

MAIN STORM WATER DRAIN # 8 - PHASE I

E.L. I-35W TO E.L. LOT 39, PARKMORE 2ND ADDN.

CITY OF WICHITA, KANSAS

R.E. SMITH CITY ENGINEER

DATE: June ,1970 PROJECT No: C 20-8

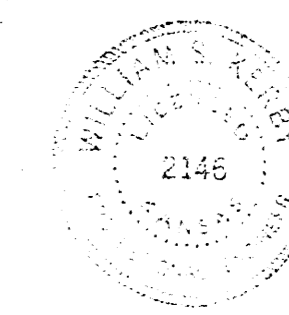
GENERAL NOTES:

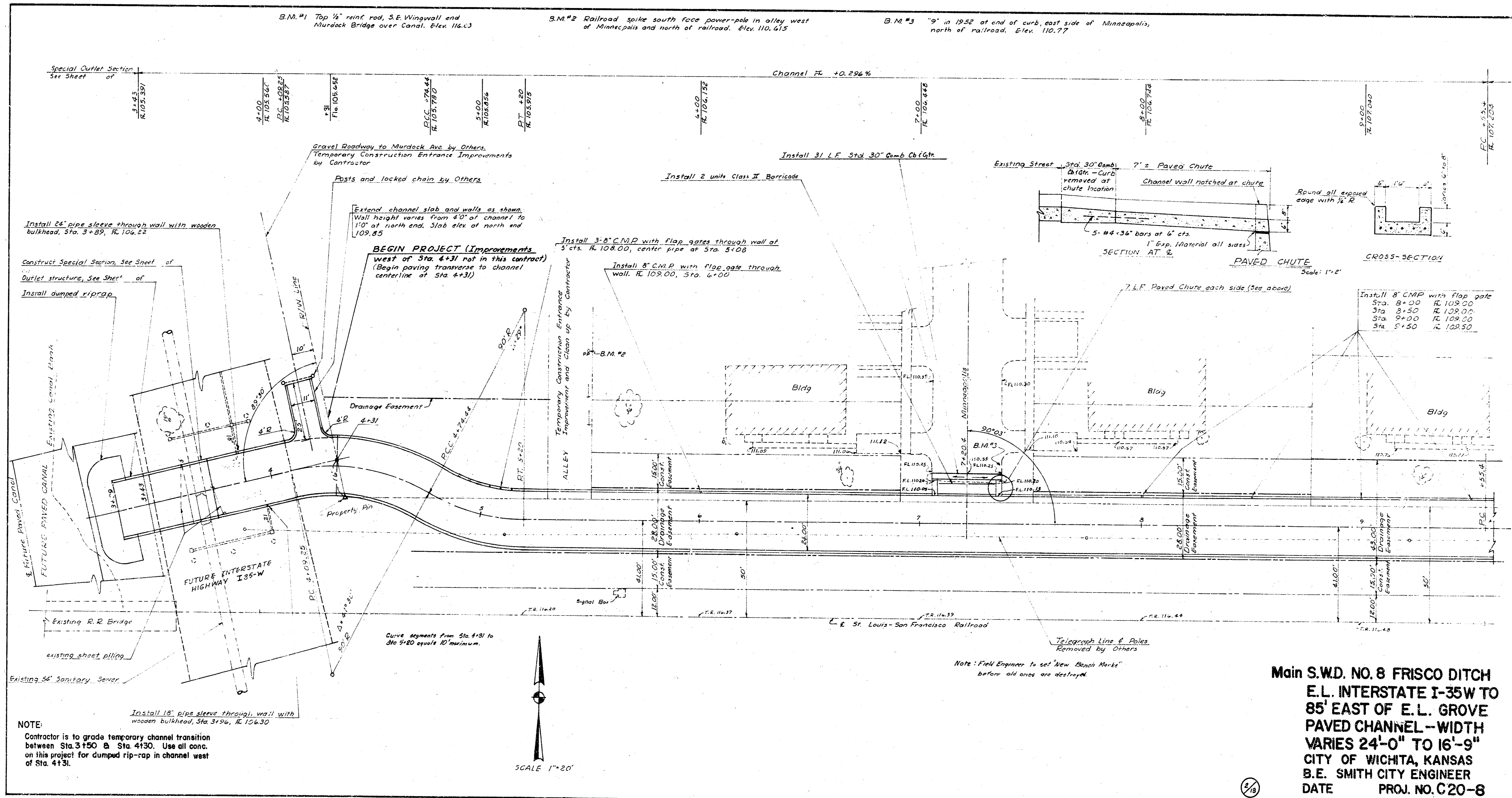
1. ALL ELEVATIONS REFER TO CITY DATUM.
2. USE CITY OF WICHITA TYPICAL DRAWINGS FOR STD. 2'x5' INLET AND STD. 30" CORR. CURB AND GUTTER. FLOWLINE OF GUTTER AS SHOWN ON PLANS.
3. "8-INCH CMP WITH FLAP GATE" SHALL BE A PAY ITEM AND INCLUDES A 6" TO 9" LENGTH OF 16-GAUGE AASHO M-36-60 8" CMP AND ONE ARMCO MODEL 10C FLAP GATE OR APPROVED EQUAL. THE UNIT SHALL BE FACTORY ASSEMBLED. THE SPIGOT BACK OF GATE SHALL BE EMBEDDED IN THE CONCRETE WALL. THE FREE PIPE END SHALL BE CUT FLUSH WITH WALL SURFACE, AND CONCRETE FORMS SHALL RECESS WALL AS REQUIRED FOR PROPER OPERATION OF GATE LINK. THE 15" FLAP GATES SHALL BE ARMCO MODEL 10C OR APPROVED EQUAL. THE 15" CMP SHALL BE 16-GAUGE AASHO M-36-60.
4. "PREPARATION AND CLEAN-UP" SHALL BE A LUMP SUM PAY ITEM AND SHALL INCLUDE ALL REQUIRED OR INDICATED POST, TREE, AND DEBRIS REMOVAL, REMOVAL AND REPLACEMENT OF NORTH-SOUTH FENCES WITH NEW END POST AT CHANNEL WALL AS REQUIRED; PLUGGING WELL; AND RESHAPING AND RESEEDING DISTURBED AREAS TO THE QUALITY OF THE ORIGINAL; AND THE REPLACEMENT OF ANY DAMAGED WALKS OR DRIVES.
5. CONSTRUCT NEW FENCE ALONG NORTH CHANNEL WALL THENCE SOUTH AT EXISTING RCB HEADWALLS TO A POINT 2' SOUTH OF HEADWALL. FENCE SHALL BE 4' 9 GAUGE, 2" MESH, ASTM 392 CLASS I CHAINLINK FABRIC WITH LINE POST 6' LONG, 2" O.D. (2.79 lb/ft) AT 10' CENTERS WITH 1'-0" OF POST CAST IN PLACE IN WALL OR SLEEVES PROVIDED TO ACCOMMODATE POSTS. END POSTS SHALL BE 2 3/8" O.D. (3.65 lb/ft) AND SHALL BE 6' LONG CAST IN WALL OR 7' LONG OUTSIDE OF WALL. TOP RAIL SHALL EXTEND FULL LENGTH OF FENCE AND SHALL BE 1 5/8" O.D. (2.29 lb/ft). ALTERNATE LOCATIONS TO FENCE LAND ADJACENT TO CHANNEL TO BE DETERMINED BY FIELD ENGINEER.

