

Federal Highway Bridge Program Project Application

Please send copies of the load ratings summary, accident data, any other pertinent information, and electronic photos (640 x 480 pixels minimum .JPG) with this questionnaire by the due date specified in the cover letter.

Agency Name:	<i>Pick one of the following:</i>	
Bridge Name:	Replacement Candidate	Bundled Project
Bridge Number:	Rehabilitation Candidate	
Contact Person:	Scour Mitigation	
Phone: () -	Seismic Retrofit	
Sufficiency Rating:	Painting	
Structure ID:	Deck Repair	

Brief Project Description (including bridge replacement type)

Proposed Length: Width (Curb to Curb): **Current Year:**

Rehabilitation/Replacement/Seismic/Paint/Scour Projects

PE Costs (approximately 25% of total)

(Soils, Environmental, Design Documents, Plans Preparation, etc.)

Right of Way Costs

(Purchases, Relocation and Construction Easement)

Construction Costs

(Environmental mitigation, approach costs (15%), structure costs, etc.)

Construction Engineering (18%)

Contingency (15%)

Mobilization (10%)

Inflation Factor (5% per year, based on projected Ad date below)

Total Rehabilitation/Replacement/Preventative Maintenance Project Costs:*

If a Rehabilitation, what would be the Replacement cost for that same structure (including PE, Right of Way, and Construction)?

Project Milestones	Scheduled		Scheduled	
Project Added to Local Agency TIP	M/Y	/	Right of Way Start	M/Y /
Project Added to Regional TIP	M/Y	/	Right of Way Complete	M/Y /
Project Added to STIP	M/Y	/	Geometric/30% Design Complete	M/Y /
Project Definition Begin PE	M/Y	/	General Plan/60% Design Complete	M/Y /
NEPA Kick Off	M/Y	/	Advertisement	M/Y /
Environmental Docs Approved	M/Y	/	Contract Awarded	M/Y /
Provide comments below			Open to Traffic	M/Y /

Comments

BRIDGE INSPECTION REPORT

Status: Released
 CD Guid: db48fd09-e3ea-4f6c-b57d-649a9ba182c8

Printed On: 4/23/2019
 Release Date: 5/8/2018

Agency: Skagit County
 Program Mgr: Roman G. Peralta

Br. No. 40093	SID 08050200	Br. Name UPPER FINNEY CREEK BR.	
Carrying FINNEY CREEK ROAD		Route On 06120	Mile Post 4.62
Intersecting FINNEY CREEK		Route Under	Mile Post

Inspector's Signature FPP Cert # G0710 Cert Exp Date 5/11/2022 Co-Inspector's Signature TJN

				Inspections Performed:				
				Freq	Hrs	Date	Rep Type	
5	<input type="checkbox"/>	Structural Eval (1657)	32	<input type="checkbox"/>	Operating Tons (1552)	0	<input type="checkbox"/>	No Utilities (2675)
6	<input type="checkbox"/>	Deck Geometry (1658)	0.72	<input type="checkbox"/>	Op RF (1553)	0	<input type="checkbox"/>	Bridge Rails (1684)
9	<input type="checkbox"/>	Underclearance (1659)	23	<input type="checkbox"/>	Inventory Tons (1555)	0	<input type="checkbox"/>	Transition (1685)
3	<input type="checkbox"/>	Alignment (1661)	0.52	<input type="checkbox"/>	Inv RF (1556)	0	<input type="checkbox"/>	Guardrails (1686)
6	<input type="checkbox"/>	Deck Overall (1663)	5	<input type="checkbox"/>	Operating Level (1660)	0	<input type="checkbox"/>	Terminals (1687)
5	<input type="checkbox"/>	Superstructure (1671)	P	<input type="checkbox"/>	Open/Closed (1293)	3.00	<input type="checkbox"/>	Asphalt Depth (2610)
6	<input type="checkbox"/>	Substructure (1676)	8	<input type="checkbox"/>	Waterway (1662)		<input type="checkbox"/>	Design Curb Ht (2611)
9	<input type="checkbox"/>	Culvert (1678)	8	<input type="checkbox"/>	Scour (1680)		<input type="checkbox"/>	Bridge Rail Ht (2612)
8	<input type="checkbox"/>	Chan/Protection (1677)		<input type="checkbox"/>	Soundings Flag (2693)	1952	<input type="checkbox"/>	Year Built (1332)
N	<input type="checkbox"/>	Pier/Abut/Prot (1679)	N	<input type="checkbox"/>	Revise Rating (2688)	0	<input type="checkbox"/>	Year Rebuilt (1336)
7	<input type="checkbox"/>	Drain Cond (7664)	D	<input type="checkbox"/>	E Photos Flag (2691)		<input type="checkbox"/>	Y Subj to NBIS (2614)
1	<input type="checkbox"/>	Drain Status (7665)		<input type="checkbox"/>	Measure Clrnc (2694)			
L	<input type="checkbox"/>	Deck Scaling (7666)	9	<input type="checkbox"/>	Sdwk Cond (7673)			
5	<input type="checkbox"/>	Scaling Pct (7667)	9	<input type="checkbox"/>	Paint Cond (7674)			
0	<input type="checkbox"/>	Deck Rutting (7669)	8	<input type="checkbox"/>	Approach Cond (7681)			
0	<input type="checkbox"/>	Exposed Rebar (7670)	9	<input type="checkbox"/>	Retaining Wall (7682)			
7	<input type="checkbox"/>	Curb Cond (7672)	9	<input type="checkbox"/>	Pier Prot (7683)			
				Alpha Span Type: <input style="width: 100%;" type="text"/>				
				Sufficiency Rating 48.60 FO				
				High Risk				

Freq	Hrs	Date	Rep Type
24	1.0	4/2/2018	Routine
			Fract Crit
			UW
			Special
			Interim
			UWI
			Damage
			PRM Safety
			SEC Safety
			Condition
			Short Span
			In Depth
			Geometric

BMS Elements							
Element	Element Description	Total	Units	State 1	State 2	State 3	State 4
12	Concrete Deck	3,038	SF	3,038	0	0	0
35	Concrete Deck Soffit	3,038	SF	3,038	0	0	0
110	Concrete Girder	432	LF	357	75	0	0
205	Concrete Pile/Column	6	EA	2	0	4	0
219	Concrete Cantilevered Span Abutment	38	EA	38	0	0	0
234	Concrete Pier Cap/Crossbeam	24	LF	12	12	0	0
331	Concrete Bridge Railing	434	LF	434	0	0	0
361	Scour	2	EA	2	0	0	0
800	Asphaltic Concrete (AC) Overlay	3,038	SF	3,038	0	0	0

Notes	
0	Bridge is oriented west to east. East end is closest to the junction with Concrete Sauk Valley Rd.
11	Updated 2012 - Restricted for U80 Logging overload (30T), OL-1, OL-2 (See Photo #18) (See Letters/Load Rating)

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Br. No. 40093 **SID** 08050200 **Br. Name** UPPER FINNEY CREEK BR.
Carrying FINNEY CREEK ROAD **Route On** 06120 **Mile Post** 4.62
Intersecting FINNEY CREEK **Route Under** **Mile Post**

Notes (Continued)

12	See Element 800 - Asphaltic Concrete (AC) Overlay.
35	There are transverse leaching cracks in soffit. Cracks in soffit near Piers 3 and 4 are rusting appears to be from stirrups.
110	The webs have some hairline transverse leaching cracks. Girder 3A 11 ft. from Pier 3 was cracked vertically full height to 1/8" . It has since been repaired by patching the girder, epoxy injection and the installation of Fiber Reinforced Polymer (FRP). The paint/seal cover on the FRP sheeting has minor cracking along the edge of the on the north side of the girder, see Photo #19.
205	Piers 2 and 5 have vertical cracks (open to 1/16") to the strut. Pier 3 has horizontal cracks (open to 1/32") in the top 10ft. below the girders. Boulders lay up against the west side of the column, see photos #4 and #5. Pier 4 has hairline horizontal cracks scattered throughout and several short spalls with exposed rebar on the west side.
219	The end spans are cantilevered and are denoted as Piers 1 and 6. Gabions and heavy rock have been added at the west abutment and heavy rock at the east abutment. The end diaphragms have vertical leaching cracks.
234	Pier cap 3 has been retrofitted with a steel cap on the west side. It is supported by two large bolts cast in the cap extension on the west side of Pier 3.
331	Rails are covered in moss and have a few small spalls.
361	Finney Creek flows south to north. There are no piers in the water.
800	The ACP is lightly worn to the aggregate in the wheel lines.
1661	Speed reductions are necessary due to the alignment of the highway section which is a single lane road with pulloffs.
1677	Downstream the gorge is steep and rocky, see photo #3.

