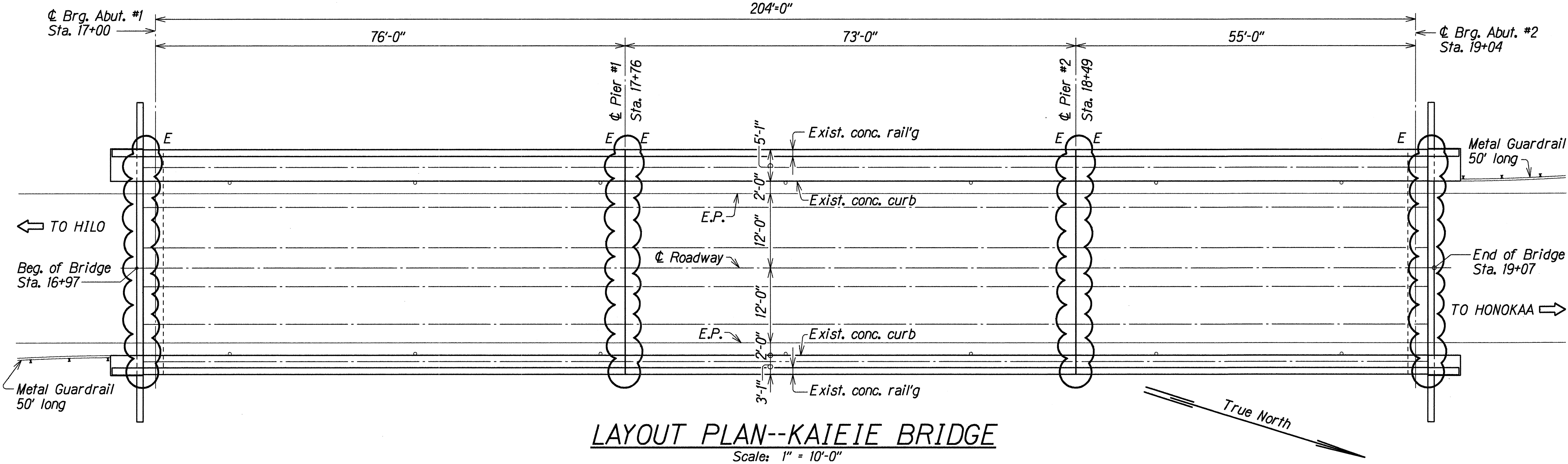
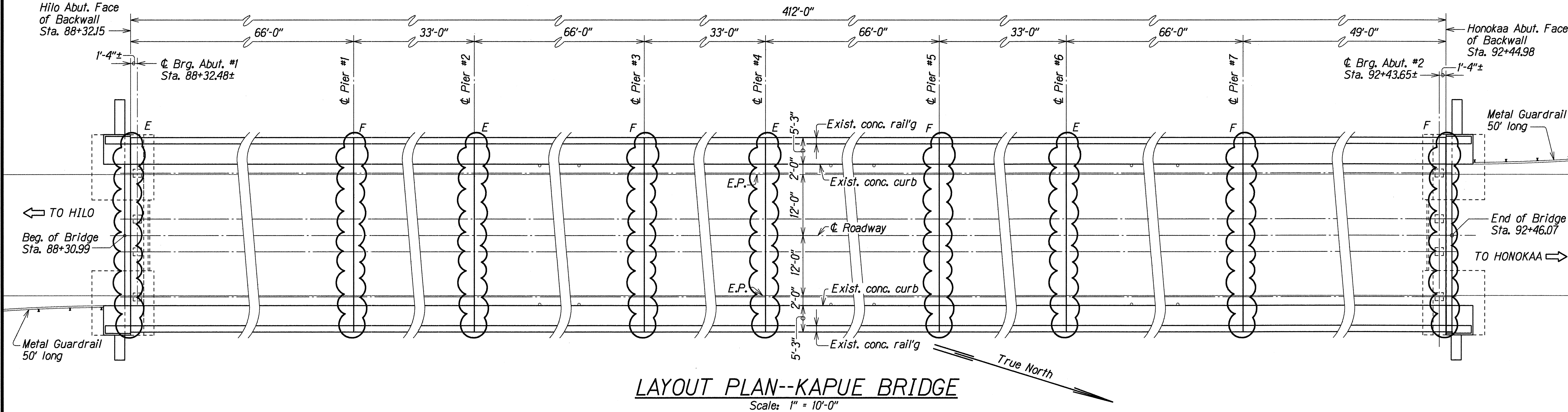


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19HJ-02-95M	1995	5	10



- Key to Symbols
- Replace Expansion Joint Seals
 - Existing 6"ø Pipe Drain Location
 - Expansion Joint
 - Fixed Joint

Note:
Actual spill locations to be determined by the Engineer in the field.