INDEX OF SHEETS

1. COVER SHEET
2. PLAN STA. 4131 TO STA. 9155
3. PLAN STA. 9155 TO STA. 15100
4. PLAN STA. 15100 TO STA. 21100
5. PLAN STA. 21100 TO STA. 27100
6. PLAN STA. 27100 TO STA. 28104, BARRICADE DETAIL
7. TYPICAL SECTIONS, PAVED CHANNEL
8. EXPANSION JOINT DETAIL
9. CONNECTION DETAIL TO EXISTING CULVERTS
- 10-13 CROSS SECTIONS

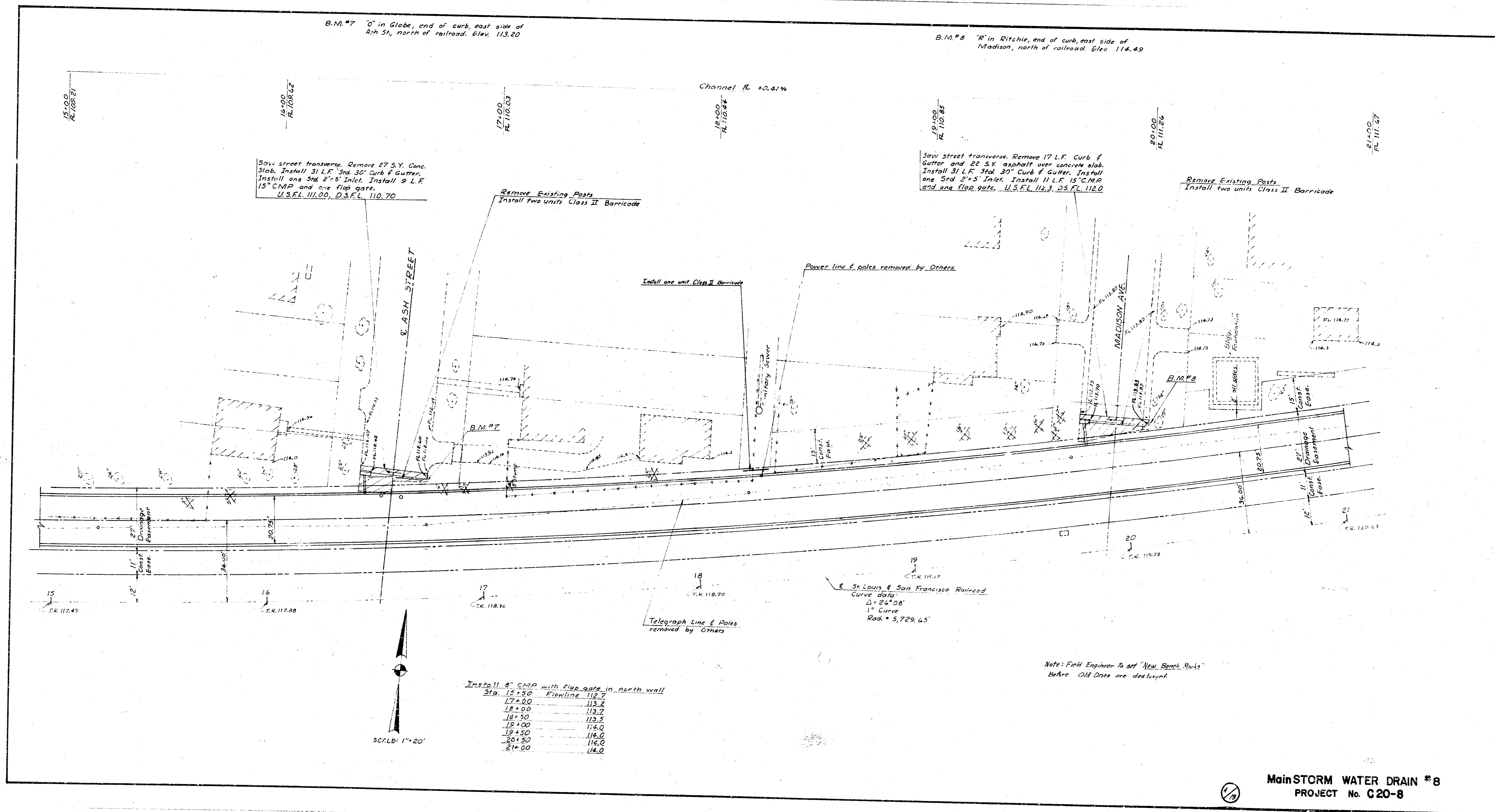
SHOWN BY W. S. KERRY
FOR W. S. KERRY
D.L.K.P.





NOTE:
Contractor is to grade temporary channel transition between Sta. 3150 & Sta. 4130. Use all conc. on this project for dumped rip-rap in channel west of Sta. 4131.

Main S.W.D. NO. 8 FRISCO DITCH
E.L. INTERSTATE I-35W TO
85' EAST OF E.L. GROVE
PAVED CHANNEL - WIDTH
VARIES 24'-0" TO 16'-9"
CITY OF WICHITA, KANSAS
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B.M.#7 0 in Globe, end of curb, east side of Ash St, north of railroad. Elev. 113.20

B.M.#8 0 in Ritchie, end of curb, east side of Madison, north of railroad. Elev. 114.49

Channel R. +0.41%

Saw street transverse. Remove 27 S.Y. Conc. Slab. Install 31 L.F. 30" Curb & Gutter. Install one 3rd 4" Inlet. Install 2 L.F. 15" CMP and one flap gate. U.S.E.L. 111.00, D.S.F.L. 110.70

Remove Existing Posts. Install two units Class II Barricade

Saw street transverse. Remove 17 L.F. Curb & Gutter and 22 S.Y. asphalt over conc. slab. Install 31 L.F. 30" Curb & Gutter. Install one 3rd 4" Inlet. Install 11 L.F. 15" CMP and one flap gate. U.S.E.L. 112.3, D.S.F.L. 112.0

