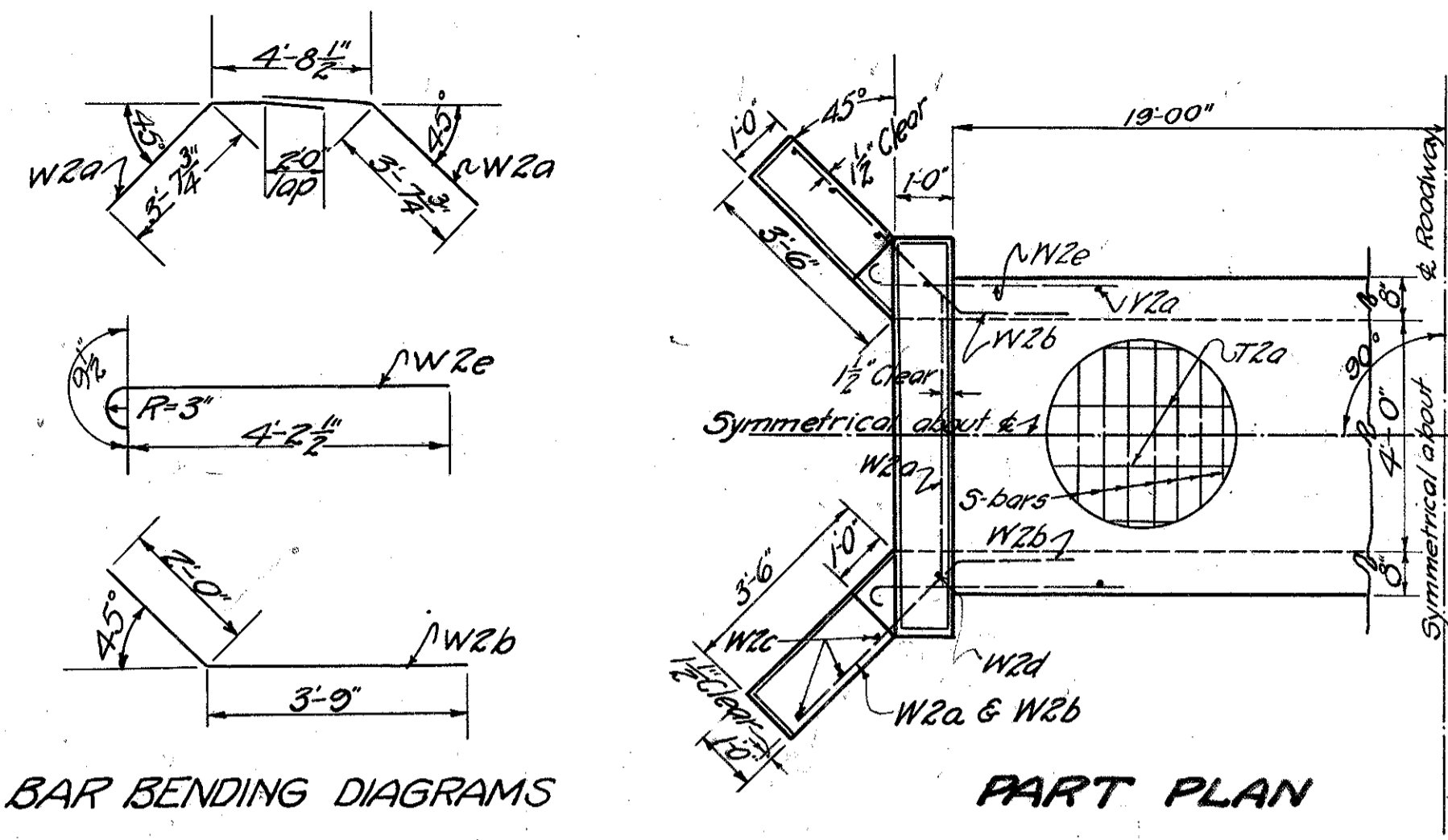


FED.AID DIST No	STATE	FED.AID PROJECT	FISCAL YEAR
	OHIO		

S.H. I.C.H. 563 LAKE
SEC. F COUNTY



All exposed edges to receive 3/4" bevel.
Two way traffic shall be maintained at all times by constructing in two sections, or if one-way traffic is necessary, watchmen shall be provided throughout the day and night.
STD. 4'x3'x40' CONCRETE BOX

