

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII | HAW. | 30A-01-12M | 2012 | ADD.3 | 36 |














GENERAL NOTES

1. The project begins at milepost 36.40 on Kahekili Highway at Honokohau to milepost 41.67 in the vicinity of Papanahoa. The project includes reconstructing weakened pavement areas, resurfacing existing pavement, cold planing, applying longitudinal joint stabilizer, adjusting guardrail post, installing pavement markings and signing, cleaning existing drainage culverts and constructing grated drop inlets and drainage culverts.
2. The Contractor's attention is directed to Subsection 107.13 - Public Convenience and Safety; Section 645 - Traffic Control and Subsection 104.04 Maintenance of Traffic.
3. 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.
4. 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.
5. The exact locations and limits or areas to be cold planed shall be determined in the field by the Engineer. Cold planing to be done at side roads and shall not be paid for separately but shall be considered incidental to Hot Mix Asphalt (HMA) Pavement, Mix No. IV.
6. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
7. 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 Hot Mix Asphalt (HMA) Pavement, Mix No. IV and will not be paid for separately.
8. 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 and/or as directed by the Engineer.
9. Prior to cold planing over an existing structure, the Contractor shall determine the actual depth of the existing asphalt concrete pavement. The Contractor shall take several cross section measurements throughout the structure. If the thickness of the existing pavement is less than the proposed resurfacing thickness, the Contractor shall remove the existing pavement to the level of the structure and resurface to the original thickness.
10. In cold planing the pavement over the structure, the Contractor shall exercise care not to damage any portion of the structure, especially the structure deck, joints, drain pipes or reinforcement. Any damage to the structure during the cold planing operation shall be repaired by the Contractor at his own expense. Repair work shall be as directed by the Engineer. The Contractor shall verify the existing pavement thickness by hand digging at various locations. This work shall be considered incidental to Cold Planing.

11. Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
12. The Contractor shall verify available roadway width to determine the accuracy of the designed "Typical Section". Any discrepancies shall be brought up to the Engineer for direction.
13. Load transfer stations will not be permitted without written approval from the Engineer. Proposal must be submitted at least two (2) weeks prior to commencement of work. Proposal shall include action plan to insure compliance with the requirements of the specifications such as temperature, allowable weight on bridges, material contamination etc.
14. No material or equipment shall be stockpiled or otherwise stored within highway right-of-way except at locations designated in writing and approved by the Engineer.
15. After the project is completed, the Contractor shall restore grades and groundcover within the project limits to a condition equal or better than existing condition prior to construction.
16. All excess materials not needed for this project shall become the property of the Contractor. If disposed of, it shall be in accordance with the Environmental Protection Agency's policies and guidelines. This work shall be considered incidental to various contract items and will not be paid for separately.
17. Resetting or adjusting of existing guardrail heights shall include adjustment of terminal sections including foundations etc. to required height.
18. Dressing of shoulder shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable excavated material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
19. The endangered Hawaiian goose (*Branta Sandvicensis*; Nene) has been observed browsing and loafing along stretches of the Kahekili Highway between Honokohau and Waiehu. If roadwork must be conducted during the nene breeding season (November to April), nest searches by a biologist familiar with the nesting behavior of nene should be completed (1) prior to the initiation of any work, and (2) after any subsequent delay in work of three or more days (during which birds may attempt to nest). If a nest is discovered, work should cease immediately and the U.S. Fish and Wildlife Service (Service) be contacted for further guidance. Furthermore, all on-site project personnel should be apprised that nene may be in the vicinity of the project. If a nene appears within 100 feet (30.5 meters) of ongoing work, all activity must be temporarily suspended until animal leaves the area of its own volition.
20. The endangered Hawaiian hoary bat (*Lasiurus conereus semotus*) roost in both exotic and native woody vegetation and, while foraging, leave their young unattended in "nursery" trees and shrubs. If trees or shrubs suitable for bat roosting are cleared during the breeding season, there is a risk that young bats could inadvertently be harmed or killed. As a result, woody plants greater than 15 feet (4.6 meters) tall should not be removed or trimmed from June 1 to September 15.

