

NOTE:
 REMOVE EXISTING TIMBER FENDERINGS
 AND ACCESSORIES TO OR BELOW THE
 ELEVATION OF THE FUTURE DREGGED
 DEPTH OF THE RIVER (E.L. 543.50).

TYPICAL DETAIL -
 PILE CLUSTER &
 FENDERING CONNECTION
 SCALE: 1/2"=1'-0"

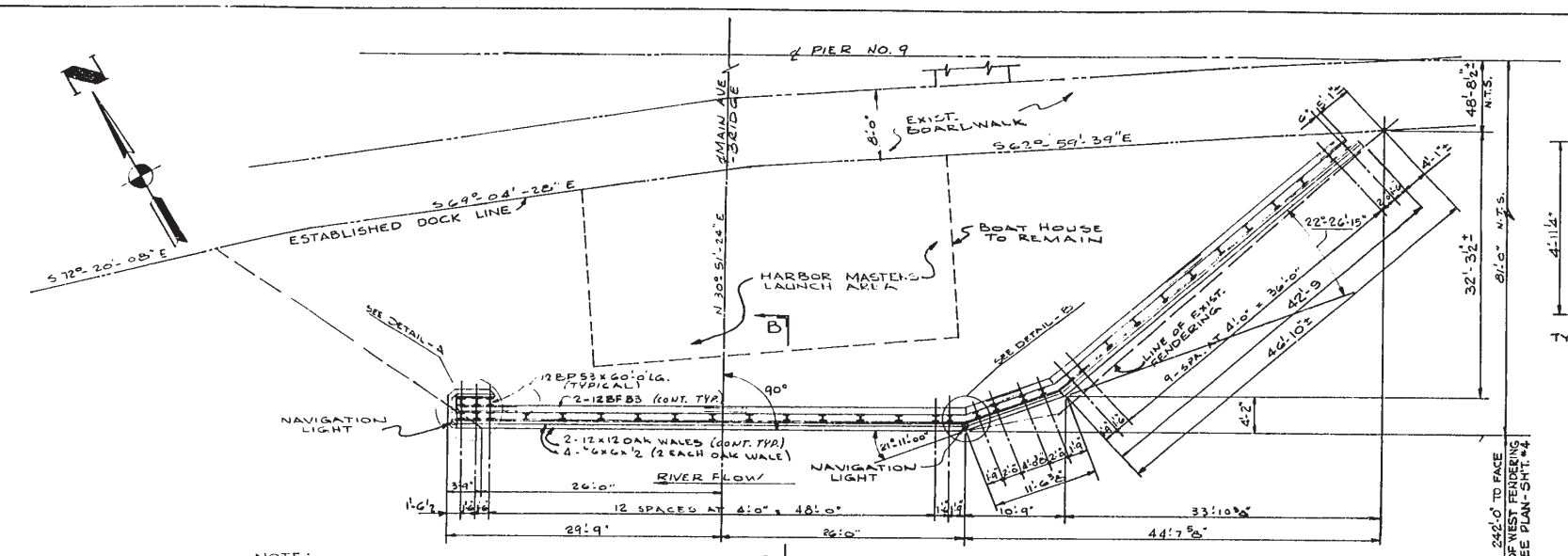
PLAN - EXISTING FENDERINGS
 SCALE: 1/4"=1'-0"

