

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
**CUY.-17-5.82**  
**CUYAHOGA COUNTY**  
CITY OF FAIRVIEW PARK  
RIVEREDGE TOWNSHIP

FED. PROJ. NO.	STATE	PROJECT	
2	OHIO		

CUYAHOGA COUNTY  
CUY.-17-5.82

**1967 SPECIFICATIONS**

The Standard Specifications of the State of Ohio Department of Highways including changes and Supplemental Specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be set forth on the plans and estimates.

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Division Deputy Director

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Engineer of Bridges

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Engineer of Location and Design

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Deputy Director of Design and Construction

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Deputy Director of Right of Way

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Deputy Director of Planning and Programming

Approved \_\_\_\_\_  
Date \_\_\_\_\_ First Assistant Director

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Director of Highways

Approved \_\_\_\_\_  
Date \_\_\_\_\_ County Engineer

BOARD OF COMMISSIONERS - CUYAHOGA COUNTY

Date \_\_\_\_\_

**CONVENTIONAL SIGNS**

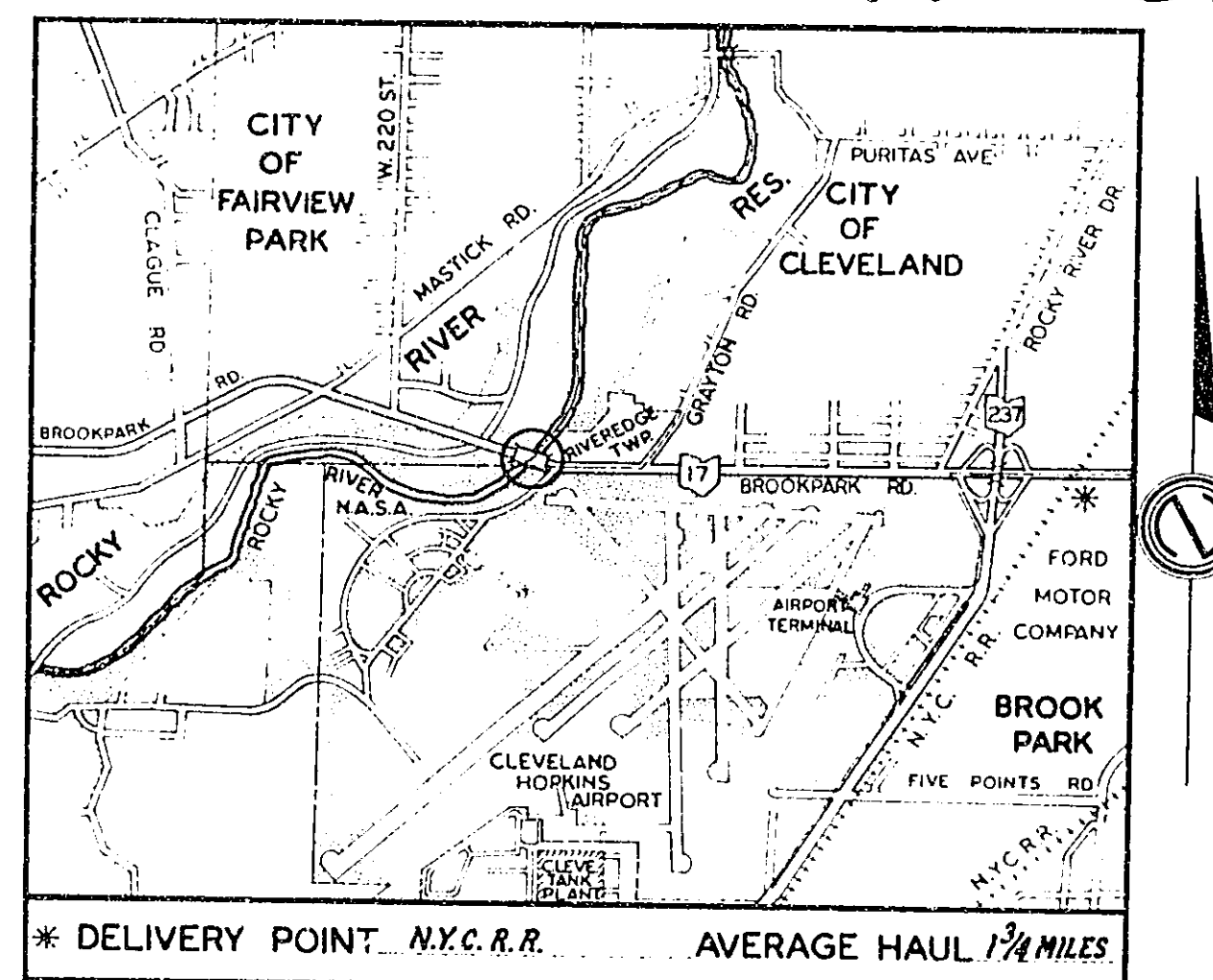
CORPORATION LINE \_\_\_\_\_  
TOWNSHIP LINE \_\_\_\_\_  
CENTER LINE \_\_\_\_\_  
RAILROAD \_\_\_\_\_

**INDEX OF SHEETS**

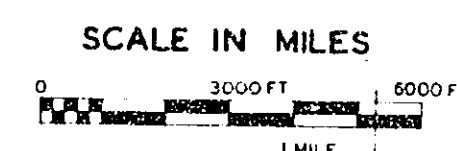
TITLE SHEET ..... 1  
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BRIDGE REPAIR DETAILS ..... 3-4  
GENERAL SUMMARY ..... 4

**LINE DATA**

LENGTH OF PROJECT - 0.00 LIN. FT. OR 0.00 MILES  
BEGIN WORK STA. 0+00  
END WORK STA. 19+17.8  
NET LENGTH OF WORK = 1917.8 LIN. FT. = 0.3632 MILES



**LOCATION PLAN**



PORTION TO BE IMPROVED. STRUCTURE NO. CUY-17-0582  
STATE ROADS \_\_\_\_\_  
OTHER ROADS \_\_\_\_\_

SCALES  
DETAILS AND PLAN: (AS INDICATED ON SHT. 3 & 4)

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS			
MC-3	5-1-66		

SUPPLEMENTAL SPECIFICATIONS			

FILE NO: CUYAHOGA COUNTY CUY.-17-5.82  
DATE OF LETTING: 1967  
CONTRACT NO:

# GENERAL NOTES

Project No. 17-5.82	State	County	
2	OHIO		

CUYAHOGA COUNTY  
CUY. 17 - 5.82

## ITEM 4 - MAINTAINING TRAFFIC

UNDER THIS ITEM, THE CONTRACTOR SHALL MAINTAIN AND PROTECT TRAFFIC, BY THE USE OF LABOR, EQUIPMENT AND MATERIALS ON APPROACHES OF THE BRIDGE AND THE BRIDGE APPROACHES IN WHICH NO WORK IS BEING PERFORMED AND WHICH WILL REMAIN IN FULL SERVICE. IN GENERAL, IT IS INTENDED THAT THE CURBS ON EACH SIDE OF THE BRIDGE SHALL BE CONSTRUCTED EITHER PRIOR TO THE WORK ON THE EXPANSION JOINTS IN THE ADJOINING CURB LANE OR SIMULTANEOUSLY THEREWITH. IN ANY CASE, HOWEVER, ONLY ONE SIDEWALK AND THE ADJOINING CURB LANE SHALL BE BLOCKED AT ANY TIME. IN THIS CONNECTION, IT IS EMPHASIZED THAT ONLY ONE TRAFFIC LANE ON THE ROADWAY OF THE BRIDGE AND ON THE APPROACHES SHALL BE CLOSED TO TRAFFIC AT ANY TIME DURING THE ENTIRE CONSTRUCTION.

THE CONTRACTOR SHALL PROVIDE SUITABLE BARRICADES OR CHANNELIZING DEVICES ON THE APPROACHES TO LEAD THE FLOW OF VEHICULAR TRAFFIC INTO A SINGLE LANE WEATHERING AND INTO TWO LANES SEPARATED BY THE PEAK HOUR OF THE EVENING. SIMILARLY, THE CHANNELIZATION OF THE TRAFFIC SHALL BE ACCOMPLISHED IN THE REVERSE DIRECTION DURING THE PEAK HOURS IN THE EVENING. HOWEVER, THE CONTRACTOR SHALL PROVIDE AN ADEQUATE NUMBER OF FLAGMEN DURING THE ABOVE NOTED PEAK INTERVALS TO INSURE A CONTINUOUS AND UNINTERRUPTED SAFE FLOW OF TRAFFIC. FLAGMEN SHALL DIRECT TRAFFIC IF NECESSARY. SHALL PROMPTLY RESTORE OR REPOSITION ANY TRAFFIC DEVICES WHICH MAY BE KNOCKED DOWN OR DISPLACED BY CARELESS MOTORISTS. THE EFFECTIVE RANGE OF THE DEVICES SHALL BE DETERMINED BY THE ENGINEER.

THE CONTRACTOR'S ATTENTION IS SPECIALLY DIRECTED TO THE PROVISIONS OF PARAGRAPH 214.3 OF THE UNIFORM AND MATERIAL SPECIFICATIONS RELATIVE TO TRAFFIC CONTROL WITH PARTICULAR ATTENTION TO LIGHTING AND REFLECTIVIZATION OF BARRICADES, TRAFFIC DEVICES, EQUIPMENT AND MATERIALS STORED ON THE STRUCTURE BETWEEN THE HOURS OF SUNSET AND SUNRISE.

THE COST OF MAINTAINING TRAFFIC, INCLUDING PROVISION OF LIGHTS, SIGNS, BARRICADES, WATCHMEN AND FLAGMEN SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "ITEM 4 - MAINTAINING TRAFFIC".

