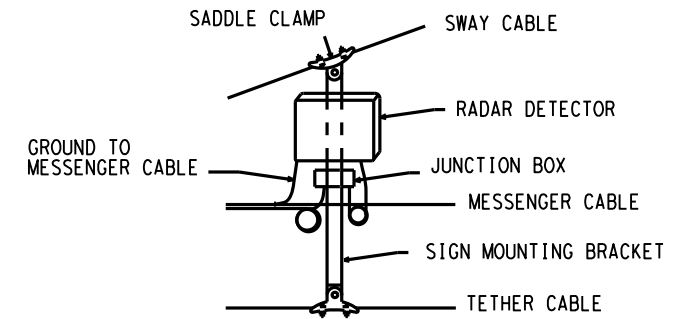
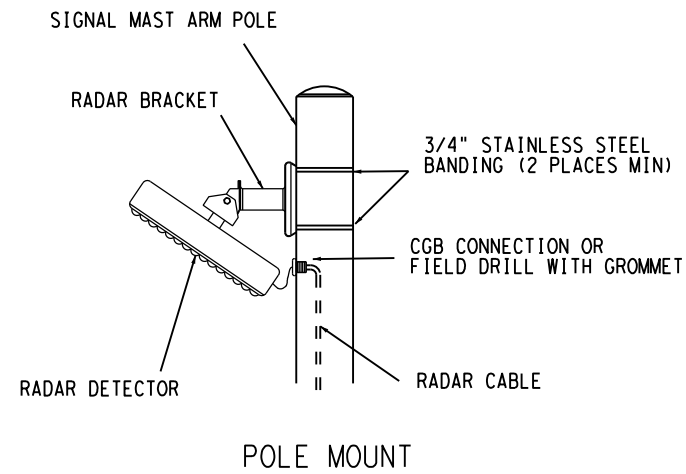
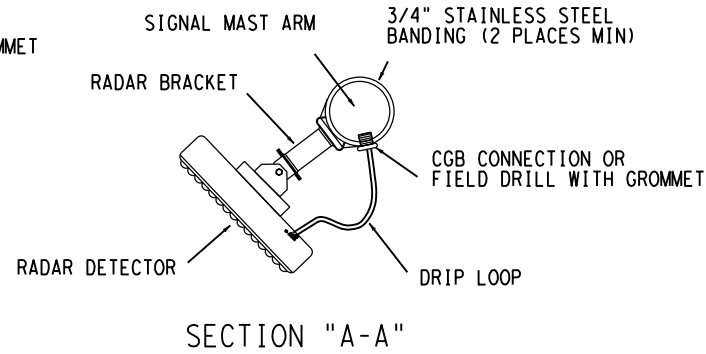
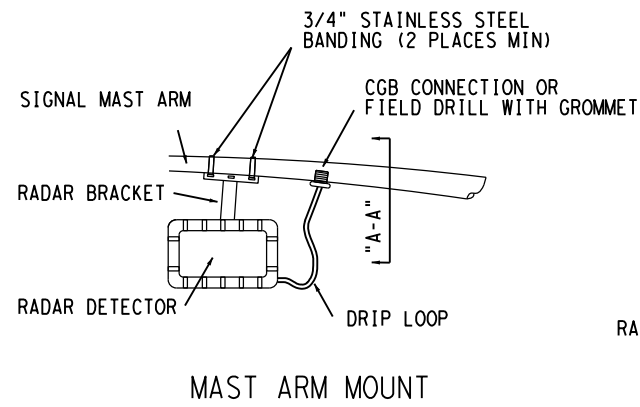


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## RADAR DETECTION INSTALLATION DETAILS

