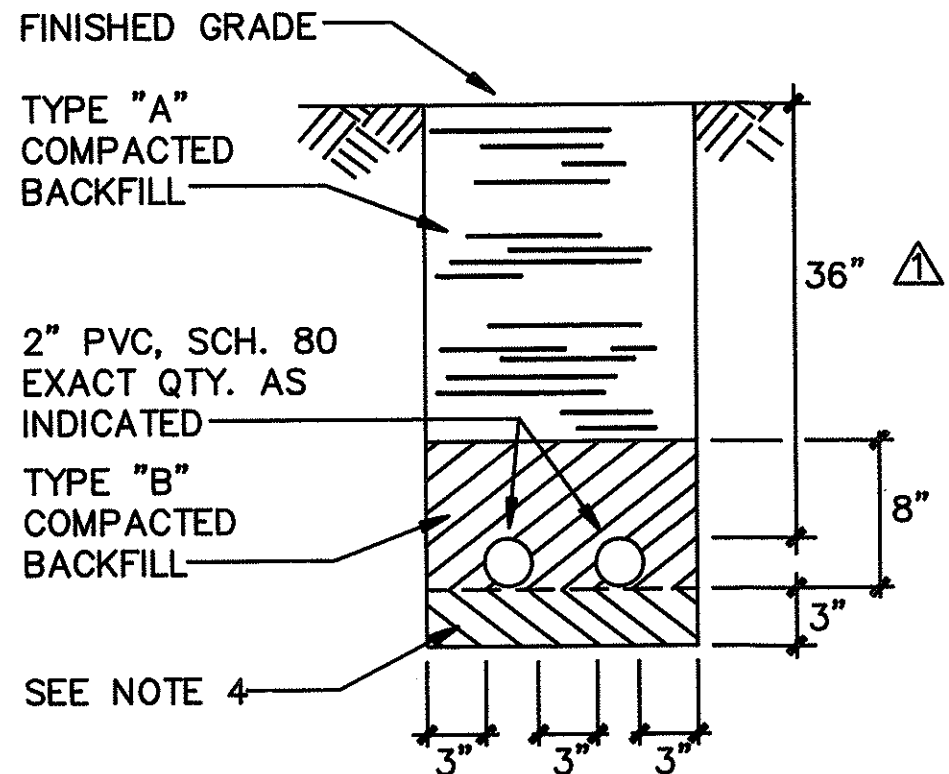


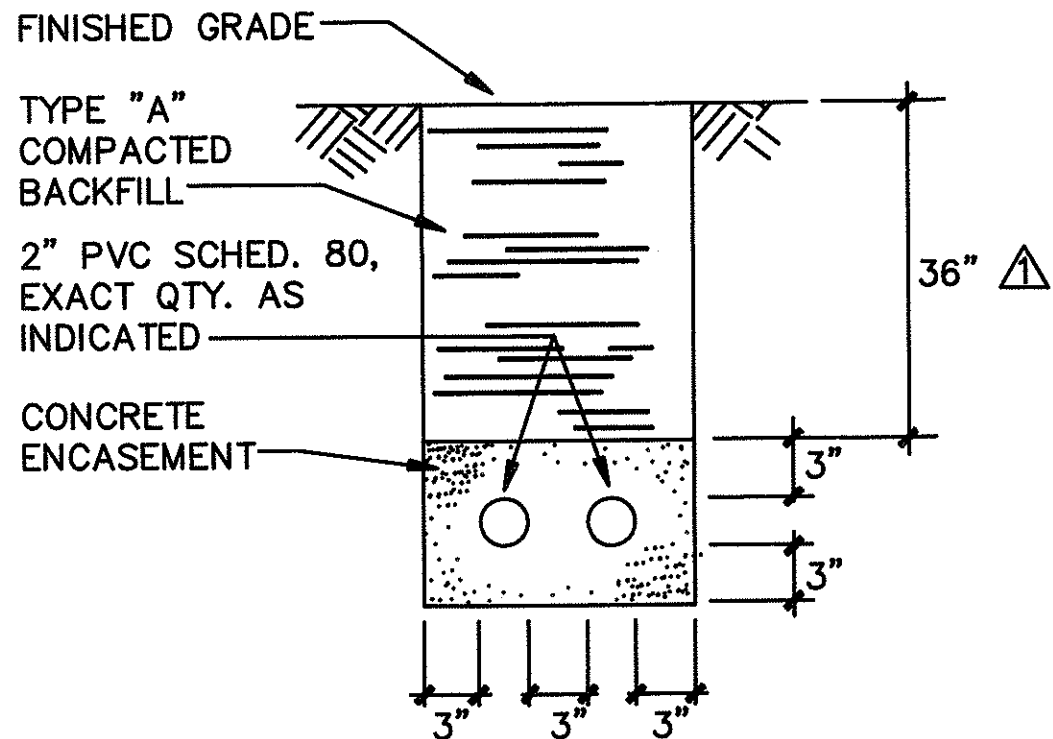
FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	IR-H1-1 (212)	1992	23	29



