

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION
MAIN AVENUE BRIDGE
 COUNTY BRIDGE NO. 193
 COUNTY BRIDGE NO. CUY-002-1466
 CUYAHOGA COUNTY
 CITY OF CLEVELAND

FED. RD. DIVISION	STATE	PROJECT	1 24
5	OHIO	T-4030(17)	

CUYAHOGA COUNTY
 COUNTY BRIDGE NO. 193
 CUY-2-14.66

ISSUE NO. 1
 T-4030(17)

WE, THE COMMISSIONERS OF CUYAHOGA COUNTY, IN FORMAL SESSION HEREBY APPROVE THESE PLANS AND CERTIFY THAT THE NECESSARY RIGHT OF WAY IS AVAILABLE; WE AGREE TO MAINTAIN THE PROJECT IN A MANNER SATISFACTORY TO THE DIRECTOR OF TRANSPORTATION, STATE OF OHIO, OR HIS DULY AUTHORIZED REPRESENTATIVES AND WILL MAKE AMPLE PROVISION EACH YEAR FOR SUCH MAINTENANCE.

DONE UNDER AUTHORITY OF SECTIONS 5555.02 ET SEQ AND 5535.01 OF THE REVISED CODE OF OHIO.

BOARD OF COMMISSIONERS - CUYAHOGA COUNTY

4-9-73
 DATE

1973 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES & SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THE IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE MAINTAINING OF TRAFFIC TOGETHER WITH CERTAIN DETOURS, ALL AS INDICATED ON THE PLANS.

APPROVED
 DATE 4/9/73

D.S. Peter
 COUNTY ENGINEER

APPROVED
 DATE

DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED
 DATE

ENGINEER, BUREAU OF BRIDGES

APPROVED
 DATE

ENGINEER, BUREAU OF ROADWAY DESIGN

APPROVED
 DATE

ASSISTANT DEPUTY DIRECTOR FOR HIGHWAY DESIGN

APPROVED
 DATE

ASSISTANT DEPUTY DIRECTOR FOR REAL ESTATE

APPROVED
 DATE

ASSISTANT DEPUTY DIRECTOR FOR PROGRAM DEVELOPMENT

APPROVED
 DATE

CHIEF ENGINEER, DIVISION OF HIGHWAYS

APPROVED
 DATE

DEPUTY DIRECTOR, DIVISION OF HIGHWAYS

APPROVED
 DATE

ASSISTANT DIRECTOR, DEPARTMENT OF TRANSPORTATION

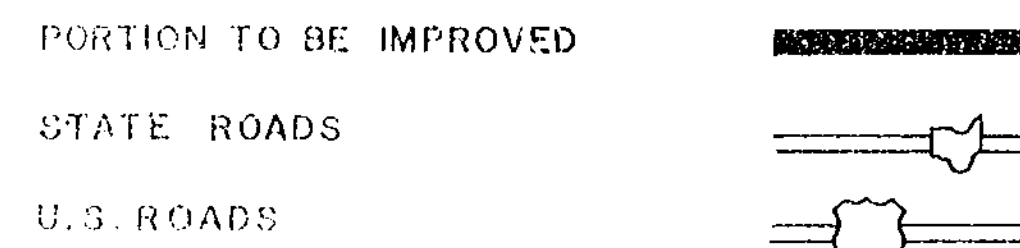
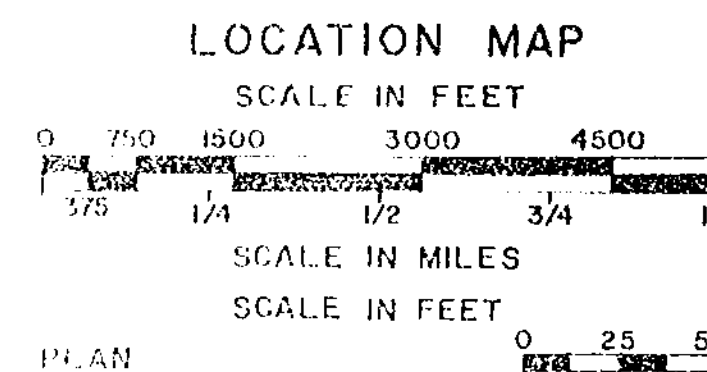
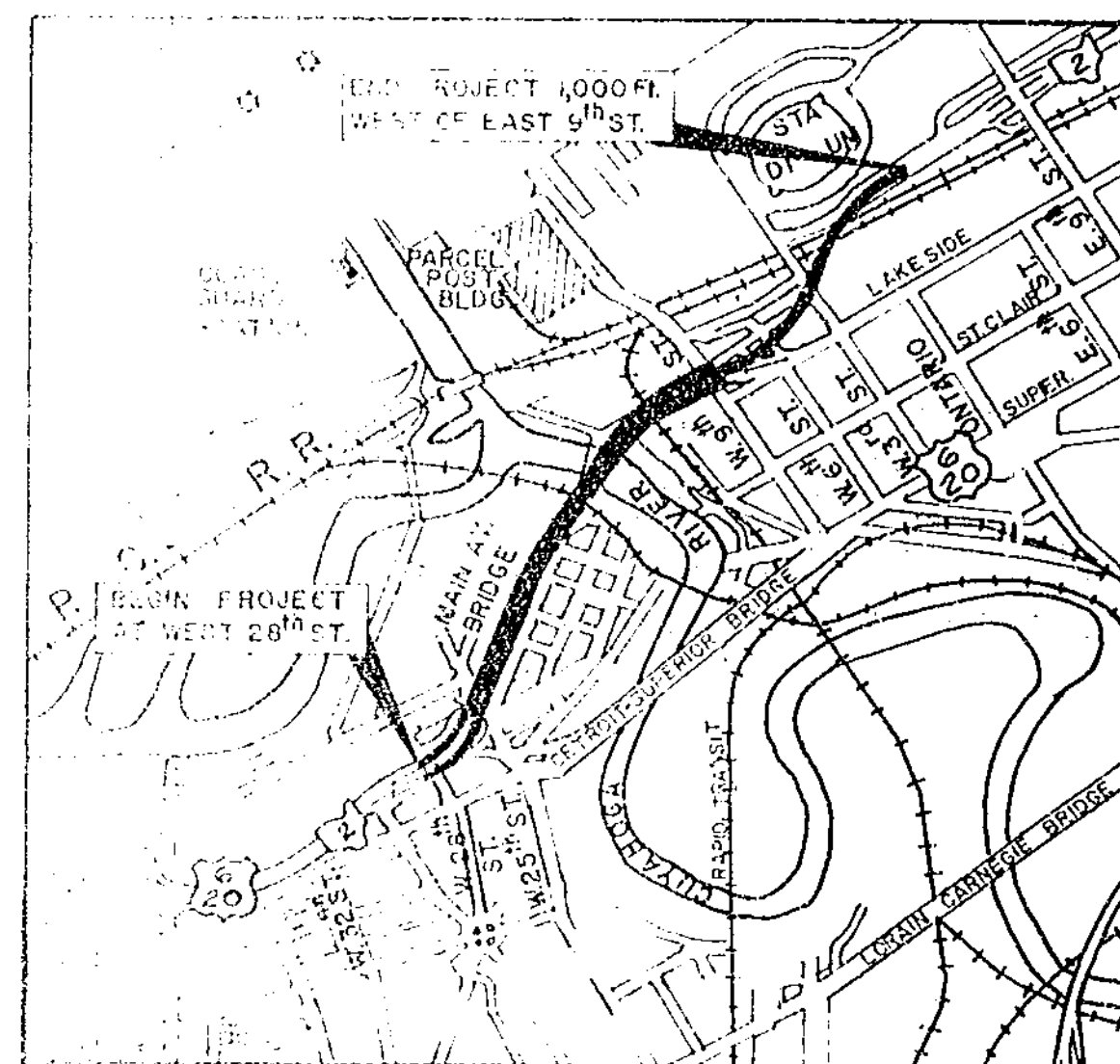
APPROVED
 DATE

DIRECTOR, DEPARTMENT OF TRANSPORTATION

GENERAL NOTES	1
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NET LENGTH OF WORK	6,830.00 FT. OR 1.293 MI.
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RESURFACING



NOTE:
 PLANS REVISED TO CONFORM TO PLANS
 FURNISHED TO CONTRACTORS FOR BIDDING.

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 APPROVED:
 DIVISION ENGINEER _____ DATE _____

Walter E. Webb 4-6-73
E.A. Halapnik 4-6-73

CONSTRUCTION DRAWING
 MC-3 6-20-69

FED RD DIVISION	STATE	PROJECT
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CUYAHOGA COUNTY
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except as noted hereon. The surface

...
...centipaise
...max.

...flexibilizers, oils or diluents that plasticize or resin hardener or flexibilize the resin - hardener system are permitted in the formulation. Pigments shall not be present in the liquid components.

Component C (aggregate) shall be a blend of granite, lauxite and silica. It shall contain not less than 9% granite, not less than 48% bauxite and more than 43% silica.
The mixture of granite and bauxite shall have a Mohs Hardness of 8.2 plus. The silica shall have a Mohs Hardness of 7.0 plus. *SEE BELOW

The aggregate blend shall be pigmented uniformly by dry blending with trace quantities of mineral oxide to produce in the epoxy mortar a grey color approved by the County Engineer.

Mixing of Components A and B shall be in accordance with the written instructions of the manufacturer or formulator of the epoxy resin system.

Physical Properties of the Cured Epoxy Binder

Tensile Strength Ultimate - at 25° C., psi	5700 min.
Elongation - 72 hrs. at 25° C. - percent	6 - 8
Compressive Strength Ultimate - at 25° C., psi	13000 min.
Hardness - Shore D at 25° C.	80
Gel Time - one pound mass starting at 25° C. - minutes	48 ± 3

Ratio of Epoxy Binder to Aggregate shall be 1:5.4 by weight and shall be thoroughly mixed in accordance with the written instructions of the manufacturer or formulator of the epoxy resin system. The pot life of the material shall be sufficient to allow a working time at 75° F. - time elapse between placing and finishing - of not less than 90 minutes. Mixing proportions shall be adjusted if the mortar is too dry to be workable or to avoid bleeding if it occurs.

Physical Properties of the Cured Epoxy Mortar

Compressive Strength	12 hrs.	1-Day	3 Days	28 Days
4" x 4" cylinders at 25° C.				
Average of 3 specimens, psi. - min.	1500	3200	6700	11000
Tensile Strength at 25° C. psi.		6000 min.		
Flexural Strength at 25° C.		5700 min.		
Impact Strength - inch/pounds Izod Type		170 min.		
Wear Resistance - 50000 Passes		71 mils max.		

The wear test shall be performed on a testing device that is equivalent to and available at:

The Twining Laboratories of Southern California, Inc.
1510 Airportway
Long Beach, California 90801

Additional Requirements

- The primer-mortar system shall adhere properly over damp concrete and/or in the presence of high humidity.
- The epoxy mortar shall have sufficient moisture tolerance to be unaffected by rain four hours after placement and final finishing.
- Finished topping subjected to the above conditions shall develop full strength without being covered or otherwise protected.
- The epoxy mortar overlay should cure sufficiently in 12 hours at a minimum temperature of 50° F. to allow traffic.

Method of Testing

Hardness	ASTM D 2240
Gel Time	ASTM D 1130
Epoxy Equivalent	ASTM D 1130
Tensile Strength	ASTM D 638
Elongation	ASTM D 638
Compressive Strength	ASTM C 39
Flexural Strength	ASTM C 293
Impact Strength (Izod Type)	ASTM D 256
Wear Resistance (tested)	ASTM D 968

Verification

Within 10 days after awarding Contract and before doing any work, the Contractor shall submit to the County Engineer's Testing Laboratory a certified test report from the manufacturer or formulator of the epoxy resin system or an approved independent testing laboratory which establishes that the materials meet the specifications.

Handling Precautions

Epoxy Compounds are toxic and must be handled with care to prevent skin irritation, such as burns, rashes, itches, etc. The Contractor shall follow the instructions of the manufacturer or formulator to prevent such a condition.

Packaging Requirements

1. One "mixing unit" of Priming Material shall consist of:

- Component A - one gallon steel can
- Component B - one gallon steel can

Material shall be packed, 2 mixing units (2 gallon cans) to each fiber carton.

2. One "mixing unit" of Epoxy Mortar material shall consist of:

- Component A - one 2-gallon can containing 12 lbs.
- Component B - one 3/4 gallon can containing 2 1/2 lbs.
- Component C - three double walled fiber cartons containing 70 lbs. aggregate each.

Note: Each individual container shall be clearly labeled. Unit components shall be pre-measured. No weighing or measuring will be permitted at job site.

STORAGE OF MATERIAL

The contractor shall store the priming and surfacing materials delivered by the supplier in an enclosed weatherproof storage space which shall be kept dry and at a minimum temperature of 70° Fahrenheit until it is ready to be transported to the bridge deck. The cost of providing this storage space shall be included in the unit price per square yard paid for the deck resurfacing. Land area required for erecting a storage building or spotting a storage trailer will be provided by Cuyahoga County. After completion of the resurfacing project the storage facility shall be removed by the contractor at his expense and the area provided by Cuyahoga County shall be restored to its previous condition unless otherwise directed by the Engineer.

GENERAL INFORMATION

The entire existing concrete and steel surface that is to be resurfaced shall be thoroughly cleaned by sand blasting to the satisfaction of the Engineer. The prepared surface shall be clean and dry. The prepared surface shall be free of dust, oil, grease, paint and other foreign materials. Loose concrete between the steel grid shall be removed, primed with the epoxy primer and replaced with the epoxy mortar used for resurfacing. No epoxy primer or epoxy mortar shall be placed until the prepared surface is inspected and approved by the Engineer. All dirt, sand, loose concrete, etc., shall be removed from the bridge at the end of each days operation and stored off by the contractor.

* THE AGGREGATE SHALL HAVE A GRADATION AS FOLLOWS

	U.S. STD. SIEVE No.	PERCENT PASSING
SILICA	16	100
	30	86-92
	50	53-59
	100	13-19
BAUXITE	6	100
	8	67-75
	16	53-59
	30	14-22
GRANITE	8	100
	16	55-61
	30	5-11
	50	0-3

MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

GENERAL NOTES

REPORT NO. 12 BRIDGE NO. 193
COUNTY BRIDGE NO. 193

NO. B-136

SCALE _____ DATE _____
DRAWN BY R/E CHECKED BY _____
REVISED 5-28-73

FED. RD. DIVISION	STATE	PROJECT	3 24
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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193 CUY-2-14.66

of this area. The north ramp shall be closed from 6:30 PM Friday to a time on Saturday that will allow for a 10 hour curing period after which the ramp shall be opened to traffic.

Fourth: East and West Bound lanes designated as the Lakefront Ramp from about West 9th Street to the East Abutment. - This work shall be done between the hours of 6:30 PM and 6:30 AM Monday through Friday unless otherwise directed by the Engineer. The work shall start at about West 9th Street in the East Bound lanes and proceed easterly until all East Bound lanes are completed. Then the work shall continue, starting at the east abutment and proceed westerly until all the West Bound lanes are completed. The two East Bound lanes or the two West Bound lanes shall be closed to all traffic in this section during the work period (6:30 PM to 6:30 AM). The traffic lane worked on shall be closed between 6:30 AM and 3:30 PM for curing. The other lane shall be opened to traffic during the curing period and both lanes shall be opened from 3:30 PM to the beginning of the next work period at 6:30 PM. One lane shall be completed from its westerly limit to its easterly limit in one direction before another lane is started unless otherwise directed by the Engineer. No work will be permitted in this area on days, or nights, when activities are being held at the Cleveland Stadium, unless approved by the Engineer.

Below is a list of activities presently scheduled for the period from July 1, 1973 to October 1, 1973:

DATE	DAY OF WEEK	ACTIVITY	STARTING TIME - PM
7-2-73	Monday	Baseball	6:00
7-3-73	Tuesday	Baseball	6:00
7-6-73	Friday	Baseball	8:00
7-7-73	Saturday	Baseball	6:00
7-8-73	Sunday	Baseball	1:00 (2 Games)
7-10-73	Tuesday	Baseball	6:00
7-11-73	Wednesday	Baseball	1:00
7-28-73	Saturday	Baseball	6:00
7-29-73	Sunday	Baseball	1:00 (2 Games)
7-31-73	Tuesday	Baseball	6:00
8-1-73	Wednesday	Baseball	1:00
8-2-73	Thursday	Baseball	6:00
8-3-73	Friday	Baseball	8:00
8-4-73	Saturday	Baseball	6:00
8-5-73	Sunday	Baseball	1:00 (2 Games)
8-6-73	Monday	Football	8:00 E.S.T.
8-17-73	Friday	Baseball	8:00
8-18-73	Saturday	Baseball	6:00
8-19-73	Sunday	Baseball	1:00 (2 Games)
8-21-73	Tuesday	Baseball	6:00
8-22-73	Wednesday	Baseball	1:00
8-24-73	Friday	Baseball	8:00
8-25-73	Saturday	Baseball	6:00
8-26-73	Sunday	Baseball	1:00 (2 Games)
8-28-73	Tuesday	Baseball	6:00
8-29-73	Wednesday	Baseball	1:00

CONTINUED ON SHEET NO. 4

...for a distance exceeding 100 linear feet, ...to a depth of 1" dividing this continuous

...shall be filled with a two component elastomeric ...the filler material shall ...unit price per square yard for deck resurfacing.

SPREADER BOXES

The supplier of the epoxy mortar shall provide a sufficient number of spreader ("spreader") boxes in 3 to 6 foot widths, equipped with 100 volt A.C. runners, allowing continuous placing of the mixed epoxy mortar material of the prescribed thickness. Capacity of each 3 foot box will be one "mixing unit" (approximately 2 cubic feet). Each six foot box will hold two "mixing units" (approximately 4 cubic feet). All spreader boxes provided by the supplier will be maintained by the contractor but shall remain the property of the supplier.

Each spreader box shall be adjustable to vary the thickness of the material to be placed. The runners of the spreader boxes shall be so adjusted as to provide assurance of uniform distribution of material. My costs relative to providing the Screed ("spreader") boxes shall be included in the unit price per square yard for deck resurfacing.

REPRESENTATION

The contractor shall arrange with the supplier to have a qualified representative at the site to instruct the contractor's personnel in the mixing, application and finishing of the materials used for priming and deck resurfacing. This representative shall be at the site full time for a period of not less than 10 working days commencing with the contractor's first day of application and shall be available at the site thereafter when requested by the Engineer. This representative shall be furnished at no cost to the owner and/or contracting agency.

SEQUENCE OF WORK

The contractor shall submit a schedule of operations to the Engineer for approval before any work has begun. This schedule shall show dates and hours where work will be performed and an estimated completion date. The sequence of this shall be as follows:

First: East Bound Lanes - South ramp over West 28th Street and the West 25th Street ramp (Designated on the Plan as SEQ. 1). This work shall be done commencing at 6:30 PM on a Friday evening and the three lanes shall be completely resurfaced during one work period (6:30 PM to 6:30 AM). The work period may be extended beyond 6:30 AM if necessary to complete the resurfacing of this area. This portion of the bridge will be closed from 6:30 PM Friday to a time on Saturday that will allow for a 10 hour curing period after which this portion of the bridge will be open to traffic.

Second: East and West Bound Lanes from about West 25th Street to about West 9th Street (Designated as SEQ. 2). This work shall be done between the hours of 6:30 PM and 6:30 AM Monday through Friday unless otherwise directed by the Engineer. The work shall start at about West 25th Street in the East Bound lanes and proceed easterly until all East Bound lanes are completed (ending at West 6th Street Ramp). Then the work shall continue starting at about West 9th Street and proceed westerly until all west bound lanes are completed to about West 25th Street and including the small area on the North Ramp over West 28th Street. All work done on this portion shall be done while traffic is maintained. The traffic lane being worked on and an adjacent lane may be closed between the hours of 6:30 PM and 6:30 AM. The traffic lane that was resurfaced shall be closed from 6:30 PM to 3:30 PM for curing purposes. The work shall be completed from its westerly limit to its easterly limit in one direction before another lane is started unless otherwise directed by the Engineer. The West 28th Street ramp shall be closed in required in each direction to complete the resurfacing and curing over West 28th Street.

Third: North Ramp over West 28th Street (Designated as SEQ. 3). This work shall be done between 6:30 PM and 6:30 AM Friday evening and shall be completely resurfaced during one work period (6:30 PM to 6:30 AM). The work shall be done while traffic is maintained. The traffic lane being worked on and an adjacent lane may be closed between the hours of 6:30 PM and 6:30 AM. The traffic lane that was resurfaced shall be closed from 6:30 PM to 3:30 PM for curing purposes. The work shall be completed from its westerly limit to its easterly limit in one direction before another lane is started unless otherwise directed by the Engineer. The West 28th Street ramp shall be closed in required in each direction to complete the resurfacing and curing over West 28th Street.

steel finishing trowels or wood floats as directed by the manufacturer or formulator of the epoxy resin system.

MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

GENERAL NOTES

REP. JRT No. _____ CO. BRIDGE NO. 193
OD. OT. NO. - CUY-002-1466

NO. B-136

SCALE _____ DATE 7-11-73
DRAWN BY *R/S* CHECKED BY *WLD*
REVISED _____ 3/24

SEQUENCE OF WORK CONTINUED

DATE	DAY OF WEEK	ACTIVITY	STARTING TIME - PM
8-1-73	Monday	Baseball	1:00
8-2-73	Tuesday	Baseball	1:00
8-3-73	Wednesday	Baseball	1:00
8-4-73	Thursday	Baseball	1:00
8-5-73	Friday	Baseball	1:00
8-6-73	Saturday	Baseball	1:00
8-7-73	Sunday	Baseball	1:00
8-13-73	Monday	Baseball	1:00
8-14-73	Tuesday	Baseball	1:00
8-15-73	Wednesday	Baseball	1:00
8-16-73	Thursday	Baseball	1:00
8-17-73	Friday	Baseball	1:00
8-18-73	Saturday	Baseball	1:00
8-19-73	Sunday	Baseball	1:00
8-25-73	Monday	Baseball	1:00
8-26-73	Tuesday	Baseball	1:00
8-27-73	Wednesday	Baseball	1:00

In addition there will be several football games at the stadium in the month of September. The schedule is not published at this time but will be available.

Since the least interference of activities is during a two (2) week period from July 12, 1973 to July 27, 1973, the contractor shall perform the work on areas designated as SEQ. 4 within this period of time. He will suspend operations at other locations, if necessary, to do this area of work at the above designated period of time. If there are good reasons why the contractor could not do the work for SEQ. 4 at the above designated time the contractor shall submit these reasons to the Engineer in writing and submit for approval a period of time that this work would be done.

MAINTENANCE OF TRAFFIC

This project consists of the installation of a resurfacing overlay on that part of the Main Avenue Bridge and certain approaches, which have the roadway surface constructed with a concrete filled steel grid system (I-Beam Lok). The performance of the work is to be such that traffic will be maintained and, therefore, the schedule of work as outlined herein shall be arranged for work periods at off-peak hours.

In general, the work shall be performed after evening rush hour traffic with (1) signing and delineation of traffic lanes beginning after 6:30 PM, (2) removal of all work equipment from the bridge prior to 6:30 AM and (3) removal of all signs pertaining to delineation and delineators by 3:30 PM. No work equipment may be stored on the bridge; signs and delineators may be stored on the sidewalks provided they are weighted and/or stayed, roped or otherwise prevented from being moved or blown into the roadway. Special conditions for traffic pertaining to certain areas will be as described elsewhere or shown on the plans and/or hereinafter described.

TRAFFIC CONTROL SCHEDULING

The contractor shall maintain and protect traffic and the work during the construction period in accordance with Item 614 of the Construction and Material Specifications and as outlined in the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, current edition with the latest revision. However for this project the contractor rather than the Director shall furnish erect and maintain the additional traffic control devices that are called for in the third paragraph of Section 614.03 (b) of the Construction and Material Specifications. In addition the following requirements shall apply:-

The Contractors' schedule of operation hereinabove described, and the sequence of work shall govern the placing and manipulation of traffic control signs, delineators, etc. as necessary for the continued use of the bridge for movement of traffic during construction.

All work shall be performed at night, as hereinabove described, or between the hours of 6:30 PM on Friday to 6:30 AM on Monday. Where specifically designated for performance on Friday (or week-end), those areas shall be performed on a scheduled date, including the work on the Lakefront Ramp.

A plan for traffic control is included in these plans and the contractor shall furnish, install and manipulate the signs, delineators, etc., as necessary to direct and control traffic during all of his operations. The contractor shall erect advisory speed limit signs, which shall designate a speed limit of 35 MPH in the lanes adjacent to lanes where work is being performed.

Traffic shall be controlled and governed by the designated signs and delineators, etc. only for the lanes in the direction of traffic on which the work is being performed. The traffic in the opposite direction shall continue in the normal pattern. Traffic control signs, delineators, etc., as well as patterns and sequences, used in performance of the work on East Bound lanes shall be utilized on the West Bound lanes with variations of specific locations as hereinafter described.

TRAFFIC CONTROL MATERIALS AND DEVICES

Signs - Sign dimensions and specifications, including letter size, shall be as provided in the Ohio Manual of Uniform Traffic Control Devices. All signs shall have a reflectorized background of reflective material as described on Page 9 of the Ohio Manual of Uniform Traffic Control Devices.

Barrels - Barrels shall be 55 gallon drums. All barrels shall be painted with orange enamel and shall have at least two horizontal circumferential white reflectorized stripes 4 to 6 inches wide. The barrels shall be substantially free from rust and major deformations. They shall also be filled with sufficient granular material for stability. Orange warning signs and drums shall be in accordance with provision on Page 334.1 of the Ohio Manual of Uniform Traffic Control Devices.

Flashers - Flashers shall be 12 volt battery operated models with minimum 7" diameter amber lenses. The flashing cycle shall be such that the on time is 25% or more. Flashers shall be single faced and erected with the face clearly visible to oncoming traffic. Operation shall be either continuous or solar switch controlled.

Flashing Arrow - Whenever any lanes are closed, traffic shall be directed by various devices described herein, including a flashing arrow consisting of a minimum of fifteen sealed beam amber lights at least 5 inches in diameter and 35 watts. These lights shall be mounted in the shape of a double arrow on a panel and shall be elevated to a minimum height of seven feet above the pavement. The operation shall be such that an arrow can be displayed to right or left or in both directions, depending upon which diversion situation is required. The lights shall flash either sequentially or simultaneously and shall be placed in a location as shown on the plan or as directed by the Engineer. Size of the sign panel shall be as shown on the plan.

