

REFERENCE DRAWINGS

WATER PLAN & PROFILE
SEWER PLAN & PROFILE
ELECTRICAL PLAN & PROFILE (FT. SHAFTER)
TELEPHONE DUCT LINE (FT. SHAFTER)

GENERAL NOTES:

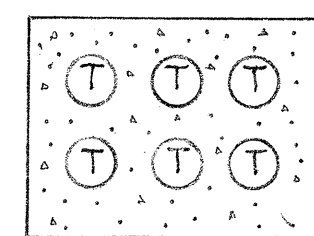
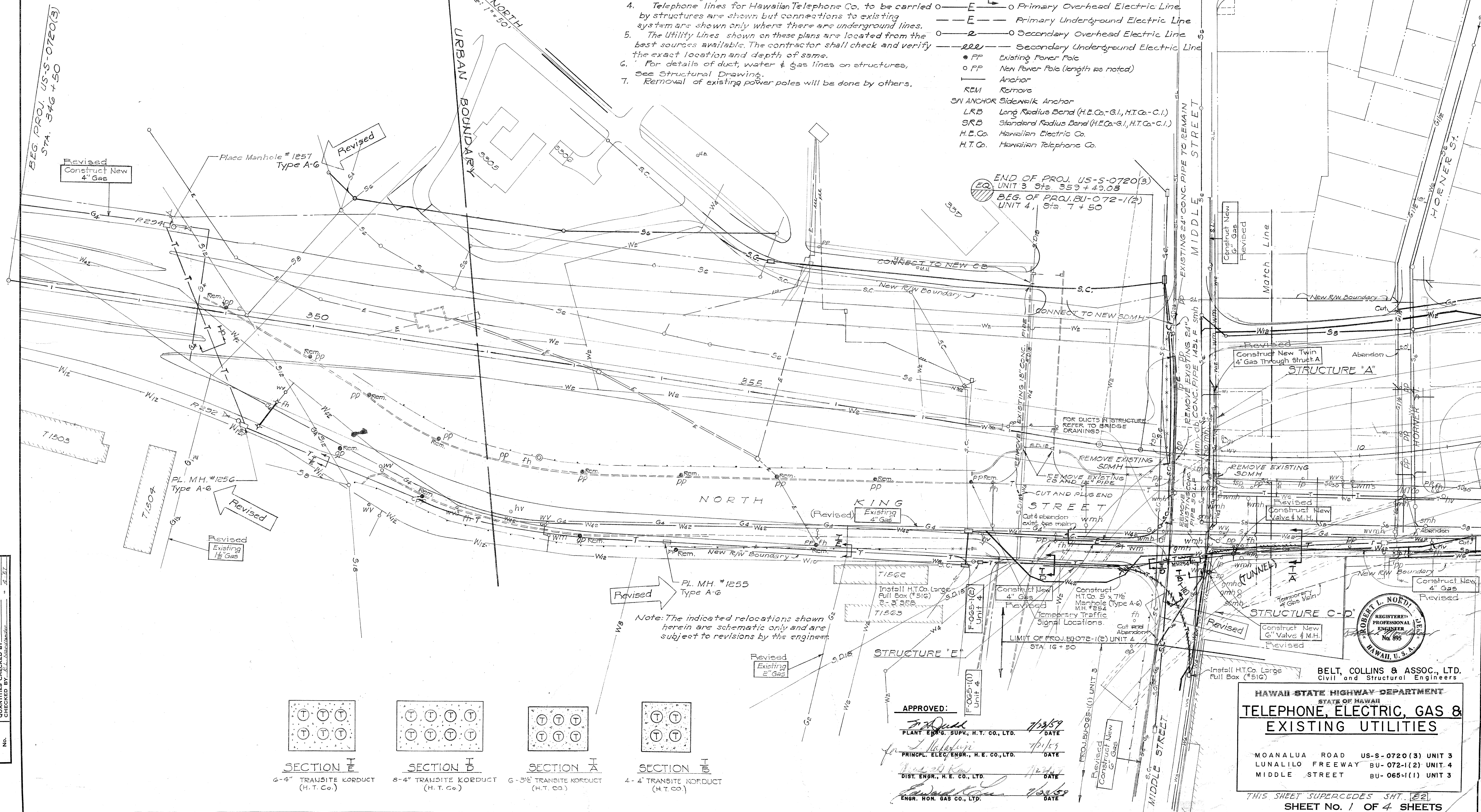
1. W_6 indicates existing 6" Water Line and W_6 (thicker lines) indicates new 6" Water Line or major work to be done on existing Line.
2. Existing Overhead Electric Lines other than those for U.S. Army are not shown.
3. Electrical Lines for Hawaiian Electric Co. to be carried by structures are shown but no connections to existing system are shown.
4. Telephone lines for Hawaiian Telephone Co. to be carried by structures are shown but connections to existing system are shown only where there are underground lines.
5. The Utility Lines shown on these plans are located from the best sources available. The contractor shall check and verify the exact location and depth of same.
6. For details of duct, water & gas lines on structures, see Structural Drawing.
7. Removal of existing power poles will be done by others.