21. The endangered Blackburn's sphinx moth (*Manduca blackburni*) may breed and feed within the proposed project area. Adult moths feed on nectar from native plants, including beach morning glory (*Ipomoea pes-caprae*), iliee (*Plumbago zeylanica*), and maiapilo (*Capparis sandwichiana*); larvae feed upon non-active tree tobacco (*Nicotiana glauca*) and native aiea (*Northoestrum latifolium*). Other host plants may include non-native commercial tobacco (*Nicotiana tabacum*), eggplant (*Solanum melongena*), tomato (*Lycopersicon esculentum*), jimson weed (*Datura stramonium*), sweet and chili pepper (*Capsicum spp.*), ornametal plants (*Cestrum spp.* and *Lycium spp.*), tomatillo (*Cymphomandra spp.*), petunia (*Petunia spp.*), tomatillo and ground cherry (*Physalis spp.*), *Solandra spp.*, and *Solanum spp.* (potato, eggplant, Christmas cherry, nightshade). The Service recommends that you have a qualified biologist survey the project area for the presence of the Blackburn's sphinx moth on potential host plants during the wettest portion of the year (usually November to April). If Blackburn's sphinx moth presence is confirmed, please coordinate with the Service for further assistance.
22. If the species listed in Notes 19, 20 or 21 are encountered, notify the Engineer immediately and follow the instructions in the notes.

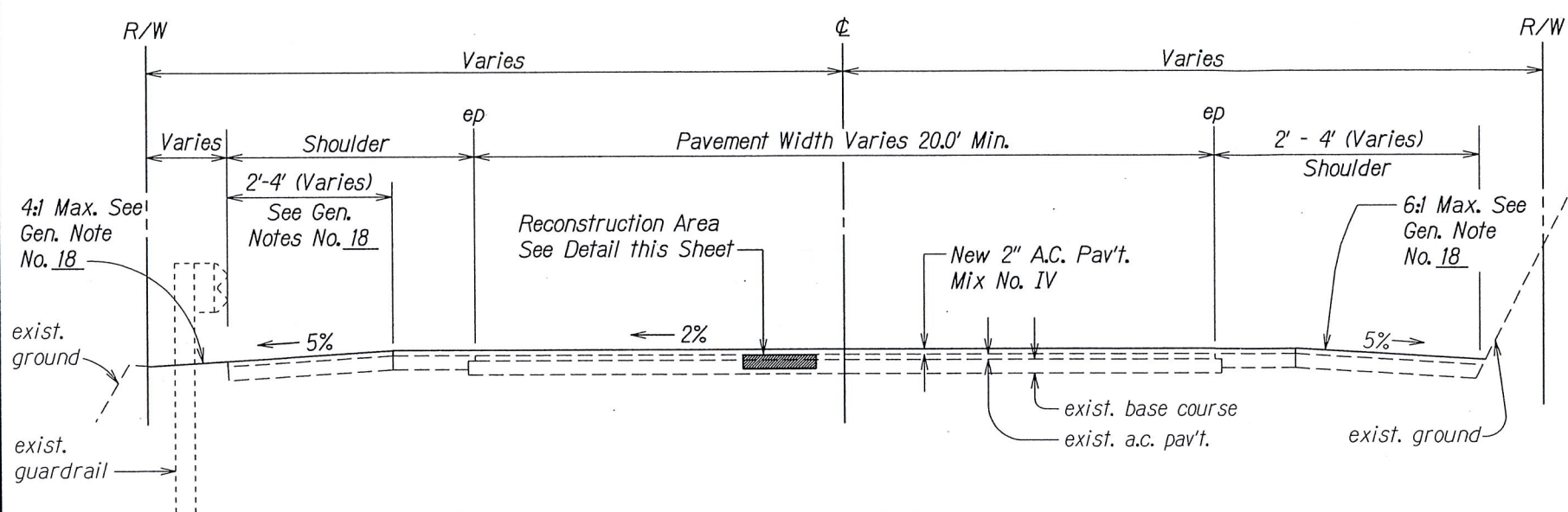
LEGEND

-  Reconstruction Areas
-  Cold Planing Areas
-  Resurfacing Limits
-  Existing Grated Drop Inlet
-  Existing Traffic Sign
-  New Traffic Sign
-  New Traffic Sign With 2 Posts
-  Existing Guardrail
-  New Guardrail
-  RM-3 (Flexible Post)
-  RM-3 (Steel Post)
-  RM-4
-  RM-5
-  Type II Object Marker