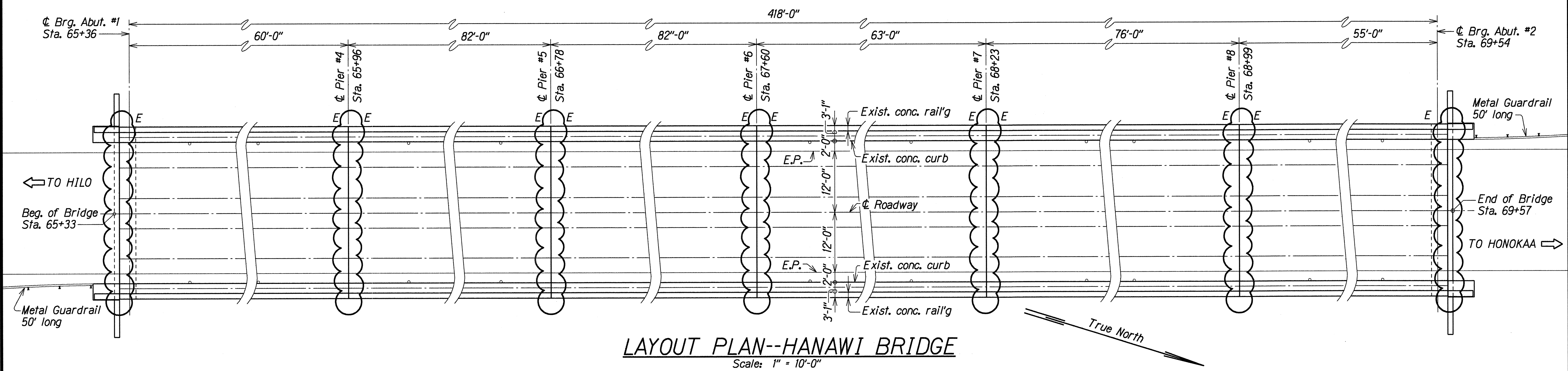
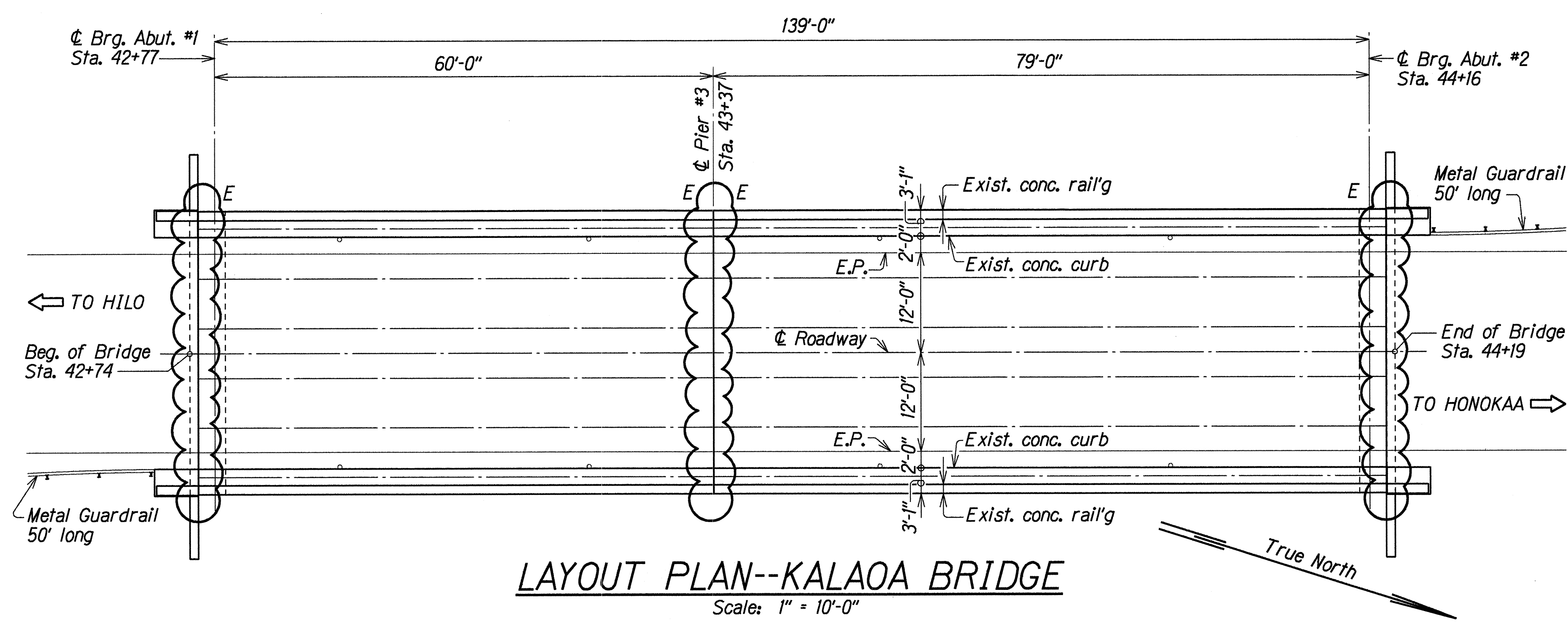
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**REHABILITATION AND BRIDGE
REPAIR DETAILS**

