DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56A-01-74	1974	43	53

LEGEND

- --W----6"--- Exist'g. Water Line
- —W——12"— New Water Line
- Exist'g. Fire Hydrant
- New Fire Hydrant
- Exist'g. Water Meter
- New Service Lateral
- A.I.P. Cut and abandon in Place existing Water Line
- ARV New Air Relief Valve Assembly

NOTE:

For Typical Culvert Crossing Detail, See Water Details Sheet № 46.

GENERAL NOTES:

1. All work shall be coordinated with the County of Kauai, Department of Water
2. For Culvert crossings and Fire Hydrant Installations, See Details Sheets 45 & 46.
3. New Service Laterals shall be provided to all existing water Service Laterals from Sta. 0+89± to 21+58±. For Details, See Sheet 46
4. All valve boxes and covers within paved areas shall be traffic type.
5. Construction of water facilities shall be inspected by Department of Water, County of Kauai.
6. All buried metallic valves, pipes, bends, fittings, bolts, straps, etc. shall receive one additional (in addition to original) field coat of Bitumastic № 505 or approved equal corrosive resistant paint prior to backfilling.
7. All water facility construction shall be done in accordance with County of Kauai Dept. of Water specification requirements as amended by the Dept. of Transportation Special Provisions. See Specs.
8. All waterlines and appurtenances to be abandoned within 2 ft. of the finish grade (within highway R/W) shall be removed.

APPROVED: [signature] DATE: 9/4/74
for MANAGER & CHIEF ENGINEER
DEPARTMENT OF WATER
COUNTY OF KAUAI

APPROVED: Robert T. Chuck DATE: 9/10/74
MANAGER - CHIEF ENGINEER
DIVISION OF WATER AND LAND DEVELOPMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES

PLATE 1. PLAN-PROFILE

43

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56A-01-74	1974	44	53

Sta. 13 + 91, Lt. Tee Connection
1 - 16"x 12" C.I. Tee, AC ends
1 - 16" Butterfly Valve, AC x AC
2 - 12" Butterfly Valve, AC
3 - C.I. Valve Box
2 - 16" MOA Nipple
2 - 12" MOA Nipple
1 - 16"x 12" Eccentric Reducer, AC x AC
2 - Conc. Reaction Blocks

Sta. 13 + 91, Lt.
1 - 16" 1/8 C.I. Bend, A.C.
1 - Conc. Reaction Block
39± LF 16" AC Pipe, Cl-150

Sta. 13+80± Lt. SEE INSET B
Connection to Exist'g 4" Main, see sht. no 46

Sta. 13+91 Rt.
Tee Connection
SEE INSET A
see sht no 45

Sta. 14+23, F.H. Assembly
1 - 45° PVC Bend
1 - 6" Gate Valve, (AC x AC)
1 - C.I. Valve Box
1 - 6" Fiber Glass Tee (AC x AC)
50 LF 6" AC Pipe
1 - Fire Hydrant
1 - 2" Brass Pipe, (Cut to fit) W/2" female adapter (Copper or Brass cplg.)
3 - Conc. Reaction Blocks
1 - 6" Plug w/2" IPT Tap

℄ CURVE DATA
Δ = 34° 08' 00"
R = 400.00'
Ch = 234.79'
Lc = 238.30'
T = 122.80'

NOTES:
1. For Inset A and B, See Water Details Sht. № 45.
2. For Typical Culvert Crossing Detail, See Water Details Sht. № 46.

℄ CURVE DATA
Δ = 12° 12' 00"
R = 500.00'
Ch = 106.26'
Lc = 106.47'
T = 53.44'

Sta. 14+90± Rt. Install ARV For Det. See Sht. 45

Sta. 14+89± Rt.
Connect to exist'g. 2" galv. line
72± LF 2" PVC Pipe
1 - 2" G.V.
1 - C.I. Valve Box
1 - 45° Bend
1 - 2" Adapter (PVC to Galv.)

