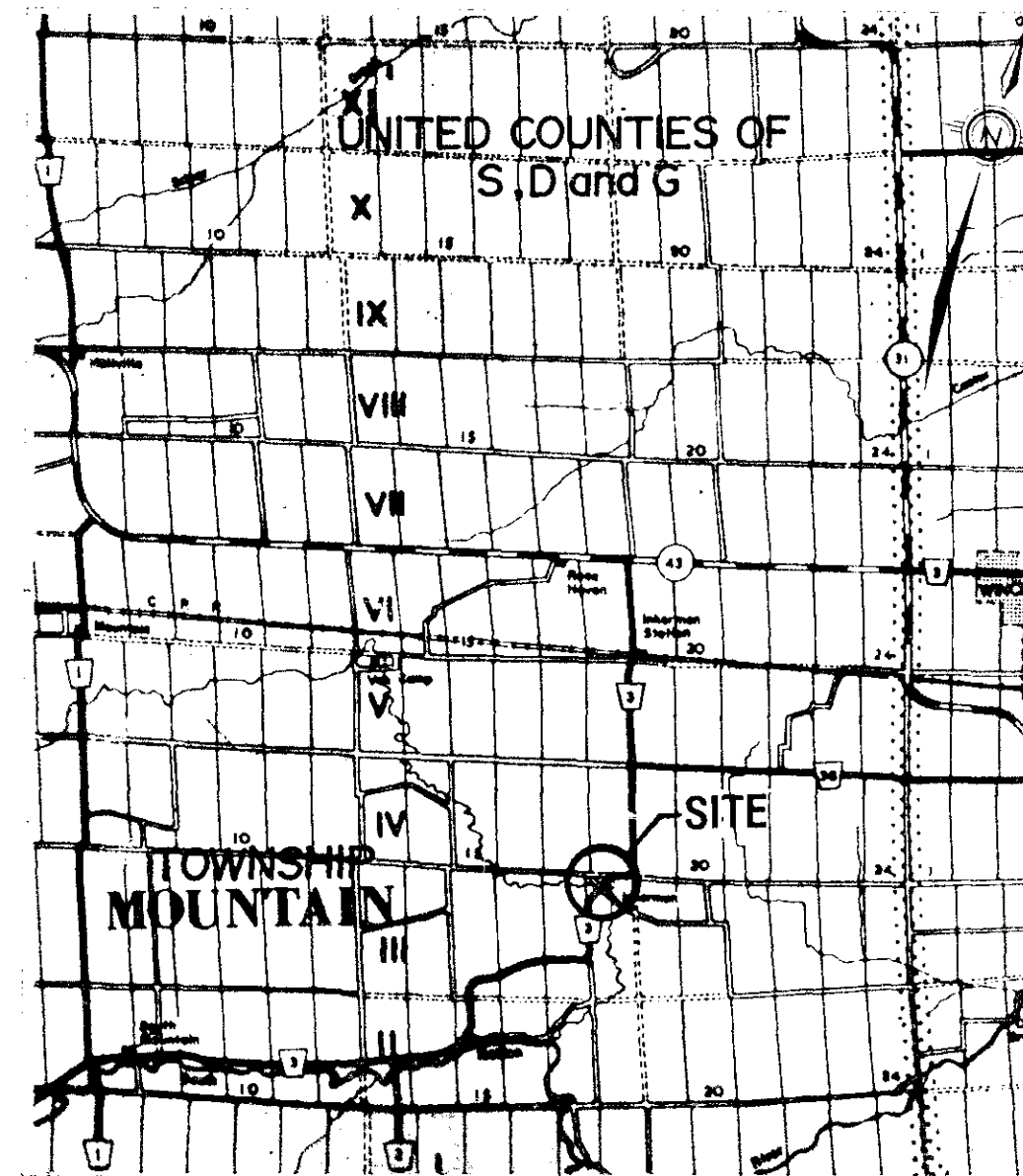


INKERMAN BRIDGE REPAIRS

TOWNSHIP OF MOUNTAIN

UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY

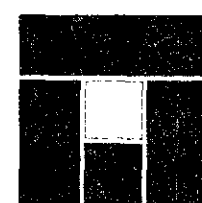
LOT 18



CON. III

MINISTRY OF TRANSPORTATION OF ONTARIO
M. T. O. STRUCTURE SITE NO. _____
FINAL DESIGN APPROVED FOR STRUCTURAL
ADEQUACY THIS DAY _____
[Signature]
MUNICIPAL STRUCTURAL ENGINEER

M.T.O. SITE No. 31-077

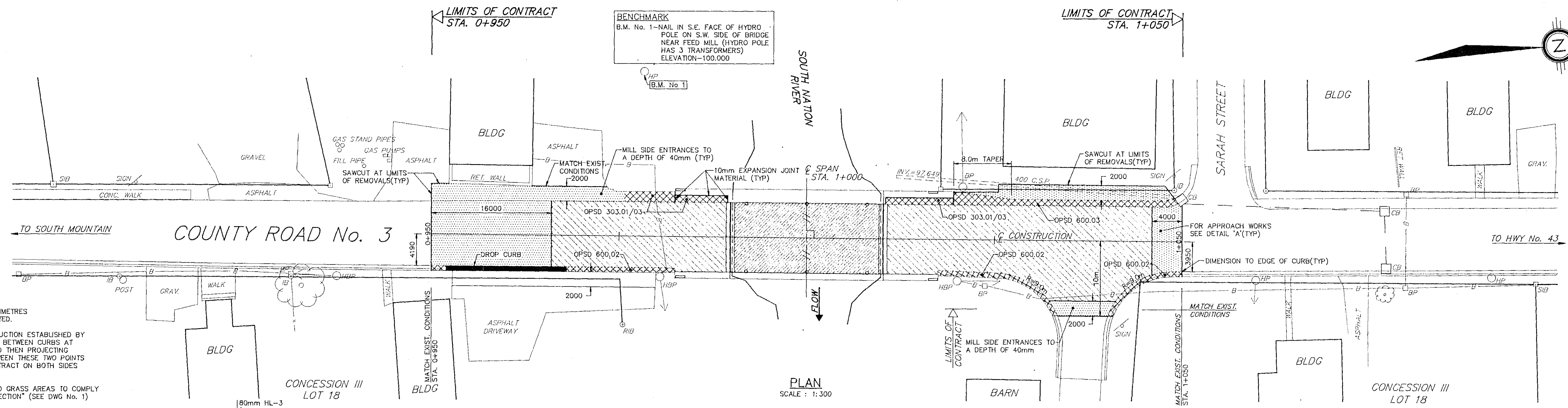


totten sims hubicki associates
ENGINEERS ARCHITECTS AND PLANNERS

CONTRACT No.

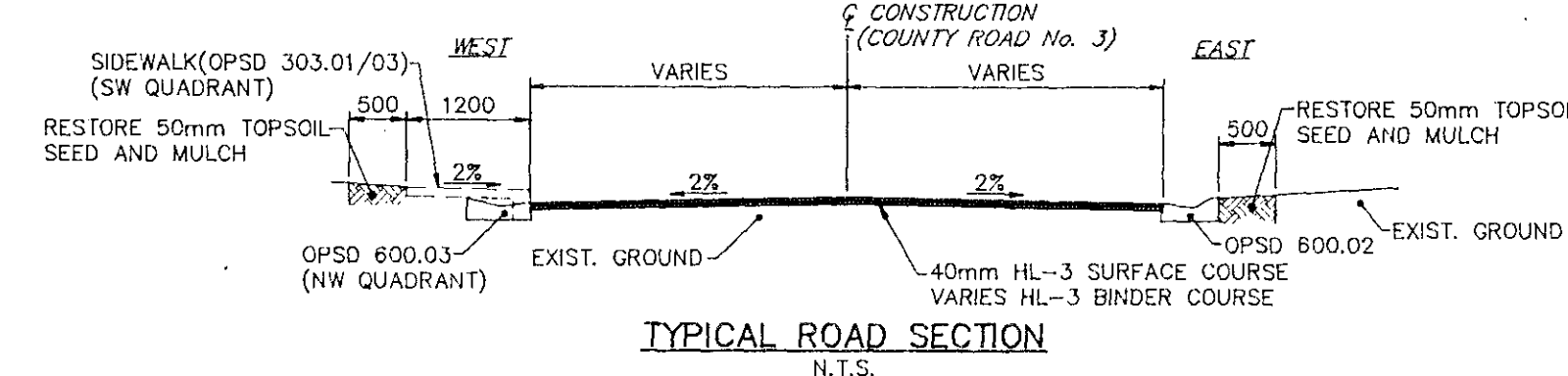
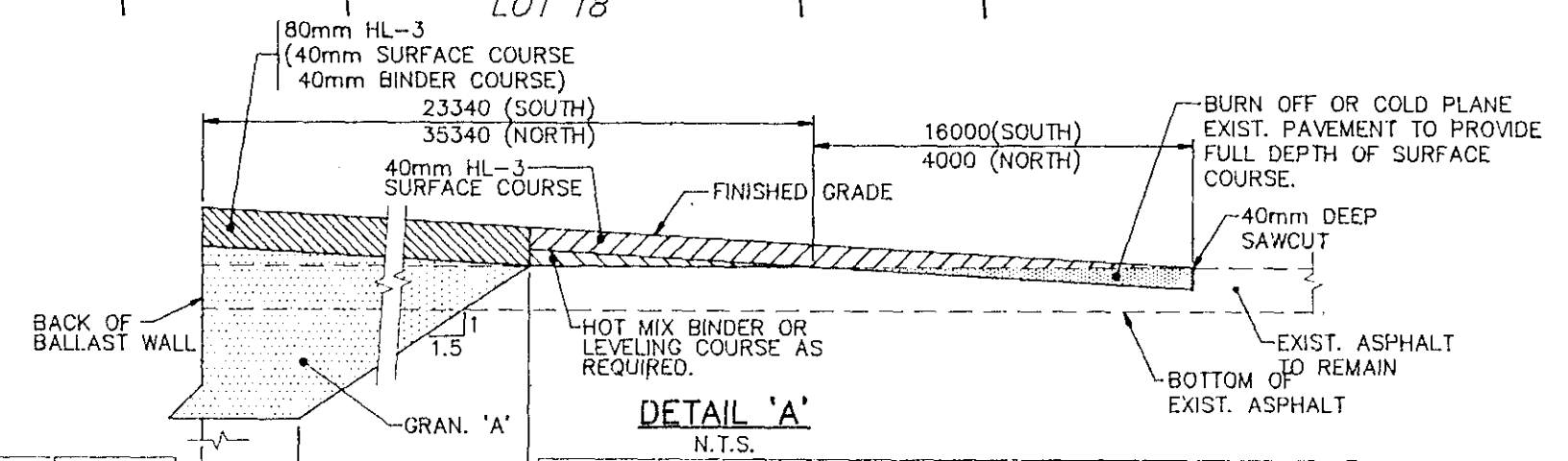
FOR APPROVAL

D.J. McDONALD P.ENG. COUNTY ENGINEER

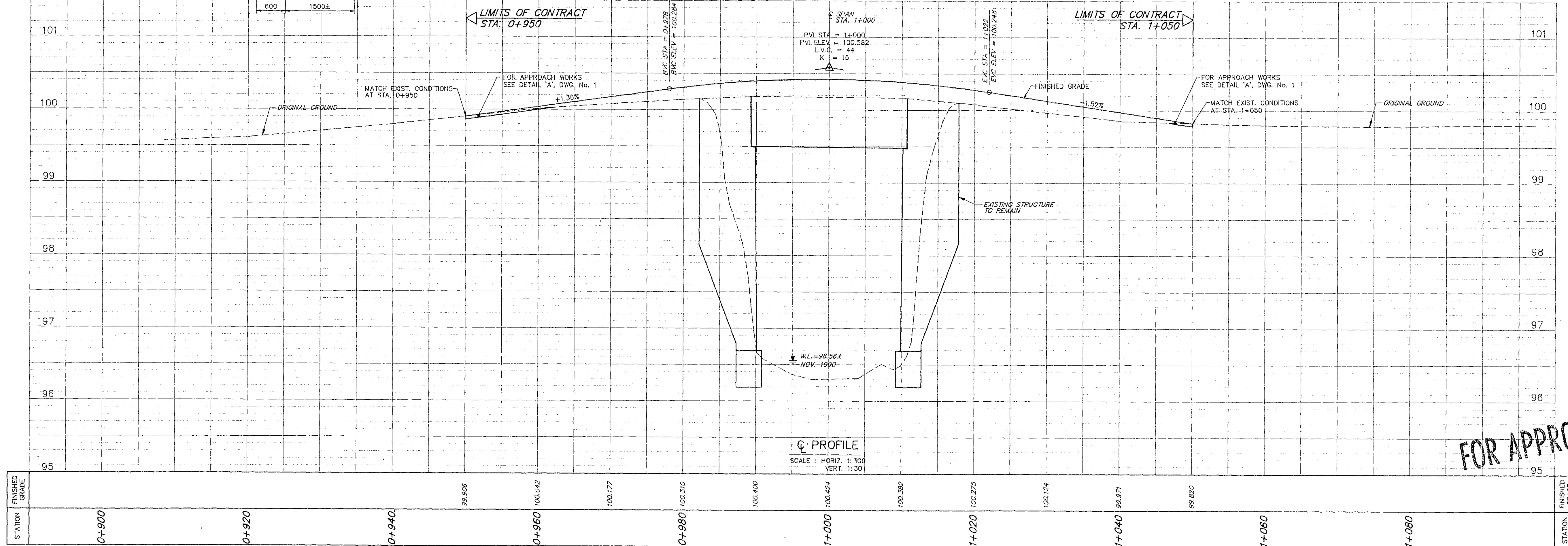


- NOTES**
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
 2. CENTERLINE OF CONSTRUCTION ESTABLISHED BY HALVING THE DISTANCE BETWEEN CURBS AT EXPANSION JOINTS, AND THEN PROJECTING THE LINE FORMED BETWEEN THESE TWO POINTS TO THE LIMITS OF CONTRACT ON BOTH SIDES OF BRIDGE.
 3. RESTORE ALL DISTURBED GRASS AREAS TO COMPLY WITH "TYPICAL ROAD SECTION" (SEE DWG No. 1)

- LEGEND**
- ▨ DENOTES AREA TO BE PAVED AND WATERPROOFED (90mm TOTAL)
 - ▩ DENOTES AREA TO BE PAVED
 - ▧ DENOTES AREA OF ASPHALT TO BE MILLED AND NEW ASPHALT SURFACE COURSE PLACED TO MATCH EXIST. CONDITIONS
 - ▦ DENOTES EXIST. CURB AND SIDEWALK TO BE REMOVED AND REPLACED (OPSD 600.02/03 ; OPSD 303.01/03)



- LIST OF DRAWINGS**
- 1 SITE PLAN
 - 2 GENERAL ARRANGEMENT
 - 3 REINFORCEMENT AND REPAIR DETAILS
 - 4 REPAIR DETAILS
 - 5 PARAPET WALL DETAILS
 - 6 REINFORCING SCHEDULE
 - 7 STEEL RAIL (DOUBLE TUBE)
 - 8 JOINT ANCHORAGE AND ARMOURING
 - 9 STANDARD DETAILS
 - 10 STANDARD DETAILS



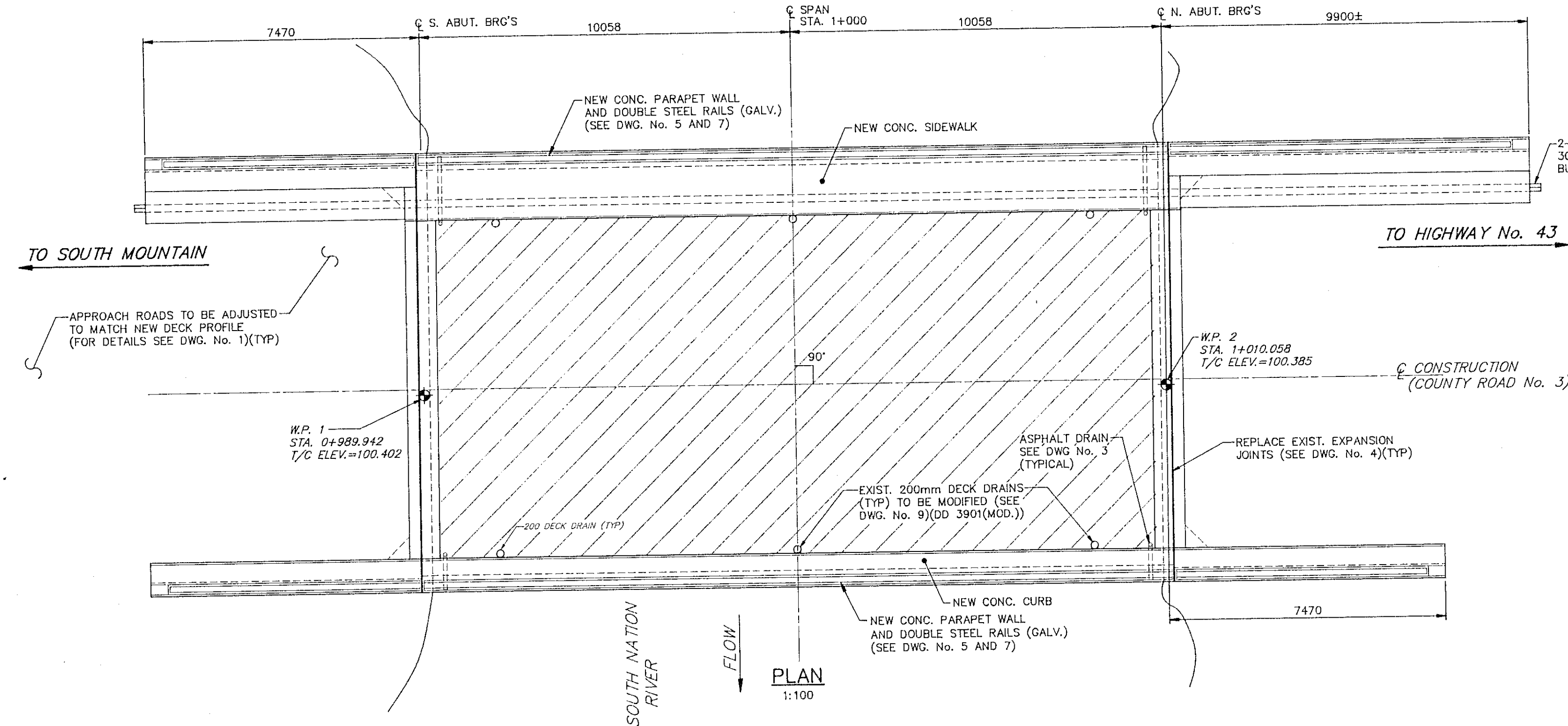
FOR APPROVAL

totten sims hubicki associates
ENGINEERS ARCHITECTS AND PLANNERS
COBOURG WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO

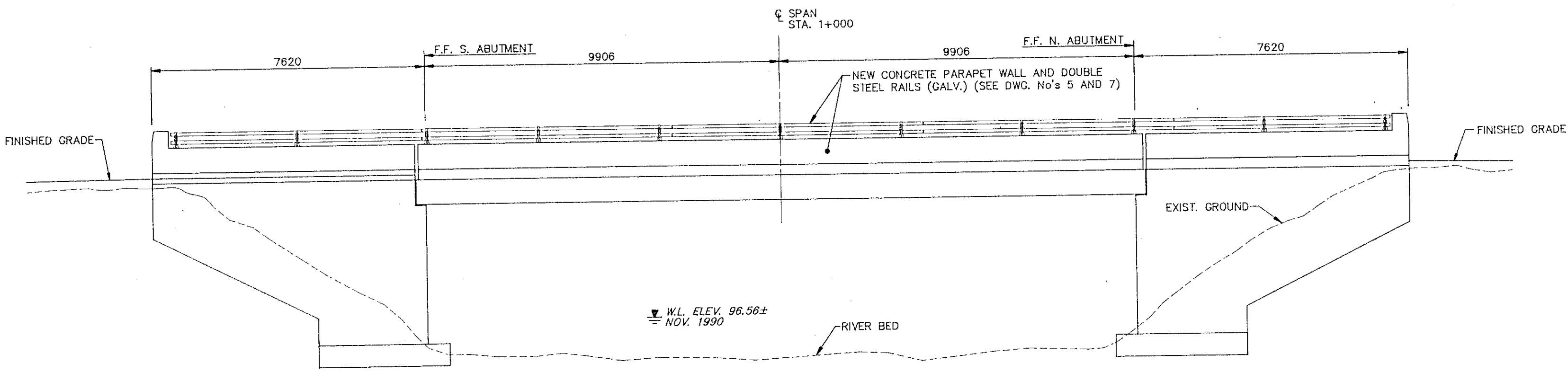
NO	DATE	BY	REVISIONS

DESIGNED: M.D.	INKERMAN BRIDGE REPAIRS TOWNSHIP OF MOUNTAIN UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY CONC. III SOUTH NATION RIVER LOT 18	DATE: APR. 1991
DRAWN: R.V.D.		PROJECT: 18-0480
CHECKED: S.J.T.		
APPROVED: G.L.A.		
SCALE: HORIZ. 1:300 VERT. 1:30	SITE PLAN	1

TOWNSHIP OF MOUNTAIN



PLAN
1:100



ELEVATION
1:100

NOTES
SPECIFICATIONS

ONTARIO PROVINCIAL STANDARD SPECIFICATIONS, DIVISION 9.
ONTARIO HIGHWAY BRIDGE DESIGN CODE, 1983.
LIVE LOAD O.H.B.D.C. - 63B PLUS CONCRETE TOPPING, PLUS 90mm ASPHALT WEARING SURFACE

CLASS OF CONCRETE
ALL CONCRETE 30 MPa
MAXIMUM AGGREGATE SIZE 10 mm REPAIRS
..... 19 mm ALL OTHER CONCRETE
ALL CONCRETE REPAIR MATERIALS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
ALL EXPOSED CONCRETE EDGES TO HAVE 20mm CHAMFER UNLESS OTHERWISE NOTED.

