TO:

MAIN OFFICE

REGIONAL OFFICES

SUPERSEDED BY EI 96-021
EFFECTIVE 4/9/1996

ENGINEERING INSTRUCTION

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

SUBJECT: BRIDGE DESIGN DATA SHEETS 75-60A, 60B, 60D, 60E, 60F, 60G, 60H, 61, 62, 63

Subject Code: 7.35-2

Distribution: ☒ Main Office ☒ Regions ☐ Special

APPROVED: F. V. Hourigan
Deputy Chief Engineer (Structures)

Code: EI 75-70

Date: Oct. 20, 1975

Supersedes: BDD72-60AR1, 60BR1, 60D, 60E, 73-60F, 73-61, 62, 63

Attached are copies of the subject sheets for distribution to your personnel. The principal changes on these sheets are as follows:

BDD 75-60A - The 1/2" (Typ.) dimension in the blockout was changed to 3/4" to agree with revisions made by the manufacturer.

The "A" dimension in the table was increased 1/2" due to the elastomeric material.

Detail "C" was added.

Section B-B - Delete the 5-3/4" dimension from the bottom of slab to top of diaphragm.

BDD 70-60B - The curtain walls have been removed to confrom to the GLD sheets.

The width of the blockouts has been increased by 1/2" (Section A-A).

The 1/2" (Typ.) dimension was changed to 3/4".

The haunch on the front of the backwall has been removed.

BDD 75-60D, 60E, 60F - The dimensions were changed to agree with revisions made by the manufacturer.

BDD 75-60G, 60H - These are new sheets for Type 650 and Type 900 Elastomeric Expansion Joint.

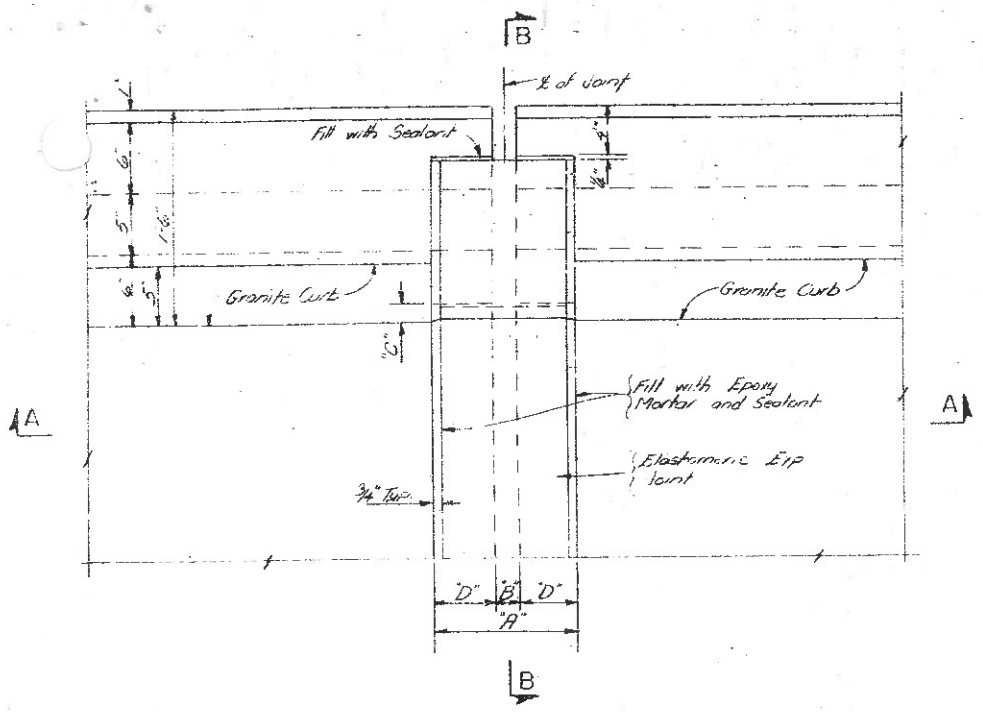
BDD 75-61 - Item numbers have been changed to agree with the Specification Book.

BDD 75-62 - The curtain walls have been removed to conform with the GLD sheets.

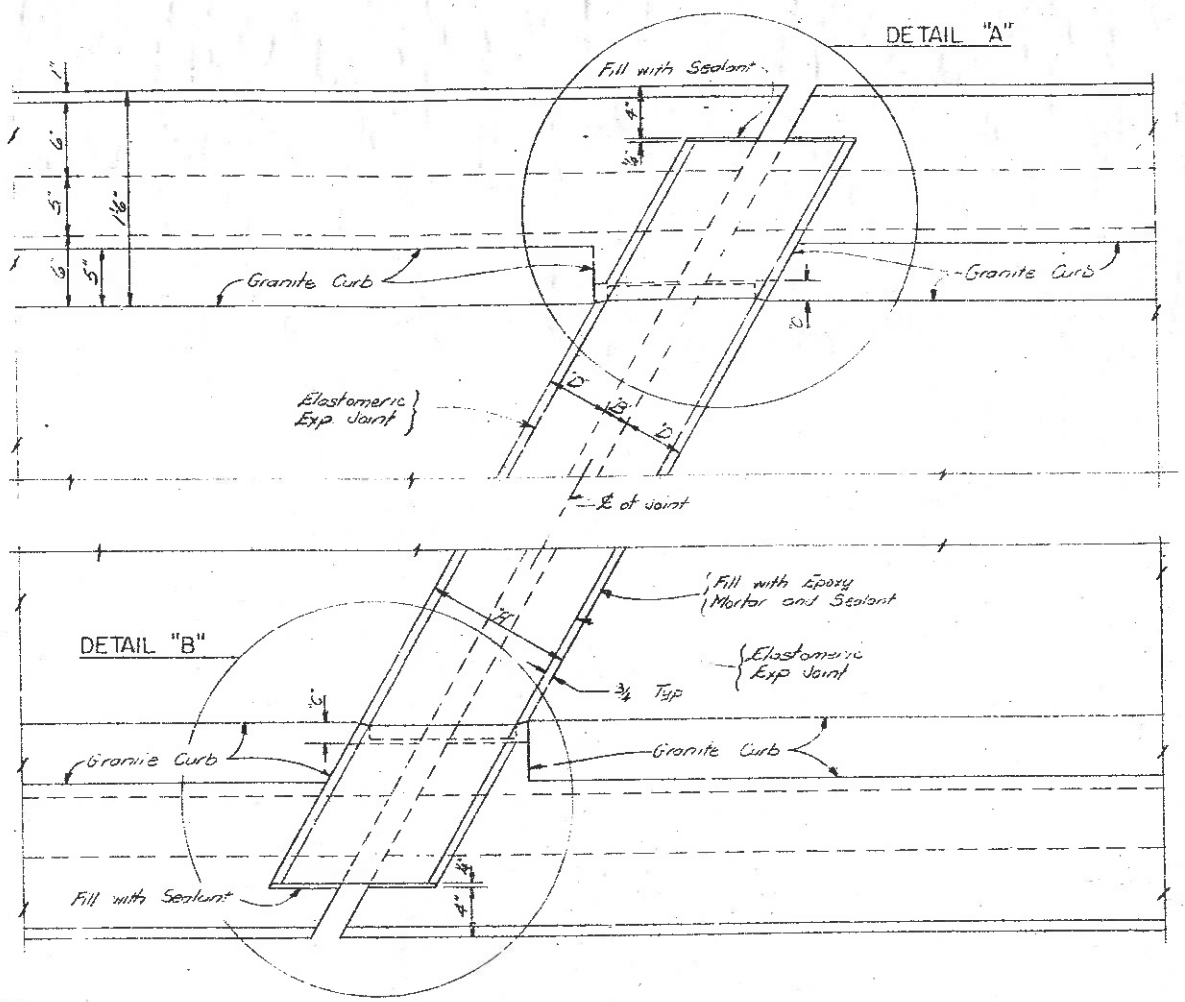
The haunch on the front of the backwall has been removed.

The item numbers have been changed to agree with the Specification Book.

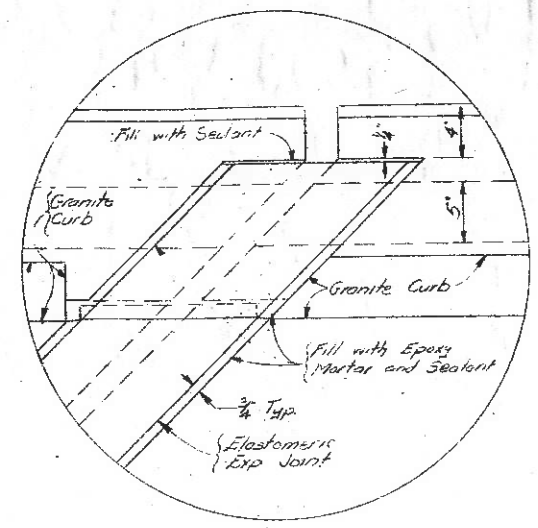
BDD 75-63 - The details have been revised to agree with BDD 75-62.



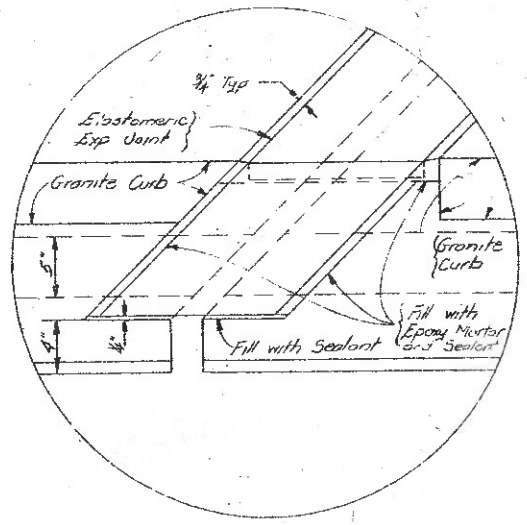
PLAN- 0° SKEW



PLAN- SKEWS UP TO 30°

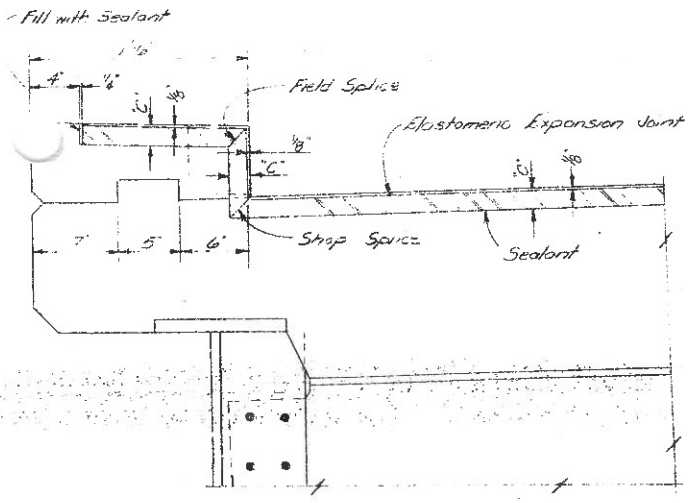


DETAIL "A"



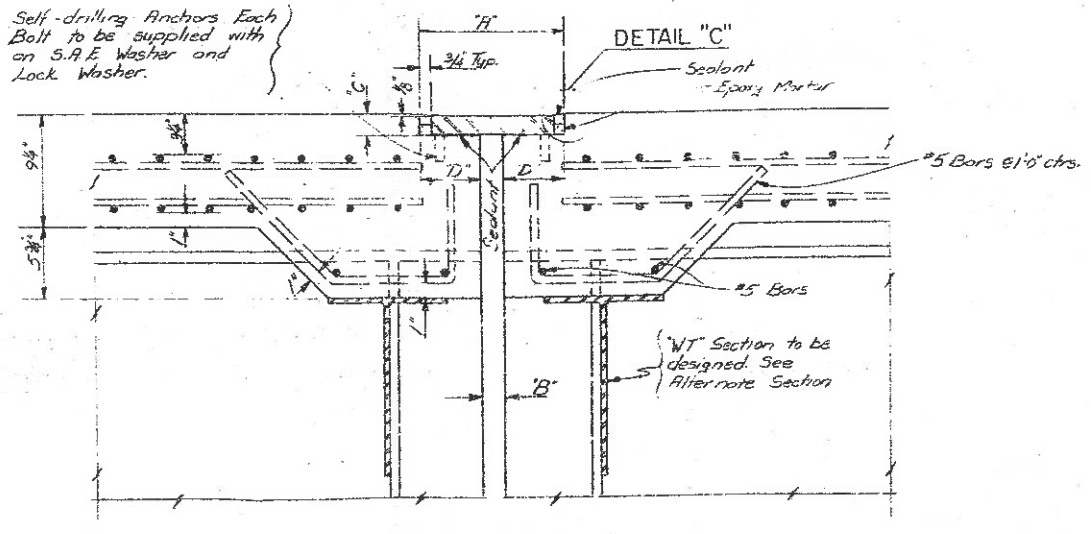
DETAIL "B"

SKEWS > OVER 30°

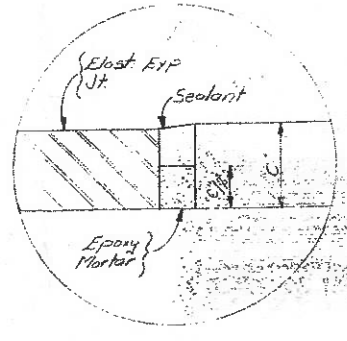


SECTION B-B

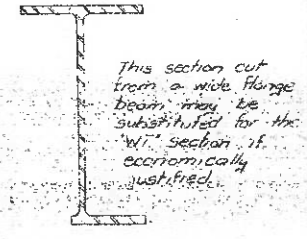
SEALS						SIZE OF ANCHOR BOLT
TYPE	CONDITION	"A" a 68°	"B" a 68°	"C"	"D"	
200	Spans up to 171'-0"	11 3/16"	1 7/16"	1 3/4"	5 1/16"	1/2" ϕ
250	Spans over 171'-0" to 214'-0"	14 5/8"	1 5/8"	2"	6 1/2"	5/8" ϕ
400	Spans over 214'-0" to 342'-0"	23 3/16"	2 1/8"	2 3/4"	10 3/4"	3/4" ϕ
650	Spans over 342'-0" to 556'-0"	26 1/2"	3"	3 3/4"	12 3/4"	7/8" ϕ
900	Spans over 556'-0" to 769'-0"	35"	3 7/8"	5 7/16"	15 7/8"	1" ϕ



SECTION A-A



DETAIL "C"



ALTERNATE SECTION

APPROVED
10/3/75
E. J. Finnigan
Deputy Chief Engineer (Structures)