Small Barricades - "Saw Horse" type barricades shall be of either wood or metal. These shall be at least 36" wide and 36" high (Type II barricade). A single faced flasher shall be located at the top of the barricade at the end nearest to the traffic. The barricades shall be of sufficient stability to prevent wind or traffic air turbulence from overturning them.

Cones - Traffic cones shall be 36" high with a ballast base sufficient to withstand wind lift created by passing vehicles. The color of the cones shall be predominantly orange. For night time use, they shall be reflectorized or equipped with lighting devices.

TRAFFIC MAINTENANCE

Traffic shall be maintained as hereinafter described and as shown on the plans. The application of the various traffic control devices shall be as shown on those plans relating to a particular part, or sequence in the project and, as the work progresses, the control devices shall be set, adjusted and/or altered for the particular work operation. All traffic devices shall be removed from the roadway when all lanes are open to traffic. As previously stated, vehicular traffic shall be controlled by a system of signs, etc. only for the lanes in the direction of traffic on which work is being performed. The traffic in the opposite direction shall continue in the normal pattern.

The signs and devices shall be as detailed on the plans and conforming to details contained in the Ohio Manual of Uniform Traffic Control Devices. In the design of a particular device, minor modifications of the specified design elements may be necessary under certain conditions provided that the essential appearance characteristics are met as prescribed in the Ohio Manual of Uniform Traffic Control Devices and is approved by the Engineer.

Advance warning signs for any condition which restricts traffic shall be erected or installed before any such restriction is put into effect. All such signs shall be covered or removed whenever they are not applicable.

At least one uniformed special duty police officer equipped with a marker and flasher equipped police or patrol car shall be on duty at all times that traffic is under controlled conditions, that is, when work is being performed or a section of surfacing is being cured (6:30 PM to 6:30 AM and 6:30 AM to 4:30 PM). The police officer shall be stationed at the most

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strategic position to assist oncoming traffic to maneuver out of closed lanes, or as directed by the Engineer. The contractor shall arrange with the City of Cleveland Police Department for the services of such an officer and shall pay to Police Department for all costs involved.

BASIS FOR PAYMENT

During the performance of this contract, the possibility exists that another contract covering the resurfacing of the Shoreway (SR 2) immediately easterly of this project will be in effect. In the event that the resurfacing of the Lakefront Ramp is being performed simultaneously with the Shoreway resurfacing to the east, the project will be coordinated and signing and detouring as described in Sequence "Fourth" SEQ. 4 above will not be required with respect to the resurfacing of the West Bound lanes of the Lakefront Ramp.

- (A) The cost of all materials, labor and incidentals necessary to provide all traffic control as hereinabove described, excepting that required for detouring of traffic for the resurfacing of the West Bound lanes of the Lakefront Ramp, shall be included in the Lump Sum amount bid for:-

Item 614 Lump Sum Maintaining Traffic

- (B) The cost of all materials, labor and incidentals necessary to provide the traffic control for detouring traffic for the resurfacing of the West Bound lanes of the Lakefront Ramp shall be included in the Lump Sum amount bid for:-

Item 614 Lump Sum Maintaining Traffic, ADJUSTED PLAN (East End)

In the event, the Shoreway and Lakefront Ramp are resurfaced simultaneously, Item B will be non-performed.

PLAN
STATE ROAD ACCOUNT CHARGE
ST. OF WAY ENGINEER

PROFILE
CROSS SECTION
CHECKED BY
DATE

MAIN AVE. BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
GENERAL NOTES	
REPORT NO. _____	COBRIDGE NO. 193 O.D.O.T. NO.-CUY-002-14.66
NO. B-136	
SCALE _____	DATE 4-11-73
DRAWN BY <u>gpc</u> CHECKED BY <u>gpc</u>	
REVISED 5-10-73	

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
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ESTIMATED QUANTITIES			
ITEM	PROPOSAL QUANTITIES	UNIT	DESCRIPTION
513	3,650	LBS.	STRUCTURAL STEEL
SPEC.	40,000	SOYD.	SURFACE OVERLAY 1/4" MIN. THREE-COMPONENT SYSTEM, INCLUDING SURFACE PREPARATION AND PRIMER.
614		L.S.	MAINTAINING TRAFFIC
614		L.S.	MAINTAINING TRAFFIC-ADJUSTED PLAN (EAST END)
619		L.S.	FIELD OFFICE

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS:
THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE TWO(2) FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS AT LOCATIONS AS DESIGNATED BY THE ENGINEER.

SIGN DETAILS SHALL BE AS SPECIFIED ON STANDARD DRAWING FACI-1, "CODE N-54(1)-96(2)," MODIFIED BY DELETING REFERENCE TO "STATE OF OHIO FUNDS" AND "OHIO DEPARTMENT OF TRANSPORTATION" AND INSERTING THERE IN "STATE BOND ISSUE NO.1 FUNDS" THE SIGNS SHALL BE ERECTED IN ACCORDANCE WITH STANDARD DRAWING FACI-2. ADDITIONAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH NOTES IN THE PROPOSAL.

FIELD OFFICE:
THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 400 SQ. FT. OF FLOOR SPACE AND IN ADDITION TO THE REQUIREMENTS OF ITEM 619, HE SHALL PROVIDE AND MAINTAIN SANITARY PROVISIONS AS PER 107.06. ALL THE ABOVE IS INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 619 FIELD OFFICE.

PLAN

PROFILE

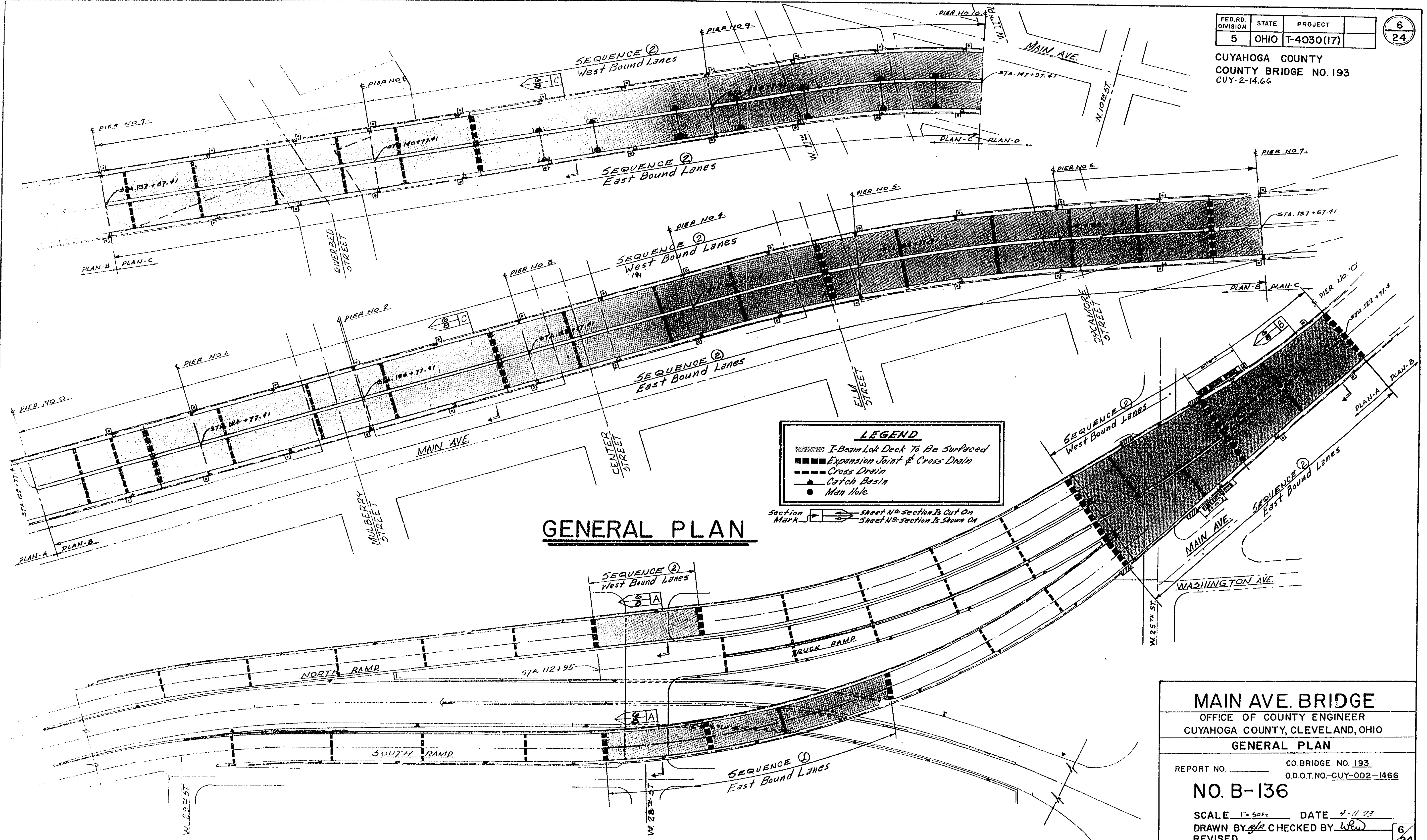
MAIN AVE. BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
GENERAL NOTES & QUANTITIES	
REPORT NO. _____	CO. BRIDGE NO. 193 O.D.O.T. NO - CUY-002-1466
NO. B-136	
SCALE _____	DATE 4-11-73
DRAWN BY <u>and</u> CHECKED BY <u>wd</u>	REVISED _____

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FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66



GENERAL PLAN

LEGEND

- I-Beam Loh Deck To Be Surfaced
- Expansion Joint & Cross Drain
- Cross Drain
- Catch Basin
- Man Hole

Section Mark Sheet No. Section To Cut On
 Sheet No. Section To Shown On

MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO
GENERAL PLAN

REPORT NO. _____ CO BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466

NO. B-136

SCALE 1" = 50 FT. DATE 4-11-73
DRAWN BY *g/lz* CHECKED BY *WRD*
REVISED _____

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24

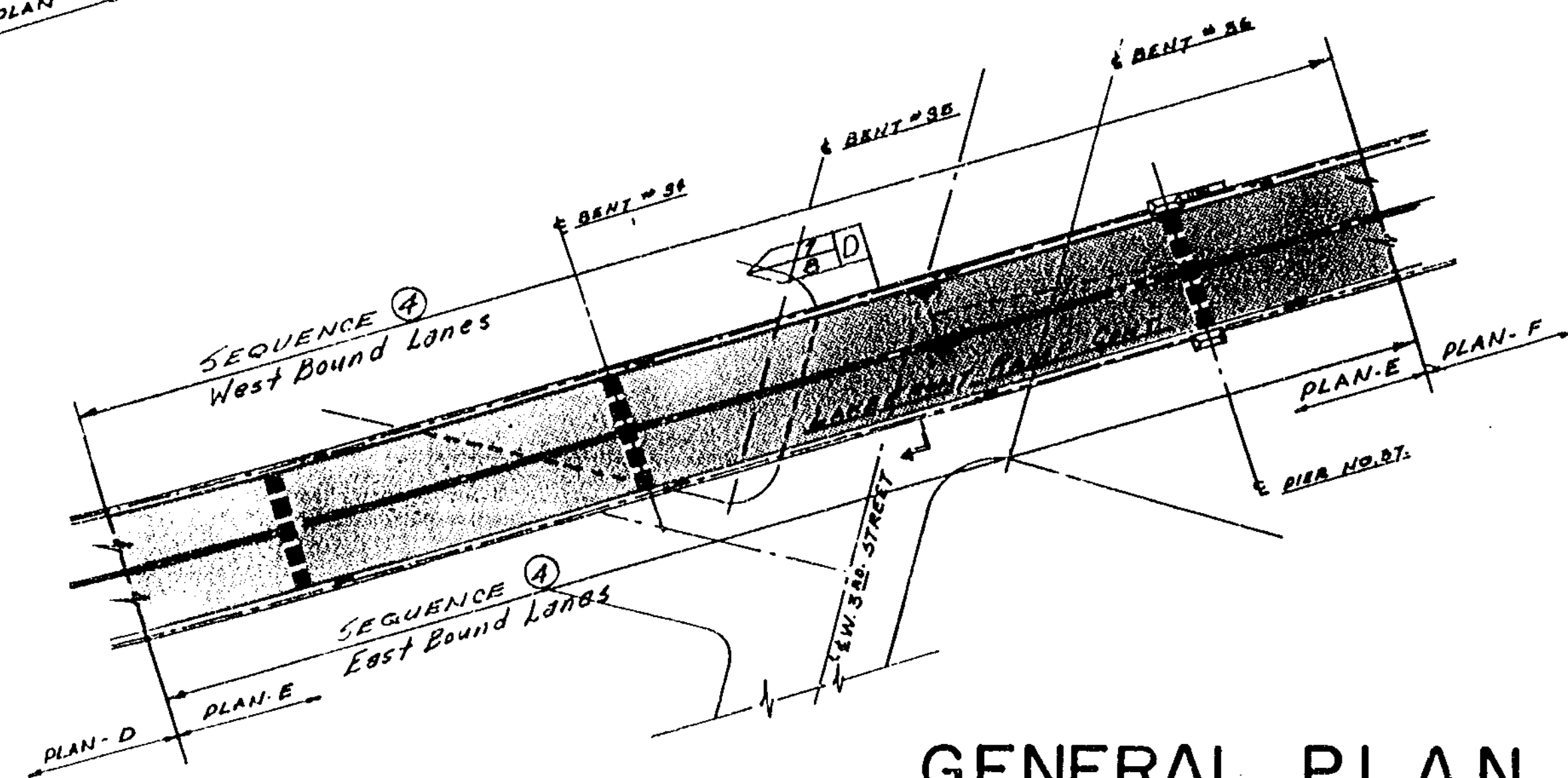
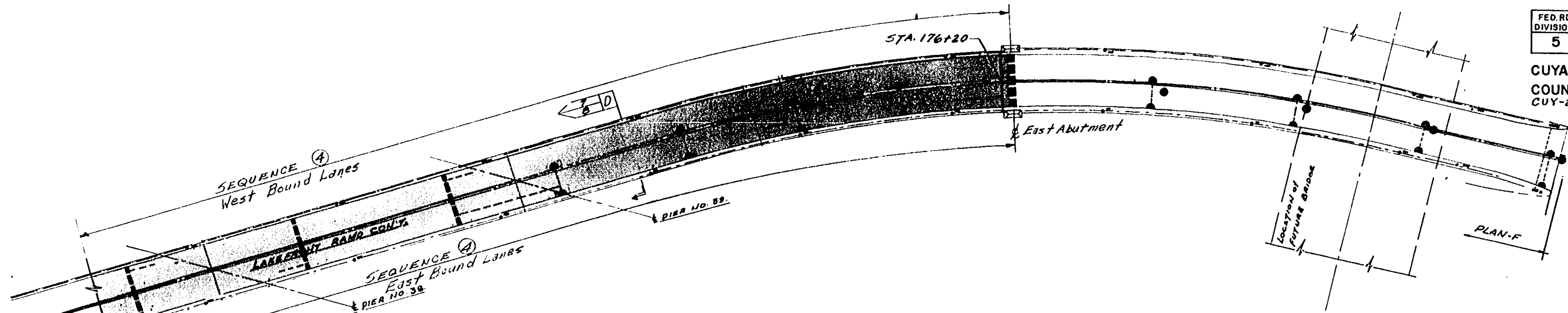
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN
DATE
DRAWN BY
CHECKED BY
SCALE

PROFILE
DATE
DRAWN BY
CHECKED BY
SCALE

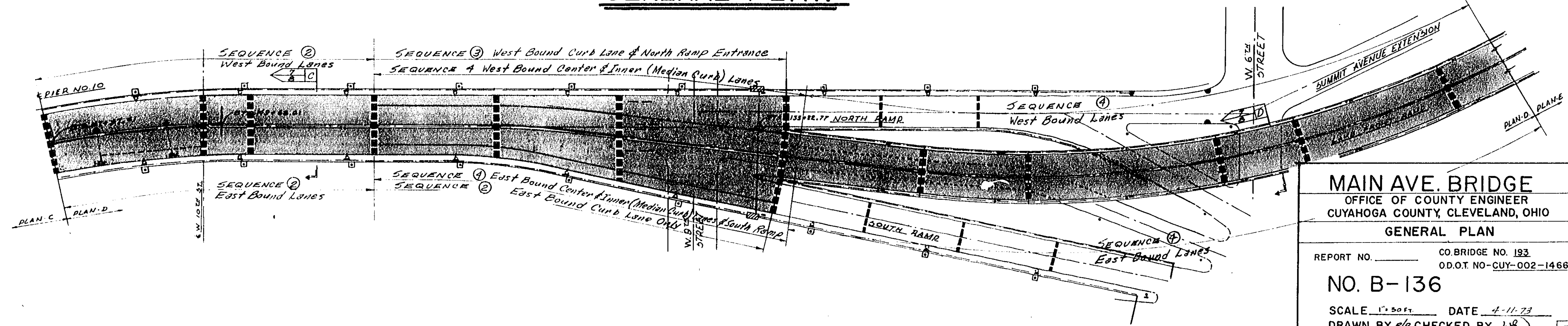


LEGEND

- I-Beam Lok Deck To Be Surfaced
- Expansion Joint & Cross Drain
- Cross Drain
- Catch Basin
- Man Hole

Section Mark Sheet No. Section To Cut On
Sheet No. Section Is Shown On

GENERAL PLAN



MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

GENERAL PLAN

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.T. NO. CUY-002-1466

NO. B-136

SCALE 1" = 50' DATE 4-11-73
DRAWN BY *gk* CHECKED BY *Whe*
REVISED _____

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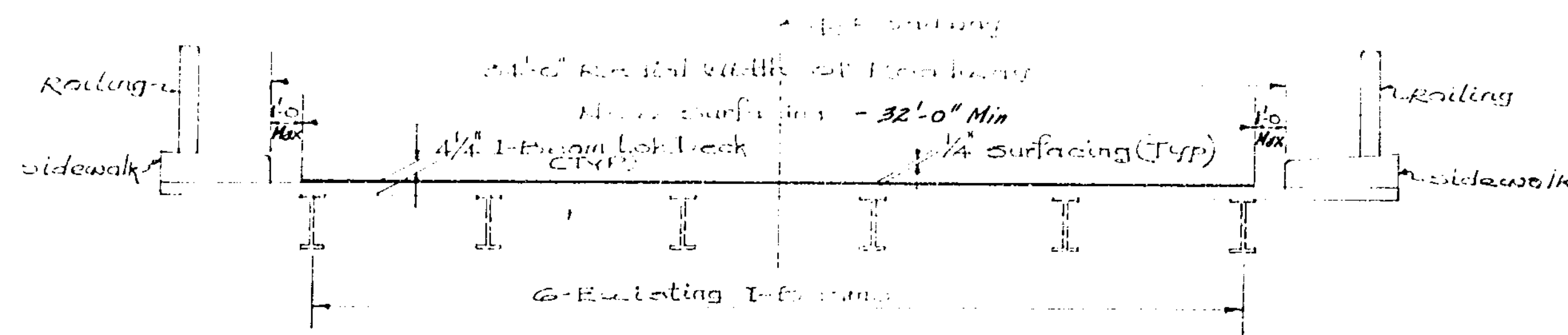
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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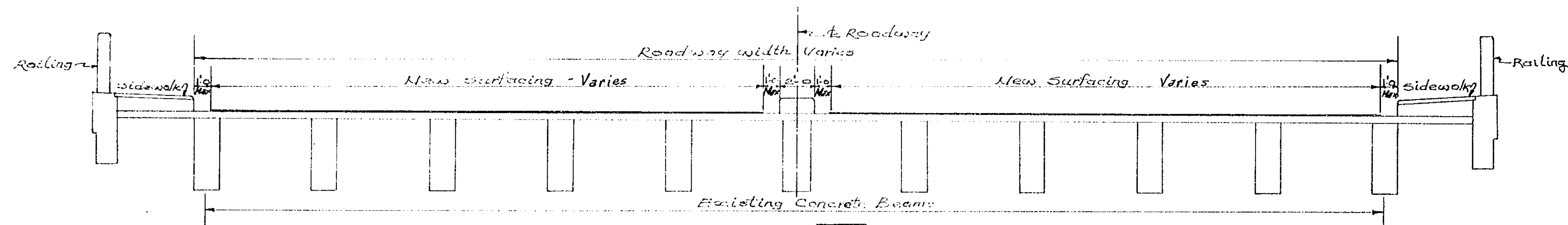
CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN
SCALE: 1/4" = 1'-0"
DATE: 4-11-73
DRAWN BY: WED
CHECKED BY: WED

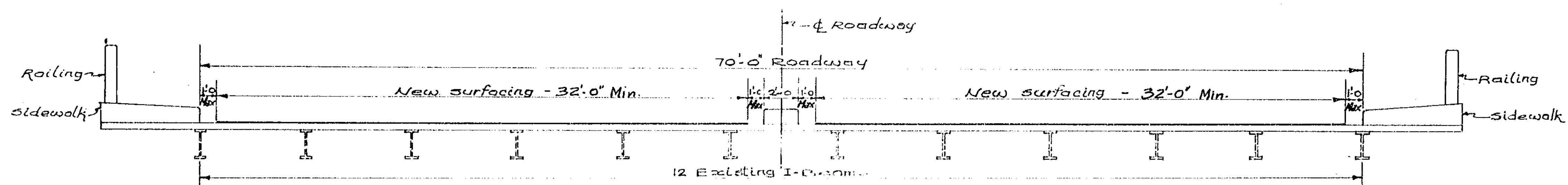
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SCALE: 1/4" = 1'-0"
DATE: 4-11-73
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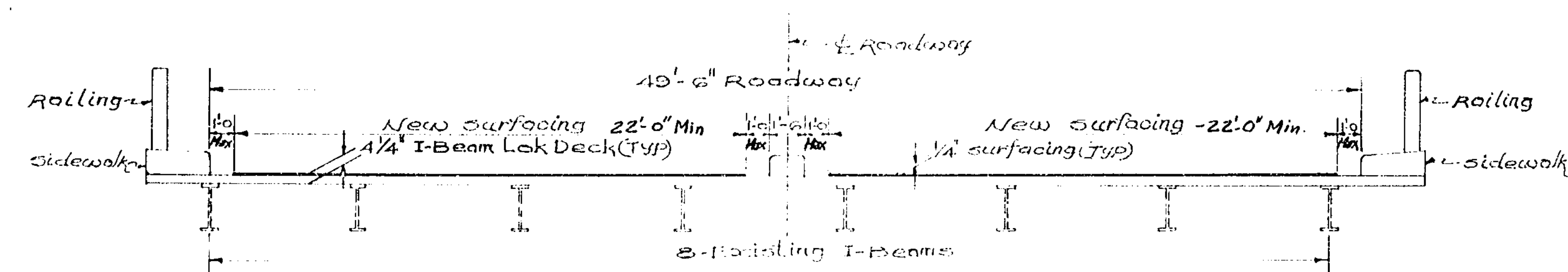
SECTION A-A
WEST APPROACH OVER WEST 28 STREET
(See Plan-A)



SECTION B-B
WEST APPROACH OVER WEST 25 STREET
(See Plan-B)



SECTION C-C
MAIN SECTION FROM PIER "0" THRU PIER "10"
(See Plans B, C, & D)



SECTION D-D
EAST APPROACH OVER WEST "6" THRU PIER "39"
(See Plans D, E, & F)

MAIN AVE. BRIDGE

OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

TYPICAL BRIDGE SECTIONS

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. - CUY-002-1466

NO. B-136

SCALE 1/4" = 1' DATE 4-11-73
DRAWN BY WED CHECKED BY WED
REVISED _____

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FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

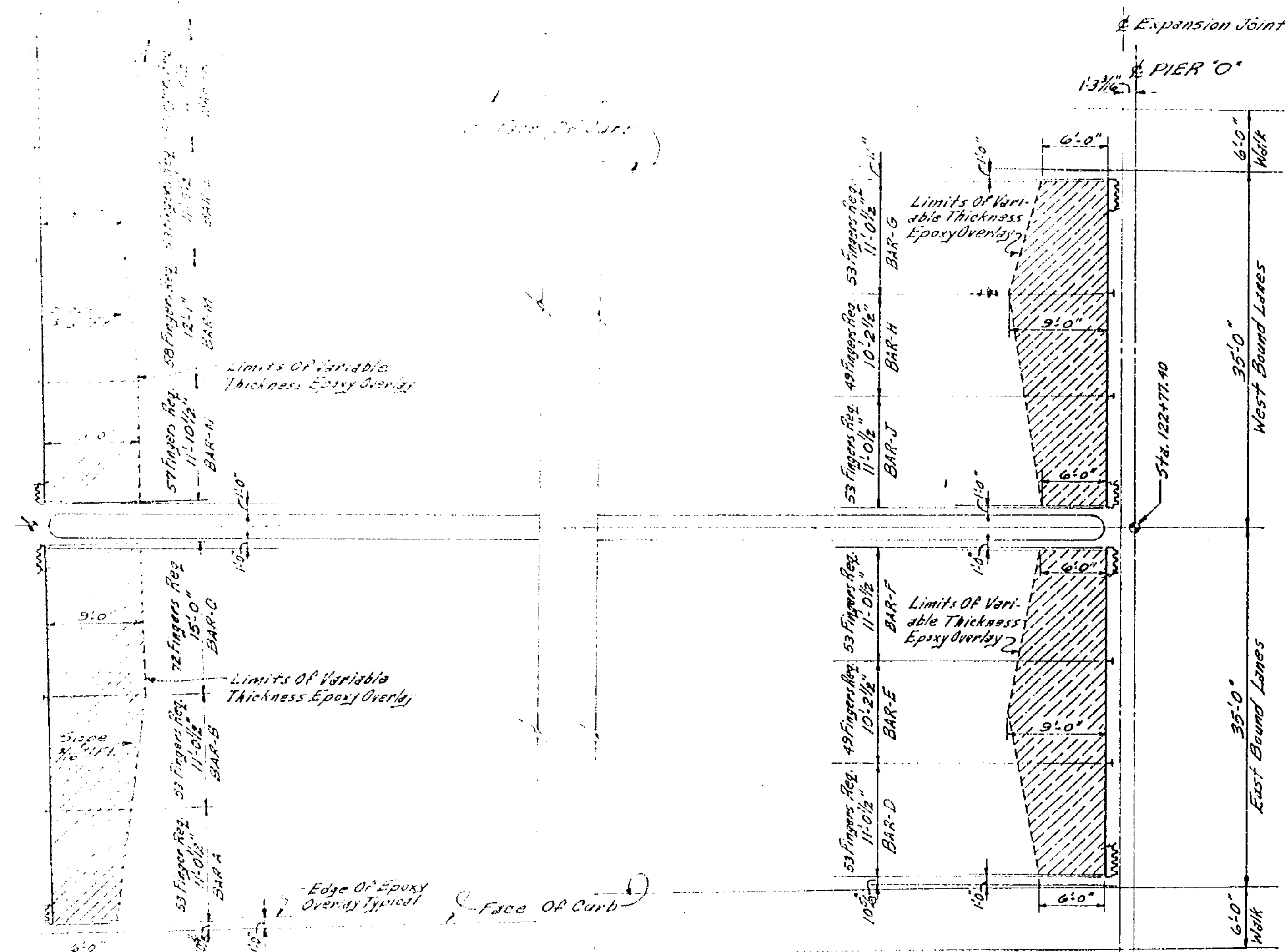
STEEL AND WELDING NOTES
Alterations To The Expansion Joints On The Span Located Westerly Of Pier "O" At Sta. 120+98.26 And Sta. 122+77.40 Shall Be Made As Detailed On These Plans.

