Signal Systems

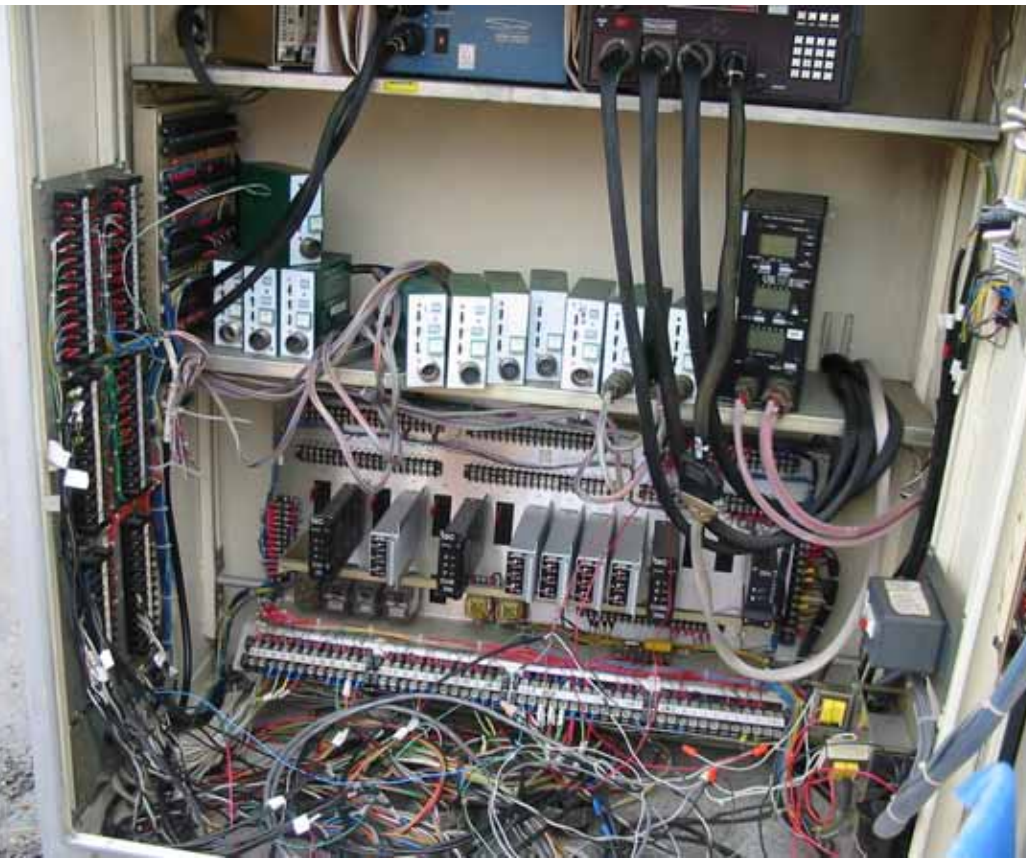
- 8-20.3(14)
- 8-20.3(14)a signal controllers
- 8-20.3(14)b signal heads
- 9-29.13 traffic signal controllers
- 9-29.15 flashing beacon control
- 9-29.16 vehicular signal heads
- 9-29.17 signal head mounting brackets…
- 9-29.19 pedestrian push buttons
- 9-29.20 pedestrian signals

Controller Cabinet (Back)

