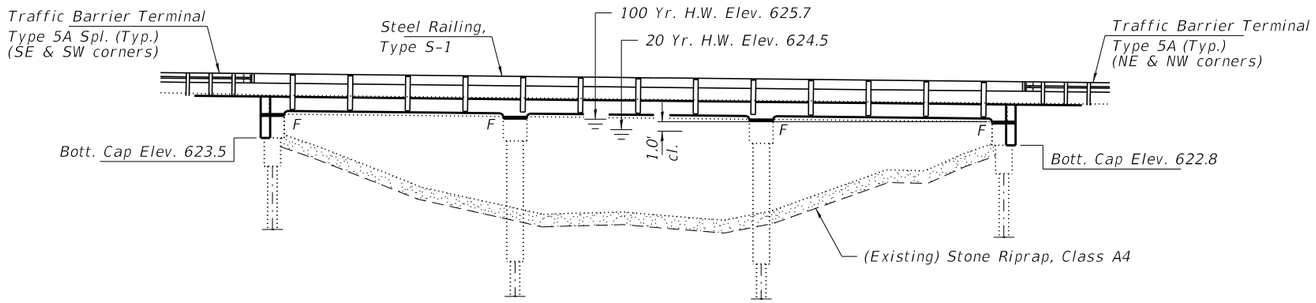
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	5
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS FED. AID PROJECT 2T7S(848)			

BENCHMARK: Chiseled "□" on SE Wingwall, 17' Rt., Sta. 29+62, Elev. 627.96

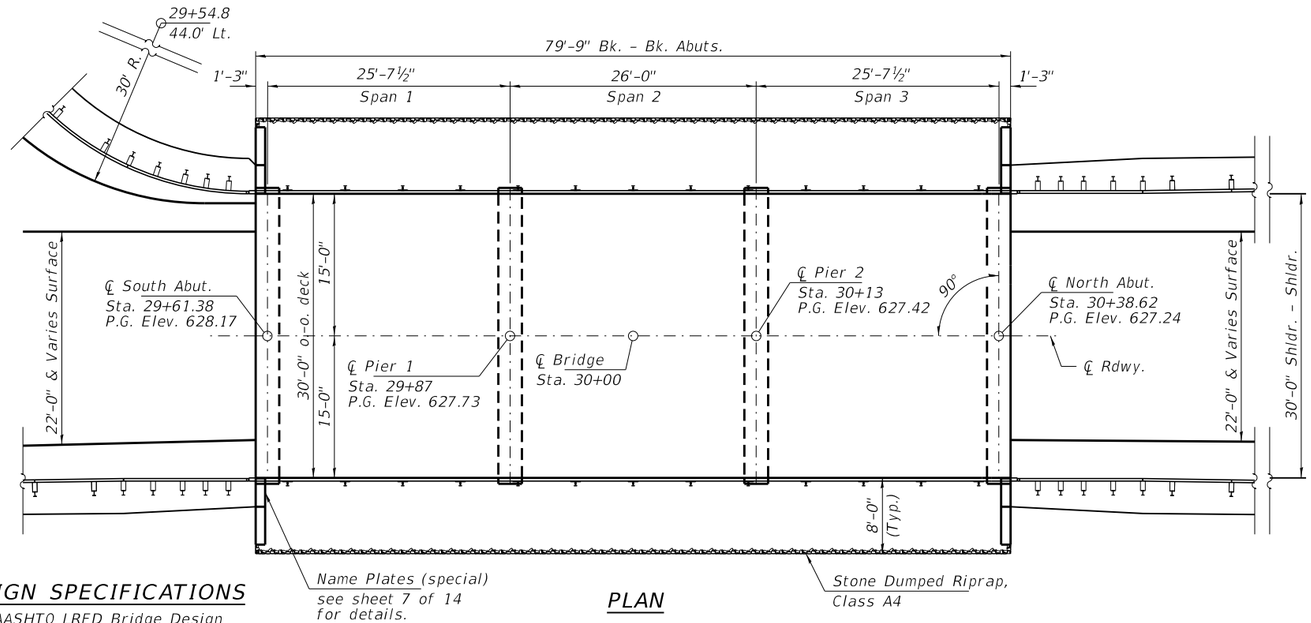
EXISTING STRUCTURE: S.N. 053-3449 – Sta. 30+00 – Three span
Precast Concrete Slab bridge on pile bent abutments and
individually encased steel H-pile bent piers. 79.8' bk-bk abuts. 30' o-o deck.

Structure closed to traffic during construction.

Salvage existing substructure



ELEVATION



PLAN

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition with all interims.

LOADING HS 20-44

EXISTING CONSTRUCTION

f'c = 3,500 psi
f'c = 1,400 psi
fs = 24,000 psi (Reinf.)

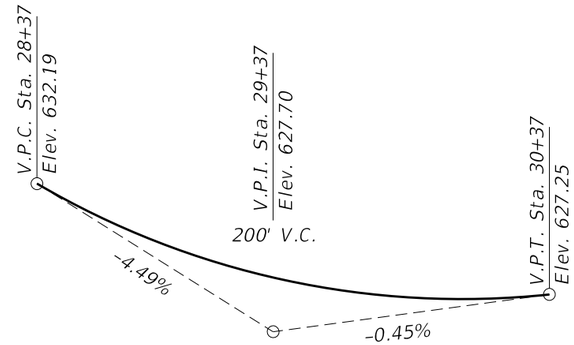
LOADING HL-93

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Substructure)
f'c = 5,000 psi (Superstructure)
fy = 60,000 psi (Reinf.)

INDEX OF STRUCTURE SHEETS



PROFILE GRADE

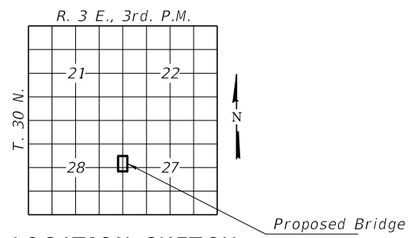
F.A.S. 355

PRAIRIE CREEK
RE-BUILT 202_ BY
LIVINGSTON COUNTY
SECTION 21-00210-01-BR
F.A.S. 355 / C.H. 16
STR. NO. 053-3449
LOADING HL-93

NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to the proposed Name Plate. Cost included with Name Plates.



LOCATION SKETCH

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 Specifications."

Steven W. Megginson 01/03/2024
ILLINOIS STRUCTURAL ENGR. NO. 081-6064

LICENSED STRUCTURAL ENGINEER
STEVEN
W. MEGGINSON
081-6064
SPRINGFIELD, IL
STATE OF ILLINOIS

Expires 11-30-2024

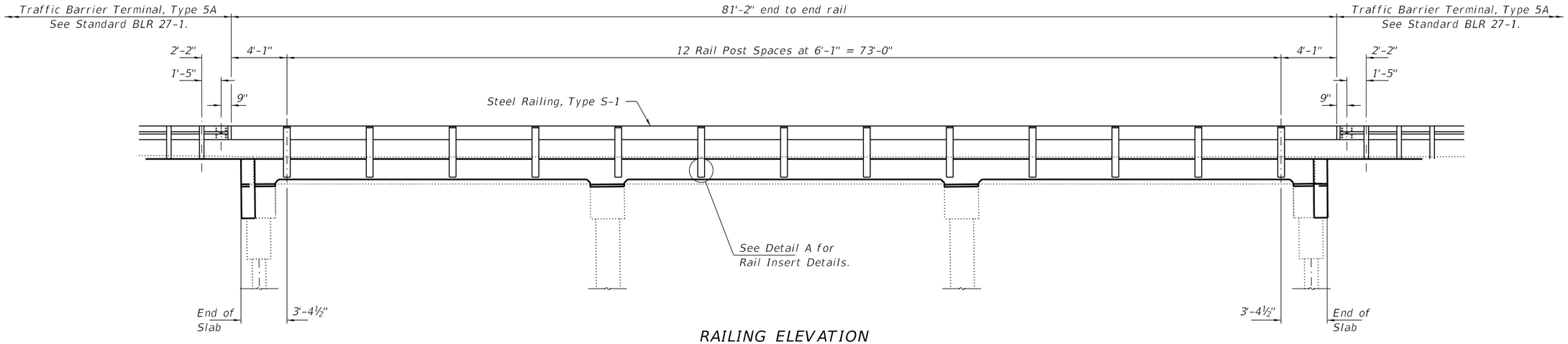
GENERAL PLAN & ELEVATION
BOONE BRIDGE OVER PRAIRIE CREEK
SECTION 21-00210-01-BR
C.H. 16 / F.A.S. 355
LIVINGSTON COUNTY
STATION 30+00
STRUCTURE NO. 053-3449

FILE NAME = 210322-shl-bridge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = $SCALE$	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -

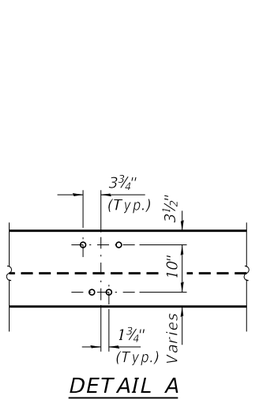
STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 053-3449
SHEET NO. 1 OF 14 SHEETS

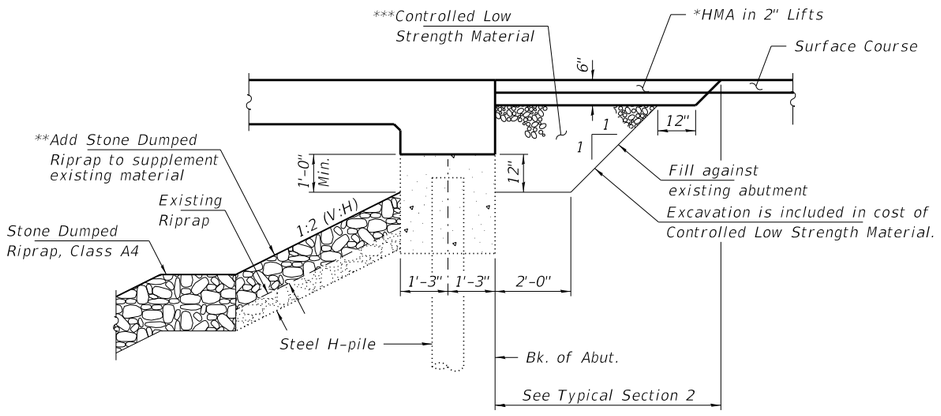
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	6
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		



RAILING ELEVATION



DETAIL A



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. at Rt. ℄'s)
*To be included with roadway plans (See Special Provisions)
**Estimated depth = 1'-0"
***Guardrail posts shall be installed before C.L.S.M.

GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

All proposed construction activities shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act.

The Contractor shall make allowance for the deflection of forms, shrinkage, and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

Protective Coat shall be applied to the top surface and the sides of the concrete deck and wingwalls.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.)				Item 113
	S. Abut.	Pier 1	Pier 2	N. Abut.	
Q100	623.5	606.3	606.5	623.5	5
Design	623.5	610.4	610.4	623.5	

WATERWAY INFORMATION

Drainage Area = 24.2 Sq. Mi.
Existing Low Grade Elev. 626.3 at Sta. 33+00
Proposed Low Grade Elev. 626.3 at Sta. 33+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat.	Head - Ft.		Headwater El.	
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
10 Yr.	10	1,960	380	380	623.7	0.5	0.5	624.2	624.2
Design	20	2,440	440	440	624.5	0.6	0.6	625.1	625.1
100 Yr. / Overtop	100	3,580	530	530	625.7	1.1	1.0	626.8	626.7
200 Yr.	200	4,100	530	560	626.2	1.0	0.9	627.2	627.1
Max. Calc.	500	4,780	530	560	626.8	0.9	0.9	627.7	627.7

10 Year Velocity through Existing Bridge = 5.2 fps
10 Year Velocity through Proposed Bridge = 5.2 fps

TOTAL BILL OF MATERIAL

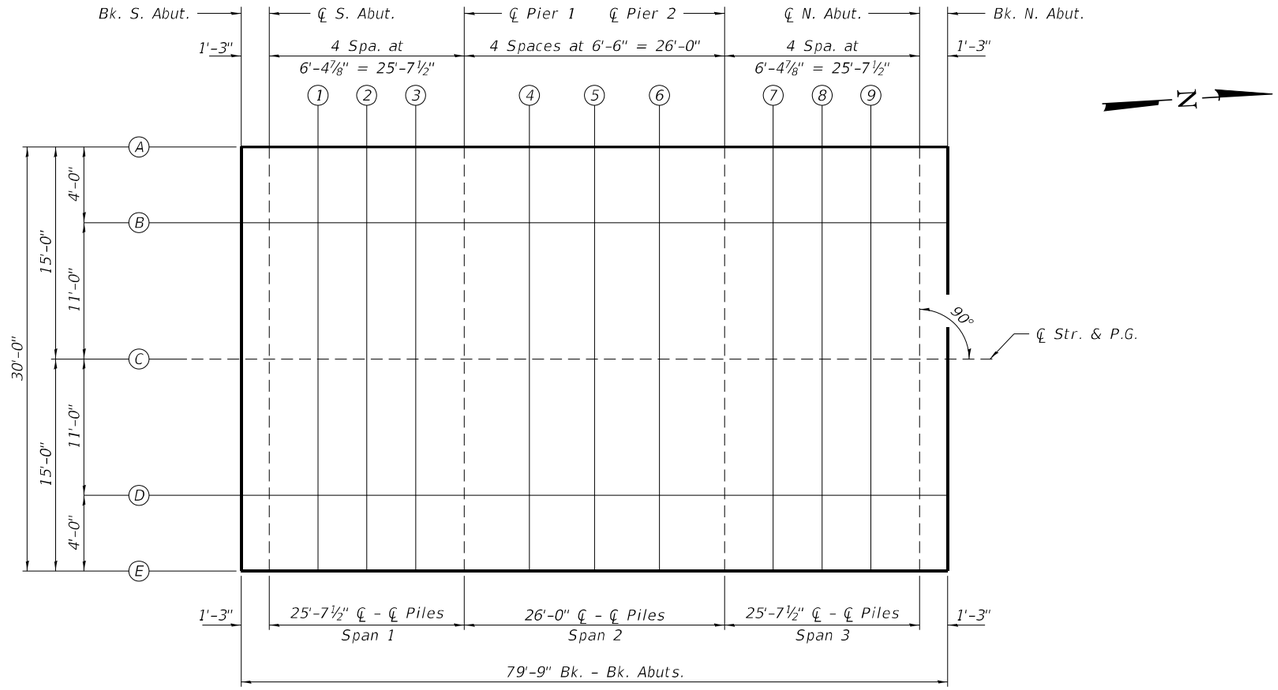
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A4	Sq. Yd.		340	340
Protective Coat	Sq. Yd.	293	12	305
Removal of Existing Superstructures	Each			1
Concrete Removal	Cu. Yd.		6.0	6.0
Concrete Structures	Cu. Yd.		3.4	3.4
Concrete Superstructure	Cu. Yd.	136.9		136.9
Bridge Deck Grooving	Sq. Yd.	248		248
Reinforcement Bars, Epoxy Coated	Pound	59,640	680	60,320
Steel Railing, Type S-1	Foot	163		163
Name Plates	Each		1	1
Controlled Low-Strength Material	Cu. Yd.		15	15
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	40		40

