

GENERAL NOTES

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11M	2012	ADD.3	31

- The scope of work for this project includes reconstructing weakened pavement areas; cold planing; resurfacing; reconstructing paved shoulders; adjusting utility boxes; relocating utility poles; extending a pipe culvert; constructing a concrete headwall; and installing milled rumble strips, guardrails, pavement markings and traffic signs.
- The Contractor is reminded of the requirements of Subsection 105.16 - Subcontracts.
- The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 104.11 - Utilities and Services; and Section 645 - Work Zone Traffic Control.
- At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
- 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 guaranteed. The encountering of other obstacles during the course of 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.
- The exact locations and limits or areas to be excavated, reconstructed and cold planed shall be determined in the field by the Engineer.
- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- All lanes shall be open to traffic during the hours from 5:00 A.M. to 8:00 P.M. Only one lane of highway shall be closed at any other time. No Nightwork shall be performed from September 15 through December 15 due to the Peak Shearwater Fledgling Season. Night time working hours are specified in Section 107 of the Special Provisions. Failure of the Contractor to open all lanes of traffic during the times specified above shall result in assessment of liquidated damages as specified in Section 108.09 of the Special Provisions.
- The Contractor shall remove and dispose of all existing raised pavement markers and traffic tapes prior to the overlaying of Asphalt Concrete. This work shall be considered incidental to Item 401.0400 - Hot Mix Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately.
- Smooth riding connections shall be constructed at all limits of resurfacing, including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans.
- Trimming and dressing of shoulder, sidewalk and bus turnout shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. Suitable materials shall include materials from roadway excavation, including topsoil and base material therefrom, and if necessary, additional materials from borrow outside the limits of the right of way. Asphalt concrete removed from cold planing, reconstruction and roadway excavation shall not be used for dressing of shoulder, sidewalk or bus turnout. This work shall be considered incidental to the various contract items.
- The Contractor, at his own expense shall hydro-mulch and maintain per Section 641 of the HDOT Standard Specification all areas disturbed by his operations.
- Existing drainage system will be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
- The Contractor shall provide for access to and from all existing driveways, sidewalks and ADA access routes, and side streets and cross streets at all times. This work shall be considered incidental to the various contract items, and will not be paid for separately.
- All saw cutting work shall be considered incidental to Item 401.0400 - HMA Pavement, Mix No. IV and will not be paid for separately.

- Prior to his resurfacing operations, the Contractor shall be responsible for locating, preserving and marking all utility & highway facilities that will require adjustments to the new finished pavement grade. Additionally, the Contractor shall submit to the Engineer a list of all items, including water, drainage, sewer, electrical, telephone and cable utilities to be adjusted to the new finished grade.
- After completion of resurfacing, the Contractor and the Engineer will test for, and determine ponding areas (i.e. low spots within the resurfaced area). It shall be the responsibility of the Contractor to correct and resurface and/or repair all such ponding areas.
- Contractor shall exercise extreme caution to preserve BENCHMARKS (Survey Monuments). Whenever the center of a Survey Monument is less than three (3) feet from the edge of construction, the Contractor shall retain a Licensed Land Surveyor to reference the location of said Survey Monument.

Benchmarks that are disturbed or destroyed shall be restored under a Licensed Land Surveyor's direction. Copies of field notes, descriptions and new values of the new benchmark shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.
- All new reference survey monuments shall be set under a Licensed Land Surveyor's direction. Copies of field notes, descriptions and values of the new survey monuments shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.
- Any work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.
- All asphalt concrete materials from cold planing, reconstruction and roadway excavation operations shall become the property of the State. The Contractor shall deliver these materials to the Lihue Airport's baseyard stockpile area. The Contractor shall separate the clean cold-planed material from the cold-planed material mixed with base course. This work shall be considered incidental to the various contract items.
- No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designated in writing and approved by the Engineer. If use of location is approved by the Engineer, the Contractor shall obtain a permit to use the property within the highway right-of-way from the State Highways Division at telephone no. 241-3000.
- Prior to commencing his operations, the Contractor shall contact the County of Kauai, Department of Water Operations Division (Phone No. 245-5444) and make arrangements for the Department to locate and mark the existing water facilities within the project limits, such as waterlines, valve boxes and manhole frame/covers (including ones that may have been inadvertently paved over on previous resurfacing projects). The tops of the existing valve boxes, manhole frame/covers, etc., shall be adjusted to match the new finished grades noted on the construction plans.
- It shall be the Contractor's responsibility to offset and record locations of the valve boxes and manhole frame/covers as marked by the Department of Water for the purposes of adjusting to the new finish grade. The Contractor shall preserve all offset stakes marking the locations of the valve boxes and manhole frame/covers. If offset stakes are damaged or lost, it shall be the Contractor's sole responsibility to survey and re-stake the locations of the valve boxes and manhole frame/covers.
- All workers within the State right-of-way who are exposed to either vehicles using the roadway or to construction equipment shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of ANSI/ISEA 107-2004. "Workers" is defined as people on foot whose duties place them with the State right-of-way, such as, but not limited to construction and maintenance forces, equipment operators, survey crews, utility crews, responders to incidents (e.g., EMT and firemen), and law enforcement personnel directing traffic, investigating accidents, handling lane closures and obstructed roadways.

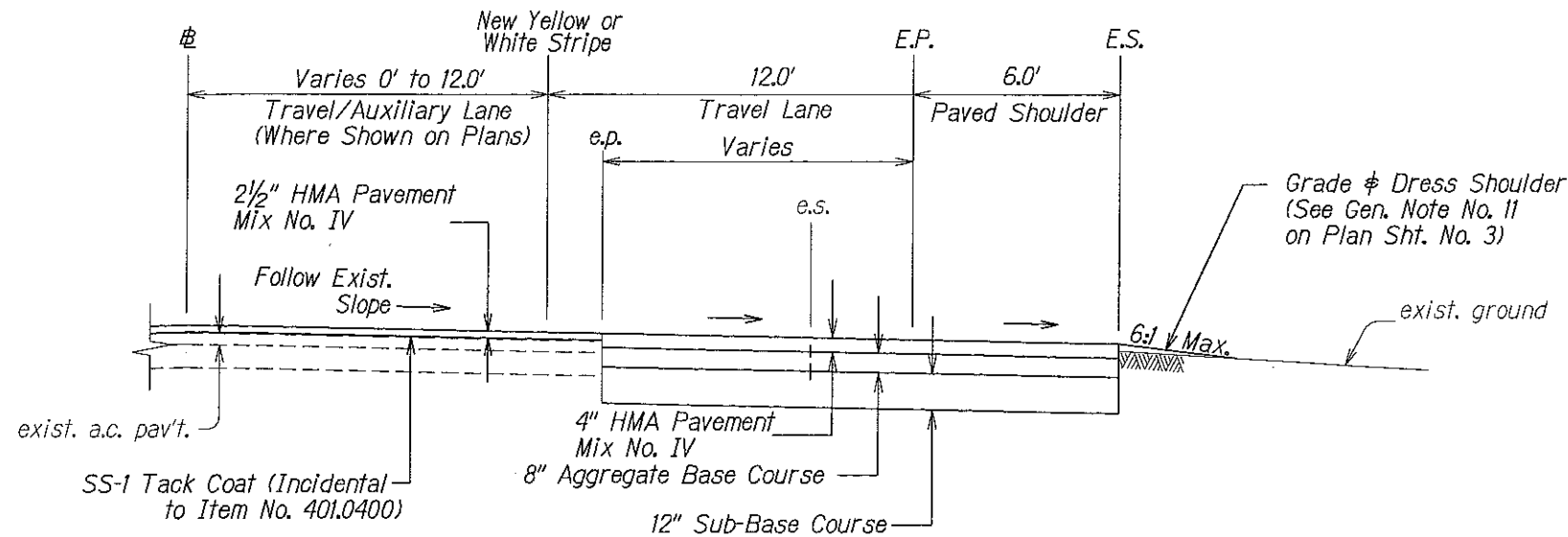
- Removal and disposal of existing traffic signs shall be considered incidental to various contract items.
- Moveable steel barriers can be used in lieu of portable concrete barriers, if project conditions permit installation in accordance with manufacturer's recommendations. Furnish and install moveable steel barriers and portable concrete barriers to meet NCHRP 350 TL-3 or better requirements, no matter what work zone speed limit is established. Moveable Steel Barrier shall conform to the requirements of the Special Provisions, Section 695 - Moveable Steel Barriers. Furnishing, installing and maintaining moveable steel barrier shall be paid under Item No. 694.0100 - Contractor-Furnished Portable Concrete Barrier.
- Applicable crash cushions (TL-3 or better) that have been tested and are suitable end treatments for HDOT accepted moveable steel barriers shall be used. This work shall be paid under Item No. 694.0200 - Inertial Barrier Module.

LEGEND

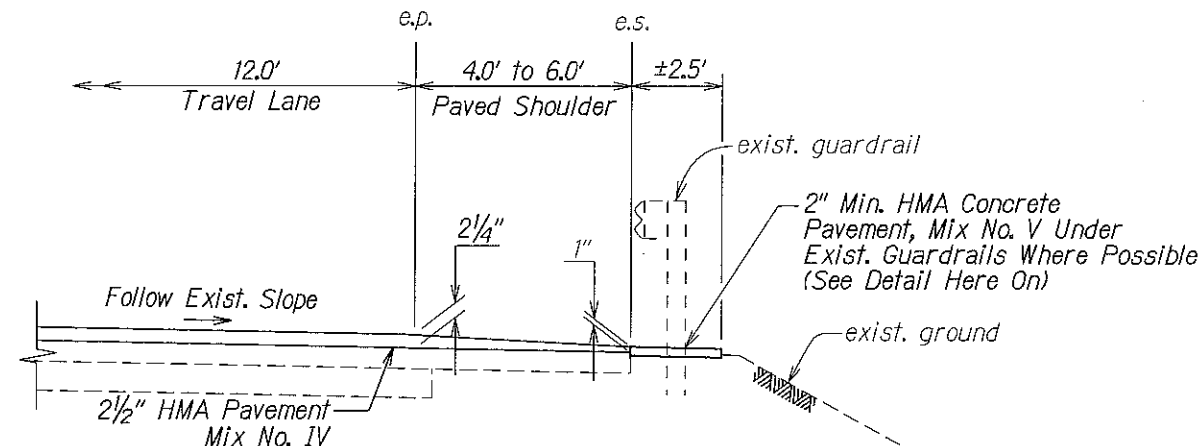
	Cold Planing Areas		Existing Metal Guardrail
	Reconstruction Areas		New Metal Guardrail
	Resurfacing Limits		Adjusted and/or Relocated Metal Guardrail
	Existing Power Pole		Existing Fire Hydrant
	Existing Electric Manhole		Existing Sewer Line
	Adjusted Elec. MH Frame/Cover		New 12" Sewer Line
	Existing Traffic Signal Pullbox		Existing Sewer Manhole
	Existing Telephone Manhole		Adjusted Sewer Manhole
	Adjusted Tel. MH Frame/Cover		New Sewer Manhole
	Existing Telephone Pullbox		Existing Monument
	Existing 12" Water Line		Adjusted Monument
	Existing Water Manhole		New Monument
	Adjusted Water MH Frame/Cover		Existing 24" Drain Line
	Existing Water Air Valve		Existing Storm Drain Manhole
	Adjusted Water Air Valve		Adjusted Storm Drain Manhole
	Existing Water Valve Box		Existing Grated Drop Inlet
	Adjusted Water Valve Box		New Grated Drop Inlet
	Existing Water Meter Box		Adjusted/Reconstructed Drain Inlet or Replaced Steel Grate
	Adjusted Water Meter Box		
	New Type "X" Water Meter Box		
	Existing Traffic Sign		
	New Traffic Sign		

4/11/12	- Add Notes Nos. 27 & 28 to General Notes
4/11/12	- Revised General Note # 8
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION GENERAL NOTES & LEGEND KAUMUALI'I HIGHWAY RESURFACING Kipu Road to Huleia Bridge Proj. No. 50D-01-11M Scale: NA Date: January 2012 SHEET No. 1 OF 1 SHEETS	

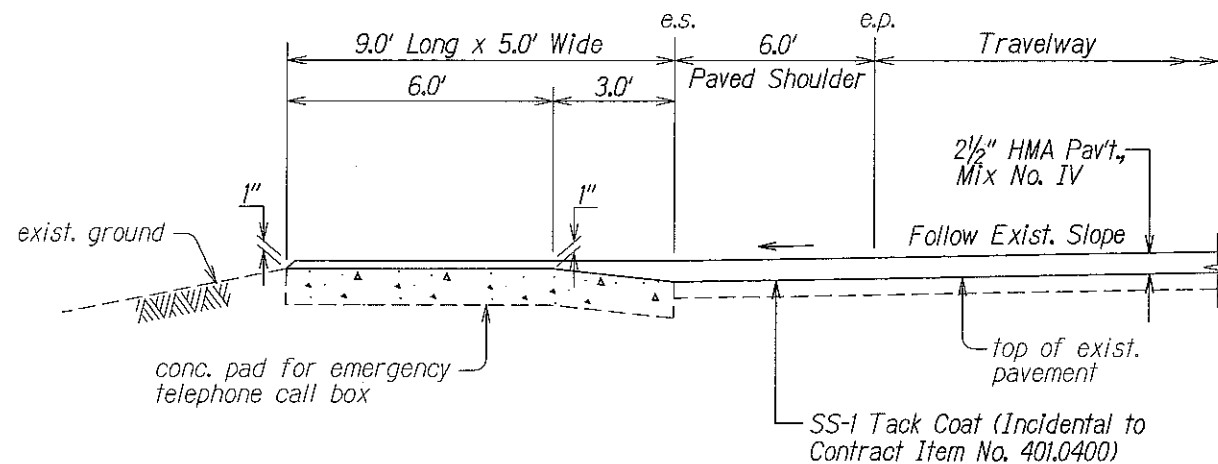
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11M	2012	ADD.8	31



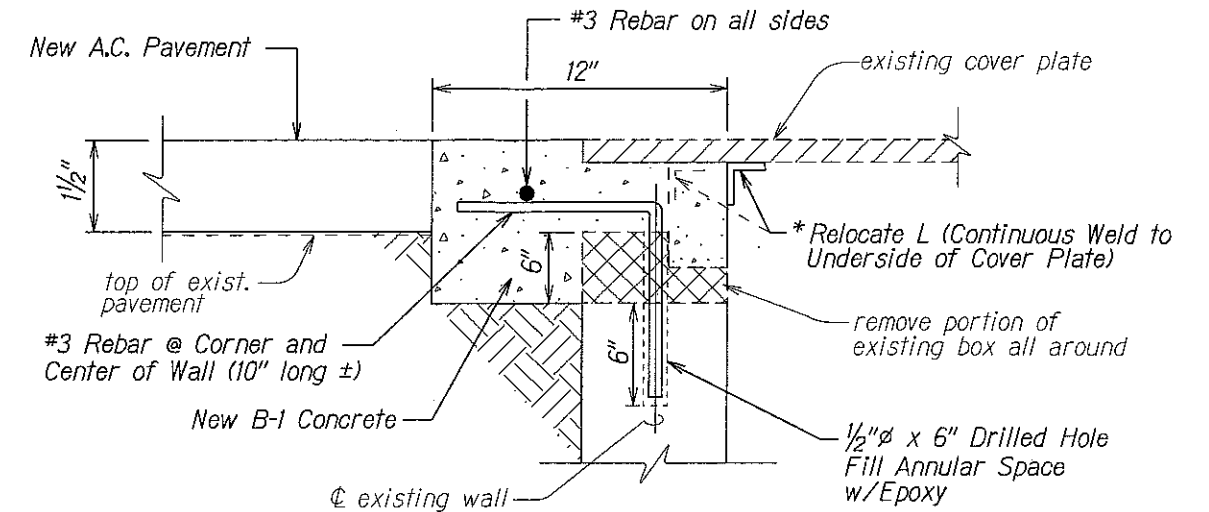
△ TYPICAL PAVED SHOULDER RECONSTRUCTION
FROM STA. 164+90.14± TO STA. 171+22±
Not to Scale



△ RESURFACING AT GUARDRAIL LOCATIONS
Not to Scale



RESURFACING AT EMERGENCY TELEPHONE BOX
Not to Scale

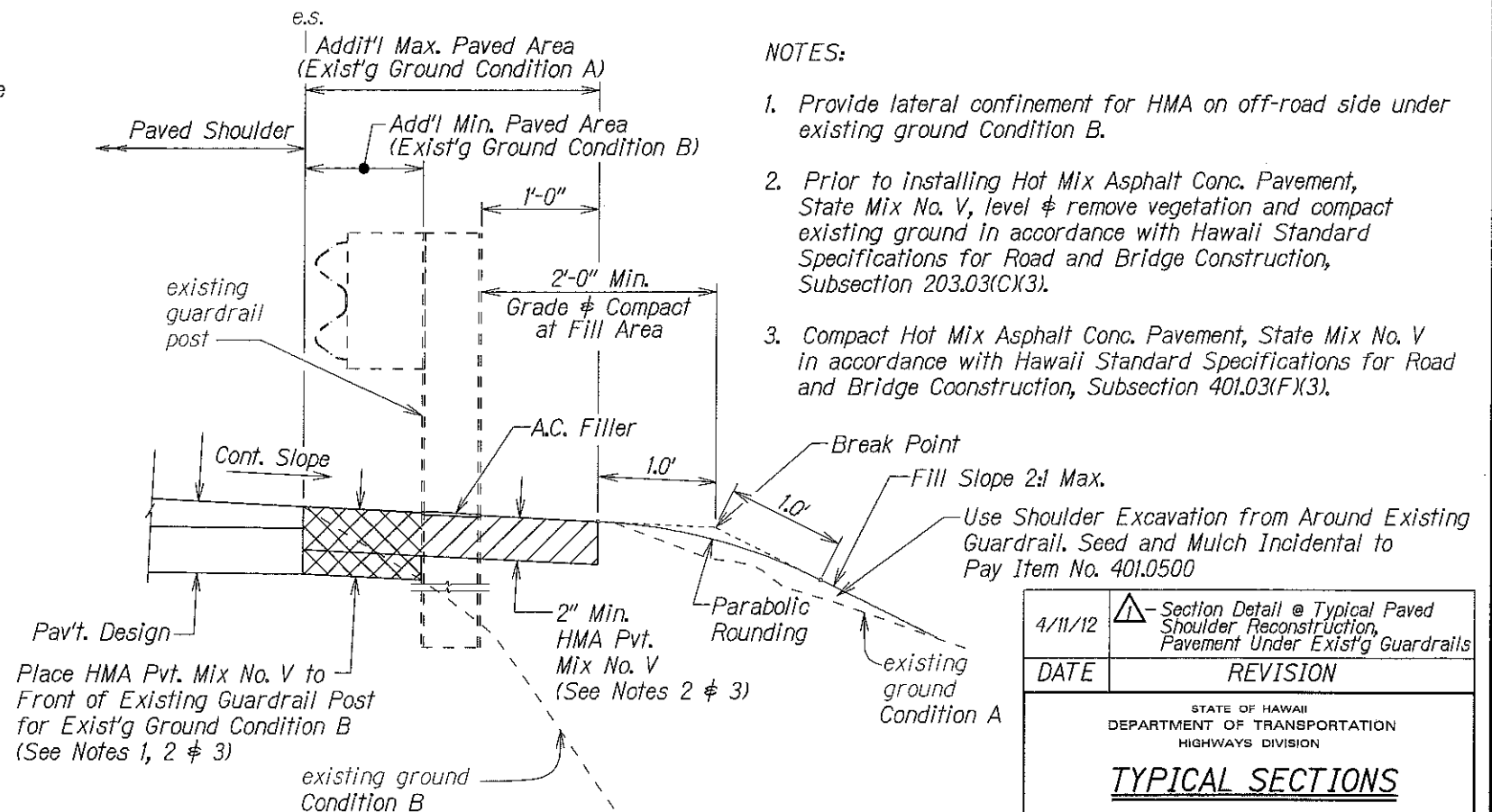


UTILITY BOX ADJUSTMENT DETAIL
Not to Scale

* NOTE: For utility boxes with cover frames, the Contractor shall remove and adjust the frames to the new finished grade by embedding the frame in new concrete section as shown above

NOTES:

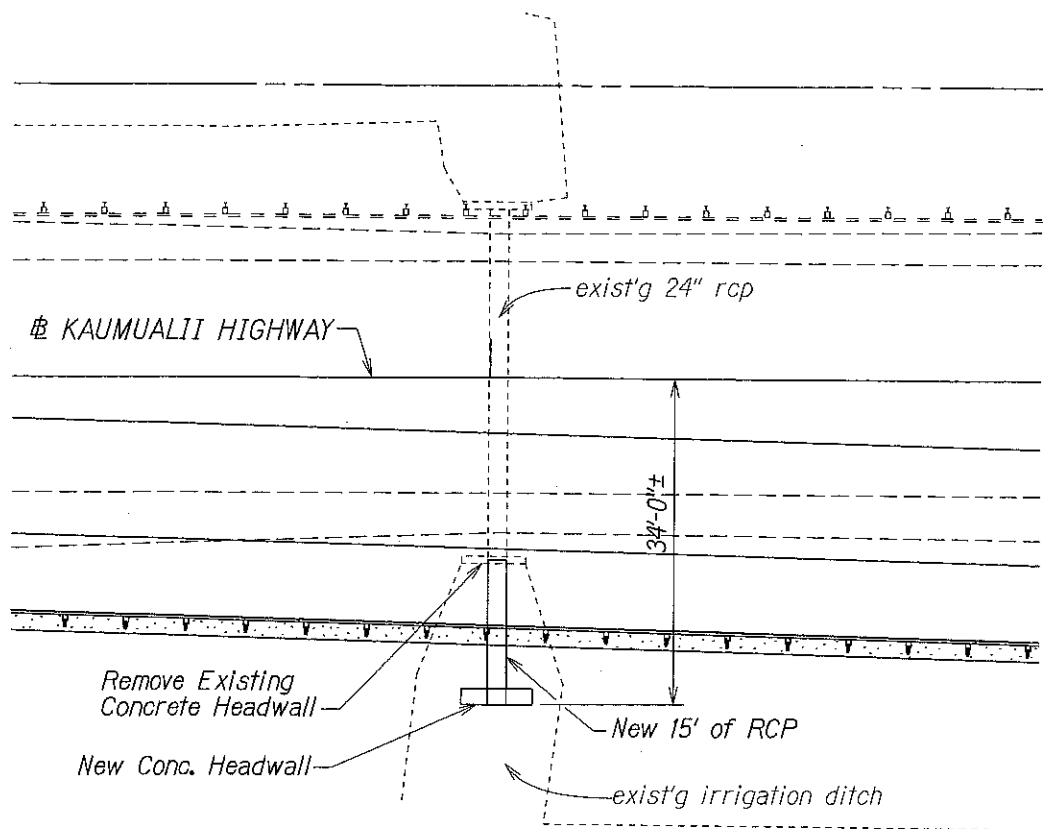
1. Provide lateral confinement for HMA on off-road side under existing ground Condition B.
2. Prior to installing Hot Mix Asphalt Conc. Pavement, State Mix No. V, level & remove vegetation and compact existing ground in accordance with Hawaii Standard Specifications for Road and Bridge Construction, Subsection 203.03(CX3).
3. Compact Hot Mix Asphalt Conc. Pavement, State Mix No. V in accordance with Hawaii Standard Specifications for Road and Bridge Construction, Subsection 401.03(FX3).



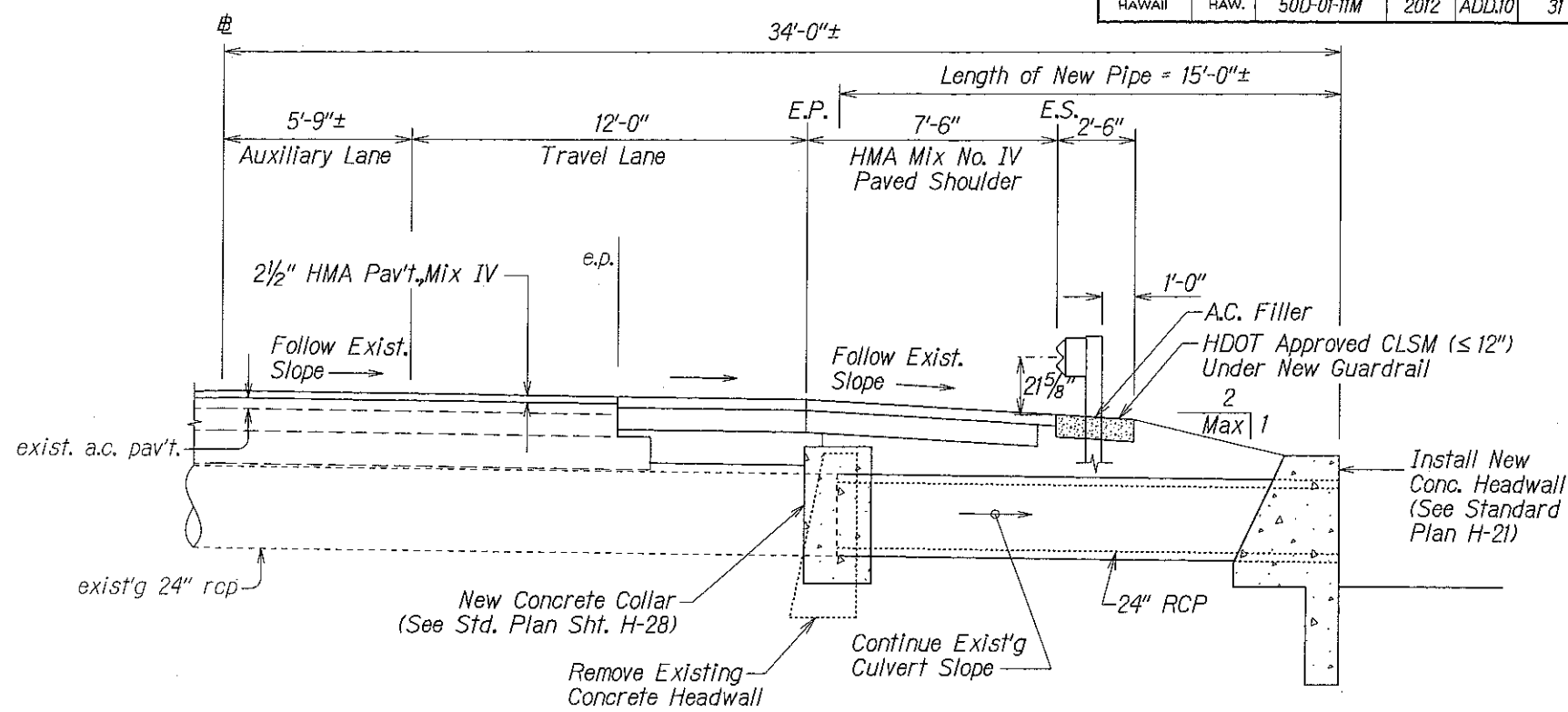
TYPICAL ASPHALT PAVEMENT UNDER GUARDRAIL
Not to Scale

4/11/12	△ - Section Detail @ Typical Paved Shoulder Reconstruction, Pavement Under Exist'g Guardrails
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TYPICAL SECTIONS	
KAUMUALII HIGHWAY RESURFACING	
Kipu Road to Huleia Bridge	
Proj. No. 50D-01-11M	
Scale: Not to Scale	Date: January 2012
SHEET No. 3 OF 4 SHEETS	

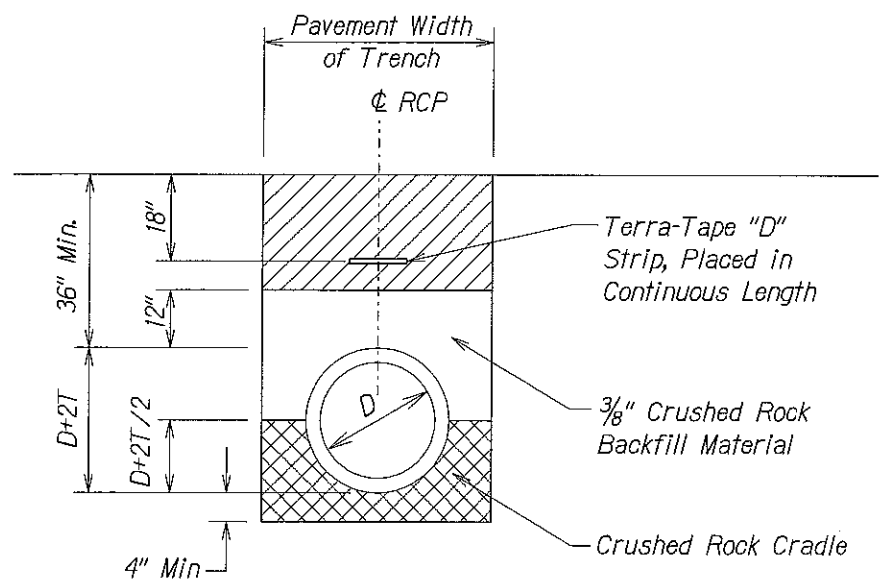
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11M	2012	ADD.10	31



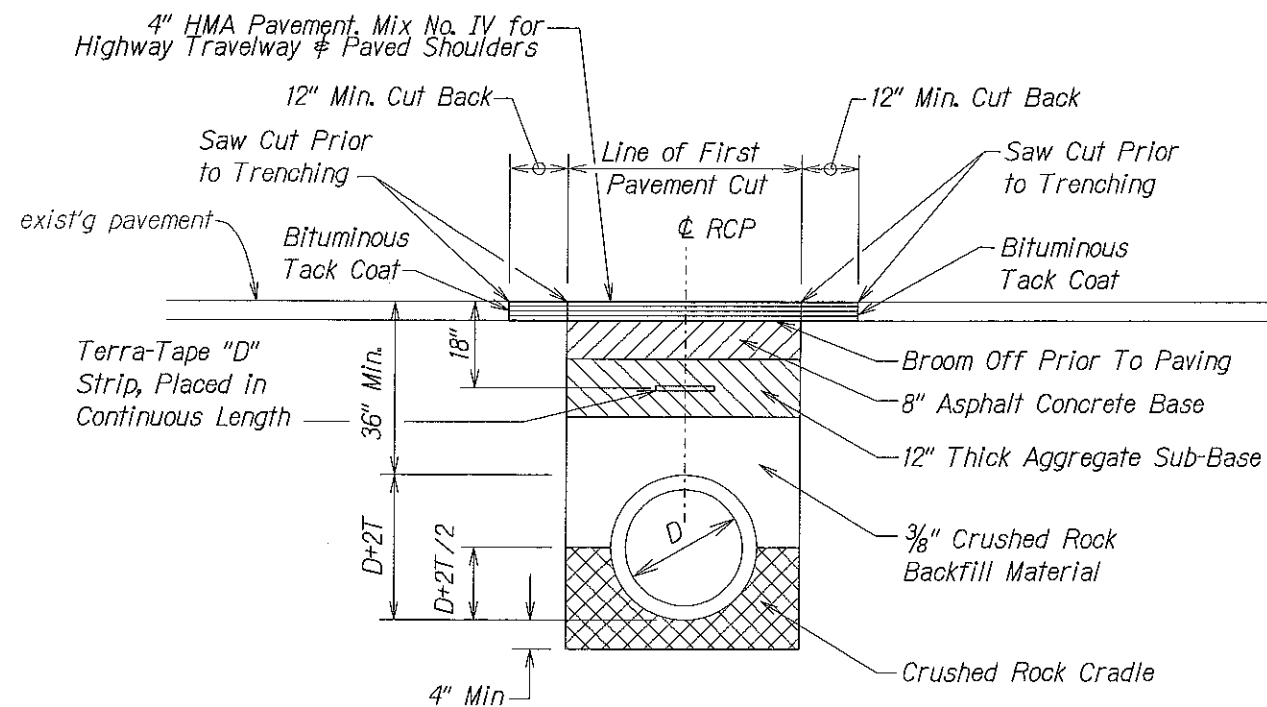
△ CULVERT PLAN AT # STA. 167+00.83±
Scale: 1"=10'



△ CULVERT ELEVATION AT # STA. 167+00.83±
Scale: 3/8"=1'-0'



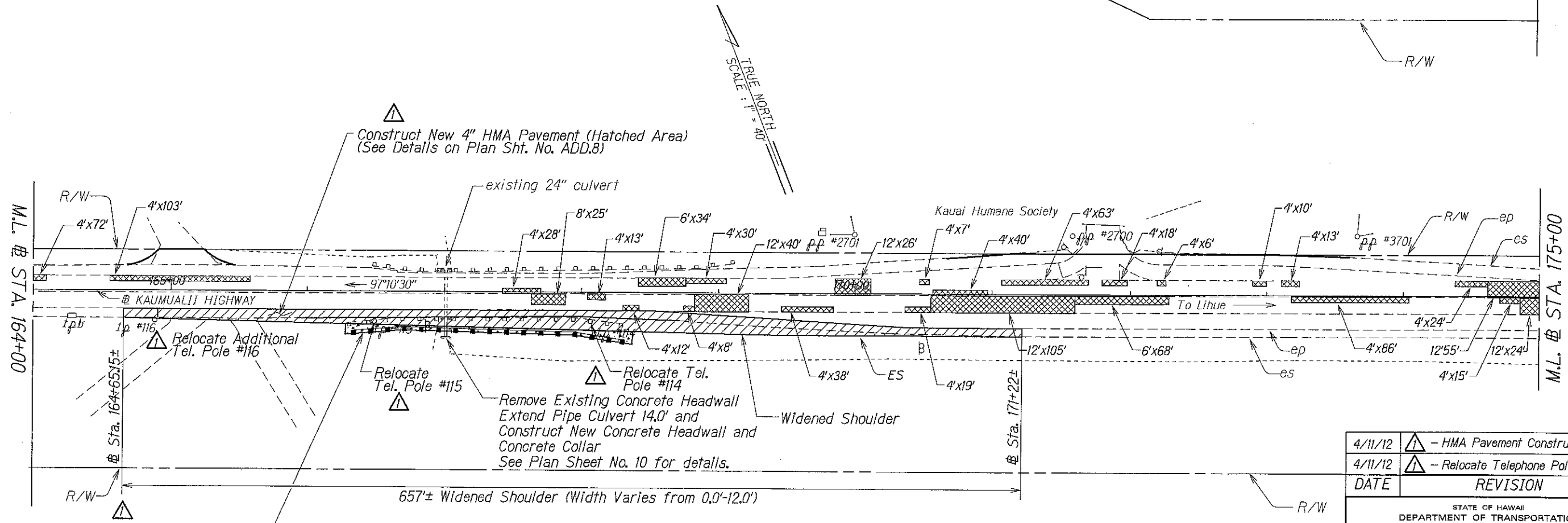
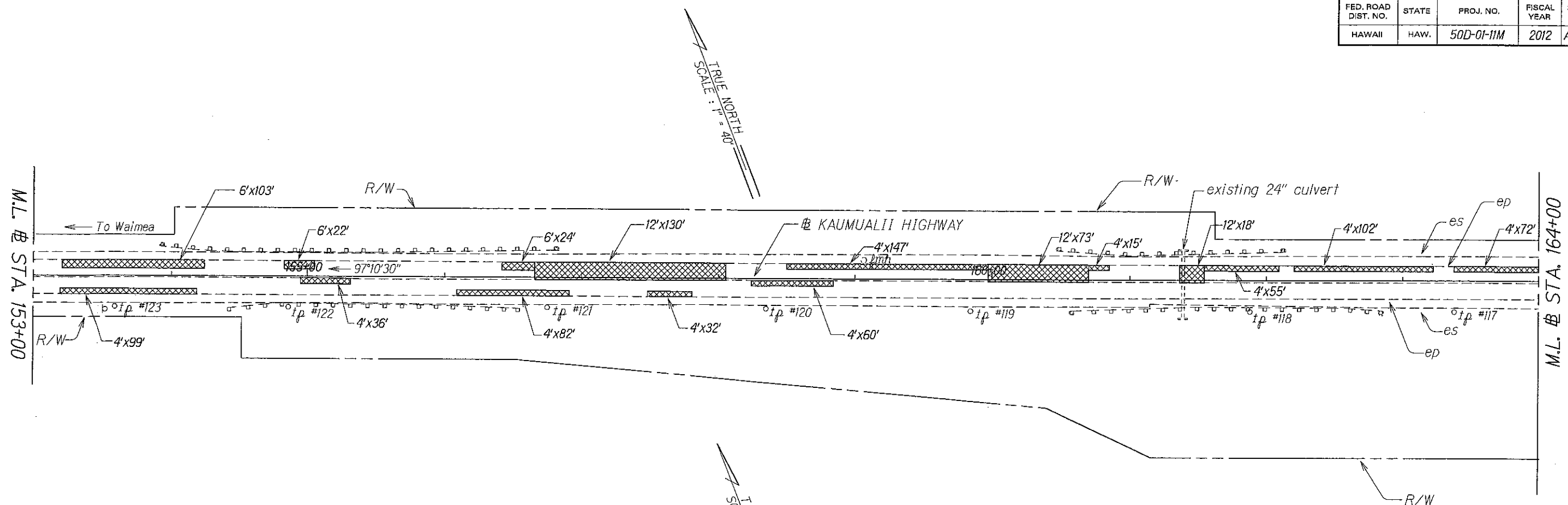
TRENCH RESTORATION - UNPAVED AREA
Not to Scale



TRENCH RESTORATION - PAVED AREA
Not to Scale

4/11/12	△ Culvert Plan & Elevation at Sta. 167+00.83±
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CULVERT DETAILS	
KAUMUALII HIGHWAY RESURFACING Kipu Road to Huleia Bridge Proj. No. 50D-01-11M	
Scale: As Shown	Date: January 2012
SHEET No. 1 OF 1 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11M	2012	ADD.17	31

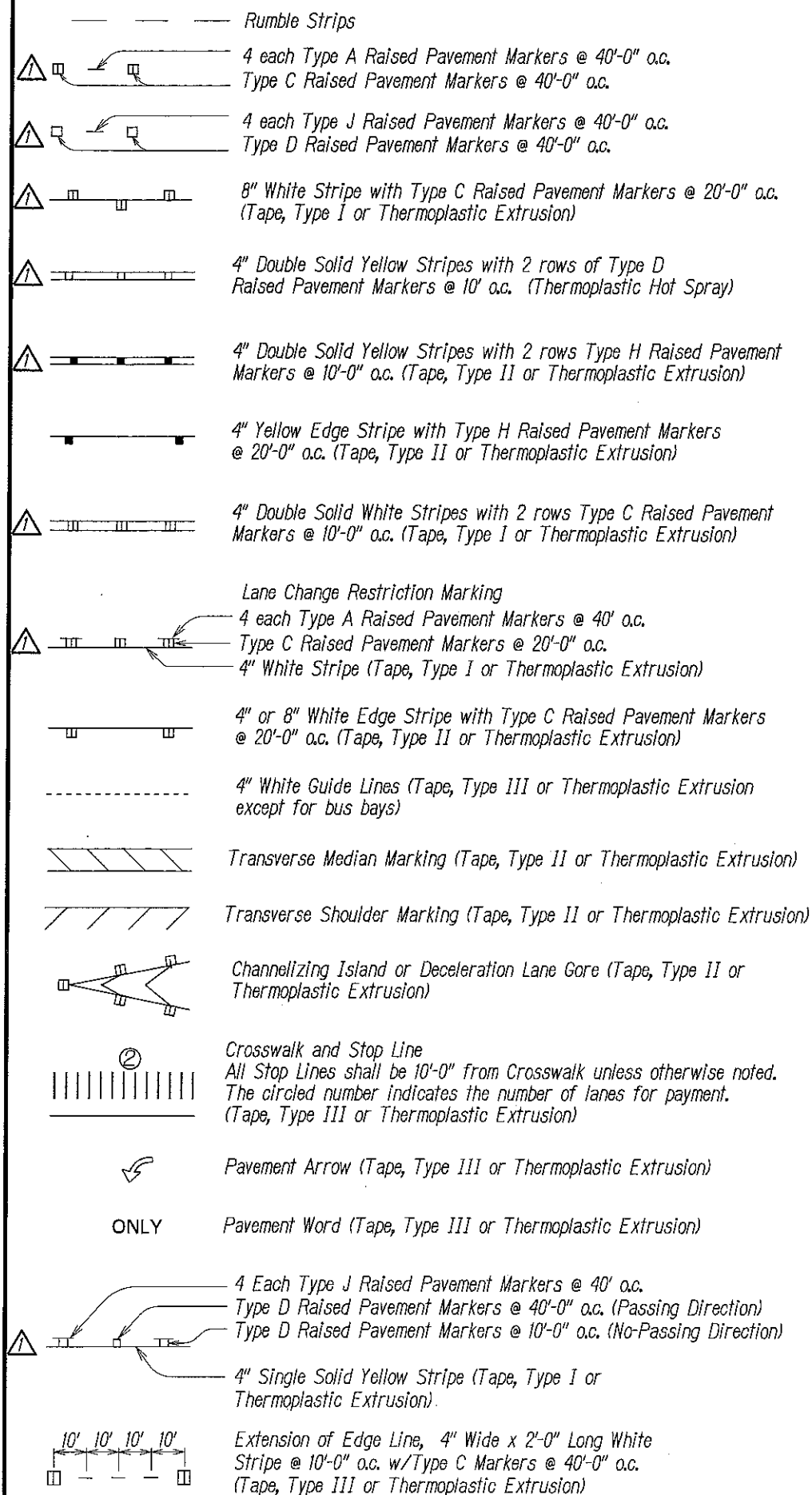


4/11/12	△ - HMA Pavement Construction Limit
4/11/12	△ - Relocate Telephone Poles
DATE	REVISION
<div>STATE OF HAWAII</div> <div>DEPARTMENT OF TRANSPORTATION</div> <div>HIGHWAYS DIVISION</div> <div>ROADWAY PLAN</div> <div>KAUMUALII HIGHWAY RESURFACING</div> <div>Kipu Road to Huleia Bridge</div> <div>Proj. No. 50D-01-11M</div> <div>Scale: 1"=40'</div> <div>Date: January 2012</div>	
SHEET No. 4 OF 5 SHEETS	

@ Sta. 166+28.8± to Sta. 168+30± (o/s Rt.)
 Remove Existing Guardrail and Steel Posts
 2 Ea. FLEAT-350 and 125 L.F. Guardrail
 Install 1 FLEAT-350 @ Approaching End and
 1 FLEAT-350 @ Trailing End.
 Install 125 L.F. W-Beam Guardrail w/ Strong Posts

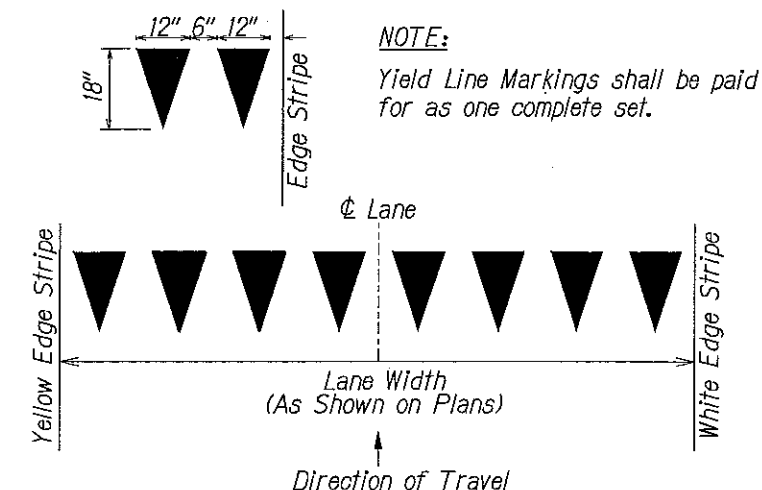
SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
DESIGNED BY	
QUANTITIES BY	
REVISIONS	
NO.	

LEGEND



NOTES

- Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
- Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be incidental to the various pavement marking items.
- Raised pavement markers shall not be installed within crosswalks.
- Final locations of all signs shall be approved by the Engineer prior to any installation work.
- Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans shall be incidental to the various signing items.
- Final locations of all stop lines shall be approved by the Engineer prior to installation.
- All pavement striping shall be as noted on the legend or plans.
- All preformed pavement marking tapes over existing pavement shall be applied with an approved primer as recommended by the tape manufacturer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape application.
- The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs as indicated on the plans or as directed by the Engineer. The signs shall be kept in place for the duration of the project and shall be maintained by the Contractor. These signs shall be placed in addition to the required traffic control signs called for in Section 645 - Work Zone Traffic Control. The advance construction warning signs shall be new and become the property of the Contractor.
- Existing signs that are to be replaced shall not be removed until new signs are installed as replacements, or the messages are no longer necessary.
- Backing for all new regulatory and warning signs shall not be spliced.
- All sign panels shall conform to Section 630 of Special Provisions and the latest editions and amendments of the following FHWA publications:
 - "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
 - "Standard Highway Signs"
 - "Standard Alphabets for Highway Signs"
- State Route Marker Symbols, borders, messages, arrows, symbols and shields shall conform to details as shown on the plans and as specified in the MUTCD.
- All new and relocated signs and markers installed on pipe posts, light standard or expressway sign post are to be mounted with band brackets and steel braces.
- Removal of existing delineators and posts, as directed by the Engineer or shown on the plans, shall be considered incidental to the various signing items.
- Removal and reinstalling existing street name signs on regulatory and warning sign post shall not be paid for separately but shall be considered incidental to the various signing items.
- All Reflector Marker (RM-2) not protected by a vehicular barrier shall be mounted on a flexible delineator post unless otherwise directed by the Engineer.



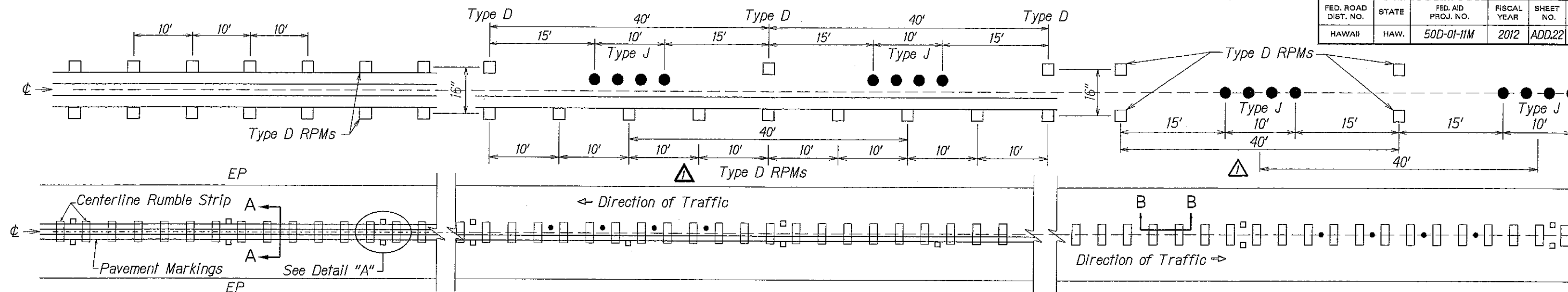
YIELD LINE DETAIL
 Not to Scale

DATE	REVISION
4/11/12	Revise Type J & Type D Spacing, Replace Type H with Type D
4/11/12	Revise Type A & Type C Spacing
4/11/12	Revise Type C Spacing
4/11/12	Revise Type H Spacing
4/11/12	Revise Type D Spacing
4/11/12	Revise Type C Spacing
4/11/12	Revise Type J & Type D Spacing
4/11/12	Revise Type A & Type C Spacing
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PAVEMENT MARKING LEGEND, DETAILS, NOTES & SUMMARY KAUMUALII HIGHWAY RESURFACING Kipu Road to Huleia Bridge Proj. No. 50D-01-11M Date: January 2012	

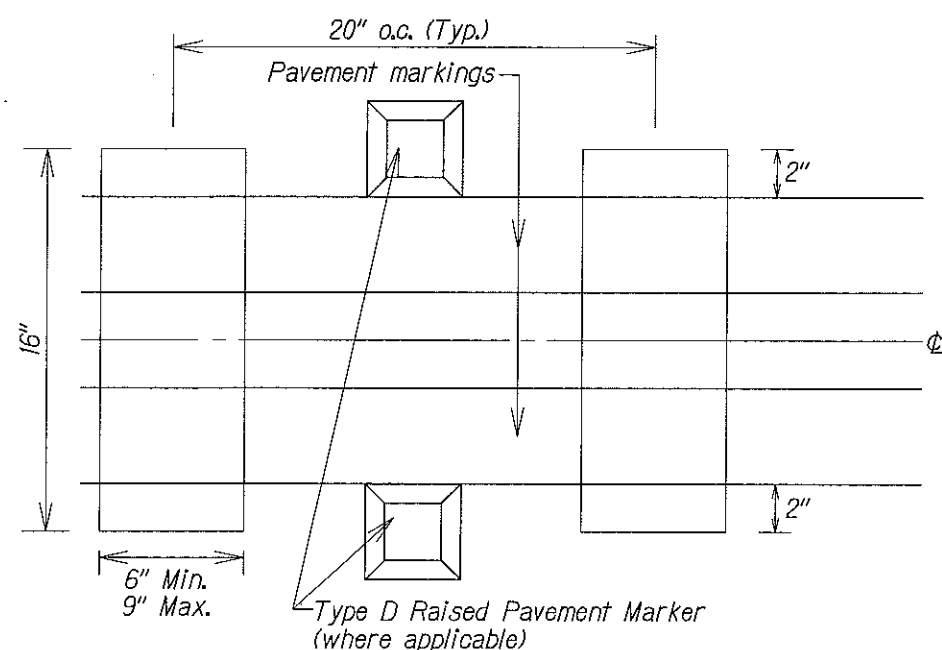
SHEET No. 71 OF 11 SHEETS

ADD. 21

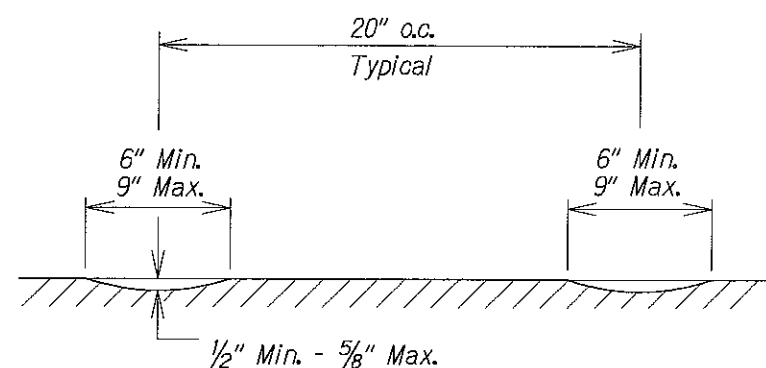
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11M	2012	ADD.22	31



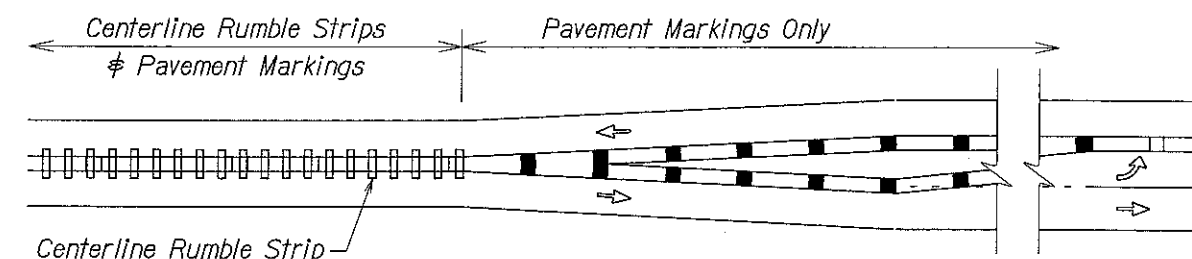
PLAN - CENTERLINE MILLED RUMBLE STRIP
Not to Scale



