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IDOT HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
630001-12	STEEL PLATE BEAM GUARDRAIL
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-06	TRAFFIC BARRIER TERMINAL, TYPE 5
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 M) AWAY
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-12	LANE CLOSURE, FREEWAY/EXPRESSWAY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
701428-01	TRAFFIC CONTROL SETUP AND REMOVAL, FREEWAY/EXPRESSWAY
701446-11	TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL J.U.L.I.E. AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE COUNTY OF DUPAGE.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS CONTRACT.
- EXISTING UNDERGROUND AND ABOVE-GROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED ON THESE CONTRACT DOCUMENTS BASED UPON THE INFORMATION AND SURVEYS AVAILABLE AT THE TIME OF DRAWING PREPARATION. THE LOCATION OF THESE FEATURES MUST, THEREFORE, BE CONSIDERED APPROXIMATE ONLY. IN ADDITION, THERE MAY BE OTHER FACILITIES, STRUCTURES, AND UTILITIES WHICH DID NOT EXIST OR THE EXISTENCE OF WHICH WAS NOT KNOWN AT THE TIME OF DRAWING PREPARATION. IT IS THE SOLE RESPONSIBILITY OF CONTRACTOR(S) TO HAVE ALL EXISTING FACILITIES, STRUCTURES, AND UTILITIES LOCATED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY AND TO PROTECT ALL SUCH EXISTING FEATURES DURING CONSTRUCTION.
- ANY REFERENCE TO STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE LATEST EDITION.
- THE CONTRACTOR SHALL CONTACT THE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR AT (847) 705-4155 AND THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE RESIDENT ENGINEER SHALL CONTACT THE EXPRESSWAY TRAFFIC FIELD ENGINEER REGINA COOPER VIA EMAIL AT REGINA.COOPER@ILLINOIS.GOV A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, I.D.O.T.'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.
- SAWING OF REMOVAL ITEMS AS NOTED ON THE PLANS, SPECIFIED IN THE STANDARD SPECIFICATIONS, OR AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS, IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL REQUEST AND GAIN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTLCS.COM TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES AND 7 DAYS IN ADVANCE OF ALL PERMANENT AND WEEKEND CLOSURES ON ALL FREEWAYS AND/OR EXPRESSWAYS IN DISTRICT ONE. THE ADVANCE NOTIFICATION IS CALCULATED BASED ON MONDAY THROUGH FRIDAY AND SHALL NOT INCLUDE WEEKENDS OR HOLIDAYS.

MODEL: Defaul
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311 S. Wacker Drive, Suite 1950
 Chicago, Illinois 60606
 312-474-4500
 www.bowman.com

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DRAWN - KM	REVISIONS -	
PLOT SCALE = 2.0000' / in.	CHECKED - AP	REVISIONS -
PLOT DATE = 11/16/2021	DATE - 11/16/2021	REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, STATE STANDARDS,
 AND GENERAL NOTES

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	2
CONTRACT NO. 62M64			ILLINOIS FED. AID PROJECT	

REVISED SHEET 2/16/2022

REV-SEP

CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	CONSTRUCTION CODE	
				90% FED 10% STATE	
				BRIDGE	
				0059	
				SN 022-0089	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	6	6	
50102400	CONCRETE REMOVAL	CU YD	4.5	4.5	
50300225	CONCRETE STRUCTURES	CU YD	19.8	19.8	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	4.1	4.1	
50300260	BRIDGE DECK GROOVING	SQ YD	14	14	
50300300	PROTECTIVE COAT	SQ YD	29 1,007	29 1,007	①
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2,980 3,060	2,980 3,060	
52000015	PREFORMED JOINT SEAL 1 1/2"	FOOT	82.0	82.0	
52000040	PREFORMED JOINT SEAL 3 1/2"	FOOT	54.0	54.0	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	82.0	82.0	
58700300	CONCRETE SEALER	SQ FT	7,058	7,058	
59000200	EPOXY CRACK INJECTION	FOOT	106	106	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	287.5	287.5	
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2	
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	2	2	

① REVISED SHEET 2/16/2022 * SPECIALTY ITEMS

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Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-494-0300 www.bowman.com	USER NAME = kmaus	DESIGNED - KH	REVISED -
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	PLOT DATE = 11/16/2021	CHECKED - AP	REVISED -
		DATE - 11/16/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR		44	3
CONTRACT NO. 62M64			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	CONSTRUCTION CODE	
				90% FED 10% STATE	
				BRIDGE	
				0059	
				SN 022-0089	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	480	480	
67100100	MOBILIZATION	L SUM	1	1	
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1	①
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	315	315	
70300241	TEMPORARY PAVEMENT MARKING - LINE 6" - PAINT	FOOT	788	788	
70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	570	570	
70307125	TEMPORARY PAVEMENT MARKING - LINE 5" - TYPE IV TAPE	FOOT	300	300	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	700	700	
70400125	PINNING TEMPORARY CONCRETE BARRIER	EACH	252	252	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350	350	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1	
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	570	570	
* 78004625	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - LINE 5"	FOOT	300	300	
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	1,324	1,324	

① REVISED SHEET 2/18/2022 * SPECIALTY ITEMS

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	PLOT DATE = 11/16/2021	CHECKED - AP	REVISIED -
		DATE - 11/16/2021	REVISIED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: NONE SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	4
CONTRACT NO. 62M64			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	CONSTRUCTION CODE	
				90% FED 10% STATE	
				BRIDGE	
				0059	
				SN 022-0089	
* 78011030	GROOVING FOR RECESSED PAVEMENT MARKING 6"	FOOT	300		300
* 78200006	GUARDRAIL REFLECTORS, TYPE B	EACH	8		8
* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	56		56
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	709		709
X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	38.5		38.5
X0322215	CLEANING BRIDGE SCUPPERS AND DOWNSPOUTS	EACH	8		8
X0323491	SLOPE WALL CRACK SEALING	FOOT	98.0		98.0
X0325748	ACRYLIC COATING	SQ YD	86.8		86.8
X0325749	FIBER WRAP	SQ FT	1,339.5 458.9		1,339.5 458.9
X0326331	CLEANING AND PAINTING BEARINGS	EACH	14		14
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12		12
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		1
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1		1
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	28		28
Z0010400	CLEANING BRIDGE SEATS	SQ FT	492		492
Z0012102	CONCRETE BRIDGE DECK SCARIFICATION 3/8 INCH	SQ YD	979.0		979.0

△ REVISED SHEET 2/16/2022

* SPECIALTY ITEMS

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PLOT DATE = 11/16/2021		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE: NONE	SHEET 3	OF 4 SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	5
CONTRACT NO. 62M64			ILLINOIS FED. AID PROJECT	

REV-SEP

CODE NO.	ITEM	UNIT	TOTAL QUANTITY URBAN	CONSTRUCTION CODE	
				90% FED 10% STATE	
				BRIDGE	
				0059	
				SN 022-0089	
Z0012193	BRIDGE DECK THIN POLYMER OVERLAY 3/8"	SQ YD	979.0	979.0	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	333	333	
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	92	92	
Z0015550	DEBRIS REMOVAL	CU YD	4	4	
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	5.6	5.6	
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	4	4	
Z0041895	POLYMER CONCRETE	CU FT	4.9	4.9	⚠
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	279.9	279.9	
* Z0049100	RAISED PAVEMENT MARKER REFLECTOR REPLACEMENT	EACH	28	28	
Z0065700	SLOPE WALL REPAIR	SQ YD	47.9	47.9	
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	13	13	
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	3	3	
<input type="checkbox"/> Z0076600	TRAINEES	HOUR	500	500	
<input type="checkbox"/> Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	500	

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PLOT DATE = 11/16/2021		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF	SHEETS
NONE	4	4	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	6
CONTRACT NO. 62M64			ILLINOIS FED. AID PROJECT	

⚠ REVISED SHEET 2/16/2022 * SPECIALTY ITEMS 0042

Existing Structure: S.N. 022-0089, originally built in 1960 as a four-span continuous concrete superstructure with stub abutments and multi-column concrete piers. The back to back length = 251'-11" and the out to out width = 38'-8". Structure is to be repaired as detailed in these plans. The structure will be repaired using a full bridge closure and detour at Clarendon Hills Rd. and temporary lane closures at I-55 Expressway while maintaining the current capacity.

DESIGN SPECIFICATIONS

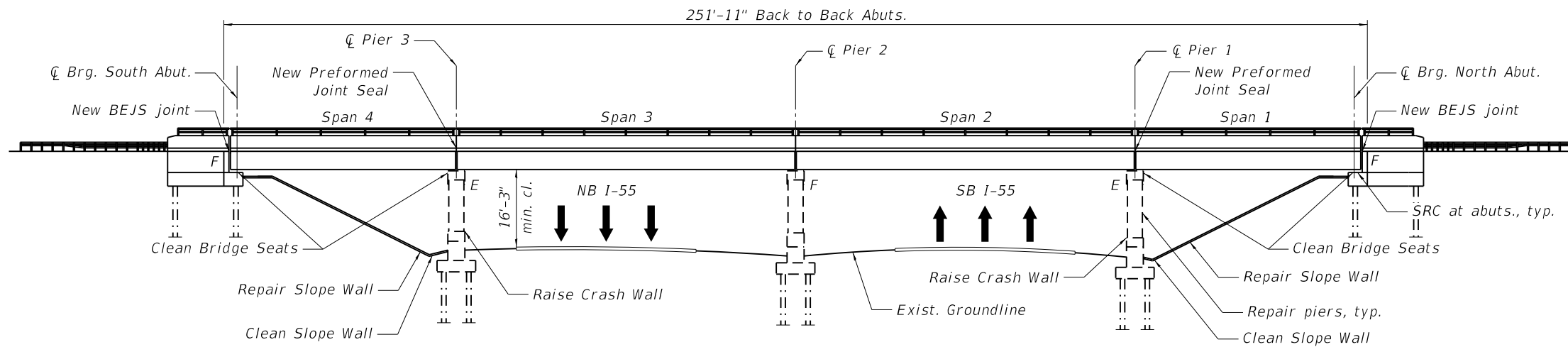
1996 AASHTO "Standard Specifications for Highway Bridges" and 1997 & 1998 AASHTO Interims.

LOADING H20-S16-44

Allow 50psf for future wearing surface

DESIGN STRESSES

Widening	Original Construction
$f'c = 3,500 \text{ psi}$	$f'c = 3,500 \text{ psi}$
$f_y = 60,000 \text{ psi (Reinf.)}$	$f_y = 40,000 \text{ psi (Reinf.)}$
Precast Prestressed Units	Precast Prestressed Units
$f'c = 6,000 \text{ psi}$	$f'c = 5,400 \text{ psi}$
$f'ci = 5,000 \text{ psi}$	$f'ci = 4,000 \text{ psi}$
$f's = 270,000 \text{ psi}$	$f's = 248,000 \text{ psi}$
$f'si = 202,000 \text{ psi}$	$f'si = 173,600 \text{ psi}$

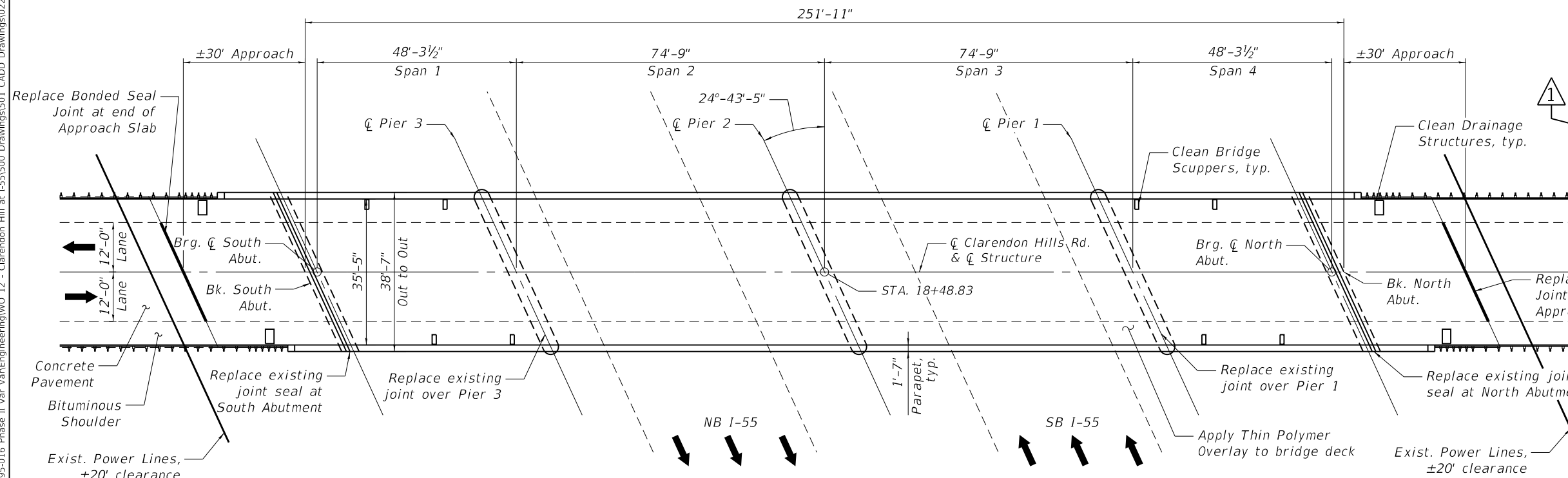


ELEVATION

SCOPE OF WORK

1. Replace PJS joints at abutments with BEJS details
2. Replace Neoprene joints at Piers 1 & 3 with Preformed Joint Strip Seal
3. Replace Bonded Seal Joints at end of approach slabs with BEJS
4. Install Thin Polymer Overlay on the bridge
5. Apply concrete sealer to bridge parapets, piers, and abutments
6. Clean bridge seats and slopewalls
7. Clean and paint bearings at abutments
8. Fiber Wrap and PPC I-Beam Repairs at various locations
9. Repair piers, abutments and slope walls
10. Raise crash walls at Piers 1 & 3

MODEL: 0220089-D62M64-001
FILE NAME: P:\040058 - IDOT\040058-01-002 (ENG) - PTB 195-016 Phase II Var VanEngineering\W0 12 - Clarendon Hill at I-55\1500 Drawings\01 CADD Drawings\0220089-D62M64.dgn



PLAN

LOCATION SKETCH



Arthur Nowak

**GENERAL PLAN AND ELEVATION
CLARENDON HILLS ROAD OVER I-55
DUPAGE COUNTY
STRUCTURE NO. 022-0089**

REVISION 1 REVISED SHEET 2/16/2022 S-1

	USER NAME = atiemann	DESIGNED - AHT	REVISED - 02/11/2022	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089	F.A.I. RTE. = 55	SECTION = 2020-191-BR	COUNTY = DUPAGE	TOTAL SHEETS = 44	SHEET NO. = 14
	PLOT SCALE = 30:0 ft/in / in.	DRAWN - AHT	REVISED -			CONTRACT NO. = 62M64				
	PLOT DATE = 11/16/2021	CHECKED - AJN	REVISED -			ILLINOIS FED. AID PROJECT				
	SHEET 1 OF 24 SHEETS									

GENERAL NOTES

1. No field welding is permitted except as specified in the contract documents.
2. Concrete Sealer shall be applied to all faces of the pier, front face of both abutments, slopewalls, bearing seats, backwalls and above the ground line. Concrete Sealer shall also be applied to front and top face of bridge parapets.
3. Protective Coat shall be applied to the new concrete joint headings, including new overlay.
4. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.
5. The contractor shall not scale dimensions from the contract plans for construction purposes. Scales shown are for information only.
6. Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustment prior to construction of or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
7. No concrete cutting shall be permitted until the cutting limits have been outlined by the contractor and approved by the engineer.