Controller (Front) and Police Door Type “E” Service to the Left

Controller Cabinet and Transformer

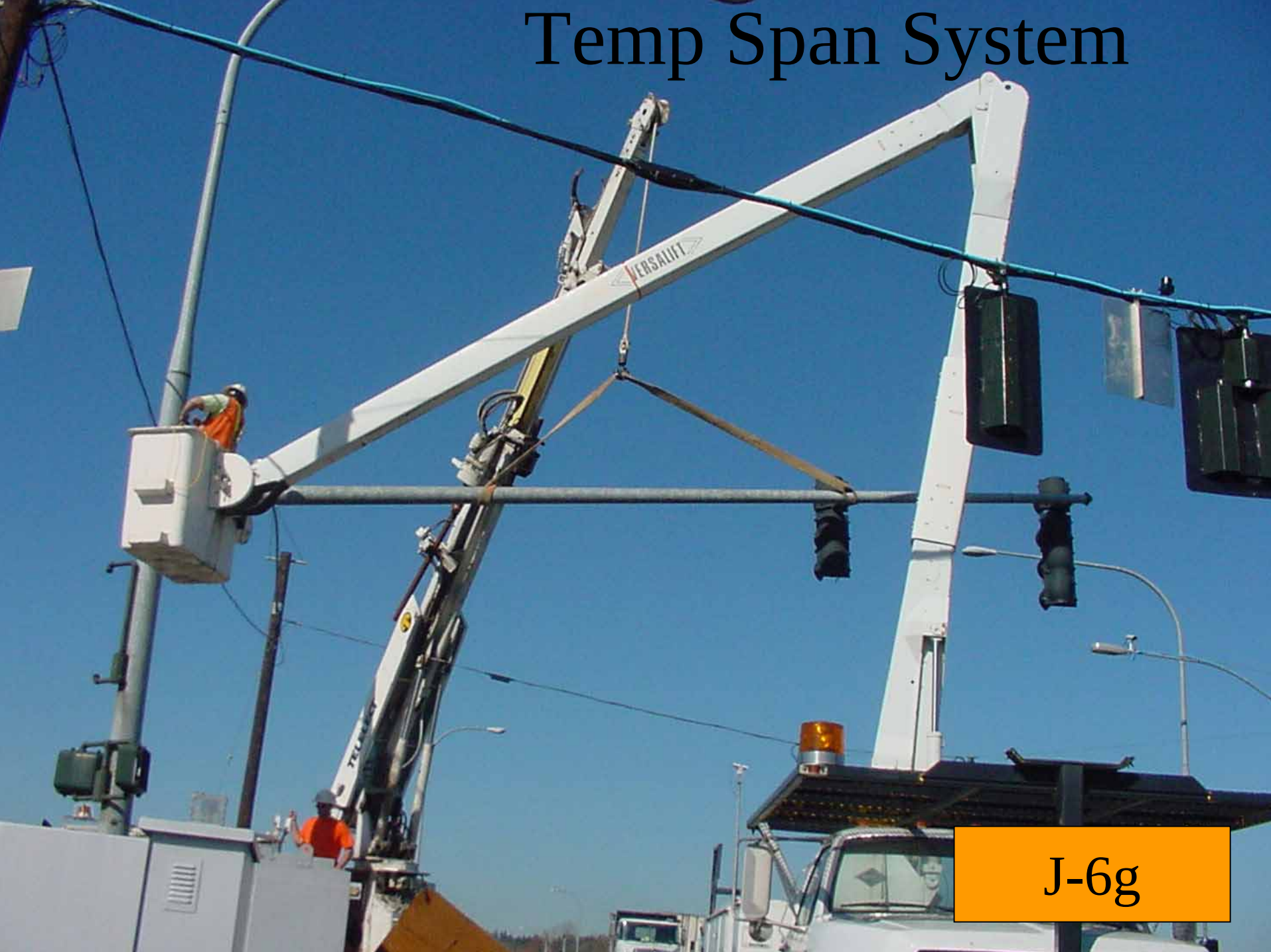
Good House Keeping Helps



Seal Under Cabinet

Aerial Signal Hanger

Temp Span System



J-6g

Signal Pole, Pedestrian Heads

J-6g

Signal Parts

J-6f

Side of Pole Mounts

Side Mount
Type B – Ped
Type K - Vehicle

J-6f

5 Section Head and Sign

ADA Requires Wheel Chair Access

Good

Bad

Ped Pole With “D” Mount

J-6f

Ped Pole With “C” Mount

Three Heads Three Types of Mounts

Red and green LED
9-29.16(2)A
Page 880

LED Red Arrow Is Failing

4 Section Head “M” Mount

8-20.3(14)B
4 and 5 section stacks mount between second and third display

9-29.16
NW Region Specials
Vented backplates mounted with SS hardware

Two LT Lanes One RT Lane

Sign Required

Geometrically Programmed Louvers

Pelco Visor

GEOMETRICALLY PROGRAMMED LOUVER
INSTALLATION INSTRUCTIONS

GPL™ PATENT PENDING by pelco

Please read these instructions carefully before proceeding with installation of the GPL.

I. Components
II. Installation Tools
III. Preparation of the GPL
IV. Preparation of the Signal Visor
V. Installation of the GPL in the Signal Visor
  A. Inserting
  B. Aiming
  C. Fastening

GL-1001

I. COMPONENTS

The GPL GL-1001 is completely assembled and ready for installation. Do not disassemble.

It is constructed of a Housing (2 halves) surrounding and enclosing the Baffles. Two Neoprene O-Rings encircle the GPL and seal it against the signal visor. (Fig. 1)

Six #10 thread forming screws are included with each assembly. Only four are required for fastening the GPL to the visor. (2 spares)

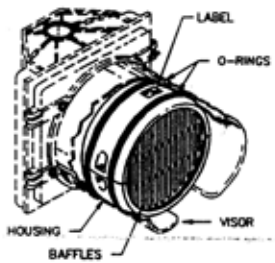


Fig. 1

II. INSTALLATION TOOLS

An Installation Kit is recommended for installing the GPL in the signal visor.

The basic GL-2001 Installation Kit includes all of the necessary tools to install the GPL in a signal visor. The Optional GL-2002 Installation Kit includes all of the items in the basic GL-2001 and in addition includes a Cordless Makita Screw Gun with battery, battery charger, magnetic socket and larger tool box. See enclosed Tool Kit Bulletin #2007 for details.

III. PREPARATION OF THE GPL

Each plastic shipping bag contains one GPL and a bag containing 6 each #10-16 x 3/4" Slotted Hex Head Screws.

1. Remove GPL from shipping bag and locate the label. (Fig. 2) Place the GPL down on a flat surface (Fig. 3) with arrow pointing up.

Fig. 2

As viewed from through lane. Green arrow programmed out on right side.

Programmable Visors

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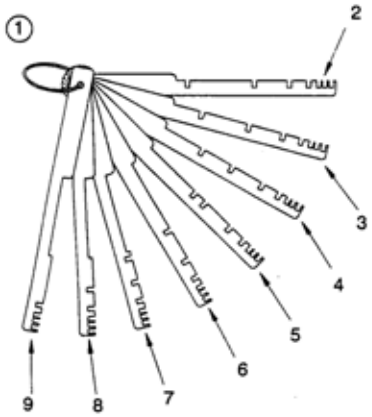
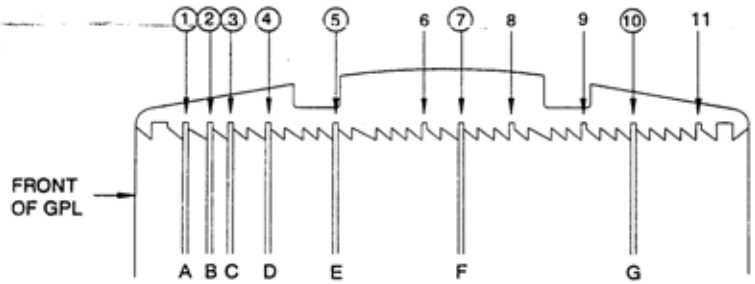
PELCO PRODUCTS, INC.

GPL
VIEW ANGLE ADJUSTMENTS



ITEM	DESCRIPTION	PART NO.
1	SET OF 8 GPL COMBS, Stainless Steel	GL-1008
2	GPL COMB, 7°	GL-0109
3	GPL COMB, 8°	GL-0110
4	GPL COMB, 9°	GL-0111
5	GPL COMB, 11°	GL-0112
6	GPL COMB, 13°	GL-0113
7	GPL COMB, 15°	GL-0114
8	GPL COMB, 23½°	GL-0115
9	GPL COMB, 42°	GL-0116

POSITIONS (1 THRU 11)



BAFFLES (A THRU G)

NOTE:
◯ DENOTES FACTORY SET BAFFLE POSITION FOR 8°.

VIEW ANGLE	BAFFLE LOCATIONS	PART NO.
7°	Move "G" Baffle to #11 position	GL-1001
8°	With all Baffles in factory set position (1,2,3,4,5,7,10)	GL-1003
9°	Move "G" Baffle to #9 position	GL-1004
11°	Move "G" Baffle to #8 position	GL-1005
13°	Omit "G" Baffle completely	GL-1006
15°	Omit "G" Baffle completely & move "F" Baffle to #6 position	GL-1007
23½°	Omit "F" & "G" Baffle completely	GL-1013
42°	Omit "E", "F", & "G" Baffle completely	GL-1014

