

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H11-03-96M	1996	2	3

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 hand-placed mortar or shotcrete.
- Provide minimum 2" concrete cover over reinforcement or welded wire fabric. See specifications for welded wire fabric requirements.
- Reinforcing bars that have rusted more than 25% of their original cross sectional area shall be cleaned and 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 for all three (3) structures.
- Apply silane waterproofing as approved by the Engineer. Application shall be according to the Manufacturer's recommendations.

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

- Cleaning of all exposed, corroded reinforcing steel to sound metal.
- Reinforcing bars for repair splice.
- Furnishing and application of silane waterproofing material.

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.

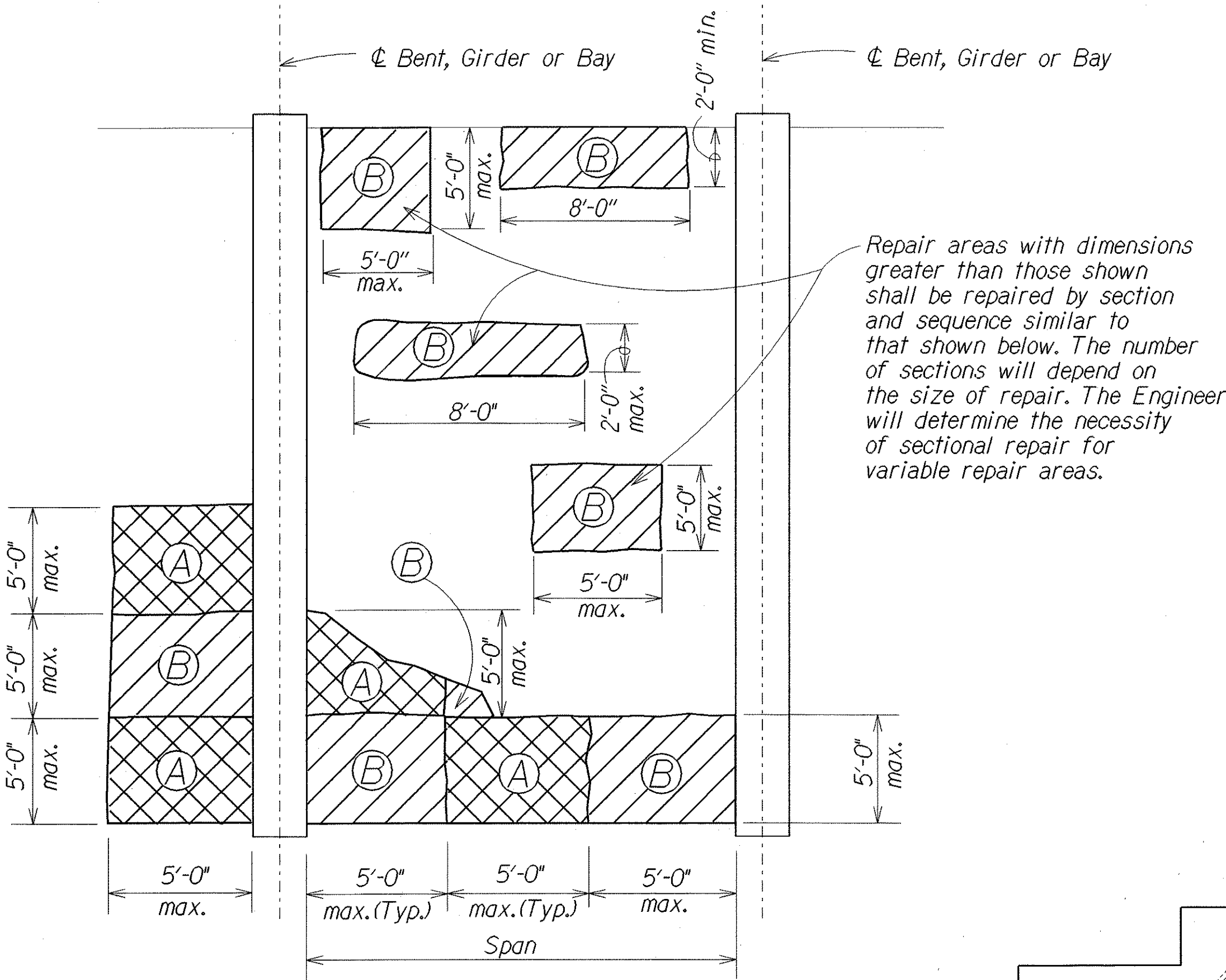
SYMBOLS AND ABBREVIATIONS:

Spall or unsound surface area.	Exposed reinf. bars	S.S. - Surface spall (Concrete)
		S.C. - Surface crack (Concrete)
		H.C. - Hairline crack
		S.F. or sq. ft. - Square feet
		L.F. - Linear feet

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
676J000	Spall Repair - "Existing" Kapalama Canal Bridge	S.F.	700 *
677J000	Crack Repair - "Existing" Kapalama Canal Bridge	L.F.	140 *

* Includes estimated overrun.



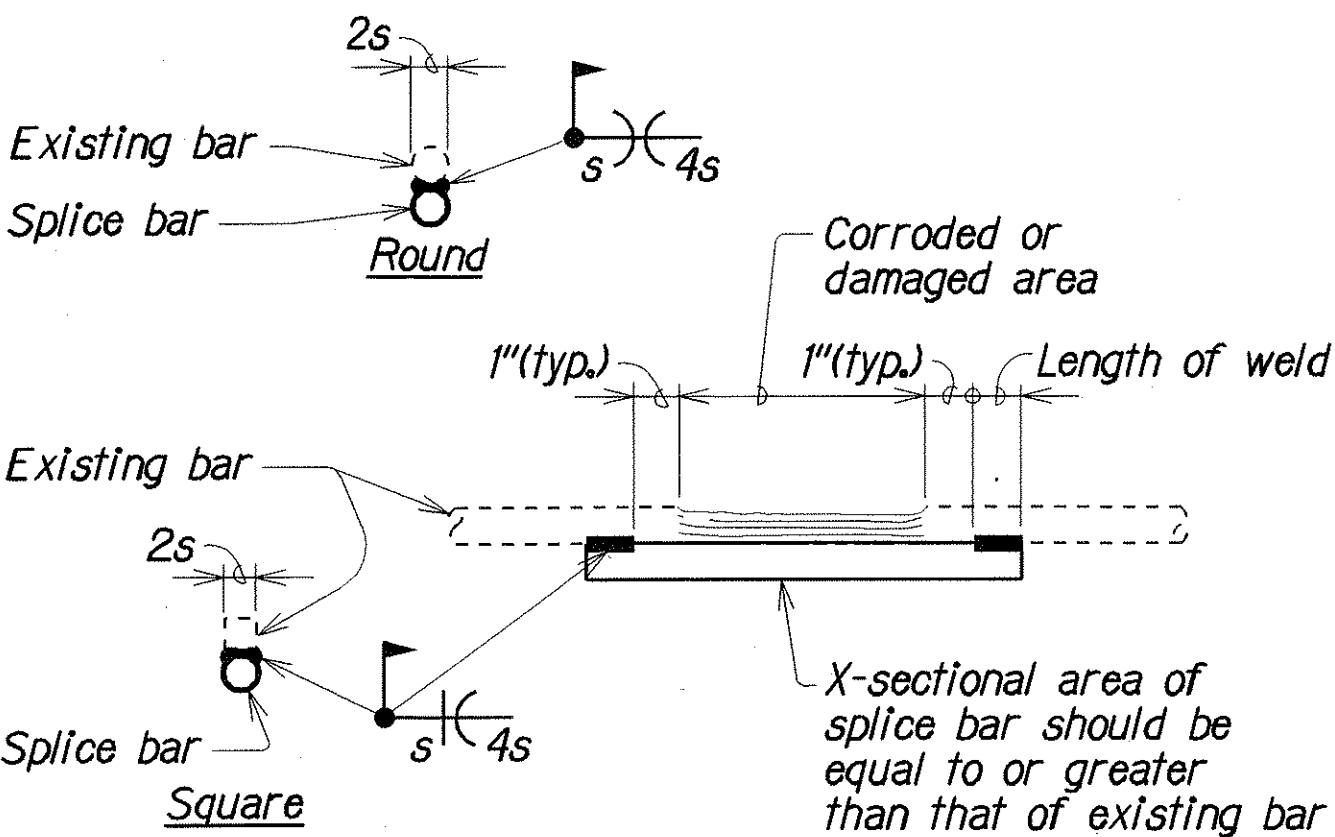
REFLECTED CEILING PLAN
Not to Scale

NOTE:

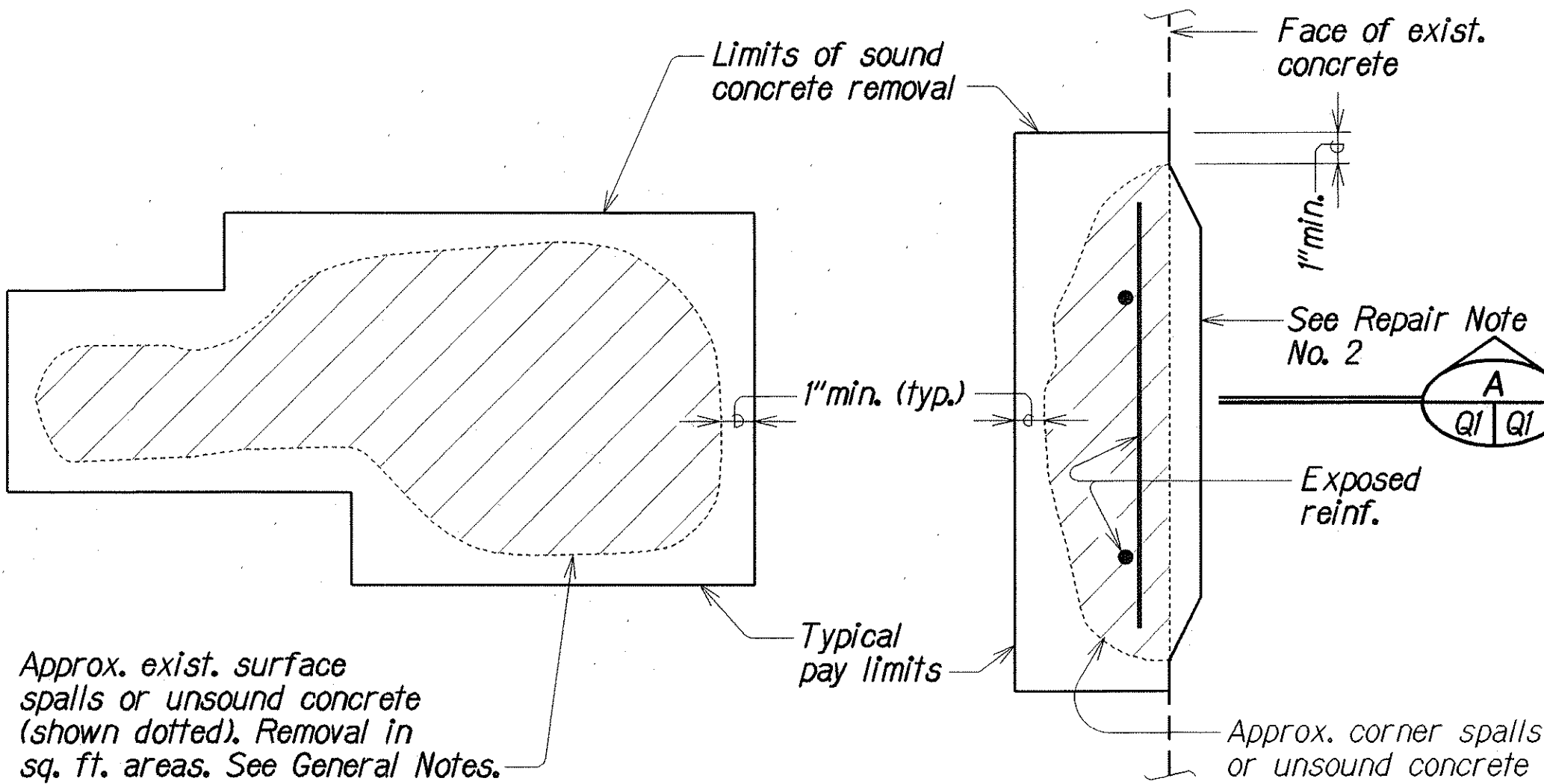
Slab damage over a large area shall be repaired in sections (A) & (B) as shown. The sequence of repair for each section shall be as follows:

- Repair section (A).
- Start repair of section (B) 7 days after placing mortar for section (A).