TOTAL BILL OF MATERIAL

ITEM NO.	DESCRIPTION	UNIT	SUPER	SUB	TOTAL
20700220	Porous Granular Embankment	CU. YD.	-	6	6
50102400	Concrete Removal	CU. YD.	4.5	-	4.5
50300225	Concrete Structures	CU. YD.	-	19.8	19.8
50300255	Concrete Superstructure	CU. YD.	4.1	-	4.1
50300300	Protective Coat	SQ. YD.	29	-	29
50800205	Reinforcement Bars, Epoxy Coated	POUND	1,380	1,600	2,980
* 52000015	Preformed Joint Seal 1 1/2"	FOOT	82.0	-	82.0
* 52000040	Preformed Joint Seal 3 1/2"	FOOT	54.0	-	54.0
52000110	Preformed Joint Strip Seal	FOOT	82.0	-	82.0
58700300	Concrete Sealer	SQ. FT.	1,903	5,155	7,058
59000200	Epoxy Crack Injection	FOOT	106	-	106
X0322215	Cleaning Bridge Scuppers and Downspouts	EACH	8	-	8
X0323491	Slope Wall Crack Sealing	FOOT	-	98.0	98.0
X0325748	Acrylic Coating	SQ. YD.	86.8	-	86.8
X0325749	Fiber Wrap	SQ. FT.	1339.5	-	1,339.5
X0326331	Cleaning and Painting Bearings	EACH	14	-	14
Z0010400	Cleaning Bridge Seats	SQ. FT.	492	-	492
Z0012102	Concrete Bridge Deck Scarification 3/8 Inch	SQ. YD.	979.0	-	979.0
* Z0012193	Bridge Deck Thin Polymer Overlay 3/8"	SQ. YD.	979.0	-	979.0
* Z0012754	Structural Repair of Concrete (Depth Equal to or Less Than 5")	SQ. FT.	-	333	333
* Z0012755	Structural Repair of Concrete (Depth Greater Than 5")	SQ. FT.	-	92	92
Z0015500	Debris Removal	CU. YD.	-	4	4
* Z0016200	Deck Slab Repair (Partial)	SQ. YD.	5.6	-	5.6
Z0018500	Drainage Structures to be Cleaned	EACH	4	-	4
Z0041895	Polymer Concrete	CU. FT.	4.9	-	4.9
Z0043800	Precast Prestressed Concrete I-Beam Repair	SQ. FT.	279.9	-	279.9
Z0065700	Slope Wall Repair	SQ. YD.	-	47.9	47.9
Z0073200	Temporary Shoring and Cribbing	EACH	-	13	13

* IDOT GBSP

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- S-1 General Plan and Elevation
- S-2 General Notes & Bill of Material
- S-3 Beam Repair Locations - Framing Plan
- S-4 PPC Beam Repair Details - Span 1
- S-5 PPC Beam Repair Details - Span 1
- S-6 PPC Beam Repair Details - Span 2
- S-7 PPC Beam Repair Details - Span 2
- S-8 PPC Beam Repair Details - Span 3
- S-9 PPC Beam Repair Details - Span 3
- S-10 PPC Beam Repair Details - Span 4
- S-11 PPC Beam Repair Details - Span 4
- S-12 PPC Beam Repair Summary
- S-12 PPC Beam Repair Details & Notes
- S-13 Bridge Deck Thin Polymer Overlay & Parapet Sealing
- S-14 Joint Removal Details @ Piers 1 and 3, Abutments, & Approach Slabs
- S-15 Joint Replacement Details @ Pier 1 and 3, Abutments, & Approach Slabs
- S-16 Expansion Joint Details
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- S-21 Substructure Repair - N. Abutment & Slope Wall
- S-22 Substructure Repair - S. Abutment & Slope Wall
- S-23 Crash Wall Extension - Pier 1
- S-24 Crash Wall Extension - Pier 3

MODEL: 0220089-D62M64-002
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DEPARTMENT OF TRANSPORTATION**

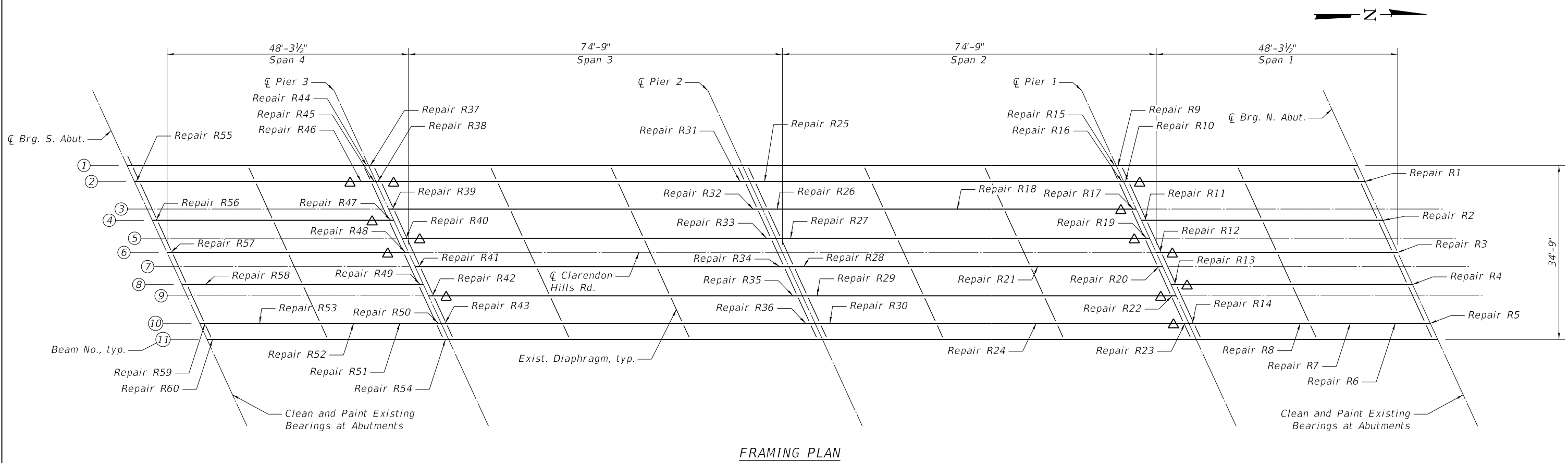
**GENERAL NOTES & BILL OF MATERIAL
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

SHEET 2 OF 24 SHEETS

REVISED SHEET 2/16/2022 S-2

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	15
CONTRACT NO.			62M64	
ILLINOIS FED. AID PROJECT				

MODEL: 0220089-D62M64-003
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FRAMING PLAN



TYPICAL EXISTING BEARING AT ABUTMENT
 (For Information Only)

BEAM REACTION TABLE (UNFACTORED) - AT ABUTMENT

Load Type	Int. Beam-Spans 1/4 (Kips)	Int. Beam-Spans 2/3 (Kips)
DL	48	67
LL	66	64
IMP	14	12
Tot. Load with Traffic	114	131
Min. Req'd. Jack Capacity with Traffic	171	197
Tot. Load without Traffic	48	67
Min. Req'd. Jack Capacity without Traffic	72	100



Note:
 The jack capacity provided should be between 50% and 100% greater than the maximum expected load.

LEGEND

△ Temporary Shoring and Cribbing

BILL OF MATERIAL

Item	Unit	Total
Cleaning and Painting Bearings	Each	14
Temporary Shoring and Cribbing	Each	13

REVISED SHEET 2/16/2022 S-3

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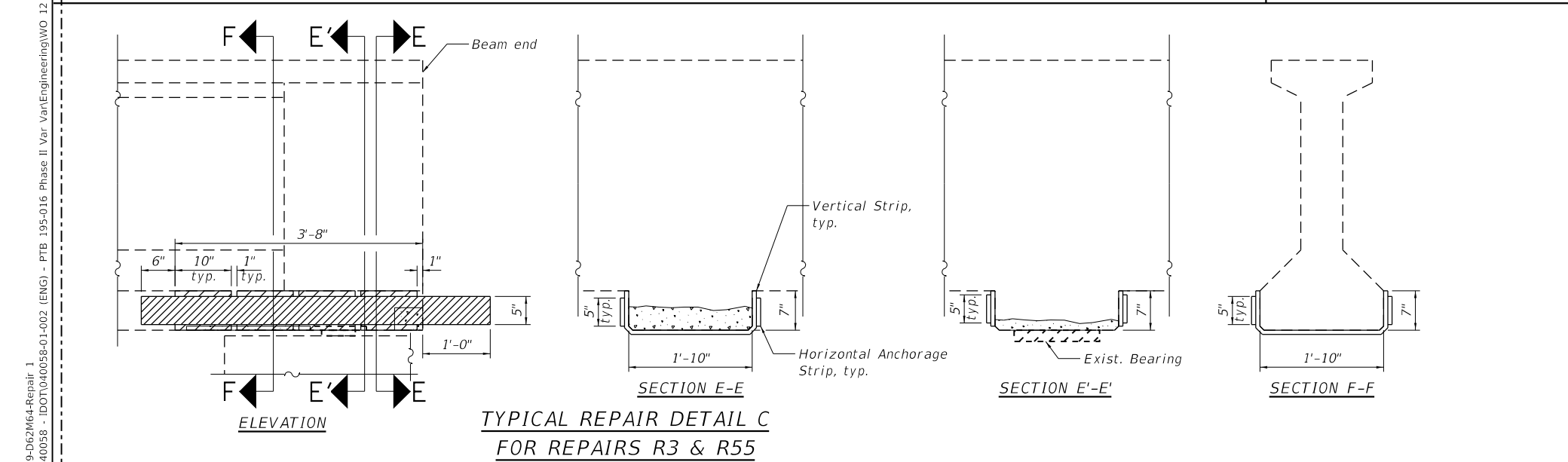
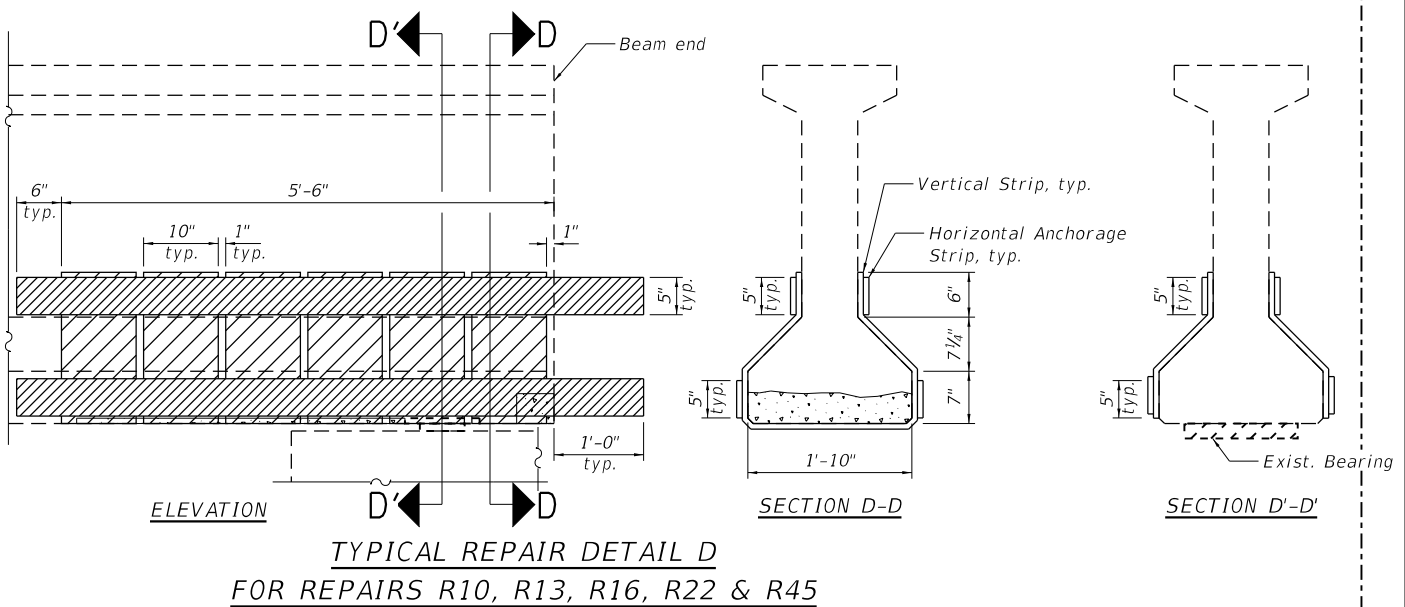
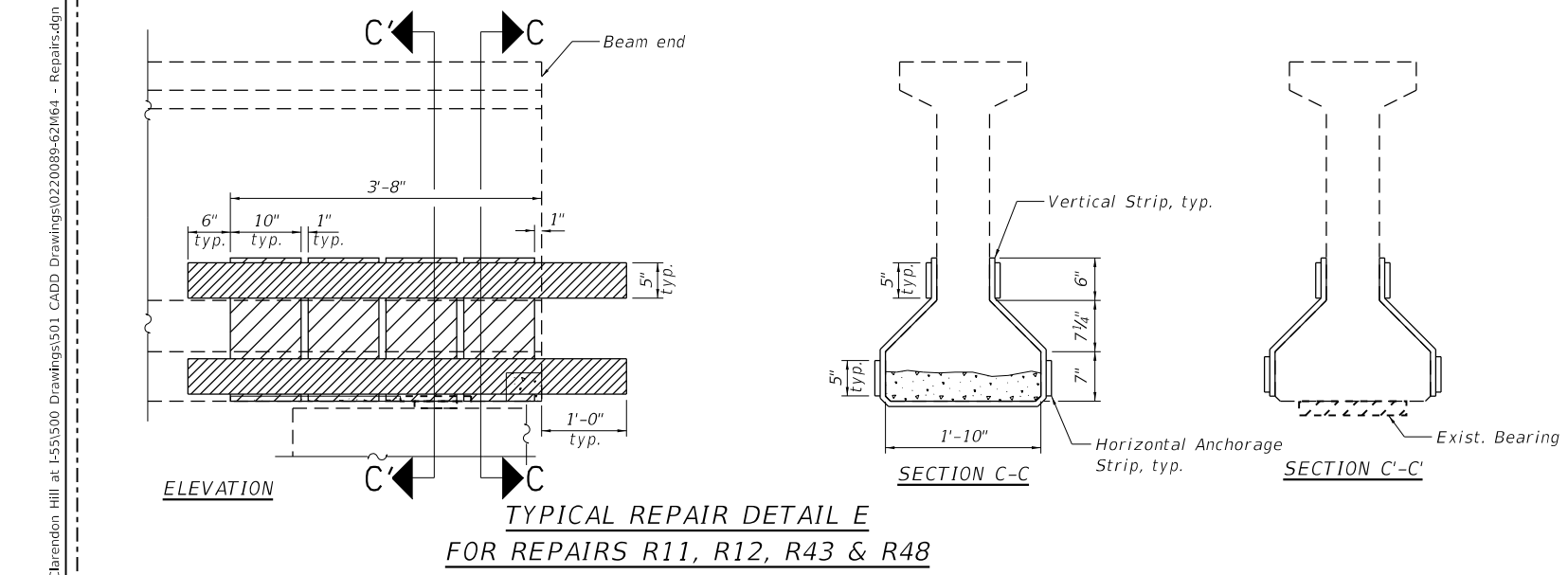
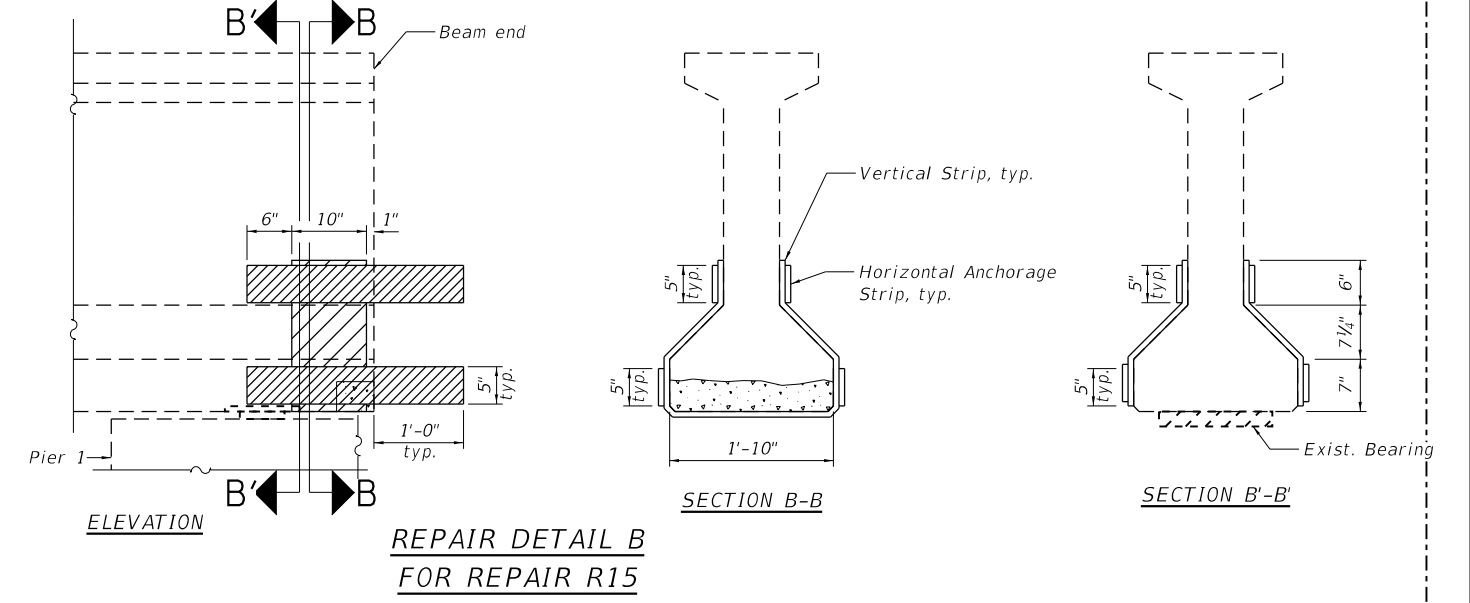
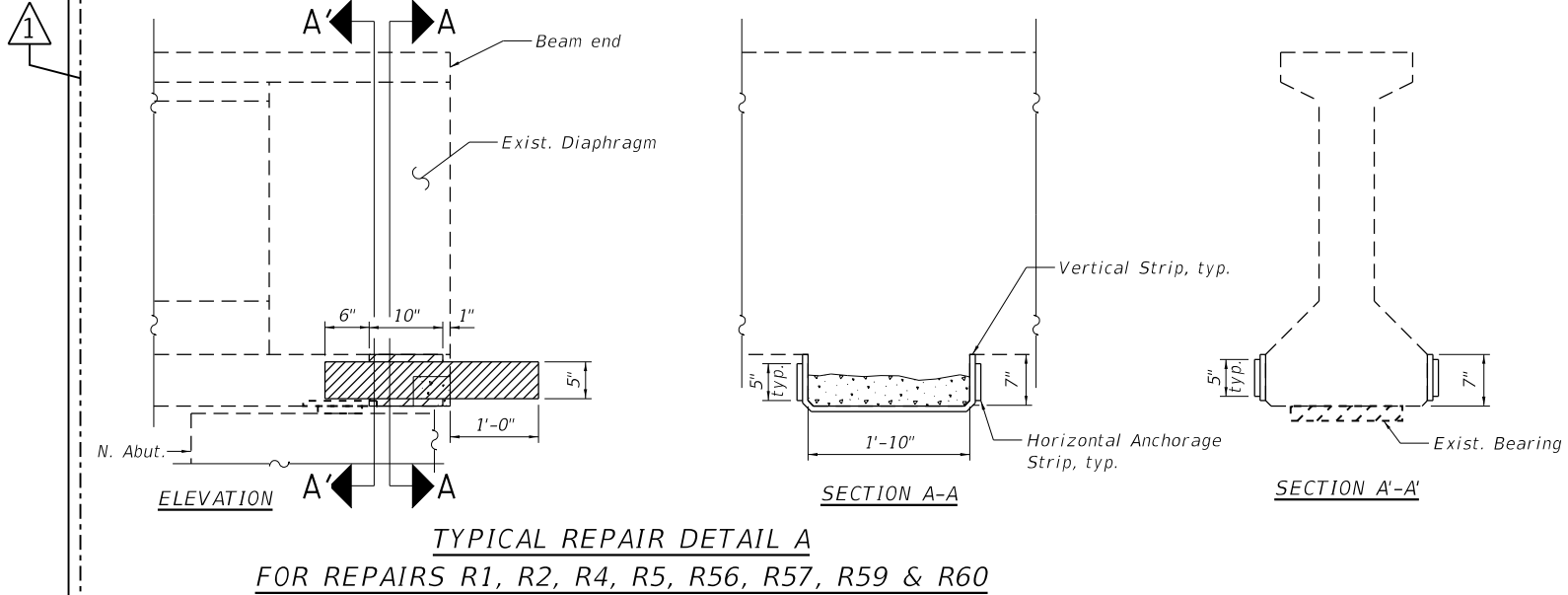
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEAM REPAIR LOCATIONS - FRAMING PLAN
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

