03-11-2022 LETTING ITEM 035

KANKAKEE

66H54

35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64*	1
	ILLINOIS	CONTRACT NO. 66H54		

*64 + 1 = 65 TOTAL SHEETS

FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

INDEX OF SHEETS

TRAFFIC DATA

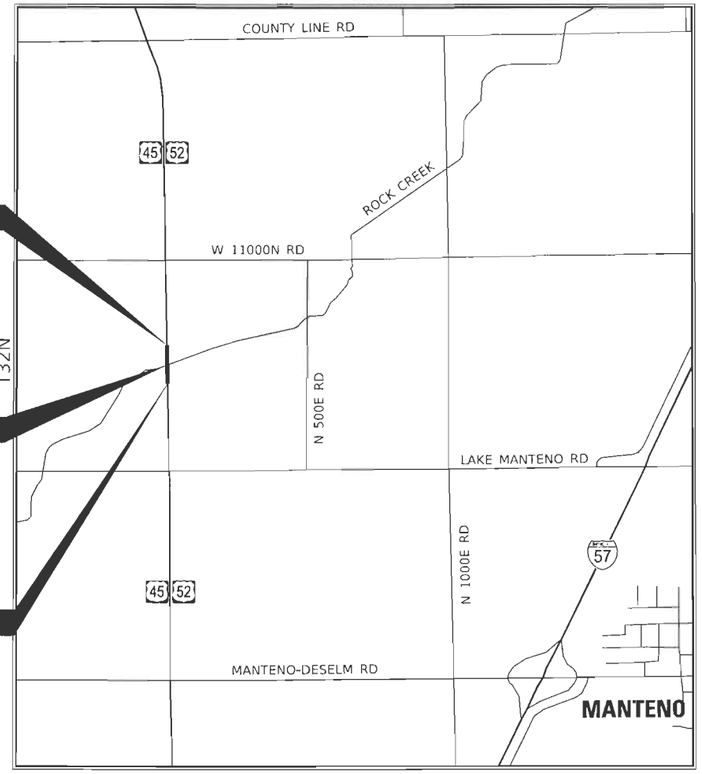
FUNCTIONAL CLASSIFICATION
OTHER PRINCIPAL ARTERIAL
7050 ADT (2019)
P.V. = 87% S.U. = 5% M.U. = 8%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 330 (US 45/52)
SECTION (16BR-1) BR
PROJECT NHPP-V3UB (063)
STRUCTURE REPLACEMENT
KANKAKEE COUNTY

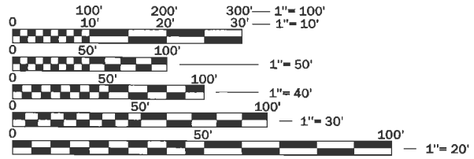
C-93-025-22



LOCATION MAP
(NOT TO SCALE)

PROJECT GROSS AND NET LENGTH
US 45/52 = 725 FT. = 0.14 MILE

LOCATION OF SECTION INDICATED THUS: –



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 EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: BRAD DUNCAN, P.E.
UNIT CHIEF: DARCY CARPENTER
DISTRICT 3 NO. (815) 434-6131
CONTRACT NO. 66H54

LICENSED PROFESSIONAL ENGINEER
JASON M. ROITBURD
062-065592
STATE OF ILLINOIS

Jason M. Roitburd

JASON M. ROITBURD, P.E.
NO. 062-065592
EXPIRES: 02/28/2022
HR GREEN, INC.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 15, 2021
Mamad Ahmadi
REGIONAL ENGINEER

February 4, 2022
ENGINEER OF DESIGN AND ENVIRONMENT

February 4, 2022
Stephen M. Travis
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV. 12/20/21

D3 GENERAL NOTES

THE HMA SURFACE OF ALL MAILBOX TURNOUTS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES, AND SIDE ROADS SHALL BE MADE NEATLY IN A WORKMANLIKE MANNER, AND SHALL ACCURATELY CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. IF REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL SAW CUT THE HMA SURFACE TO CONFORM TO THE SHAPES AND DIMENSIONS SHOWN ON THE PLAN DETAILS. THIS WORK WILL BE INCLUDED IN THE COST OF THE HMA SURFACE.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES (100 MILLIMETERS) IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF TOPSOIL EXCAVATION AND PLACEMENT.

ALL EXCAVATED MATERIAL, WHICH INCLUDES DIGGING OR GRADING OF ANY SOIL OR FILL MATERIAL, WITH THE EXCEPTION OF AGGREGATE FILLS, MUST BE INCORPORATED WITHIN THE IDOT RIGHT OF WAY.

SHORT TERM PAVEMENT MARKING SHALL BE USED TO OUTLINE EXIT AND ENTRANCE RAMPS FOR THE PRIME COAT APPLICATION AND EACH RESURFACING LIFT.

ALL ELEVATIONS ARE ON THE NAVD88 DATUM.

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

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT /100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
AGGREGATE DITCH CHECKS	5	TONS AGGREGATE

THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS.

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:
COMED, AT&T

ADDITIONAL NOTES

PAVING

THE THICKNESS OF HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.

STAKING

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL UTILITIES PRIOR TO CONSTRUCTION TO DETERMINE THE LOCATION OF ALL UTILITY EQUIPMENT. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS IF UTILITY RELOCATION, ADJUSTMENT, OR PROTECTION IS NECESSARY.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF EARTH EXCAVATION.

THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MIGHT NOT BE SHOWN ON THE PLANS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

MISCELLANEOUS

THE CONTRACTOR SHALL MAINTAIN EXISTING SIDE STREET AND DRIVEWAY ACCESS TO EACH ABUTTING PROPERTY AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND ELEVATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ANY REFERENCE TO A STANDARD THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS INCLUDED IN THESE PLANS.

SAW CUTTING WILL BE REQUIRED FOR ALL REMOVAL ITEMS LISTED IN SECTION 440 OF THE STANDARD SPECIFICATIONS, SHOWN IN THE PLANS, AND AS DIRECTED BY THE ENGINEER. THE COST OF SAW CUTTING WILL BE INCLUDED IN CONTRACT UNIT BID PRICES FOR THE ITEMS BEING REMOVED.

THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

THE SUBGRADE SHALL BE KEPT DRAINED DURING CONSTRUCTION OF THE PAVEMENT STRUCTURE. THE CONTRACTOR SHALL FACILITATE SURFACE DRAINAGE BY CUTTING WEEPS IN THE SUBGRADE OR ADJACENT TERRAIN AS NECESSARY. THIS WORK SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

WATER SUPPLY THE INDISCRIMINATE USE OF FIRE HYDRANTS, EXISTING STREAMS, CREEKS, WETLANDS, OR PONDS IS STRICTLY PROHIBITED. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK AND DRIVER AS REQUIRED TO OBTAIN AND TRANSPORT THIS WATER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WATER FROM AN APPROVED SOURCE. IF THIS WATER IS FROM A SOURCE OTHER THAN HIS YARD, WRITTEN APPROVAL FROM THE AGENCY HAVING JURISDICTION FOR THE SOURCE OF THE WATER MUST BE RECEIVED BY THE CONTRACTOR PRIOR TO USE OF THE WATER.

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420406	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC / HMA STABILAZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-RD OPERATIONS 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701321-18	LANE CLOSURE 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

HMA MIXTURE REQUIREMENT TABLE

LOCATIONS:	ENTIRE PROJECT	EMTIRE PROJECT	ENTIRE PROJECT	EMTIRE PROJET	ENTIRE PROJET	ENTIRE PROJET
MIXTURE USE(S):	HMA BINDER	HMA SURFACE	HMA SHLD BOTTOM LIFT(S)	HMA SHLD TOP LIFT (1 1/2")	DRIVEWAY BOTTOM LIFT(S)	DRIVEWAY TOP LIFT
BINDER GRADE (PG):	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N70
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 9.5FG	IL 9.5FG	IL 19.0	IL 9.5FG	IL 19.0	IL 9.5FG
FRICTION AGGREGATE:		MIXTURE D				
MIXTURE WEIGHT:	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	OCQA	OCQA	OCQA	OCQA	OCQA	OCQA
SUBLOT SIZE:	NA	NA	NA	NA	NA	NA
DENSITY TEST METHOD:	CORES	CORES	CORES	CORES	SATISFACTION OF ENGINEER	SATISFACTION OF ENGINEER

Contract No. 66H54
US 45/52 BRIDGE REPLACMEMT OVER NORTH BRANCH OF ROCK CREEK

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE
AS BUILT INFORMATION

SUPERVISING CONSTRUCTION FIELD ENGINEER

RESIDENT ENGINEER / TECHNICIAN

START & END DATES OF CONSTRUCTION:

INSPECTORS:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT THREE

PREPARED BY:
DISTRICT STUDIES & PLANS ENGINEER

DATE:

EXAMINED BY:
DISTRICT CONSTRUCTION ENGINEER

DISTRICT MATERIALS ENGINEER

DISTRICT OPERATIONS ENGINEER

Benchmark: BM 14: Rivet on top of the NE wingwall of SN 046-0046; Elev. 661.91

Existing Structure: SN 046-0046 was originally constructed in 1967 as F.A. 45, Section 16 BR-1 at Station 517+09. The existing 3-span reinforced concrete slab superstructure is supported by closed abutments on spread footings and solid wall piers on spread footings. The outer spans are 24'-7" and the middle span is 30'-10" with a 15 degree skew. The back-to-back of abutments measure 84'-10" and the out-to-out width is 46'-6". The existing structure will be removed and replaced utilizing staged construction.

No salvage.

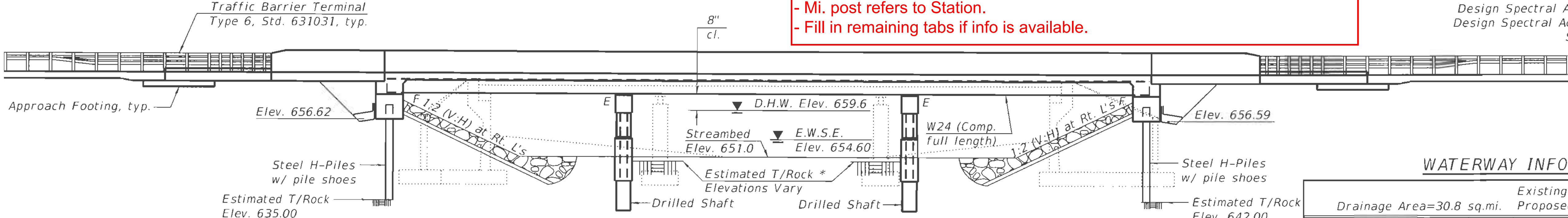
Main Window:
- "tut" suffix on Bridge & NBI ID indicates tutorial.
- "Template" should be unchecked in active models.
- Name includes initials of creator and latest modifier of model, facility carried over feature intersected, and acronym for structure type (see setup guide).
- Fields should match Structure Summary Report.
- Length refers to AASHTO Bridge Length (clear span).
- Route number refers to Key Route Number.
- Mi. post refers to Station.
- Fill in remaining tabs if info is available.

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)				
	S. Abut.	Pier 1	Pier 2	N. Abut.	Item 113
Q100	656.62	645.10	648.00	656.59	5
Q200	656.62	645.30	648.10	656.59	
Design	656.62	645.10	648.00	656.59	
Check	656.62	645.30	648.10	656.59	

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.07
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.124
Soil Site Class = C



ELEVATION

* Estimated T/Rock at Piers is for quantity purposes at Piers only. Rip rap toes, as part of channel improvements, are anticipated to involve excavation in soil and not rock.

WATERWAY INFORMATION TABLE

Drainage Area=30.8 sq.mi. Existing Overtopping Elev.=660.14 @ Sta. 510+00 Proposed Overtopping Elev.=660.14 @ Sta. 510+00

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1400	588	643	658.9	0.1	0.1	659.1	659.1
Design	50	2110	637	707	659.6	0.5	0.4	660.1	659.9
Overtop Existing	63	2240	644	716	659.7	0.5	0.4	660.1	660.0
Overtop Proposed	90	2410	651	725	659.8	0.7	0.4	660.5	660.2
Base	100	2440	652	726	659.8	0.7	0.4	660.5	660.2
Scour Check	200	2770	662	744	660.0	0.8	0.7	660.8	660.6
Max. Calc.	500	3240	662	744	660.2	0.9	0.7	661.0	660.9

10 Year velocity through existing structure = 2.4 ft./sec.
10 Year velocity through proposed structure = 2.2 ft./sec.

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

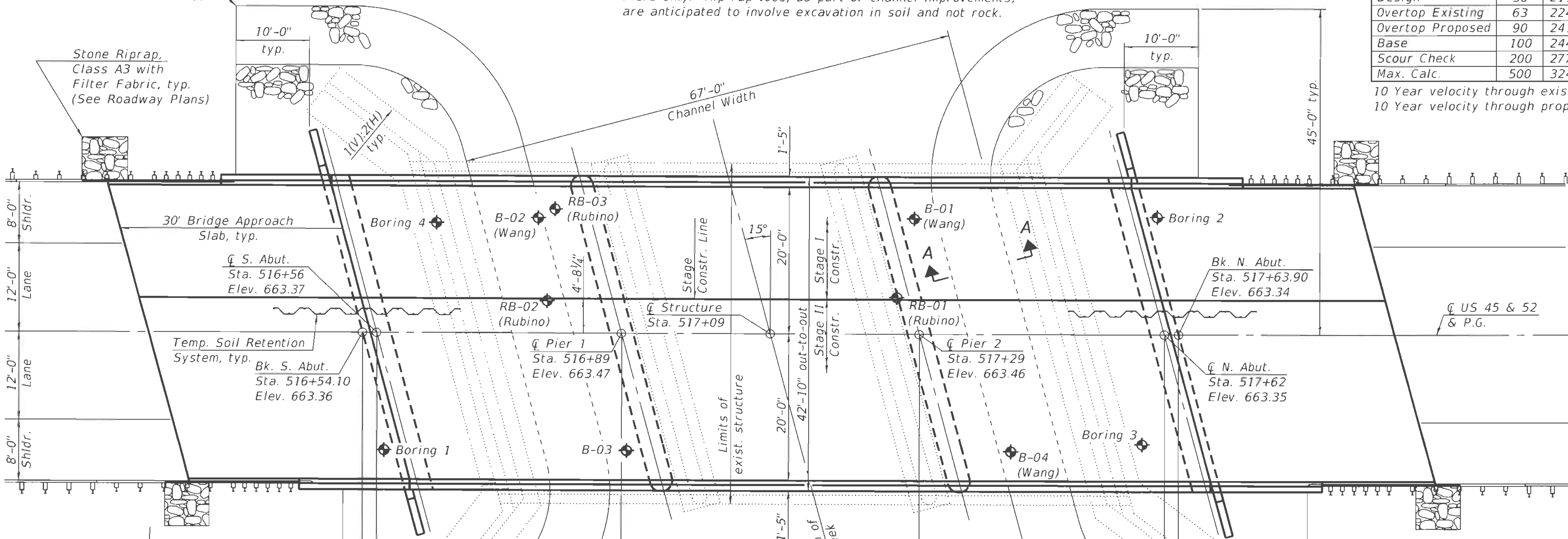
LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

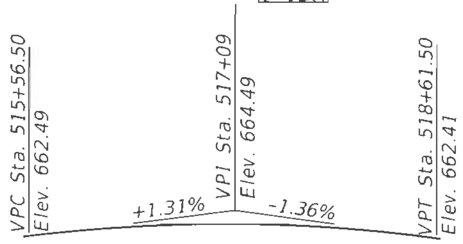
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)



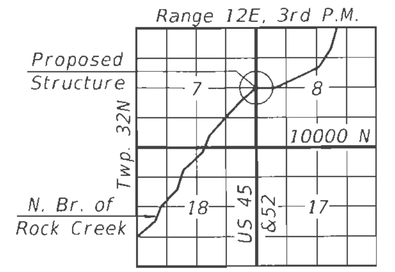
PLAN



LVC = 305'

PROFILE GRADE

(Along ℄ US 45 & 52)



LOCATION SKETCH

Note: See Sheet 2 of 32 for Section A-A

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

STATE OF ILLINOIS
ANDREW E. UNDERWAGER
081-006218
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

Andy Underwager 12/06/2021
Structural Engineer Expires: 11/30/2022
HR Green, Inc.

GENERAL PLAN AND ELEVATION
US 45 & 52 OVER
NORTH BRANCH OF ROCK CREEK
F.A.P. RTE. 330 - SEC. (16BR-1)BR
KANKAKEE COUNTY
STATION 517+09.00
STRUCTURE NO. 046-0160

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HRGreen.com
Illinois Professional Design Firm
184-001322
HRGreen.

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	CHECKED - AEU	REVISED -
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	21
		CONTRACT NO. 66H54		

ILLINOIS FED. AID PROJECT

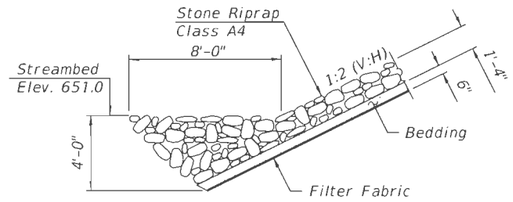
GENERAL NOTES

1. Fasteners shall be ASTM F3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. ø, holes 15/16 in. Ø, unless otherwise noted.
2. Calculated weight of Structural Steel = 84,670 lbs. (M270 Grade 50)
   Calculated weight of Structural Steel = 8,180 lbs. (M270 Grade 36)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
6. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.
7. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
8. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
9. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage 1 removal to ensure the remaining portion will not be prematurely damaged.
10. The finishing machine rails shall be placed on the top flange of the exterior beams.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL QUANTITY
Stone Riprap, Class A4	Sq. Yd.		636	636
Filter Fabric	Sq. Yd.		636	636
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		184	184
Concrete Structures	Cu. Yd.		140.3	140.3
Concrete Superstructure	Cu. Yd.	179.2		179.2
Bridge Deck Grooving	Sq. Yd.	709		709
Protective Coat	Sq. Yd.	876		876
Concrete Superstructure (Approach Slab)	Cu. Yd.	116.8		116.8
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	5,124		5,124
Reinforcement Bars	Pound		8,420	8,420
Reinforcement Bars, Epoxy Coated	Pound	85,360	21,280	106,640
Bar Splicers	Each	288	549	837
Furnishing Steel Piles HP12X53	Foot		246	246
Driving Piles	Foot		246	246
Test Pile Steel HP 12X53	Each		2	2
Pile Shoes	Each		14	14
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu. Yd.		4.2	4.2
Drilled Shaft in Rock	Cu. Yd.		32.0	32.0
Elastomeric Bearing Assembly, Type 1	Each	14		14
Anchor Bolts, 3/4"	Each	28		28
Anchor Bolts, 1"	Each	28		28
Temporary Soil Retention System	Sq. Ft.		368	368
Granular Backfill for Structures	Cu. Yd.		112	112
Geocomposite Wall Drain	Sq. Yd.		52	52
Pipe Underdrains for Structures, 4"	Foot		146	146
Thermal Integrity Profile Testing	Each		10	10
Thermal Integrity Profile Data Collection	Foot		192	192

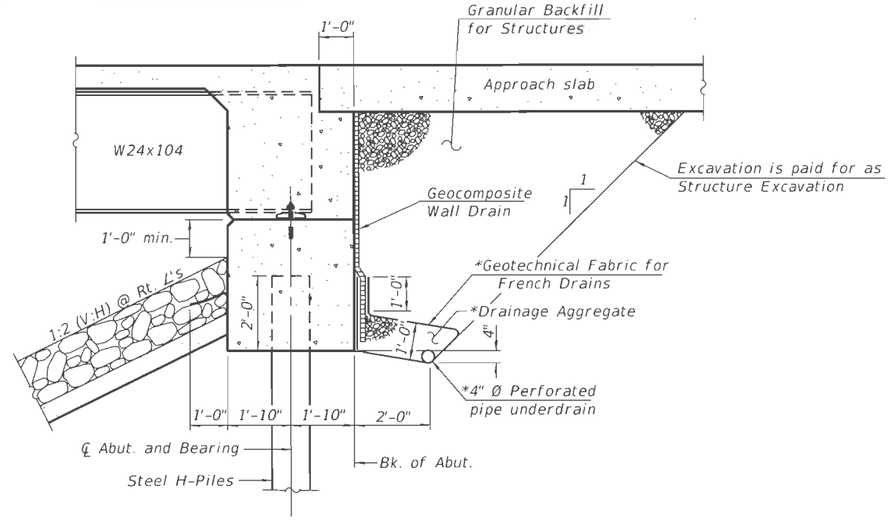
INDEX OF SHEETS



SECTION A-A

STATION 517+09.00
BUILT BY
STATE OF ILLINOIS
LOADING HL-93
STRUCTURE NO. 046-0160

NAME PLATE
See Std. 515001



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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HRGreen.com
Illinois Professional Design Firm
184-001322

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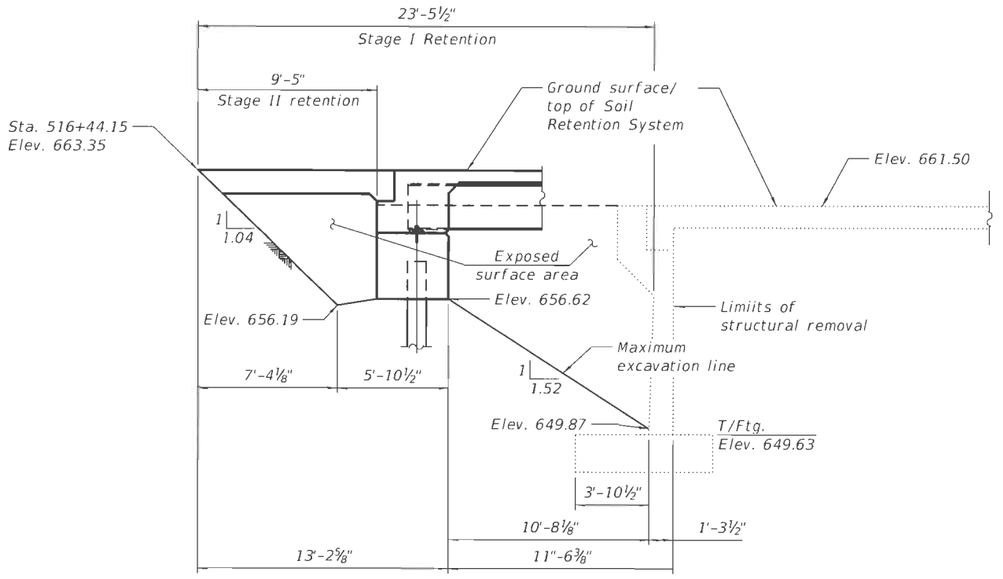
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 1/26/2022	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

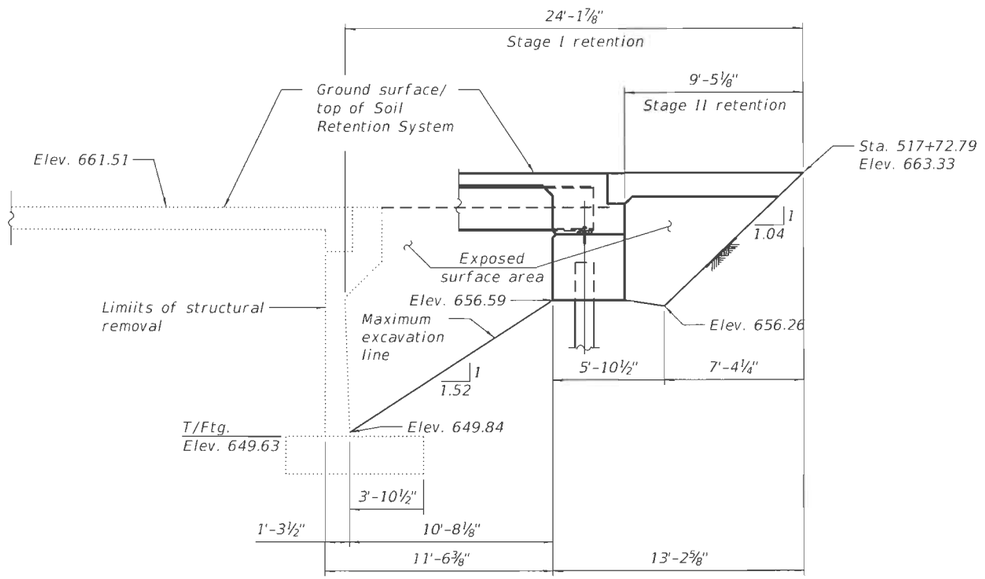
GENERAL DATA
STRUCTURE NO. 046-0160
SHEET NO. 2 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	22
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		



SOUTH ABUTMENT

Looking West



NORTH ABUTMENT

Looking West

Notes:
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	368

HRG PROJECT NO.: 2020410
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-003-TempSoilRet.dgn
PLOT DRIVER: ilpdf_bw.pltcfg
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HRGreen.com
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184-001322