Repairs

Repair No	Pr	R	Repair Descriptions	Noted	Maint	Verified
305	3	B	Sweep deck / clear drains	4/29/2016		4/2/2018

Inspections Performed and Resources Required

Report Type	Date	Freq	Hrs	Insp	CertNo	Coinsp	Note		
Routine	4/2/2018	24	1.0	FPP	G0710	TJN			
Equipment	4/2/2018	72	1.5	FPP	G0710	TJN			
Resources	Hours	Min	Pref	Max	Freq	Date	Need Date	Override	Notes
UBIT	1.00	30	52	62	72	4/2/2018	4/2/2024		
Flagging		LA	LA	LA					For traffic control contact Torey Nelson of Skagit County, (360) 416-1425.

Bridge ID	1001	2009	2132	1019	1286	1021	2023	1156	2181	2183	2185	1188	1196
Structure ID	Bridge Number	Bridge Name	Owner	Cust	County	City	Location	Section	Township	Range	Latitude	Longitude	
08050200	40093	UPPER FINNEY CREEK BR.	02	02	29	0000	04.6 W CONC SAUK RD	06	34	09E	48° 27' 48.00"	121° 41' 30.00"	

Facilities	1232	1256	1274	7281	7283	1276	1285	1288	1289	1293	1292	2295	7296
Feature Intersected	Facilities Carried	Region	Leg1	Leg2	FIPS	Toll	Para	Temp	OPC	NRHP	HAER	LRHP	
FINNEY CREEK	FINNEY CREEK ROAD	NW	40	0	99057	3	N		P	4			

Printed Date: **4/23/2019**

Sufficiency Rating: **49.49 FO**
High Risk

Item 2710 SR
Item 2711 SD/FO

Layout	1332	1336	1340	2346	1348	1352	1356	1360	1364	1367	1310	1312	1370	1374	1378	1379	1382	1383	1386	1387	1390	1394	1291	1397
Year Built	Year Rebuilt	Bridge Length	NBIS Length	Maximum Span Length	Lanes On	Curb to Curb Deck Width	Out to Out Deck Width	Sidewalk Left	Sidewalk Right	Skew	Flared	Min Vert Over Deck	Min Vert Under	Vert Code	Min Lat Under Right	Lat Code	Min Lat Under Left	Nav Ch Code	Nav Vert Clear	Nav Horiz Clear	Nav Vert Lift Clear	Median	Appr Rdwy	
1952	0	217		75	1	14.9	18.3	1.0	1.0	99	Y	99' 99"	00' 00"	N	0.0	N	0.0	0	0	0	0	0	18	

Crossing	1432	1433	1434	1435	2440	1445	1451	1453	1457	1463	1467	1477	1469	2410	7479	1483	1484	1485	1486	1487	1489	1490	1354	1491	1495	1499	1413	2441
On Under	Hwy Class	Service Level	Route Number	Milepost	ADT	Truck %	Year of ADT	Future ADT	Future ADT Year	Linear Referencing System	LRS Sub	LRS Milepost	NBI Bridge	Fed Aid Route #	NHS	BHS	STRAH	FLH	Func. Class	NTN	Lane Use Direction	Lanes Under	Horizontal Clearance Route Dir	Horizontal Clearance Reverse Dir	Max Vert Clearance Route	Detour	Speed Limit	
1	4	1	06120	4.62	38	10	2016	56	2036				Y	0000	0	0	0	2	08	N	5	0	16' 00"			99		

Design	1532	1533	1535	1536	1538	1541	1544	1545	1546	1547	1548	1549	1550	1551	1552	1553	1554	1555	1556	1585	1588	1590	7565	7557
Main Span Material	Main Span Design	Appr Span Material	Appr Span Design	Number Main Spans	Number Appr Spans	Service On	Service Under	Deck Type	Wearing Surface	Membrane	Deck Protect	Design Load Code	Oper Rating Method	Oper Rating Tons	Oper Rating Factor	Inv Rating Method	Inv Rating Tons	Inv Rating Factor	Border State Cd	Border Pct	Border	Border Structure ID	Fed Aid Project No	Design Exemption
2	04	0	00	5	0	1	5	1	6	0	0	A	3	32	0.72	3	23	0.52						
														8	*		8	*						

Load Rating	2587	2588	2589	2590	2591	2592	2593	2594	2597	2598	2595	2596
Type 3	Type 3S2	Type 3-3	NRL	SHV 4	SHV 5	SHV 6	SHV 7	EV 2	EV 3	OL 1	OL 2	
1.49	1.25	1.27	0.95	1.35	1.19	1.07	0.98			0.77	0.61	

Waterway/ Prop Imp	7832	7833	7834	7835	7836	7837	7838	7839	7840	7841	1844	1846	1847	2853	2860	1867	1873	2870	1861	1879	2883		
Water Type	Flood Pin Infr	Flood Control	Flood Hist	Scour	Strmbd Matr	Strmbd Stablr	Substr Stablr	Obstr	Wtrwy	Strmbd Stablr	Strmbd Anabrn	Strmbd In Watr	Piers Work	Work Meth	Stru Imp Length	Roadway Width	Cost Per SF	Struct Cost	Rdwy Cost	Engr Cost	Total Cost	Estmt Year	Prop Imp Cost Calc
F	A	N	N	1	6	N	G	N	0	36	1	217	20	400	868	174	694	1736	2014	Y			

Inspection Report Types	2920 Inspection	1990 Date	2646 Inspector	2649 Cert No	2654 Co-Inspector
Routine		4/2/2018	FPP	G0710	TJN
Fracture Critical					
Special Feature					
Underwater					
UW Interim					

Inspection	Date	Inspector	Cert No	Co-Inspector
Interim				
In Depth				
Damage				
PRM Safety				
SEC Safety				

Inspection	Date	Inspector	Cert No	Co-Inspector
Condition				
Short Span				
Geometric				
Info	4/23/2019	GDG	G0014	
Inventory				

BRIDGE INSPECTION REPORT

Status: Work
CD Guid: d9685922-f6cc-4256-9ece-26876e1f6e1c

Printed On: 4/23/2019
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Program Mgr: Roman G. Peralta

Br. No. 40093 **SID** 08050200

Br. Name UPPER FINNEY CREEK BR.

Carrying FINNEY CREEK ROAD

Route On 06120

Mile Post 4.62

Intersecting FINNEY CREEK

Route Under

Mile Post

Elevation

2019 Funding
Photo Type: (none)
Orientation:
Date: 4/23/2019
Repairs:



Deck View

2019 Funding
Photo Type: (none)
Orientation:
Date: 4/23/2019
Repairs:



BRIDGE INSPECTION REPORT

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Br. No. 40093 **SID** 08050200

Br. Name UPPER FINNEY CREEK BR.