Sta. 17+24 & 20+16
F.H. Assembly
1 - 12" x 6" Tee, AC x Flge.
1 - 6" G.V., AC x Flge.
1 - C.I. Valve Box
1 - 6" MOA Nipple
1 - Fire Hydrant
2 - Conc. Reaction Blocks

Sta. 17+70± Lt.
Connect to exist'g. 2" PVC
1 - 12" x 8" Tee, AC
1 - 12" Butterfly Valve, AC ends
1 - 8" Gate Valve, AC ends
2 - C.I. Valve Boxes
70 LF 8" AC Pipe, Class 150
1 - 8" Plug, AC w/ 2" IPT Tap
2 - 2" PVC 45° Bends
1 - 2" Compression Coupling Smith Blair № 512-238000-000 or equivalent
2 - Conc. Reaction Blocks
2 - 2" Copper Male Adaptors
1 - 1" PVC Female Adaptor

Sta. 18+05± Lt. Install ARV See Details Sht. 45

Sta. 19+25 Install Air Relief Valve For Details See Sht. 45

Sta. 21+67 ± Lt.
Connect to exist'g. 8" AC
1 - 12" 90° Fiber Glass Bend, (AC x AC)
1 - 12" x 8" Reducer (AC x AC)
1 - 8" 22½° Fiber Glass Bend, (AC x AC)
2 - 8" AC short length pipe
1 - 8" Romac Ringwej Coupling or equivalent
2 - Conc. Reaction Blocks
1 - 8" Nipple (MOA)
1 - 12" Nipple (MOA) (For Det., See Sht. № 46)

℄ CURVE DATA
Δ = 16° 11' 00"
R = 1000.00'
Ch = 281.51'
Lc = 282.45'
T = 142.17'

SECONDARY ℄ CURVE DATA

①	②	③
Δ = 11° 52' 00"	Δ = 14° 07' 20"	Δ = 03° 05' 20"
R = 1260.00'	R = 986.00'	R = 3800.00'
Ch = 241.85'	Ch = 242.41'	Ch = 204.84'
Lc = 242.22'	Lc = 243.08'	Lc = 204.86'
T = 121.48'	T = 122.13'	T = 102.46'

Future 16" Line
KUKUI ST.
HULULI ST.
Deville Store
Shoe Store
Yoshida Service Station
Olympic Cafe
Liquor Store
N/C ST.
Bank of Hawaii
Higashi Store
Miura Store
LEHUA ST.
Mueller E.B. Calif.
TRUE NORTH Scale: 1" = 50'
Existg. R/W Line
New R/W Line
Kinney Building
First Hawaiian Bank
Kuhio Market Coen T.V.
T.V. Shop
Ocean View
PARK RD
New 12' high chain link fence
To Lihue
To Kilauea
Poikeana Store
P.C. Sta. 17+48.57 Install ± Mon.
P.T. Sta. 15+85.41 Install ± Mon.
P.C. Sta. 21+28.51 Install ± Mon.
P.T. Sta. 24+10.96 Install ± Mon.
Sec. ℄ R = 1260.00'
Sec. ℄ R = 3800.00'
Sec. ℄ R = 986.00'
Sec. ℄ R = 1000.00'
Sec. ℄
6" C.I.
18" Vertical Offset
24" RCP (Drainage)
2½" Stop Cock
OCEAN VIEW BAR
Finished Pavement Grade ℄ New ℄ Road
Existg. Gr. ℄ Road
+0.30%
-0.30%
-0.37%
Inv. 12" AC, Class 150
Inv. 24" Culvert
Inv. 12" AC Class 150
Sta. 12+00
Sta. 15+00
Sta. 15+25
Sta. 16+05
Sta. 18+15
Sta. 18+25
Sta. 18+50
Sta. 20+50
Sta. 20+80
Sta. 21+67± Conn. to exist'g. 8" AC Water Main End Project (WL)
Sta. 23+00
Sta. 25+00
C.G. 9.14
C.G. 8.70
C.G. 8.10
C.G. 8.85
C.G. 8.25
3.00 12" WL
3.44 CB # B-1
3.02 SDMH # B-1
3.67 CB # B-1-A
1.05 12" WL
2.54 CB # B-2
2.70 CB # B-2-A
1.04 12" WL
4.00 12" WL
1.86 CB # B-3
0.38 12" WL
3.50 12" WL
1.11 SDMH # B-2
Sta. 14+20± ARV Assy.
Sta. 18+05± ARV Assy.
12 13 14 15+00 16 17 18 19 20+00 21 22 23 24 25+00