PLAN - EXISTING FENDERINGS

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

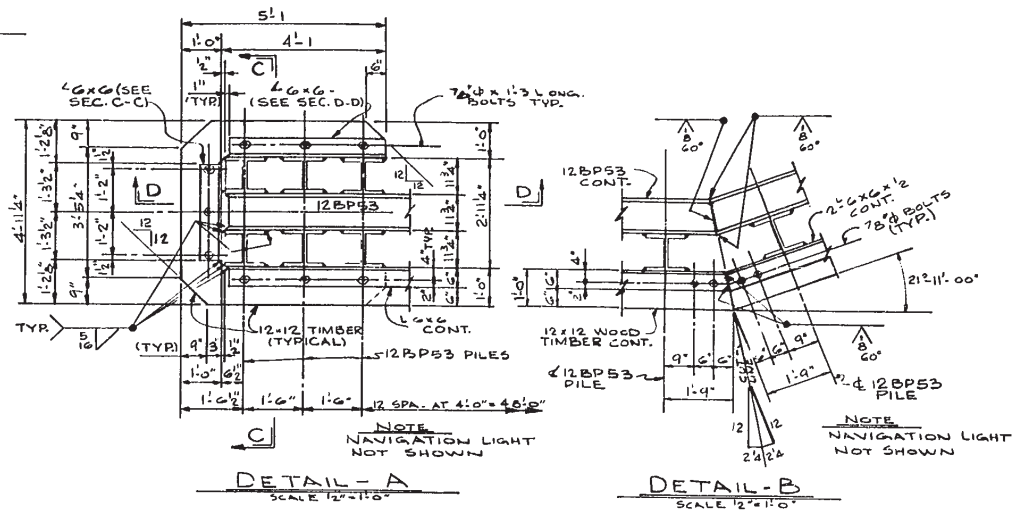
THE OSBORN ENGINEERING CO.
 CONSULTING ENGINEERS
 CLEVELAND, OHIO

(2/5)



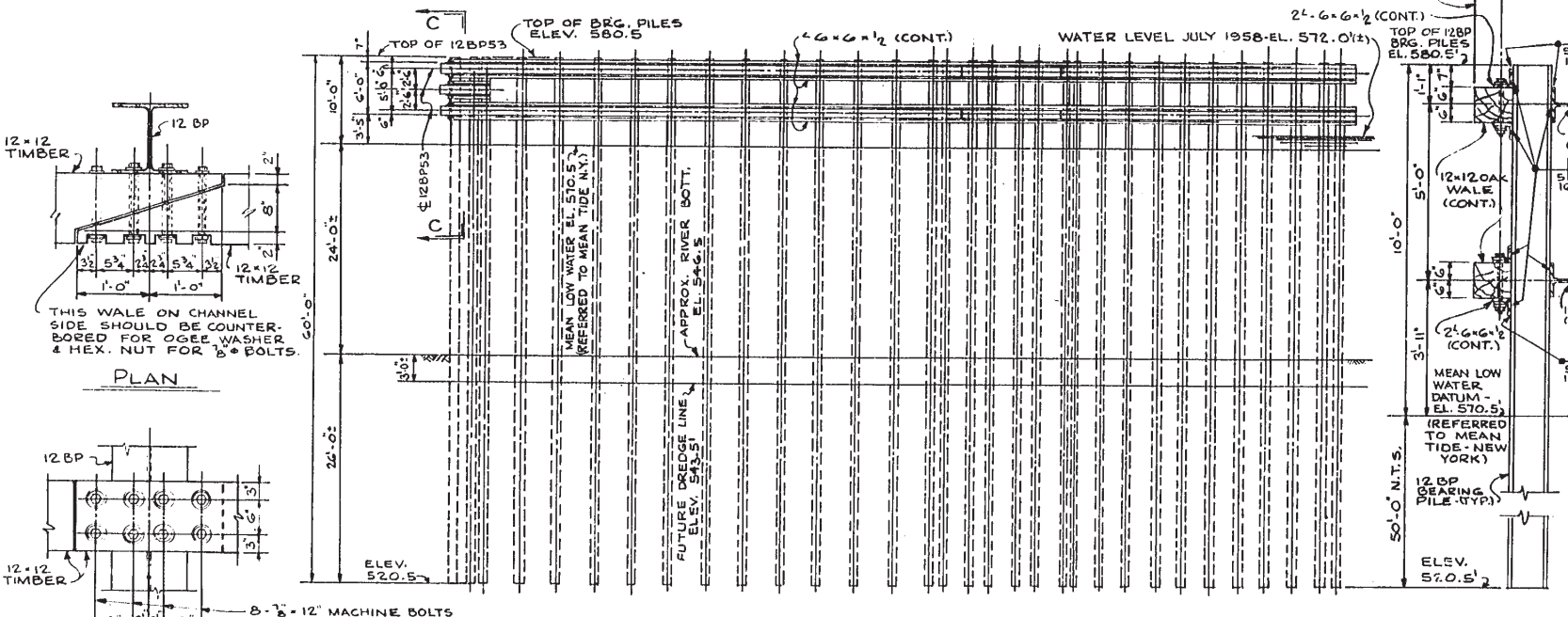
NOTE:
ALL PILES AND FRAMING MEMBERS TO BE 12BP53
ALL WELDED CONSTRUCTION
3/8" MINIMUM WELD.