USER NAME = aunderw	DESIGNED - SLS	REVISED -	
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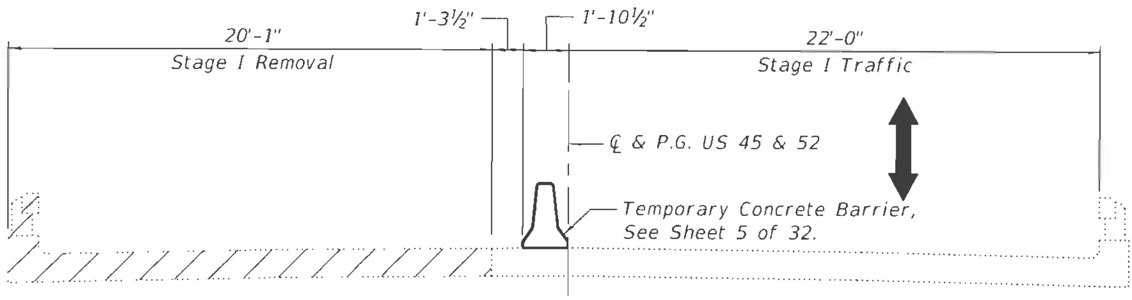
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 1/26/2022	CHECKED - AEU	REVISED -	

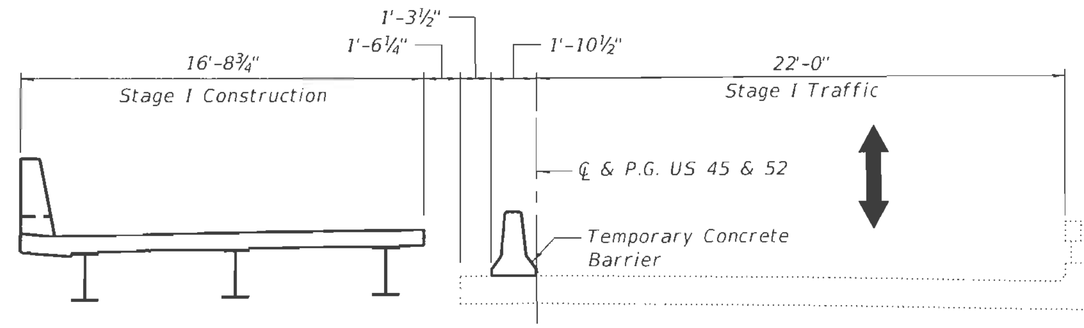
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 046-0160
SHEET NO. 3 OF 32 SHEETS

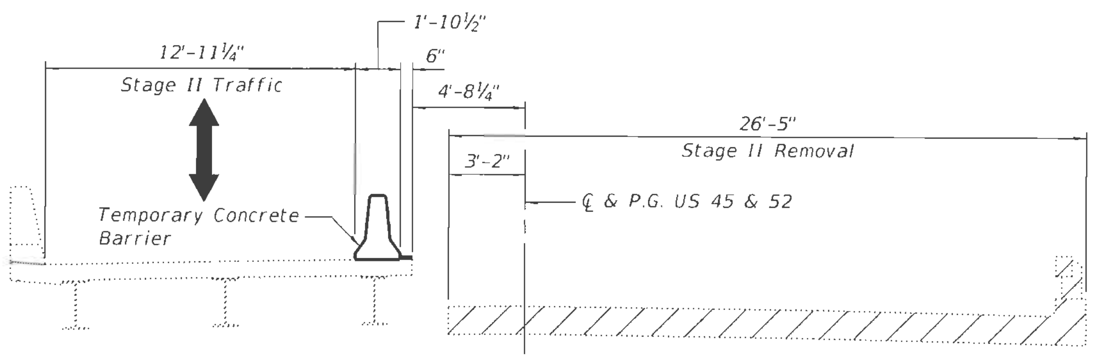
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	23
		CONTRACT NO. 66H54		
		ILLINOIS	FED. AID PROJECT	



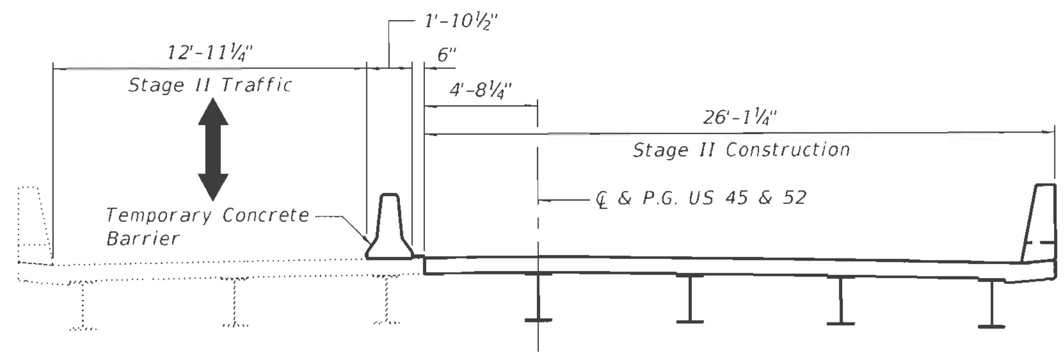
STAGE I REMOVAL
(Looking North)



STAGE I CONSTRUCTION
(Looking North)



STAGE II REMOVAL
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

LEGEND

Removal of Existing Structures

Notes:
For quantity of Temporary Concrete Barrier, see Roadway Plans.

HRG PROJECT NO.: 200211.10
HRG PROJ. CONTACT:
FILE NAME: 0460160-66H54-004-StgConst.dgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

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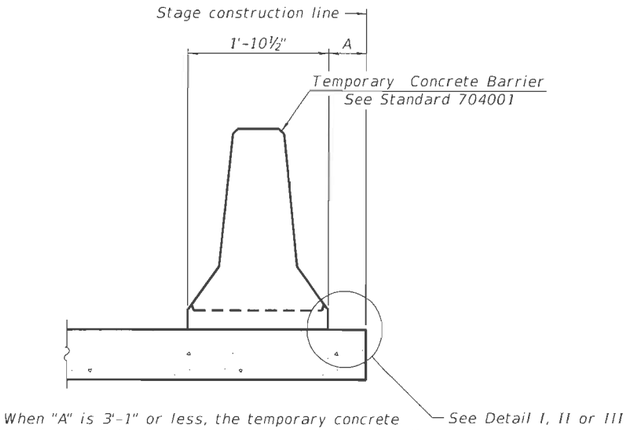
USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 046–0160

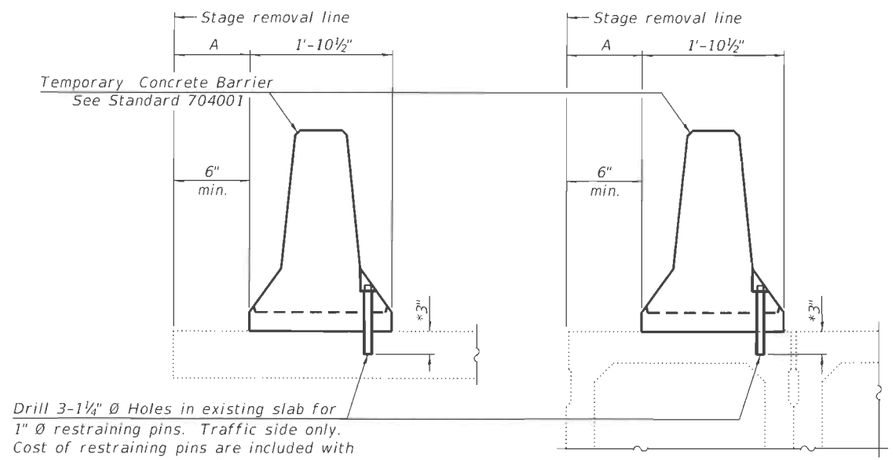
SHEET NO. 4 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	24
		CONTRACT NO. 66H54		
	ILLINOIS FED. AID PROJECT			



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



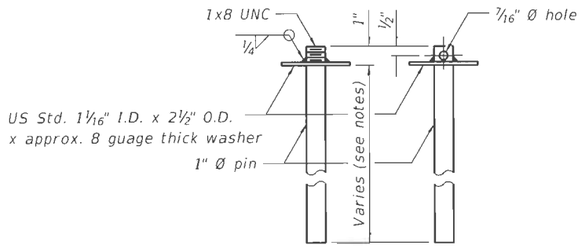
Drill 3-1¼" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

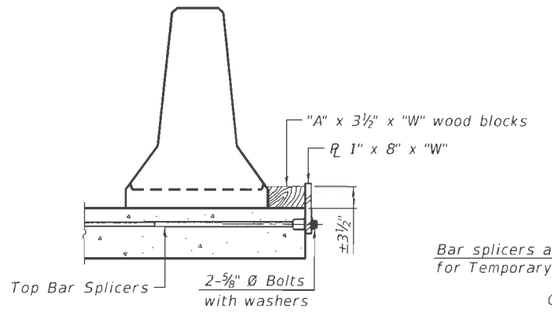
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

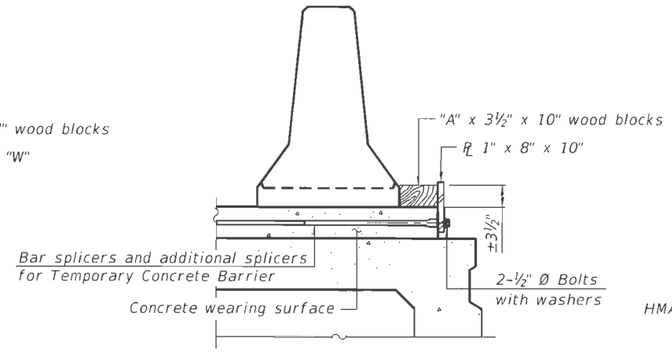
SECTIONS THRU SLAB OR DECK BEAM



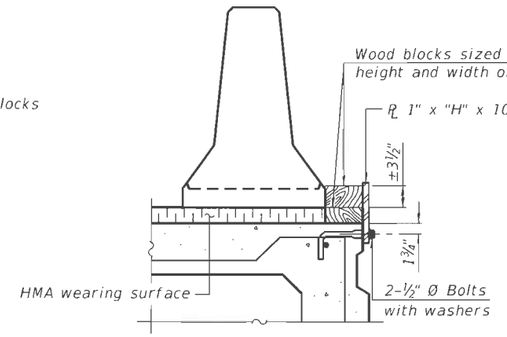
RESTRAINING PIN



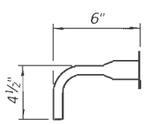
DETAIL I



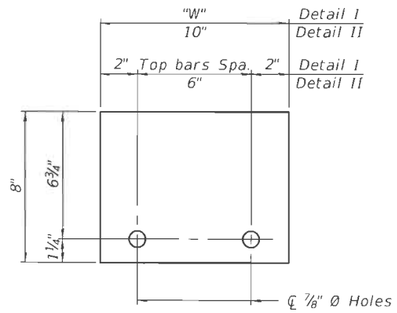
DETAIL II



DETAIL III

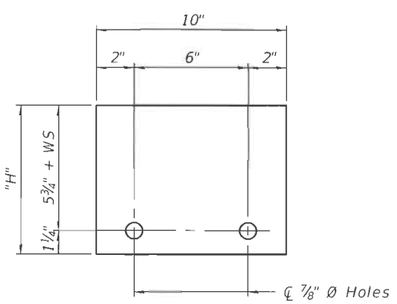


BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER ℄ 1" x 8" x "W"

(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"

(Detail III)

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

2-17-2017

HRG PROJECT NO.: 2002h10
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-005-TempConcBarr.dgn
PLOT DRIVER: ilL_pdf.drv
PEN TABLE: plotlabel.tbl

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USER NAME = jrollbu	DESIGNED - SLS	REVISED -
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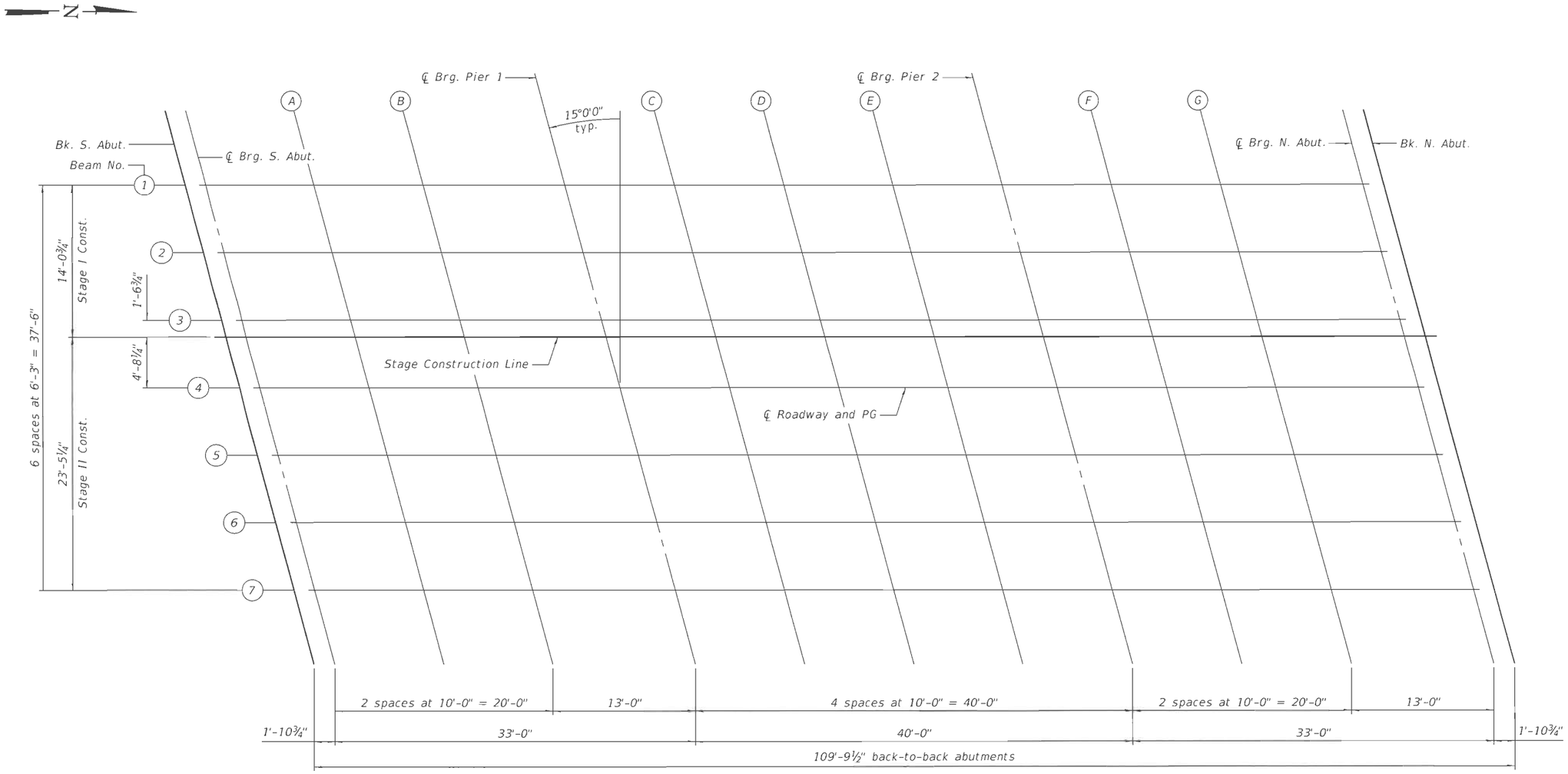
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 046-0160
SHEET NO. 5 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	25
		CONTRACT NO. 66H54		
		ILLINOIS	FED. AID PROJECT	



PLAN

HRG PROJECT NO.: 20021410
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PEN TABLE: plotlabel.tbl

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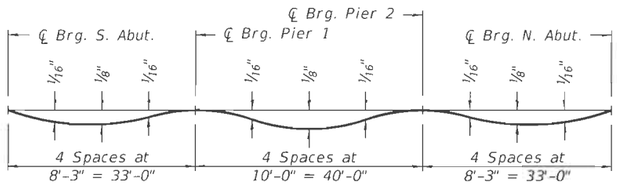
	CHECKED - AEU	REVISED -
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 1/26/2022	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 046-0160
SHEET NO. 6 OF 32 SHEETS

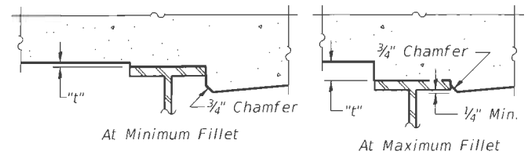
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	26
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above 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 below and on Sheet 8 of 32.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below and on Sheet 8 of 32. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+49.08	-18.75	663.01	663.01
CL Brg. S. Abut.	516+50.98	-18.75	663.02	663.02
A	516+60.98	-18.75	663.07	663.08
B	516+70.98	-18.75	663.10	663.11
CL Brg. Pier 1	516+83.98	-18.75	663.13	663.13
C	516+93.98	-18.75	663.15	663.16
D	517+03.98	-18.75	663.16	663.17
E	517+13.98	-18.75	663.15	663.16
CL Brg. Pier 2	517+23.98	-18.75	663.14	663.14
F	517+33.98	-18.75	663.12	663.13
G	517+43.98	-18.75	663.09	663.10
CL Brg. N. Abut.	517+56.98	-18.75	663.04	663.04
Bk. N. Abut.	517+58.87	-18.75	663.03	663.03

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+50.75	-12.50	663.15	663.15
CL Brg. S. Abut.	516+52.65	-12.50	663.16	663.16
A	516+62.65	-12.50	663.20	663.21
B	516+72.65	-12.50	663.23	663.24
CL Brg. Pier 1	516+85.65	-12.50	663.26	663.26
C	516+95.65	-12.50	663.28	663.29
D	517+05.65	-12.50	663.28	663.29
E	517+15.65	-12.50	663.28	663.29
CL Brg. Pier 2	517+25.65	-12.50	663.26	663.26
F	517+35.65	-12.50	663.24	663.25
G	517+45.65	-12.50	663.21	663.22
CL Brg. N. Abut.	517+58.65	-12.50	663.16	663.16
Bk. N. Abut.	517+60.55	-12.50	663.15	663.15

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+52.43	-6.25	663.25	663.25
CL Brg. S. Abut.	516+54.33	-6.25	663.26	663.26
A	516+64.33	-6.25	663.30	663.31
B	516+74.33	-6.25	663.33	663.34
CL Brg. Pier 1	516+87.33	-6.25	663.36	663.36
C	516+97.33	-6.25	663.37	663.38
D	517+07.33	-6.25	663.38	663.39
E	517+17.33	-6.25	663.37	663.38
CL Brg. Pier 2	517+27.33	-6.25	663.36	663.36
F	517+37.33	-6.25	663.33	663.34
G	517+47.33	-6.25	663.30	663.31
CL Brg. N. Abut.	517+60.33	-6.25	663.25	663.25
Bk. N. Abut.	517+62.22	-6.25	663.24	663.24

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+52.85	-4.69	663.42	663.42
CL Brg. S. Abut.	516+54.74	-4.69	663.43	663.43
A	516+64.74	-4.69	663.36	663.37
B	516+74.74	-4.69	663.39	663.40
CL Brg. Pier 1	516+87.74	-4.69	663.42	663.42
C	516+97.74	-4.69	663.43	663.44
D	517+07.74	-4.69	663.44	663.45
E	517+17.74	-4.69	663.43	663.44
CL Brg. Pier 2	517+27.74	-4.69	663.42	663.42
F	517+37.74	-4.69	663.39	663.40
G	517+47.74	-4.69	663.36	663.37
CL Brg. N. Abut.	517+60.74	-4.69	663.31	663.31
Bk. N. Abut.	517+62.64	-4.69	663.30	663.30

BEAM 4 & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+54.10	0.00	663.35	663.35
CL Brg. S. Abut.	516+56.00	0.00	663.36	663.36
A	516+66.00	0.00	663.40	663.41
B	516+76.00	0.00	663.43	663.44
CL Brg. Pier 1	516+89.00	0.00	663.46	663.46
C	516+99.00	0.00	663.47	663.48
D	517+09.00	0.00	663.47	663.48
E	517+19.00	0.00	663.46	663.47
CL Brg. Pier 2	517+29.00	0.00	663.45	663.45
F	517+39.00	0.00	663.42	663.43
G	517+49.00	0.00	663.39	663.40
CL Brg. N. Abut.	517+62.00	0.00	663.33	663.33
Bk. N. Abut.	517+63.90	0.00	663.32	663.32

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+55.78	6.25	663.29	663.29
CL Brg. S. Abut.	516+57.67	6.25	663.30	663.30
A	516+67.67	6.25	663.34	663.35
B	516+77.67	6.25	663.37	663.38
CL Brg. Pier 1	516+90.67	6.25	663.40	663.40
C	517+00.67	6.25	663.40	663.41
D	517+10.67	6.25	663.40	663.41
E	517+20.67	6.25	663.40	663.41
CL Brg. Pier 2	517+30.67	6.25	663.38	663.38
F	517+40.67	6.25	663.35	663.36
G	517+50.67	6.25	663.32	663.33
CL Brg. N. Abut.	517+63.67	6.25	663.26	663.26
Bk. N. Abut.	517+65.57	6.25	663.25	663.25

E-S

2-17-2017

HRG PROJECT NO.: 2002140
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PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 046-0160
SHEET NO. 7 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	27
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+57.45	12.50	663.18	663.18
CL Brg. S. Abut.	516+59.35	12.50	663.18	663.18
A	516+69.35	12.50	663.22	663.23
B	516+79.35	12.50	663.25	663.26
CL Brg. Pier 1	516+92.35	12.50	663.27	663.27
C	517+02.35	12.50	663.28	663.29
D	517+12.35	12.50	663.28	663.29
E	517+22.35	12.50	663.27	663.28
CL Brg. Pier 2	517+32.35	12.50	663.25	663.25
F	517+42.35	12.50	663.22	663.23
G	517+52.35	12.50	663.19	663.20
CL Brg. N. Abut.	517+65.35	12.50	663.13	663.13
Bk. N. Abut.	517+67.25	12.50	663.12	663.12

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	516+59.13	18.75	663.06	663.06
CL Brg. S. Abut.	516+61.02	18.75	663.07	663.07
A	516+71.02	18.75	663.10	663.11
B	516+81.02	18.75	663.13	663.14
CL Brg. Pier 1	516+94.02	18.75	663.15	663.15
C	517+04.02	18.75	663.16	663.17
D	517+14.02	18.75	663.15	663.16
E	517+24.02	18.75	663.14	663.15
CL Brg. Pier 2	517+34.02	18.75	663.12	663.12
F	517+44.02	18.75	663.09	663.10
G	517+54.02	18.75	663.05	663.06
CL Brg. N. Abut.	517+67.02	18.75	662.99	662.99
Bk. N. Abut.	51768.92	18.75	662.98	662.98

HRG PROJECT NO.: 20201.0
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-008-105.dgn
PLOT DRIVER: IL_pdf_bw_ctb.cfg
PEN TABLE: platlabel.tbl

E-S

2-17-2017

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USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
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PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 046-0160

SHEET NO. 8 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	28
		CONTRACT NO. 66H54		
	ILLINOIS FED. AID PROJECT			

WEST EDGE OF SHOULDER

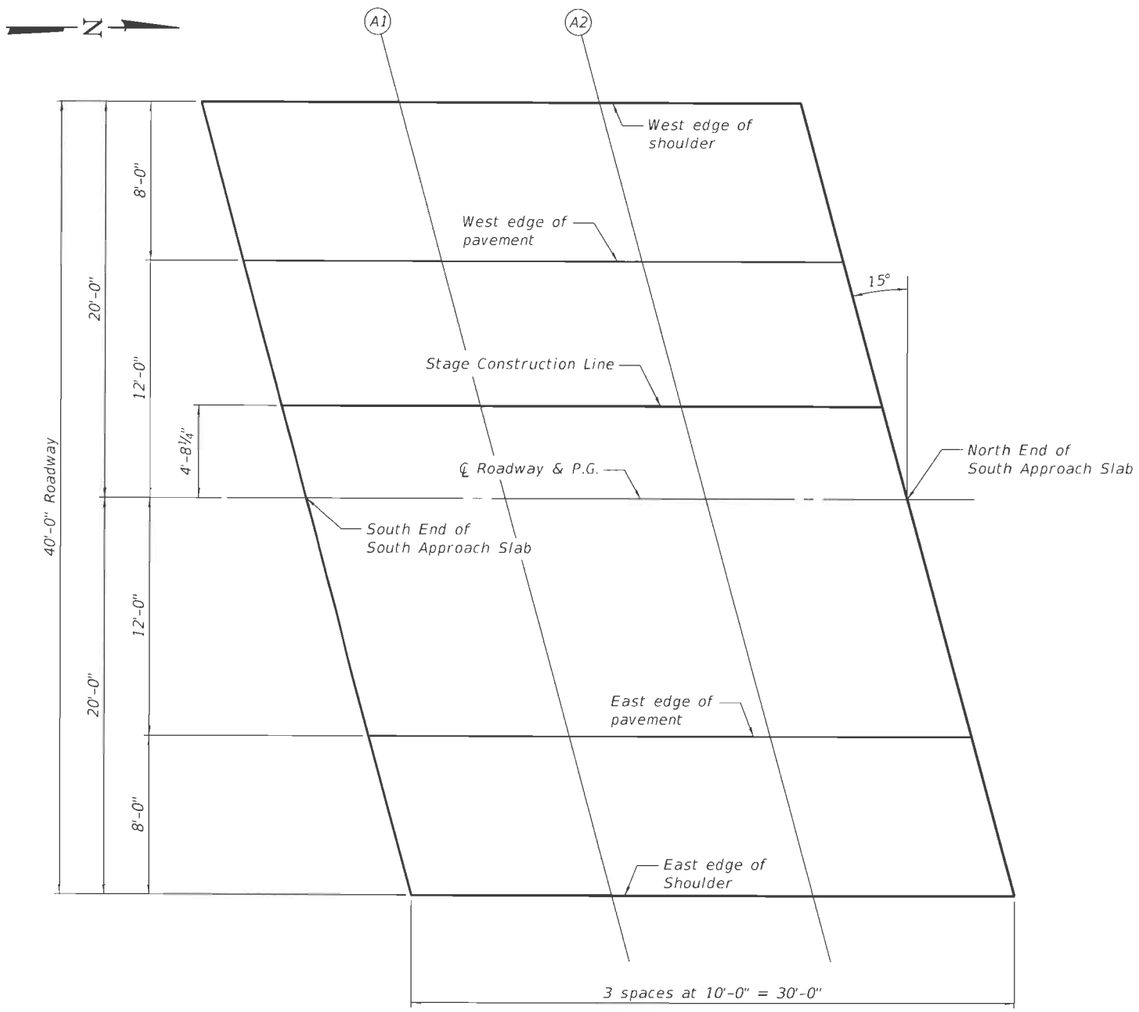
Location	Station	Offset	Theoretical Grade Elevations
S. End of South Appr.	516+19.78	-20.00	662.80
A1	516+29.78	-20.00	662.88
A2	516+39.78	-20.00	662.94
N. End of South Appr.	516+49.78	-20.00	662.99

