

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.6	110

PLANT NOTES

- Landscape Contractor shall field verify all plant quantities and dimensions prior to installation. Quantities shown on the plant list are for reference only. Verify actual quantites as shown on plan. If there is a discrepancy, the Planting Plan shall take precedence.
- Landscape Contractor shall be responsible for locating and protecting existing utilities.
- Do not plant until ground has been prepared and free of stones greater than 1/2 inch diameter, site is neat, orderly, and the Engineer accepts the site for planting.
- Notify Engineer of any discrepancies in plant locations or insufficient plant quantities due to difference in plans and actual field conditions.
- Notify Engineer 30 days prior to planting operations for approval of all plant material at place of growth. All plant material not approved by the Engineer will be subject to rejection.
- Engineer will inspect plants at the place of growth and after the delivery to the project.
- Plants shall meet size indicated by minimum height and spread. Plants shall be straight and uniformly shaped, unless unique or special characteristics are specified, and shall be undamaged, sound, healthy, vigorous and free of disease and insect infestation. Plants not conforming to these requirements on delivery to the project and at the end of the plant establishment period will be rejected.
- Contractor shall be solely responsible for the complete removal and damages resulting from the introduction of planting any plant species listed on the Hawaii Department of Agriculture 'Noxious Weed Rules' as defined in the statute, Hawaii Administrative Rules 4:68:l or the 'Federal Noxious Weed List' as defined in Title 7 of the code of Federal Regulations (CFR), Parts 360 and 361.
- All tree work must adhere to American National Standard Institute (ANSI) A300 Tree Care Standards and ANSI-Z133 Safety Standards for Tree Work. Work shall be contracted to arborists that has been certified in good standings as an ISA Certified Arborist for at least 10 years to assure that tree work is performed properly and trees are not damaged by practices such as topping, flush cuts, over-thinning, or climbing with spikes. Contractor shall submit a copy of the ISA Arborist Certification of good standing of 10 years to the Engineer a minimum of 7 days prior to the tree pruning.
- For the duration of construction within the drip line of trees to remain, there must be: No changes, alterations or disturbance to the grade by adding fill, excavating or scraping except as noted on plans; No storage of construction material or equipment; No stockpiling of any construction material or any excavated material; No disposal of any liquids (e.g. concrete sleuth, gas, oil, paint); No vehicular traffic, equipment or excessive pedestrian traffic; No attachment of any wires, ropes, lights, or any other such attachment other than those of protective nature to any tree to be preserved; and No cleaning of equipment or material under the canopy of any tree or group of trees to remain.
- If trees other than those specifically designated for removal are damaged beyond survival conditions as determined by Engineer, the Contractor shall remove such trees and replace the tree with the same specie and size and maintain for the duration of construction or 12 months, whichever is greater at no cost to the State.
- Any planting that obstructs sight distance, signs or traffic lights shall be relocated or removed as determined by the Engineer.

REVEGETATION NOTES

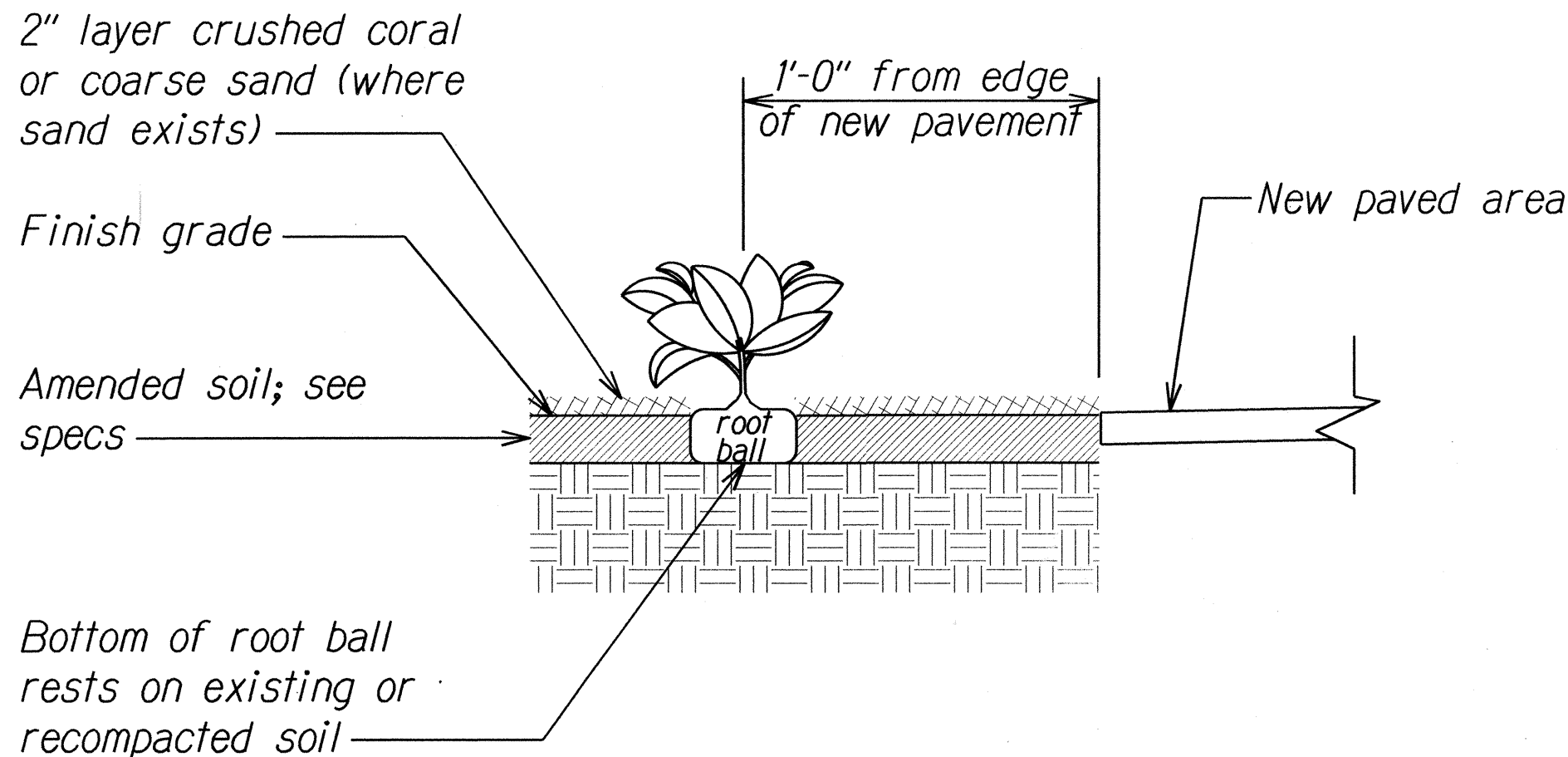
All planted areas damaged by construction shall be revegetated according to the following:

- From beginning of Project (# Sta. 1021+00) to End of Makua Beach (# Sta. 1260+00), revegetate with Common Bermuda grass with hydro-mulch cap only in areas that do not have guardrail. This applies to both sides of the road. For limits, locations, and slope requirements, see Typical Sections.
- From beginning of Project (# Sta. 1021+00) to End of Makua Beach (# Sta. 1260+00), revegetate with native 'Aki'aki grass with hydro-mulch cap where guardrails are installed. Revegetate the areas behind the guardrails. This applies to both sides of the road. For limits, locations, and slope requirements, see Typical Sections.
- From End of Makua Beach (# Sta. 1260+00) to Satellite Tracking Station Road (# Sta. 1304+70), revegetate with native 'Ilima papa ground cover with crushed coral below, or coarse sand below (where sand exists). This applies to both sides of the road. For limits, locations, and slope requirements, see Typical Sections.

PLANT LIST			
Length (approximate linear feet; width varies)	Common Name	Botanical Name	Size and Description
27,660	Common Bermuda Grass	Cynodon dactylon	Seeded at rate of 3 lbs. per 1,000 square feet Apply hydro-mulch cap over seeded areas.
12,210	'Aki'aki grass	Sporobolus virginicus	4" pots (8" height min., 4" spread min.) 24" o.c. triangular spacing Hydromulch area (without grass seed) prior to planting to stabilize soil.
2,060	'Ilima papa	Sida fallax	4" pots (1" height min., 6" spread min.) 3'-0" o.c. spacing Top dress with crushed coral below, or coarse sand where sand exists.

Notes:

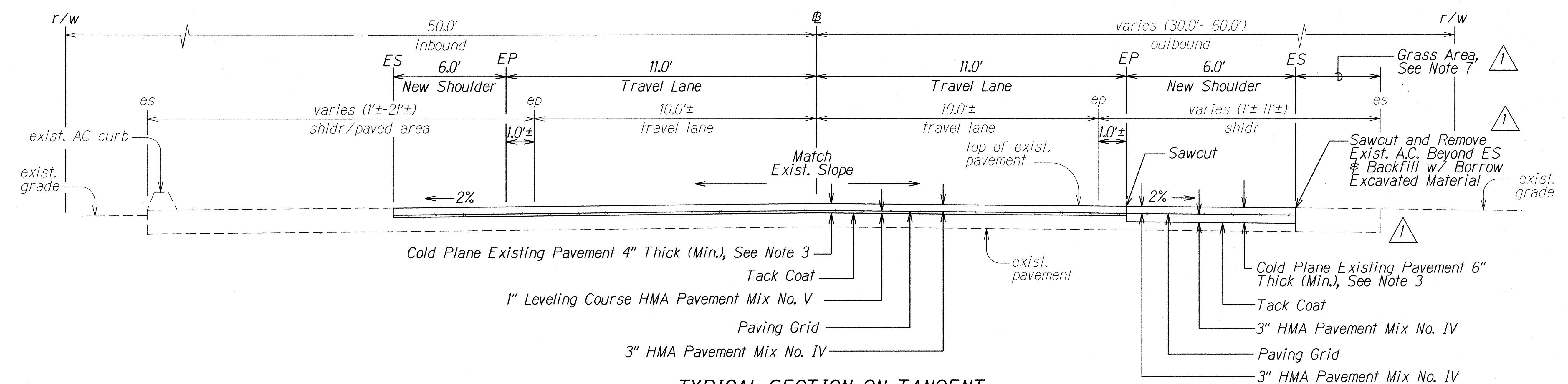
- Scarify root ball; roots on the periphery can be removed at the time of planting.
- Top of root ball to be set at one-quarter inch above finish grade.
- Puddle and settle soil around root ball of each ground cover prior to top dressing.



GROUND COVER PLANTING DETAIL  
Not to scale

6/2/16	Revised Length for Common Bermuda Grass.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>PLANT NOTES, LIST &amp; DETAIL</b> <b>FARRINGTON HIGHWAY RESURFACING</b> Vicinity of Kili Drive to Satellite Tracking Station Road Federal Aid Project No. STP-093-1(026) Date: April, 2016	
SHEET No. 1 OF 1 SHEETS	

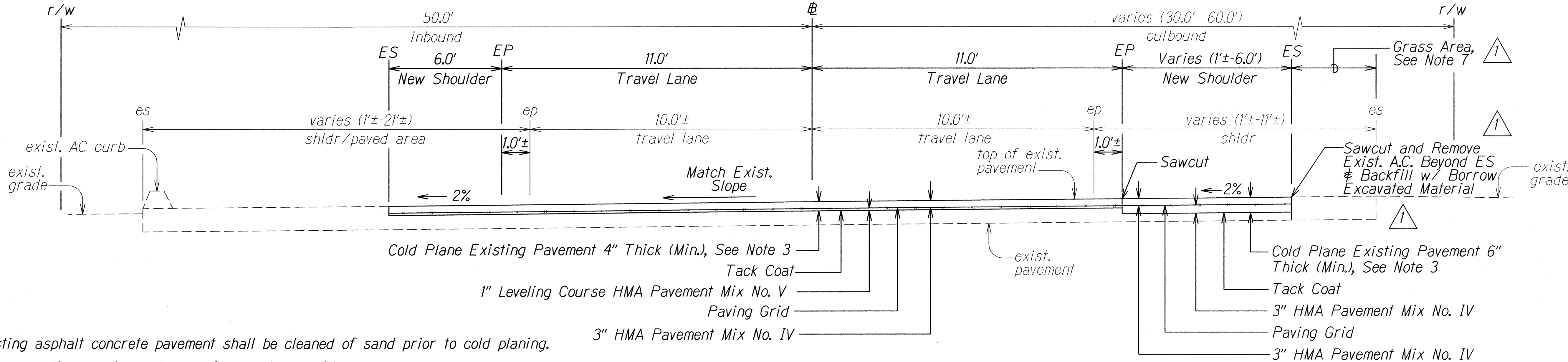
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.10	110



### TYPICAL SECTION ON TANGENT

# STA. 1021+00± TO # STA. 1030+17±

Scale: Not to Scale



### TYPICAL SECTION ON CURVE

# STA. 1021+00± TO # STA. 1030+17±

Scale: Not to Scale

#### Notes:

- Existing asphalt concrete pavement shall be cleaned of sand prior to cold planing.
- For compaction requirements, see General Notes #24.
- Existing reinforcing fabric may be present in existing pavement from # Sta. 1021+00± to # Sta. 1031+00±. It is located approximately 2-1/2" below the top of existing pavement. Cold plane 2.45", just above existing reinforcing fabric. If reinforcing fabric is not encountered, cold plane in thin removal depths until the reinforcing fabric is encountered. Remove existing reinforcing fabric. Cold plane till specified depth below existing pavement grade, where the underlying macadam is encountered.
- For limits and widths of New Shoulder and limits of existing curb, see Roadway Plans.
- From # Sta. 1030+17± to # Sta. 1030+67±, provide longitudinal transition to raise pavement grade. See detail on Plan Sheet No. 11.
- For partial section, see Plan Sheet No. 11.
- For Grass, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting. Plant Grass from # Sta. 1022+14.50± Rt. to # Sta. 1028+21.50± Rt. where existing A.C. beyond New Shoulder is removed.



6/2/16

Removed New Paved Area.  
Added Note to Grass Area beyond New Shoulder.  
Added Note to Sawcut and Remove Exist. A.C.  
Added Note 7.

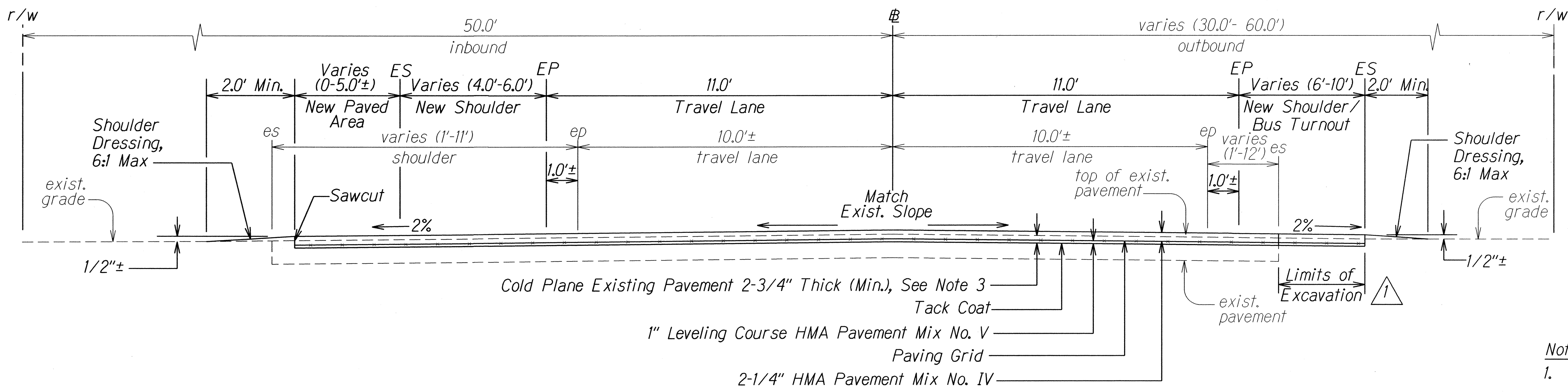
DATE

REVISION

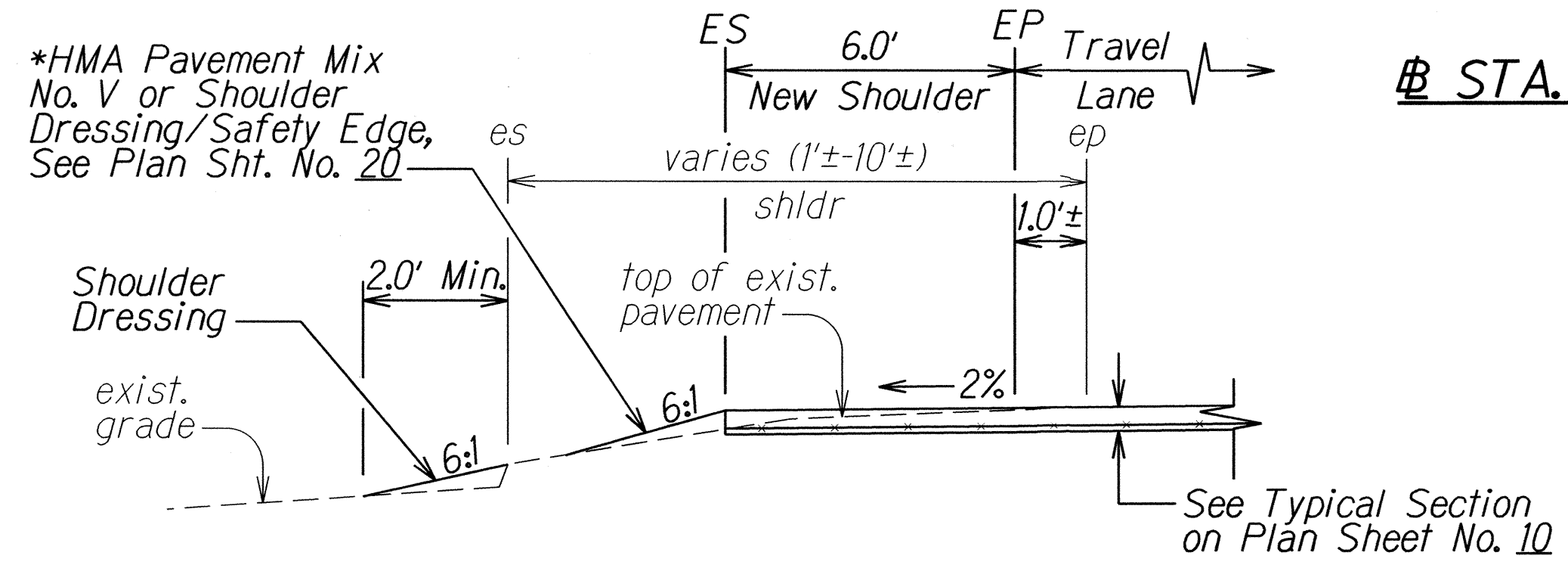
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>TYPICAL SECTIONS</b>	
FARRINGTON HIGHWAY RESURFACING	
Vicinity of Kili Drive to Satellite Tracking Station Road	
Federal Aid Project No. STP-093-1(026)	
Scale: Not to Scale	Date: April, 2016
SHEET No. 1 OF 12 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.11	110

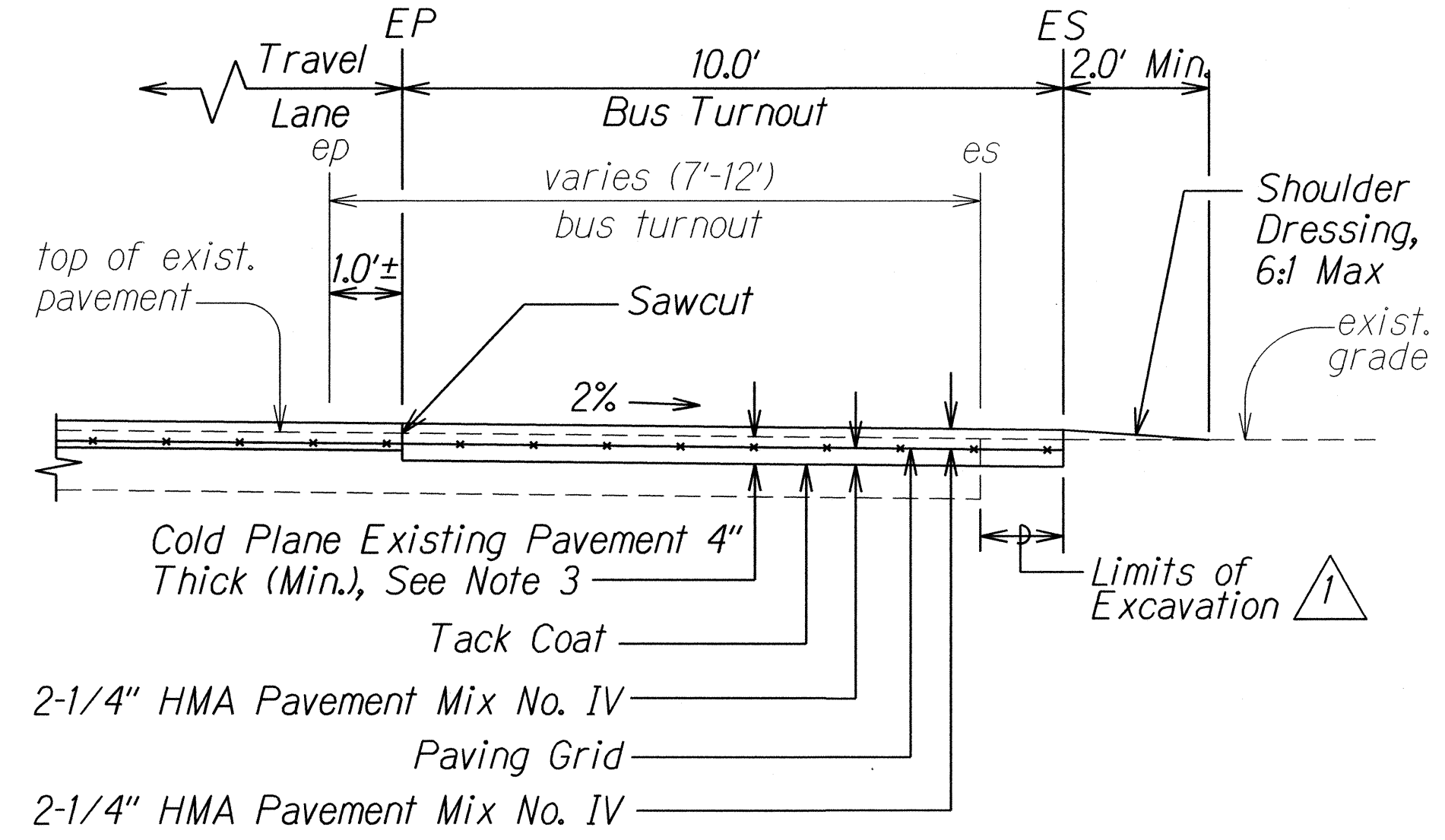


**TYPICAL SECTION**  
 # STA. 1030+67± TO # P.C. STA. 1036+46.81±  
 Scale: Not to Scale

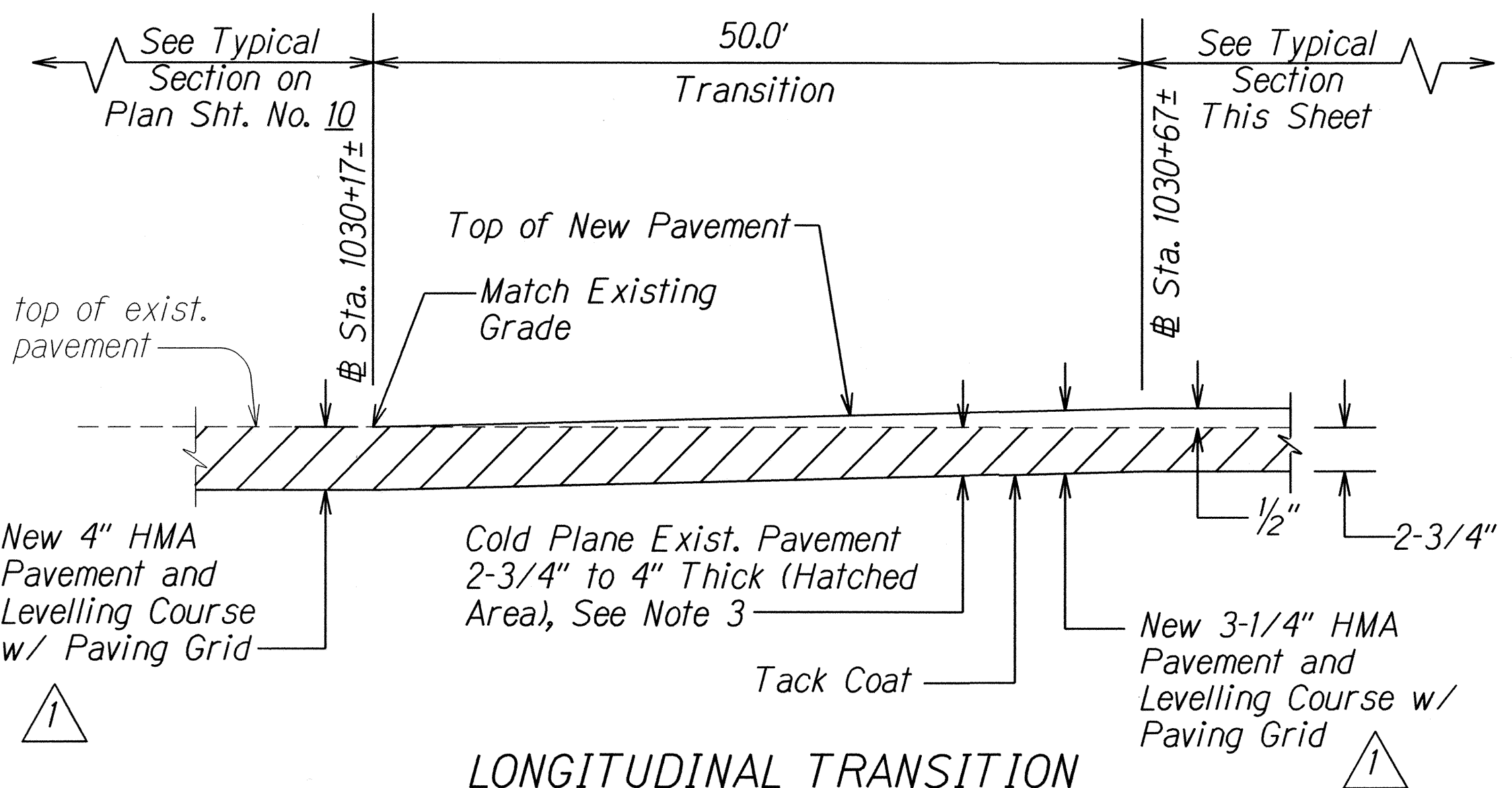


\*Note: Use HMA Pavement Mix No. V when existing is A.C. pavement. Use Shoulder Dressing/Safety Edge when existing is not A.C. pavement.

