

CITY OF DETROIT  
 COLEMAN A. YOUNG — MAYOR  
 CITY ENGINEERING DEPARTMENT  
 PLANS FOR PROPOSED  
 BRIDGE REPAIR  
 FOR  
 RECREATION DEPARTMENT

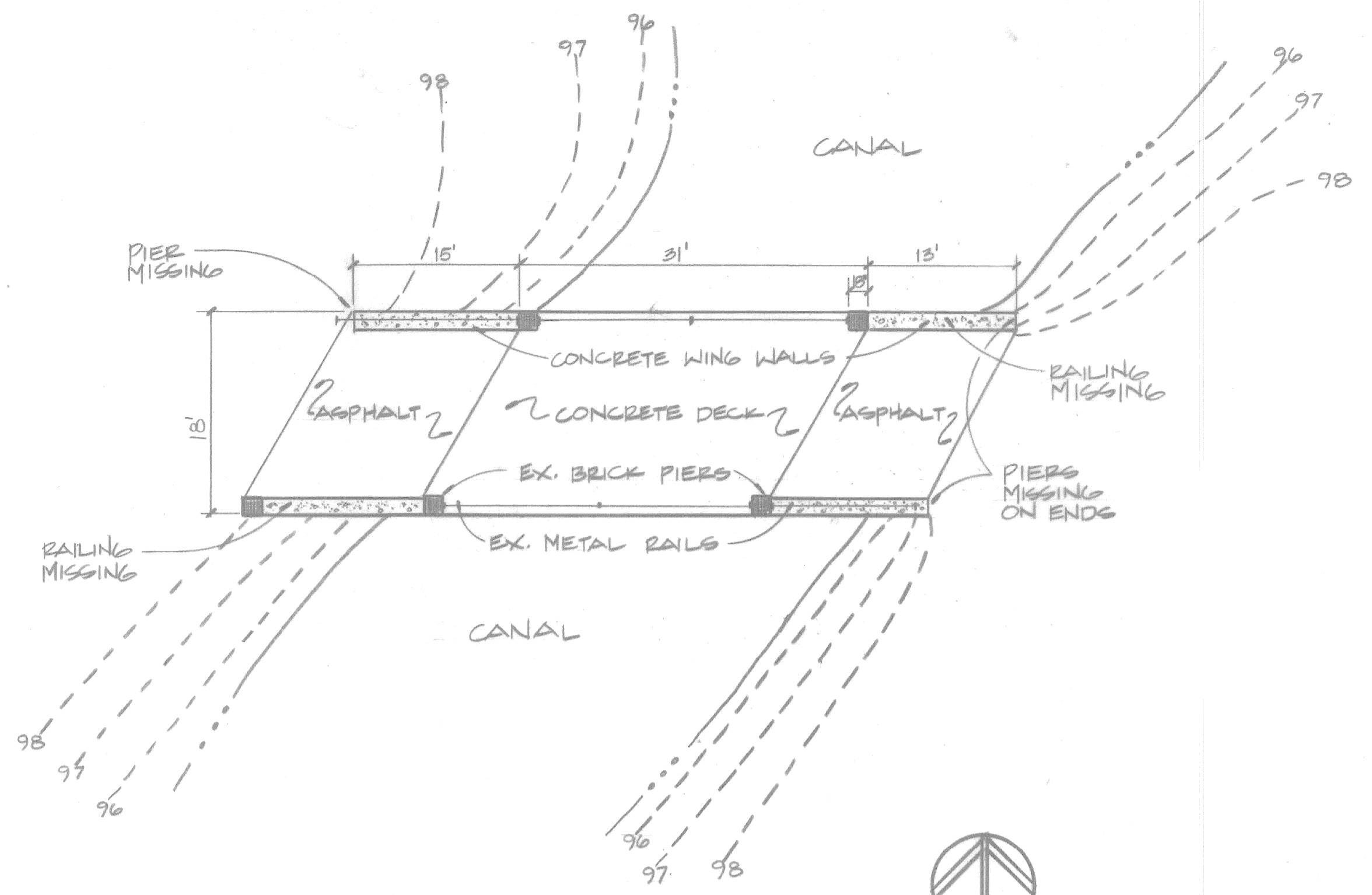


INDEX OF SHEETS

SHEET NO.	PROJECT
A-1	<b>BELLE ISLE GOLF COURSE SERVICE BRIDGE (BW 223)</b> Railing replacement
B-1	<b>BELLE ISLE GOLF COURSE PEDESTRIAN BRIDGE (BP8)</b> Slab replacement
C-1	<b>ROGELL GOLF COURSE PEDESTRIAN BRIDGE (BP6)</b> Deck replacement
D-1	<b>ROGELL GOLF COURSE PEDESTRIAN BRIDGE (BP7)</b> Deck replacement

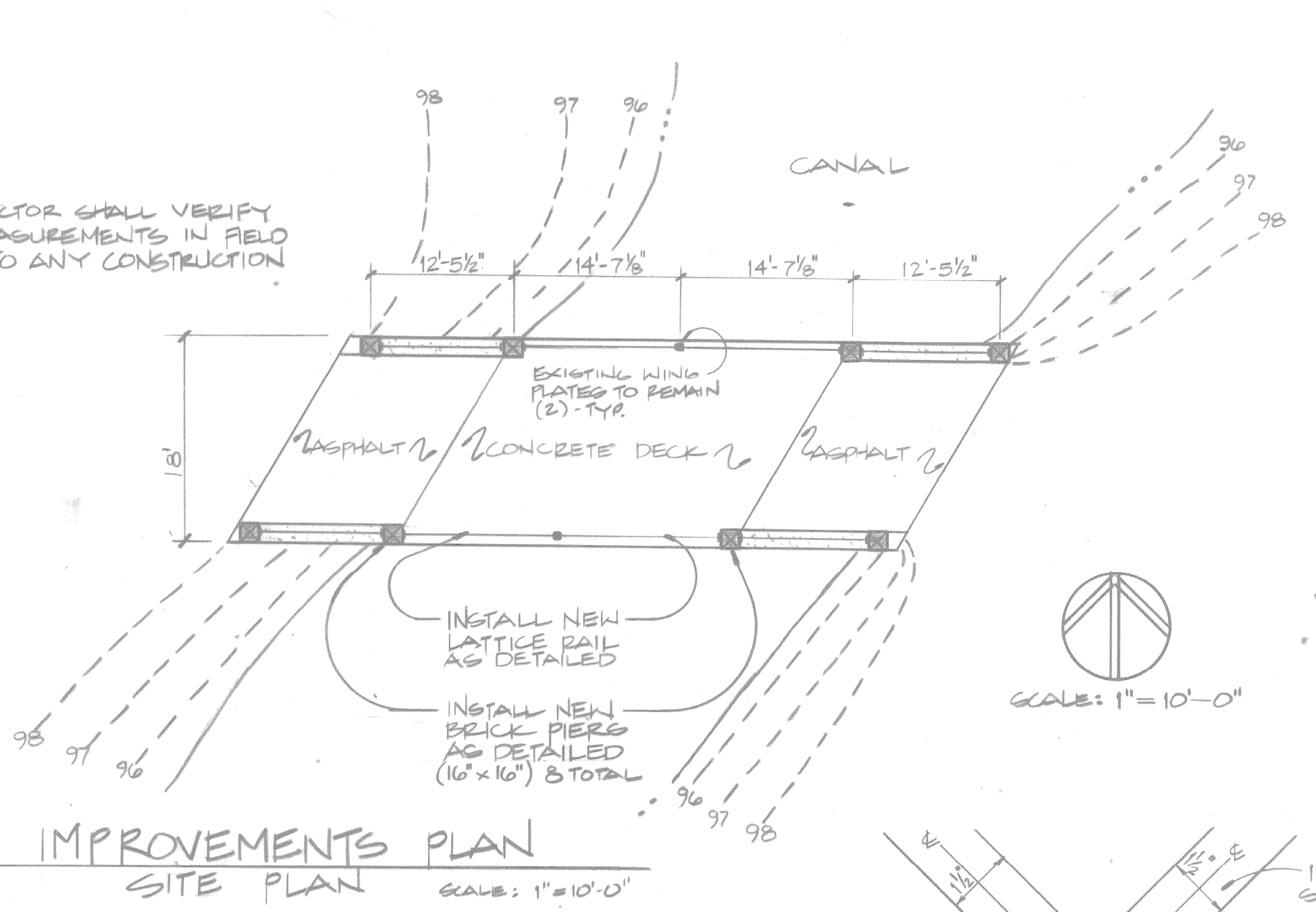
<b>PROJECT:</b> BRIDGE REPAIR ON BELLE ISLE AND ROGELL MUNICIPAL GOLF COURSE IN DETROIT	<b>CONTRACT NO.</b>	
<b>PLANS PREPARED BY CITY ENGINEERING DEPARTMENT</b>		
RECOMMENDED FOR APPROVAL	<i>M. Ch...</i> STRUCTURAL ENGINEER	7-10-91 DATE
RECOMMENDED FOR APPROVAL	<i>Am...</i> ENGINEER OF INSPECTION	7-10-91 DATE
APPROVED	<i>C. M. Kennedy</i> DEPUTY DIRECTOR	7/20/91 DATE
APPROVED	<i>Clyde R. Hopkins</i> DIRECTOR	7-10-91 DATE
<b>DATE</b>	<b>DRWG. NO.</b>	





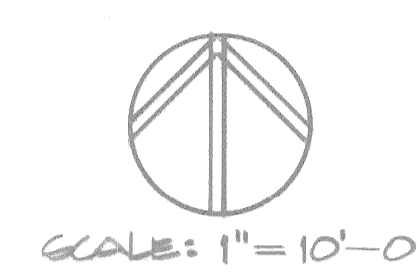
EXISTING CONDITIONS  
SITE PLAN  
SCALE: 1" = 10'-0"

