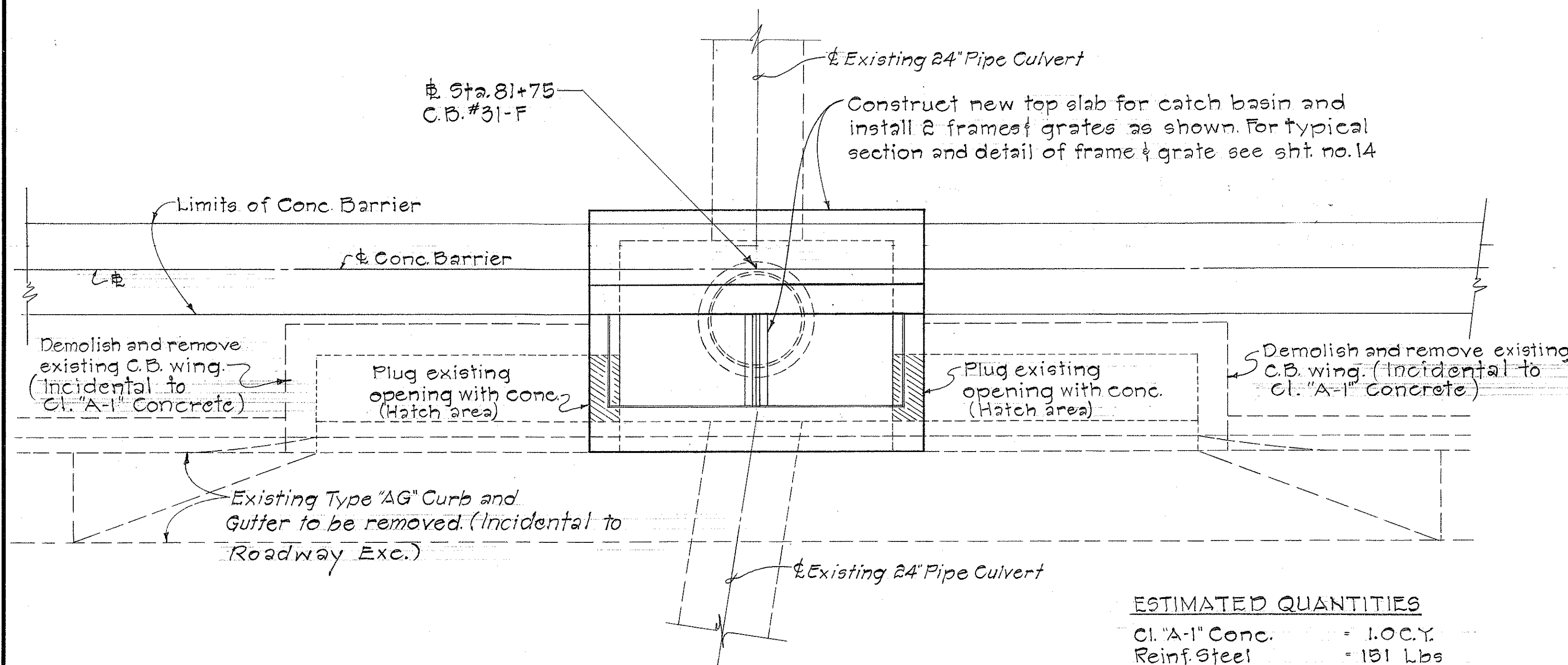


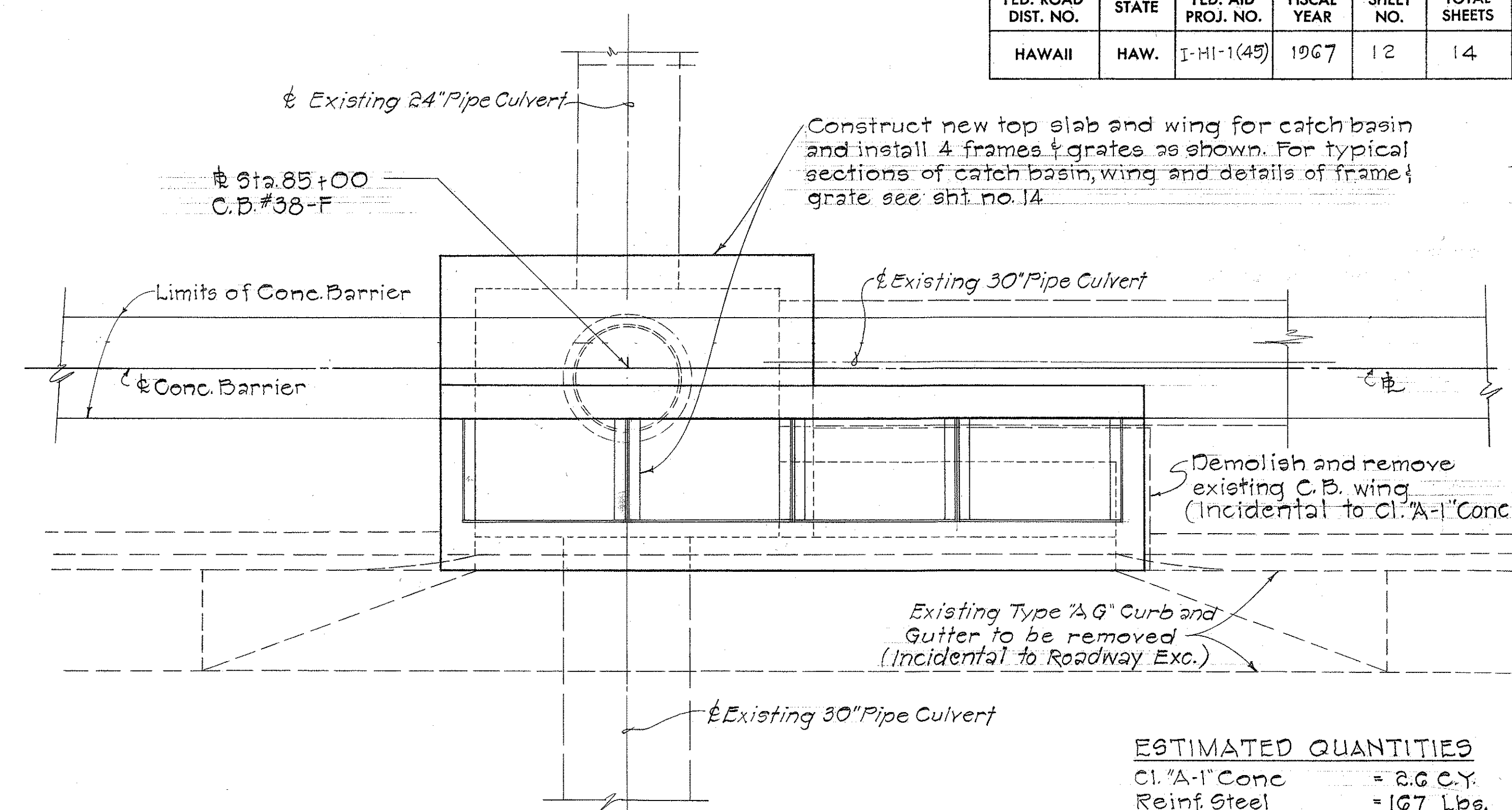
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(45)	1967	12	14