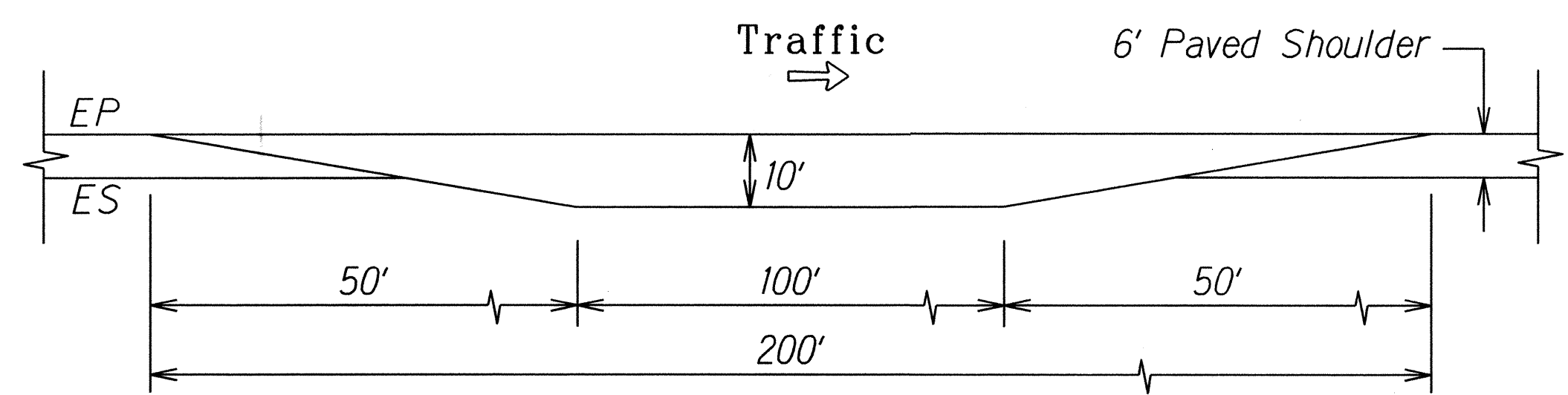
**PARTIAL SECTION**  
 # STA. 1028+92± LT. TO # STA. 1030+67± LT.  
 Scale: Not to Scale



**PARTIAL SECTION AT BUS TURNOUT**  
 # STA. 1030+67± RT. TO # STA. 1032+70.5± RT.  
 Scale: Not to Scale



**LONGITUDINAL TRANSITION**  
 # STA. 1030+17± TO # STA. 1030+67±  
 Scale: Not to Scale

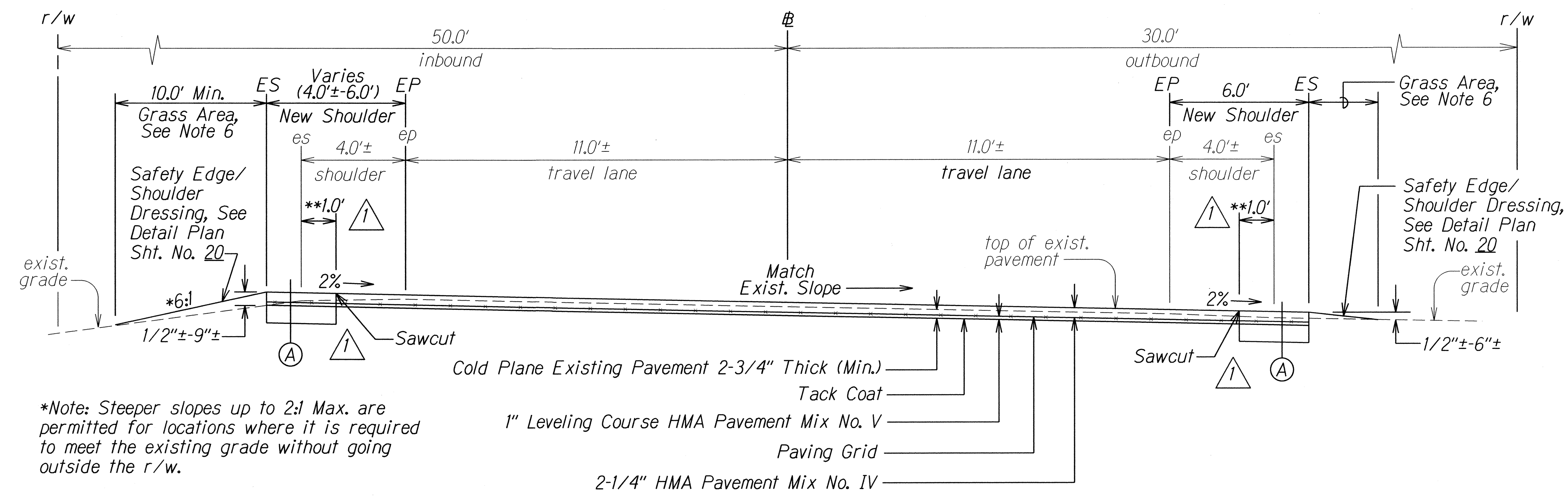


**BUS TURNOUT DETAIL**  
 Scale: Not to Scale

- Notes:**
- Existing asphalt concrete pavement shall be cleaned of sand prior to cold planing.
  - For compaction requirements, see General Notes #24.
  - Existing reinforcing fabric may be present in existing pavement from # Sta. 1021+00± to # Sta. 1031+00±. It is located approximately 2-1/2" below the top of existing pavement. Cold plane 2.45", just above existing reinforcing fabric. If reinforcing fabric is not encountered, cold plan in thin removal depths until the reinforcing fabric is encountered. Remove existing reinforcing fabric. Cold plane till specified depth below existing pavement grade, where the underlying macadam is encountered.
  - For limits and widths of New Shoulder, see Roadway Plans.
  - For limits of Bus Turnout, see Roadway Plans. For pavement design and detail of Bus Turnout, see this sheet.

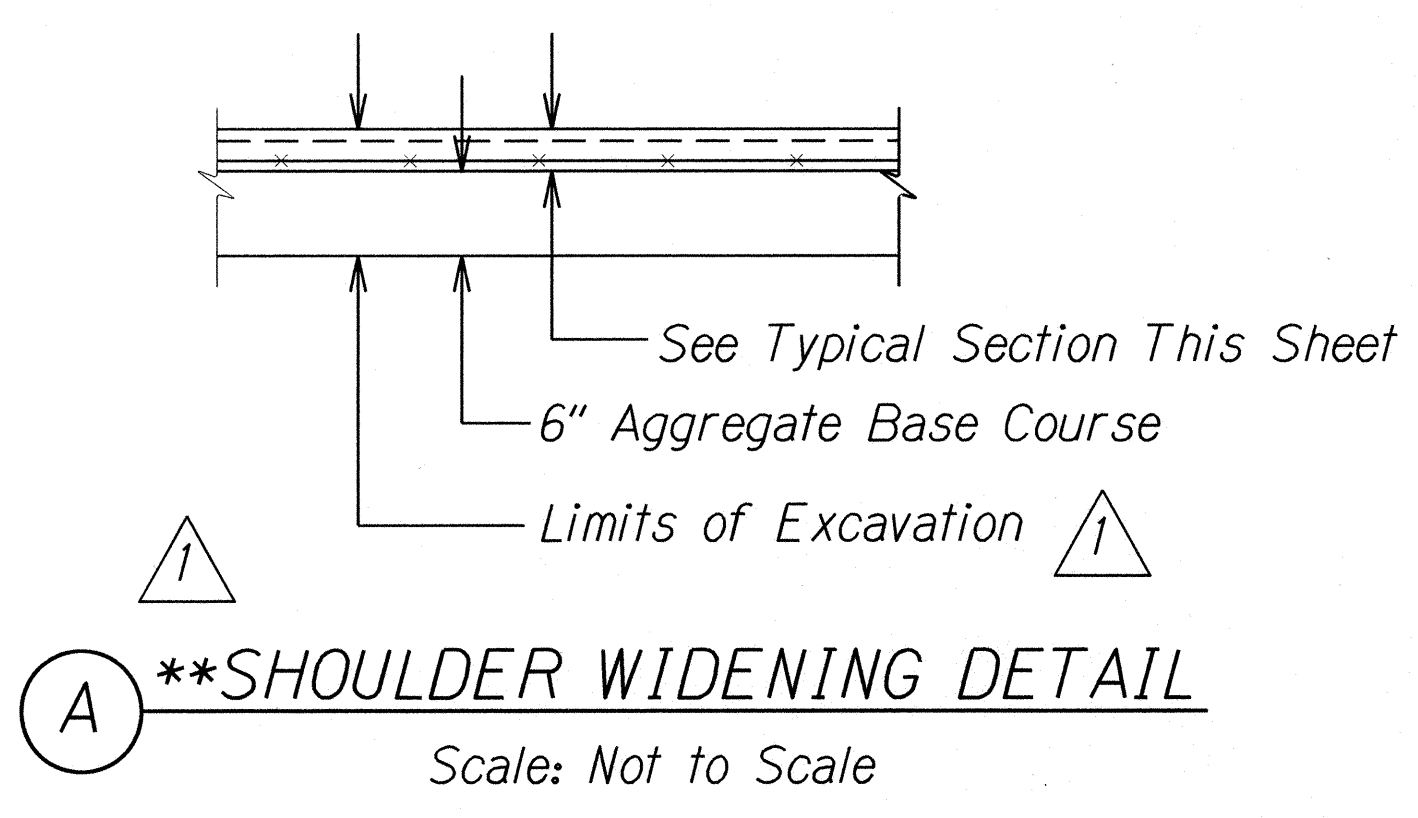
6/2/16	Revised notes in Longitudinal Transition Detail. Added Paving Grid to Partial Section at Bus Turnout and revised notes. Clarified limits of excavation.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TYPICAL SECTIONS</b> <b>FARRINGTON HIGHWAY RESURFACING</b> Vicinity of Kili Drive to Satellite Tracking Station Road Federal Aid Project No. STP-093-1(026) Scale: Not to Scale Date: April, 2016	
SHEET No. 2 OF 12 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.12	110

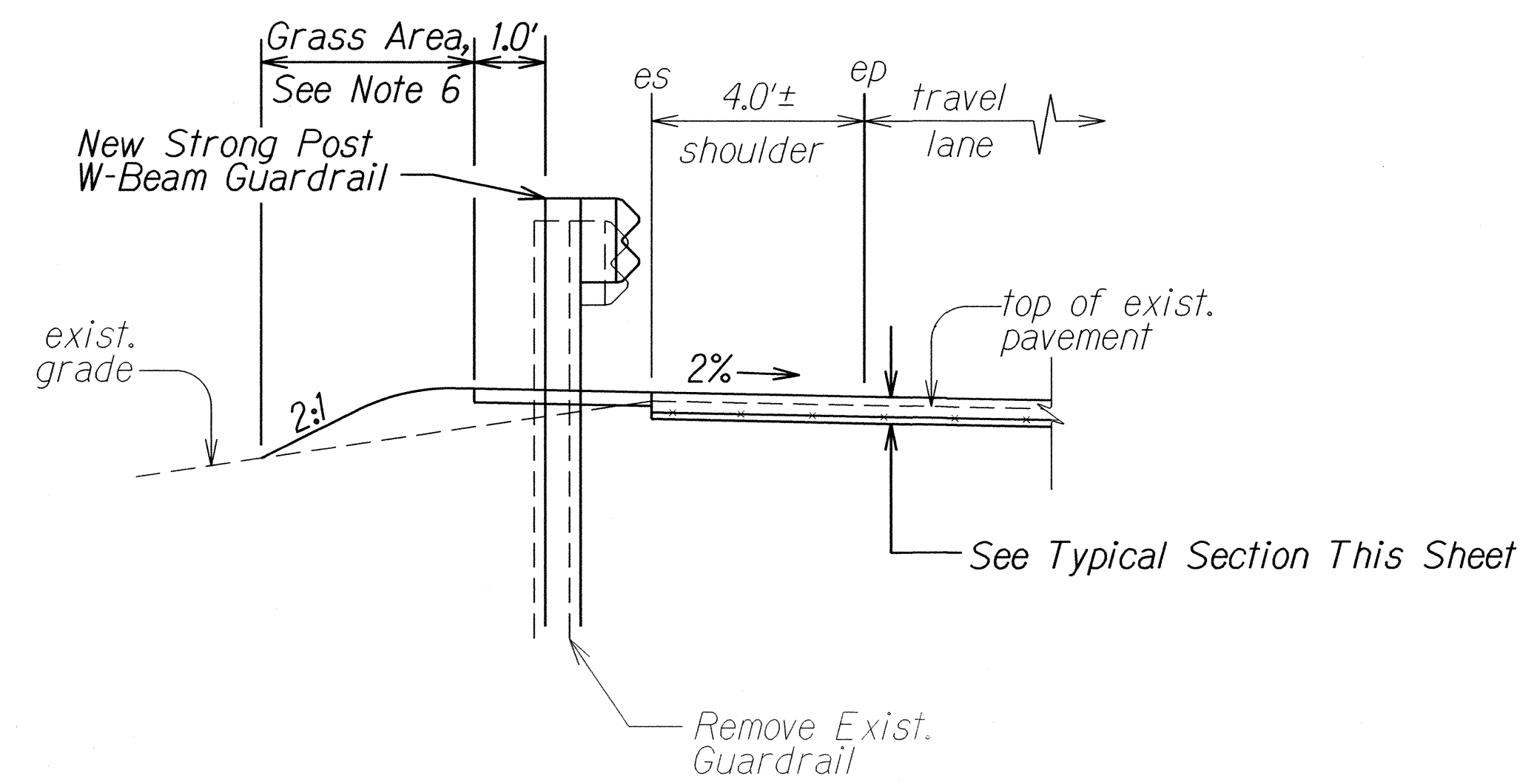


\*Note: Steeper slopes up to 2:1 Max. are permitted for locations where it is required to meet the existing grade without going outside the r/w.

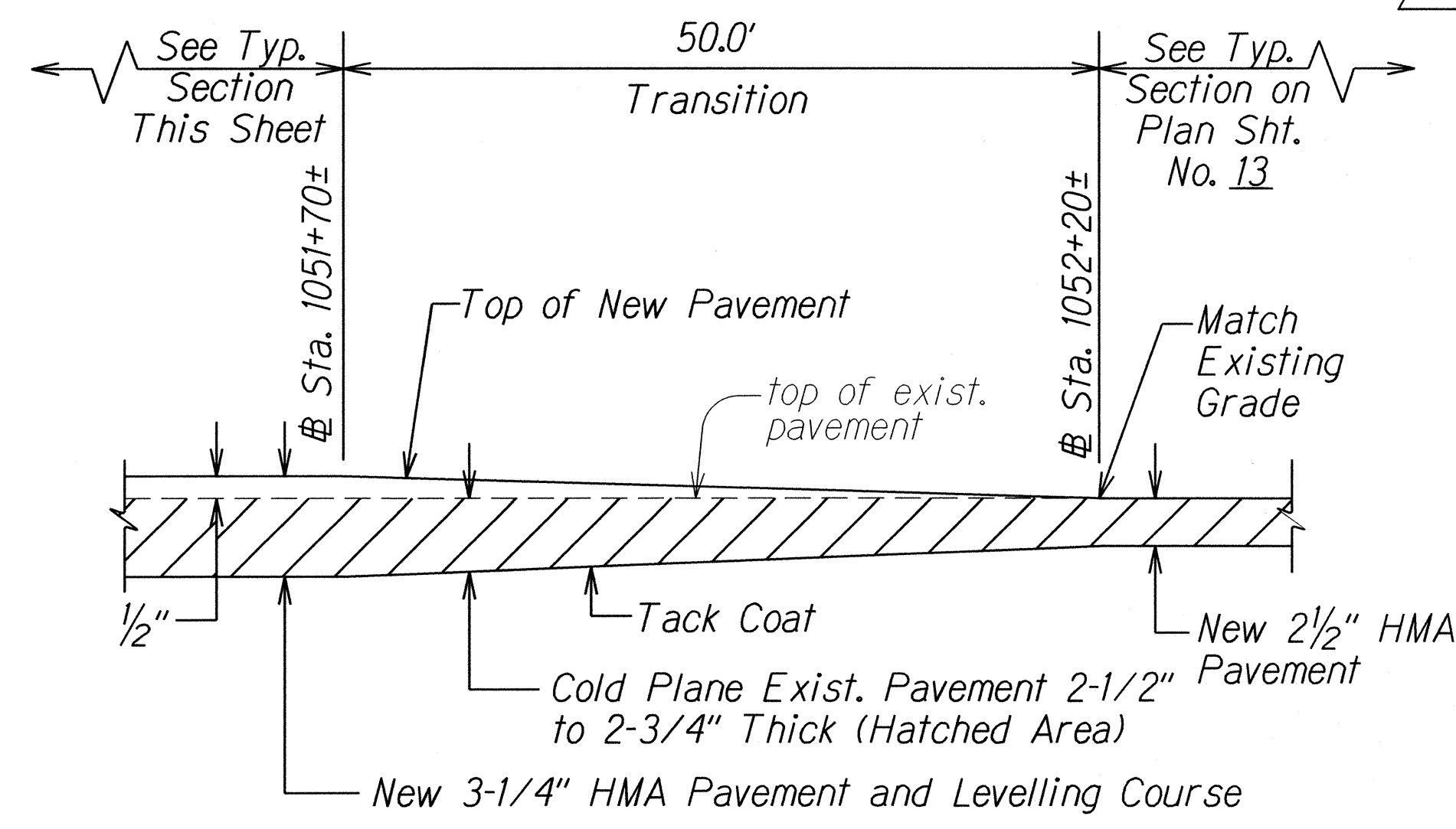
**TYPICAL SECTION**  
**# P.C. STA. 1036+46.81± TO # STA. 1051+70±**  
 Scale: Not to Scale



- Notes:**
1. For limits of Strong Post W-Beam Guardrail, see Roadway Plans. For details, see Guardrail Details Sheets.
  2. For compaction requirements, see General Notes #24 and #25.
  3. From # Sta. 1051+70± to # Sta. 1052+20±, provide longitudinal transition to lower pavement grade. See detail this sheet.
  4. For limits of shoulder widening, see Roadway Plans.
  5. For limits of Safety Edge, see Table on Plan Sheet No. 20.
  6. For Grass, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting. Omit planting grass in the following area:  
 # Sta. 1036+46.81± Rt. to # Sta. 1041+50± Rt.
  7. For shoulder widening greater than 12", use Detail "A". For shoulder widening less than or equal to 12", use same pavement section as roadway.



**PARTIAL SECTION AT GUARDRAIL**  
**# STA. 1039+76.30± TO # STA. 1041+99.50±**  
 Scale: Not to Scale



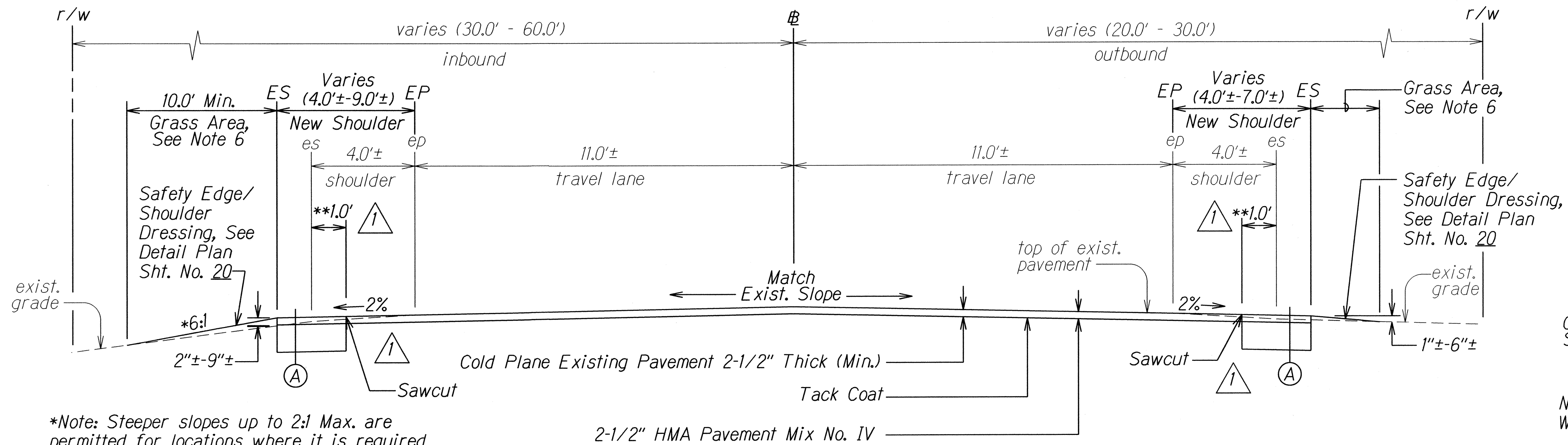
**LONGITUDINAL TRANSITION**  
**# STA. 1051+70± TO # STA. 1052+20±**  
 Scale: Not to Scale

SURVEY PLOTTED BY	DATE
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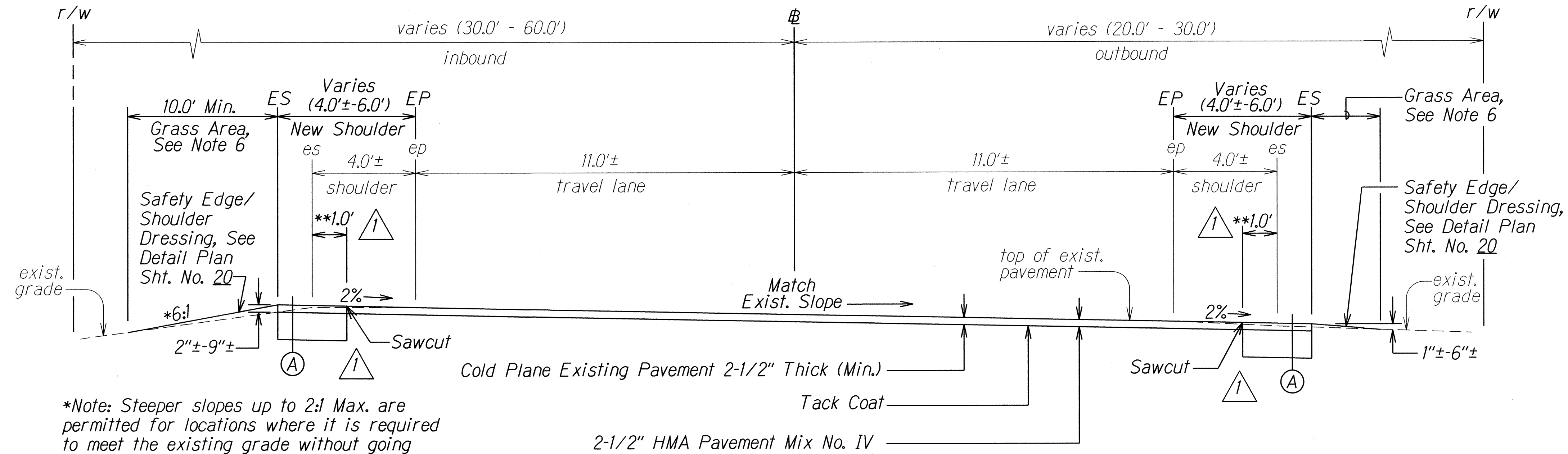
6/2/16	Added Note **7 to clarify shoulder widening. Clarified the Limits of Excavation. Revised reference sheet no. in Note 6.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TYPICAL SECTIONS</b> <b>FARRINGTON HIGHWAY RESURFACING</b> Vicinity of Kili Drive to Satellite Tracking Station Road Federal Aid Project No. STP-093-1(026) Scale: Not to Scale Date: April, 2016	
SHEET No. 3 OF 12 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.13	110