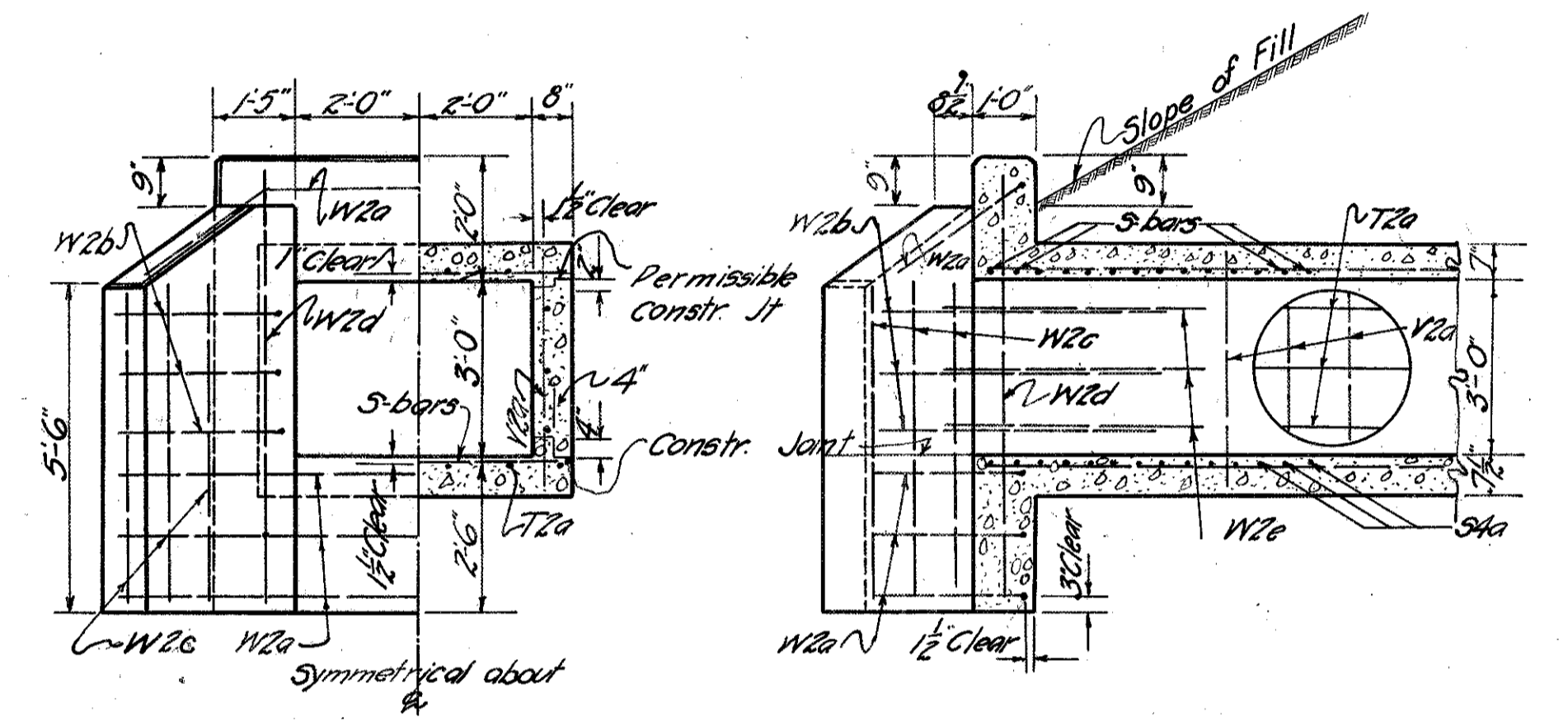
SUMMARY OF QUANTITIES

1-5/2 concrete	20.5 cu.yds.
Reinforcing Steel	1833 Lbs.
Remove old Pavement	20 sq.yds.
New Slab 1-5/2 concrete (pav.comp)	20 sq.yds.
Remove 24" cast iron pipe	60 lined feet
Excavation (Culvert)	90 cu.yds.
Embankment	23 cu.yds.
Channel excavation	30 cu.yds.

NEW SLAB REINFORCING STEEL

MARK	SIZE	LENGTH	N°	WEIGHT
SPACER	3/8" φ	15'-6"	4	23#
MAIN	3/4" φ	10'-0"	30	438

Included for payment with 19 sq. yds. of New Slab.