Steel Used To Fabricate Stop Bars And Fingers Shall Conform To Specifications For Weathering Steel, A.S.T.M. A-588 And Shall Be Paid For Under Item 519 Structural Steel.

Details For Fabrication Of The Fingers And Stop Bars As Shown On These Plans Are Incorporated Hereon As A SUGGESTED METHOD. In Order To Obtain The Fingers Of The Thickness Consistent With The Stop Bars Attached To The Existing Expansion Casting.

Welding Shall Be Performed In Accordance With The Requirements Of Section 513.17 Of The Ohio Department Of Transportation Construction And Material Specifications.

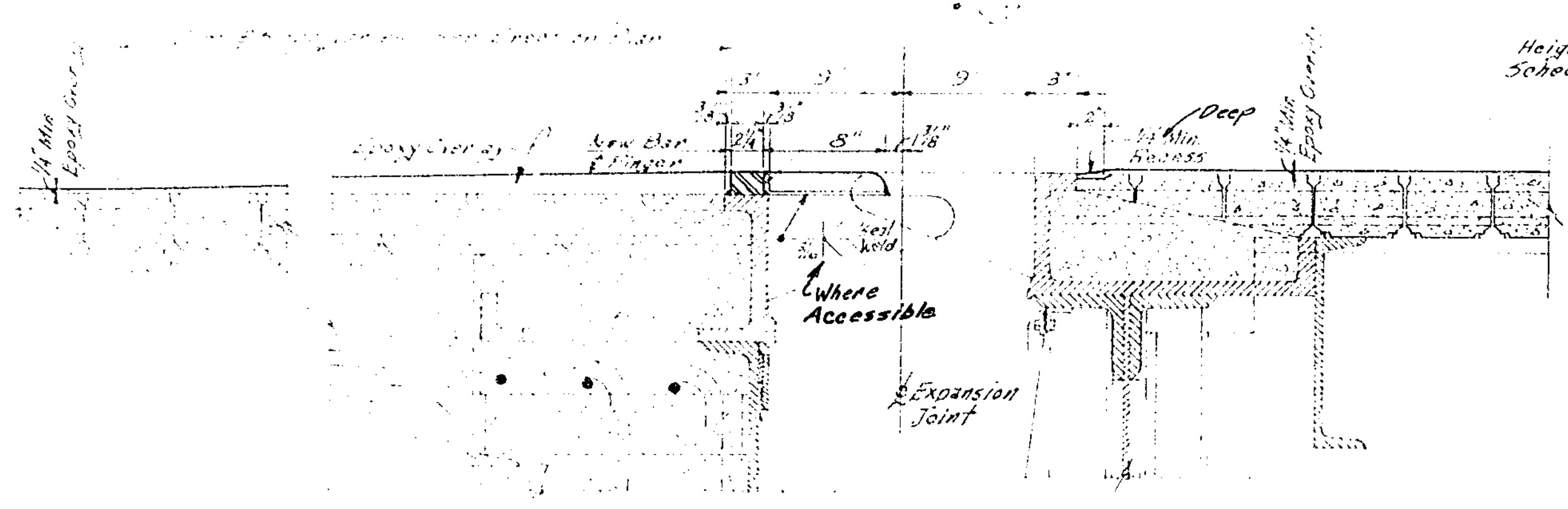
The Castings To Which The Stop Bars And Fingers Are To Be Welded Are Assumed To Be Cast Steel And To Have Been Furnished In Accordance With The Specifications Of The Ohio Department Of Highways Construction And Material Specifications, 1935. However, The Contractor Shall Verify The Quality And Characteristics Of The Material Before Beginning The Welding Operations.



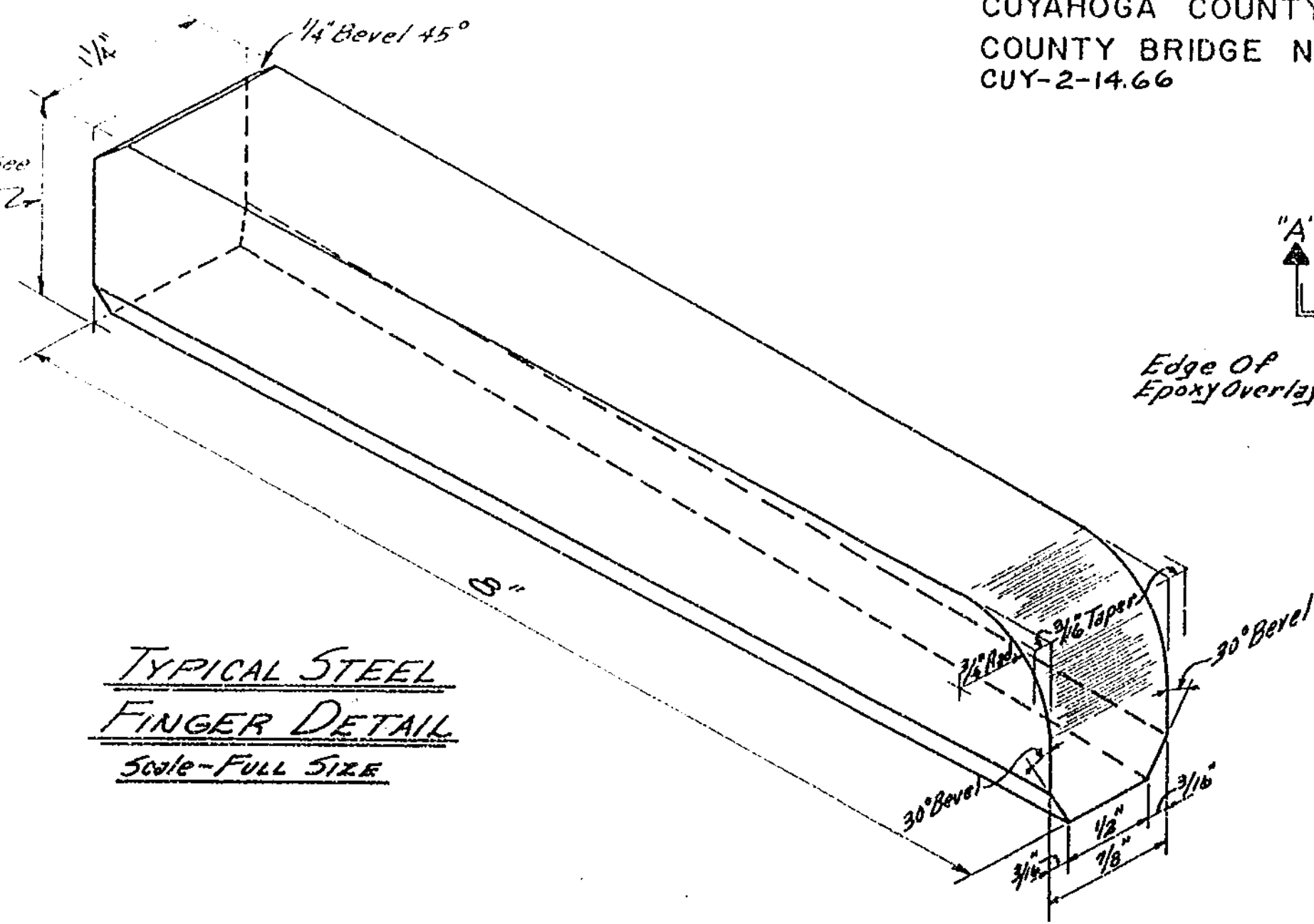
NOTE:
For Details For Adjustment Of
Expansion Joints See Sheet 10/24

ERECTION PLAN
Scale 1/8" = 1'-0"

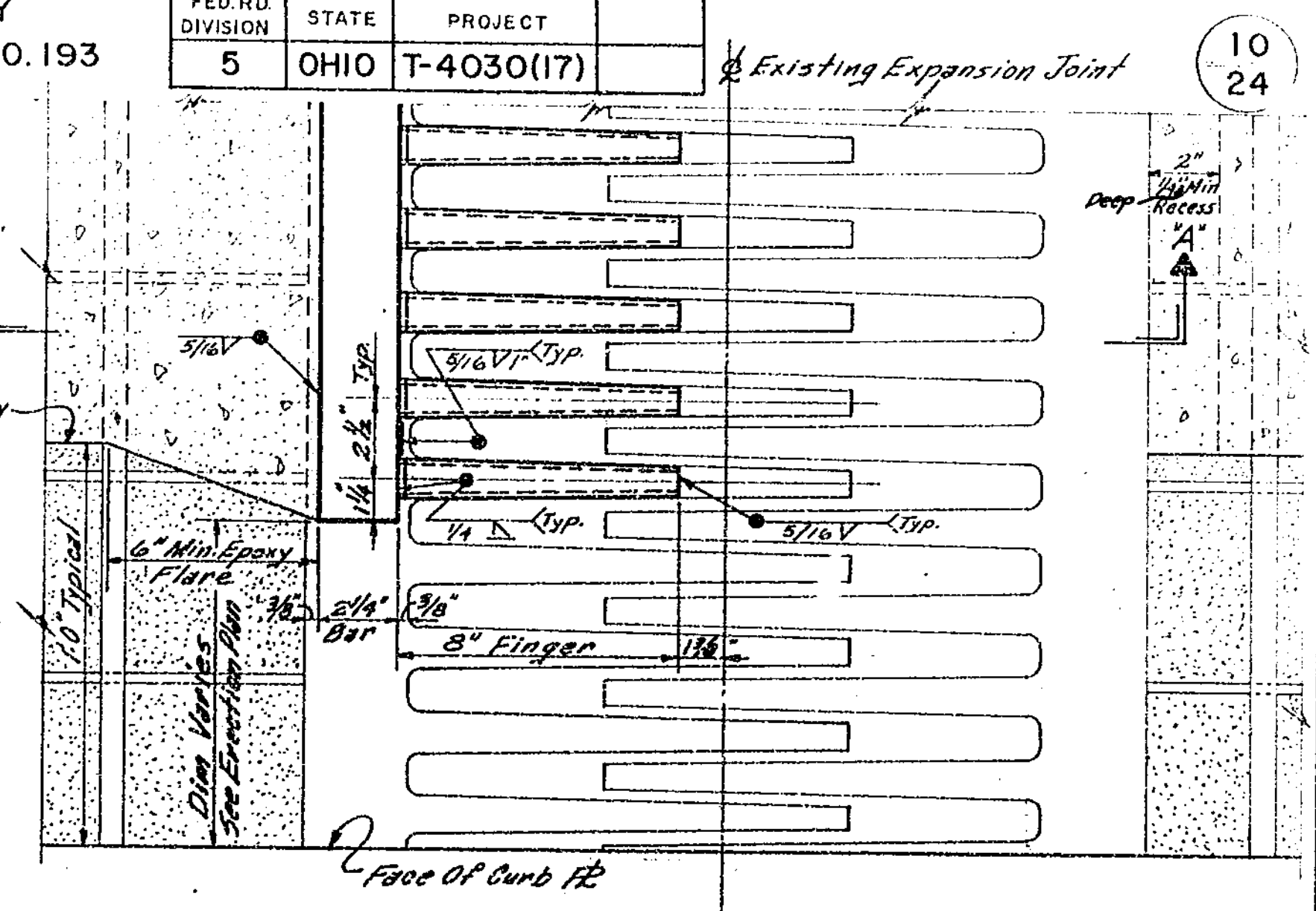
MAIN AVE. BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
DETAIL SHEET NO. 1	
REPORT NO. _____	CO. BRIDGE NO. 193 O.D.O.T. NO. CUY-002-1466
NO. B-136	
SCALE _____	DATE 4-11-73
DRAWN BY S.M.P./R.P.	CHECKED BY W.D. 9
REVISED _____	24



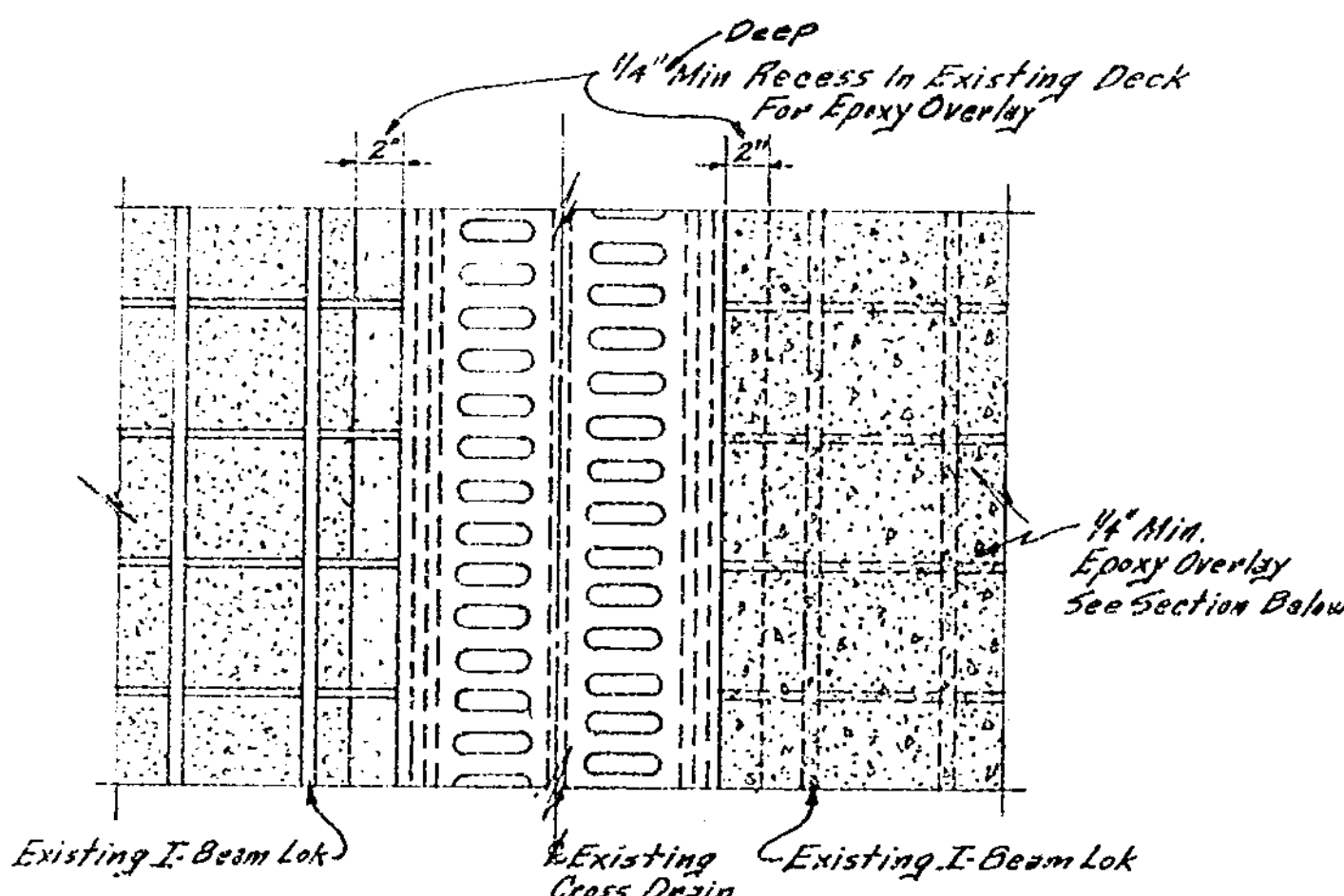
SECTION "A-A"
Scale 1/4" = 1'-0"



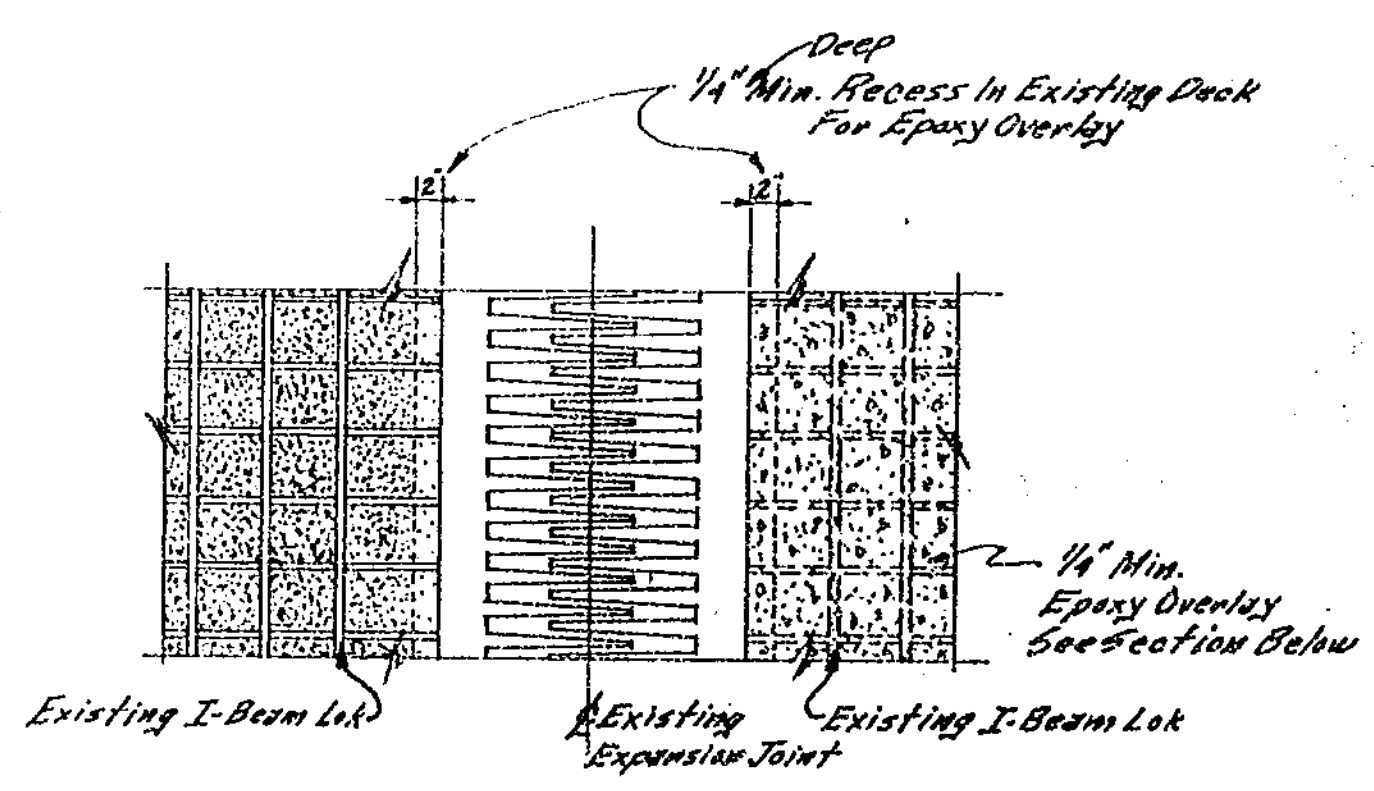
TYPICAL STEEL FINGER DETAIL
Scale - FULL SIZE



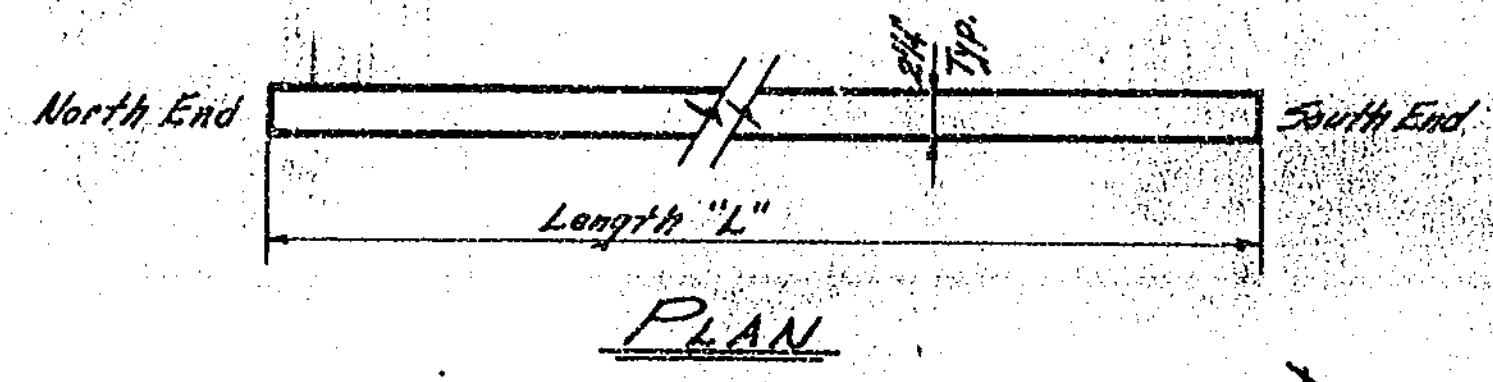
EXPANSION JOINT ADJUSTMENT PLAN DETAIL
Scale 3" = 1'-0"



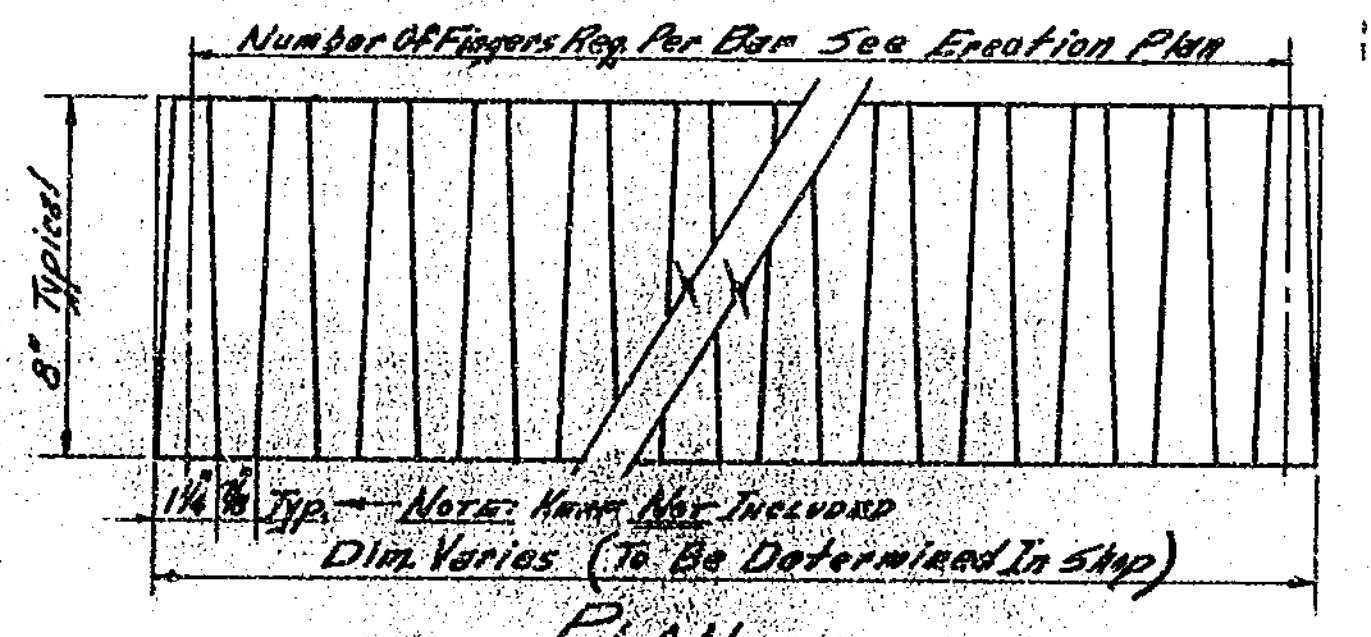
PLAN
Scale 1/4" = 1'-0"



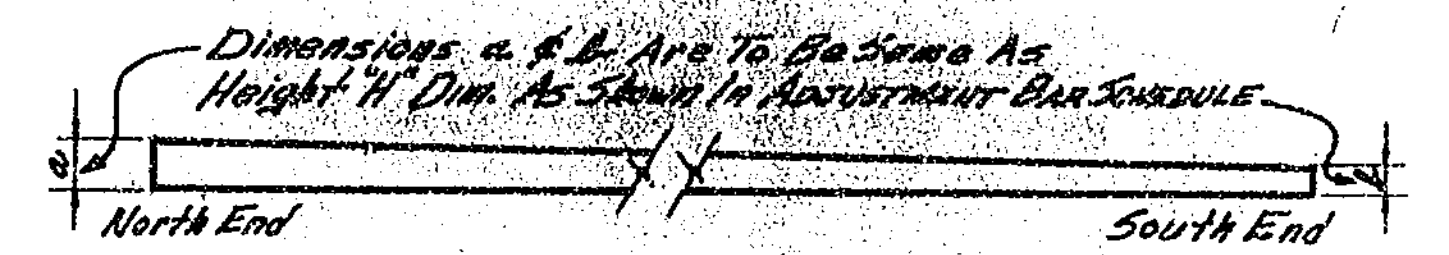
PLAN
Scale 3/4" = 1'-0"



