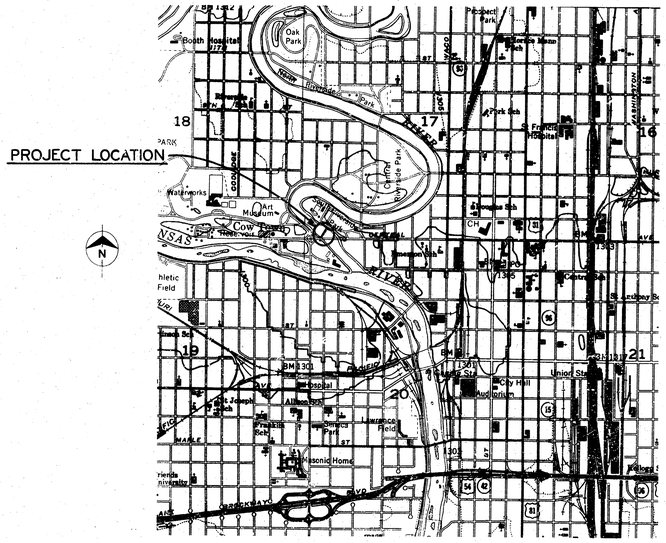
# CITY OF
# WICHITA, KANSAS

## 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

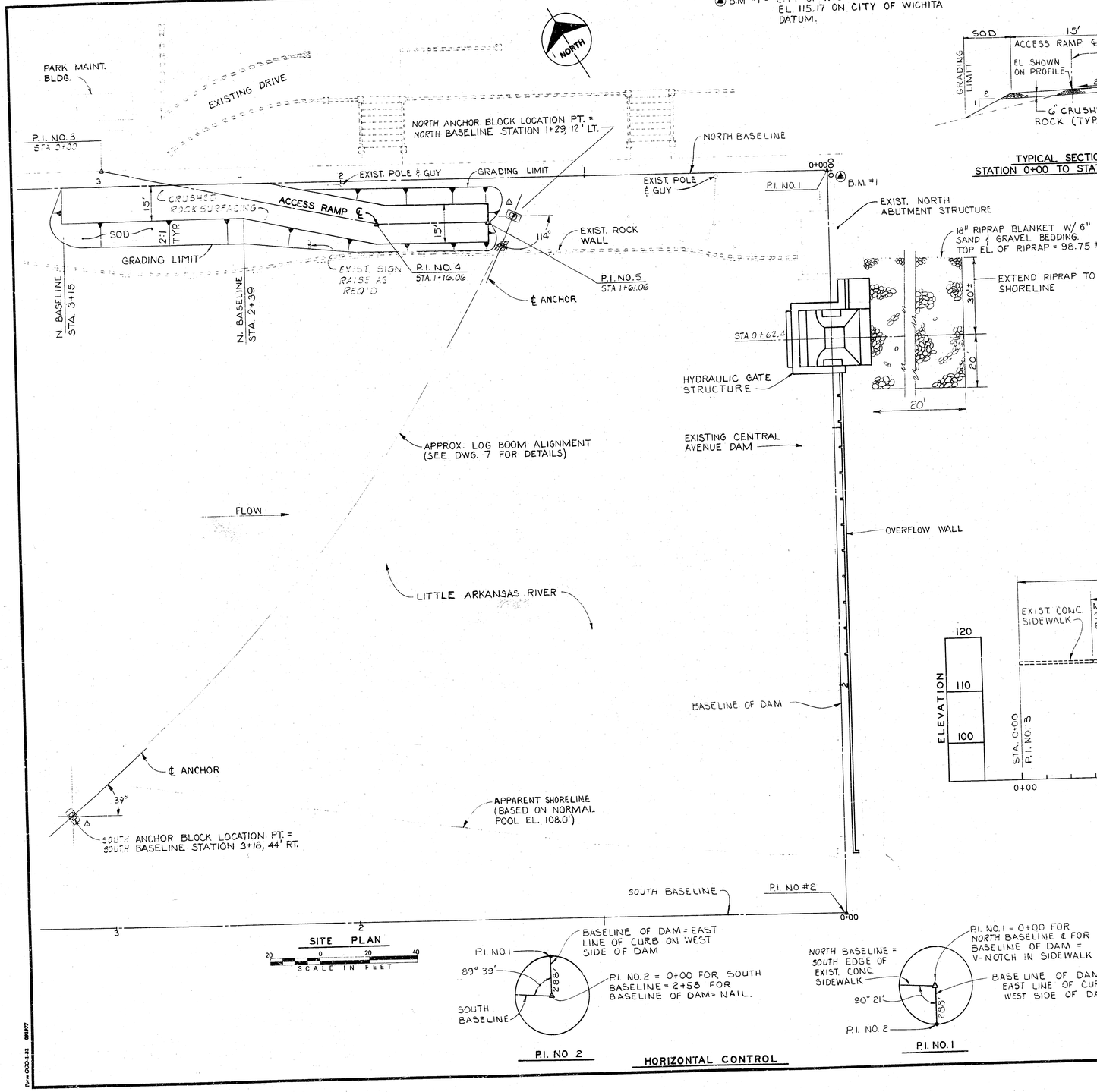
BY R W Bruggeman DATE 4-27-81
R. W. Bruggeman
Director of Eng./City Engineer

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

1/10

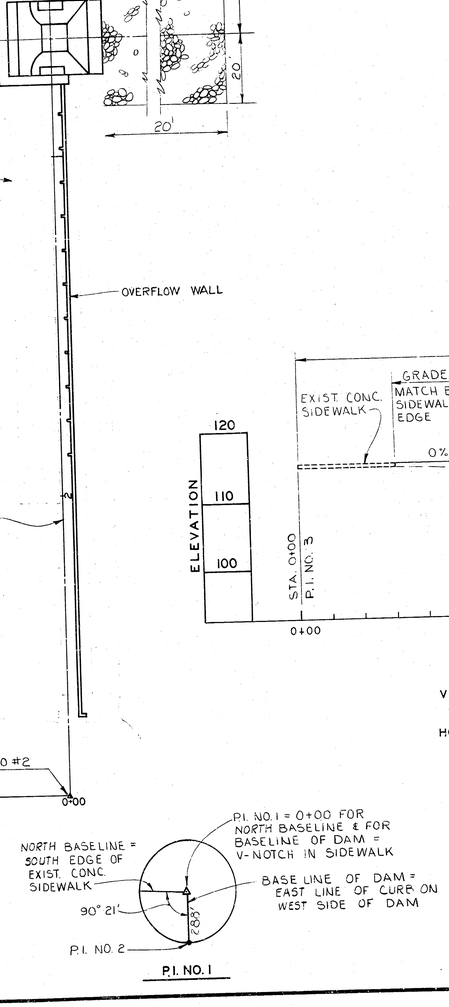
FILMED FROM THE BEST

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







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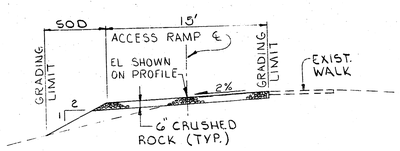
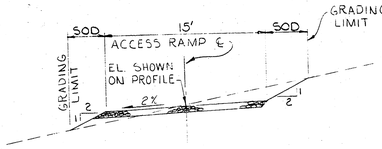
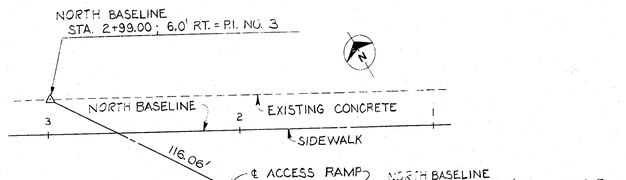