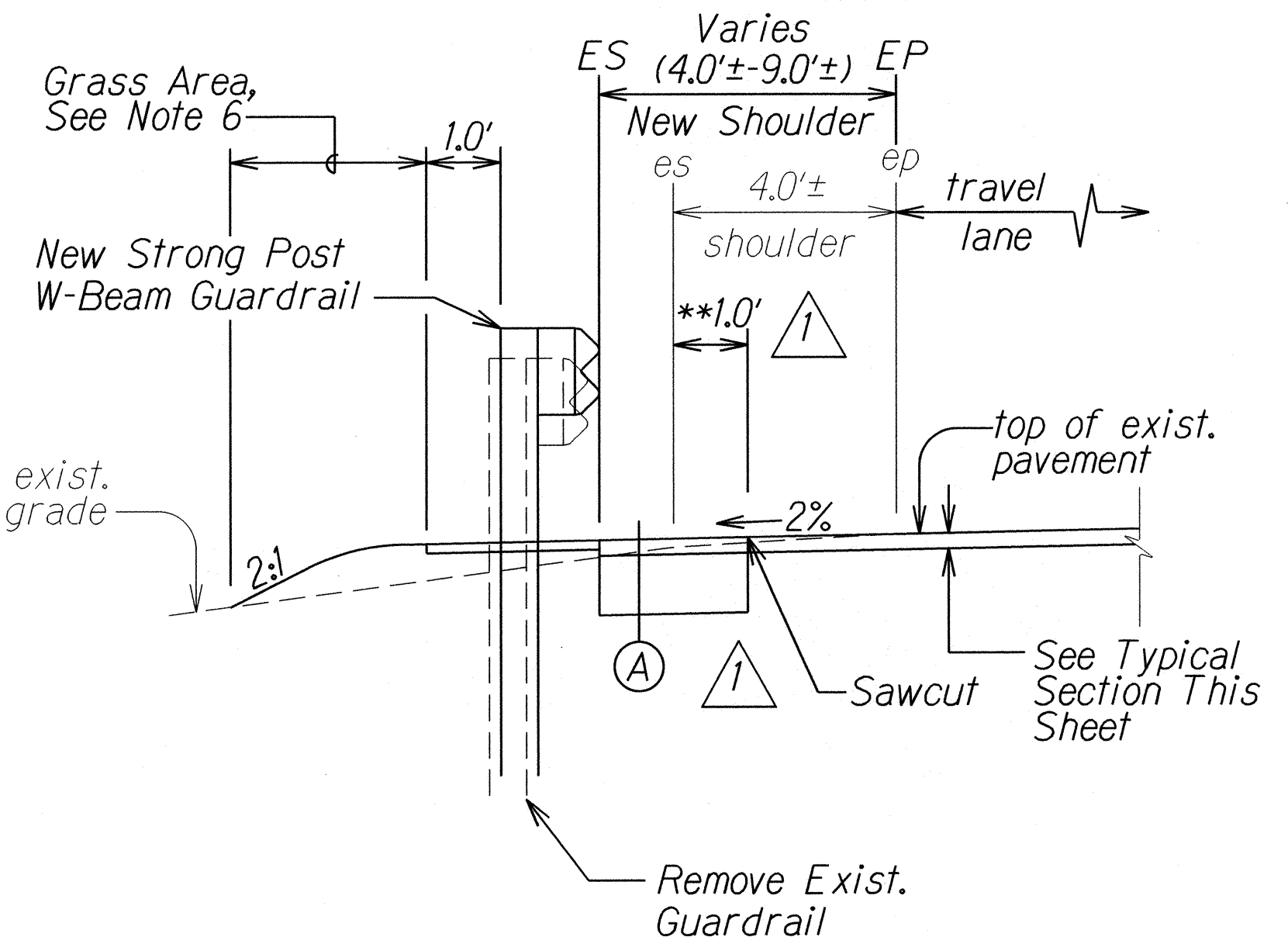


**TYPICAL SECTION ON TANGENT**  
 STA. 1052+20± TO STA. 1104+42±  
 Scale: Not to Scale

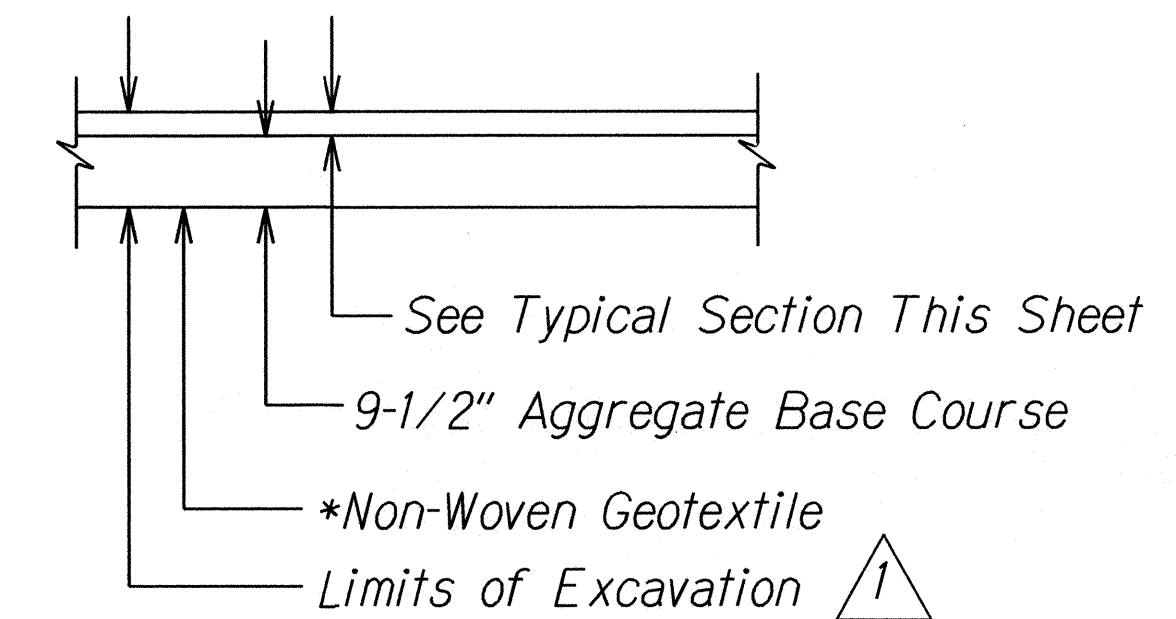


**TYPICAL SECTION ON CURVE**  
 STA. 1052+20± TO STA. 1104+42±  
 Scale: Not to Scale

- Notes:**
- For limits of Strong Post W-Beam Guardrail, see Roadway Plans. For details, see Guardrail Detail sheets.
  - For compaction requirements, see General Notes #24 and #25.
  - For details at locations with New Guardrail, see Partial Section this sheet.
  - For limits of shoulder widening, see Roadway Plans.
  - For limits of Safety Edge, see Table on Plan Sheet No. 20.
  - For Grass, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting.
- \*\*7.** For shoulder widening greater than 12", use Detail "A". For shoulder widening less than or equal to 12", use same pavement section as roadway.



**PARTIAL SECTION AT GUARDRAIL**  
 OUTBOUND AND INBOUND  
 Scale: Not to Scale



**\*\*SHOULDER WIDENING DETAIL**  
 Scale: Not to Scale

6/2/16	Added Note **7 to clarify shoulder widening. Clarified the Limits of Excavation. Revised reference sheet no. in Note 6.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TYPICAL SECTIONS</b> <b>FARRINGTON HIGHWAY RESURFACING</b> Vicinity of Kili Drive to Satellite Tracking Station Road Federal Aid Project No. STP-093-1(026) Scale: Not to Scale Date: April, 2016	
SHEET No. 4 OF 12 SHEETS	

1-1/2" HMA Pavement Mix No. IV


1" Levelling Course HMA Pavement Mix No. V


9-1/2" Aggregate Base Course

\*Non-Woven Geotextile

  \*\*SHOULDER WIDENING DETAIL  
Scale: Not to Scale

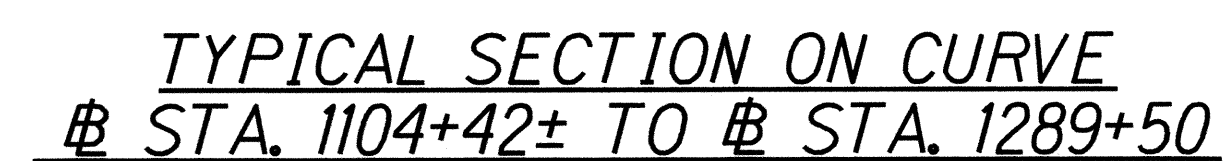
1. *For compaction requirements, see General Notes #24 and #25.*
2. *For limits of Strong Post W-beam Guardrail, see Roadway Plans. For Details, See Guardrail Details sheets.*
3. *For limits of Safety Edge, see Table on Plan Sheet No. 20.*
4. *For details at Car Turnout locations, see Partial Section at Car Turnout this sheet.*
5. *For details at locations with New Guardrail, see Partial Section at Guardrail this sheet.*
6. *For remainder of partial sections and typical section at new superelevated curve, see Plan Sheet No. 15.*
7. *For Grass, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting. Omit planting grass in the following areas:*

 8. For limits of shoulder widening, see Roadway Plans.

 \*\*9. For shoulder widening greater than 12", use Detail "A". For shoulder widening less than or equal to 12", use same pavement section as roadway.



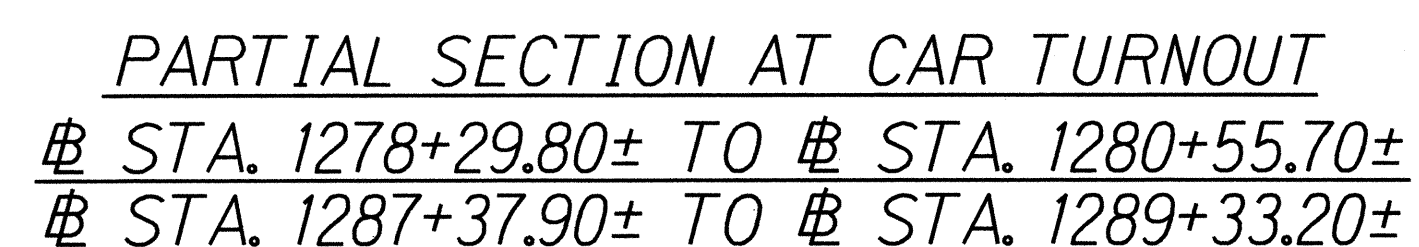
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*Scale: Not to Scale*



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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL SECTIONS**

**FARRINGTON HIGHWAY RESURFACING**

**Vicinity of Kili Drive to**

**Satellite Tracking Station Road**

**Federal Aid Project No. STP-093-1(K026)**

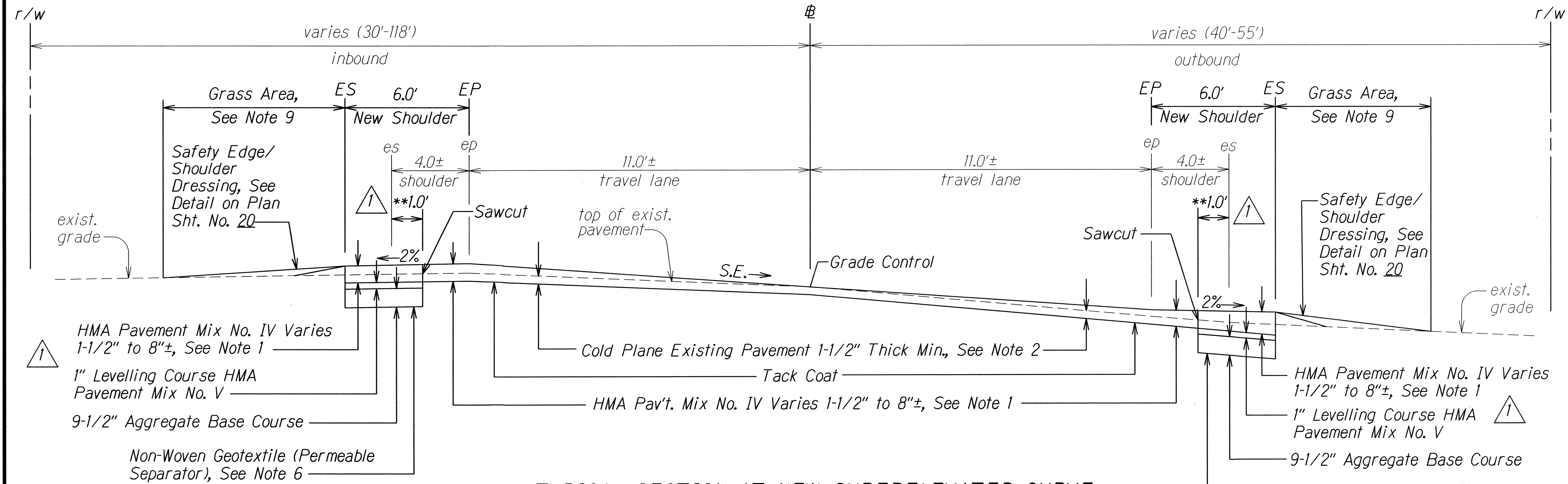
Scale: Not to Scale Date: April, 2016

SHEET No. 5 OF 12 SHEETS

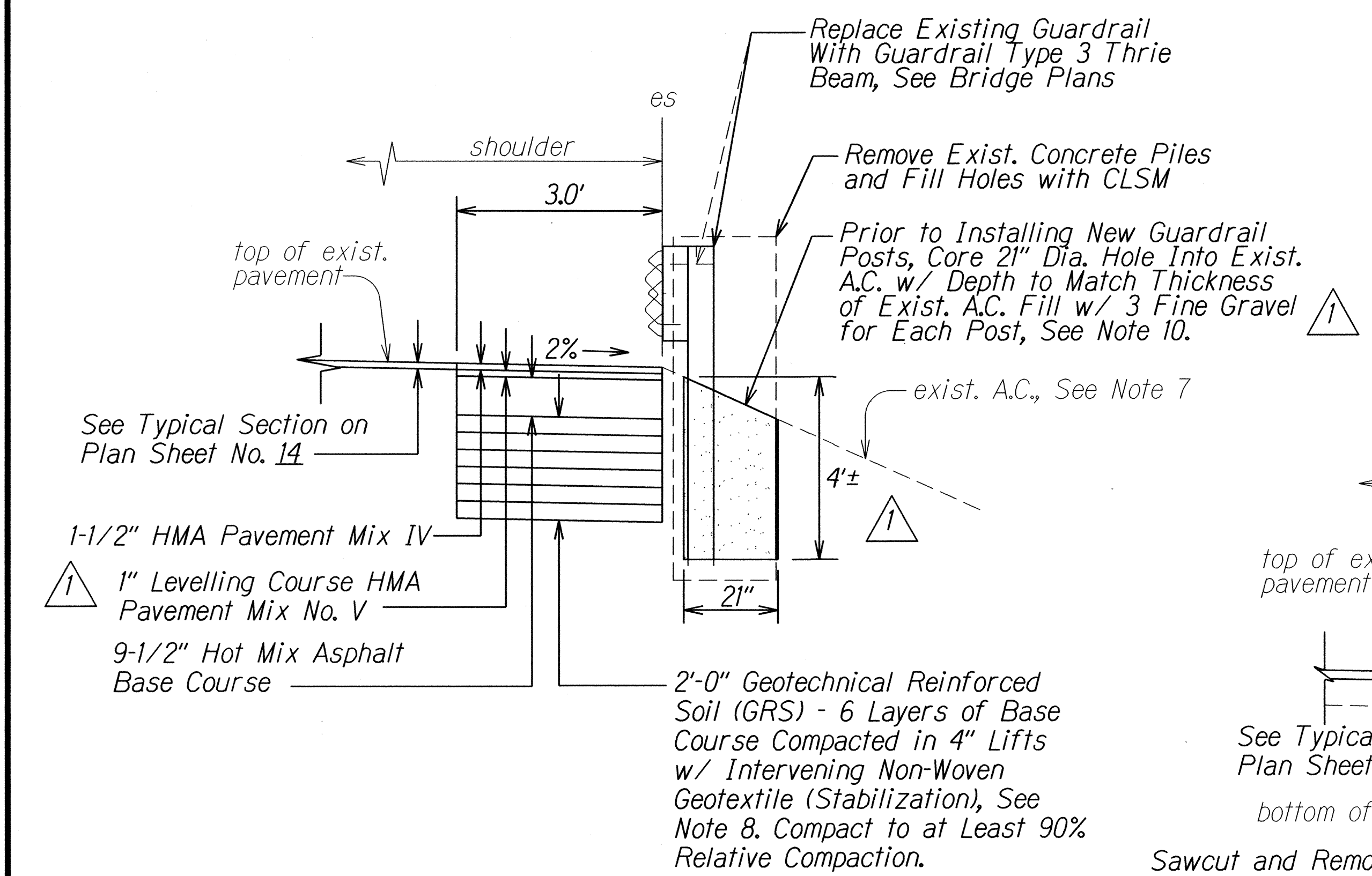
ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY _____
	DESIGNED BY _____
	QUANTITIES BY _____
	CHECKED BY _____
No. _____	



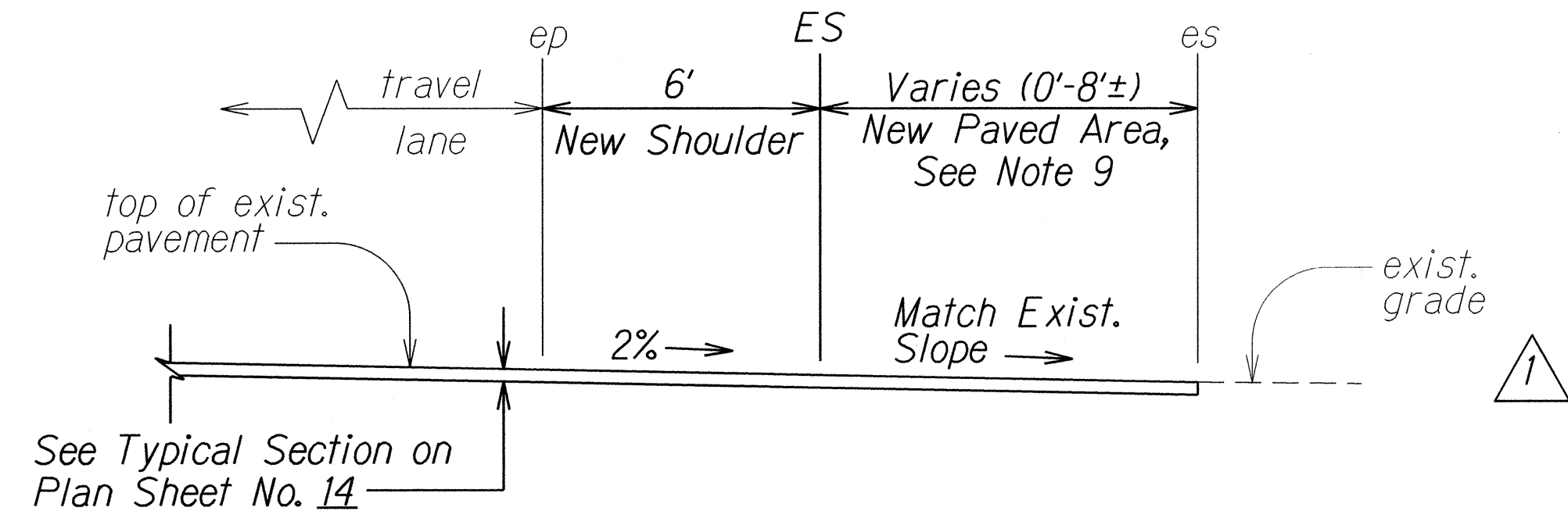
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.15	110



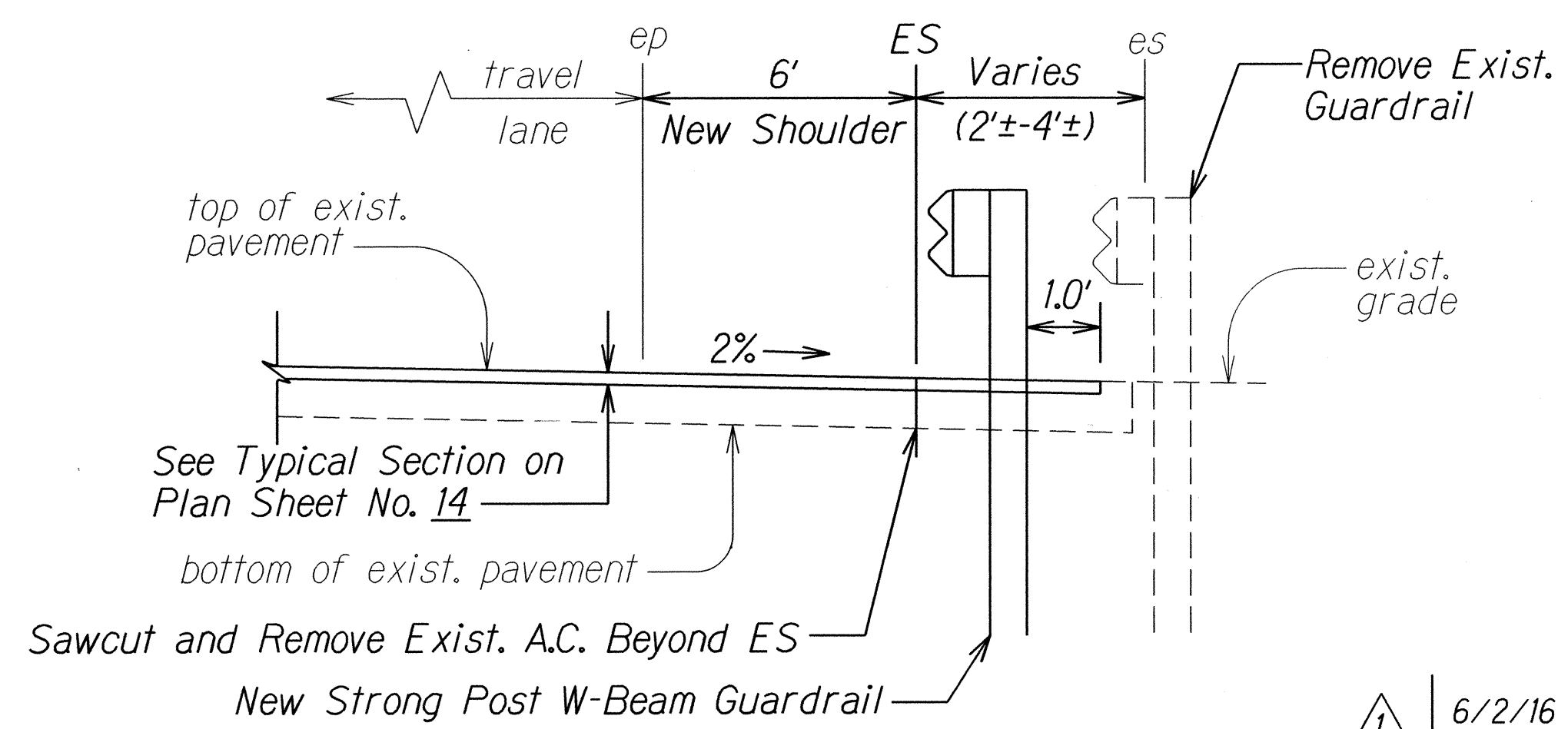
**TYPICAL SECTION AT NEW SUPERELEVATED CURVE**  
**# STA. 1205+75± TO # STA. 1215+75±**  
 Scale: Not to Scale



**PARTIAL SECTION**  
**# STA. 1137+99.70± TO # STA. 1138+14.70±**  
 Scale: Not to Scale



**PARTIAL SECTION**  
**# STA. 1261+40.50± TO # STA. 1266+73.30±**  
 Scale: Not to Scale



**PARTIAL SECTION**  
**# STA. 1266+73.30± TO # STA. 1268+85.10±**  
 Scale: Not to Scale

**Notes:**

- For Superelevation and New Grades, see Pavement Grade Plan on Plan Sheet No. 45.
- Road condition shall be field verified by the Engineer. Existing pavement shall be cold planed at least 1-1/2" depth below the new pavement elevations on Pavement Grade Plans, Sheet No. 45.
- For compaction requirements, see General Notes #24 and #25.
- For limits of New Paved Area beyond Shoulder, see Roadway Plans.
- For limits of Safety Edge, see Table on Plan Sheet No. 20.
- For Non-Woven Geotextile (Permeable Separator), see 2005 Hawaii Standard Specifications Section 716.02 - Geotextiles For Permeable Separator Applications.
- Existing A.C. and soil downhill of the existing concrete piles shall not be disturbed.
- For Non-Woven Geotextile (Stabilization), see 2005 Hawaii Standard Specifications Section 716.06 - Geotextiles for Stabilization Applications.
- For Grass, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting. Omit planting grass in the following areas:  
 # Sta. 1205+75± Rt. to # Sta. 1207+50± Rt.  
 # Sta. 1211+00± Lt. to # Sta. 1215+00± Lt.
- 3 Fine Gravel shall be in accordance with ASTM C33 No. 67 Gradation. 3 Fine Gravel shall be considered incidental to New Guardrail.
- For limits of shoulder widening, see Roadway Plans.
- For shoulder widening greater than 12", use Detail "A". For shoulder widening less than or equal to 12", use same pavement section as roadway.

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
DESIGNED BY	
QUANTITIES BY	
NOTE BOOK	
CHECKED BY	

6/2/16	Revised pavement section for widened shoulder. Revised Partial Section # Sta. 1137+99.70± to # Sta. 1138+14.70±. Revised Note 9. Added Notes 10 & 11. Added Note **12 to clarify shoulder widening.
DATE	REVISION

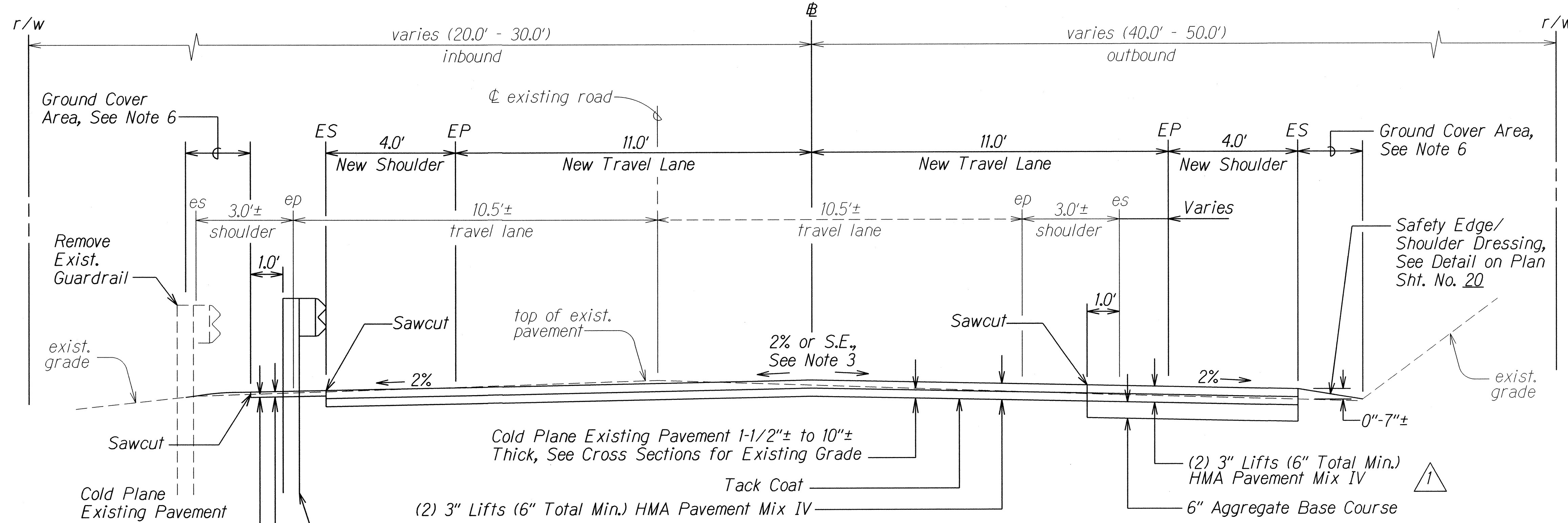
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**TYPICAL SECTIONS**  
**FARRINGTON HIGHWAY RESURFACING**  
 Vicinity of Kili Drive to  
 Satellite Tracking Station Road  
 Federal Aid Project No. STP-093-1(026)

Scale: Not to Scale Date: April, 2016

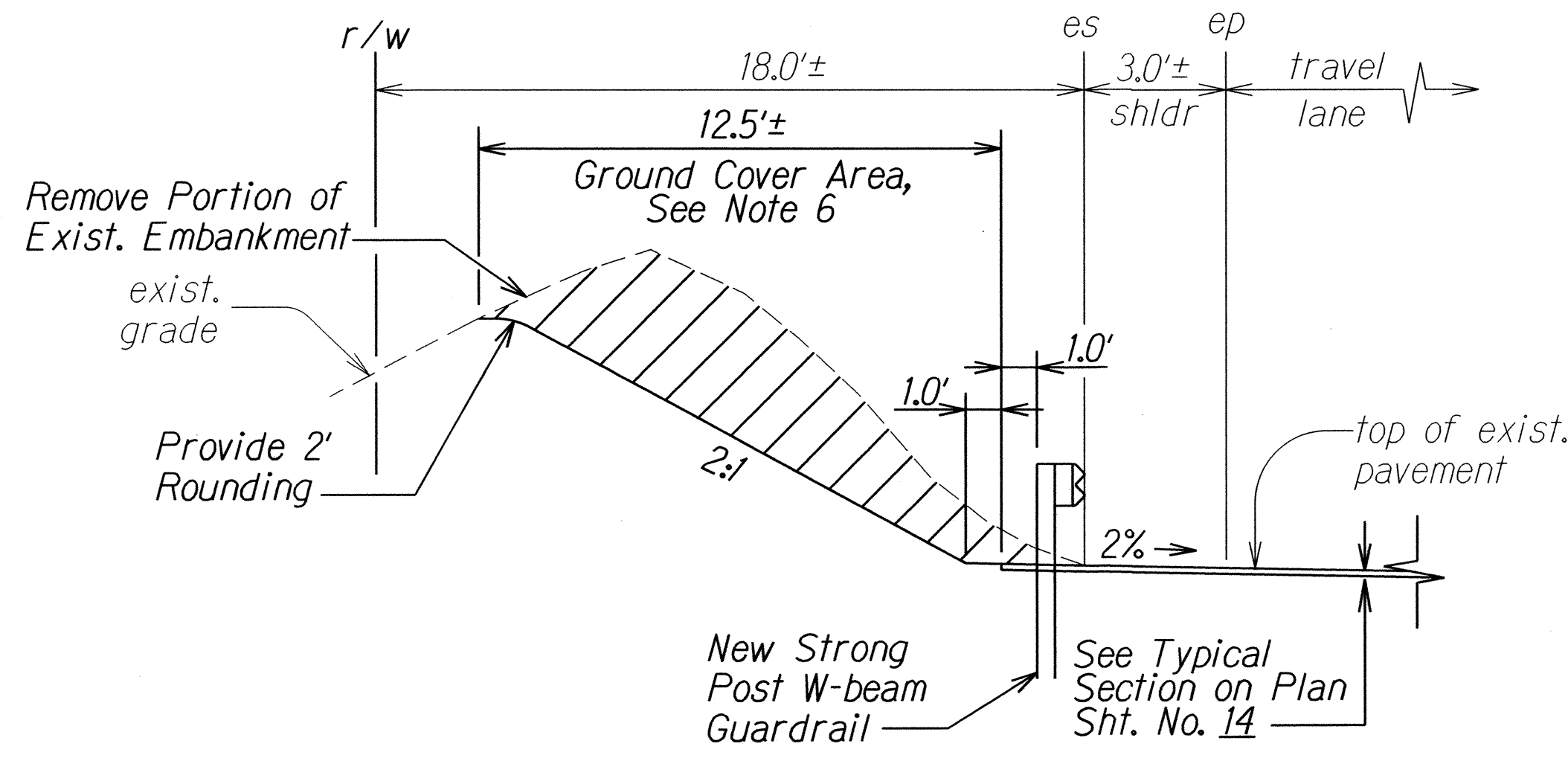
SHEET No. 6 OF 12 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.16	110

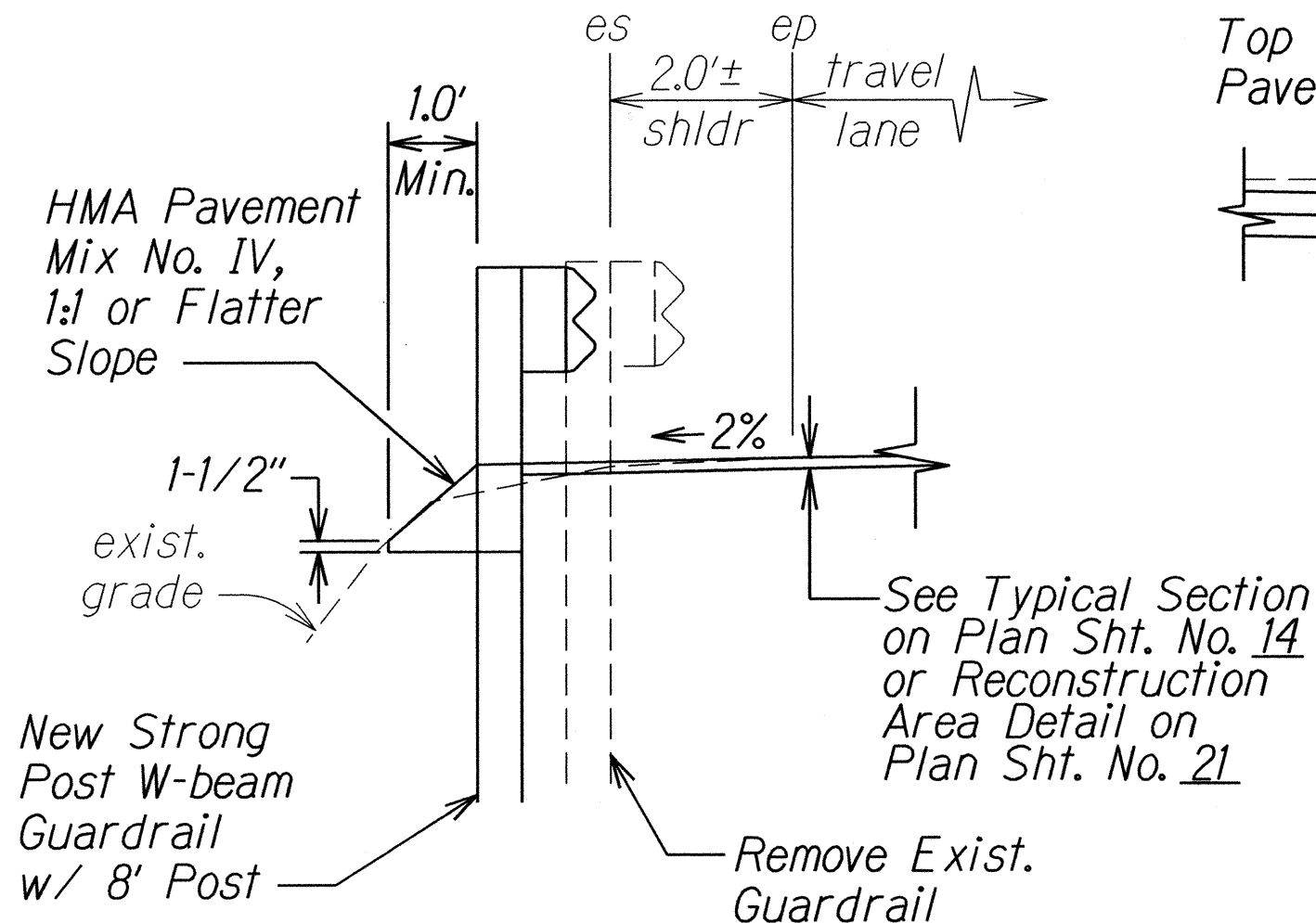


**TYPICAL SECTION**  
**# STA. 1289+50 TO # STA. 1298+00**  
 Scale: Not to Scale

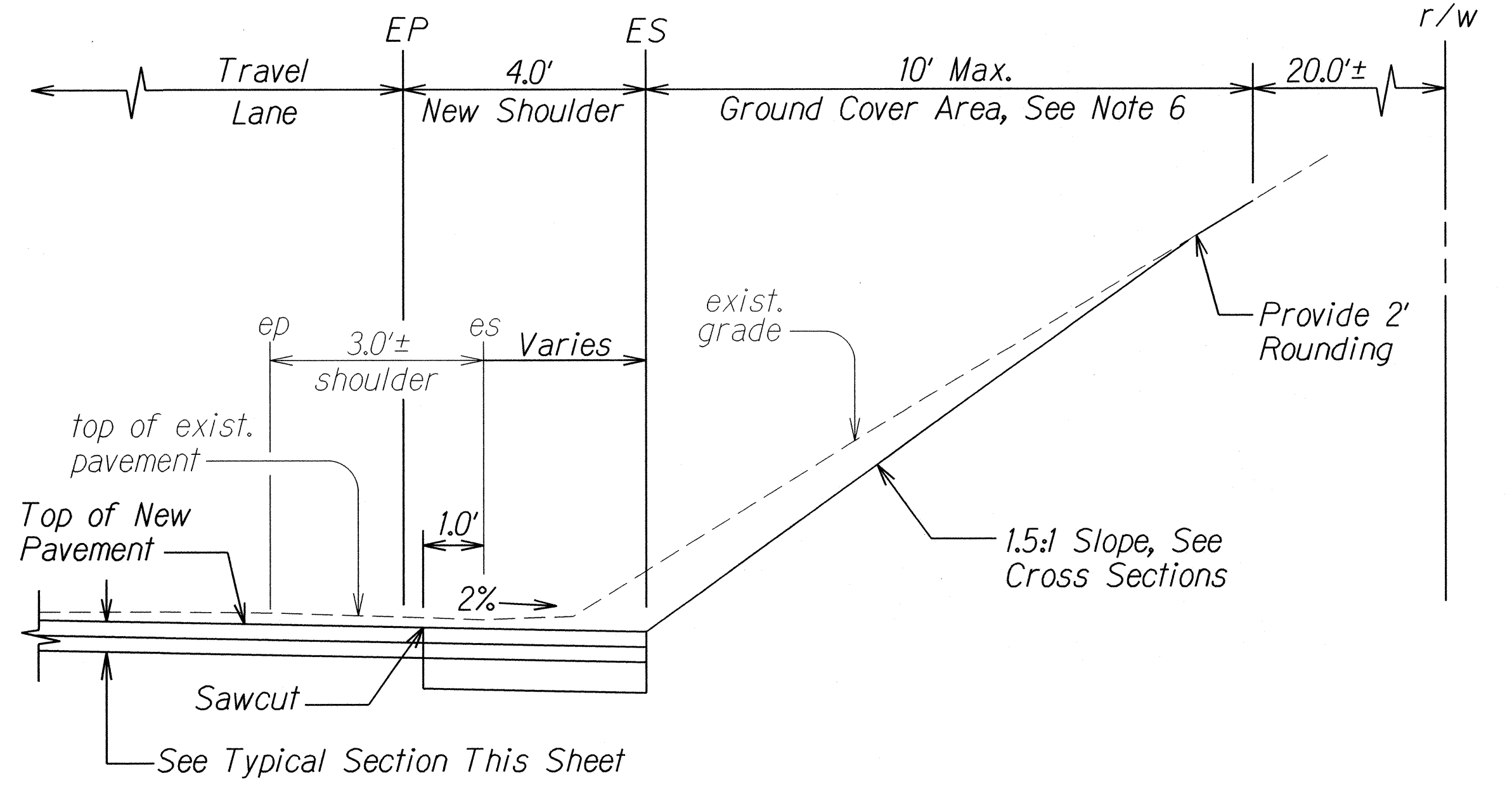
- Notes:**
- For compaction requirements, see General Notes #24 and #25.
  - For detailed sections of the roadway from # Sta. 1289+50 to # Sta. 1304+70.14, see Cross Section Plans.
  - For new superelevation and pavement grades, see Pavement Grade Plans and Profile sheets.
  - For partial sections and section at road stabilization, see this sheet and Plan Sheet No. 17.
  - For limits of Strong Post W-Beam Guardrail, see Roadway Plans. For details, see Guardrail Details sheets.
  - For Ground Cover, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting. Omit ground cover in the following areas:  
 # Sta. 1289+50± Lt. to # Sta. 1295+85± Lt.  
 # Sta. 1289+50± Rt. to # Sta. 1290+50± Rt.  
 # Sta. 1294+50± Rt. to # Sta. 1295+50± Rt.



**PARTIAL SECTION**  
**# STA. 1280+50± TO # STA. 1281+00±**  
 Scale: Not to Scale



**PARTIAL SECTION**  
**# STA. 1271+42.5± TO # STA. 1271+67.5±**  
**# STA. 1285+35.2± TO # STA. 1285+56.2±**  
 Scale: Not to Scale



**PARTIAL SECTION**  
**# STA. 1291+00± TO # STA. 1294+00±**  
 Scale: Not to Scale

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
NOTE BOOK	
CHECKED BY	

1	6/2/16	Clarified the Limits of Excavation. Revised reference sheet no. in Note 6.
DATE	REVISION	

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

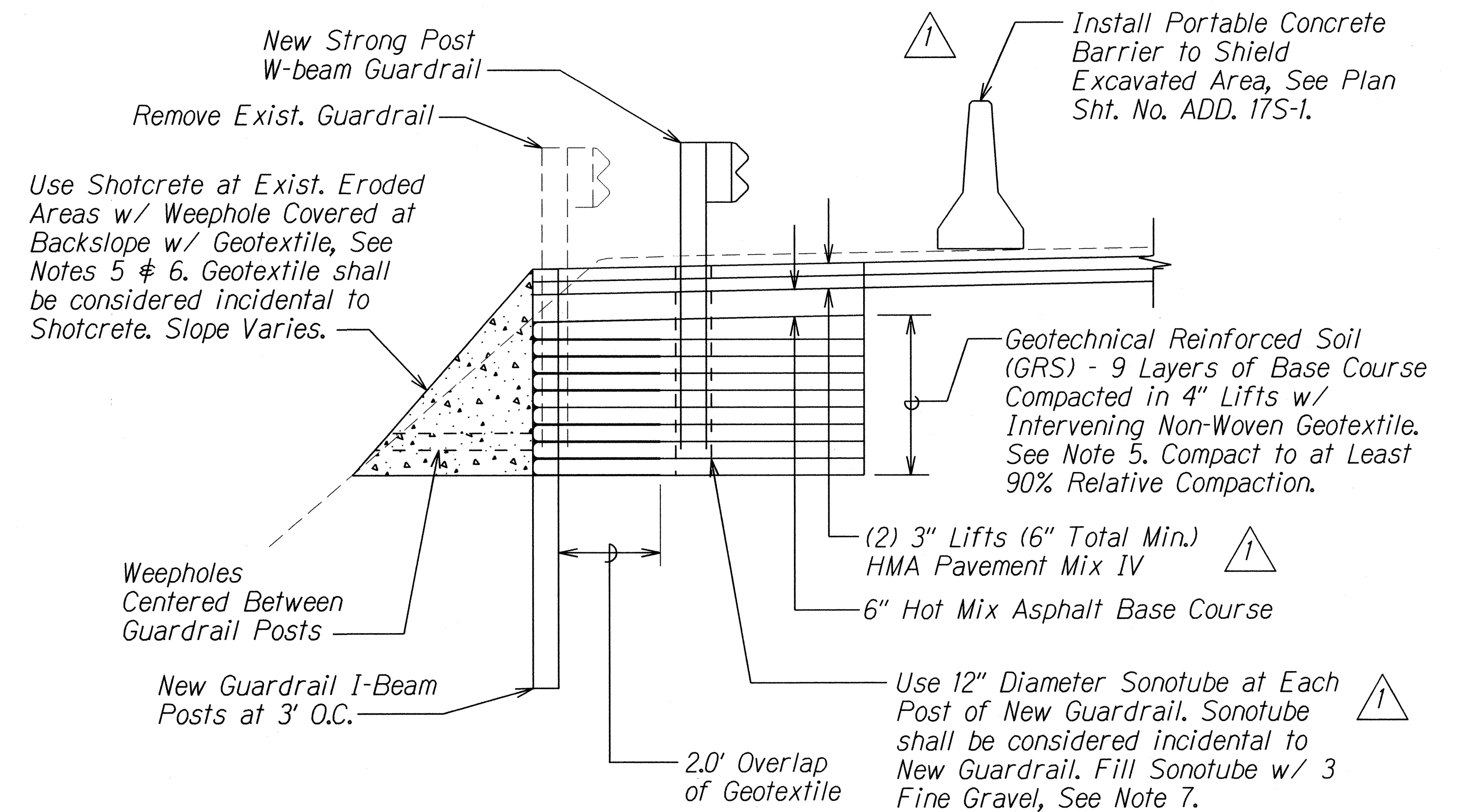
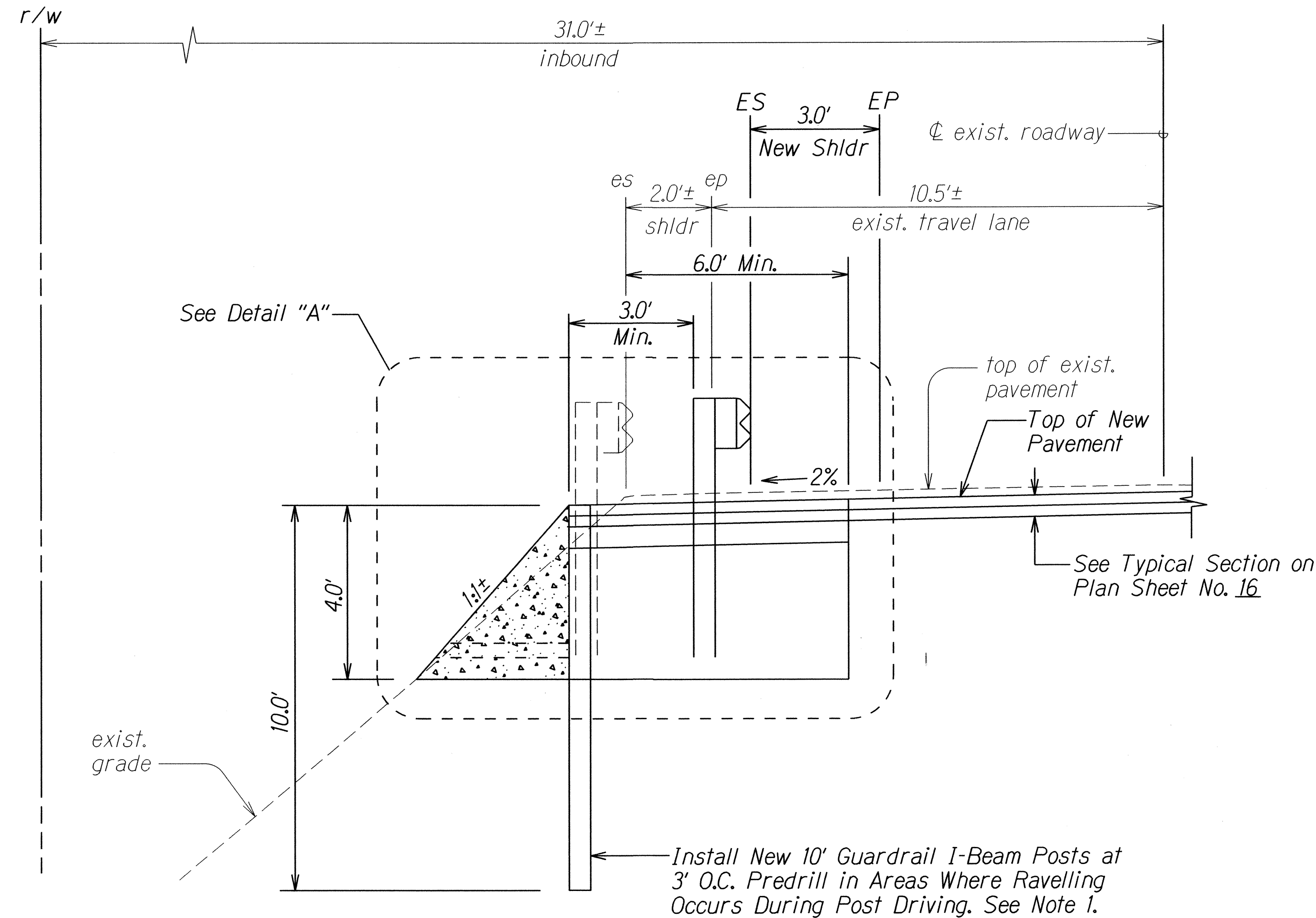
**TYPICAL SECTIONS**  
**FARRINGTON HIGHWAY RESURFACING**  
 Vicinity of Kili Drive to  
 Satellite Tracking Station Road  
 Federal Aid Project No. STP-093-1(026)

