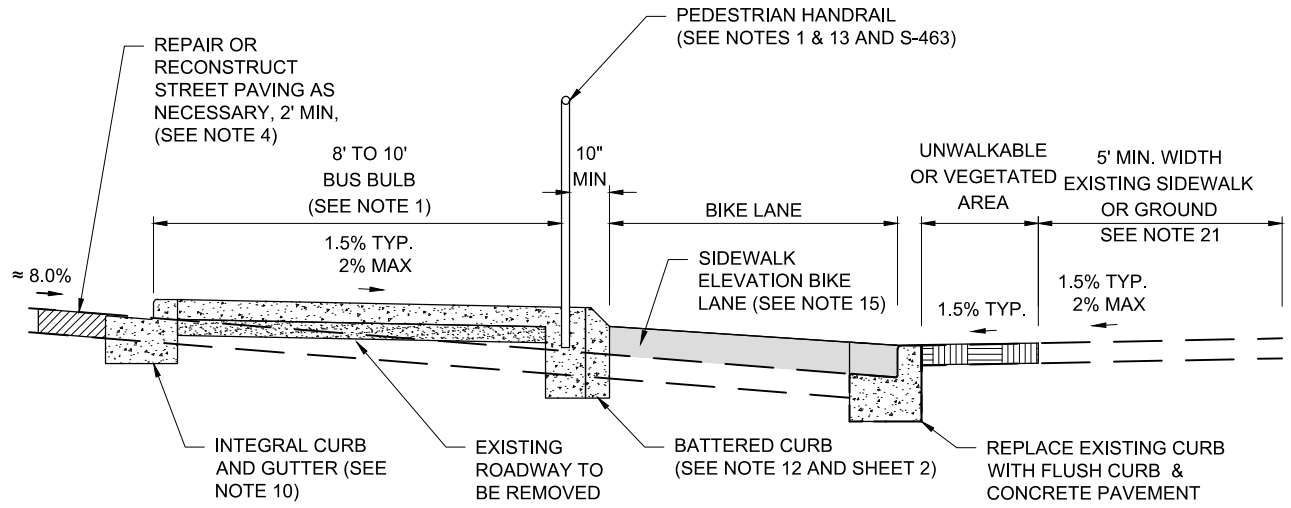
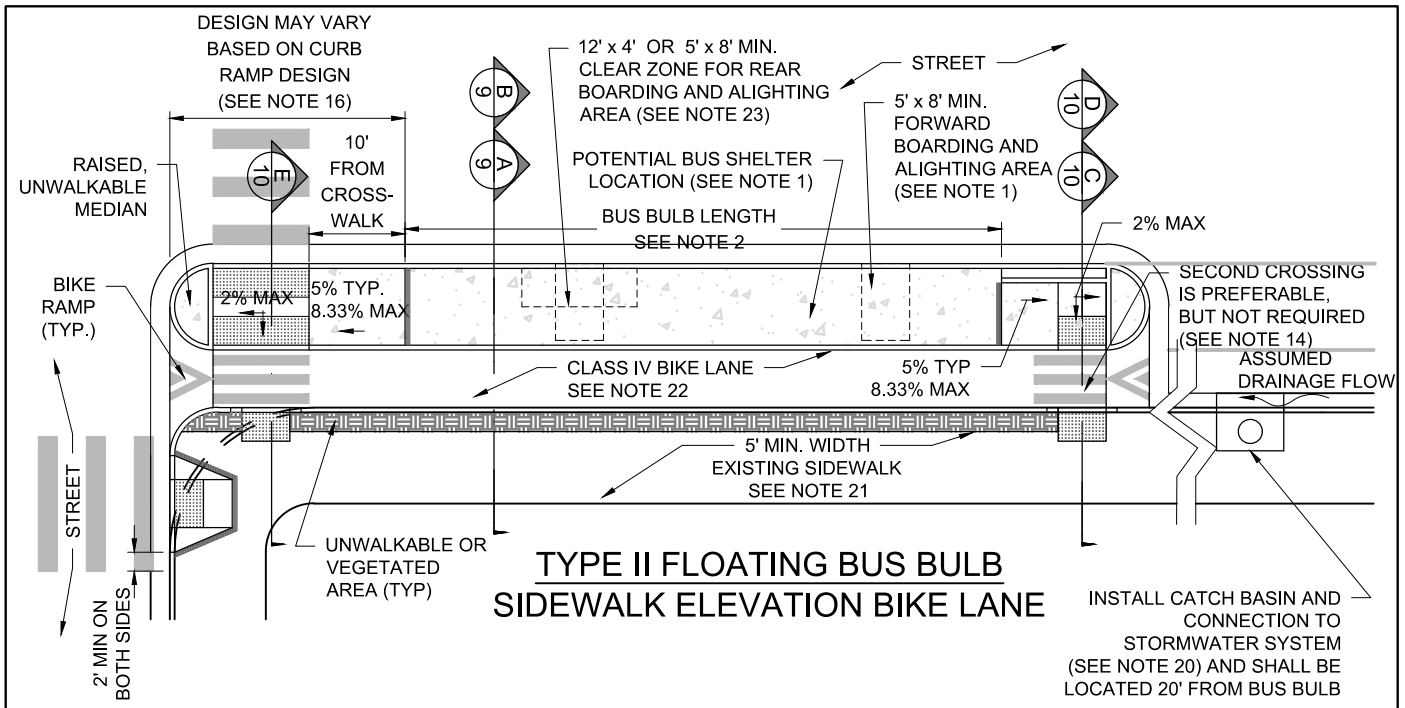
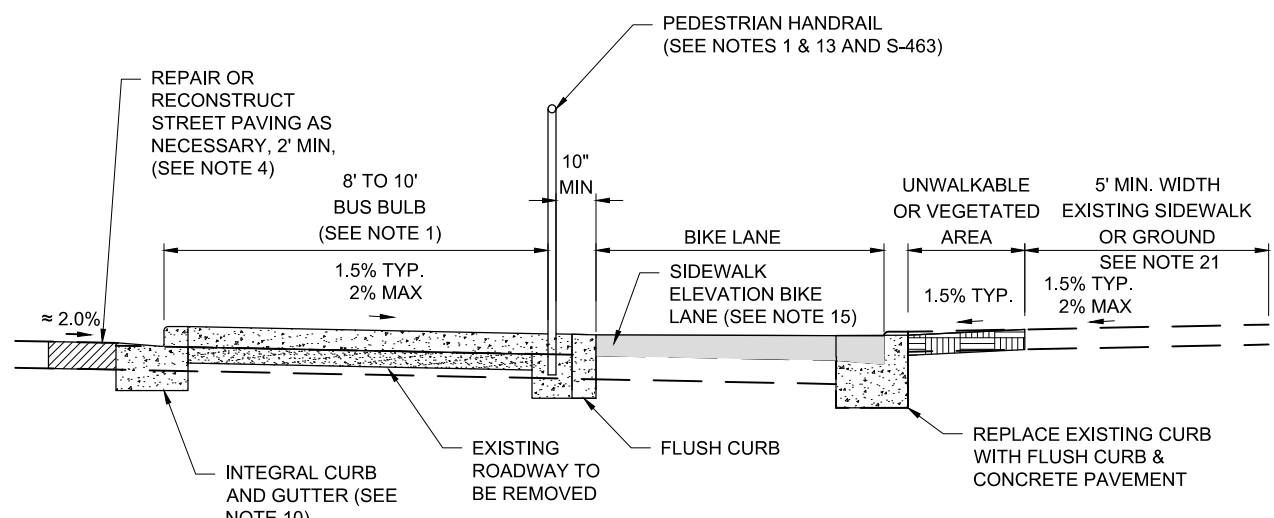


C:\Users\ccueva\Desktop\Cartosa\SSDI\Supplemental Design\Final\Bus Bulbs\_BOE-040220.dwg  
4/2/2020 8:56 PM

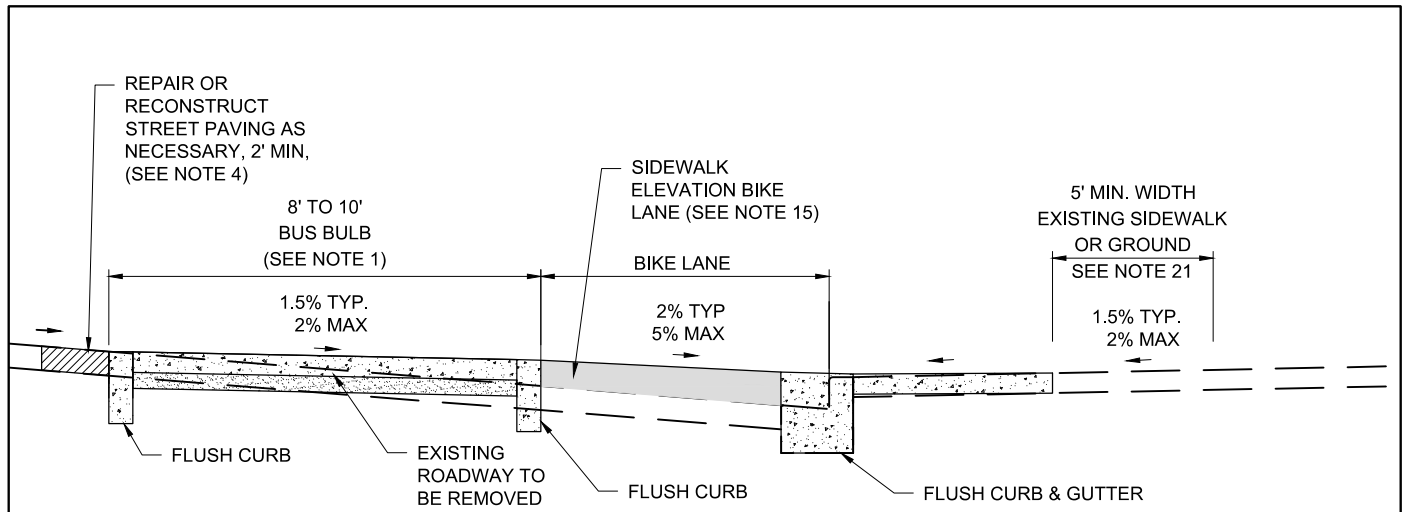


**B** TYPICAL SECTIONS AT FLOATING BUS BULB  
9 STEEP ROAD CROSS SLOPES

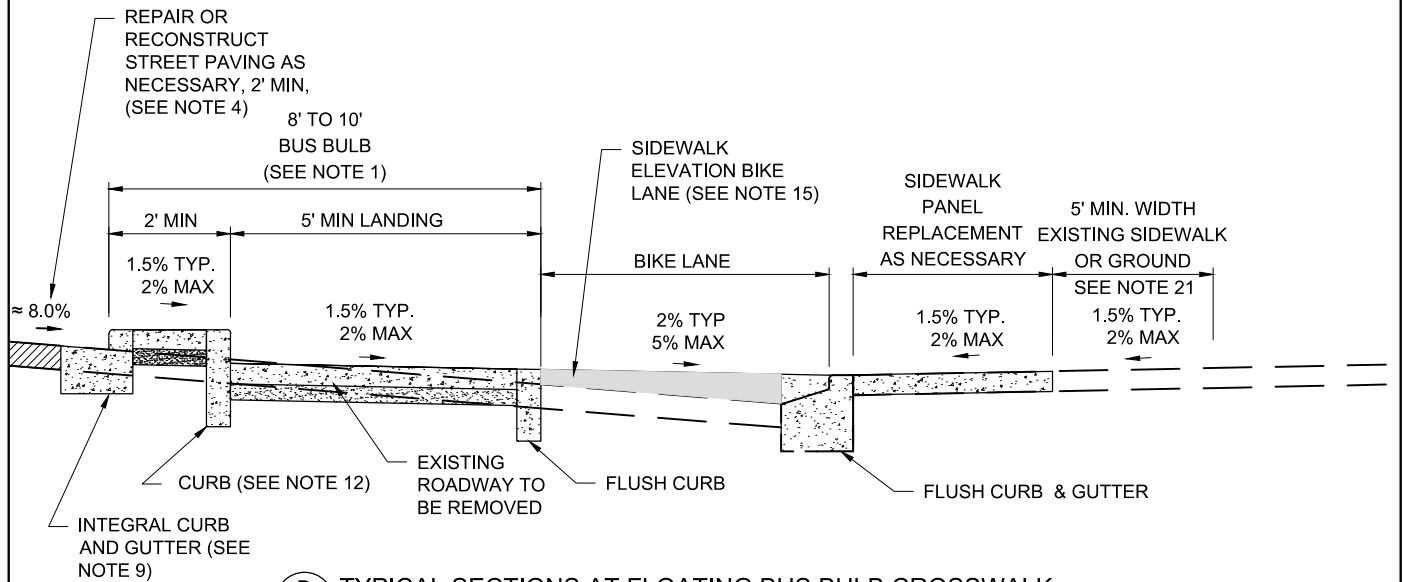


**A** TYPICAL SECTIONS AT FLOATING BUS BULB  
9 SHALLOW ROAD CROSS SLOPES

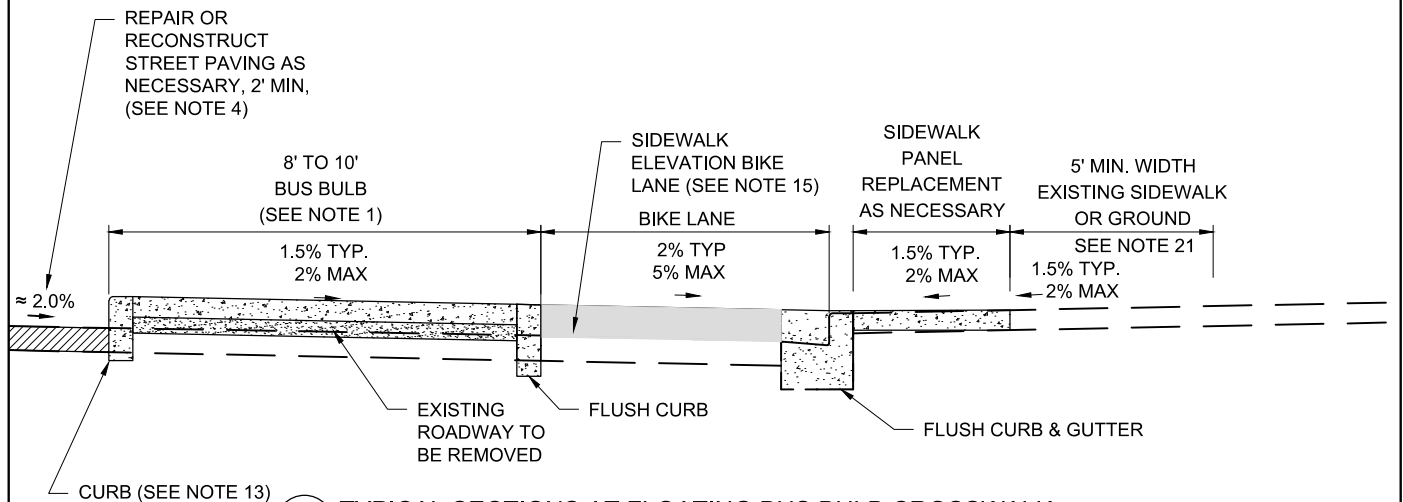
C:\Users\ccueva\Desktop\Carloss\SSDI\Supplemental Design\Final\Bus Bulbs\_BOE-040220.dwg  
4/2/2020 8:55 PM



**E** TYPICAL SECTIONS AT FLOATING BUS BULB INTERSECTION CROSSWALK  
9



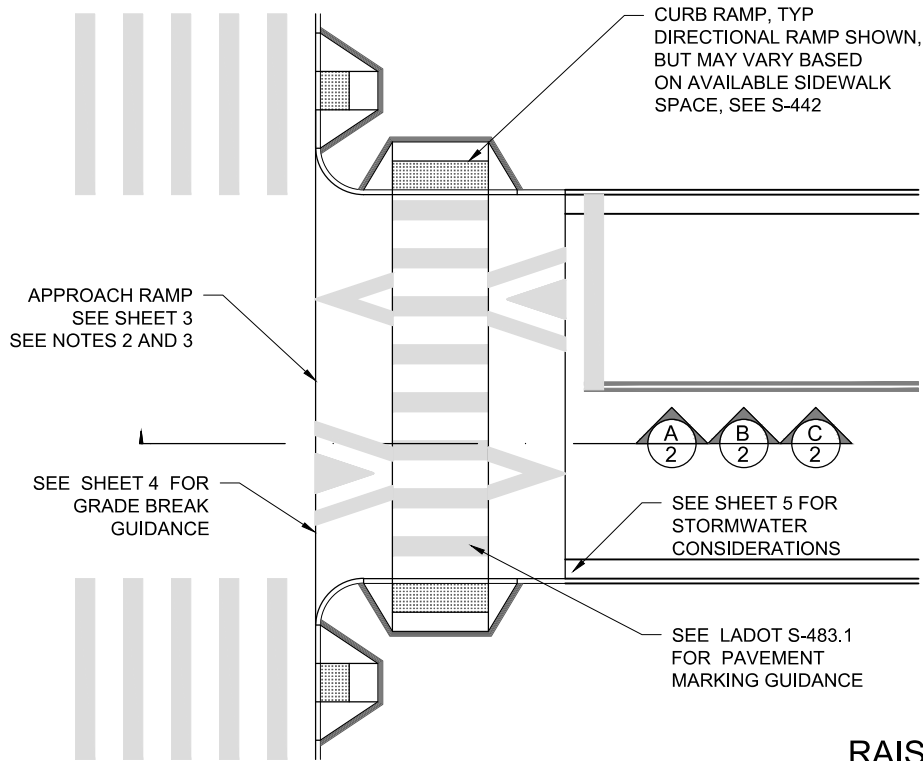
**D** TYPICAL SECTIONS AT FLOATING BUS BULB CROSSWALK  
9 STEEP ROAD CROSS SLOPE



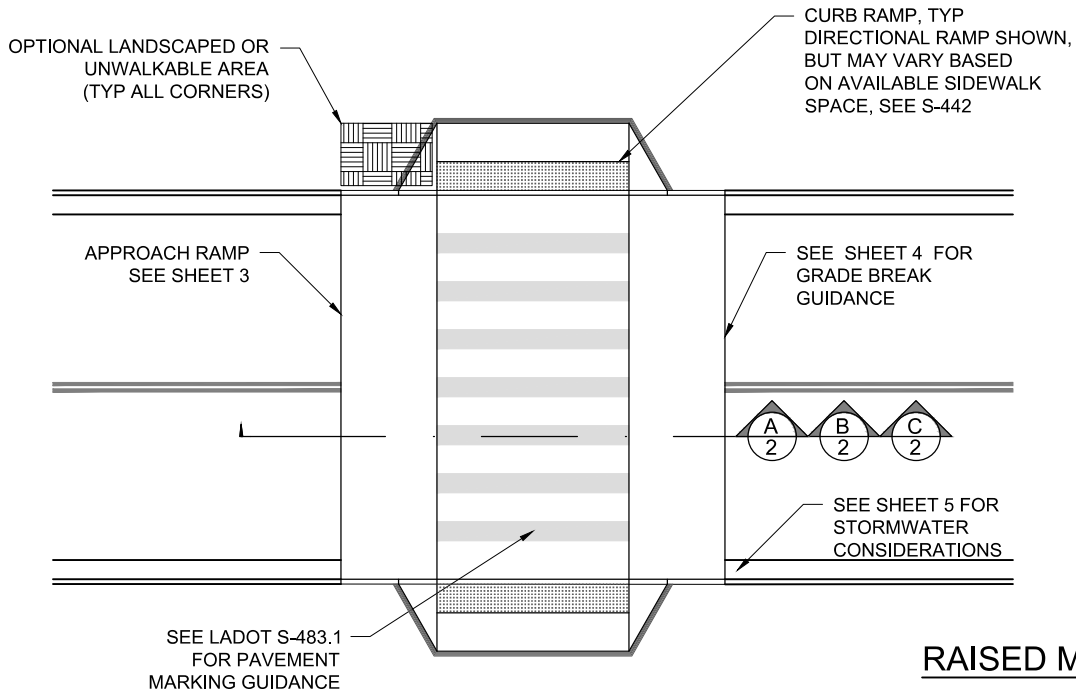
**C** TYPICAL SECTIONS AT FLOATING BUS BULB CROSSWALK  
9 SHALLOW ROAD CROSS SLOPE

C:\Users\ccueva\OneDrive\Desktop\SSDI\Supplemental Design\Final\Bus Bulbs\_BOE-040220.dwg  
4/2/2020 2:10 PM