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

GENERAL DETAILS
STRUCTURE NO. 053-3449
SHEET NO. 2 OF 14 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	7
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		



PLAN

Line A (Left Edge of Deck)

Offset = 15.00	BK Abut. 1	CL Abut. 1	1	2	3	Pier 1	4	5	6	Pier 2	7	8	9	CL Abut. 2	BK Abut. 2
PG Elev. =	628.193	628.168	628.045	627.931	627.825	627.728	627.637	627.555	627.481	627.416	627.360	627.313	627.274	627.243	627.237
Theo. CR Elev. =	627.880	627.855	627.733	627.619	627.513	627.415	627.324	627.242	627.169	627.104	627.048	627.001	626.961	626.930	626.925
Adj. for DL Defl. =	627.880	627.855	627.747	627.636	627.522	627.415	627.324	627.244	627.168	627.104	627.058	627.018	626.975	626.930	626.925
Bottom of Slab =	626.380	626.355	626.247	626.136	626.022	625.915	625.824	625.744	625.668	625.604	625.558	625.518	625.475	625.430	625.425

Line B (Left Edge of Lane)

Offset = 11.00	BK Abut. 1	CL Abut. 1	1	2	3	Pier 1	4	5	6	Pier 2	7	8	9	CL Abut. 2	BK Abut. 2
PG Elev. =	628.193	628.168	628.045	627.931	627.825	627.728	627.637	627.555	627.481	627.416	627.360	627.313	627.274	627.243	627.237
Theo. CR Elev. =	627.964	627.939	627.816	627.702	627.596	627.498	627.408	627.326	627.252	627.187	627.131	627.084	627.045	627.014	627.008
Adj. for DL Defl. =	627.964	627.939	627.830	627.719	627.606	627.498	627.407	627.327	627.252	627.187	627.141	627.101	627.058	627.014	627.008
Bottom of Slab =	626.464	626.439	626.330	626.219	626.106	625.998	625.907	625.827	625.752	625.687	625.641	625.601	625.558	625.514	625.508

CL Roadway: C — Span 1 — Span 2 — Span 3

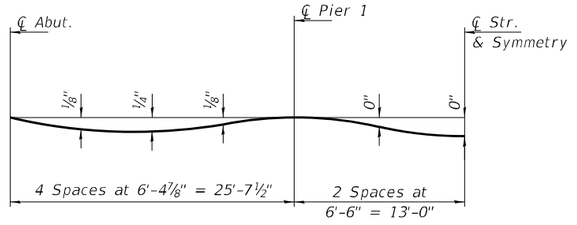
Offset = 0.00	BK Abut. 1	CL Abut. 1	1	2	3	Pier 1	4	5	6	Pier 2	7	8	9	CL Abut. 2	BK Abut. 2
CL Station =	29+60.13	29+61.38	29+67.78	29+74.19	29+80.59	29+87.00	29+93.50	30+00.00	30+06.50	30+13.00	30+19.40	30+25.81	30+32.22	30+38.62	30+39.87
PG Elev. =	628.193	628.168	628.045	627.931	627.825	627.728	627.637	627.555	627.481	627.416	627.360	627.313	627.274	627.243	627.237
Theo. CR Elev. =	628.193	628.168	628.045	627.931	627.825	627.728	627.637	627.555	627.481	627.416	627.360	627.313	627.274	627.243	627.237
Adj. for DL Defl. =	628.193	628.168	628.059	627.949	627.835	627.728	627.637	627.556	627.481	627.416	627.370	627.330	627.288	627.243	627.237
Bottom of Slab =	626.693	626.668	626.559	626.449	626.335	626.228	626.137	626.056	625.981	625.916	625.870	625.830	625.788	625.743	625.737

Line D (Right Edge of Lane)

Offset = 11.00	BK Abut. 1	CL Abut. 1	1	2	3	Pier 1	4	5	6	Pier 2	7	8	9	CL Abut. 2	BK Abut. 2
PG Elev. =	628.193	628.168	628.045	627.931	627.825	627.728	627.637	627.555	627.481	627.416	627.360	627.313	627.274	627.243	627.237
Theo. CR Elev. =	627.964	627.939	627.816	627.702	627.596	627.498	627.408	627.326	627.252	627.187	627.131	627.084	627.045	627.014	627.008
Adj. for DL Defl. =	627.964	627.939	627.830	627.719	627.606	627.498	627.407	627.327	627.252	627.187	627.141	627.101	627.058	627.014	627.008
Bottom of Slab =	626.464	626.439	626.330	626.219	626.106	625.998	625.907	625.827	625.752	625.687	625.641	625.601	625.558	625.514	625.508

Line E (Right Edge of Deck)

Offset = 15.00	BK Abut. 1	CL Abut. 1	1	2	3	Pier 1	4	5	6	Pier 2	7	8	9	CL Abut. 2	BK Abut. 2
PG Elev. =	628.193	628.168	628.045	627.931	627.825	627.728	627.637	627.555	627.481	627.416	627.360	627.313	627.274	627.243	627.237
Theo. CR Elev. =	627.880	627.855	627.733	627.619	627.513	627.415	627.324	627.242	627.169	627.104	627.048	627.001	626.961	626.930	626.925
Adj. for DL Defl. =	627.880	627.855	627.747	627.636	627.522	627.415	627.324	627.244	627.168	627.104	627.058	627.018	626.975	626.930	626.925
Bottom of Slab =	626.380	626.355	626.247	626.136	626.022	625.915	625.824	625.744	625.668	625.604	625.558	625.518	625.475	625.430	625.425



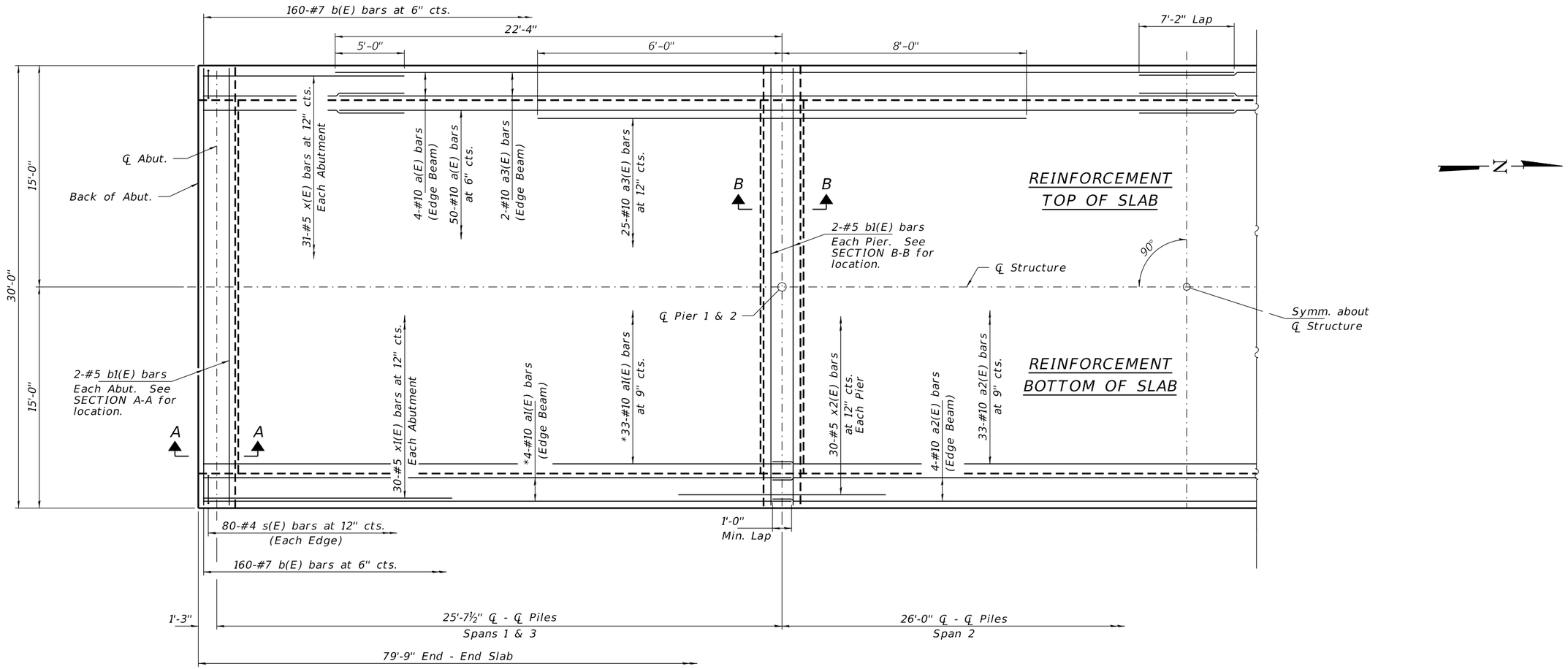
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

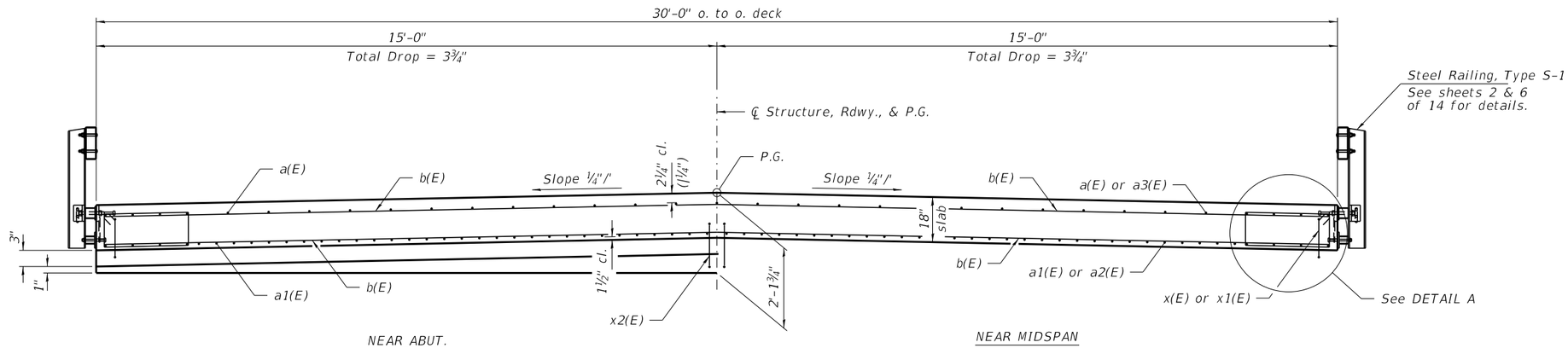
Notes:

The deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework in addition to allowance for dead load deflection.



HALF PLAN



CROSS SECTION
(Looking North)

Notes:
See sheet 5 of 14 for Superstructure Details and Bill of Material.
See sheet 5 of 14 for SECTION A-A, SECTION B-B and DETAIL A.

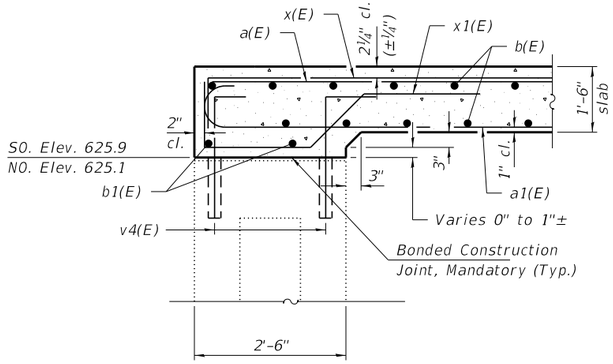
MIN. BAR LAP
#10 = 7'-7"

FILE NAME = 210322-shl-brldge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = $SCALE$	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -

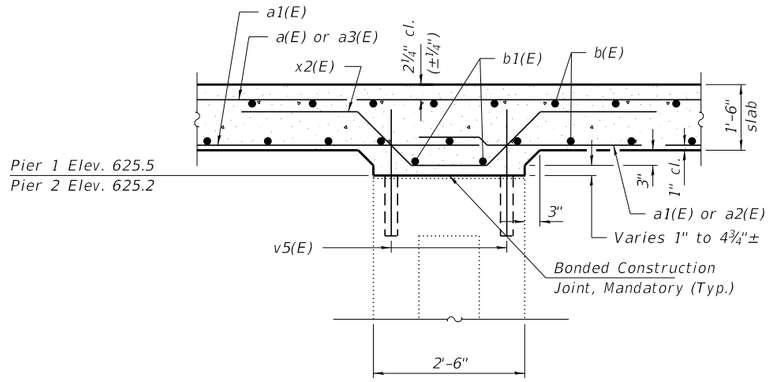
STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

SUPERSTRUCTURE
STRUCTURE NO. 053-3449
SHEET NO. 4 OF 14 SHEETS

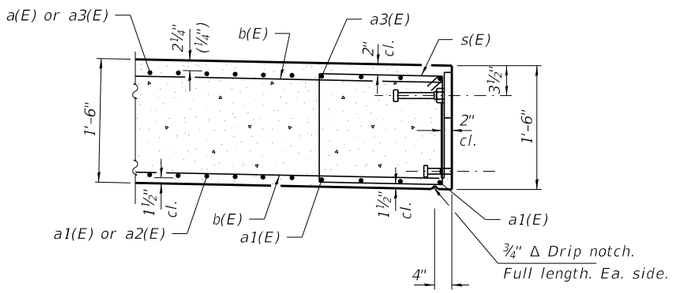
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	9
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		



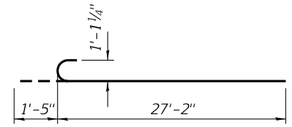
SECTION A-A



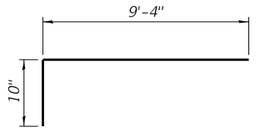
SECTION B-B



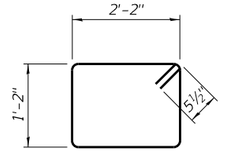
DETAIL A



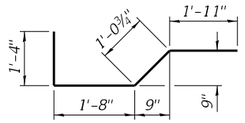
BAR a1(E)



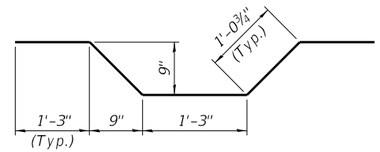
BAR x(E)



BAR s(E)



BAR x1(E)



BAR x2(E)

SUPERSTRUCTURE BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	116	#10	38'-11"	
a1(E)	82	#10	28'-7"	
a2(E)	41	#10	27'-0"	
a3(E)	58	#10	14'-0"	
b(E)	320	#7	29'-8"	
b1(E)	8	#5	29'-8"	
s(E)	160	#4	7'-7"	
x(E)	62	#5	10'-2"	
x1(E)	60	#5	6'-0"	
x2(E)	60	#5	6'-0"	
Protective Coat			Sq. Yd.	293
Concrete Superstructures			Cu. Yd.	136.9
Bridge Deck Grooving			Sq. Yd.	248
Reinforcement Bars, Epoxy Coated			Pound	59,640

Notes:
See Sheets 7 & 8 of 14 for v4(E) placement.
See Sheets 9 & 10 of 14 for v5(E) placement.
* a1(E) bars may be rotated to provide clearance for hooked ends.

