

773

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MAH-680-5.08/5.57
CITY OF YOUNGSTOWN
MAHONING COUNTY
DECK REPLACEMENT

OHIO
FHWA
REGION 5
FEDERAL
PROJECT

IM-680-9(38) BR-22-93

Under authority of section 4511.21, division (I) of the revised code of Ohio, the revised prima facie speed limits as indicated herein are determined to be reasonable and safe, and are hereby established for the duration of this project. The prima facie speed limit or limit hereby established shall become effective when appropriate signs giving notice thereof are erected.

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1993 SPECIFICATIONS

The standard specification of the State of Ohio, Department of Transportation, including changes and supplemental specifications list in the proposal shall govern this improvement.

LINE DATA

BEGIN WORK : STA. 978+18.25
END WORK : STA. 1007+89.08

MAH-680-5.08

BEGIN PROJECT : STA. 978+18.25
END PROJECT : STA. 981+80.75

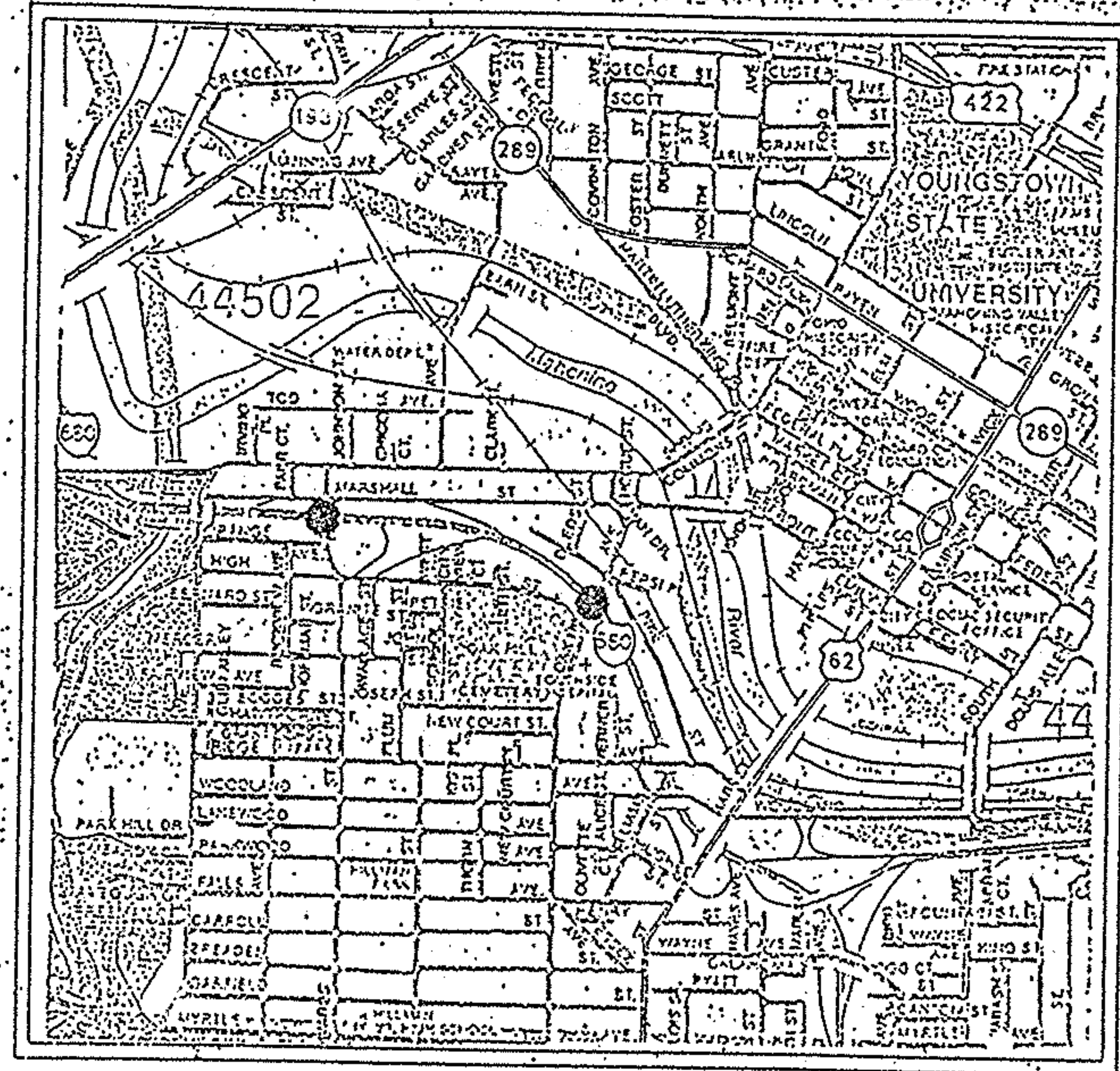
LENGTH OF PROJECT = 362.5 L.F.

MAH-680-5.57

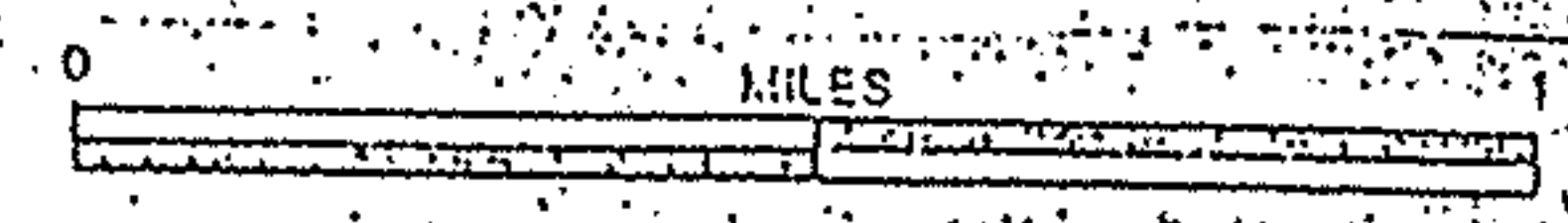
BEGIN PROJECT : STA. 1004+06.94
END PROJECT : STA. 1007+89.08

LENGTH OF PROJECT = 382.1 L.F.

TOTAL LENGTH OF PROJECT = 744.6 L.F. OR 0.14 MILE
TOTAL LENGTH OF WORK = 2970.8 L.F. OR 0.56 MILE



LOCATION MAP



Portion to be improved _____
State & Federal Routes _____
Other Roads _____

SUPPLEMENTAL SPECIFICATIONS	
802	4-13-90
852	6-10-87
910	5-20-91
921	12-4-72

Approved: *[Signature]*
Date: 5-22-93 District Deputy Director of Transportation

Approved: *B.D. Hankins* DFT
Date: 6-10-93 Engineer, Bureau of Bridges and Structural Design

Approved: *Alexander H. Hynds*
Date: 6-18-93 Deputy Director of Operations

Approved: *[Signature]*
Date: 6-18-93 Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS						
AS-1-81	11-27-81	MC-9.3	10-30-92	HL-10.11	5-1-87	HL-30.33
BR-1	5-29-79	MC-9.4	10-30-92	HL-10.12	5-1-87	HL-40.10
EXJ-4-87	1-5-89	PCB-91	4-1-80	HL-10.13	5-1-87	HL-50.11
SD-1-69	6-12-69	HW-48	4-1-80	HL-20.11	5-1-87	HL-50.21
BP-2.2	2-21-92	I-3A&B	4-1-80	HL-20.13	5-1-87	HL-60.11
BP-3.1	2-21-92	I-3C&D	4-1-80	HL-20.14	5-1-87	HL-60.12
BP-5.1	2-21-92	MT-95.31	10-10-88	HL-20.15	5-1-87	HL-60.31
GR-1.1	5-6-91	MT-95.32	8-25-89	HL-20.31	5-1-87	TC-41.20
GR-1.2	10-30-92	MT-95.40	10-1-92	HL-30.11	5-1-87	TC-52.10
GR-2.1	5-6-91	MT-99.10	11-14-86	HL-30.21	5-1-87	TC-52.20
GR-3.1	5-6-91	MT-102.10	8-25-89	HL-30.22	5-1-87	MHI-71
GR-3.2	5-6-91	MT-105.10	7-1-92	HL-30.31	5-1-87	
MC-2	5-6-91	MT-105.11	7-1-92	HL-30.32	5-1-87	

Plan Prepared By :
OHIO Department of Transportation
District 4
BRIDGE OFFICE

Project :
Date of Letting _____, 1993 Contract No. _____

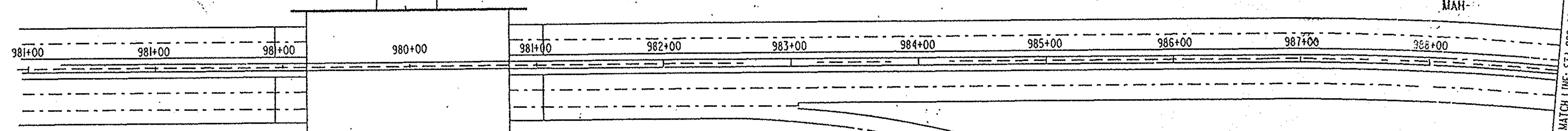
8-31-93

F.H.V.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		

2
44

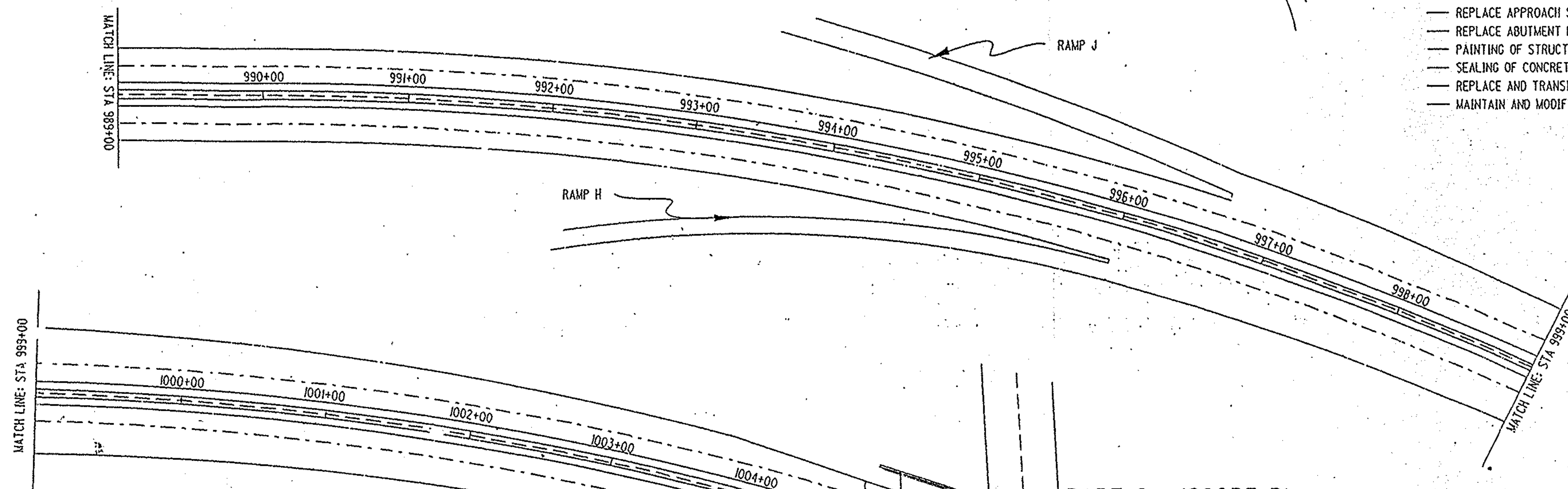
MAH-680-0508/0557

PART 1 : (SCOPE A) MAH-680-0508



PART 1 SCOPE A: MAH-680-0508

- REPLACE CONCRETE DECK AND PARAPETS
- INSTALL NEW STRIP SEAL EXPANSION JOINTS
- REPLACE APPROACH SLABS
- REPLACE ABUTMENT BACKWALLS
- PAINTING OF STRUCTURAL STEEL, SYSTEM OZEU
- SEALING OF CONCRETE SURFACES WITH EPOXY
- REPLACE AND TRANSITION MEDIAN BARRIER WALL
- MAINTAIN AND MODIFY HIGHWAY LIGHTING



PART 2 : (SCOPE B) MAH-680-0557

PART 2 SCOPE B: MAH-680-0557

- REPLACE CONCRETE DECK AND PARAPETS
- INSTALL NEW STRIP SEAL EXPANSION JOINTS
- REPLACE APPROACH SLABS
- REPLACE ABUTMENT BACKWALLS
- PAINTING OF STRUCTURAL STEEL, SYSTEM OZEU
- SEALING OF CONCRETE SURFACES WITH EPOXY
- REPLACE AND TRANSITION MEDIAN BARRIER WALL
- MAINTAIN AND MODIFY HIGHWAY LIGHTING
- REPAIR PIER #1
- INSTALL DRAINAGE SYSTEM

EXISTING MONUMENT LOCATIONS

STATION	DESCRIPTION	LOCATION FROM G. (UP STATION) *
978+50	P.O.T.	5' RT.
986+75.49	T.S.	5' RT.
989+75.49	S.C.	5' RT.
994+00	P.O.C.	5' RT.
999+00	P.O.C.	5' RT.
1005+00	P.O.C.	5' RT.
1010+00	P.O.C.	5' RT.

* IN THE BASE OF THE EXISTING CONCRETE
MEDIAN BARRIER WALL

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
SCOPE OF WORK AND SCHEMATIC					
MAH-680-0508/0557					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	JM	NM	PTM	3-93	

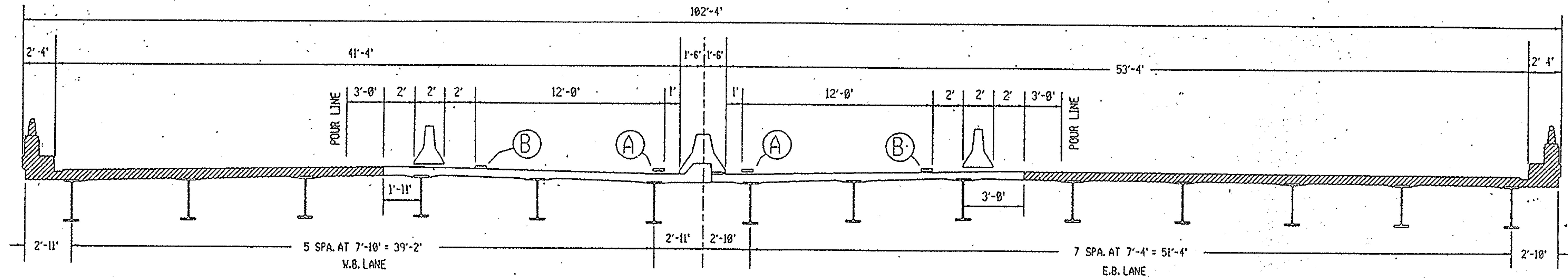
PHASE I

F.A.V.A. REGION	STATE	PROJECT NO.	FLD-OS
5	OHIO		

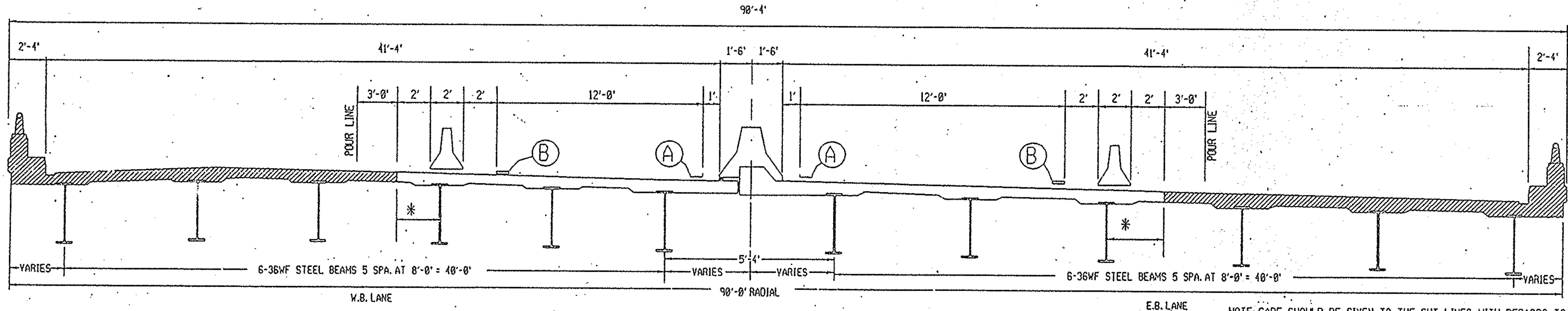
3
44

MAH-680-0508/0557

MAH-680-0508 (OVER EDWARDS ST.)



MAH-680-0557 (OVER OAK HILL AVE.)



* VARIES FROM 0'-11" TO 2'-11".
(SEE NOTE)

NOTE: CARE SHOULD BE GIVEN TO THE CUT LINES WITH REGARDS TO THE BEAM LOCATIONS DUE TO THE VARYING RADIAL DIMENSIONS. IT IS REQUIRED THAT THE SAWCUT REMAIN WITHIN THE BAY, AND AT NO TIME WILL THE CUT BE ALLOWED TO BE MADE ACROSS A BEAM. THEREFORE, IT MAY BE NECESSARY TO ADJUST THE LANE WIDTH TO ACCOMMODATE THIS REQUIREMENT. AT NO TIME WILL THE LANE WIDTH BE LESS THAN 11'-0" OR GREATER THAN 13'-6".

LIMITS OF REMOVAL

NOTE:
DRAWING NOT TO SCALE

- (A) TEMP. EDGE LINE (YELLOW)
- (B) TEMP. EDGE LINE (WHITE)

PHASE I
QUANTITY

5537.66	L.F.
5537.66	L.F.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
PHASES OF CONSTRUCTION PHASE I					
MAH-680-0508 (OVER EDWARDS ST.) MAH-680-0557 (OVER OAK HILL AVE.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	PERIOD
JFP	JM	JM	NM	3-93	

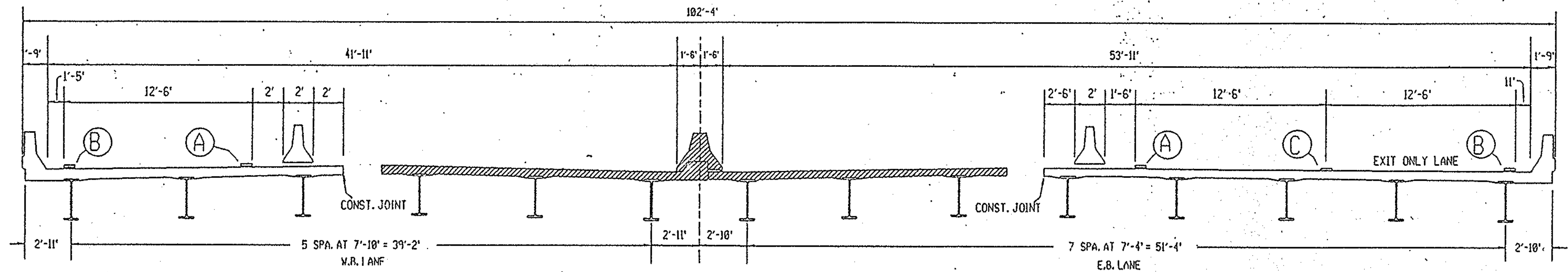
PHASE 2

F.R.V.A. REGION	STATE	PROJECT NO.	FLXOS
5	OHIO		

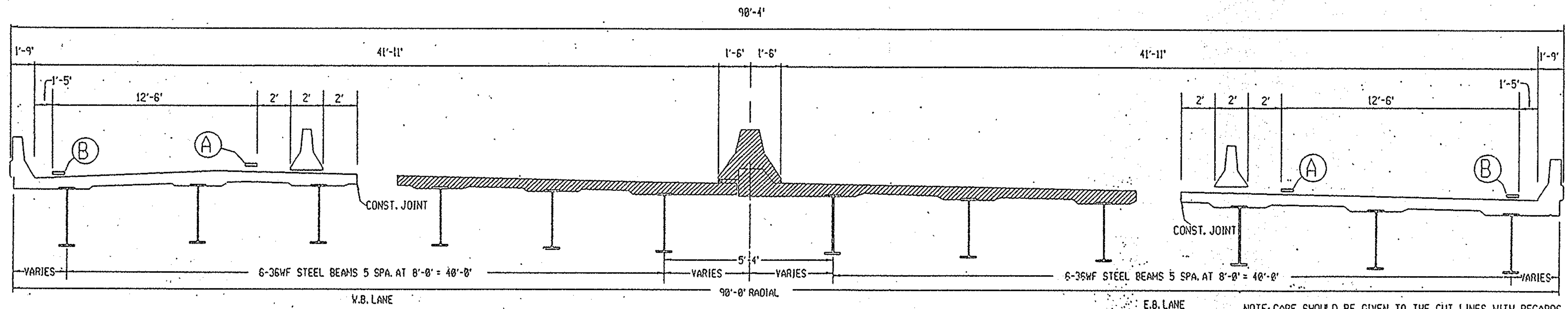
MAH-680-0508/0557

4
44

MAH-680-0508 (OVER EDWARDS ST.)



MAH-680-0557 (OVER OAK HILL AVE.)



NOTE: PORTABLE CONCRETE BARRIER ANCHORS ARE NOT REQUIRED AND SHALL NOT BE USED ON ANY NEW DECKS.

NOTE: CARE SHOULD BE GIVEN TO THE CUT LINES WITH REGARDS TO THE BEAM LOCATIONS DUE TO THE VARYING RADIAL DIMENSIONS. IT IS REQUIRED THAT THE SAWCUT REMAIN WITHIN THE BAY, AND AT NO TIME WILL THE CUT BE ALLOWED TO BE MADE ACROSS A BEAM. THEREFORE, IT MAY BE NECESSARY TO ADJUST THE LANE WIDTH TO ACCOMMODATE THIS REQUIREMENT. AT NO TIME WILL THE LANE WIDTH BE LESS THAN 11'-0" OR GREATER THAN 13'-6".



LIMITS OF REMOVAL

NOTE:
DRAWING NOT TO SCALE

PHASE 2 QUANTITY	
(A) TEMP. EDGE LINE (YELLOW)	5537.66 L.F.
(B) TEMP. EDGE LINE (WHITE)	5537.66 L.F.
(C) TEMP. LANE LINE (WHITE)	325.00 L.F.

PHASE

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
JFP	JM	JM	NM	3-93	

MAINTENANCE OF TRAFFIC

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

5
44

MAH-680-0508/0557

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING.

1. TWO WAY DIRECTIONAL TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AT ALL TIMES WITHOUT INTERRUPTION DURING CONSTRUCTION OF THE WORK.

2. AT LEAST ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE OPENED AT ALL TIMES.

3. TRAFFIC SHALL NOT BE CROSSED OVER THE MEDIAN AT ANY TIME.

4. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE WORK ZONES THAT ALTERNATELY CLOSE BOTH THE PASSING LANE AND THE DRIVING LANE UNLESS THE DISTANCE BETWEEN DRUMS, BARRICADES OR CONES EXCEED TWO (2) MILES.

5. FOR ADDITIONAL MAINTENANCE OF TRAFFIC NOTES, DETAILS AND SKETCHES, SEE SHEET NOS. 3, 4, & 5. REFERENCE TO THESE SHEETS, WHENEVER POSSIBLE THE WORK VEHICLE SHOWN PARKED ON THE ROADWAY SHALL BE REPLACED WITH AN ADDITIONAL 300 FEET OR PARALLEL WORK ZONE LENGTH PRIOR TO THE START OF THE WORK AREA.

6. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL FLAGS, FLAGGERS, WATCHERS, DRUMS, BARRICADES, SIGNS, SIGN SUPPORTS AND INCIDENTALS RELATED THERETO. THE ABOVE ITEMS SHALL BE UTILIZED IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISIONS.

7. A QUANTITY OF 125 CU. YDS. OF 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING BRIDGE DECKS, PAVEMENT, SHOULDERS AND OTHER LOCATIONS WHILE MAINTAINING TRAFFIC, AS DIRECTED BY THE ENGINEER. (SS 921 OR HPM MAY BE USED AS ALTERNATE MATERIAL WHEN 404 IS NOT AVAILABLE.)

8. AN ESTIMATED QUANTITY OF 4162 LIN.FT. OF ITEM 622 PORTABLE CONCRETE BARRIER, AND 1342 LIN.FT. FOR ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, SHALL BE FURNISHED, INSTALLED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. THE PORTABLE CONCRETE BARRIER SHALL BE USED TO CLOSE ONE LANE OF ROADWAY DURING BRIDGE REPAIR OPERATIONS. SEE SHEETS 3 AND 4 FOR ADDITIONAL DETAILS. THE PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, SHALL NOT BE PINNED TO THE DECK.

THIS ITEM SHALL BE PAID FOR BY THE ACTUAL LINEAL FEET OF ITEM 622 PORTABLE CONCRETE BARRIER (PCB) AND PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, INSTALLED AT A PARTICULAR LOCATION.

9. FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENT OF THE PLAN, SPECIFICATIONS, AND PROPOSAL WHICH ARE NEEDED FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE FURNISHED WHEN ORDERED BY THE ENGINEER. PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE BID PRICE PER SQUARE FOOT FOR ITEM 614 WORK ZONE MARKINGS SIGN AND SHALL INCLUDE THE COST OF PROVIDING NECESSARY HARDWARE, SUPPORTS, SIGNS, LABOR AND INCIDENTALS NEEDED TO ERECT SIGNS. AN ESTIMATED QUANTITY FOR ITEM 614 WORK ZONE MARKINGS SIGNS CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - WORK ZONE MARKINGS SIGNS 200 SQ. FT.

10. A SAFETY NET OR PLATFORM SHALL BE REQUIRED TO PROTECT THE ROADWAY, RAILROAD OR STREAM DURING THE REMOVAL OF THE EXISTING CONCRETE PARAPET AND DECK. THE CONTRACTOR SHALL PROVIDE A SAFETY NET OR PLATFORM OF SUITABLE STRENGTH ON THE UNDERSIDE OF THE DECK. THE DESIGN OF THE NET OR PLATFORM SHALL CONFORM WITH OSHA REQUIREMENTS AND THE APPROVAL OF THE ENGINEER AND SHALL REMAIN IN PLACE UNTIL THE WORK HAS BEEN COMPLETED AND ACCEPTED OR AS DIRECTED BY THE ENGINEER.

11. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE-HALF HOUR AFTER SUNSET OR ONE-HALF HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS OR LANE REDUCTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OR FIFTY (50) FEET.

12. WORK SHALL NOT BE PERFORMED OVER AN OPEN LANE OF TRAFFIC. TRAFFIC SHALL BE MAINTAINED ON EDWARDS ST. AND OAKHILL WITH A FLAGGER, CONES AND TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE OHIO MANUAL OF TRAFFIC CONTROL DEVICES, CURRENT EDITIONS, LATEST REVISIONS.

13. THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

ITEM 622 PORTABLE CONCRETE BARRIER, BRIDGE MOUNTED, 32"	1342 LIN.FT.
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	4162 LIN.FT.
ITEM 301 BITUMINOUS AGGREGATE BASE, AS PER PLAN	2200 CU.YDS.
ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	125 CU.YDS.
ITEM 614 BARRIER REFLECTORS TYPE B	70 EACH
ITEM 614 MAINTAINING TRAFFIC	LUMP LUMP
ITEM 614 WORK ZONE MARKING SIGNS	200 SQ. FT.

ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS REQUIRED TO PERFORM THE MAINTENANCE OF TRAFFIC FOR THIS PROJECT SHALL BE PAID FOR UNDER ITEM 614 MAINTAINING TRAFFIC UNLESS CALLED OUT AS A SEPARATE PAY ITEM.

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

REFERENCE TO SUPPLEMENTAL SPECIFICATIONS 847, 857, 858, 881, 947, 957, 958, AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 640, 730, 731, 733 AND 740.

WINTER TRAFFIC LIMITATIONS

ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOV. 1, 1993 AND MARCH 1, 1994. OCT. 31, 1993 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES IN THE AMOUNT OF \$500.00 PER DAY SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. NO POSTPONEMENT OF THE COMPLETION DATE DUE TO WEATHER OR SEASONAL CONDITIONS WILL BE PERMITTED.

CONTRACTOR'S EQUIPMENT OPERATION AND STORAGE

THE CONTRACTOR EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC. A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PARKED EITHER FIFTY (50) FEET FROM THE EDGE OF PAVEMENT OR SIX (6) FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA.

LANE WIDTH RESTRICTION NOTIFICATION

THE CONTRACTOR SHALL NOTIFY THE DISTRICT TRAFFIC ENGINEER 18 DAYS PRIOR TO THE RESTRICTION.

LAW ENFORCEMENT OFFICER

THE CONTRACTOR SHALL PROVIDE THE SERVICE OF LAW ENFORCEMENT OFFICERS (L.E.O.) WITH A PATROL CAR, AT THE ENGINEER'S REQUEST, FOR THE PURPOSE OF CONTROLLING THROUGH TRAFFIC. THE L.E.O. WITH A PATROL CAR SHALL BE UTILIZED DURING INSTALLATION AND REMOVAL OF TRAFFIC CONTROL DEVICES FOR LANE CLOSURES AND AS AUTHORIZED BY THE ENGINEER.

INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR THE L.E.O. MAY BE OBTAINED BY CONTACTING OHIO HIGHWAY PATROL 660 EAST MAIN STREET, COLUMBUS, OHIO, TELEPHONE: 614-466-2300.

IF AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE L.E.O., THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER EQUIPPED WITH A MARKED AND FLASHER-LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR SHALL BE PROVIDED.

THIS REQUIREMENT DOES NOT PRECLUDE THE CONTRACTORS USE OF AN LEO FOR OTHER PURPOSES OF CONTROLLING TRAFFIC AS APPROVED BY THE ENGINEER. THE LEO SHALL BE CONSIDERED AN EMPLOYEE OF THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS/HER ACTIONS.

ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THE LEO PLACEMENT AND HIS/HER ACTIVITIES.

PAYMENT SHALL BE AT THE UNIT PRICE BID FOR THE ACTUAL NUMBER OF HOURS FOR ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR 50 HOURS

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS MAY BE ONGOING IN AREAS IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECTS LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECT OR PROJECTS. IN ACCORDANCE WITH 105.07 THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS, A MUTUALLY ACCEPTABLE WORK SCHEDULE, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

ITEM 614 MAINTENANCE OF TRAFFIC

THE CONTRACTOR SHALL ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE 'PREPARE TO STOP' AND 'ROAD CONSTRUCTION NEXT -- MILES' SIGNS PRIOR TO THE START OF CONSTRUCTION, AS DIRECTED BY THE ENGINEER. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE IMMEDIATELY REMOVED THEREAFTER.

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM-614 - MAINTAINING TRAFFIC.

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL, OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS

OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC CONTROL DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE, SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE

INDIVIDUALS NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRECONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL SHALL HAVE NO OTHER CONSTRUCTION RELATED DUTIES. THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
M.O.T. NOTES					
MAH-680-0508/0557					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JFP	SCB	JM	11/1	3-93	

MAINTENANCE OF TRAFFIC

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		



MAH-680-0508/0557

614 WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF WORK, AND REMOVE WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS (R-10-48) (45 MPH) WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS IS INCIDENTAL TO THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED AND COVERED PRIOR TO STARTING WORK OR MAY BE ERECTED UNCOVERED NO MORE THAN 4 HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES OF TRAFFIC WITH NO RESTRICTIONS OR SOONER AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 DAYS OR AS DIRECTED BY THE ENGINEER. THE SIGNS SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS, 500 FEET IN ADVANCE OF THE LANE REDUCTION TAPER. THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, 250 FEET IN ADVANCE OF THE LANE REDUCTION TAPER ON UNDIVIDED HIGHWAYS. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1 MILE FOR 55 MPH ZONES AND EVERY 1/2 MILE FOR 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH ENTRANCE RAMP WITHIN THE ZONE. A SIGN TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. THIS SIGN SHALL BE A R-8 A.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE C SHEETING COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85. WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO (2) ITEM 630 GROUND MOUNTED SUPPORTS, NO. 4 POSTS.

WORK ZONE SPEED LIMIT SIGN AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTION, MAINTENANCE, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGNS AND SUPPORTS.

ITEM	UNIT	QTY	DESCRIPTION
614	EACH	9	WORK ZONE SPEED LIMIT SIGN

MOINT680

A QUANTITY OF 2200 CU. YDS. OF 301 BITUMINOUS AGGREGATE BASE, AS PER PLAN SHALL BE PROVIDED FOR USE IN REPAIRING PAVEMENT SHOULDERS AS DESCRIBED BELOW, PRIOR TO ANY LANE CLOSURES. THE UNIT PRICE SHALL INCLUDE ALL COST FOR EXCAVATION AND REMOVAL OF THE EXISTING SHOULDER.

THE OUTSIDE (10 FEET WIDE) AND INSIDE SHOULDER (6.5 FEET WIDE) FROM STA. 972+59 TO STA. 1007+88 SHALL BE REMOVED AND REPLACED WITH A 6 INCH THICK COURSE OF ITEM 301 BITUMINOUS AGGREGATE BASE AS PER PLAN BEFORE ANY LANE RESTRICTIONS ARE PERMITTED.

PHASE I - ALL TEMPORARY PAVEMENT MARKINGS NEEDED TO MAINTAIN TRAFFIC FOR THIS PHASE SHALL BE PLACED WHILE PLACING ALL OTHER TRAFFIC CONTROL DEVICES. TEMPORARY PAVEMENT MARKINGS FOR PHASE II SHALL BE PLACED WHEN ALL BRIDGE WORK IS COMPLETED AND PRIOR TO OPENING THE LANES TO TRAFFIC. ANY PERMANENT PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY MARKINGS SHALL BE REMOVED.

PHASE II - ALL TEMPORARY PAVEMENT MARKINGS IN CONFLICT WITH PERMANENT PAVEMENT MARKINGS SHALL BE REMOVED AND PERMANENT MARKINGS REPLACED PRIOR TO OPENING ALL LANES TO TRAFFIC.

614 BARRIER REFLECTORS

THESE REFLECTORS AND THEIR MOUNTING SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 802 EXCEPT THAT SPACING SHALL BE 25 FEET.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPENED TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

MEMORIAL DAY	FOURTH OF JULY
LABOR DAY	
DAY OF THE WEEK	TIMES ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N MONDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N MONDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N MONDAY

THERE SHALL NOT BE ANY EXTENSIONS DUE TO WEATHER OR MATERIAL DELAYS WHATSOEVER.

SHALL THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

SPECIAL - REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE BID PRICE PER EACH FOR "ITEM SPECIAL - REPLACEMENT DRUM" AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM; AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

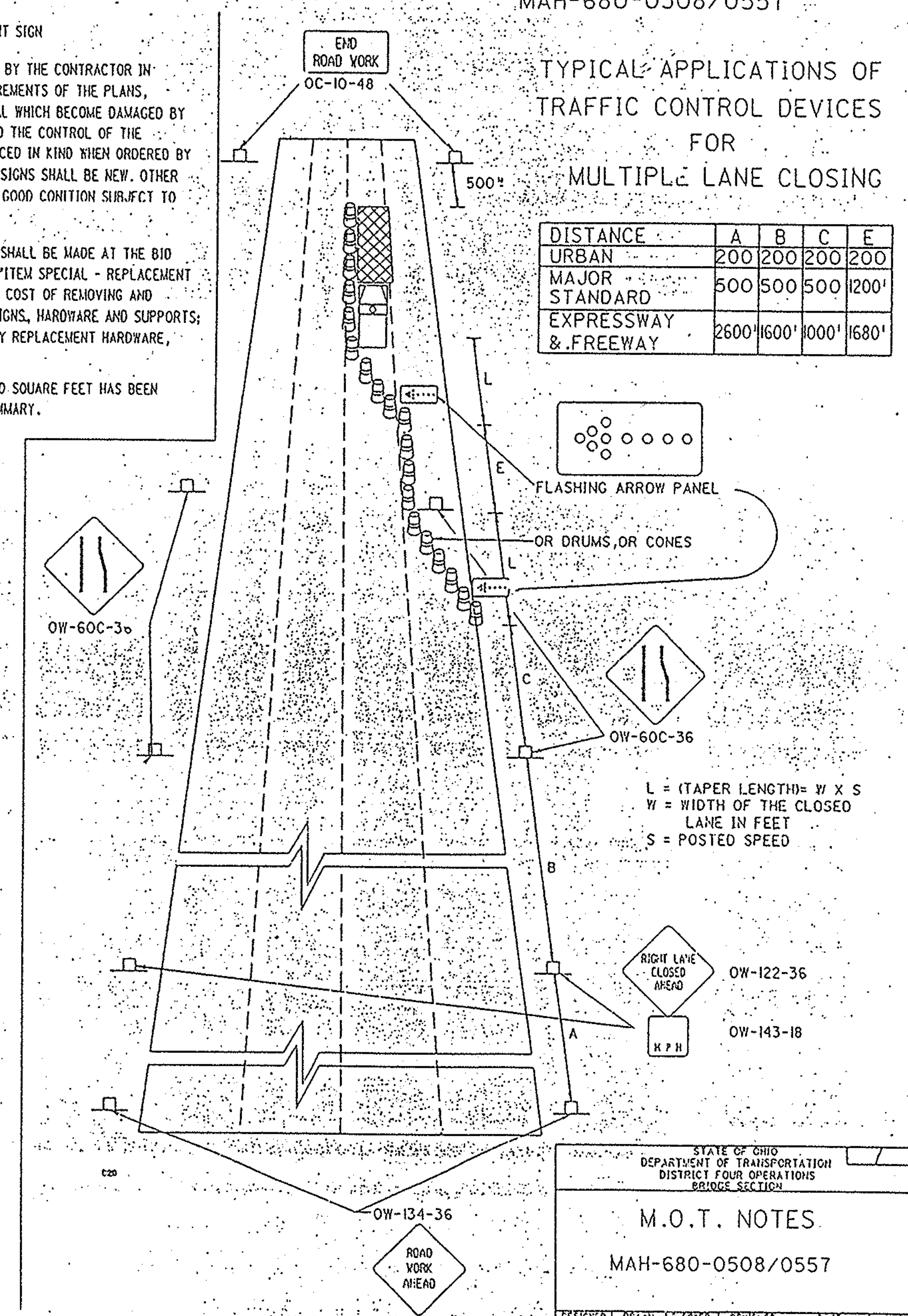
AN ESTIMATED QUANTITY OF 20 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

SPECIAL - REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE USED BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE BID PRICE PER SQUARE FOOT FOR "ITEM SPECIAL - REPLACEMENT SIGN" AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED SIGNS, HARDWARE AND SUPPORTS; AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC..

AN ESTIMATED QUANTITY OF 50 SQUARE FEET HAS BEEN PROVIDED IN THE GENERAL SUMMARY.



GENERAL SUMMARY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	SCB	NM	PM	3-93	

F.H.V.A. REGION	STATE	PROJECT NO.	FUNDOS
5	OHIO		



MAH-680-0508/0557

SHEET NUMBER										PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
																	PART 1 : MAH-680-0508 (OVER EDWARDS ST.)
													202	11200	LUMP	LUMP	PORTIONS OF STRUCTURE REMOVED
													202	22901	346	S.Y.	APPROACH SLAB REMOVED, AS PER PLAN
													202	30501	182	L.F.	CONCRETE MEDIAN REMOVED, AS PER PLAN
													202	38000	452	L.F.	GUARDRAIL REMOVED
													202	47000	4	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED
													202	58201	1	EACH	INLET REMOVED, AS PER PLAN
													202	98500	16	C.Y.	ASPHALT CONCRETE UNDER GUARDRAIL REMOVED
													203	50000	818	S.Y.	SUBGRADE COMPACTION
													203	60204	5	STA.	LINEAR GRADING, METHOD 2
													254	01000	1341	S.Y.	PAVEMENT PLANING, BITUMINOUS
													301	10002	52	C.Y.	BITUMINOUS AGGREGATE BASE, AC-20
													310	10000	104	C.Y.	SUBBASE
													403	20000	20	C.Y.	ASPHALT CONCRETE, AC-20
													404	20000	41	C.Y.	ASPHALT CONCRETE, AC-20
													404	30000	16	C.Y.	ASPHALT CONCRETE, AC-20, UNDER GUARDRAIL
													407	10000	113	GALLON	TACK COAT
													408	10000	140	GALLON	BITUMINOUS PRIME COAT
													503	21300	LUMP	LUMP	UNCLASSIFIED EXCAVATION
													503	11100	LUMP	LUMP	COFFERDAMS, CRIBS AND SHEETING
													509	15800	134,968	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
													510	11101	152	EACH	DOWEL HOLE, AS PER PLAN
													SPECIAL	31502	440	C.Y.	HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE (DECK)
													SPECIAL	33404	99	C.Y.	HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE (PARAPET)
													SPECIAL	45700	49	C.Y.	HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE
													SPECIAL	512-67502	1282	S.Y.	SEALING OF CONCRETE SURFACES (EPOXY) (SEE PROPOSAL NOTE)
													SPECIAL	512-71500	1282	S.Y.	URETHANE TOCOAT SEALER
													SPECIAL	512-73000	53	S.Y.	TREATING CONCRETE BRIDGE DECKS WITH HMW RESIN (SEE PROPOSAL NOTE)
													513	00100	3,454	POUND	STRUCTURAL STEEL (AISC CERTIFICATION NOT REQUIRED)
													513	21000	28	EACH	TRIMMING OF BEAM END
													SPECIAL	514-00050	23,282	S.F.	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU (SEE PROPOSAL NOTE)

MSR051M

" - ALTERNATE BID ITEM

GENERAL SUMMARY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	SCB	NM	FM	3-93	

F.H.W.A. REGION	STATE	PROJECT NO.	FUND
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MAH-680-0508/0557

SHEET NUMBER										PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
													SPECIAL	514-00056	23,282	S.F.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00060	23,282	S.F.	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00066	23,282	S.F.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00504	90	MAN HRS.	GRINDING FNS, TEARS AND SLIVERS (SEE PROPOSAL NOTE)
													SPECIAL	514-00508	3360	L.F.	GRINDING FLANGE EDGES (SEE PROPOSAL NOTE)
													516	11210	200	L.F.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL
													SPECIAL	516-14101	158	L.F.	2"CONTINUOUS SEAL IN POLYMER CONCRETE JOINT, AS PER PLAN (SEE PROPOSAL NOTE)
													516	45305	28	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
													516	46701	28	EACH	RESET BEARING, AS PER PLAN
													518	21200	64	C.Y.	POROUS BACKFILL WITH FILTER FABRIC
													SPECIAL	11100	347	S.F.	PNEUMATICALLY PLACED MORTAR
													603	05900	30	L.F.	15"CONDUIT, TYPE B
													604	14603	1	EACH	INLET, NO. 3850, AS PER PLAN
													604	15201	1	EACH	INLET, NO. 3050, AS PER PLAN
													606	13000	426	L.F.	GUARDRAIL, TYPE 5
													606	35000	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1
													606	35100	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2
													611	25001	520	S.Y.	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
													614	11000	LUMP	LUMP	MAINTAINING TRAFFIC
													614	13300	35	EACH	BARRIER REFLECTOR, TYPE B
													614	13350	120	EACH	OBJECT MARKER
													622	23405	162	L.F.	CONCRETE BARRIER, TYPE B-50, AS PER PLAN
													622	40020	2212	L.F.	PORTABLE CONCRETE BARRIER, 32"
													622	40040	632	L.F.	PORTABLE CONCRETE BARRIER, 32" BRIDGE MOUNTED
													623	10001	LUMP	LUMP	CONSTRUCTION LAYOUT STAKES, AS PER PLAN
													625	00500	3	EACH	CONNECTOR KIT, TYPE II
													625	00600	3	EACH	CONNECTOR KIT, TYPE III
													625	01500	2	EACH	CABLE SPLICING KIT
													625	23000	1189	L.F.	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE
													625	23400	146	L.F.	NO. 10 AWG POLE AND BRACKET CABLE

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GENERAL SUMMARY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
JM	SCB	MM	FW	3-93	

F.H.V.A. REGION	STATE	PROJECT NO.	FUNDS
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MAH-680-0508/0557

SHEET NUMBER										PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
													301	10002	52	C.Y.	BITUMINOUS AGGREGATE BASE, AC-20
													310	10000	100	C.Y.	SUBBASE
													403	20000	18	C.Y.	ASPHALT CONCRETE, AC-20
													404	20000	36	C.Y.	ASPHALT CONCRETE, AC-20
													404	30000	16	C.Y.	ASPHALT CONCRETE, AC-20, UNDER GUARDRAIL
													407	10000	99	GALLON	TACK COAT
													408	10000	140	GALLON	BITUMINOUS PRIME COAT
													503	21300	LUMP	LUMP	UNCLASSIFIED EXCAVATION
													503	11100	LUMP	LUMP	COFFERDAMS, CRIBS AND SHEETING
													509	15800	137,325	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
													510	11101	152	EACH	DOWEL HOLE, AS PER PLAN
													SPECIAL	31502	460	C.Y.	HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE (DECK)
													SPECIAL	33404	108	C.Y.	HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE (PARAPET)
													SPECIAL	45700	53	C.Y.	HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE
													SPECIAL	512-67502	1320	S.Y.	SEALING OF CONCRETE SURFACES (EPOXY) (SEE PROPOSAL NOTE)
													SPECIAL	512-71500	1320	S.Y.	URETHANE TOPCOAT SEALER
													SPECIAL	512-73000	60	S.Y.	TREATING CONCRETE BRIDGE DECKS WITH HMW RESIN (SEE PROPOSAL NOTE)
													513	00100	5249	POUND	STRUCTURAL STEEL (AISC CERTIFICATION NOT REQUIRED)
													513	21000	24	EACH	TRIMMING OF BEAM END
													SPECIAL	514-00050	23,897	S.F.	SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00056	23,897	S.F.	FIELD PAINTING OF EXISTING STEEL, PRIME COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00060	23,897	S.F.	FIELD PAINTING OF EXISTING STEEL, INTERMEDIATE COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00066	23,897	S.F.	FIELD PAINTING OF EXISTING STEEL, FINISH COAT, SYSTEM OZEU (SEE PROPOSAL NOTE)
													SPECIAL	514-00504	90	MAN HRS.	GRINDING FINS, TEARS AND SLIVERS (SEE PROPOSAL NOTE)
													SPECIAL	514-00508	3660	L.F.	GRINDING FLANGE EDGES (SEE PROPOSAL NOTE)
													516	11210	192	L.F.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL
													SPECIAL	516-14101	177	L.F.	2" CONTINUOUS SEAL IN POLYMER CONCRETE JOINT, AS PER PLAN (SEE PROPOSAL NOTE)
													516	45305	24	EACH	REFURBISH BEARING DEVICE, AS PER PLAN
													516	46701	24	EACH	RESET BEARING, AS PER PLAN
													518	21200	66	C.Y.	POROUS BACKFILL WITH FILTER FABRIC

GENERAL SUMMARY

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	SLP	NM	7/71	3-93	

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MAH-680-0508/0557

SHEET NUMBER										PARTICIPATION			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
													SPECIAL	11100	233	S.F.	PNEUMATICALLY PLACED MORTAR
													SPECIAL	22301	LUMP	LUMP	PNEUMATICALLY PLACED MORTAR, AS PER PLAN
													601	26000	1	C.Y.	DUMPED ROCK FILL, TYPE B, WITHOUT FILTER
													602	20000	0.25	C.Y.	CONCRETE MASONRY
													603	05901	36	L.F.	15" CONDUIT, TYPE B, AS PER PLAN
													603	05900	30	L.F.	15" CONDUIT, TYPE B
													604	14501	1	EACH	INLET, NO. 3A, AS PER PLAN
													604	14603	1	EACH	INLET, NO. 3B50, AS PER PLAN
													604	15201	1	EACH	INLET, NO. 3050, AS PER PLAN
													606	13000	426	L.F.	GUARDRAIL, TYPE 5
													606	35000	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1
													606	35100	2	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2
													611	25001	492	S.Y.	REINFORCED CONCRETE APPROACH SLAB (T=15"), AS PER PLAN
													614	11000	LUMP	LUMP	MAINTAINING TRAFFIC
													614	13300	35	EACH	BARRIER REFLECTOR, TYPE B
													614	13350	124	EACH	OBJECT MARKER
													622	23405	162	L.F.	CONCRETE BARRIER, TYPE B-50, AS PER PLAN
													622	40020	1950	L.F.	PORTABLE CONCRETE BARRIER, 32"
													622	40040	710	L.F.	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED
													623	10001	LUMP	LUMP	CONSTRUCTION LAYOUT STAKES, AS PER PLAN
													625	00500	3	EACH	CONNECTOR KIT, TYPE II
													625	00600	3	EACH	CONNECTOR KIT, TYPE III
													625	01500	10	EACH	CABLE SPLICING KIT
													625	23000	200	L.F.	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE
													625	23100	1237	L.F.	NO. 2 AWG 600 VOLT DISTRIBUTION CABLE
													625	23400	146	L.F.	NO. 10 AWG POLE AND BRACKET CABLE
													625	24100	35	L.F.	1/2" DUCT CABLE WITH TWO NO. 4 AWG 5000 VOLT CABLES
													625	25911	260	L.F.	CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN
													625	27500	4	EACH	LUMINAIRE, UNDERPASS, H.P.S., 713.13, (100W, 120V)
													625	29002	5	L.F.	TRENCH, 24" DEEP

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
JM	LCB	NM	FF	3-93

F.M.V.A. REGION	STATE	PROJECT NO.	FUND
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MAH-680-0508/0557

[illegible]

PART 1: MAH-680-0508
PART 2: MAH-680-0557

GENERAL NOTES

DESIGNED BY	DATE	F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
REVIEWED BY	DATE	5	OHIO		

MAH-680-0508/0557

SIGN STRESSES:

REINFORCING STEEL - ASTM A615, A616 OR A617
GRADE 60 - UNIT STRESS - 24,000 PSI
STRUCTURAL STEEL - ASTM A709, GRADE 36 - UNIT STRESS - 20,000 PSI

202 - PORTIONS OF STRUCTURE REMOVED.