Legend:

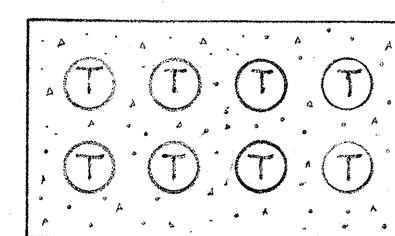
- W_6 6" Water Line
- S_6 6" Sewer Line
- $S.D. 30"$ 30" Storm Drain Line
- G_4 4" Gas Line
- T New Telephone Duct
- $S.C.$ Signal Corps Line
- $S.L.$ Street Lighting Line
- E New Electric Duct
- $\bigcirc$ Primary Overhead Electric Line
- $-E-$ Primary Underground Electric Line
- $\bigcirc$ Secondary Overhead Electric Line
- $-EE-$ Secondary Underground Electric Line
- $\bullet$ PP Existing Power Pole
- $\bigcirc$ PP New Power Pole (length as noted)
- $-$ Anchor
- REM Remove
- SN ANCHOR Sidewalk Anchor
- LRB Long Radius Bend (H.E.Co.-G.I., H.T.Co.-C.I.)
- SRB Standard Radius Bend (H.E.Co.-G.I., H.T.Co.-C.I.)
- H.E.Co. Hawaiian Electric Co.
- H.T.Co. Hawaiian Telephone Co.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	US-0720(3) UNIT 3	1960	33A	77
		BU-072-1(2) UNIT 4	1960	52A	113
		BU-065-1(1) UNIT 5	1960	50A	115

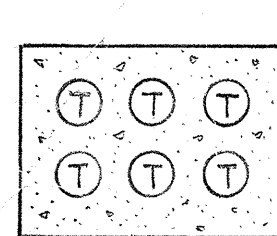
Revised Jan. 16, 1961



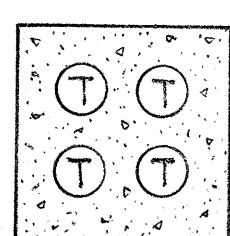
SECTION I
6-4" TRANSITE KORDUCT
(H.T. Co.)



SECTION II
6-4" TRANSITE KORDUCT
(H.T. Co.)



SECTION III
6-3" TRANSITE KORDUCT
(H.T. Co.)



SECTION IV
4-4" TRANSITE KORDUCT
(H.T. Co.)