PLAN OF C.B. AT STA. 81+75

ESTIMATED QUANTITIES

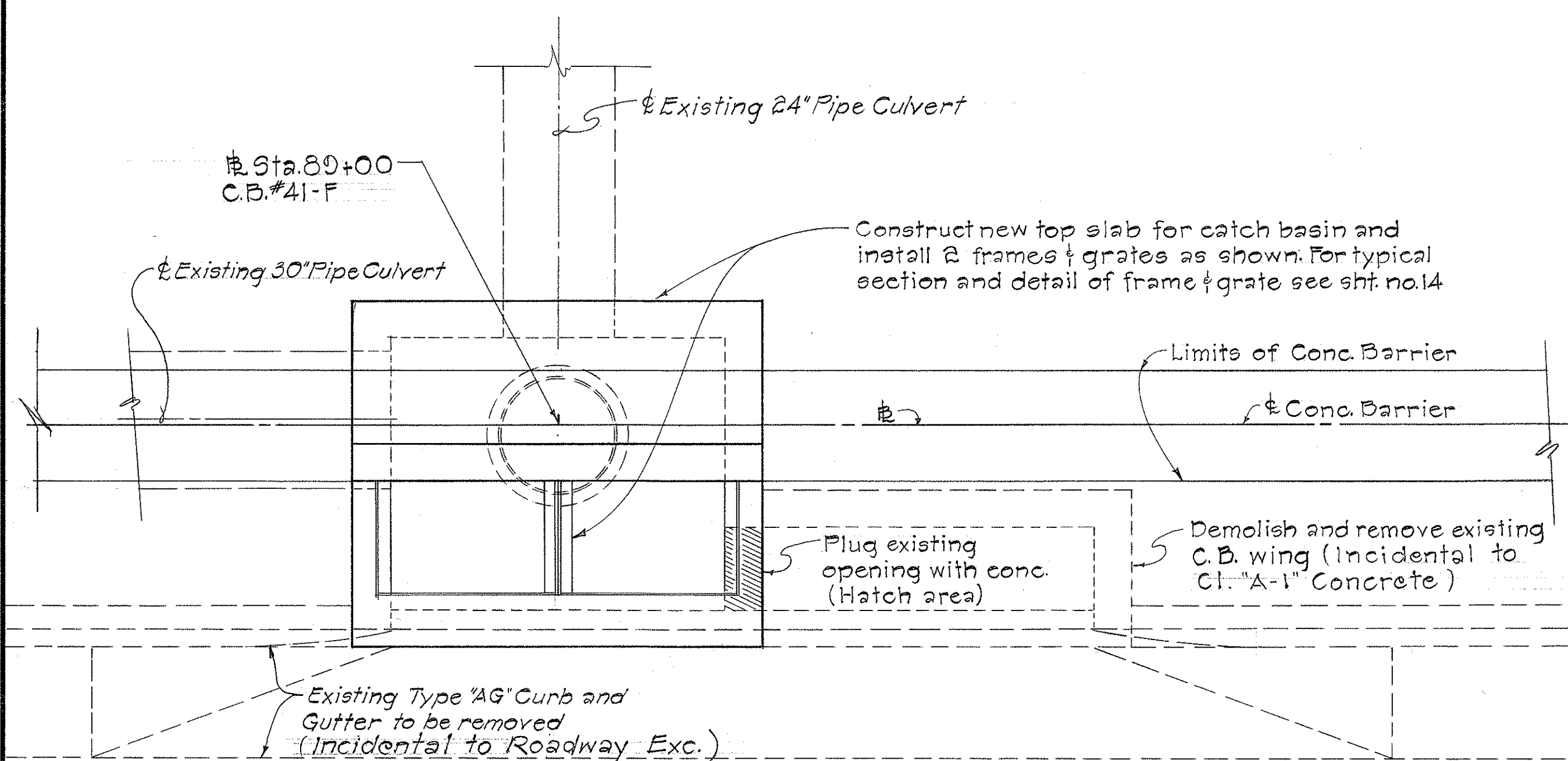
Cl. 'A-1' Conc.	= 1.0 C.Y.
Reinf. Steel	= 131 Lbs
Type 'S' Steel Frame and Grate	= 2 Ea.
Remove, clean and return	
C.I. Frame & Cover	= 1 Ea.



PLAN OF C.B. AT STA. 85+00

ESTIMATED QUANTITIES

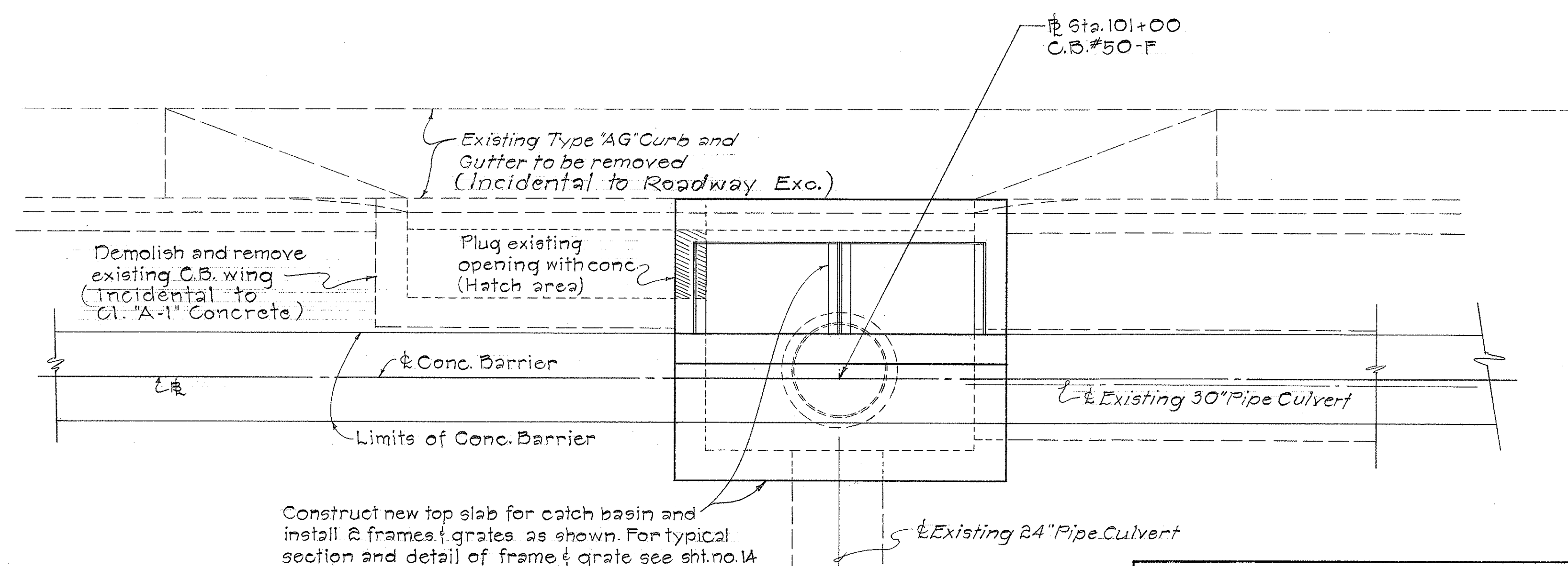
Cl. 'A-1' Conc.	= 2.6 C.Y.
Reinf. Steel	= 167 Lbs.
Type 'S' Steel Frame and Grate	= 4 Ea.
Remove, clean and return	
C.I. Frame & Cover	= 1 Ea.



