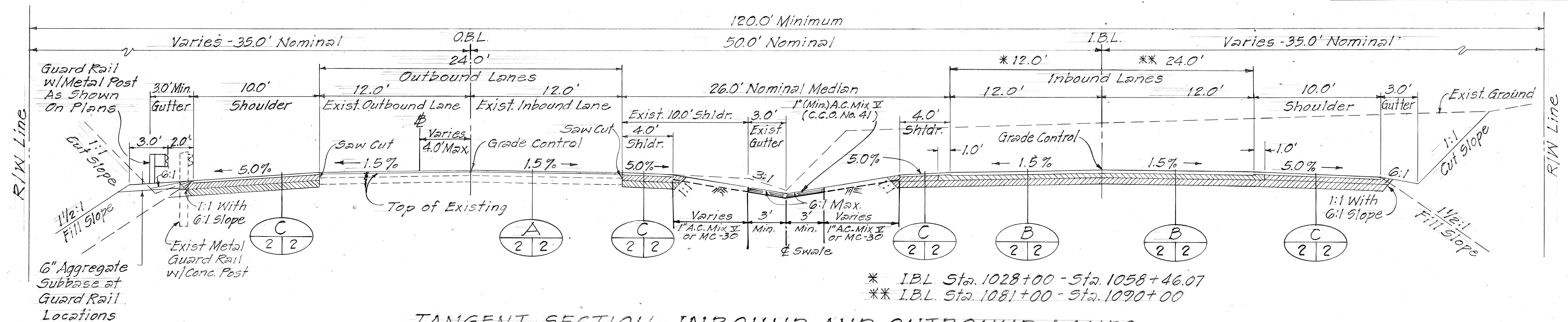
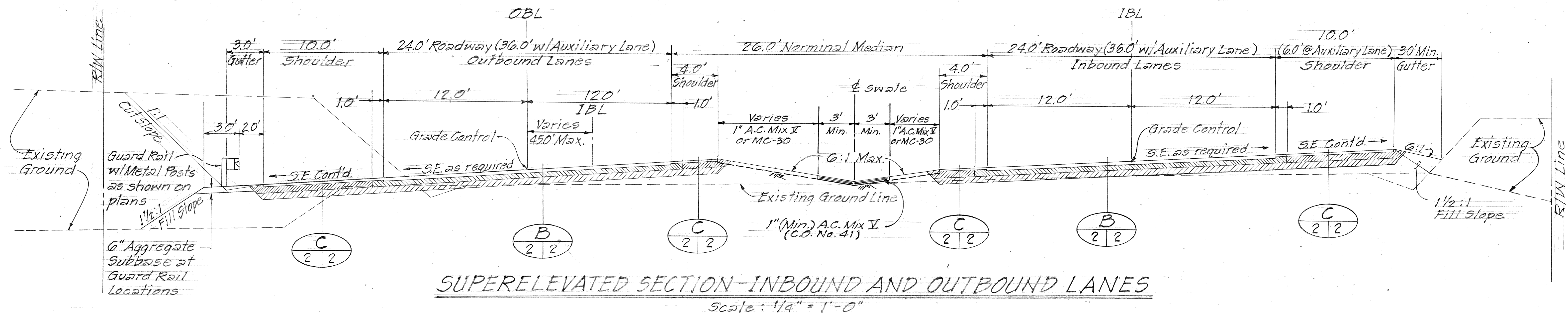


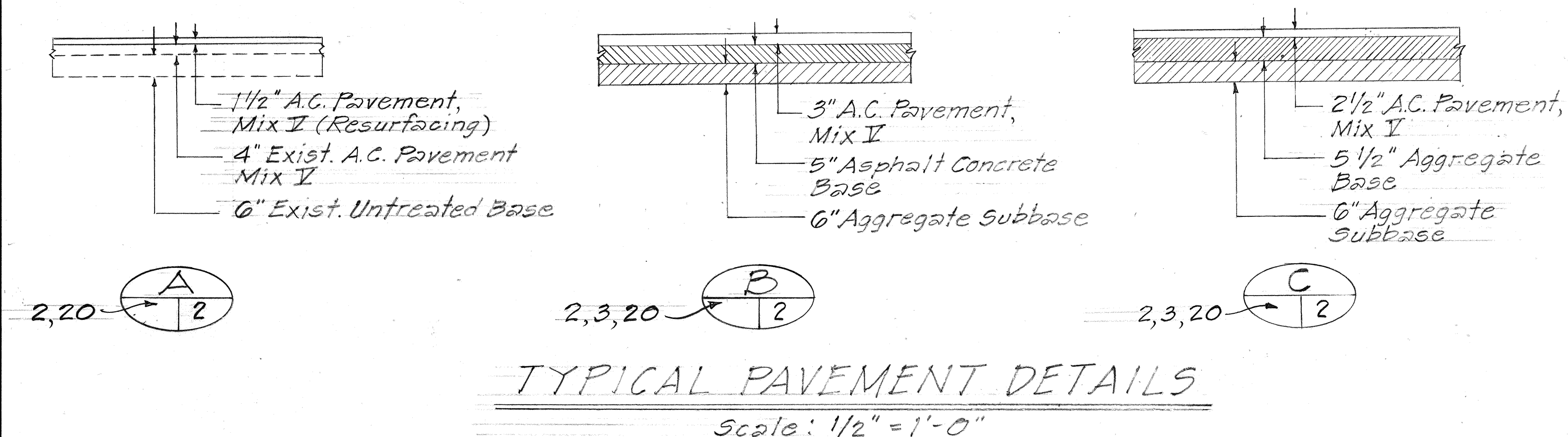
| FED. ROAD<br>DIST. NO. | STATE | FED. AID<br>PROJ. NO. | FISCAL<br>YEAR | SHEET<br>NO. | TOTAL<br>SHEETS |
|------------------------|-------|-----------------------|----------------|--------------|-----------------|
| HAWAII                 | HAW.  | F-011-2(17)           | 1986           | 2            | 142             |



TANGENT SECTION - INBOUND AND OUTBOUND LANES  
Scale: 1/4" = 1'-0"

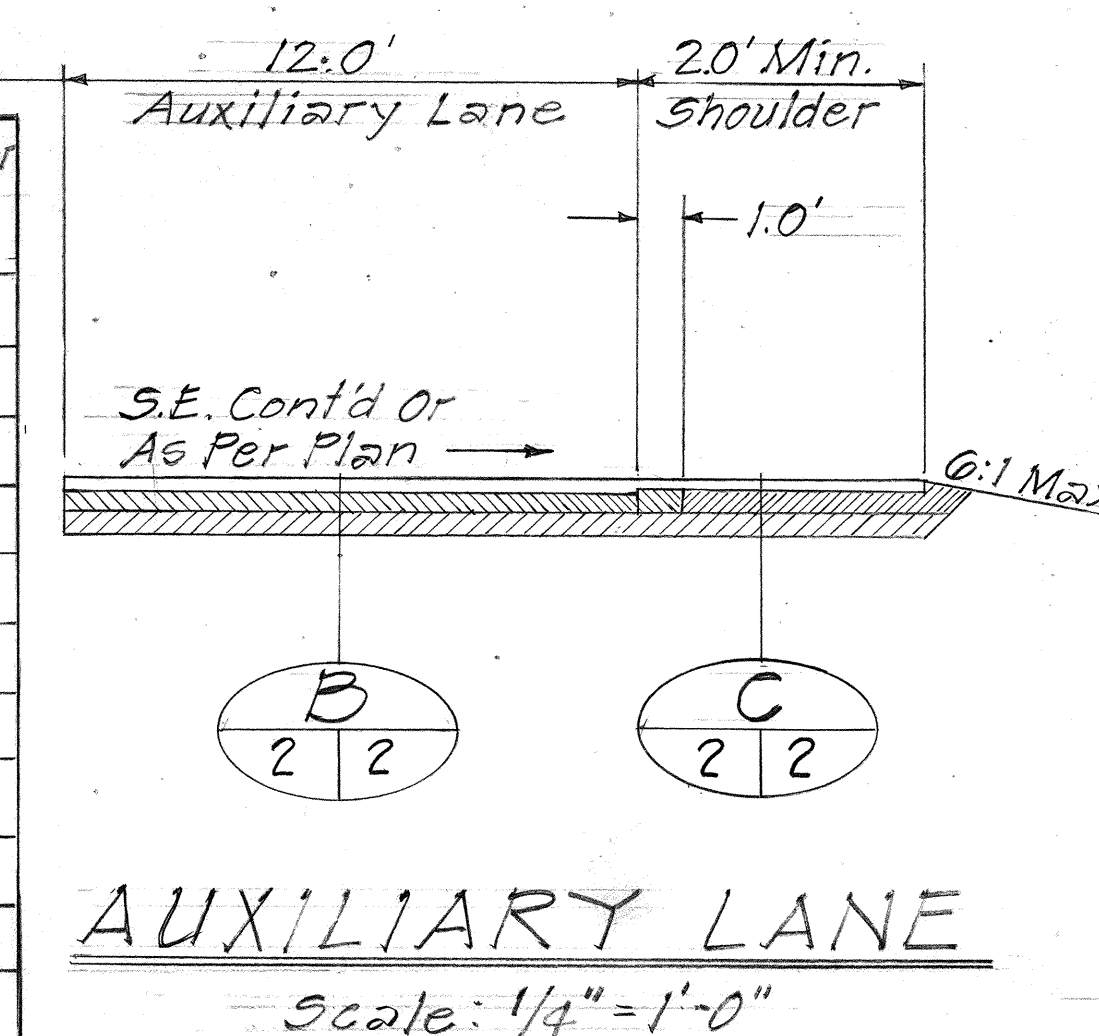


SUPERELEVATED SECTION-INBOUND AND OUTBOUND LANES  
Scale: 1/4" = 1'-0"



TYPICAL PAVEMENT DETAILS

| Inbound/Outbound Lanes        |       | Shoulder |
|-------------------------------|-------|----------|
| Auxiliary Lane Locations      |       | Shoulder |
| Inbound                       | Width |          |
| IBL Sta. 1022+00-1027+40 Lt.  | 2'    |          |
| IBL Sta. 1036+00-1050+00 Rt.  | 6'    |          |
| IBL Sta. 1061+00-1067+75 Rt.  | 6'    |          |
| IBL Sta. 1062+00-1068+00 Lt.  | 4'    |          |
| IBL Sta. 1081+00-1090+00 Rt.  | 6'    |          |
| IBL Sta. 1095+60-1101+00 Rt.  | 6'    |          |
| IBL Sta. 1101+50-1110+70 Rt.  | 6'    |          |
| Outbound                      |       |          |
| OB L Sta. 1042+00-1047+00 Rt. | 4'    |          |
| OB L Sta. 1067+50-1073+50 Rt. | 4'    |          |
| OB L Sta. 1101+50-1107+00 Rt. | 4'    |          |



AUXILIARY LANE  
Scale:  $1/4" = 1'-0"$

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

TYPICAL SECTIONS

VOLCANO ROAD

Kaau Agricultural Subdivision  
to Slaughter House Road

F.A.P. No. F-011-2(17)