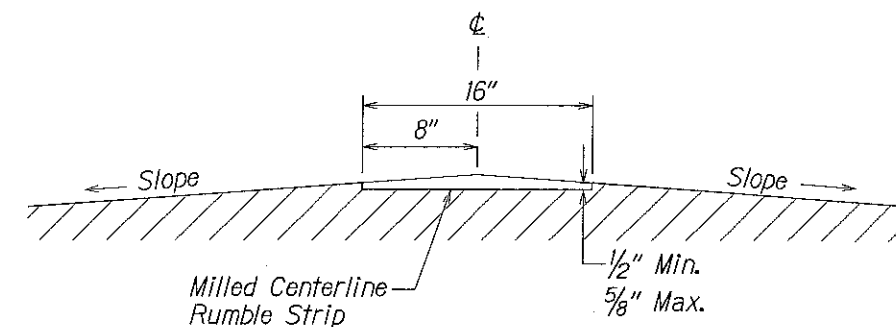
DETAIL "A"
Not to Scale



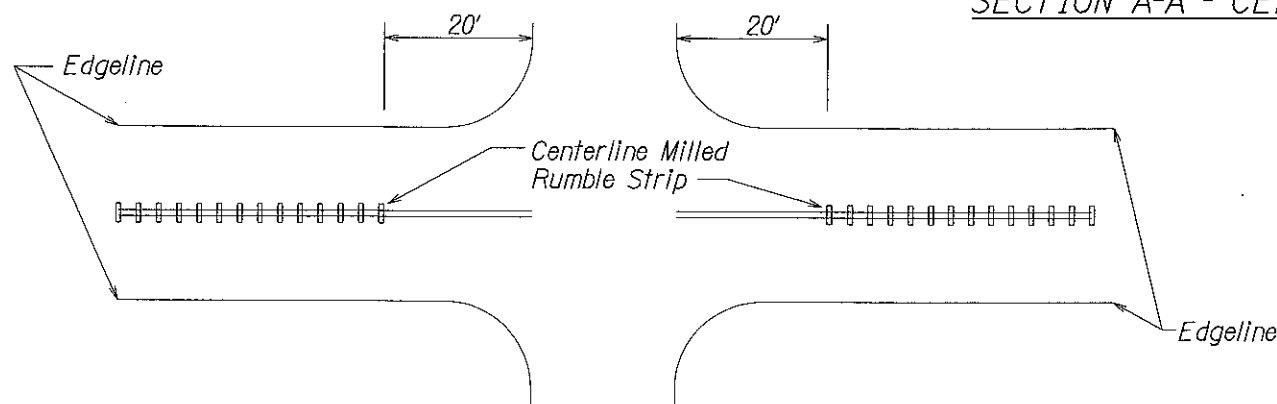
SECTION B-B - CENTERLINE MILLED RUMBLE STRIP
Not to Scale



CENTERLINE MILLED RUMBLE STRIP INSTALLATION LIMIT
Not to Scale



SECTION A-A - CENTERLINE MILLED RUMBLE STRIP
Not to Scale



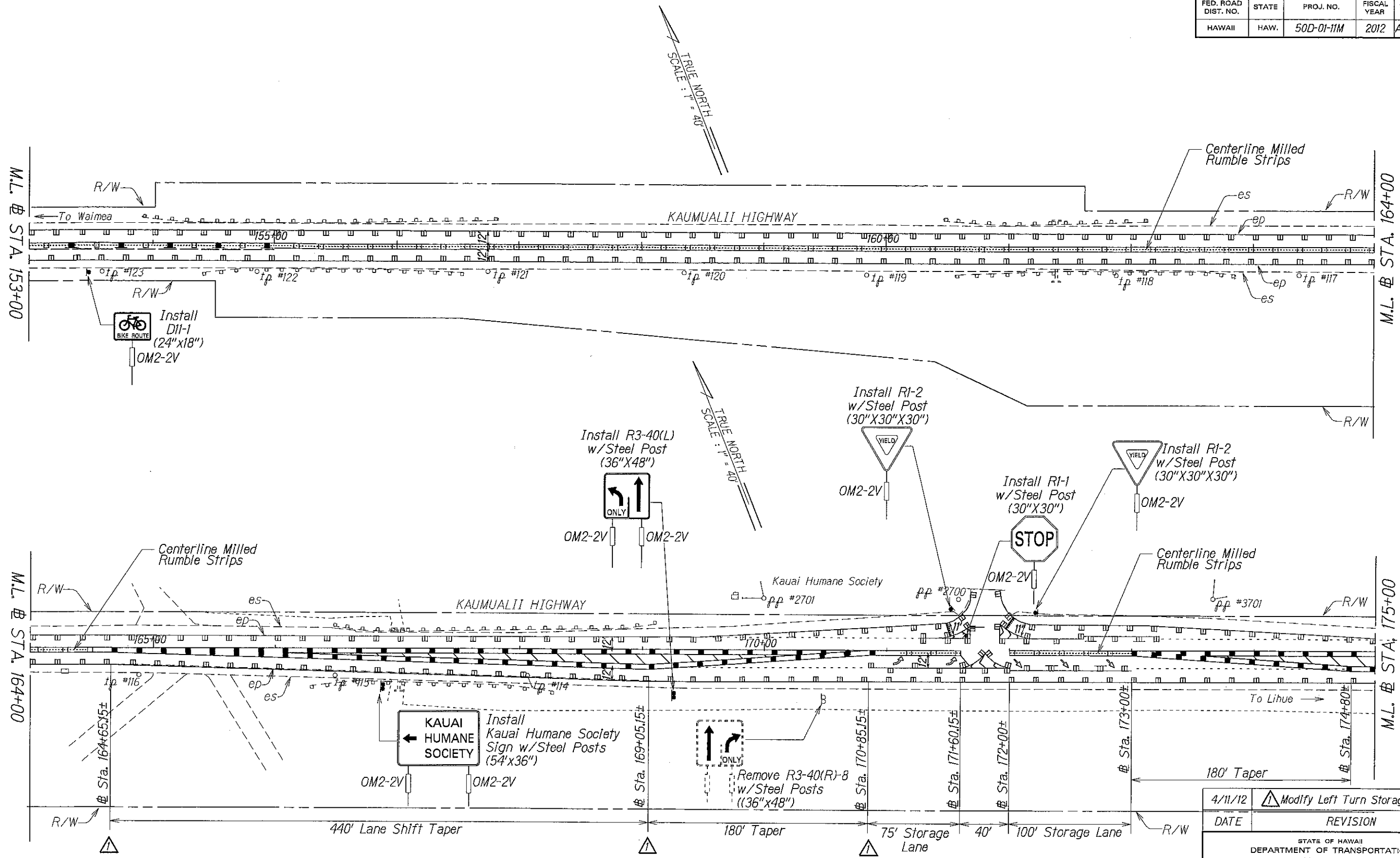
MILLED RUMBLE STRIP INSTALLATION LIMITS
Not to Scale

NOTES:

1. The method of constructing the centerline milled rumble strip shall be submitted to the Engineer for acceptance prior to the actual work.
2. Dimensions shown are approximate. Adjust rumble strip spacing to coordinate with pavement markings prior to installation.
3. Raised pavement markers shall be installed on level surface between the rumble strips. Do not install raised pavement markers inside the milled area.
4. The construction of the centerline milled rumble strip shall be paid for under Item No. 615.0100 - 16-Inch Milled Rumble Strip, Centerline.
5. The milling apparatus and removal of existing pavement markings will not be paid for separately and shall be considered incidental to Item 615.0100 - 16-Inch Milled Rumble Strip, Centerline.
6. Do not install centerline rumble strips on bridge decks.
7. Where at-grade bridges are present, rumble strips shall end/begin 20 L.F. beyond the existing bridge deck joints/concrete approach slab.
8. Hot spray thermoplastic shall be used for solid line markings within the milled centerline rumble strip area.

4/11/12	Revise Type D Placement & Spacing
4/11/12	Revise Type D Placement & Spacing Replace Type H with Type D
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CENTERLINE MILLED RUMBLE STRIP DETAIL	
KAUMUALI HIGHWAY RESURFACING Kipu Road to Huleia Bridge Proj. No. 50D-01-11M	
Scale: As Shown	Date: January 2012
SHEET No. T2 OF 10 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11M	2012	ADD.26	31



SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
TELEPHONE	
ADDRESS	

4/11/12	Modify Left Turn Storage Lane
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
PAVEMENT MARKING AND TRAFFIC SIGNING PLAN	
KAUMUALII HIGHWAY RESURFACING	
Kipu Road to Huleia Bridge	
Proj. No. 50D-01-11M	
Scale: 1"=40'	
Date: January 2012	
SHEET No. 26 OF 10 SHEETS	