## SPECIFICATION - ITEM SPECIAL - PATCHING CONCRETE SIDEWALKS USING EPOXY MORTAR

1. DESCRIPTION. THIS ITEM CONSISTS OF THE REMOVAL OF ALL LOOSE AND DISINTEGRATED CONCRETE, THE PREPARATION OF THE SURFACE, APPLICATION OF AN EPOXY RESIN TACK COAT, THE FURNISHING OF THE EPOXY MATERIAL AND SAND, AND THE MIXING, PLACING AND FINISHING OF THE EPOXY MORTAR PATCHES.

2. EXAMINATION OF PLANS, SPECIFICATIONS, SITE. THE BIDDER SHALL EXAMINE THE SITE OF THE WORK AND FAMILIARIZE HIMSELF WITH THE MATERIALS SPECIFIED AND THEIR HANDLING CHARACTERISTICS.

3. MATERIALS.

(A) EPOXY RESIN. SHALL BE A POLYAMIDE-CURED TYPE MEETING THE REQUIREMENTS OF THE INTERIM GUIDE SPECIFICATIONS FOR EPOXY RESIN SYSTEMS - AASHTO DESIGNATION: M 200 - 63 I-TYPE B. IT SHALL BE FURNISHED IN TWO COMPONENTS FOR COMBINING IMMEDIATELY PRIOR TO USE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS OF THE MANUFACTURER.

(B) SAND. THE SAND FOR EPOXY MORTAR SHALL BE A SILICA SAND, PREDOMINANTLY ROUND PARTICLES, 100% PASSING THE NO. 16 SIEVE AND NOT MORE THAN 5% PASSING THE NO. 100 SIEVE. IT SHALL BE CLEAN, SURFACE DRY AND INERT. (WILL NOT AFFECT CURE RATE OR PHYSICAL PROPERTIES OF THE EPOXY RESIN).

4. QUALIFICATION OF MATERIALS.

(A) ALL MATERIALS SHALL BE APPROVED BY THE COUNTY ENGINEER'S TESTING LABORATORY.

(B) WITHIN 10 DAYS AFTER THE AWARDING OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER'S TESTING LABORATORY A CERTIFIED TEST REPORT FROM THE MANUFACTURER OR AN APPROVED INDEPENDENT TESTING LABORATORY WHICH ESTABLISHES THAT THE EPOXY RESIN SYSTEM MEETS THE REQUIREMENTS OF SECTION 3 (A) OF THESE SPECIFICATIONS.

5. REMOVAL OF DISINTEGRATED CONCRETE. ALL LOOSE AND DISINTEGRATED CONCRETE SHALL BE REMOVED FROM THE AREAS TO BE REPAIRED IN SUCH A MANNER AND TO SUCH AN EXTENT AS TO EXPOSE A SOUND CONCRETE SURFACE. THE WORK SHALL BE DONE IN SUCH A MANNER AS NOT TO DAMAGE THE CONCRETE THAT IS TO REMAIN.

6. PREPARATION OF SURFACE. AFTER ALL DISINTEGRATED AND LOOSE CONCRETE HAS BEEN REMOVED, THE SURFACE SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, GREASE, OIL, OR OTHER FOREIGN MATERIALS BY THE USE OF WATER AND/OR AIR UNDER PRESSURE AND SUCH OTHER METHODS AS ARE NECESSARY TO SECURE SATISFACTORY RESULTS. EXPOSED STEEL SHALL BE WIRE BRUSHED TO REMOVE ALL LOOSE RUST.

7. MIXING AND APPLICATIONS.

(A) UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WORK SHALL PROCEED ONLY WHEN THE ATMOSPHERIC TEMPERATURE IS 60° F. OR ABOVE. THE SURFACE SHALL BE DRY BEFORE THE EPOXY RESIN IS APPLIED.

(B) THE PROPORTIONS OF THE POLYAMIDE CURING COMPOUND AND THE EPOXY RESIN SHALL BE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS OF THE MANUFACTURER.

(C) THE EPOXY MORTAR SHALL CONSIST OF 1 PART EPOXY LIQUID (EPOXY RESIN AND POLYAMIDE CURING COMPOUND) TO NOT MORE THAN 41 PARTS SAND (BY VOLUME).

(D) THE TIME OF MIXING AND SIZE OF BATCH SHALL BE AS RECOMMENDED BY THE MANUFACTURER OF THE EPOXY RESIN.

(E) TACK COAT. A TACK COAT USING THE CLEAR OR LIGHT CURE POLYAMIDE-CURE EPOXY RESIN MEETING THE REQUIREMENTS OF AASHTO DESIGNATION: M 200 - 63 I-TYPE B SHALL BE APPLIED TO THE CONCRETE SURFACE IMMEDIATELY BEFORE PLACING THE EPOXY MORTAR. THE EPOXY MORTAR SHALL BE APPLIED WHILE THE TACK COAT IS STILL LIQUID. IF THE EPOXY RESIN TACK COAT HAS REACTED SUFFICIENTLY TO CAUSE IT TO ENTER ITS LIQUID STATE, AN ADDITIONAL APPLICATION OF THE EPOXY RESIN SHALL BE MADE TO INSURE GOOD BOND.

(F) THE EPOXY MORTAR MAY BE APPLIED BY TROWEL OR SHOVEL, FINISH TO GRADE AND FINISHED BY SCREEDING, FLOATING OR TROWELLING AS DIRECTED BY THE MANUFACTURER OR SUPPLIER OF THE EPOXY MATERIAL.

(G) THE AREAS TO BE PATCHED SHALL BE AS DIRECTED BY THE ENGINEER.

8. HANDLING PRECAUTIONS. EPOXY COMPOUNDS ARE TOXIC AND MUST BE HANDLED WITH CARE TO PREVENT SKIN IRRITATION, SUCH AS BURNS, RASHES, ITCHES, ETC. THE CONTRACTOR SHOULD FOLLOW THE INSTRUCTIONS OF THE MANUFACTURER TO PREVENT SUCH A CONDITION.

9. METHOD OF MEASUREMENT. THE QUANTITY TO BE PAID FOR SHALL BE THE ACTUAL AREA IN SQUARE FEET OF THE EXPOSED SURFACES OF ALL COMPLETED PATCHES, IRRESPECTIVE OF THE DEPTH OR THICKNESS OF THE PATCH.

10. BASIS OF PAYMENT. THE NUMBER OF SQUARE FEET MEASURED AS PROVIDED UNDER "METHOD OF MEASUREMENT" SHALL BE PAID AT THE UNIT PRICE BID, WHICH PRICE AND PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR REMOVING DISINTEGRATED CONCRETE, PREPARING THE SURFACE AS SPECIFIED HEREIN, APPLICATION OF THE EPOXY RESIN TACK COAT, FURNISHING, MIXING AND PLACING ALL MATERIALS NECESSARY TO COMPLETE THIS WORK.

## BONDING NEW CONCRETE TO OLD USING AN EPOXY RESIN ADHESIVE

1. REMOVAL OF DISINTEGRATED CONCRETE. ALL LOOSE AND DISINTEGRATED CONCRETE SHALL BE REMOVED FROM THE AREAS TO BE REPAIRED IN SUCH A MANNER AND TO SUCH AN EXTENT AS TO EXPOSE A SOUND CONCRETE SURFACE. THE WORK SHALL BE DONE IN SUCH A MANNER AS NOT TO DAMAGE THE CONCRETE THAT IS TO REMAIN.

2. PREPARATION OF SURFACE. AFTER ALL DISINTEGRATED AND LOOSE CONCRETE HAS BEEN REMOVED, THE SURFACE SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, GREASE, OIL, OR OTHER FOREIGN MATERIALS BY THE USE OF WATER AND/OR AIR UNDER PRESSURE AND SUCH OTHER METHODS AS ARE NECESSARY TO SECURE SATISFACTORY RESULTS. EXPOSED STEEL SHALL BE WIRE BRUSHED TO REMOVE ALL LOOSE RUST.

3. EPOXY ADHESIVE. SHALL BE A POLYAMIDE-CURED TYPE MEETING THE REQUIREMENTS OF THE INTERIM GUIDE SPECIFICATIONS FOR EPOXY RESIN SYSTEMS - AASHTO DESIGNATION: M 200 - 63 I-TYPE B, EXCEPT THAT IT SHALL BE FORMULATED TO MINIMIZE SAGGING AND PONDING ON VERTICAL SURFACES. IT SHALL BE APPLIED TO THE SURFACE AS SPECIFIED IN SECTION 3 OF THESE SPECIFICATIONS IMMEDIATELY PRIOR TO USE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS OF THE MANUFACTURER.

4. QUALIFICATION OF THE EPOXY RESIN SYSTEM. WITHIN 10 DAYS AFTER THE AWARDING OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER'S TESTING LABORATORY A CERTIFIED TEST REPORT FROM THE MANUFACTURER OR AN APPROVED INDEPENDENT TESTING LABORATORY WHICH ESTABLISHES THAT THE EPOXY RESIN SYSTEM MEETS THE REQUIREMENTS OF SECTION 3 OF THESE SPECIFICATIONS.

5. APPLICATION.

(A) UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THE EPOXY ADHESIVE SHALL BE APPLIED ONLY WHEN THE ATMOSPHERIC TEMPERATURE AND THE TEMPERATURE OF THE CONCRETE SURFACE IS 60° F. OR ABOVE. THE SURFACE SHALL BE DRY BEFORE THE EPOXY RESIN IS APPLIED.

(B) THE PROPORTIONS OF THE EPOXY RESIN AND THE POLYAMIDE CURING COMPOUND SHALL BE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS OF THE MANUFACTURER.