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

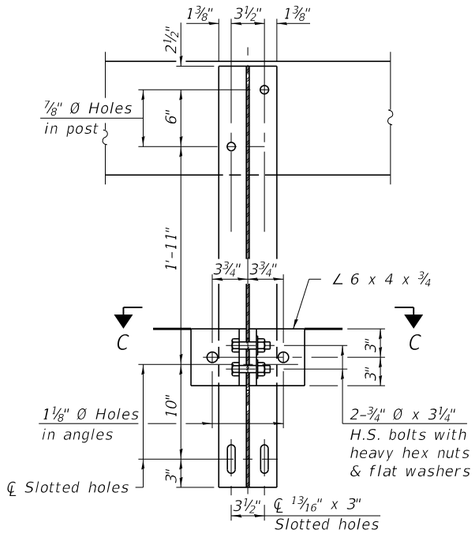
FILE NAME = 210322-shl-bridge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -
		CHECKED - S.W.M.	REVISED -
	PLOT SCALE = $SCALE$	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

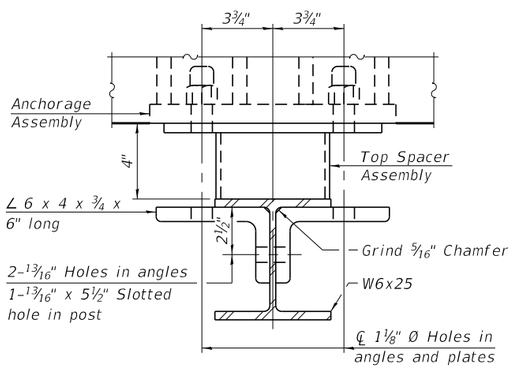
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 053-3449

SHEET NO. 5 OF 14 SHEETS

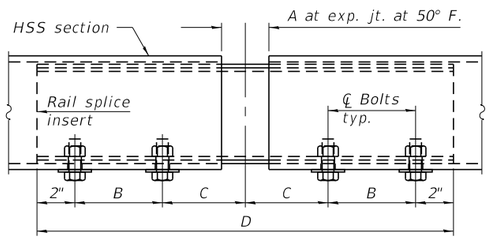
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	10
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		



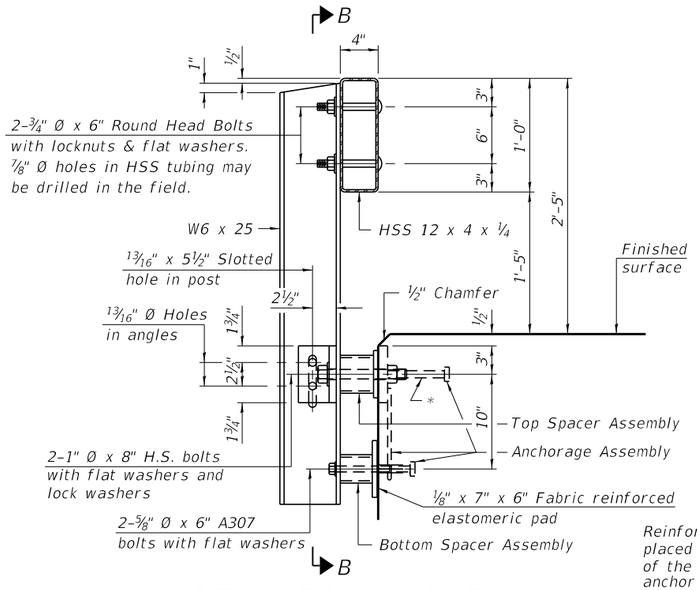
SECTION B-B



SECTION C-C



RAIL SPLICE ELEVATION



SECTION AT RAILING POST

* *The outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchorage assembly. The anchorage studs may be bent down ½" to accommodate the top reinforcement bar placement.*

SECTION AT RAIL SPLICE

RAIL SPLICE CONNECTION AT EXPANSION JT.

SPLICE DIMENSIONS

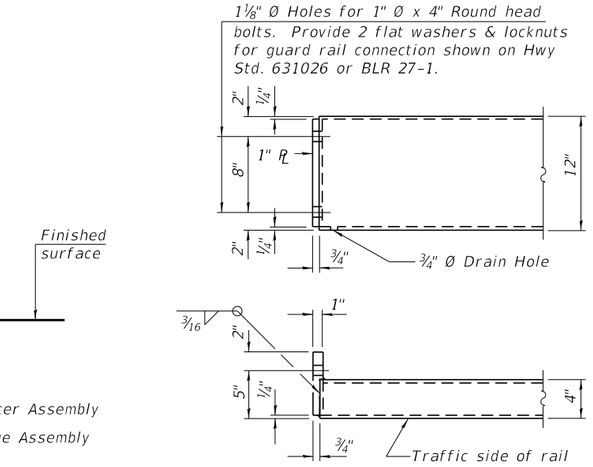
Location	T	A	B	C	D	E
All locs. not over exp. jts.	0	¼"	4"	4"	1'-8"	-
Over Strip Seal Jt.	≤4"	2½"	4⅝"	4⅜"	1'-10"	3 1⁄16"
Over Finger or Modular Jt.	≤9½"	5½"	7⅜"	7¼"	2'-9¼"	5 13⁄16"
Over Finger or Modular Jt.	≤15"	8¼"	10⅛"	10"	3'-8¼"	8 9⁄16"

T = ; total movement along centerline of roadway at expansion joint.

RAILING CRITERIA

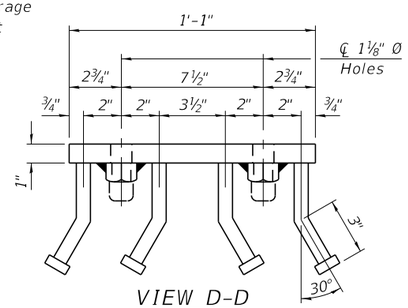
NCHRP 350 Test Level	2
Railing Weight (plf)	50
Max Post Spacing	10'-9"
HMA thickness range (in)	1¼ - 3⅛

R-23A 10-12-2021

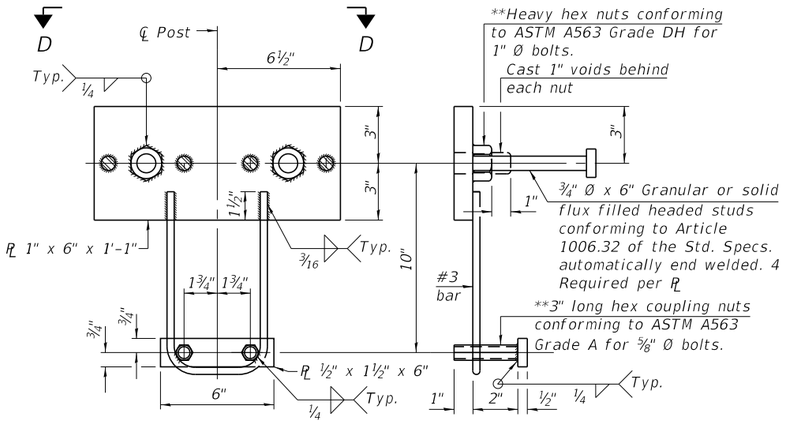


END OF RAIL DETAILS

Reinforcement bars in the top of the slab may be placed with a 1½" minimum clearance in the area of the rail post anchor devices. 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.



VIEW D-D



ANCHORAGE ASSEMBLY

** Threaded areas shall be plugged or blocked off during casting of concrete.

Notes:

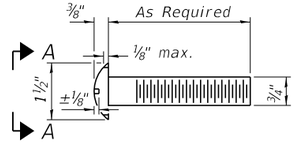
A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11½", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than ¼" (top) or ½" (bottom), longer bolts are required. Cost included with Steel Railing, Type S-1.

All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.

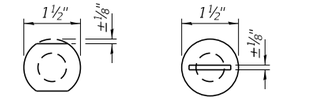
All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

Rail splice inserts may be built out of 2 -⅜" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.

All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.

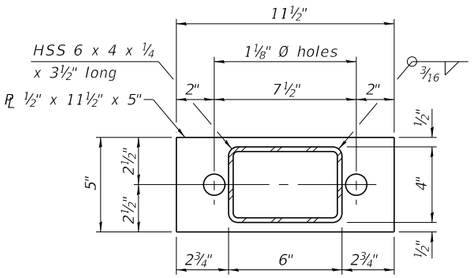


ROUND HEAD BOLT DETAIL

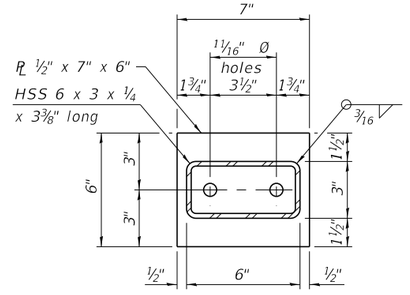


Without Slot or Recess — With Slot (shown) or Approved Recess

VIEW A-A



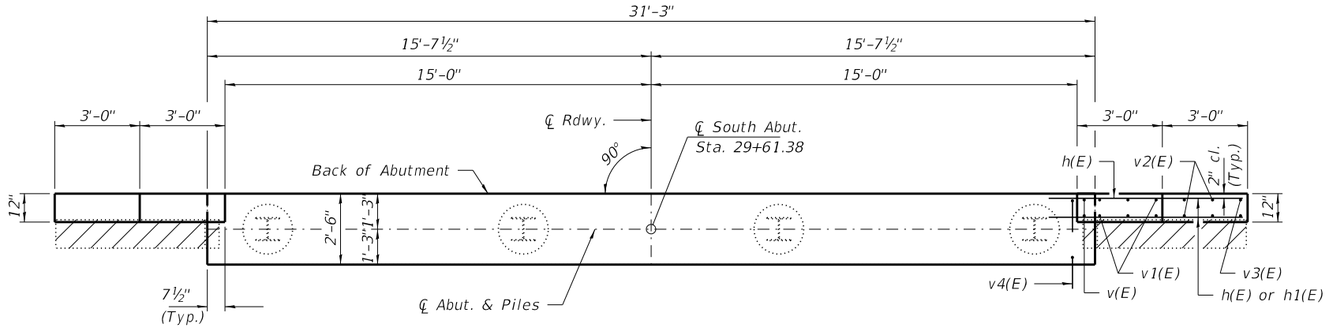
TOP SPACER ASSEMBLY



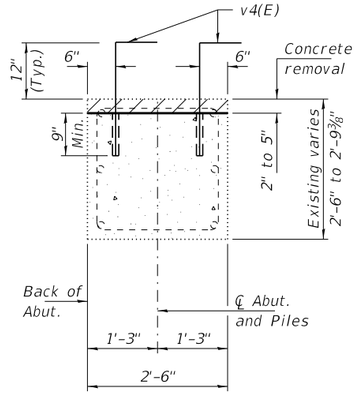
BOTTOM SPACER ASSEMBLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	163

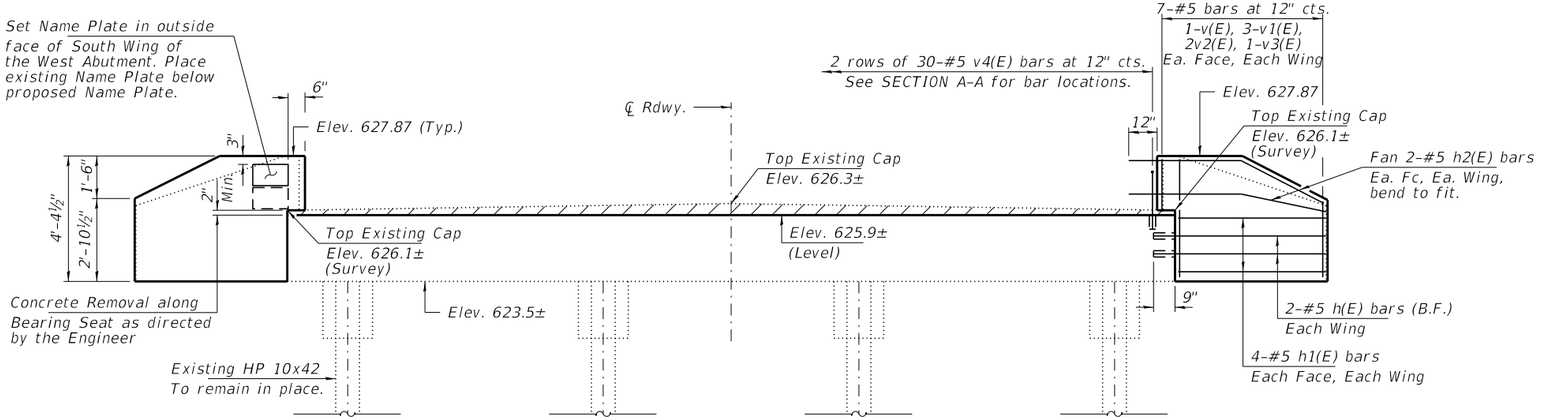


PLAN



SECTION A-A

Dimensions at right angles to abutment.



