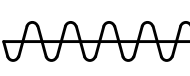
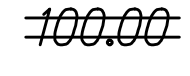


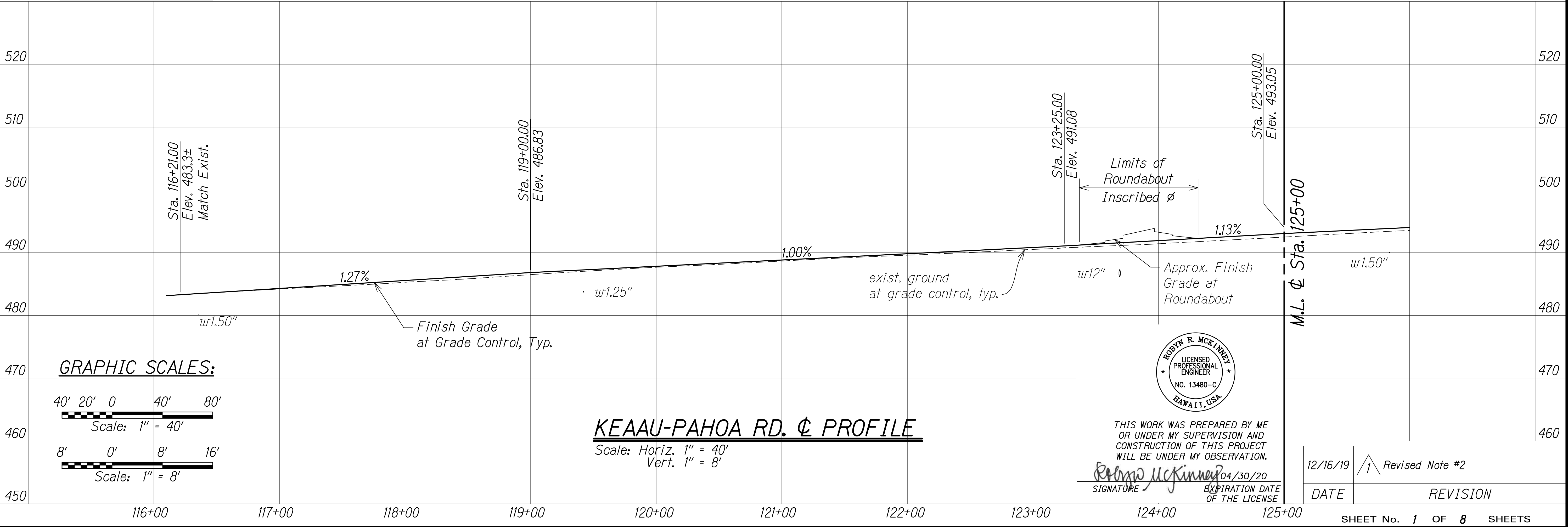
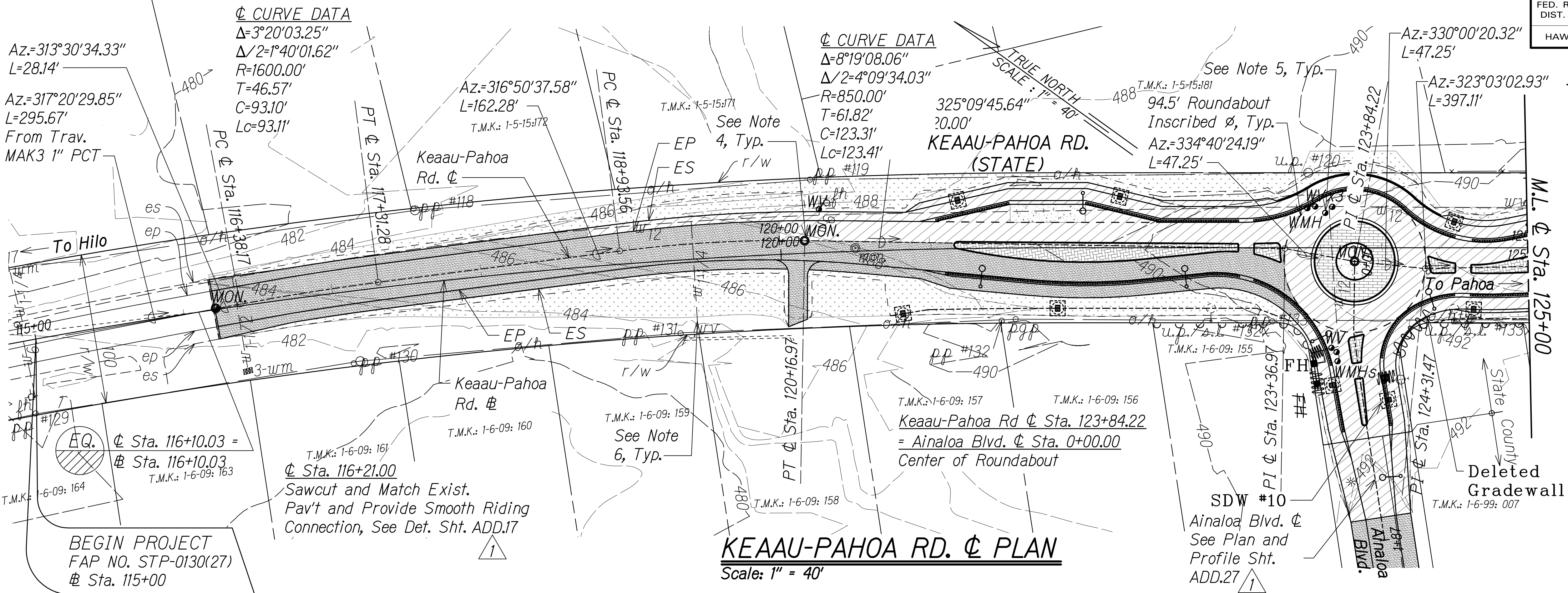
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	ADD.25	50

NOTES:

- For design superelevation, see Sht. 21.
