

STRUCTURAL REHABILITATION CHECKLIST

Bridge No.:	A4261	Job No.:	JCD0240
Route:	MO 32	Over:	Pigeon Creek
County:	Dent	Date of Field Check:	11/10/2025

*** Please include photographs for all items that apply. ***

1

OVERLAY

- * Type of existing overlay: ☐ None ☒ Asphalt ☐ Low Slump ☐ Silica Fume ☐ Latex ☐ Epoxy ☐ Other: _____
- * Existing overlay thickness: _____ "
- * Year overlay was applied: _____ ☒ Unknown
- * % of overlay repaired or patched: _____ %
- * Replace overlay: ☒ Yes ☐ No
- * Notes: _____

Picture #

2A

DECK REPAIRS (Deck repair quantities are required even if a Deck Test request has been ordered for this structure.)

- * Half-sole repairs: 100 sq. ft.
(round up to the nearest 50 sq. ft.)
- * Full-depth repairs: _____ sq. ft.
(round up to the nearest 25 sq. ft.)
- * Slab edge repairs: _____ lin. ft.
(covers the outer 4" of the slab edge)
- * Superstructure repair (Unformed): _____ sq. ft.
(covers the remaining slab cantilever beyond the outer 4")
- * Clean & seal slab edge: _____ lin. ft.
(in lieu of edge repairs)
- * Cantilever replacement: _____ lin. ft.
- * Total surface hydro demolition bridge deck: ☐ Yes ☐ No
(half-sole and full depth repair quantities still required)
- * Full deck replacement (redeck): ☐ Yes ☐ No ☐ Optional
- * Deck repairs with voided tube replacement: ☐ Yes ☐ No
(if applicable) _____ sq. ft.
- * Superstructure replacement: ☐ Yes ☐ No ☐ Optional
- * Full bridge replacement: ☐ Yes ☐ No ☐ Optional
(Deck repair quantities required for cost comparison of alternatives)
- * How were the quantities obtained? ☒ Visual ☐ Bridge Inspection Report ☐ Sounded ☐ Other _____
- * Notes: _____

Picture #

DECK REPAIRS CONT.

* ISSUES \ PROBLEMS WITH PRECAST PRESTRESSED DECK PANELS

Spans	Location in Span						Deterioration		Describe
	At Panel Jt.	Btwn (mid) Panel Jt.	End		Mid		Type	Amount	
1	☐	☒	☒	☐	☒	☐	spalls	sq. ft.	Several Spalls, exposed steel, efflorescence between panels
2	☒	☒	☒	☐	☒	☐	Spalls	sq. ft.	Several Spalls, exposed steel, efflorescence between panels
	☐	☐	☐	☐	☐	☐		sq. ft.	
	☐	☐	☐	☐	☐	☐		sq. ft.	
	☐	☐	☐	☐	☐	☐		sq. ft.	
	☐	☐	☐	☐	☐	☐		sq. ft.	

* Notes:

(Deterioration may include water saturation, efflorescence, rust staining, cracking, spalling, exposed steel, disintegration of panel edges at joints, etc. Typically observed at or near panel joints. The location and "Type" of deterioration should be recorded.)

Picture #

APPROACH SLABS

- * Is there a bridge approach slab in place? ☐ Yes ☒ No * Type: ☐ Concrete ☐ Asphalt ☐ Other _____
- * Is there a rdwy. approach pavement in place? ☒ Yes ☐ No * Type: ☐ Concrete ☒ Asphalt ☐ Other _____
- * Is the approach slab sinking at the end bent? ☐ N/A ☐ Yes ☒ No _____
- * Are repairs needed to the bridge approach slab driving surface? ☐ Yes ☐ No Mill & Fill to match overlay.
(Typically a roadway item but will be reported to district on the Bridge Memorandum.)

* Notes:

Picture #

4

SLAB DRAINS

* Is the drainage system working adequately? ☒ Yes ☐ No

* Recommendations: _____

* Notes: _____

Picture #

5

CURBS & RAILS

* Existing curb (left side): ☒ Safety Barrier Curb ☐ Curb/parapet ☐ Blockouts ☐ Thrie Beam ☐ Baluster ☐ Steel Channel

☐ Other _____ ☐ Handrail ☐ Fence _____

* Does curb need repair ☐ Yes ☒ No

* Curb repair _____ lin. ft.

* Remove hand rail ☐ Yes ☐ No

* Add curb blockout ☐ Yes ☐ No

* Existing curb (right side): ☒ Safety Barrier Curb ☐ Curb/parapet ☐ Blockouts ☐ Thrie Beam ☐ Baluster ☐ Steel Channel

☐ Other _____ ☐ Handrail ☐ Fence _____

* Does curb need repair ☒ Yes ☐ No

* Curb repair 20 lin. ft.

* Remove hand rail ☐ Yes ☐ No

* Add curb blockout ☐ Yes ☐ No

* Existing median curb: Type: _____ Width _____ " Height _____ "

* Does curb need repair ☐ Yes ☐ No

* Curb repair _____ lin. ft.

* Approach rail attachment: ☐ None ☐ Not attached ☐ 4 Hole ☒ 5 Hole ☐ Turn-down ☐ Other _____

* If the existing handrails will be removed, does the local maintenance supervisor wish to keep them? ☐ Yes ☐ No

Storage address: location: _____

address: _____

city: _____ state: _____ zip: _____

* Notes: _____

Picture #

6

EXPANSION DEVICES

Bent	Type	Recommendations			Gap Left	Gap Right	Temperature & Other Info
		☐	☐	☐	"	"	
		☐	☐	☐	"	"	
		☐	☐	☐	"	"	
		☐	☐	☐	"	"	
		☐	☐	☐	"	"	
		☐	☐	☐	"	"	

* Notes:

Picture #

7

BEARINGS

Bent	Coating	Recommendations				Notes (indicate which bearings at each bent)
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

* Notes: None

Picture # (Provide Pictures of Each Bearing)

8

COATING SYSTEM (PAINT)

* Existing coating system: ☐ green ☐ gray ☐ other

* Date last coated:

* Is existing coating peeling? ☐ Yes (Overcoat is not an option) ☐ No

* Coating recommendation:

☐ Blast clean & recoat all steel☐ Clean & overcoat all steel☐ Blast clean & recoat only at joint locations☐ Blast & recoat at joint locations and clean & overcoat all other steel

Note: Pull off test required for overcoat (Calcium Sulfonate) option. Bridge Division will request pull off tests.

