

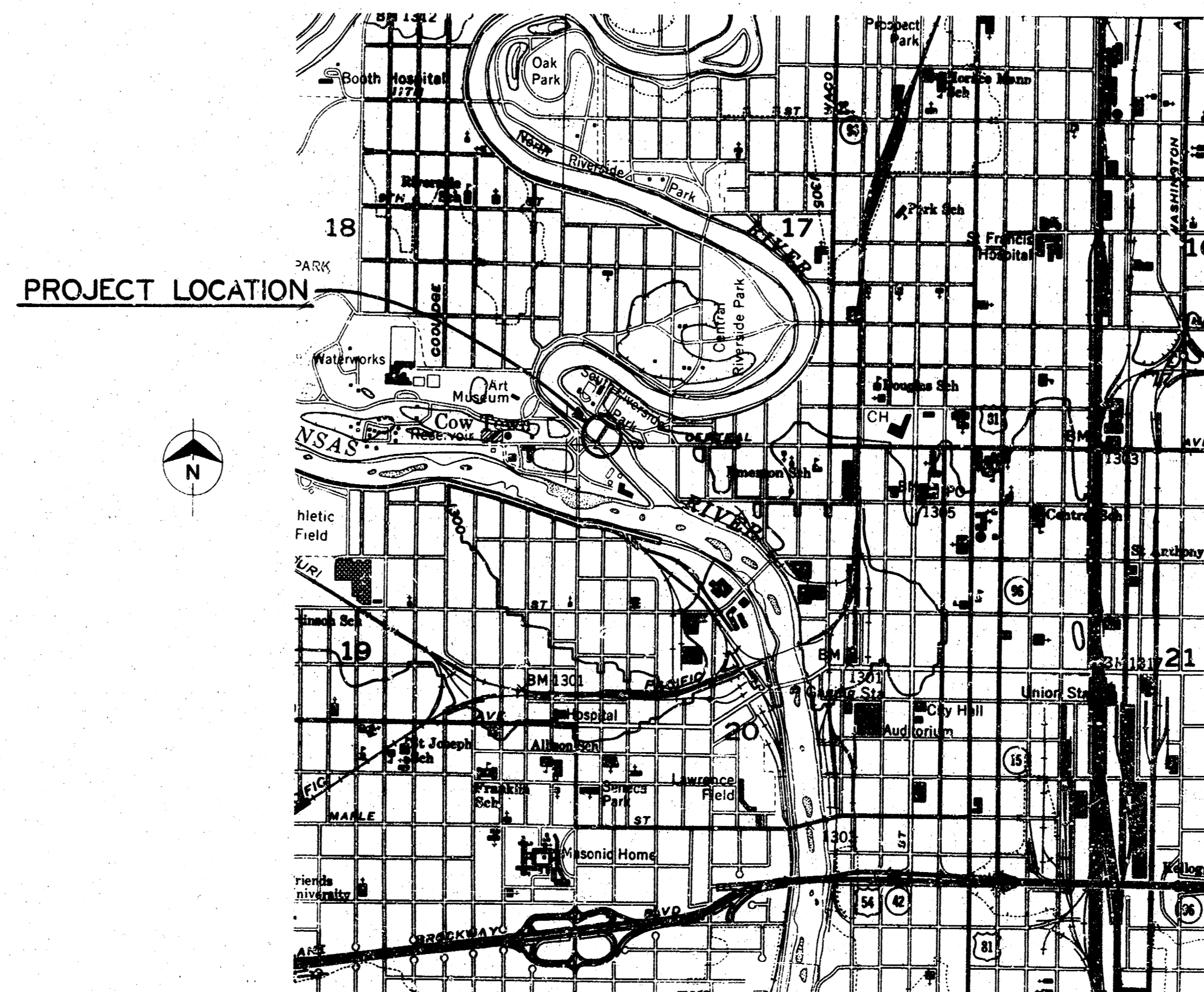
# CITY OF WICHITA, KANSAS

## Central Avenue Dam Improvements

Project No. 472 76 245 80851 000 000 001

### CONTRACT DRAWINGS

DRAWING NO.	TITLE
1.	SITE PLAN
2.	DEMOLITION PLAN AND DETAILS
3.	HYDRAULIC GATE STRUCTURE I
4.	HYDRAULIC GATE STRUCTURE II
5.	CREST OVERFLOW WALL
6.	MISCELLANEOUS DETAILS
7.	LOG BOOM DETAILS



VICINITY MAP

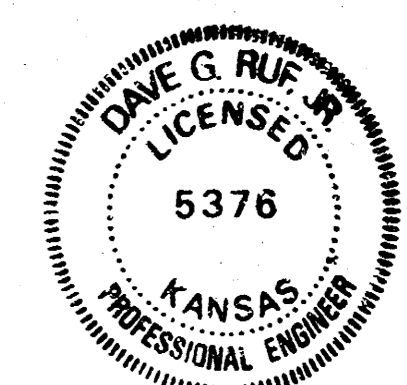
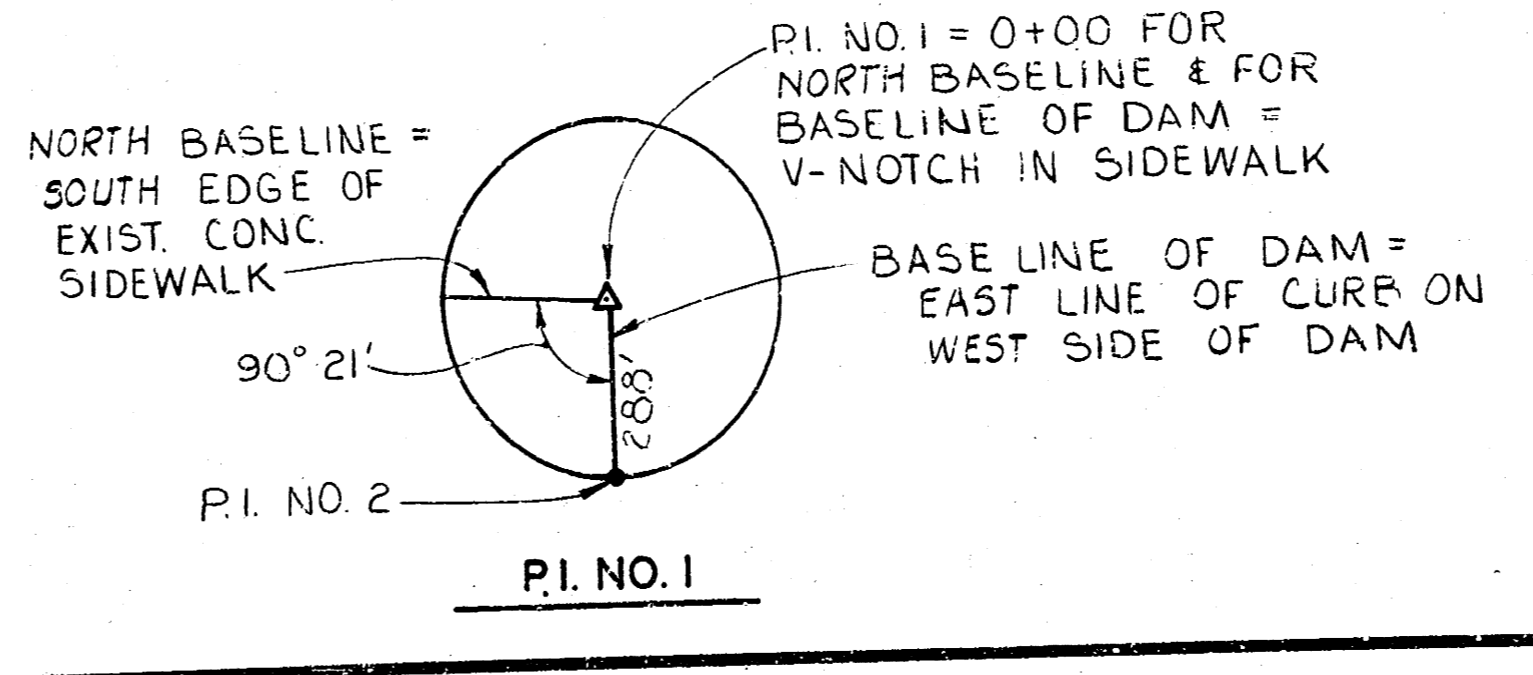
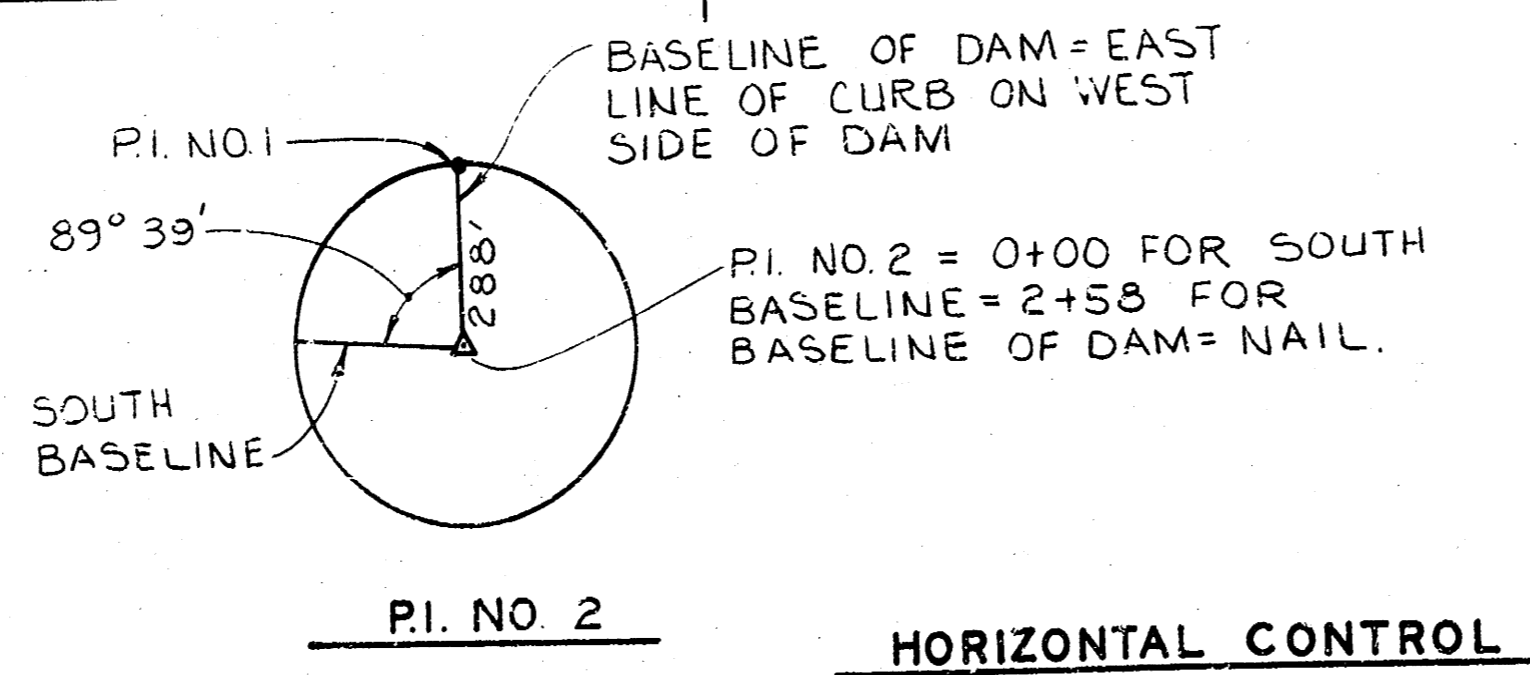
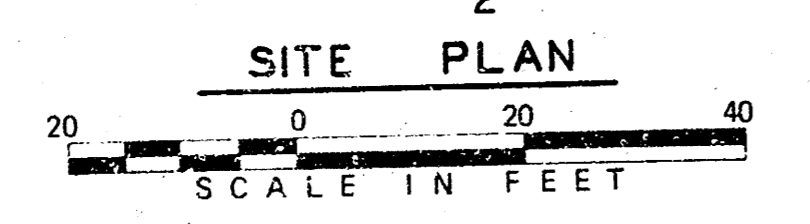
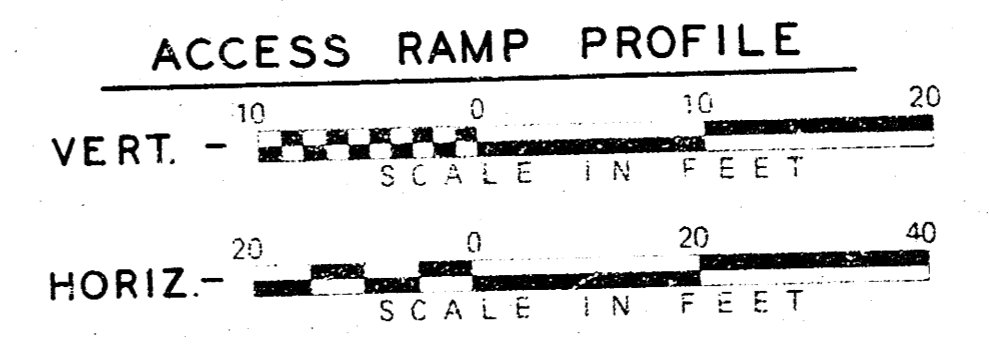
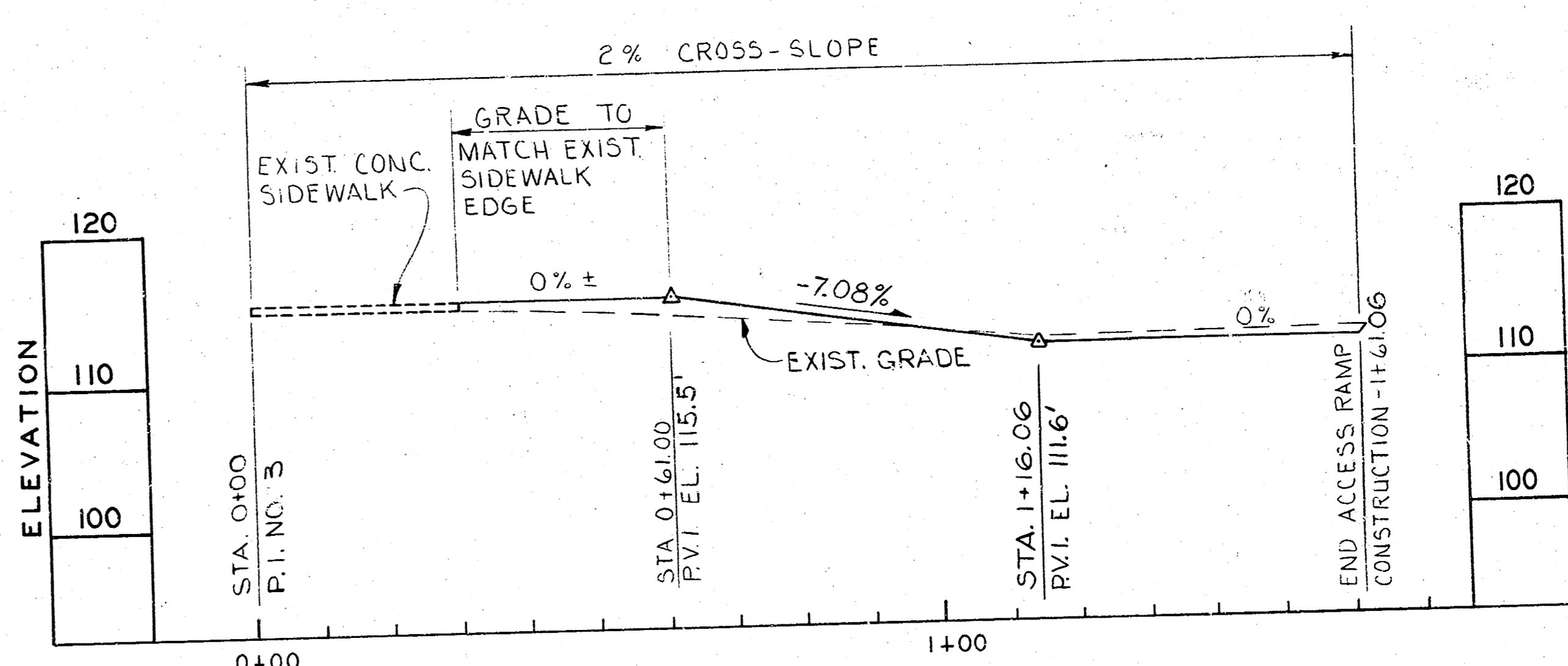
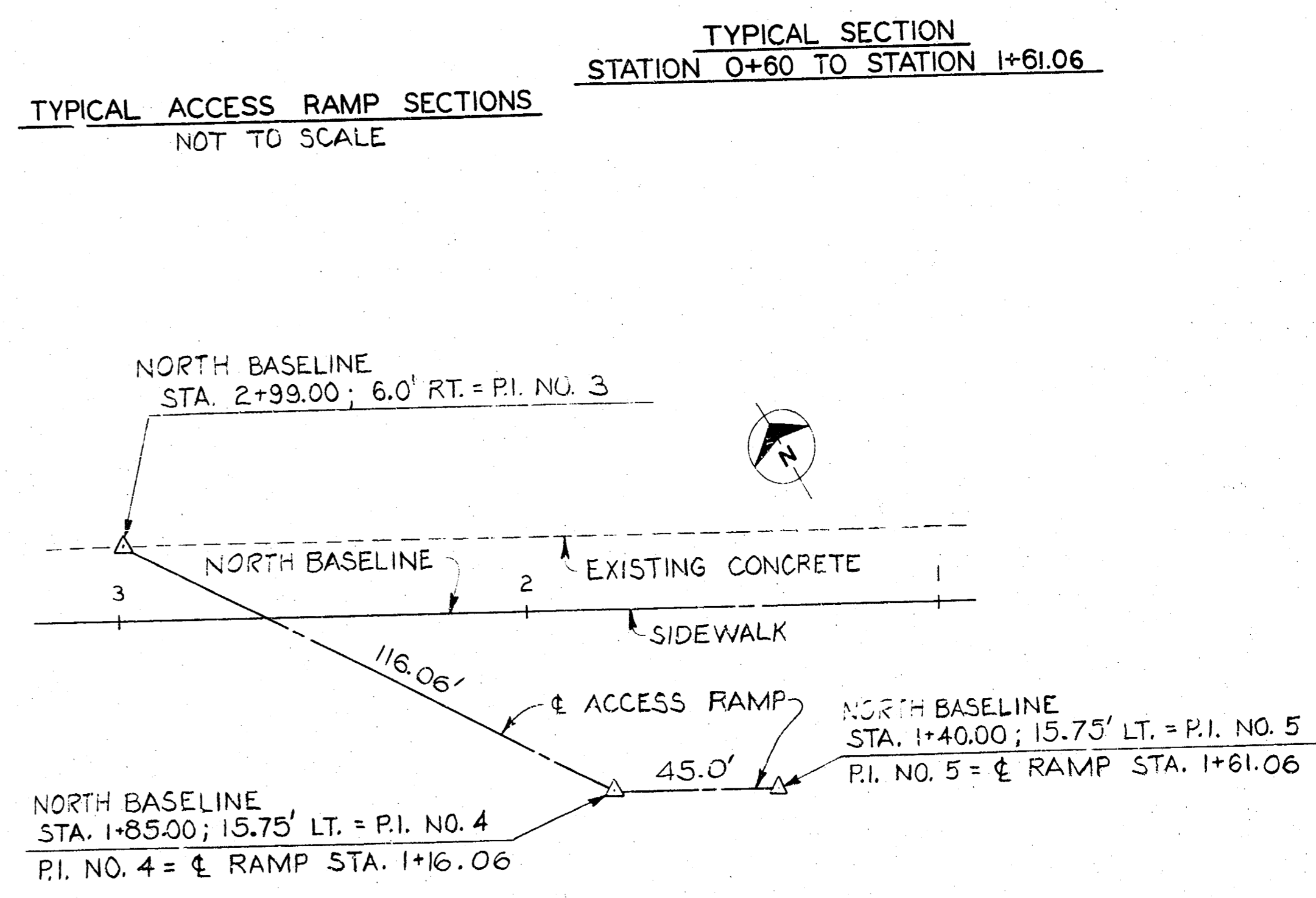
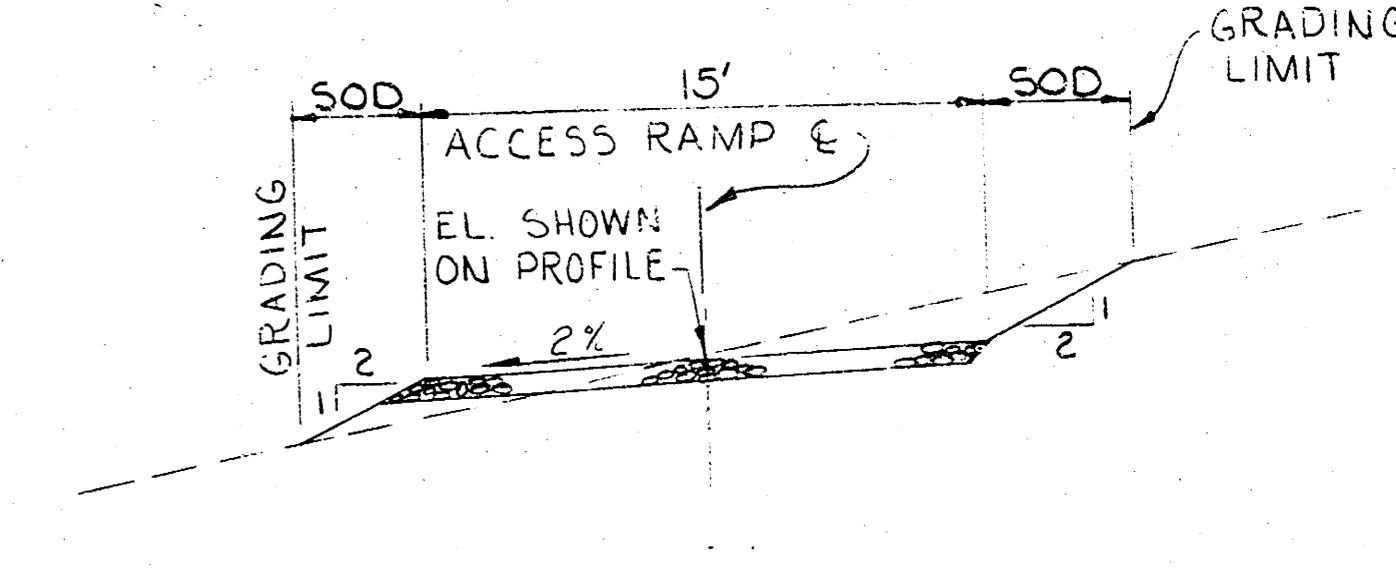
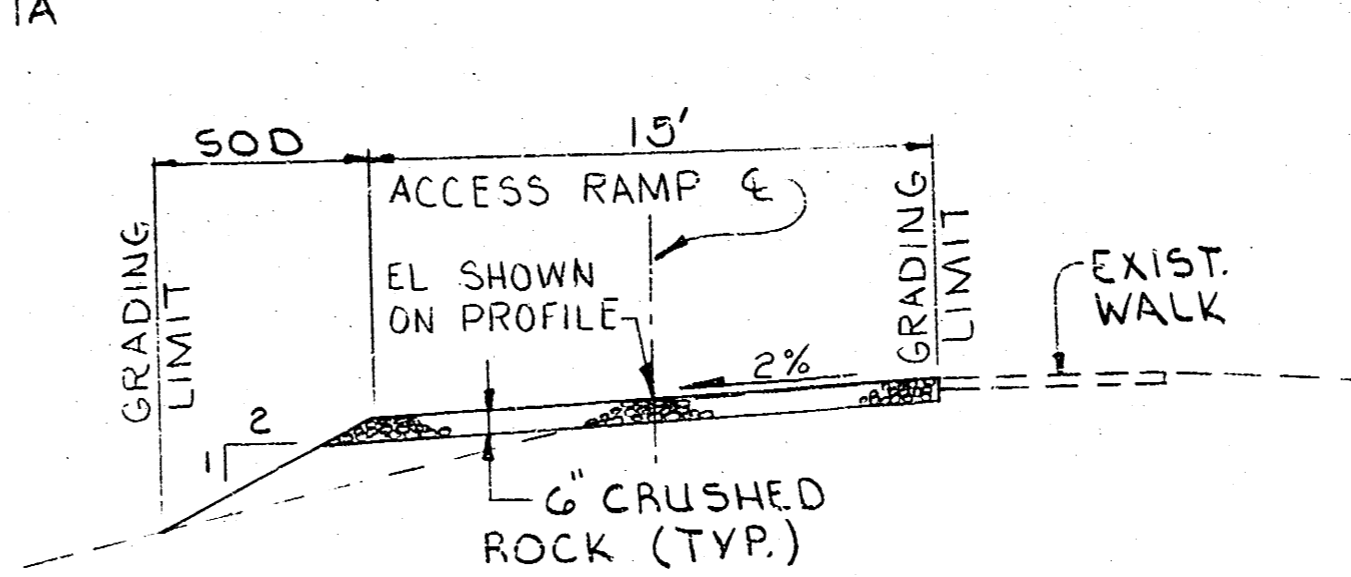
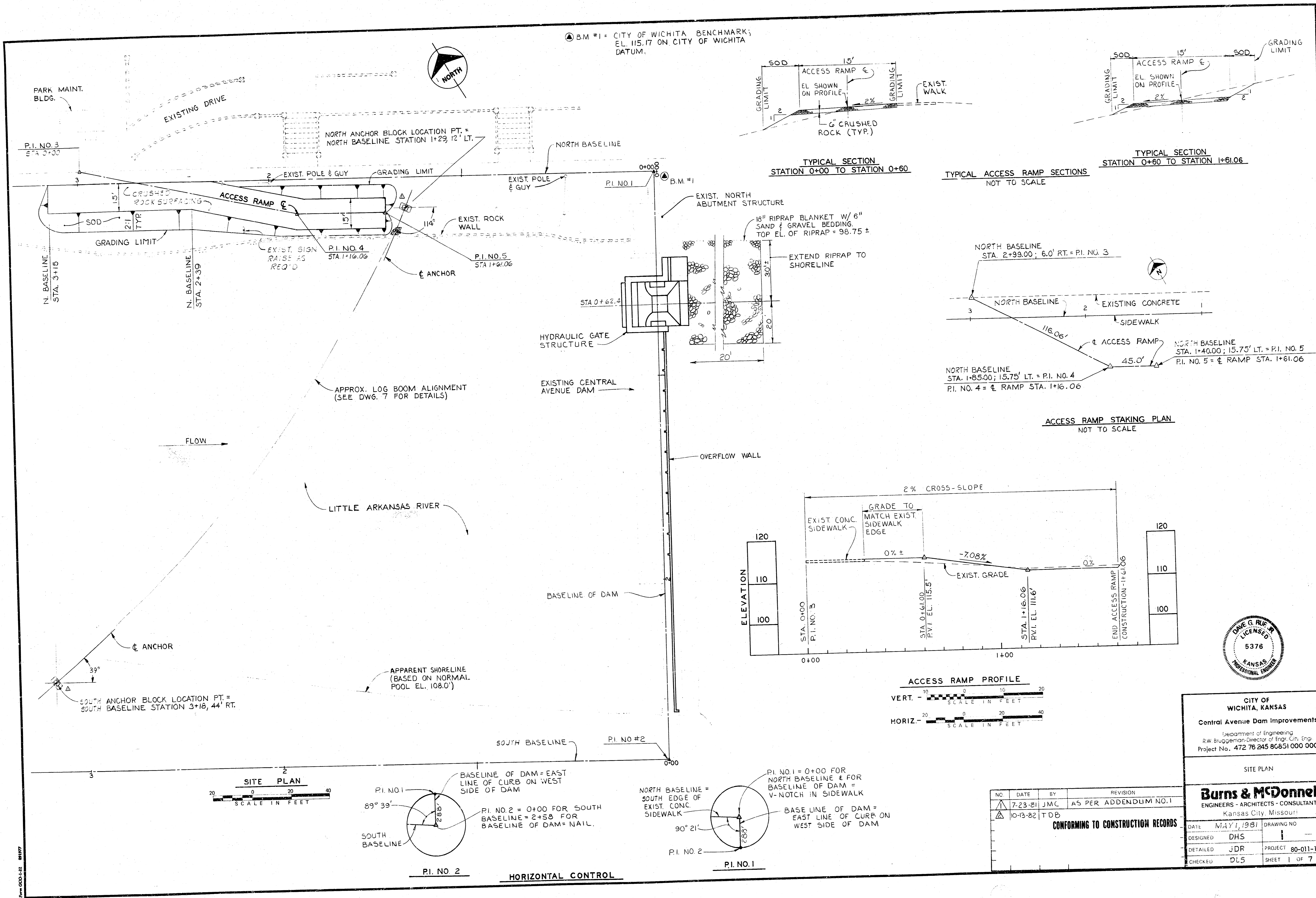
1981