APPROVED: DATE: 9/9/74
for MANAGER & CHIEF ENGINEER
DEPARTMENT OF WATER
COUNTY OF KAUAI

APPROVED: DATE: 9/9/74
MANAGER - CHIEF ENGINEER
DIVISION OF WATER AND LAND DEVELOPMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES

PLAN — SURVEYED, PLOTTED, NOTE BOOK, ALIGNMENT CHECKED, R/C OF WAY CHECKED, No., BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, R. M.'s NOTED, STRUCTURE ELEVATIONS CHECKED, NOTE BOOK, No., BY, DATE

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SCA-01-74	1974	44A	53

℄ CURVE DATA
Δ = 24° 59' 00"
R = 800.00'
Ch = 346.08'
Lc = 348.83'
T = 177.23'

P.C. Sta. 25+61.44
P.T. Sta. 29+10.27
238° 00'
152.48' (PT to PC)
225° 30' 50"
℄ 346.08
Makeha Canal
213° 01'
1473.84 (PT to PC)
New 3" P.V.C. Water Line
New 3" P.V.C. Water Line
K U U A S T.
Sta. 28+80
New 3" P.V.C.
1-6"x3" Tee A.C.x S.E.
1-3" Gate Valve, Thread w/C.I. Valve Box
3-3" P.V.C. Male Adapters
2-6" M.O.A. Nipple
1-Conc. Reaction Block

-0.55 %
-0.12 %
Exist'g. Gr. Line @ New ℄
+0.30 %
New F. Gr. @ ℄
-0.30 %
Inv. 3" P.V.C. Water Line
Sta. 28+80
3.4'
5.0'

CHANGE ORDER No. 4

25+00 26 27 28 29 30+00 31 32 33 34 35+00 36 37

PLAN: SURVEYED. PLOTTED. ALIGNMENT CHECKED. NO. OF MAPS CHECKED. NOTE BOOK No. DATE BY

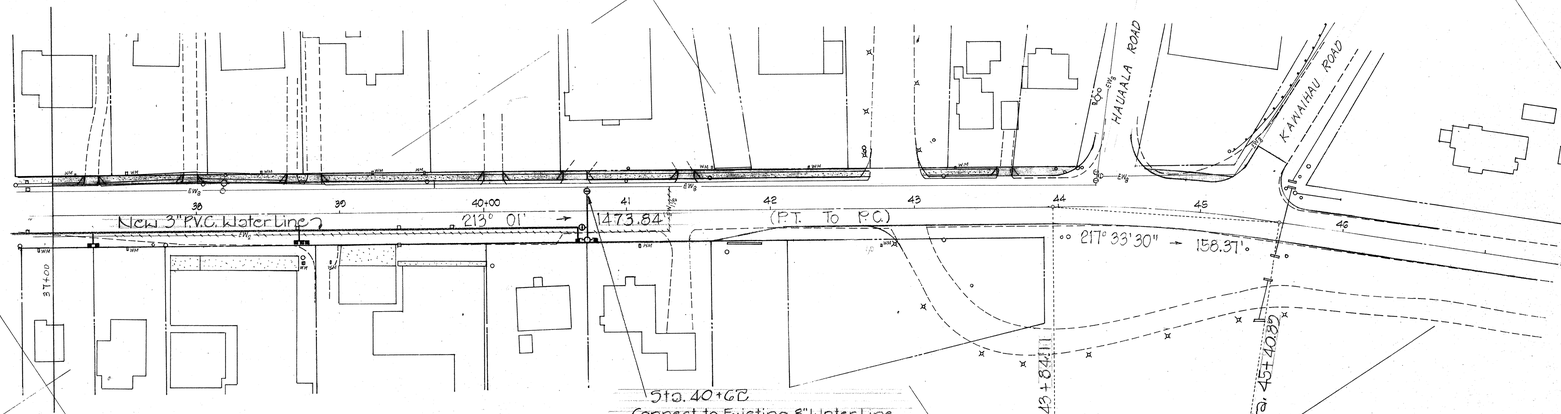
PROFILE: SURVEYED. PLOTTED. GRADES CHECKED. NO. OF MAPS CHECKED. NOTE BOOK No. STRUCTURE NOTATIONS CHECKED. DATE BY