TYPICAL SECTION
STATION 0+00 TO STATION 0+60

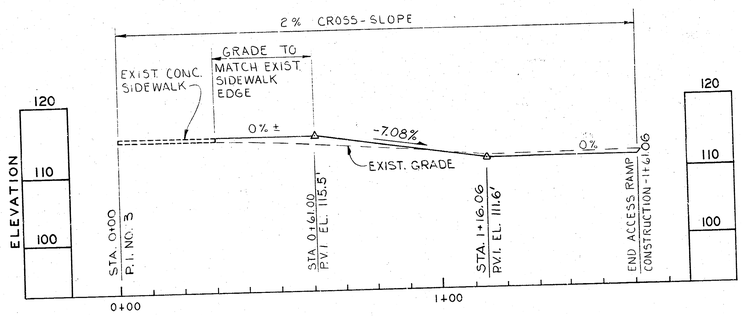



TYPICAL SECTION
STATION 0+60 TO STATION 1+61.06

TYPICAL ACCESS RAMP SECTIONS
NOT TO SCALE




ACCESS RAMP STAKING PLAN
NOT TO SCALE




ACCESS RAMP PROFILE

VERT. – 10 0 10 20 SCALE IN FEET

HORIZ. – 20 0 20 40 SCALE IN FEET

DAVE G. RUF LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

| NO. | DATE | BY | REVISION |
|---|---|---|---|
| 1 | 7-23-81 | JMC | AS PER ADDENDUM NO. 1 |
| 2 | 10-13-82 | TDB | CONFORMING TO CONSTRUCTION RECORDS |

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

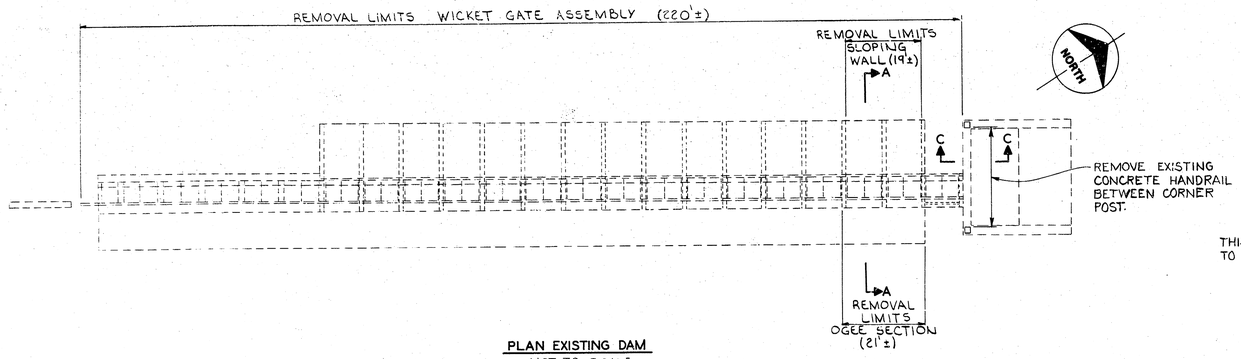
SITE PLAN

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

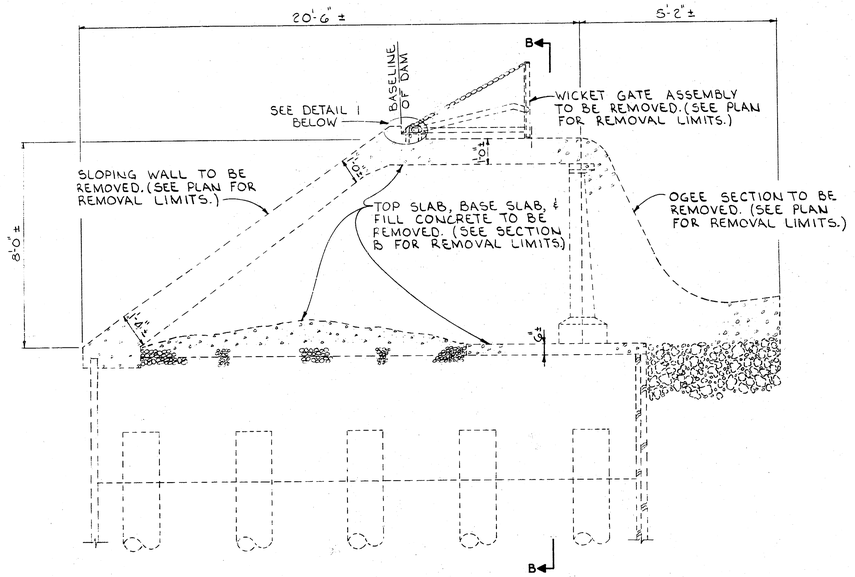
| | | | |
|---|---|---|---|
| DATE | MAY 1, 1981 | DRAWING NO | REV. 1 — 2 |
| DESIGNED | DHS | PROJECT | 80-011-1-001 |
| DETAILED | JDR | | |
| CHECKED | DLS | SHEET | 1 OF 7 SHEETS 2/10 |

Form GCO-1-82 89177

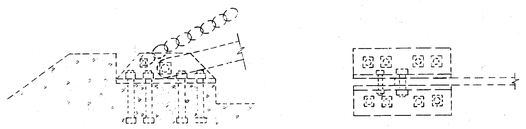
FILMED FROM THE BEST AVAILABLE COPY



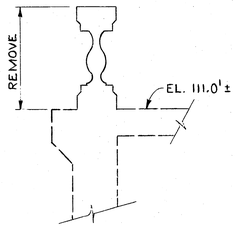

PLAN EXISTING DAM
NOT TO SCALE




SECTION A
NOT TO SCALE




DETAIL 1
NOT TO SCALE

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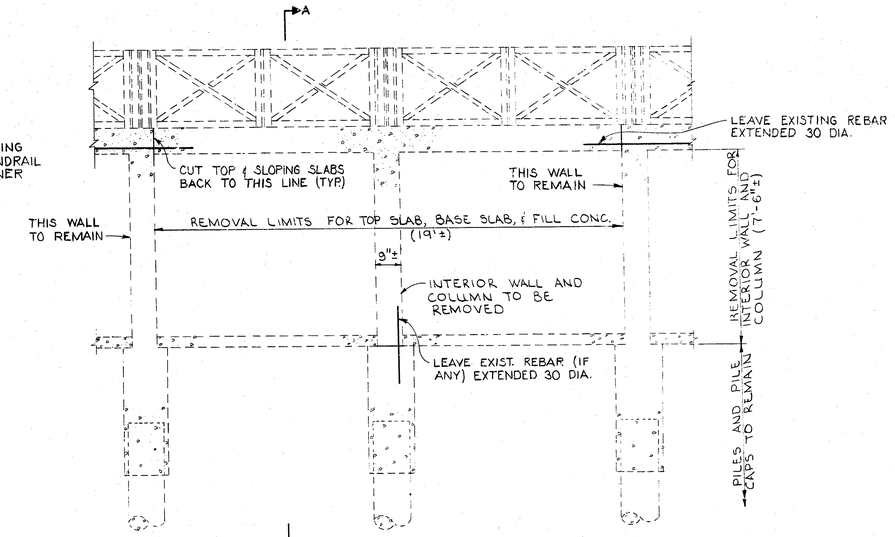
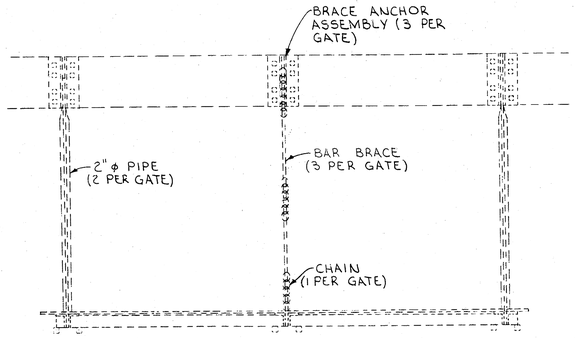



SECTION B
NOT TO SCALE

NOTE:
SEE SPECIFICATION SECTION 3A FOR CUTTING EXISTING CONCRETE.




