

ELECTRIC WEDGE BARRIER - MODEL WDG-EL-1200 (FINAL DENIAL & TRAFFIC CONTROL BARRIER)

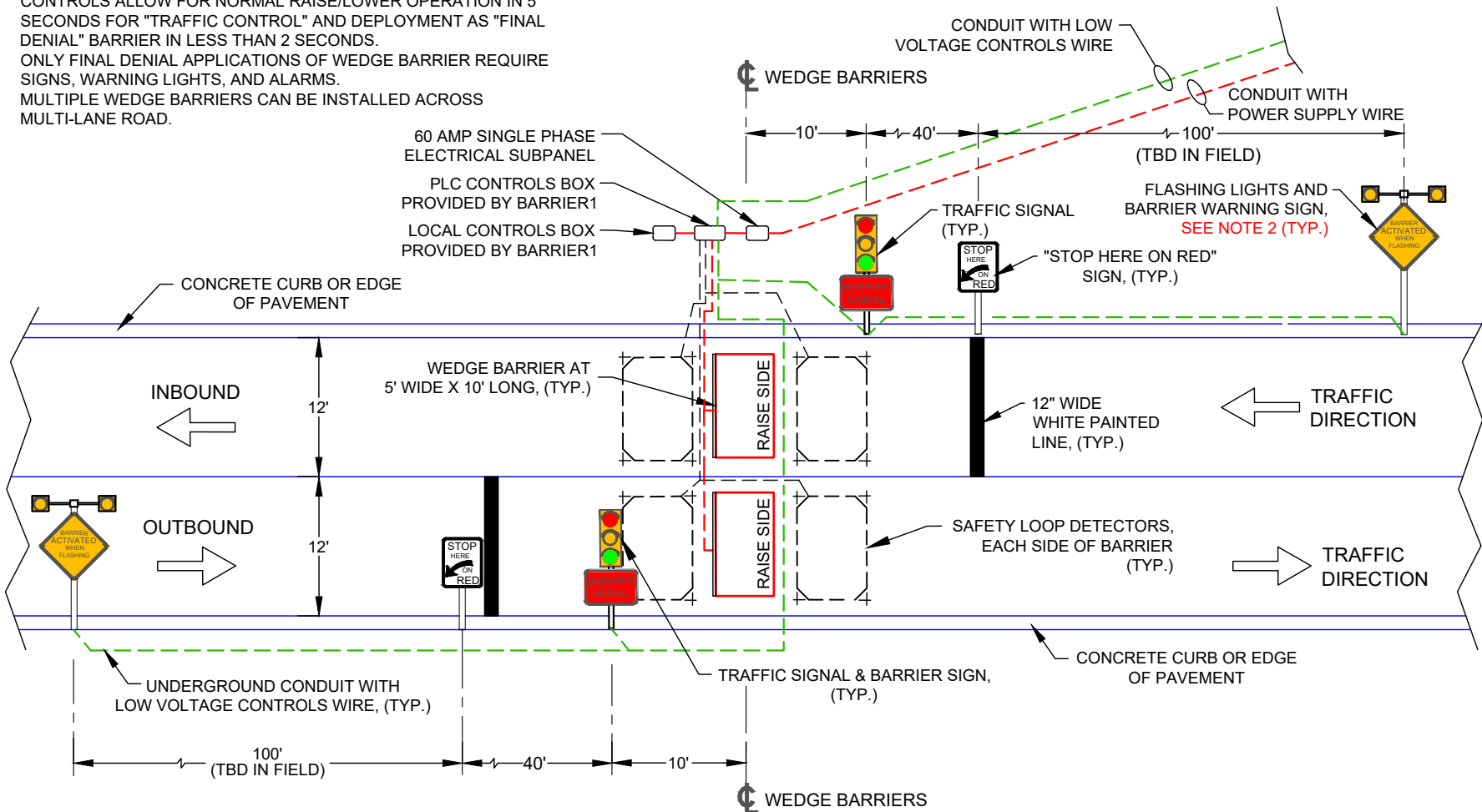
STOPS 15,000 LB. VEHICLE AT 50 MPH IMPACT, WEDGE PLATE LENGTHS AVAILABLE FROM 10 FEET TO 18 FEET