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Appr.	516+21.92	-12.00	662.98
A1	516+31.92	-12.00	663.05
A2	516+41.92	-12.00	663.11
N. End of South Appr.	516+51.92	-12.00	663.16

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Appr.	516+23.88	-4.69	663.10
A1	516+33.88	-4.69	663.17
A2	516+43.88	-4.69	663.23
N. End of South Appr.	516+53.88	-4.69	663.28



PLAN

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Appr.	516+25.14	0.00	663.18
A1	516+35.14	0.00	663.25
A2	516+45.14	0.00	663.31
N. End of South Appr.	516+55.14	0.00	663.36

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Appr.	516+28.35	12.00	663.03
A1	516+38.35	12.00	663.09
A2	516+48.35	12.00	663.14
N. End of South Appr.	516+58.35	12.00	663.19

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of South Appr.	516+30.50	20.00	662.88
A1	516+40.50	20.00	662.94
A2	516+50.50	20.00	663.00
N. End of South Appr.	516+60.50	20.00	663.04

HRG PROJECT NO.: 2022L10
HRG PROJ. CONTACT:
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PLOT STYLE TABLE: IDOT-Default.ctb
PEN TABLES: portrait.tbl

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184-001322

USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 046-0160
SHEET NO. 9 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	29
		CONTRACT NO. 66H54		
		ILLINOIS	FED. AID PROJECT	

WEST EDGE OF SHOULDER

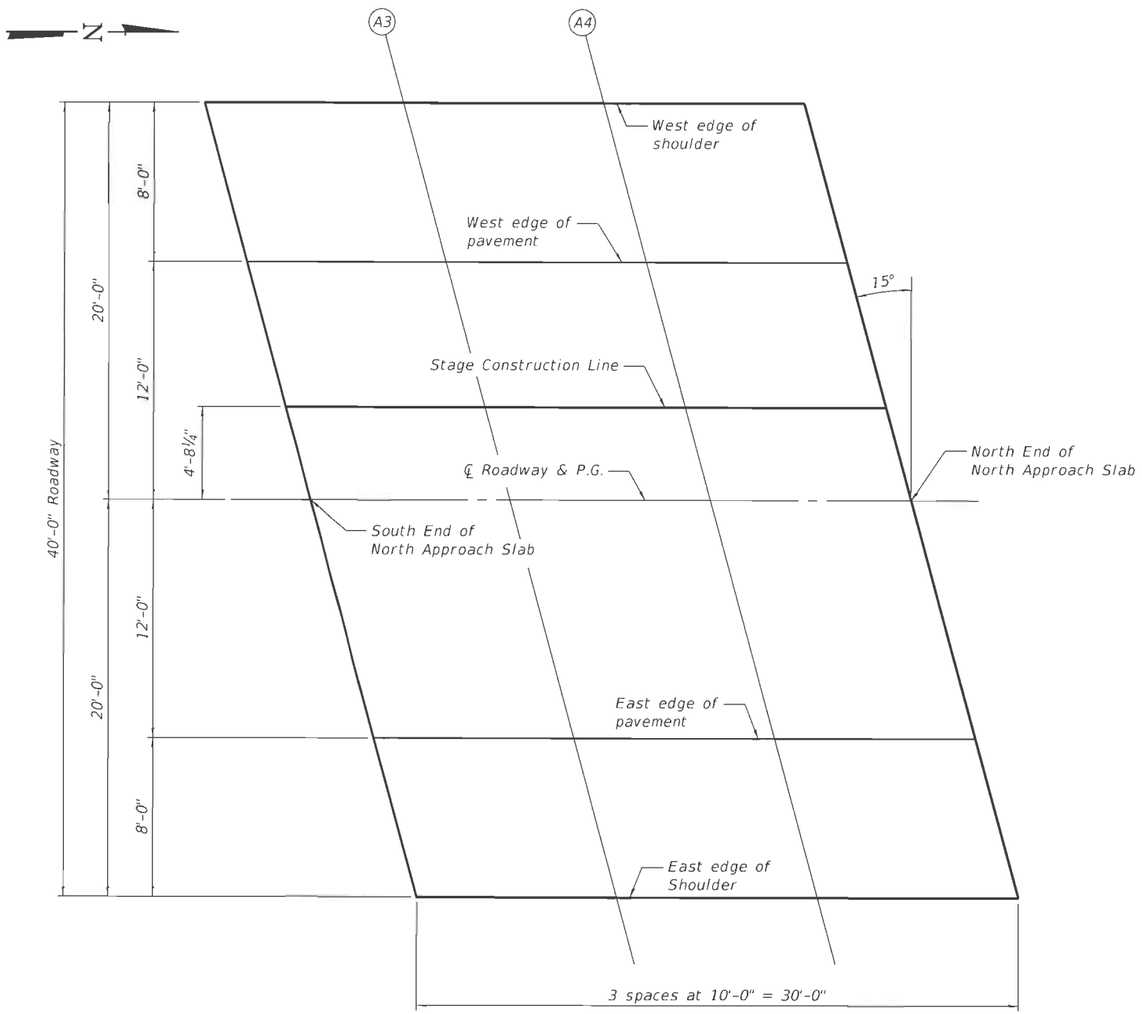
Location	Station	Offset	Theoretical Grade Elevations
S. End of North Appr.	517+57.50	-20.00	663.01
A3	517+67.50	-20.00	662.96
A4	517+77.50	-20.00	662.91
N. End of North Appr.	517+87.50	-20.00	662.84

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of North Appr.	517+59.65	-12.00	663.16
A3	517+69.65	-12.00	663.11
A4	517+79.65	-12.00	663.05
N. End of North Appr.	517+89.65	-12.00	662.98

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of North Appr.	517+61.61	-4.69	663.26
A3	517+71.61	-4.69	663.21
A4	517+81.61	-4.69	663.15
N. End of North Appr.	517+91.61	-4.69	663.08



PLAN

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
S. End of North Appr.	517+62.86	0.00	663.33
A3	517+72.86	0.00	663.27
A4	517+82.86	0.00	663.21
N. End of North Appr.	517+92.86	0.00	663.14

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of North Appr.	517+66.08	12.00	663.13
A3	517+76.08	12.00	663.08
A4	517+86.08	12.00	663.01
N. End of North Appr.	517+96.08	12.00	662.93

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End of North Appr.	517+68.22	16.42	662.96
A3	517+78.22	16.42	662.90
A4	517+88.22	16.42	662.83
N. End of North Appr.	517+98.22	16.42	662.76

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HRG PROJ.: CONTACT:
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USER NAME = jrolibu	DESIGNED - SLS	REVISED -	
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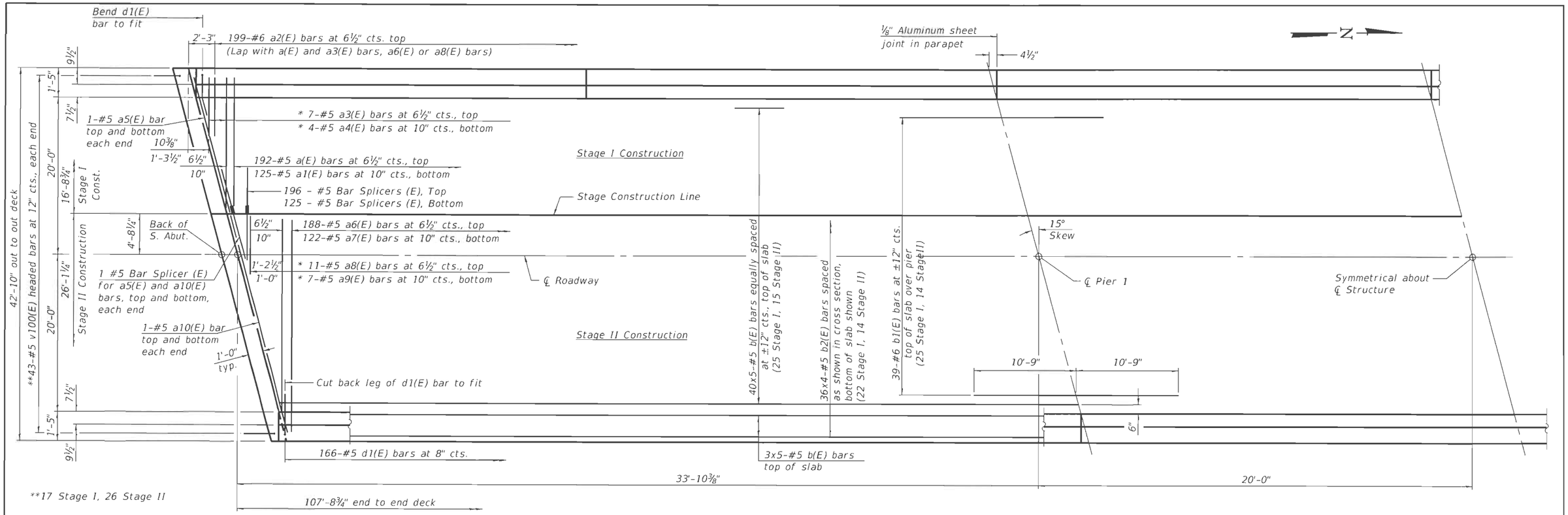
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 046-0160
SHEET NO. 10 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	30
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		



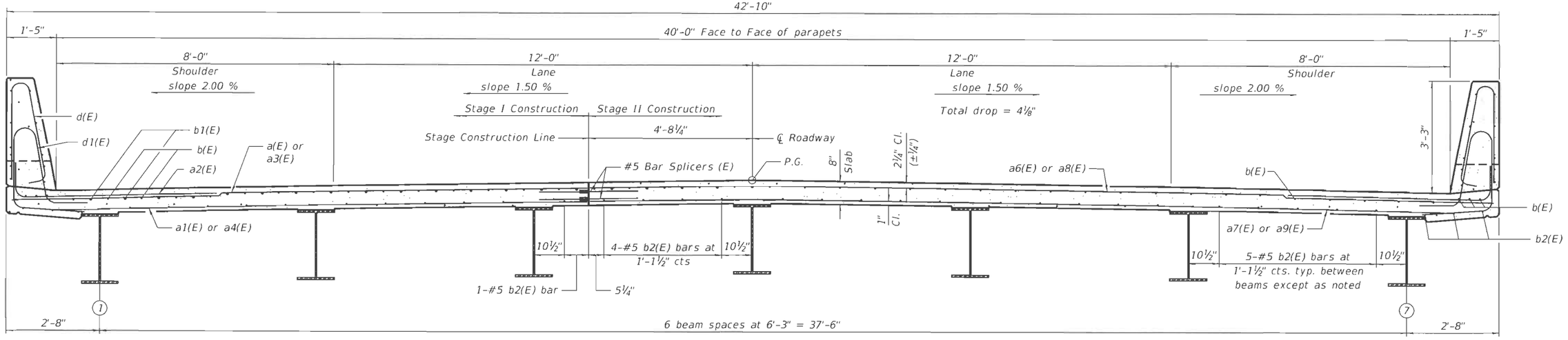
MINIMUM BAR LAP

#5 bar = 3'-6"

* See Field Cutting Diagram on sheet 12 of 32.

PARTIAL PLAN

Notes:
See sheet 12 of 32 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION

(Looking North)

HRG PROJECT NO.: 2002400
HRG PROJ. CONTACT:
FILE NAME: c:\46060-66H54-DH-Super.dgn
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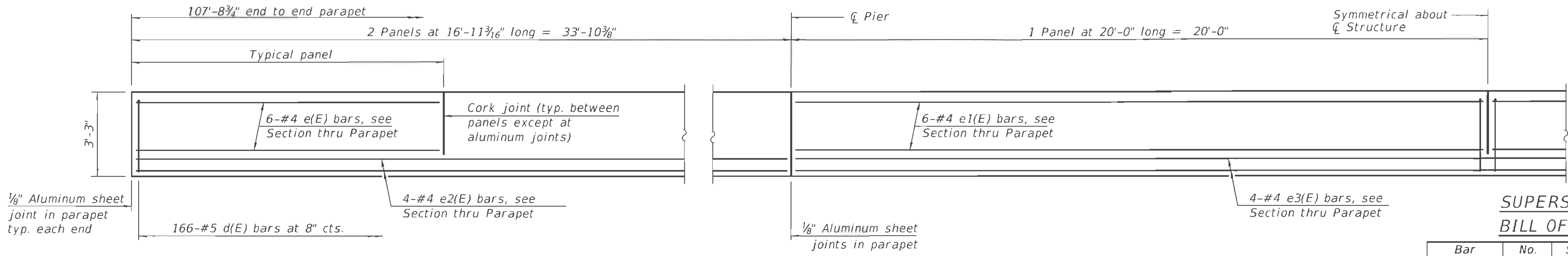
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -

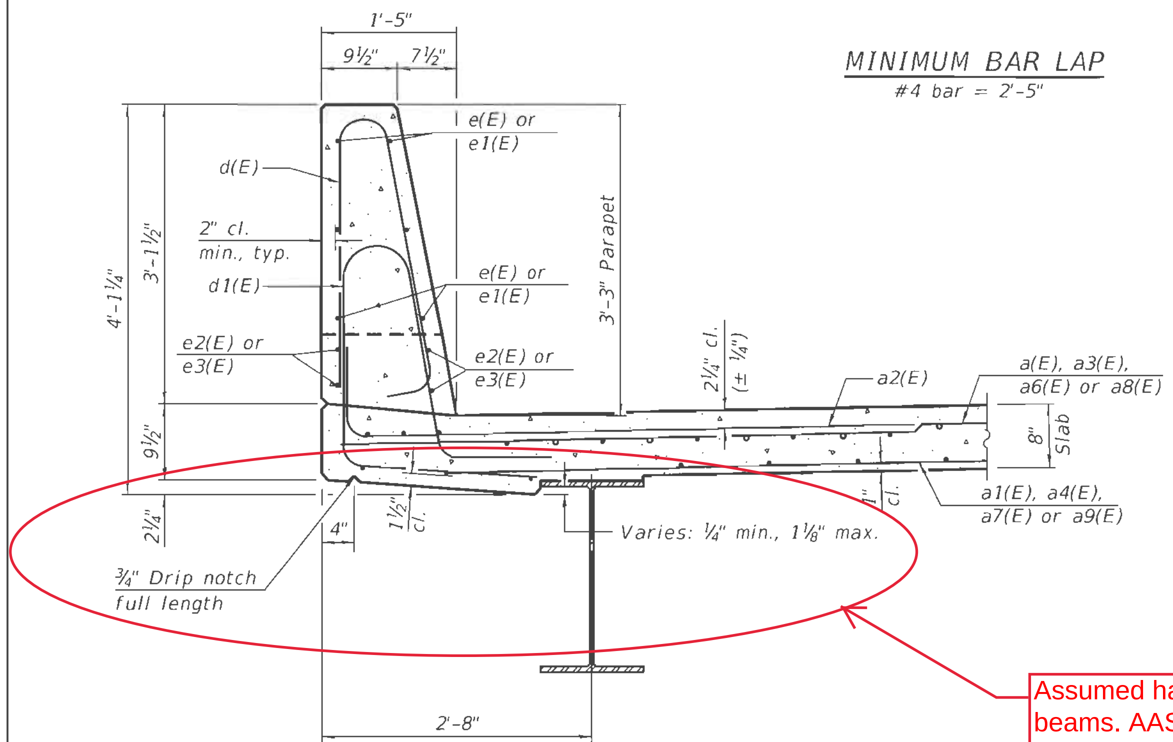
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 046-0160
SHEET NO. 11 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	31
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		



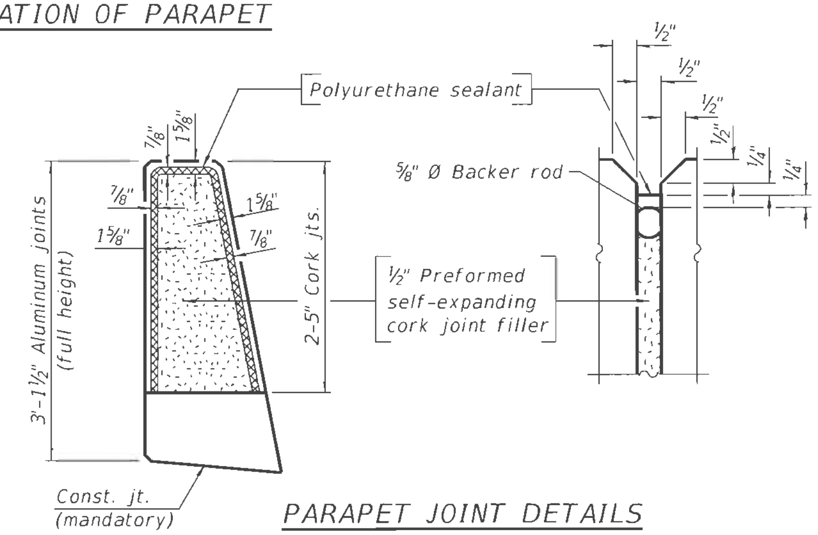
INSIDE ELEVATION OF PARAPET



MINIMUM BAR LAP

#4 bar = 2'-5"

SECTION THRU PARAPET



PARAPET JOINT DETAILS

Notes:

The ⅛" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

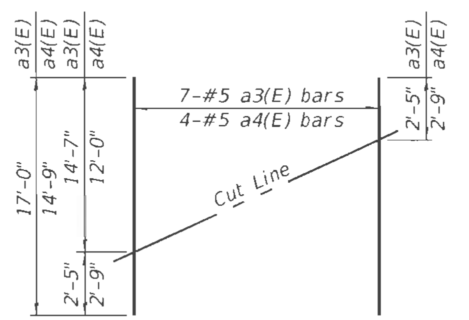
The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

... threaded attachment; Class HA; and reinforcement ... ith Reinforcement Bars, Epoxy Coated.

Assumed haunch thickness of 1" used for all interior beams. AASHTOWare does not allow for a haunch to go below the top flange. The closest configuration to flush with the bottom of the top flange is the minimum 1/4" case. The haunch thickness on the interior side of the edge beam was calculated based on the configuration of the exterior haunch flush with the bottom of the top flange, plus the 1/4" minimum overhang. Note: In cases where the haunch is very thick, more refined techniques should be used.

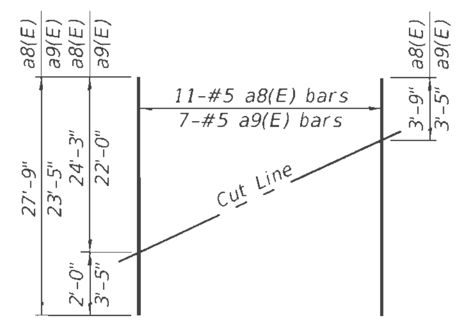
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	192	#5	16'- 5"	
a1(E)	125	#5	15'- 2"	
a2(E)	398	#6	8'- 4"	
a3(E)	7	#5	17'- 0"	
a4(E)	4	#5	14'- 9"	
a5(E)	4	#5	17'- 0"	
a6(E)	188	#5	25'- 10"	
a7(E)	122	#5	24'- 7"	
a8(E)	11	#5	27'- 9"	
a9(E)	7	#5	23'- 5"	
a10(E)	4	#5	26'- 9"	
b(E)	230	#5	24'- 4"	
b1(E)	78	#6	21'- 6"	
b2(E)	144	#5	29'- 5"	
d(E)	332	#5	6'- 5"	
d1(E)	332	#5	8'- 0"	
e(E)	48	#4	16'- 7"	
e1(E)	24	#4	19'- 8"	
e2(E)	16	#4	33'- 6"	
e3(E)	8	#4	39'- 8"	
m10(E)	8	#6	17'- 0"	
m11(E)	30	#6	6'- 1"	
m12(E)	12	#6	2'- 5"	
m13(E)	6	#6	1'- 4"	
m14(E)	6	#6	4'- 6"	
m15(E)	8	#6	26'- 9"	
s10(E)	84	#5	6'- 3"	
s11(E)	84	#5	8'- 7"	
v100(E)	86	#5	3'- 1"	
Concrete Superstructure			Cu. Yd.	171.4
Reinforcement Bars, Epoxy Coated			Pound	40,950



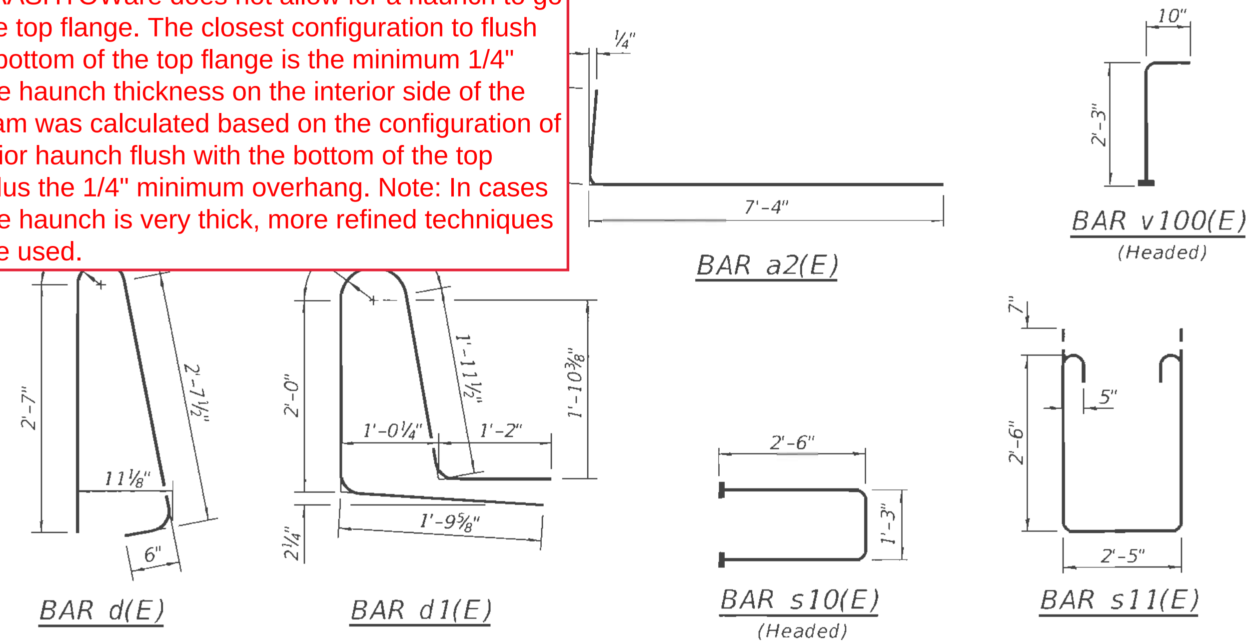
FIELD CUTTING DIAGRAM

Order a3(E) and a4(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.



FIELD CUTTING DIAGRAM

Order a8(E) and a9(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.