- 1) THIS ITEM OF WORK SHALL CONSIST OF REMOVING THE STATED ITEMS
2) TO THE LIMITS SHOWN IN THE PLANS AND DISPOSING OF THE MATERIAL AS PER ITEM 202.02.

REMOVE THE DECK, THE BRIDGE MEDIAN WALL, THE BRIDGE DECK OUTSIDE PARAPET WALLS AND ANY ATTACHED BRIDGE RAILING, PORTIONS OF THE BACKWALLS AND WINGWALLS (INCLUDING RAILING), EXISTING END DAMS AND END CROSSFRAMES, ALL EXISTING SCUPPERS AND AN EXISTING UNDERPASS LUMINAIRE ALONG WITH ANY ASSOCIATED HARDWARE. ALL ASSOCIATED SCUPPER HARDWARE SHALL BE REMOVED AND GROUND FLUSH WITH THE BEAM.

202 - APPROACH SLAB REMOVED, AS PER PLAN

- 1) THE EXISTING REINFORCED CONCRETE APPROACH SLABS SHALL BE REMOVED
2) AT BOTH STRUCTURES. THIS ITEM SHALL INCLUDE ALL EQUIPMENT, TOOLS AND LABOR NECESSARY TO REMOVE THE ASPHALT CONCRETE MAKING UP THE WEARING SURFACE AND BERMS OF THE APPROACH SLABS, REMOVE THE EXISTING REINFORCED CONCRETE APPROACH SLABS, INCLUDING 1 FOOT OF ADJOINING CONCRETE PAVEMENT, AND ANY SUBBASE MATERIAL NECESSARY TO PROVIDE FOR THE PLACEMENT OF THE PROPOSED APPROACH SLABS. ALL MATERIAL SHALL BE DISPOSED AS PER ITEM 202.02.

202 - CONCRETE MEDIAN REMOVED, AS PER PLAN

- 1) THIS WORK SHALL CONSIST OF REMOVING THE EXISTING MEDIAN CONCRETE
2) BARRIER, ALONG WITH ITS 6 FEET WIDE BASE AND THE 5 FEET WIDE INSIDE SHOULDER ON EACH SIDE OF THE MEDIAN ACCORDING TO THE LIMITS SHOWN IN THE PLANS. THE PLAN QUANTITY SHALL BE EQUAL TO THE LIMITS MINUS A QUANTITY FOR THE REMOVAL EXISTING MEDIAN INLET. CARE SHALL BE TAKEN WHEN CUTTING THE FACE OF THE EXISTING WALL THAT IS TO REMAIN ALONG WITH LEAVING SUFFICIENT EXISTING CONDUIT IN ORDER TO CONNECT WITH THE PROPOSED CONDUIT. ALL EQUIPMENT, TOOLS, AND LABOR NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THIS.

202 - INLET REMOVED, AS PER PLAN

- 1) THE INTENT OF THIS ITEM IS TO REMOVE THE EXISTING MEDIAN INLET
2) CONSISTING OF A PRECAST WALL SECTION, TROUGH, GRATE, APRONS, BOX AND BASE. THE ITEMS SHALL BE REMOVED IN SUCH A MANNER SO AS TO NOT UNOULY DISTURB THE EXISTING REMAINING ATTACHED PIPES IN ANTICIPATION OF THEIR CONNECTION TO THE PROPOSED INLET. ALSO INCLUDED WITH THIS ITEM SHALL BE ALL NECESSARY PIPE CLEANOUT OF THE EXISTING PIPES TO REMAIN. ALL EQUIPMENT, TOOLS AND LABOR NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED WITH THIS ITEM ALONG WITH THE DISPOSAL OF ALL WASTED MATERIAL AS PER ITEM 202.02.

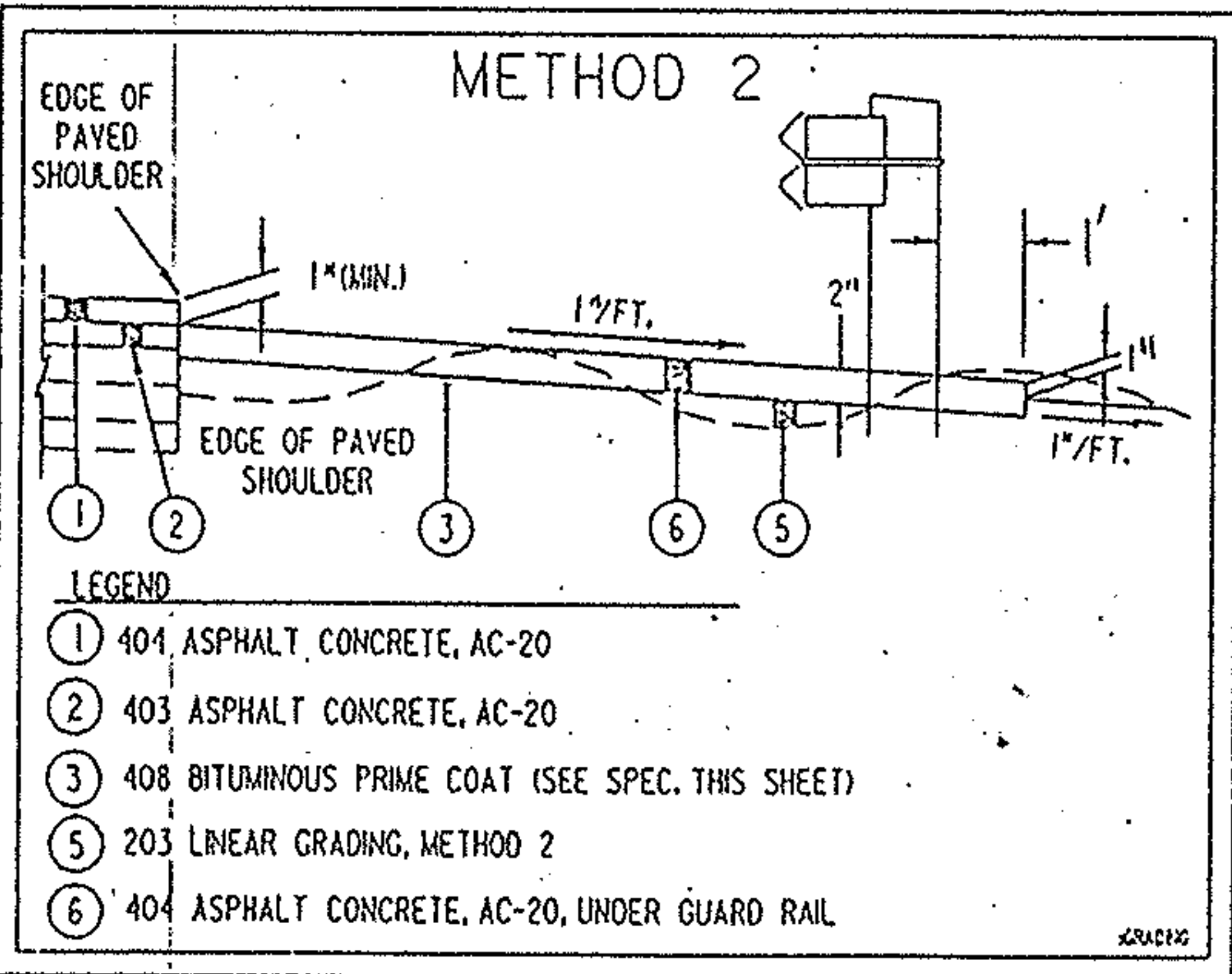
ITEM 203 - LINEAR GRADING, METHOD 2

- (PART 1) THIS WORK SHALL CONSIST OF GRADING THE EXISTING SHOULDER BETWEEN THE PAVED SHOULDER AND BREAK POINT OF THE SHOULDER IN AREAS WHERE GUARDRAIL EXISTS. IT SHALL CONSIST OF REMOVING THE EXCESS TURF IN THE VICINITY OF THE GUARDRAIL TO PROVIDE A POSITIVE SLOPE AWAY FROM THE PAVED SHOULDER. A SLOPE OF APPROXIMATELY 1 1/2 FT. SHALL BE PROVIDED IN THESE AREAS.
(PART 2) THE AREA BETWEEN THE PAVED SHOULDER AND 1 FT. BEYOND THE REAR OF THE PROPOSED GUARDRAIL POSTS SHALL BE EXCAVATED SUFFICIENTLY IN DEPTH TO PROVIDE A 2" COMPACTED COURSE OF ITEM 404. EXCESS MATERIAL BEYOND THE EXISTING GUARDRAIL MAY BE WASTED OVER THE SLOPE AT THE DIRECTION OF THE ENGINEER. PRIOR TO PLACING THIS MATERIAL A SOIL STERILIZER USING EITHER OF THE FOLLOWING BRANDS SHALL BE APPLIED BETWEEN THE PAVED SHOULDER AND 1' BEYOND THE POST AT THE RATE AND METHOD RECOMMENDED BY THE MANUFACTURER:

1) PRIMTOL 25E BY CIBA-GEIGY

2) KOVAR BY DIAMOND SHAMROCK OR APPROVED EQUAL

A PRIME COAT SHALL BE APPLIED AT THE RATE OF 0.5 GAL./S.Y. BEFORE APPLYING THE ASPHALT CONCRETE. AREAS DISTURBED BEYOND THE 404 LIMIT SHALL BE SEEDED AND MULCHED AS PER 659. COMPACTION SHALL BE AS PER ITEM 203. THE METHOD OF MEASUREMENT SHALL BE CONSIDERED AS L.M.F.T. OF GUARDRAIL PAVED UNDER, AND SHALL INCLUDE ALL WORK REQUIRED AS DESCRIBED ABOVE EXCEPT FOR ITEM 404 ASPHALT CONCRETE AND 408 PRIME COAT. THE COST FOR THE ABOVE OPERATION SHALL BE INCLUDED IN THE PRICE BID ITEM 203 LINEAR GRADING METHOD 2.



ITEM 407 - TACK COAT

- (PART 1) THE RATE OF APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO
(PART 2) ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 408 - BITUMINOUS PRIME COAT

- (PART 1) THIS ITEM SHALL BE USED IN AREAS WHERE ASPHALT CONCRETE UNDER
(PART 2) GUARDRAIL IS TO BE PLACED, THE RATE OF APPLICATION OF ITEM 408 - BITUMINOUS PRIME COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.5 GALLONS PER SQUARE YARD OF BITUMINOUS PRIME COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 503 - UNCLASSIFIED EXCAVATION

ITEM 503 - COFFERDAMS, CRIBS AND SHEETING

- (PART 1) THESE ITEMS SHALL BE USED, AS DIRECTED BY THE ENGINEER, IN ORDER
(PART 2) TO FACILITATE THE DEMOLITION OF THE BACKWALLS AND APPROACH SLABS. INCLUDED UNDER ITEM 503 - UNCLASSIFIED EXCAVATION SHALL BE THE REPLACEMENT OF ANY MATERIAL EXCAVATED UNDER THIS ITEM TO LIMITS OF THE POUROUS BACKFILL AND SUBBASE.

ITEM 510 - DOWEL HOLE, AS PER PLAN

- (PART 1) IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATIONS 852 AND C.M.S.
(PART 2) 705.20, THE DOWEL HOLES SHALL BE DRILLED INTO THE EXISTING AND PROPOSED CONCRETE AT THE LOCATIONS SHOWN IN THE PLANS WITH A TOLERABLE VARIANCE OF TWO (2) INCHES. REFER TO THE PLAN FOR SPECIFIC DEPTHS OF DOWEL HOLES. NON-SHRINKING EPOXY GROUT SHALL BE USED TO ANCHOR THE * 5 AND * 6 REBARS. ANY DOWEL HOLES DRILLED AND LEFT ABANDONED FOR WHATEVER REASON SHALL BE FILLED WITH THE EPOXY GROUT.

ITEM SPECIAL - HIGH PERFORMANCE CONC., SUPERSTRUCTURE (DECK)

- (PART 1) THIS ITEM SHALL INCLUDE THE DECK CONSTRUCTION, MEDIAN WALL
(PART 2) CONSTRUCTION AND PARAPET CONSTRUCTION, BOTH DECK AND WINGWALL, OF BOTH STRUCTURE. REFER TO THE PHASING SHEETS FOR DECK CONSTRUCTION DETAILS.
IN ADDITION TO THE CONCRETE REMOVAL AREAS, AS PER ITEM 202-PORCTIONS (ETC.), ALL LOOSE, SOFT, HONEYCOMBED AND DISINTEGRATED CONCRETE PLUS 1/4' DEPTH OF SOUND CONCRETE SHALL BE REMOVED. AFTER COMPLETION OF THE REMOVAL OPERATION, THE ENGINEER SHALL SOUND THE REMAINING CONCRETE TO ENSURE THAT ONLY SOUND CONCRETE REMAINS. ALL WORK SHALL BE DONE IN SUCH A MANNER AS NOT TO DAMAGE OR SHATTER THE CONCRETE THAT IS TO REMAIN AND PREVENT THE REINFORCING STEEL THAT IS TO REMAIN FROM BEING CUT, ELONGATE OR DAMAGED IN ANY WAY. CONCRETE MAY BE REMOVED BY CHIPPING OR HAND DRESSING. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 35 POUND CLASS.
PRIOR TO PLACING THE NEW WALL, ALL SURFACES TO WHICH THE WALL IS TO BE BOND, INCLUDING EXPOSED REINFORCING AND STRUCTURAL STEEL, SHALL BE CLEANED BY AN APPROVED METHOD OF WATER BLASTING. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LAITANCE AND ALL TRACES OF FOREIGN MATERIAL, IF NECESSARY, DETERGENT CLEANING SHALL PRECEDE BLAST CLEANING TO ENSURE THE REMOVAL OF CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.
ALL COSTS OF LABOR AND MATERIAL NECESSARY TO CUT THE EXISTING REBARS AS SHOWN IN THE PLAN DETAILS SHALL BE INCLUDED UNDER THIS ITEM OF WORK. ALL OTHER STEEL SHALL BE EPOXY COATED AND WILL BE PAID FOR SEPERATELY UNDER ITEM 509 EPOXY COATED REINFORCING STEEL, GRADE 60.

ITEM SPECIAL - HIGH PERFORMANCE CONCRETE, SUBSTRUCTURE

- (PART 1) THIS ITEM SHALL BE USED TO RECONSTRUCT THE EXISTING ABUTMENT
(PART 2) BACKWALLS, ABUTMENT WINGWALLS AND ABUTMENT MEDIAN BARRIER WALL AS PER THE DETAILS SHOWN IN THE PLANS.
IN ADDITION TO THE REMOVAL AREAS, AS PER ITEM 202-PORCTIONS OF STRUCTURE REMOVED, ALL LOOSE, SOFT, HONEYCOMBED, DISINTEGRATED CONCRETE PLUS 1/4' DEPTH OF SOUND CONCRETE SHALL BE REMOVED. AFTER COMPLETION OF THE REMOVAL OPERATION, THE ENGINEER SHALL SOUND REMAINING CONCRETE TO ENSURE THAT ONLY SOUND CONCRETE REMAINS. ALL WORK SHALL BE DONE IN SUCH A MANNER AS NOT TO DAMAGE OR SHATTER THE CONCRETE THAT IS TO REMAIN FROM BEING CUT, ELONGATED OR DAMAGED IN ANY WAY. CONCRETE MAY BE REMOVED BY CHIPPING OR HAND DRESSING. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NORMAL 35 POUND CLASS. PRIOR TO REPLACING THE NEW WALL, ALL SURFACES TO WHICH THE WALL IS TO BE BOND INCLUDING EXPOSED REINFORCING AND STRUCTURAL STEEL, SHALL BE MADE FREE OF SPALLS, LAITANCE AND ALL TRACES OF FOREIGN MATERIAL, IF NECESSARY, DETERGENT CLEANING SHALL PRECEDE BLAST CLEANING TO ENSURE THE REMOVAL OF CONTAMINANTS DETRIMENTAL TO ACHIEVING AN ADEQUATE BOND.
ALL COSTS OF LABOR AND MATERIALS NECESSARY TO CUT THE EXISTING REBARS AS SHOWN IN THE PLAN DETAILS SHALL BE INCLUDED UNDER THIS ITEM OF WORK. ALL OTHER STEEL SHALL BE EPOXY COATED AND WILL BE PAID FOR SEPERATELY UNDER ITEM 509 - EPOXY COATED REINFORCING STEEL, GRADE 60.

ITEM 513 - TRIMMING OF BEAM END

THIS ITEM SHALL BE USED AT LOCATIONS AS DIRECTED BY THE ENGINEER TO ENSURE PROPER CLEARANCE BETWEEN THE BEAM END AND THE ABUTMENT BACKWALL. BEAM ENDS SHALL BE TRIMMED AT LOCATIONS WHERE LESS THAN 2 1/4' CLEARANCE EXISTS BETWEEN THE PARALLEL FACES OF THE BACKWALL AND BEAM END. THE MEASUREMENT SHALL TAKE PLACE PRIOR TO BACKWALL DEMOLITION AND THE REQUIRED TRIM AMOUNT SHALL BE RECORDED. THE TRIMMED BEAM END SHALL BE IN SUCH A CONDITION THAT WILL ALLOW THE ADHERENCE OF PAINT TO ENTIRE TRIMMED SURFACE. A QUANTITY OF THE TOTAL NUMBER OF BEAM ENDS AT THE ABUTMENTS SHALL BE GIVEN WITH THE FINAL QUANTITY CONTINGENT UPON THE ENGINEER.

ITEM 513 - STRUCTURAL STEEL (AISC CERTIFICATION NOT REQUIRED)

- (PART 1) THIS ITEM SHALL BE USED TO REPLACE THE END CROSSFRAMES AND PROVIDE
(PART 2) FOR THE STEEL REQUIRED TO CONSTRUCT THE MEDIAN LIGHT SUPPORTS. THE CROSSFRAMES SHALL BE REPLACED IN SUCH A MANNER SUCH THAT THEY CORRESPOND TO THE STD. DWG. SD-1-69 AND STD. DWG. EXJ-4-87.

ITEM SPECIAL - SURFACE PREPARATION OF EXISTING STEEL, SYSTEM OZEU

- (PART 1) AT EACH OUTSIDE BEAM OF THE STRUCTURE OVER EDWARDS ST. EXISTS
ONLY ONE 2' X 1' VERTICAL CLEARANCE SIGN THAT IS LOCATED AT THE WEB. UNDER THIS ITEM FOR THIS STRUCTURE, THE CONTRACTOR SHALL REMOVE THE SIGNS INTACT, STORE THE SIGNS WITH THE PROJECT ENGINEER IN ORDER THAT THEY BE GIVEN TO A REPRESENTATIVE OF THE CITY OF YOUNGSTOWN. THEN REMOVE THE STUDS AND GRIND FLUSH TO THE WEB. UPON APPROVAL BY THE ENGINEER, THE LOCATIONS OF THE STUDS SHALL BE CHECKED FOR CRACKS BY THE METHOD APPROVED BY THE ENGINEER. COMPENSATION FOR THIS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.
25% SHALL BE THE PERCENTAGE ADDED TO ACCOUNT FOR INCIDENTALS AS PER THE PROPOSAL NOTE FOR BOTH PARTS 1 AND 2.

ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN

- (PART 1) THE INTENT OF THIS ITEM IS TO SEAL THE LONGITUDINAL CONSTRUCTION
(PART 2) JOINT IN THE NEWLY PLACED CONCRETE DECK. THE QUANTITY PROVIDED SHALL BE SUCH TO PLACE THE MATERIAL AS PER THE PROPOSAL NOTE IN A 1'-6" WIDE DIMENSION EVENLY PLACED OVER THE ENTIRE LENGTH OF THE CONSTRUCTION JOINT.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF DESIGN AND CONSULTATION BUREAU OF BRIDGES					
GENERAL NOTES					
MAH-680-0508/0557					
DESIGNED BY	DATE	DESIGNED BY	DATE	DESIGNED BY	DATE
JM	8/83	JM	8/83	JM	8/83

GENERAL NOTES

DESIGNED BY _____ DATE _____
REVIEWED BY _____ DATE _____

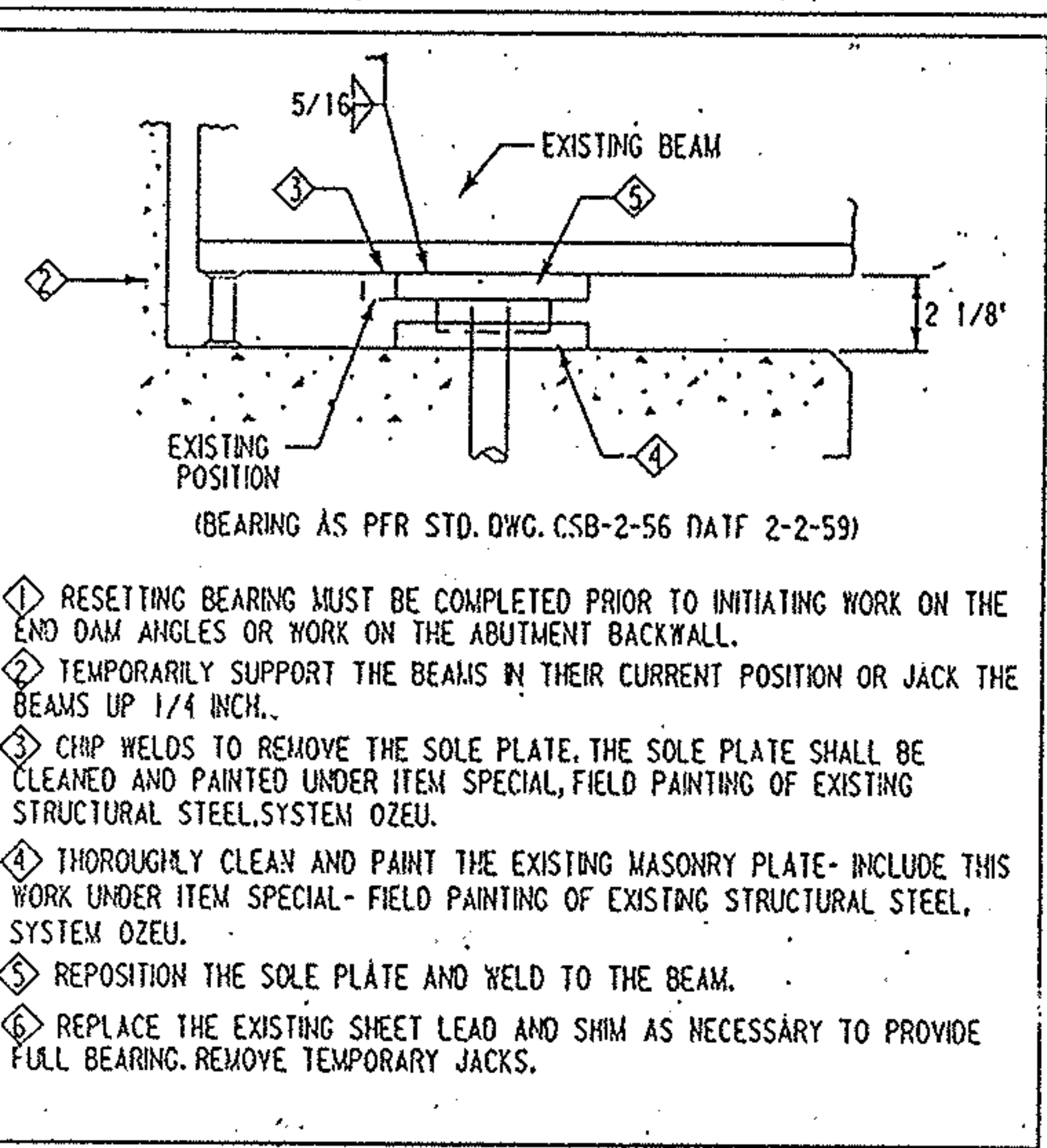
F.H.W.A. REGION	STATE	PROJECT NO.	FUND
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MAH-680-0508/0557

ITEM 516 - RESET BEARING, AS PER PLAN

PART 1) ALL WORK LISTED BELOW SHALL BE INCLUDED UNDER ITEM 516-RESET
PART 2) BEARING, AS PER PLAN



THE TOTAL NUMBER OF ABUTMENT BEARINGS SHALL BE PROVIDED WITH THE FINAL QUANTITY BEING AS DIRECTED BY THE ENGINEER.

ITEM 516 - REFURBISH BEARING DEVICE, AS PER PLAN

PART 1) THIS ITEM IS INTENDED TO REPLACE THE SHEET LEAD AND SHIM AS
PART 2) NECESSARY TO PROVIDE FULL BEARING AT ANY ABUTMENT BEARING NOT ADDRESSED BY ITEM 516 - RESET BEARING, AS PER PLAN. A TOTAL NUMBER OF ABUTMENT BEARING LOCATIONS SHALL BE PROVIDED WITH THE INTENTION THAT THE FINAL QUANTITY FOR THIS ITEM BE THE DIFFERENCE BETWEEN THE TOTAL NUMBER OF ABUTMENT BEARINGS AND THE FINAL QUANTITY FOR ITEM 516 - RESET BEARING, AS PER PLAN.

ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMETRIC STRIP SEAL

PART 1) THE QUANTITY PROPOSED FOR THIS ITEM SHALL BE SUCH THAT THE
PART 2) EXPANSION JOINTS RUN BETWEEN THE OUTSIDE PARAPET WALL AND MEDIAN BARRIER WALL. IT IS NOT INTENDED THAT THE EXPANSION JOINTS RUN CONTINUOUS BETWEEN THE OUTSIDE PARAPET WALLS.

ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN

PART 1) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A
PART 2) FREE AND CLEAR TEMPORARY BENCHMARK IN ORDER TO DEVELOP A SCREED ELEVATION TABLE AND SET THE APPROVED SCREED ELEVATIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER, FOR APPROVAL, A SCREED ELEVATION TABLE SHOWING REQUIRED SCREED ELEVATIONS, BEFORE CONCRETE IS PLACED, AT 1/4 SPAN POINTS ALONG THE BEAMS. THIS ITEM SHALL BE AS DIRECTED BY THE ENGINEER. ALSO, THE ABOVE STATED ITEMS ARE IN ADDITION TO NORMAL REQUIREMENTS OF ITEM 623 - CONSTRUCTION LAYOUT STAKES.

ITEM 611 - REINFORCED CONCRETE APPROACH SLAB (T=15'), AS PER PLAN

(PART 1) THIS ITEM SHALL CONSIST OF THE PLACEMENT OF THE APPROACH SLABS AS
(PART 2) INDICATED IN THE CONTRACT PLANS AND AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIAL INCLUDING DOWEL HOLES AND DOWEL BARS), AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK. THE APPROACH SLAB SHALL CONFORM TO AS-1-B1 EXCEPT THE WIDTH OF THE APPROACH SLAB SHALL EXTEND BETWEEN THE FACE OF THE WINGWALL AND BASE OF CONCRETE MEDIAN BARRIER.

ITEM SPECIAL - 2' CONTINUOUS SEAL IN POLYMER CONCRETE JOINT, AS PER PLAN

THIS ITEM SHALL BE INSTALLED AS PER PROPOSAL NOTE MMUS THE REQUIREMENTS FOR THE POLYMER CONCRETE. DETAILS OF THE INSTALLATION, PRIMARILY AT THE MEDIAN LIGHT SUPPORTS, SHALL BE AS PER MANUFACTURERS RECOMMENDATIONS.

FIELD PAINTING OF NEW STRUCTURAL STEEL

NEW STEEL SHALL BE PROVIDED BARE FOR PREPARATION AND PAINTING IN THE FIELD. FOR PURPOSES OF FIELD PAINTING, NEWLY ERECTED STEEL SHALL BE CONSIDERED EXISTING STEEL AND SHALL BE PREPARED AND PAINTED WITH A PRIME, INTERMEDIATE AND FINISH COAT OF PAINT IN ACCORDANCE WITH THE PROPOSAL NOTE 'FIELD PAINTING OF EXISTING STEEL, SYSTEM OZEU.' THE SQUARE FOOT QUANTITY OF SURFACE PREP AND PAINT INDICATED IN THE GENERAL SUMMARY IS INCLUSIVE OF ALL PROPOSED NEW STEEL AND ALL EXISTING STEEL.

STATE SAFETY REQUIREMENTS

STATE SAFETY REQUIREMENTS OUTLINED IN THE CONSTRUCTION CODE FOR THIS TYPE OF WORK WILL BE ENFORCED AND THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OUTLINED IN OHIO ADMINISTRATIVE CODE CHAPTER 4121:1-3: SPECIFIC SAFETY REQUIREMENTS OF THE INDUSTRIAL COMMISSION OF OHIO RELATING TO CONSTRUCTION.

UTILITY NOTIFICATION

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO GIVE THE UTILITY OWNER SUFFICIENT TIME TO PROTECT THE UTILITY IN WHATEVER FASHION THE OWNER DEEMS NECESSARY.

THE UTILITY CONTACTS ARE:

OHIO Edison
730 SOUTH AVE.
YOUNGSTOWN, OH. 44502
ATTN: ROBERT TEREK, DIVISION ENGINEER
216-747-2071

WARNER CABLE
755 WICK AVE., P.O. BOX 6220
YOUNGSTOWN, OH. 44501
ATTN: RUSS HICKENBOTTOM
216-747-2555

CITY OF YOUNGSTOWN
TRAFFIC ENG. DIVISION
CITY BUILDING
YOUNGSTOWN, OH. 44503
ATTN: CARMEN CONGLOSE
216-742-8816

OHIO BELL
CITY CENTER ONE, P.O. BOX 1587
YOUNGSTOWN, OH. 44501
ATTN: LYNN A. KAVAN,
ENGINEERING MANAGER
216-744-6291

CITY OF YOUNGSTOWN
DEPT. OF WATER
CITY BUILDING
YOUNGSTOWN, OH. 44503
ATTN: EUGENE LESEM
216-742-8755

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES, AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO THE C.M.S. SECTIONS 102.05, 105.02, AND 513.02. CONTRACTOR BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD AND SUBSTANTIATED BY ODOT PROJECT PERSONNEL.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE, GRADE AND REINSTALL GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT, SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE.

LOCATION OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE PROJECT ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED 'AS DIRECTED BY THE ENGINEER' UNLESS AUTHORIZED BY THE ENGINEER. (THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.)

REFERENCES

REFERENCE SHALL BE MADE TO THE SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS OF THE STATE OF OHIO THAT ARE LISTED ON THE TITLE PAGE.

ORIGINAL CONSTRUCTION PLANS

FOR MORE INFORMATION, THE ORIGINAL CONSTRUCTION DRAWINGS MAY BE EXAMINED IN THE DISTRICT FOUR (4) OFFICE OF THE DEPARTMENT OF TRANSPORTATION, 705 OAKWOOD STREET, RAVENNA, OHIO AND THE CENTRAL OFFICE, COLUMBUS, OHIO.

REPLACEMENT OF EXISTING REINFORCING STEEL

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE. REMOVAL OPERATION SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL. AN ALLOWANCE OF 100 POUNDS IS INCLUDED IN ITEM 509 FOR THIS PURPOSE.

NEW REINFORCING STEEL MAY REQUIRE FIELD CUTTING TO BE PROPERLY FITTED.

UTILITY LINES

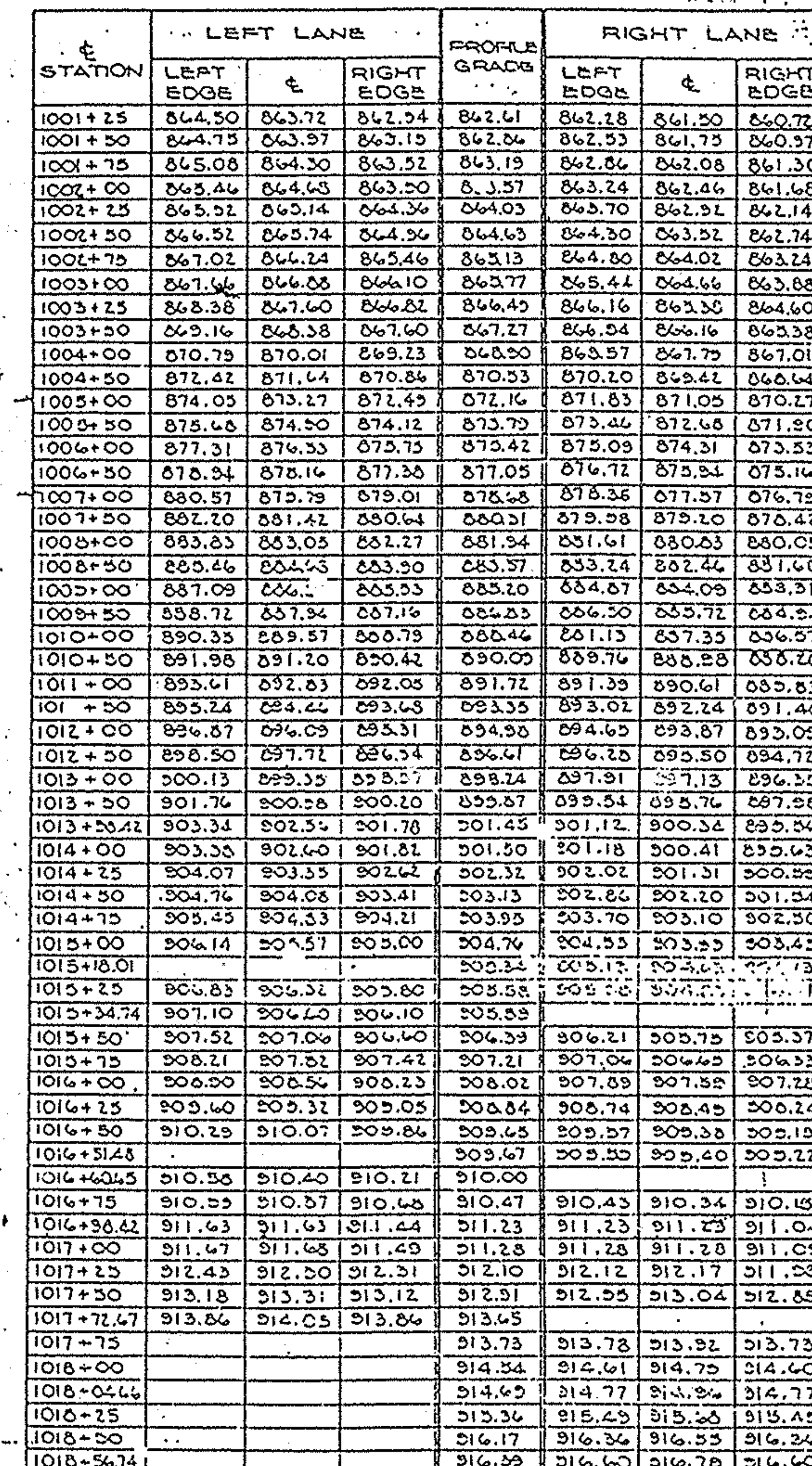
ALL EXPENSE INVOLVED IN RELOCATING (UNINSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITIES. THE CONTRACTOR AND UTILITY ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES					
GENERAL NOTES					
MAH-680-0508/0557					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
JM	SLB		NM	JM	3-93

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STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
APPROACH PROFILE GRADE AND EXISTING TYPICAL SECTIONS					
MAH-680-0508 (OVER EDWARDS ST.) MAH-680-0557 (OVER OAK HILL AVE.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVIS
JM	JM	NM	JM	3-93	

$\Delta = 74^{\circ} 52' 50''$ RT. . .



2. CURVE DATA

Δ	74° 52' 50"	P	1.80
Dc	2' 45"	X	149.97'
Pc	2083.48'	X	299.84'
rs	300'	Y	7.197'
Θ	4° 07' 30"	Lr	200.06'
Lc	2422.93'	ST	100.05'
Ts	1746.66'	Lc	299.93'
Ys	542.06'		

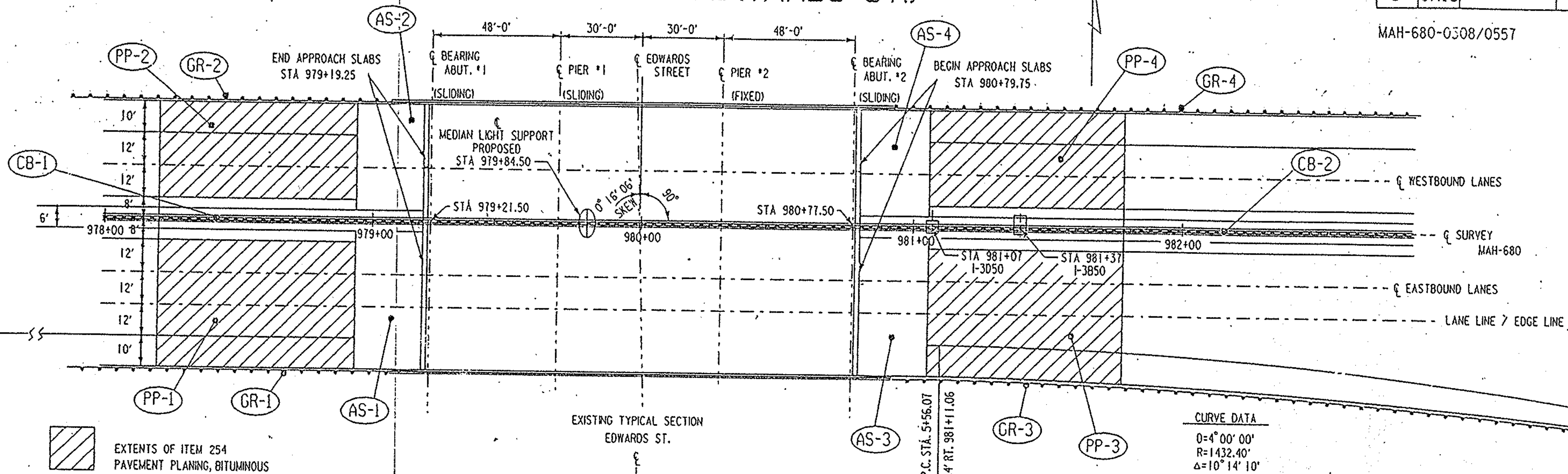
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS ENGINE SECTION				
EXISTING CURVE DATA				
MAH-680-0557 (OVER OAK HILL AVE.)				
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
/	JM	NM	SPM	3-93

MAH-680-0508 (OVER EDWARDS ST.)

F.H.V.A. REGION	STATE	PROJECT NO.	FUNDS
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MAH-680-0508/0557



CURVE DATA

0=4°00'00"
R=1432.40'
Δ=10°14'10"
L=255.90'
T=128.29'

MAH-680-0508 OVER EDWARDS ST.

REFERENCE NUMBER	STATION TO STATION	SIDE	202	202	202	202	202	203	203	254	301	310	403	404	404	407	408	606	606	606	611	622
			APPROACH SLAB REMOVED, AS PER PLAN	CONCRETE MEDIAN REMOVED, AS PER PLAN	GUARDRAIL REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED	ASPHALT CONCRETE UNDER GUARDRAIL REMOVED	SUBGRADE COMPACTION	LINEAR GRADING, METHOD 2	PAVEMENT PLANING, BITUMINOUS	BITUMINOUS AGGREGATE BASE, AC-20	SUBBASE	ASPHALT CONCRETE, AC-20	ASPHALT CONCRETE, AC-20	ASPHALT CONCRETE, AC-20, UNDER GUARDRAIL	TACK COAT	BITUMINOUS PRIME COAT	GUARDRAIL, TYPE 5	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	REINFORCED CONCRETE APPROACH SLAB (T=15') AS PER PLAN	CONCRETE BARRIER, TYPE B-50, AS PER PLAN
AS-1	978+93.25-979+19.25	RT.	104					147				25										
AS-2	978+93.25-979+19.25	LT.	69					113				19										
AS-3	980+79.75-981+05.75	RT.	104					147				25										
AS-4	980+79.75-981+05.75	LT.	69					113				19										
GR-1	977+82.25-979+07.25	RT.			113	1	4		1.25				4			35	100					
GR-2	977+82.17-979+07.17	LT.			113	1	4		1.25				4			35	113					
GR-3	980+91.75-982+16.75	RT.			113	1	4		1.25				4			35	100					
GR-4	980+91.83-982+16.83	LT.			113	1	4		1.25				4			35	113					
PP-1	978+18.25-978+93.25	RT.								383		6	11		32							
PP-2	978+18.25-978+93.25	LT.								283		4	9		24							
PP-3	981+05.75-981+80.75	RT.								392		6	12		33							
PP-4	981+05.75-981+80.75	LT.								283												
CB-1	978+18.25-979+18.75	Q		101				149			26	8									101	
CB-2	980+80.25-981+80.75	Q		81				149			26	8									61	
TOTAL QUANTITY			346	182	452	4	16	818	5	1341	52	104	20	41	16	113	140	426	2	2	520	162

NOTE: ALL TRAFFIC PAVEMENT MARKINGS ARE TO BE REPLACED AS PER EXISTING MARKINGS.