* Notes: None

Picture #

SUPERSTRUCTURE REPAIRS

(Repairs needed not previously stated.)

Concrete Slab Superstructure or Girder: (above the bearings)(Example: Deck solid slabs, voided slabs, box girder,
deck girders & prestressed girders)

12/30 prestressed girder ends cracked.

Steel: (Example: Beams, stringers, girders, diaphragms, cross-frames, misc. steel)**Member** (Check all that apply) (Attach pictures)**Describe & Locate**

_____	☐ Section Loss	_____ %	☐ Cracks	_____ in.	_____
_____	☐ Section Loss	_____ %	☐ Cracks	_____ in.	_____
_____	☐ Section Loss	_____ %	☐ Cracks	_____ in.	_____
_____	☐ Section Loss	_____ %	☐ Cracks	_____ in.	_____

Notes:

Picture #

SUBSTRUCTURE REPAIR

Bent	Formed Repair	Unformed Repair	Seal Concrete Beam Cap Bts.	Coat Exposed Pile @ Int. Pile Cap Bts.	Describe (Beam, Backwall, Wing, etc.)
<u>1</u>	_____ sq. ft.	<u>20</u> sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	Backwall/Wingwall
<u>2</u>	_____ sq. ft.	_____ sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	_____
<u>3</u>	_____ sq. ft.	_____ sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	_____
<u>4</u>	_____ sq. ft.	<u>20</u> sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	Backwall/Wingwall
_____	_____ sq. ft.	_____ sq. ft.	☐ Yes ☐ No	☐ Yes ☐ No	_____

* Does the structure need graffiti protection? ☒ No ☐ Bottom 8' of Concrete ☐ End Bents ☐ Other _____

* Notes:

Picture #

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SIGNS, SIGNALS &/OR LIGHTING ATTACHED TO STRUCTURE

* Are there signs attached directly to this structure? ☐ Yes ☒ No quantity _____ location _____

* Describe proposed work to be done to signs. _____

* Are there signals attached directly to this structure? ☐ Yes ☒ No quantity _____ location _____

* Describe proposed work to be done to signals. _____

* Is there aviation lighting attached to this structure? ☐ Yes ☐ No ☒ N/A ☐ Red _____ ☐ Green _____
qnty. qnty.

* Is there navigational lighting attached to this structure? ☐ Yes ☐ No ☒ N/A ☐ Red _____ ☐ Green _____
qnty. qnty.

* Is there roadway lighting attached to this structure? ☐ Yes ☐ No ☒ N/A

* Describe proposed work to be done to lighting. _____

* Notes: None

Picture #

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UTILITIES ATTACHED TO STRUCTURE

Type			Qty.	Size	Owner	Condition			
☐ Conduit	☐ Pipeline	☐ Other	_____	_____	_____	☐ Repaint	☐ Repair	☐ Replace	☐ Remove
☐ Conduit	☐ Pipeline	☐ Other	_____	_____	_____	☐ Repaint	☐ Repair	☐ Replace	☐ Remove
☐ Conduit	☐ Pipeline	☐ Other	_____	_____	_____	☐ Repaint	☐ Repair	☐ Replace	☐ Remove
☐ Conduit	☐ Pipeline	☐ Other	_____	_____	_____	☐ Repaint	☐ Repair	☐ Replace	☐ Remove

* Notes: None

Picture #

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CATHODIC PROTECTION SYSTEM

* Is there a cathodic system on this structure? ☐ Yes ☒ No ☐ Remove ☐ Do not alter ☐ Abandon in place (grooved system)

* Is it on and working? ☐ Yes ☐ No ☐ Unknown _____

* Notes: _____

Picture #

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CHANNEL ALIGNMENT, SLOPE PROTECTION & SCOUR

* Is channel aligned to bridge opening? ☒ Yes ☐ No Describe _____

* Is drift a continual problem? ☐ Yes ☒ No Describe & Locate _____

* Is erosion a problem? ☐ Yes ☒ No Describe & Locate _____

* Describe slope protection in place. Soil _____

* Scour	<u>At Footing</u>	<u>At Piling</u>	<u>Depth</u>	<u>Bent</u>	<u>Recommendation</u>
	☐	☐	_____	_____	_____
	☐	☐	_____	_____	_____

* Describe needed work. None _____

Picture #

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TRAFFIC LANES

* Number of lanes striped: on structure 2 under structure 0

* Shoulder width: ☐ None on structure 5 5 under structure _____
 (left) (right) (left) (right)

* Sidewalk widths: ☒ None on structure _____ under structure _____
 (left) (right) (left) (right)

* Median width: ☒ None on structure _____ under structure _____

* Proposed improvements for lanes/shoulders/sidewalks: None _____

Picture #

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GENERAL AREA CONDITIONS

* Primary area: ☐ Commercial ☐ Industrial ☐ Residential ☒ Agricultural ☐ Military ☐ Other _____

* Posted speed limit on structure: 55 mph

* Posted load on structure: _____ tons @ _____ mph ☒ NA

Single Unit: _____ tons @ _____ mph ☒ NA

Semi (tractor/trailer): _____ tons @ _____ mph ☒ NA

* Are both signs in place?

☐ Yes ☐ No

* Do pedestrians and/or bicyclists regularly use this structure? ☐ Yes ☒ No ☐ Undetermined

* Notes: _____

Picture #

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MAINTENANCE

* What work has been done to this structure that may not be reflected on existing bridge plans? _____

2023 - Seal Deck

2007 - Repair Concrete <50SF

2007 - Remove/Replace Loose Seal or Mat

Picture #

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ADDITIONAL FIELD NOTES

Picture #

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STAGING / DETOUR

* **Traffic Control:** ☒ Close structure ☐ Stage construction on structure ☐ Cross over traffic to adjacent structure ☐ Detour
☐ Other option _____

* Define probable detour route. _____

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PERSONS ASSISTING WITH CHECKLIST

Name	<u>Derek Lepper</u>	Title	<u>District Bridge Engineer</u>	Ph.	<u>(573) 418 - 9071</u>
Name	<u>Mia Peters</u>	Title	<u>Engineering Professional - TPT</u>	Ph.	<u>(660) 281 - 1295</u>
Name	<u>Hawa Faleh</u>	Title	<u>Intermediate Highway Designer</u>	Ph.	<u>(573) 751 - 5754</u>
Name	<u>Ted Koestner</u>	Title	<u>Structural Project Manager</u>	Ph.	<u>(573) 751 - 4229</u>
Name	_____	Title	_____	Ph.	<u>() -</u>

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REQUIRED SIGNATURES

I have reviewed the information on this checklist and believe it to be as accurate as possible.