PLAN OF C.B. AT STA. 89+00

ESTIMATED QUANTITIES

Cl. 'A-1' Conc.	= 1.3 C.Y.
Reinf. Steel	= 171 Lbs.
Type 'S' Steel Frame and Grate	= 2 Ea.
Remove, clean and return	
C.I. Frame & Cover	= 1 Ea.



PLAN OF C.B. STA. 101+00

ESTIMATED QUANTITIES

Cl. 'A-1' Conc.	= 1.3 C.Y.
Reinf. Steel	= 171 Lbs.
Type 'S' Steel Frame and Grate	= 2 Ea.
Remove, clean and return	
C.I. Frame & Cover	= 1 Ea.

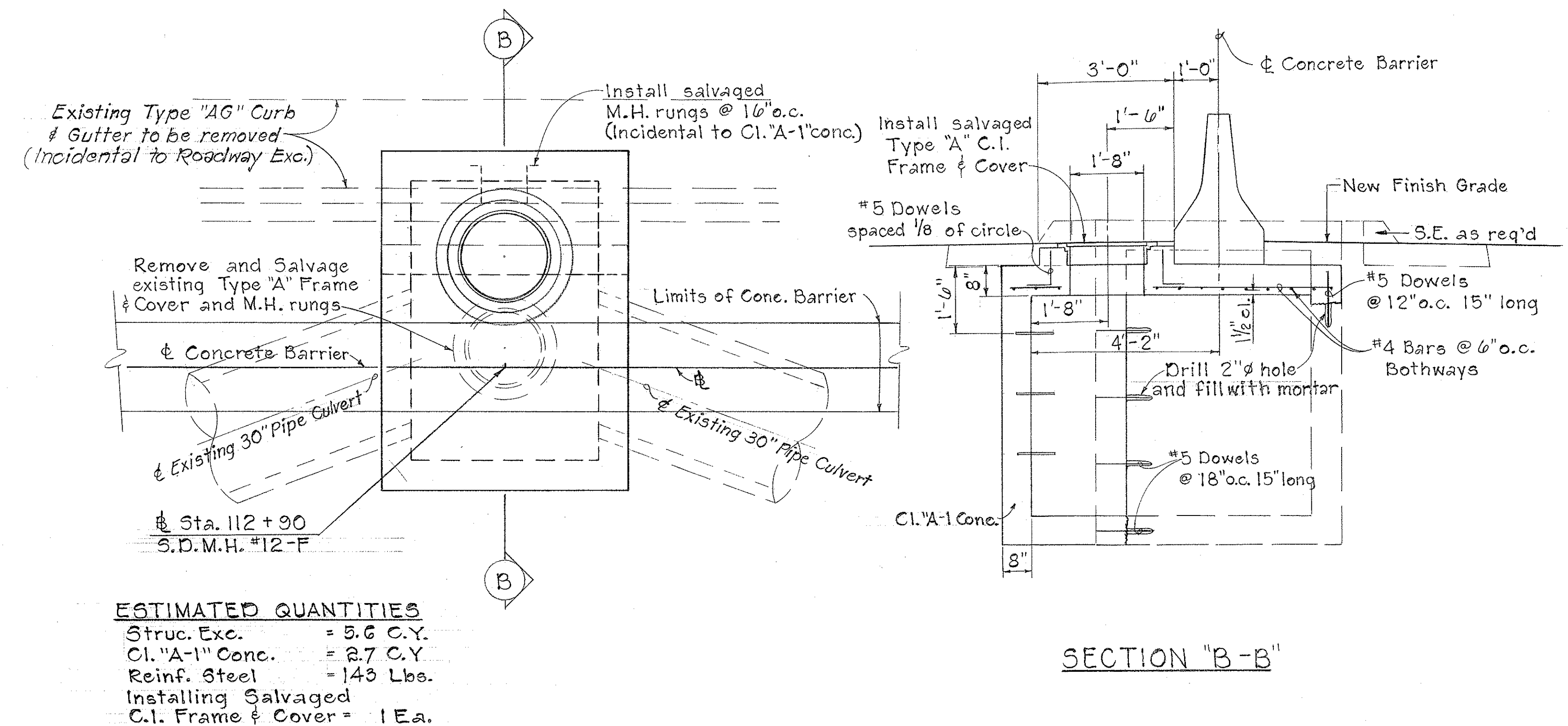
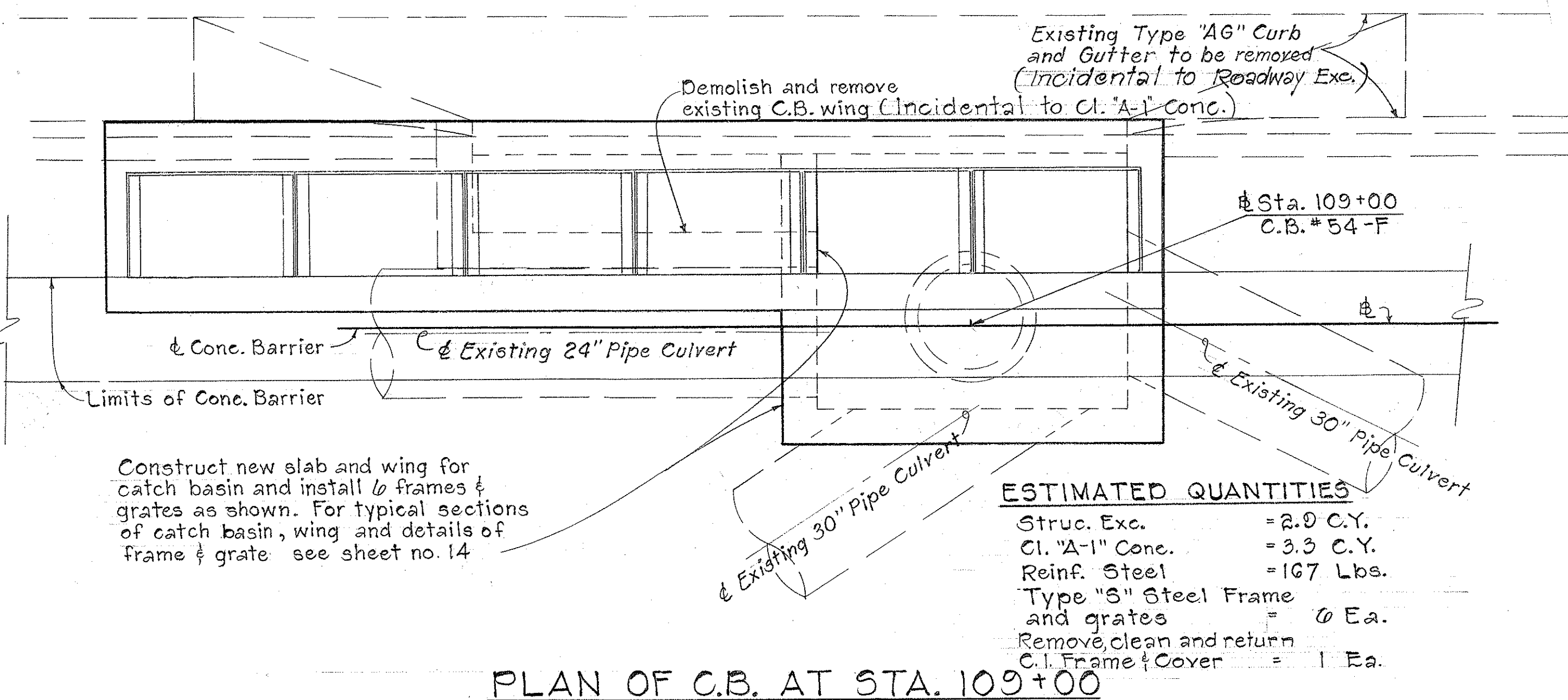
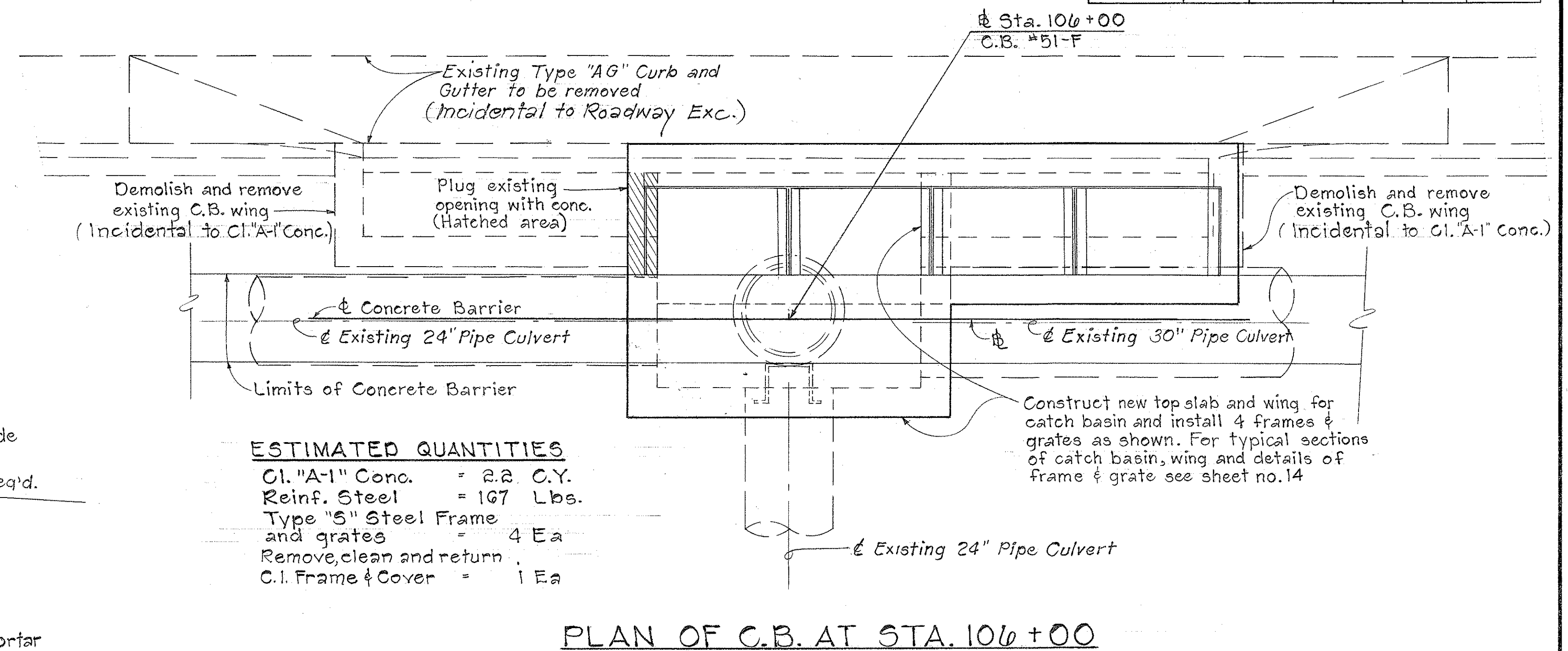
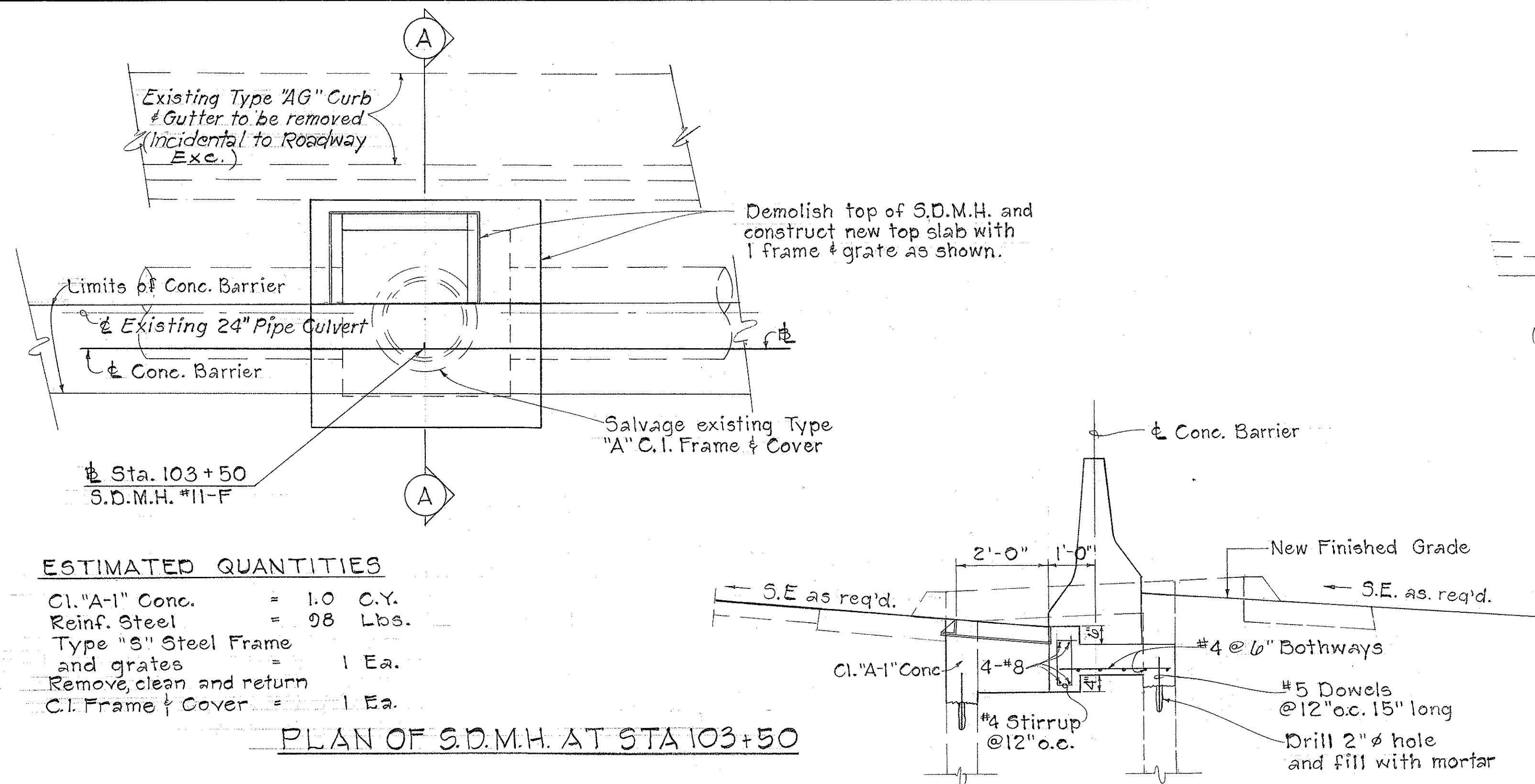
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS
MODIFICATIONS OF CATCH BASINS
FOR CONCRETE BARRIER