ASTM F2656-07 M50 P1 (K12) CERTIFIED, APPROVED ON DoD ANTI-RAM LIST

SAMPLE LAYOUT - 1 INBOUND LANE AND 1 OUTBOUND LANE (2 LANE ROAD)

NOTES:

1. CONTROLS ALLOW FOR NORMAL RAISE/LOWER OPERATION IN 5 SECONDS FOR "TRAFFIC CONTROL" AND DEPLOYMENT AS "FINAL DENIAL" BARRIER IN LESS THAN 2 SECONDS.
2. ONLY FINAL DENIAL APPLICATIONS OF WEDGE BARRIER REQUIRE SIGNS, WARNING LIGHTS, AND ALARMS.
3. MULTIPLE WEDGE BARRIERS CAN BE INSTALLED ACROSS MULTI-LANE ROAD.



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ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 1 OF 9

SCALE: N.T.S.

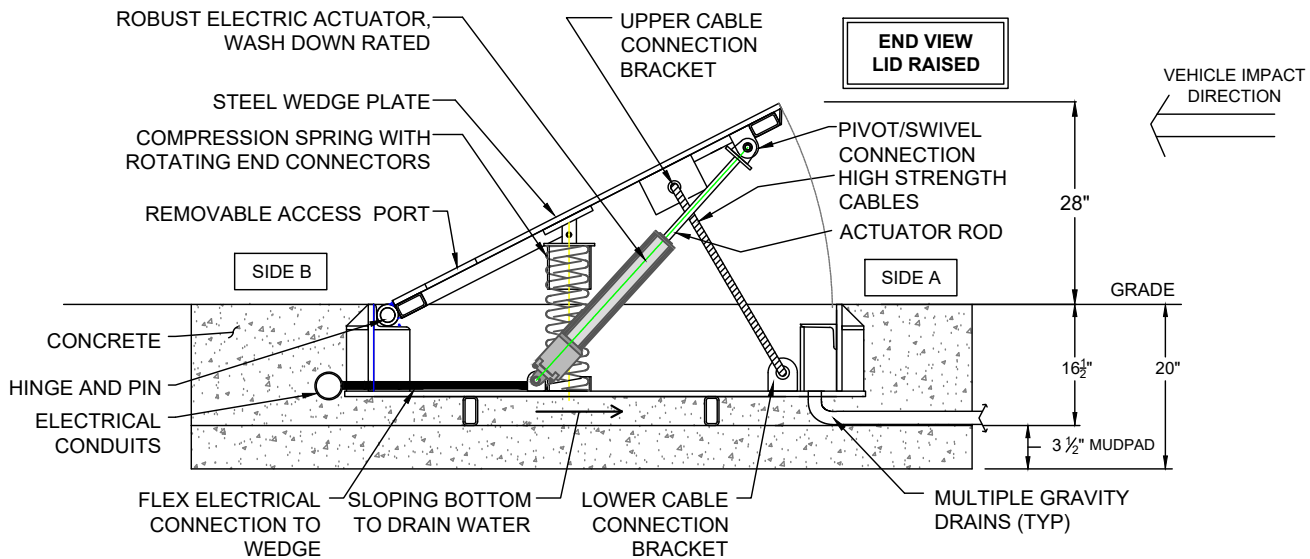
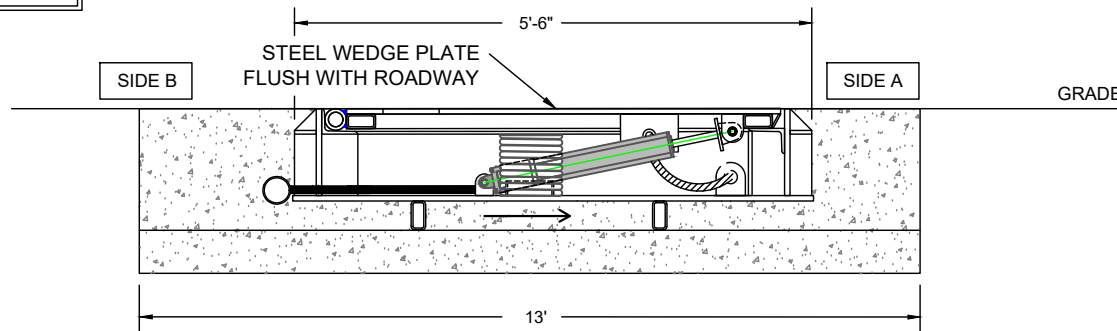
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WEDGE CROSS-SECTIONS