NOTE:  
CONTRACTOR SHALL VERIFY  
ALL MEASUREMENTS IN FIELD  
PRIOR TO ANY CONSTRUCTION

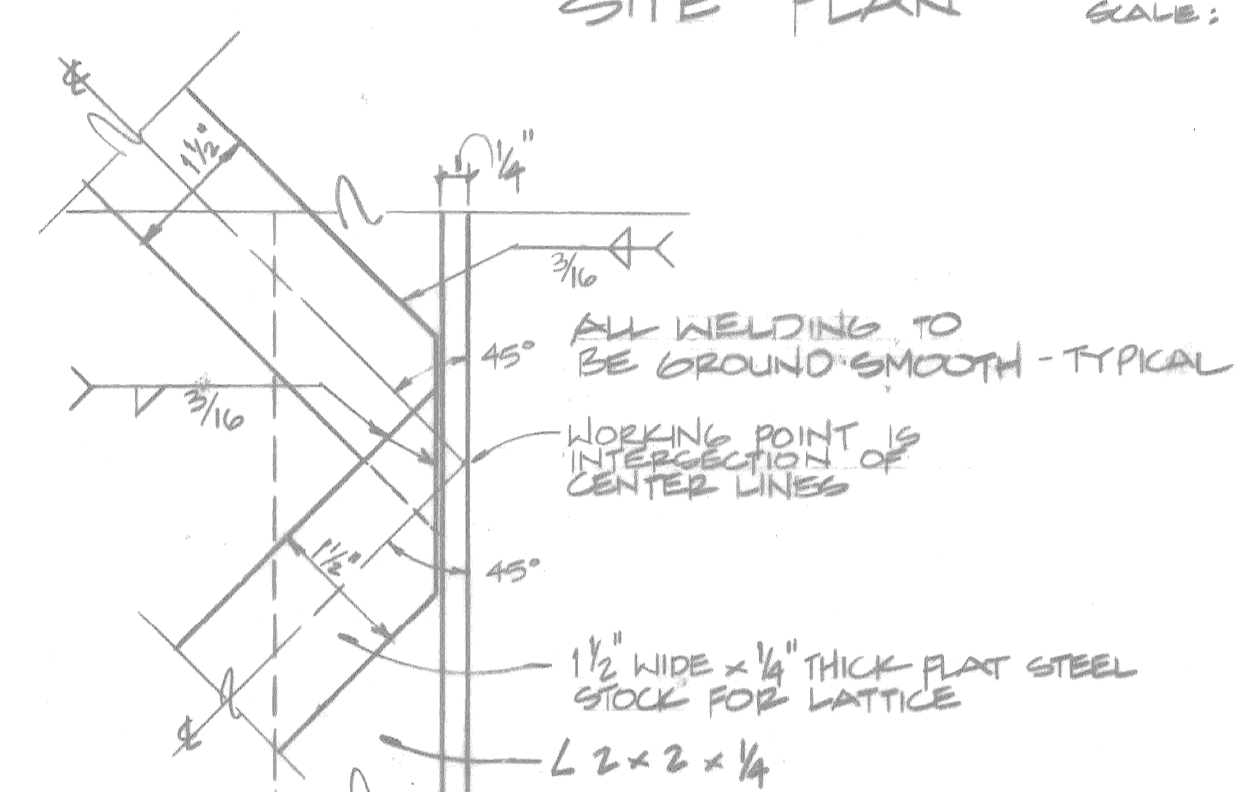


IMPROVEMENTS PLAN  
SITE PLAN  
SCALE: 1" = 10'-0"

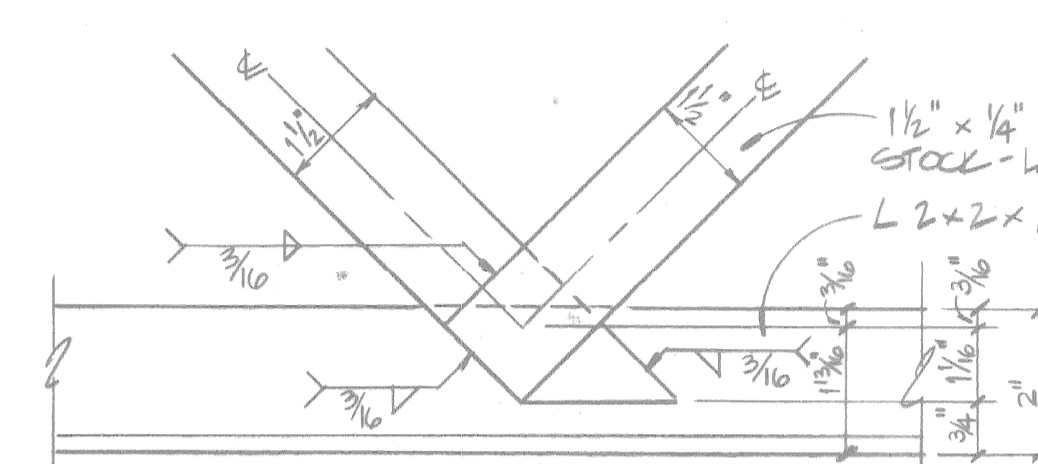
- GENERAL NOTES**
1. DEMOLISH AND REMOVE ALL EXISTING PIERS AND LATTICE RAIL.
  2. CONSTRUCT NEW PIERS AS DETAILED AND AT LOCATIONS SHOWN.
  3. FABRICATE AND INSTALL NEW LATTICE RAIL AS DETAILED.
  4. ALL METAL JOINTS TO BE WELDED AND GROUND SMOOTH.
  5. COMMERCIAL BLAST CLEAN THE EXISTING 2 WING PLATES PRIME PAINT THE PLATES AND NEW LATTICE RAILING SECTIONS WITH TNEPEC SERIES 65 POXIPRIME; INTERMEDIATE COAT WITH TNEPEC SERIES 66 HI-BUILD EPOXILINE B.H. 12 (GRAPHITE); FINISH COAT WITH TNEPEC SERIES 73 ENDURA-SHIELD III - AB05 (BLACK) GALV. FASTENERS SHALL HAVE THE SERIES 66 AND 73 COATINGS FIELD APPLIED AFTER ERECTION.
  6. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36.
  7. ALL BRICKS SHALL BE SOLID LOAD BEARING UNITS AND SHALL CONFORM TO ASTM: C216, GRADE: SN, TYPE: FBX.
  8. ALL MORTAR SHALL CONFORM TO ASTM C-270, TYPE M.
  9. ALL RE-STEEL SHALL CONFORM TO ASTM A-615.
  10. ALL CEMENT SHALL CONFORM TO ASTM C150, PORTLAND CEMENT TYPE I, NATURAL COLOR.
  11. READY MIX CONCRETE SHALL CONFORM TO ASTM C94 WITH 3,500 PSI @ 28 DAYS.
  12. GALV. FASTENERS SHALL CONFORM TO ASTM A307, A325.
  13. ALL CONSTRUCTION SHALL CONFORM TO CITY OF DETROIT STD. SPEC. FOR PAVING AND RELATED CONSTRUCTION.



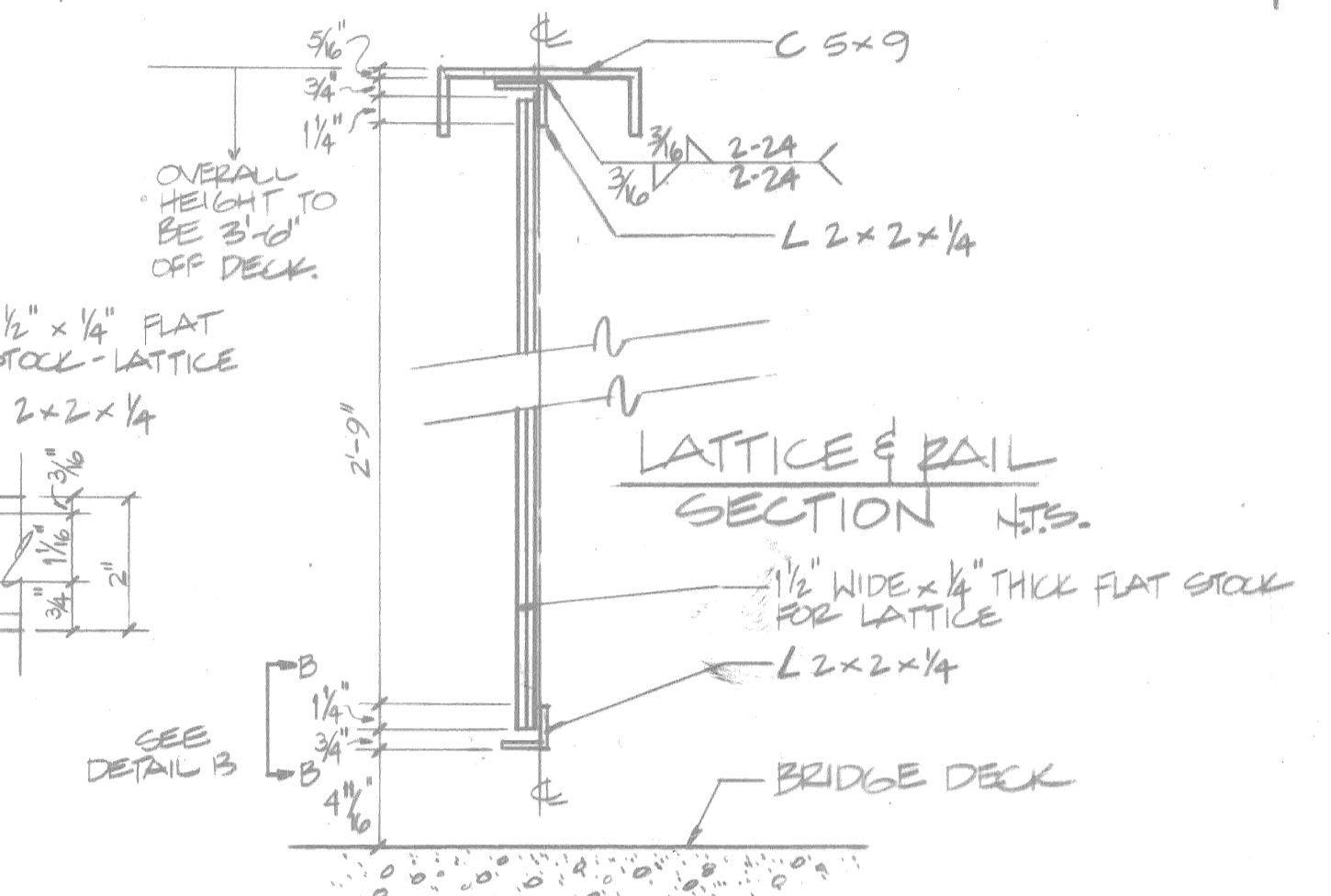
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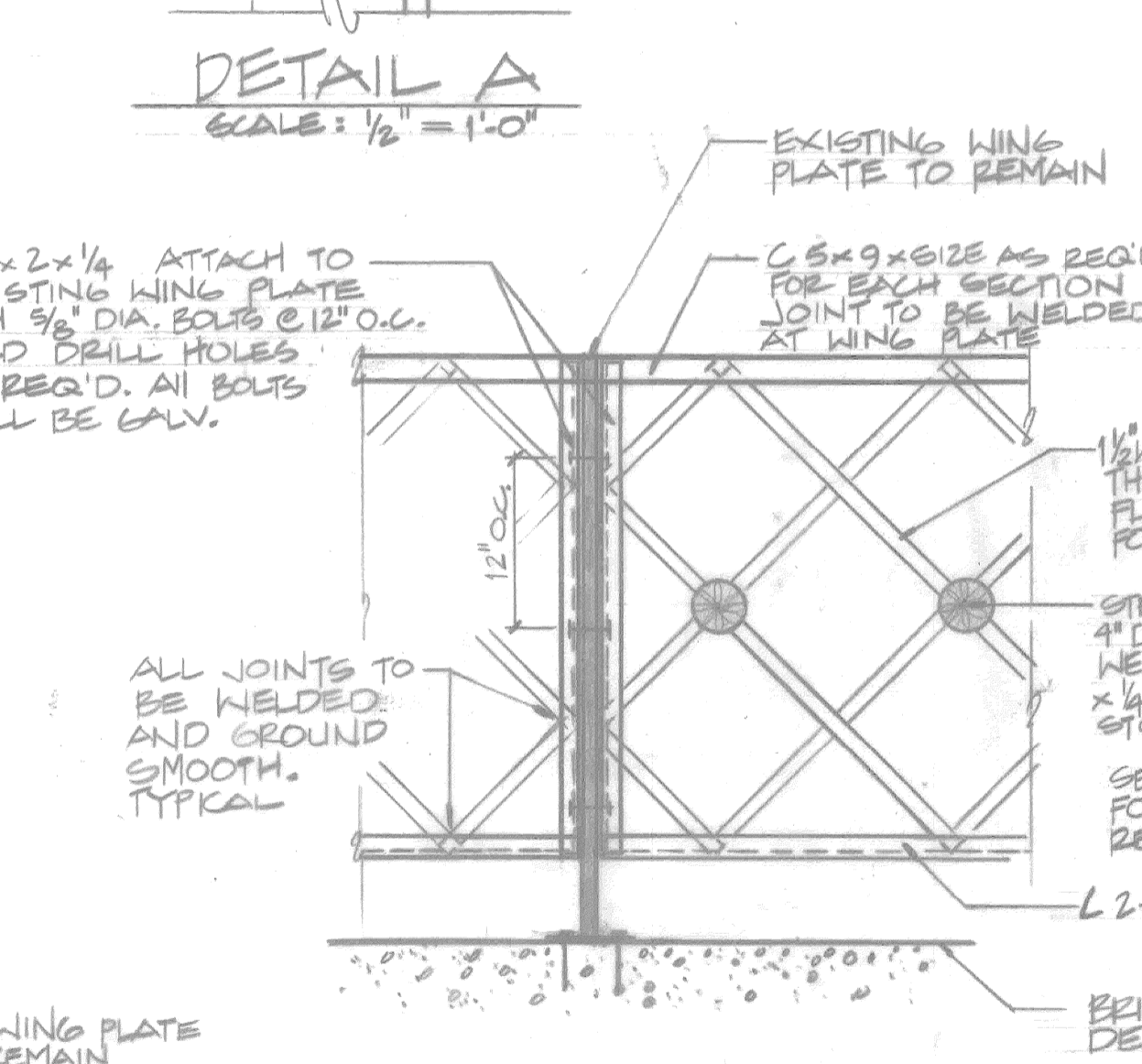
DETAIL A  
SCALE: 1/2" = 1'-0"