SHEET 3 OF 24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	16
CONTRACT NO. 62M64				

ILLINOIS FED. AID PROJECT



- LEGEND:**
- Precast prestressed concrete I-beam repair
 - Vertical Fiber Wrap Strips
 - Horizontal Fiber Wrap Strips

REVISED ENTIRE SHEET 2/16/2022 See Sheet 8 of 24 for notes

MODEL: 0220089-D62M64-Repair 1
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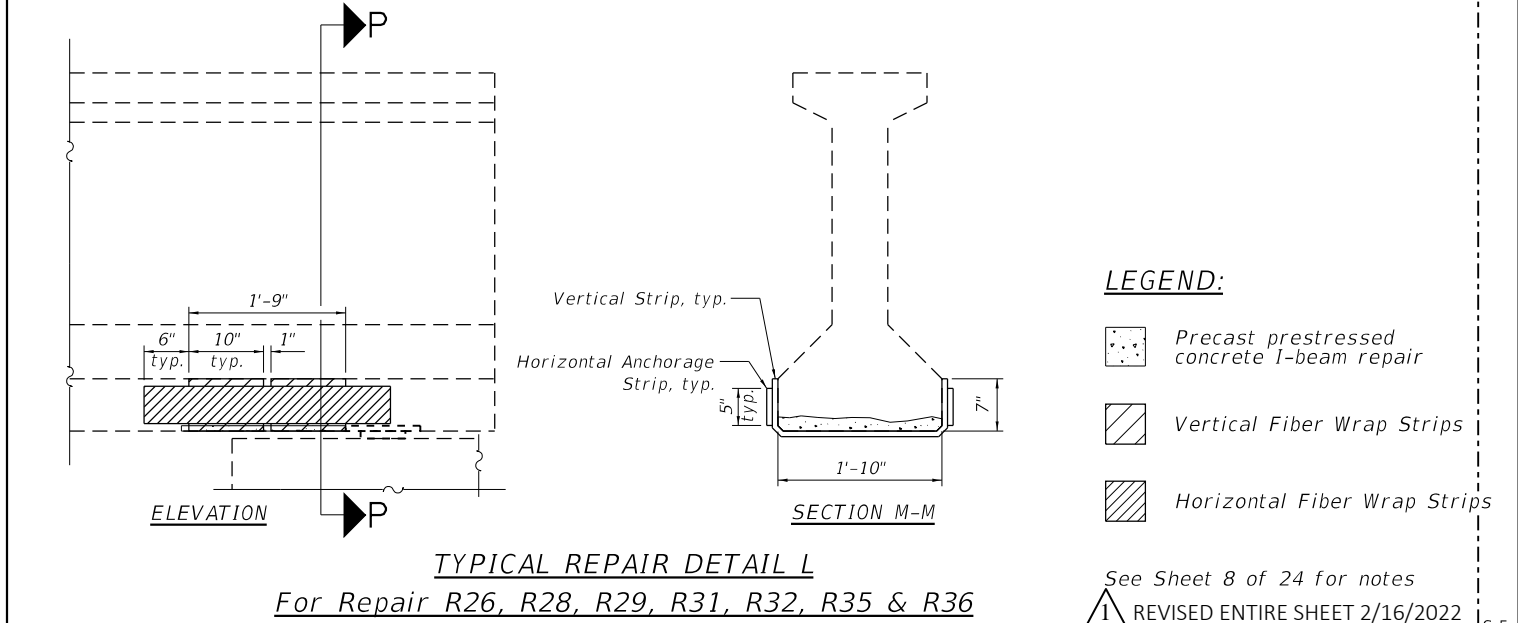
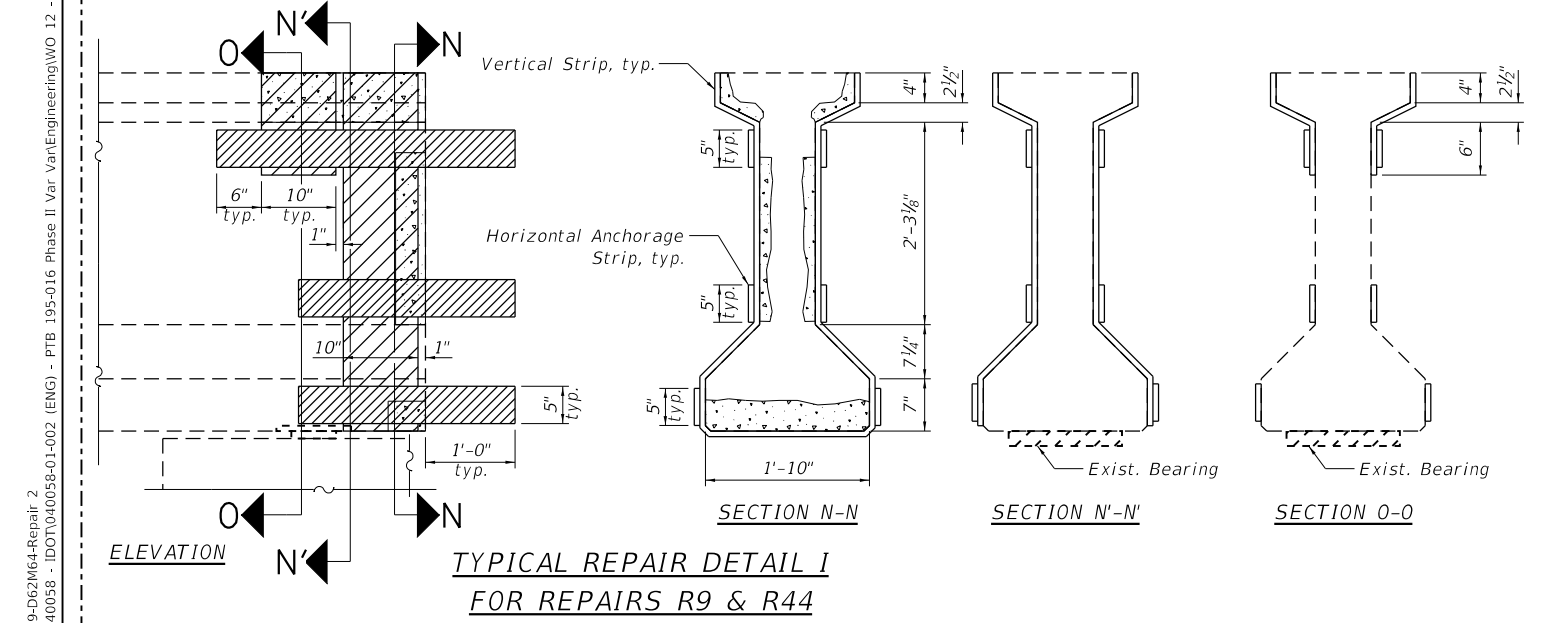
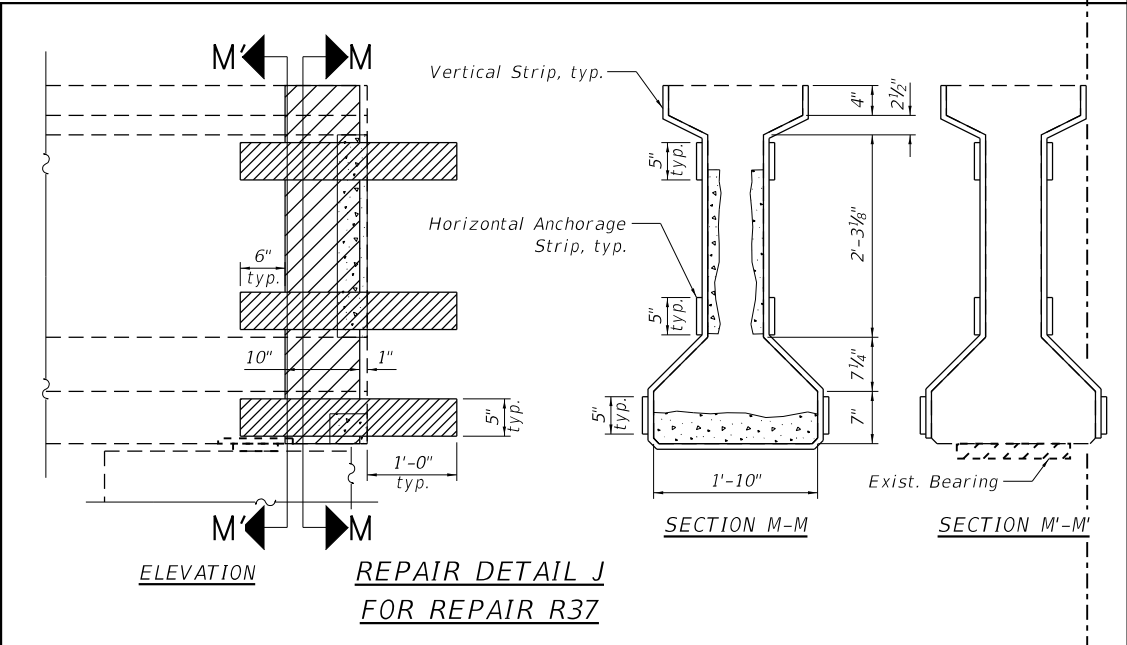
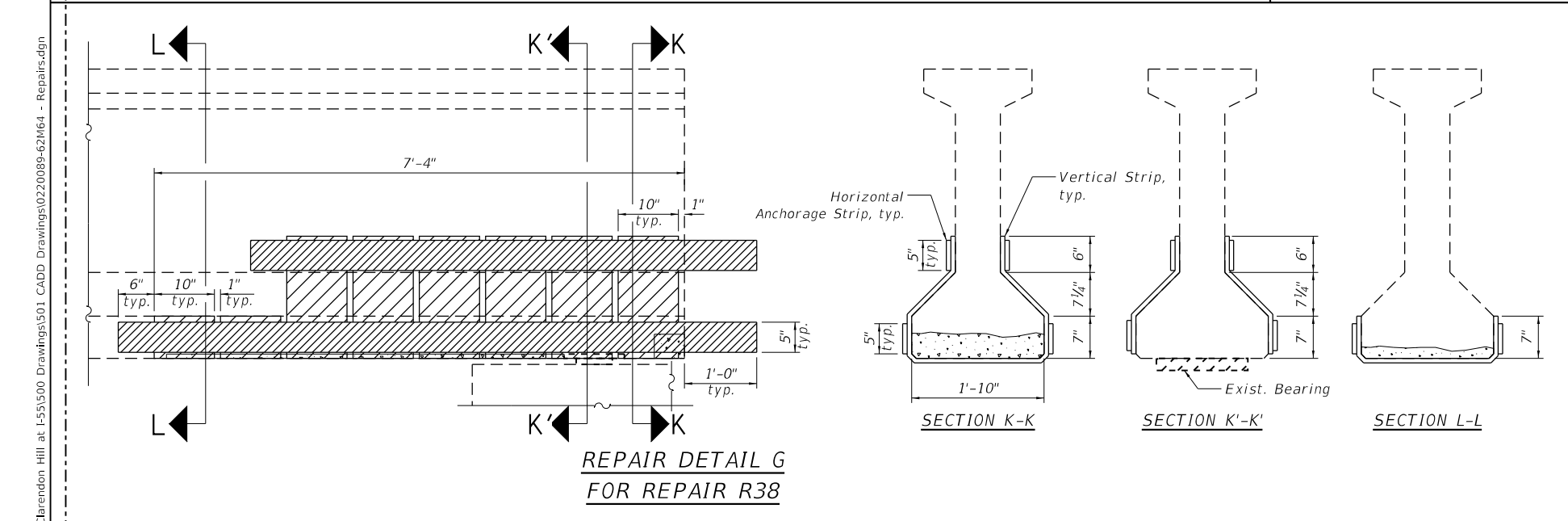
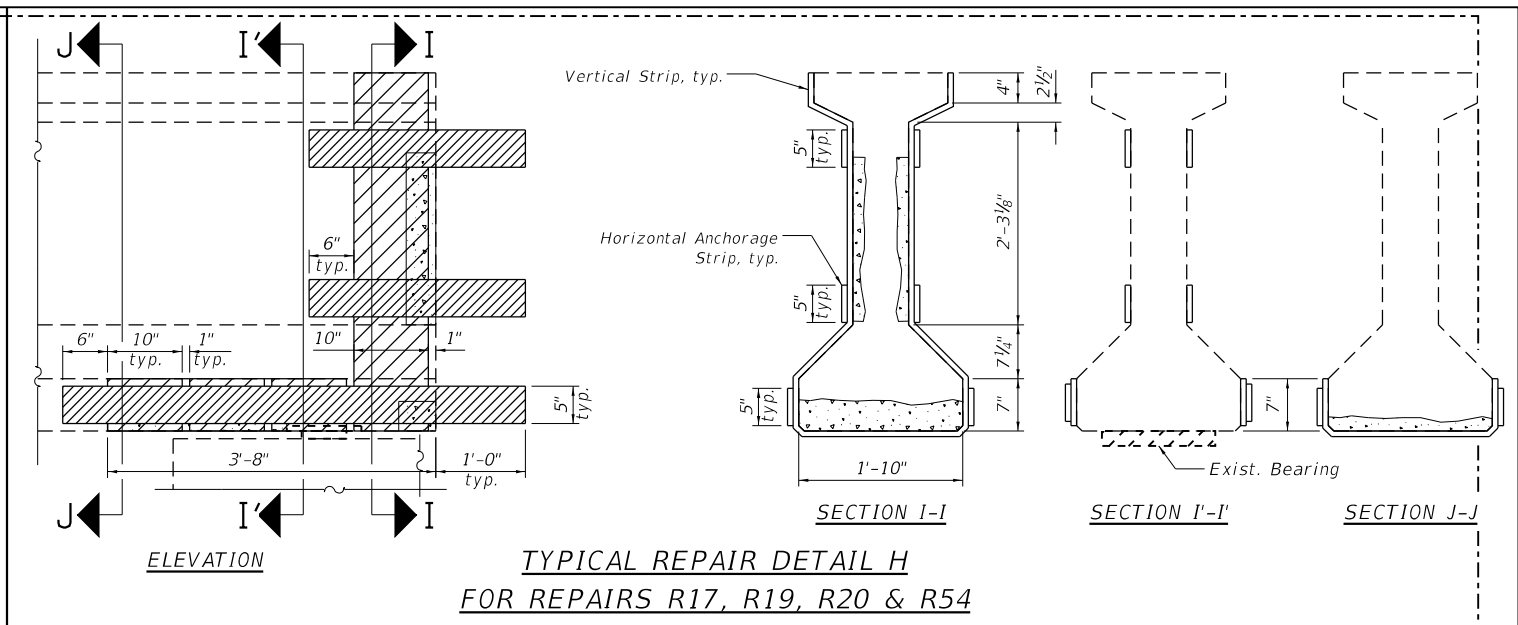
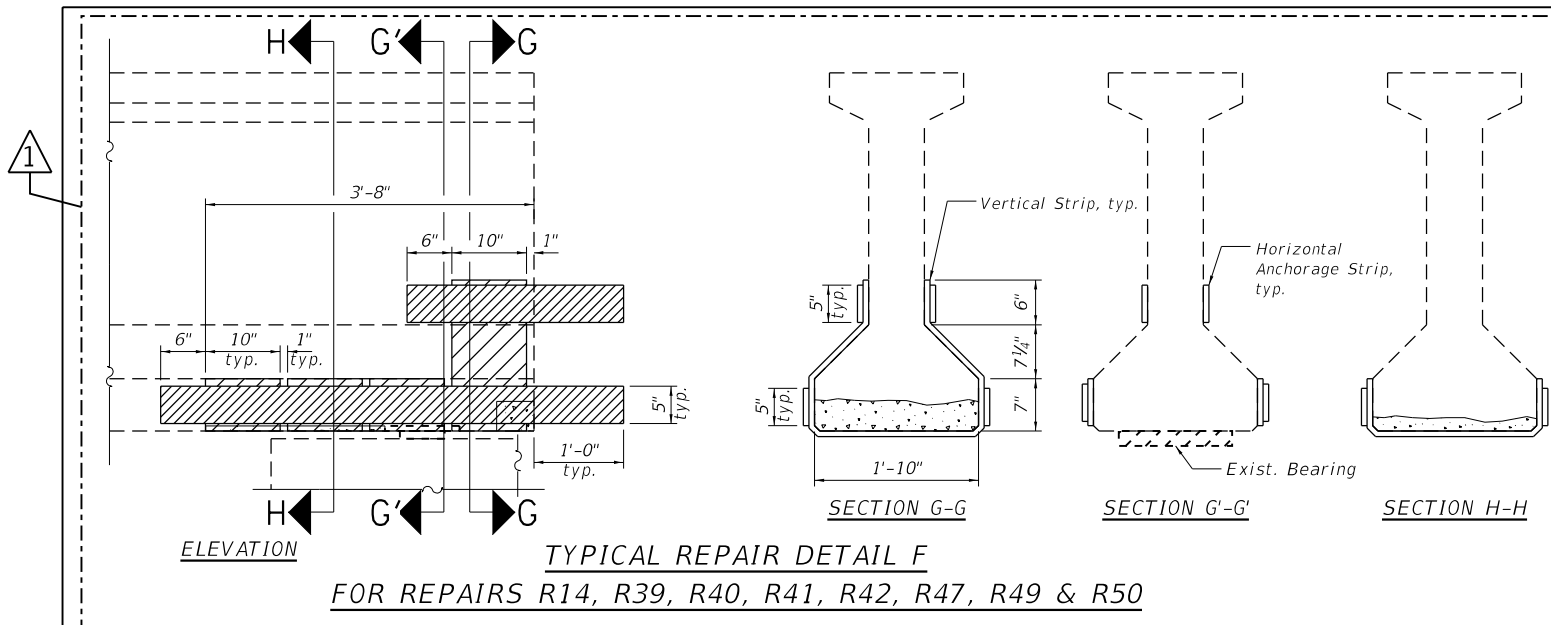


