

TRAFFIC SIGNAL NOTES

- All traffic signal controller equipment shall be completely wired in the cabinet and shall control the traffic signals as called for in the plans.
- The Contractor shall install each meter socket and 50 Amp. breaker on power pole as shown on the plans in accordance with HECO requirements. Meter shall be mounted between 5 feet and 7 feet above ground. Meter socket shall be 4-prong, complete with a manual circuit closing device.
- Existing traffic signal standards to be replaced shall be removed together with its respective footing. The Contractor may elect to remove only the top portion of the footing. In such cases, the Contractor shall ensure that the remaining footing shall be 6 inches below the existing ground. The Engineer will determine whether the removed standards shall be disposed of or salvaged. Costs shall be considered incidental to the various contract items.
- Existing conduits, cables and pullboxes not to be incorporated in the new traffic signal system shall remain in place unless otherwise noted on plans or directed by the Engineer.
- Locations of all new traffic signal equipment shall be staked out in the field by the Contractor for approval by the Engineer prior to construction and installation.
- All splicing shall be done in the pullboxes.
- The existing traffic signal system shall remain in operation until the new traffic signal system is put into service. The Contractor shall arrange his work accordingly and shall provide temporary relocations and wirings as necessary. Payment shall be considered incidental to the various contract items.
- Furnishing and installing controller barriers, risers on poles and conduit stubouts (pullboxes to edge of pavement) will not be paid for separately but shall be considered incidental to the various contract items.
- The Contractor shall clean and/or repair the existing traffic signal pullboxes to be used prior to installing conduits and cables. This work will not be paid for separately but shall be considered incidental to the various contract items.
- The existing controller foundation not to be incorporated in the final traffic signal system shall be removed in accordance with Section 202, Removal of Structure and Obstruction of the Standard Specifications. Costs shall be considered incidental to the various contract items.
- The Contractor shall notify the Traffic Signal Branch, Department of Transportation Services, City & County of Honolulu, 2 weeks prior to commencing any work on the traffic signal system.
- Department of Transportation Services, City & County of Honolulu, will assist the Engineer in construction inspection for the traffic signal system.

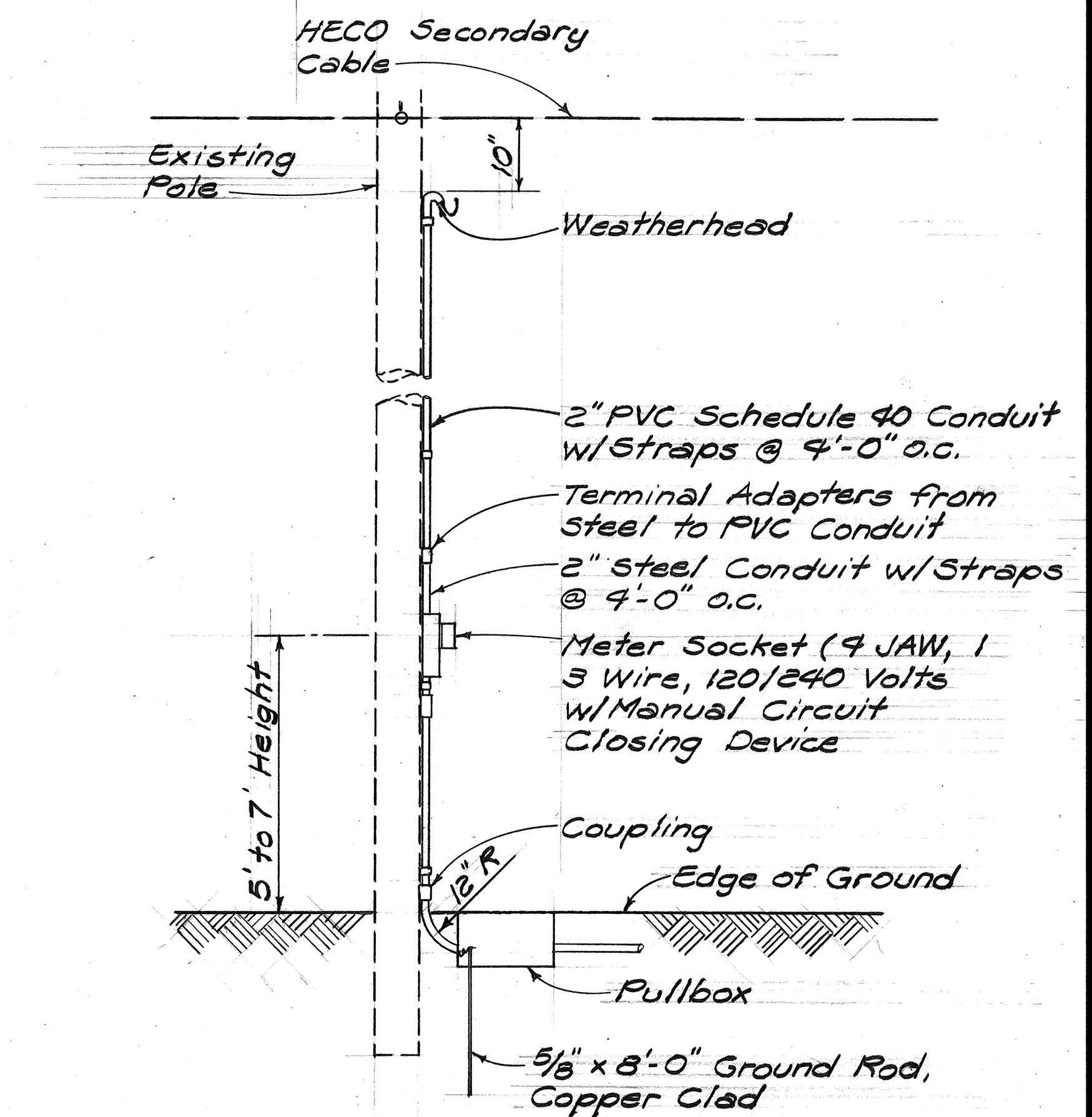
LEGEND

-  New Traffic Signal Controller
-  Existing Traffic Signal Controller
-  Traffic Signal Conduits and Cables
-  New 12" RYG Traffic Signal Head
-  Existing 12" RYG Traffic Signal Head
-  New 12" RY↑ Traffic Signal Head
-  Existing 12" RY↑ Traffic Signal Head
-  New 12" RY← Traffic Signal Head
-  Existing 12" RY← Traffic Signal Head
-  New Type II Traffic Signal Standard with 35'-0" Mast Arm and Traffic Signal Heads
-  New Pedestrian Signal Head
-  Existing Pedestrian Signal Head
-  New Type B Pullbox
-  Existing Type B Pullbox
-  New Loop Detector
-  Existing Loop Detector
-  New Type A Pullbox

TRAFFIC SIGNAL NOTES (CONT.)

- A solid #8 bare copper wire shall be pulled with the traffic signal control cable for equipment ground. Cost shall be incidental to the installation of the control cable.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HE5-063-1(18)	1989	11	13



SERVICE POLE DETAIL
NOT TO SCALE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TRAFFIC SIGNAL LEGEND, NOTES & DETAIL	
LIKELIKE HIGHWAY INTERSECTION IMPROVEMENTS @ N. SCHOOL ST.	
F.A.P. NO. HE5-063-1(18)	
Scale: As Shown	Date: Jan. 1989
SHEET No. 1 OF 3 SHEETS	

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-063-1(18)	1989	12	13

R

Y

G

A-4 (NEW)
B-5 (NEW)
D-2,3 (NEW)
F-4 (NEW)
H-2 (EXIST.)

R

Y

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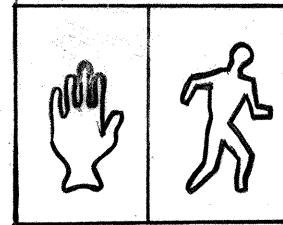
B-1 (NEW)
C-3 (EXIST.)
D-1 (NEW)
G-3 (EXIST.)
H-1 (EXIST.)
F-2 (NEW)

R

Y

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A-2 (NEW)
B-2,4 (NEW)
C-2 (EXIST.)
E-2 (NEW)
F-1,3 (NEW)
G-2 (EXIST.)



DON'T WALK
WALK

A-1,3 (NEW)
B-3,6 (NEW)
C-1,4 (EXIST.)
E-1,3 (NEW)
F-5,6 (EXIST.)
G-1,4 (EXIST.)

NOTE: F-1 & B-2 (Programmable Visibility Head)

Abandoned Exist.
Loop Detectors

3-6'x6' Loop
Detectors
Centered in Lanes

Remove Exist. Traffic Signal
Standard and Appurtenances
and Install New Type II
Traffic Signal Standard
w/Mast Arm, Signal
Heads, Ped. Signal Heads,
Ped. Signal Pushbuttons
and Signs

Remove Exist. Pullbox and
Install New Type B
Pullbox

6-6'x6' Loop
Detectors
Centered in Lane

2 Ea., 1-6'x6' Loop Detectors
Center in Lanes

Abandon Existing Loop
Detectors & Remove
Existing Pullboxes &
Conduits.

Install New Type B
Traffic Signal Pullbox

Install New
Type B Traffic
Signal Pullbox

New Type A Traffic Signal Pullbox
(Terminates)

Remove Exist. Traffic Signal
Standard and Appurtenances and
Install New Type I Traffic Signal
Standard, Signal Heads, Ped. Signal
Heads, Ped. Signal Pushbuttons
and Signs

Remove Exist. Controller and Controller
Base and Install New Controller
Assembly (Model 170 Traffic Signal
Controller Units, Model 352 Cabinet
and Auxiliary Equipment, Base Mounted)

Install New Type II Traffic
Signal Standard w/Mast
Arm and Signal Heads

Install New Type I
Traffic Signal
Standard, Signal
Heads, Ped. Signal
Heads, Ped. Signal
Pushbuttons and Signs

Install New Type B
Traffic Signal
Pullbox

Remove
Exist. Pullbox

Install New
Type B Traffic
Signal Pullbox

2 Ea., 1-6'x6'
Loop
Detectors
Centered
in Lanes

2 Sets - 2-6'x6'
Loop Detectors Centered
in Lanes

4-6'x6' Loop
Detectors
Centered
in Lanes

Abandoned
Exist. Loop
Detectors

Remove Exist. Traffic Signal
Standard and Appurtenances
and Install New Type II Traffic
Signal Standard w/Mast Arm,
Signal Heads, Ped. Signal Heads,
Ped. Signal Pushbuttons and
Signs.

3 Ea., 1-6'x6' Loop Detectors
Centered in Lanes

Abandoned
Exist.
Loop
Detectors

CONDUIT & CABLE SCHEDULE							
△	CONDUIT	CABLE		△	CONDUIT	CABLE	
1	NEW 2"	2-2c	#14	9	NEW 2"	4-2c	#14
2	EXIST. 2"	3-2c	#14		NEW 2"	4-2c	#14
3	EXIST. 2"	4-2c	#14		NEW 2"	4-2c	#14
4	NEW 2"	4-2c	#14		NEW 2"	1-26c	#14
	NEW 2"	3-2c	#14	10	NEW 2"	1-3c	#6
	NEW 2"	1-26c	#14	11	NEW 2"	4-2c	#14
	NEW 2"	1-3c	#6		NEW 2"	4-2c	#14
5	NEW 2"	4-2c	#14		NEW 2"	4-2c	#14
	NEW 2"	2-2c	#14		NEW 2"	4-2c	#14
6	NEW 2"	1-2c	#14	12	NEW 2"	3-2c	#14
	NEW 2"	1-26c	#14		NEW 2"	1-26c	#14
7	NEW 2"	2-2c	#14		NEW 2"	1-26c	#14
	NEW 2"	2-2c	#14		NEW 2"	1-3c	#6
8	NEW 2"	4-2c	#14		NEW 2"	3-2c	#14
	NEW 2"	2-2c	#14		NEW 2"	2-2c	#14
	NEW 2"	1-26c	#14				

7/24/90	Added Pullbox At Station 100+75± Rt. & Revised Pullbox Location At Station 101+50± Rt.
10/30/89	Change F-1 and B-2 to Programmable Visibility Head.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

LIKELIKE HIGHWAY
INTERSECTION IMPROVEMENTS @ N. SCHOOL ST.

F.A.P. NO. HES-063-1(18)