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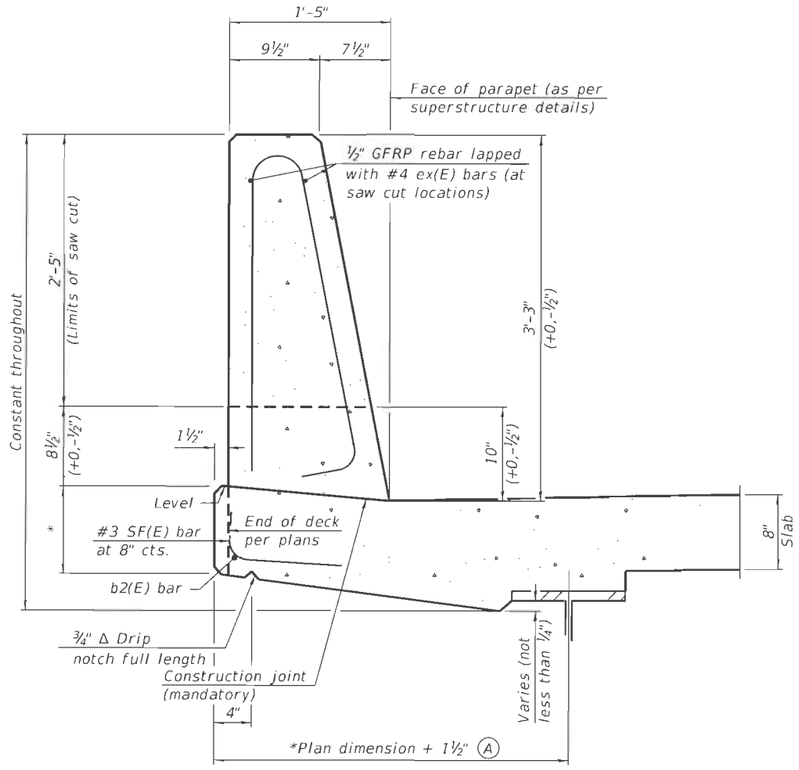
FILE NAME: ...SuperDet.dgn
PLOT DRIVER: ...
PEN TABLE: ...

HRGreen.com Illinois Professional Design Firm # 184-001322	USER NAME = jroltbu	DESIGNED - SLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	PLOT SCALE =	CHECKED - AEU	REVISED -	
		DRAWN - WJH	REVISED -	
	PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 046–0160
SHEET NO. 12 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	32
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		



39" CONSTANT-SLOPE PARAPET SECTION

(Showing dimensions, d(E), and ½" Ø GFRP rebar)

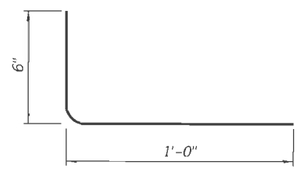
Notes:

All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" parapets.

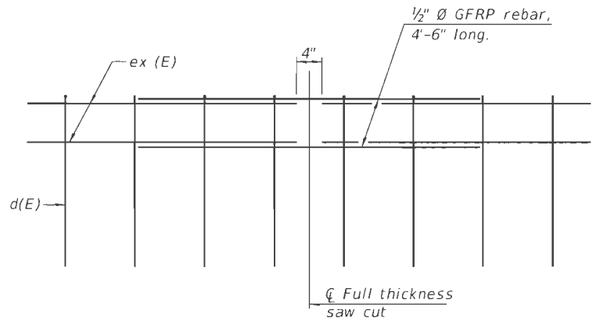
Place full depth aluminum sheets as shown on superstructure details.

Replace all cork joint filler locations with a full thickness saw cut.

*See Superstructure Details.



#3 SF(E) BAR



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

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HRG PROJ. CONTACT:
FILE NAME: D:\60160-66H54-01-ConcParapSlip.dgn
PLOT DRIVER: IL_pdf.pltcfg
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USER NAME = jraltbu	DESIGNED - SLS	REVISED -	
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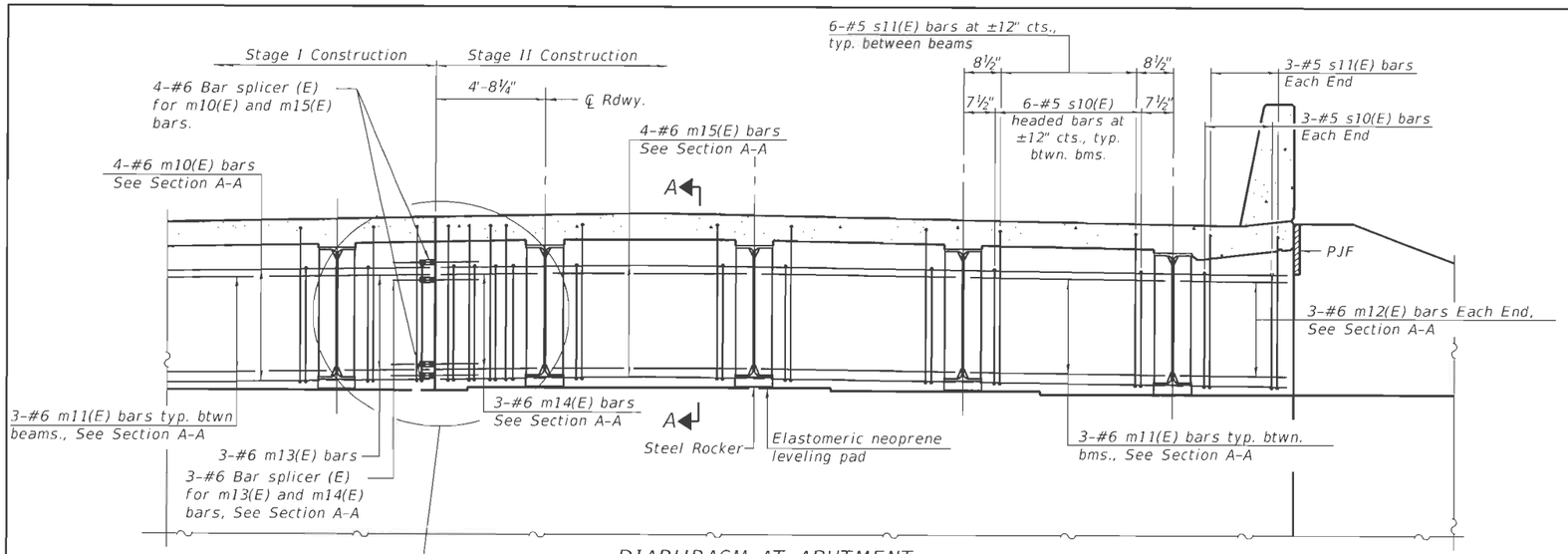
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

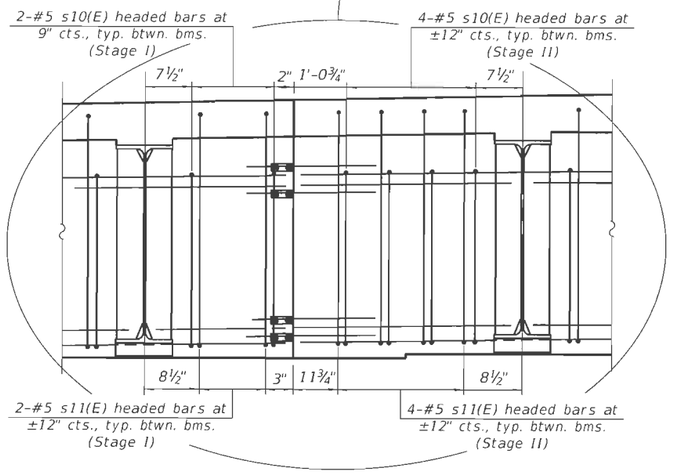
CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 046-0160
SHEET NO. 13 OF 32 SHEETS

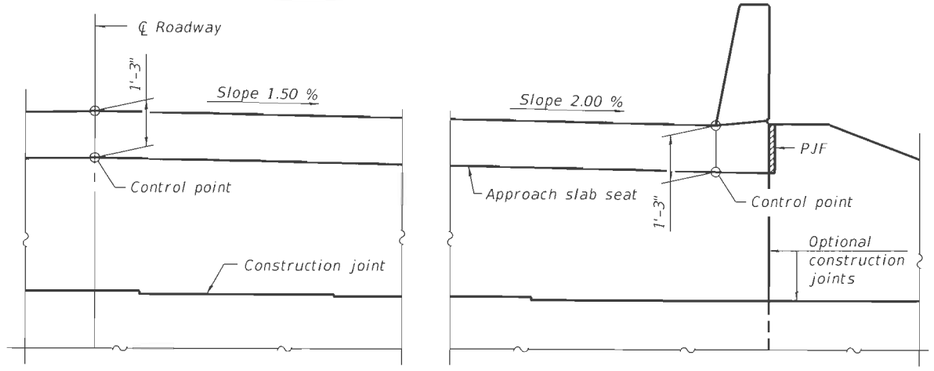
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	33
		CONTRACT NO. 66H54		
		ILLINOIS	FED. AID PROJECT	



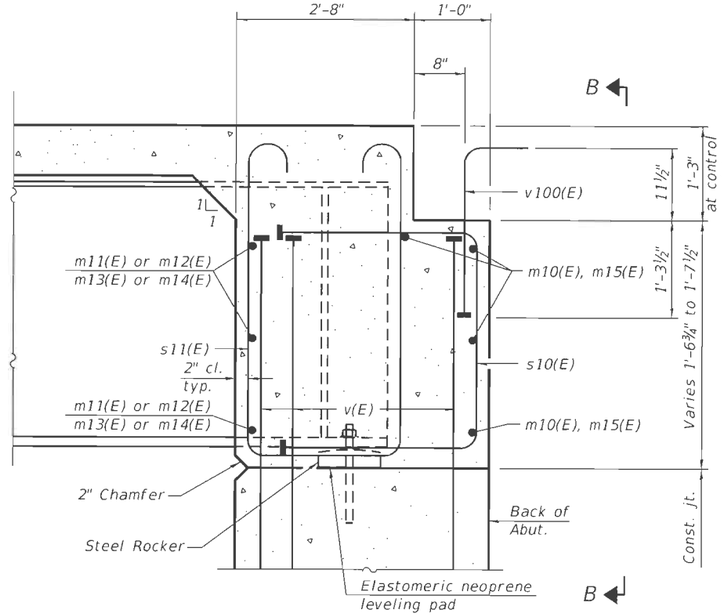
DIAPHRAGM AT ABUTMENT

(Looking North)
(North Abutment shown, South Abutment similar)



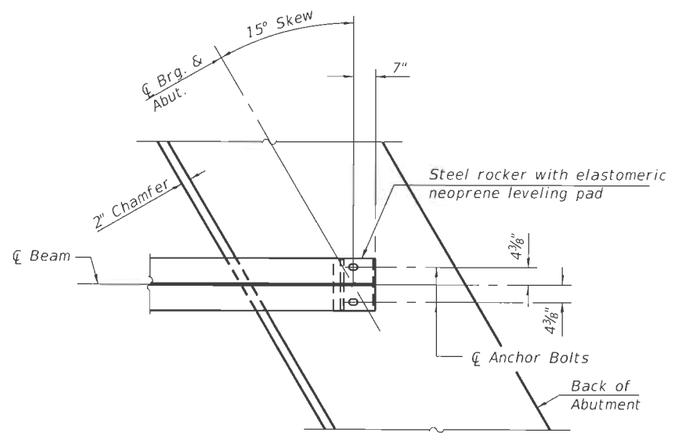


VIEW B-B



SECTION A-A

(at Rt. L's)



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:
See sheet 12 of 32 for superstructure details and Bill of Material.
Reinforcement bars in diaphragm are billed with superstructure on sheet 12 of 32.
Concretre in diaphragm is included with Concrete Superstructure on sheet 12 of 32.
See sheet 15 of 32 for PJF details.
The s10(E) and s11(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
The approach slab seat shall have a constant slope determined from the control points shown.

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HRG PROJ.: CONTACT:
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PLOT DRIVER: il_pdf.pw_drv.cfg
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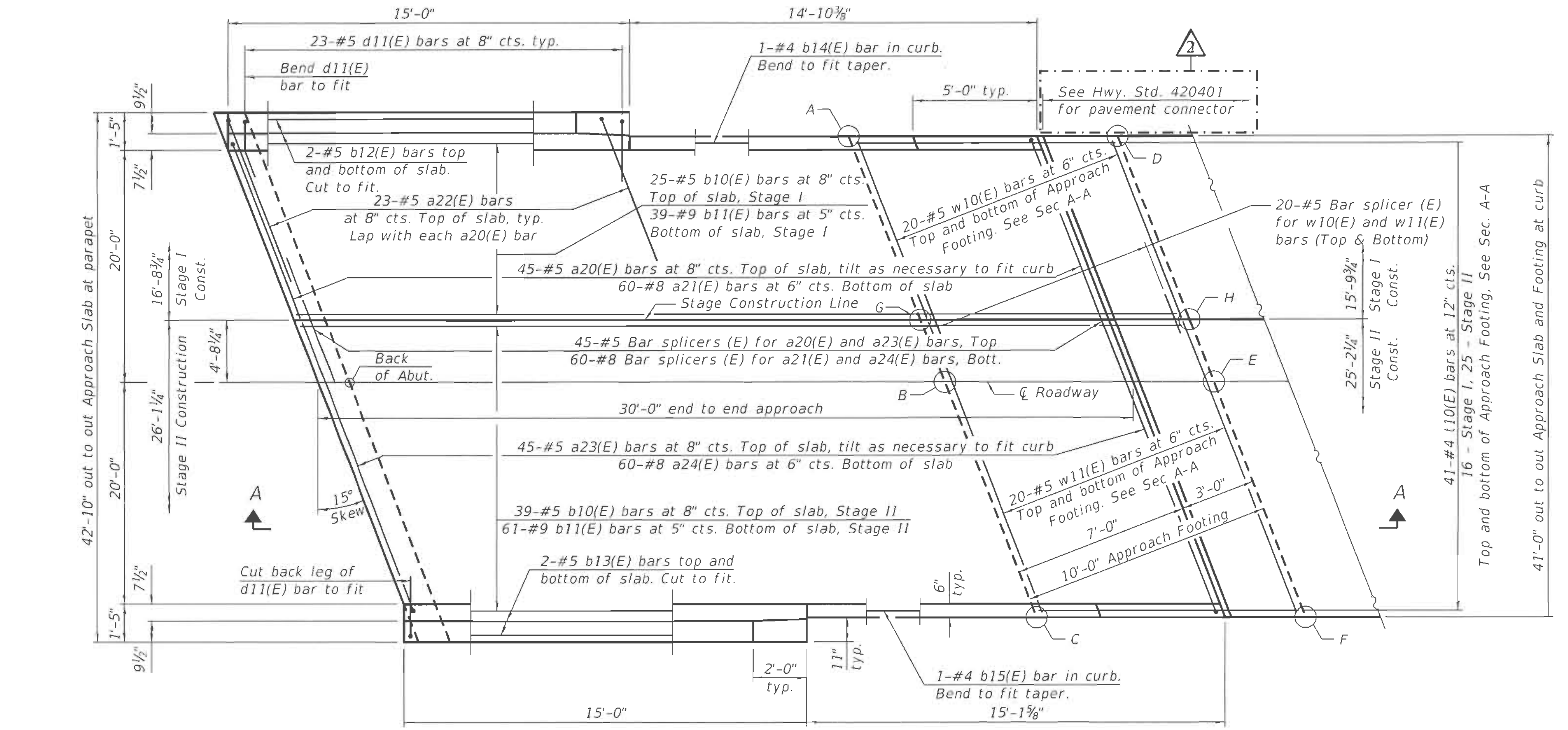
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 046-0160
SHEET NO. 14 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	34
		CONTRACT NO. 66H54		
	ILLINOIS FED. AID PROJECT			



PLAN

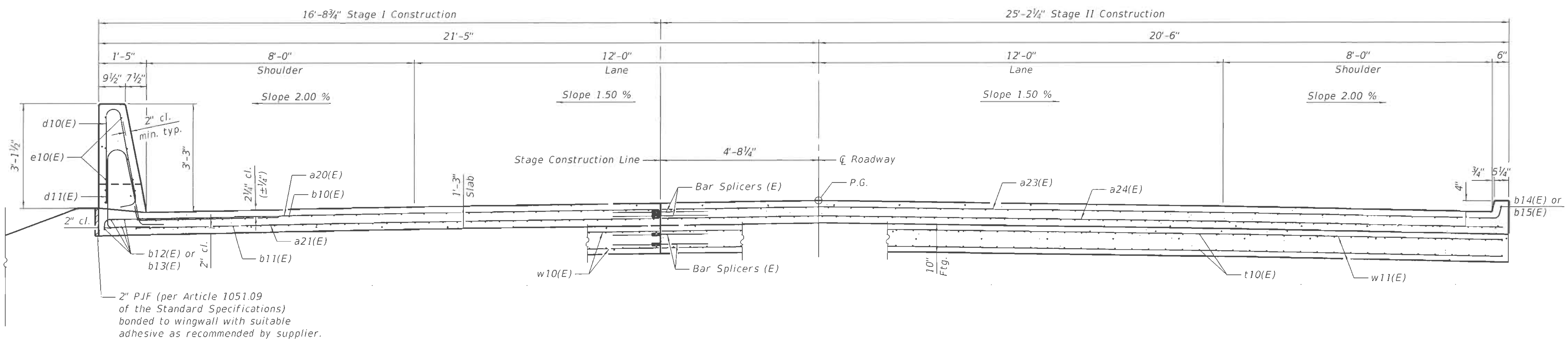
North Approach shown, South Approach similar

N (North Approach)

N (South Approach)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	South Approach		North Approach	
Point	Top	Bottom	Top	Bottom
A	661.60	660.76	661.63	660.80
B	661.98	661.15	661.94	661.11
C	661.67	660.83	661.55	660.72
D	661.52	660.69	661.56	660.72
E	661.91	661.08	661.87	661.03
F	661.60	660.77	661.47	660.64
G	661.62	660.79	661.60	660.77
H	661.55	660.72	661.53	660.69



CROSS SECTION

(Looking North)

(Sheet 1 of 2)

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	PLOT SCALE =	CHECKED - AEU	REVISED -	
	PLOT DATE = 2/24/2022	DRAWN - WJH	REVISED -	
		CHECKED - AEU	REVISED -	

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 046-0160

SHEET NO. 15 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	35
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		

2 REV. 2/24/22

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FILE NAME: 046060-66H54-05-BrApprSlab.dgn
PLOT DRIVER:
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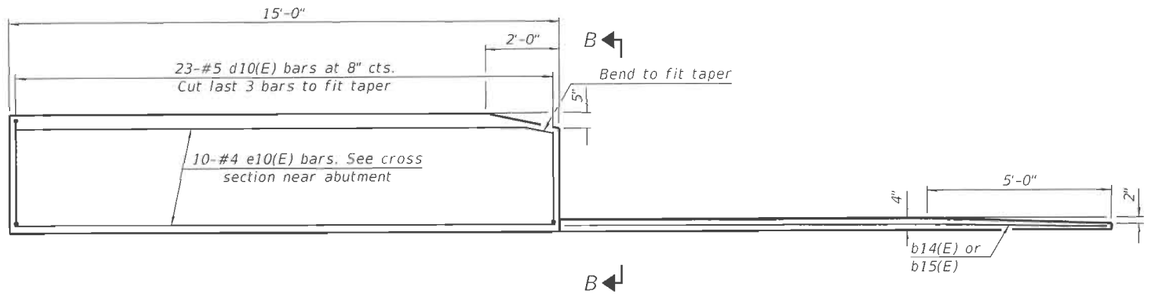


INSIDE ELEVATION OF PARAPET AND CURB

2

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Parapet concrete shall be paid for as Concrete Superstructure.

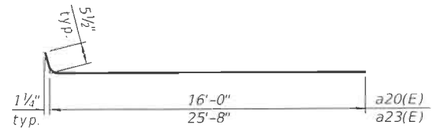
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

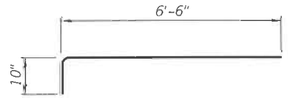
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

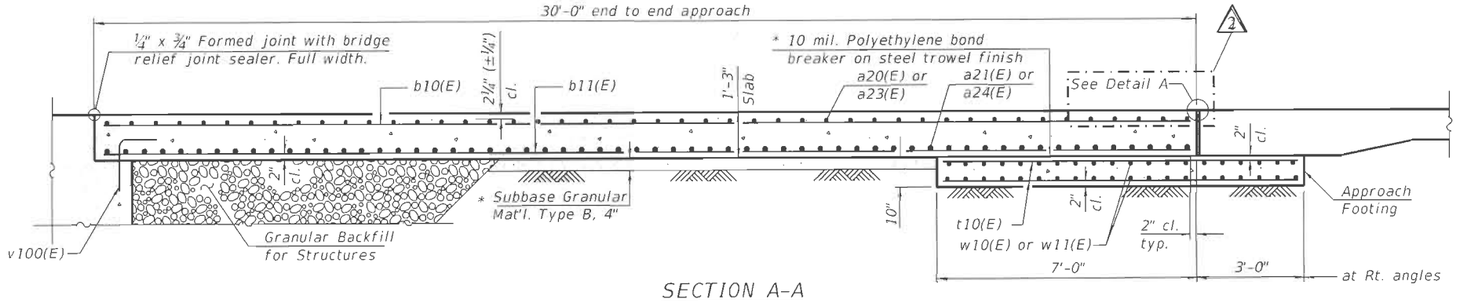
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of .



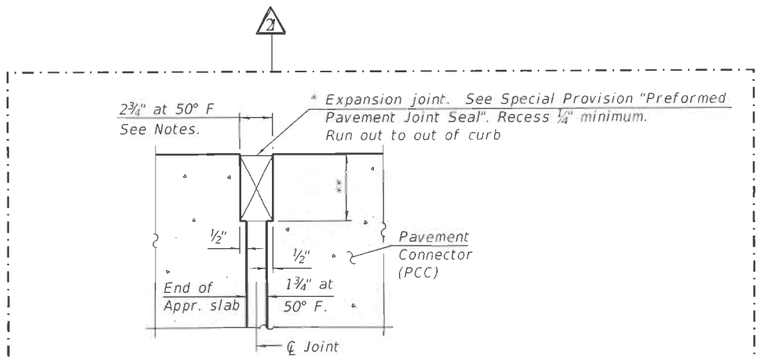
BAR a20(E), a23(E)



BAR a22(E)



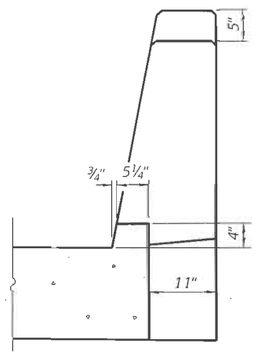
SECTION A-A



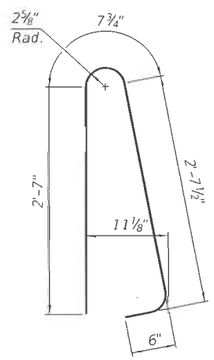
DETAIL A
(@ Rt. ℄'s)

* Cost included with Concrete Superstructure (Approach Slab).

