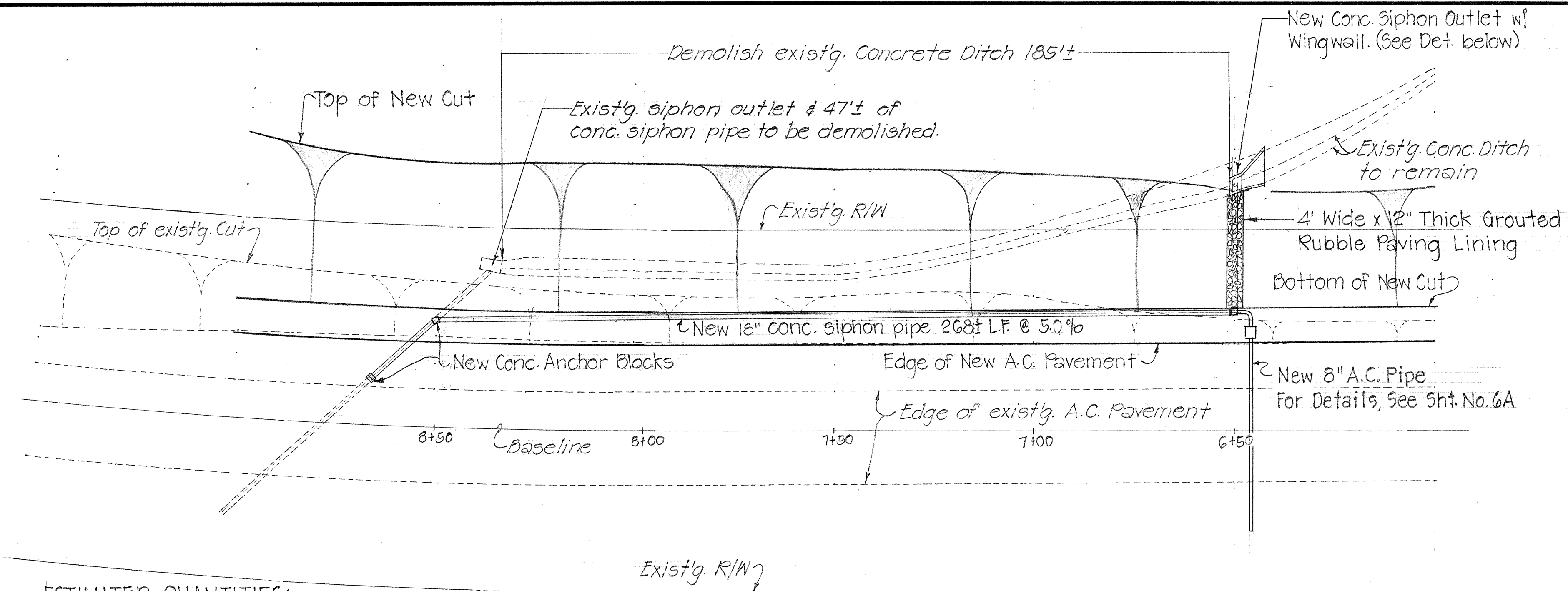


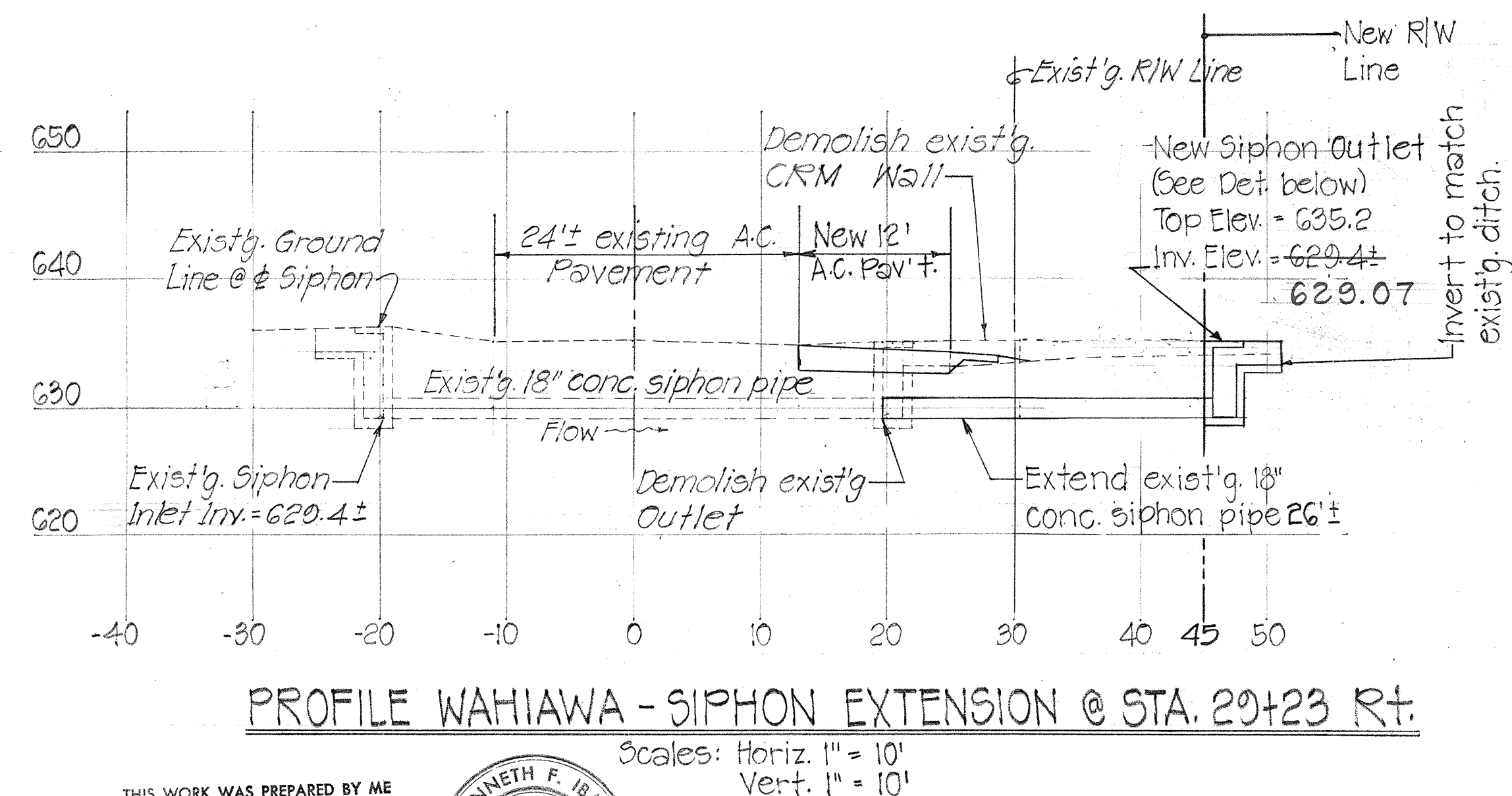
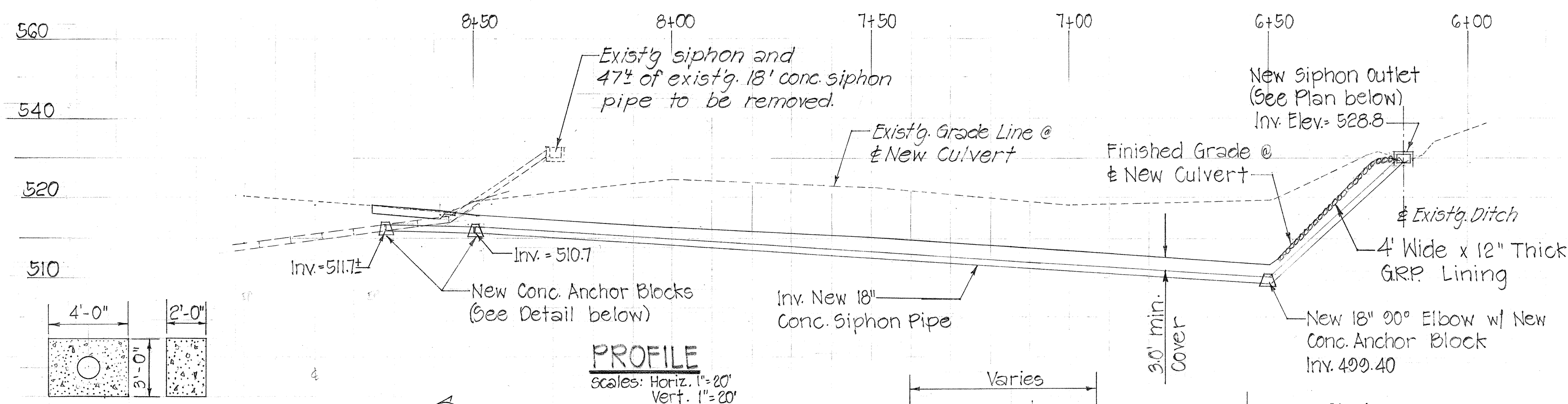
DIST. NO.	STATE	FED-AID- PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-70	1974	6	49



ESTIMATED QUANTITIES:

Struct. Exc. 156 c.y.
18" Conc. Siphon Pipe 268 L.F.
GRP Lining 10 c.y.
Bed Course Material 35 c.y.
Concrete 5 c.y.
Reinforcing Steel 132 lb.

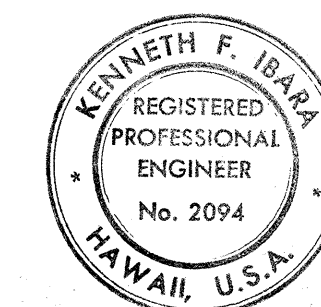
PLAN-WAHIAWA SIPHON EXTENSION @ STA. 20+00± Rt.
Scale: 1" = 20'



PROFILE WAHIAWA - SIPHON EXTENSION @ STA. 20+23 Rt.
Scale: Horiz. 1" = 10'
Vert. 1" = 10'