PLAN TYPICAL WICKET GATE ASSEMBLY
NOT TO SCALE

| NO. | DATE | BY | REVISION |
|---|---|---|---|
| 1 | | | |

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

DALE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

CITY OF WICHITA, KANSAS

**Central Avenue Dam Improvements**

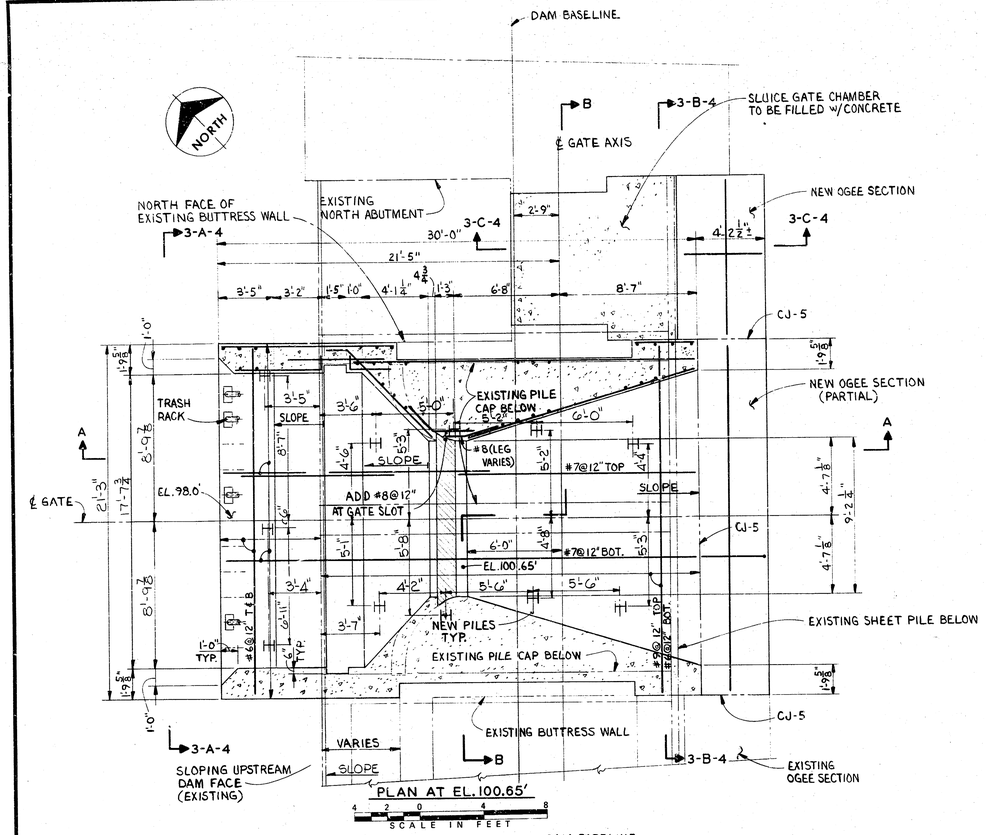
Department of Engineering
R.W. Bruggeman-Director of Engr. City Engr.
Project No. 472 76 245 80851 000 000 001

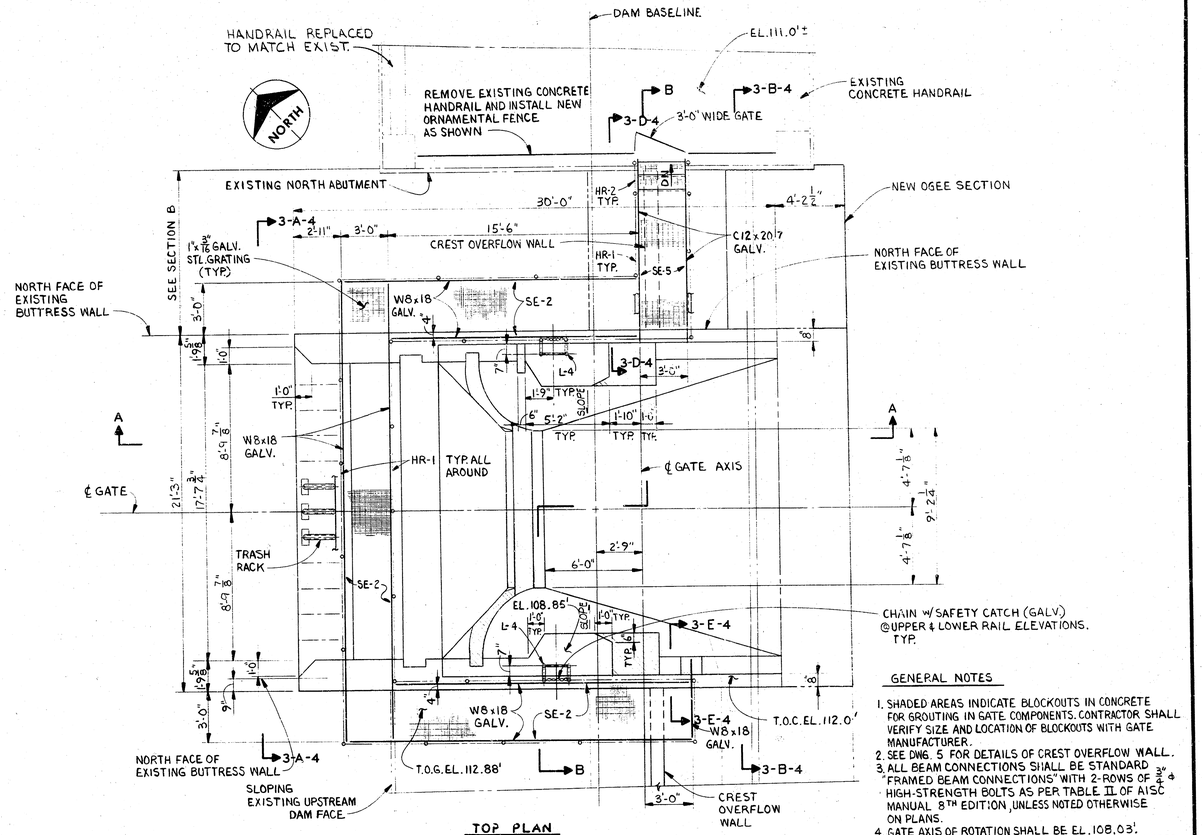
DEMOLITION PLAN & DETAILS

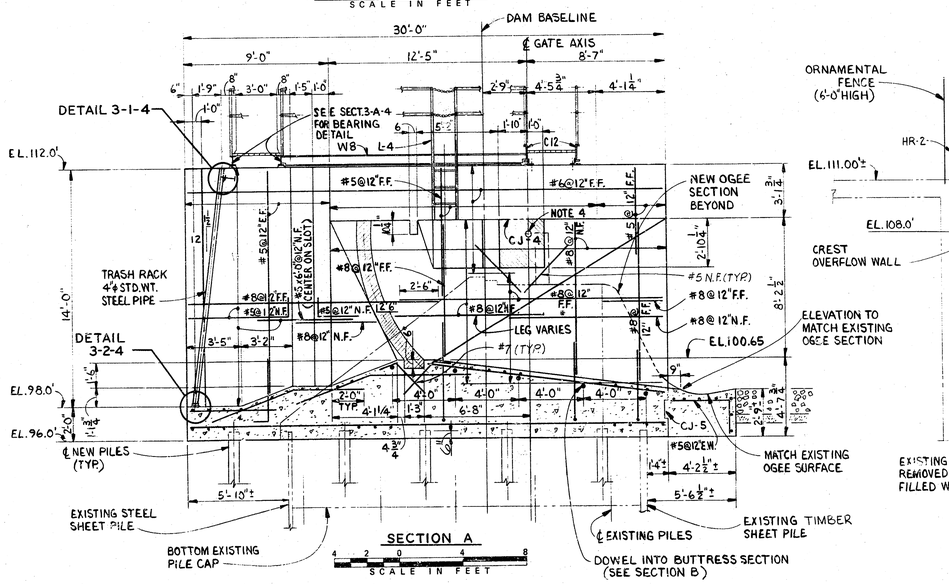
**Burns & McDonnell**
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