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

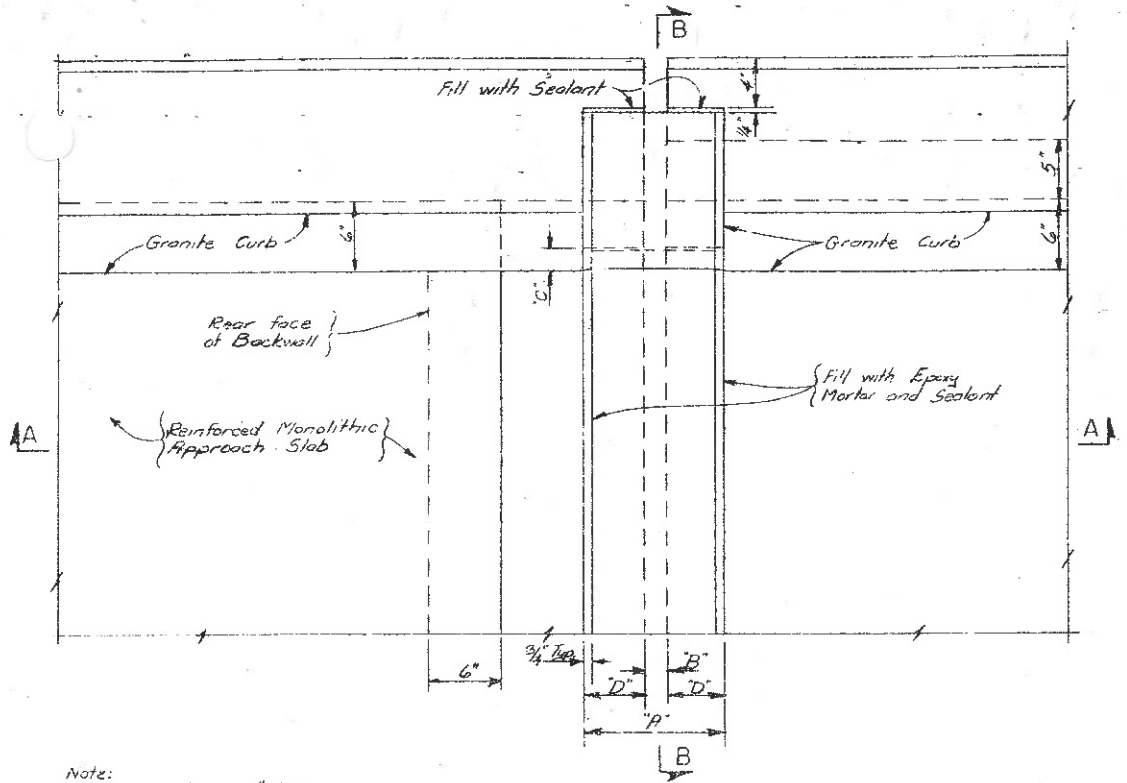
ELASTOMERIC EXPANSION JOINT
AT PIER

DETAILED BY Vince Kasabgrian
DETAIL CHECKED BY J. Whitday 9/75

BDD 75-60A

BDD 75-60A

BDD 75-60B

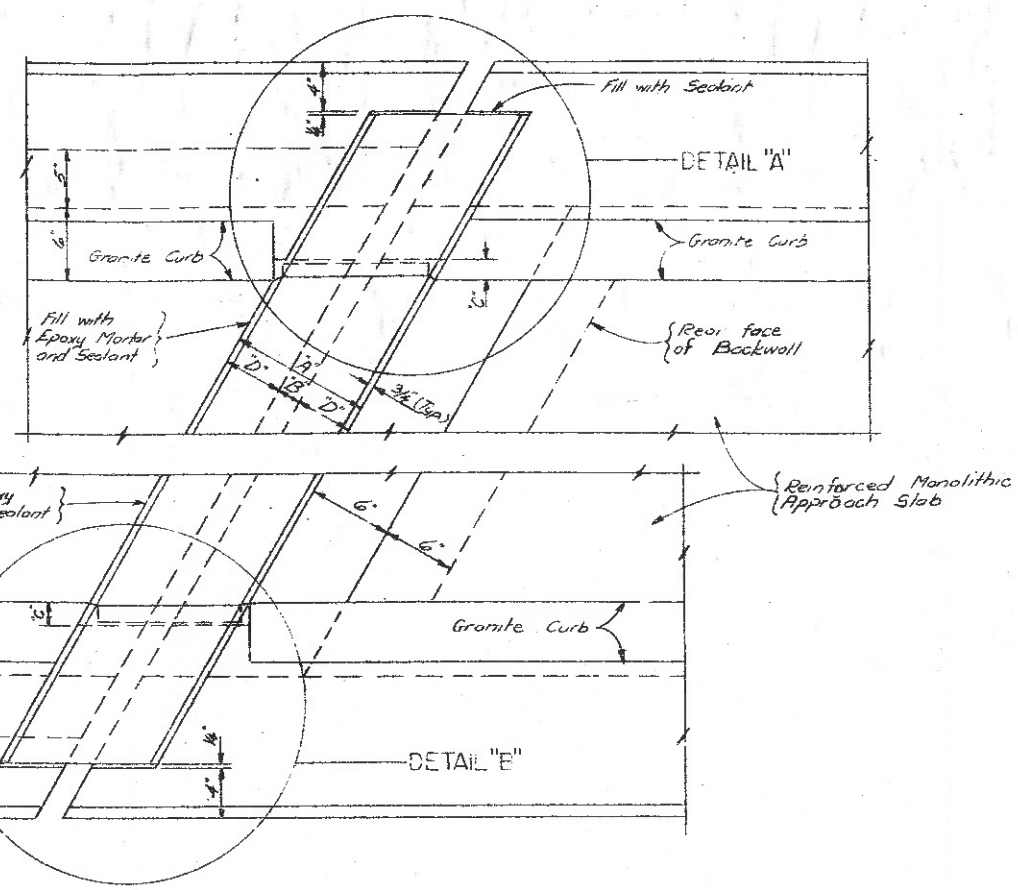


PLAN 0° SKEW

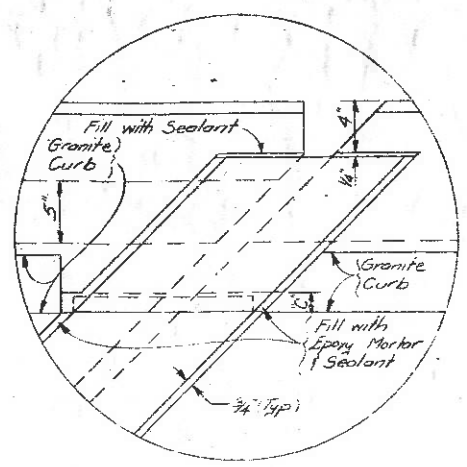
Note:
The dimensions for "A","B","C" and "D" are given in a table on sheet BDD 72-60A. These dimensions are also shown on the various Section A-A shown below.

For Detail "C" see BDD 75-60A.

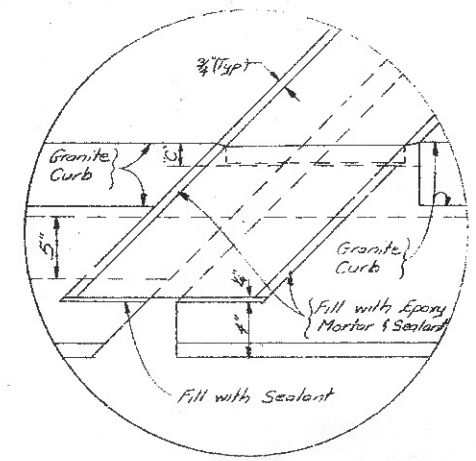
For Section B-B see BDD 75-60A



PLAN- SKEWS UP TO 30°



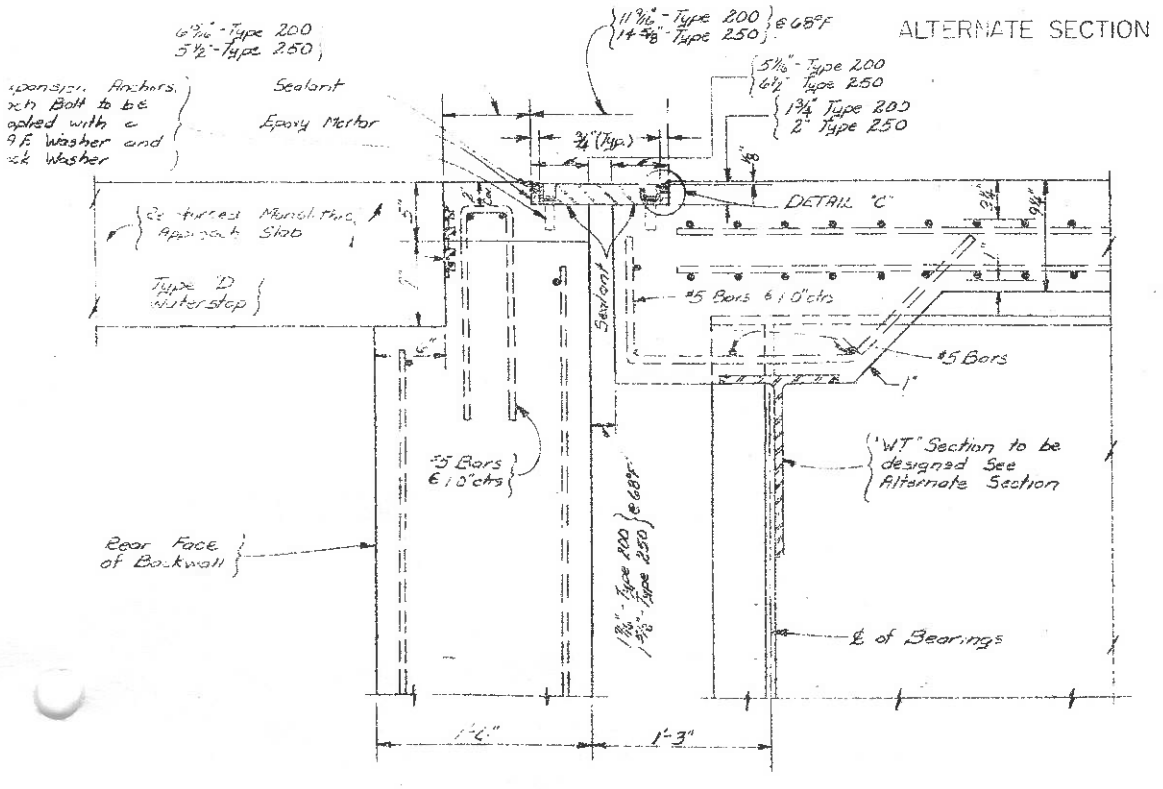
DETAIL "A"- SKEWS OVER 30°



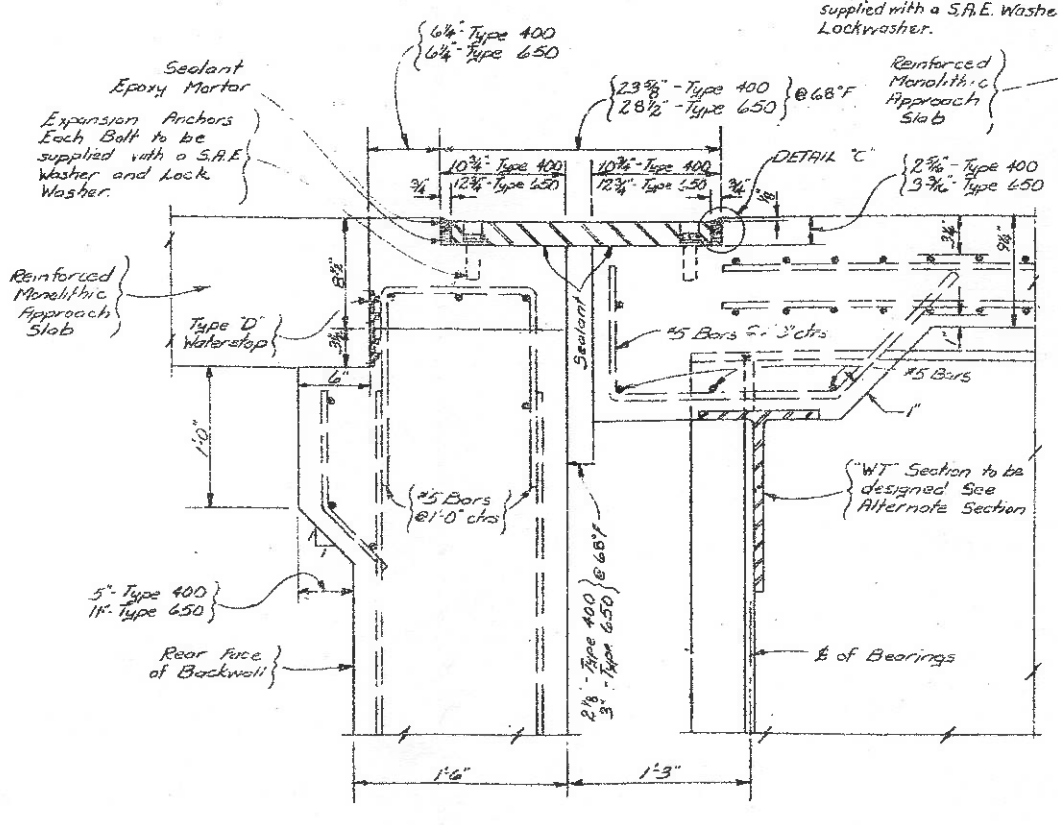
DETAIL "B"-SKEWS OVER 30°

This section cut from a wide flange beam may be substituted for the "WT" section if economically justified.

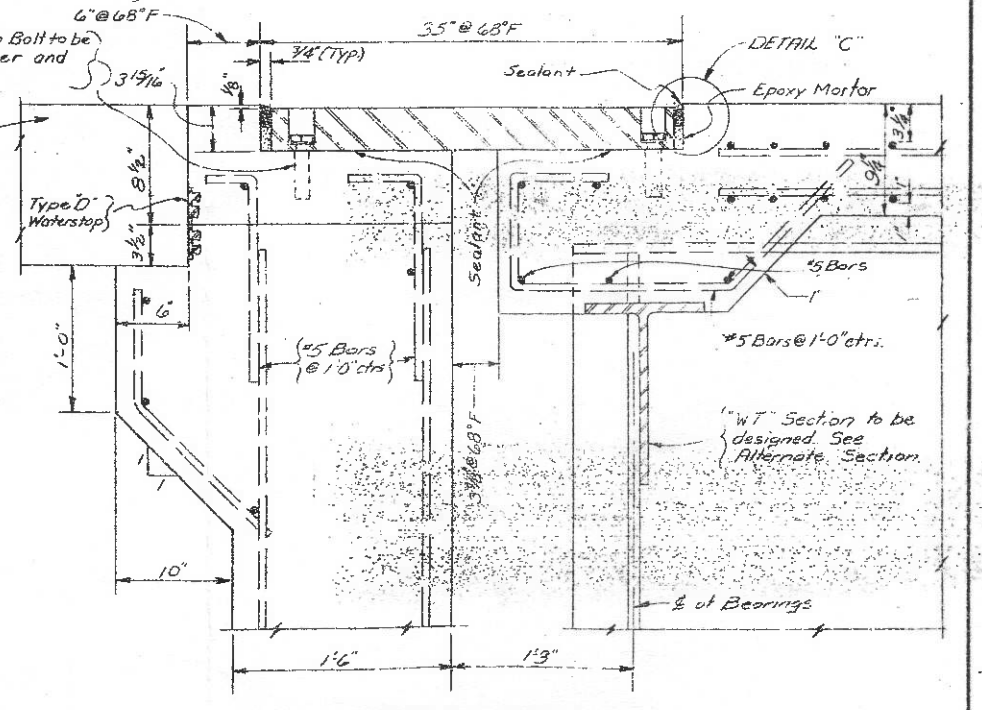
ALTERNATE SECTION



SECTION A-A TYPES 200 & 250



SECTION A A TYPES 400 & 650



SECTION A-A TYPE 900

APPROVED
1/25/77
Deputy Chief Engineer-Operations

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

ELASTOMERIC EXPANSION JOINT AT ABUTMENT

DRAWING NO. OF

DETAILED BY Vince Kozakewich
DETAIL CHECKED BY [illegible]

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

APPROVED

ALTERNATE TYPES OF ELASTOMERIC EXPANSION JOINTS, ITEM 15653.23

TYPE 200B

DETAIL OF ALUMINUM PLATE

VIEW C

DETAIL OF CAP PLUG

ELEVATION

PLAN

SECTION B-B

SECTION A-A

DETAIL "B"

PLAN

TYPE 200A

DETAIL OF CAP PLUG

ELEVATION

PLAN

DETAIL "A"

