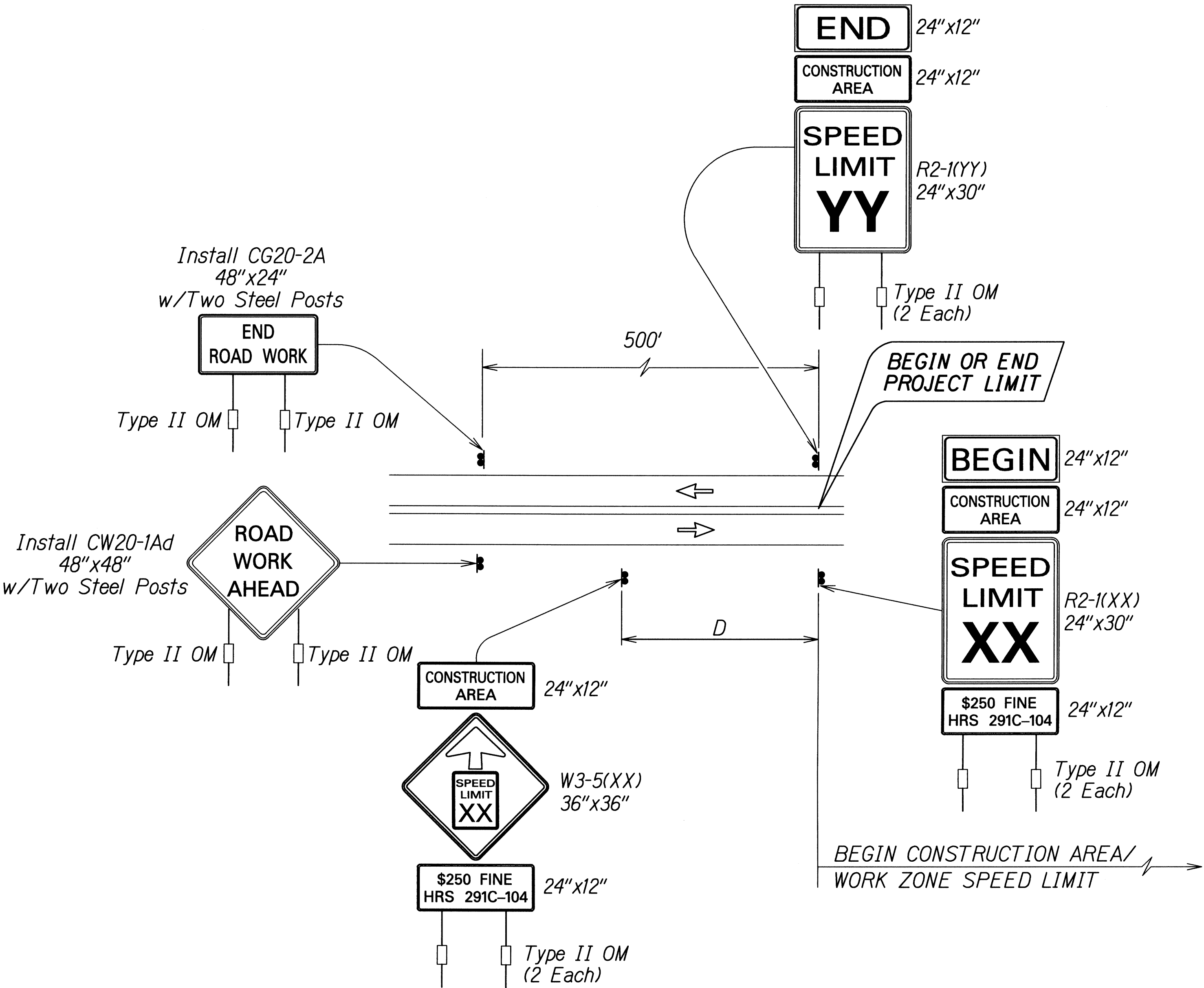


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(038)	2012	86	89

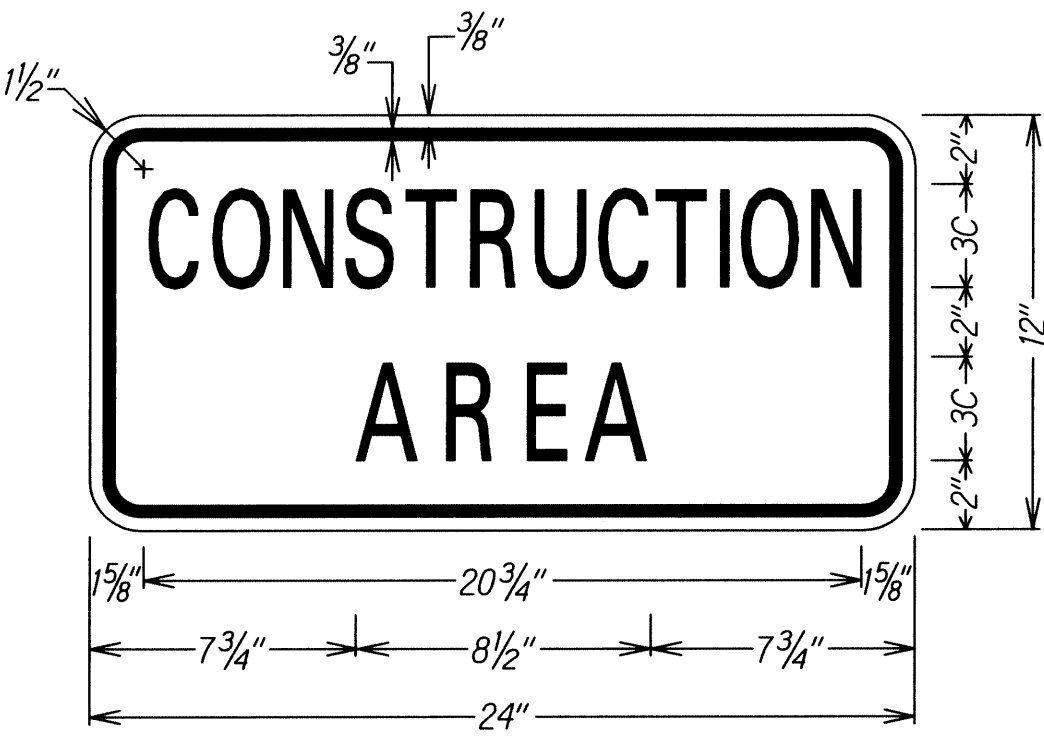
Work Zone Note:

1. This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.
2. All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(XX) and R2-5b(XX) with "CONSTRUCTION AREA" and "\$250 FINE HRS 291C-104" Supplemental Signs).
3. Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.
4. Each construction warning sign shall have a minimum of two (2) Type II OM. Each work zone speed limit assembly shall have a minimum of one (1) Type II OM. Installation of each Type II OM shall be considered incidental to Item No. 645.1000 - Traffic Control.
5. Upon the completion of all physical work or as directed by the Engineer, all construction signs and work zone speed limit assemblies shall be removed. All speed limit signs and posts that were existing at the start of the project within the work zone/project limits shall be restored back to their original locations and configurations.
6. Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.
7. The removal and restoration of existing regulatory speed limit signs shall be considered incidental to Item No. 645.1000 - Traffic Control.
8. The installation, maintenance and removal of work zone speed limit signs shall be paid for under Item No. 645.1000 - Traffic Control.
9. The work zone speed limit signs shall be new and become the property of the Contractor.
10. The Contractor shall adjust the locations of work zone signs to correspond with the beginning and end of work zone limits for each phase. Relocation of work zone signs shall be considered incidental to Item No. 645.1000 - Traffic Control.

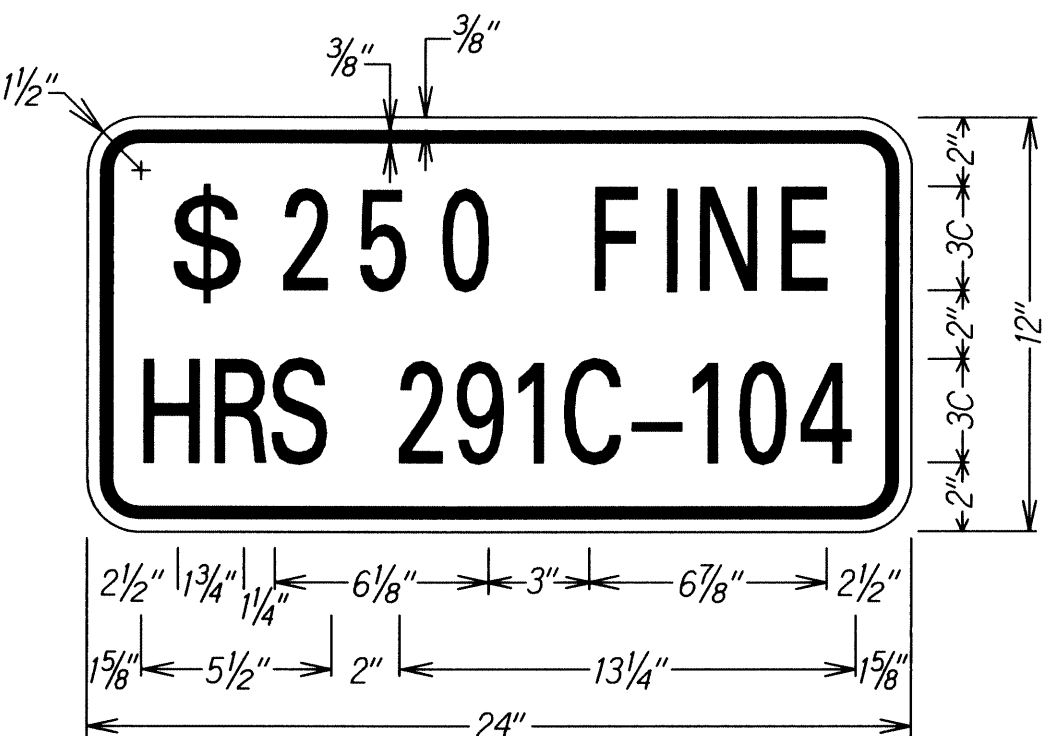
TABLE I GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION SIGN R2-5b(XX)-A, CONSTRUCTION AREA SPEED LIMIT		
YY – EXISTING POSTED SPEED LIMIT (MPH)	XX – NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)
≤ 25	EXIST. SPEED LIMIT TO REMAIN	
30	25	100
35	25	175
40	30	175