END VIEW
LID CLOSED



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CROSS SECTION
ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 2 OF 9

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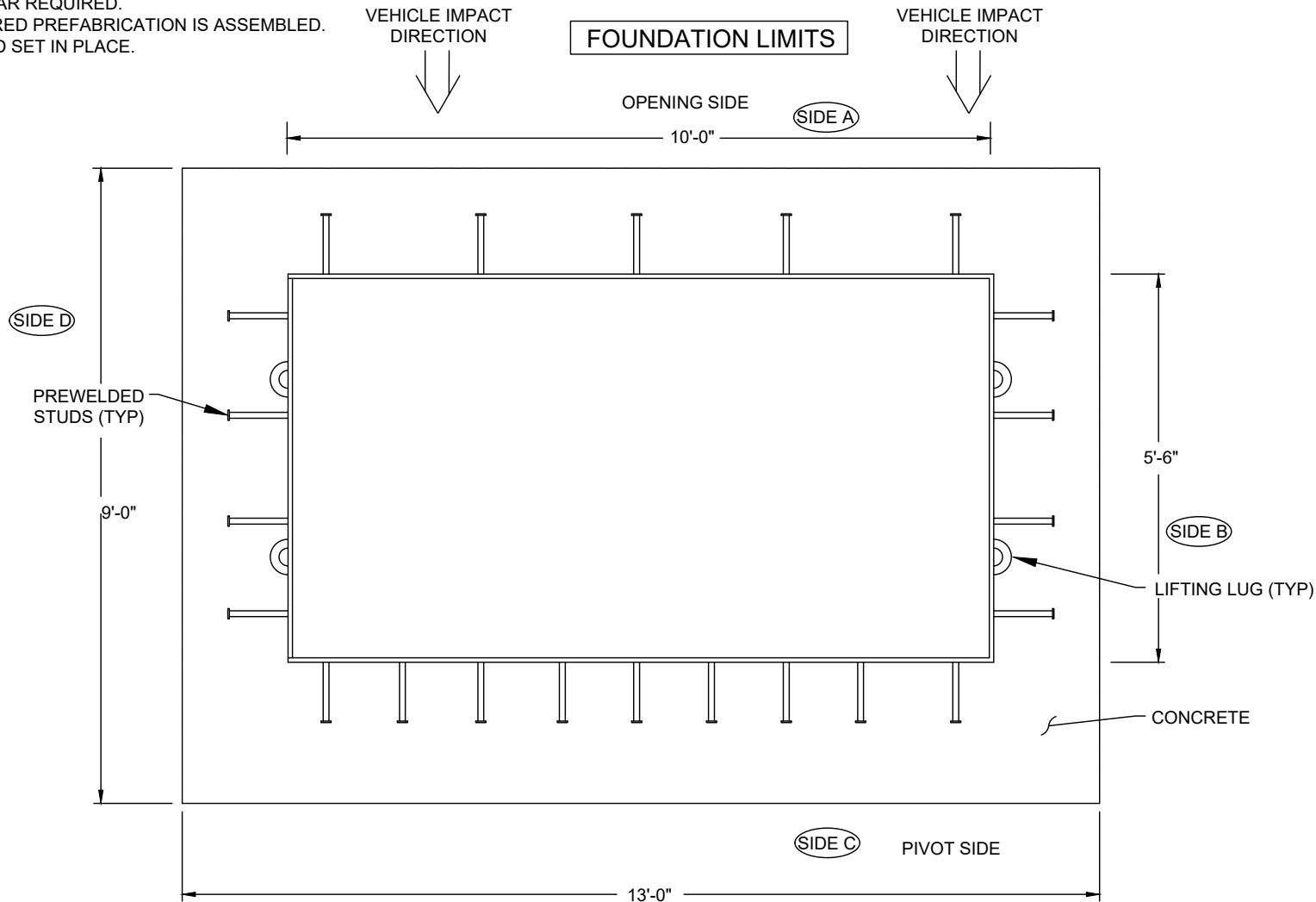
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KEY CAPABILITIES