AS - APPROACH SLAB

- ITEM 202 APPROACH SLAB REMOVED, AS PER PLAN
- ITEM 203 SUBGRADE COMPACTION
- ITEM 310 SUBBASE
- ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=15')

GR - GUARDRAIL

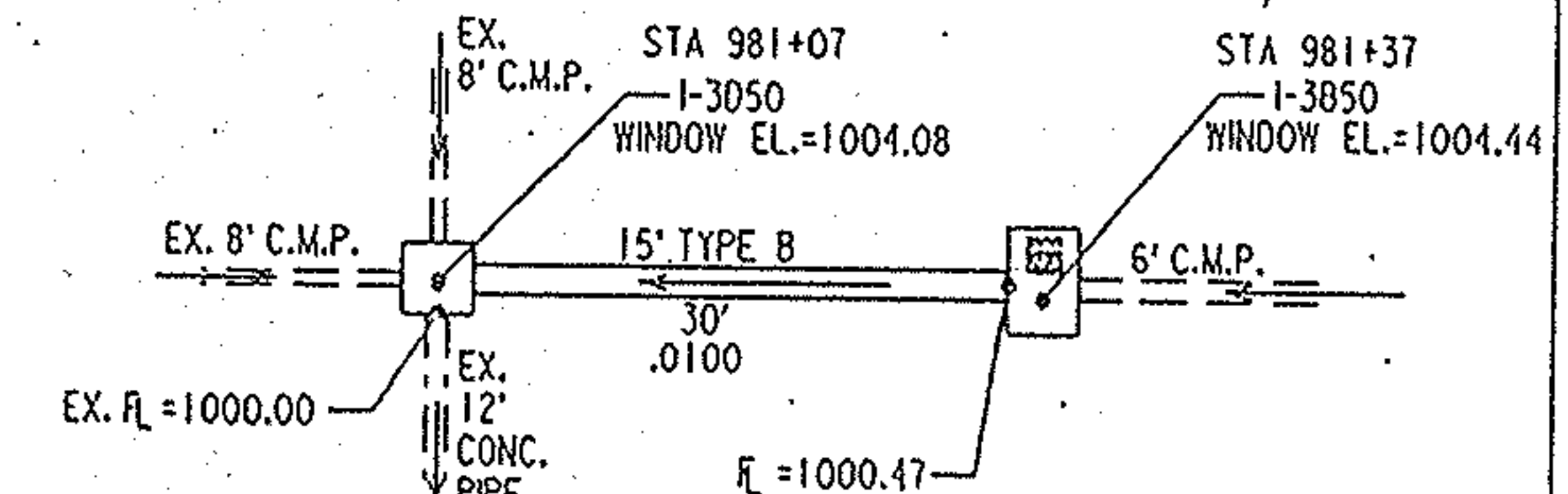
- ITEM 202 GUARDRAIL REMOVED
- ITEM 202 BRIDGE TERMINAL ASSEMBLY REMOVED
- ITEM 202 ASPHALT CONCRETE UNDER GUARDRAIL REMOVED (C.Y.)
- ITEM 203 LINEAR GRADING, METHOD 2
- ITEM 404 ASPHALT CONCRETE, AC-20, UNDER GUARDRAIL
- ITEM 408 BITUMINOUS PRIME COAT
- ITEM 606 GUARDRAIL, TYPE 5
- ITEM 606 BRIDGE TERMINAL ASSEMBLY, TYPE 1
- ITEM 606 BRIDGE TERMINAL ASSEMBLY, TYPE 2

PP - PAVEMENT PLANING

- ITEM 254 PAVEMENT PLANING, BITUMINOUS
- ITEM 403 ASPHALT CONCRETE, AC-20
- ITEM 404 ASPHALT CONCRETE, AC-20
- ITEM 407 TACK COAT

CB - CONCRETE BARRIER

- ITEM 202 CONCRETE MEDIAN REMOVED, AS PER PLAN
- ITEM 203 SUBGRADE COMPACTION
- ITEM 301 BITUMINOUS AGGREGATE BASE, AC-20
- ITEM 310 SUBBASE
- ITEM 622 CONCRETE BARRIER, TYPE B-50, AS PER PLAN



PROP. 9" CONCRETE
MEDIAN BARRIER BASE

ITEM 310 - SUBBASE
(VARIES 2.5-5 in.)

ITEM 301 - BITUMINOUS AGGREGATE BASE, AC-20
(VARIES 10-12.5 in.)

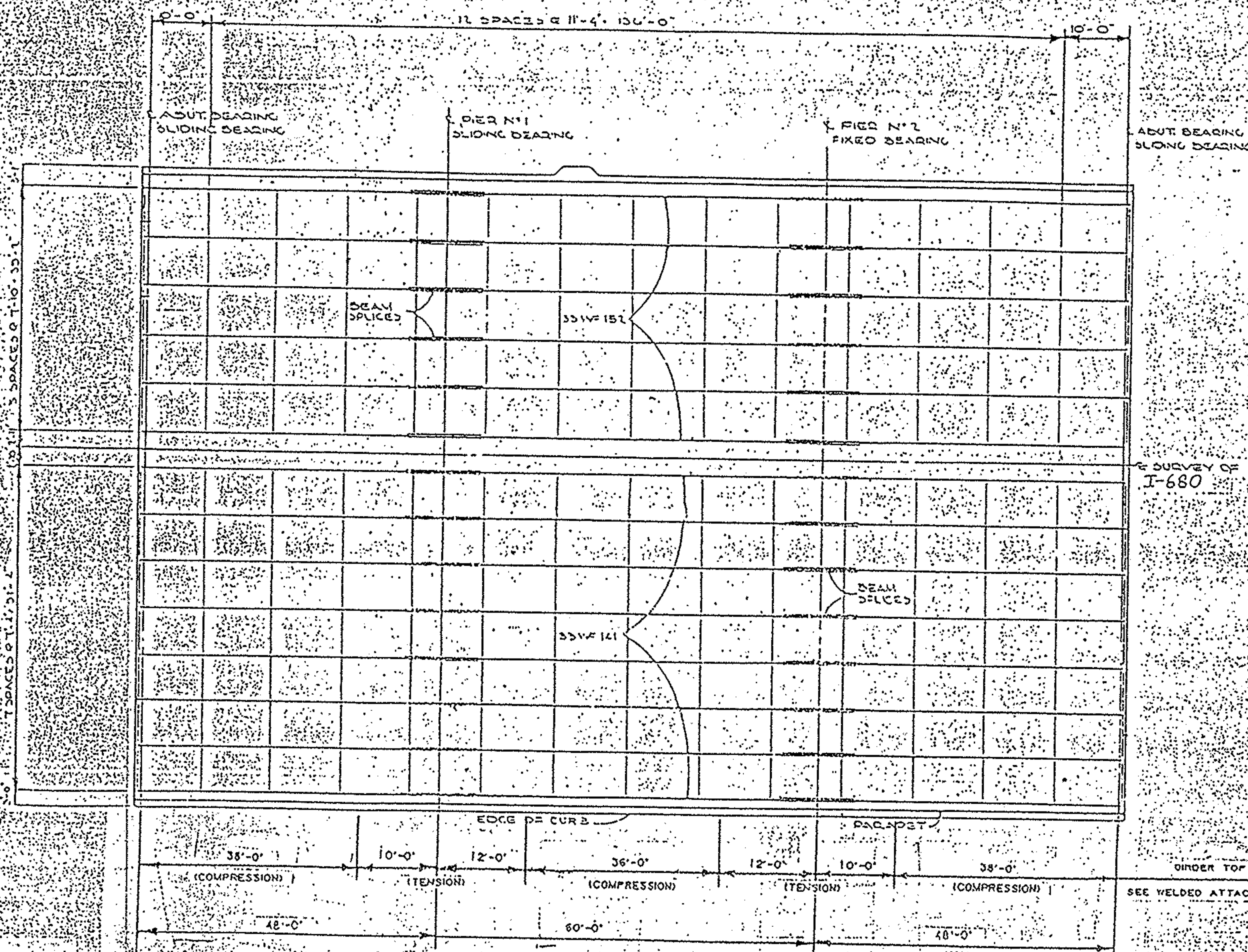
- EXISTING TO BE REMOVED UNDER
ITEM 202 - CONCRETE MEDIAN REMOVED, AS PER PLAN

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION				
SITE PLAN				
MAH-680-0508 (OVER EDWARDS ST.)				
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
JM	SCB	NM	4/7/91	3-93

F.H.V.A. REGION	STATE	PROJECT NO.	FUNDS
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MAH-680-0508/0557



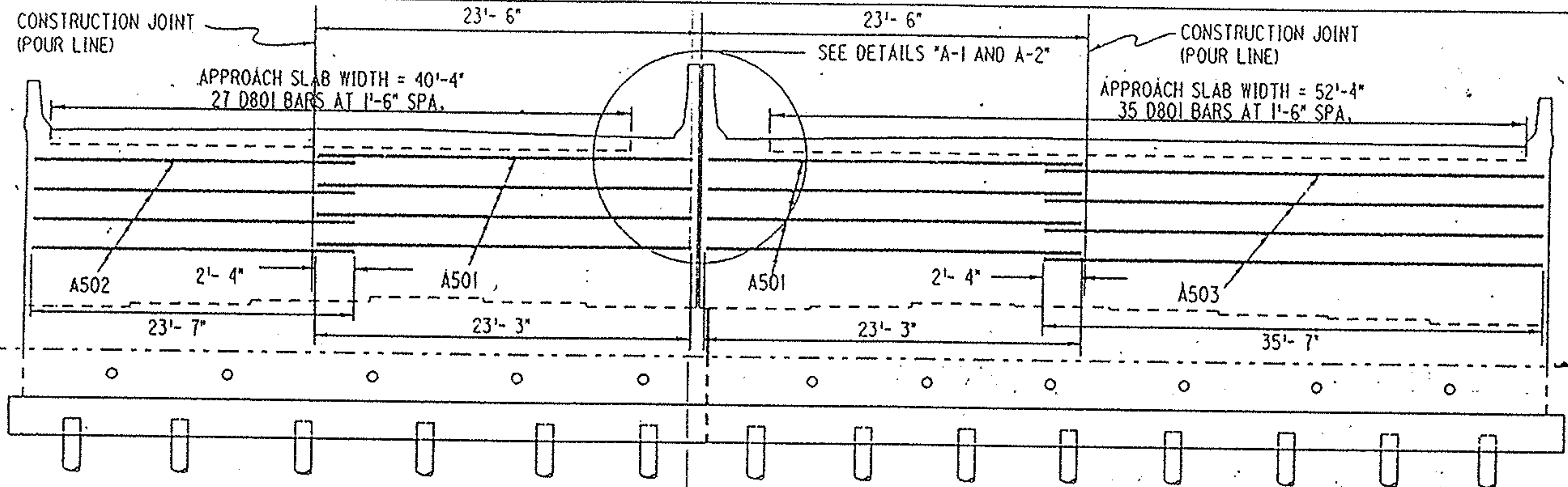
ANTICIPATED DEAD LOAD DEFLECTION				
LOCATION	10' SPAN	20' SPAN	30' SPAN	40' SPAN
DEFLECTION CUE TO WEIGHT OF STEEL	.05	.07	.04	.05
DEFLECTION CUE TO REMOVED DEAD LOAD	.32	.43	.21	.33
SUM OF DEFLECTION	.35	.50	.25	.35

WELDED ATTACHMENT
WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FACIA GIRDER FLANGES DESIGNATED 'COMPRESSION'. ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED 'TENSION'. FILLET WELDS TO COMPRESSION FLANGES SHALL NOT BE CLOSER THAN 1" FROM THE EDGE OF FLANGE, BUT NOT MORE THAN 2" LONG, AND NOT TO BE SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.

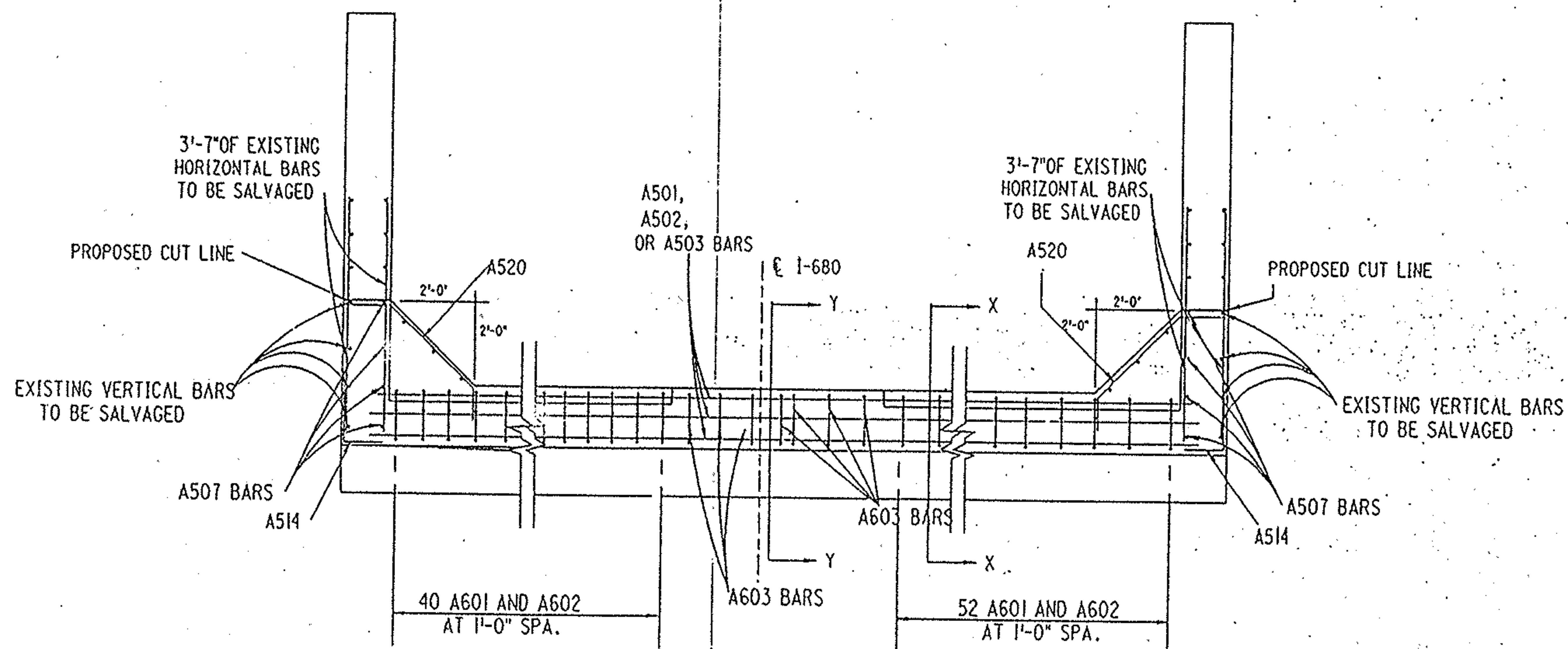
FRAMING PLAN

SEE WELDED ATTACHMENT NOTE

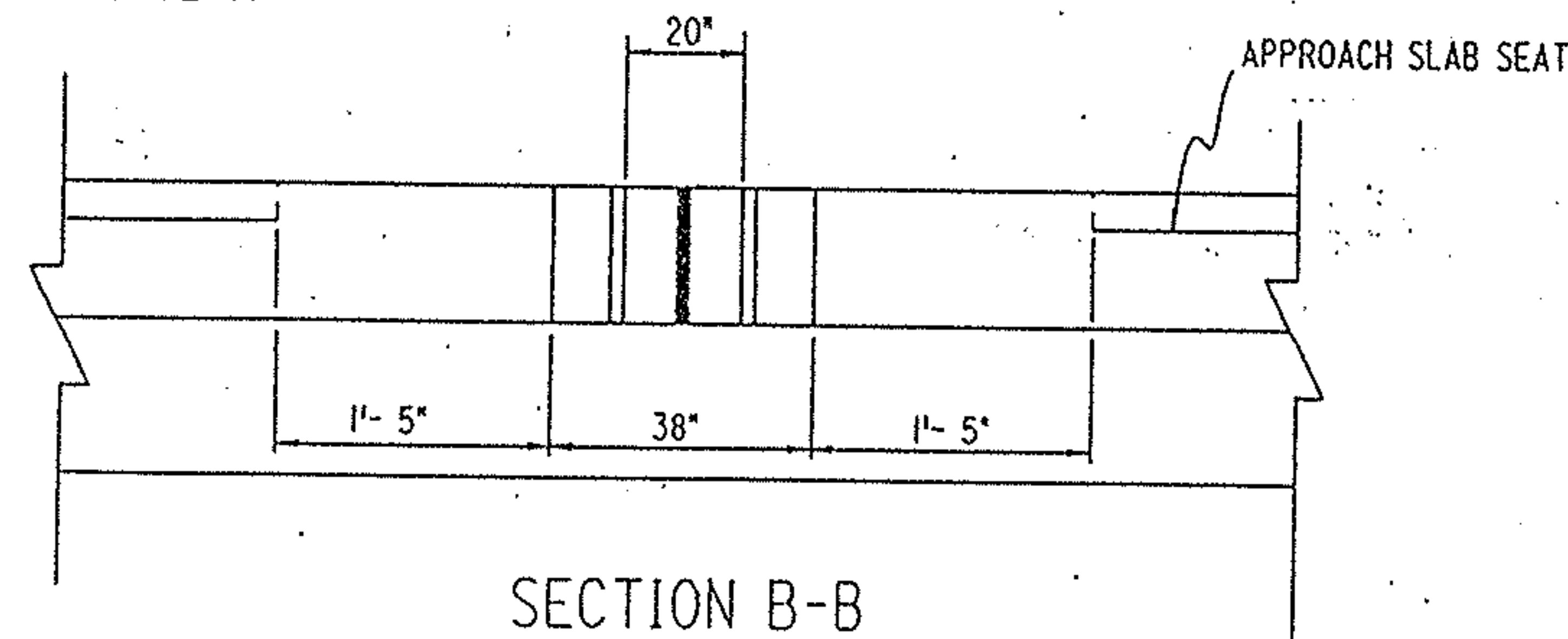
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION				
EXISTING FRAMING PLAN EDWARDS ST. MAH-680-0508				
DESIGNED	CHECKED	APPROVED	DATE	REVIEWED
JM	JM	JM	3-93	



ELEVATION OF ABUTMENT #2
REFLECTED ELEVATION OF ABUTMENT #1



PLAN VIEW
PROPOSED BACKWALL FOR ABUTMENT #2
ABUTMENT #1 SIMILAR

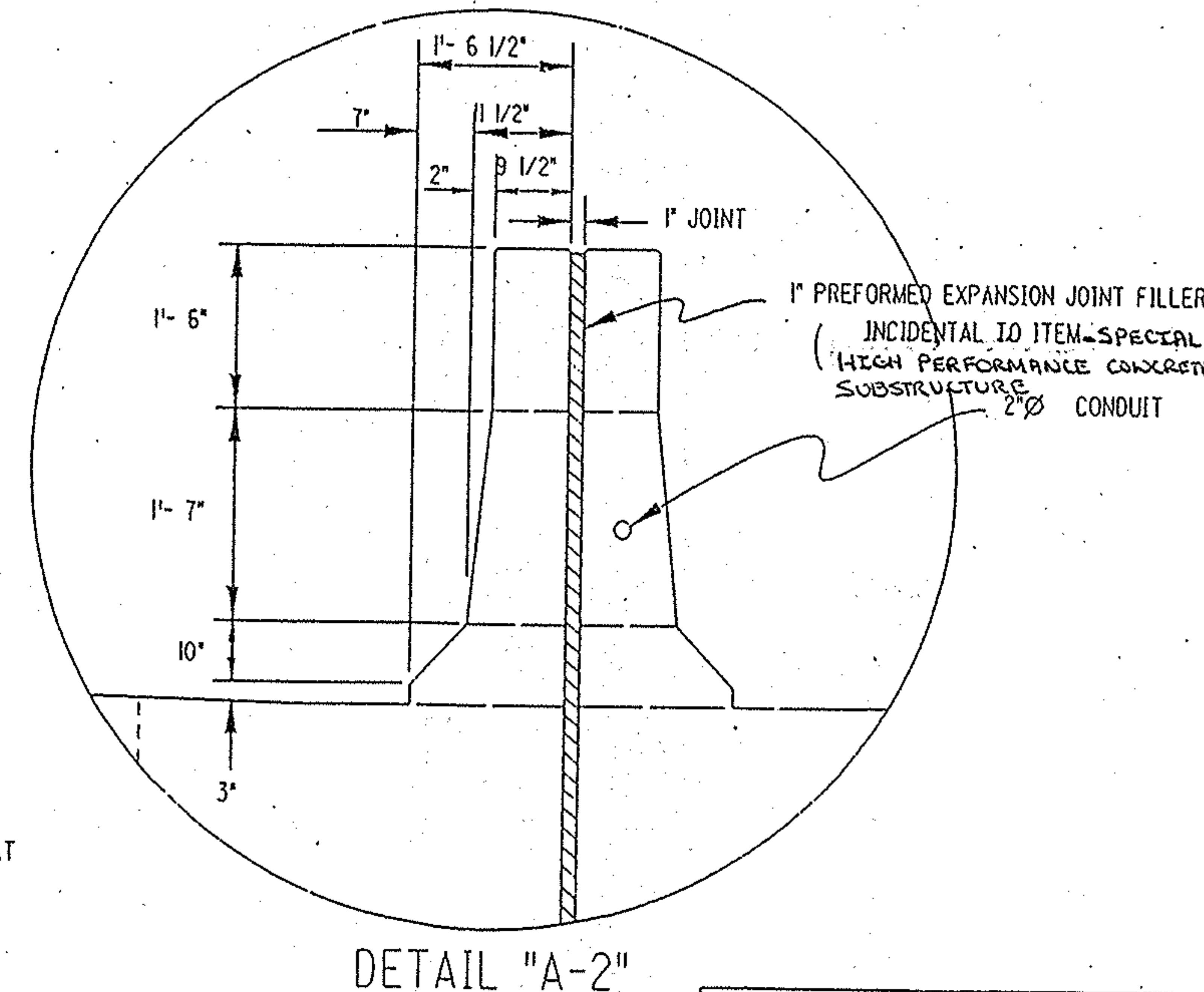
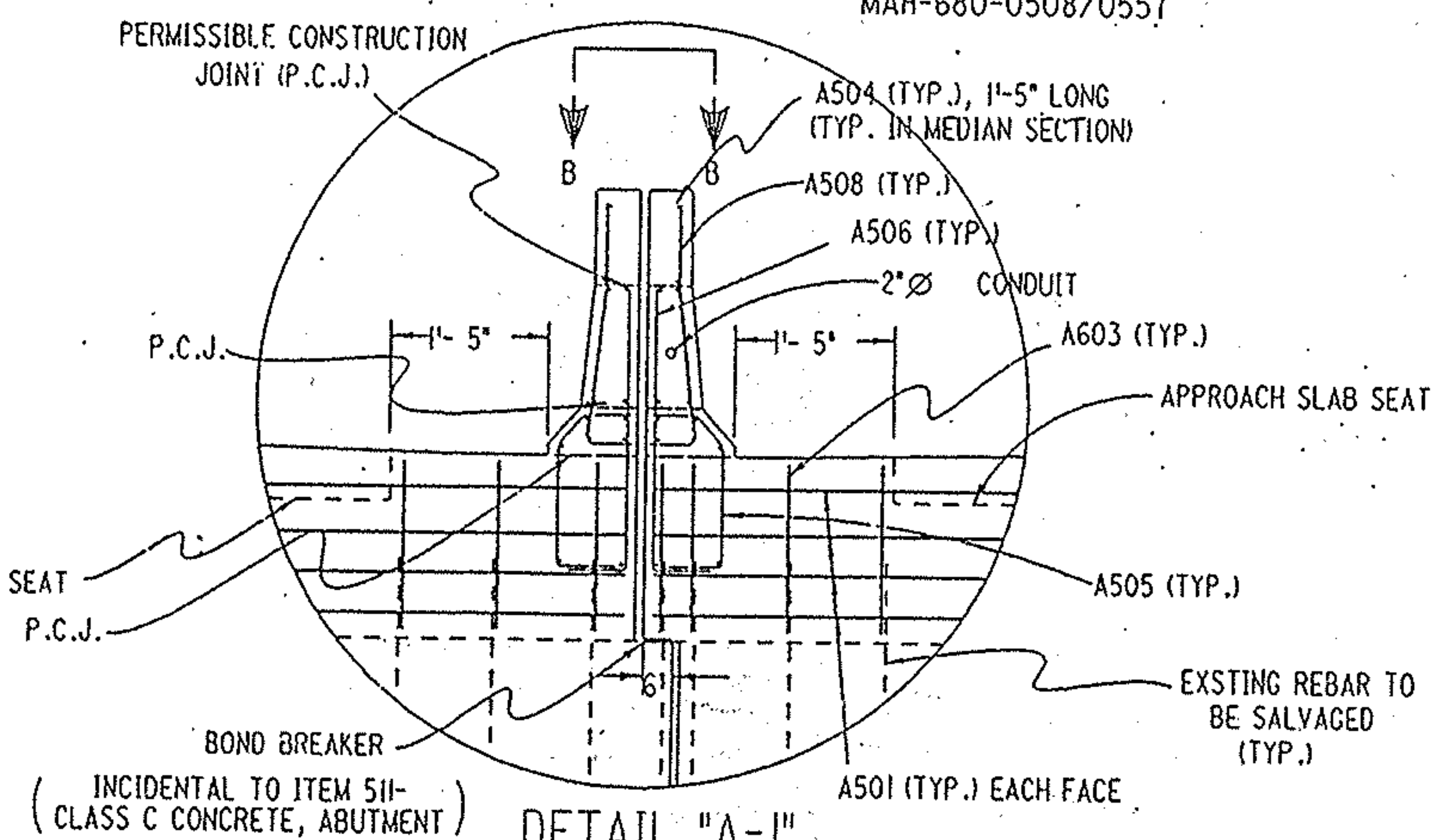


SECTION B-B

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

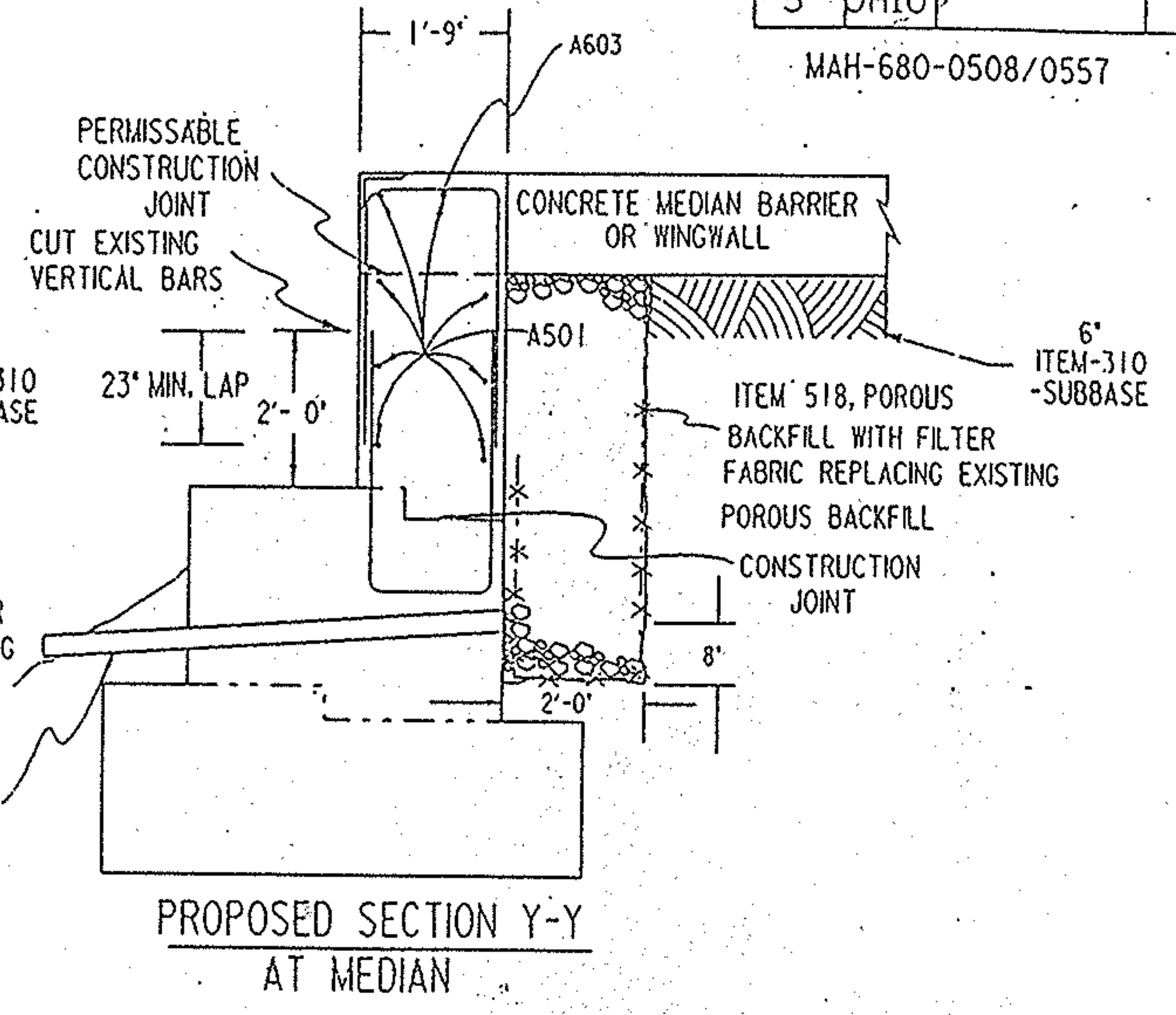
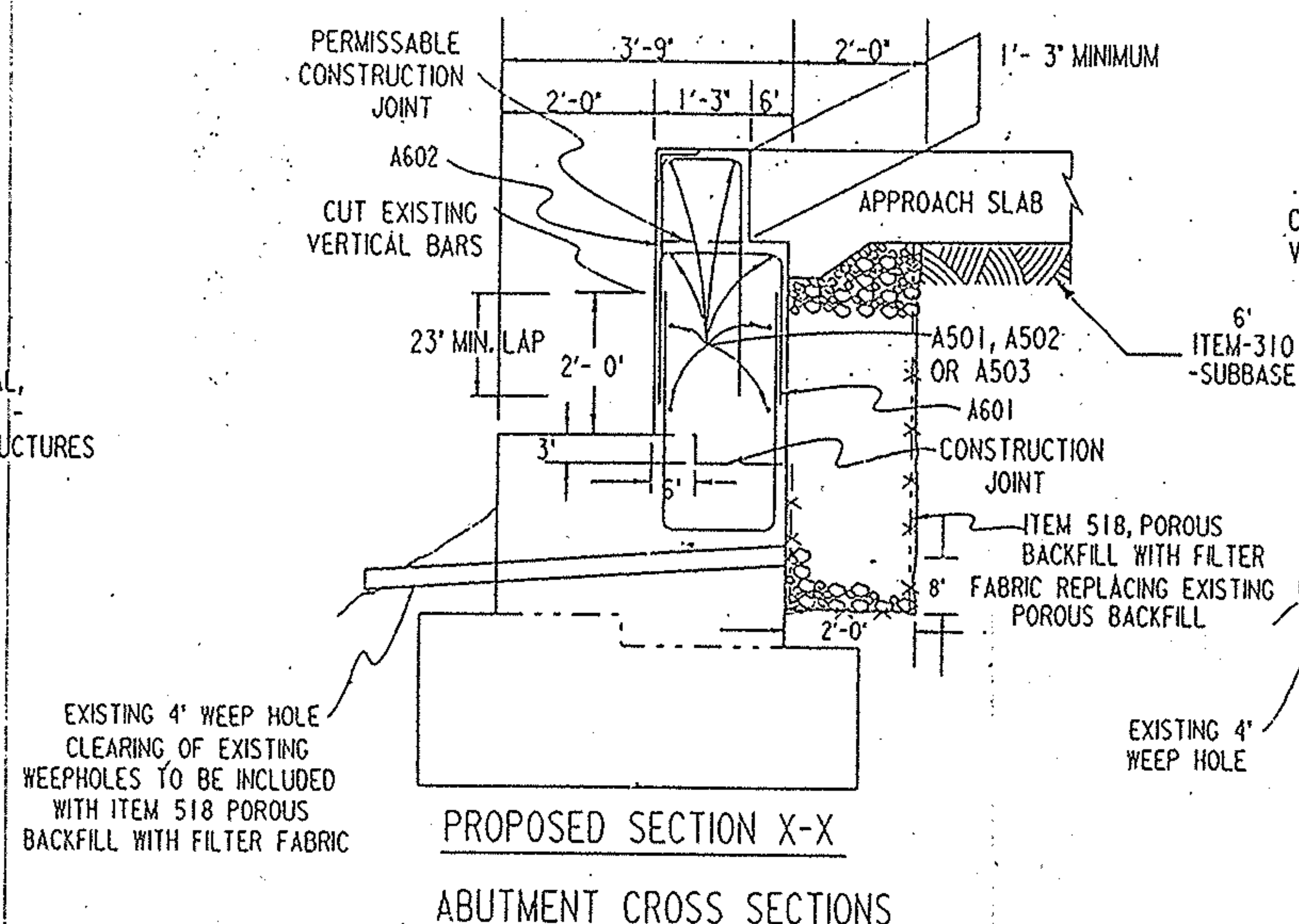
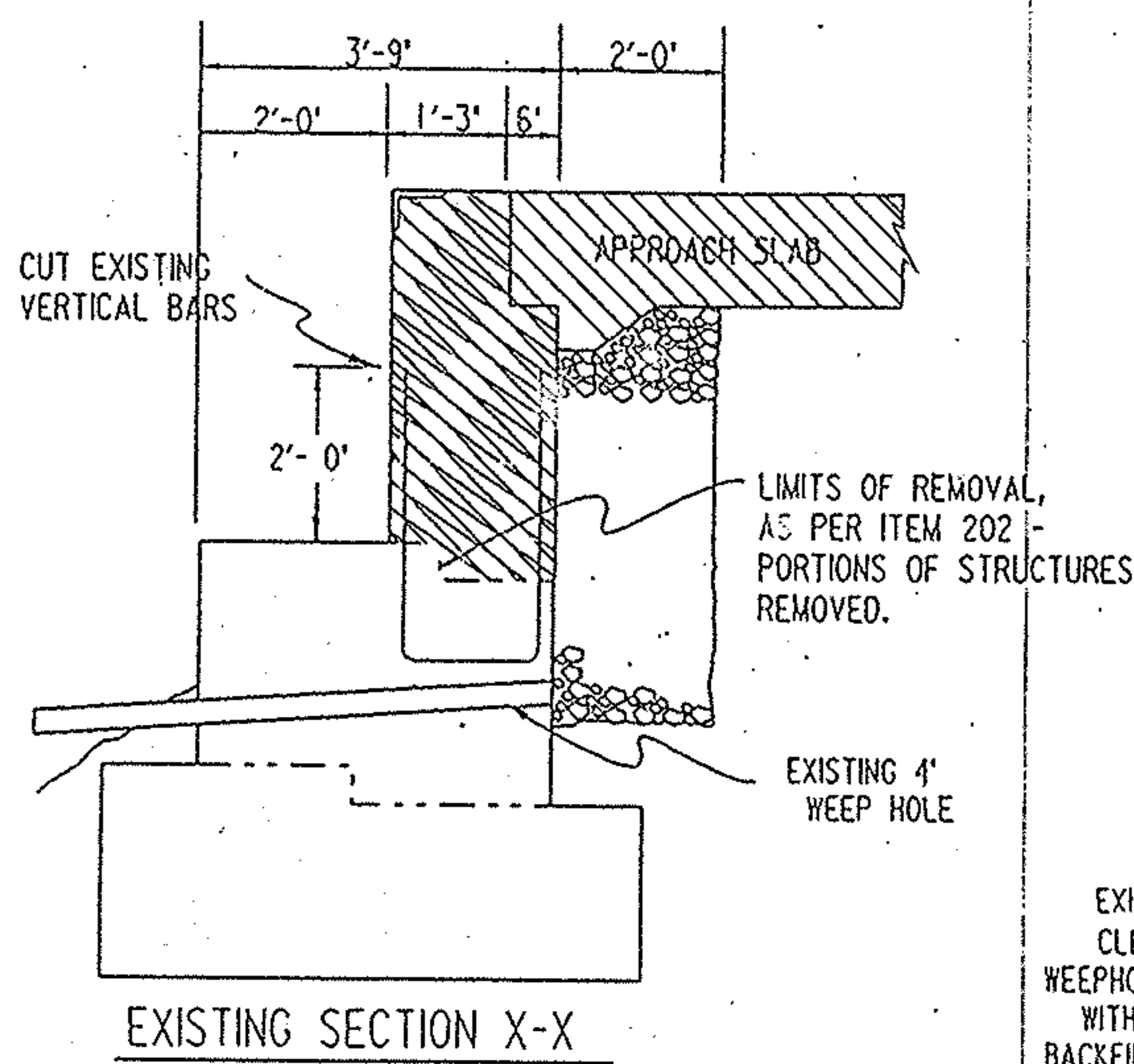
20
44

MAH-680-0508/0557



DESIGNED	DRAWN	CHECKED	REVIEWED DATE	REVISION
TB	SB	JM	NM 3-93	

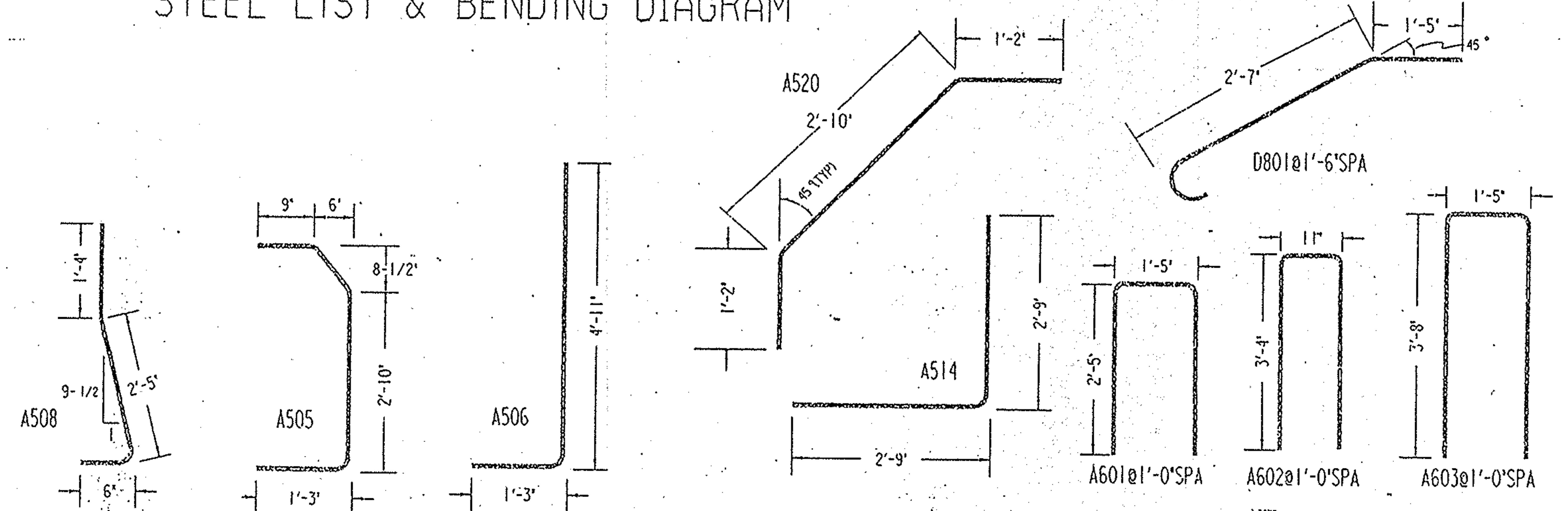
MAH-680-0508/0557



STR. NO. MAH-680-0508

MARK	NO.	LENGTH	WEIGHT	SHAPE
A 501	32	23'- 3'	776	STRAIGHT
A 502	16	23'- 7'	394	STRAIGHT
A 503	16	35'- 7'	594	STRAIGHT
A 504	52	1'- 5'	71	STRAIGHT
A 505	8	5'- 8"	47	BENT
A 506	8	6'- 1"	51	BENT
A 507	16	3'- 6'	58	STRAIGHT
A 508	8	4'- 2"	35	BENT
A 514	16	5'- 5'	90	BENT
A 520	12	5'- 1'	64	BENT
A 601	184	5'- 11'	1636	BENT
A 602	184	7'- 3"	2004	BENT
A 603	14	8'- 5"	177	BENT
D 801	124	4'- 11'	1630	BENT
TOTAL POUNDS			7633	

STEEL LIST & BENDING DIAGRAM



STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION				
BACKWALL DETAILS & STEEL LIST AND BENDING DIAGRAMS MAH-680-0508 (OVER EDWARDS ST.)				
DESIGNED T.D.	DRAWN S.B.	CHECKED J.M.	REVIEWED DATE 7/7/93	REVISED

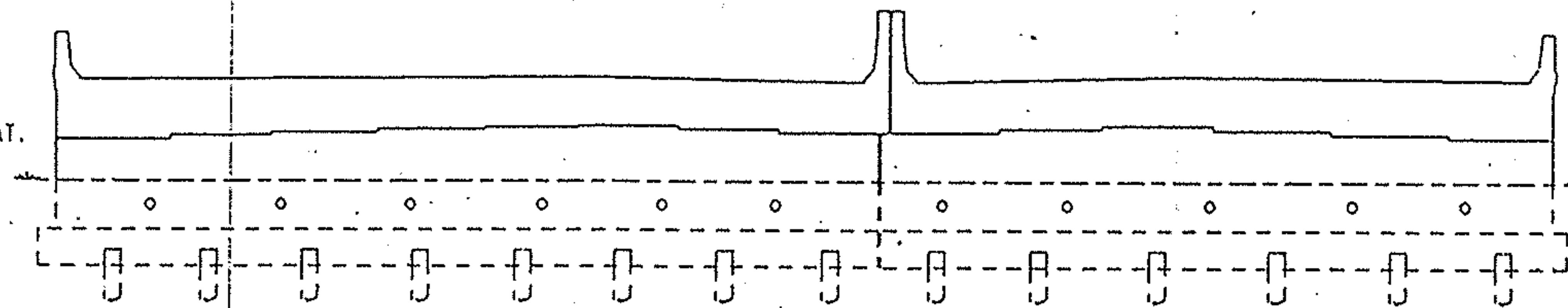
CONCRETE PATCHING

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

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44

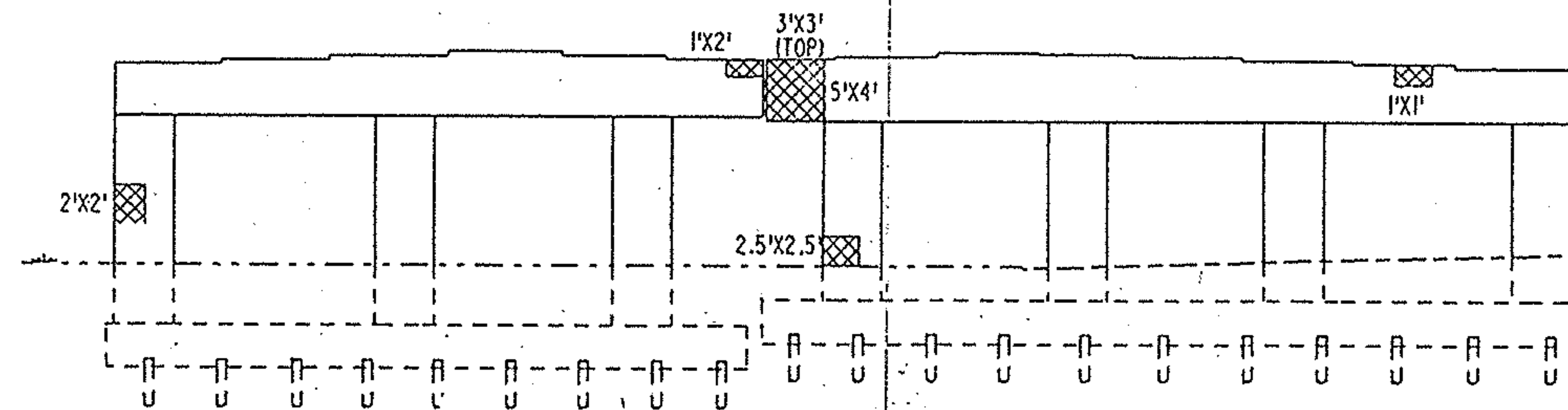
MAH-680-0508/0557

NOTE: A QUANTITY OF 50 S.F. HAS BEEN PROVIDED IN ORDER TO PATCH THE BEAM SEAT.