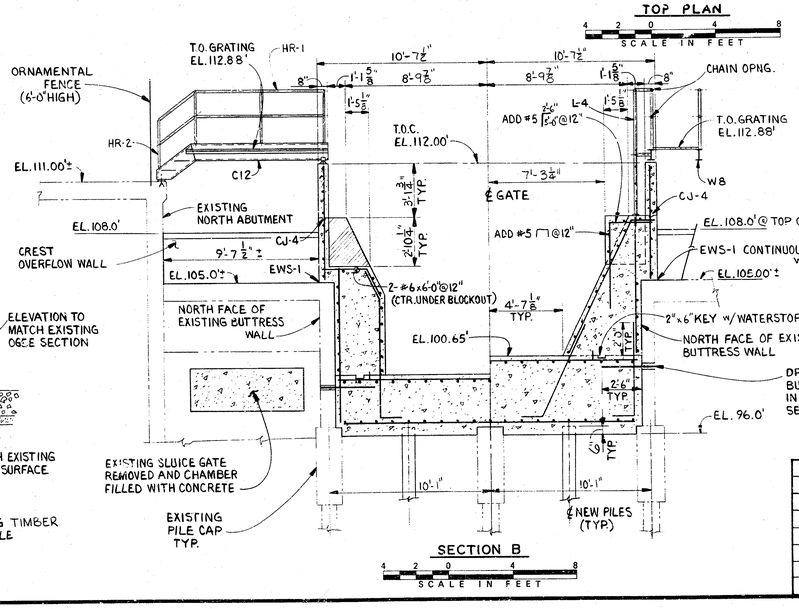
| | | | |
|---|---|---|---|
| DATE | MAY 1, 1981 | DRAWING NO | 2 -- 1 |
| DESIGNED | DHS | REV. | |
| DETAILED | JDR | PROJECT | 80-011-1-001 |
| CHECKED | DLS | SHEET | 2 OF 7 SHEETS |

Form GCO-143 8/1977




## 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"ϕ 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.

DAVE G. RUE LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

| NO. | DATE | BY | REVISION |
|---|---|---|---|
| 1 | 7-23-81 | JMC | AS PER ADDENDUM NO. 1 |
| 2 | 10-18-82 | TDB | |

CONFORMING TO CONSTRUCTION RECORDS

CITY OF WICHITA, KANSAS

Central Avenue Dam Improvements

Department of Engineering
R.W. Bruggeman-Director of Engr. City Engr.
Project No. 472 76245 80851 000 000 001