DETAIL B  
SCALE: 3/8" = 1'-0"

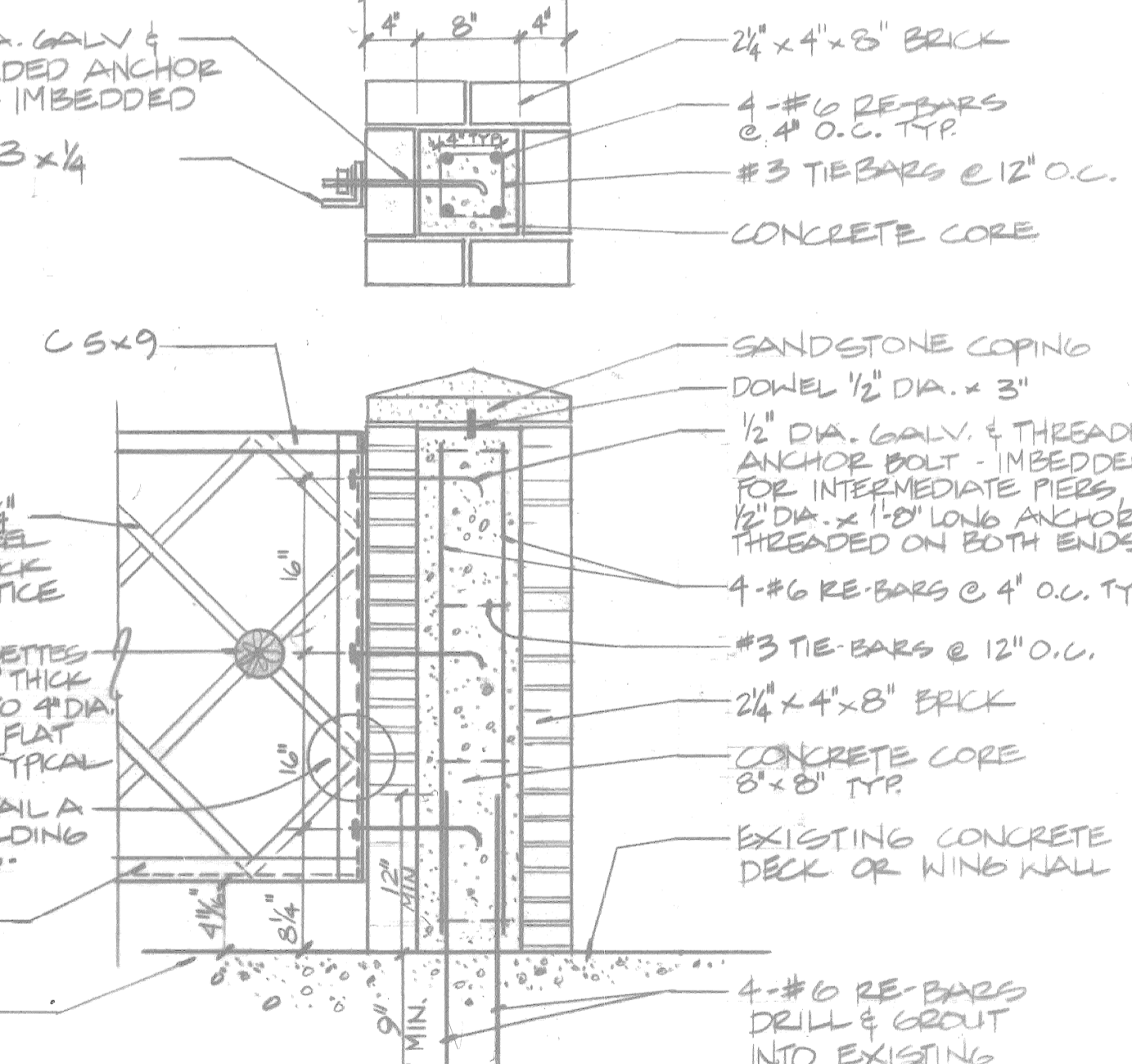


LATTICE & RAIL  
SECTION HTS.

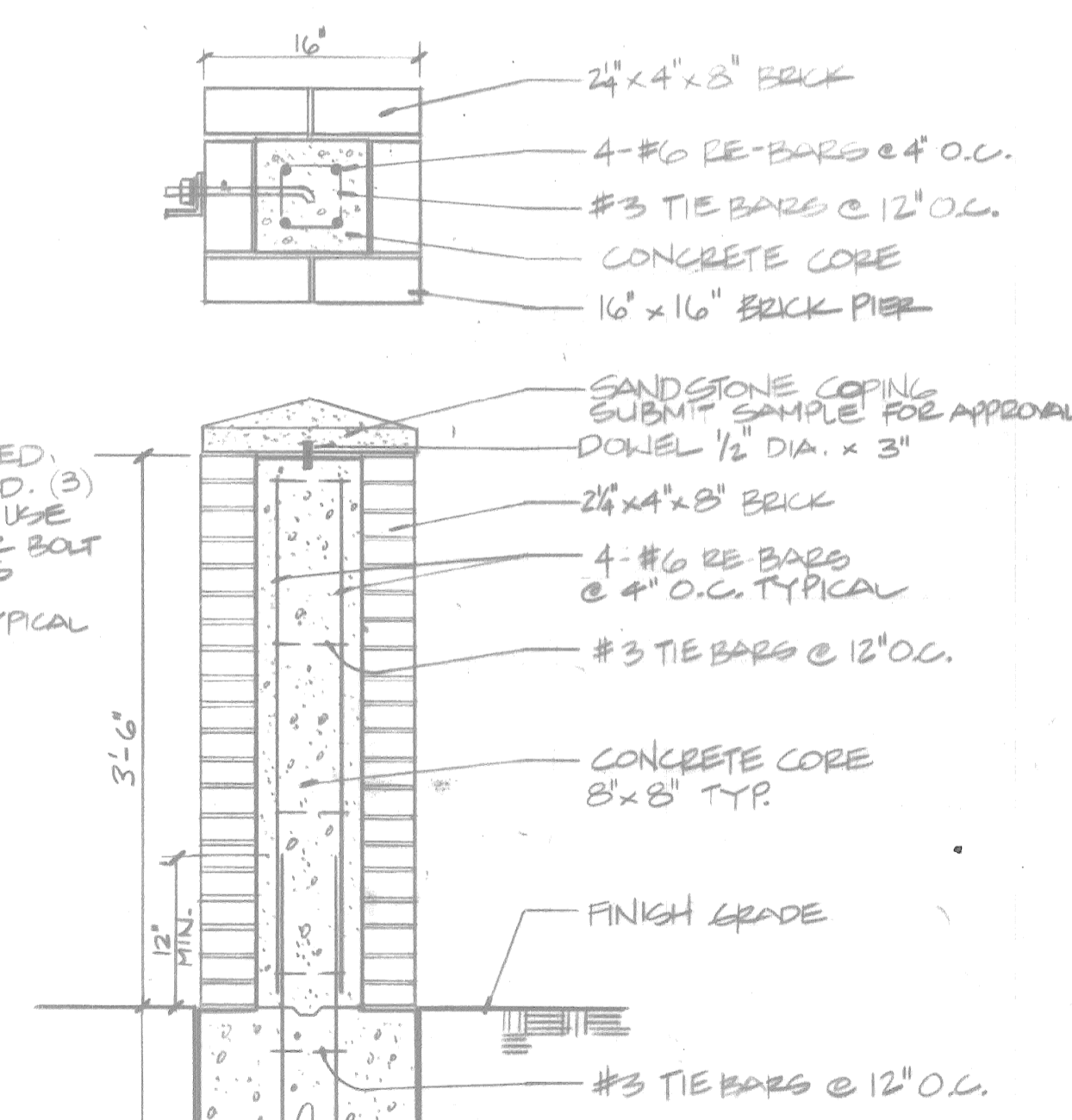


WING PLATE AND  
LATTICE DETAIL  
SCALE: 1" = 1'-0"