SECTION B-B

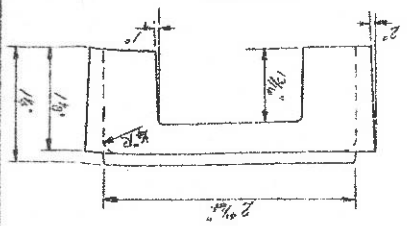
SECTION A-A

PLAN

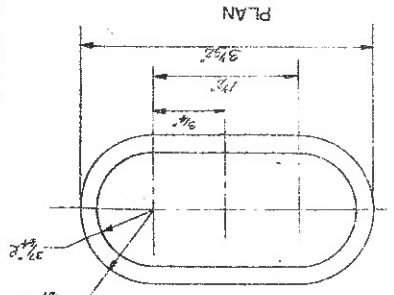
TYPE 250A

DETAIL OF CAP PLUG

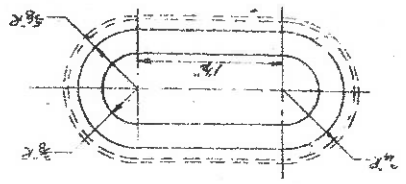
ELEVATION



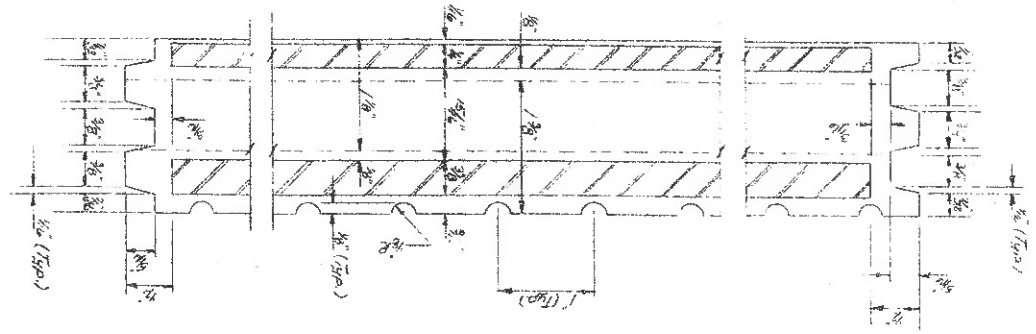
PLAN



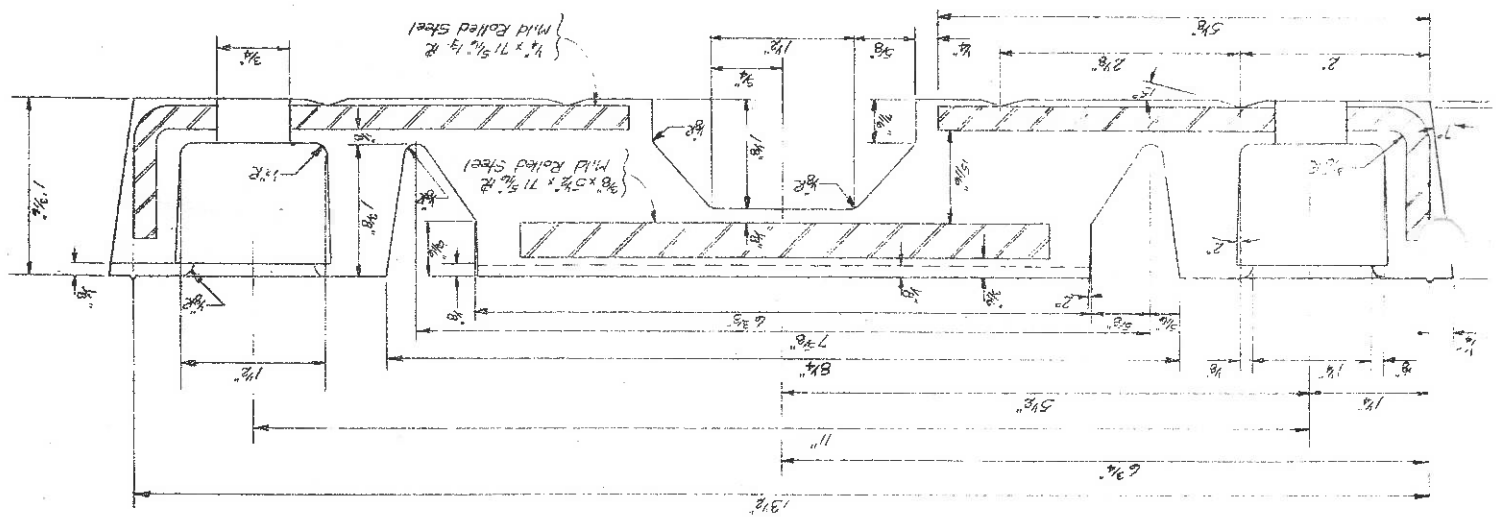
DETAIL "A"



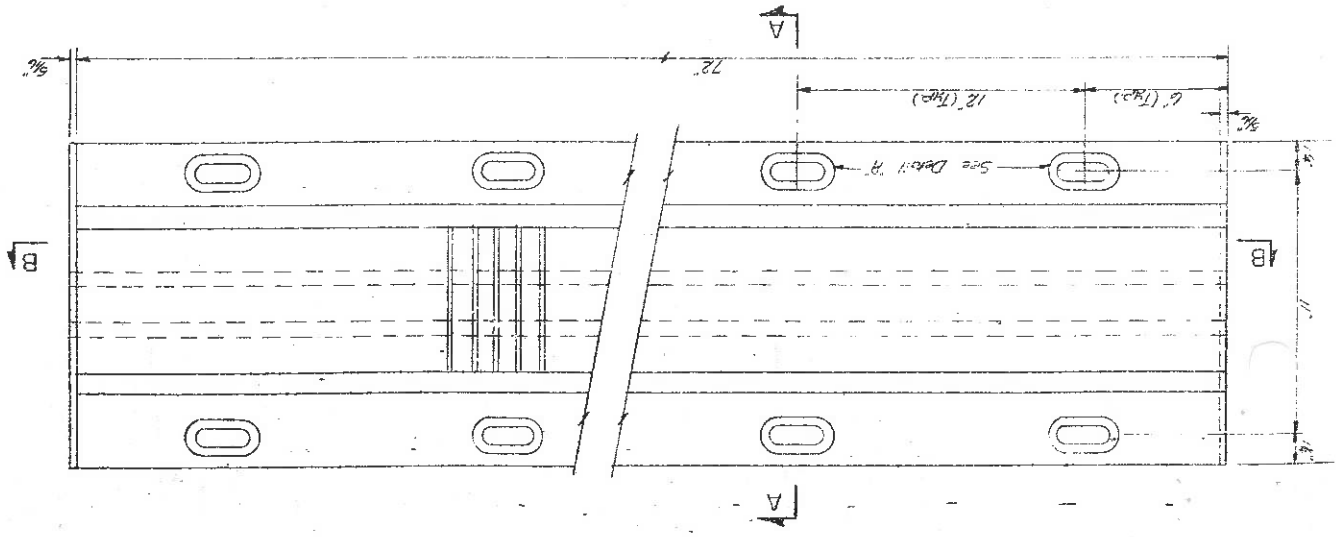
SECTION B-B



SECTION A-A



PLAN



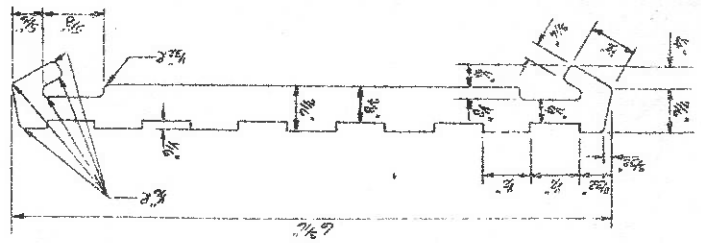
TYPE 250B

APPROVED

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

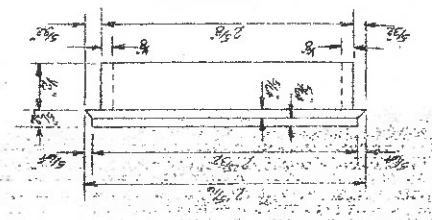
ALTERNATE TYPES OF ELASTOMERIC EXPANSION JOINTS, ITEM 15653.24

