


















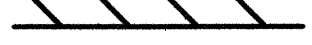














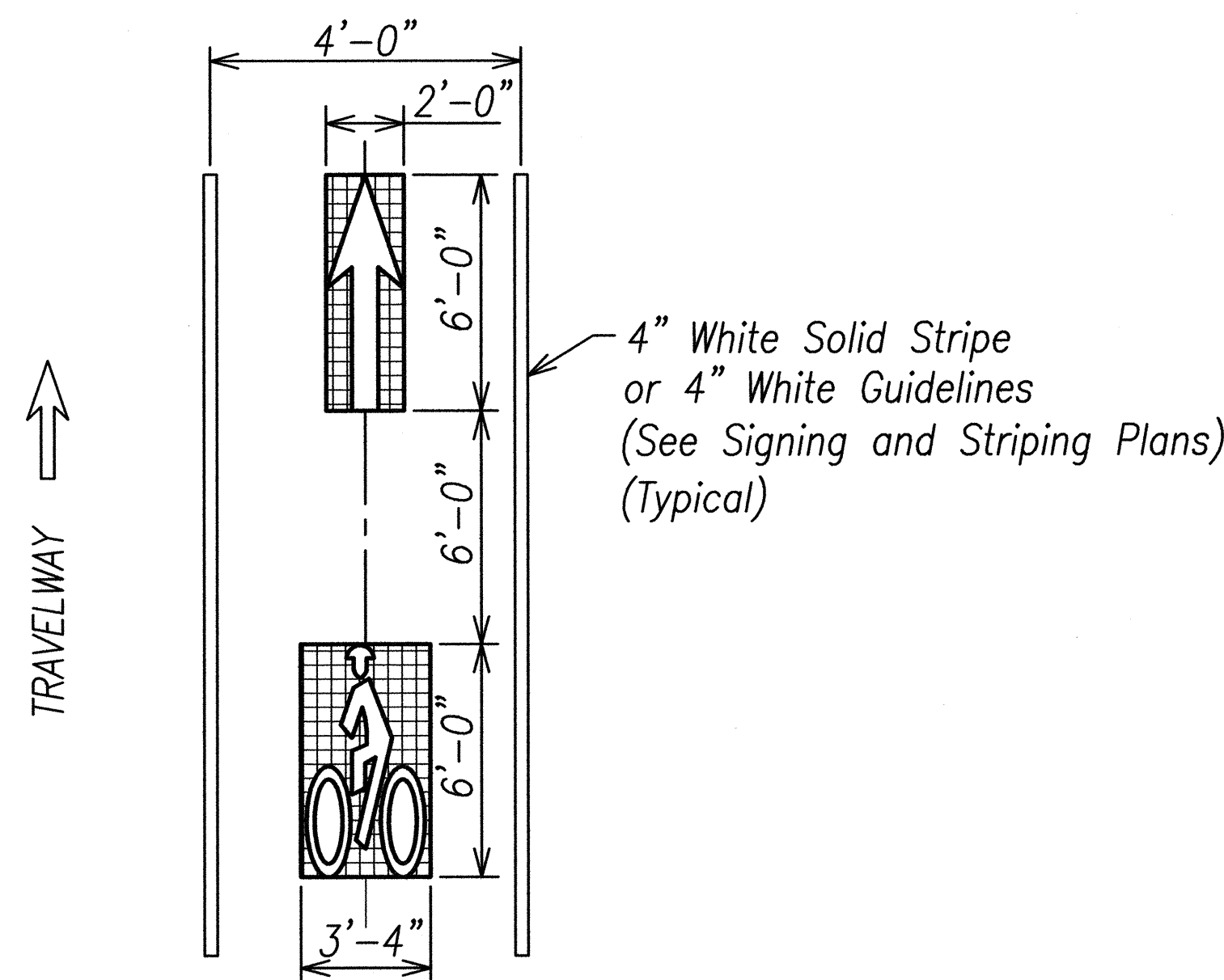
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2005	142	288

LEGEND

- 
4 Each Type A Raised Pavement Markers
- 
Type C Raised Pavement Markers @ 40'-0" o.c.
- 
4 Each Type J Raised Pavement Markers
- 
Type D Raised Pavement Markers @ 40'-0" o.c.
- 
8" Wide White Stripe w/Type C Raised Pavement Markers @ 20'-0" o.c.
- 
(Tape, Type I or Thermoplastic Extrusion)
- 
4" Double Solid Yellow Stripe w/Type D Raised Pavement Markers @ 20'-0" o.c.
- 
(Tape, Type I or Thermoplastic Extrusion)
- 
4" Double Solid Yellow Stripe w/Type H Raised Pavement Markers @ 20'-0" o.c.
- 
(Tape, Type I or Thermoplastic Extrusion)
- 
4" Yellow Edge Stripe w/Type H Raised Pavement Markers @ 40'-0" o.c.
- 
(Tape, Type II or Thermoplastic Extrusion)
- 
4" Double Solid White Stripe w/Type C Raised Pavement Markers @ 20'-0" o.c.
- 
(Tape, Type I or Thermoplastic Extrusion)
- 
4" or 8" White Edge Stripe w/Type C Raised Pavement Markers @ 40'-0" o.c.
- 
(Tape, Type II or Thermoplastic Extrusion)
- 
4" White Guide Lines
- 
(Tape, Type I or Thermoplastic Extrusion)
- 
Transverse Median Marking (Tape, Type II or Thermoplastic Extrusion)
- 
Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
- 
Channelizing Island or Deceleration Lane Gore (Tape, Type II or Thermoplastic Extrusion)
- 
Extension of Edge Line, 4" Wide x 2'-0" Long White Stripe @ 10'-0" o.c. w/Type C Markers @ 40'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- 
Pavement Arrow (Tape, Type I or Thermoplastic extrusion)
- 
Pavement Word (Tape, Type I or Thermoplastic extrusion)

LEGEND (cont.)