1. NO REBAR REQUIRED.
2. DELIVERED PREFABRICATION IS ASSEMBLED.
3. LIFT AND SET IN PLACE.



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TOP VIEW
 10 FT. LONG MODULAR
 SECTION
 ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 3 OF 9

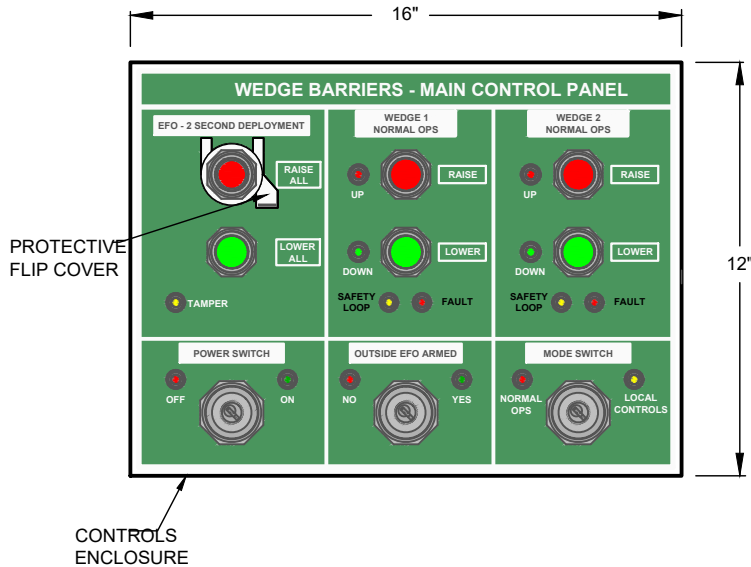
SCALE: N.T.S.

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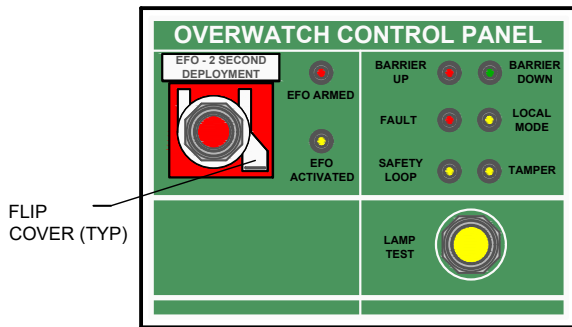
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SAMPLE MAIN CONTROL PANEL



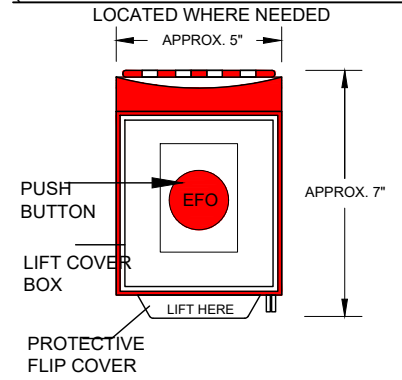
SAMPLE CONTROL PANEL AT OVERWATCH



NOTE:

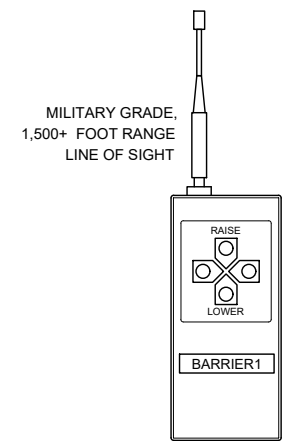
1. EMERGENCY FAST OPERATE (EFO)

EFO BUTTON TO DEPLOY WEDGES (EMERGENCY FAST OPERATION)