REINFORCING STEEL
ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA G30.12 M 1977, GRADE 400, UNLESS OTHERWISE NOTED.
REINFORCING STEEL SHALL BE FIELD CUT AS DIRECTED BY THE ENGINEER AND AS A NON-PAY ITEM.
CLEAR COVER TO REINFORCING BARS SHALL BE 70±20mm UNLESS OTHERWISE NOTED.
REINFORCING BARS WITH A "C" SUFFIX SHALL BE COATED BARS.

NOTES TO CONTRACTOR

CONTRACTOR TO CHECK ALL RELEVANT STRUCTURE DIMENSIONS AND ELEVATIONS SHOWN ON THE DRAWINGS AND ADJUST DIMENSIONS AND ELEVATIONS AS REQUIRED TO MATCH EXISTING STRUCTURE AND AS APPROVED BY ENGINEER.

ANY DAMAGE TO THE EXISTING STRUCTURE DURING REMOVALS OR RECONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AND AT NO COST TO THE OWNER.

CONTRACTOR TO MAINTAIN PEDESTRIAN TRAFFIC AT ALL TIMES AS APPROVED BY THE ENGINEER. STRUCTURE TO BE CLOSED TO VEHICULAR TRAFFIC.

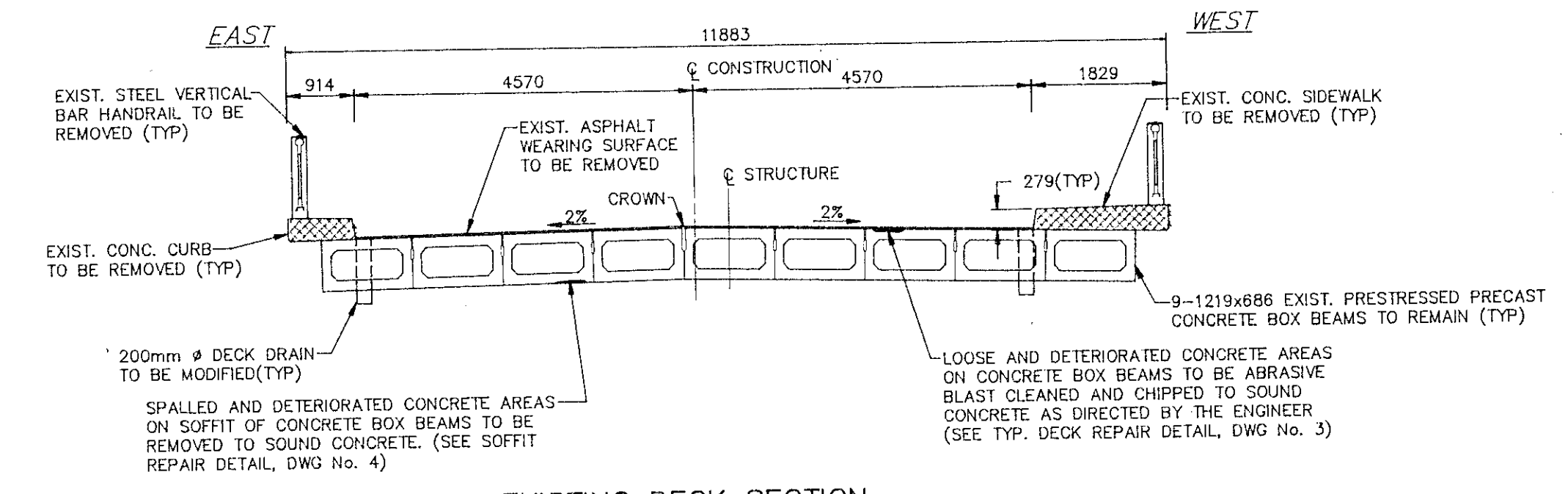
BELL DUCTS TO BE SUPPLIED TO CONTRACTOR

REFERENCE DRAWINGS

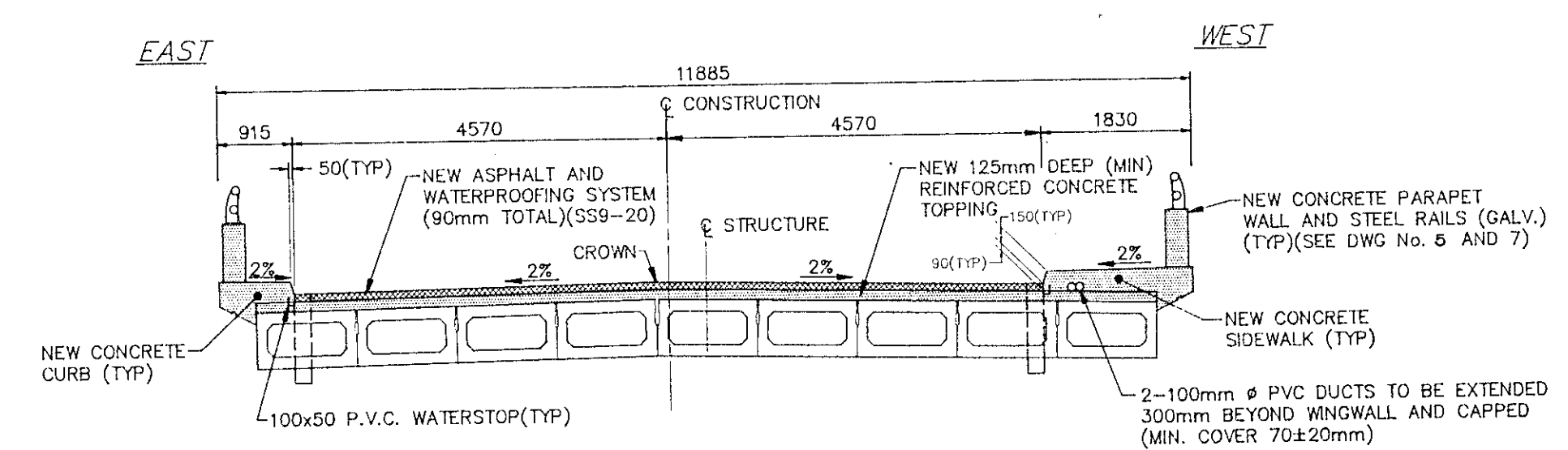
DETAILS OF THE EXISTING STRUCTURE HAVE BEEN DERIVED FROM DRAWINGS OF INKERMEN BRIDGE BY G.C. PARKER & ASSOCIATES LTD. DATED AUGUST, 1964.

LEGEND

- DENOTES AREA OF WATERPROOFING AND PAVING
- DENOTES WORKING POINT
- DENOTES ELEVATIONS GIVEN TO TOP OF CONCRETE DAM
- DENOTES EXIST. CURB AND SIDEWALK TO BE REMOVED.
- NEW CONCRETE



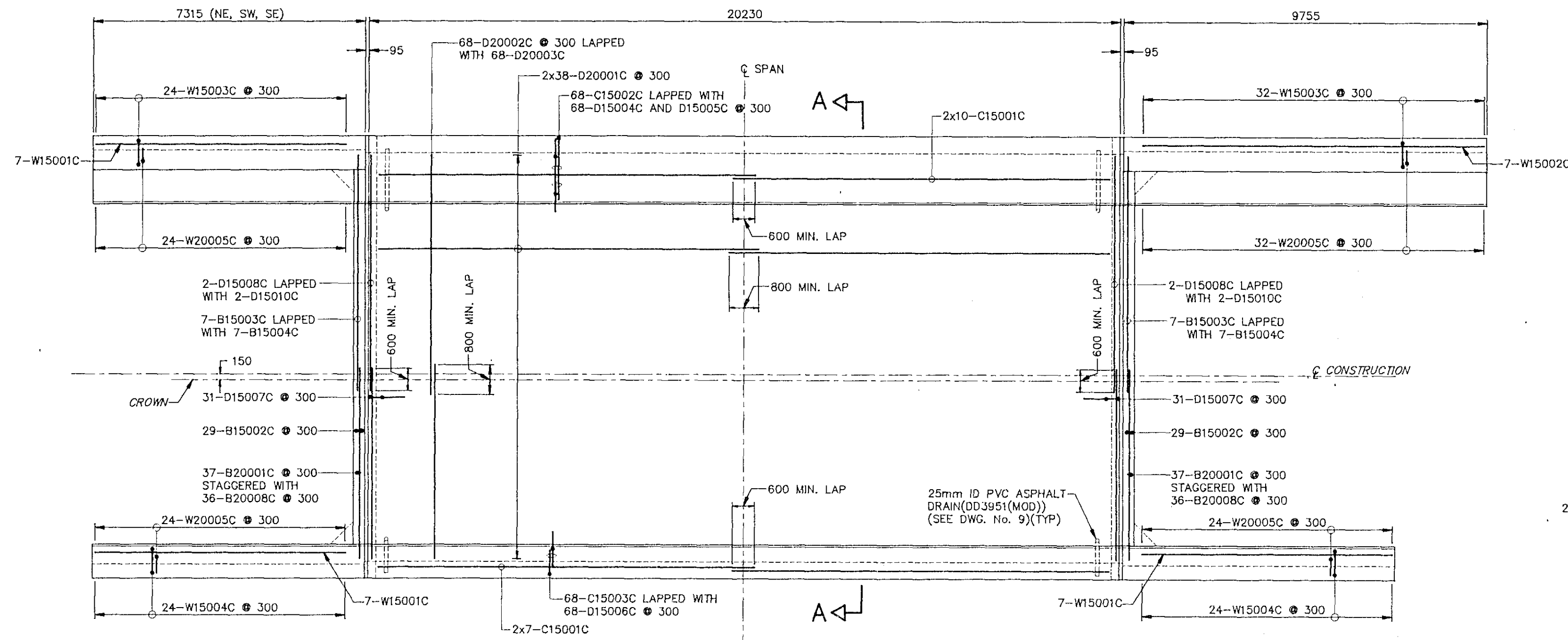
EXISTING DECK SECTION
1:75



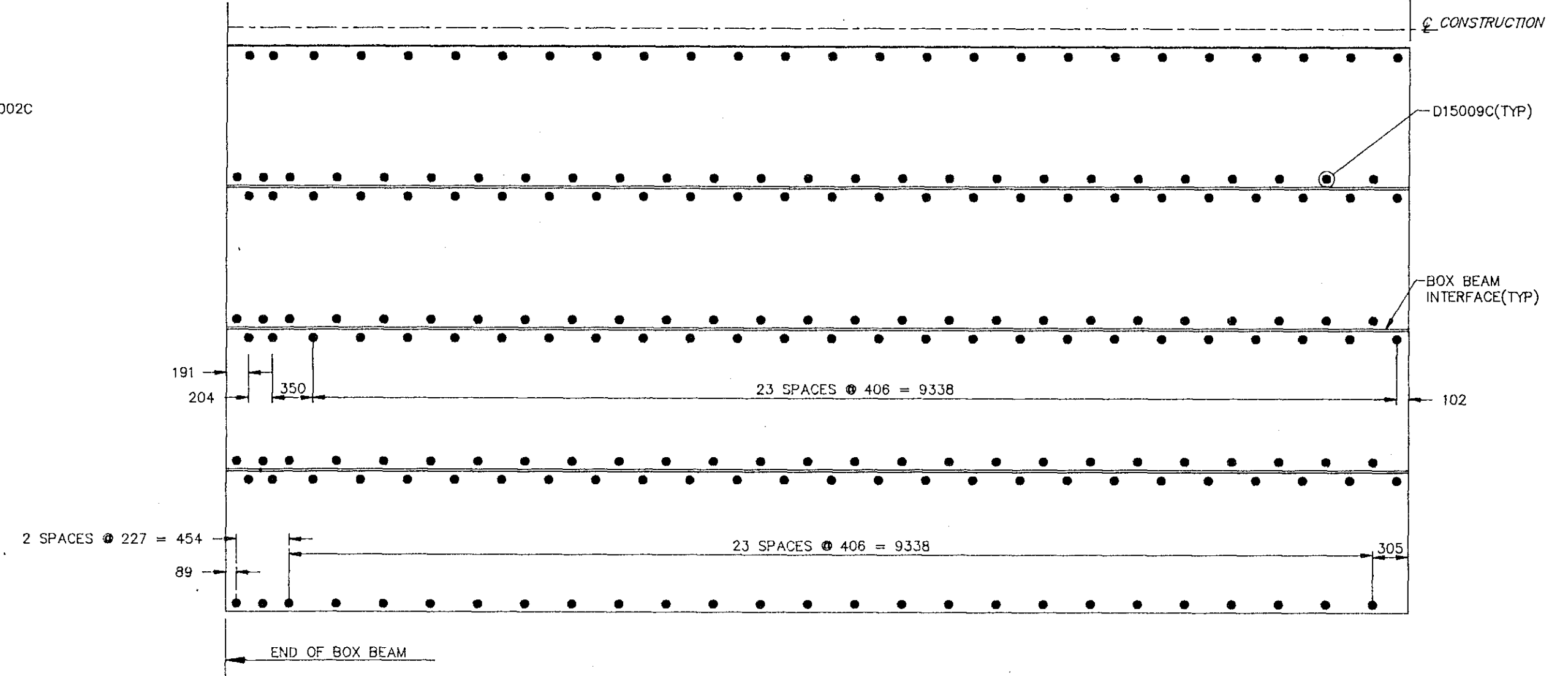
NEW DECK SECTION
1:75

FOR APPROVAL

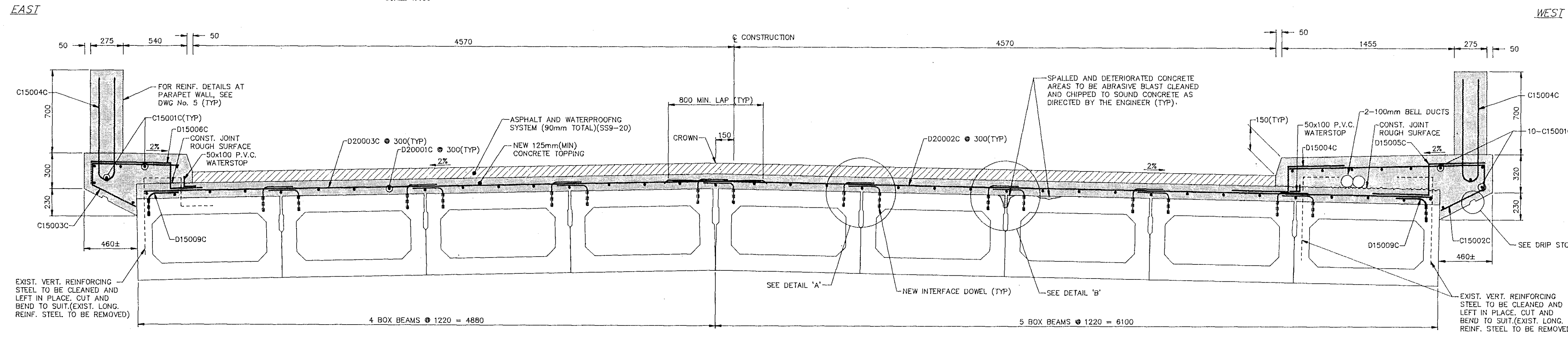
<p>ENGINEERS ARCHITECTS AND PLANNERS COBOURG WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO</p>	DESIGNED: M.D. DRAWN: R.V.D. CHECKED: S.J.T. APPROVED: G.L.A. SCALE: AS SHOWN	INKERMEN BRIDGE REPAIRS TOWNSHIP OF MOUNTAIN UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY CONC. III SOUTH NATION RIVER LOT 18 GENERAL ARRANGEMENT	DATE: APR. 1991 PROJECT: 18-0480 2								
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>REVISIONS</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO	DATE	BY	REVISIONS						
NO	DATE	BY	REVISIONS								



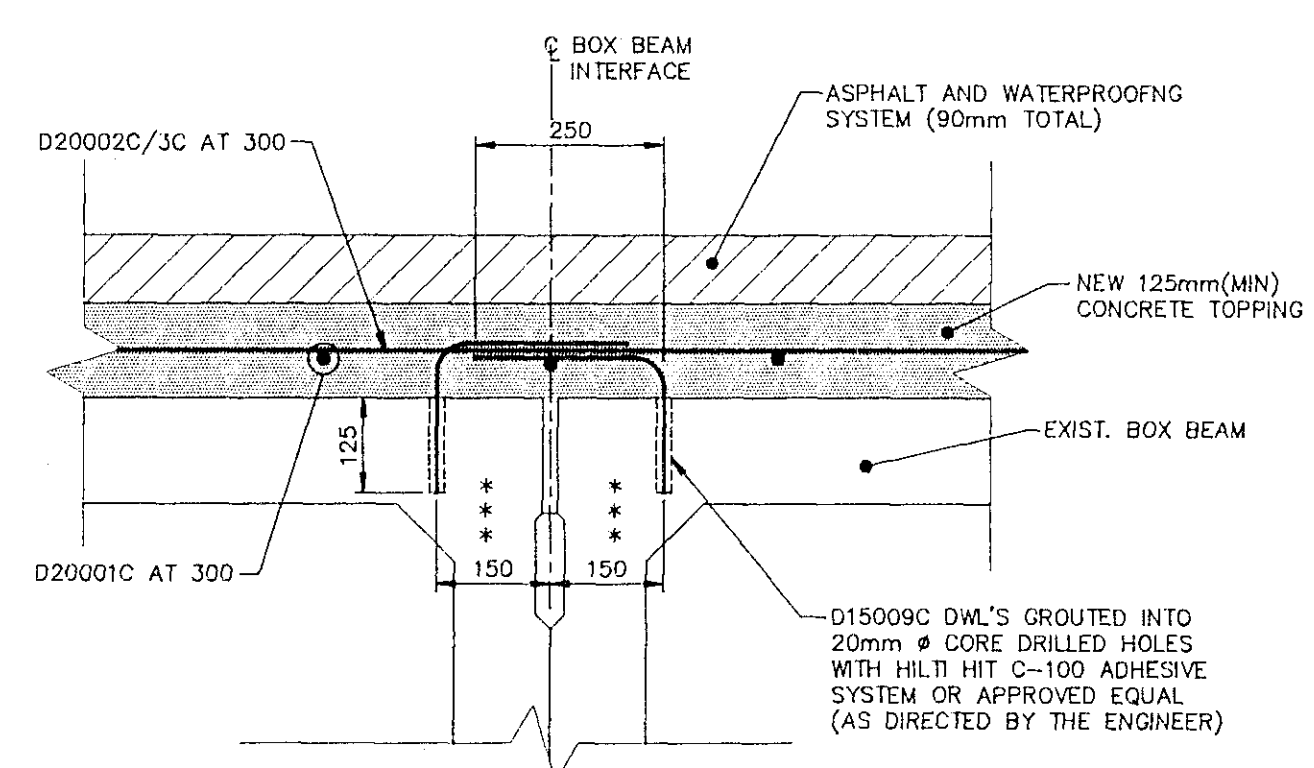
PLAN
SCALE 1:100



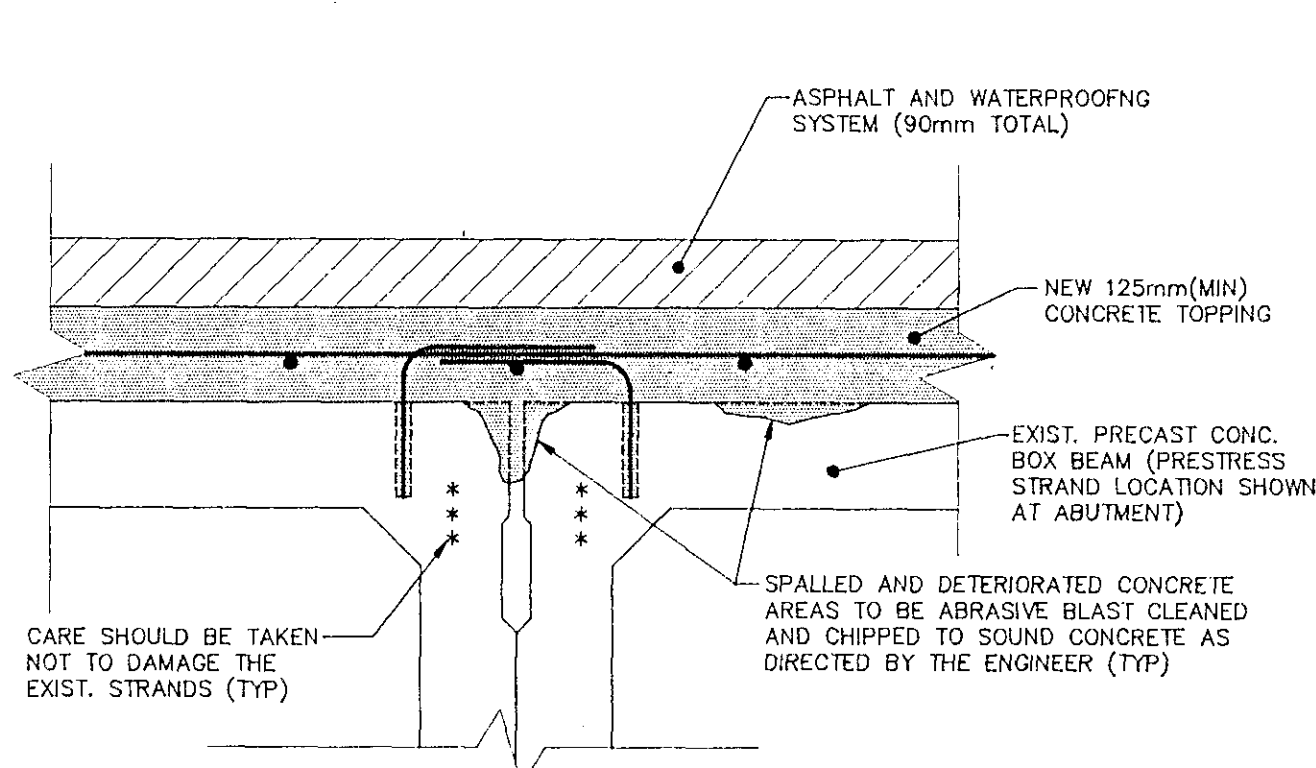
PLAN OF TYPICAL INTERFACE DOWEL
SCALE 1:40