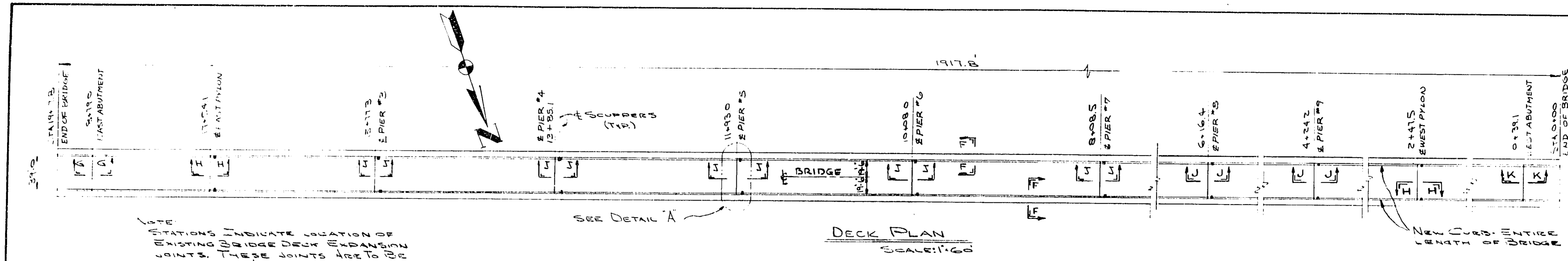
(C) THE EPOXY RESIN SHALL BE APPLIED BY TROWEL OR SHOVEL. IF THE SURFACE IS ROUGH OR IRREGULAR, THE RESIN SHOULD BE FINISHED IN WELL TO SHARP ANGLES.

(D) THE PLASTIC PORTLAND CEMENT CONCRETE SHALL BE PLACED WHILE THE EPOXY COMPOUND IS STILL LIQUID. IF THE EPOXY RESIN HAS REACTED SUFFICIENTLY TO CAUSE IT TO LOSE ITS LIQUID STATE AN ADDITIONAL APPLICATION OF THE EPOXY RESIN SHALL BE MADE TO INSURE GOOD BOND.

6. HANDLING PRECAUTIONS. EPOXY COMPOUNDS ARE TOXIC AND MUST BE HANDLED WITH CARE TO PREVENT SKIN IRRITATION, SUCH AS BURNS, RASHES, ITCHES, ETC. THE CONTRACTOR SHOULD FOLLOW THE INSTRUCTIONS OF THE MANUFACTURER TO PREVENT SUCH A CONDITION.