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PPC BEAM REPAIR DETAILS
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	17
CONTRACT NO. 62M64				



- LEGEND:**
- Precast prestressed concrete l-beam repair
 - Vertical Fiber Wrap Strips
 - Horizontal Fiber Wrap Strips

See Sheet 8 of 24 for notes
 1 REVISED ENTIRE SHEET 2/16/2022

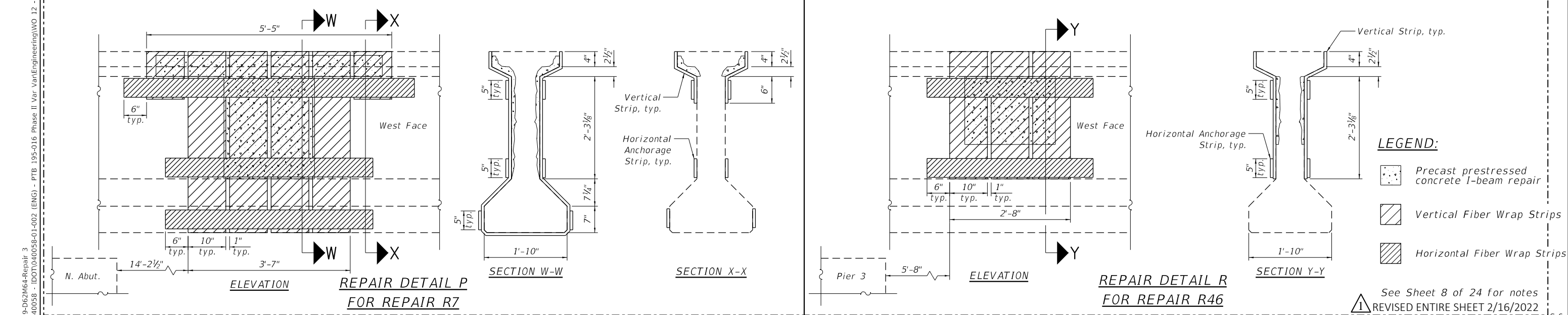
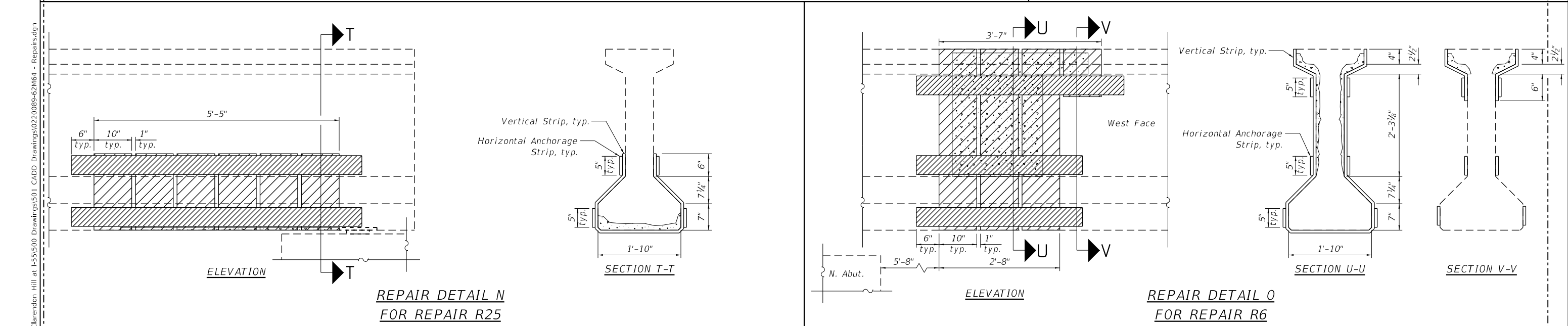
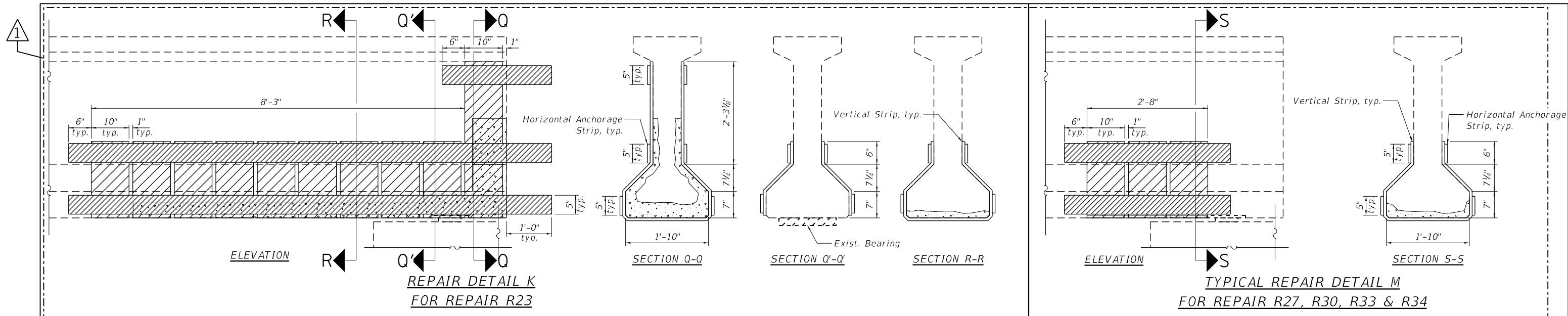
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Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-474-6560 www.bowman.com	USER NAME = atiemann	DESIGNED - AHT	REVISED - 02/11/2022
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PPC BEAM REPAIR DETAILS
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	18
CONTRACT NO.			62M64	
ILLINOIS FED. AID PROJECT				



- LEGEND:**
- Precast prestressed concrete I-beam repair
 - Vertical Fiber Wrap Strips
 - Horizontal Fiber Wrap Strips