Scale: Not to Scale Date: April, 2016

SHEET No. 7 OF 12 SHEETS



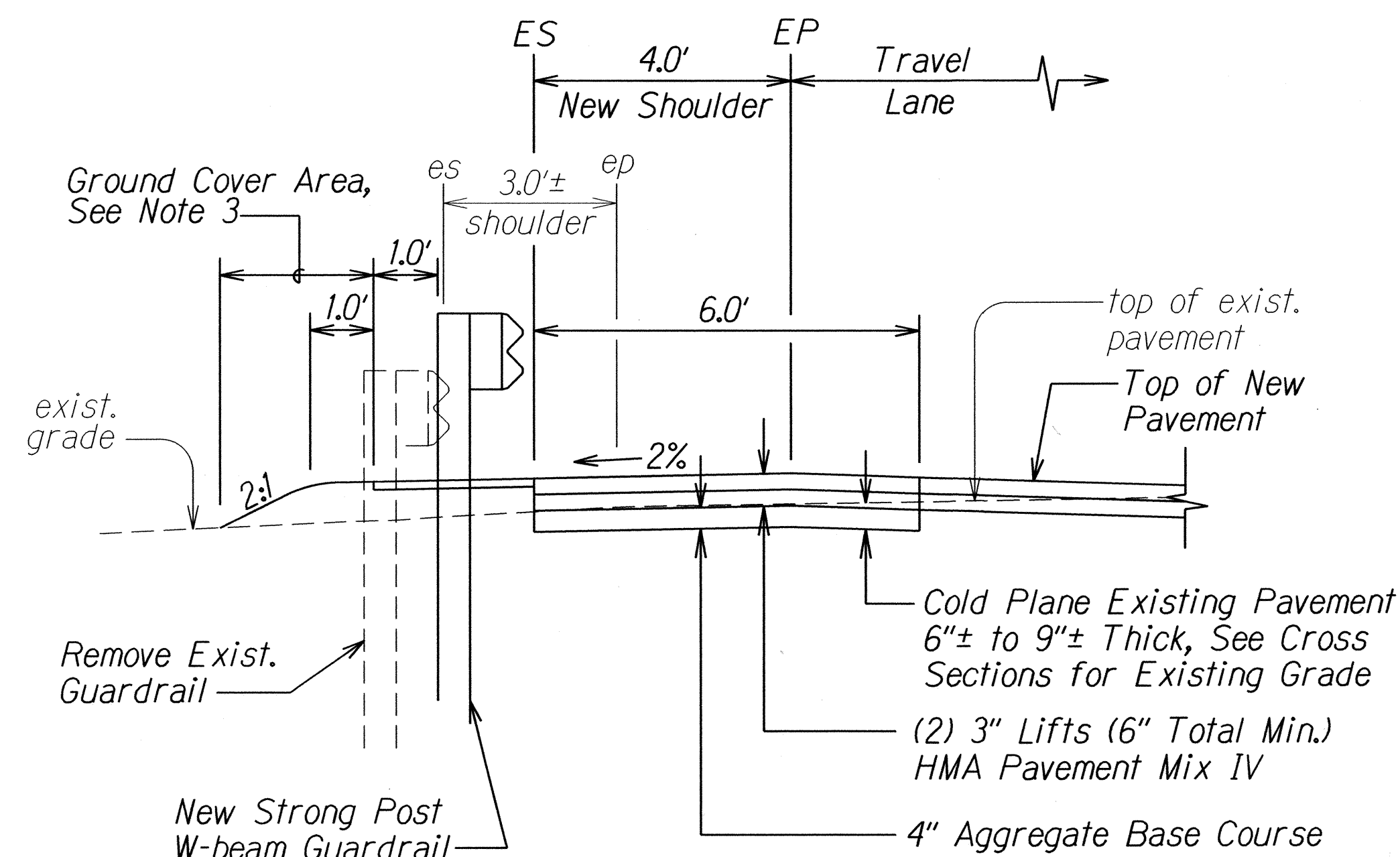
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.17	110



**DETAIL "A"**  
Scale: Not to Scale

**PARTIAL SECTION AT ROAD STABILIZATION**  
**# STA. 1292+85± TO # STA. 1294+35±**

Scale: Not to Scale



**PARTIAL SECTION**  
**# STA. 1297+00± TO # STA. 1298+00±**  
Scale: Not to Scale

**Notes:**

1. New 10' Guardrail I-Beam Posts at 3' O.C. shall be installed first.
2. For New Grades, see Cross Section Plans and Pavement Grade Plans.
3. For Ground Cover, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting.
4. Appropriate BMPs shall be installed to catch debris/shotcrete from falling into ocean waters below.
5. For Non-Woven Geotextile, See 2005 Hawaii Standard Specifications Section 716.06 - Geotextiles for Stabilization Applications.
6. Shotcrete Mix shall contain fiber reinforcing and a minimum 28-day strength of 3,000 psi. Fiber reinforcing shall be a minimum of 2% synthetic (non-metal) fibers by volume of shotcrete (or 2% by weight) with a minimum fiber length of 2 inches with each fiber having a varying diameter to allow for performance as macro synthetic fibers.
7. 3 Fine Gravel shall be in accordance with ASTM C33 No. 67 Gradation. 3 Fine Gravel shall be considered incidental to New Guardrail.

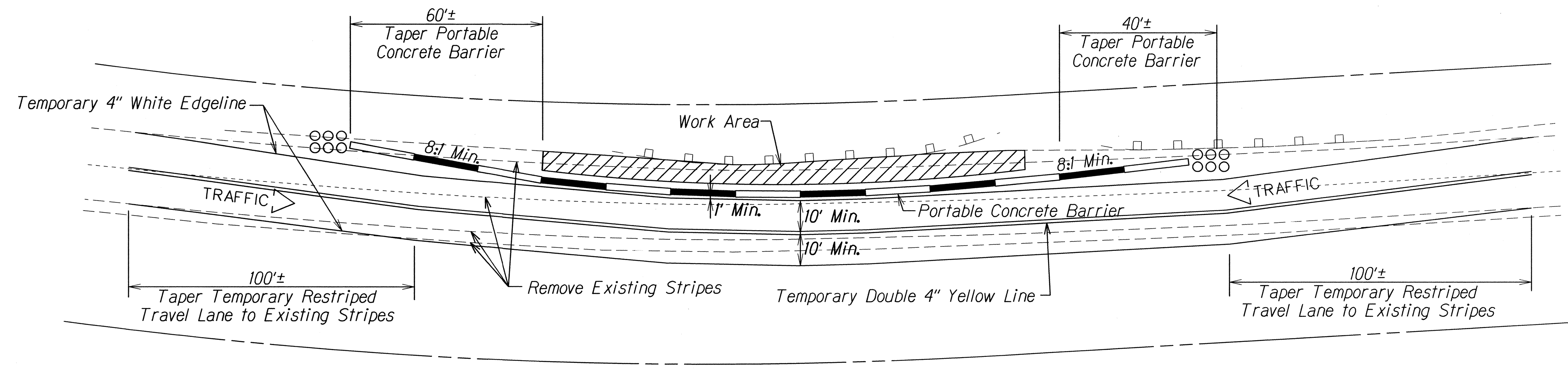
6/2/16	Added Portable Concrete Barrier to Detail "A". Clarified the Limits of Excavation. Revised sonotube note. Revised reference sheet no. in Note 3. Added Note 7.
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DATE	REVISION
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TYPICAL SECTIONS</b> <b>FARRINGTON HIGHWAY RESURFACING</b> Vicinity of Kili Drive to Satellite Tracking Station Road Federal Aid Project No. STP-093-1(026) Scale: Not to Scale Date: April, 2016
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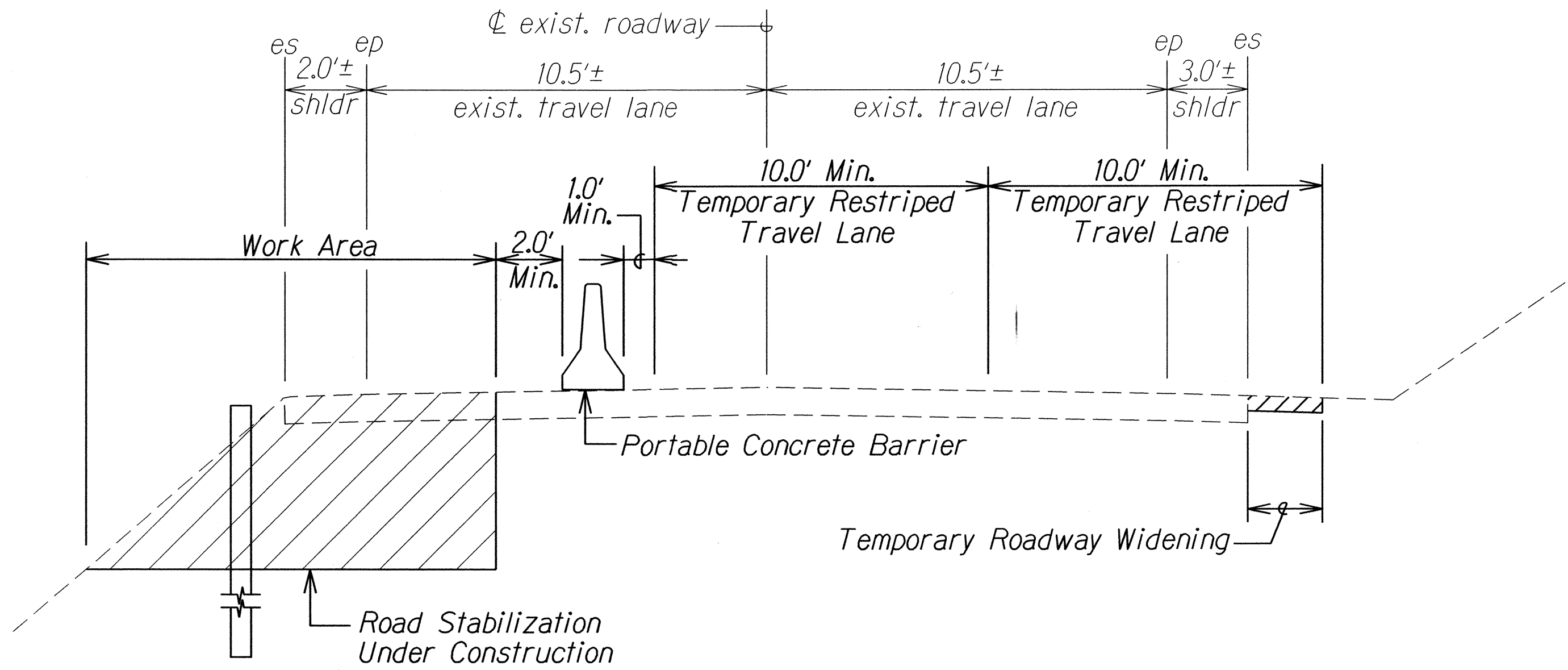
SHEET No. 8 OF 12 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.17S-1	110



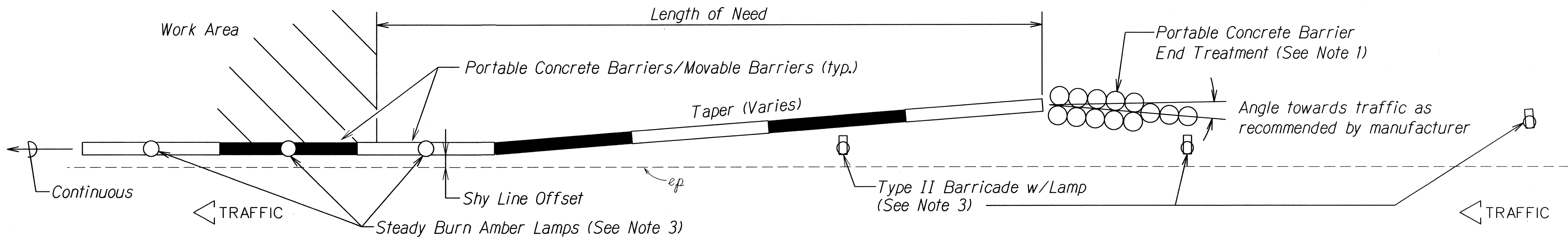
**PORTABLE CONCRETE BARRIER PLAN FOR ROAD STABILIZATION WORK**  
 ± STA. 1292+85± TO ± STA. 1294+35±

Scale: Not to Scale



**PORTABLE CONCRETE BARRIER POSITION DETAIL FOR ROAD STABILIZATION WORK**  
 ± STA. 1292+85± TO ± STA. 1294+35±

Scale: Not to Scale




**TYPICAL DETAIL - PORTABLE CONCRETE/MOVABLE BARRIER INSTALLATION**

Scale: N.T.S.

**Notes:**

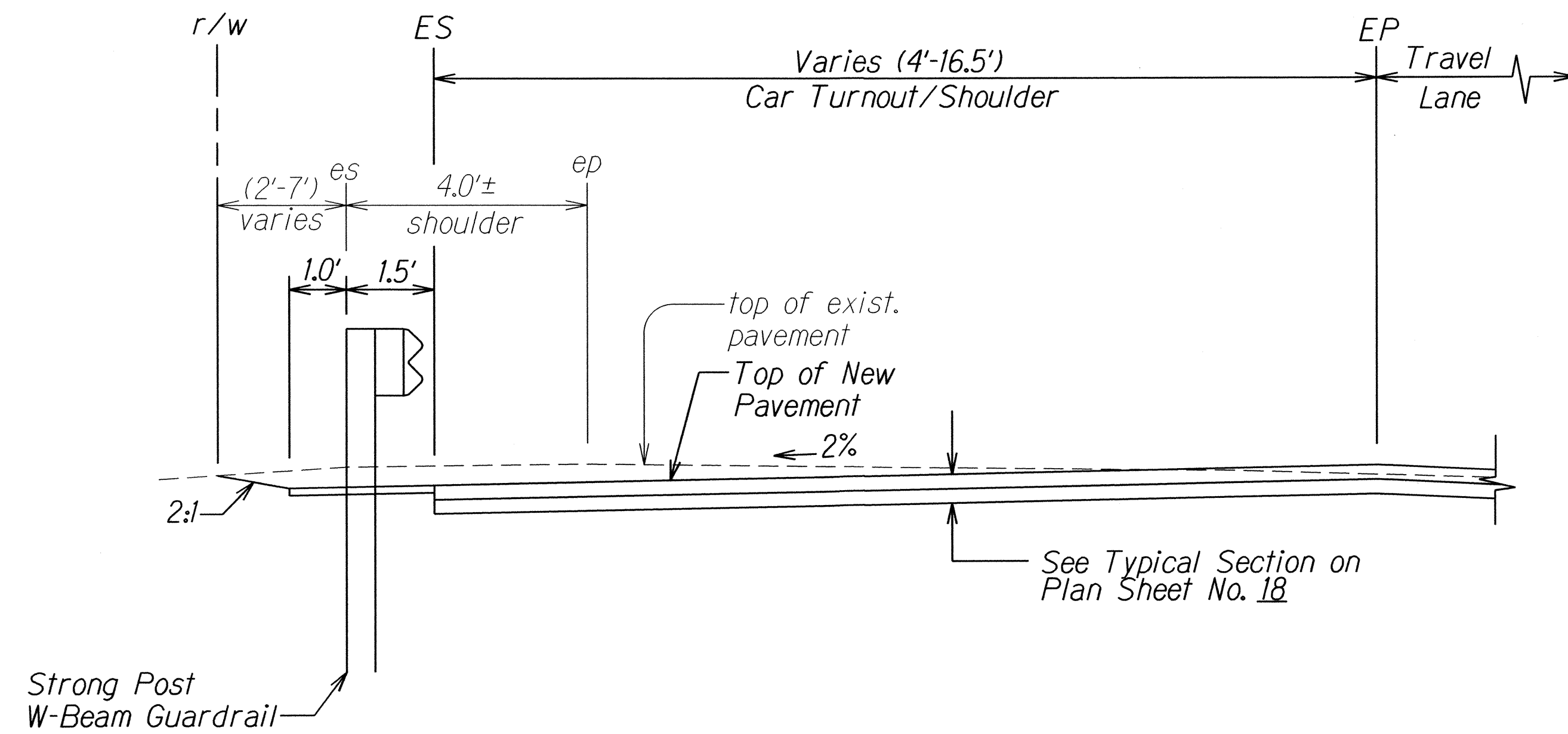
1. Portable Concrete Barrier End Treatments (Inertial Barrier Systems) shall comply with the manufacturer's recommendations/requirements and shall be considered incidental to Contract Item No. 606.8000 - State Furnished Portable Concrete Barrier.
2. Place Type II Barricade w/Lamp at spacings and positions that comply with part 6 of the MUTCD, Typical Application 5, and install steady burn amber lamps on Portable Concrete Barriers @ 20.0' o.c. Installing, maintaining and removing each steady burn amber lamp including changing of batteries and bulbs shall be considered incidental to Contract Item No. 606.8000 - State Furnished Portable Concrete Barrier.
3. Travel Lanes shall be temporarily restriped and adjusted to 10 feet to accommodate Portable Concrete Barrier Installation and use. Following the completion of road stabilization work, Travel Lanes shall be striped according to the traffic plans. This work shall be considered incidental to various contract items and shall not be paid for separately.
4. The Contractor shall develop a Traffic Control Plan to include all necessary Traffic Control Devices. This work shall be considered incidental to Contract Item No. 645.0100 - Traffic Control and shall not be paid for separately.

	6/2/16	Added new sheet.
DATE	REVISION	
<p>STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION</p> <p><u>TEMPORARY PORTABLE CONCRETE BARRIER PLAN</u> <u>FARRINGTON HIGHWAY RESURFACING</u> <u>Vicinity of Kili Drive to</u> <u>Satellite Tracking Station Road</u> <u>Federal Aid Project No. STP-093-1(026)</u></p> <p>Scale: Not to Scale      Date: April, 2016</p>		
SHEET No. 8 OF 12 SHEETS		

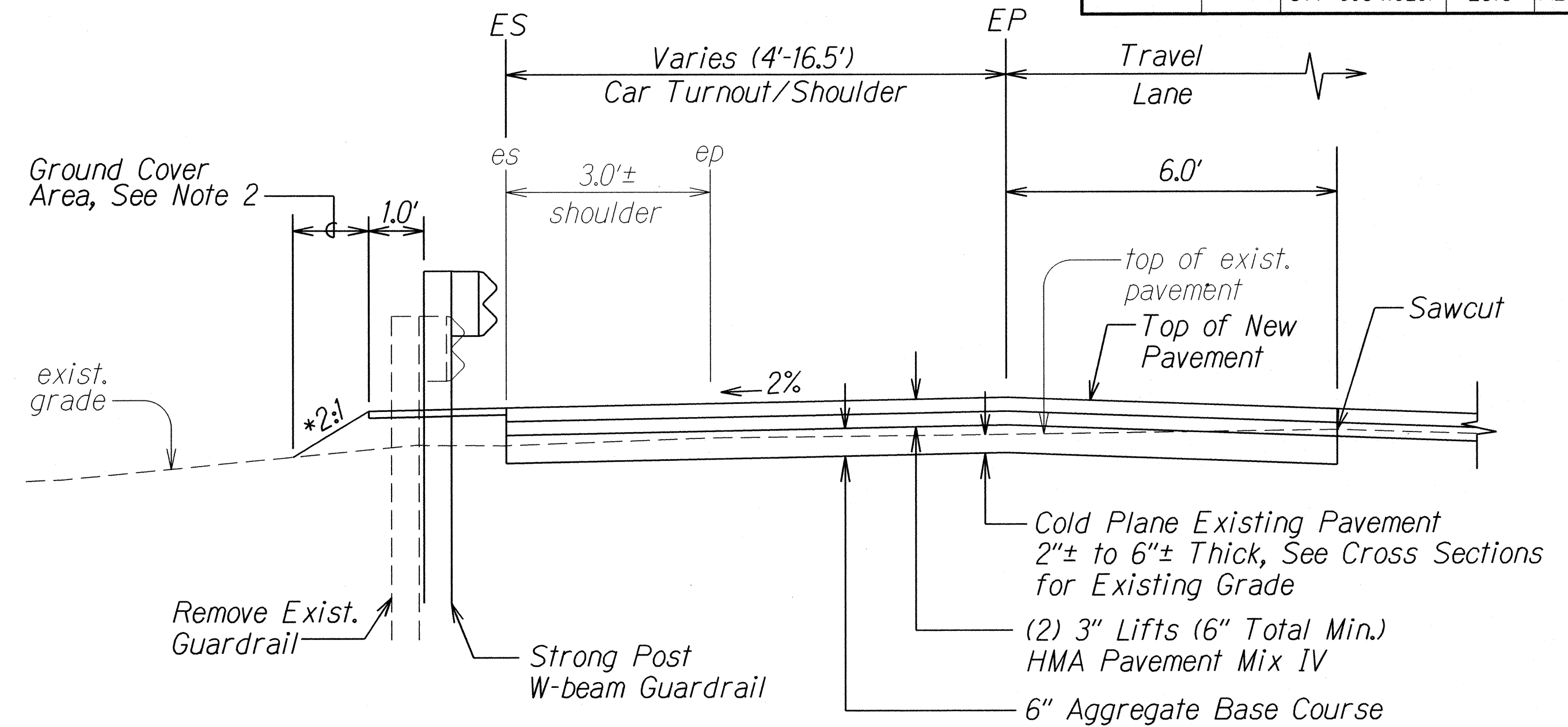




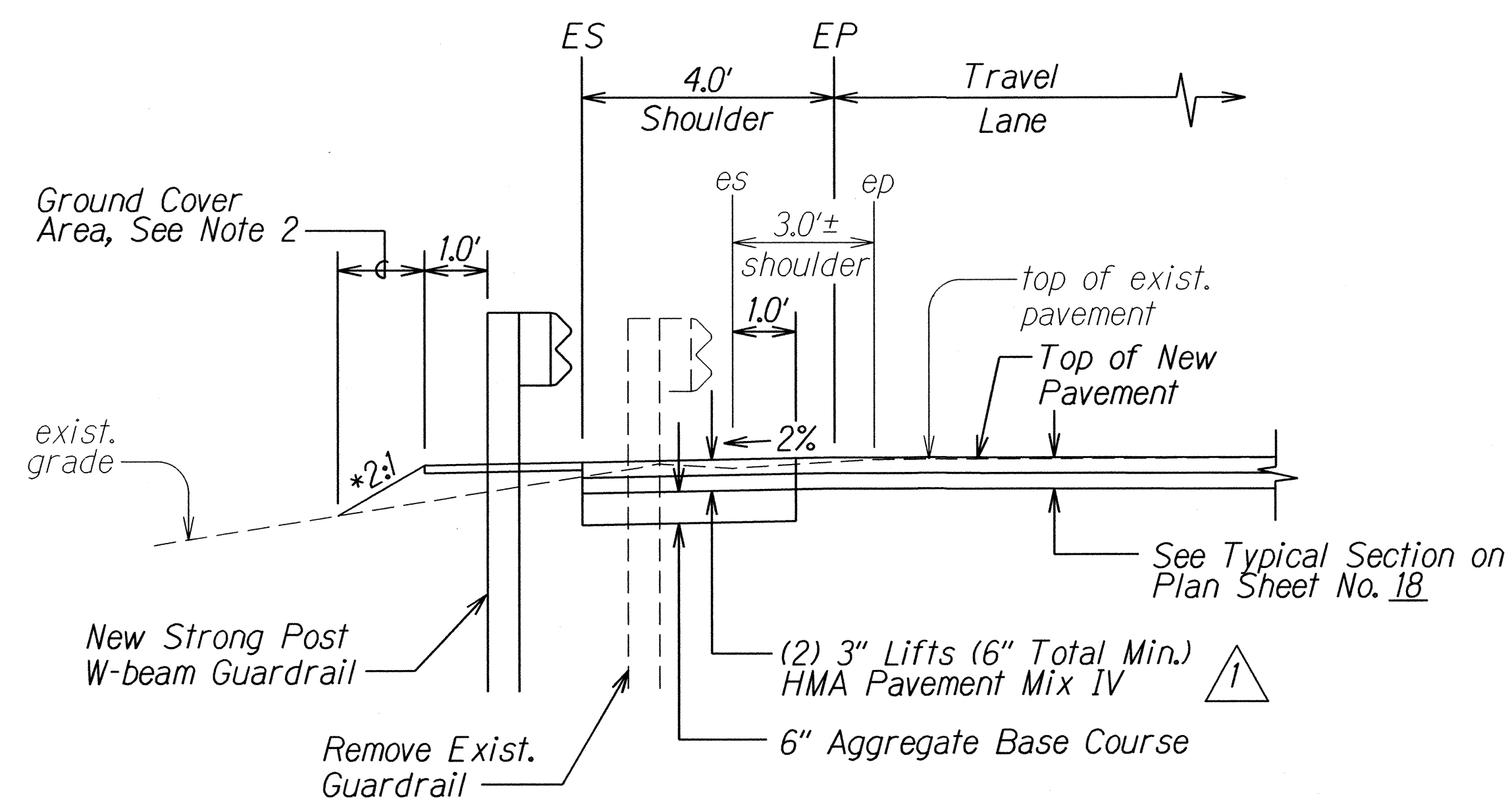
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.19	110