Name	<u>Maria Peters</u>	Date	<u>8/20/2026</u>
	<i>Transportation Project Manager</i>		
Name	<u>D. Koestner</u>	Date	<u>8/20/2026</u>
	<i>District Bridge Engineer</i>		

The structural rehabilitation checklist indicates how the bridge is functioning and aging.

All deterioration should be noted, even if it is known that the work will not be completed under the proposed project.

Send **NEW** Structural Rehabilitation Checklist by email

To: "Bridge Survey Processor"

Cc: Structural Project Manager or Structural Resource Manager

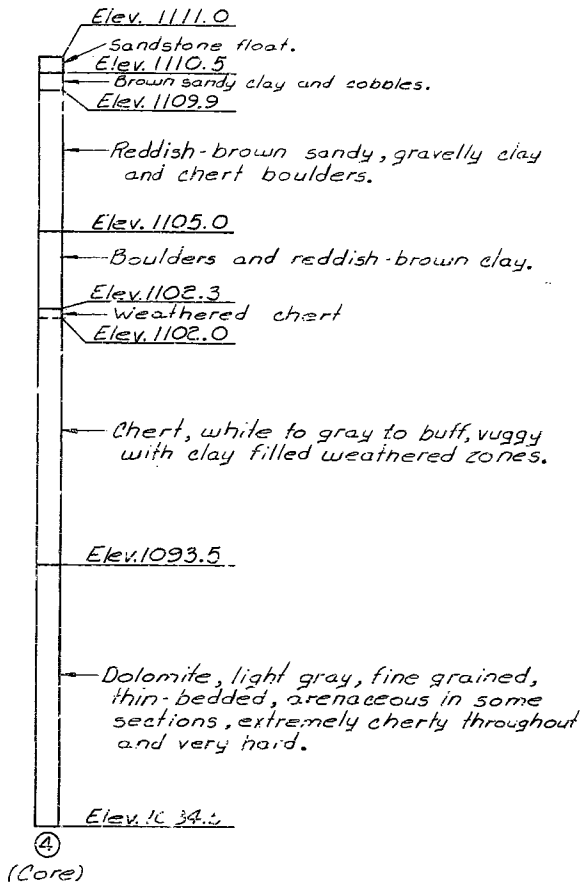
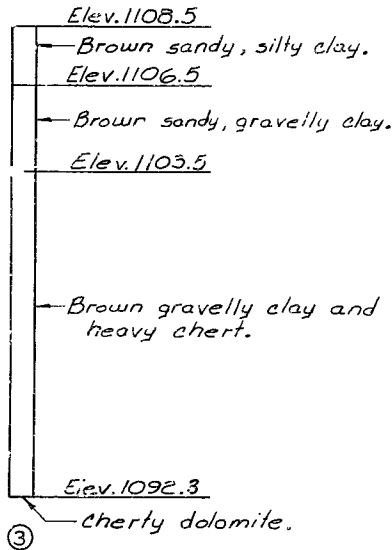
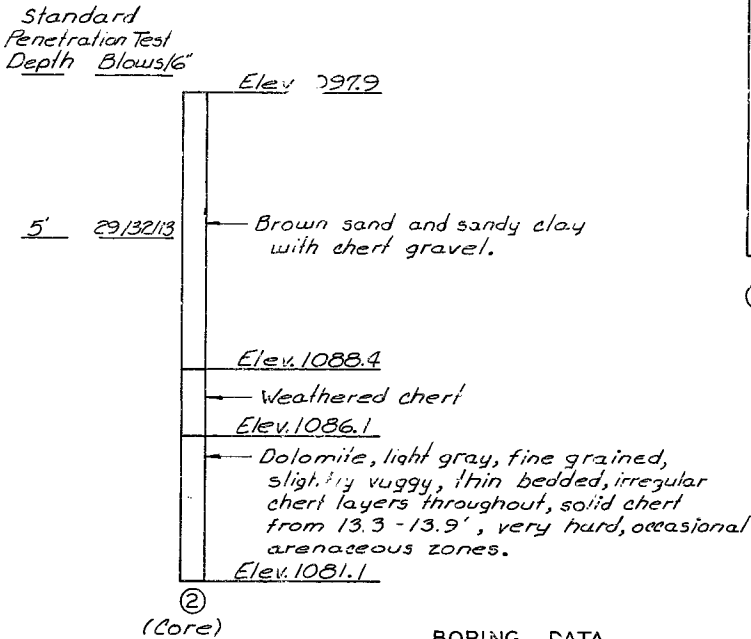
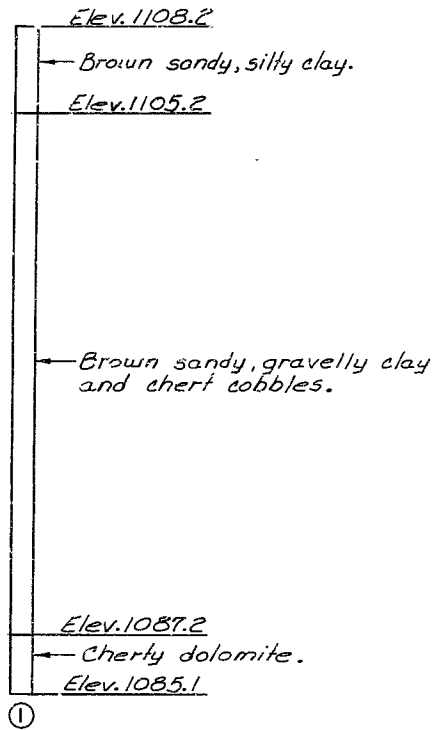
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		18	6	

ESTIMATED QUANTITIES			
ITEM		SUBSTR.	TOTAL
Removal of Bridge (H364)	Lump Sum		1
Class I Excavation	Cu. Yd.	80	80
Class II Excavation	Cu. Yd.	157	157
Structural Steel Pile (10')	Lin. Ft.	259	259
Pre-Bore for Piling	Lin. Ft.	72	72
Class B Concrete	Cu. Yd.	103.9	103.9
Slab on Conc. I-Gir (See Spec. Prov)	Sq. Yd.		704
Safety Barrier Curb	Lin. Ft.		375
Laminated Neoprene Brg Pads (Tapered)	each	30	30
Prestressed Conc. I-Gir (61' span)	each	10	10
Prestressed Conc. I-Gir (45' span)	each	5	5
Reinforcing Steel (Gr 60)	Lb.	13230	13230