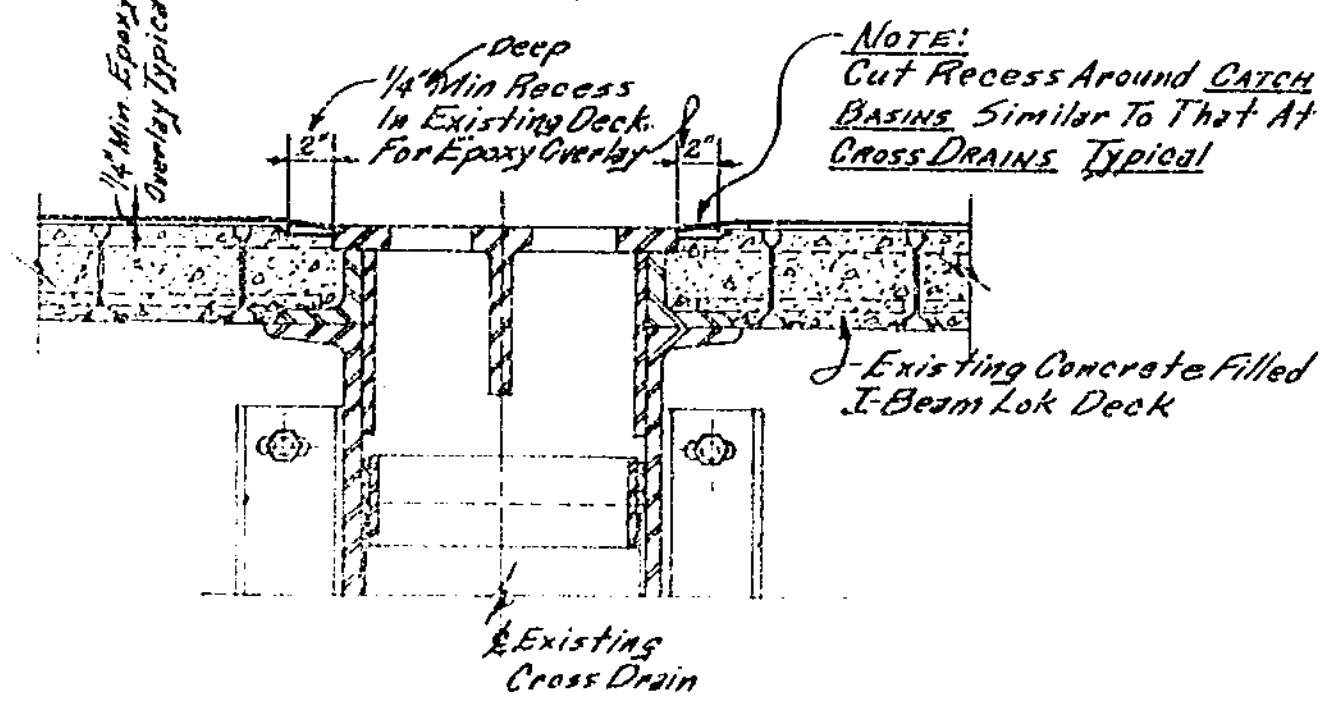
ELEVATION



PLAN

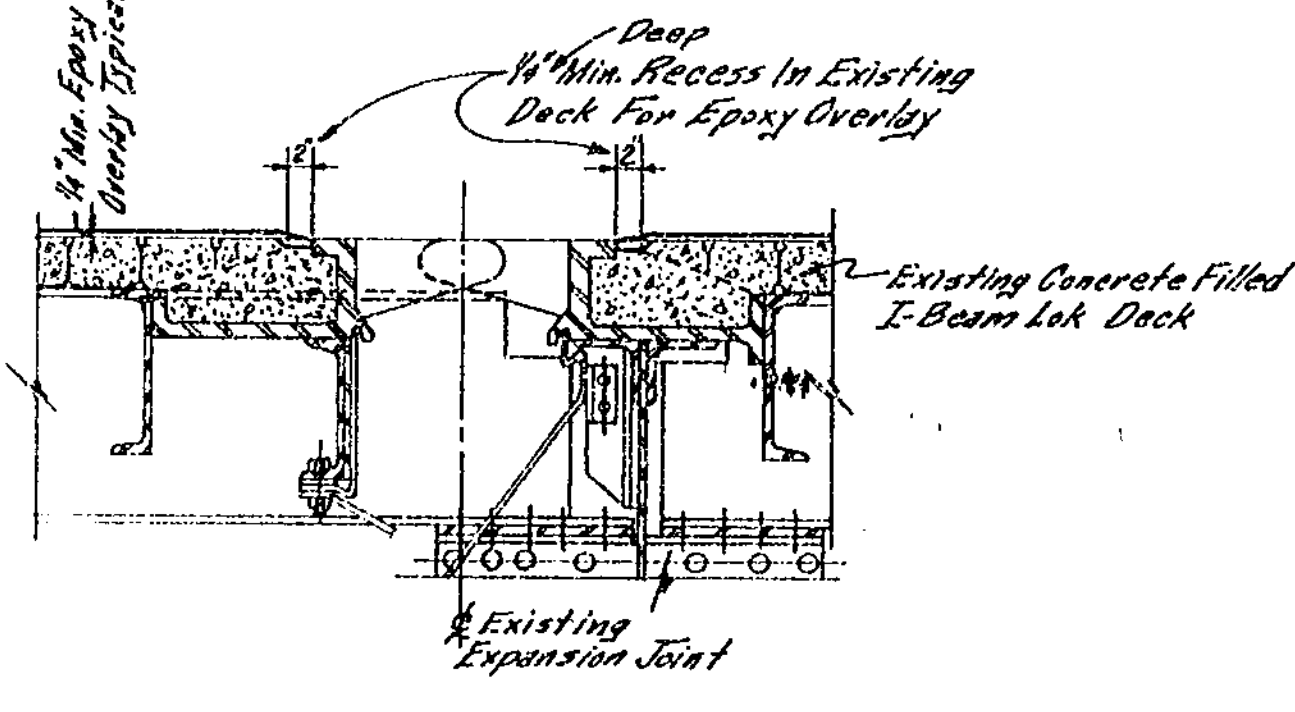


ELEVATION



SECTION
Scale 1/4" = 1'-0"

TYPICAL CROSS DRAIN DETAIL



SECTION
Scale 3/4" = 1'-0"

TYPICAL EXPANSION JT DETAIL

Bar No.	North End "H"	South End "H"	Length "L"
A	1 1/8"	5/8"	11'-0 1/2"
B	1 1/2"	1 1/8"	11'-0 1/2"
C	1 1/2"	1 1/2"	15'-0"
D	1 1/2"	1 1/2"	11'-0 1/2"
E	1 1/2"	1 1/2"	10'-2 1/2"
F	1 1/2"	1 1/2"	11'-0 1/2"
G	5/8"	1/2"	11'-0 1/2"
H	7/8"	1 1/8"	10'-2 1/2"
J	1 1/8"	1 1/8"	11'-0 1/2"
K	3/4"	1"	11'-0 1/2"
L	1"	1 1/8"	11'-0 1/2"
M	1 3/8"	1 1/2"	12'-1"
N	1 1/2"	1 1/2"	11'-10 1/2"

NOTE:
Sections Of Adjustment Stop Bars Shall Be Joined By Welding Top & Sides By Using 3/8" Field Weld.

SUGGESTED METHOD FOR FINGER FABRICATION

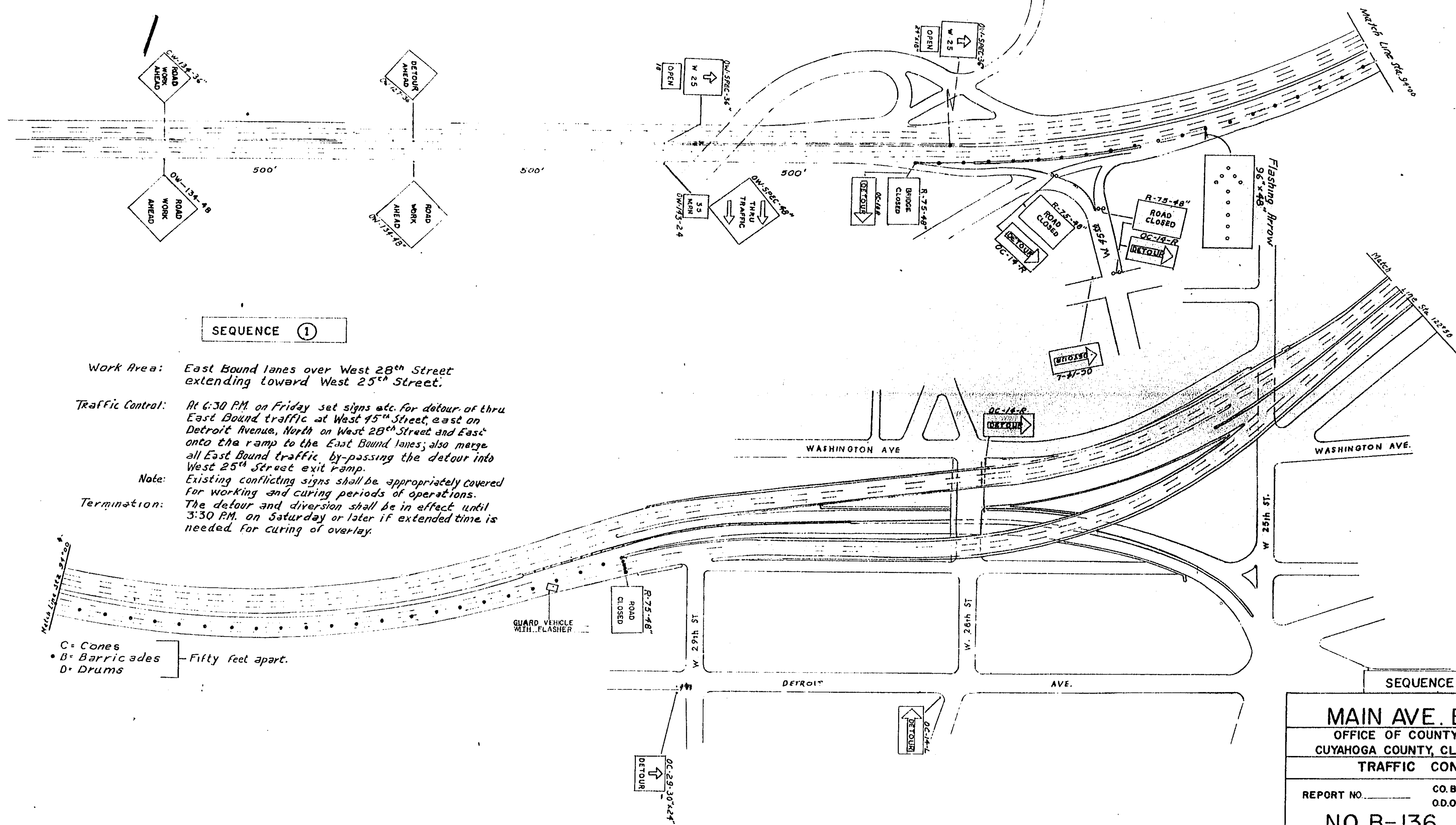
NOTE: Each Finger Shall Be Marked To Insure Proper Placement In Field So That Thickness Of Bar And Finger Will Be The Same At Each Existing Finger Location.

MAIN AVE. BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
DETAIL SHEET NO. 2	
REPORT NO. _____	CO. BRIDGE NO. 193
O.D.O.T. NO. - CUY-002-1466	
NO. B-136	
SCALE as shown	DATE 4-11-73
DRAWN BY <i>WLD</i>	CHECKED BY _____
REVISED _____	10/24

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66



SEQUENCE ①

Work Area: East Bound lanes over West 28th Street extending toward West 25th Street.

Traffic Control: At 6:30 PM on Friday set signs etc. for detour of thru East Bound traffic at West 15th Street, east on Detroit Avenue, North on West 28th Street and East onto the ramp to the East Bound lanes; also merge all East Bound traffic by-passing the detour into West 25th Street exit ramp.

Note: Existing conflicting signs shall be appropriately covered for working and curing periods of operations.

Termination: The detour and diversion shall be in effect until 3:30 PM. on Saturday or later if extended time is needed for curing of overlay.

- C- Cones
 - B- Barricades
 - D- Drums
- Fifty feet apart.

Intermediate Sign erect between W. 15th & W. 28th

SEQUENCE ①

MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO
TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466

NO. B-136

SCALE 1"=100' DATE 4-11-73
DRAWN BY W.P.C. CHECKED BY R.A.S./wtd
REVISED _____

11
24

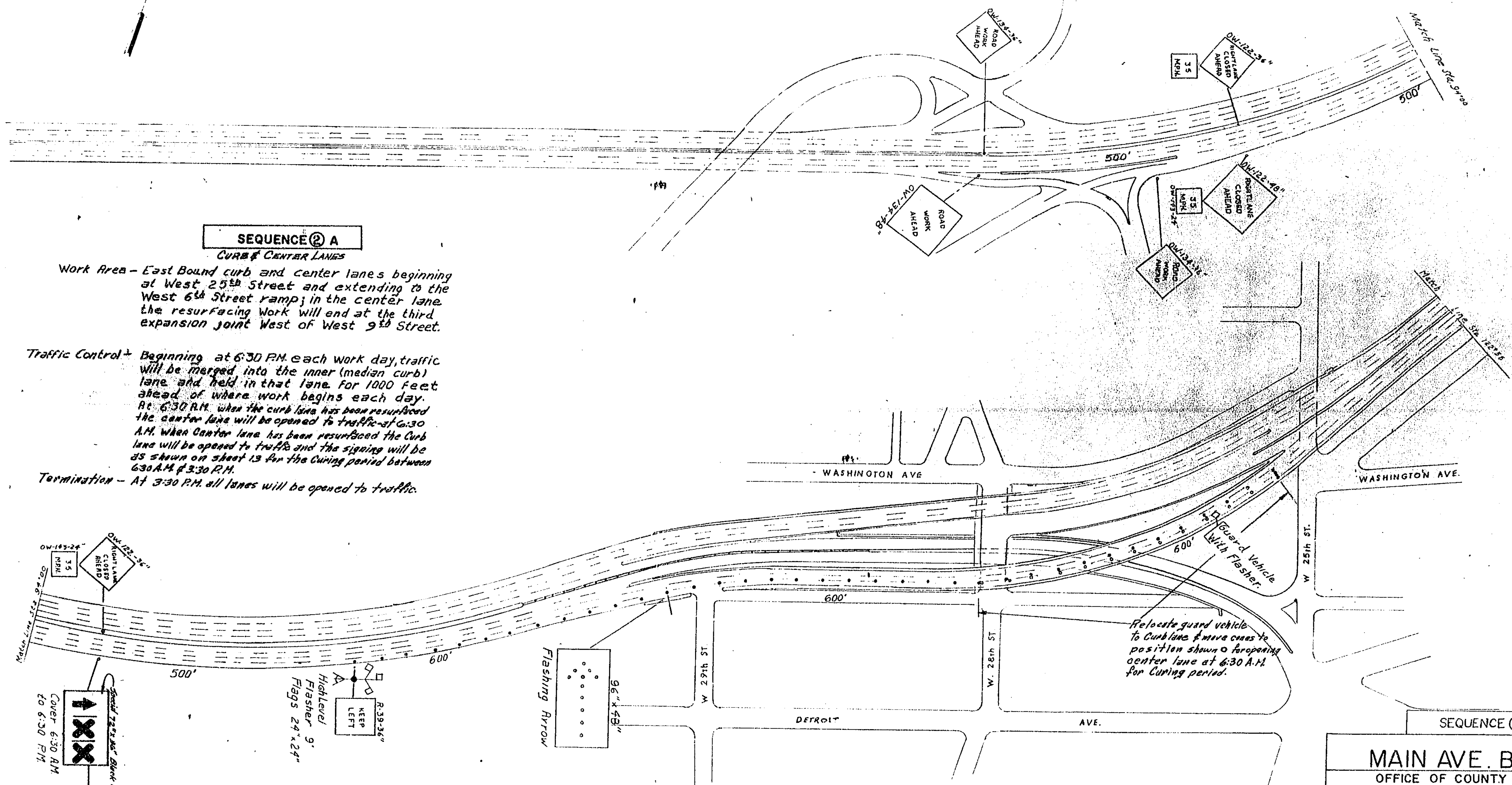
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUI-2-14-66

DATE	BY
DATE	BY

DATE	BY
DATE	BY



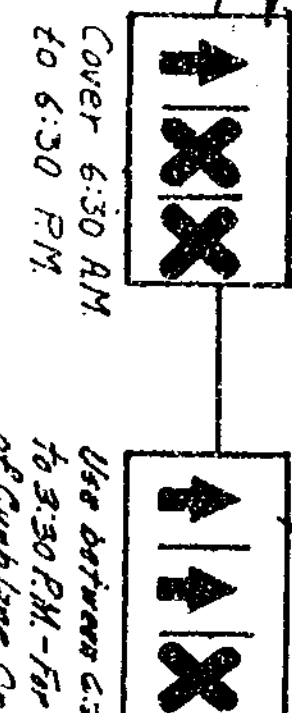
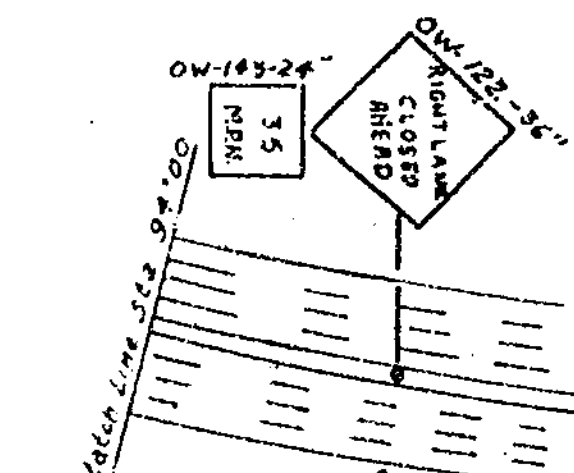
SEQUENCE 2 A

CURB & CENTER LANES

Work Area - East Bound curb and center lanes beginning at West 25th Street and extending to the West 6th Street ramp; in the center lane the resurfacing work will end at the third expansion joint West of West 9th Street.

Traffic Control - Beginning at 6:30 P.M. each work day, traffic will be merged into the inner (median curb) lane and held in that lane for 1000 feet ahead of where work begins each day. At 6:30 A.M. when the curb lane has been resurfaced the center lane will be opened to traffic at 6:30 A.M. when center lane has been resurfaced the curb lane will be opened to traffic and the signing will be as shown on sheet 13 for the curing period between 6:30 A.M. & 3:30 P.M.

Termination - At 3:30 P.M. all lanes will be opened to traffic.



CONES BARRICADES 50' APART DRUMS

o Cones in moved position for curing of CURB LANE only

Note: Signing for this Sequence 2A is to be used for resurfacing of curb & center East Bound lanes and curing of curb lane. Appropriate signs and delineators may be relocated as the work progresses. Appropriate signs and delineators in similar patterns shall be used on West Bound lanes.

SEQUENCE 2 A

MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO
TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466

NO. B-136

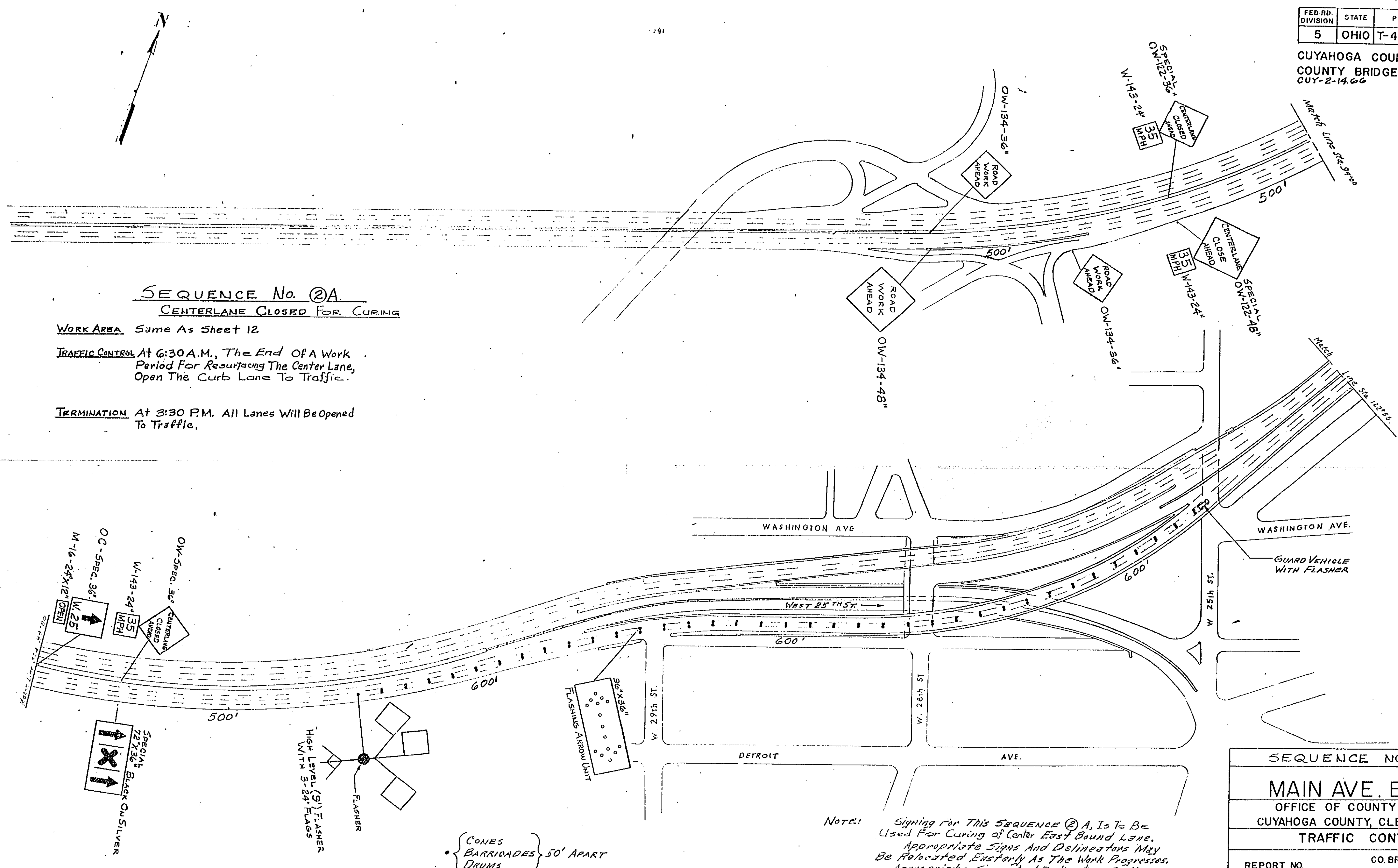
SCALE 1"=100' DATE 4-11-73
DRAWN BY R.W. CHECKED BY R.A.S./M.W.
REVISED _____

12
24

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO	T-4030(17)	

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14-66



SEQUENCE No. 2A
CENTERLANE CLOSED FOR CURING

WORK AREA Same As Sheet 12

TRAFFIC CONTROL At 6:30 A.M., The End Of A Work Period For Resurfacing The Center Lane, Open The Curb Lane To Traffic.

TERMINATION At 3:30 P.M. All Lanes Will Be Opened To Traffic.

NOTE: Signing For This Sequence 2A, Is To Be Used For Curing of Center East Bound Lane. Appropriate Signs And Delineators May Be Relocated Eastward As The Work Progresses. Appropriate Signs And Delineators In Similar Patterns Shall Be Used On West Bound Lanes.

{ CONES
BARRICADES } 50' APART
DRUMS

DATE	BY	CHKD.

PLAN

DATE

BY

CHKD.

NOTE: MOOR ALIGNMENT CHECKED BY _____

NO. _____

DATE	BY	CHKD.

PROFILE

DATE

BY

CHKD.

NOTE: MOOR ALIGNMENT CHECKED BY _____

NO. _____

SEQUENCE NO. 2

MAIN AVE. BRIDGE

OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466

NO. B-136

SCALE 1" = 100' DATE 4-11-73
DRAWN BY JLR CHECKED BY RAS/abw 13
REVISED _____ 24

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN

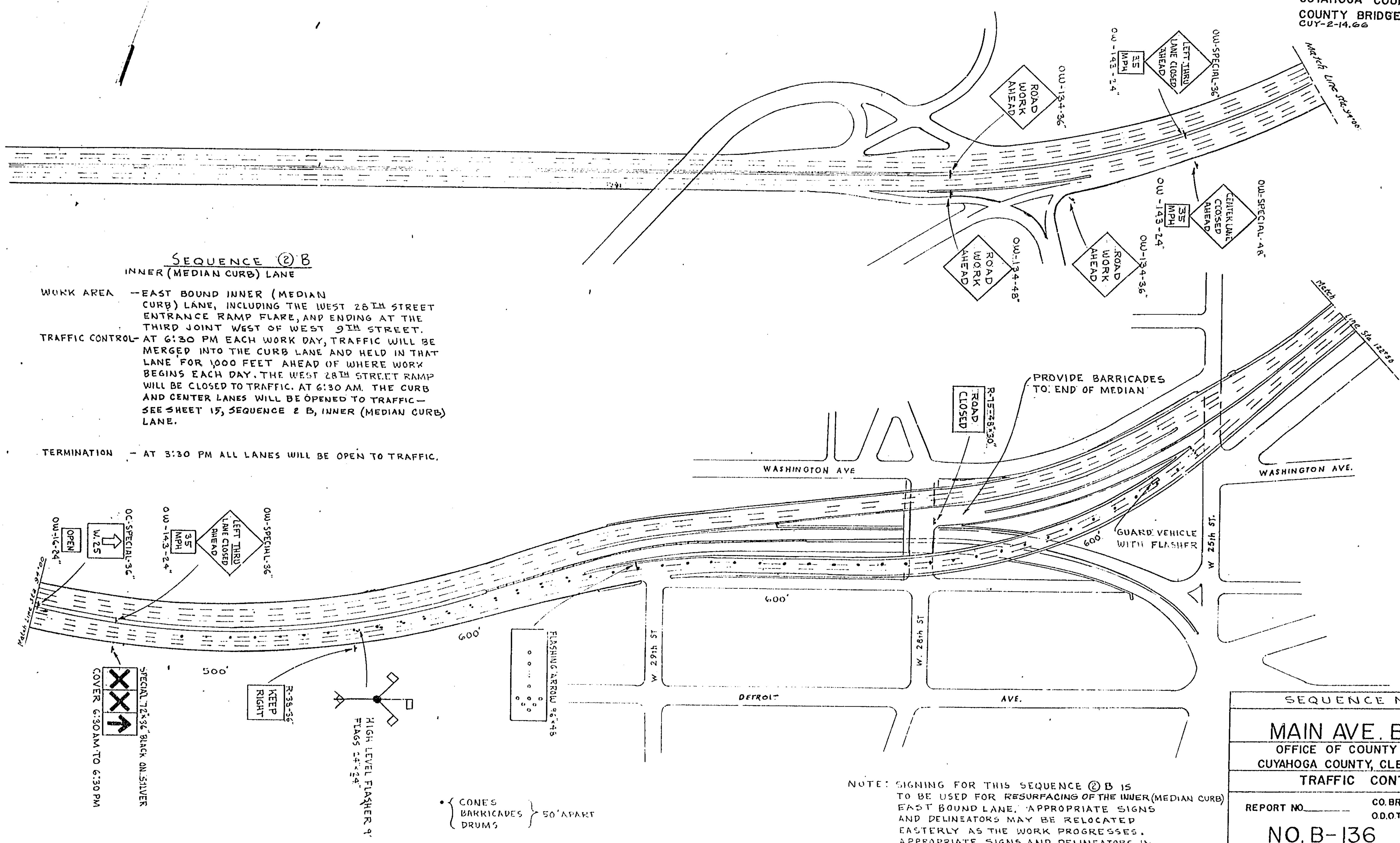
DATE	BY

REVISED: _____
NOTE BOOK ALIGNMENT CHECKED: _____
NO. _____
BY: _____

PROFILE

DATE	BY

REVISED: _____
NOTE BOOK & PLAN CHECKED: _____
NO. _____
BY: _____



SEQUENCE ② B
INNER (MEDIAN CURB) LANE

WORK AREA - EAST BOUND INNER (MEDIAN CURB) LANE, INCLUDING THE WEST 28TH STREET ENTRANCE RAMP FLARE, AND ENDING AT THE THIRD JOINT WEST OF WEST 9TH STREET.