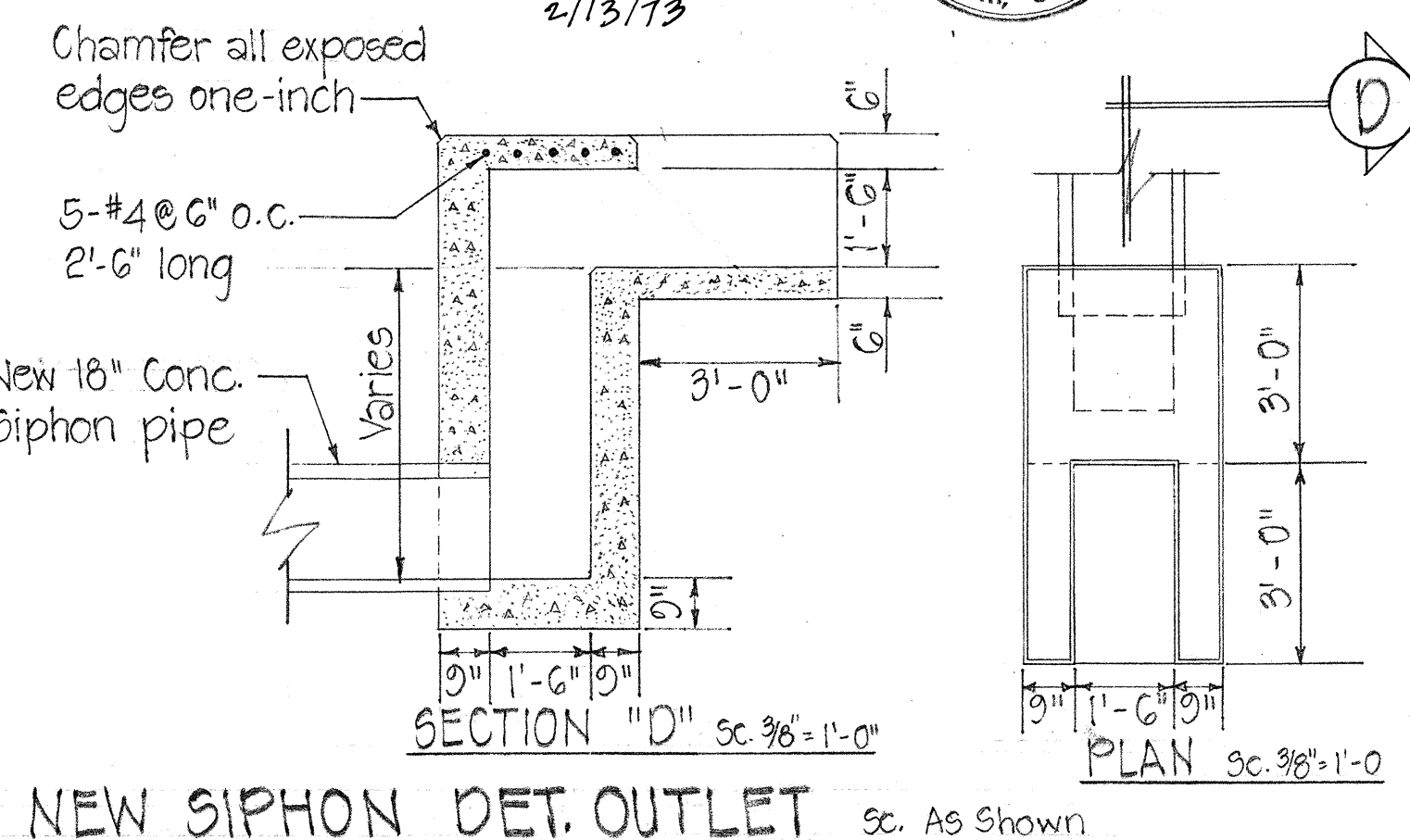
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

Kenneth F. Hara
Signature
2/13/73



ESTIMATED QUANTITIES:

Struct. Exc. 22 c.y.
18" Conc. Siphon Pipe 26± L.F.
Bed Course Material 17 c.y.
Concrete 1.5 c.y.
Reinforcing Steel 16 lb.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS OF SIPHON EXTENSIONS