See Sheet 8 of 24 for notes
 REVISED ENTIRE SHEET 2/16/2022

MODEL: 0220089-D62M64-Repair 3
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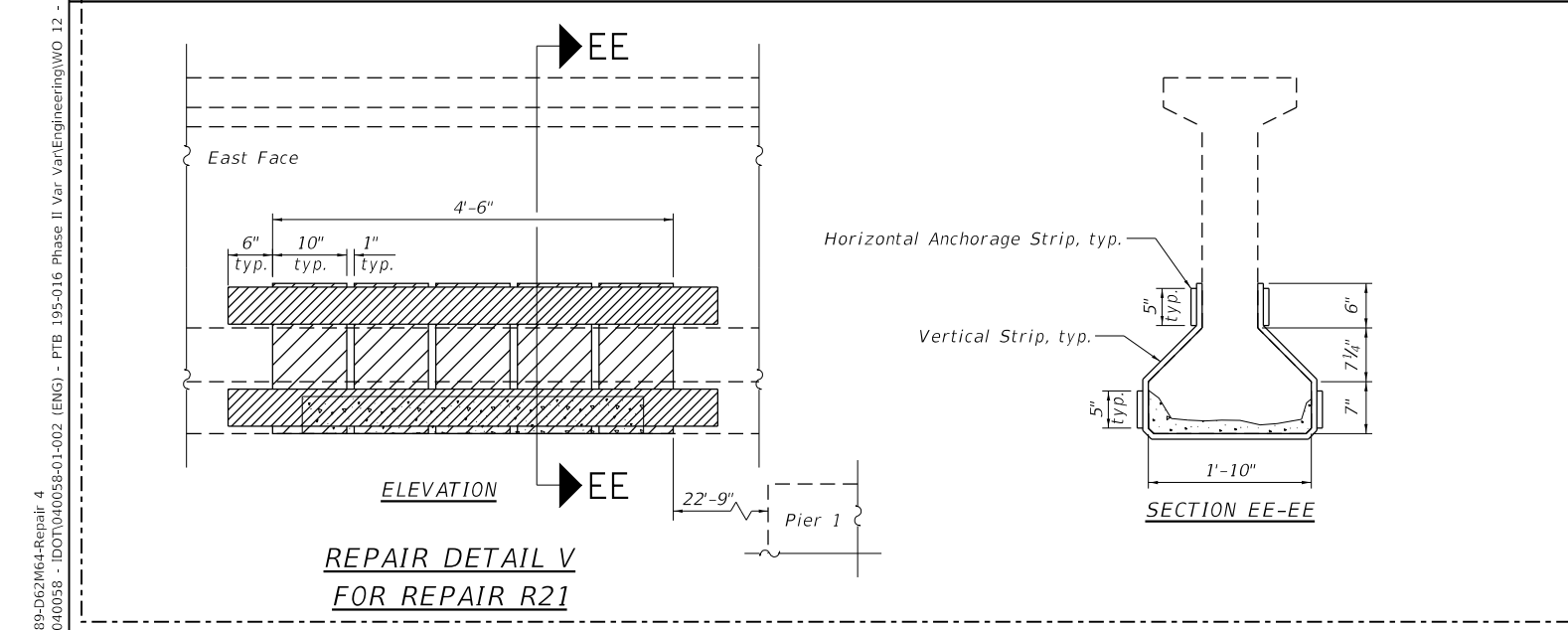
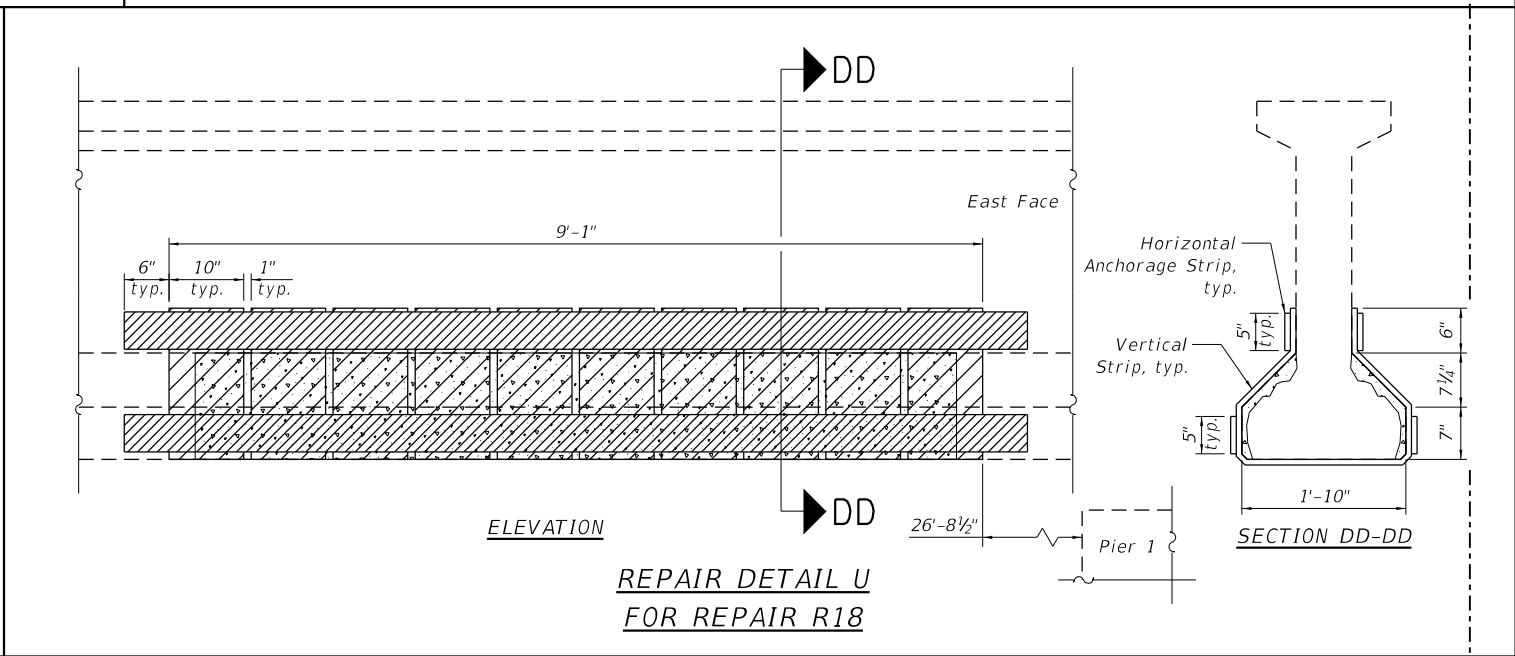
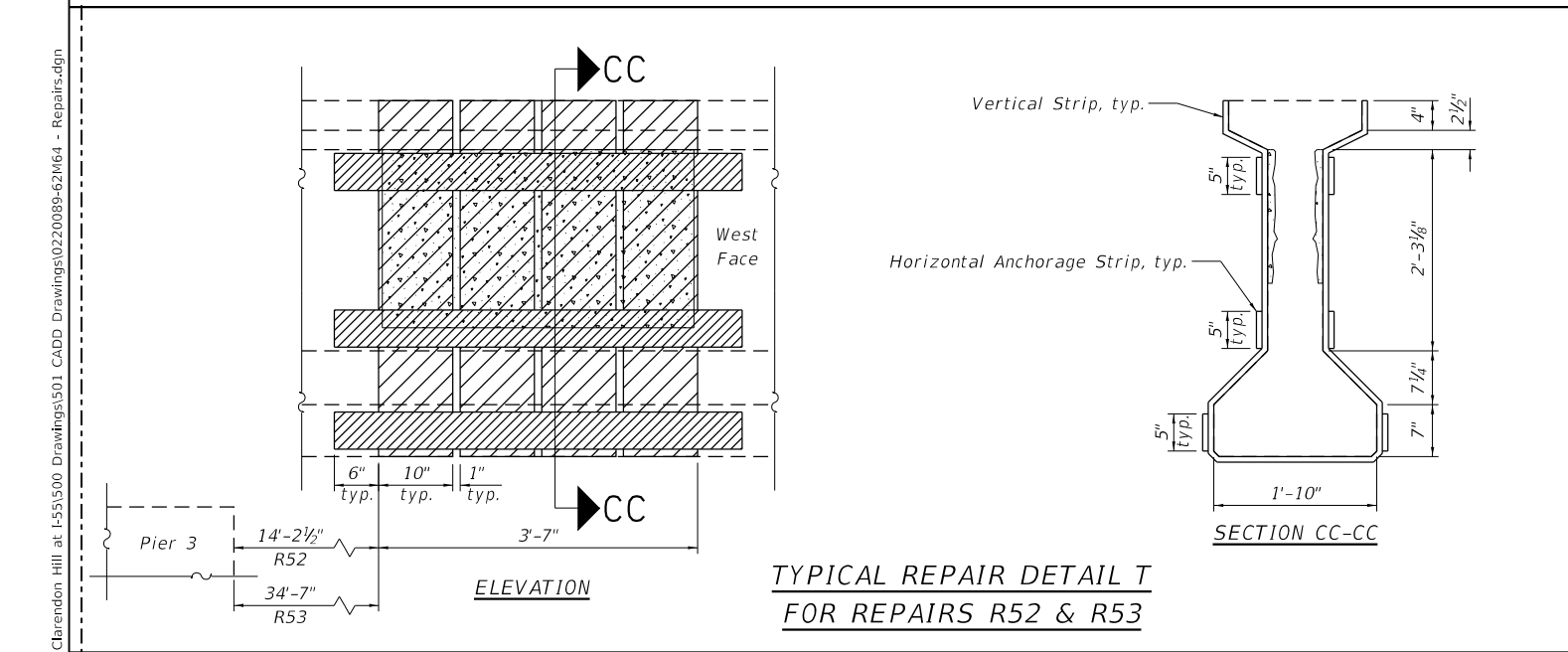
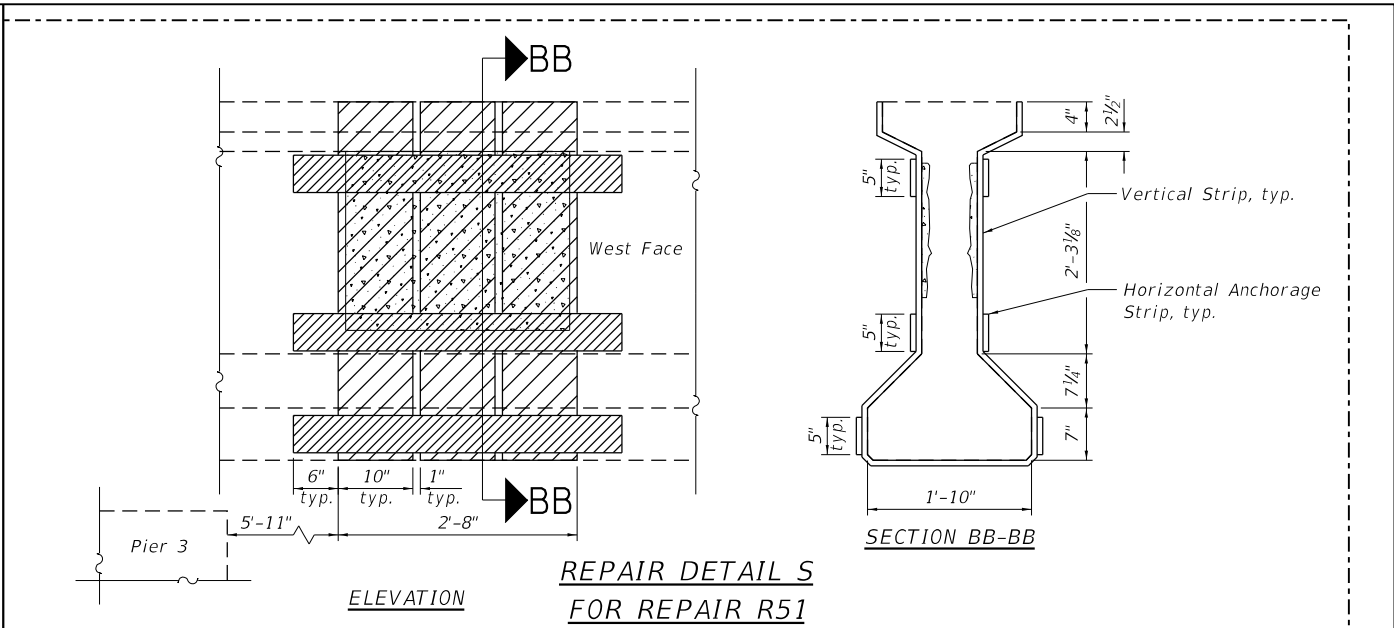
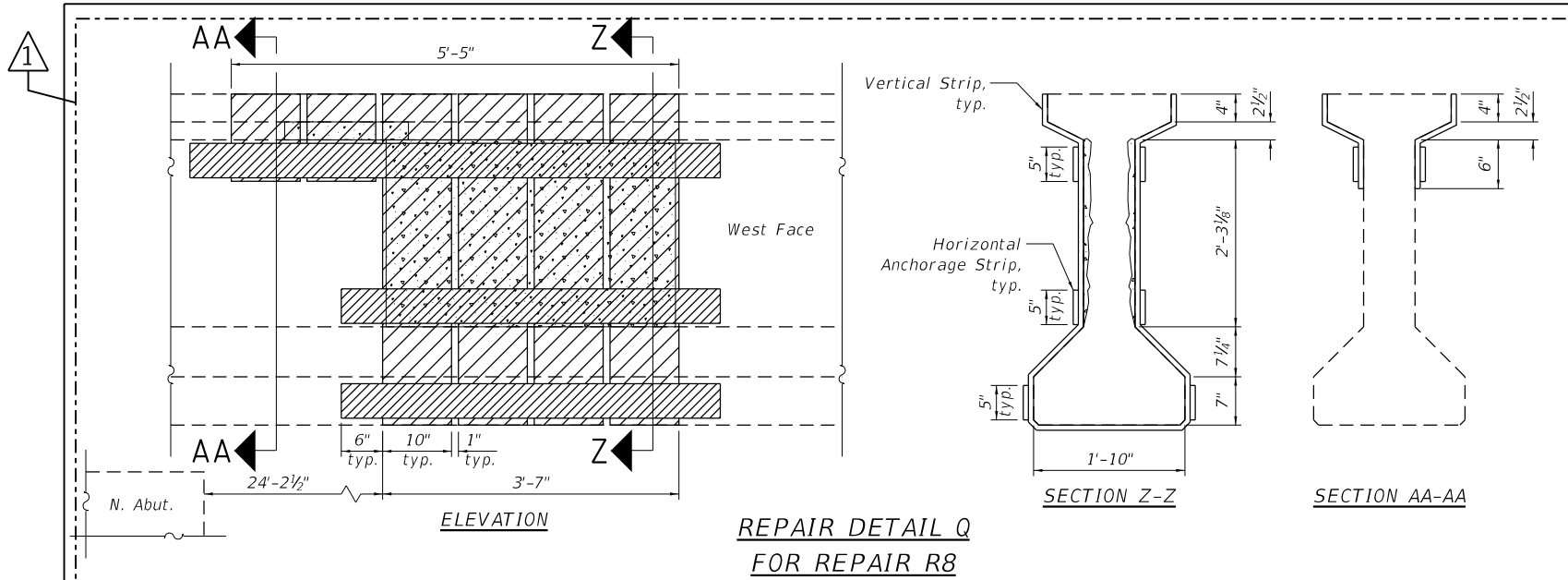
**STATE OF ILLINOIS
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**PPC BEAM REPAIR DETAILS
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

SHEET 6 OF 24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	19
CONTRACT NO.			62M64	
ILLINOIS FED. AID PROJECT				

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- LEGEND:**
- Precast prestressed concrete I-beam repair
 - Vertical Fiber Wrap Strips
 - Horizontal Fiber Wrap Strips

See Sheet 8 of 24 for notes
 REVISED ENTIRE SHEET 2/16/2022

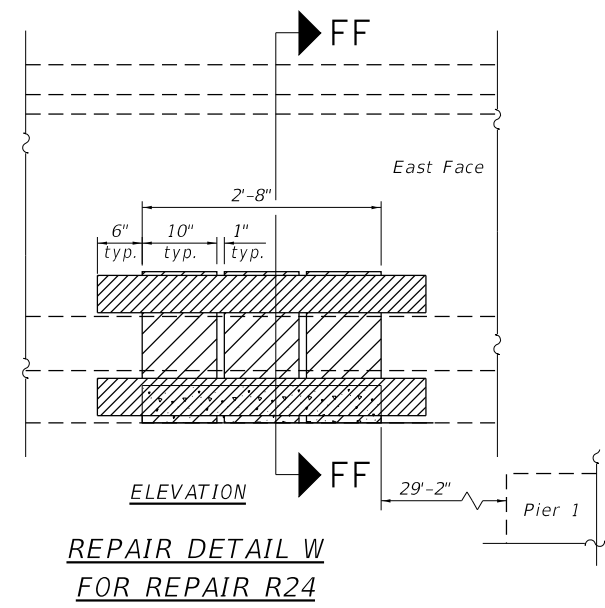
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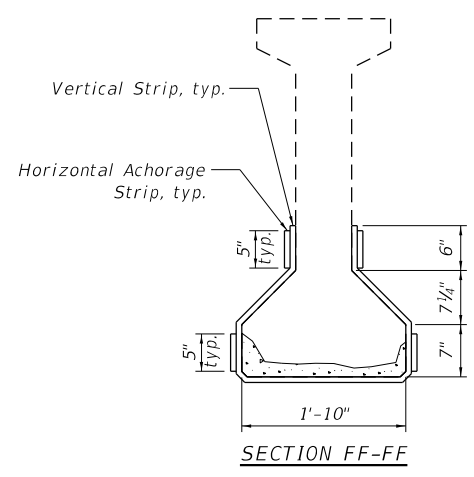
**PPC BEAM REPAIR DETAILS
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

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CONTRACT NO.			62M64	
ILLINOIS FED. AID PROJECT				

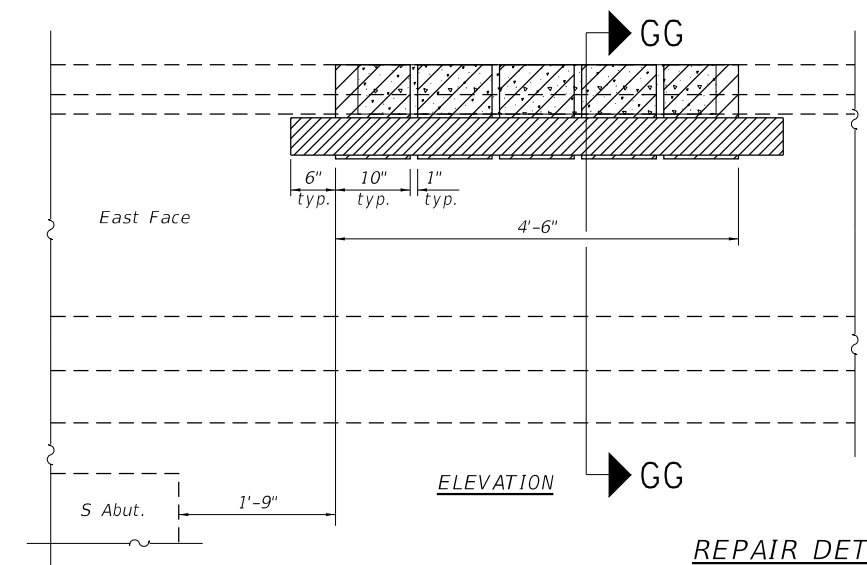
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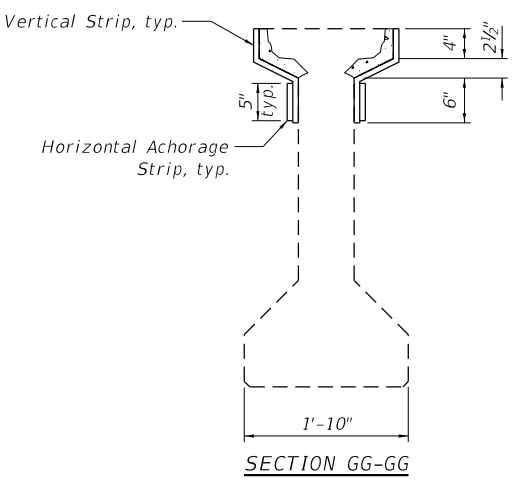
**REPAIR DETAIL W
FOR REPAIR R24**



SECTION FF-FF



**REPAIR DETAIL X
FOR REPAIR R58**



SECTION GG-GG

NOTES:

1. The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-Beam.
2. The existing concrete surface shall be cleaned and prepared in accordance with the Special Provisions. See Special Provisions for "Fiber Wrap" and "Precast Prestressed I-Beam Repairs".
3. Acrylic Coating shall be placed over the Fiber Wrap repairs. Two Coats shall be applied.
4. Fiber wrap shall bend to follow beam contours, typ.
5. Wrap Horizontal FRP strips around end beams. Typical at all end beam repairs.
6. Vertical Fiber Wrap panels may be trimmed to fit around bearings. The minimum width of the trimmed legs must be 3".