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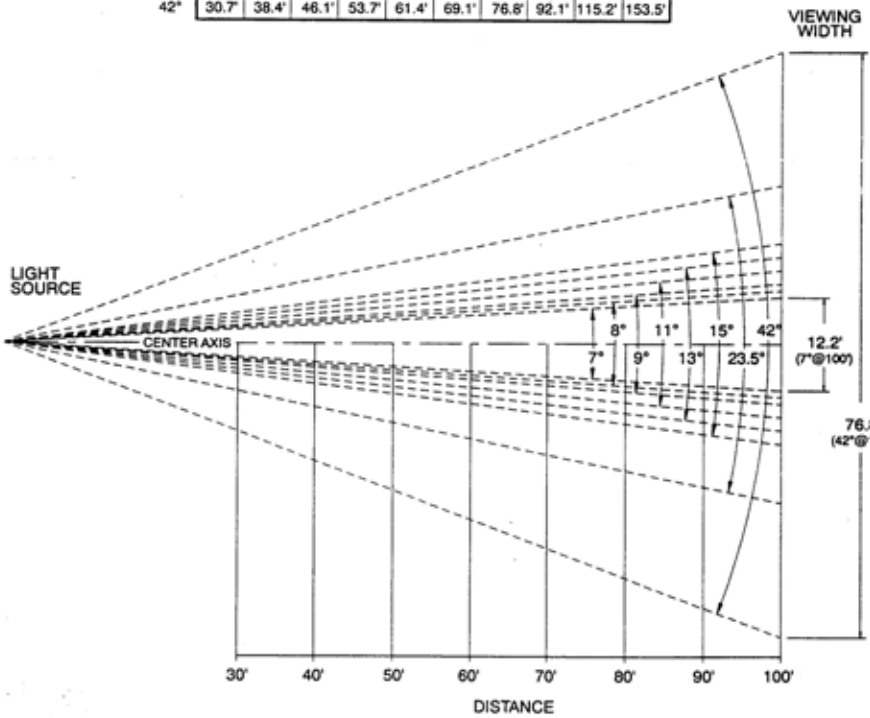
DISTANCE (FEET)

VIEW ANGLE (DEGREES)	40'	50'	60'	70'	80'	90'	100'	120'	150'	200'
7°	4.9'	6.1'	7.3'	8.6'	9.8'	11.0'	12.2'	14.7'	18.3'	24.5'
8°	5.6'	7.0'	8.4'	9.8'	11.2'	12.6'	14.0'	16.8'	21.0'	28.0'
9°	6.3'	7.9'	9.4'	11.0'	12.6'	14.2'	15.7'	18.9'	23.6'	31.5'
11°	7.7'	9.6'	11.6'	13.5'	15.4'	17.3'	19.3'	23.1'	28.9'	38.5'
13°	9.1'	10.5'	13.7'	16.0'	18.2'	20.5'	22.8'	27.3'	34.2'	45.6'
15°	10.5'	13.2'	15.8'	18.4'	21.1'	23.7'	26.3'	31.6'	39.5'	52.7'
23°30'	16.6'	20.8'	25'	29.1'	33.3'	37.4'	41.6'	49.9'	62.4'	83.2'
42°	30.7'	38.4'	46.1'	53.7'	61.4'	69.1'	76.8'	92.1'	115.2'	153.5'



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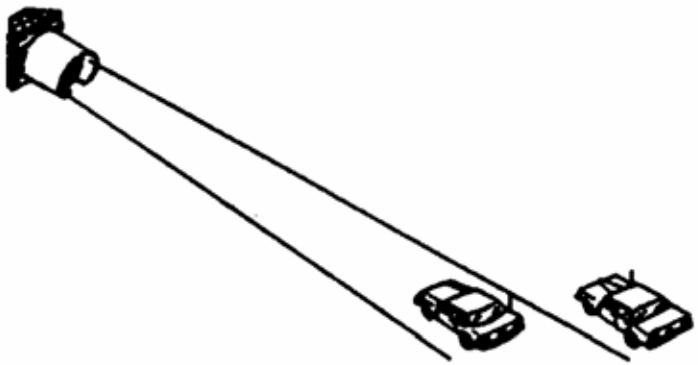
Aiming Programmable Visors

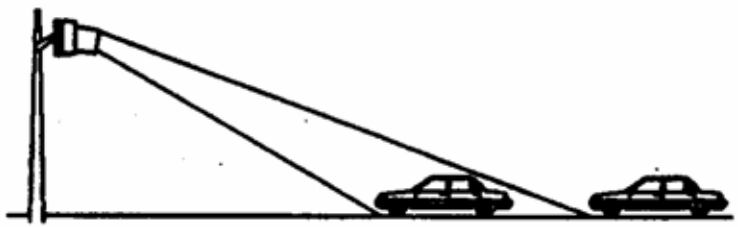
Aiming of the GPL requires two people. One person located at the signal for making adjustments to the GPL, the other person on the ground to view the signal's projection and to give instructions where to aim by adjusting the GPL within the visor.

FOR LANE CONTROL:



BAFFLES REMAIN VERTICAL

FOR LIMITING SIGHT DISTANCE:



ROTATE GPL 90°
BAFFLES HORIZONTAL

NOTE: Sight Distance application is limited to a maximum of 125' from signal.

Cone of Vision

Distance from stop bar	Clearance above Rd.		Clearance above Rd.		Clearance above Rd.	
	Min.	Max.	Min.	Max.	Min.	Max.
	3 section head		4 section head		5 section head	
40-feet	16.5 Ft.	17.3 FT.	16.5 Ft.	16.9 FT.	16.5 Ft.	16.5 FT.
45-feet	16.5 Ft.	19.1 FT.	16.5 Ft.	17.9 FT.	16.5 Ft.	16.8 FT.
50-feet	16.5 Ft.	20.9 FT.	16.5 Ft.	19.7 FT.	16.5 Ft.	18.5 FT.
53-150-feet	16.5 Ft.	21.9 FT.	16.5 Ft.	20.7 FT.	16.5 Ft.	19.6 FT.