HAWAII BELT ROAD, KAPUE AND KAIEIE BRIDGES
LAYOUT PLAN AND ESTIMATED QUANTITIES
Project No. 19HJ-02-95M

Scale: As Noted Date: Apr., 1995

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19HJ-02-95M	1995	6	10



ORIGINAL PLAN	DATE	APR 1995
DRAWN BY	KSQ	
CHECKED BY	KEY	
NOTED BY	KEY	
QUANTITIES BY	KEY	
DATE	APR 1995	

- Key to Symbols**
- Replace Expansion Joint Seals
 - Existing 6" Pipe Drain Location
 - Expansion Joint
 - Fixed Joint

Note:
Actual spill locations to be determined by the Engineer in the field.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

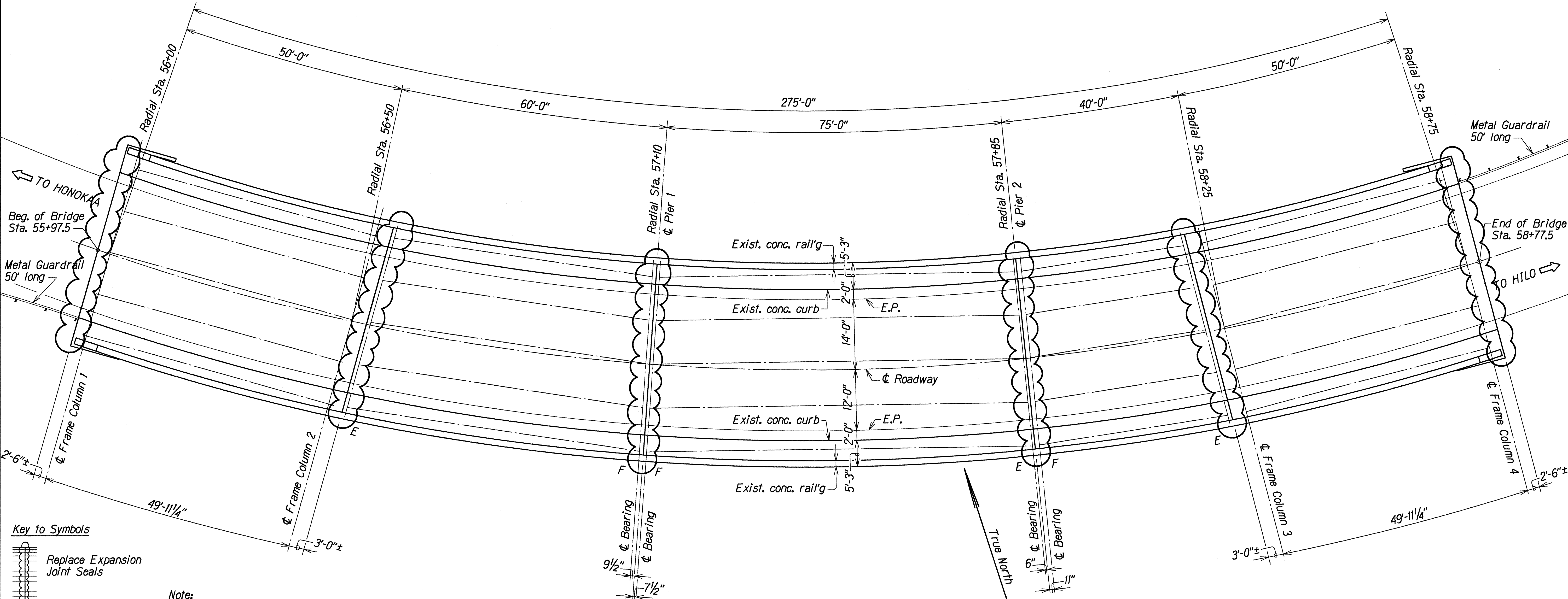
**REHABILITATION AND BRIDGE
REPAIR DETAILS**

HAWAII BELT ROAD, KALAOA AND HANAWI BRIDGES
LAYOUT PLAN
Project No. 19HJ-02-95M

Scale: As Noted Date: Apr, 1995

SHEET No. Q2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19HJ-02-95M	1995	7	10



Key to Symbols

- Replace Expansion Joint Seals
- Existing 6" Pipe Drain Location
- Expansion Joint
- Fixed Joint

Note:
Actual spall locations to be determined by the Engineer in the field.