**RAISED SIDE STREET**



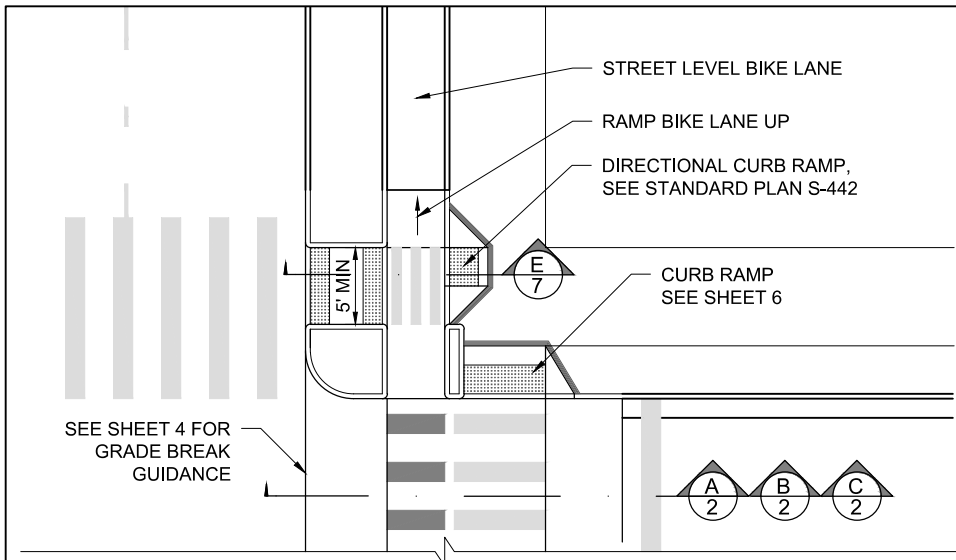
**RAISED MID-BLOCK**

**RAISED CROSSINGS**

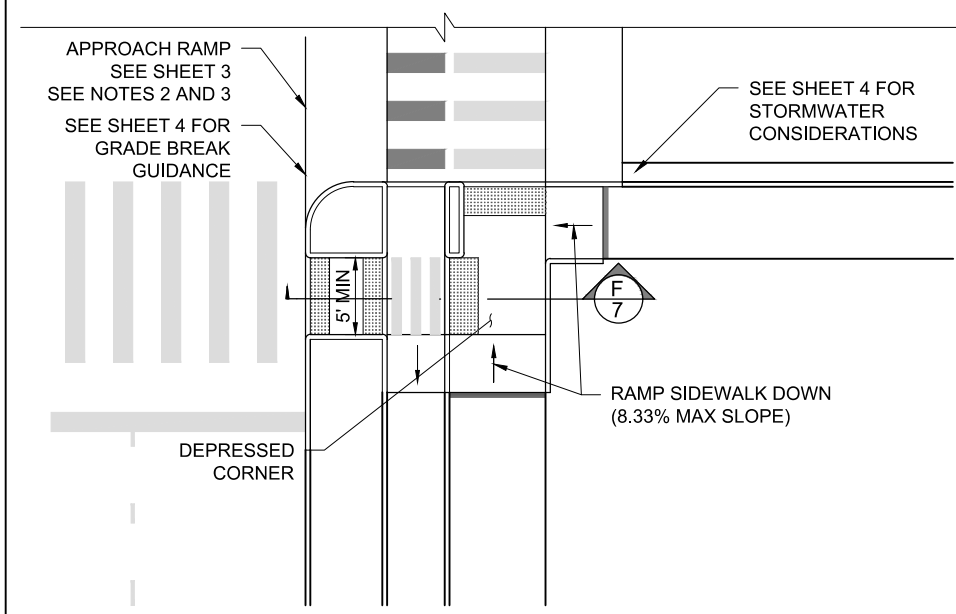
**SUPPLEMENTAL  
DESIGN GUIDE**

**DETAIL 600**

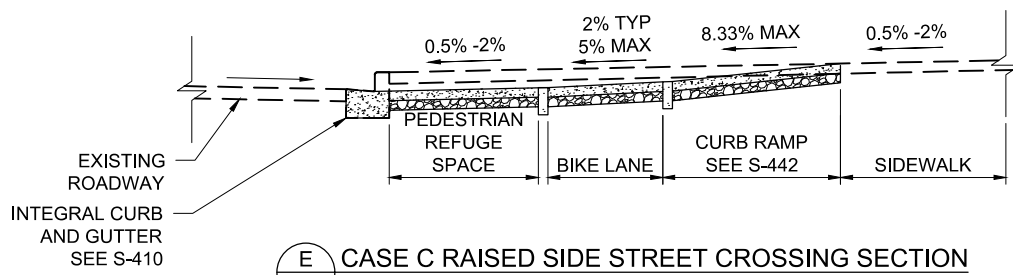
**SHEET 1 OF 8**



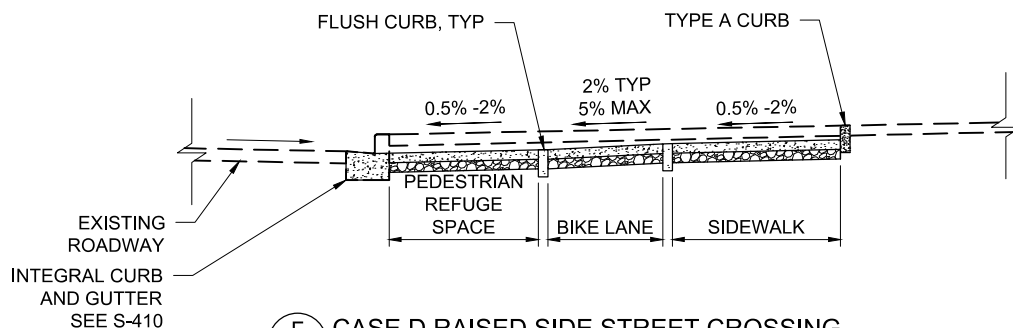
**RAISED SIDE STREET  
WITH PROTECTED  
BIKE LANE  
CURB RAMP APPROACH**



**RAISED SIDE STREET  
WITH PROTECTED  
BIKE LANE  
DEPRESSED  
CORNER APPROACH**



**E**  
**7** CASE C RAISED SIDE STREET CROSSING SECTION  
N.T.S.



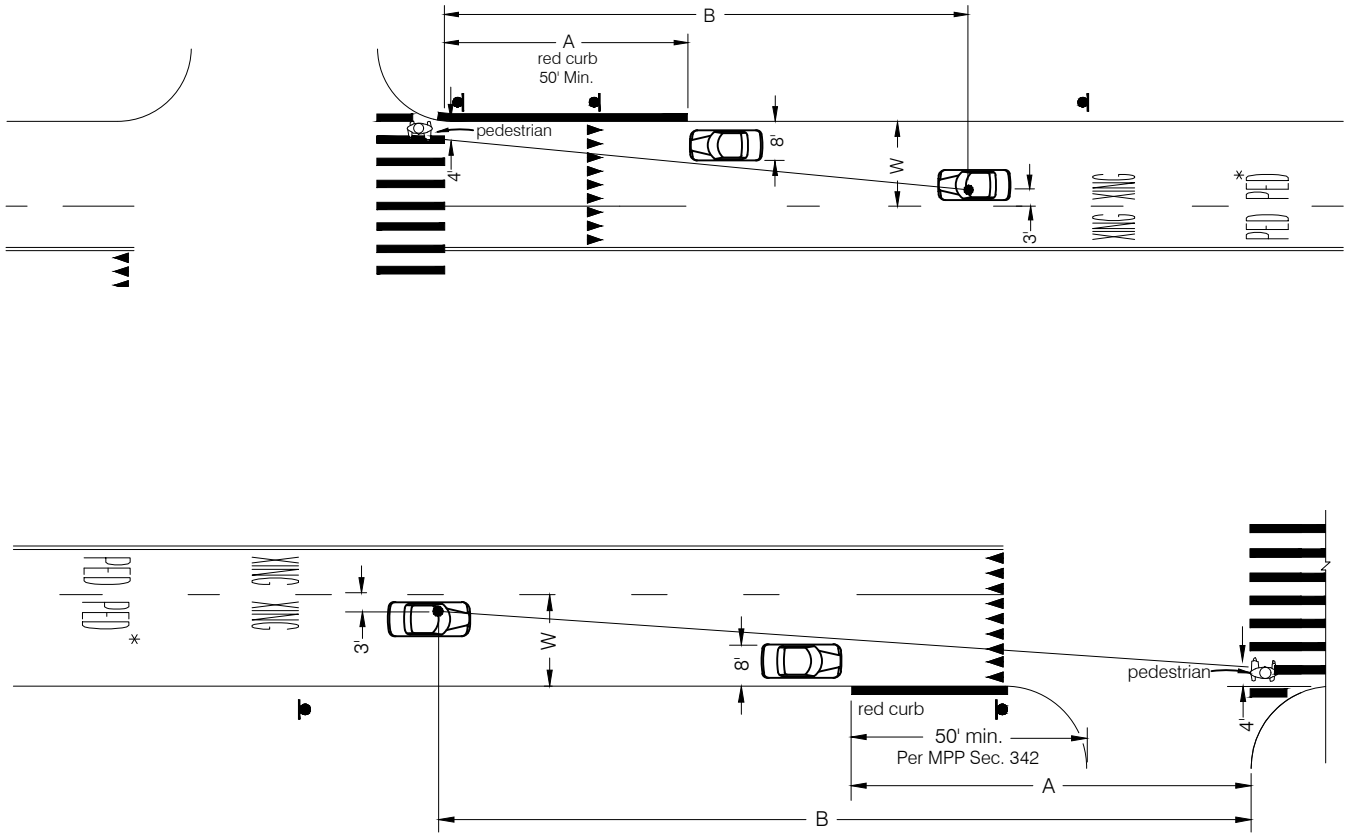
**F**  
**7** CASE D RAISED SIDE STREET CROSSING  
N.T.S.

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4/2/2020 9:15 PM

W (ft)	POSTED SPEED (mph)			
	25	30	35	40
	CALCULATED A DISTANCES (ft)			
18	56	71	88	107
19	51	65	81	98
20	47	60	74	90
21	44	56	69	84
22	41	52	65	78
23	38	49	61	74
24	36	46	57	69

$A = 4B / (W - 7) =$  Curb stopping prohibition necessary for motorist to see a pedestrian at a point 4' into the roadway. LADOT practice is to install 50 feet of red curb on arterial approaches to side streets, measured from the side street curb line prolongation. Install this minimum dimension whenever the calculated A distance results in a lesser dimension. (See Note 1)  
 $B =$  Safe stopping distance  $= 1.47 VT + 1.075 V^2/a$   
 $V =$  Posted speed + 5mph (Chart listings calculated on posted speed + 5mph)  
 $T =$  Perception - Reaction time of 1.5 seconds (Driver previously alerted with advance sign and pavement markings)  
 $a =$  Deceleration rate  $= 11.2 \text{ ft/s}^2$  (ASSHTO Policy on Geometric Design of Highways & Streets, Stopping Sight Distance)  
 $W =$  Curb lane width (Driver is assumed to be 3' from lane line)