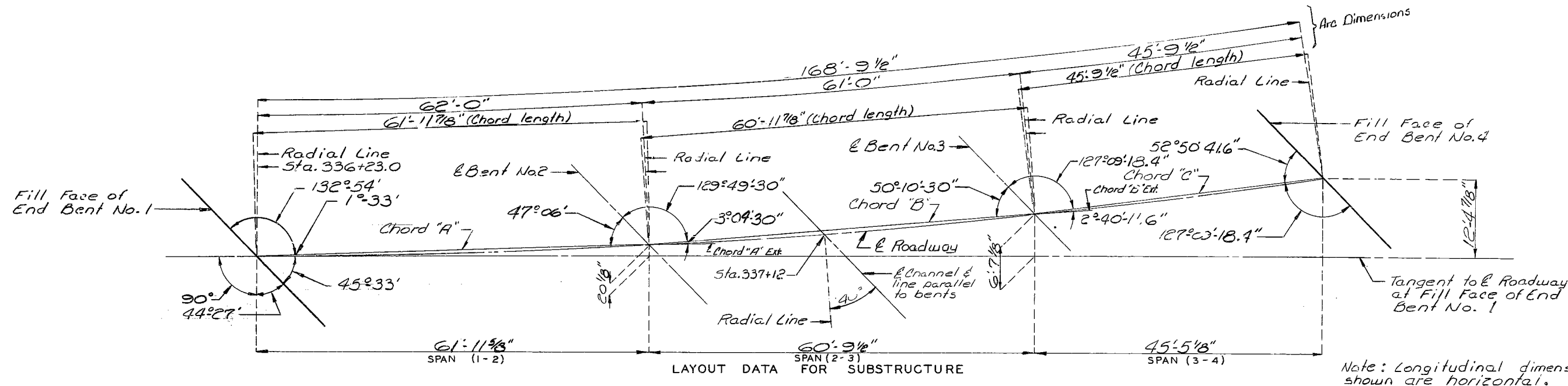
Note: All concrete between the upper and lower construction joints in End Bents is included in the estimated superstructure quantities for Slab on concrete I-Girder. See Special provisions.
All reinforcement in the end bents is included with superstructure quantities.

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3	MO.		83	9	

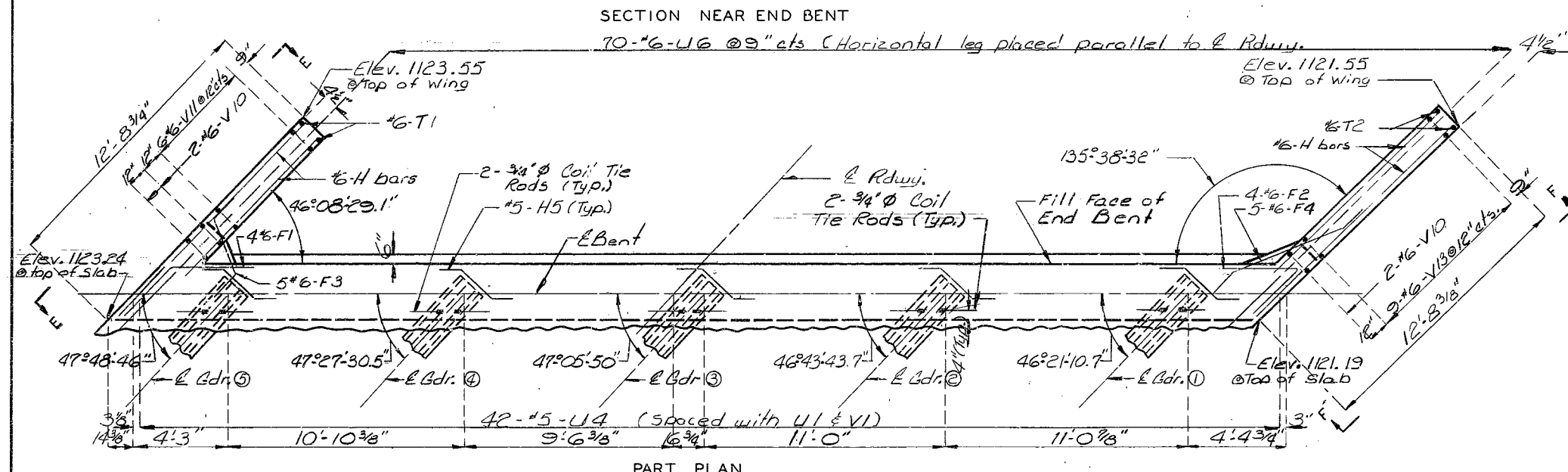
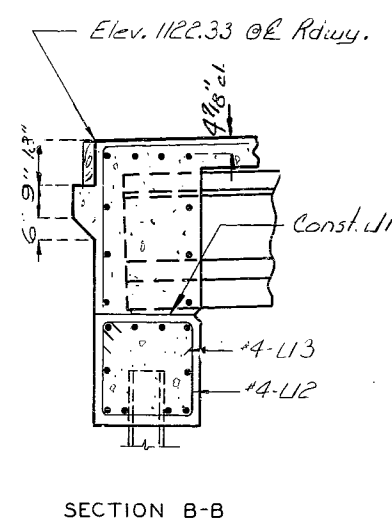
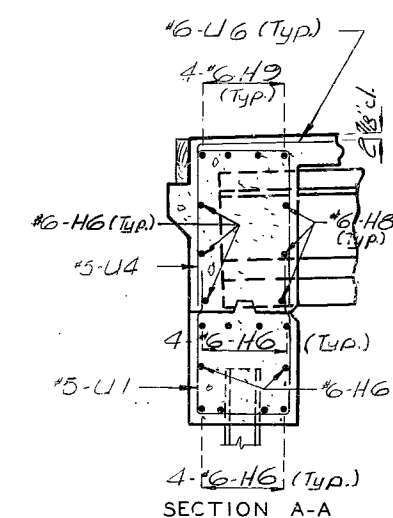
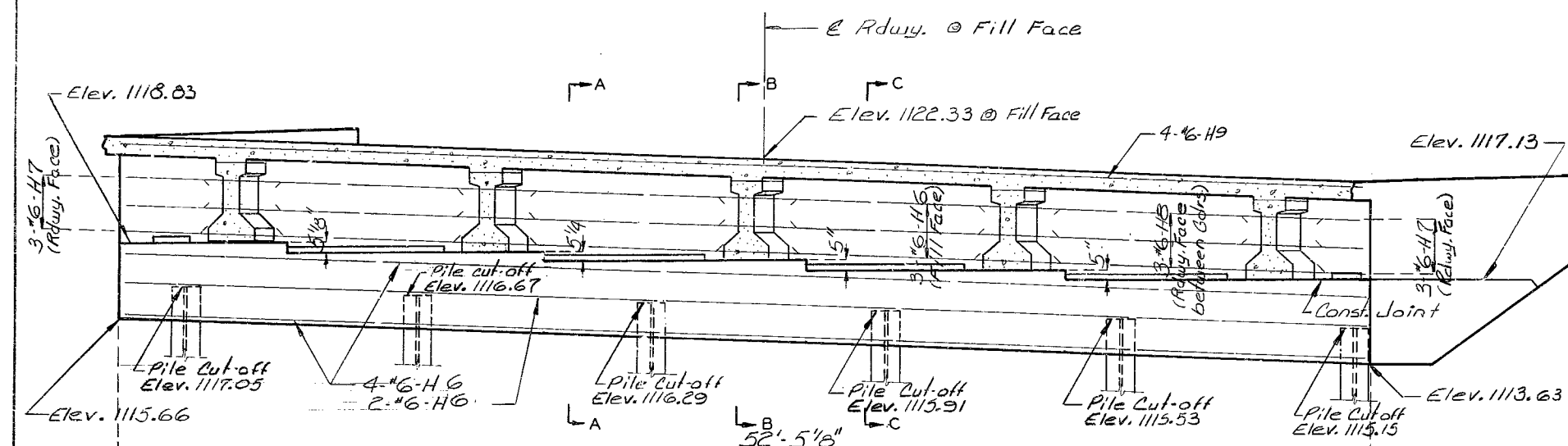
Note: For location of borings see sheet No. 1.



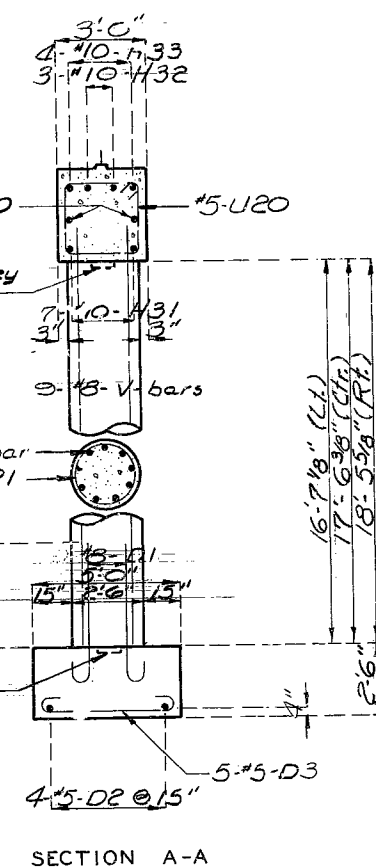
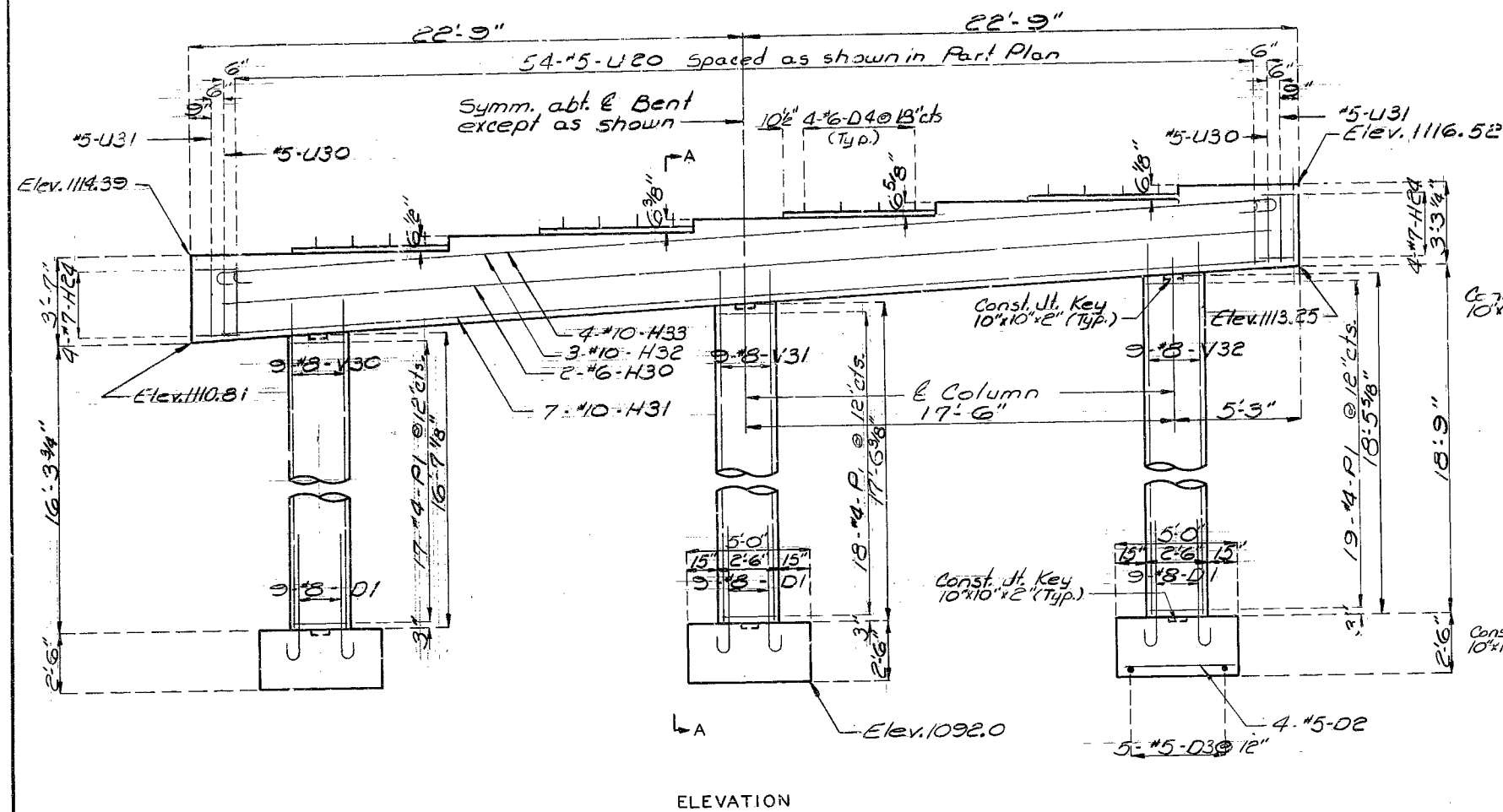
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5	MO.		19	10	