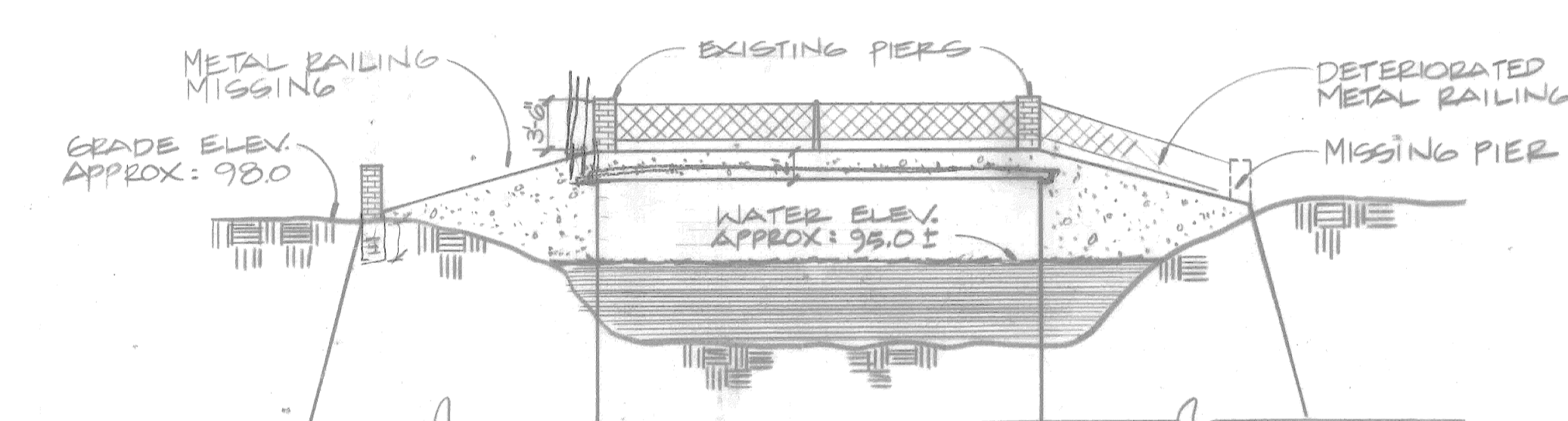
NOTE  
ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION, 1990 EDITION.



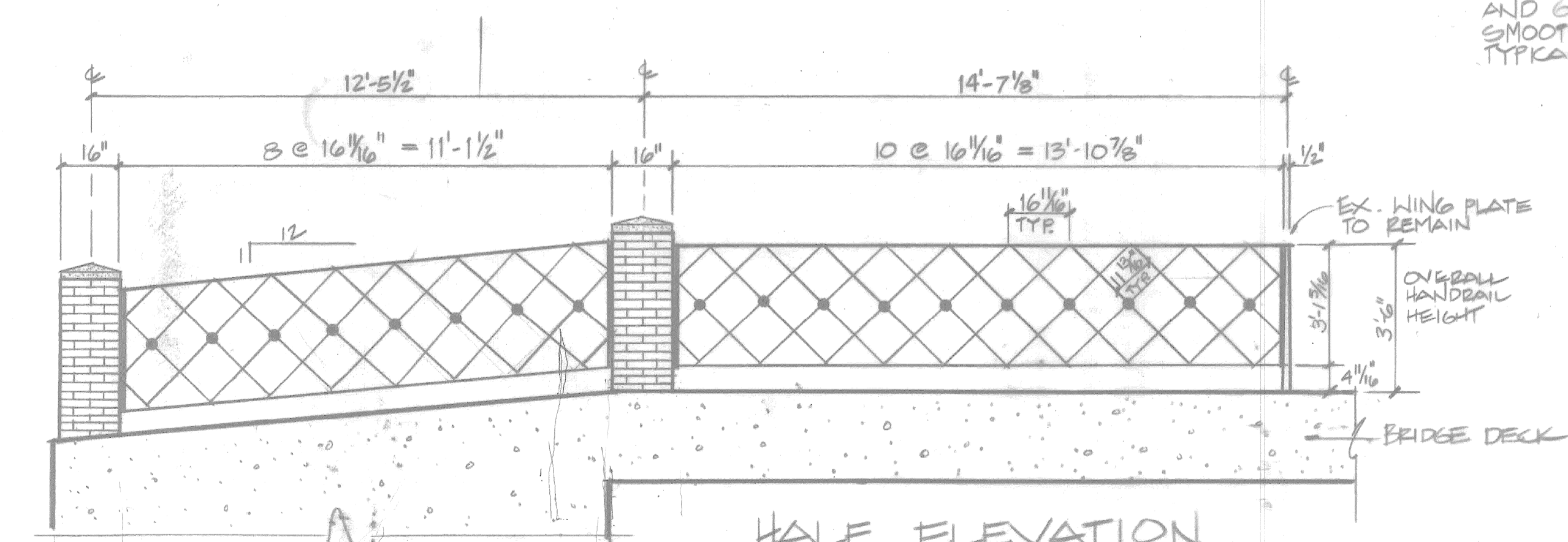
PIER DETAIL  
TO BE USED WHERE  
BRIDGE DECK OR WALL  
WILL SUPPORT PIERS.  
SCALE: 1" = 1'-0"



PIER DETAIL  
W/ FOUNDATION  
SCALE: 1" = 1'-0"



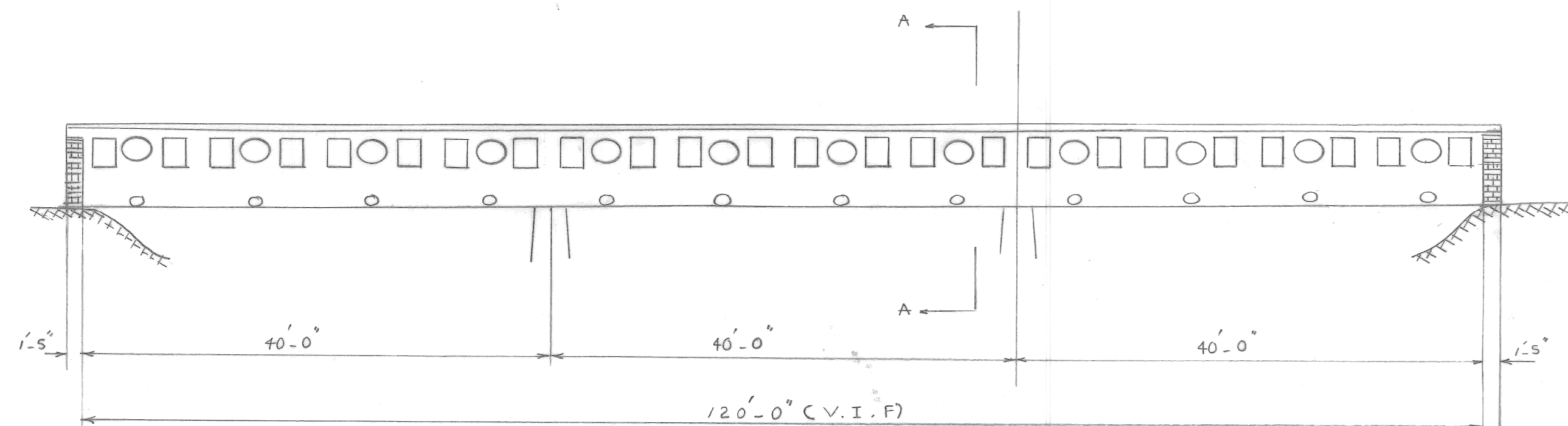
EXISTING CONDITIONS  
SOUTH ELEVATION  
SCALE: 1" = 10'-0"



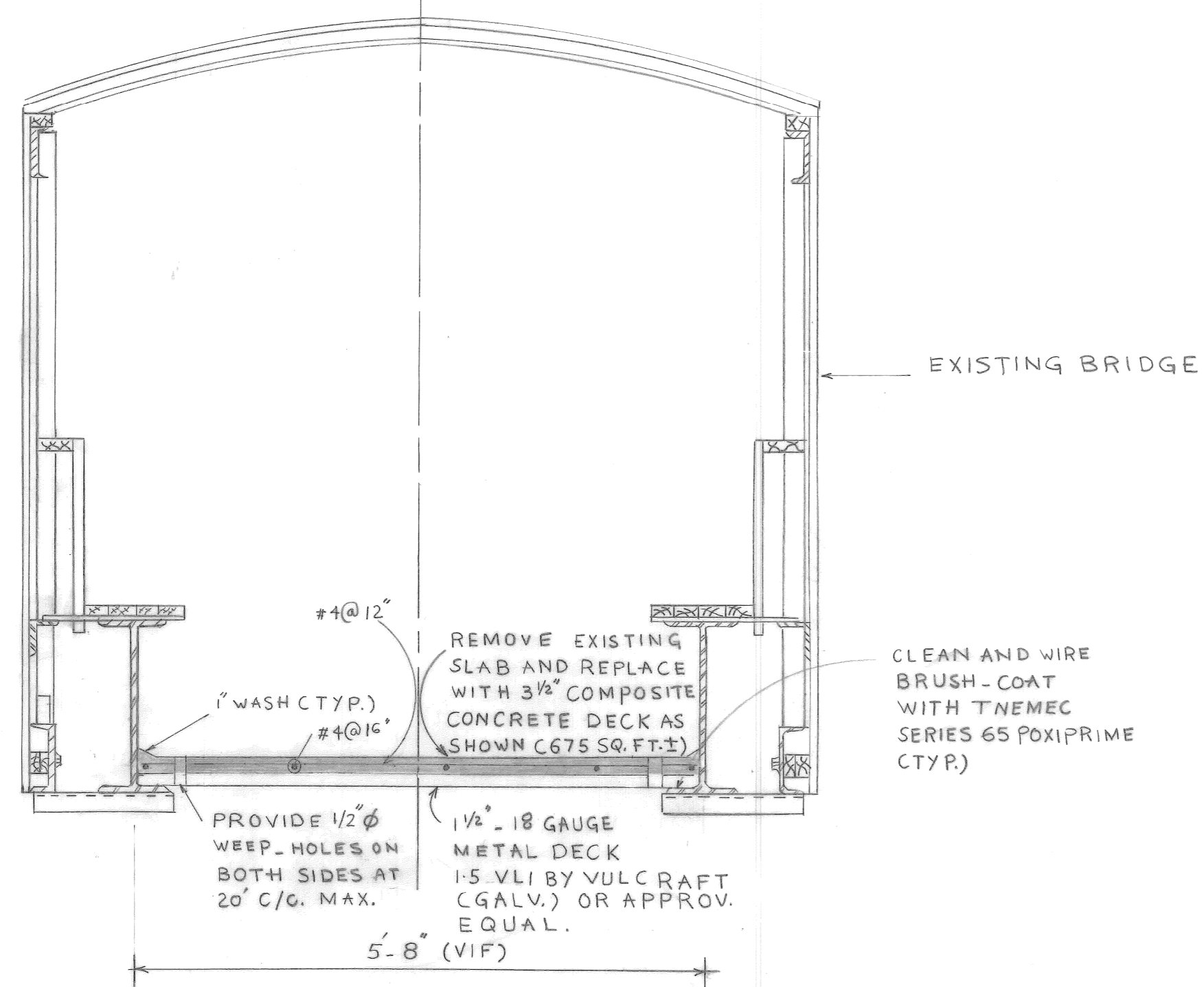
HALF ELEVATION  
SCALE: 3/8" = 1'-0"