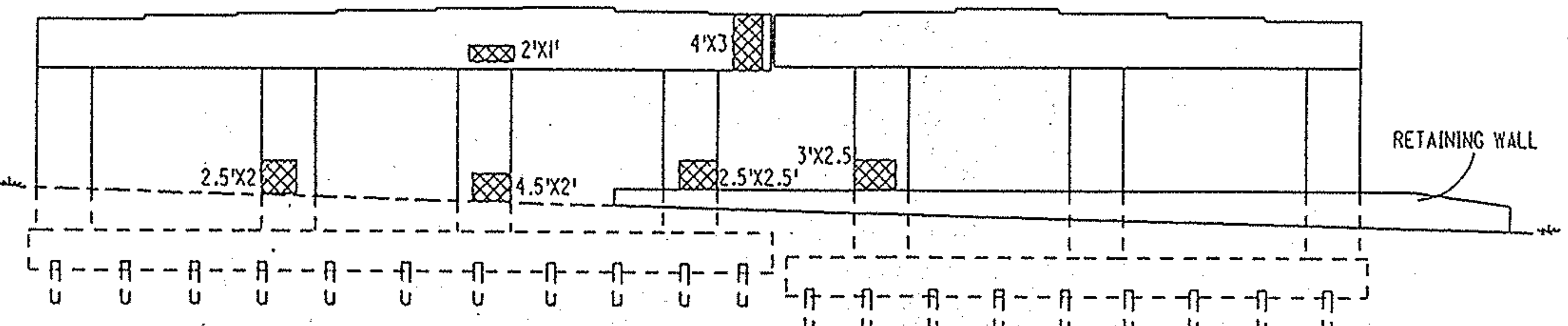


ABUTMENT #1

- ① PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN SEPTEMBER OF 1992.
- ②  INDICATES AREA TO BE PATCHED PER ITEM 520 - PNEUMATICALLY PLACED MORTAR UNLESS OTHERWISE DETERMINED BY THE ENGINEER.
- ③ RETAINING WALLS TO BE PATCHED UNDER ITEM 520 - PNEUMATICALLY PLACED MORTAR.

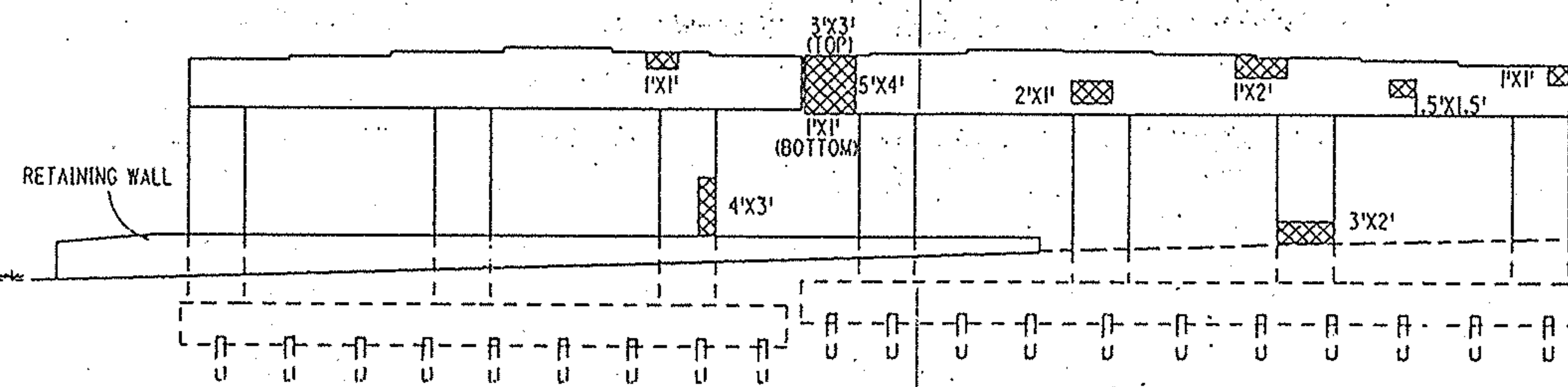


PIER #1
(LOOKING EAST)



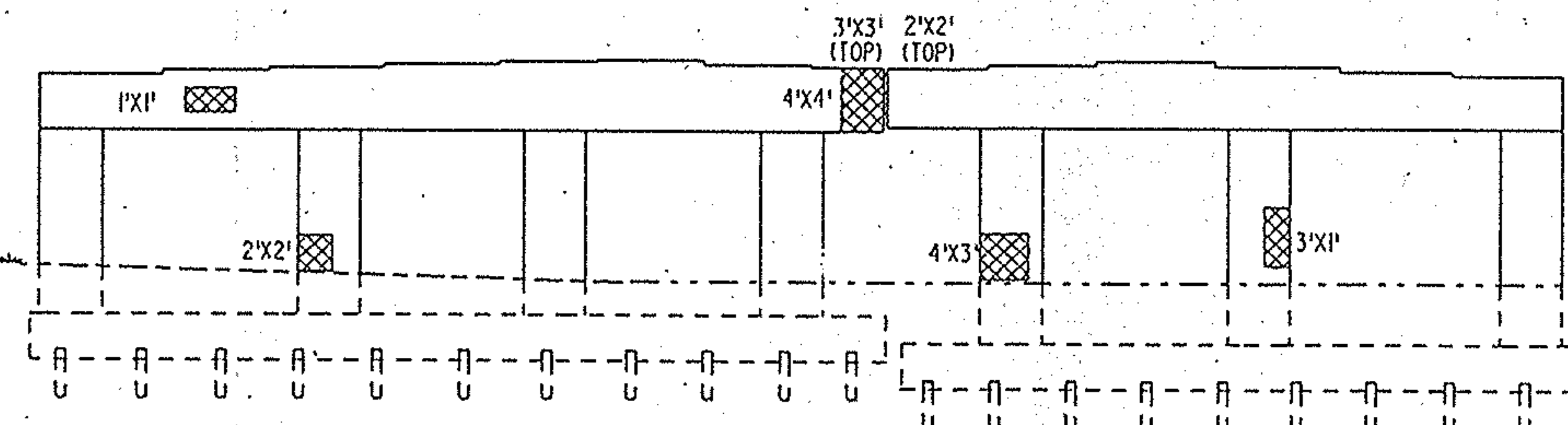
PIER #1
(LOOKING WEST)

NOTE: A QUANTITY OF 30 S.F. HAS BEEN PROVIDED IN ORDER TO PATCH THE RETAINING WALL.



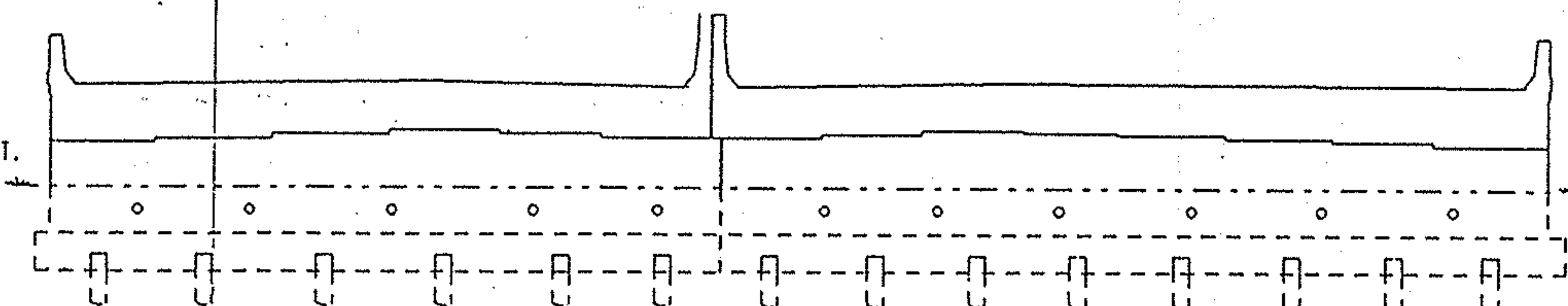
PIER #2
(LOOKING EAST)

NOTE: A QUANTITY OF 30 S.F. HAS BEEN PROVIDED IN ORDER TO PATCH THE RETAINING WALL.



PIER #2
(LOOKING WEST)

NOTE: A QUANTITY OF 50 S.F. HAS BEEN PROVIDED IN ORDER TO PATCH THE BEAM SEAT.



ABUTMENT #2

EDW/PATCH

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
CONCRETE PATCHING DETAILS					
MAH-680-0508 (OVER EDWARDS ST.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	PO	TMM	AM	3-93	

MAH-680-0557 (OVER OAK HILL AVE.)

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

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MAH-680-0508/0557

* SEE GEOMETRIC LAYOUT SHEET FOR SKEW AND OTHER PERTINENT DATA

EXTENTS OF ITEM 254
PAVEMENT PLANING (VARIABLE)

MAH-680-0557 OVER OAK HILL AVE.

REFERENCE NUMBER	STATION TO STATION	SOE	APPROACH SLAB REMOVED, AS PER PLAN	CONCRETE MEDIAN REMOVED, AS PER PLAN	GUARDRAIL REMOVED	BRIDGE TERMINAL ASSEMBLY REMOVED	ASPHALT CONCRETE UNDER GUARDRAIL REMOVED	SUBGRADE COMPACTION	LINEAR GRADING, METHOD 2	PAVEMENT PLANING, BITUMINOUS	BITUMINOUS AGGREGATE BASE, AC-20	SUBBASE	ASPHALT CONCRETE, AC-20	ASPHALT CONCRETE, AC-20	ASPHALT CONCRETE AC-20 UNDER GUARDRAIL	TACK COAT	BITUMINOUS PRIME COAT	GUARDRAIL, TYPE 5	BRIDGE TERMINAL ASSEMBLY, TYPE 1	BRIDGE TERMINAL ASSEMBLY, TYPE 2	REINFORCED CONCRETE APPROACH SLAB (T=15'), AS PER PLAN	CONCRETE BARRIER, TYPE B-50, AS PER PLAN
S.Y.	L.F.	L.F.	CA.	C.Y.	S.Y.	STA	S.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	GAL.	GAL.	L.F.	EA.	EA.	S.Y.	L.T.
AS-1	1004+81.94 - 1005+07.94	RT.	76																			
AS-2	1004+81.94 - 1005+07.94	LT.	76																			
AS-3	1006+88.08 - 1007+14.08	RT.	76																			
AS-4	1006+88.08 - 1007+14.08	LT.	76																			
GR-1	1003+70.94 - 1004+95.94	RT.			113				1.25													
GR-2	1003+70.94 - 1004+95.94	LT.			113				1.25													
GR-3	1007+00.08 - 1008+25.08	RT.			113				1.25													
GR-4	1007+00.08 - 1008+25.08	LT.			113				1.25													
PP-1	1004+06.94 - 1004+81.94	RT.								312			5	10		27						
PP-2	1004+06.94 - 1004+81.94	LT.								258			4	8		23						
PP-3	1007+14.08 - 1007+89.08	RT.								255			4	8		22						
PP-4	1007+14.08 - 1007+89.08	LT.								312			5	10		27						
CB-1	1004+06.94 - 1005+07.94	CL		101							26	8										101
CB-2	1006+88.08 - 1007+89.08	CL		81							26	8										61
TOTAL QUANTITIES			304	182	452	4	16	790	5	1137	52	100	18	36	16	99	140	426	2	2	492	162

* STATIONS ARE RELATIVE TO CL ALONG THE
SKEW, NOT PERPENDICULAR

NOTE: ALL TRAFFIC PAVEMENT MARKINGS ARE TO BE
REPLACED AS PER EXISTING MARKINGS.

(AS) - APPROACH SLAB

ITEM 202 APPROACH SLAB REMOVED, AS PER PLAN
ITEM 203 SUBGRADE COMPACTION
ITEM 310 SUBBASE
ITEM 611 REINFORCED CONCRETE APPROACH SLAB (T=15')

(GR) - GUARDRAIL

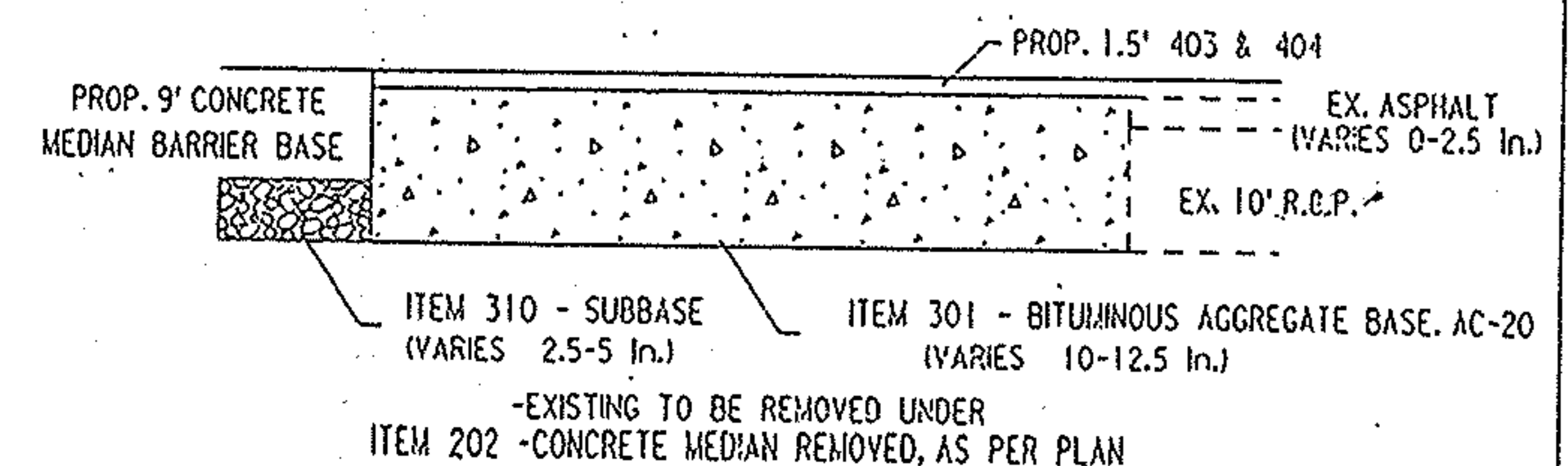
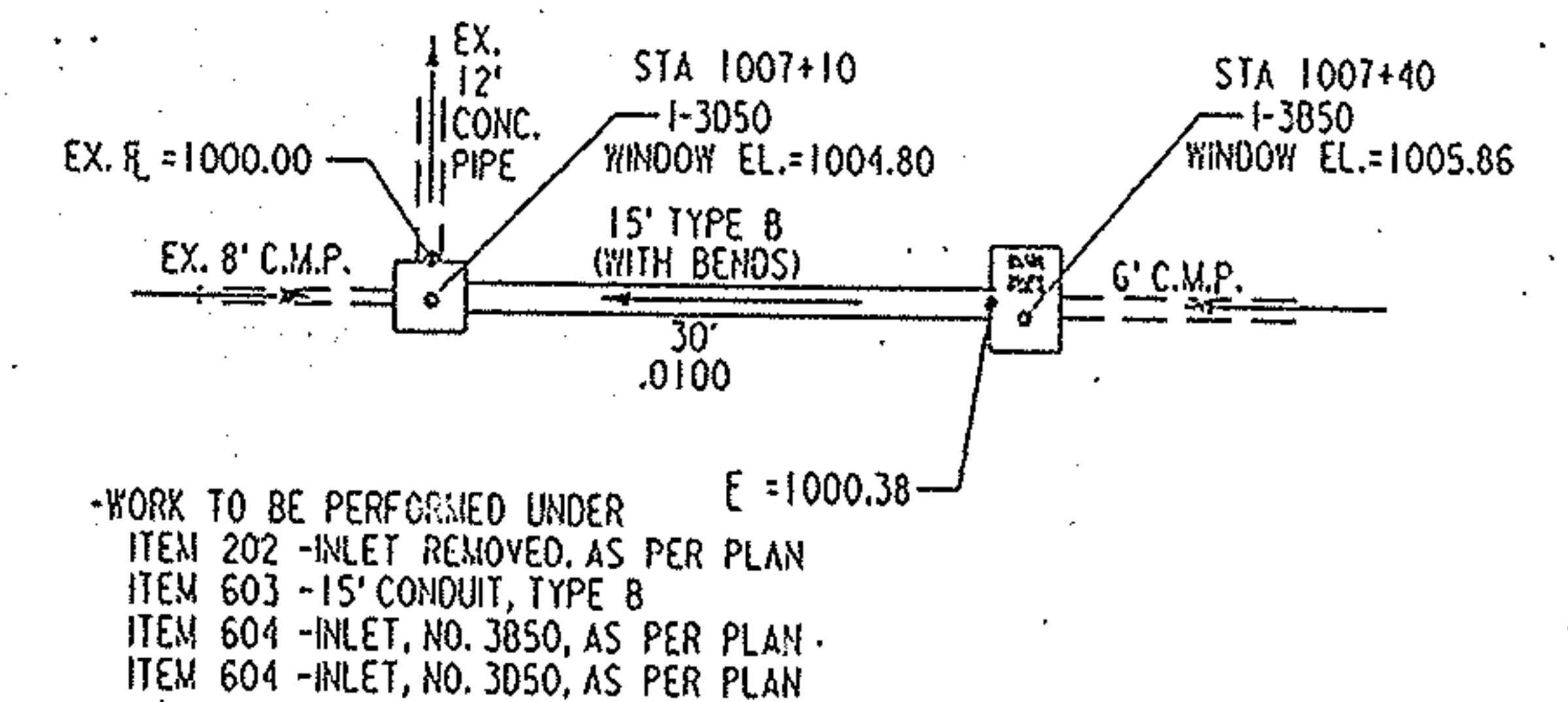
ITEM 202 GUARDRAIL REMOVED
ITEM 202 BRIDGE TERMINAL ASSEMBLY REMOVED
ITEM 202 ASPHALT CONCRETE UNDER GUARDRAIL REMOVED (C.Y.)
ITEM 203 LINEAR GRADING, METHOD 2
ITEM 404 ASPHALT CONCRETE, AC-20, UNDER GUARDRAIL
ITEM 408 BITUMINOUS PRIME COAT
ITEM 606 GUARDRAIL, TYPE 5
ITEM 606 BRIDGE TERMINAL ASSEMBLY, TYPE 1
ITEM 606 BRIDGE TERMINAL ASSEMBLY, TYPE 2

(PP) - PAVEMENT PLANING

ITEM 254 PAVEMENT PLANING, BITUMINOUS
ITEM 403 ASPHALT CONCRETE, AC-20
ITEM 404 ASPHALT CONCRETE, AC-20
ITEM 407 TACK COAT

(CB) - CONCRETE BARRIER

ITEM 202 CONCRETE MEDIAN REMOVED, AS PER PLAN
ITEM 203 SUBGRADE COMPACTION
ITEM 301 BITUMINOUS AGGREGATE BASE, AC-20
ITEM 310 SUBBASE
ITEM 622 CONCRETE BARRIER, TYPE B-50, AS PER PLAN



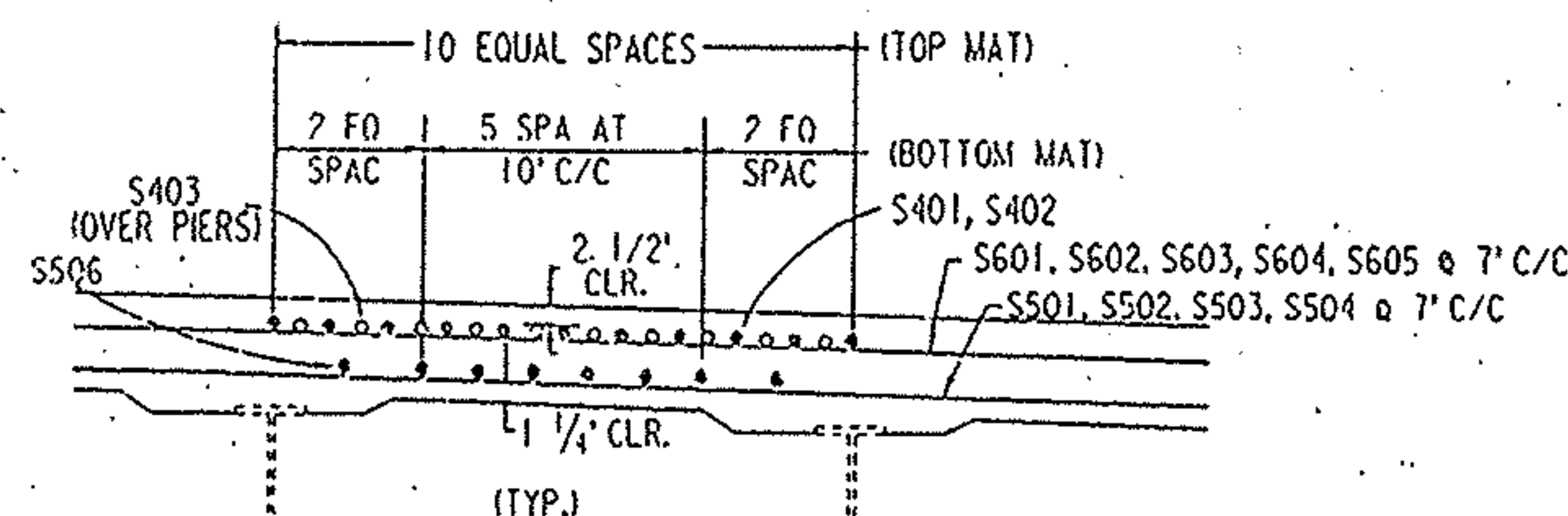
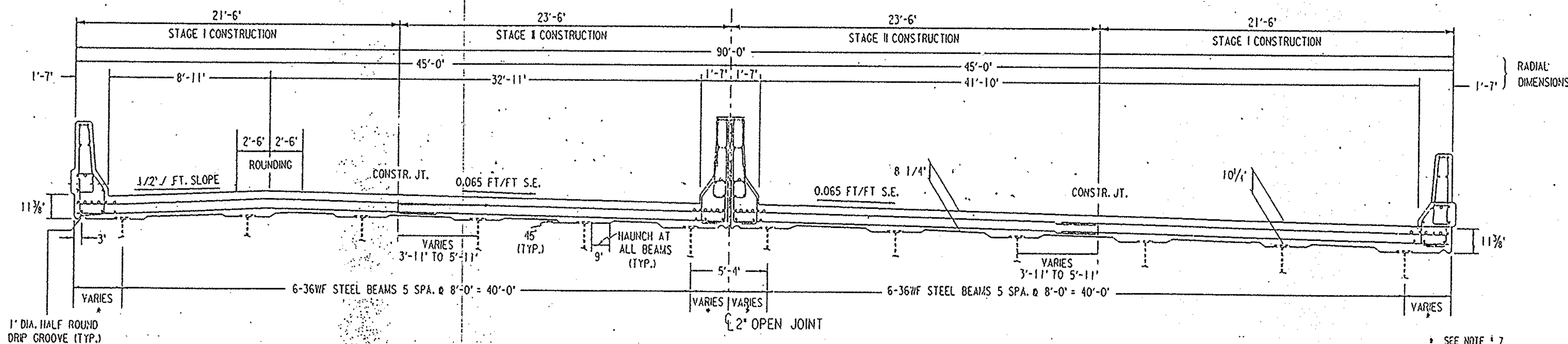
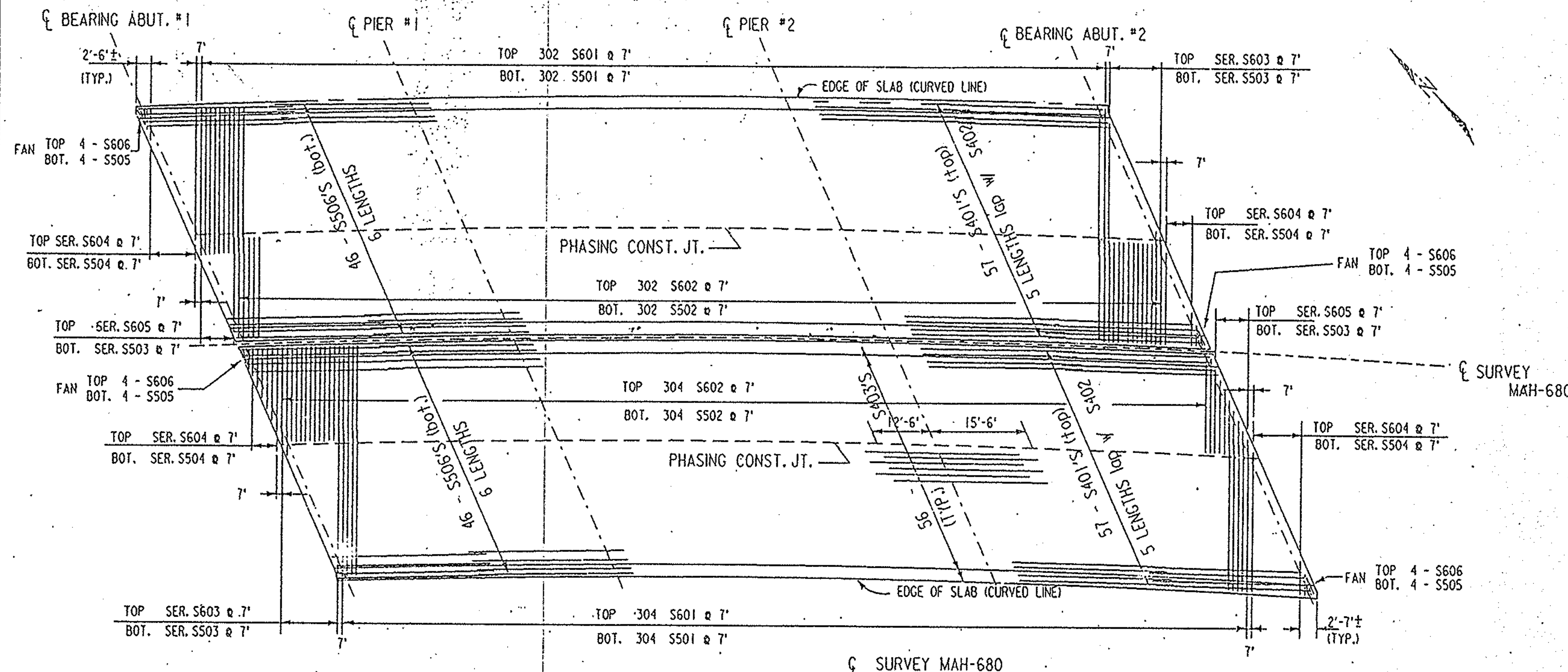
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
SITE PLAN					
MAH-680-0557 OVER OAK HILL AVE.					
DESIGNED BY	CHECKED BY	REVIEWED BY	DATE	REVISED	
JM	SCB	JMM	7/77	3-93	

F.V.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		

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MAH-680-0508/0557

- DECK SLAB DEPTH: THE DISTANCE SHOWN FROM THE TOP OF DECK SLAB TO TOP OF STEEL BEAM IS A DESIGN DIMENSION. THE QUANTITY OF CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.
- A HAUNCH WIDTH OF 9' SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6' TO 12' (PROVIDED THAT THE SLOPE SHALL BE NOT MORE THAN 45°.)
- ALL REINFORCING BARS IN THE SUPERSTRUCTURE SHALL BE EPOXY COATED.
- MINIMUM BAR LAPS ARE AS FOLLOWS:
 * 4 BARS = 1'-8"
 * 5 BARS = 2'-0"
 * 6 BARS = 2'-6"
- TRANSVERSE REINFORCEMENT SHALL BE FIELD BENT AS REQUIRED. PAYMENT SHALL BE INCLUDED WITH ITEM 509, EPOXY COATED REINFORCING STEEL, GRADE 60.
- SCREED ELEVATIONS ARE TO BE DETERMINED BY THE CONTRACTOR ACCORDING TO THE NOTE UNDER ITEM 623, CONSTRUCTION LAYOUT STAKES, AS PER PLAN.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MEASURE THE EDGE OF DECK OFFSETS PRIOR TO ANY DEMOLITION AS DIRECTED BY THE ENGINEER. THESE MEASURED OFFSETS SHALL BE INCORPORATED INTO THE PROPOSED DECK.



NOTE: S.E. = FULL SUPERELEVATION

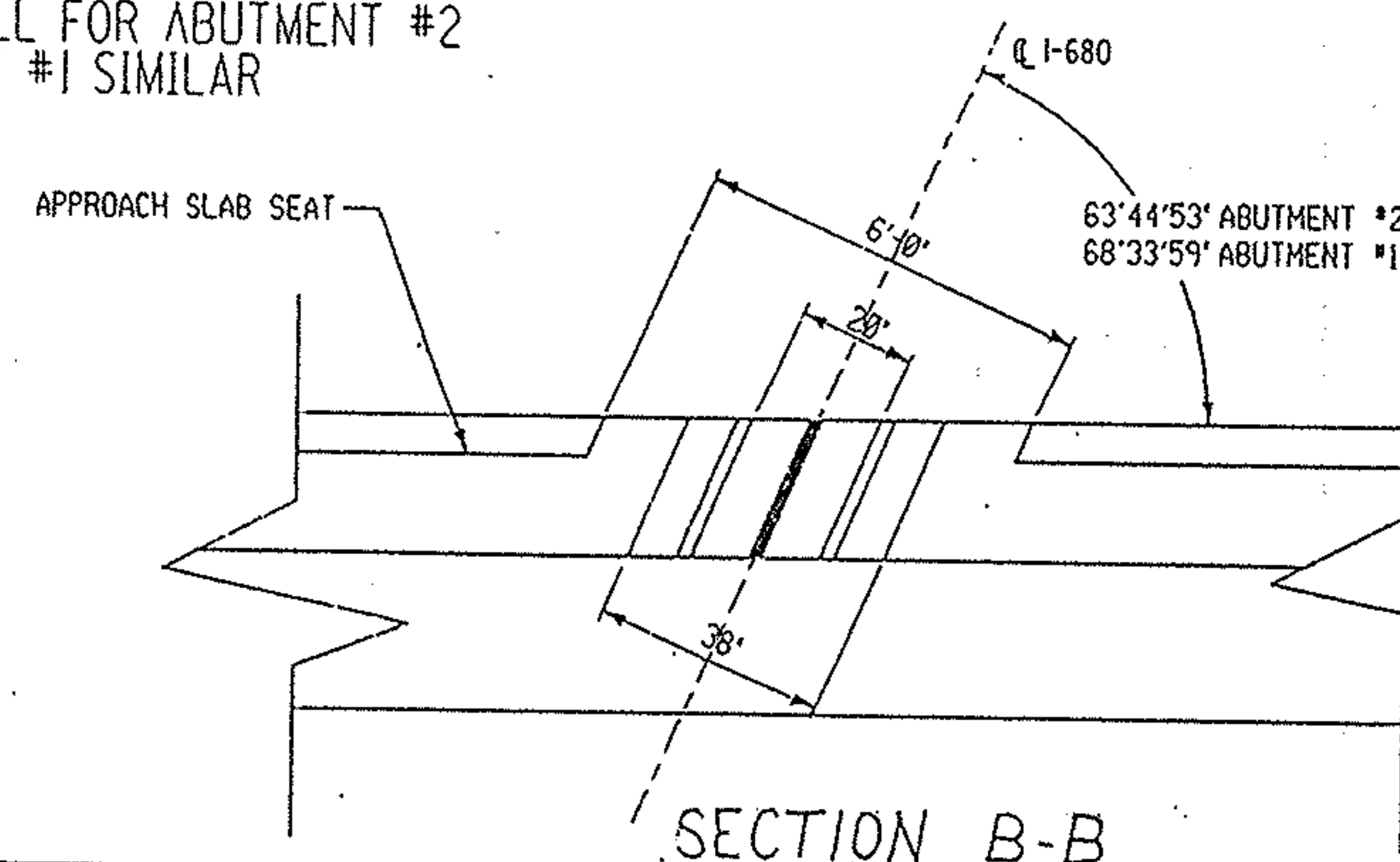
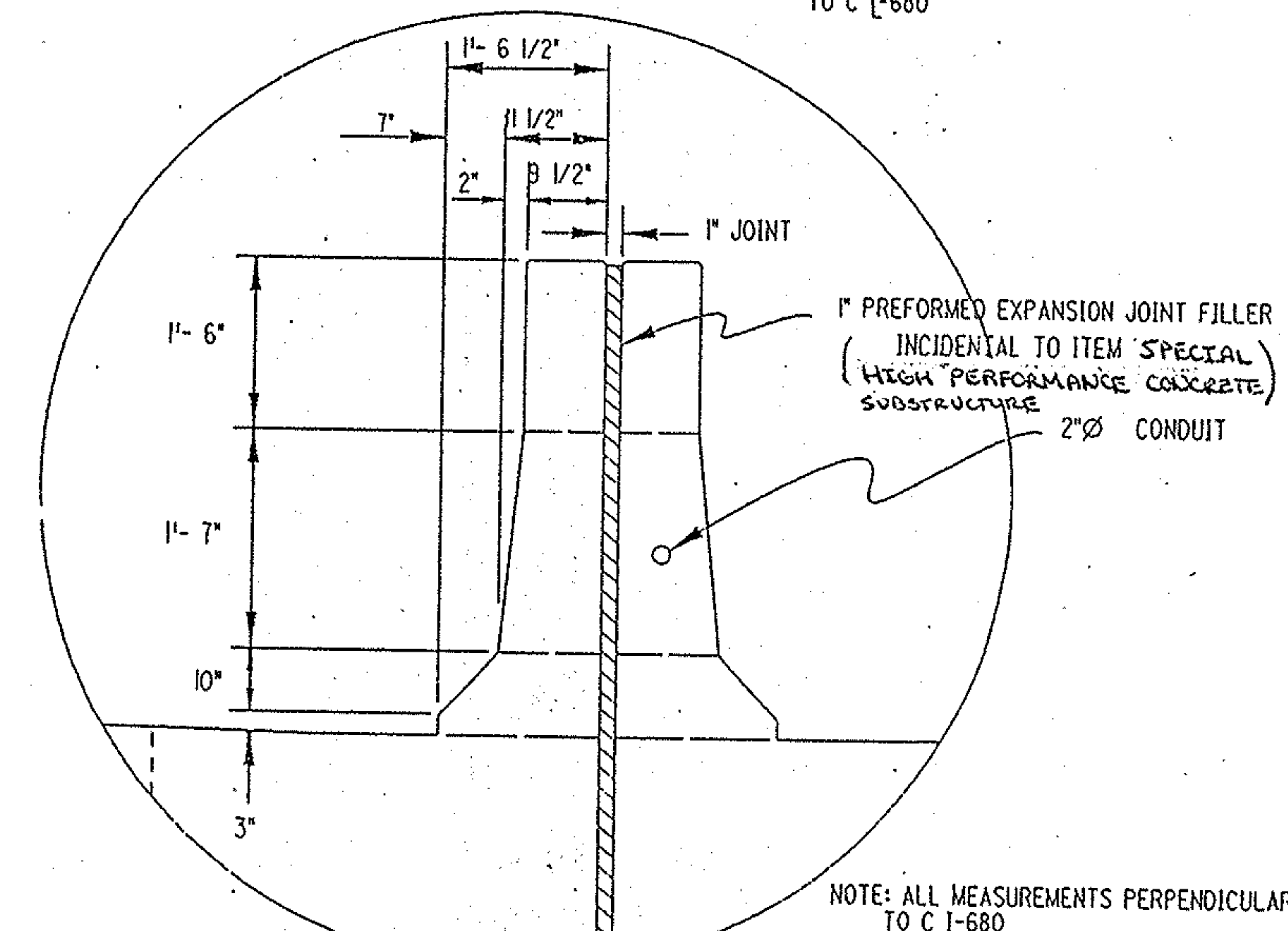
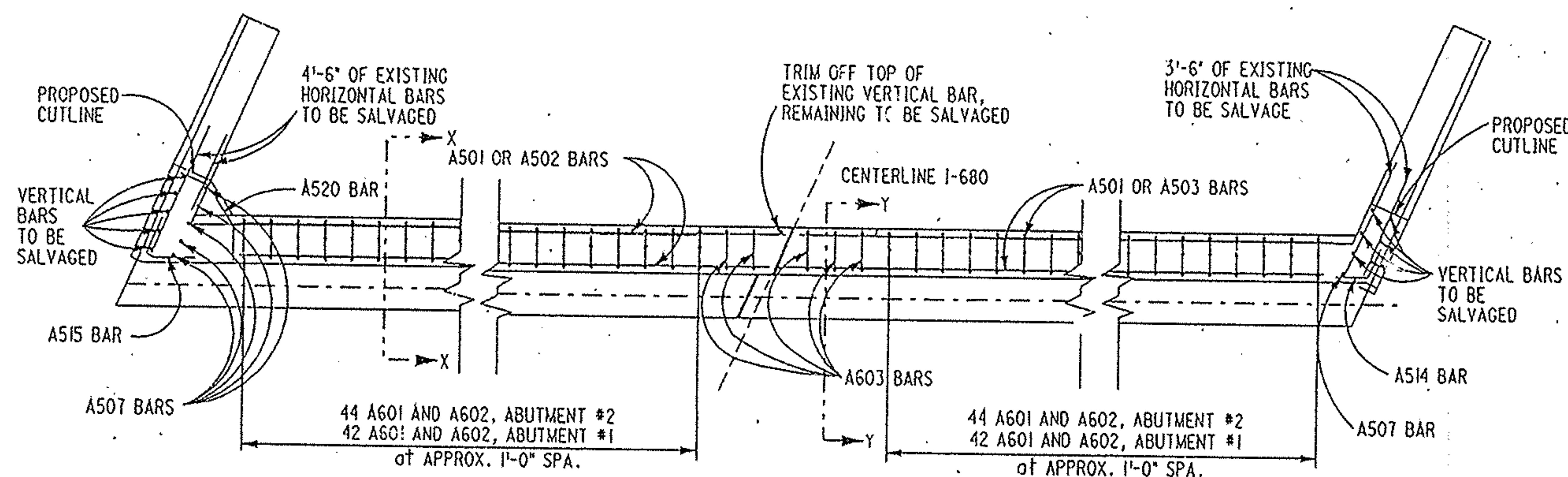
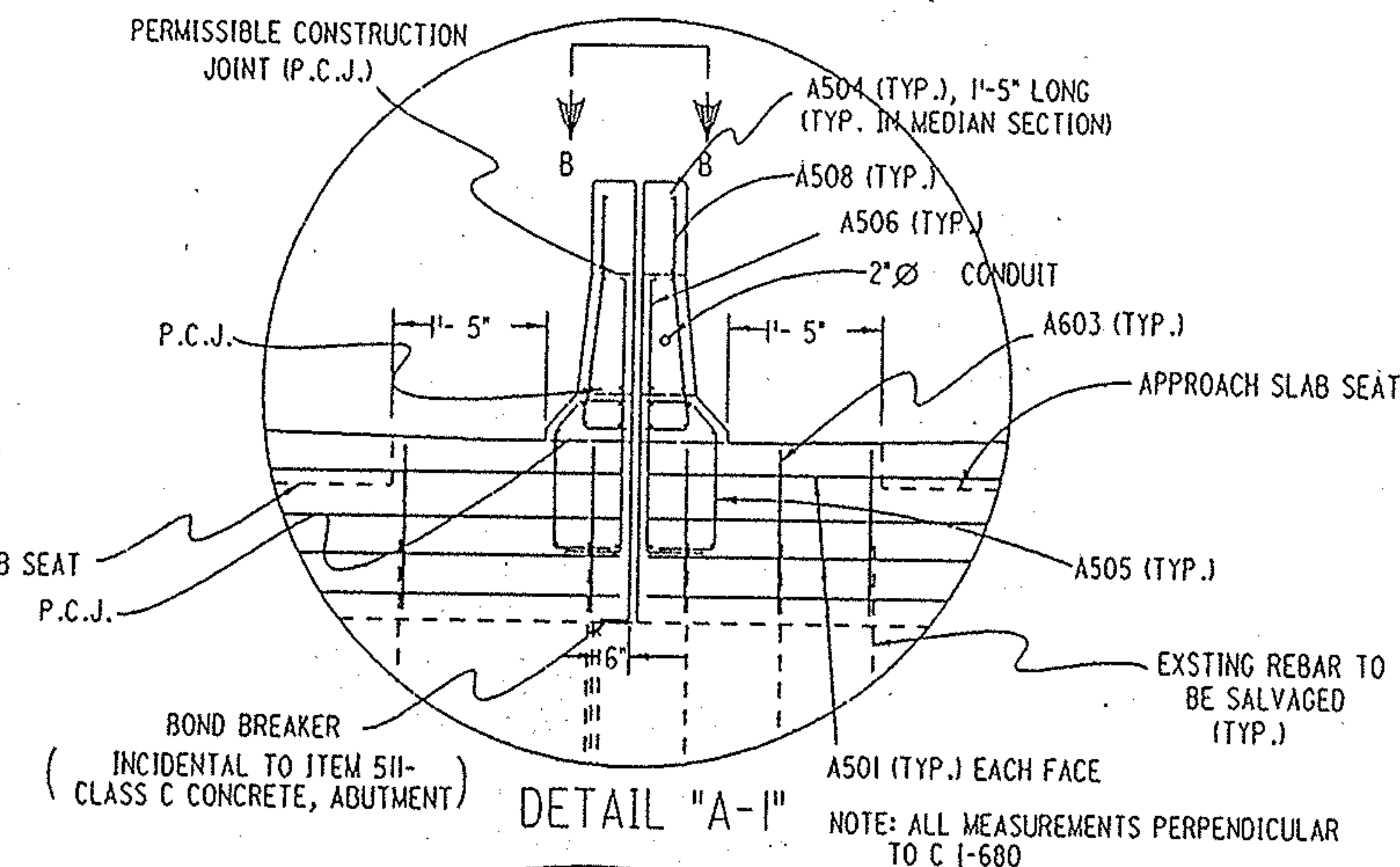
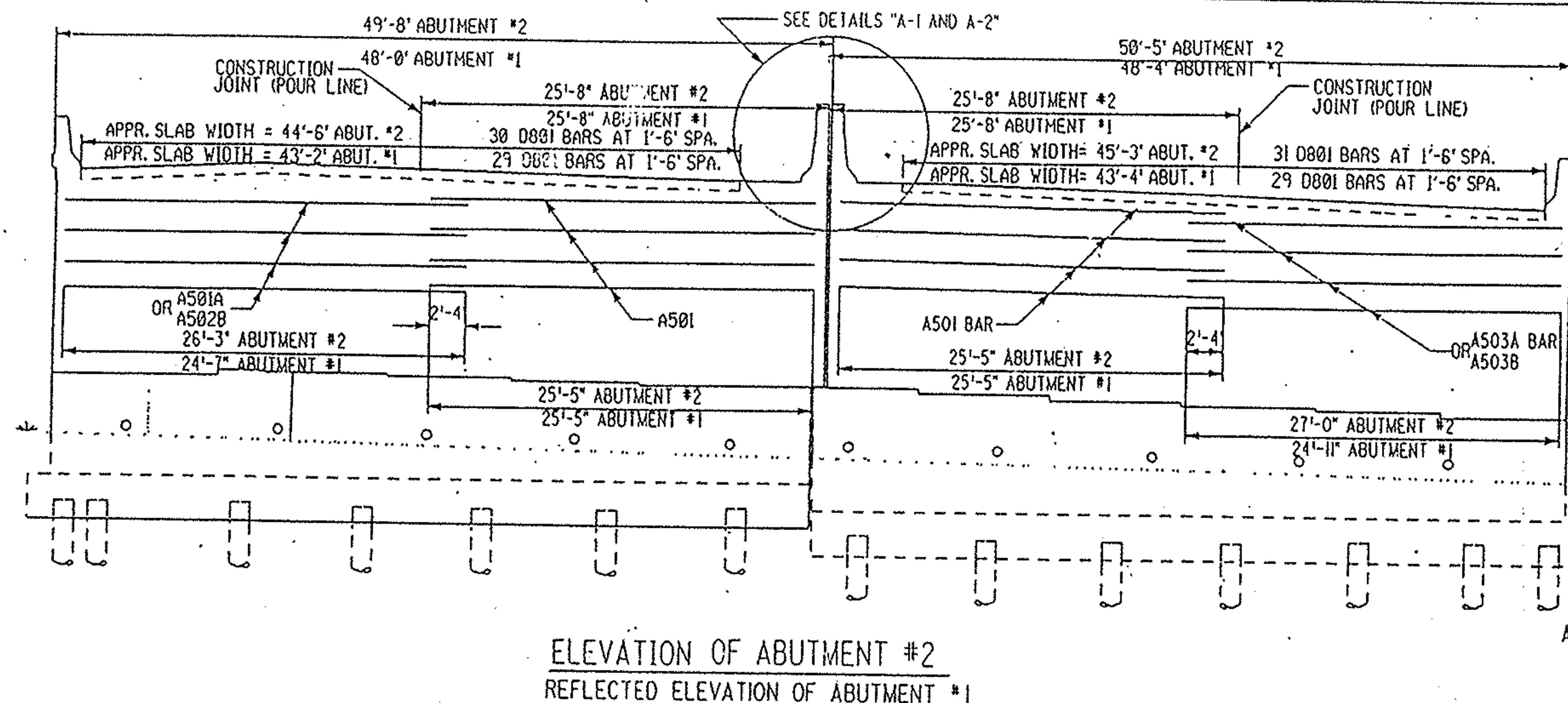
NOTE:
DRAWING NOT TO SCALE