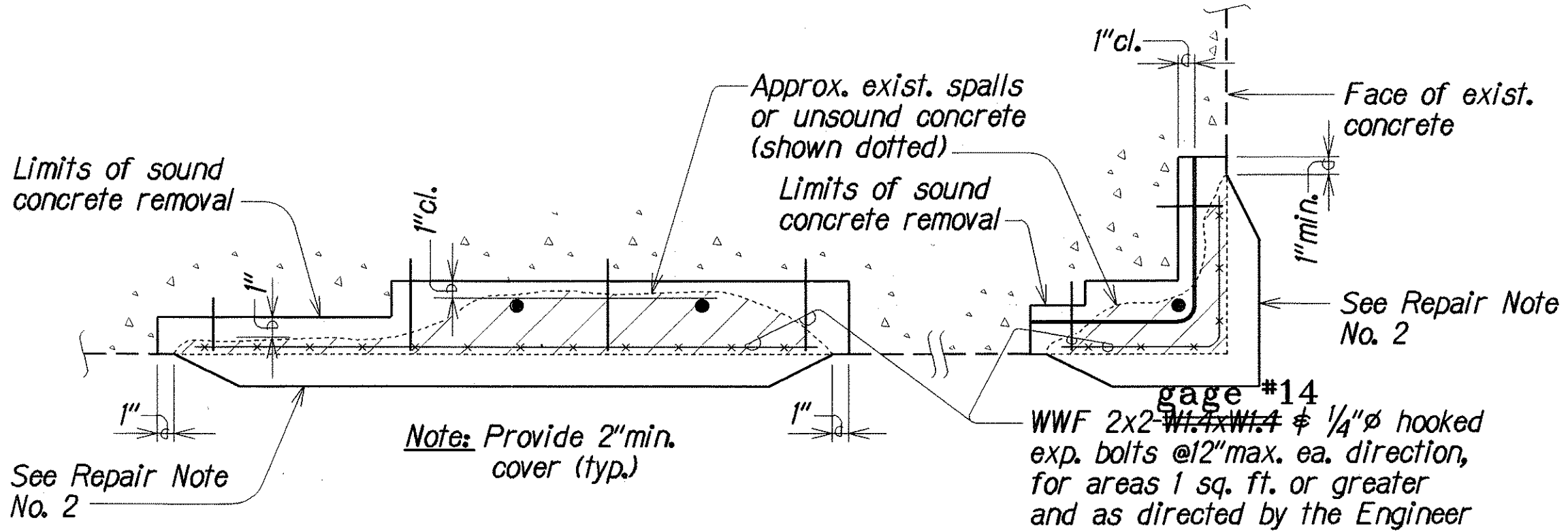
The necessity for sectional repairs will depend on the amount of reinforcing bars that has to be exposed and cleaned. The Engineer will determine the necessity for sectional repairs after portions of the steel have been exposed.



REINFORCING BAR REPAIR SPLICE DETAIL
Not to Scale



PLAN OR ELEVATION



AT SURFACE

AT CORNERS

TYPICAL SECTIONS

TYPICAL CONCRETE REPAIRS
Not to Scale

LEGEND FOR AS-BUILT POSTINGS

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	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL CONCRETE REPAIRS, GENERAL**  
**NOTES AND ESTIMATED QUANTITIES**  
INTERSTATE ROUTE H-1  
Repair Spalls at Soffit, Piles and Pier Caps  
on Kapalama Canal Bridge  
Proj. No. H11-03-96M  
Scale: As Noted  
Date: Feb, 1996

SHEET No. 01 OF 2 SHEETS

"AS-BUILT"