POSTED SPEED (mph)	B (ft)
25	153
30	195
35	242
40	294



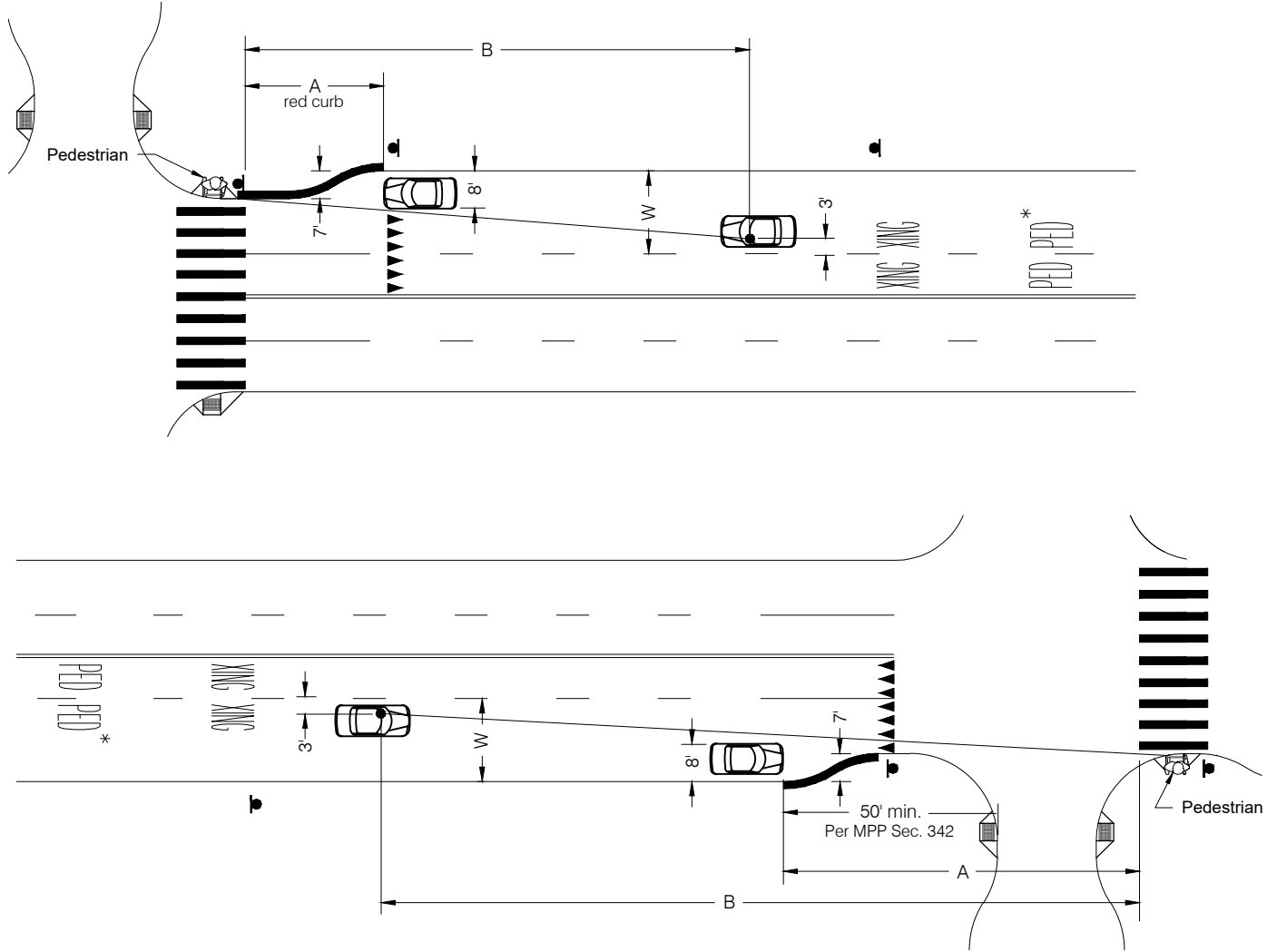
**NOTES:**

- ONE-WAY STREETS**  
 Because one-way streets place drivers closer to the curb on the left side of the roadway, use  $A = 4B / (W - 11)$  for left side pedestrian approach. This distance is not shown above.
- SIGNS**  
 See Sheet 1 for appropriate signs.

W (ft)	POSTED SPEED (mph)			
	25	30	35	40
	CALCULATED A DISTANCES (ft)			
18	19	24	30	37
19	17	22	27	33
20	15	20	24	29
21	14	18	22	27
22	13	16	20	25
23	12	15	19	23
24	11	14	17	21

$A=B/(W-10)$  = Curb stopping prohibition necessary for a motorist to see a pedestrian at the curblines of the curb extension. This formula assumes that the curb extension is 7' wide compared to the 8' wide parking lane.

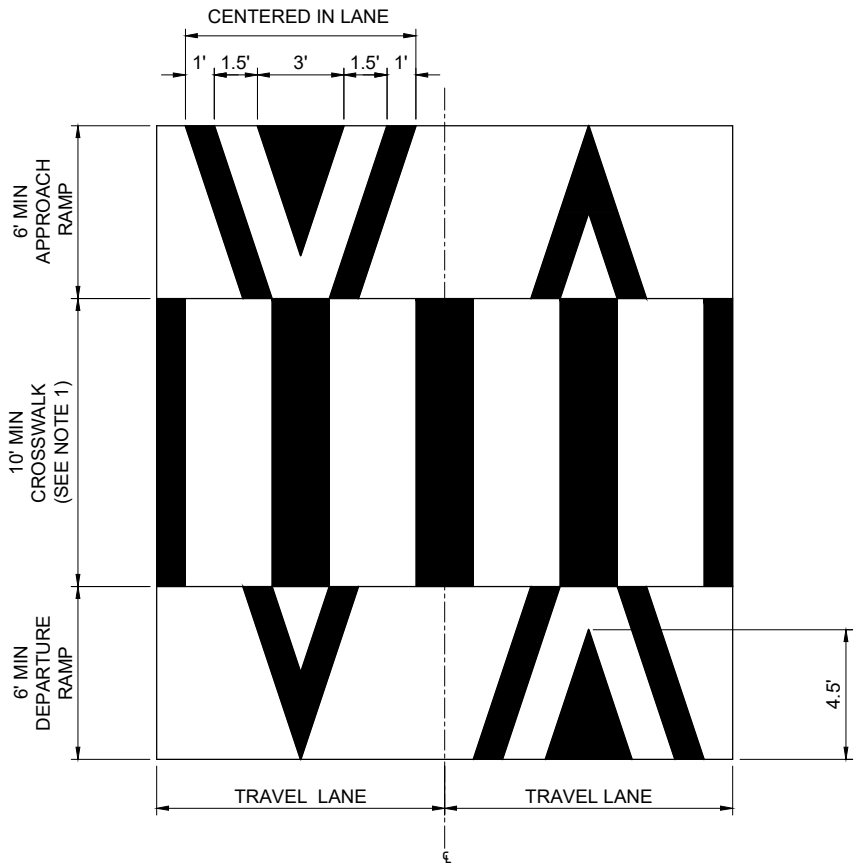
POSTED SPEED (mph)	B (ft)
25	153
30	195
35	242
40	294



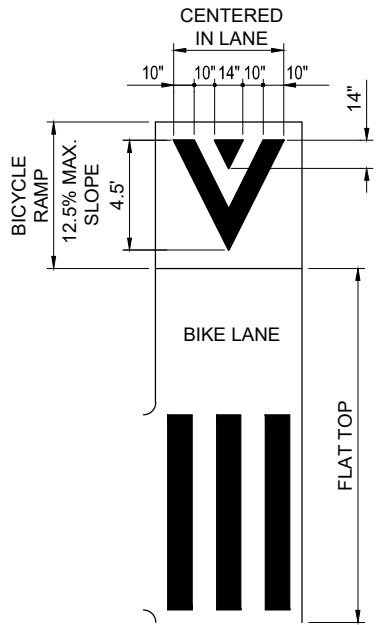
**NOTES:**

- SIGNS**  
See Sheet 1 for appropriate signs.

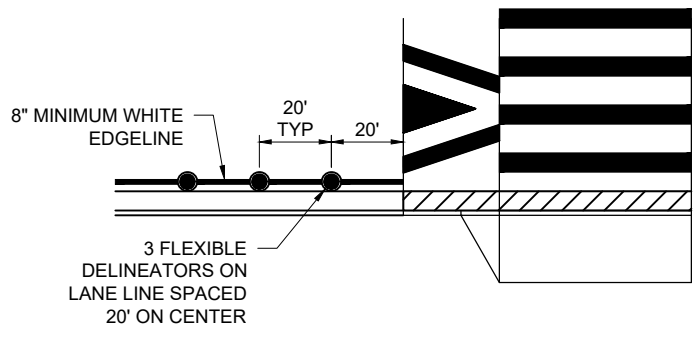




**RAISED CROSSWALK MARKING (CHEVRON III)**

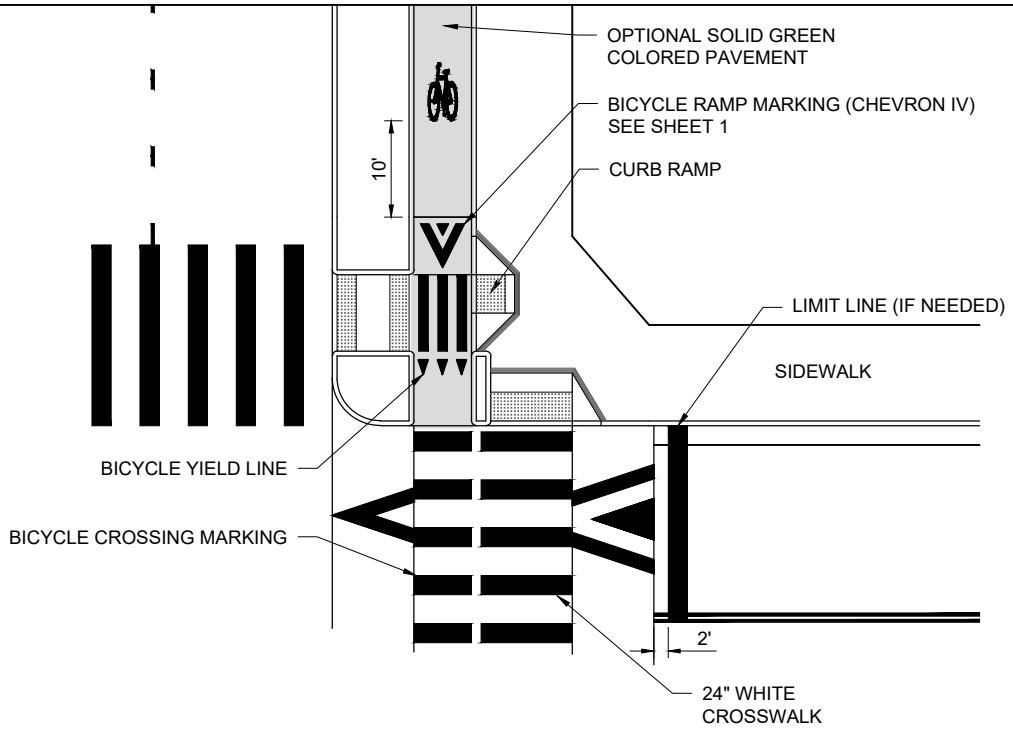


**BICYCLE RAMP MARKING (CHEVRON IV)**

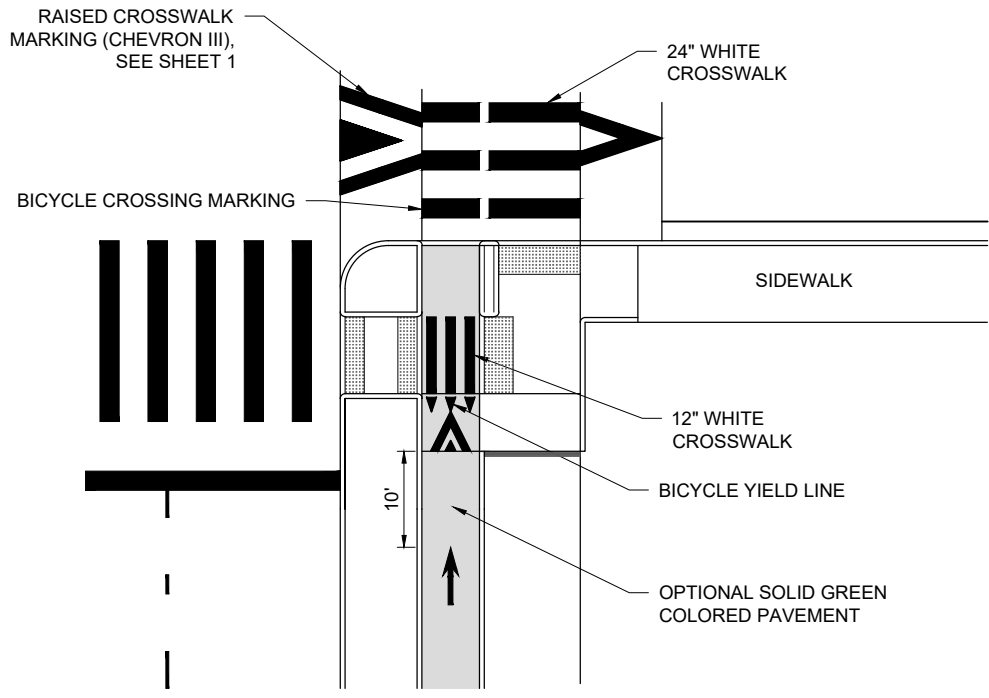


**SIDEWALK CULVERT MARKINGS**

APPROVED		02-20-2020
for <b>Seleta Reynolds, General Manager</b>		
CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION		
RAISED CROSSWALKS		1 3
CKD. Priv. Engr.	SR. T.E. JV	PR. T.E. BS
DWN. Priv. Engr.	T.E. MN	S-483.1



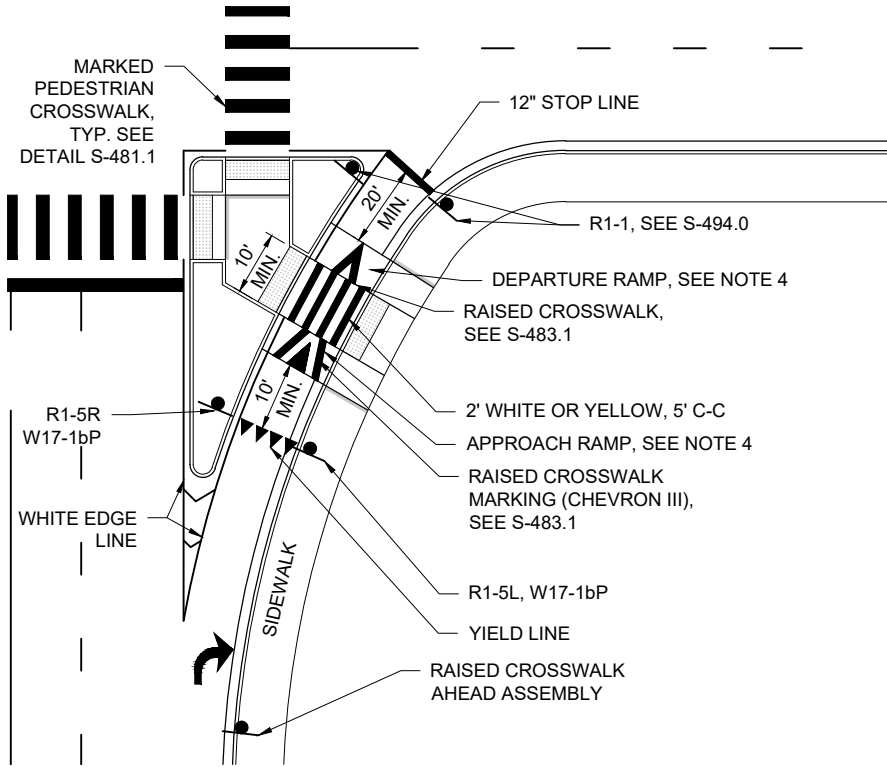
**RAISED SIDE STREET CROSSWALK  
STANDARD CURB RAMP**



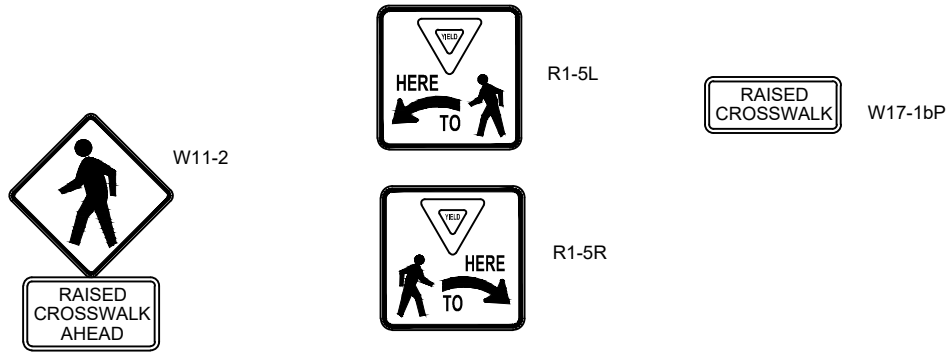
**RAISED SIDE STREET CROSSWALK  
DEPRESSED CORNER**

**NOTES**

1. THE WIDTH OF THE TOP OF RAISED CROSSWALKS SHOULD MATCH THE WIDTH OF THE CONNECTING SIDEWALK, SHARED USE PATH, OR DESIRED CROSSWALK, BUT NOT LESS THAN 10' IN WIDTH.
2. THE PLACEMENT OF ADVANCED WARNING SIGNS AND MARKINGS SHALL FOLLOW THE GUIDANCE FOR ADVANCED SIGN POSTING (C\*\*) SHOWN ON S-481.0.
3. SEE CITY OF LOS ANGELES SUPPLEMENTAL STREET DESIGN GUIDE, DETAIL 600 FOR RAISED CROSSING DETAILS.

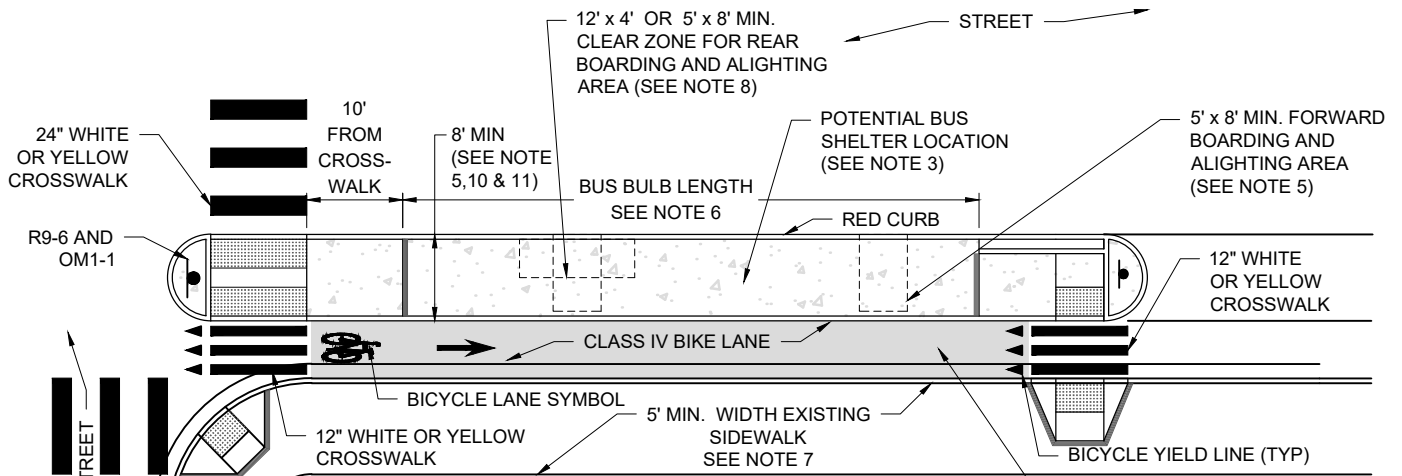


**PEDESTRIAN ISLAND CHANNELIZED RIGHT TURN**

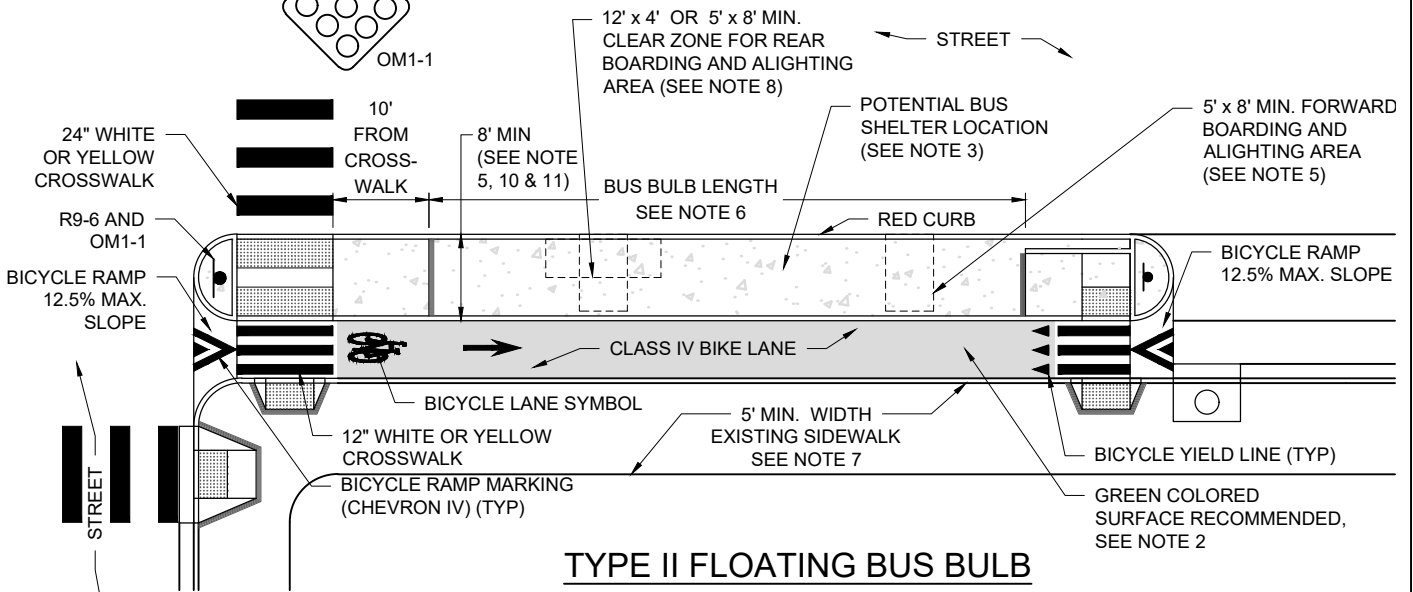
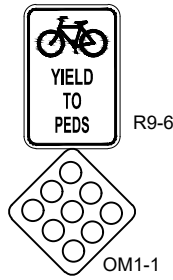


