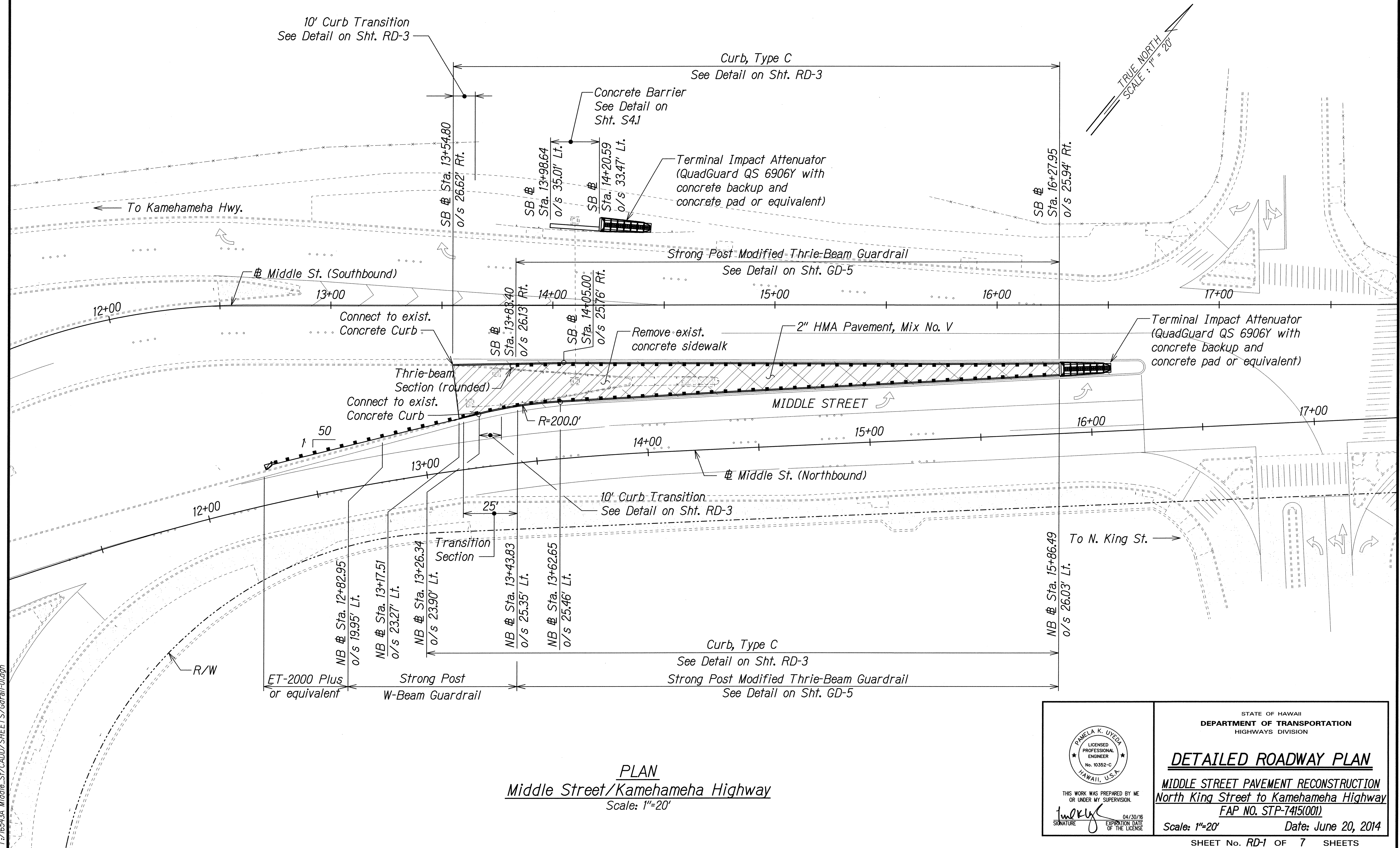


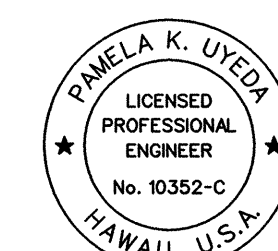
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7415(001)	2014	29	173



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	

T:\16543A Middle St\CAD\16543A\16543A-01.dgn

PLAN
Middle Street/Kamehameha Highway
 Scale: 1"=20'



THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION.
 SIGNATURE: *Pamela K. Uyeda*
 EXPIRATION DATE OF THE LICENSE: 04/30/16

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DETAILED ROADWAY PLAN

MIDDLE STREET PAVEMENT RECONSTRUCTION
North King Street to Kamehameha Highway
FAP NO. STP-7415(001)