K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.
48 7020 MADE IN U.S.A.

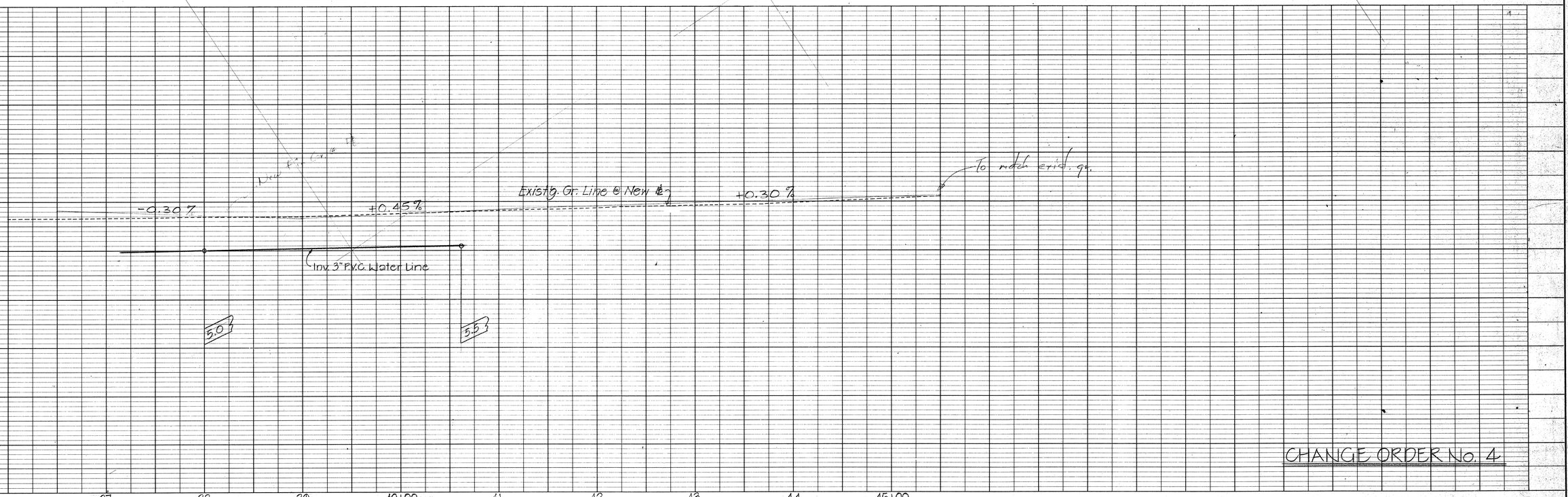
44A

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BGA-01-74	1974	44B	53

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE



PROFILE
SURVEYED
PLOTTED
NOTE BOOK
No.
GRADES CHECKED
R.R.'s NOTIFIED
STRUCTURE NOTATIONS CHECKED
BY
DATE



CHANGE ORDER No. 4