APPROVED:

[Signature]
PLANT ENGR. SUPV., H.T. CO., LTD. 7/23/59

[Signature]
PRINCIP. ELEC. ENGR., H.E. CO., LTD. 7/21/59

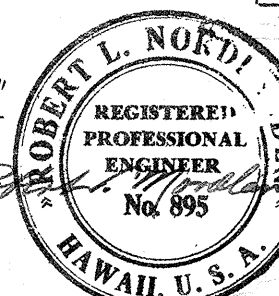
[Signature]
DIST. ENGR., H.E. CO., LTD. 7/21/59

[Signature]
ENGR. HON. GAS CO., LTD. 7/21/59

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
TELEPHONE, ELECTRIC, GAS &
EXISTING UTILITIES

MOANALUA ROAD US-0720(3) UNIT 3
LUNALILO FREEWAY BU-072-1(2) UNIT 4
MIDDLE STREET BU-065-1(1) UNIT 3

THIS SHEET SUPERCEDES SHT. 32
SHEET NO. 1 OF 4 SHEETS



BELT, COLLINS & ASSOC., LTD.
Civil and Structural Engineers

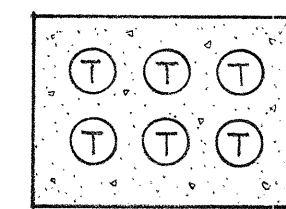
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\$174.52

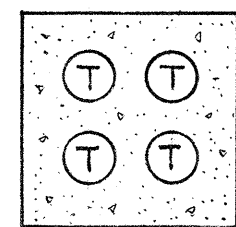
\$161.50

62A

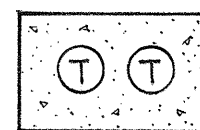
ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
NO.	



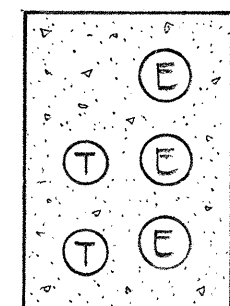
SECTION A
6-3/8 TRANSITE KORDUCT (H.T.CO.)



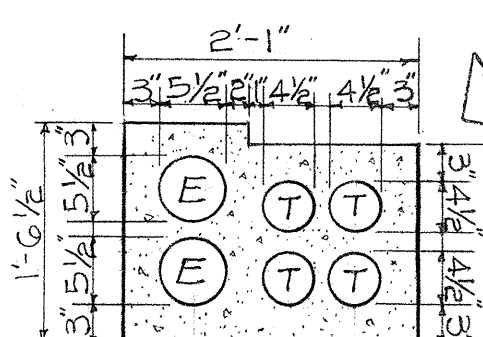
SECTION B
4-4 TRANSITE KORDUCT (H.T.CO.)



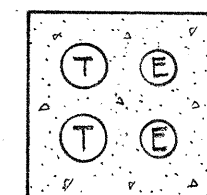
SECTION C
2-3/8 TRANSITE KORDUCT (H.T.CO.)



SECTION D
2-3/8 TRANSITE KORDUCT (H.T.CO.)

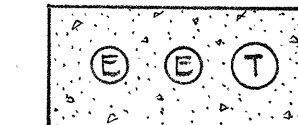


SECTION E
4-4 TRANSITE KORDUCT (H.T.CO.)

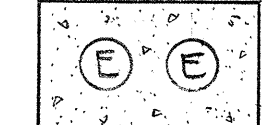


SECTION F
2-3/8 TRANSITE KORDUCT (H.T.CO.)

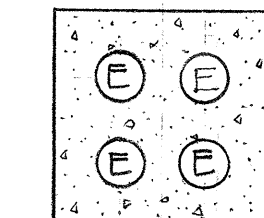
- Legend:
- W Water Line
 - S Sewer Line
 - S.D. Storm Drain Line
 - G Gas Line
 - T New Telephone Duct
 - S.C. Signal Corps Line
 - S.L. Street Lighting Line
 - E New Electric Duct



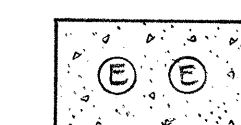
SECTION G
1-3/8 TRANSITE KORDUCT (H.T.CO.)



SECTION H
2-5 TRANSITE KORDUCT (H.E.CO.)



SECTION I
4-4 TRANSITE DUCT (H.E.CO.)