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



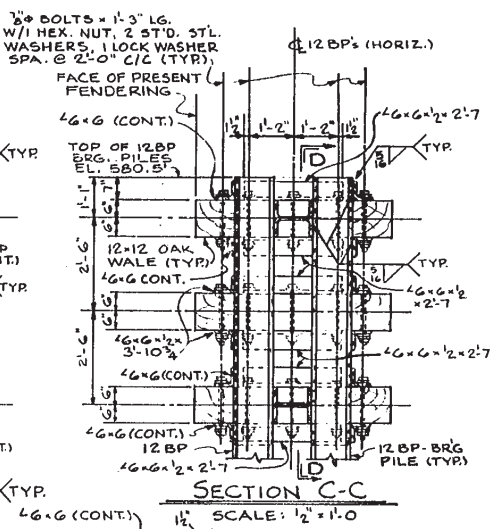
DETAIL-A
SCALE: 1/2" = 1'-0"

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

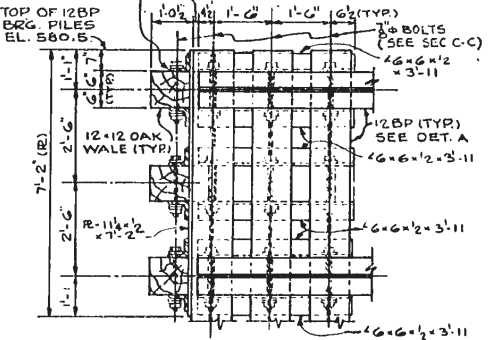


ELEVATION
SCALE: 1/2" = 1'-0"

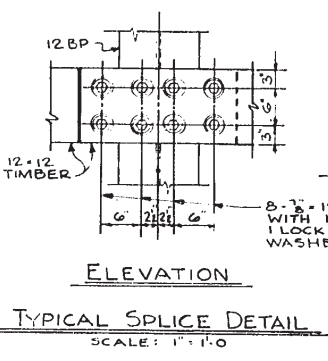
SECTION B-B
SCALE: 1/2" = 1'-0"



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 5-12 AND SPECIAL - TIMBER WALES AND FENDERS.
THE MATERIAL USED IN THIS ITEM SHALL BE 1900 # 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 1/8" 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.