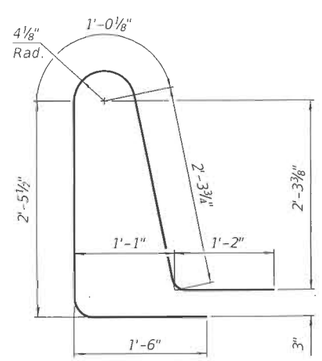
** Per manufacturer recommendations



VIEW B-B



BAR d10(E)



BAR d11(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a20(E)	90	#5	16'- 6"	
a21(E)	120	#8	16'- 2"	
a22(E)	92	#5	7'- 4"	
a23(E)	90	#5	26'- 2"	
a24(E)	120	#8	25'- 10"	
b10(E)	128	#5	29'- 8"	
b11(E)	200	#9	29'- 8"	
b12(E)	8	#5	15'- 2"	
b13(E)	8	#5	14'- 8"	
b14(E)	2	#4	14'- 6"	
b15(E)	2	#4	14'- 9"	
d10(E)	92	#5	6'- 5"	
d11(E)	92	#5	8'- 6"	
e10(E)	40	#4	14'- 8"	
t10(E)	82	#4	10'- 0"	
w10(E)	80	#5	16'- 1"	
w11(E)	80	#5	25'- 9"	
Concrete Structures			Cu. Yd.	26.2
Concrete Superstructure			Cu. Yd.	7.8
Concrete Superstructure (Approach Slab)			Cu. Yd.	116.8
Reinforcement Bars, Epoxy Coated			Pound	48,450

HRG PROJECT NO.: 2002A10
HRG PROJ. CONTACT:
FILE NAME: 046060 66H54 06-Bridge-Slab2.dgn
PLOT DRIVER: il.pdf.pltcfg
PEN TABLE: pltIDOT.tbl

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184-001322

USER NAME = whood	DESIGNED - SLS	REVISED 2 02/24/2022 AEU	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 2/24/2022	CHECKED - AEU	REVISED -	

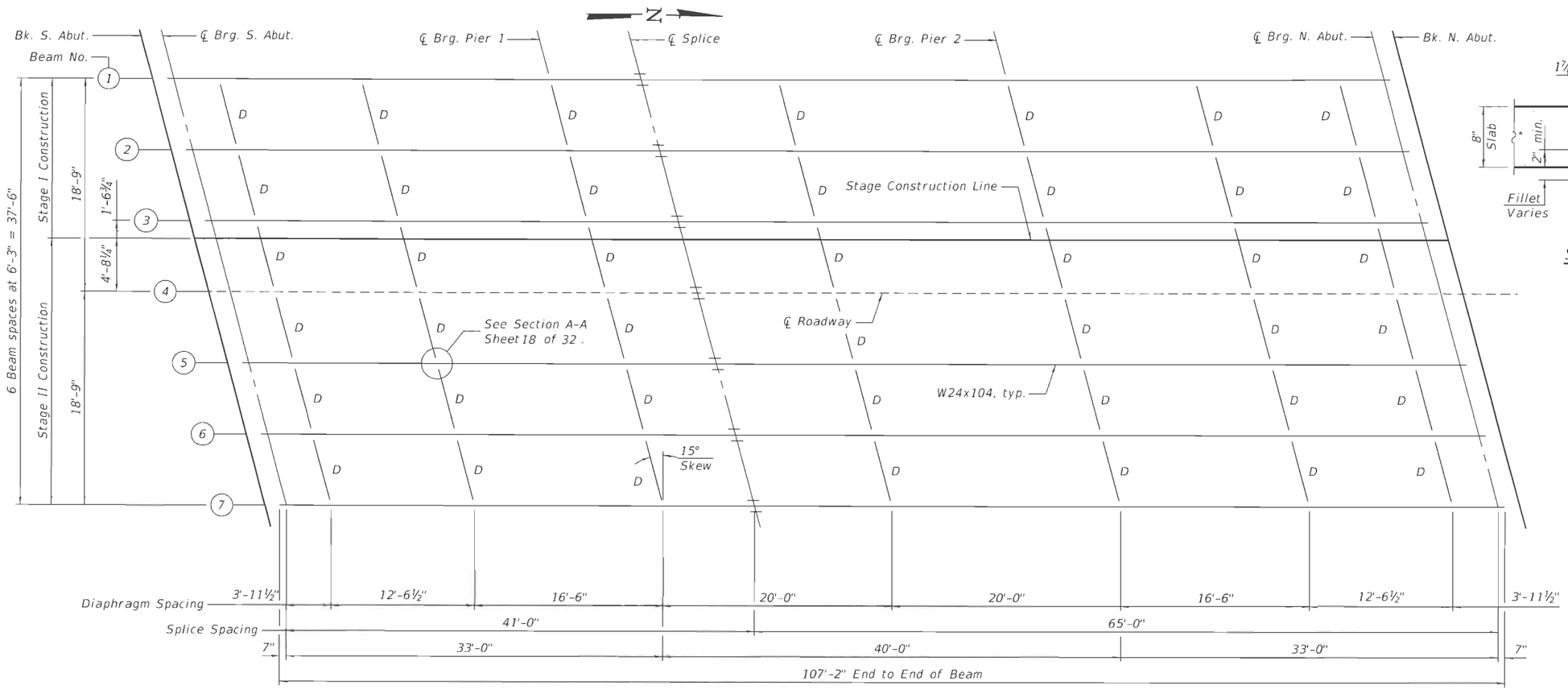
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 046-0160
SHEET NO. 16 OF 32 SHEETS

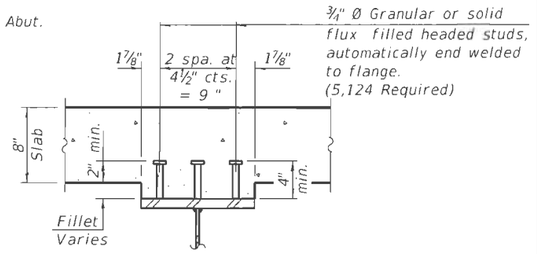
(Sheet 2 of 2)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	36
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

2 REV. 2/24/22



PLAN



SECTION A-A

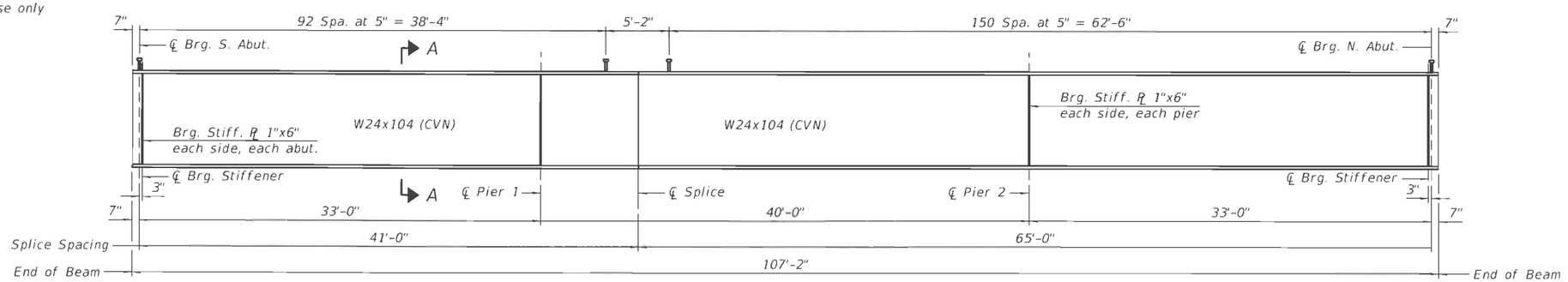
*TOP OF BEAM ELEVATIONS (FOR INFORMATION ONLY)

Location	℄ Brg. S.Abut.	℄ Brg. Pier 1	℄ Splice	℄ Brg. Pier 2	℄ Brg. N.Abut.
Beam 1	662.30	662.36	662.35	662.39	662.32
Beam 2	662.44	662.48	662.48	662.51	662.44
Beam 3	662.54	662.59	662.58	662.60	662.53
Beam 4	662.64	662.68	662.68	662.69	662.62
Beam 5	662.56	662.59	662.59	662.60	662.51
Beam 6	662.47	662.49	662.49	662.49	662.41
Beam 7	662.35	662.48	662.36	662.37	662.27

* For fabrication use only

* Member(s) that controls the overall load rating should have " - X" as a suffix in the Member Name and both the "Existing" and "Current" boxes should be checked in the Member window. Non-controlling members should only have the "Current" box checked.

Notes:
1. All new beams and bearing stiffeners shall be AASHTO M270 Grade 50.
2. All diaphrams shall be installed as steel is erected and secure with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
3. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirements, Zone 2.



BEAM ELEVATION

HRG PROJECT NO.: 2002110
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-01-Framing.dgn
PLOT DRIVER: IL_pdf_bw_pltcfg
PEN TABLE: plotlabel.tbl

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Illinois Professional Design Firm # 184-001322

USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 046-0160
SHEET NO. 17 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	37
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Piers	0.5 Sp. 2
Is	(in^4)	3100	3100	3100
Ic(n)	(in^4)	9291	-----	9291
Ic(3n)	(in^4)	6978	-----	6978
Ic(cr)	(in^4)	-----	4420	-----
Ss	(in^3)	258	258	258
Sc(n)	(in^3)	391	-----	391
Sc(3n)	(in^3)	355	-----	355
Sc(cr)	(in^3)	-----	300	-----
DC1	(k/')	0.755	0.755	0.755
MDC1	('k)	58	100	51
DC2	(k/')	0.150	0.150	0.150
MDC2	('k)	12	20	10
DW	(k/')	0.313	0.313	0.313
MDW	('k)	24	42	21
LLDF		0.644	0.632	0.623
M_{LL+IM}	('k)	302	339	297
Mu (Strength I)	('k)	652	806	628
ØfMn	('k)	1942	1541	1942
fs DC1	(ksi)	2.7	4.7	2.4
fs DC2	(ksi)	0.4	0.8	0.3
fs DW	(ksi)	0.8	1.7	0.7
fs (LL+IM)	(ksi)	9.3	13.6	9.1
fs (Service II)	(ksi)	16.0	24.8	15.3
0.95RhFyf	(ksi)	47.50	47.50	47.50
fs (Total)(Strength I)	(ksi)	-----	-----	-----
Øf Fn	(ksi)	-----	-----	-----
Vf	(k)	43	47	43

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads ($in.^4$ and $in.^3$).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

Mu (Strength I): Factored design moment (kip-ft.).
$1.25\,(MDC1 + MDC2) + 1.5\,MDW + 1.75\,M_{LL+IM}$

Øf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1/ Snc

fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2/ Sc(3n) or MDC2/ Sc(cr) as applicable.

fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW/ Sc(3n) or MDW/ Sc(cr) as applicable.

fs (LL+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
M_{LL+IM} / Sc(n) or M_{LL+IM} / Sc(cr) as applicable.

fs (Service II): Sum of stresses as computed below (ksi).
$fsDC1 + fsDC2 + fsDW + 1.3\,fs(LL+IM)$

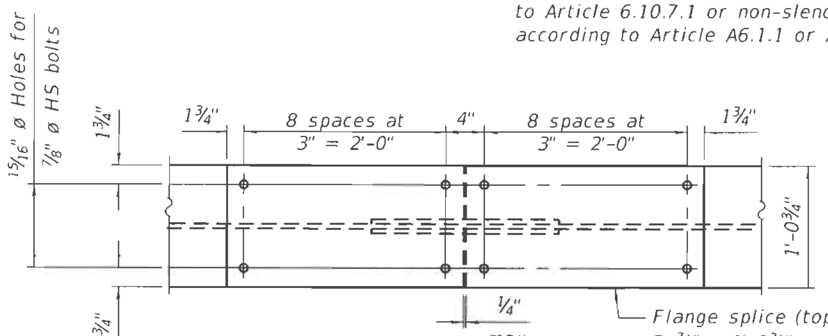
0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\,(fsDC1 + fsDC2) + 1.5\,fsDW + 1.75\,fs(LL+IM)$

Øf Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

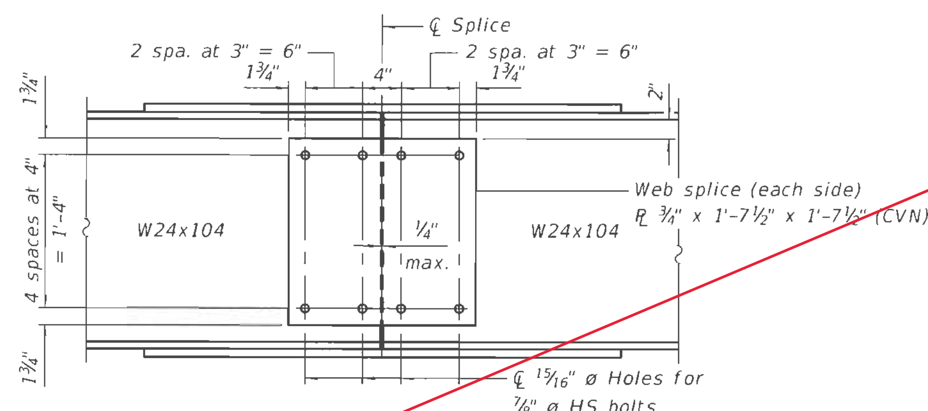
Vf: Maximum factored shear range in span computed according to Article 6.10.10.

GIRDER REACTION TABLE					
		Abut.		Pier	
		Interior	Exterior	Interior	Exterior
LLDF		0.689		0.689	
OCF		-----	1.05	-----	-----
R_{DC1}	(k)	10.2		30.6	
R_{DC2}	(k)	1.9		6.1	
R_{DW}	(k)	3.9		12.7	
R_{LL}	(k)	42.2		63.6	
R_{IM}	(k)	11.6		14.7	
R_{Total}	(k)	69.8		127.7	



PLAN

(Top flange splice plate shown, bottom flange splice plate similar)



ELEVATION

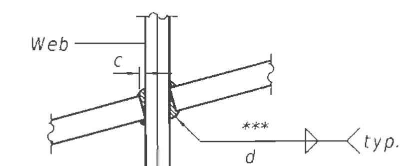
SPLICE DETAIL

(7 Required)

Splice Notes:

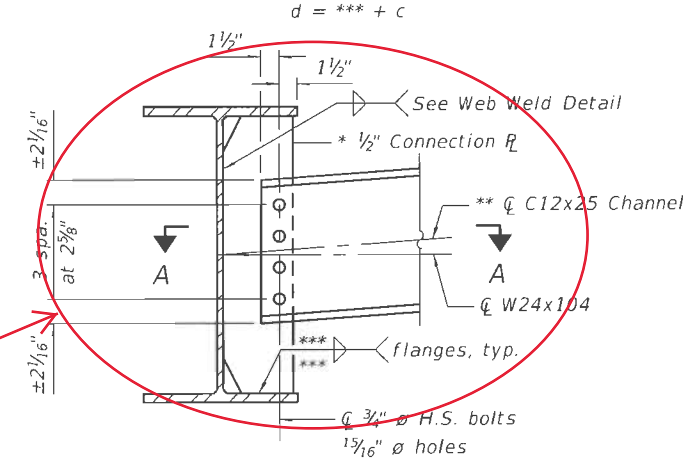
1. All splices are symmetrical about CL splice.
2. H.S. bolts shall be ASTM F3125, Grade A325, Type 1.
3. Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirements, Zone 2.
4. All plates composing the splices shall be AASHTO M270, Grade 50.

Diaphragm locations with weights should be defined in the framing plan. However, diaphragm definitions are not necessary for non-curved bridges since they are a secondary member that is not included in the rating.



WEB WELD DETAIL

d = *** + c



INTERIOR DIAPHRAGM-D

(Exterior beam shown, interior beam similar)

(Stop welds ¼" (±⅛") from edges, typ.)

(42 required)

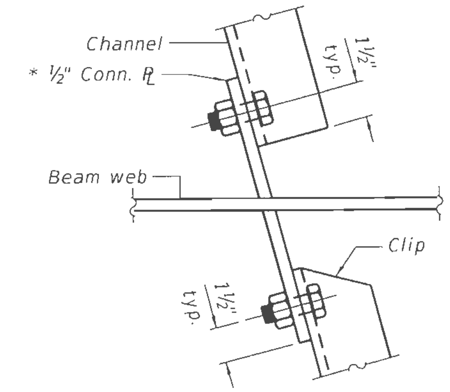
* 1" Bearing stiffener plate each side of web at piers in lieu of connection plate shown.

** Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.

*** ¼ for connection plate and 5/16 for bearing stiffener.

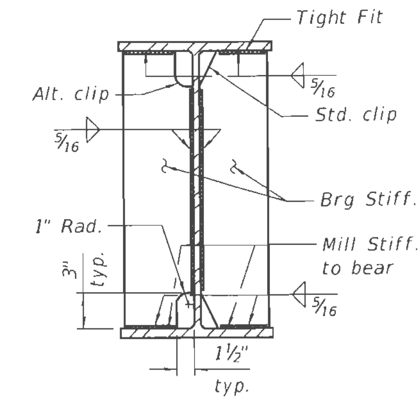
Diahpragm Notes:

1. H.S. bolts shall be ASTM F3125, Grade A325, Type 1.
2. Two hardened washers required for each set of oversided holes.



SECTION A-A

Note:
Clip channel as necessary for ease of installation.



ABUTMENT & PIER BEARING STIFFENER

Only Bearing Stiffeners at piers shall be placed along the skew

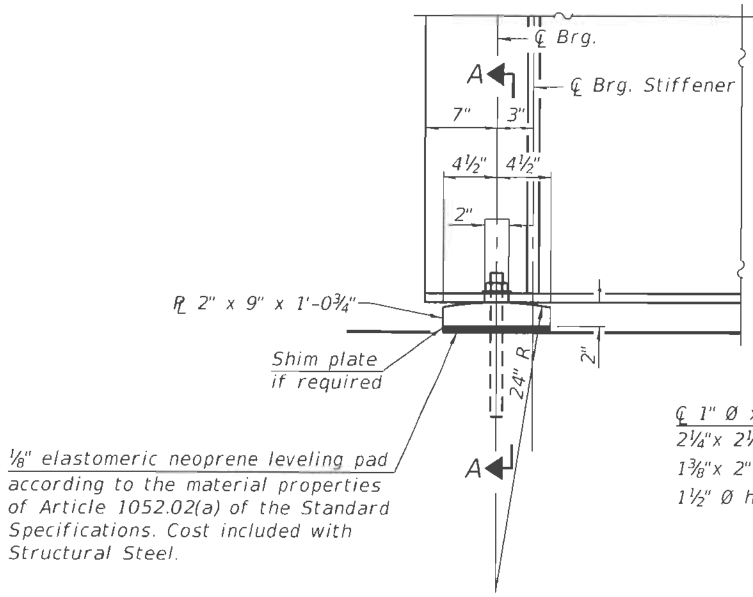
(Stop welds ¼" (± ⅛") from edges as shown, typical)

HRG PROJECT NO.: 2002L10
HRG PROJ. CONTACT:
FILE NAME: 0460160-66H54-018-Str-SteelDgn
PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plottable.tbl

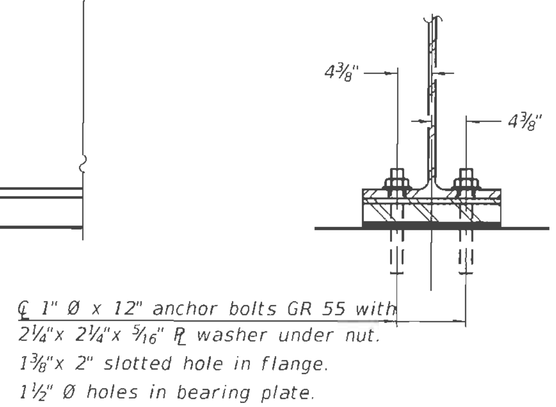
HRGreen.com Illinois Professional Design Firm # 184-001322 HRGreen.	USER NAME = aunderw	DESIGNED - SLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		CHECKED - AEU	REVISED -	
	PLOT SCALE =	DRAWN - WJH	REVISED -	
	PLOT DATE = 1/26/2022	CHECKED - AEU	REVISED -	

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 046–0160
SHEET NO. 18 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	38
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		

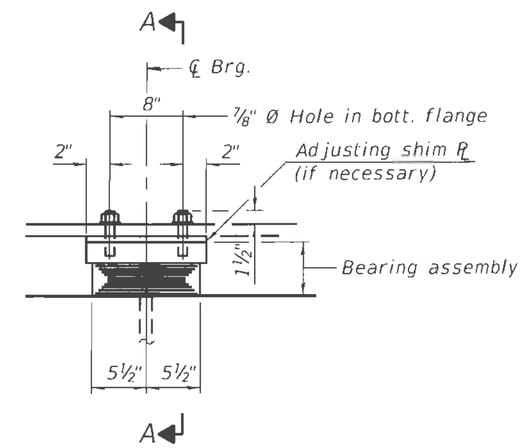


ELEVATION AT ABUTMENT

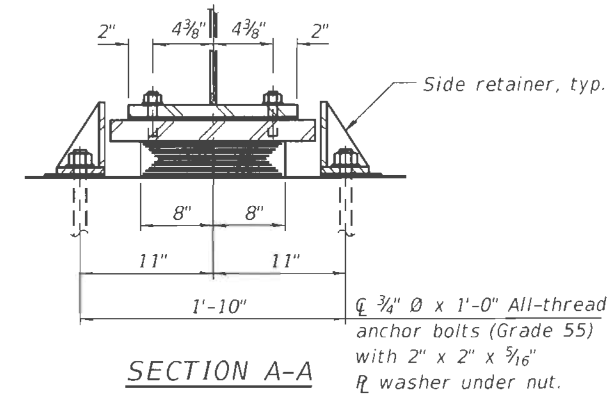


SECTION A-A

FIXED BEARING
(14 Required)

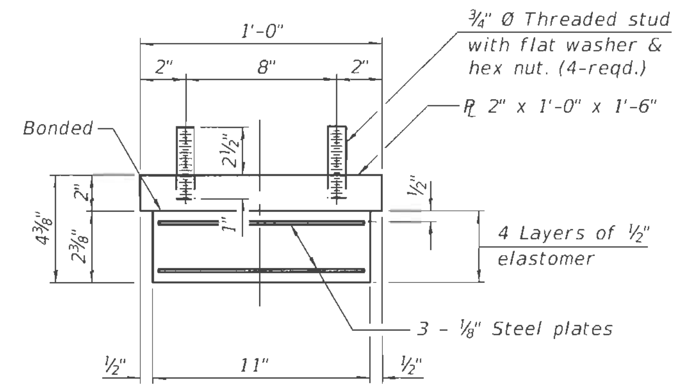


ELEVATION AT PIER



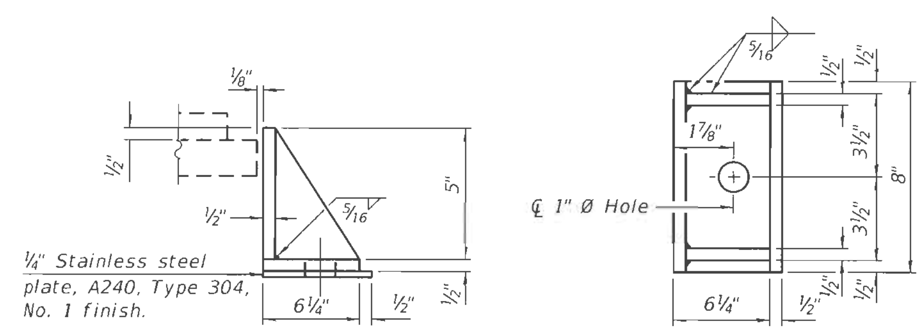
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.
(14 Required)



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under bearing assembly.



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:
Anchor bolts shall be according to Article 521.06 of the Standard Specifications.
Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on Bearing Details.
The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M270 Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	14
Anchor Bolts, ¾"	Each	28
Anchor Bolts, 1"	Each	28

HRG PROJECT NO.: 2002RJ0
HRG PROJ.CONTACT:
FILE NAME: 0460160-66H54-09-BrgDet.dgn
PLOT DRIVER: il_pdf_bw.pltcfg
PEN TABLE: plottable.tbl

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USER NAME = jrolbu	DESIGNED - SLS	REVISED -	
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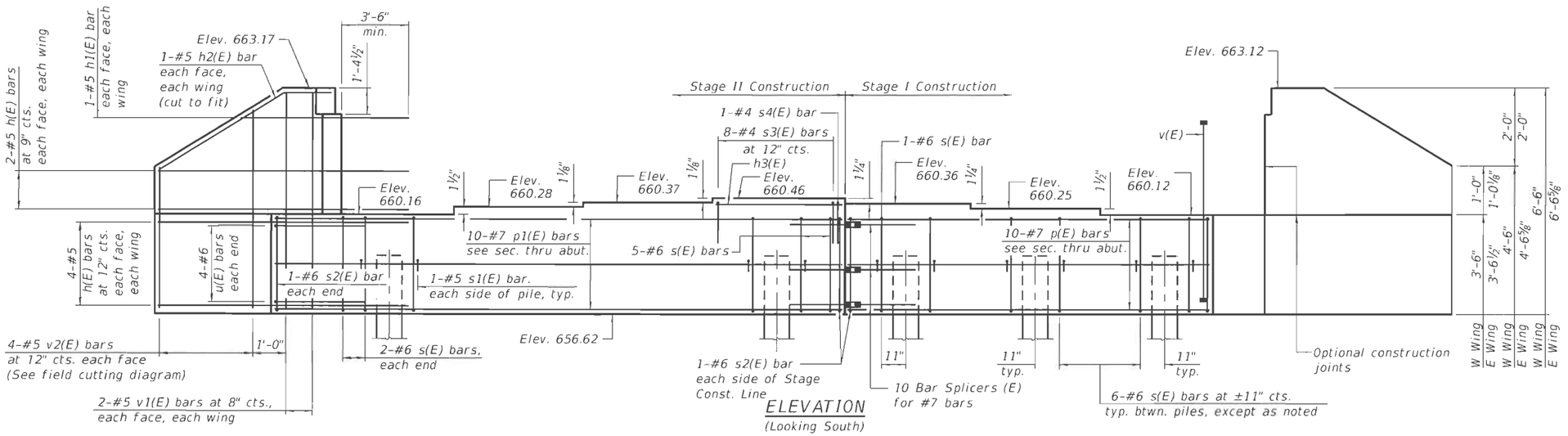
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

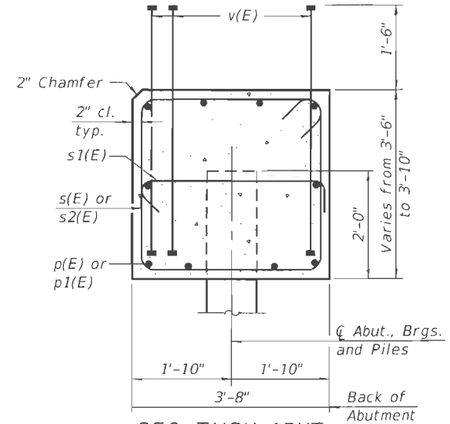
BEARING DETAILS
STRUCTURE NO. 046-0160
SHEET NO. 19 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	39

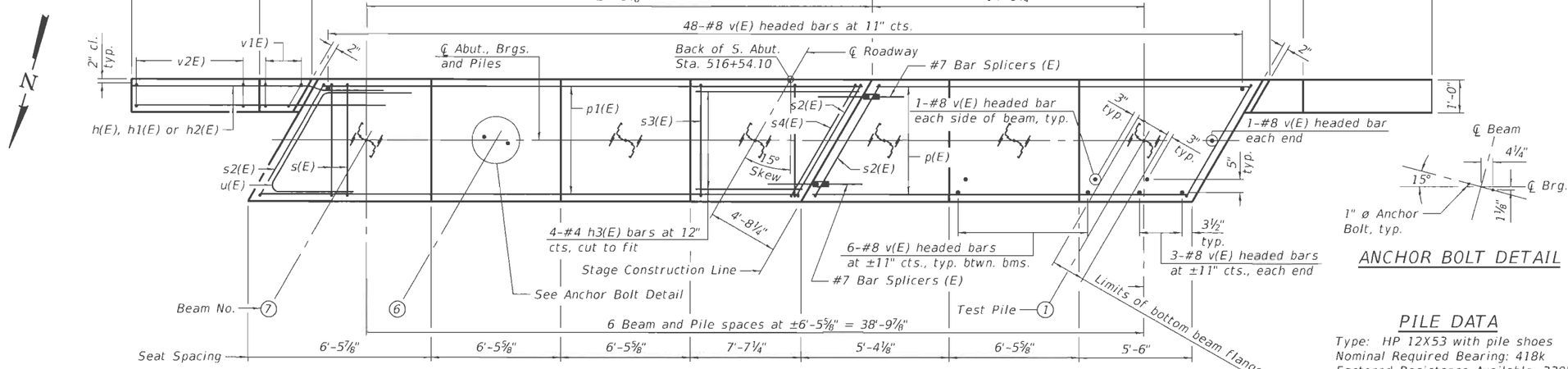
CONTRACT NO. 66H54
ILLINOIS | FED. AID PROJECT



ELEVATION
(Looking South)



SEC. THRU ABUT.
Dimensions at right angles to abutment.