Carrying FINNEY CREEK ROAD

Route On 06120

Mile Post 4.62

Intersecting FINNEY CREEK

Route Under

Mile Post

Typical Column Piers 3 & 4

2019 Funding
Photo Type: (none)
Orientation:
Date: 4/23/2019
Repairs:



Typical Column Pier 1 & 4

2019 Funding
Photo Type: (none)
Orientation:
Date: 4/23/2019
Repairs:



Status: Work
CD Guid: d9685922-f6cc-4256-9ece-26876e1f6e1c

Printed On: 4/23/2019
Release Date:

Agency: Skagit County
Program Mgr: Roman G. Peralta

Br. No. 40093	SID 08050200	Br. Name UPPER FINNEY CREEK BR.	Route On 06120	Mile Post 4.62
Carrying FINNEY CREEK ROAD			Route Under	Mile Post
Intersecting FINNEY CREEK				

Maintenance Access

2019 Funding
Photo Type: (none)
Orientation:
Date: 4/23/2019
Repairs:



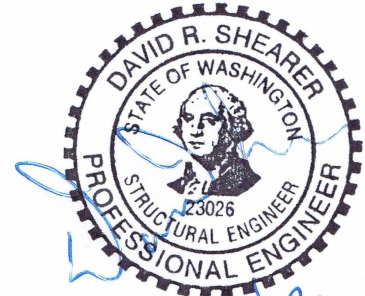
Carbon Fiber Reinforced Repair

2019 Funding
Photo Type: (none)
Orientation:
Date: 4/23/2019
Repairs:



Bridge Rating Summary

Bridge Name: Upper Finney Creek Bridge
 Bridge Number: #29
 Structure ID #: 08050200
 Bridge Type: Reinforced Concrete
 Span Lengths: 10', 60', 75', 60', Skewed 0 to 11'
 Span Types: CIP Continuous
 Year Built: 1952
 Design Load: HS-20
 County: Skagit
 State: Washington



SHEARER DESIGN

Rated By: Joshua Pruitt
 Checked By: David Shearer
 Date: July 2012

Inspection Report Date	3/27/2012	Substructure Condition	
Rating Method	LRFR	Deck Condition	
Overlay Thickness	3"	Superstructure Condition	

Truck	(LRFR)	RF	TONS	Y _{LL}	Controlling Point
AASHTO 1 (Type 3)		1.49	37.25	1.40	RC Girder, Shear @ Location 10
AASHTO 2 (Type 3S2)		1.25	45.18	1.40	RC Girder, Shear @ Location 9
AASHTO 3 (Type 3-3)		1.27	50.81	1.40	RC Girder, Shear @ Location 9
NRL		0.95	N/A	1.40	RC Girder, Shear @ Location 10
U80 Logging Overload		0.39	30.92	1.40	RC Girder, Shear @ Location 10
WSDOT OL-1		0.77	36.73	1.40	RC Girder, Shear @ Location 10
WSDOT OL-2		0.61	63.15	1.10	RC Girder, Shear @ Location 10
NBI Rating	(LRFR)	RF	TONS	Y _{LL}	Controlling Point
Inventory (HL-93)		0.52	N/A	1.75	RC Girder, Shear @ Location 10
Operating (HL-93)		0.72	N/A	1.35	RC Girder, Shear @ Location 10

Remarks:

1. NRL rating of 0.95 required evaluation of the SU vehicles. SU4, SU5, & SU6 all rate higher than 1.0. SU7 controls with a rating of 0.98. Given this Rating Factor is close to 1.0 and the very low ADTT for this bridge, it is deemed unnecessary to post for it.

- 2.
- 3.
- 4.

WSBIS Coding	
WB75-51	L
WB75-52	0.72
WB75-54	L
WB75-55	0.52
WB76-60	5

Project: Finney Creek
Subject: Shear Summary

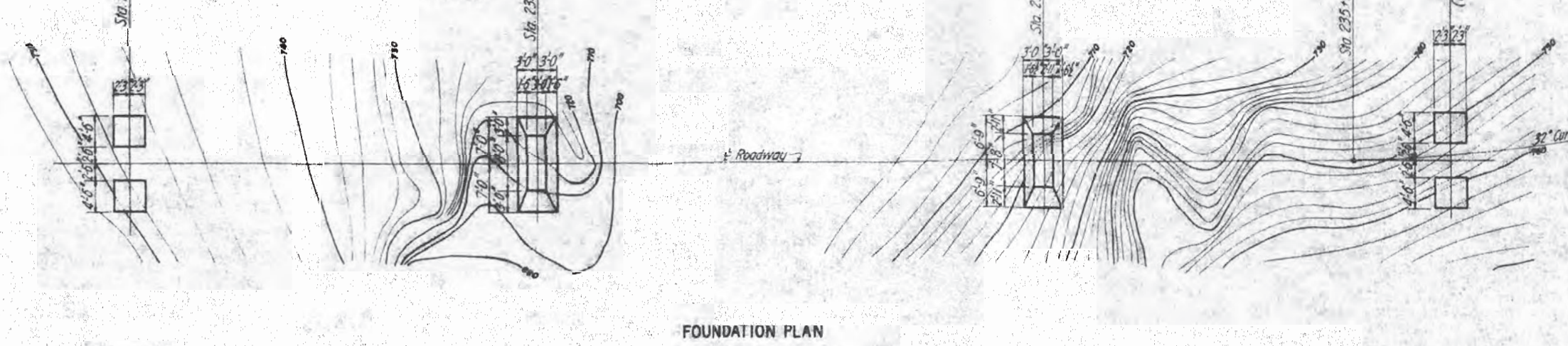
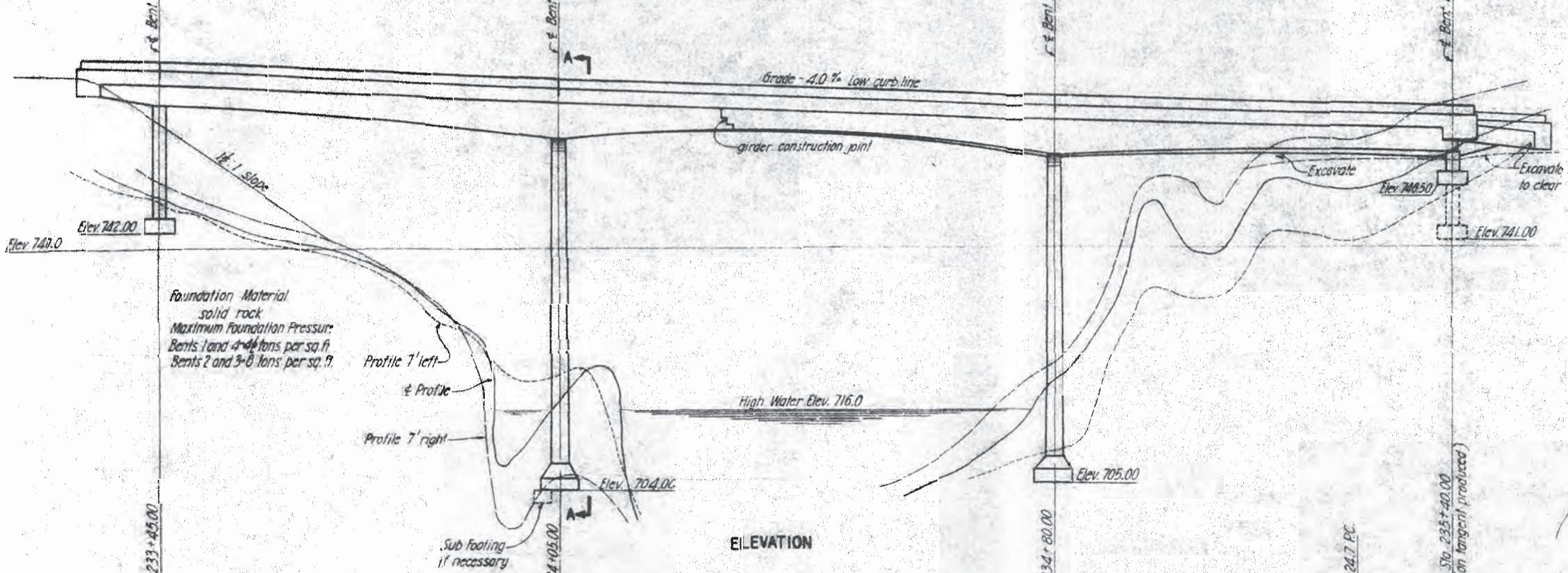
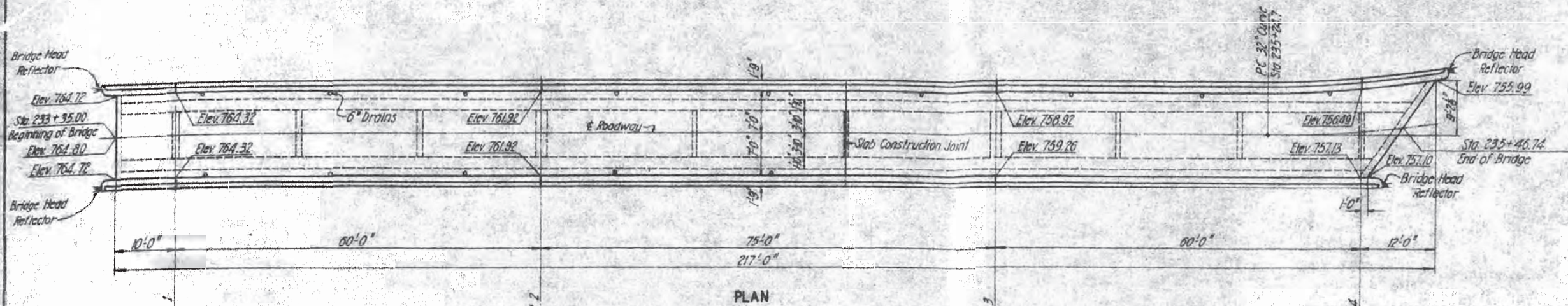
SHEARER DESIGN

Job #: 0192
 By: JLP
 Checked: _____

Strength 1 Shear

Location	SU4	SU5	SU6	SU7					
1									
2									
3									
4									
5									
6									
7									
8									
9									
10	1.35	1.19	1.07	0.98					
11									
12									
13									
14									
Rating Factor	1.35	1.19	1.07	0.98	0.00	0.00	0.00	0.00	0.00
Controlling Location	10	10	10	10					

$$\text{Rating} = (\phi M_n - M_{DL}) / M_{LL}$$



GENERAL NOTES

SPECIFICATIONS - Construction, Public Roads Administration Specification F-1 Design, A.A.S.H.O. Standard Specifications for Highway Bridges, 1949.

DEAD LOAD - Concrete, 150# per cu. ft. Paving allowance 25# per sq. ft. of roadway surface.

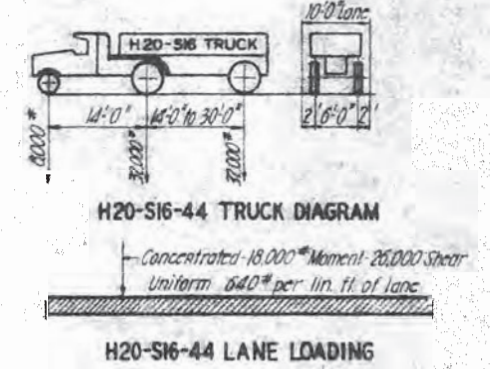
LIVE LOAD - H20-S16-44 Loading. Impact 1" $\frac{90}{L+30}$ (L = Span Length) Maximum 1" 90'.

CONCRETE - All concrete shall be Class "A". Maximum size of coarse aggregate 1 1/2". All concrete shall be mixed with Type II Portland Cement (low alkali) and with an air entraining agent. All concrete shall be vibrated. All exposed corners shall be chamfered 1/4" unless otherwise shown.

FINISHING CONCRETE - Roadway slab and curbs shall be finished according to specifications. The following surfaces shall be given a "Rubbed Finish". All faces of 9" wide rail and outside faces of curb and slab. All other concrete shall be given an "Ordinary finish".

REINFORCING STEEL - All bars shall be deformed intermediate grade steel conforming to A.S.T.M. Specifications A15-39 and A305-49. Equivalent round bars may be substituted for square bars shown. All bars in slabs shall be supported on metal chairs. Except as shown all dimensions refer to centers of bars.

BRIDGE HEAD REFLECTORS - Will be furnished by the Bureau of Public Roads. Cost of installation on rail or curb ends shall be included in the contract price for Class "A" concrete.