- 
Lane Change Restriction Marking
- 
4 Each Type A Raised Pavement Markers
- 
Type C Raised Pavement Markers @ 20'-0" o.c.
- 
4" White Stripe (Tape, Type I or Thermoplastic Extrusion)
- 
4 Each Type J Raised Pavement Markers
- 
Type D Raised Pavement Markers @ 40'-0" o.c.
- 
Type H Raised Pavement Markers (Reflective Surface facing no-passing direction)
- 
4" Single Solid Yellow Stripe (Tape, Type I or Thermoplastic Extrusion)



BICYCLE PAVEMENT MARKING DETAIL

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

NOTES

1. Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
2. Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be considered incidental to the various pavement marking items.
3. Raised pavement markers shall not be installed within crosswalks.
4. Final locations of all signs shall be approved by the Engineer prior to any installation work.
5. 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 or directed by the Engineer shall not be paid for and shall be considered incidental to the various signing items.
6. Final locations of all Stop Lines shall be approved by the Engineer prior to installation.
7. All pavement striping shall be as noted on the legend or plans.
8. 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.
9. Removal of existing delineators and posts as directed by the Engineer shall be considered incidental to the various signing items.
10. 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.
11. Backing for all new Regulatory and Warning Signs shall not be spliced.
12. All sign panels shall conform to Section 621 of Special Provisions and the latest editions and amendments of the following FHWA publications:
 - a. "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
 - b. "Standard Highway Signs"
 - c. "Standard Alphabets for Highway Signs"
13. All new and relocated signs and markers installed on pipe posts or light standard are to be mounted with band brackets and steel braces.
14. 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 for the duration of the highway 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-Traffic Control. The advance construction warning signs shall be new and become the property of the State. The Contractor shall remove, clean, and deliver the signs and posts to the Maui District Baseyard or as directed by the Engineer at the end of the project. This item will be paid for under item no. 645.1000 Traffic Control.
15. The Contractor shall install new Type II Object Marker on all utility poles that are within the State Highway Right-of-Way as directed by the Engineer. Cost shall be incidental to the various items of work.
16. The size of all new signs shall be based on "Expressway" per latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

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

11/15/05 (Engineering) Projects 1994184-205 Hawaiian Hwy Package 2 (Waimanalo) DISTRICT 2 (HAWAII) PROJECT NO. 1994184-205
 11/15/05



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Eric N. S. Hee
 ENGINEERS SURVEYORS HAWAII, INC.
 LICENSE EXPIRATION DATE: 4/30/06

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

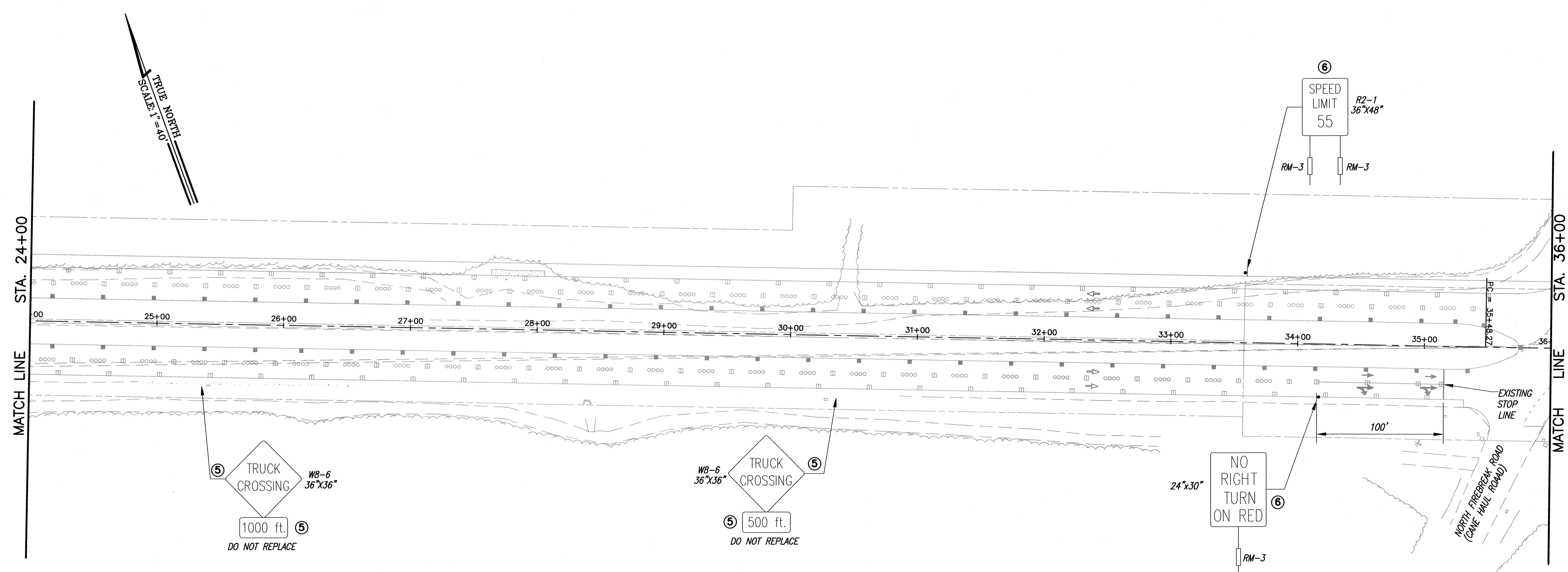
**PAVEMENT MARKINGS
 LEGEND & NOTES**

HALEAKALA HIGHWAY WIDENING, PHASE 2
 HANA HIGHWAY TO PUKALANI BYPASS
 FED. AID PROJ. NO. NH-037-1(24)