- See Roadway Plans Shts. ADD.28 to ADD.32 for detailed layout of Keaau-Pahoa Rd.
- For new street light pole locations, see electrical plans.
- For new and adjusted monuments to Finish Grade, see HDOT Standard Plan D-07.
- Adjust all DWS exist. WMHs, WVs and WMs to Finish Grade.
- Field locate and verify all existing water service laterals.

LEGEND FOR AS-BUILT POSTINGS

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



"AS-BUILT"

ADD.25

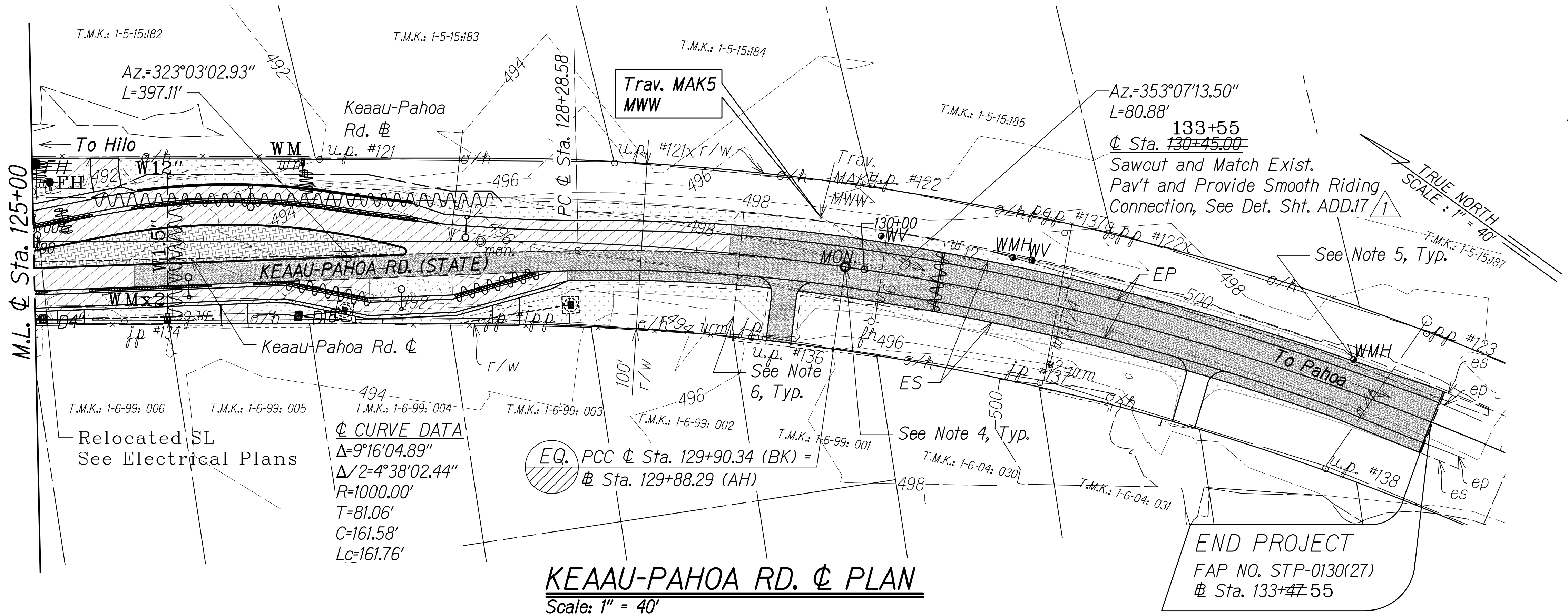
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	ADD.26	50

NOTES:

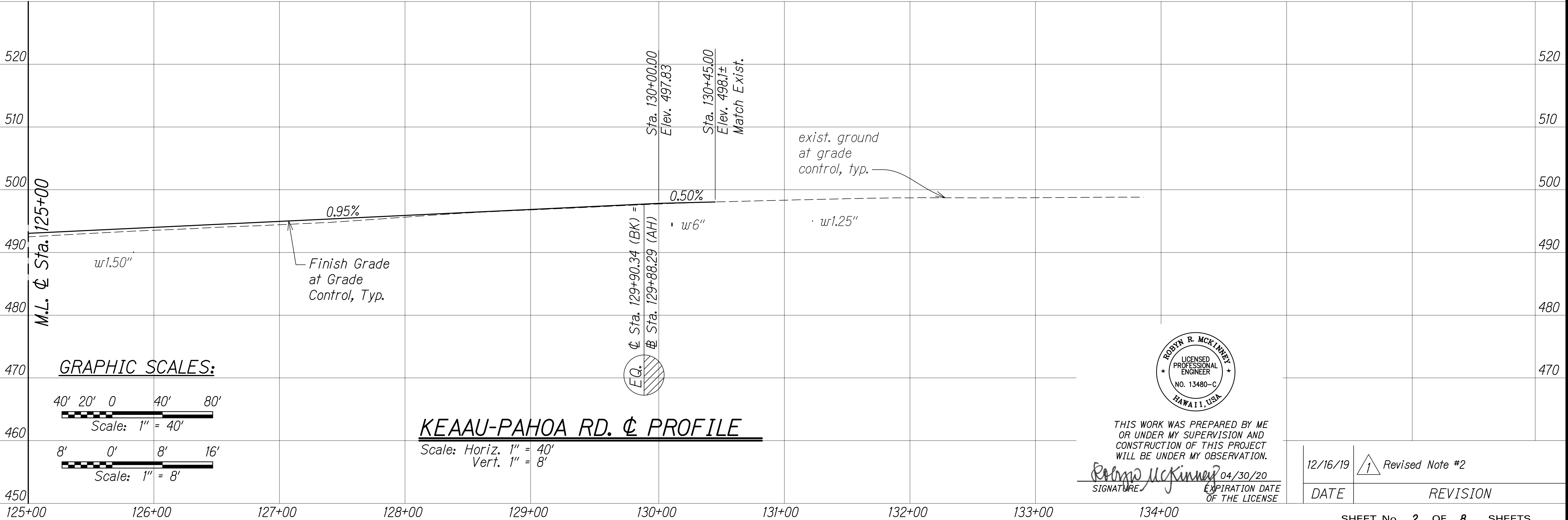
1. For design superelevation, see Sht. 21.
2. See Roadway Plans Sht. ADD.28 to ADD.32 for detailed layout of Keaau-Pahoa Rd.
3. For new street light pole locations, see electrical plans.
4. For new and adjusted monuments to Finish Grade, see HDOT Standard Plan D-07.
5. Adjust all DWS exist. WMHs, WVs and WMs to finish grade.
6. Field locate and verify all existing water service laterals.

LEGEND FOR AS-BUILT POSTINGS

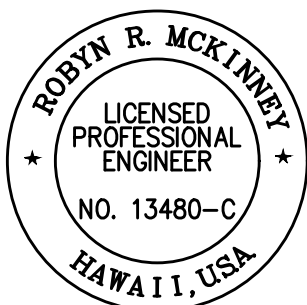
- ~~~~~ Squiggly line for as-built deletion
- ~~100.00~~ Double line for as-built deletion
- Roadway Text for as-built posting



KEAAU-PAHOA RD.  $\phi$  PLAN  
Scale: 1" = 40'



KEAAU-PAHOA RD.  $\phi$  PROFILE  
Scale: Horiz. 1" = 40'  
Vert. 1" = 8'



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

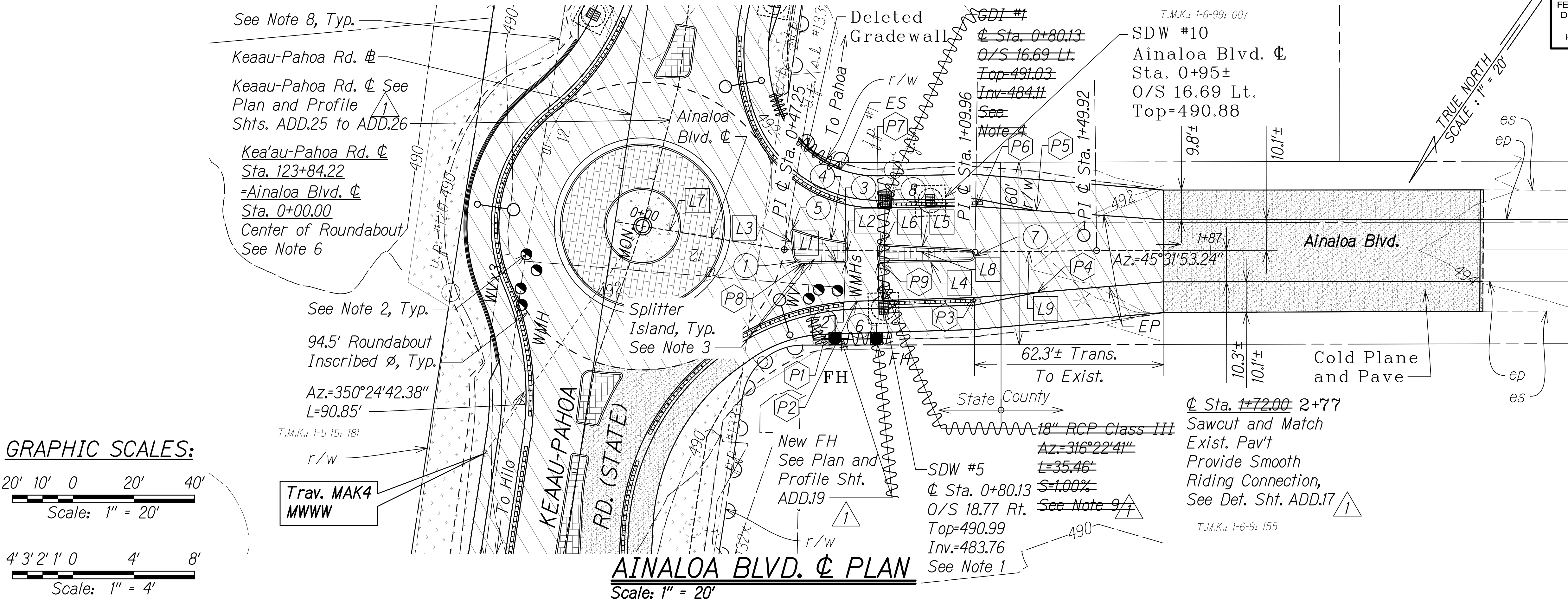
SIGNATURE: *Robyn R. McKinney* EXPIRATION DATE OF THE LICENSE: 04/30/20

12/16/19	1 Revised Note #2
DATE	REVISION



FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	ADD.27	50

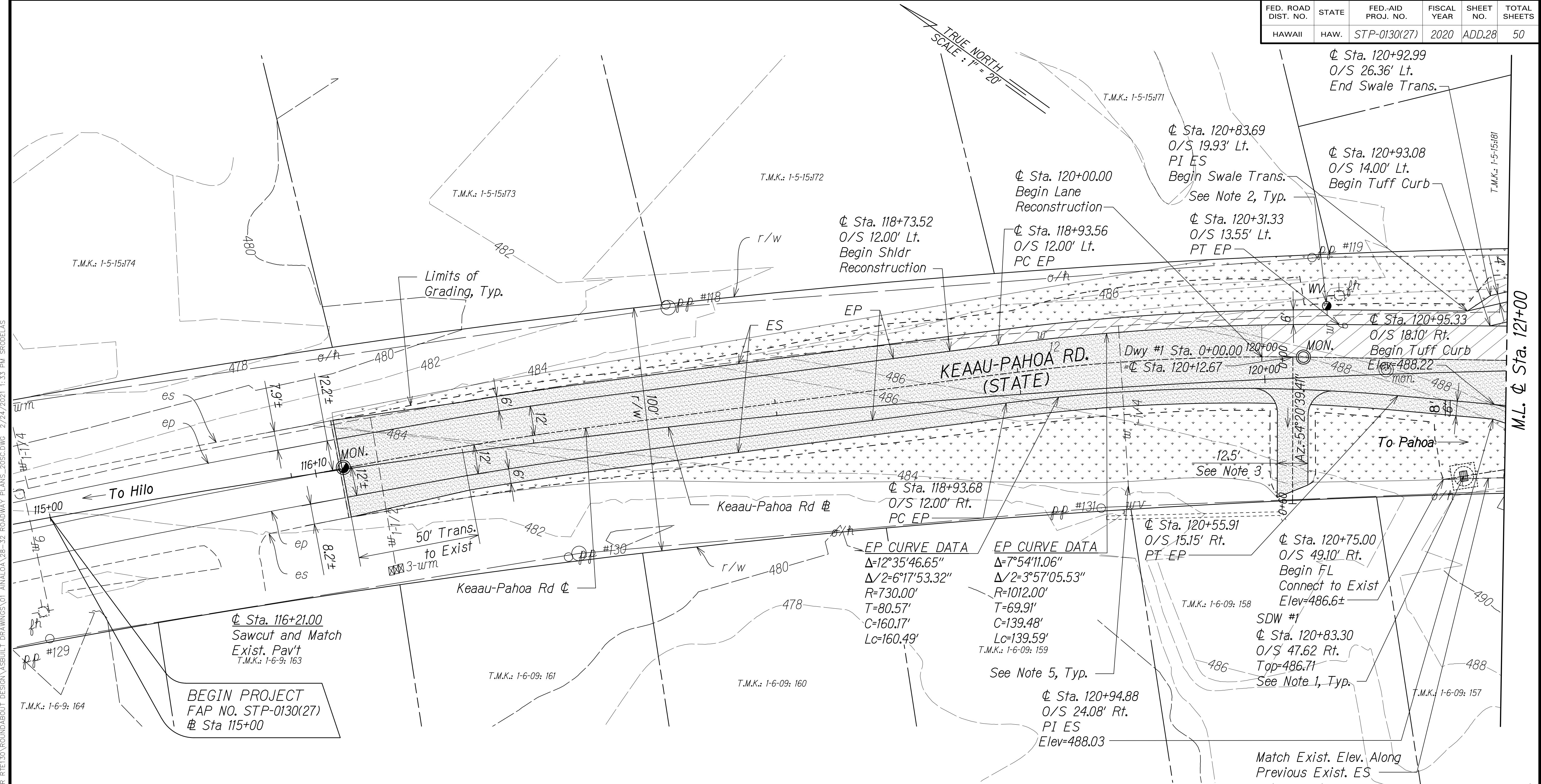
- NOTES:**
- For Shallow Drywell Details, See Sht. ADD.18.
  - Adjust all DWS exist. WMHs, WV's and WMs to Finish Grade.
  - Provide Type 2D Curb per HDOT Standard Plan D-05 around Splitter Islands.
  - ~~GDI #1 grate shall be a modified 12H214P. See Det. Sht. ADD.18 and HDOT Std. Plans H-12 and H-15.~~
  - Unless otherwise noted, all stations are along Ainaloa Blvd. C.
  - For new C monuments, see HDOT Standard Plan D-07.
  - For street light pole locations, see electrical plans.
  - Field locate and verify all existing water service laterals.