Scale: 1"=20' Date: June 20, 2014

SHEET No. RD-1 OF 7 SHEETS

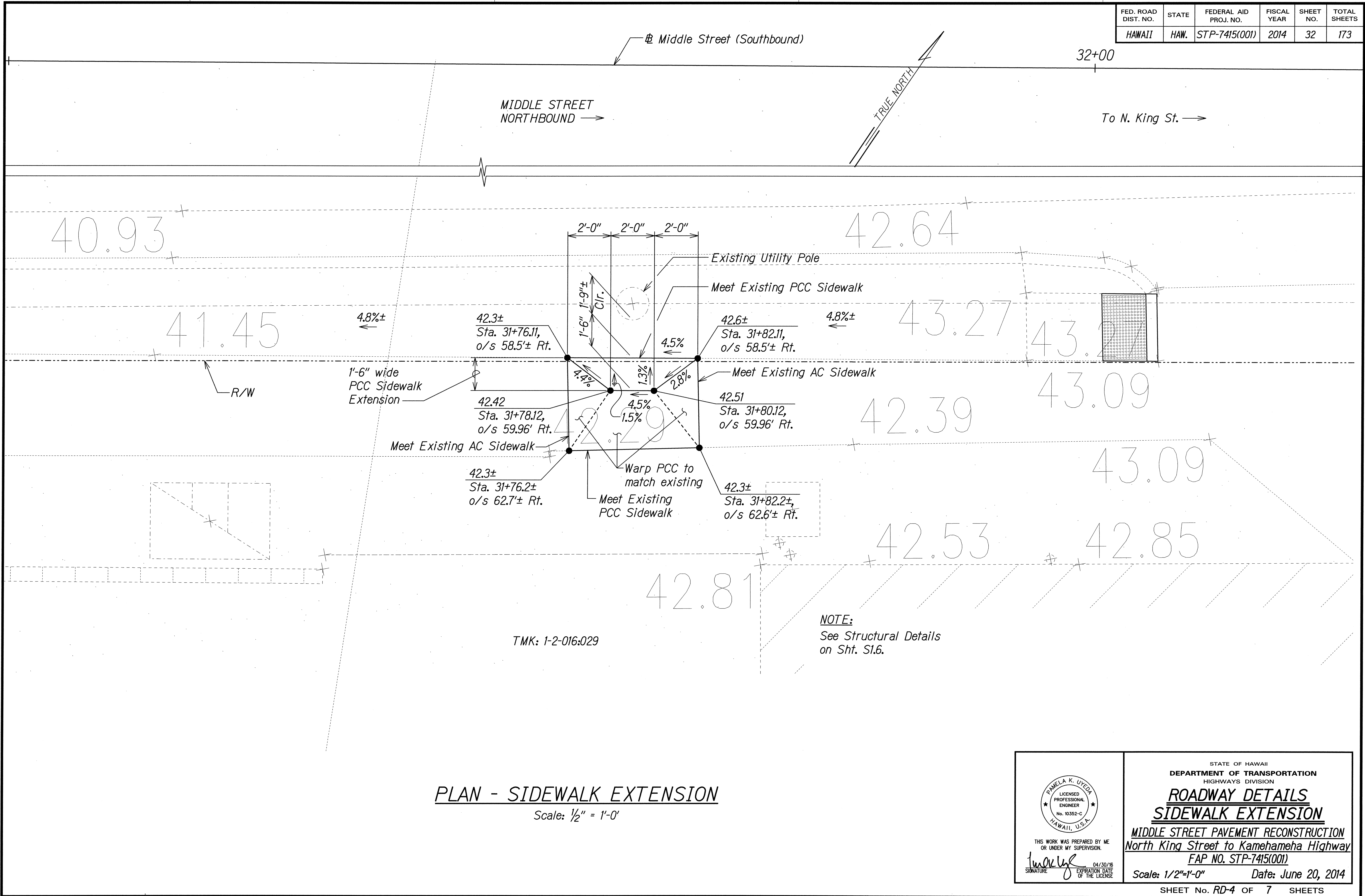
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7415(001)	2014	30	173

DRIVEWAY DETAIL
Scale: 1/2" = 1'-0"