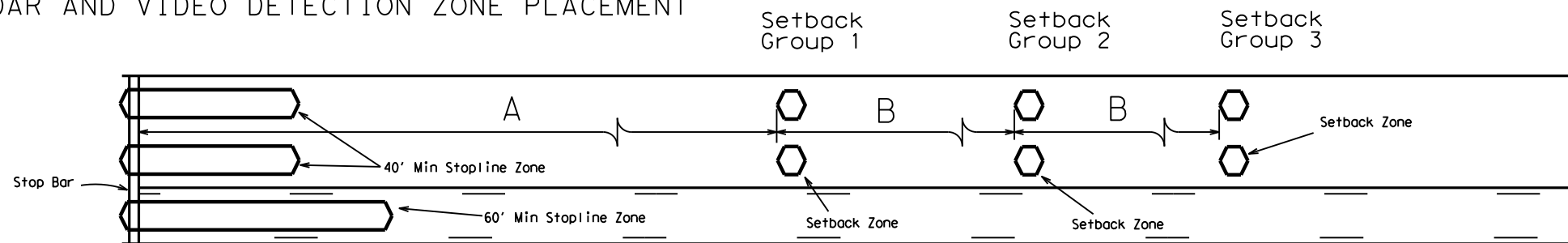


SPAN WIRE MOUNT FOR SETBACK RADAR

### GENERAL NOTES - Radar Mounts:

1. The radar sensor mounting bracket must be adjustable to tilt up, down, left, right, and to rotate
2. The radar detector units shown are not intended to represent any specific brand or product, and alternate mounting methods may be submitted for approval

## RADAR AND VIDEO DETECTION ZONE PLACEMENT



30 MPH (A=144')  
One setback zone or a long (60+ ft) stopline detection zone

35 MPH ( A=90', B=100' )      40 MPH ( A=110', B=130' )  
45 MPH ( A=175', B=115' )      50 MPH ( A=220', B=130' )  
Two setback zones

55 MPH ( A=225', B=95' )      60 MPH ( A=275', B=100' )  
65 MPH ( A=320', B=110' )      70 MPH ( A=350', B=125' )  
Three setback zones

APPROACH SPEED LIMIT (MPH)	DISTANCE FROM STOPLINE (LF)		
	SETBACK GROUP 1	SETBACK GROUP 2	SETBACK GROUP 3
30	144		
35	90	190	
40	110	240	
45	175	290	
50	220	350	
55	225	320	415
60	275	375	475
65	320	430	540
70	350	475	600

### GENERAL NOTES - Detector Processor Settings:

1. For locations not utilizing SPM detection:
  - A. For systems using the Twincrest Technologies copyrighted ETA method, disregard setback zones diagrammed but ensure setback detection zone exceeds the maximum zone placement for the speed limit.
  - B. For all other systems (radar and/or video), ensure the setback zones are as diagrammed and all detection zones shall be assigned as presence only without speed filters. If speed filters are required, use a range of 0-100MPH. This allows for troubleshooting by observing live traffic and the controller detection channel status screen.
  - C. Stopline zones shall be assigned to the parent phase detector channel (phase 2 stopline assigned to detector channel 2) and setback zones shall be assigned to parent phase plus 8 (e.g. phase 2 setback detection assigned to detector channel 10). If two processors are required to provide all outputs, the second processor shall use detector channels 17-32 and outputs will be assigned parent phase plus 16 for stopline and plus 24 for setback detection zones.
  - D. Apply the same zone assignments to diamond signals, except that when two separate processors are required, use one processor to cover phases 2, 4, 6 and 8 including their setbacks and the second processor for the internal approaches (for 4-port forward-fire systems), or all stopline detection on one processor and all setbacks on the second one (for 6-port Wavetronix)
2. For locations utilizing SPM detection which requires a separate output for each detection zone:
  - A. Assign detection outputs 1-64 in groups for ease of troubleshooting (phase 2 stopline with 3 lanes could be detector channels 2-4, and phase 2 setbacks could be 5-7 for the first, 8-10 for the second and 11-13 for the third setback group). These outputs shall all be presence only detection, and if speed filter is required, use a range of 0-100 MPH.
  - B. Use of video detection for higher speed approaches will not be appropriate for SPM utilization due to the angles involved. Video setback detection in general will also expand the detection zones significantly due to the angles involved, resulting in overlap of setback detection zones and unavoidably longer detection calls compared to other detection systems.
  - C. Use of video or radar detection for SPM utilization will return less data than a similar detection setup using inductive loops due to vehicles being blocked from view of the sensors by other vehicles on the roadway.

This detail sheet supercedes both RVDS-23(DAL) and VDZ-04(DAL)



## TRAFFIC SIGNAL VEHICLE DETECTION DETAILS TSVDD-25 (DAL)

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REVISIONS		CONT	SECT	JOB	HIGHWAY
		DIST	COUNTY		SHEET NO.

DATE:  
FILE: