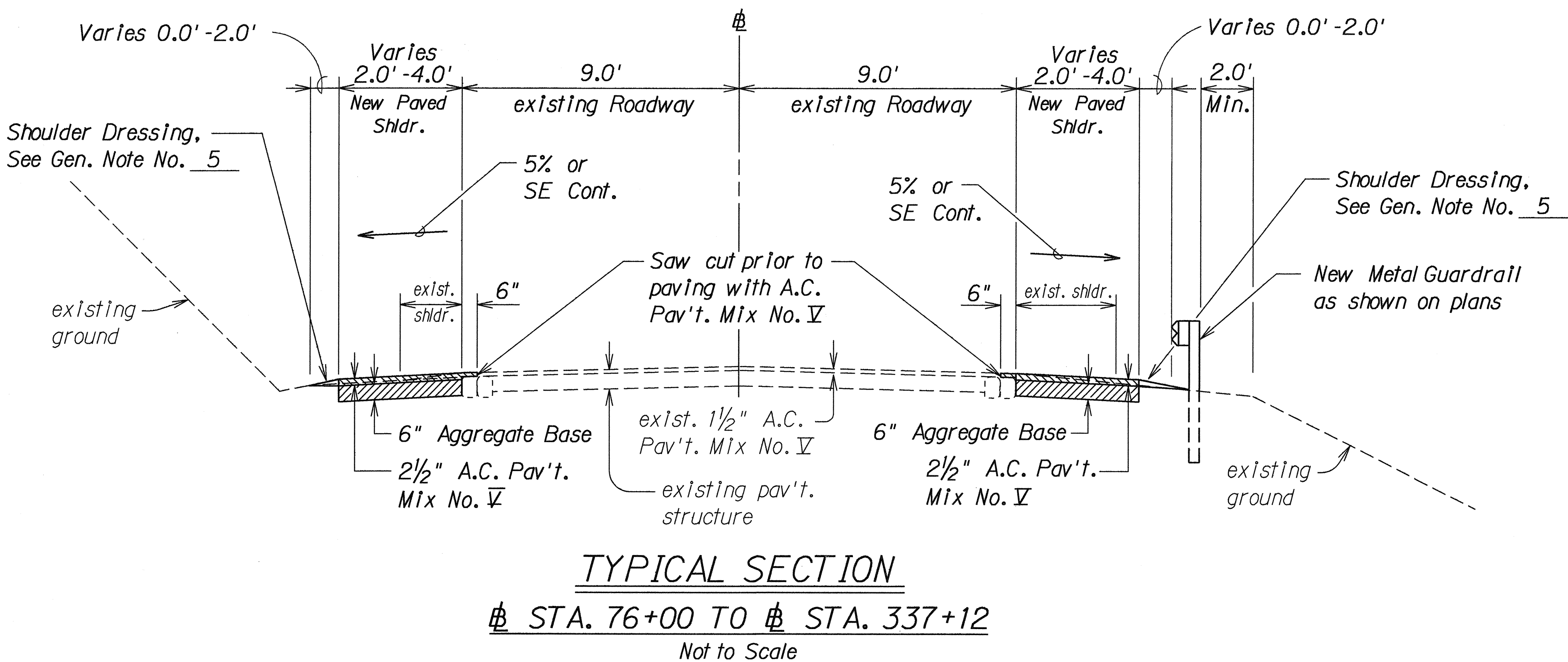
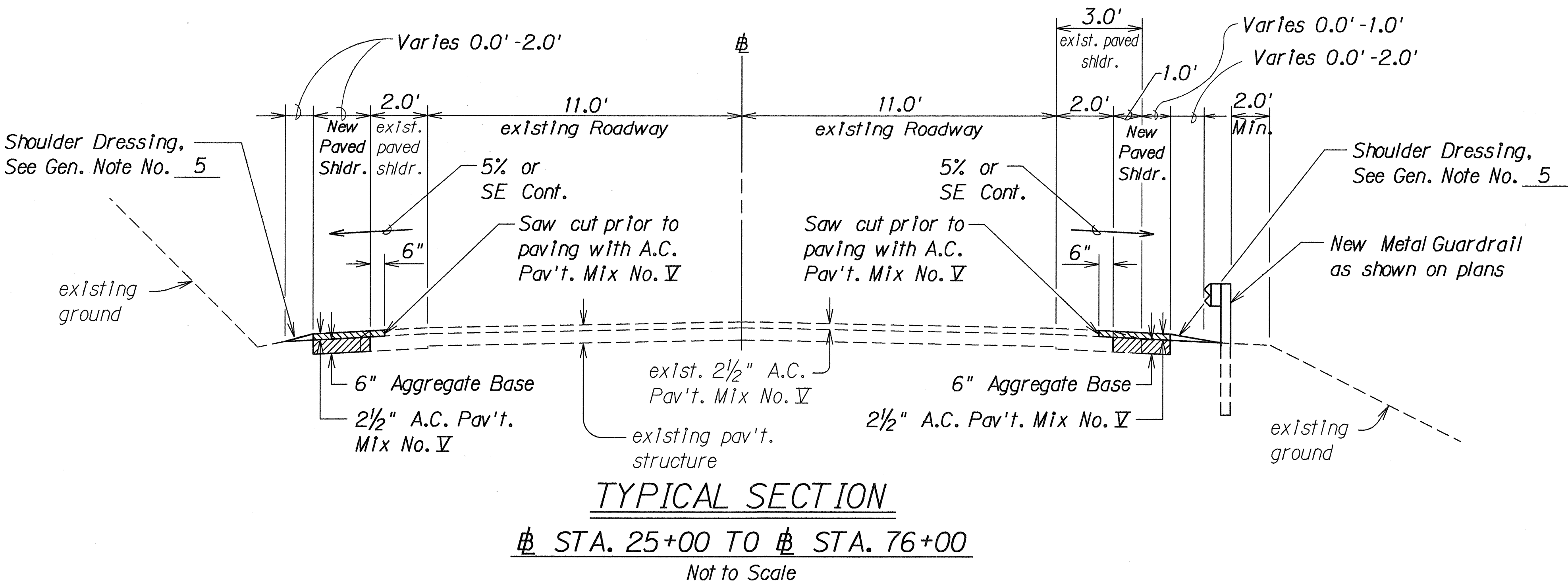


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377(3)	1994	3	39

GENERAL NOTES:

- The Project begins on Kula Junction at M.P. 0.05 on Haleakala Highway, towards Crater Road Junction and ending at M.P. 6.00. Improvements consist of constructing paved shoulders ,installing metal guardrails, extending culverts, installing pavement markers and edge striping.
- The Contractors attention is directed to Sub-Sections 104.04 Maintenance of Traffic, 107.13 Public Convenience and Safety, 107.21 Contractors Responsibility for Utility Property and Services, Section 645 Traffic Control of the Standard Specifications and the Special Provisions.
- The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data, but the accuracy is not guarateed. The encountering of other obstacles during the course of the work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and /or Improvements as a result of his operations.
- Saw-cutting of existing pavement shall not be measured or paid for separately but shall be considered incidental to Item No. 421.0100-Paved Shoulder.
- Dressed shoulders shall consist of cleaning, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable excavation material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
- The Contractor shall notify the State, in writing, two weeks prior to starting paving operations.
- All construction signs shall be left in place until all construction items have been completed. Contractor shall obtain prior approval from the Engineer to remove construction signs.
- Smooth riding connections shall be constructed at the beginning and end of the project, and at all connecting approaches as directed by the Engineer. This work shall be considered incidental to Item No. 421.0100-Paved Shoulder.
- The Contractor shall construct shoulder only one side at a time.
- The Contractor shall not leave more than 1½" drop-off at the edge of pavement, at the end of each work day. Whenever the Contractor leaves a 1½" drop-off, the Contractor shall install delineators at 80 feet on center along the edge of the pavement. This work, which includes furnishing, installing, cleaning, maintaining correct placement and removing when required, shall be considered incidental to Item No. 421.0100-Paved Shoulder.
- Removal of guardrails and posts will not be paid for separately but shall be considered to be incidental to installing guardrails.
- The exact location and limits of guardrail installation and mailbox relocation shall be determined in the field by the Engineer.
- The Contractor shall coordinate work between Sta. 6+47.01 and Sta. 25+00 with Fletcher Pacific Corporation.



ORIGINAL PLAN	DATE
NOTED BY	2/2/93
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

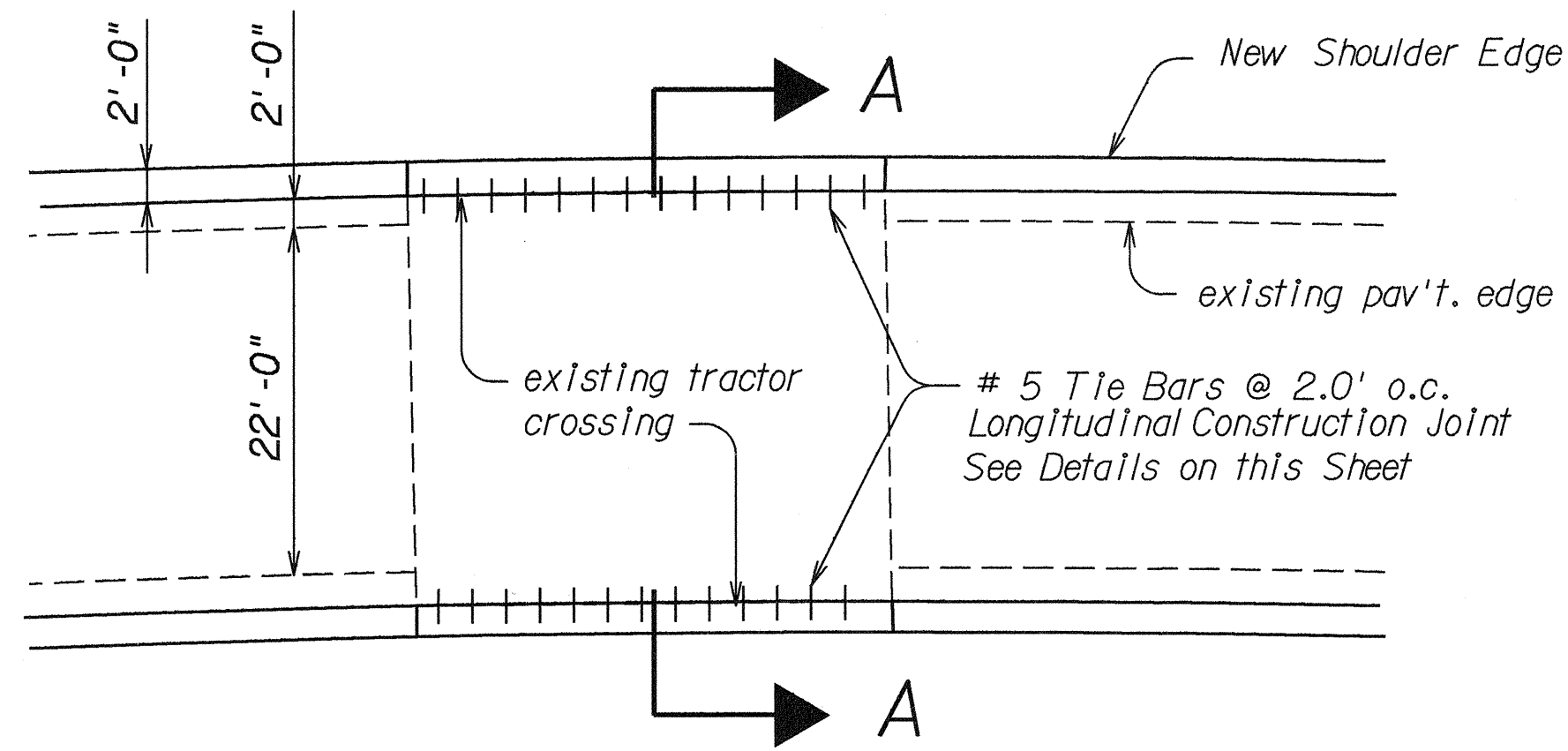
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TYPICAL SECTIONS
AND GENERAL NOTES**
HALEAKALA HIGHWAY
Guardrail and Shoulder Improvement
Kula Junction To Crater Road Junction
Fed. Aid Proj. No. STP-0377(3)

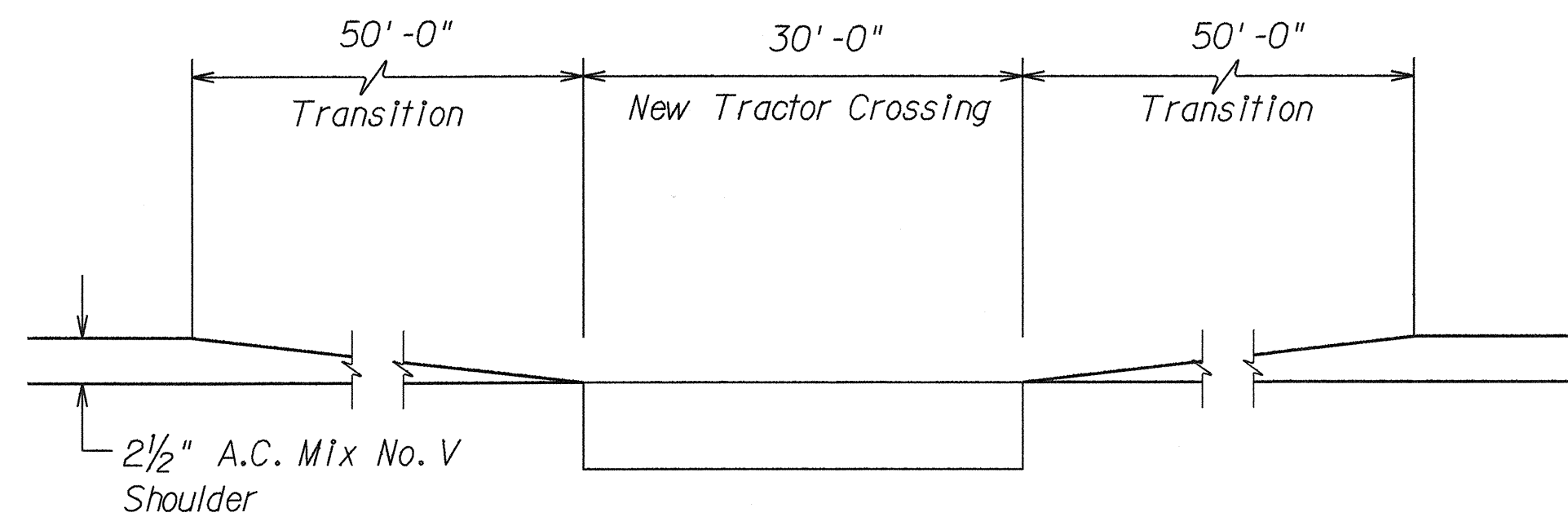
Scale: As Shown
Date: March, 1992

SHEET No. 1 OF 1 SHEETS

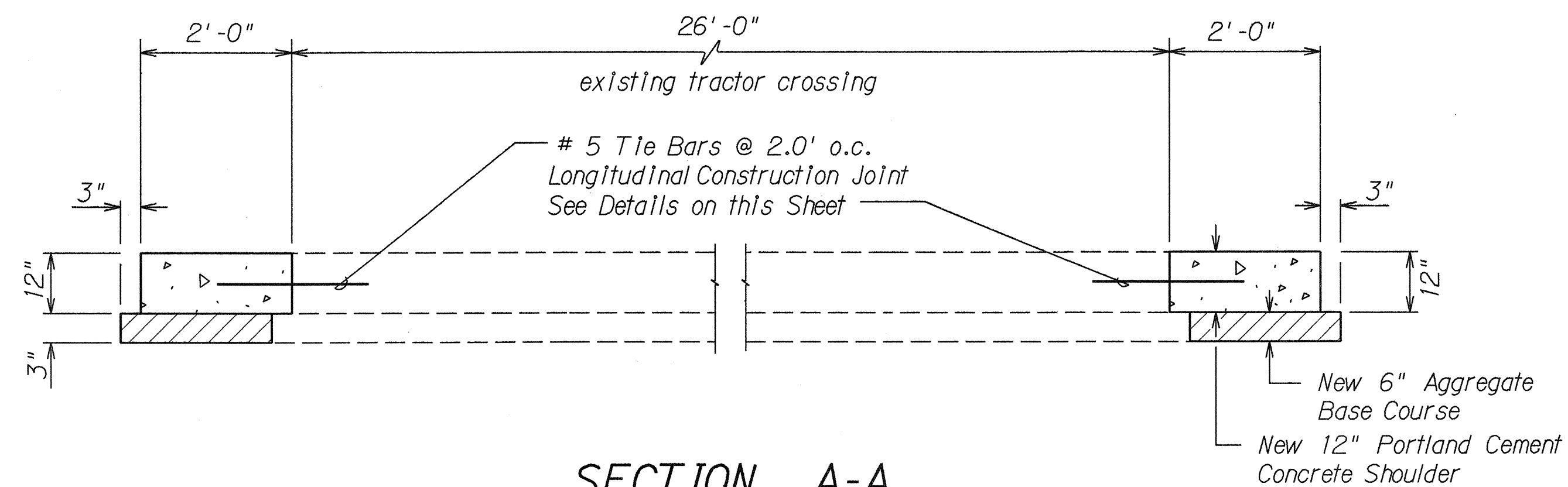
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377(3)	1994	4	39



PLAN

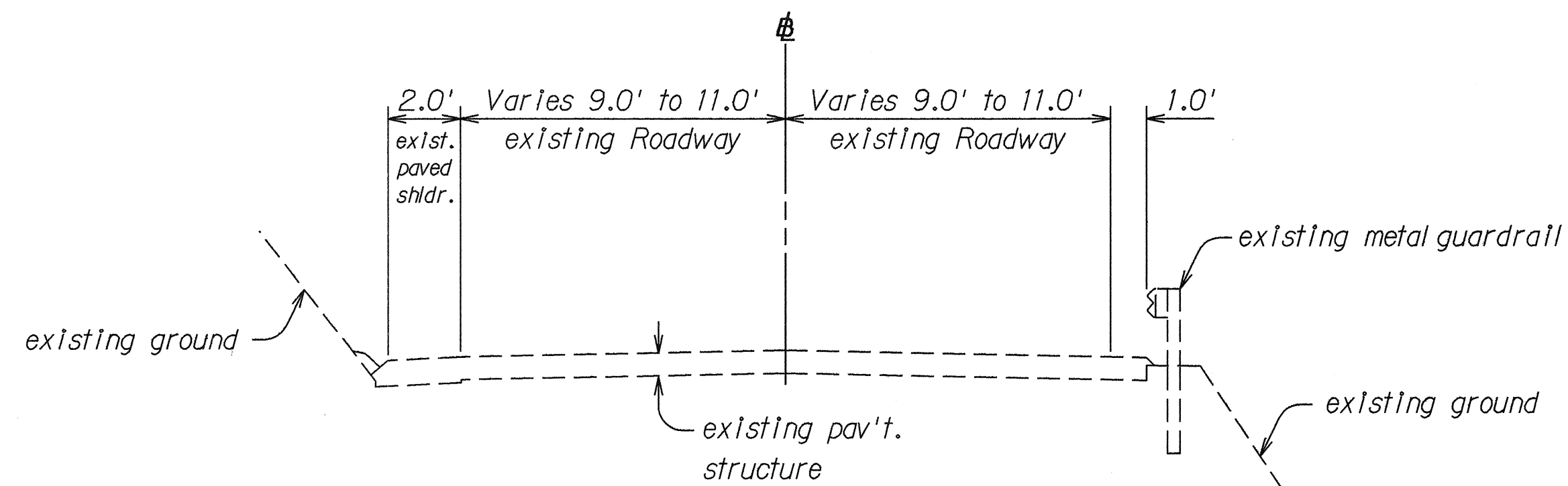


LONGITUDINAL SECTION

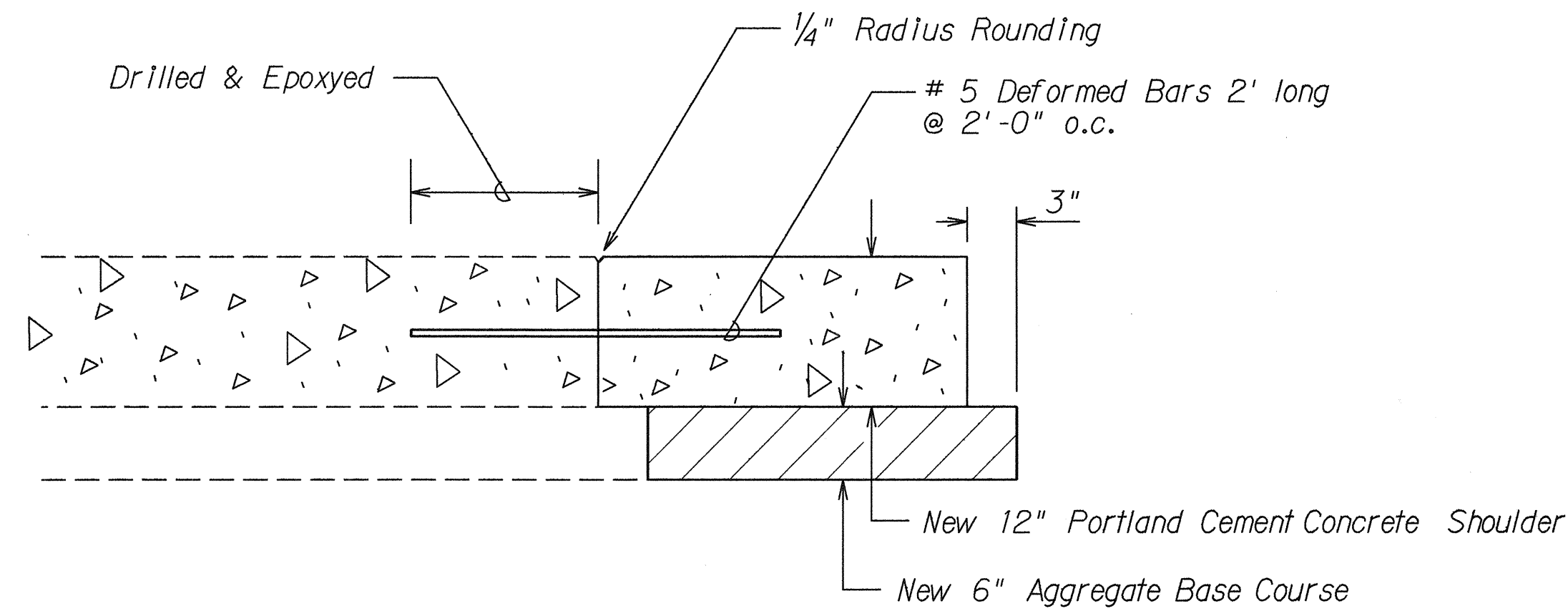


SECTION A-A

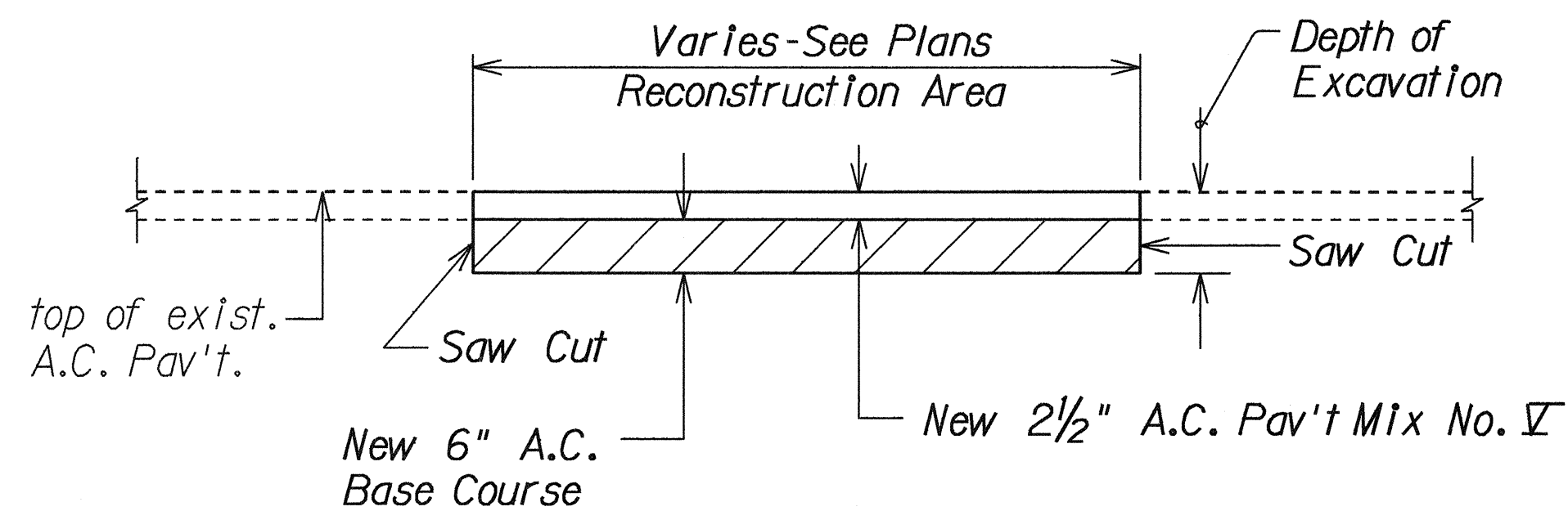
TRACTOR CROSSING WIDENING
AT # STA. 30+40±
Not to Scale



TYPICAL RESTRICTED SECTION
Not to Scale



LONGITUDINAL CONSTRUCTION JOINT DETAIL
Not to Scale



A.C. PAVEMENT RECONSTRUCTION DETAIL
Not To Scale

LEGEND

Reconstruction Areas

Existing Power Pole

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL SECTIONS,
LEGEND AND DETAILS**
HALEAKALA HIGHWAY
Guardrail and Shoulder Improvement
Kula Junction To Crater Road Junction
Fed. Aid Proj. No. STP-0377(3)
Scale: As Shown Date: July, 1992
SHEET No. 1 OF 2 SHEETS

NPDES Pollutant Control General Notes:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377 (3)	1994	45-1	39

A. WASTE DISPOSAL:

1. Waste Materials

All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster will meet all City and State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of twice per week or as often deemed as necessary. No construction waste materials will be buried onsite. Operator's supervisory personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and the Operator will be responsible for seeing that these procedures are followed.

2. Hazardous Waste

All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Operator's site personnel will be instructed in these practices and will be responsible for seeing that these practices are followed.

3. Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of once per week, or as required.

B. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

- All control measures will be inspected at least once each week and following any rainfall event of 0.5 inches or greater.
- All measures will be maintained in good working order. If a repair is necessary, it will be initiated within 24 hours after the inspection.
- Built-up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- The sediment basin will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 10 percent of the design capacity and at the end of the job.
- Diversion dike will be inspected and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made promptly after each inspection by the Operator.
- The Operator will select a minimum of three personnel who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- Personnel selected for the inspection and maintenance responsibilities will receive training from the Operator. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

C. BEST MANAGEMENT PRACTICES- Pollutant Control (Good Housekeeping)

1. Material Pollution Prevention Plan -

- a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.

Concrete
Detergents
Paints (enamel and latex)
Metal Studs
Tar

Fertilizers
Petroleum Based Products
Cleaning Solvents
Wood
Masonry Block

b. Material Management Practices will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort will be made to store only enough product required to do the job.

c. All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.

d. Products will be kept in their original containers with the original manufacture's label.

e. Substances will not be mixed with one another unless recommended by the manufacturer.

f. Whenever possible, all of a product will be used up before disposing of the container.

g. Manufacturers' recommendations for proper use and disposal will be followed.

h. The Operator will conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan -

a. These practices are used to reduce the risks associated with hazardous materials.

b. Products will be kept in original containers unless they are not resealable.

c. Original labels and materials safety data will be retained; they contain important product information.

d. Surplus products must be disposed of according to manufacturers' instructions or local and State recommended methods for proper disposal.

3. Onsite and Offsite Product Specific Plan -

a. The following product specific practices will be followed onsite:

1) Petroleum Based Products:

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

2) Fertilizers:

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

3) Paints:

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the highway drainage system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

4) Concrete Trucks:

Concrete trucks will be allowed to wash out or drum wash water only at a designated site. Water will not be discharged in the highway drainage system or waters of the United States. Operator shall contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. Operator will clean the disposal site as required or as requested by the Owner's representative.

b. Offsite Vehicle Tracking:

1) A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be cleaned daily or as required to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

4. Spill Control Plan -

a. Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.

b. Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite.

c. All spills will be cleaned up immediately after discovery.

d. The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

e. Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.

f. Spill prevention plan will be posted and adjusted to include measures to prevent spills and how to clean up the spills. A description of the spill, what caused it, and the cleanup measures will also be included.

g. The Operator will be the spill prevention and cleanup coordinator. He will designate at least three site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

D. PAYMENT:

1. Unforeseen hazardous material encountered during construction shall be disposed of in the manner as indicated in "A1 Waste Materials" and "A2 Hazardous Waste". Payment shall be made under Item 639.0200, Disposal of Hazardous Waste under Force Account basis.

2. A portion of the maintenance of erosion and sediment control as indicated in Item "B" of the Erosion Control Plan excluding the construction operation requirements shall be made under Item 639.0300, Maintenance of Erosion and Sediment Control under Force Account basis. Payment for Item "B" shall be only for repair and removal of built-up sediment.

E. SUBMITTAL REQUIREMENTS:

1. The Contractor shall submit to the Engineer four(4) sets of Site-Specific Best Management Plan (BMP) for the NPDES General Permit no later than thirty (30) calendar days after the award of contract.

2. The Contractor shall submit to the Engineer four(4) sets of Site-Specific Dewatering and/or Hydrotesting Water Plan and four(4) copies of the Quality of Discharge Test results for these applicable permit as required by the Contract Plans and Specifications no later than ninety(90) calendar days after the award of Contract. No work will be authorized until the submittal of these Plans.

3. Progress payment will not be authorized until the receipt of the BMP as noted in Item E1.

4. Any citation (fine) received by the State for non-compliance of the NPDES Permit requirement shall be deducted from the progress payment.

SURVEY PLOTTED BY	DATE	8/23/93
DRAWN BY	J. WISE/perm	
CHECKED BY		
DESIGNED BY	M. AITE	
QUANTITIES BY		
CHECKED BY		
ORIGINAL PLAN		
NOTE BOOK		
004,3690		
No. 00133591		

8/23/93 Added NPDES General Notes

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
NPDES GENERAL NOTES
HALEAKALA HIGHWAY
Guardrail and Shoulder Improvement
Kula Junction To Crater Road Junction
Fed. Aid Project No. STP-0377 (3)

Date: August, 1993

SHEET No. 1 OF 1 SHEETS