

GENERAL NOTES

REFERENCE shall be made to Standard Drawings SD-1-69, sheets land 2 dated 6-12-69 and BR-2-67 revised 9-17-69, and to Supplemental Specifications 927, 811 dated 1-1-69, and 836, dated 6-17-69. 808 dated 11-14-69

REFERENCE: Detail drawings of the existing structure may be examined in the office of the Bureau of Bridges in Columbus, Ohio or in the Division Office at Cleveland, Ohio.

PROPOSED WORK

1. Remove existing concrete deck, railing and sidewalks, steel beams in span 4, and forward abutment to top of footing. Portions of the footing may be removed to facilitate filling existing hole under footing with Dumped Rock.
2. Remove existing steel end dams at piers and abutments.
3. Remove existing rear abutment backwall. Care shall be taken to prevent damage to existing reinforcing steel which is to remain in place.
4. Construct north abutment
5. Patch existing concrete piers and rear abutment where required. Areas to be patched to be determined by the Engineer.
6. Provide and erect structural steel for proposed end dams and new span 4.
7. Clean and paint existing structural steel (prime coat and first finish coat)
8. Paint new structural steel
9. Construct reinforced concrete deck slab
10. Rebuild rear abutment backwall
11. Construct proposed parapet and railing
12. Complete painting of new and existing structural steel
13. Complete all contract items.

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials, 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:  
Design Loading - Ohio Highway-1931, New span 4; HS 20-44  
Concrete Class C - unit stress 1200 ps.i. for superstructure  
unit stress 1333 ps.i. for substructure  
Structural Steel- ASTM A36 - unit stress 20,000 ps.i.  
Reinforcing Steel- ASTM A615, A616 or A617- unit stress 20,000 p.s.i..

PILES at the Forward Abutment shall be driven to a minimum bearing capacity of 45 tons per pile.

UTILITY LINES on the existing bridge shall be moved temporarily to permit erection of the new span 4. All expense involved in removing, temporarily supporting and re-installing utility lines on permanent structure shall be borne by the owners of the lines.

STAINLESS STEEL FASTENERS shall be properly passivated to remove surface impurities and shall be furnished with a lustrous finish.

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp	Bending Diagrams	Mark	No.	Length	Weight	Shp
Superstructure					Abutments Continued					
S801	20	24'-3"	1295	S		A504	series of 1 to 26	8'-11" to 12'-7"	292	B
S601	180	20'-3"	5475	S		A505	6	12'-7"	79	B
S602	180	22'-2"	5993	S		A506	12	25'-9"	322	S
S603	180	20'-6"	5542	S		A507	2	35'-0"	73	S
S604	180	22'-6"	6083	S		A508	2	16'-6"	34	S
S605	812	20'-5"	24,901	S		A509	2	13'-6"	28	S
S606	series of 5 to 10	17'-6" to 4'-10"	168	S		A510	10	24'-6"	256	S
S607	series of 6 to 8	17'-7" to 1'-9"	174	S		A511	4	12'-0"	50	S
S608	series of 6 to 8	18'-1" to 6'-0"	434	S		A512	4	8'-6"	35	S
S609	series of 8 to 10	18'-0" to 1'-8"	473	S		A513	4	5'-0"	21	S
S610	series of 10 to 12	18'-6" to 2'-0"	308	S	A514	2	9'-7"	20	S	
S611	series of 8 to 10	18'-6" to 5'-8"	290	S	A515	series of 10 to 12	9'-4" to 3'-0"	129	S	
S612	16	6'-0"	144	S	A516	2	11'-3"	23	S	
S501	702	30'-0"	21,966	S	A517	series of 8 to 10	11'-0" to 6'-0"	142	S	
S502	234	14'-10"	3,620	S	A518	2	14'-8"	31	B	
S503	432	4'-0"	1,802	B	A519	2	13'-4"	28	B	
S504	432	2'-2"	976	B	Railing					
S505	216	5'-6"	1,239	B	R501	18	3'-3"		B	
S506	278	5'-7"	1,619	B	R502	8	6'-7"		B	
S507	278	5'-1"	1,474	B	R503	8	7'-2"		B	
S508	216	5'-2"	1,164	B	R504	2	5'-5"		B	
S509	78	17'-5"	1,417	S	R505	8	4'-8"		S	
S510	23	7'-5"	178	B	R506	8	16'-8"		S	
S511	23	10'-4"	248	B	R507	24	14'-4"		S	
S512	18	7'-11"	149	B	R508	8	11'-7"		S	
A801	18	26'-4"	1,266	S	R509	32	12'-5"		S	
A601	31	8'-7"	400	B	R510	48	15'-2"		S	
A602	10	11'-1"	166	B	R511	8	12'-7"		S	
A603	52	11'-3"	879	B	R512	40	15'-8"		S	
A604	33	5'-5"	268	B	R513	8	9'-8"		S	
A605	33	4'-8"	231	B	Replacement bars					
A501	6	4'-8"	29	S	RE801	1	7'-6"		S	
A502	2	20'-6"	43	S	RE601	3	6'-11"		S	
A503	52	7'-4"	398	B	RE501	2	6'-7"		S	

- ① = Vary each by 3'-2"
- ② = Vary each by 2'-5"
- ③ = Vary each by 2'-4"
- ④ = Vary each by 1'-10"
- ⑤ = Vary each by 1 3/4"
- ⑥ = Vary each by 8 1/2"

BAR SIZE is indicated in the bar mark. The first digit where three digits are used indicates the bar size number. For example A601 is a number 6 size bar.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super	Abuts	Piers	Gen'l	As Built
202	Lump	Sum	Portions of existing structure removed				Lump	
503	112	Cu. yd.	Unclassified excavation		112			
505	Lump	Sum	First test pile		Lump			
507	430	Lin. ft.	Steel piles 12BP53		430			
509	92,375	Lb.	Reinforcing steel	87,132	5,243			
511	462	Cu. yd.	Class C concrete, superstructure	462				
511	80	Cu. yd.	Class C concrete, abutments		80			
512	58	Lin. ft.	Premolded sealing strip		58			
513	206,200	Lb.	Structural steel (New)	206,200				
514	206,200	Lb.	Field painting of new structural steel	206,200				
514	Lump	Sum	Cleaning and painting existing structural steel (one prime spot coat and two complete field coats)	Lump				
516	62	Sq. ft.	1" Preformed expansion joint filler		62			
516	39	Sq. ft.	1/4" Preformed expansion joint filler		39			
516	8	Each	Self-lubricating bronze bearing plate assemblies	8				
517	640.67	Lin. ft.	Railing (aluminum rail and posts, concrete parapets and end posts)	640.67				
518	76	Lin. ft.	6" Perforated helical C.M.P., 707.01		76			
518	34	Lin. ft.	6" Non-perforated helical C.M.P., including specials 707.01		34			
518	27	Each	Scuppers, including supports, galvanized	27				
518	45	Cu. yd.	Porous backfill		45			
519	40	Sq. ft.	Patching concrete structures			40		
601	1,000	Cu. yd.	Dumped rock fill, Type A				1000	
808	462	Units	Chemical admixture for concrete, Type A, B, or D	462				

\* Includes 204 lbs. for structural steel and casing, For gas line installation (See sheet 5)  
100% East Ohio Gas Co.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

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REINFORCING STEEL LIST, NOTES  
And ESTIMATED QUANTITIES

BRIDGE No. LAK-283-0472  
OVER Chagrin River

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
FFE	JDR	G.F.J.	W.C.K.	BFG	7-22-70	
			7-14-70			