  - For Drainline Trench Restoration Detail, See Sht. ADD.17.



CURVE DATA:				LINE DATA:				
510	① Δ=84°58'34.46" Δ/2=42°29'17.23" R=3.00' T=2.75' C=4.05' Lc=4.45'	② Δ=89°35'30.89" Δ/2=44°47'45.45" R=1.00' T=0.99' C=1.41' Lc=1.56'	③ Δ=81°48'35.66" Δ/2=40°54'17.83" R=1.00' T=0.87' C=1.31' Lc=1.43'	④ Δ=11°57'01.92" Δ/2=5°58'30.96" R=81.00' T=8.48' C=16.86' Lc=16.89'	State County		510	
				LP Sta. 0+81.63 LP Elev.=491.44 PVI Sta. 0+77.50 PVI Elev. 491.18 60.00' VC	L1 Az.=44°54'37.97" L=13.85'	L4 Az.=224°54'37.97" L=29.01'	L7 Az.=55°02'23.28" L=47.25'	
500	⑤ Δ=115°34'20.91" Δ/2=57°47'10.45" R=1.00' T=1.59' C=1.69' Lc=2.02'	⑥ Δ=90°24'29.11" Δ/2=45°12'14.55" R=1.00' T=1.01' C=1.42' Lc=1.58'	⑦ Δ=176°11'27.70" Δ/2=88°05'43.85" R=2.00' T=60.15' C=4.00' Lc=6.15'	⑧ Δ=93°24'03.19" Δ/2=46°42'01.60" R=1.00' T=1.06' C=1.46' Lc=1.63'	Sta. 0+47.50 Elev. 491.78		500	
				Sta. 1+07.50 Elev. 491.64	L2 Az.=135°19'07.07" L=4.90'	L5 Az.=48°43'10.26" L=29.11'	L8 Az.=46°22'45.68" L=62.71'	
				Sta. 1+72.00 Elev. 492.62	L3 Az.=309°53'12.42" L=7.40'	L6 Az.=135°19'07.07" L=3.93'	L9 Az.=44°56'35.32" L=39.96'	
POINT DATA:				LEGEND FOR AS-BUILT POSTINGS				
490	P1 C Sta. 0+61.22 O/S 27.61' Rt. PT ES	P2 C Sta. 0+71.29 O/S 16.66' Rt. PT EP	P3 C Sta. 1+09.96 O/S 14.95' Rt. PI EP Begin Tuff Curb Trans.	Squiggly line for as-built deletion				490
				Double line for as-built deletion				
				Roadway Text for as-built posting				
480	P4 C Sta. 1+30.30 O/S 13.48' Rt. End Tuff Curb	P5 C Sta. 1+30.30 O/S 13.35' Lt. End Tuff Curb	P6 C Sta. 1+10.33 O/S 15.01' Lt. PI EP Begin Tuff Curb Trans.					480
				THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.				