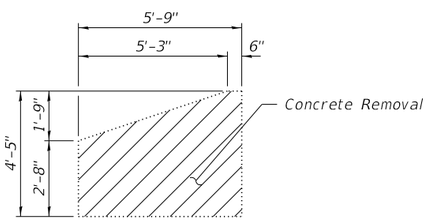
ELEVATION

(Looking South)

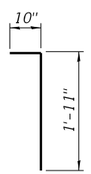
h(E), h1(E) and v4(E) bars shall be drilled and set according to Art. 509.06 of the Standard Specifications. Bars shall have a 9" minimum embedment depth, be set in 1"Ø holes and filled with an approved epoxy grout.

BILL OF MATERIAL - S. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	4	#5	5'-11"	
h1(E)	16	#5	5'-11"	
h2(E)	8	#5	7'-7"	
v(E)	4	#5	1'-6"	
v1(E)	12	#5	3'-11"	
v2(E)	8	#5	2'-11"	
v3(E)	4	#5	2'-6"	
v4(E)	60	#5	2'-9"	
Concrete Removal			Cu. Yd.	2.2
Concrete Structures			Cu. Yd.	1.7
Protective Coat			Sq. Yd.	6
Reinf. Bars, Epoxy Coated			Pound	220
Name Plates			Each	1



EXISTING WINGWALL CONCRETE REMOVAL (Typ.)



BAR v4(E)

Hatched area indicates Concrete Removal

Notes:

The contractor shall repair, at their own expense, any damage to the substructure caused by removal operations.

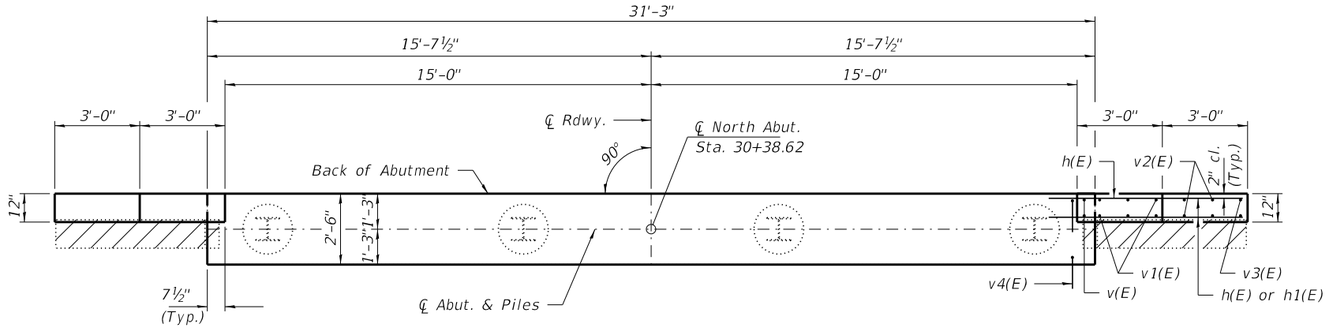
Cost of drilling and grouting reinforcement bars included in cost for Concrete Structures.

Existing wingwall reinforcement which extends into the abutment cap shall be burned off flush with surface, ground smooth, and sealed with epoxy. Cost included with Concrete Removal.

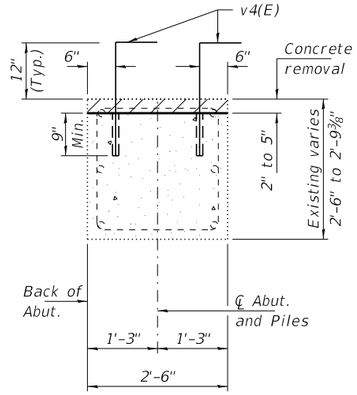
The existing top of abutment cap is sloped. The Contractor shall level top of cap to the satisifaction of the Engineer during removal.

Wingwalls shall be poured monolithically with or after the slab is in place.

See Existing Plans for existing reinforcement placement.

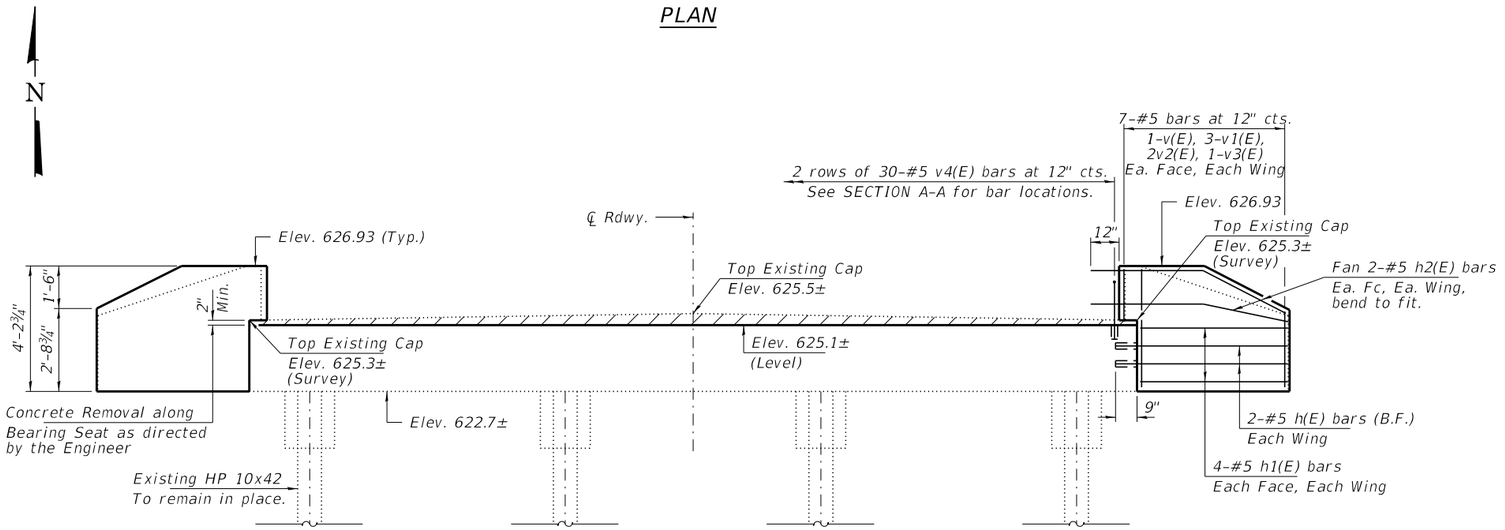


PLAN



SECTION A-A

Dimensions at right angles to abutment.



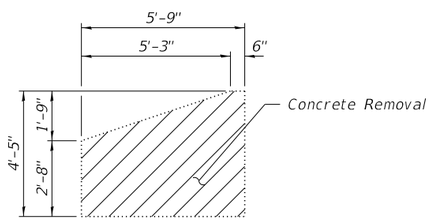
ELEVATION

(Looking North)

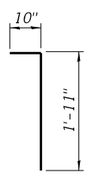
h(E), h1(E) and v4(E) bars shall be drilled and set according to Art. 509.06 of the Standard Specifications. Bars shall have a 9" minimum embedment depth, be set in 1"Ø holes and filled with an approved epoxy grout.

BILL OF MATERIAL - N. ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	4	#5	5'-11"	———
h1(E)	16	#5	5'-11"	———
h2(E)	8	#5	7'-7"	———
v(E)	4	#5	1'-6"	———
v1(E)	12	#5	3'-11"	———
v2(E)	8	#5	2'-11"	———
v3(E)	4	#5	2'-6"	———
v4(E)	60	#5	2'-9"	———
Concrete Removal			Cu. Yd.	2.2
Concrete Structures			Cu. Yd.	1.7
Protective Coat			Sq. Yd.	6
Reinf. Bars, Epoxy Coated			Pound	220



EXISTING WINGWALL CONCRETE REMOVAL (Typ.)



BAR v4(E)

Hatched area indicates Concrete Removal

Notes:

The contractor shall repair, at their own expense, any damage to the substructure caused by removal operations.

Cost of drilling and grouting reinforcement bars included in cost for Concrete Structures.

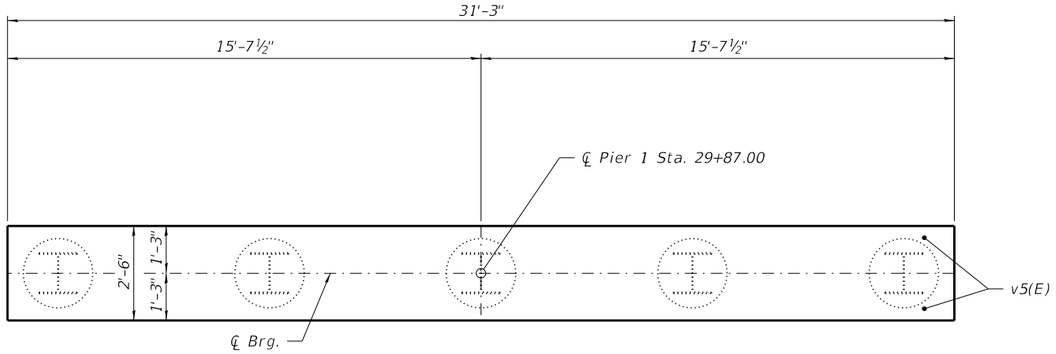
Existing wingwall reinforcement which extends into the abutment cap shall be burned off flush with surface, ground smooth, and sealed with epoxy. Cost included with Concrete Removal.

The existing top of abutment cap is sloped. The Contractor shall level top of cap to the satisifaction of the Engineer during removal.

Wingwalls shall be poured monolithically with or after the slab is in place.

See Existing Plans for existing reinforcement placement.

FILE NAME = 210322-shl-bridge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	NORTH ABUTMENT STRUCTURE NO. 053-3449	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -			355	21-00210-01-BR	LIVINGSTON	24	13
	PLOT SCALE = $SCALE$	DRAWN - R.D.H.	REVISED -			BOONE BRIDGE		CONTRACT NO. 87821		
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -		SHEET NO. 8 OF 14 SHEETS			ILLINOIS	FED. AID PROJECT 2T7S(848)	



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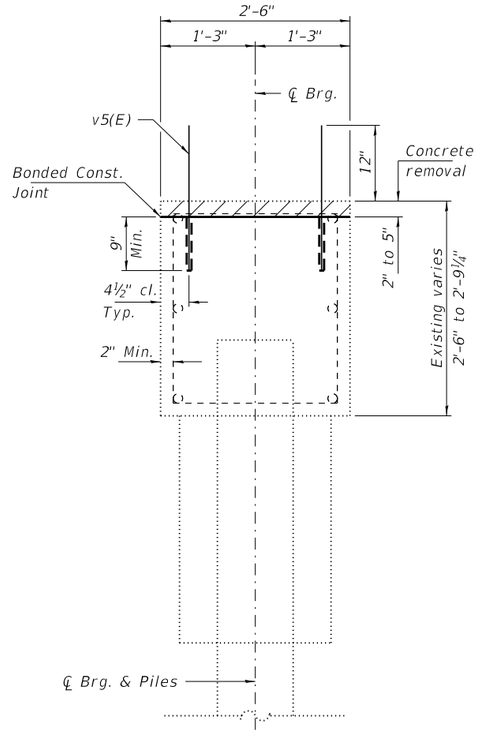
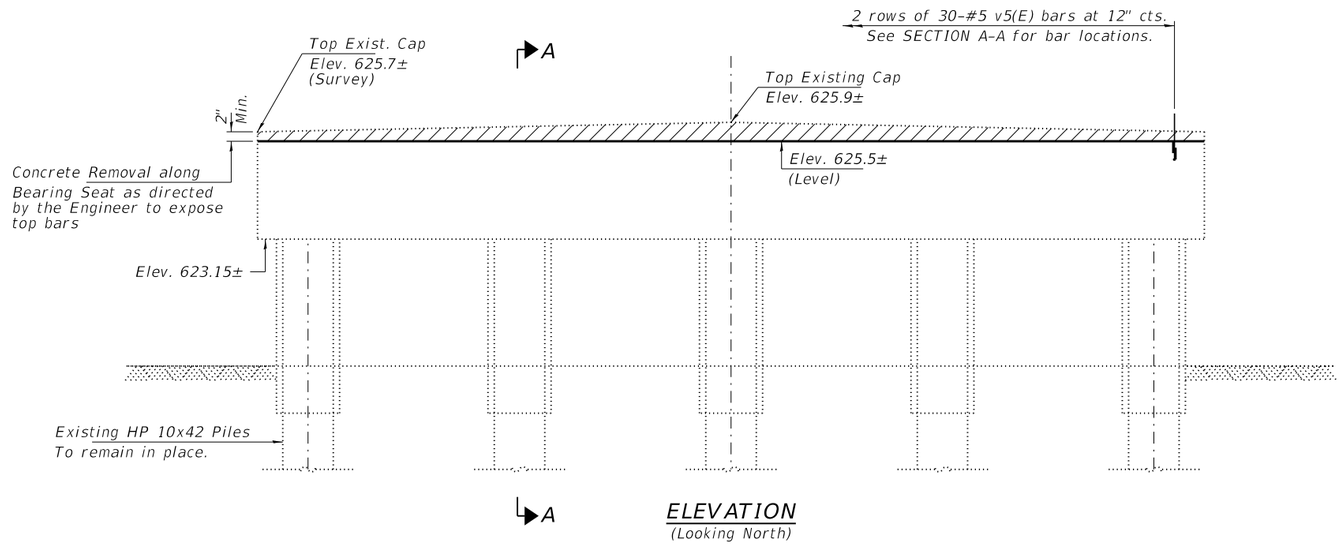
PLAN



SECTION A-A



ELEVATION
(Looking North)

*v5(E) bars shall be drilled and set according to Art. 509.06 of the Standard Specifications. Bars shall have a 9" minimum embedment depth, be set in 1"Ø holes and filled with an approved epoxy grout.
The existing pile encasements shall be repaired with the item Structural Repair of Concrete as directed by the Engineer.

Notes:
The contractor shall repair, at their own expense, any damage to the substructure caused by removal operations.
Cost of drilling and grouting reinforcement bars included in cost for Concrete Structures.
The existing top of pier cap is sloped. The Contractor shall level top of cap to the satisifaction of the Engineer during removal.
See Existing Plans for existing reinforcement placement.