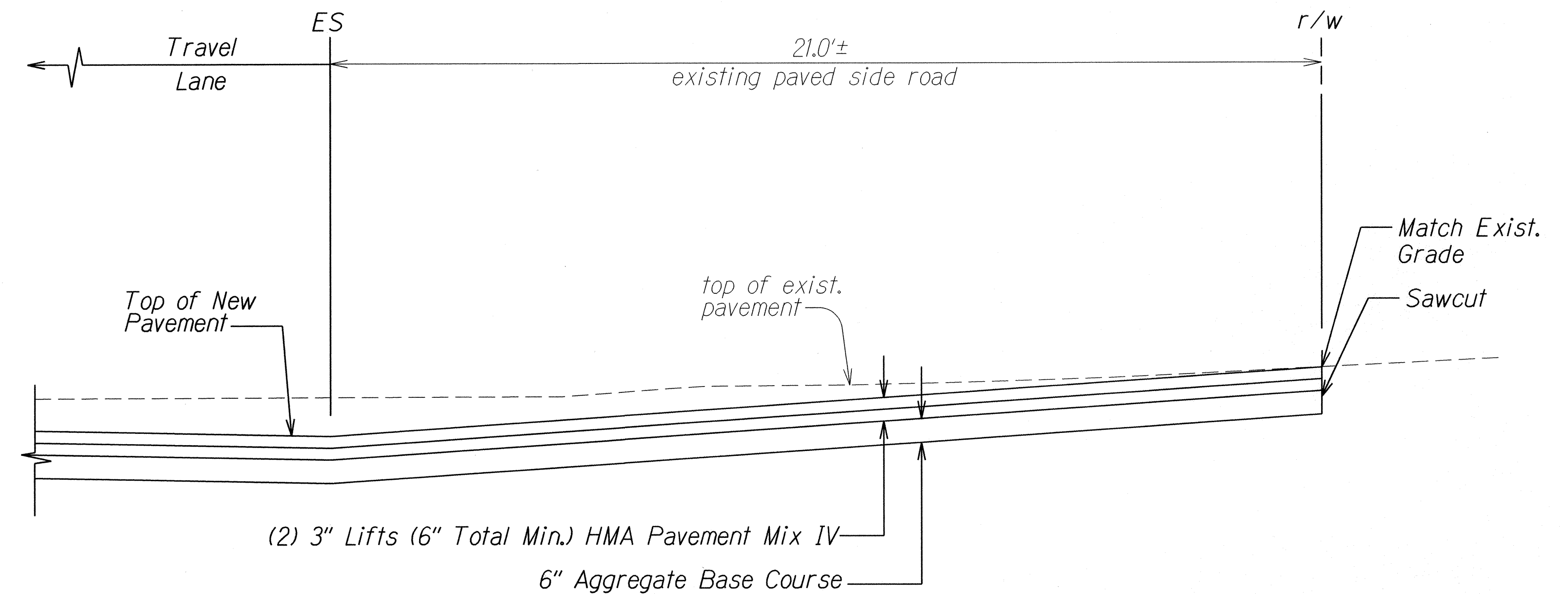
**PARTIAL SECTION**  
 # STA. 1299+00± TO # STA. 1300+50±  
 Scale: Not to Scale



**PARTIAL SECTION**  
 # STA. 1300+50± TO # STA. 1302+00±  
 Scale: Not to Scale



**PARTIAL SECTION**  
 # STA. 1302+00± TO # STA. 1303+00±  
 Scale: Not to Scale



**PARTIAL SECTION AT SIDE ROAD**  
 # STA. 1303+39± TO # STA. 1303+85±  
 Scale: Not to Scale

**Notes:**

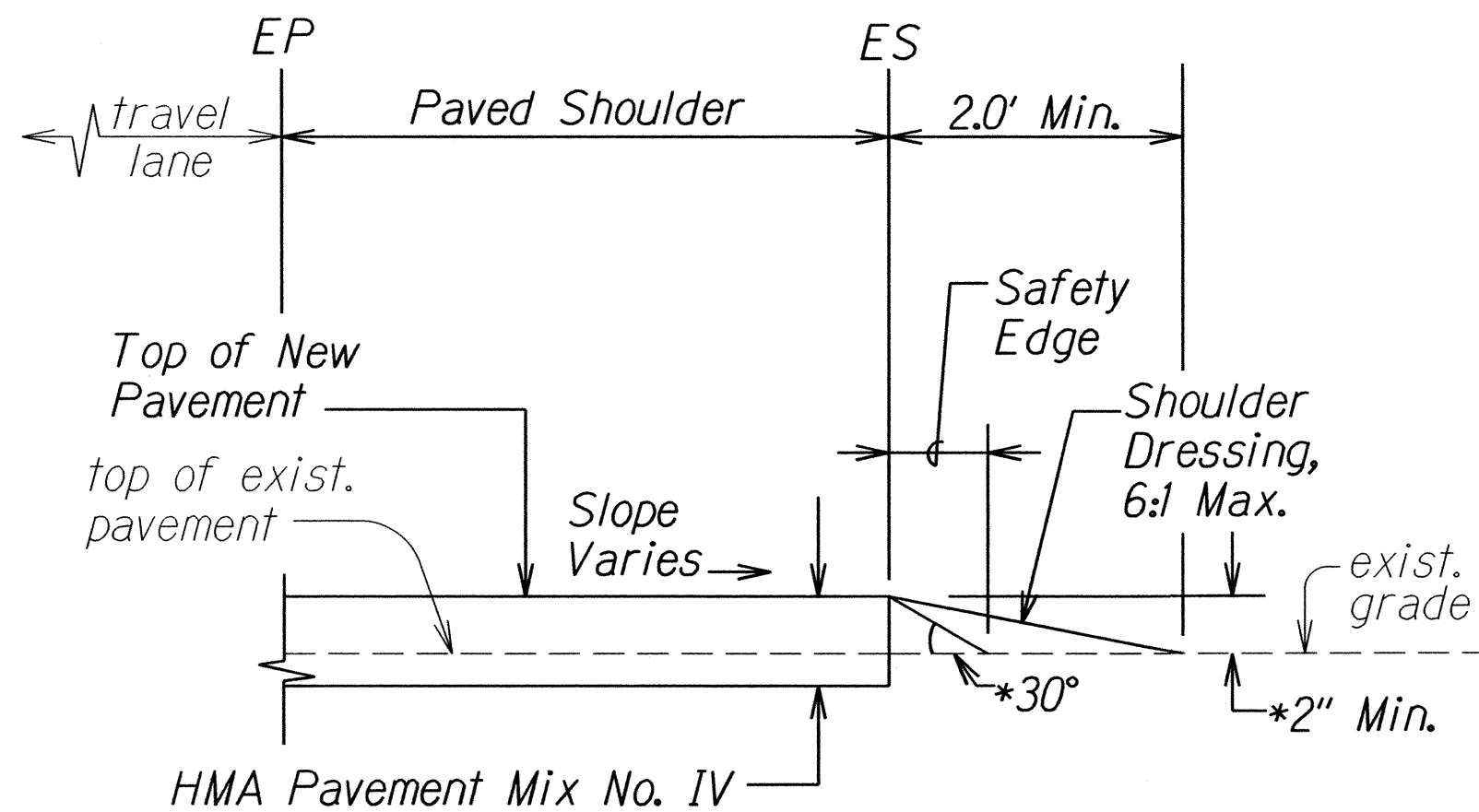
- For New Grades, see Cross Section Plans and Pavement Grade Plans.
- For Ground Cover, see Plan Sheet No. 6 and Special Provision Section 619 - Planting.
- At # Sta. 1301+65± and # Sta. 1302+70±, the 2:1 slope shall be adjusted to as much as 1:1 to prevent filling over the existing edge of cliff.

	6/2/16	Clarified the Limits of Excavation. Revised reference sheet no. in Note 2.
DATE	REVISION	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>TYPICAL SECTIONS</b>	
FARRINGTON HIGHWAY RESURFACING	
Vicinity of Kili Drive to	
Satellite Tracking Station Road	
Federal Aid Project No. STP-093-1(026)	
Scale: Not to Scale	Date: April, 2016
SHEET No. 10 OF 12 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.20	110



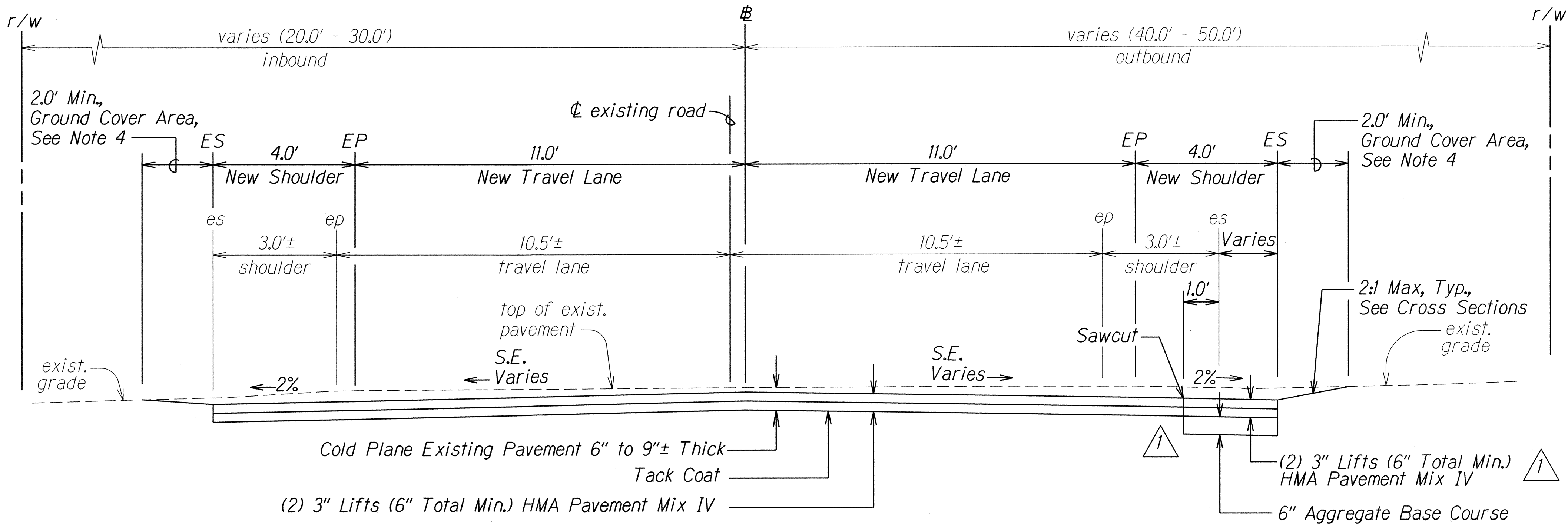
**\*Notes:**

1. Contractor shall mount a device directly on the paver screed extension to provide a 30° beveled shoulder "safety edge."
2. For shoulder edge grade differences of less than 2", Safety Edge is not required, but shoulder shall be dressed according to detail.
3. Provide Safety Edge at the locations indicated in the Table on this sheet. Refer to Typical Sections. For Safety Edge limits from New Road Alignment to the end of project, refer to Cross Sections.

**TYPICAL PAVEMENT EDGE DETAIL**

Scale: Not to Scale

SAFETY EDGE LIMITS UP TO NEW ROAD ALIGNMENT @ STA. 1289+50.00		
INBOUND LIMITS	OUTBOUND LIMITS	
@ Sta. 1037+05.70± Lt. to @ Sta. 1061+28.60± Lt.	@ Sta. 1041+50.00± Rt. to @ Sta. 1062+50.00± Rt.	@ Sta. 1216+83.20± Rt. to @ Sta. 1220+60.00± Rt.
@ Sta. 1062+90.10± Lt. to @ Sta. 1096+85.80± Lt.	@ Sta. 1064+50.00± Rt. to @ Sta. 1096+26.60± Rt.	@ Sta. 1228+75.00± Rt. to @ Sta. 1239+41.80± Rt.
@ Sta. 1099+10.80± Lt. to @ Sta. 1103+47.50± Lt.	@ Sta. 1098+38.70± Rt. to @ Sta. 1101+97.50± Rt.	@ Sta. 1249+00.00± Rt. to @ Sta. 1252+97.70± Rt.
@ Sta. 1107+62.50± Lt. to @ Sta. 1109+00.00± Lt.	@ Sta. 1107+74.90± Rt. to @ Sta. 1115+00.00± Rt.	@ Sta. 1268+85.10± Rt. to @ Sta. 1272+30.80± Rt.
@ Sta. 1110+00.00± Lt. to @ Sta. 1134+81.70± Lt.	@ Sta. 1118+00.00± Rt. to @ Sta. 1134+94.10± Rt.	@ Sta. 1273+33.60± Rt. to @ Sta. 1289+50.00± Rt.
@ Sta. 1141+37.40± Lt. to @ Sta. 1143+53.10± Lt.	@ Sta. 1139+99.00± Rt. to @ Sta. 1143+40.50± Rt.	
@ Sta. 1149+06.50± Lt. to @ Sta. 1160+06.10± Lt.	@ Sta. 1148+31.50± Rt. to @ Sta. 1156+37.40± Rt.	
@ Sta. 1176+82.60± Lt. to @ Sta. 1207+00.00± Lt.	@ Sta. 1175+57.20± Rt. to @ Sta. 1188+71.30± Rt.	
@ Sta. 1210+00.00± Lt. to @ Sta. 1214+83.00± Lt.	@ Sta. 1191+00.00± Rt. to @ Sta. 1195+00.00± Rt.	
@ Sta. 1255+33.30± Lt. to @ Sta. 1261+04.70± Lt.	@ Sta. 1207+50.00± Rt. to @ Sta. 1214+08.30± Rt.	



**Notes:**

1. For compaction requirements, see General Notes #24 and #25.
2. For detailed section of the roadway, see Cross Section Plans and Pavement Grade Plans.
3. For Superelevation and New Pavement Grades, see Pavement Grade Plan and Profile sheets.
4. For Ground Cover, see Plan Sheet No. 6 and Special Provisions Section 619 - Planting.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL SECTIONS**  
FARRINGTON HIGHWAY RESURFACING  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale: Not to Scale Date: April, 2016

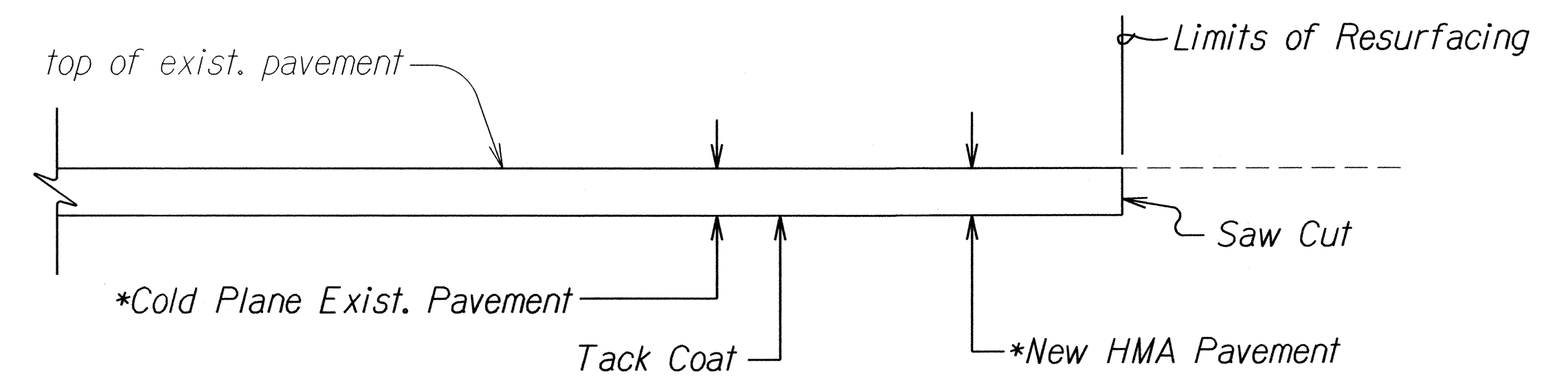
SHEET No. 11 OF 12 SHEETS

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

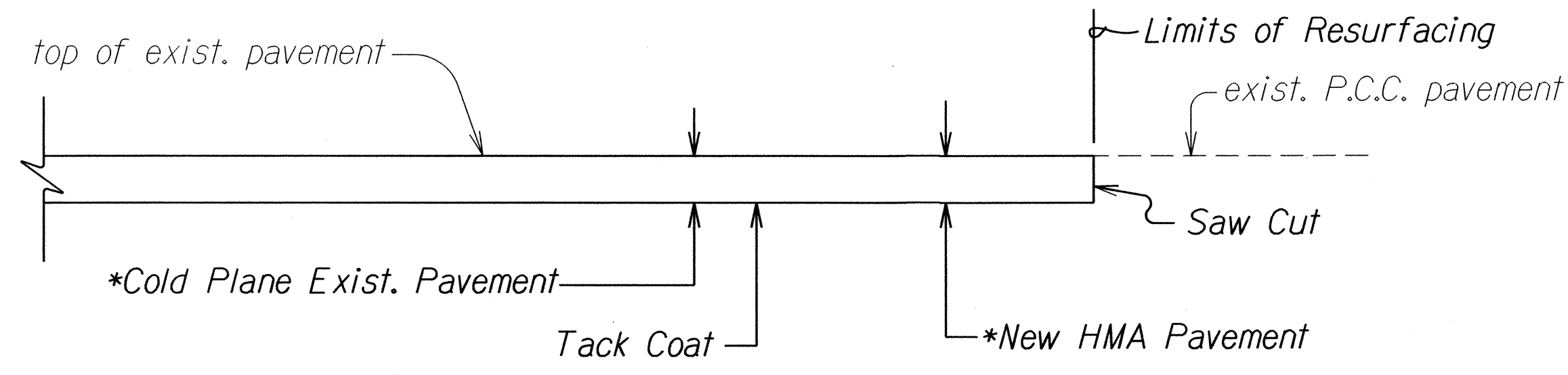
**TYPICAL SECTION**  
@ STA. 1304+10 TO @ STA. 1304+70.14  
Scale: Not to Scale

6/2/16	Clarified the Limits of Excavation. Revised reference sheet no. in Note 4.
DATE	REVISION

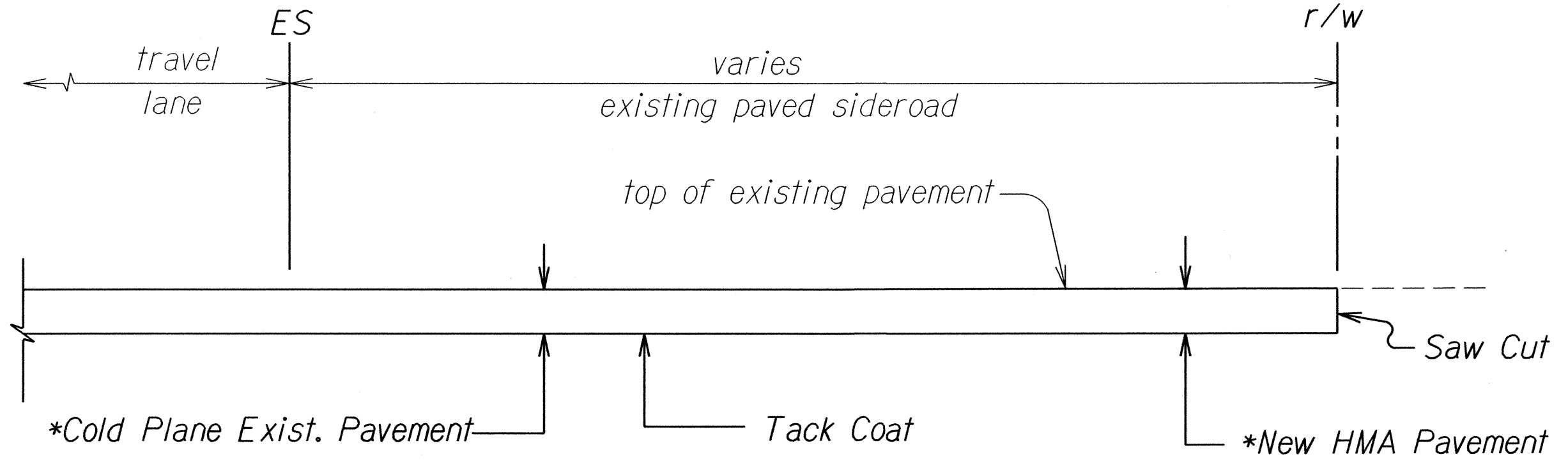
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.21	110



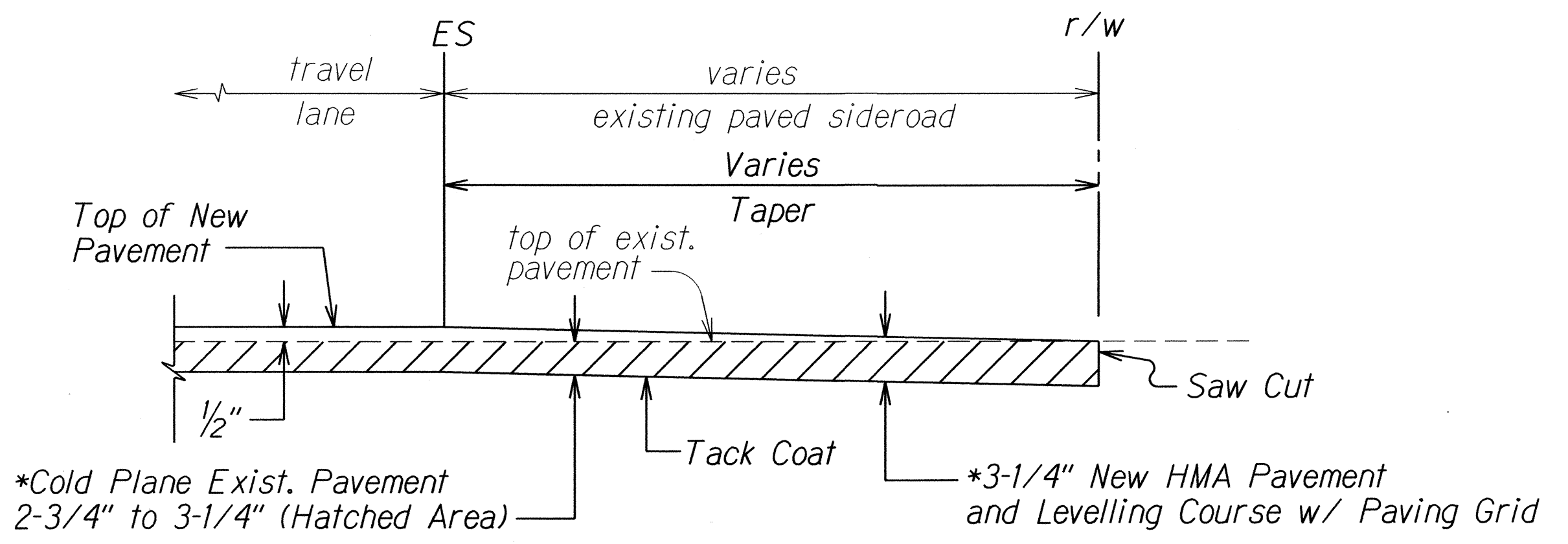
**LONGITUDINAL TRANSITION TO EXISTING A.C. PAVEMENT  
BEGIN/END PROJECT**  
Scale: Not to Scale



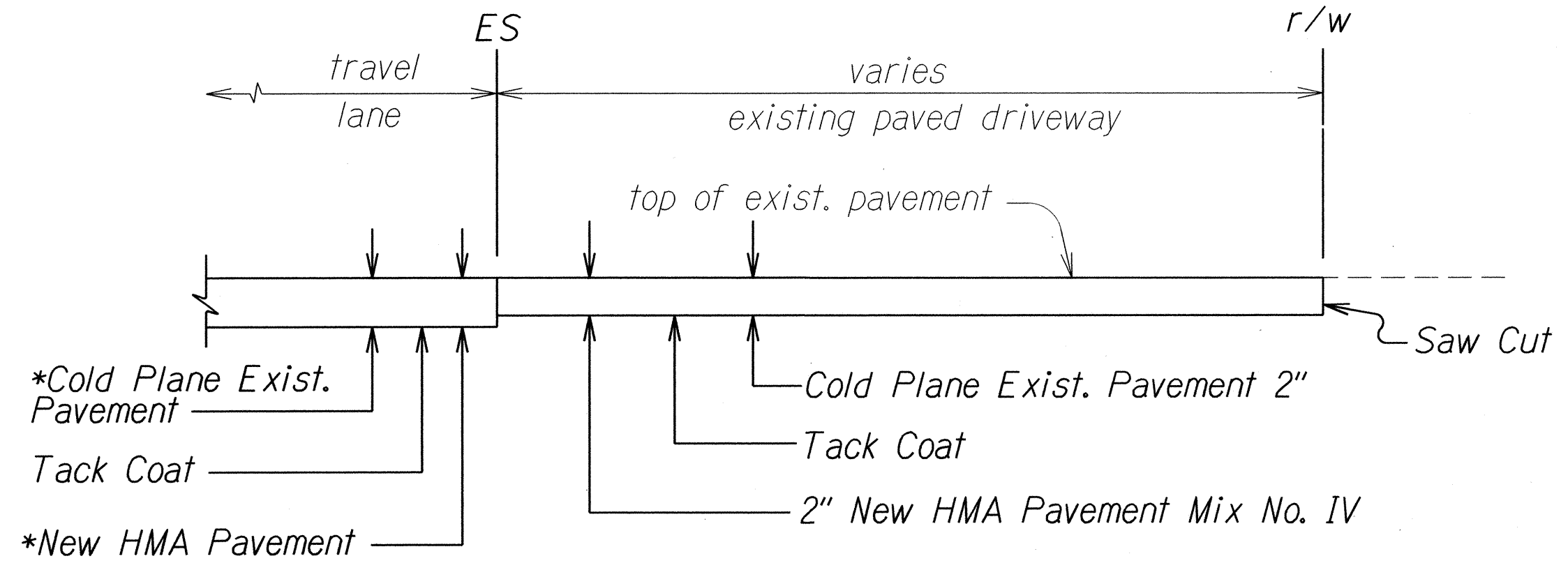
**LONGITUDINAL TRANSITION TO EXISTING A.C. PAVEMENT  
AT EXISTING P.C.C. PAVEMENT AT BRIDGE**  
Scale: Not to Scale