**RAISED CROSSWALK AHEAD  
ASSEMBLY DETAIL**

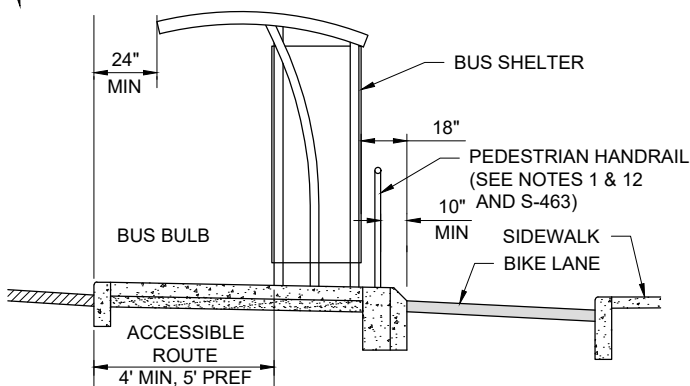
APPROVED		02-20-2020
for <b>Seleta Reynolds, General Manager</b>		
CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION		
CHANNELIZED RIGHT TURNS WITH RAISED CROSSWALKS		1 2
CKD. Priv. Engr.	SR. T.E. JV	PR. T.E. BS
DWN. Priv. Engr.	T.E. MN	S-494.1



**TYPE II FLOATING BUS BULB  
STREET ELEVATION BIKE LANE  
INTEGRATED WITH STREET CROSSING**

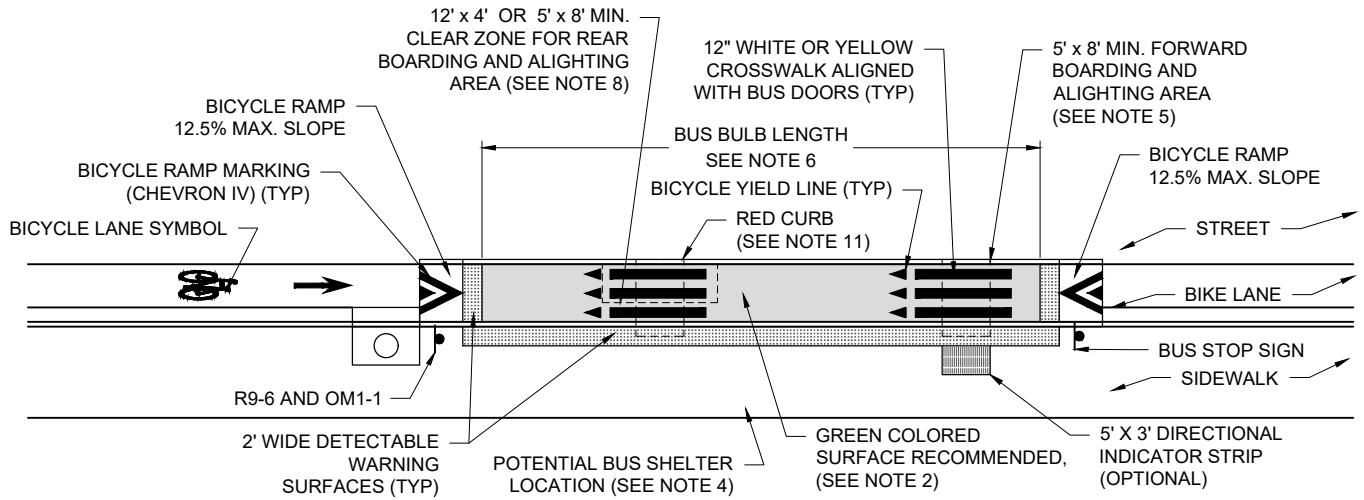


**TYPE II FLOATING BUS BULB  
INTERMEDIATE ELEVATION BIKE LANE**

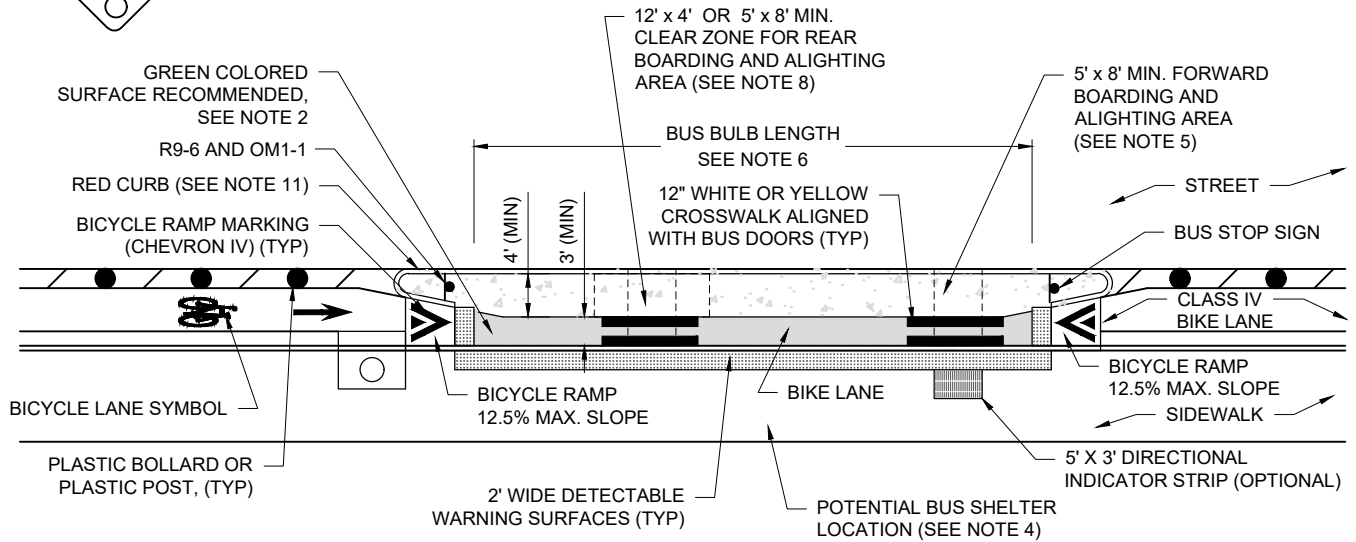
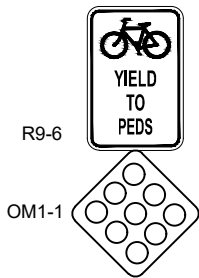


**SHELTER AND RAILING  
PLACEMENT GUIDANCE**

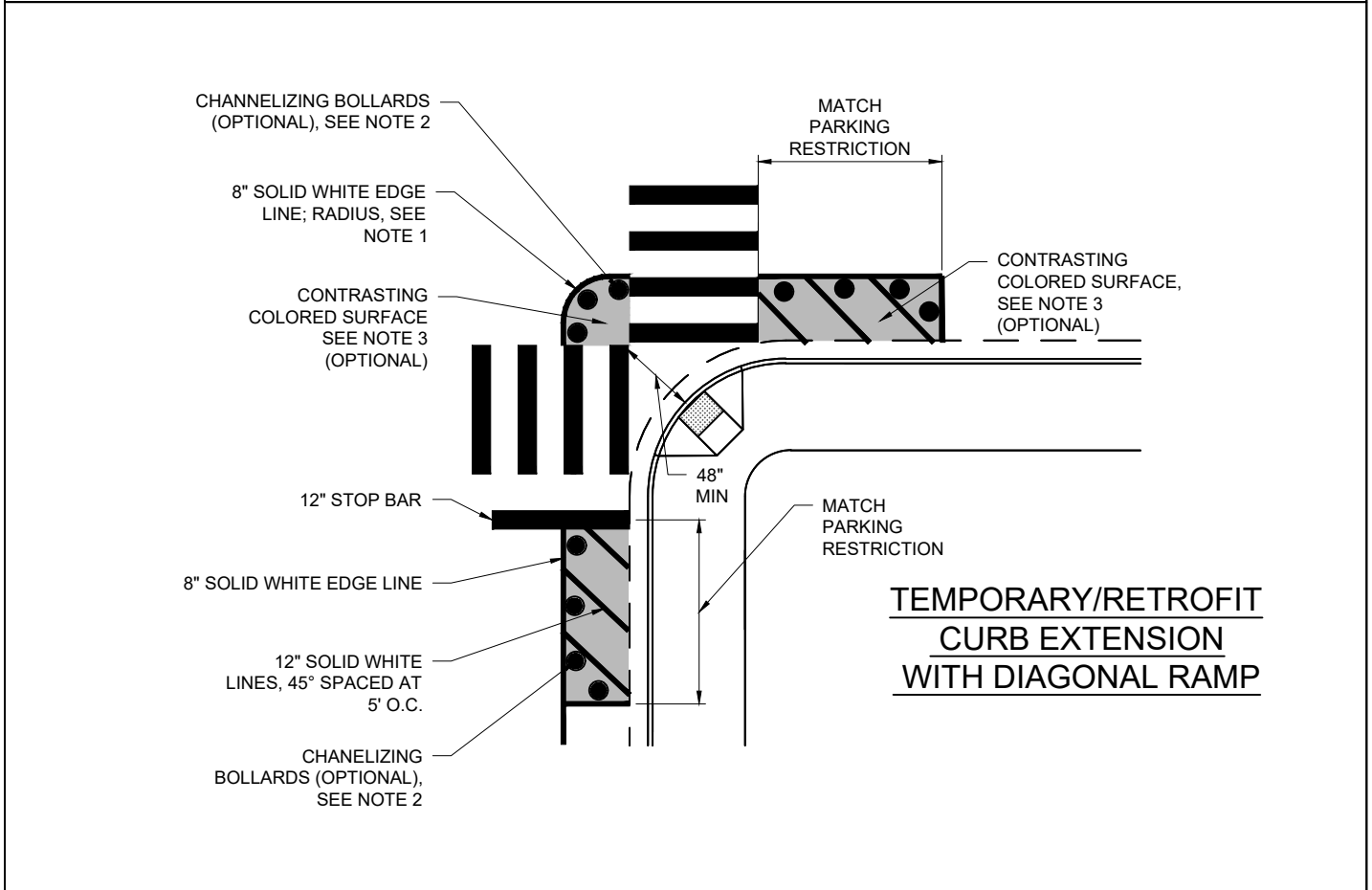
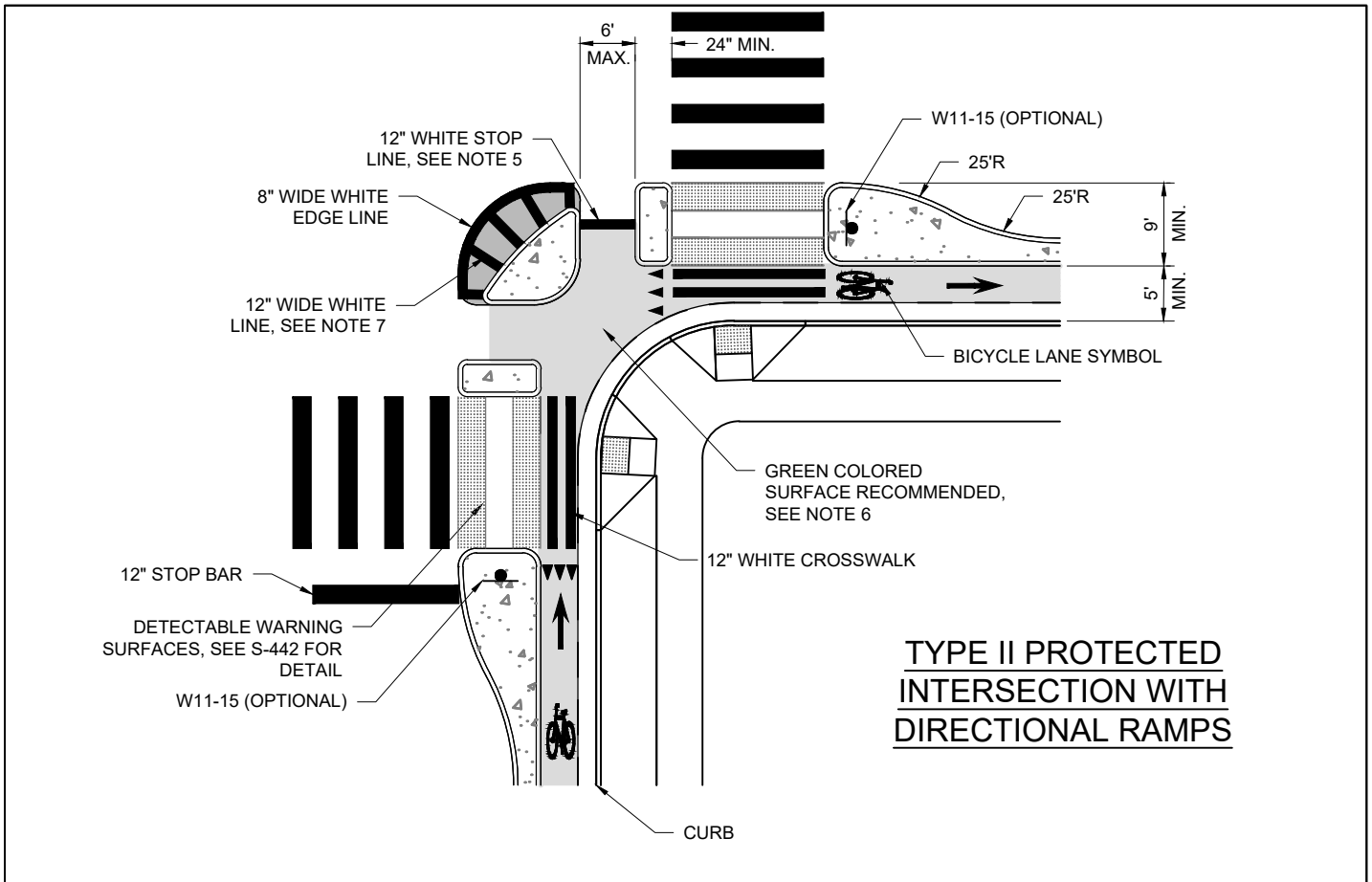
APPROVED		02-20-2020
for <b>Seleta Reynolds, General Manager</b>		
CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION		
BUS BULBS		1 4
CKD. Priv. Engr.	SR. T.E. JV	PR. T.E. BS
DWN. Priv. Engr.	T.E. MN	S-523.0