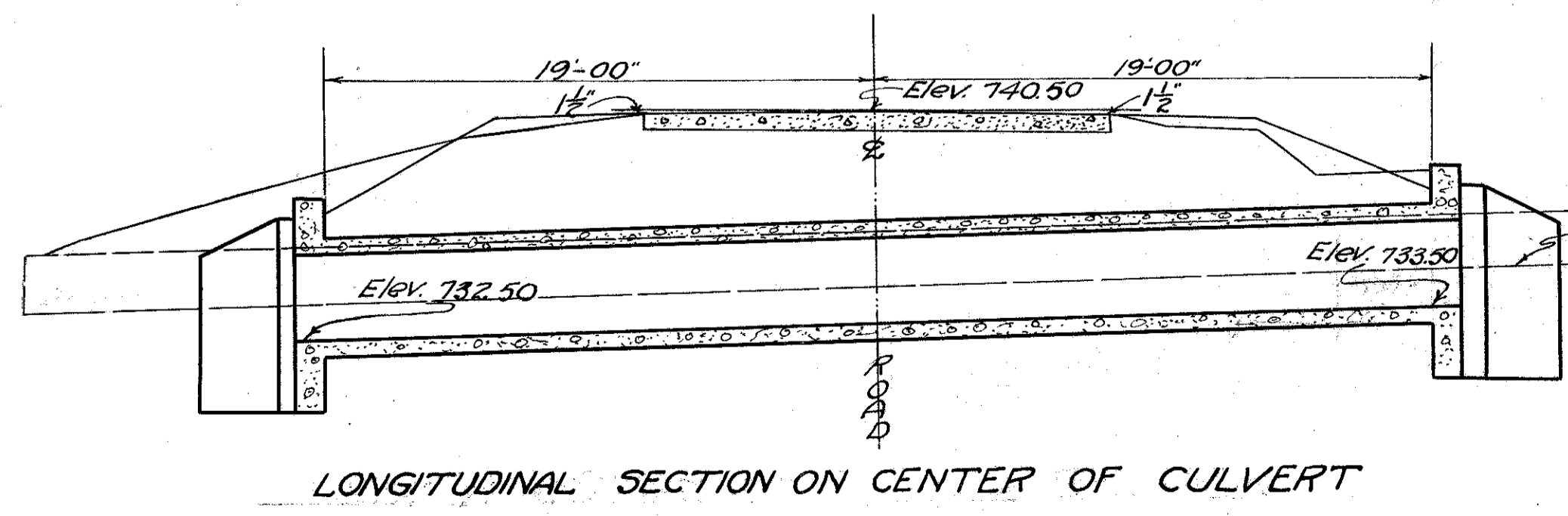
HALF END VIEW HALF SEC. LONGITUDINAL SEC. ON E.

TWO ENDS (HEADWALLS AND WINGS)