5 Section Cluster is the Same Height as 3 Section Head

Link to

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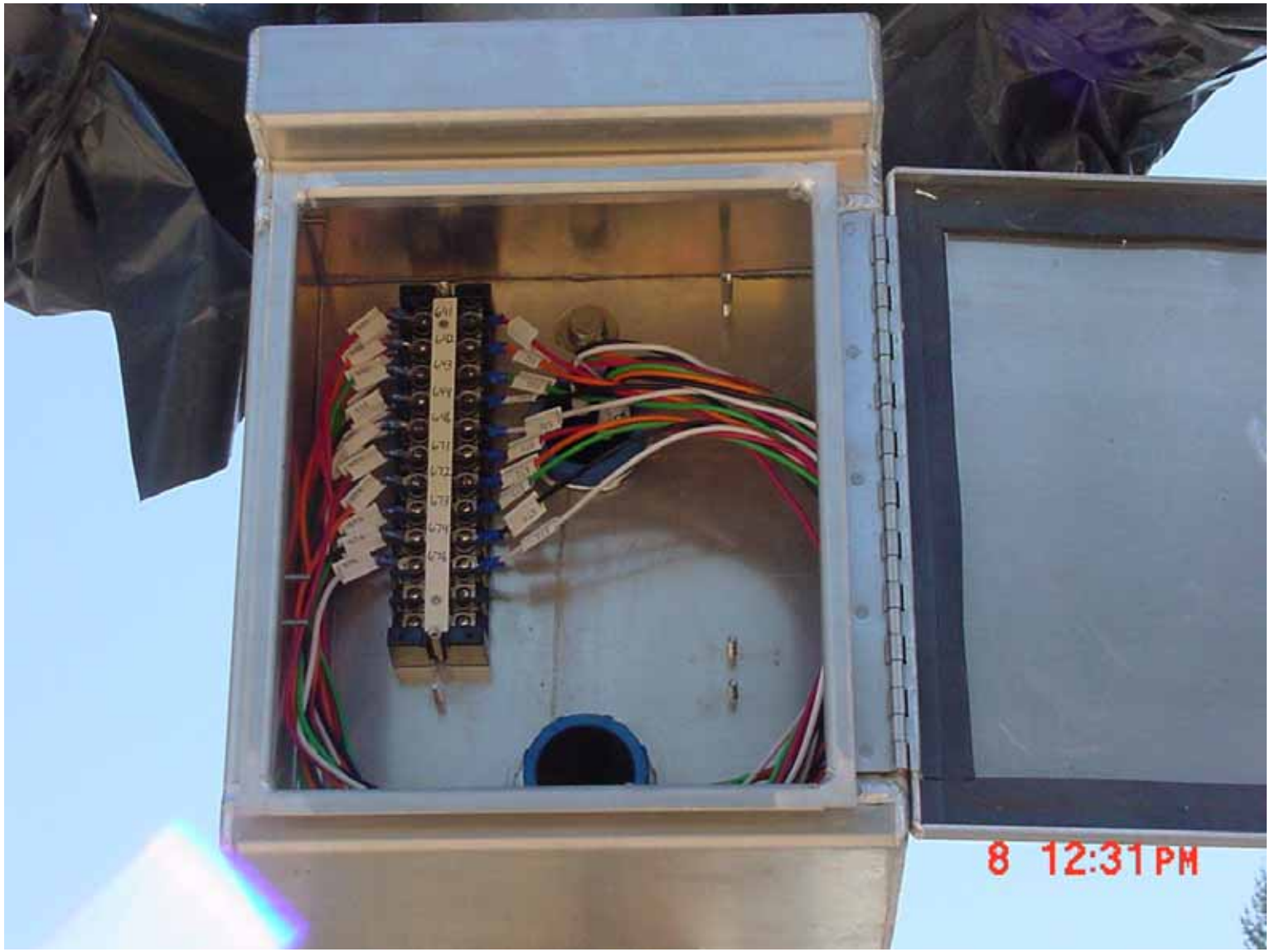
Page 888

Terminal Can

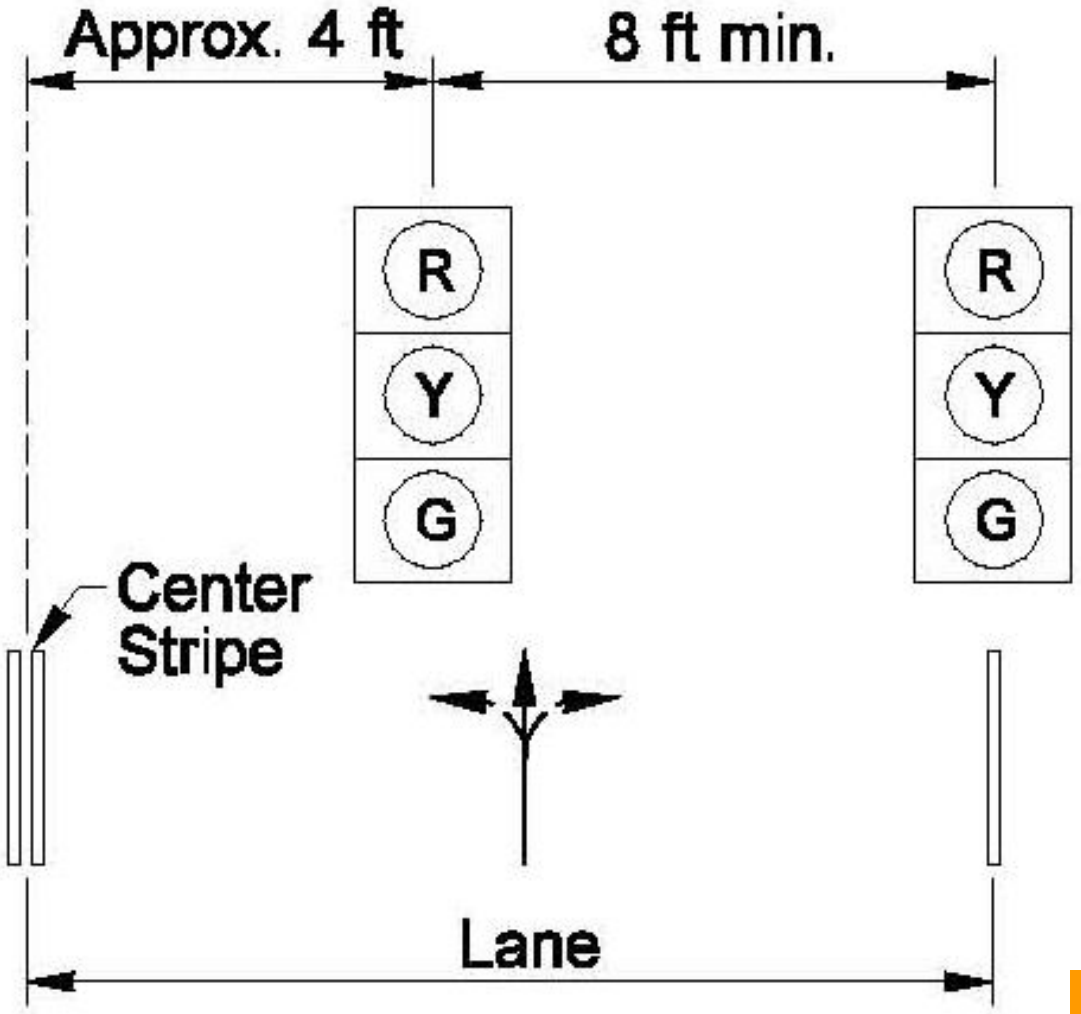


Maintain Ten Foot of Clearance from ALL Power Lines

Flow Control Signal

J-7a

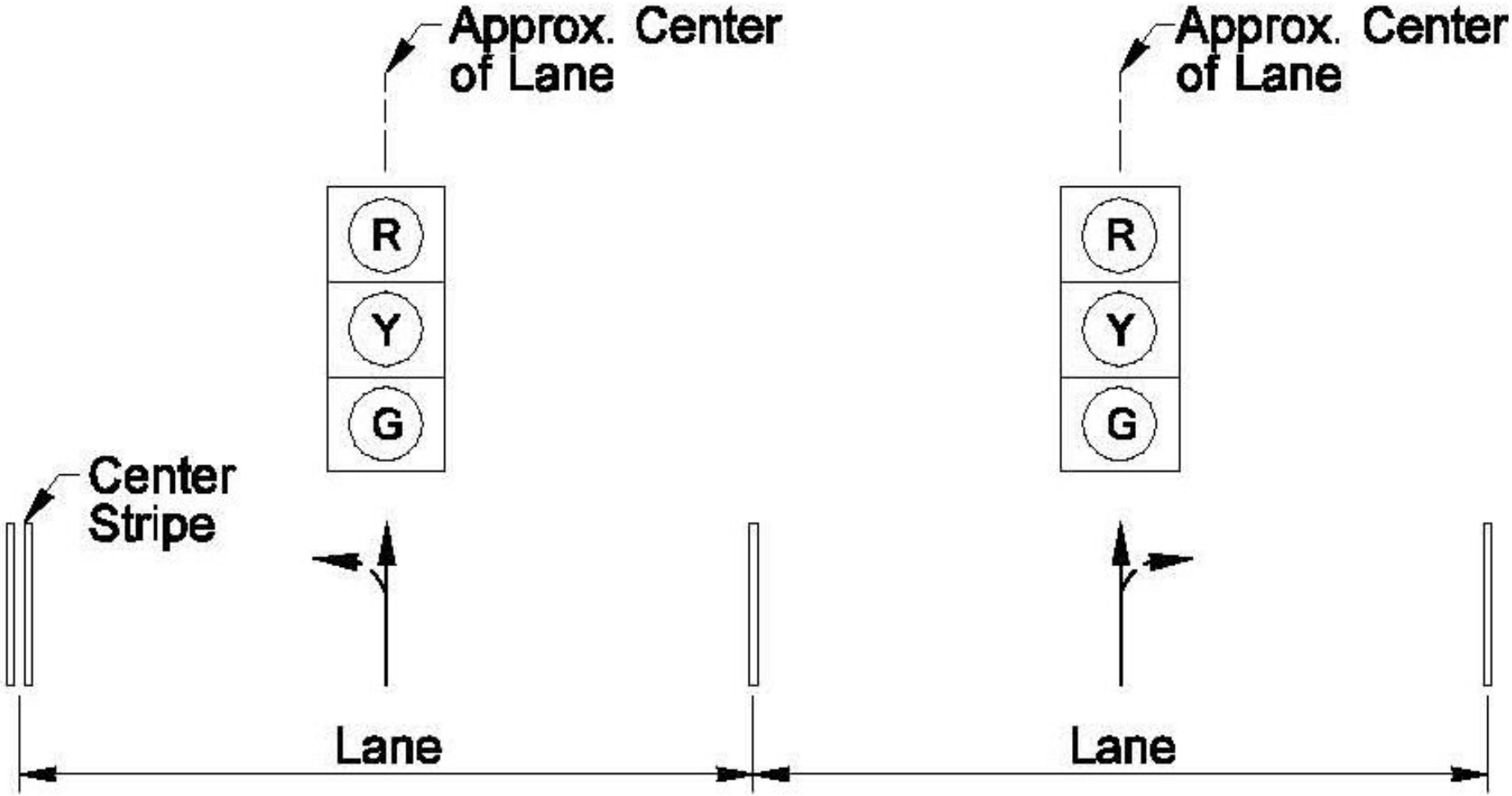
Design Manual – Signals page 850-28a



One Through Lane
With Permissive Left Turn

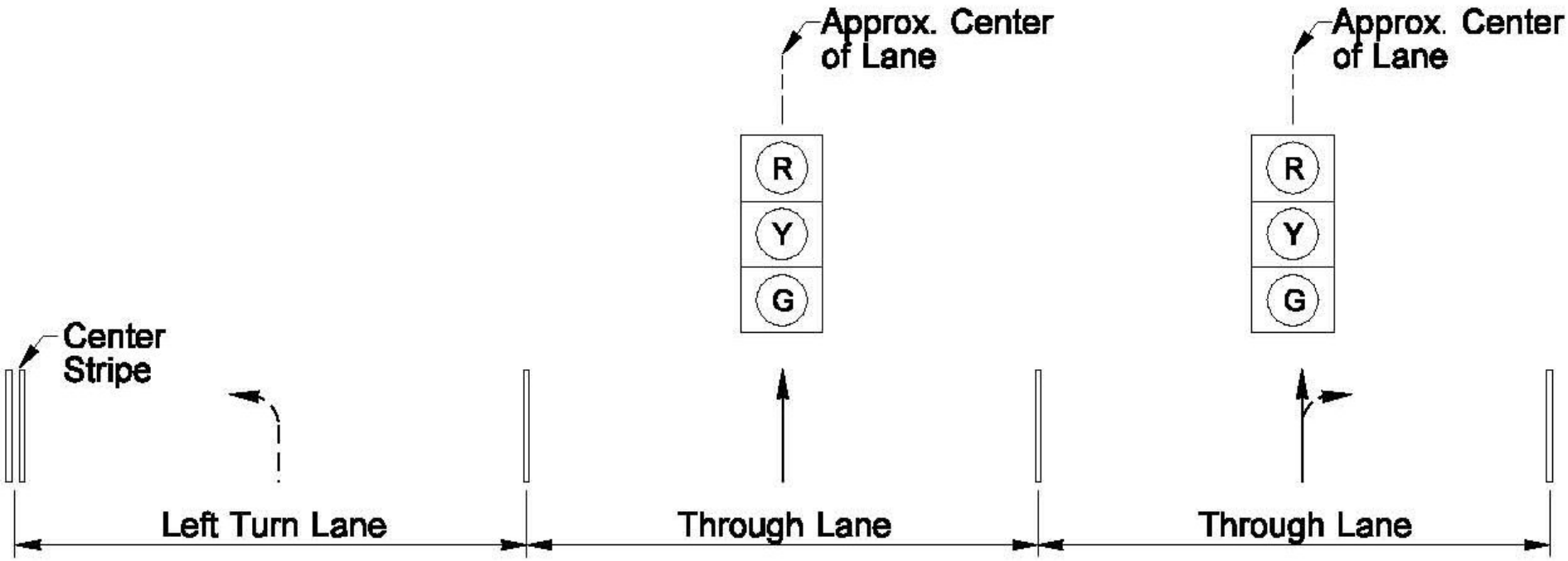
