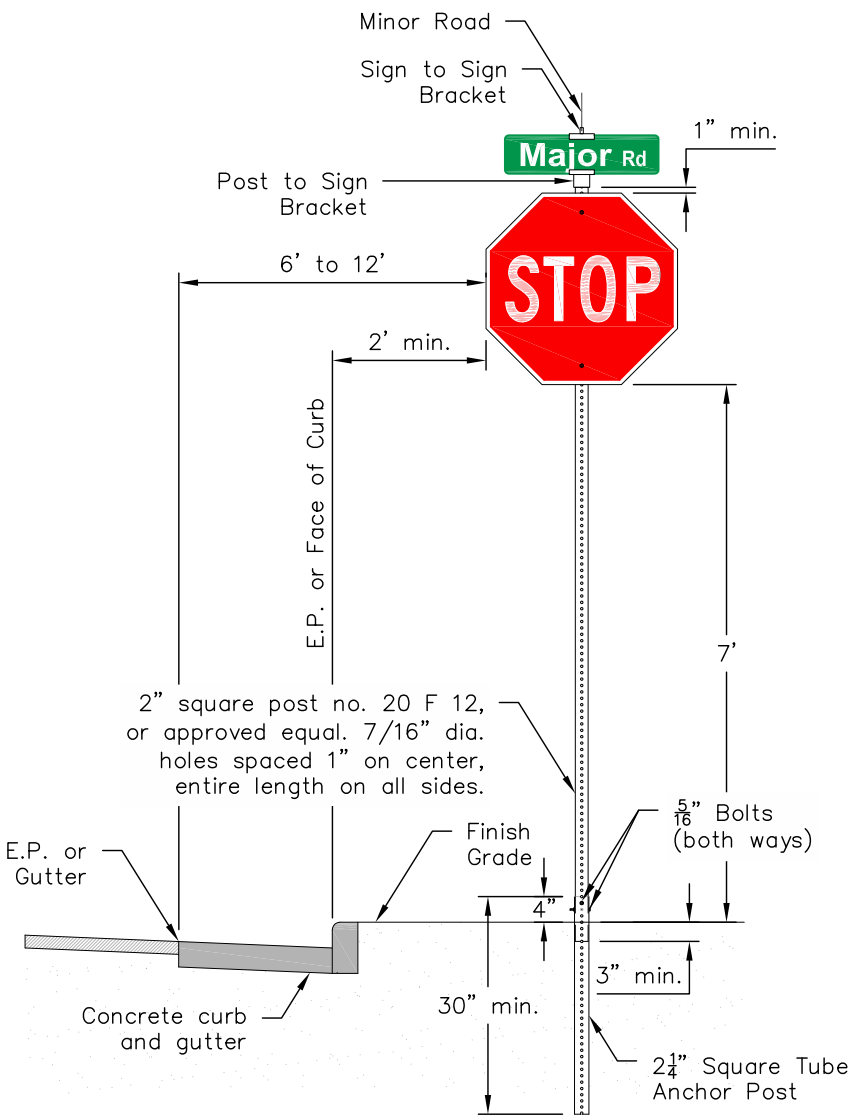
Traffic Signs and Markings Standard Details	
TR-1	Stop Sign and Street Name Signs
TR-2	Roadside Sign Installation
TR-3	Cul-De-Sac Signs and Markings
TR-4	Intersection Striping
TR-5	Standard Crosswalk
TR-6	Crosswalk Markings and Stop Line Locations
TR-6a	Mid Block Crosswalk - Low Risk
TR-6b	Mid Block Crosswalk - Medium Risk
TR-6c	Mid Block Crosswalk - High Risk
TR-6d	Skewed Crosswalk - Single-Lane
TR-6e	Skewed Crosswalk - Multi-Lane
TR-7	Auxiliary Lane Striping and RPMs
TR-8	Raised Pavement Markers
TR-8a	Two-Way-Left-Turn-Lane Striping and RPMs
TR-8b	Type DB RPMs
TR-9	Hatch Lines
TR-10	Accessible Parking Signs
TR-10a	Accessible Parking Stalls - Perpendicular
TR-10b	Accessible On-Street Parking - Approach to Intersection
TR-10c	Accessible On-Street Parking - After a Driveway
TR-10d	Accessible On-Street Parking - Before a Driveway
TR-10e	Accessible On-Street Parking - Mid-Block
TR-11	Loading Zone Signs and Markings
TR-12	Speed Hump Signs and Markings
TR-13	Zig-Zag Markings - Single-Lane
TR-13a	Zig-Zag Markings - Multi-Lane
TR-13b	Zig Zag Markings - On a Curve
TR-14	Shark Teeth Enhanced Markings
TR-15	Bridge Signs and Markings
TR-16	School Zone Signs and Markings
TR-16a	MUTCD Table 2C-4
TR-17	Overhead Street Name Sign
TR-17a	Overhead Street Name Sign Sample
TR-18	Bike Lane Pavement Markings
TR-19	EP Line Private Roads and Driveways - Light Traffic
TR-19a	EP Line Private Roads and Driveways - Heavy Traffic
TR-20	Traffic Division Maintenance Sticker



STREET NAME SIGNS:

1. White background shall be type IV High Intensity prismatic reflective sheeting or approved equal with transparent green vinyl overlay.
2. Lettering shall be first letter uppercase/lower case format and conform to the detail below and the latest edition of the "Standard Highways Signs" manual.
3. Street name shall conform to the proper Hawaiian spelling as assigned by the County of Hawai'i, Planning Department.

STOP SIGNS:

1. Stop sign typically faces minor road.
2. 30"x30" minimum size with Type IV High Intensity prismatic reflective sheeting or approved equal.

SIGN PLATES:

1. 0.080 inch minimum thickness, aluminum (ASTM B 209, alloy 6061–T6, flat sheet).
2. Street name plates shall be 24", 30" or (36" Maximum)

NOTES:

1. The inside of the 2–1/4" anchor post must be kept free of impediments to assure easy insertion of the 2" sign post.
2. Square tube sign post shall be telescoping perforated telespar tubing or approved equal.
3. Sign dimensions shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) and the Standard Highway Signs manual.
4. Flanged channel post and orthogonal posts are not acceptable.
5. All installations shall be firm and performed in a first–class workman–like manner according to industry standards.

COUNTY OF HAWAII

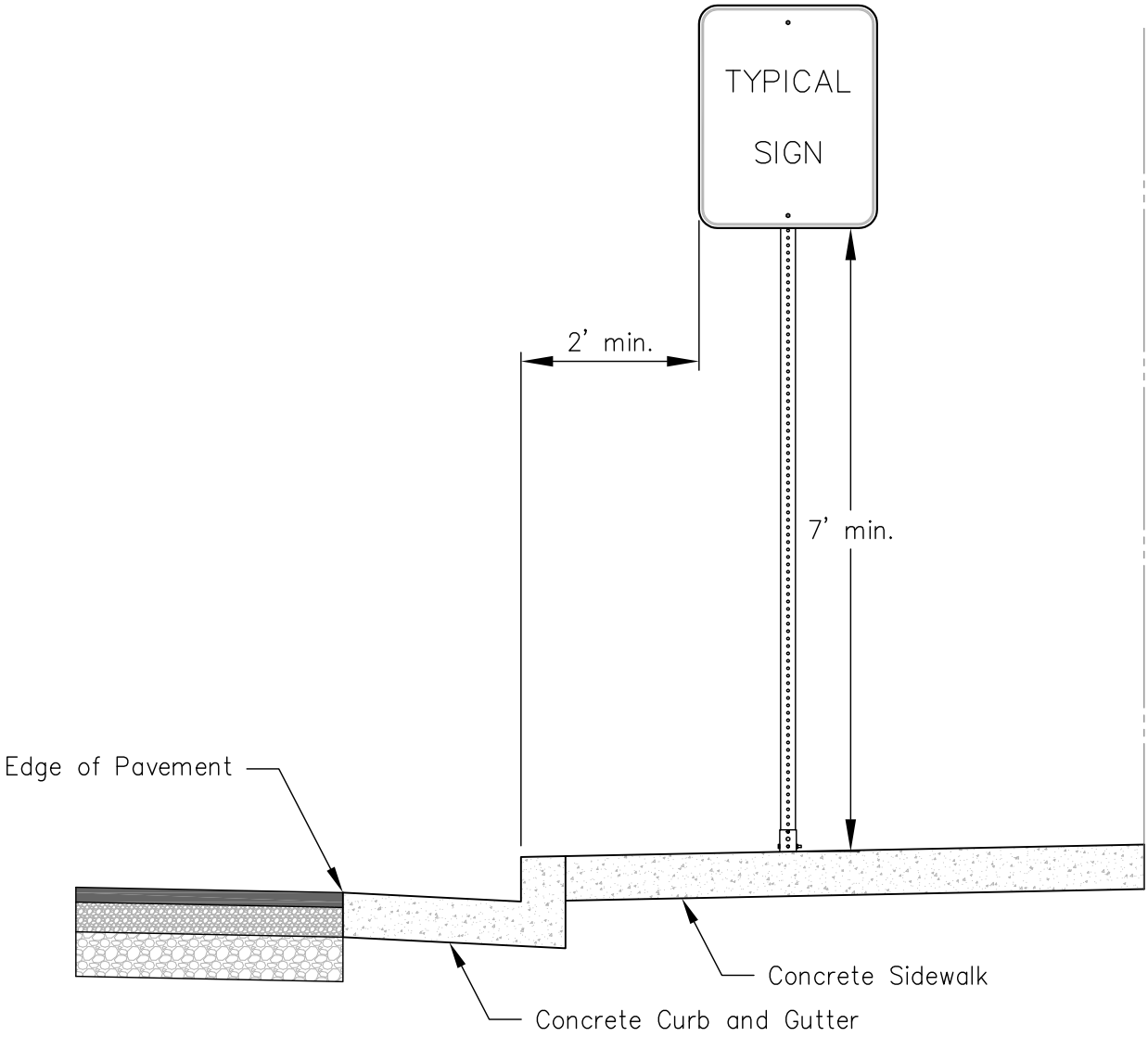
STOP SIGN AND STREET NAME SIGNS

APPROVED: _____ TRAFFIC DIVISION

DATE: 07-08-20
SCALE: N.T.S.

STANDARD DETAILS

TR-1



ROADSIDE SIGN
Business or Residential District
(Typical Installation)

NOTE:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.

COUNTY OF HAWAII

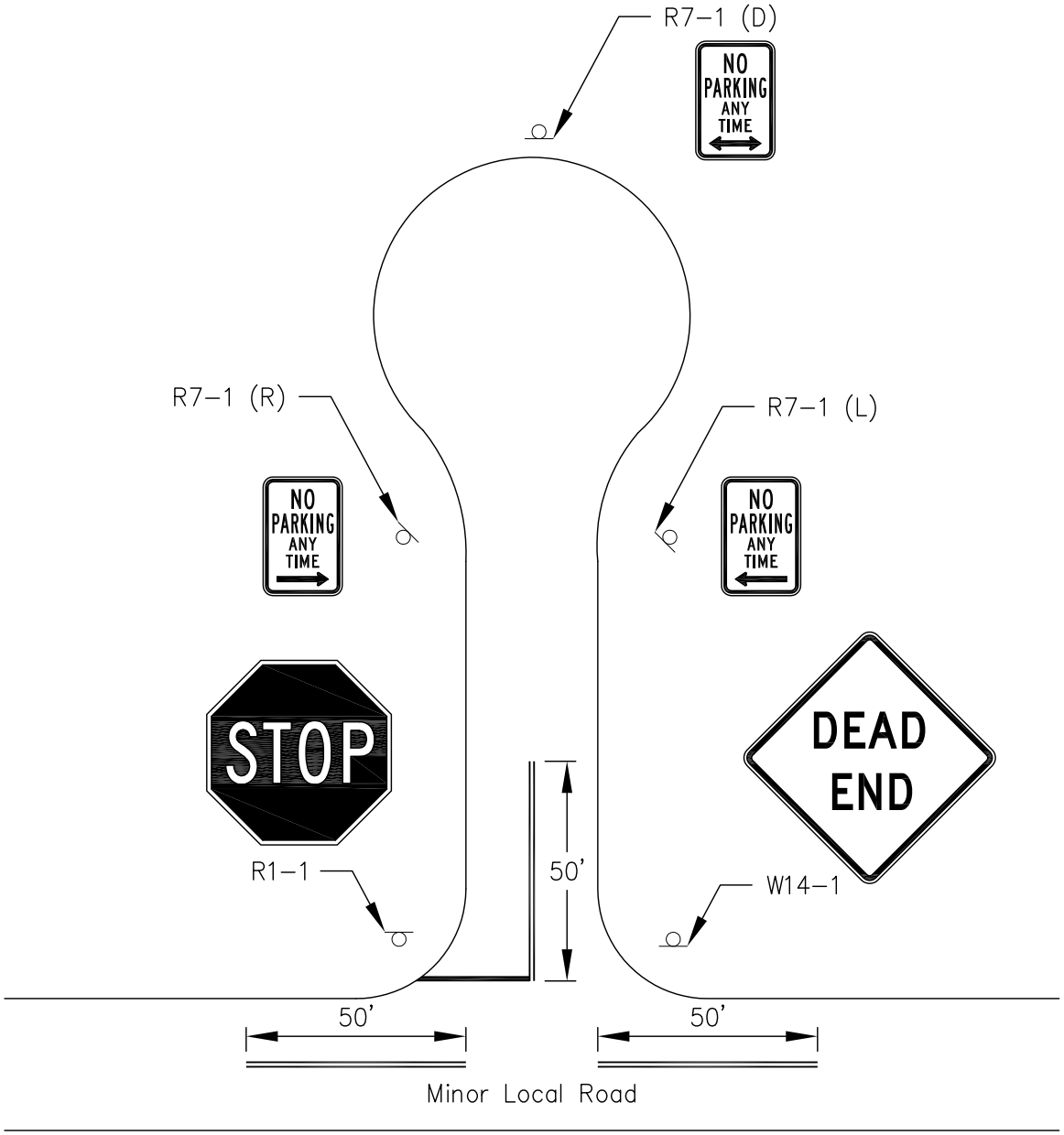
ROADSIDE SIGN INSTALLATION

APPROVED: _____ TRAFFIC DIVISION

DATE: 07-08-20
SCALE: 1"=2'

STANDARD DETAILS

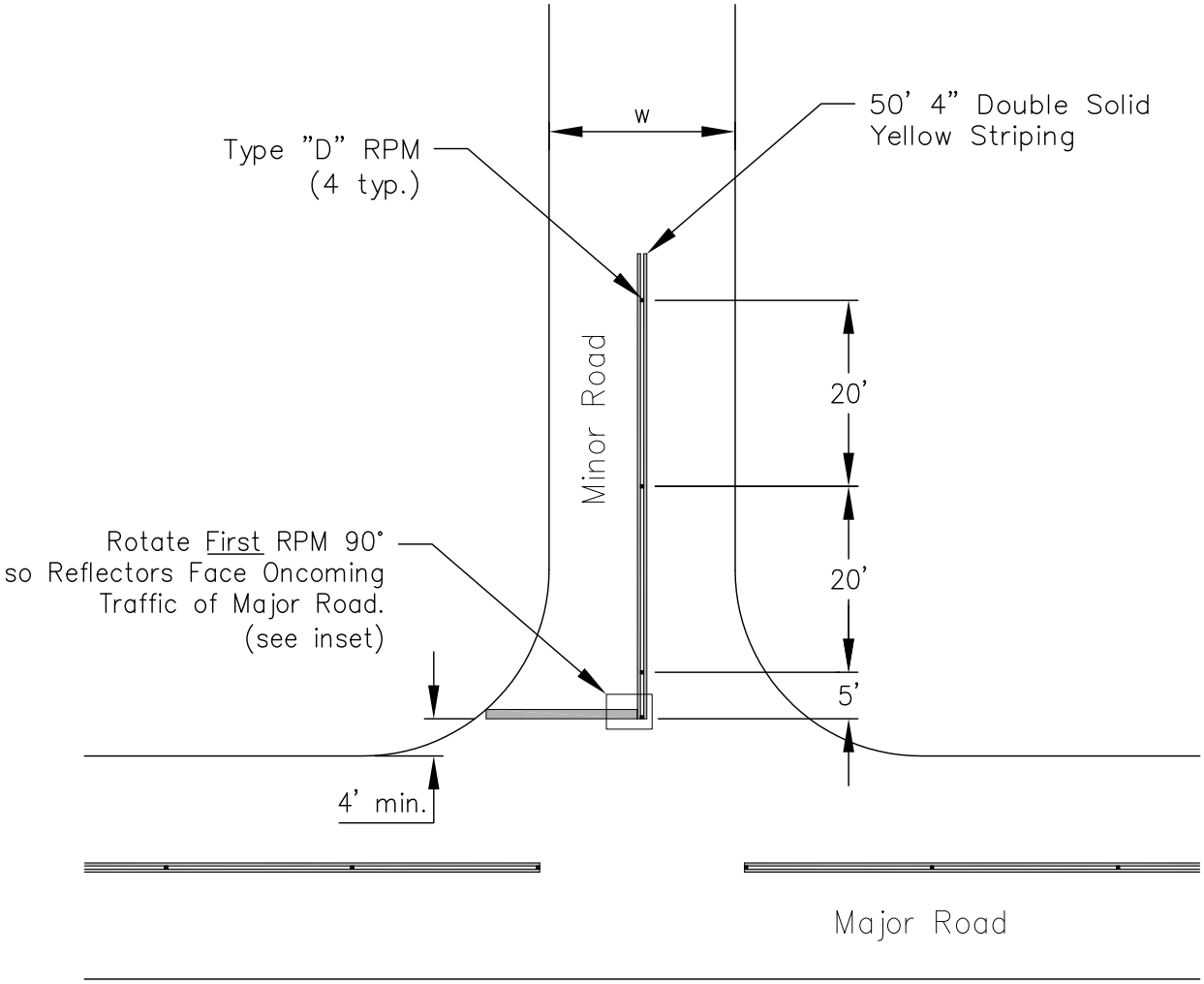
TR-2



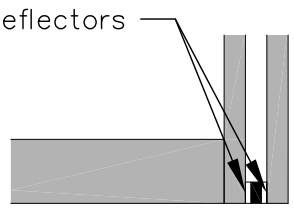
NOTES:

1. The use of R7-1 signs are site specific, with sign locations dependent on the lot frontages onto the cul-de-sac.
2. A W14-1 sign should be used if the end of the cul-de-sac cannot be easily seen from the through street.
3. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
4. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
5. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**CUL-DE-SAC SIGNS AND MARKINGS** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=40'	STANDARD DETAILS	TR-3



TYPICAL INTERSECTION STRIPING
Scale: 1'=20'