WAHIAWA SECTION

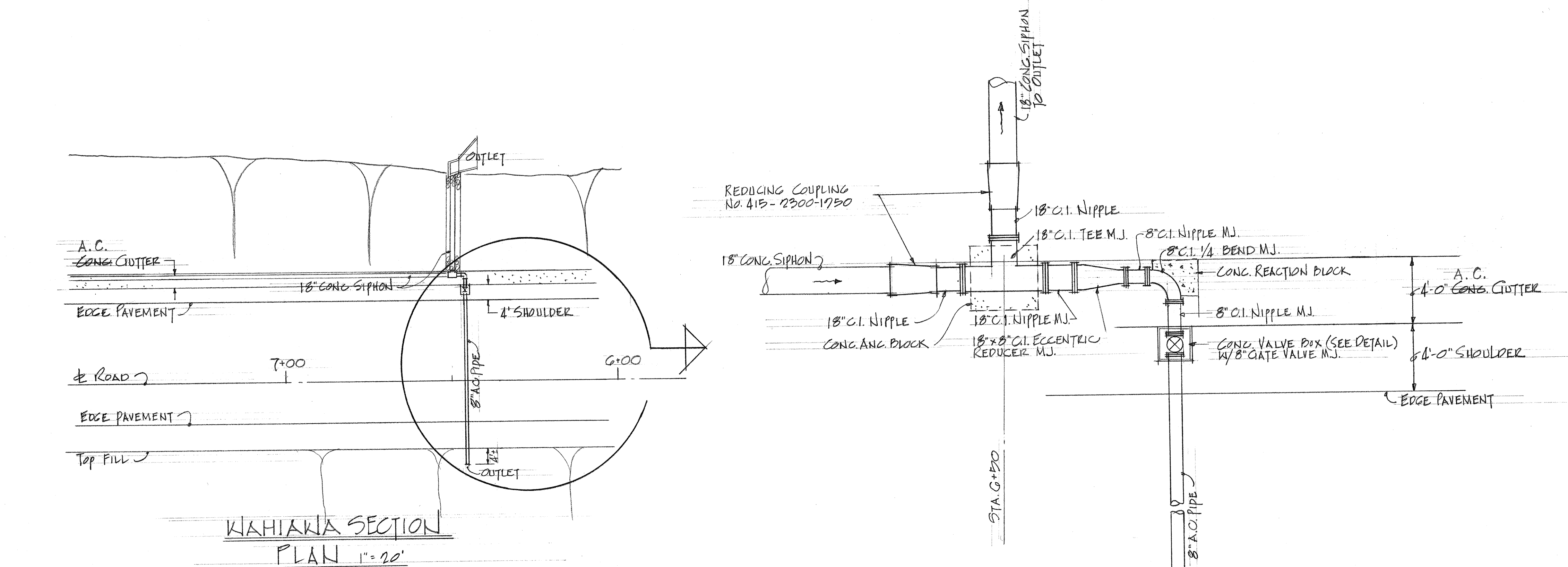
TRUCK CLIMBING LANES AT THREE
LOCATIONS (WAHIAWA, LAWAI AND OMARO VALLEYS)