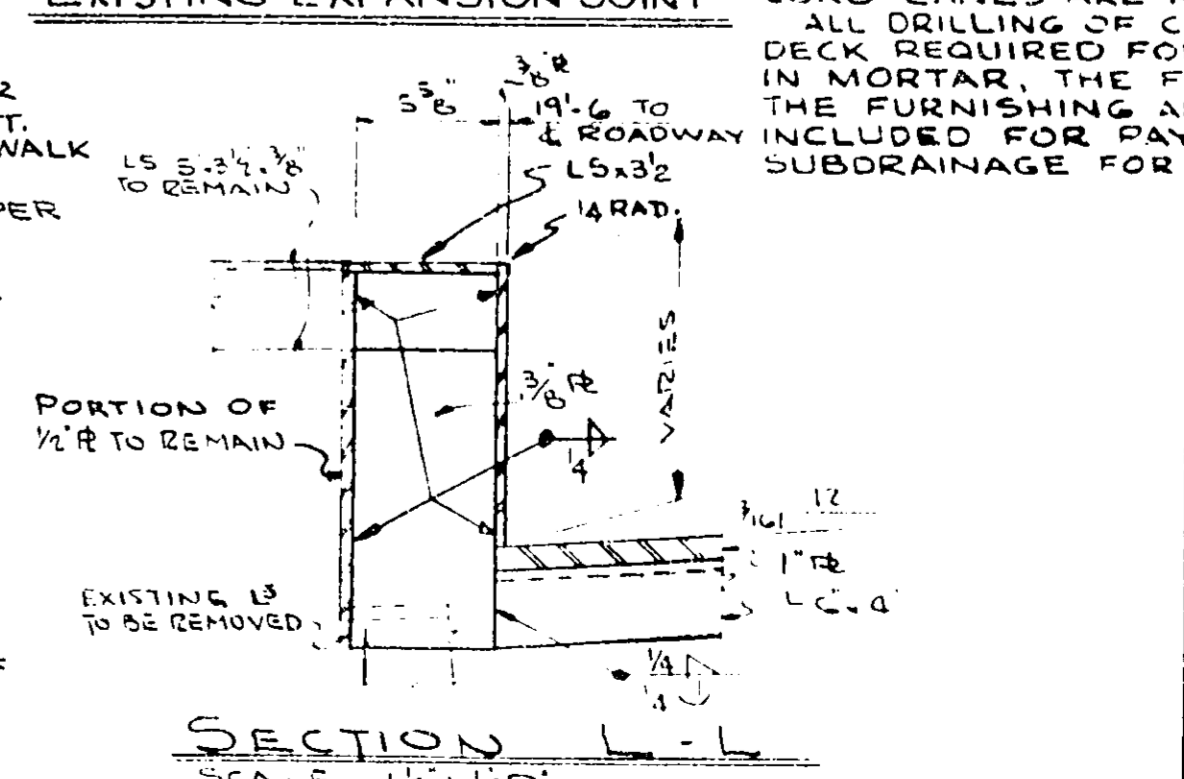
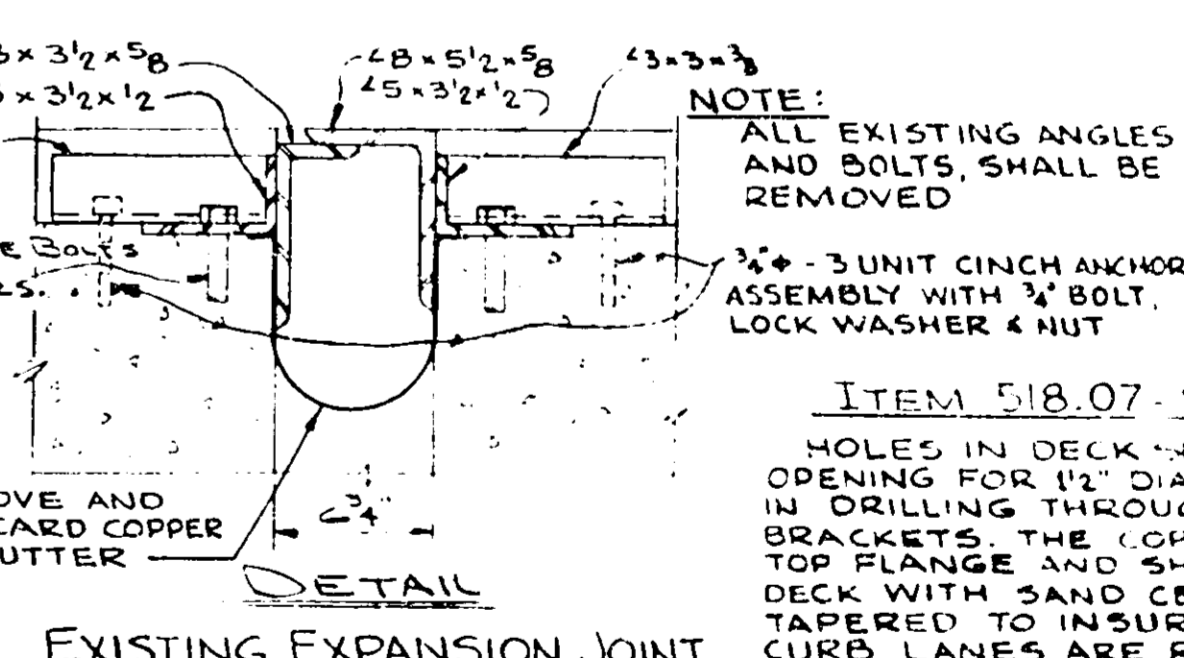
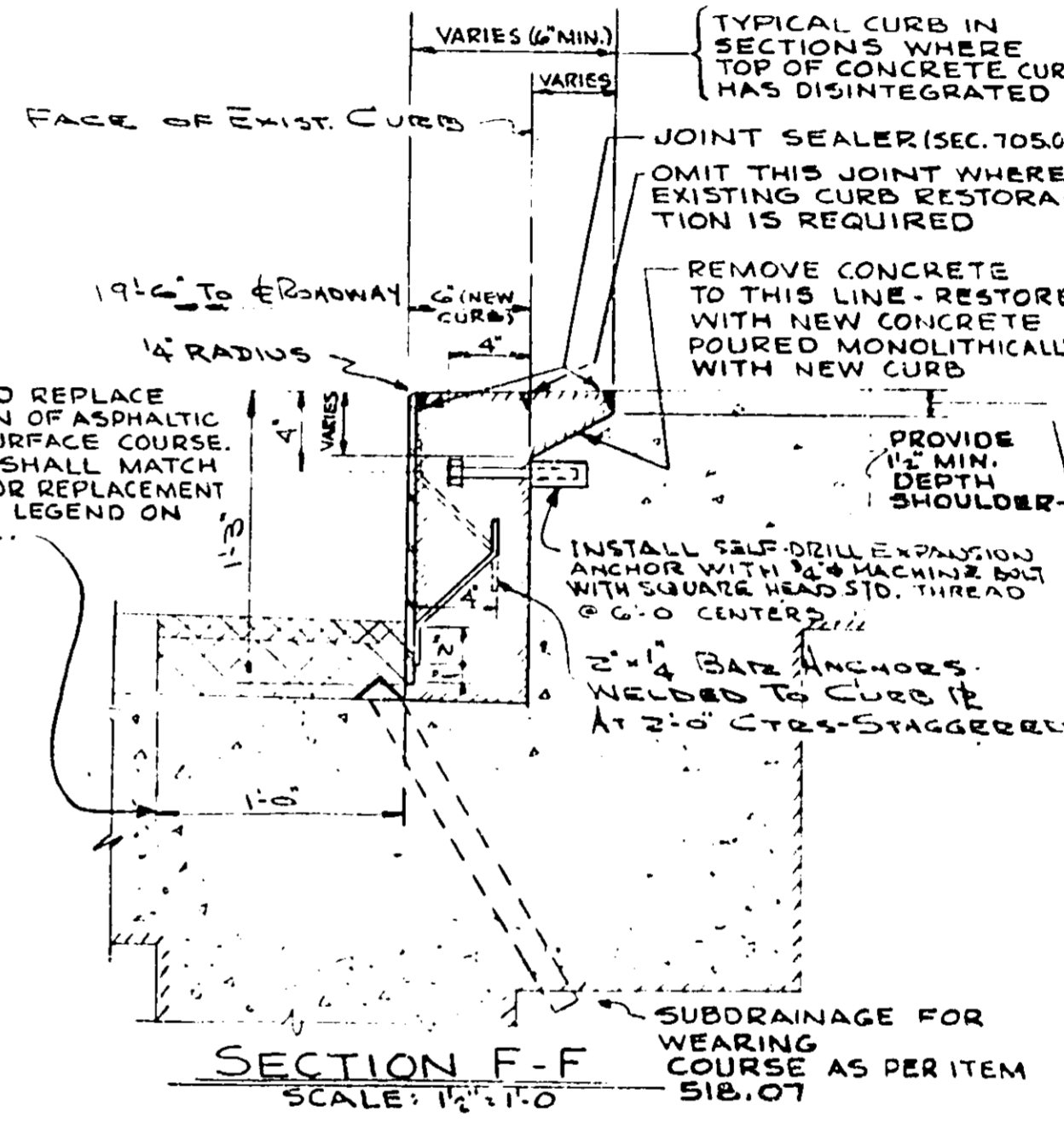
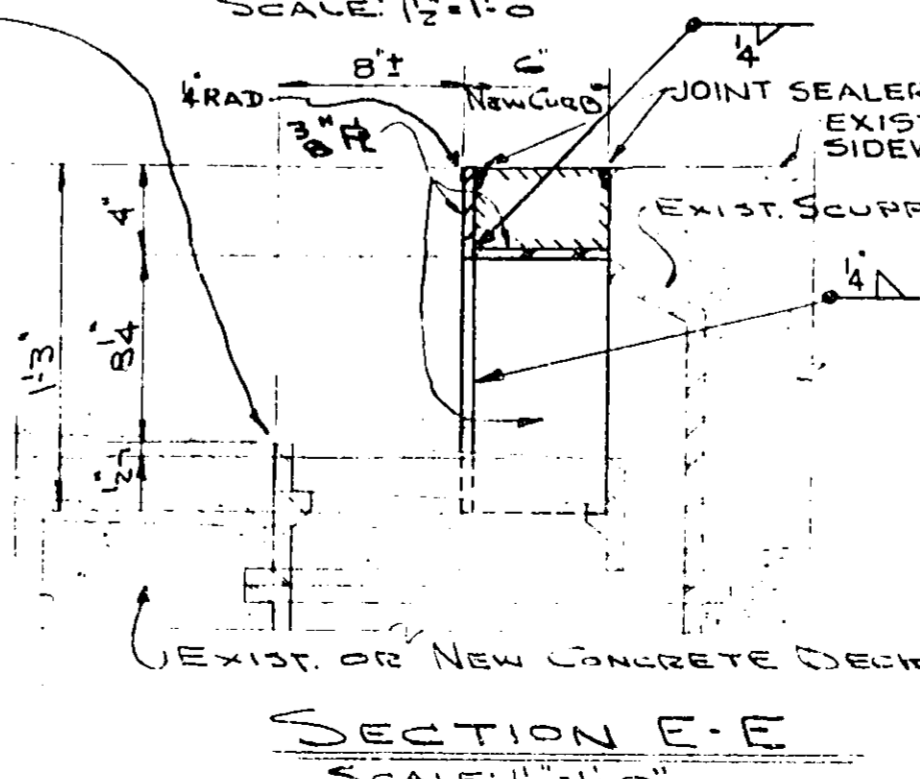
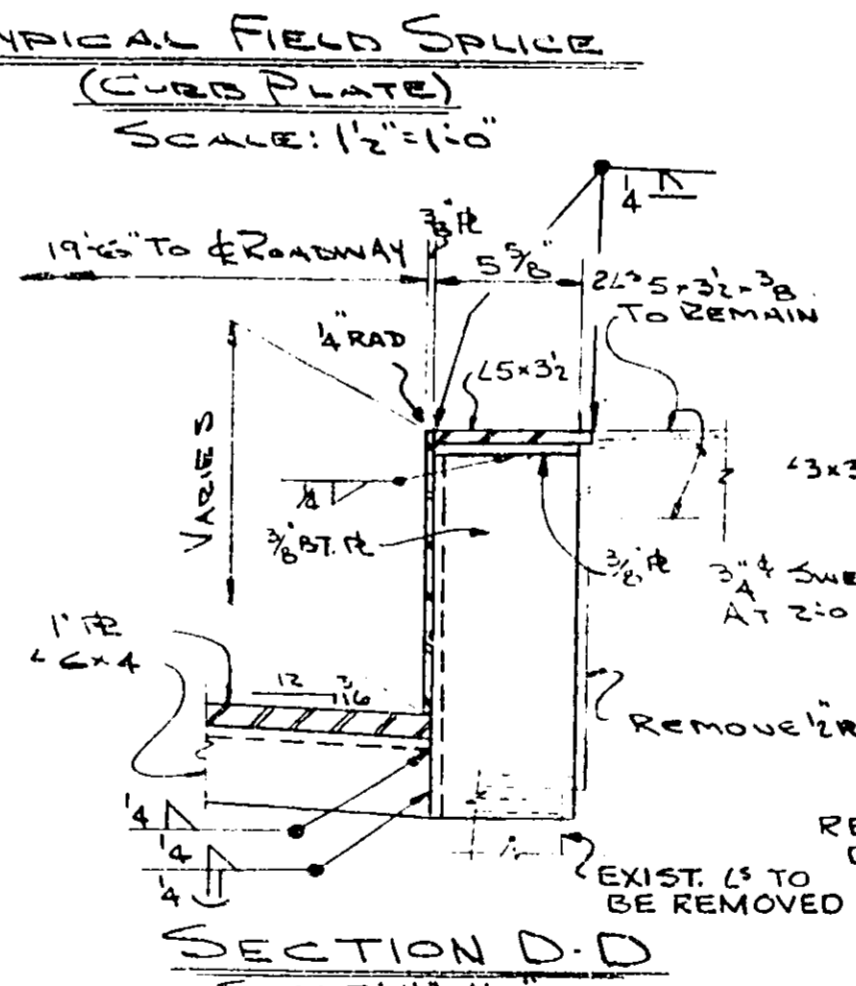
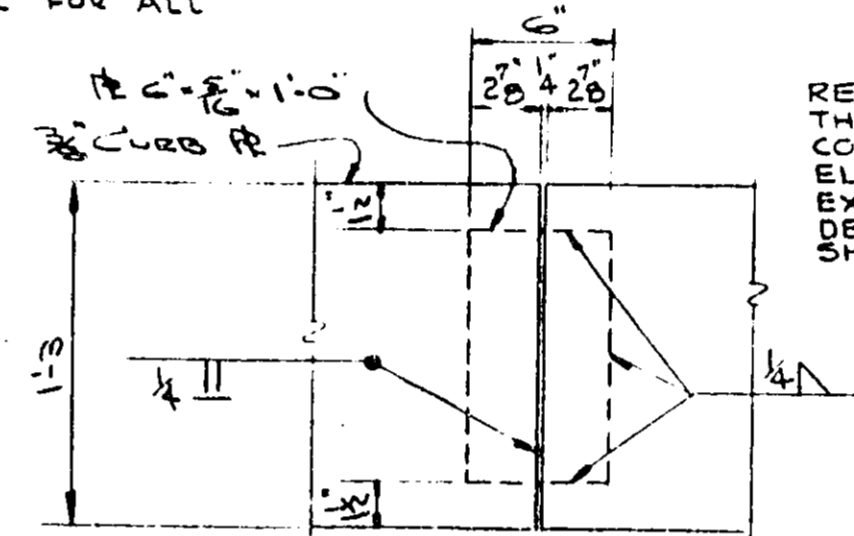