Scale: As Shown Date: Jan. 1989

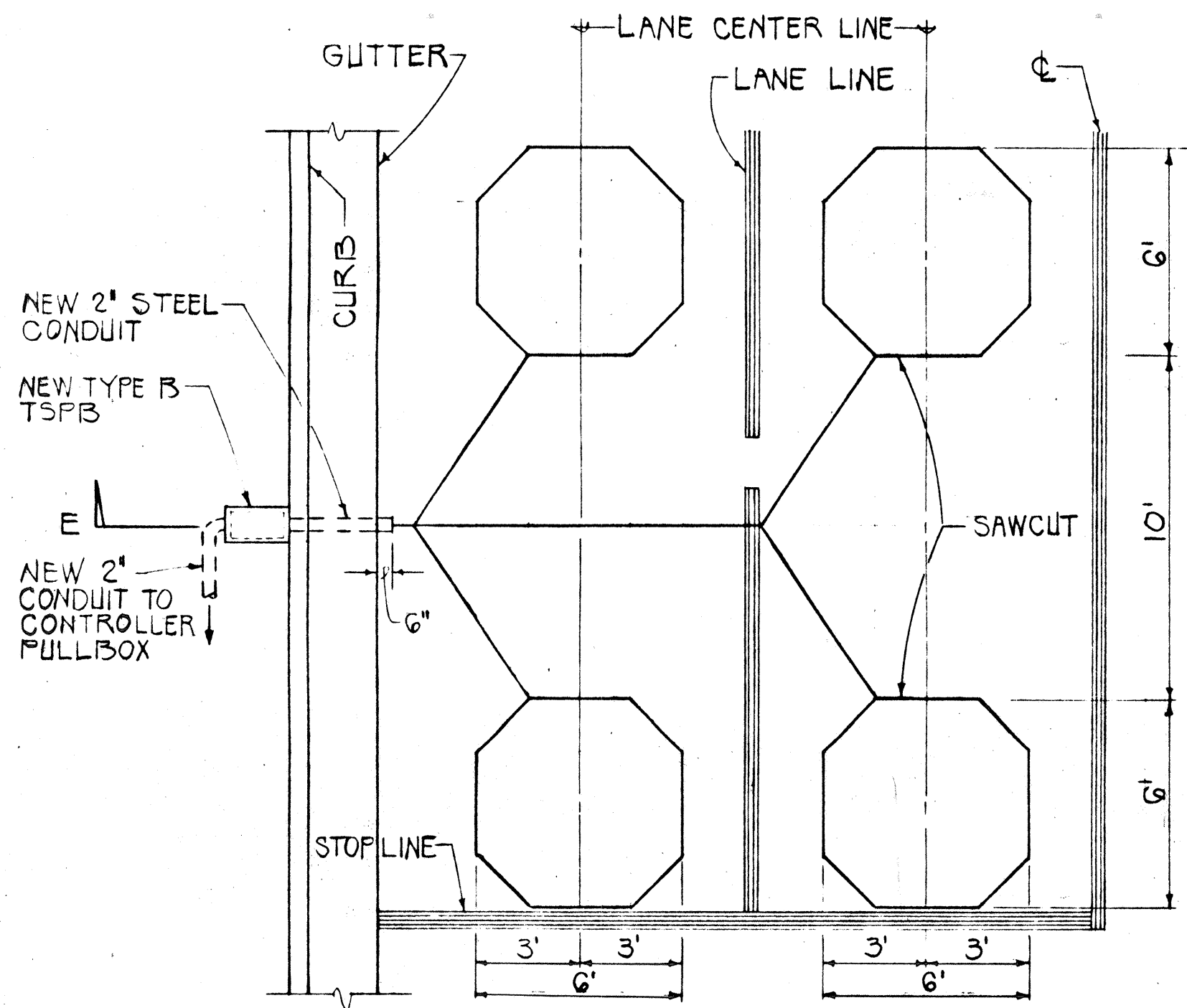
SHEET NO. 2 OF 3 SHEETS

"AS-BUILT"

C.O.12

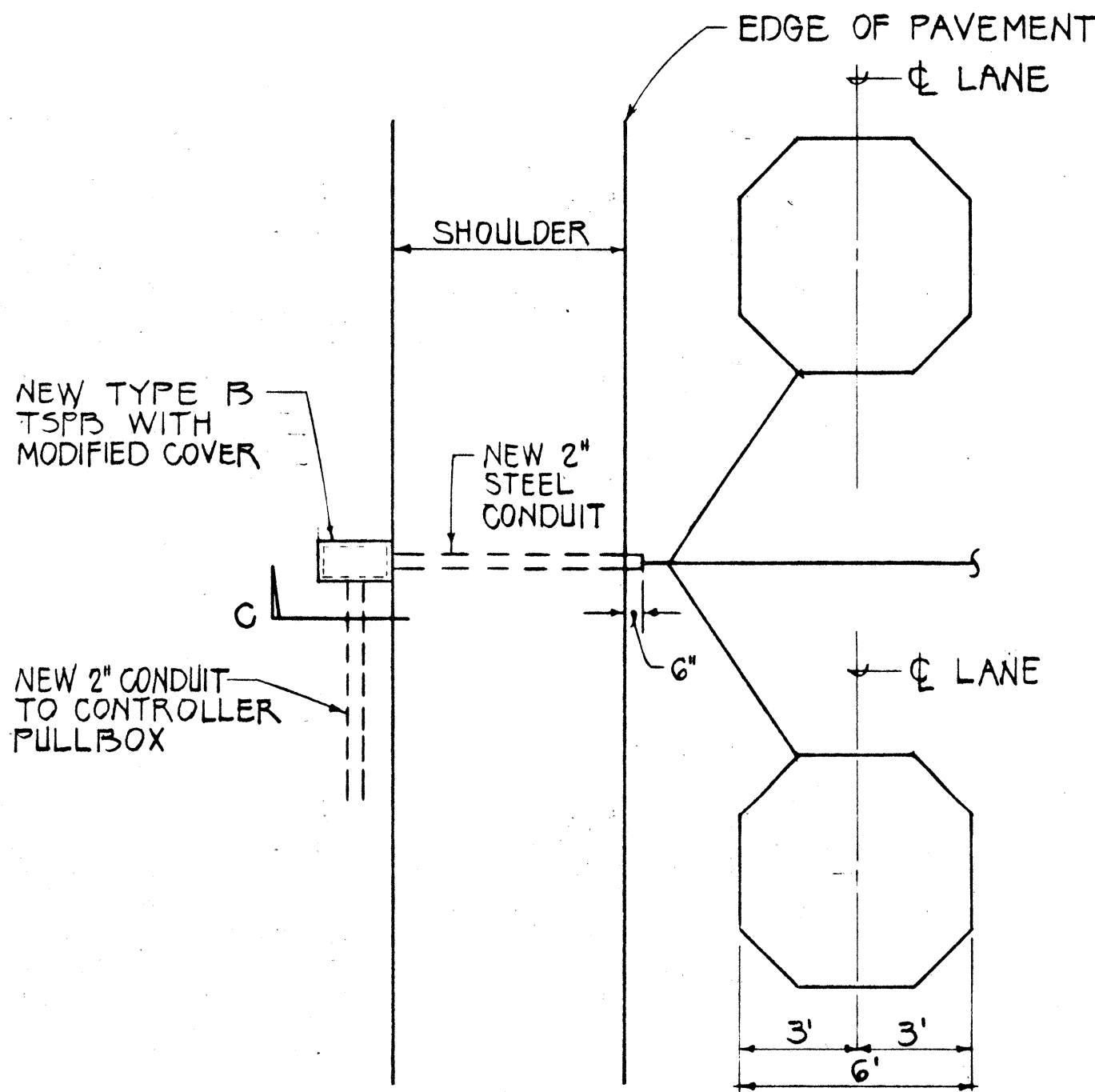
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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-063-1(18)	1989	13	13

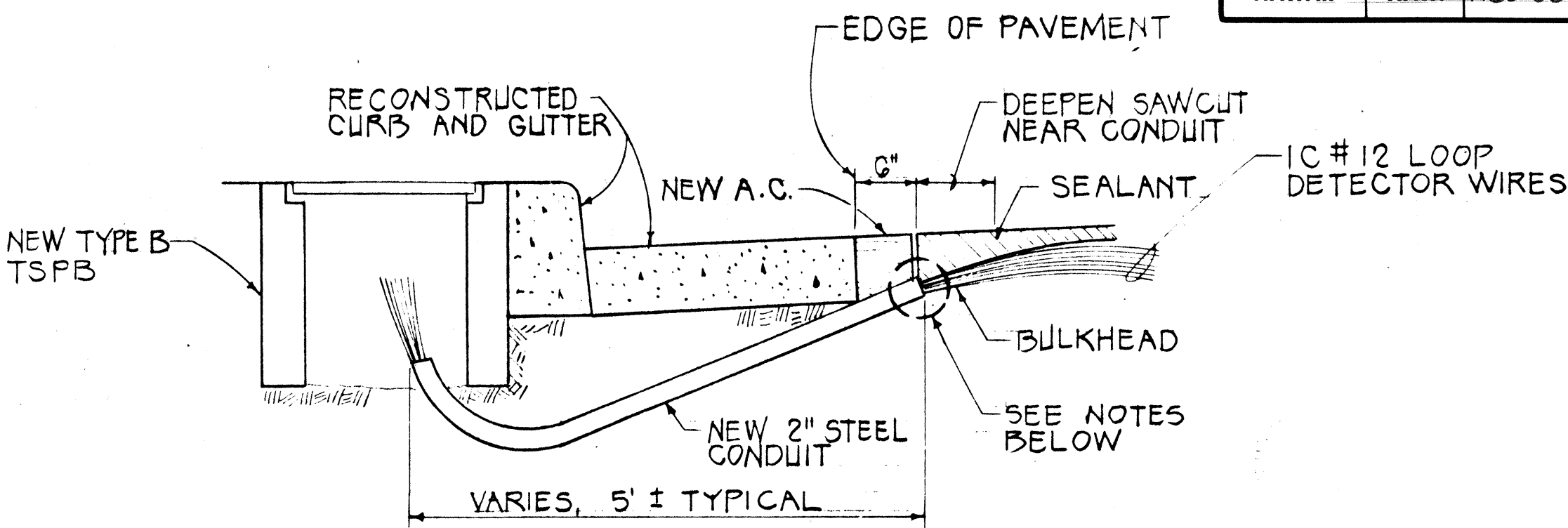


NOTE: ADD ONE PAIR OF LOOPS FOR EACH ADDITIONAL LANE

TYPICAL LAYOUT AT STOPLINES
SCALE: 1/4" = 1'-0"