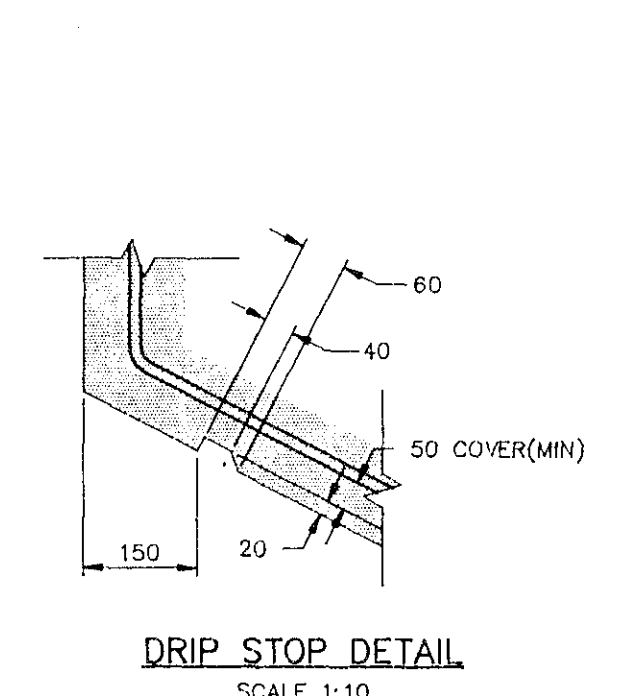
SECTION A-A
SCALE 1:20



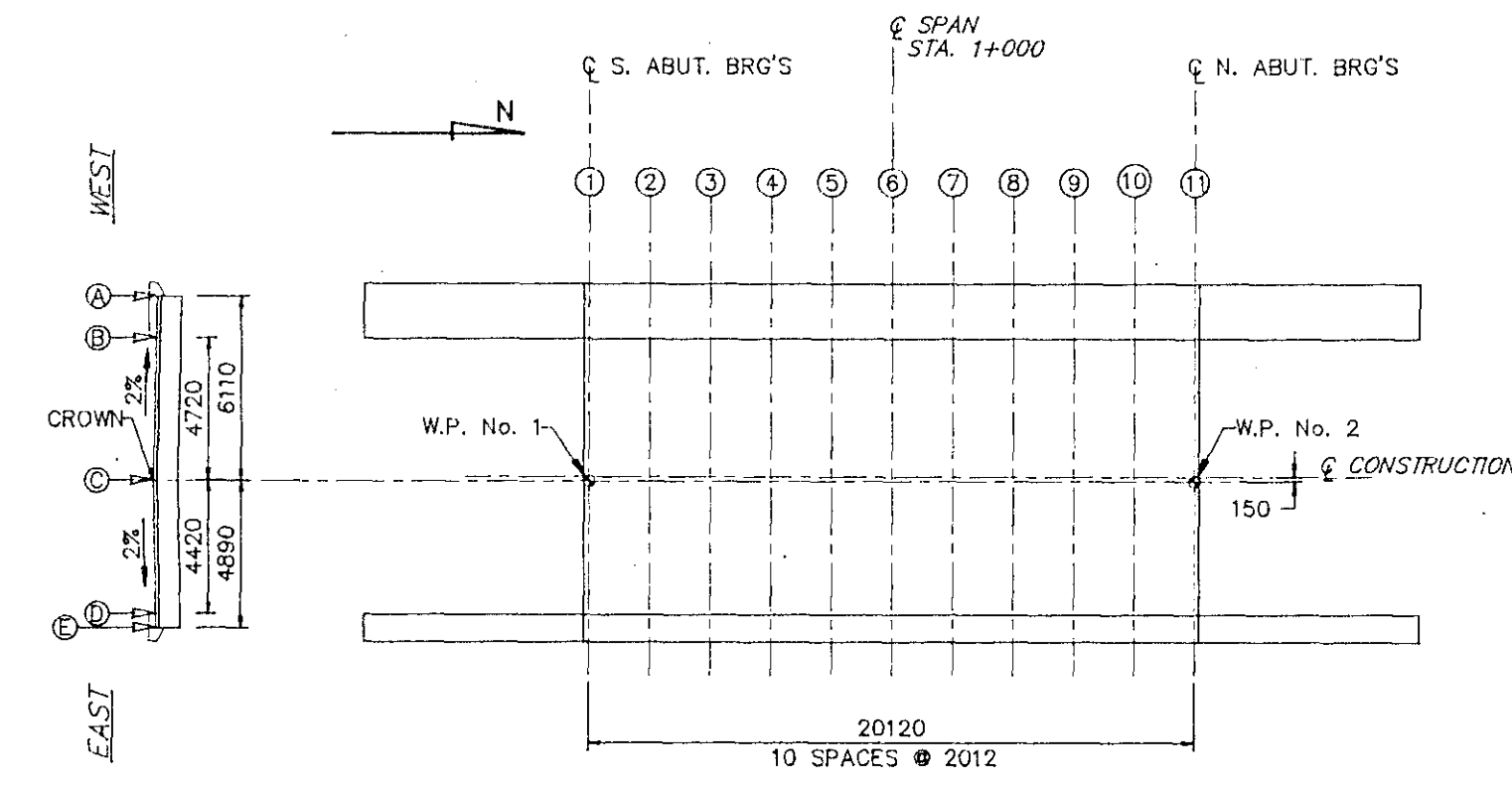
DETAIL 'A'
SCALE 1:10



TYPICAL DECK REPAIR DETAIL 'B'
SCALE 1:10



DRIP STOP DETAIL
SCALE 1:10



PLAN TO SCREED ELEVATIONS
N.T.S.

SCREED ELEVATIONS					
No.	A	B	C	D	E
1	100.280	100.308	100.402	100.314	100.304
2	100.201	100.229	100.323	100.235	100.225
3	100.208	100.236	100.330	100.242	100.232
4	100.213	100.241	100.335	100.247	100.237
5	100.215	100.243	100.337	100.249	100.239
6	100.215	100.243	100.337	100.249	100.239
7	100.212	100.240	100.334	100.246	100.236
8	100.208	100.234	100.328	100.240	100.230
9	100.197	100.225	100.319	100.231	100.221
10	100.186	100.214	100.308	100.220	100.210
11	100.263	100.291	100.385	100.297	100.287

FOR APPROVAL

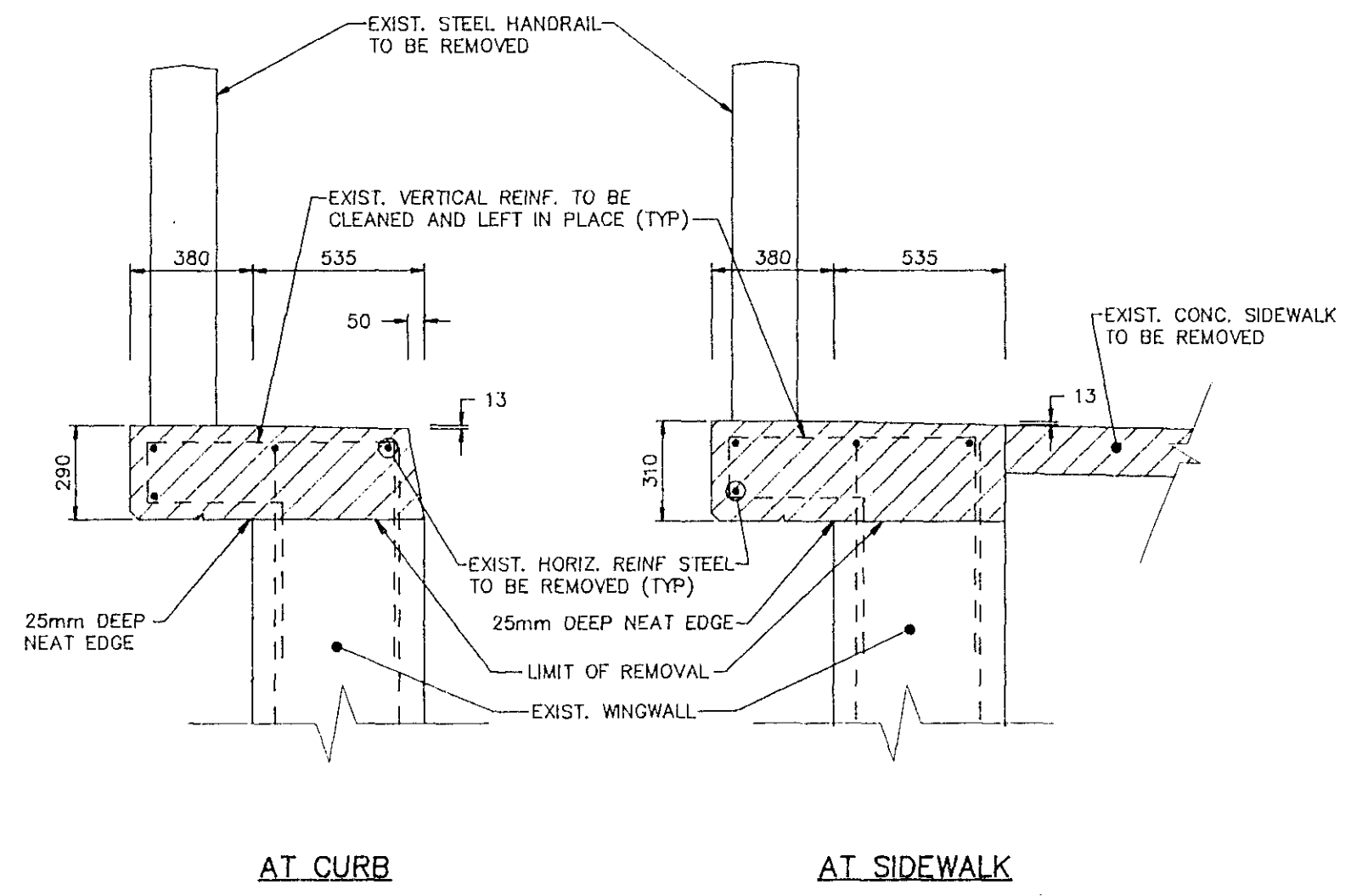
NOTES
 1. SCREED ELEVATIONS INCLUDE ALLOWANCES FOR GRADE AND DEAD LOAD DEFLECTION.
 2. CONTRACTOR TO MAKE ALLOWANCES FOR FALSEWORK CREEP.
 3. SCREED ELEVATIONS ARE GIVEN TO TOP OF CONCRETE TOPPING.
 4. CONCRETE IN SIDEWALK AND CURB SHALL NOT BE PLACED UNTIL ALL CONCRETE IN DECK HAS REACHED A STRENGTH OF 20 MPa.

NO	DATE	BY	REVISIONS

DESIGNED: M.D.
 DRAWN: R.V.D.
 CHECKED: S.J.T.
 APPROVED: G.L.A.
 SCALE: AS SHOWN

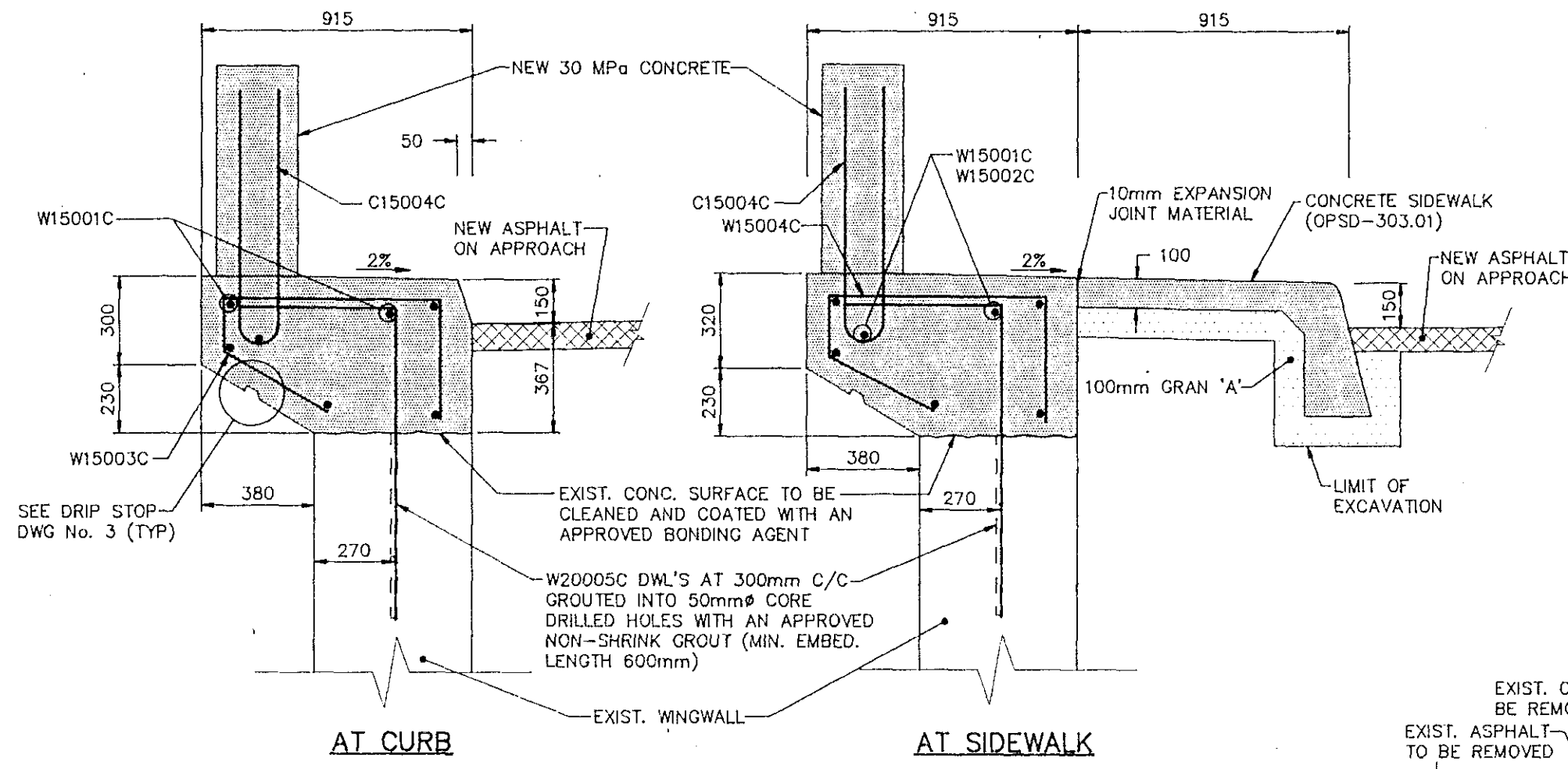
INKERMAN BRIDGE REPAIRS
 TOWNSHIP OF MOUNTAIN
 UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY
 CONC. III SOUTH NATION RIVER LOT 18
 REINFORCEMENT AND REPAIR DETAILS

DATE: APR. 1991
 PROJECT: 18-0480
 3



AT CURB AT SIDEWALK

EXISTING
 [Hatched Box] - DENOTES CONCRETE TO BE REMOVED

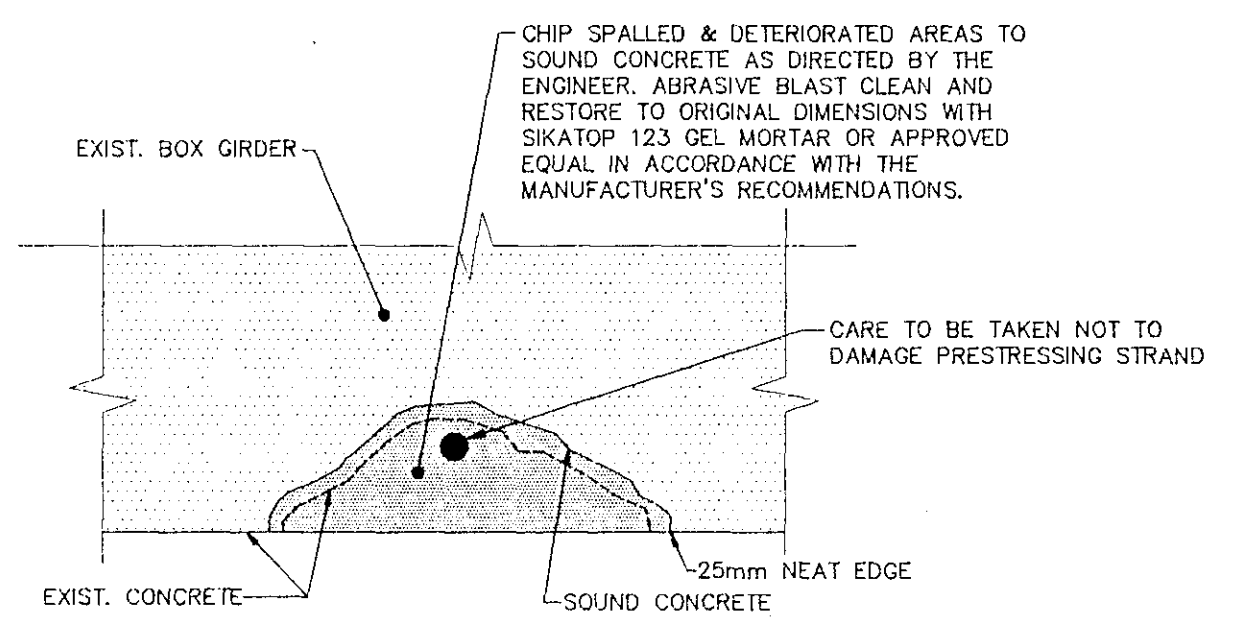


AT CURB AT SIDEWALK

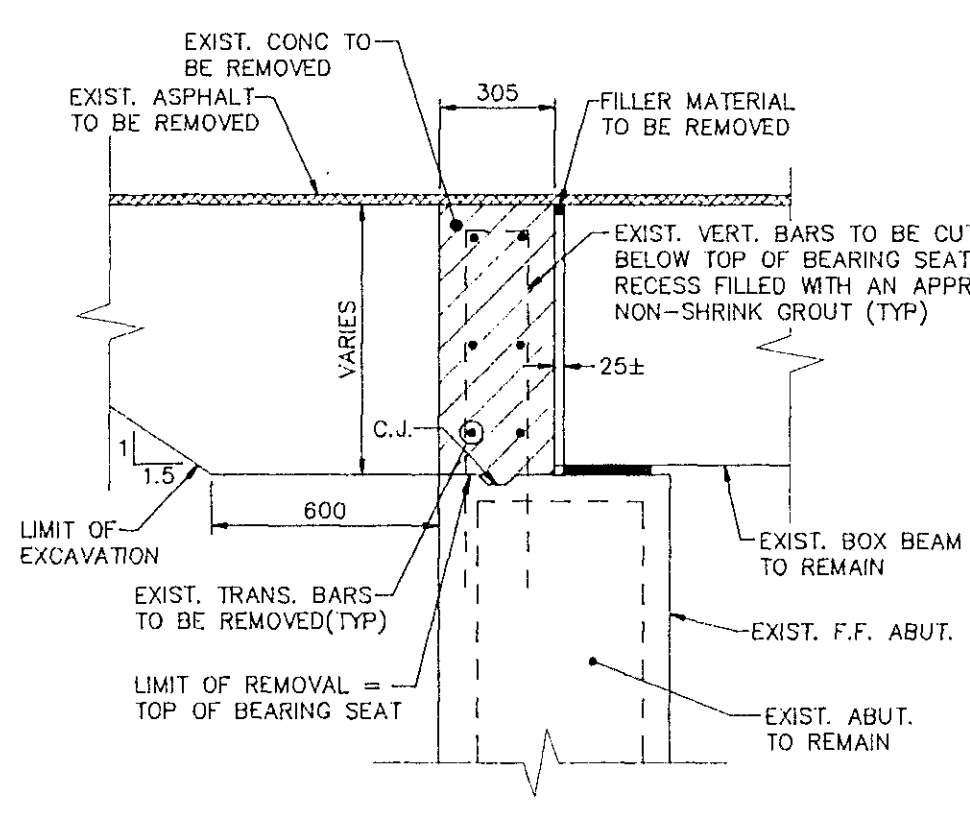
NEW
 [Dotted Box] - EXIST. REINF. NOT SHOWN FOR CLARITY

TYPICAL SIDEWALK AND CURB DETAILS OVER WINGWALL

SCALE 1:20



TYPICAL SOFFIT SPALL REPAIR DETAIL
 N.T.S.