Remove Existing Posts. Install two units Class II Barricade

Install one unit Class II Barricade

Power line & poles removed by Others

Telegraph Line & Poles removed by Others

E. St. Louis & San Francisco Railroad
Curve data:
Δ = 24°08'
1° Curve
Rad. = 5,729.65'

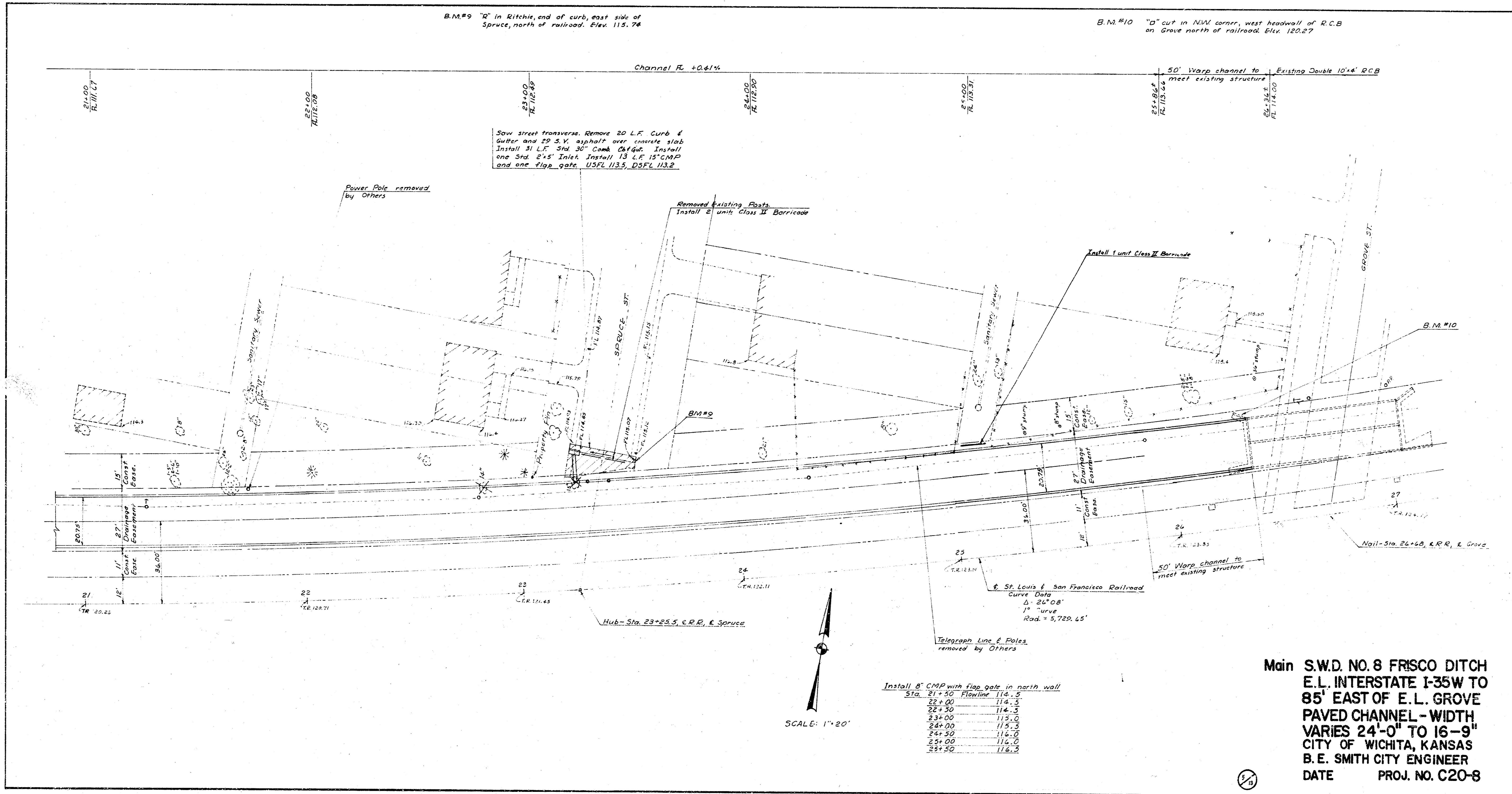
Note: Field Engineer to set 'New Bench Marks' before Old Ones are destroyed.

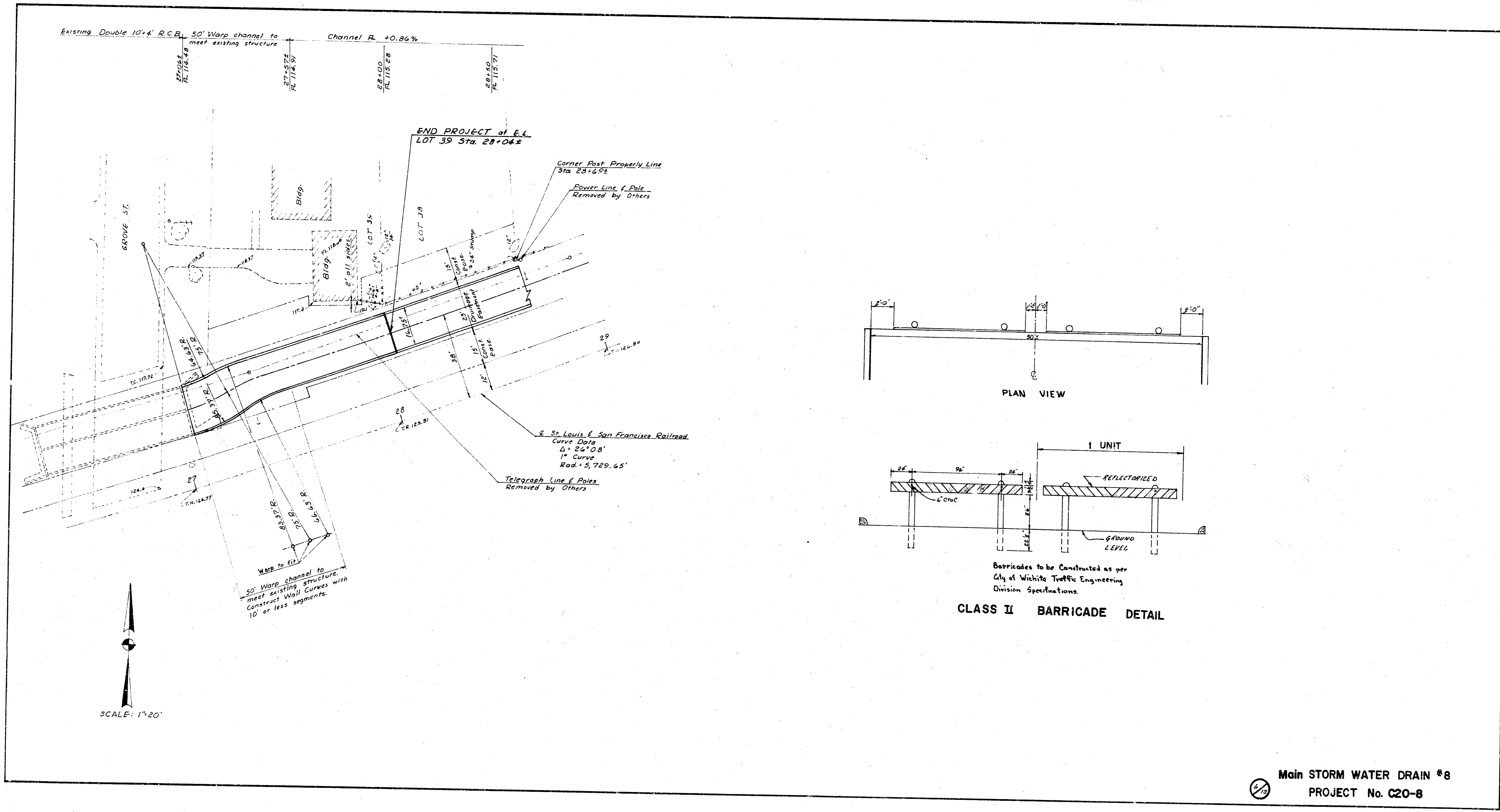
Install 8" CMP with flap gate in north wall