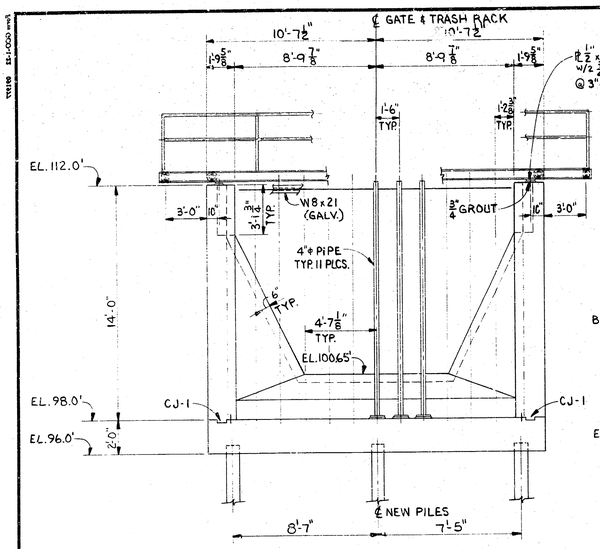
HYDRAULIC GATE STRUCTURE I

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

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

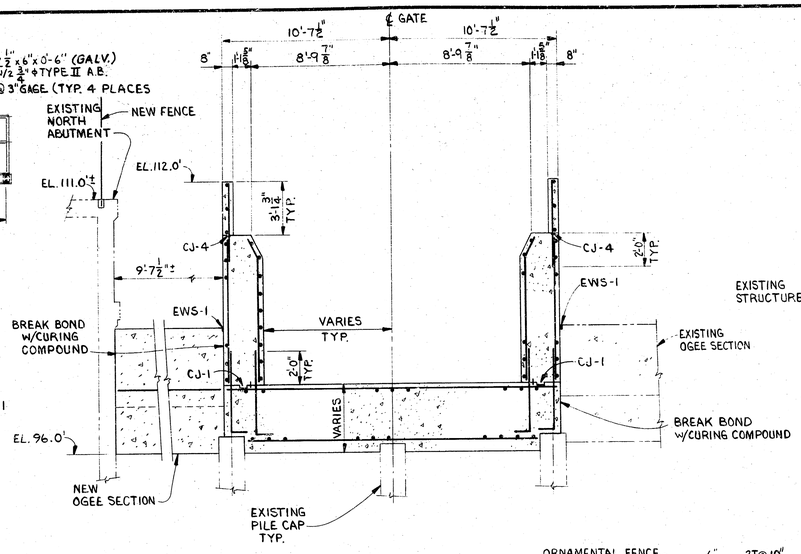
Form CCDD-438 8/1977

4/10



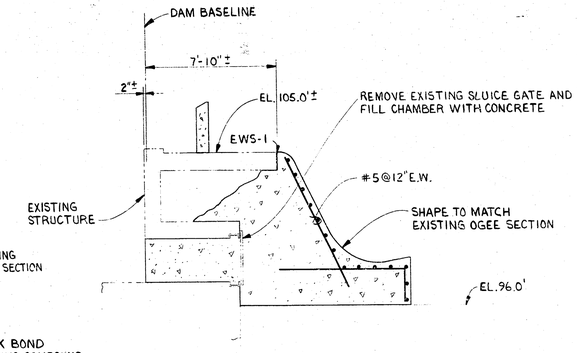

SECTION 3-A-4

SCALE IN FEET



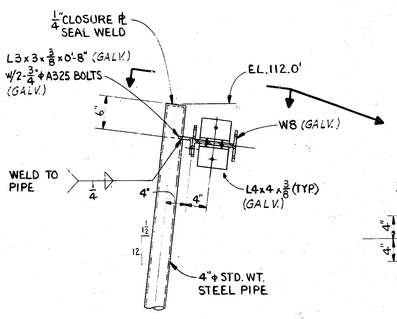

SECTION 3-B-4

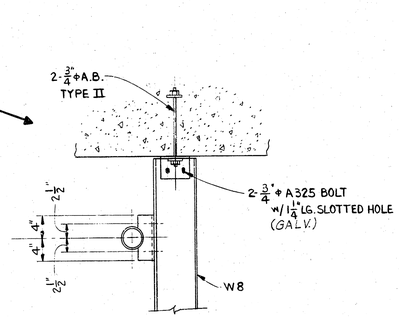
SCALE IN FEET

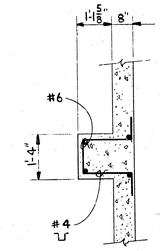



SECTION 3-C-4

SCALE IN FEET

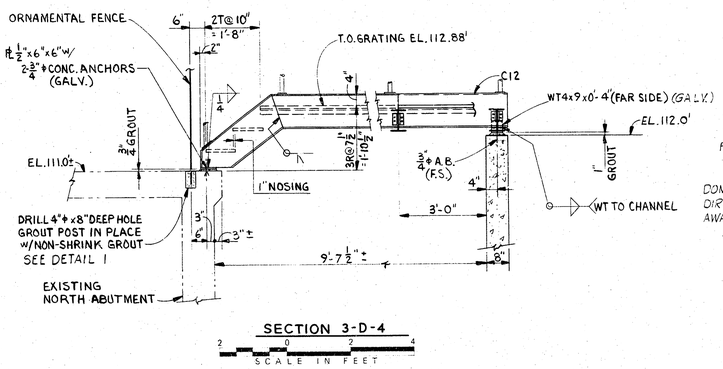


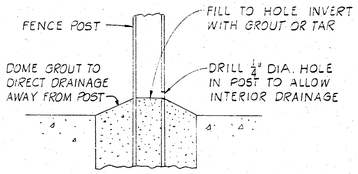

SECTION A

SCALE IN FEET



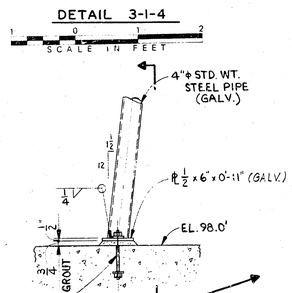

SECTION 3-D-4

SCALE IN FEET

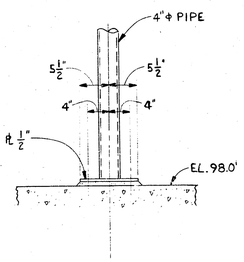


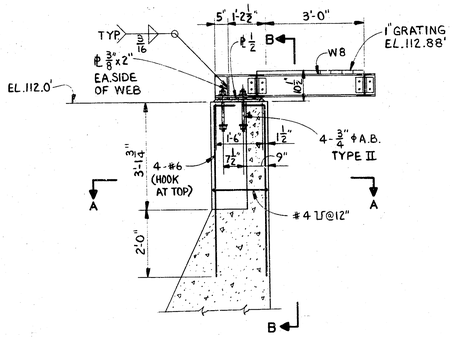

DETAIL 1

NTS



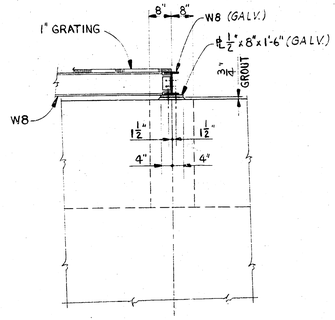

TRASH RACK DETAILS




SECTION 3-E-4

SCALE IN FEET




SECTION B

SCALE IN FEET

DAVE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

CITY OF WICHITA, KANSAS

**Central Avenue Dam Improvements**

Department of Engineering
R.W. Bruggeman-Director of Engr.-City Engr.
Project No. 478.76 245 80851 000 000 001

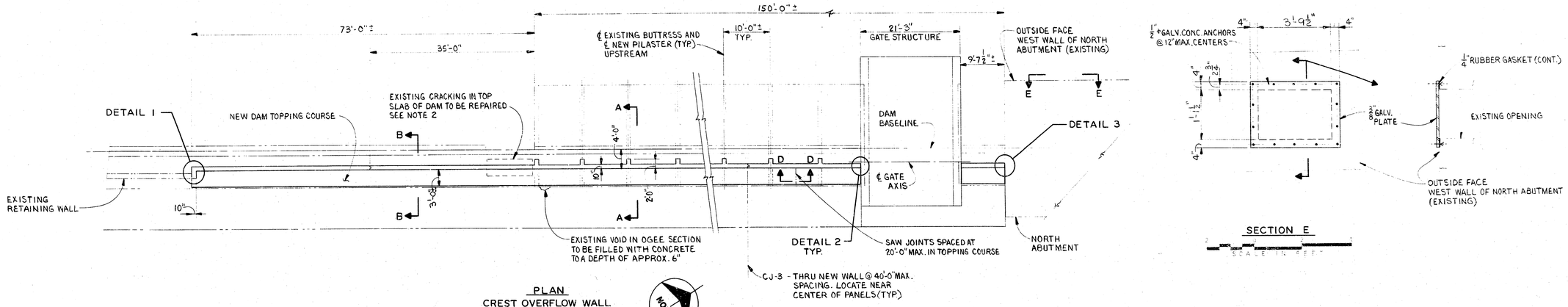
HYDRAULIC GATE STRUCTURE II

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

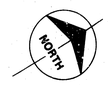
| NO. | DATE | BY | REVISION |
|---|---|---|---|
| 1 | 10-13-82 | TDB | CONFORMING TO CONSTRUCTION RECORDS |

| | | | |
|---|---|---|---|
| DATE | MAY 1, 1981 | DRAWING NO | 4 — 1 |
| DESIGNED | BAB. | REV. | |
| DETAILED | ECK. | PROJECT | 80-011-1-001 |
| CHECKED | B.A.B. | SHEET | 4 OF 7 SHEETS |

