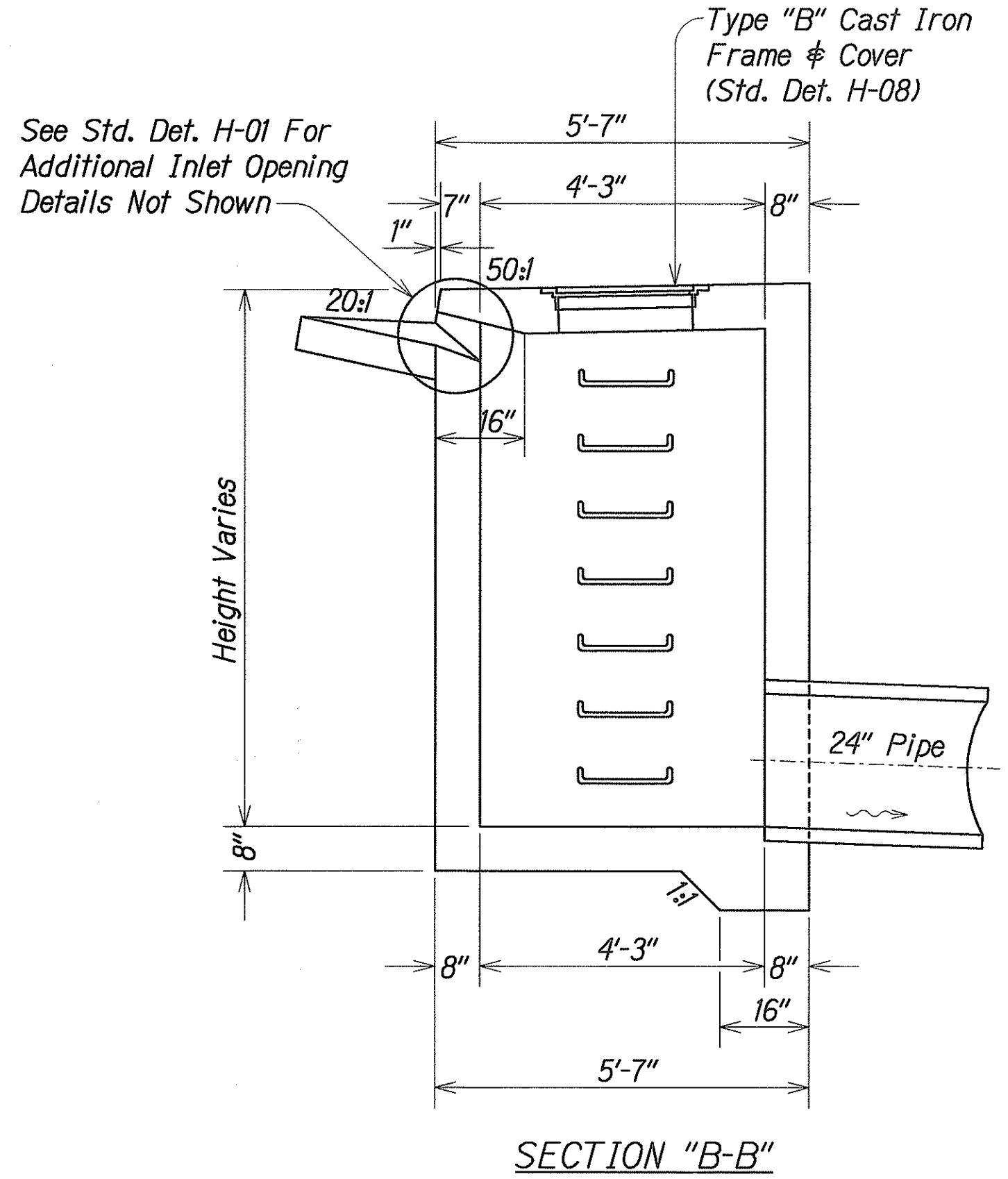
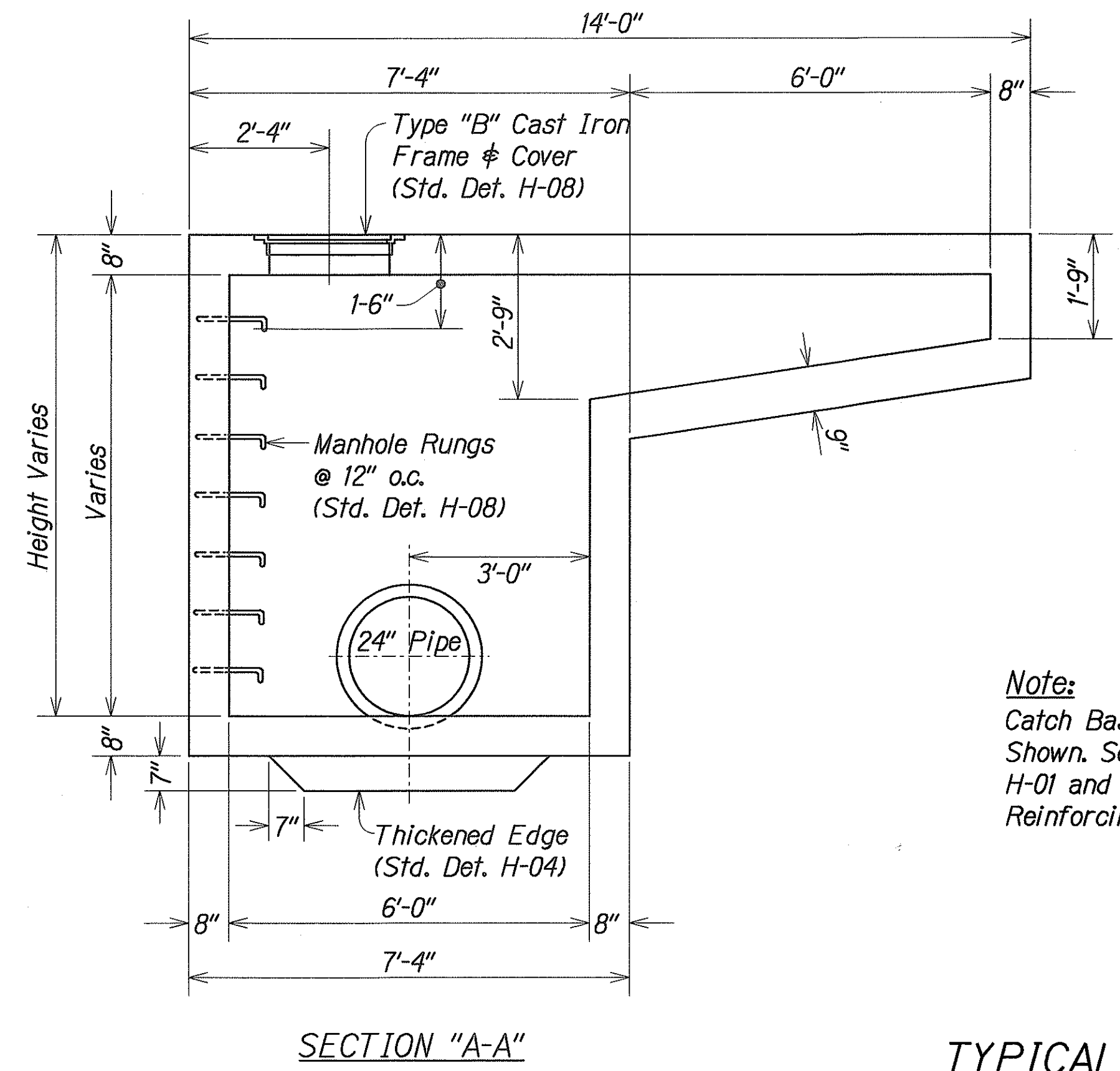
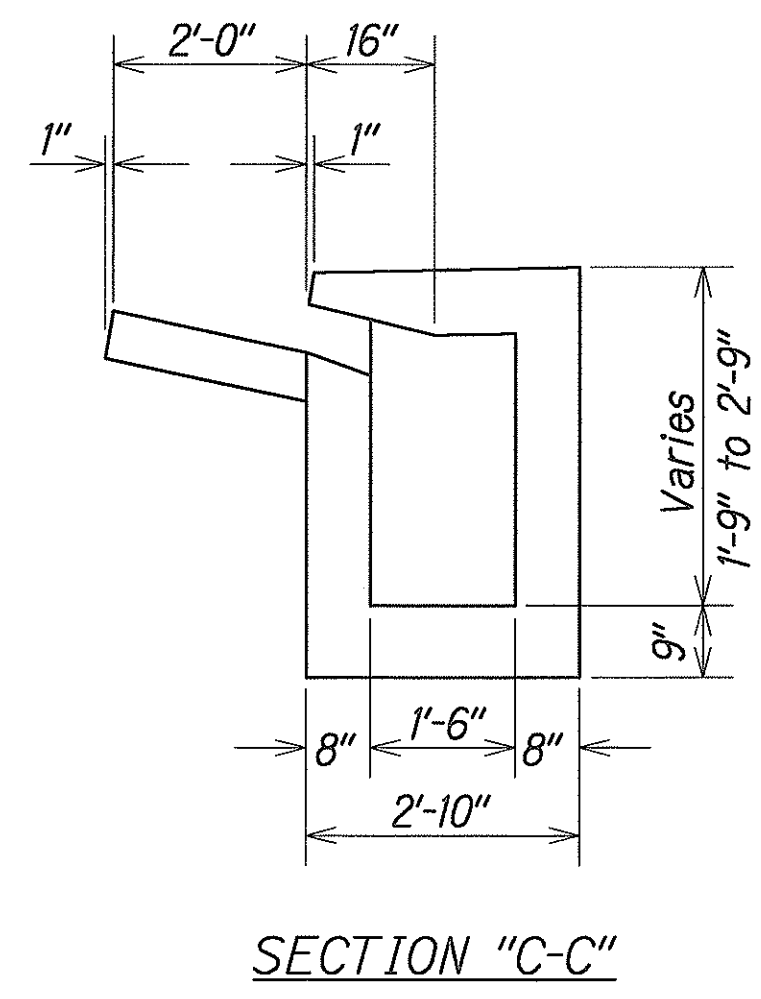
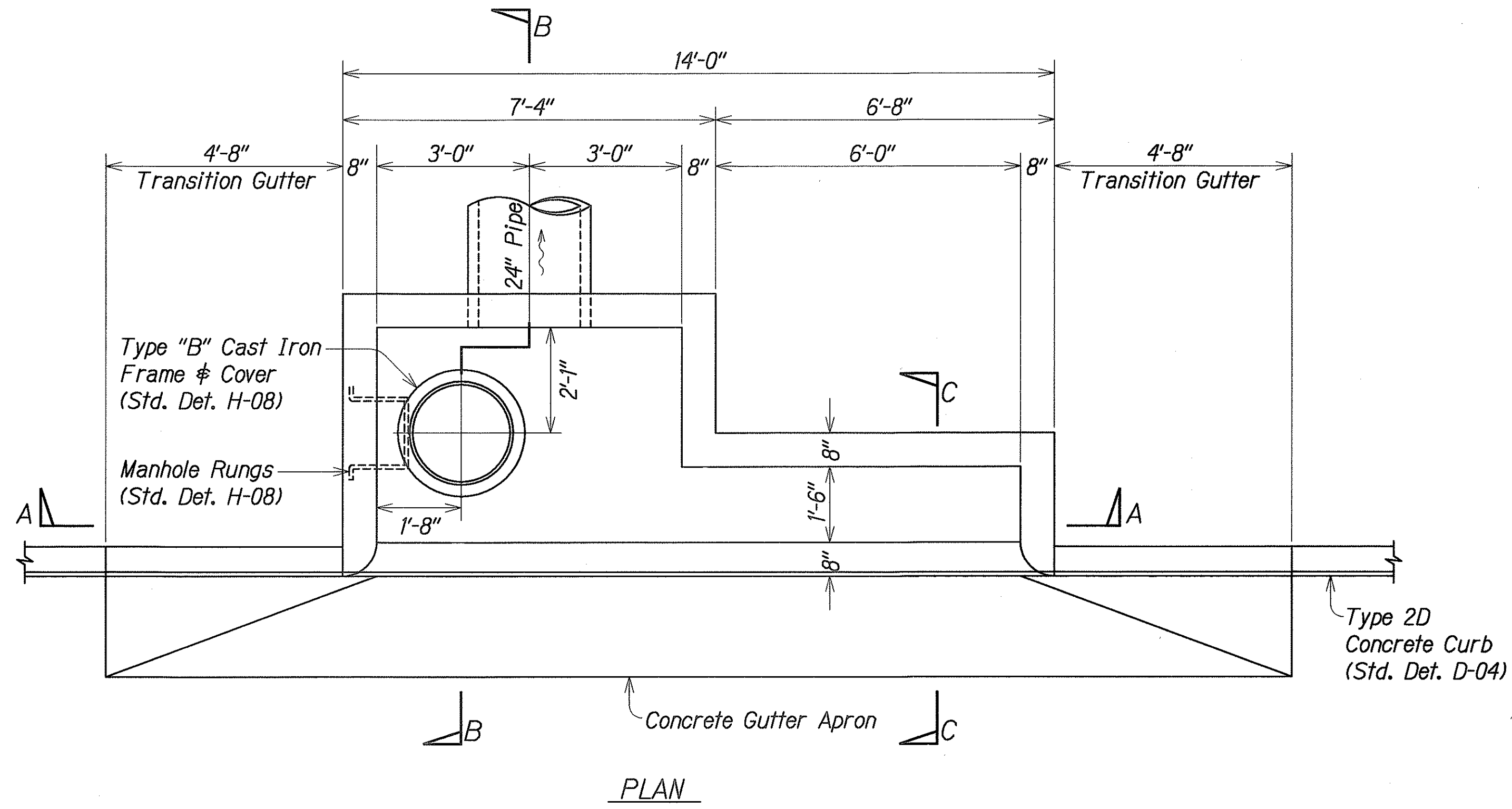