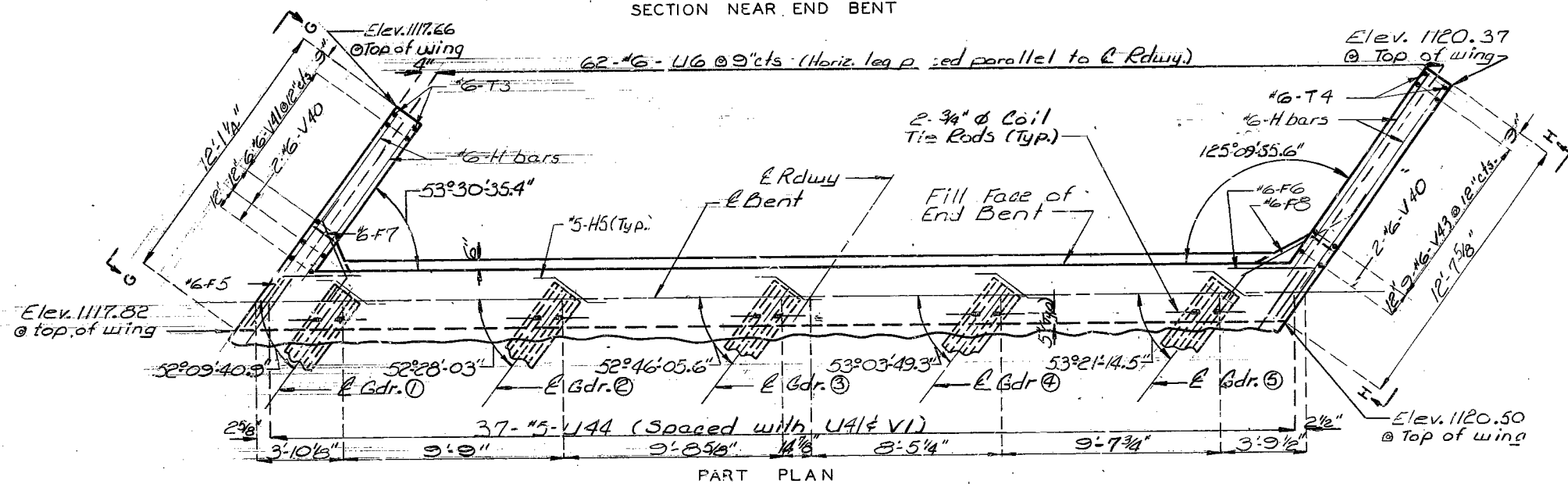
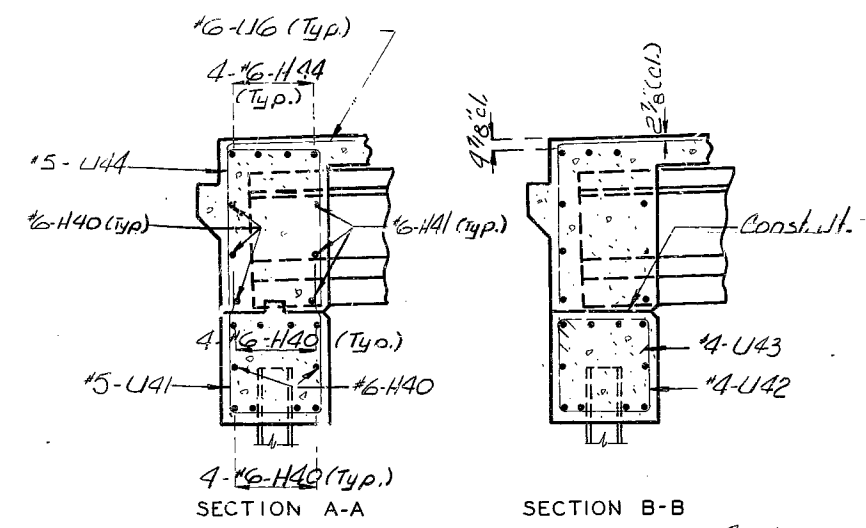
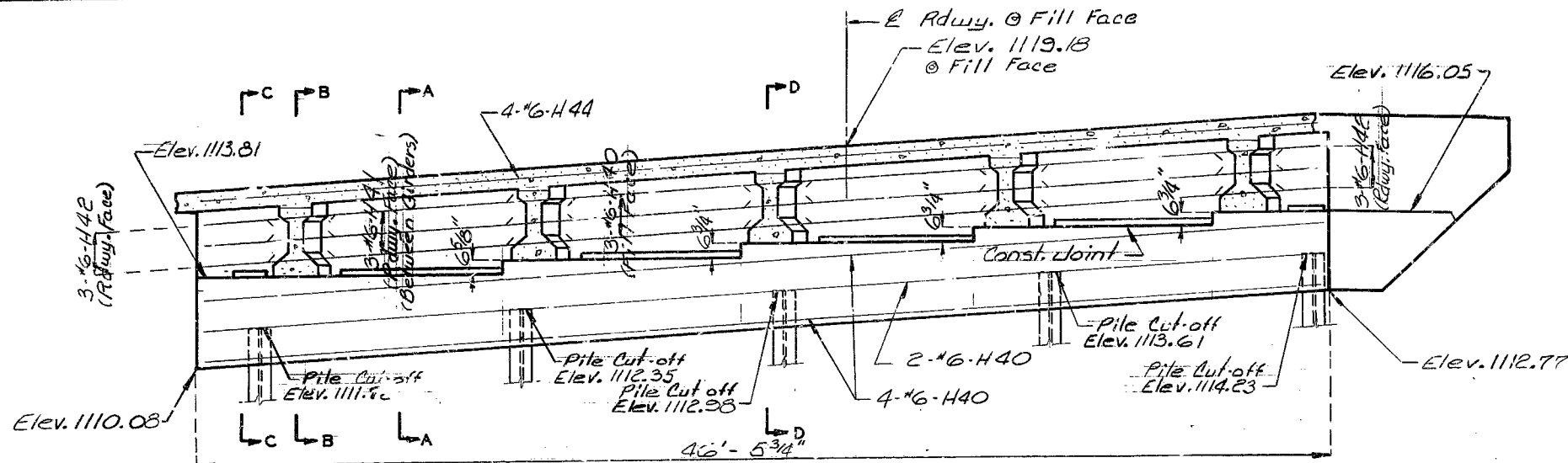
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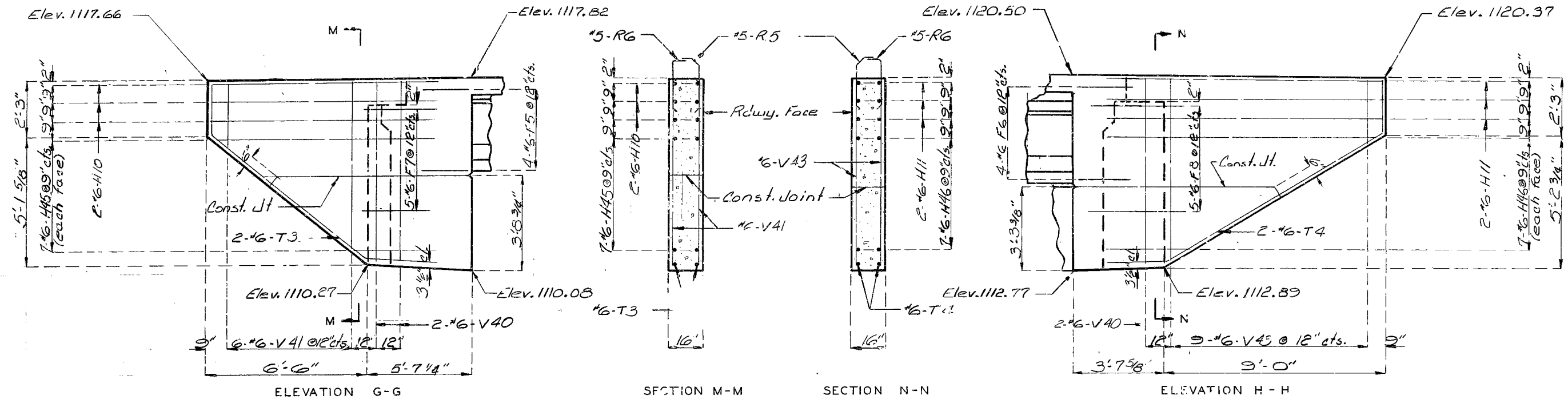
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5	MO.		19	13	