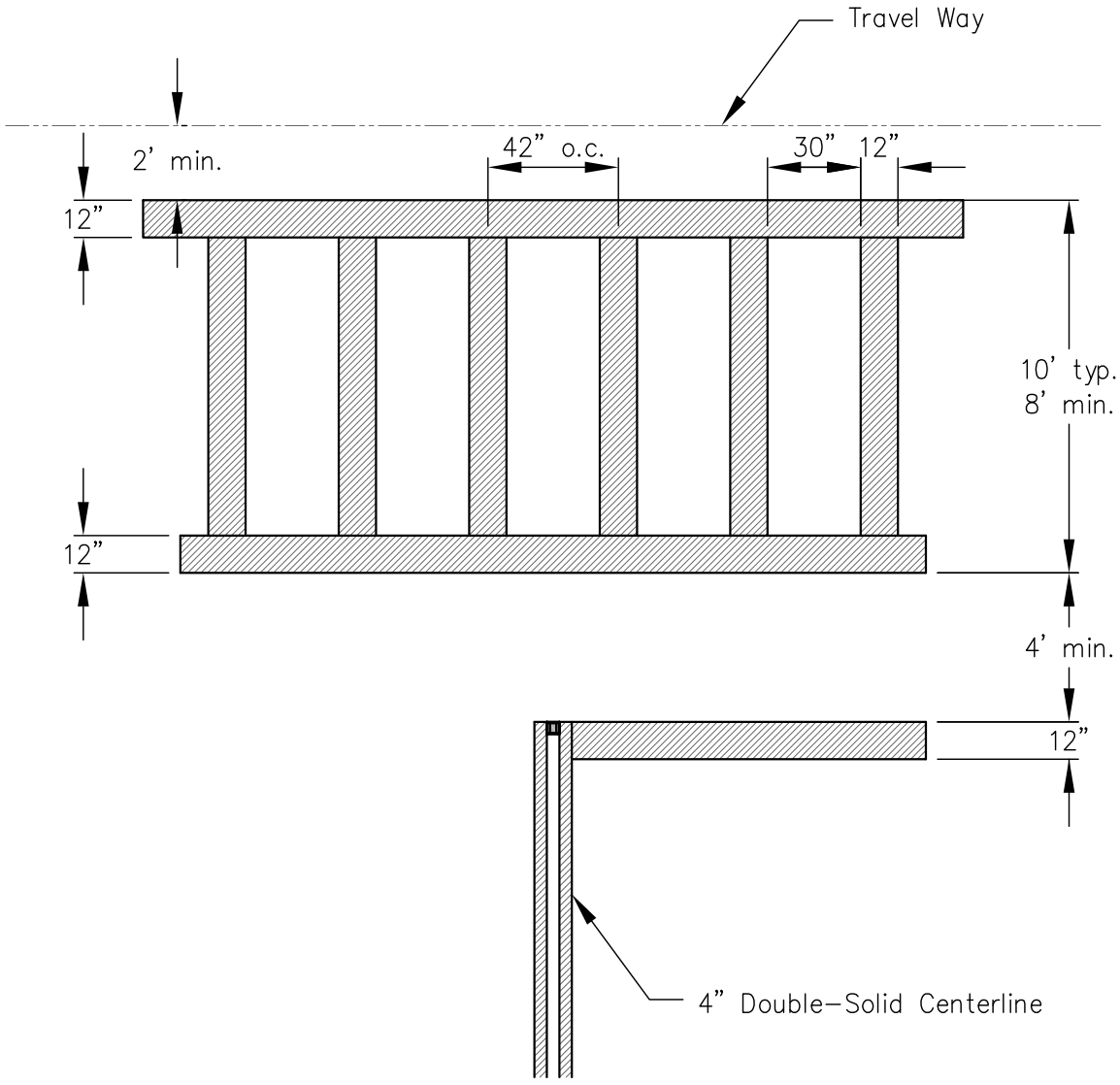


INSET – RPM DETAIL
Scale: 1'=3'

NOTES:

1. Centerline striping:
   - Install double solid yellow centerline striping when paved road width is ≥ 16'–9".
   - No striping when width is < 16'–9".
2. Edge line striping and RPMs as required per project.
3. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
4. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**INTERSECTION STRIPING** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: NOTED	STANDARD DETAILS	TR-4

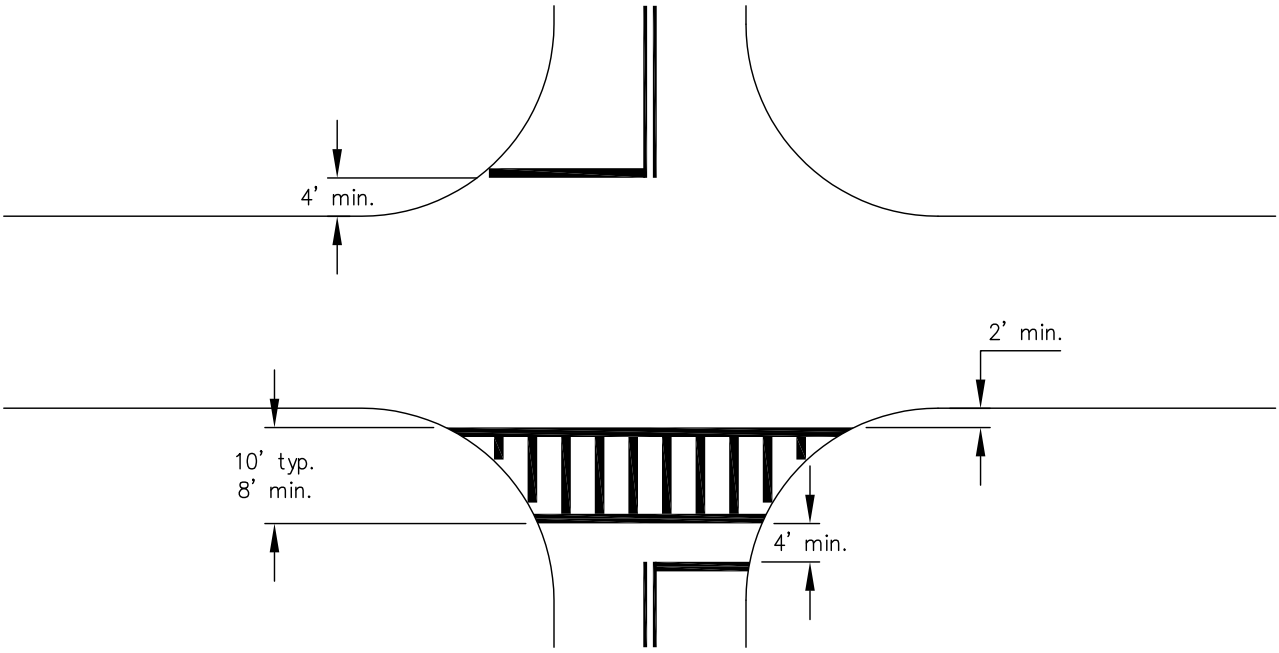


STANDARD CROSSWALK
Ladder Style

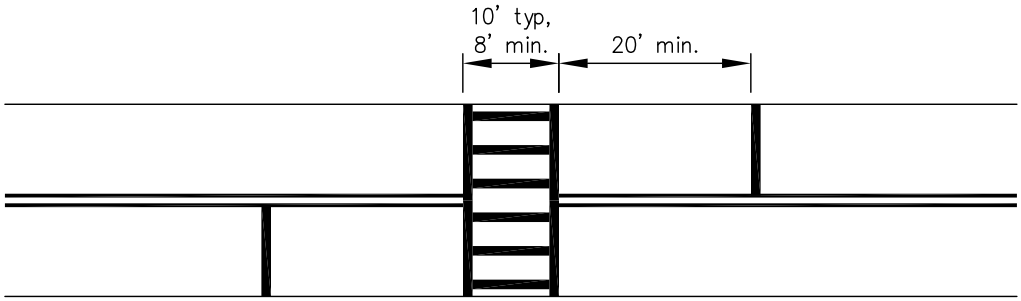
NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid-resistant material.

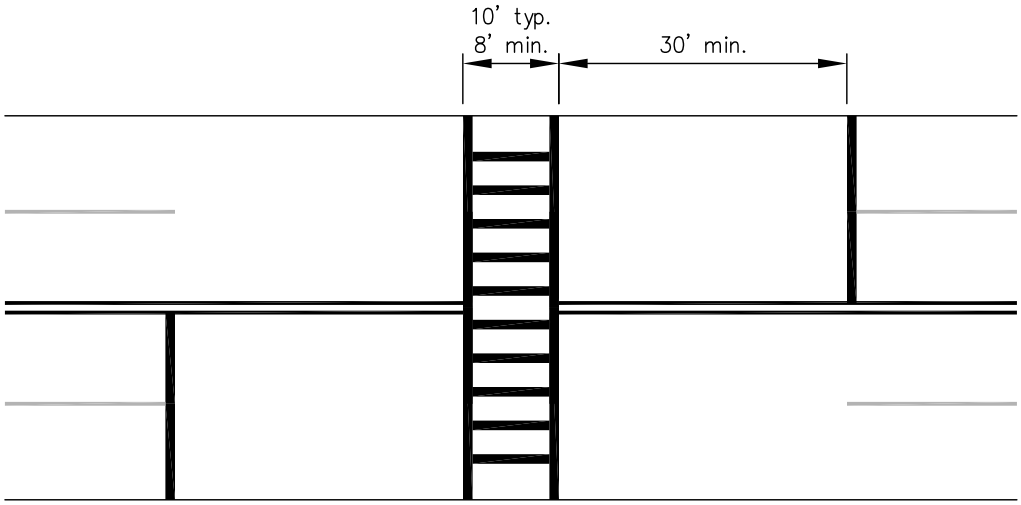
COUNTY OF HAWAII	**STANDARD CROSSWALK** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=5'	STANDARD DETAILS	TR-5



INTERSECTION



MID–BLOCK

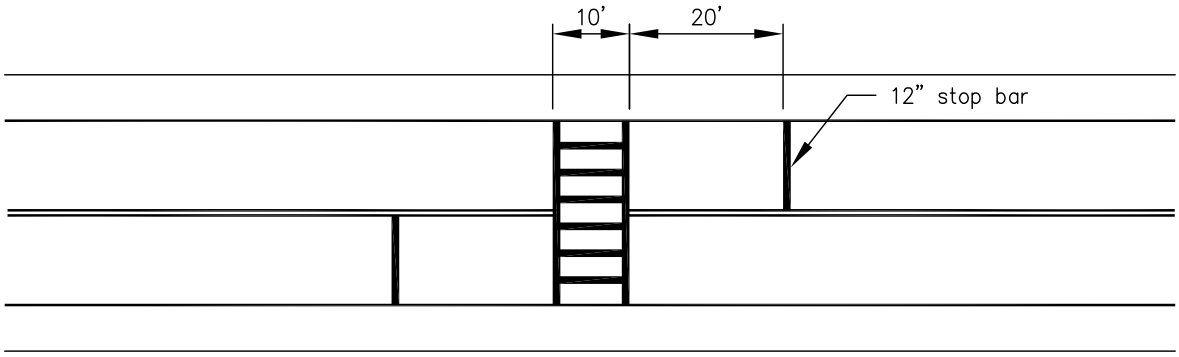


MID–BLOCK
Multi–Lane

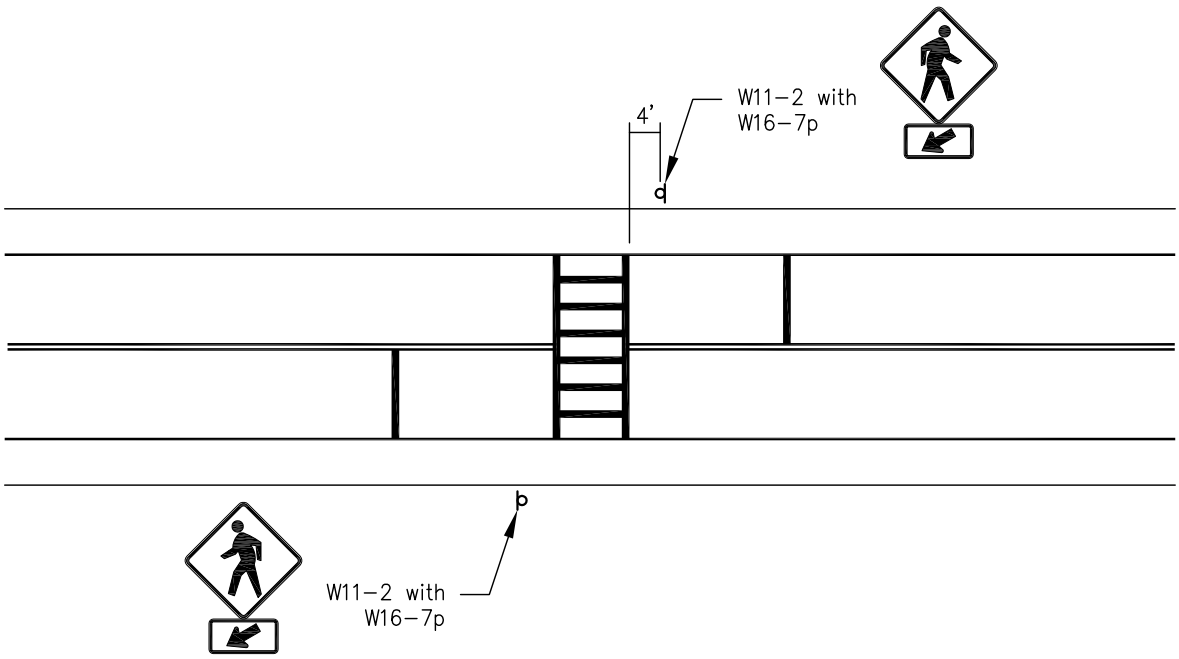
NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**CROSSWALK MARKINGS AND STOP LINE LOCATIONS** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=20'	STANDARD DETAILS	TR-6



LOW–RISK CROSSING
Striping Plan

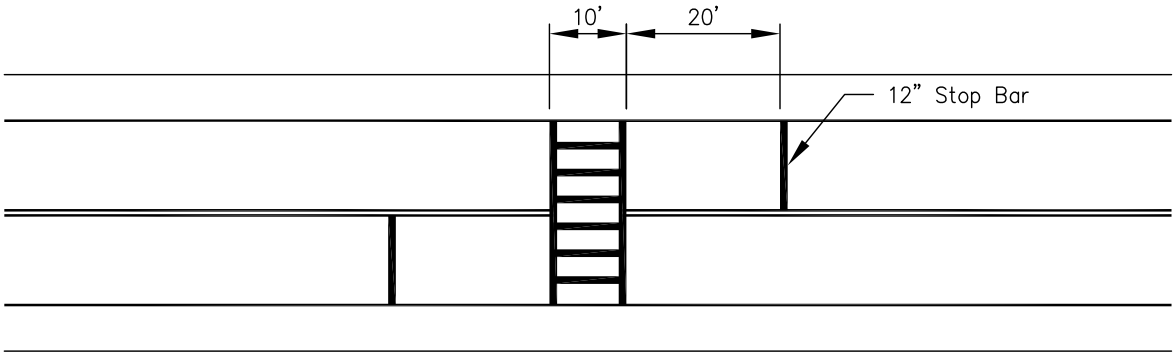


LOW–RISK CROSSING
Signage Plan

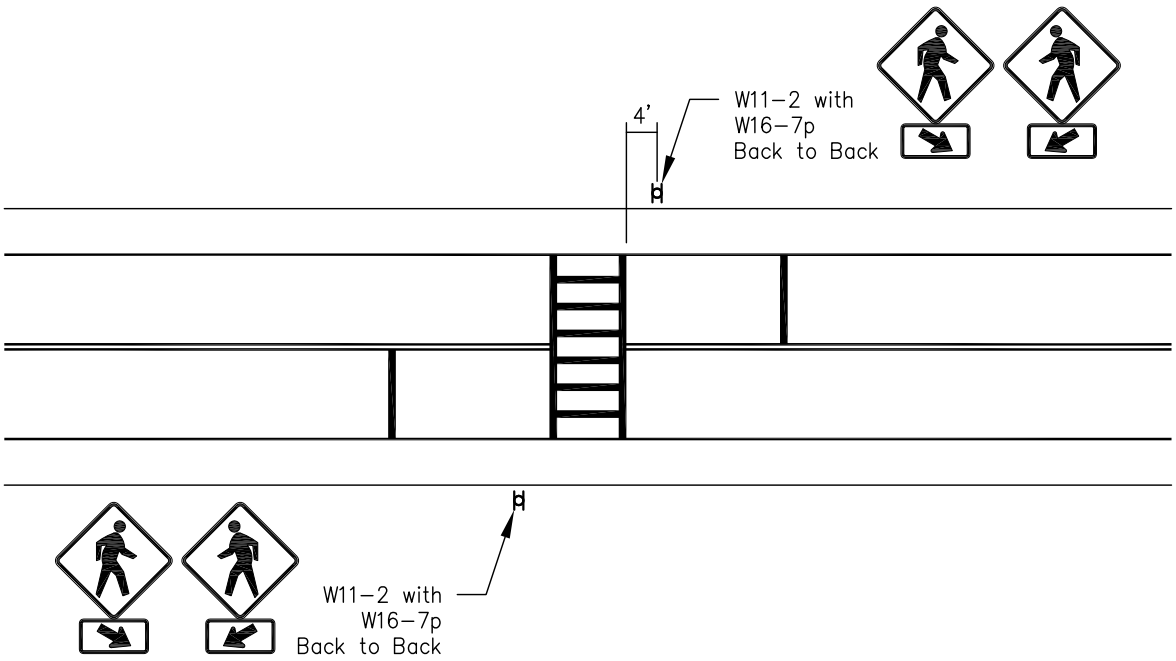
NOTES:

1. Provide sufficient stopping sight distance at the stop bars, per design speed.
2. Install R7–1 signs, 30' minimum on each side of crosswalk and to provide adequate sight distance.
3. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
4. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
5. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**MID-BLOCK CROSSWALK LOW-RISK** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-6a