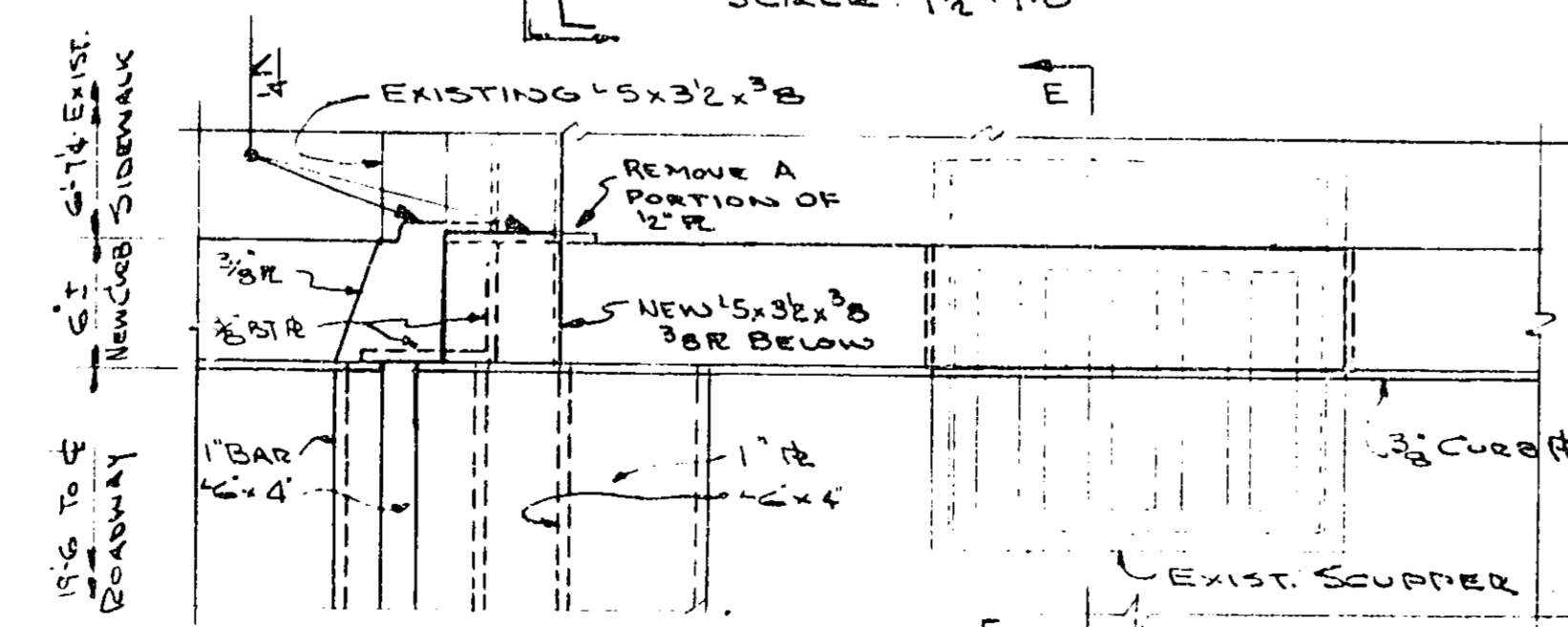
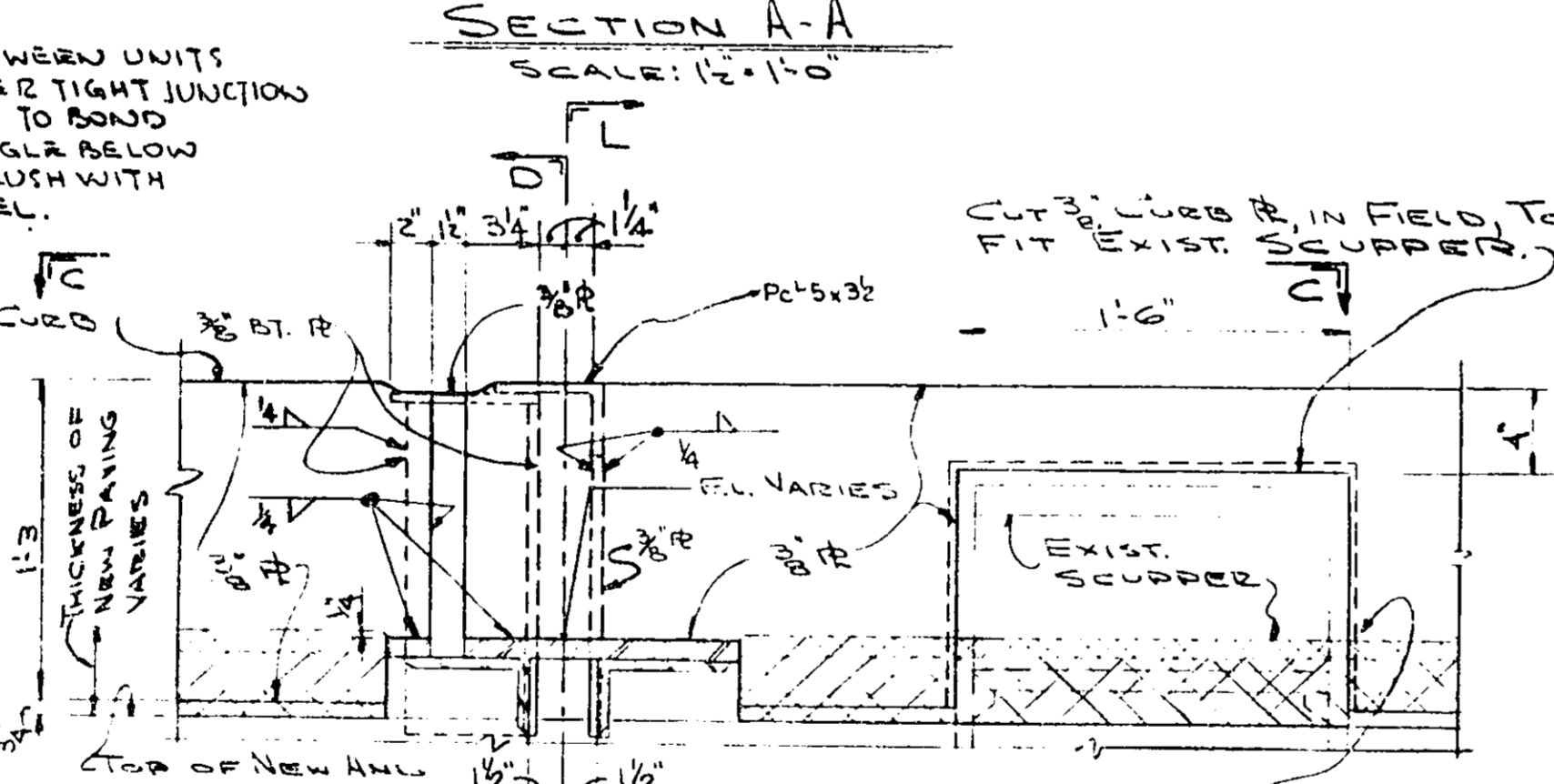
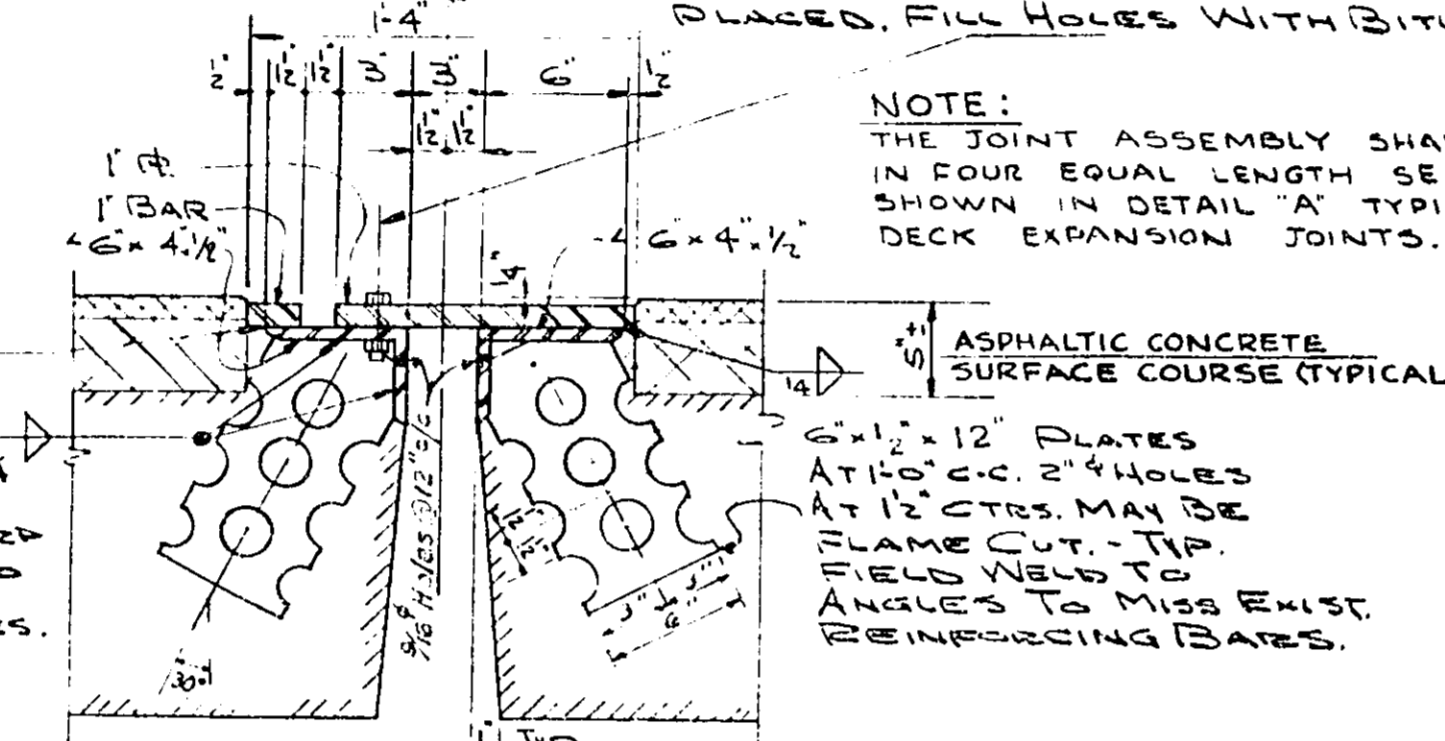
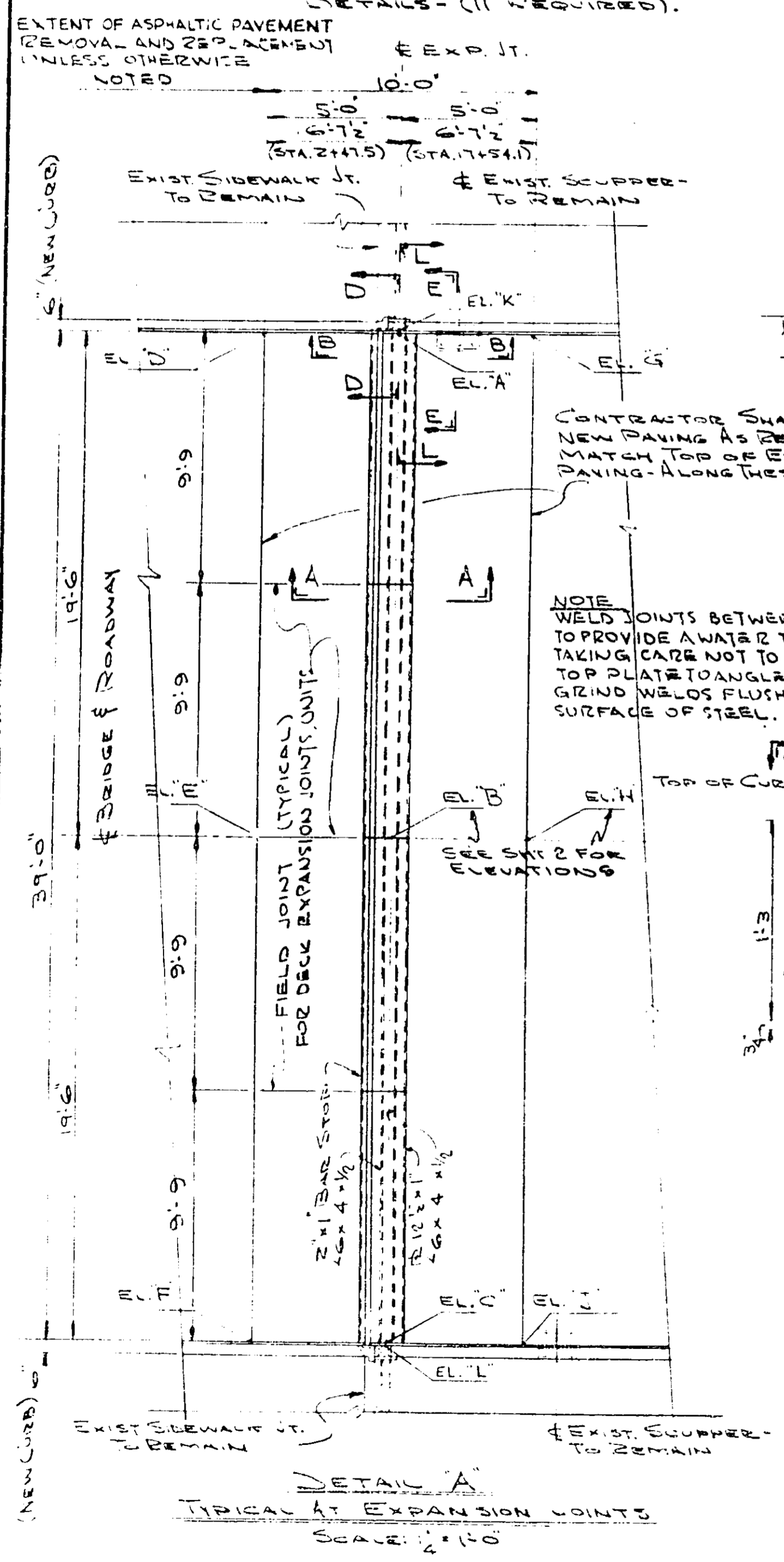
2	OHIO		
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CUYAHOGA COUNTY  
CUY-17-582