ESTIMATE

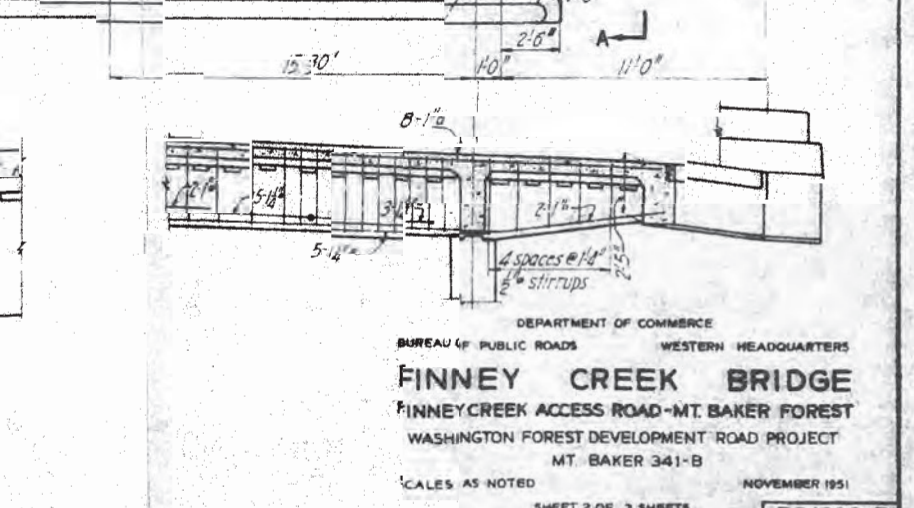
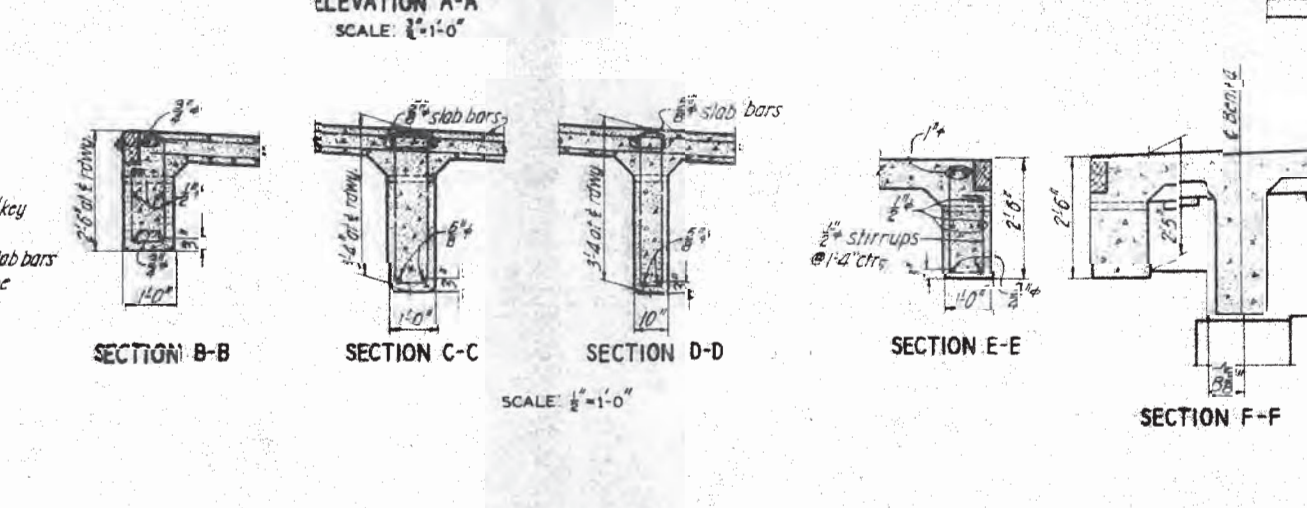
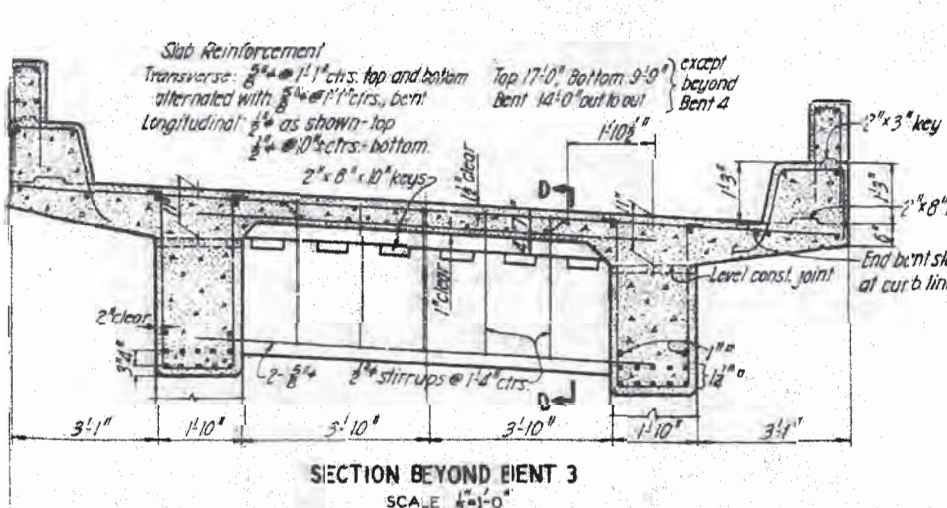
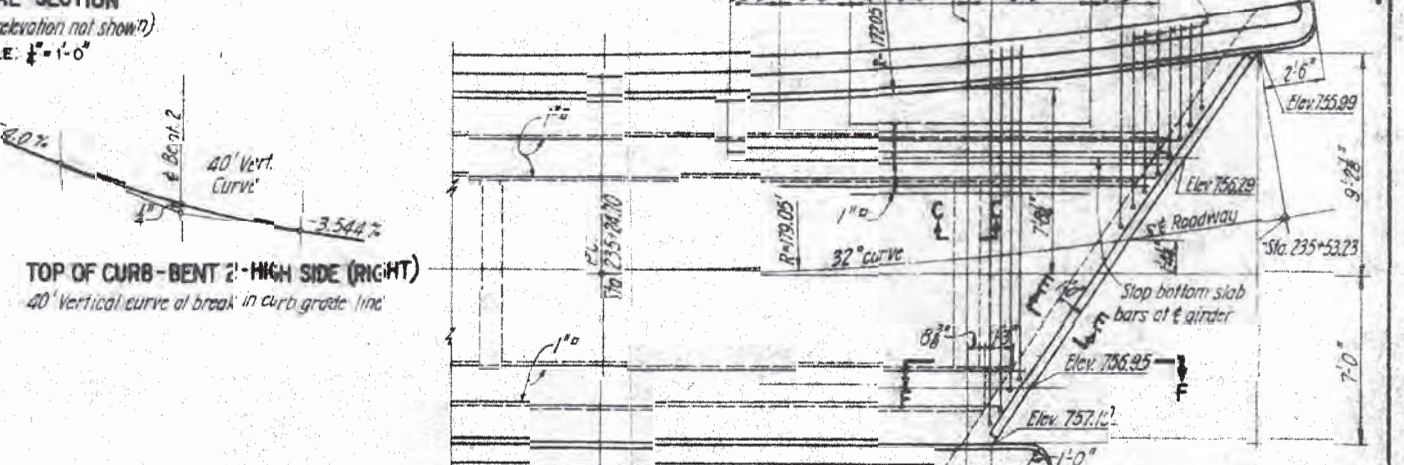
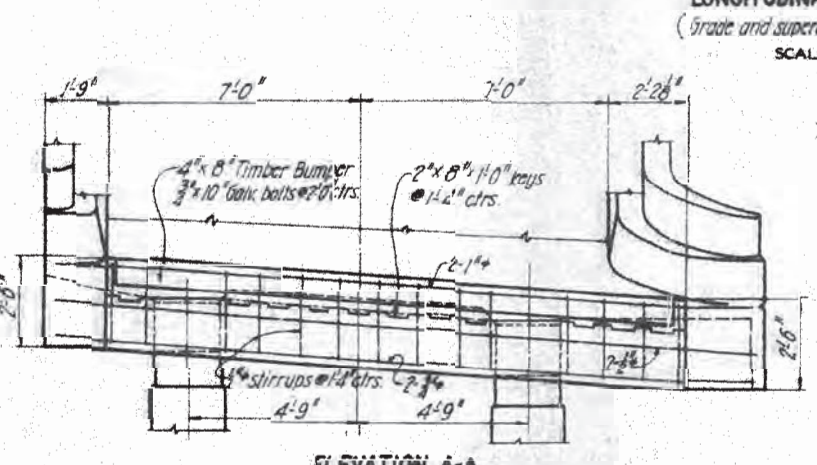
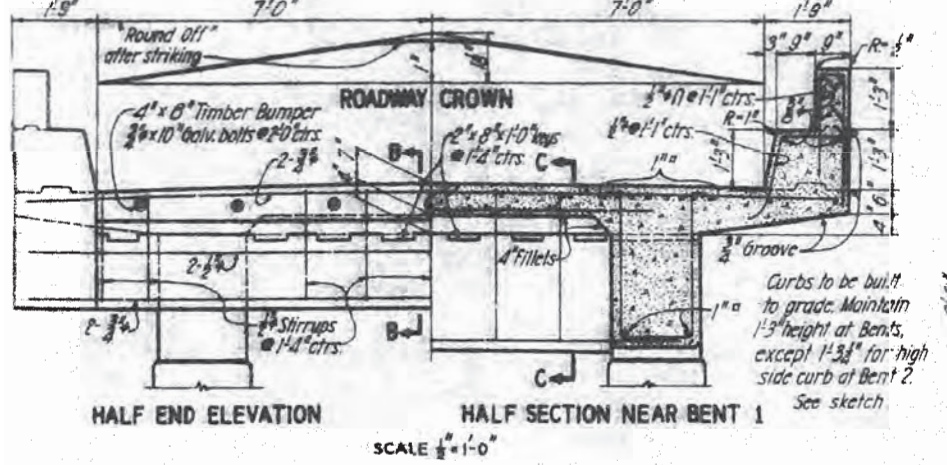
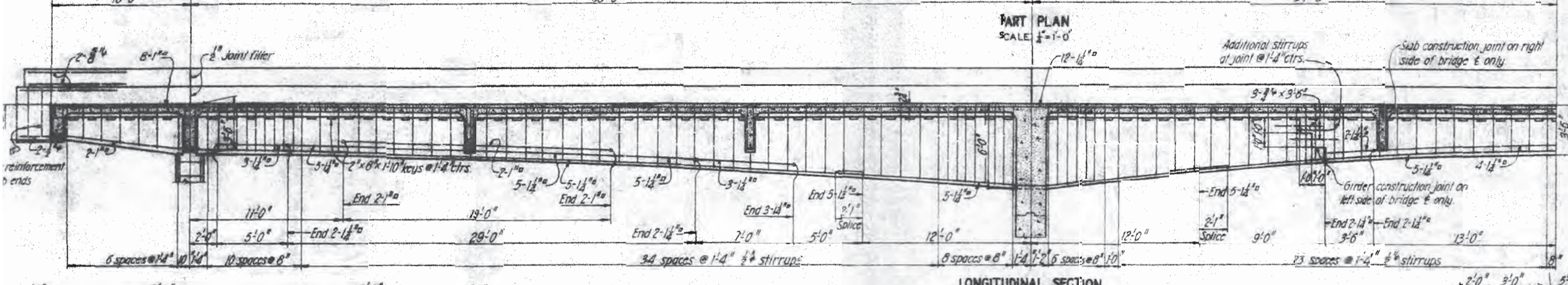
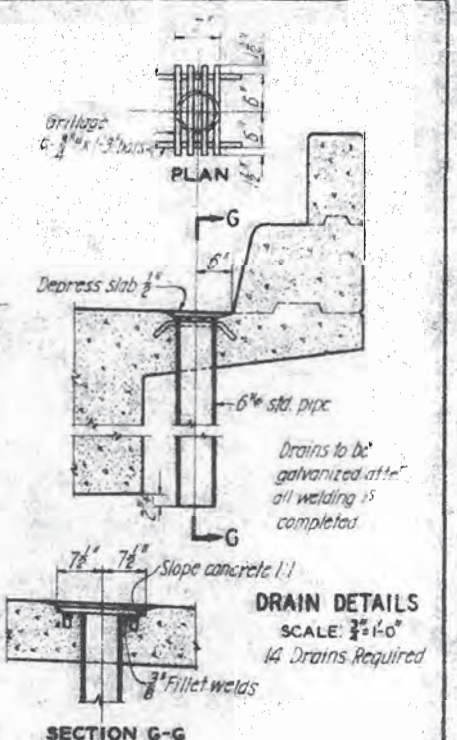
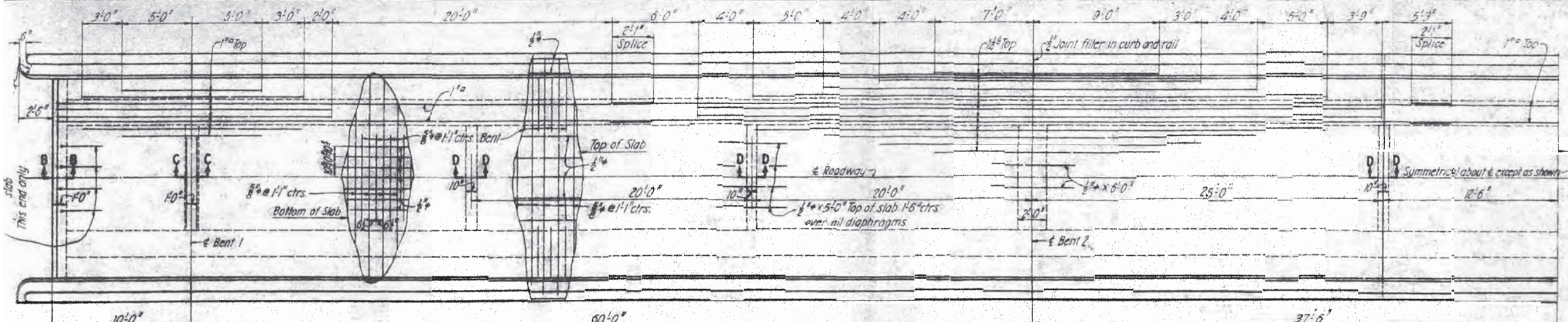
Structure Excavation	237 Cu. Yds.
Class "A" Concrete	340 Cu. Yds.
Reinforcing Steel	53,000 lbs.