BILL OF MATERIAL - PIER 1

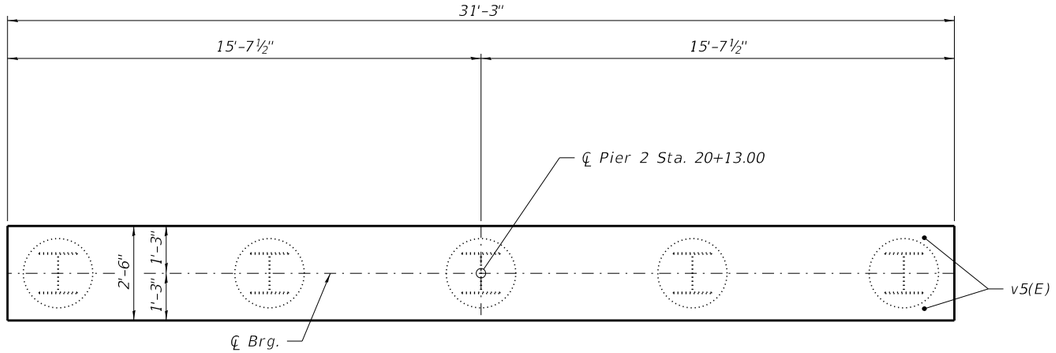
BAR	NO.	SIZE	LENGTH	SHAPE
v5(E)	60	#5	1'-11"	———
Concrete Removal			Cu. Yd.	0.8
Reinf. Bars, Epoxy Coated			Pound	120
Structural Repair of Concrete (Depth equal to or less than 5 inches)			Sq. Ft.	20

FILE NAME = 210322-shl-bridge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -
	PLOT SCALE = $SCALE$	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

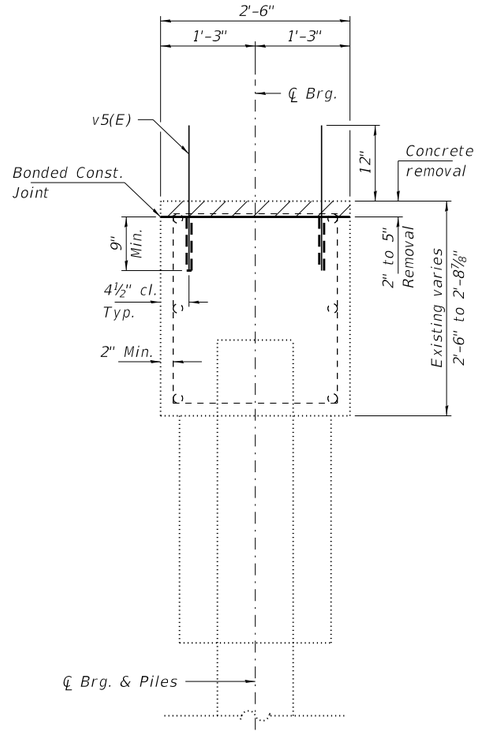
PIER 1
STRUCTURE NO. 053-3449
SHEET NO. 9 OF 14 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	14
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		

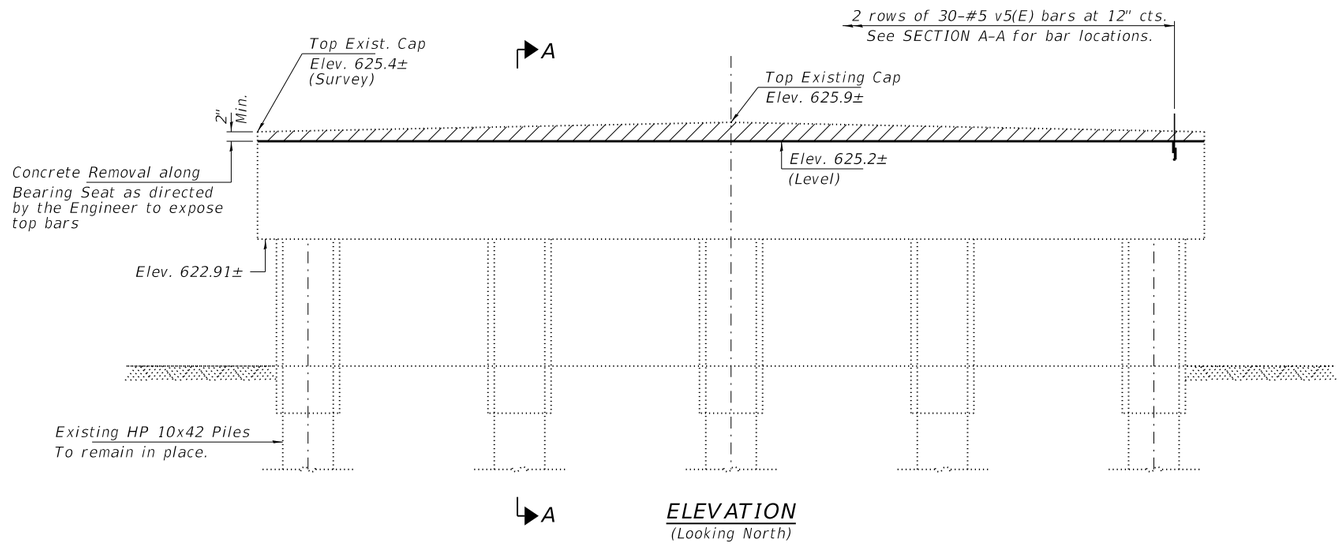


N

PLAN



SECTION A-A



ELEVATION
(Looking North)

*v5(E) bars shall be drilled and set according to Art. 509.06 of the Standard Specifications. Bars shall have a 9" minimum embedment depth, be set in 1"Ø holes and filled with an approved epoxy grout.
The existing pile encasements shall be repaired with the item Structural Repair of Concrete as directed by the Engineer.

Notes:
The contractor shall repair, at their own expense, any damage to the substructure caused by removal operations.
Cost of drilling and grouting reinforcement bars included in cost for Concrete Structures.
The existing top of pier cap is sloped. The Contractor shall level top of cap to the satisifaction of the Engineer during removal.
See Existing Plans for existing reinforcement placement.

BILL OF MATERIAL - PIER 2

BAR	NO.	SIZE	LENGTH	SHAPE
v5(E)	60	#5	1'-11"	———
Concrete Removal			Cu. Yd.	0.8
Reinf. Bars, Epoxy Coated			Pound	120
Structural Repair of Concrete (Depth equal to or less than 5 inches)			Sq. Ft.	20

FILE NAME = 210322-shl-bridge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -	
	PLOT SCALE = $SCALE$	DRAWN - R.D.H.	REVISED -	
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -	

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

PIER 2
STRUCTURE NO. 053-3449
SHEET NO. 10 OF 14 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	15
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		

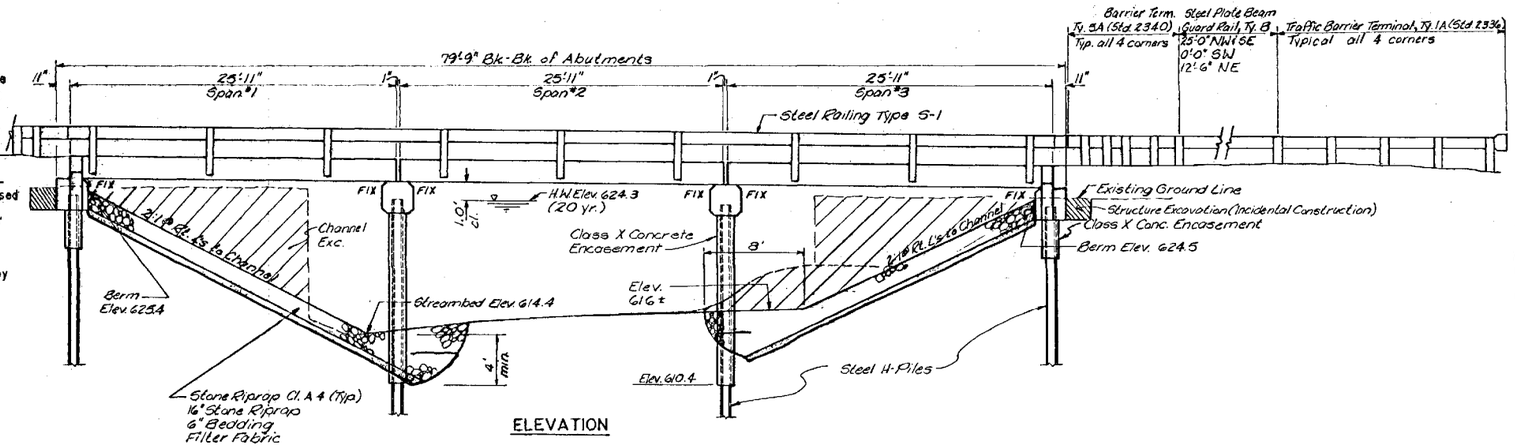
B.M. # 2- P.K. Nail in Power Pole
Sta 24+50, 16.2' Rt., El. 632.29

B.M. #3- P.K. Nail in Power Pole
Sta. 34+51, 31' Rt., El. 628.19

Existing Structure- Single Span Reinforced Conc. thru Girder with Closed Conc. Abuts. & Wingwalls, 39.7' face to face of Abutments, 20.35' Clear Roadway at ℄ Sta. 30+00.

Existing structure to be removed by the contractor. No salvage.

Existing Struct. No. 053-3030



ELEVATION

Note: See Sheet 4 for Plan View of Guard Rail

GENERAL NOTES

Class X Concrete shall be used throughout.

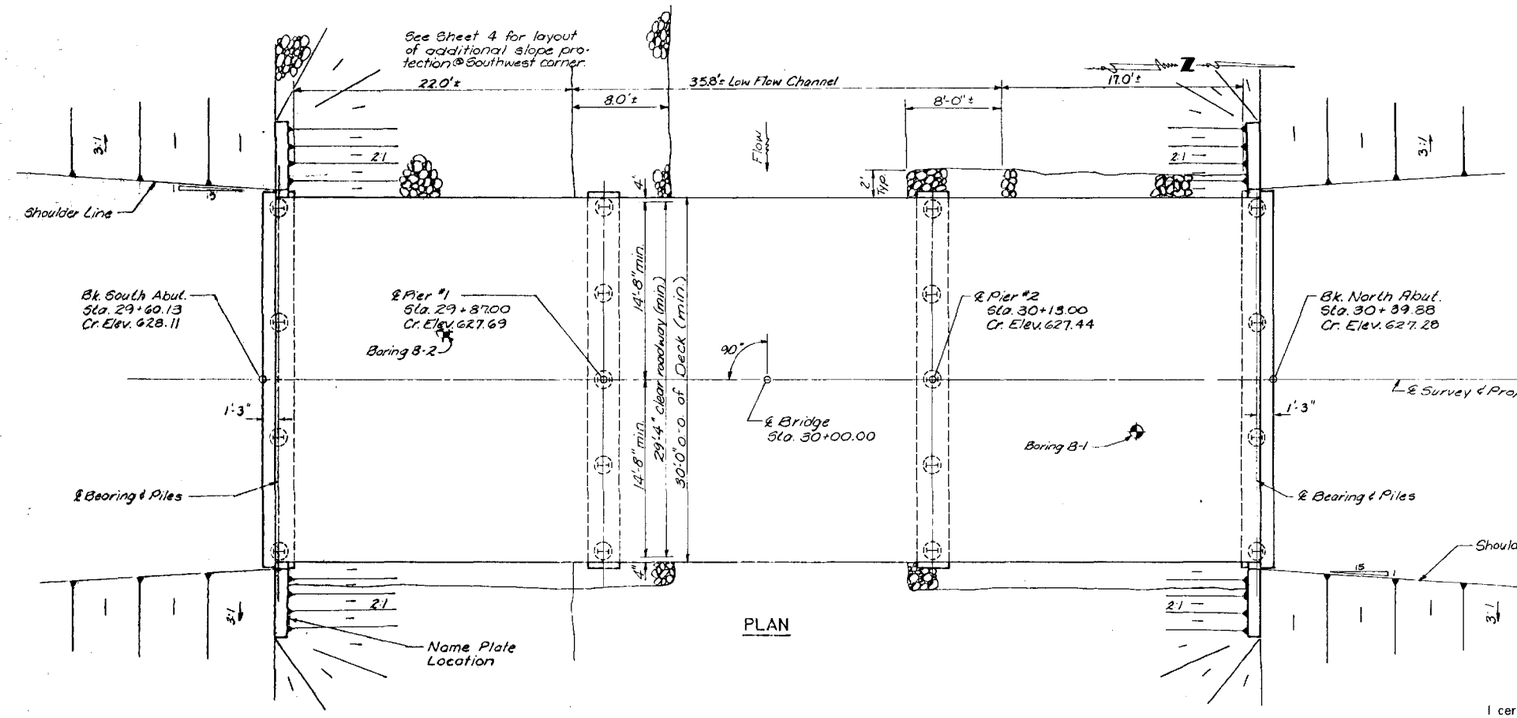
All reinforcement bars shall be lapped as shown on the plans.

The Standard Specifications adopted by the Department of Transportation July 1, 1988 shall apply to this work.

One steel test pile shall be driven in a permanent location in Pier No. 1 as directed by the Engineer before ordering the remainder of the piles.

Abutment piles shall be driven a minimum of 10 feet into undisturbed earth.

Pier piles shall be driven a minimum of 15 feet below streambed.



PLAN

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	Each			1
Class X Concrete	Cu. Yd.		33.3	33.3
Precast Concrete Bridge Slab	Sq. Ft.	2,333		2,333
Reinforcement Bars	Pound		3,190	3,190
Furnishing Steel Piles HP 10x42	Lin. Ft.		501	501
Driving Steel Piles	Lin. Ft.		501	501
Test Pile Steel HP 10x42	Each		1	1
Name Plates	Each		1	1
Steel Railing Type S-1	Lin. Ft.	156		156
Channel Excavation	Cu. Yd.			370
Stone Riprap Class A4	Sq. Yd.			225
Filter Fabric for use with Riprap	Sq. Yd.			225
Class X Concrete Encasement	Cu. Yd.		12.9	12.9

"This structure has been designed to be stable for scour conditions in accordance with the FHWA Technical Advisory - T 5140.23, "Evaluating Scour at Bridges" and Hydraulic Engineering Circular 18 - Evaluating Scour at Bridges.

PRAIRIE CREEK
BUILT 199_ BY
LIVINGSTON COUNTY
SECTION 89-00210-00-BR
COUNTY HIGHWAY 16
STR. NO. 053-3449
LOADING HS 20

LETTERING FOR NAME PLATE
SEE STANDARD 2113

WATERWAY DATA

Drainage Area.....23.69 sq. mi.
Present Opening.....305 sq. ft.
Required Opening.....395 sq. ft.
Proposed Opening.....395 sq. ft.
Design Discharge.....1790 CFS (20yr.)
Created Head...<0.5 ft.
100 Yr. Discharge.....2500 CFS
Created Head...<1.0 ft.