Key features include:
 - Middle Street (Southbound) at Sta. 33+50
 - Middle Street (Northbound) at Sta. 33+50
 - Vertical Curve Data: TC 49.93, BC 49.43, Sta. 33+53.27, o/s 49.55' Rt.
 - Vertical Curve Data: TC 49.71, BC 49.63, Sta. 33+56.27, o/s 49.53' Rt.
 - Vertical Curve Data: TC 50.32, BC 50.24, Sta. 33+68.23, o/s 49.46' Rt.
 - Vertical Curve Data: TC 50.59, BC 50.46, Sta. 33+72.61, o/s 49.43' Rt.
 - Vertical Curve Data: TC 50.82, BC 50.69, Sta. 33+75.26, o/s 49.40' Rt.
 - Vertical Curve Data: TC 51.05, BC 50.92, Sta. 33+77.91, o/s 49.37' Rt.
 - Vertical Curve Data: TC 51.28, BC 51.15, Sta. 33+80.56, o/s 49.34' Rt.
 - Vertical Curve Data: TC 51.51, BC 51.38, Sta. 33+83.21, o/s 49.31' Rt.
 - Vertical Curve Data: TC 51.74, BC 51.61, Sta. 33+85.86, o/s 49.28' Rt.
 - Vertical Curve Data: TC 51.97, BC 51.84, Sta. 33+88.51, o/s 49.25' Rt.
 - Vertical Curve Data: TC 52.20, BC 52.07, Sta. 33+91.16, o/s 49.22' Rt.
 - Vertical Curve Data: TC 52.43, BC 52.30, Sta. 33+93.81, o/s 49.19' Rt.
 - Vertical Curve Data: TC 52.66, BC 52.53, Sta. 33+96.46, o/s 49.16' Rt.
 - Vertical Curve Data: TC 52.89, BC 52.76, Sta. 33+99.11, o/s 49.13' Rt.
 - Vertical Curve Data: TC 53.12, BC 52.99, Sta. 34+01.76, o/s 49.10' Rt.
 - Vertical Curve Data: TC 53.35, BC 53.22, Sta. 34+04.41, o/s 49.07' Rt.
 - Vertical Curve Data: TC 53.58, BC 53.45, Sta. 34+07.06, o/s 49.04' Rt.
 - Vertical Curve Data: TC 53.81, BC 53.68, Sta. 34+09.71, o/s 49.01' Rt.
 - Vertical Curve Data: TC 54.04, BC 53.91, Sta. 34+12.36, o/s 48.98' Rt.
 - Vertical Curve Data: TC 54.27, BC 54.14, Sta. 34+15.01, o/s 48.95' Rt.
 - Vertical Curve Data: TC 54.50, BC 54.37, Sta. 34+17.66, o/s 48.92' Rt.
 - Vertical Curve Data: TC 54.73, BC 54.60, Sta. 34+20.31, o/s 48.89' Rt.
 - Vertical Curve Data: TC 54.96, BC 54.83, Sta. 34+22.96, o/s 48.86' Rt.
 - Vertical Curve Data: TC 55.19, BC 55.06, Sta. 34+25.61, o/s 48.83' Rt.
 - Vertical Curve Data: TC 55.42, BC 55.29, Sta. 34+28.26, o/s 48.80' Rt.
 - Vertical Curve Data: TC 55.65, BC 55.52, Sta. 34+30.91, o/s 48.77' Rt.
 - Vertical Curve Data: TC 55.88, BC 55.75, Sta. 34+33.56, o/s 48.74' Rt.
 - Vertical Curve Data: TC 56.11, BC 55.98, Sta. 34+36.21, o/s 48.71' Rt.
 - Vertical Curve Data: TC 56.34, BC 56.21, Sta. 34+38.86, o/s 48.68' Rt.
 - Vertical Curve Data: TC 56.57, BC 56.44, Sta. 34+41.51, o/s 48.65' Rt.
 - Vertical Curve Data: TC 56.80, BC 56.67, Sta. 34+44.16, o/s 48.62' Rt.
 - Vertical Curve Data: TC 57.03, BC 56.90, Sta. 34+46.81, o/s 48.59' Rt.
 - Vertical Curve Data: TC 57.26, BC 57.13, Sta. 34+49.46, o/s 48.56' Rt.
 - Vertical Curve Data: TC 57.49, BC 57.36, Sta. 34+52.11, o/s 48.53' Rt.
 - Vertical Curve Data: TC 57.72, BC 57.59, Sta. 34+54.76, o/s 48.50' Rt.
 - Vertical Curve Data: TC 57.95, BC 57.82, Sta. 34+57.41, o/s 48.47' Rt.
 - Vertical Curve Data: TC 58.18, BC 58.05, Sta. 34+60.06, o/s 48.44' Rt.
 - Vertical Curve Data: TC 58.41, BC 58.28, Sta. 34+62.71, o/s 48.41' Rt.