				ROBYN R. MCKINNEY LICENSED PROFESSIONAL ENGINEER NO. 13480-C HAWAII, USA				
				SIGNATURE EXPIRATION DATE OF THE LICENSE				
				12/16/19 1 Revised Sheet References; Added Note 9				
				DATE REVISION				
				SHEET No. 3 OF 8 SHEETS				



FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	ADD.28	50



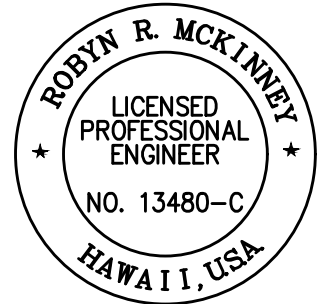
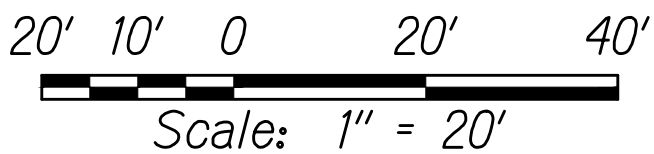
### NOTES:

1. For Shallow Drywell Details, See Sht. ADD.18.
2. Adjust all DWS exist. WMHs, WVs and WMs to Finish Grade.
3. For driveway profiles and typical sections, see Sht. ADD.20.
4. Protect all exist. electric poles. For new street light pole location, see electrical plans.
5. Field locate and verify all existing water service laterals.

### LEGEND FOR AS-BUILT POSTINGS

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

### GRAPHIC SCALE:



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE: *Robyn R. McKinney* EXPIRATION DATE OF THE LICENSE: 04/30/20

12/16/19 Revised Sheet References

DATE REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

### ROADWAY PLAN

KEAAU-PAHOA ROAD  
INTERSECTION IMPROVEMENTS  
at Ainaloa Boulevard  
Federal-Aid Project No. STP-0130(27)

Scale: 1" = 20' Date: July, 2019

SHEET No. 4 OF 8 SHEETS

"AS-BUILT"

ADD.28

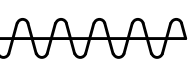


FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	ADD.29	50

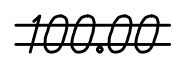
NOTES:

1. Provide Type 2D Curb per HDOT Standard Plan D-05 around Splitter Islands.
2. For Shallow Drywell Details, See Sht. ADD.18.
3. Adjust all DWS exist. WMHs, WVs and WMs to Finish Grade.
4. Protect all exist. electric poles. For street light pole location, see electrical plans.
5. For Curve, Line and Point Data, See Sht. ADD.32.
6. For driveway profiles and typical sections, see Sht. ADD.20.
7. For AC curb detail, see HDOT Standard Plan D-05.
8. Emergency Siren Replacement is part of HI-EMA project "Hawaii Emergency Management Agency Disaster Warning Communication System Devices". For questions and coordination regarding emergency siren, contact David Yamada, Ryan Hirae or Albert Chong at (808) 733-4300 (HI-EMA) and reference the above titled project.
9. For Gradewall detail, See Sht. ADD.15.
10. GDI #2 grate shall be a modified 121/214P. See Det. Sht. ADD.18 and HDOT Std. Plans H-12 and H-15.


LEGEND FOR  
AS-BUILT POSTINGS



Squiggly line for  
as-built deletion



Double line for  
as-built deletion



Roadway Text for as-built  
posting

12/16/19

1

Revised Grading Limits & Bus Pad callouts; Revised Sheet References; Revised Note #2, #5 and #6; Added Note #8, #9 and #10

DATE

REVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLAN

KEAAU-PAHOA ROAD  
INTERSECTION IMPROVEMENTS  
at Ainaloa Boulevard  
Federal-Aid Project No. STP-0130(27)

Scale: 1" = 20'      Date: July, 2019

SHEET No. 5 OF 8 SHEETS

150' Bus Bay

CL Sta. 121+03.68  
O/S 14.08' Lt.  
Begin Bus Bay Trans.

SDW #2  
CL Sta. 121+18.28  
O/S 28.55' Lt.  
Top=488.46  
See Note 2, Typ.

CL Sta. 121+53.69  
O/S 14.44' Lt.  
PI EP

Keau-Pahoa Rd CL  
ES

SDW #4  
CL Sta. 122+26.46  
O/S 32.91' Lt.  
Top=489.55

Splitter Island, Typ.  
See Note 1

Limits of Grading, Typ.  
6" AC Curb, Typ.  
See Note 7

See Note 3, Typ.

SDW #6  
CL Sta. 124+51.41  
O/S 30.76' Lt.  
Top=491.89

New 12" WL  
See Sht. C.O. 19S-1

New FH, Typ.  
See Plan and Profile Sht. ADD.19

Az=234°13'00.00"  
Az=224°14'36.88"  
L=48.92'

Relocated SL

KEAAU-PAHOA RD. (STATE)

To Hilo

To Pahoa

CL Sta. 121+86.22  
O/S 42.28' Rt.  
Top=488.17

CL Sta. 121+14.85  
O/S 22.07' Rt.  
End Tuff Curb Trans.  
Elev=488.38

CL Sta. 121+14.25  
O/S 30.05' Rt.  
PI ES  
Elev=488.21

Match Exist. Elev. Along Previous Exist. ES

CL Sta. 121+00.00  
O/S 44.66' Rt.  
PIXPC FL  
Elev=486.88

Construct Mountable Conc. Curb & Gutter, See Det. Sht. ADD.14

SDW #5  
See Sht. ADD.27 for Drainline information

Emergency Siren to Remain. Contractor Shall Verify Location in Field. Name Designation: Ainaloa Boulevard (910), See Note 8

Ainaloa Blvd. CL  
See Layout, Plan and Profile Sht. ADD.27

SDW #7  
See Sht. ADD. 34S-1 for Plan and Profile

SDW #10

Deleted Gradewall

GDI #2  
See Note 10

Flowline, See Shts. ADD.33 to ADD.34

Match Exist. Elev. Along r/w

Cold Plane and Pave to Ainaloa Blvd. CL Sta. 2+77

GRAPHIC SCALE:  
20' 10' 0 20' 40'  
Scale: 1" = 20'

TRUE NORTH  
SCALE: 1" = 20'

DWY CL  
CURVE DATA  
Δ=9°58'23.12"  
Δ/2=4°59'11.56"  
R=50.00'  
T=4.36'  
C=8.69'  
Lc=8.70'

STATE COUNTY

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

ROBYN R. MCKINNEY  
LICENSED PROFESSIONAL ENGINEER  
NO. 13480-C  
HAWAII, USA

04/30/20  
EXPIRATION DATE OF THE LICENSE

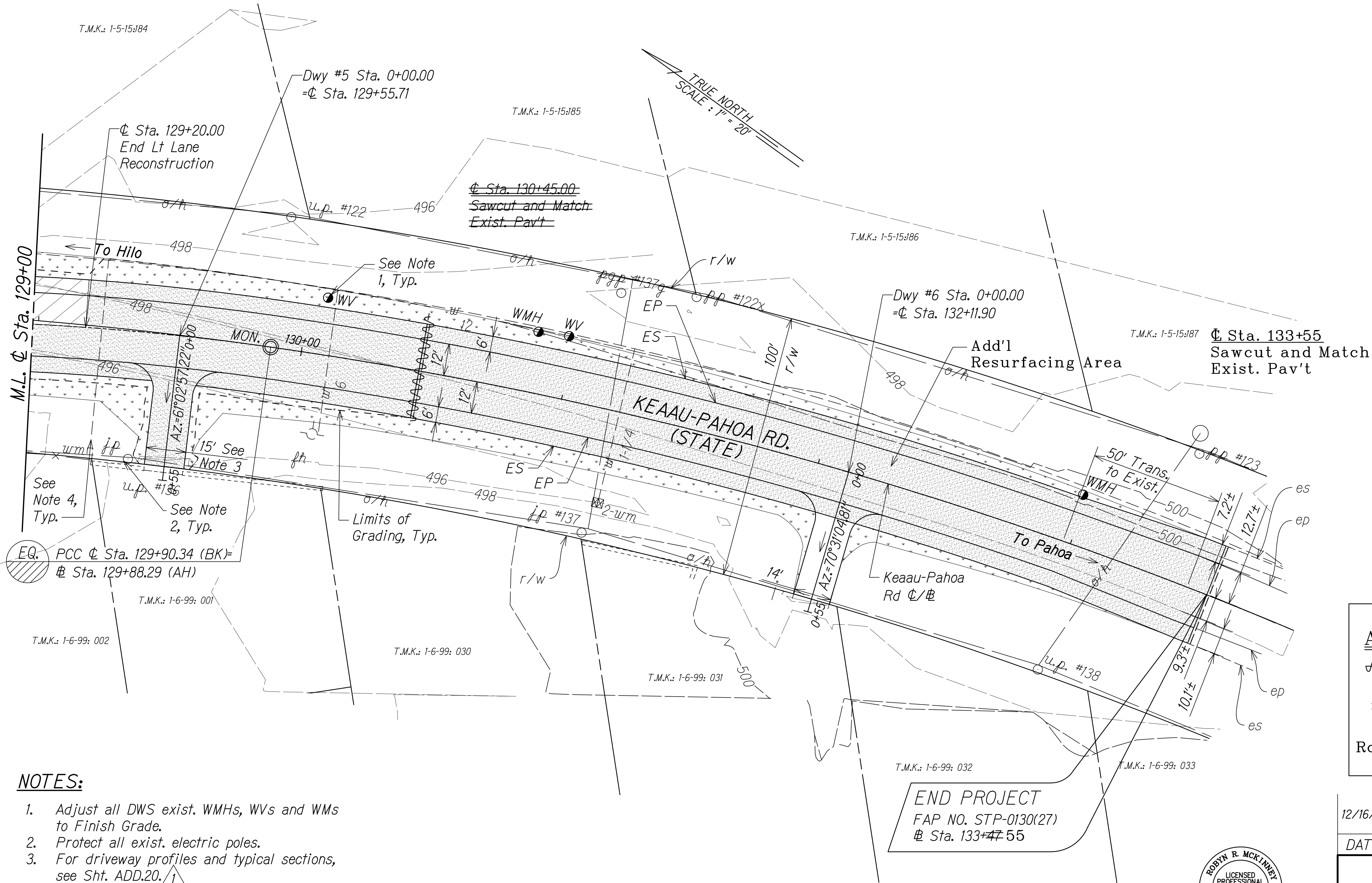
"AS-BUILT"

ADD.29

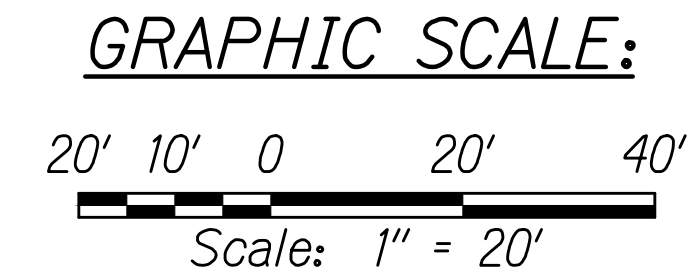




FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	ADD.31	50

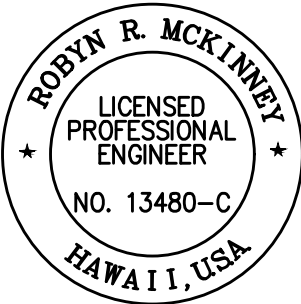


- NOTES:**
- Adjust all DWS exist. WMHs, WVs and WMs to Finish Grade.