Design Manual
Page 463

Design Manual – Signals page 850-28b



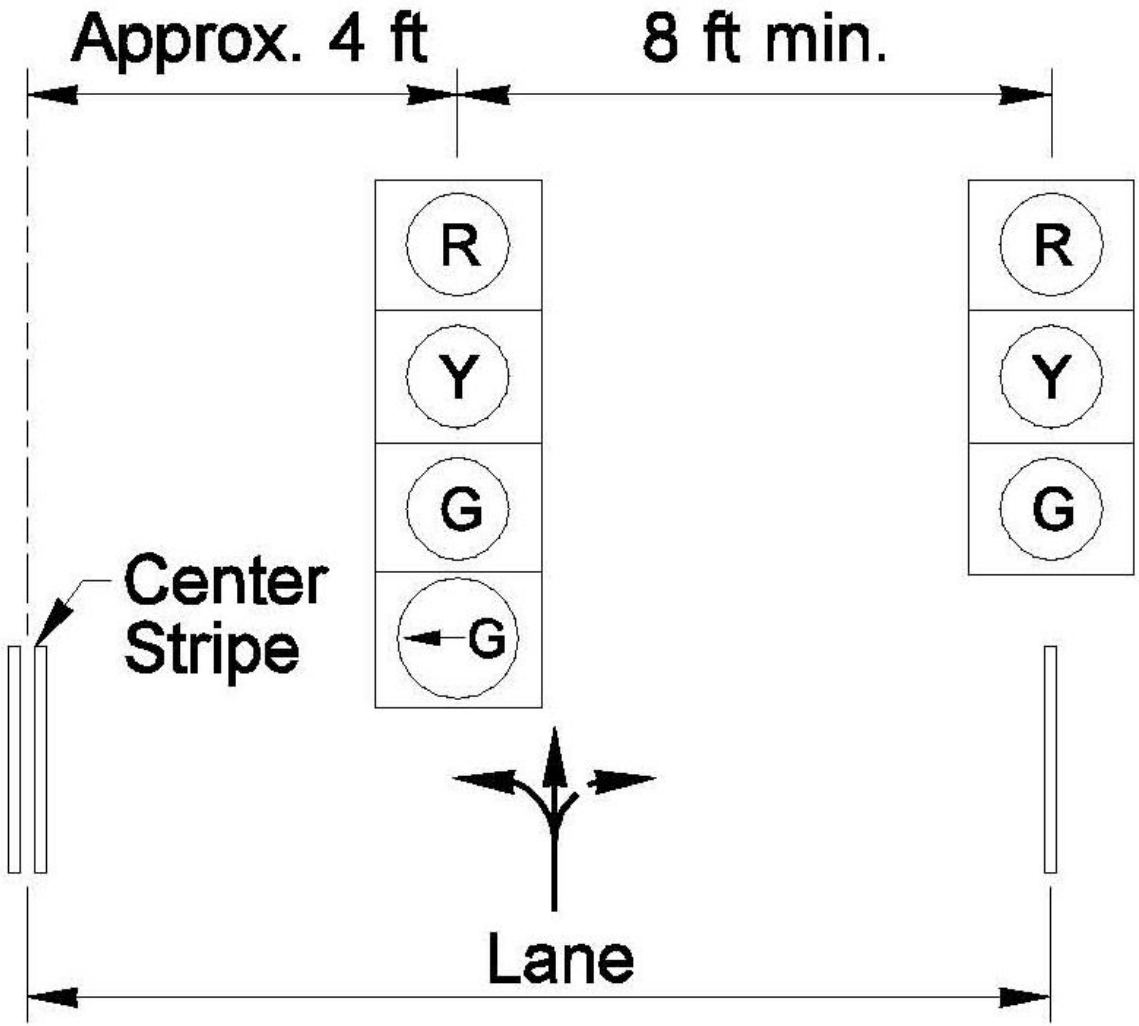
Two Through Lanes
With Permissive Left Turn

Design Manual – Signals page 850-28c



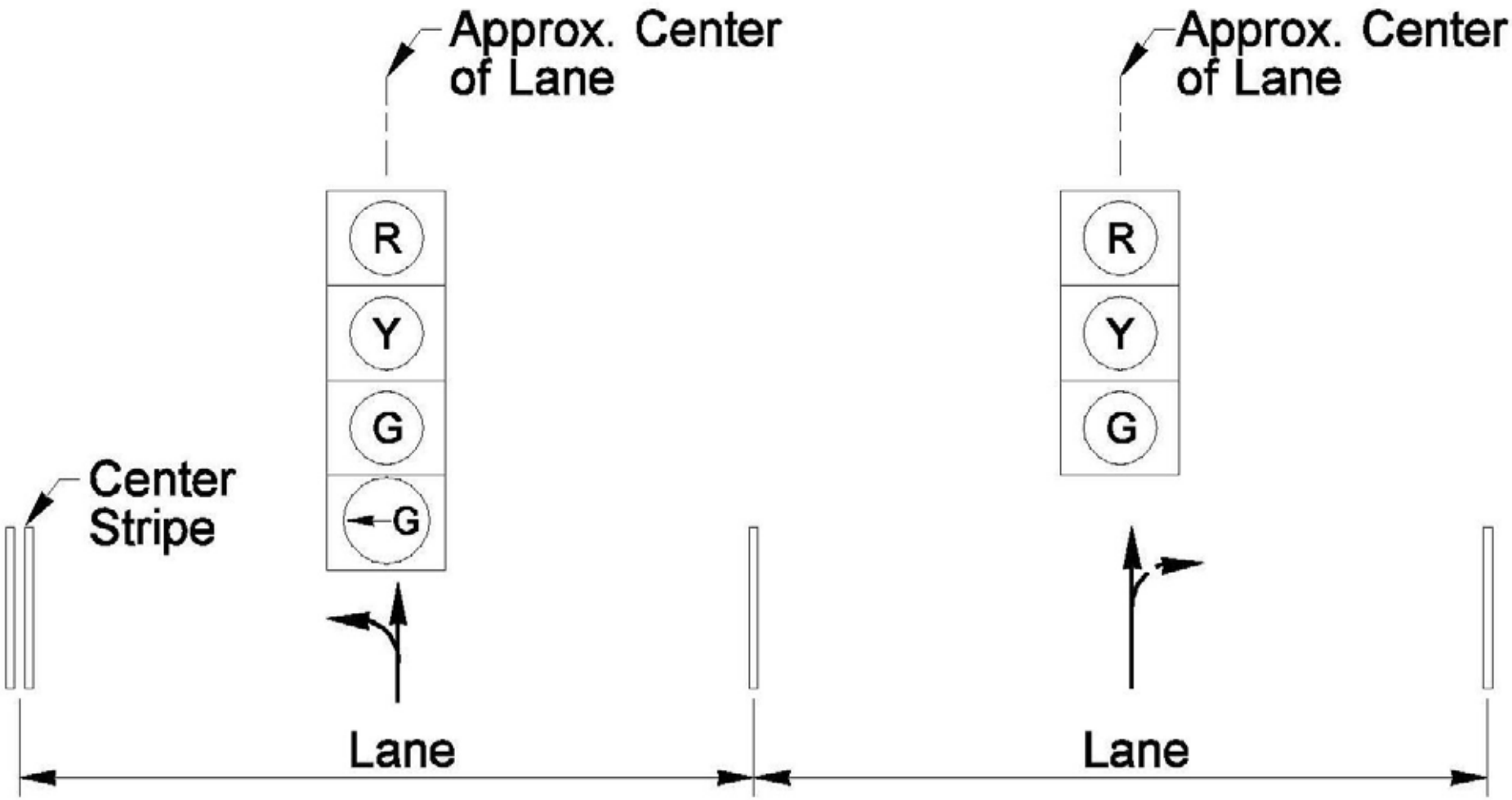
Two Through Lanes and One Left Turn Storage Lane With Permissive Left Turn