PROJ. NO. 50 CD-01-70

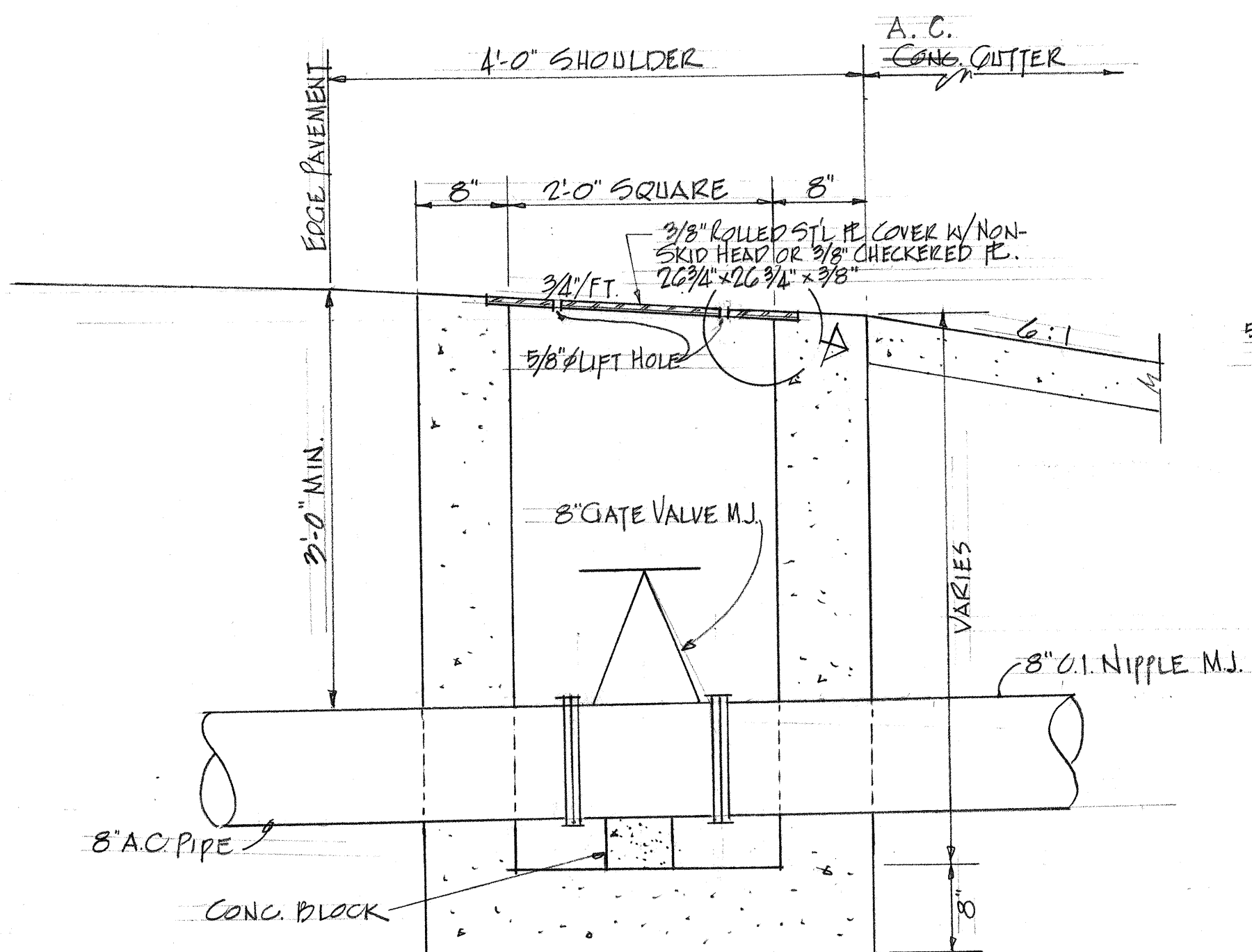
SHEET No. OF SHEETS

DATE	2/13/73
SURVEY PLOTTED BY	...
DRAWN BY	...
CHECKED BY	...
ORIGINAL PLAN	...
NOTE BOOK	...
No.	...

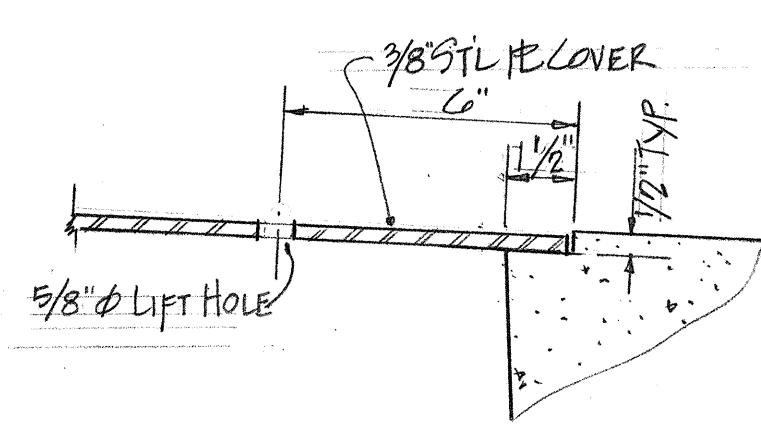
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-70	1974	6A	49



WAIHAWA SECTION
PLAN 1"=20'



DETAIL-CONC. VALVE BOX 1"=50'



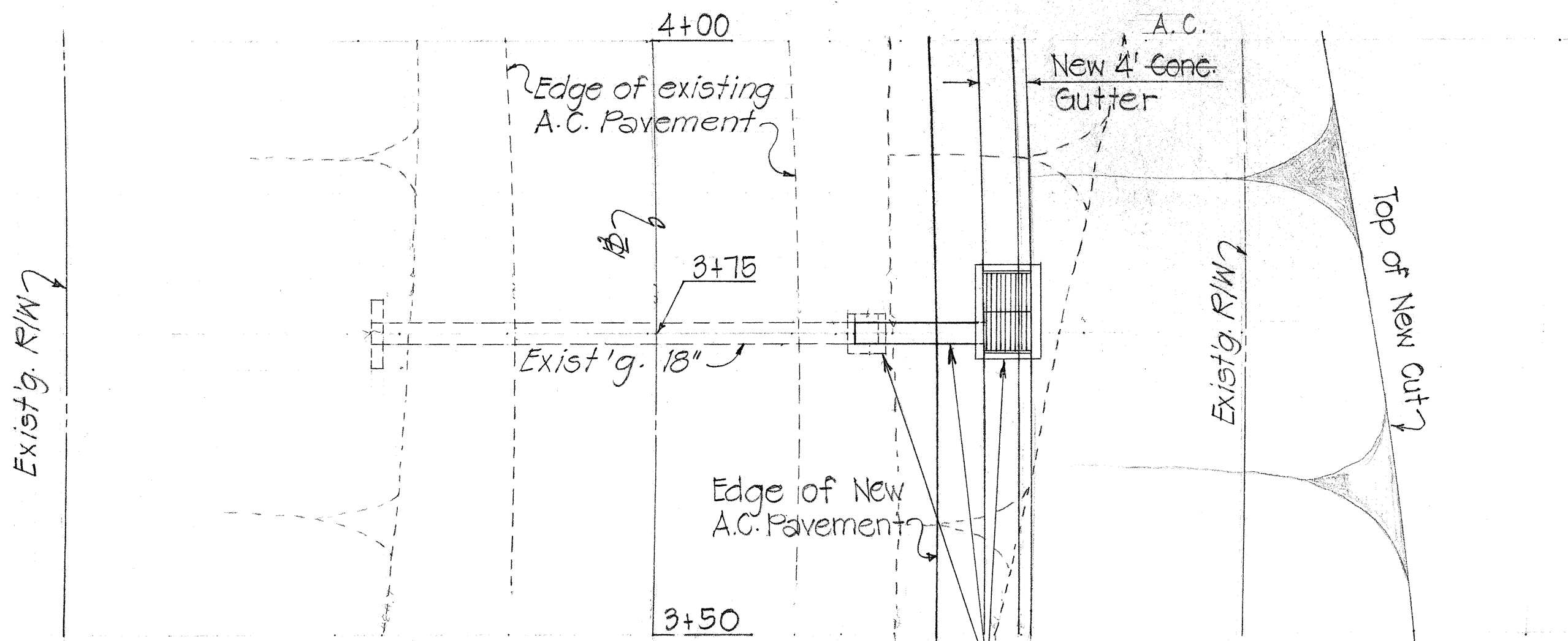
DETAIL N.T.S.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS OF SIPHON EXTENSIONS
WAIHAWA SECTION
TRUCK CLIMBING LANES AT THREE
LOCATIONS WAIHAWA, LAWAI AND OMAO VALLEYS
PROJ. NO. 50-CD-01-70