TRAFFIC CONTROL - AT 6:30 PM EACH WORK DAY, TRAFFIC WILL BE MERGED INTO THE CURB LANE AND HELD IN THAT LANE FOR 1000 FEET AHEAD OF WHERE WORK BEGINS EACH DAY. THE WEST 28TH STREET RAMP WILL BE CLOSED TO TRAFFIC. AT 6:30 AM, THE CURB AND CENTER LANES WILL BE OPENED TO TRAFFIC - SEE SHEET 15, SEQUENCE 2 B, INNER (MEDIAN CURB) LANE.

TERMINATION - AT 3:30 PM ALL LANES WILL BE OPEN TO TRAFFIC.

NOTE: SIGNING FOR THIS SEQUENCE ② B IS TO BE USED FOR RESURFACING OF THE INNER (MEDIAN CURB) EAST BOUND LANE. APPROPRIATE SIGNS AND DELINEATORS MAY BE RELOCATED EASTERLY AS THE WORK PROGRESSES. APPROPRIATE SIGNS AND DELINEATORS IN SIMILAR PATTERNS SHALL BE USED ON WEST BOUND LANES.

CONES
BARRICADES
DRUMS } 50' APART

SEQUENCE NO. ② B

MAIN AVE. BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO
TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T NO. CUY-002-1466

NO. B-136

SCALE 1" = 100'-0" DATE 3-11-66
DRAWN BY: _____ CHECKED BY: _____
REVISED _____

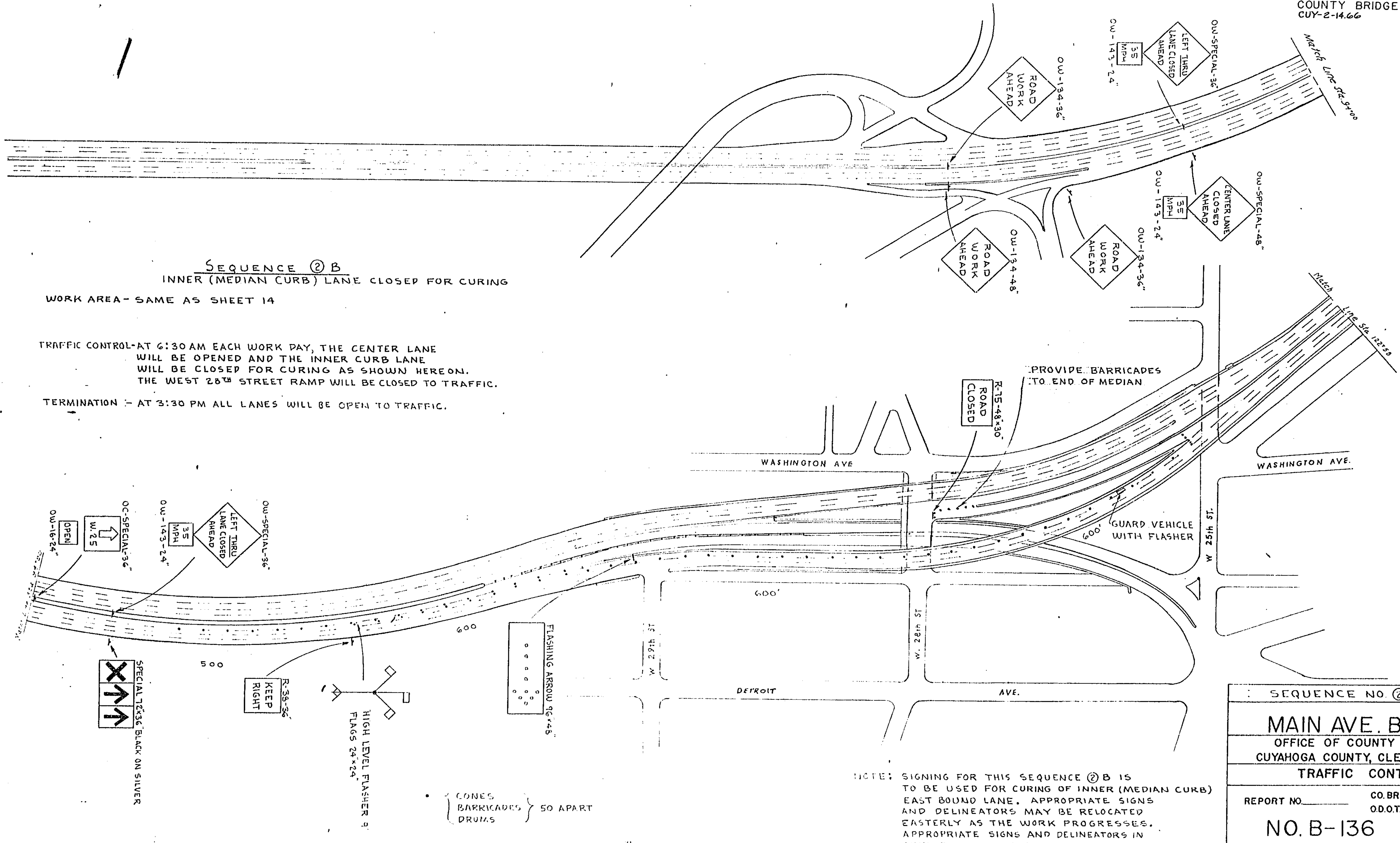
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN	DATE
NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE. CHECK BY FIELD SURVEY.	

PROFILE	DATE
NOTE: ALL DIMENSIONS SHOWN ARE APPROXIMATE. CHECK BY FIELD SURVEY.	



SEQUENCE ② B
INNER (MEDIAN CURB) LANE CLOSED FOR CURING

WORK AREA - SAME AS SHEET 14

TRAFFIC CONTROL - AT 6:30 AM EACH WORK DAY, THE CENTER LANE WILL BE OPENED AND THE INNER CURB LANE WILL BE CLOSED FOR CURING AS SHOWN HEREON. THE WEST 26TH STREET RAMP WILL BE CLOSED TO TRAFFIC.

TERMINATION - AT 3:30 PM ALL LANES WILL BE OPEN TO TRAFFIC.

NOTE: SIGNING FOR THIS SEQUENCE ② B IS TO BE USED FOR CURING OF INNER (MEDIAN CURB) EAST BOUND LANE. APPROPRIATE SIGNS AND DELINEATORS MAY BE RELOCATED EARLIER AS THE WORK PROGRESSES. APPROPRIATE SIGNS AND DELINEATORS IN SIMILAR PATTERNS SHALL BE USED ON WEST BOUND LANES

SEQUENCE NO. ② B	
MAIN AVE. BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
TRAFFIC CONTROL	
REPORT NO. _____	CO. BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466	
NO. B-136	
SCALE 1"=100'-0"	DATE 4-11-73
DRAWN BY: [Signature] CHECKED BY: [Signature]	
REVISION	15/24

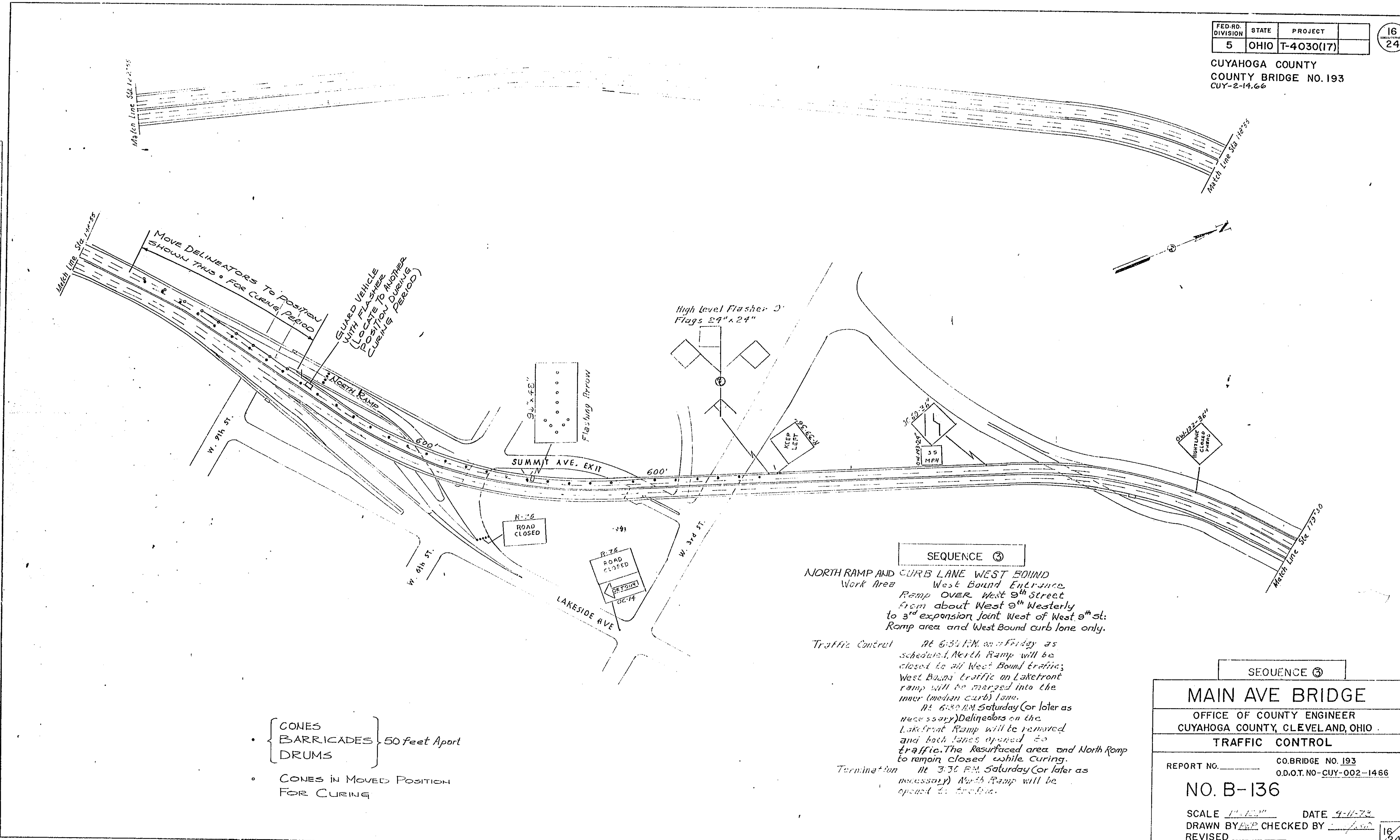
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN	DATE	BY
	NO.	NO.
PROFILE	DATE	BY
	NO.	NO.

PROFILE	DATE	BY
	NO.	NO.
PLAN	DATE	BY
	NO.	NO.



- CONES, BARRICADES, DRUMS - 50 feet Apart
- CONES IN MOVED POSITION FOR CURING

SEQUENCE 3

NORTH RAMP AND CURB LANE WEST BOUND
Work Area West Bound Entrance
Ramp OVER West 9th Street
From about West 9th Westerly
to 3rd expansion joint West of West 9th St.
Ramp area and West Bound curb lane only.

Traffic Control At 6:30 P.M. on Friday as scheduled, North Ramp will be closed to all West Bound traffic; West Bound traffic on Lakeside ramp will be merged into the inner (median curb) lane.
At 6:30 A.M. Saturday (or later as necessary) Delimiters on the Lakeside Ramp will be removed and both lanes opened to traffic. The Resurfaced area and North Ramp to remain closed while curing.
Termination At 3:30 P.M. Saturday (or later as necessary) North Ramp will be opened to traffic.

SEQUENCE 3

MAIN AVE BRIDGE
OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO
TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. - CUY-002-1466

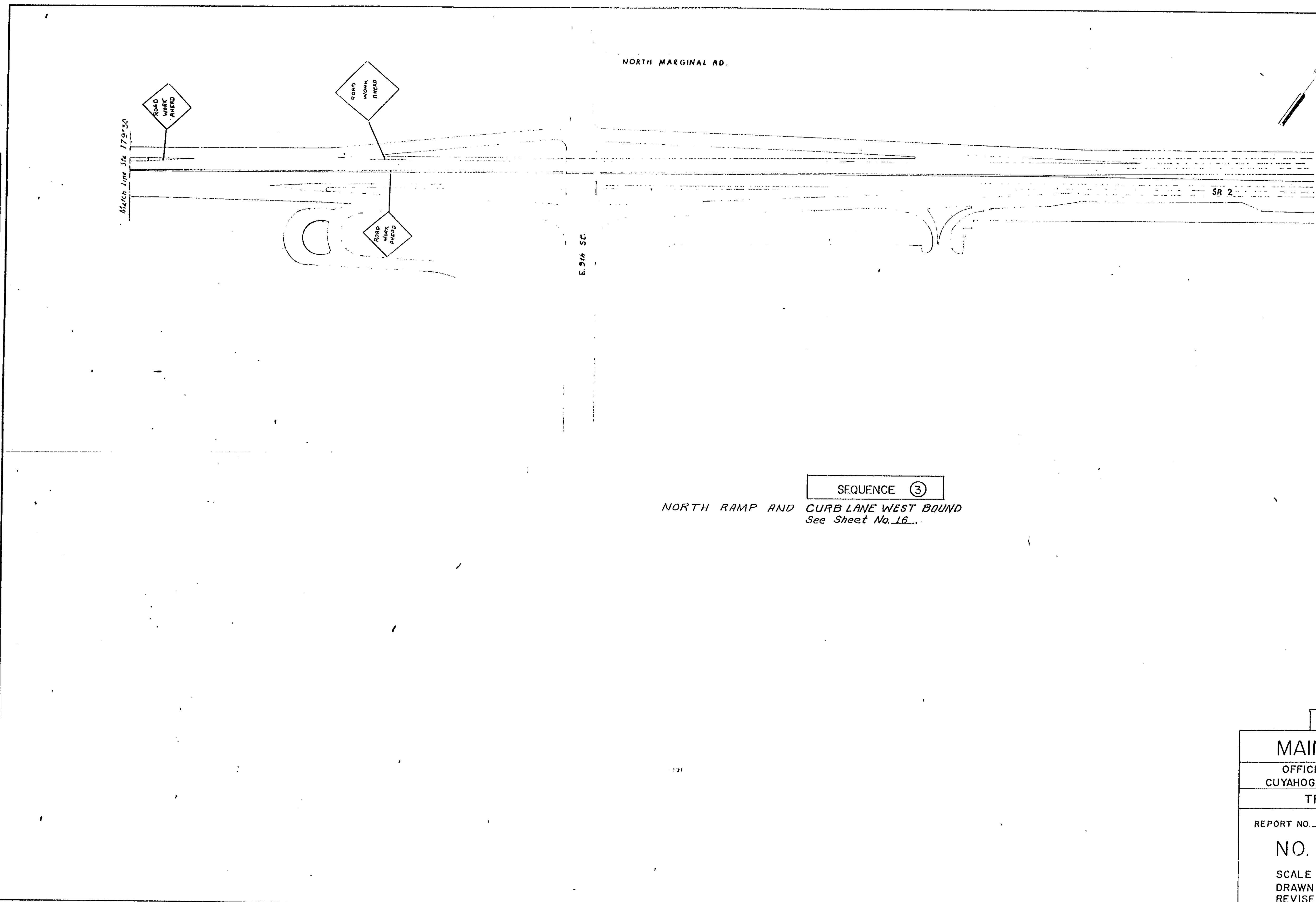
NO. B-136

SCALE 1" = 100' DATE 4-11-73
DRAWN BY [Signature] CHECKED BY [Signature]
REVISED _____

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PLAN	
DATE	BY
REVISIONS	
NOTED	
ALIGNED CHECKED	
NOTE BOOK NO.	
DATE	

PROFILE	
DATE	BY
REVISIONS	
NOTED	
ALIGNED CHECKED	
NOTE BOOK NO.	
DATE	



17 24		
FED. RD. DIVISION	STATE	PROJECT
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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
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SEQUENCE ③

NORTH RAMP AND CURB LANE WEST BOUND
See Sheet No. 16...

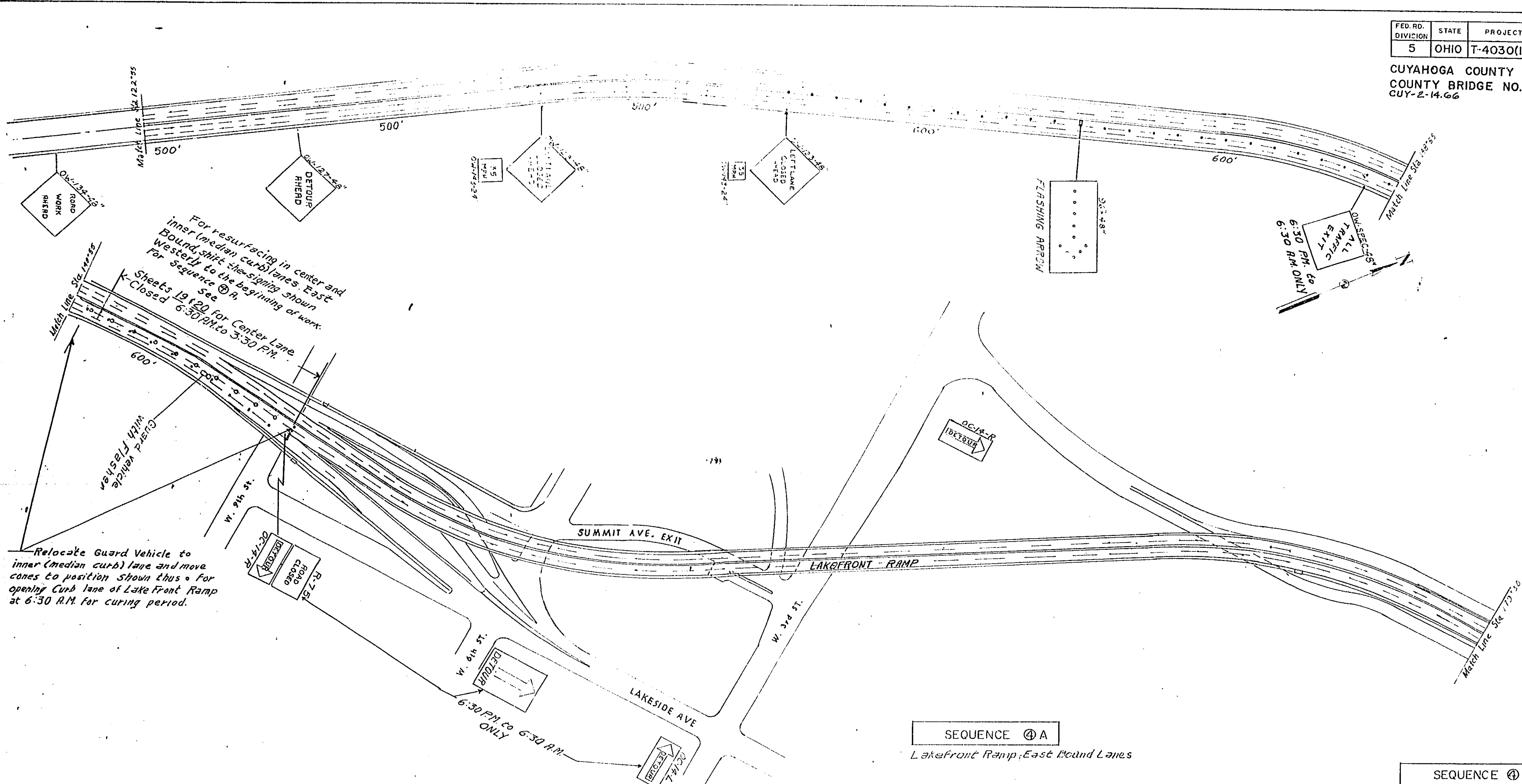
SEQUENCE ③

MAIN AVE. BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
TRAFFIC CONTROL	
REPORT NO. _____	CO. BRIDGE NO. 193 O.D.O.T. NO. CUY-002-1466
NO. B-136	
SCALE 1"=100'	DATE 4-11-73
DRAWN BY <i>AWC</i>	CHECKED BY <i>SAI</i>
REVISED _____	17 24

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CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14-66

PLAN	DATE	
	BY	
PROFILE	DATE	
	BY	



PROFILE	DATE	
	BY	
PLAN	DATE	
	BY	

Cones
Barricades
Drums

50' feet apart

• Cones in moved position
for curing. See SHEET 2 1/4

NOTE: Signing for this part of Sequence ④ A is to be used for the resurfacing of both East Bound lanes and curing of inner (median curb) lane. Appropriate delineators shall be extended to the East as work progresses from West to East.

SEQUENCE ④ A
Lakefront Ramp, East Bound Lanes

Work Area - East Bound Lanes.

Traffic Control - At 6:30 PM on workday in scheduled period merge all traffic into the curb lane and exit all traffic, detouring by way of West 3rd Street and the Shoreway entrance. At 6:30 AM when the inner (median curb) lane has been resurfaced the outer curb lane will be opened to traffic. At 6:30 AM when the outer curb lane has been resurfaced the inner (median curb) lane will be opened to traffic, SEE SHEETS 20 & 21.

Termination - At 3:30 PM all lanes open to traffic.

SEQUENCE ④ A	
MAIN AVE BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
TRAFFIC CONTROL	
REPORT NO.	CO. BRIDGE NO. 193 O.D.O.T. NO. CUY-002-1466
NO. B-136	
SCALE 1"=100'	DATE 2-11-66
DRAWN BY R.P.	CHECKED BY S.A.
REVISED	

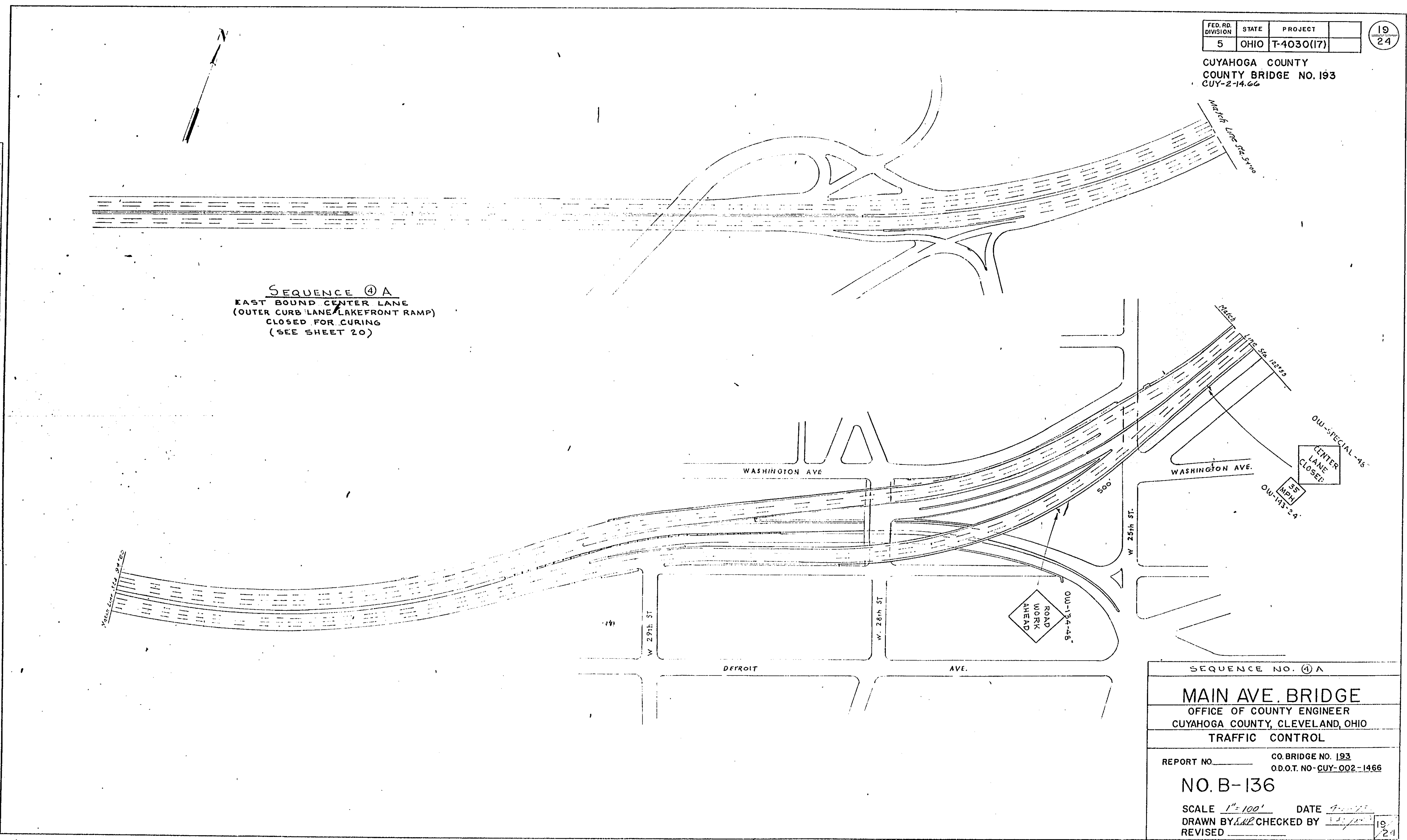
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

19
24

CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN	DATE	
	BY	
NOTE BOOK	NOTED	
	IT. OF WAY CHECKED	