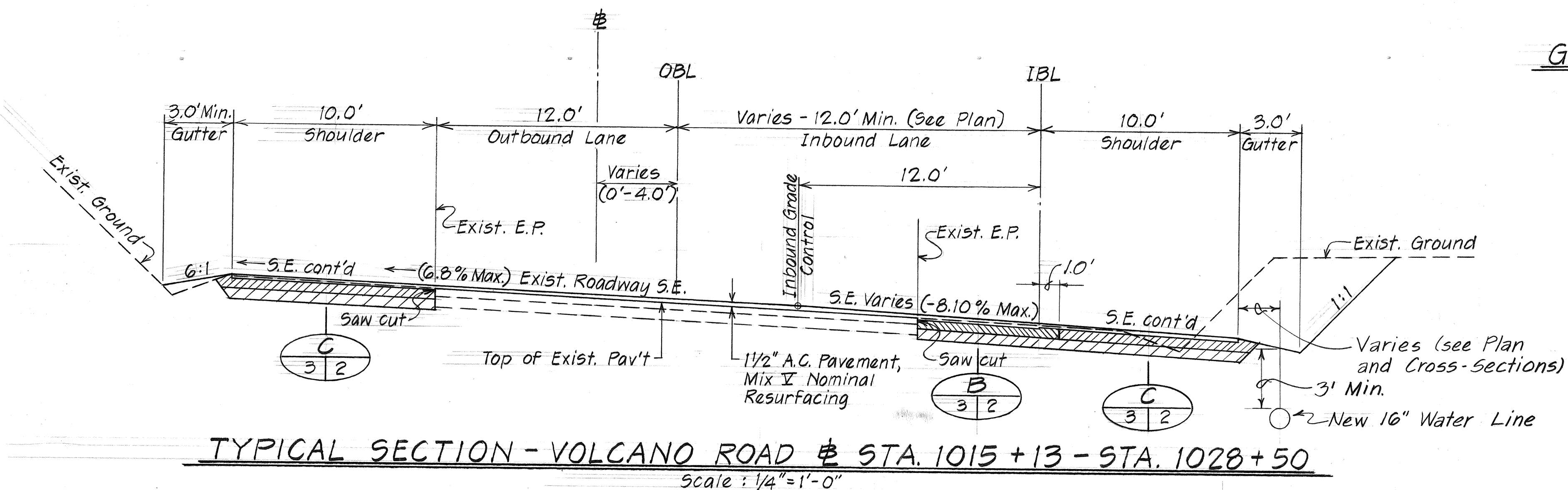
Scale: AS NOTED Date: July, 1985

SHEET NO. 1 OF 2 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | F-011-2(17)        | 1986        | 3         | 142          |

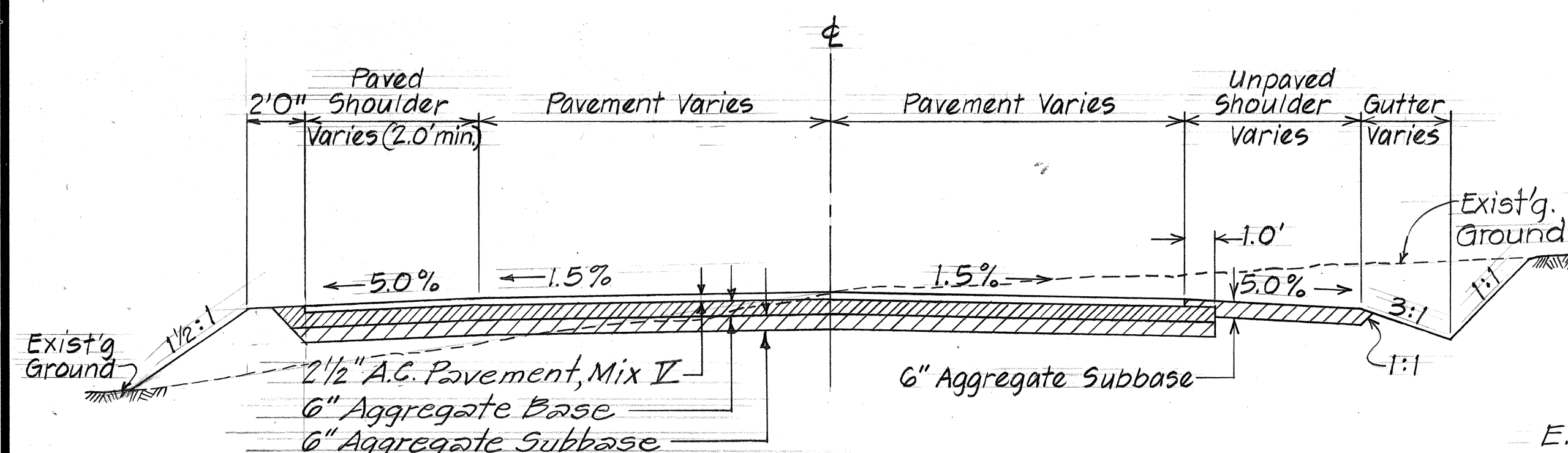
## GENERAL NOTES

- Improvements consist of clearing and grubbing, grading, paving, landscaping, constructing drainage facilities, extending an existing underpass structure, installing traffic signals, signs, pavement markers, and metal guard rails, and adjustment of utility facilities.
- The existence and location of utilities, appurtenances, and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of work. The Contractor shall be responsible and shall pay for all damages to existing utilities resulting from his operations.
- Reconstructed metal guardrail shall be located in one continuous section only. Locations as indicated on the plans.
- Pavement cutlines shown are approximate and intended primarily as guides. Wherever field conditions permit and at the discretion of the Engineer, new pavement grades over existing pavement may be constructed with an overlay of A.C. Mix No. V, alone or in conjunction with an asphalt treated base course in lieu of complete reconstruction of the existing pavement.
- All new cut and fill slopes beyond the edge of shoulder shall be hydro-mulched as called for in the plans.
- Construct smooth and easy riding connections at all pavement cutlines where new pavement abuts existing pavement.
- All new pavement striping will be done by State Maintenance Forces.
- All pole line relocations not specified in the contract proposal will be done by others.
- All work not specifically allowed for in the contract proposal will be considered incidental to the various contract items and no measurement or compensation will be made therefor. Such work shall include, but not be limited to:
  - Removal and stockpiling of delineators, existing raised pavement markings, pavement striping, crosswalk markings and non-reusable parts of existing metal guardrails with concrete posts.
  - Sawcutting, scarifying and removing existing pavement as necessary, or processing of scarified asphalt concrete pavement to be used in the construction;
  - Demolishing, removing, and disposing of a portion of or entire existing improvements such as catch basins, culverts, curbs, etc..
- Hatched area shown thus  denotes scarifying and removing existing Asphalt Concrete Pavement.
- Unsuitable material between Sta. 1056+00± and 1060+50± Rt. shall be removed and become the property of the Contractor.



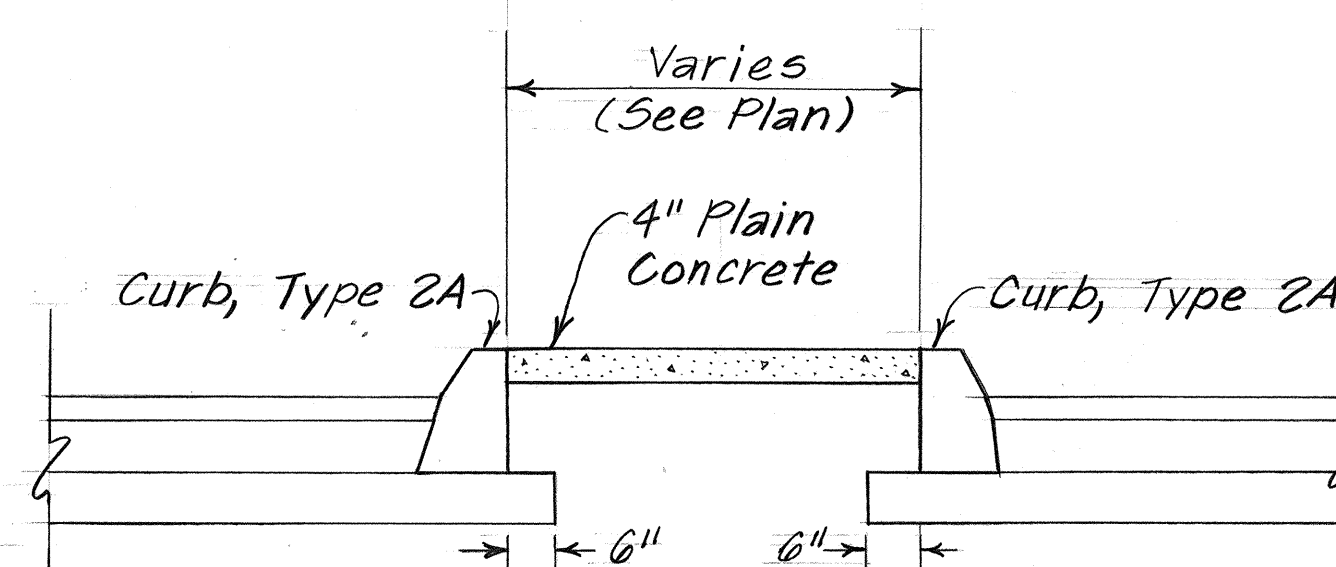
TYPICAL SECTION - VOLCANO ROAD STA. 1015+13 - STA. 1028+50

Scale: 1/4" = 1'-0"

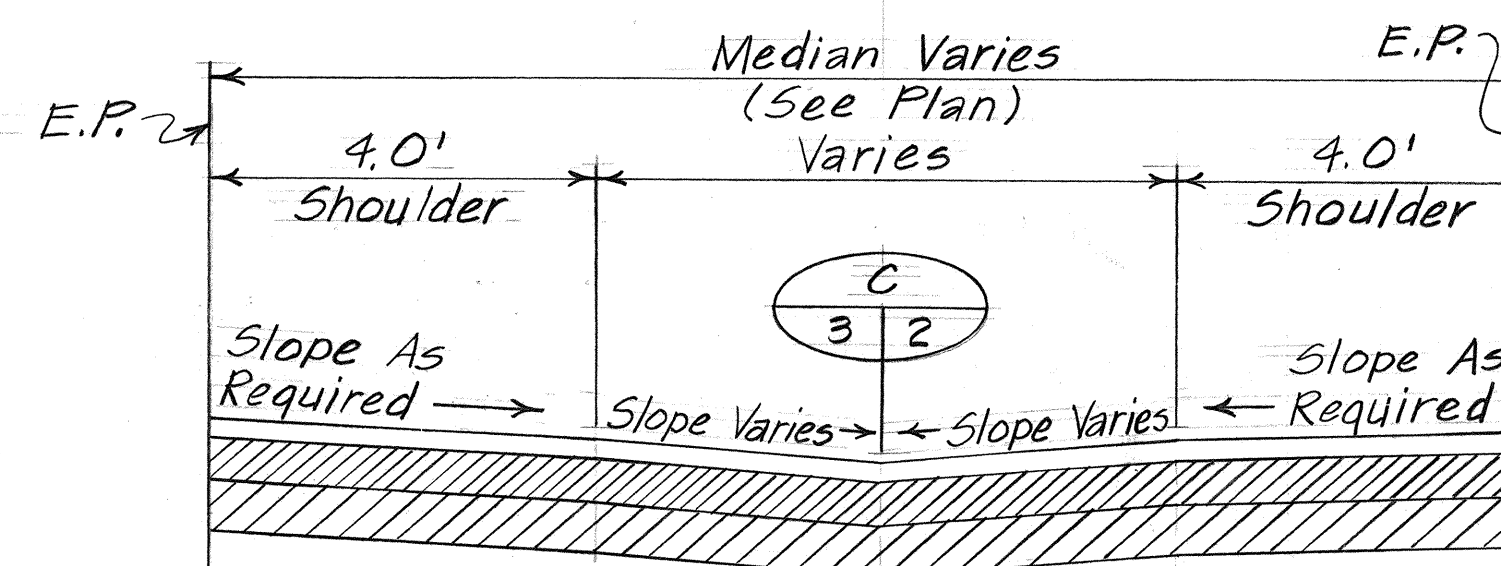


TYPICAL SECTION - SIDE ROAD

Scale: 1/4" = 1'-0"



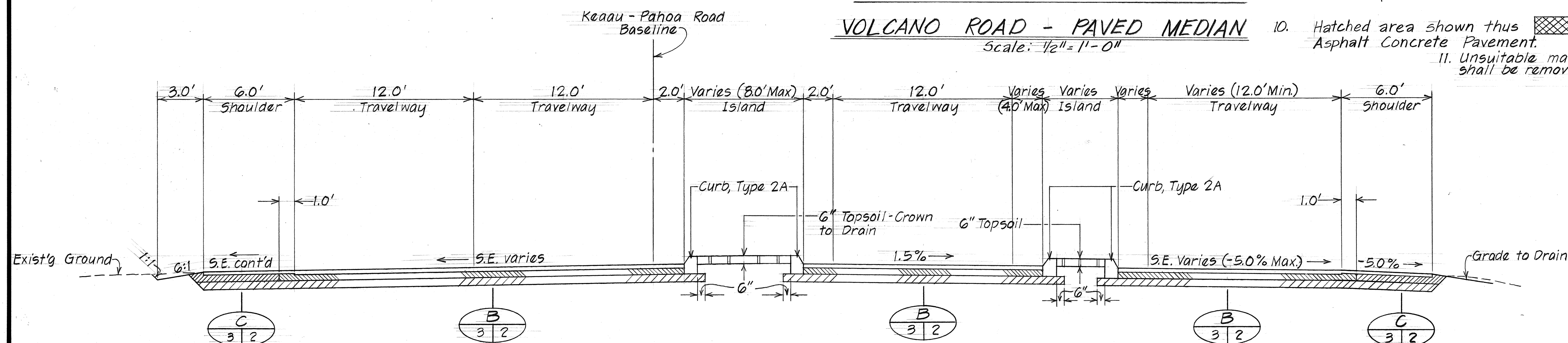
IBL STA. 1063+25± to STA. 1072+23±



ASPHALT CONCRETE PAVED MEDIAN

VOLCANO ROAD - PAVED MEDIAN

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



TYPICAL SECTION - KEEAU-PAHOA ROAD

Scale: 1/4" = 1'-0"

| STATE OF HAWAII                   |                  |
|-----------------------------------|------------------|
| DEPARTMENT OF TRANSPORTATION      |                  |
| HIGHWAYS DIVISION                 |                  |
| TYPICAL SECTIONS AND              |                  |
| GENERAL NOTES                     |                  |
| VOLCANO ROAD                      |                  |
| Keaau Agricultural Subdivision    |                  |
| to Slaughter House Road           |                  |
| FEDERAL AID PROJ. NO. F-011-2(17) |                  |
| Scale: As Noted                   | Date: July, 1985 |
| SHEET NO. 2 OF 2 SHEETS           |                  |