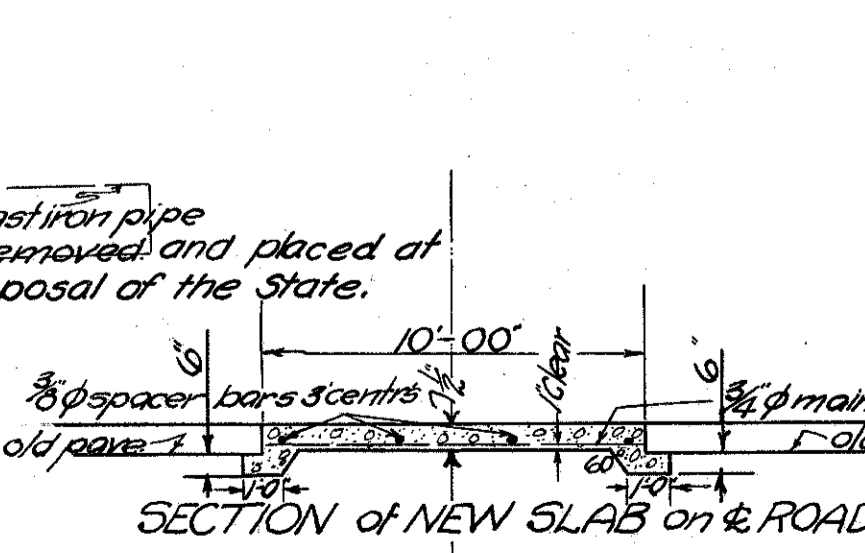
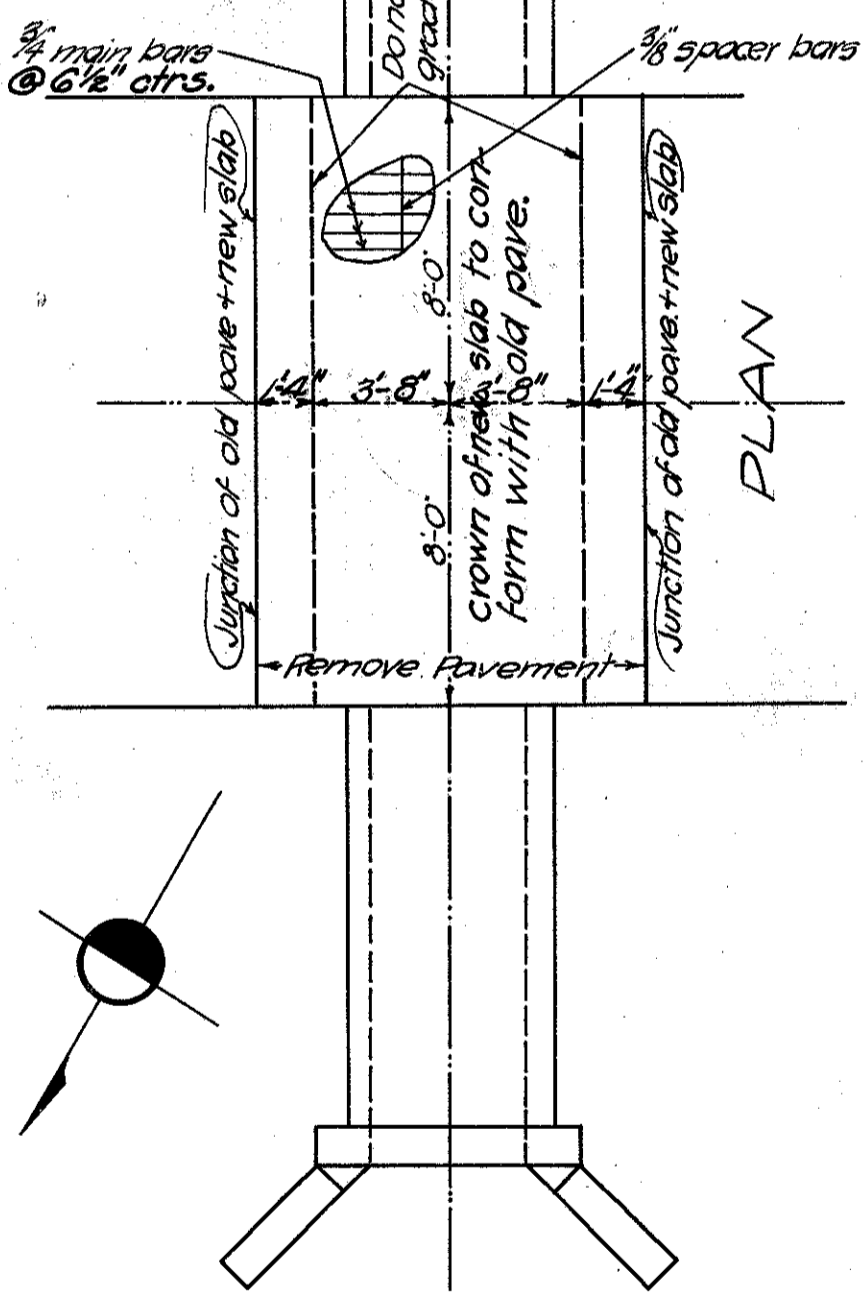
STEEL REINFORCEMENT										TOTAL	TOTAL							
W20a	W20b	W20c	W20d	W20e	5 Bars		V20a	T20a		STEEL	CONCR.							
No.	Length	No.	Length	No.	Length	Mark	Size	No.	Length	Lin. Ft.	LBS	Cu.Yds.						
16	7'-0"	12	5'-9"	12	5'-6"	4	7'-0"	12	5'-0"	544	3/8" φ	3	5'-1"	4	4'-0"	21	291	5.7

STD. DRAWING BC-A
BARREL OF CULVERT

STEEL REINFORCING										TOTAL	TOTAL		
5 Bars					V20a Bars 3/4" φ			T20a Bars 1/2" φ			STEEL	CONCR.	
MARK	SIZE	NO.	LENGTH	SPACING	NO.	LENGTH	SPACING	NO.	LENGTH	IN TOP & BOTTOM SIDES	TOTAL LENGTH	STEEL LBS.	TOTAL CONCR. CU.YDS.
3/8a	3/8" φ	183	5'-1"	5"	76	4'-0"	1'-0"	6	8	14	39'-6"	154.2	14.8