DETAIL OF ALUMINUM PLATE

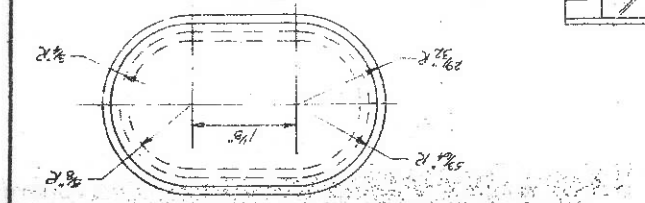


DETAIL OF CAP PLUG

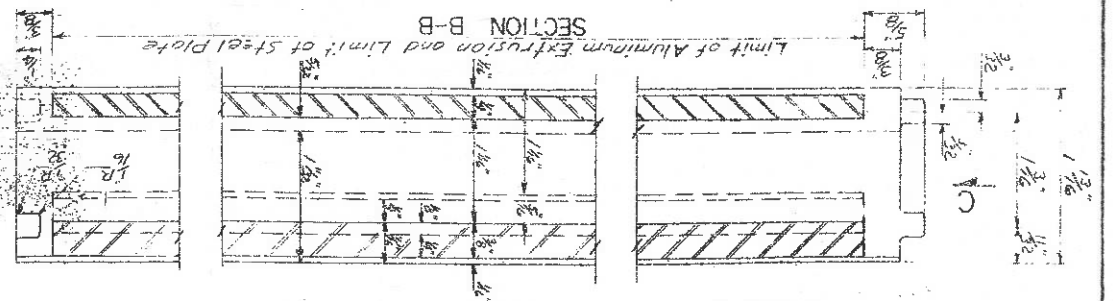
ELEVATION



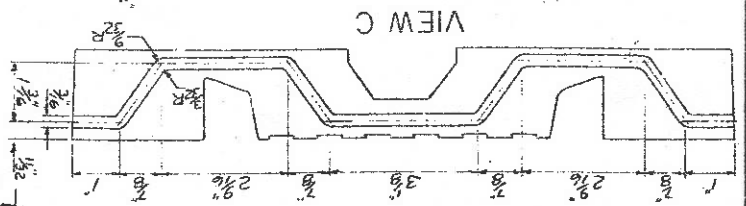
PLAN



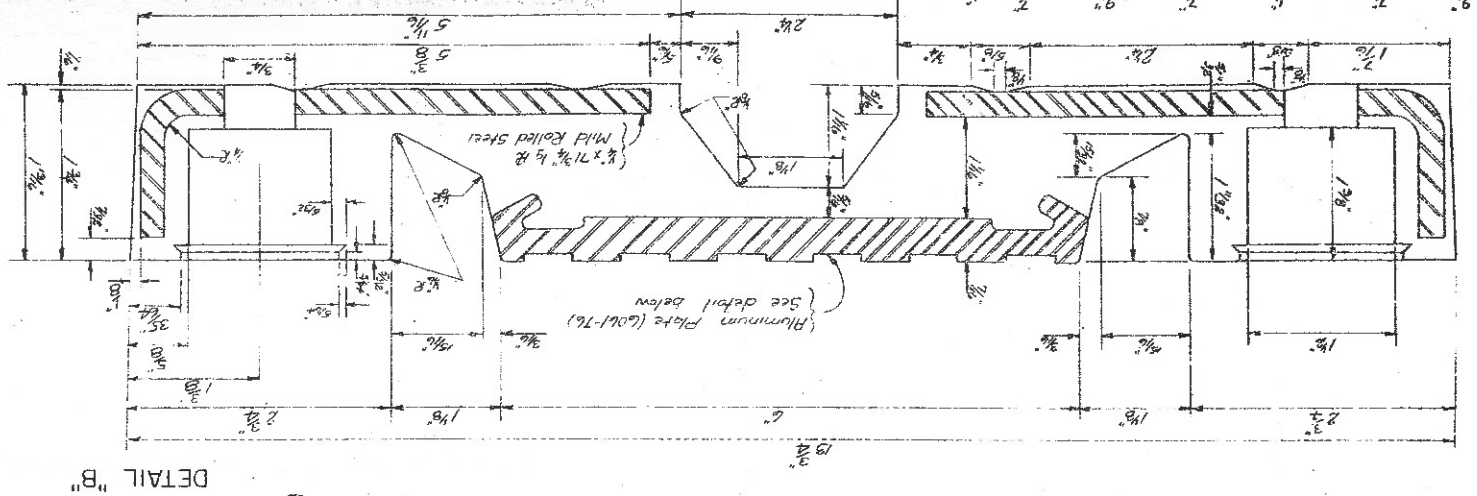
SECTION B-B



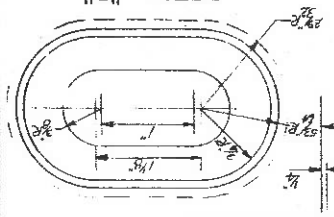
VIEW C



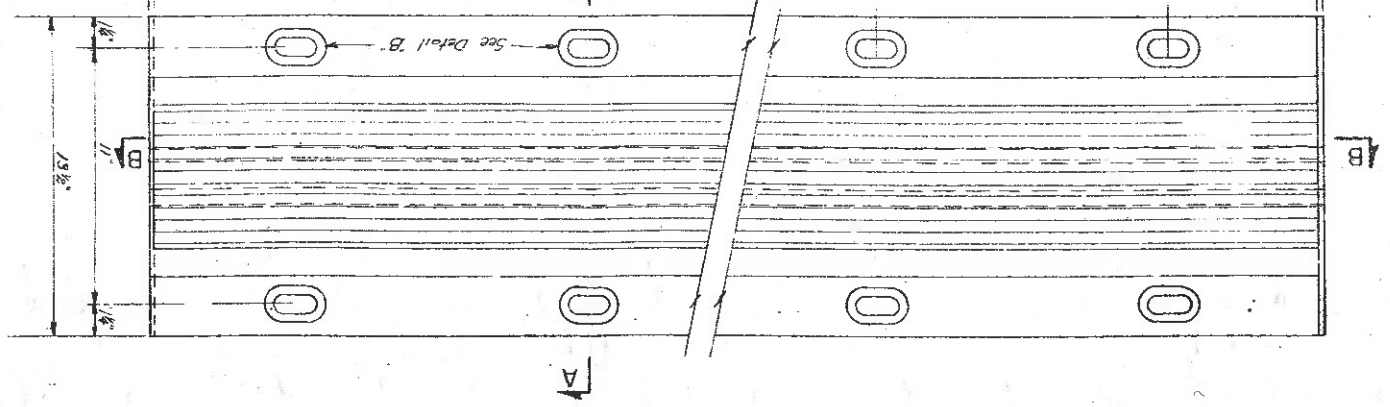
SECTION A-A

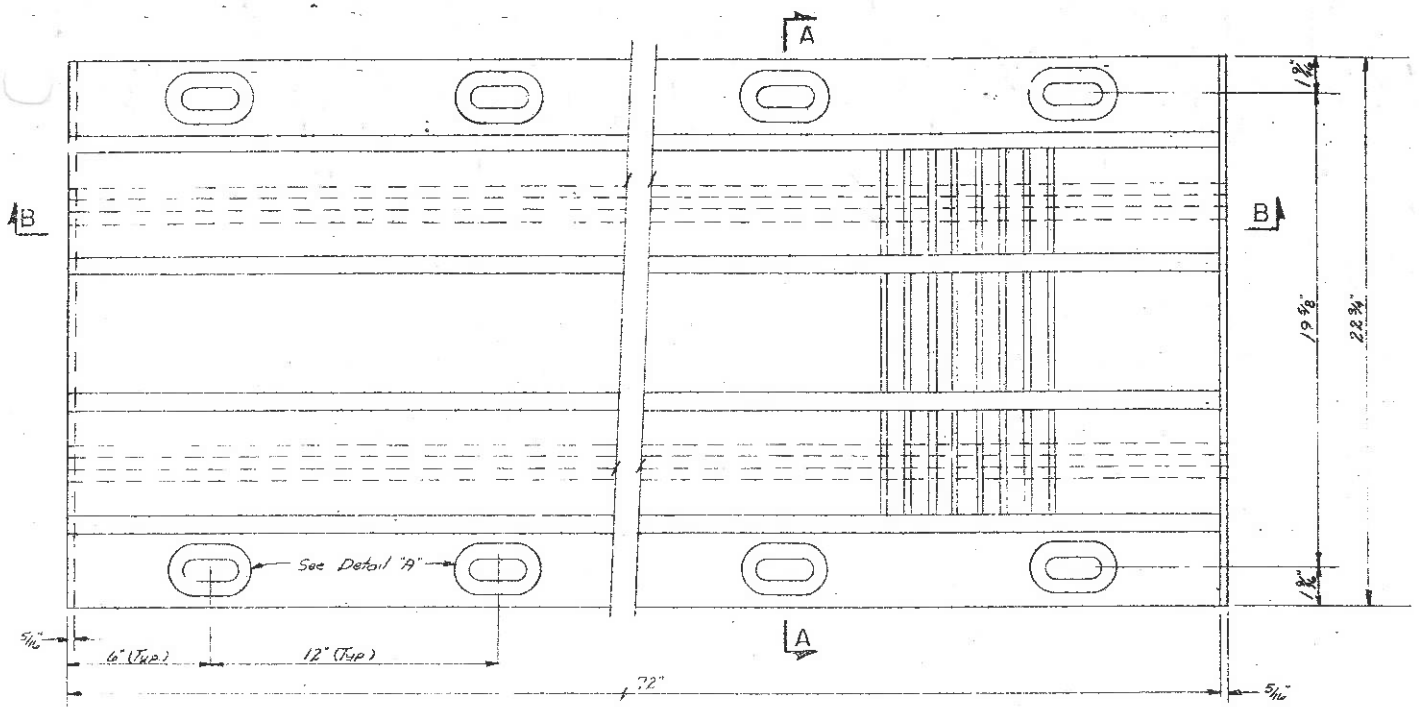


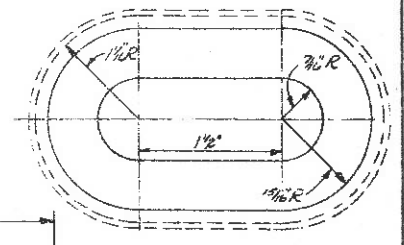
DETAIL "B"

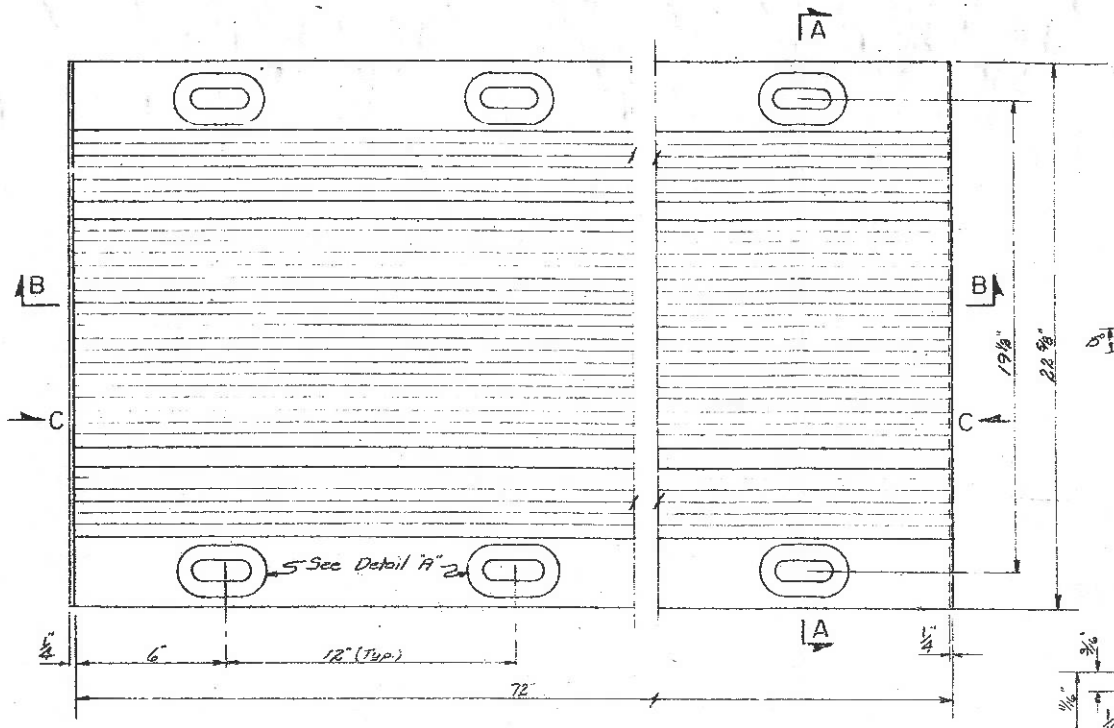


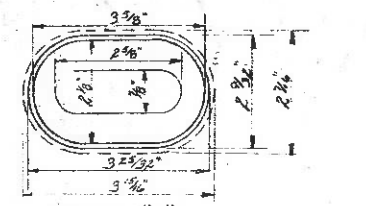
PLAN

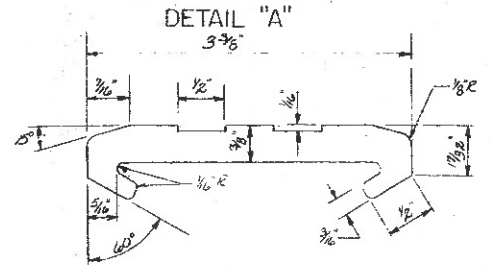


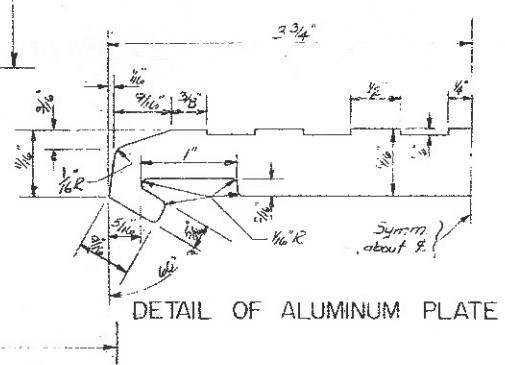


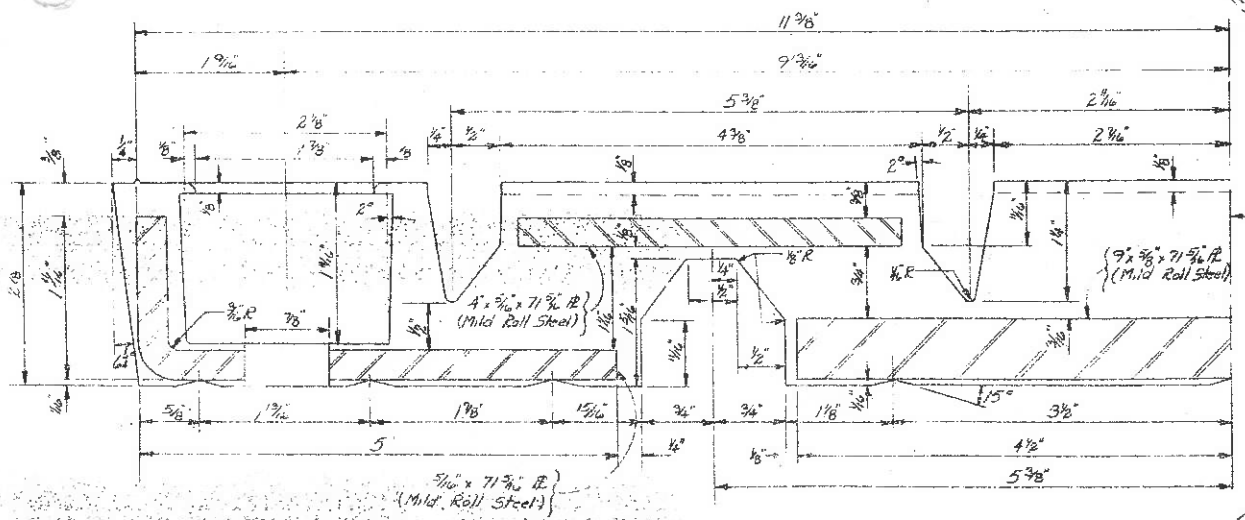












TYPE 400A

APPROVED
10/3/75
Deputy Chief Engineer (Structures)

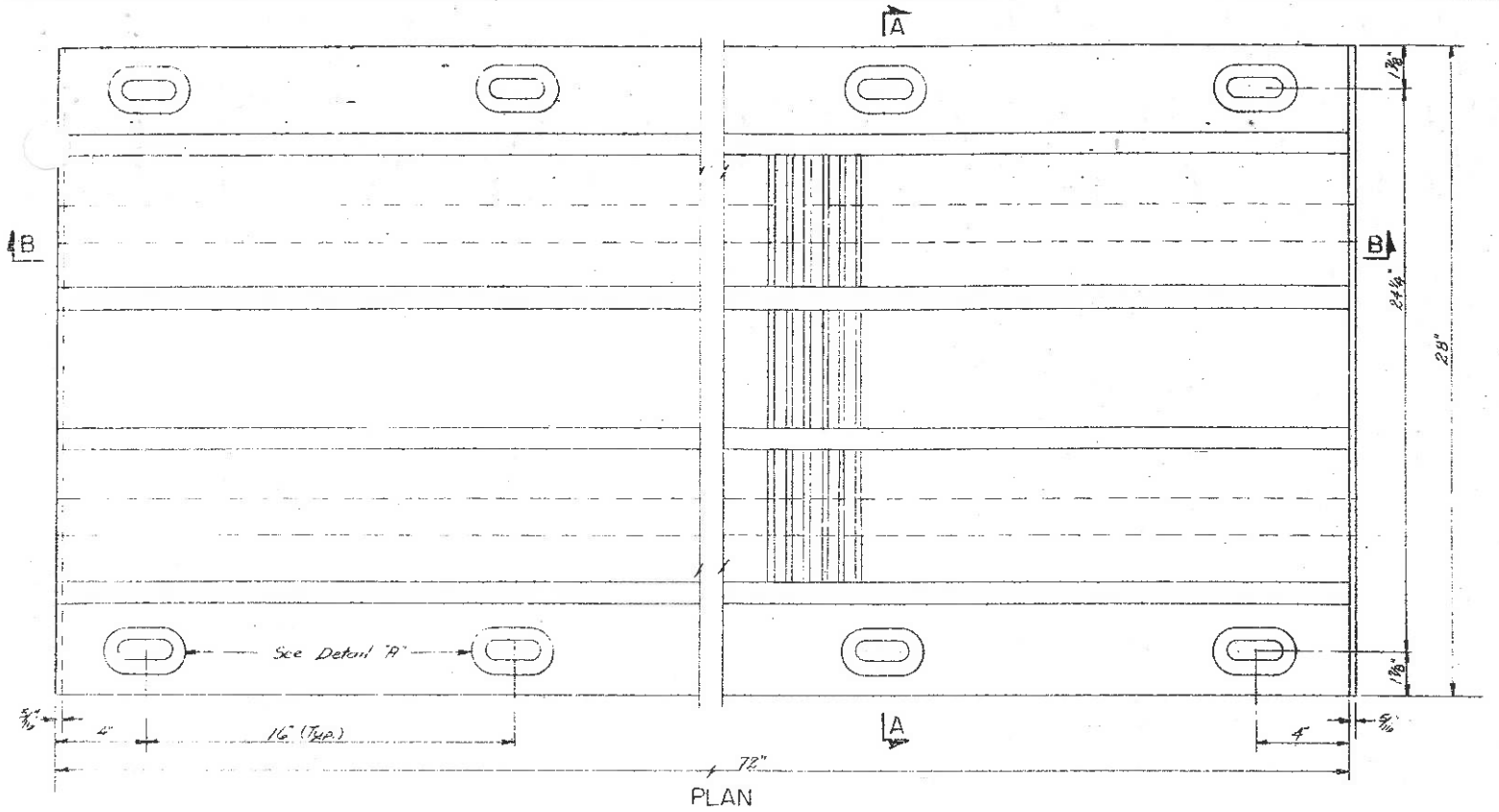
TYPE 400B

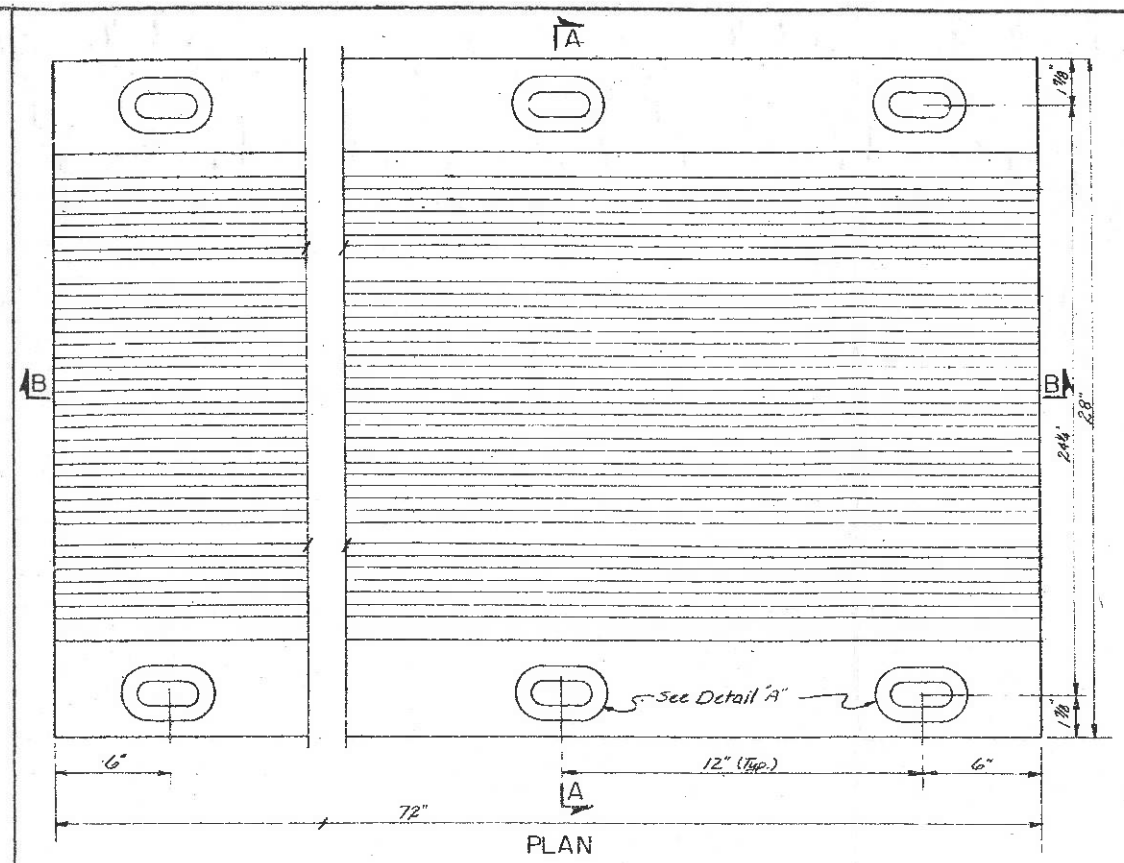
STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