 - Vertical Curve Data: TC 58.64, BC 58.51, Sta. 34+65.36, o/s 48.38' Rt.
 - Vertical Curve Data: TC 58.87, BC 58.74, Sta. 34+68.01, o/s 48.35' Rt.
 - Vertical Curve Data: TC 59.10, BC 58.97, Sta. 34+70.66, o/s 48.32' Rt.
 - Vertical Curve Data: TC 59.33, BC 59.20, Sta. 34+73.31, o/s 48.29' Rt.
 - Vertical Curve Data: TC 59.56, BC 59.43, Sta. 34+75.96, o/s 48.26' Rt.
 - Vertical Curve Data: TC 59.79, BC 59.66, Sta. 34+78.61, o/s 48.23' Rt.
 - Vertical Curve Data: TC 60.02, BC 59.89, Sta. 34+81.26, o/s 48.20' Rt.
 - Vertical Curve Data: TC 60.25, BC 60.12, Sta. 34+83.91, o/s 48.17' Rt.
 - Vertical Curve Data: TC 60.48, BC 60.35, Sta. 34+86.56, o/s 48.14' Rt.
 - Vertical Curve Data: TC 60.71, BC 60.58, Sta. 34+89.21, o/s 48.11' Rt.
 - Vertical Curve Data: TC 60.94, BC 60.81, Sta. 34+91.86, o/s 48.08' Rt.
 - Vertical Curve Data: TC 61.17, BC 61.04, Sta. 34+94.51, o/s 48.05' Rt.
 - Vertical Curve Data: TC 61.40, BC 61.27, Sta. 34+97.16, o/s 48.02' Rt.
 - Vertical Curve Data: TC 61.63, BC 61.50, Sta. 34+99.81, o/s 47.99' Rt.
 - Vertical Curve Data: TC 61.86, BC 61.73, Sta. 35+02.46, o/s 47.96' Rt.
 - Vertical Curve Data: TC 62.09, BC 61.96, Sta. 35+05.11, o/s 47.93' Rt.
 - Vertical Curve Data: TC 62.32, BC 62.19, Sta. 35+07.76, o/s 47.90' Rt.
 - Vertical Curve Data: TC 62.55, BC 62.42, Sta. 35+10.41, o/s 47.87' Rt.
 - Vertical Curve Data: TC 62.78, BC 62.65, Sta. 35+13.06, o/s 47.84' Rt.
 - Vertical Curve Data: TC 63.01, BC 62.88, Sta. 35+15.71, o/s 47.81' Rt.
 - Vertical Curve Data: TC 63.24, BC 63.11, Sta. 35+18.36, o/s 47.78' Rt.
 - Vertical Curve Data: TC 63.47, BC 63.34, Sta. 35+21.01, o/s 47.75' Rt.
 - Vertical Curve Data: TC 63.70, BC 63.57, Sta. 35+23.66, o/s 47.72' Rt.
 - Vertical Curve Data: TC 63.93, BC 63.80, Sta. 35+26.31, o/s 47.69' Rt.
 - Vertical Curve Data: TC 64.16, BC 64.03, Sta. 35+28.96, o/s 47.66' Rt.
 - Vertical Curve Data: TC 64.39, BC 64.26, Sta. 35+31.61, o/s 47.63' Rt.
 - Vertical Curve Data: TC 64.62, BC 64.49, Sta. 35+34.26, o/s 47.60' Rt.
 - Vertical Curve Data: TC 64.85, BC 64.72, Sta. 35+36.91, o/s 47.57' Rt.
 - Vertical Curve Data: TC 65.08, BC 64.95, Sta. 35+39.56, o/s 47.54' Rt.
 - Vertical Curve Data: TC 65.31, BC 65.18, Sta. 35+42.21, o/s 47.51' Rt.
 - Vertical Curve Data: TC 65.54, BC 65.41, Sta. 35+44.86, o/s 47.48' Rt.
 - Vertical Curve Data: TC 65.77, BC 65.64, Sta. 35+47.51, o/s 47.45' Rt.
 - Vertical Curve Data: TC 66.00, BC 65.87, Sta. 35+50.16, o/s 47.42' Rt.
 - Vertical Curve Data: TC 66.23, BC 66.10, Sta. 35+52.81, o/s 47.39' Rt.
 - Vertical Curve Data: TC 66.46, BC 66.33, Sta. 35+55.46, o/s 47.36' Rt.
 - Vertical Curve Data: TC 66.69, BC 66.56, Sta. 35+58.11, o/s 47.33' Rt.
 - Vertical Curve Data: TC 66.92, BC 66.79, Sta. 35+60.76, o/s 47.30' Rt.
 - Vertical Curve Data: TC 67.15, BC 67.02, Sta. 35+63.41, o/s 47.27' Rt.
 - Vertical Curve Data: TC 67.38, BC 67.25, Sta. 35+66.06, o/s 47.24' Rt.
 - Vertical Curve Data: TC 67.61, BC 67.48, Sta. 35+68.71, o/s 47.21' Rt.
 - Vertical Curve Data: TC 67.84