Design Manual – Signals page 850-29a



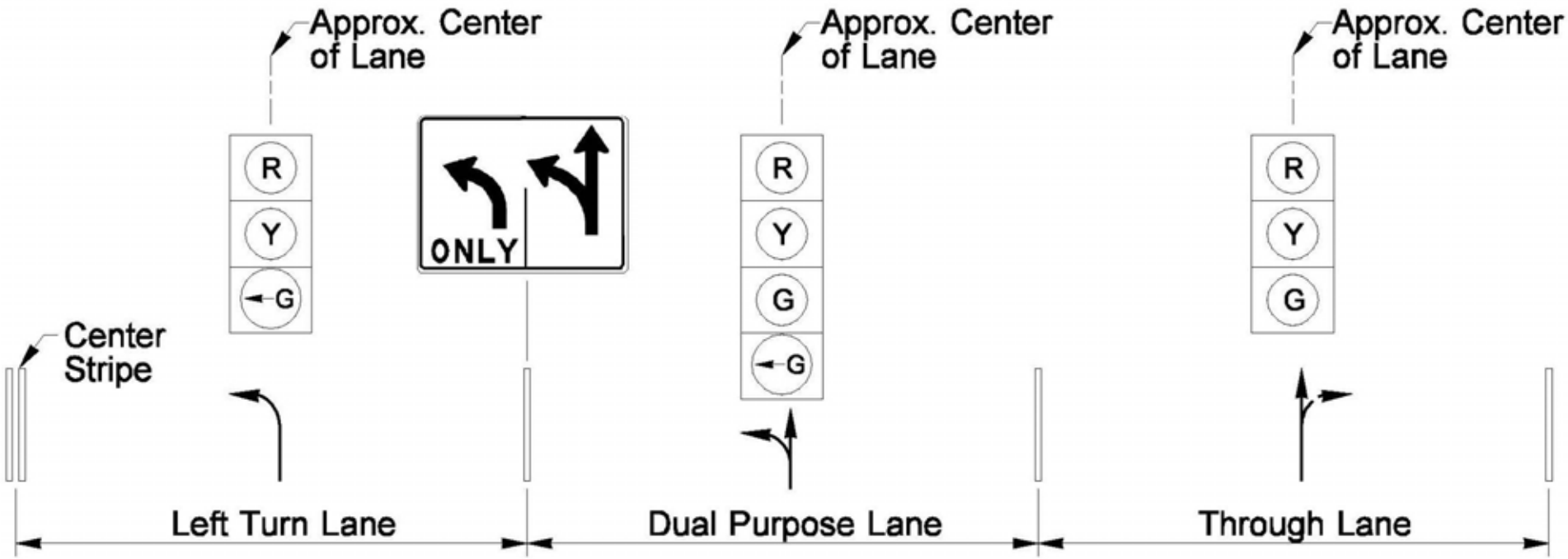
One Through Lane
With Protected Left Turn Phasing

Design Manual – Signals page 850-29b



Two Through Lanes
With Split Phasing for Protected Left Turns
(Left turn and through movements terminate together.)

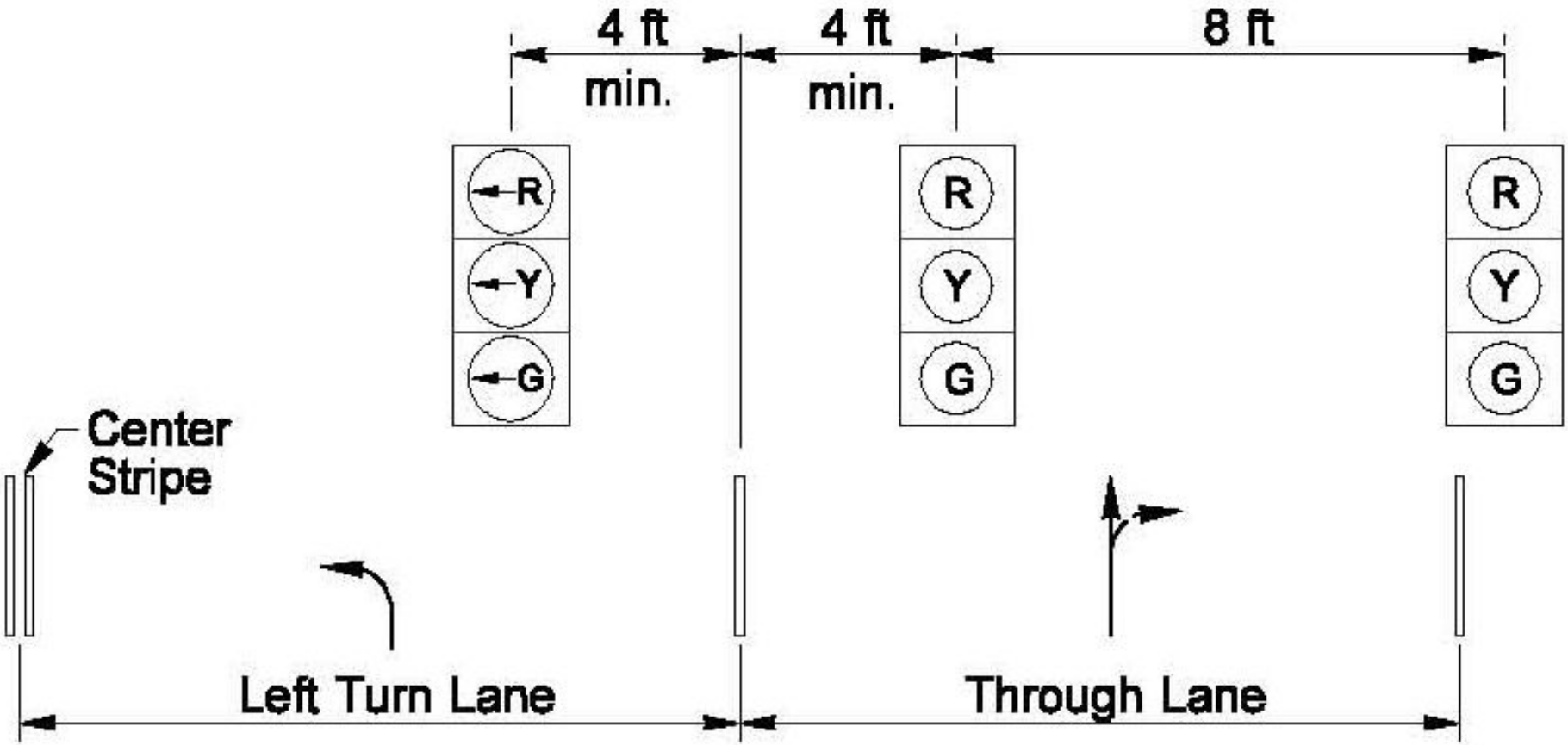
Design Manual – Signals page 850-29c



One Through Lane, a Dual Purpose (Left or Through) Lane and One Left Turn Storage Lane With Split Phasing for Protected Left Turns

(Left turn and through movements terminate together.)