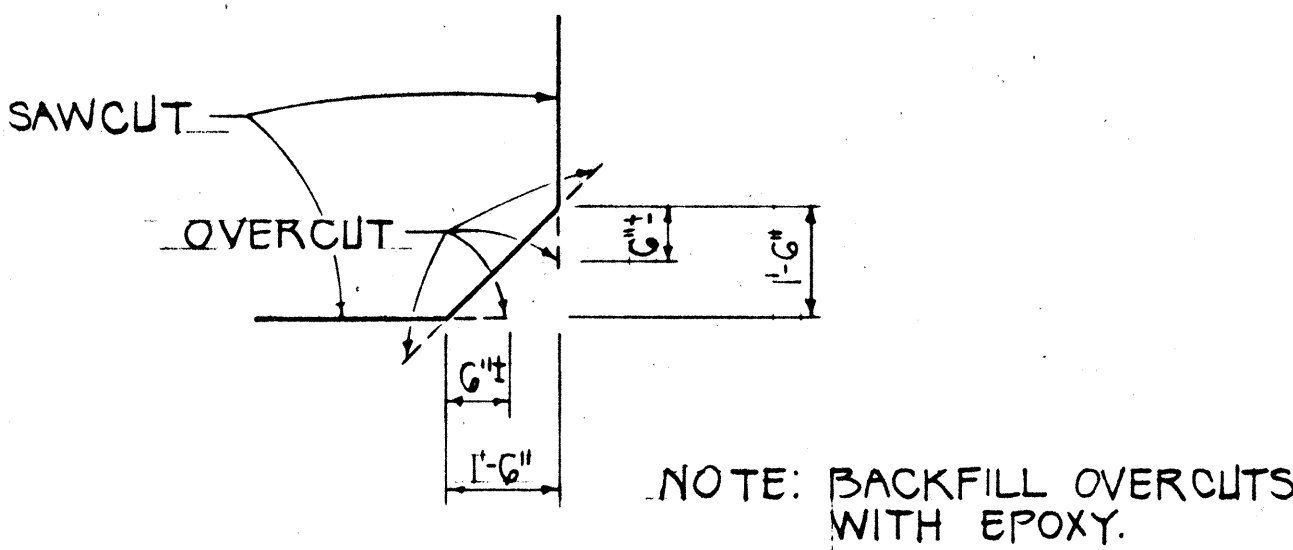


TYPICAL LAYOUT AT SHOULDER AREAS
SCALE: 1/4" = 1'-0"

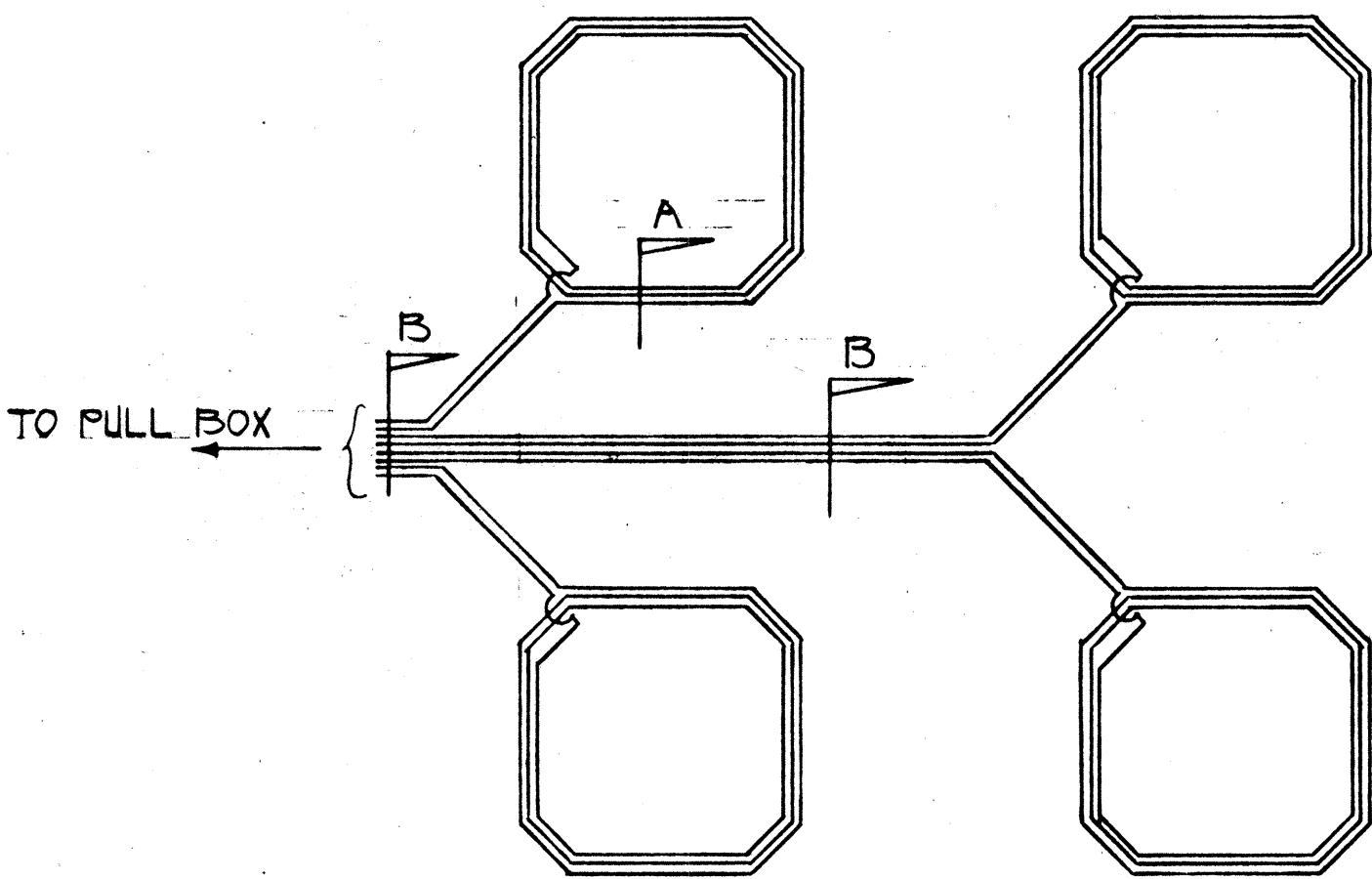


- NOTES:
1. SEAL ROADWAY END OF CONDUIT AFTER INSTALLATION OF CONDUCTORS.
 2. INSTALL BULKHEAD ACROSS CONDUIT TRENCH.
 3. PLACE APPROVED SEALANT IN SAWCUT
 4. BACKFILL OVER CONDUIT WITH NEW A.C.
 5. RECONSTRUCT CURB AND GUTTER AS REQUIRED.