LEGEND:

- Precast prestressed concrete I-beam repair
- Vertical Fiber Wrap Strips
- Horizontal Fiber Wrap Strips

REVISD ENTIRE SHEET 2/16/2022 s-8



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**PPC BEAM REPAIR DETAILS
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

SHEET 8 OF 24 SHEETS


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CONTRACT NO.			62M64	

ILLINOIS FED. AID PROJECT

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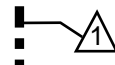
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**PPC BEAM REPAIR DETAILS - SPAN 3
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	22
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M64	

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
**PPC BEAM REPAIR DETAILS - SPAN 4
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	23
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M64	

MODEL: 0162600-D62M41-Span 4-2
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PPC BEAM REPAIR DETAILS - SPAN 4
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	24
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M64	

1

REPAIR NUMBER	SPAN	BEAM	REPAIR DETAIL
R1	1	2	DETAIL A
R2	1	4	DETAIL A
R3	1	6	DETAIL C
R4	1	8	DETAIL A
R5	1	10	DETAIL A
R6	1	10	DETAIL O
R7	1	10	DETAIL P
R8	1	10	DETAIL Q
R9	1	1	DETAIL I
R10	1	2	DETAIL D
R11	1	4	DETAIL E
R12	1	6	DETAIL E
R13	1	8	DETAIL D
R14	1	10	DETAIL F
R15	2	1	DETAIL B
R16	2	2	DETAIL D
R17	2	3	DETAIL H
R18	2	3	DETAIL U
R19	2	5	DETAIL H
R20	2	7	DETAIL H
R21	2	7	DETAIL V
R22	2	9	DETAIL D
R23	2	10	DETAIL K
R24	2	10	DETAIL W
R25	2	2	DETAIL N
R26	2	3	DETAIL L
R27	2	5	DETAIL M
R28	2	7	DETAIL L
R29	2	9	DETAIL L
R30	2	10	DETAIL M

REPAIR NUMBER	SPAN	BEAM	REPAIR DETAIL
R31	3	2	DETAIL L
R32	3	3	DETAIL L
R33	3	5	DETAIL M
R34	3	7	DETAIL M
R35	3	9	DETAIL L
R36	3	10	DETAIL L
R37	3	1	DETAIL J
R38	3	2	DETAIL G
R39	3	3	DETAIL F
R40	3	5	DETAIL F
R41	3	7	DETAIL F
R42	3	9	DETAIL F
R43	3	10	DETAIL E
R44	4	1	DETAIL I
R45	4	2	DETAIL D
R46	4	2	DETAIL R
R47	4	4	DETAIL F
R48	4	6	DETAIL E
R49	4	8	DETAIL F
R50	4	10	DETAIL F
R51	4	10	DETAIL S
R52	4	10	DETAIL T
R53	4	10	DETAIL T
R54	4	11	DETAIL H
R55	4	2	DETAIL C
R56	4	4	DETAIL A
R57	4	6	DETAIL A
R58	4	8	DETAIL X
R59	4	10	DETAIL A
R60	4	11	DETAIL A

BILL OF MATERIAL

1

ITEM	UNIT	TOTAL
Precast Prestressed Concrete I-Beam Repair	SQ. FT.	279.9
Fiber Wrap	SQ. FT.	1339.5
Acrylic Coating	SQ. YD.	86.8

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STATE OF ILLINOIS
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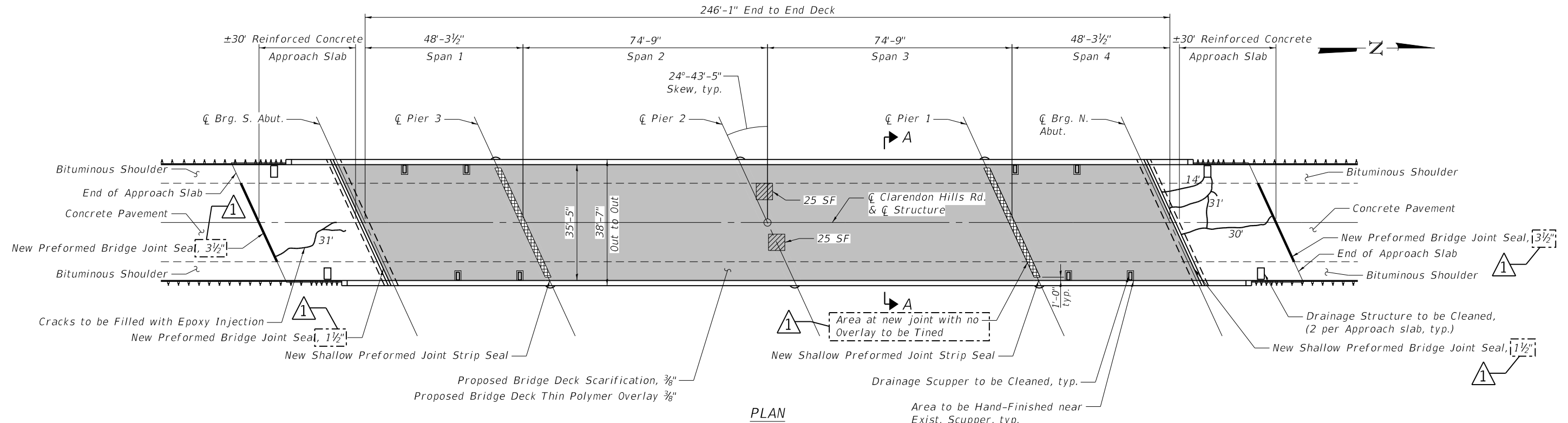
PPC BEAM REPAIR SUMMARY
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

SHEET 12 OF 24 SHEETS

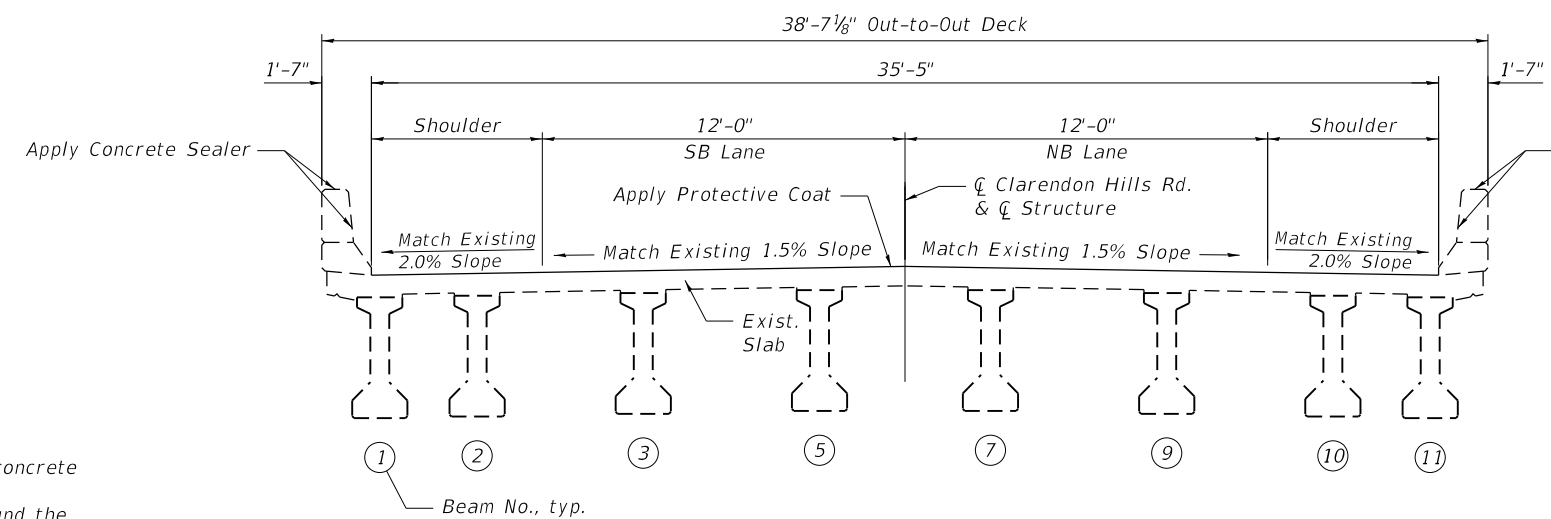
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	25
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M64	

REVISED SHEET 2/16/2022 S-12

MODEL: 0220089-D62M64-013
 FILE NAME: P:\040058 - IDOT\040058-01-002 (ENG) - PTB_195-016 Phase II Var VanEngineering\WO 12 - Clarendon Hill at I-55\1500 Drawings\501 CADD Drawings\0220089-D62M64.dgn



PLAN



SECTION A-A
 (Interior Span, Looking North)

- Notes:
- All drainage scuppers must be protected during concrete scarification and overlay placement operations.
 - Use of hand tools is required while working around the scuppers.
 - Hand finish of overlay material is required around the scuppers. The cost is included in Bridge Deck Thin Polymer Overlay 3/8".
 - Quantities and limits of repairs shown are estimated for bidding purposes only. The actual areas to be repaired, and the type(s) of repairs to be used, will be determined by the Engineer in the field at the time of construction.
 - The new concrete adjacent to the joint at Pier 1 shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructures.

LEGEND

- Deck Slab Repair, Partial Depth
- 3/8" Scarification and Thin Polymer Overlay
- Epoxy Crack Injection
- Tining

BILL OF MATERIAL

Item	Unit	Total
Protective Coat	Sq. Yd.	29
Bridge Deck Thin Polymer Overlay 3/8"	Sq. Yd.	979.0
Concrete Bridge Deck Scarification 3/8"	Sq. Yd.	979.0
Deck Slab Repair (Partial)	Sq. Yd.	5.6
Concrete Sealer	Sq. Ft.	1,903
Cleaning Bridge Scuppers and Downspouts	Each	8
Drainage Structures to be Cleaned	Each	4
Preformed Joint Seal 1 1/2"	Foot	82.0
Preformed Joint Seal 3 1/2"	Foot	54.0
Epoxy Crack Injection	Foot	106

REVISOR SHEET 2/16/2022 S-13



USER NAME = atiemann	DESIGNED - AHT	REVISED - 02/11/2022
PLOT SCALE = 31:9 3/16 ft/in.	CHECKED - AJN	REVISED -
PLOT DATE = 11/16/2021	DRAWN - AHT	REVISED -
	CHECKED - AJN	REVISED -

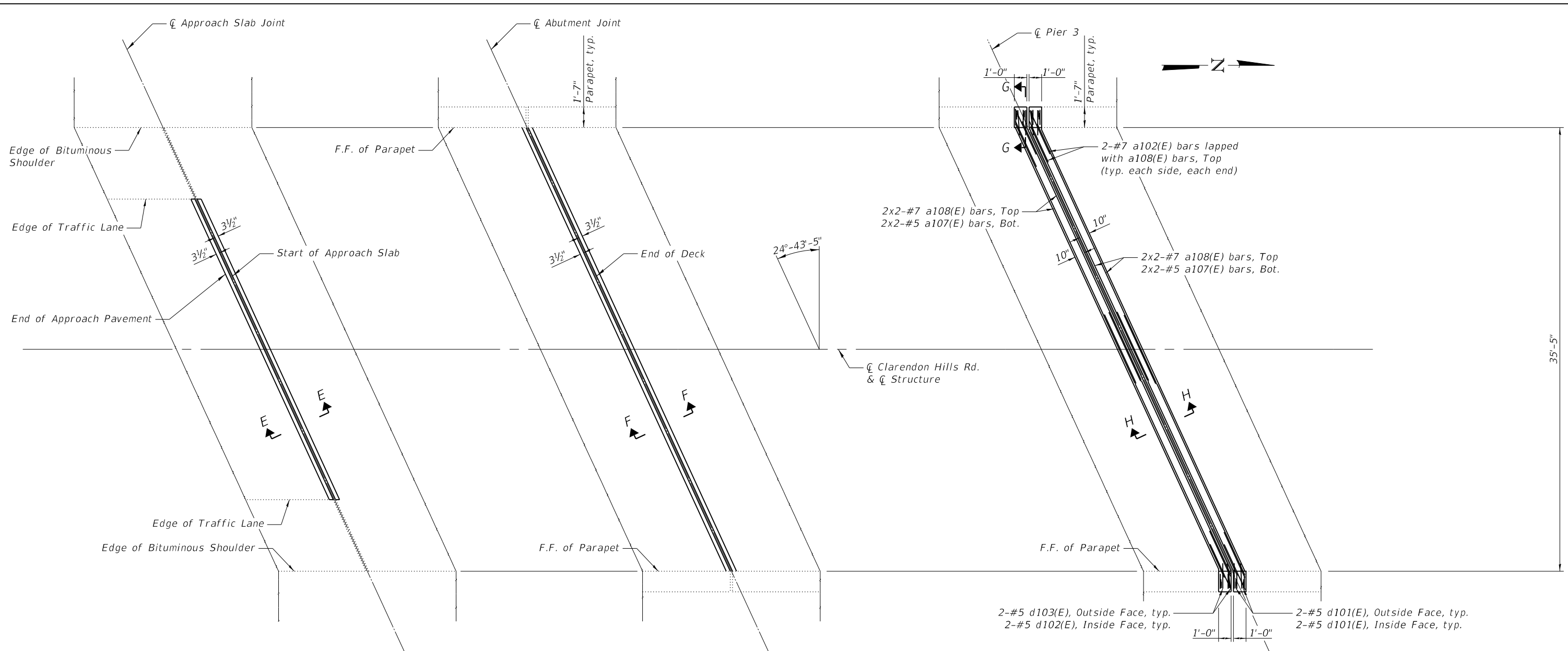
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE DECK THIN POLYMER OVERLAY & PARAPET SEALING
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

SHEET 13 OF 24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	26
CONTRACT NO.			62M64	
ILLINOIS FED. AID PROJECT				

MODEL: 0220089-D62M64-015
 FILE NAME: P:\040058 - IDOT\040058-01-002 (ENG) - PTB_195-016 Phase II Var.VanEngineering\WO_12 - Clarendon Hill at I-55\1500 Drawings\0220089-D62M64.dgn



CONCRETE REPLACEMENT PLAN @ END OF APPROACH SLABS

South Approach Slab Shown, North Approach Slab Similar

CONCRETE REPLACEMENT PLAN @ ABUTMENTS

South Abutment Shown, North Abutment Similar

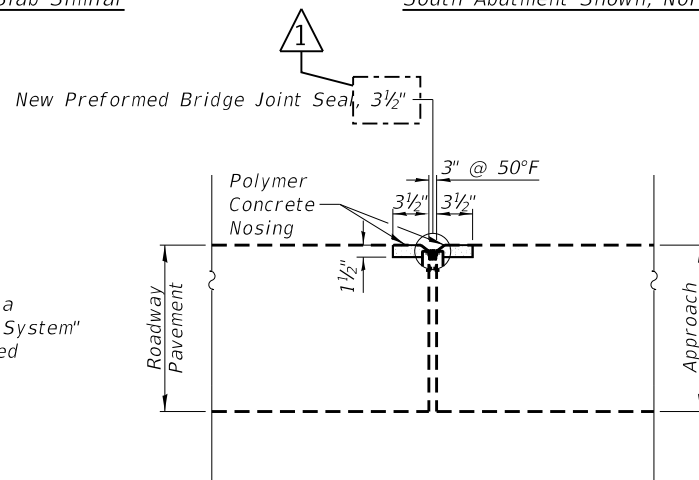
CONCRETE REPLACEMENT PLAN @ PIERS 1 & 3

Pier 3 Shown, Pier 1 Mirrored about C

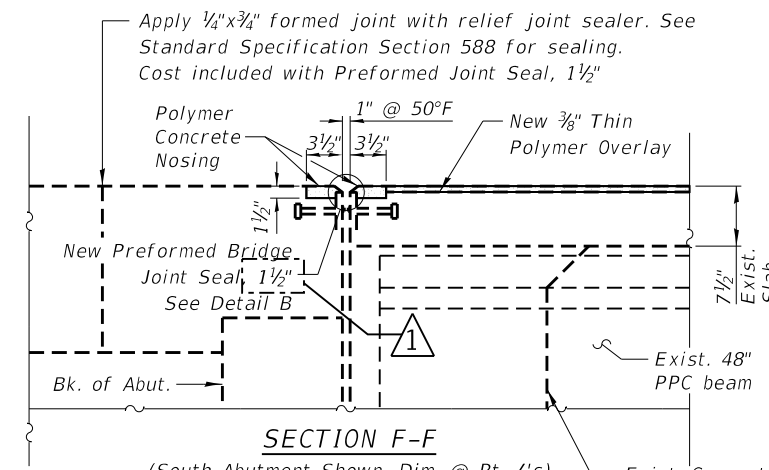
Notes:

The new joint seals at abutments and end of approach slabs shall be a "Preformed, Pre-compressed, Silicone Coated, Self-Expanding Sealant System" and paid for as Preformed Joint Seal. See special provision "Preformed Bridge Joint Seal" (PBJS).