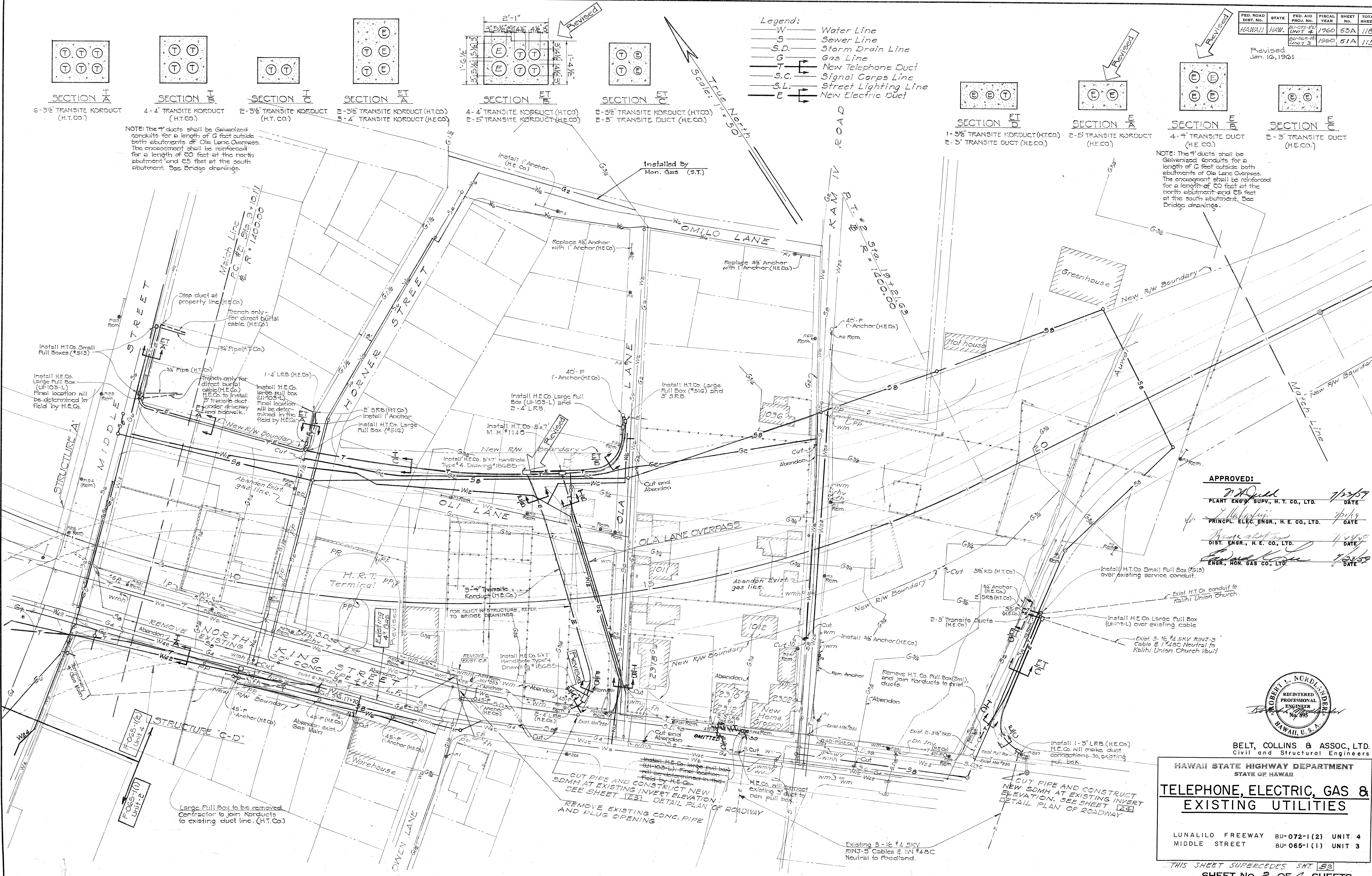


SECTION J
2-5 TRANSITE DUCT (H.E.CO.)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BU-065-1(1) UNIT 2	1960	53A	118
		BU-065-1(1) UNIT 3	1960	51A	115

Revised Jan. 16, 1961

NOTE: The 4" ducts shall be galvanized conduits for a length of 6 feet outside both abutments of Ole Lane Overpass. The encasement shall be reinforced for a length of 20 feet at the north abutment and 25 feet at the south abutment. See Bridge drawings.