MEDIUM–RISK CROSSING
Striping Plan

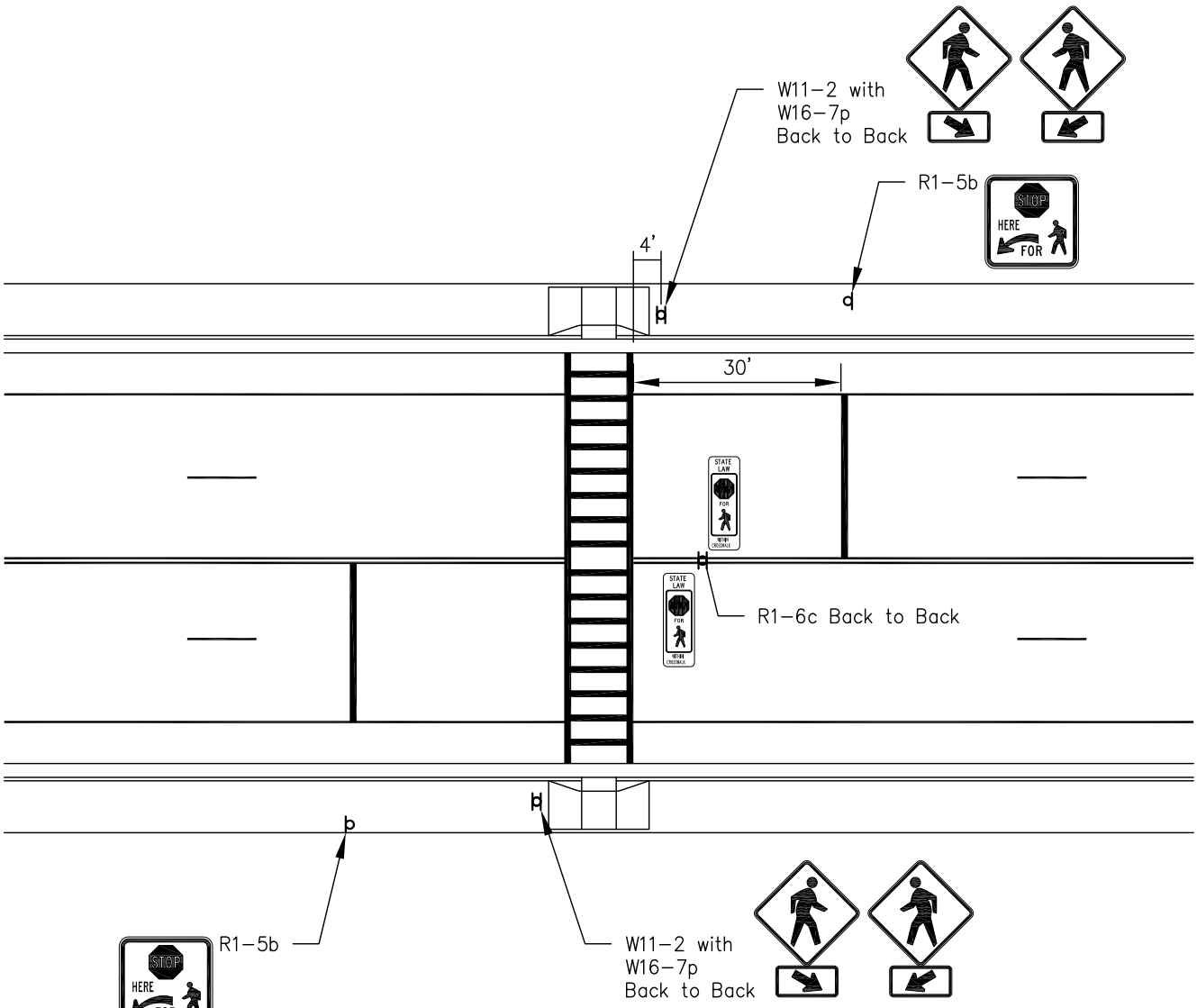


MEDIUM–RISK CROSSING
Signage Plan

NOTES:

1. Provide sufficient stopping sight distance at the stop bars, per design speed.
2. Install R7–1 signs, 30' minimum on each side of crosswalk and to provide adequate sight distance.
3. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
4. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
5. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**MID-BLOCK CROSSWALK MEDIUM-RISK** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-6b

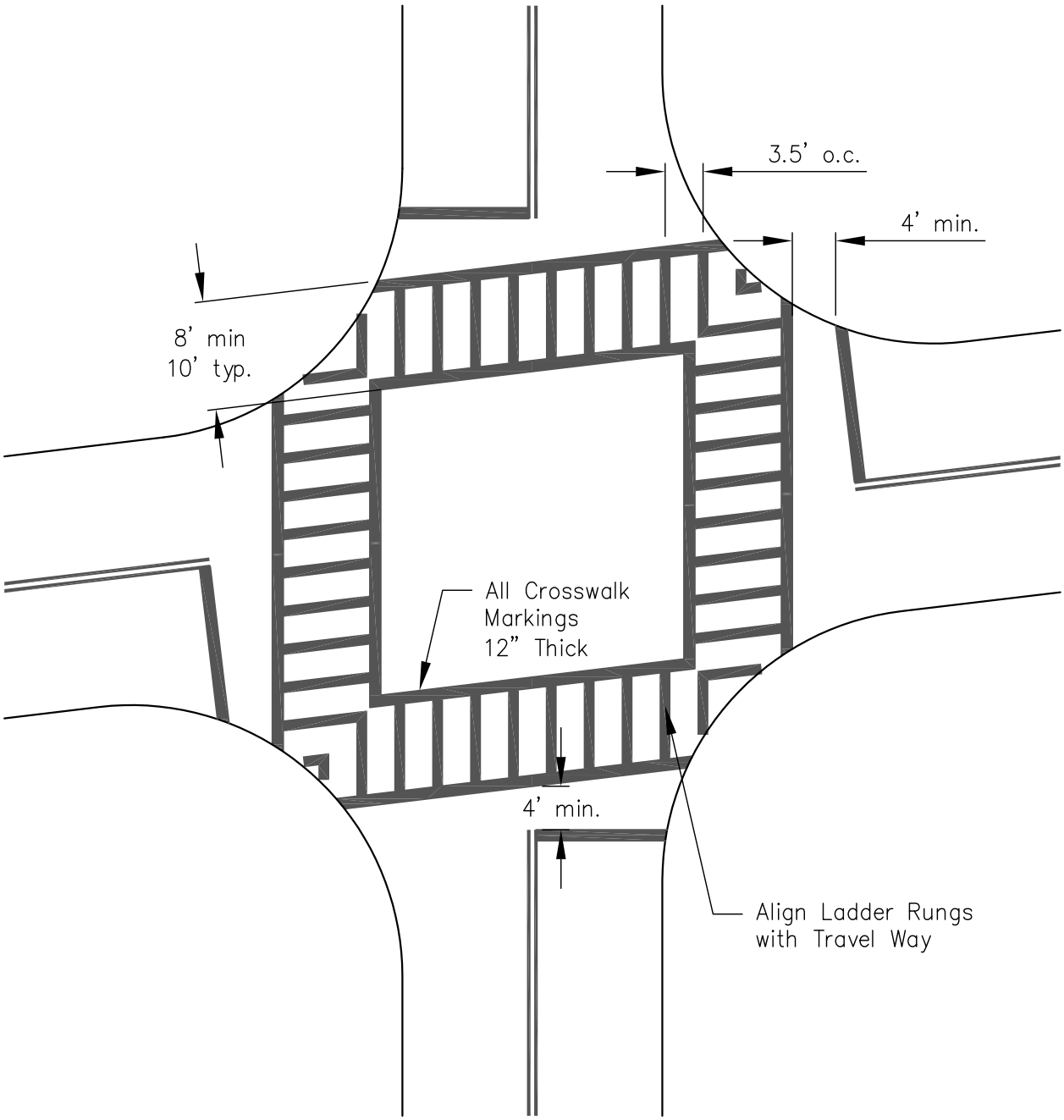


HIGH–RISK CROSSING
Signage Plan

NOTES:

1. Provide sufficient stopping sight distance at the stop bars, per design speed.
2. Install R7–1 signs, 30' minimum on each side of crosswalk and to provide adequate sight distance.
3. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
4. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
5. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**MID-BLOCK CROSSWALK HIGH-RISK** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-6c

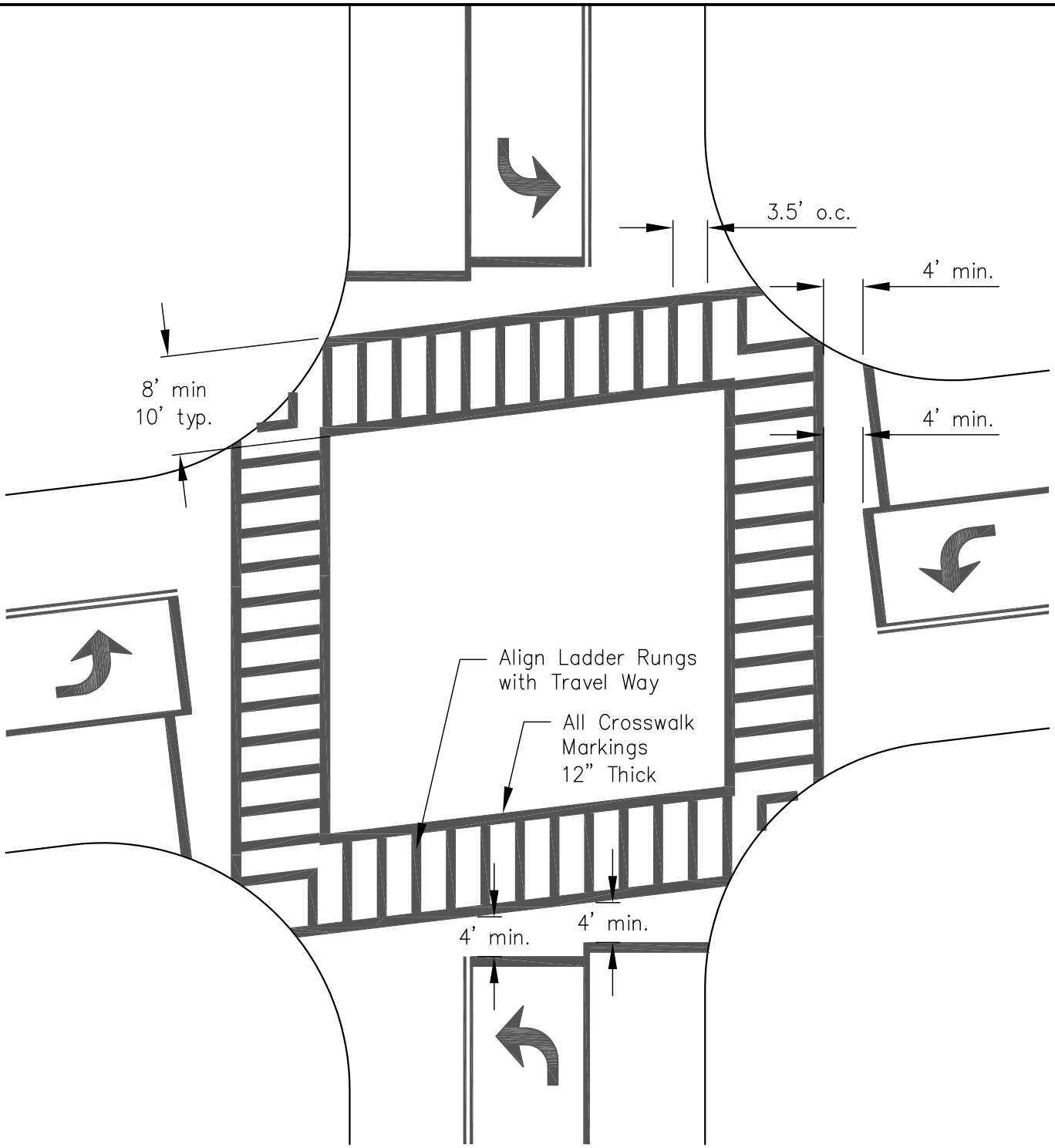


SINGLE–LANE SKEWED INTERSECTION

NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**SKEWED CROSSWALK SINGLE-LANE** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-6d

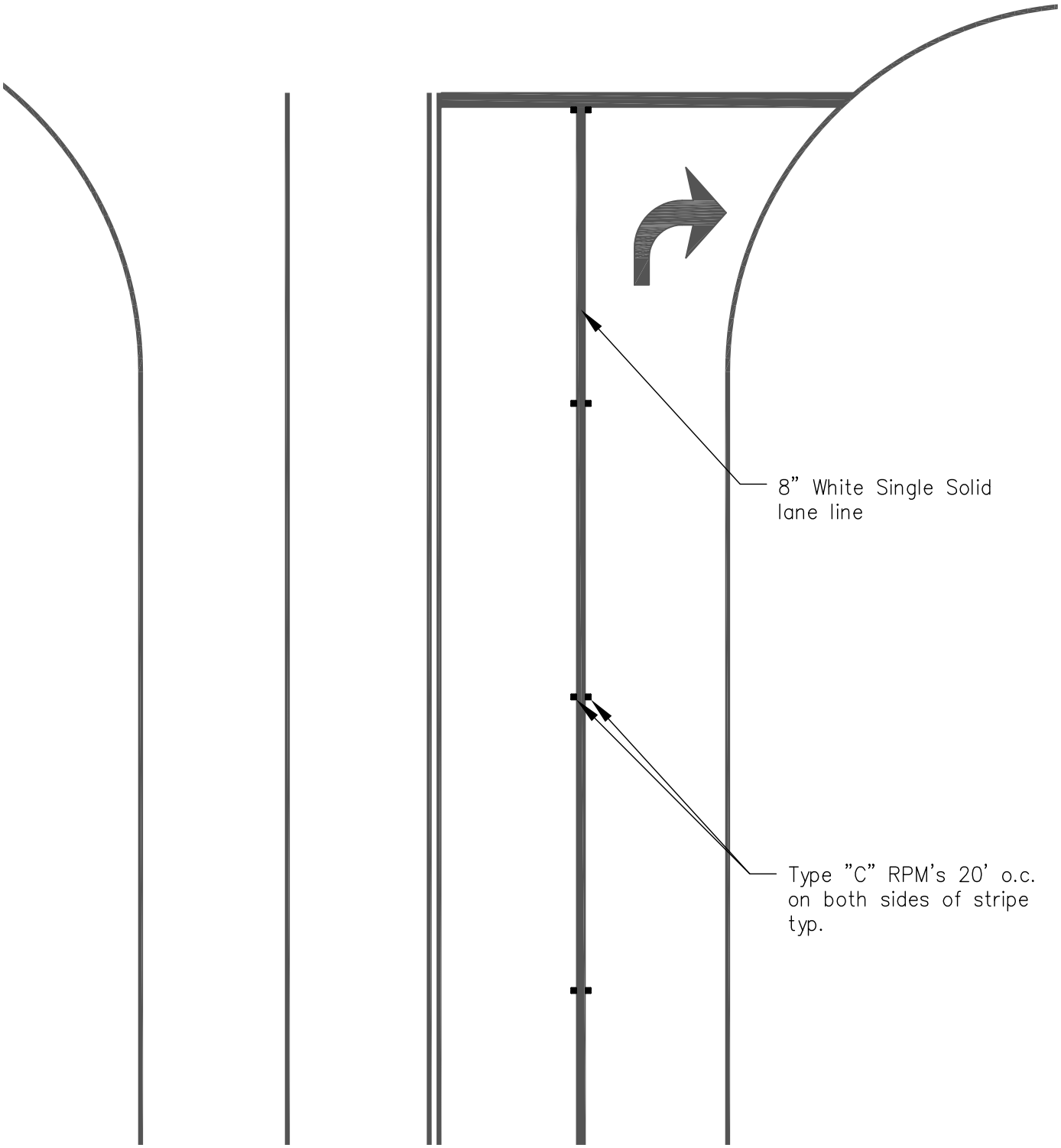


MULTI–LANE SKEWED INTERSECTION
Staggered Stop Lines

NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**SKEWED CROSSWALK MULTI-LANE** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-6e



COUNTY OF HAWAII

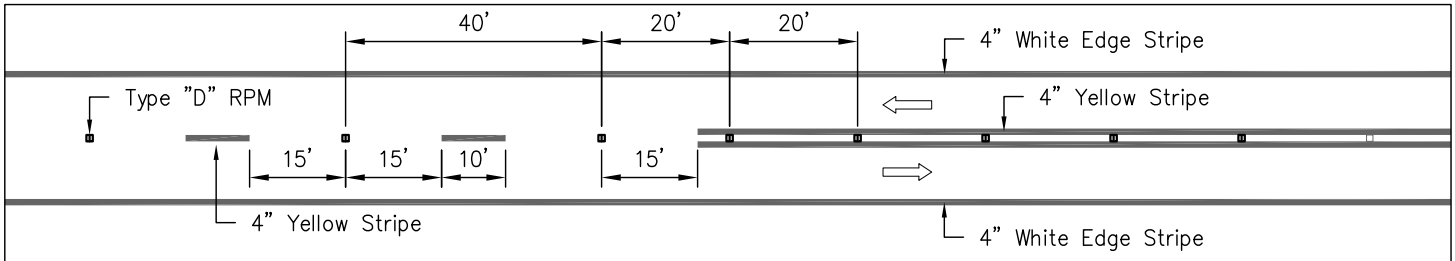
AUXILIARY LANE STRIPNG AND RPMS

APPROVED: _____ TRAFFIC DIVISION

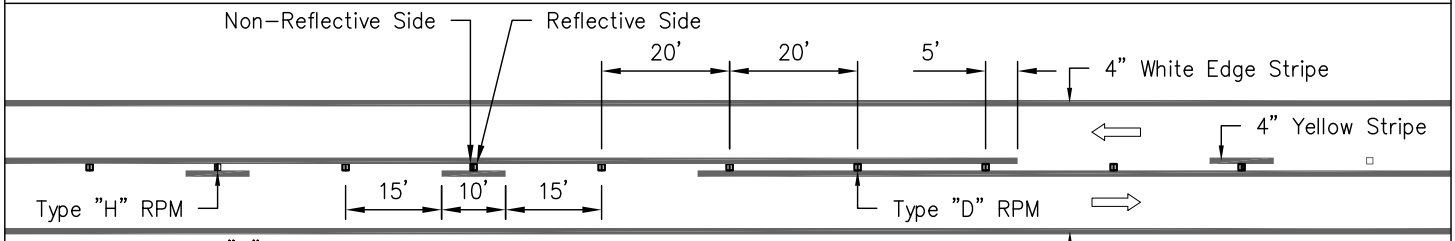
DATE: 07-08-20
SCALE: 1"=10'

STANDARD DETAILS

TR-7

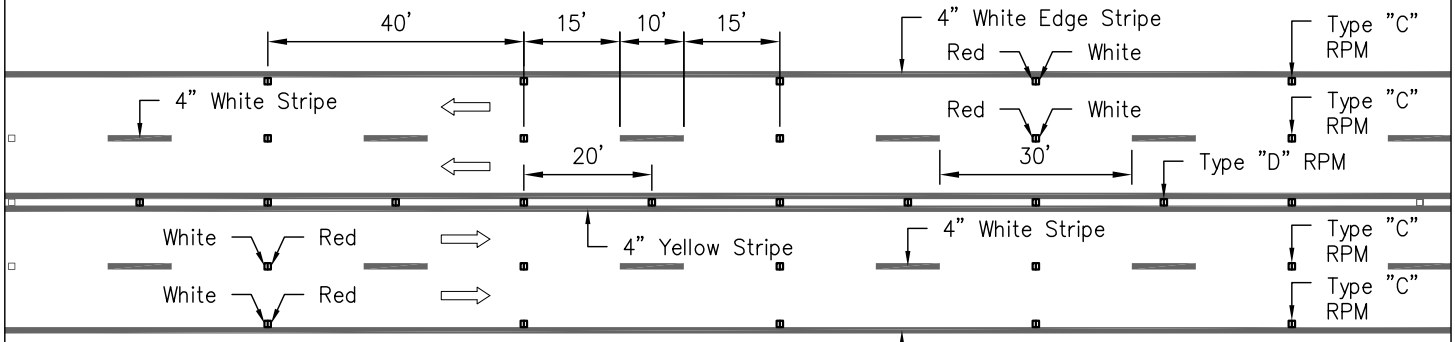


2–LANE ROAD
PASSING PERMITTED AND PASSING PROHIBITED

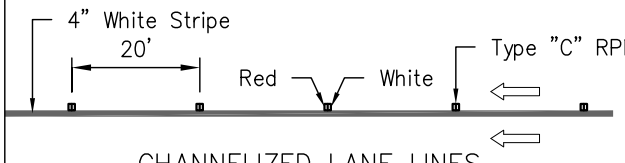


NOTE: Type "H" Positioned with Reflective Surface Facing No–Passing Direction.

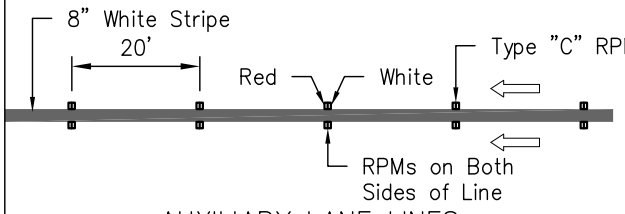
2–LANE ROAD
PASSING PROHIBITED



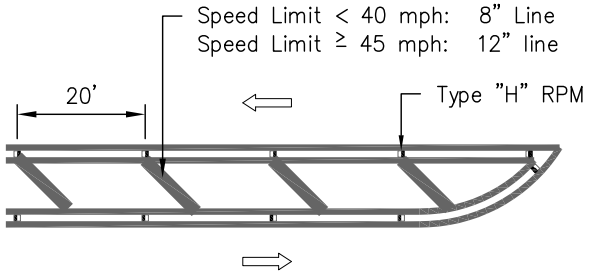
MULTI–LANE ROAD
LANE LINES AND CENTERLINE



CHANNELIZED LANE LINES



AUXILIARY LANE LINES



NOTE: Type "H" Positioned with Reflective Surface Facing No–Passing Direction.

MEDIAN ISLAND

TYPE "D" RPM		TYPE "H" RPM		TYPE "C" RPM		TYPE "F" OR "DB" RPM	
Yellow Reflective	Yellow Reflective	Yellow Reflective	Non–Reflective	Red Reflective	White Reflective	Blue Reflective	Blue Reflective

COUNTY OF HAWAII

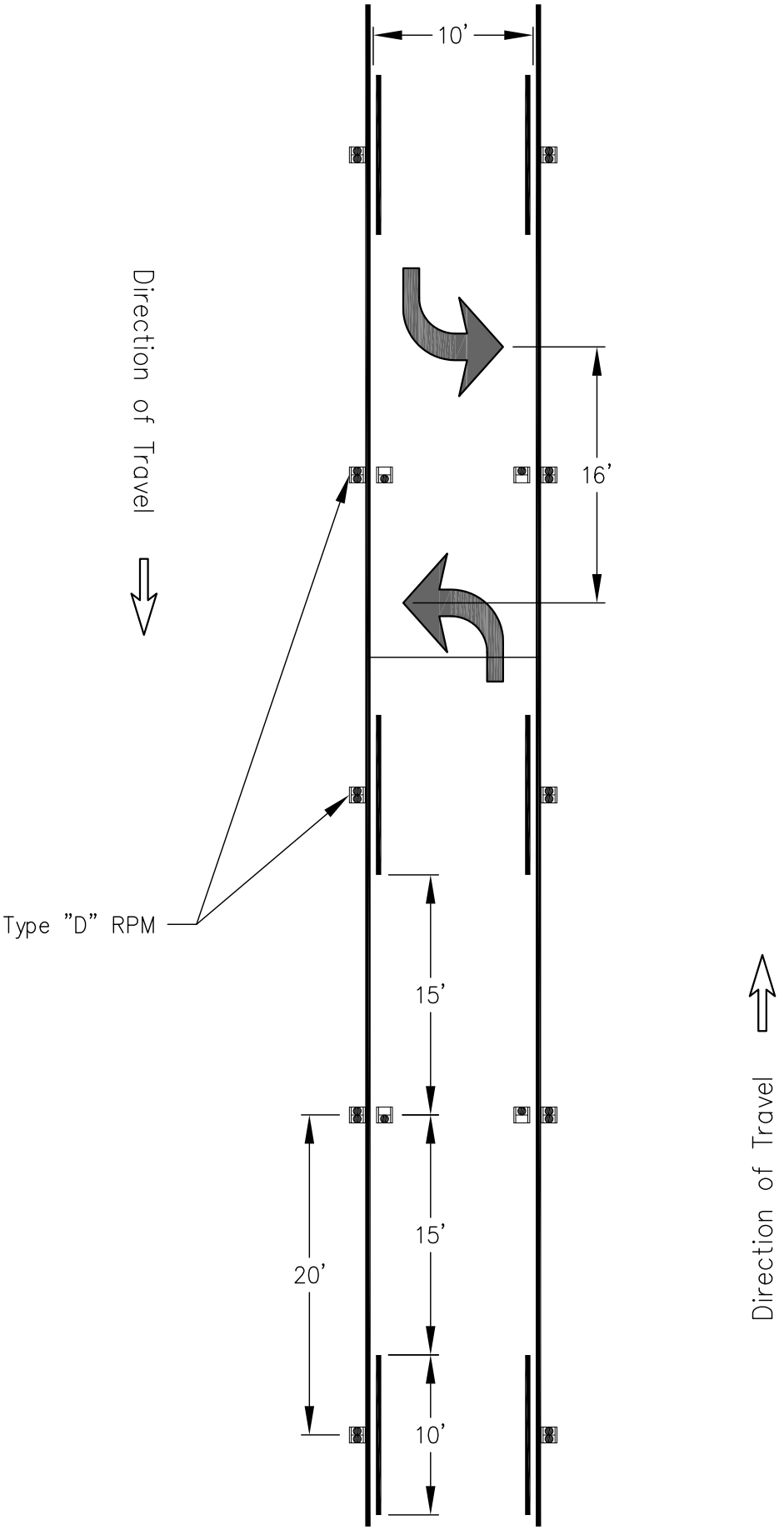
RAISED PAVEMENT MARKERS

APPROVED: _____ TRAFFIC DIVISION

DATE: 07-08-20
SCALE: 1"=30'

STANDARD DETAILS

TR-8



COUNTY OF HAWAII

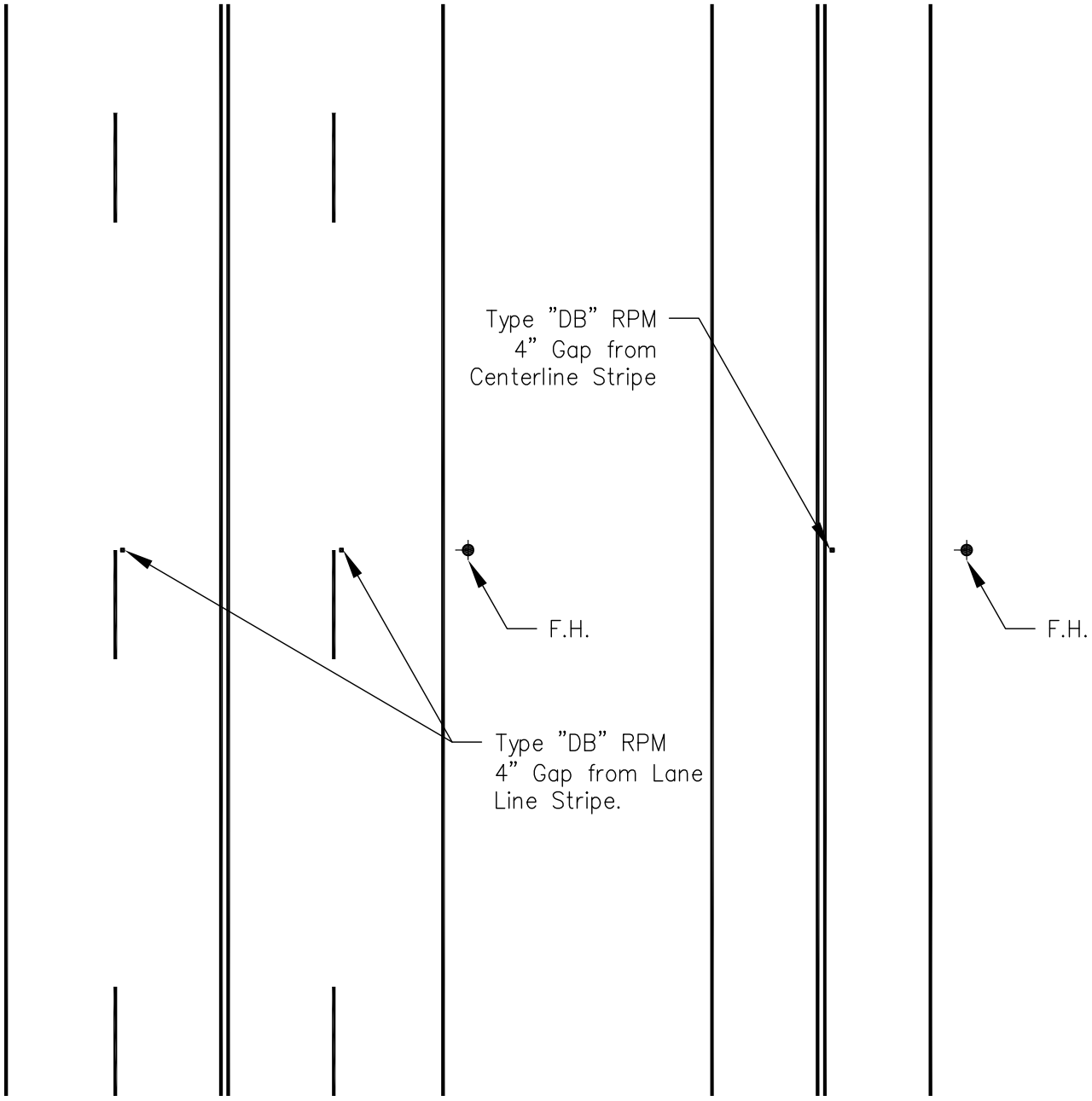
TWO-WAY-LEFT-TURN-LANE STRIPING AND RPMS

APPROVED: _____ TRAFFIC DIVISION

DATE: 07-08-20
SCALE: 1"=10'

STANDARD DETAILS

TR-8a



COUNTY OF HAWAII

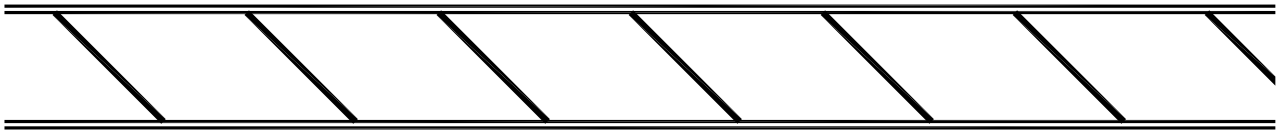
TYPE "DB" RPMS

APPROVED: _____
TRAFFIC DIVISION

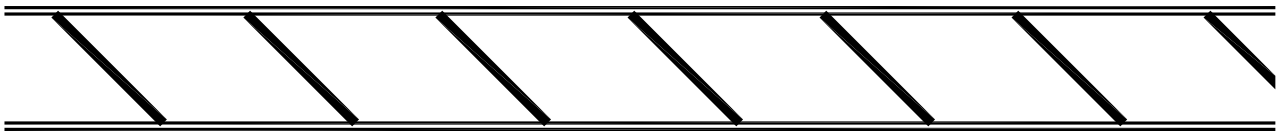
DATE: 07-08-20
SCALE: N.T.S.

STANDARD DETAILS

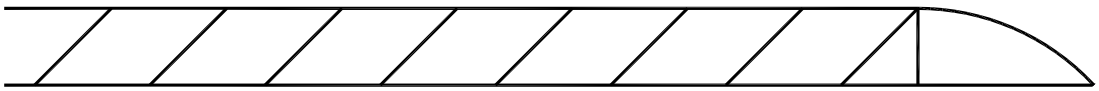
TR-8b



MEDIAN ISLAND
Speed Limit <45 mph
(8" Hatch Lines)



MEDIAN ISLAND
Speed Limit ≤45 mph
(12" Hatch Lines)

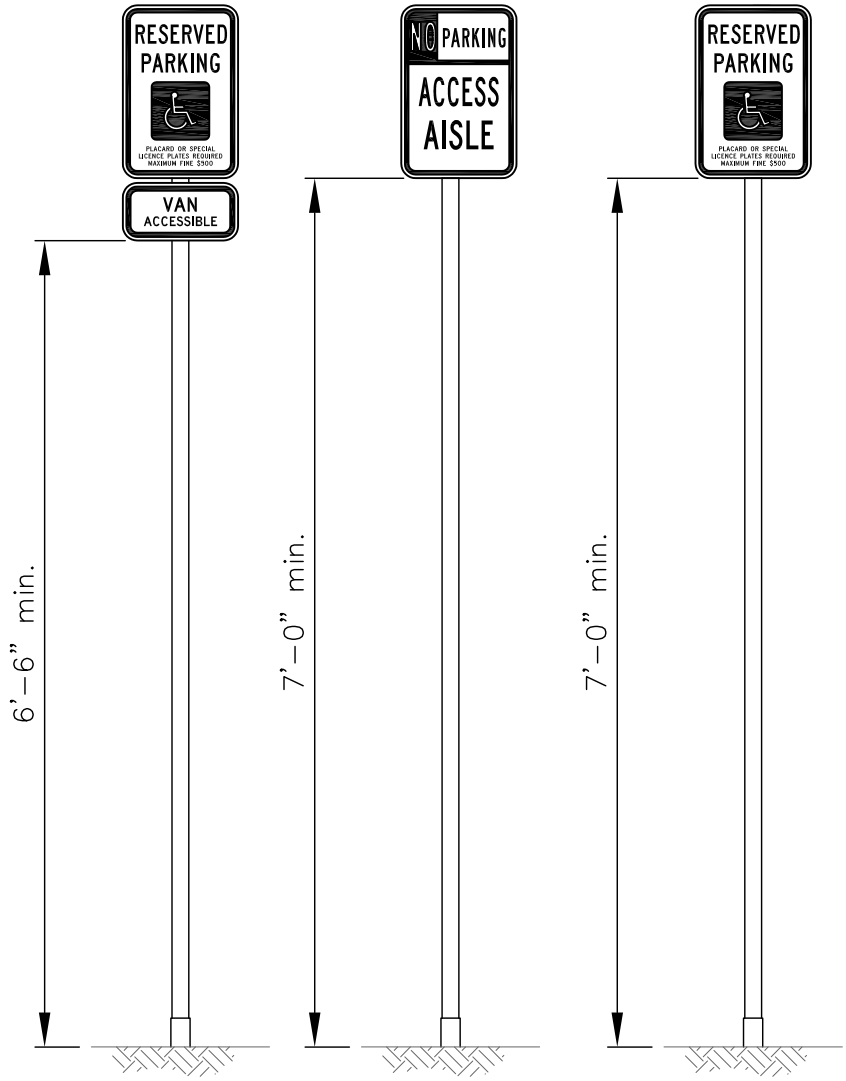


SHOULDER ISLAND
(4" Hatch Lines)

AUXILIARY LANE ISLAND
(8" Lines)

COUNTY OF HAWAII	**HATCH LINES** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=20'	STANDARD DETAILS	TR-9

SIGN DETAIL
N.T.S.

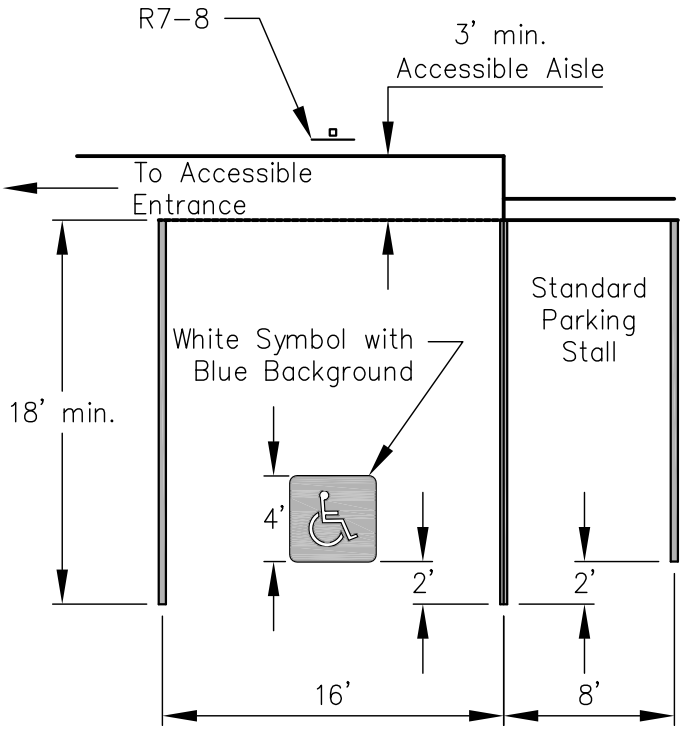


SIGN MOUNTING
Scale: 1"=20'

NOTES:

1. Reserved parking and van accessible signs shall have a green legend with a white background for time–limit parking and a blue legend with a white background for unrestricted parking.
2. No parking access aisle signs shall have a red legend with a white background.
3. Van accessible signs shall be used only when wheelchair accessibility is provided.
4. All traffic signs shall be reflectorized with Type IV High Intensity Retroreflective Sheeting.

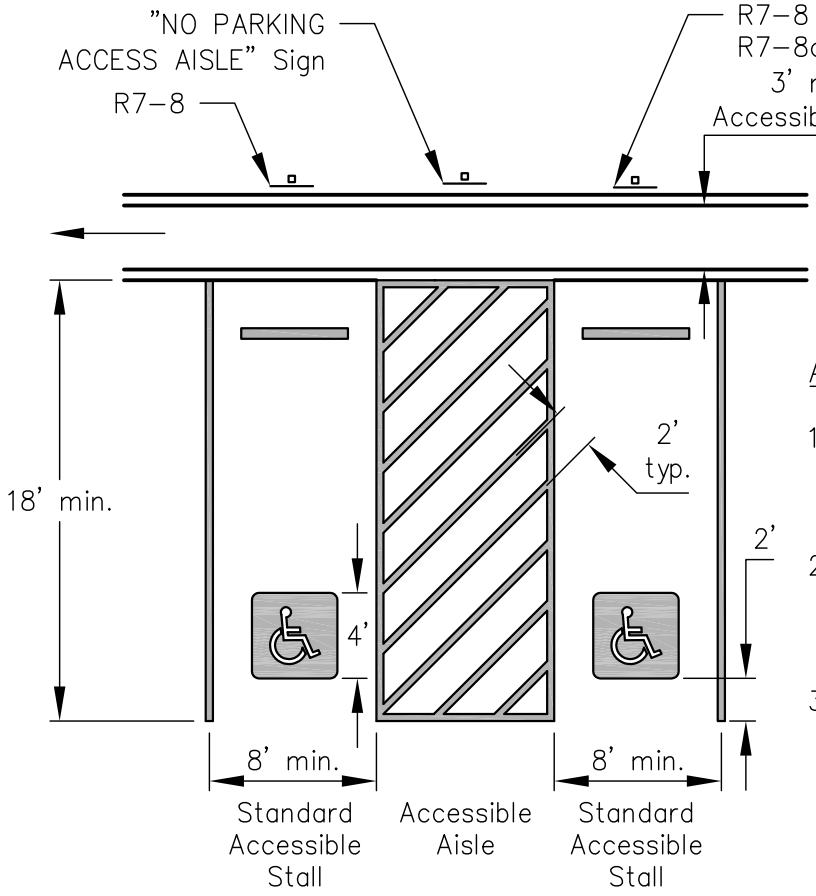
COUNTY OF HAWAII	**ACCESSIBLE PARKING SIGNS** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: NOTED	STANDARD DETAILS	TR-10



SINGLE STALL

ACCESSIBLE STALL NOTES:

1. Accessible parking stalls, access aisles, and routes shall be located at the shortest accessible route to an accessible entrance to a facility and shall comply with the ADA accessibility guidelines.
2. All pavement markings for accessible stalls shall be **white**, unless otherwise noted.
3. An alternative to the multiple stall design shown is to stripe all spaces 11' wide with a 5' access aisle. "VAN ACCESSIBLE" signs are not needed when using this universal design.
4. The maximum slope in all directions within the accessible stall shall not exceed **1:48 or 2.083%**.



MULTIPLE STALLS

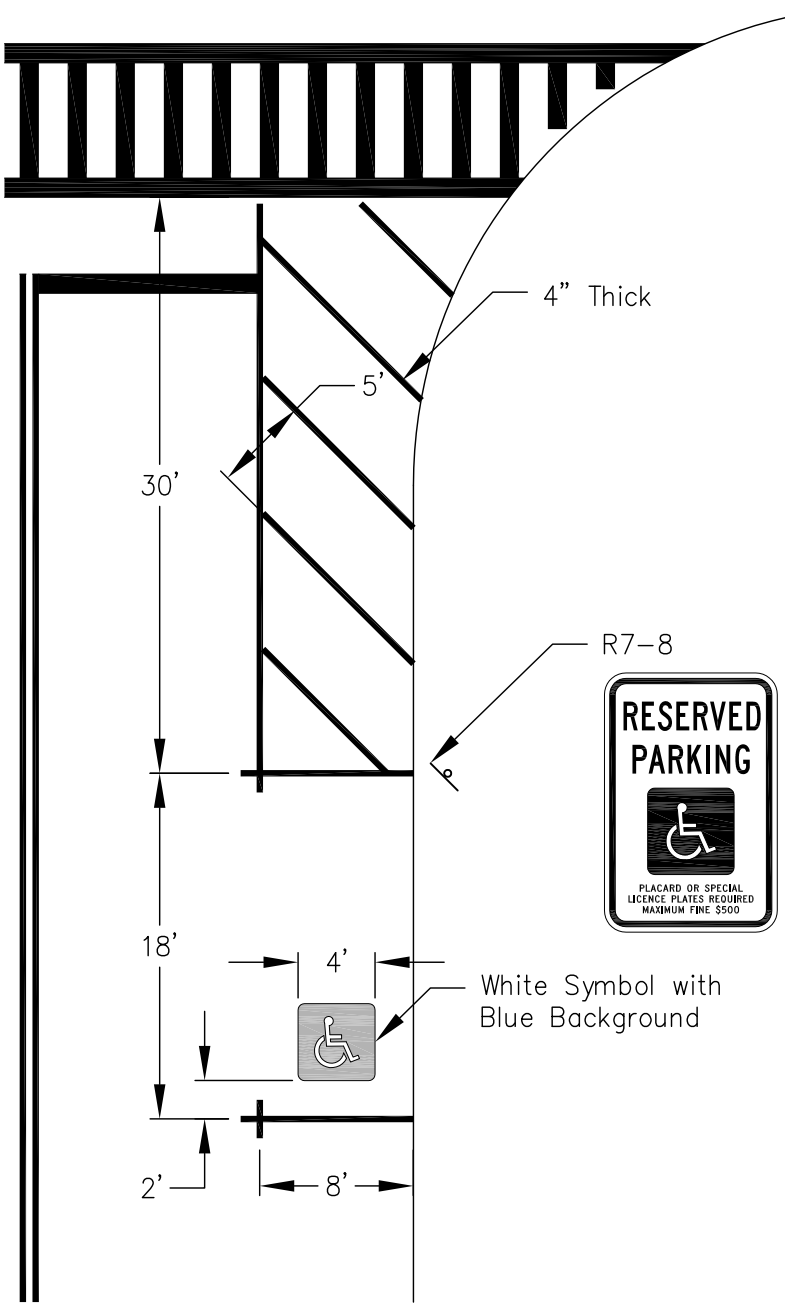
ACCESSIBLE STALL NOTES:

1. All pavement markings for accessible stalls shall be **white**, unless otherwise noted.
2. Access Aisle:
   a. 8' min. for van accessible stalls.
   b. 5' min. for standard accessible stalls.
3. The maximum slope in all directions within the accessible stalls and access aisles shall not exceed **1:48 or 2.083%**.

NOTE:

1. All traffic signs shall be completely reflectorized with **Type IV** High Intensity retroreflective sheeting.

COUNTY OF HAWAII	**ACCESSIBLE PARKING STALLS PERPENDICULAR** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-10a



ACCESSIBLE STALL NOTES:

1. All pavement markings for accessible stalls shall be white, unless otherwise noted.
2. The reserved parking stall shall be a minimum of 30' from the crosswalk (as applicable).
3. The pavement markings for the hatched island shall be white, unless otherwise noted.
4. The R7-8 sign shall be installed in accordance with County standard detail TR-9.

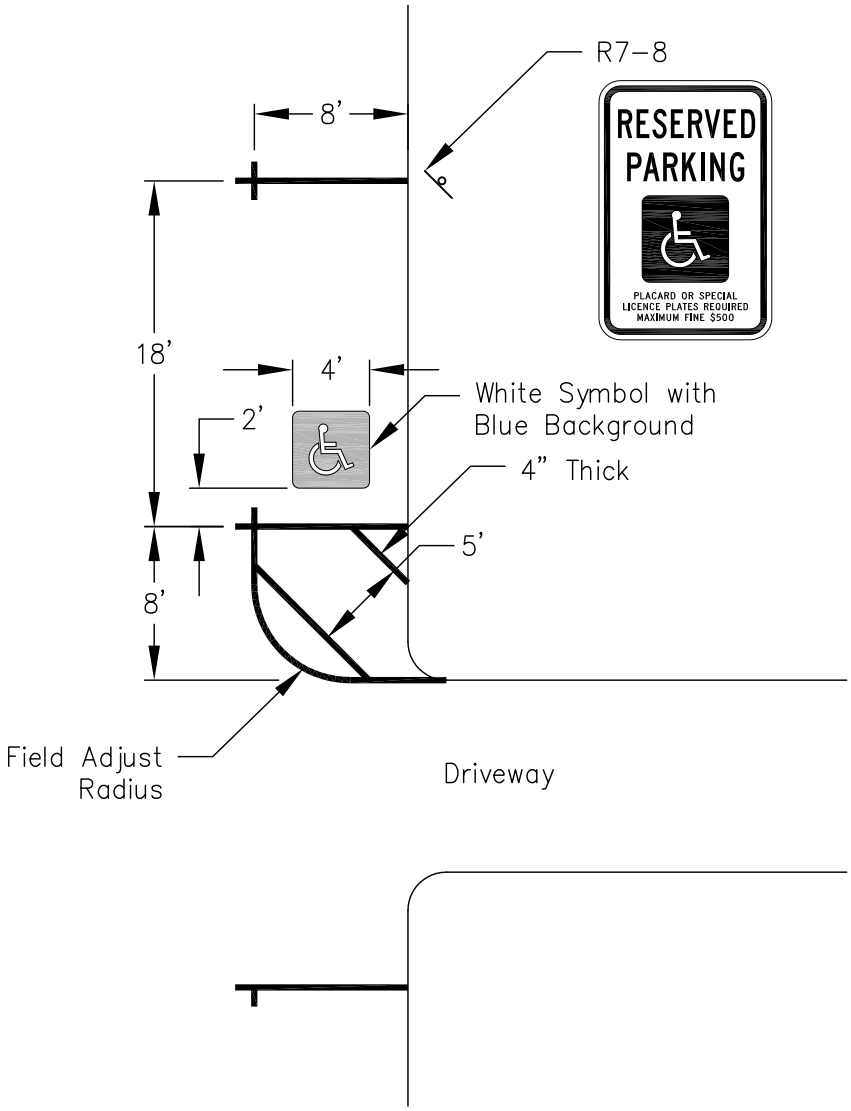
ACCESSIBLE ON-STREET PARKING

Approach to Intersection

NOTES:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
2. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
3. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**ACCESSIBLE ON-STREET PARKING APPROACH TO INTERSECTION** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=10'	STANDARD DETAILS	TR-10b



ACCESSIBLE STALL NOTES:

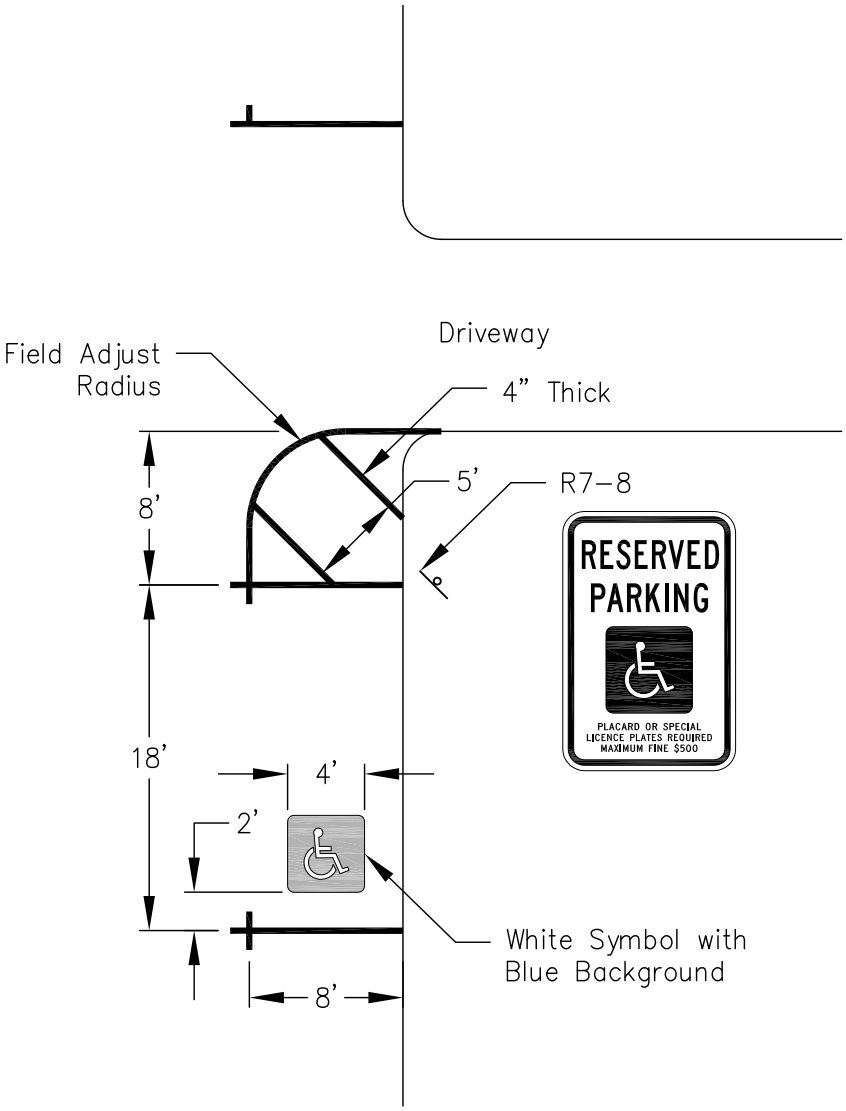
1. All pavement markings for accessible stalls shall be white, unless otherwise noted.
2. The reserved parking stall shall be a minimum of 8' from the driveway.
3. The pavement markings for the hatched island shall be white, unless otherwise noted.
4. The R7-8 sign shall be installed in accordance with County standard detail TR-9.

ACCESSIBLE ON-STREET PARKING
After a Driveway

NOTES:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
2. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
3. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**ACCESSIBLE ON-STREET PARKING AFTER A DRIVEWAY** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=10'	STANDARD DETAILS	TR-10c



ACCESSIBLE STALL NOTES:

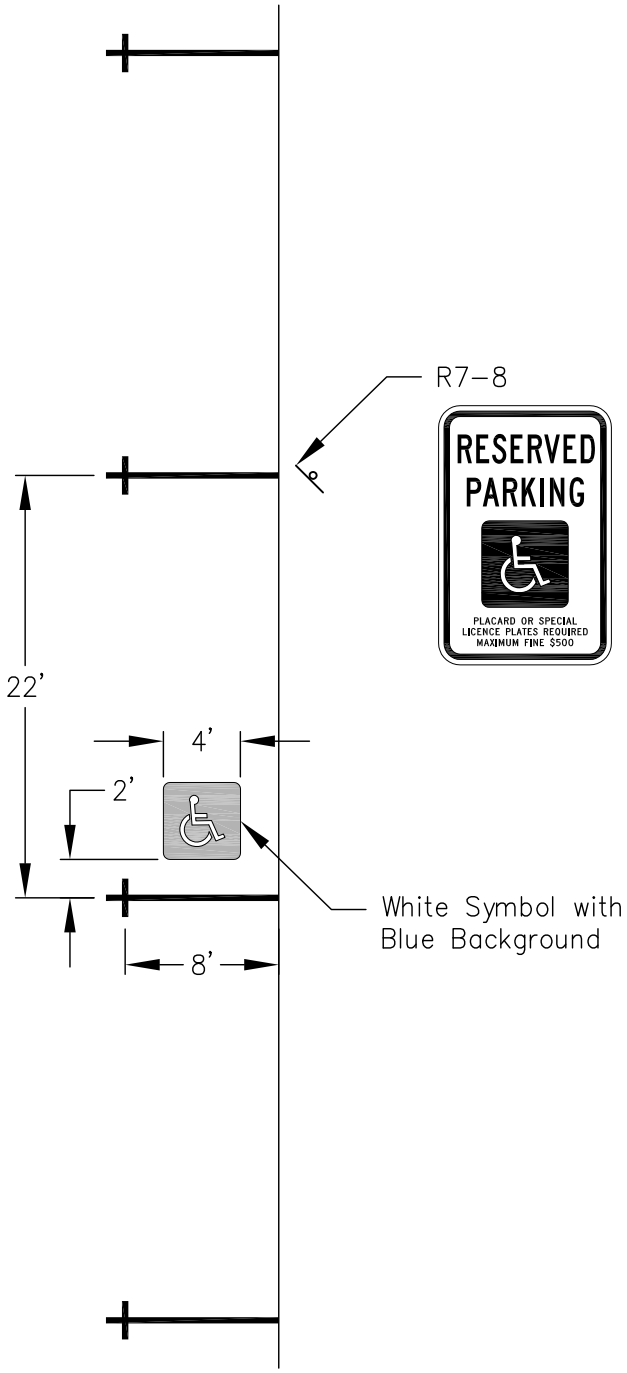
1. All pavement markings for accessible stalls shall be white, unless otherwise noted.
2. The reserved parking stall shall be a minimum of 8' from the driveway.
3. The pavement markings for the hatched island shall be white, unless otherwise noted.
4. The R7-8 sign shall be installed in accordance with County standard detail TR-9.

ACCESSIBLE ON-STREET PARKING
Before a Driveway

NOTES:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
2. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
3. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**ACCESSIBLE ON-STREET PARKING BEFORE A DRIVEWAY** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=10'	STANDARD DETAILS	TR-10d



ACCESSIBLE STALL NOTES:

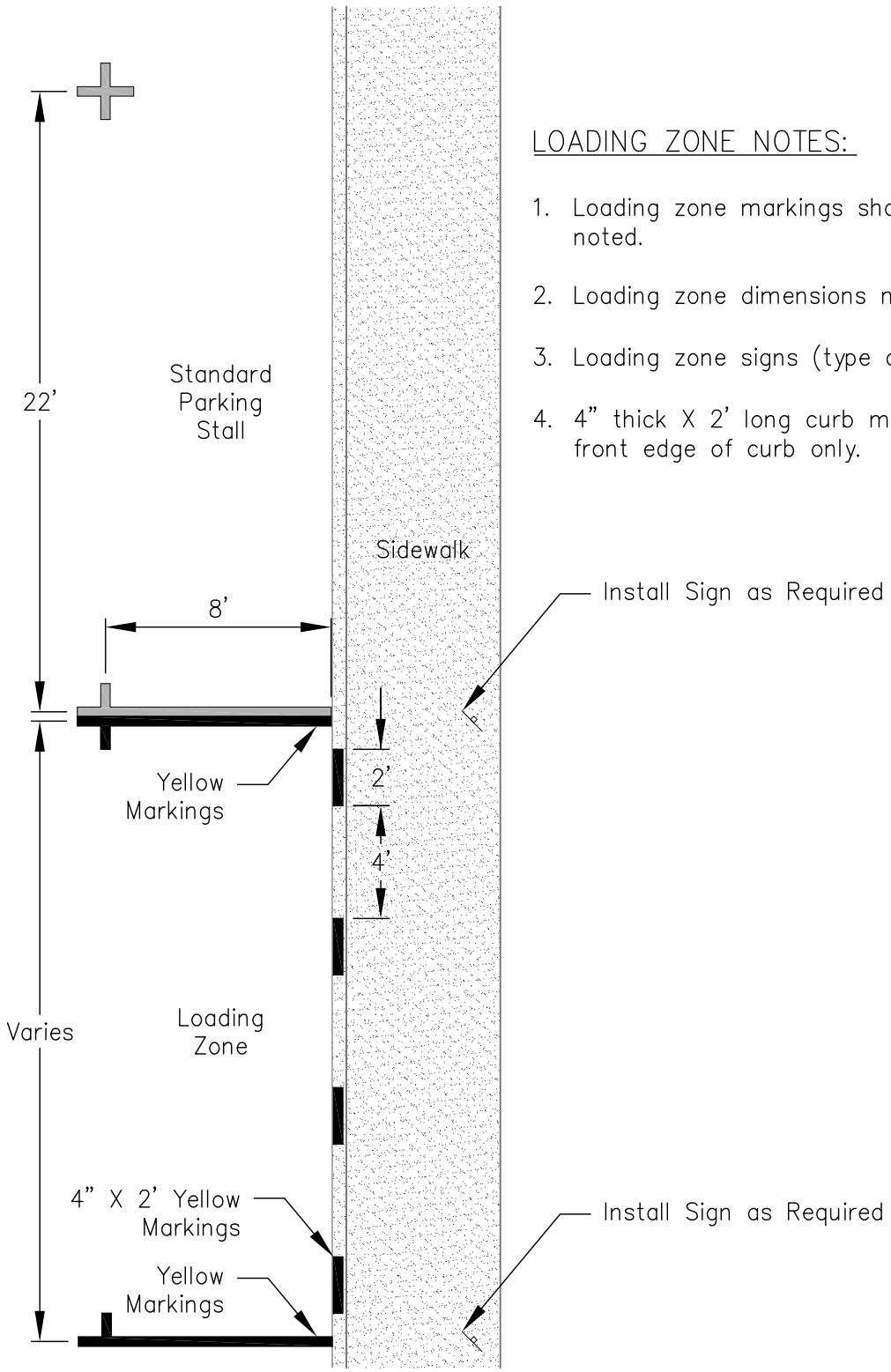
1. All pavement markings for accessible stalls shall be white, unless otherwise noted.
2. The R7-8 sign shall be installed in accordance with County standard detail TR-9.

ACCESSIBLE ON-STREET PARKING
Mid-Block

NOTES:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
2. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
3. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**ACCESSIBLE ON-STREET PARKING MID-BLOCK** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=10'	STANDARD DETAILS	TR-10e



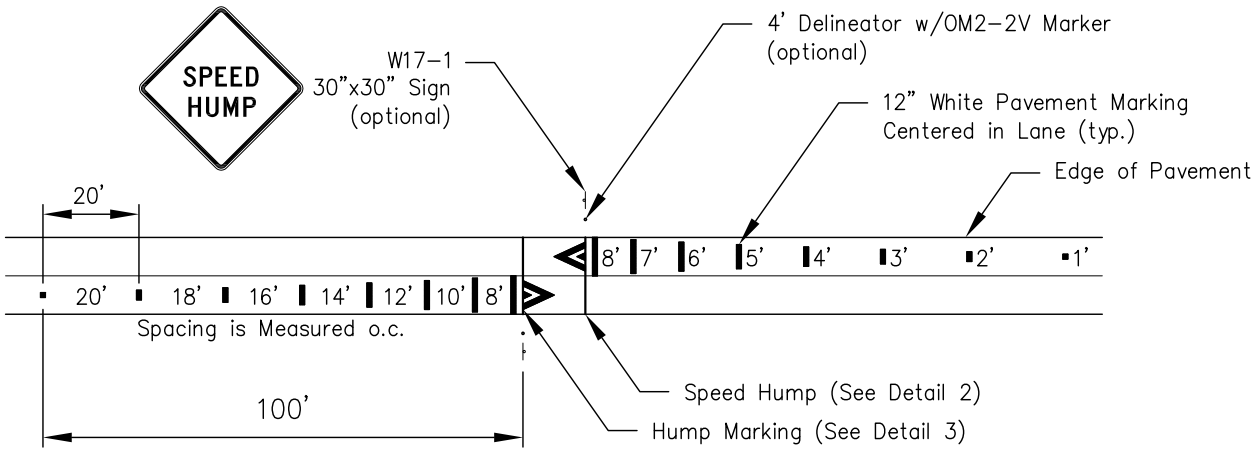
LOADING ZONE NOTES:

1. Loading zone markings shall be yellow, unless otherwise noted.
2. Loading zone dimensions may vary and are site-specific.
3. Loading zone signs (type and placement) are site-specific.
4. 4" thick X 2' long curb markings are located on the top front edge of curb only.

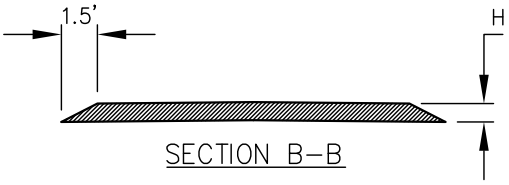
NOTE:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.

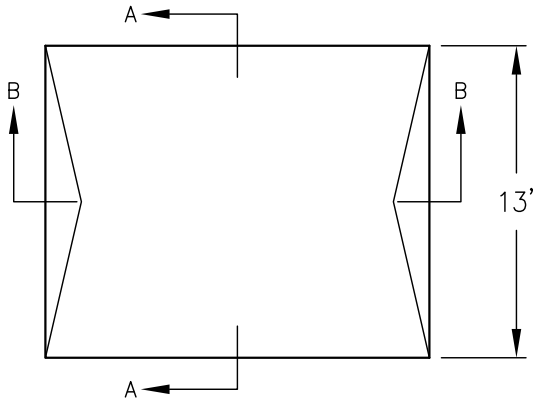
COUNTY OF HAWAII	**LOADING ZONE SIGNS AND MARKINGS** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=6'	STANDARD DETAILS	TR-11



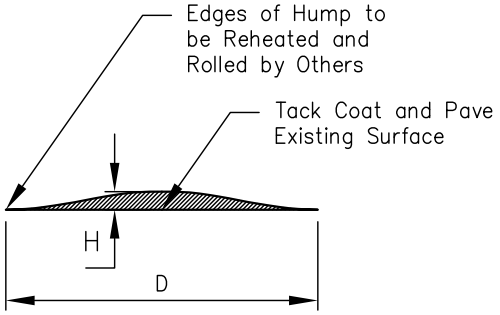
DETAIL 1
Typical Signs and Markings
Scale: 1"=40'



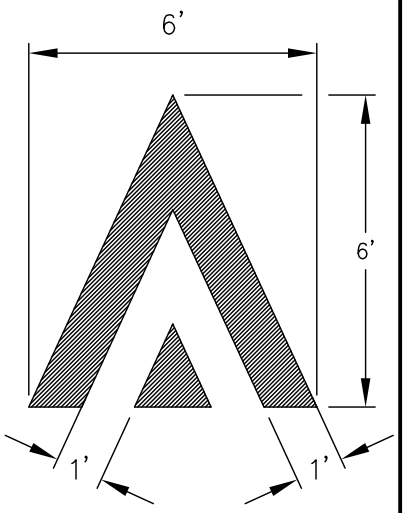
SECTION B-B



DETAIL 2
Speed Hump
Scale: 1"=4'



SECTION A-A



DETAIL 3
Hump Marking
Scale: 1"=4'

SINUSOIDAL PROFILE OF HUMP

D (FT)	0.00	0.82	1.64	2.48	3.28	4.10	4.92	5.74	6.50	7.26	8.08	8.90	9.72	10.52	11.36	12.18	13.00
H (IN)	0.00	0.12	0.47	0.98	1.57	2.17	2.68	2.95	3.00	2.95	2.68	2.17	1.57	0.98	0.47	0.12	0.00

NOTE:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.

COUNTY OF HAWAII

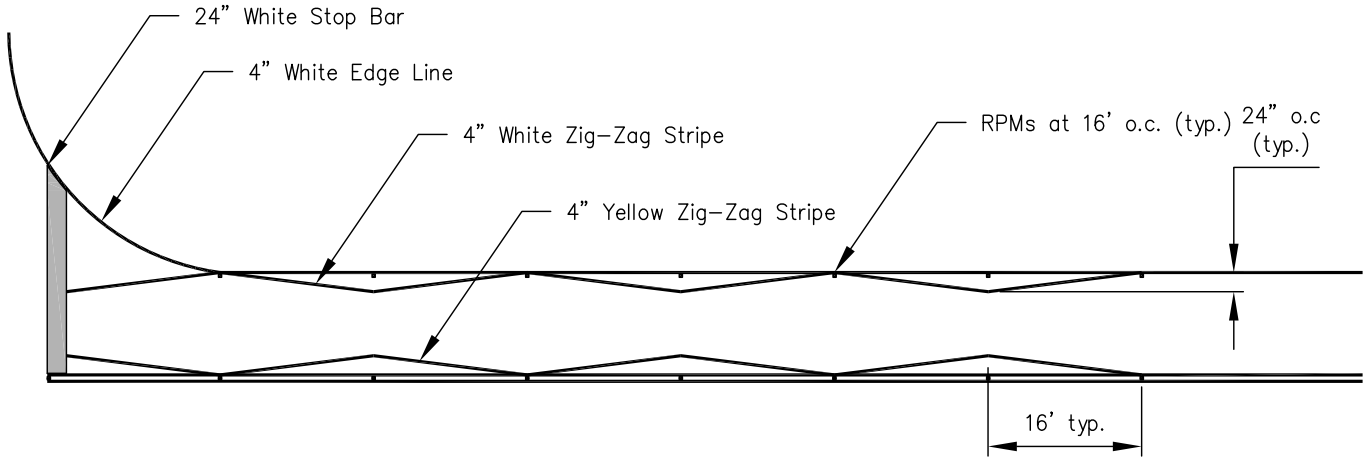
SPEED HUMP SIGNS AND MARKINGS

APPROVED: _____ TRAFFIC DIVISION

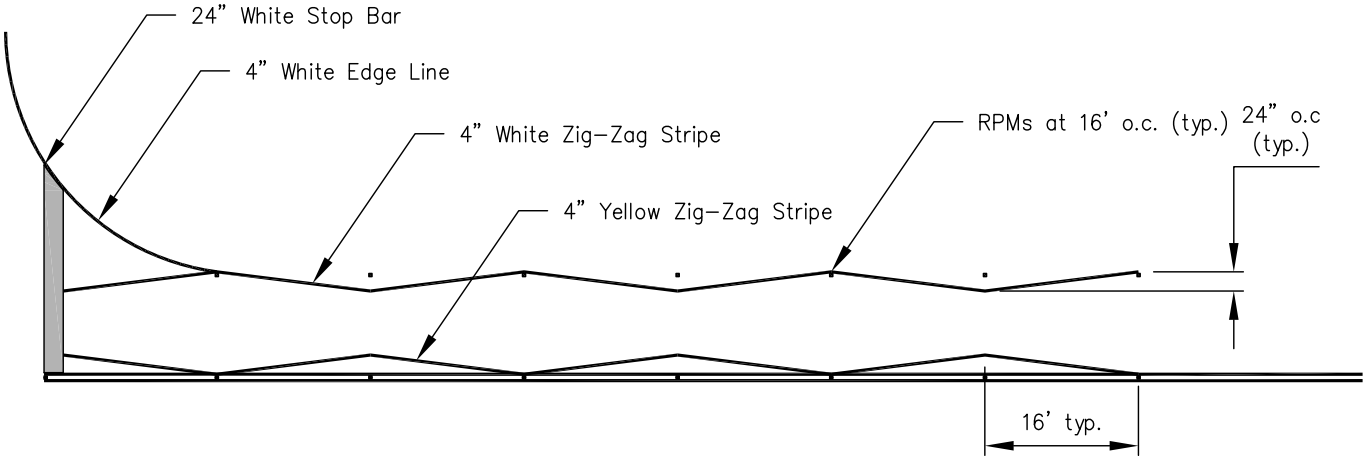
DATE: 07-08-20
SCALE: NOTED

STANDARD DETAILS

TR-12



TYPICAL SINGLE-LANE ZIG-ZAG MARKINGS
with Edge Lines



TYPICAL SINGLE-LANE ZIG-ZAG MARKINGS
without Edge Lines

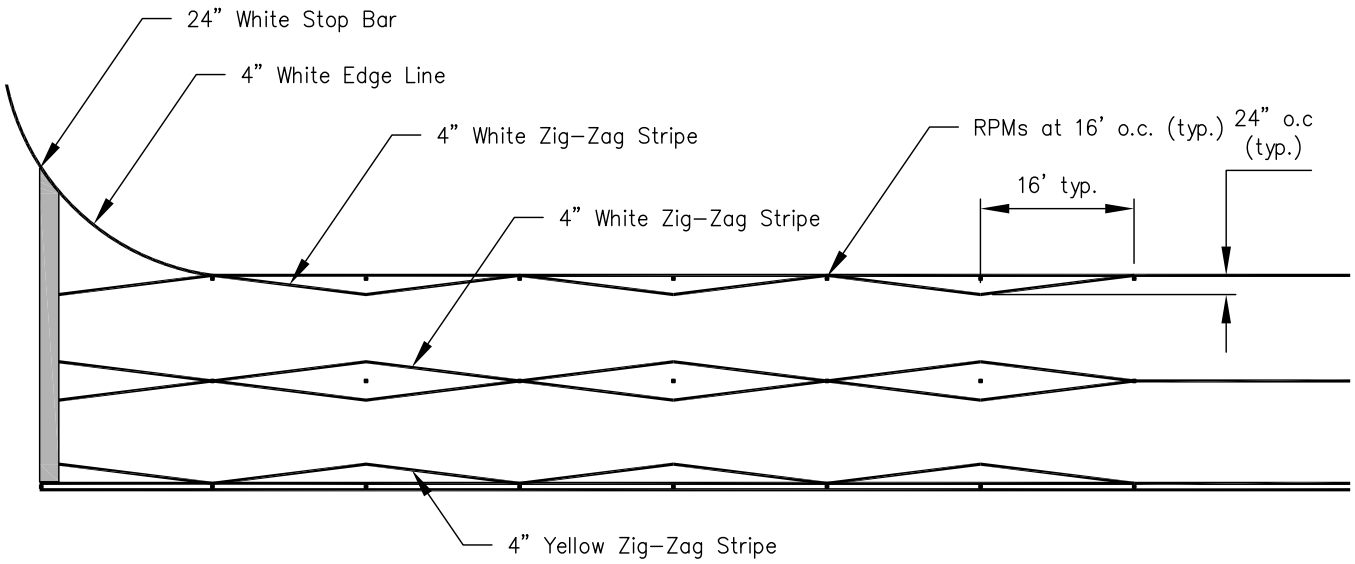
ZIG-ZAG NOTES:

1. Each zig-zag segment is 16' long on a typical straight roadway section.
2. All zig-zag markings shall be 4" wide and have a 24" offset measured on center (o.c.).
3. The zig-zag markings shall be field-adjusted as required.
4. The stop bar striping shall be 24" wide.

NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid-resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**ZIG-ZAG MARKINGS SINGLE-LANE** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=20'	STANDARD DETAILS	TR-13



TYPICAL MULTI–LANE ZIG–ZAG MARKINGS
with Edge Lines

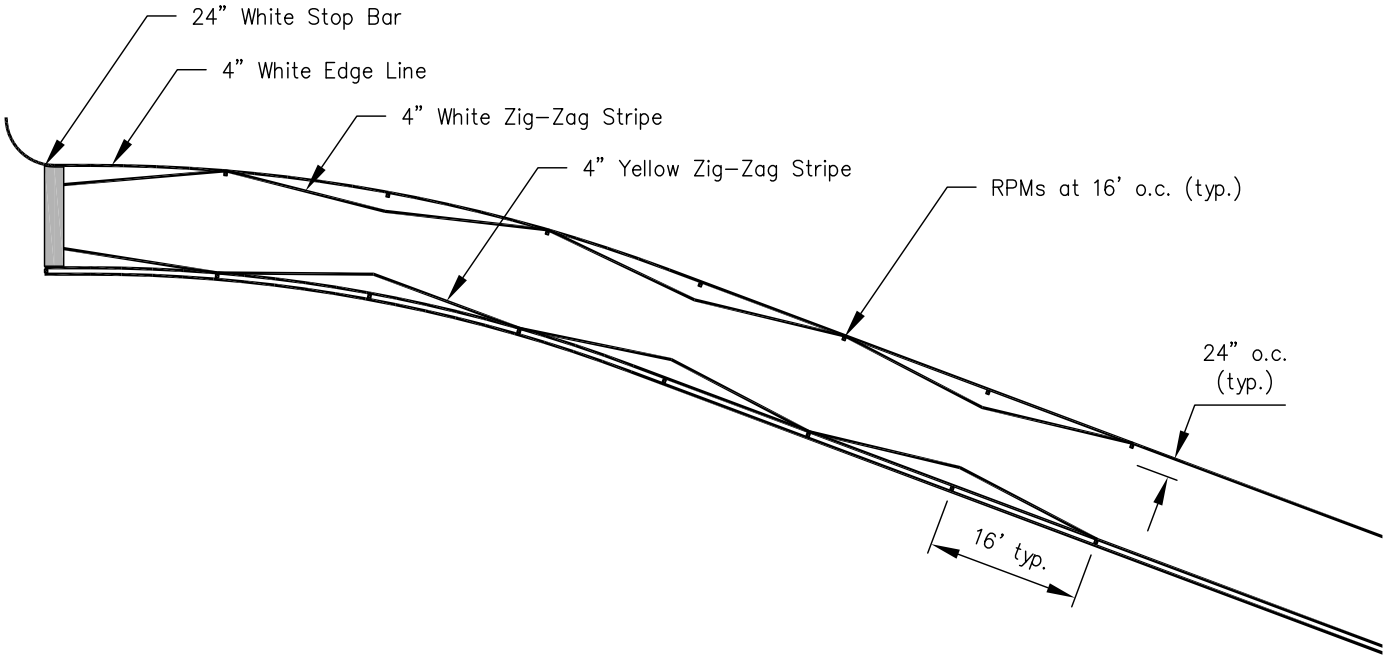
ZIG–ZAG NOTES:

1. Each zig–zag segment is 16' long on a typical straight roadway section.
2. All zig–zag markings shall be 4" wide and have a 24" offset measured on center (o.c.).
3. The zig–zag markings shall be field–adjusted as required.
4. The stop bar striping shall be 24" wide.

NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**ZIG-ZAG MARKINGS MULTI-LANE** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=20'	STANDARD DETAILS	TR-13a



ZIG–ZAG MARKINGS
on a Curve

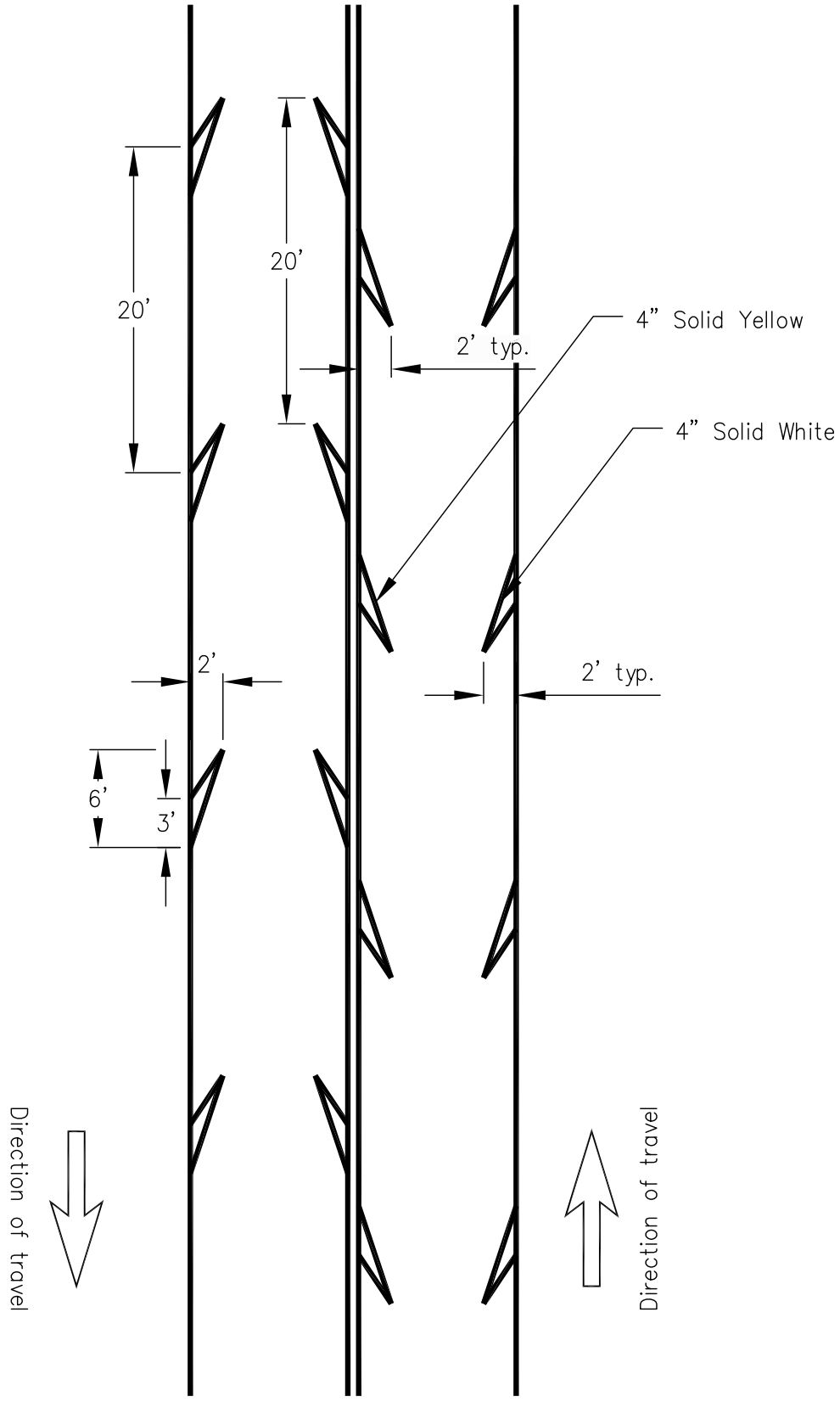
ZIG–ZAG NOTES:

1. For a zig–zag on a curve, the segment on the inside of the curve shall be 16' long.
2. All zig–zag markings shall be 4" wide and have a 24" offset measured on center (o.c.).
3. The zig–zag markings shall be field–adjusted as required.
4. The stop bar striping shall be 24" wide.

NOTES:

1. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
2. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**ZIG-ZAG MARKINGS ON A CURVE** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=20'	STANDARD DETAILS	TR-13b



RPMs within enhanced area:
Type "C" at 20' o.c.
Type "D" at 20' o.c.

COUNTY OF HAWAII

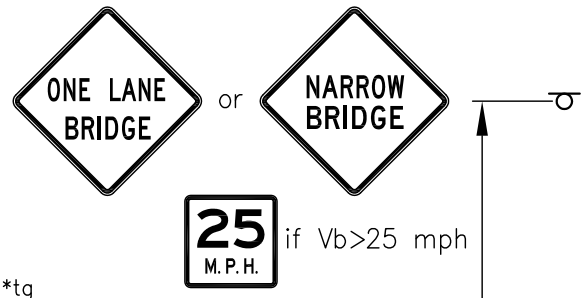
SHARK TEETH PAVEMENT MARKINGS

APPROVED: _____ TRAFFIC DIVISION

DATE: 07-08-20
SCALE: 1"=10'

STANDARD DETAILS

TR-14



if Vb>25 mph

Lb'= 1.47*Vb*tg

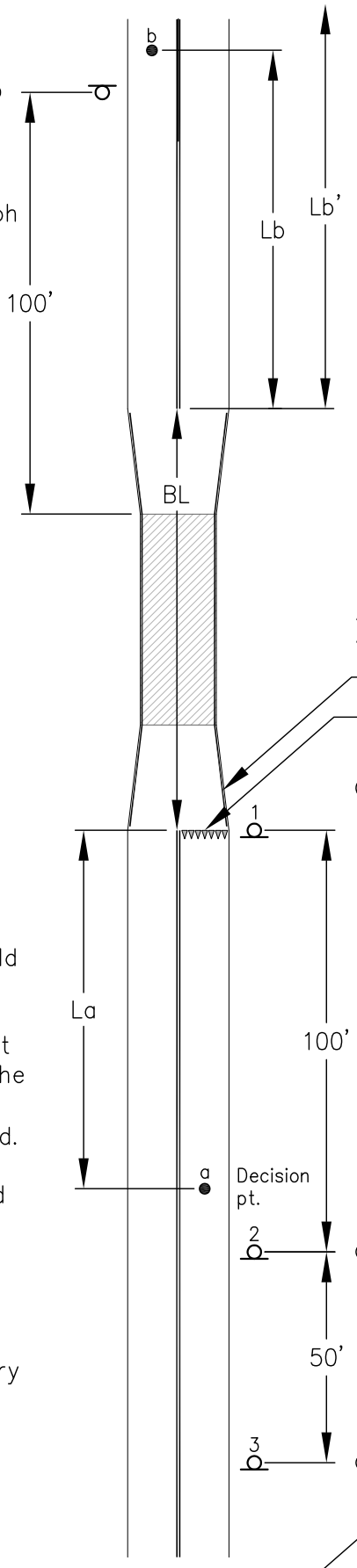
Lb'= Distance requried from end of bridge to oncoming vehicle on non-yield approach to allow design vehicle to clear from yield bar to end of bridge.
Vb= posted speed on non-yield approach.
tg= average travel time for design vehicle to clear from yield bar to end of bridge.

Bridge No.: _____
Bridge Location: _____
Bridge Length (BL): _____

	IDEAL	MIN.
Va=		
Vb=		
La=		
Lb=		
a to b=		
tg=		
Lb'=		
Lb'+BL=		

NOTES:

1. Narrow bridges: any bridge or culvert having a roadway clearance less than the width of the approach travel lanes and equal to or greater than 19' – yield condition not required.
2. One lane bridges: any bridge or culvert having a roadway clearance less than the width of the approach travel lanes and less than 19' – yield condition required.
3. Provide stopping sight distance for yield control on both approaches and sight distance at the yield bar for design vehicle to safely clear bridge.
4. Use posted speed to check desirable sight distance requirements, use advisory speed(s) to check minimum sight distance requirements.
5. Typical design vehicle length of 30'.
6. Provide clear line of sight from a to b.



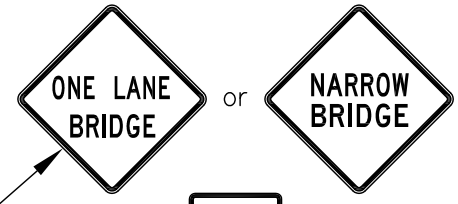
STOPPING SIGHT DISTANCE FOR YIELD CONTROL	
POSTED SPEED (mph)	La or Lb (ft)
15	70
20	90
25	115
30	140
35	165
40	195
45	220
50	245
55	285

AASHTO "Green Book" pg. 658 and 670.
Assume reduction to 50% of midblock speed.

For One-Lane Bridge Condition ONLY.

OPTIONAL: For Yield Condition, when Yield Sign Visibility is Restricted.

Install at Point 2



if Va>20 mph

COUNTY OF HAWAII

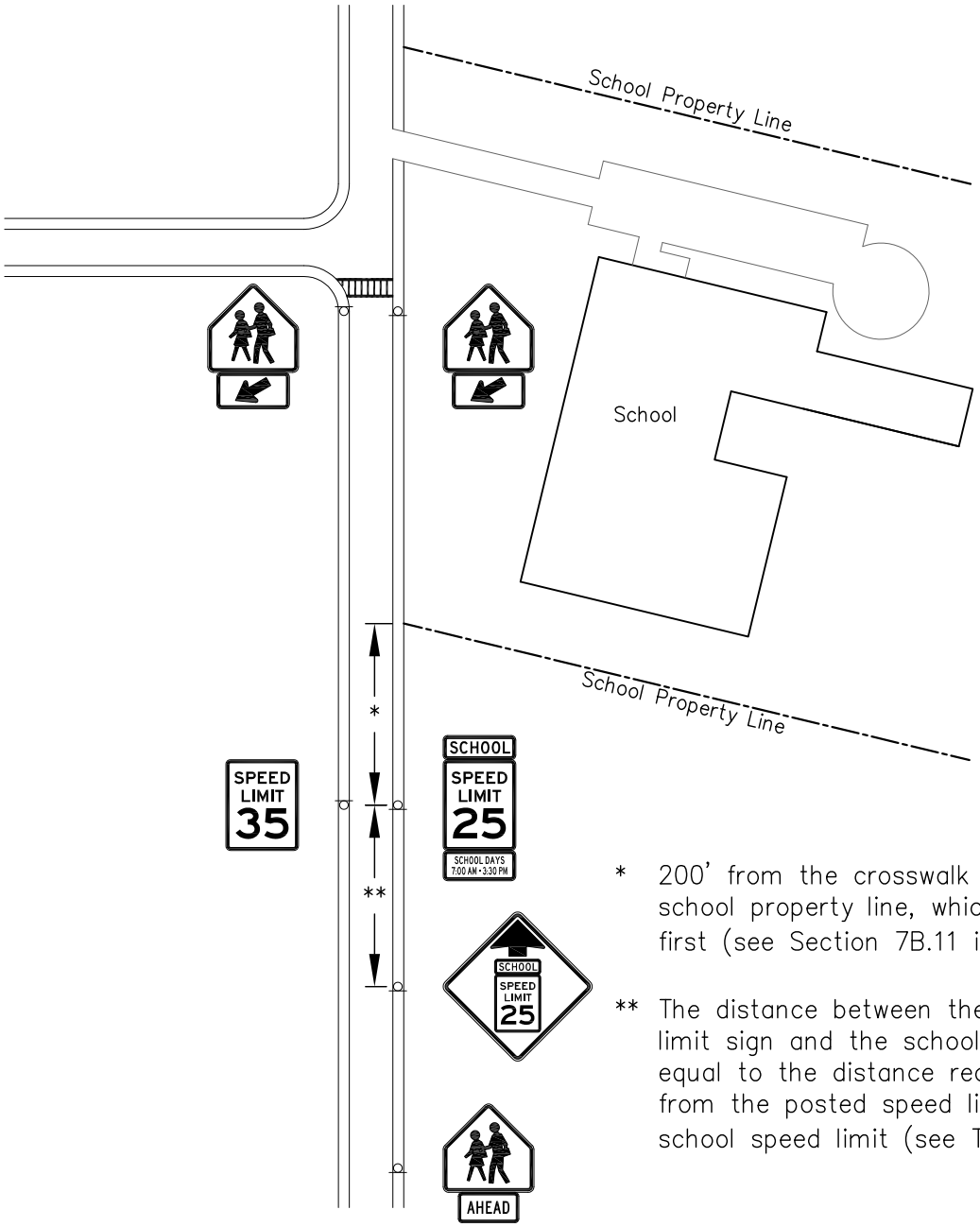
BRIDGE SIGNS AND MARKINGS

APPROVED: _____ TRAFFIC DIVISION

DATE: 07-08-20
SCALE: 1"=40'

STANDARD DETAILS

TR-15



Signage Typical on Both Sides of School

* 200' from the crosswalk or 100' from the school property line, whichever is encountered first (see Section 7B.11 in MUTCD).

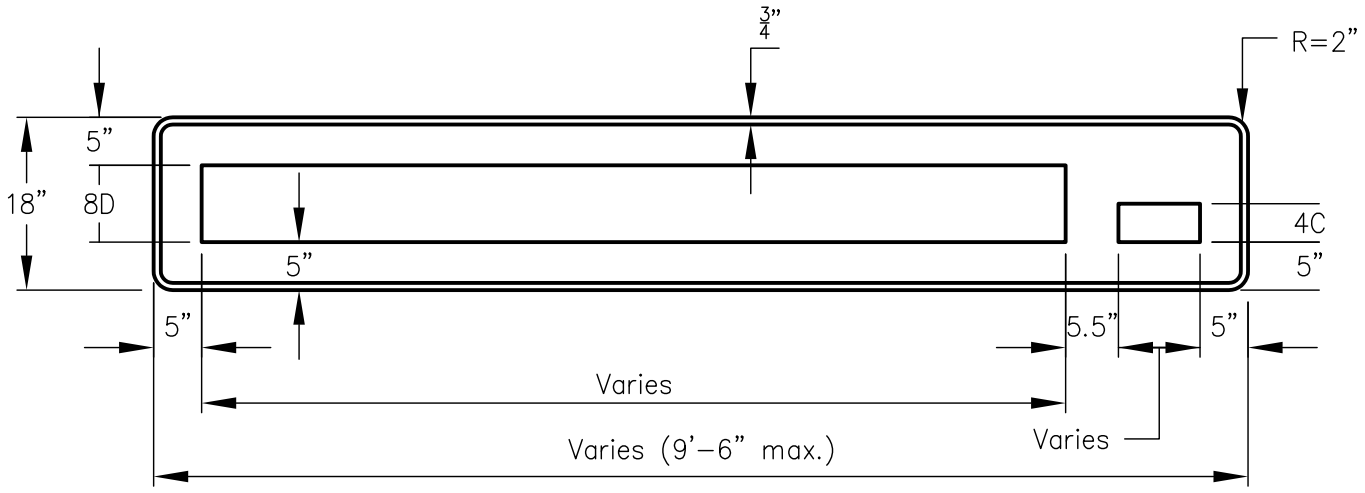
** The distance between the advance school speed limit sign and the school speed limit sign is equal to the distance required to decelerate from the posted speed limit of roadway to school speed limit (see TR–16a)

NOTES:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.
2. For crosswalks and stop lines, the contractor shall apply high skid–resistant white corundum (or equivalent) at a rate equal to the rate of application of the glass beads.
3. Heat applied pre–formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) may be used, but shall be made of a durable, high skid–resistant material.

COUNTY OF HAWAII	**SCHOOL ZONE SIGNS AND MARKINGS** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=100'	STANDARD DETAILS	TR-16

Table 2C–4: Guidelines for Advance Placement of Signs	
20 mph	225 ft
25 mph	325 ft
30 mph	460 ft
35 mph	565 ft
40 mph	670 ft
45 mph	775 ft
50 mph	885 ft
55 mph	990 ft
60 mph	1,100 ft
65 mph	1,200 ft
70 mph	1,250 ft
75 mph	1,350 ft



OVERHEAD STREET NAME SIGN DETAIL

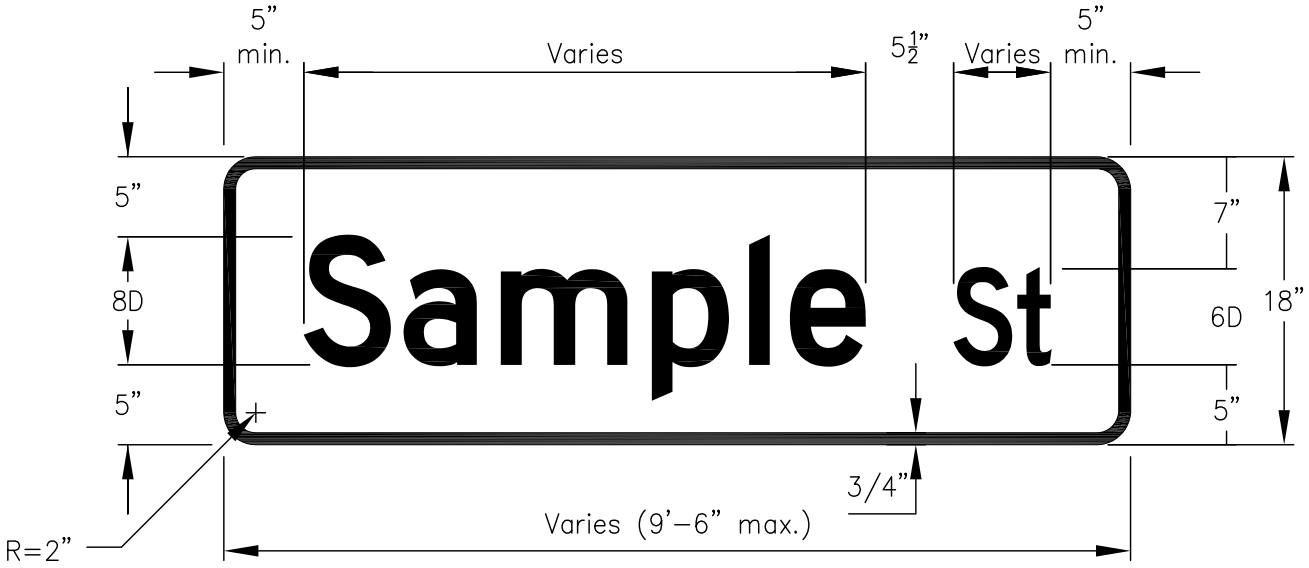
SIGN NOTES

1. Legend shall be the same on both sides of sign.
2. Colors: Legend and Border – white, Background – green.
3. Lettering shall be first letter uppercase/lowercase format.
4. Street name shall conform to the proper Hawaiian spelling as assigned by the County of Hawaii, Planning Department.
5. Include all 'okinas and kahakos.

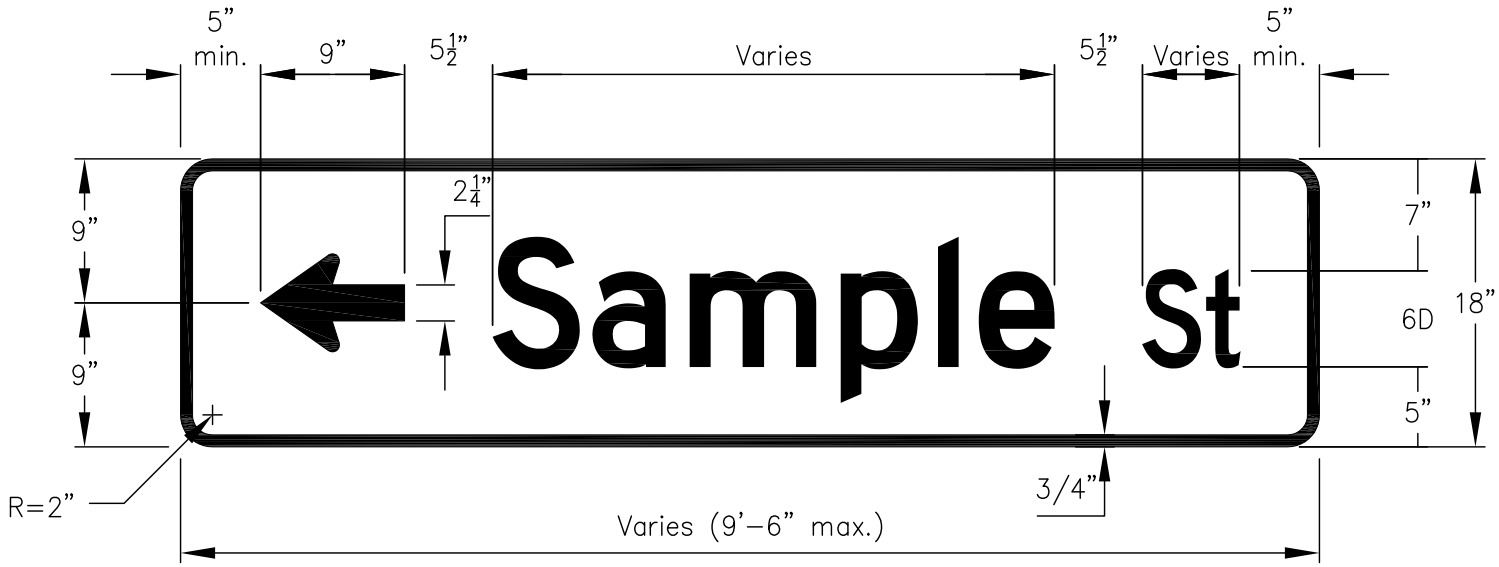
NOTE:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.