KEY CAPABILITIES:

1. CONTROL PANELS, ALARMS, KEYED SWITCHES, AND OTHER FEATURES ARE CUSTOMIZED BY BARRIER1 SYSTEMS IN ACCORDANCE WITH CUSTOMER'S NEEDS.
2. CONTROLS ALLOW FOR NORMAL RAISE/LOWER OPERATION IN 5 SECONDS FOR "TRAFFIC CONTROL" AND AS "FINAL DENIAL" BARRIER IN LESS THAN 2 SECONDS.
3. DATA LOGGER IS INCLUDED WHICH RECORDS THE DATE, TIME, AND LOCATION OF EACH NET BARRIER DEPLOYMENT.
4. UPS BATTERY BACKUP IS PROVIDED AS OPTION DURING POWER OUTAGE. (10+ CYCLES OVER 2 HOURS)
5. IF VEHICLE SITS ON LOOP FOR 12 SECONDS, INDICATOR LIGHT ACTIVATES. THIS ACTIVATION TIME CAN BE ADJUSTED.
6. TAMPER SWITCH MONITORS DOOR OPENINGS ON AESTHETIC END SUPPORT ENCLOSURES AND PLC CABINET DOOR.
7. WHEN DOING MAINTENANCE, PLACE KEYED SWITCH IN "LOCAL MODE" SO BARRIER DEPLOYMENT IS NOT OPERATIONAL AT GUARD HOUSE AND OVERWATCH. WEDGE CAN ONLY BE OPERATED LOCALLY AT BARRIER LOCATION.



OPTIONAL REMOTE WIRELESS CONTROLLER



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MAIN CONTROL PANEL
& EFO BUTTON
ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 4 OF 9

SCALE: N.T.S.

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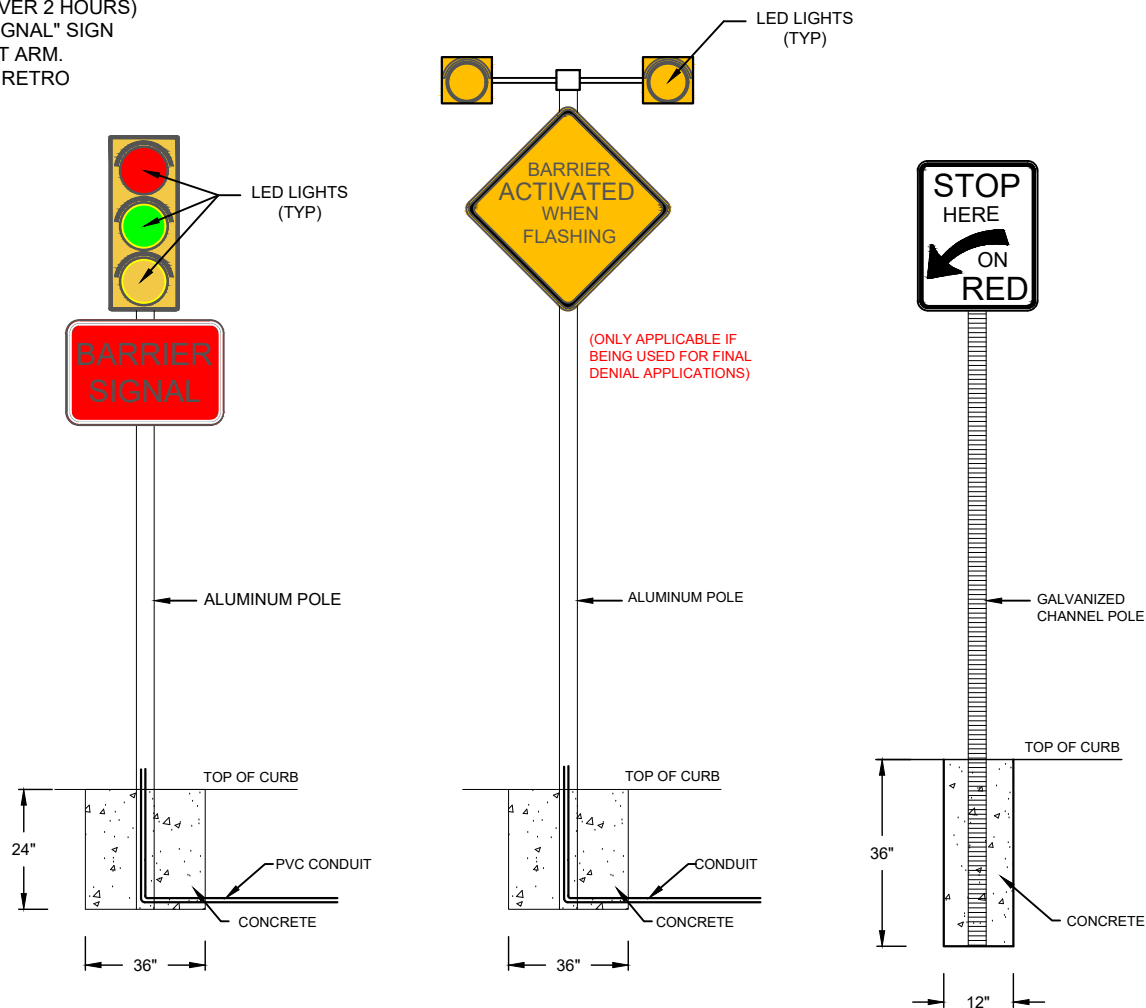
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TRAFFIC SIGNALS, WARNING LIGHTS AND SIGNS