  - Protect all exist. electric poles.
  - For driveway profiles and typical sections, see Sht. ADD.20.
  - Field locate and verify all existing water service laterals.



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

12/16/19	Revised Note #3
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>ROADWAY PLAN</b>	
<b>KEAAU-PAHOA ROAD INTERSECTION IMPROVEMENTS at Ainaloa Boulevard</b>	
Federal-Aid Project No. STP-0130(27)	
Scale: 1" = 20'	Date: July, 2019
SHEET No. 7 OF 8 SHEETS	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

*Rodyn McKinney* 04/30/20  
SIGNATURE EXPIRATION DATE OF THE LICENSE

"AS-BUILT"

ADD.31



C:\CIVIL 3D PROJECTS\2012\_153.000\_KEAAU-PAHOA RD IMPR RTE\130\ROUNDABOUT DESIGN\AS-BUILT DRAWINGS\01\_AINALOA\28-32 ROADWAY PLANS\_20SC.DWG 2/24/2021 2:44 PM SPODELAS

LINE DATA:

LINE	L1	L2	L3	L4	L5	L6	L7	L8	L9
Az	324°44'48.64"	324°34'52.09"	54°09'24.80"	138°34'30.14"	234°09'24.80"	55°00'25.47"	312°55'56.91"	142°11'12.21"	235°00'25.47"
Distance	34.94'	151.30'	3.93'	48.10'	5.66'	4.99'	60.67'	237.27'	4.02'

CURVE DATA:

CURVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Δ	168°15'46.95"	89°34'32.71"	94°07'12.30"	9°42'06.96"	17°54'31.55"	89°11'28.85"	1°34'37.38"	93°48'02.69"	10°26'04.77"	122°33'05.25"	11°25'20.99"	77°53'26.35"	124°43'31.50"	11°37'38.09"	81°42'27.18"
Δ/2	84°07'53.48"	44°47'16.36"	47°03'36.15"	4°51'03.48"	8°57'15.77"	44°35'44.42"	0°47'18.69"	46°54'01.34"	5°13'02.39"	61°16'32.63"	5°42'40.49"	38°56'43.17"	62°21'45.75"	5°48'49.04"	40°51'13.59"
R	2.50'	1.00'	1.00'	86.00'	400.00'	1.00'	500.00'	3.00'	50.25'	1.00'	86.00'	1.00'	1.00'	84.00'	1.00'
Tan.	24.32'	0.99'	1.07'	7.30'	63.03'	0.99'	6.88'	3.21'	4.59'	1.82'	8.60'	0.81'	1.91'	8.55'	0.86'
C	4.97'	1.41'	1.46'	14.55'	124.52'	1.40'	13.76'	4.38'	9.14'	1.75'	17.12'	1.26'	1.77'	17.02'	1.31'
Lc	7.34'	1.56'	1.64'	14.56'	125.03'	1.56'	13.76'	4.91"	9.15'	2.14'	17.14'	1.36'	2.18'	17.05'	1.43'

CURVE	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
Δ	88°48'19.12"	1°30'31.79"	86°49'02.24"	8°55'10.16"	90°10'28.97"	12°14'57.54"	26°27'43.38"	162°47'31.93"	4°14'56.19"	88°34'17.06"	31°47'47.73"	75°02'23.36"	54°31'08.01"	4°57'57.74"	30°53'49.24"
Δ/2	44°24'09.56"	0°45'15.90"	43°24'31.12"	4°27'35.08"	45°05'14.49"	6°07'28.77"	13°13'51.69"	81°23'45.97"	2°07'28.10"	44°17'08.53"	15°53'53.86"	37°31'11.68"	27°15'34.00"	2°28'58.87"	15°26'54.62"
R	1.00'	500.00'	3.00'	50.25'	1.00'	84.00'	400.00'	2.50'	307.00'	1.00'	93.86'	47.25'	80.00'	320.00'	63.50'
Tan.	0.98'	6.58'	2.84'	3.92'	1.00'	9.01'	94.05'	16.52'	11.39'	0.98'	26.73'	36.28'	41.22'	13.88'	17.55'
C	1.40'	13.17'	4.12'	7.81'	1.42'	17.92'	183.10'	4.94'	22.76'	1.40'	51.42'	57.55'	73.28'	27.73'	33.83'
Lc	1.55'	13.17'	4.55'	7.82'	1.57'	17.96'	184.74'	7.10'	22.77"	1.55'	52.09'	61.88'	76.12'	27.74'	34.24'

CURVE	(31)	(32)	(33)	(34)	(35)
Δ	71°20'14.58"	32°34'31.17"	52°26'25.43"	10°51'54.09"	53°48'04.26"
Δ/2	35°40'07.29"	16°17'15.59"	26°13'12.72"	5°25'57.04"	26°54'02.13"
R	45.00'	81.91'	78.82'	413.00'	68.32'
Tan.	32.30'	23.93'	38.82'	39.28'	34.66'
C	52.48'	45.94'	69.65'	78.20'	61.82'
Lc	56.03'	46.57'	72.14'	78.32'	64.15'

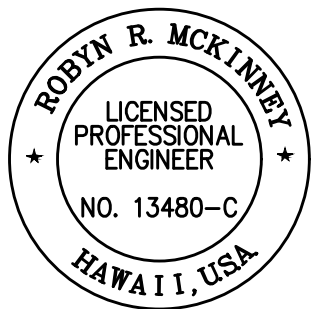