EXISTING

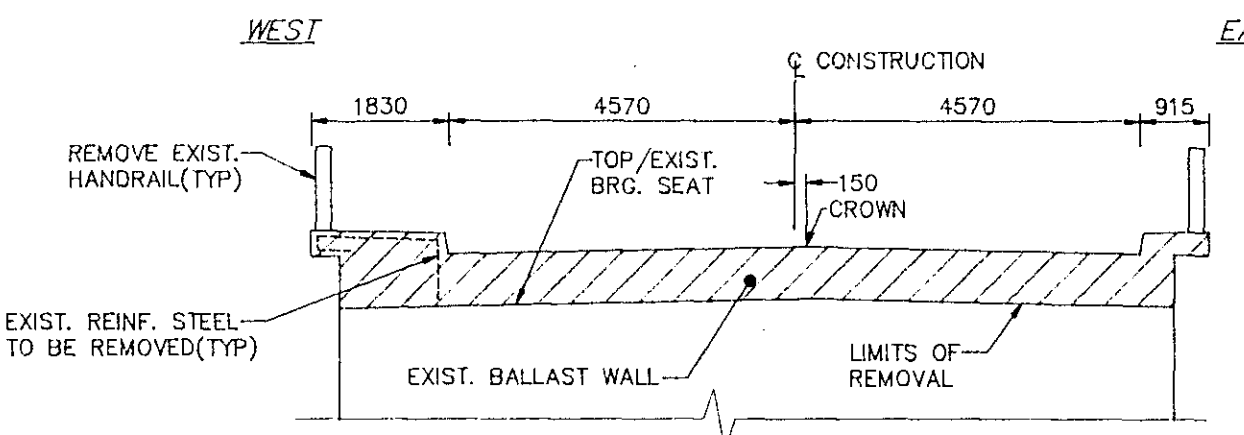
[Hatched Box] - DENOTES CONCRETE TO BE REMOVED

NEW

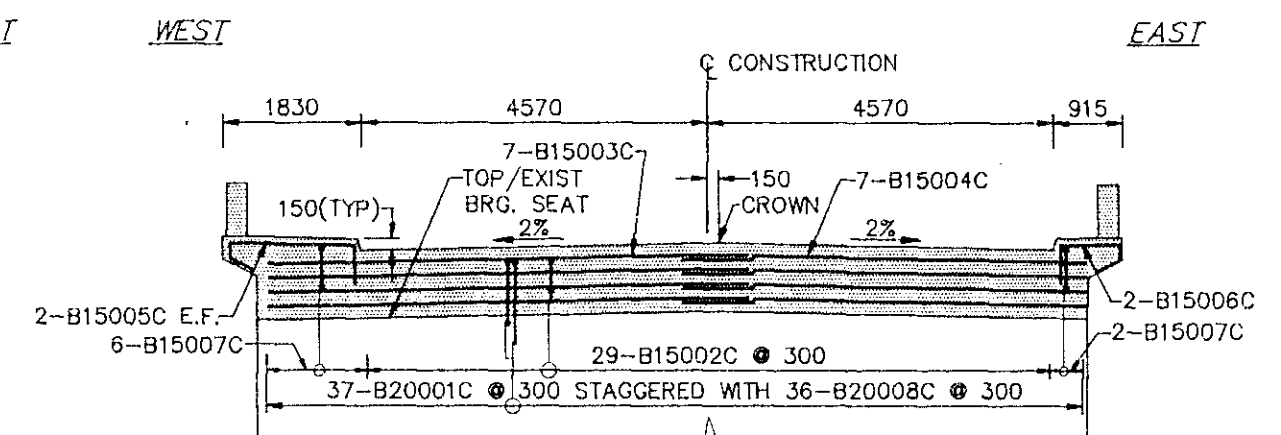
[Dotted Box] - EXIST. REINF. NOT SHOWN FOR CLARITY

DETAIL AT EXPANSION JOINT

SCALE 1:20



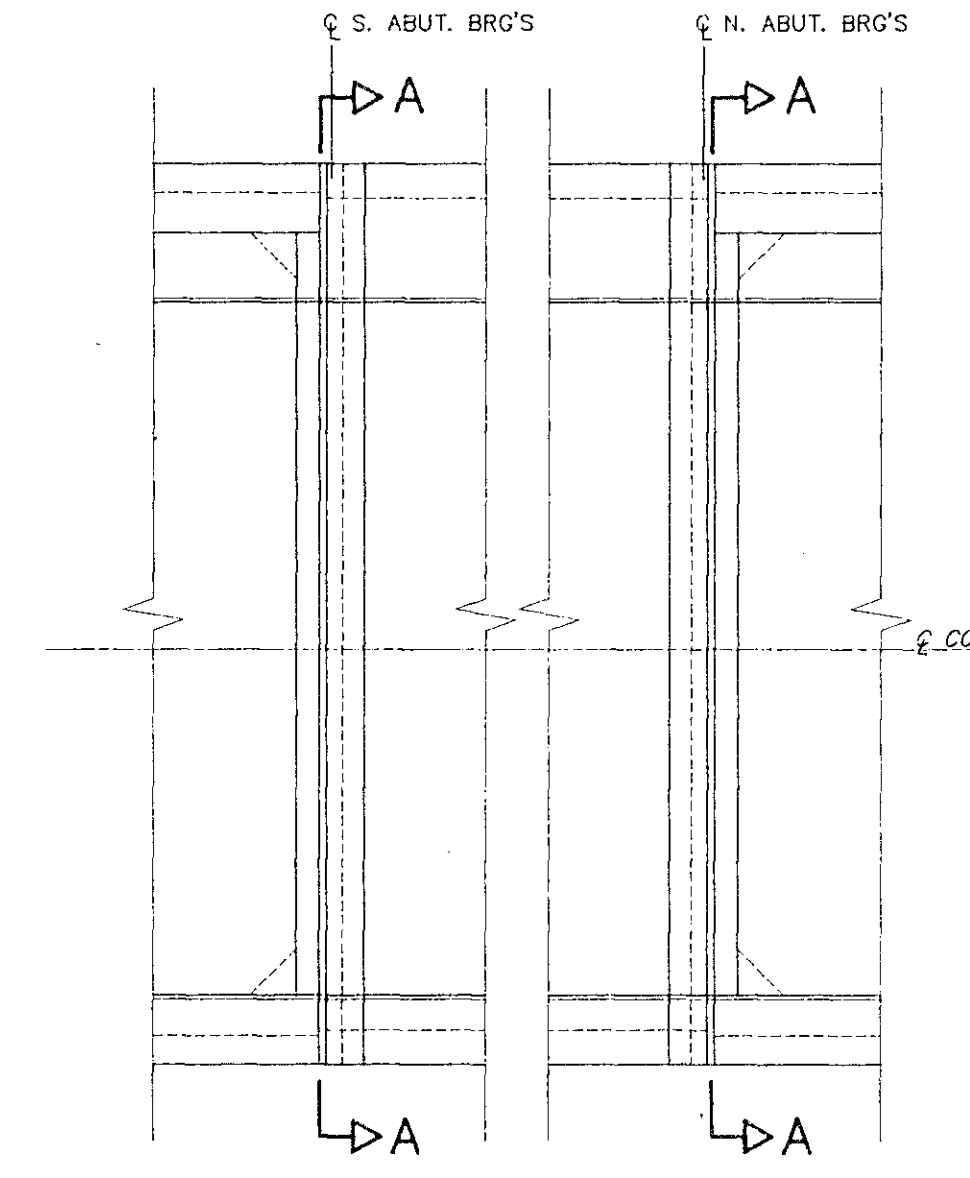
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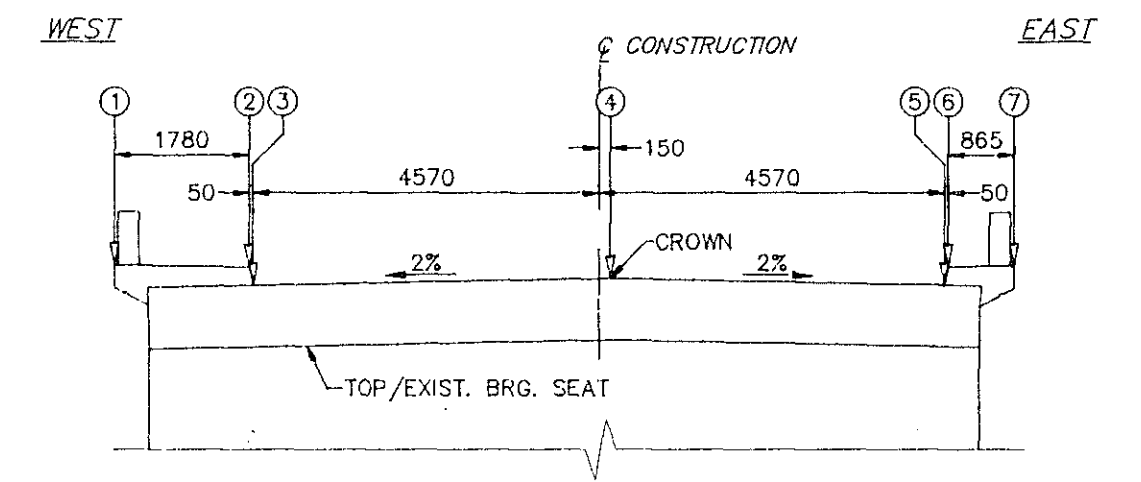
NEW

ABUTMENT

SCALE 1:100



PART PLAN



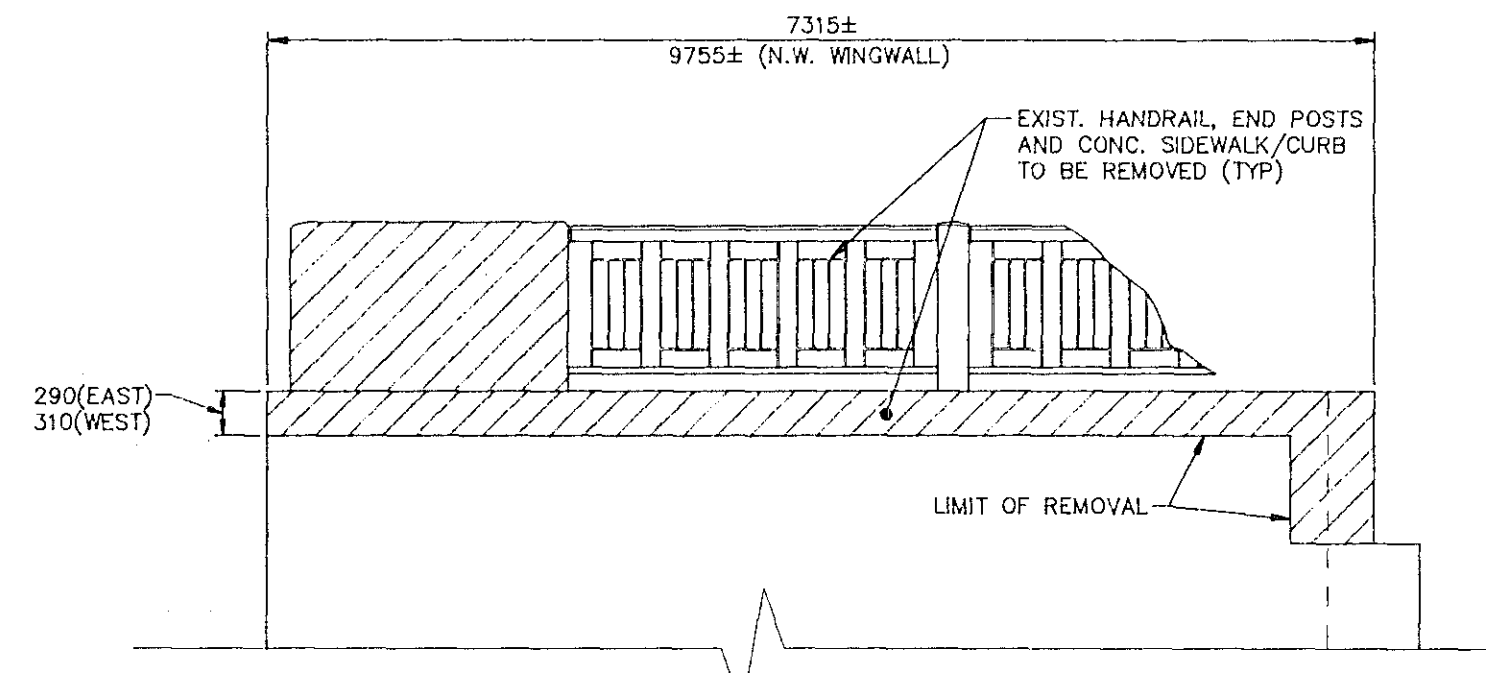
SECTION A-A

ELEVATION - TOP OF EXTRUSION							
LOCATION	*1	*2	3	4	5	*6	*7
WEST ABUTMENT	+100.482	+100.453	100.308	100.402	100.314	+100.459	+100.469
EAST ABUTMENT	+100.487	+100.438	100.293	100.381	100.298	+100.441	+100.451

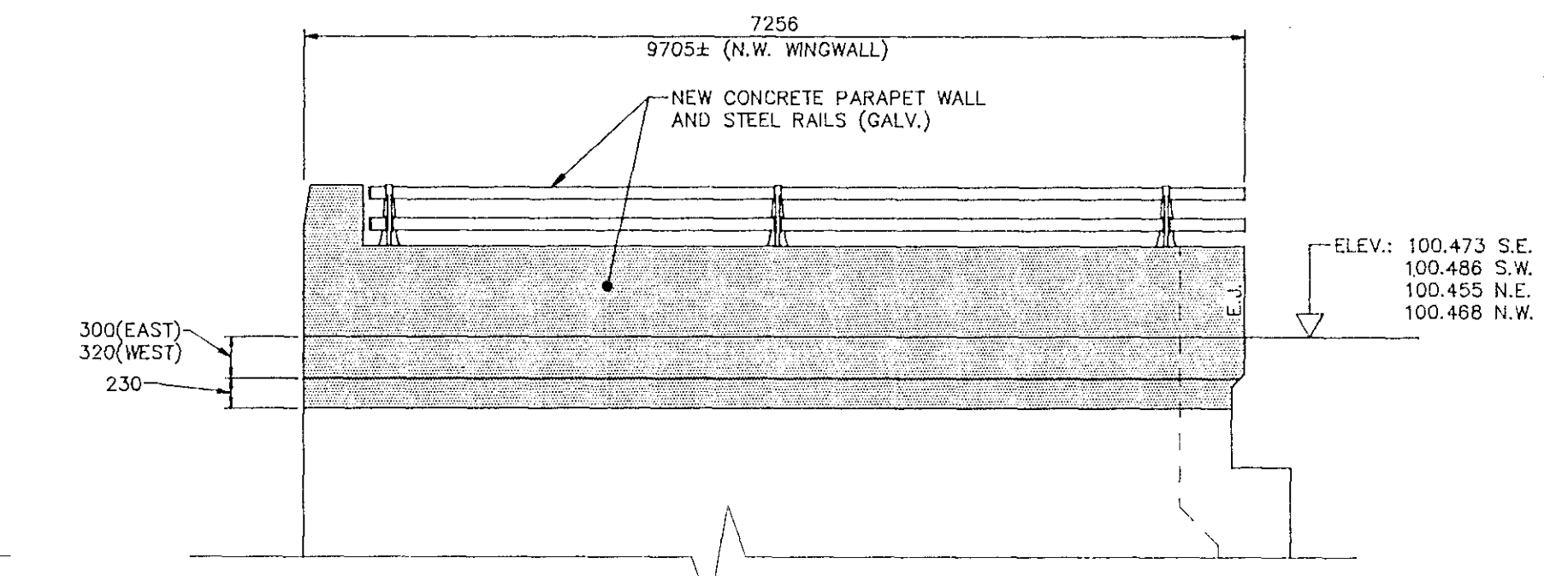
* DENOTES ELEVATION GIVEN TO TOP OF STEEL PLATE

EXPANSION JOINT LAYOUT

SCALE 1:100



EXISTING



NEW

WINGWALL

SCALE 1:50

FOR APPROVAL

totten sims hubicki associates

ENGINEERS ARCHITECTS AND PLANNERS

COBOURG WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO

DESIGNED: M.D.
 DRAWN: R.V.D.
 CHECKED: S.J.T.
 APPROVED: G.L.A.
 SCALE:
AS SHOWN

INKERMAN BRIDGE REPAIRS
 TOWNSHIP OF MOUNTAIN
 UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY
 CONC III SOUTH NATION RIVER LOT 18
REPAIR DETAILS