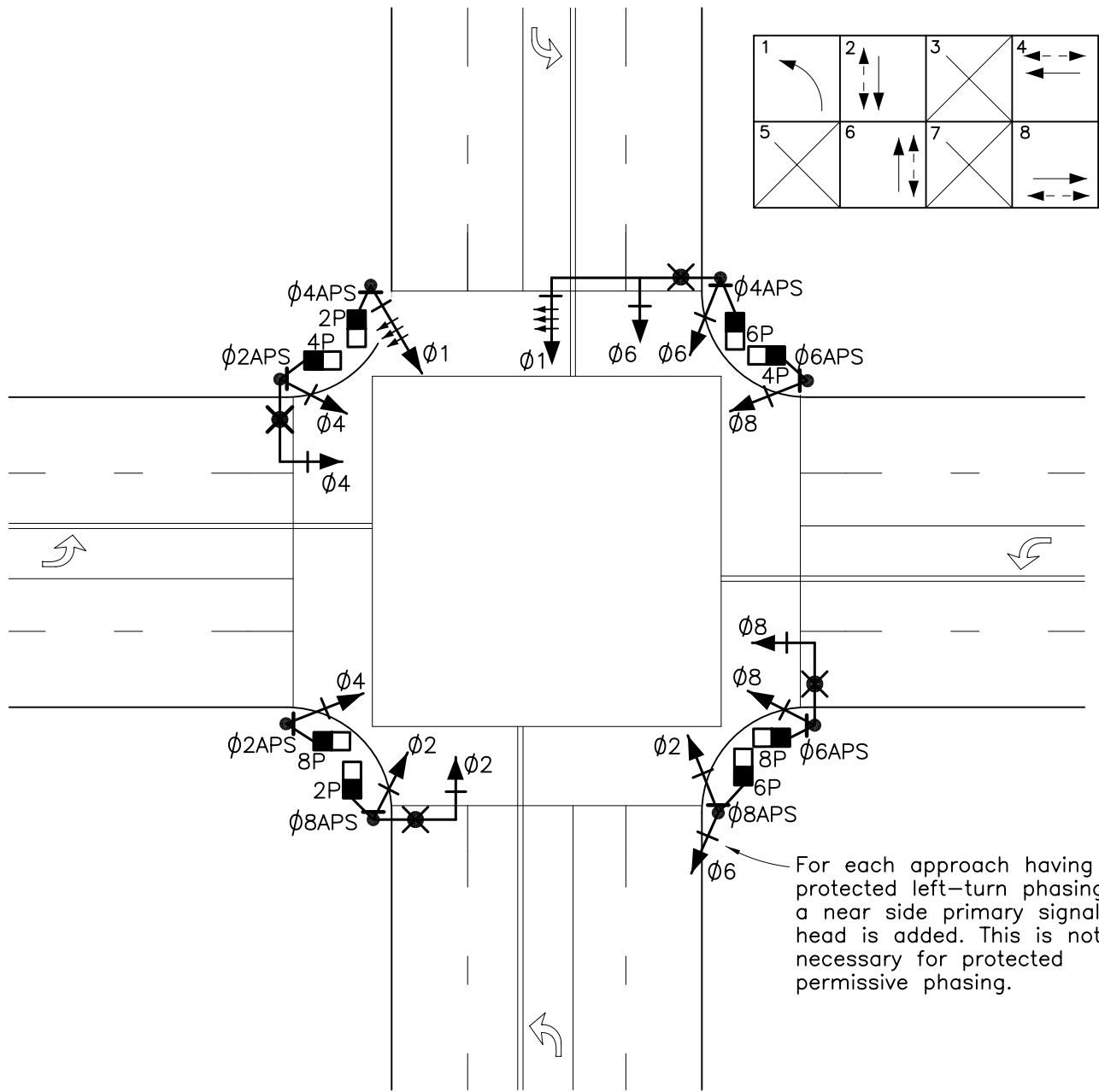
**CONSTRAINED TYPE II BUS BULB  
RAISED BIKE LANE**



**CONSTRAINED TYPE II BUS BULB  
RAISED BIKE LANE WITH NARROW BOARDING AND ALIGHTING AREA**



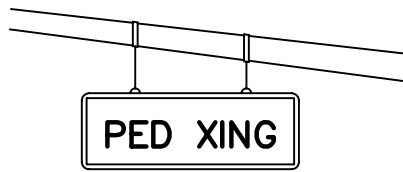
CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION	Title CURB EXTENSIONS	Drawing No. S-527.0	2 3
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### Left-Turn Phasing

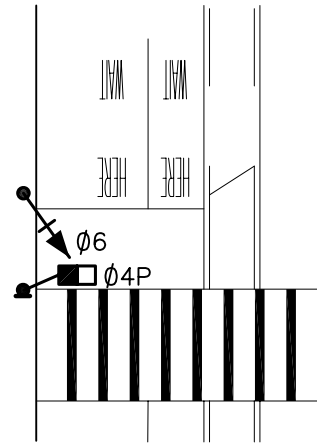
**Notes:**

1. Protected left-turn phasing is shown. See S-65.0 for mastarm head placement for other types of left-turn phasing.
2. This drawing is not intended to show the required safety lighting design. Final lighting designs may not include the depicted mastarm lighting and likely will include other lighting locations not shown.

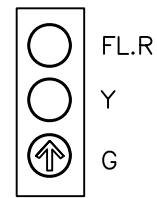
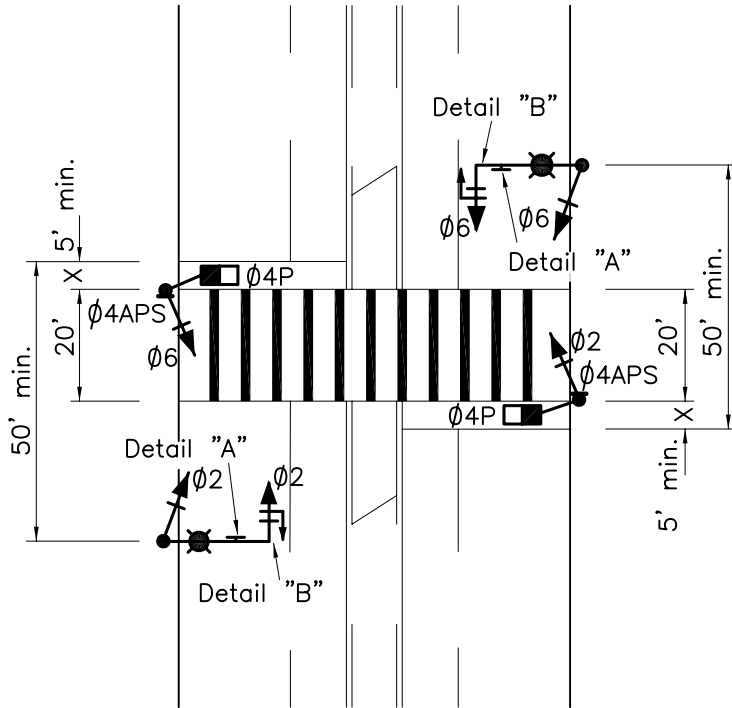


Black letters on yellow background  
Detail "A"

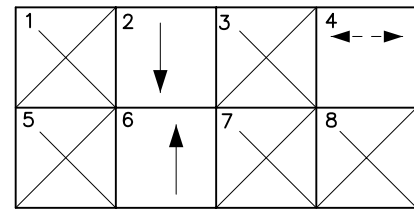
X > 10'  
See Note 3



Detail "C"



Detail "B"



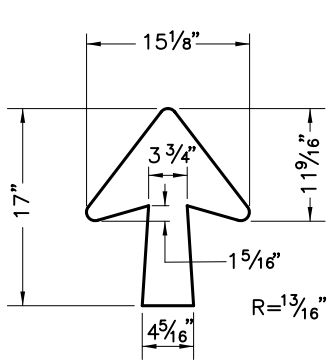
### Signalized Midblock Crosswalk -Two Way Street

Notes:

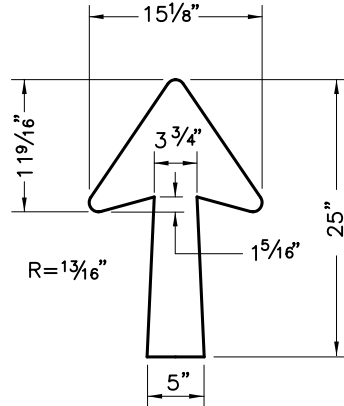
1. Signal equipment should be combined with street lighting where feasible.
2. See S-493.0, Cases 13 & 14 for limit line locations. See S-481.0 for ladder crosswalk detail.
3. Where X is greater than 10', install a pole for the pedestrian head at the location shown, and a separate pole for the secondary vehicle head at the limit line, as shown in Detail "C".
4. This drawing is not intended to show the required safety lighting design. Final lighting designs may not include the depicted mastarm lighting and likely will include other lighting locations not shown.
5. During Phase 4 pedestrian sequence, Phases 2 & 6 receive a flashing red signal display.