LAYOUT PLAN--MAULUA BRIDGE
Scale: 1" = 10'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	APR 1995
	CHECKED BY	
	QUANTIFIED BY	APR 1995
	CHECKED BY	APR 1995

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REHABILITATION AND BRIDGE
REPAIR DETAILS

HAWAII BELT ROAD, MAULUA BRIDGE
LAYOUT PLAN

Project No. 19HJ-02-95M

Scale: As Noted

Date: Apr. 1995

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19HJ-02-95M	1995	8	10

GENERAL NOTES

REPAIR NOTES:

- All deteriorated, damaged, cracked, spalled, honeycombed concrete or concrete over rusted reinforcing bars shall be removed as shown and repaired with magnesium phosphate concrete.
- Provide minimum 1½" concrete cover over reinforcement.
- Reinforcing bars that have rusted more than 25% of their original cross sectional area shall be strengthened as shown on "Reinforcing Bar Repair Splice Detail", this sheet.
- The Engineer shall determine all areas to be repaired and the limits of repair at each area.

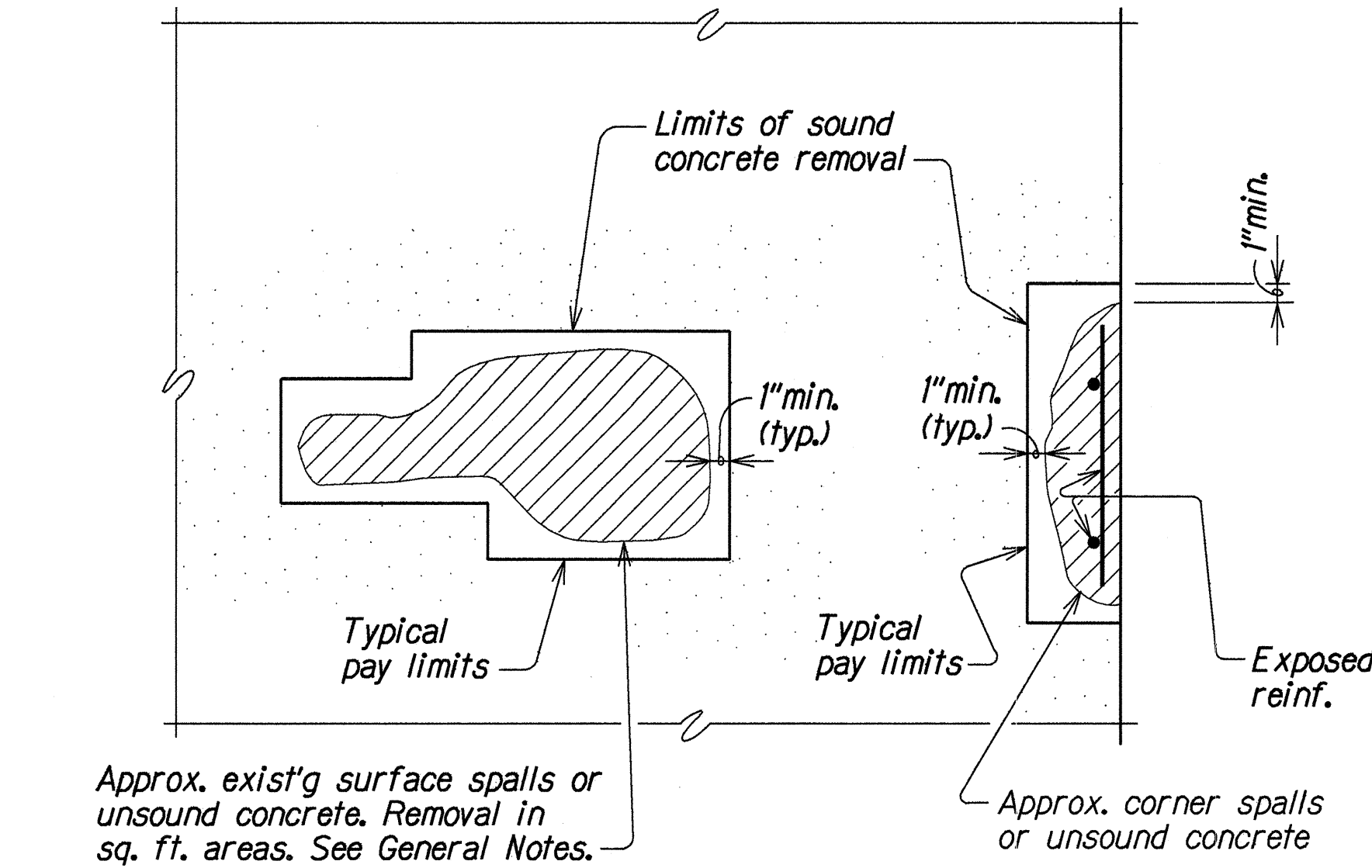
INCIDENTAL ITEMS: The following items shall be considered incidental to the various pay items or repairs and will not be paid for separately:

- Cleaning of all exposed, corroded reinforcing steel to sound metal.
- Reinforcing bars of repair splice for strengthening corroded bars.