DATE: APR. 1991

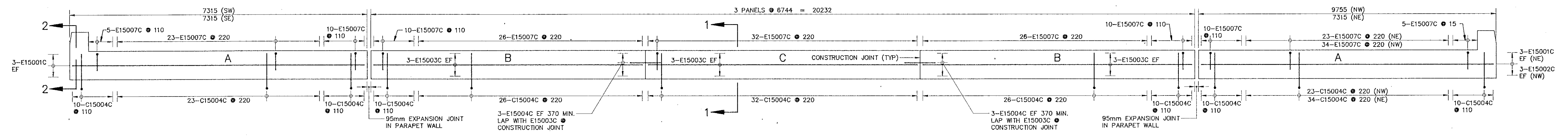
PROJECT: 18-0480

4

NO DATE BY REVISIONS

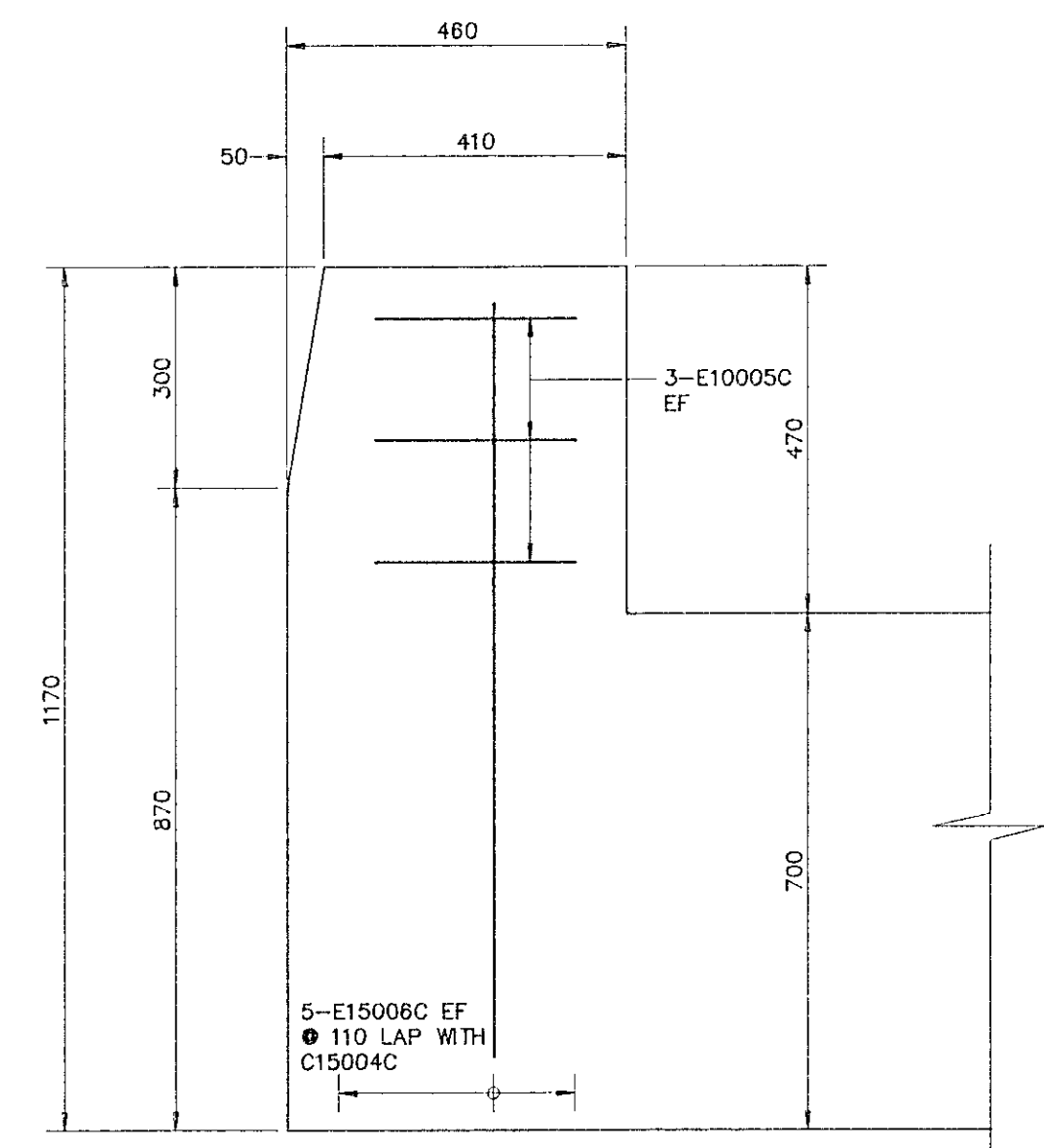
910175-1

EAST AND WEST PARAPET WALLS ARE SIMILAR EXCEPT AS NOTED



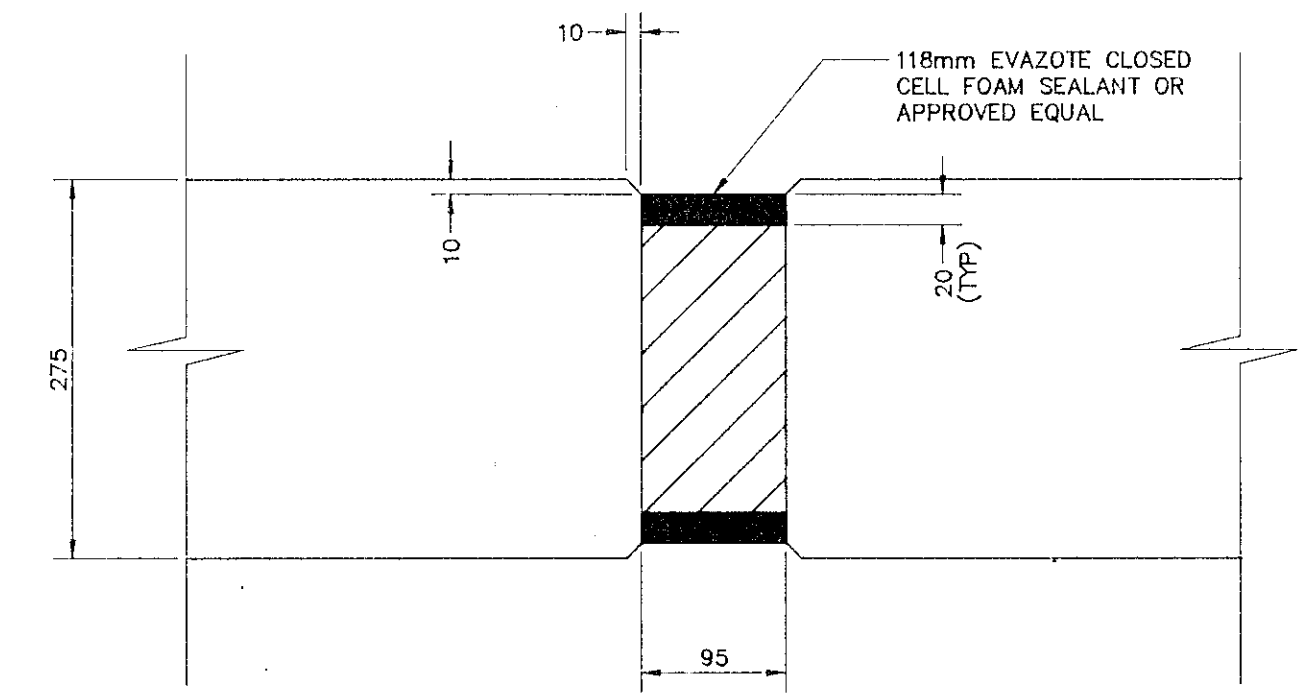
ELEVATION OF PARAPET WALL

SCALE 1:50



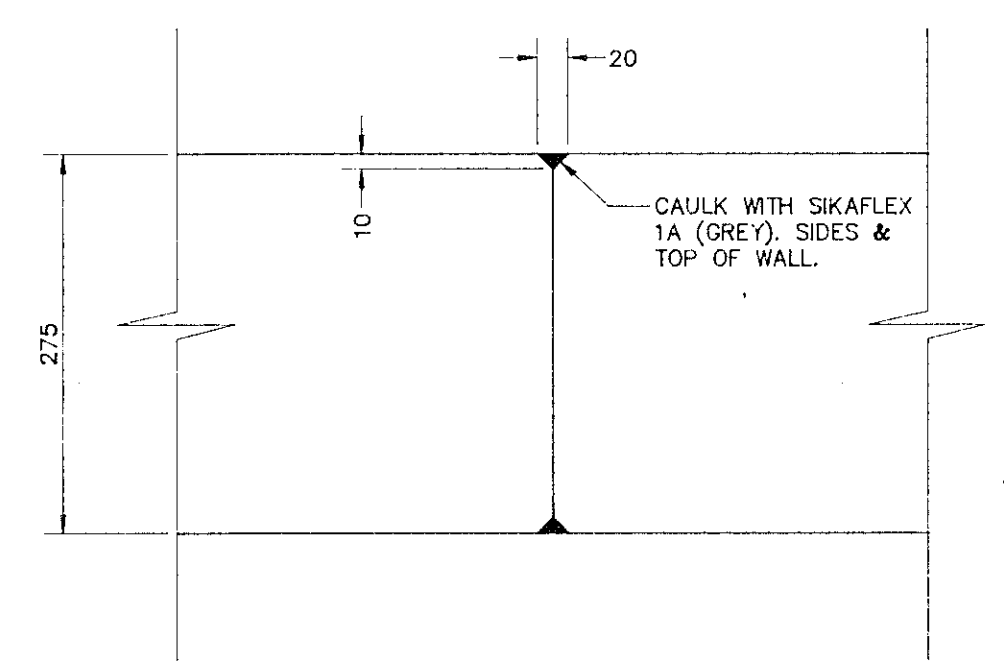
ELEVATION OF END POST

SCALE 1:10



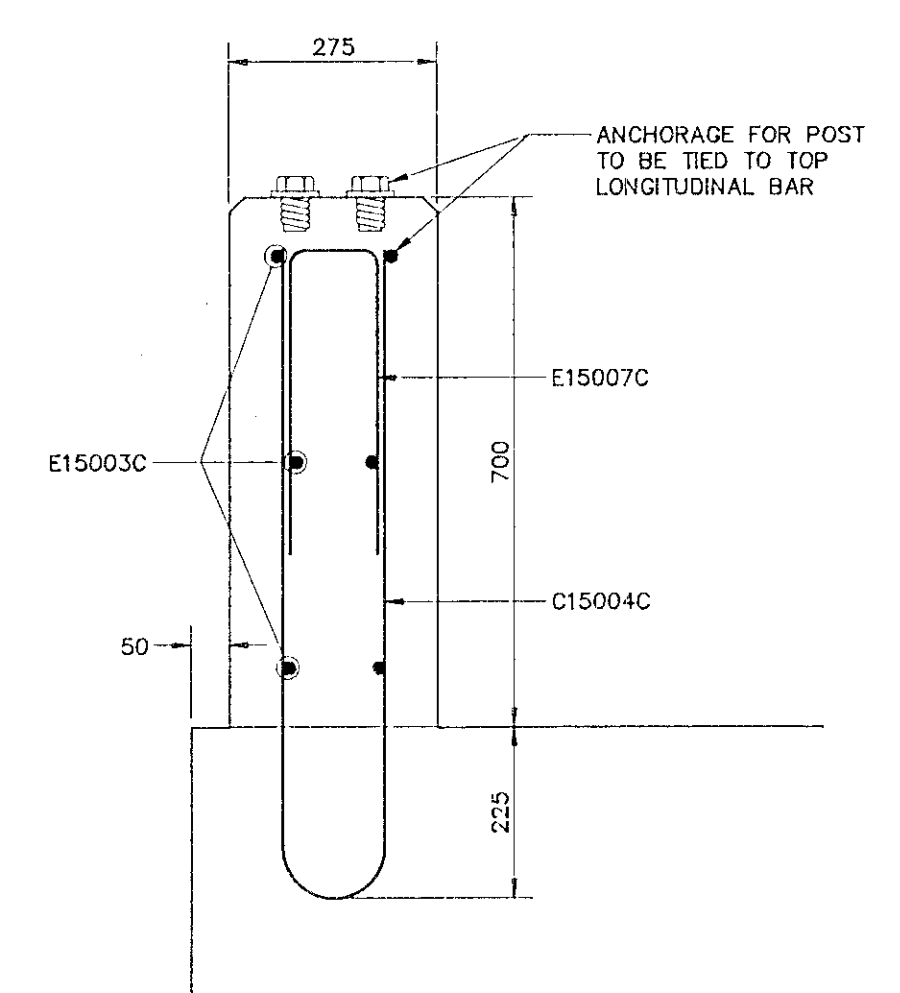
TYPICAL EXPANSION JOINT

SCALE 1:5



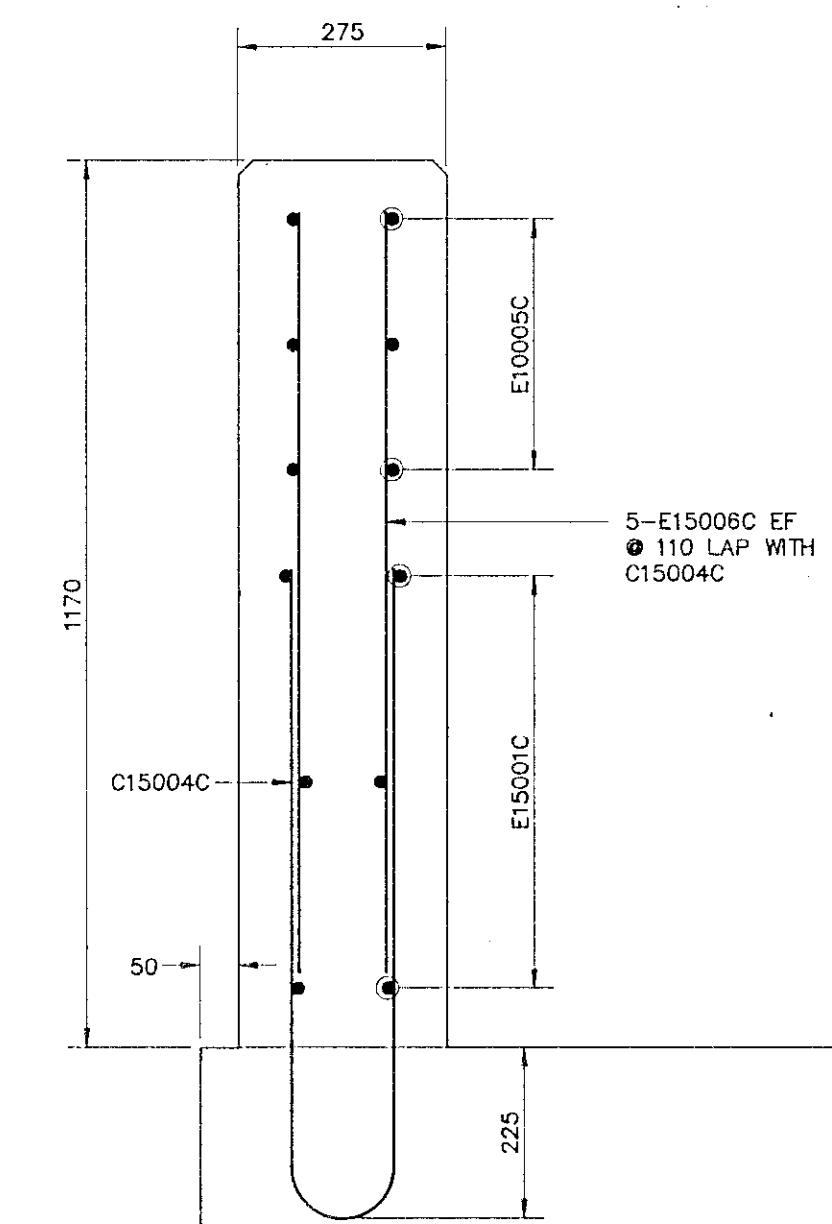
TYPICAL CONSTRUCTION JOINT

SCALE 1:5



SECTION 1-1

SCALE 1:10



SECTION 2-2

SCALE 1:10

FOR APPROVAL

NOTES

- FOR SPACING AND ANCHORAGE OF PARAPET RAIL POSTS SEE PARAPET RAIL DRAWING NO. 7
- REINFORCING STEEL NOT CONTINUOUS THROUGH JOINTS.
- COVER TO REINFORCING STEEL 70mm ± 20mm EXCEPT AS NOTED.
- EF - DENOTES EACH FACE.
- DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
- EVAZOTE CLOSED CELL FOAM SEALANT TO BE GLUED IN PLACE WITH AN APPROVED EPOXY BONDER.

totten sims hubicki associates
 ENGINEERS ARCHITECTS AND PLANNERS
 COBourg WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO

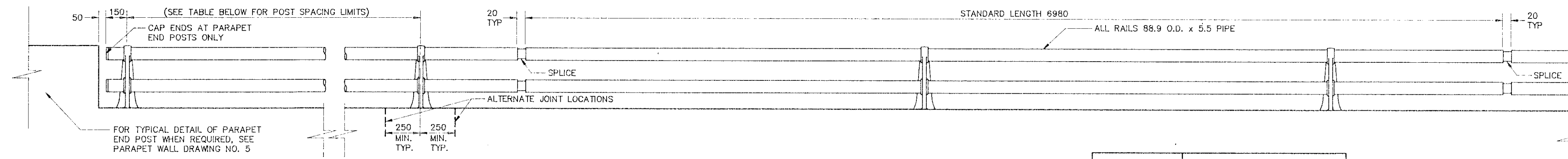
NO	DATE	BY	REVISIONS

DESIGNED: M.D.
 DRAWN: C.P.T.
 CHECKED: S.J.T.
 APPROVED: G.L.A.
 SCALE: AS NOTED

INKERMAN BRIDGE REPAIRS
 TOWNSHIP OF MOUNTAIN
 UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY
 CONC. III SOUTH NATION RIVER LOT 18
 PARAPET WALL DETAILS

DATE: APR. 1991
 PROJECT: 18-0480
 5

WHERE POST LAYOUT IS NOT SHOWN, POSTS SHALL BE EQUALLY SPACED EXCEPT THAT POSTS AT EXPANSION AND CONSTRUCTION JOINTS SHALL BE MOVED AS REQUIRED TO ATTAIN 250mm CLEARANCE



ELEVATION

SCALE 1:20

DISTANCE END TO END OF RAIL	POST SPACING	
	MINIMUM	MAXIMUM
UNDER 12000	2750	3500
OVER 12000	3000	3500

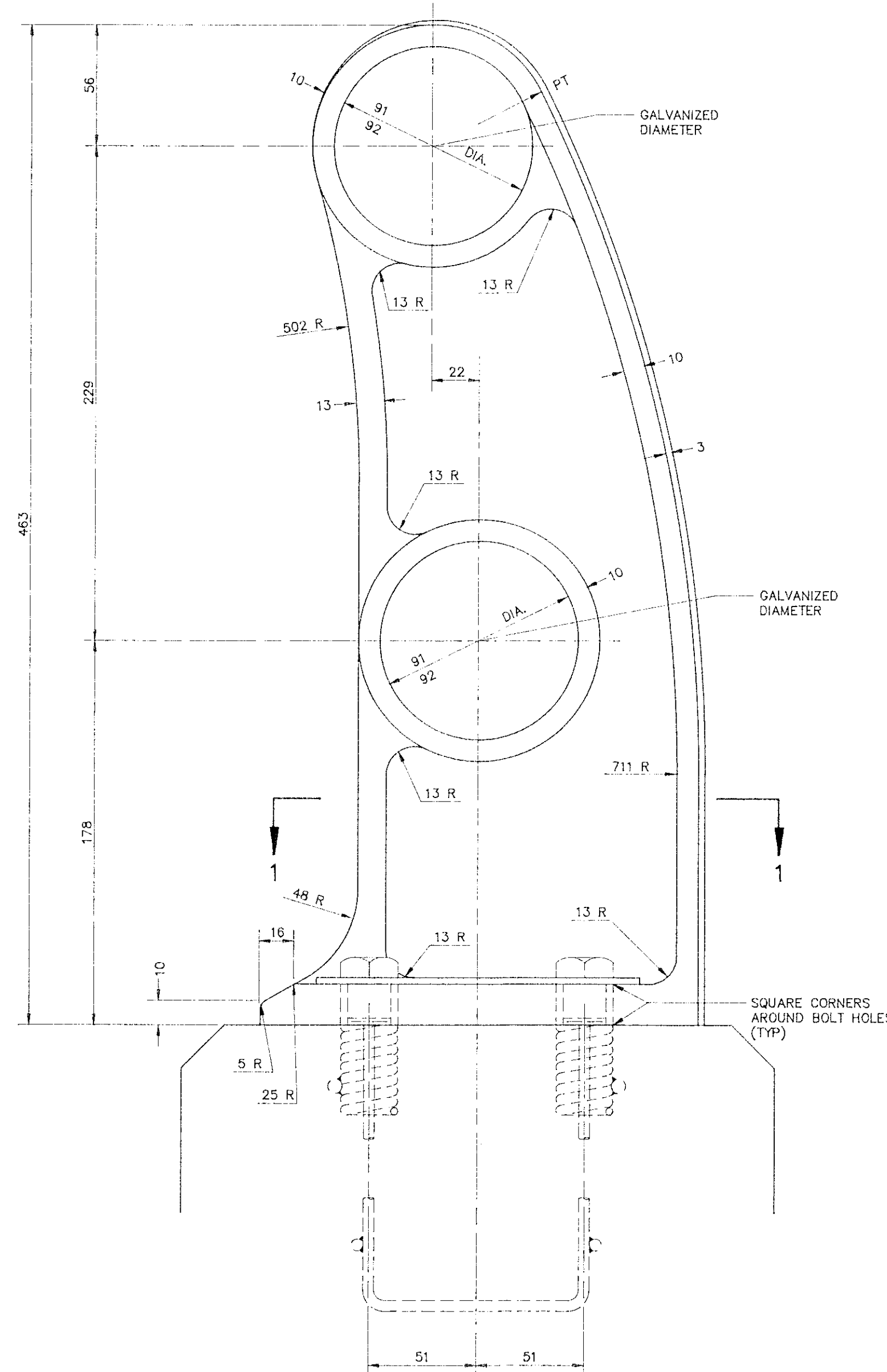
* POST LAYOUT SHALL BE SYMMETRICAL ABOUT $\frac{1}{2}$ BRIDGE SPAN

GENERAL NOTES:

1. RAIL ELEMENTS SHALL BE STRUCTURAL TUBING SUPPLIED IN ACCORDANCE WITH ASTM A36.
2. STEEL IN POSTS AND RAIL CAPS SHALL BE CAST STEEL SUPPLIED IN ACCORDANCE WITH ASTM A27-60 GR 65-35.
3. RAIL SHALL BE SUPPLIED WITH SPLICE IN LENGTHS OF 6980mm (EXCLUDING SPLICE) EXCEPT AS NOTED.
4. POSTS, RAILS, WASHERS, AND CAPS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM 123.
5. ELECTRODES SHALL BE TO A LOW HYDROGEN SPECIFICATION E7015, E7016, OR E7018.
6. ANCHORAGE AND BOLTS SHALL BE ACROW-RICHMOND TYPE DCR-1A-15 OR EQUAL, MODIFIED AS SHOWN. INSERTS AND ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH CSA STD G-164 FOR GALVANIZING. BOLTS SHALL BE GIVEN A LIBERAL COATING OF WHITE NON-STAINING GREASE.

