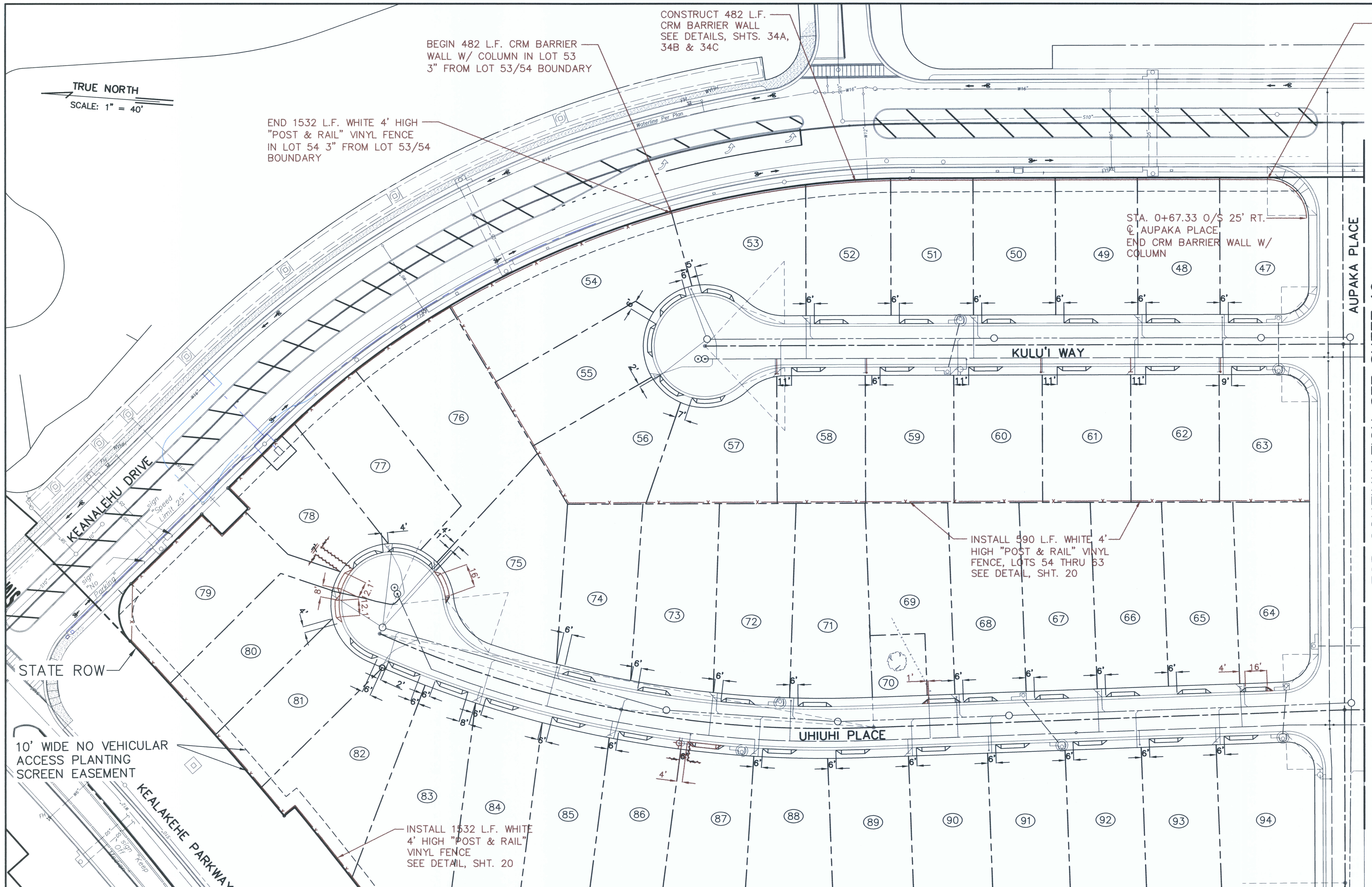
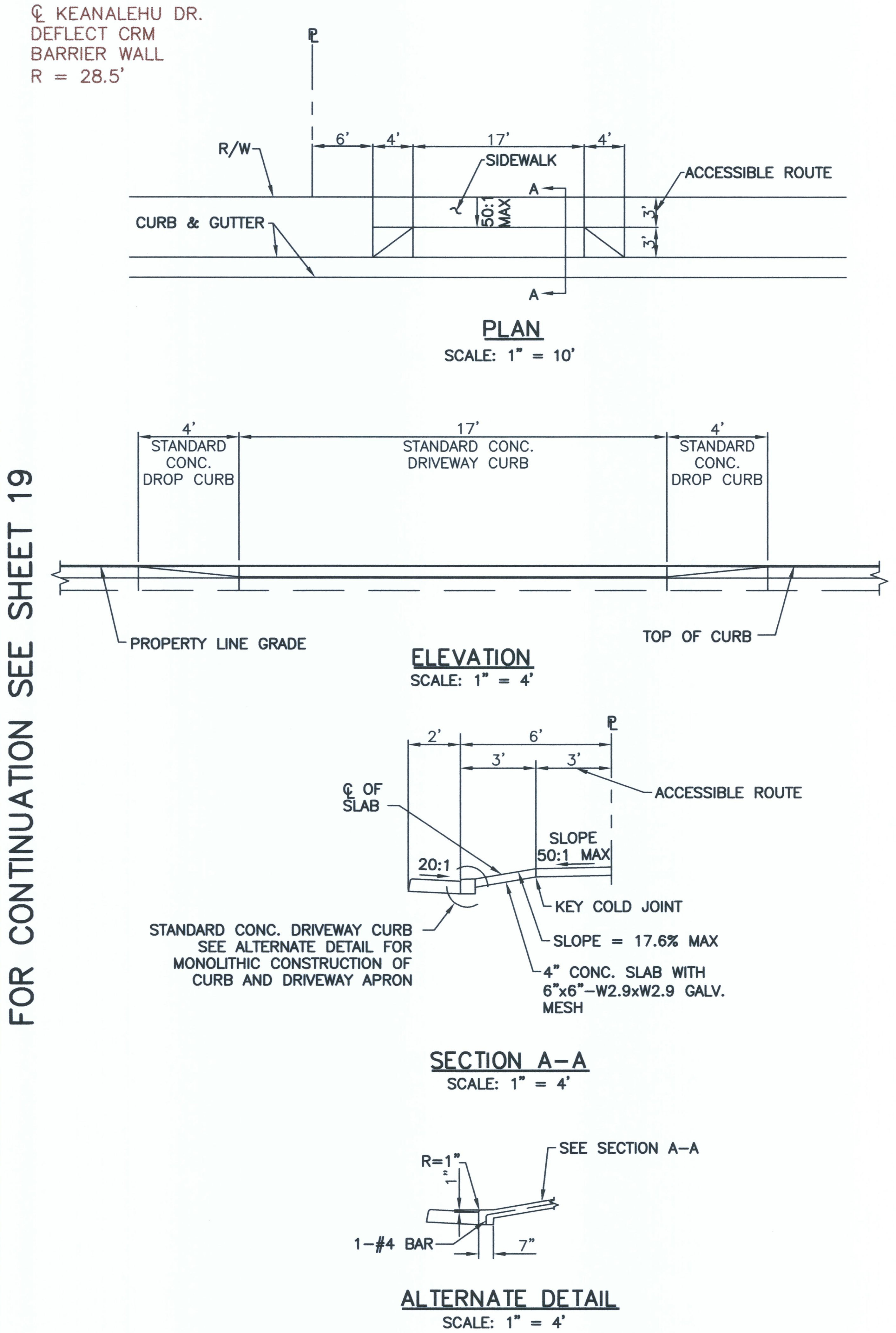


FOR CONTINUATION SEE SHEET 20



DRIVEWAY APRON DETAIL

LEGEND

w8	EXIST. WATER LINE		DOUBLE SERVICE SEWER LATERAL
W8	NEW WATER LINE		SINGLE SERVICE SEWER LATERAL
d24	EXIST. DRAIN LINE		FIRE HYDRANT
D24	NEW DRAIN LINE		1-1/2" DOUBLE SERVICE WATER LATERAL WITH TYPE "B" CONNECTION FOR 2-5/8" METERS
s8	EXIST. SEWER LINE		1" SINGLE SERVICE WATER LATERAL WITH TYPE "A" CONNECTION FOR ONE 5/8" METER
S8	NEW SEWER LINE	(5)	LOT NUMBER

DRIVEWAY LAYOUT, WALL & FENCING PLAN

SCALE: 1" = 40'

40 0 40 80

SCALE: 1" = 40'

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Plotted on: 5/29/2012

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LICENSE EXPIRES 4/30/10

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

DRIVEWAY LAYOUT, WALL & FENCING PLAN

Approved:

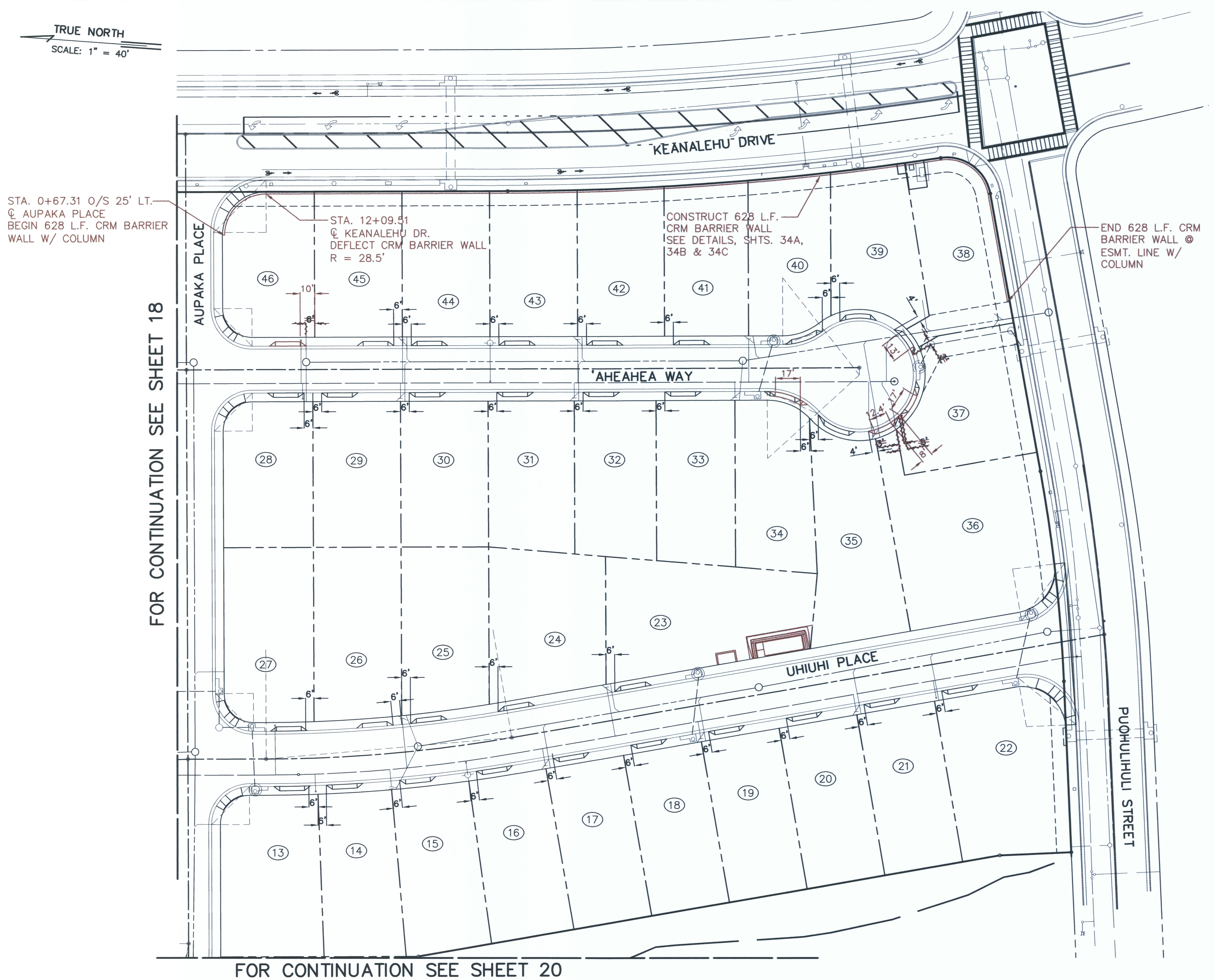
COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

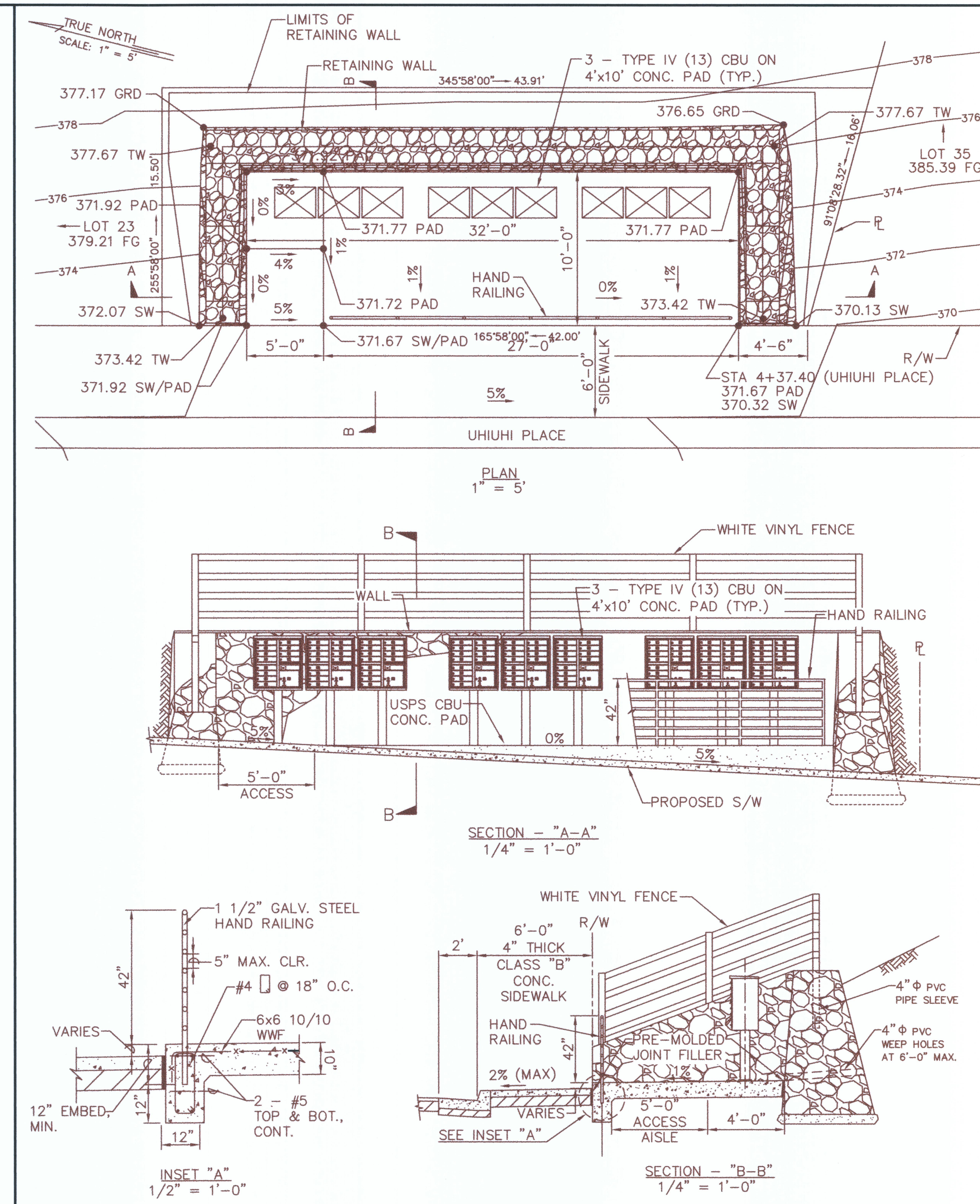
AKINAKA & ASSOCIATES, LTD.
CONSULTING ENGINEERS

AS-BUILT

SHEET 18 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.





USPS CBU LAYOUT
SCALE: AS SHOWN

LEGEND

w8	EXIST. WATER LINE		DOUBLE SERVICE SEWER LATERAL
W8	NEW WATER LINE		SINGLE SERVICE SEWER LATERAL
d24	EXIST. DRAIN LINE		FIRE HYDRANT
D24	NEW DRAIN LINE		1-1/2" DOUBLE SERVICE WATER LATERAL WITH TYPE "B" CONNECTION FOR 2-5/8" METERS
s8	EXIST. SEWER LINE		1" SINGLE SERVICE WATER LATERAL WITH TYPE "A" CONNECTION FOR ONE 5/8" METER
S8	NEW SEWER LINE	(5)	LOT NUMBER

DRIVEWAY LAYOUT, WALL & FENCING PLAN
SCALE: 1" = 40'

40' 0 40' 80'
SCALE: 1" = 40'

2' 0 2' 4'
SCALE: 1/2" = 1'-0"

4' 0 4' 8'
SCALE: 1/4" = 1'-0"

5' 0 5' 10'
SCALE: 1" = 5'

SHELDON T. YAMASATO
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No.4733-C
HAWAII, U.S.A.

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DEPARTMENT OF HAWAIIAN HOME LANDS
LA'I'OPUA VILLAGE 5
TAX MAP KEY: (3) 7-4-21:6
KAILUA-KONA, NORTH KONA, HAWAII

DRIVEWAY LAYOUT, WALL & FENCING PLAN

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

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SHEET 19 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

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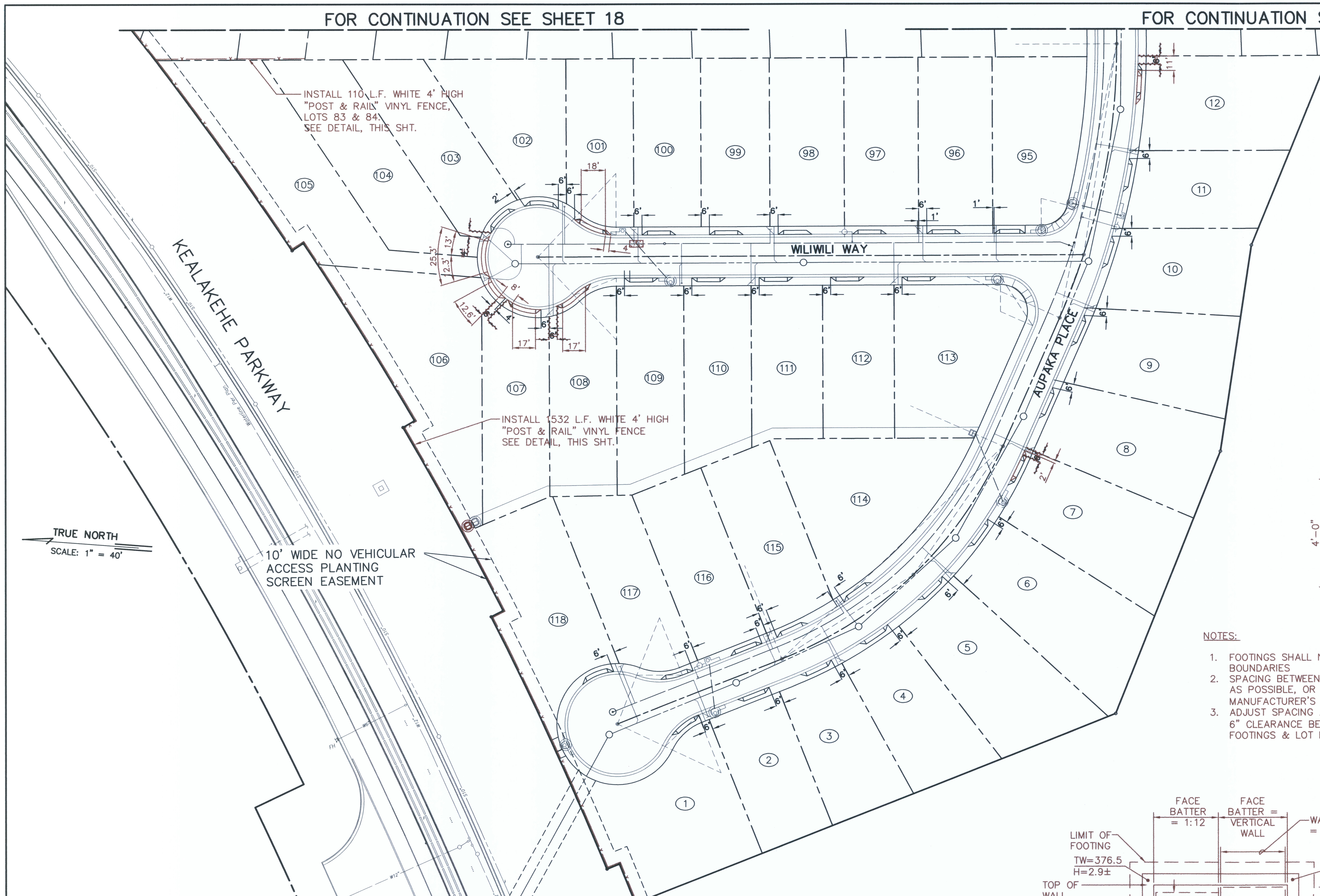
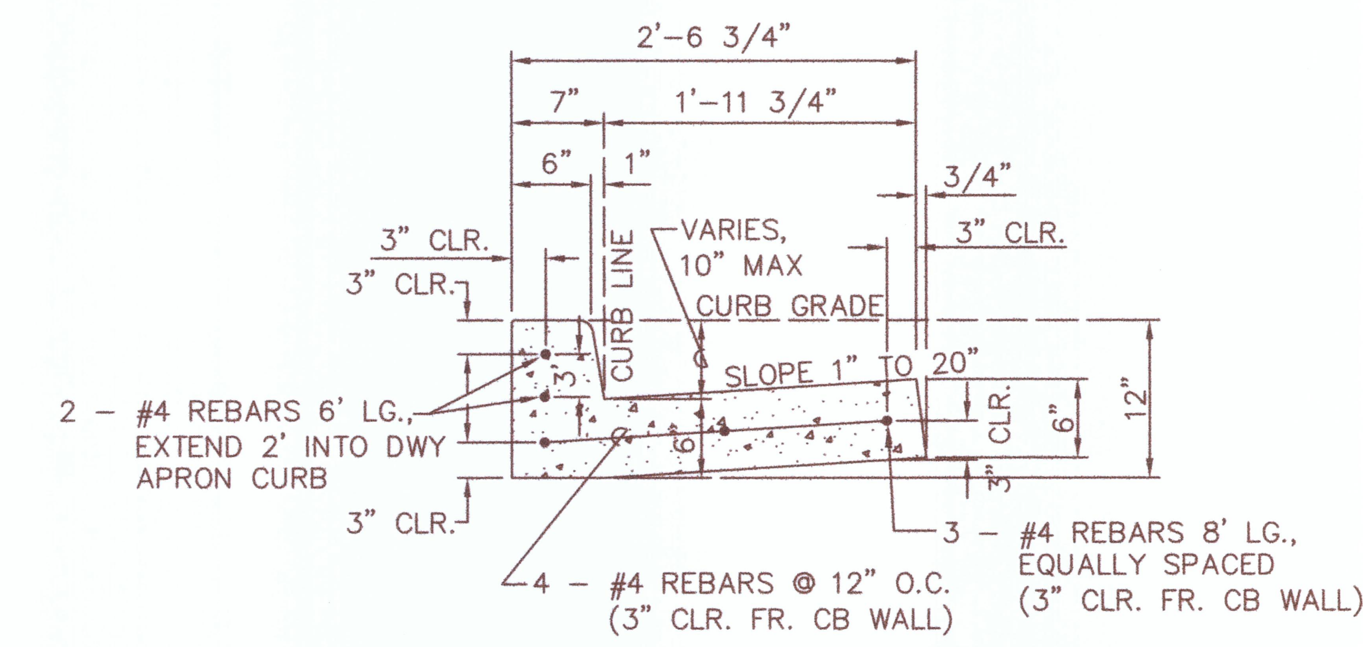
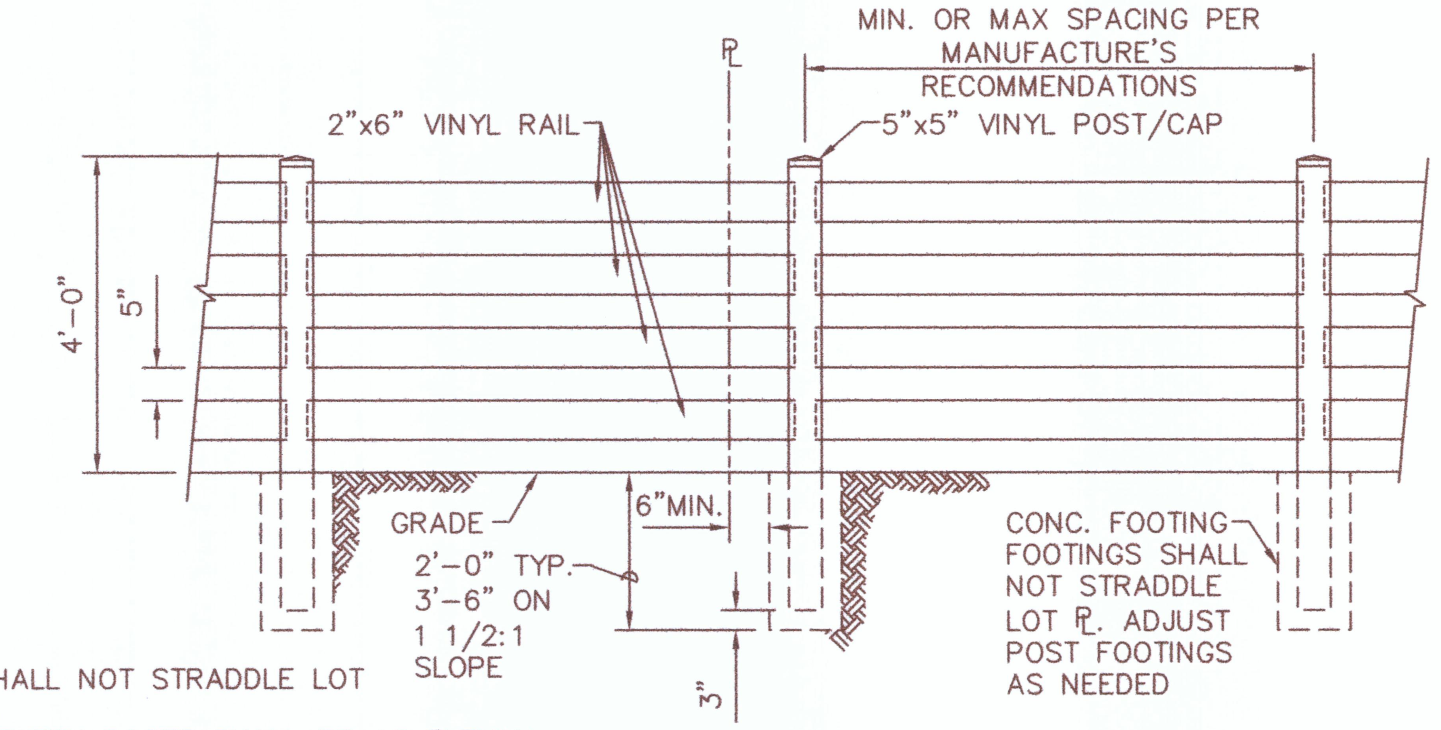




CAST IN PLACE INTEGRAL CURB & GUTTER

SCALE: 1" = 1'-0"

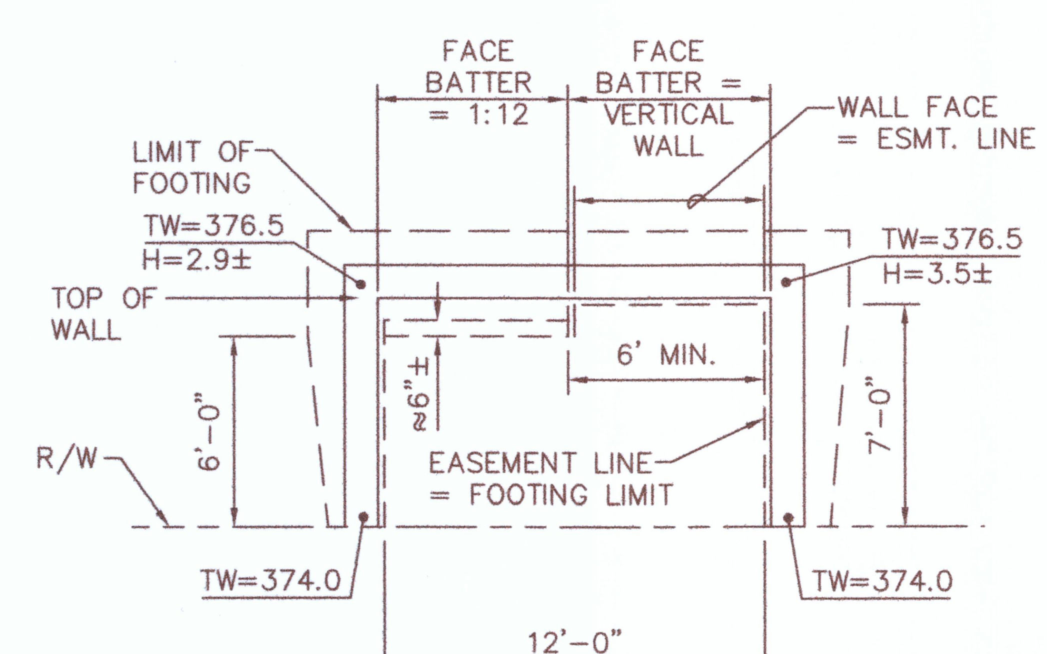


NOTES:

1. FOOTINGS SHALL NOT STRADDLE LOT BOUNDARIES
2. SPACING BETWEEN POSTS SHALL BE AS EVENLY AS POSSIBLE, OR PER MIN. OR MAX MANUFACTURER'S RECOMMENDATIONS
3. ADJUST SPACING AS NEEDED TO MAINTAIN MIN. 6" CLEARANCE BETWEEN OUTSIDE OF POST FOOTINGS & LOT BOUNDARIES

WHITE POST & RAIL VINYL FENCE

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



ELECTRICAL EASEMENT – PLAN

SCALE: 1" = 5'

LEGEND

w8	EXIST. WATER LINE		DOUBLE SERVICE SEWER LATERAL
W8	NEW WATER LINE		SINGLE SERVICE SEWER LATERAL
d24	EXIST. DRAIN LINE		FIRE HYDRANT
D24	NEW DRAIN LINE		1-1/2" DOUBLE SERVICE WATER LATERAL WITH TYPE "B" CONNECTION FOR 2-5/8" METERS
s8	EXIST. SEWER LINE		1" SINGLE SERVICE WATER LATERAL WITH TYPE "A" CONNECTION FOR ONE 5/8" METER
S8	NEW SEWER LINE		
(5)	LOT NUMBER		

DRIVEWAY LAYOUT, WALL & FENCING PLAN

SCALE: 1" = 40'

40 0 40 80

SCALE: 1" = 40'

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Plotted on: 5/29/2012

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DEPARTMENT OF HAWAIIAN HOME LANDS
LA'I'OPUA VILLAGE 5
TAX MAP KEY: (3) 7-4-21:6
KAILUA-KONA, NORTH KONA, HAWAII

DRIVEWAY LAYOUT, WALL & FENCING PLAN

SHELDON T. YAMASATO LICENSED PROFESSIONAL ENGINEER No.4733-C HAWAII, U.S.A.