5/10



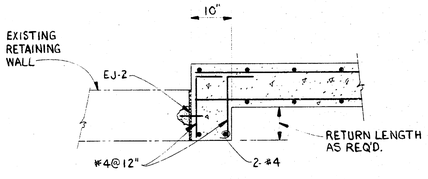

PLAN
CREST OVERFLOW WALL
SCALE IN FEET



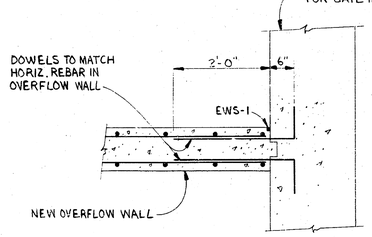




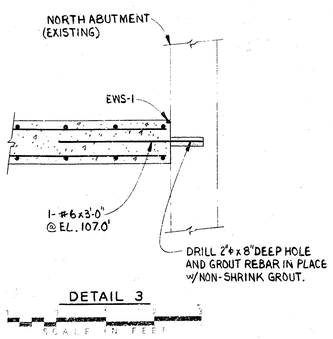
SECTION E
SCALE IN FEET



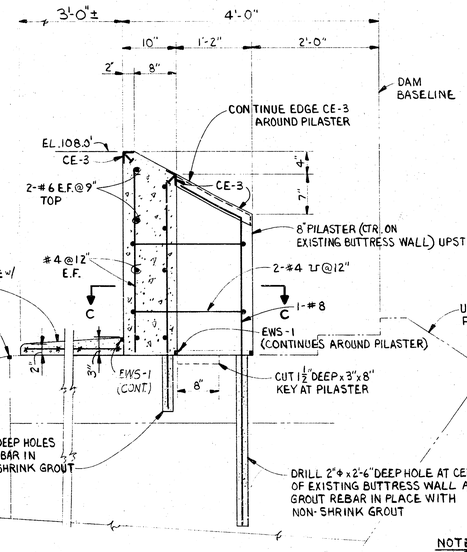

DETAIL 1
SCALE IN FEET



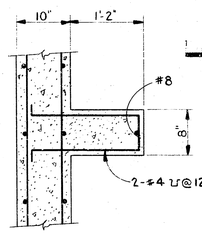

DETAIL 2
SCALE IN FEET



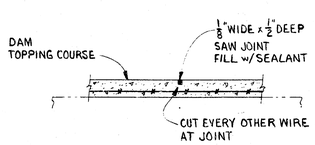

DETAIL 3
SCALE IN FEET



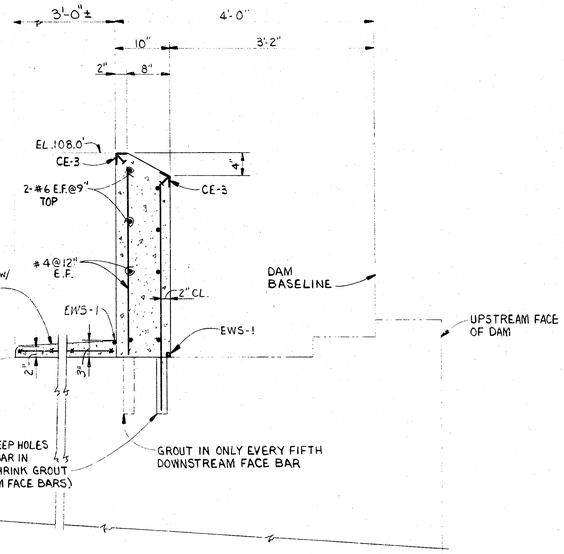

SECTION A
SCALE IN FEET




SECTION C
SCALE IN FEET




SECTION D
N.T.S.




SECTION B
SCALE IN FEET

NOTES:
1. EXISTING JOINT SHOULD BE ENLARGED BY SUITABLE GRINDING OR CUTTING METHODS TO PRODUCE A SLOT OF 1" WIDTH BY ½" MAXIMUM DEPTH. SLOT SHOULD THEN BE SEALED AS SHOWN IN EWS-1.
2. 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.
3. SPLICE HORIZONTAL BARS IN CREST OVERFLOW WALL AS FOLLOWS:
   #4 BARS - 2'-0" LAP
   #6 BARS - 2'-9" LAP

DANE G. RUE JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

| NO. | DATE | BY | REVISION |
|---|---|---|---|
| 1 | 10-18-82 | TDB | CONFORMING TO CONSTRUCTION RECORDS |

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

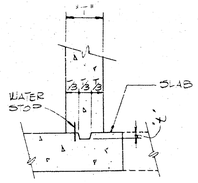
CREST OVERFLOW WALL

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

| | |
|---|---|
| DATE MAY 1, 1981 | DRAWING NO. 5 — REV. 1 |
| DESIGNED BAB. | |
| DETAILED E.C.K. | PROJECT 80-011-1-001 |
| CHECKED BAB | SHEET 5 OF 7 SHEETS |

6/10

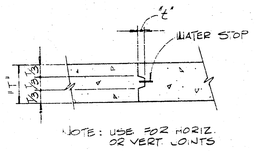
Form CCO-48 #8977




"t" = 1½" UP TO 30" WALL
"t" = 3" 30" TO 60" WALL

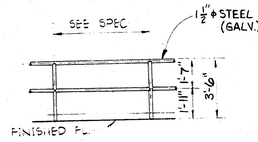
CJ-1 W/WATER STOP
CJ-2 OMIT WATER STOP

"t" = 1½" UP TO 30" SLAB
"t" = 3" 30" TO 60" SLAB

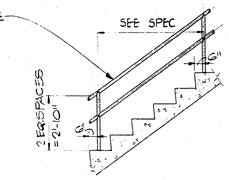



NOTE: USE 302 HORIZ. 02 VERT JOINTS

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




HR-1
NOT TO SCALE

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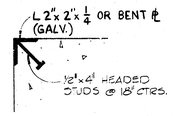
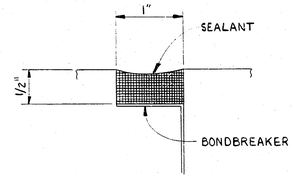
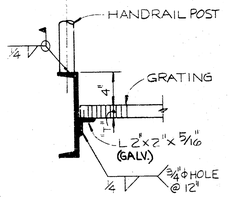


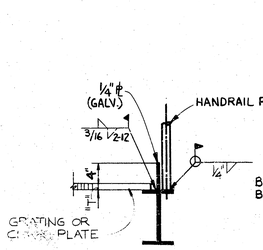

CE-3



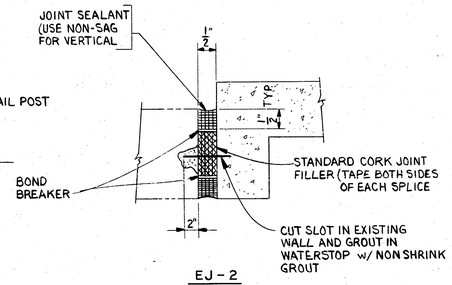

ELASTOMERIC WATERSTOP
EWS-1



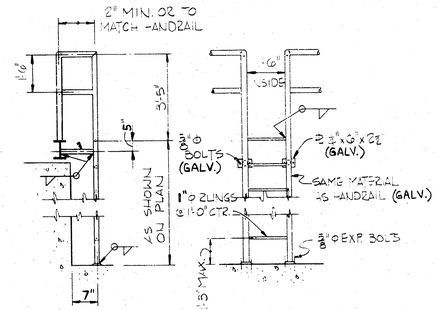

SE-5




SE-2




EJ-2

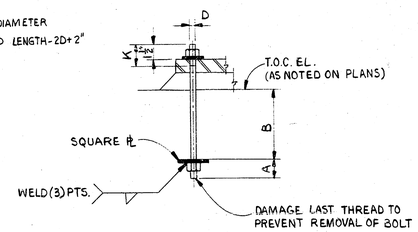



LADDER w/ HANDRAIL ON STEEL

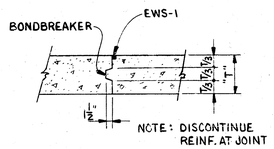
L-4

| SCHEDULE | | | | |
|---|---|---|---|---|
| "D" | "A" | "B" | SQUARE PL | REMARKS |
| ¾" | 2¼" | 8" | PL 3"x 3"x ½" | GALVANIZE |
| | | | | |
| | | | | |

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




TYPE II ANCHOR BOLT




NOTE: DISCONTINUE REINF. AT JOINT

CJ-5

DAVE G. RUE JR LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

| NO. | DATE | BY | REVISION |
|---|---|---|---|
| 1 | 10-18-82 | TDB | CONFORMING TO CONSTRUCTION RECORDS |

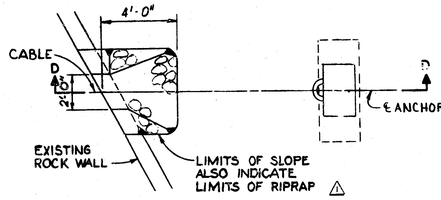
CITY OF WICHITA, KANSAS
Central Avenue Dam Improvements
Department of Engineering
R.W. Bruggeman-Director of Engr.-City Engr.
Project No. 472 76 245 80851 000 000 001

MISCELLANEOUS DETAILS

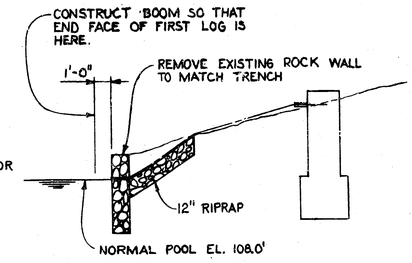
Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

| | |
|---|---|
| DATE MAY 1, 1981 | DRAWING NO 6 — 1 REV. |
| DESIGNED B.A.B. | |
| DETAILED E.C.K. | PROJECT 80-011-1-001 |
| CHECKED B.A.B. | SHEET 6 OF 7 SHEETS |