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	30	98



Note:
Catch Basin Reinforcing Not Shown. See Standard Plans H-01 and H-04 for Reinforcing Details.

TYPICAL TYPE "C" CATCH BASIN
Scale: 1/2"=1'-0"

DESIGNED BY	DATE
CHECKED BY	
NOTED BY	
TRACED BY	
ORIGINAL PLAN	



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Glenn K. Ikeda
Professional Engineer
License No. 8328-C
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

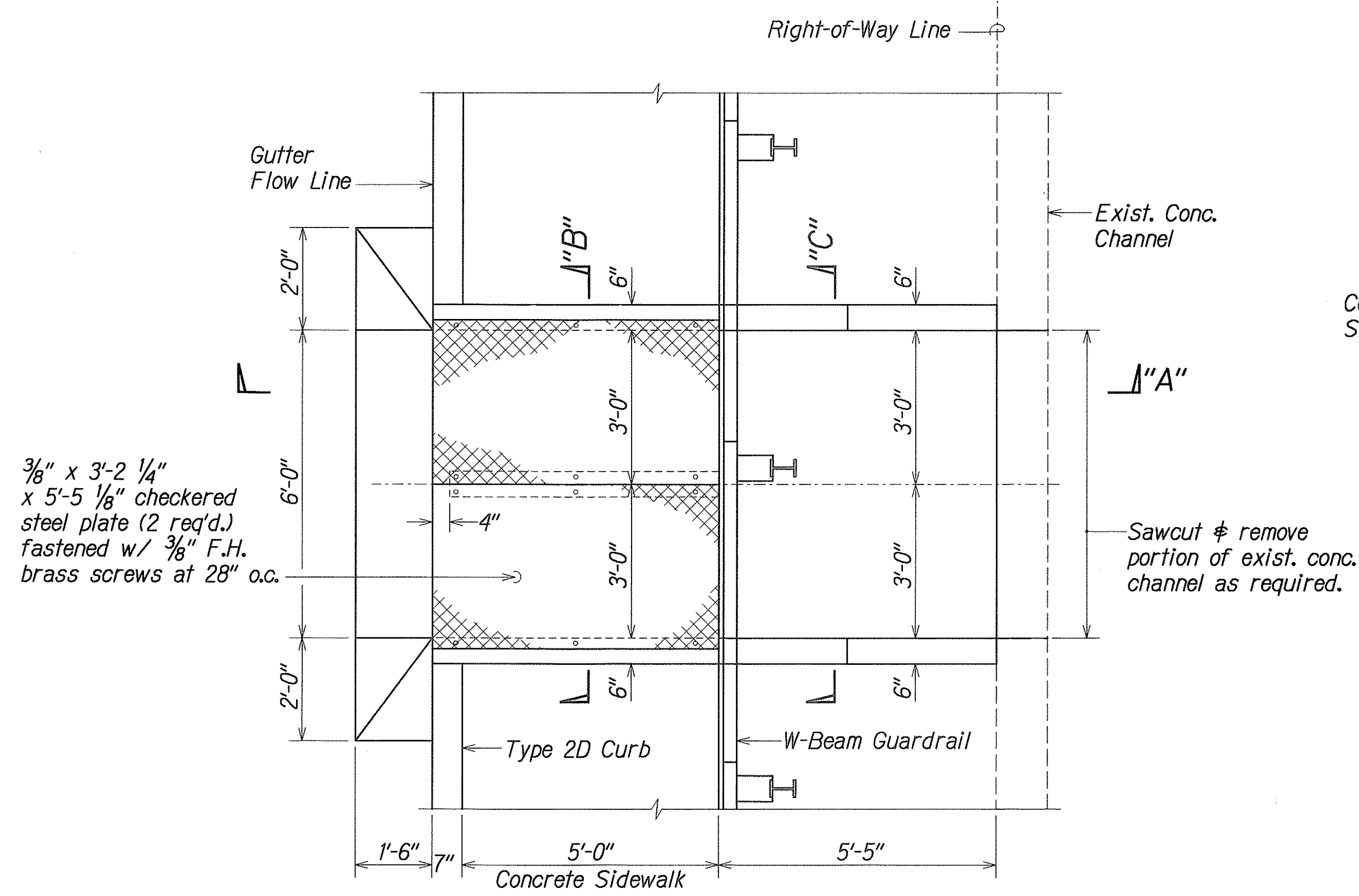
DRAINAGE DETAILS

KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS
Haiku Road to Ahuimanu Place
Project No. 83F-02-00M