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
SLAB PLAN AND TRANSVERSE SECTION					
MAH-680-0557 (OVER OAK HILL AVE.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
T.M.	SCB	J.M.	F.M.	3-93	

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

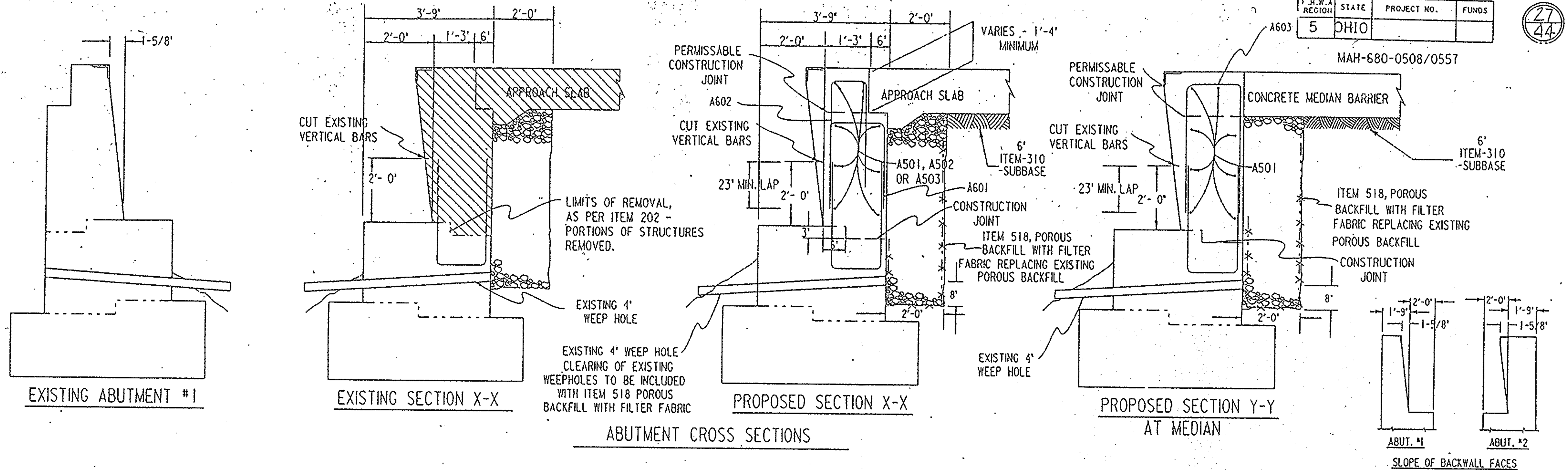
26
44

MAH-680-0508/0557



STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
ABUTMENT & BACKWALL REPAIR					
MAH-680-0508/0557 (OVER OAK HILL AVE.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
TB	SEB	JM	7/77	3-93	

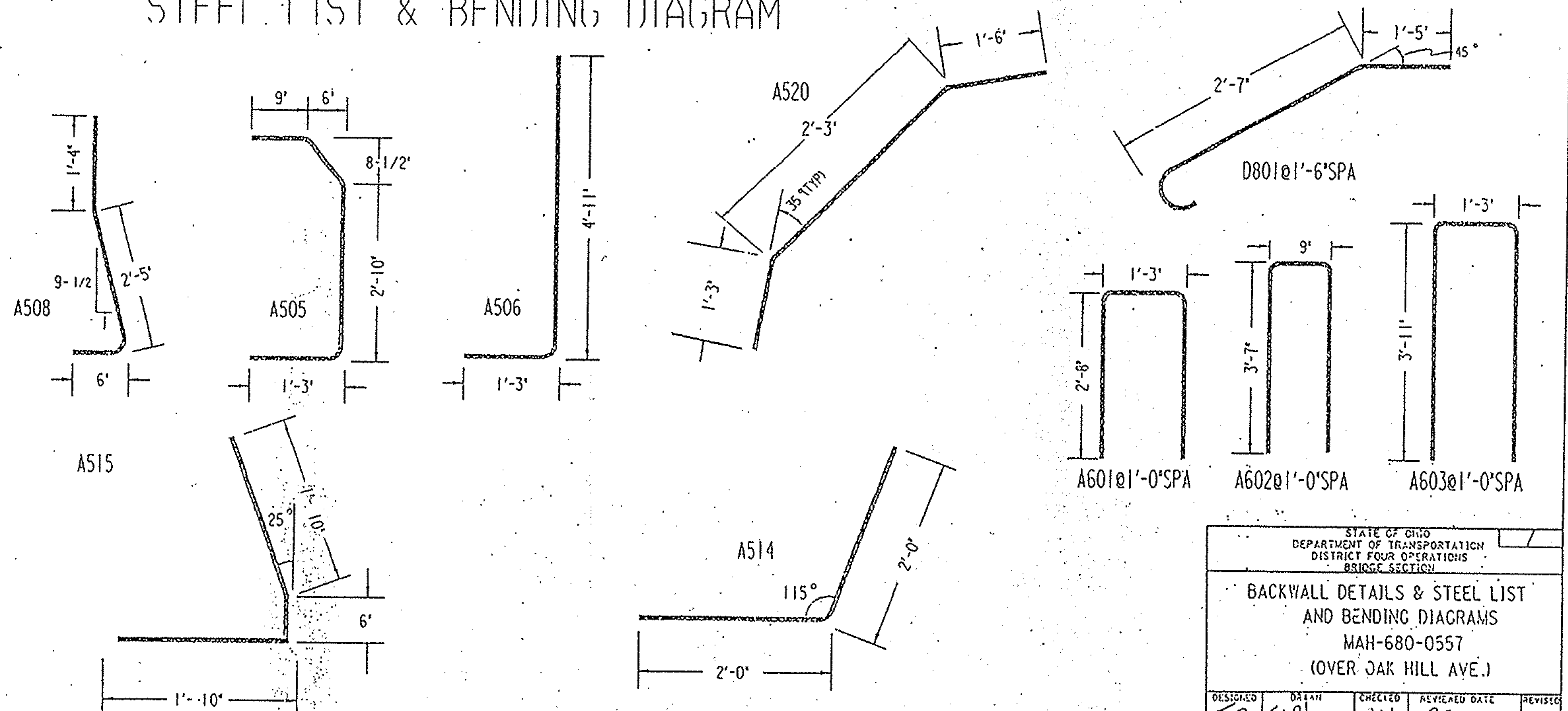
MAH680BW



STR. NO. MAH-680-0557

MARK	NO.	LENGTH	WEIGHT	SHAPE
A 501	32	25'- 5"	843	STRAIGHT
A 502A	8	24'- 7" ABUT. #1	205	STRAIGHT
A 502B	8	26'- 3" ABUT. #2	219	STRAIGHT
A 503A	8	24'- 11" ABUT. #1	208	STRAIGHT
A 503B	8	27'- 0" ABUT. #2	225	STRAIGHT
A 504	52	1'- 7"	86	STRAIGHT
A 505	8	5'- 8"	47	BENT
A 506	8	6'- 1"	51	BENT
A 507	12	3'- 7"	45	STRAIGHT
A 508	8	4'- 2"	35	BENT
A 514	8	4'- 0"	33	BENT
A 515	8	4'- 2"	35	BENT
A 520	6	4'- 11"	31	BENT
A 601	172	6'- 3"	1615	BENT
A 602	172	7'- 7"	1958	BENT
A 603	8	8'- 9"	105	BENT
D 801	119	4'- 11"	1563	BENT
TOTAL POUNDS			7309	

STEEL LIST & BENDING DIAGRAM



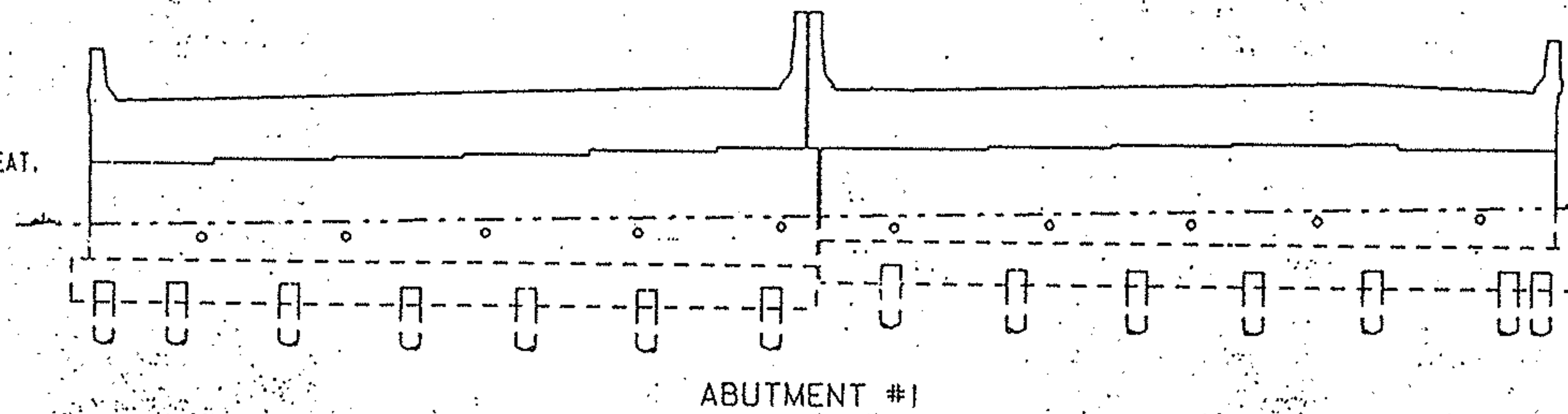
CONCRETE PATCHING

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

28
44

MAH-680-0508/0557

NOTE: A QUANTITY OF 50 S.F. HAS BEEN PROVIDED IN ORDER TO PATCH THE BEAM SEAT.

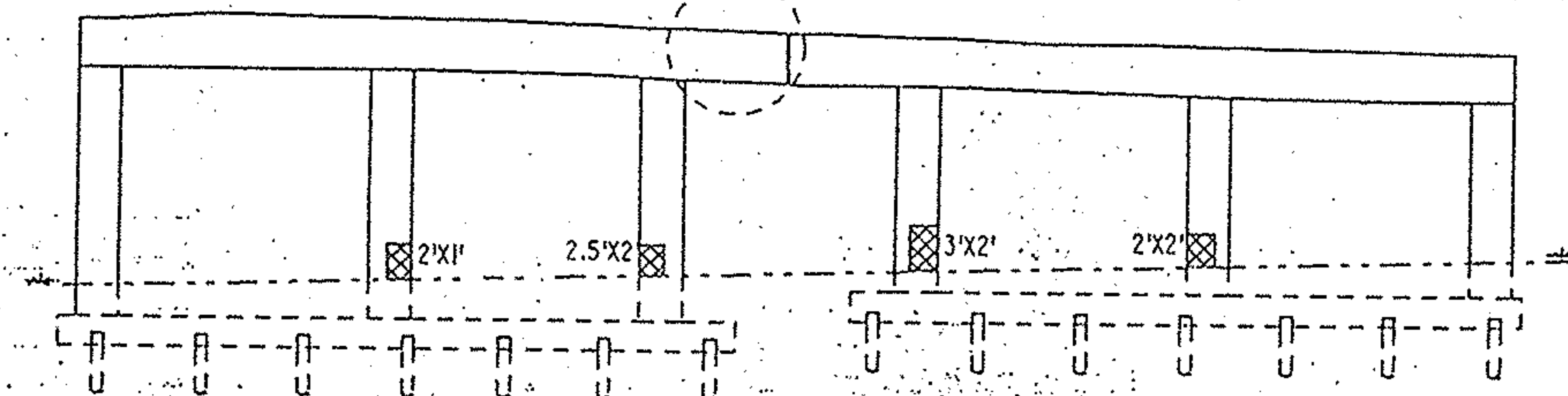


ABUTMENT #1

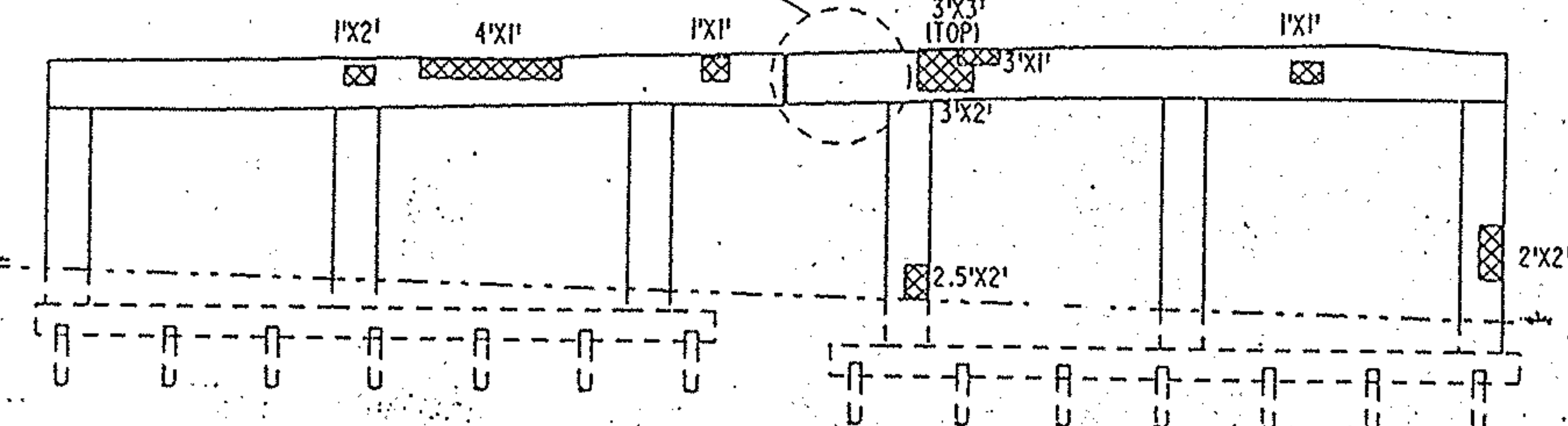
AREA TO BE REPAIRED AS PER ITEM 520 - PNEUMATICALLY PLACED MORTAR, AS PER PLAN. SEE SHEET 29/44 FOR NOTES AND DETAILS.

① PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETEIORATION WAS PERFORMED IN SEPTEMBER OF 1992.

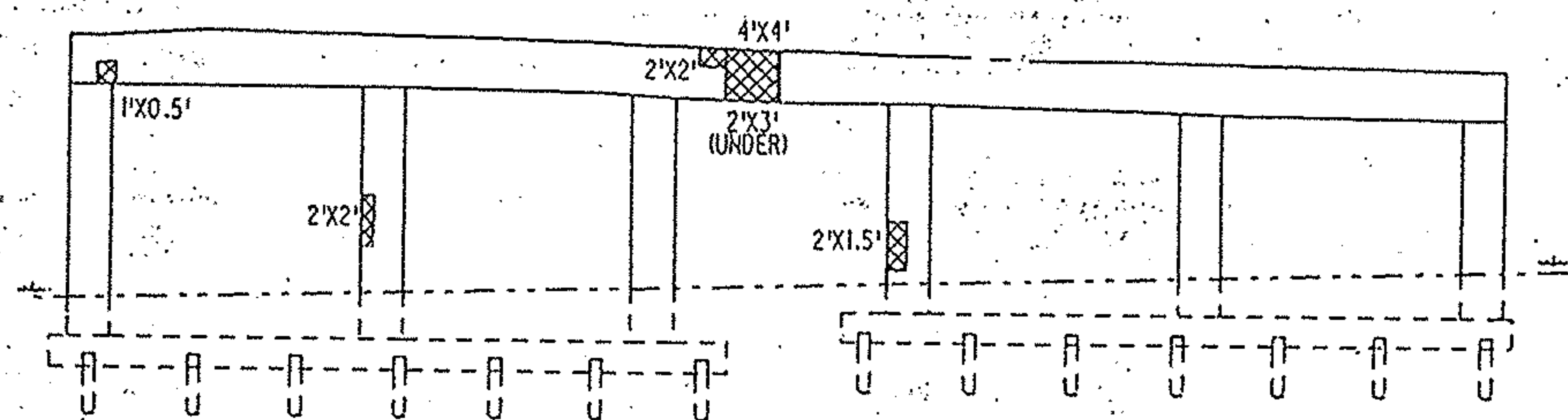
②  INDICATES AREA TO BE PATCHED PER ITEM 520 - PNEUMATICALLY PLACED MORTAR UNLESS OTHERWISE DETERMINED BY THE ENGINEER.



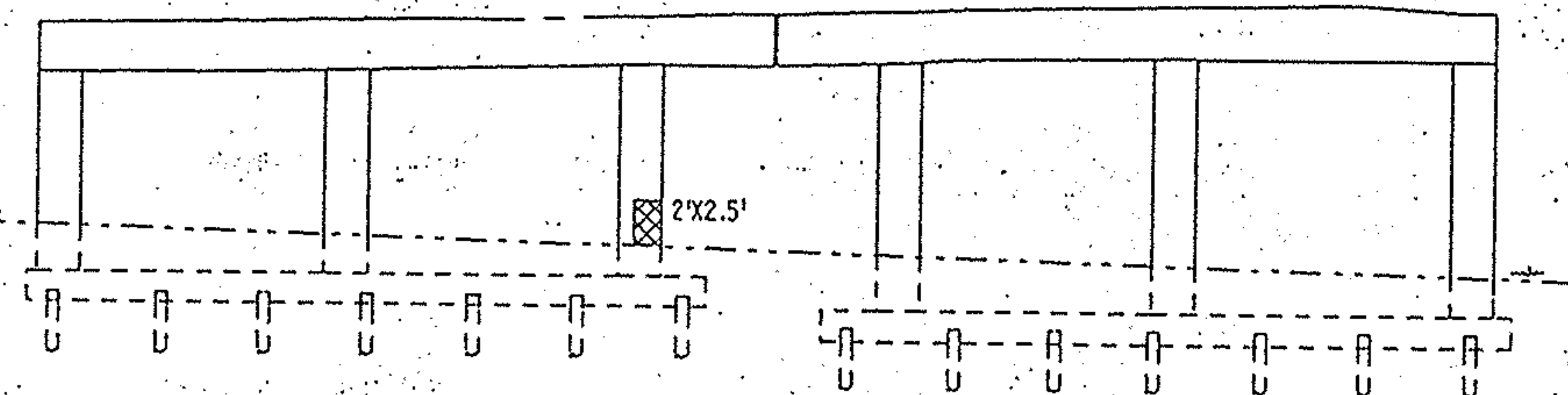
PIER #1
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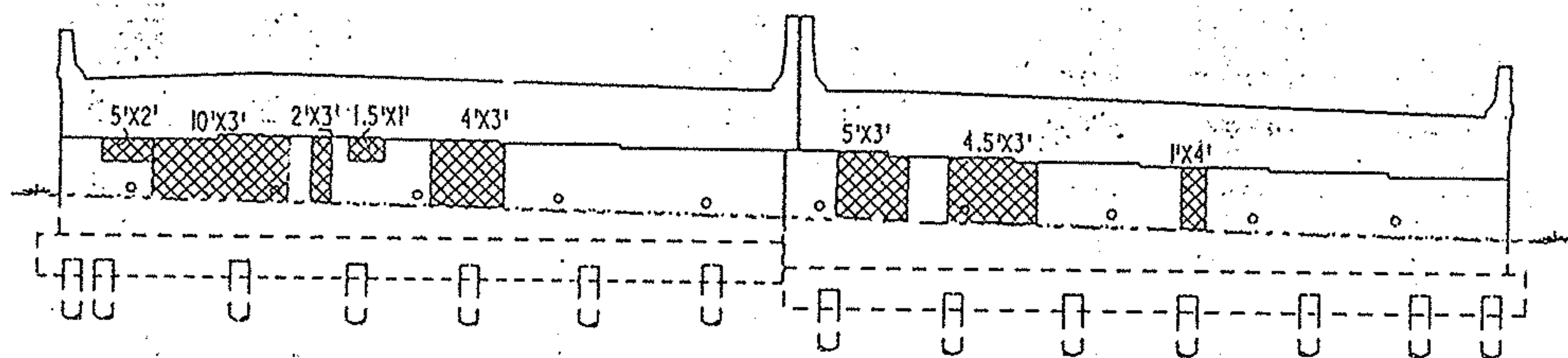
PIER #1
(LOOKING WEST)



PIER #2
(LOOKING EAST)



PIER #2
(LOOKING WEST)



ABUTMENT #2

OAKPATCH

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
CONCRETE PATCHING DETAILS					
MAH-680-0557 (OVER OAK HILL AVE.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	PO	JM	JM	3-93	

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

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MAH-680-0508/0557

ITEM 520 - PNEUMATICALLY PLACED MORTAR, AS PER PLAN

THE INTENT OF THIS ITEM IS TO REPAIR THE CANTILEVERED PORTION OF THE PIER CAP OF PIER #1 CARRYING THE WESTBOUND LANES OF I-680 OVER OAK HILL AVE. THE ADJACENT DETAILS SHOW THE EXISTING DETERIORATED CONDITION ALONG WITH ORIGINAL CONSTRUCTION DETAILS. THE REPAIR PROCEDURE SHALL CONSIST OF TEMPORARY JACKING AND SUPPORT OF THE BEAM, REMOVAL OF THE BEARING DEVICE, CONCRETE PATCHING AS PER THIS NOTE AND ITEM 520 OF THE C.M.S. AND REPLACEMENT OF THE BEARING DEVICE AND THE BEAM.

THIS SHALL BE DONE BY JACKING THE BEAM A MAXIMUM OF $1\frac{1}{4}$ " IN SUCH A MANNER SO AS TO NOT INDUCE ANY EXCESSIVE STRESSES IN EITHER THE BEAMS OR THE CROSSFRAMES. ANY BENDS OR CRACKS OCCURRING IN THE STRUCTURAL STEEL AS A RESULT OF THE JACKING SHALL BE REPAIRED BY THE CONTRACTOR AS PER THE ENGINEER. THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT DETAILED JACKING AND SUPPORT PLANS TO THE ENGINEER FOR APPROVAL.

ONCE THE BEAM HAS BEEN JACKED AND SUPPORTED, THE BOTTOM PLATE ALONG WITH THE BRONZE INSERT OF THE SLIDING BEARING DEVICE SHALL BE REMOVED. THE ANCHOR RODS MAY BE CUT FLUSH WITH THE PLATE PRIOR TO REMOVAL. THE CONTRACTOR SHALL REPLACE THE $\frac{1}{8}$ " SHEET LEAD OR PREFORMED BEARING PAD AS PER STD. DRG. CSB-2-56 DATED 2-2-59.

THEN REPAIR THE PIER CAP WITHIN THE LIMITS SHOWN AS PER THE FOLLOWING REQUIREMENTS AND THOSE OF ITEM 520 OF THE C.M.S.

NOT MORE THAN 24 HOURS PRIOR TO PLACEMENT OF THE MORTAR, ALL SURFACES TO WHICH THE MORTAR IS TO BOND, INCLUDING EXPOSED REINFORCING, THE WORK FACE OF ANY PREVIOUSLY PLACED MORTAR SHALL BE BLAST CLEANED BY AN ABRASIVE BLASTING OR AN APPROVED METHOD OF WATER BLASTING WITH 7000 PSI MINIMUM PRESSURE. THESE SURFACES SHALL BE MADE FREE OF SPALLS, LANTANCE, AND ALL CONTAMINANTS DETRIMENTAL TO THE ACHIEVEMENT OF AN ADEQUATE BOND.

PRECONSTRUCTION TESTING

AN INVESTIGATION SHALL BE MADE PRIOR TO THE START OF THE WORK TO CHECK THE OPERATION OF THE EQUIPMENT AND QUALIFICATIONS OF THE APPLICATION CREWS, AND TO PRODUCE A SATISFACTORY QUALITY OF PNEUMATICALLY PLACED MORTAR.

A TEST PANEL SHALL BE FABRICATED BY GUNNING ONTO THE PLYWOOD BOTTOM OF AN OPEN BOX 4 FEET SQUARE AND 4 INCHES DEEP. REINFORCEMENT IN THE LARGER SIZES AND TIGHTER SPACINGS FOUND IN THE BRIDGE SHALL BE INCORPORATED IN THE TEST PANEL. THE BOX SHALL BE MOUNTED VERTICALLY AND THE MORTAR SHALL BE APPLIED USING THE PERSONNEL, EQUIPMENT, AND PROCEDURES PROPOSED FOR THE JOB, UNTIL THE BOX IS FULL. THE MIXING WATER SHALL BE ADJUSTED TO PROVIDE MORTAR OF THE PROPER CONSISTENCY, BUT THE TOTAL WATER CONTENT, INCLUDING THE FREE MOISTURE IN THE AGGREGATE AND WATER ADDED AT THE NOZZLE, SHALL NOT EXCEED 4.5 GALLONS PER SACK OF CEMENT.

THREE CORES SHALL BE TAKEN FROM THE PANELS AND TESTED ACCORDING TO ASTM C 42 BY AN INDEPENDENT TESTING LABORATORY, APPROVED BY THE STATE. A COMPRESSIVE STRENGTH OF AT LEAST 4200 PSI AT 28 DAYS WILL BE REQUIRED. IN ORDER TO PRECLUDE A POSSIBLE DELAY IN STARTING THE WORK, 3200 PSI AT 7 DAYS WILL BE ACCEPTED.

THE PANELS SHALL ALSO BE BROKEN SO THAT THE INTERIOR PORTIONS CAN BE CAREFULLY EXAMINED. THEY SHALL BE SUBSTANTIALLY FREE OF HOLLOW AREAS AND SAND POCKETS, AND THE MORTAR SHALL BE WELL BONDED TO THE REINFORCEMENT.

EACH CREW MUST FABRICATE A SATISFACTORY PANEL BEFORE APPLYING MORTAR TO THE STRUCTURE.

INSPECTION

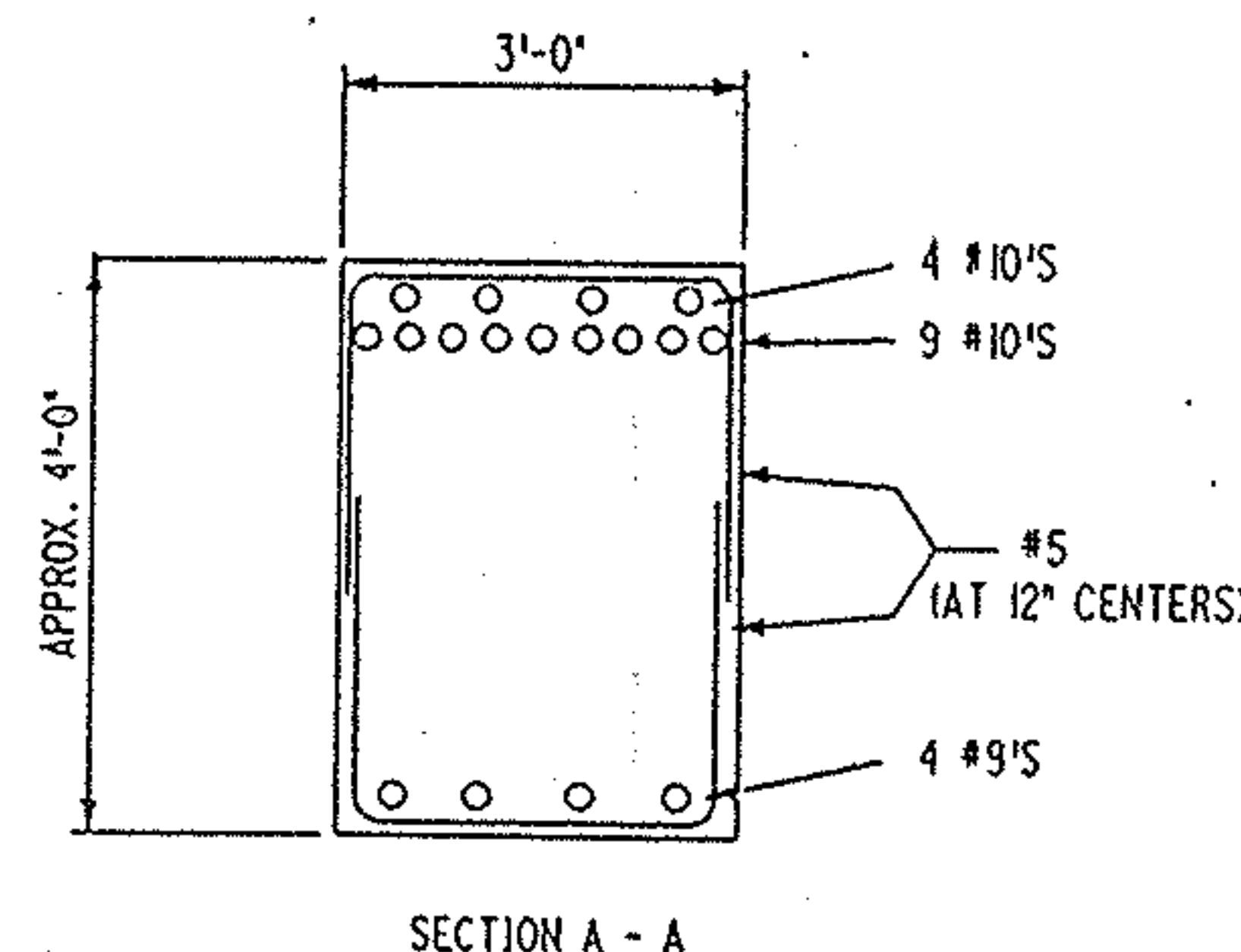
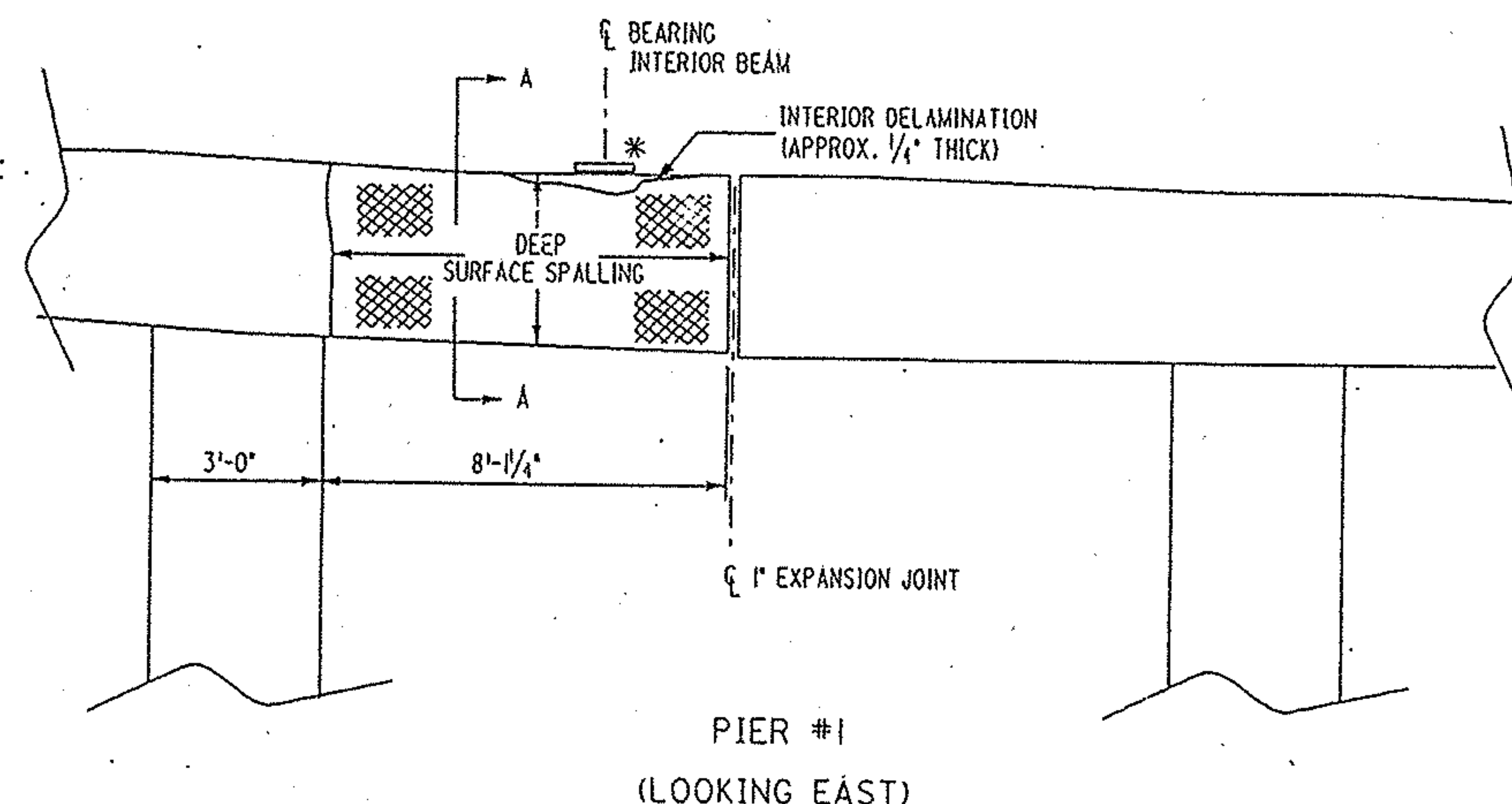
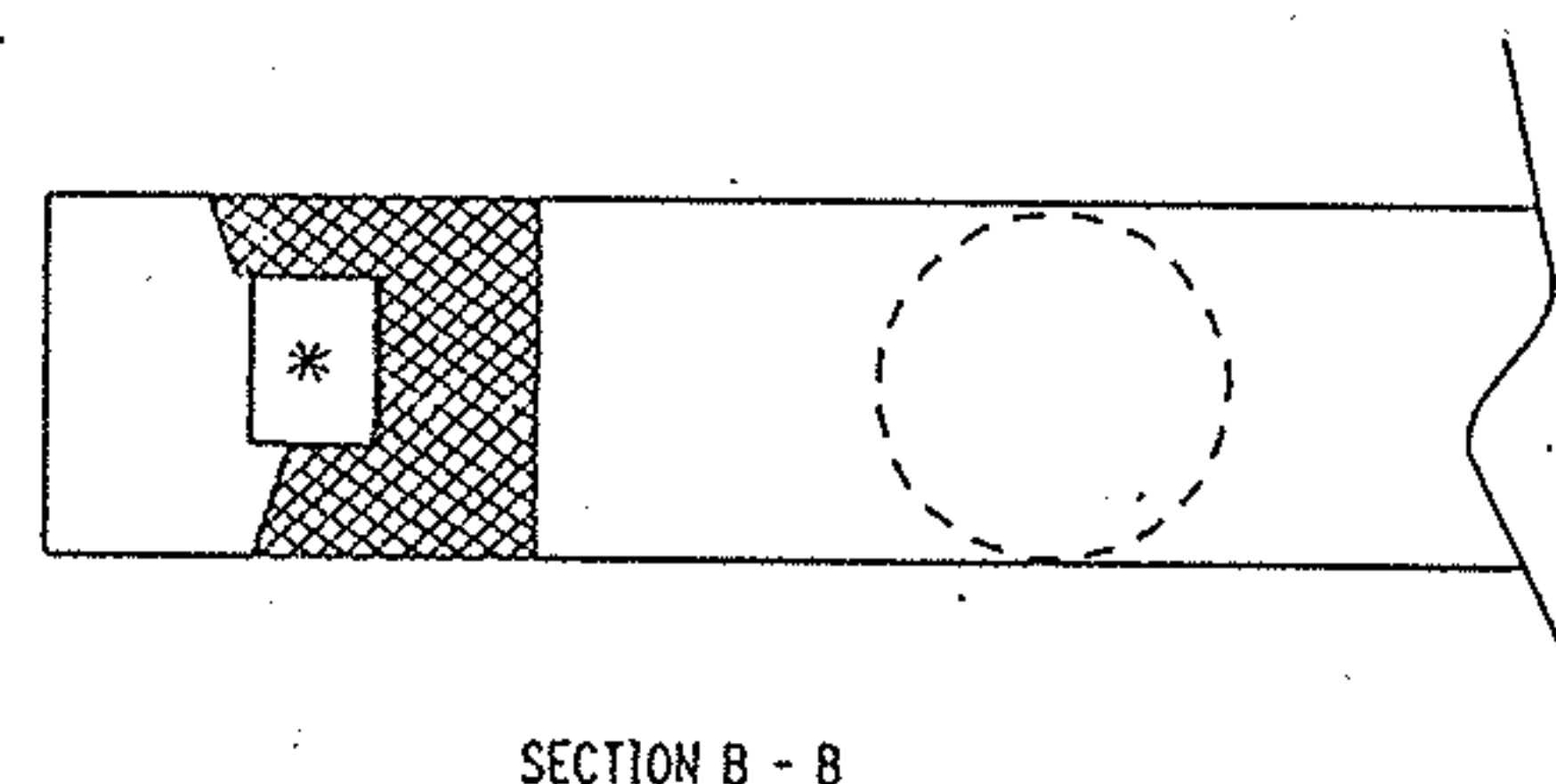
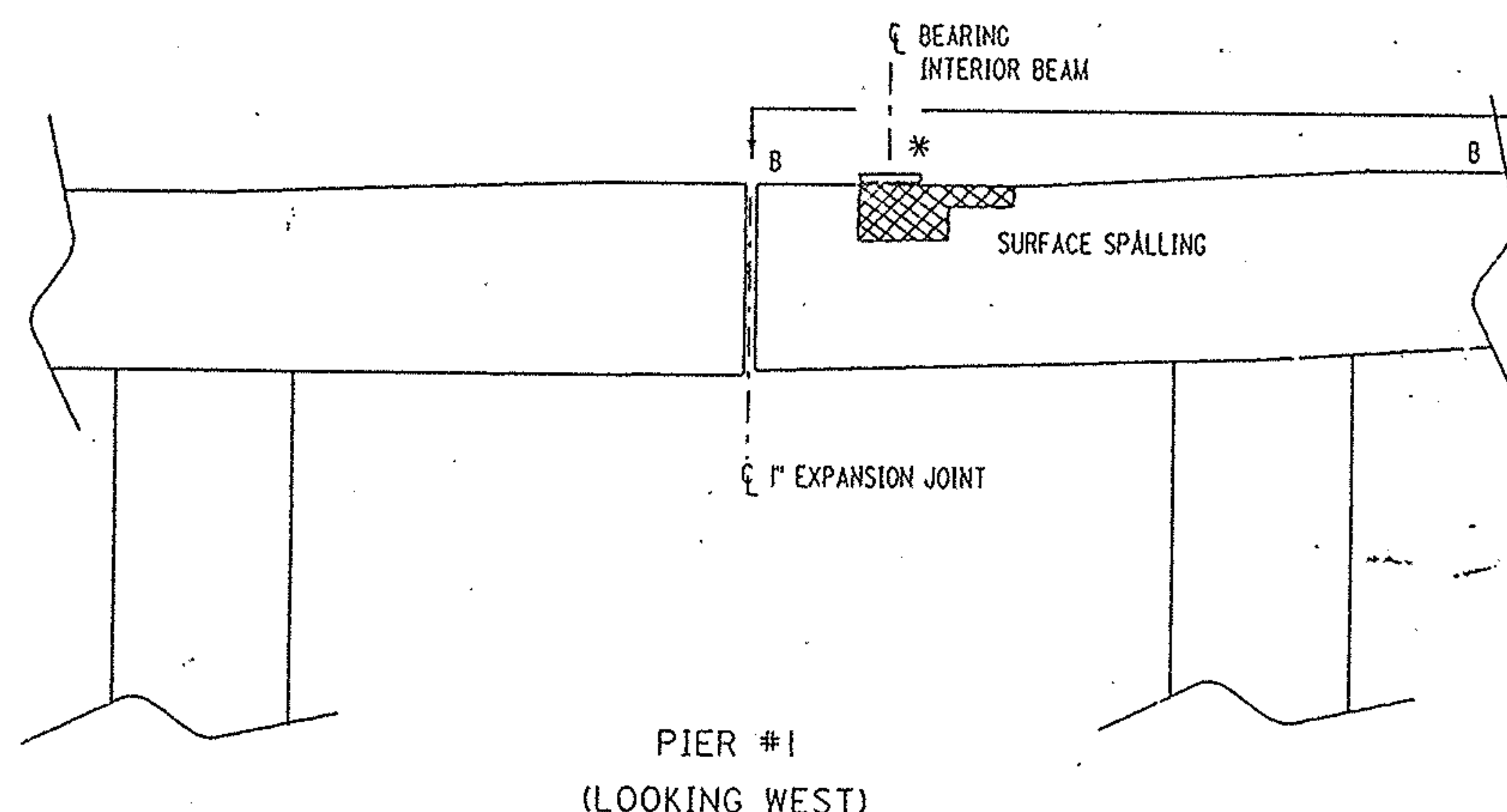
AFTER CURING AND BEFORE FINAL INSPECTION, ALL PATCHED AREAS SHALL BE SOUNDED. ALL UNSOUND AREAS, OR AREAS EXHIBITING CRACKING, SHALL BE REMOVED AND REPATCHED.

ALL TEST PANELS, CORING, INDEPENDENT LABORATORY TESTING OF THE CORES, AND REPLACEMENT OF REJECTED AREAS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.

PRIOR TO PLACEMENT OF THE MORTAR, ANCHOR BAR LOCATIONS SHALL BE VERIFIED, IF NECESSARY, BY A TEMPLATE. THE ELEVATION OF THE TOP OF THE REPAIRED PIER CAP SHALL BE THE SAME AS THE EXISTING. THEREFORE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE EXISTING ELEVATION OF THE CAP AND VERIFY THAT THE PROPOSED REPAIR MEETS THE EXISTING ELEVATION.

ONCE THE MORTAR HAS BEEN PLACED AND CURED, THE CONTRACTOR SHALL REPLACE THE EXISTING BEARING DEVICE AT THE PROPER LOCATION IN ORDER TO PROVIDE A FIT EQUIVALENT TO THE EXISTING CONDITION.

ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 520 - PNEUMATICALLY PLACED MORTAR, AS PER PLAN.



REPRESENTS SPALLED AREAS TO BE PATCHED.
* SLIDING BEARING DEVICE AS PER STANDARD DRAWING CSB-2-56 PGS. 2 & 3.

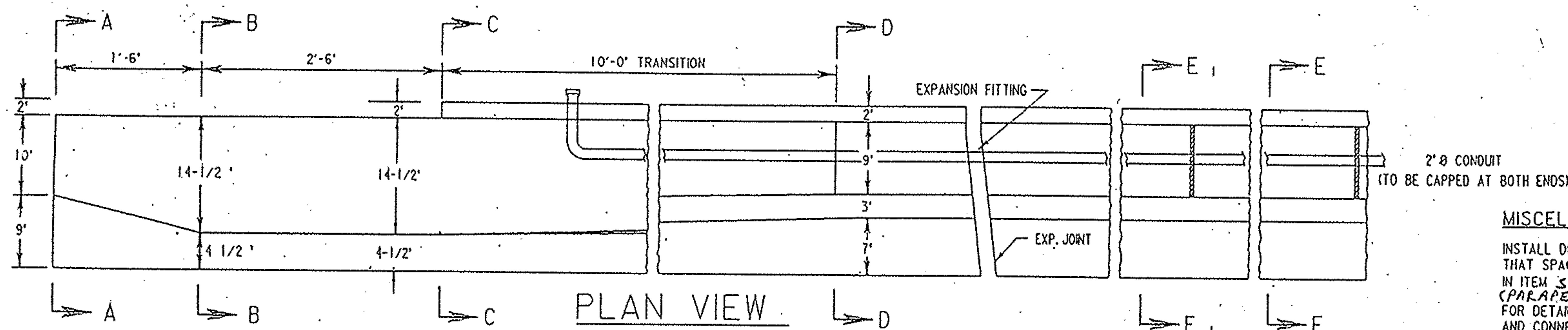
NOTE: DRAWING NOT TO SCALE

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
PIER CAP REPAIR PIER #1					
MAH-680-0557 (OVER OAK HILL AVE.)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
JM	SCB	7/7	7/7	3-93	

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

31
44

MAH-680-0508/0557



PLAN VIEW

SEE SHEET ... FOR SECTIONS

STRUCTURE NO.	WINGWALL EXTENSIONS				OUTSIDE PANELS								INSIDE PANELS			
	A				REAR				FORWARD							
	REAR		FORWARD		SOUTH		NORTH		SOUTH		NORTH					
	SOUTH	NORTH	SOUTH	NORTH	C	D	C	D	C	D	C	D	NO. SOUTH	NO. NORTH	E	F
MAH-680-0508	3'-6"	3'-6"	3'-6"	3'-6"	13'-10"	0'-10"	13'-10"	0'-10"	13'-10"	0'-10"	13'-10"	0'-10"	13	13	10'-0"	6'
MAH-680-0557	3'-7"	2'-11"	0'-10"	1'-7"	13'-8"	0'-8"	13'-0"	1'-0"	13'-8"	0'-8"	13'-0"	1'-0"	15	15	10'-0"	6'

MISCELLANEOUS NOTES

INSTALL DEFLECTION JOINTS AS PER STANDARD BRIDGE DRAWING BR-1. EXCEPT THAT SPACING SHALL BE AS SHOWN ON THIS SHEET. COST TO BE INCLUDED IN ITEM **SPECIAL HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET)**.
FOR DETAILS OF THE THREE BEAM GUARDRAIL BRIDGE TERMINAL TRANSITION AND CONNECTIONS TO THE PARAPET SEE STANDARD CONSTRUCTION DRAWINGS GR-3.1 AND GR-3.2.