DESIGN STRESSES

SUPERSTRUCTURE	SUBSTRUCTURE
f'c=4,500 p.s.i.	f'c=3,500 p.s.i.
fc=1,800 p.s.i.	fc=1,400 p.s.i.
fs=20,000 p.s.i.(Reinf.)	fs=24,000 p.s.i.
n=8	n=9

Design provides for Future Wearing Surface of 25 PSI.

Loading HS 20-44

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 economical one for the style of structure and complies with the requirements of the current "AASHTO Standard Specifications for Highway Bridges."

Robert E. Gates
ILLINOIS STRUCTURAL
NO. 2675
(EXPIRES 11-30-92)

ROBERT E. GATES 2675 STRUCTURAL ENGINEER ILLINOIS

GENERAL PLAN & ELEVATION
COUNTY HIGHWAY 16 OVER
PRAIRIE CREEK
SECTION 89-00210-00-BR
LIVINGSTON COUNTY
STATION 30+00

auby, eglesby & bartolomucci
consulting engineers
land surveyors
planners
1323 south first street springfield, illinois 62704

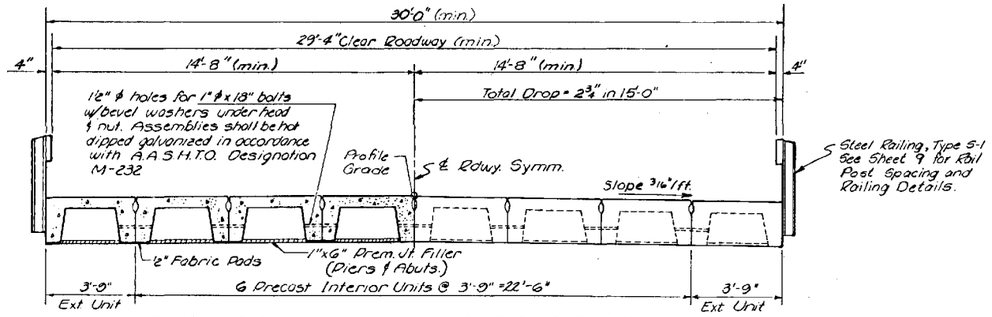
DRAWN TNW | DATE 2-7-92 | JOB NO. 88-39 | SHEET NO. 6 OF 13
CHECKED REG

FILE NAME = 210322-shl-bridge.dgn	USER NAME = gmetcalf	DESIGNED - S.M.S.	REVISED -	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -	
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = $SCALES	DRAWN - R.D.H.	REVISED -	
	PLOT DATE = 1/3/2024	CHECKED - S.W.M.	REVISED -	

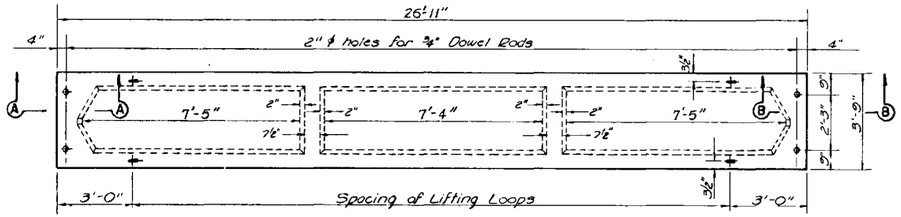
STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

EXISTING PLANS
STRUCTURE NO. 053-3449
SHEET NO. 11 OF 14 SHEETS

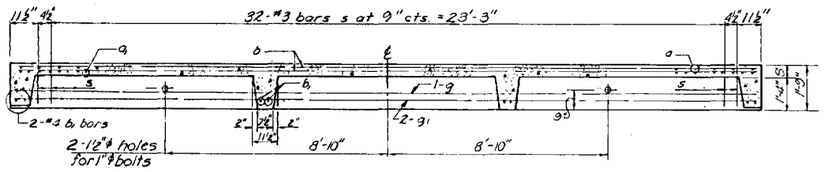
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	16
BOONE BRIDGE		CONTRACT NO. 87821		
		ILLINOIS	FED. AID PROJECT 2T7S(848)	



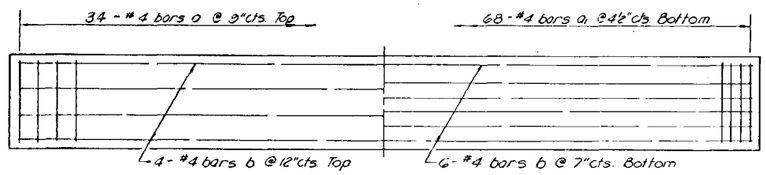
HALF CROSS SECTION HALF END ELEVATION



TYPICAL PLAN OF BEAM



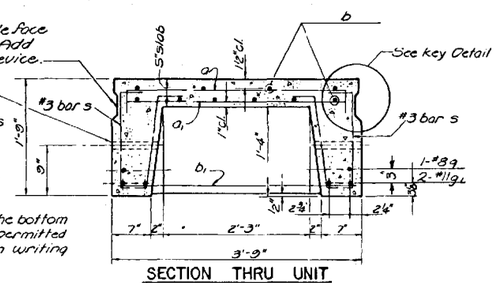
SECTION ALONG ℄ OF BEAM



PLAN SHOWING SLAB REINFORCEMENT

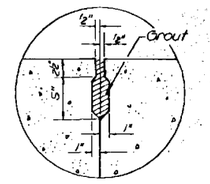
Omit key on outside face of exterior beams. Add rail post anchor device.

Omit 1½" ϕ hole thru outside stem of exterior beams



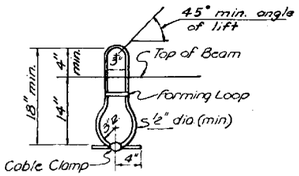
SECTION THRU UNIT

Note:
Tack welding of stirrups to the bottom longitudinal rebars will not be permitted except as otherwise authorized in writing by the Engineer.



KEY DETAIL

Longitudinal shear key shall be packed with a very dry mix of 1 part sand, 1 part cement and water.



LIFTING LOOP

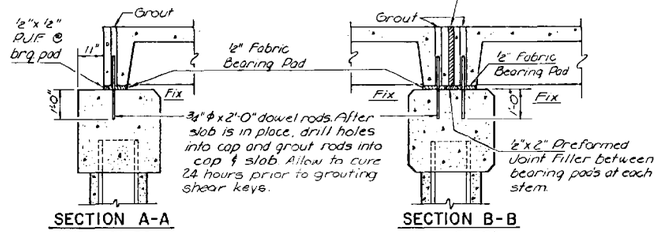
Note:
Lifting Loops shall be 6x25 class wire rope with fiber core. Min. ultimate tensile strength shall be 21,000 lbs. Loops shall be burned off after beams have been erected.

BILL OF MATERIAL - PRECAST SLAB

For information of supplier of precast slab units only.

ONE UNIT REINFORCEMENT BARS				
BAR	SIZE	NO.	LENGTH	SHAPE
a	#4	34	4'-0"	⌐¬
a1	#4	68	3'-3"	——
b	#4	10	25'-6"	——
b1	#4	8	3'-6"	——
q	#8	2	25'-6"	——
q1	#11	4	25'-6"	——
s	#3	68	3'-10"	⌐⌐
ESTIMATED QUANTITIES				
Class X Concrete			Cu Yds	3.6
Reinforcement Bars			Lbs	1204

1" Joint shall be packed with a very dry mix of 1 part sand, 1 part cement & water. Use 1"x6" DUF along outside of exterior beams.

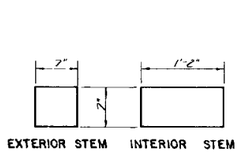


SECTION A-A (AT ABUTS.) SECTION B-B (AT PIER)

BILL OF MATERIALS - SUPER

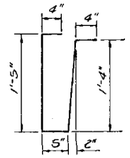
ITEM	TOTAL
Precast Concrete Bridge Slab Sq Ft	2333

Cost of reinforcement and accessories cast into slab unit, of bearing pads, furnishing, drilling for placing and grouting anchor dowels and of grouting longitudinal shear key is included in Unit bid price for "Precast Concrete Bridge Slab."

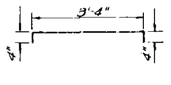


EXTERIOR STEM INTERIOR STEM

BEARING PADS
½" Thick Fabric



BAR s



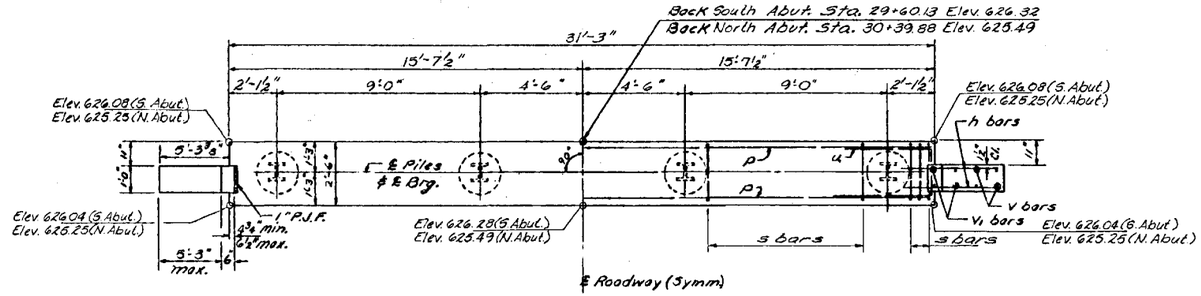
BAR a

LOADING HS 20-44

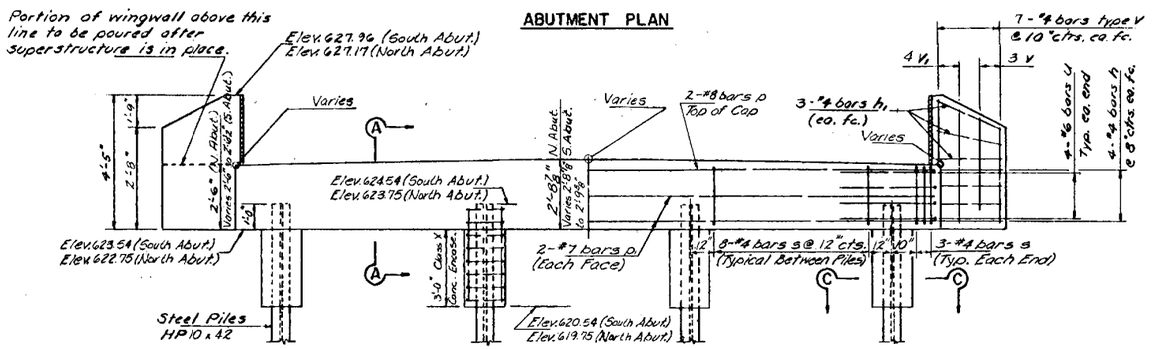
SUPERSTRUCTURE
COUNTY HIGHWAY 16 OVER
PRAIRIE CREEK
SECTION 89-00210-00-BR
LIVINGSTON COUNTY
STATION 30+00

auby, oglesby & bartolomucci
civil consulting engineers and surveyors planners
1323 south first street springfield, illinois 62704

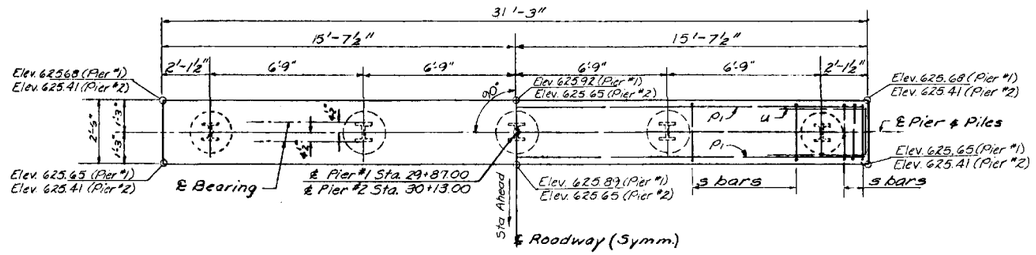
DRAWN TMW	DATE	JOB NO	SHEET NO
CHECKED KEO	2-7-92	88-89	7 of 13



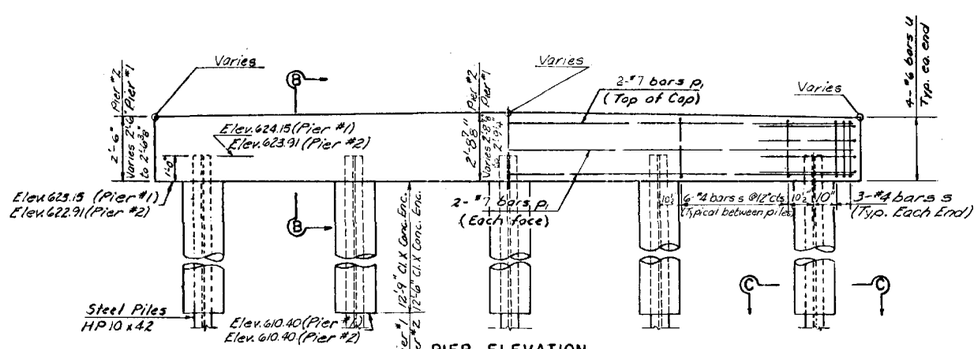
ABUTMENT PLAN



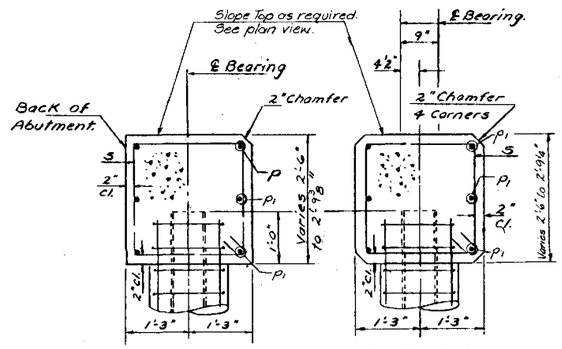
ABUTMENT ELEVATION



PIER PLAN

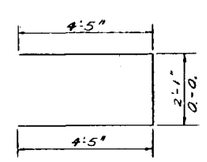


PIER ELEVATION

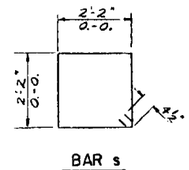


SECTION A-A

SECTION B-B

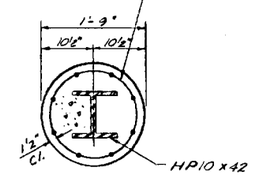


BAR u



BAR s

Welded Wire Fabric 6x6 - W4.0 x W4.0 weighing 58 #/100 sq. ft.
Cost of excavation and reinforcement is incidental to the cost of Class X Concrete encasement.
Forms for encasement may be omitted in the Abutments when soil conditions will permit.