SCALE: AS NOTED DATE: SEP., 2005

SHEET No. 1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2004	144	278

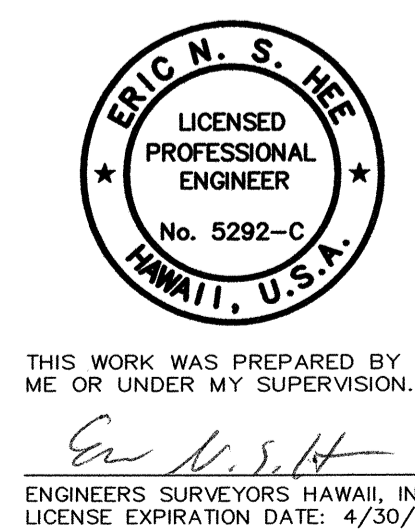


ORIGINAL PLAN	DATE
DESIGNED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

Survey Plotted By: _____ Date: _____
 Traced By: _____
 Note Book: _____
 Checked By: _____
 No. _____

- KEYNOTES**
- REMOVE AND DISPOSE OF SIGN, POST AND FOOTING. INSTALL NEW SIGN ONTO NEW SIGN POSTS IN NEW LOCATION.
 - NEW LOCATION FOR NEW OR RELOCATED SIGN.
 - REMOVE AND DISPOSE OF SIGN. INSTALL NEW SIGN ONTO EXISTING SIGN POST.
 - RELOCATE HC&S SIGN ONTO NEW SIGN POST, MINIMUM ONE FOOT OUTSIDE OF RIGHT-OF-WAY.
 - REMOVE AND DISPOSE OF SIGN, POST AND FOOTING.
 - INSTALL NEW SIGN, POST AND FOOTING.

- SIGNAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, ALL EXISTING STATE SIGNS SHALL BE REPLACE WITH NEW SIGNS.
 - CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR APPROVAL, SIZE TO BE SIMILAR TO EXISTING SIGNS ALONG HALEAKALA HIGHWAY.
 - INSTALL RM-3 ON ALL NEW SIGN POSTS AND REPLACE RM-3 ON ALL EXISTING SIGN POSTS TO REMAIN.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Eric N. S. Hee
 ENGINEERS SURVEYORS HAWAII, INC.
 LICENSE EXPIRATION DATE: 4/30/06