| | |
|-------------------|-------|
| DATE | 01/06 |
| SURVEY PLOTTED BY | |
| DRAWN BY | JD |
| DESIGNED BY | JD |
| NOTED BY | JD |
| CHECKED BY | JD |
| ORIGINAL PLAN | |
| NOTE BOOK | |
| FILED BY | JD |
| FILED IN | JD |

| | |
|---------|-----------------------------|
| 6-14-12 | Added General Notes No. 22. |
| DATE | REVISION |

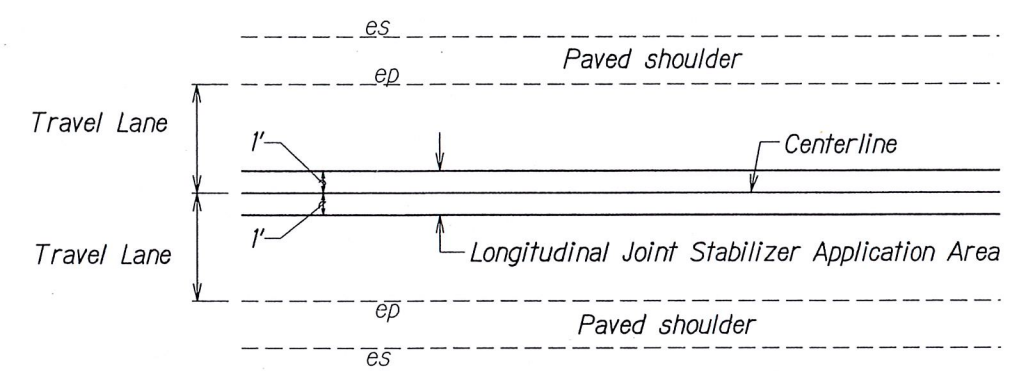
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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION |
| GENERAL NOTES & LEGEND |
| KAHEKILI HIGHWAY RESURFACING Honokohau to Papanahoa Project No. 30A-01-12M |
| Date: December, 2011 |
| SHEET No. 1 OF 1 SHEETS |



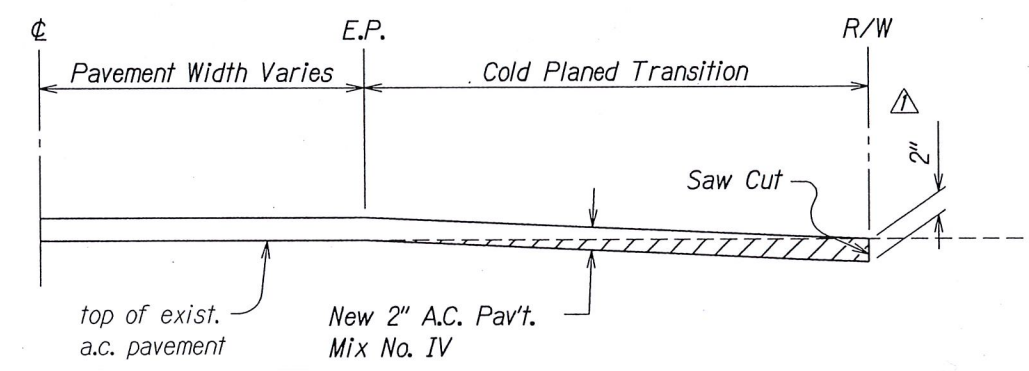
TYPICAL SECTION
Not to Scale

NOTES:

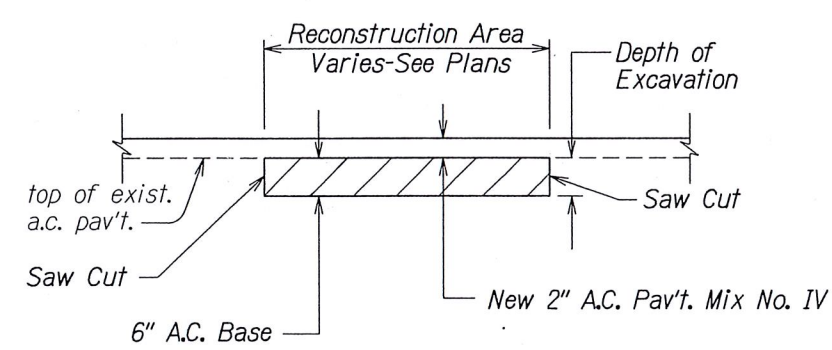
1. Unless directed by the Engineer, minimum graded shoulder width shall be 2 ft.
2. Where guardrails are located, paved shoulder shall be extended to line up with face of rail.
3. Unless directed by the Engineer, paved shoulder shall be terminated at the face of the bank.



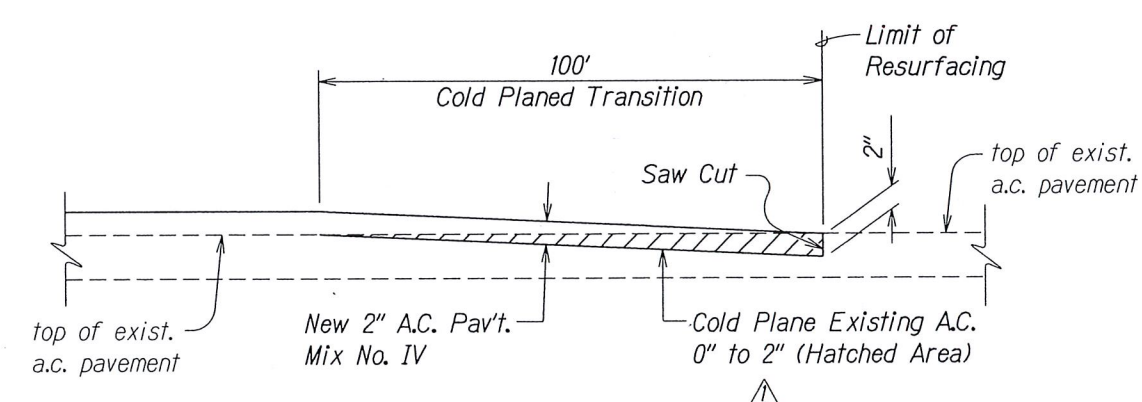
TYPICAL SECTION FOR LONGITUDINAL JOINT STABILIZER
Not To Scale



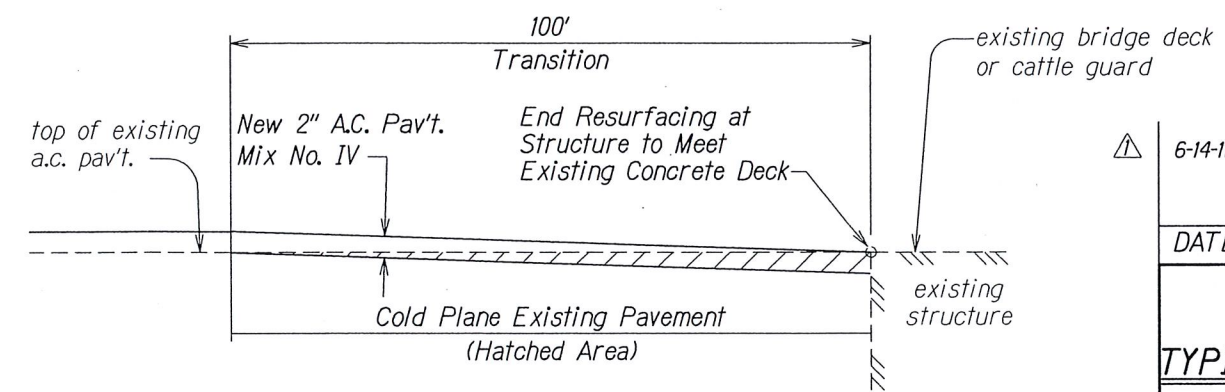
TRANSITION TO EXISTING DRIVEWAY AND SIDEROAD DETAIL
Not to Scale



A.C. PAVEMENT RECONSTRUCTION DETAIL
Not To Scale



COLD PLANED LONGITUDINAL TRANSITION AT BEGIN AND END OF PROJECT
Not to Scale

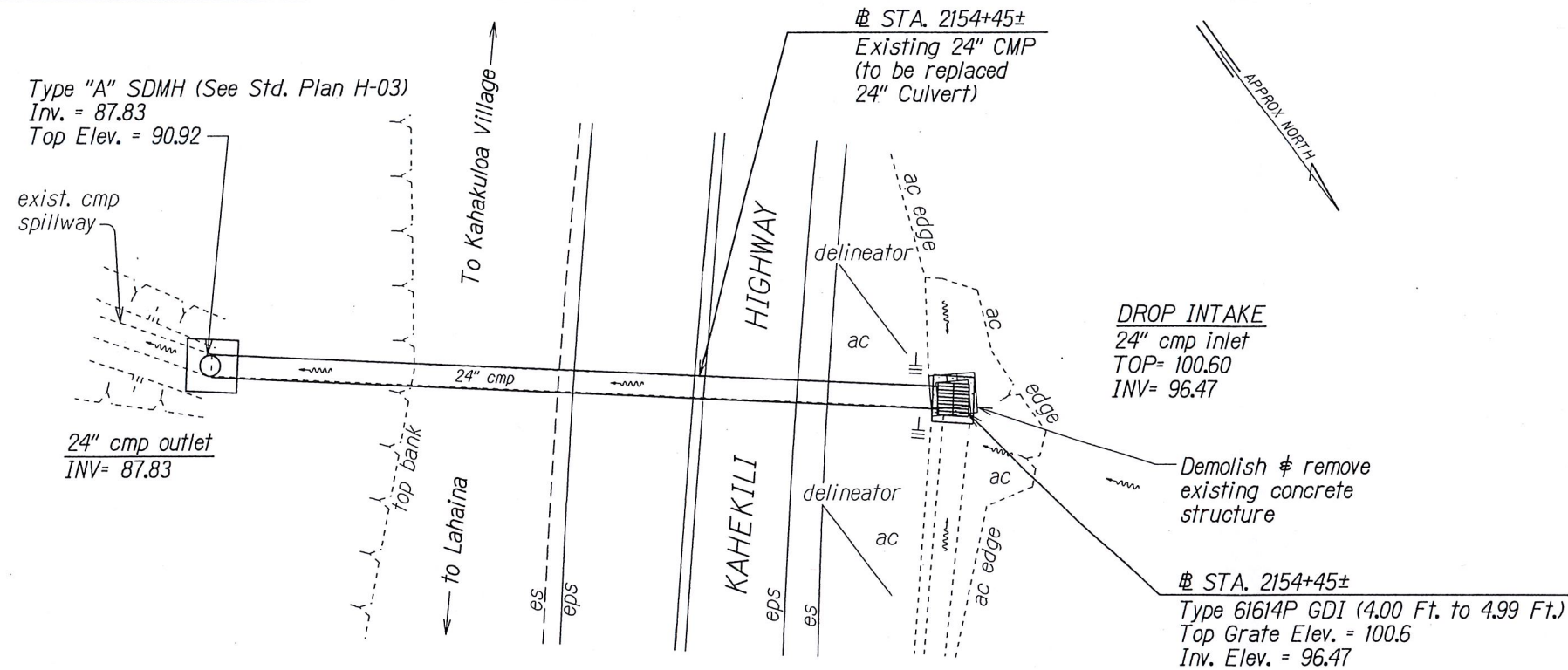


COLD PLANED TRANSITION AT STRUCTURE DETAIL
Not to Scale

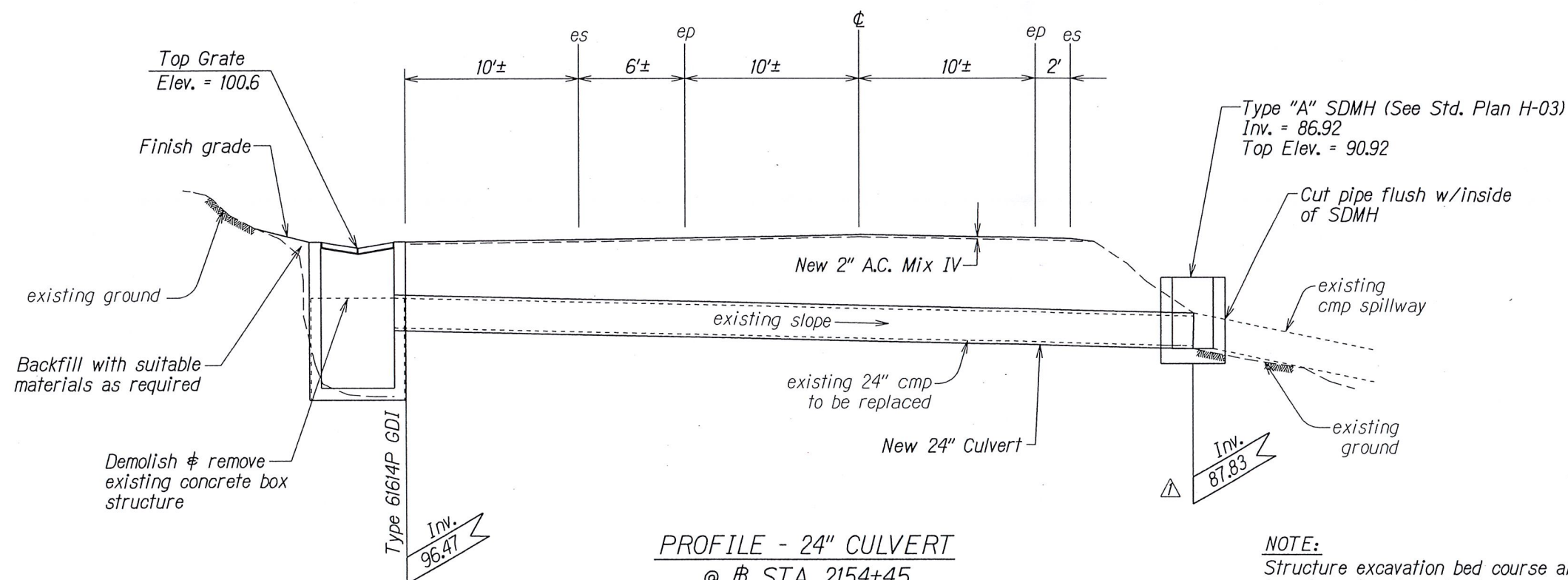
| | |
|--|----------------------------------|
| DATE | REVISION |
| 6-14-12 | Revised thickness from 3" to 2". |
| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TYPICAL SECTIONS & DETAILS KAHEKILI HIGHWAY RESURFACING Honokohau to Papanahoa Project No. 30A-01-12M Scale: As Shown Date: December, 2011 SHEET No. 1 OF 1 SHEETS | |

SURVEY PLOTTED BY _____ DATE _____
 DRAWN BY _____
 CHECKED BY _____
 DESIGNED BY _____
 QUANTITIES BY _____
 IN. X. dgn

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII | HAW. | 30A-01-12M | 2012 | ADD.9 | 36 |



PLAN
Scale: 1/8" = 1'-0"



PROFILE - 24" CULVERT
@ STA. 2154+45
Scale: 1/4" = 1'-0"

NOTE:
Structure excavation bed course and culvert trench restoration of existing pavement structure and demolition of existing structures and culvert shall be incidental to installation of culvert item.

6-14-12 Added invert elevation.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

KAHEKILI HIGHWAY RESURFACING
Honokohau to Papanahoa
Project No. 30A-01-12M

Scale: As Shown Date: April, 2012

SHEET No. 3 OF 3 SHEETS

ADD.9

| | | |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK | DRAWN BY | |
| QUANTITIES BY | DESIGNED BY | |
| CHECKED BY | CHECKED BY | |

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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| HAWAII | HAW. | 30A-01-12M | 2012 | ADD.17 | 36 |

⚡ STA. 2074+90
Clean, remove and dispose of silt, trash, vegetation growth from end to end on existing culverts and adjoining drainage structures within the project limits.

M.L. ⚡ STA. 2072+00

To Kapalua

2075+00

24" conc. culvert

⚡ STA. 2082+20±
Clean, remove and dispose of silt, trash, vegetation growth from end to end on existing culverts and adjoining drainage structures within the project limits.

es
ep

2080+00

KAHEKILI

HIGHWAY

cattle guard

24" conc. culvert

TRUE NORTH
SCALE: 1" = 40'

⚡ STA. 2085+00± LT. - ⚡ STA. 2086+00± LT.
Stabilize unpave shoulder. Use 1½" A.C. pavement.

⚡ STA. 2087+50± LT. - ⚡ STA. 2088+50± LT.
Stabilize unpave shoulder. Use 1½" A.C. pavement.

es
ep

2090+00

KAHEKILI

ep
es

TRUE NORTH
SCALE: 1" = 40'

2095+00

To Kahakuloa

M.L. ⚡ STA. 2098+00

M.L. ⚡ STA. 2087+00

M.L. ⚡ STA. 2087+00

| | |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY | |
| DESIGNED BY | |
| CHECKED BY | |
| ORIGINAL PLAN | |
| NOTE BOOK | |
| IN. | |

| 6-14-12 | Delete Notes ⚡ Sta. 2088+00± Lt. - ⚡ Sta. 2089+00± Lt. |
|---------|--|
| 6-14-12 | Change guardrail symbol from new to existing. |
| DATE | REVISION |

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

KAHEKILI HIGHWAY RESURFACING

Honokohau to Papanahoa

Project No. 30A-01-12M

Scale: 1" = 40' Date: December, 2011

SHEET No. 8 OF 13 SHEETS

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII | HAW. | 30A-01-12M | 2012 | ADD.18 | 36 |



| | |
|-------------------|------|
| ORIGINAL PLAN | DATE |
| SURVEY PLOTTED BY | |
| DRAWN BY | |
| TRACED BY | |
| DESIGNED BY | |
| NOTE BOOK | |
| QUANTITIES BY | |
| CHECKED BY | |

| DATE | REVISION |
|---------|--|
| 6-14-12 | Delete Notes @ Sta. 2119+50± Lt. - @ Sta. 2121+50± Lt. |
| 6-14-12 | Change guardrail symbol from new to existing. |