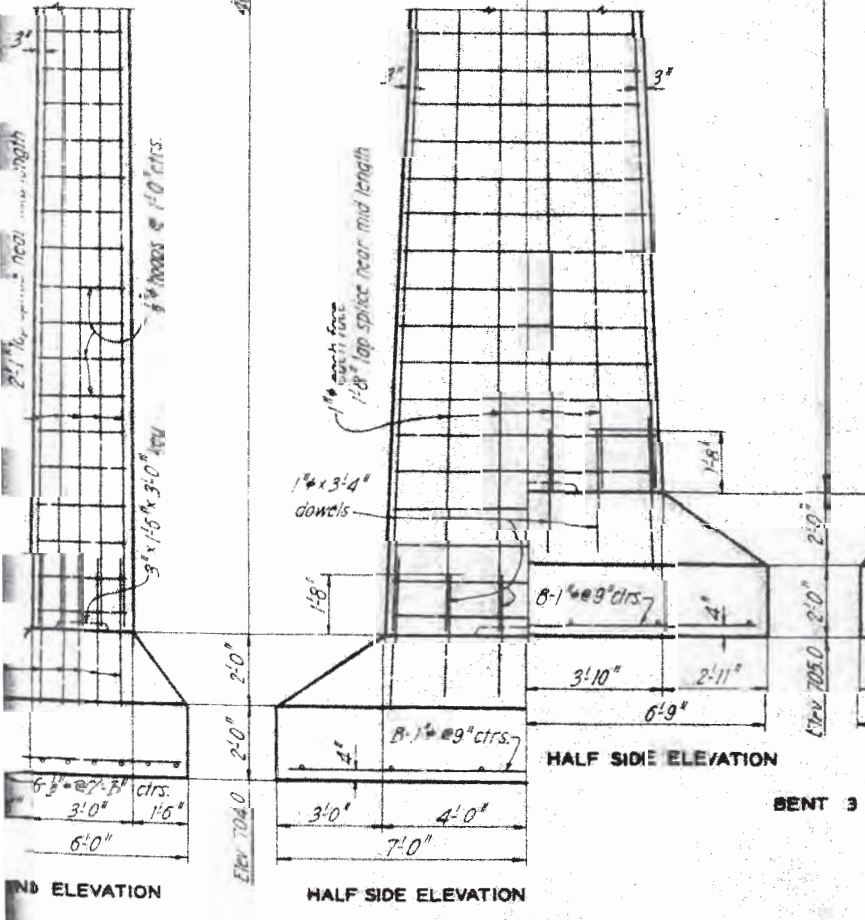
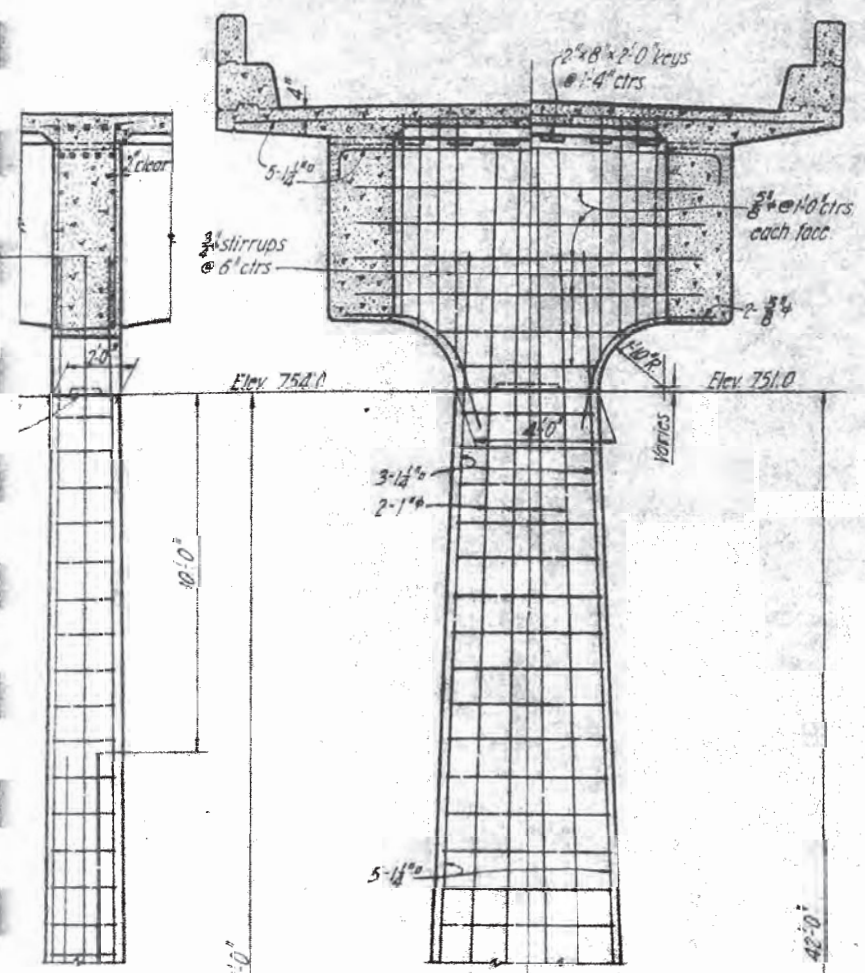
* Includes weight of drains

- POURING ORDER**
- ① Footings
 - ② Columns - Bents 1 to 4
Max. pour 26± cu. yds. (Bent 2)
 - ③ Girder stems
Max. pour 62± cu. yds.
 - ④ Slab and Fills
Max. pour 54± cu. yds.
 - ⑤ Curb and Rail

APPROVED: *Frederick L. Klein*
SUPERVISING BRIDGE ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
WESTERN HEADQUARTERS
FINNEY CREEK BRIDGE
FINNEY CREEK ACCESS ROAD - MT. BAKER FOREST
WASHINGTON FOREST DEVELOPMENT ROAD PROJECT
MT. BAKER 341-B
SCALE: 1" = 10'-0"
NOVEMBER 1951
SHEET 1 OF 3 SHEETS
RG 1090





BEINT 2
DETAILS - BENTS 2 AND 3

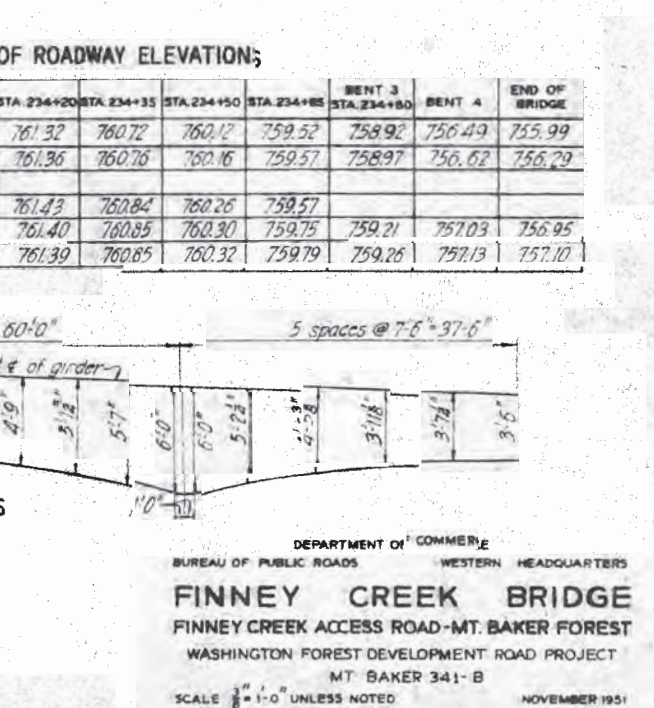
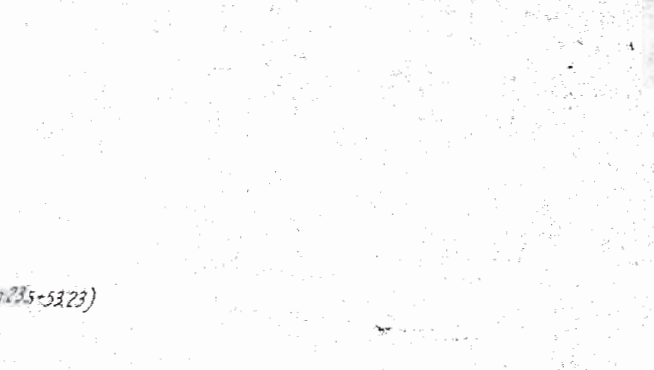
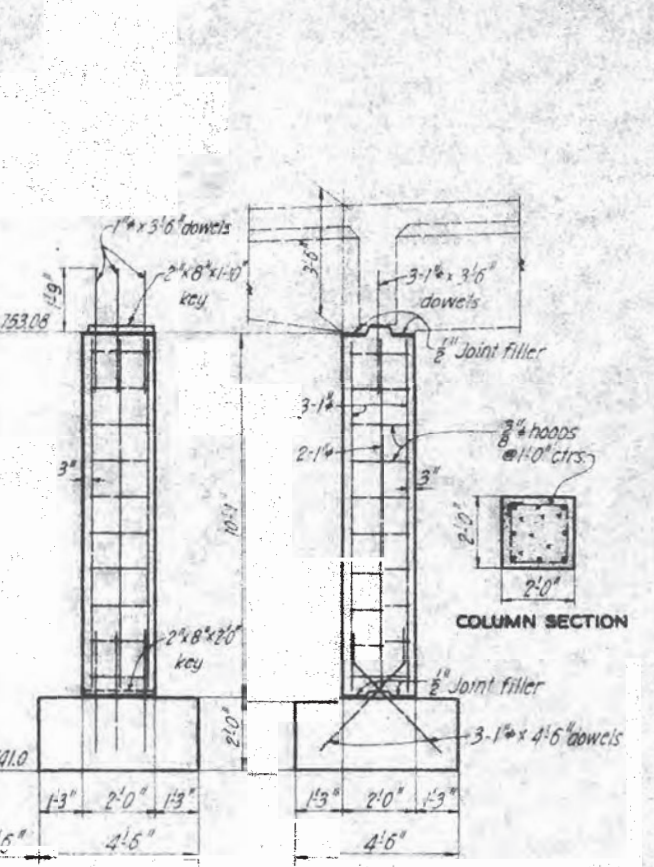
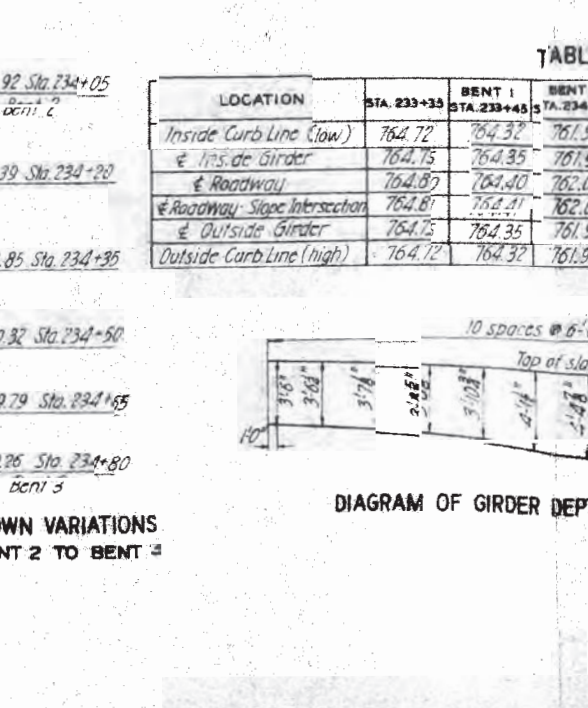
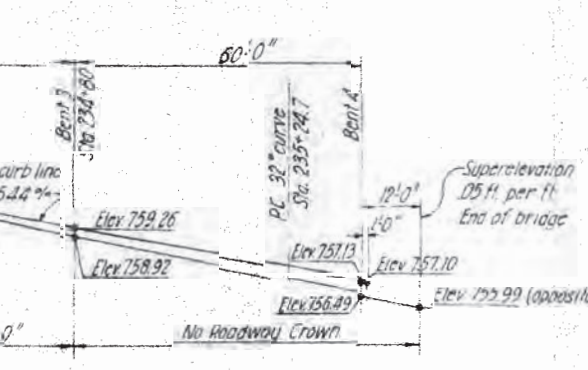
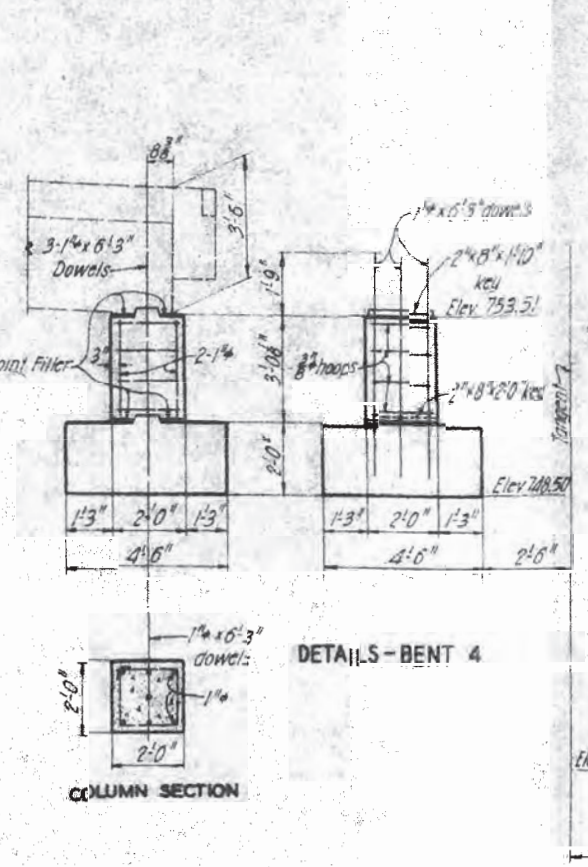