Sta. 16+50	Flowline 112.7
17+00	113.2
18+00	113.7
19+00	114.0
20+00	114.0
21+00	114.0

SCALE: 1"=20'

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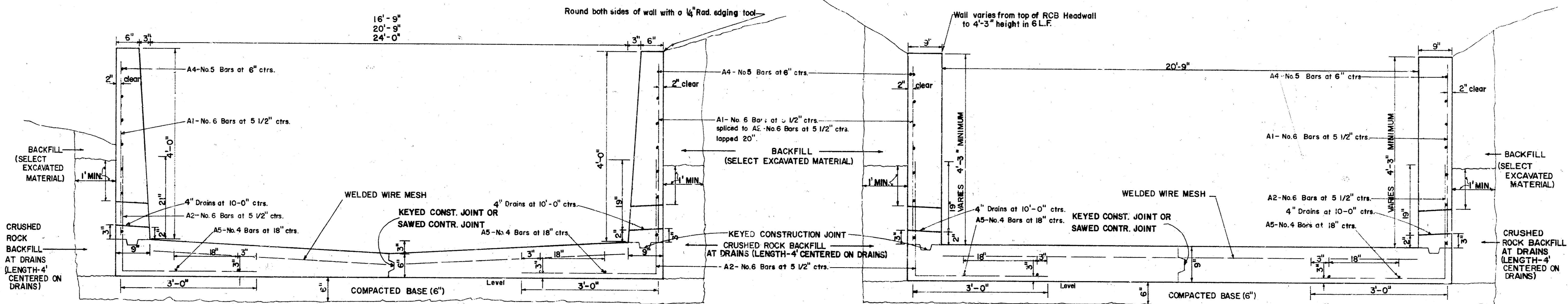
CHAIN LINK FENCE SPECIFICATIONS

4' CHAIN LINK FENCE NO. 9 GAGE, 2" MESH, ASTM 392 CLASS I TO BE INSTALLED.
 LINE POSTS AT 10' CENTERS, 6'-0" LONG, 2" O.D., 2.79 lbs./ft., EMBEDDED 1'-6" IN WALL.
 END POSTS 6'-0" LONG IN WALL, 7'-0" OUTSIDE OF WALL, 2 3/8" O.D., 3.65 lbs./ft.
 TOP RAIL 1 5/8" O.D., 2.27 lbs./ft.
 LINE POSTS MAY BE CAST IN PLACE IN WALL OR SLEEVES MAY BE PROVIDED TO ACCOMMODATE POSTS.
 POSTS NOT INSTALLED IN WALL OF CHANNEL SHALL HAVE A CONCRETE FOOTING 10" IN DIAMETER AND
 3'-0" DEEP. THESE POSTS TO BE EMBEDDED 2'-6" IN CONCRETE FOOTING.
 METHOD OF INSTALLATION AND TYPE OF ASSEMBLY TO BE APPROVED BY THE ENGINEER.

NOTE TO FIELD ENGINEER & CONTRACTOR

- CONTRACTOR TO HAVE OPTION OF CONSTRUCTING SLAB FULL WIDTH WITH A 2" DEEP SAWED CONTRACTION JOINT AT $\frac{1}{2}$, OR HALF WIDTH POUR WITH KEYED CONSTRUCTION JOINT AT $\frac{1}{2}$ OF SLAB WITH NO. 4 DOWEL BARS 3'-0" LONG AT 30' CENTERS.
- CONCRETE SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT.
- RAIL-STEEL CONCRETE REINFORCEMENT BARS OR BILLET-STEEL CONCRETE REINFORCEMENT BARS OF AN INTERMEDIATE GRADE SHALL BE USED.
- WELDED WIRE MESH SHALL BE NO. 1 GAGE WIRE SPACED 6" LONGITUDINALLY & NO. 4 GAGE WIRE SPACED 12" TRANSVERSELY WEIGHING 61 lbs. per 100 sq. ft. WIRE MESH TO BE PLACED 3" FROM THE TOP OF THE CONCRETE CHANNEL FLOOR SLAB. WIRE MESH REINFORCEMENT IN FLOOR SLAB OF CHANNEL IS TO RUN CONTINUOUS THROUGH CONTRACTION JOINTS BUT IS NOT TO RUN THROUGH EXPANSION OR KEYED JOINTS.

- CONTRACTION JOINTS ARE TO BE SAWED EVERY 30' PERPENDICULAR TO THE $\frac{1}{2}$ OF THE CHANNEL EXCEPT WHERE EXPANSION JOINT DEVICES ARE INSTALLED.
- CONTRACTOR TO HAVE OPTION OF INSTALLING LACLEDE OR ANKORTITE TYPE EXPANSION JOINT DOWEL ASSEMBLIES CONFORMING TO STANDARDS OF THE STATE HIGHWAY COMMISSION OF KANSAS. THE 6" SIZE CONCRETE DOWEL ASSEMBLIES SHALL BE USED. EXPANSION JOINTS ARE TO BE CONSTRUCTED AT 150' SPACING AND SHALL BE FILLED WITH JOINT FILLER OF EITHER REDWOOD BOARD 3/4" IN THICKNESS OR PREMOLDED ASPHALTIC JOINT MATERIAL 3/4" IN THICKNESS. ALL EXPANSION JOINT MATERIAL USED SHALL CONFORM TO THE SECTION OF SLAB AS SHOWN ON PLANS.
- CHANNEL TO TRANSITION FROM TYPICAL SECTION TO SPECIAL SECTION AT BOX CULVERTS IN 50'.
- ALL REINFORCING STEEL BARS SHALL BE LAPPED A MINIMUM OF 18" UNLESS OTHERWISE SPECIFIED.
- SELECT BACKFILL FROM EXCAVATED MATERIAL IS TO BE USED AS BACKFILL FOR CHANNEL WALLS AND FILL ADJACENT TO CHANNEL CONSTRUCTION. BACKFILL TO BE COMPACTED TO ORIGINAL CUT DENSITY OR GREATER AS DETERMINED BY THE FIELD ENGINEER.
- CONTRACTION JOINTS IN WALLS TO CONFORM TO THE SAWED CONTRACTION JOINTS IN THE BASE OF THE CHANNEL SPACED AT 30' CENTERS PERPENDICULAR TO THE $\frac{1}{2}$ OF THE CHANNEL.



TYPICAL SECTION

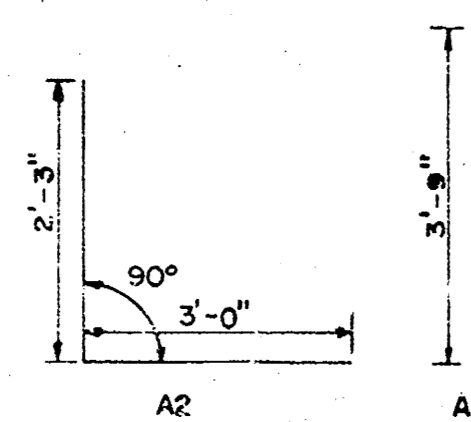
TYPICAL SECTION CENTERLINE WHEN PARALLEL TO RAILROAD CURVE VARIES WITH A 5,688.65' TO 5,693.65' RADIUS CURVE. CURVE SEGMENTS TO BE 50' MAX.