**TYPICAL STREET LIGHT
DUCT SECTION
(DIRECT BURIED)**

A
E-16

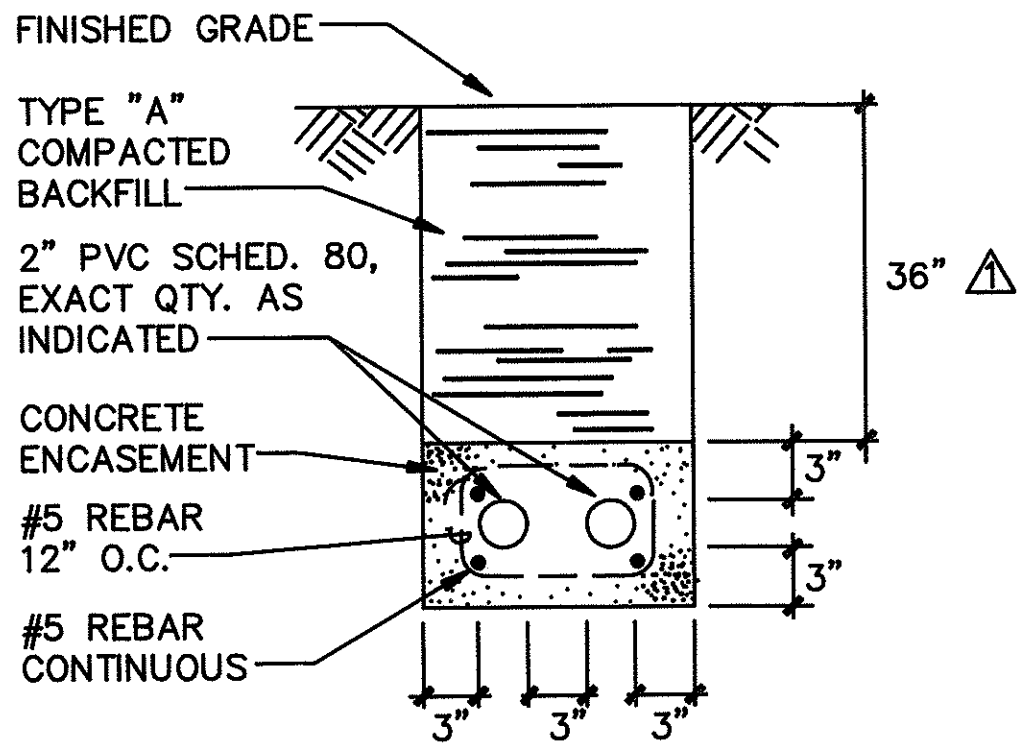
NOT TO SCALE



**TYPICAL STREET LIGHT
DUCT SECTION
(CONCRETE ENCASED)**

B
E-16

NOT TO SCALE



**TYPICAL STREET LIGHT
DUCT SECTION
(REINFORCED CONC. ENCASED)**

C
E-16

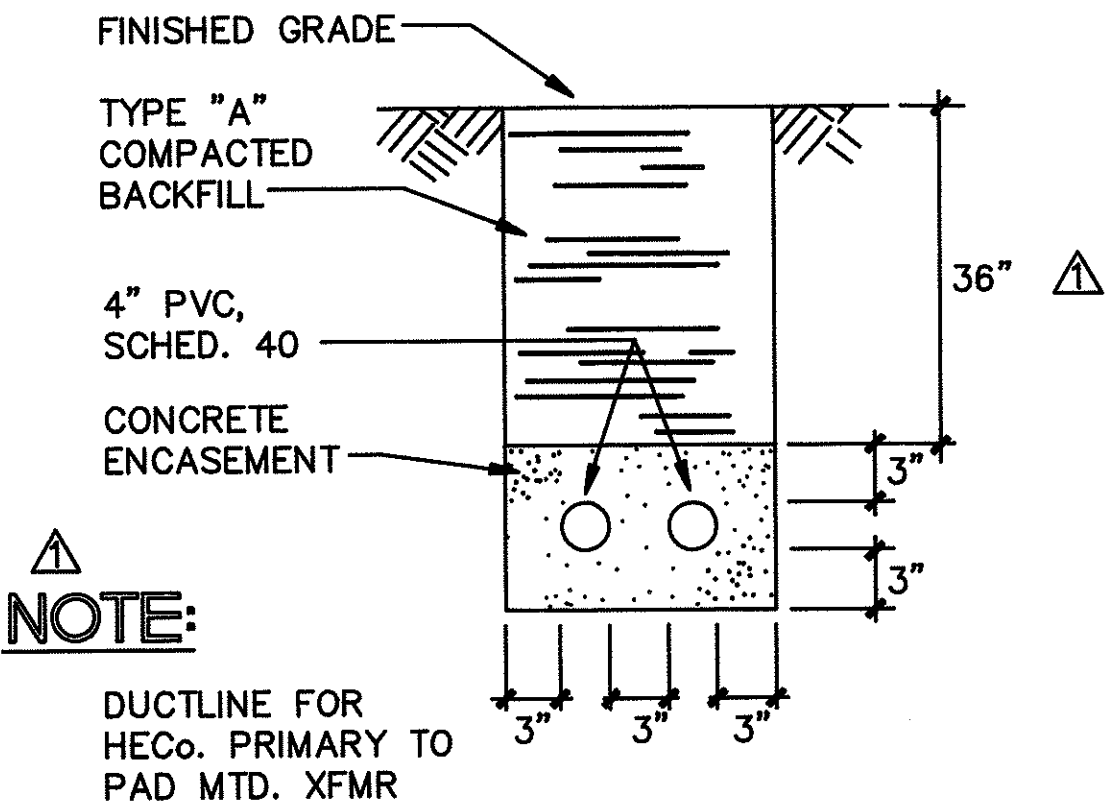
NOT TO SCALE

BACKFILL TYPES ARE:

- TYPE "A". BEACH SAND, EARTH, OR EARTH AND GRAVEL. IF EARTH AND GRAVEL USED, THE MAXIMUM ROCK SIZE SHALL BE 1" AND THE MIXTURE SHALL CONTAIN NOT MORE THAN 50% BY VOLUME OF ROCK PARTICLES.
- TYPE "B". BEACH SAND, EARTH, OR EARTH AND GRAVEL. IF EARTH AND GRAVEL USED, MIXTURE MUST PASS A 1/2" MESH SCREEN AND CONTAIN NOT MORE THAN 20% BY VOLUME OF ROCK PARTICLES.

NOTES:

- ALL CONDUIT SHALL BE "PVC" SCHED. 80 FOR DIRECT BURIED OR CONCRETE ENCASEMENT, U.O.N.
- BACKFILL OVER CONCRETE DUCT SECTIONS SHALL BE TYPE "A"
- BACKFILL OVER DIRECT BURIED CONDUITS SHALL BE TYPE "B"
- IF THE NORMAL MATERIAL IN THE BOTTOM OF A TRENCH CONTAINING A DIRECT BURIAL CONDUIT IS NOT TYPE "B" AN ADDITIONAL 3" SHALL BE EXCAVATED AND TYPE "B" BACKFILL PROVIDED.
- MINIMUM COVER OVER CONCRETE DUCT SECTION SHALL BE 36"
- THE CONTRACTOR IS HEREBY ADVISED TO EXPECT THAT ALL EXCAVATION FOR ELECTRICAL DUCTS, HANDHOLES AND MANHOLES IS LIKELY TO ENCOUNTER SOLID ROCK REQUIRING DRILLING AND BLASTING.
- CONCRETE FOR DUCTS TO BE 2500 P.S.I. IN 28 DAYS.