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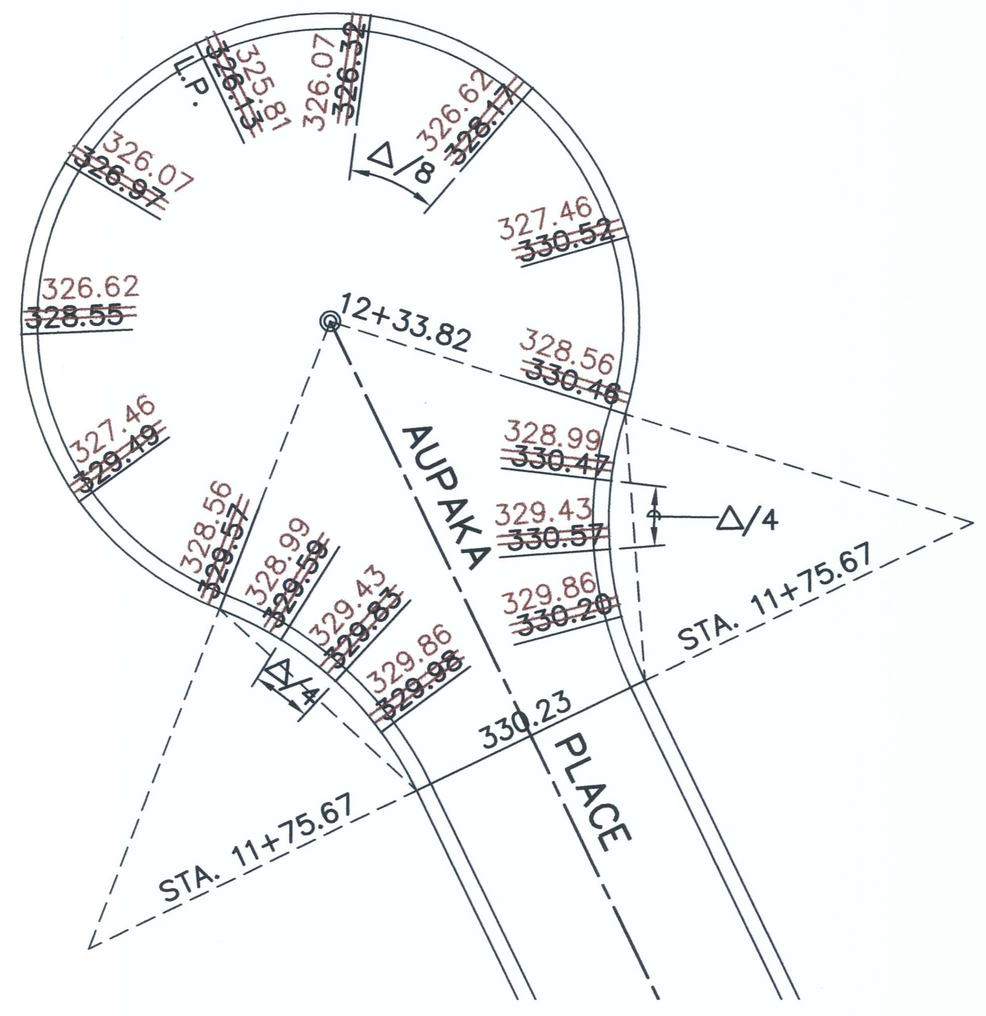
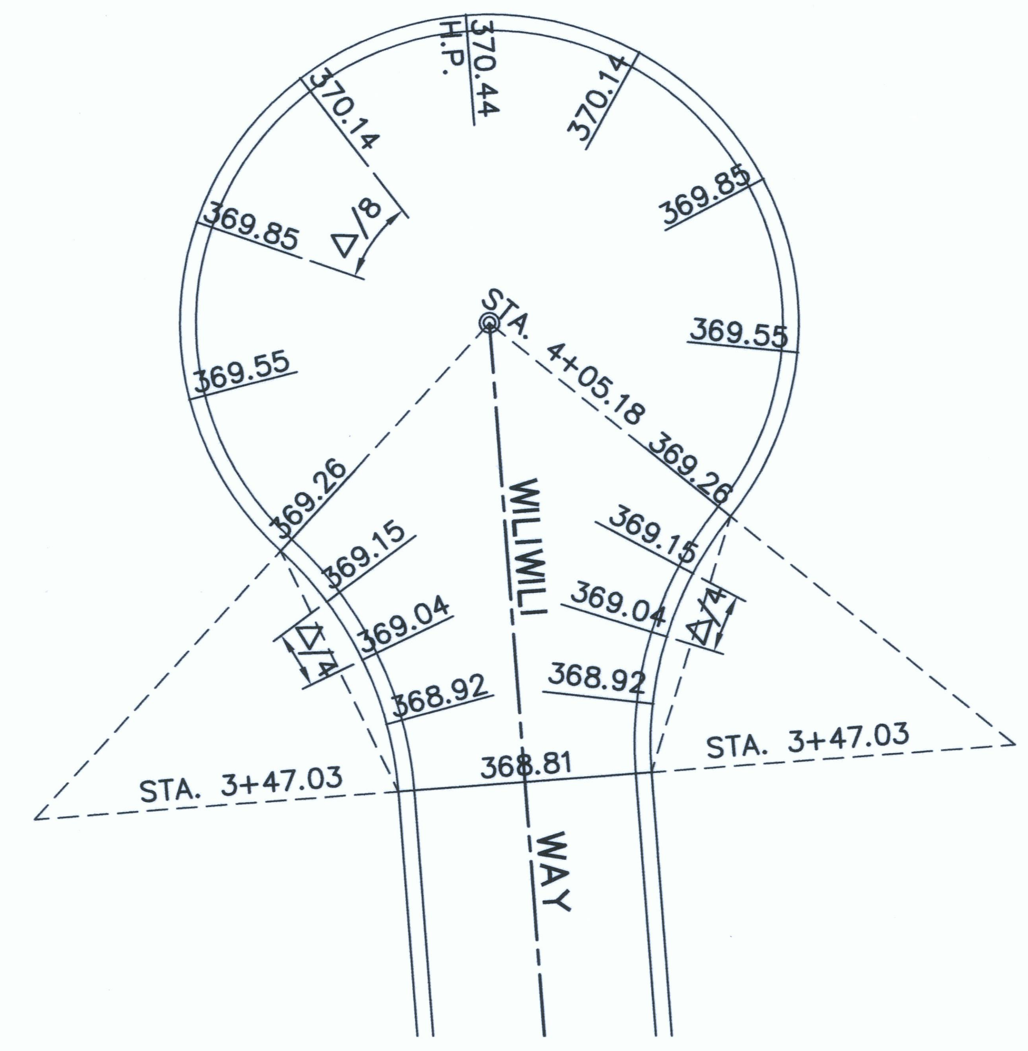
SHEET 20 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.



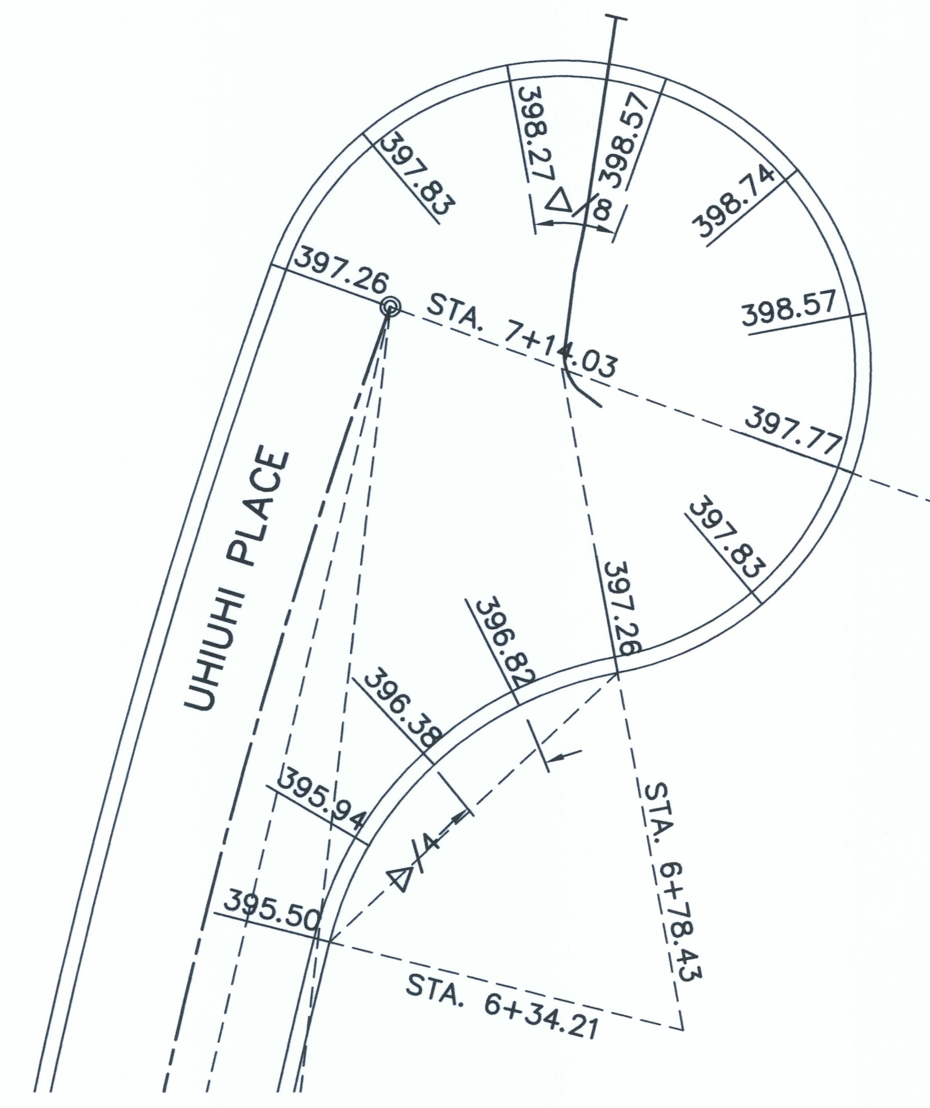
AUPAKA PLACE

SCALE: 1" = 20'



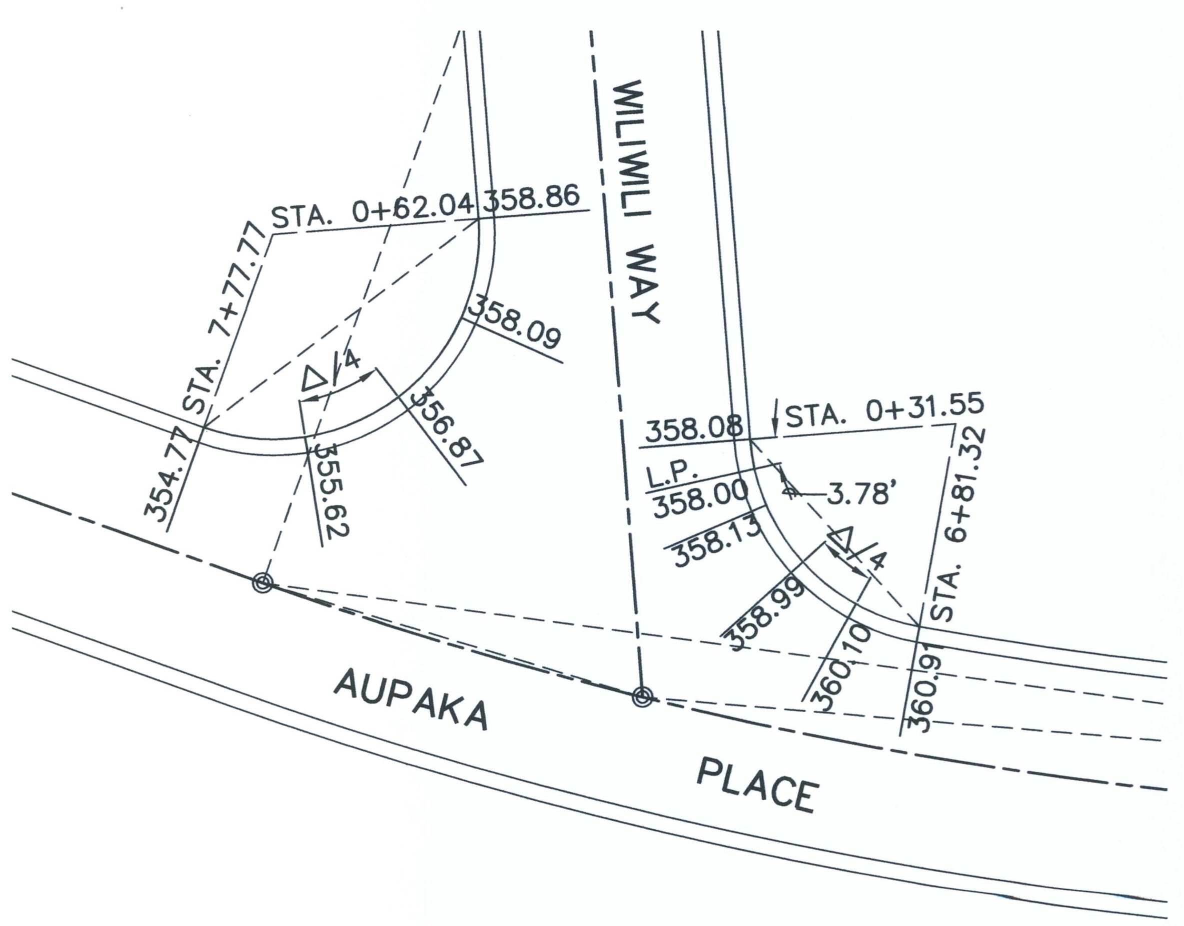
WILIWILI WAY

SCALE: 1" = 20'



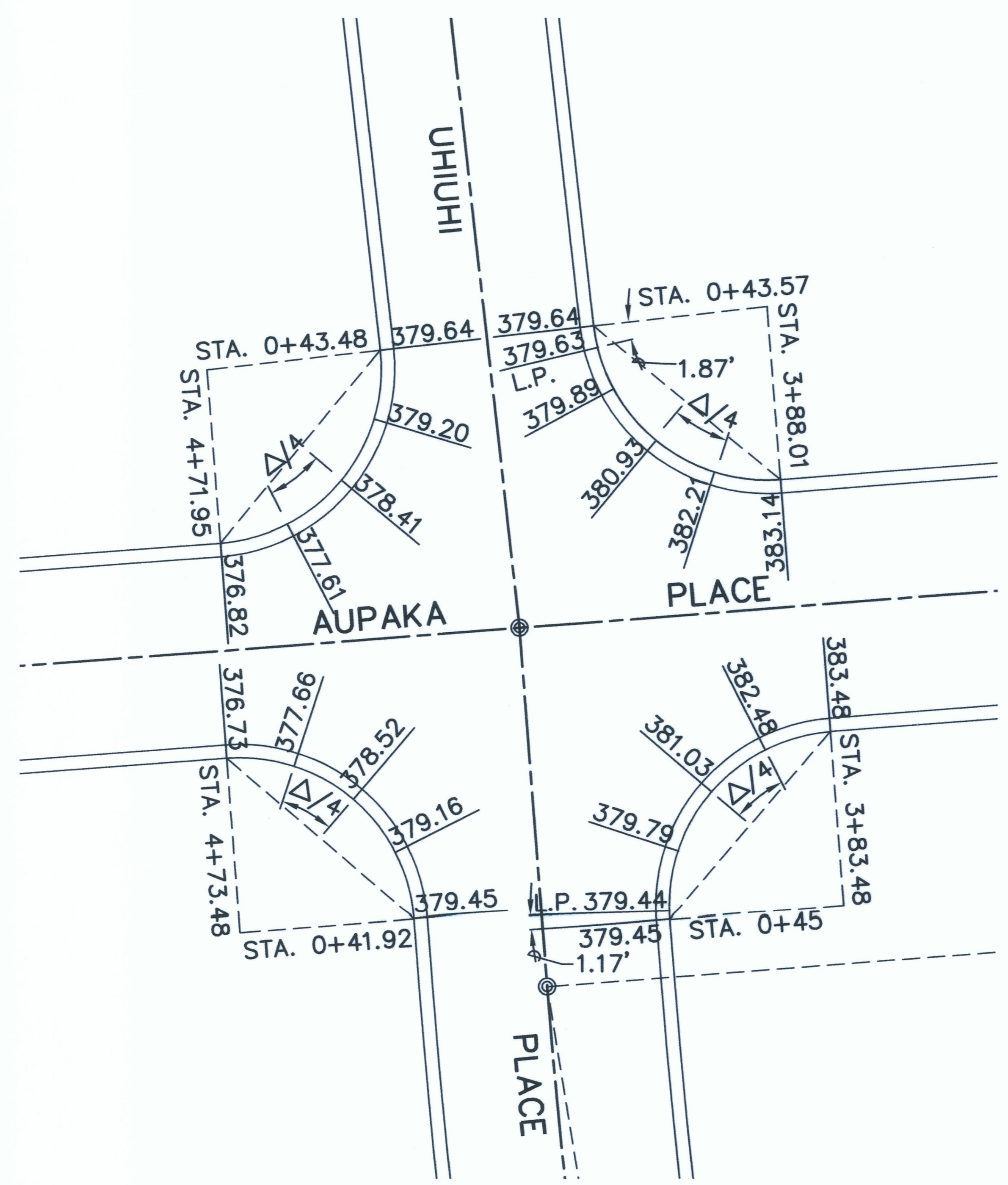
UHIUHI PLACE

SCALE: 1" = 20'



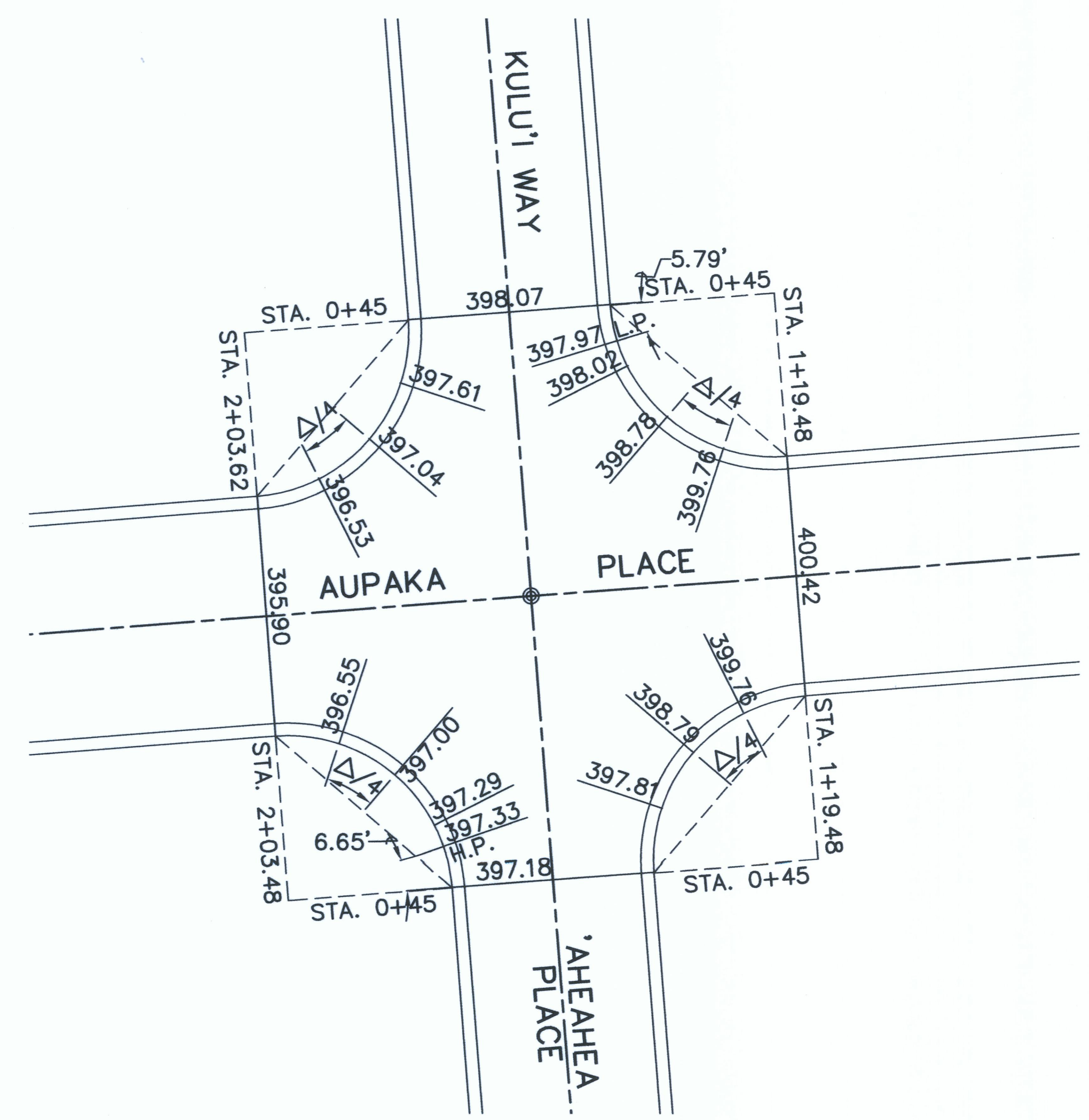
AUPAKA PLACE / WILIWILI WAY

SCALE: 1" = 20'



AUPAKA PLACE / UHIUHI PLACE

SCALE: 1" = 20'



AUPAKA PLACE / KULU'I WAY / 'AHEAHEA PLACE

SCALE: 1" = 20'

NOTE: ELEVATIONS SHOWN ARE TOP OF CURB.

GRAPHIC SCALE:

20 0 20 40

SCALE: 1" = 20'

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

CURB RETURN GRADES

SHELDON T. YAMASATO
LICENSED PROFESSIONAL ENGINEER
No. 4733-C
HAWAII, U.S.A.

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AS-BUILT

SHEET 21 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

Last Save by: SHU
Last Saved: 5/25/2012
Plotted on: 5/29/2012
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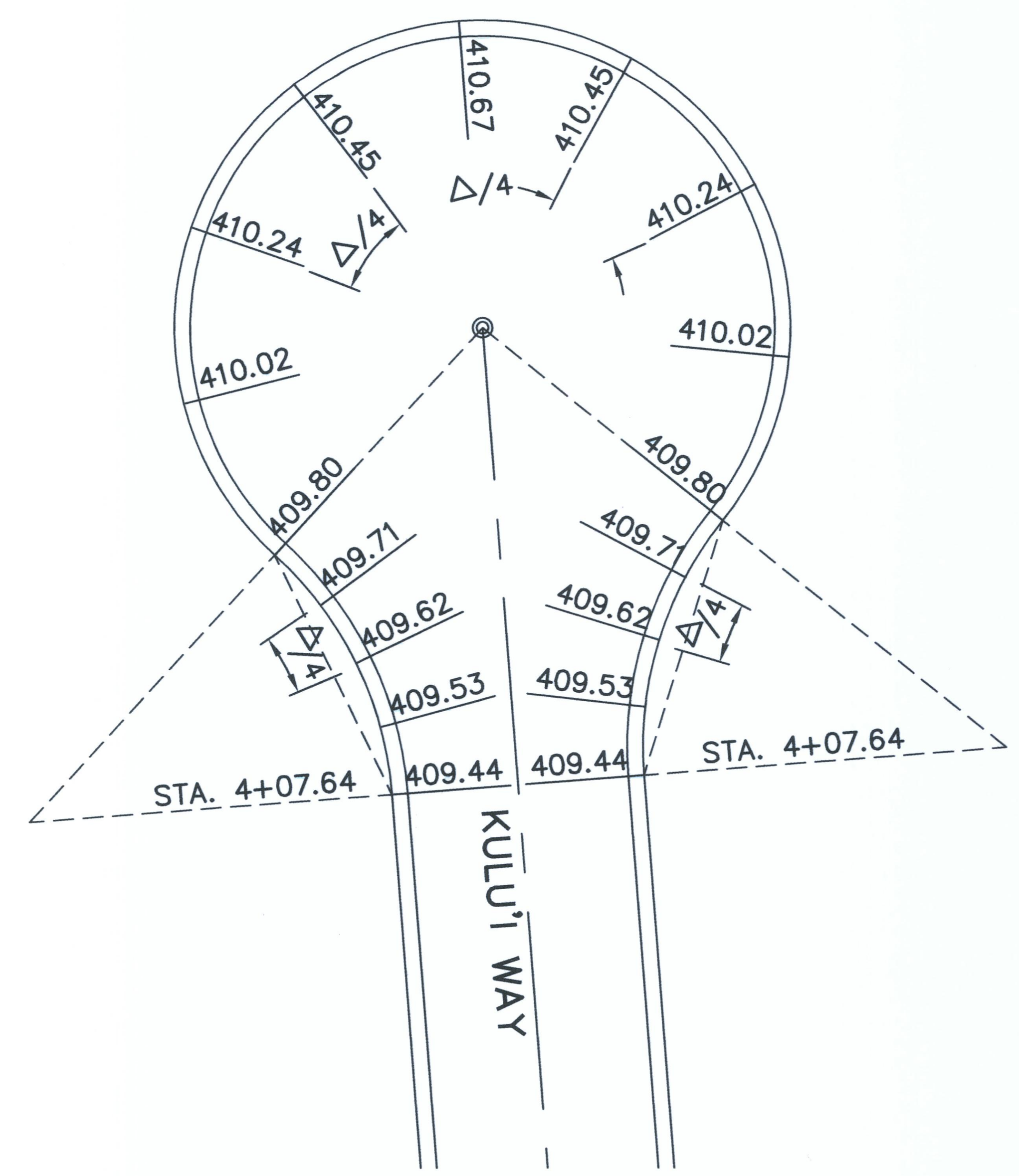
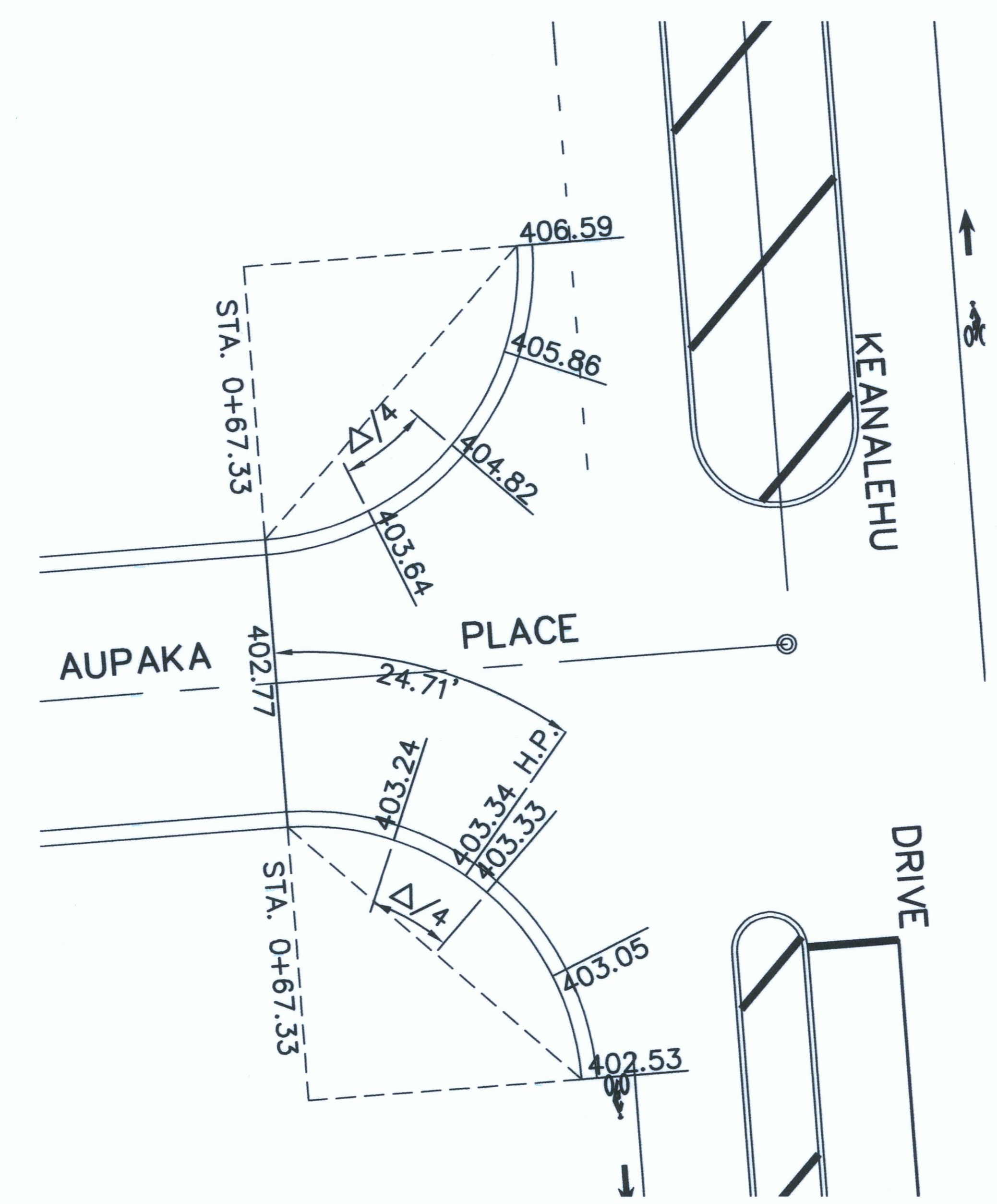


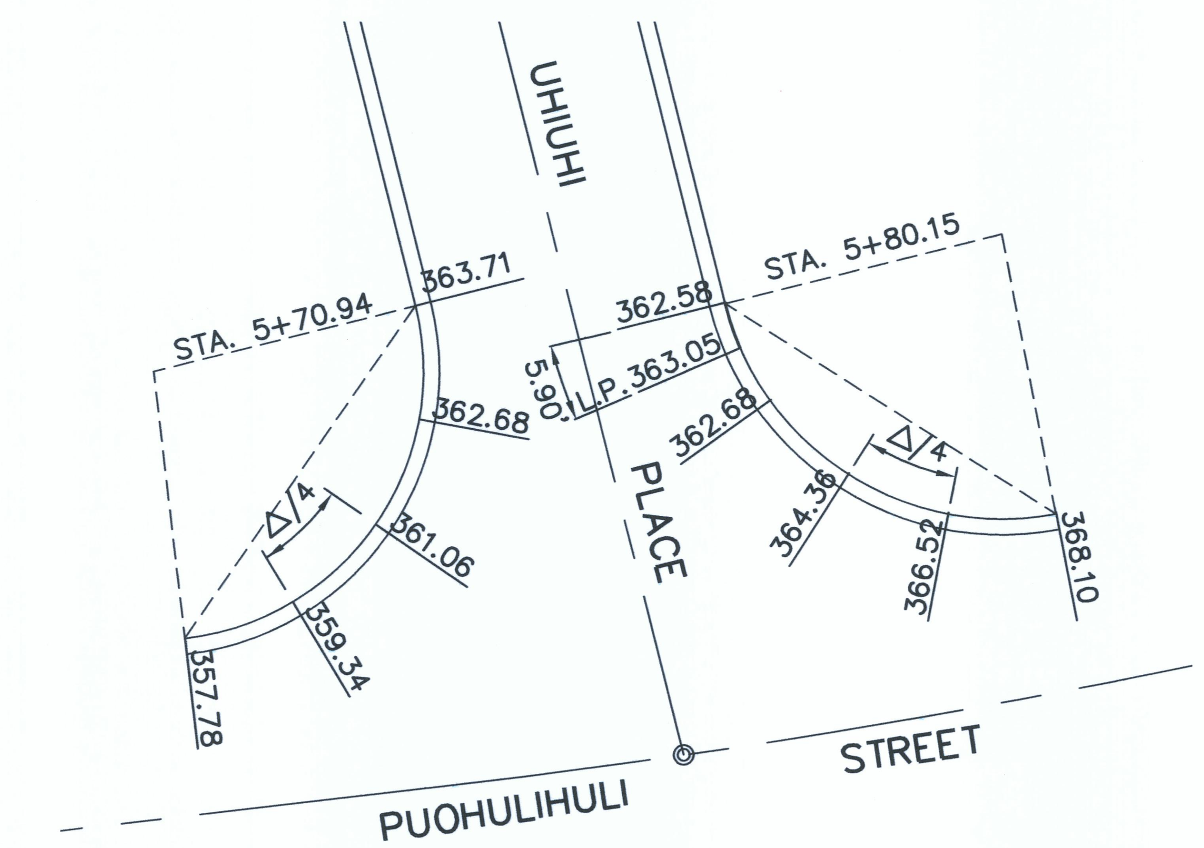
KULU'I WAY

SCALE: 1" = 20'



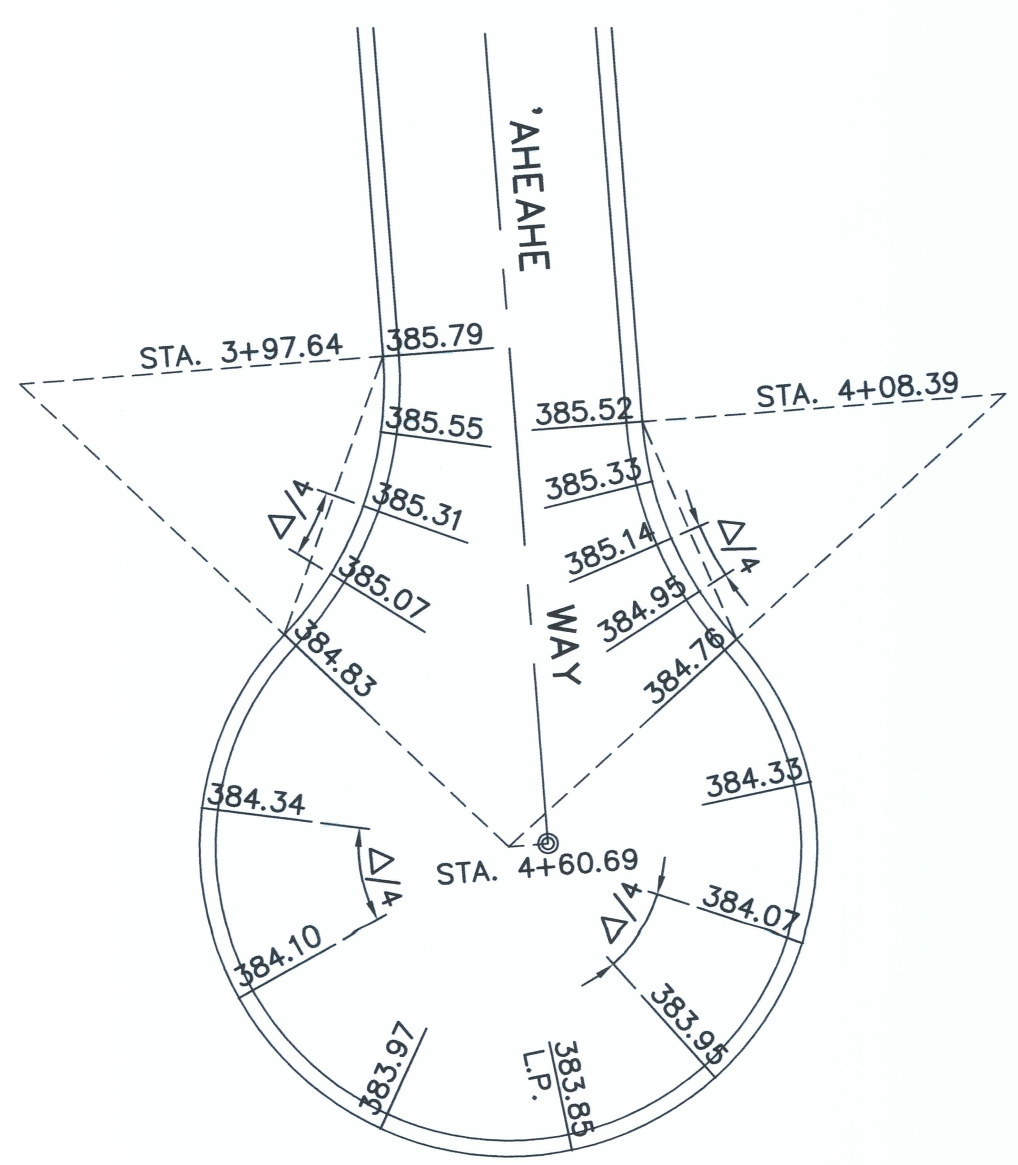
AUPAKA PLACE / KEANALEHU DRIVE

SCALE: 1" = 20'



UHIUHI PLACE / PUOHULIHULI STREET

SCALE: 1" = 20'



'AHEAHE WAY

SCALE: 1" = 20'

NOTE: ELEVATIONS SHOWN ARE TOP OF CURB.

GRAPHIC SCALE:

20 0 20 40

SCALE: 1" = 20'

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

CURB RETURN GRADES

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SHEET 22 OF 67 SHEETS

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Last Saved: 5/25/2012
Plotted on: 5/29/2012
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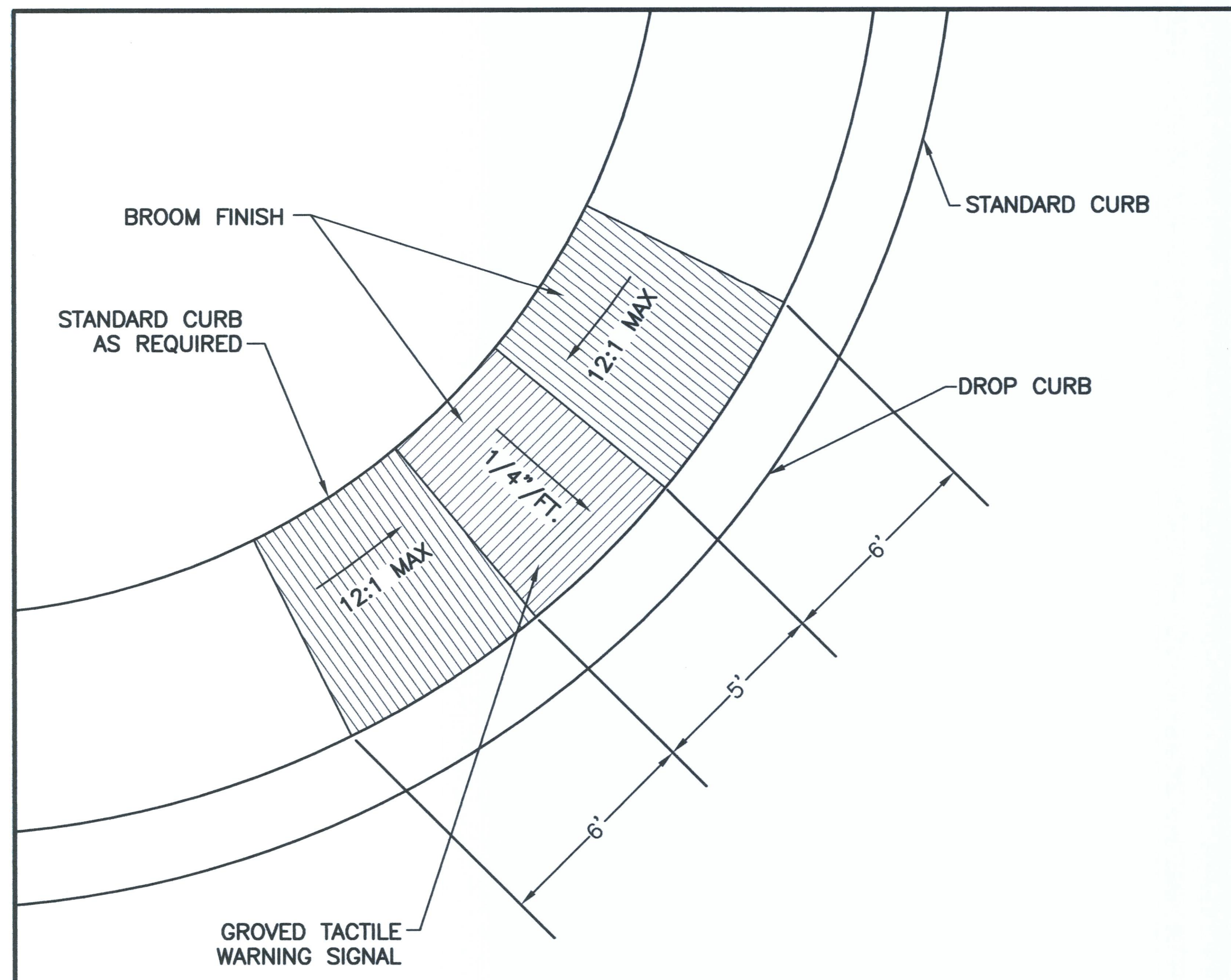
Revised\DHL04219_STr.DWG

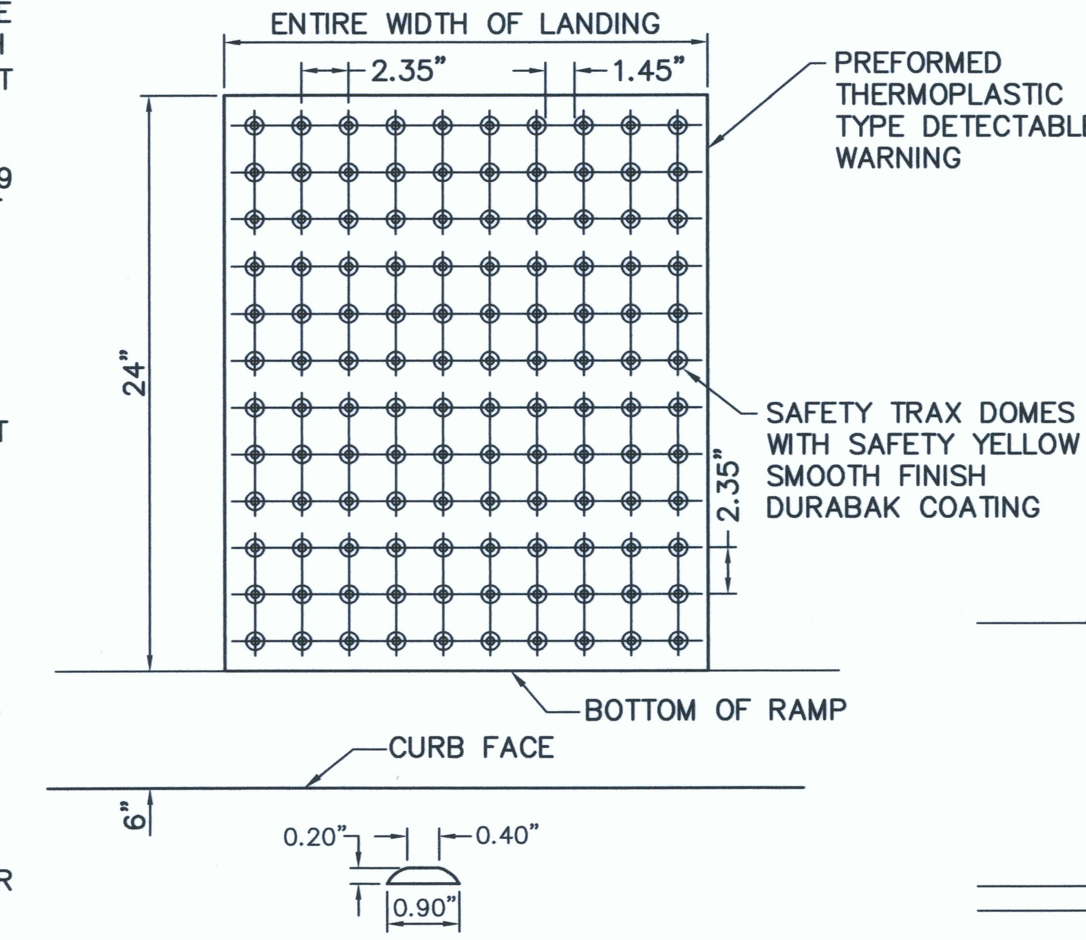


CURB RAMP – PLAN (COUNTY)

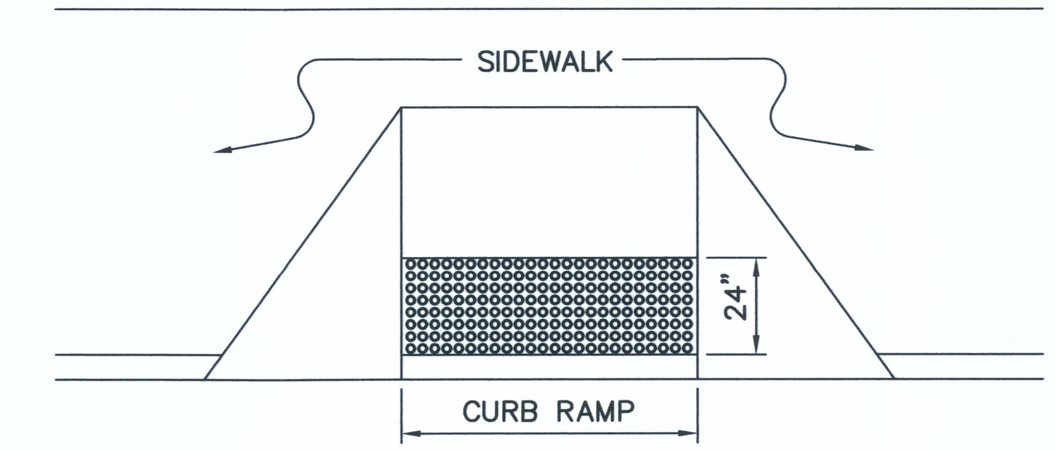
SCALE: 1" = 4'

NOTES:

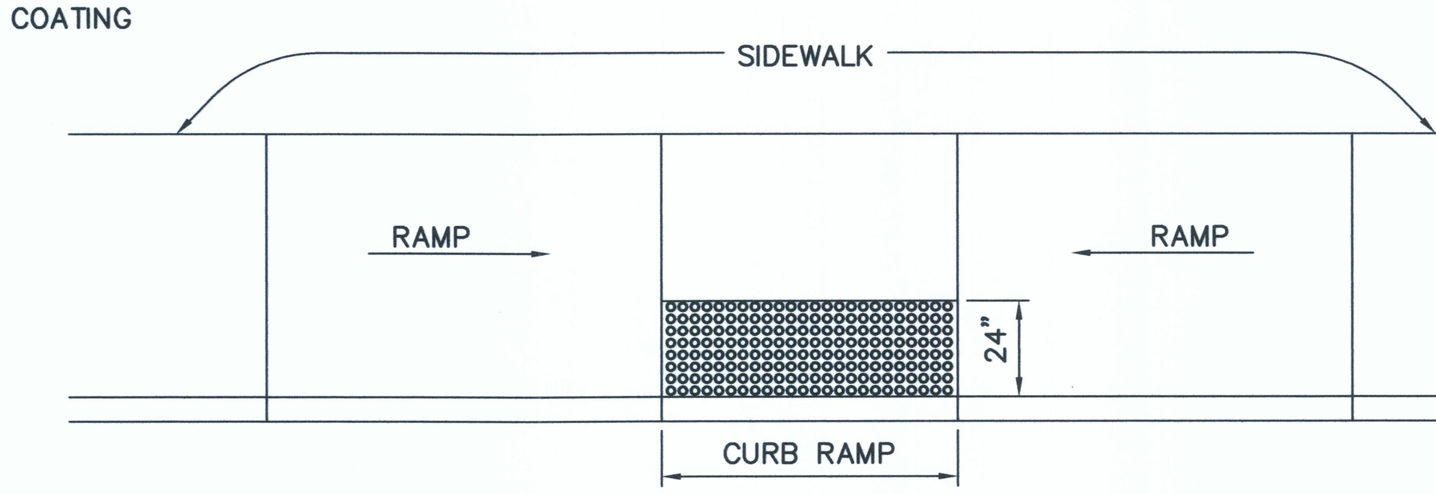
1. DETECTABLE WARNINGS SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE (DOES NOT INCLUDE FLARES).
2. TRUNCATED DOMES SHALL HAVE A DIAMETER OF 0.9 INCH AT THE BOTTOM, A DIAMETER OF 0.4 INCH AT THE TOP, A HEIGHT OF 0.2 INCH AND A CENTER–TO–CENTER SPACING OF 2.35 INCHES MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.
3. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN THE DOMES.
4. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "SAFETY YELLOW".
5. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.
6. THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES FROM THE CURB LINE.



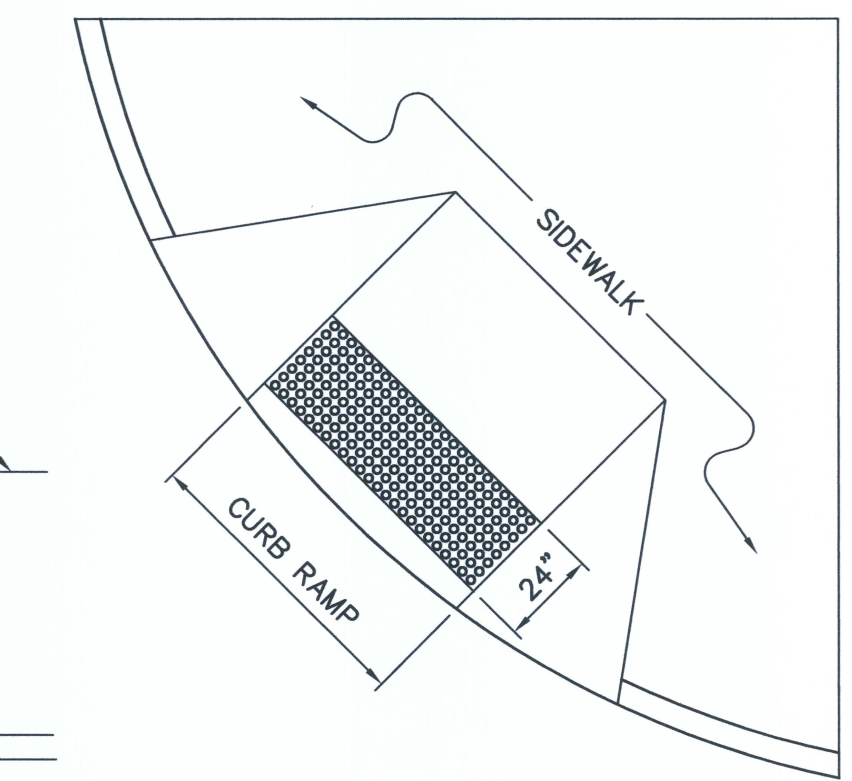
DOME PROFILE



DETECTABLE WARNING AT CURB RAMP



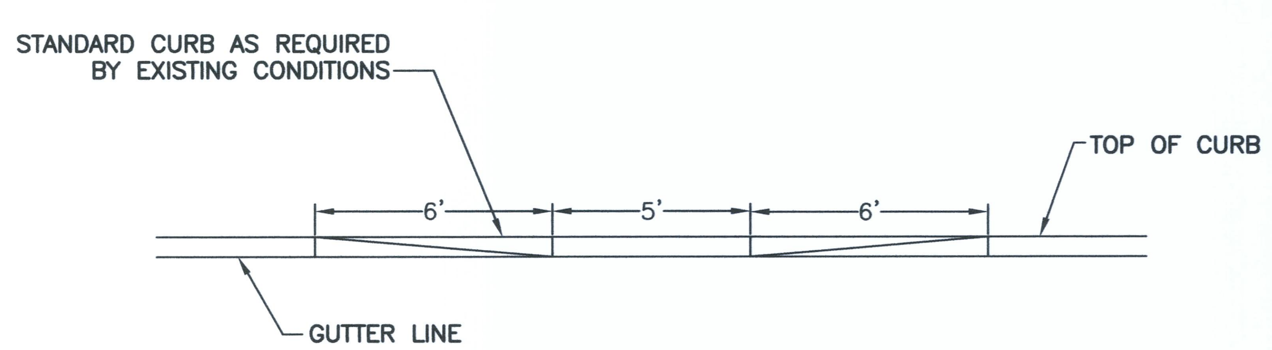
TRANSITION RAMP WITH DETECTABLE WARNING



SHARED CURB RAMP WITH DETECTABLE WARNING

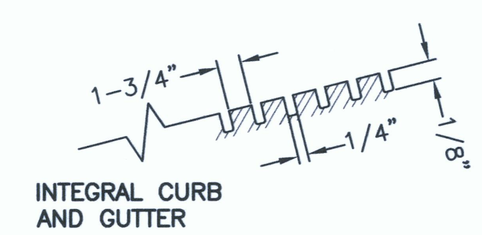
DETECTABLE WARNING DETAILS

SCALE: NOT TO SCALE



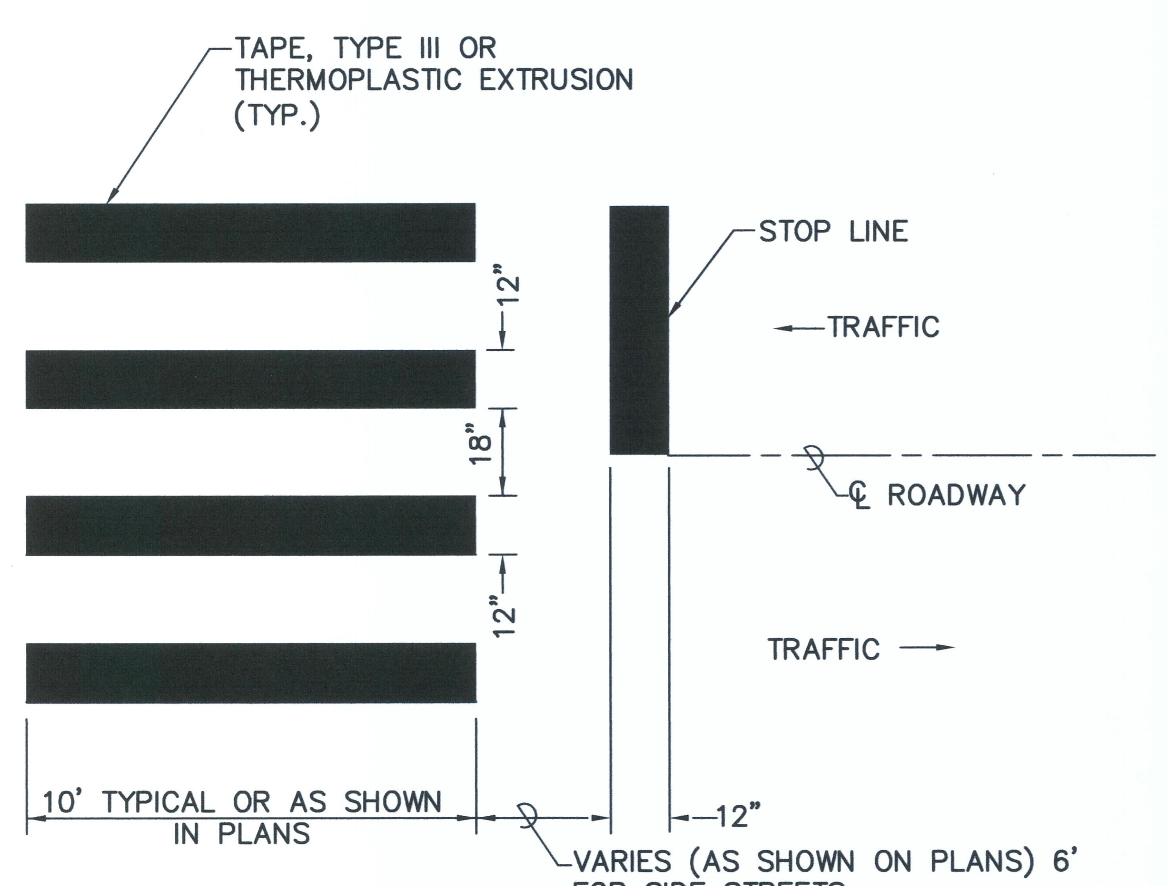
CURB RAMP – ELEVATION (COUNTY)

SCALE: 1" = 4'



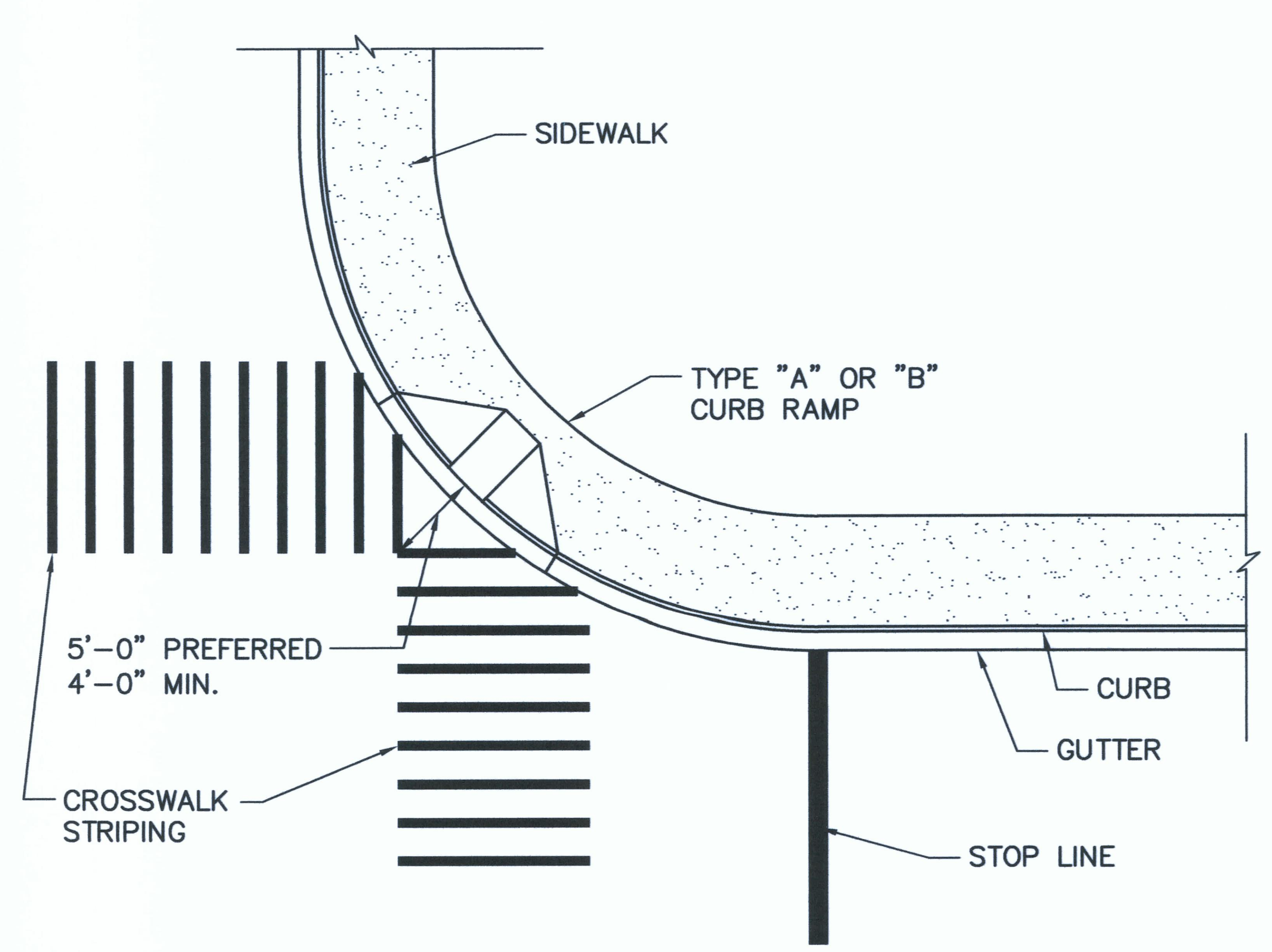
GROOVED TACTILE WARNING SIGNAL (COUNTY)