E.A.I. Proj. No I-HI-1(45)
Scale: 1/2" = 1'-0" Date: Nov. 1967
SHEET No. 1 OF 3 SHEETS

DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(45)	1967	13	14



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

MODIFICATIONS OF CATCH BASINS
AND STORM DRAIN MANHOLE
FOR CONCRETE BARRIER

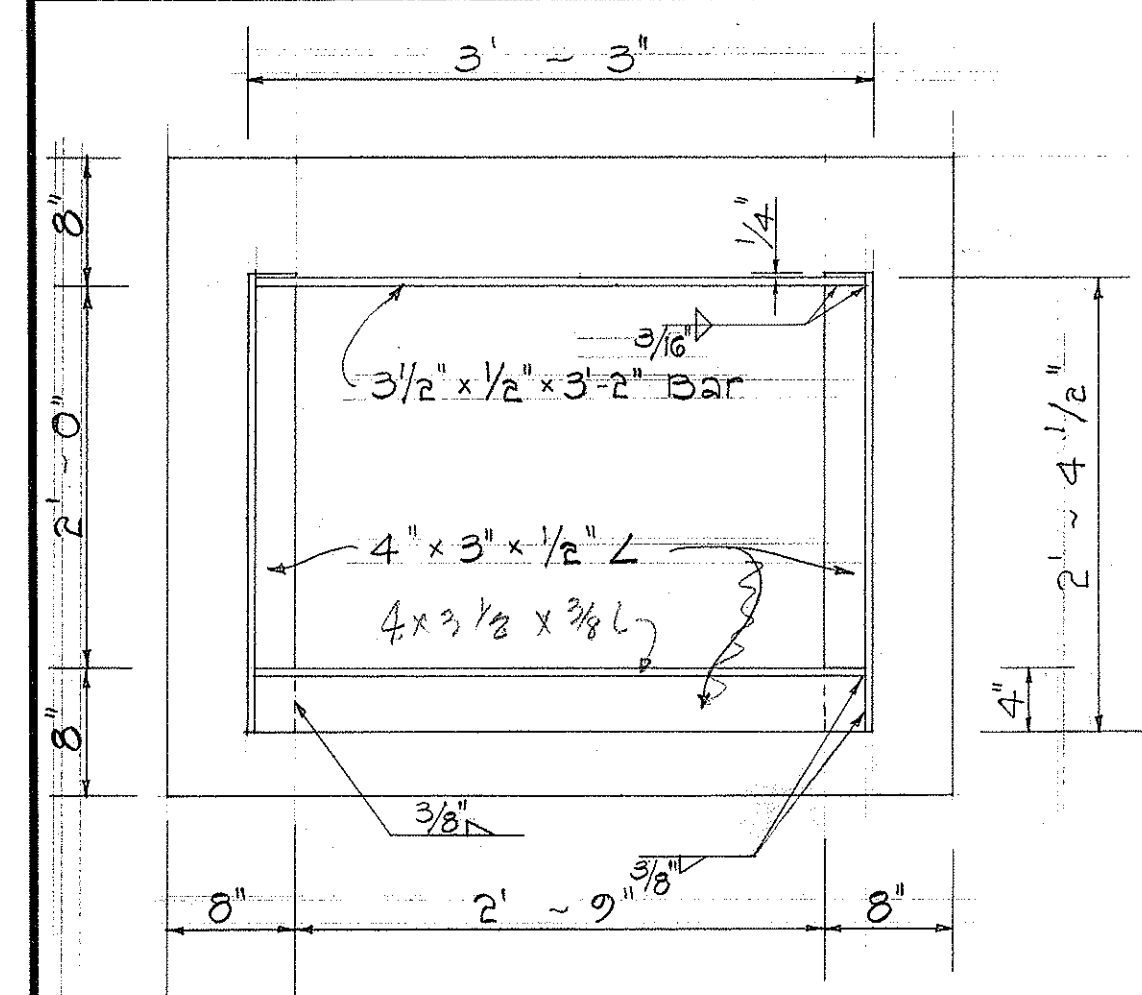
F.A.I. Proj. No. I-HI-1(45)