NOTES:

1. OPTIONAL UPS BATTERY BACKUP POWER PROVIDED FOR ACTUATOR, LIGHTS, SIGNALS, CONTROL PANELS, DEVICES, ETC. IF POWER OUTAGE OCCURS. (10+ CYCLES OVER 2 HOURS)
2. TRAFFIC SIGNAL AND "BARRIER SIGNAL" SIGN INSTALLED ON POLE AND/OR MAST ARM.
3. SIGNS ARE DIAMOND GRADE AND RETRO REFLECTIVE.

ELEVATION VIEWS



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TRAFFIC SIGNALS, WARNING LIGHTS & SIGNS
 ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 5 OF 9

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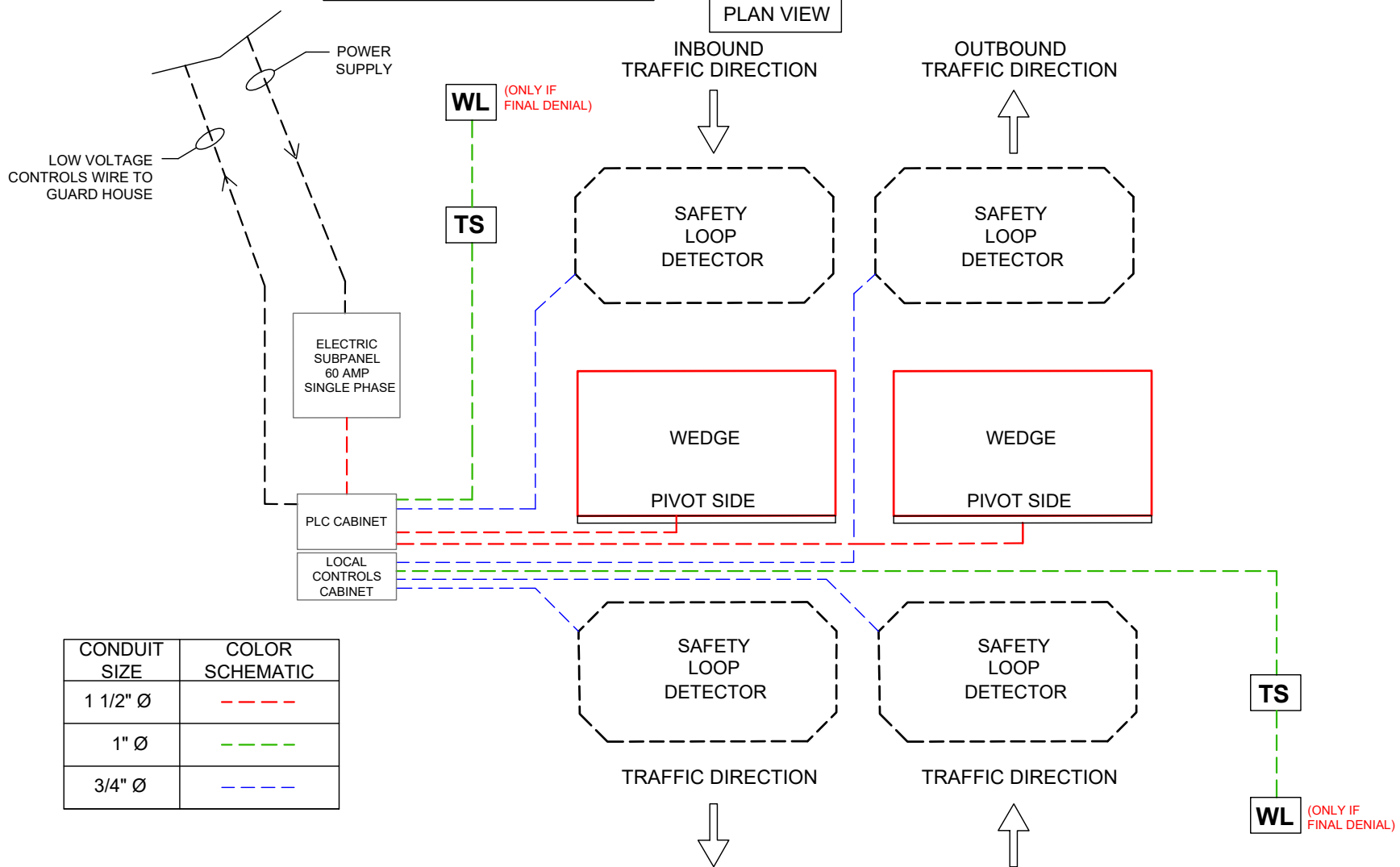
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CONDUITS SCHEMATIC