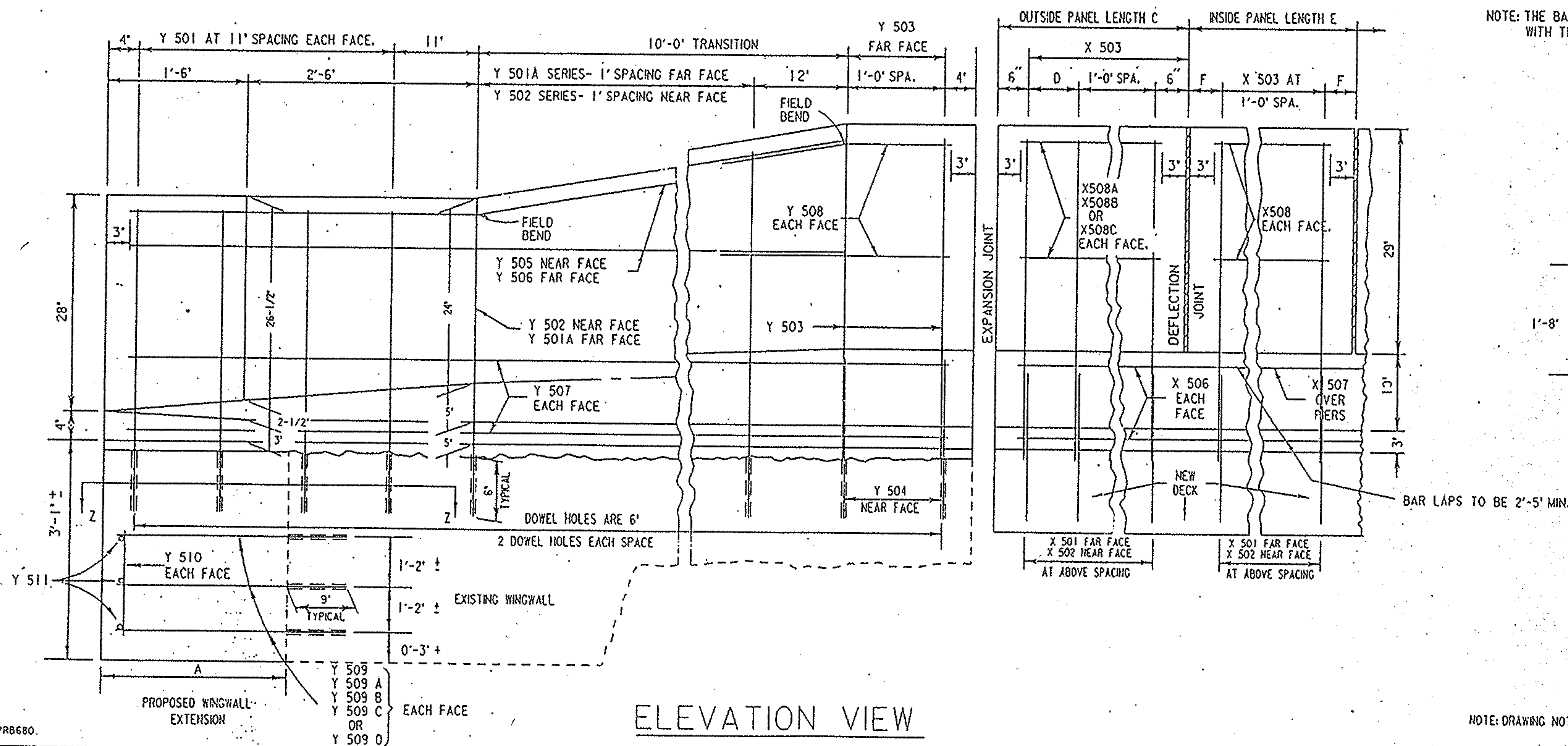
REFER TO STANDARD BRIDGE DRAWING BR-1 FOR DETAILS NOT SHOWN ON SHEETS **32** FOR THE PARAPET CONSTRUCTION.

GROUT SHALL MEET THE REQUIREMENTS OF ASTM C-881, TYPE 1, GRADE 3, CLASS A, B OR C.

ANY DOWEL HOLES LEFT ABANDONED SHALL BE FILLED WITH GROUT.

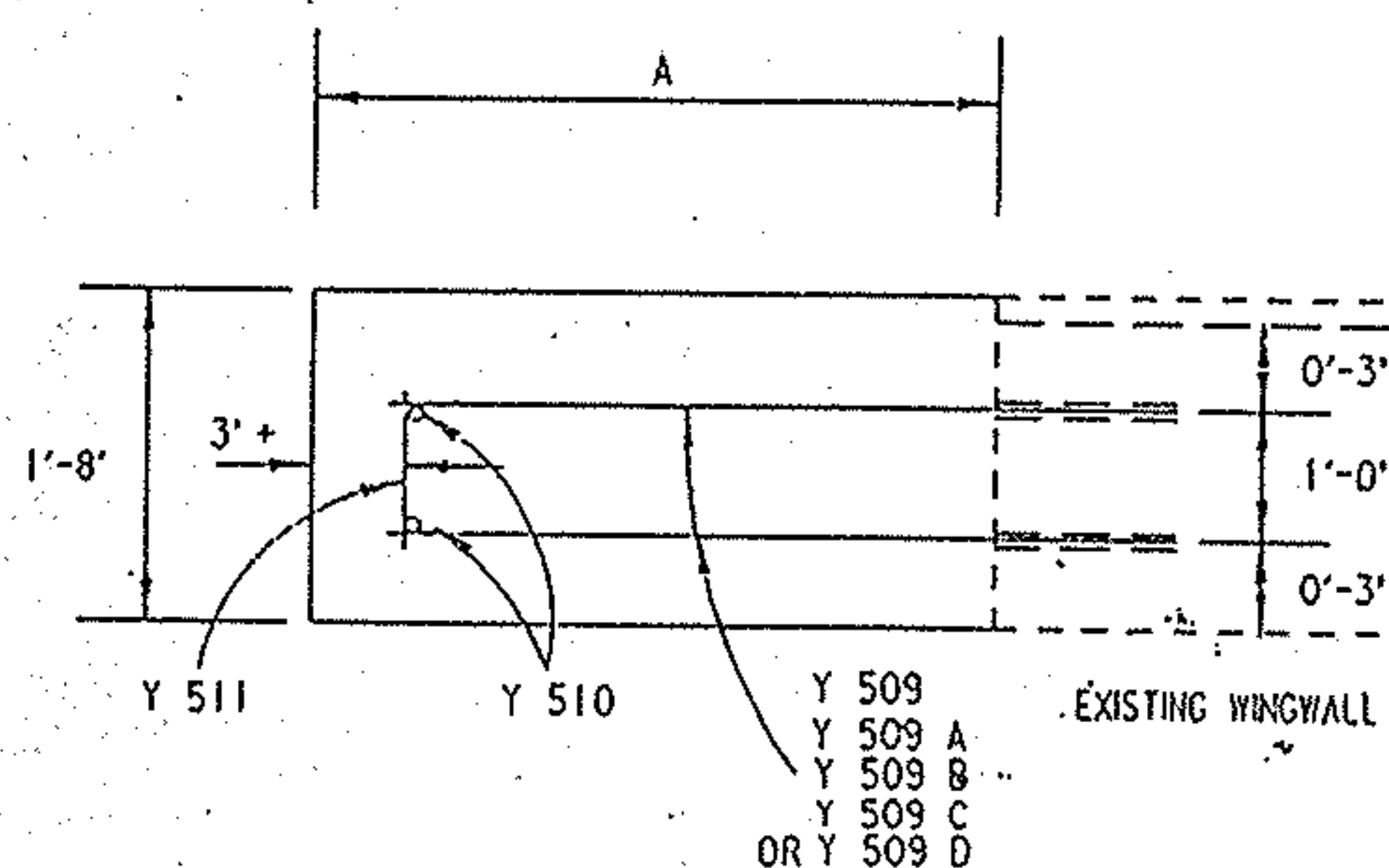
ALL LABOR, CONCRETE AND EQUIPMENT NECESSARY TO CONSTRUCT THE WINGWALL EXTENSIONS SHALL BE INCLUDED IN THE PER UNIT BID PRICE OF **HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE (PARAPET)**. THIS WORK SHALL INCLUDE THE EXCAVATION, BACKFILL AND COMPACTION REQUIRED TO PLACE THE EXTENSIONS.

NOTE: THE BAR NUMBERS ON THIS SHEET DO NOT NECESSARILY CORRESPOND WITH THE BARS ON OUR STANDARD PLAN SHEETS.



ELEVATION VIEW

SECTION Z - Z



BAR LAPS TO BE 2'-5" MIN.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
PARAPET DETAILS					
MAH-680-0508 (OVER EDWARDS ST.)			MAH-680-0557 (OVER OAK HILL AVE.)		
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JM	JM	NM	PM	3-93	

NOTE: DRAWING NOT TO SCALE

42" PARAPET RETROFITTING DETAILS (NEW DECK)

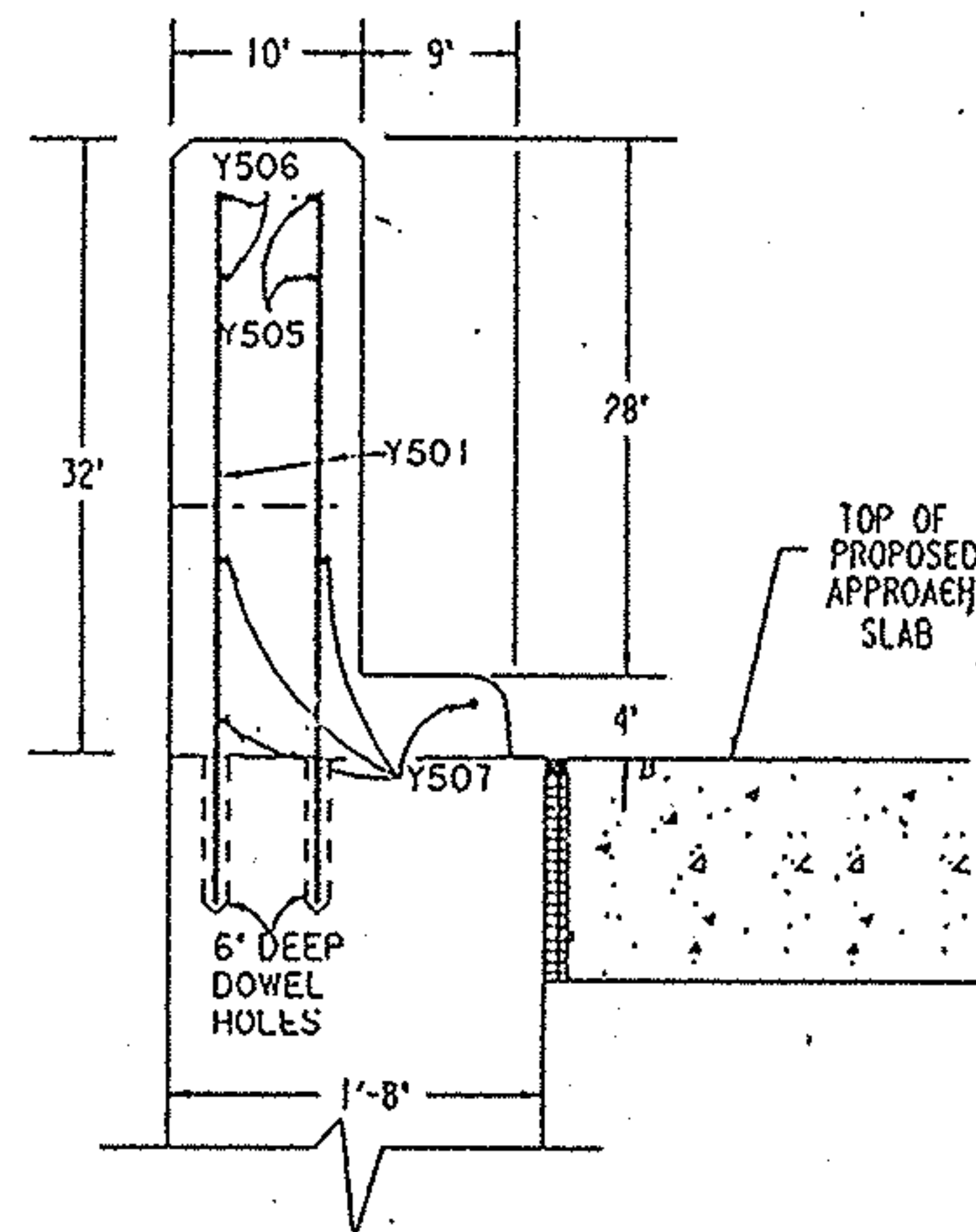
TYPICAL SECTIONS FOR NEW DECK

NOTE: DRAWING NOT TO SCALE

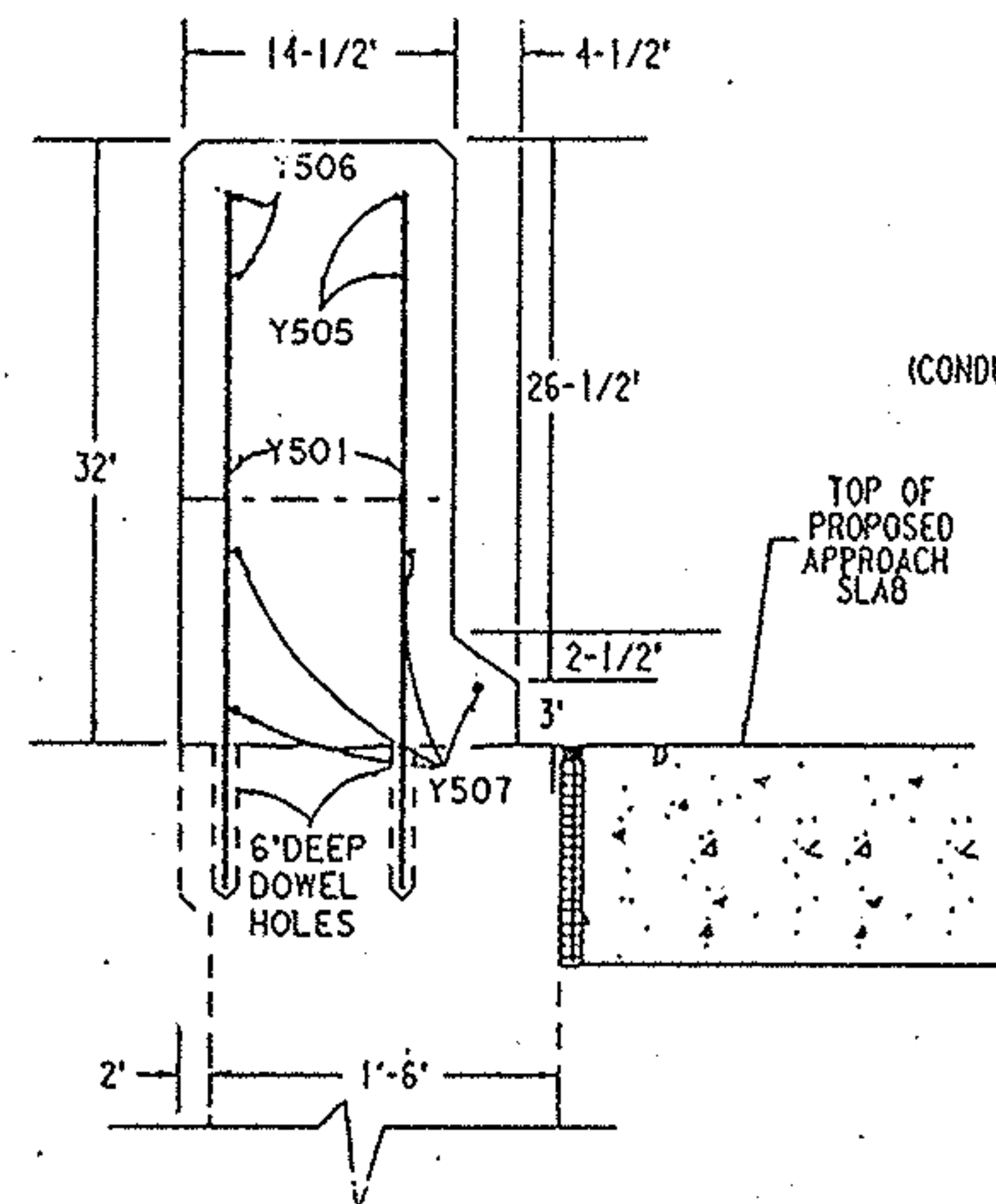
F.H.W.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		

32
44

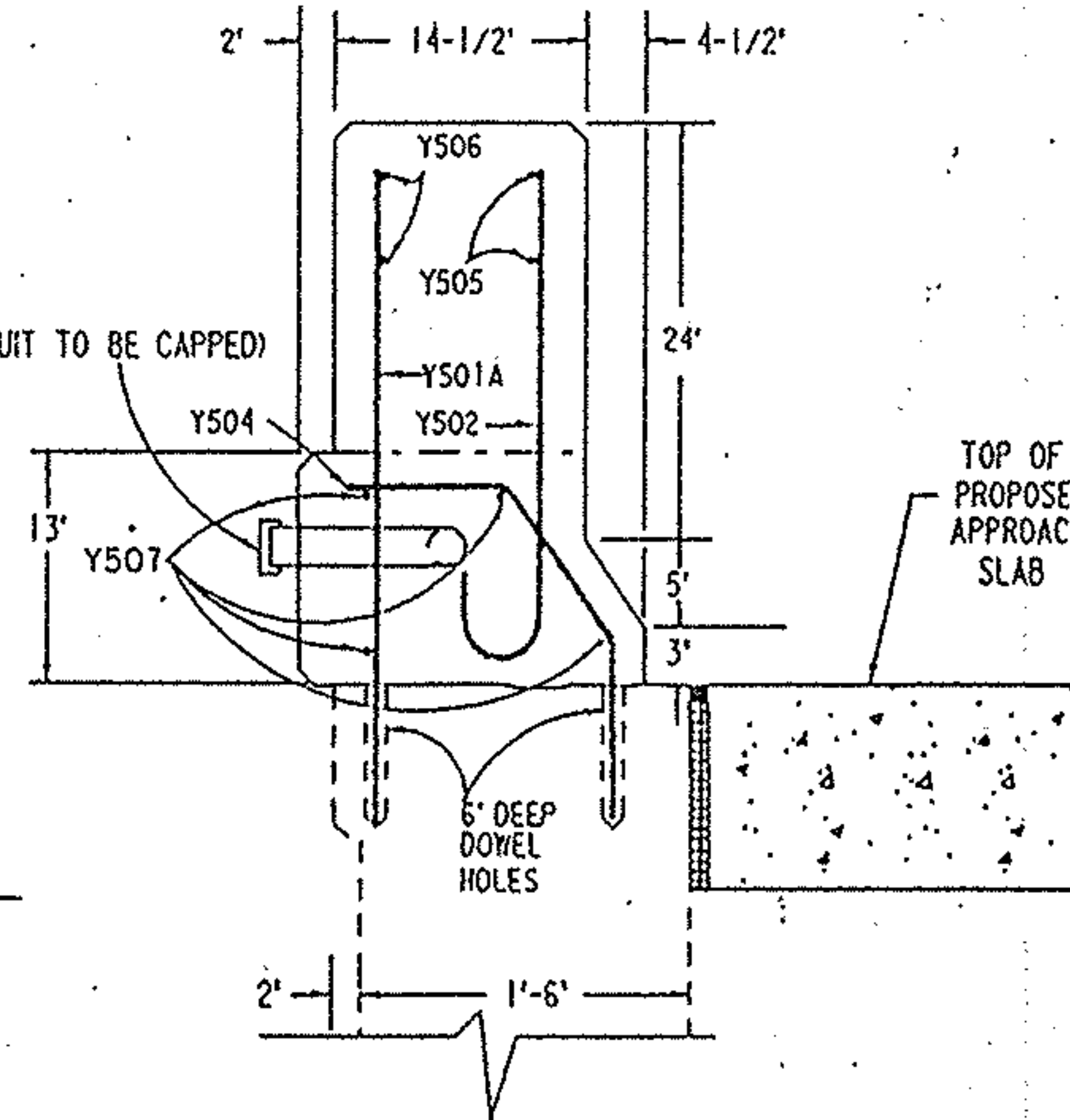
MAH-680-0508/0557



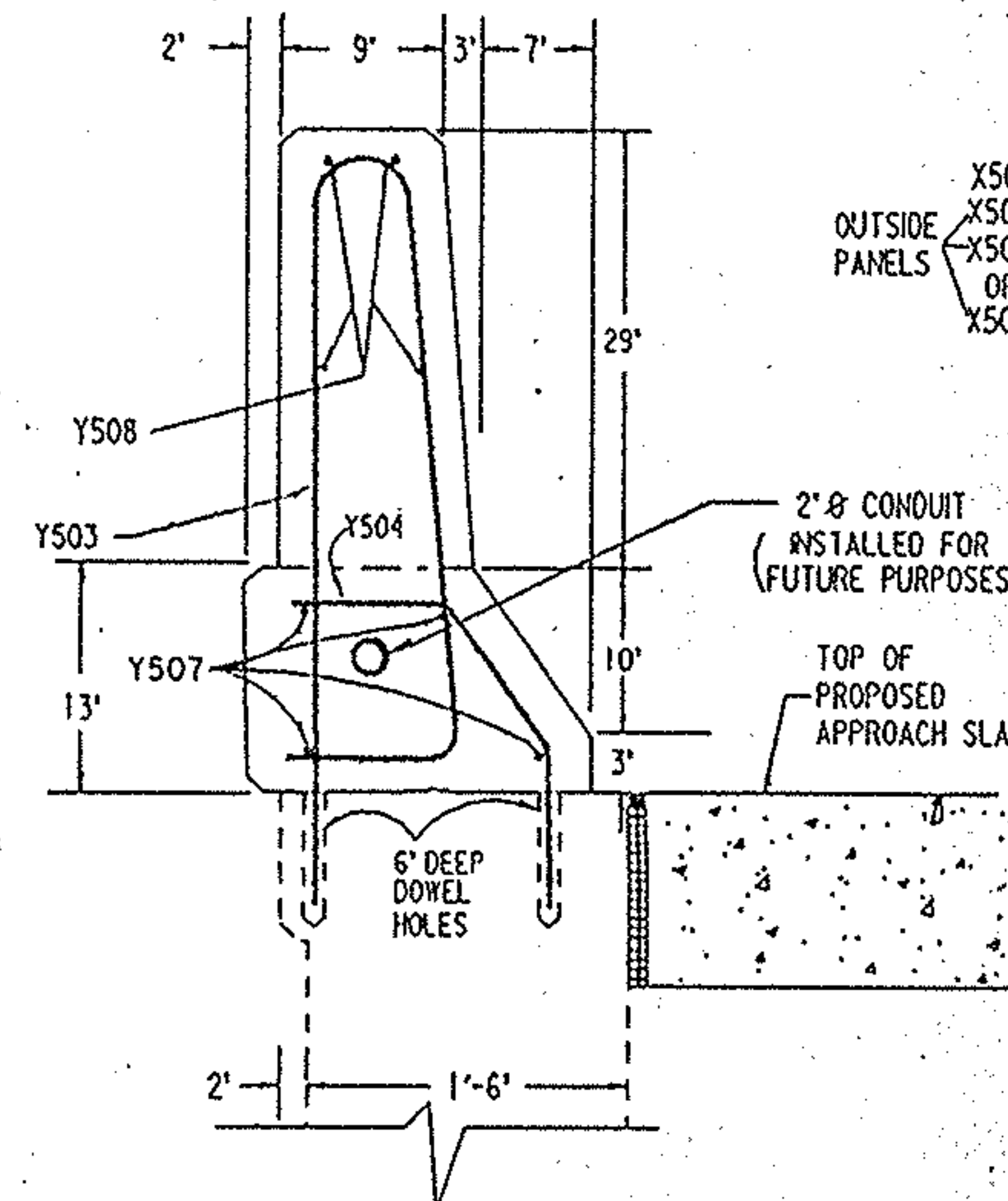
PROPOSED SECTION A-A



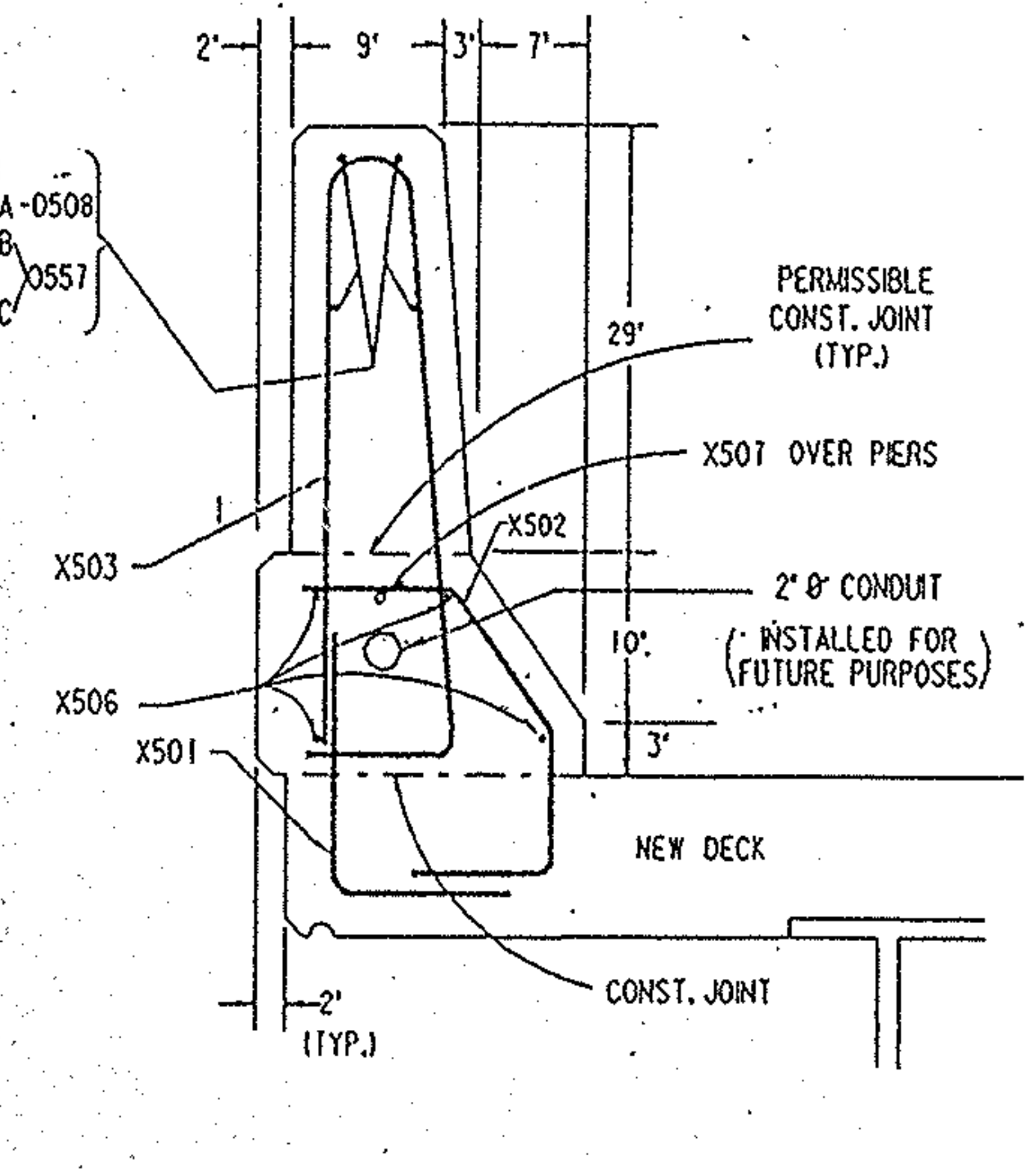
PROPOSED SECTION B-B



PROPOSED SECTION C-C



PROPOSED SECTION D-D



PROPOSED SECTION E-E & E1-E1

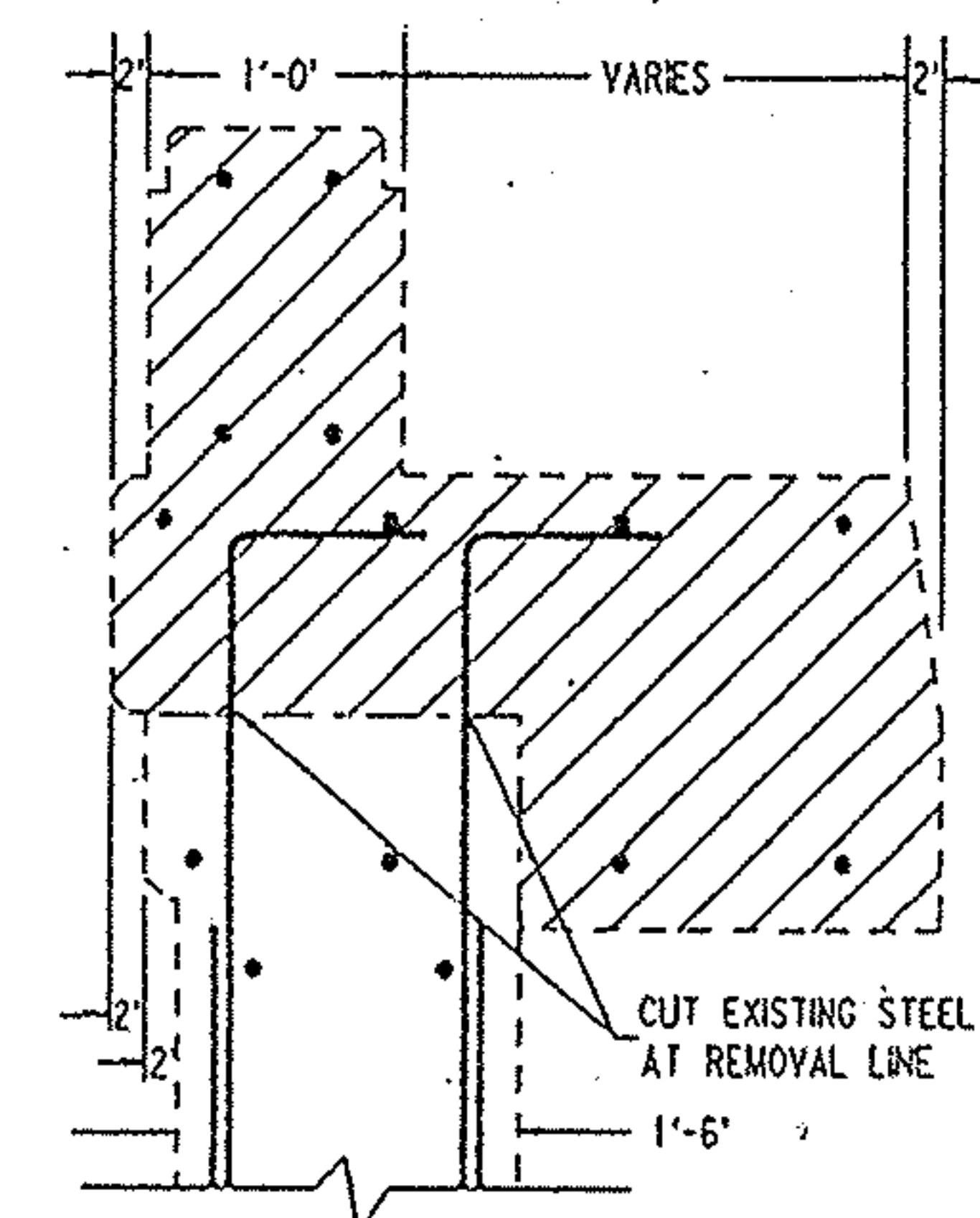
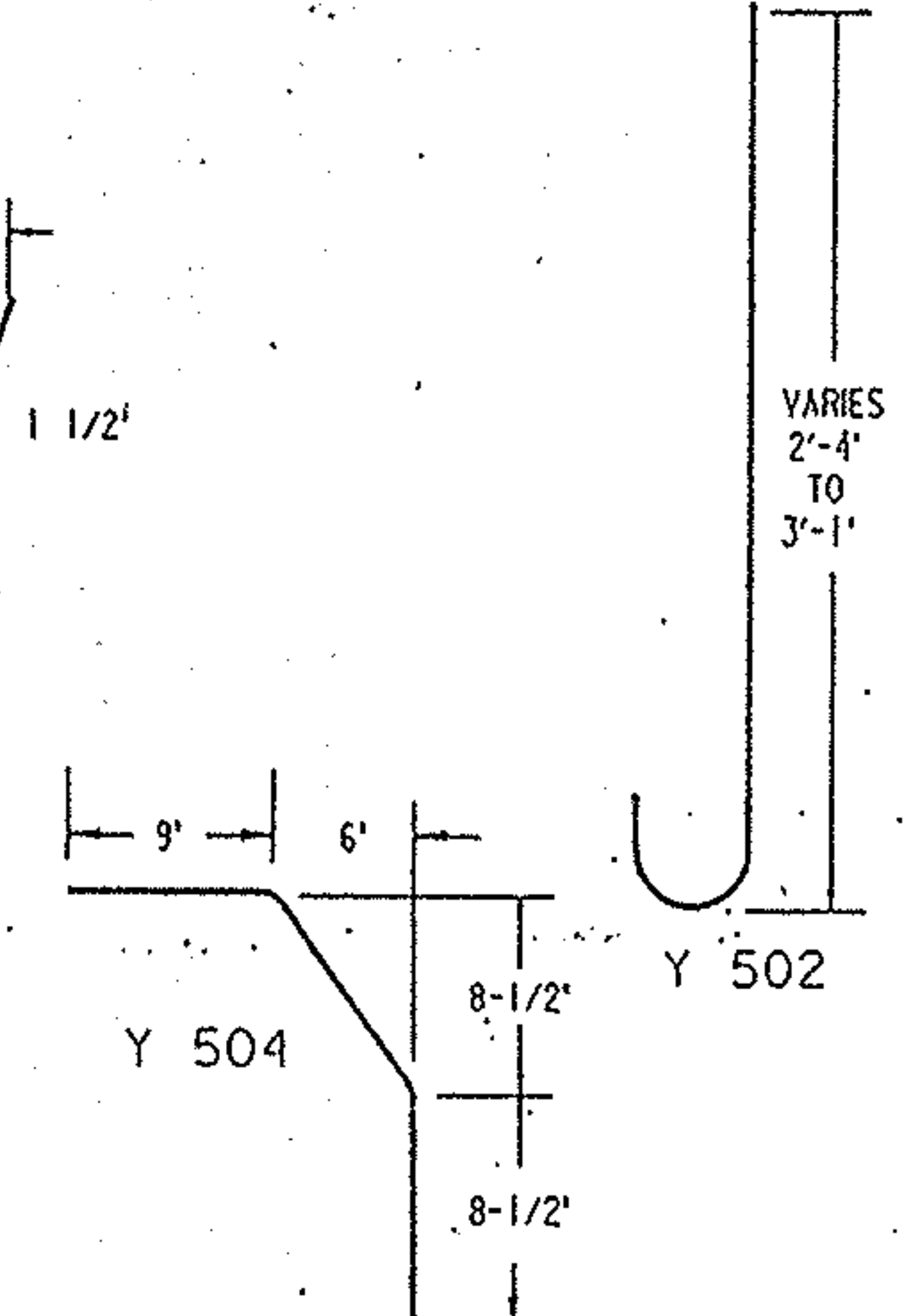
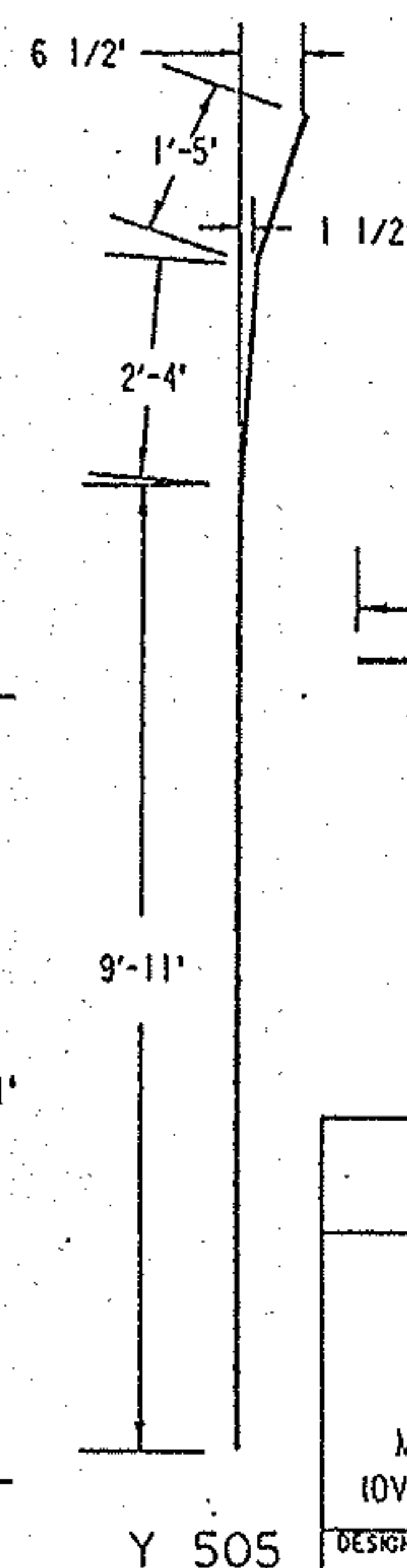
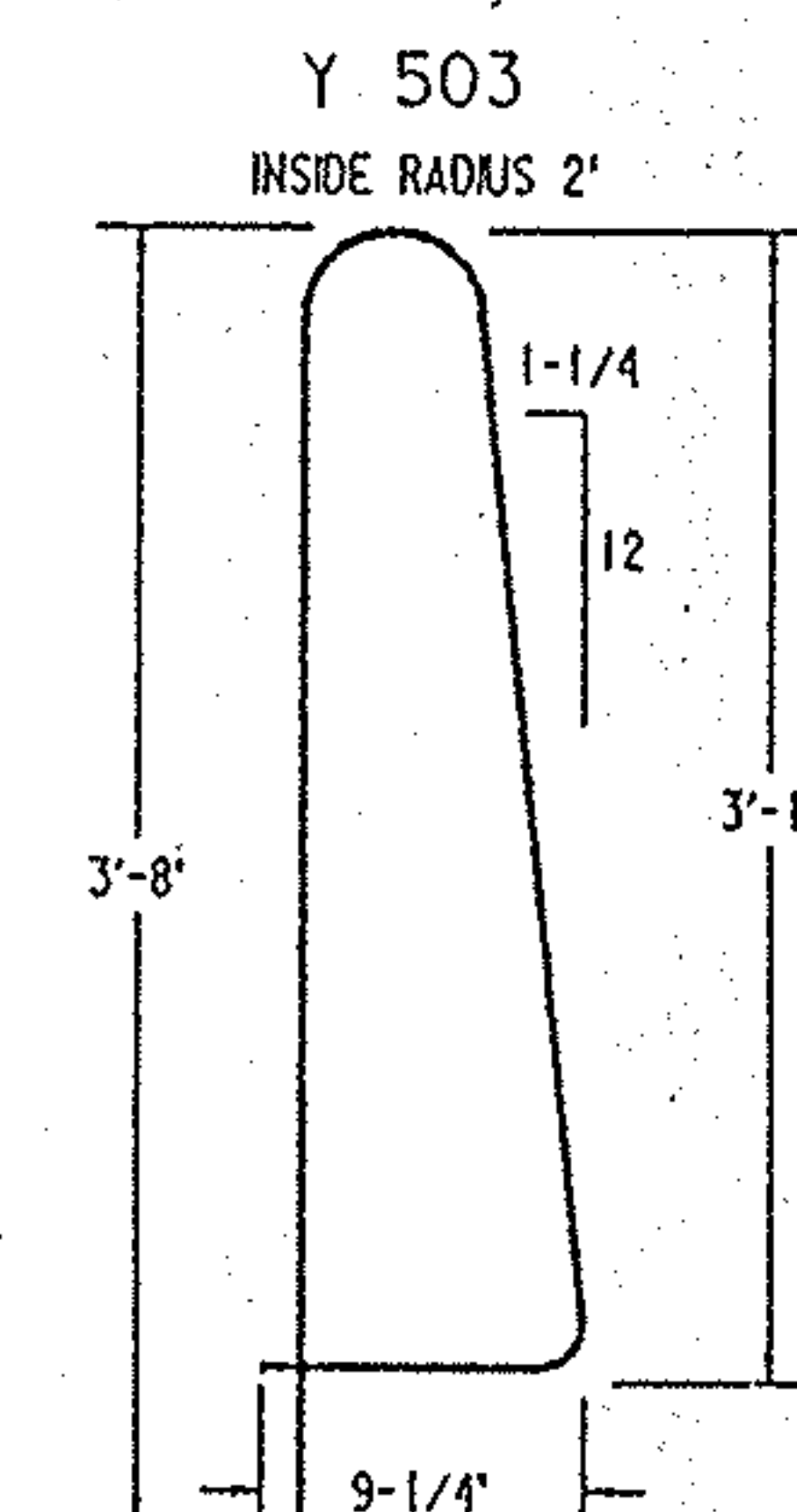
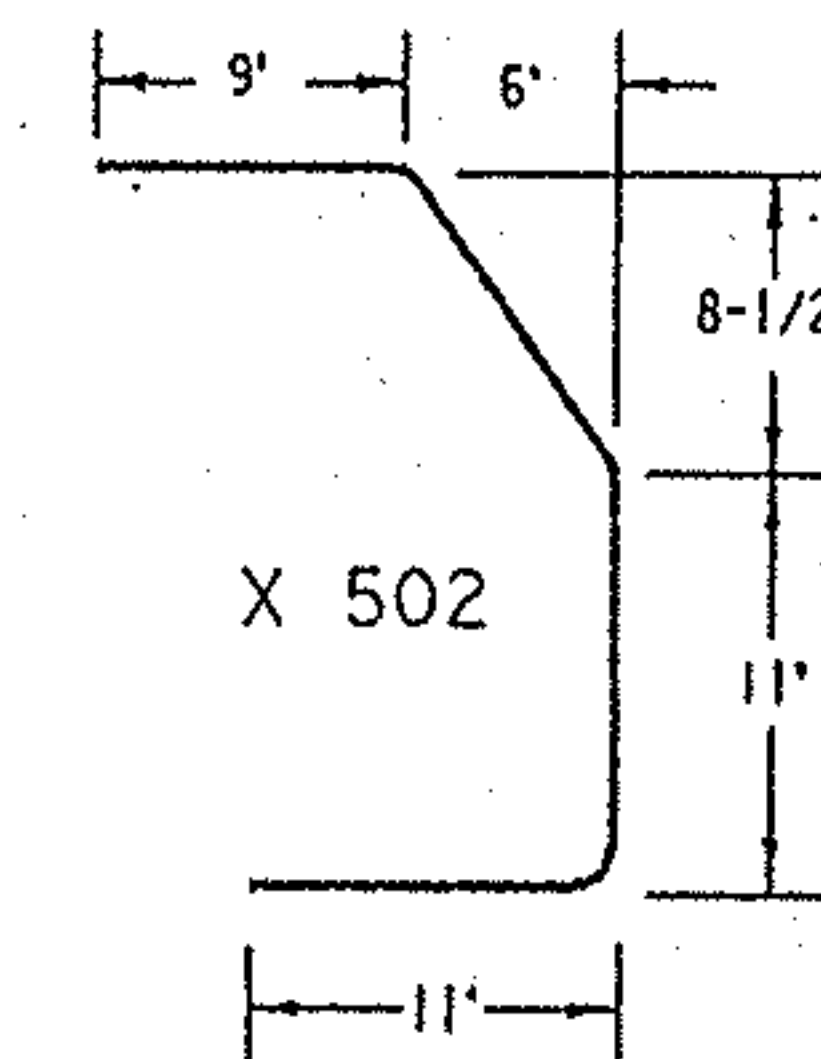
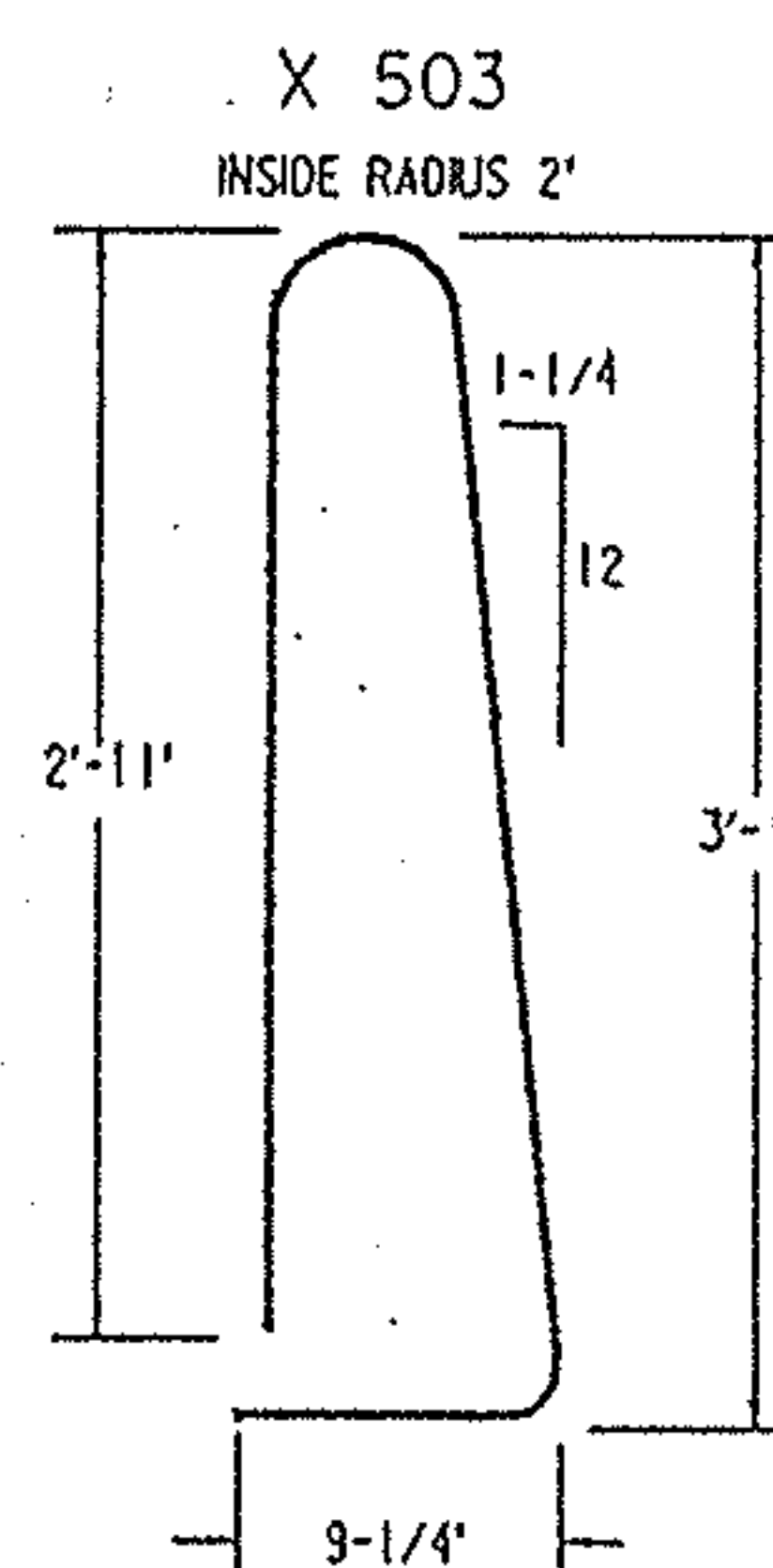
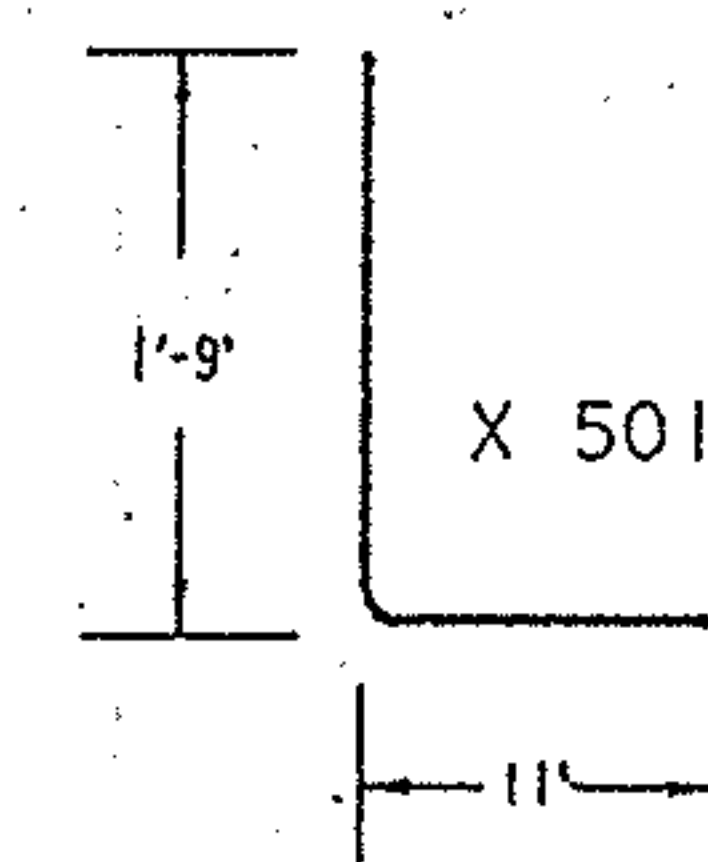
STEEL LIST & BENDING DIAGRAM