SPECIAL SECTION AT BOX CULVERTS

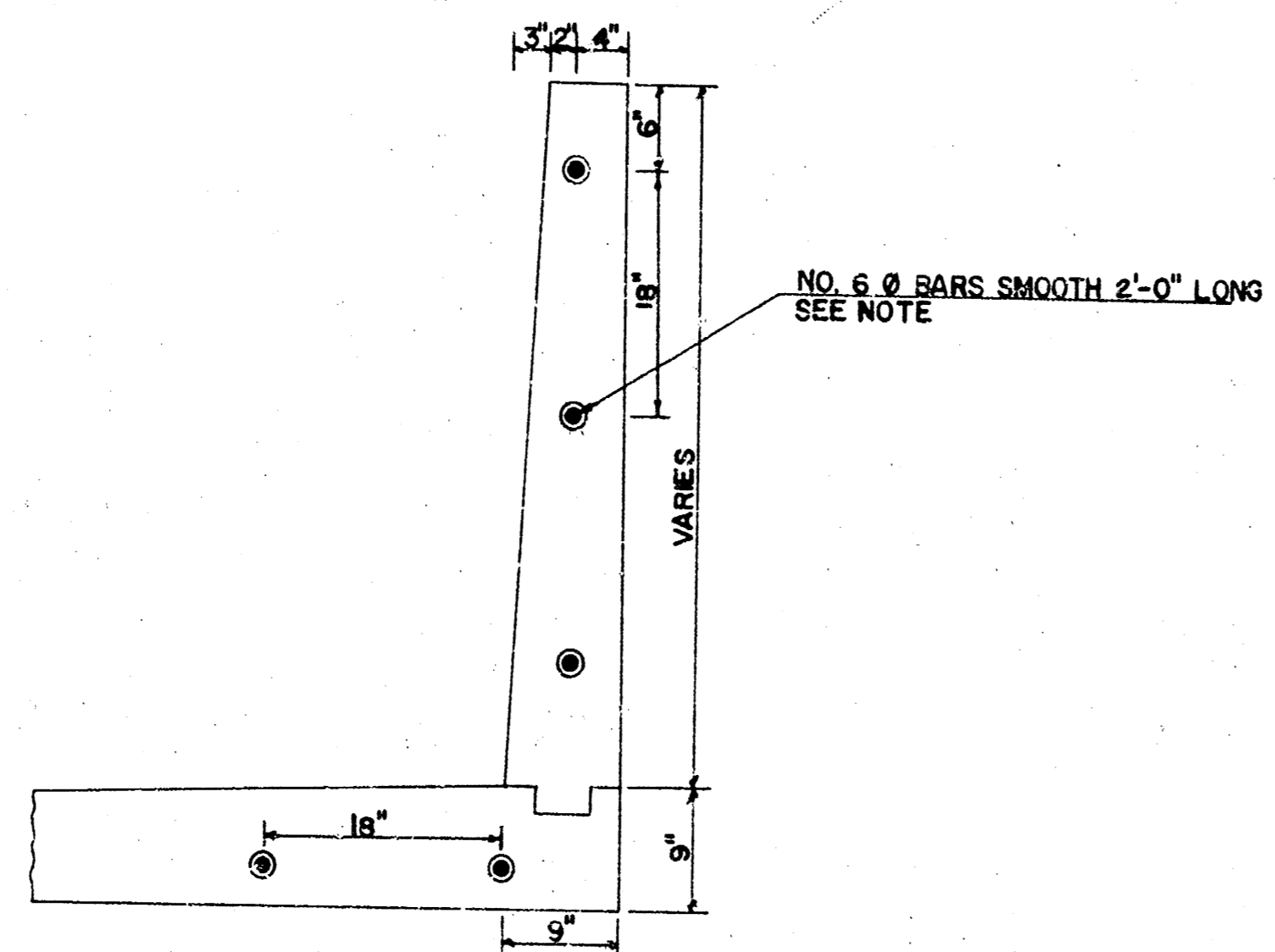
CHANNEL VARIES FROM TYPICAL SECTION TO SPECIAL SECTION IN SLOPE WITH SMOOTH CONTINUOUS CURVES. USE CURVE SEGMENTS OF 10' MAX. WHEN RADIUS OF CURVE IS LESS THAN 100'. FORM MARKINGS OR VOIDS WITH A THICKNESS OF 0.1" OR LARGER WITHIN EXPOSED CONCRETE SHALL BE ERADICATED TO PROVIDE A SMOOTH SURFACE.

NOTE:
 Channel variation from Typical Section to Special Section to be paid for as if a continuation of the typical section.