5" x 2" BOLTS AT 12" CTRS. NUTS TACK WELDED TO UNDERSIDE OF ANGLE. 1" HOLES IN PLATE. CENTER BOLTS IN 1" HOLES. APPLY FLAME GRAPHITE BETWEEN PLATE AND ANGLE. TURN BOLT TIGHT AND RELEASE 1/2 TURN. REMOVE BOLTS NOT LATER THAN 2 HOURS AFTER CONCRETE HAS BEEN PLACED. FILL HOLES WITH BITUMINOUS MATERIAL.

NOTE: THE JOINT ASSEMBLY SHALL BE FABRICATED IN FOUR EQUAL LENGTH SECTIONS (9'-9") AS SHOWN IN DETAIL 'A' TYPICAL FOR ALL DECK EXPANSION JOINTS.



TYPICAL CURB IN SECTIONS WHERE TOP OF CONCRETE CURB HAS DISINTEGRATED

JOINT SEALER (SEC. 705.01)

OMIT THIS JOINT WHERE EXISTING CURB RESTORATION IS REQUIRED

REMOVE CONCRETE TO THIS LINE - RESTORE WITH NEW CONCRETE POURED MONOLITHICALLY WITH NEW CURB

PROVIDE 1/2" MIN. DEPTH SHOULDER

INSTALL SELF-DRILL EXPANSION ANCHOR WITH 3/8" MACHINE BOLT WITH SQUARE HEAD STD. THREAD @ 6'-0" CENTER

2" x 1/4" BAR ANCHORS WELDED TO CURB PLATE AT 2'-0" CTRS. - STAGGERED

NOTE: ALL EXISTING ANGLES AND BOLTS, SHALL BE REMOVED

3/4" x 3 UNIT CINCH ANCHOR ASSEMBLY WITH 3/8" BOLT, LOCK WASHER & NUT

ITEM 518.07 - SUBDRAINAGE FOR WEARING COURSE

HOLES IN DECK SLAB TO BE DRILLED TO PROVIDE A MINIMUM 1/2" OPENING FOR 1/2" DIAMETER COPPER TUBES (CARI TUBES). BRACKETS THE COPPER TUBES SHALL BE PROVIDED WITH AN ANGLE TOP FLANGE AND SHALL BE SET IN OPENING WITH AN ANGLE TOP FLANGE WITH SAND CEMENT MORTAR. THE HOLES SHALL BE DRILLED TAPERED TO INSURE THE RETENTION OF THE MORTAR WHEN CURB LANES ARE RESTORED TO SERVICE.

ALL DRILLING OF CONCRETE TOGETHER WITH THE CHIPPING AND DECK REQUIRED FOR THE SETTING OF THE COPPER TUBE SHALL BE IN MORTAR. THE FURNISHING AND INSTALLATION OF THE COPPER TUBES ARE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 518.07 SUBDRAINAGE FOR WEARING COURSE.