POINT DATA:

<div>P1</div> <div>☼ Sta. 121+53.49 O/S 26.44' Lt. Bus Pad</div> <div>1</div>	<div>P2</div> <div>☼ Sta. 122+03.48 O/S 27.27' Lt. Bus Pad</div> <div>1</div>	<div>P3</div> <div>☼ Sta. 122+53.67 O/S 16.11' Lt. End Bus Bay</div> <div>1</div> <div>Trans.</div>	<div>P4</div> <div>☼ Sta. 123+08.80 O/S 17.02' Lt. PC EP</div>	<div>P5</div> <div>Sta. 123+25.00 O/S 33.53' Lt. Begin Swale Trans.</div>	<div>P6</div> <div>☼ Sta. 123+32.15 O/S 31.32' Lt. End Swale Begin AC Curb</div>
<div>P7</div> <div>☼ Sta. 123+52.44 O/S 34.97' Lt. PRC EP</div>	<div>P8</div> <div>☼ Sta. 124+12.95 O/S 37.51' Lt. PRC EP</div>	<div>P9</div> <div>☼ Sta. 124+42.22 O/S 34.62' Lt. End AC Curb Begin Swale</div>	<div>P10</div> <div>☼ Sta. 124+50.00 O/S 35.54' Lt. End Swale Trans.</div>	<div>P11</div> <div>☼ Sta. 124+87.65 O/S 17.88' Lt. PT EP</div>	<div>P12</div> <div>Dwy #2 Sta. 0+00.00 =☼ Sta. 125+21.00</div>
<div>P13</div> <div>☼ Sta. 124+85.56 O/S 17.79' Rt. PT EP</div>	<div>P14</div> <div>☼ Sta. 124+57.84 O/S 17.07' Rt. PRC EP</div>	<div>P15</div> <div>☼ Sta. 124+61.59 O/S 29.83' Rt. End Swale Trans.</div>	<div>P16</div> <div>Sta. 124+50.00 O/S 27.53' Rt. Begin Swale</div>	<div>P17</div> <div>☼ Sta. 124+27.62 O/S 24.45' Rt. PCC EP</div>	<div>P18</div> <div>☼ Sta. 124+09.28 O/S 73.62' Rt. PC EP</div>
<div>P19</div> <div>☼ Sta. 123+83.85 O/S 74.63' Rt. PT EP</div>	<div>P20</div> <div>☼ Sta. 123+70.29 O/S 68.52' Rt. PT ES</div>	<div>P21</div> <div>☼ Sta. 123+53.06 O/S 46.90' Rt. PCC ES</div>	<div>P22</div> <div>☼ Sta. 123+56.13 O/S 38.00' Rt. PCC EP Begin Reconstruction</div>	<div>P23</div> <div>☼ Sta. 123+49.63 O/S 46.84' Rt. End FL Elev=491.49</div>	<div>P24</div> <div>☼ Sta. 123+18.82 O/S 40.09' Rt. PI FL Elev=489.80</div>
<div>P25</div> <div>☼ Sta. 122+87.11 O/S 27.45' Rt. PC ES</div>	<div>P26</div> <div>☼ Sta. 122+83.99 O/S 17.24' Rt. PC EP</div>	<div>P27</div> <div>☼ Sta. 122+44.32 O/S 21.82' Rt. PT EP</div>	<div>P28</div> <div>☼ Sta. 121+84.72 O/S 42.31' Rt. PT FL Elev=488.15</div>	<div>P29</div> <div>☼ Sta. 121+66.14 O/S 23.40' Rt. PC EP</div>	<div>P30</div> <div>☼ Sta. 121+18.42 O/S 3.76' Rt. Splitter Island</div>
<div>P31</div> <div>☼ Sta. 123+16.13 O/S 2.20' Lt. Splitter Island</div>	<div>P32</div> <div>☼ Sta. 124+33.32 O/S 7.03' Lt. Splitter Island</div>	<div>P33</div> <div>☼ Sta. 124+61.80 O/S 1.22' Lt. Splitter Island</div>	<div>P34</div> <div><del>☼ Sta. 124+18.42</del> <del>O/S 57.98' Rt.</del> Begin Gradewall</div>	<div>P35</div> <div><del>☼ Sta. 124+33.07</del> <del>O/S 31.49' Rt.</del> End Gradewall</div>	

LEGEND FOR  
AS-BUILT POSTINGS

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

12/16/19	1 Added Gradewall Data; Revised Bus Pad/Bay Labels
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CURVE DATA	
KEAAU-PAHOA ROAD INTERSECTION IMPROVEMENTS at Ainaloa Boulevard Federal-Aid Project No. STP-0130(27)	
Scale: 1" = 20'	Date: July, 2019
SHEET No. 8 OF 8 SHEETS	



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION AND  
CONSTRUCTION OF THIS PROJECT  
WILL BE UNDER MY OBSERVATION.

*Robyn R. McKinney* 04/30/20  
SIGNATURE EXPIRATION DATE  
OF THE LICENSE

"AS-BUILT"

ADD.32