APPROVED  
WICHITA, KANSAS

BY *RWB* DATE *4-27-01*  
R. W. Bruggeman  
Director of Eng./City Engineer

**Burns & McDonnell**  
ENGINEERS - ARCHITECTS - CONSULTANTS  
Kansas City, Missouri

▲ B.M. #1 = CITY OF WICHITA BENCHMARK;  
EL. 115.17 ON CITY OF WICHITA  
DATUM.

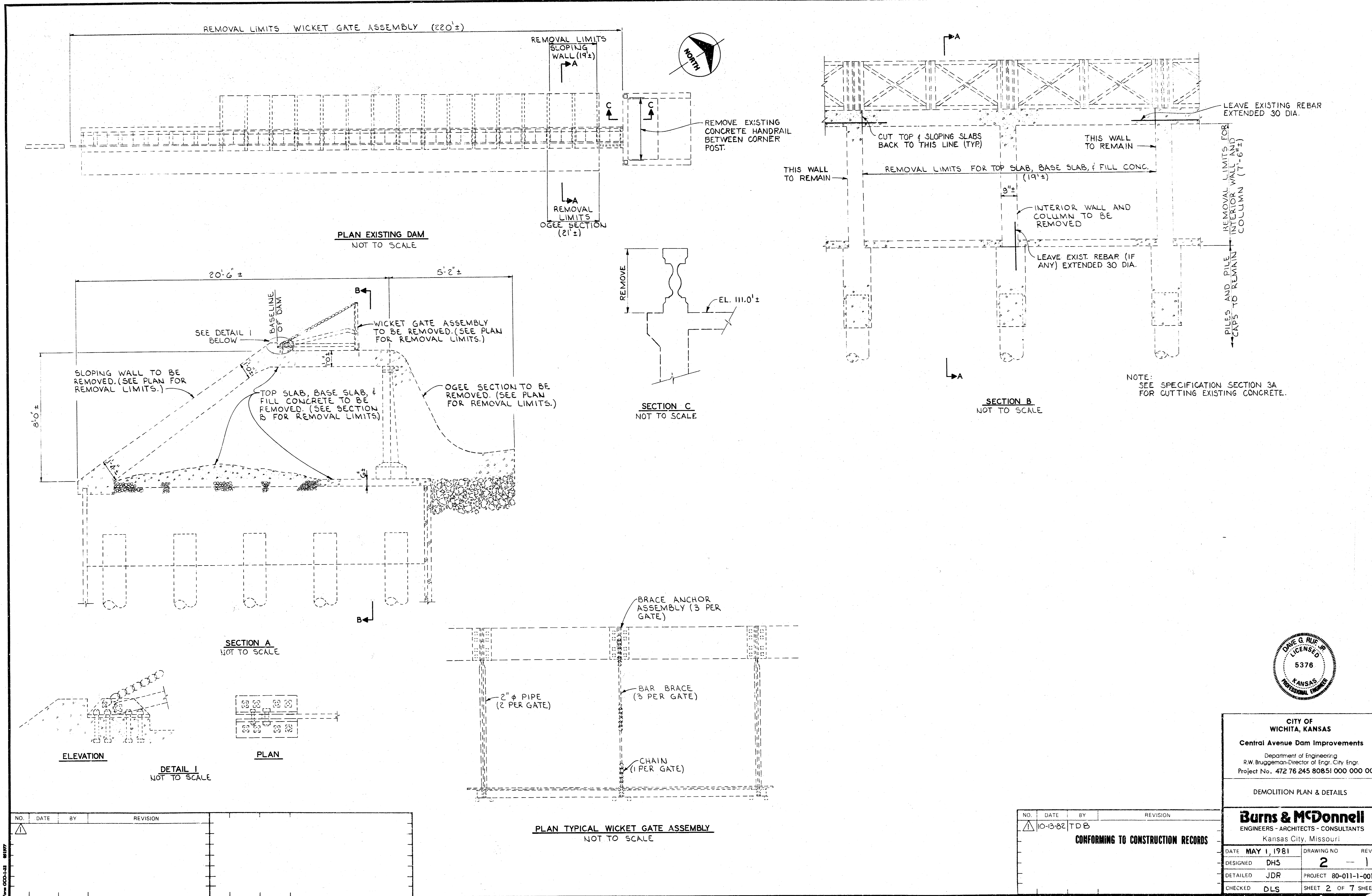


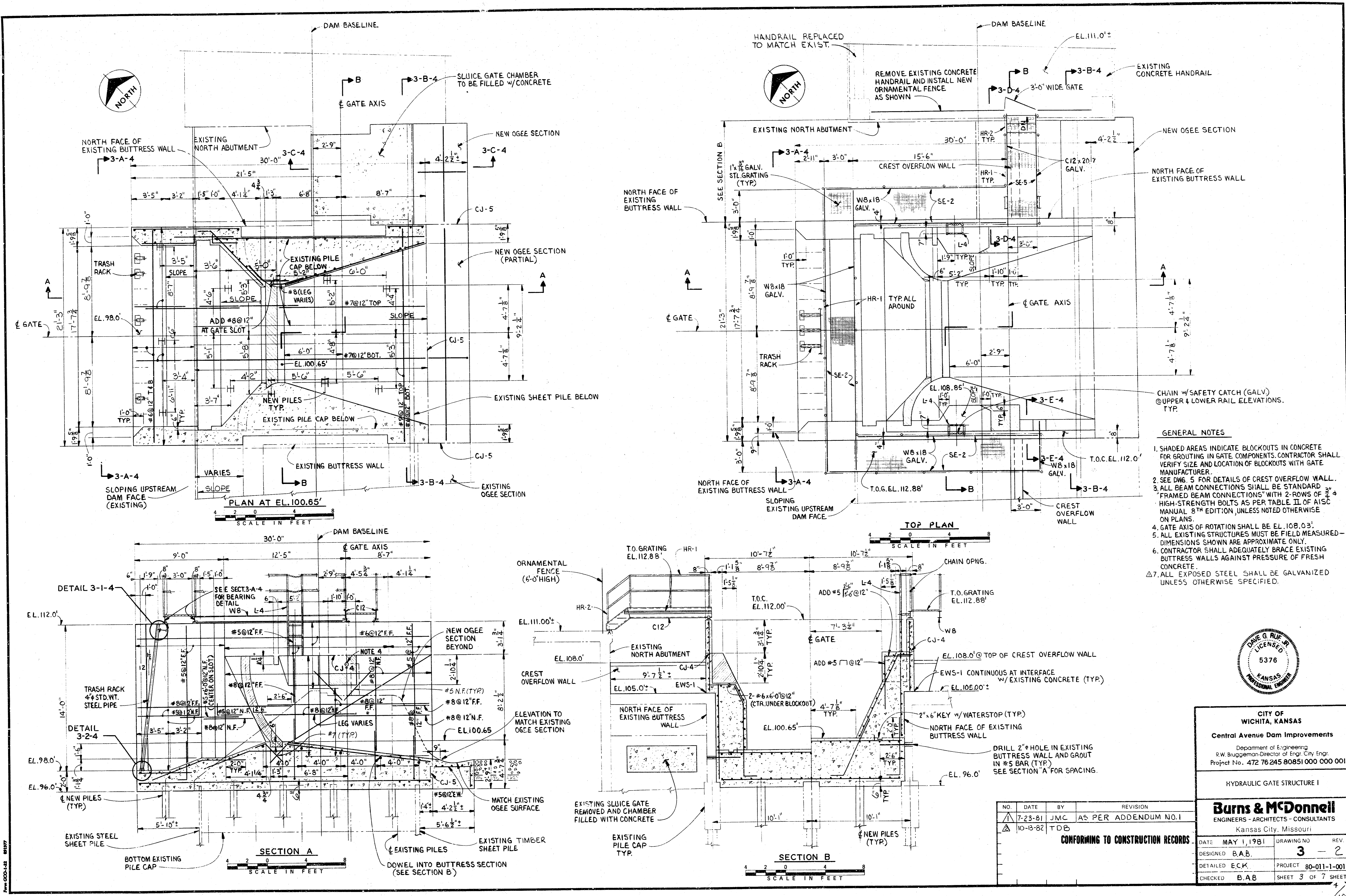
CITY OF WICHITA, KANSAS  
Central Avenue Dam Improvements  
Department of Engineering  
R.W. Bruggeman, Director of Eng. City, Eng.  
Project No. 472 76 245 80651 000 000 001

NO.	DATE	BY	REVISION
7-23-81	J.M.C.	AS PER ADDENDUM NO. 1	
10-13-82	J.D.B.		

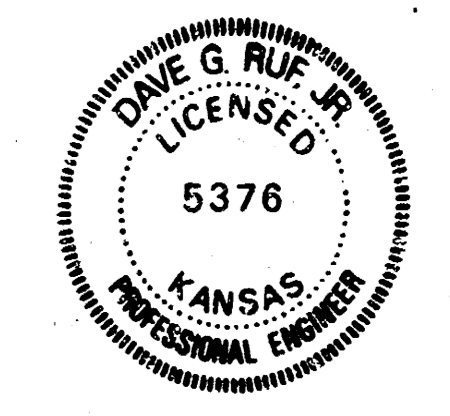
CONFORMING TO CONSTRUCTION RECORDS

DATE	MAY 1, 1981	DRAWING NO.	REV.
DESIGNED	DHS	1	2
DETAILED	JDR	PROJECT	80-011-1-001
CHECKED	DLS	SHEET	1 OF 7 SHEETS





- GENERAL NOTES**
1. SHADED AREAS INDICATE BLOCKOUTS IN CONCRETE FOR GROUTING IN GATE COMPONENTS. CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF BLOCKOUTS WITH GATE MANUFACTURER.
  2. SEE DWG. 5 FOR DETAILS OF CREST OVERFLOW WALL.
  3. ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED BEAM CONNECTIONS WITH 2-ROWS OF 3/4" HIGH-STRENGTH BOLTS AS PER TABLE II OF AISC MANUAL, 8TH EDITION, UNLESS NOTED OTHERWISE ON PLANS.
  4. GATE AXIS OF ROTATION SHALL BE EL. 108.03'.
  5. ALL EXISTING STRUCTURES MUST BE FIELD MEASURED - DIMENSIONS SHOWN ARE APPROXIMATE ONLY.
  6. CONTRACTOR SHALL ADEQUATELY BRACE EXISTING BUTTRESS WALLS AGAINST PRESSURE OF FRESH CONCRETE.
  7. ALL EXPOSED STEEL SHALL BE GALVANIZED UNLESS OTHERWISE SPECIFIED.



**CITY OF WICHITA, KANSAS**  
**Central Avenue Dam Improvements**  
 Department of Engineering  
 R.W. Buggeman-Director of Engr. City Engr.  
 Project No. 472 76245 80851 000 000 001

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HYDRAULIC GATE STRUCTURE I

**Burns & McDonnell**  
 ENGINEERS - ARCHITECTS - CONSULTANTS  
 Kansas City, Missouri

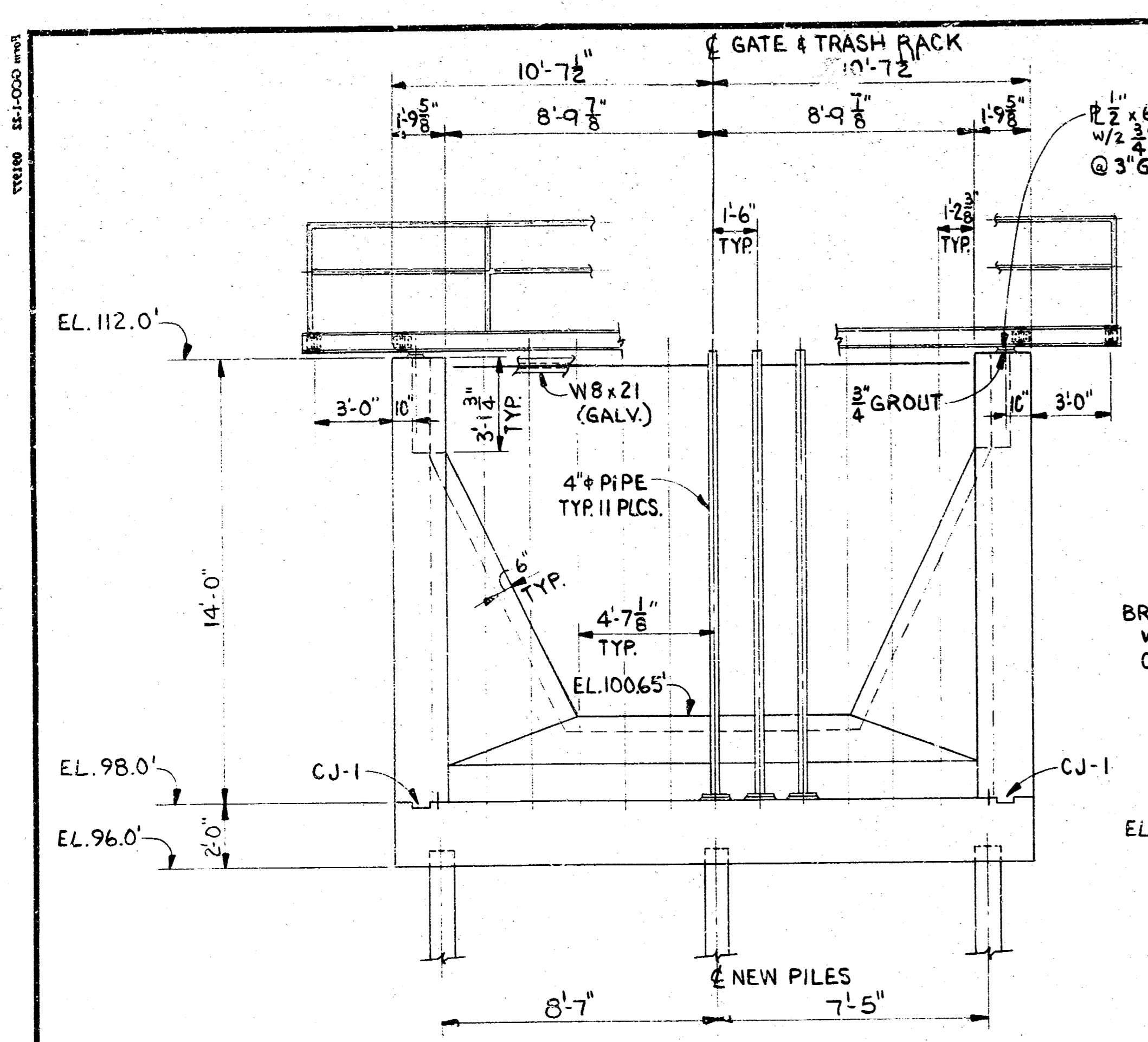
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DATE MAY 1, 1981 DRAWING NO. REV. 3 - 2  
 DESIGNED B.A.B. PROJECT 80-011-1-001  
 DETAILED E.C.K. SHEET 3 OF 7 SHEETS  
 CHECKED B.A.B.