NOT TO SCALE

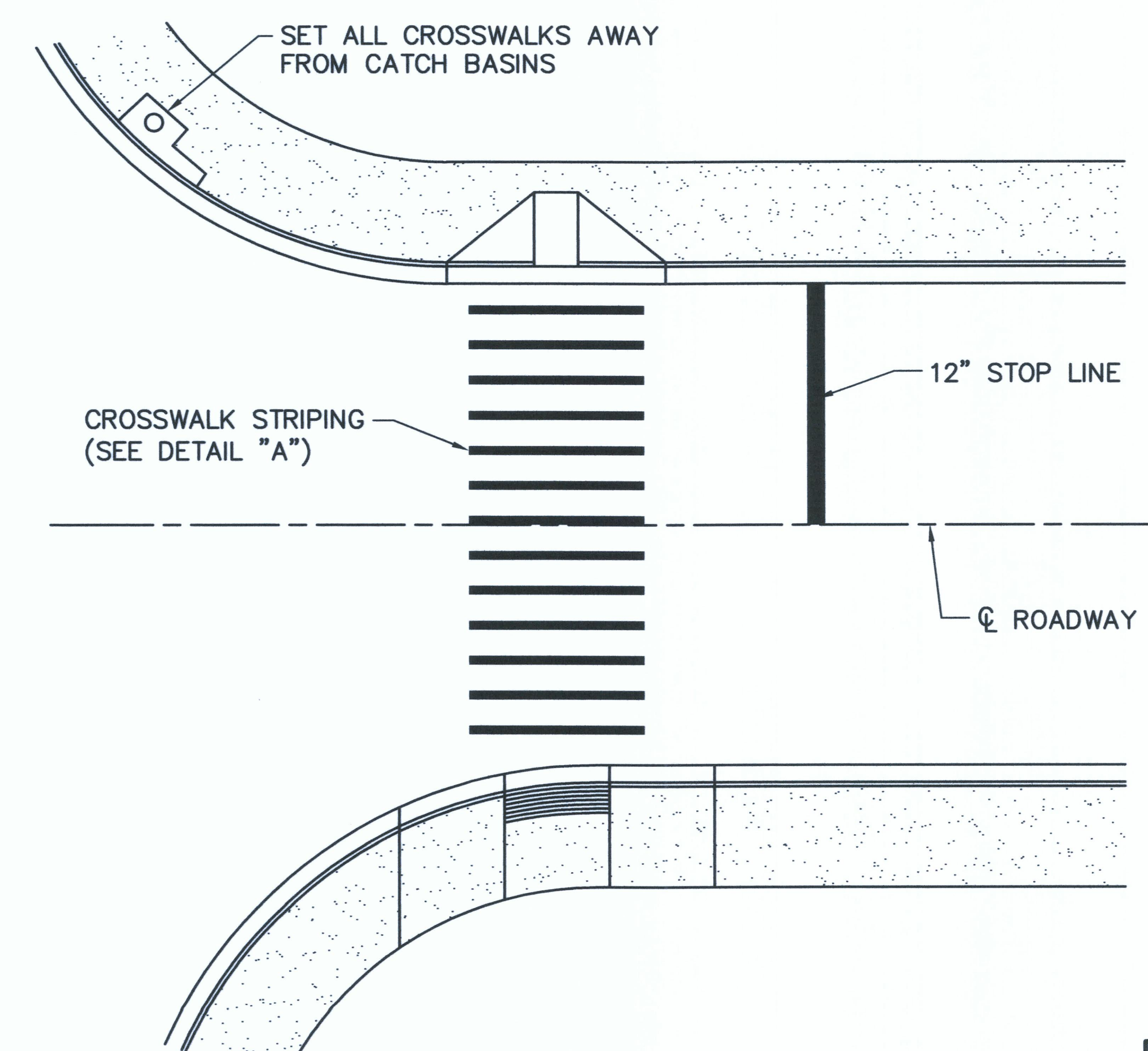


NOTE:
LONGITUDINAL LINES SHALL BE PARALLEL TO TRAFFIC FLOW

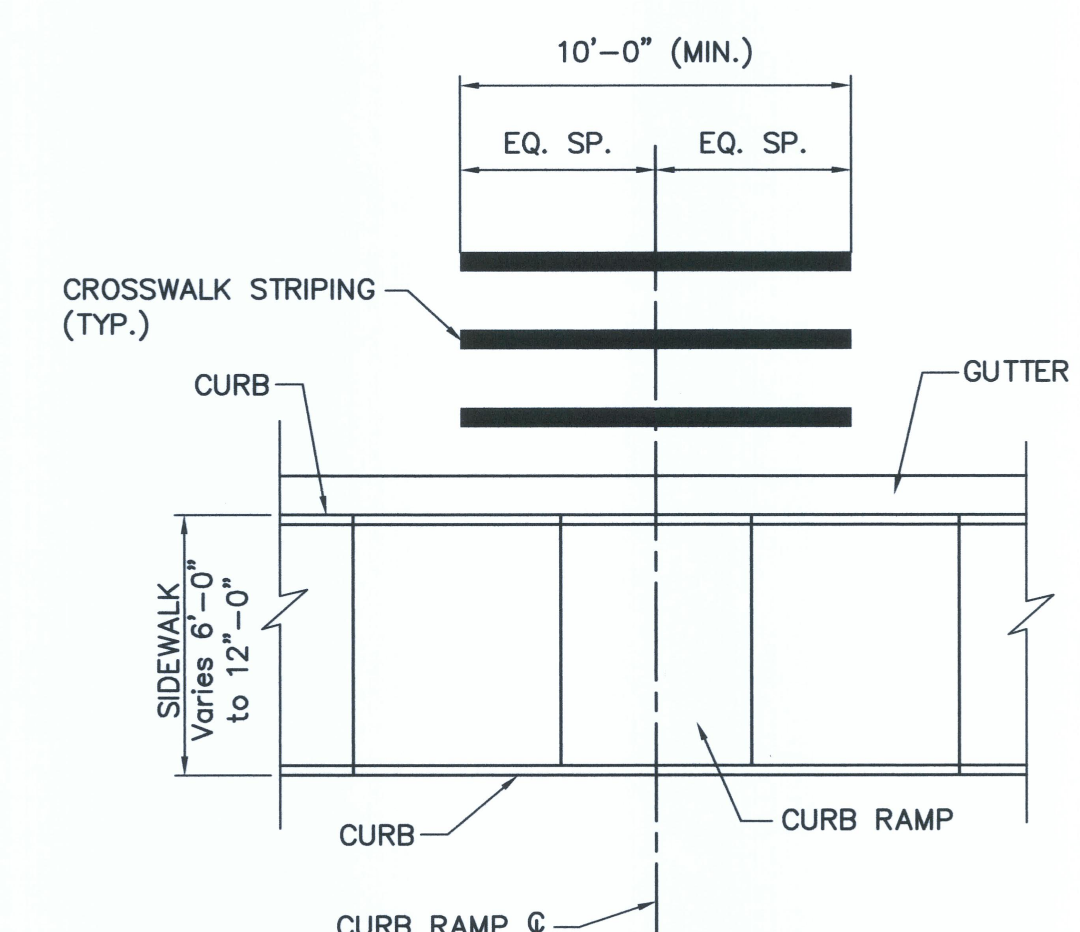
DETAIL "A"



TYPICAL CROSSWALK STRIPING AT DIAGONAL CURB RAMP



PLAN



CROSSWALK STRIPING DETAIL

SCALE: NOT TO SCALE

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

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LICENSE EXPIRES 4/30/10

DEPARTMENT OF HAWAIIAN HOME LANDS
LA'I'OPUA VILLAGE 5
TAX MAP KEY: (3) 7–4–21:6
KAILUA–KONA, NORTH KONA, HAWAII

CURB RAMP DETAILS WITHIN STATE RIGHT–OF–WAY

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII — DATE

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CONSULTING ENGINEERS

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SHEET 23 OF 67 SHEETS

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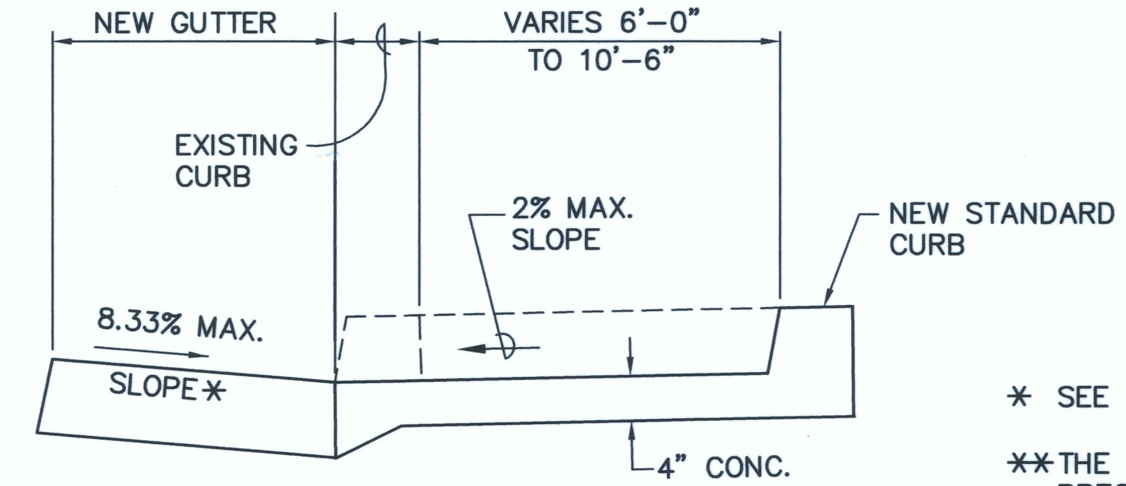
CURB RAMP AND SIDEWALK NOTES:

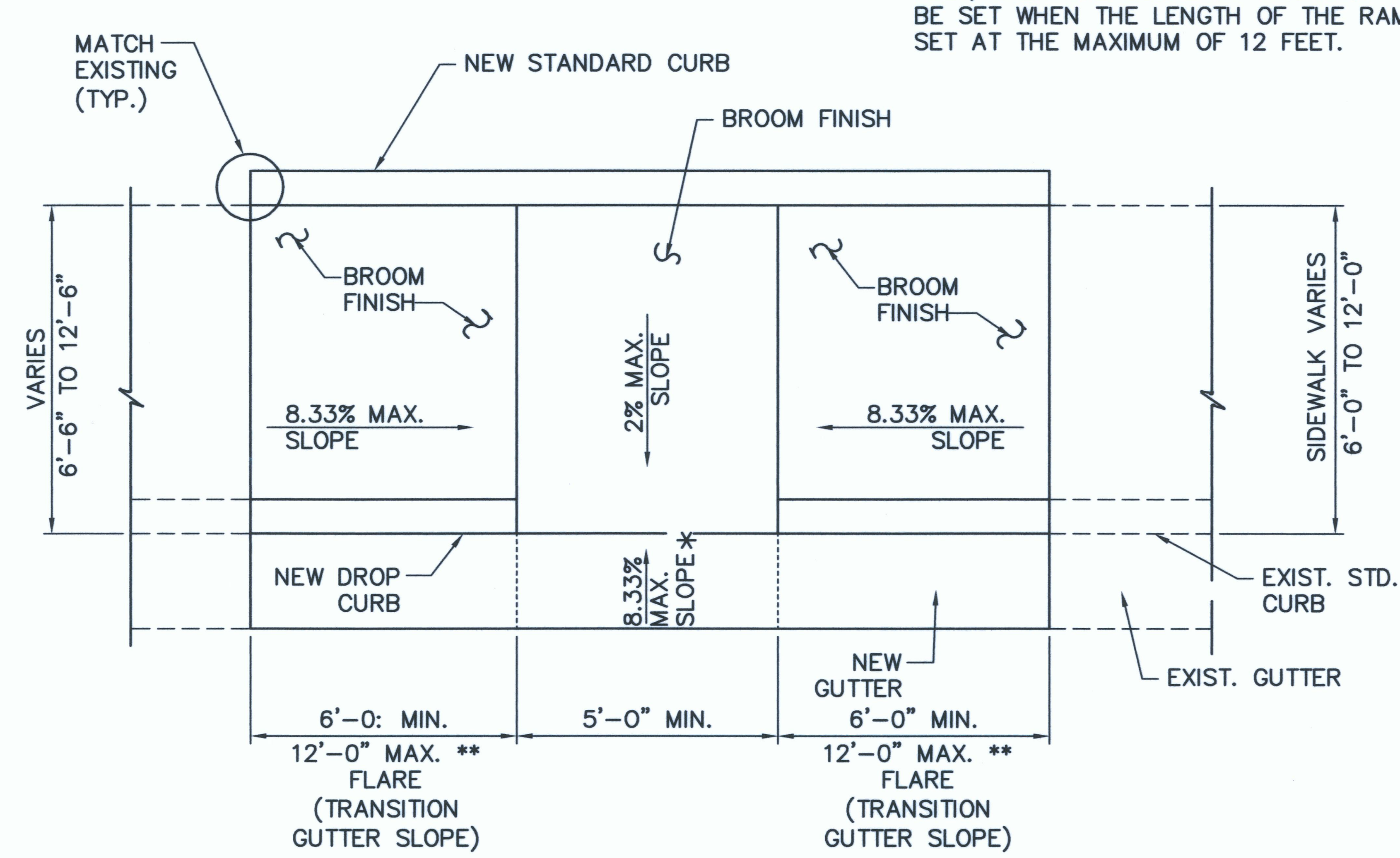
1. THESE TYPICAL DETAILS ARE INTENDED AS CURB RAMP GUIDELINES FOR DESIGN AND CONSTRUCTION.
2. A 2% MAXIMUM CROSS SLOPE SHALL BE MAINTAINED IN THE DIRECTION OF PEDESTRIAN TRAFFIC.
3. SUBJECT TO FIELD CONDITIONS, THE ENGINEER SHALL DETERMINE THE FINAL LOCATION OF CURB RAMPS. WHEN NECESITATED BY EXISTING PHYSICAL CONDITIONS, ALTERNATE CURB RAMPS MAY BE USED SUBJECT TO THE ENGINEER'S APPROVAL.
4. ALL PULLBOXES SHALL BE INSTALLED AWAY FROM THE CURB RAMP AND WITHIN THE SIDEWALK/UNPAVED AREA TO THE MAXIMUM EXTENT FEASIBLE.
5. WHERE NECESSARY, EXISTING PULLBOXES, HANDHOLES, MANHOLES, ETC. SHALL BE ADJUSTED TO MATCH CURB RAMP GRADE. ADJUSTMENTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CURB RAMP ITEMS UNLESS INDICATED OTHERWISE.
6. TRANSITIONS FROM RAMPS TO GUTTERS AND ROADWAYS SHALL BE FLUSH.
7. CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED TO ELIMINATE PONDING TO THE MAXIMUM EXTENT FEASIBLE.
8. FOR AN EXISTING SIDEWALK, ENTIRE SIDEWALK BETWEEN NEAREST SCORE LINES SHALL BE REMOVED. FOR CURBS > 6" HIGH, FLARES SHALL BE CONSTRUCTED AT A MAX. RATIO OF 12H:1V. HOWEVER, IF "X" >/= 48"M FLARES SHALL BE CONSTRUCTED AT A MAX. RATIO OF 10H:1V.
9. THE MAXIMUM SLOPES OF ADJOINING GUTTERS OR ROAD SURFACE IMMEDIATELY FRONTING THE CURB RAMP SHALL NOT EXCEED 5% FOR TYPE A AND D RAMPS AND 8.33% FOR TYPE B, C, AND E RAMPS. THE COUNTERSLOPE MAY BE EXCEEDED WHEN THE CHANGE OF GRADE DOES NOT EXCEED 13% (11% PREFERRED) OVER A DISTANCE OF 2 FT. EXCEEDING THE 13% (11% PREFERRED) CHANGE IN GRADE WILL CAUSE A PERSON IN A WHEELCHAIR TO TIP FORWARD AND/OR FALL BACKWARD.
10. THERE SHALL BE A 30"X48" LEVEL GROUND SURFACE (2% MAX. CROSS SLOPE, BOTH DIRECTIONS) FOR A FORWARD OR SIDE APPROACH, AS APPROPRIATE, TO A PEDESTRIAN PUSH BUTTON.
11. CONSTRUCTION JOINTS ARE REQUIRED TO JOIN CURB RAMPS WITH SIDEWALKS.
12. UNLESS OTHERWISE NOTED, NEW GUTTERS ARE REQUIRED AS SHOWN.
13. ALL CURB RAMPS SHALL BE REINFORCED WITH 6X6 W1.4/W1.4 WELDED WIRE FABRIC.
14. SURFACE OF SIDEWALKS AND CURB RAMPS SHALL BE FIRM, STABLE, AND SLIP-RESISTANT. THIS INCLUDES THE SURFACES OF PULLBOXES, VALVE COVERS, MANHOLE COVERS, ETC.
15. BED COURSE MATERIAL IS REQUIRED FOR CURB RAMPS, SIDEWALKS, AND GUTTERS.
16. ALL SIDEWALKS SHALL PROVIDE A MINIMUM CLEAR WIDTH OF 3'-0" (EXCLUDING CURB) FOR PEDESTRIAN CIRCULATION. IF THIS CANNOT BE MET, A MINIMUM 32-INCH CLEAR WIDTH IS ALLOWED FOR A DISTANCE OF 24-INCHES.
17. PASSING SPACES ALONG NEW SIDEWALKS WITH LESS THAN 5' CLEAR WIDTH SHALL BE PROVIDED AT MAXIMUM 200' INTERVALS AS REQUIRED BY ADA GUIDELINES. THE PASSING AREA SHALL BE A MINIMUM 5' WIDE BY 5' LONG AS FEASIBLE.
18. IF POSSIBLE, INSTALL UTILITY POLES, FIRE HYDRANTS, LIGHT POLES, SIGN POSTS, PULLBOXES, ETC. OFF OF SIDEWALK BUT WITHIN THE RIGHT-OF-WAY.
19. OBJECTS PROTRUDING FROM UTILITY POLES AND WALLS ADJACENT TO THE SIDEWALKS (I.E. WALL MOUNTED FIRE HYDRANTS, TELEPHONES, METERS ON POLES, ETC.) SHALL BE MOUNTED TO MEET THE CURRENT AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) SECTION 4.4.1 AND WILL BE SUBJECT TO ENGINEER'S APPROVAL.
20. IF A CURB RAMP IS NOT CONSTRUCTED ACCORDING TO THE PLANS, THE CONTRACTOR SHALL RECONSTRUCT THE CURB RAMP AT NO COST TO THE STATE. CONSTRUCTION TOLERANCE FOR PORTLAND CEMENT CONCRETE SHALL BE BASED ON 1/4 INCH PER 10 FT. (±0.2%). REMEDIAL MEASURES WILL NOT BE ACCEPTED.
21. ADDITIONAL INFORMATION IS AVAILABLE FROM:
    A) AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG), JAN. 1998, THE ACCESS BOARD.
    B) ACCESSIBLE RIGHTS-OF-WAY: A DESIGN GUIDE, NOV. 1999, THE ACCESS BOARD.
    C) DESIGNING SIDWALKS AND TRAILS FOR ACCESS, PART 1, JULY 1999, FHWA.
    D) DESIGNING SIDEWALKS AND TRAILS FOR ACCESS, PART 2, JULY 2001, FHWA.



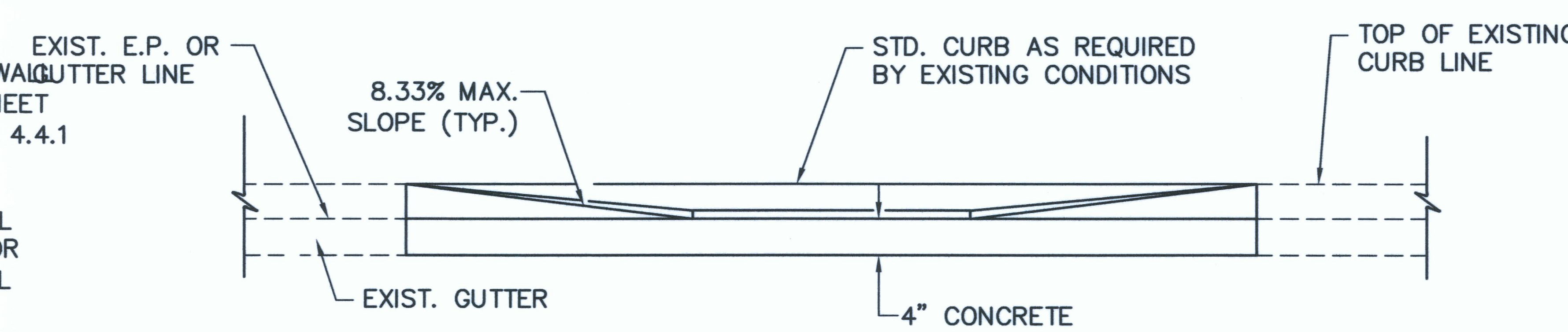
TYPICAL SECTION

* SEE CURB RAMP AND SIDEWALK NOTE NO. 9.

** THE SLOPE OF THE RAMP SHALL TAKE PRECEDENCE OVER THE LENGTH OF THE RAMP. IF THE MAXIMUM SLOPE OF A RAMP CANNOT BE MET WITHIN A LENGTH OF 12 FEET, THEN THE SLOPE OF THE RAMP SHALL BE SET WHEN THE LENGTH OF THE RAMP IS SET AT THE MAXIMUM OF 12 FEET.



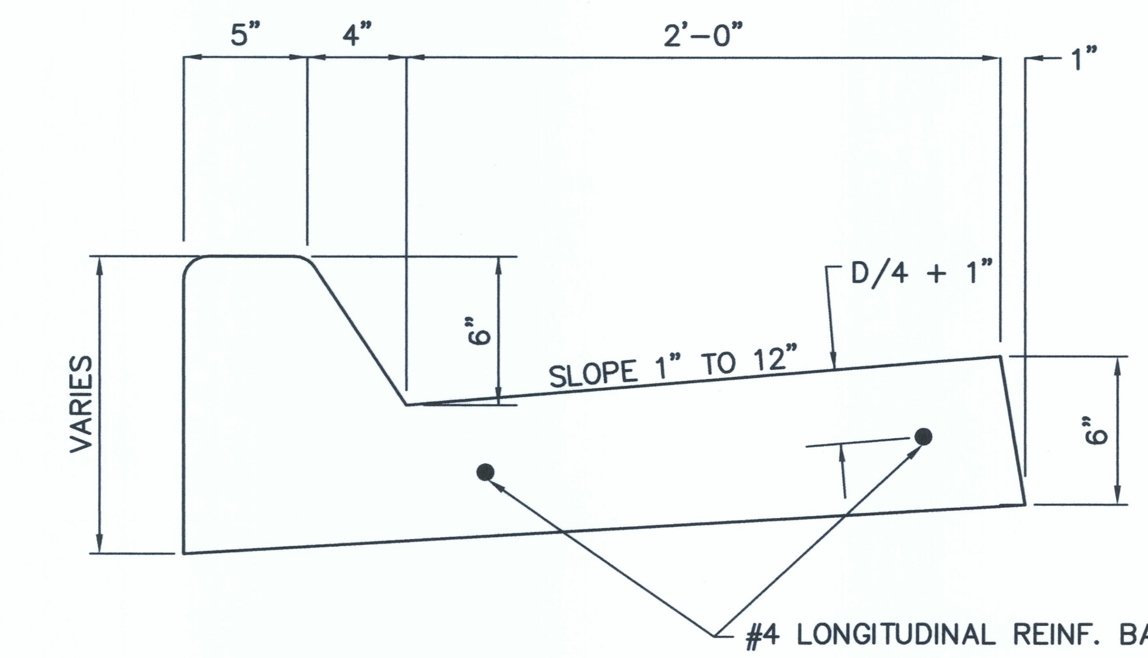
PLAN



ELEVATION

1/24 CURB RAMP – TYPE "B" MODIFIED

SIDEWALK WIDTH 6'-0" OR GREATER BUT LESS THAN 12'-0" WIDTH



NOTES:

1. CAST-IN-PLACE P.C.C. GUTTERS SHALL BE LONGITUDINAL BROOM FINISHED.
2. CURB & GUTTER, TYPE 2AG, ARE TO BE USED ONLY FOR CONSTRUCTING SHORT SEGMENTS OF EXISTING CURBS AND/OR GUTTERS OF THE SAME TYPE.
3. THE TOPS OF ALL TYPES OF CONCRETE CURBS, INCLUDING DRIVEWAY CURBS, SHALL BE LONGITUDINALLY BROOM FINISED.
4. FOR A/C/ PAVEMENT AREAS, D EQUALS TO THICKNESS OF A.C. + A.C. BASE BUT NOT LESS THAN 10".
5. CONCRETE SHALL BE CLASS A.

CAST-IN-PLACE CONCRETE CURB AND GUTTER TYPE 2AG

SCALE: NTS

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS
LA'I'OPUA VILLAGE 5
TAX MAP KEY: (3) 7-4-21:6
KAILUA-KONA, NORTH KONA, HAWAII

CURB RAMP DETAILS
WITHIN STATE RIGHT-OF-WAY

SHELDON T. YAMASATO LICENSED PROFESSIONAL ENGINEER No.4733-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION LICENSE EXPIRES 4/30/10

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

AKINAKA & ASSOCIATES, LTD.
CONSULTING ENGINEERS

AS-BUILT

SHEET 24 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

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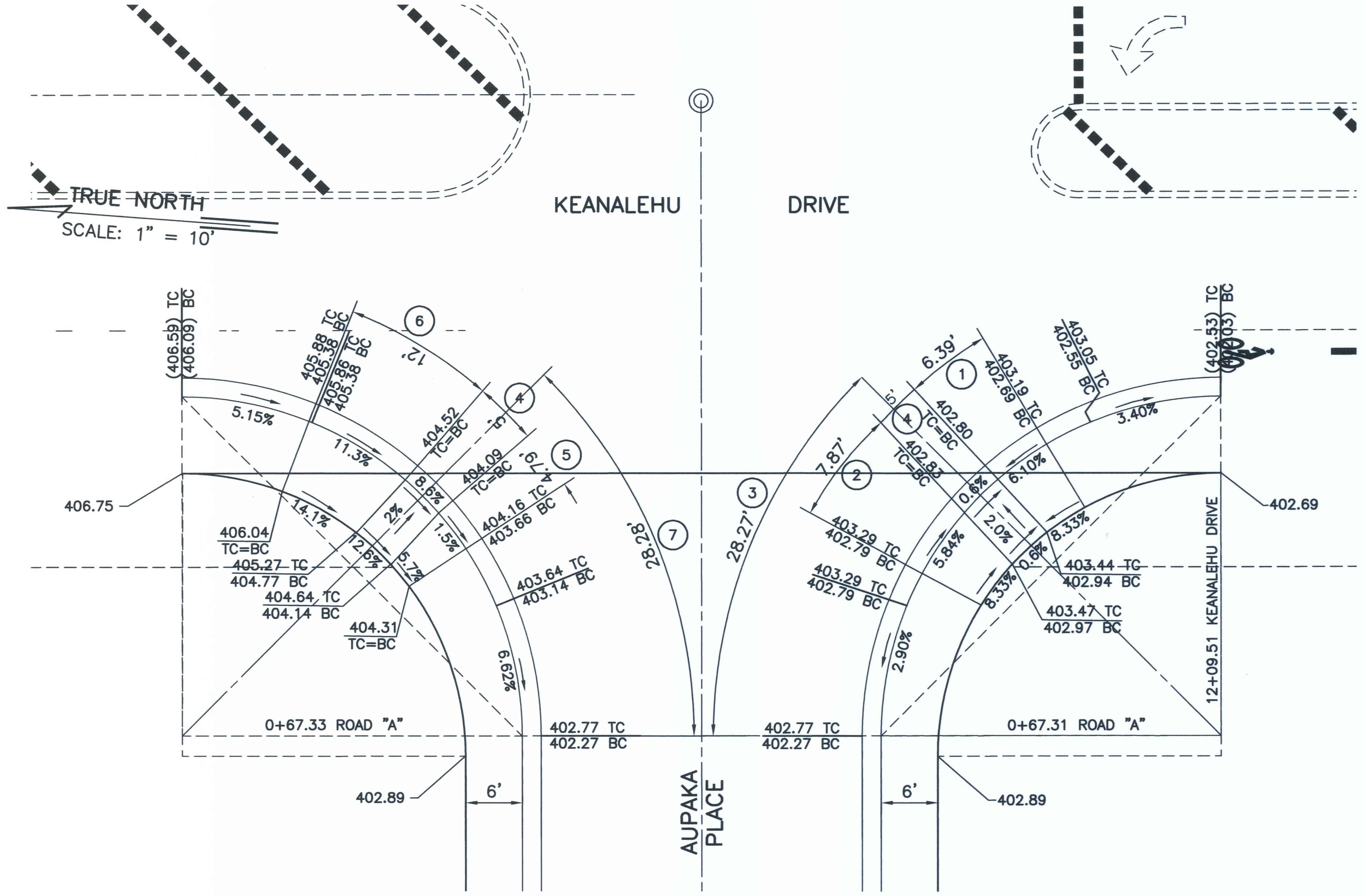
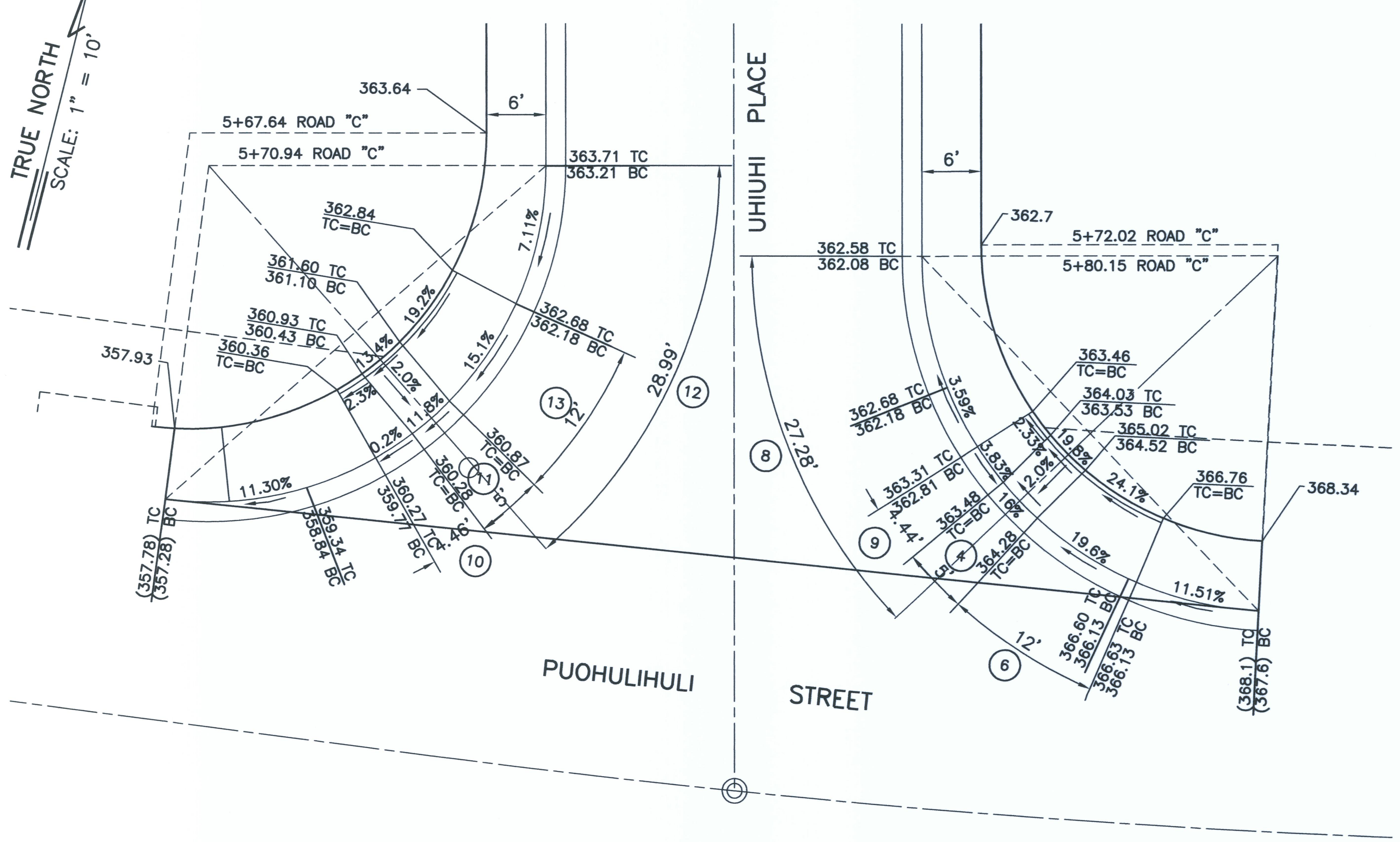
Last Save by: SHU
Last Saved: 5/23/2012
Plotted on: 5/29/2012