Scale: 1/2" = 1'-0" Date: Nov. 1967

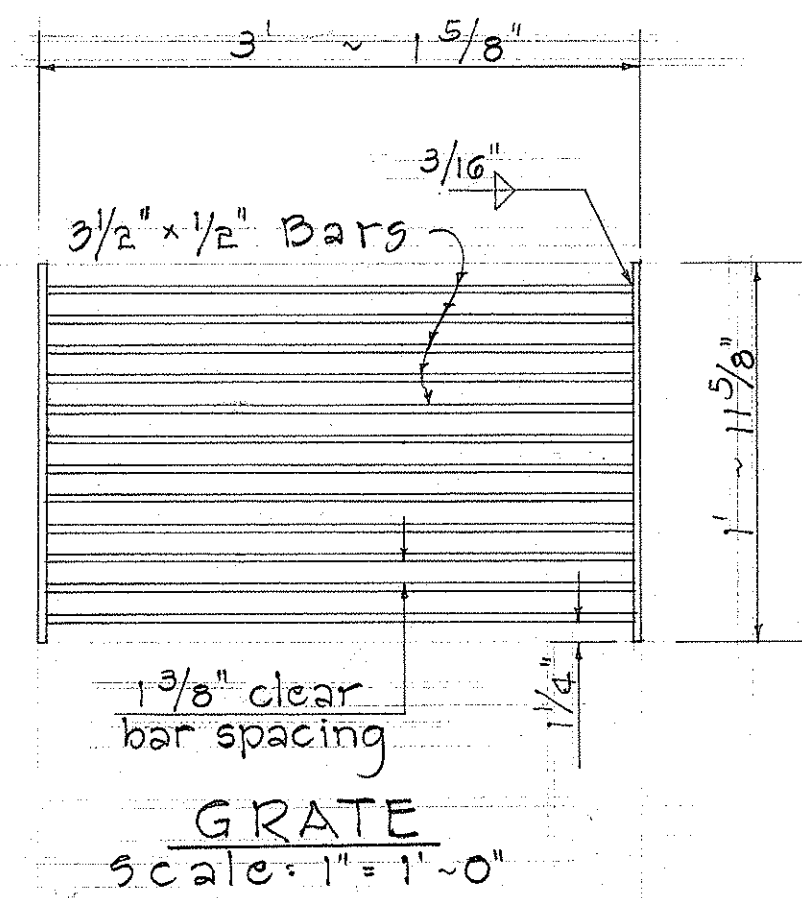
SHEET No. 2 OF 3 SHEETS

DESIGNED BY	NO. 1
CHECKED BY	NO. 2
NOTED BY	NO. 3
DATE	NO. 4
BY	NO. 5
NO.	NO. 6

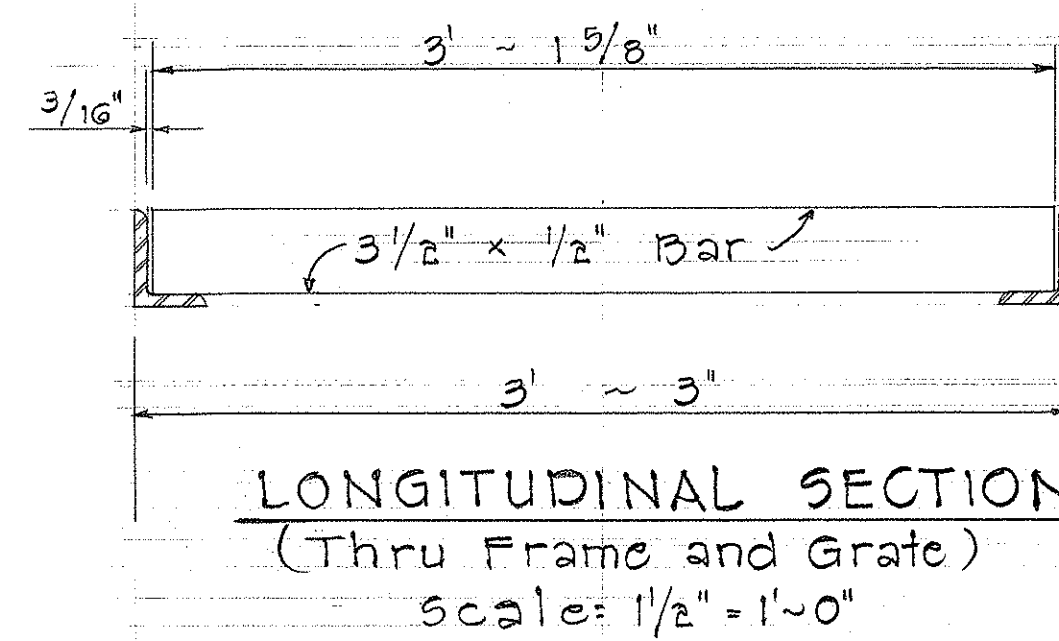
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1 (45)	1967	14	14



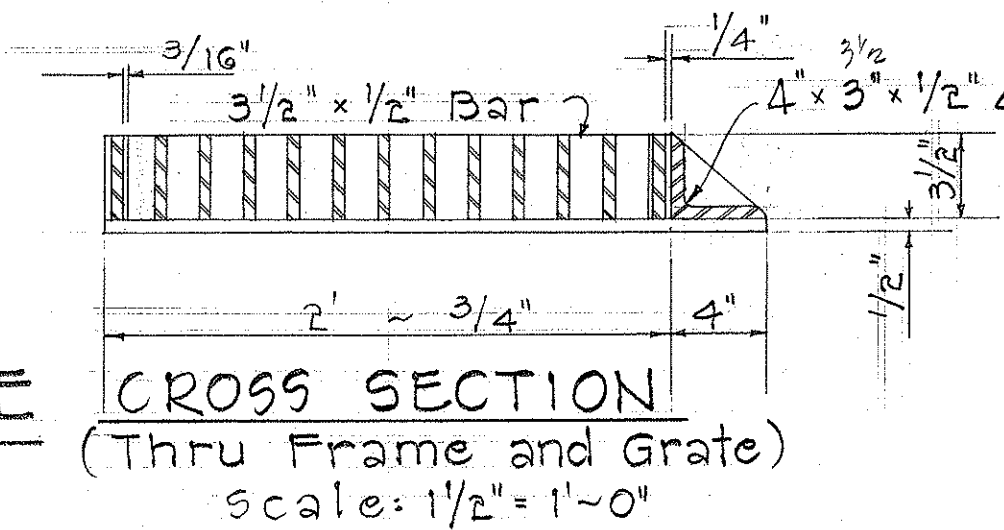
FRAME
Scale: 1" = 1'-0"



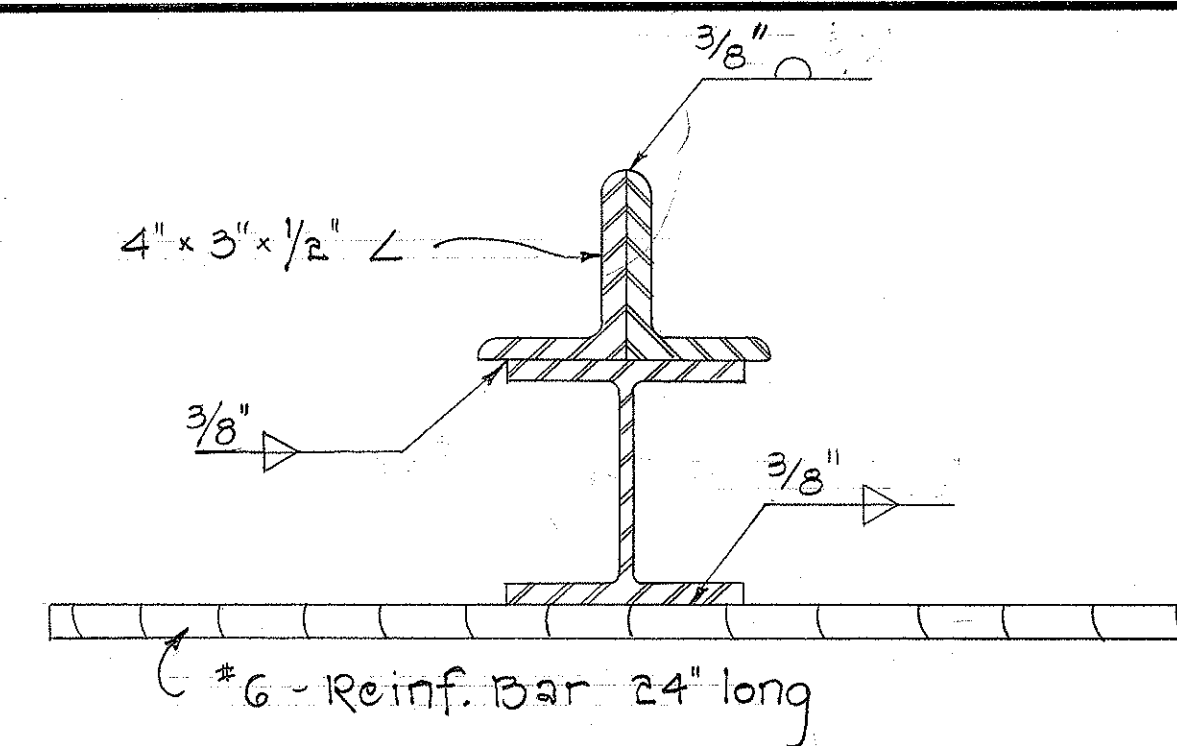
GRATE
Scale: 1" = 1'-0"



LONGITUDINAL SECTION
(Thru Frame and Grate)
Scale: 1 1/2" = 1'-0"