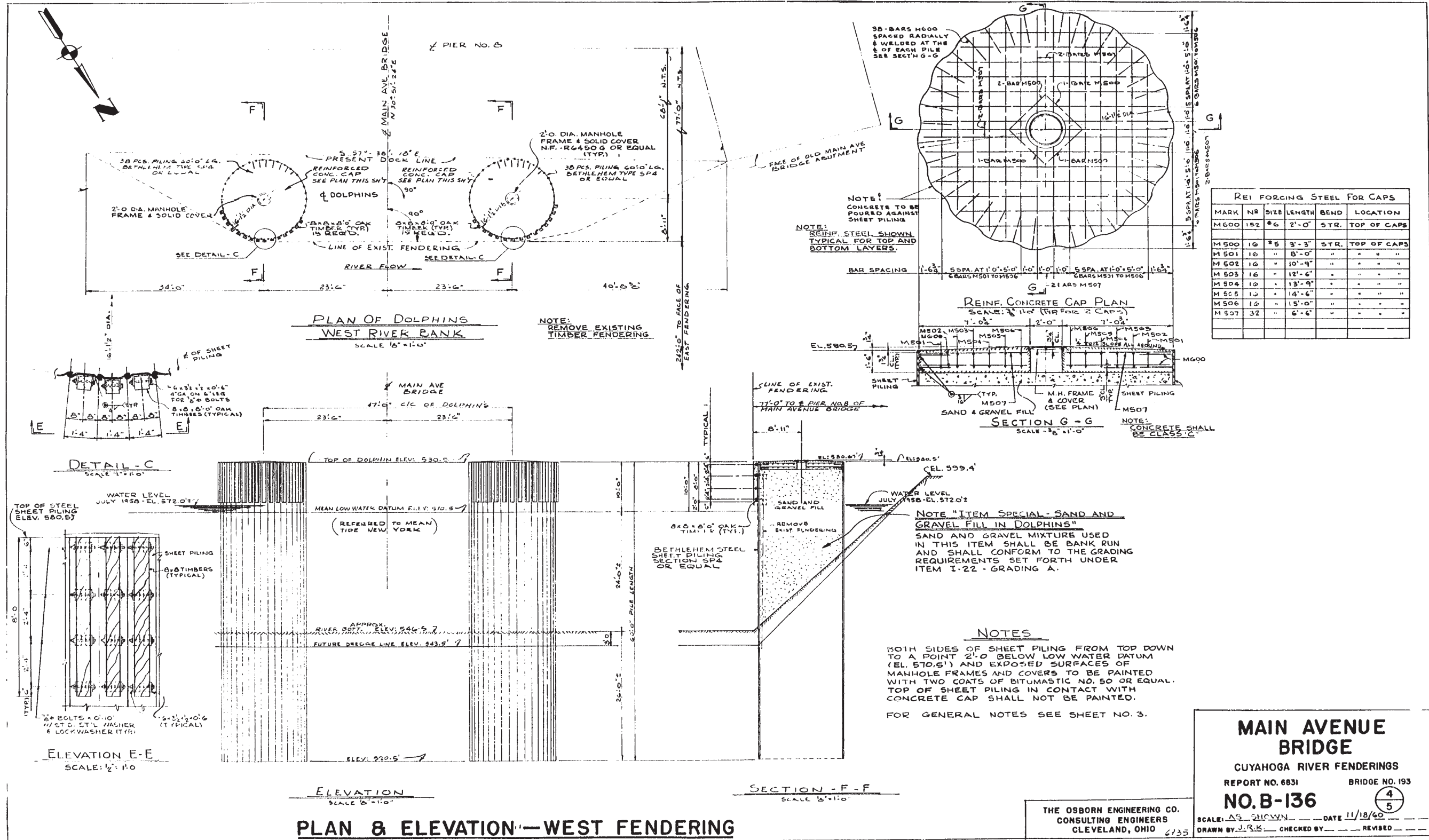
ALL BEARING PILES SHALL BE FURNISHED FULL LENGTH.

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

PLAN & ELEVATION - EAST FENDERING

THE OSBORN ENGINEERING CO.
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MAIN AVENUE BRIDGE
CUYAHOGA RIVER FENDERINGS
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DRAWN BY J.R.K. & R.B. CHECKED BY S.H. REVISED