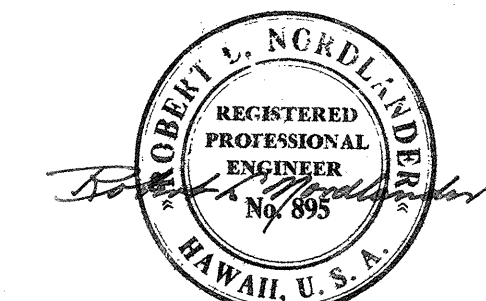
APPROVED:

PLANT ENGR. SUPV., H. E. CO., LTD. 7/2/60

PRINCPL. ELEC. ENGR., H. E. CO., LTD. 7/1/60

DIST. ENGR., H. E. CO., LTD. 7/1/60

ENGR., HON. GAS CO., LTD. 7/2/60



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Civil and Structural Engineers

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
**TELEPHONE, ELECTRIC, GAS &
EXISTING UTILITIES**

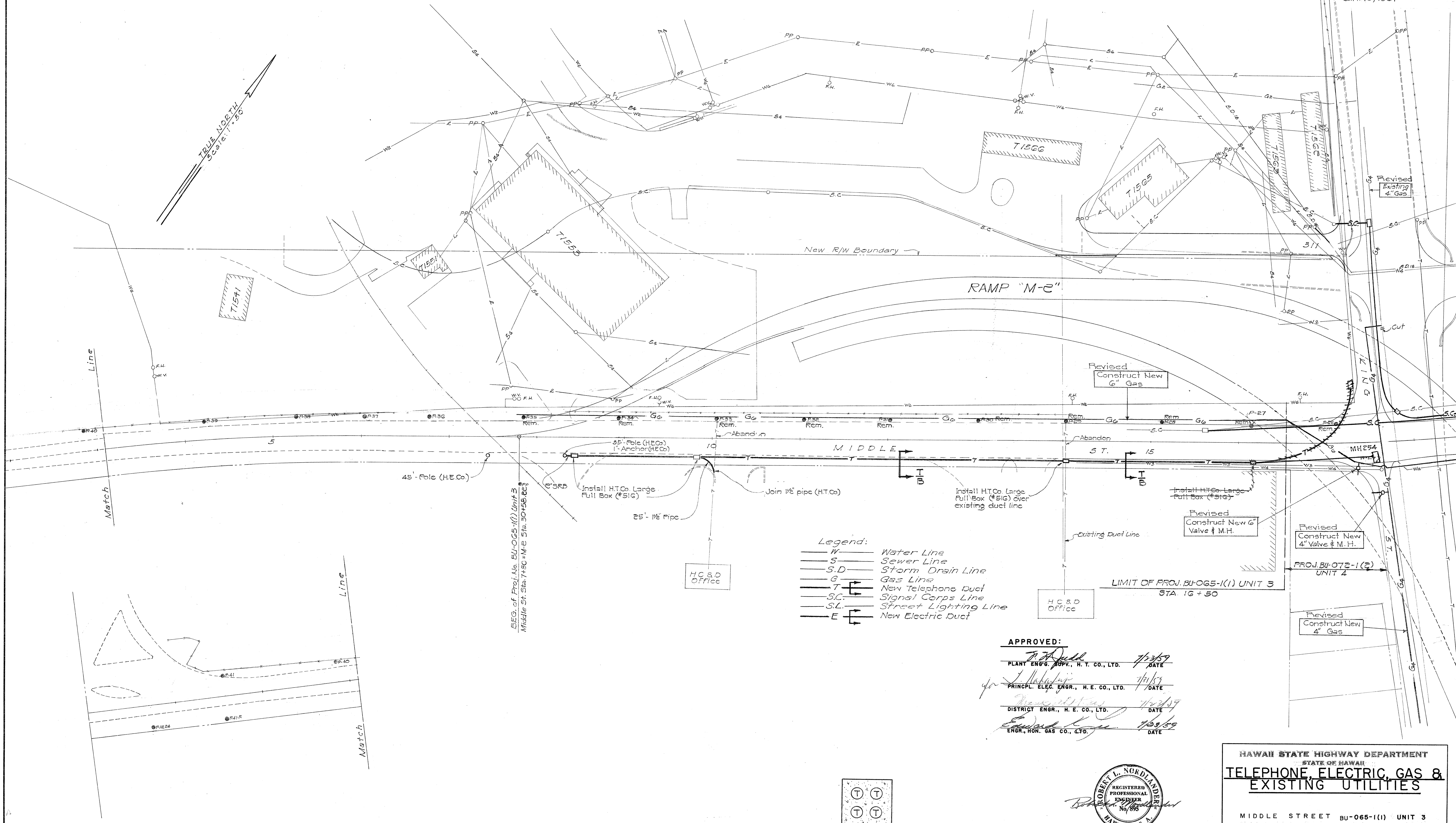
LUNALILO FREEWAY BU-072-1(2) UNIT 4
MIDDLE STREET BU-065-1(1) UNIT 3