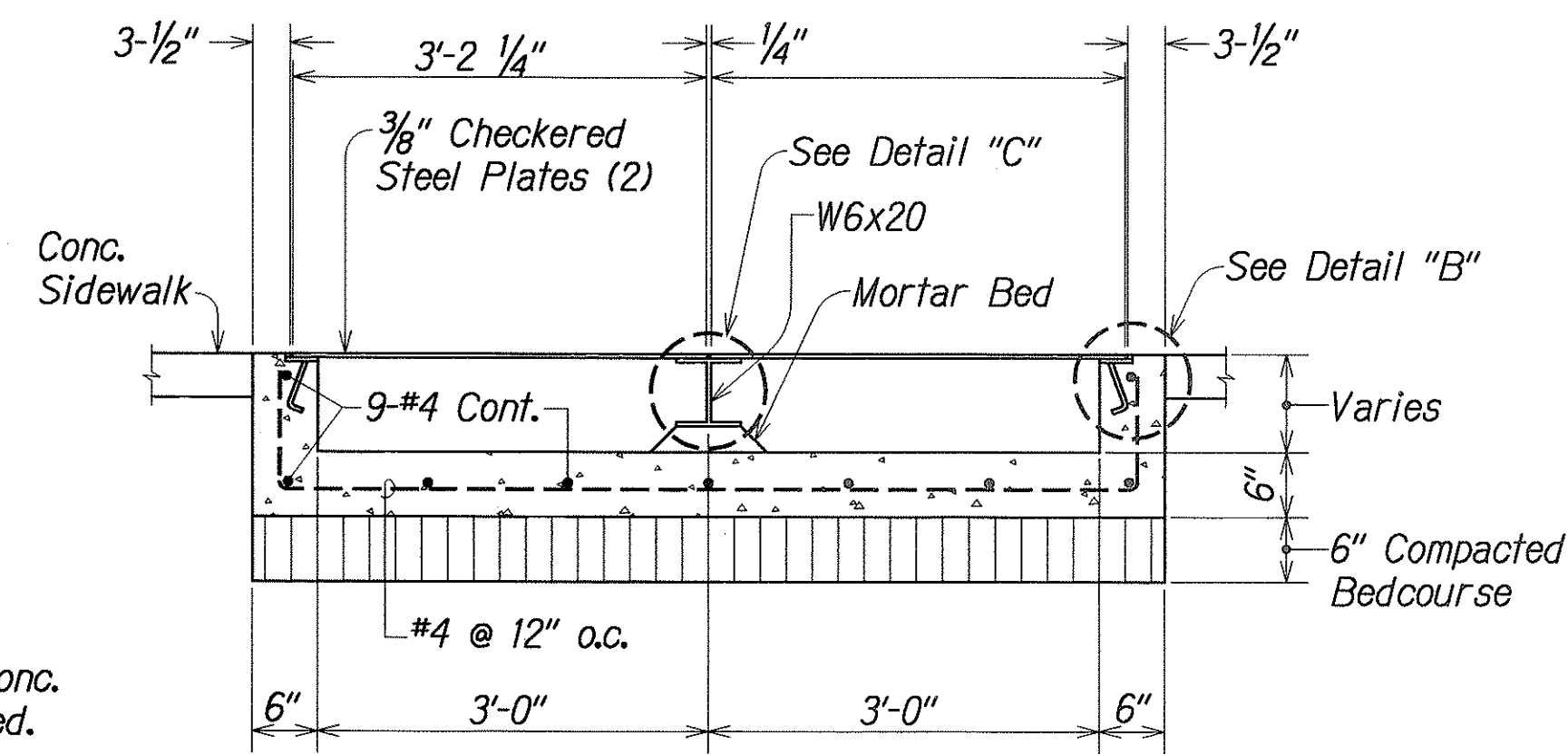
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SHEET No. **D3** OF **D8** SHEETS

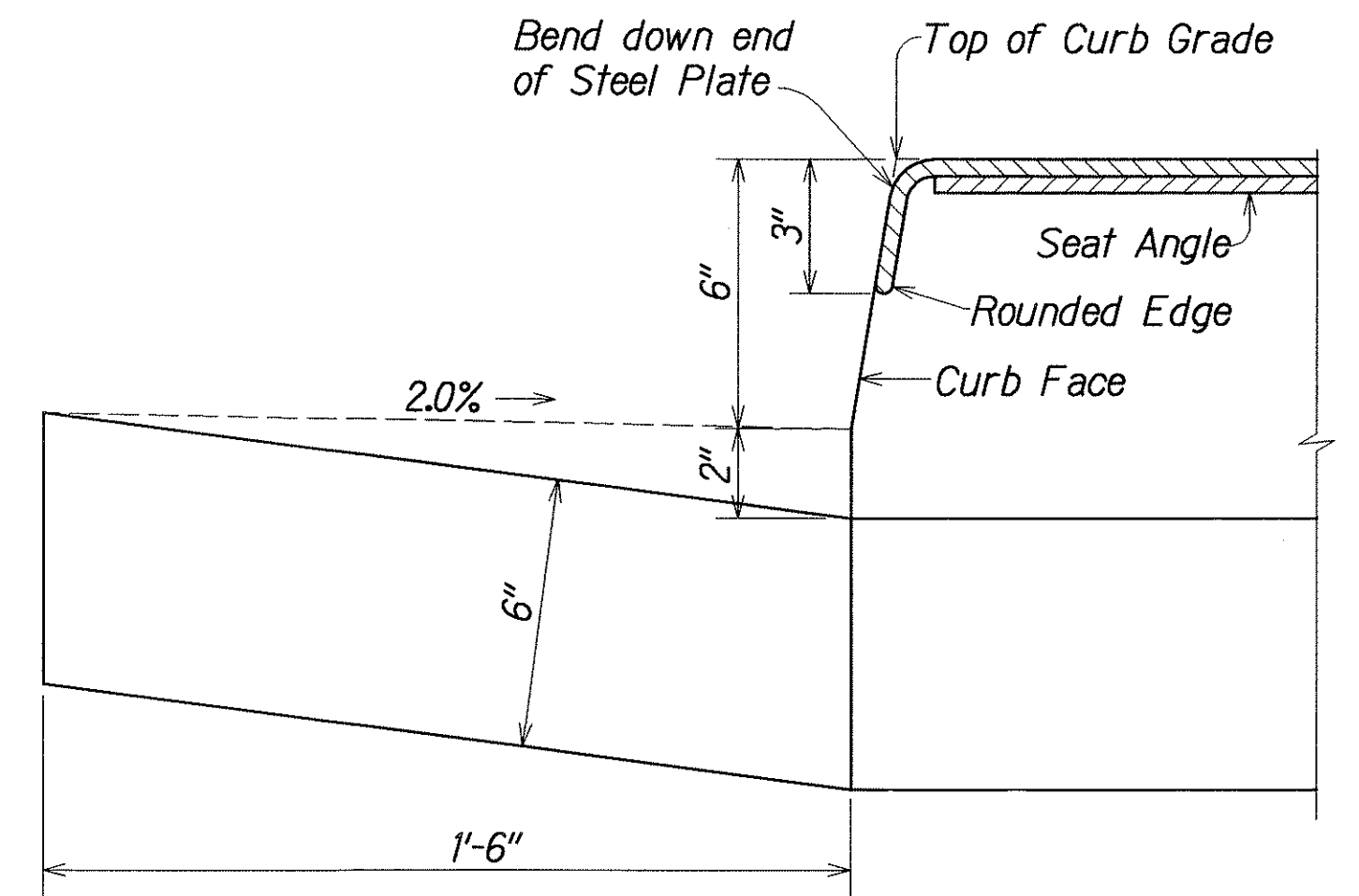
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HAWAII	HAW.	83F-02-00M	2004	C.O.30S-1	98



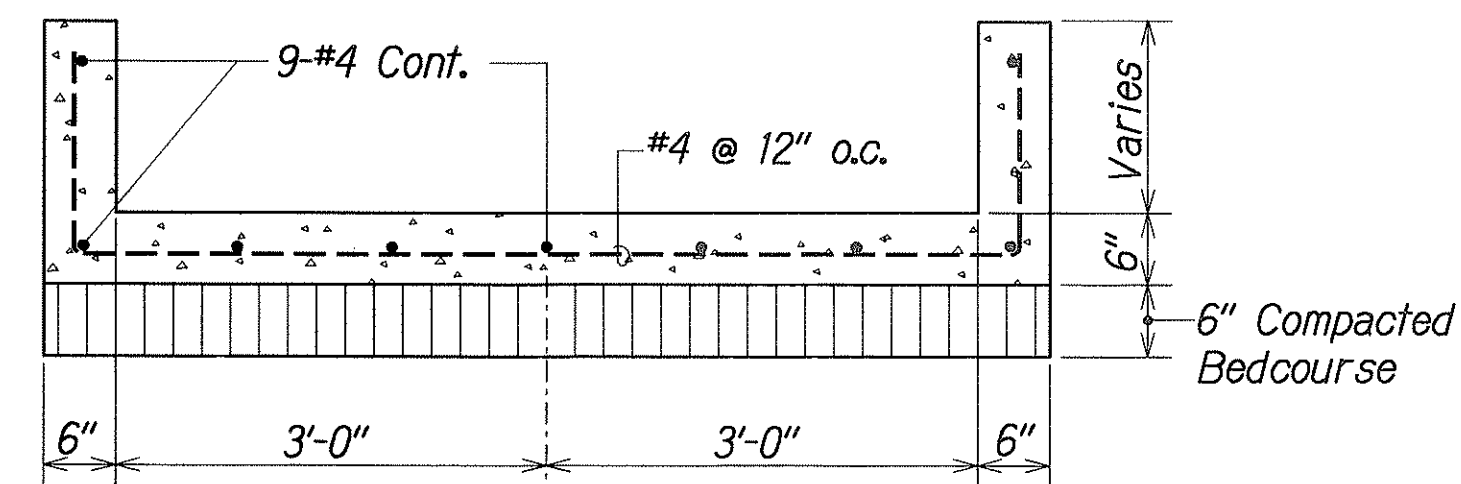
PLAN
SCALE: 1/2" = 1'-0"