30

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7415(001)	2014	32	173



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	CHECKED BY	
	DESIGNED BY	
	NOTED BY	

T-16543A Middle St/CADD/SHEETS/CR-01adgn

PLAN - SIDEWALK EXTENSION

Scale: 1/2" = 1'-0'

NOTE:
See Structural Details
on Sht. S1.6.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**ROADWAY DETAILS
SIDEWALK EXTENSION**

MIDDLE STREET PAVEMENT RECONSTRUCTION
North King Street to Kamehameha Highway
FAP NO. STP-7415(001)

Scale: 1/2"=1'-0" Date: June 20, 2014

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

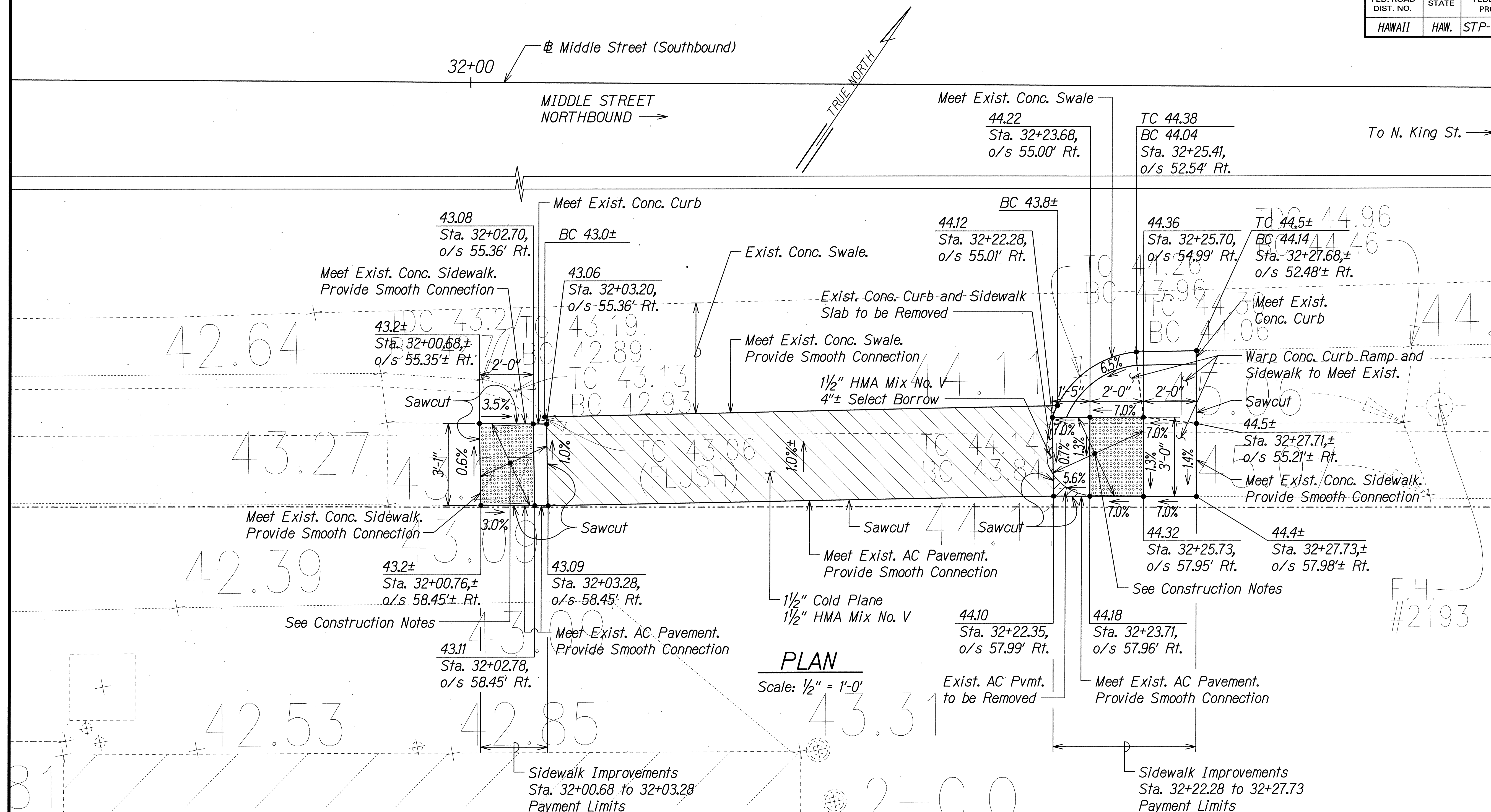
Imak
SIGNATURE

04/30/16
EXPIRATION DATE
OF THE LICENSE

PAMELA K. UYEDA
LICENSED
PROFESSIONAL
ENGINEER
No. 10352-C
HAWAII, U.S.A.

SHEET No. RD-4 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7415(001)	2014	33	173



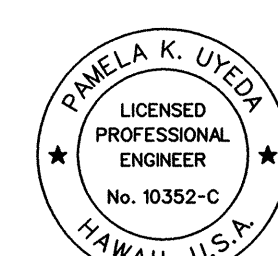
PLAN
Scale: 1/2" = 1'-0"

CONSTRUCTION NOTES:

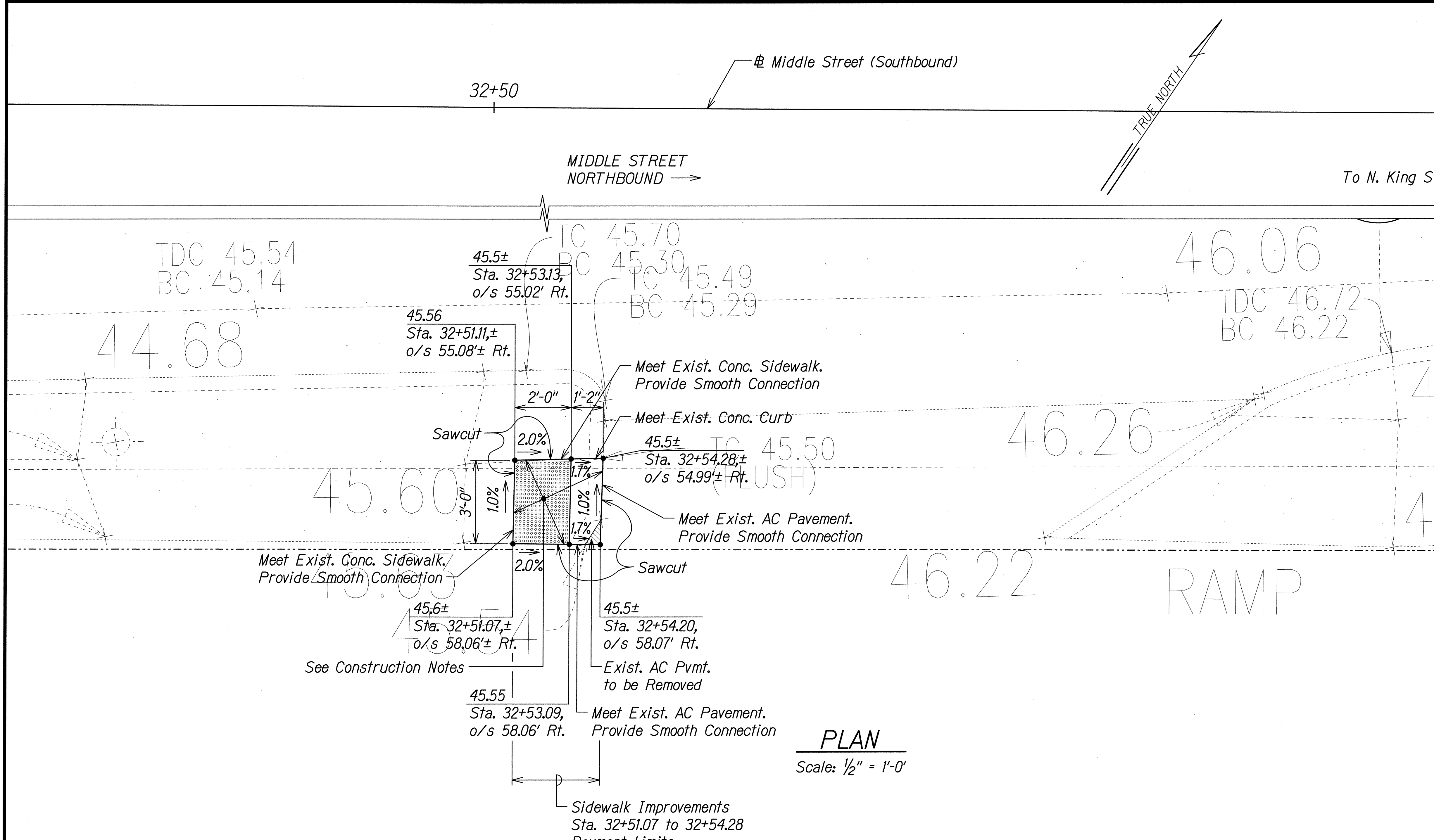
1. Remove Existing Detectable Warning Surface and Fasteners.
2. Sawcut and remove existing concrete curb, portion of concrete curb ramp, and part of existing AC pavement.
3. Re-construct portion of concrete curb ramp as shown with new Detectable Warning Surface per Manufacturer's Specifications. See sheet RD-7 for details.

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

T:\16543A Middle_ST\CADD\SHEETS\CR-02.dgn

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. SIGNATURE: <i>[Signature]</i> 04/30/16 EXPIRATION DATE OF THE LICENSE	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ROADWAY DETAILS CURB RAMP/SIDEWALK RECONSTRUCTION MIDDLE STREET PAVEMENT RECONSTRUCTION North King Street to Kamehameha Highway FAP NO. STP-7415(001) Scale: 1/2"=1'-0" Date: June 20, 2014

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7415(001)	2014	34	173



PLAN
Scale: 1/2" = 1'-0'

- CONSTRUCTION NOTES:**
1. Remove Existing Detectable Warning Surface and Fasteners.
 2. Sawcut and remove existing concrete curb, portion of concrete curb ramp, and part of existing AC pavement.
 3. Re-construct portion of concrete curb ramp as shown with new Detectable Warning Surface per Manufacturer's Specifications. See sheet RD-7 for details.

REVIEW PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	

T:\16543A Middle St\CADD\SHEETS\CR-03.dgn

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Inday 04/30/16
SIGNATURE EXPIRATION DATE OF THE LICENSE

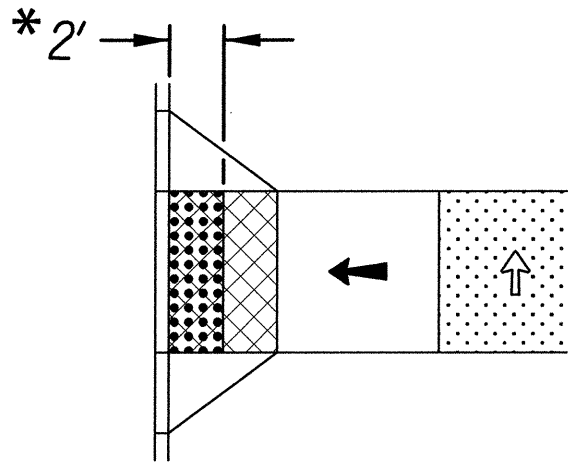
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY DETAILS
CURB RAMP RECONSTRUCTION