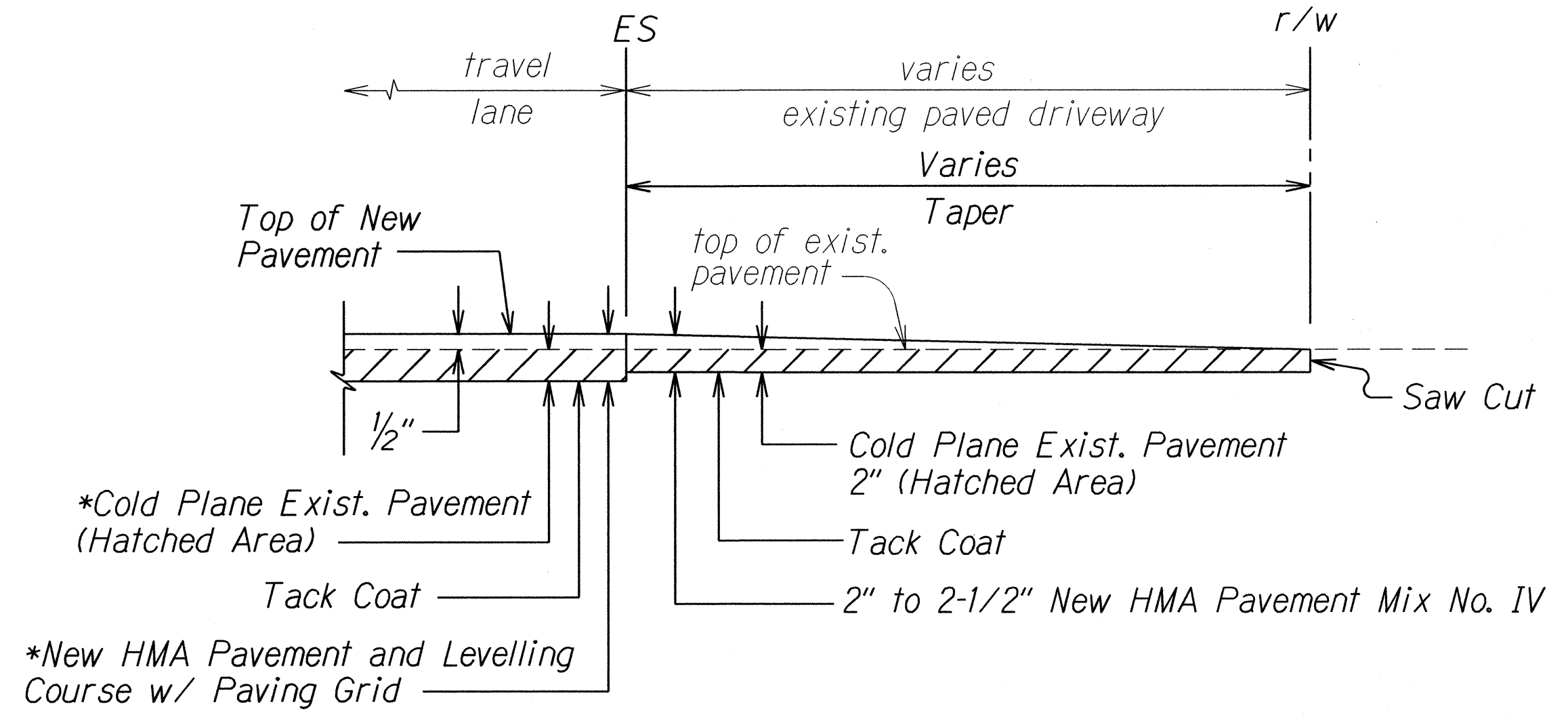
**TYPICAL A.C. RESURFACING AT PAVED SIDEROAD DETAIL**  
Scale: Not to Scale



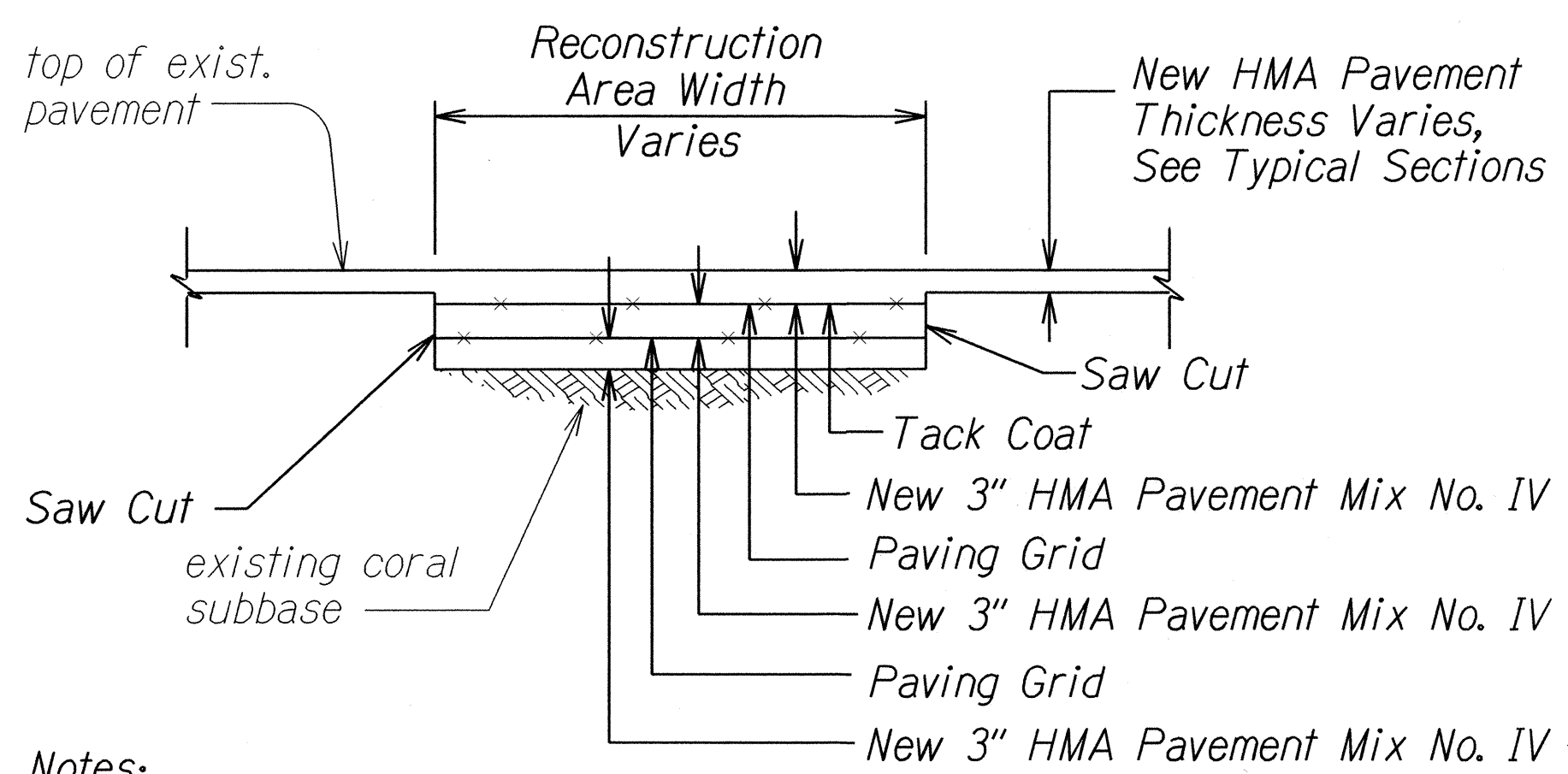
**A.C. RESURFACING AT PAVED SIDEROAD DETAIL  
# STA. 1030+67± TO # STA. 1051+70±**  
Scale: Not to Scale



**TYPICAL A.C. RESURFACING AT PAVED DRIVEWAY DETAIL**  
Scale: Not to Scale



**A.C. RESURFACING AT PAVED DRIVEWAY DETAIL  
# STA. 1030+67± TO # STA. 1051+70±**  
Scale: Not to Scale



- Notes:**
- For reconstruction area locations and dimensions, see Roadway Plans.
  - Prior to placement of New HMA Pavement, the top of existing coral subbase shall be recompacted with at least 5 passes of the roller compactor.

**A.C. PAVEMENT RECONSTRUCTION DETAIL**  
Scale: Not to Scale

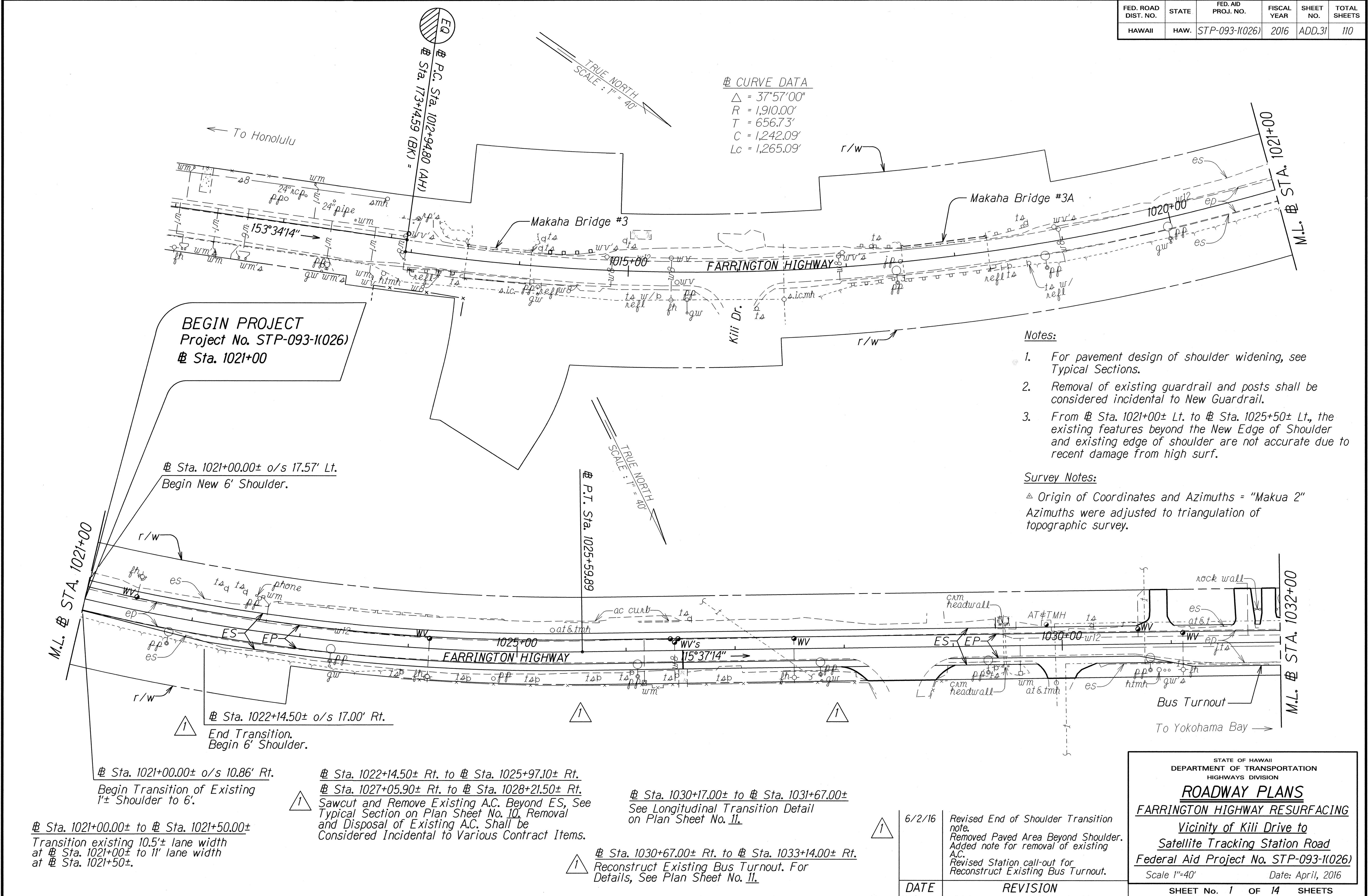
**\*Note:**  
Cold Planing and New HMA Pavement thicknesses vary. See Typical Sections for full details.

6/2/16 Split Typical A.C. Resurfacing at Paved Driveway/Sideroad Detail into two separate details.  
Revised A.C. Resurfacing at Paved Driveway and Paved Sideroad Details # Sta. 1030+67± to # Sta. 1051+70±.

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TYPICAL DETAILS</b> <b>FARRINGTON HIGHWAY RESURFACING</b> Vicinity of Kili Drive to Satellite Tracking Station Road Federal Aid Project No. STP-093-1(026) Scale: Not to Scale Date: April, 2016	
SHEET No. 12 OF 12 SHEETS	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.31	110



△ CURVE DATA  
Δ = 37°57'00"  
R = 1,910.00'  
T = 656.73'  
C = 1,242.09'  
Lc = 1,265.09'

- Notes:
1. For pavement design of shoulder widening, see Typical Sections.
  2. Removal of existing guardrail and posts shall be considered incidental to New Guardrail.
  3. From Sta. 1021+00± Lt. to Sta. 1025+50± Lt., the existing features beyond the New Edge of Shoulder and existing edge of shoulder are not accurate due to recent damage from high surf.

Survey Notes:  
△ Origin of Coordinates and Azimuths = "Makua 2"  
Azimuths were adjusted to triangulation of topographic survey.

△ Sta. 1021+00.00± to Sta. 1021+50.00±  
Transition existing 10.5± lane width  
at Sta. 1021+00± to 11' lane width  
at Sta. 1021+50±.

△ Sta. 1022+14.50± o/s 17.00' Rt.  
End Transition.  
Begin 6' Shoulder.

△ Sta. 1022+14.50± Rt. to Sta. 1025+97.10± Rt.  
△ Sta. 1027+05.90± Rt. to Sta. 1028+21.50± Rt.  
Sawcut and Remove Existing A.C. Beyond ES, See  
Typical Section on Plan Sheet No. 10. Removal  
and Disposal of Existing A.C. Shall be  
Considered Incidental to Various Contract Items.

△ Sta. 1030+67.00± Rt. to Sta. 1033+14.00± Rt.  
Reconstruct Existing Bus Turnout. For  
Details, See Plan Sheet No. 11.

△ Sta. 1030+17.00± to Sta. 1031+67.00±  
See Longitudinal Transition Detail  
on Plan Sheet No. 11.

6/2/16	Revised End of Shoulder Transition note. Removed Paved Area Beyond Shoulder. Added note for removal of existing A.C. Revised Station call-out for Reconstruct Existing Bus Turnout.
DATE	REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

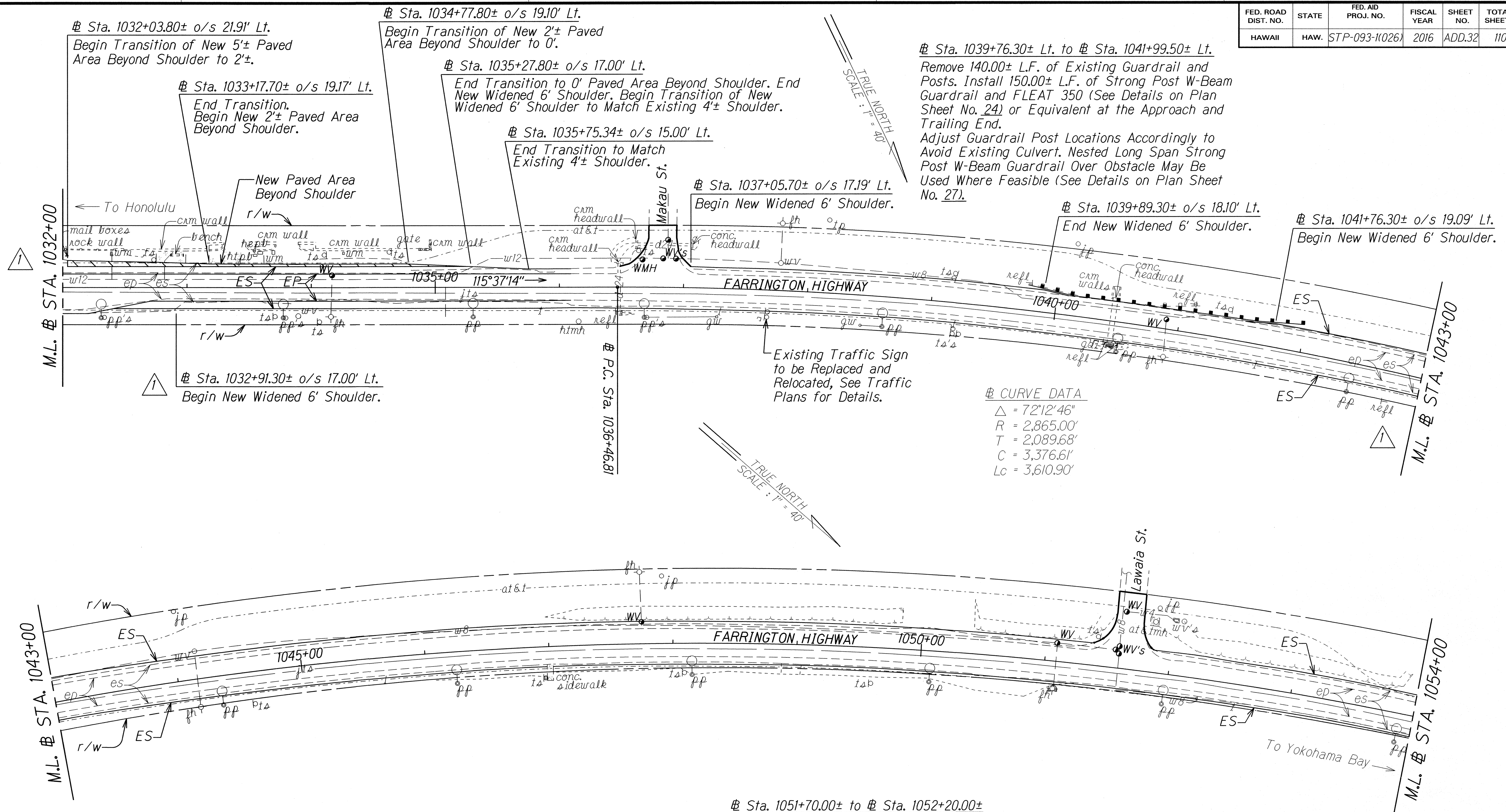
Vicinity of Kili Drive to  
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale 1"=40' Date: April, 2016

SHEET No. 1 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.32	110



Note:

1. Azimuths were adjusted to triangulation of topographic survey.
2. Based on requirements resulting from NHPA Section 106 Consultations, the limits of staging area shall be from Sta. 1043+00 to Sta. 1045+00 and kept within the State Right-of-way. See Roadway Plans, Sheet No. 40 for other staging area location.
3. For pavement design of shoulder widening, see Typical Sections.
4. Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.

Sta. 1051+70.00± to Sta. 1052+20.00±  
For Longitudinal Transition Detail, See Plan Sheet No. 12.



6/2/16	Changed hatch for New Paved Area Beyond Shoulder. Added note to begin widened shoulder. Revised es arrow to point to correct line.
DATE	REVISION

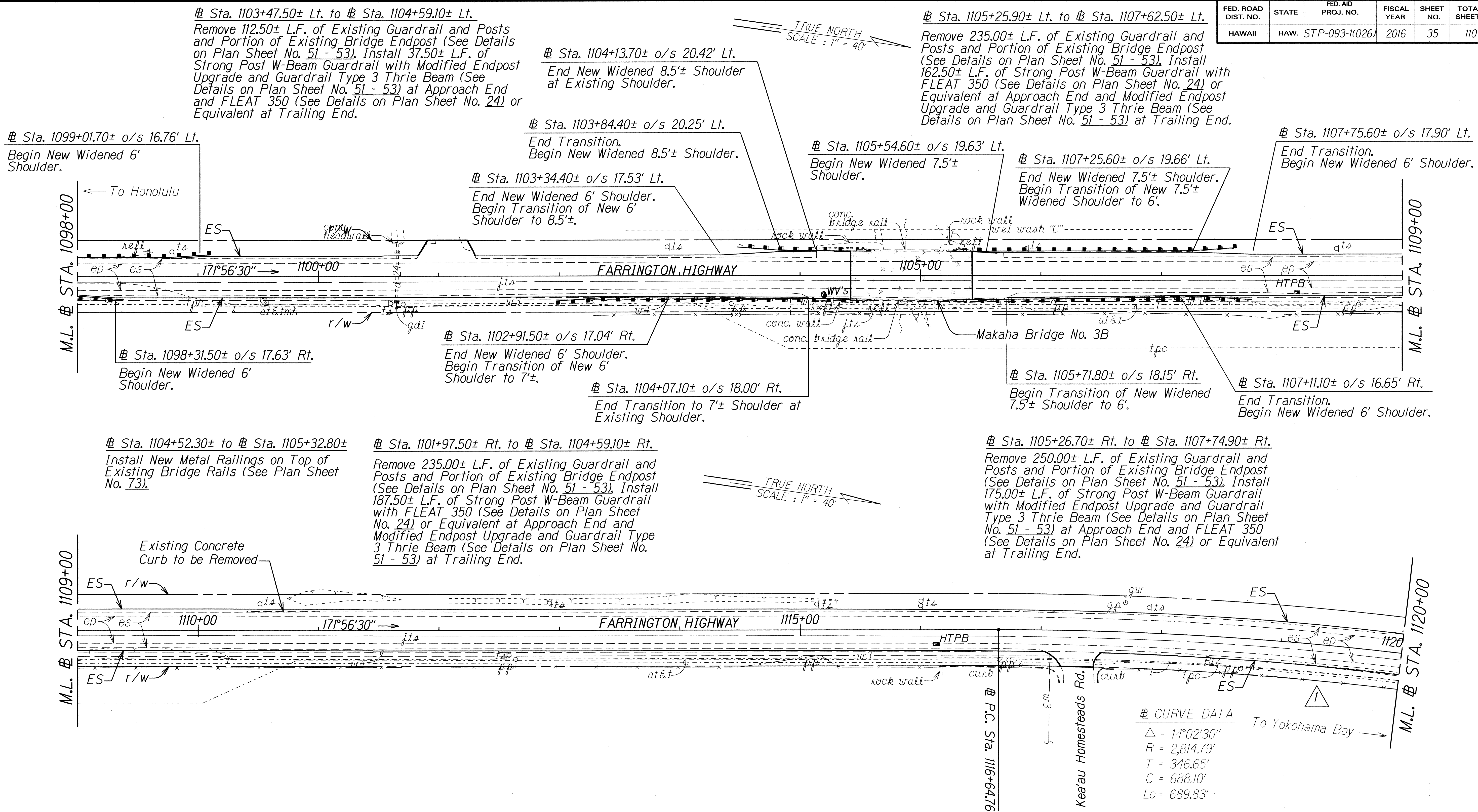
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale 1"=40' Date: April, 2016

SHEET No. 2 OF 14 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	35	110



**Notes:**

- For pavement design of shoulder widening, see Typical Sections.
- Removal and disposal of existing concrete curb shall be considered incidental to various contract items.
- Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.



6/2/16 Revised es arrow to point to correct line.

DATE REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

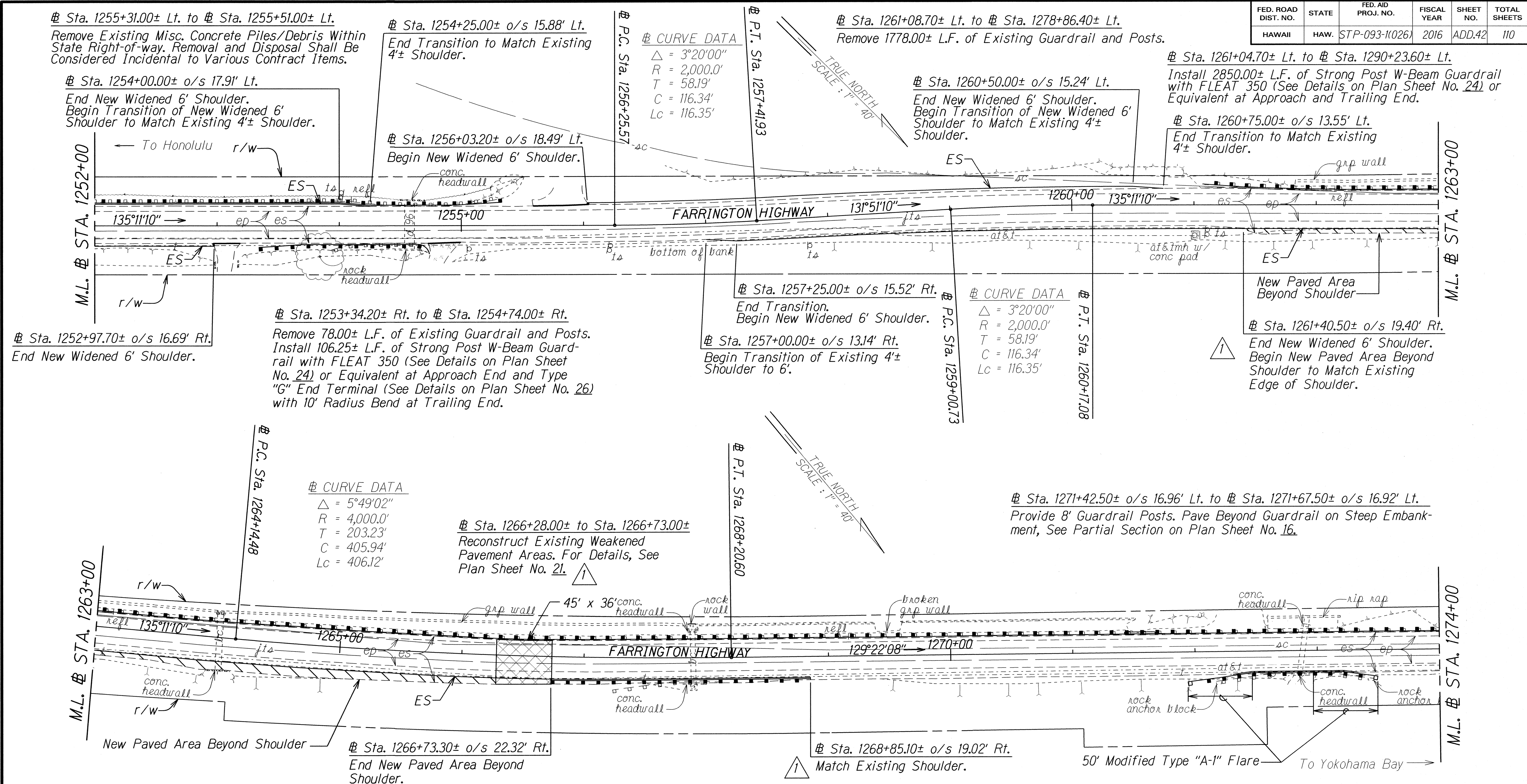
**ROADWAY PLANS**  
FARRINGTON HIGHWAY RESURFACING  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)

Scale 1"=40' Date: April, 2016

SHEET No. 5 OF 14 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD.42	110



Note:

- Sta. 234+91.67 (BK) = Sta. 234+92.10 (AH) [1994, FAP No. STP-093-1(12)] is not reflected in this project. A continuous stationing is used instead for the entire project limits.
- For pavement design of shoulder widening, see Typical Sections.
- Removal and disposal of existing guardrail, posts, anchor blocks shall be considered incidental to New Guardrail.