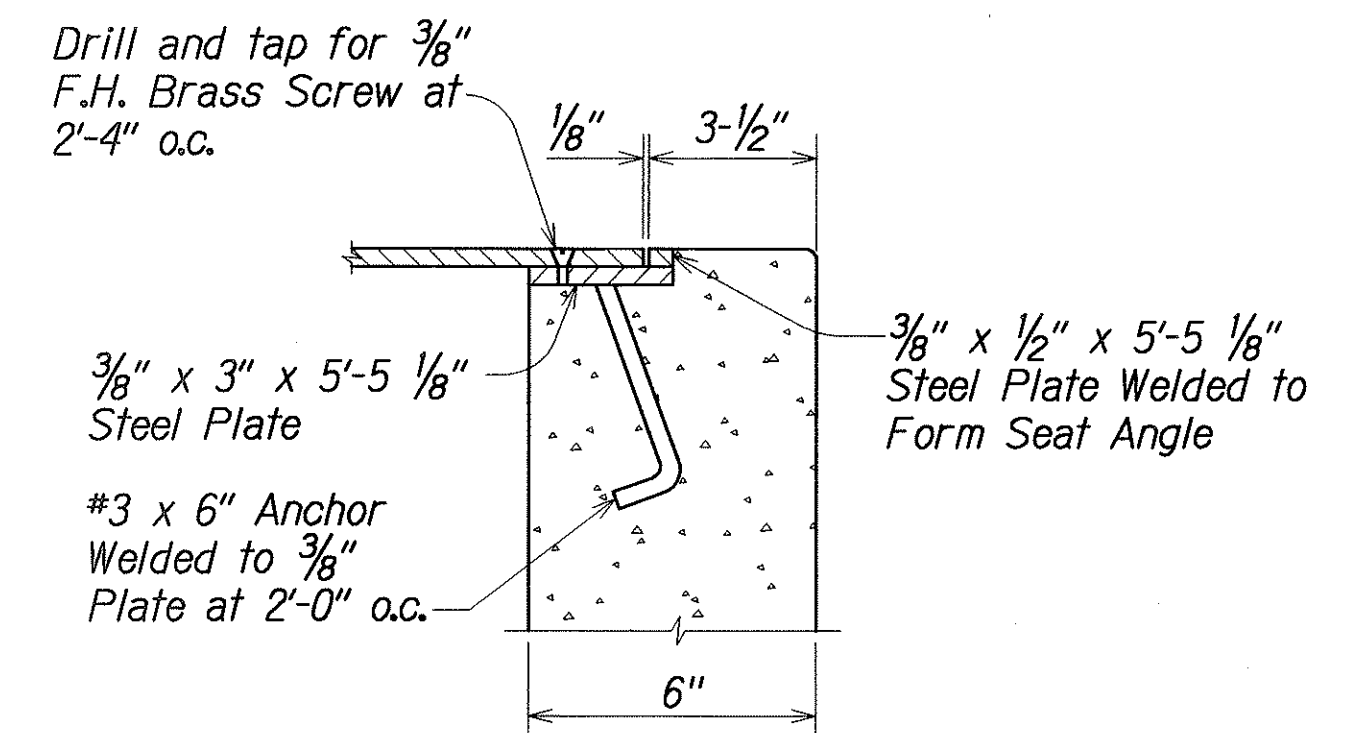
SECTION "B"
SCALE: 3/4" = 1'-0"



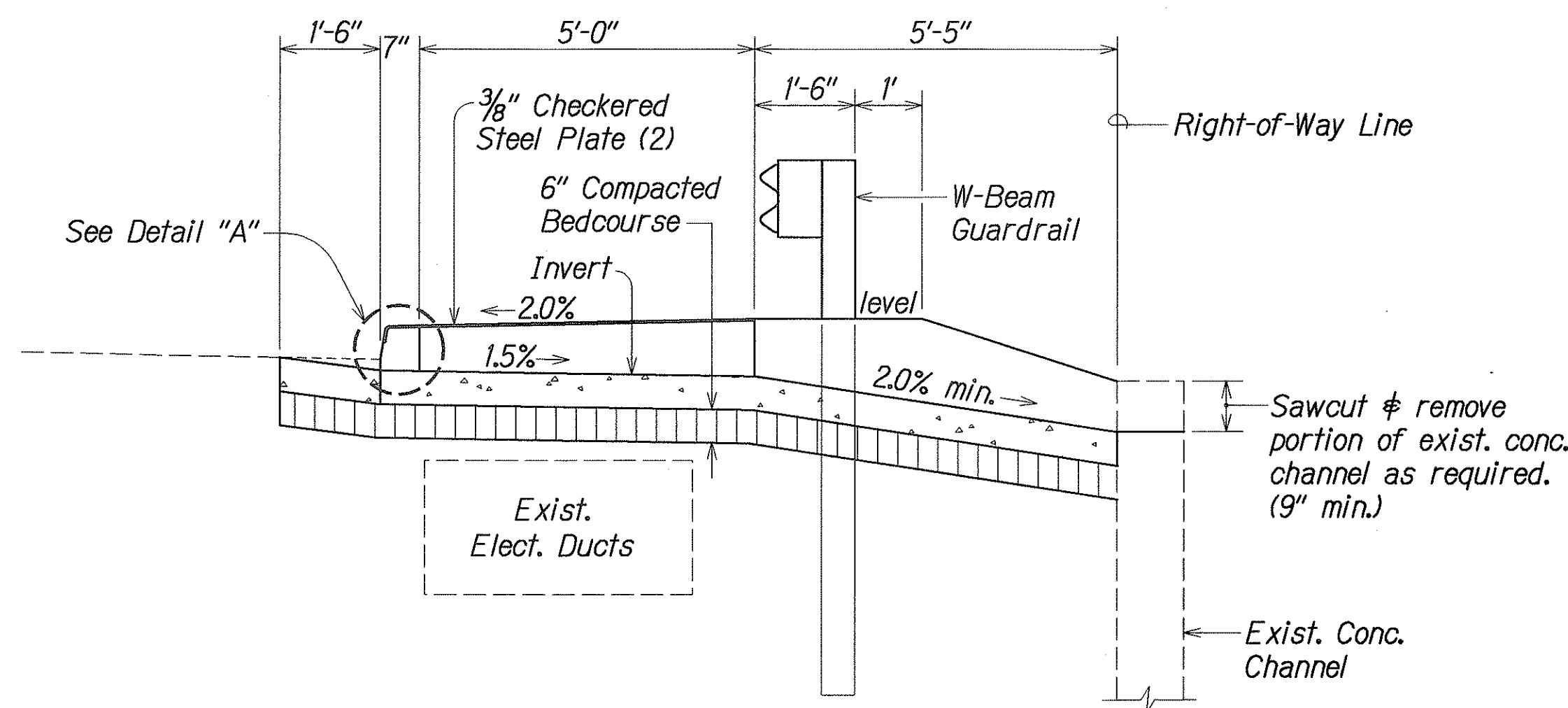
DETAIL "A"
SCALE: 3" = 1'-0"



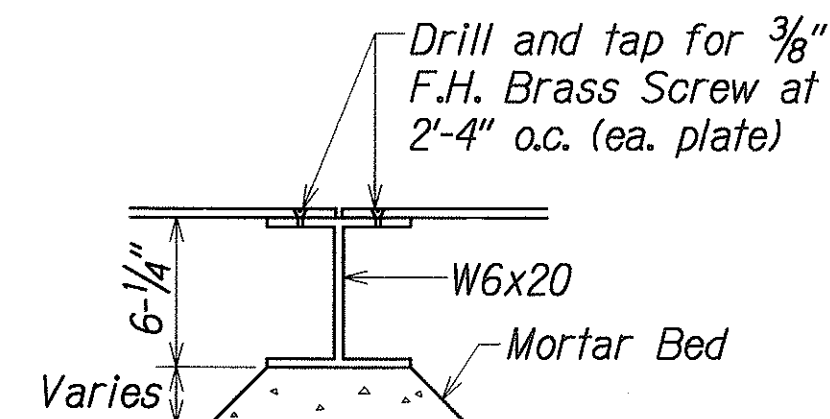
SECTION "C"
SCALE: 3/4" = 1'-0"



DETAIL "B"
SCALE: 3" = 1'-0"

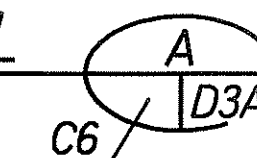


SECTION "A"
SCALE: 1/2" = 1'-0"



DETAIL "C"
SCALE: 1-1/2" = 1'-0"

SIDEWALK CULVERT DETAIL Scale: As Noted



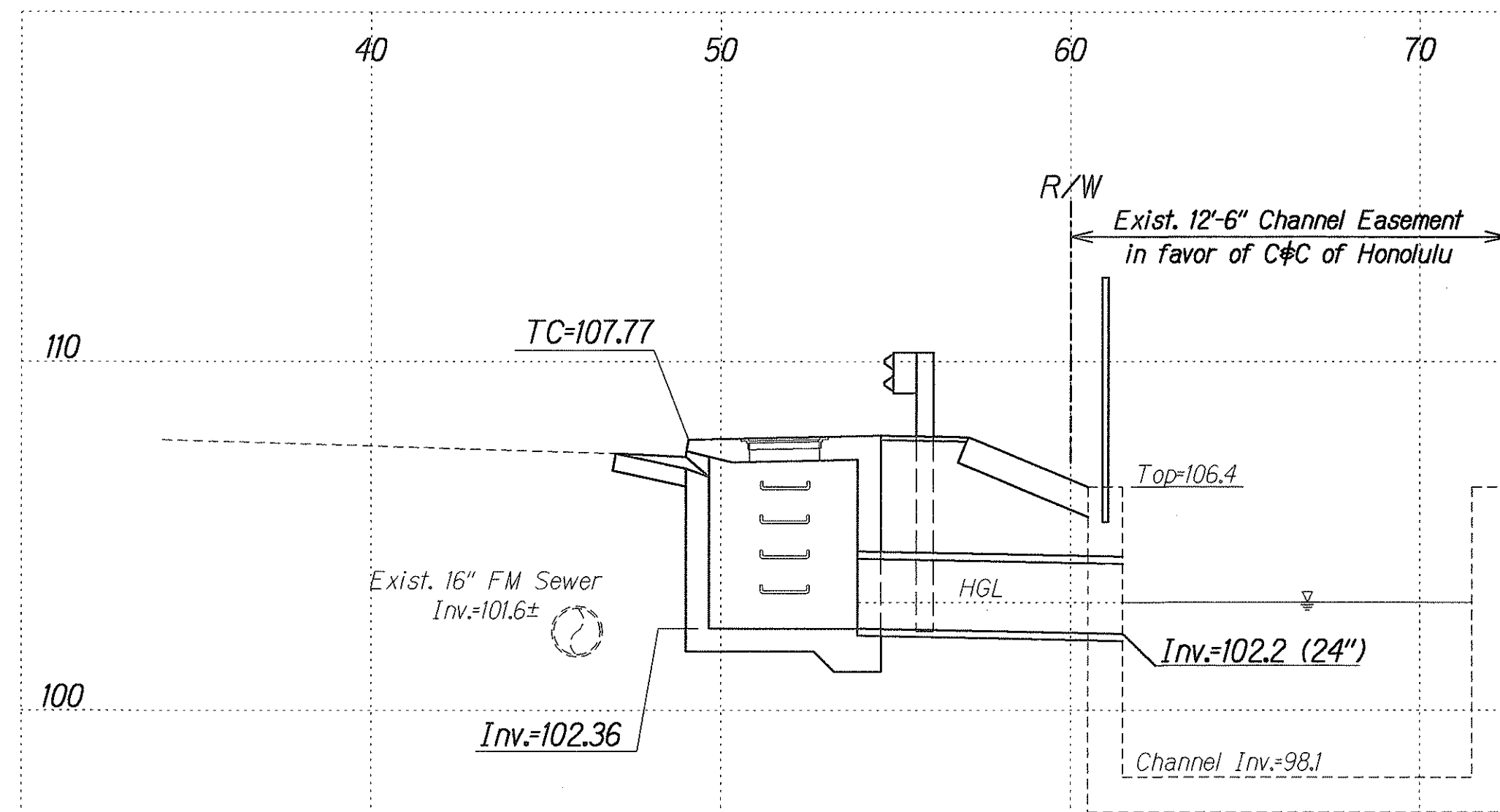
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OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION

Glenn K. Ikeda
P.E., Inc.
dba PARK ENGINEERING
LICENSE EXPIRES: 4-30-06

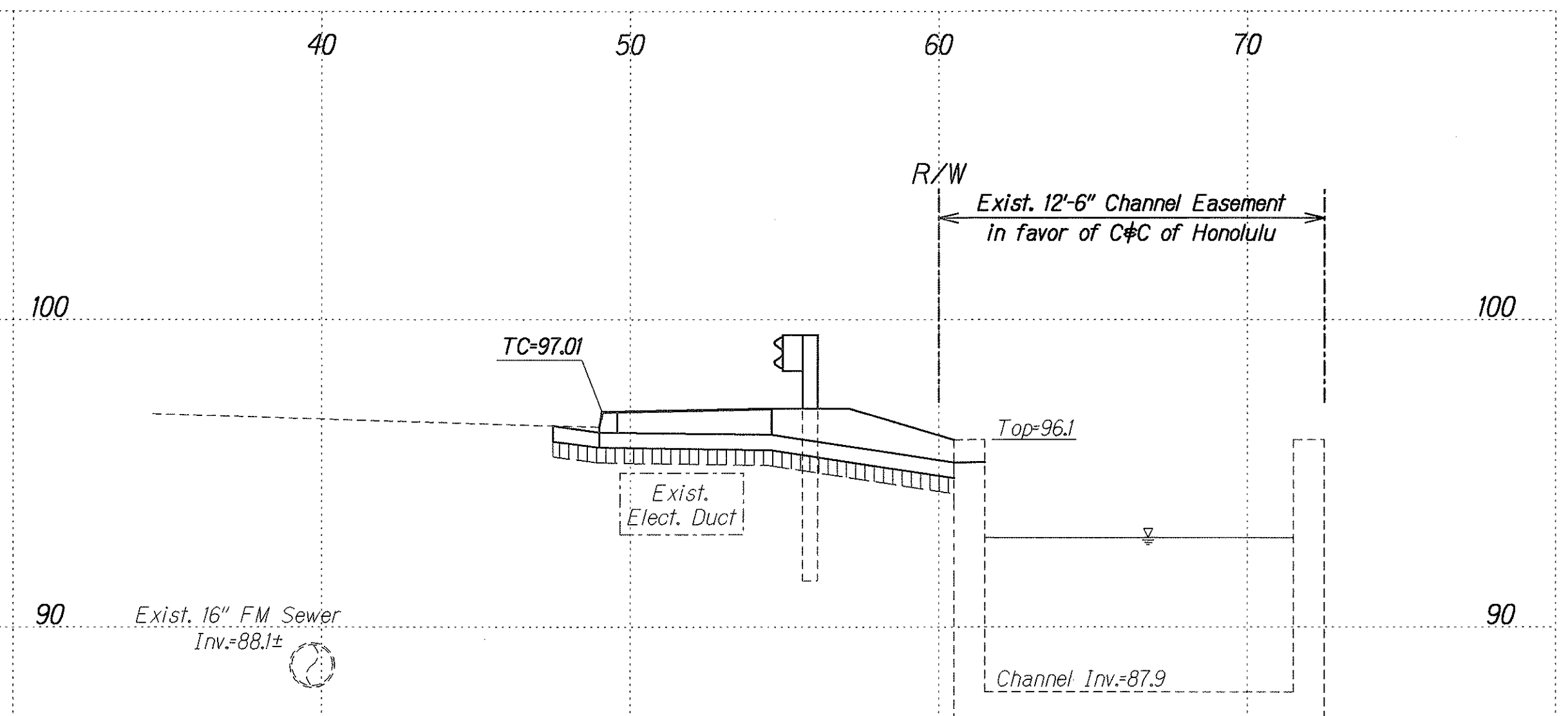
5/16/05	New Sheet.
Date	Revision
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
SIDEWALK CULVERT DETAILS	
KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS Haiku Road to Ahuimanu Place Project No. 83F-02-00M	
Scale: As Noted	Date: Sept. 2002
SHEET No. D3A OF D8 SHEETS	

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

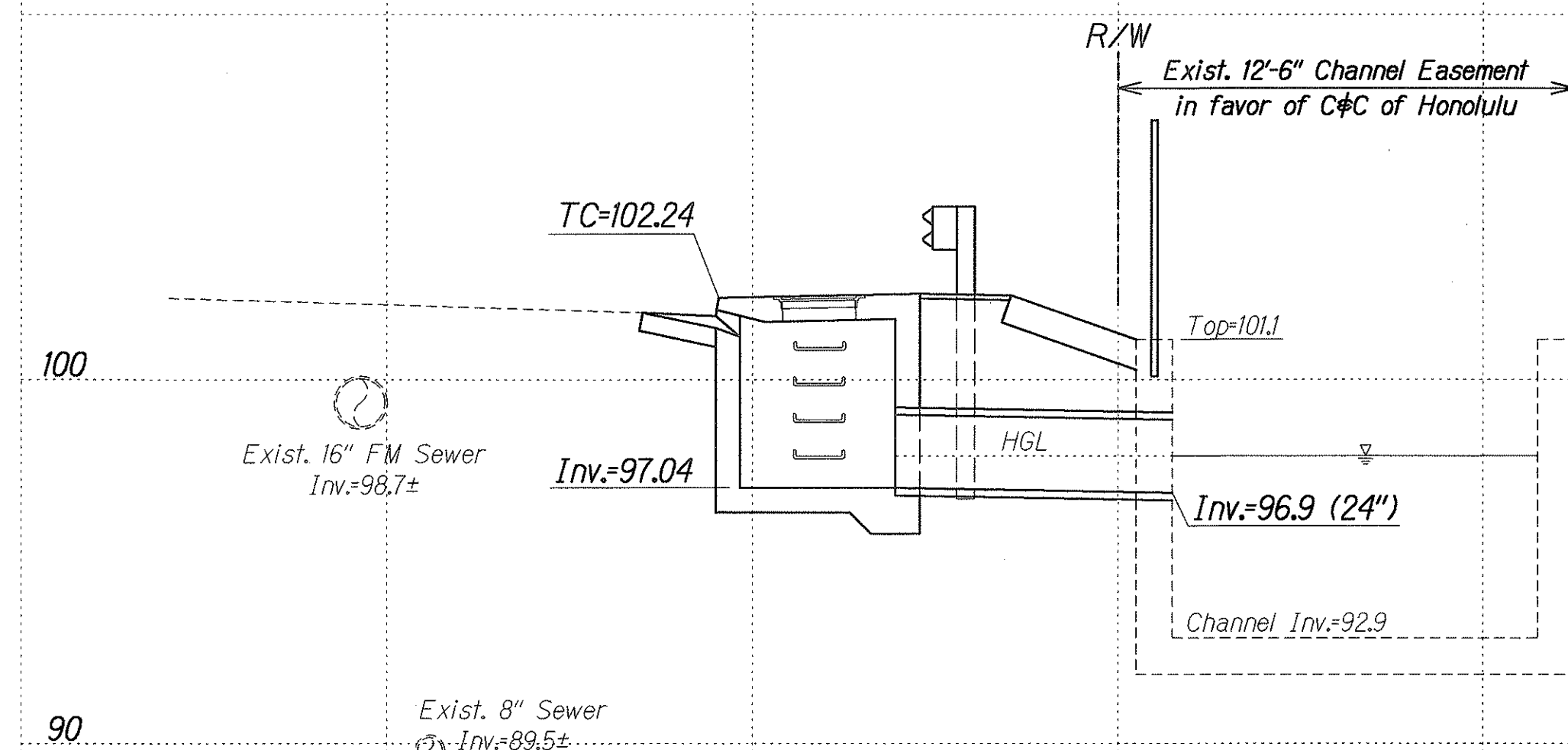
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	C.O.31	98