SECTION C-C

PILE DATA

	ABUTS.	PIER
Design Capacity	26 Tons	27 Tons
Drive to 150% Cap.	38 Tons	40 Tons
Estimated Length	28 Ft. (S. Abut.) 26 Ft. (N Abut.)	35 Ft. (Pier #1) 29 Ft. (Pier #2)
No. Req'd	8	10**
Type - Steel	HP 10x42	HP 10x42

** Includes one test pile in a permanent location in Pier #1. Drive to 56 tons capacity.

BILL OF MATERIAL
(2 ABUTMENTS & 2 PIERS)

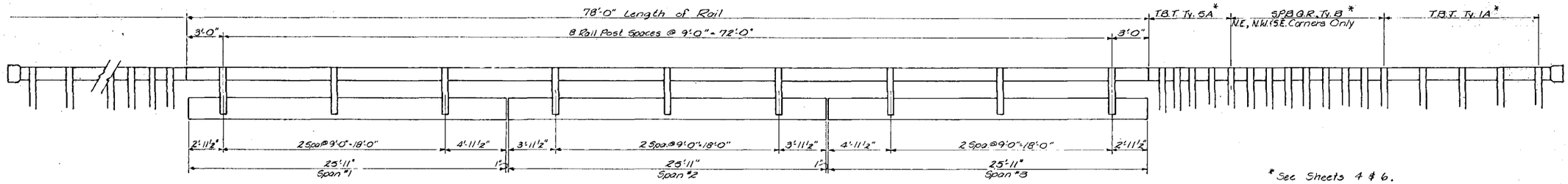
BAR	NO.	SIZE	LENGTH	SHAPE
h	32	#4	7'-3"	——
h1	24	#4	5'-6"	——
p	4	#8	29'-11"	——
p1	20	#7	29'-11"	——
s	120	#4	9'-5"	□
u	32	#6	10'-11"	⊐
v	24	#4	2'-6"	——
v1	32	#4	3'-9"	——
* Class X Concrete		Cu. Yd.	33.3	
Reinforcement Bars		Lb.	3,190	
Steel Piles HP10x42		Lin. Ft.	501	
Test Pile, Steel HP10x42		Each	1	
Class X Concrete Encasement		Cu. Yd.	12.9	

* Class X Concrete Cu Yd.	Abuts.	Piers
	18.1	15.2

SUBSTRUCTURE
COUNTY HIGHWAY 16 OVER
PRAIRIE CREEK
SECTION 89-00210-00-BR
LIVINGSTON COUNTY
STATION 30+00

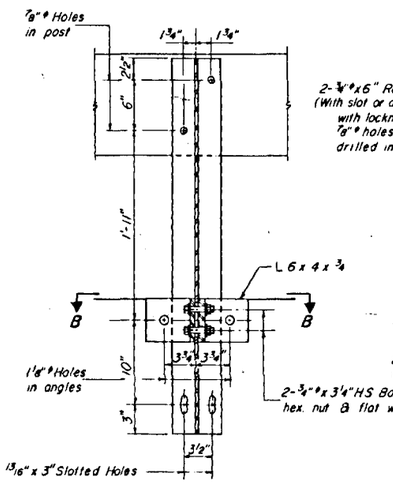
auby, oglesby & bartolomucci
consulting engineers
land surveyors
planners
1323 south first street / springfield, illinois 62704

DRAWN TMW	DATE	JOB NO.	SHEET NO.
CHECKED RCO	2-7-92	88-89	8 of 13

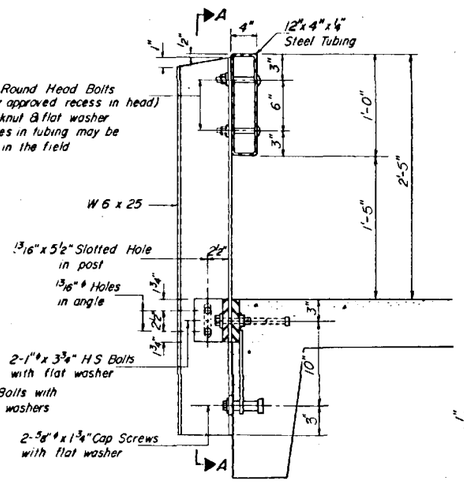


* See Sheets 4 & 6.

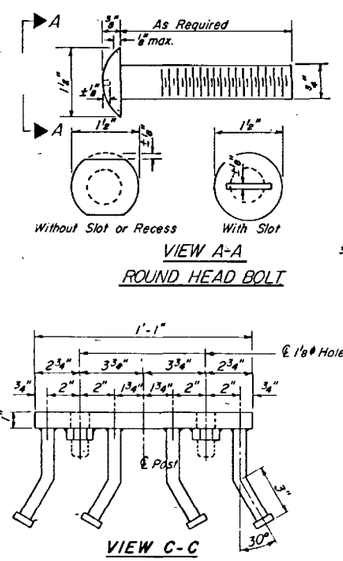
ELEVATION



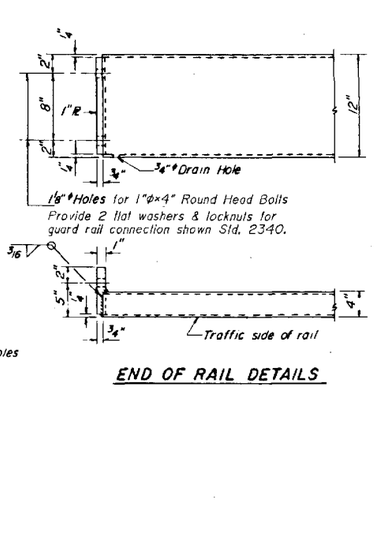
SECTION A-A



SECTION AT RAIL POST

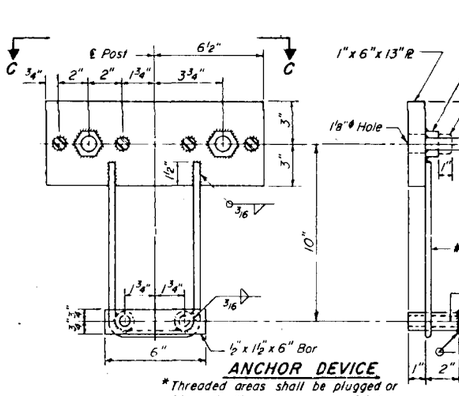


VIEW A-A ROUND HEAD BOLT



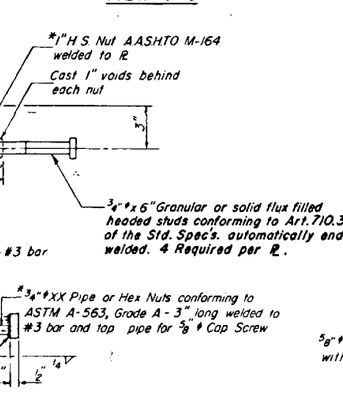
VIEW C-C

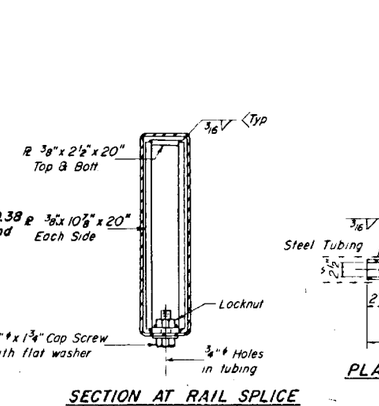
SECTION B-B



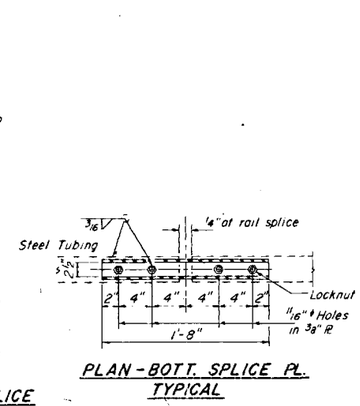
ANCHOR DEVICE

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





SECTION AT RAIL SPLICE



PLAN - BOTT. SPLICE PL. TYPICAL

END OF RAIL DETAILS

NOTES

Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of A.A.S.H.T.O. M-183 except posts and angles shall conform to A.A.S.H.T.O. M-223, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirement of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to A.A.S.H.T.O. M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with A.A.S.H.T.O. M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O. M-111 and A.S.T.M. A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per lineal foot for STEEL RAILING, TYPE S-1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place ⅛" fabric bearing pad between the post and concrete.

The ¾" ϕ high strength bolts used to connect the 6 x 4 x ¾ angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional ⅛ turn. The ⅝" ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

For multi-span bridges, sufficient ¼"x6"x1'-4" galvanized steel shims shall be provided to align rail between adjacent spans. Cost incidental to STEEL RAILING TYPE S-1.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Steel Railing Type S-1	Lin. Ft.	156

STEEL RAILING TYPE S-1
COUNTY HIGHWAY 16 OVER
PRAIRIE CREEK
SECTION 89-00210-00-BR
LIVINGSTON COUNTY
STATION 30+00

auby, oglesby & bartolomucci
consulting engineers
land surveyors
planners
1323 south first street / springfield, illinois 62704

DRAWN	DATE	JOB NO.	SHEET NO.
CHECKED	2-7-92	88-89	20 of 13

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

FILE NAME	USER NAME	DESIGNED	REVISED
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		CHECKED - S.W.M.	REVISED -
PLOT SCALE = $SCALE$		DRAWN - R.D.H.	REVISED -
PLOT DATE = 1/3/2024		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

EXISTING PLANS
STRUCTURE NO. 053-3449
SHEET NO. 14 OF 14 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	19
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 2T7S(848)		

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		BY
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		DATE

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

630
628
626

PAVEMENT BEGINS

AHEAD C = 10
BACK C = 0

F = 1
F = 0

628.90
628.89

1:2.5
1:2.5

29 + 30.00

630
628
626

C = 7
F = 1

629.03

1:2.5
1:2.5

29 + 25.00

632
630
628

C = 2
F = 3

629.98

1:2.5
1:2.5

29 + 00.00

28 + 81.00

IMPROVEMENT BEGINS

AHEAD C = 2
BACK C = 0

F = 3
F = 0

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		BY
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		DATE

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		DRAWN - T.W.K.	REVISED -
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	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

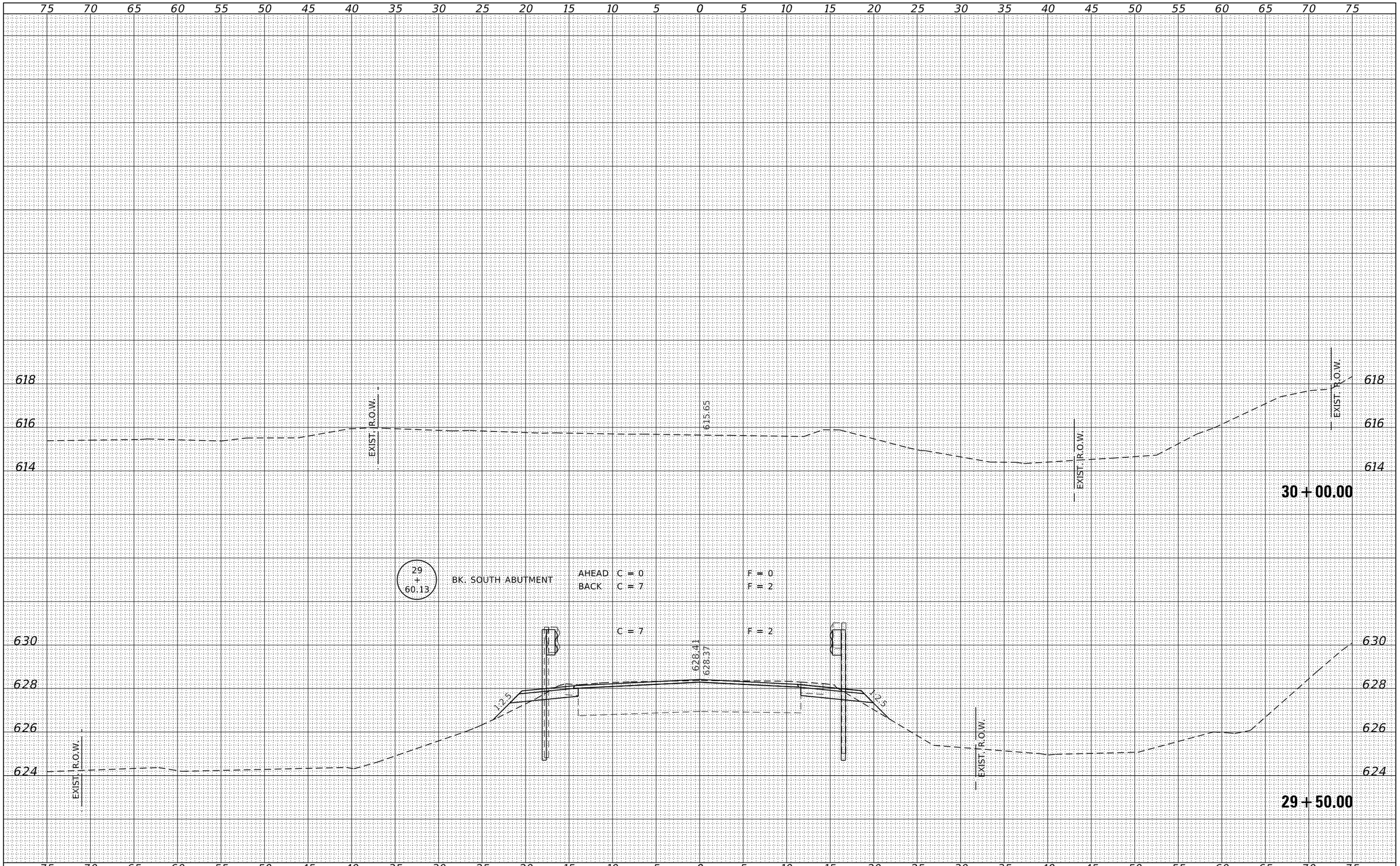
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 1 OF 5 SHEETS | STA. 29+00.00 TO STA. 29+30.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	20
BOONE BRIDGE		CONTRACT NO. 87821		
		ILLINOIS	FED. AID PROJECT 2T7S(848)	

FINAL SURVEY	
NOTE BOOK	
NO.	

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		



ORIGINAL SURVEY	
NOTE BOOK	
NO.	

	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

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	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
1065 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

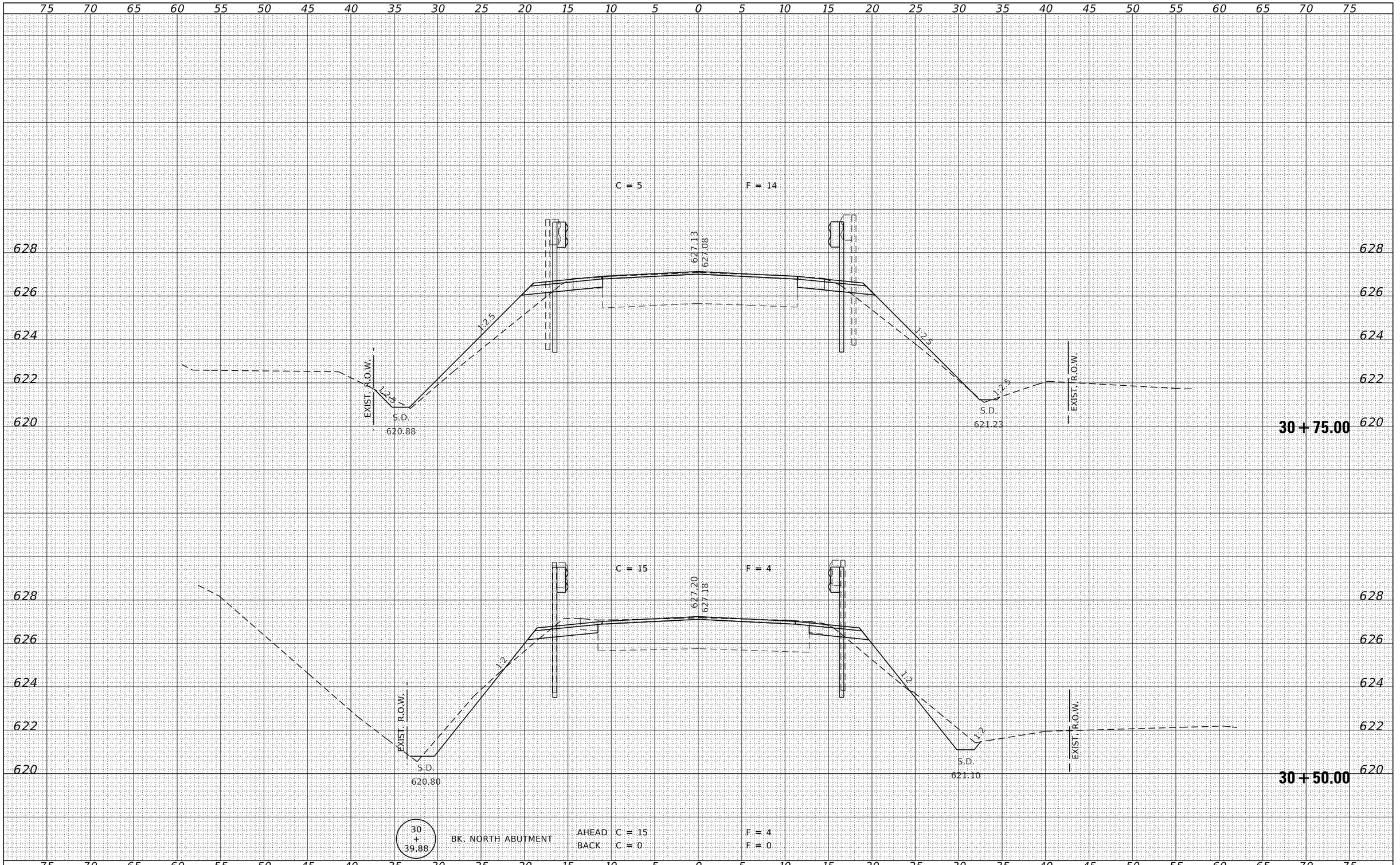
STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 2 OF 5 SHEETS | STA. 29+50.00 TO STA. 30+00.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	21
BOONE BRIDGE		CONTRACT NO. 87821		
ILLINOIS	FED. AID PROJECT 27TS(848)			

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	BY
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	DATE

FILE NAME = 210322-sht-xssheets.dgn	USER NAME = gmetcalf	DESIGNED - S.A.A.	REVISED -
		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

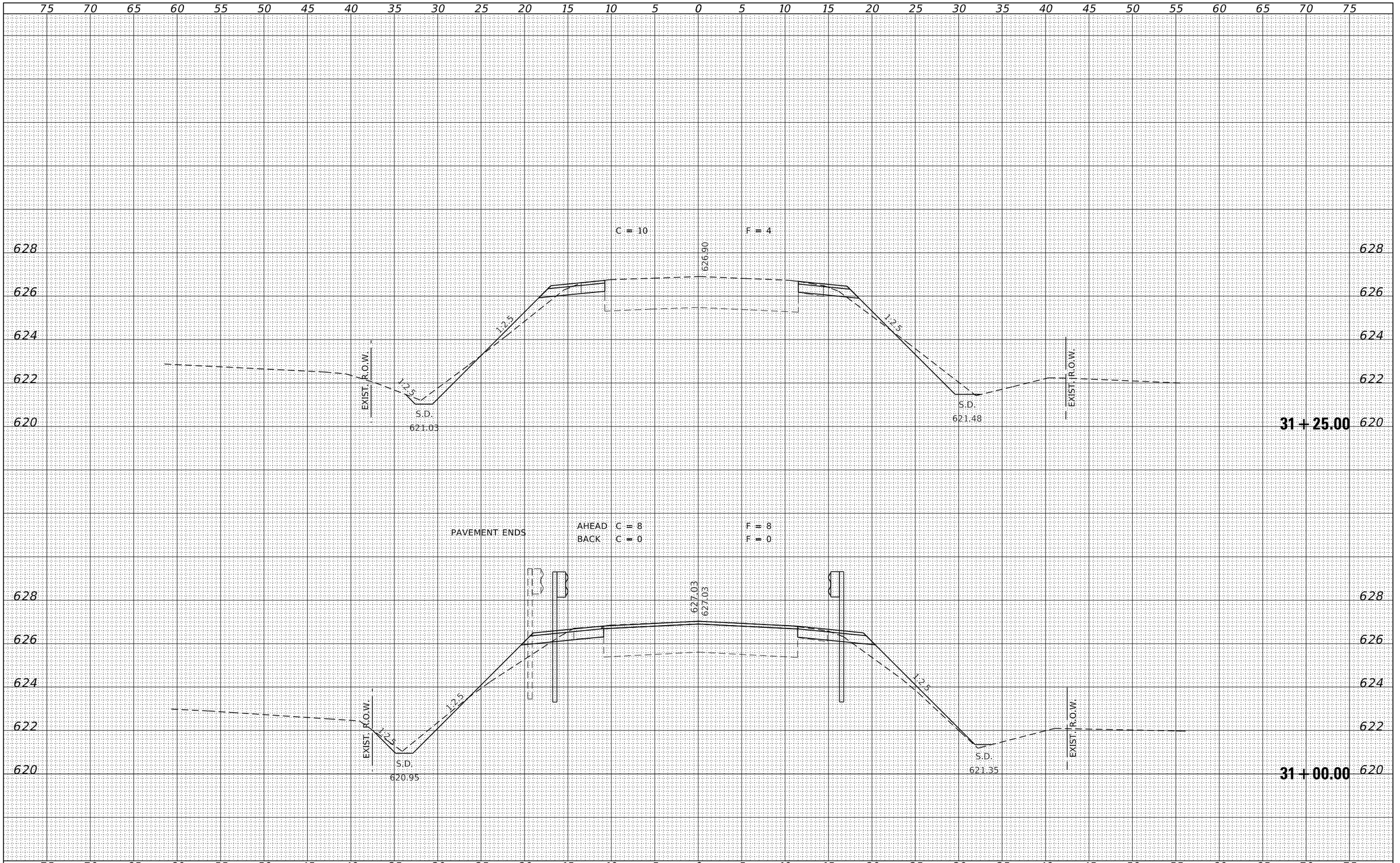
HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 3 OF 5 SHEETS | STA. 30+50.00 TO STA. 30+75.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	22
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 277S(848)		



FINAL SURVEY

NO.	NOTE BOOK	SURVEYED	BY	DATE
		PLOTTED		
		TEMPLATE		
		AREAS		
		AREAS CHECKED		

ORIGINAL SURVEY

NO.	NOTE BOOK	SURVEYED	BY	DATE
		PLOTTED		
		TEMPLATE		
		AREAS		
		AREAS CHECKED		

FILE NAME = 210322-sht-xssheets.dgn	USER NAME = gmetcalf	DESIGNED - S.A.A.	REVISED -
		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -
	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -

HAMPTON, LENZINI AND RENWICK, INC.
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

STATE OF ILLINOIS
LIVINGSTON COUNTY HIGHWAY DEPARTMENT

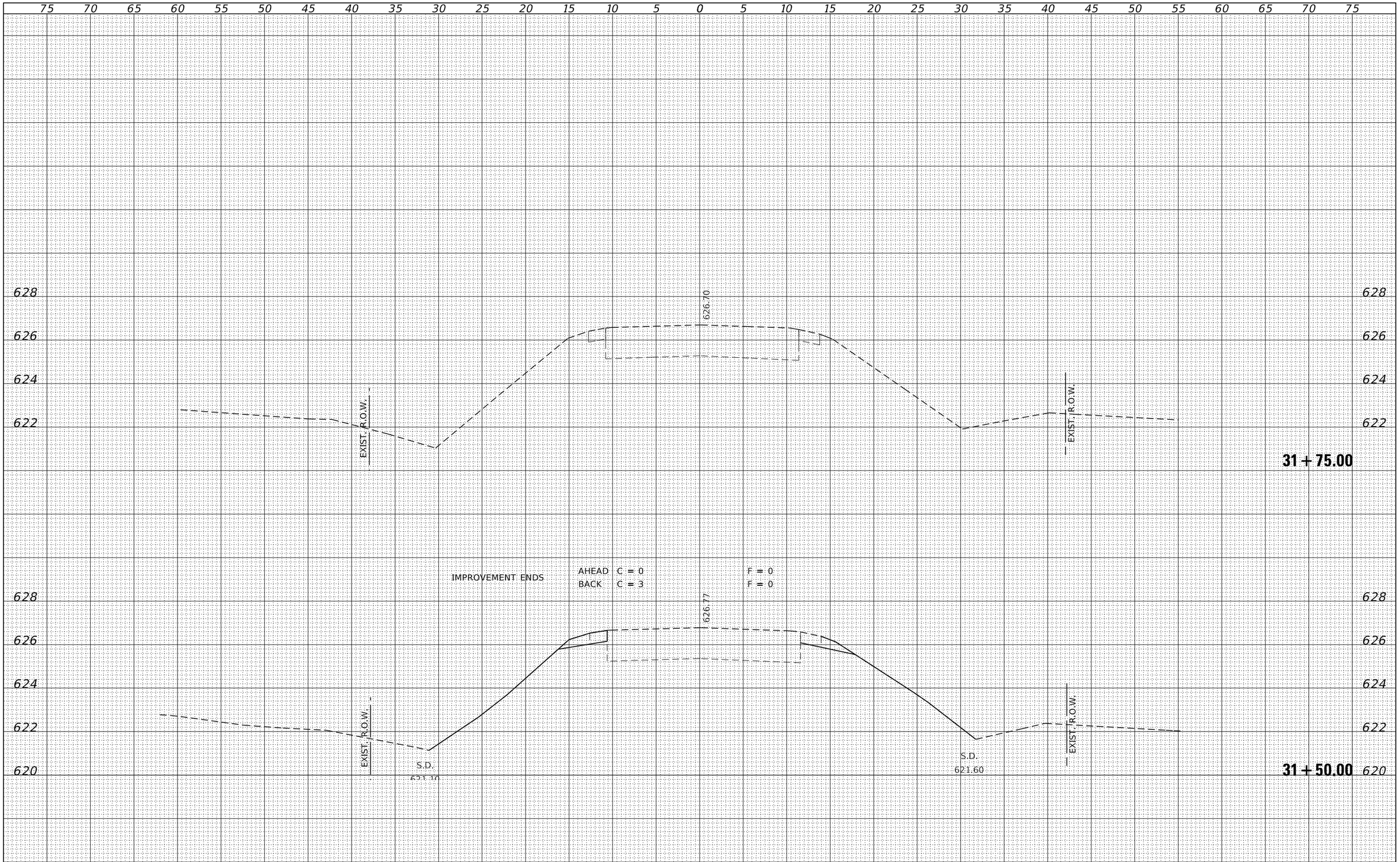
STATION CROSS SECTIONS

SCALE: 5H:2V | SHEET NO. 4 OF 5 SHEETS | STA. 31+00.00 TO STA. 31+25.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	23
BOONE BRIDGE		CONTRACT NO. 87821		
	ILLINOIS	FED. AID PROJECT 277S(848)		

FINAL SURVEY	NO.	NOTE BOOK	BY	DATE
SURVEYED				
PLOTTED				
TEMPLATE				
AREAS				
AREAS CHECKED				

ORIGINAL SURVEY	NO.	NOTE BOOK	BY	DATE
SURVEYED				
PLOTTED				
TEMPLATE				
AREAS				
AREAS CHECKED				



FILE NAME = 210322-sht-xssheets.dgn	USER NAME = gmetcalf	DESIGNED - S.A.A.	REVISED -	STATE OF ILLINOIS LIVINGSTON COUNTY HIGHWAY DEPARTMENT	STATION CROSS SECTIONS
HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -		
	PLOT SCALE = $SCALE$	CHECKED - J.W.F.	REVISED -		SCALE: 5H:2V / SHEET NO. 5 OF 5 SHEETS / STA. 31+50.00 TO STA. 31+75.00
	PLOT DATE = 1/3/2024	DATE - 01/03/2024	REVISED -		

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
355	21-00210-01-BR	LIVINGSTON	24	24
BOONE BRIDGE		CONTRACT NO. 87821		
ILLINOIS	FED. AID PROJECT 27TS(848)			