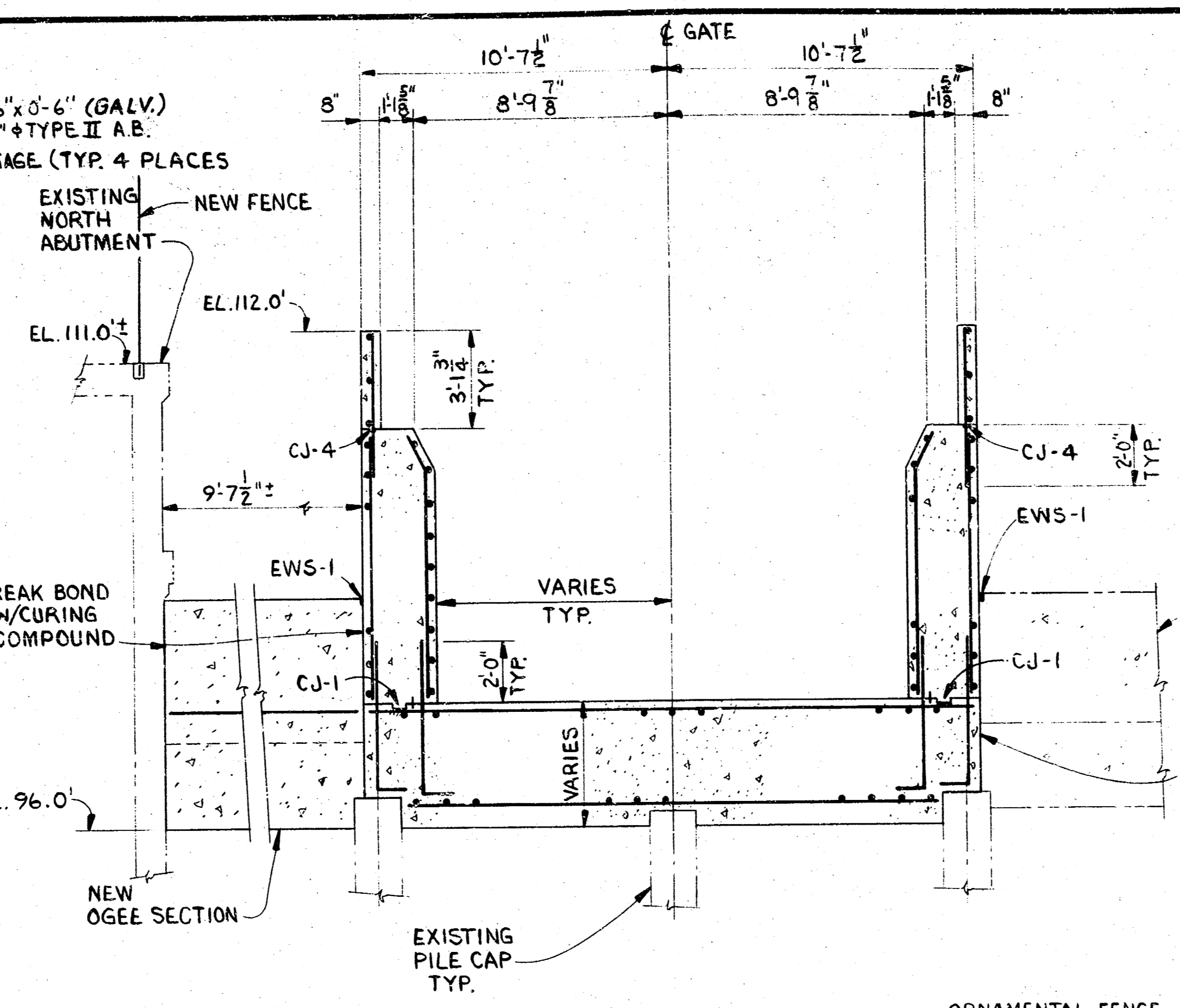
NO.	DATE	BY	REVISION
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2	10-13-82	T.O.B.	

CONFORMING TO CONSTRUCTION RECORDS

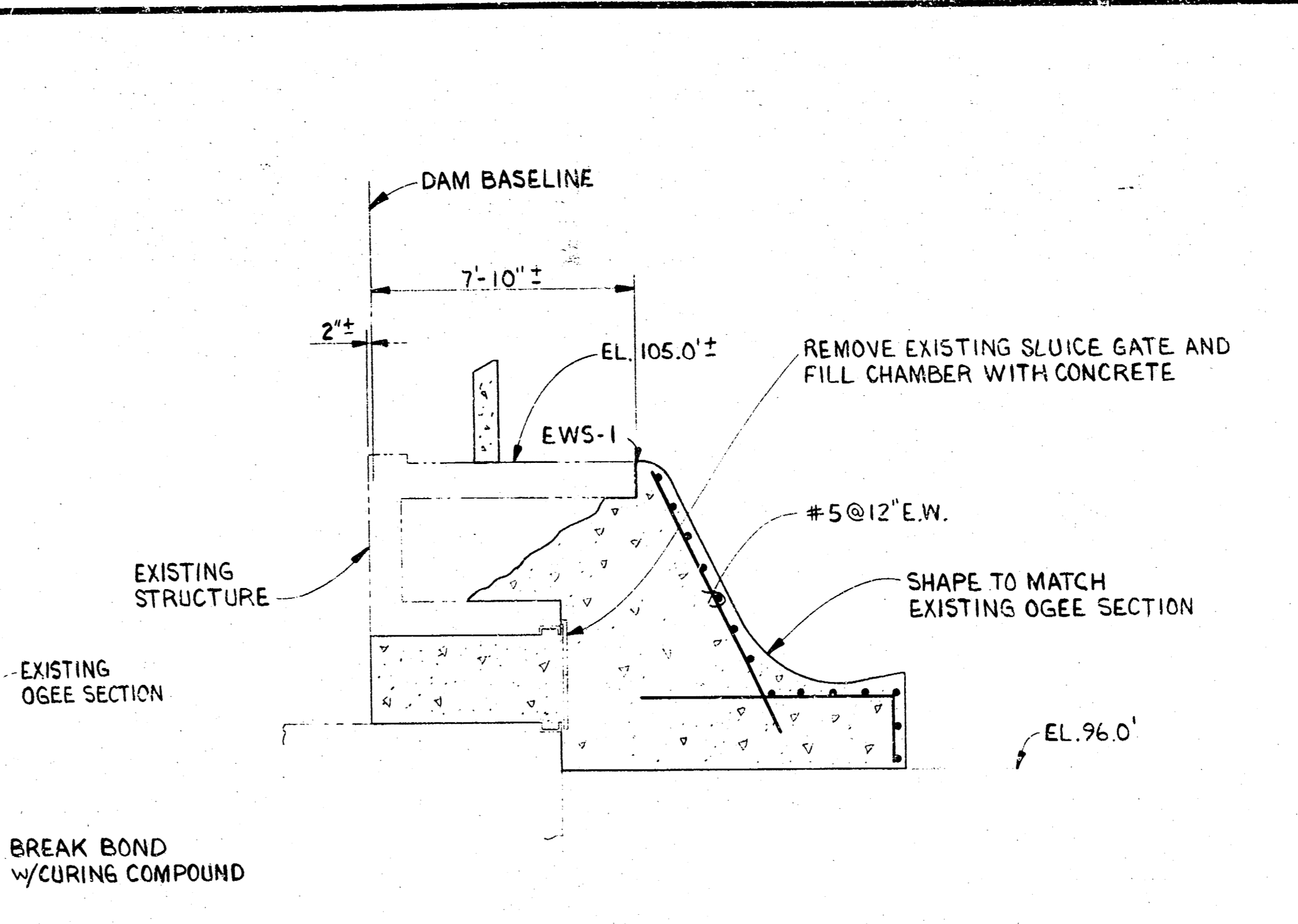
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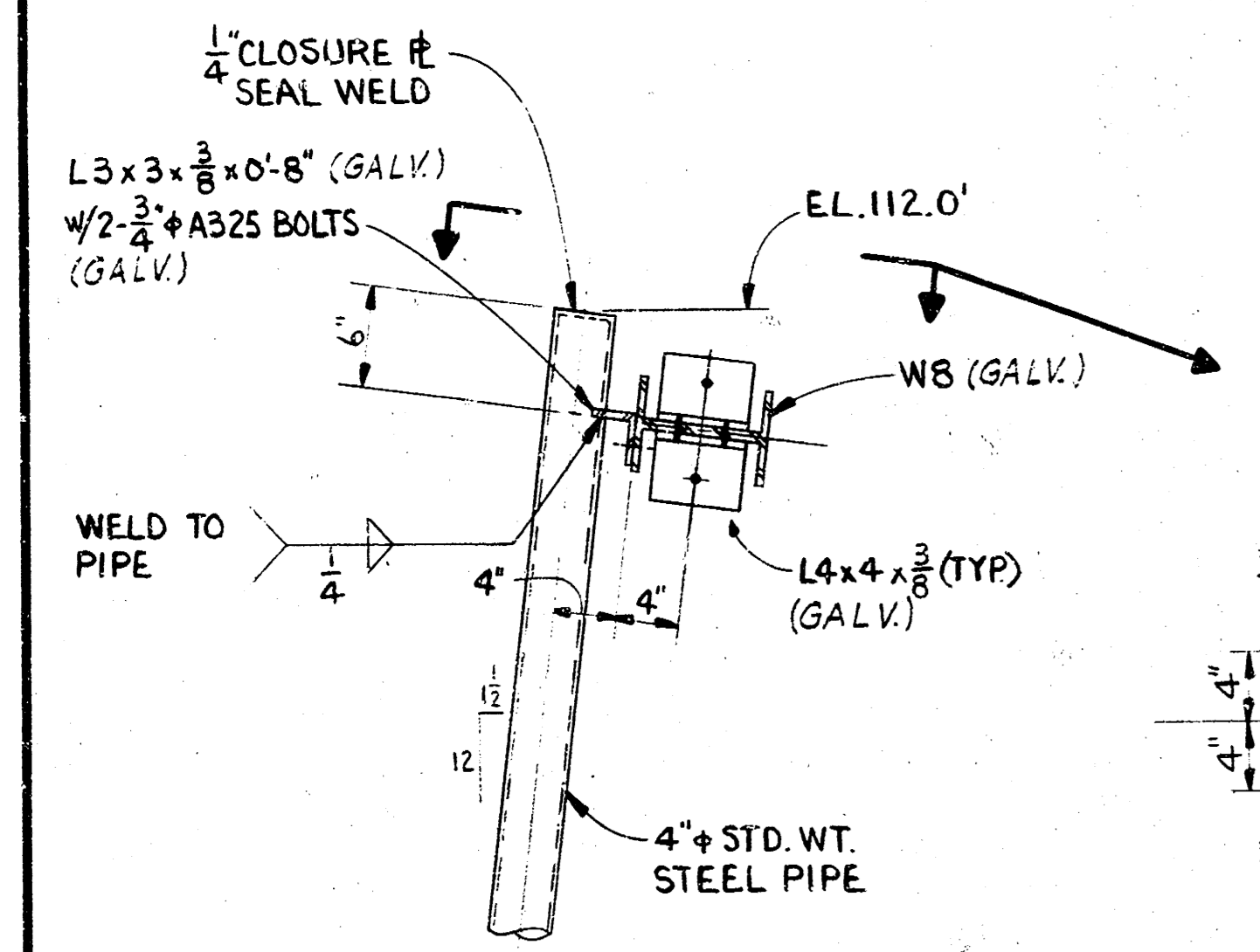
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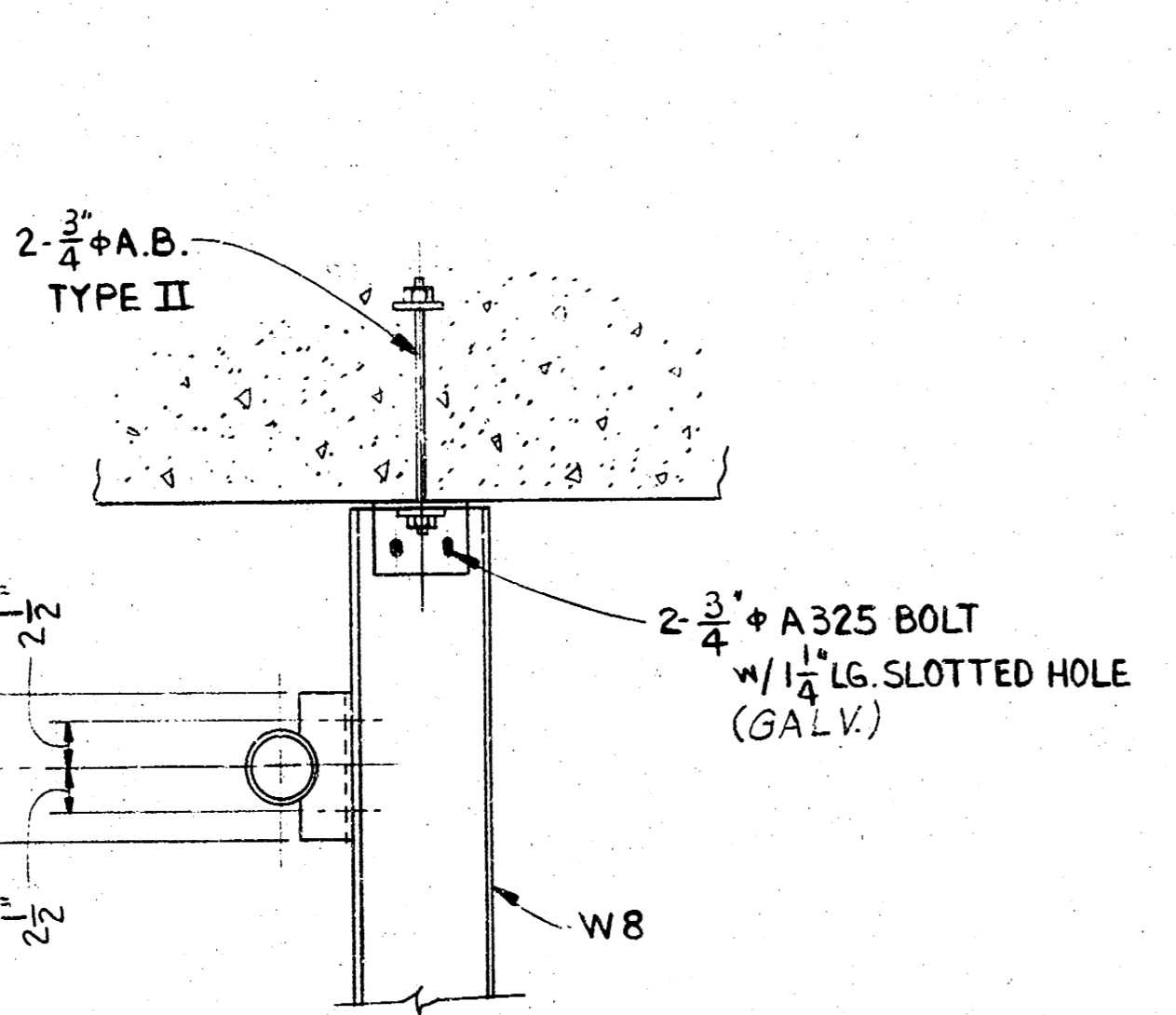
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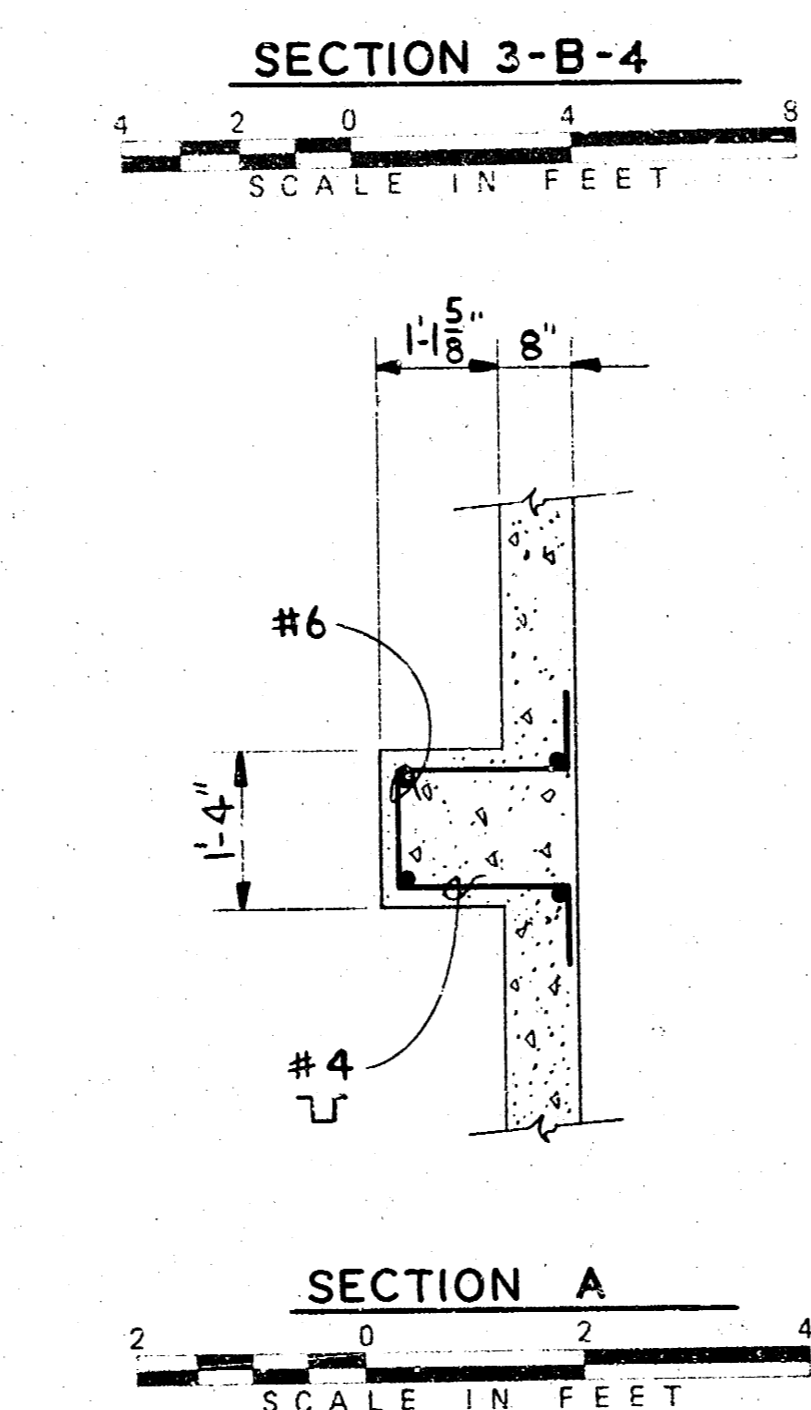
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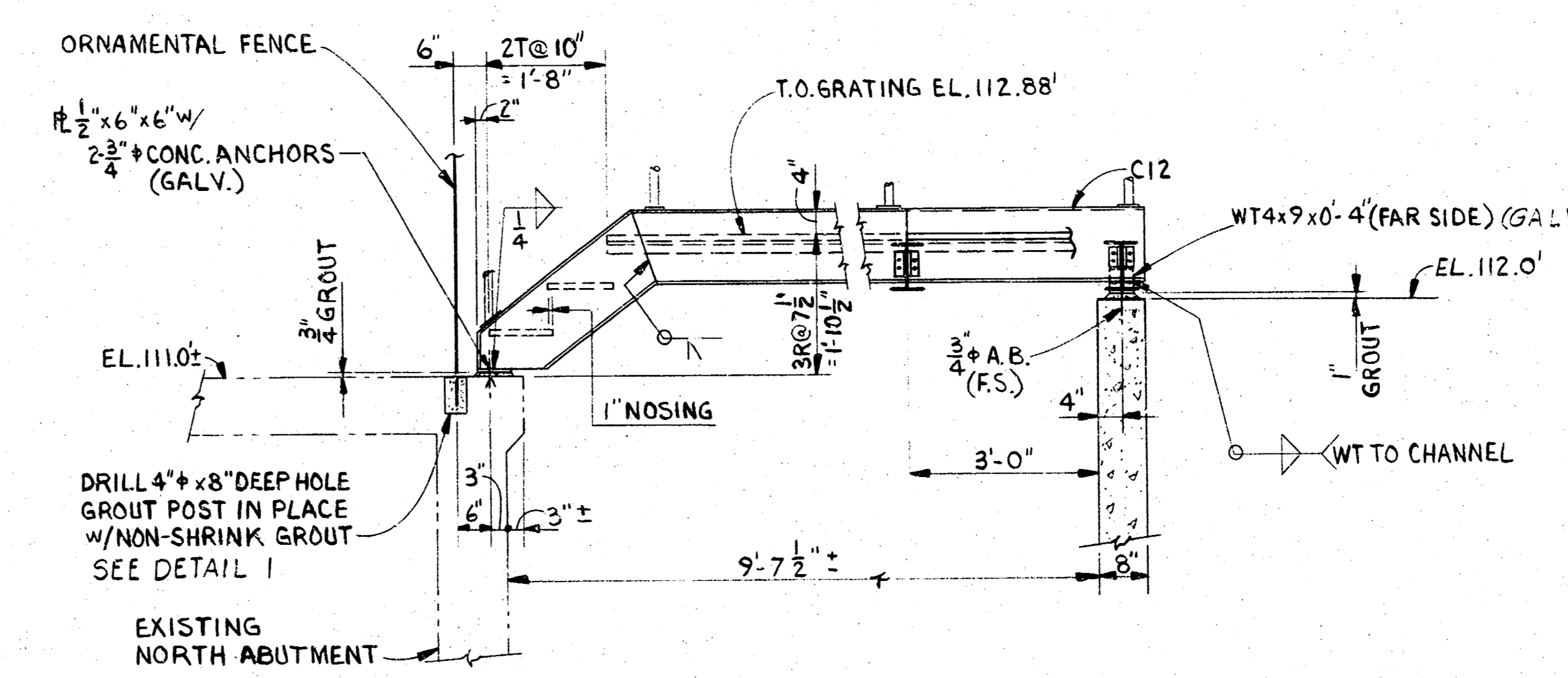
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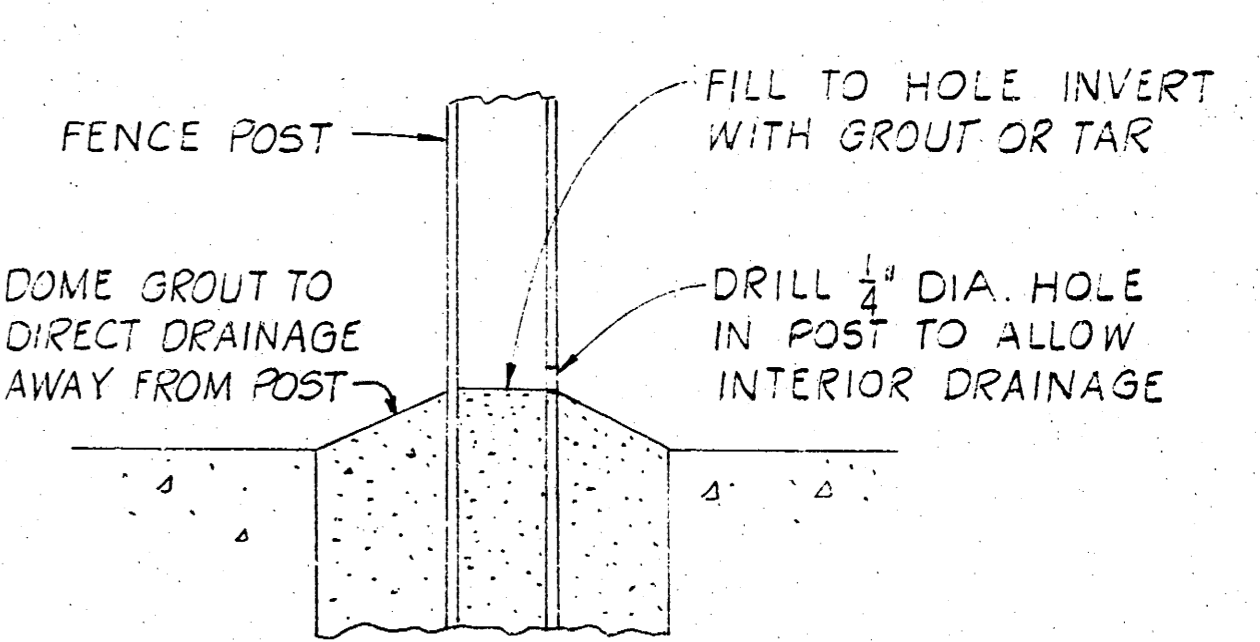
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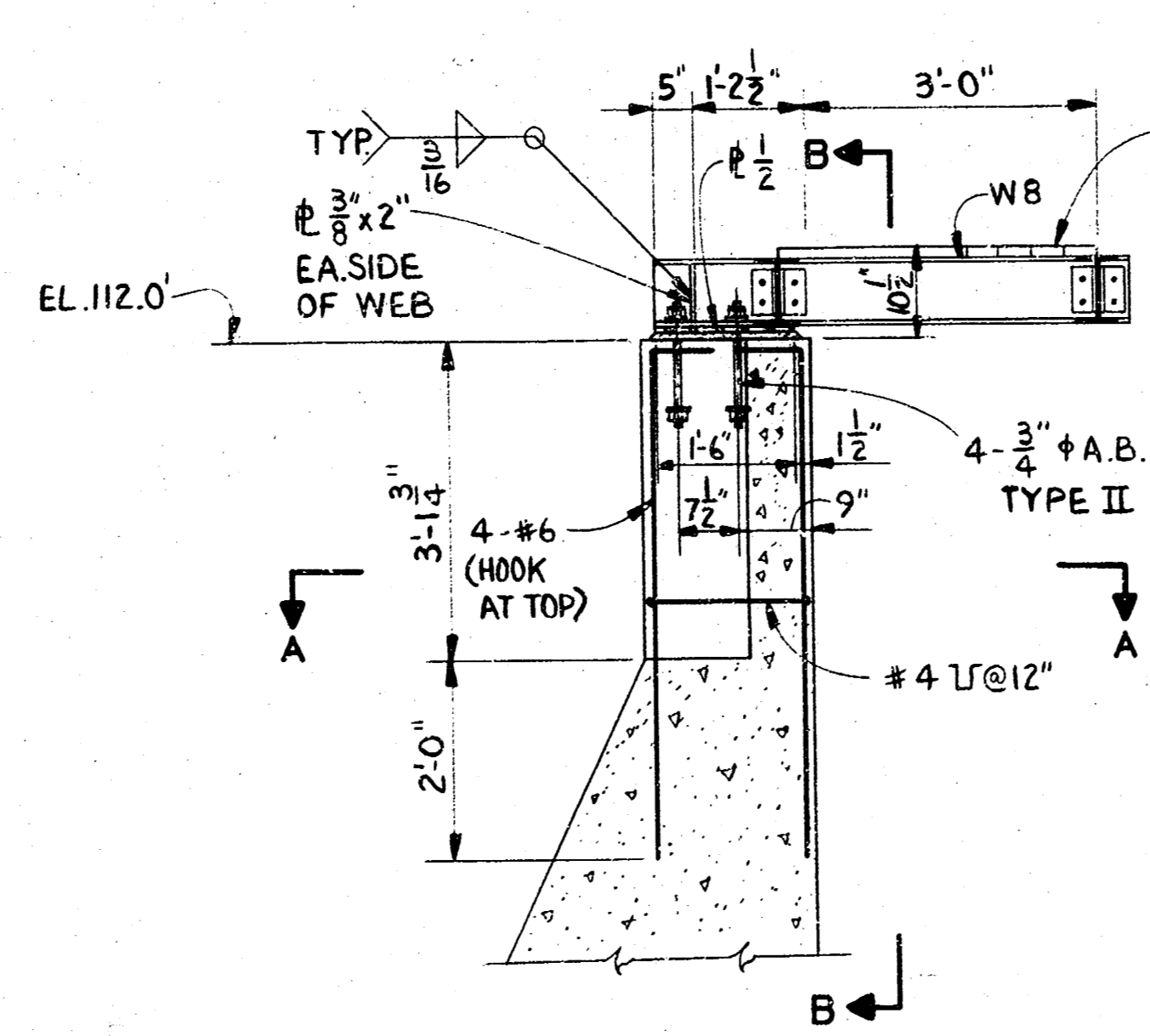
**SECTION A**  
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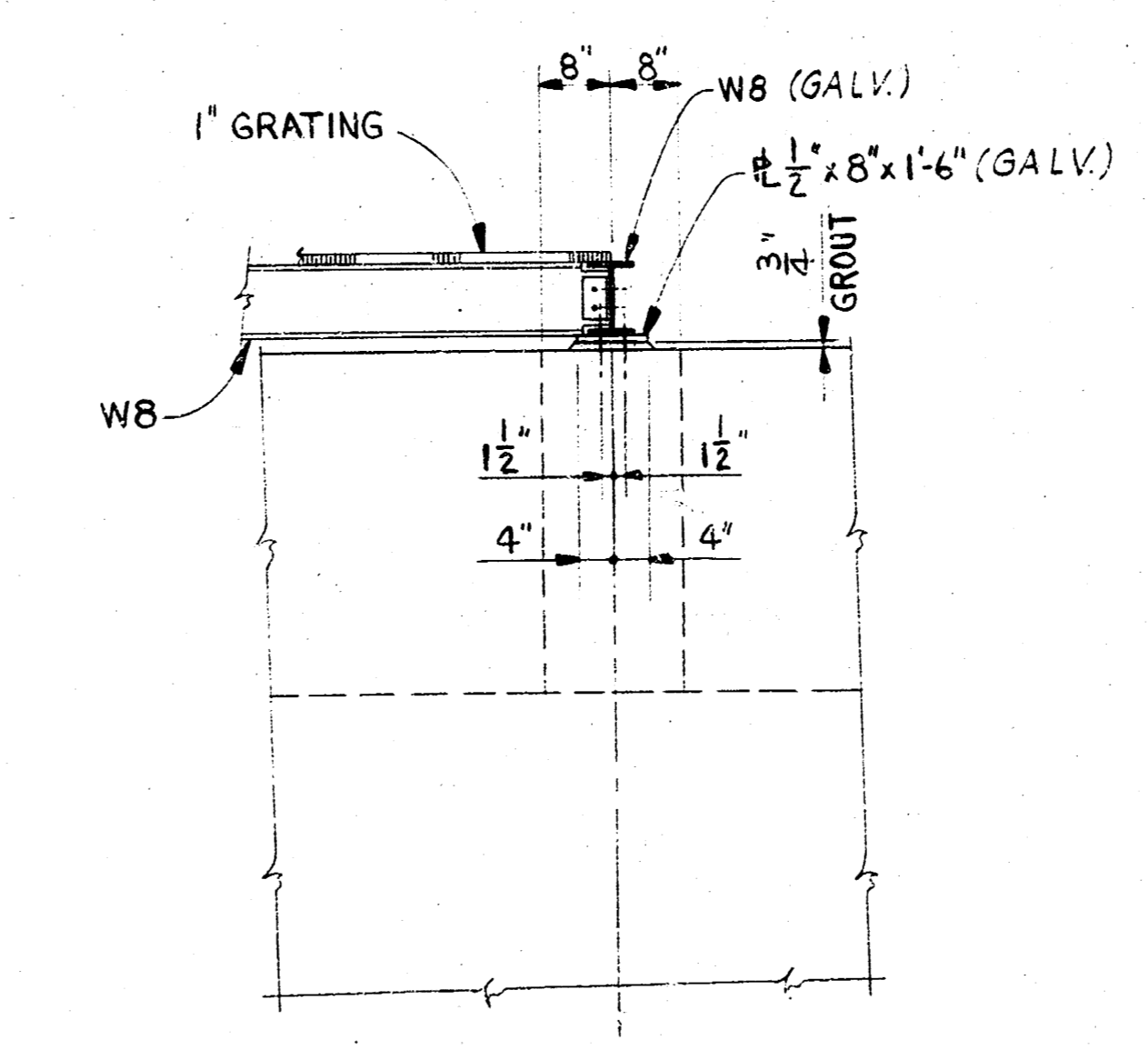
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SCALE IN FEET



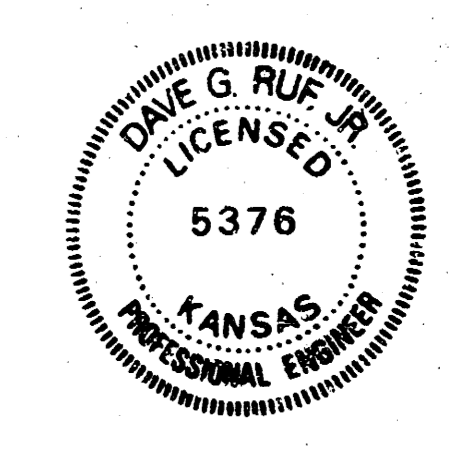
**DETAIL I**  
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**SECTION 3-E-4**  
SCALE IN FEET



**SECTION B**  
SCALE IN FEET



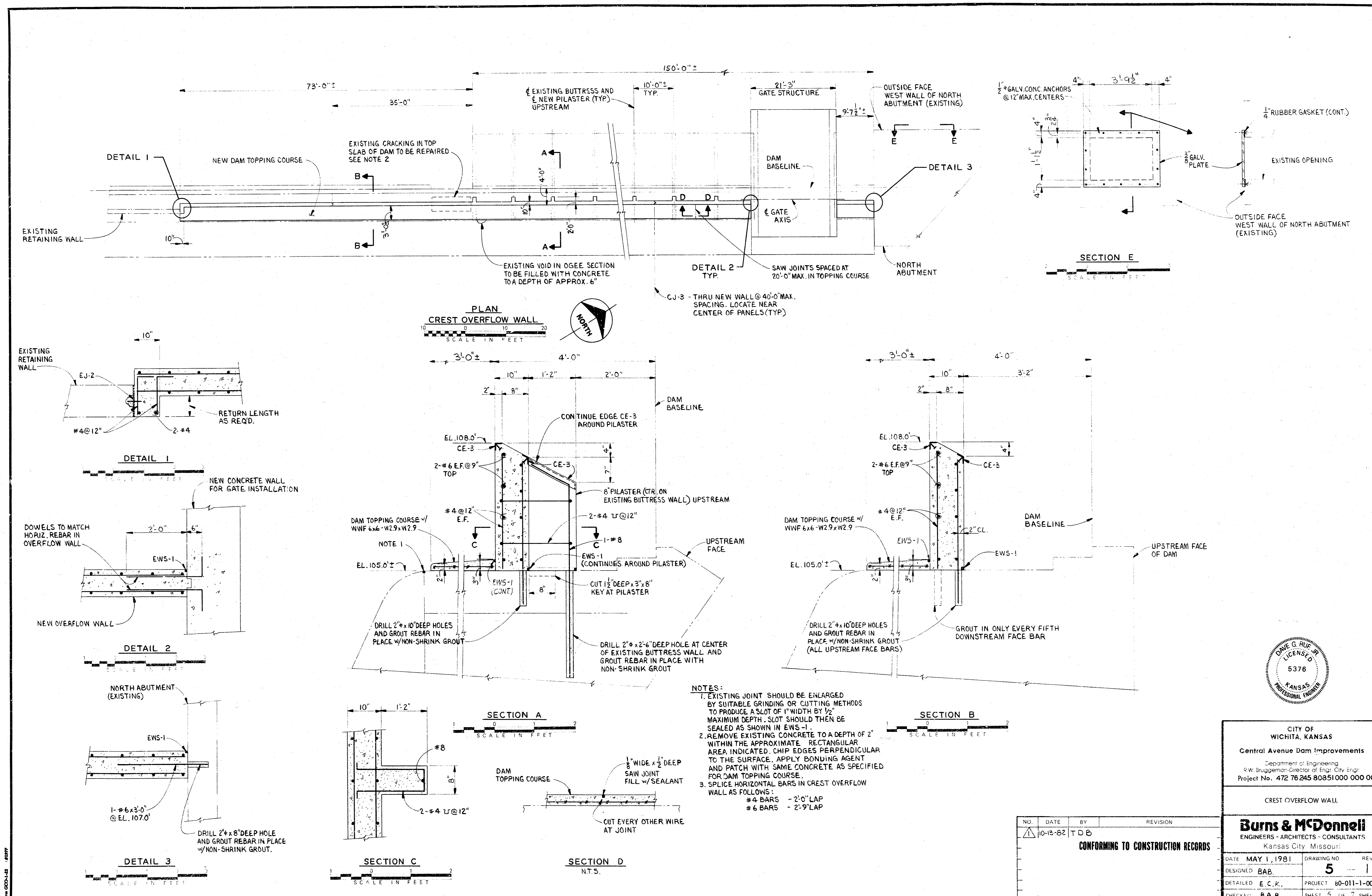
**CITY OF WICHITA, KANSAS**  
Central Avenue Dam Improvements  
Department of Engineering  
B.W. Bruggeman, Director of Engr. City Engr.  
Project No. 478.76.245.80851.000.000.001

HYDRAULIC GATE STRUCTURE II

**Burns & McDonnell**  
ENGINEERS - ARCHITECTS - CONSULTANTS  
Kansas City, Missouri

NO.	DATE	BY	REVISION
1	10-3-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

DATE	DESIGNED	DATE	DRAWING NO.	REV.
MAY 1, 1981	B.A.B.		4	1
	E.C.K.			
	B.A.B.			



**PLAN**  
CREST OVERFLOW WALL  
SCALE IN FEET

**SECTION E**  
SCALE IN FEET

**DETAIL 1**  
SCALE IN FEET

**DETAIL 2**  
SCALE IN FEET

**DETAIL 3**  
SCALE IN FEET

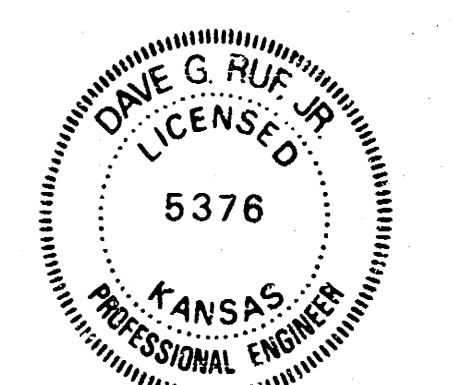
**SECTION A**  
SCALE IN FEET

**SECTION B**  
SCALE IN FEET

**SECTION C**  
SCALE IN FEET

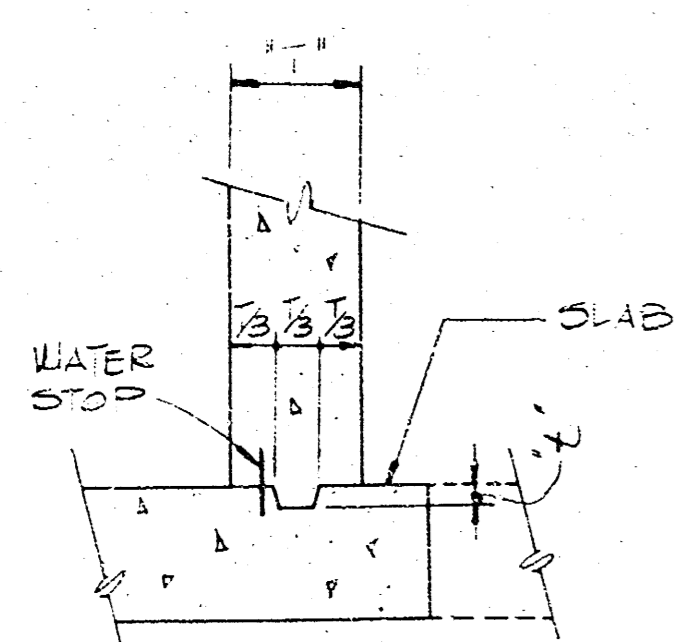
**SECTION D**  
N.T.S.

- NOTES:**
- EXISTING JOINT SHOULD BE ENLARGED BY SUITABLE GRINDING OR CUTTING METHODS TO PRODUCE A SLOT OF 1" WIDTH BY 1/2" MAXIMUM DEPTH. SLOT SHOULD THEN BE SEALED AS SHOWN IN EWS-1.
  - REMOVE EXISTING CONCRETE TO A DEPTH OF 2' WITHIN THE APPROXIMATE RECTANGULAR AREA INDICATED. CHIP EDGES PERPENDICULAR TO THE SURFACE. APPLY BONDING AGENT AND PATCH WITH SAME CONCRETE AS SPECIFIED FOR DAM TOPPING COURSE.
  - SPLICE HORIZONTAL BARS IN CREST OVERFLOW WALL AS FOLLOWS:  
 #4 BARS - 2'-0" LAP  
 #6 BARS - 2'-9" LAP



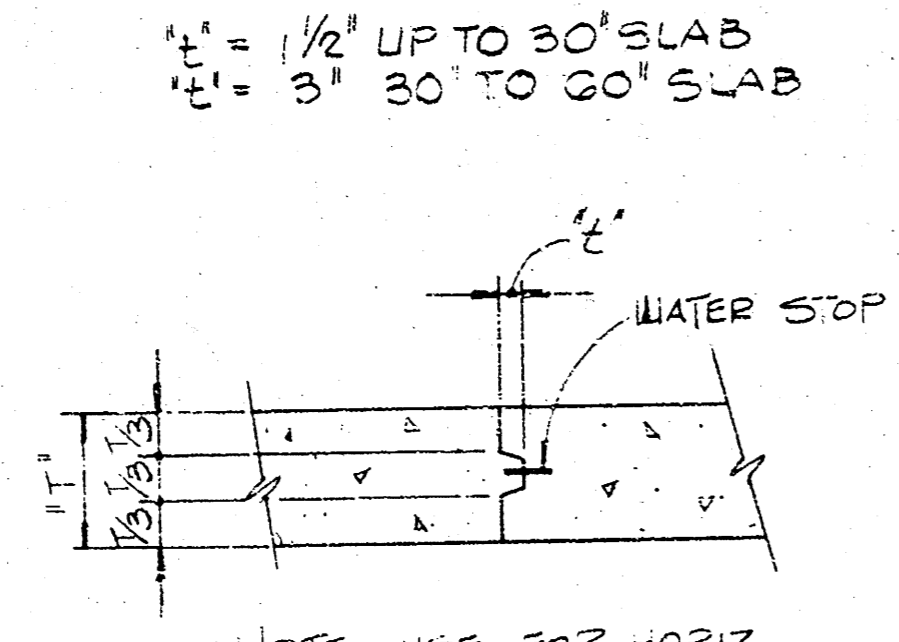
CITY OF WICHITA, KANSAS			
Central Avenue Dam Improvements			
Department of Engineering R.W. Bruggeman, Director of Engr. City Engr. Project No. 472 76245 80851000 000 001			
CREST OVERFLOW WALL			
<b>Burns &amp; McDonnell</b>			
ENGINEERS - ARCHITECTS - CONSULTANTS Kansas City Missouri			
DATE	MAY 1, 1981	DRAWING NO.	REV.
DESIGNED	BAB	5	1
DETAILED	E.C.K.	PROJECT	80-011-1-001
CHECKED	BAB	SHEET	5 OF 7 SHEETS

NO. DATE BY REVISION  
 10-13-82 TDB  
**CONFORMING TO CONSTRUCTION RECORDS**



1 1/2" = 1/2' UP TO 30" WALL  
 3" = 3' 30" TO 60" WALL

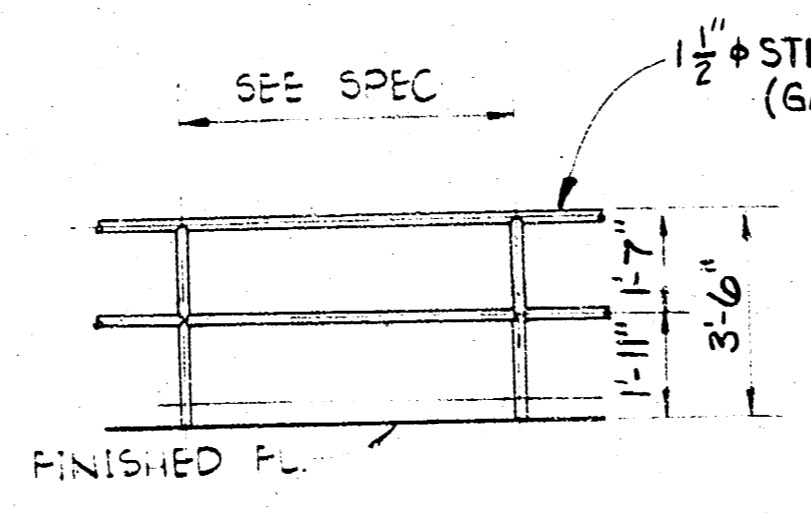
CJ-1 W/WATER STOP  
 CJ-2 OMIT WATER STOP



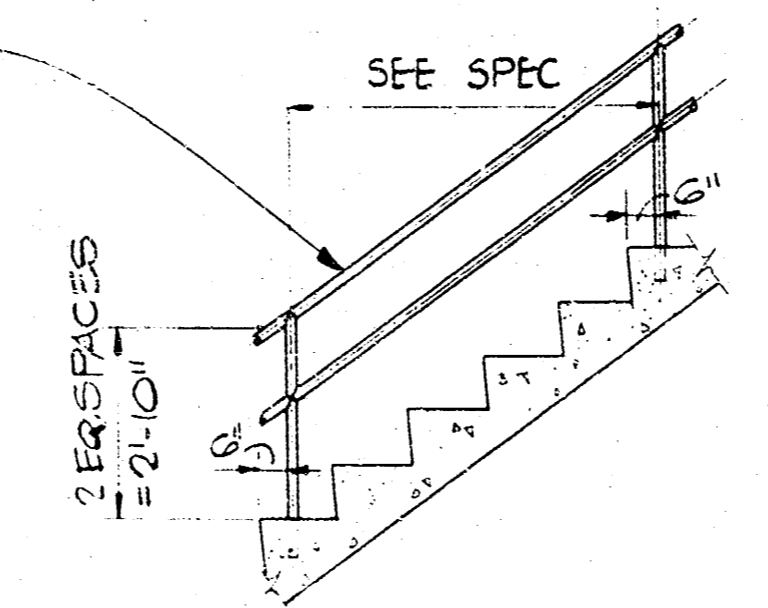
1 1/2" = 1/2' UP TO 30" SLAB  
 3" = 3' 30" TO 60" SLAB

NOTE: USE #32 HORIZ. OR VERT. JOINTS

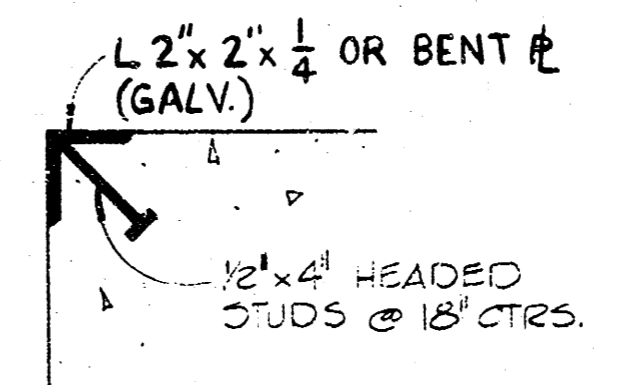
CJ-3 W/WATER STOP  
 CJ-4 OMIT WATER STOP



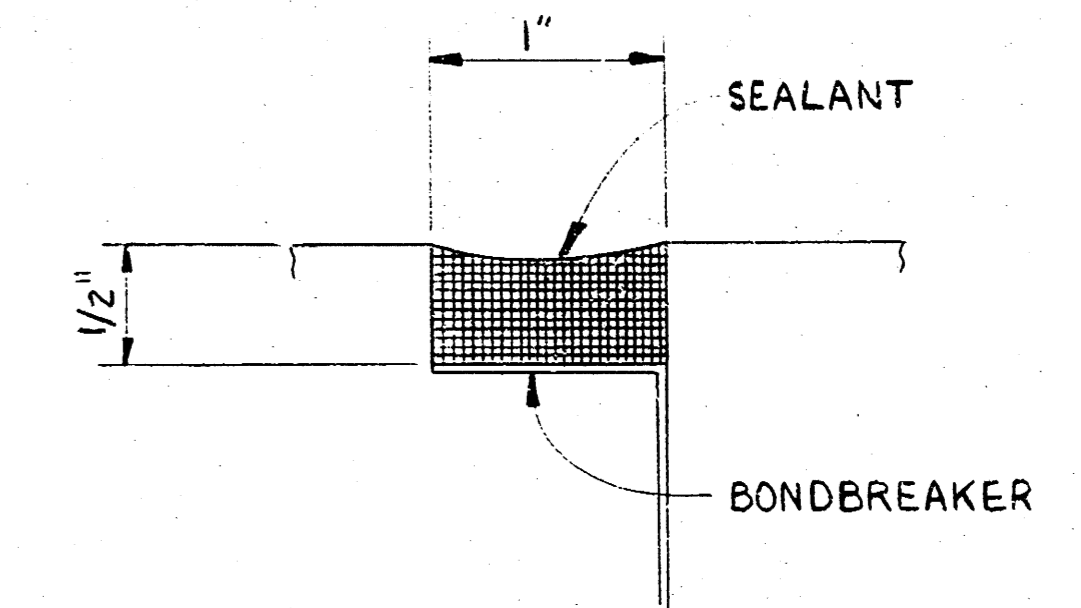
HR-1  
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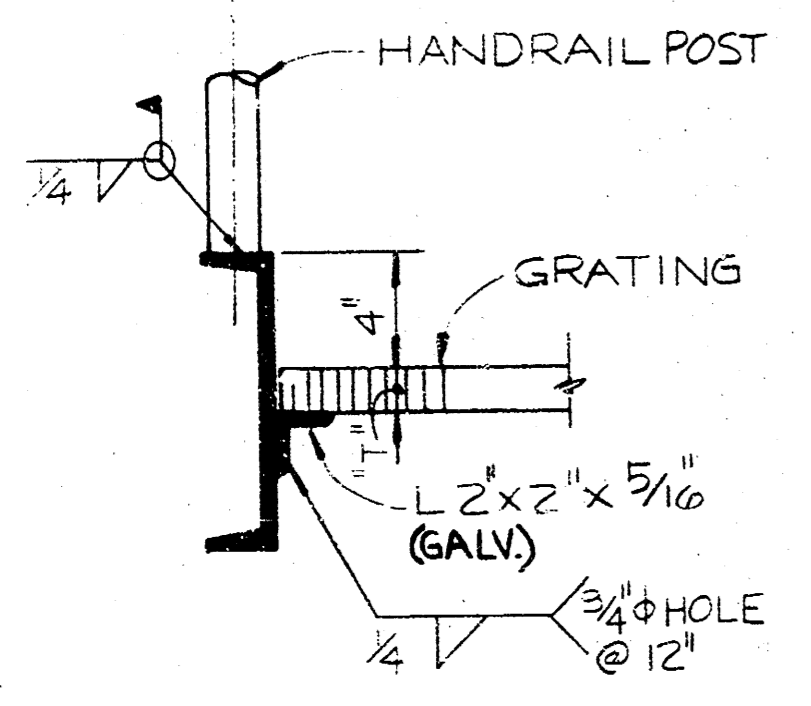
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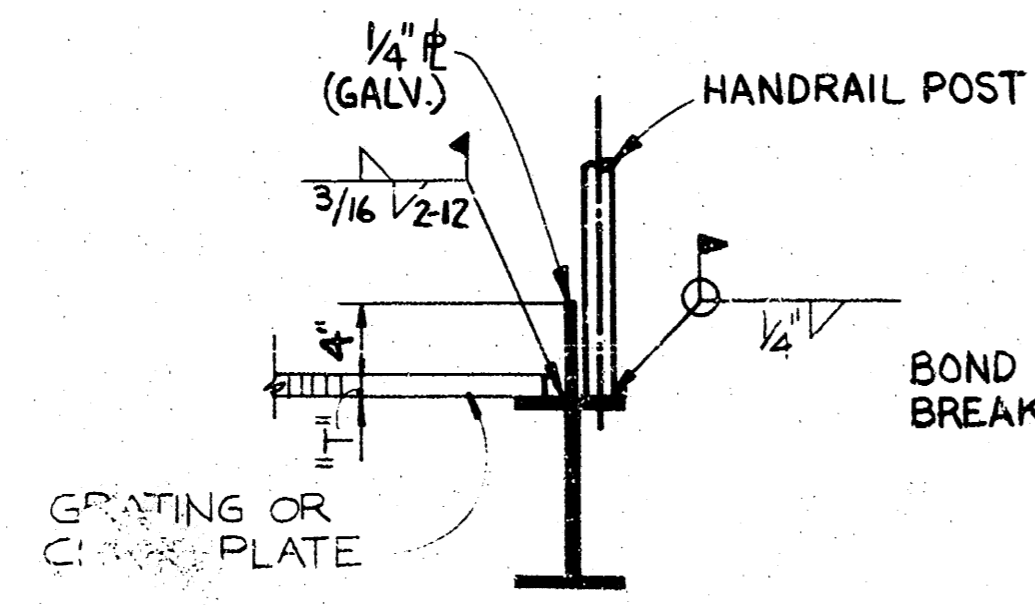
CE-3



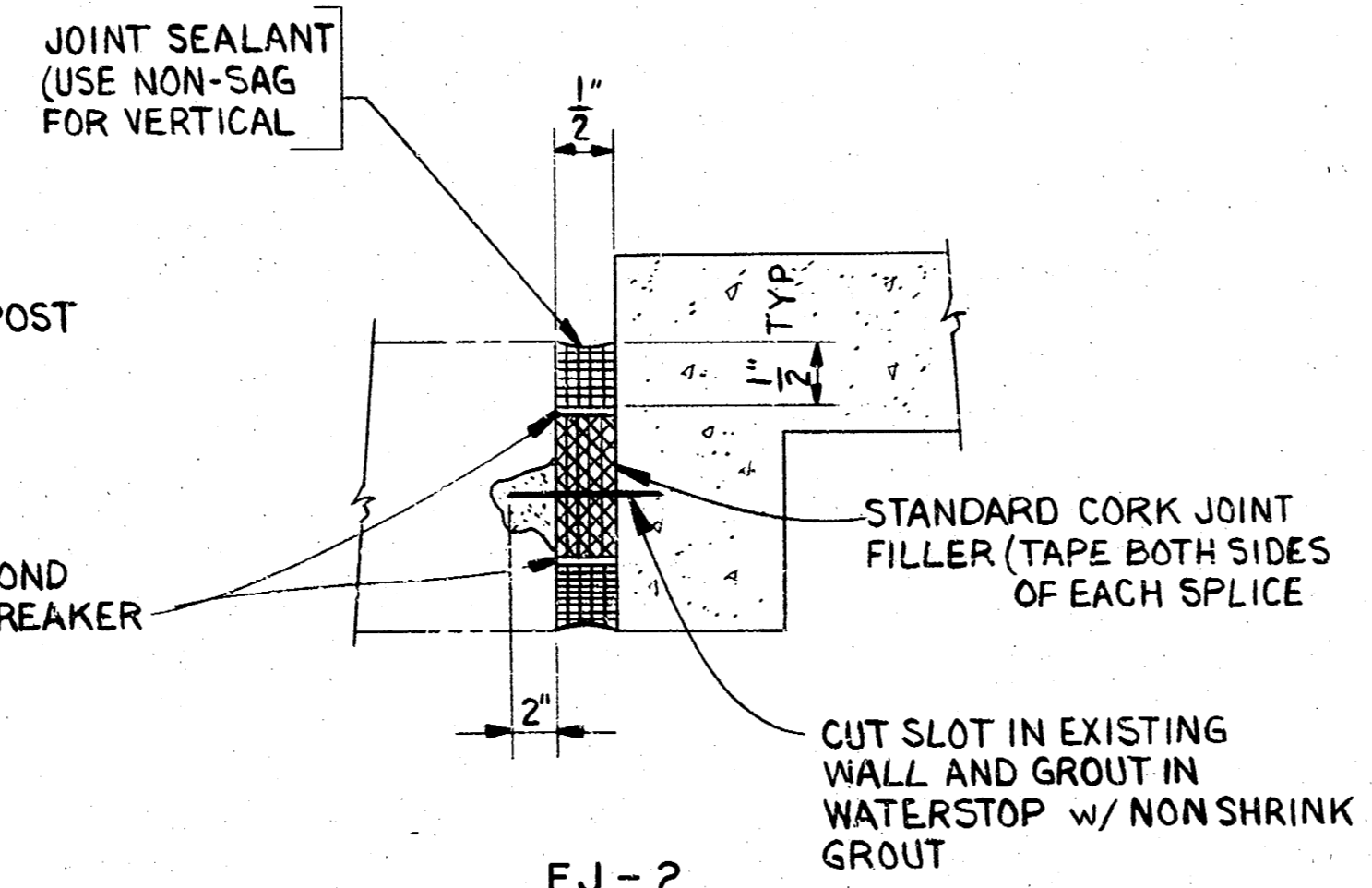
ELASTOMERIC WATERSTOP  
 EWS-1



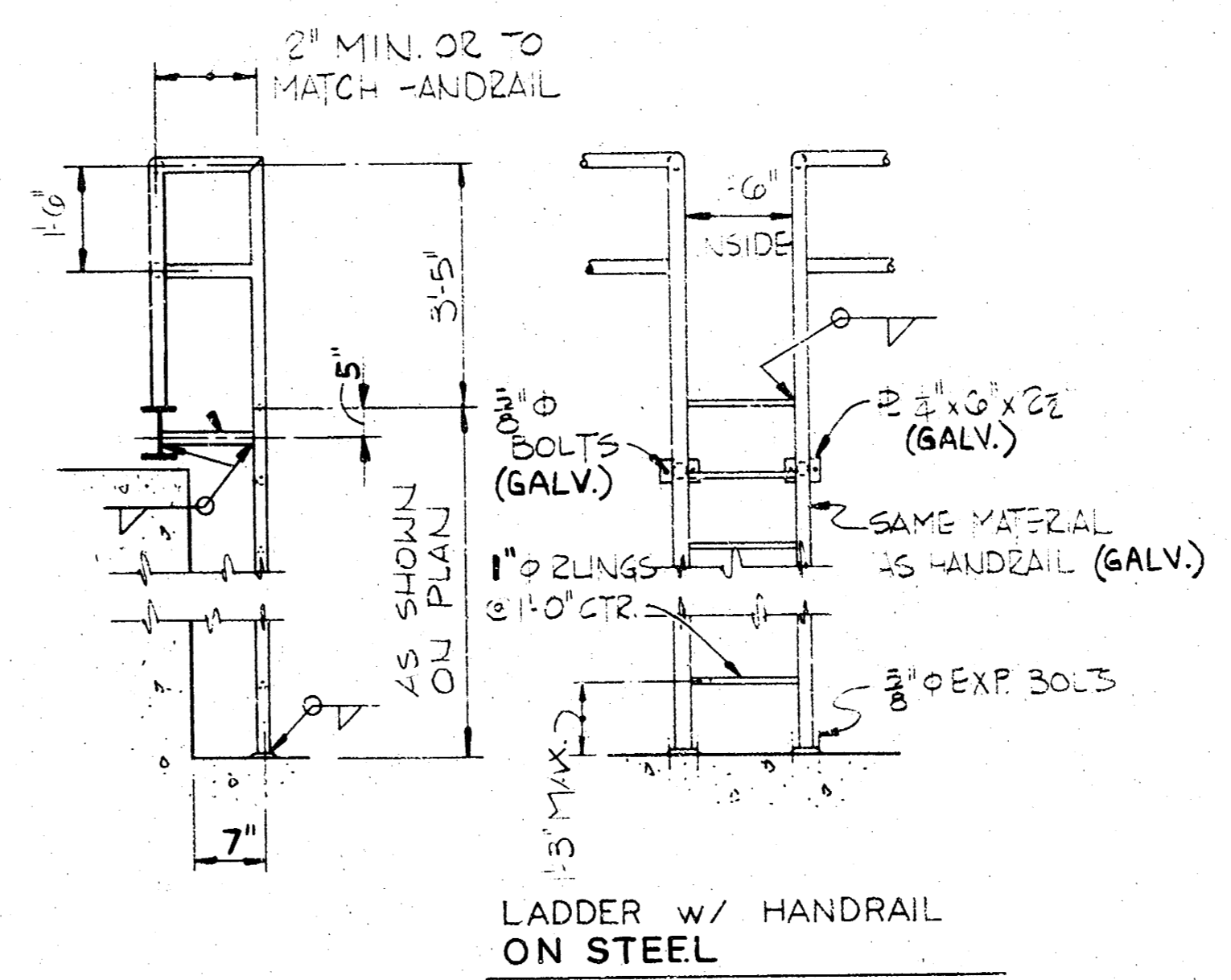
SE-5



SE-2

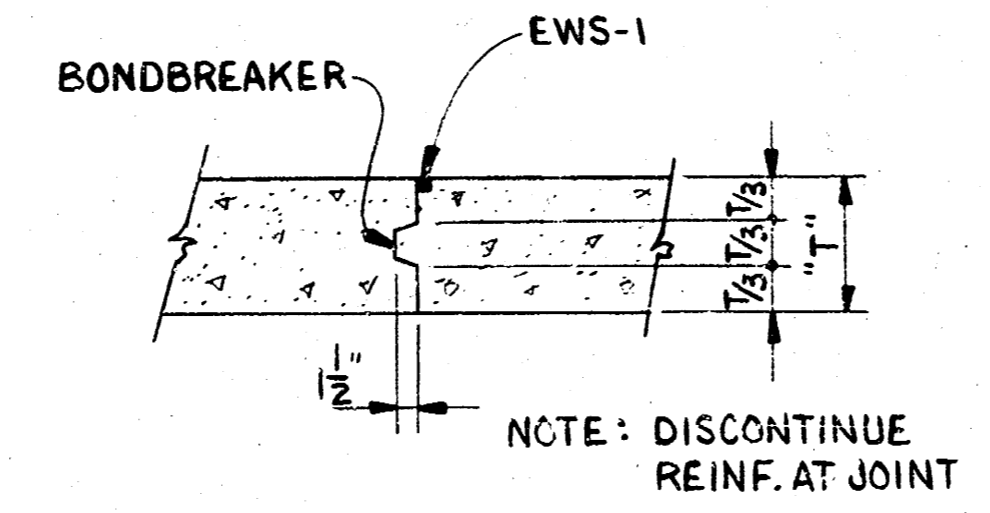


EJ-2



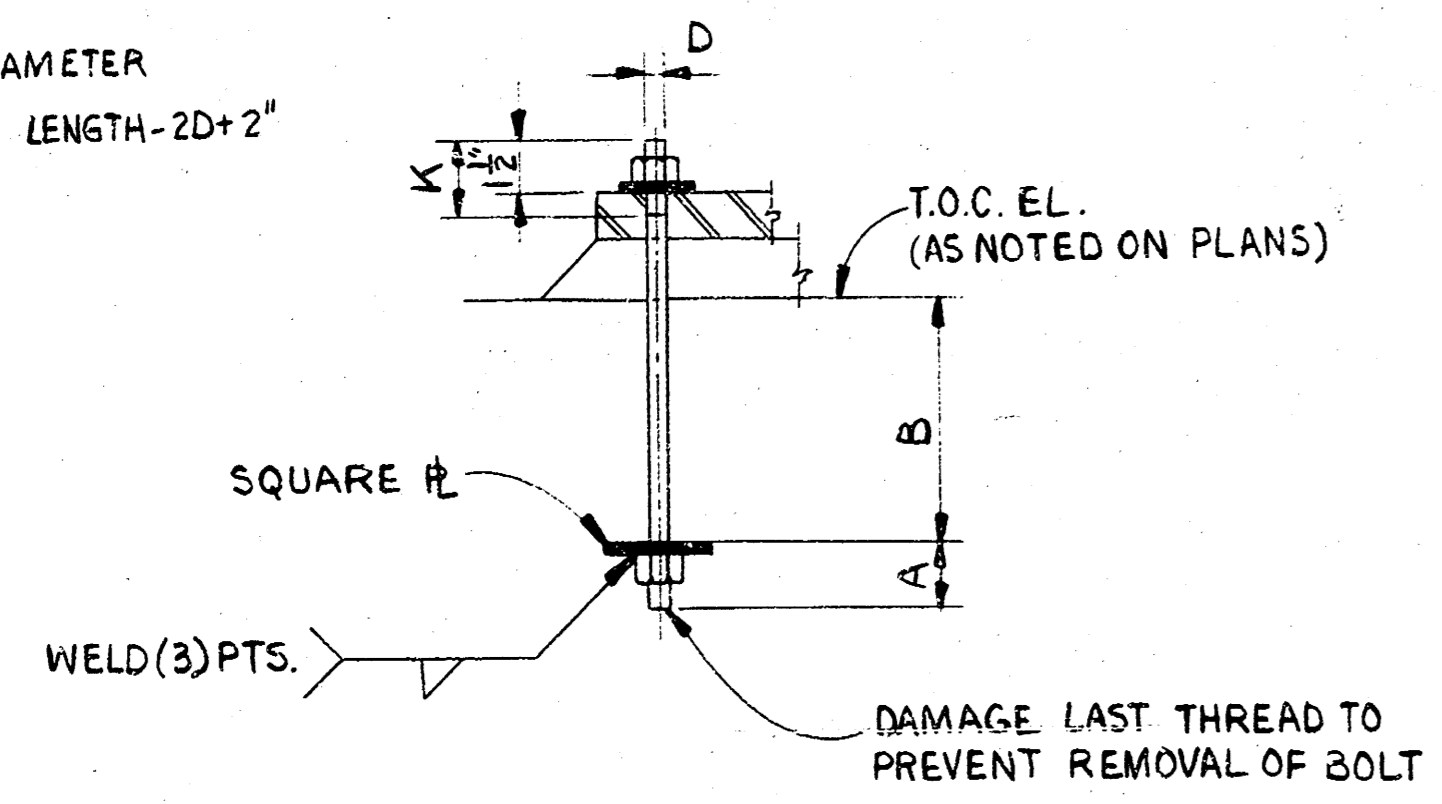
L-4

SCHEDULE				
"D"	"A"	"B"	SQUARE $\phi$	REMARKS
3/4"	2 1/4"	8"	3" x 3" x 1/2"	GALVANIZE

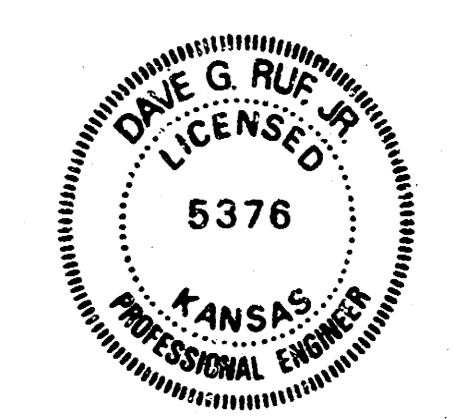


CJ-5

D = BOLT DIAMETER  
 K = THREAD LENGTH - 2D + 2"



TYPE II ANCHOR BOLT



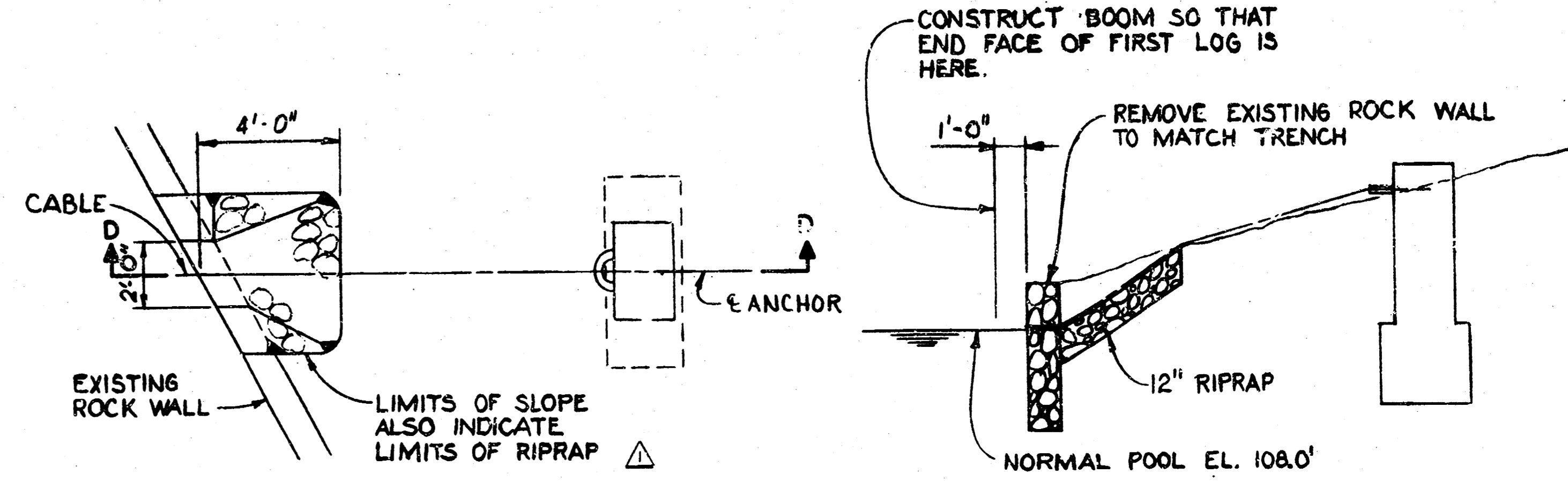
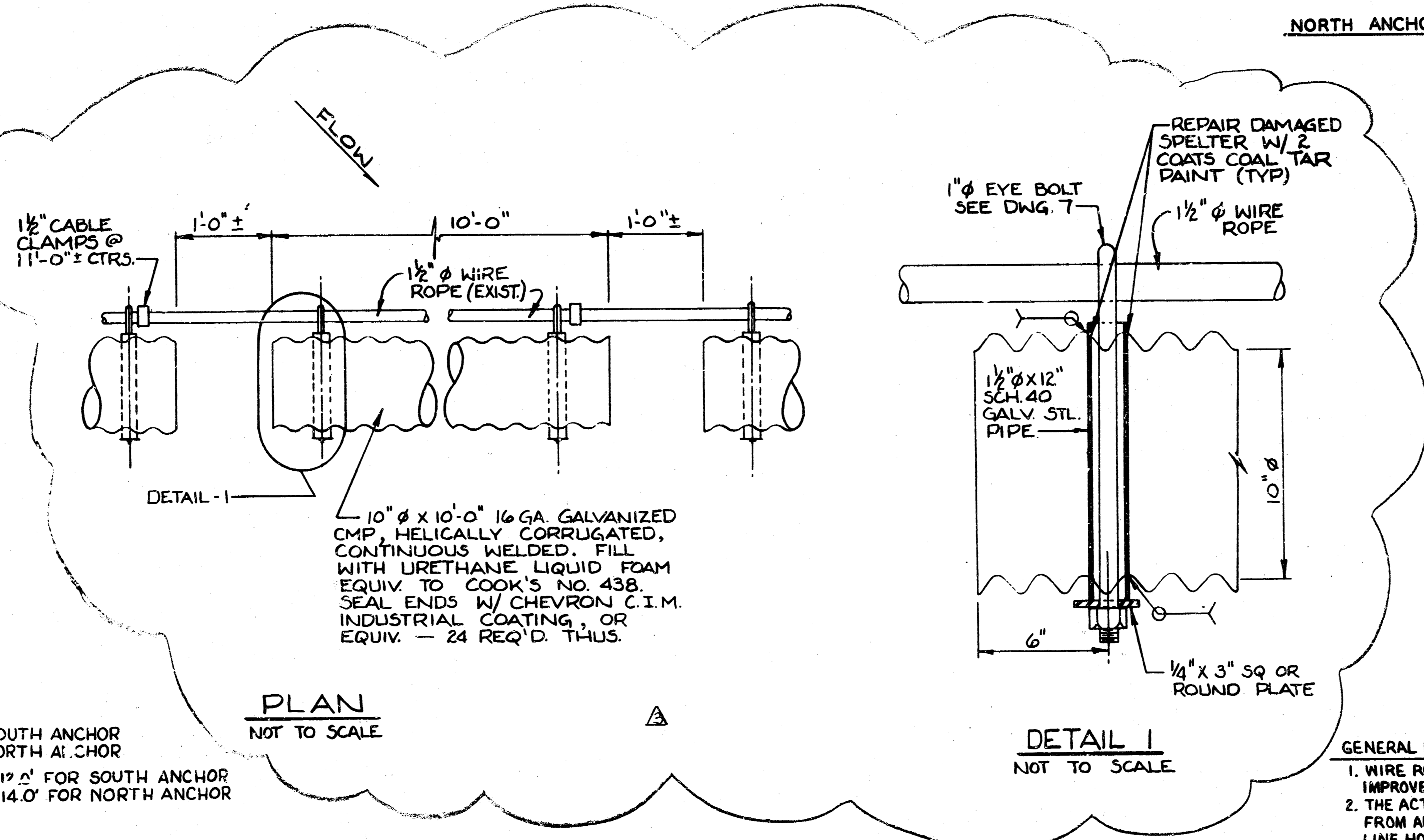
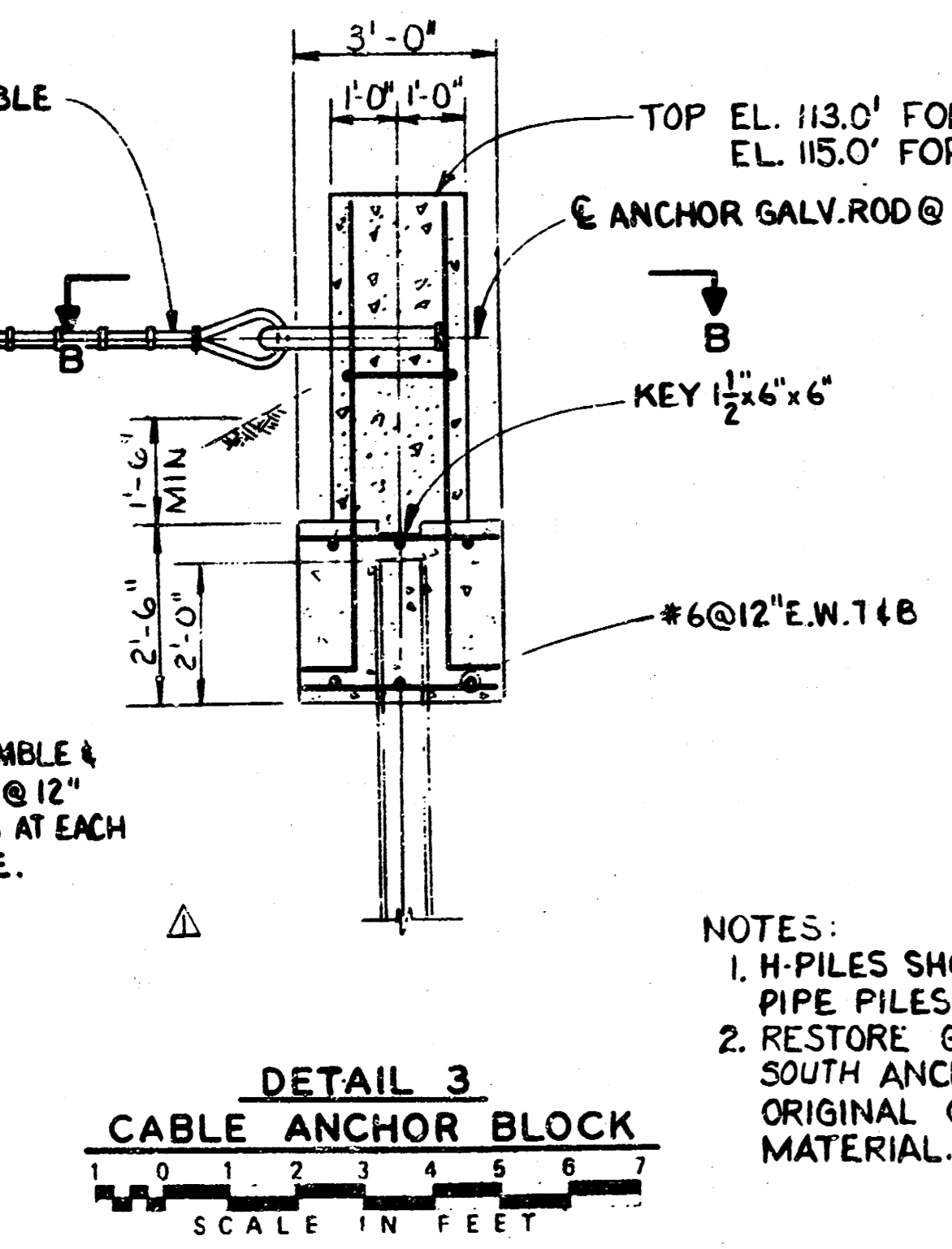
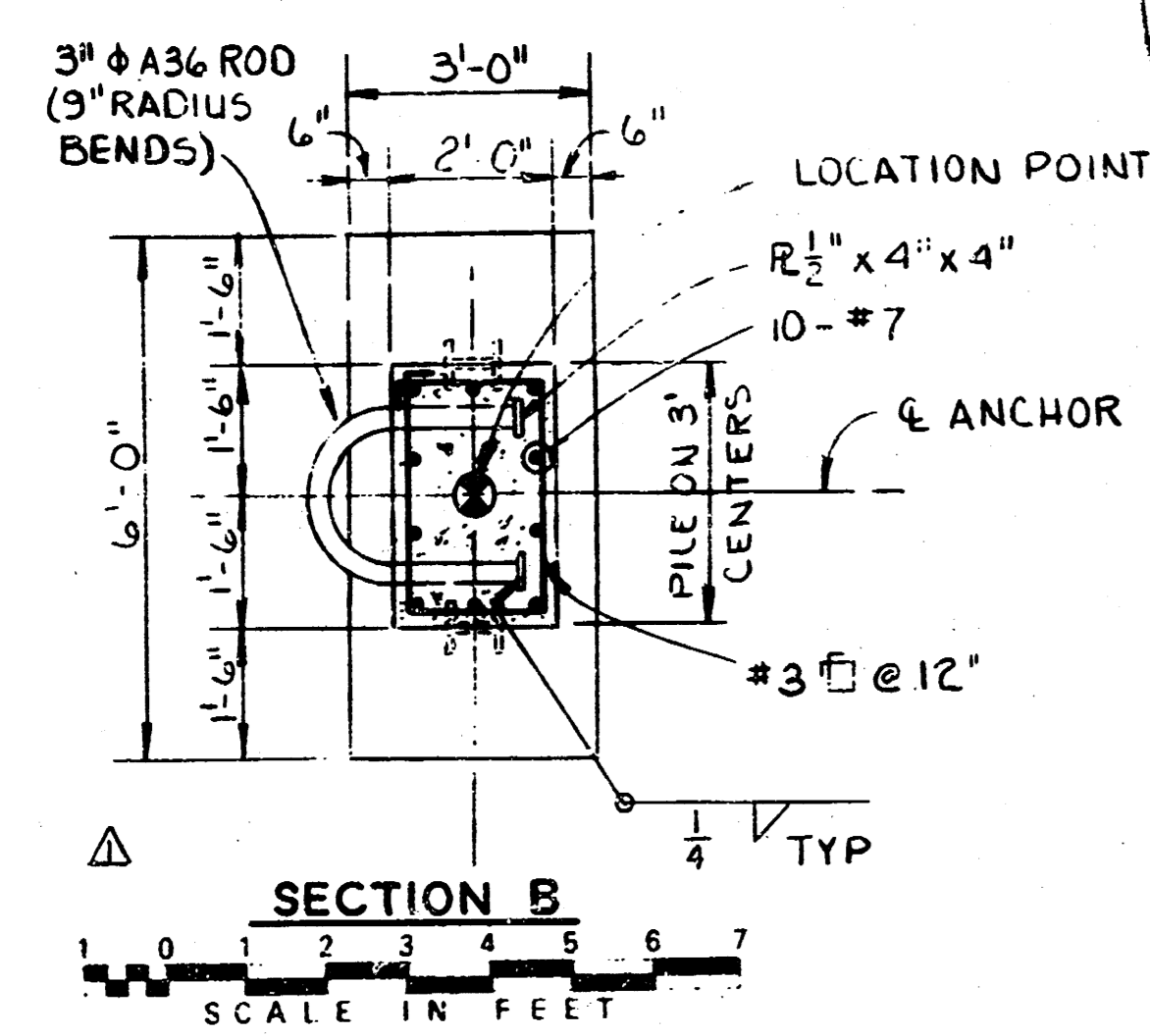
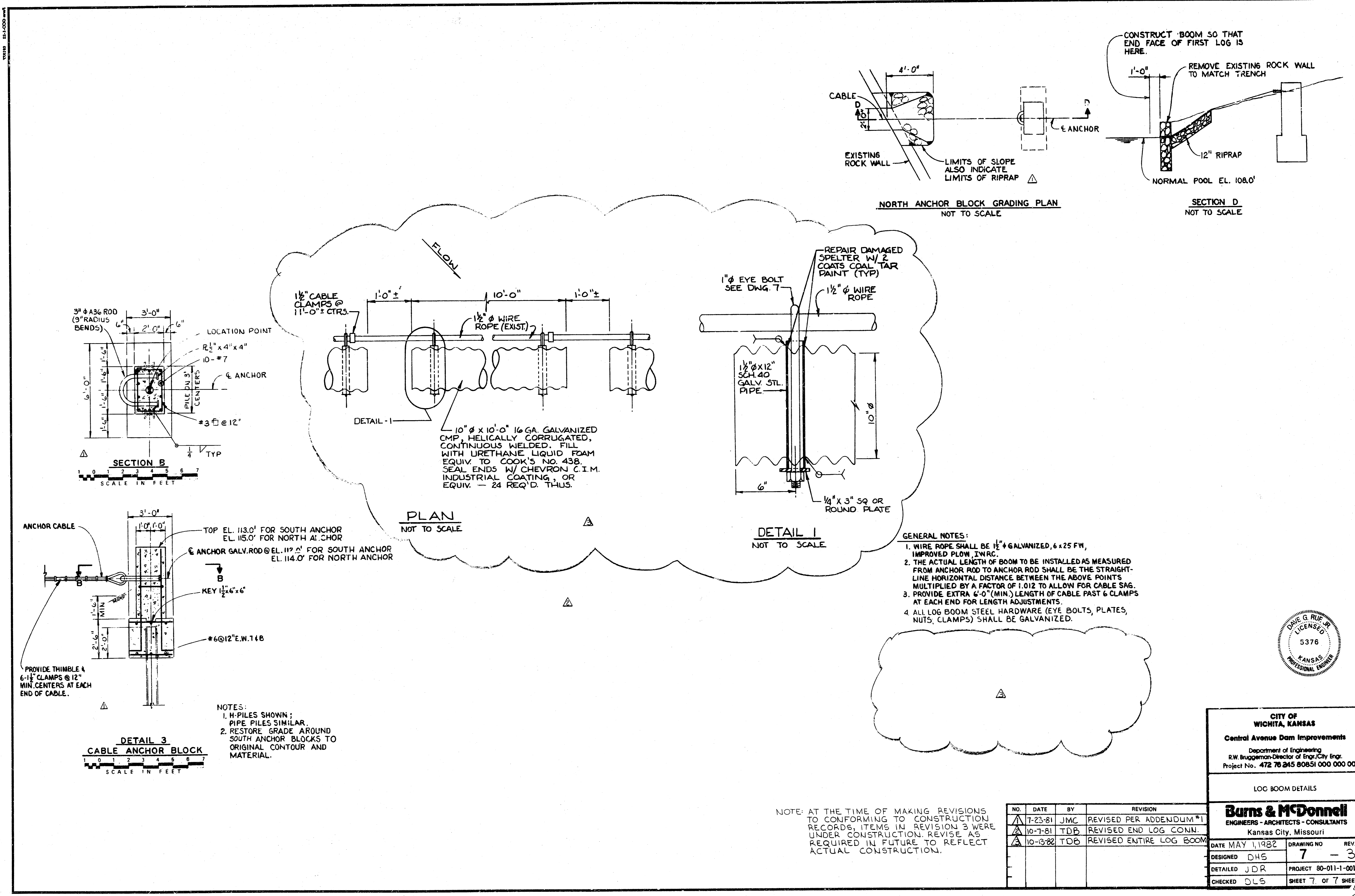
CITY OF WICHITA, KANSAS  
 Central Avenue Dam Improvements  
 Department of Engineering  
 R.W. Bruggeman-Director of Engr. City Engr.  
 Project No. 472 76 245 80851000 000 001

MISCELLANEOUS DETAILS

**Burns & McDonnell**  
 ENGINEERS - ARCHITECTS - CONSULTANTS  
 Kansas City, Missouri

NO.	DATE	BY	REVISION
1	10-13-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

DATE	DESIGNED	DATE	REVISION
MAY 1, 1981	B.A.B.	MAY 1, 1981	6 - 1
	E.C.K.		PROJECT 80-011-1-001
	B.A.B.		SHEET 6 OF 7 SHEETS



- GENERAL NOTES:**
1. WIRE ROPE SHALL BE 1/2" GALVANIZED, 6 x 25 FV, IMPROVED FLOW, INRC.
  2. THE ACTUAL LENGTH OF BOOM TO BE INSTALLED AS MEASURED FROM ANCHOR ROD TO ANCHOR ROD SHALL BE THE STRAIGHT-LINE HORIZONTAL DISTANCE BETWEEN THE ABOVE POINTS MULTIPLIED BY A FACTOR OF 1.012 TO ALLOW FOR CABLE SAG.
  3. PROVIDE EXTRA 6'-0" (MIN.) LENGTH OF CABLE PAST 6 CLAMPS AT EACH END FOR LENGTH ADJUSTMENTS.
  4. ALL LOG BOOM STEEL HARDWARE (EYE BOLTS, PLATES, NUTS, CLAMPS) SHALL BE GALVANIZED.

- NOTES:**
1. H-PILES SHOWN; PIPE PILES SIMILAR.
  2. RESTORE GRADE AROUND SOUTH ANCHOR BLOCKS TO ORIGINAL CONTOUR AND MATERIAL.

NOTE: AT THE TIME OF MAKING REVISIONS TO CONFORMING TO CONSTRUCTION RECORDS, ITEMS IN REVISION 3 WERE UNDER CONSTRUCTION. REVISE AS REQUIRED IN FUTURE TO REFLECT ACTUAL CONSTRUCTION.