CITY ENGINEERS REVIEW		REV	BY	DATE	REFERENCE	DESIGNED BY	CITY ENGINEERS STRUCTURAL	APPROVED:	M. C. Chen	CITY OF DETROIT CITY ENGINEERING DEPARTMENT		BELLE ISLE GOLF COURSE SERVICE BRIDGE (BW - 223)		SHEET 1 OF 4 SHEETS	
FINAL REVIEW & REVISIONS		REV	BY	DATE	DRAWINGS	DRAWN BY	E. TUTTLE RECREATION DEPT.			CONTRACT NO.		DRAWING NO. A-1		ASSIGNMENT NO. 91-56-07	
COORD		DESCRIPTION		DRN	CHK'D	AP'D	DATE			REVISIONS LOCATED BY COORDINATES ON SHEET		CHECKED BY		DATE MAY 1991	

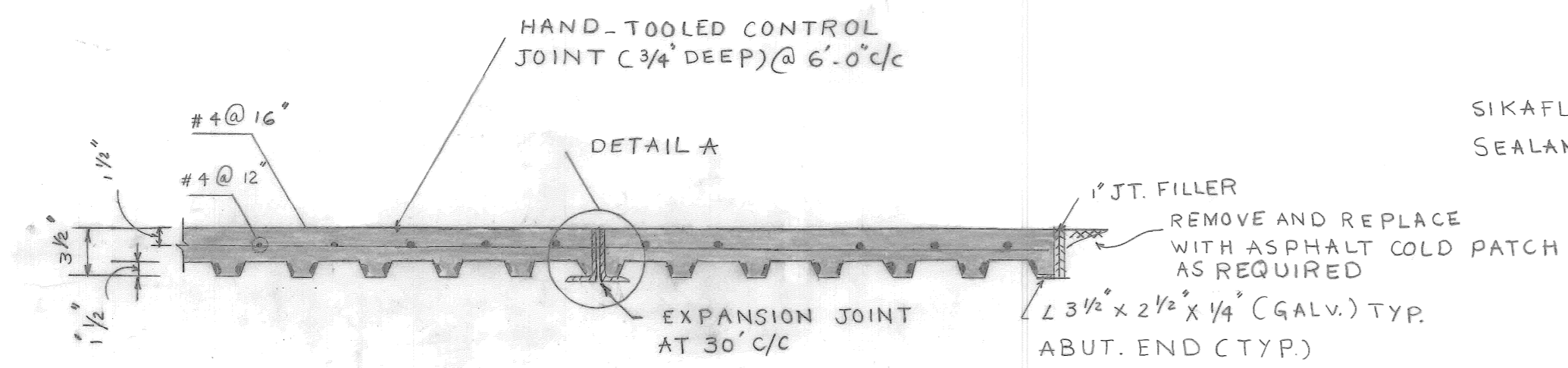




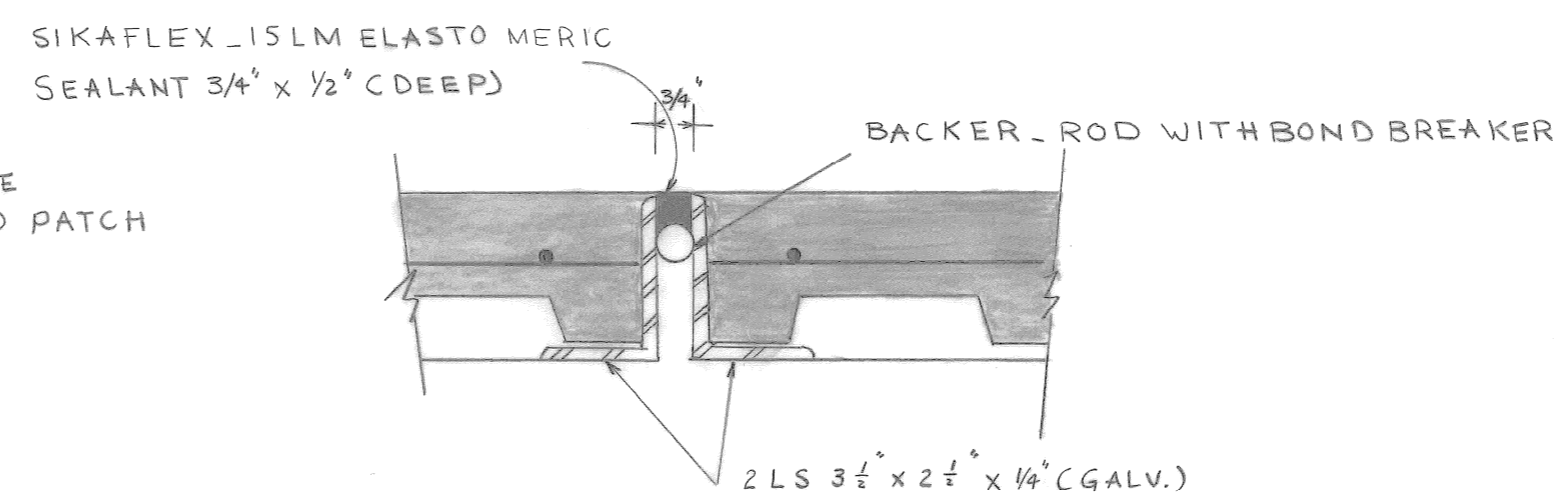
ELEVATION  
SCALE: 1" = 10'



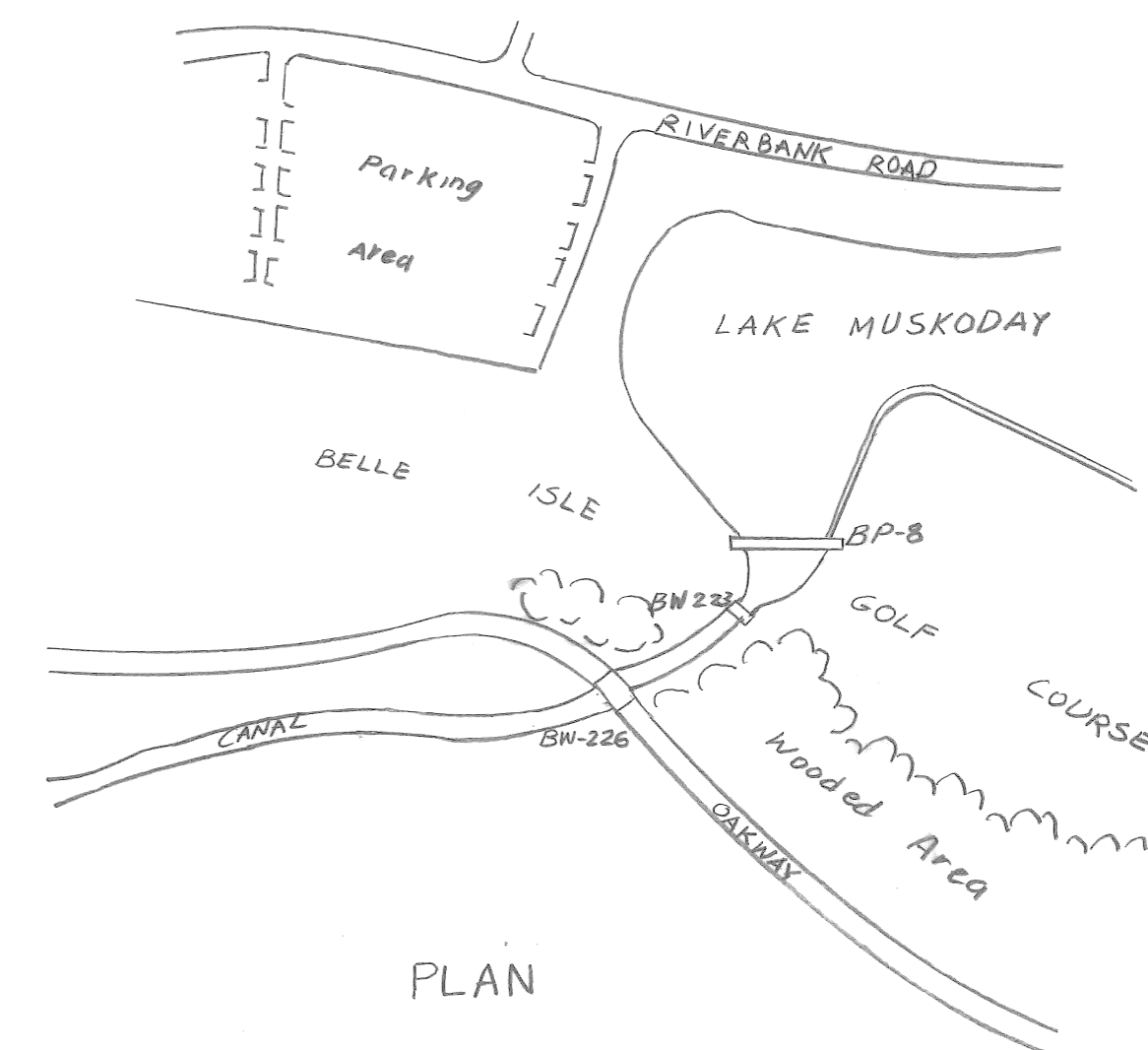
SECTION A-A  
SCALE: 3/4" = 1'-0"



DETAILS OF EXPANSION & CONTROL JOINTS.  
SCALE: 1 1/2" = 1'-0"



DETAILS A  
SCALE: 3" = 1'-0"



PLAN

GENERAL NOTES

ALL CONCRETE SHALL HAVE A MINIMUM  $f_c' = 4000$  PSI IN 28 DAYS.  
ALL REINFORCED STEEL SHALL BE ASTM A 615 GR 60 EPOXY COATED.  
THE METAL COMPOSITE DECK SHALL BE ASTM A 446 GRADE A STEEL HAVING A MINIMUM YIELD STRENGTH OF 33 KSI AND GALVANIZED COATING CONFORMING TO ASTM A 525 G 90.