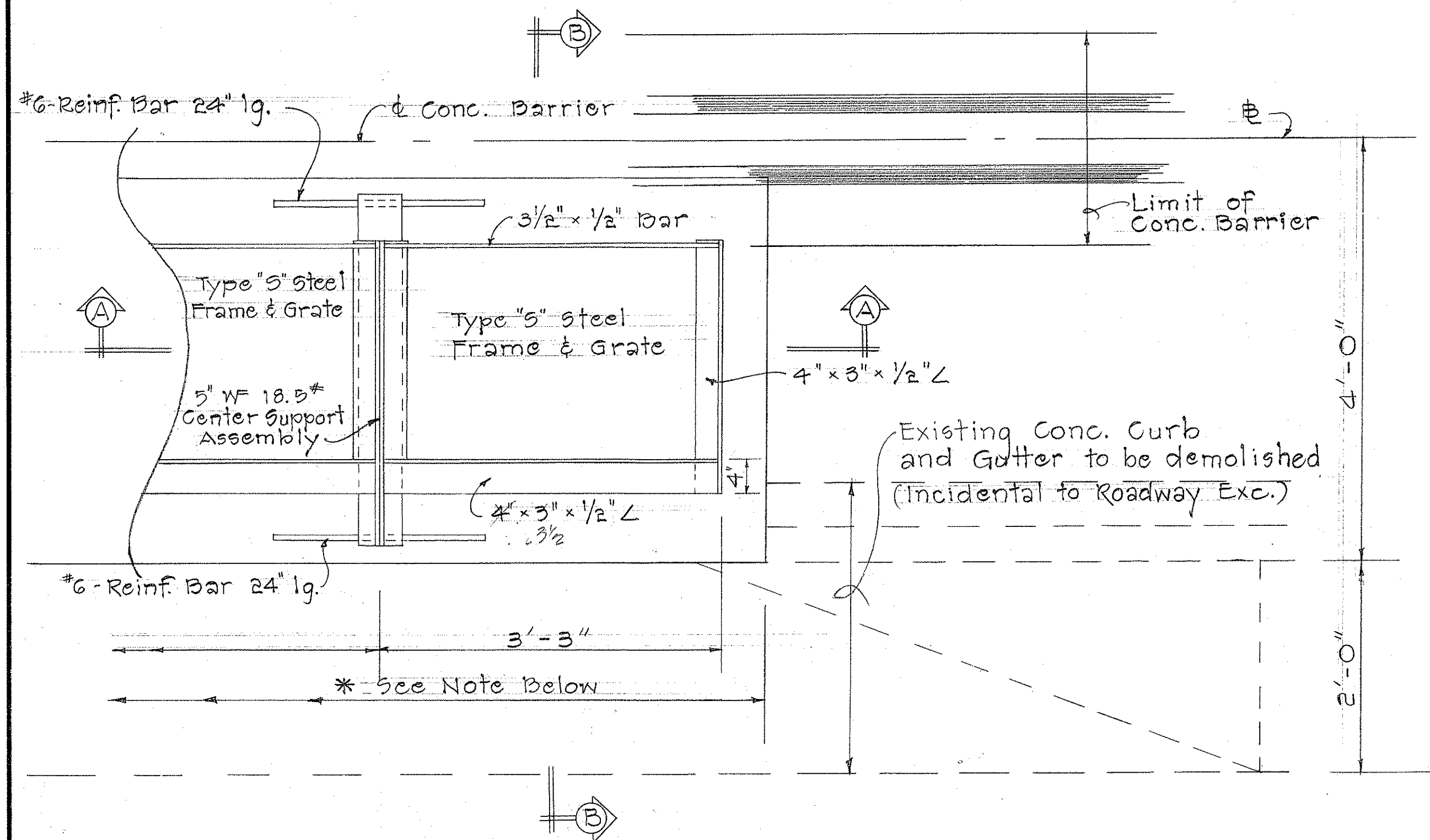


CROSS SECTION
(Thru Frame and Grate)
Scale: 1 1/2" = 1'-0"

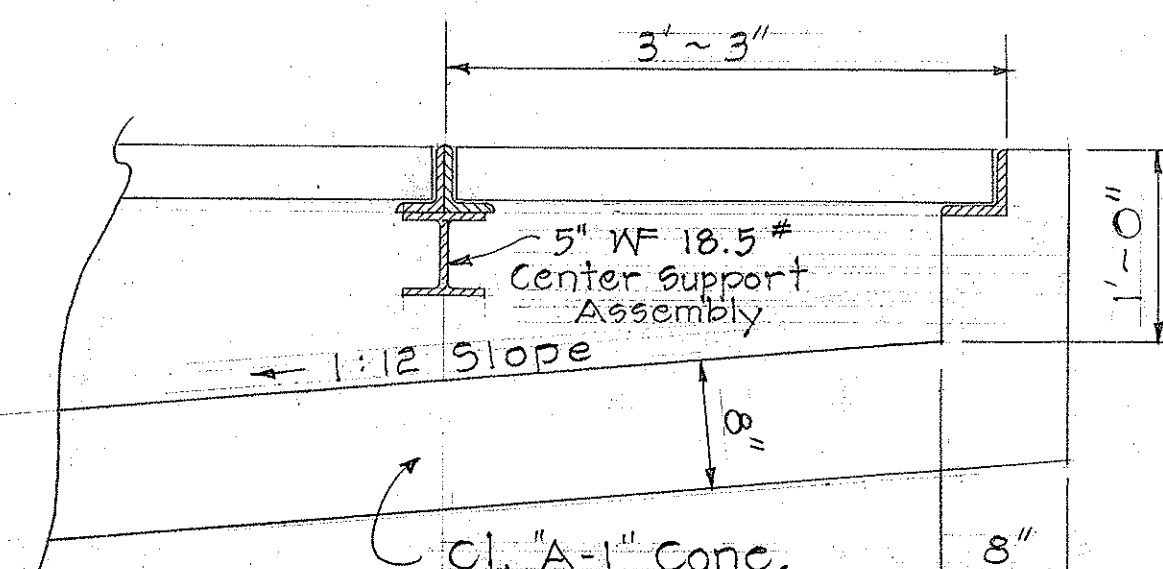


5" WF 18.5# CENTER SUPPORT ASSEMBLY
Scale: 3" = 1'-0"