LONGITUDINAL SECTION ON CENTER OF CULVERT



SECTION of NEW SLAB on ROAD

TEMPORARY BRIDGE AND APPROACH DESCRIPTION
REFERENCE Page 2

Temporary bridge and approaches on S.H. I.C.H. 324 SECA. Lake County Required temporary bridge 43 long. Minimum width 17' between felloe guards 18' between railings. Floor elevation not more than 1'-6" below present pavement (Three 14 ft. panels.)
Floor 3" oak plank spiked to alternate joists. Joists to be 3"x12" oak or other suitable material 15" centers.
Felloe guards (3"x6") to be hook bolted to outside joists every 4 ft.
Guard rail each side consisting of two 2"x6" supported at approx. 7 ft. spacing by 3"x6" posts adequately braced.
Bridge and approaches to be built on right of way provided by State adjacent to and east of present road. The alignment shall be free of sharp angles. Suitable end connections with present pavement required.
All timber shall be sound and of approved quality.
Suitable parts of old structure may be used in temporary structure.
Alternate arrangement may be used subject to approval of Director.
All work and materials subject to approval of Div. Dep. Director.
Temporary Bridge and Approaches to be maintained in approved condition by contractor.
Each bent shall consist of 5 piles, (not less than 6" tip and 10" butt) with a 10"x10" cap and 3"x6" sway bracing.
The approaches shall be not less than 22 ft. wide with a smooth gravel, crushed stone or slag surface over a width of at least 18 ft.
The bridge and approaches shall be removed upon completion of project.

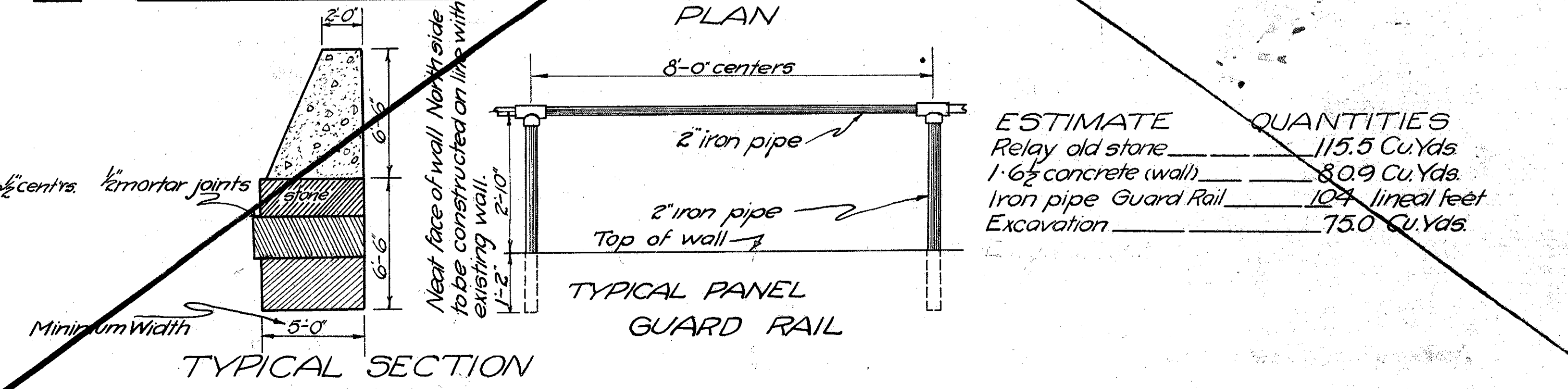
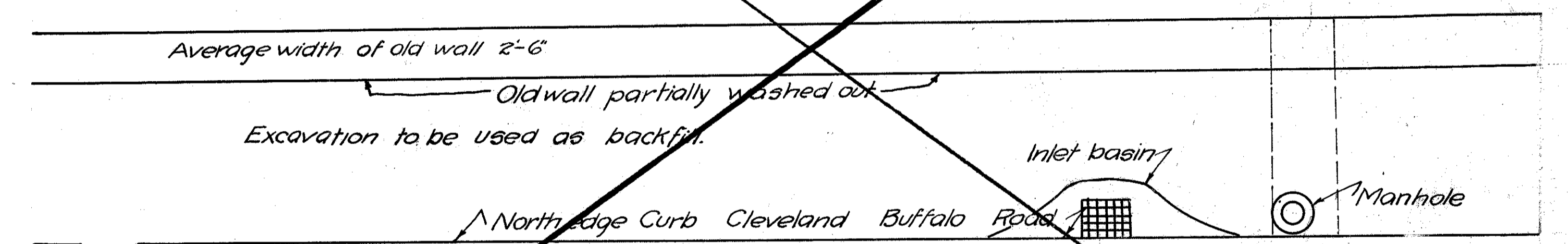
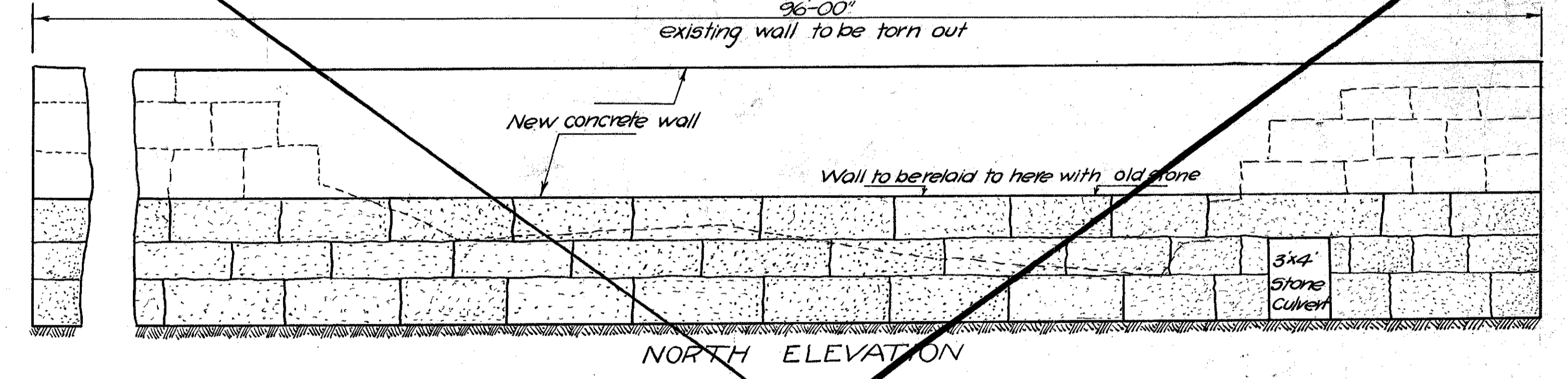
TEMPORARY BRIDGE AND APPROACH DESCRIPTION
REFERENCE Page 3