PROFILE	DATE	
	BY	
NOTE BOOK	NOTED	
	STRUCTURE NOTATIONS CHECKED	



SEQUENCE NO. ④ A

MAIN AVE. BRIDGE

OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466

NO. B-136

SCALE 1"=100' DATE 7-1-77
DRAWN BY L.H.R. CHECKED BY J.S.J. 1977
REVISED _____ 1977

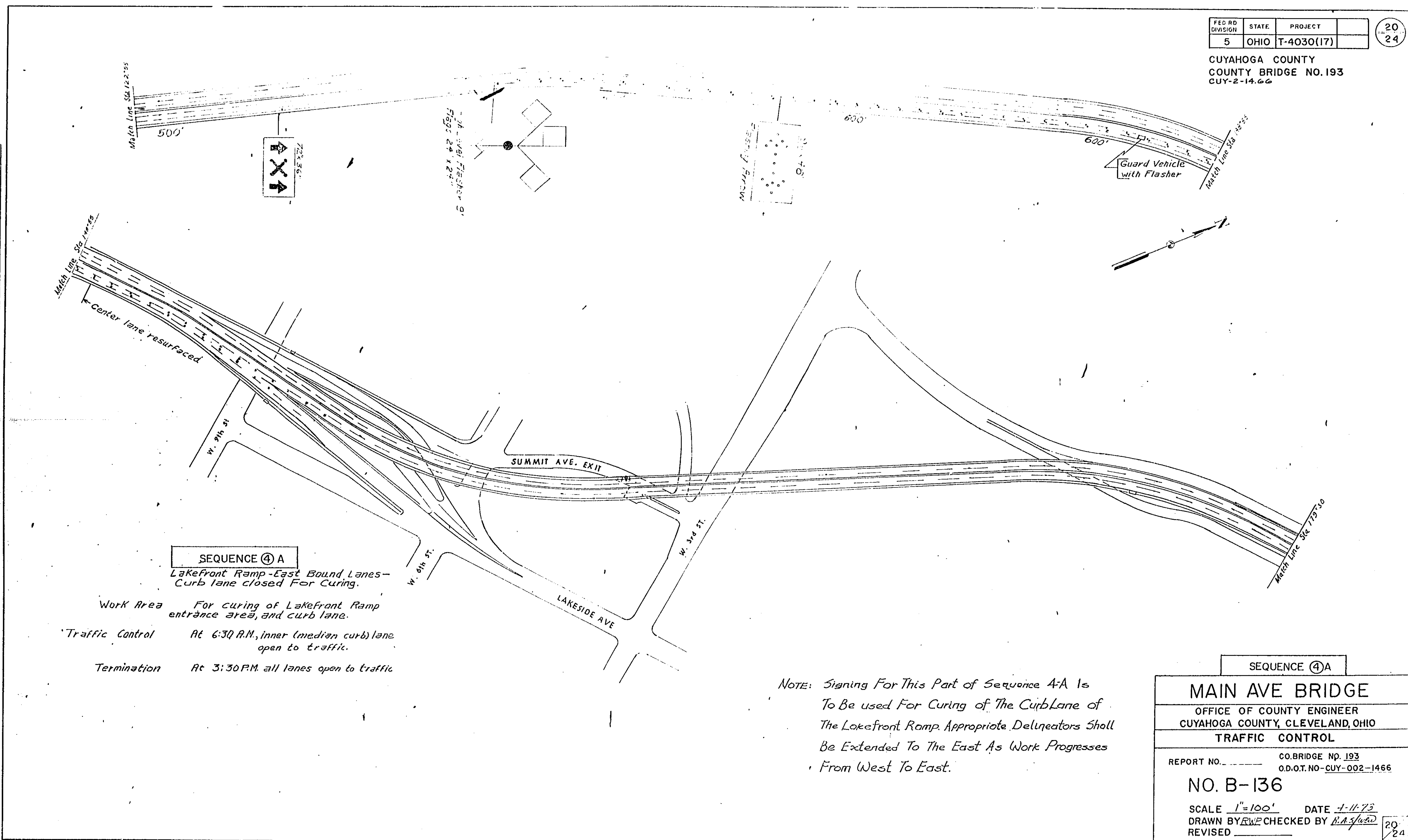
FED RD DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

20
24

CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66

PLAN	DATE	BY
	NO.	
PROFILE	DATE	BY
	NO.	
SURVEYED PHOTO ALIGNMENT CHECKED NOTE BOOK IT. OR WAT. CHECKED NO.		

PROFILE	DATE	BY
	NO.	
PLAN	DATE	BY
	NO.	
SURVEYED PHOTO ALIGNMENT CHECKED NOTE BOOK IT. OR WAT. CHECKED NO.		



SEQUENCE ④ A
Lakefront Ramp - East Bound Lanes -
Curb lane closed For Curing.

Work Area For curing of Lakefront Ramp entrance area, and curb lane.
Traffic Control At 6:30 A.M., inner (median curb) lane open to traffic.
Termination At 3:30 P.M. all lanes open to traffic.

NOTE: Signing For This Part of Sequence 4-A Is To Be used For Curing of The Curb Lane of The Lakefront Ramp. Appropriate Delineators Shall Be Extended To The East As Work Progresses From West To East.

SEQUENCE ④ A

MAIN AVE BRIDGE

OFFICE OF COUNTY ENGINEER
CUYAHOGA COUNTY, CLEVELAND, OHIO

TRAFFIC CONTROL

REPORT NO. _____ CO. BRIDGE NO. 193
O.D.O.T. NO. CUY-002-1466

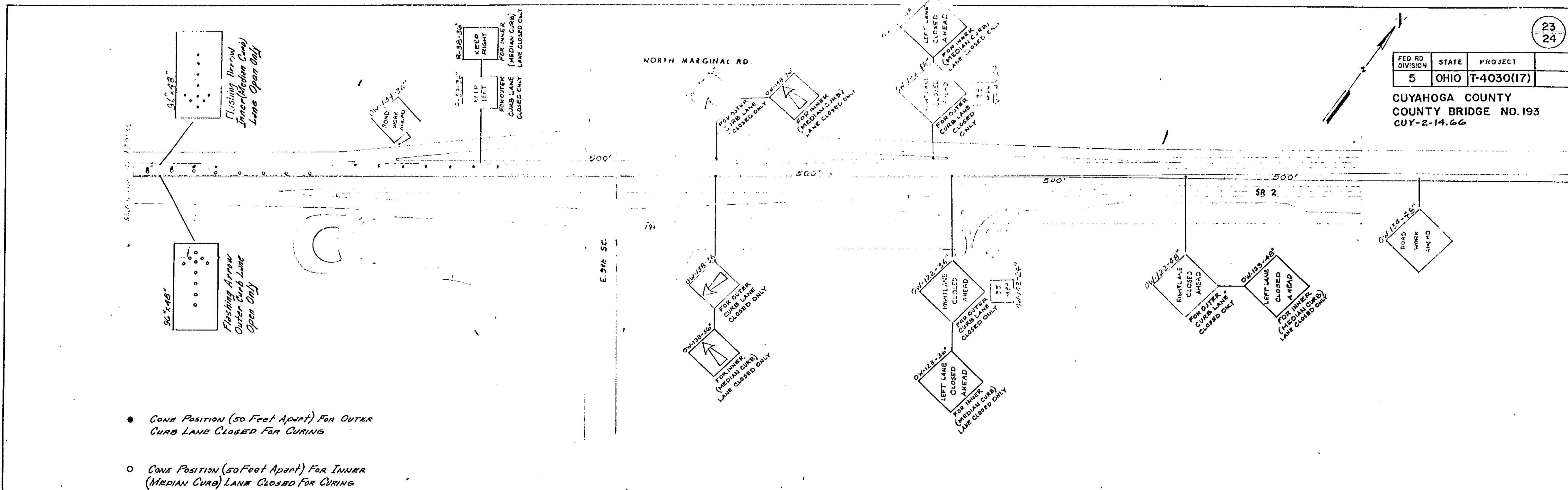
NO. B-136

SCALE 1"=100' DATE 4-11-73
DRAWN BY RWP CHECKED BY R.A.S./vld
REVISED _____

20
24

FED RD DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14.66



- Cone Position (50 Feet Apart) For Outer Curb Lane Closed For Curing
- Cone Position (50 Feet Apart) For Inner (Median Curb) Lane Closed For Curing

SEQUENCE (A) B

LakeFront Ramp - West Bound Lanes.

Work Area - Outer curb or inner (Median Curb) lane closed for curing
 Traffic Control - At 6:30 AM following work periods open to traffic the lane adjacent to the lane resurfaced
 Termination - At 3:30 PM open both lanes to traffic

NOTE:
 Signing for this Sequence (A) B is to be used for curing of outer curb lane and inner (Median Curb) lane of the LakeFront Ramp West Bound Lanes. Appropriate Delineators shall be extended to the west as work proceeds East to West.

SEQUENCE (A) B

MAIN AVE. BRIDGE
 OFFICE OF COUNTY ENGINEER
 CUYAHOGA COUNTY, CLEVELAND, OHIO
TRAFFIC CONTROL
 REPORT NO. _____ CO. BRIDGE NO. 193
 O.D.O.T. NO. CUY-002-1466
NO. B-136
 SCALE 1"=100' DATE 4-11-73
 DRAWN BY [Signature] CHECKED BY [Signature]
 REVISED _____

PLAN

DATE	BY

QUANTITY: _____
 ROUTE: _____
 PROJECT: _____
 DRAWN BY: _____
 CHECKED BY: _____

PROFILE

DATE	BY

QUANTITY: _____
 ROUTE: _____
 PROJECT: _____
 DRAWN BY: _____
 CHECKED BY: _____

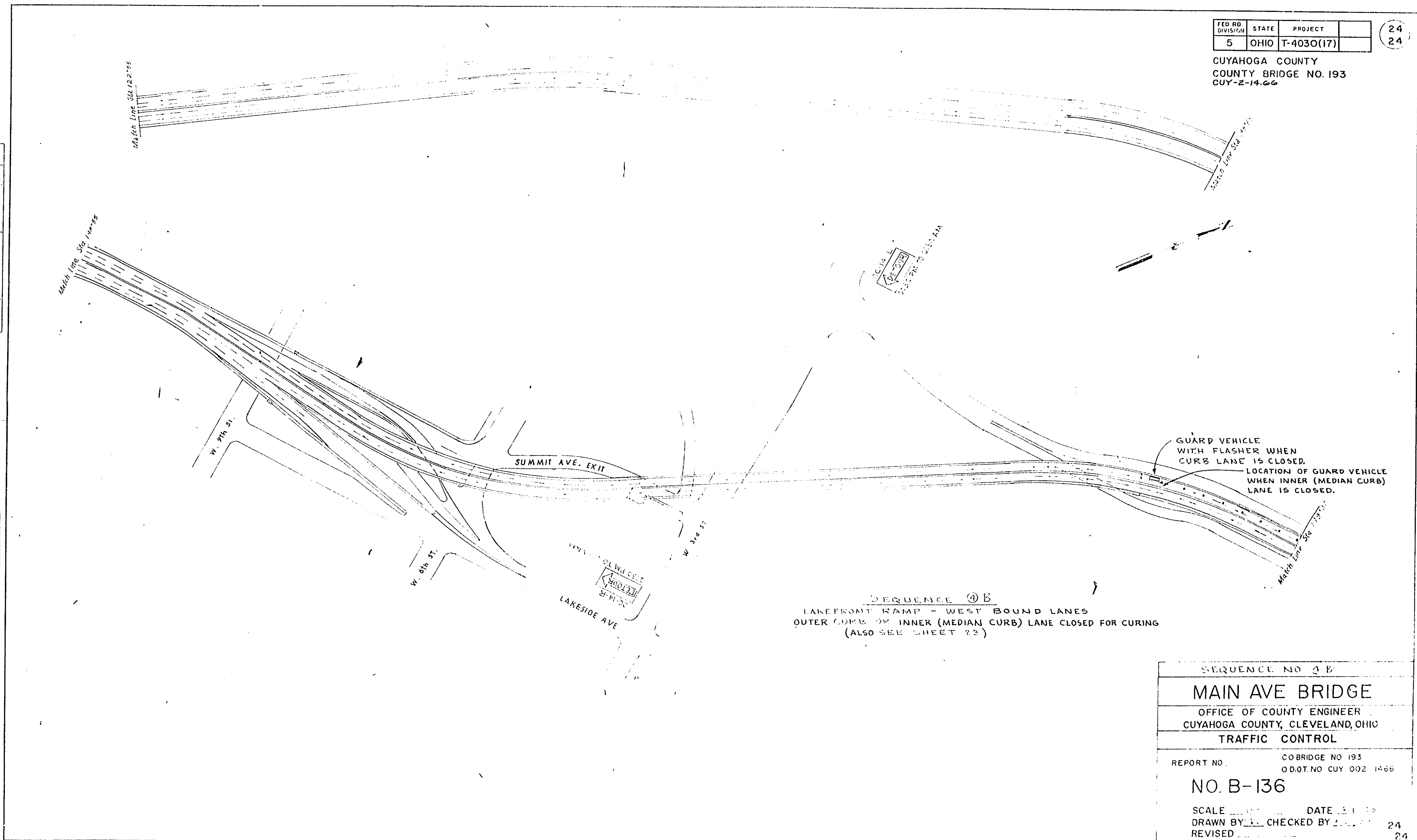
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	T-4030(17)

24
24

CUYAHOGA COUNTY
COUNTY BRIDGE NO. 193
CUY-2-14-66

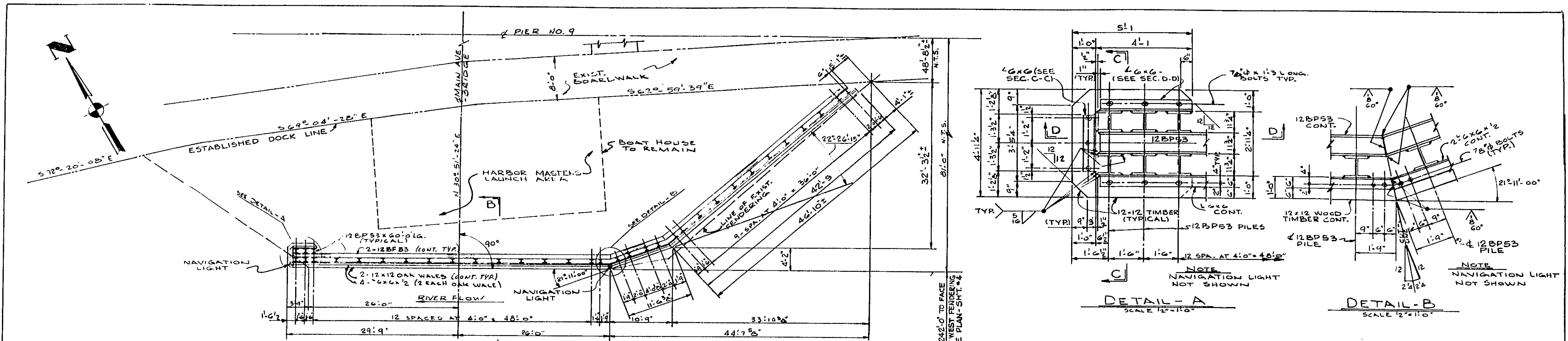
PLAN	DATE
DATE: _____ BY: _____ CHECKED: _____ NOTE BOOK: _____ ALIGNMENT CHECKED: _____ PT. OF WAY CHECKED: _____ NO. _____	

PROFILE	DATE
DATE: _____ BY: _____ CHECKED: _____ NOTE: _____ NO. _____	



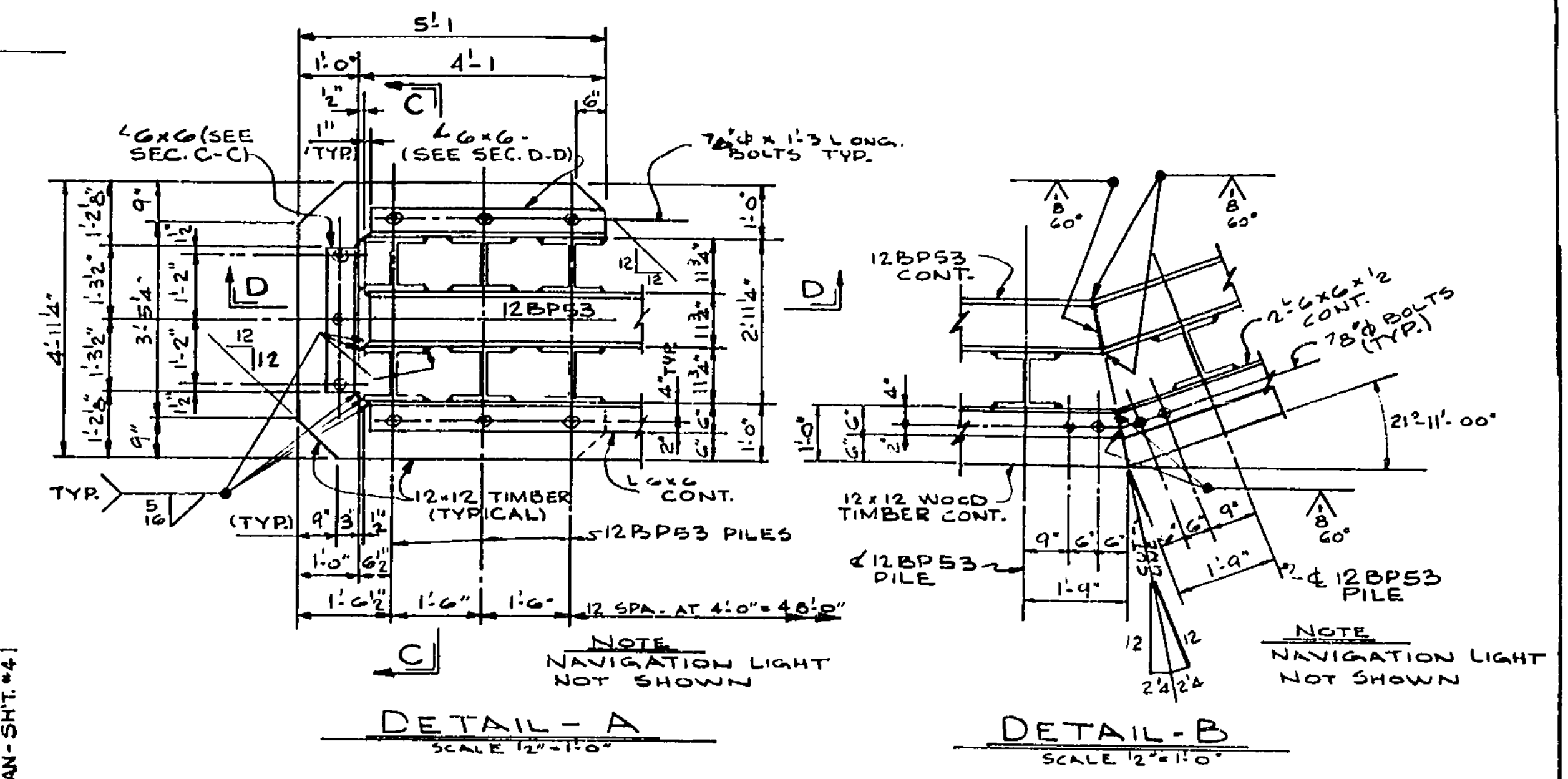
SEQUENCE 4 B
LAKEFRONT RAMP - WEST BOUND LANES
OUTER CURB OR INNER (MEDIAN CURB) LANE CLOSED FOR CURING
(ALSO SEE SHEET 23)

SEQUENCE NO. 4 B	
MAIN AVE BRIDGE	
OFFICE OF COUNTY ENGINEER CUYAHOGA COUNTY, CLEVELAND, OHIO	
TRAFFIC CONTROL	
REPORT NO.	COBRIDGE NO 193 O.D.O.T. NO CUY 002 14-66
NO. B-136	
SCALE	DATE 11 19
DRAWN BY	CHECKED BY
REVISED	24



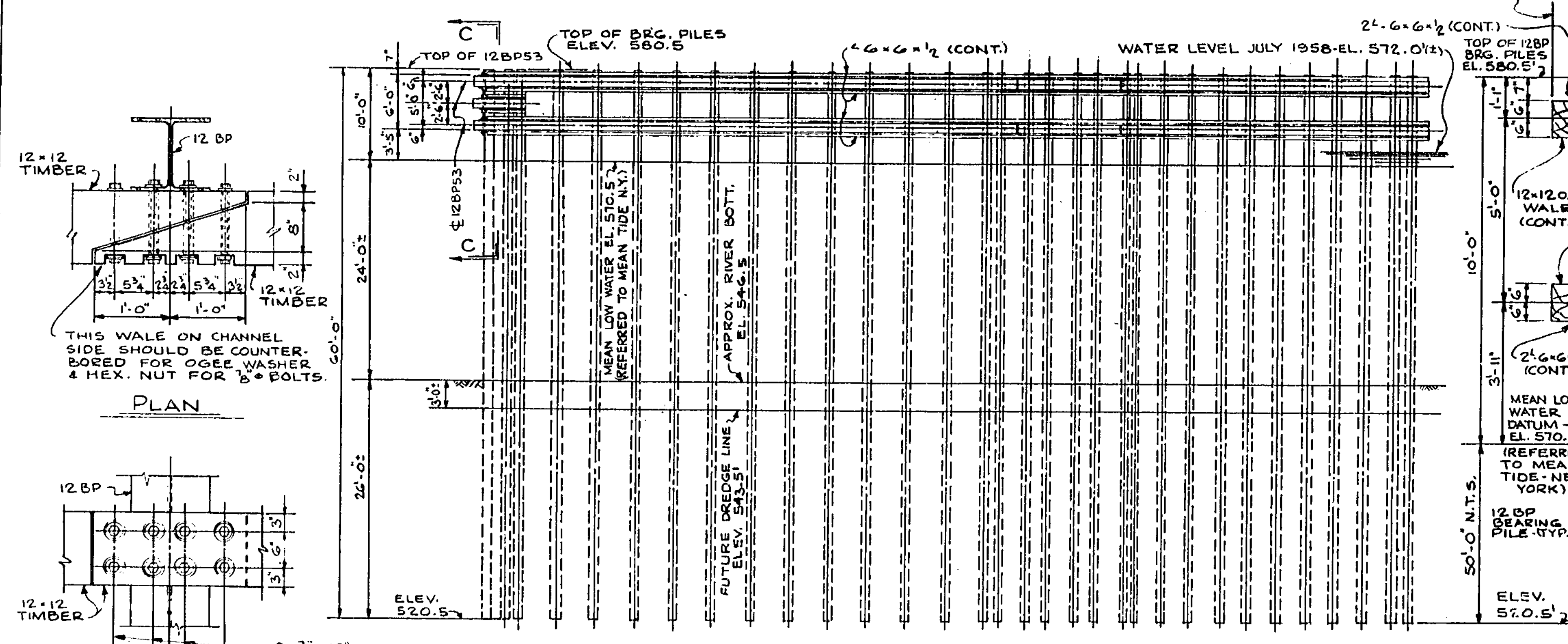
NOTE:
ALL PILES AND FRAMING MEMBERS TO BE 12BP53 (ALL WELDED CONSTRUCTION) (25 MINIMUM WELD)

PLAN OF EAST FENDERING
SCALE: 1/2" = 1'-0"

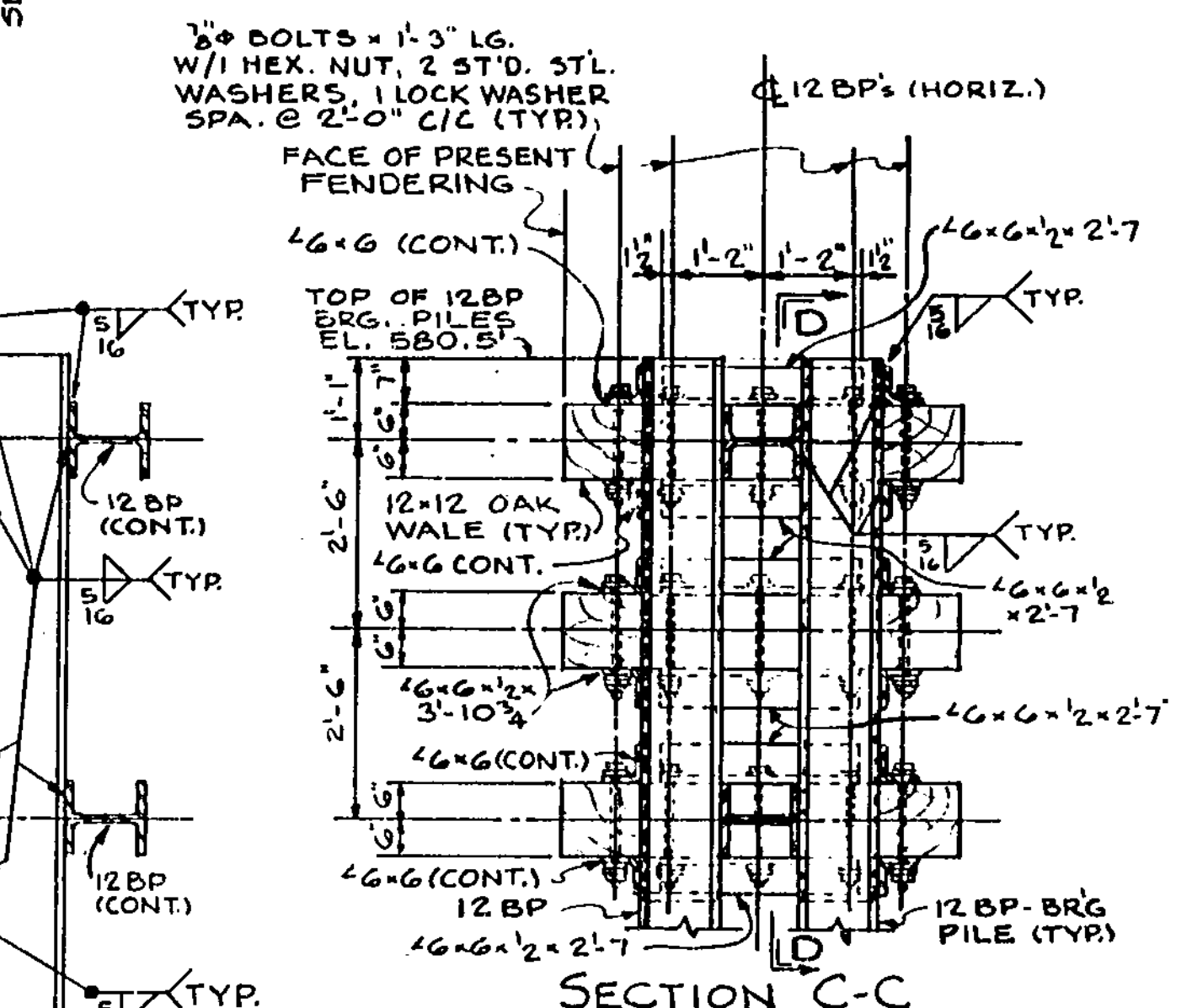


DETAIL-A
SCALE: 1/2" = 1'-0"