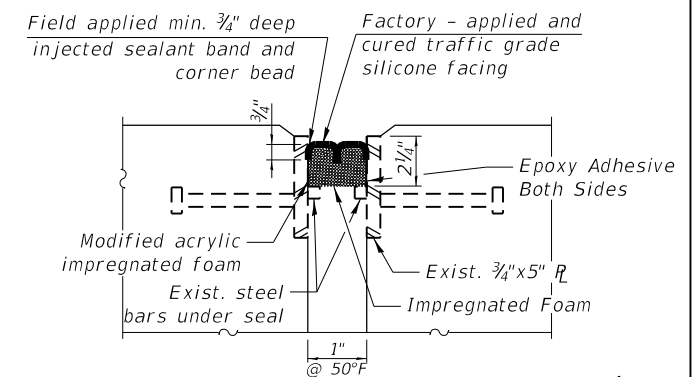
Splice Length #7 bar - 5'-0"
 Splice Length #5 bar - 3'-6"



SECTION E-E
 (South Approach Shown, Dim. @ Rt. L's)



SECTION F-F
 (South Abutment Shown, Dim. @ Rt. L's)



DETAIL B
 (Proposed New Preformed Bridge Joint Seal, 1 1/2")

REVISED SHEET 2/16/2022 S-15



USER NAME =	atiemann
DESIGNED -	AHT
CHECKED -	AJN
PLOT SCALE =	8:0 ft/in / in.
PLOT DATE =	11/16/2021

DESIGNED -	AHT
CHECKED -	AJN
DRAWN -	AHT
CHECKED -	AJN

REVISED -	02/11/2022
REVISED -	
REVISED -	
REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

JOINT REPLACEMENT DETAILS @ PIERS 1 AND 3, ABUTMENTS, & APPROACH SLABS
 CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

SHEET 15 OF 24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	28
CONTRACT NO. 62M64				

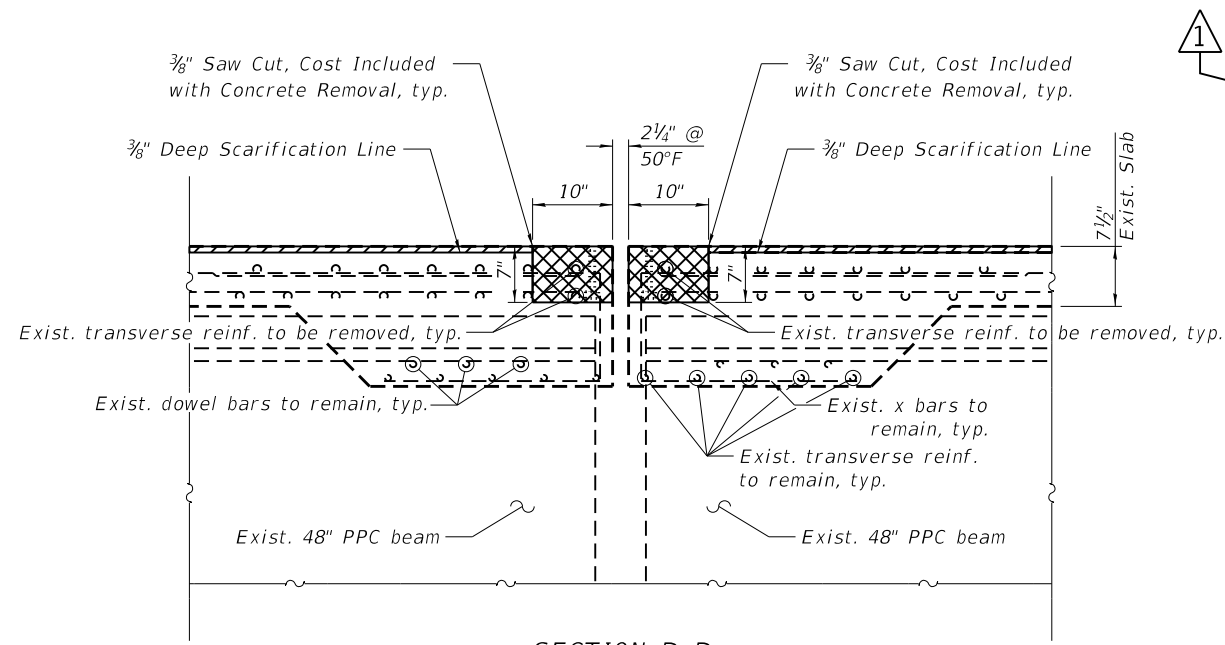
ILLINOIS FED. AID PROJECT

BILL OF MATERIALS

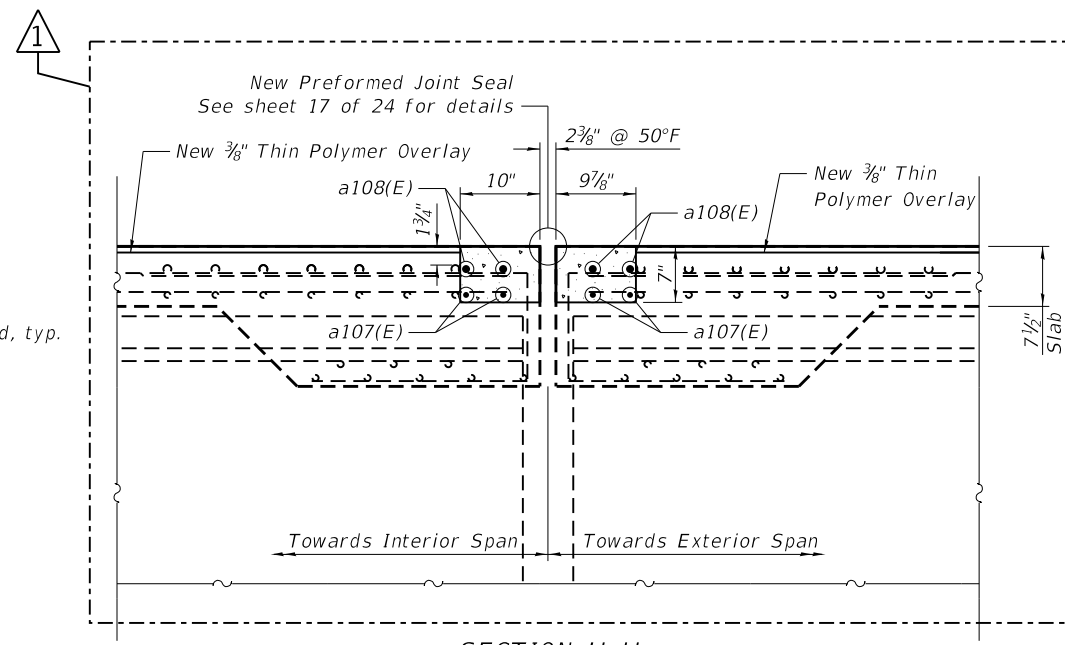
Bar	No.	Size	Length	Shape	
a102(E)	16	#5	4'-0"	—	
a107(E)	16	#5	22'-8"	—	
a108(E)	16	#7	22'-11"	—	
d101(E)	32	#5	3'-0"	L	
d102(E)	16	#5	2'-7"	L	
d103(E)	16	#5	2'-7"	L	
Item				Unit	Total
Concrete Removal				Cu. Yd.	4.5
Concrete Superstructure				Cu. Yd.	4.1
Reinforcement Bars, Epoxy Coated				Pound	1,380
Polymer Concrete				Cu. Ft.	4.9

LEGEND

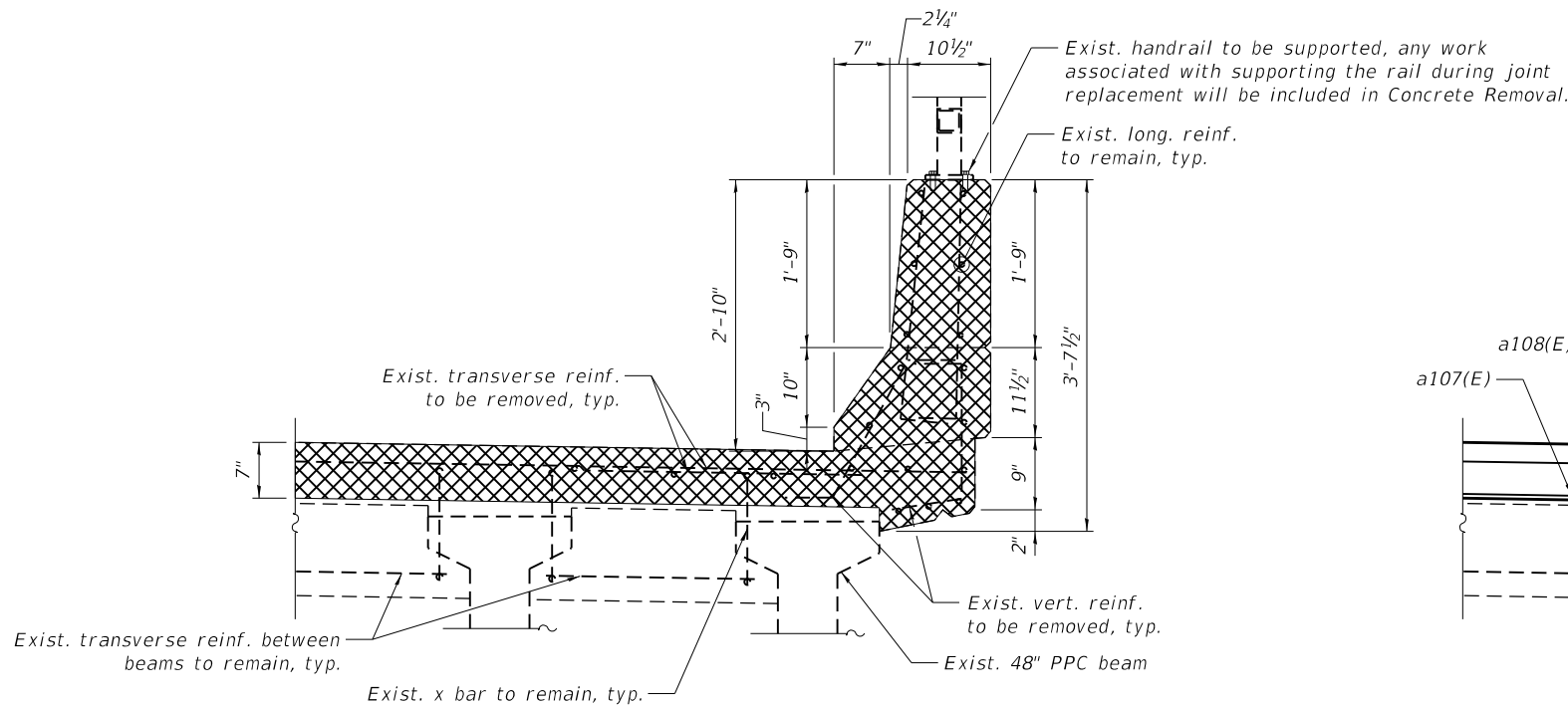
-  Concrete Removal
-  Scarification



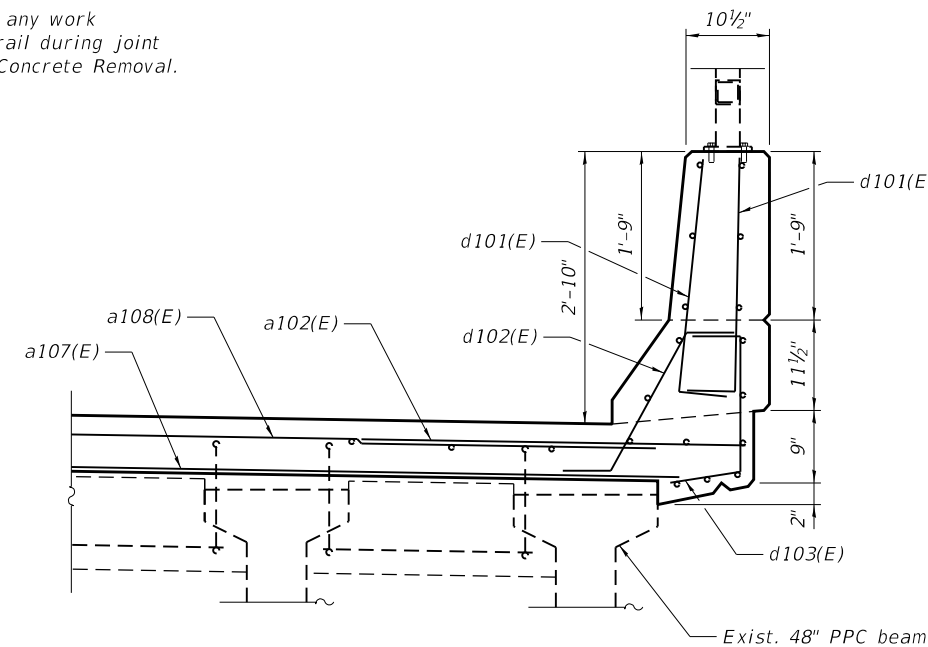
SECTION D-D
(Dim. @ Rt. L's)



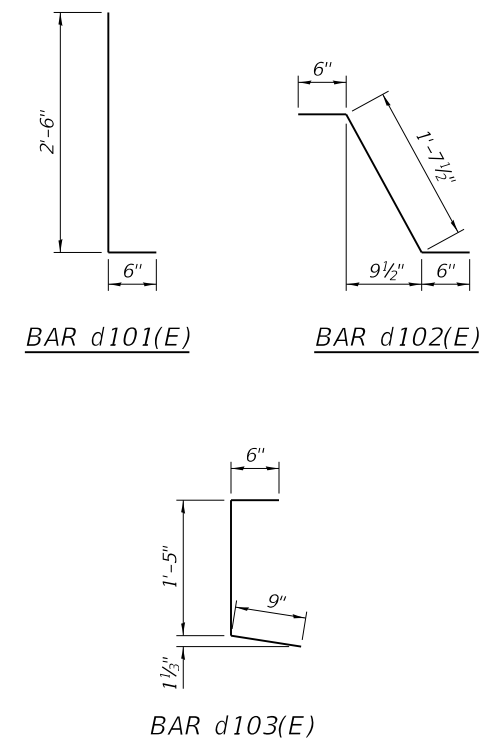
SECTION H-H
(Dim. @ Rt. L's)



SECTION C-C



SECTION G-G



BAR d103(E)

MODEL: 0220089-D62M64-016
FILE NAME: P:\040058 - IDOT\040058-01-002 (ENG) - PTB_195-016 Phase II Var VanEngineering\WO 12 - Clarendon Hill at I-55\500 Drawings\501 CADD Drawings\0220089-D62M64.dgn

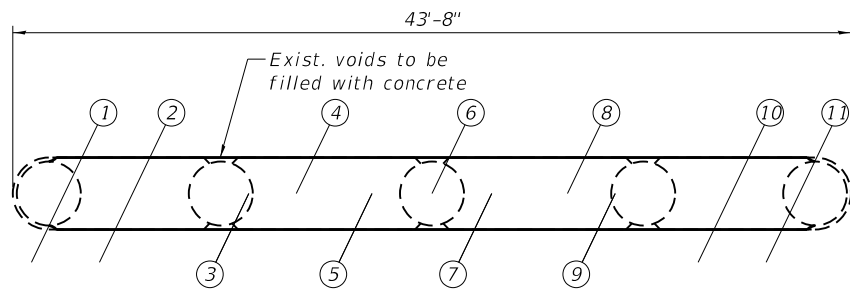
Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-474-0560 www.bowman.com	USER NAME = atiemann	DESIGNED - AHT	REVISED - 02/11/2022
	PLOT SCALE = 2:0 ft/in / in.	CHECKED - AJN	REVISED -
	PLOT DATE = 11/16/2021	DRAWN - AHT	REVISED -
		CHECKED - AJN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

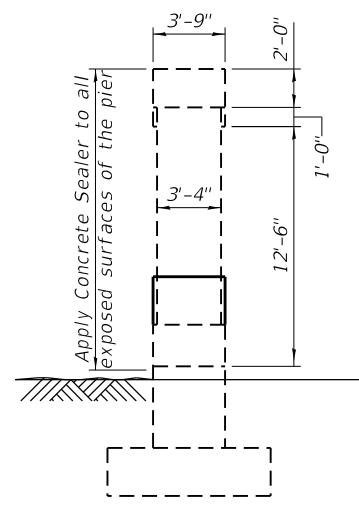
EXPANSION JOINT DETAILS
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	29
CONTRACT NO.			62M64	
ILLINOIS FED. AID PROJECT				