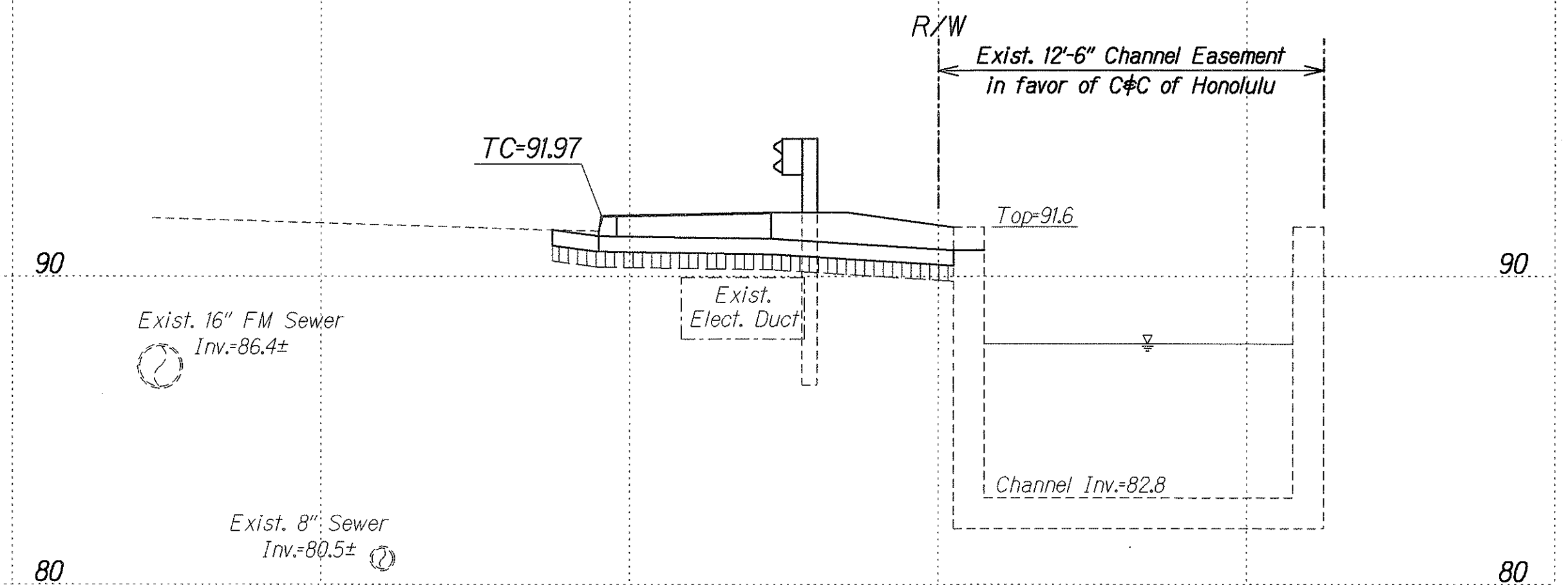
SECTION THROUGH C.B. No. 1
(Sta. 145+85)
SCALE: 1/4" = 1'-0"



SECTION THROUGH S/W CULVERT NO. 2
(Sta. 151+20)
SCALE: 1/4" = 1'-0"



SECTION THROUGH C.B. No. 2
(Sta. 148+50)
SCALE: 1/4" = 1'-0"



SECTION THROUGH S/W CULVERT NO. 4
(Sta. 153+70)
SCALE: 1/4" = 1'-0"

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
NO.	

APPROVED: DATE:

(*) Dennis W. Nishimura 7/10/03
CHIEF, WASTEWATER BRANCH, DPP
(*) Digitally scanned and reproduced signature. Bid set original tracing of this sheet contains original signature.



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Glen K. Ikeda
P.E., INC.
dbs PARK ENGINEERING
LICENSE EXPIRES: 4-30-08

5/16/05 Revised Sections Through Sta. 151+20 and Through Sta. 153+70.

Date Revision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE SECTIONS

KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS
Haiku Road to Ahuimanu Place
Project No. 83F-02-00M
Scale: As Noted Date: Sept. 2002

SHEET No. D4 OF D8 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	32	98

General:

- A. Workmanship and materials shall conform to the Hawaii Standard Specifications for Road, Bridge, and Public works construction.
- B. The Contractor shall compare all the contract documents with each other and report in writing to the engineer all inconsistencies and omissions.
- C. The Contractor shall take field measurements and verify field conditions and shall compare such field measurements and conditions with the drawings before commencing work. Report in writing to the engineer all inconsistencies and omissions.
- D. The Contractor shall be responsible for coordinating the work of all trades.
- E. The Contractor shall be responsible for methods of construction, workmanship and job safety. The Contractor shall provide temporary shoring and bracing as required for stability of structural members and systems.
- F. The Contractor shall be responsible for protection of the adjacent properties, structures, streets and utilities during the construction period.
- G. Details noted as typical on the structural drawings shall apply in all conditions unless specifically shown or noted.

Concrete:

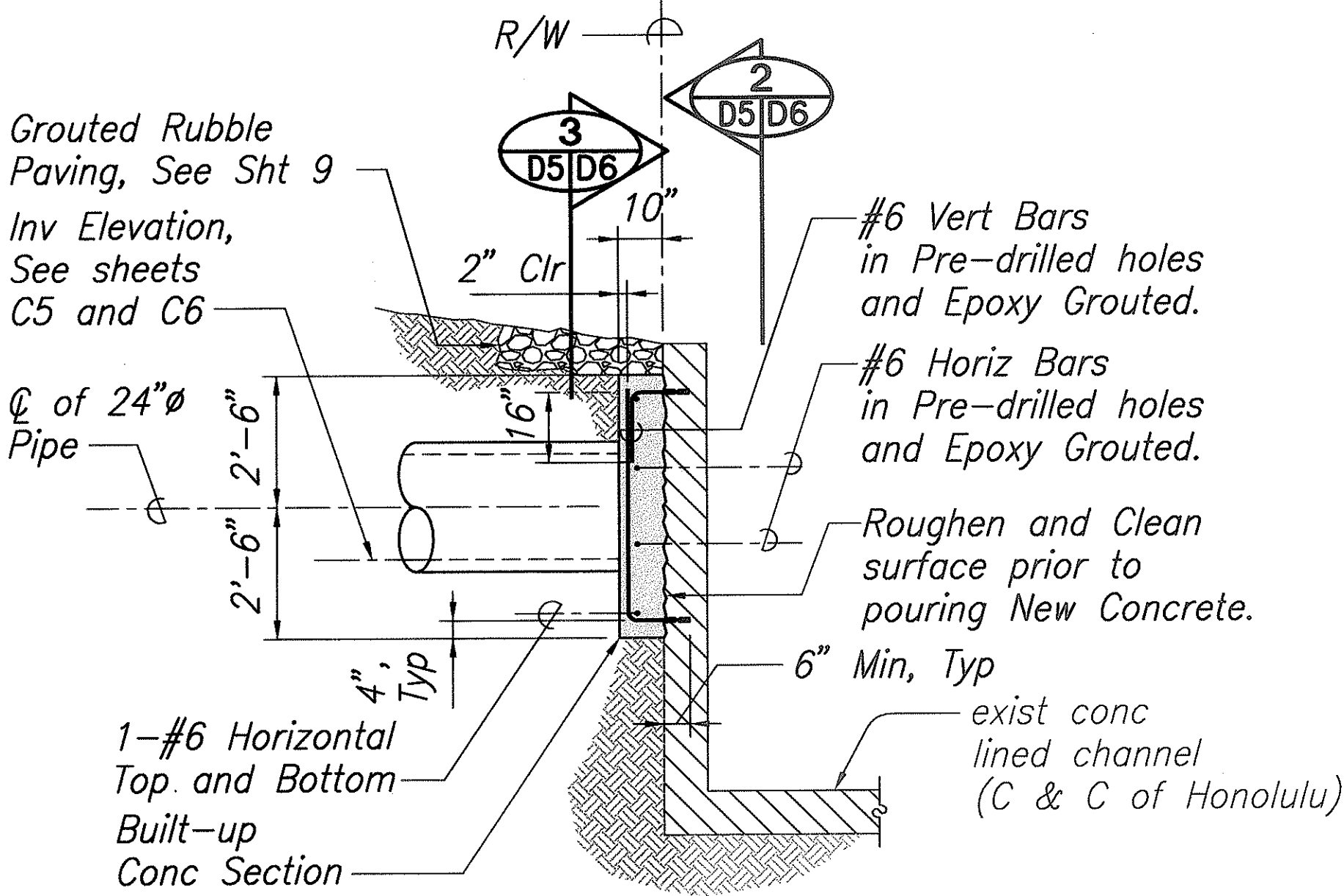
- A. Concrete construction shall conform to American Concrete Institute ACI 318R-95.
- B. All concrete shall be Class A regular weight hard rock concrete with minimum 28 day compressive strengths of 3,000 psi unless otherwise noted.
- C. Reinforcing bars, anchor bolts, inserts, and other items to be cast in the concrete shall be secured in position prior to placement of concrete.
- E. Epoxy shall conform to AASHTO M235, Type IV, Grade 3, Class C.

Reinforcing Steel:

- A. Reinforcing steel shall be deformed bars conforming to ASTM A615, Grade 60.
- B. Clear concrete cover for reinforcing bars shall be as follows, unless otherwise noted:
 - a. Cast against earth _____ 3"
 - b. Formed and exposed to earth or weather _____ 2"
- C. Bar bends and hooks shall be "Standard Hooks" in accordance with ACI 318.