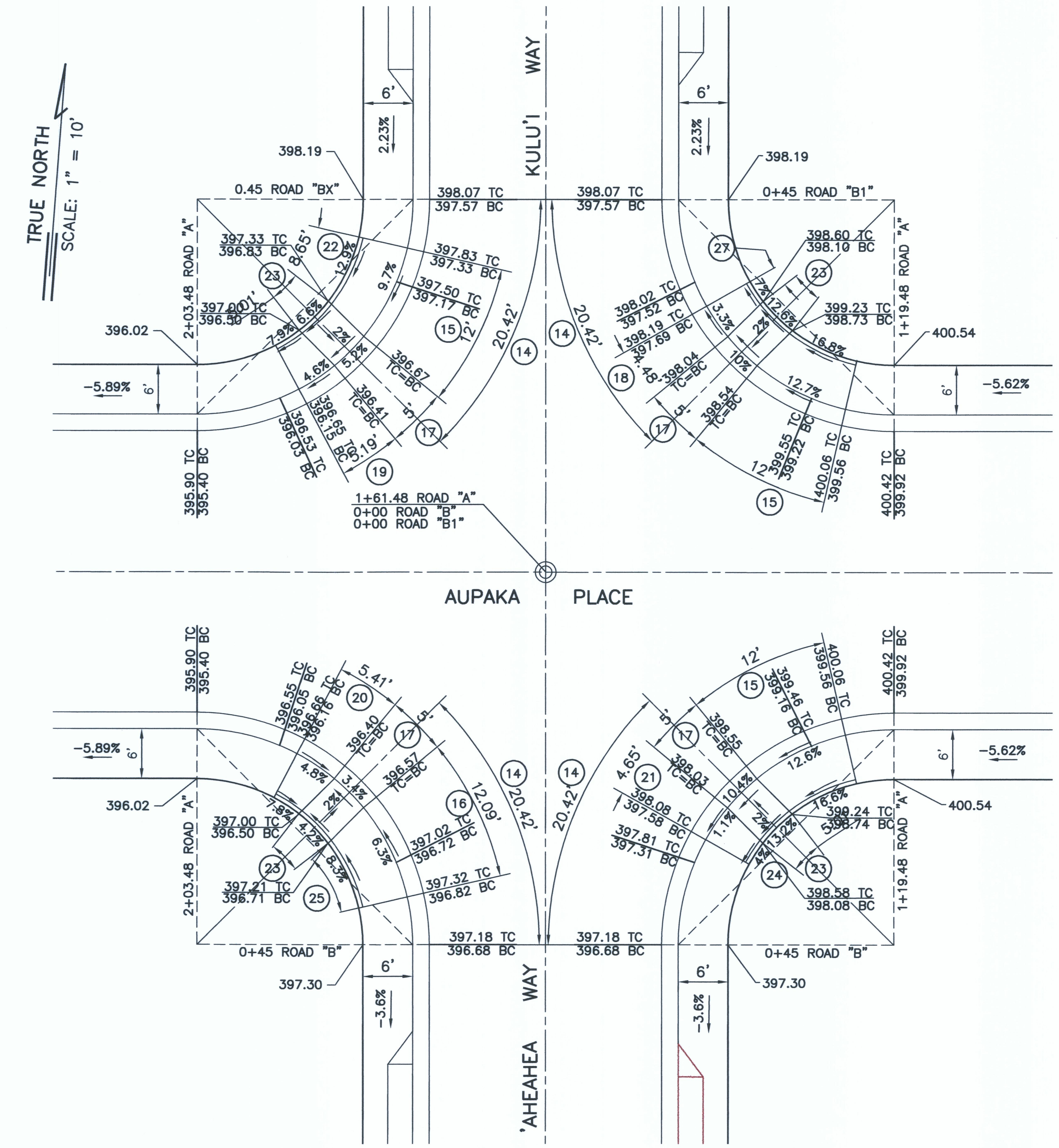
KEANALEHU DRIVE / AUPAKA PLACE

SCALE: 1" = 10'



UHIUHI PLACE / PUOHULIHULI STREET

SCALE: 1" = 10'



KULU'I WAY / AUPAKA PLACE / 'AHEAHEA WAY

SCALE: 1" = 10'

GRAPHIC SCALE:

10 0 10 20

SCALE: 1" = 10'

CURVE DATA										
CURVE	1	2	3	4	5	6	7	8	9	10
Δ	10°09'46"	12°31'33"	44°59'42"	7°57'28"	7°37'19"	19°05'55"	45°00'18"	43°24'35"	7°04'00"	7°29'50"
Δ/2	5°04'53"	6°15'46.5"	22°29'51"	3°58'44"	3°48'39.5"	9°32'57.5"	22°30'09"	21°42'17.5"	3°32'00"	3°44'55"
R	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	36.00	34.08
T	3.20	3.95	14.91	2.50	2.40	6.06	14.91	14.33	2.22	2.23
C	6.38	7.85	27.55	5.00	4.79	11.94	27.56	26.63	4.44	4.46
Lc	6.39	7.87	28.27	5.00	4.79	12.00	28.28	27.28	4.44	4.46

CURVE DATA										
CURVE	11	12	13	14	15	16	17	18	19	20
Δ	8°24'26"	48°44'23"	20°10'39"	45°00'00"	26°26'39"	26°38'39"	11°01'06"	9°52'10"	11°25'46"	11°54'59"
Δ/2	4°12'13"	24°22'11.5"	10°05'19.5"	22°30'00"	13°13'19.5"	13°19'19.5"	5°30'33"	4°56'05"	5°42'53"	5°57'29.5"
R	34.08	34.08	34.08	26.00	26.00	26.00	26.00	26.00	26.00	26.00
T	2.50	15.44	6.06	10.77	6.11	6.16	2.51	2.24	2.60	2.71
C	5.00	28.12	11.94	19.90	11.89	11.98	4.99	4.47	5.18	5.40
Lc	5.00	28.99	12.00	20.42	12.00	12.09	5.00	4.48	5.19	5.41

SHELDON T. YAMASATO
LICENSED PROFESSIONAL ENGINEER
No.4733-C
HAWAII, U.S.A.

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LICENSE EXPIRES 4/30/10

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

CURB RAMP DETAILS

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII — DATE

AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS

AS-BUILT

SHEET 25 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

Last Save by: SHU
Last Saved: 5/24/2012
Plotted on: 5/29/2012
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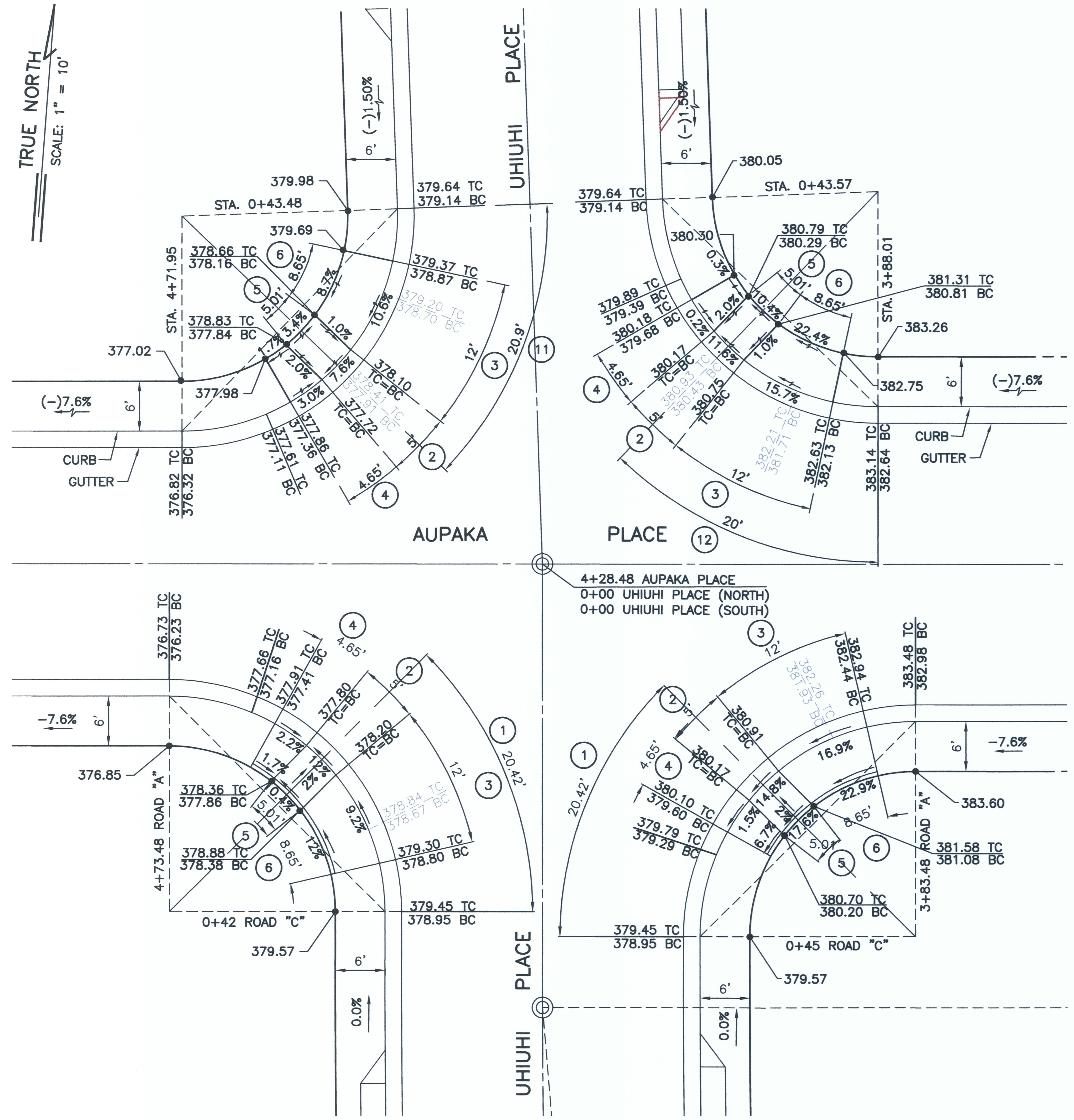
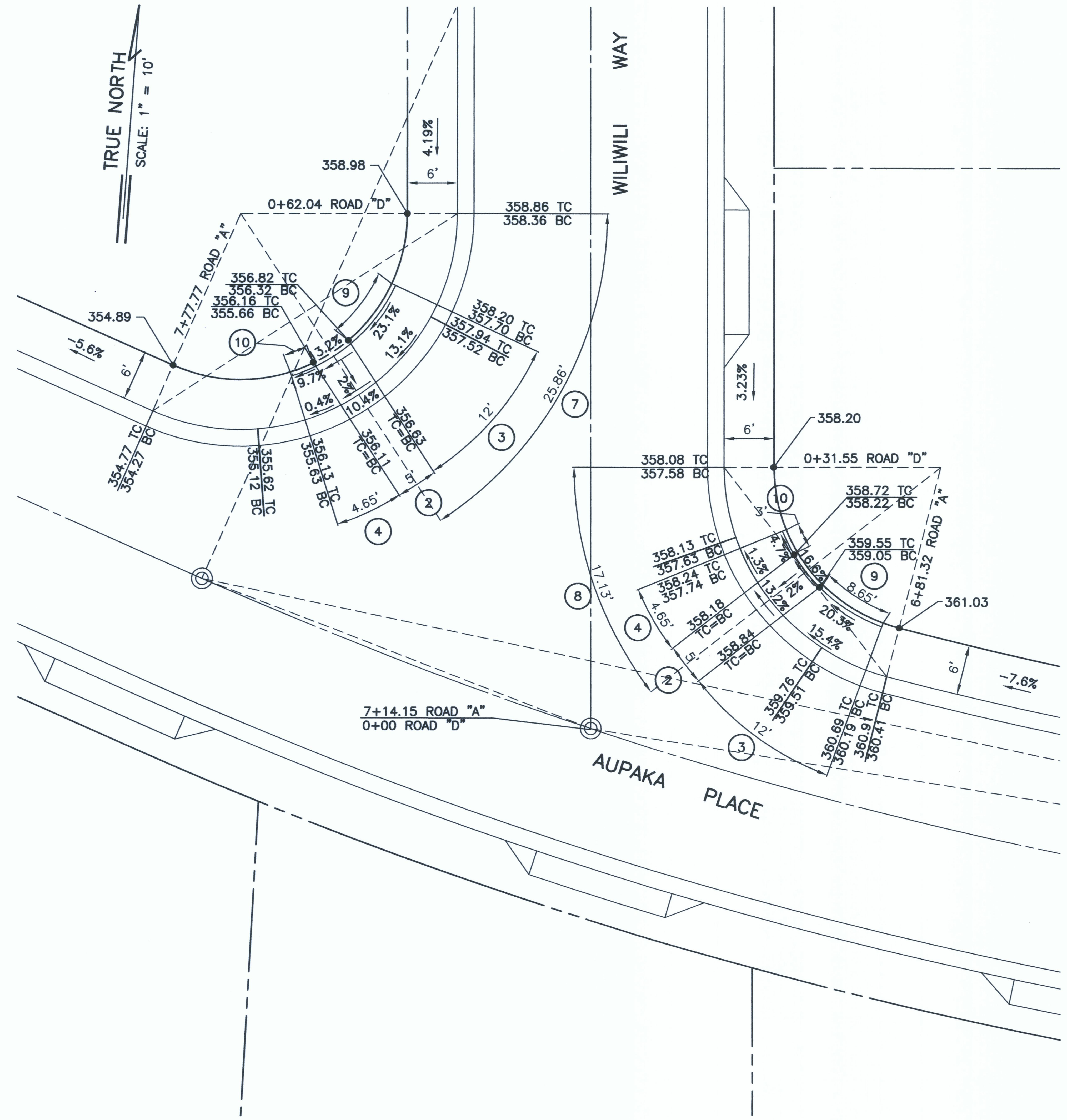
Revised\DHL04223_STr.DWG



UHIUHI PLACE / AUPAKA PLACE

SCALE: 1" = 10'



WILIWLI WAY / AUPAKA PLACE

SCALE: 1" = 10'

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

CURVE DATA										
CURVE	1	2	3	4	5	6	7	8	9	10
Δ	45°00'00"	11°01'06"	26°26'39"	10°15'17"	14°20'21"	24°47'02"	56°59'23"	37°45'32"	24°47'02"	8°35'40"
Δ/2	22°30'00"	5°30'33"	13°13'19.5"	5°07'38.5"	7°10'10.5"	12°23'31"	28°29'41.5"	18°52'46"	12°23'31"	4°17'50"
R	26.00	26.00	26.00	26.00	20.00	20.00	26.00	26.00	20.00	20.00
T	10.77	2.51	6.11	2.33	2.52	4.39	14.11	8.89	4.39	1.50
C	19.90	4.99	11.89	4.65	4.99	8.58	24.81	16.83	8.58	3.00
Lc	20.42	5.00	12.00	4.65	5.01	8.65	25.86	17.13	8.65	3.00

SHELDON T. YAMASATO
LICENSED PROFESSIONAL ENGINEER
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LICENSE EXPIRES 4/30/10

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS
LA'I'OPUA VILLAGE 5
TAX MAP KEY: (3) 7-4-21:6
KAILUA-KONA, NORTH KONA, HAWAII

CURB RAMP DETAILS

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

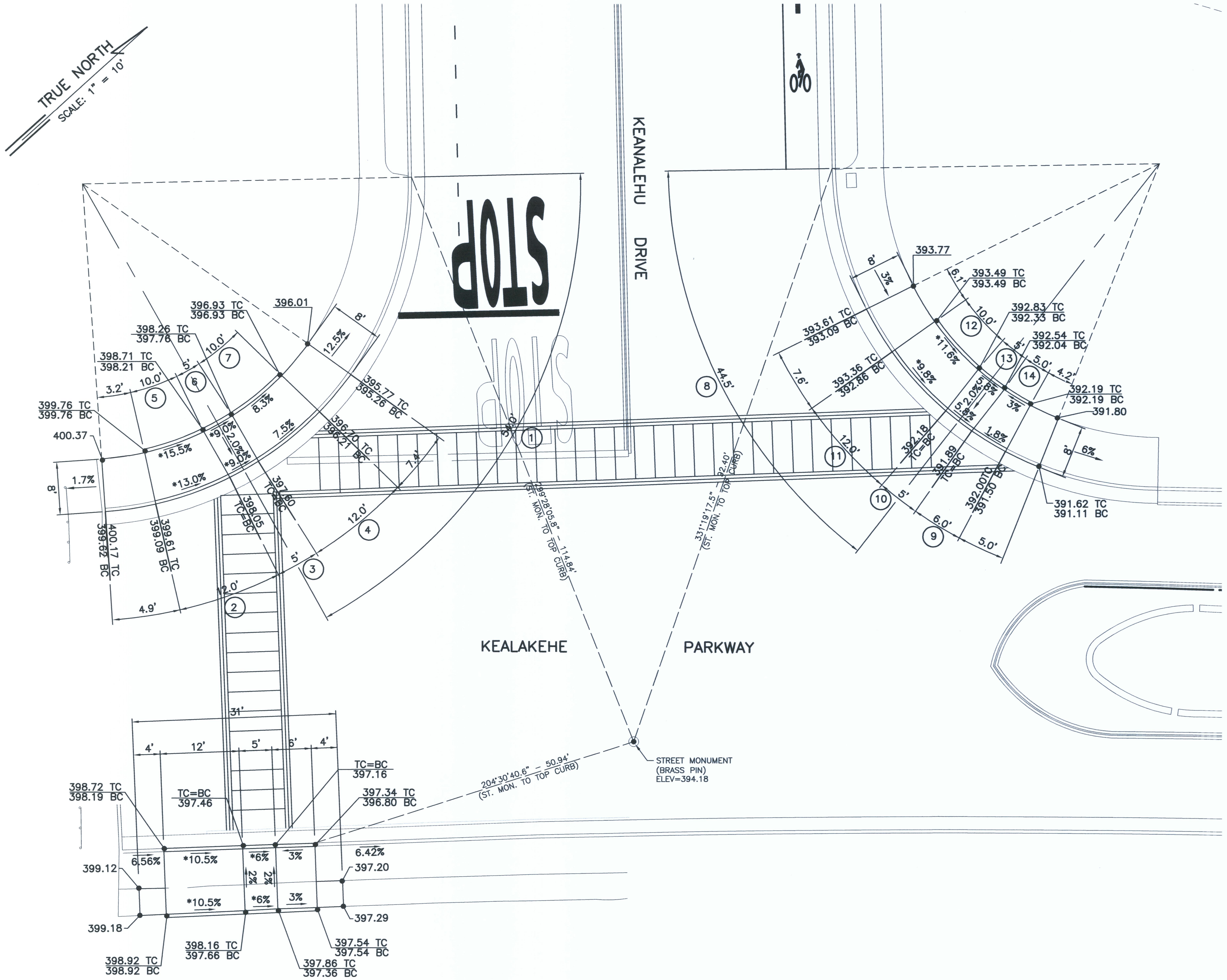
AKINAKA & ASSOCIATES, LTD.
CONSULTING ENGINEERS

AS-BUILT

SHEET 26 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

Last Save by: SHU
Last Saved: 5/23/2012
Plotted on: 5/29/2012
G:\DHHL0402\ACAD\Site Work
Revised\DHL04224_STr.DWG



KEALAKEHE PARKWAY / KEANALEHU DRIVE

SCALE: 1" = 10'

FOR WORK ALONG KEALAKEHE PARKWAY:

ALL PAVEMENT MARKING(S) DETERMINED TO BE DISTURBED BY THE HAWAII DISTRICT ENGINEER OR HIS REPRESENTATIVE, SHALL BE IMMEDIATELY REPLACED WITHOUT QUESTION AND AT NO COST TO THE STATE.

HORIZONTAL CURVE DATA														
CURVE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Δ	61°48'24"	13°44'44"	5°43'39"	13°44'19"	12°57'59"	6°20'30"	13°14'17"	51°9'28"	6°46'38"	5°41'3"	13°45'13"	7°59'59"	7°51'44"	13°?53'36"
Δ/2	30°54'12"	6°52'22"	2°51'49"	6°52'9"	6°28'59"	3°10'15"	6°37'9"	25°34'44"	3°23'19"	2°50'31"	6°52'37"	3°59'59"	3°55'52"	6°56'48"
R	50.05	50.04	50.04	50.04	41.54	41.54	41.54	49.84	50.73	50.42	49.99	35.81	36.46	41.26
T	29.96	6.03	2.50	6.03	4.72	2.30	4.82	23.85	3.00	2.50	6.03	2.50	2.51	5.03
C	51.41	11.98	5.00	11.97	9.38	4.60	9.58	43.03	6.00	5.00	11.97	5.00	5.00	9.98
Lc	54.00	12.00	5.00	12.00	9.40	4.60	9.60	44.50	6.00	5.00	12.00	5.00	5.00	10.00

GRAPHIC SCALE:

10 0 10 20

SCALE: 1" = 10'

SHELDON T. YAMASATO
LICENSED PROFESSIONAL ENGINEER
No.4733-C
HAWAII, U.S.A.

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LICENSE EXPIRES 4/30/10

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

CURB RAMP DETAILS WITHIN STATE RIGHT-OF-WAY

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

AKINAKA & ASSOCIATES, LTD.
CONSULTING ENGINEERS

AS-BUILT

SHEET 27 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

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Last Saved: 5/24/2012
Plotted on: 5/29/2012

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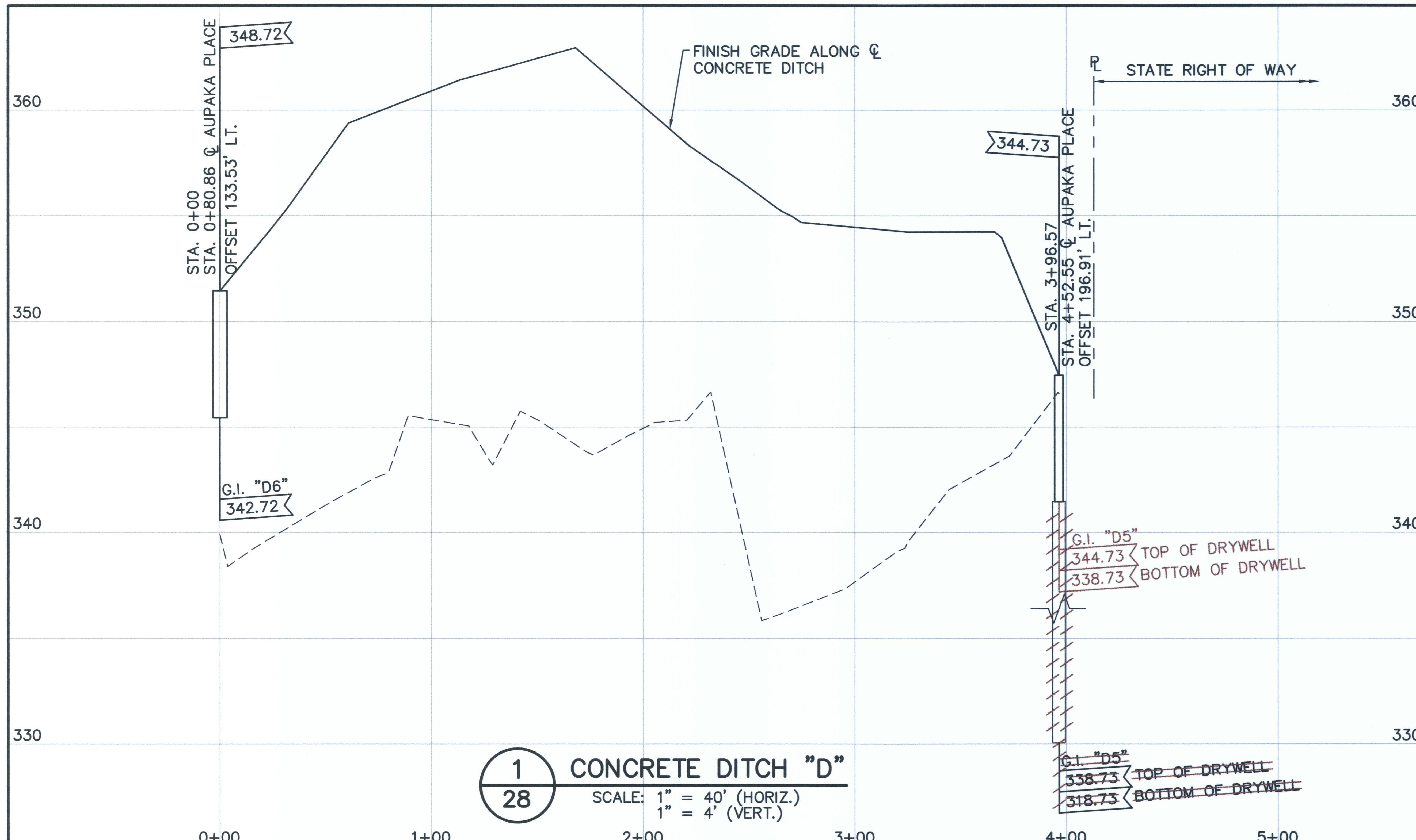
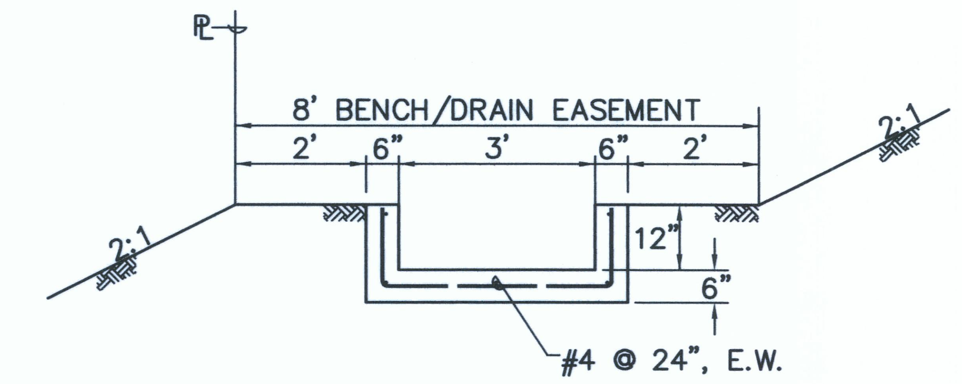


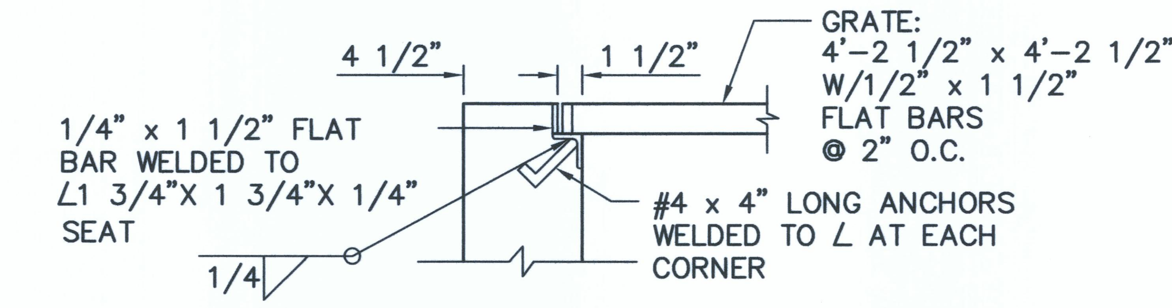
1 / 28 CONCRETE DITCH "D"

SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



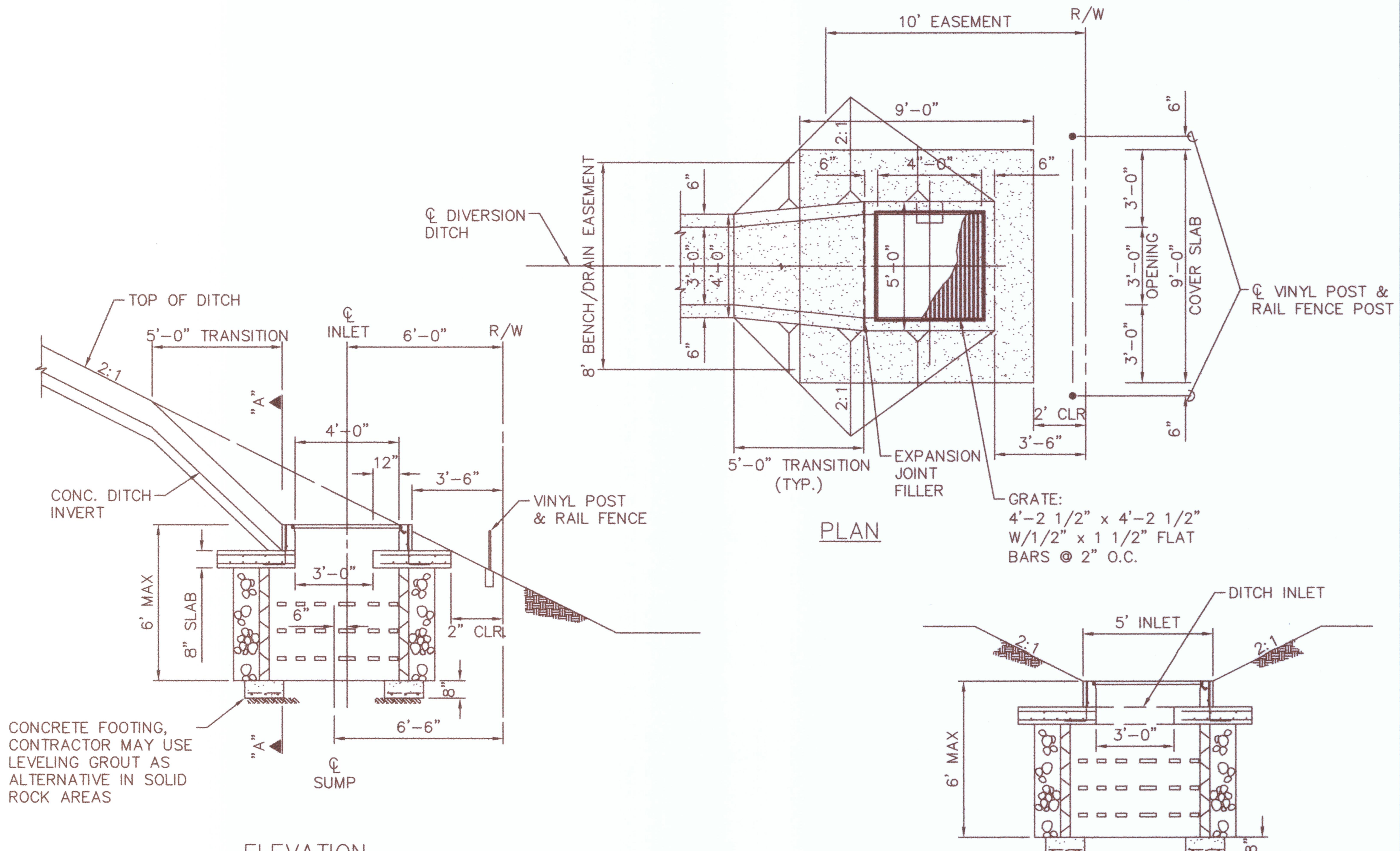
2 / 28 CONCRETE DITCH

SCALE 1" = 10'