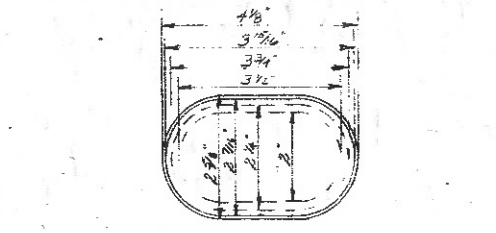
ALTERNATE TYPES OF ELASTOMERIC
EXPANSION JOINTS, ITEM 15653.27

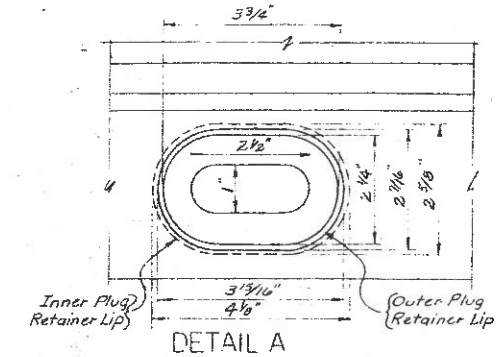
TAILED BY Vince Kozgway 4/75
TAIL CHECKED BY J. K. Gilday 9/75

REVISED 9/75

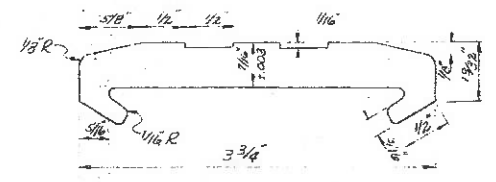


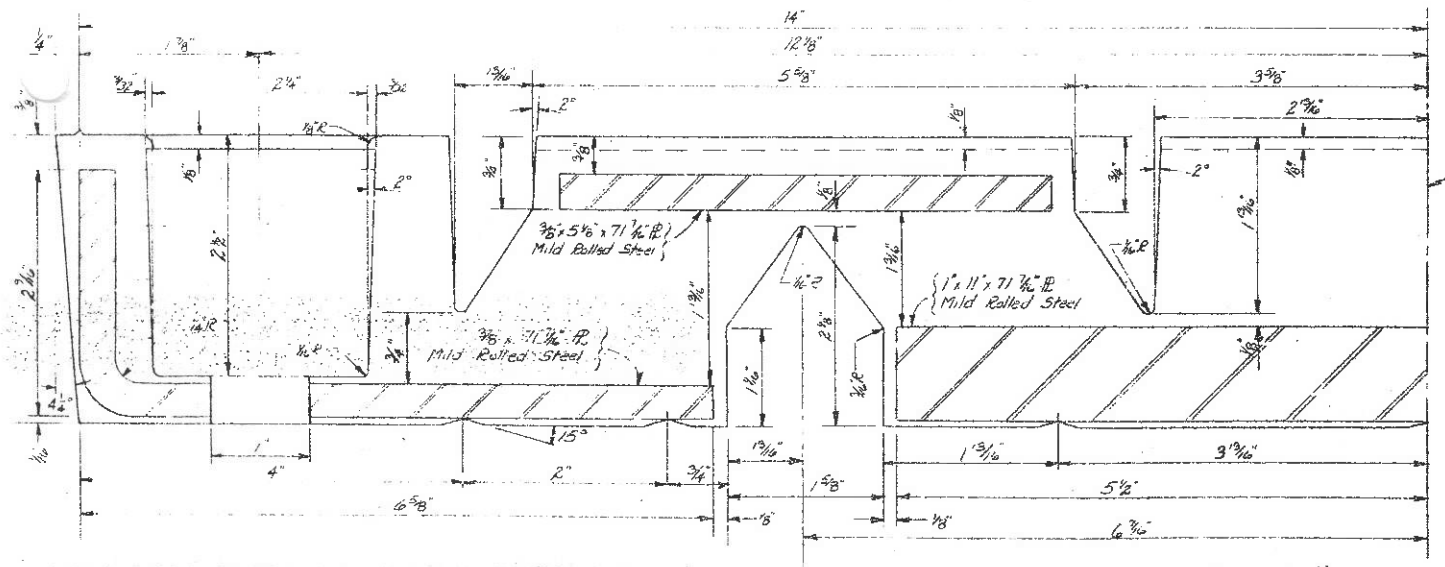



CAP PLUG DETAIL

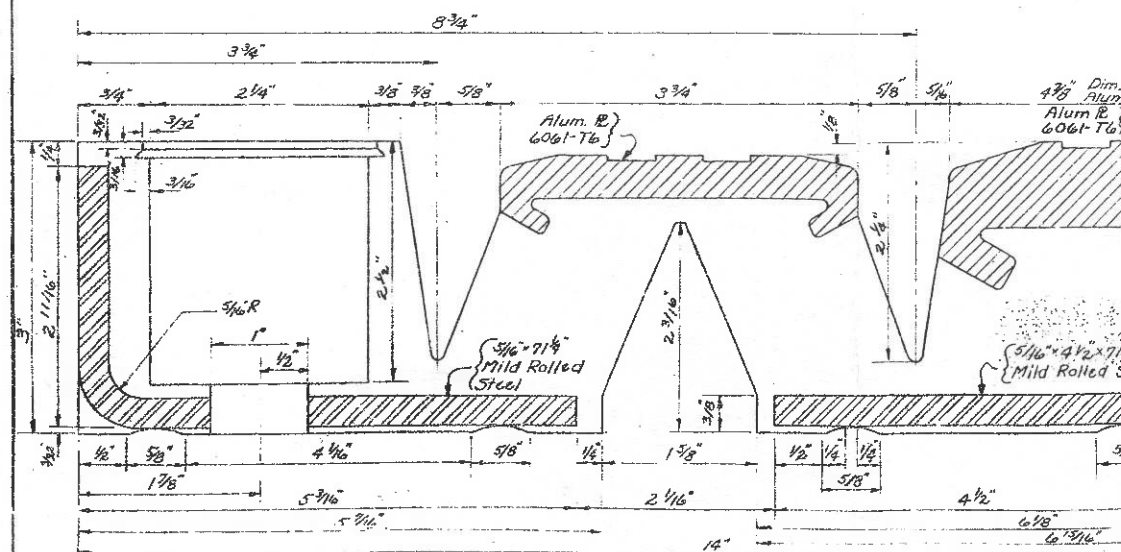


DETAIL A

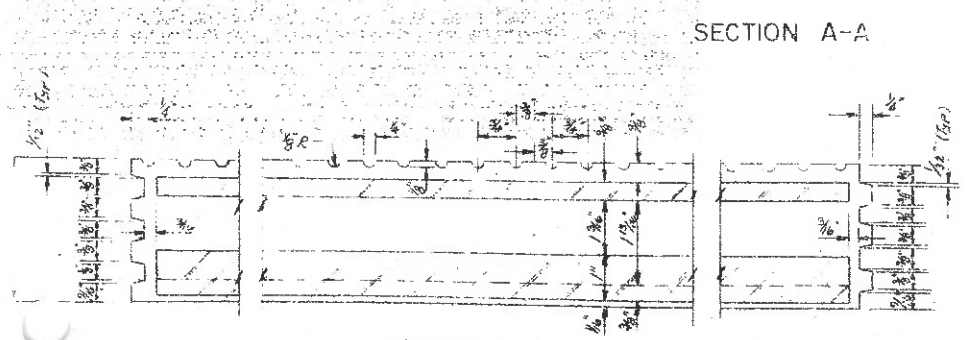

DETAIL OF ALUMINUM PLATE

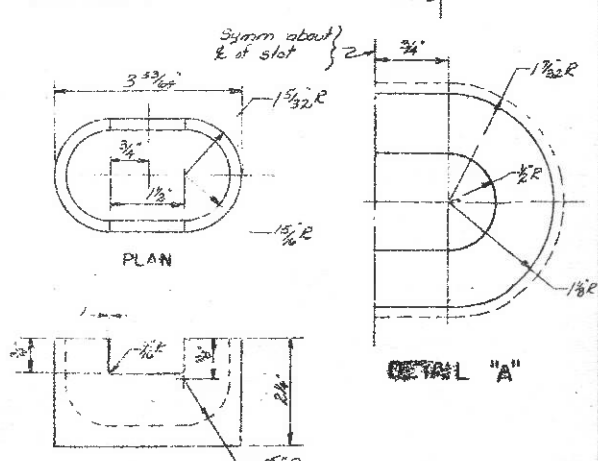


SECTION A-A



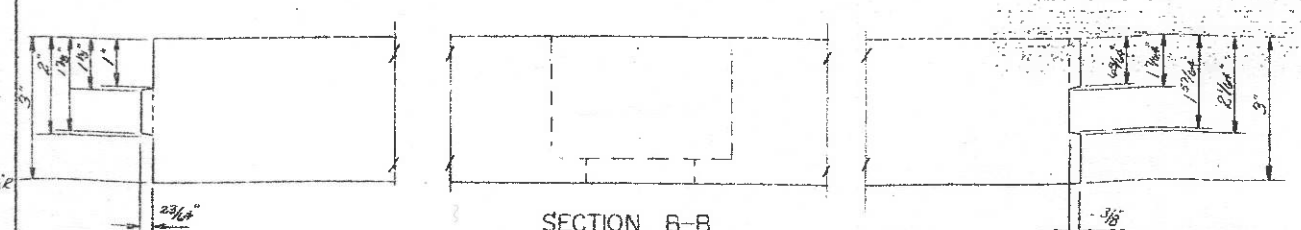
SECTION A-A

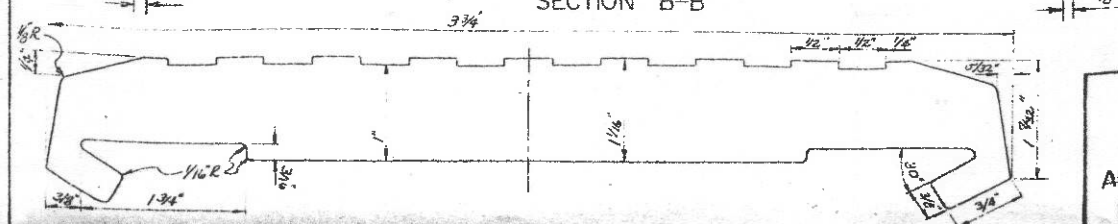

SECTION B-B



DETAIL OF CAP PLUG

DETAIL "A"


SECTION B-B


DETAIL OF ALUMINUM PLATE

APPROVED
10/3/75
G. V. Hannigan
Deputy Chief Engineer (Structures)

TYPE 650B

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

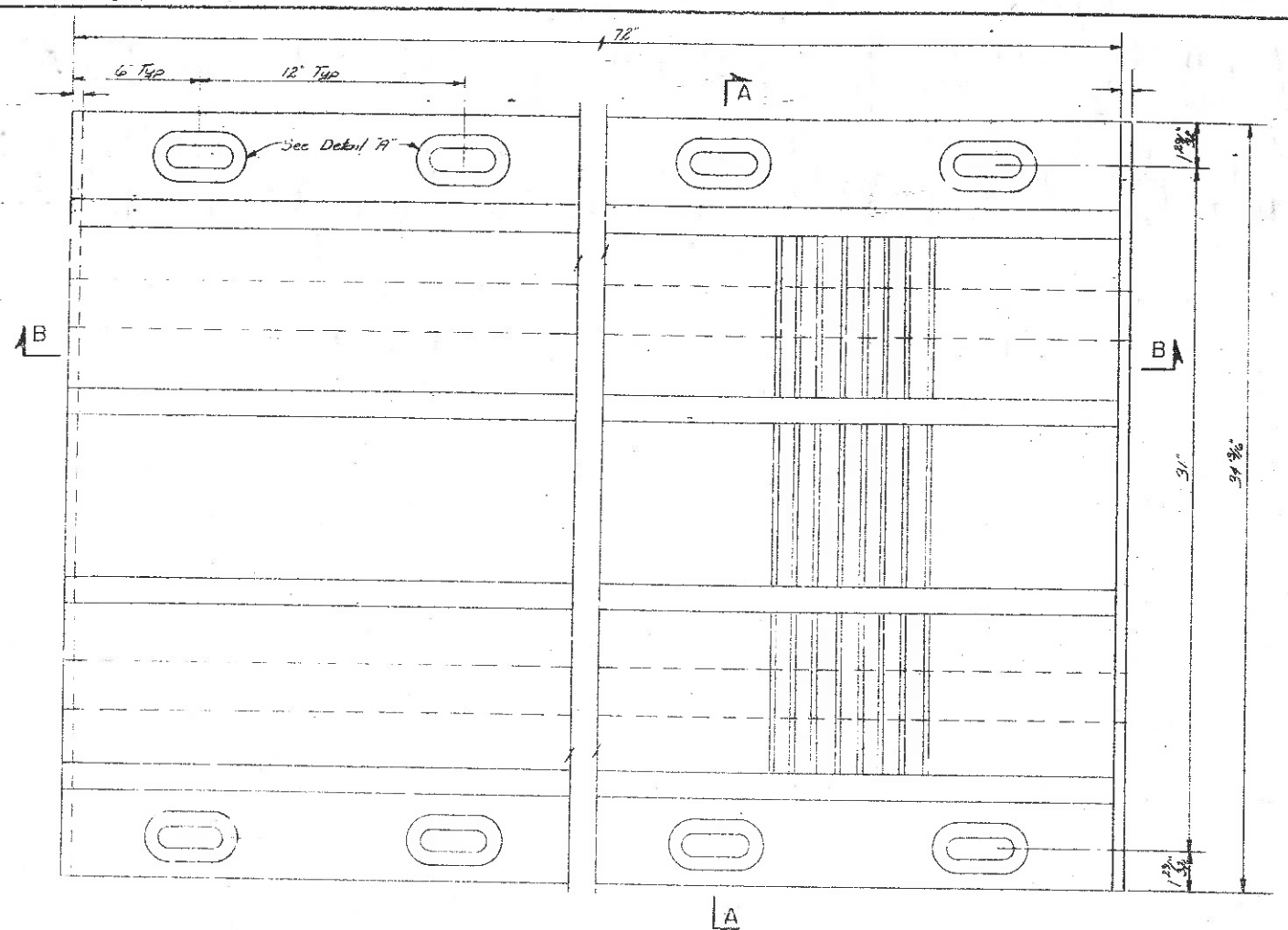
ALTERNATE TYPES OF ELASTOMERIC EXPANSION JOINTS, ITEM 15653 32

DRAWING NO. OF

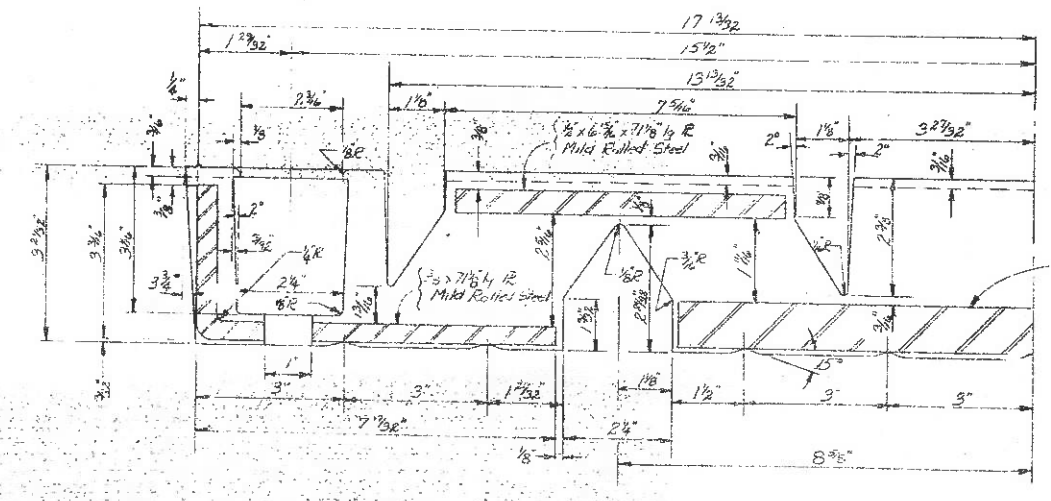
DETAILED BY Vince Kalogeropoulos
DETAIL CHECKED BY G. V. Hannigan 9/25

TYPE 650A

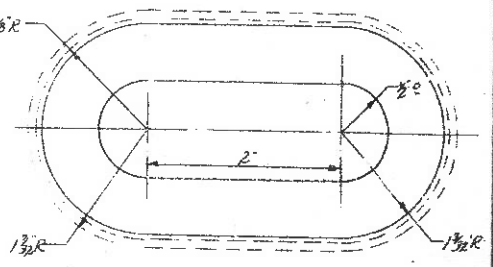
BDD 75-60H



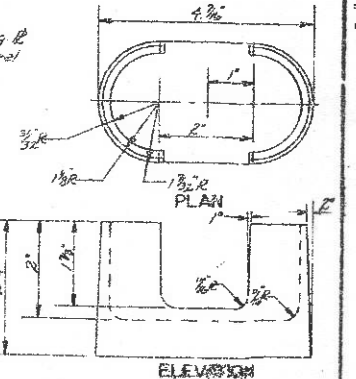
PLAN



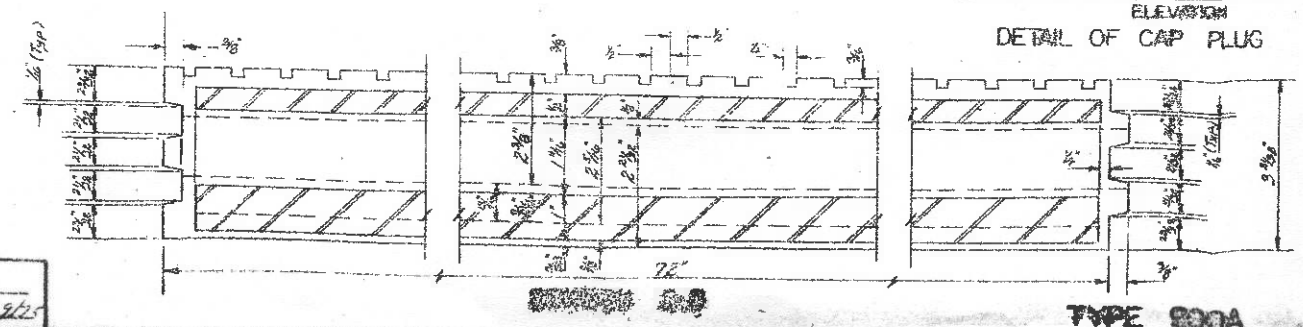
SECTION A-A



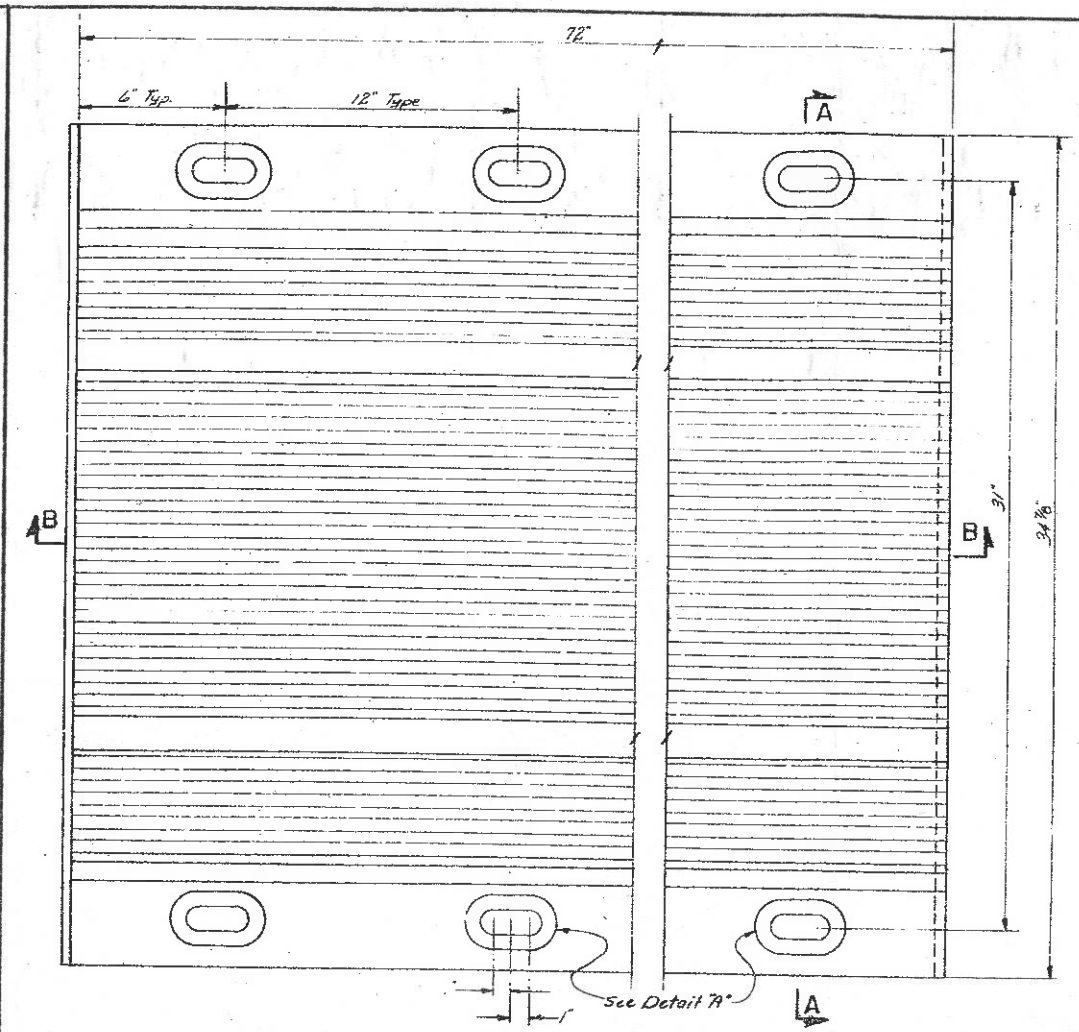
DETAIL "A"



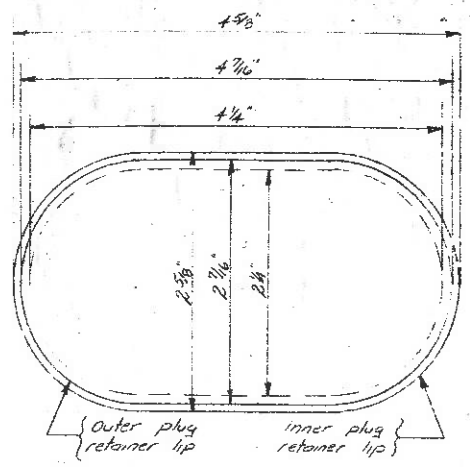
DETAIL OF CAP PLUG



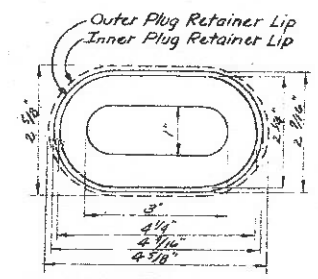
TYPE 900A



PLAN



DETAIL OF CAP PLUG



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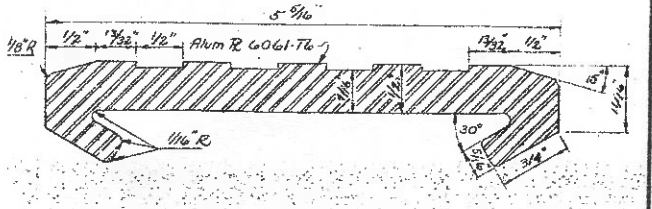
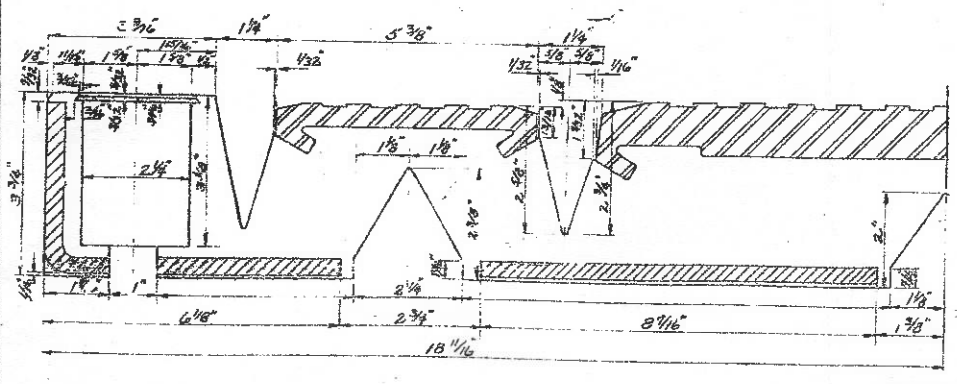
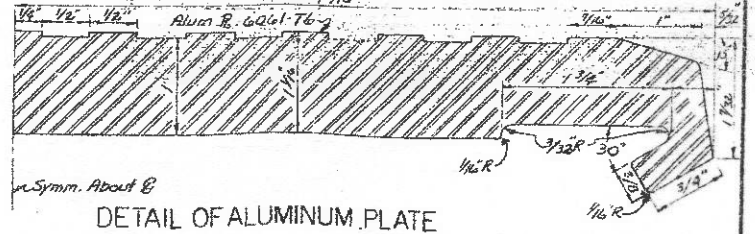


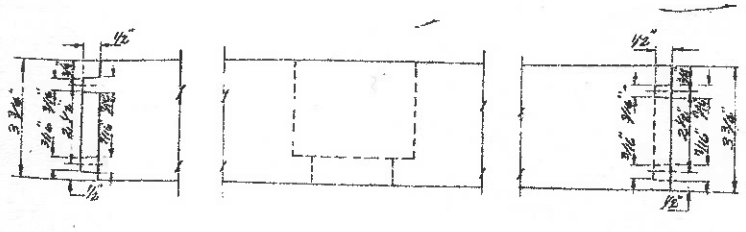
DETAIL OF ALUMINUM PLATE



SECTION A-A



DETAIL OF ALUMINUM PLATE



SECTION B-B

TYPE 900B

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

APPROVED
10/3/25
E. W. Hourigan

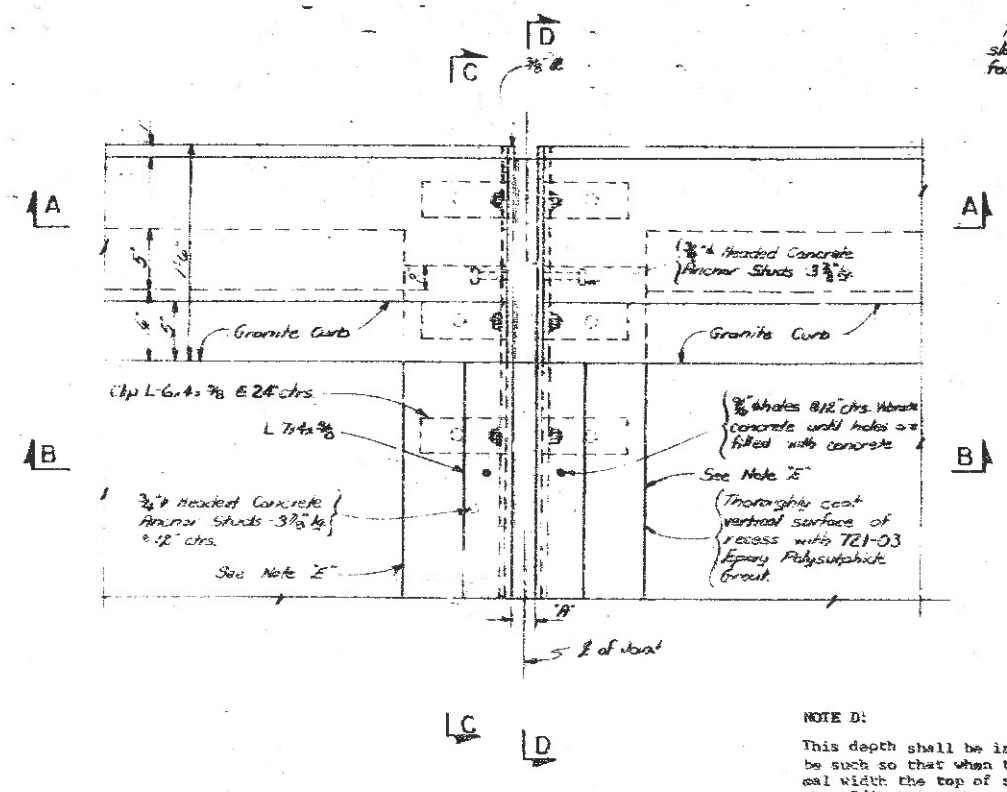
ALTERNATE TYPES OF ELASTOMERIC EXPANSION JOINTS, ITEM 15653.37

DETAILED BY Vince Karagiannis
DETAIL CHECKED BY C. E. Kilday 9/25

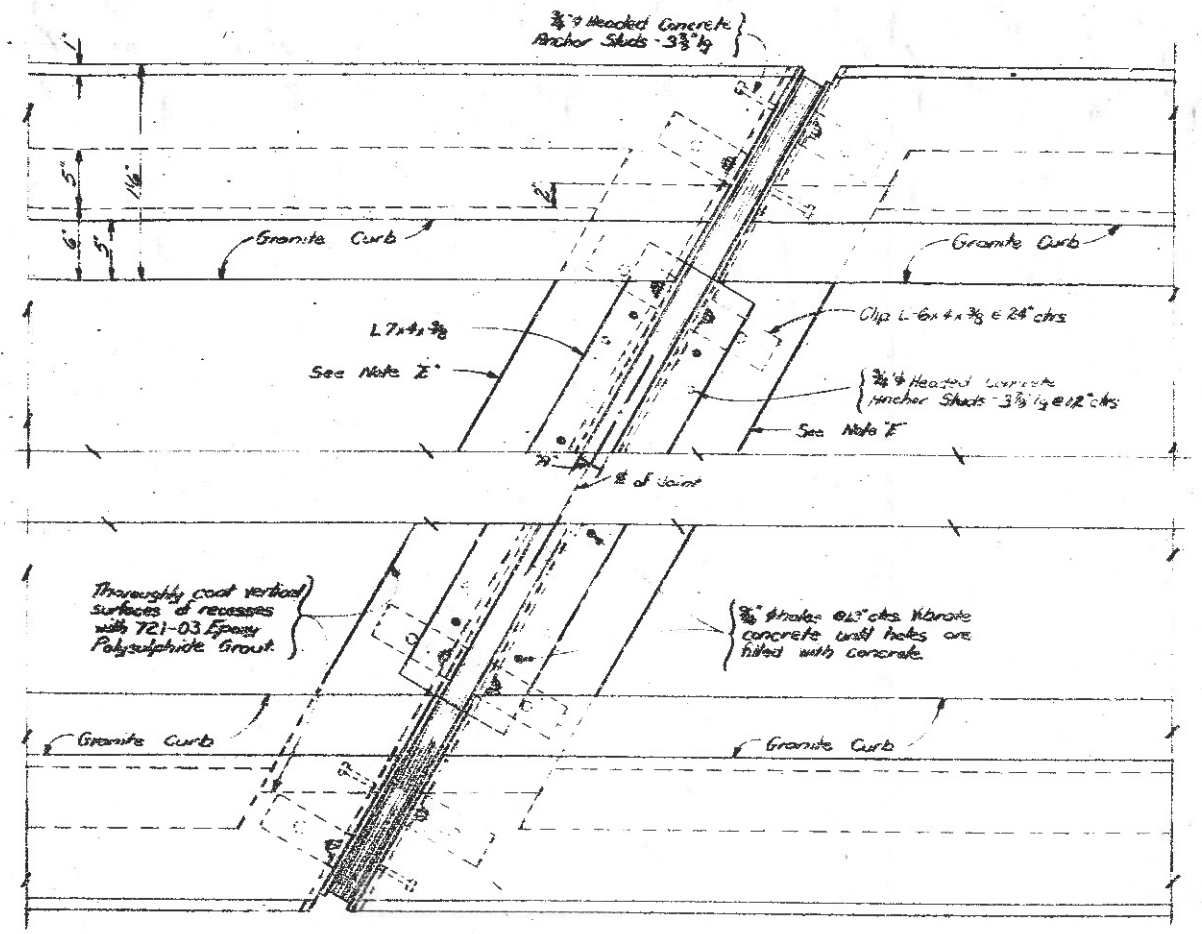
BDD 75-60H

BDD 75-61

The main reinforcement in the structural slab and the usual reinforcement in the fascia and curb are not shown on these plans.