APPROVED: \_\_\_\_\_  
STRUCTURAL CONSULTANT

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
CHIEF ENGINEER

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
CHIEF DEPUTY ENGINEER

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
COUNTY ENGINEER

DATE: \_\_\_\_\_

BOARD OF COMMISSIONERS

APPROVED: \_\_\_\_\_  
COUNTY COMMISSIONER

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
COUNTY COMMISSIONER

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
COUNTY COMMISSIONER

DATE: \_\_\_\_\_

JOURNAL \_\_\_\_\_ PAGE \_\_\_\_\_ DATE \_\_\_\_\_

STATE HIGHWAY BRIDGE NO. CUY-17-582

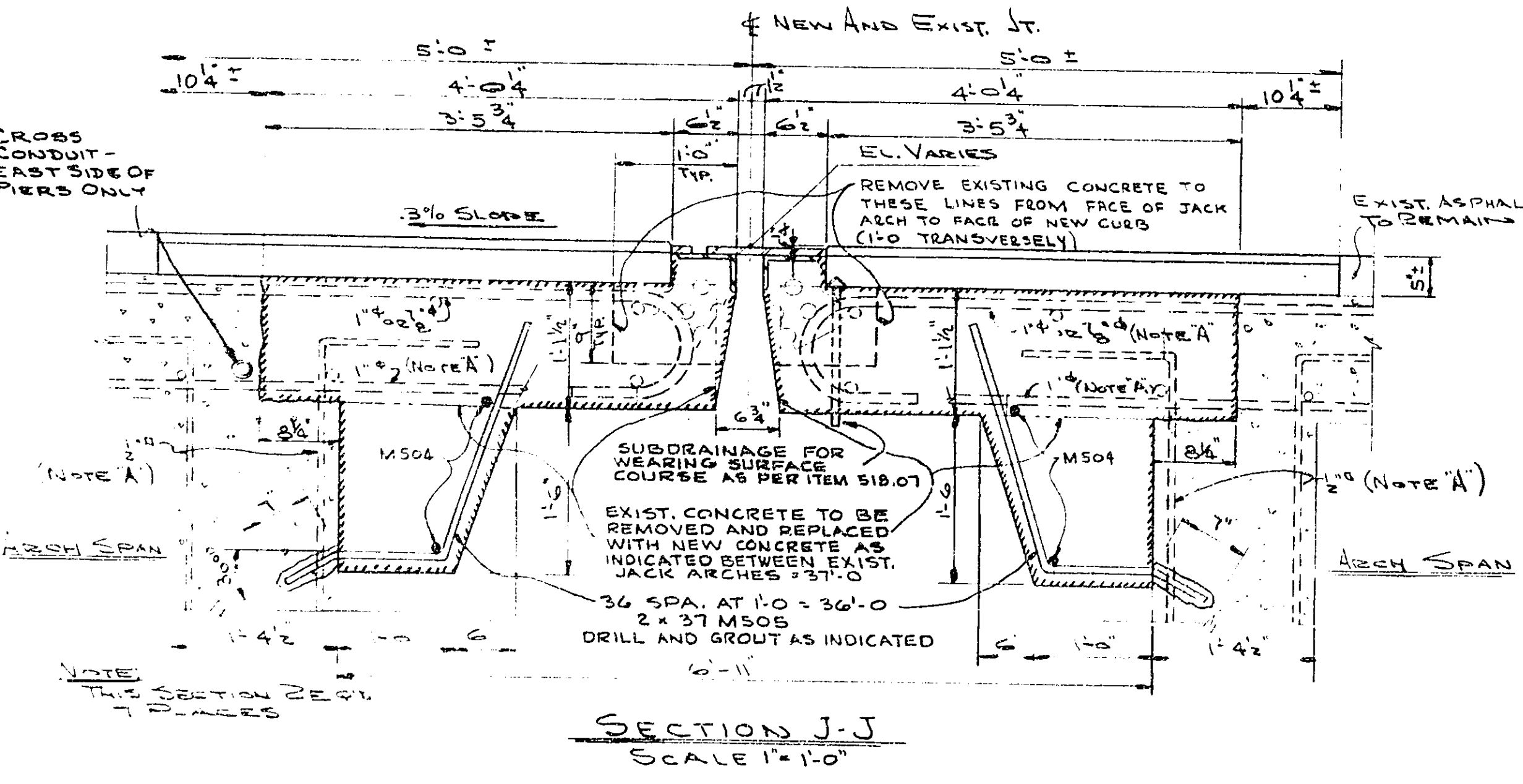
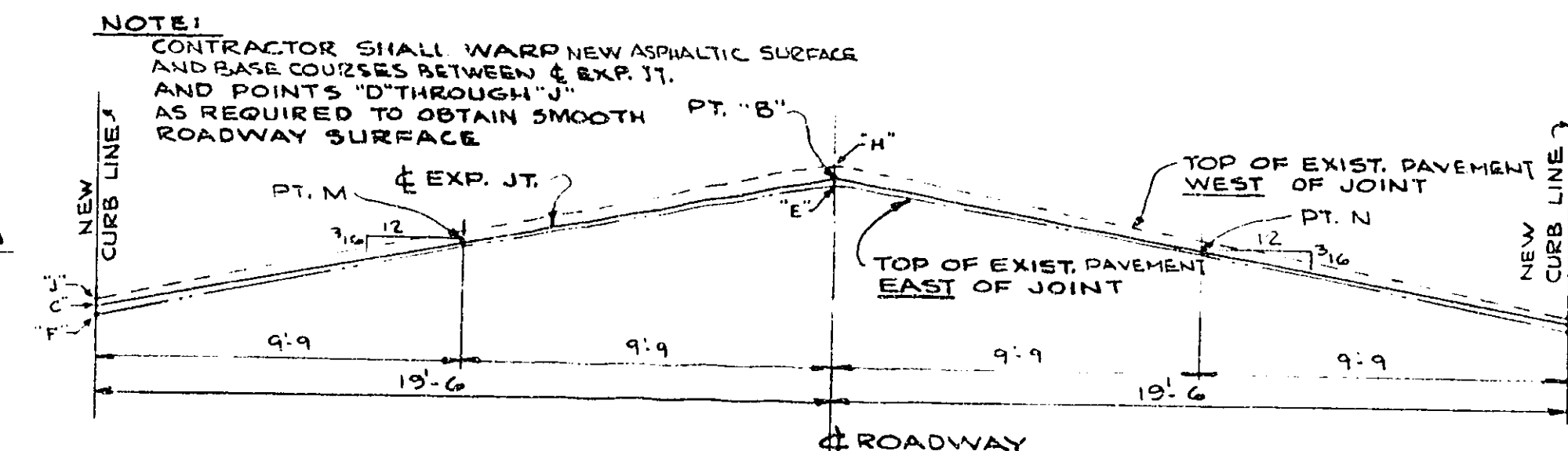
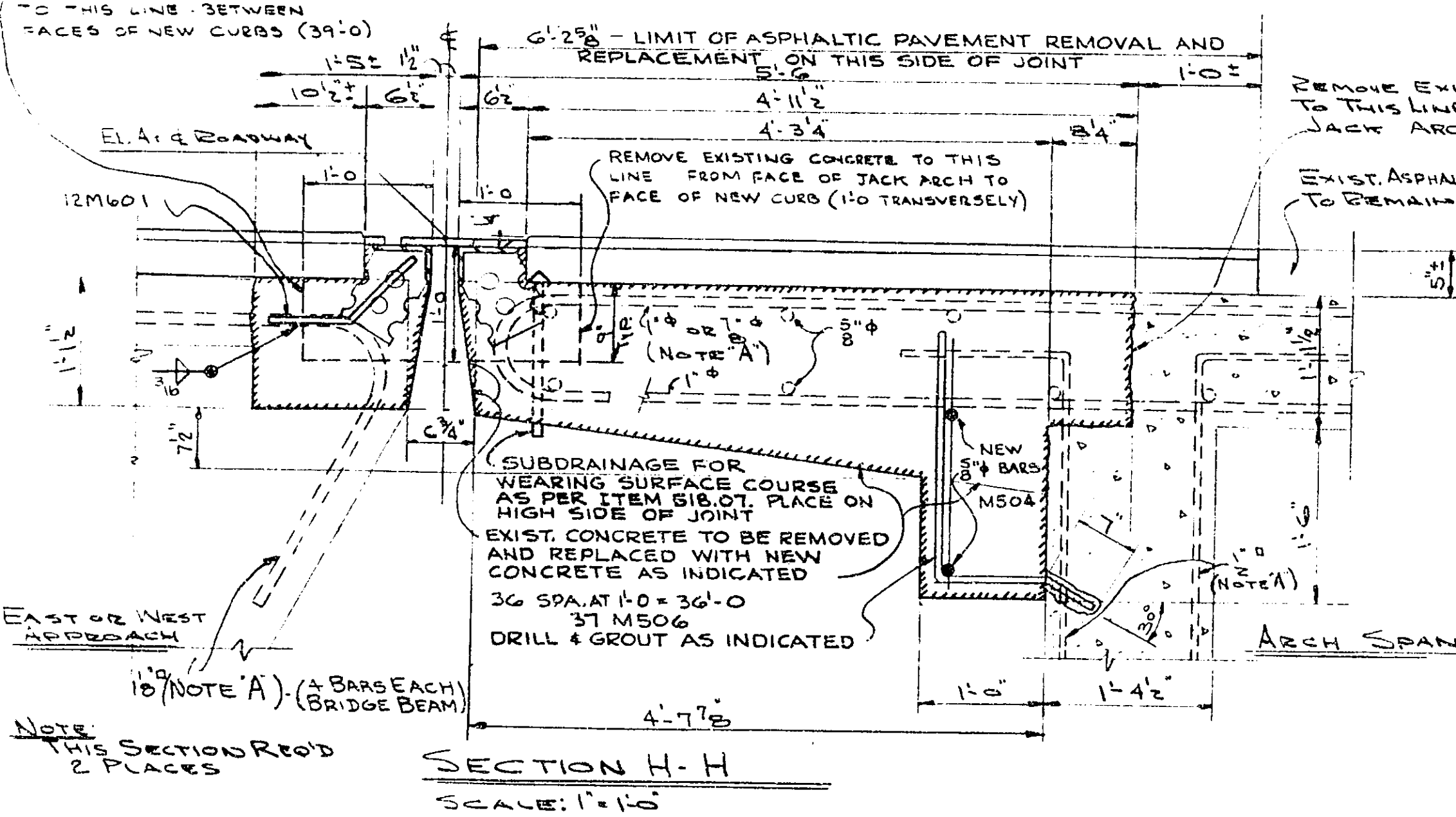
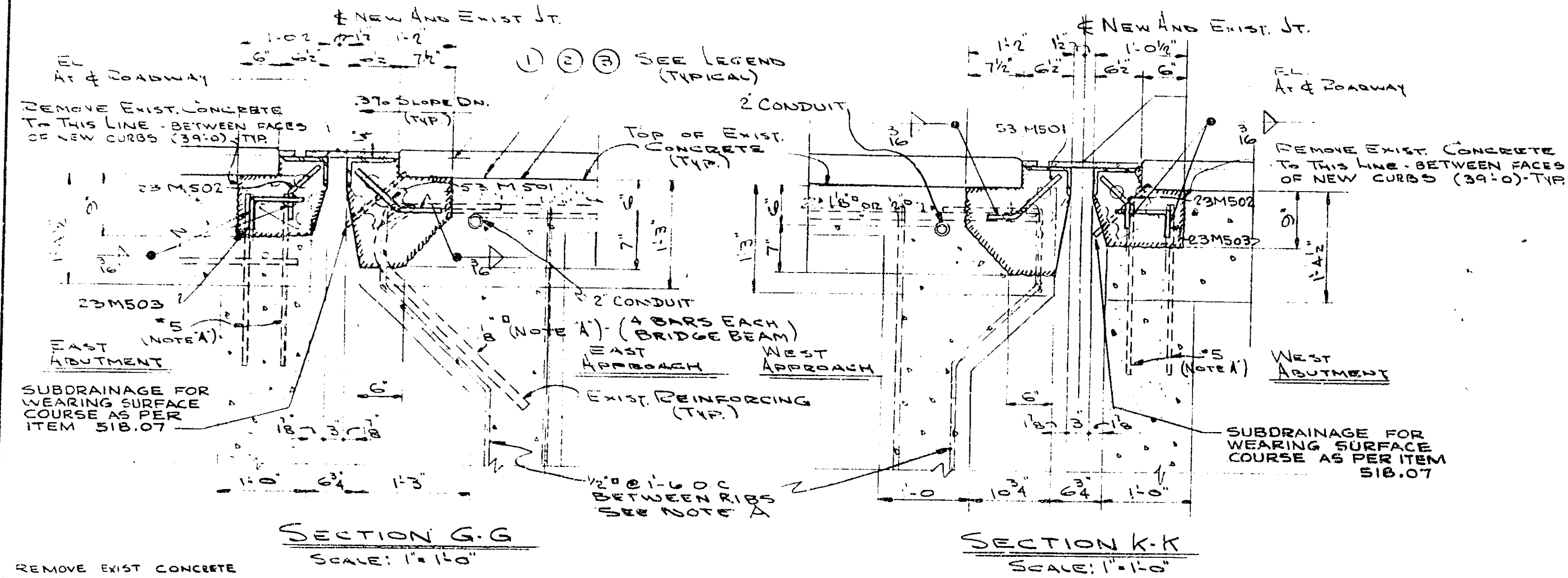
**BROOKPARK ROAD**  
RIVER EDGE TOWNSHIP  
CITY OF FAIRVIEW PARK  
BRIDGE OVER ROCKY RIVER  
DECK REPAIRS