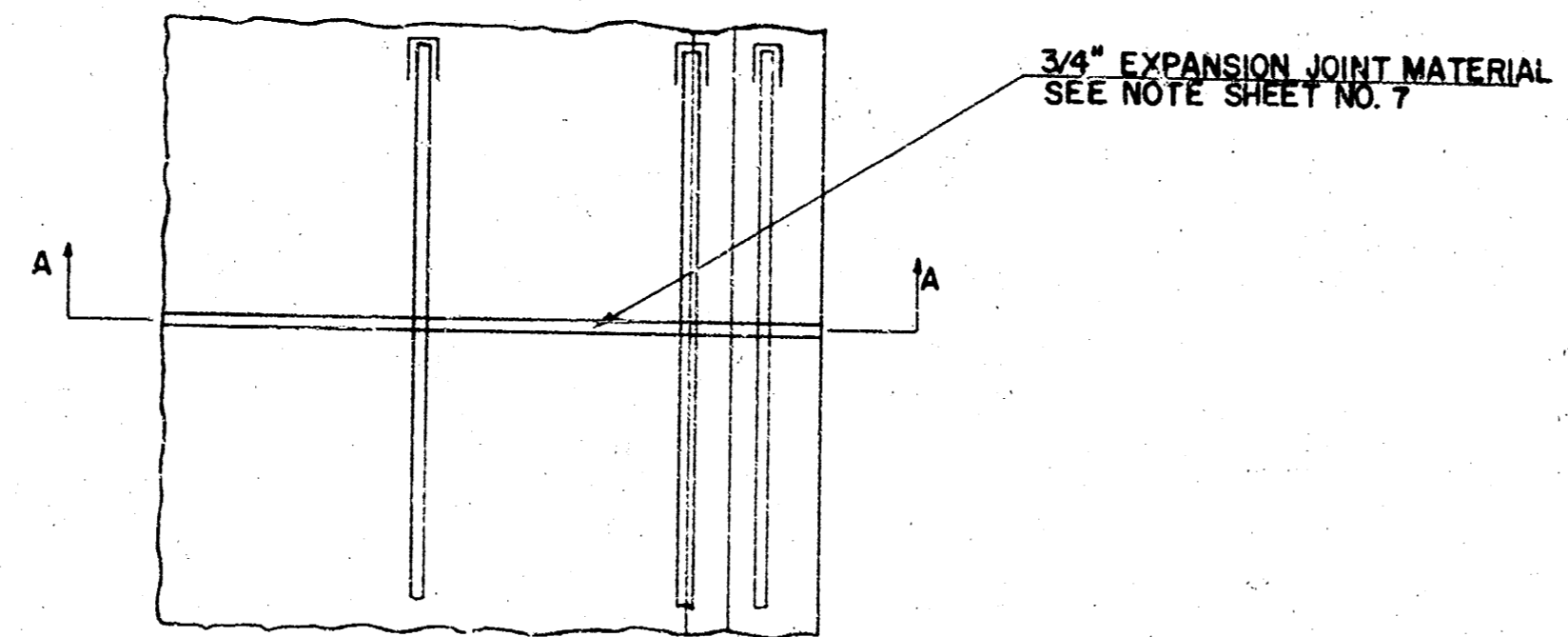
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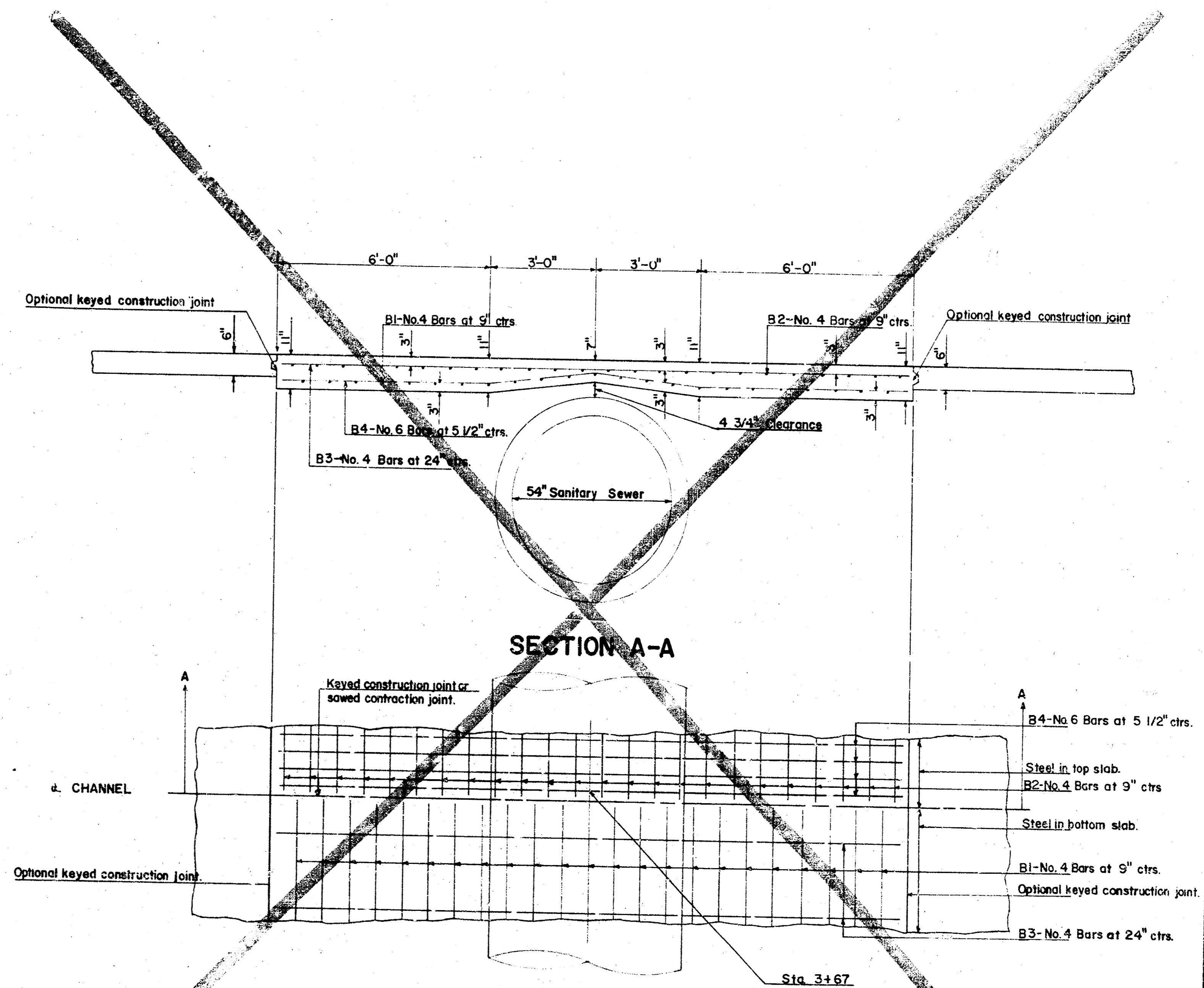
NOTE:
 NO. 6 Ø BARS ARE TO BE COATED WITH HARD GREASE & CAPPED ON ONE END WITH THE SAME CAP & HARD GREASE AS SPECIFIED FOR EXPANSION JOINTS IN FLOOR OF CHANNEL. 1. OF BAR MUST BE PLACED PARALLEL TO LINE & GRADE OF CHANNEL.