THE BACKER ROD SHALL BE A SOLID, ROUND, HEAT RESISTANT, CLOSED CELL, CROSS-LINKED POLYETHYLENE FOAM ROD.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO ANY CONSTRUCTION.

EXCEPT WHERE OTHERWISE SHOWN ON THE PLAN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 1990 EDITION.

NO.	DATE	BY	REVISIONS

designed by M.C.  
drawn by H.L.S.  
checked by  
approved: N. Chan

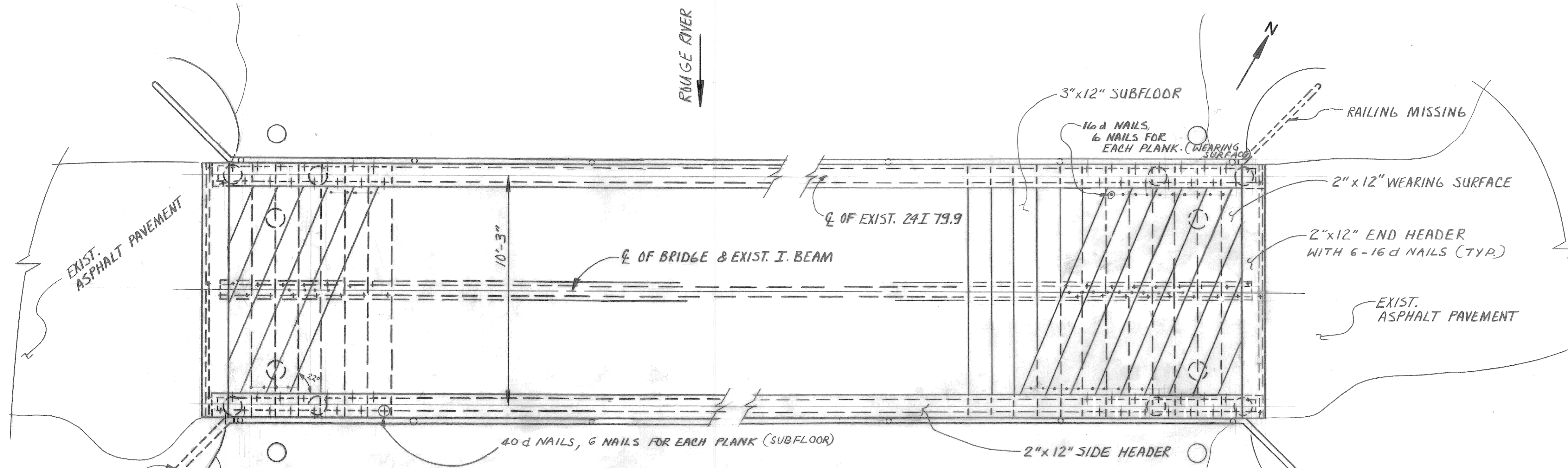
CITY OF DETROIT  
city engineering department  
for RECREATION DEPARTMENT

BELLE ISLE GOLF COURSE PEDESTRIAN BRIDGE (CBP8)

SLAB REPLACEMENT

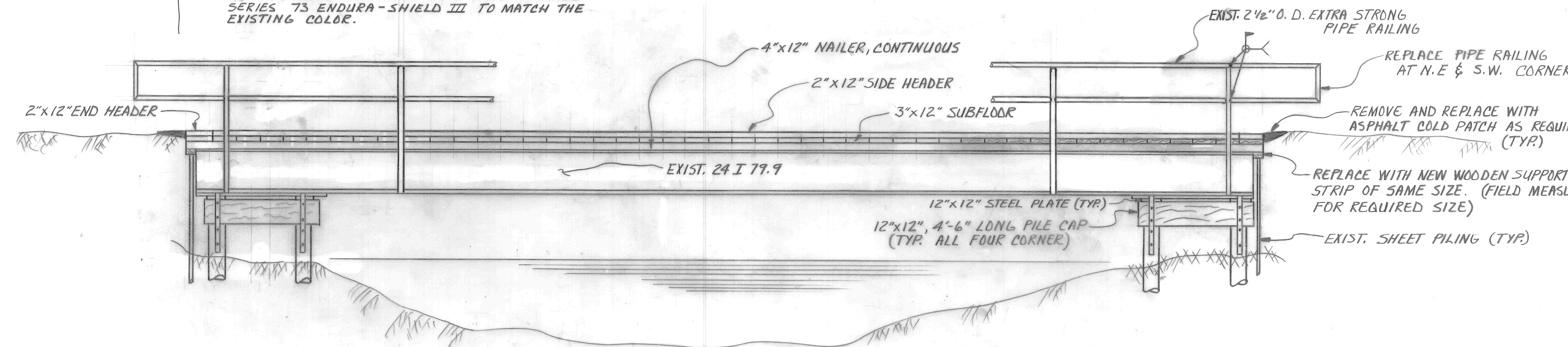
a.o. 91-56-07  
contract no.  
sheet 2 of 4  
drawing no. B-1  
date MAY-1991



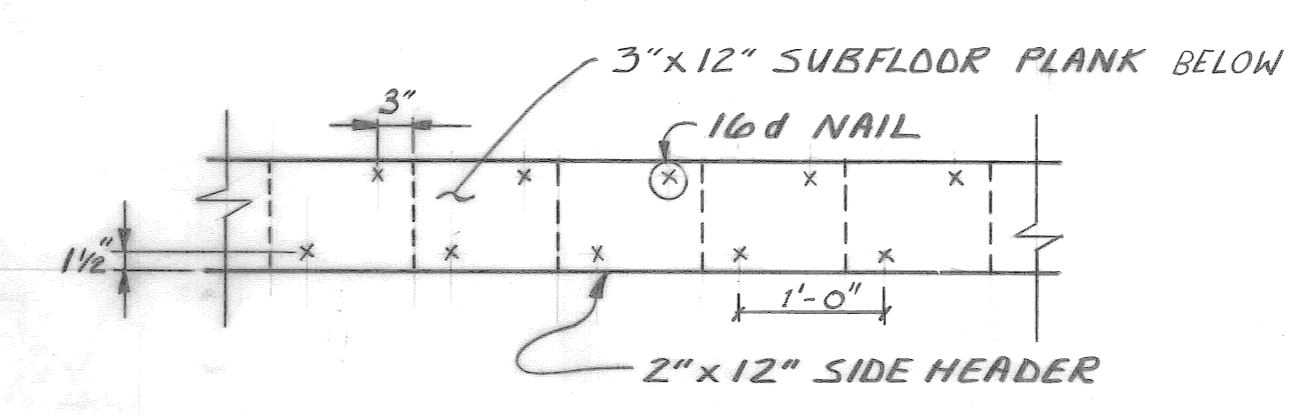


**NOTE:**  
 REPLACE MISSING RAILINGS AT N.E. AND S.W. CORNER OF THE BRIDGE WITH NEW RAILINGS OF SIMILAR TYPE; PRIME PAINT THE RAILINGS WITH TNAMEC SERIES 65 POXIPRIME AND FINISH COAT WITH TNAMEC SERIES 73 ENDURA-SHIELD III TO MATCH THE EXISTING COLOR.

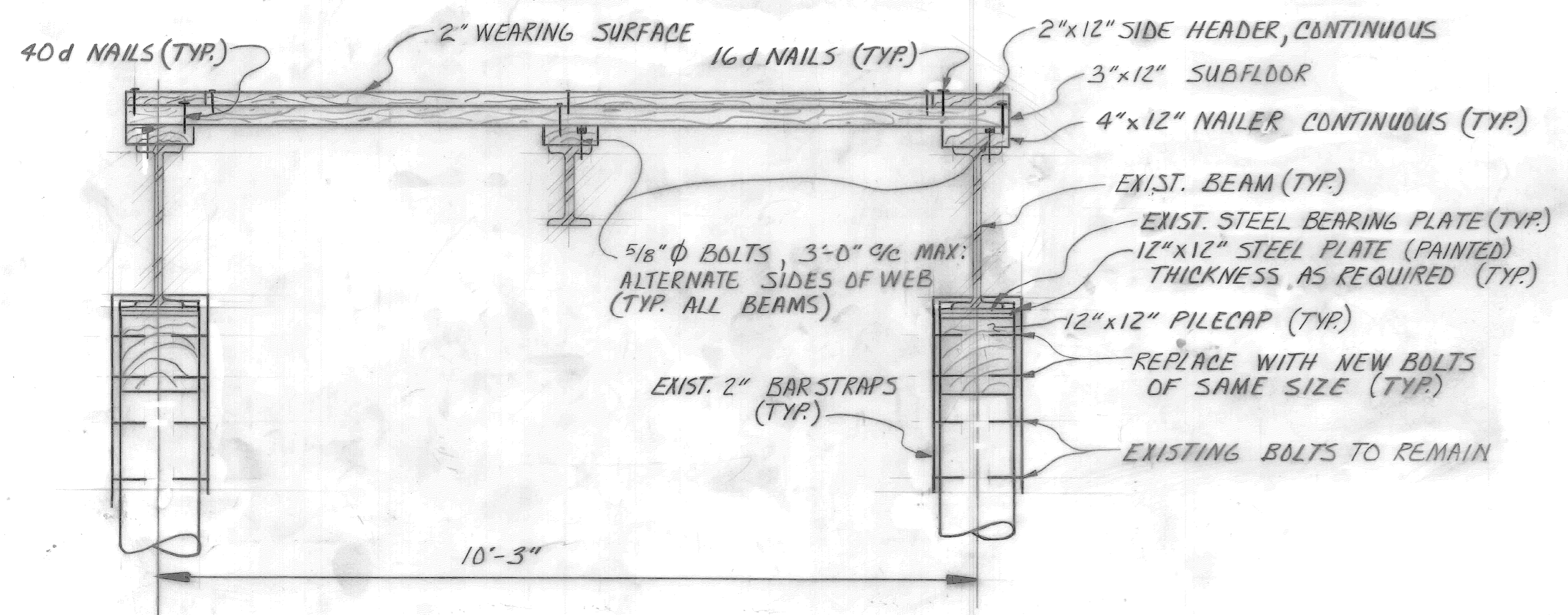
**PLAN**  
 SCALE 3/8" = 1'-0"



**ELEVATION**  
 SCALE 3/8" = 1'-0"

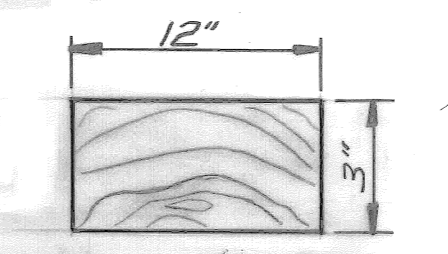


**SIDE HEADER - NAILING DETAIL**  
 SCALE 3/4" = 1'-0"



**SECTION**  
 SCALE 3/4" = 1'-0"

**NOTE:**  
 2"x12" WEARING SURFACE TO BE NAILED TO THE SUBFLOOR (3"x12") WITH 16d NAILS. USE 6 NAILS PER EACH 2"x12" PLANK AS SHOWN.  
 3"x12" SUBFLOOR PLANKS SHALL BE NAILED TO 4"x12" CONTINUOUS NAILER WITH 40d NAILS. USE 6 NAILS PER EACH SUBFLOOR PLANK AS SHOWN.  
 2"x12" SIDE HEADER TO BE NAILED TO THE SUBFLOOR PLANK (3"x12") WITH 16d NAILS AS SHOWN IN DETAIL.  
 16d NAILS AND 40d NAILS SHALL BE USED IN 7/64" φ AND 5/32" φ PREBORED HOLES.