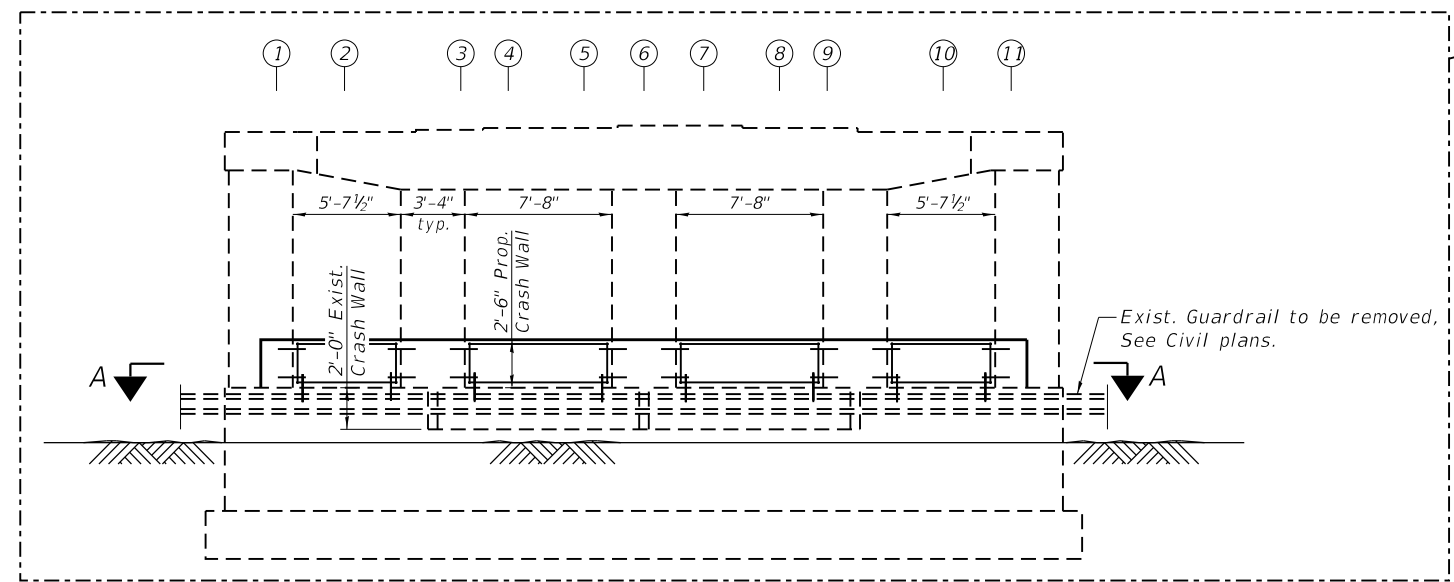
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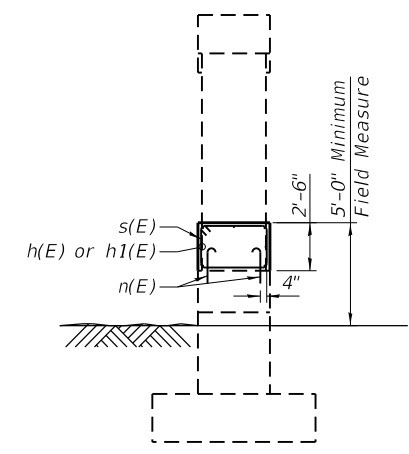
SECTION A-A



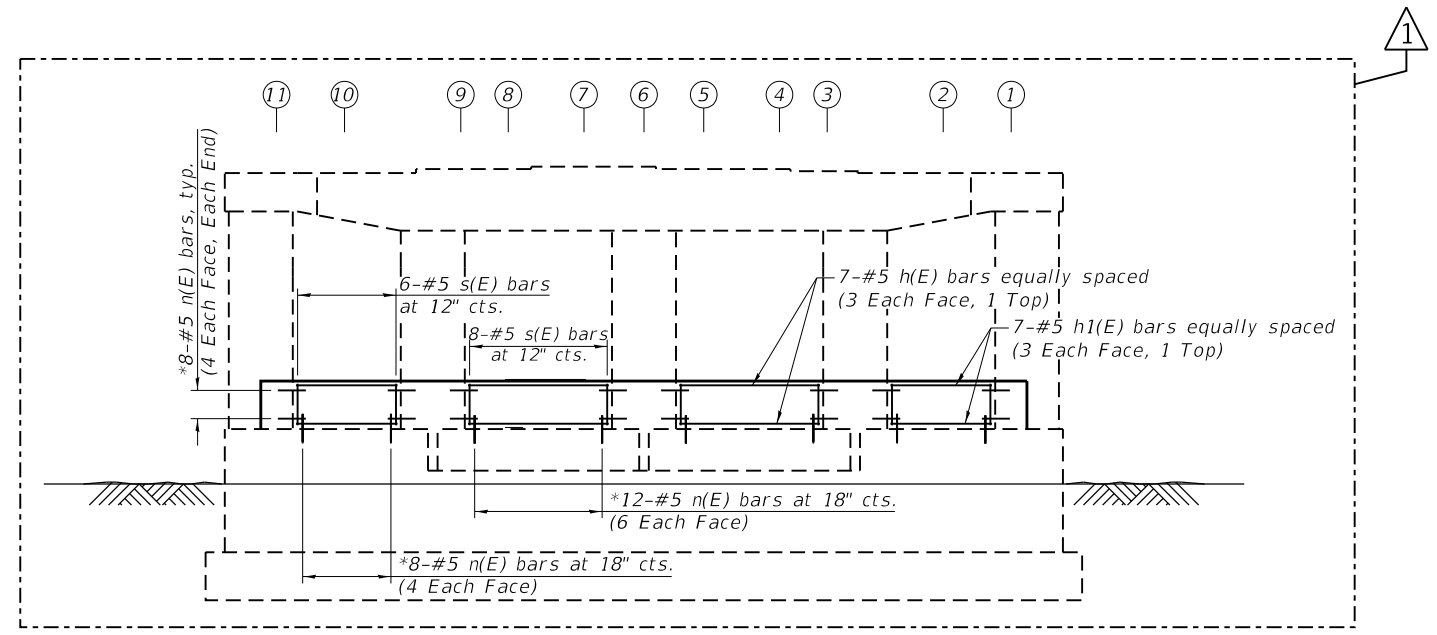
WEST ELEVATION
(Looking East)



SOUTH ELEVATION
(Looking North)



EAST ELEVATION
(Looking West)



NORTH ELEVATION
(Looking South, Reinforcement Symmetrical About Q)

*Epoxy grout n(E) bars 9" min. holes according to Article 584 of the Standard Specifications. The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	7'-4"	—
h1(E)	14	#5	5'-3 1/2"	—
s(E)	28	#5	12'-1"	□
n(E)	104	#5	2'-5"	—
Concrete Structures		Cu. Yd.	9.9	
Concrete Sealer		Sq. Ft.	1477	
Reinforcement Bars, Epoxy Coated		Pound	800	

REVISED SHEET 2/16/2022

Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-474-6500 www.bowman.com	USER NAME = atiemann	DESIGNED - AHT	REVISED - 02/11/2022
	PLOT SCALE = 10:0 ft:in / in.	CHECKED - AJN	REVISED -
	PLOT DATE = 11/16/2021	DRAWN - AHT	REVISED -
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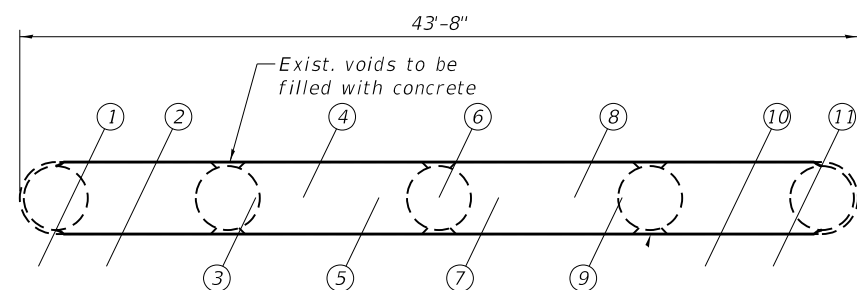
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CRASH WALL EXTENSION - PIER 1
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

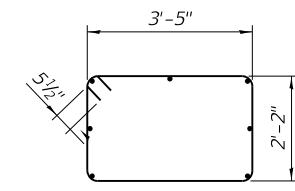
SHEET 23 OF 24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	36
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M64	

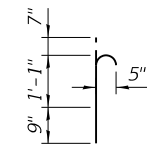
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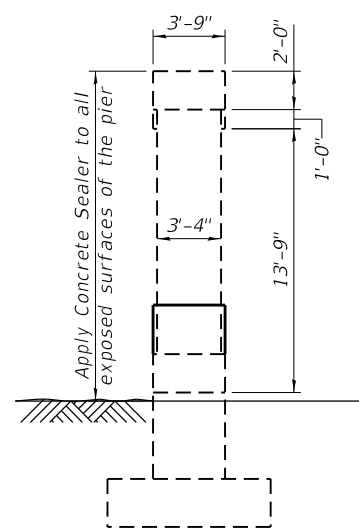
PLAN



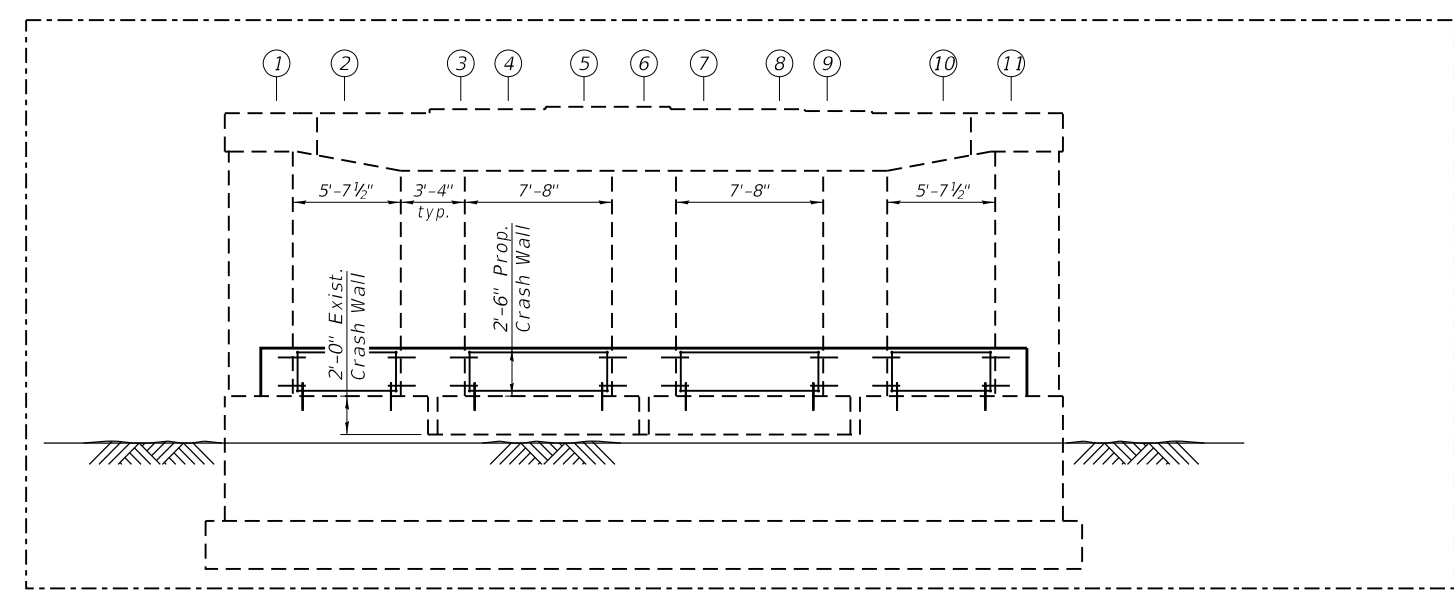
Bar s(E)



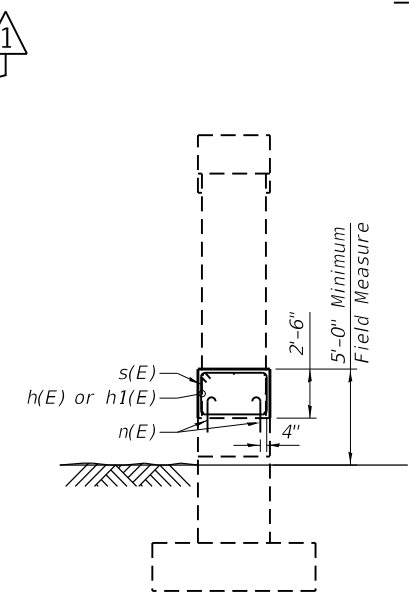
Bar n(E)



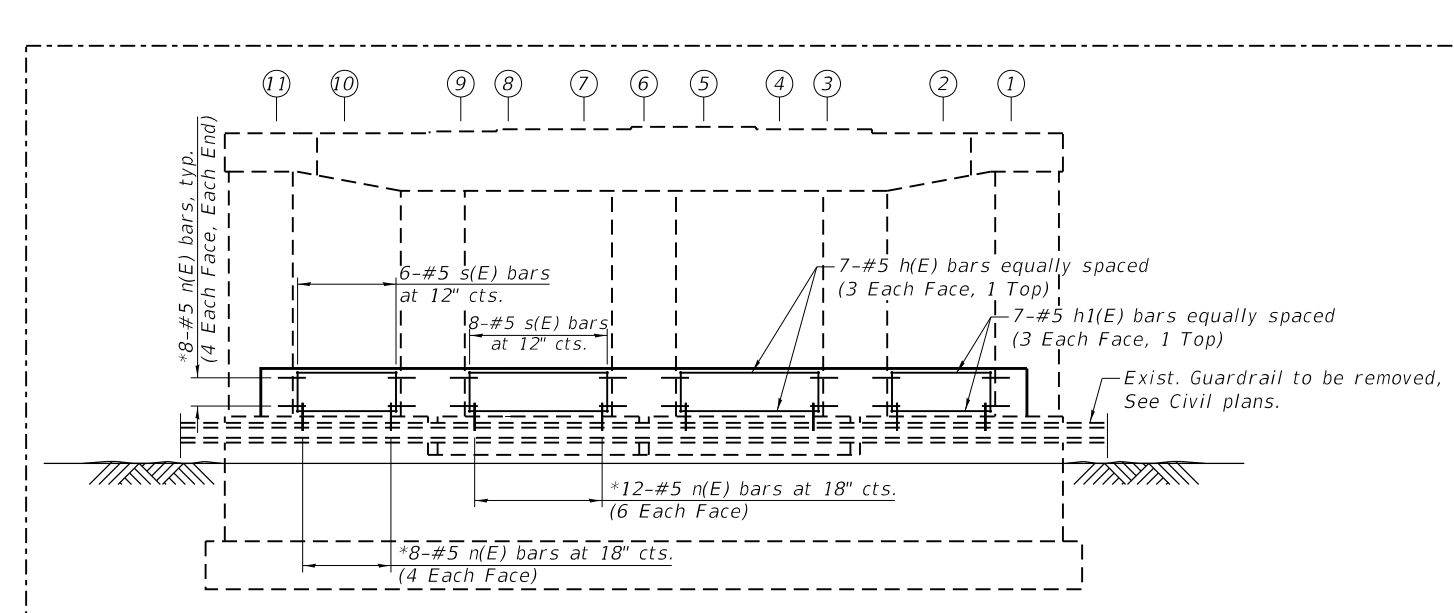
WEST ELEVATION
(Looking East)



SOUTH ELEVATION
(Looking North)



EAST ELEVATION
(Looking West)



NORTH ELEVATION
(Looking South, Reinforcement Symmetrical About Q)

*Epoxy grout n(E) bars 9" min. holes according to Article 584 of the Standard Specifications. The cost of epoxy grouting threaded rods shall be included with Reinforcement Bars, Epoxy Coated

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	14	#5	7'-4"	—
h1(E)	14	#5	5'-3 1/2"	—
s(E)	28	#5	12'-1"	□
n(E)	104	#5	2'-5"	—
Concrete Structures		Cu. Yd.	9.9	
Concrete Sealer		Sq. Ft.	1455	
Reinforcement Bars, Epoxy Coated		Pound	800	

REVISED SHEET 2/16/2022

Bowman 311 S. Wacker Drive, Suite 1950 Chicago, Illinois 60606 312-474-6560 www.bowman.com	USER NAME = atiemann	DESIGNED - AHT	REVISED - 02/11/2022
	PLOT SCALE = 10:0 ft/in / in.	CHECKED - AJN	REVISED -
	PLOT DATE = 11/16/2021	DRAWN - AHT	REVISED -
		CHECKED - AJN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CRASH WALL EXTENSION - PIER 3
CLARENDON HILLS RD. BRIDGE OVER I-55 - SN 022-0089

SHEET 24 OF 24 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	2020-191-BR	DUPAGE	44	37
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M64	