PLAN 0° SKEW

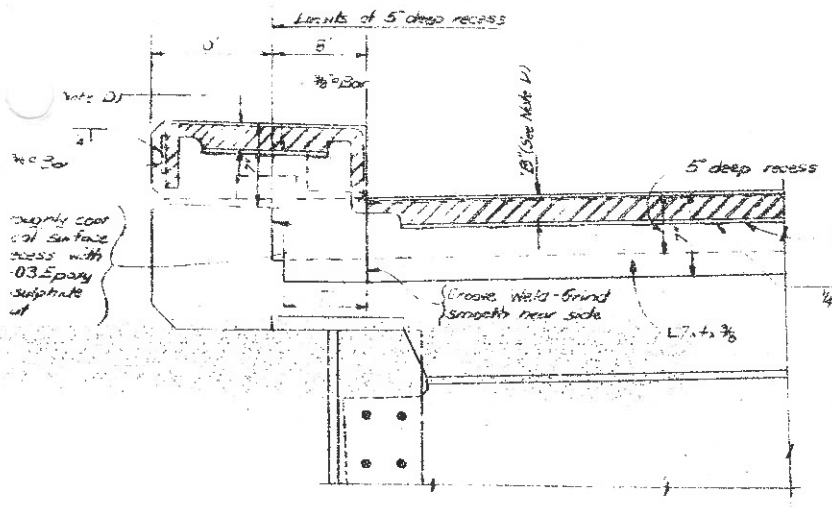


NOTE D:

This depth shall be indicated on the shop drawings and shall be such so that when the seal is compressed to 50% of its normal width the top of seal shall be not less than 1/4" nor more than 3/4" below the top of roadway.

NOTE E:

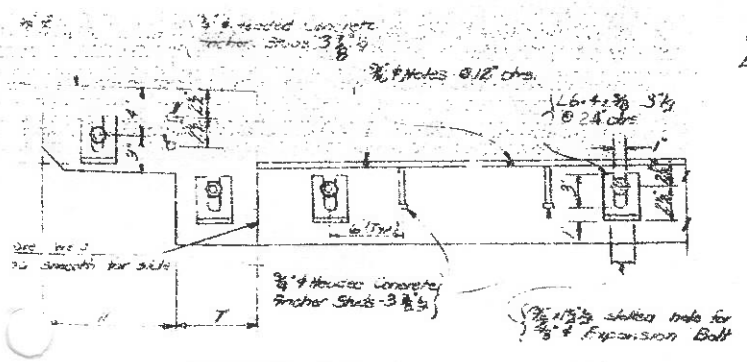
Surfaces of concrete recesses provided for installing [illegible] joints shall comply with the specifications for Class A Concrete for Structures (Monolithic Bridge Slab) except that machine finishing will not be required. No additional payment will be made for furnishing and placing this concrete as this quantity lies within the limits of the area to be paid for under the Class A Concrete for Structures (Monolithic Bridge Slab).



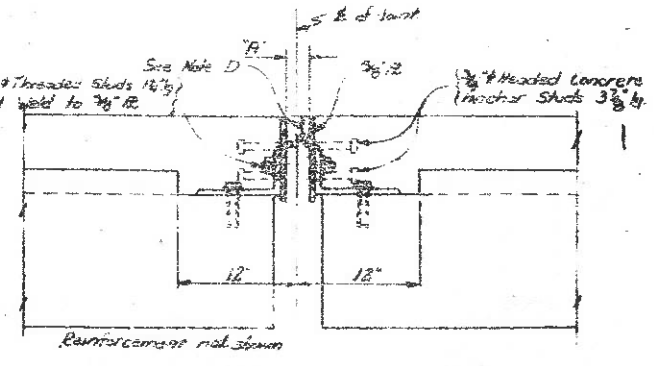
SECTION D-D

SEALS			SEALED ARMORED JOINT	
TYPE	NOMINAL WIDTH	DIM. "A" @ 68°F	TYPE	END CONDITION
1	1⅜"	1"	A1	Fixed End Only
2	2"	1⅜"	A2	Exp. up to 60'-0"
3	2½"	1⅝"	A3	Exp. Over 60'-0" to 75'-0"
4	3"	1⅞"	A4	Exp. Over 75'-0" to 90'-0"
5	3½"	2⅛"	A5	Exp. Over 90'-0" to 105'-0"
6	4"	2⅜"	A6	Exp. Over 105'-0" to 136'-0"

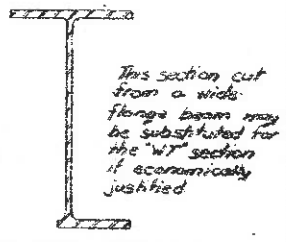
Maximum skew limits:
Fixed End - No limit
Expansion End - 30°



SECTION C-C
STEEL ONLY SHOWN

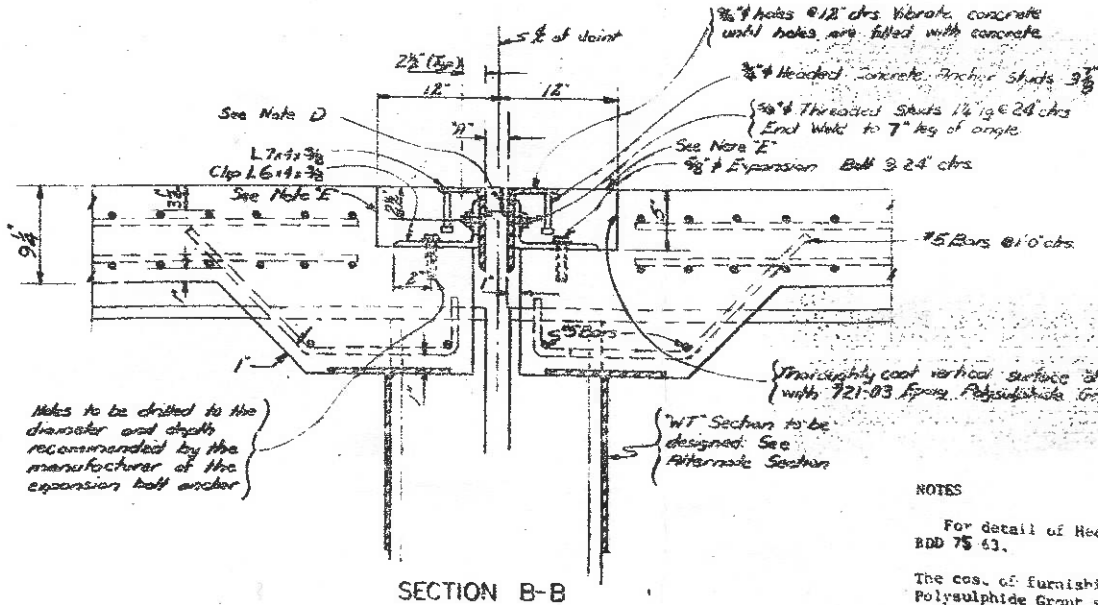


SECTION A-A



ALTERNATE SECTION

PLAN 30° MAX. SKEW



SECTION B-B

NOTES

For detail of Headed Concrete Anchor Stud, see BDD 75 61.

The cost of furnishing and placing the Epoxy Polysulphide Grout shall be included in the unit price bid for class A Concrete for Structures, (Monolithic Bridge Slabs)

The following note shall be placed on the contract drawing showing the details of this joint:

It is desirable to have the armored joint with its preformed elastic joint sealer assembled in the shop and delivered to the job site all set for installation in its preformed recess in the structural slab. In cases where the armored joint cannot be assembled in the shop, due to its excessive length causing shipping problems, the joint shall be sealed with the preformed elastic joint sealer before the structure is opened to traffic, including construction traffic, and before discontinuing operations when work is suspended during the winter.

APPROVED
[illegible]

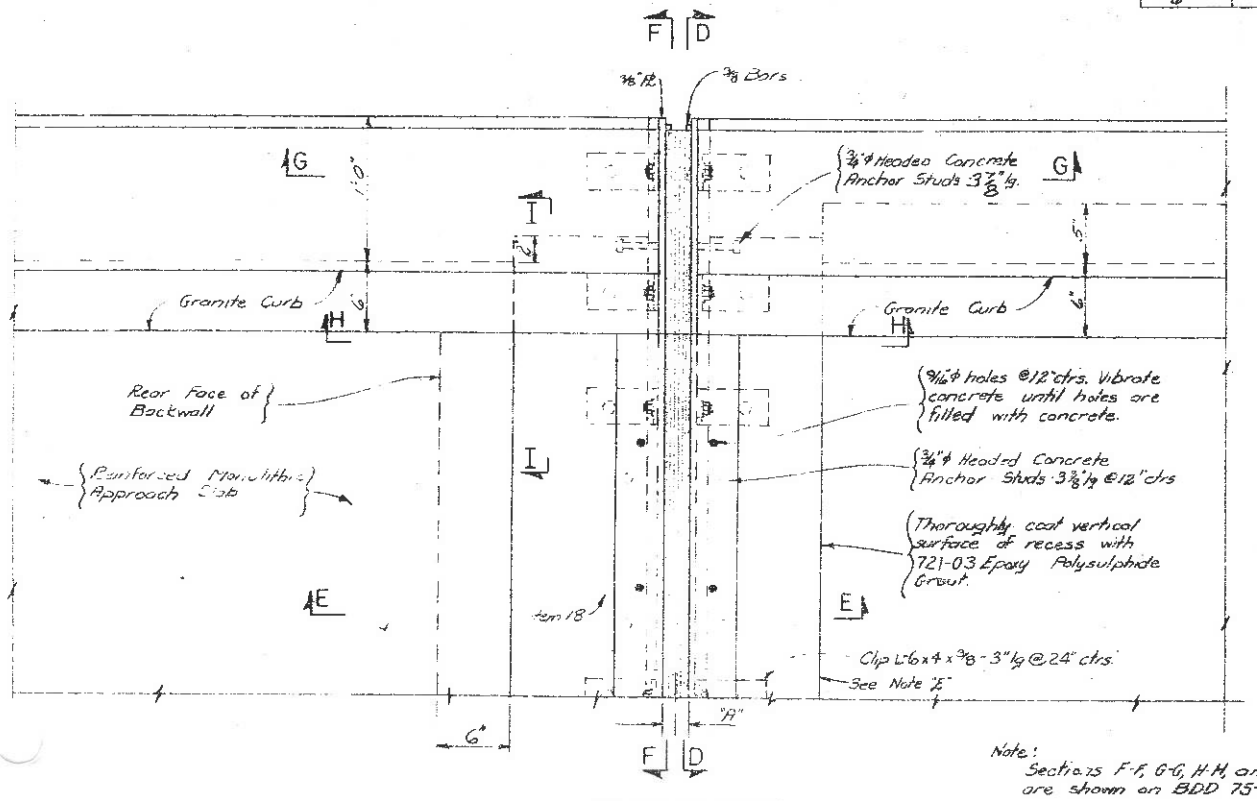
STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

DETAILS OF SEALED ARMORED JOINT
TYPE A AT PIER

DETAILED BY Vince Kavanaugh
CHECKED BY [illegible]
Revised 9/75

SEALS			SEALED ARMORED JOINT	
TYPE	NOMINAL WIDTH	DIM. "A" @ 68°F	TYPE	END CONDITION
1	1 3/4"	1"	A1	Fixed End Only
2	2"	1 1/16"	A2	Exp. up to 60'-0"
3	2 1/2"	1 7/8"	A3	Exp. Over 60'-0" to 75'-0"
4	3"	1 3/16"	A4	Exp. Over 75'-0" to 90'-0"
5	3 1/2"	2 1/16"	A5	Exp. Over 90'-0" to 105'-0"
6	4"	2 3/16"	A6	Exp. Over 105'-0" to 136'-0"

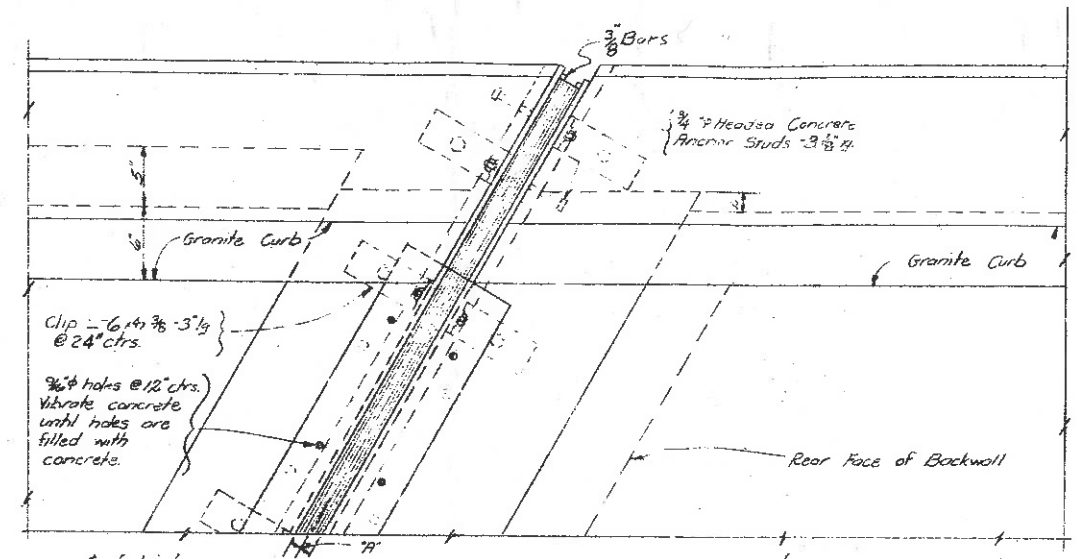
Maximum skew limits:
Fixed End - No limit
Expansion End - 30°