Sta. 1266+73.30± Rt. to Sta. 1268+85.10± Rt.  
Remove 88.00± L.F. of Existing Guardrail, Posts, and Anchor Block. Install 112.50± L.F. of Strong Post W-Beam Guardrail with SKT-350 (See Details on Plan Sheet No. 25) at Approach and Trailing End. Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27). Sawcut and Remove Existing A.C. Beyond ES, See Detail on Plan Sheet No. 15. Removal and Disposal of Existing A.C. Shall be Considered Incidental to Various Contract Items.

Sta. 1271+94.20± Rt. to Sta. 1273+49.40± Rt.  
Remove 130.00± L.F. of Existing Guardrail, Posts, and Anchor Block. Install 50.00± L.F. of Strong Post W-Beam Guardrail with Modified Type "A-1" Flare (See Details on Plan Sheet No. 28 - 30) at Approach and Trailing End. Adjust Guardrail Post Locations Accordingly to Avoid Existing Culvert. Nested Long Span Strong Post W-Beam Guardrail Over Obstacle May Be Used Where Feasible (See Details on Plan Sheet No. 27).

DATE	6/2/16	REVISION	Revised location for end of new widened 6' shoulder. Revised reference sheet no. for reconstruct existing weakened pavement details.
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale 1"=40' Date: April, 2016

SHEET No. 12 OF 14 SHEETS



# Sta. 1276+92.50± Lt. to # Sta. 1277+55.00± Lt.  
Provide 8' Guardrail Posts.

$$\begin{aligned}\Delta &= 2^{\circ}36'11'' \\ R &= 2,600.0' \\ T &= 59.07' \\ C &= 118.11' \\ Lc &= 118.12'\end{aligned}$$

# Sta. 1280+88.00± Lt. to # Sta. 1287+01.60± Lt.  
Remove 616.00± L.F. of Existing Guardrail and Posts.

*Reconstruct Existing Weakened Pavement Areas. For Details, See Plan Sheet No. 21.*

# Sta. 1282+90.00± Lt. to # Sta. 1284+40.00± Lt.  
Provide 8' Guardrail Posts.

# Sta. 1278+00.00± o/s 14.53' Rt.  
Begin Transition of Existing 4'±  
Shoulder to 6'.

# Sta. 1278+25.00± o/s 16.38' Rt.  
End Transition.  
Begin New Widened 6' Shoulder.

$$\begin{aligned}\Delta &= 15^{\circ}59'10'' \\ R &= 1,150.0' \\ T &= 161.48' \\ C &= 319.82' \\ Lc &= 320.86'\end{aligned}$$

# Sta. 1284+75.00± o/s 18.68' Rt. — —  
End New Widened 6' Shoulder.  
Begin Transition of New Widened 6'  
Shoulder to Match Existing 4± Shoulder.

# Sta. 1285+00.00± o/s 16.19' Rt.  
End Transition to Match Existing  
4± Shoulder.

Stn. 1285+33.00± o/s 13.89' Lt. to Stn. 1285+58.00± o/s 13.75' Lt.  
Provide 8' Guardrail Posts. Pave Beyond Guardrail on Steep Embankment, See Partial Section on Plan Sheet No. 16.

# Sta. 1287+37.90± o/s 13.15' Lt. to # Sta. 1289+33.20± o/s 14.86' Lt.  
Construct Paved Car Turnout (See Details on Plan Sheet No. 48). For  
Pavement Design at Car Turnout, See Partial Section on Plan Sheet  
No. 14.

Sta. 1288+75.00± to Sta. 1304+70.14±  
*Realign Existing Road, See Pavement  
 Grade Plan and Profile on Plan Sheet  
 No. 46 - 47. Demolish, Remove, and  
 Dispose of Existing Pavement Beyond  
 New Edge of Shoulder. Demolition,  
 Removal, and Disposal Shall be  
 Considered Incidental to New Pavement.*

Remove 846.00± L.F. of Existing Guardrail, Posts, and Anchor Block. Install 993.75± L.F. of Strong Post W-beam Guardrail and 31.25± L.F. of Guardrail Type 3 Thrie Beam with Transitions (See Plan Sheet No. 77) Over Existing Twin Cell Culvert on Next Sheet. Install FLEAT 350 (See Plan Sheet No. 24) or Equivalent at Approach and Trailing End.

$$\begin{aligned}\Delta &= 14^{\circ}37'47'' \\ R &= 1,800.0' \\ T &= 231.06' \\ C &= 458.36' \\ L_C &= 459.61' \\ S.E. &= 0.00 \text{ ft/ft}\end{aligned}$$

# Sta. 1294+00.00± Lt. to  
# Sta. 1294+50.00± Lt.  
Transition 3' Shoulder  
to 4' Shoulder.

£ Sta. 1292+50.00± Lt. to £ Sta. 1293+00.00± Lt.  
Transition 4' Shoulder to 3' Shoulder.

# Sta. 1288+75.00±  
Begin Transition to New  
Road Alignment.

# Sta. 1289+50.00±  
End Transition. Begin New  
Road Alignment.

~~Sta. 1285+03.00± to Sta. 1285+68.00±~~  
~~Sta. 1292+58.00± to Sta. 1292+88.00±~~  
~~Sta. 1294+63.00± to Sta. 1294+98.00±~~

*Reconstruct Existing Weakened  
Pavement Areas. For Details, See Plan  
Sheet No. 21. ^*

~~Sta. 1292+85.00± Lt. to Sta. 1294+35.00± Lt.~~

*Stabilize Existing Road, See Partial Typical Section at Road Stabilization on Plan Sheet No. 17. Contractor Shall Verify Location of Existing Utilities Prior to Excavation, See General Notes. If Required, Probing of Underground Utilities will be Paid under Pay Item No. 203.0300.*

Revised reference sheet no. for  
reconstruct existing weekend pavement  
details.  
Added more information to stabilize  
existing road note.

DATE	REVISION
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**

**FARRINGTON HIGHWAY RESURFACING**

**Vicinity of Kili Drive to**  
**Satellite Tracking Station Road**

**Federal Aid Project No. STP-093-1(026)**

Scale 1"=40' Date: April, 2016

SHEET No. 13 OF 14 SHEETS

*Note:*

*Removal and disposal of existing guardrail and posts shall be considered incidental to New Guardrail.*

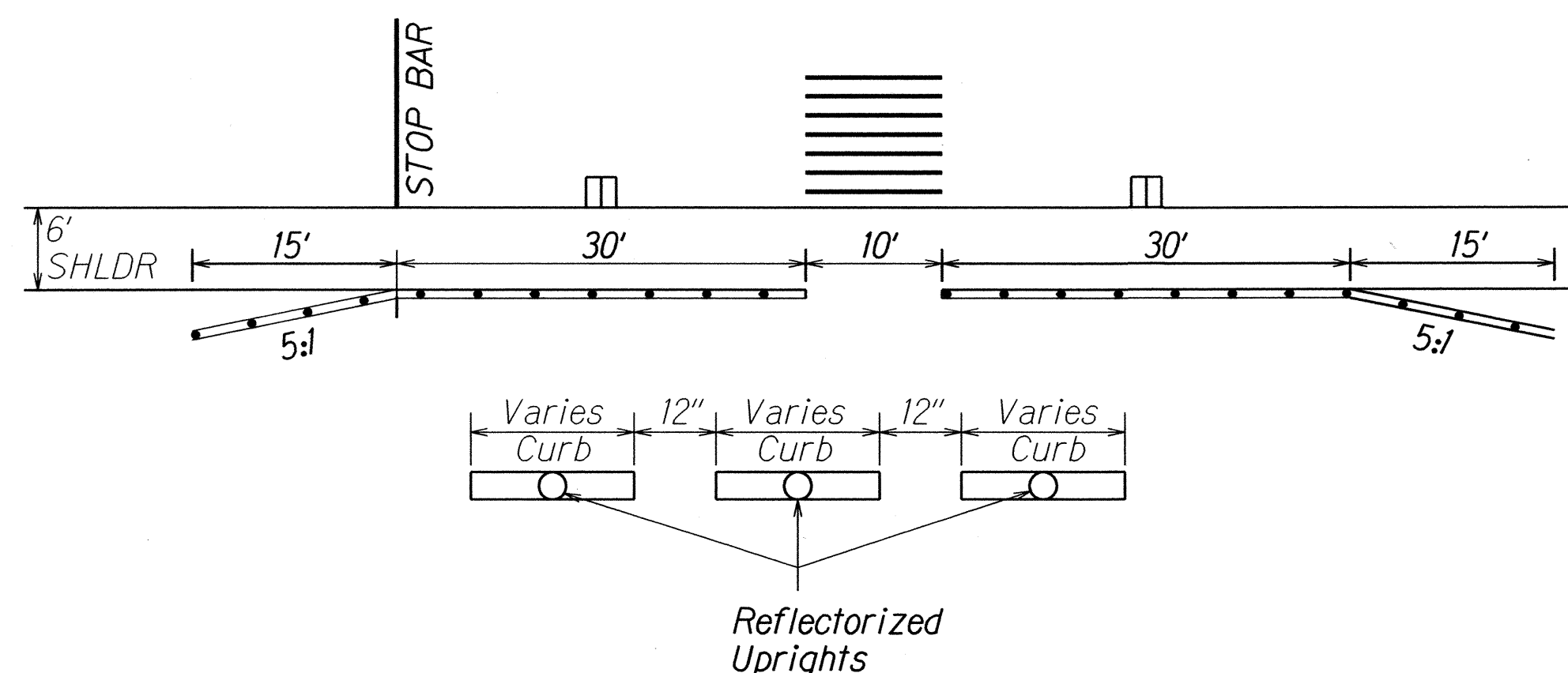
ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY <u>  X  </u> * _____
<u>605.4MkC</u>	TRACED BY _____
<u>411.50M</u>	DESIGNED BY <u>  X  </u> * _____
	QUANTITIES BY _____
	CHECKED BY _____



**NOTE:**



Reflector Markers (RM-5) shall be mounted every 25 feet on all new and existing metal guardrails except on Terminal Sections. For new guardrail installation, furnishing and installing of each RM-5 shall be considered incidental to the adjacent guardrail system. Unless otherwise noted, the Contractor shall be responsible for mounting RM-5s on all existing metal guardrails even when not shown on plans.



Install new Longitudinal Channelizing curb System with Reflectorize Uprights. Curbs and uprights shall be white. Provide a 12" space between each curb unit. Amount of curb units and uprights used is dependent on type of curb system installed.

**LONGITUDINAL CHANNELIZING CURB SYSTEM DETAIL**

Not to Scale

**LEGEND:**

- Reflector Marker (RM-2, White) w/ Flexible Post
- Reflector Marker (RM-5, White)

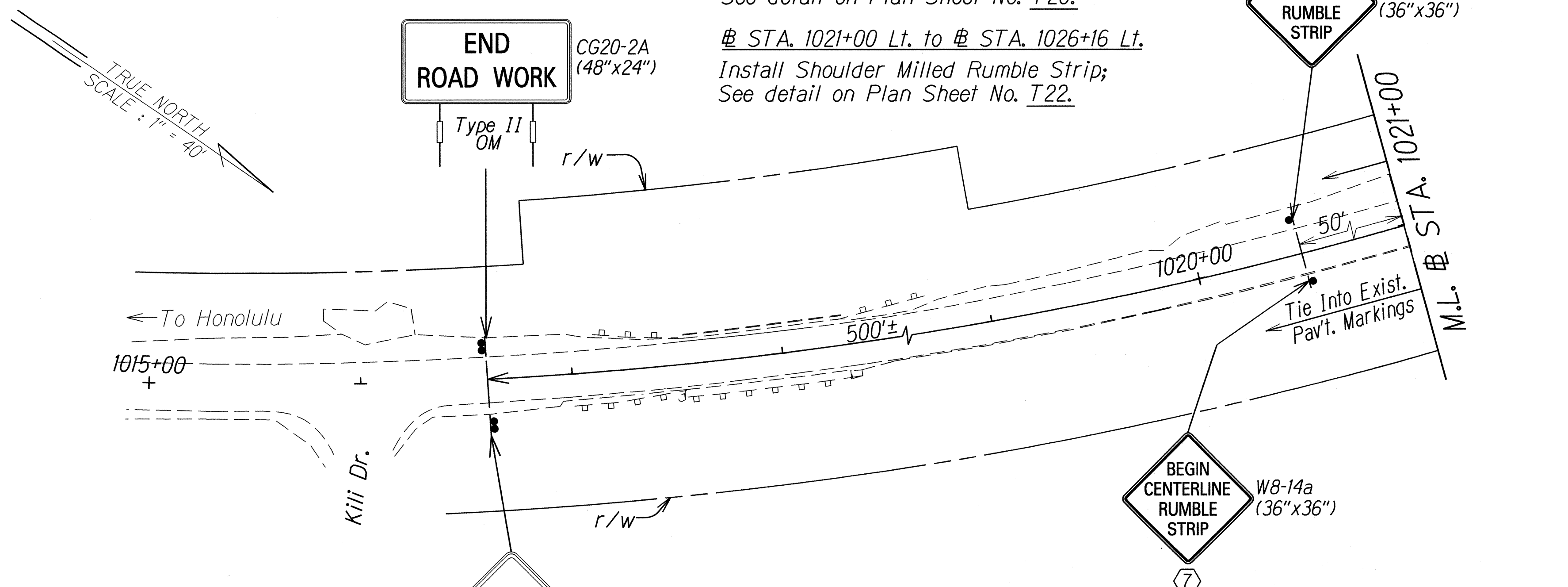
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD. 87	110

# STA. 1021+00 to # STA. 1026+16

Install Centerline Milled Rumble Strip;  
See detail on Plan Sheet No. T20.

# STA. 1021+00 Lt. to # STA. 1026+16 Lt.

Install Shoulder Milled Rumble Strip;  
See detail on Plan Sheet No. T22.



8" White Stripe w/  
Type C RPMs @ 40' o.c.

Install Modular Rubber  
Speed Hump 21'Wx14'L By  
Trafficlogix or Equal

4" White Stripe @  
6' o/s from edgeline  
(# STA. 1021+00 Rt. to  
# STA. 1030+66 Rt.)

New Longitudinal Channelizing  
Curb System (180 L.F. Total)  
See details on this sheet.

Install Speed Hump Advance  
Warning Markings: See Detail  
on Plan Sheet No. T2.

New Shoulder  
Rumble Strip

# STA. 1026+88 to # STA. 1028+00

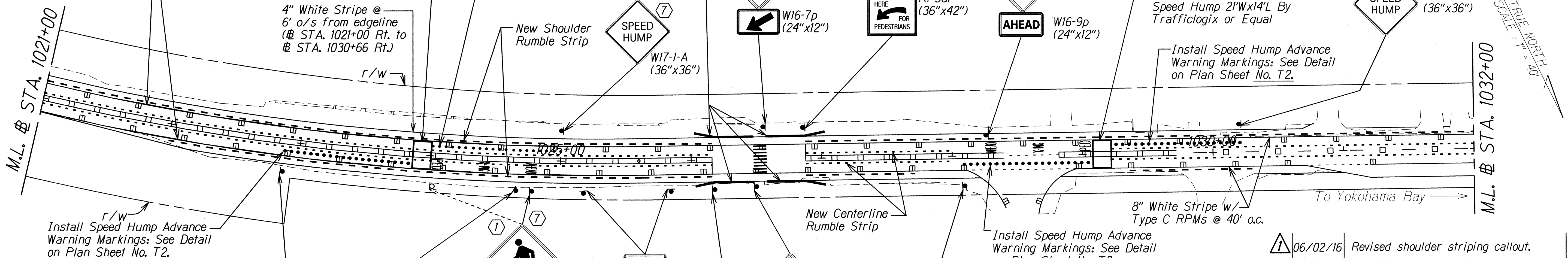
Install Centerline Milled Rumble Strip;  
See detail on Plan Sheet No. T20.

# STA. 1026+88 Lt. to # STA. 1036+10 Lt.

Install Shoulder Milled Rumble Strip;  
See detail on Plan Sheet No. T22.

Install Modular Rubber  
Speed Hump 21'Wx14'L By  
Trafficlogix or Equal

Install Speed Hump Advance  
Warning Markings: See Detail  
on Plan Sheet No. T2.



**KEY:**

- ① Remove Exist. Sign(s) w/ Post(s) & Install New Sign(s) w/ Post(s)
- ② Remove Exist. Sign(s)
- ③ Install New Sign(s)
- ④ Exist. Sign(s) & Post(s) to Remain
- ⑤ Remove Exist. Sign(s) w/ Post(s)
- ⑥ Exist. Sign(s) to Remain
- ⑦ Install New Sign(s) w/ Post(s)
- ⑧ Remove Exist. Sign(s) & Install New Sign(s)

# STA. 1022+00 Rt. to # STA. 1026+16 Rt.

Install Shoulder Milled Rumble Strip;  
See detail on Plan Sheet No. T22.

# STA. 1029+22 to # STA. 1036+33

Install Centerline Milled Rumble Strip;  
See detail on Plan Sheet No. T20.

# STA. 1026+88 Rt. to # STA. 1027+70 Rt.

# STA. 1029+36 Rt. to # STA. 1030+30 Rt.

Install Shoulder Milled Rumble Strip;  
See detail on Plan Sheet No. T22.

06/02/16	Revised shoulder striping callout.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>PAVEMENT MARKING &amp; SIGNING PLAN</b>	
FARRINGTON HIGHWAY RESURFACING	
Vicinity of Kili Drive to	
Satellite Tracking Station Road	
Federal Aid Project No. STP-093-1(026)	
Scale 1"=40'	Date: Apr., 2016
SHEET No. T5 OF 22 SHEETS	

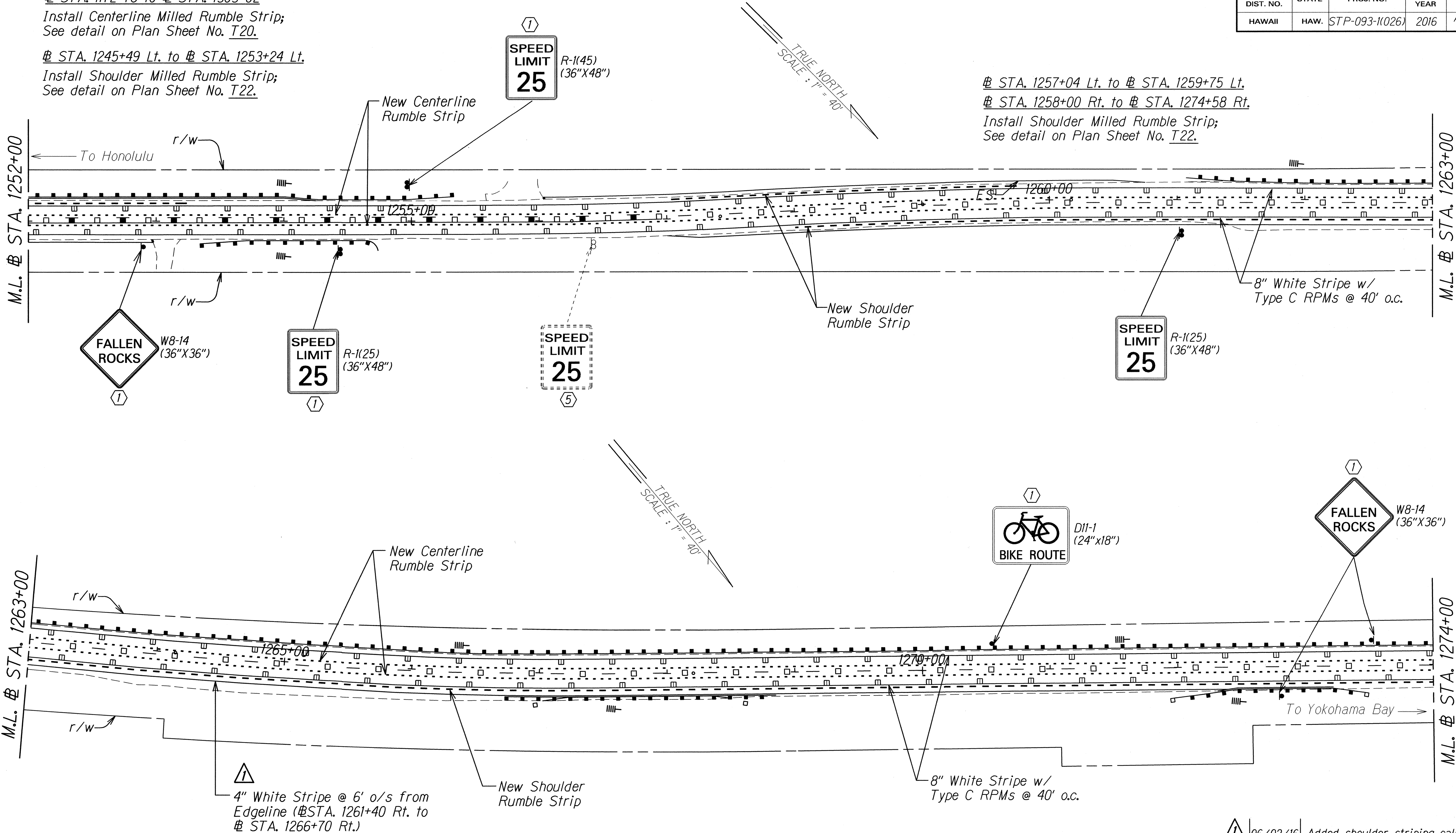


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2016	ADD. 98	110

# STA. 1172+76 to # STA. 1303+02  
Install Centerline Milled Rumble Strip;  
See detail on Plan Sheet No. T20.

# STA. 1245+49 Lt. to # STA. 1253+24 Lt.  
Install Shoulder Milled Rumble Strip;  
See detail on Plan Sheet No. T22.

# STA. 1257+04 Lt. to # STA. 1259+75 Lt.  
# STA. 1258+00 Rt. to # STA. 1274+58 Rt.  
Install Shoulder Milled Rumble Strip;  
See detail on Plan Sheet No. T22.



KEY:

- ① Remove Exist. Sign(s) w/ Post(s) & Install New Sign(s) w/ Post(s)
- ② Remove Exist. Sign(s)
- ③ Install New Sign(s)
- ④ Exist. Sign(s) & Post(s) to Remain
- ⑤ Remove Exist. Sign(s) w/ Post(s)
- ⑥ Exist. Sign(s) to Remain
- ⑦ Install New Sign(s) w/ Post(s)
- ⑧ Remove Exist. Sign(s) & Install New Sign(s)

LEGEND:

- ||— Reflector Marker (RM-2, White) w/ Flexible Post
- ||||— Reflector Marker (RM-5, White)

NOTE:

||||— Reflector Markers (RM-5) shall be mounted every 25 feet on all new and existing metal guardrails except on Terminal Sections. For new guardrail installation, furnishing and installing of each RM-5 shall be considered incidental to the adjacent guardrail system. Unless otherwise noted, the Contractor shall be responsible for mounting RM-5s on all existing metal guardrails even when not shown on plans.

06/02/16 Added shoulder striping callout.

DATE REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

PAVEMENT MARKING & SIGNING PLAN

FARRINGTON HIGHWAY RESURFACING  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)

Scale 1"=40' Date: Apr., 2016

SHEET No. T16 OF 22 SHEETS