STR. NO. MAH-680-0508

MARK	NO.	LENGTH	WEIGHT	SHAPE
Y 501	32	3'-0"	100	STRAIGHT
Y 501A	40	TO 3'-9"	141	STRAIGHT
Y 502	40	TO 3'-1"	137	BENT
Y 503	8	7'-8"	64	BENT
Y 504	8	2'-4"	20	BENT
Y 505	8	13'-8"	115	BENT
Y 506	8	13'-9"	115	STRAIGHT
Y 507	16	14'-10"	247	STRAIGHT
Y 508	16	2'-5"	40	STRAIGHT
Y 509	24	4'-1"	102	STRAIGHT
Y 510	8	2'-7"	22	STRAIGHT
Y 511	12	1'-4"	17	STRAIGHT
X 501	316	2'-7"	850	BENT
X 502	316	3'-4"	1098	BENT
X 503	316	6'-11"	2281	BENT
X 506	48	28'-3"	1414	STRAIGHT
X 507	4	24'-0"	100	STRAIGHT
X 508	104	9'-6"	1030	STRAIGHT
X 508A	16	13'-4"	222	STRAIGHT
TOTAL POUNDS			8,115	
DOWEL HOLES			EACH	152

STR. NO. MAH-680-0557

MARK	NO.	LENGTH	WEIGHT	SHAPE
Y 501	32	3'-0"	100	STRAIGHT
Y 501A	40	TO 3'-9"	141	STRAIGHT
Y 502	40	TO 3'-1"	137	BENT
Y 503	8	7'-8"	64	BENT
Y 504	8	2'-4"	20	BENT
Y 505	8	13'-8"	115	BENT
Y 506	8	13'-9"	115	STRAIGHT
Y 507	16	14'-10"	247	STRAIGHT
Y 508	16	2'-5"	40	STRAIGHT
Y 509A	6	4'-1"	26	STRAIGHT
Y 509B	6	3'-4"	21	STRAIGHT
Y 509C	6	1'-4"	8	STRAIGHT
Y 509D	6	2'-0"	13	STRAIGHT
Y 510	8	2'-7"	22	STRAIGHT
Y 511	12	1'-4"	17	STRAIGHT
X 501	354	2'-7"	953	BENT
X 502	354	3'-4"	1230	BENT
X 503	354	6'-11"	2555	BENT
X 506	48	31'-7"	1581	STRAIGHT
X 507	4	28'-0"	117	STRAIGHT
X 508	120	9'-6"	1189	STRAIGHT
X 508B	8	12'-6"	104	STRAIGHT
X 508C	8	13'-2"	110	STRAIGHT
TOTAL POUNDS			85.5	
DOWEL HOLES			EACH	152



EXISTING SECTIONS A-A, B-B, C-C, D-D
EXISTING ALUMINUM RAILING NOT SHOWN

REMOVAL AREA

XPAR680

• SERIES : 4 SETS OF 10

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
PARAPET DETAILS					
MAH-680-0508 (OVER EDWARDS ST.)			MAH-680-0557 (OVER OAK HILL AVE.)		
DESIGNED JM	DRAWN JM	CHECKED MM	REVIEWED AM	DATE 3-93	REVISION

BRIDGE MEDIAN BARRIER DETAILS

F.I.L.V.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		

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44

MAH-680-0508/0557

PANEL LAYOUTS

MAH-680-0508

LENGTH=157.67'

10'-1" (A=1'-1")	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	7'-6"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-1" (A=1'-1")
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LIGHT
SUPPORT
STA 979+84.50
(SEE NEXT PAGE FOR DETAILS)

MAH-680-0557

LENGTH=176.08'

9'-3" (A=1'-3")	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	10'-0"	7'-6"	10'-0"	10'-0"	9'-4" (A=1'-4")
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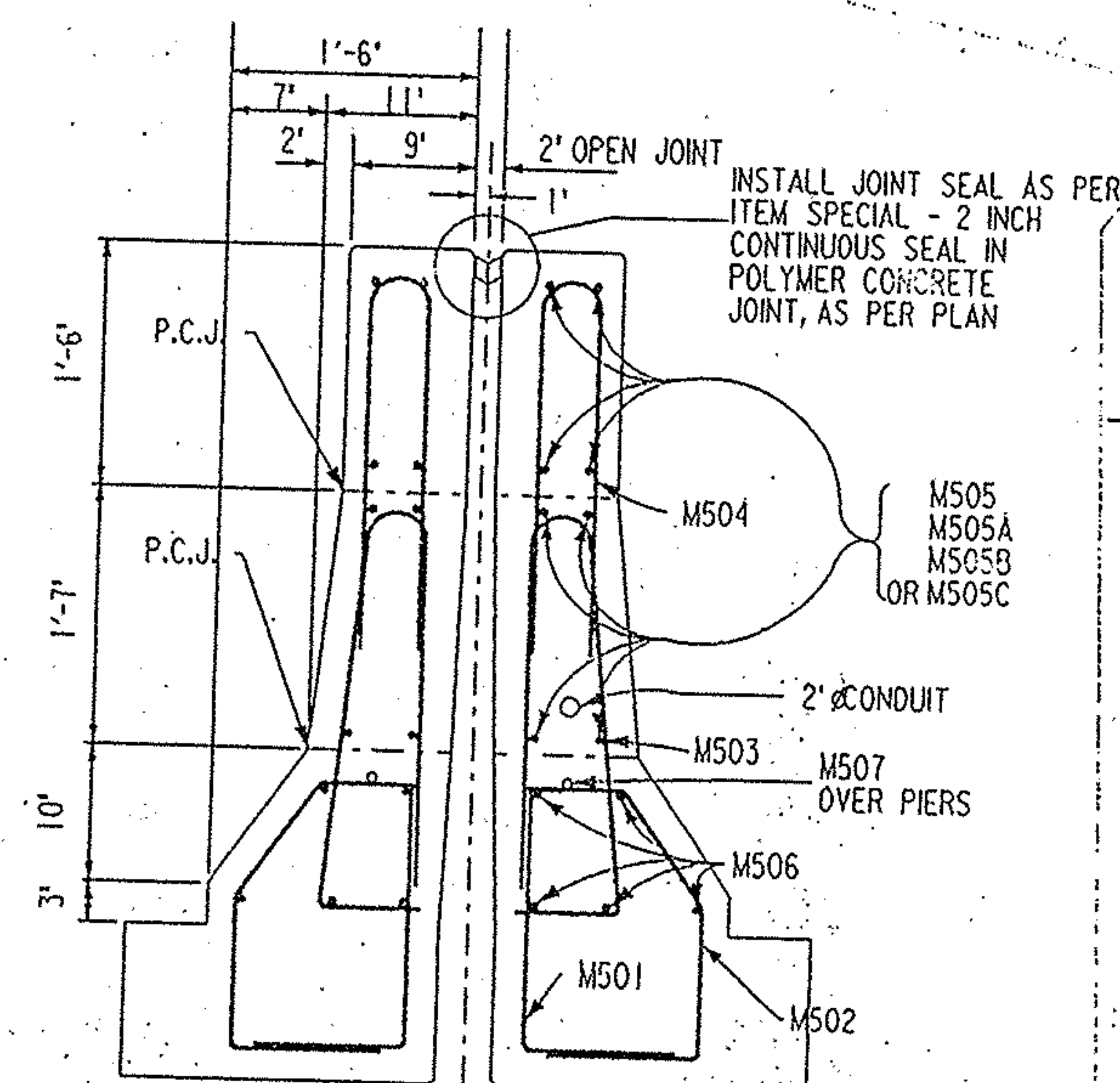
LIGHT
SUPPORT
STA 1006+52.44
(SEE NEXT PAGE FOR DETAILS)

STR. NO.
MAH-680-0508

MARK	NO.	LENGTH	WEIGHT	SHAPE
M501	300	2'-6"	782	BENT
M502	300	3'-1"	964	BENT
M503	300	5'-3"	1643	BENT
M504	300	4'-11"	1539	BENT
M505	208	9'-6"	2061	STRAIGHT
M505A	32	9'-7"	320	STRAIGHT
M506	60	28'-3"	1768	STRAIGHT
M507	4	24'-0"	100	STRAIGHT
TOTAL			9177	

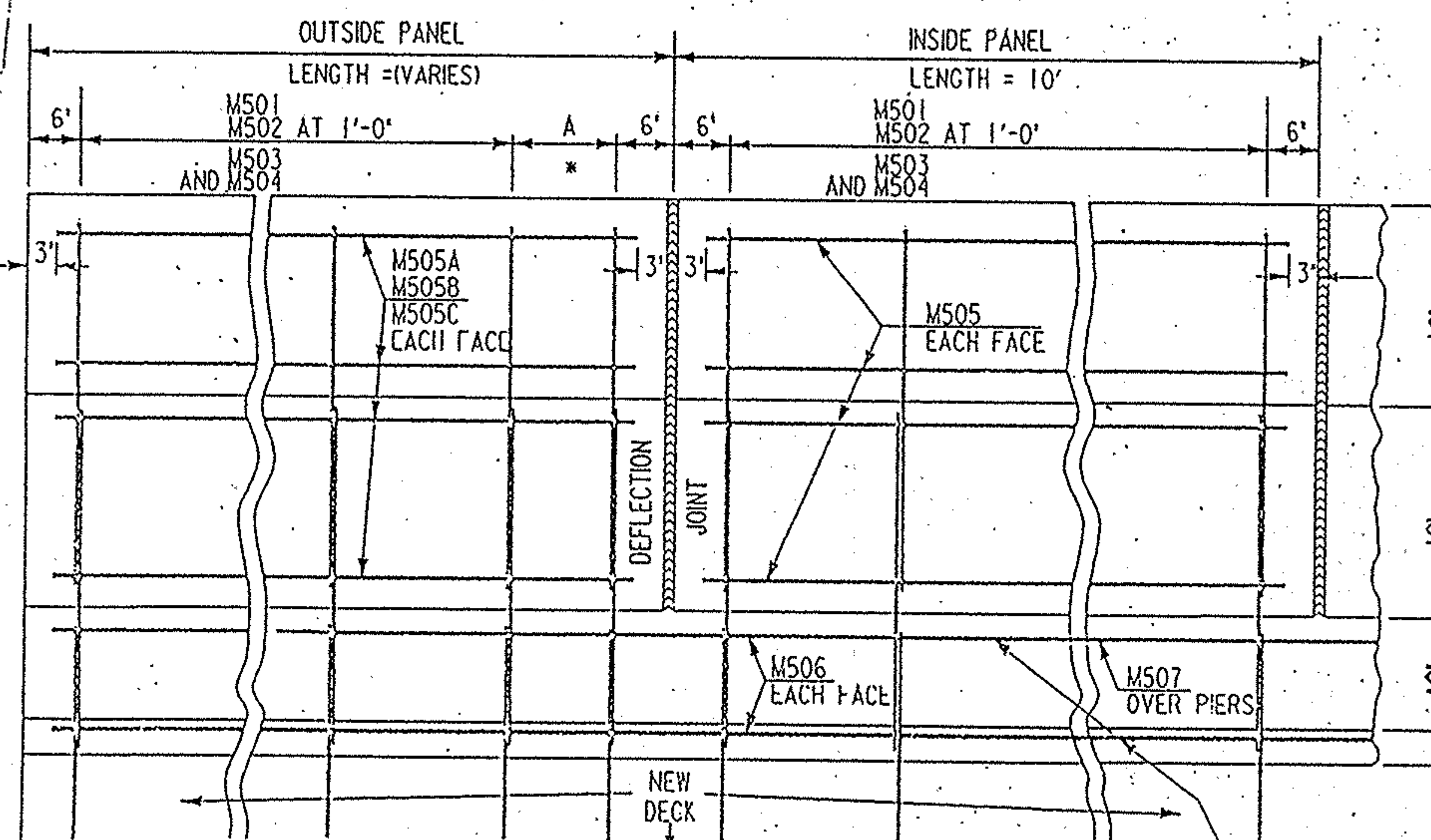
STR. NO.
MAH-680-0557

MARK	NO.	LENGTH	WEIGHT	SHAPE
M501	336	2'-6"	876	BENT
M502	336	3'-1"	1079	BENT
M503	336	5'-3"	1840	BENT
M504	336	4'-11"	1724	BENT
M505	240	9'-6"	2378	STRAIGHT
M505B	16	8'-9"	146	STRAIGHT
M505C	16	8'-10"	147	STRAIGHT
M506	60	31'-7"	1976	STRAIGHT
M507	4	28'-0"	117	STRAIGHT
TOTAL			10283	



NOTE: MEDIAN WALL, INCLUDING LIGHT SUPPORT AND CONDUIT EXPANSION SLEEVES TO BE INCLUDED IN ITEM SPECIAL - HIGH PERFORMANCE CONCRETE, SUPERSTRUCTURE (PARAPET)

M682MVAL

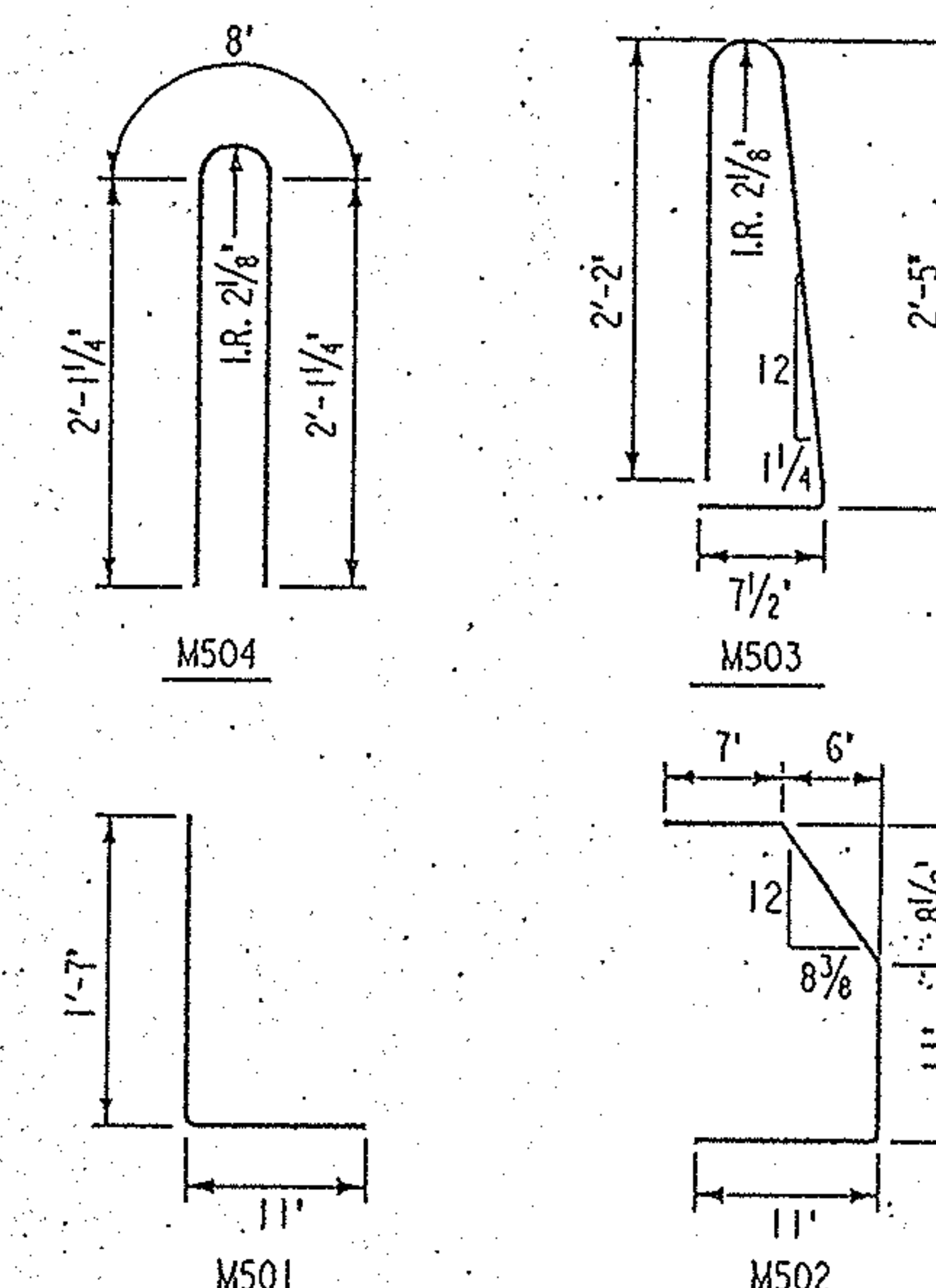


* SEE PANEL LAYOUTS

NOTE: ELEVATION VIEW SHOWS ONLY HALF OF THE WALL SECTION. OTHER HALF IS SIMILAR.

BAR LAPS TO BE 2'-5" MIN.

BAR BENDING DIAGRAM



STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION			
BRIDGE MEDIAN BARRIER DETAILS			
MAH-680-0508 (OVER EDWARDS ST.)		MAH-680-0557 (OVER OAK HILL AVE.)	
DESIGNED JM	DRAWN SLB	CHECKED NM	REVIEWED FTM
DATE 3-93			REVISED

SEALING DETAILS

F.H.W.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		

35
44

MAH-680-0508/0557

ITEM SPECIAL - SEALING OF CONCRETE SURFACES (EPOXY)

MAH-680-0508

MAH-680-0557

THE EXPOSED SURFACE OF THE CONCRETE BARRIER WALL PARAPETS SHALL BE SEALED THROUGHOUT THE ENTIRE LENGTH OF THE BRIDGES, INCLUDING WINGWALLS (OUTSIDE PARAPETS ONLY), TO THE SPECIFIC LIMITS AS SHOWN IN THE 'PARAPET SECTION' VIEW, IN THE 'WINGWALL ELEVATION' VIEW, AND THE 'MEDIAN SECTION' VIEW.

ALONG WITH SEALING THE PARAPETS AND WINGWALLS, THE ENTIRE LENGTH OF VERTICALLY EXPOSED ABUTMENT WALLS AND BACKWALLS, AS WELL AS THE HORIZONTAL BEAMSEATS, SHALL BE SEALED FROM THE CRUSHED AGGREGATE SLOPE PROTECTION UP TO THE UNDERSIDE OF THE CONCRETE BRIDGE DECK.

FOR THE COMPLETE SPECIFICATION AND DETAILED MATERIAL REQUIREMENTS, SEE THE SPECIAL NOTES LISTED IN THE PROPOSAL.

ALSO, ALL PIER COLUMNS ARE TO BE SEALED AROUND THE FULL CIRCUMFERENCE OF THE COLUMN FROM THE GROUND UP TO THE BOTTOM OF THE PIER CAP ALONG WITH BOTH SIDES AND THE BOTTOM OF THE PIER CAPS

URETHANE TOPCOAT SEALER

THIS ITEM SHALL CONSIST OF THE APPLICATION OF A URETHANE TOPCOAT SEALER OVER CONCRETE AREAS COATED WITH AN EPOXY SEALER. THE COLOR OF THE URETHANE COATING SHALL BE FEDERAL COLOR STANDARD NO.37722 (WHITE).

THE URETHANE COATING SHALL BE APPLIED BETWEEN 1 AND 10 DAYS AFTER THE APPLICATION OF THE EPOXY. THE EPOXY SHALL BE CLEAN AND DRY BEFORE THE URETHANE IS APPLIED. APPLICATION SHALL BE BY AIRLESS SPRAY.

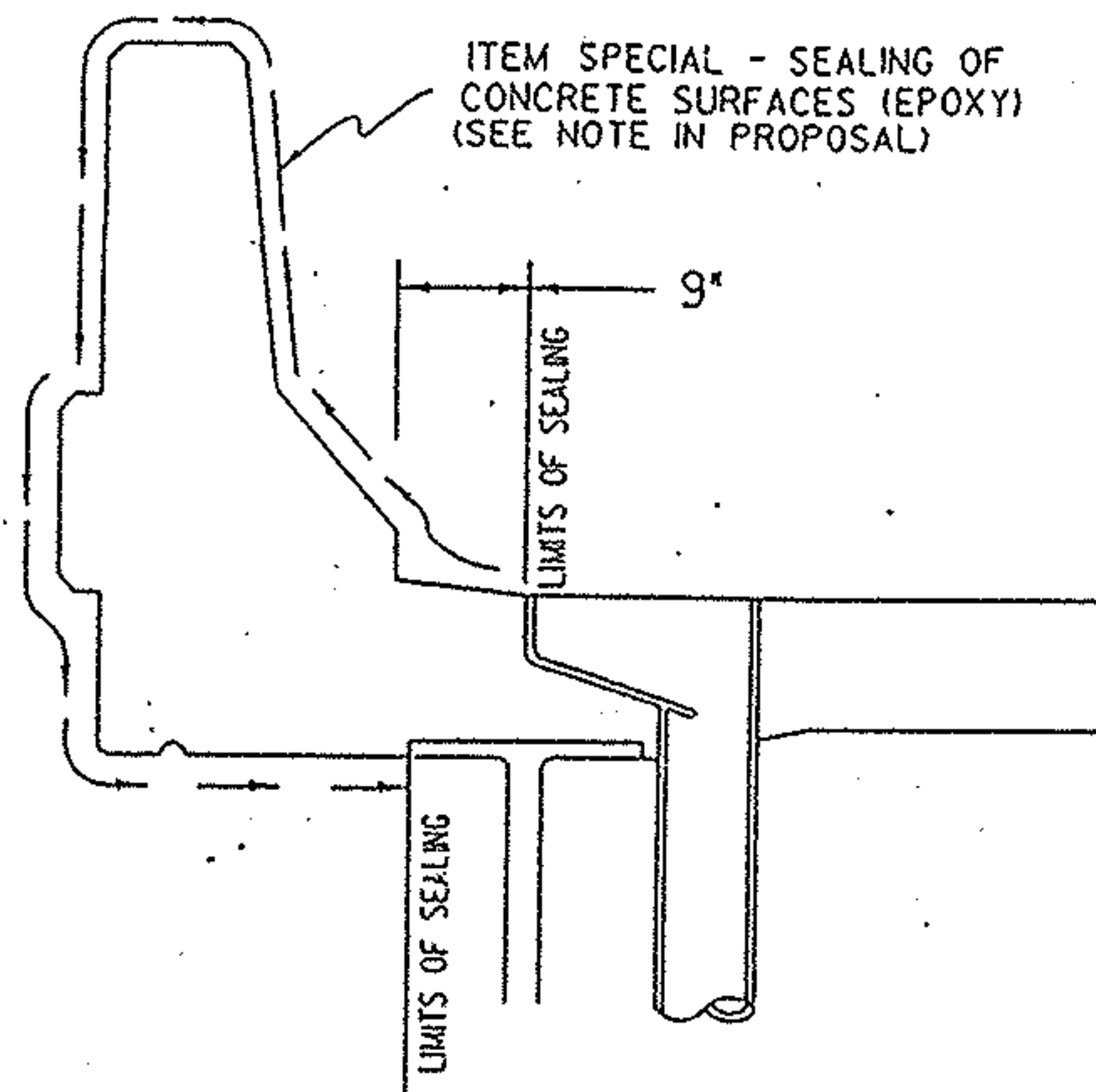
ALL WORK SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS DIRECTED BY THE ENGINEER.

THE URETHANE TOPCOAT SHALL BE ONE OF THE FOLLOWING PRODUCTS:

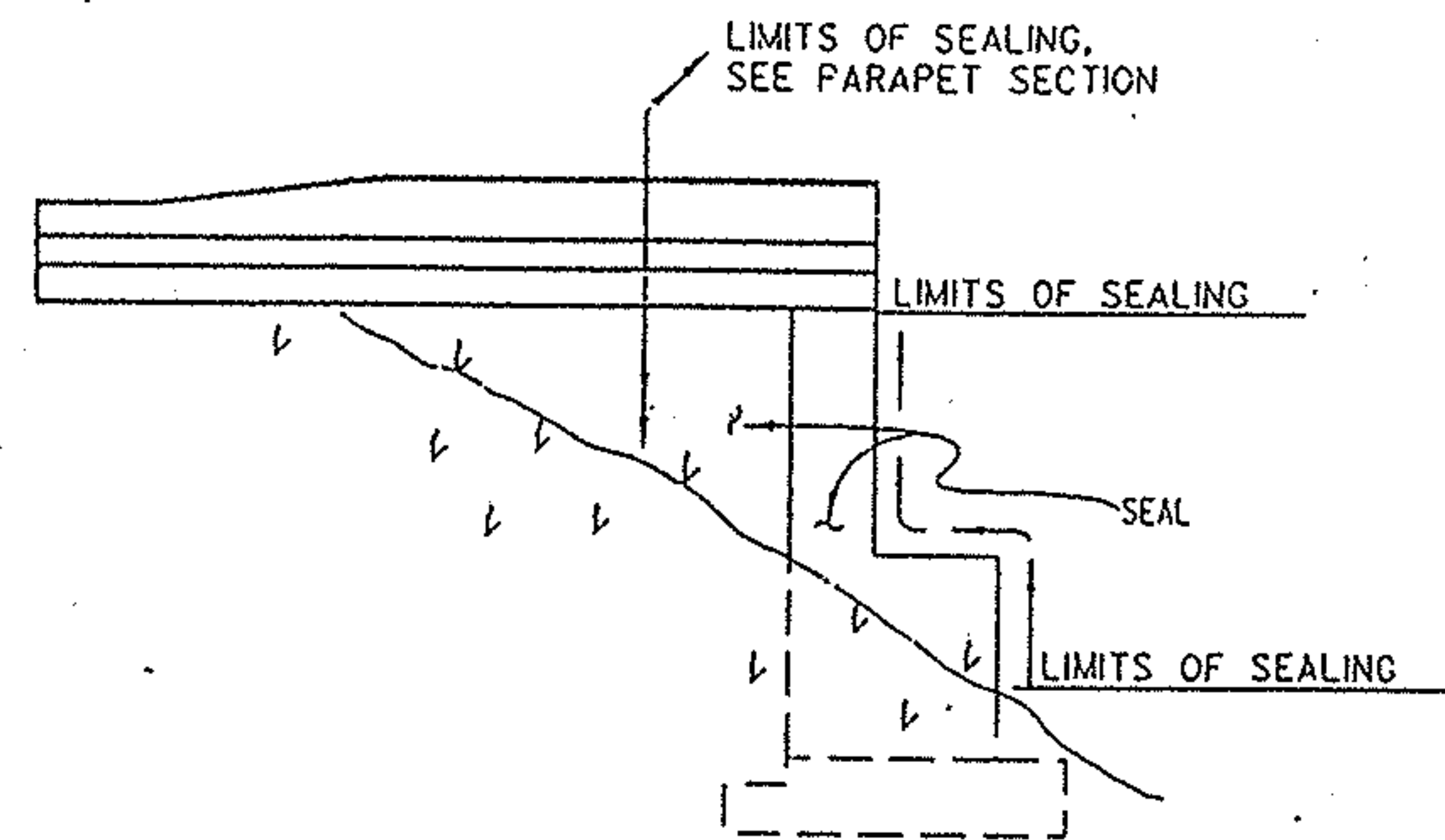
- 1) AMERON'S AMERCOAT 450 H.S.
- 2) POLY-CARB'S MARK 73
- 3) INMEC'S SERIES 70 ENDURA SHIELD
- 4) DURAL'S AQUATHANE/URETHANE 37722

THE COST OF ALL LABOR, EQUIPMENT, AND MATERIAL TO ACCOMPLISH THIS ITEM OF WORK SHALL BE PAID UNDER:

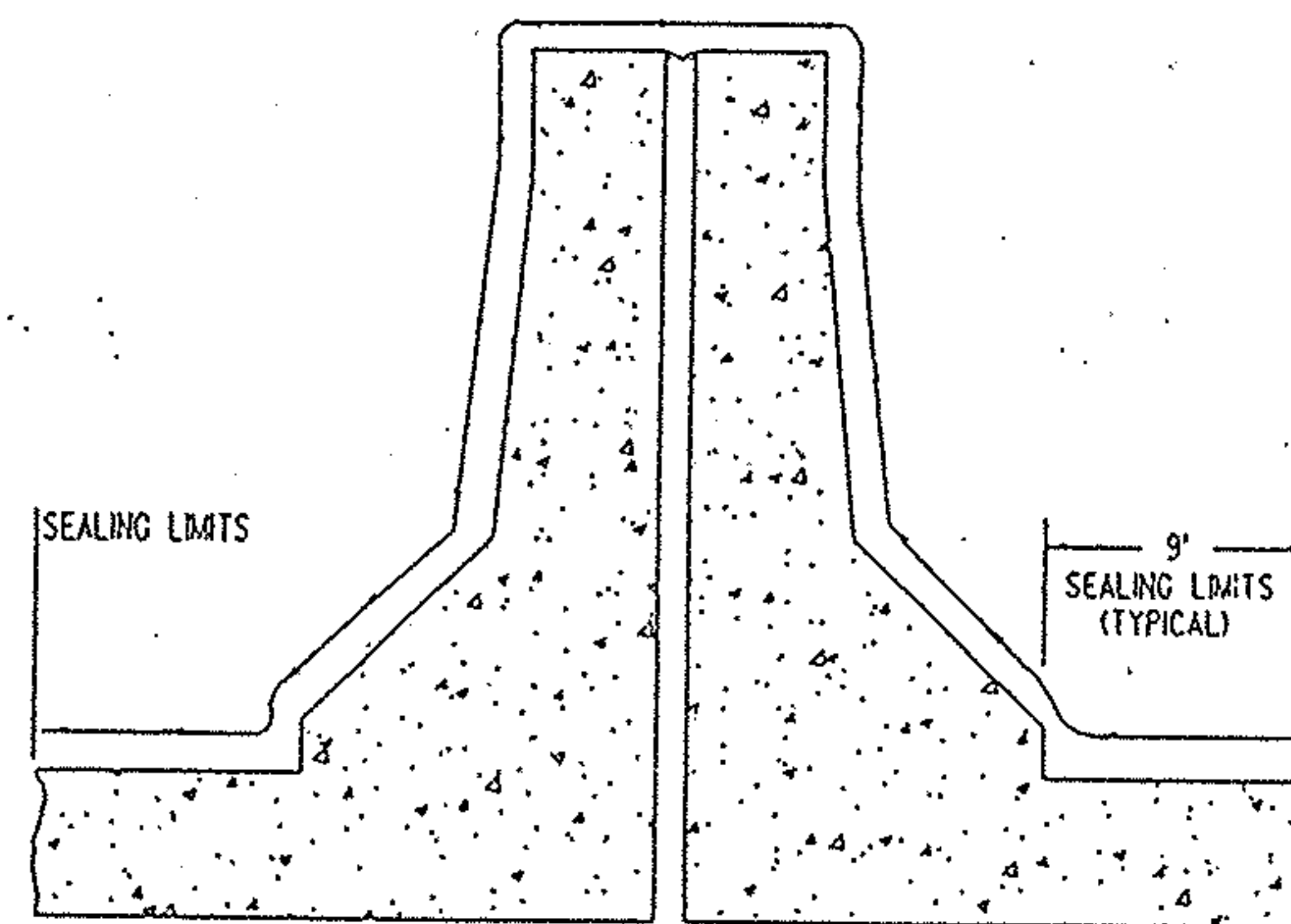
ITEM	UNIT	DESCRIPTION
SPECIAL	SQUARE YARD	URETHANE TOPCOAT SEALER



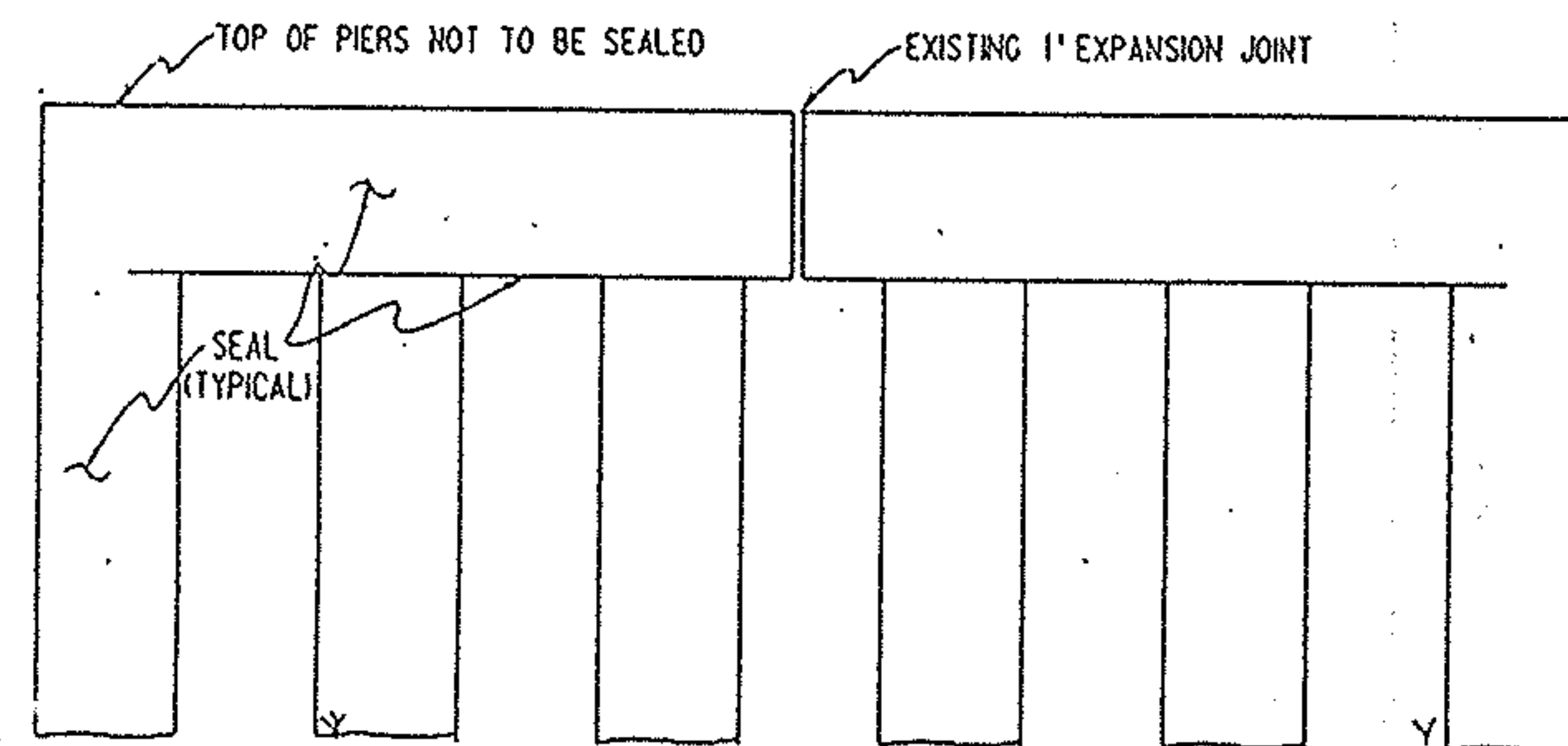
PARAPET SECTION



WINGWALL ELEVATION



MEDIAN SECTION



PIERS

(GENERAL VIEW, REFER TO CONCRETE PATCHING DETAIL SHEET FOR SPECIFIC PIER CONFIGURATIONS.)

BRIDGE NUMBER	SEALING SUMMARY					
	OUTSIDE PARAPET WALLS	BACKWALL/ WINGWALL	PIER/ PIERCAPS	MEDIAN WALL	MEDIAN WALL WITH LIGHT SUPPORT	STRUCTURE TOTAL
	SO.YDS.	SO.YDS.	SO.YDS.	SO.YDS.	SO.YDS.	SO.YDS.
MAH-680-0508	472	141	465	201	3	1282
MAH-680-0557	501	163	428	225	3	1320

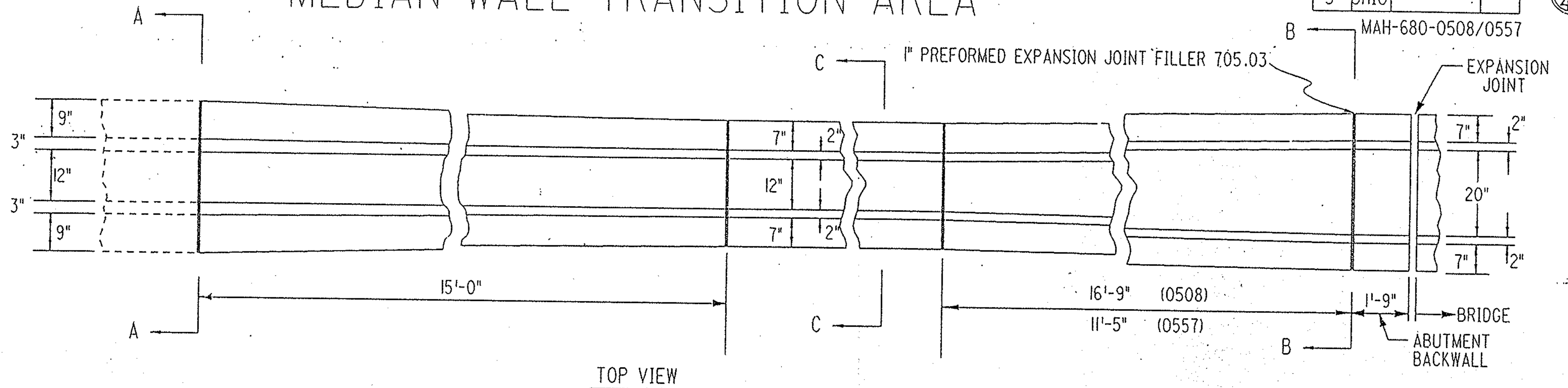
MAH680SL

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
SEALING DETAILS					
DESIGNED BY	CHECKED BY	REVIEWED BY	DATE	REVISED	
TB	TB	JM	7/11	3-93	

MEDIAN WALL TRANSITION AREA

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

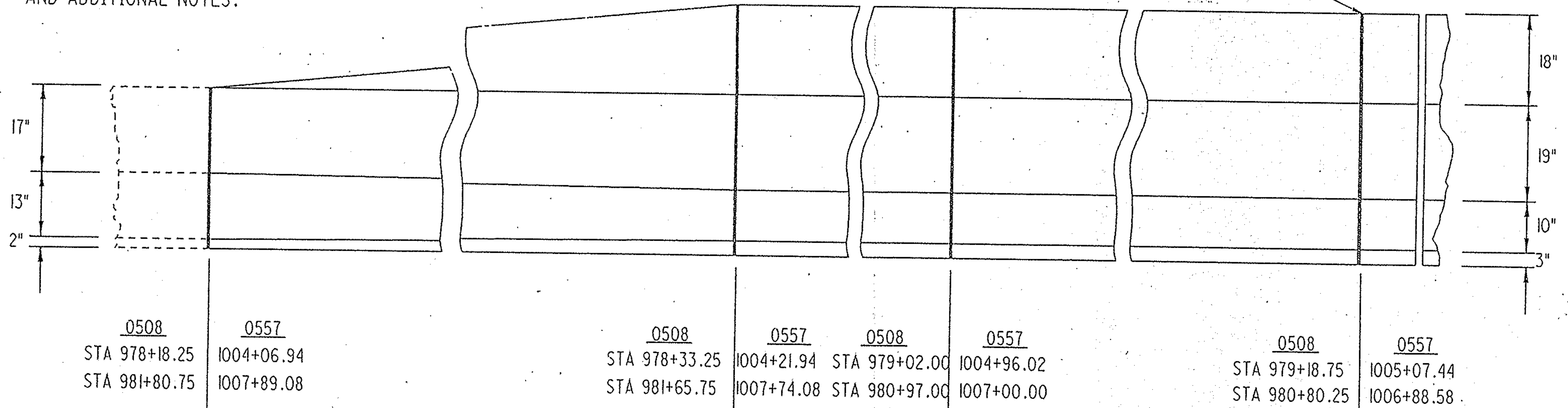
36
44



TOP VIEW

NOTE: SEE NEXT PAGE
FOR CROSS-SECTIONS
AND ADDITIONAL NOTES.

1" PREFORMED EXPANSION JOINT FILLER, 705.03
(TYP.)