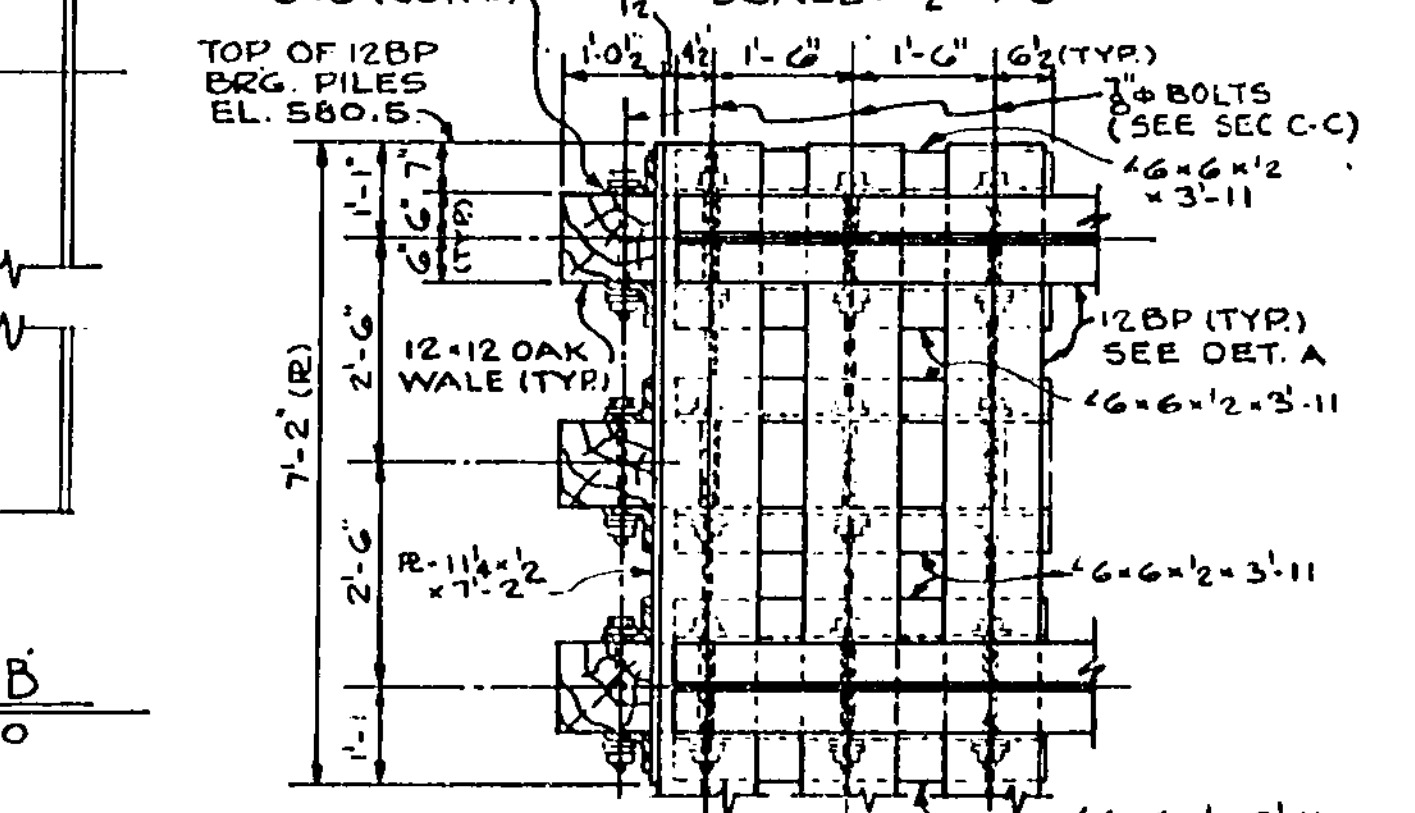
DETAIL-B
SCALE: 1/2" = 1'-0"



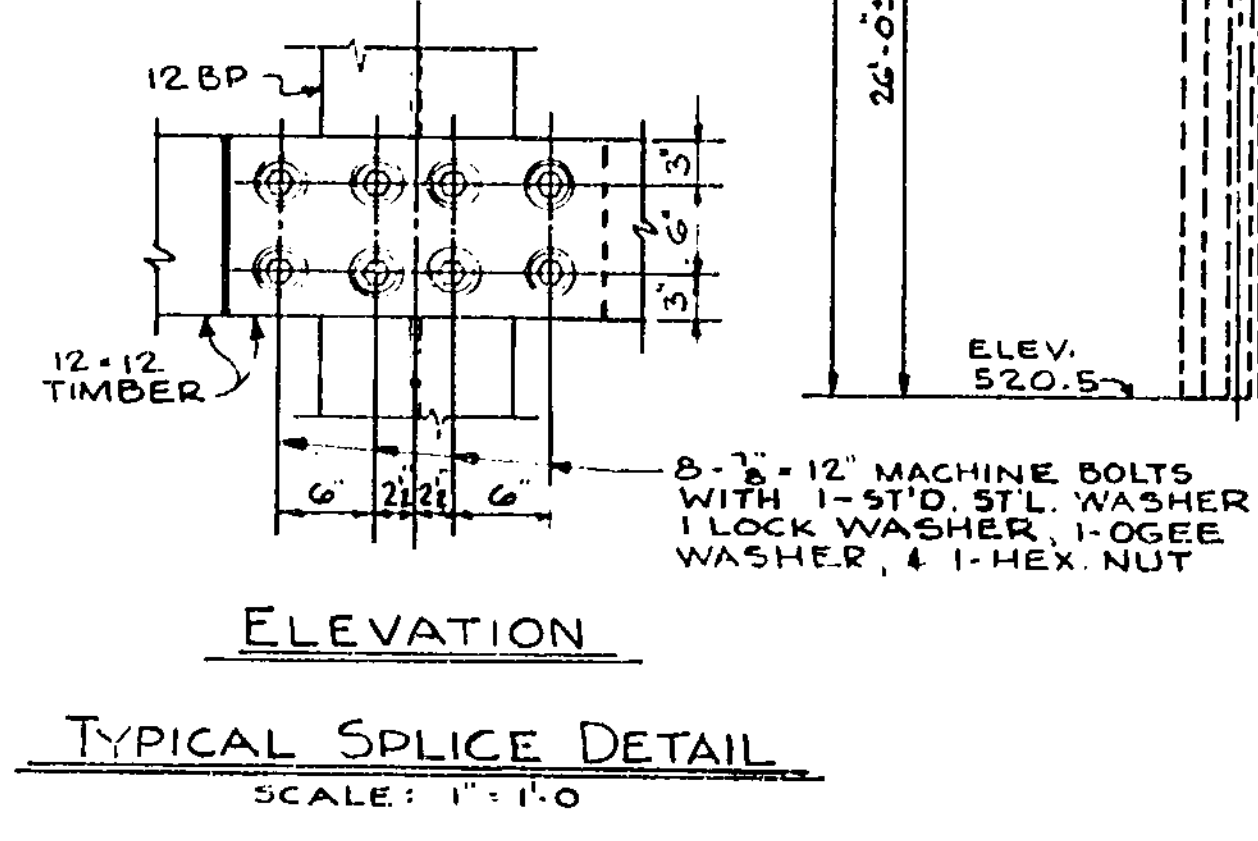
ELEVATION
SCALE: 1/2" = 1'-0"



SECTION C-C
SCALE: 1/2" = 1'-0"



SECTION D-D
SCALE: 1/2" = 1'-0"



TYPICAL SPLICE DETAIL
SCALE: 1" = 1'-0"

GENERAL NOTES:

ITEM SPECIAL - STEEL SHEET PILING - DOLPHINS.

ITEM SPECIAL - STEEL W PILES 12BP53.

ITEM 3-7 & SPECIAL - MISCELLANEOUS STRUCTURAL STEEL - INCLUDING BOLTS, NUTS & WASHERS.

FIELD PAINTING -
ALL MATERIALS EMBRACED IN THE ABOVE ITEMS SHALL BE GIVEN TWO COATS OF PAINT AT THE TIME OF INSTALLATION. H-PILES SHALL BE PAINTED FROM THE TOP DOWN TO A POINT WHICH WILL NOT BE LESS THAN TWO FEET BELOW LOW WATER DATUM ELEVATION 570.5' IN THE FINISHED FENDERINGS.
THE PAINT TO BE USED IN COATING ALL COMPONENTS IN EACH ITEM SHALL BE A HEAVY DUTY COAL TAR PAINT, COLD APPLIED, CONFORMING WITH THE SPECIFICATIONS FOR KOPPERS CO., INC. BITUMASTIC NO. 50 OR APPROVED EQUAL.
BEFORE THE APPLICATION OF THE PAINT, THE PILING SURFACES SHALL BE REASONABLY CLEAN, FREE OF LOOSE RUST, LOOSE MILL SCALE, AND ALL DIRT AND DEBRIS. ANY AREAS WHERE THE PAINT HAS BEEN DAMAGED SHALL BE REPAINTED WITH TWO COATS OF THE SAME PAINT AS ABOVE SPECIFIED.

ITEM 3-13 AND SPECIAL - TIMBER WALES AND FENDERS.
THE MATERIAL USED IN THIS ITEM SHALL BE 1900 F. RED OAK.
ALL TIMBER SHALL BE CREOSOTED. THE AMOUNT OF PRESERVATIVE RETAINED SHALL BE 10 LBS PER CU. FT. OF TIMBER. THE PRESERVATIVE SHALL BE GRADE 1 CREOSOTE OIL. THE TREATED TIMBER, THE PRESERVATIVE, AND THE PRESERVATIVE TREATMENT SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS. ALL CUTTING, FRAMING, AND BORING OF TREATED TIMBERS SHALL BE DONE BEFORE TREATMENT INsofar AS IS PRACTICABLE. ALL CUTS IN CREOSOTED TIMBERS SHALL BE COVERED WITH TWO APPLICATIONS OF A MIXTURE OF 60% CREOSOTE OIL AND 40% ROOFING PITCH OR BRUSH COATED WITH TWO APPLICATIONS OF HOT CREOSOTE OIL AND COVERED WITH HOT ROOFING PITCH. DRILLED HOLES TO BE 1/16" UNDERSIZE AND BOLTS DRIVEN HOME. HOLES TO BE SWABBED WITH HOT CREOSOTE OIL PRIOR TO PLACING OF BOLTS.

ONE PRIME COAT (FIELD) BITUMASTIC MILL UNDERCOAT SHALL BE APPLIED ON ALL STEEL WALES AND PLATE AND ANGLE WALE CONNECTIONS.

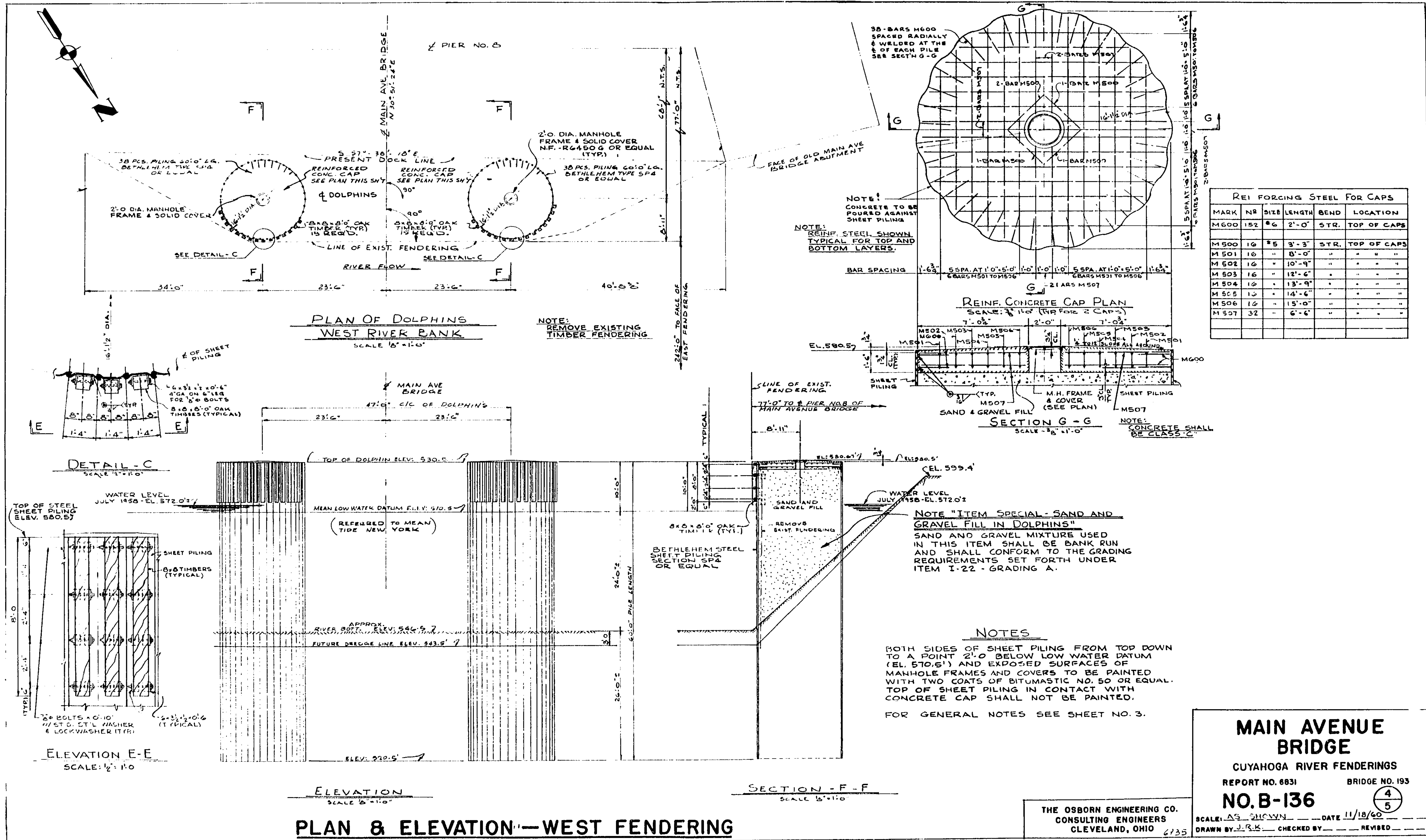
ALL BEARING PILES SHALL BE FURNISHED FULL LENGTH.

ALL WELDING TO CONFORM TO A.W.S. STANDARDS.

PLAN & ELEVATION - EAST FENDERING

THE OSBORN ENGINEERING CO.
CONSULTING ENGINEERS
CLEVELAND, OHIO

MAIN AVENUE BRIDGE
CUYAHOGA RIVER FENDERINGS
REPORT NO. 6831 BRIDGE NO. 193
NO. B-136
SCALE: AS SHOWN DATE 11/18/50
DRAWN BY J.R. K... CHECKED BY S.H. REVISED



**PLAN OF DOLPHINS
WEST RIVER BANK**
SCALE 1/8" = 1'-0"

REINFORCING CONCRETE CAP PLAN
SCALE: 1/4" = 1'-0" (FOR PILES 2 CAPS)

DETAIL - C
SCALE 1/2" = 1'-0"

ELEVATION E-E
SCALE: 1/2" = 1'-0"

ELEVATION
SCALE 1/2" = 1'-0"

SECTION - F-F
SCALE 1/2" = 1'-0"

PLAN & ELEVATION - WEST FENDERING

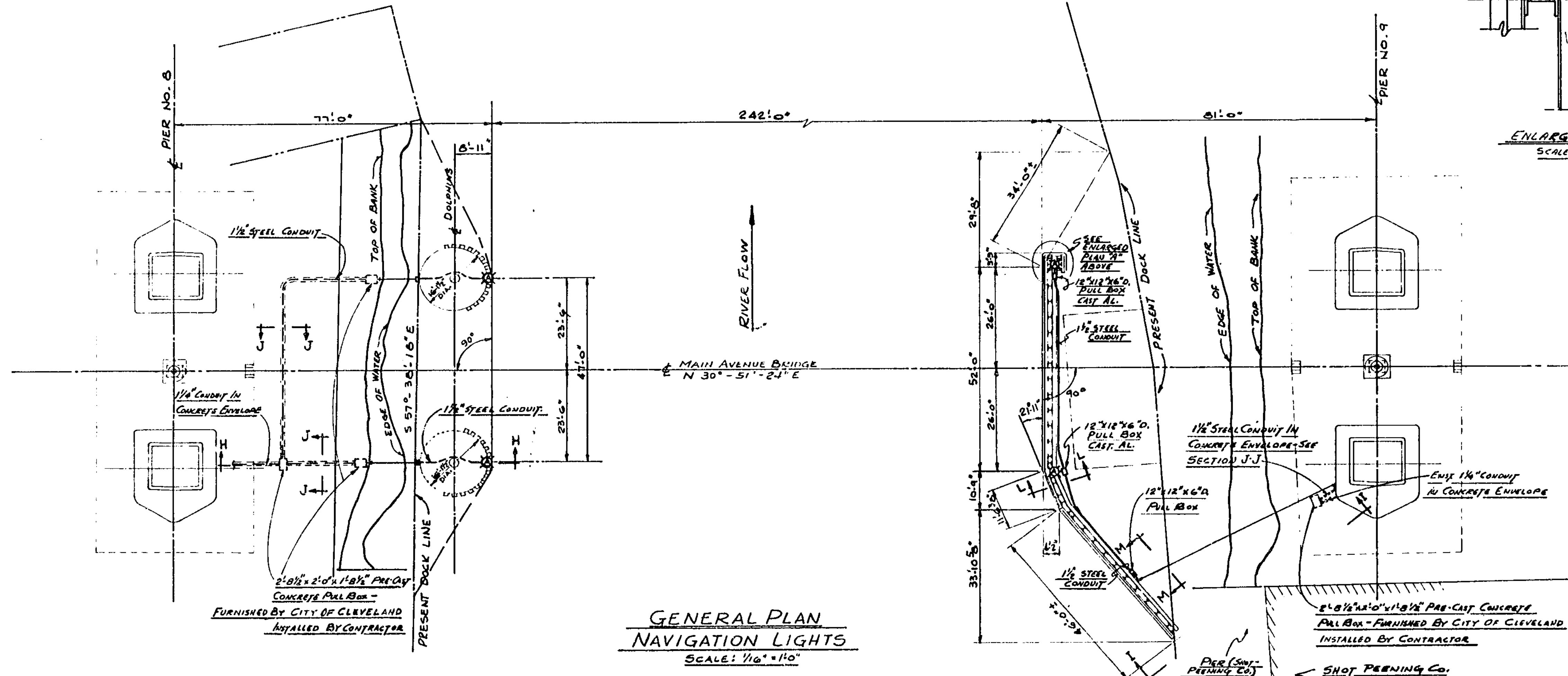
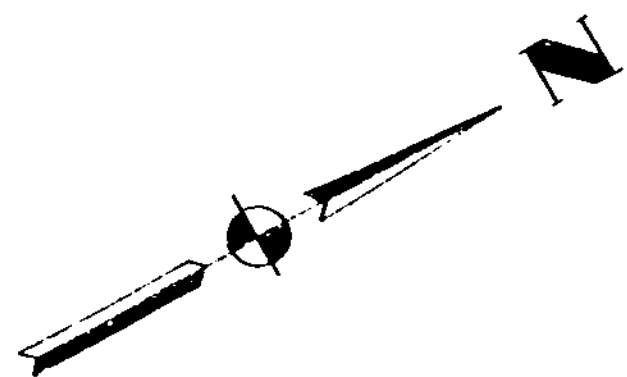
REINFORCING STEEL FOR CAPS					
MARK	NR	SIZE	LENGTH	BEND	LOCATION
M600	152	#6	2'-0"	STR.	TOP OF CAPS
M500	16	#5	3'-3"	STR.	TOP OF CAPS
M501	16	"	8'-0"	"	"
M502	16	"	10'-9"	"	"
M503	16	"	12'-6"	"	"
M504	16	"	13'-9"	"	"
M505	16	"	14'-6"	"	"
M506	16	"	15'-0"	"	"
M507	32	"	6'-6"	"	"

NOTE "ITEM SPECIAL - SAND AND GRAVEL FILL IN DOLPHINS"
SAND AND GRAVEL MIXTURE USED IN THIS ITEM SHALL BE BANK RUN AND SHALL CONFORM TO THE GRADING REQUIREMENTS SET FORTH UNDER ITEM I-22 - GRADING A.

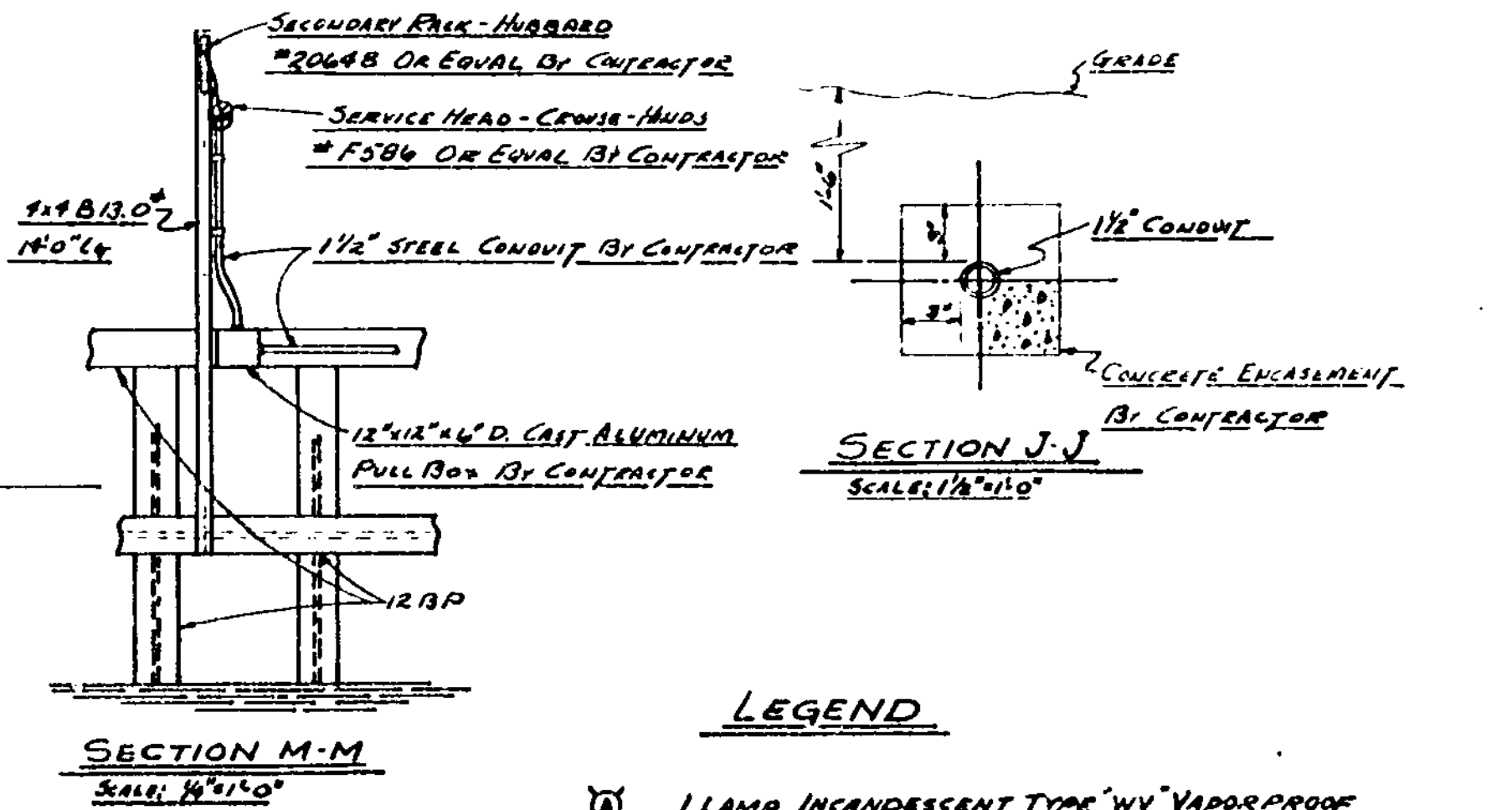
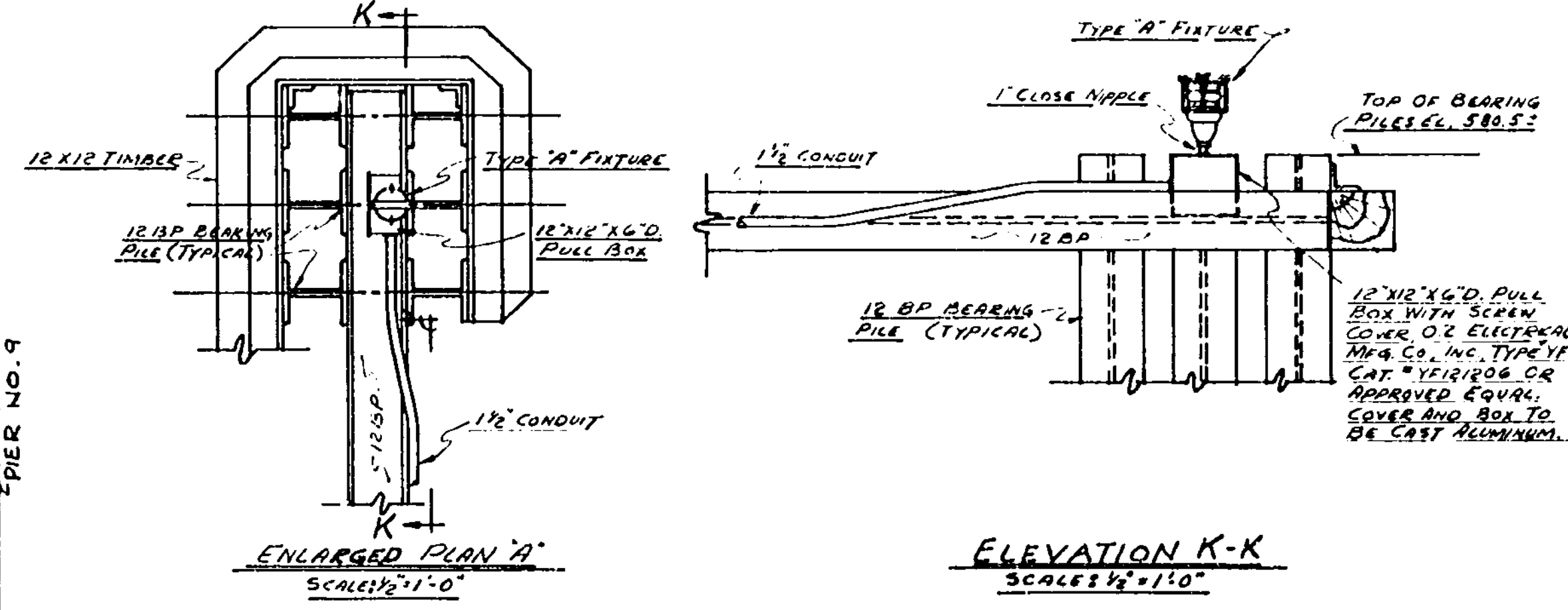
NOTES
BOTH SIDES OF SHEET PILING FROM TOP DOWN TO A POINT 2'-0" BELOW LOW WATER DATUM (EL. 570.6') AND EXPOSED SURFACES OF MANHOLE FRAMES AND COVERS TO BE PAINTED WITH TWO COATS OF BITUMASTIC NO. 50 OR EQUAL. TOP OF SHEET PILING IN CONTACT WITH CONCRETE CAP SHALL NOT BE PAINTED.
FOR GENERAL NOTES SEE SHEET NO. 3.

**MAIN AVENUE
BRIDGE**
CUYAHOGA RIVER FENDERINGS
REPORT NO. 6831 BRIDGE NO. 193
NO. B-136
SCALE: AS SHOWN DATE 11/18/60
DRAWN BY J.R.K. CHECKED BY _____ REVISED _____

THE OSBORN ENGINEERING CO.
CONSULTING ENGINEERS
CLEVELAND, OHIO 44115

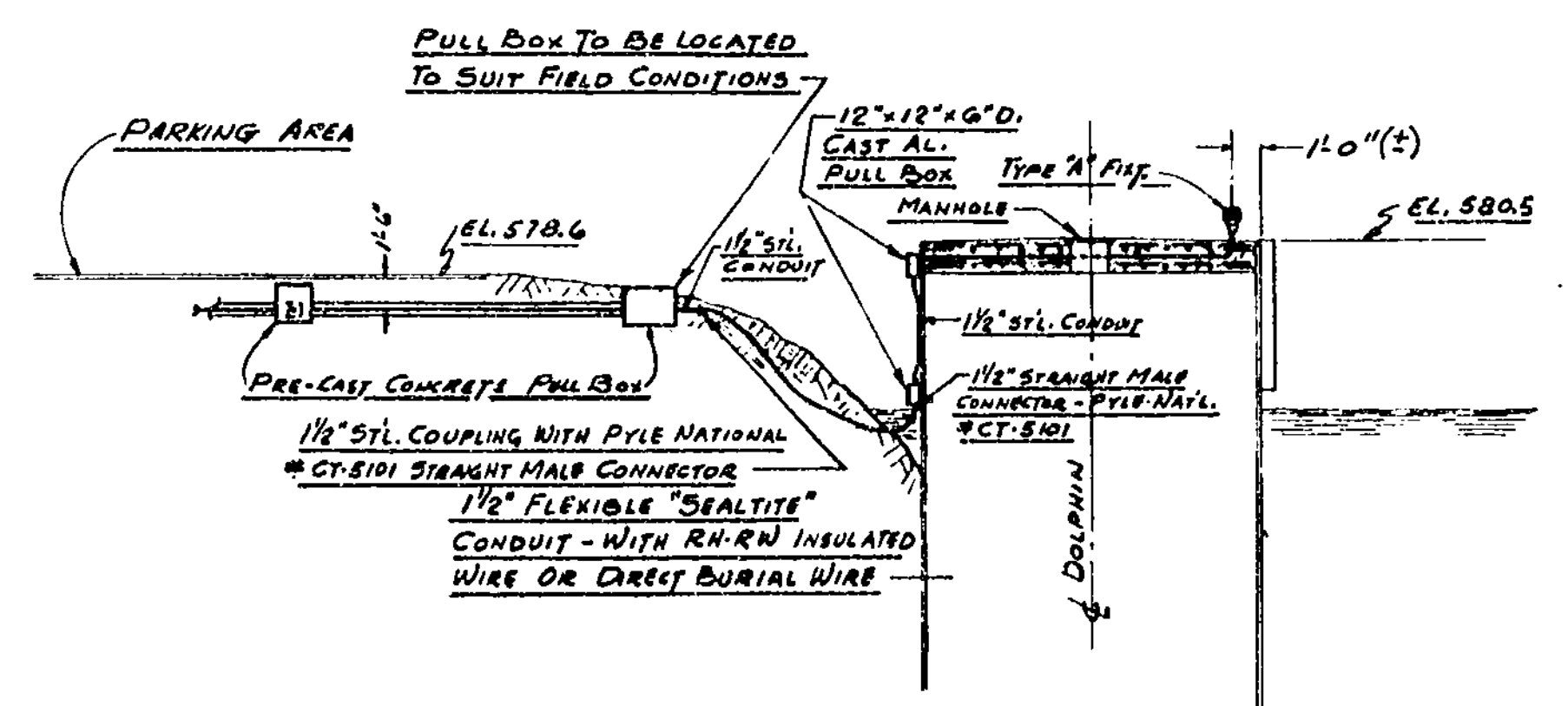


**GENERAL PLAN
NAVIGATION LIGHTS**
SCALE: 1/4" = 1'-0"

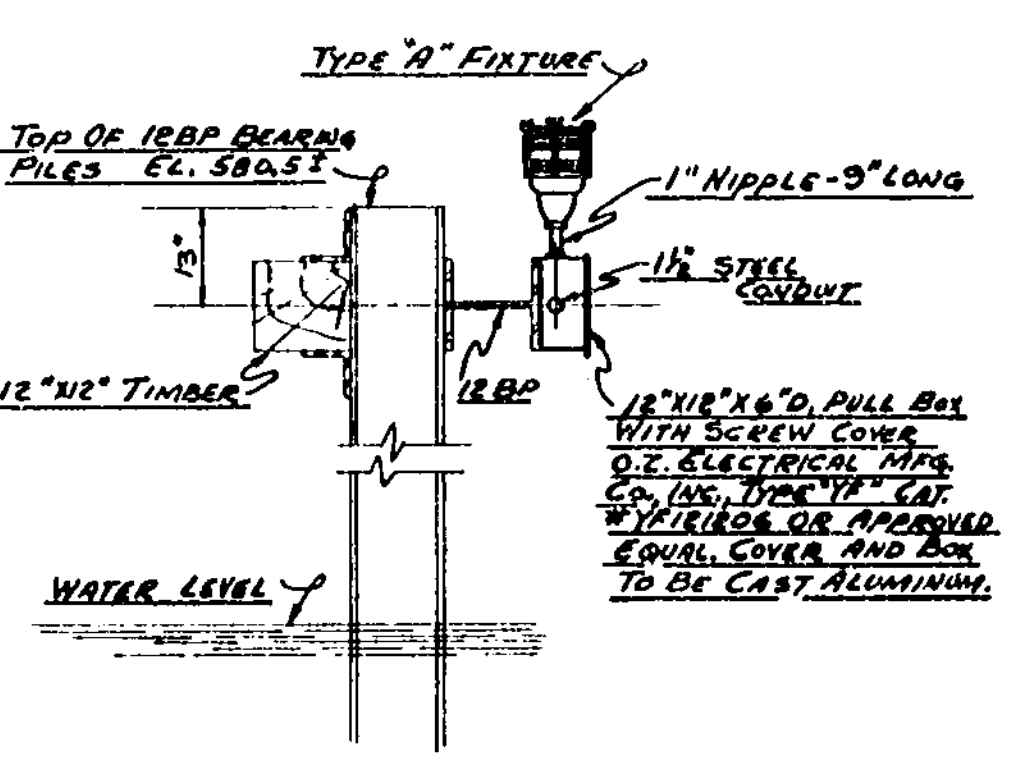


LEGEND

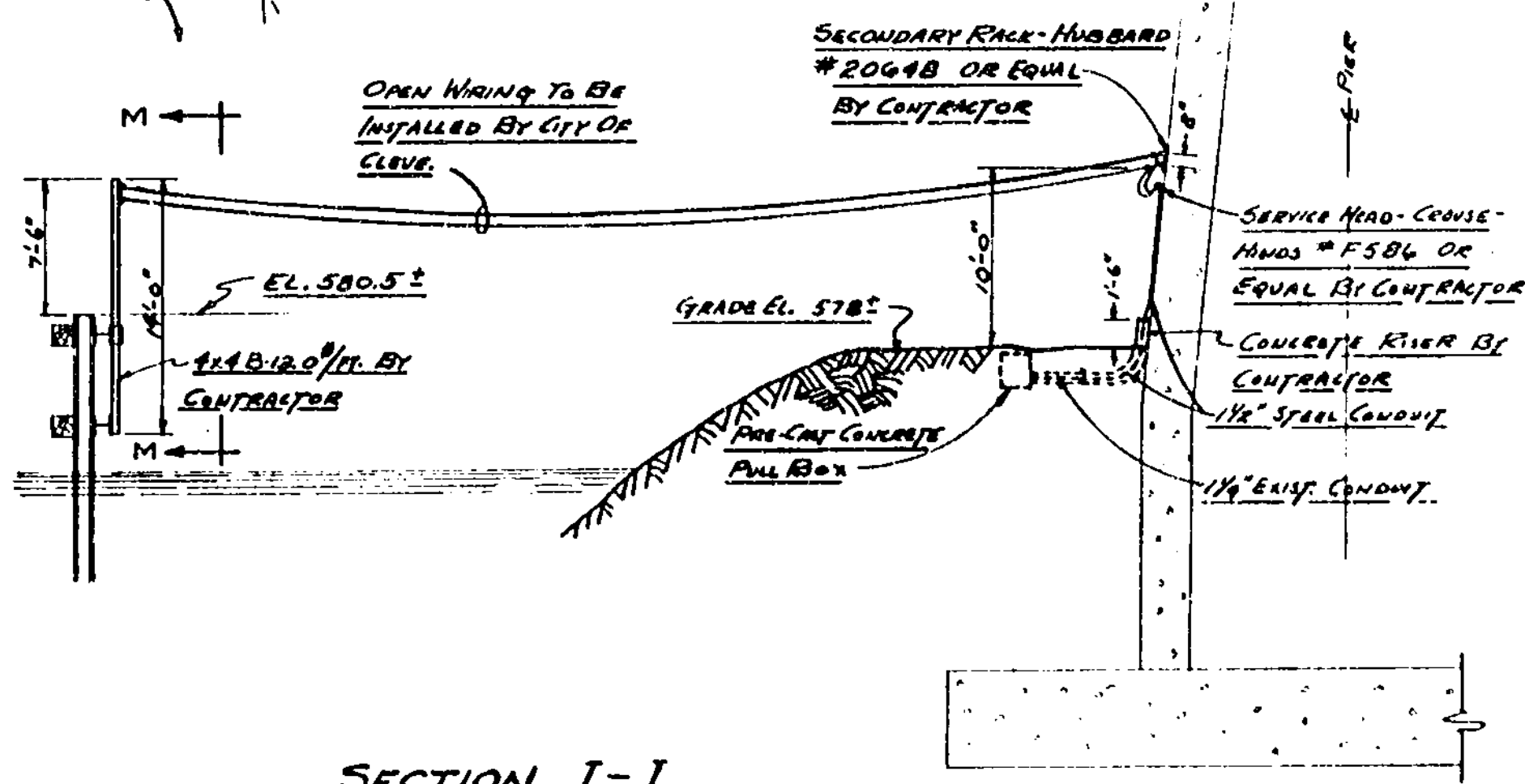
☐ 1 LAMP INCANDESCENT TYPE 'WV' VAPOR-PROOF FIXTURE WITH 1" HUB AND 6" RED FRESNEL LENS CROSS-HINDS CAT. NO. WV375.



SECTION H-H
SCALE: 1/8" = 1'-0"



SECTION L-L
SCALE: 1/2" = 1'-0"



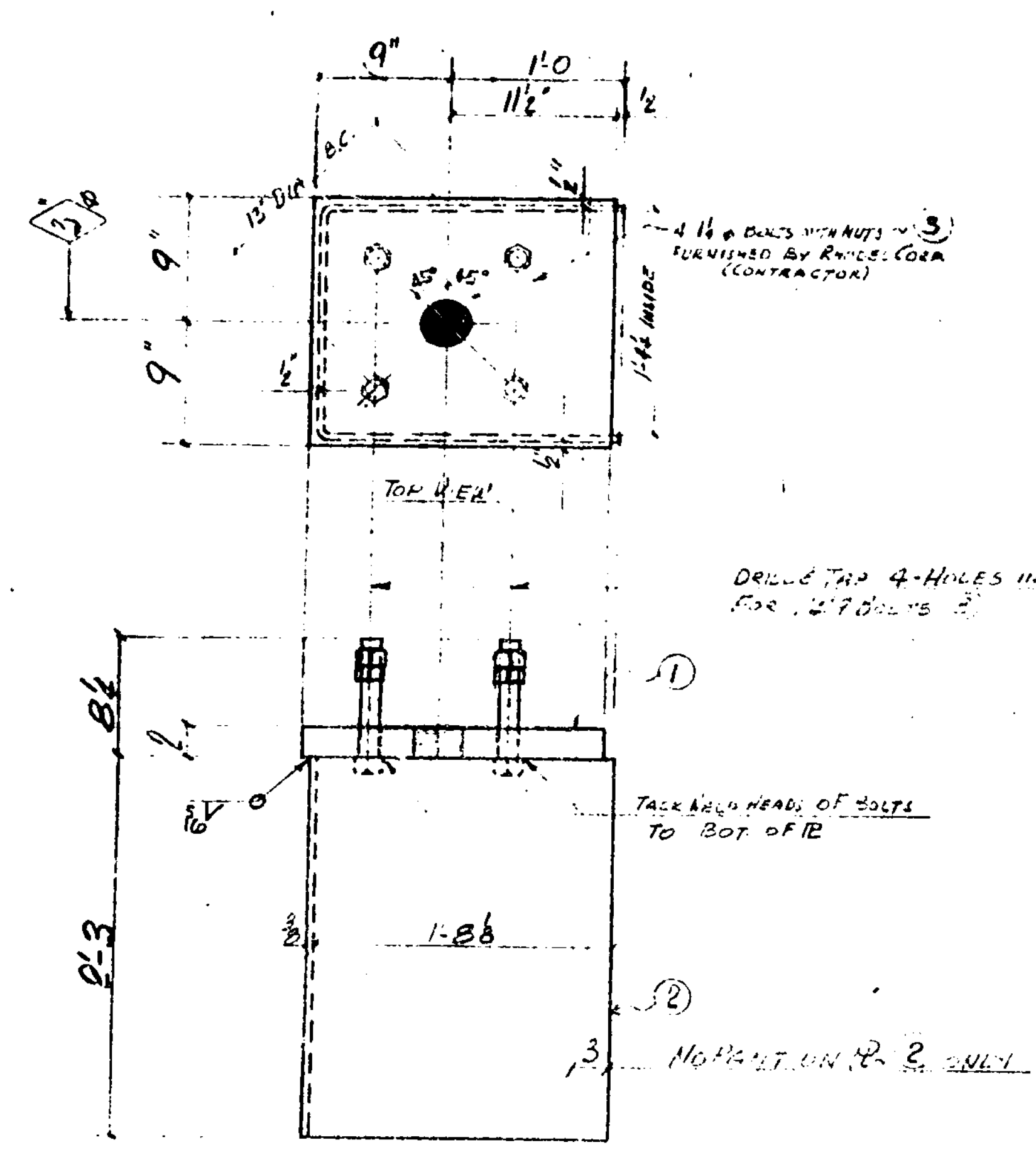
SECTION I-I
SCALE: 1/2" = 1'-0"

- NOTE:**
1. ALL WIRING TO BE INSTALLED BY CITY OF CLEVELAND.
 2. CONCRETE UNDERGROUND PULL BOXES TO BE FURNISHED BY CITY OF CLEVELAND, BUT ARE TO BE INSTALLED BY CONTRACTOR.
 3. CONTRACTOR TO REMOVE EXISTING CONDUIT & FIXTURES ON EXISTING FENDERING.
 4. CONTRACTOR SHALL SUBMIT TO THE COUNTY ENGINEER FOR APPROVAL, A PROPOSED METHOD FOR SUPPORTING AND FASTENING ALL REQUIRED CONDUIT AND PULL BOXES TO THE FENDERING FRAMEWORK.

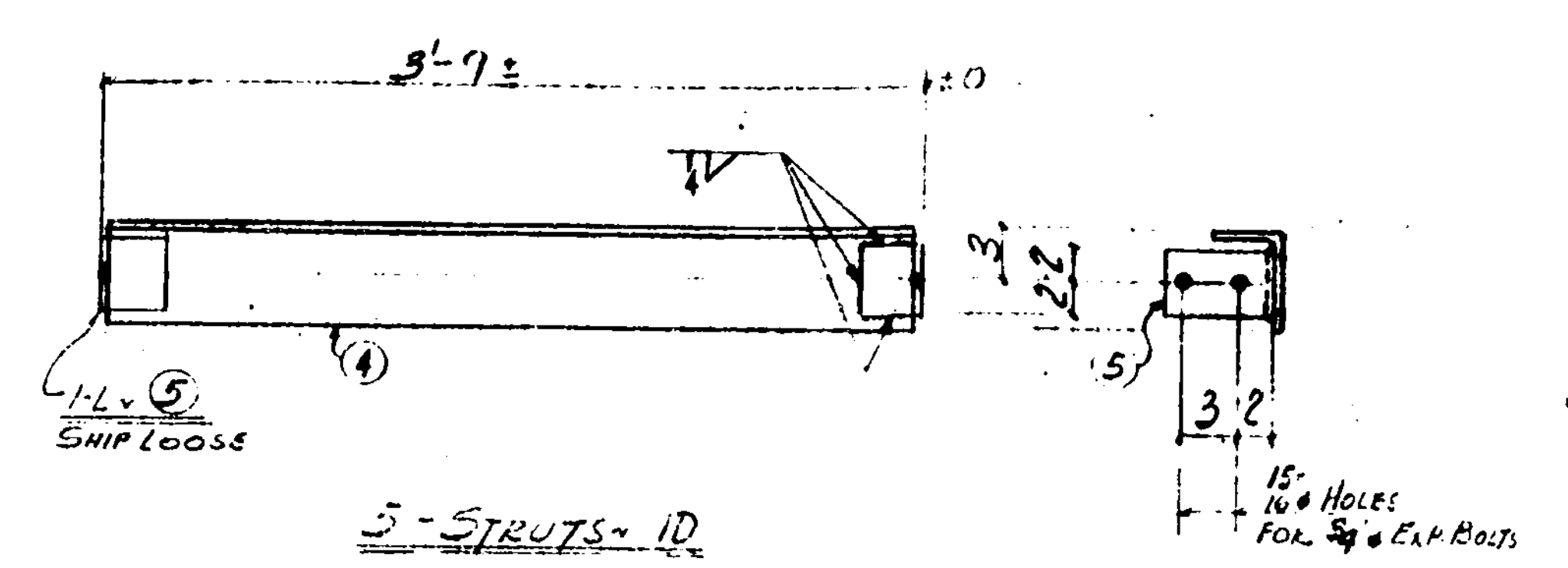
ELECTRICAL EQUIPMENT - FOR NAVIGATION LIGHTS

THE OSBORN ENGINEERING CO.
CONSULTING ENGINEERS
CLEVELAND, OHIO 6935

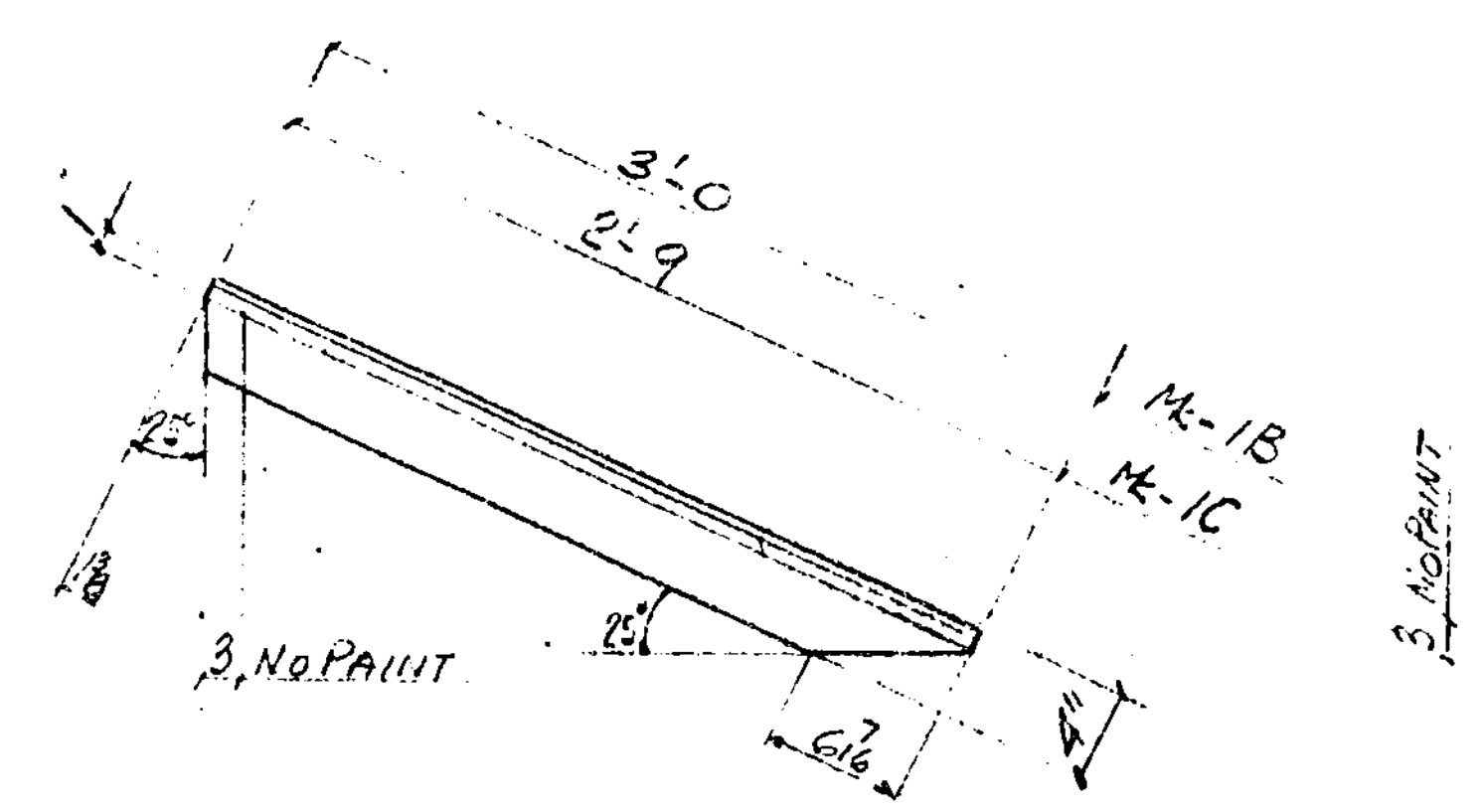
**MAIN AVENUE
BRIDGE**
CUYAHOGA RIVER FENDERINGS
REPORT NO. 6831 BRIDGE NO. 193
NO. B-136
SCALE: AS NOTED DATE: 11/18/60
DRAWN BY: S.J.K. CHECKED BY: J.P. REVISOR: 5/5



61 - LIGHT POLE SUPPORTS - M-1A



5 - STRUTS - 1D
5 - CLIP ANGLES - 1-E



62 - KNEE BRACES - M-1B
60 - do - M-1C

BILL OF MATERIAL					
QTY	MARK	ASSEM FC	DESCRIPTION	LENGTH	
				FT	IN
61	1A		LIGHT POLE SUPPORT (Height 2'-11")		
1-1	61		R 12x2 W/HLS	1	8 1/2
1-2	61		R 27x3 BENT	4	8 1/2
1-3	200		1 1/2" BOLT (FURNISHED BY ENG'G CORP)		
	489		1/4" Hex. Nuts		
62	1B		KNEE BRACES		
			L 6x3 1/2x3/8	3	0
60	1C		L 6x3 1/2x3/8	2	9
5	1D		STRUTS		
1-4	5		L 6x3 1/2x3/8	3	8 1/2
1-5	5		L 6x3 1/2x3/8 W/HLS	0	4
5	1-E		CLIP ANGLES		
			L 6x3 1/2x3/8 W/HLS	0	4
4	1F		PLAIN MATERIAL		
			R 12x2 - NO PAINT	1	2 1/2
58	1G		L 6x3 1/2x3/8 NO PAINT	5	1 1/2
60	1H		L 6x3 1/2x3/8 - NO PAINT	0	5
2	1K		L 6x3 1/2x3/8 - NO PAINT	6	11 1/2
20			3/4" EXP. BOLTS		
20			3/4" HARDENED BOLTS	0	3 1/2

ALBERT S. PORTER P.E.
CUYAHOGA COUNTY ENGINEER

APPROVED

APPROVED AS NOTED

REVISE AND RESUBMIT

NOT APPROVED

BY E. A. HALUPNIK P.E.
BRIDGE ENGINEER
DATE 6-16-69

NO.	DATE	REVISIONS

PRINT RECORD

CHECKER	SHOP
APPROVAL	ERECTOR
FINAL APPROVAL	DIST

THE PATERSON-LEITCH CO.
900 EAST 69th STREET P.O. BOX 5698
CLEVELAND, OHIO 44101

CONTRACTOR THE RHODES CORPORATION
JOB NAME RECONSTRUCTION OF ST. CATHARINE
LOCATION CITY OF CLEVELAND, 4th AND BAKER STS. NEAR 6115
DETAILS OF STEEL WORK - DRAWING 513

DRAWN BY P.M. DATE 5-20-69
CHKD BY S.A. DATE 5-22-69

PART NO. 100-100-100
HOLES AS NOTED
CONTRACT 46-54-69

REF: CITY OF CLEVELAND Dwg. No. B-126- (3) AND (4) DATED 3-27-69

Rec'd 6-16-69 BJS