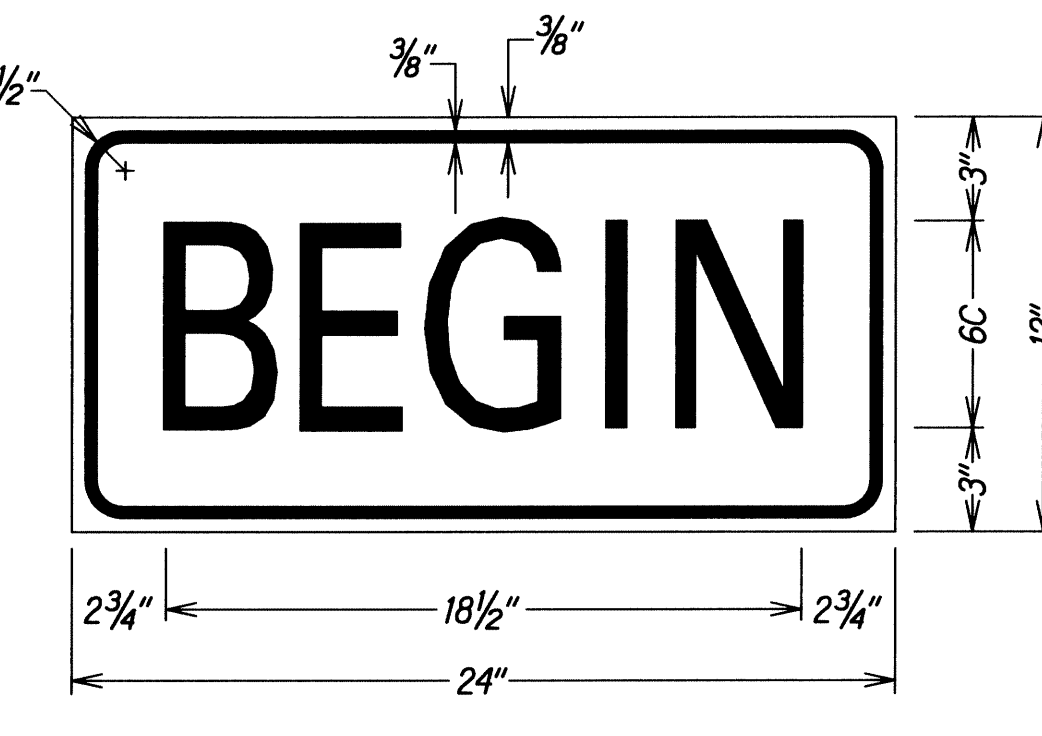
TYPICAL DETAIL FOR CONSTRUCTION SIGNS  
ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY



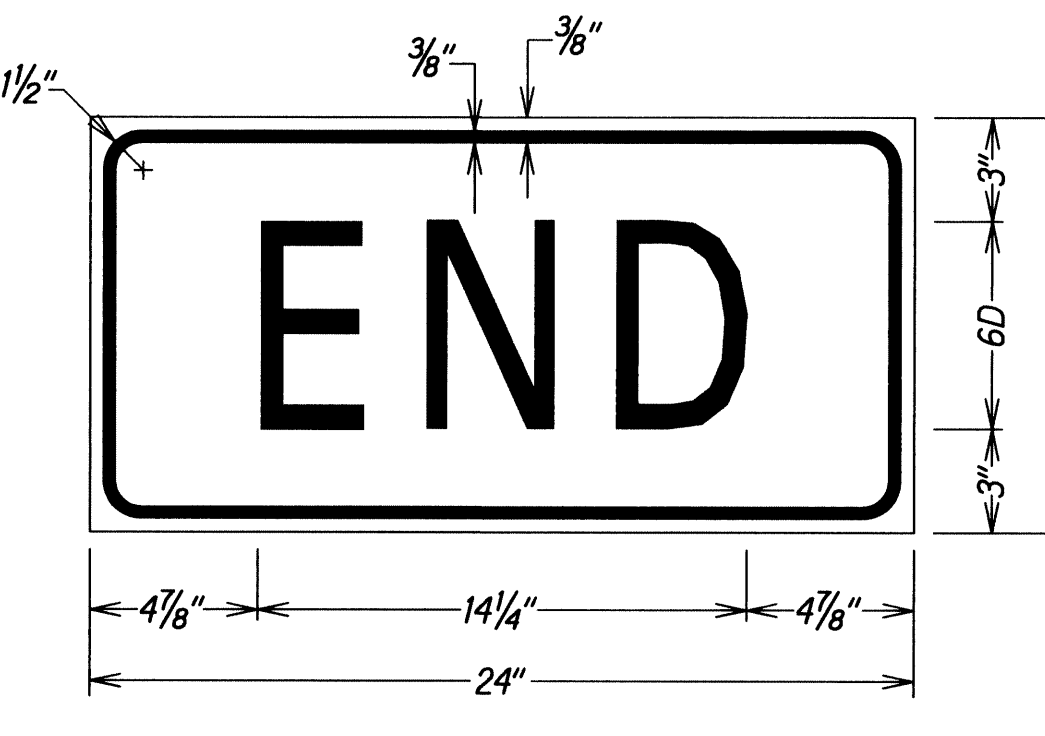
LEGEND: BLACK  
BACKGROUND: ORANGE



LEGEND: BLACK  
BACKGROUND: WHITE



LEGEND: BLACK  
BACKGROUND: ORANGE



LEGEND: BLACK  
BACKGROUND: ORANGE

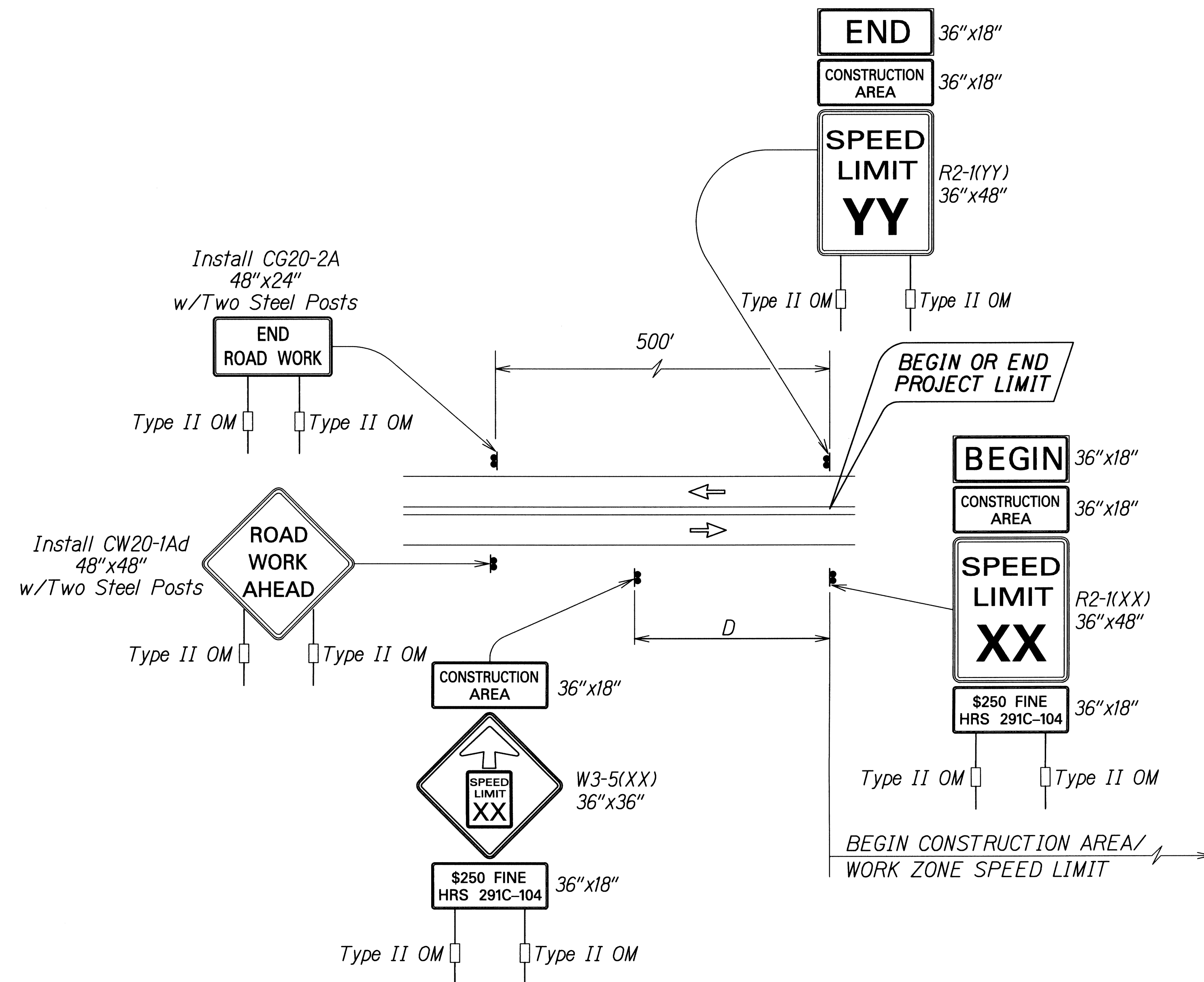
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**LOW SPEED UNDIVIDED HIGHWAY  
WORK ZONE SIGNING PLAN, NOTES&DETAILS**

KAUMUALII HIGHWAY PAVEMENT MARKINGS AND SIGNAGE  
Mana to the Vicinity of Maluhia Road  
Federal Aid Project No. STP-050-1(038)  
Scale: None  
Date: May 13, 2011

THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.

SIGNATURE: *[Signature]* EXPIRATION DATE OF THE LICENSE: 04/30/12

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(038)	2012	87	89



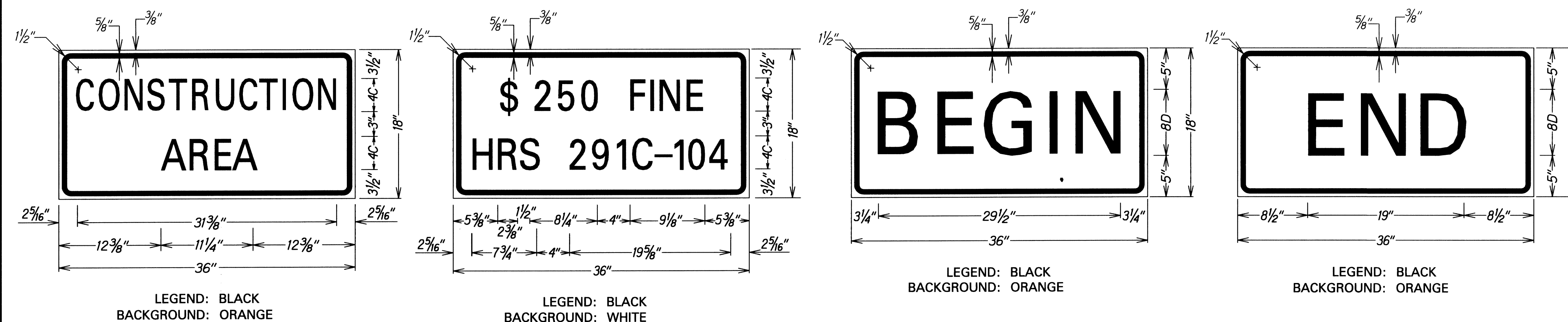
TYPICAL DETAIL FOR CONSTRUCTION SIGNS  
ON TWO LANE OR MULTILANE UNDIVIDED HIGH SPEED HIGHWAY


Work Zone Note:

1. *This Work Zone Signage Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.*
2. *All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(XX) and R2-5b(XX) with "CONSTRUCTION AREA" and "\$250 FINE HRS 291C-104" Supplemental Signs.*
3. *Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.*
4. *Each construction warning sign and work zone speed limit assembly shall have a minimum of two (2) Type II OM. Installation of each Type II OM shall be considered incidental to Item No. 645.1000 - Traffic Control.*
5. *Upon the completion of all physical work or as directed by the Engineer, all construction signs and work zone speed limit assemblies shall be removed. All speed limit signs and posts that were existing at the start of the project within the work zone/project limits shall be restored back to their original locations and configurations.*
6. *Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.*
7. *The removal and restoration of existing regulatory speed limit signs shall be considered incidental to Item No. 645.1000 - Traffic Control.*
8. *The installation, maintenance and removal of work zone speed limit signs shall be paid for under Item No. 645.1000 - Traffic Control.*
9. *The work zone speed limit signs shall be new and become the property of the Contractor.*
10. *The Contractor shall adjust the locations of work zone signs to correspond with the beginning and end of work zone limits for each phase. Relocation of work zone signs shall be considered incidental to Item No. 645.1000 - Traffic Control.*

**TABLE I**  
GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION  
SIGN R2-5b(XX)-A, CONSTRUCTION AREA SPEED LIMIT

YY – EXISTING POSTED SPEED LIMIT (MPH)	XX – NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)
45	35	225
50	40	225
55	45	300



	STATE OF HAWAII <b>DEPARTMENT OF TRANSPORTATION</b> HIGHWAYS DIVISION
	<u><b>HIGH SPEED UNDIVIDED HIGHWAY</b></u>
	<u><b>WORK ZONE SIGNING PLAN, NOTES &amp; DETAILS</b></u>
	<u><b>KAUAI VALLEY HIGHWAY PAVEMENT MARKINGS AND SIGNAGE</b></u> <u><b>Manā to the Vicinity of Maluhia Road</b></u> <u><b>Federal Aid Project No. STP-050-1(038)</b></u> Scale: None      Date: May 13, 2011
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.	SIGNATURE: <u><i>Pamela K. Uyeda</i></u> 04/30/12 EXPIRATION DATE OF THE LICENSE



FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(038)	2012	88	89

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

- The permittee shall make minor adjustments at intersections, driveways, bridges, structures, etc. to fit field conditions.
- Cones or delineators shall be extended to a point where they are visible to approaching traffic.
- Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
- Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon completion of the work.
- Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
- When required by the issuing office, the permittee shall install a flashing arrow signal as shown on the traffic control plans.
- Sign spacings (D), taper lengths (L), longitudinal buffer space (B), and spacing of cones or delineators shall be as shown in Table 1 unless otherwise noted on the traffic control plans.
- All traffic lanes shall be a minimum of 10 feet wide.
- All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
- The backs of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e. when the signs have messages on both faces) whenever the message is not applicable or not in use.
- At the end of each day's work or as soon as the work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation.
- Replace permanent traffic signs upon completion of each phase of work.

TABLE 1 FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT (M.P.H.)	SIGN SPACING (D) (FEET)	TAPER LENGTH (L) (FEET)		LONGI- TUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET)		
		W = 12' OR LESS	W = GREATER THAN 12'		TAPER	TANGENT	WORK AREA
20	250	200	W X 17	35	20	20	10
25	250	200	W X 17	55	25	25	10
30	250	250	W X 20	85	30	30	10
35	250	250	W X 20	120	35	35	10
40	500	350	W X 30	170	40	40	10
45	500	550	W X 45	220	45	45	10
50	1000	600	W X 50	280	50	50	10
55	1000	700	W X 55	335	55	55	10

Note: W=width of shoulder, lane, or offset

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	QUANTIFIED BY	
	CHECKED BY	

J:\16459A PPM\Kaumualii Hwy\Cadd\Sheets\top\_notes.dgn

PAMELA K. UYEDA

LICENSED PROFESSIONAL ENGINEER

No. 10352-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE

04/30/12

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TRAFFIC CONTROL NOTES

KAUMUALII HIGHWAY PAVEMENT MARKINGS AND SIGNAGE

Mana to the Vicinity of Maluhia Road

Federal Aid Project No. STP-050-1(038)