REPORT NO. 6924 BRIDGE NO. \_\_\_\_\_

**NO. B-191**

SCALE AS NOTED DATE \_\_\_\_\_  
DRAWN BY R.M. CHECKED BY S.M. REVISED \_\_\_\_\_

THE OSBORN ENGINEERING CO.  
CONSULTING ENGINEERS  
CLEVELAND, OHIO

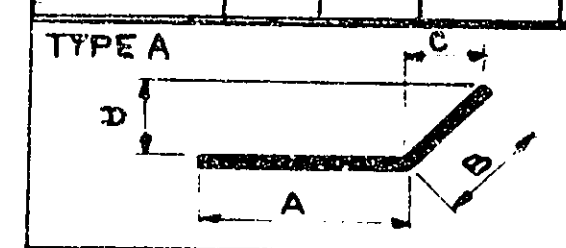


- PAVEMENT REPLACEMENT LEGEND**
- ① ITEM 404 - 1" ASPHALT CONCRETE SURFACE COURSE
  - ② ITEM 403 - VARIABLE THICKNESS ASPHALT CONCRETE INTERMEDIATE COURSE
  - ③ ITEM 512 - TYPE "C" WATERPROOFING - APPLY TO ALL SURFACES CONTAINING ASPHALTIC CONCRETE.

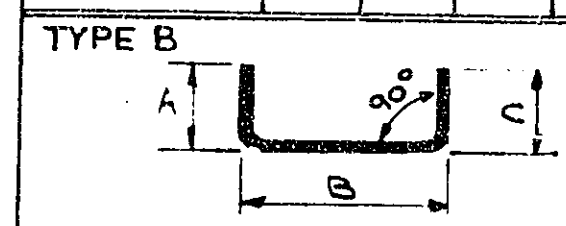
**NOTE "A"**  
EXISTING REINFORCING BARS SHALL BE RETAINED, IN ORIGINAL POSITION, CLEANED AND REUSED IN NEW CONCRETE.

**NOTE "B"**  
All required cleaning of existing reinforcing bars which are retained in the new construction as well as all designated lap welding of new reinf. steel to existing bars are included for payment in the unit price per lb. bid for "Item 509 - Reinforcing Steel" - 709.01 - Including Welding."

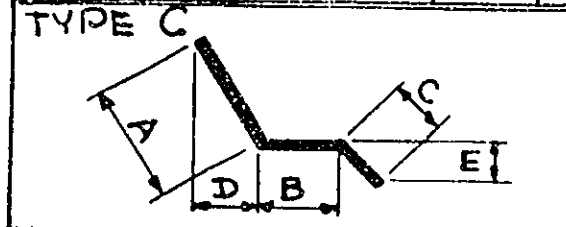
REINFORCING BAR LIST				
MARK	QUAN	SIZE	LENGTH	TYPE
M501	106	#5	1'-2"	A
M502	46	#5	9"	A
M503	46	#5	1'-0"	B
M504	32	#5	11'-0"	C
M505	518	#5	3'-9"	B
M506	74	#5	3'-6"	C
M601	24	#6	1'-6"	A



MARK	A	B	C	D
M501	6"	8"	6"	6"
M502	4"	5"	3 1/2"	3 1/2"
M601	9"	9"	6 1/2"	6 1/2"



MARK	A	B	C
M503	4"	8"	0"
M504	1'-0"	9'-0"	1'-0"



MARK	A	B	C	D	E
M505	2'-4"	11"	6"	9"	3 1/2"
M506	2'-2"	10 1/2"	6"	0"	3 1/2"

FED. PD. DIVISION	STATE	PROJECT
2	OHIO	

CUYAHOGA COUNTY  
CUY. - 17-5.82

ESTIMATED QUANTITIES				DESCRIPTION
ITEM	ESTIMATED QUANTITIES	UNIT		
509	2933	LB.		REINFORCING STEEL TO TOP OF INT. GRADE INCLUDING WELDING
513	40839	LB.		STRUCTURAL STEEL - EXPANSION DAMS INCLUDING FIELD PAINTING
513	79127	LB.		STRUCTURAL STEEL - CURB RISERS AND ANCHORS INCLUDING FIELD PAINTING
SPECIAL	642	UNIT		3" SELF DRILLING EXPANSION TYPE - CONCRETE ANCHORS, INCLUDING 3/4" ST. MACHINE BOLTS COMPLETE IN PLACE AS PER PLAN.
202	1077	SQ.YD.		EXISTING WEARING COURSE REMOVE AND DISPOSED OF
202	LUMP			PORTIONS OF EXISTING STRUCTURES REMOVED AND DISPOSED OF
404	23	CU.YD.		1" ASPHALT CONCRETE SURFACE COURSE AS PER PLAN
403	92	CU.YD.		ASPHALT CONCRETE INTERMEDIATE COURSE, VARIABLE THICKNESS, AS PER PLAN
512	7672	LIN. FT.		HOT APPLIED JOINT SEALER - 705.01
518	4265	LIN. FT.		SUBDRAINAGE FOR WEARING COURSE
SPECIAL	5000	50. FT.		PATCHING CONCRETE SIDEWALKS USING EPOXY MORTAR AND EPOXY COMPOUND TACK COAT
511	158	CU.YD.		CLASS "C" CONCRETE AT EXPANSION DAMS INCLUDING EPOXY RESIN ADHESIVE BONDING
511	87	CU.YD.		CLASS "C" CONCRETE FOR NEW CURB INCLUDING EPOXY RESIN ADHESIVE BONDING
510	592	EACH		DOWEL HOLES
512	828	SQ.YD.		WATERPROOFING TYPE "C" FOR CONCRETE DECK
614	LUMP	LUMP SUM		MAINTAINING TRAFFIC

STATION	TOP OF STEEL AT EXPANSION JT.					TOP OF PAVEMENT EAST & WEST OF JOINT					TOP CU	
	C	M	B	N	A	F	E	D	J	H		G
0+39.1	-0.30	-0.15	0.00	-0.15	-0.30	-0.28	+0.01	-0.27	-0.20	+0.04	-0.2	+0.60
2+47.5	-0.30	-0.15	0.00	-0.15	-0.30	-0.31	+0.02	-0.31	-0.24	+0.03	-0.31	-0.63
4+24.2	-0.30	-0.15	0.00	-0.15	-0.30	-0.35	+0.01	-0.27	-0.36	+0.04	-0.32	-0.63
6+16.4	-0.30	-0.15	0.00	-0.15	-0.30	-0.33	-0.02	-0.35	-0.35	+0.06	-0.39	-0.63
8+08.5	-0.30	-0.15	0.00	-0.15	-0.30	-0.30	-0.02	-0.26	-0.3	+0.06	-0.29	+0.70
10+08.0	-0.30	-0.15	0.00	-0.15	-0.30	-0.33	+0.02	-0.33	-0.31	+0.02	-0.35	+0.61
11+93.0	-0.30	-0.15	0.00	-0.15	-0.30	-0.34	-0.01	-0.28	-0.33	+0.05	-0.31	+0.64
13+85.1	-0.30	-0.15	0.00	-0.15	-0.30	-0.28	-0.01	-0.27	-0.30	+0.06	-0.29	-0.68
15+77.3	-0.30	-0.15	0.00	-0.15	-0.30	-0.25	0.00	-0.32	-0.30	+0.04	-0.27	+0.67
17+54.1	-0.30	-0.15	0.00	-0.15	-0.30	-0.26	+0.02	-0.26	-0.29	+0.03	-0.29	+0.65
18+79.0	-0.30	-0.15	0.00	-0.15	-0.30	-0.30	+0.02	-0.29	-0.27	+0.03	-0.26	+0.65

NOTE: 1) SEE DETAIL "A" ON SHT. #1 FOR LOCATION OF ELEVATION POINTS.  
2) BASIC ELEVATION = 0.00 AT E. OF EACH JOINT.

STATE HIGHWAY BRIDGE NO. CUY. - 17-0

**BROOKPARK ROAD**  
RIVER EDGE TOWNSHIP  
CITY OF FAIRVIEW PARK  
BRIDGE OVER ROCKY RIVER  
DECK REPAIRS

REPORT NO. 6924 BRIDGE NO. 191

**NO. B-191**

SCALE - AS NOTED DATE 3-23-66  
DRAWN BY RMJ CHECKED BY S.H. REVISED

THE OSBORN ENGINEERING CO.  
CONSULTING ENGINEERS  
CLEVELAND, OHIO