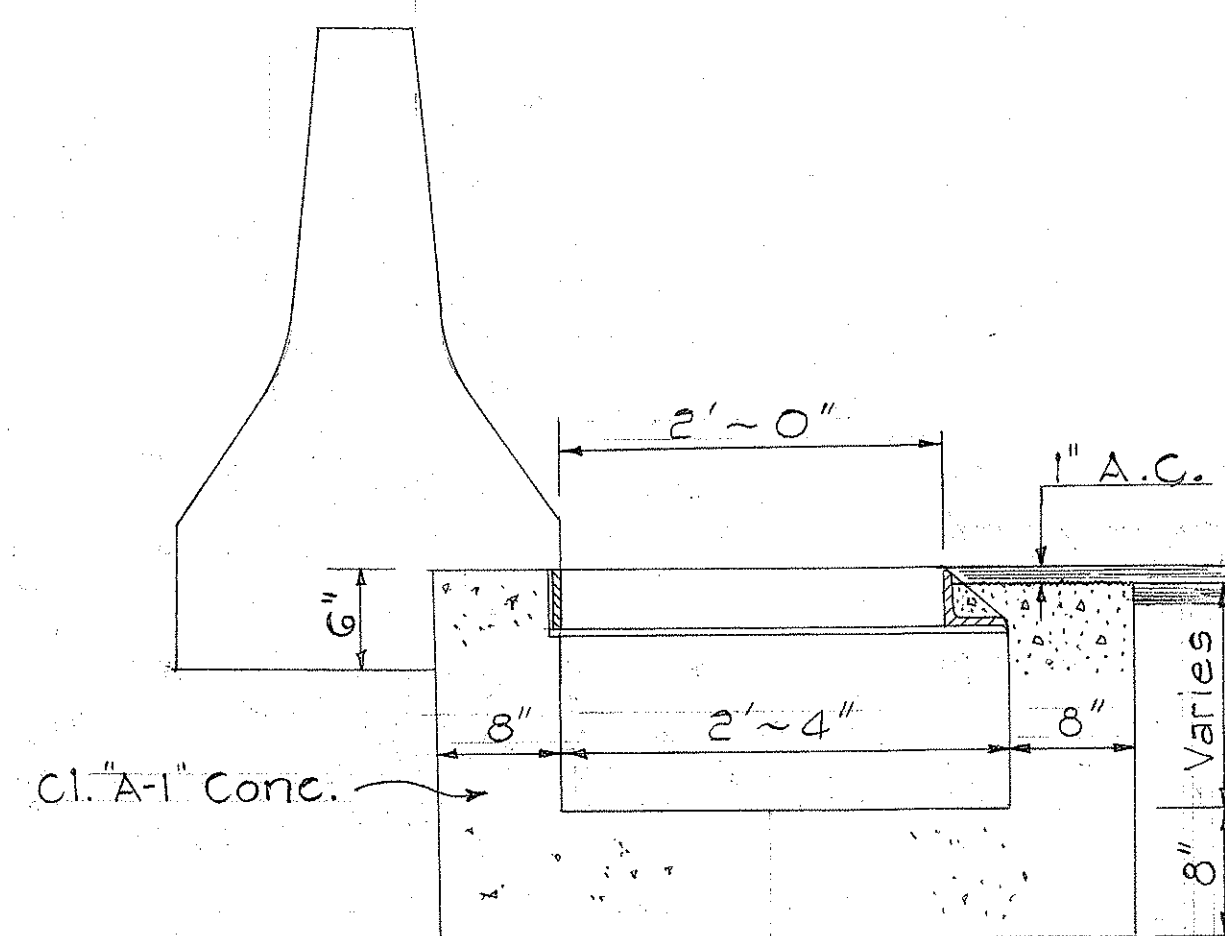
- NOTE:
- All welds 3/8" unless otherwise noted
 - All steel shall be structural grade
 - Grate and Frame shall be hot dip galvanized after fabrication in accordance with section 44 (H) of the Standard Specifications.



PLAN
Scale: 1" = 1'-0"



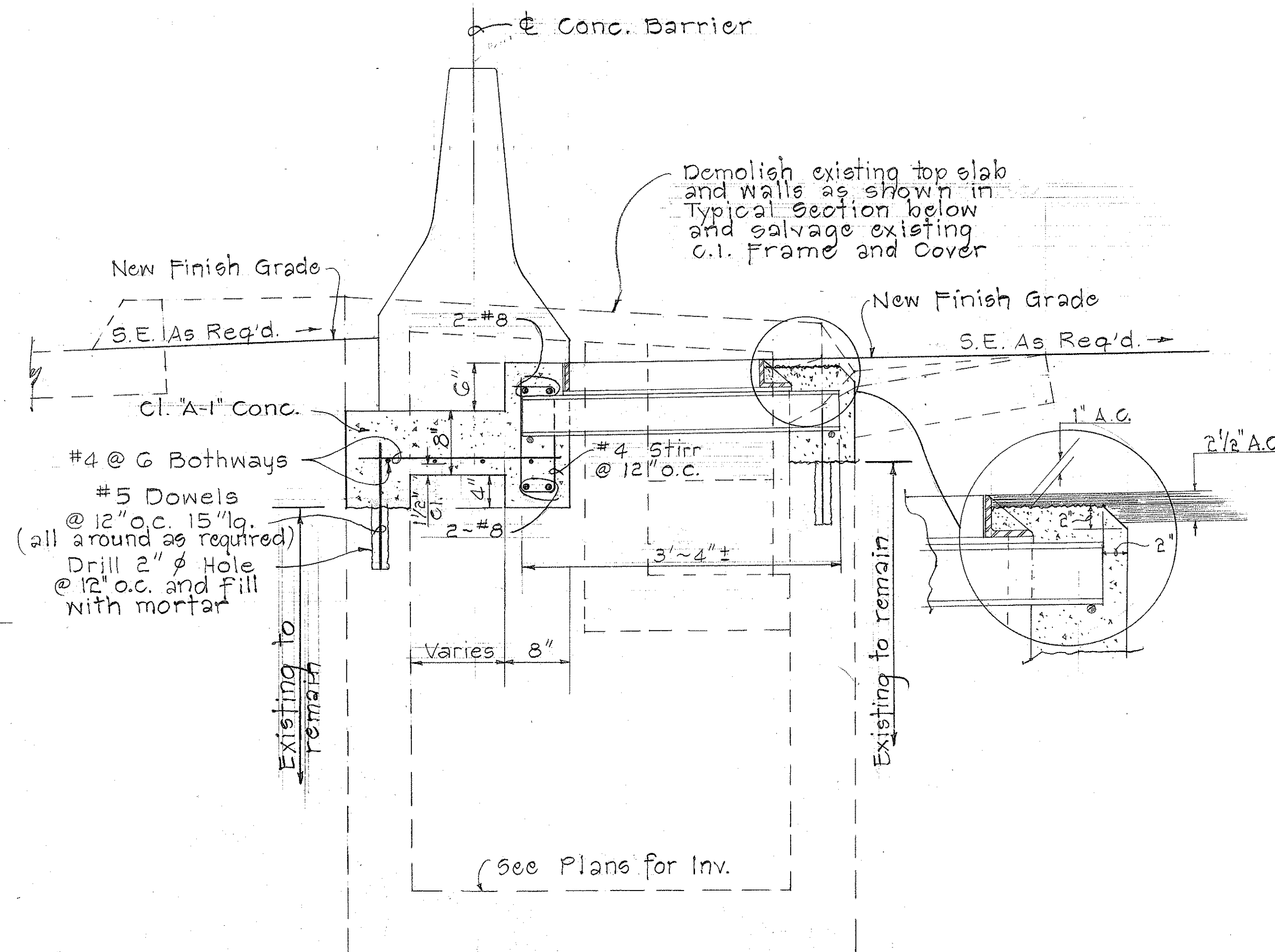
SECTION "A-A"
Scale: 1" = 1'-0"



SECTION "B-B"
Scale: 1" = 1'-0"

DETAIL OF NEW C.B. WING

*(Length of Wings vary according to number of grates - see detail plan)



TYPICAL SECTION
THRU MODIFIED C.B.
Scale: 1" = 1'-0"

GENERAL NOTES

- Center Support Assembly shall be used when two or more Gratings are specified.
- Center Support Assembly shall not be paid for separately, but shall be considered as incidental to Type "S" Steel Frame and Grate.
- Salvaged C.I. Frame and Covers shall be cleaned and returned to 721 Kelikoi Street, Honolulu.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS
TYPE "S" STEEL FRAME AND
GRATE FOR MODIFIED C.B.
AND S.D.M.H.

F.A.I. Proj. No. I-HI-1 (45)
Scale: As shown Nov. 1967

SHEET No. 3 OF 3 SHEETS