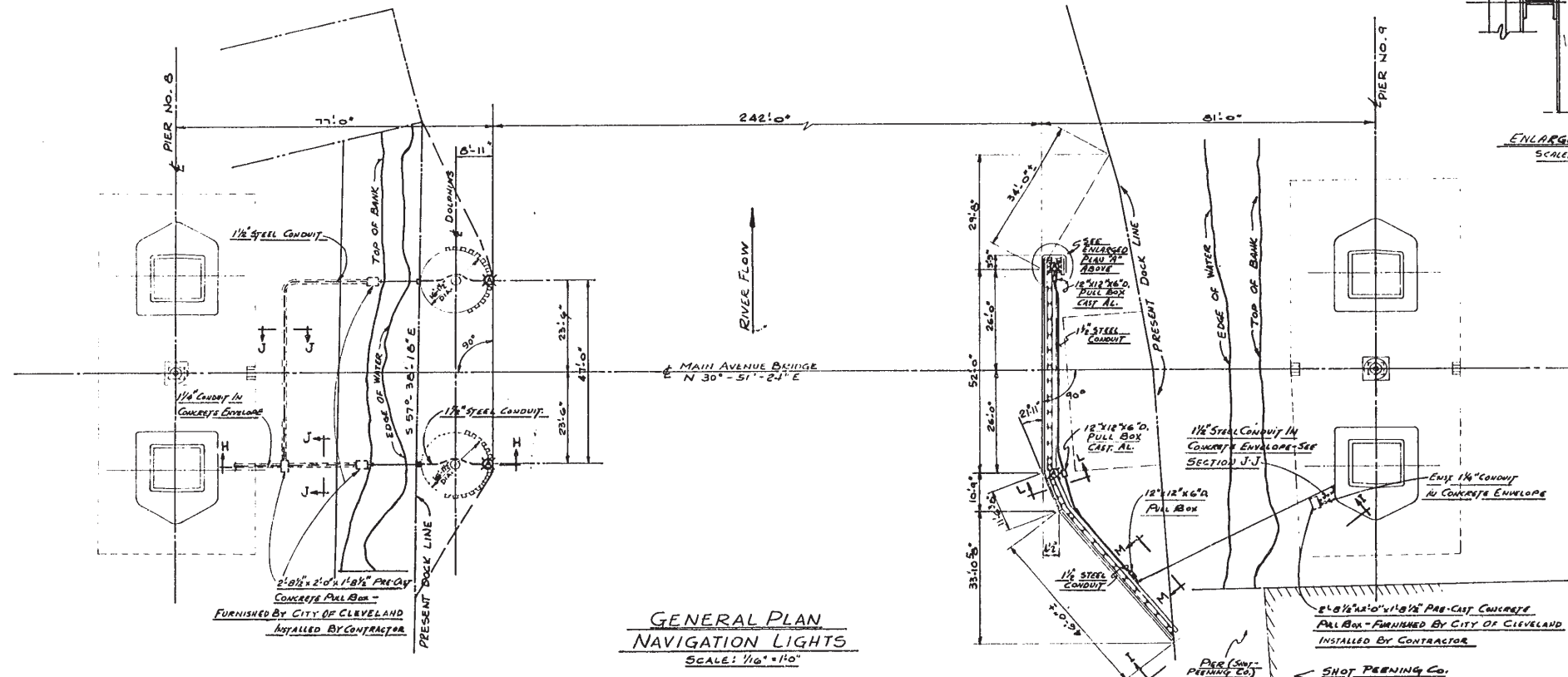
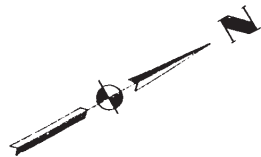
REINFORCING STEEL FOR CAPS				
MARK	NR	SIZE	LENGTH	BEND LOCATION
M600	152	#6	2'-0"	STR. TOP OF CAPS
M500	16	#5	3'-3"	STR. TOP OF CAPS
M501	16	"	8'-0"	" " " "
M502	16	"	10'-9"	" " " "
M503	16	"	12'-6"	" " " "
M504	16	"	13'-9"	" " " "
M505	16	"	14'-6"	" " " "
M506	16	"	15'-0"	" " " "
M507	32	"	6'-6"	"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

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 1-22 - GRADING A.

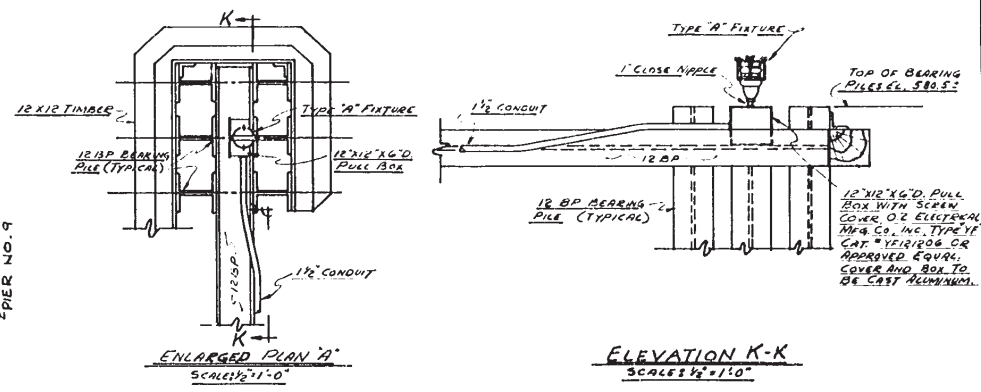
NOTES
BOTH SIDES OF SHEET PILING FROM TOP DOWN TO A POINT 2'-0" BELOW LOW WATER DATUM (EL. 570.5') AND EXPOSED SURFACES OF MANHOLE FRAMES AND COVERS TO BE PAINTED WITH TWO COATS OF BITUMASTIC NO. 50 OR EQUAL. TOP OF SHEET PILING IN CONTACT WITH CONCRETE CAP SHALL NOT BE PAINTED.
FOR GENERAL NOTES SEE SHEET NO. 3.