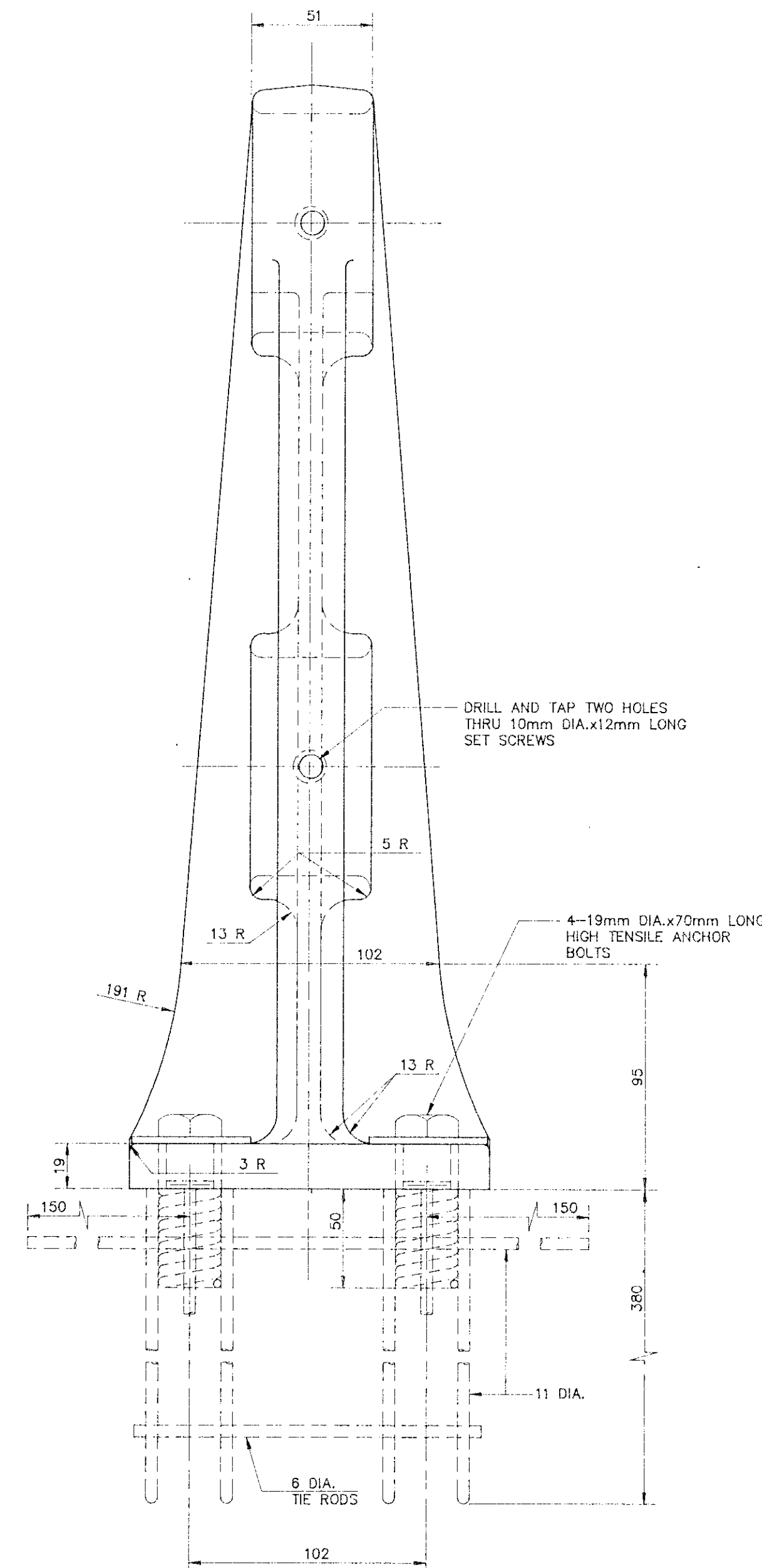
ERECTION NOTES:

1. RAIL SHALL BE BENT TO FOLLOW ROAD CURVATURE.
2. RAIL POSTS SHALL BE SET PERPENDICULAR TO GRADE.
3. WHERE LAYOUT OF POSTS IS NOT SHOWN, POST LOCATION SHALL BE DETERMINED BY THE CONTRACTOR.
4. SET SCREWS SHALL NOT BE TIGHTENED ON POSTS ADJACENT TO EXPANSION JOINTS.
5. RAIL SHALL BE CUT AS REQUIRED WITH PIPE CUTTERS AND CUT SURFACE TREATED WITH ZINC RICH PAINT.
6. WHEN CONNECTING TO EXISTING RAIL, RAIL MUST BE MADE CONTINUOUS AND POST SPACING DETERMINED WITH REFERENCE TO EXISTING POST.



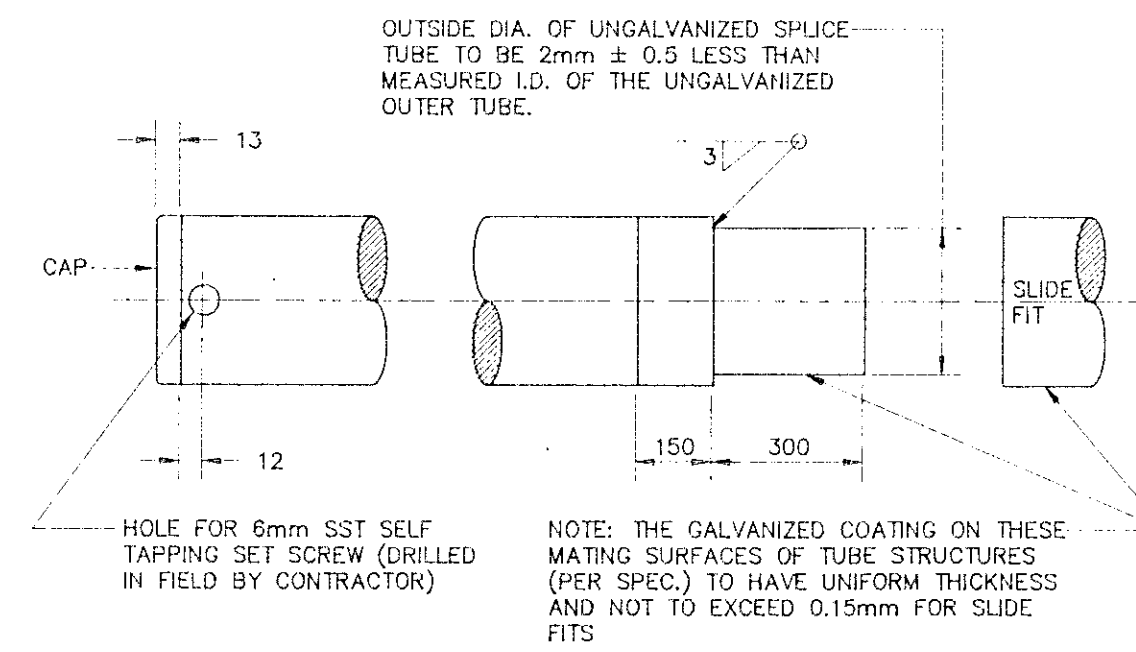
SIDE ELEVATION

SCALE 1:2



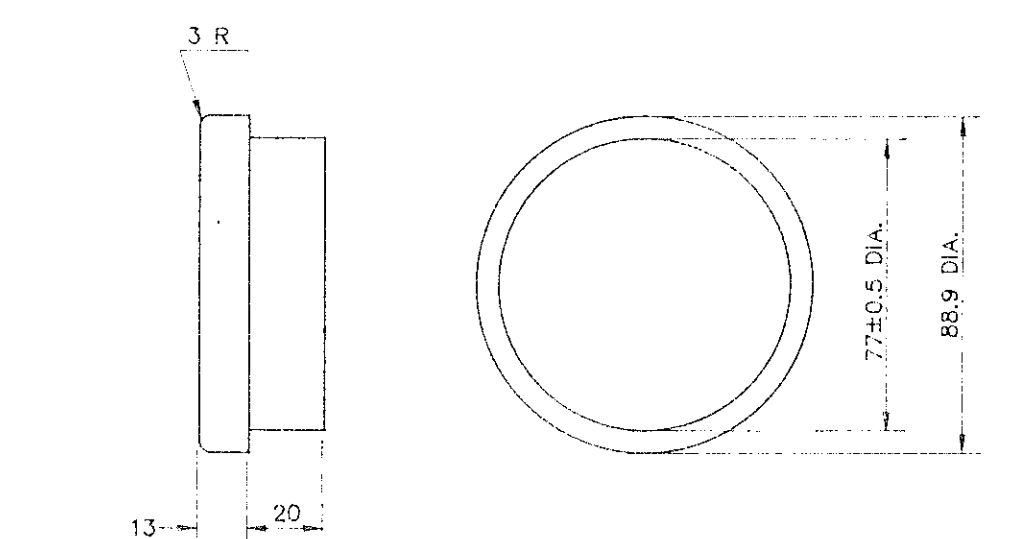
FRONT ELEVATION

SCALE 1:2



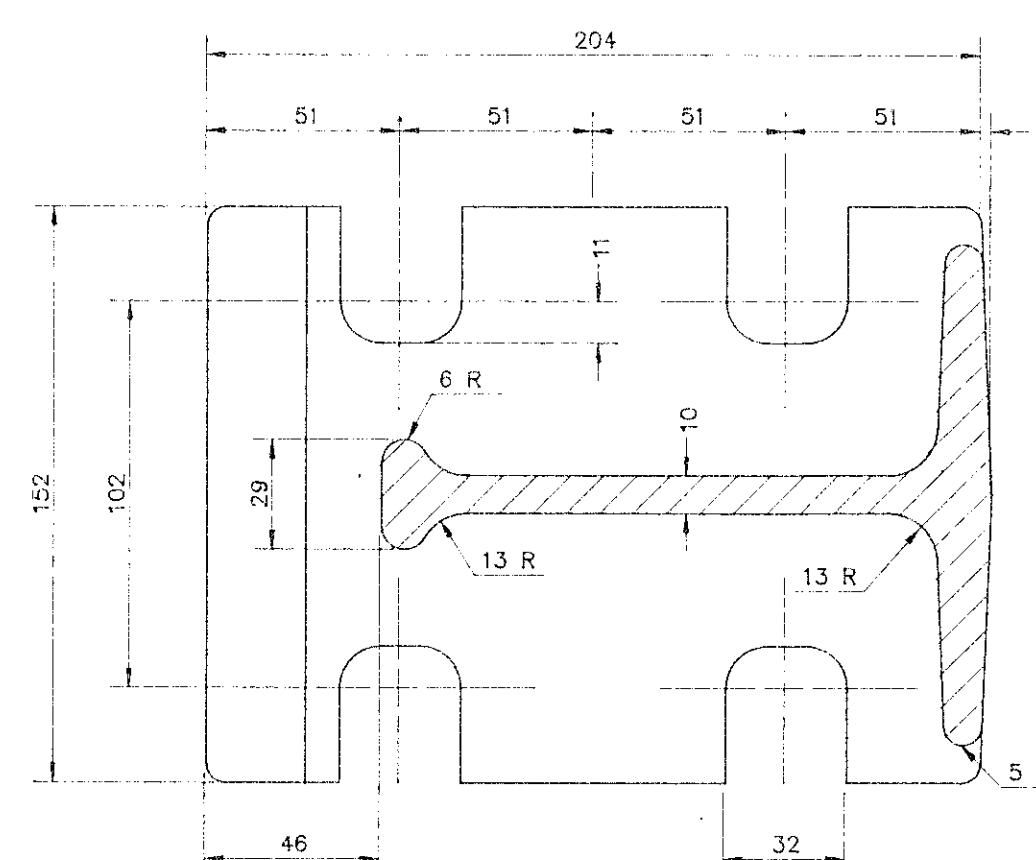
RAIL ASSEMBLY

N.T.S.



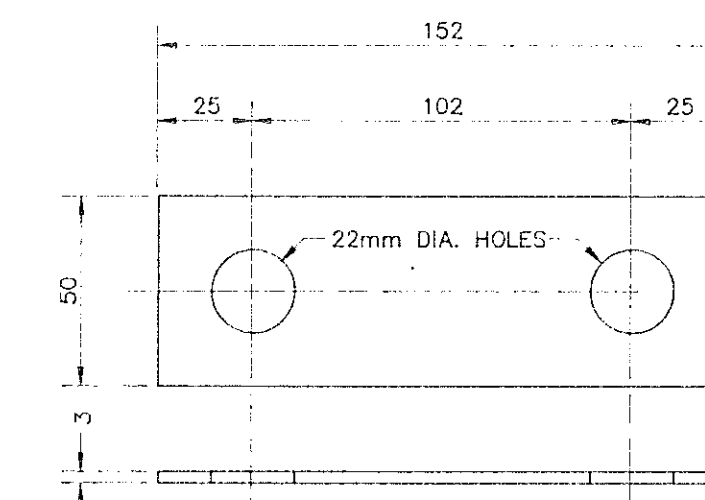
RAIL CAP

N.T.S.



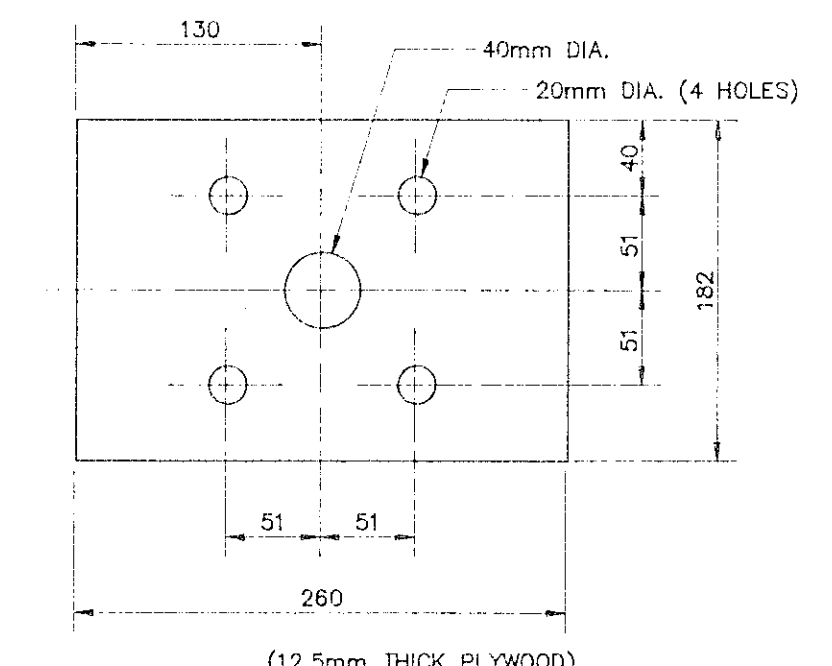
SECTION 1-1

SCALE 1:2



WASHER DETAIL

N.T.S.



(12.5mm THICK PLYWOOD) TEMPLATE TO BE INCLUDED AS PART OF ANCHORAGE

TEMPLATE

N.T.S.

INKERMAN BRIDGE REPAIRS
TOWNSHIP OF MOUNTAIN
UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY
CONC. III SOUTH NATION RIVER LOT 18