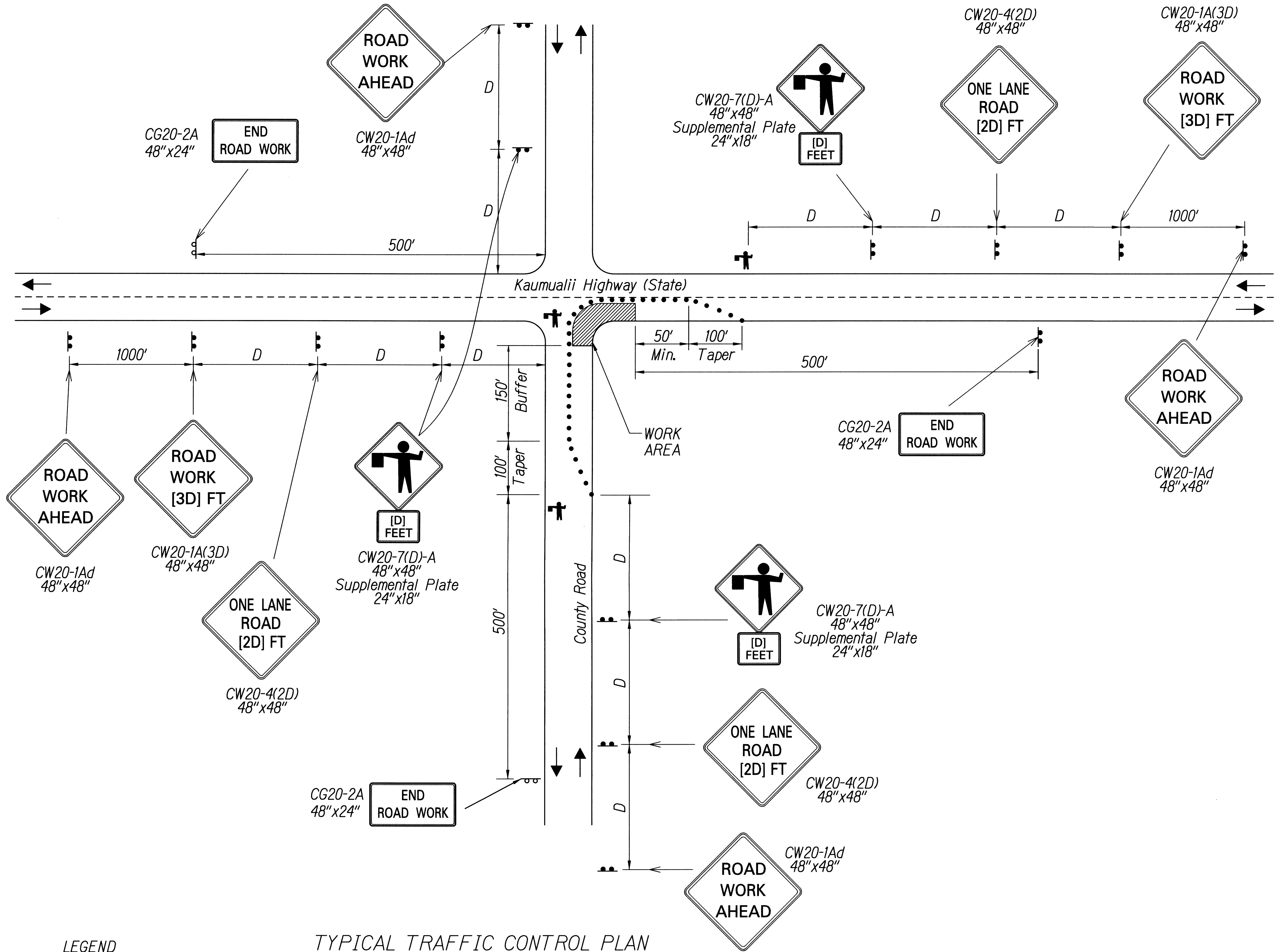
Scale: None

Date: May 13, 2011

SHEET No. TC-3 OF 4 SHEETS

88

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(038)	2012	89	89



- LEGEND**
- Flagman
  - Delineators
  - Work Area
  - Sign
  - Direction of Traffic

TYPICAL TRAFFIC CONTROL PLAN  
AT INTERSECTIONS  
Not to Scale

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE: *[Signature]* EXPIRATION DATE: 04/30/12

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL TRAFFIC CONTROL  
PLAN AT INTERSECTIONS**

KAUMUALII HIGHWAY PAVEMENT MARKINGS AND SIGNAGE  
Mana to the Vicinity of Maluhia Road  
Federal Aid Project No. STP-050-1(038)  
Scale: None Date: May 13, 2011