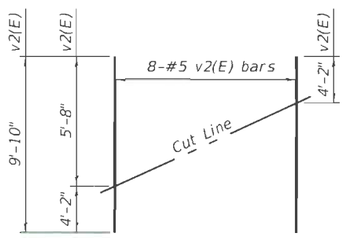
PLAN

ANCHOR BOLT DETAIL

PILE DATA
Type: HP 12X53 with pile shoes
Nominal Required Bearing: 418k
Factored Resistance Available: 230k
Est. Length: 24'
No. Production Piles: 6
No. Test Piles: 1

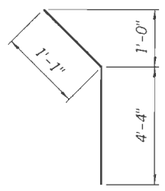
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#5	8'- 10"	
h1(E)	4	#5	7'- 8"	
h2(E)	4	#5	5'- 5"	
h3(E)	4	#4	8'- 3"	
p(E)	10	#7	17'- 0"	
p1(E)	10	#7	26'- 9"	
s(E)	40	#6	14'- 4"	
s1(E)	14	#5	4'- 4"	
s2(E)	4	#6	14'- 6"	
s3(E)	8	#4	5'- 4"	
s4(E)	1	#4	5'- 5"	
u(E)	8	#6	11'- 11"	
v(E)	106	#8	4'- 8"	
v1(E)	8	#5	6'- 2"	
v2(E)	8	#5	9'- 10"	
Structure Excavation		Cu. Yd.	85	
Concrete Structures		Cu. Yd.	24.3	
Reinforcement Bars, Epoxy Coated		Pound	3,830	
Furnishing Steel Piles HP 12X53		Foot	144	
Driving Piles		Foot	144	
Test Pile Steel HP 12X53		Each	1	
Pile Shoes		Each	7	

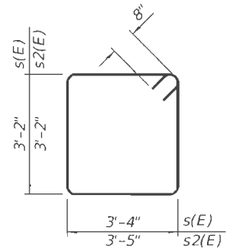


FIELD CUTTING DIAGRAM
Order v2(E) full length. Cut as shown and use remainder of v2(E) bars in opposite wing.

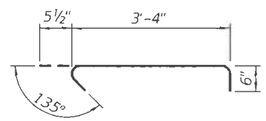
BAR v(E)
(Headed)



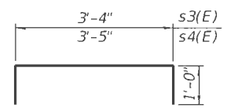
BAR h2(E)



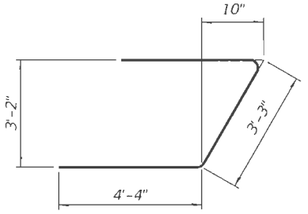
BAR s(E) & s2(E)



BAR s1(E)



BAR s3(E) & s4(E)



BAR u(E)

Notes:
Pour steps monolithically with cap.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
For details of piles see sheet 25 of 32.

HRG PROJECT NO.: 2002140
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-020-Sabut.dgn
PLOT DRIVER: il_pdf_bw.prf
PEN TABLE: photobw.tbl

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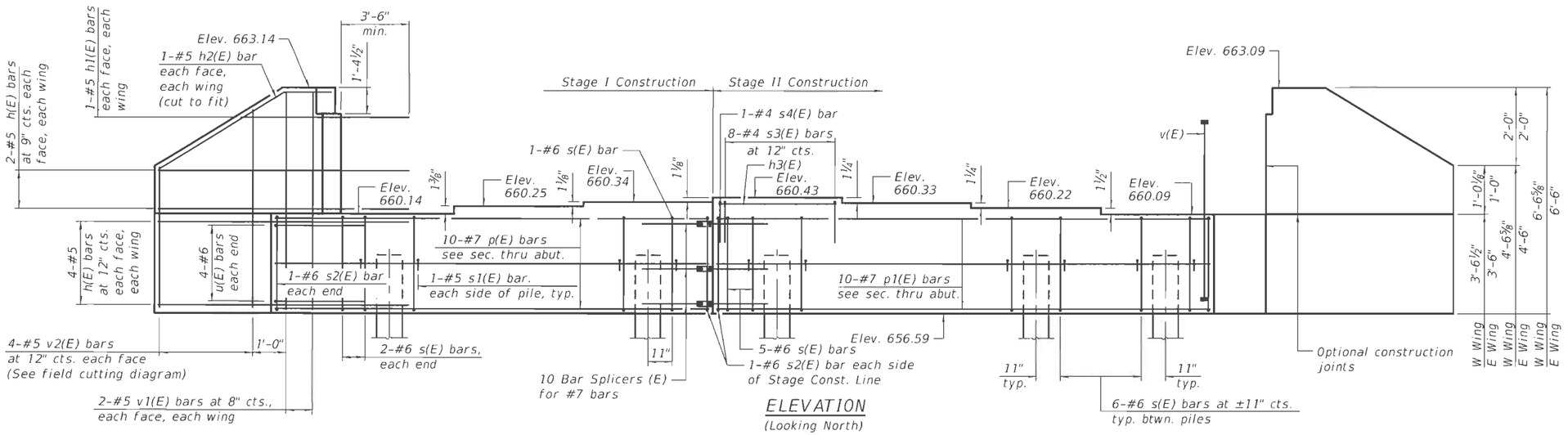
Illinois Professional Design Firm # 184-001322
HRGreen.

USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

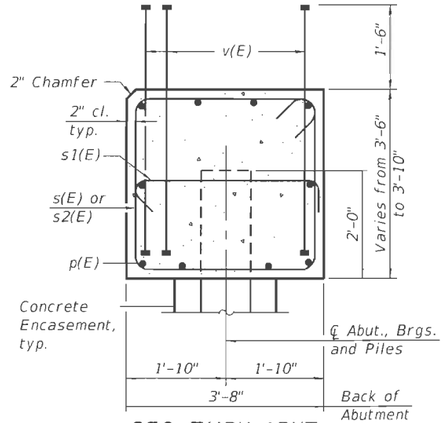
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 046-0160
SHEET NO. 20 OF 32 SHEETS

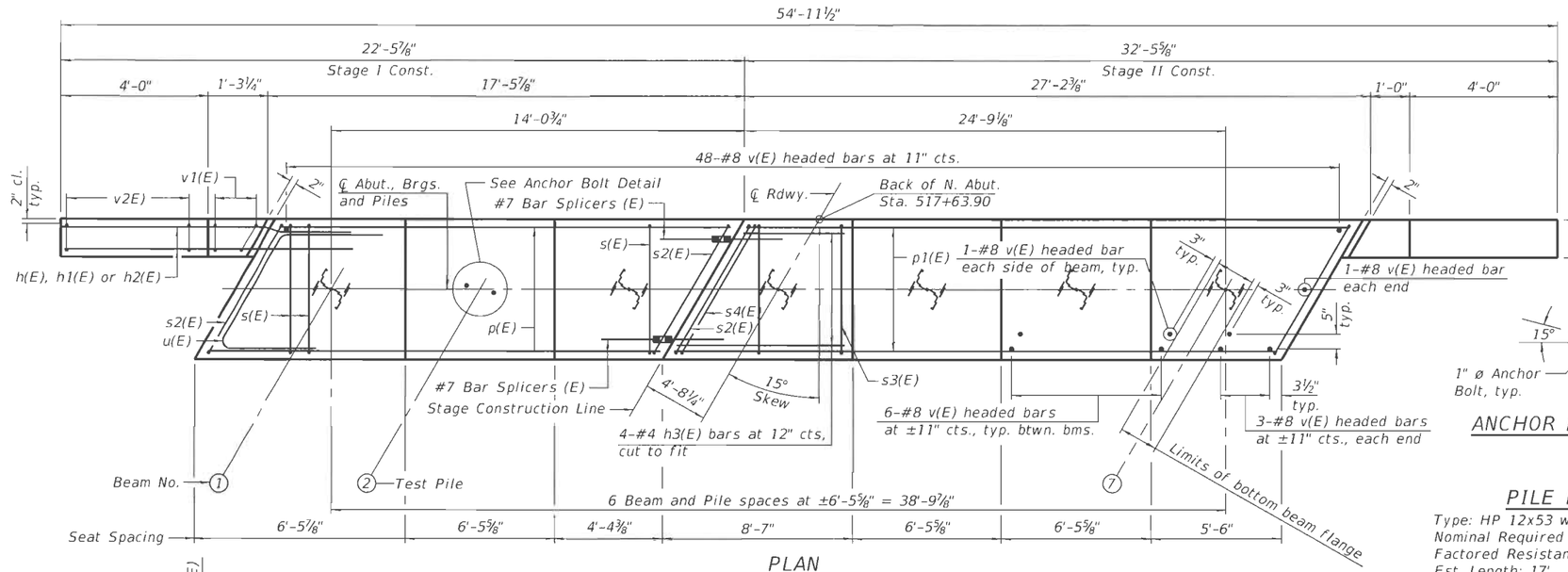
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	40
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		



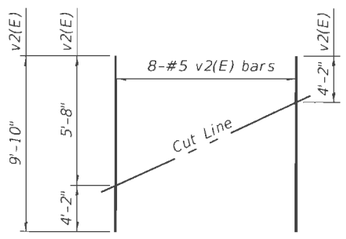
ELEVATION
(Looking North)



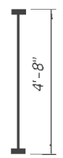
SEC. THRU ABUT.
Dimensions at right angles to abutment.



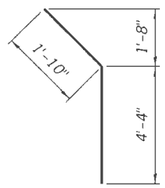
PLAN



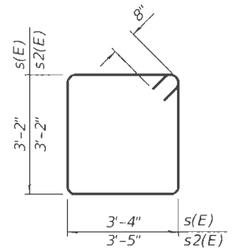
FIELD CUTTING DIAGRAM
Order v2(E) full length. Cut as shown and use remainder of v2(E) bars in opposite wing.



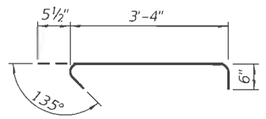
BAR v(E)
(Headed)



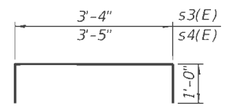
BAR h2(E)



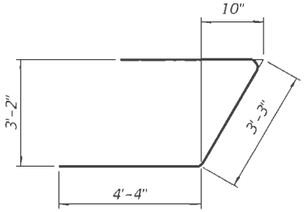
BAR s(E) & s2(E)



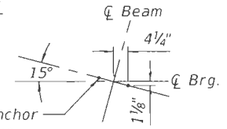
BAR s1(E)



BAR s3(E) & s4(E)



BAR u(E)



ANCHOR BOLT DETAIL

PILE DATA

Type: HP 12x53 with pile shoes
Nominal Required Bearing: 392k
Factored Resistance Available: 215k
Est. Length: 17'
No. Production Piles: 6
No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	24	#5	8'- 10"	
h1(E)	4	#5	7'- 8"	
h2(E)	4	#5	5'- 5"	
h3(E)	4	#4	8'- 3"	
p(E)	10	#7	17'- 0"	
p1(E)	10	#7	26'- 9"	
s(E)	40	#6	14'- 4"	
s1(E)	14	#5	4'- 4"	
s2(E)	4	#6	14'- 6"	
s3(E)	8	#4	5'- 4"	
s4(E)	1	#4	5'- 5"	
u(E)	8	#6	11'- 11"	
v(E)	106	#8	4'- 8"	
v1(E)	8	#5	6'- 2"	
v2(E)	8	#5	9'- 10"	
Structure Excavation		Cu. Yd.	85	
Concrete Structures		Cu. Yd.	24.4	
Reinforcement Bars, Epoxy Coated		Pound	3,830	
Furnishing Steel Piles HP 12X53		Foot	102	
Driving Piles		Foot	102	
Test Pile Steel HP 12X53		Each	1	
Pile Shoes		Each	7	

Notes:
Pour steps monolithically with cap.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
For details of piles see sheet 25 of 32 .

HRG PROJECT NO.: 2020.10
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-02-Nabut.dgn
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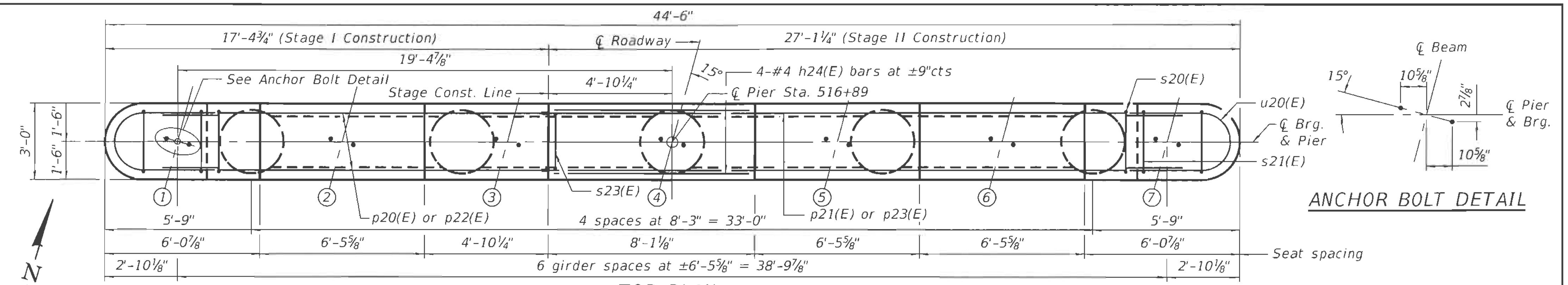
HRGreen.com
Illinois Professional Design Firm # 184-001322
HRGreen.

USER NAME = jrolibu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

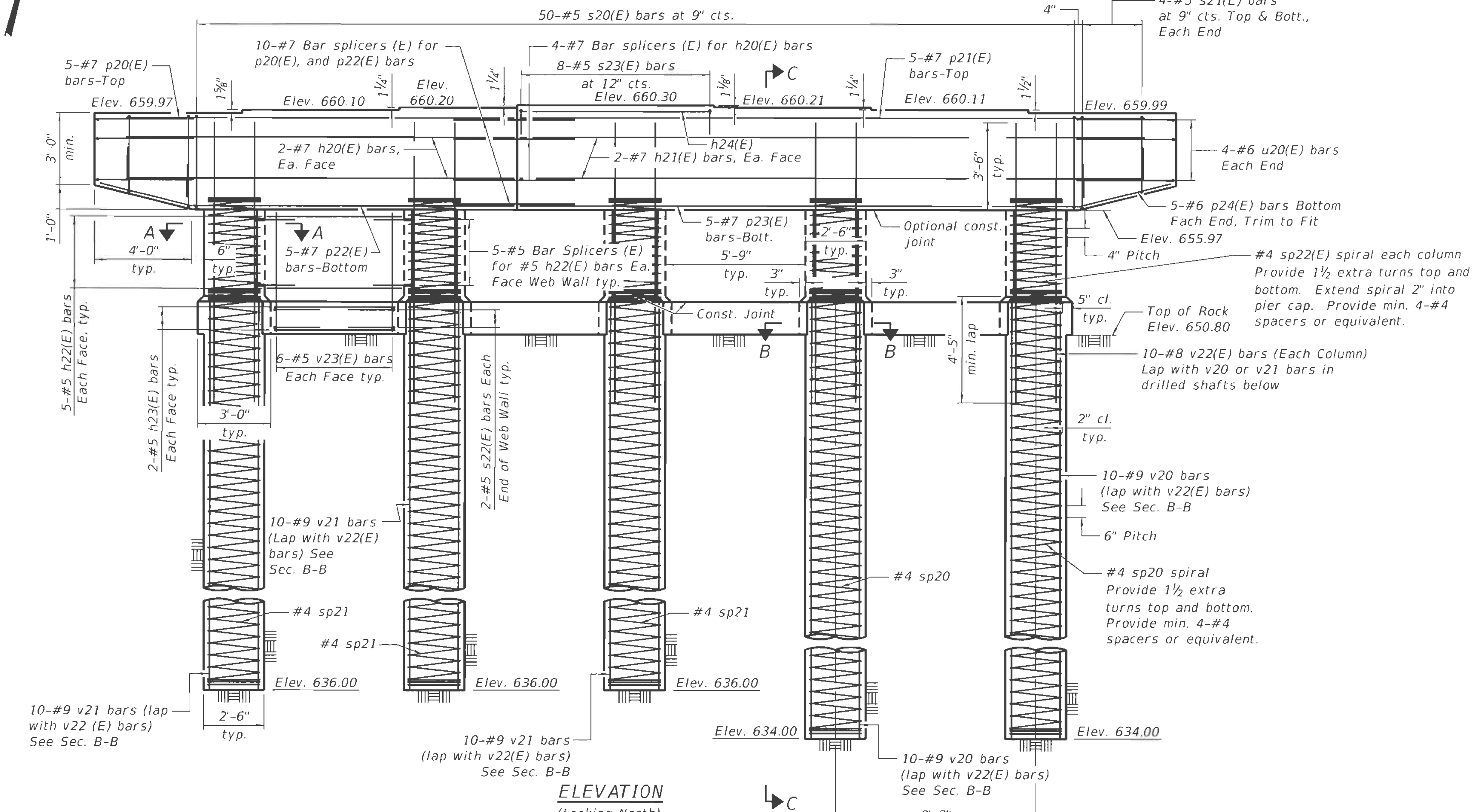
NORTH ABUTMENT
STRUCTURE NO. 046-0160
SHEET NO. 21 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	41
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		

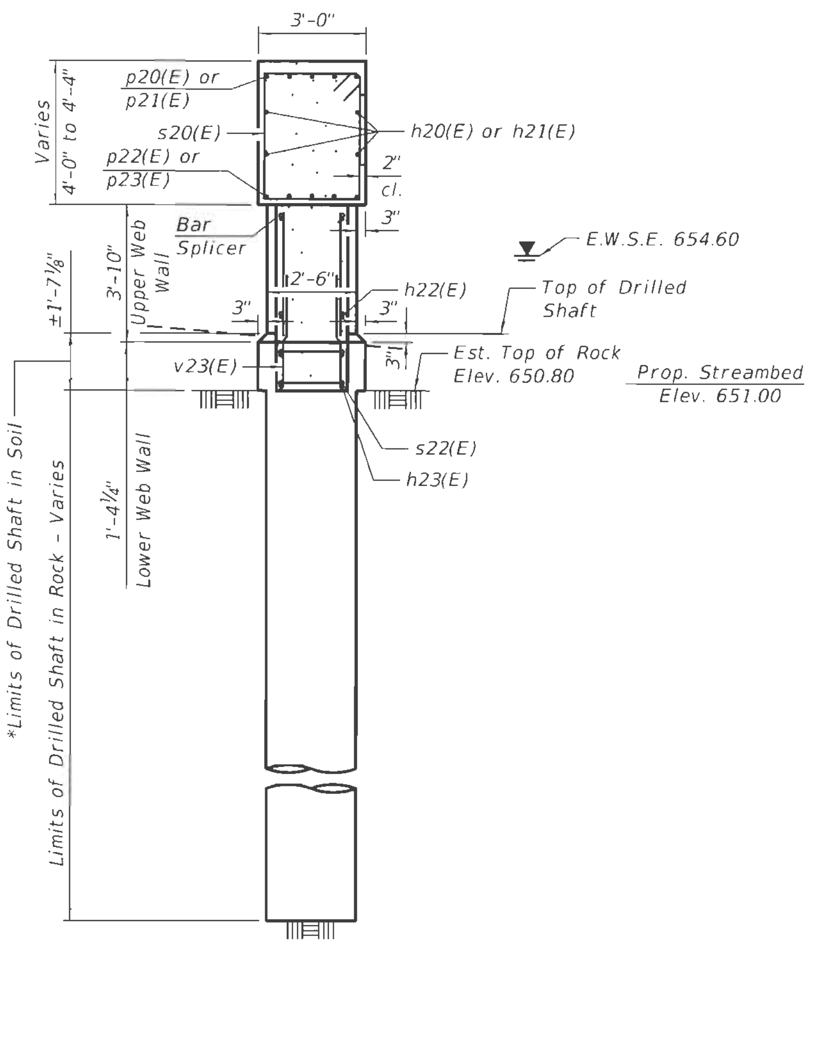


TOP PLAN

ANCHOR BOLT DETAIL



ELEVATION
(Looking North)



SECTION C-C

*If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

Notes:
If a portion of the drilled shaft web walls is underwater, reinforcement may be placed underwater into the forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.
See Sheet 24 of 32 for Section A-A, Section B-B, and additional pier details.