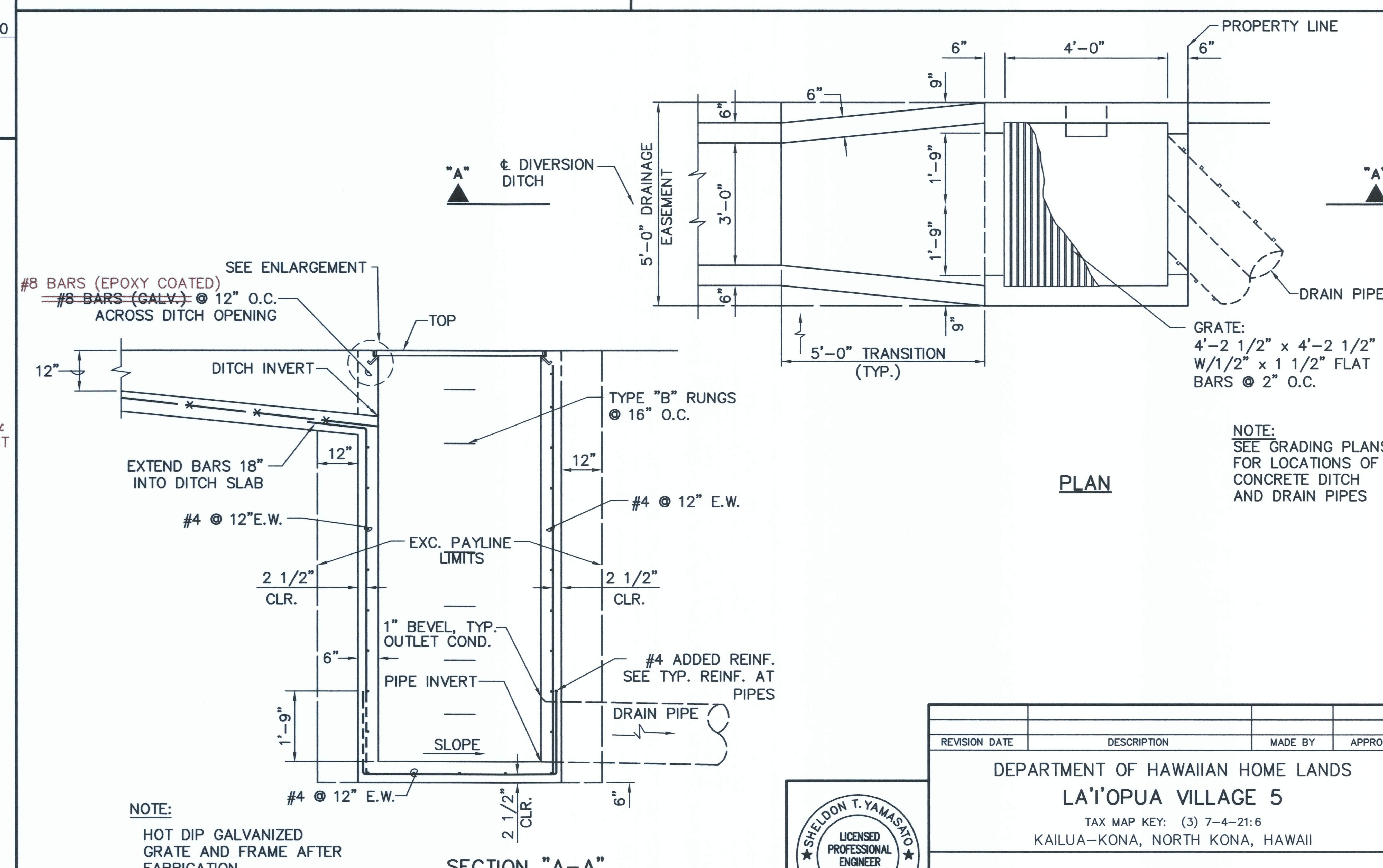
ENLARGEMENT

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



GRATE INLET "D5" (W/ DRYWELL)

SCALE: 1" = 40'



GRATE INLET "D6" (W/OUT DRYWELL)

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

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

CONCRETE DITCH DETAILS & PROFILE

SHELDON T. YAMASATO LICENSED PROFESSIONAL ENGINEER No.4733-C HAWAII, U.S.A.

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COUNTY ENGINEER, DPW, COUNTY OF HAWAII — DATE

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CONSULTING ENGINEERS

AS-BUILT

SHEET 28 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

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Last Saved: 5/24/2012
Plotted on: 5/29/2012
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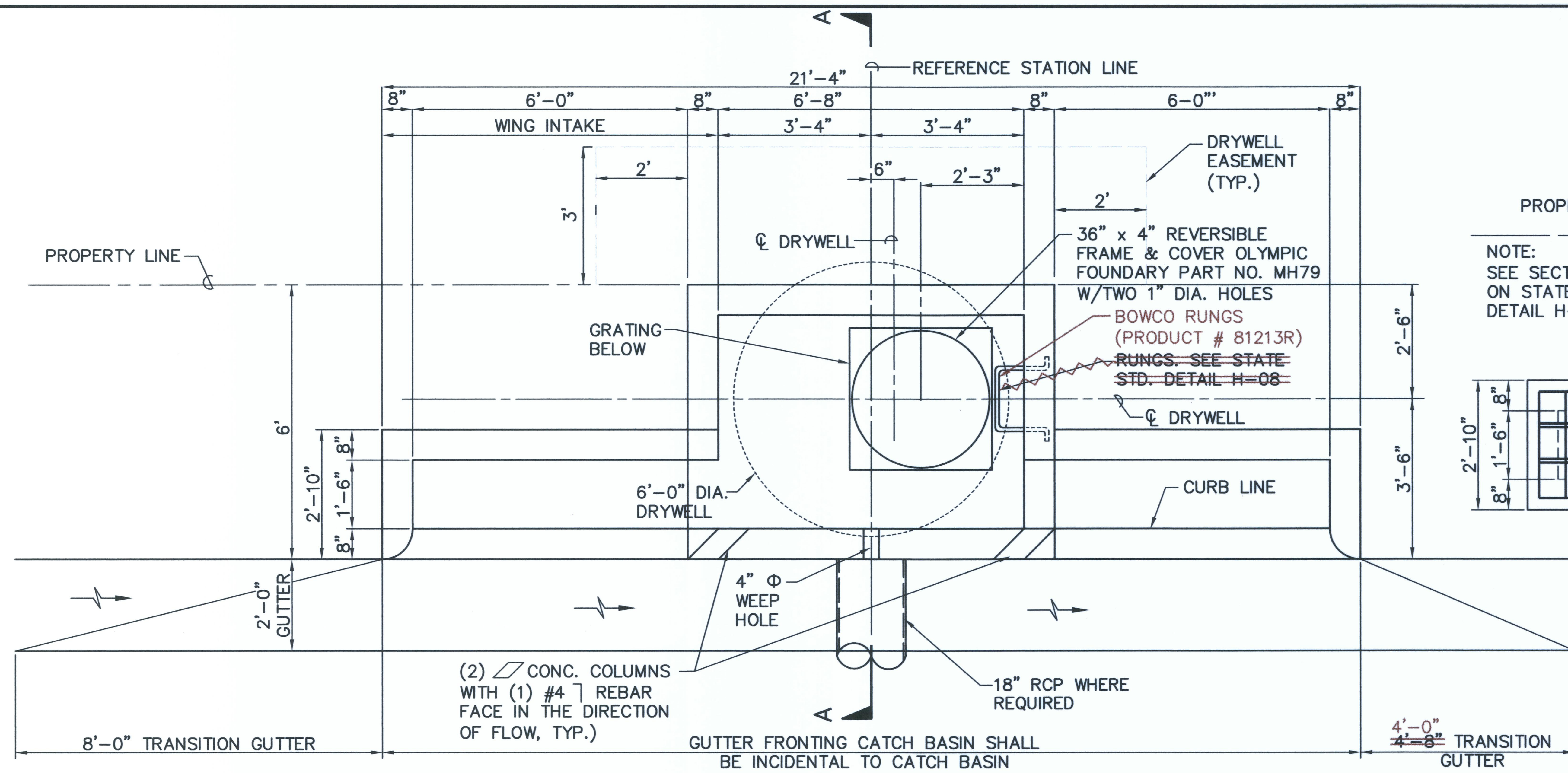
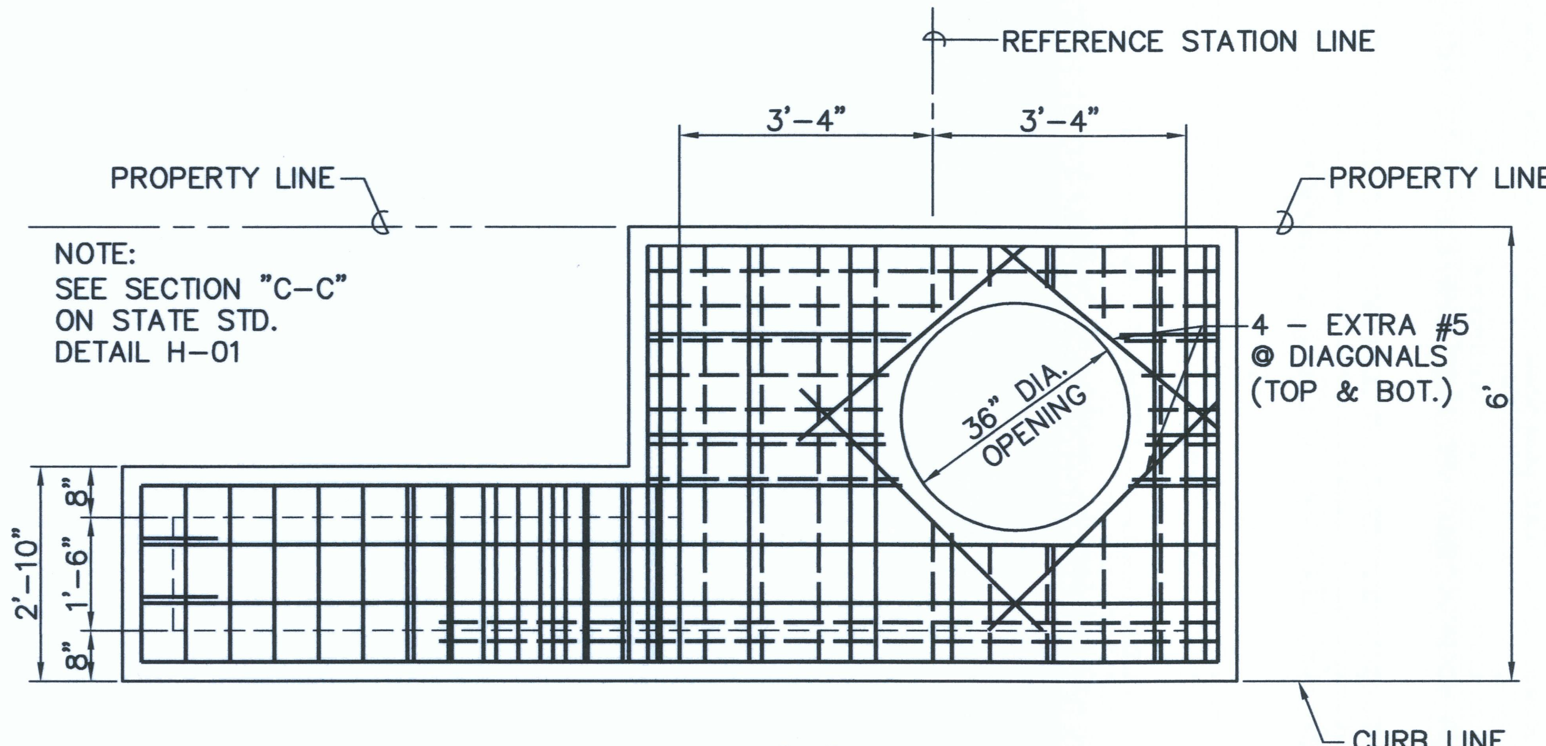


PLAN – TYPE "A" CATCH BASIN

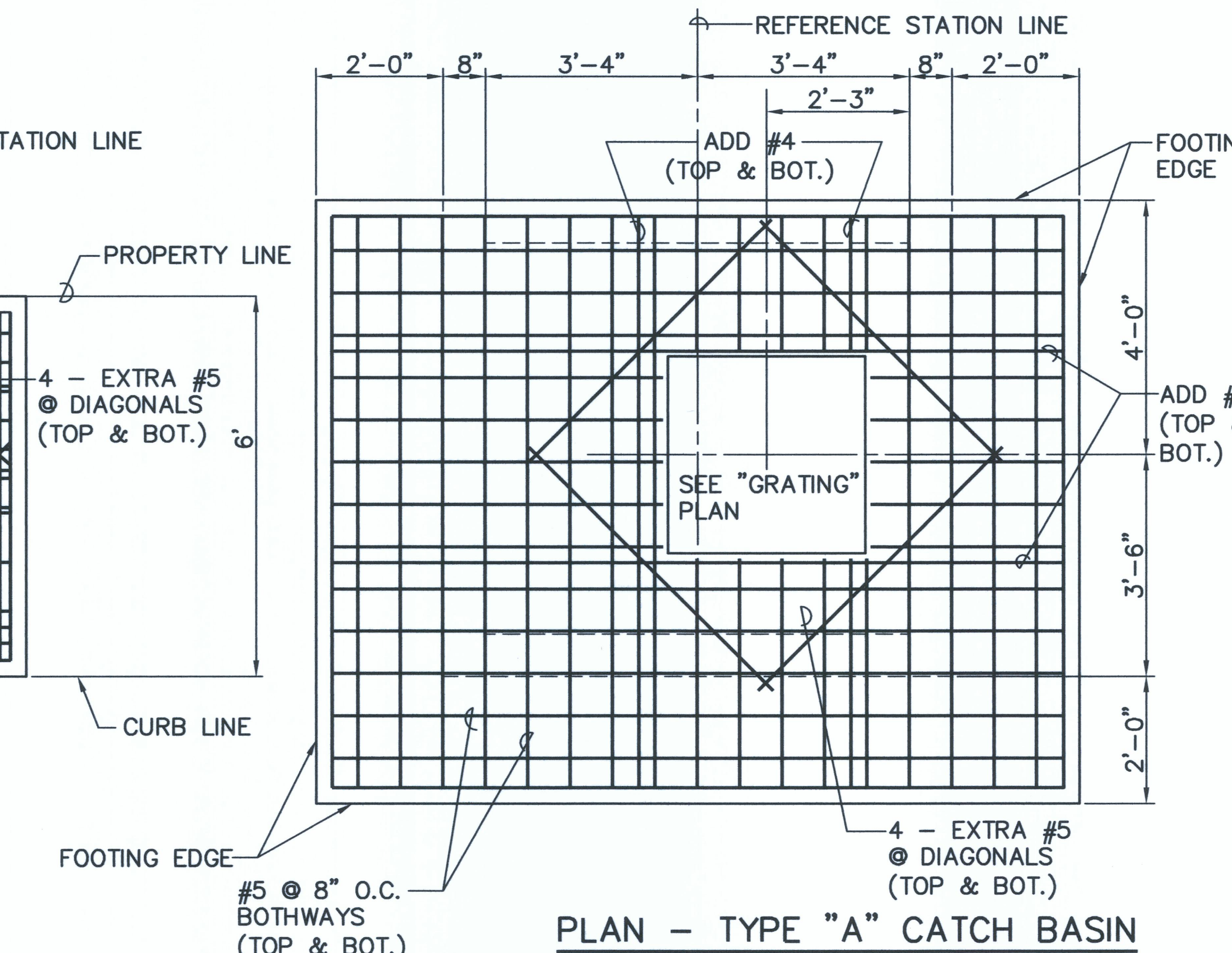
NOT TO SCALE



PLAN – TYPE "A" CATCH BASIN

REINF. DETAIL – TOP SLAB OF M.H.

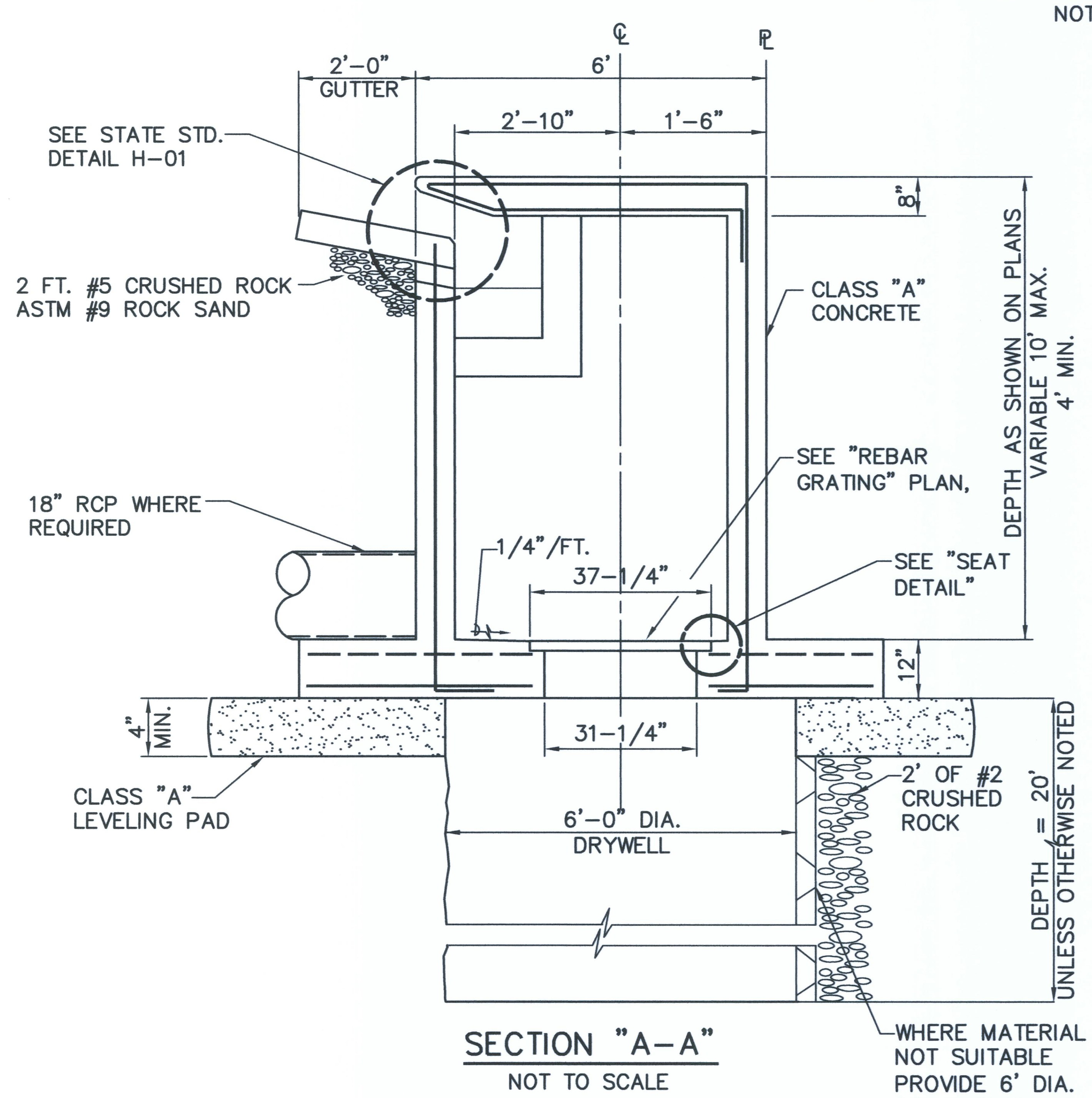
NOT TO SCALE



PLAN – TYPE "A" CATCH BASIN

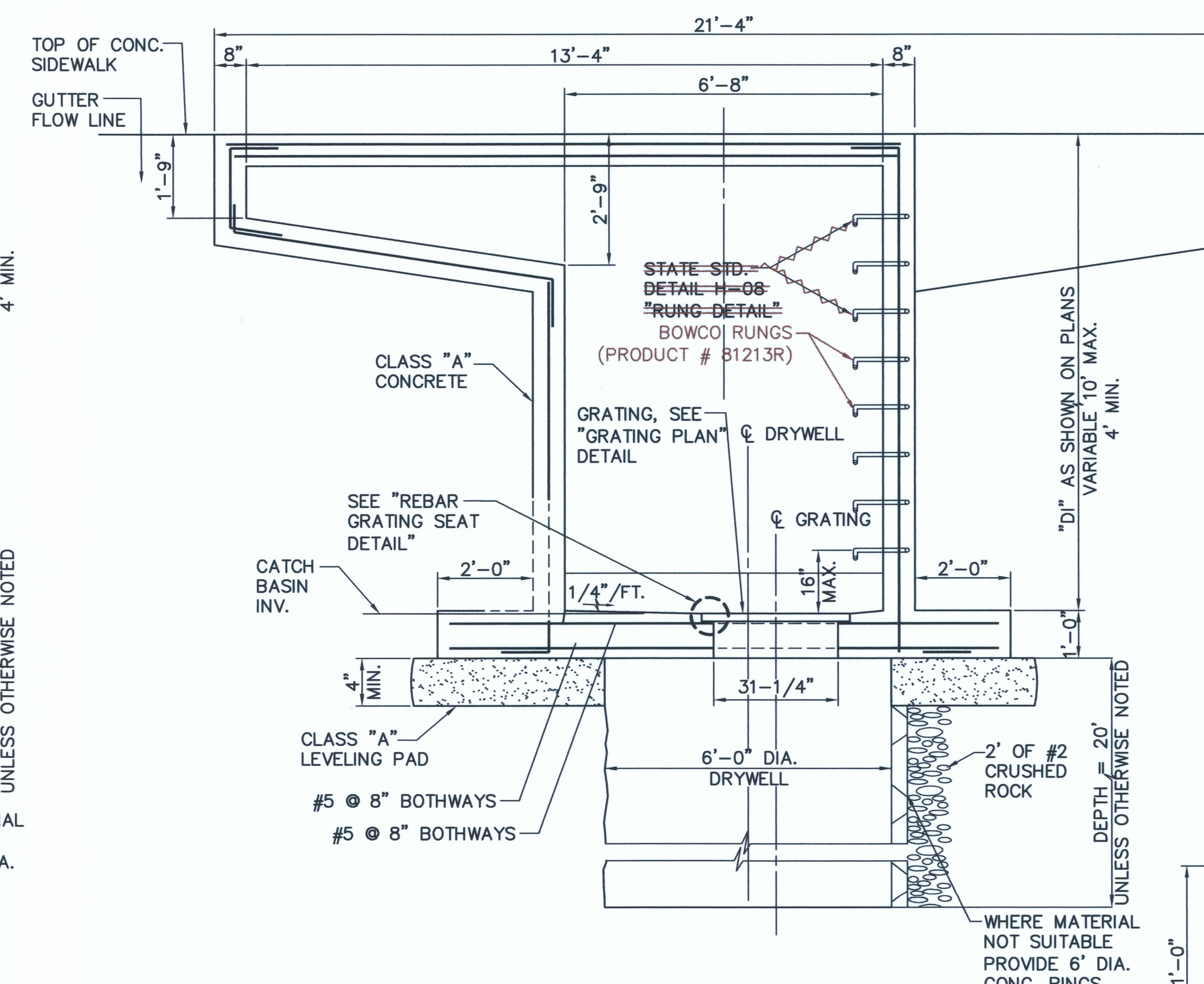
REINF. DETAIL – BOTTOM SLAB W/GRATING

NOT TO SCALE



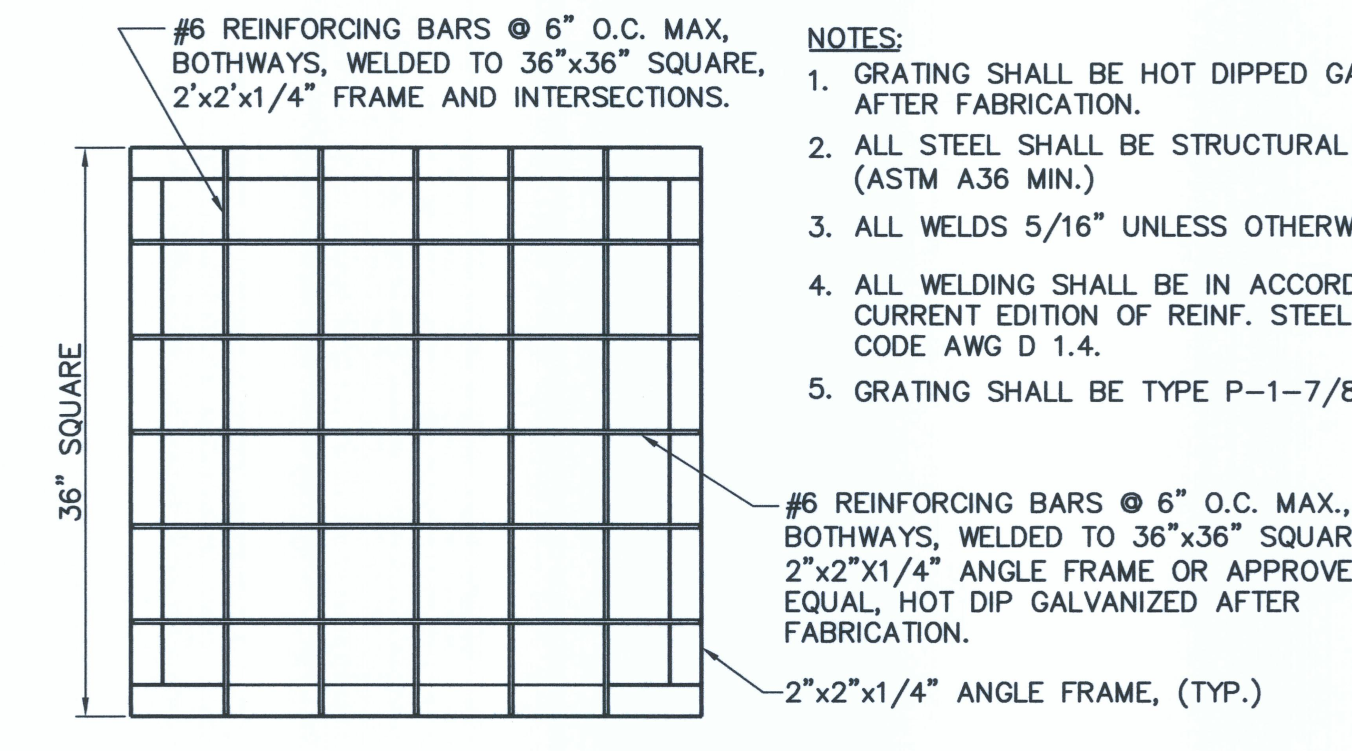
SECTION "A–A"

NOT TO SCALE



FRONT ELEVATION TYPE "A" CATCH BASIN

NOT TO SCALE

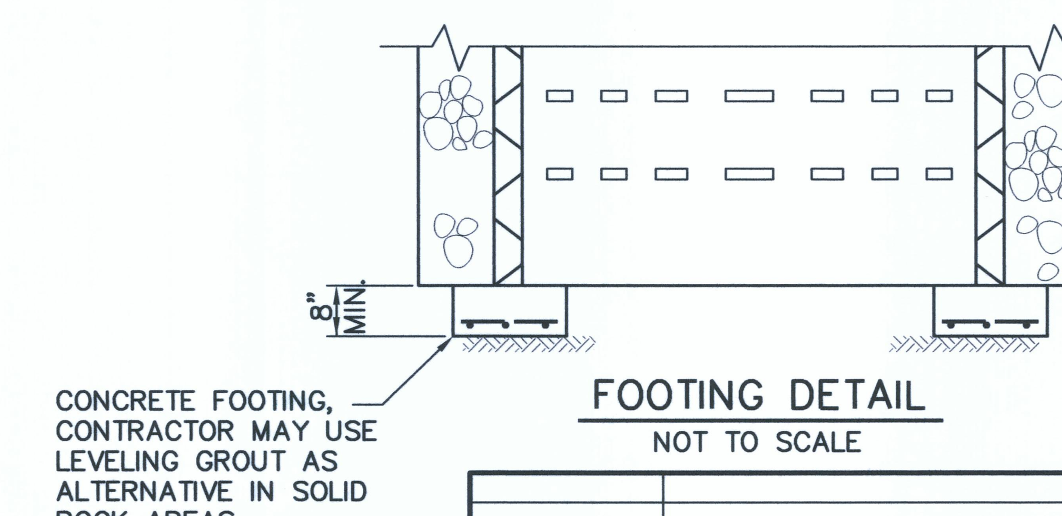


PLAN – DRYWELL REBAR GRATING

NOT TO SCALE

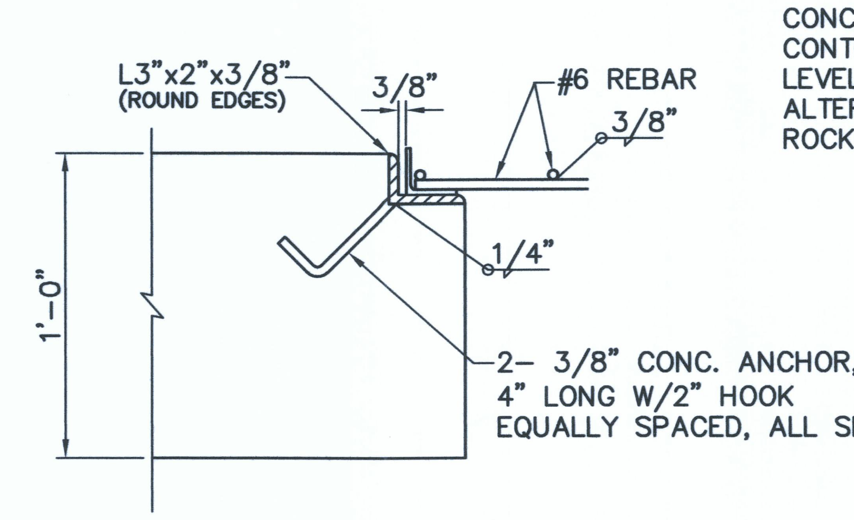
NOTES:

1. GRATING SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. ALL STEEL SHALL BE STRUCTURAL GRADE (ASTM A36 MIN.)
3. ALL WELDS 5/16" UNLESS OTHERWISE NOTED.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF REINF. STEEL WELDING CODE AWG D 1.4.
5. GRATING SHALL BE TYPE P-1-7/8".