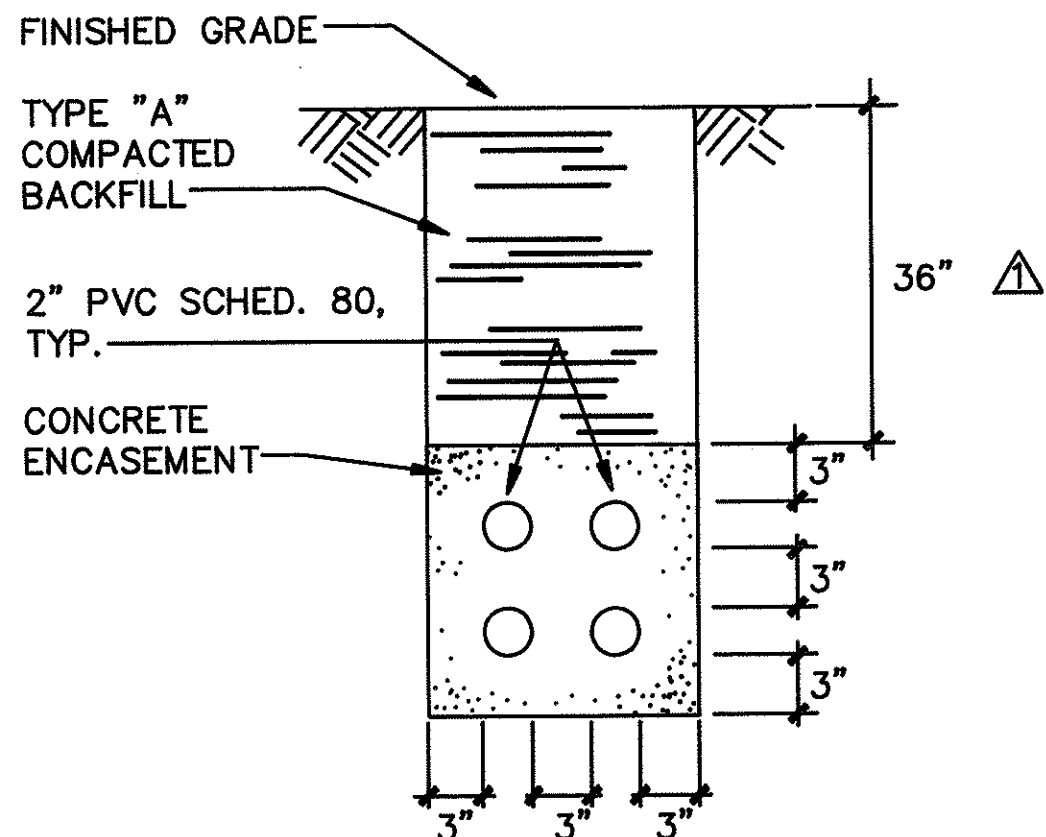


NOTE:

DUCTLINE FOR
HECO. PRIMARY TO
PAD MTD. XFMR

DUCT SECTION
NOT TO SCALE

E-7 E-16



DUCT SECTION
NOT TO SCALE

E-7 E-16

APPROVED:

HAWAIIAN ELECTRIC CO. DATE

DVM JOB No.: 89104
CAD FILE No.: 89104E16-B

7/6/92

DATE

ADD NOTES TO DUCT DETAIL.
REVISE BURIAL DEPTH TO 36".

REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DUCT DETAILS

INTERSTATE ROUTE H-1
KUNIA I.C. TO WAIAWA I.C.
PROJECT No. IR-H1-1(212)

SCALE: AS NOTED

SHEET No. 13 OF 14 SHEETS



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

E-16

ADD. 23