THIS SHEET SUPERCEDES SHT. 53
SHEET NO. 2 OF 4 SHEETS

DATE	4-22
DESIGNED BY	W. J. B. B.
DRAWN BY	W. J. B. B.
CHECKED BY	W. J. B. B.
NOTED BY	W. J. B. B.
QUANTITIES CHECKED BY	W. J. B. B.
STUDIES BY	W. J. B. B.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BU-065-1(1) UNIT 3	1960	50A	115

Revised Jan. 16, 1961



- Legend:**
- W Water Line
 - S Sewer Line
 - S.D. Storm Drain Line
 - G Gas Line
 - T New Telephone Duct
 - S.C. Signal Corps Line
 - S.L. Street Lighting Line
 - E New Electric Duct

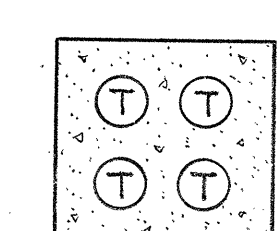
APPROVED:

PLANT ENGR. H. T. CO., LTD. 7/2/59 DATE

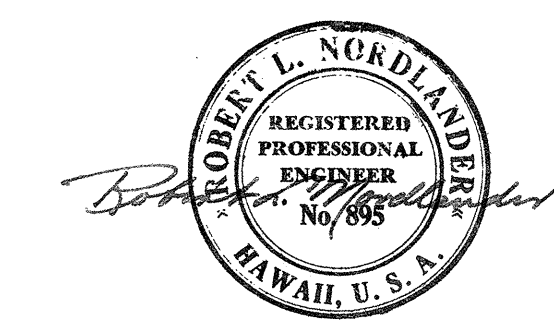
PRINCL. ELEC. ENGR., H. E. CO., LTD. 7/1/59 DATE

DISTRICT ENGR., H. E. CO., LTD. 7/2/59 DATE

ENGR. HON. GAS CO., LTD. 7/2/59 DATE



SECTION I B
4'-4" TRANSITE KORDUCT (H.T.CO.)



BELT, COLLINS & ASSOC., LTD.
Civil and Structural Engineers

HAWAII STATE HIGHWAY DEPARTMENT
STATE OF HAWAII
TELEPHONE, ELECTRIC, GAS & EXISTING UTILITIES

MIDDLE STREET BU-065-1(1) UNIT 3

THIS SHEET SUPERCEDES SHT. 25
SHEET NO. 4 OF 4 SHEETS

\$161.52A 85A

ORIGINAL PLAN	DATE
NOTED BY	DATE
CHECKED BY	DATE
QUANTITIES CHECKED BY	DATE
NO.	