**NOTE:**  
 THE PLANKS SHALL BE LAID HEART SIDE DOWN AS SHOWN. THE PLANKS SHALL BE CAREFULLY GRADED AS TO THICKNESS AND SO LAID THAT NO TWO ADJACENT PLANKS SHALL VARY IN THICKNESS BY MORE THAN 1/16 INCH.

- DECK REPLACEMENT PROCEDURE**
1. REMOVE THE WOODEN WEARING SURFACE, SUBFLOOR AND NAILERS.
  2. PROVIDE TEMPORARY SUPPORT UNDER THE EXISTING STEEL BEAM.
  3. REMOVE THE EXISTING TIMBER PILE CAP AND REPLACE IT WITH A NEW 12"x12" TIMBER PILE CAP.
  4. INSTALL A 12"x12" STEEL PLATE (THICKNESS AS REQUIRED) BETWEEN THE PILE CAP AND THE EXISTING STEEL BEARING PLATE.
  5. REMOVE WELD BETWEEN THE STEEL STRAP AND THE BOTTOM FLANGE OF THE BEAM.
  6. AFTER THE BEAM HAS SEATED FIRMLY, WELD THE STEEL STRAP TO THE BOTTOM FLANGE.
  7. PERFORM THIS PROCEDURE FOR ALL FOUR CORNERS, ONE AT A TIME.
  8. REMOVE TEMPORARY SUPPORT.
  9. REPLACE THE WOODEN DECK AS SHOWN ON THE DRAWING.

- GENERAL NOTES:**
1. EXCEPT WHERE OTHERWISE SHOWN ON THE PLAN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 1990 EDITION.
  2. THE LUMBER FOR THIS STRUCTURE SHALL BE DRESSED SOUTHERN PINE NO. 1 KD (F<sub>s</sub> = 1750 P.S.I.) OR BETTER, THAT HAS BEEN PRESSURE TREATED IN ACCORDANCE WITH A.W.P.B. L.P-22 AND THEN KILNDRIED AGAIN AFTER TREATMENT. (AVAILABLE THROUGH CONTINENTAL WOOD PRESERVERS, INC., 7500 E. DAVISON, DETROIT TEL. 365-9200). TREATED LUMBER, CUT AND TRIMMED IN THE FIELD, SHALL HAVE THEIR FRESH SURFACES BE COATED WITH A COPPER NAPHTHENATE PRESERVATIVE, "CUPRINOL GREEN" OR "END COAT" BY OSMOSE.
  3. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
  4. ALL NAILS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123.
  5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO ANY CONSTRUCTION, INCLUDING DISTANCE BETWEEN THE TOP OF THE PILES AND THE BOTTOM OF THE STEEL BEAM FOR DETERMINING THE SIZE OF THE TIMBER PILE CAP AND THE THICKNESS OF THE STEEL PLATE.

NO.	DATE	REVISIONS

designed by M.C.  
 drawn by J.L. BOURDEAUX  
 checked by J.J.  
 approved: M.C.

**CITY OF DETROIT**  
 city engineering department  
 for RECREATION DEPARTMENT

ROGELL GOLF COURSE PEDESTRIAN BRIDGE (BPG)

DECK REPLACEMENT

a.o. 91-56-07  
 contract no.  
 sheet 3 of 4  
 drawing no. C-1  
 date MAY-1991



no.	description	date

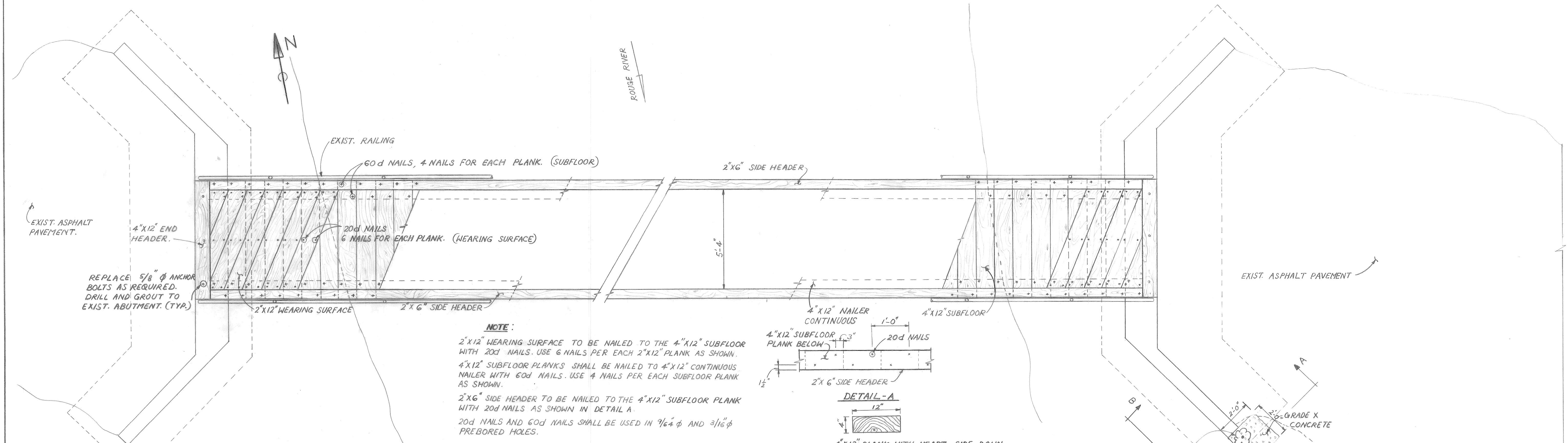
designed by MC.  
 drawn by J.J.  
 checked by MC.  
 approved: *[Signature]*

**CITY OF DETROIT**  
 city engineering department  
 for DEPARTMENT OF PARKS & RECREATION.

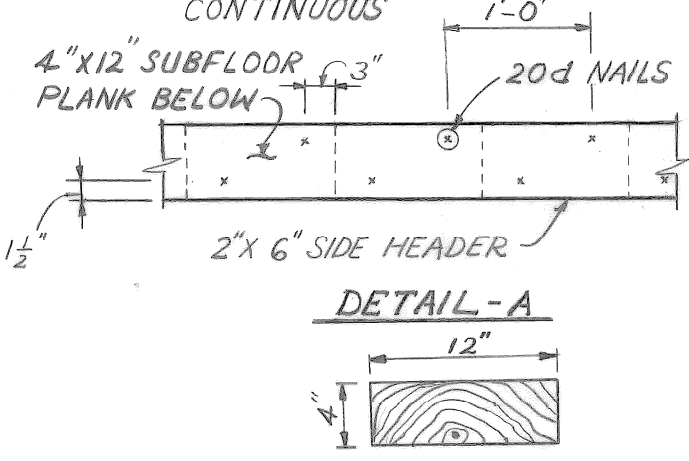
ROGELL GOLF COURSE  
 PEDESTRIAN BRIDGE (BP-7)

DECK REPLACEMENT

a.o. 91-56-07  
 contract no. 4  
 sheet 4 of 4  
 drawing no. D-1  
 date MAY 1991

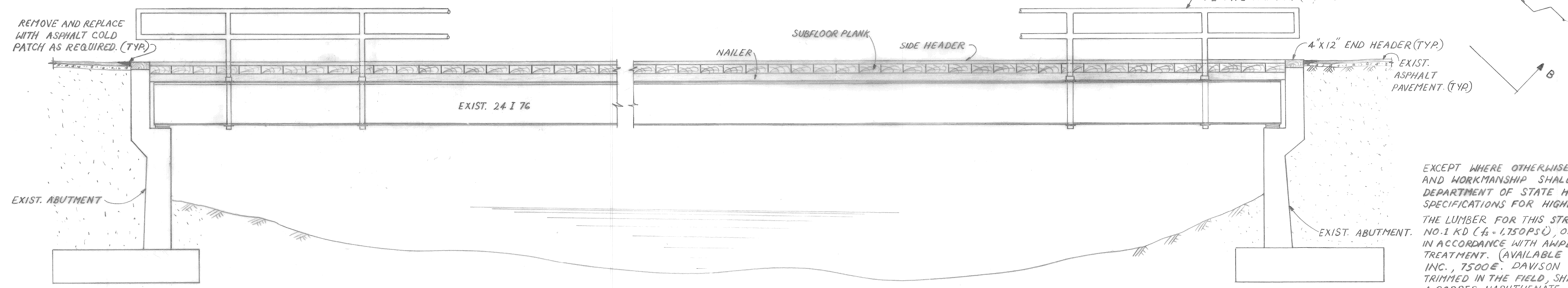


**NOTE:**  
 2"x12" WEARING SURFACE TO BE NAILED TO THE 4"x12" SUBFLOOR WITH 20d NAILS. USE 6 NAILS PER EACH 2"x12" PLANK AS SHOWN.  
 4"x12" SUBFLOOR PLANKS SHALL BE NAILED TO 4"x12" CONTINUOUS NAILER WITH 60d NAILS. USE 4 NAILS PER EACH SUBFLOOR PLANK AS SHOWN.  
 2"x6" SIDE HEADER TO BE NAILED TO THE 4"x12" SUBFLOOR PLANK WITH 20d NAILS AS SHOWN IN DETAIL A.  
 20d NAILS AND 60d NAILS SHALL BE USED IN 7/16" Φ AND 3/16" Φ PREBORED HOLES.