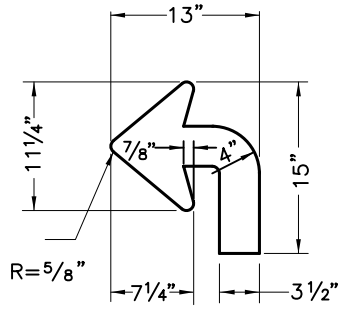
# Arrow Styles & Specifications



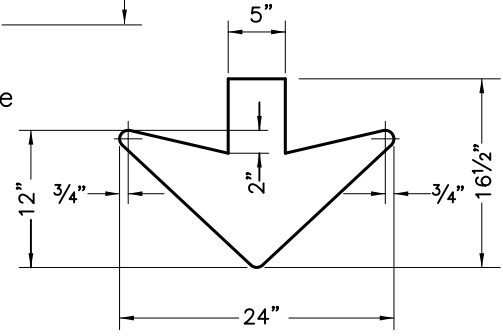
One Line



Two Line

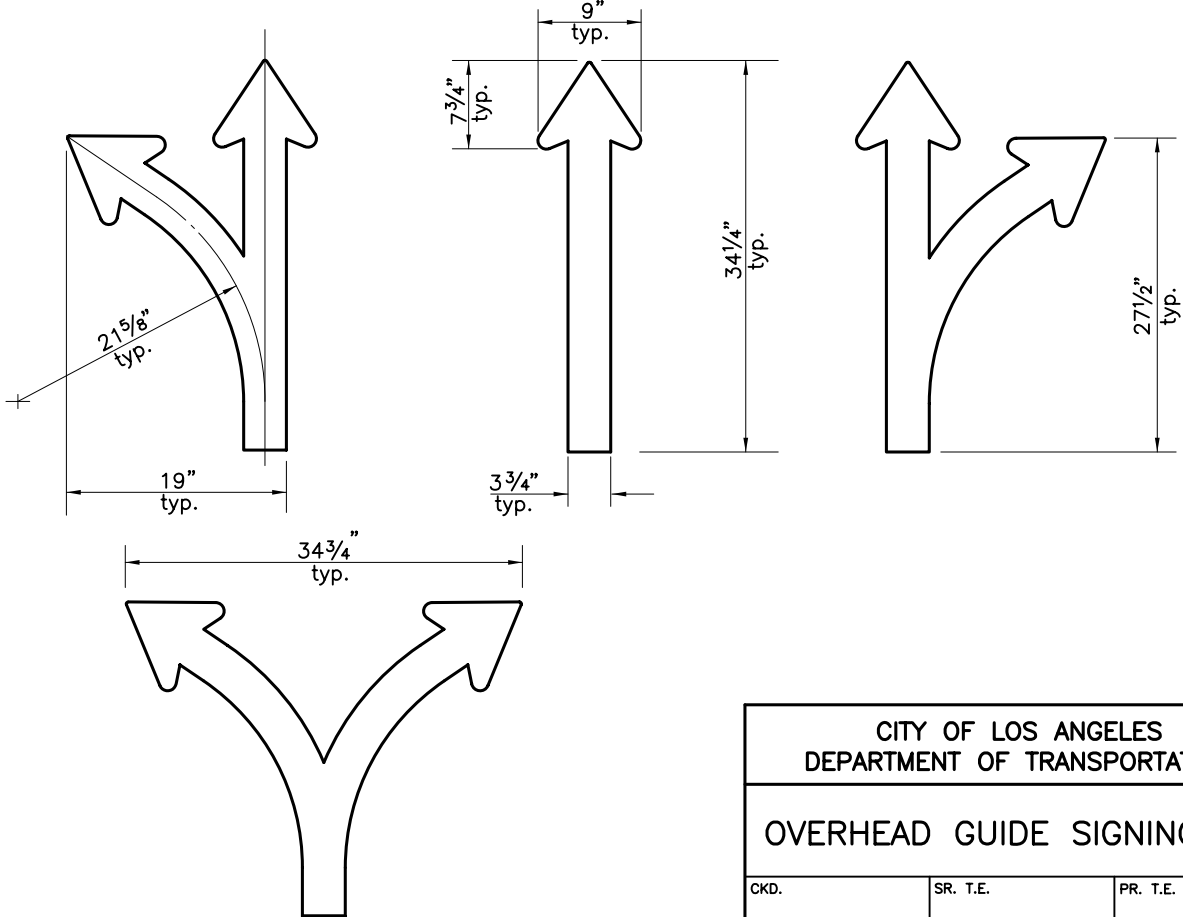


Advance Arrow



Down Vertical Arrow

## Diagrammatic Arrows



CITY OF LOS ANGELES  
DEPARTMENT OF TRANSPORTATION

OVERHEAD GUIDE SIGNING

4  
16

CKD.

SR. T.E.

PR. T.E.

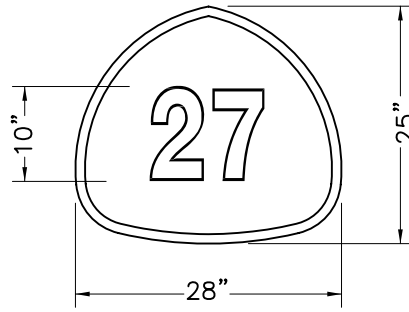
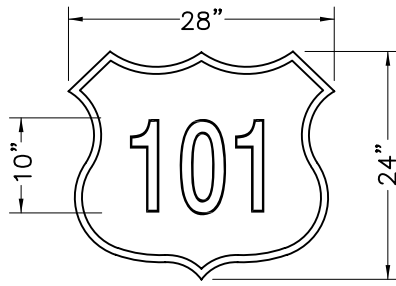
DWN.

M.T.

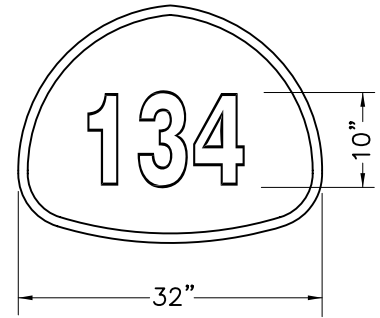
T.E.

S-418.6

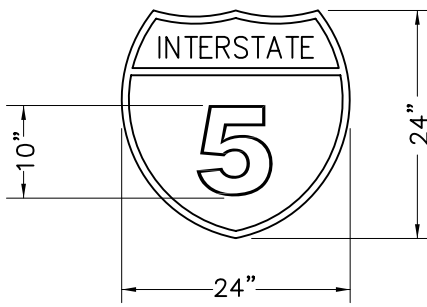
## Route Shield Sizes



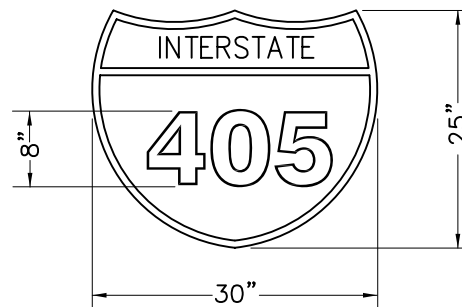
1 or 2 digits



3 digits

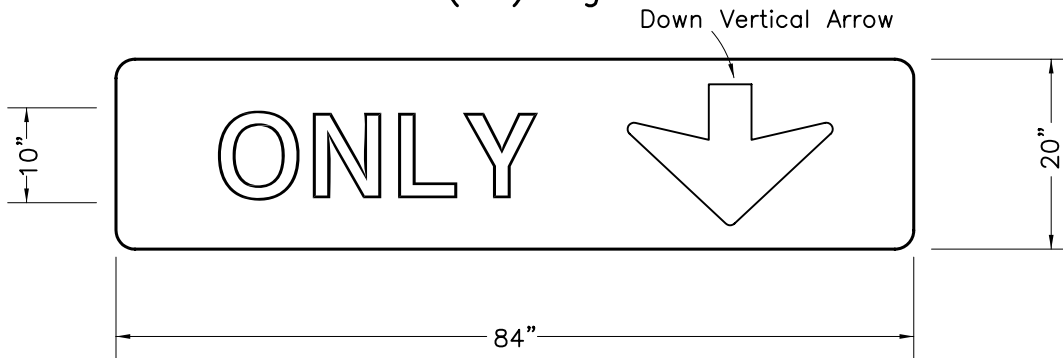


1 or 2 digits

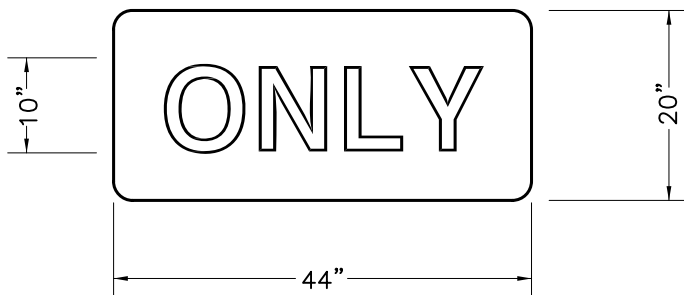


3 digits

## W 61(CA) Signs



Yellow or White Background as per Note 4  
W61F(CA)



Yellow or White Background  
as per Note 4  
W61B(CA)

<b>CITY OF LOS ANGELES DEPARTMENT OF TRANSPORTATION</b>		
<b>OVERHEAD GUIDE SIGNING</b>		5 16
CKD.	SR. T.E.	PR. T.E.
DWN. M.T.	T.E.	S-418.6