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN

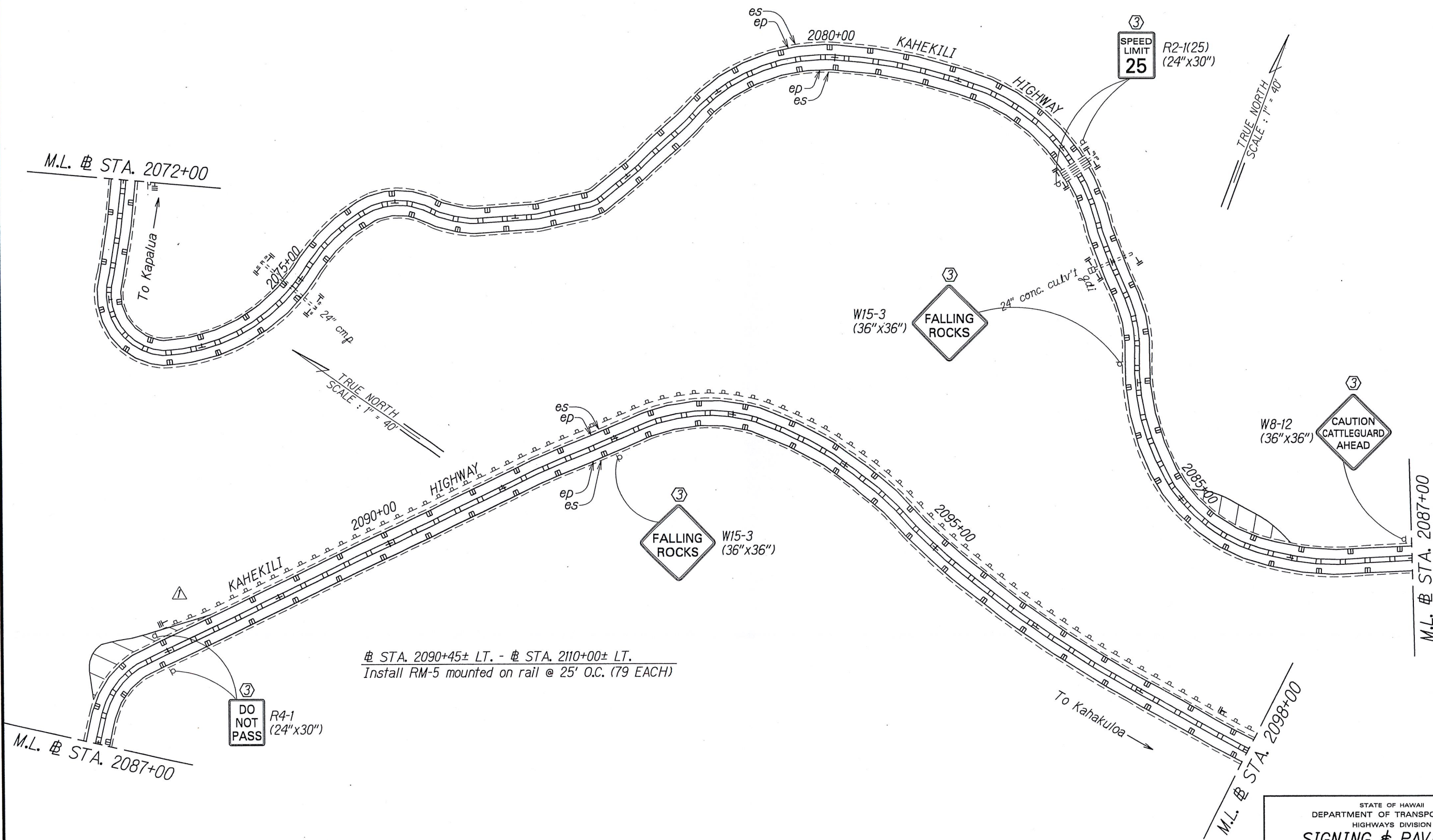
KAHEKILI HIGHWAY RESURFACING
Honokohau to Papanahoa
Project No. 30A-01-12M

Scale: 1" = 40' Date: December, 2011

SHEET No. 9 OF 13 SHEETS

ADD.18

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII | HAW. | 30A-01-12M | 2012 | ADD.31 | 36 |



| | |
|-------------|-------|
| DATE | _____ |
| DESIGNED BY | _____ |
| CHECKED BY | _____ |
| DATE | _____ |
| DESIGNED BY | _____ |
| CHECKED BY | _____ |
| DATE | _____ |
| DESIGNED BY | _____ |
| CHECKED BY | _____ |

| DATE | REVISION |
|---------|---|
| 6-14-12 | Change guardrail symbol from new to existing. |

- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) & Post(s)
 - ③ Remove Exist. & Install New Sign(s) & Post(s)
 - ④ Install New Sign(s) & Post(s)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING & PAVEMENT
MARKING PLAN

KAHEKILI HIGHWAY RESURFACING
Honokohau to Papanahoa
Project No. 30A-01-12M

Scale: 1" = 40' Date: December, 2011

SHEET No. 8 OF 13 SHEETS

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII | HAW. | 30A-01-12M | 2012 | ADD.32 | 36 |

| | |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY | |
| DESIGNED BY | |
| QUANTITIES BY | |
| CHECKED BY | |
| NOTE BOOK | |
| ORIGINAL PLAN | |