NO.	DATE	BY	REVISION
7-23-81	JMC	REVISED PER ADDENDUM #1	
10-7-81	TDB	REVISED END LOG CONN.	
10-13-82	TOB	REVISED ENTIRE LOG BOOM	

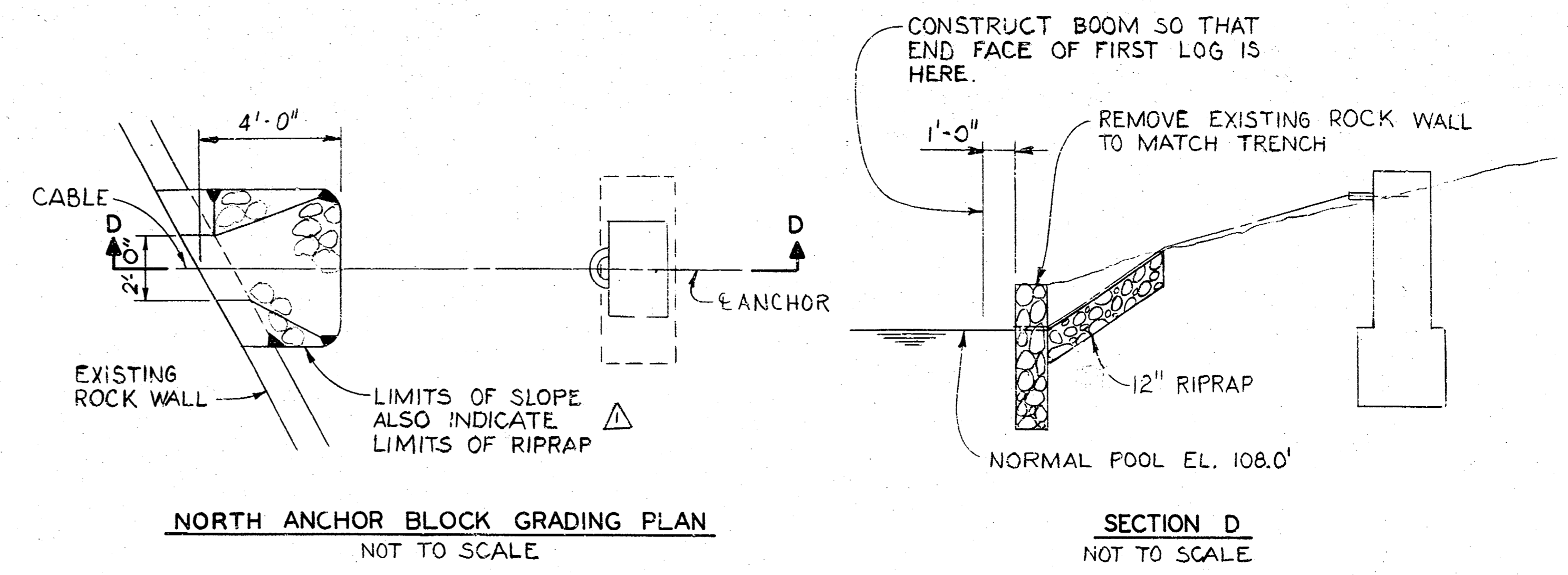
**CITY OF WICHITA, KANSAS**  
 Central Avenue Dam Improvements  
 Department of Engineering  
 R.W. Bruggeman-Director of Engr./City Engr.  
 Project No. 472 70 245 80851 000 000 001

LOG BOOM DETAILS

**Burns & McDonnell**  
 ENGINEERS - ARCHITECTS - CONSULTANTS  
 Kansas City, Missouri

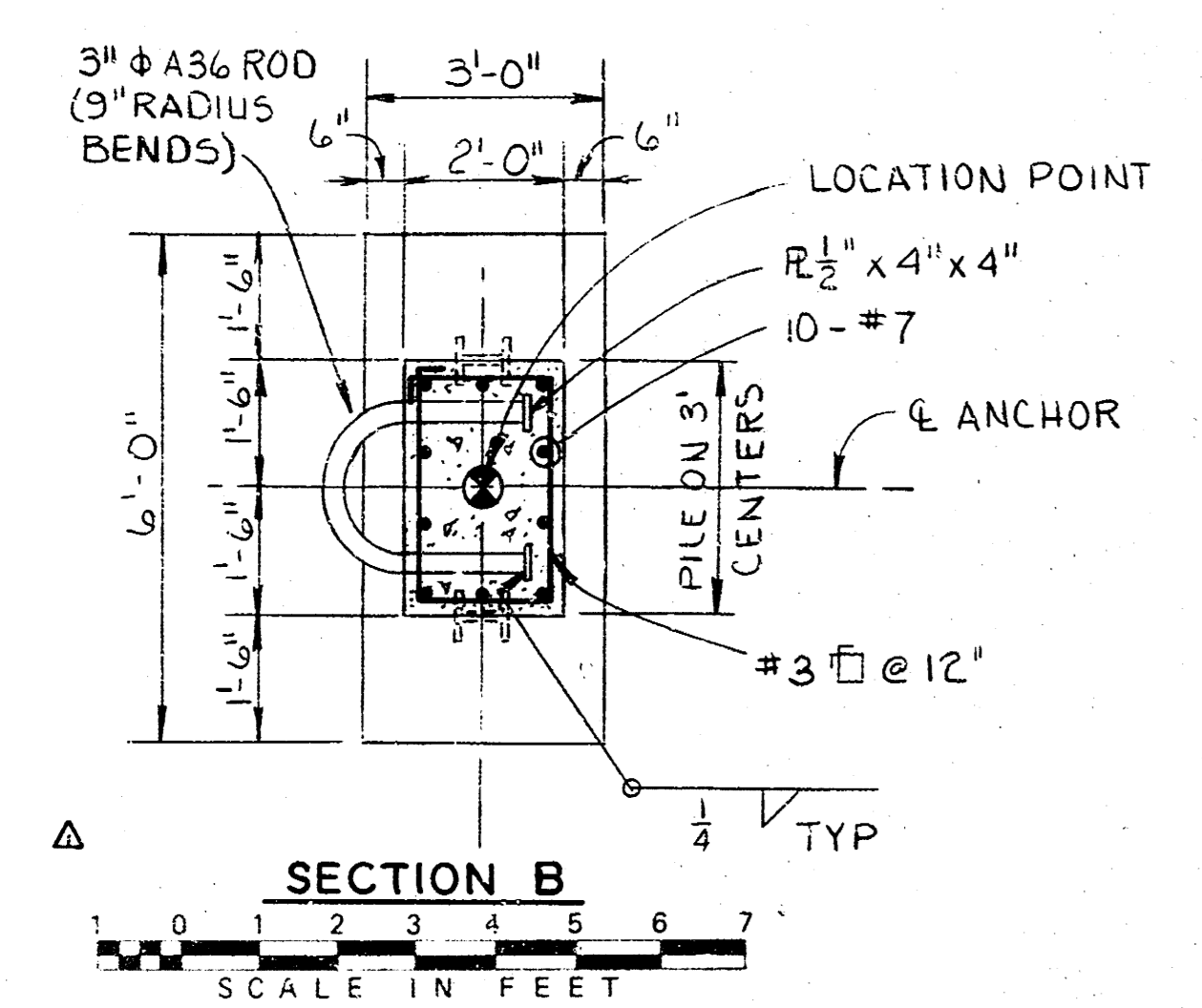
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 DESIGNED DHS PROJECT 80-011-1-001  
 DETAILED JDR SHEET 7 OF 7 SHEETS  
 CHECKED DLS



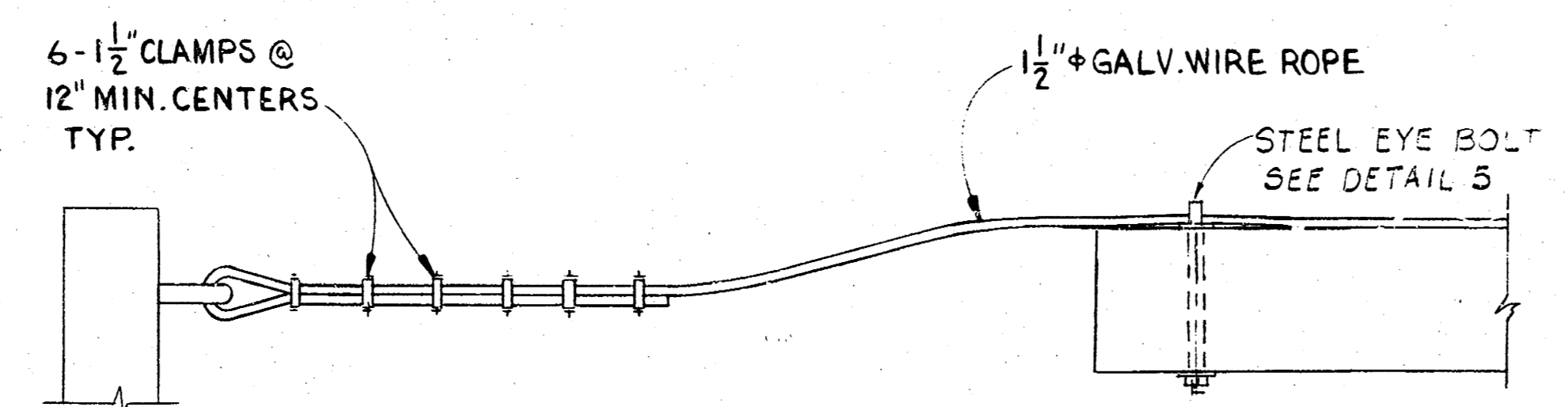


NORTH ANCHOR BLOCK GRADING PLAN  
NOT TO SCALE

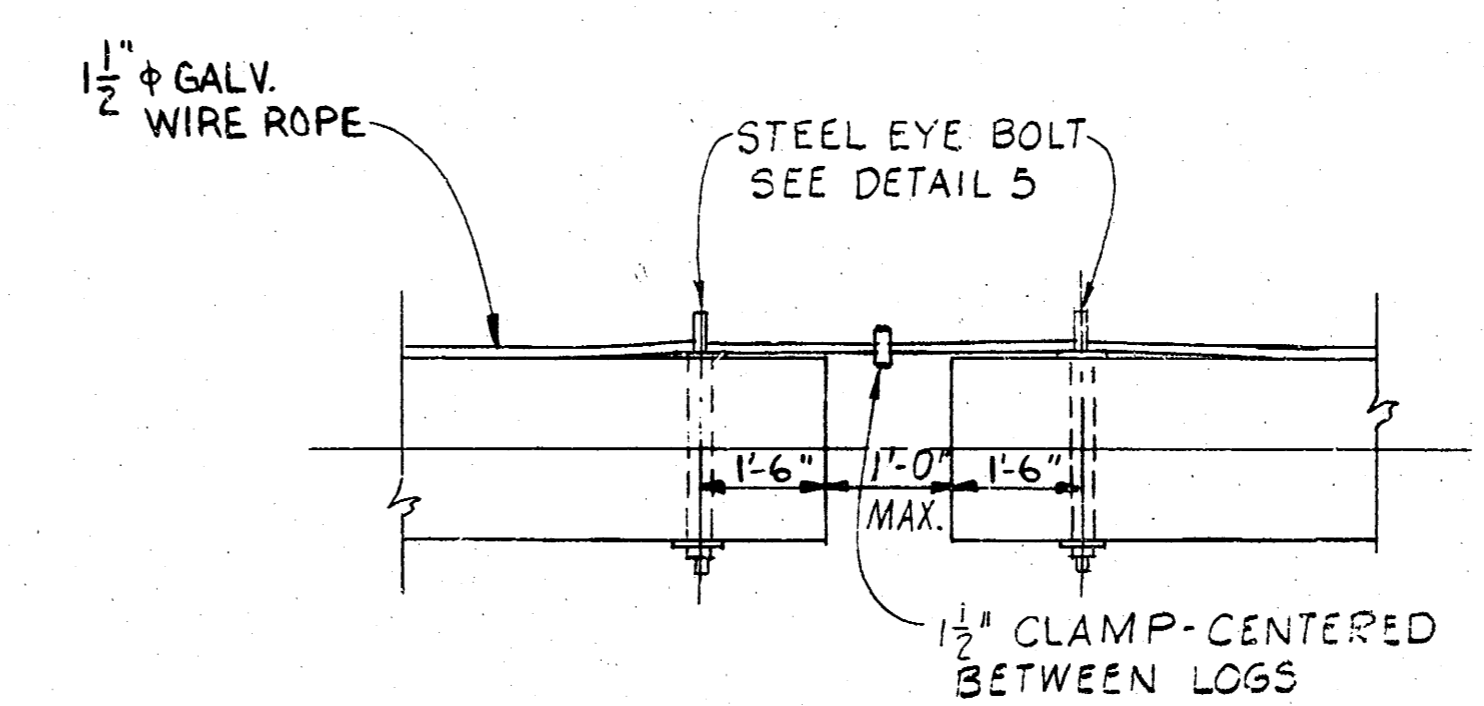
SECTION D  
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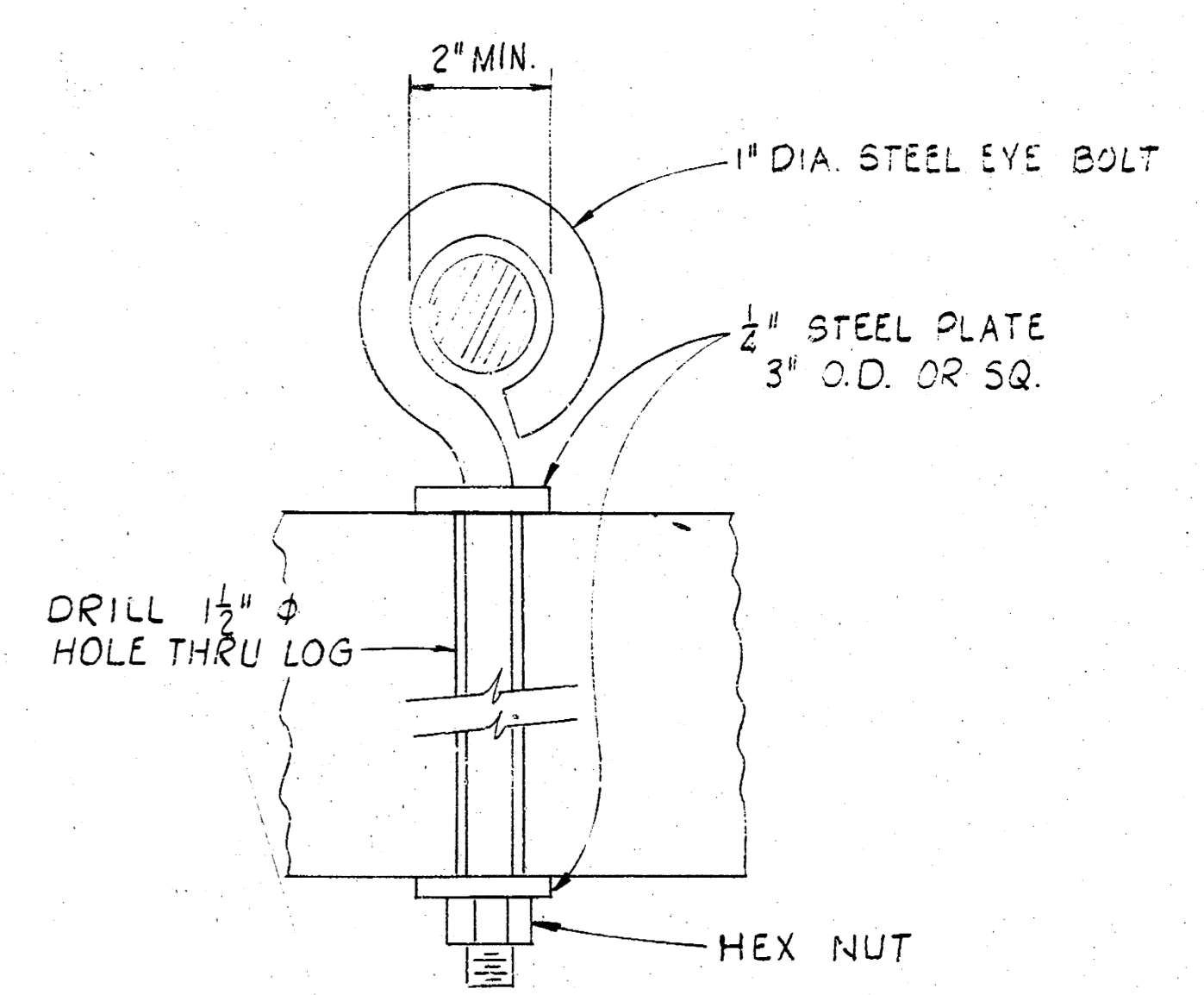
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SCALE IN FEET



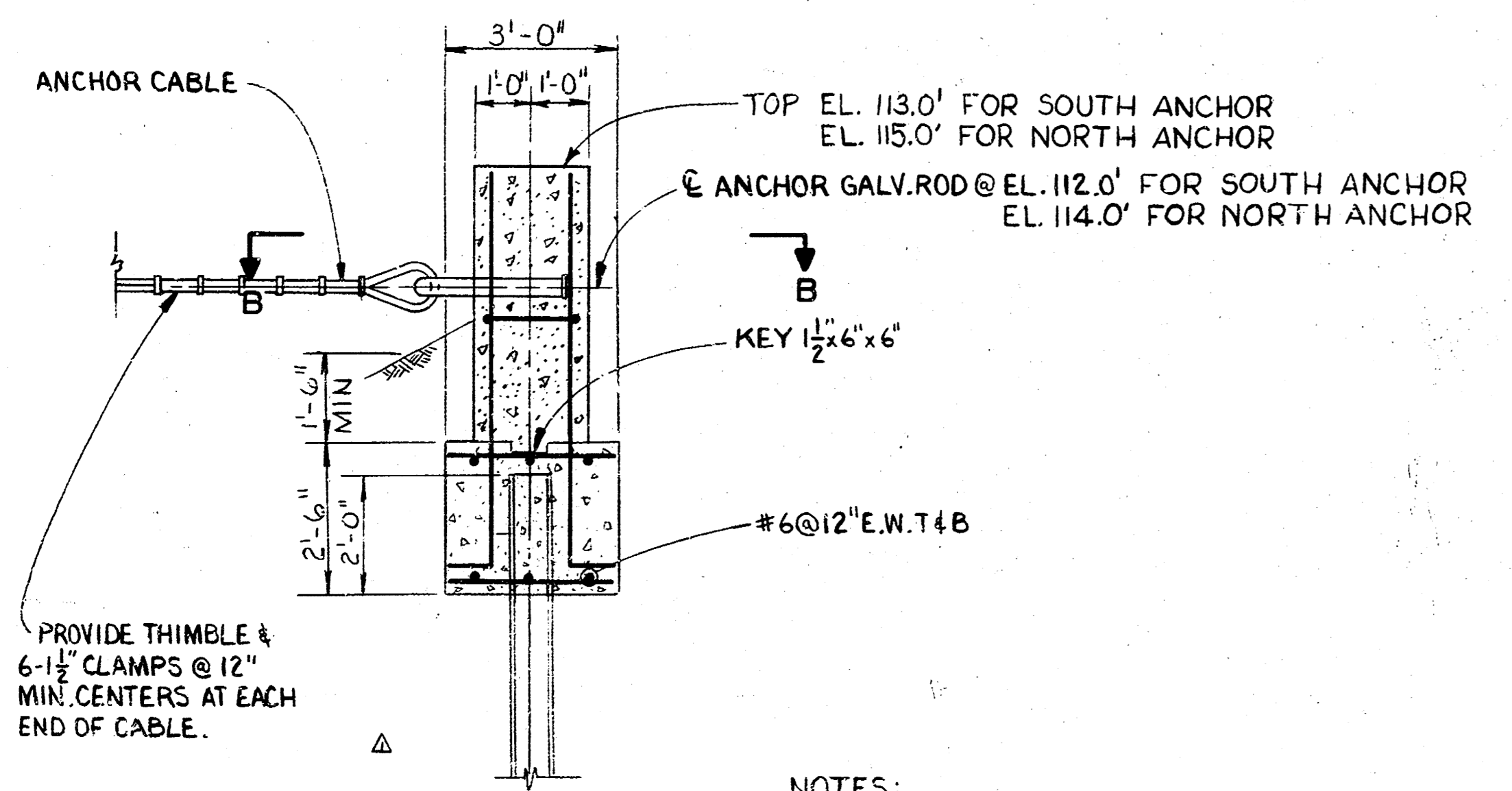
DETAIL 1  
END LOG CONNECTION  
NTS



DETAIL 2  
LOG TO LOG CONNECTION  
NTS



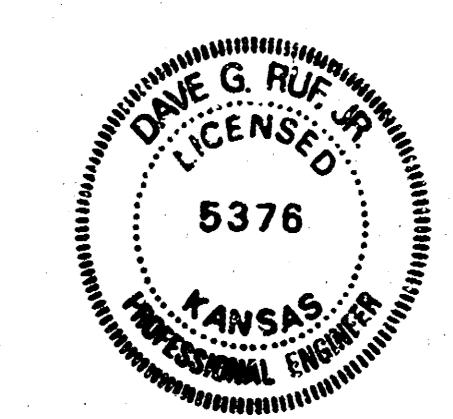
DETAIL 5  
NTS



DETAIL 3  
CABLE ANCHOR BLOCK  
SCALE IN FEET

- NOTES:
1. H-PILES SHOWN; PIPE PILES SIMILAR.
  2. RESTORE GRADE AROUND SOUTH ANCHOR BLOCKS TO ORIGINAL CONTOUR AND MATERIAL.