COUNTY OF HAWAII	**OVERHEAD STREET NAME SIGN** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=20'	STANDARD DETAILS	TR-17



OVERHEAD STREET NAME SIGN



OVERHEAD STREET NAME WITH DIRECTION ARROW SIGN

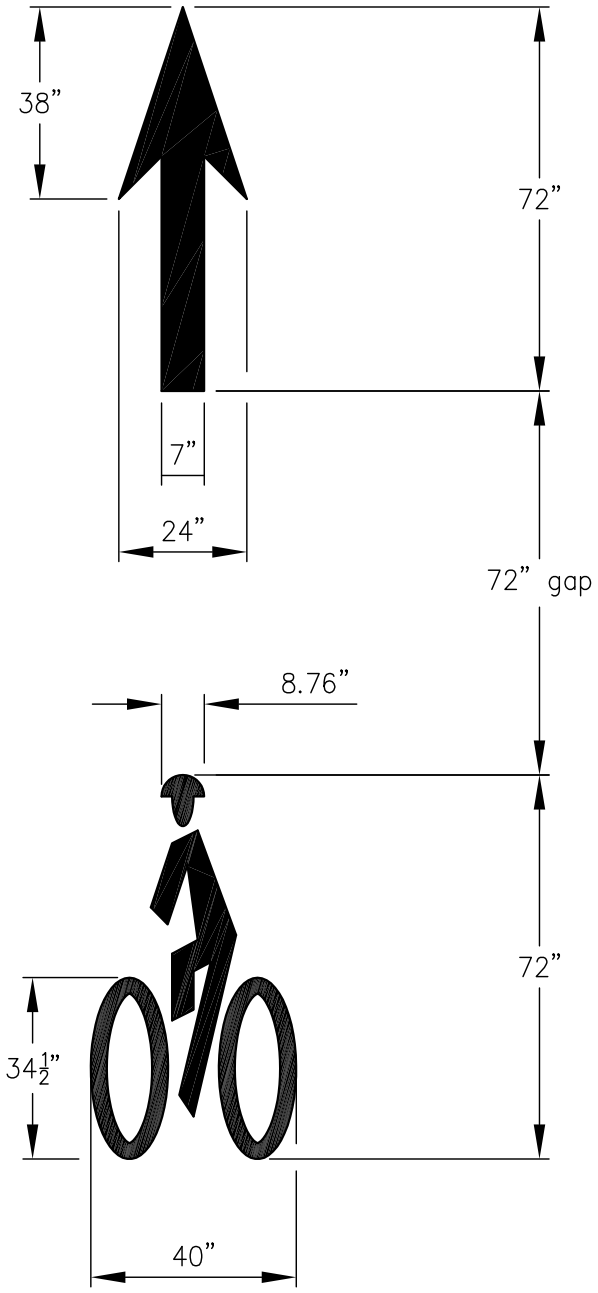
SIGN NOTES

1. Legend shall be same on both sides of sign.
2. Colors: Legend and Border – white, Background – green.
3. Text legend shall be as specified per project.
4. Font size and spacing shall conform to the FHWA "Standard Highway Signs" manual.
5. For installation of sign brackets, refer to State of Hawaii DOT standard detail TE–13.

NOTE:

1. All traffic signs shall be completely reflectorized with Type IV High Intensity retroreflective sheeting.

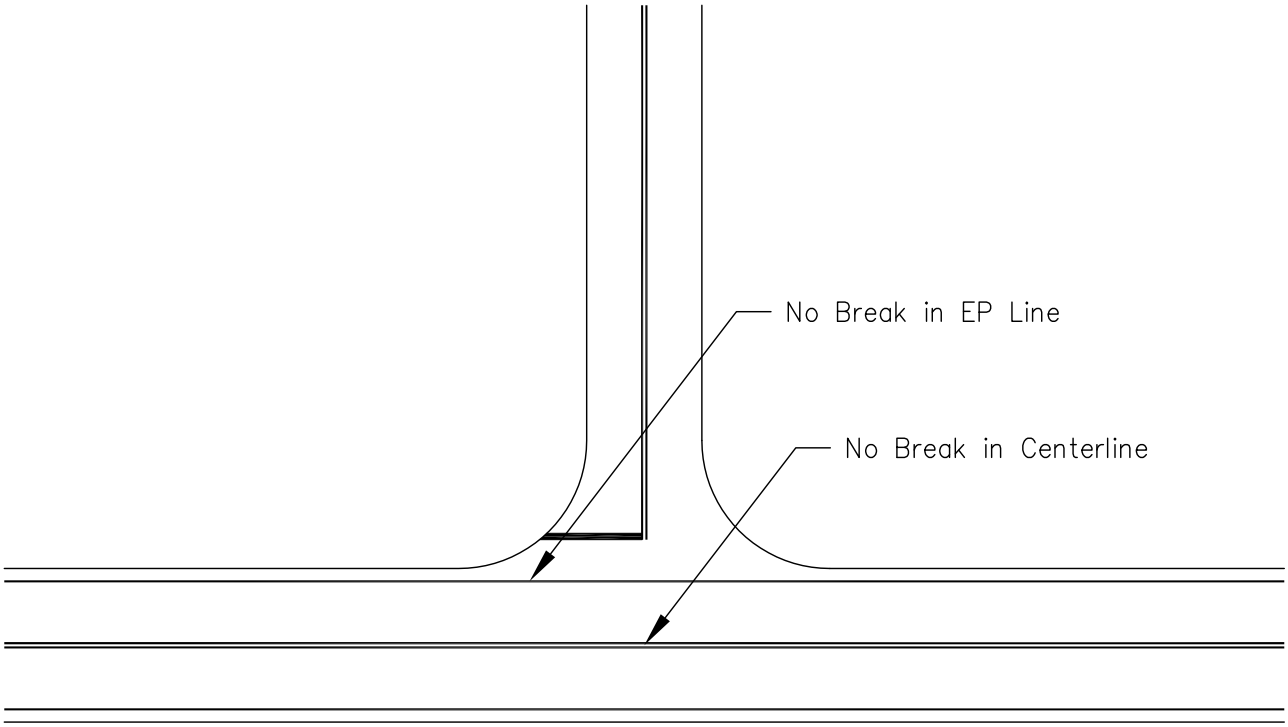
COUNTY OF HAWAII	**OVERHEAD STREET NAME SIGN SAMPLE** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=1'	STANDARD DETAILS	TR-17a



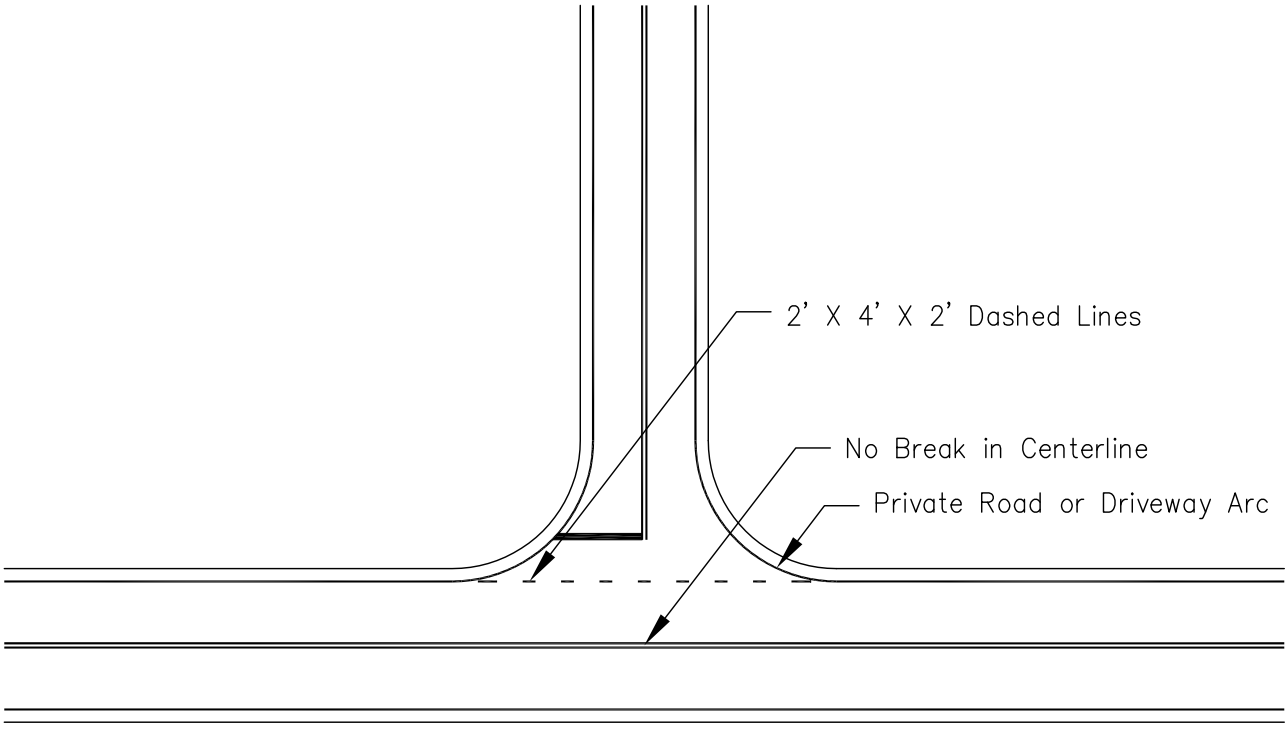
NOTES:

1. Heat applied pre-formed thermoplastic pavement marking tape with visible temperature indicators (or equivalent pavement marking tape) shall be used for all bike lane symbols and legends and shall be made of a durable, high skid-resistant material.

COUNTY OF HAWAII	**BIKE LANE PAVEMENT MARKINGS** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=3'	STANDARD DETAILS	TR-18

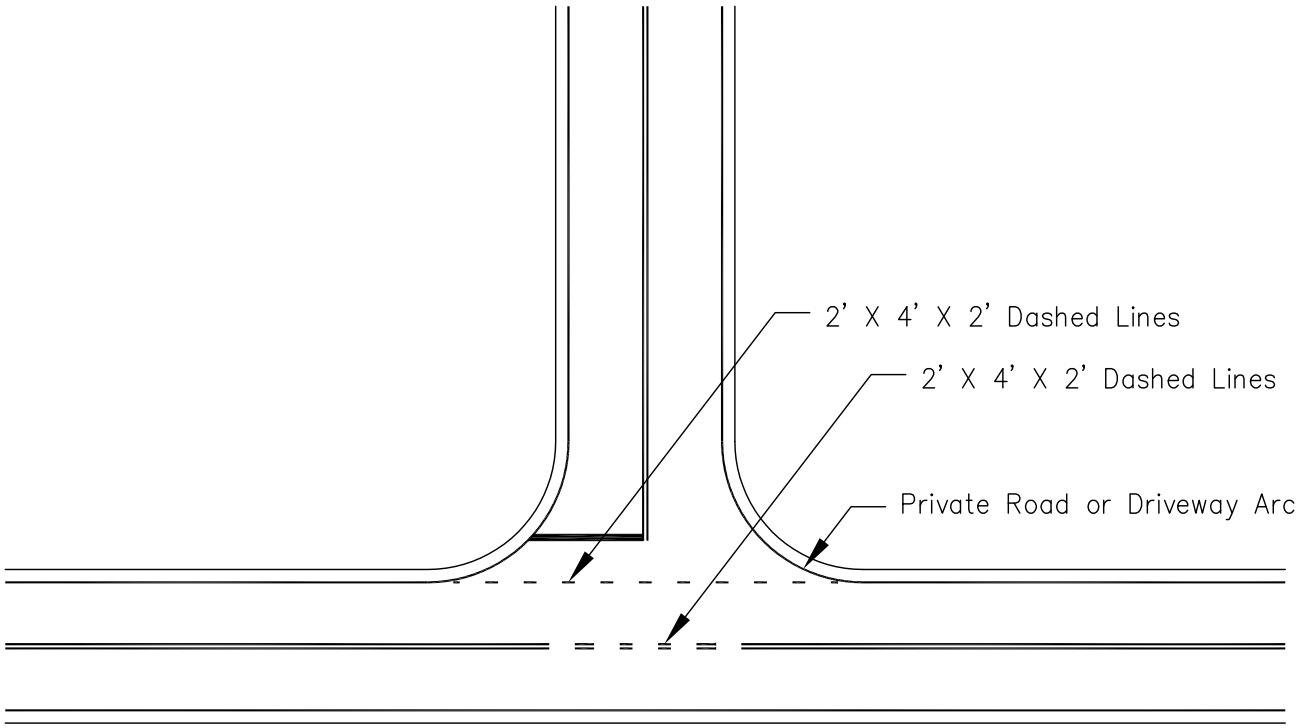


PRIVATE ROAD OR DRIVEWAY
Light Traffic

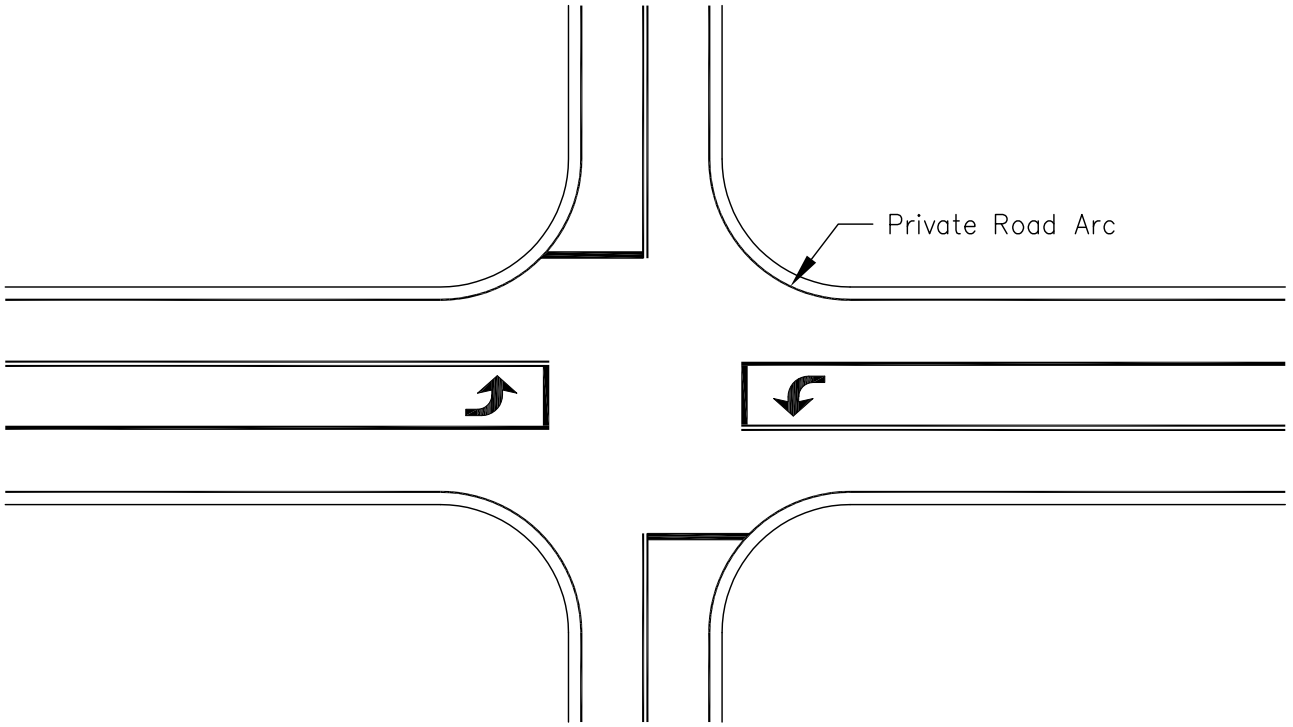


PRIVATE ROAD OR DRIVEWAY WITH ARCS
Light Traffic

COUNTY OF HAWAII	**EP LINES FOR PRIVATE ACCESSES LIGHT TRAFFIC** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=30'	STANDARD DETAILS	TR-19

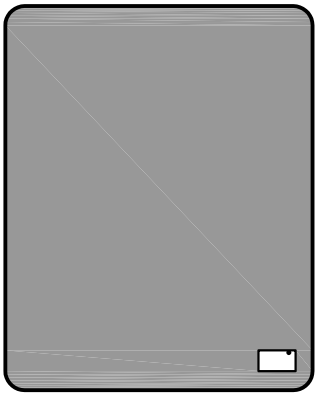


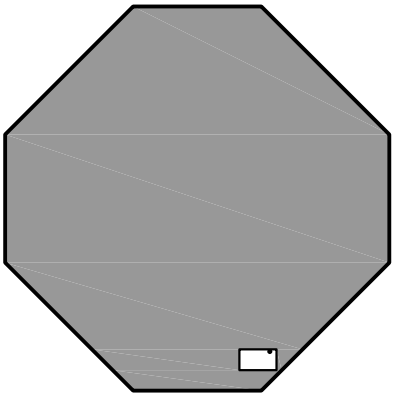
PRIVATE ROAD OR DRIVEWAY
Heavy Traffic Volume

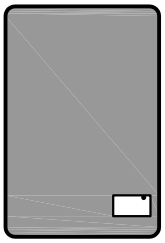


PRIVATE ROAD WITH ARCS AND MAIN STREET LEFT TURN LANES
Heavy Traffic Volume

COUNTY OF HAWAII	**EP LINES FOR PRIVATE ACCESSES HEAVY TRAFFIC** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: 1"=30'	STANDARD DETAILS	TR-19a







NOTES:

1. Install Traffic Division maintenance sticker on the back of each single sided sign.
2. Stickers shall be placed on the bottom right hand corner of the sign.
3. Notch out the number that coincides with the month that the sign was installed on.

COUNTY OF HAWAII	**TRAFFIC DIVISION MAINTENANCE STICKER** APPROVED: _____ TRAFFIC DIVISION DATE: 07-08-20 SCALE: N.T.S.	STANDARD DETAILS	TR-20