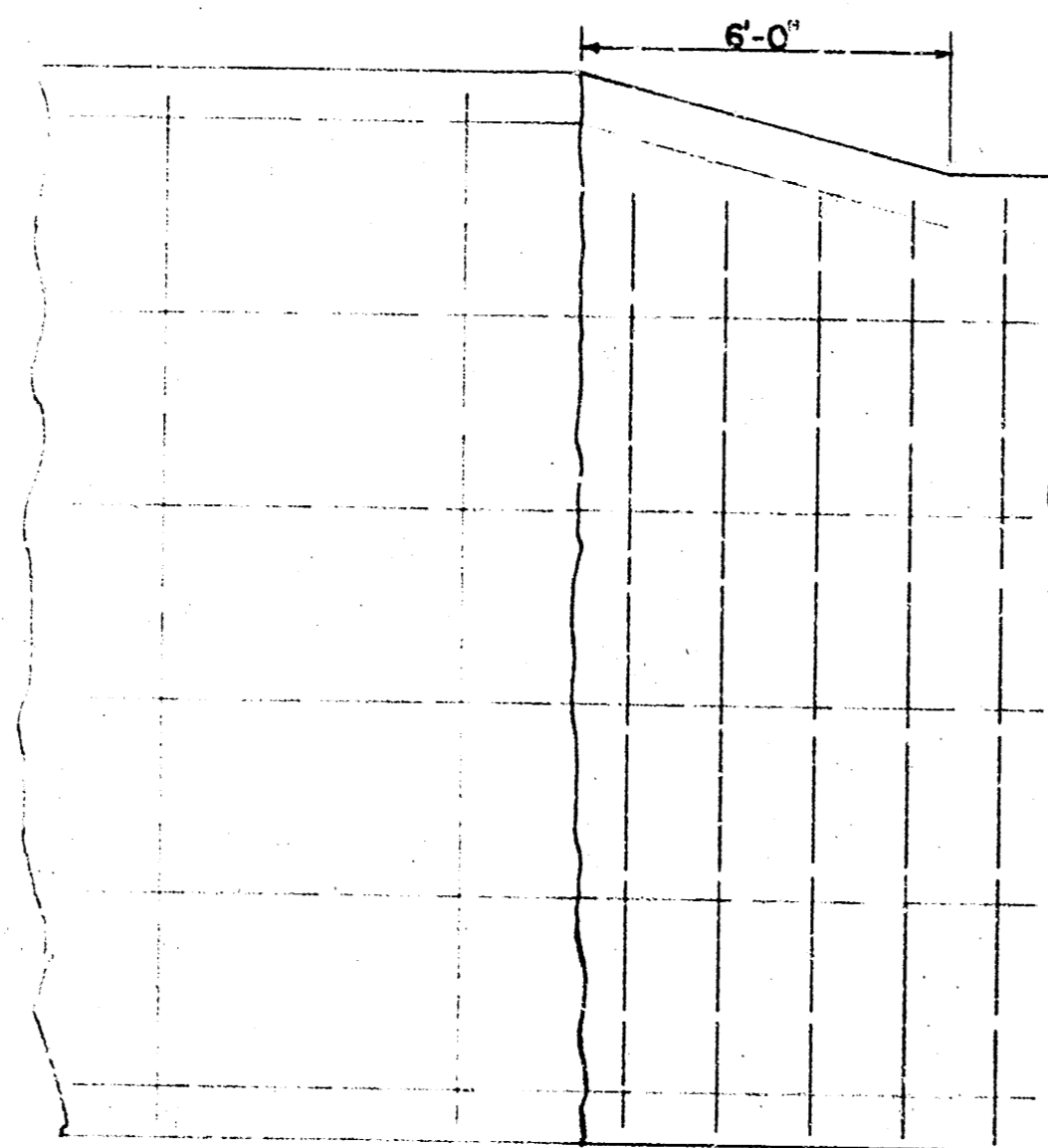
SECTION A-A



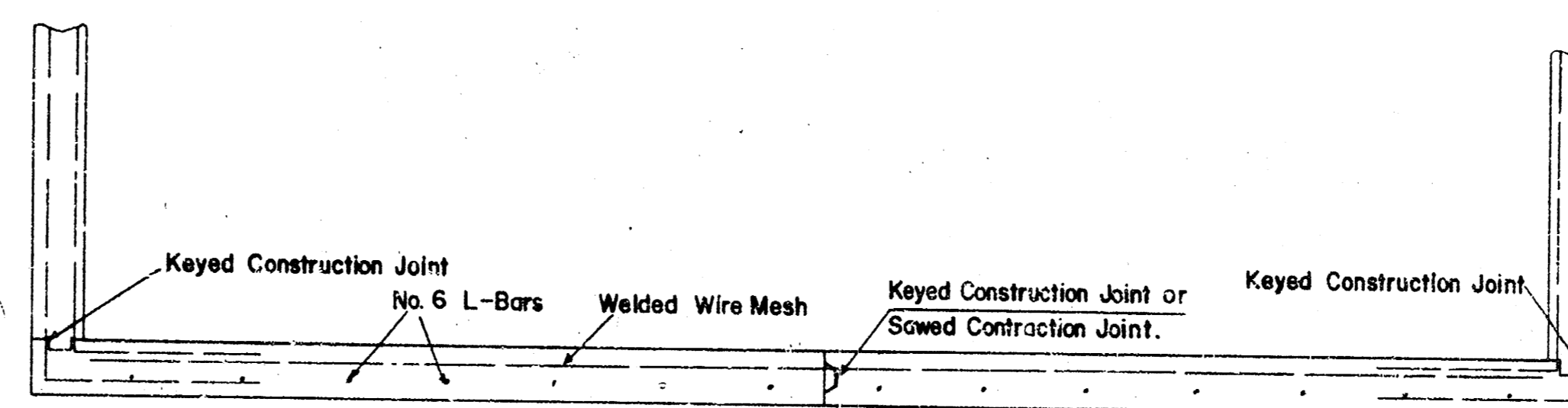
EXPANSION JOINT DETAIL IN VERTICAL WALLS OF CHANNEL STRUCTURE



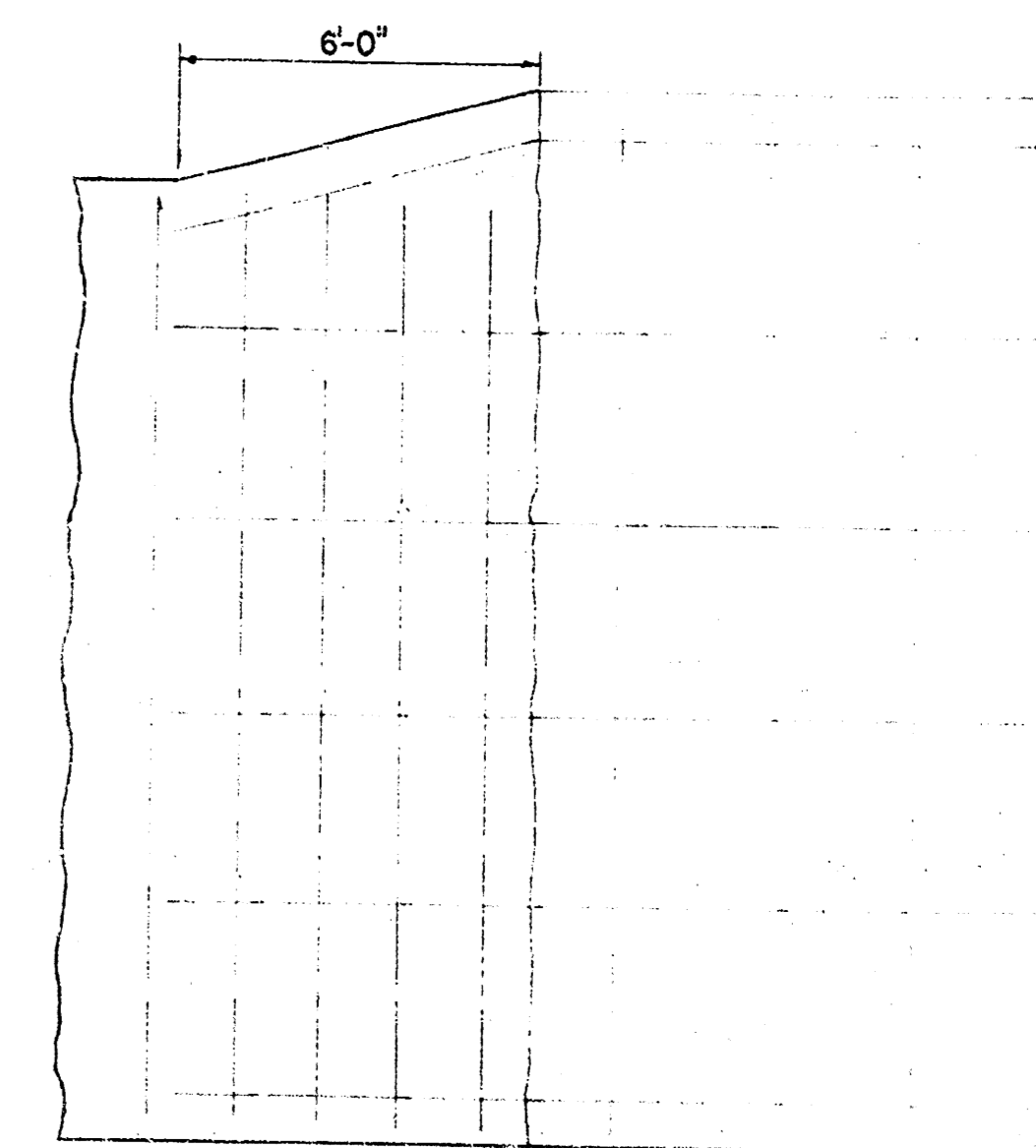
SPECIAL SECTION ACROSS EXISTING 54" SANITARY SEWER STATION 3+67



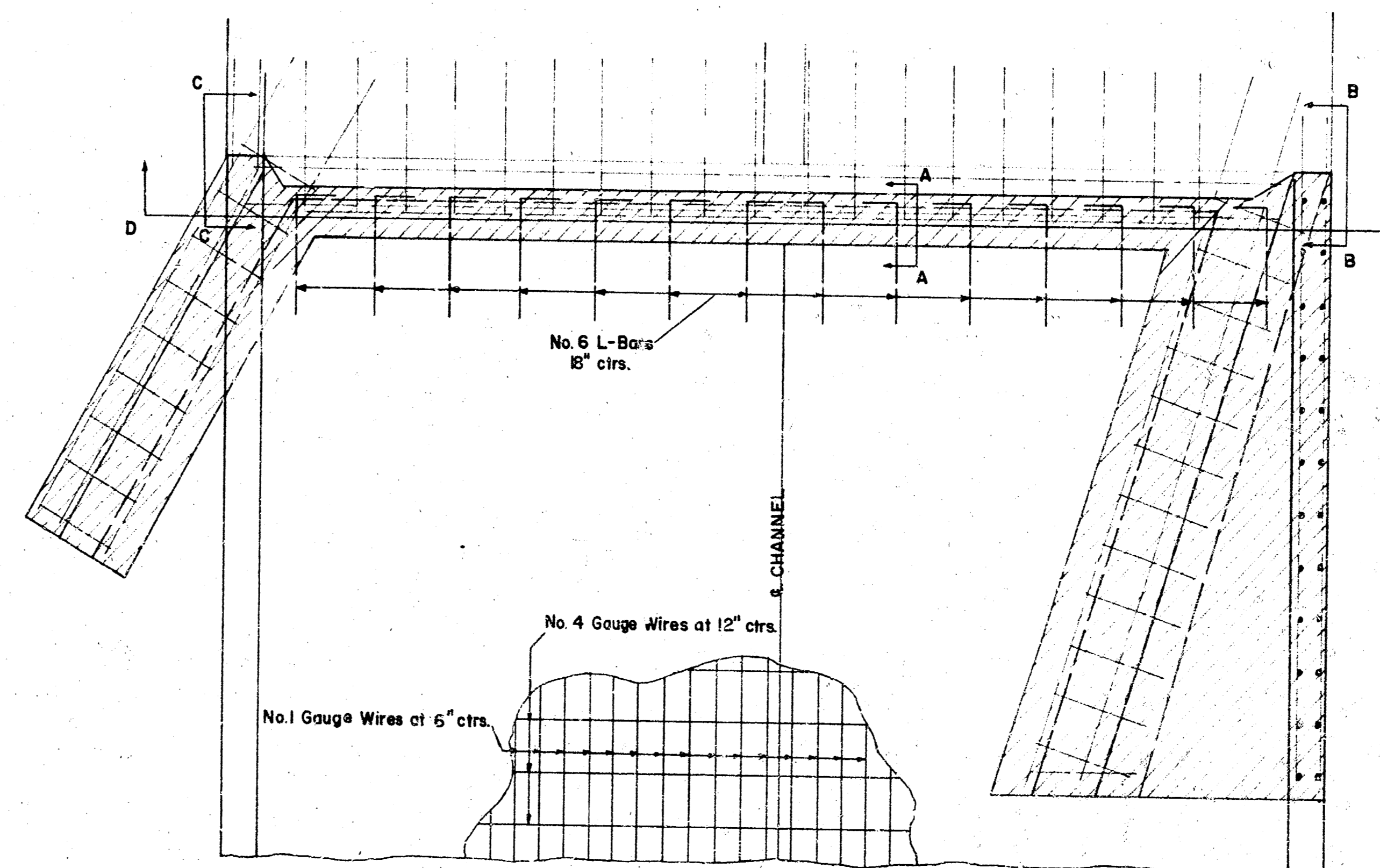
SECTION C-C



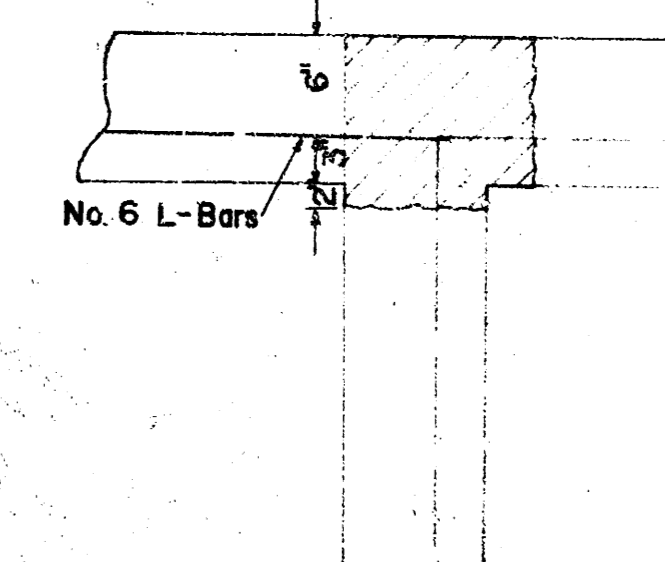
SECTION D-D



SECTION B-B



TIE-IN OF DRAINAGE CANAL STRUCTURE TO BOX CULVERTS



SECTION A-A

L-BAR

NOTES TO FIELD ENGINEER & CONTRACTOR

1. CROSS HATCHED PORTIONS ARE TO BE REMOVED AT THE END OF EACH OF THE BOX CULVERTS. "L" BARS FROM BASE OF BOX TO TOEWALL ARE TO REMAIN IN PLACE. L-BARS TYING FLOOR OF FLOOD CONTROL CHANNEL TO BE TIED TO EXISTING "L" BARS IN TOEWALL & BASE.
2. CONCRETE ON EXISTING TOEWALL TO BE REMOVED A MINIMUM OF 2" BELOW BOTTOM SLAB OF BOX CULVERTS. EXISTING APRON ON BOX CULVERTS TO BE REMOVED A MINIMUM OF 12" BEHIND EDGE OF APRON.
3. WINGWALLS ARE TO BE REMOVED AT EXISTING BOX CULVERTS. STEEL FROM WINGWALLS TO BE STRAIGHTENED & TIED INTO WALLS OF DRAINAGE CANAL STRUCTURE.
4. CONCRETE TO BE SLOPED FROM THE TOP OF THE EXISTING HEADWALL TO THE TOP OF THE CHANNEL WALL IN 6'.

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