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

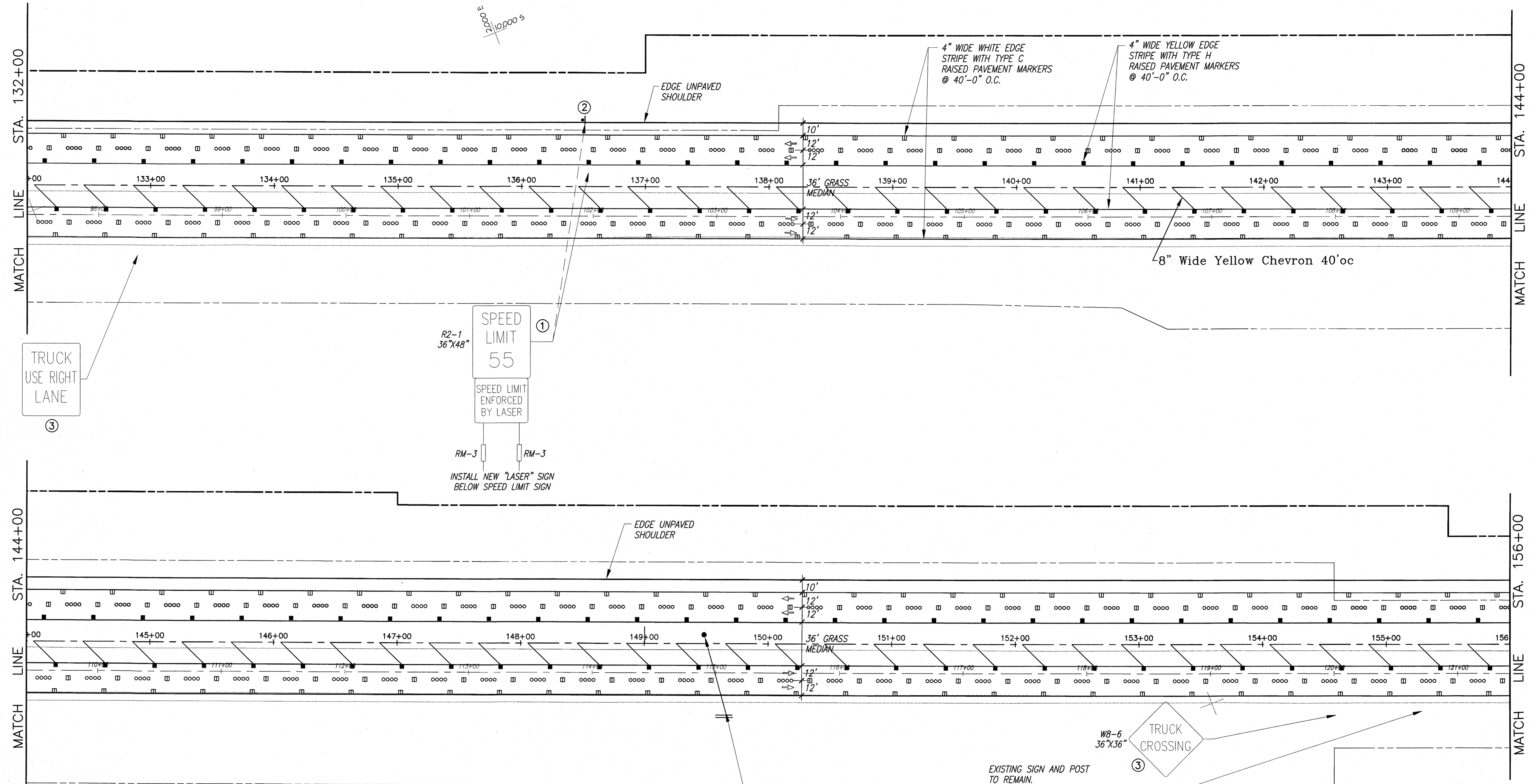
SIGNING AND STRIPING PLAN

**HALEAKALA HIGHWAY WIDENING, PHASE 2
 HANA HIGHWAY TO PUKALANI BYPASS
 FED. AID PROJ. NO. NH-037-1(24)**

SCALE: AS NOTED DATE: APRIL, 2005

SHEET No. 2 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2005	150	288



TRUCK USE RIGHT LANE

R2-1
36"x48"
SPEED LIMIT
55
SPEED LIMIT ENFORCED BY LASER
RM-3 RM-3
INSTALL NEW "LASER" SIGN BELOW SPEED LIMIT SIGN

W8-6
36"x36"
TRUCK CROSSING

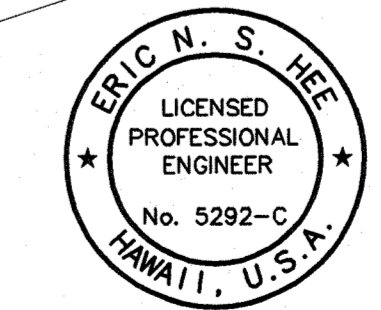
EXISTING SIGN AND POST TO REMAIN.
ADOPT A HIGHWAY LITTER CONTROL NEXT 2 MILES
HAWAII JOB CORPS

SLOWER TRAFFIC KEEP RIGHT

- KEYNOTES**
- REMOVE AND DISPOSE OF SIGN, POST AND FOOTING. INSTALL NEW SIGN ONTO NEW SIGN POSTS IN NEW LOCATION.
 - NEW LOCATION FOR NEW OR RELOCATED SIGN.
 - REMOVE AND DISPOSE OF SIGN. INSTALL NEW SIGN ONTO EXISTING SIGN POST.
 - RELOCATE HC&S SIGN ONTO NEW SIGN POST. MINIMUM ONE FOOT OUTSIDE OF RIGHT-OF-WAY.
 - REMOVE AND DISPOSE OF SIGN, POST AND FOOTING.
 - INSTALL NEW SIGN, POST AND FOOTING.
- SIGNAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, ALL EXISTING STATE SIGNS SHALL BE REPLACE WITH NEW SIGNS.
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 - INSTALL RM-3 ON ALL NEW SIGN POSTS AND REPLACE RM-3 ON ALL EXISTING SIGN POSTS TO REMAIN.

LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Eric N. S. Hee
ENGINEERS SURVEYORS HAWAII, INC.
LICENSE EXPIRATION DATE: 4/30/06

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING AND STRIPING PLAN

HALEAKALA HIGHWAY WIDENING, PHASE 2
HANA HIGHWAY TO PUKALANI BYPASS
FED. AID PROJ. NO. NH-037-1(24)

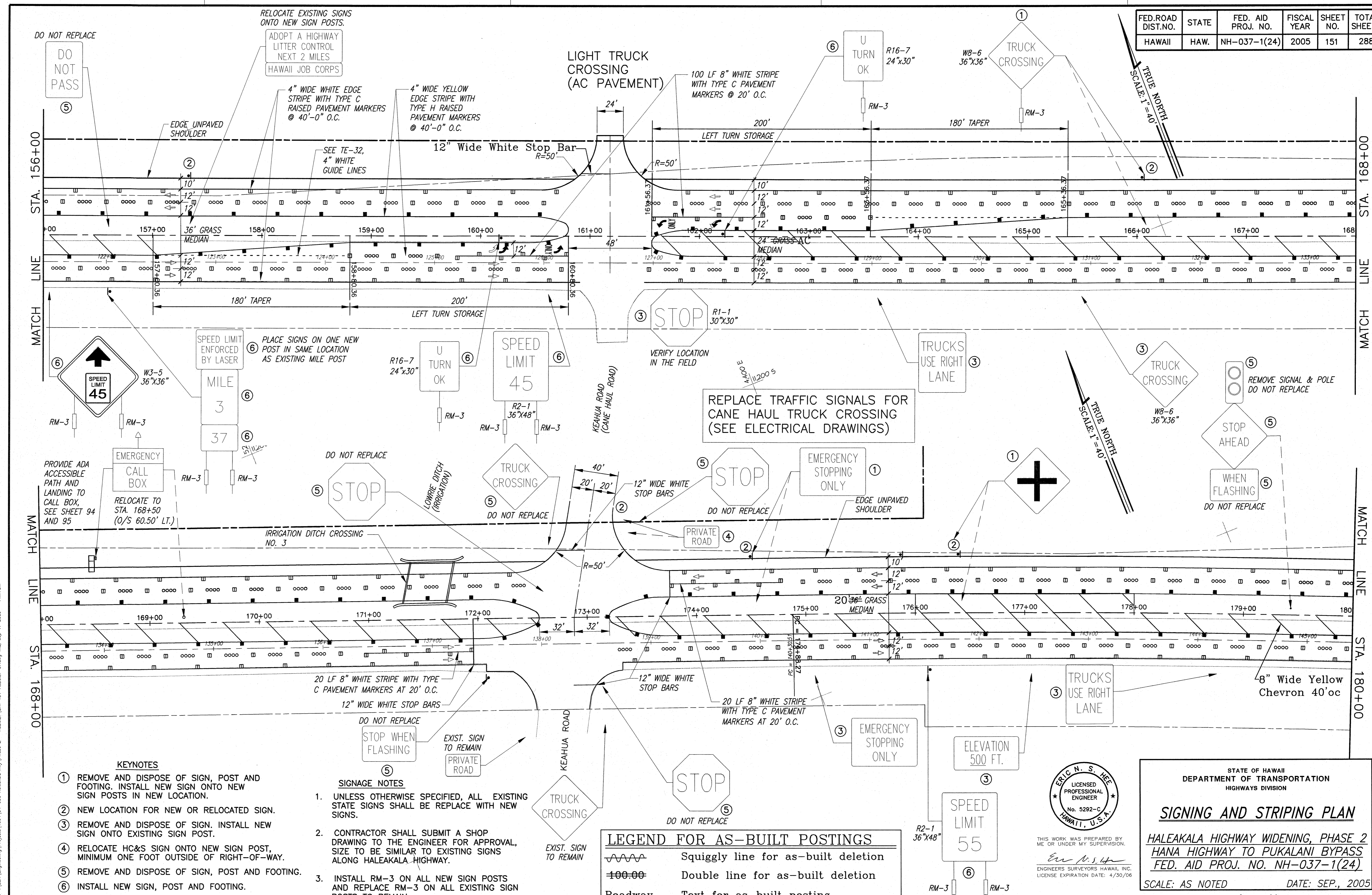
SCALE: AS NOTED DATE: SEP., 2005

SHEET No. 8 OF 14 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	
CHECKED BY	
NO.	

I:\Esh-1\ESH\Engineering\Projects\1994\04-066 Haleakala Hwy\Phase 2 - ASBUILT\TSHIT_150-ASBUILT_56.dwg, 06, 9/17/2005 3:41:52 PM, 111

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2005	151	288



- KEYNOTES**
- REMOVE AND DISPOSE OF SIGN, POST AND FOOTING. INSTALL NEW SIGN ONTO NEW SIGN POSTS IN NEW LOCATION.
 - NEW LOCATION FOR NEW OR RELOCATED SIGN.
 - REMOVE AND DISPOSE OF SIGN. INSTALL NEW SIGN ONTO EXISTING SIGN POST.
 - RELOCATE HC&S SIGN ONTO NEW SIGN POST, MINIMUM ONE FOOT OUTSIDE OF RIGHT-OF-WAY.
 - REMOVE AND DISPOSE OF SIGN, POST AND FOOTING.
 - INSTALL NEW SIGN, POST AND FOOTING.

- SIGNAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, ALL EXISTING STATE SIGNS SHALL BE REPLACED WITH NEW SIGNS.
 - CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR APPROVAL, SIZE TO BE SIMILAR TO EXISTING SIGNS ALONG HALEAKALA HIGHWAY.
 - INSTALL RM-3 ON ALL NEW SIGN POSTS AND REPLACE RM-3 ON ALL EXISTING SIGN POSTS TO REMAIN.

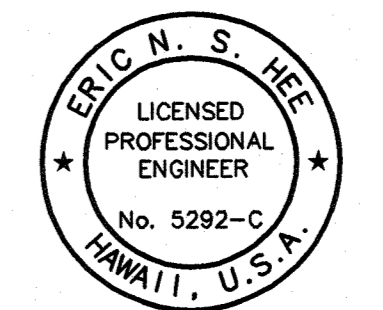
LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
	Text for as-built posting

ORIGINAL PLAN	DATE
DESIGNED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

\\esh-1\ESH\Engineering\Projects\194\194-058 Haleakala Hwy\Phase 2 - AS-BUILT\TSH1 151-AS-BUILT.dwg, ST, 9/17/2009 11:17:38 AM, 1:1

\\esh-1\ESH\Engineering\Projects\194\194-058 Haleakala Hwy\Phase 2 - AS-BUILT\TSH1 151-AS-BUILT.dwg, Sep 17 2009 - 11:17:38 AM



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 Eric N. S. Hee
 ENGINEERS SURVEYORS HAWAII, INC.
 LICENSE EXPIRATION DATE: 4/30/06

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

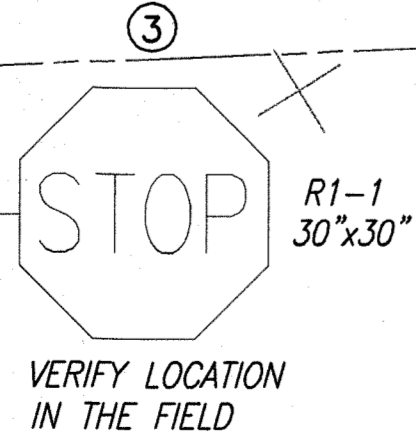
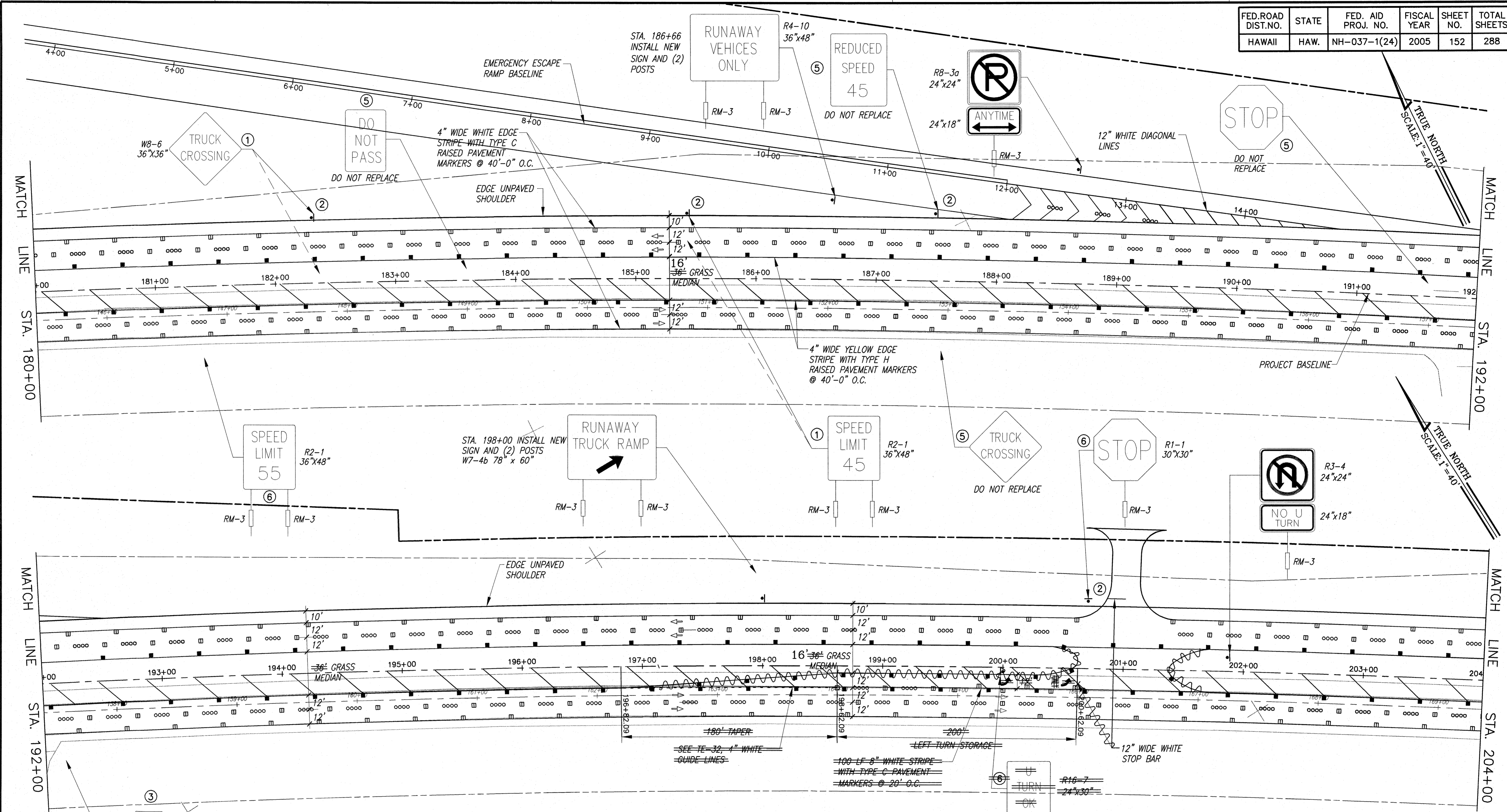
SIGNING AND STRIPING PLAN