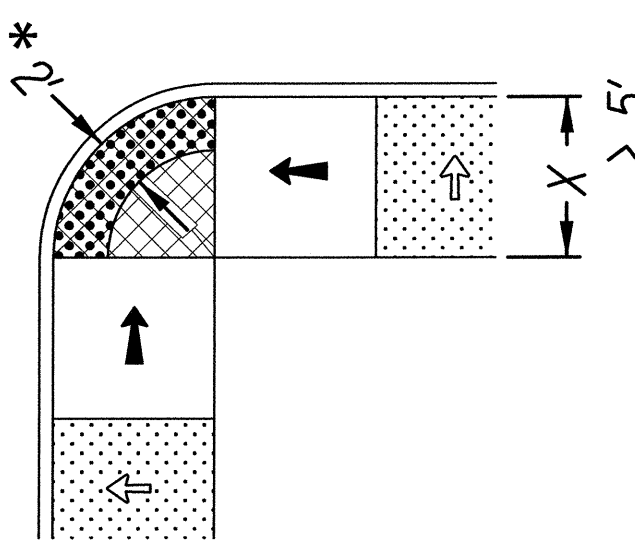
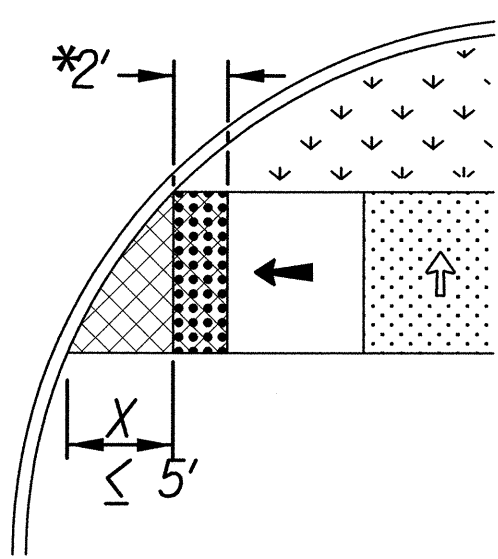
MIDDLE STREET PAVEMENT RECONSTRUCTION
North King Street to Kamehameha Highway
FAP NO. STP-7415(001)

Scale: 1/2"=1'-0" Date: June 20, 2014

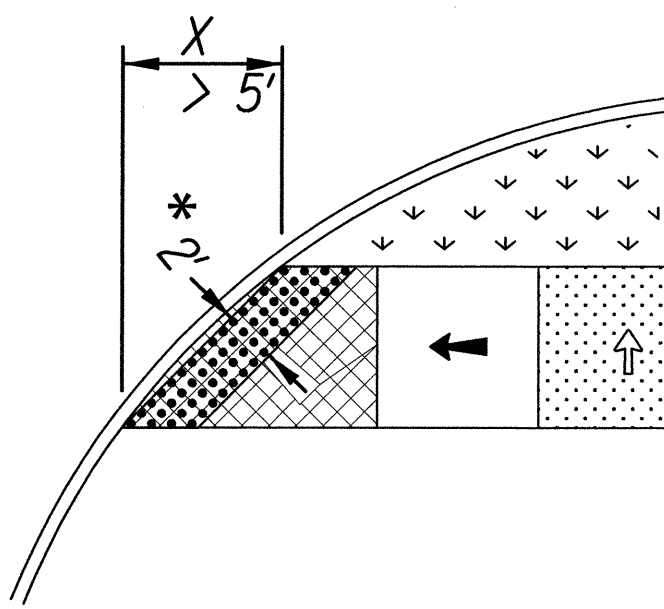
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7415(001)	2014	35	173



When distance "X" is less than 5', truncated dome detectable warning surface shall be placed perpendicular to the path of travel.



When distance "X" is greater than 5', truncated dome detectable warning surface shall be placed parallel to the bottom of curb ramp.



PLACEMENT ON SIDEWALK RAMP
Scale: NTS

LEGEND:

↔ Slope 2% max.

← Slope 8.33% (1":12") max.
(Ramp length 15' max.)

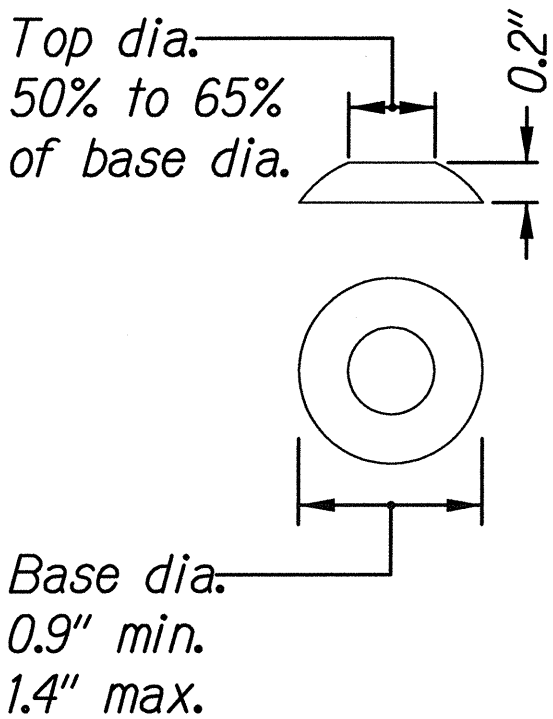
Truncated dome detectable warning surface

Turning space (Minimum level area 48" x 48")
For the purposes of this application,
a 2% maximum slope (For drainage) is
considered level

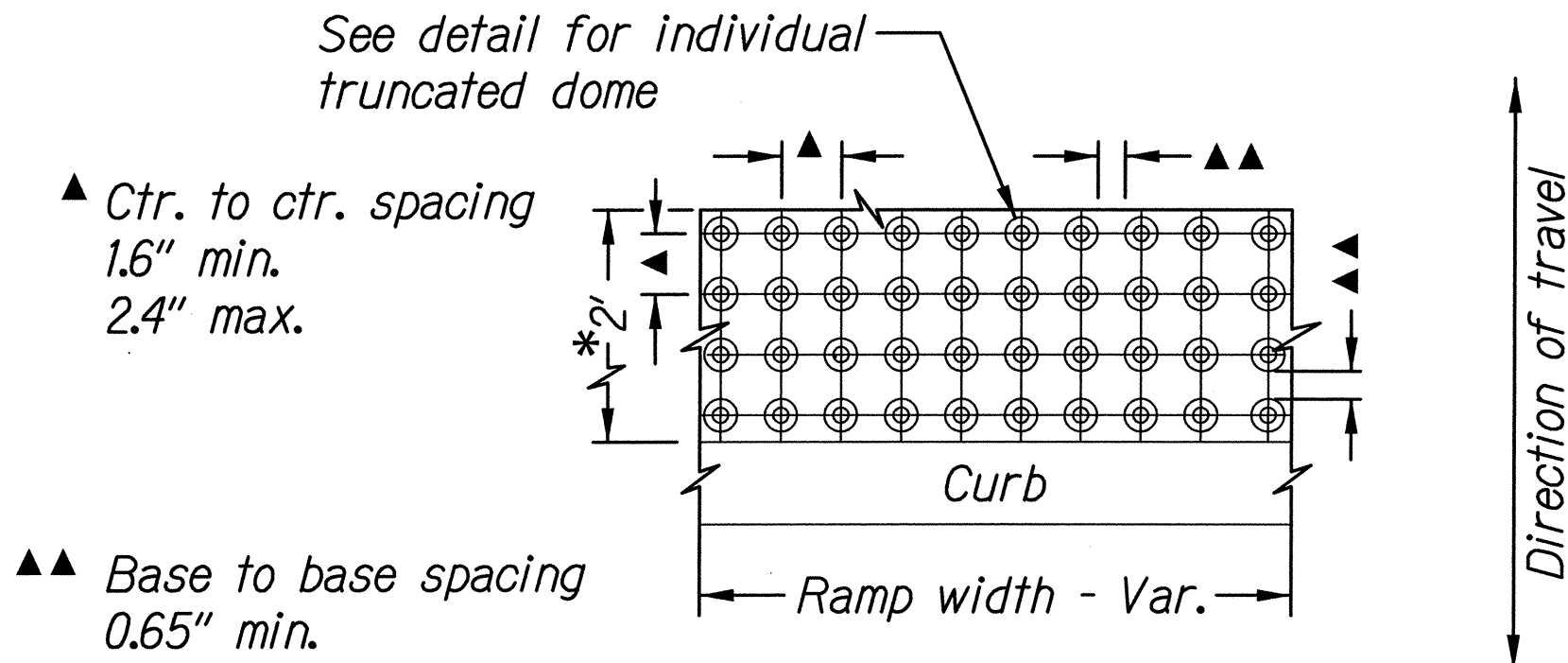
*2' See general note 3

GENERAL NOTES FOR ALL DETAILS:

1. Truncated dome detectable warning surface details & locations are based on United States Access Board Standards.
2. See Sheets RD-5 and RD-6 for curb locations.
3. Place truncated dome detectable warning surface in the lower 2' adjacent to traffic of throat of ramp only, unless otherwise shown. Arrange domes using square in-line pattern only. Color to be safety yellow if no color specified in construction note. All products on an installation to be identical.
4. Truncated dome detectable warning surface shall be used where the pedestrian access route meets the street, in the following locations:
a) Sidewalk ramps
b) Crossing islands



TRUNCATED DOME DETAIL
Scale: NTS



TRUNCATED DOME PATTERN
Scale: NTS

TRUNCATED DOME DETECTABLE WARNING SURFACE

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Signature: *P. Uyeda* 04/30/16
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**DETECTABLE WARNING SURFACE
DETAILS AND LOCATIONS**

MIDDLE STREET PAVEMENT RECONSTRUCTION
North King Street to Kamehameha Highway
FAP NO. STP-7415(001)

Scale: None Date: June 20, 2014