FOOTING DETAIL

NOT TO SCALE



REBAR GRATING SEAT DETAIL

NOT TO SCALE

TYPE "A" CATCH BASIN & DRYWELL

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

IN STABLE ROCK CONDITIONS:

1. DRYWELLS MAY BE DRILLED. ONLY WATER SOLUBLE DRILLING LUBRICANTS WILL BE ALLOWED. NO CLAY OR OTHER DRILLING LUBRICANTS, WHICH HAVE THE POTENTIAL TO REDUCE PERMEABILITY, WILL BE PERMITTED.
2. AFTER DRILLING OF THE DRYWELL IS COMPLETED, THE SIDEWALLS SHALL BE WASHED ALONG THE ENTIRE DEPTH AND THE BOTTOM OF THE DRYWELL CLEANED OUT TO ALLOW POSITIVE PERMEABILITY.

NOTES:

1. REFER TO STATE STANDARD DETAIL H-01 AND H-04 FOR WALL, TOP SLAB AND REINFORCING DETAILS.
2. ~~REFER TO STATE STANDARD DETAIL H-08 FOR RUNG DETAILS.~~ RUNGS SHALL BE BOWCO PRODUCT # 81213R
3. REFER TO STATE STANDARD DETAIL H-01 FOR WING INTAKE DIMENSIONS AND REINFORCING DETAILS.

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REVISION DATE	DESCRIPTION	MADE BY	APPROVED

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LICENSE EXPIRES 4/30/10

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

MISCELLANEOUS DETAILS

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII — DATE

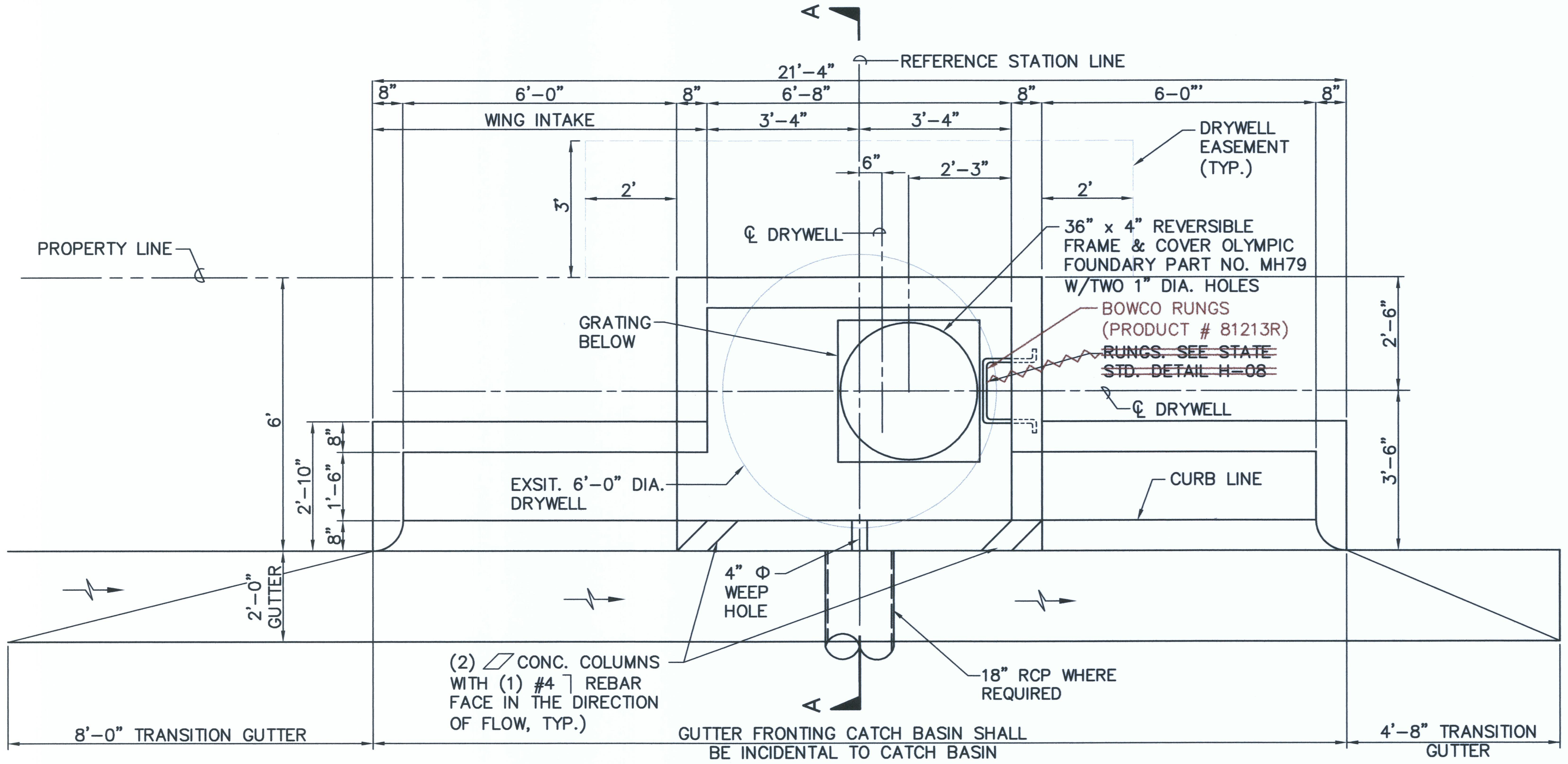
AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS

AS-BUILT

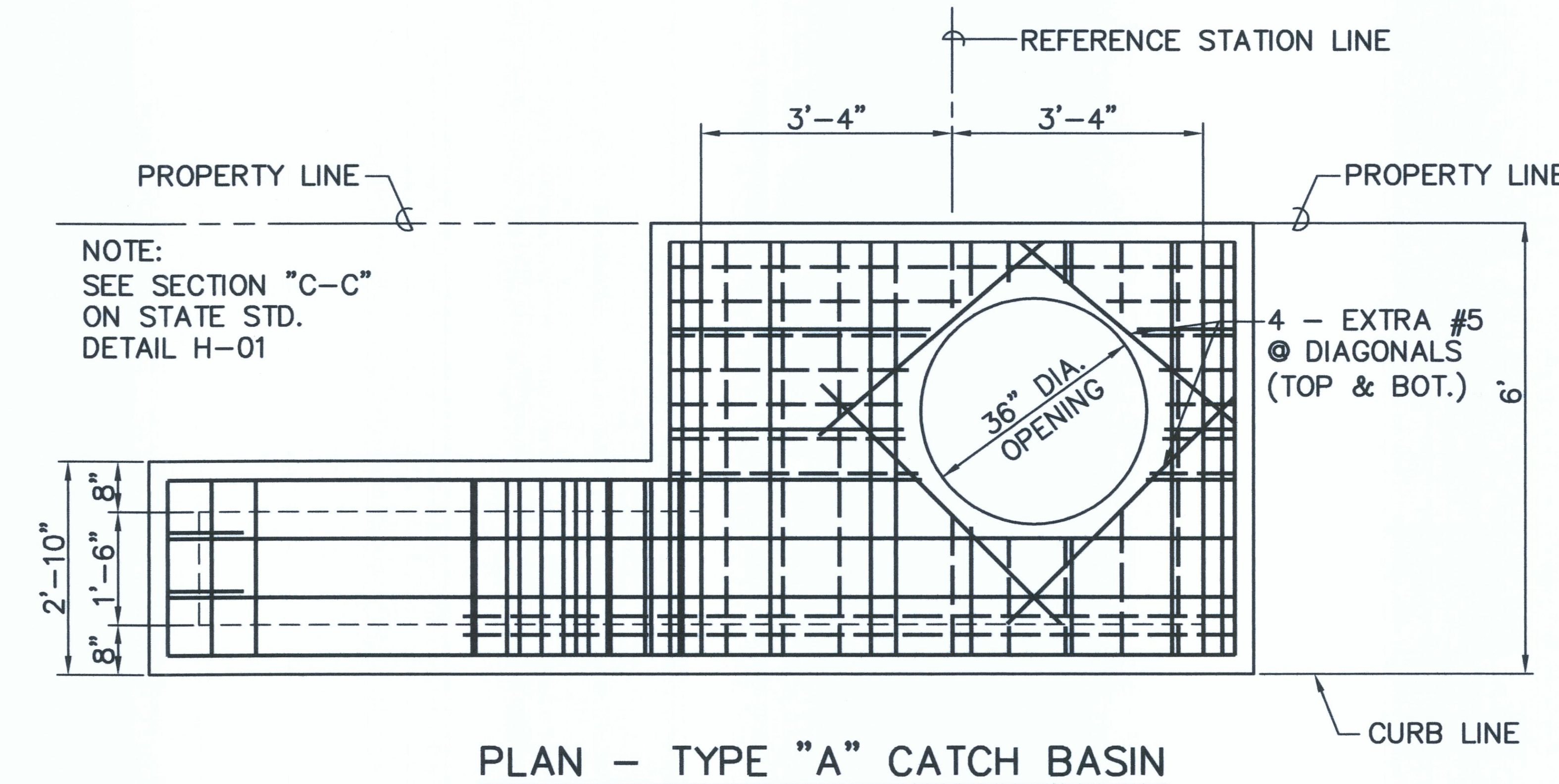
SHEET 29 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.



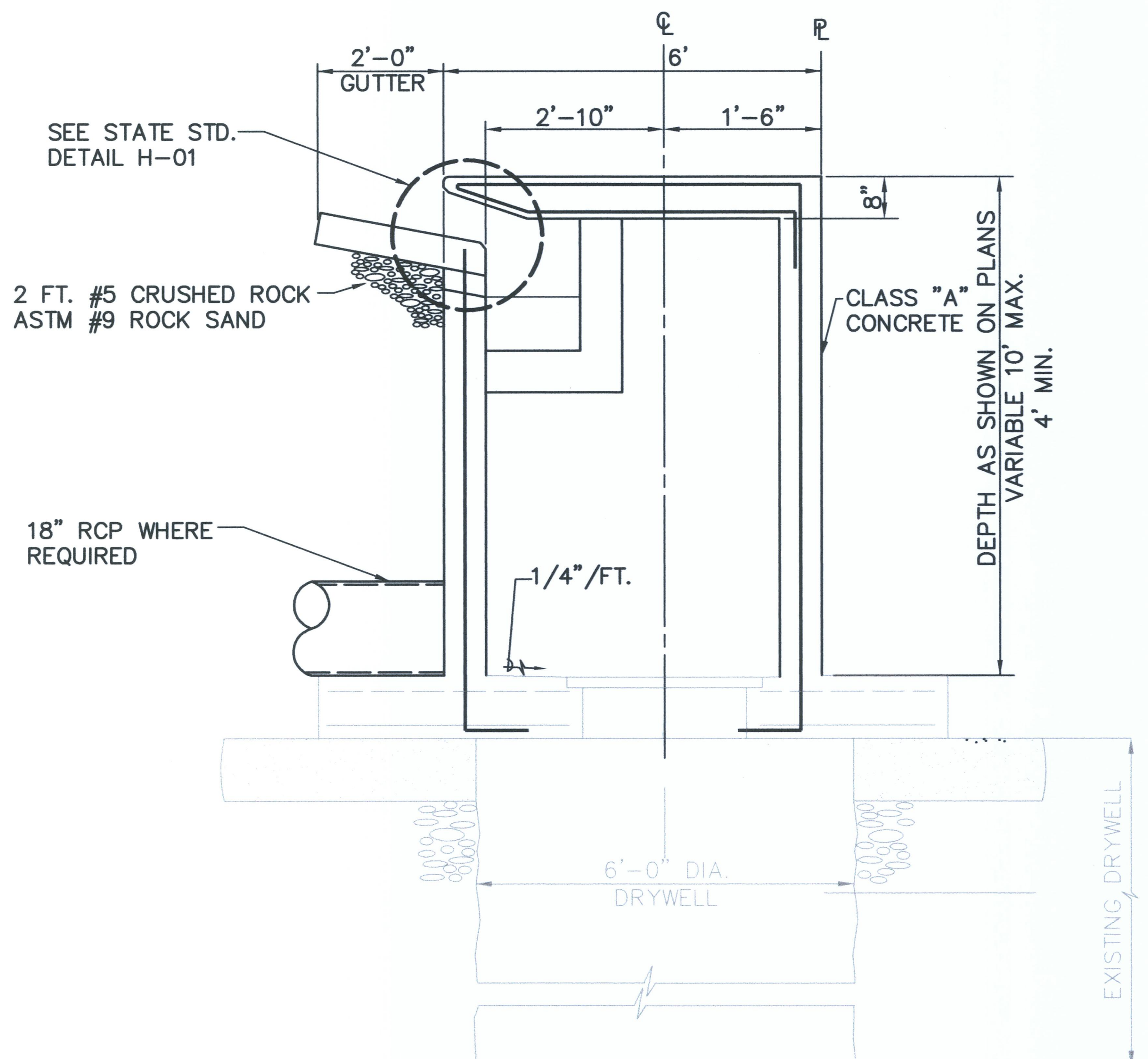
PLAN – TYPE "A" CATCH BASIN

NOT TO SCALE



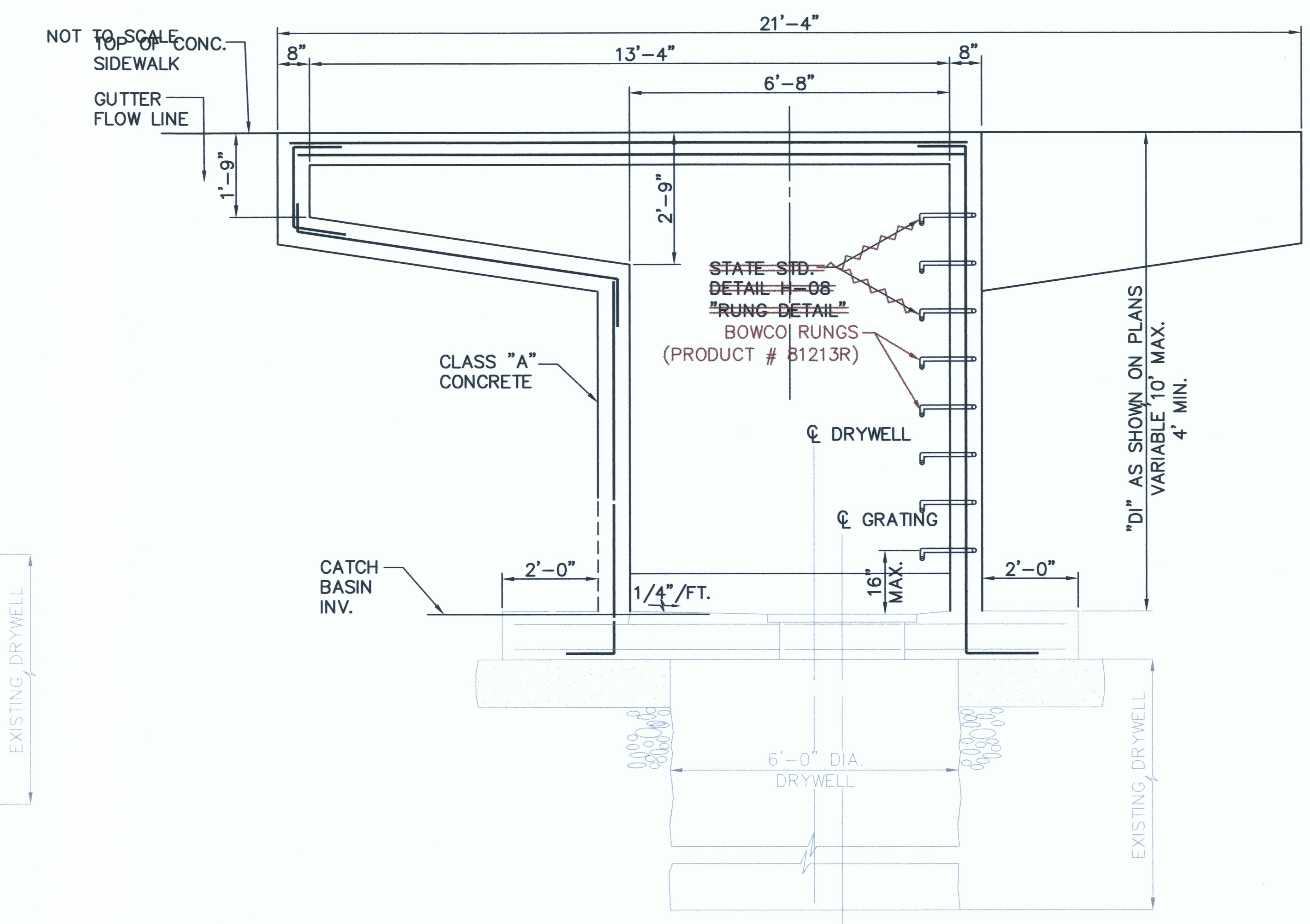
PLAN – TYPE "A" CATCH BASIN
REINF. DETAIL – TOP SLAB OF M.H.

NOT TO SCALE



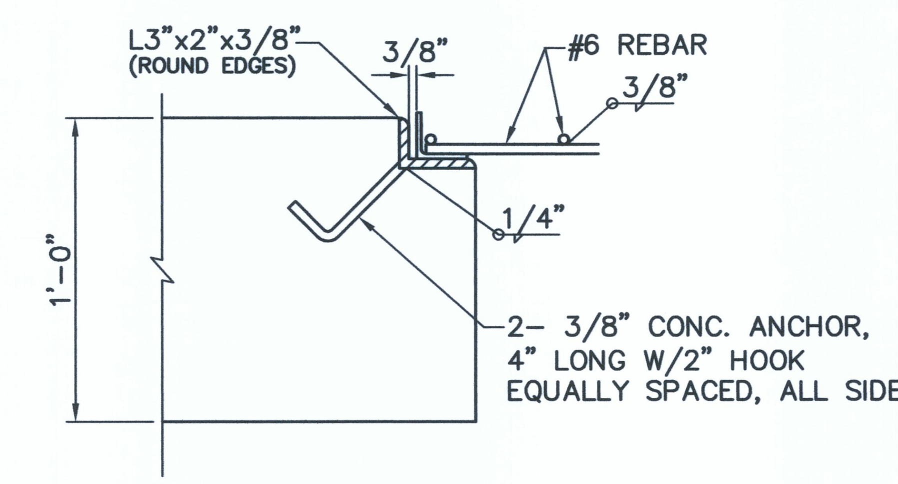
SECTION "A-A"

NOT TO SCALE



FRONT ELEVATION TYPE "A" CATCH BASIN

NOT TO SCALE



REBAR GRATING SEAT DETAIL

NOT TO SCALE

IN STABLE ROCK CONDITIONS:

1. DRYWELLS MAY BE DRILLED. ONLY WATER SOLUBLE DRILLING LUBRICANTS WILL BE ALLOWED. NO CLAY OR OTHER DRILLING LUBRICANTS, WHICH HAVE THE POTENTIAL TO REDUCE PERMEABILITY, WILL BE PERMITTED.
2. AFTER DRILLING OF THE DRYWELL IS COMPLETED, THE SIDEWALLS SHALL BE WASHED ALONG THE ENTIRE DEPTH AND THE BOTTOM OF THE DRYWELL CLEANED OUT TO ALLOW POSITIVE PERMEABILITY.

NOTES:

1. REFER TO STATE STANDARD DETAIL H-01 AND H-04 FOR WALL, TOP SLAB AND REINFORCING DETAILS.
2. ~~REFER TO STATE STANDARD DETAIL H-08 FOR RUNG DETAILS.~~ RUNGS SHALL BE BOWCO PRODUCT # 81213R
3. REFER TO STATE STANDARD DETAIL H-01 FOR WING INTAKE DIMENSIONS AND REINFORCING DETAILS.

TYPE "A" CATCH BASIN OVER EXISTING DRYWELL

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

Last Save by: SHU
Last Saved: 5/23/2012
Plotted on: 5/29/2012
G:\DHHL0402\ACAD\ASBUILT\DHL04234_STr-ASBUILT.DWG

SHELDON T. YAMASATO
LICENSED PROFESSIONAL ENGINEER
No.4733-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION
LICENSE EXPIRES 4/30/10

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

MISCELLANEOUS DETAILS

Approved:

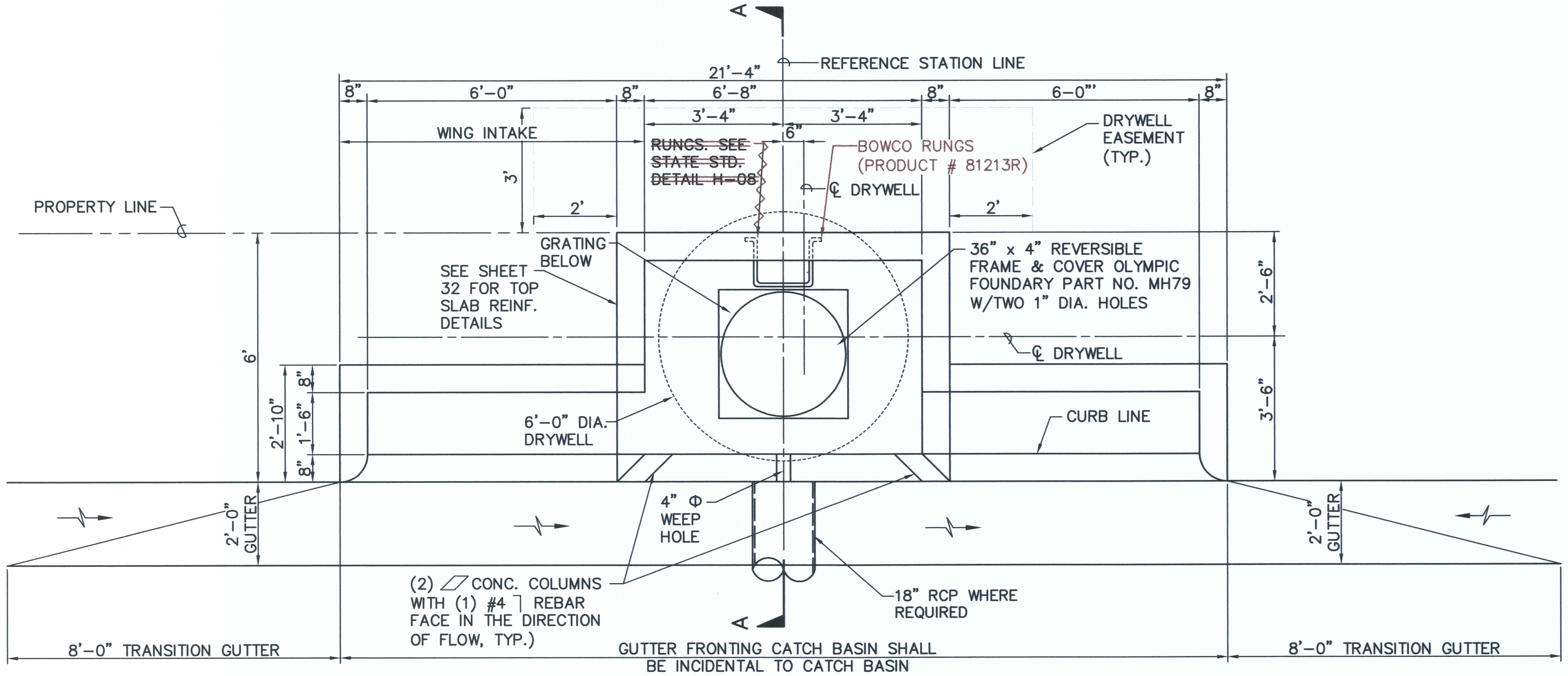
COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

AKINAKA & ASSOCIATES, LTD.
CONSULTING ENGINEERS

AS-BUILT

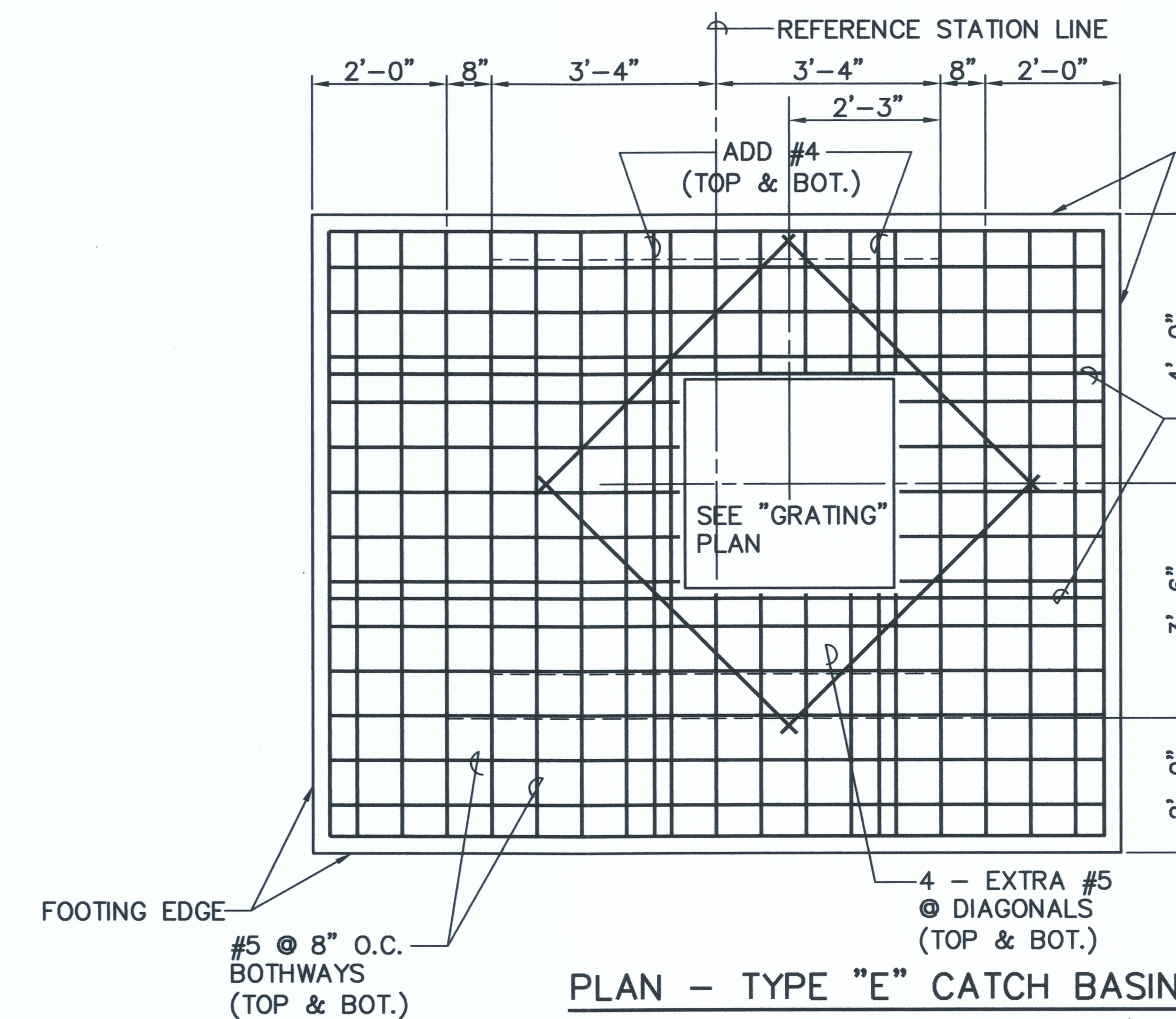
SHEET 30 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.