PLAN VIEW



CONDUIT SIZE	COLOR SCHEMATIC
1 1/2" Ø	- - - - -
1" Ø	- - - - -
3/4" Ø	- - - - -



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CONDUITS, PANELS
& WIRING SCHEMATIC
ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 6 OF 9

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SEQUENCING OF TRAFFIC SIGNALS, WARNING LIGHTS, AND ALARMS UPON FINAL DENIAL ACTIVATION

(ONLY APPLICABLE IF FINAL DENIAL APPLICATION)

TRAFFIC CONTROLS AND SAFETY AT ACTIVE BARRIERS	OPERATIONAL SEQUENCE PER SECOND (MIN. FOR SAFETY - 40 KPH (25 MPH) DESIGN SPEED)											
	ELAPSED TIME	0	1 SEC.	2 SEC.	3 SEC.	4 SEC.	5 SEC.	6 SEC.	7 SEC.	8 SEC.	9 SEC.	10 SEC.
	TRAFFIC CONTROLS	NORMAL OPS	GUARD PERCEPTION AND REACTION TIME TO THREAT (EFO BUTTON) - 3 SECONDS			YELLOW CLEARANCE - GET ACROSS BARRIER 3 SECONDS (MUTCD MINIMUM)			ALL RED	DEPLOYING BARRIER		THREAT CONTAINED
SIGN AND SIGNAL WARNING SYSTEM	WARNING SIGNS AND LIGHTS WITH BEACONS	OFF	OFF	OFF	OFF	ALT FY	ALT FY	ALT FY	ALT FY	ALT FY	ALT FY	ALT FY
	TRAFFIC SIGNAL	FY OR G	FY OR G	FY OR G	FY OR G	Y	Y	Y	R	R	R	R
	AUDIBLE SIREN ALARM	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON
	SAFETY LOOP DETECTORS	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
	ACTIVE BARRIER POSITION	DOWN	DOWN	DOWN	DOWN	DOWN	DOWN	DOWN	DOWN	DOWN	ACTIVATED	ACTIVATED

KEY:

R = RED

Y = YELLOW

G = GREEN

FY = FLASHING YELLOW

ALT = ALTERNATING

NOTES:

1. SEQUENCING AND TIMING OF SIGNALS, ALARMS AND LIGHTS CAN BE FIELD ADJUSTED USING PLC.
2. SAFETY LOOP DETECTORS PREVENT DEPLOYMENT OF BARRIER IF A VEHICLE IS ABOVE LOOP. BARRIER DEPLOYS AFTER VEHICLE PASSES OVER THE SAFETY LOOPS.