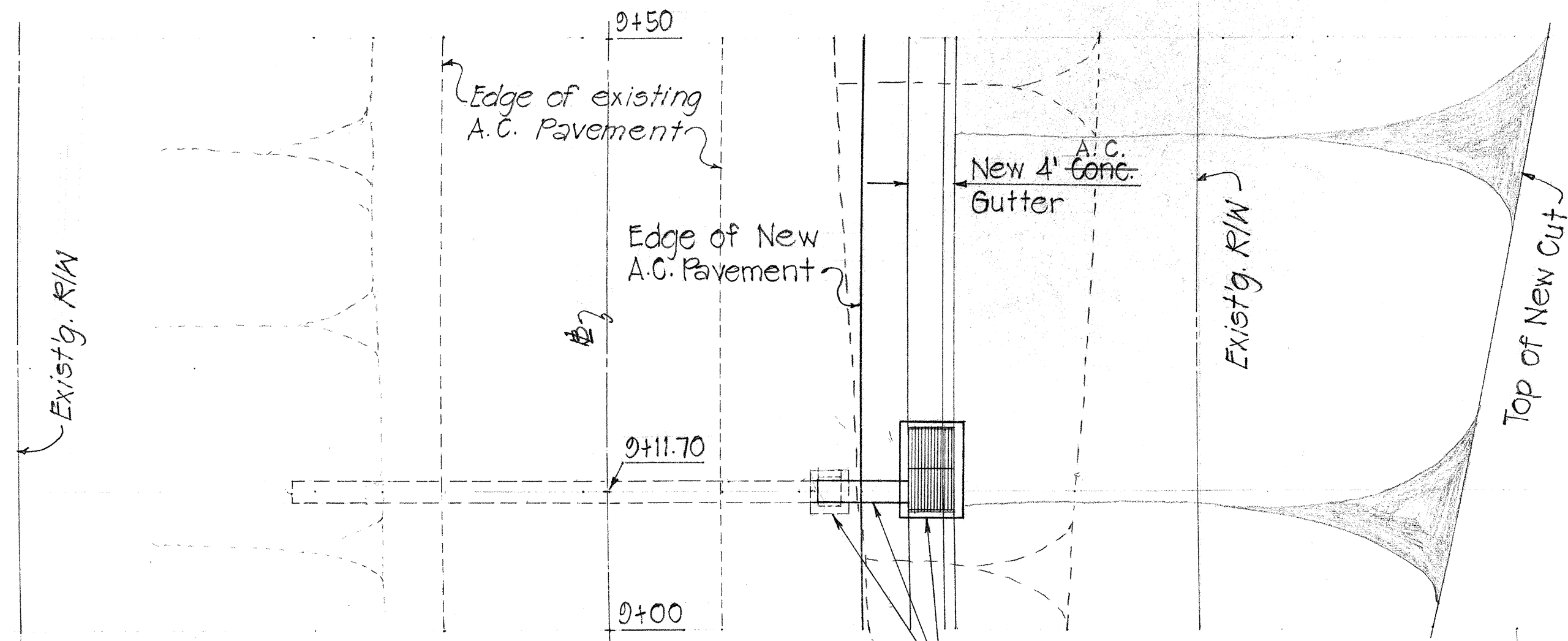
ORIGINAL PLAN	DATE
SURVEY PLANNED BY	
DRAWN BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
No.	

DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-70	1974	T	49



PLAN WAHIAWA-CULVERT EXTENSION @ STA. 3+75 Rt. (For Details, See Sheet No. 36.)

Scale: 1" = 10'