DATE: APR. 1991
PROJECT: 18-0480

DESIGNED: M.D.
DRAWN: C.P.T.
CHECKED: S.J.T.
APPROVED: G.L.A.
SCALE: AS NOTED

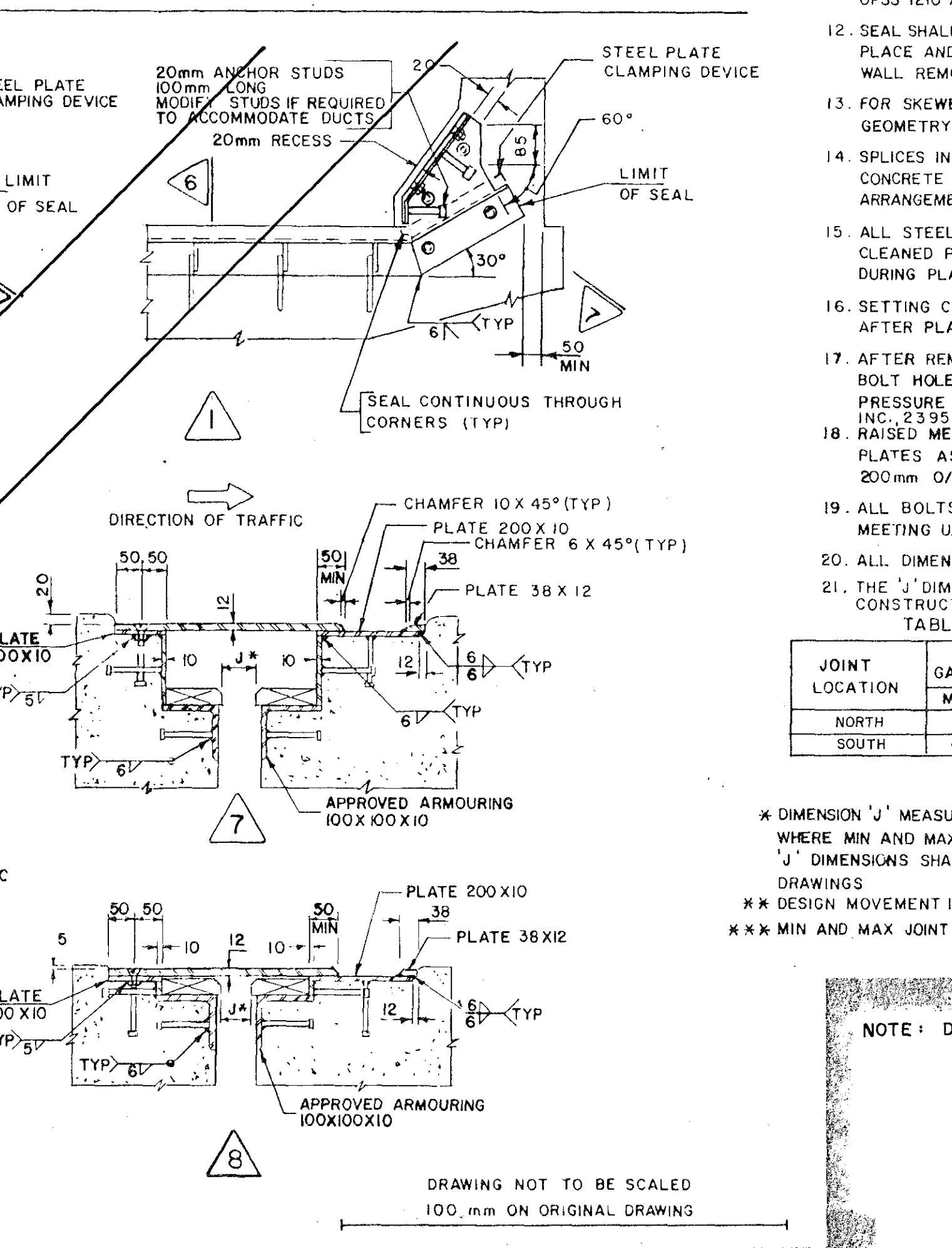
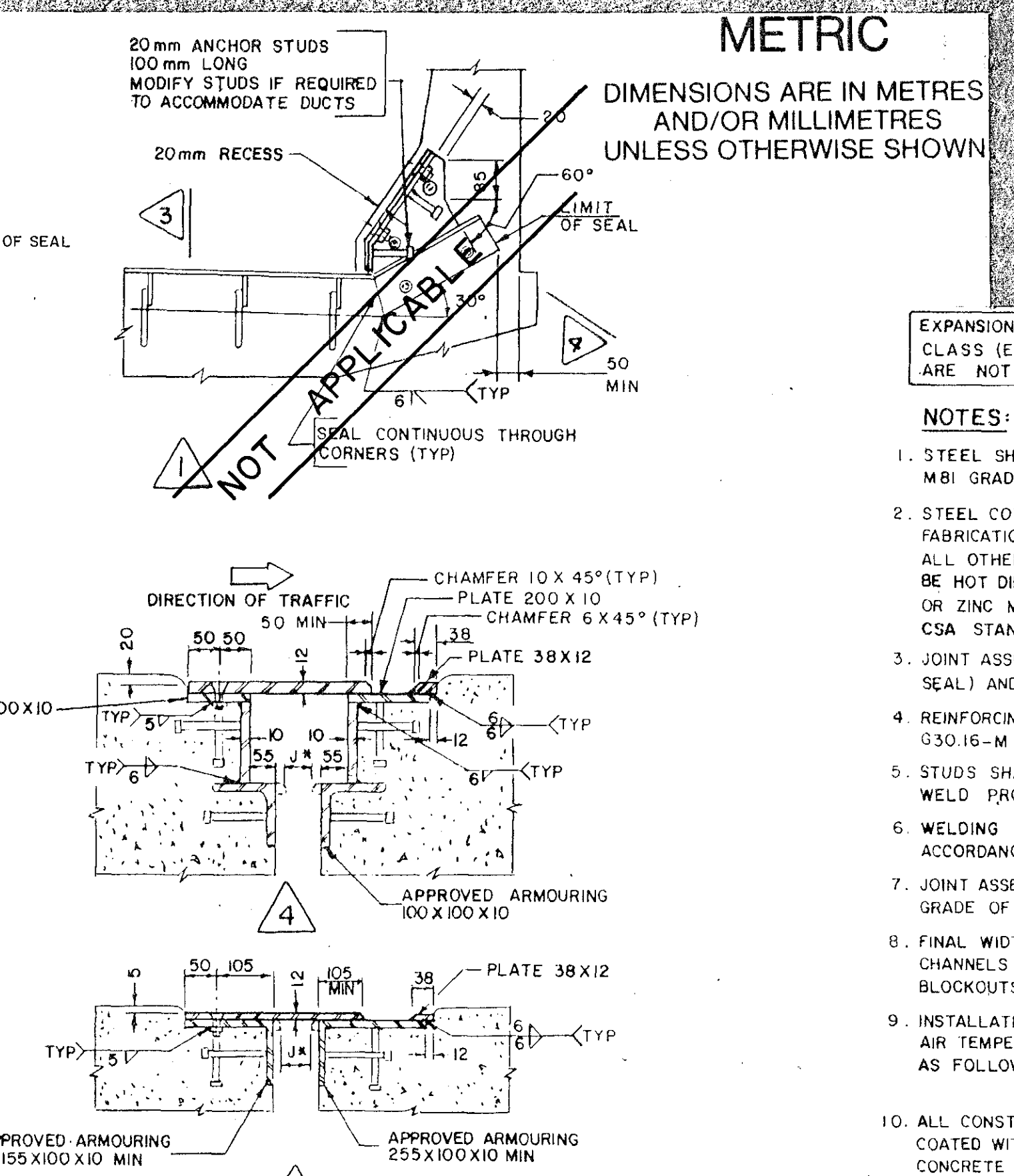
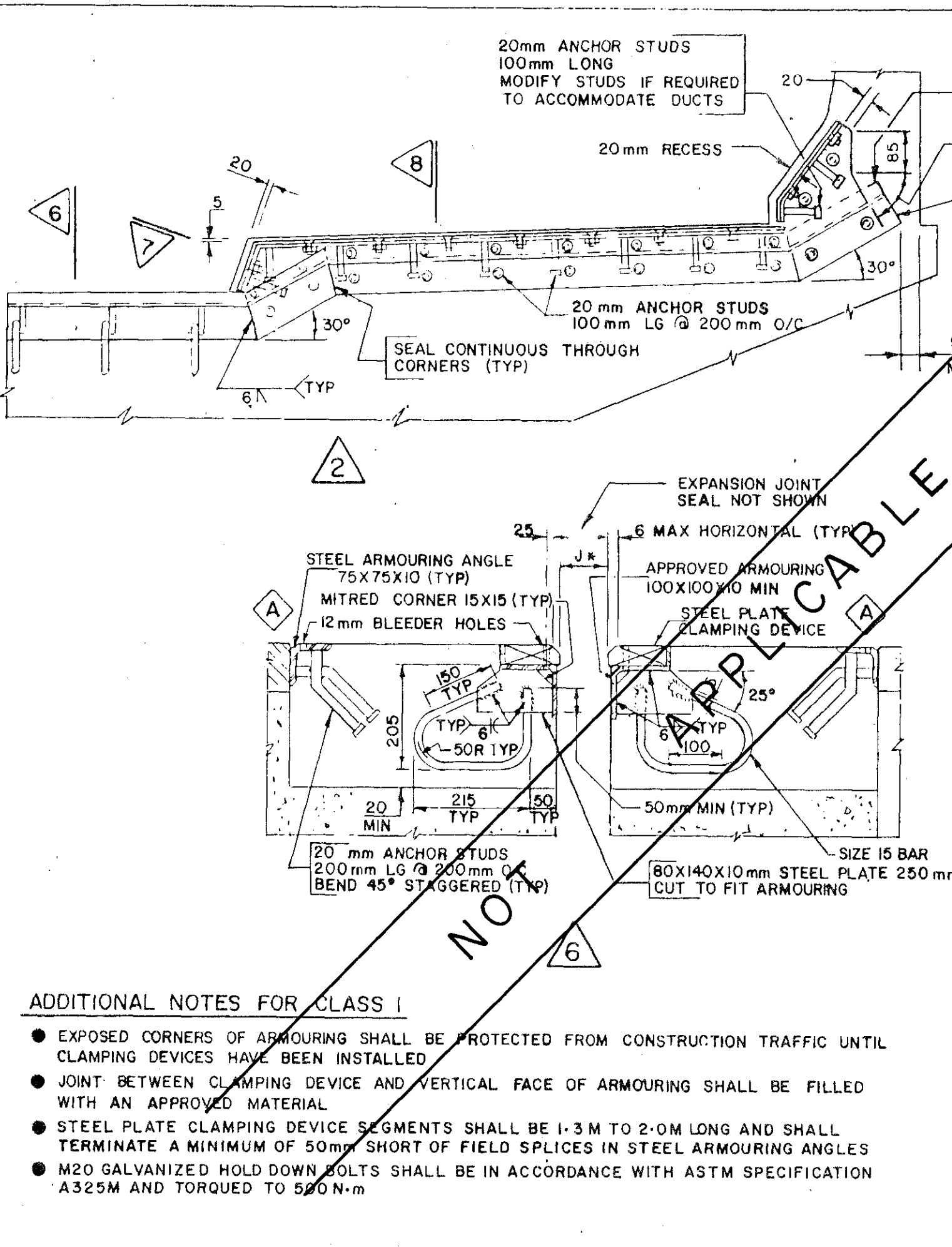
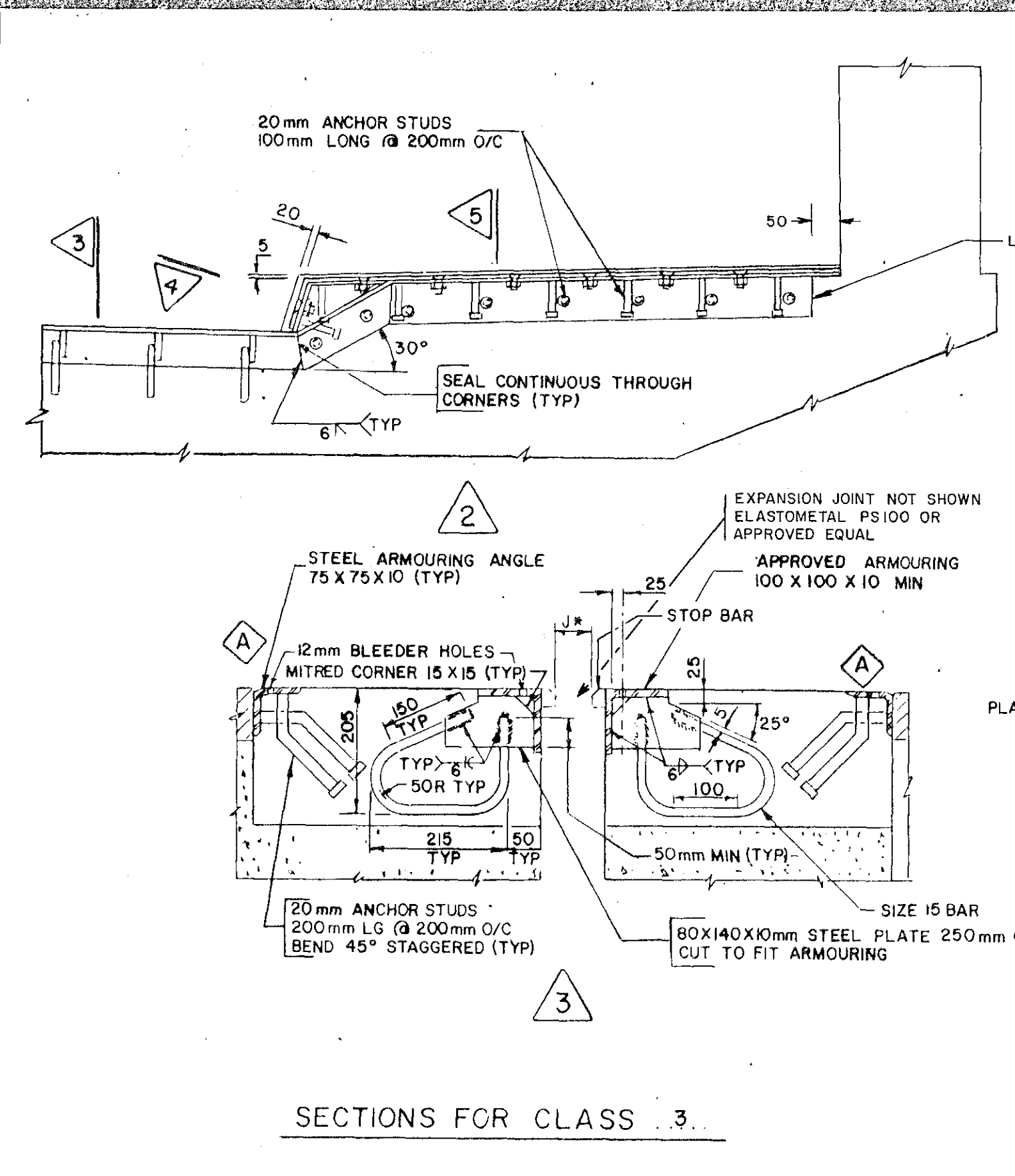
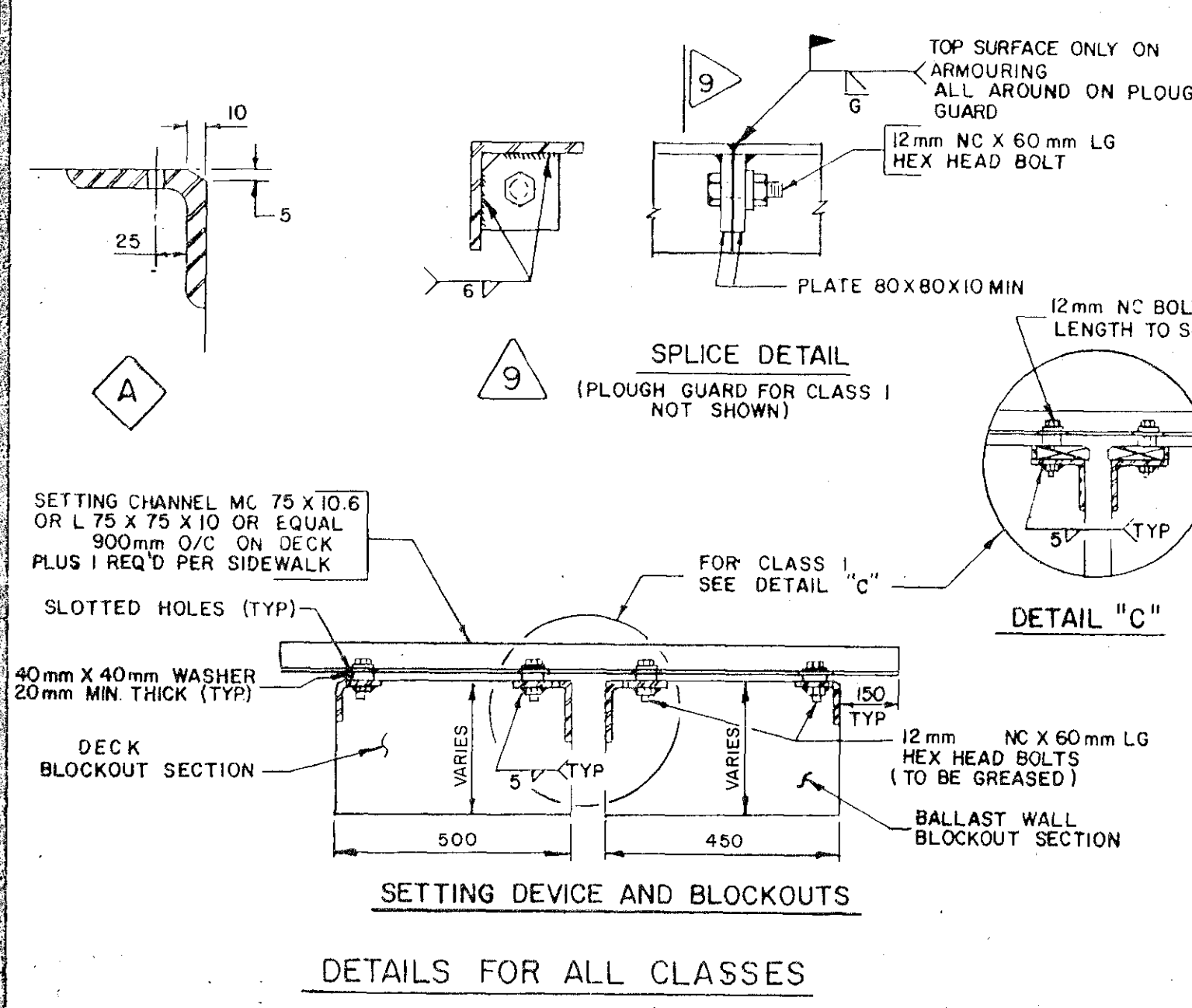
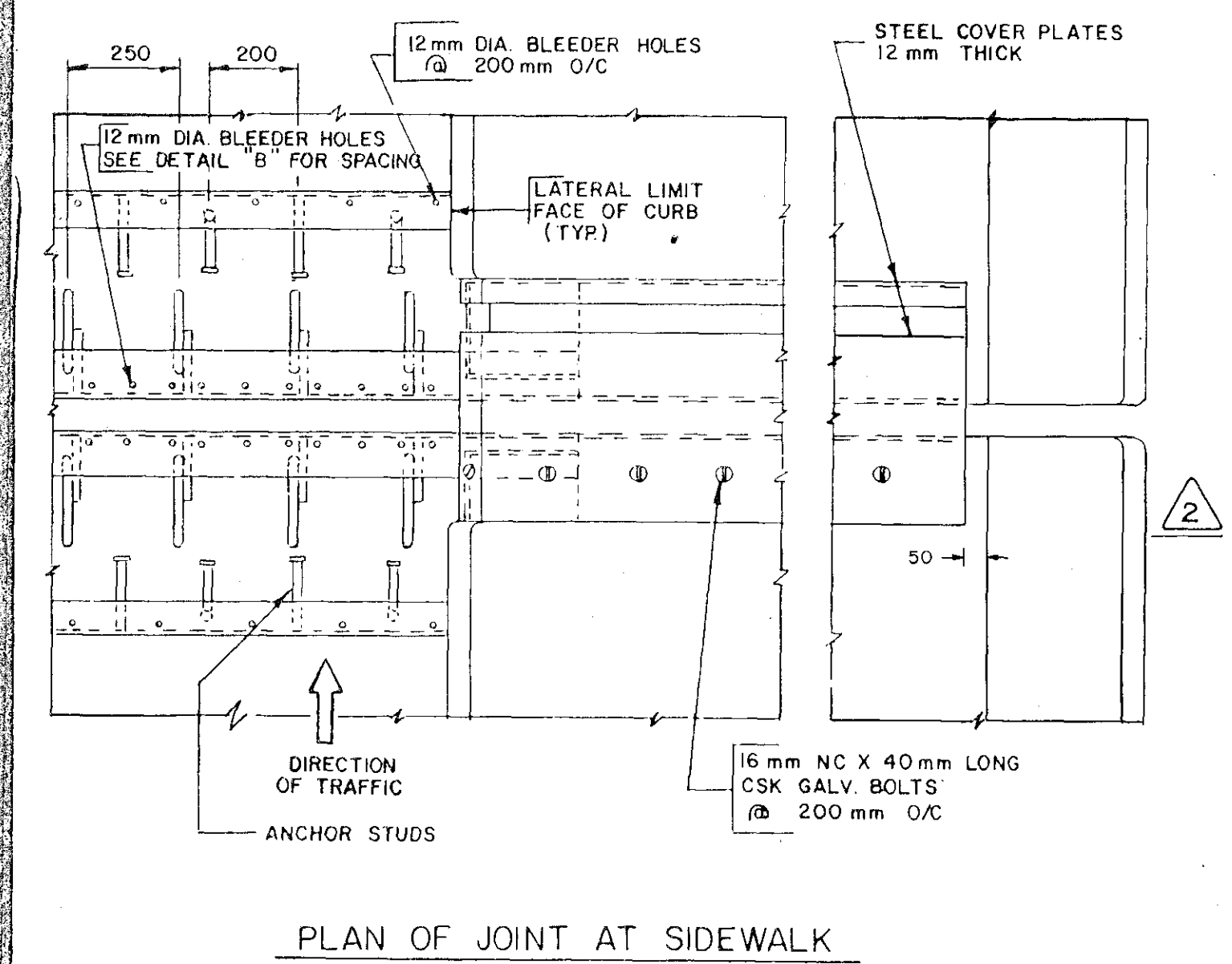
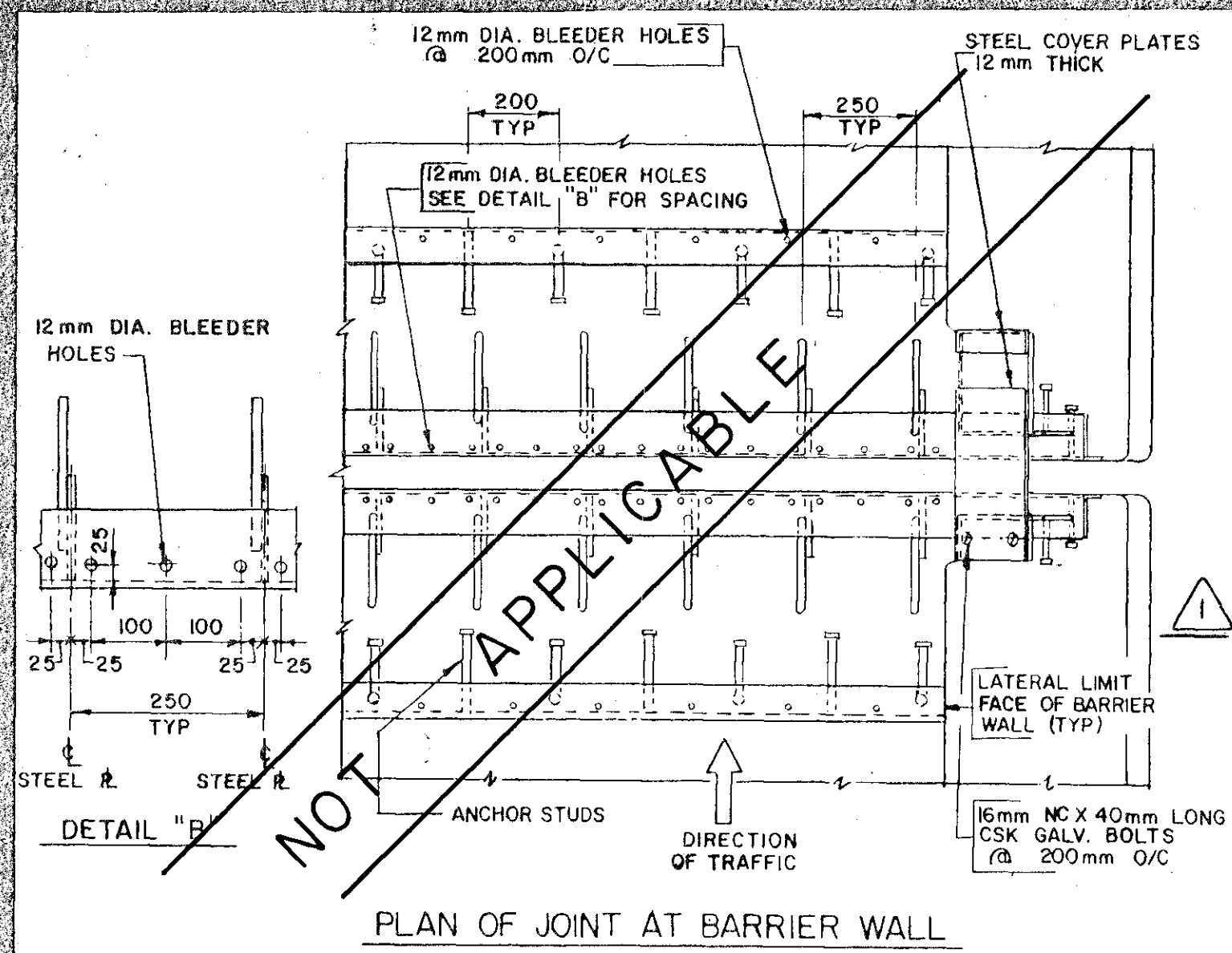
NO	DATE	BY	REVISIONS