ELEVATION VIEW

DRAWING NOT TO SCALE

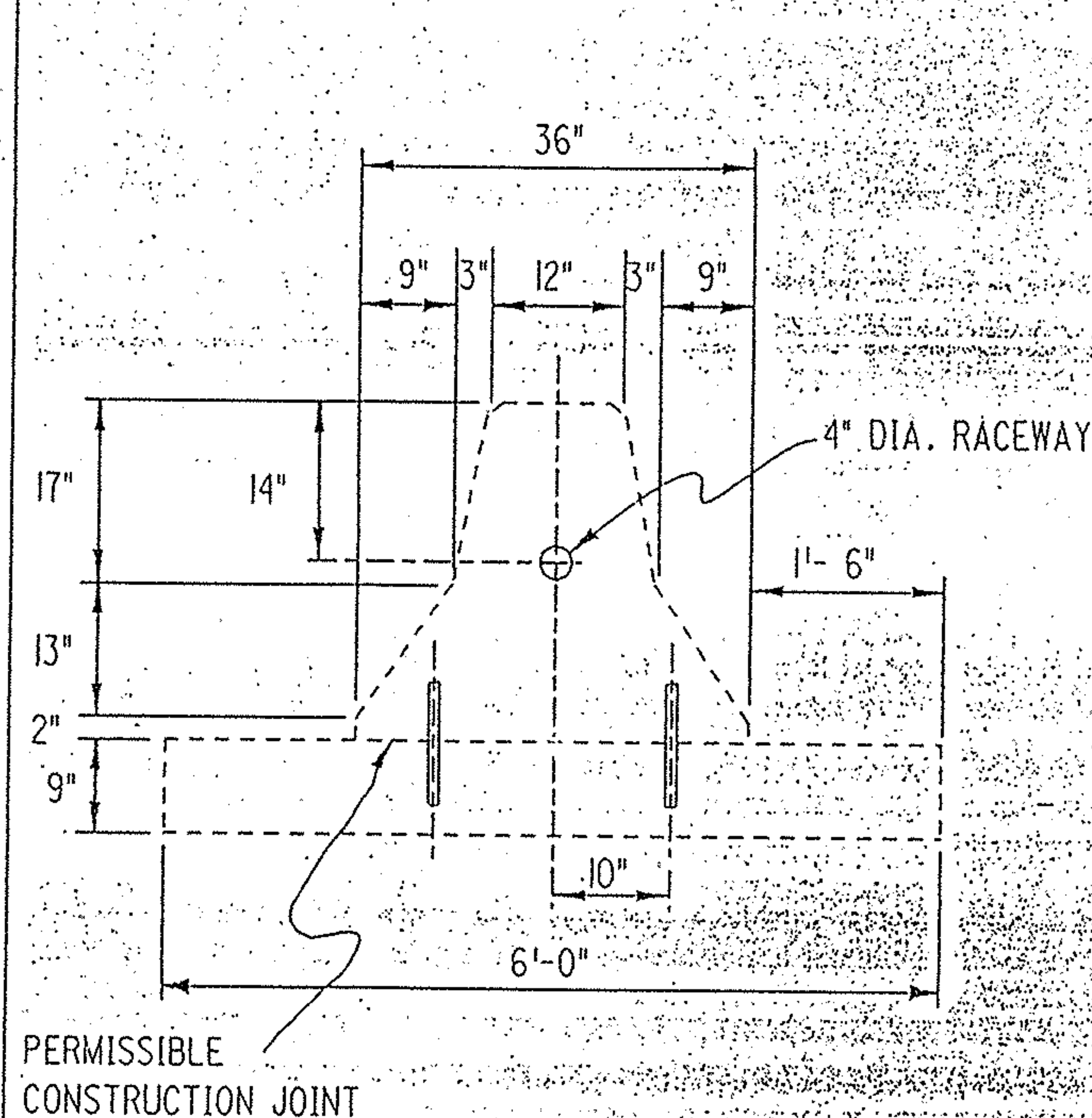
STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
MEDIAN WALL TRANSITION AREA MAH-680-0508/0557					
DESIGNED TB	DRAWN PO	CHECKED LM	REVIEWED MM	DATE 3-93	REVISED

MEDIAN WALL TRANSITION AREA CROSS-SECTIONS

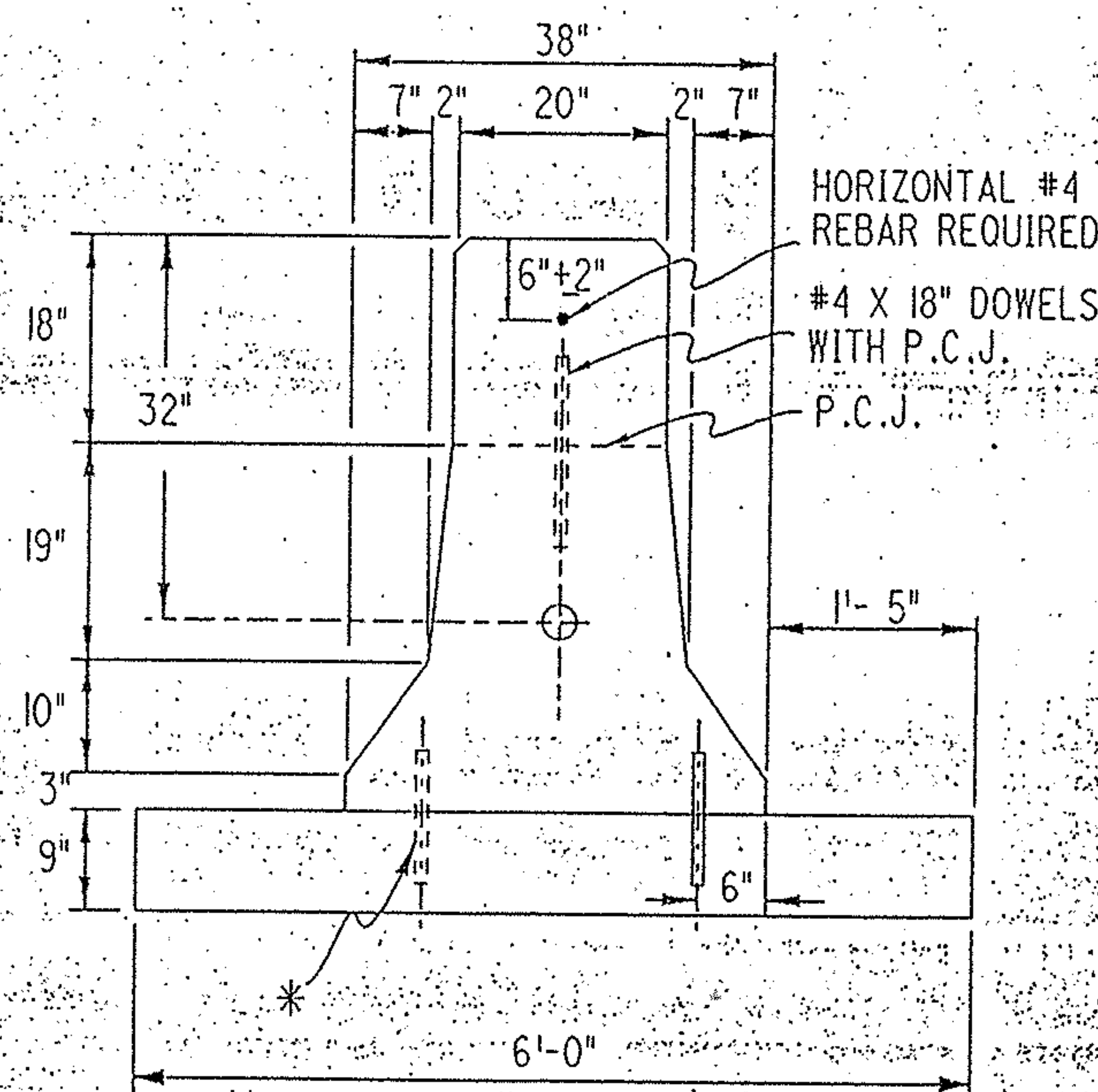
F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

MAH-680-0508/0557

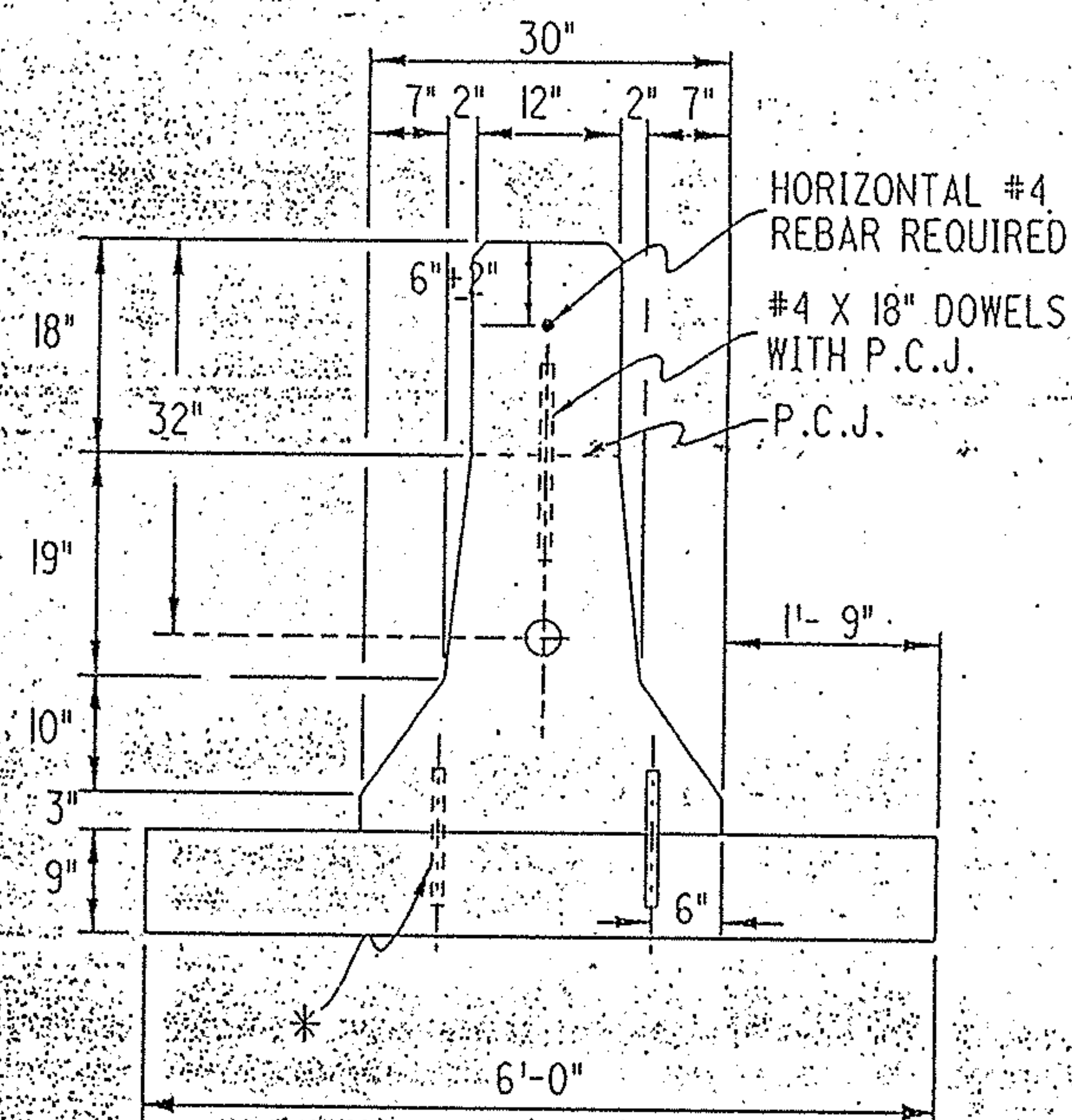
37
44



EXISTING MEDIAN BARRIER SECTION
SECTION A-A



PROPOSED MEDIAN BARRIER SECTION
SECTION B-B



PROPOSED MEDIAN BARRIER SECTION
SECTION C-C

*NOTE: NO. 8 DEFORMED STEEL BARS, 12" LONG, SPACED ON STAGGERED 4' CENTERS.

NOTES: ALL TRANSITIONS, DOWEL BARS, CONDUIT AND EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 622 - CONCRETE BARRIER, TYPE B50, AS PER PLAN.

#4 HORIZONTAL BARS ARE TO BE INCLUDED IN ITEM 622 AND ARE NOT CARRIED TO THE STEEL LIST.

REFER TO STANDARD DRAWING MC-9.3 AND MC-9.4 FOR JOINT SPACING AND ANY OTHER REQUIRED INFORMATION.

DRAWING NOT TO SCALE

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
MEDIAN WALL TRANSITION AREA CROSS-SECTIONS MAH-680-0508/0557					
DESIGNED TB	DRAWN PO	CHECKED JM	REVIEWED MM	DATE 3-93	REVISE

LIGHTING GENERAL NOTES

SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWING LISTED ON THE TITLE SHEET OF THESE PLANS.

625.03 GENERAL

THE POWER SUPPLY AGENCY FOR THIS PROJECT IS:
OHIO EDISON CO.
730 SOUTH AVE.
YOUNGSTOWN, OHIO 44502
(216) 747-2071

POWER SERVICE: 480 VOLT, 2 WIRE, SINGLE PHASE, GROUNDED NEUTRAL. THIS PROJECT HAS BEEN DESIGNED ON THE BASIS OF 5% VOLTAGE DROP WITH A MAXIMUM UNIFORMITY OF 4.0 TO 1.0 FOR CONVENTIONAL UNITS AND 3.0 TO 1.0 FOR HIGH MAST UNITS.

THE CONTRACTOR SHALL PAY ELECTRICAL, ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT (UNDERPASS ONLY). UPON COMPLETION OF THIS PROJECT, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO ODOT OR CITY OF YOUNGSTOWN FOR UNDERPASS LIGHTING. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

PADLOCK AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 600A, OR EQUAL AND SHALL BE KEYPED IN ACCORDANCE WITH SPECIFICATION 631.08. PAYMENT SHALL BE INCIDENTAL TO ITEM(S) BEING LOCKED.

CONDUIT ON STRUCTURE

EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OZ TYPE AX, CROUSE-HINDS TYPE XJ-4, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER, FOR BRIDGE NO(S). MAH-680-0508 & MAH-680-0557. EACH EXPANSION FITTING SHALL HAVE COPPER EXTERNAL BONDING JUMPER.

ITEM 625- CONDUIT CLEANED AND CABLE REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF LOCATING AND CLEANING AN EXISTING CONDUIT OF ALL EXISTING CABLES, MUD AND DEBRIS SO THAT NEW CABLES MAY BE INSTALLED. INCIDENTAL TO CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF THE EXISTING CONDUIT AS REQUIRED. BRIDGE JUNCTION BOXES AND THEIR RESPECTIVE DRAIN OUTLETS SHALL BE FREE OF ALL OBSTRUCTIONS. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH LINEAR FOOT OF ITEM 625- CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN AND SHALL BE FULL COMPENSATION INCLUDING LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY, WORKMANLIKE MANNER.

ITEM 625-SERVICE TO UNDERPASS LIGHTING

THIS ITEM SHALL CONSIST OF PROVIDING COMPLETE ELECTRICAL SERVICE, EXCEPT FOR LUMINAIRES AND STRUCTURE GROUNDING, FOR UNDERPASS LIGHTING SYSTEM ON BRIDGE NO(S). 0508 AND 0557 OVER I-680. THE INSTALLATION WORK SHALL INCLUDE CONDUITS, CONDUIT GROUNDING, MOUNTINGS, FITTINGS, JUNCTION BOX, CABLES, AND ALL INCIDENTALS NECESSARY TO COMPLETE THE SERVICE. THE LUMP SUM PRICE BID FOR ITEM 625 - SERVICE TO UNDERPASS LIGHTING SHALL INCLUDE PAYMENT FOR ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED. COMPONENT PARTS NOT SPECIFICALLY MENTIONED BUT REQUIRED FOR SATISFACTORY OPERATION OF THIS ITEM SHALL BE INCIDENTAL TO THIS ITEM.

625.07, 713.13 - UNDERPASS LUMINAIRE

UNDERPASS LUMINAIRE SHALL BE HOLOPHANE UNDERPASS WALLPACK, CROUSE-HINDS WA, OR GENERAL ELECTRIC WL-250 UNDERPASS UNIT OR EQUAL AS APPROVED BY THE ENGINEER, AND SHALL BE FURNISHED WITH AN INTEGRAL FUSE HOLDER AND 10 AMPERE FUSE. THE INTEGRAL HIGH PRESSURE SODIUM BALLAST SHALL BE OF A REGULATOR TYPE RATED FOR 120 VOLTS, 100 WATTS.

ITEM 625 - LUMINAIRE REMOVED FOR REUSE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LUMINAIRE, STORING IT ON THE PROJECT, AND REERECTING AS PER 625.07. PRIOR TO REERECTION, THE LUMINAIRE SHALL BE CLEANED, RELAMPED (400 WATT, METAL HALIDE LAMP), AND RESTORED TO GOOD WORKING ORDER, APPROVED BY THE ENGINEER. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 625 - LUMINAIRE REMOVED FOR REUSE, AS PER PLAN.

ITEM 625 - REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL AND THE REERECTION OF AN EXISTING LIGHT POLE, INCLUDING THE BRACKET ARMS. THE EXISTING WIRING SHALL BE REMOVED FROM THE POLE AND BRACKET ARM AND DISPOSED OF PROPERLY.

THE POLE SHALL BE WASHED AND RESTORED TO WORKING ORDER BEFORE REERECTION. IF THE POLE IS PAINTED FINISH IT SHALL BE SPOT PRIMED AND GIVEN ONE COAT OF FINISH PAINT. LUMINAIRE, POLE WIRING, CONNECTOR KITS, GROUND ROD, AND FOUNDATION SHALL BE PAID FOR SEPARATELY. IT IS INTENDED THAT THE CONTRACTOR FIELD MEASURES THE BASE PRIOR TO ORDERING AND PLACING THE U-TYPE ANCHOR BOLTS TO VERIFY DIMENSIONS AND PLACEMENT LOCATIONS OF THE ANCHOR BOLTS. ANCHOR BOLTS SHALL BE INCIDENTAL TO THIS ITEM.

PAYMENT SHALL BE MADE FOR EACH ITEM 625- REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS ROUTE 500/11					
LIGHTING PLAN					
MAH-680-0508/0557					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
JEA	5003	JM	4/7/77	3-93	

F.H.W.A. REGION	STATE	PROJECT NO.	FUND
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MAH-680-0508/0557

LIGHTING GENERAL NOTES

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED.

WHEN THE CIRCUIT IS DISCONNECTED TO REMOVE THE POLES ON THE BRIDGES, CARE SHALL BE TAKEN NOT TO DISTURB ANY OTHER LIGHTING ON THE CIRCUIT.

IF ANY OTHER LIGHTING IS DISTURBED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE THE REPAIRS. ALL MATERIALS AND LABOR NECESSARY TO MAKE THE REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL PREPARE AND SUBMIT A TEMPORARY LIGHTING PLAN TO THE DIRECTOR FOR THE REVIEW AND APPROVAL AT THE PRECONSTRUCTION MEETING.

THE LUMP SUM BID FOR ITEM SPECIAL - 'MAINTAINING EXISTING LIGHTING' SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR MAINTAINING THE EXISTING LIGHTING.

ITEM SPECIAL - MAINTAINING EXISTING LIGHTING LUMP SUM

ITEM SPECIAL - DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR AT A LIGHT POLE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX.

DISCONNECTION AT A LIGHT POLE SHALL INVOLVE THE REMOVAL OF THAT PART OF CABLE THAT IS TO BE ABANDONED FROM THE POLE. THE ENDS OF THE CONNECTION KITS FROM WHICH THE ABANDONED CABLE IS REMOVED SHALL BE STUBBED AND TAPED. ANY CABLE THAT IS TO BE REUSED IN A PULL BOX OR LIGHT POLE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION. CABLE SPLICE KITS AND CONNECTOR KITS WILL BE PAID FOR RESPECTIVELY UNDER EACH ITEM 625.

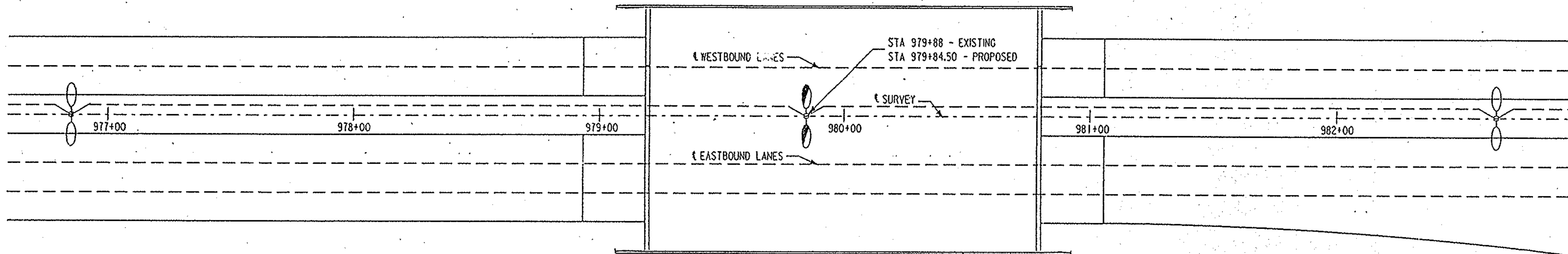
PAYMENTS WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM SPECIAL - DISCONNECT EXISTING CIRCUIT, AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
LIGHTING PLAN MAH-680-0508/0557					
DESIGNED JEA	DRAWN SAB	CHECKED JM	REVIEWED 7777	DATE 3-93	APPROVED

F.H.W.A. REGION	STATE	PROJECT NO.	FUND
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MAH-680-0508/0557



STATION TO STATION	ITEM	625	625	625	625	625	625	625	625	625	SPEC.	SPEC.	
	UNITS	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN	REMOVE AND REERECT BRACKET ARM	LUMINAIRE REMOVED FOR REUSE, AS PER PLAN	NO. 4 AWG 600 VOL. DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CONDUIT CLEANED AND CABLES REMOVED.	MAINTAIN EXISTING LIGHTING	DISCONNECT EXISTING CIRCUIT		
976+90							1	1				1	
976+90 TO 978+18.25					267				129				
978+18.25													
978+18.25 TO 979+84.50					342								
979+84.50	1	2	2		146	1	1		LUMP				
979+84.50 TO 981+80.75					403								
981+80.75													
981+80.75 TO 982+64					177			84					
982+64						1	1				1		
TOTALS	1	2	2	1189	146	3	3	213	LUMP	2			

LEGEND

EXISTING LIGHT POLE

REMOVE AND REERECT EXISTING LIGHT POLE

EXISTING STRUCTURE JUNCTURE BOX

EXISTING PULL BOX/JUNCTION BOX

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR OPERATIONS
BRIDGE SECTION

LIGHTING PLAN
MAH-680-0508
LOVER EDWARDS ST.)

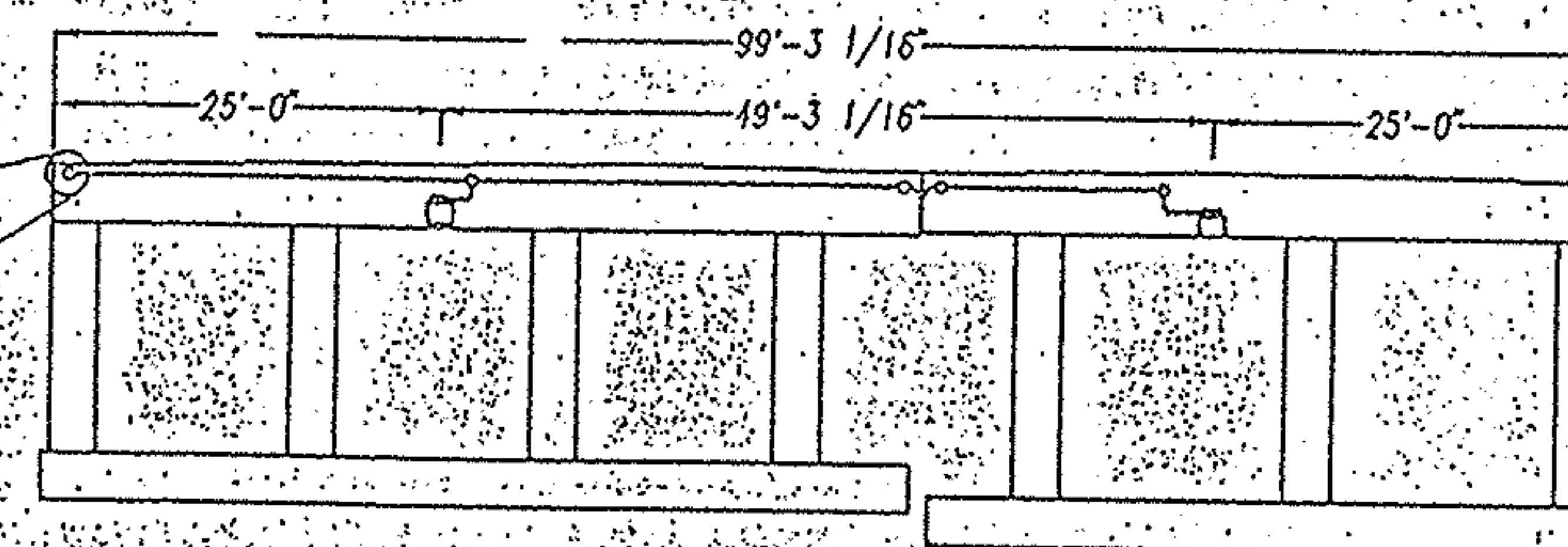
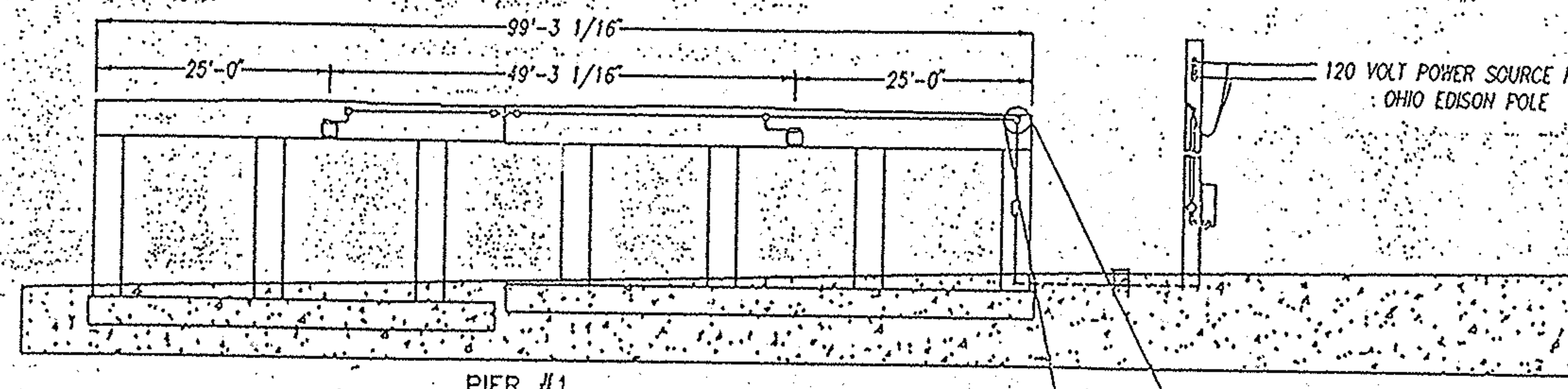
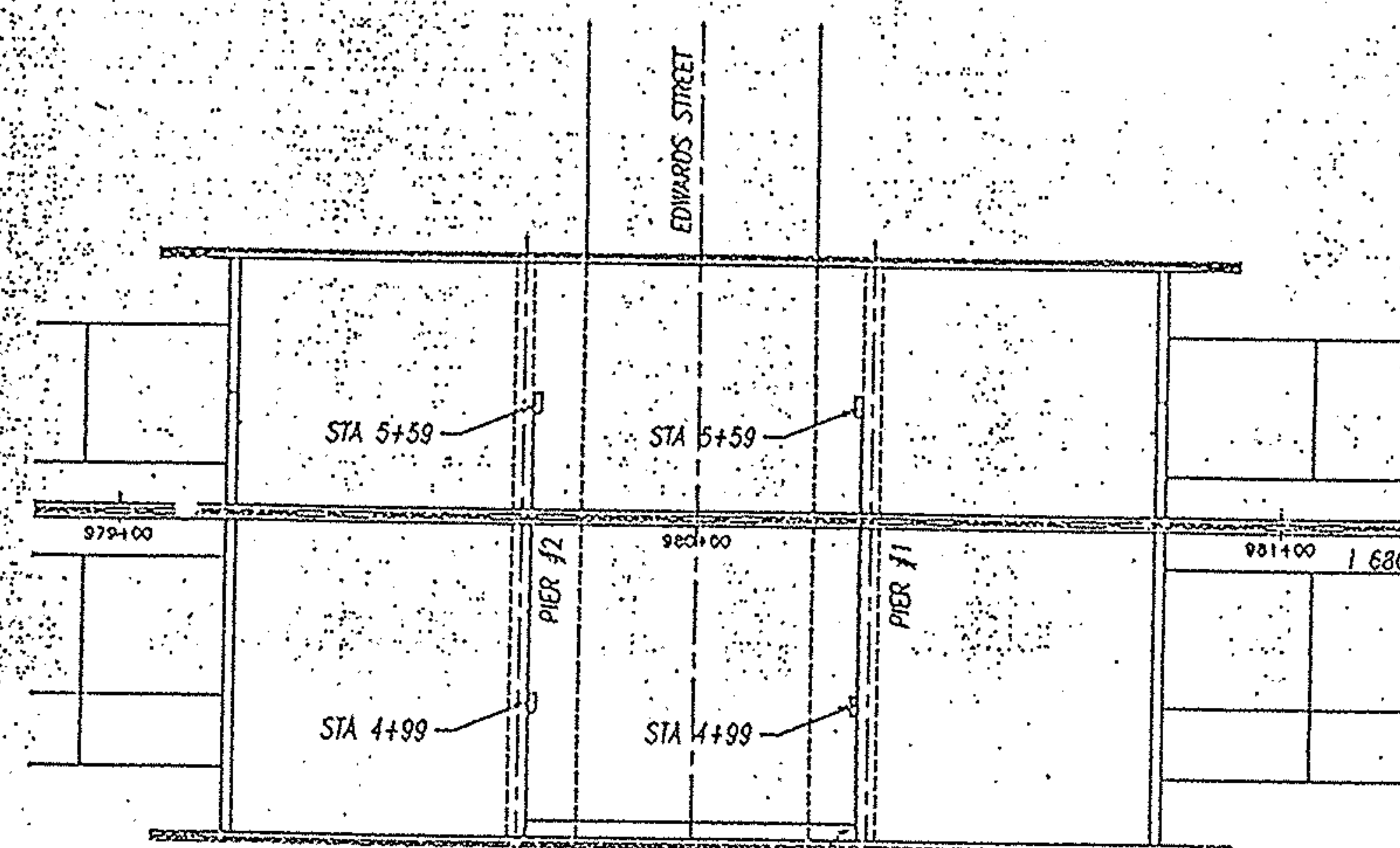
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
JEA	SCB	JM	7/77	3-93	

LCHTEDW

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

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MAH-680-0508/0557



OHIO EDISON POWER POLE W/ TRANSFORMER

INCOMING POWER FROM JUNCTION BOX, PIER #1

JUNCTION BOX

1 1/4" CONDUIT TO PIER #2 LIGHTS

1 1/4" CONDUIT TO PIER #2

JUNCTION BOX

1 1/4" CONDUIT FROM DISCONNECT SWITCH

1 1/4" CONDUIT TO PIER #1 UNDERPASS LIGHTS

LEGEND

- UNDERPASS LUMINAIRE, HPS, 713.13, 100W, 120 VOLT
- PULL BOX, 18", 713.09
- JUNCTION BOX, 713.10
- OHIO EDISON POWER POLE

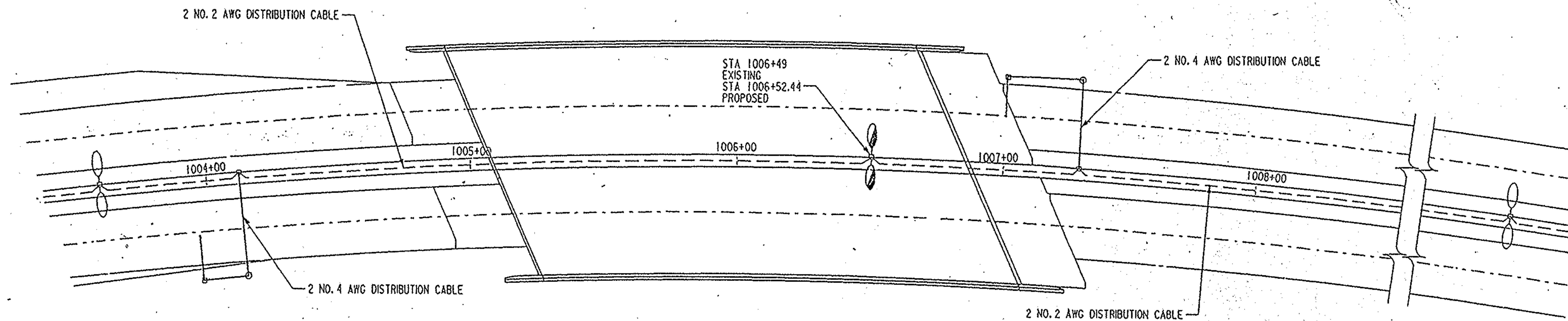
LOCATION	SIDE	625						
		LUMINAIRE, UNDERPASS, HPS, 713.13, 100W, 120 V	SERVICE TO UNDERPASS LIGHTING	PULL BOX, 18", 713.09	CABLE SPACE MT.	TRENCH, 24" DEEP	1 1/2" DUCT CABLE W/ 2 NO. 4 AWG 5000 V CABLES	POWER SERVICE
4+44	RT.							
4+44 TO 4+49	RT.					5'	35'	
4+49	RT.				2			
4+49	RT.	1						
4+99	LT.	1						
5+49	RT.	1						
5+49	LT.	1						
TOTAL		4		1	2	5'	35'	1

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
UNDERPASS LIGHTING PLAN EDWARDS STREET (UNDER I 680)					
DESIGNED JEA	CHECKED SCB	APPROVED JM	DATE 7/77	BY 3-93	REVISIONS

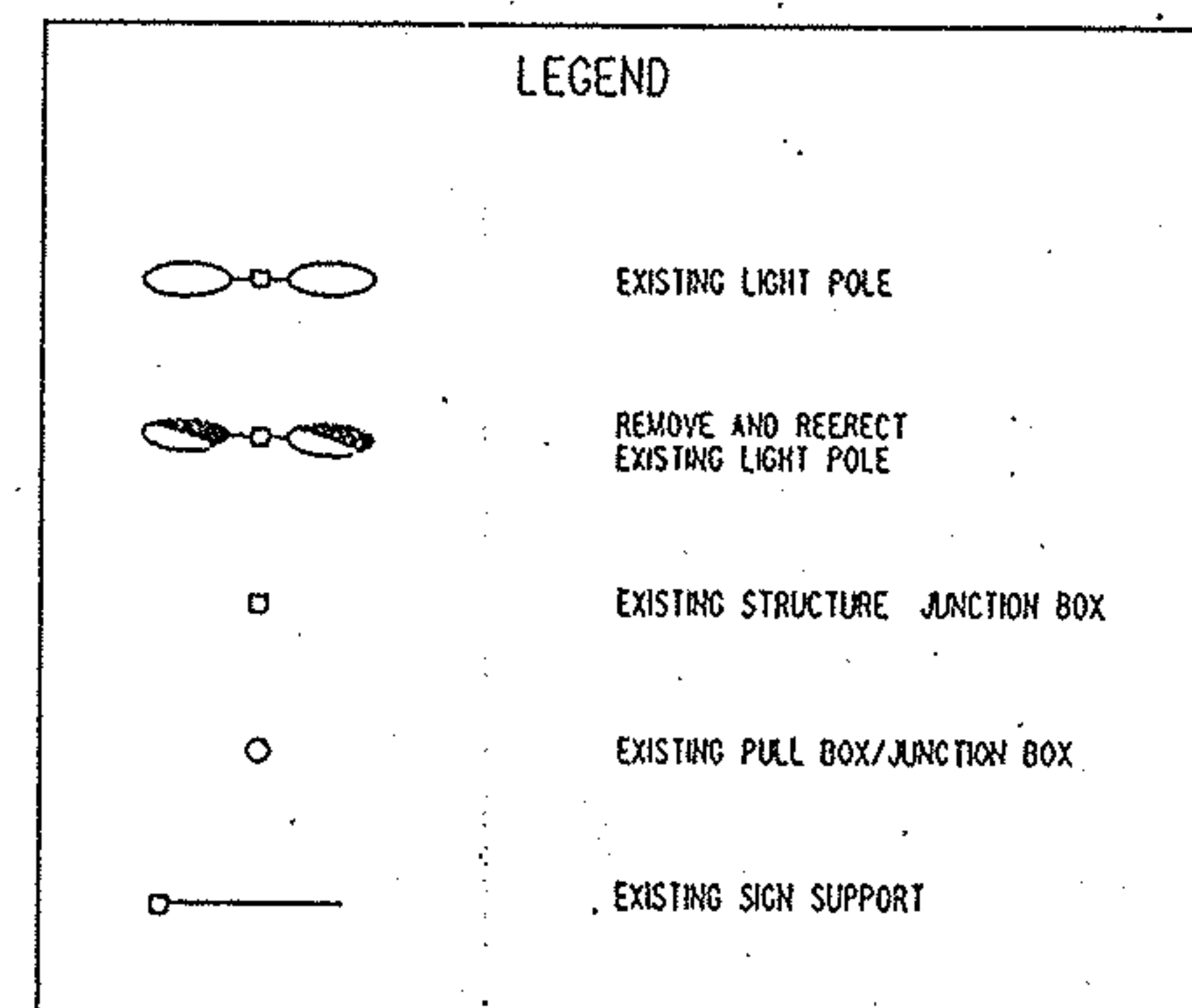
F.H.V.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		

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MAH-680-0508/0557



STATION TO STATION	ITEM	625	625	625	625	625	625	625	625	625	625	625	SPEC.	SPEC.
	UNITS	REMOVE AND REERECT EXISTING LIGHT POLE, AS PER PLAN	REMOVE AND REERECT BRACKET ARM	LUMINAIRE REMOVED FOR REUSE, AS PER PLAN	JUNCTION BOX	NO. 2 AWG 600 VOLT DISTRIBUTION CABLE	NO. 4 AWG 600 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	CONNECTOR KIT TYPE II	CONNECTOR KIT TYPE III	CABLE SPLICING KIT	CONDUIT CLEANED AND CABLES REMOVED	MAINTAIN EXISTING LIGHTING	DISCONNECT EXISTING CIRCUIT
1003+70									1	1				1
1003+70 TO 1004+06.94						94						37		
1004+06.94						17								
1004+06.94 TO 1004+10											4	40		
1004+10					1		100							
1004+10 TO 1006+52.49						505								
1006+52.49	1	2	2				146	1	1				LUMP	
1006+52.49 TO 1007+22						160								
1007+22					1		100				4	40		
1007+22 TO 1007+89.08						155								
1007+89.08														
1007+89.08 TO 1009+32						306						143		
1009+32									1	1				1
TOTALS		1	2	2	2	1237	200	146	3	3	8	260	LUMP	2



STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
LIGHTING PLAN MAH-680-0557 (OVER OAK HILL AVE.)					
DESIGNED JEA	DRAWN SCB	CHECKED JM	REVIEWED 7/77	DATE 3-93	REVISED

LIGHTING

FILE: \ALFUND\1451\60608\713.10.DWG DATE: 11-20-92

OHIO EDISON POWER POLE

STA 50+57

STA 50+52

1005+00

STA 50+26

STA 50+26

1006+00

1007+00

STA 49+78

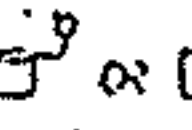
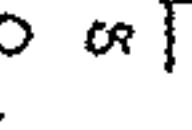
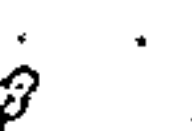
STA 49+78

Q PIER #1

Q PIER #2

OAK HILL AVE.

LEGEND

-  UNDERPASS LUMINAIRE, HPS, 713.13, 100W, 120 VOLT
-  JUNCTION BOX, 713.10
-  PULL BOX, 18", 713.09
-  OHIO EDISON POWER POLE

LOCATION	SIDE	625	625	625	625	625	625	625
		LUMINAIRE, UNDERPASS, HPS, 713.13, 100W, 120 V	SERVICE TO UNDERPASS LIGHTING	PULL BOX, 18", 713.09	CABLE SPACE KIT	TRENCH, 24" DEEP	1 1/2" DUCT CABLE W/ 2 NO. 4 AWG 5000 V CABLES	POWER SERVICE
50+57	RT.							
50+57 TO 50+52	RT.					5	35	
50+52	RT.		LUP	1	2			
50+26	LT.	1						
50+26	RT.	1						
49+78	LT.	1						
49+78	RT.	1						
TOTALS		4	LUP	1	2	5	35	1

F.H.W.A. REGION	STATE	PROJECT NO.	FUNDS
5	OHIO		

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120 VOLT INPUT FROM OHIO EDISON POLE

JUNCTION BOX

INCOMING POWER FROM OHIO EDISON

PIER #2

INCOMING POWER FROM JUNCTION BOX, PIER #2

1 1/4" CONDUIT TO PIER #1 LIGHTS

PIER #1

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
UNDERPASS LIGHTING PLAN OAKHILL STREET (UNDER I 680)					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
JEA	SLB	JM	7/77	3-93	

REINFORCING LIST

MAH-680-0508

MAH-680-0557

F.H.V.A. REGION	STATE	PROJECT NO.	FUND
5	OHIO		



MAH-680-0508/0557

SUPERSTRUCTURE (DECK ONLY)

MARK	NO.	LENGTH	WEIGHT	SHAPE
S401	635	30'-0"	12,725	ST.
S402	127	15'-6"	1,315	ST.
S403	250	24'-0"	4,008	ST.
S501	270	35'-6"	9,997	ST.
S502	540	23'-2"	13,048	ST.
S503	270	23'-6"	6,618	ST.
S504	540	33'-1"	18,633	ST.
S601	270	36'-0"	14,599	ST.
S602	540	23'-2"	18,790	ST.
S603	270	24'-0"	9,733	ST.
TOTAL			109,466 LBS.	

SUPERSTRUCTURE

- OUTSIDE PARAPETS	8,115 LBS.	SUBTOTAL FROM SHEET #	32
- MEDIAN BARRIER WALL	9,177 LBS.	SUBTOTAL FROM SHEET #	33
- MEDIAN BARRIER LIGHT SUPPORT	477 LBS.	SUBTOTAL FROM SHEET #	34

SUBSTRUCTURE

- ABUTMENT BACKWALLS	7,633 LBS.	SUBTOTAL FROM SHEET #	21
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CONTINGENCY QUANTITY	100 LBS.	SUBTOTAL FROM SHEET #	14
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TOTAL

- ITEM 509 EPOXY COATED REINFORCING STEEL, GRADE 60	134,968 LBS.	TO BE CARRIED TO THE GENERAL SUMMARY
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SUPERSTRUCTURE (DECK ONLY)

MARK	NO.	LENGTH	WEIGHT	SHAPE
S401	570	30'-0"	11,423	ST.
S402	114	18'-8"	1,422	ST.
S403	224	28'-0"	4,190	ST.
S501	606	23'-3"	14,695	ST.
S502	606	23'-4"	14,768	ST.
S503	FOUR SERIES OF 16	2'-9 3/4" TO 22'-6" INC. = 1'-3 3/4"	845	ST.
S504	FOUR SERIES OF 14	5'-6 3/4" TO 22'-7 1/2" INC. = 1'-3 3/4"	824	ST.
S505	16	4'-0"	67	ST.
S506	512	31'-2"	16,643	ST.
S601	606	23'-9"	21,618	ST.
S602	606	23'-4"	21,238	ST.
S603	TWO SERIES OF 16	3'-2 3/4" TO 22'-11" INC. = 1'-3 3/4"	628	ST.
S604	FOUR SERIES OF 14	5'-6 3/4" TO 22'-5 1/4" INC. = 1'-3 3/4"	1189	ST.
S605	TWO SERIES OF 16	2'-9" TO 22'-5 1/4" INC. = 1'-3 3/4"	605	ST.
S606	16	4'-0"	96	ST.
TOTAL			110,231 LBS.	

SUPERSTRUCTURE

- OUTSIDE PARAPETS	8,925 LBS.	SUBTOTAL FROM SHEET #	32
- MEDIAN BARRIER WALL	10,283 LBS.	SUBTOTAL FROM SHEET #	33
- MEDIAN BARRIER LIGHT SUPPORT	477 LBS.	SUBTOTAL FROM SHEET #	34

SUBSTRUCTURE

- ABUTMENT BACKWALLS	7,309 LBS.	SUBTOTAL FROM SHEET #	27
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CONTINGENCY QUANTITY	100 LBS.	SUBTOTAL FROM SHEET #	14
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TOTAL

- ITEM 509 EPOXY COATED REINFORCING STEEL, GRADE 60	137,325 LBS.	TO BE CARRIED TO THE GENERAL SUMMARY
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STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT FOUR OPERATIONS BRIDGE SECTION					
REINFORCING LIST					
MAH-680-0508/0557					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
JM	SB	7/77	JM	3-93	