

LAKE COUNTY
LAK-91-547

REFERENCE shall be made to Supplemental Specifications 808 dated 1-1-71 and 927 dated 1-1-71.

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 - 85 pounds per square foot of sidewalk area

Concrete Class C - unit stress=1,200 p.s.i. for superstructure; unit stress=1,353 p.s.i. for substructure

Structural Steel - ASTM A588 - unit stress=27,000 p.s.i.

Reinforcing Steel - ASTM A615, A616, or A617 - unit stress=20,000 p.s.i. - if bars in accordance with ASTM A616 are provided they shall be subject to bend tests as per AASHTO Designation M42-70.

UTILITY LINES: All expense involved in relocating the affected utility lines shall be borne by the Owners. The Contractors and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either would be held to a minimum.

MAINTENANCE OF TRAFFIC: Two lanes of traffic in each direction with a minimum horizontal width of 26'-0" and minimum vertical clearance of 13'-6" shall be maintained on S.R. 91 at all times.

UNDERGROUND UTILITIES: The locations of the underground utilities shown on the plans have been obtained by diligent checks and searches of available records. It is believed that they are essentially correct, but the State of Ohio does not guarantee their accuracy or completeness.

FEDERAL AID CONSTRUCTION

IDENTIFICATION SIGNS: The Contractor shall furnish, erect, maintain and subsequently remove Federal Aid construction identification signs at each of the following approximate locations:

1. On S.R. 91, Sta. 287+00, 52' Right
2. On S.R. 91, Sta. 291+50, 52' Left

Sign details shall be specified on Standard Drawing FACI-1 "Code N-54(1)-96(3)."

The signs shall be erected in accordance with Standard Drawing FACI-2. Additional requirements shall be in accordance with notes in the proposal.

FOUNDATION BEARING PRESSURE:

Abutment footings are designed for a maximum bearing pressure of 1.75 tons per sq. ft.

PROTECTION OF CONCRETE SURFACES

All surfaces of the piers above ground line and visible surfaces of the abutments which will be exposed to rust-laden water from corrosion resistant steel during initial weathering shall receive a clear vinyl resin coating to protect against absorptive staining. The coating shall be applied after the concrete has received a final surface finish including any grout cleaning or rubbing and before the erection of the structural steel. Waterproof membrane curing compound and concrete curing and protective membrane, Supplemental Specification 836, shall not be used on the surfaces coated with clear protective coating. Such surfaces shall be water cured or, at the Contractor's option, two full coats of clear protective coating, each approximately 1-1/3 mils dry film thickness, may be applied to act as a combination curing compound and anti-staining agent. The agent shall be applied by brush or roller, or by spraying, so that the surface of the concrete is completely and uniformly coated at the rate of one gallon per 200 square feet. This rate of application will provide a dry film thickness of 1-1/3 mils. If running or sagging occurs, the material shall be applied in two or more coats of approximately equal thickness. Not less than 10 minutes shall elapse between applications. When applied by spraying, the coating material may be thinned with not more than 10 percent toluene. The composition of the clear protective coating shall be as follows:

	Percent by Weight
Vinyl Resin *	25.0 min.
Methyl Ethyl Ketone Solvent	37.0 min.
Toluene Solvent	37.0 min.

*The resin shall be a vinyl chloride-acetate copolymer containing 86 percent vinyl chloride and 14 percent vinyl acetate. The viscosity of a 22 percent by weight solution of resin in a solvent, consisting of equal parts of Methyl Isobutyl Ketone and Toluene, shall be 250-500 centipoises at 77°F. The resin shall be Union Carbide's VYHH grade, or approved equal.

Coating Properties: Weight per gallon at 77°F, lb. 7.6 min.
Consistency, Viscosity at 77°F, KU 60-70
Color Clear and Colorless
Drying Time, hr. 1/2 max.

The cost of this application shall be in the unit price bid for item Special, Sq. ft., Protection of Concrete Surfaces.

BLAST CLEANING FASCIA GIRDERS:

As a final operation after the deck has been placed, blast clean as per 514.04 the outside surfaces and bottom surface of the bottom flange of the fascia girders to assure uniform weathering of the A588 steel. Include with Item 513 for payment.

FIELD OFFICE

The Contractor shall provide a suitable field office having a minimum of 150 Sq. Ft. of floor space and in addition to the requirements of Item 619, he shall provide and maintain sanitary provisions as per 107.06.

All the above is included in the lump sum price bid for Item 619, Field Office.

LOCATIONS OF GUARDRAIL

The locations of guardrail runs as shown in these plans are subject to adjustment to assure that the planned installations will afford maximum protection for traffic.

ESTIMATED QUANTITIES		BR. NO. LAK-91-0547			TYPE CODE		Y009	
ITEM	TOTAL	UNIT	DESCRIPTION	SUPER-STRUCTURE	EAST RAMP	WEST RAMP	GENERAL	
202	15	Lin.ft.	Guardrail Removed				15	
203	91	Cu.yd.	Embankment				91	
505	421	Cu.yd.	Unclassified Excavation		207	214		
509	33,184	Lbs.	Reinforcing Steel	2,263	30,921			
511	23	Cu.yd.	Class C Concrete, Superstructure	23				
511	289	Cu.yd.	Class C Concrete, Ramps and Abutment walls		146	143		
511	100	Cu.yd.	Class C Concrete, Footings		50	50		
513	39,000	Lbs.	Structural Steel (ASTM A588)	39,000				
516	44	Lin.ft.	Joint Sealer (705.01 or 705.02)		18	26		
518	68	Lin.ft.	6"Ø Standard Pipe Downspout Alloy Steel (707.11) or Hot-Dip Galvanized Steel including Specials		33	35		
518	4	Each	Scuppers including supports	2	1	1		
608	1256	Sq.ft.	4" concrete walk		496	760		
659	620	Sq.yd.	Seeding and Mulching		286	334		
659	0.06	Ton	Commercial Fertilizer (12-12-12)		0.03	0.03		
607	97	Lin.ft.	Fence, type CL, including specials (8 ft., as per plan)(710.03)	97				
607	850	Lin.ft.	Fence, type CL, including specials (5 ft., as per plan)(710.03)	18	285	293	254	
606	425	Lin.ft.	Guardrail, type 5		246	179		
606	4	Each	Anchor assembly		2	2		
808	23	Units	Chemical Admixture for Concrete Type A, B or D	23				
Special	400	Sq.ft.	Protection of Concrete Surfaces		200	200		
619	Lump	Lump	Field Office					
623	Lump	Lump	Construction Layout Stakes					
614	Lump	Lump	Maintaining Traffic					

BURGESS & NIPLÉ LIMITED — CONSULTING ENGINEERS
COLUMBUS, OHIO 2/9

GENERAL NOTES
ESTIMATED QUANTITIES
BR. NO. LAK-91-0547
OVER
S.R. 91
LAKE COUNTY Sta. 288+64.00

DESIGNED WMA	DRAWN LBC	TRACED 3-15-73	CHECKED TEH	REVIEWED DATE MAR 3-15-73	REVISED
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