HALEAKALA HIGHWAY WIDENING, PHASE 2
 HANA HIGHWAY TO PUKALANI BYPASS
 FED. AID PROJ. NO. NH-037-1(24)

SCALE: AS NOTED DATE: SEP., 2005

SHEET No. 9 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2005	152	288



- KEYNOTES**
- REMOVE AND DISPOSE OF SIGN, POST AND FOOTING. INSTALL NEW SIGN ONTO NEW SIGN POSTS IN NEW LOCATION.
 - NEW LOCATION FOR NEW OR RELOCATED SIGN.
 - REMOVE AND DISPOSE OF SIGN. INSTALL NEW SIGN ONTO EXISTING SIGN POST.
 - RELOCATE HC&S SIGN ONTO NEW SIGN POST, MINIMUM ONE FOOT OUTSIDE OF RIGHT-OF-WAY.
 - REMOVE AND DISPOSE OF SIGN, POST AND FOOTING.
 - INSTALL NEW SIGN, POST AND FOOTING.

- SIGNAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, ALL EXISTING STATE SIGNS SHALL BE REPLACE WITH NEW SIGNS.
 - CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR APPROVAL, SIZE TO BE SIMILAR TO EXISTING SIGNS ALONG HALEAKALA HIGHWAY.
 - INSTALL RM-3 ON ALL NEW SIGN POSTS AND REPLACE RM-3 ON ALL EXISTING SIGN POSTS TO REMAIN.

LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
	Roadway Text for as-built posting

ERIC N. S. HEE
 LICENSED PROFESSIONAL ENGINEER
 No. 5292-C
 HAWAII, U.S.A.
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 ENGINEERS SURVEYORS HAWAII, INC.
 LICENSE EXPIRATION DATE: 4/30/08