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ENGINEERS ARCHITECTS AND PLANNERS

COBOURG WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO



EXPANSION JOINT SHALL BE IN ACCORDANCE WITH DSM 9-40... CLASS (ES) 3... DETAILS SHOWN FOR OTHER CLASSES ARE NOT APPLICABLE

- NOTES:**
- STEEL SHALL BE IN ACCORDANCE WITH CSA STANDARD CAN 3.640.21-MBI GRADE 300 W
 - STEEL COVER PLATES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH CSA STANDARD G164-M. ALL OTHER STEEL SURFACES OF JOINT ASSEMBLY AND ARMOURING SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH CSA STANDARD G164-M OR ZINC METALLIZED AFTER FABRICATION IN ACCORDANCE WITH CSA STANDARD G189
 - JOINT ASSEMBLY SHALL BE COMPLETELY SHOP ASSEMBLED (EXCEPT FOR SEAL) AND PRESET TO DIMENSION 'J' FOR 15°C PRIOR TO SHIPMENT
 - REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA STANDARD G30.16-M GRADE 400
 - STUDS SHALL BE IN ACCORDANCE WITH DSM 9-10-75 USING FUSION WELD PROCESS
 - WELDING SHALL BE OF A LOW HYDROGEN CLASSIFICATION AND IN ACCORDANCE WITH CSA STANDARD W59-M 1984 (E 480 XX ELECTRODES)
 - JOINT ASSEMBLY SHALL BE INSTALLED TO MATCH ELEVATION AND GRADE OF CONCRETE END DAMS, USING CONCRETE BLOCKOUT METHOD
 - FINAL WIDTH ADJUSTMENT (DIM 'J') SHALL BE MADE, AND SETTING CHANNELS TIGHTENED, JUST PRIOR TO PLACING 30 MPa CONCRETE IN BLOCKOUTS
 - INSTALLATION TEMPERATURE SHALL BE TAKEN AS THE MEAN SHADE AIR TEMPERATURE, PRIOR TO JOINT INSTALLATION AT THE STRUCTURE AS FOLLOWS: CONCRETE STRUCTURE-48 HOURS, STEEL STRUCTURE-24 HOURS
 - ALL CONSTRUCTION JOINT SURFACES SHALL BE ABRASIVE BLAST CLEANED AND COATED WITH NEAT CEMENT PASTE IMMEDIATELY BEFORE PLACING OF CONCRETE IN BLOCKOUTS
 - SEAL SHALL BE PREFORMED NEOPRENE SEAL IN ACCORDANCE WITH OPSS 1210 AND SHALL BE INSTALLED IN ONE CONTINUOUS PIECE
 - SEAL SHALL BE INSTALLED AFTER JOINT ASSEMBLY HAS BEEN CAST IN PLACE AND STYROFOAM OR FILLER BETWEEN BRIDGE AND BALLAST WALL REMOVED AND EXPANSION GAP PROPERLY CLEARED
 - FOR SKEWED STRUCTURE DETAILS SHALL BE ADJUSTED TO SUIT GEOMETRY OF STRUCTURE
 - SPLICES IN ARMOURING SHALL BE WELDED BEFORE PLACING OF CONCRETE IN BLOCKOUTS. FOR LOCATION OF SPLICES SEE GENERAL ARRANGEMENT DRAWING
 - ALL STEEL SURFACES IN CONTACT WITH NEOPRENE SEAL SHALL BE CLEANED PRIOR TO THE INSTALLATION OF THE SEAL AND PROTECTED DURING PLACING OF CONCRETE
 - SETTING CHANNELS SHALL BE RELEASED NOT LATER THAN 4 HOURS AFTER PLACING OF CONCRETE IN BLOCKOUTS
 - AFTER REMOVAL OF SETTING CHANNELS AND SPACER WASHERS, BOLT HOLES, BLEEDER HOLES AND Voids SHALL BE FILLED UNDER PRESSURE WITH SIKADUR 35 HI MOD LV EPOXY, SUPPLIED BY SIKA CANADA INC., 2395 DREW ROAD, UNIT 6, MISSISSAUGA, ONTARIO
 - RAISED MEDIANS ON STRUCTURES SHALL BE PROVIDED WITH SLIDING PLATES AS DETAILED FOR SIDEWALKS. STUDS SHALL BE AT 200mm O/C
 - ALL BOLTS SHALL BE LIBERALLY COATED WITH ANTISEIZE COMPOUND MEETING U.S. MILITARY SPECIFICATION ML-A-907D
 - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
 - THE 'J' DIMENSIONS SHOWN ON SHOP DRAWINGS ARE TO BE USED FOR CONSTRUCTION

TABLE OF 'J' DIMENSIONS * (mm)

JOINT LOCATION	JOINT *** GAP RATING		DESIGN ** MOVEMENT TOTAL	INSTALLATION TEMPERATURE (°C)					
	MIN	MAX		5°	10°	15°	20°	25°	30°
NORTH	40	100	60	40	52	64	76	88	100
SOUTH	40	100	60	40	52	64	76	88	100

* DIMENSION 'J' MEASURED PERPENDICULAR TO CENTRELINE EXPANSION JOINT. WHERE MIN AND MAX 'J' FOR JOINT SUPPLIED DIFFER FROM THOSE SHOWN IN TABLE 'J' DIMENSIONS SHALL BE REVISED BY CONTRACTOR AND SHOWN ON SHOP DRAWINGS
 ** DESIGN MOVEMENT IS THE CALCULATED MOVEMENT OF THE STRUCTURE
 *** MIN AND MAX JOINT GAP RATING SHOWN IS TAKEN FROM DSM 9-40... CLASS ...

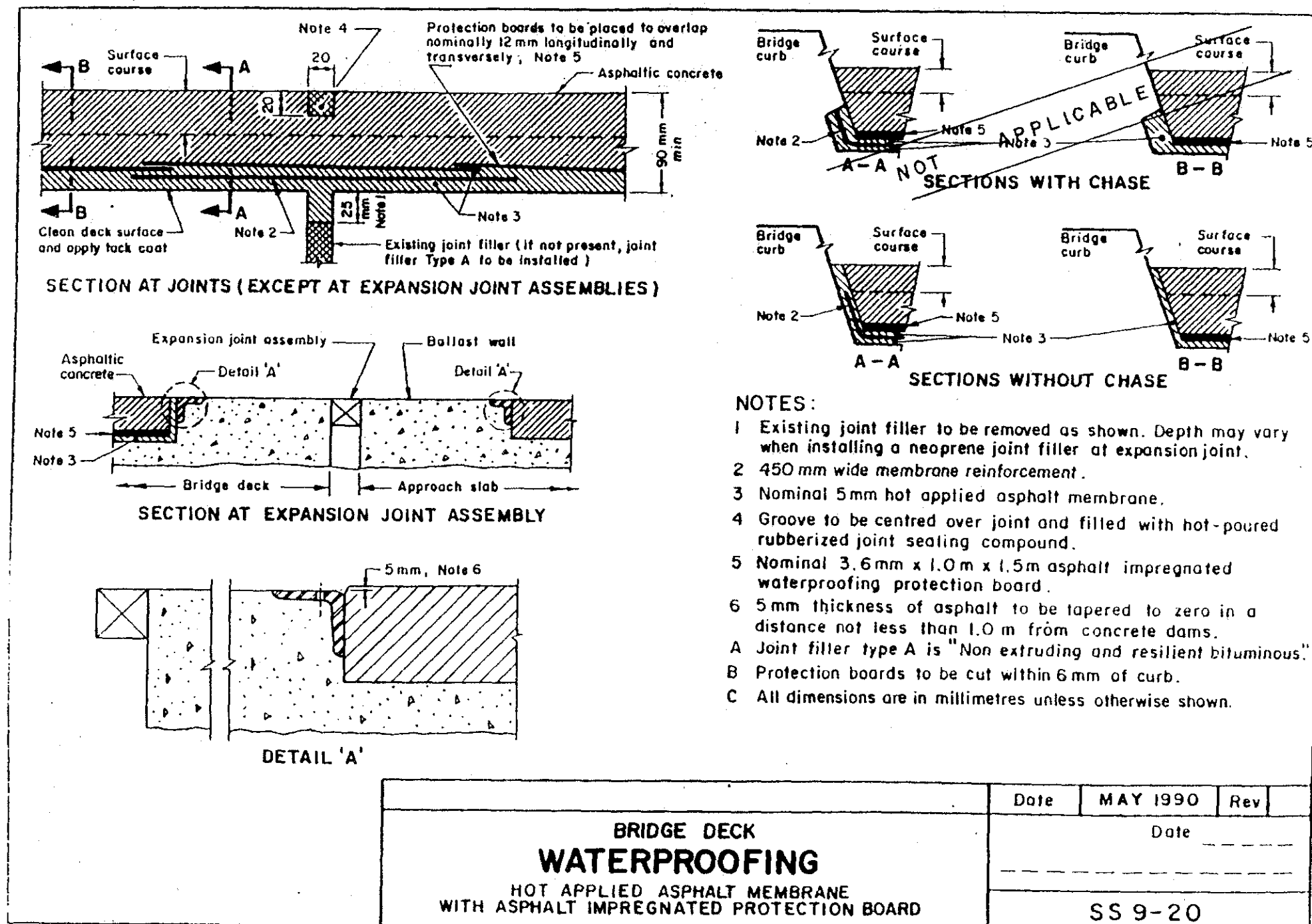
NOTE: DESIGN ADAPTED

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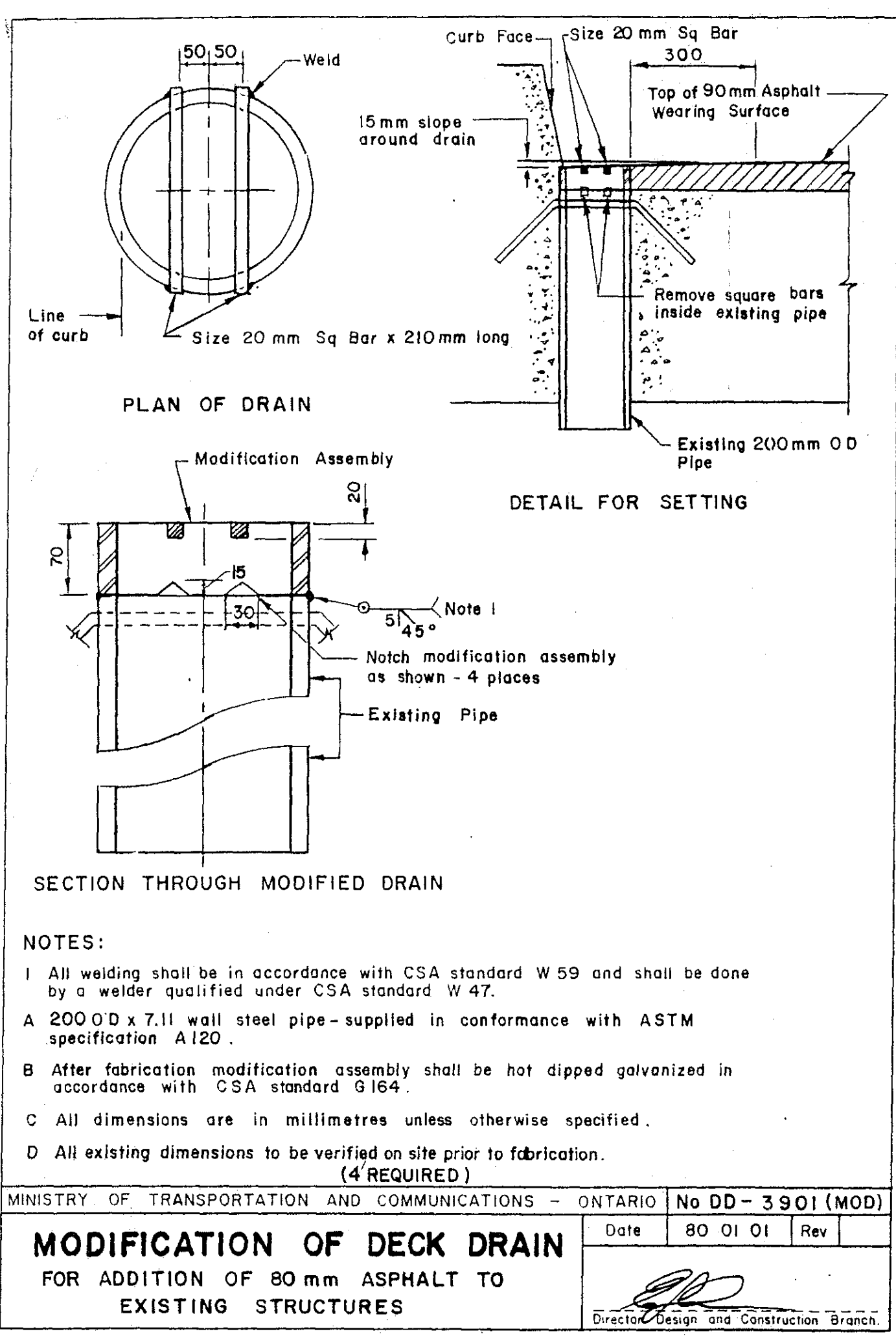
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 ENGINEERS ARCHITECTS AND PLANNERS
 COBourg WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO

DESIGNED: J.F.S.	DATE: APR. 1991		
DRAWN: J.F.S.	PROJECT: 18-0480		
CHECKED: S.J.T.			
APPROVED: G.L.A.			
SCALE: AS SHOWN			
NO	DATE	BY	REVISIONS

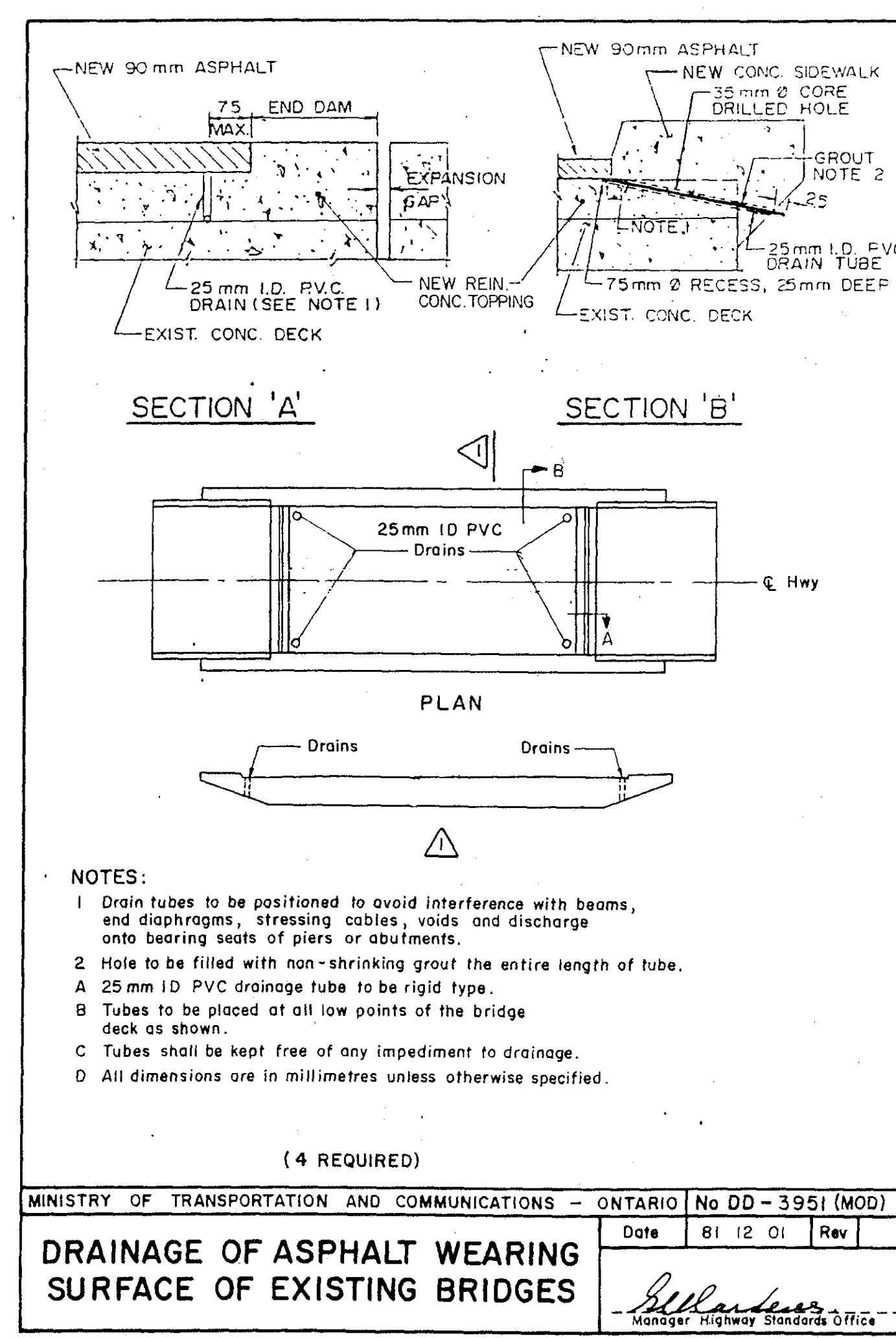
INKERMAN BRIDGE REPAIRS
 TOWNSHIP OF MOUNTAIN
 UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY
 CONC. III SOUTH NATION RIVER LOT 18



NOTES:
 1 Existing joint filler to be removed as shown. Depth may vary when installing a neoprene joint filler at expansion joint.
 2 450 mm wide membrane reinforcement.
 3 Nominal 5 mm hot applied asphalt membrane.
 4 Groove to be centred over joint and filled with hot-poured rubberized joint sealing compound.
 5 Nominal 3.6 mm x 1.0 m x 1.5 m asphalt impregnated waterproofing protection board.
 6 5 mm thickness of asphalt to be tapered to zero in a distance not less than 1.0 m from concrete dams.
 A Joint filler type A is "Non extruding and resilient bituminous".
 B Protection boards to be cut within 6 mm of curb.
 C All dimensions are in millimetres unless otherwise shown.



NOTES:
 1 All welding shall be in accordance with CSA standard W 59 and shall be done by a welder qualified under CSA standard W 47.
 A 200 O.D. x 7.11 wall steel pipe - supplied in conformance with ASTM specification A 120.
 B After fabrication modification assembly shall be hot dipped galvanized in accordance with CSA standard G 164.
 C All dimensions are in millimetres unless otherwise specified.
 D All existing dimensions to be verified on site prior to fabrication.
 (4 REQUIRED)



NOTES:
 1 Drain tubes to be positioned to avoid interference with beams, and diaphragms, stressing cables, voids and discharge onto bearing seats of piers or abutments.
 2 Hole to be filled with non-shrinking grout the entire length of tube.
 A 25 mm ID PVC drainage tube to be rigid type.
 B Tubes to be placed at all low points of the bridge deck as shown.
 C Tubes shall be kept free of any impediment to drainage.
 D All dimensions are in millimetres unless otherwise specified.
 (4 REQUIRED)

FOR APPROVAL

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COBOURG WHITBY KINGSTON TORONTO BRACEBRIDGE OTTAWA SIMCOE WATERLOO

DESIGNED:	M.D.		
DRAWN:	J.F.S.		
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NO	DATE	BY	REVISIONS

INKERMAN BRIDGE REPAIRS
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UNITED COUNTIES OF STORMONT, DUNDAS AND GLENGARRY
CONC III SOUTH NATION RIVER LOT 18

DATE: JAN. 1991
PROJECT: 18-0480

STANDARD DETAILS

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