MAIN AVENUE BRIDGE
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DRAWN BY J.R.K. CHECKED BY _____ REVISED _____

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CONSULTING ENGINEERS
CLEVELAND, OHIO 6135

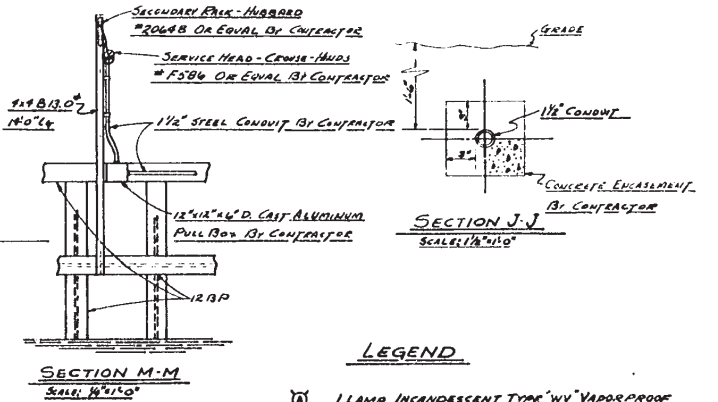


**GENERAL PLAN
NAVIGATION LIGHTS**
SCALE: 1/8" = 1'-0"



ENLARGED PLAN A
SCALE: 1/2" = 1'-0"

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

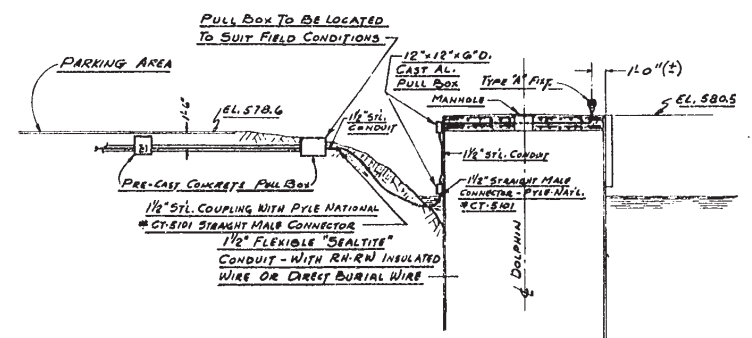


SECTION J-J
SCALE: 1/8" = 1'-0"

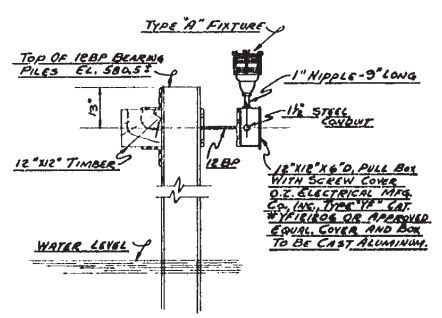
SECTION M-M
SCALE: 1/4" = 1'-0"

LEGEND

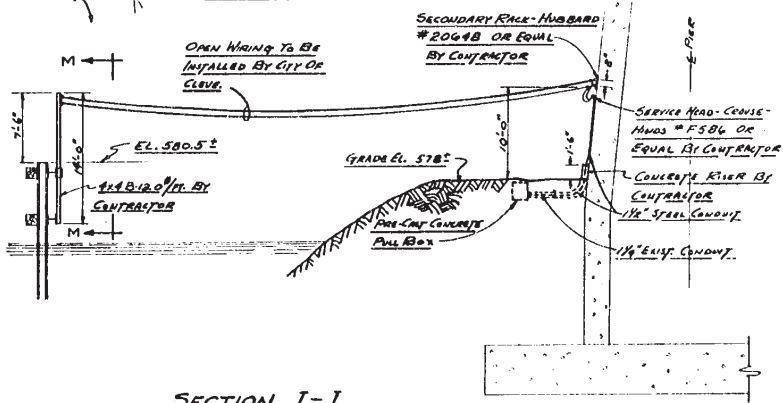
- ⊠ 1 LAMP INCANDESCENT TYPE 'WV' VAPORPROOF FIXTURE WITH 1" HUB AND 6" RED FRESH LENS CROSS-HUBS CAT. NO. WV375.



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. CONTRACTOR TO REMOVE EXISTING CONDUIT & FIXTURES ON EXISTING FENDERING.
3. 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

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