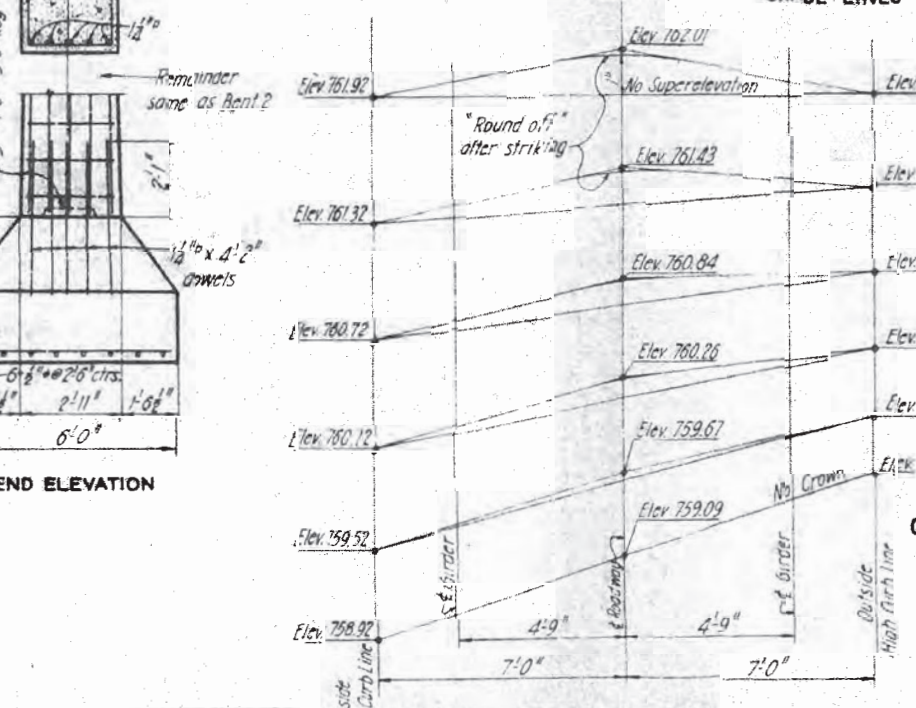
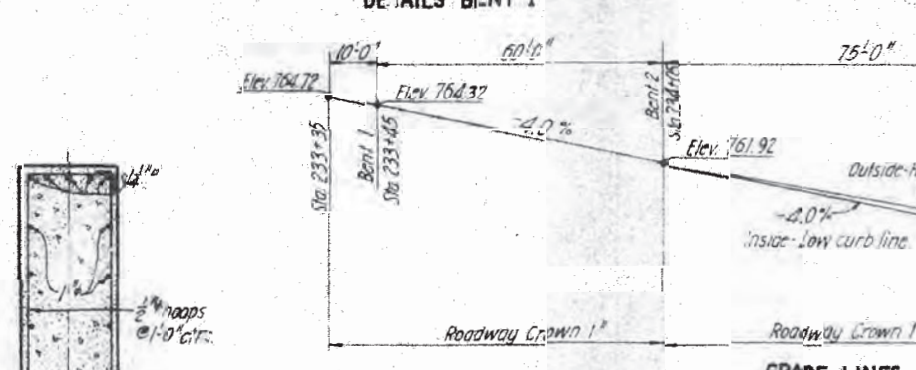
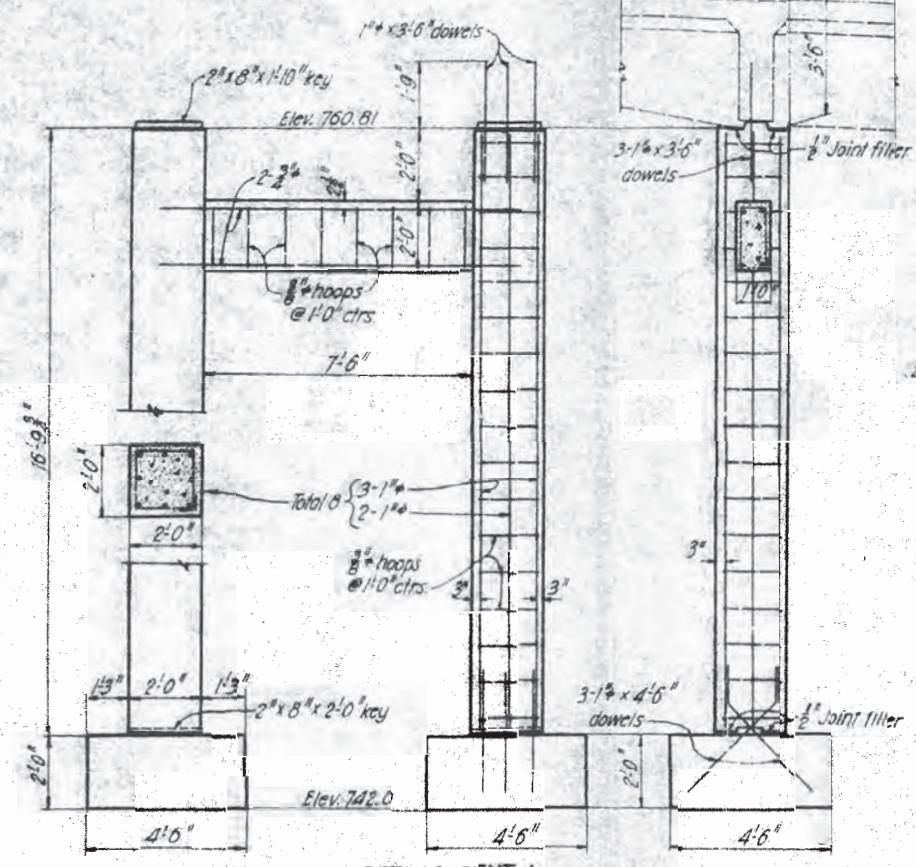


TABLE OF ROADWAY ELEVATIONS

LOCATION	STA. 233+35	BENT 1 STA. 233+45	BENT 2 STA. 234+05	STA. 234+20	STA. 234+35	STA. 234+50	STA. 234+65	BENT 3 STA. 234+80	BENT 4	END OF BRIDGE
Inside Curb Line (low)	764.72	764.32	761.92	761.32	760.72	760.12	759.52	758.92	756.49	755.99
Inside Girder	764.75	764.35	761.95	761.36	760.76	760.16	759.57	758.97	756.62	756.29
Roadway	764.87	764.40	762.00							
Roadway Slope Intersection	764.81	754.41	762.01	761.43	760.84	760.26	759.57			
Outside Girder	764.75	764.35	761.95	761.40	760.85	760.30	759.75	759.21	757.03	756.95
Outside Curb Line (high)	764.72	764.32	761.92	761.39	760.85	760.32	759.79	759.26	757.13	757.10