PLAN – TYPE "E" CATCH BASIN

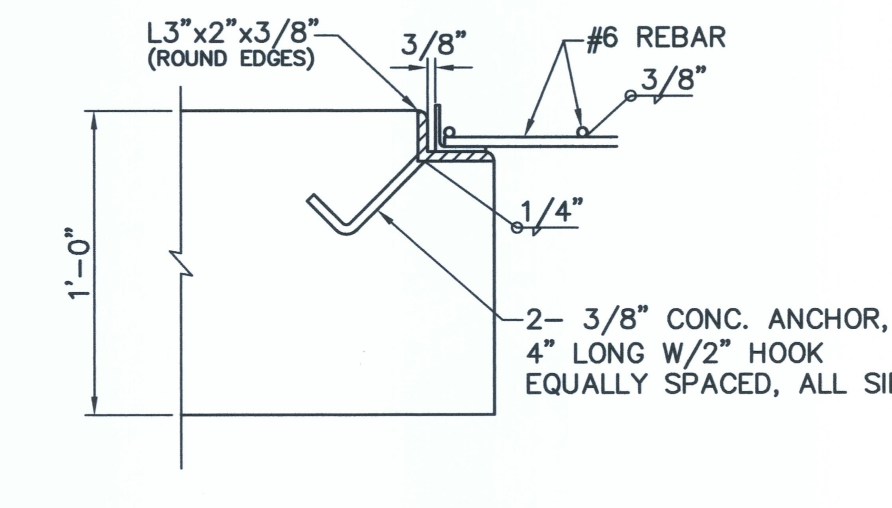
NOT TO SCALE



PLAN – TYPE "E" CATCH BASIN

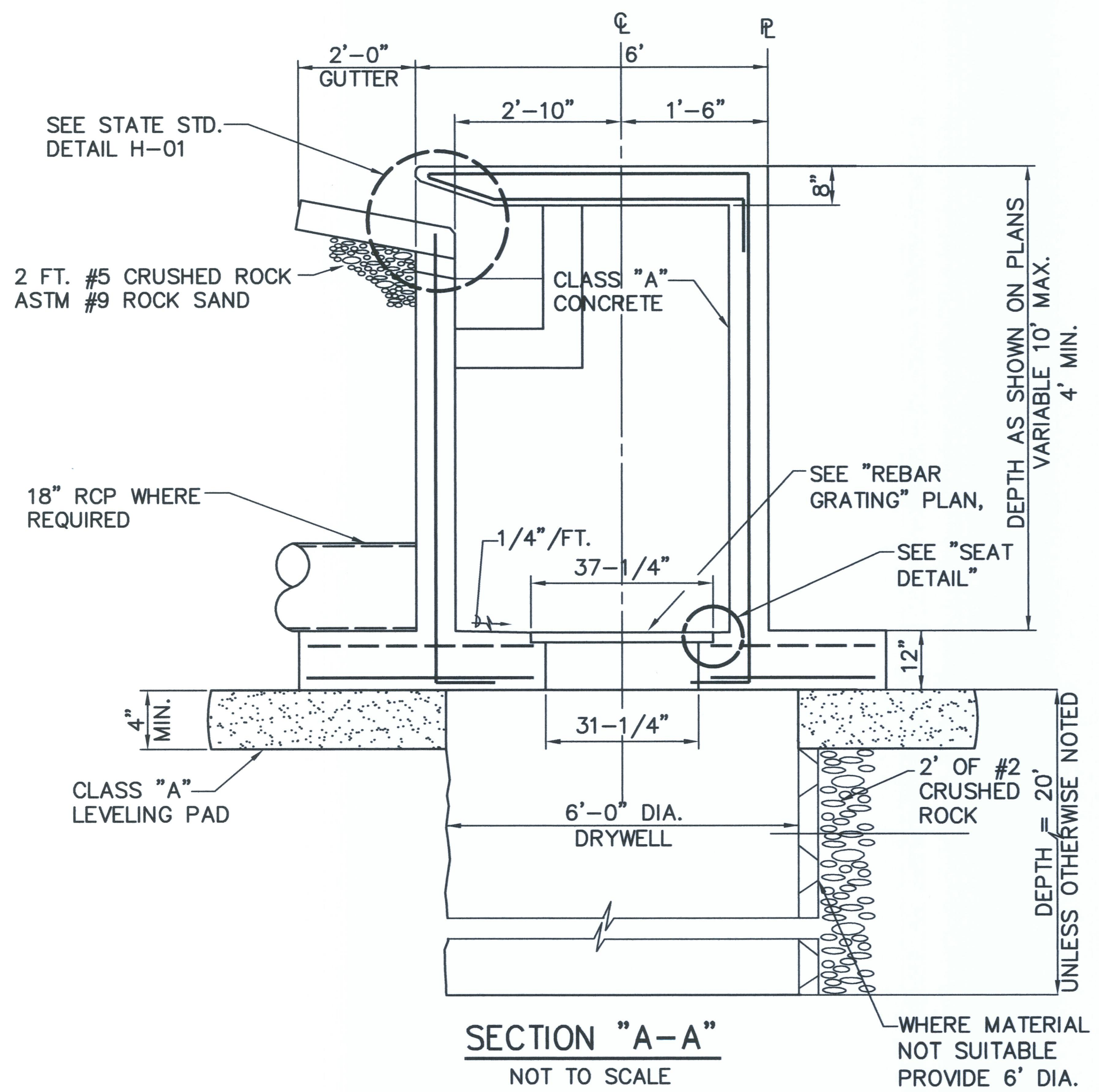
REINF. DETAIL – BOTTOM SLAB W/GRATING

NOT TO SCALE



REBAR GRATING SEAT DETAIL

NOT TO SCALE



SECTION "A–A"

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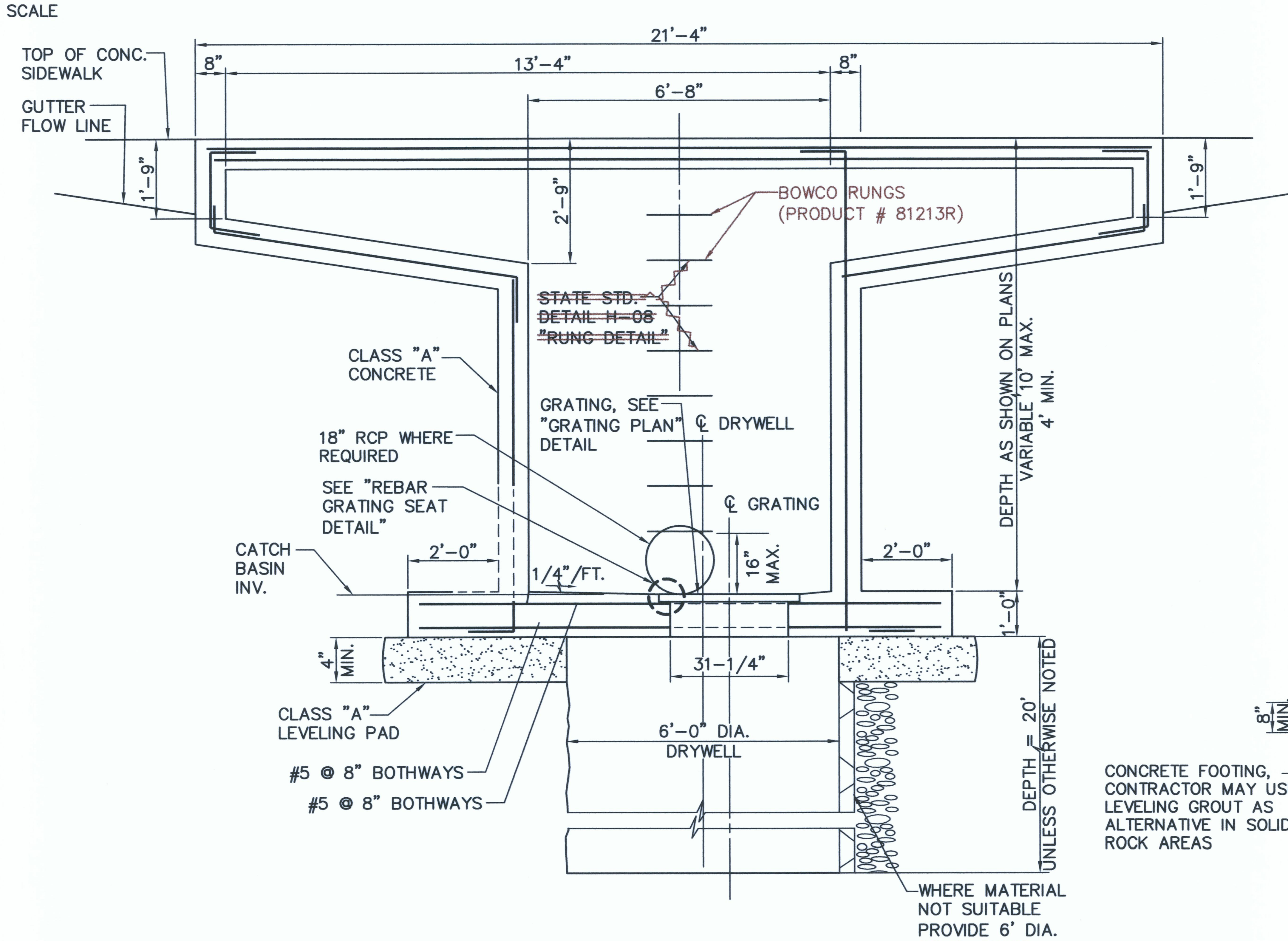
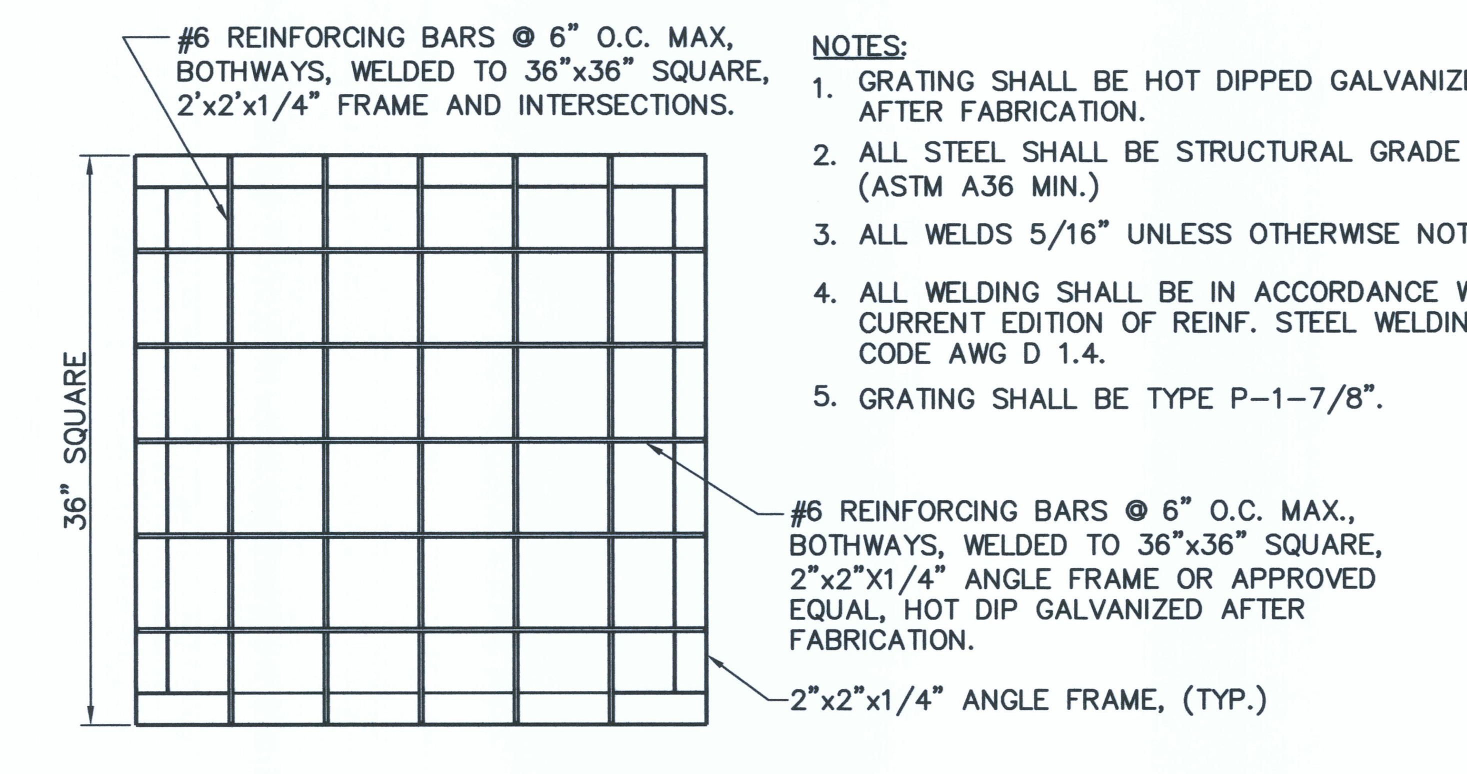


FRONT ELEVATION TYPE "E" CATCH BASIN

NOT TO SCALE

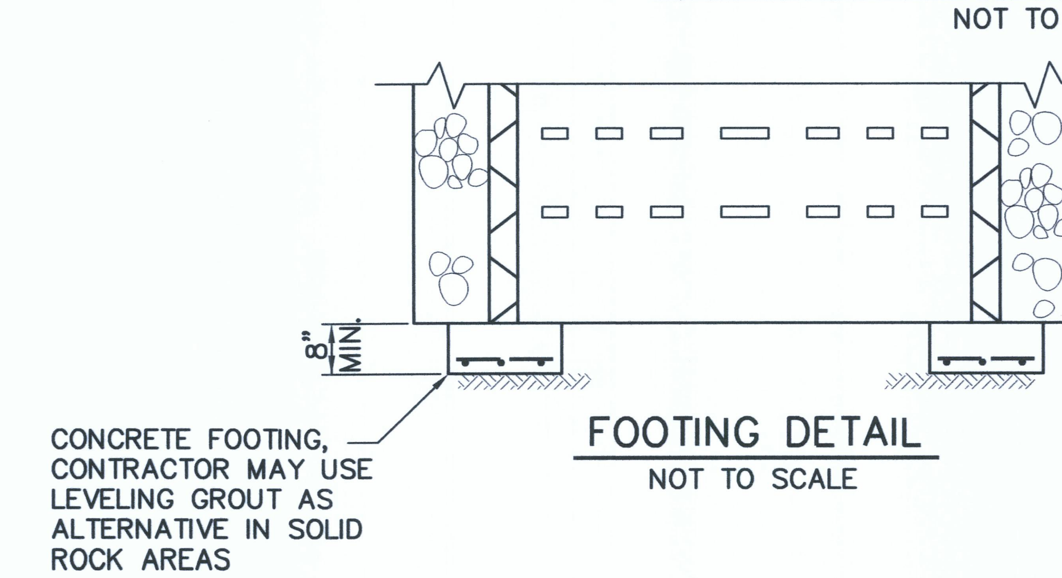


PLAN – DRYWELL REBAR GRATING

NOT TO SCALE

NOTES:

1. GRATING SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. ALL STEEL SHALL BE STRUCTURAL GRADE (ASTM A36 MIN.)
3. ALL WELDS 5/16" UNLESS OTHERWISE NOTED.
4. ALL WELDING SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF REINF. STEEL WELDING CODE AWG D 1.4.
5. GRATING SHALL BE TYPE P-1-7/8".



FOOTING DETAIL

NOT TO SCALE

NOTES:

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2. ~~REFER TO STATE STANDARD DETAIL H-08 FOR RUNG DETAILS.~~ RUNGS SHALL BE BOWCO PRODUCT # 81213R
3. REFER TO STATE STANDARD DETAIL H-01 FOR WING INTAKE DIMENSIONS AND REINFORCING DETAILS.

IN STABLE ROCK CONDITIONS:

1. DRYWELLS MAY BE DRILLED. ONLY WATER SOLUBLE DRILLING LUBRICANTS WILL BE ALLOWED. NO CLAY OR OTHER DRILLING LUBRICANTS, WHICH HAVE THE POTENTIAL TO REDUCE PERMEABILITY, WILL BE PERMITTED.
2. AFTER DRILLING OF THE DRYWELL IS COMPLETED, THE SIDEWALLS SHALL BE WASHED ALONG THE ENTIRE DEPTH AND THE BOTTOM OF THE DRYWELL CLEANED OUT TO ALLOW POSITIVE PERMEABILITY.

TYPE "E" CATCH BASIN & DRYWELL

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

REVISION DATE	DESCRIPTION	MADE BY	APPROVED

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

SHELDON T. YAMASATO LICENSED PROFESSIONAL ENGINEER No.4733-C HAWAII, U.S.A.

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LICENSE EXPIRES 4/30/10

MISCELLANEOUS DETAILS

Approved:

COUNTY ENGINEER, DPW, COUNTY OF HAWAII DATE

AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS

AS-BUILT

SHEET 31 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.

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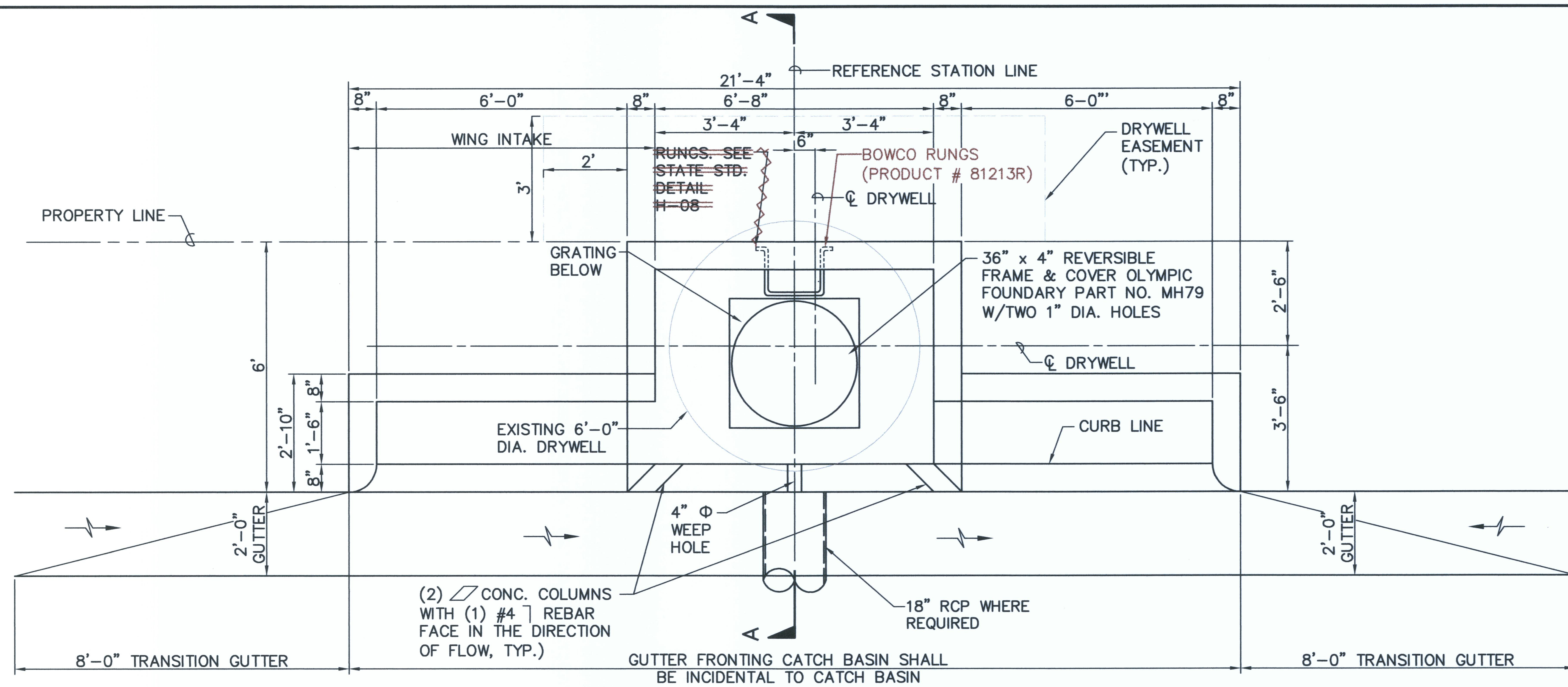
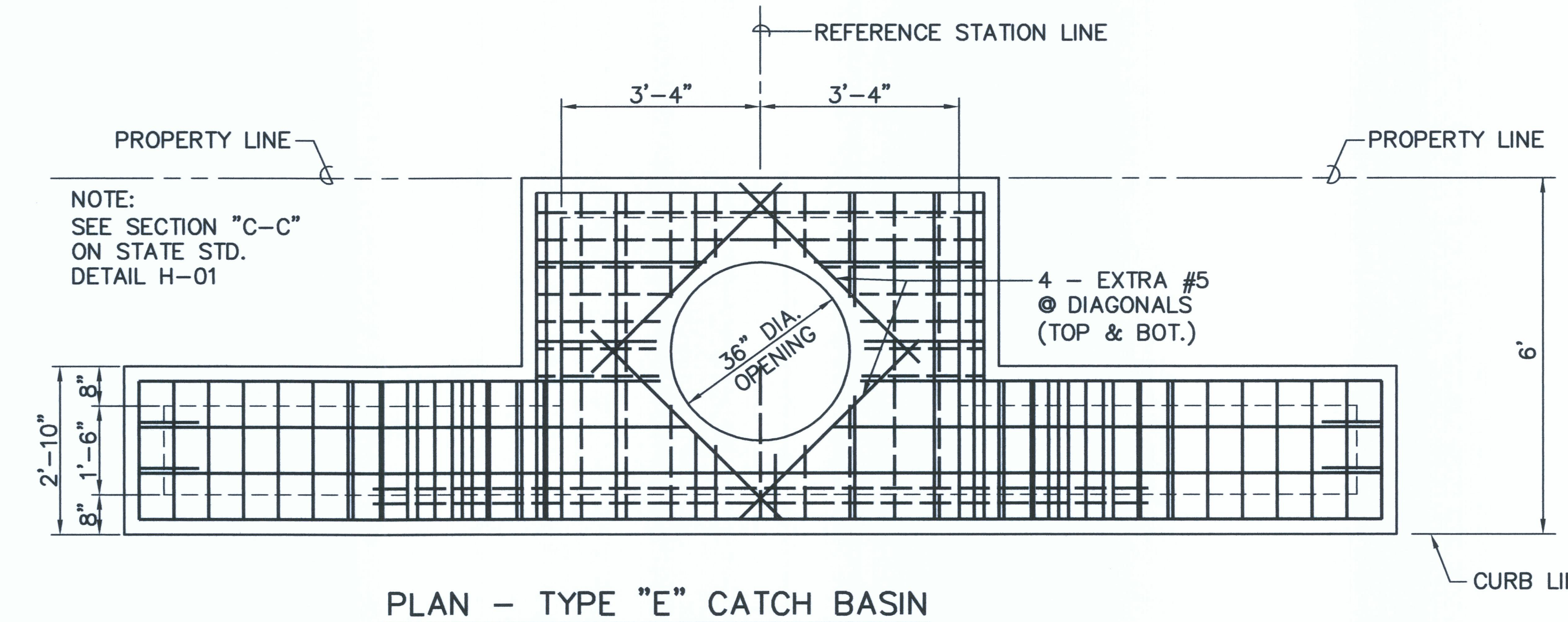
Last Save by: SHU
Last Saved: 5/23/2012
Plotted on: 5/29/2012



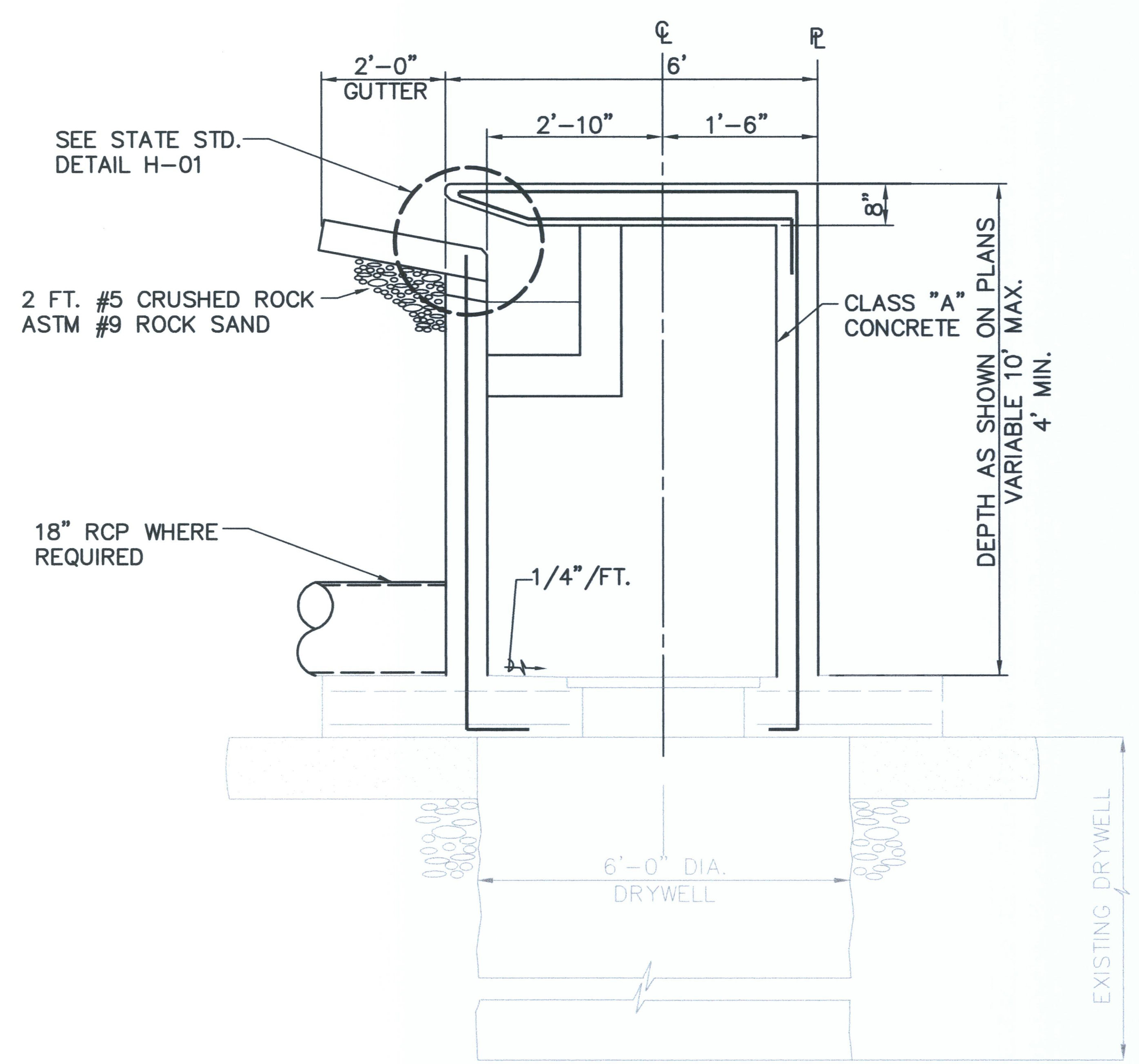
PLAN – TYPE "E" CATCH BASIN

NOT TO SCALE



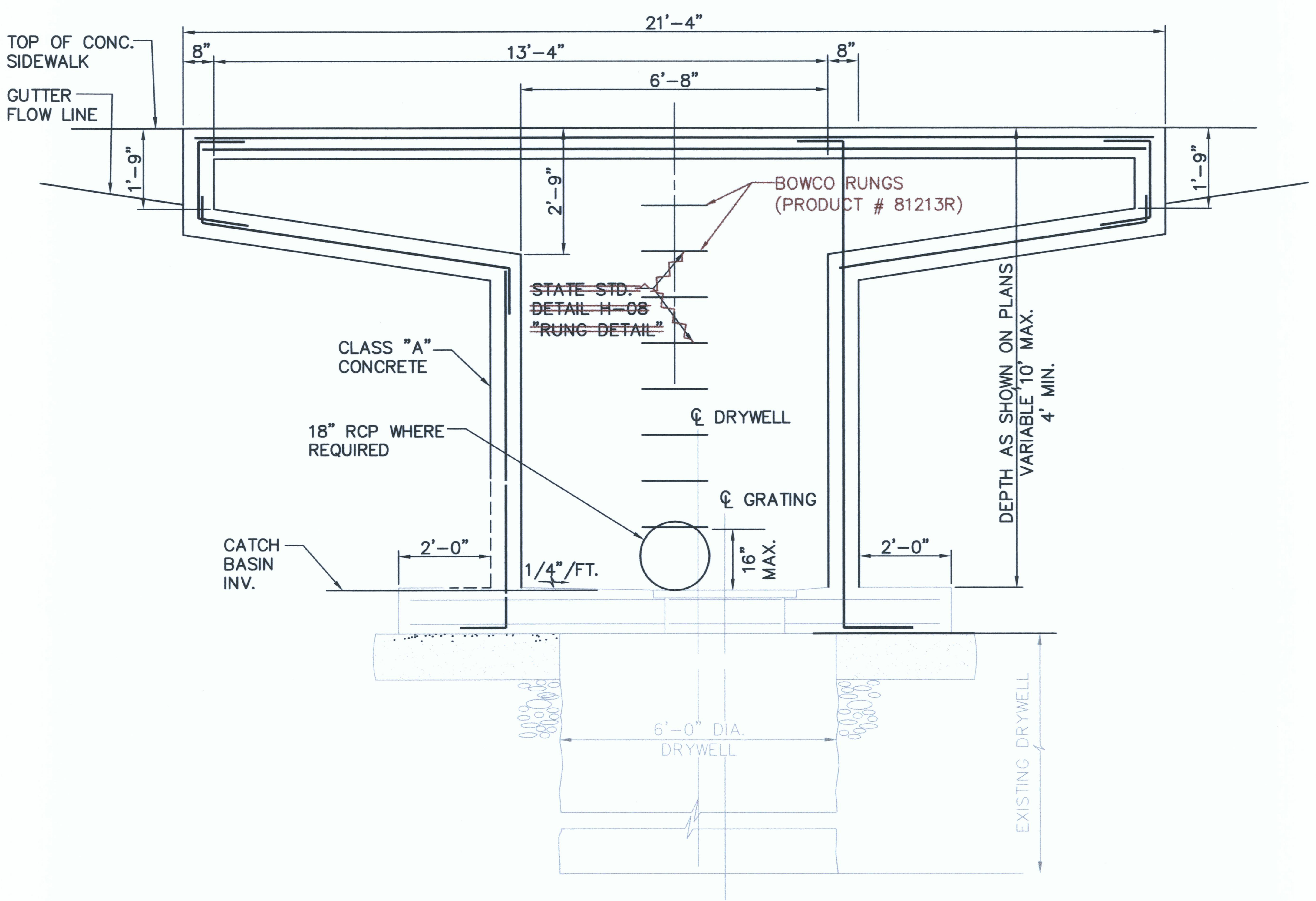
PLAN – TYPE "E" CATCH BASIN
REINF. DETAIL – TOP SLAB OF M.H.

NOT TO SCALE



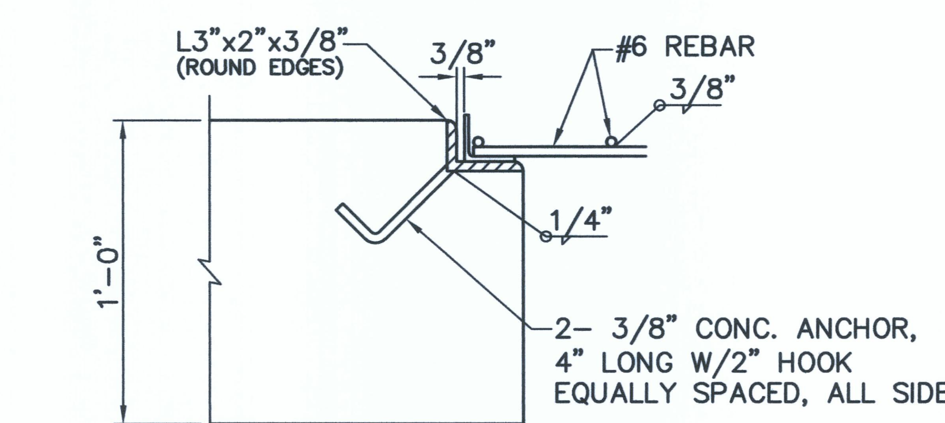
SECTION "A–A"

NOT TO SCALE



FRONT ELEVATION TYPE "E" CATCH BASIN

NOT TO SCALE



REBAR GRATING SEAT DETAIL

NOT TO SCALE

IN STABLE ROCK CONDITIONS:

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TYPE "E" CATCH BASIN OVER EXISTING DRYWELL

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

Last Save by: SHU
Last Saved: 5/2/2012
Plotted on: 5/29/2012
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REVISION DATE	DESCRIPTION	MADE BY	APPROVED

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LICENSE EXPIRES 4/30/10

DEPARTMENT OF HAWAIIAN HOME LANDS

LA'I'OPUA VILLAGE 5

TAX MAP KEY: (3) 7-4-21:6

KAILUA-KONA, NORTH KONA, HAWAII

MISCELLANEOUS DETAILS

Approved:

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SHEET 32 OF 67 SHEETS

FILE	POCKET	FOLDER	NO.