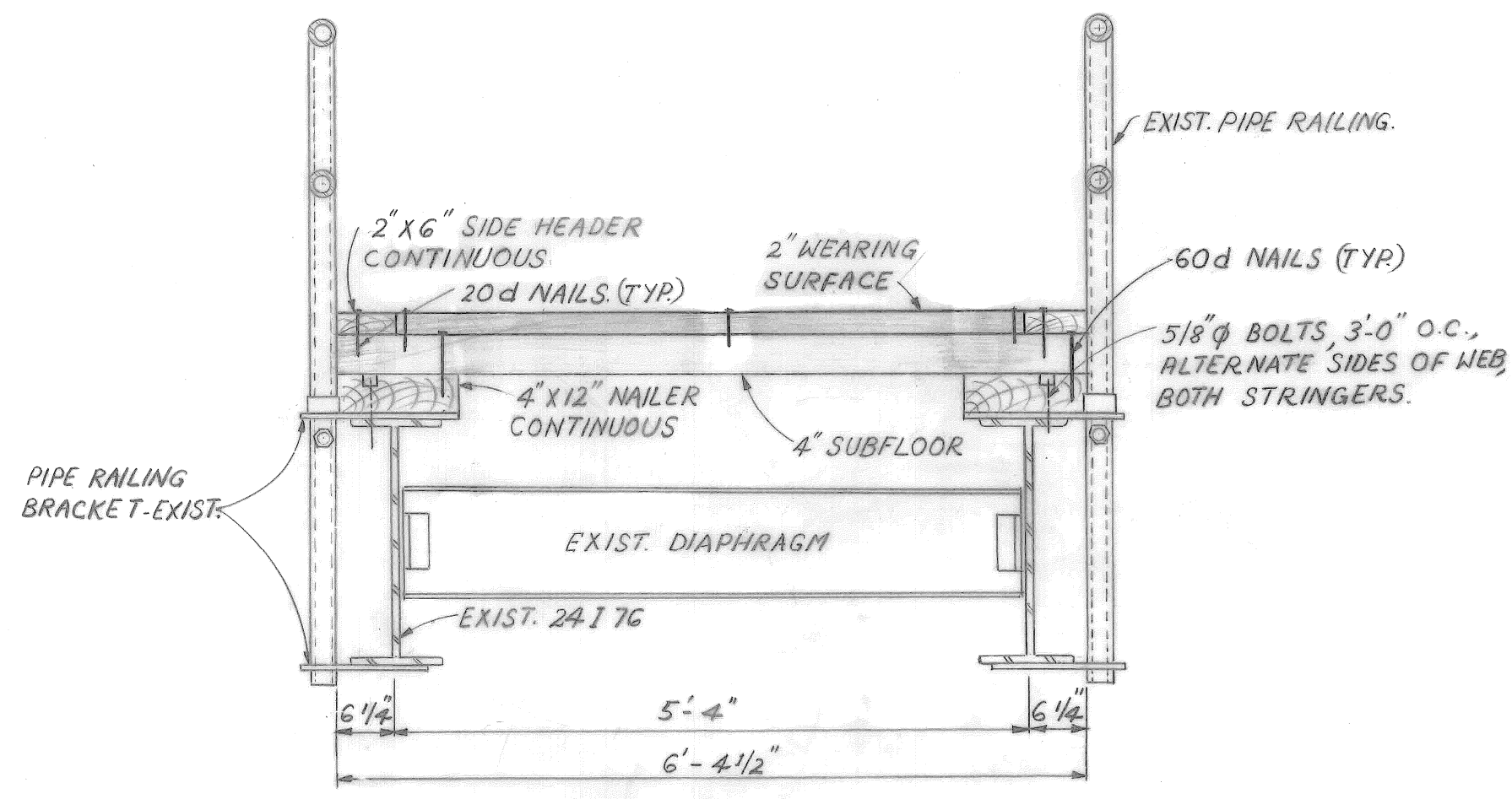
**NOTE:** THE PLANKS SHALL BE LAID HEART SIDE DOWN AS SHOWN.  
 THE PLANKS SHALL BE CAREFULLY GRADED AS TO THICKNESS AND SO LAD THAT NO TWO ADJACENT PLANKS SHALL VARY IN THICKNESS BY MORE THAN 1/16" INCH.

PLAN  
 SCALE: 3/8" = 1'-0"

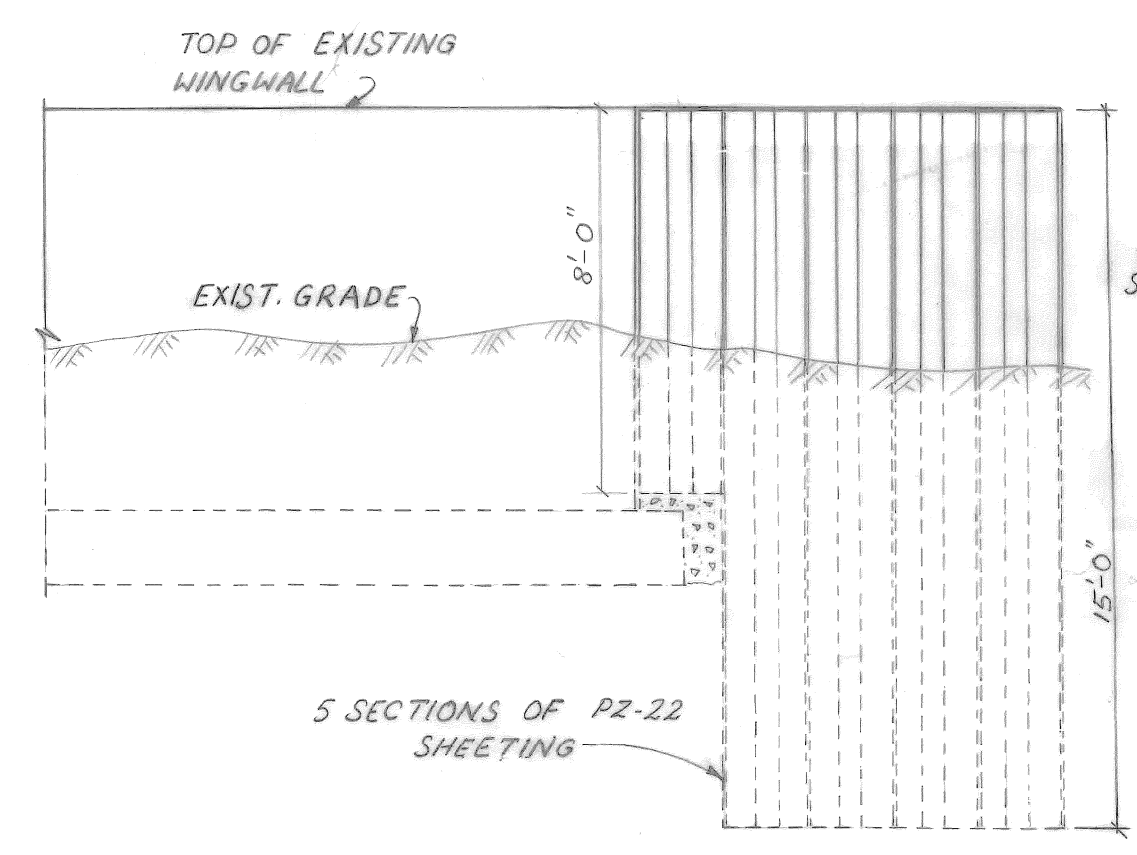


ELEVATION  
 SCALE: 3/8" = 1'-0"

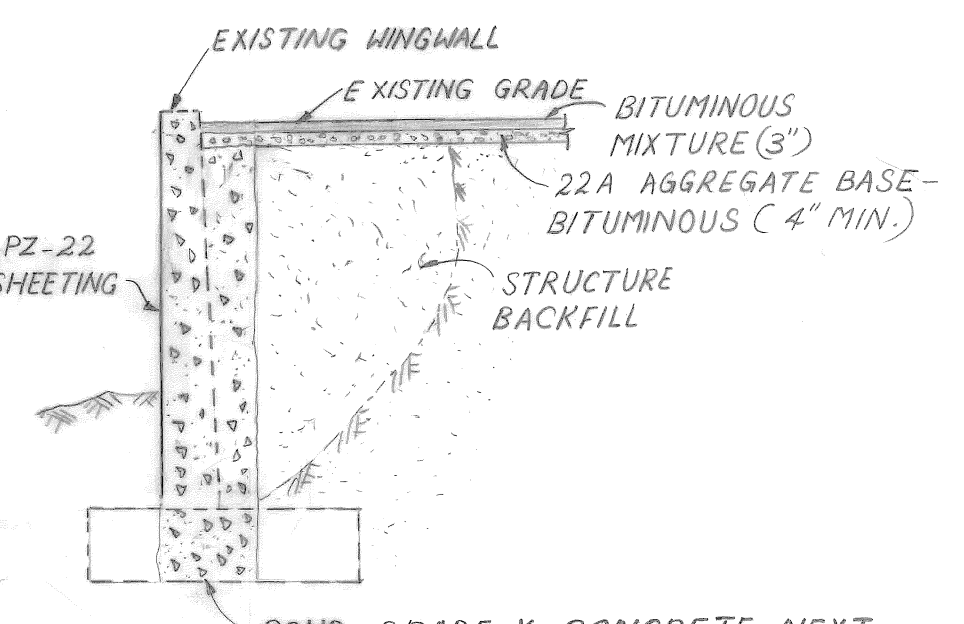
EXCEPT WHERE OTHERWISE SHOWN ON THE PLANS, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF STATE HIGHWAYS AND TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 1990 EDITION.  
 THE LUMBER FOR THIS STRUCTURE SHALL BE DRESSED SOUTHERN PINE NO. 1 KD (4-1750PS) OR BETTER THAT HAS BEEN PRESSURE TREATED IN ACCORDANCE WITH AWPA LP-22 AND THEN KILN-DRIED AGAIN, AFTER TREATMENT. (AVAILABLE THROUGH CONTINENTAL WOOD PRESERVERS, INC., 7500 E. DAWSON, DETROIT). TREATED LUMBER, CUT AND TRIMMED IN THE FIELD, SHALL HAVE THEIR FRESH SURFACES COATED WITH A COPPER NAPHTHENATE PRESERVATIVE, "CUPRINOL GREEN", OR "END COAT" BY OSMOSE.  
 BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.  
 ALL NAILS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123.  
 CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO ANY CONSTRUCTION.



SECTION  
 SCALE: 3/4" = 1'-0"



ELEVATION B-B  
 SCALE: 1/4" = 1'-0"



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