- GENERAL NOTES:
1. WIRE ROPE SHALL BE 1 1/2" # GALVANIZED, 6 x 25 FW, IMPROVED PLOW, INRC.
  2. THE ACTUAL LENGTH OF BOOM TO BE INSTALLED AS MEASURED FROM ANCHOR ROD TO ANCHOR ROD SHALL BE THE STRAIGHT-LINE HORIZONTAL DISTANCE BETWEEN THE ABOVE POINTS MULTIPLIED BY A FACTOR OF 1.012 TO ALLOW FOR CABLE SAG.
  3. PROVIDE EXTRA 6'-0" (MIN.) LENGTH OF CABLE PAST 6 CLAMPS AT EACH END FOR LENGTH ADJUSTMENTS.
  4. ALL LOG BOOM STEEL HARDWARE (EYE BOLTS, PLATES, NUTS, CLAMPS) SHALL BE GALVANIZED.
  5. LOG MATERIAL SHALL BE SOUTHERN YELLOW PINE.
  6. THE FIRST FIVE LOGS NEAREST EITHER SHORE SHALL BE 6 TO 8 FEET IN LENGTH. REMAINING LOGS SHALL BE 18 TO 20 FEET IN LENGTH. ALL LOGS, IRREGARDLESS OF LENGTH, SHALL BE 10 TO 14 INCHES IN DIAMETER.
  7. FIRST LOG ON SOUTH END OF LOG BOOM SHALL BE A MAXIMUM OF 18 FEET FROM THE SOUTH ANCHOR BLOCK.
  8. ALL LOGS SHALL BE WOLMANIZED (CCA) PRESSURE-TREATED (KOPPERS) AT 0.60 PCF.



CITY OF WICHITA, KANSAS  
Central Avenue Dam Improvements  
Department of Engineering  
R.W. Bruggeman-Director of Engr. City Engr.  
Project No. 472 76 245 80851 000 000 001

LOG BOOM DETAILS  
**Burns & McDonnell**  
ENGINEERS - ARCHITECTS - CONSULTANTS  
Kansas City, Missouri

NO.	DATE	BY	REVISION
1	7-23-81	JMC	AS PER ADDENDUM NO. 1
2	10-7-81	TDB	REVISED END LOG CONN.
3	10-13-82	TDB	

DATE	DRAWING NO.	REV.
MAY 1, 1981	7 - 2	

CONFORMING TO CONSTRUCTION RECORDS

DESIGNED	PROJECT
DHS	80-011-1-001

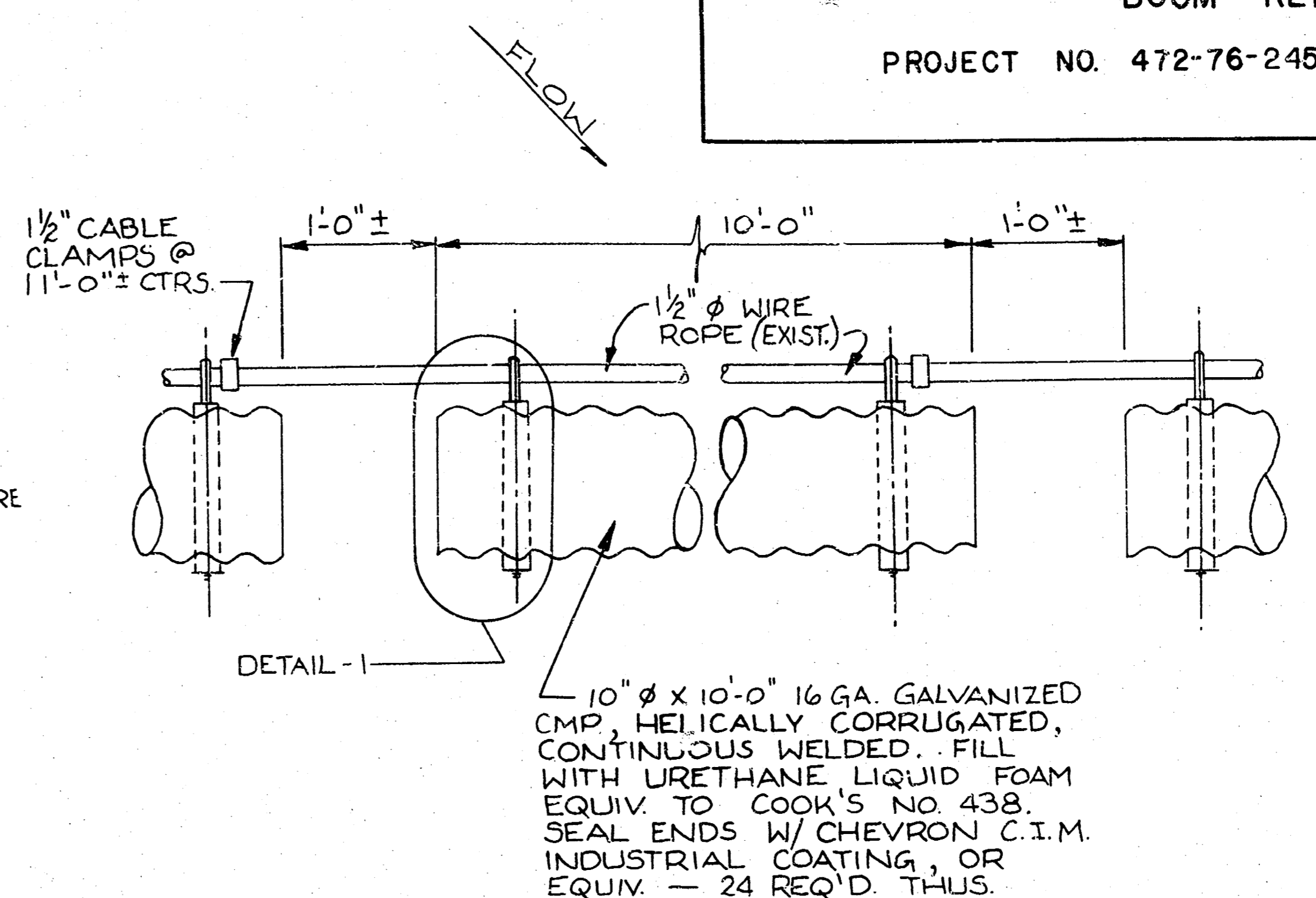
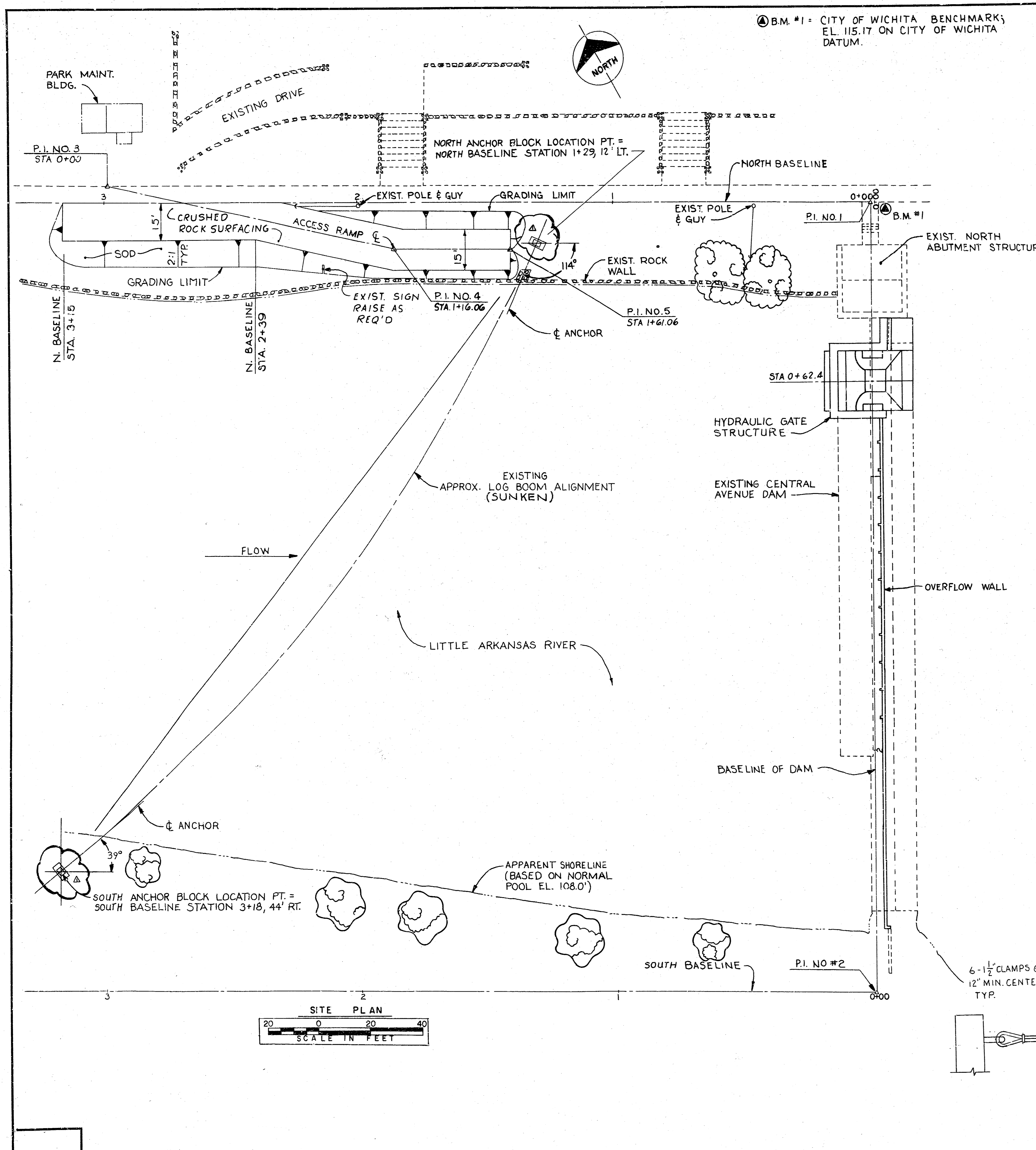
CHECKED DLS SHEET 7 OF 7 SHEET 10

CENTRAL AVENUE DAM

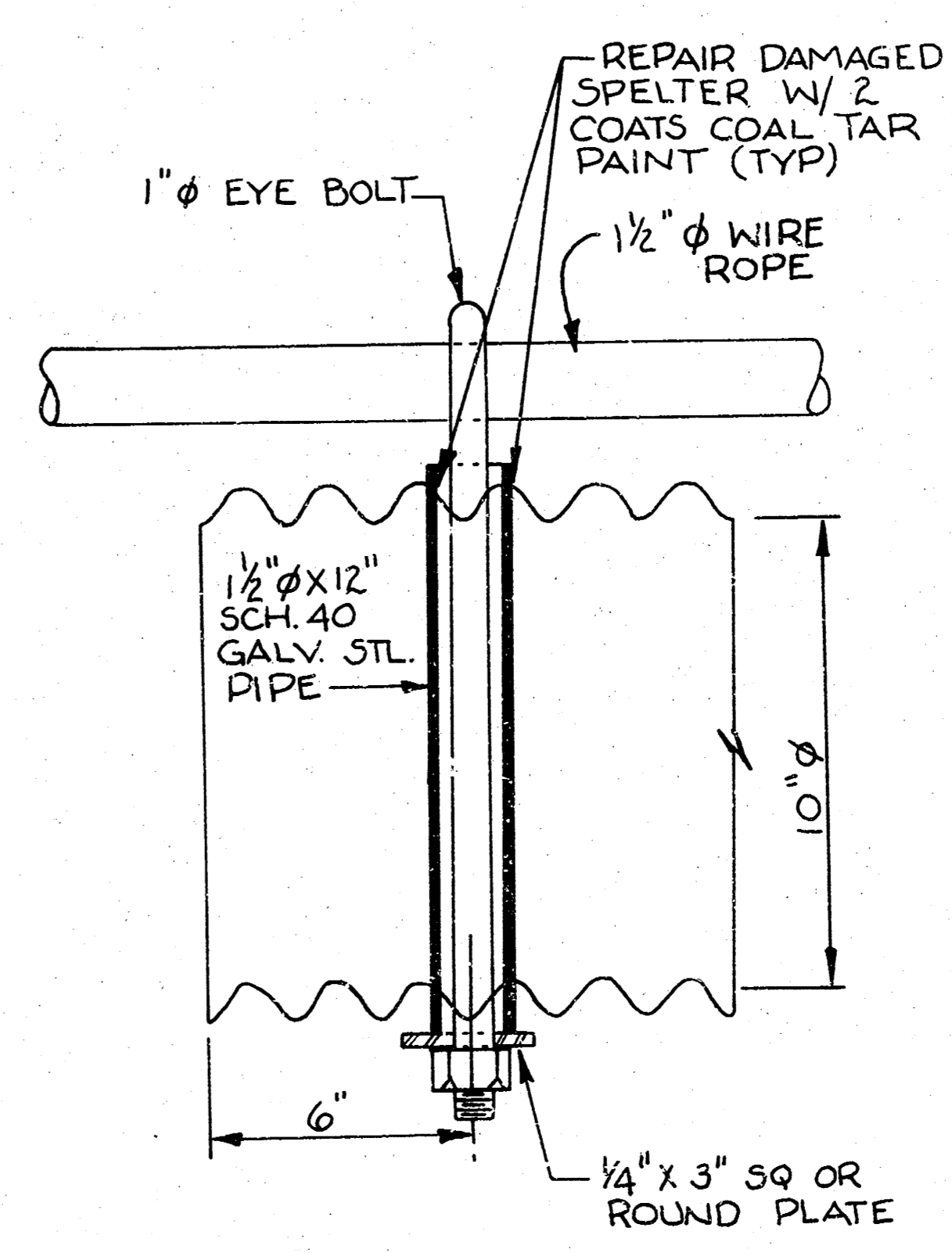
BOOM REPAIR

PROJECT NO. 472-76-245-8 0851-000-000-001

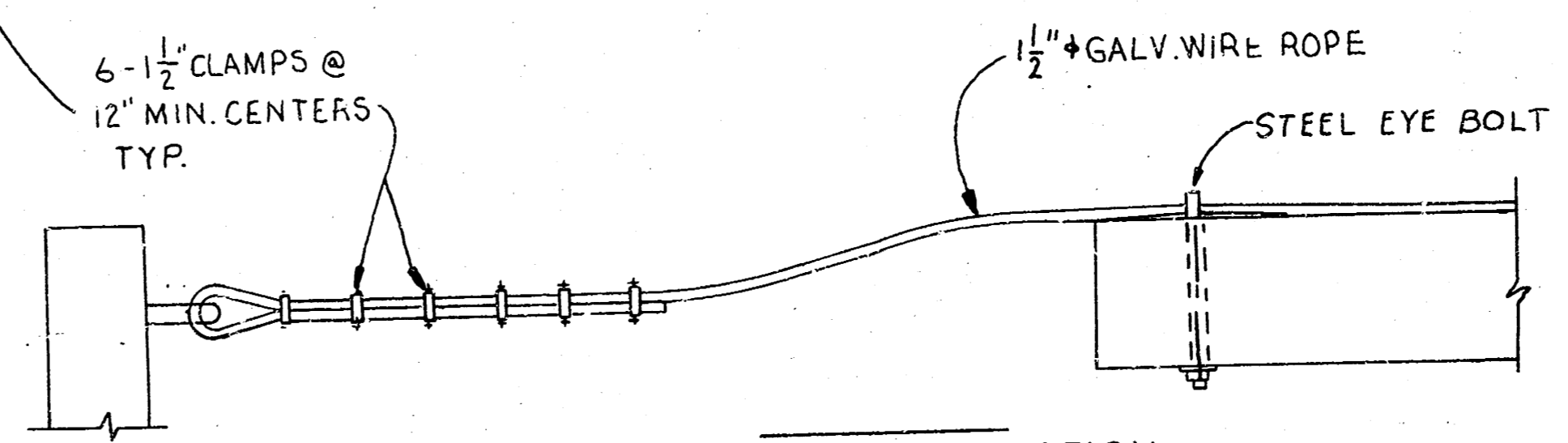
B.M. #1 - CITY OF WICHITA BENCHMARKS  
EL. 115.17 ON CITY OF WICHITA  
DATUM.



PLAN  
NOT TO SCALE

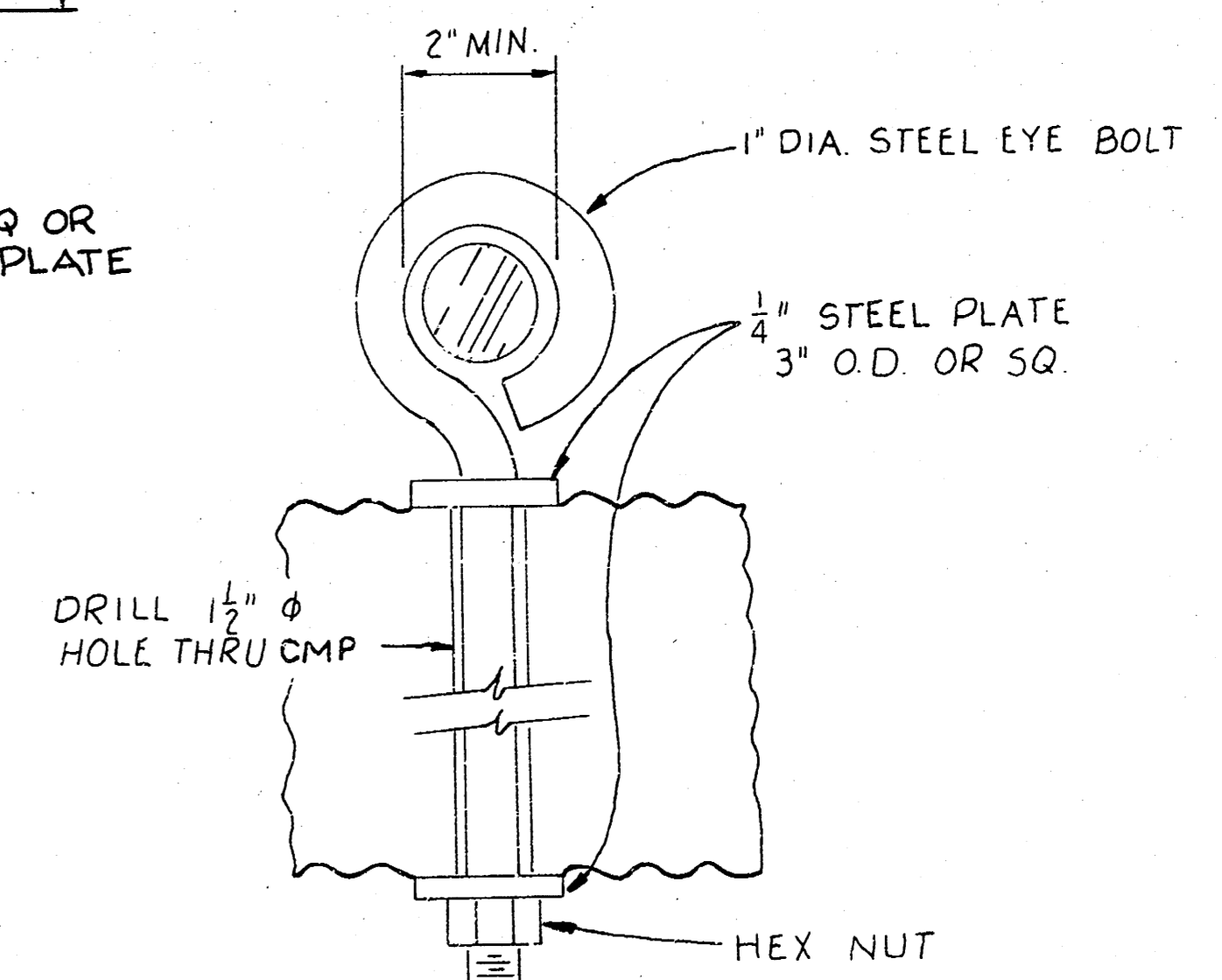


DETAIL 1  
NOT TO SCALE

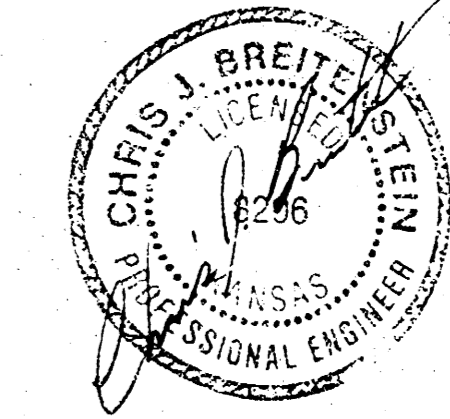


END BOOM CONNECTION  
NTS

NOTE:  
ALL BOOM STEEL HARDWARE (EYE BOLTS, PLATES, NUTS, CLAMPS) SHALL BE GALVANIZED.



NOT TO SCALE  
(FOR EYE BOLT INFORMATION ONLY)



GENERAL NOTES

1. BOOM REPAIR WILL BE ACCOMPLISHED WITHOUT LOWERING THE WATER ELEVATION BEHIND THE DAM.
2. EXISTING LOG BOOM HARDWARE, I.E. CLAMPS, EYE BOLTS, HEX NUTS, ETC., MAY BE REUSED WITH THE APPROVAL OF THE ENGINEER; HOWEVER ADDITIONAL BOOM HARDWARE WILL BE REQUIRED.
3. LUMP SUM BID ITEM - BOOM REPAIR WILL INCLUDE ALL COSTS TO COMPLETE THIS PROJECT, INCLUDING, BUT NOT LIMITED TO, RAISING SUNKEN LOG BOOM, REMOVAL OF BOOM FROM RIVER, REMOVAL AND DISPOSAL OF LOCKS, ATTACHMENT OF CMP FLOTATION UNITS, ADDITIONAL BOOM HARDWARE, REPLACING AND REATTACHING BOOM IN RIVER, AND SITE RESTORATION.
4. CONTRACTOR MAY CONTACT DEPARTMENT OF OPERATIONS AND MAINTENANCE, 268-4559, FOR POSSIBLE SOURCE OF ADDITIONAL BOOM HARDWARE.
5. ALL OPENINGS IN CMP SHALL BE SEALED WITH SEALANT.