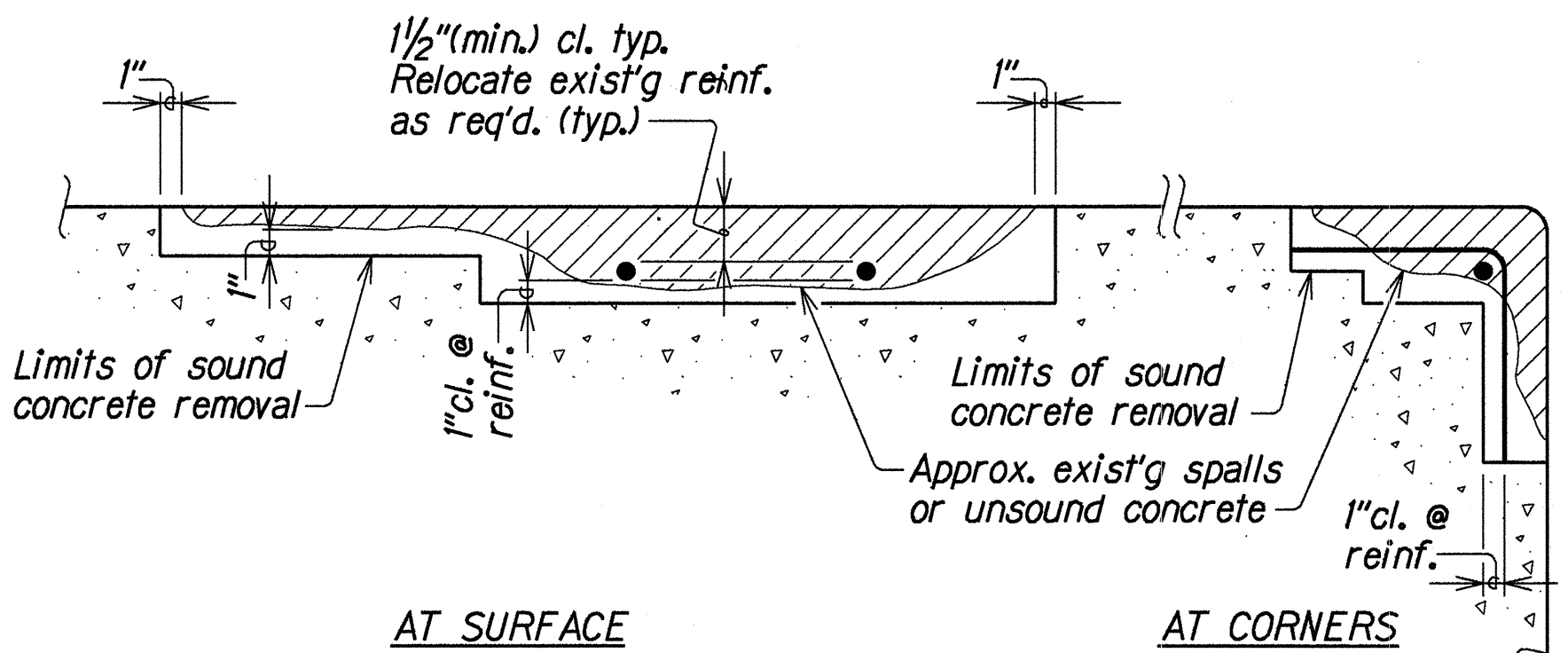
GENERAL:

- All reinforcing steel to be ASTM A 615 Grade 40.
- All welding shall be done in accordance with the current edition of the Reinforcing Steel Welding Code AWS D1.4.
- Maintenance & control of traffic--See Special Provisions sub-section 104.04.

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	UNITS	QUANTITY
676J000	Spall Repair	S.F.	1,000
677.0100	Joint Seals, Kapue Bridge	L.S.	L.S.
677.0200	Joint Seals, Maulua Bridge	L.S.	L.S.
677.0300	Joint Seals, Kaleie Bridge	L.S.	L.S.
677.0400	Joint Seals, Kalaea Bridge	L.S.	L.S.
677.0500	Joint Seals, Hanawi Bridge	L.S.	L.S.

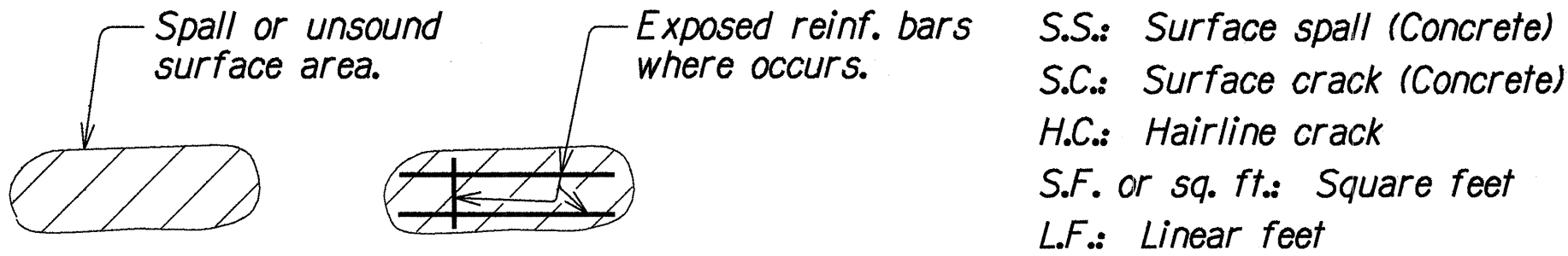


PLAN OR ELEVATION



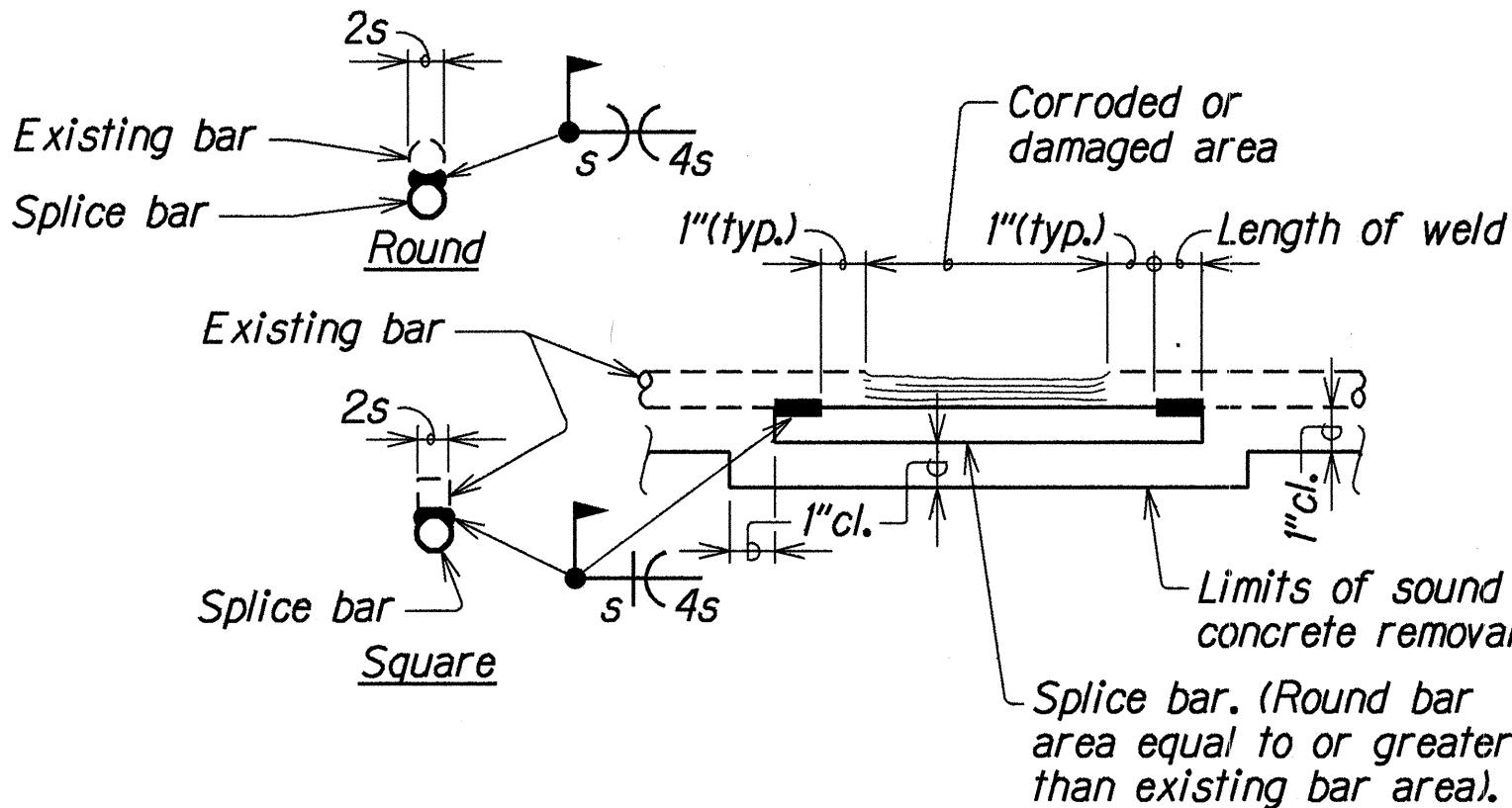
TYPICAL SECTIONS

SYMBOLS AND ABBREVIATIONS:

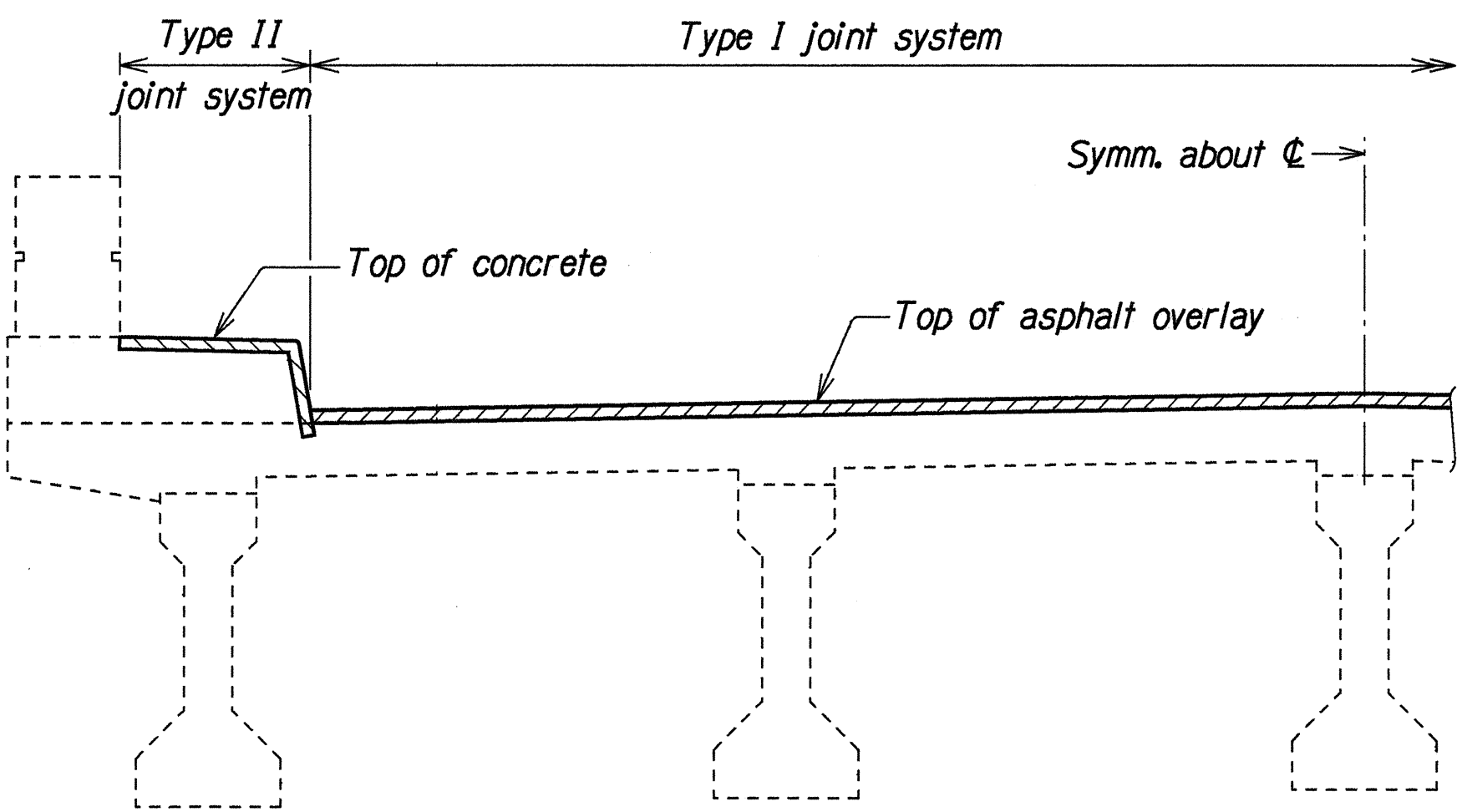


TYPICAL CONCRETE REPAIRS

Not to Scale

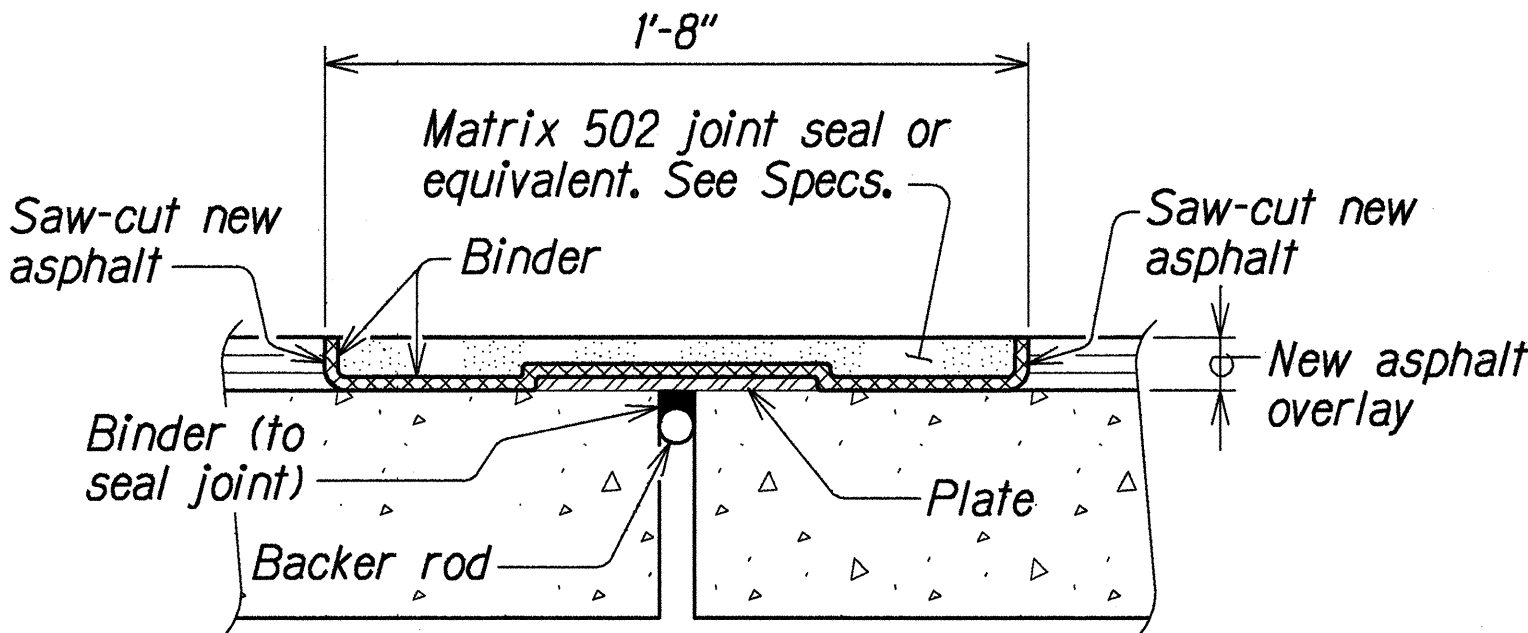


REINFORCING BAR REPAIR SPLICE DETAIL



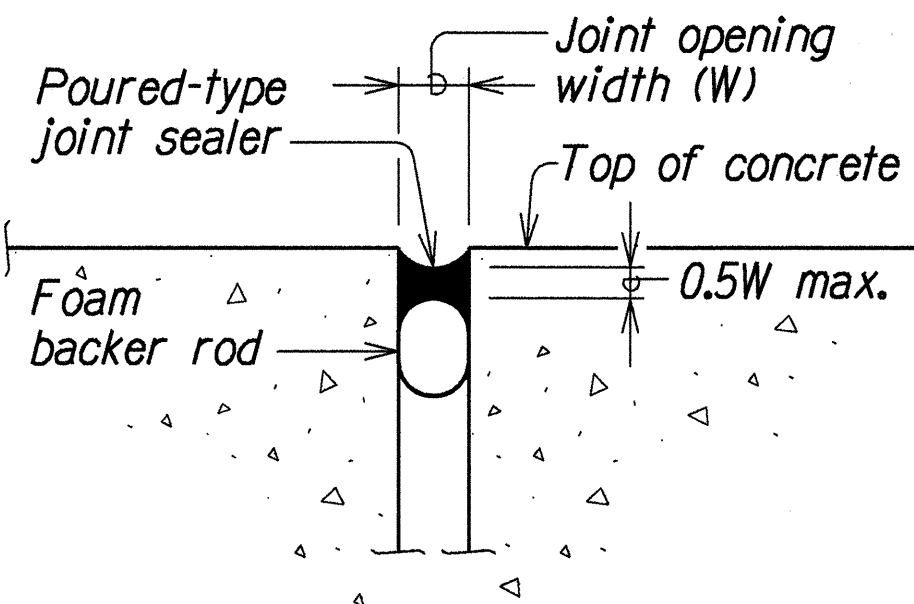
TYPICAL SECTION

Not to Scale



TYPE I JOINT DETAIL

Not to Scale



TYPE II JOINT DETAIL

Not to Scale

TYPICAL JOINT SEAL REPAIRS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	APR 1995
DRAWN BY	KG
DESIGNED BY	APR 1995
NOTED BY	KG
CHECKED BY	APR 1995
IN CHARGE	4

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REHABILITATION AND BRIDGE
REPAIR DETAILS
HAWAII BELT ROAD AT VARIOUS LOCATIONS
TYPICAL CONCRETE AND JOINT SEAL REPAIRS
GENERAL NOTES AND ESTIMATED QUANTITIES

Scale: As Noted
Project No. 19HJ-02-95M
Date: Apr. 1995