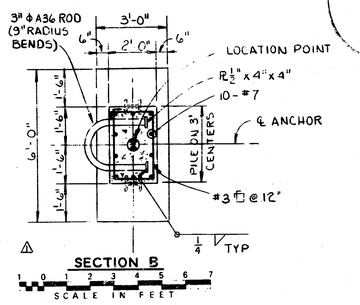
7/10

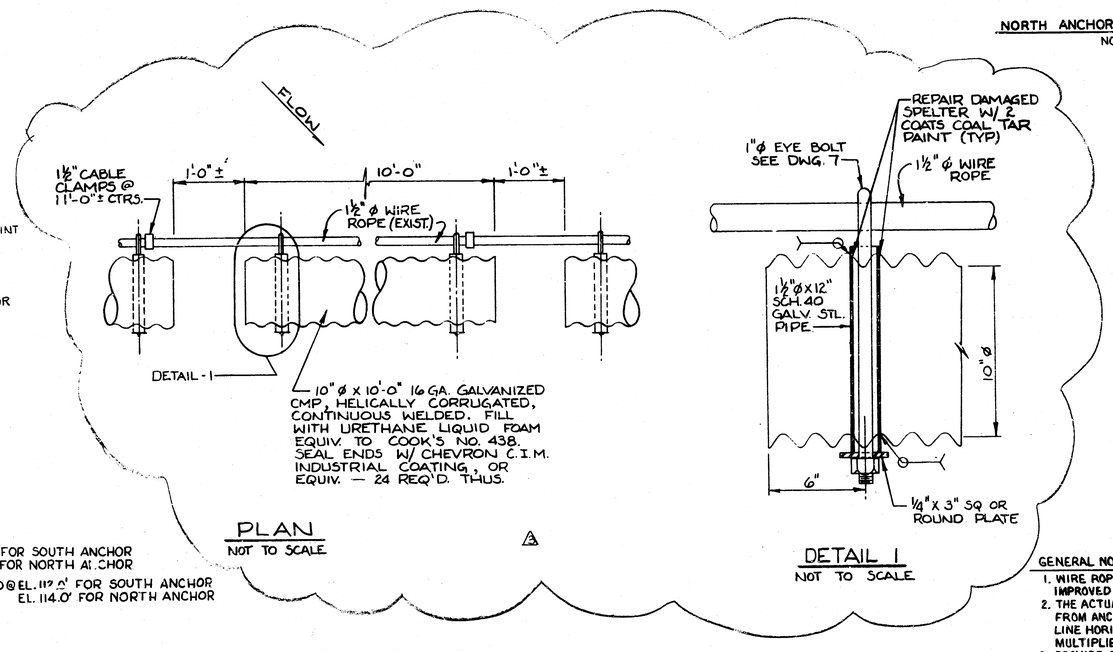



NORTH ANCHOR BLOCK GRADING PLAN
NOT TO SCALE




SECTION D
NOT TO SCALE

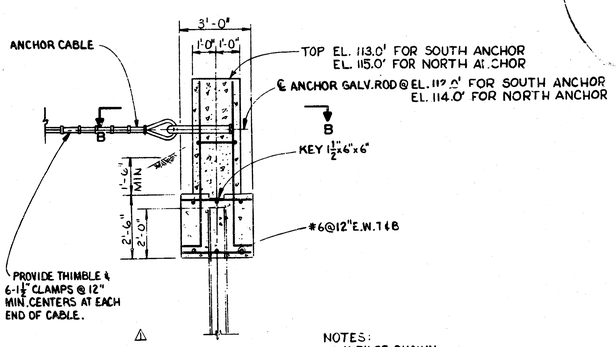



PLAN
NOT TO SCALE




DETAIL 1
NOT TO SCALE




DETAIL 3
CABLE ANCHOR BLOCK
1 0 1 2 3 4 5 6 7
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 1½" ϕ GALVANIZED, 6 x 25 FW, IMPROVED PLOW, IWRC.
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.

DAVE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

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 |
|---|---|---|---|
| ⚠1 | 7-23-81 | JMC | REVISED PER ADDENDUM #1 |
| ⚠2 | 10-7-81 | TDB | REVISED END LOG CONN. |
| ⚠3 | 10-13-82 | TDB | REVISED ENTIRE LOG BOOM |

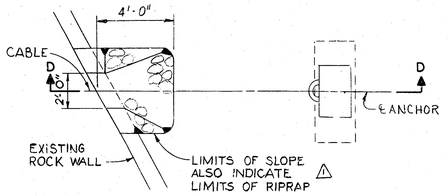
CITY OF WICHITA, KANSAS
Central Avenue Dam Improvements
Department of Engineering
R.W. Bruggeman-Director of Engr./City Engr.
Project No. 472 76 245 80851 000 000 001

LOG BOOM DETAILS

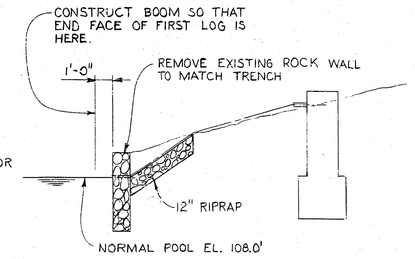
Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

| | |
|---|---|
| DATE MAY 1, 1982 | DRAWING NO 7 — 3 REV. |
| DESIGNED DHS | |
| DETAILED JDR | PROJECT 80-011-1-001 |
| CHECKED DLS | SHEET 7 OF 7 SHEETS |

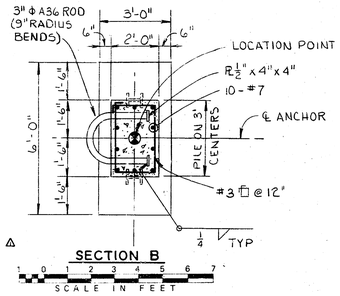
8/10



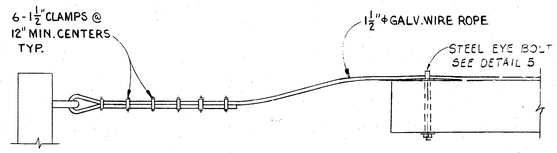

NORTH ANCHOR BLOCK GRADING PLAN
NOT TO SCALE



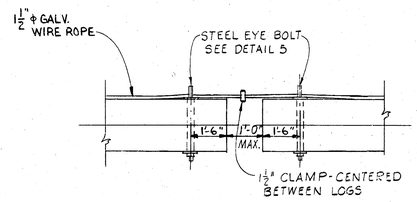

SECTION D
NOT TO SCALE



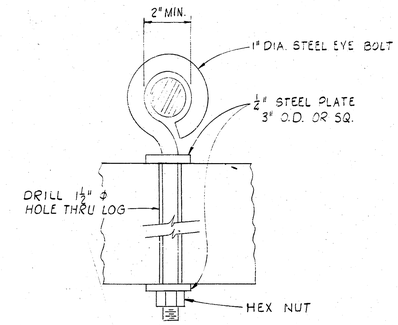

SECTION B



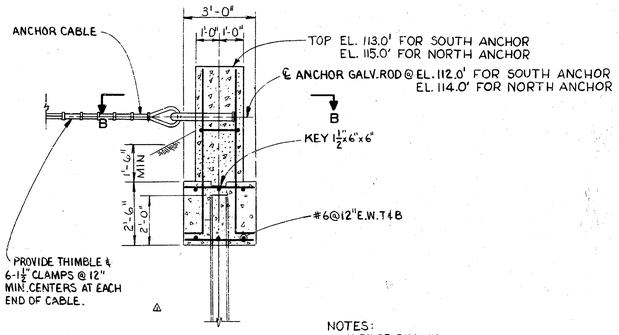

DETAIL 1
END LOG CONNECTION
NTS ⚠




DETAIL 2
LOG TO LOG CONNECTION
NTS




DETAIL 5
NTS




DETAIL 3
CABLE ANCHOR BLOCK

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" ϕ GALVANIZED, 6 x 25 FW, IMPROVED PLOW, IWRC.
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.