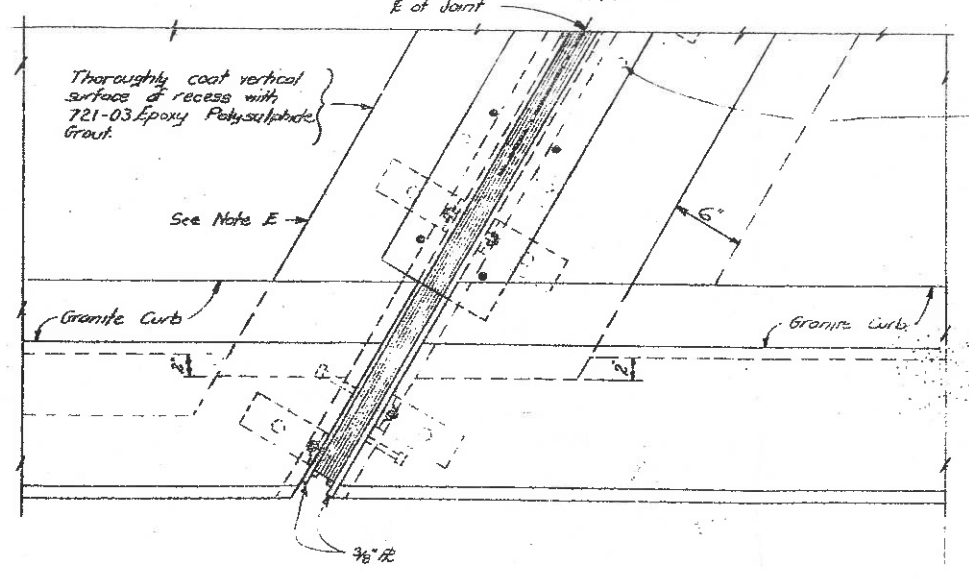


PLAN 0° SKEW

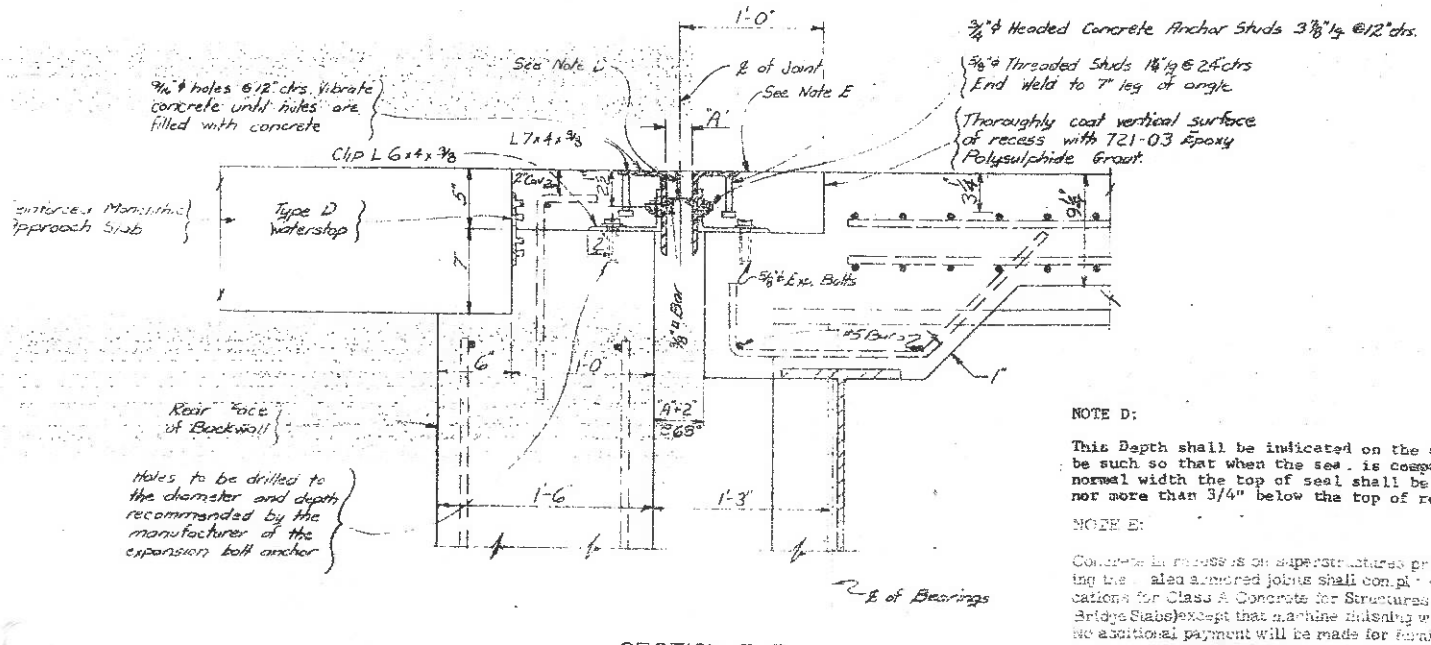
Note:
Sections F-F, G-G, H-H, and I-I are shown on BDD 75-63.

Section D-D is shown on BDD 75-61





PLAN 30° MAX. SKEW



SECTION E-E

NOTE D:

This Depth shall be indicated on the shop drawings and shall be such so that when the seal is compressed to 50% of its normal width the top of seal shall be not less than 1/4" nor more than 3/4" below the top of roadway.

NOTE E:

Concrete in recesses in superstructures provided for installing the sealed armored joints shall comply with the specifications for Class A Concrete for Structures (Monolithic Bridge Slabs) except that machine finishing will not be required. No additional payment will be made for furnishing and placing this concrete as this quantity lies within the limits of the area to be paid for under the Item Class A Concrete for Structures (Monolithic Bridge Slab).

NOTES

For detail of Headed Concrete Anchor Stud, see BDD 75-63.

The cost of furnishing and placing the Epoxy Polysulphide Grout shall be included in the unit price bid for class A Concrete for Structures. (Monolithic Bridge Slabs)

The following note shall be placed on the contract drawing showing the details of this joint:

It is desirable to have the armored joint with its preformed elastic joint sealer assembled in the shop and delivered to the job site all ready for installation in its preformed recess in the structural slab. In cases where the armored joint cannot be assembled in the shop, due to its excessive length causing shipping problems, the joint shall be sealed with the preformed

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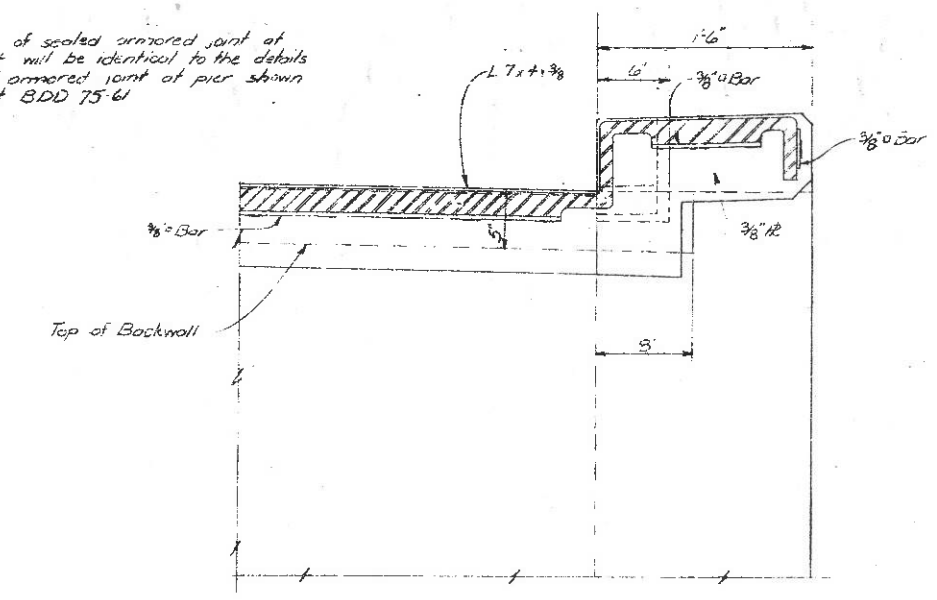
ACTING

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

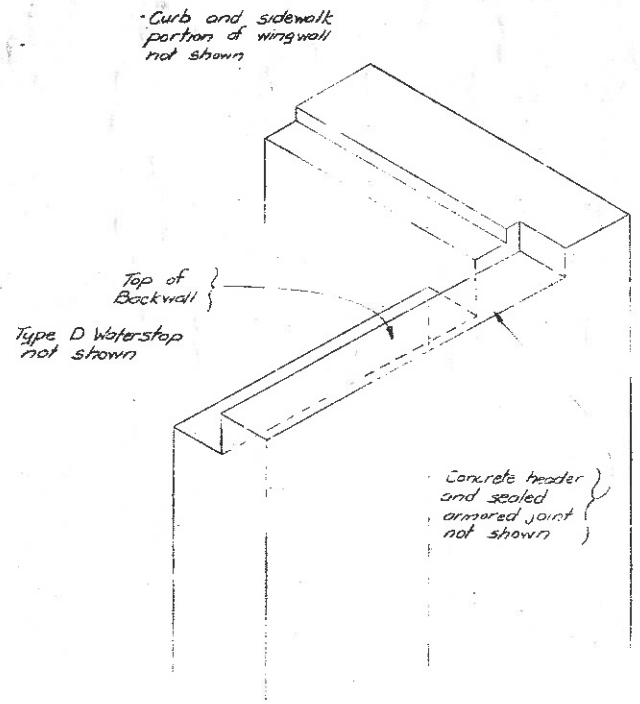
DETAILS OF SEALED ARMORED JOINT
TYPE A AT ABUTMENT

FILED BY Vince Kazanjian

Details of sealed armored joint of abutment will be identical to the details of sealed armored joint of pier shown on sheet BDD 75-61

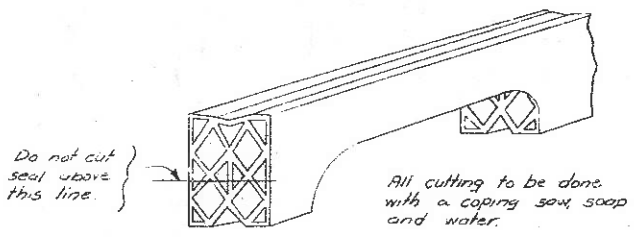


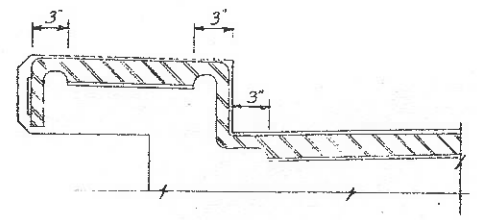
SECTION F-F



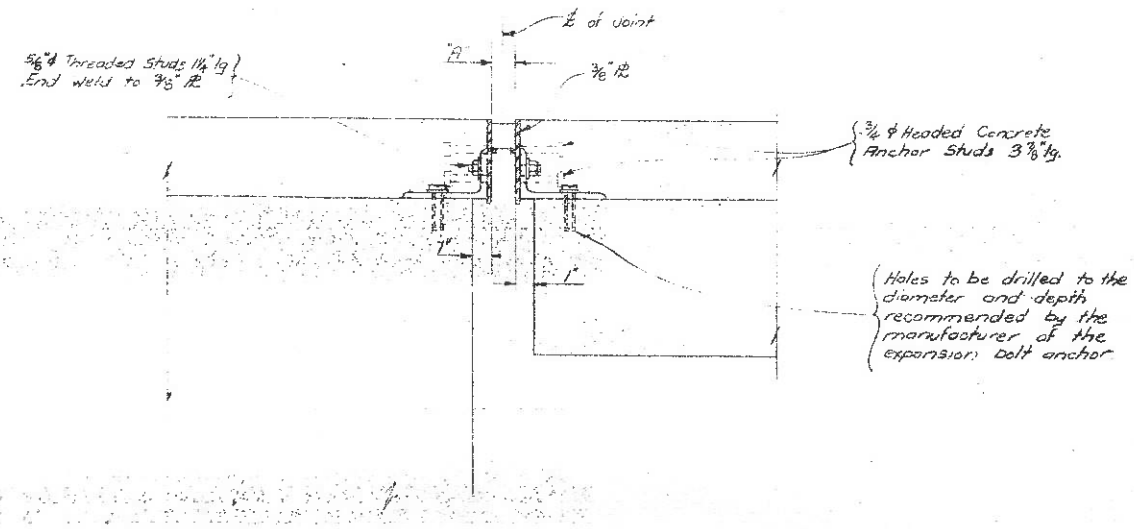
PARTIAL ISOMETRIC OF ABUTMENT

The sealer shall be supplied in one piece for the full length of joint. Splices will not be permitted when the length of this piece is less than 50 feet. For lengths up to 100 feet one shop splice will be permitted. For lengths in excess of 100 feet shop splices may be placed at approximately 50 foot intervals.

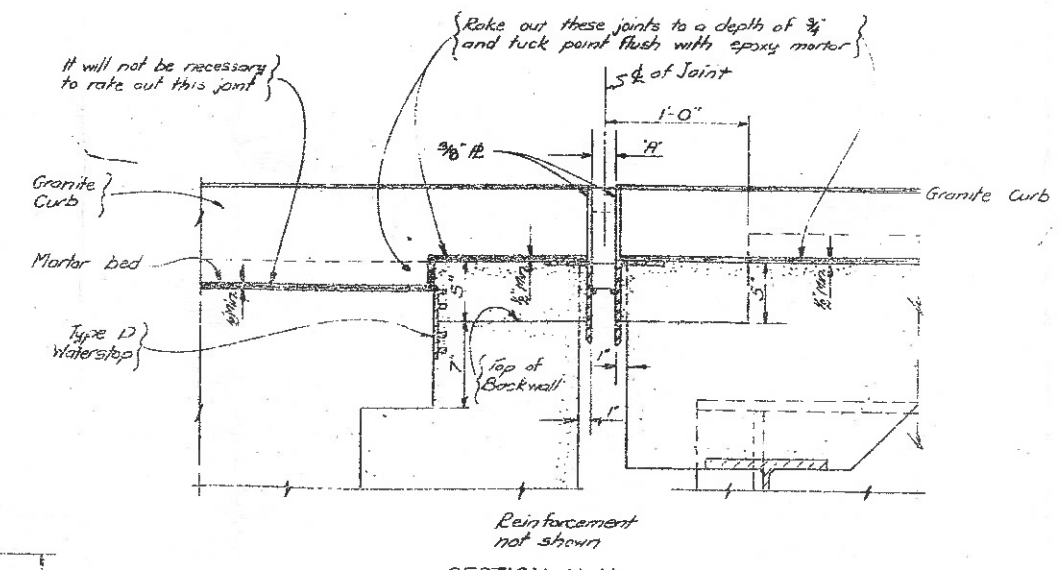




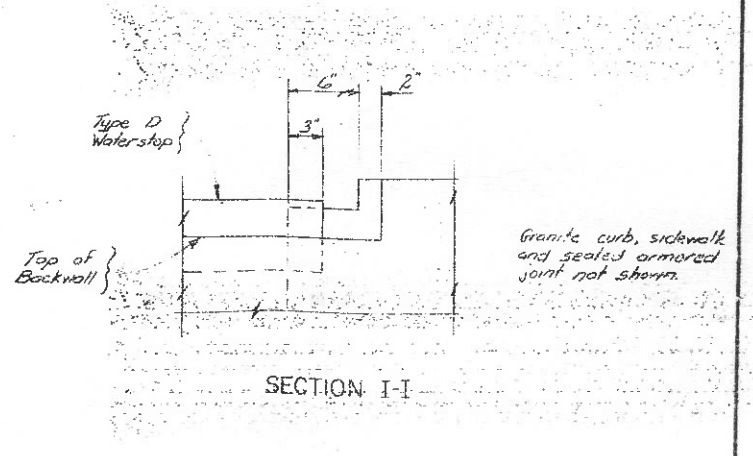
DETAIL FOR CUTTING AND BENDING SEAL



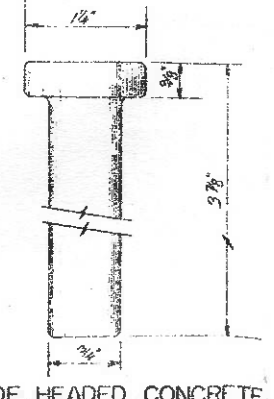
SECTION G-G



SECTION H-H



SECTION I-I



DETAIL OF HEADED CONCRETE ANCHOR STUD

TAILED BY Vince Kazickovich
TAIL CHECKED BY [illegible] 9/75

APPROVED
10/31/75
F. J. Hourigan

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
DIVISION OF CONSTRUCTION

DETAILS OF SEALED ARMORED JOINT TYPE A AT ABUTMENT