Temporary bridge and approaches on S.H. I.C.H. 153 Sec. F Lake County
Required temporary Bridge 24 Ft. long. Minimum width 17' between felloe guards, 18' between railings. Floor elevation not more than 1'-6" below existing pavement (Two 12 ft. panels.)
Floor 3" oak plank spiked to alternate joists. Joists to be 3"x12" oak or 15" centers other suitable material may be substituted for the oak joists.
Felloe guards (3"x6") to be hook bolted to outside joists every 4 ft.
Guard rail each side consisting of two 2"x6" supported at approx. 6 ft. spacing by 3"x6" posts adequately braced.
Bridge and approaches to be built on right of way provided by state adjacent to and south of present road. The alignment shall be free of sharp angles. Suitable end connections with pavement required.
All timber shall be sound and of approved quality.
Old bridge superstructure to be removed and placed in accessible spot.
Suitable parts of old structure may be used in temporary structure.
Alternate arrangement may be used subject to approval of director.
All work and materials subject to approval of Div. Dep. Director.
Temporary bridge and approaches shall be maintained in approved condition by contractor.
Each bent shall consist of 5 piles, (not less than 6" tip and 10" butt) with a 10"x10" cap and 3"x6" sway bracing.
The approaches shall be not less than 22 ft. wide with a smooth gravel, crushed stone or slag surface over a width of at least 18 ft.
The bridge and approaches shall be removed upon completion of project.

FED.AID DIST No	STATE	FED.AID PROJECT	FISCAL YEAR
	OHIO		

S.H. I.C.H. 2 LAKE
SEC. H2 COUNTY

VOID



ESTIMATE QUANTITIES

Relay old stone	115.5 Cu.Yds.
1-6 1/2 concrete (wall)	8.09 Cu.Yds.
Iron pipe Guard Rail	104 lined feet
Excavation	75.0 Cu.Yds.