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

SIGNING AND STRIPING PLAN

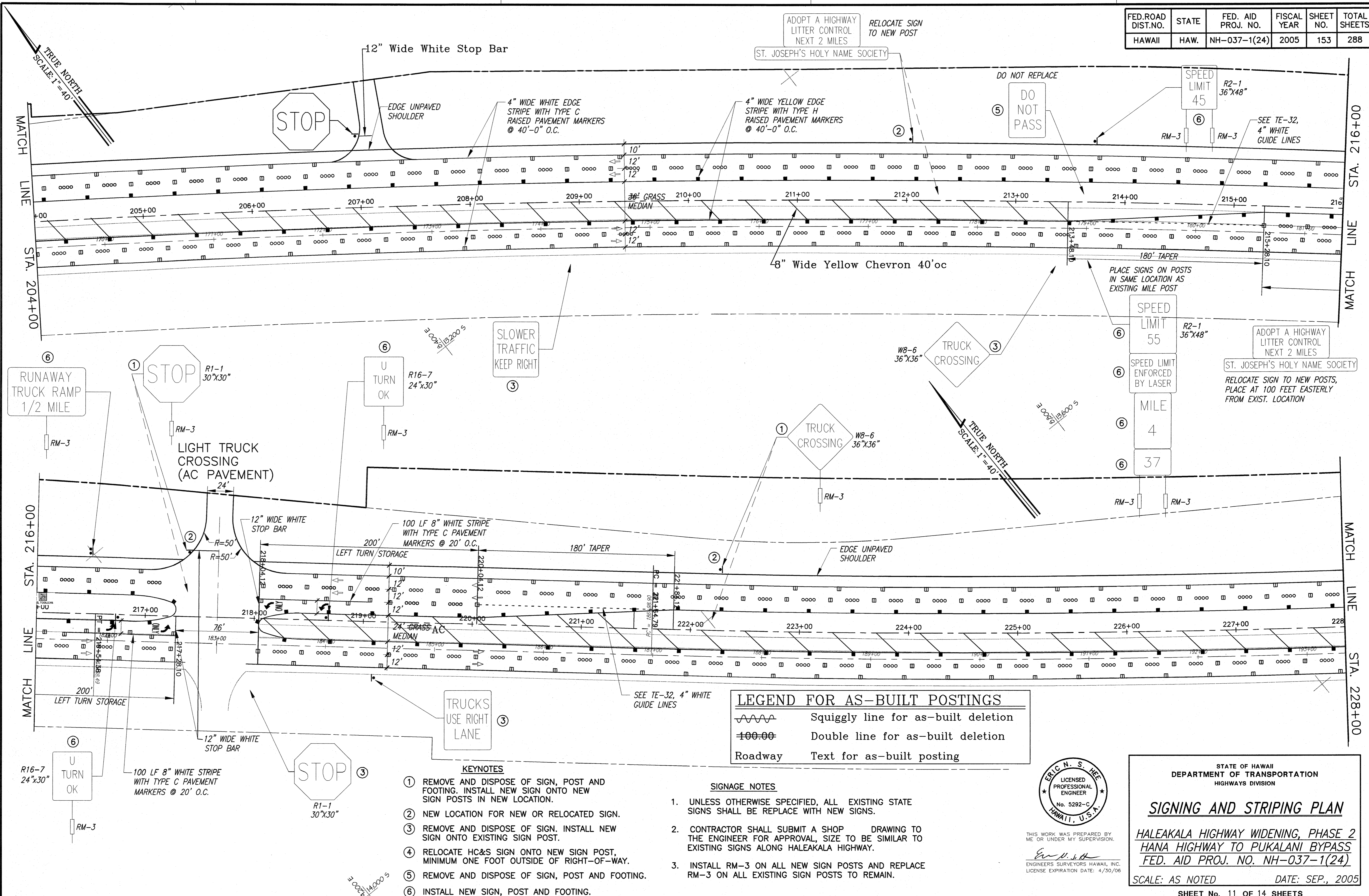
HALEAKALA HIGHWAY WIDENING, PHASE 2
 HANA HIGHWAY TO PUKALANI BYPASS
 FED. AID PROJ. NO. NH-037-1(24)

SCALE: AS NOTED DATE: SEP., 2005
 SHEET No. 10 OF 14 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
No.	

I:\esh-1\ESH\Engineering\Projects\1994\94-066 Haleakala Hwy\Phase 2 - AS-BUILT\TSHIT 152-ASBUILT_s8.dwg, S8, 9/18/2009 10:26:12 AM, 1:1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2005	153	288



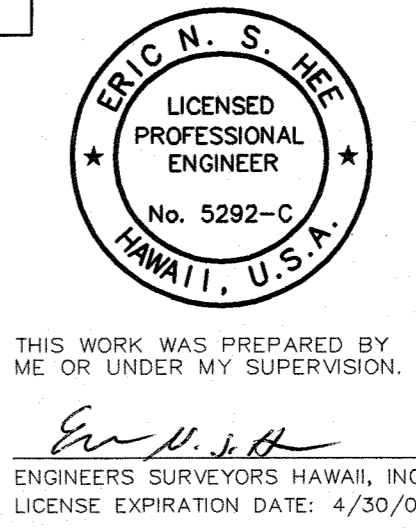
LEGEND FOR AS-BUILT POSTINGS

	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

- KEYNOTES**
- REMOVE AND DISPOSE OF SIGN, POST AND FOOTING. INSTALL NEW SIGN ONTO NEW SIGN POSTS IN NEW LOCATION.
 - NEW LOCATION FOR NEW OR RELOCATED SIGN.
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- SIGNAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, ALL EXISTING STATE SIGNS SHALL BE REPLACE WITH NEW SIGNS.
 - CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR APPROVAL, SIZE TO BE SIMILAR TO EXISTING SIGNS ALONG HALEAKALA HIGHWAY.
 - INSTALL RM-3 ON ALL NEW SIGN POSTS AND REPLACE RM-3 ON ALL EXISTING SIGN POSTS TO REMAIN.