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SEQUENCING OF TRAFFIC SIGNALS, WARNING LIGHTS & ALARMS
ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 7 OF 9

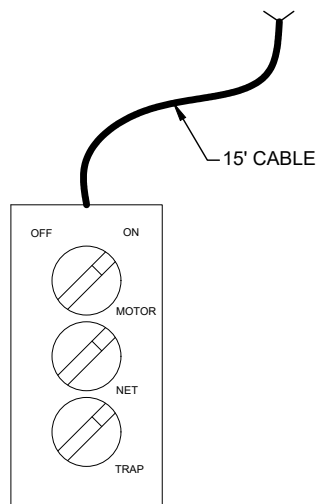
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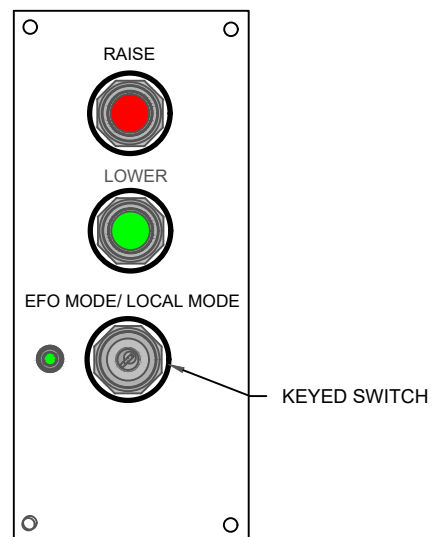
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LOCAL CONTROLLERS LOCKED INSIDE BOX AT BARRIER (USED WHEN PERFORMING MAINTENANCE)



MAINTENANCE CONTROLLER



LOCAL CONTROLLER



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CONTROLLERS
ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 8 OF 9

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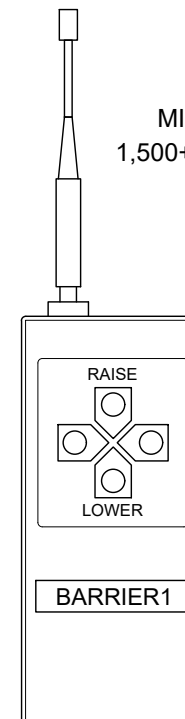
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OPTIONAL ITEMS

1. CARD READERS AND/OR KEY PADS.
2. CAMERAS WITH CONTINUOUS DVR RECORDING TO VIDEO TAPE INCIDENTS.
3. UPS BACKUP POWER (PROVIDES 10+ CYCLES OVER 2 HOURS IF POWER OUTAGE OCCURS).
4. ADDITIONAL TRAFFIC SIGNS, AUDIBLE ALARMS, AND/OR WARNING LIGHTS.
5. TAMPER ALARMS ON DOORS AND CABINETS.
6. REMOTE WIRELESS CONTROLLER(S) TO RAISE OR LOWER WEDGE BARRIER.
7. TRIGGER LOOPS AND/OR RFID TAGS TO RAISE OR LOWER BARRIER ARM.
8. STAINLESS STEEL MATERIALS AND COMPONENTS.
9. SPECIALTY PAINTING, PLACARDS, AND DETAILING.
10. OVER SPEED DETECTION AND EARLY WARNING ALARMS.
11. WRONG WAY DETECTION AND ALARMS.



MILITARY GRADE,
1,500+ FOOT RANGE
LINE OF SIGHT

OPTIONAL REMOTE WIRELESS CONTROLLER



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OPTIONAL EQUIPMENT AND
OTHER COMPONENTS
ELECTRICAL WEDGE BARRIER

SAMPLE DRAWING

SHEET: 9 OF 9

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