DAVE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

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

CONFORMING TO CONSTRUCTION RECORDS

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

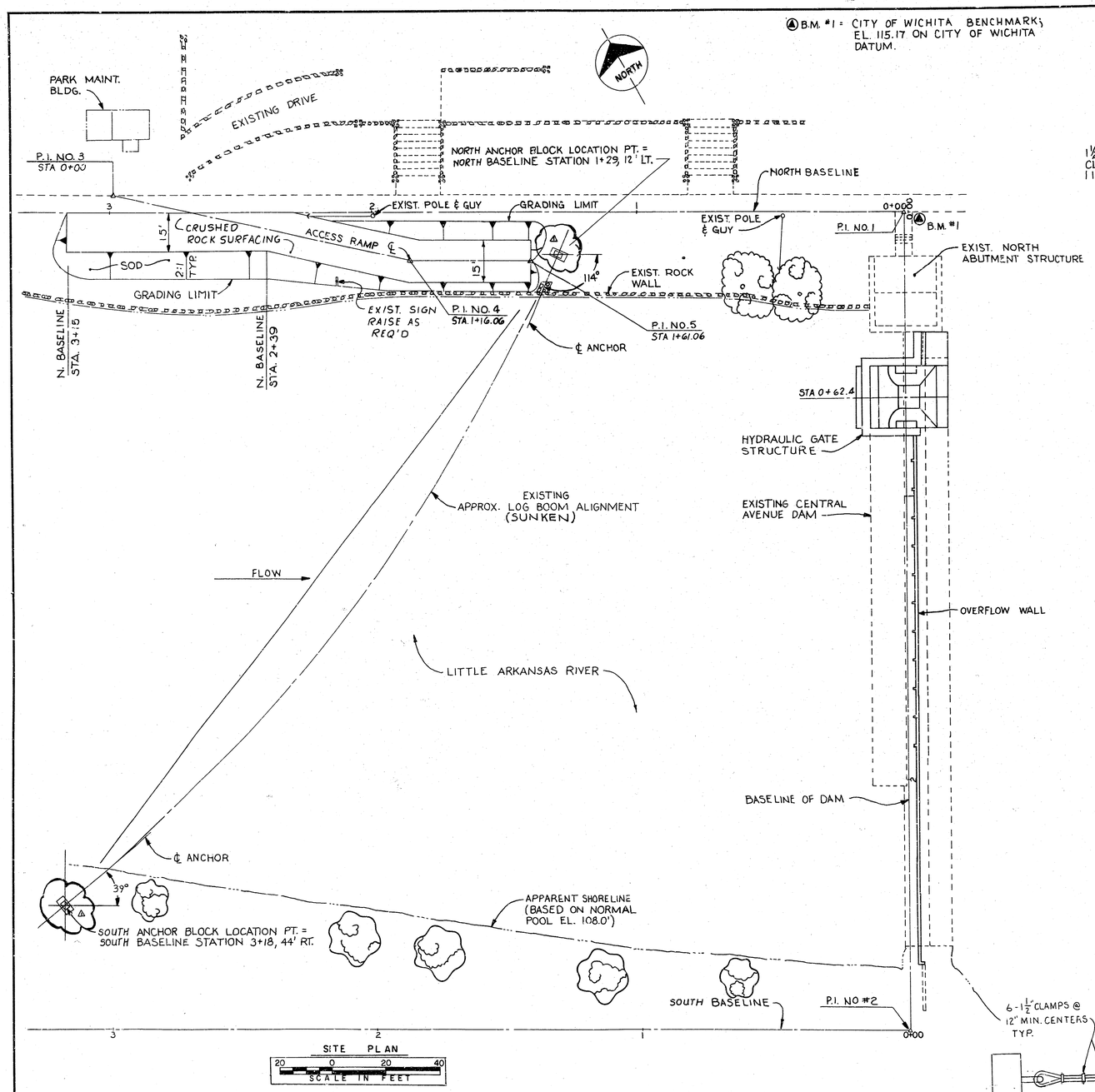
| | | | |
|---|---|---|---|
| DATE | MAY 1, 1981 | DRAWING NO | REV. 7 - 2 |
| DESIGNED | DHS | PROJECT | 80-011-1-001 |
| DETAILED | JDR | | |
| CHECKED | DLS | SHEET | 7 OF 7 SHEETS |

9/10

# CENTRAL AVENUE DAM

## BOOM REPAIR

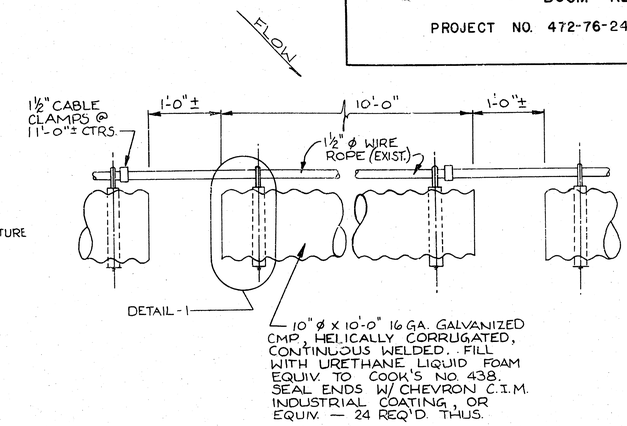
PROJECT NO. 472-76-245-80851-000-000-001




SITE PLAN

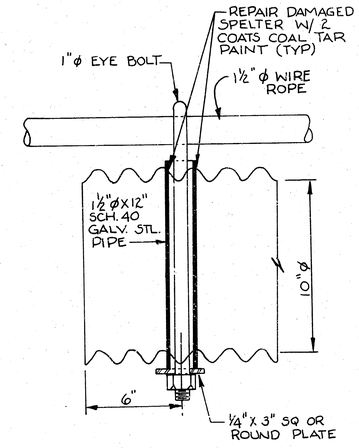
20 0 20 40

SCALE IN FEET



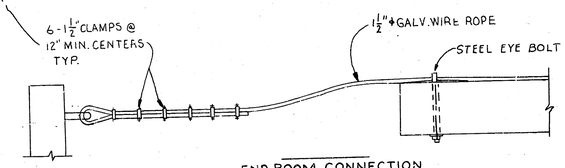

PLAN

NOT TO SCALE




DETAIL 1

NOT TO SCALE



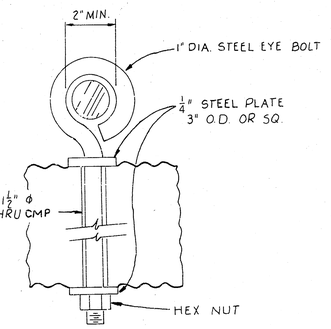

END BOOM CONNECTION

NTS

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

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 LOGS, 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.




NOT TO SCALE

(FOR EYE BOLT INFORMATION ONLY)

CHRIS J. BREITENSTEIN LICENSED 8266 KANSAS PROFESSIONAL ENGINEER

10/10