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5	MO		13	14	



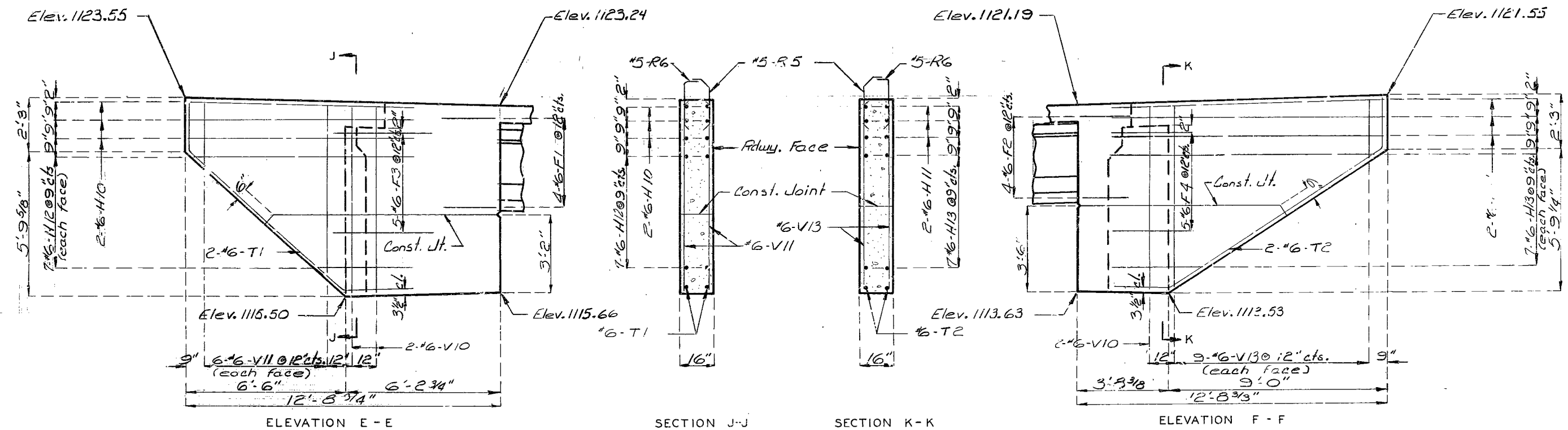
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5	MO.		19	15	



DETAILS OF END BENT NO. 4

Note: For details and reinforcement of Safety Barrier Curb see sheet No. 17

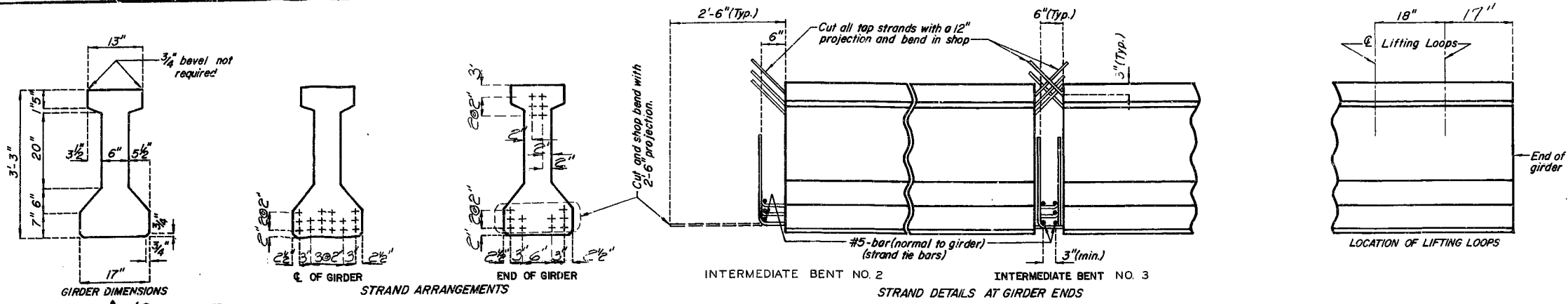
Note: For location of Elev. G-G & Elev. H-H see sheet No. 3
For location of Elev. E-E & Elev. F-F see sheet No. 5