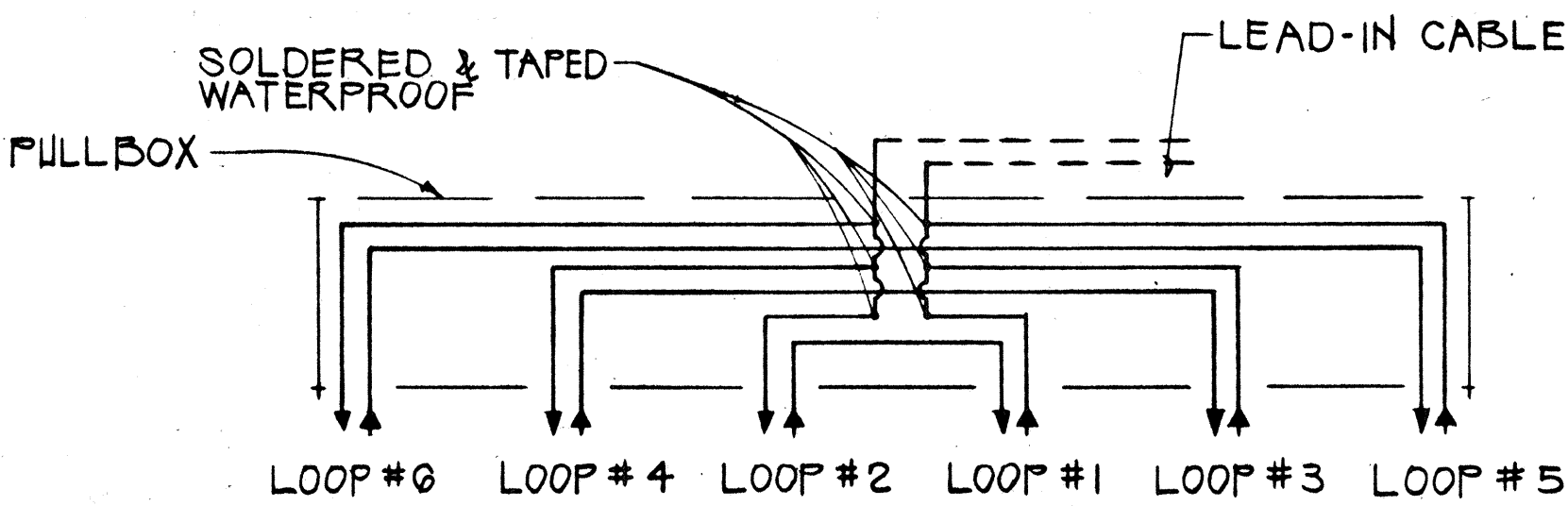
SECTION E
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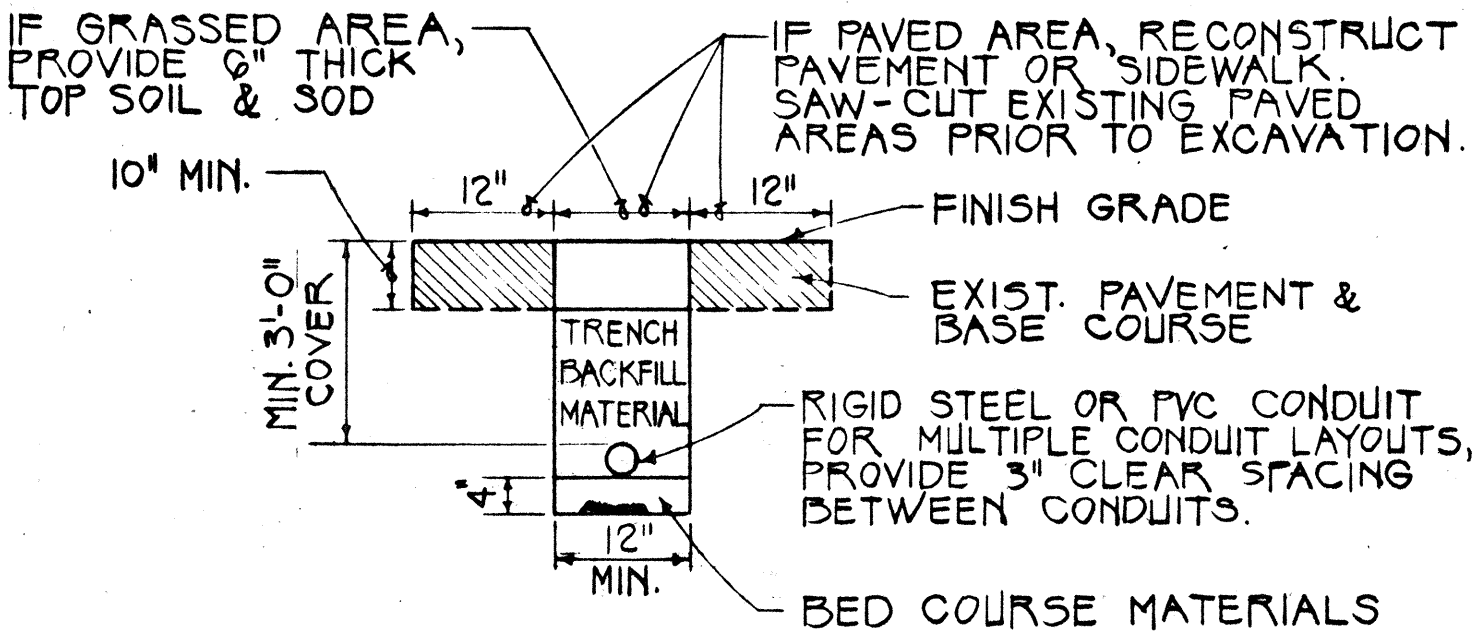
DETAIL OF SAWCUT AT CORNERS
NOT TO SCALE



WIRING DIAGRAM
NOT TO SCALE

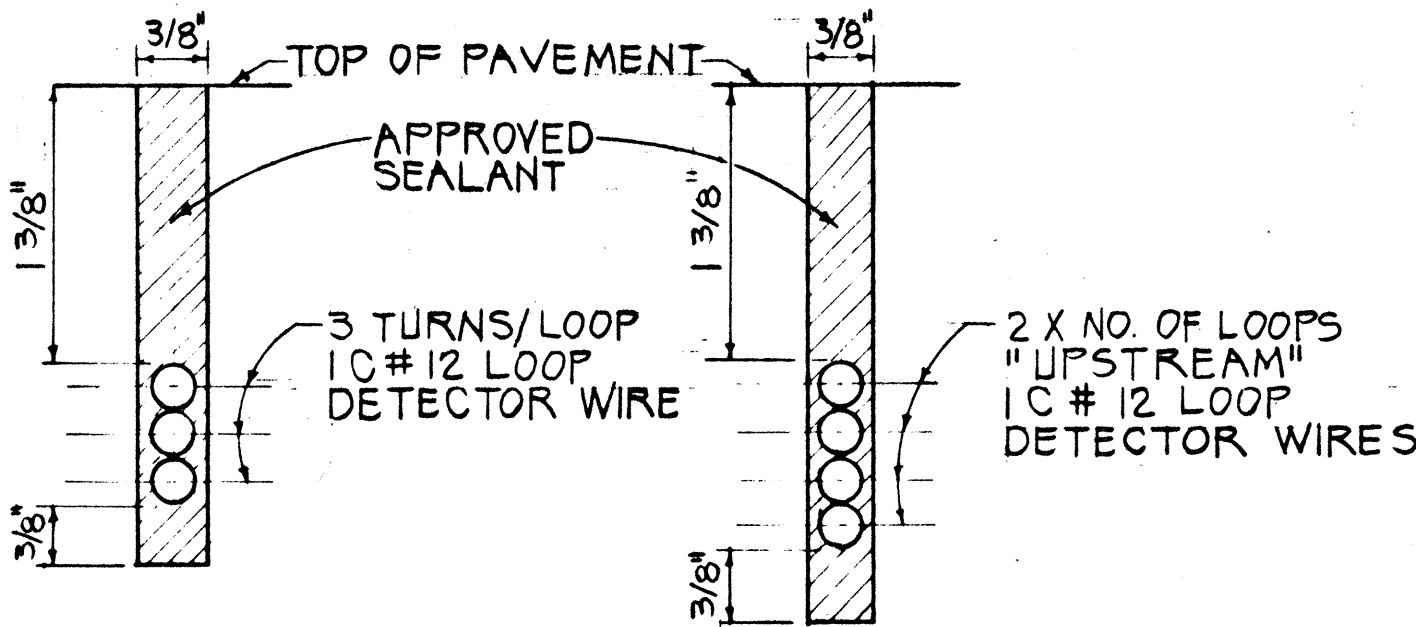


DETAIL "A"
TYPICAL SERIES - PARALLEL LOOP CONNECTION



SECTION C
NOT TO SCALE

NOTE: ALL CONDUITS UNDER ROADWAYS SHALL BE STEEL OR PVC SCHEDULE 80



SECTION A
NOT TO SCALE

SECTION B
NOT TO SCALE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

LOOP DETECTOR DETAILS

LIKELIKE HIGHWAY

INTERSECTION IMPROVEMENTS @ N. SCHOOL ST.

F.A.P. NO. HES-063-1(18)

Scale: As Shown

Date: Jan. 1989

SHEET No. 3 OF 3 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	