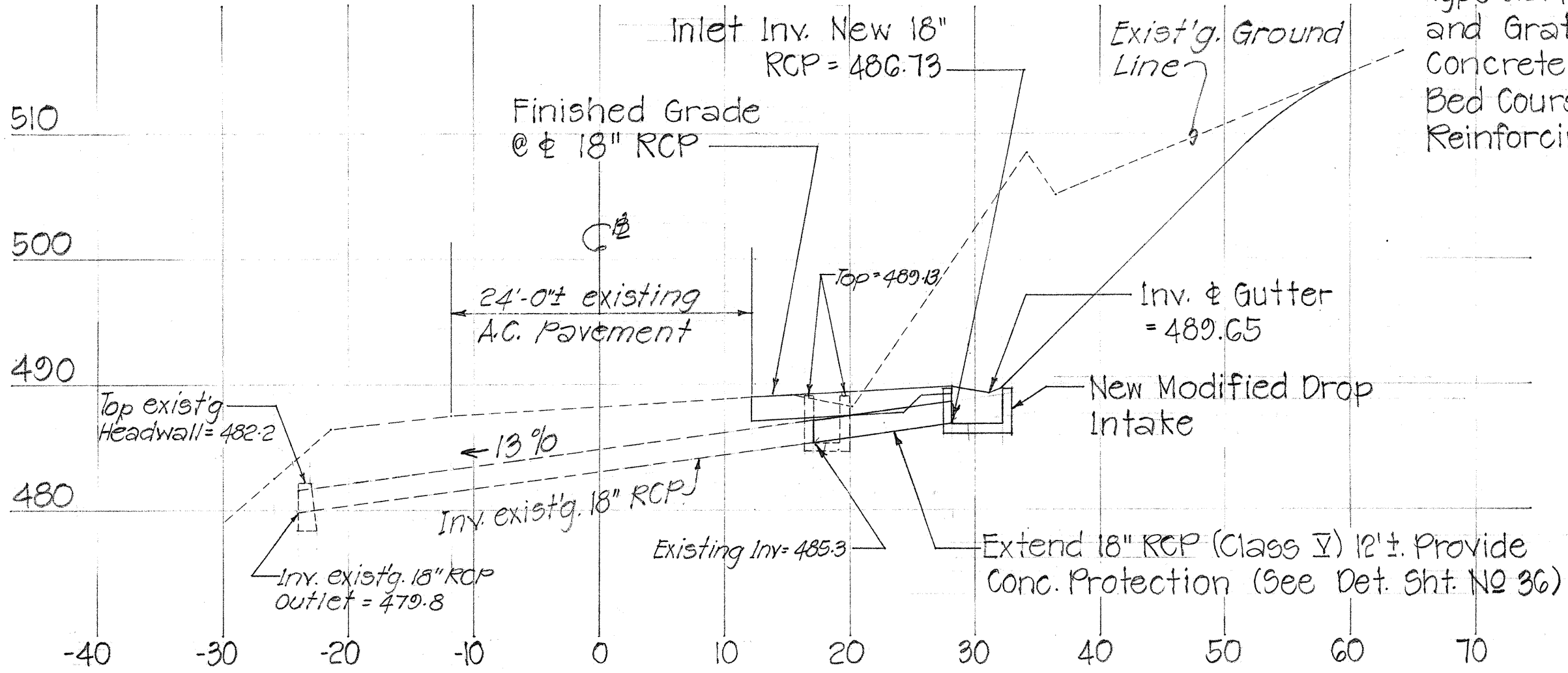


PLAN WAHIAWA - CULVERT EXTENSION @ STA. 9+12 Rt.

Scale: 1" = 10'

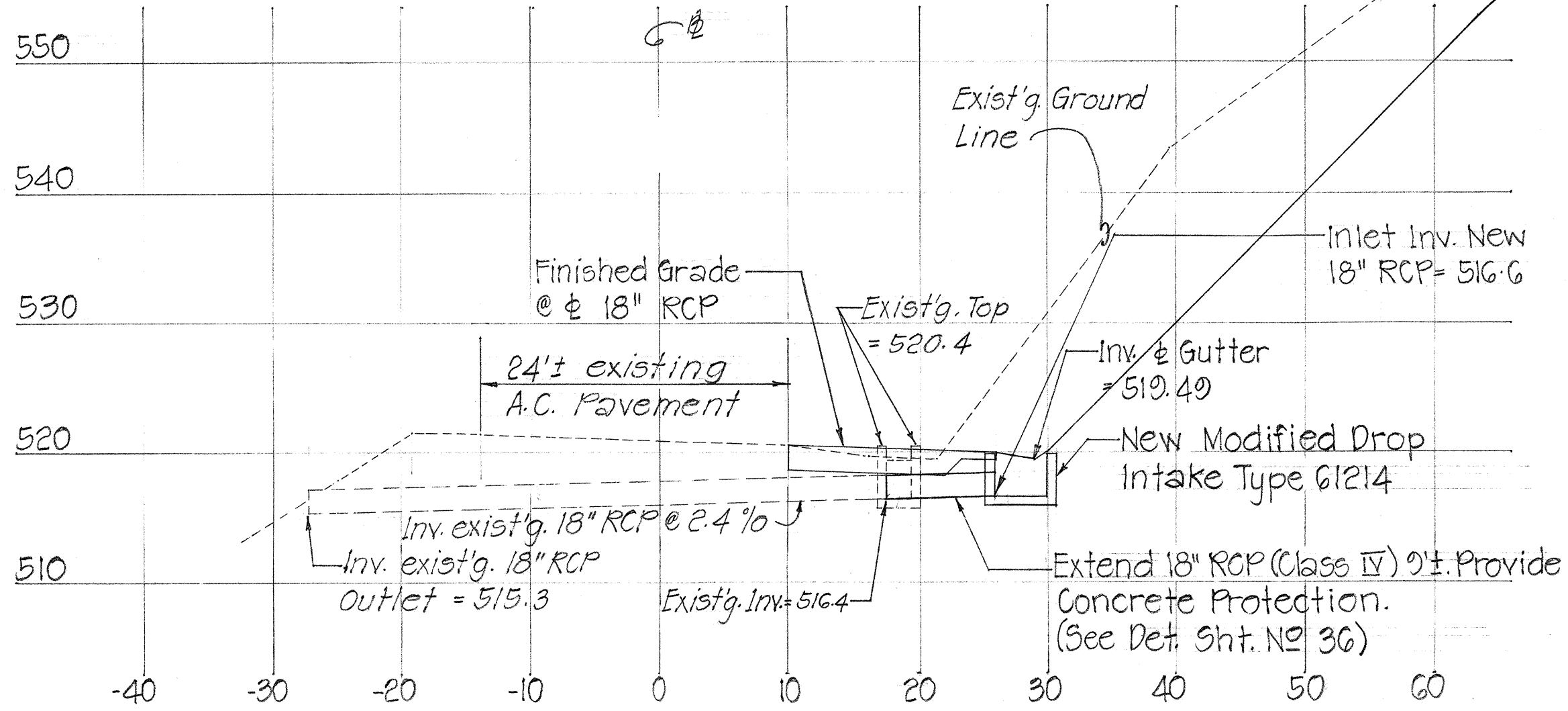
ESTIMATED QUANTITIES:

Struct. Exc. 15 c.y.
18" RCP, Class V 12± L.F.
Type G1214 Steel Frame
and Grate 2 ea.
Concrete 4.5 c.y.
Bed Course Material 2 c.y.
Reinforcing Steel 100 lb.



PROFILE WAHIAWA-CULVERT EXTENSION @ STA. 3+75 Rt.

Scales: Horiz. 1" = 10'
Vert. 1" = 10'



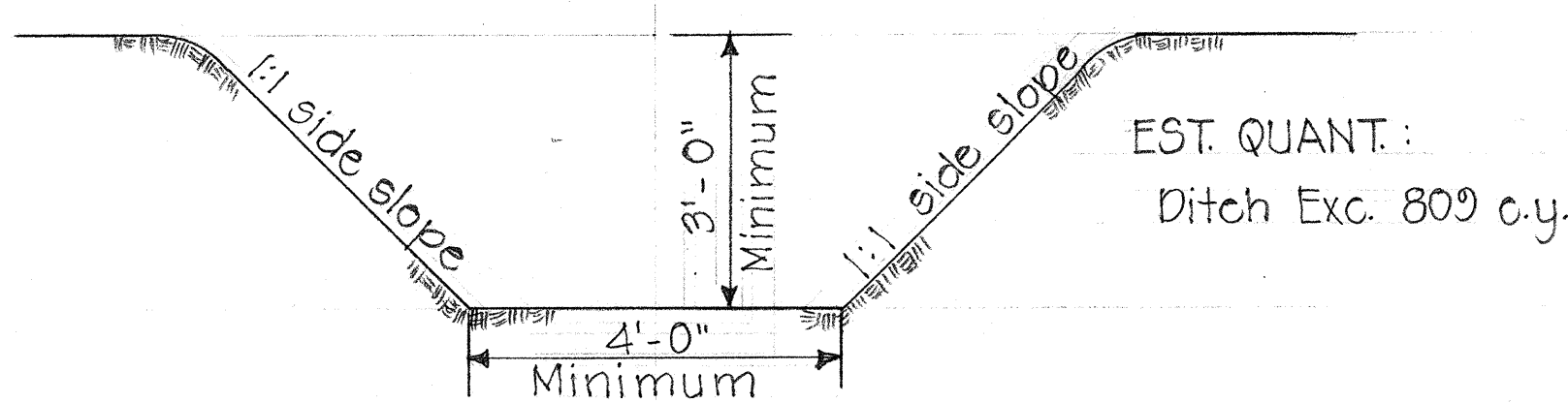
PROFILE WAHIAWA-CULVERT EXTENSION @ STA. 9+12 Rt.

Scales: Horiz. 1" = 10'
Vert. 1" = 10'

ESTIMATED QUANTITIES:

18" RCP, Class IV 9± L.F.
Struct. Exc. 16 c.y.
Bed Course Material 1.2 c.y.
Reinforcing Steel 100 lb.
Concrete 4.5 c.y.
Type G1214 Steel Frame
and Grate 2 ea.

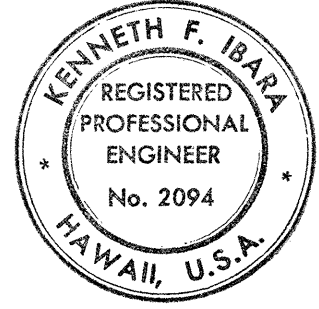
DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____



TYP. SECTION FOR NEW REALIGNED EARTH DITCH (STA. 29+60 to 40+00)

Scale: 1/2" = 1'-0"

EST. QUANT:
Ditch Exc. 809 c.y.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Kenneth F. Ibarra
Signature
2/13/73

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DETAILS OF CULVERT EXTENSIONS
WAHIAWA SECTION
TRUCK CLIMBING LANES AT THREE
LOCATIONS(WAHIAWA, LAWAI AND OMAO VALLEYS)
PROJ. NO. 50 CD-01-70
SHEET No. OF SHEETS