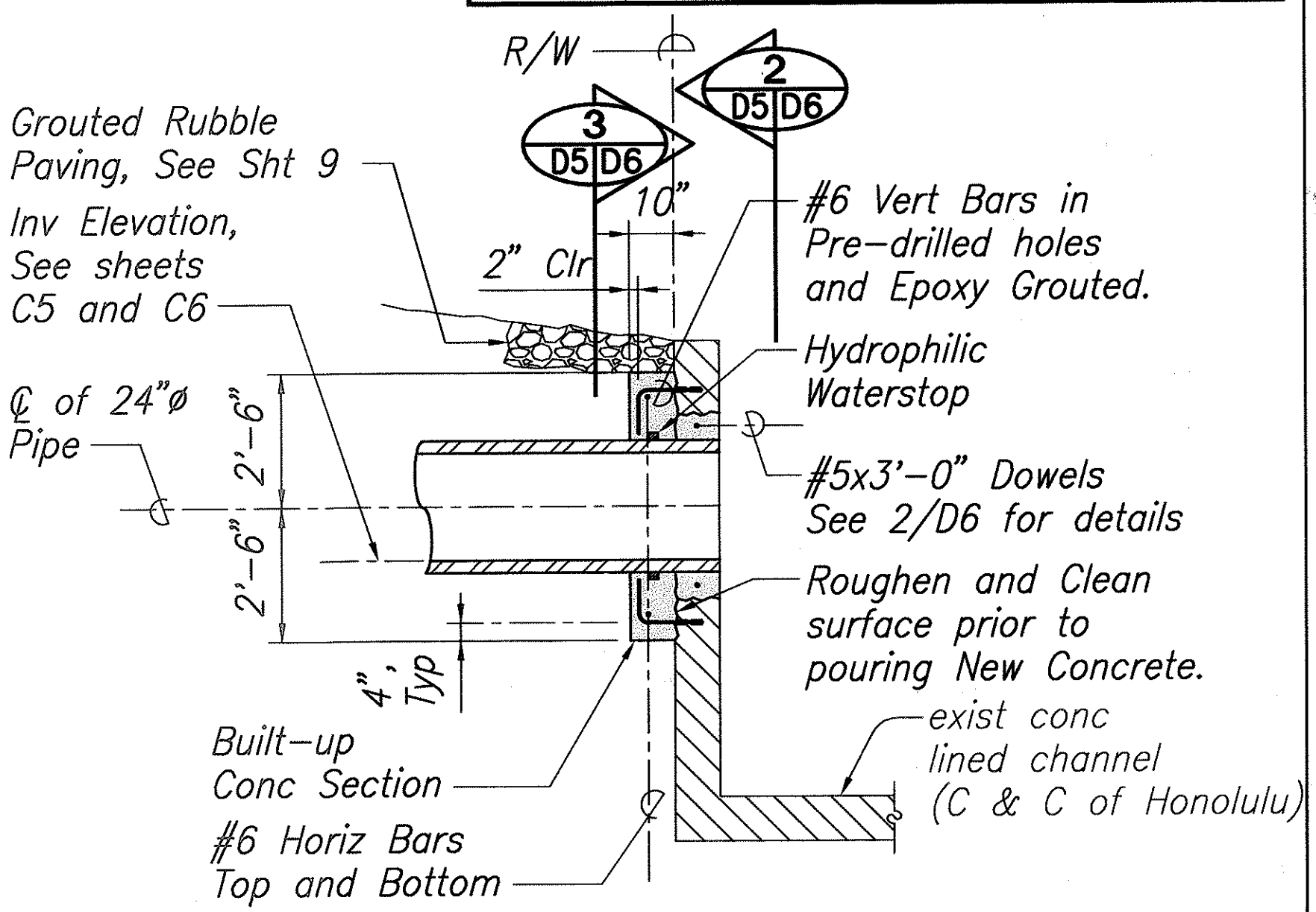
Existing Concrete

- A. Verify location of existing reinforcement with an electromagnetic rebar locator before drilling holes (for bars to be embedded) into existing concrete. Holes may need to be adjusted to avoid existing reinforcement.



Note:
#6 Diagonal Bars not shown for clarity

1 SECTION AT NEAR SIDE OF PIPE
Scale 3/8" = 1'-0"



Note:
#6 Diagonal Bars not shown for clarity

2 SECTION AT PIPE
Scale 3/8" = 1'-0"

DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

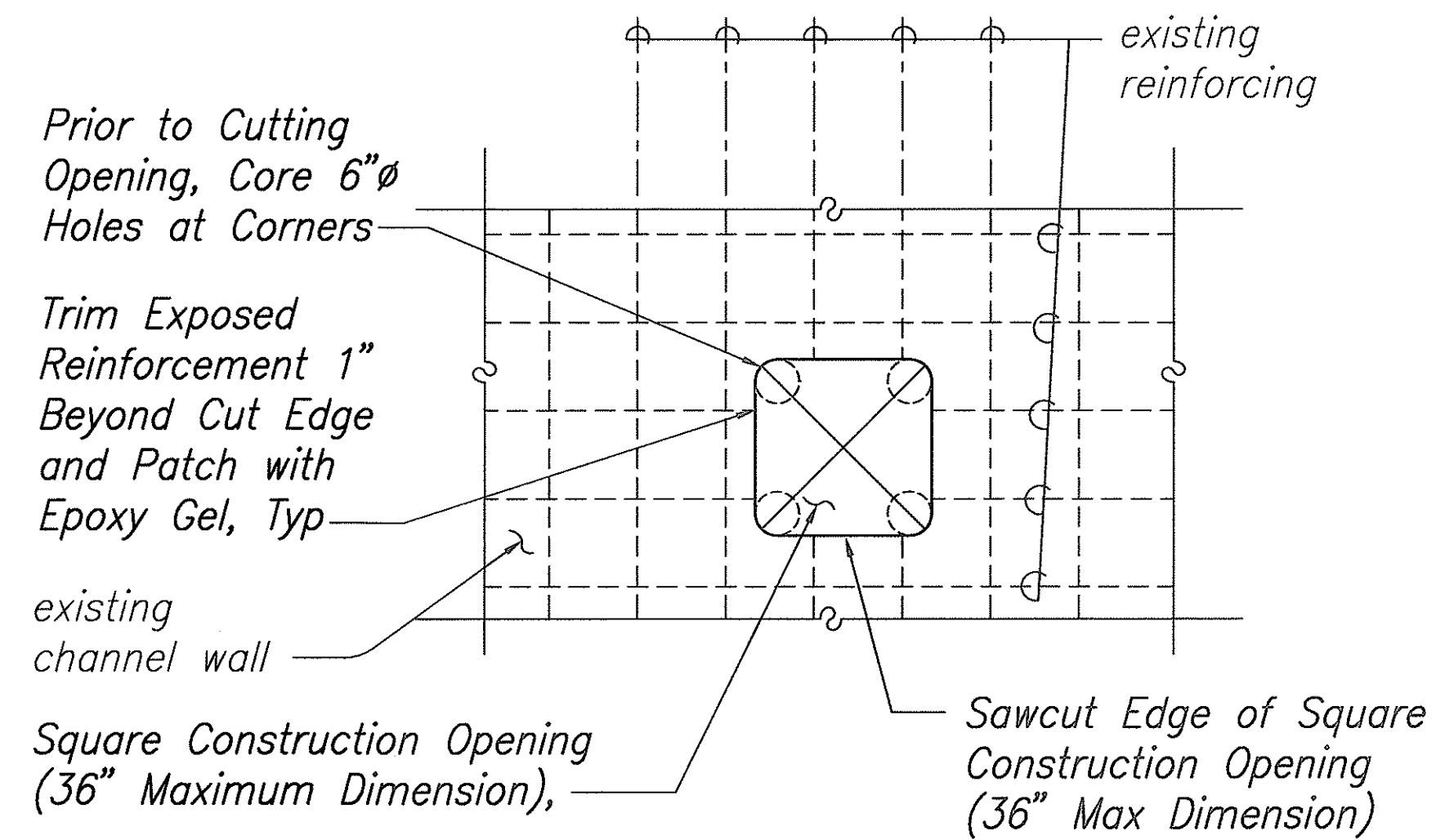
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**STRUCTURAL NOTES
AND DRAINAGE DETAILS**

KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS
Haiku Road to Ahuimanu Place
Project No. 83F-02-00M

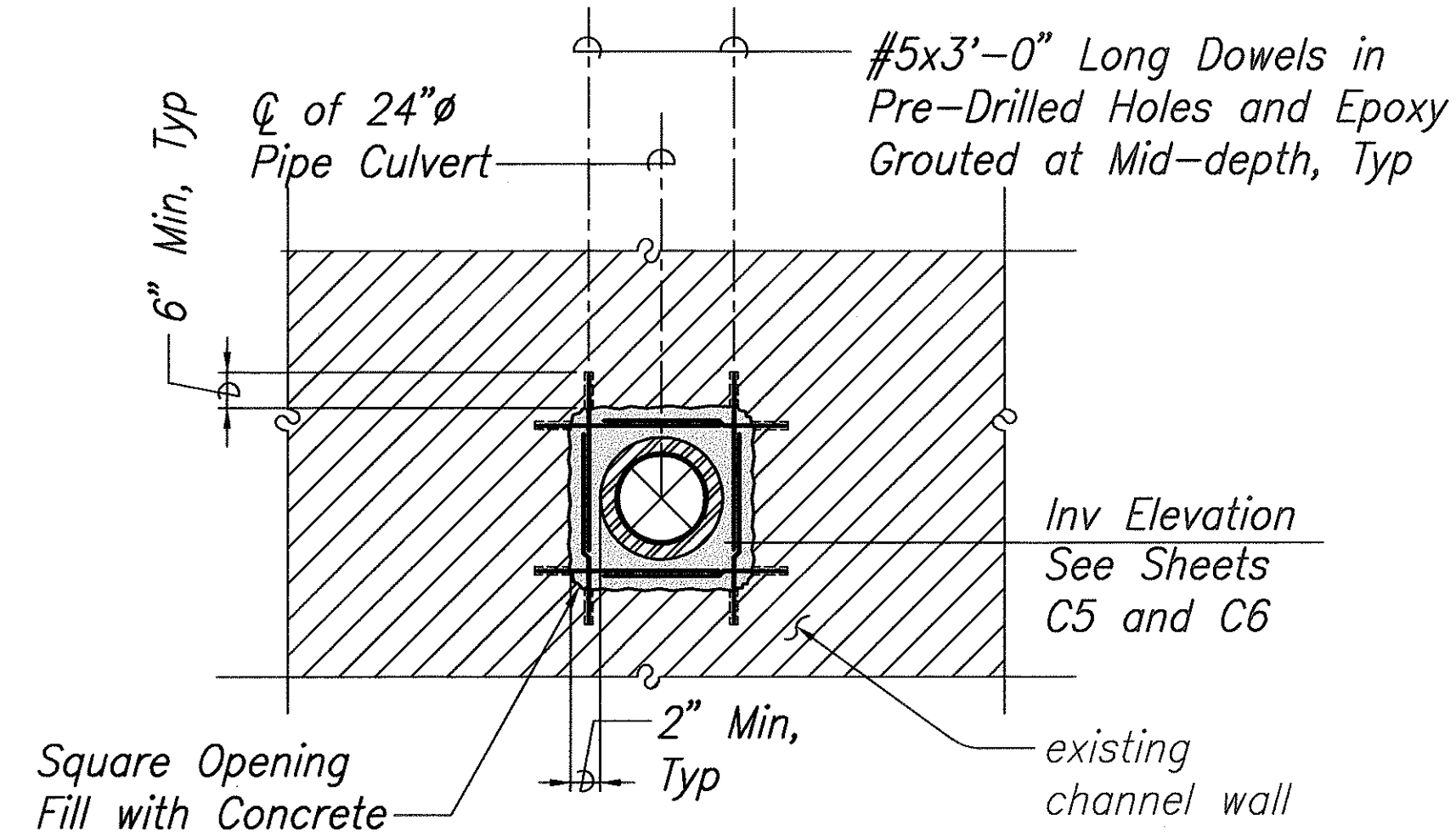
Date: Sept 2002

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	33	98



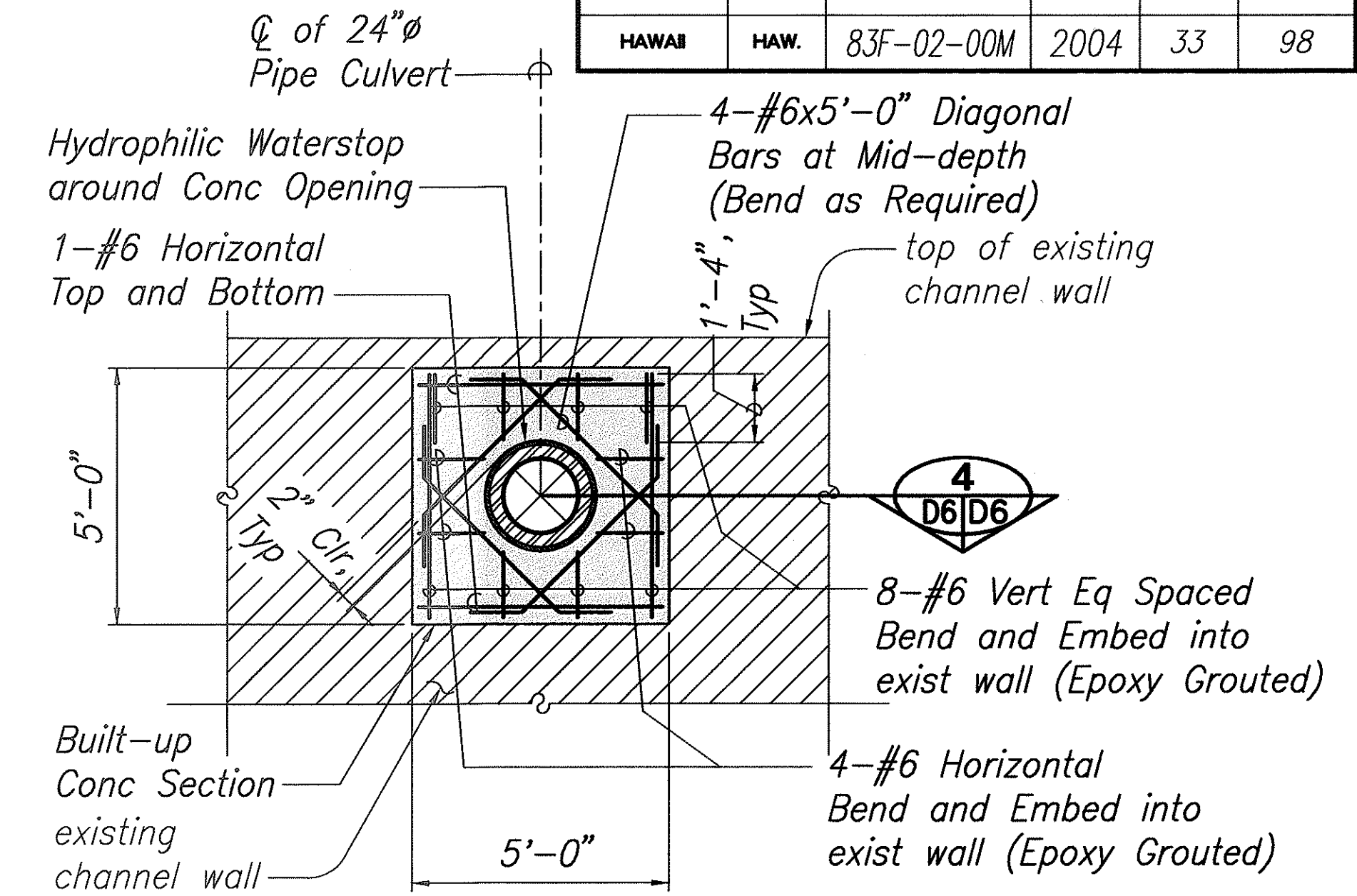
ELEVATION

1 PENETRATION DETAIL
D6/D6 Scale 3/8" = 1'-0"

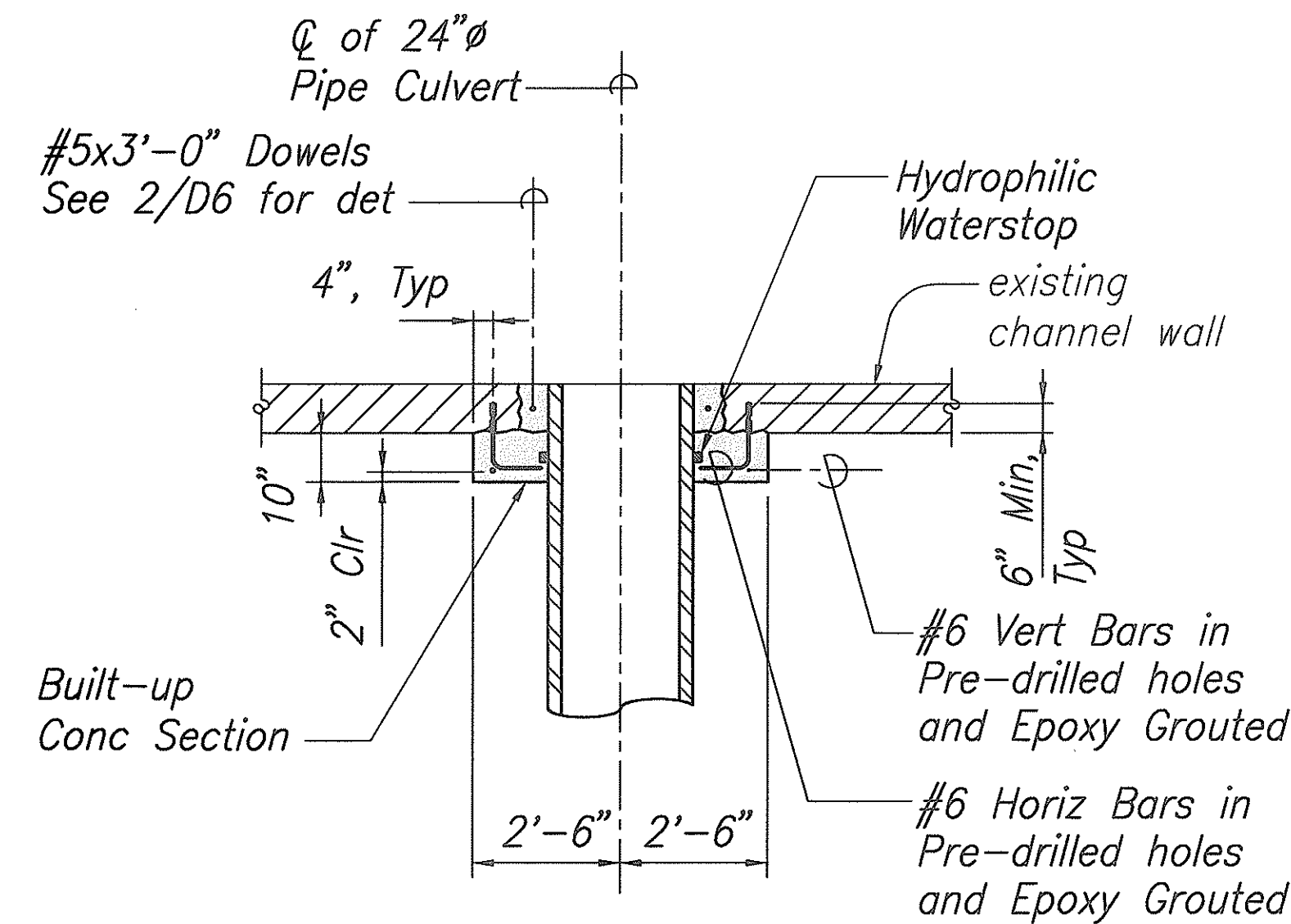


ELEVATION

2 CHANNEL PENETRATION DETAIL
D5/D6 Scale 3/8" = 1'-0"



3 CONCRETE BUILT-UP SECTION
D5/D6 Scale 3/8" = 1'-0"



4 SECTION
D6/D6 Scale 3/8" = 1'-0"

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS
Haiku Road to Ahuimanu Place
Project No. 83F-02-00M

Scale: As Noted Date: Sept 2002

SHEET No. D6 OF D8 SHEETS