HRG PROJECT NO.: 2002IL10
HRG PROJ. CONTACT:
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PEN TABLE: plotlabel.tbl

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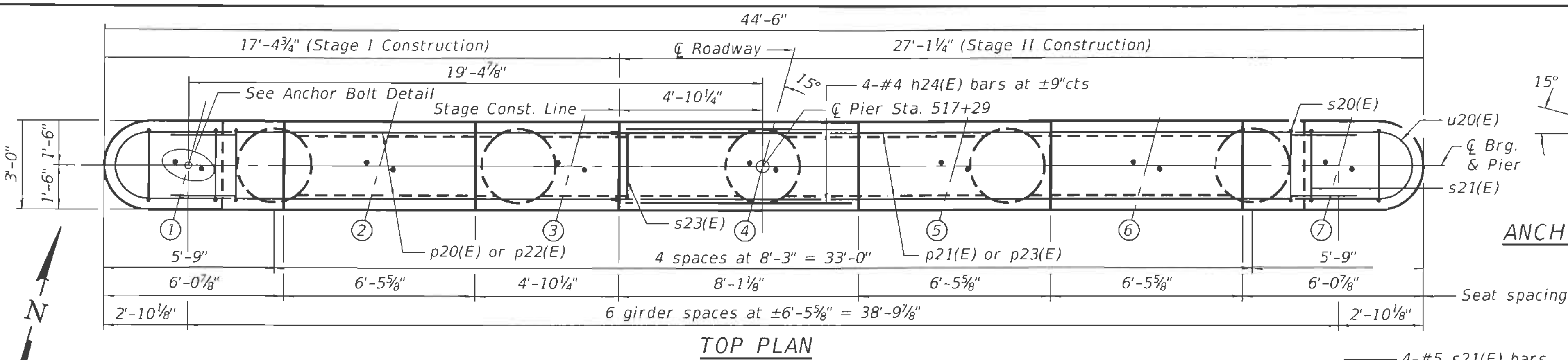
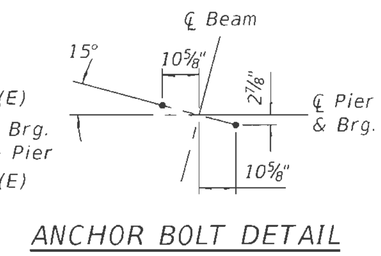
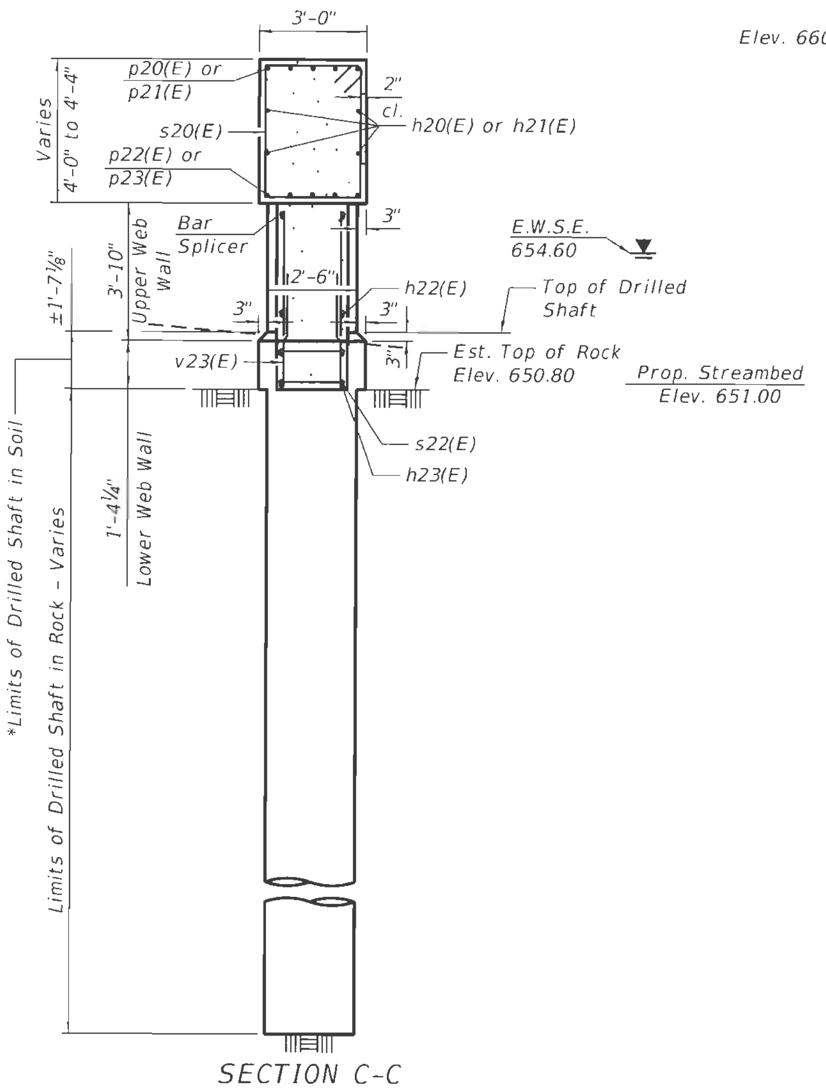
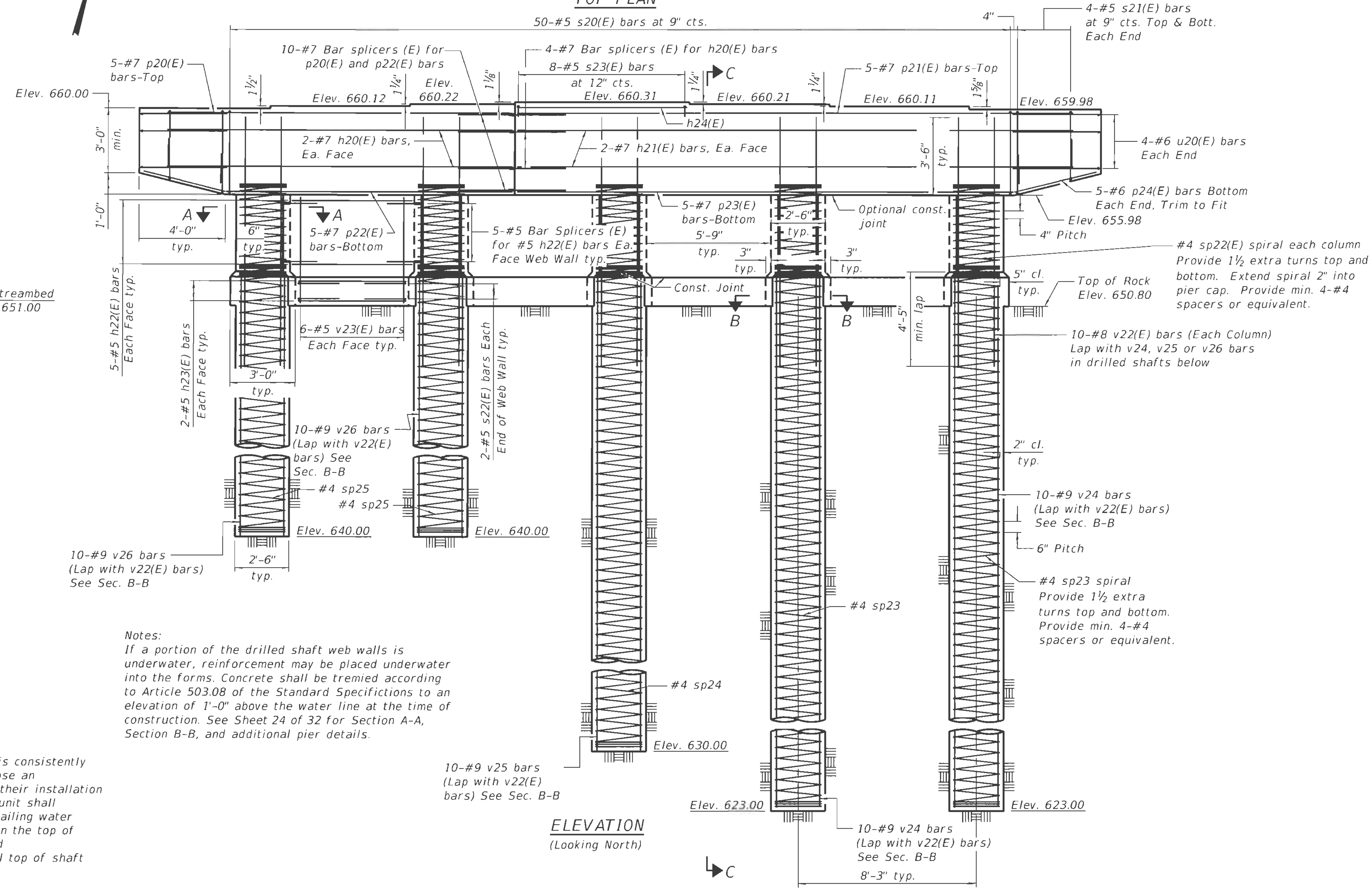
		CHECKED - AEU	REVISED -			CONTRACT NO. 66H54
	PLOT SCALE =	DRAWN - WJH	REVISED -			
	PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -		SHEET NO. 22 OF 32 SHEETS	ILLINOIS FED. AID PROJECT









Notes:
If a portion of the drilled shaft web walls is underwater, reinforcement may be placed underwater into the forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifictions to an elevation of 1'-0" above the water line at the time of construction. See Sheet 24 of 32 for Section A-A, Section B-B, and additional pier details.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

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HRG PROJ. CONTACT:
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PLOT DRIVER: IL_pdf_bw.pltcfg
PEN TABLE: plotlabel.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322

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	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

PIER 2
STRUCTURE NO. 046-0160
SHEET NO. 23 OF 32 SHEETS

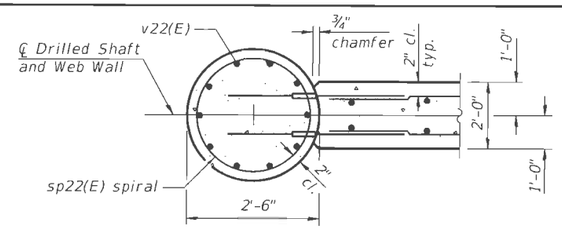
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	43
		CONTRACT NO. 66H54		
		ILLINOIS FED. AID PROJECT		

PIER 1
BILL OF MATERIAL

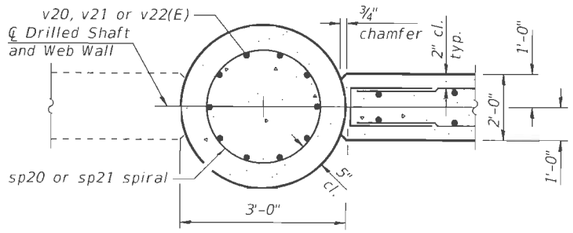
	Bar	No.	Size	Length	Shape
	h20(E)	4	#7	15'- 9"	
	h21(E)	4	#7	25'- 6"	
	h22(E)	40	#5	6'- 0"	
	h23(E)	16	#5	5'- 5"	
	h24(E)	4	#4	7'- 9"	
	p20(E)	5	#7	15'- 9"	
	p21(E)	5	#7	25'- 6"	
	p22(E)	5	#7	13'- 2"	
	p23(E)	5	#7	22'- 11"	
	p24(E)	10	#6	3'- 11"	
	s20(E)	50	#5	13'- 7"	
	s21(E)	16	#5	7'- 8"	
	s22(E)	16	#5	6'- 8"	
	s23(E)	8	#4	4'- 7"	
**	sp20	2	#4	18'- 5"	
**	sp21	3	#4	16'- 5"	
**	sp22(E)	5	#4	3'- 9"	
	u20(E)	8	#6	10'-0¼"	
	v20	20	#9	18'- 5"	
	v21	30	#9	16'- 5"	
	v22(E)	50	#8	11'- 6"	
	v23(E)	48	#5	5'- 10"	

Concrete Structures	Cu. Yd.	32.7
Reinforcement Bars	Pound	3,780
Reinforcement Bars, Epoxy Coated	Pound	4,800
Structure Excavation	Cu. Yd.	7.0
Drilled Shaft in Soil	Cu. Yd.	2.1
Drilled Shaft in Rock	Cu. Yd.	14.2
Thermal Integrity Profile Testing	Each	5
Thermal Integrity Profile Data Collection	Foot	86

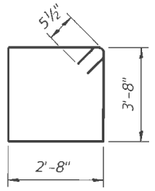
Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 1½ turns
** Length is height of spiral.



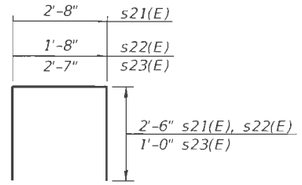
SECTION A-A



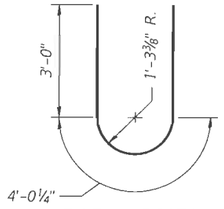
SECTION B-B



BAR s20(E)



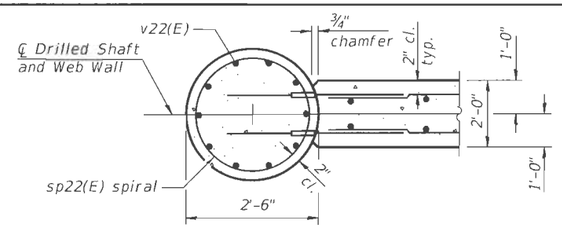
BARS s21(E), s22(E) & s23(E)



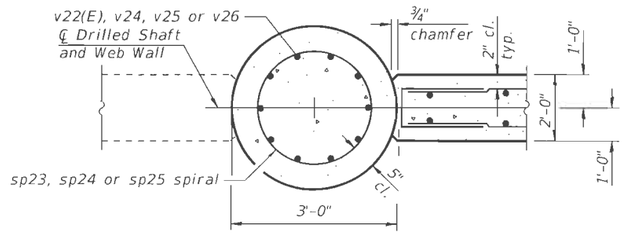
BAR u20(E)

Construction Sequence for Web Wall:

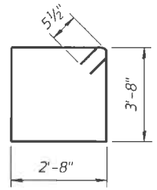
1. Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
4. Construct Columns.
5. Construct upper web walls.



SECTION A-A



SECTION B-B



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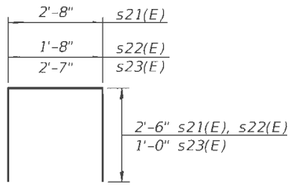
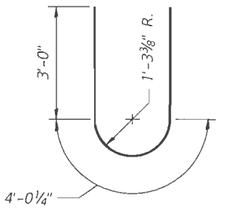


BARS s21(E), s22(E) & s23(E)



BAR u20(E)

PIER 2
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h20(E)	4	#7	15'- 9"	
	h21(E)	4	#7	25'- 6"	
	h22(E)	40	#5	6'- 0"	
	h23(E)	16	#5	5'- 5"	
	h24(E)	4	#4	7'- 9"	
	p20(E)	5	#7	15'- 9"	
	p21(E)	5	#7	25'- 6"	
	p22(E)	5	#7	13'- 2"	
	p23(E)	5	#7	22'- 11"	
	p24(E)	10	#6	3'- 11"	
	s20(E)	50	#5	13'- 7"	
	s21(E)	16	#5	7'- 8"	
	s22(E)	16	#5	6'- 8"	
	s23(E)	8	#4	4'- 7"	
**	sp22(E)	5	#4	3'- 9"	
**	sp23	2	#4	29'- 5"	
**	sp24	1	#4	22'- 5"	
**	sp25	2	#4	12'- 5"	
	u20(E)	8	#6	10'-0¼"	
	v22(E)	50	#8	11'- 6"	
	v23(E)	48	#5	5'- 10"	
	v24	20	#9	29'- 5"	
	v25	10	#9	22'- 5"	
	v26	20	#9	12'- 5"	

Concrete Structures	Cu. Yd.	32.7
Reinforcement Bars	Pound	4,640
Reinforcement Bars, Epoxy Coated	Pound	4,780
Structure Excavation	Cu. Yd.	7.0
Drilled Shaft in Soil	Cu. Yd.	2.1
Drilled Shaft in Rock	Cu. Yd.	17.8
Thermal Integrity Profile Testing	Each	5
Thermal Integrity Profile Data Collection	Foot	106

Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 1½ turns
** Length is height of spiral.

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HRG PROJ.CONTACT:
FILE NAME: 046060-66H54-1024-Pier Details.dgn
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HRGreen.com
Illinois Professional Design Firm
184-001322
HRGreen.

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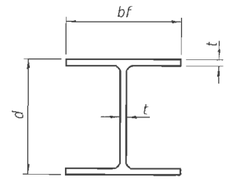
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

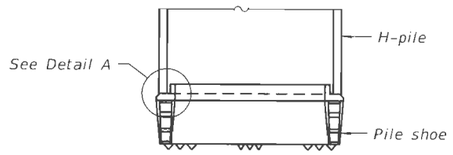
PIER 1 AND PIER 2 DETAILS
STRUCTURE NO. 046-0160
SHEET NO. 24 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	44
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

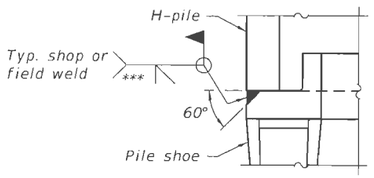


STEEL PILE TABLE

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



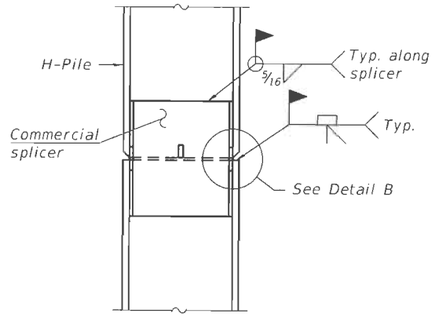
ELEVATION



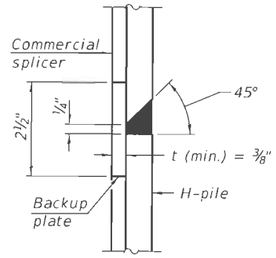
DETAIL A

SHOE ATTACHMENT

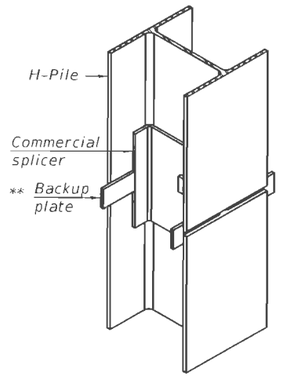
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



ELEVATION

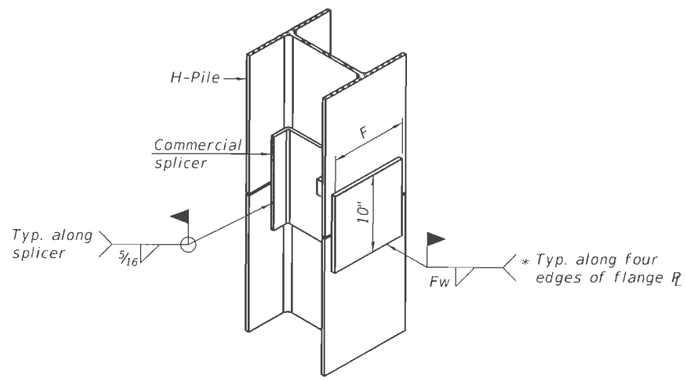


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



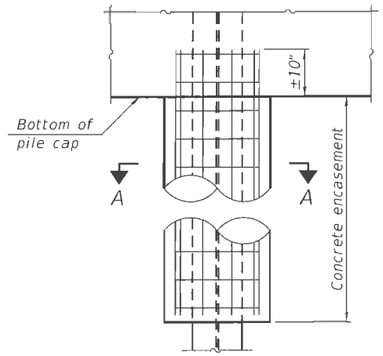
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

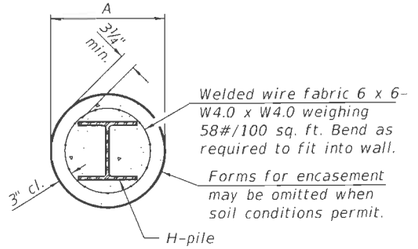
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).

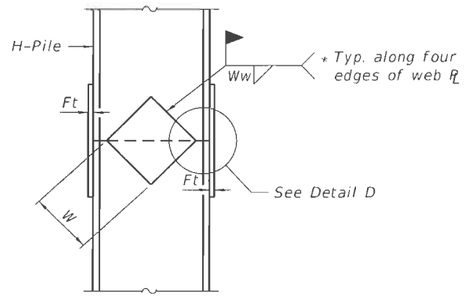


ELEVATION

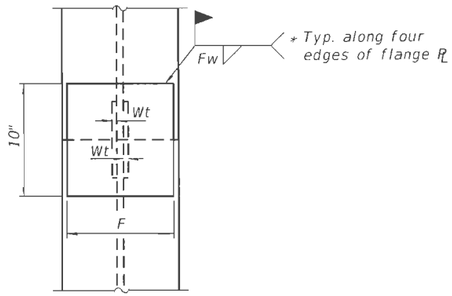


SECTION A-A

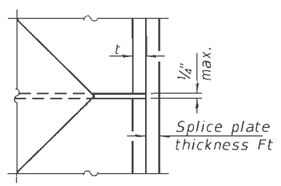
INDIVIDUAL PILE
CONCRETE ENCASEMENT
(when specified)



ELEVATION



END VIEW



DETAIL D

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"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	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"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

HRG PROJECT NO.: 20220J0
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-025-hpfile.dgn
PLOT DRIVER: IL_pdf_bw.ctb
PLOT TABLES: plotTable1.tbl

F-HP 1-1-2020

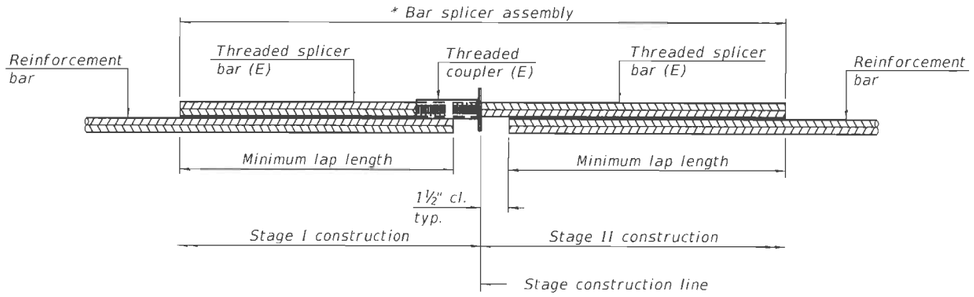
HRGreen.com
Illinois Professional Design Firm # 184-001322
HRGreen.

USER NAME = jrolibu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 046-0160
SHEET NO. 25 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	45
		CONTRACT NO. 66H54		
		ILLINOIS	FED. AID PROJECT	



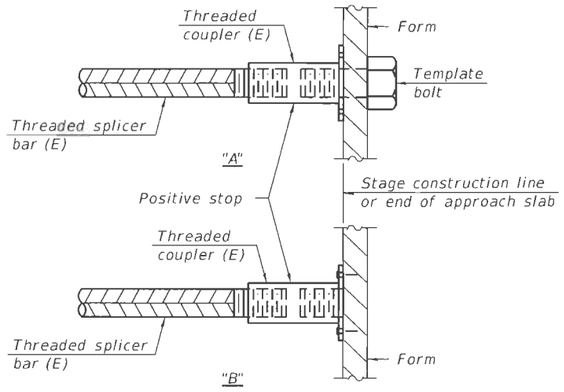
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + 1½" + thread length

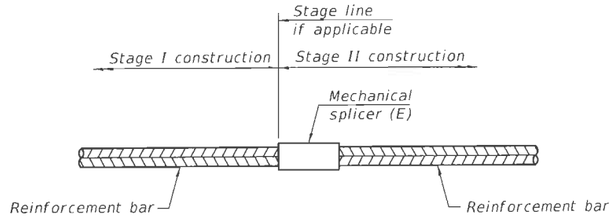
** Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.*

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	325	3'-6"
Approach Slab (Top)	#5	90	3'-6"
Approach Slab (Bottom)	#8	120	4'-9"
Approach Slab (Footing)	#5	80	3'-6"
Abutment Diaphragms	#6	14	3'-7"
Abutments	#7	20	4'-8"
Pier Cap	#7	28	4'-8"
Pier Web Wall	#5	160	3'-6"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

Notes:
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

HRG PROJECT NO.: 20026.10
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-026-Bar-Splicer.dgn
PLOT DRIVER: ilpdf_hrgreen.tbl
PEN TABLE: pentable.tbl

HRGreen.com
Illinois Professional Design Firm
184-001322
HRGreen.

USER NAME = jroltbu	DESIGNED - SLS	REVISED -
	CHECKED - AEU	REVISED -
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 046-0160
SHEET NO. 26 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	46
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/15/18

ROUTE FAP 330 (US 45/52) DESCRIPTION US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road LOGGED BY Larry Myers

SECTION (16BR-1)ES LOCATION NE 1/4, SEC. 7, TWP. 32N, RNG. 12E, 3rd PM,
Latitude 41.271699, Longitude -87.878047

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0046
Station 517+09

BORING NO. 01 (S.E. Quad.)
Station 516+57
Offset 16.0 ft Rt.
Ground Surface Elev. 661.51 ft

Surface Water Elev. 652.64 ft
Stream Bed Elev. 650.39 ft

Groundwater Elev.:
First Encounter 646.5 ft
Upon Completion 650.5 ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered Shoulder Stone. Brown & Black Silty Clay Loam Fill			
659.01			
Stiff to Very Stiff Black & Brown Silty Clay Loam Fill with Asphalt Pieces & Concrete Debris	2		
	3 7	2.0 P	19
-5	3		
	4 5	2.5 P	21
654.51			
Very Stiff Brown Silty Loam & Loamy Sand / Gravel	5		
	6 9	2.5 P	13
652.01			
Medium Loamy Fine Sand to Coarse Gravel, mainly Limestone Gravel Pieces -10 ▽	7		
	11 7		9
649.01			
Hard Black Clay (Eroded Reworked Coal?)	4		
	5 8	>4.5 P	17
647.01			
Hard Gray Silty Clay - Blocky, Highly Weathered & Reworked Silty Calcareous Shale with Coal Pieces -15 ▼	7		
	9 11	>4.5 P	12
	7		
	9 11	>4.5 P	12
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
	11		
Hard Gray Silty Clay - Blocky, Highly Weathered & Reworked Silty Calcareous Shale with Coal Pieces *(continued)*	21 35	>4.5 P	10
639.51			
Dense Gray Blocky Silty Calcareous Shale with Limestone Pieces	12		
	18 27	>4.5 P	11
-25	56		
635.68	100/4"		11
End of Boring			
-30			
-35			
-40			

SOIL BORING 046-0046.GPJ IL_DOT.GDT 4/20/18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 3/15/18

ROUTE FAP 330 (US 45/52) DESCRIPTION US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road LOGGED BY Larry Myers

SECTION (16BR-1)ES LOCATION SW 1/4, SEC. 8, TWP. 32N, RNG. 12E, 3rd PM,
Latitude 41.271985, Longitude -87.878169

COUNTY Kankakee DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 046-0046
Station 517+09

BORING NO. 02 (N.W. Quad.)
Station 517+61
Offset 16.0 ft Lt.
Ground Surface Elev. 661.38 ft

Surface Water Elev. 652.64 ft
Stream Bed Elev. 650.82 ft

Groundwater Elev.:
First Encounter 646.4 ft
Upon Completion 651.4 ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Augered Shoulder Stone. Black & Brown Silty Clay Loam Fill			
658.88			
Very Stiff Black & Brown Silty Clay Loam Fill with Gravel Pieces	3		
	4 5	2.5 P	19
-5	2		
	4 5	2.0 P	25
653.88			
Stiff Brown & Gray Silty Loam, Silt, Loamy Sand & Gravel	3		
	5 4	1.5 P	19
651.88			
Medium Loamy Fine Sand to Coarse Gravel -10 ▽	9		
	11 13		15
649.38			
Dense Gray Reworked Silty Calcareous Shale with Limestone Gravel Pieces	10		
	20 30		8
646.88			
Dense Gray Silty Calcareous Shale - Thin Blocky Bedding, Limestone Fragments throughout - Poor Quality -15 ▼	27		
	28 31		11
644.38			
Dense Gray Silty Calcareous Shale - Blocky with Limestone Layers @ 20 Ft.	33		
	76 100/4"		12
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
641.21	100/2"		10
End of Boring			
-25			
-30			
-35			
-40			

SOIL BORING 046-0046.GPJ IL_DOT.GDT 4/20/18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, form 137 (Rev. 8-99)

HRG PROJECT NO.: 20201.10
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-027-BLOG.dgn
PLOT DRIVER: IL_pdf_by_pltcfg
PEN TABLE: plotlabel.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322
HRGreen.

USER NAME = jroltbu	DESIGNED - SLS	REVISED -
	CHECKED - AEU	REVISED -
PLOT SCALE =	DRAWN - WJH	REVISED -
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOG
STRUCTURE NO. 046-0160
SHEET NO. 27 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	47
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Date 5/12/20

ROUTE FAP 330 (US 45/52) DESCRIPTION US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road LOGGED BY Larry Myers

SECTION (16BR-1)ES LOCATION NW 1/4, SEC. 8, TWP. 32N, RNG. 12E, 3rd PM, Latitude 41.27199, Longitude -87.87804

COUNTY Kankakee CORING METHOD Split Barrel Wire Line

STRUCT. NO. 046-0046 (Exist.)
Station 517+09

CORING BARREL TYPE & SIZE N W/L 2

BORING NO. 03 (N.E. Quad.)
Station 517+59
Offset 15.0 ft Rt.
Ground Surface Elev. 660.87 ft

Core Diameter 1.9 in
Top of Rock Elev. 645.87 ft
Begin Core Elev. 645.87 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dense Gray Limestone with some Loose Horizontal Joints	645.87	1	95	37	5.6	
						267.4
Vertical Fractures from 16.5 ft to 18 ft						
						506.3
						503.4
	640.87 -20					
Dense Gray Limestone with some Loose Joints		2	95	43	8.6	505.1
						525.2
						505.3
						539.0
	637.37					
Dark Gray Calcaueous Shale Thin to Medium Bedded with Limestone Layers						556.5
	635.87 -25					
Dense Gray, Green & Black Calcaceous Shale Bedded with Thin Limestone Layers - Numerous Seperations on Bedding Planes with some Vertical Fracturing		3	97	8	10.2	274.3
	630.87 -30					
End of Boring						
	-35					

Color pictures of the cores Yes
Cores will be stored for examination until Construction Complete
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Date 5/13/20

ROUTE FAP 330 (US 45/52) DESCRIPTION US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road LOGGED BY Larry Myers

SECTION (16BR-1)ES LOCATION SE 1/4, SEC. 7, TWP. 32N, RNG. 12E, 3rd PM, Latitude 41.27168, Longitude -87.87815

COUNTY Kankakee CORING METHOD Split Barrel Wire Line

STRUCT. NO. 046-0046 (Exist.)
Station 517+09

CORING BARREL TYPE & SIZE N W/L 2

BORING NO. 04 (S.W. Quad.)
Station 516+64
Offset 15.0 ft Lt.
Ground Surface Elev. 661.22 ft

Core Diameter 1.9 in
Top of Rock Elev. 643.22 ft
Begin Core Elev. 643.22 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Dense Gray & Green Limestone with some Loose Joints	643.22	1	93	68	8	
						1048.6
	-20					1078.0
						1101.6
						1140.6
	638.22					
Gray & Green Limestone with High Vertical Fracturing - Loose Joints with some Fractures Filled with Weathered Gray Shale. Numerous Striations on the Vertical Shear Faces		2	98	0	6.8	1034.5
	-25					
	633.22					
Dense Gray & Green Limestone - Vertical Fracturing continues to 29 ft		3	98	17	7.8	
Fracturing becomes Angled - Loose Joints, No Noticable Joint Filling						
	-30					
	628.22					
End of Boring						
	-35					

Color pictures of the cores Yes
Cores will be stored for examination until Construction Complete
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE 046-0046.GPJ IL_DOT.GDT 6/10/20

HRG PROJECT NO.: 2002k10
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-028-BLog2.dgn
PLOT DRIVER: il_dot_bwpltcfg
PEN TABLE: plotlabel.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322

USER NAME = jroltbu	DESIGNED - SLS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	BORING LOG STRUCTURE NO. 046-0160
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	SHEET NO. 28 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	48
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

BORING LOG B-01

Wang Engineering
wangeng@wangeng.com
1145 N. Main Street
Lombard, IL
Telephone: 630-953-9928
Fax: 630-953-9938

WEI Job No.: 390-04-01

Client: Engineering Resource Associates, Inc.
Project: US 45/52 Over N. Branch of Rock Creek
Location: Kankakee County

Datum: NAVD 83
Elevation: 661.35 ft
Latitude: 41.27188
Longitude: -87.87816
Station: 517+28.30
Offset: -15.7079

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	14-inch thick CONCRETE --BRIDGE DECK--						
660.2	Casing through open air	5					
653.1	Surface of stream water						
652.4	Loose, brown, gray and black GRAVEL; saturated --RDR 1--	10		1	1, 1, 3	NP	10
650.9	Very dense, gray WEATHERED SHALE; damp to moist --RDR 2 to 3--			2	19, 30, 45	NP	10
				3	50/5.5"	NP	12
		15		4	50/3"	NP	
644.4	Strong, light greyish gray, very poor to fair quality, LIMESTONE; Closely spaced, slightly weathered, horizontal and oblique JOINTS, with <0.05 inch opening, slightly rough walls, and <0.2 inch thick clay infill. --Run 1: 17.0 to 18.0 feet-- --RECOVERY = 100%-- --RQD = 0%-- --Run 2: 18.0 to 28.0 feet-- --RECOVERY = 97%-- --RQD = 58%--	20, 25	CORE	5, 6	CORE	879.44, 806.64, 967.15, 849.20	
	--Run 3: 28.0 to 33.0 feet-- --RECOVERY = 96%-- --RQD = 50%--	30	CORE	7	CORE	608.96, 614.17, 332.90	
628.4	Boring terminated at 33.00 ft	35, 40, 45, 50					

GENERAL NOTES

Begin Drilling: 05-28-2020 Complete Drilling: 05-28-2020
Drilling Contractor: Wang Testing Services Drill Rig: 18CME55T [85%]
Driller: RR&JV Logger: E. Yim Checked by: JAB
Drilling Method: 2.25" IDA HSA to 11'; mud rotary thereafter; autohammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 8.25 ft
At Completion of Drilling: 8.25 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 3900401.GPJ WANGENG.GDT 6/29/20

BORING LOG B-02

Wang Engineering
wangeng@wangeng.com
1145 N. Main Street
Lombard, IL
Telephone: 630-953-9928
Fax: 630-953-9938

WEI Job No.: 390-04-01

Client: Engineering Resource Associates, Inc.
Project: US 45/52 Over N. Branch of Rock Creek
Location: Kankakee County

Datum: NAVD 83
Elevation: 661.33 ft
Latitude: 41.27175
Longitude: -87.87815
Station: 516+77.76
Offset: -15.6797

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	14.75-inch thick, CONCRETE --BRIDGE DECK--						
660.1	Casing through open air	5					
654.8	Very loose, brown SANDY LOAM, trace gravel; moist --RDR 2--			1	1, 1, 1	NP	15
652.8	Very loose, brown LOAM to CLAY LOAM, trace gravel; wet --RDR 2--	10		2	2, 1, 2	NP	30
650.8	Medium dense, light gray to gray HIGHLY WEATHERED SILTSTONE; damp --RDR 2--			3	7, 3, 7	NP	13
	--rig chatter--	15		4	13, 13, 15	NP	14
645.8	Very dense, light gray to gray HIGHLY WEATHERED SILTSTONE; dry to damp --RDR 2 to 3--			5	32, 50/4"	NP	13
643.3	--rig chatter-- Very dense, gray HIGHLY WEATHERED SILTSTONE; damp --RDR 2 to 3--	20		6	50/6"	NP	11
				7	50/4"	NP	11
		25		8	50/2"	NP	10
				9	50/4"	NP	8
633.3	Very dense, light gray HIGHLY WEATHERED SILTSTONE; damp --RDR 2--			10	50/4"	NP	17
631.3	Boring terminated at 30.00 ft	30, 35, 40, 45, 50					

GENERAL NOTES

Begin Drilling: 05-28-2020 Complete Drilling: 05-28-2020
Drilling Contractor: Wang Testing Services Drill Rig: 18CME55T [85%]
Driller: RR&JV Logger: E. Yim Checked by: JAB
Drilling Method: 2.25" IDA HSA to 10.5'; mud rotary thereafter; autohammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: NA
At Completion of Drilling: NA
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 3900401.GPJ WANGENG.GDT 6/29/20

Wang Engineering
wangeng@wangeng.com
1145 N. Main Street
Lombard, IL
Telephone: 630-953-9928
Fax: 630-953-9938

BORING LOG B-03

WEI Job No.: 390-04-01

Client: Engineering Resource Associates, Inc.
Project: US 45/52 Over N. Branch of Rock Creek
Location: Kankakee County

Datum: NAVD 83
Elevation: 661.31 ft
Latitude: 41.27178
Longitude: -87.87804
Station: 516+89.71
Offset: 15.9673

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	660.1	14.25-inch thick CONCRETE --BRIDGE DECK--						
		Casing through open air	5					
	652.6	Surface of stream water	10					
	651.1	Very dense, gray SANDY GRAVEL; saturated --RDR 3--			1	8 24 44	NP	11
		Very dense, greenish gray SHALE --RDR 3 to 4--	15		2	34 50/4"	NP	12
					3	28 50/3"	NP	11
			20		4	80/3"	NP	9
					5	50/2"	NP	8
	637.8	Medium strong to very strong, light greenish white, fair to good quality, LIMESTONE; Closely spaced, fresh to slightly	25	CORE			956.79	092.45
		weathered, horizontal and vertical JOINTS, with 0.05 - 0.2 inch opening, slicken to slightly rough walls, and 0 - 0.2 inch thick clay infill. --Run 1: 23.5 to 29.5 feet-- --RECOVERY = 94%-- --RQD = 72%-- --Run 2: 29.5 to 39.5 feet-- --RECOVERY = 100%-- --RQD = 77%--	30	CORE	6		931.94	
							820.25	
			35	CORE	7		858.71	
							1026.13	
			40				1086.40	
							1026.56	
			45				689.13	
	621.8	Boring terminated at 39.50 ft						
			50					

GENERAL NOTES

Begin Drilling: 05-29-2020 Complete Drilling: 05-29-2020
Drilling Contractor: Wang Testing Services Drill Rig: 17B57T [91%]
Driller: NC&KG Logger: F. Bozga Checked by: JAB
Drilling Method: 2.25" IDA HSA to 10.5'; mud rotary thereafter; autohammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 8.75 ft
At Completion of Drilling: 8.75 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
wangeng@wangeng.com
1145 N. Main Street
Lombard, IL
Telephone: 630-953-9928
Fax: 630-953-9938

BORING LOG B-04

WEI Job No.: 390-04-01

Client: Engineering Resource Associates, Inc.
Project: US 45/52 Over N. Branch of Rock Creek
Location: Kankakee County

Datum: NAVD 83
Elevation: 661.28 ft
Latitude: 41.27192
Longitude: -87.87804
Station: 517+41.36
Offset: 15.9843

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	660.1	14-inch thick CONCRETE --BRIDGE DECK--						
		Casing through open air	5					
	651.3	Surface of stream water	10					
	650.4	Dense to very dense, light gray HIGHLY WEATHERED SHALE; damp --RDR 2--			1	17 20 17 19	NP	15
			15		2	22 37 21 36	NP	12
	645.8	Very dense, light gray WEATHERED SHALE; damp --RDR 2--			3	50/4"	NP	16
	643.3	Very dense, light gray SHALE --RDR 2 to 3--	20		4	50/4"	NP	12
					5	50/0.5"	NP	
		--quick and slow alternating drilling to 26'--	25		6	50/4"	NP	14
	635.3							
		Very dense, black WEATHERED SHALE; damp --RDR 2 to 3--			7	50/5"	NP	19
	633.3	Very dense, bluish gray to black WEATHERED SHALE; damp --RDR 2 to 3--	30		8	50/3"	NP	18
					9	50/4"	NP	17
	627.8	Very dense, gray LIMESTONE Strong, light grayish gray to dark gray, very poor to fair quality, LIMESTONE and SHALE; Closely spaced, slightly weathered, horizontal and oblique JOINTS, with > 0.2 inch opening, slicken to slightly rough walls, and 0-0.2 inch thick clay infill. --Run 1: 34.0 to 42.0 feet-- --RECOVERY = 91%-- --RQD = 18%-- --Run 2: 42.0 to 51.0 feet-- --RECOVERY = 98%-- --RQD = 57%--	35		10	50/0.5" CORE	NP	
			40		11		784.83	
			45	CORE	12		713.76	660.83
								661.91
	610.3	Boring terminated at 51.00 ft	50					

GENERAL NOTES

Begin Drilling: 05-28-2020 Complete Drilling: 05-28-2020
Drilling Contractor: Wang Testing Services Drill Rig: 18CME55T [85%]
Driller: RR&JV Logger: E. Yim Checked by: JAB
Drilling Method: 2.25" IDA HSA to 15'; mud rotary thereafter; autohammer, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 10.00 ft
At Completion of Drilling: 10.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 390401.GPJ WANGENG.GDT 6/29/20

HRG PROJECT NO.: 2002410
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-030-BLog4.dgn
PLOT DRIVER: ilpdf.drv
PEN TABLE: plotlabel.tbl

HRGreen. HRGreen.com Illinois Professional Design Firm # 184-001322

USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOG
STRUCTURE NO. 046-0160
SHEET NO. 30 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	50
		CONTRACT NO. 66H54		
	ILLINOIS	FED. AID PROJECT		

ROCK CORE LOG

Date 4/5/21

ROUTE FAP 330 (US 45/52) **DESCRIPTION** US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road **LOGGED BY** J.I.

SECTION (16BR-1)ES **LOCATION** NE 1/4 SEC. 7, TWP. 32N, RNG. 12E, 3rd PM LAT: 41.2718787 LONG: -87.8781165

COUNTY Kankakee **CORING METHOD** 10 foot double tube NX

STRUCT. NO. 046-0046
Station 517+09

CORING BARREL TYPE & SIZE NX
Core Diameter 2 in
Top of Rock Elev. 639.35 ft
Begin Core Elev. 639.35 ft

BORING NO. RB-01
Station 517+26
Offset 5LT
Ground Surface Elev. 661.35 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray LIMESTONE, poor, low field strength, aphanitic, thinly bedded, semi-smooth surfaces, vertical and horizontal fractures Depth 22½ feet: Moisture Content: 2%, Unit Weight: 164 pcf	639.35 – 636.35	-25	1	48	37		1247.0
Gray LIMESTONE, very poor, low field strength, highly factured, horizontal and oblique fractures, aphanitic, thinly bedded	633.35		2	58	19		
Light gray LIMESONE, fair, strong field strength, aphanitic, thinly bedded Depth 29 feet: Moisture Content: 2%, Unit Weight: 164 pcf	631.35	-30	3	68	68		771.0
Light gray LIMESTONE, excellent, strong field strength, aphanitic, thinly bedded	623.35	-35	4	100	97		
End of Boring		-40					

Color pictures of the cores Yes
Cores will be stored for examination until N/A
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE LOG

Date 4/6/21

ROUTE FAP 330 (US 45/52) **DESCRIPTION** US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road **LOGGED BY** J.I.

SECTION (16BR-1)ES **LOCATION** NE 1/4 SEC. 7, TWP. 32N, RNG. 12E, 3rd PM LAT: 41.2717492 LONG: -87.8781122

COUNTY Kankakee **CORING METHOD** 10 foot double tube NX

STRUCT. NO. 046-0046
Station 517+09

CORING BARREL TYPE & SIZE NX
Core Diameter 2 in
Top of Rock Elev. 646.83 ft
Begin Core Elev. 646.83 ft

BORING NO. RB-02
Station 516+79
Offset 4.4LT
Ground Surface Elev. 661.33 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray SILTSTONE, highly weathered *Note: only 7 inches of recovery in RUN 1, approximately 4 inches of siltstone and 3 inches of limestone. Low recovery is most likely a result of siltstone washing away during rock core operations.*	646.83 – 642.33	-15	1	11	0		
Gray LIMESTONE, very poor, low field strength, highly weathred, aphanitic, thinly bedded *Drillers Note: Increased difficulty of core operations began at approximately 19 feet below existing grade. Assumed top of limestone bedrock at approximately 19 feet below existing grade.*	641.83	-20	2	66	23		
Gray LIMESTONE, very poor, vertical and horizontal fractures, weathered surfaces on fractured faces (brown in color)	639.33						
Gray LIMESTONE, good, strong field strength, horizontal and oblique fractures, aphanitic, thinly bedded Depth 22¾ feet: Moisture Content: 2%, Unit Weight: 164 pcf	635.33	-25	3	95	79		1242.0
Gray LIMESTONE, fair, strong field strength, horizonatal and oblique fractures, aphanitic, thinly bedded Depth 26¾ feet: Moisture Content: 3%, Unit Weight: 162 pcf	631.33	-30	4	98	73		1209.0
Gray LIMESTONE, poor, low field strength, highly fractured, some clay infills	627.33		5	85	28		
End of Boring							

Color pictures of the cores Yes
Cores will be stored for examination until N/A
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

ROCK CORE LOG

Date 4/7/21

ROUTE FAP 330 (US 45/52) DESCRIPTION US 45/52 over North Branch of Rock Creek, 1.5 miles North of Manteno Road LOGGED BY J.I.

SECTION (16BR-1)ES LOCATION NE 1/4 SEC. 7, TWP. 32N, RNG. 12E, 3rd PM
LAT: 41.2717512 LONG: -87.8781578

COUNTY Kankakee CORING METHOD 10 foot double tube NX

STRUCT. NO. 046-0046
Station 517+09

BORING NO. RB-03
Station 516+80
Offset 16.9LT
Ground Surface Elev. 661.33 ft

CORING BARREL TYPE & SIZE NX
Core Diameter 2 in
Top of Rock Elev. 643.33 ft
Begin Core Elev. 643.33 ft

		DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Gray SILT to SILTSTONE, soft, weathered, some gravel	643.33		1	20	0		
		-20					
	638.33						
Gray to blueish gray SILTSTONE, highly weathered, highly fractured, wavy bedding, large gravel sized clasts, some clay infills		-25	2	93	13		
	632.33						
Gray to blueish gray SILTSTONE, highly weathered, highly fractured, wavy bedding, large gravel sized clasts, low recovery		-30	3	58	14		
	629.33						
Gray LIMESTONE, very poor, low field strength, semi-smooth surfaces, horizontal and oblique fractures	627.33						
End of Boring		-35					

Color pictures of the cores Yes
Cores will be stored for examination until N/A
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

HRG PROJECT NO.: 200210
HRG PROJ. CONTACT:
FILE NAME: 046060-66H54-032-BL.opb.dgn
PLOT DRIVER: IL_pdf.tbl_pltcfg
PEN TABLE: plotcbw1.tbl

HRGreen.com
Illinois Professional Design Firm # 184-001322
HRGreen.

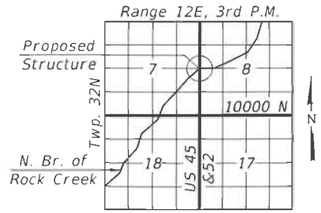
USER NAME = jroltbu	DESIGNED - SLS	REVISED -	
	CHECKED - AEU	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 12/6/2021	CHECKED - AEU	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

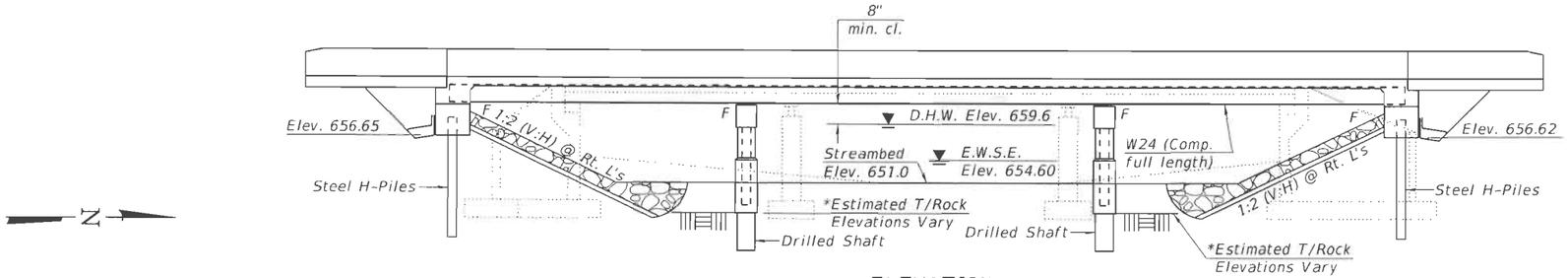
ROCK CORE LOG
STRUCTURE NO. 046-0160
SHEET NO. 32 OF 32 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(16BR-1)BR	KANKAKEE	64	52
		CONTRACT NO. 66H54		
	ILLINOIS FED. AID PROJECT			

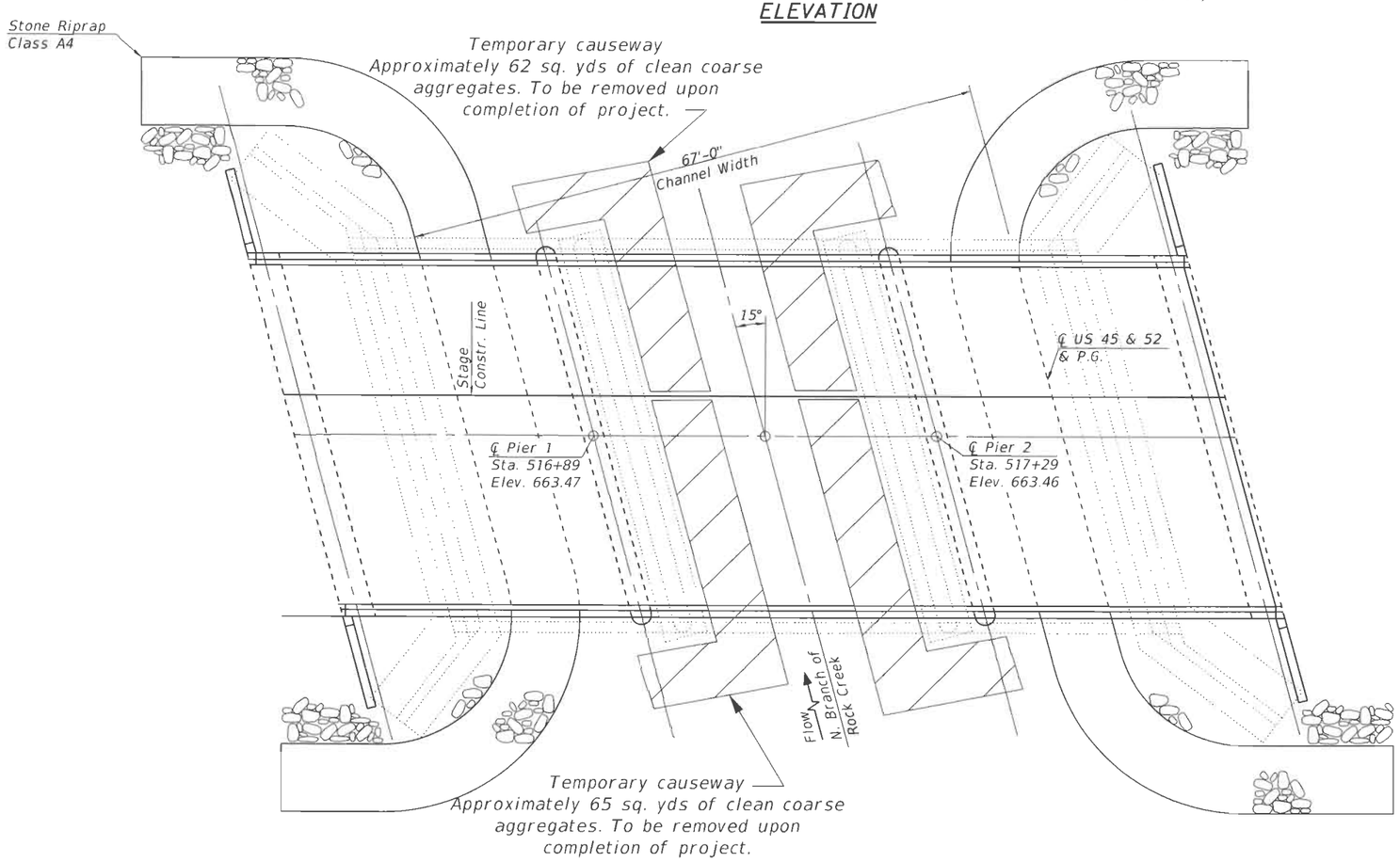
EXHIBIT



LOCATION SKETCH



ELEVATION



Not to Scale

PLAN

GENERAL PLAN AND ELEVATION
US 45 & 52 OVER
NORTH BRANCH OF ROCK CREEK
F.A.P. RTE. 330 - SEC. 16 BR-1
KANKAKEE COUNTY
STATION 517+09.00
EXISTING STRUCTURE NO. 046-0046
PROPOSED STRUCTURE NO. 046-0160

MODEL:
FILE NAME:
12/8/2021 4:04:41 PM

USER NAME = ____	DESIGNED -	REVISED - ____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED -	REVISED - ____	CAUSEWAY PLAN FOR INFORMATION ONLY
PLOT SCALE = ____	DRAWN -	REVISED - ____	
PLOT DATE = ____	CHECKED -	REVISED - ____	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	16 BR-1	Kankakee		52A
		CONTRACT NO. 66H54		
	ILLINOIS FED. AID PROJECT			