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SIGNING AND STRIPING PLAN

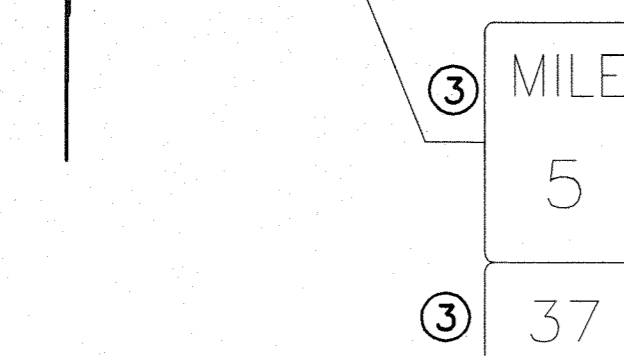
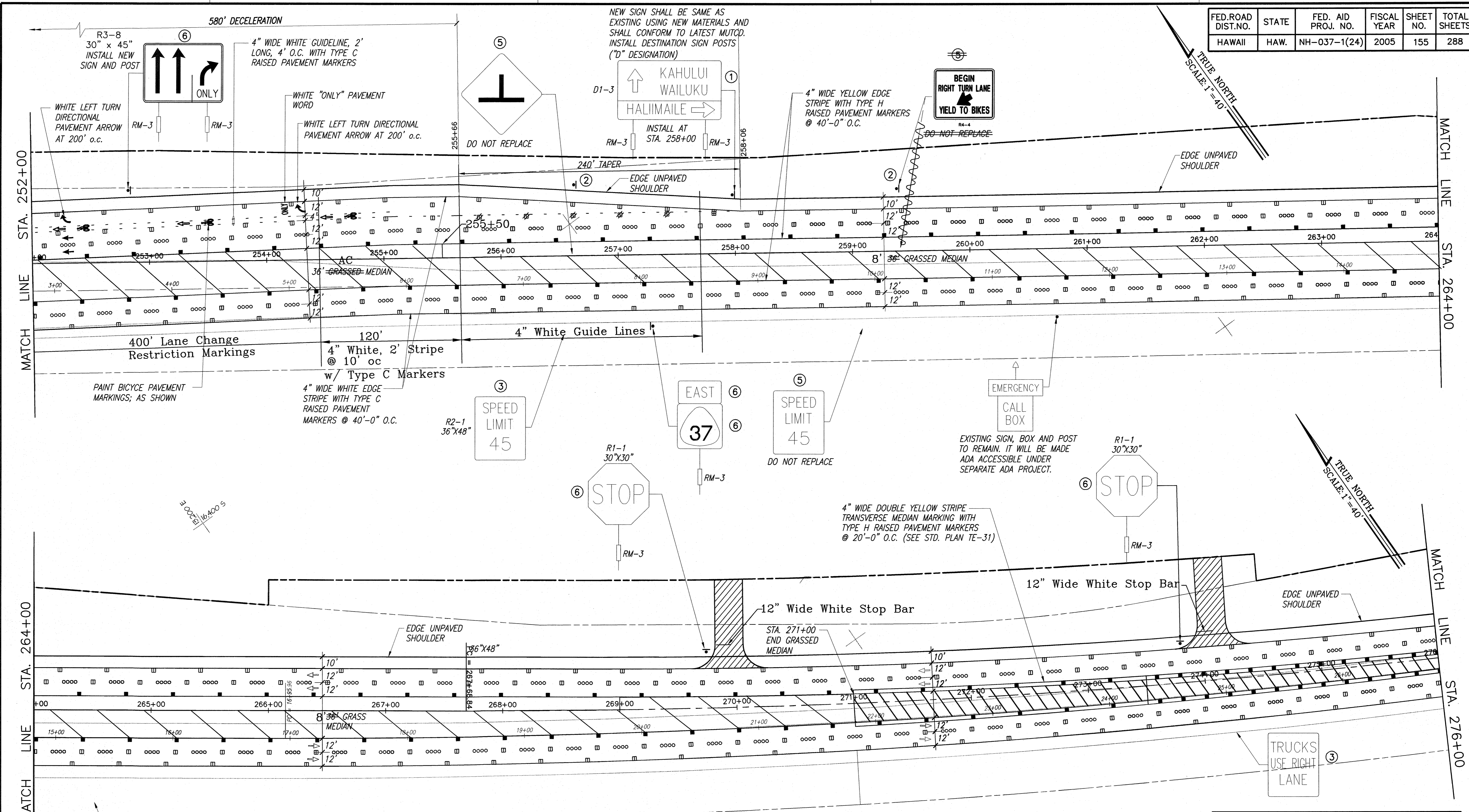
HALEAKALA HIGHWAY WIDENING, PHASE 2
HANA HIGHWAY TO PUKALANI BYPASS
FED. AID PROJ. NO. NH-037-1(24)

SCALE: AS NOTED DATE: SEP., 2005

SHEET No. 11 OF 14 SHEETS

\Esh-1\ESH\Engineering\Projects\1994-04-056 Haleakala Hwy\Phase 2 - ASBUILT\SH1 153-ASBUILT.dwg, Sep 17 2005 - 10:37am
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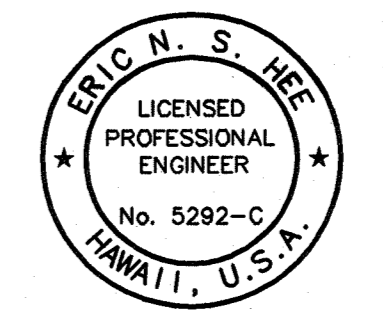
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-037-1(24)	2005	155	288



LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

- KEYNOTES**
- REMOVE AND DISPOSE OF SIGN, POST AND FOOTING. INSTALL NEW SIGN ONTO NEW SIGN POSTS IN NEW LOCATION.
 - NEW LOCATION FOR NEW OR RELOCATED SIGN.
 - REMOVE AND DISPOSE OF SIGN. INSTALL NEW SIGN ONTO EXISTING SIGN POST.
 - RELOCATE HC&S SIGN ONTO NEW SIGN POST, MINIMUM ONE FOOT OUTSIDE OF RIGHT-OF-WAY.
 - REMOVE AND DISPOSE OF SIGN, POST AND FOOTING.
 - INSTALL NEW SIGN, POST AND FOOTING.

- SIGNAGE NOTES**
- UNLESS OTHERWISE SPECIFIED, ALL EXISTING STATE SIGNS SHALL BE REPLACE WITH NEW SIGNS.
 - CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR APPROVAL, SIZE TO BE SIMILAR TO EXISTING SIGNS ALONG HALEAKALA HIGHWAY.
 - INSTALL RM-3 ON ALL NEW SIGN POSTS AND REPLACE RM-3 ON ALL EXISTING SIGN POSTS TO REMAIN.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 ENGINEERS SURVEYORS HAWAII, INC.
 LICENSE EXPIRATION DATE: 4/30/06

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

SIGNING AND STRIPING PLAN

HALEAKALA HIGHWAY WIDENING, PHASE 2
 HANA HIGHWAY TO PUKALANI BYPASS
 FED. AID PROJ. NO. NH-037-1(24)

SCALE: AS NOTED DATE: SEP., 2005

SHEET No. 13 OF 14 SHEETS

\\esh-1\ESH\Engineering\Projects\1094\04-056 Haleakala Hwy\Phase 2 - ASBUILT\TSHT-165-ASBUILT_s11.dwg, S11, 9/16/2005 2:49:05 PM, 1:1

DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
NO.	_____

1:150-1(ESH) Engineering\Projects\1094\04-056 Haleakala Hwy\Phase 2 - ASBUILT\TSHT-165-ASBUILT_s11.dwg, Sep 16 2005 - 2:49pm