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		18	16	

BILL OF REINFORCING STEEL - EACH GIRDER				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAMS
4	#5-A1	31'-7"	20	SHAPE 11
94	#5-B1	4'-8"	11	
8	#5-B2	3'-9"	19	SHAPE 9
47	#4-C1	13"	10	
94	#4-D1	2'-11"	9	SHAPE 10
				SHAPE 20
				SHAPE 18

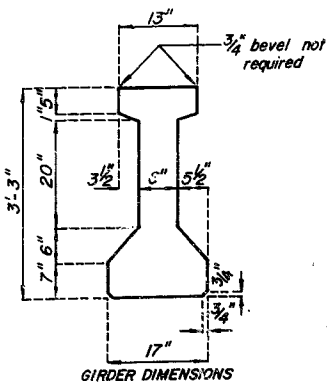
NOTE:
 All dimensions are out to out.
 Where deflecting strands interfere with placement, some in-place bending may be necessary.
 Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures stirrup and tie dimensions.
 Actual lengths are measured along centerline bar to the nearest inch.
 Minimum clearance to reinforcing shall be 1".
 All reinforcement shall be Grade 60.

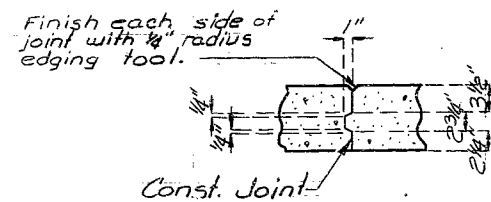


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5	MO.		18	17	

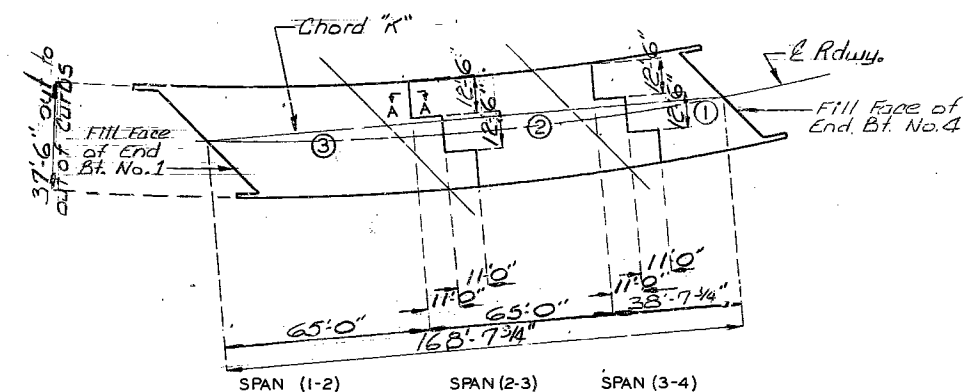
BILL OF REINFORCING STEEL - EACH GIRDER				
NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAMS
2	#5-A1	"R"	20	
22	#5-B1	4'-8"	11	
4	#5-B2	3'-9"	19	
31	#4-C1	13"	10	
62	#4-D1	2'-11"	9	

NOTE:
All dimensions are out to out.
Where deflecting strands interfere with placement, some in-place bending may be necessary.
Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures stirrups and tie dimensions.
Actual lengths are measured along centerline bar to the nearest inch.
Minimum clearance to reinforcing shall be 1".
All reinforcement shall be Grade 60.





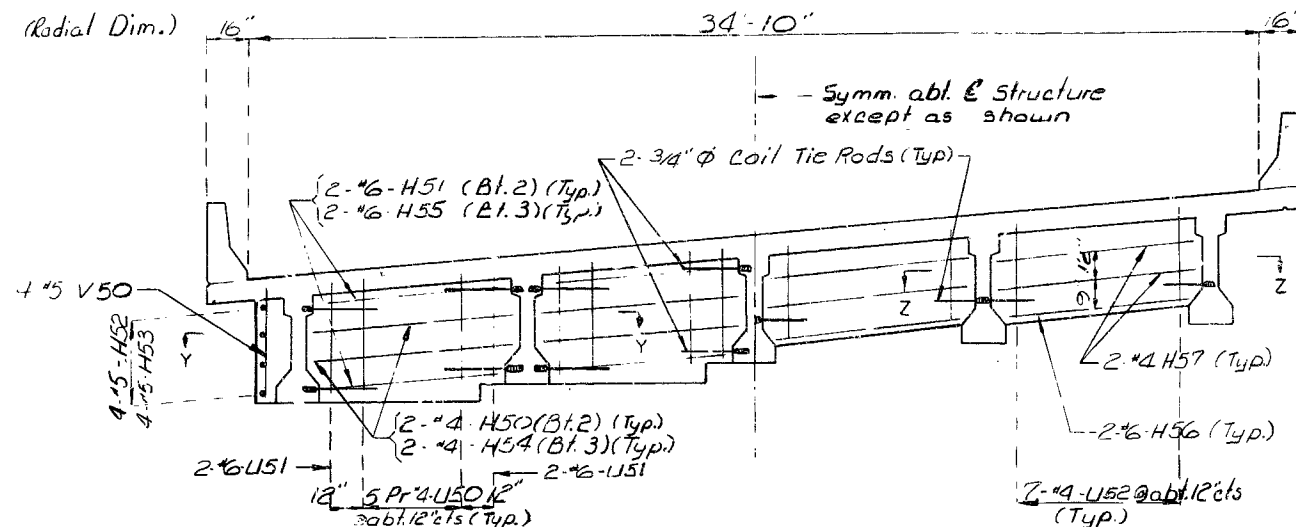
SECTION A-A



Note: Longitudinal dimensions shown are horizontal dimensions taken parallel to chord "K".

BASIC SEQUENCE	SEQUENCE OF POURS			*
	DIRECTION			
	1	2	3	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		13	19	



HALF SECTION NEAR
INT. BENTS NO. 2 & NO. 3

HALF SECTION NEAR INT. DIAPH.
SPAN (1-2) & SPAN (2-3)