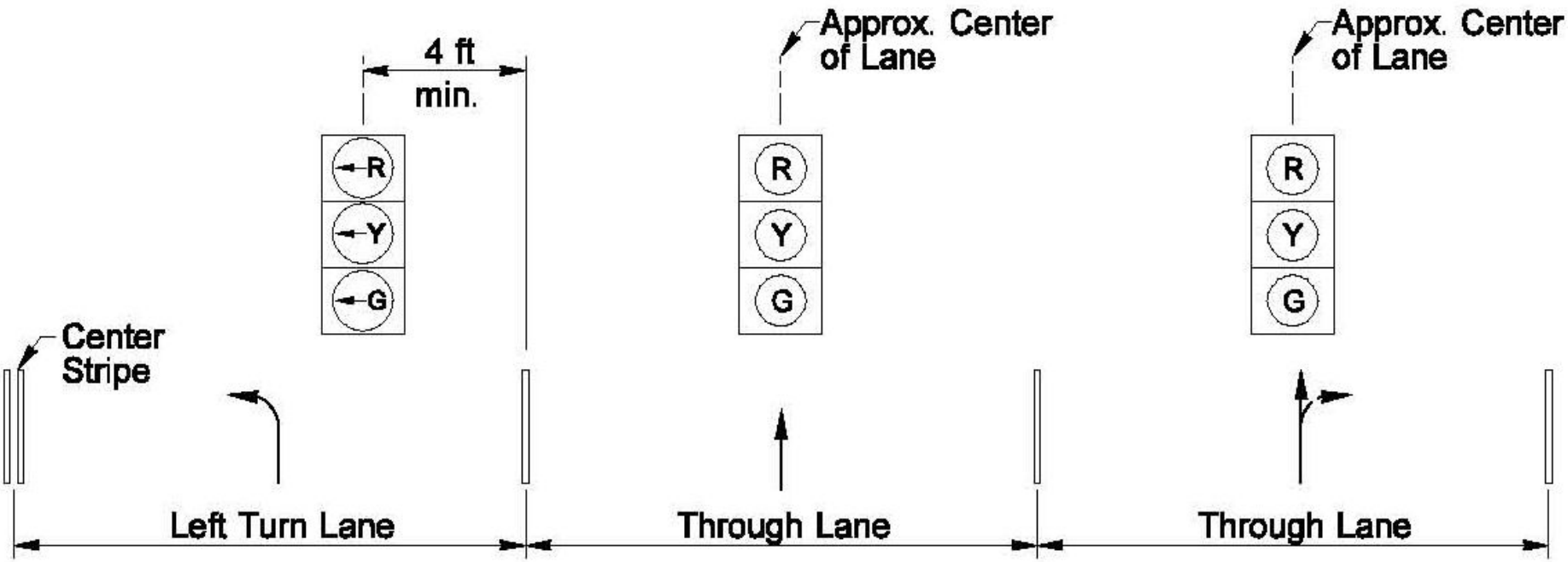
Design Manual – Signals page 850-30a



One Through Lane and One Left Turn Storage Lane With Protected Left Turn Phasing

(Left turn and through movements terminate independently.)

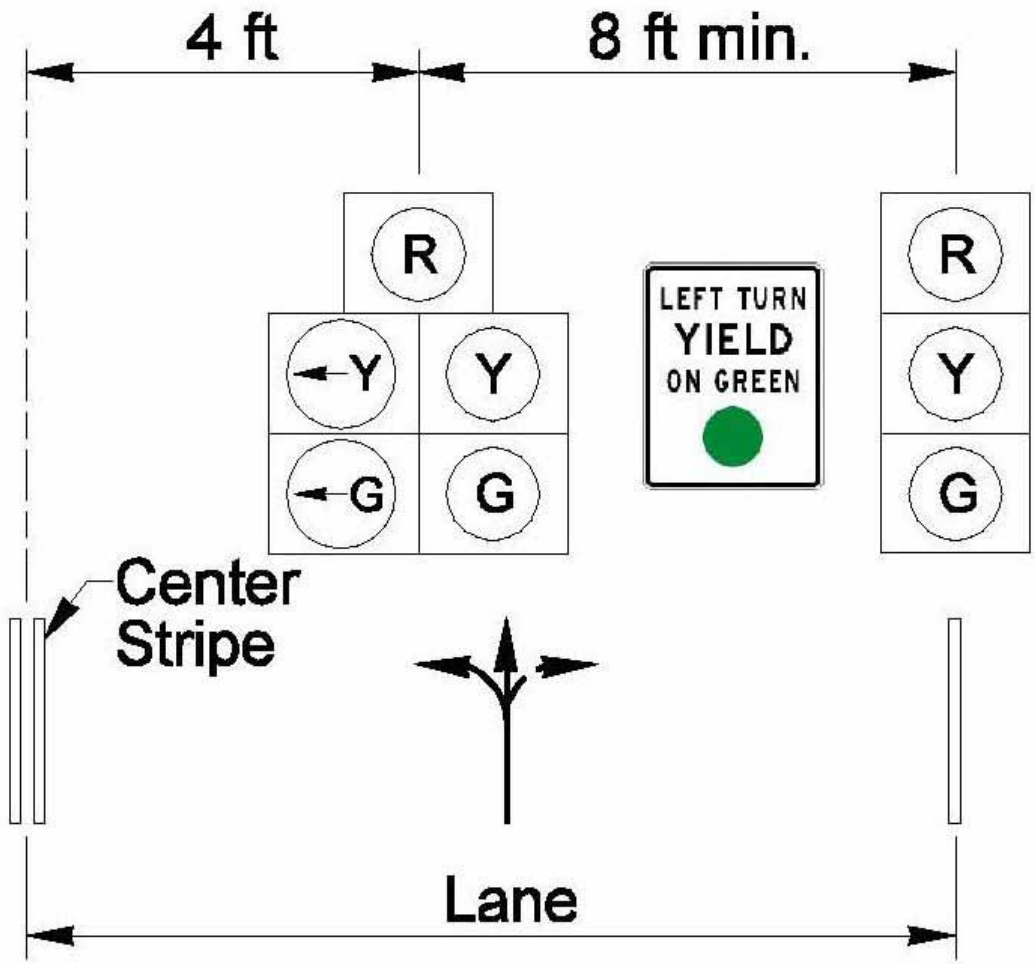
Design Manual – Signals page 850-30b



Two Through Lanes and One Left Turn Storage Lane With Protected Left Turn Phasing

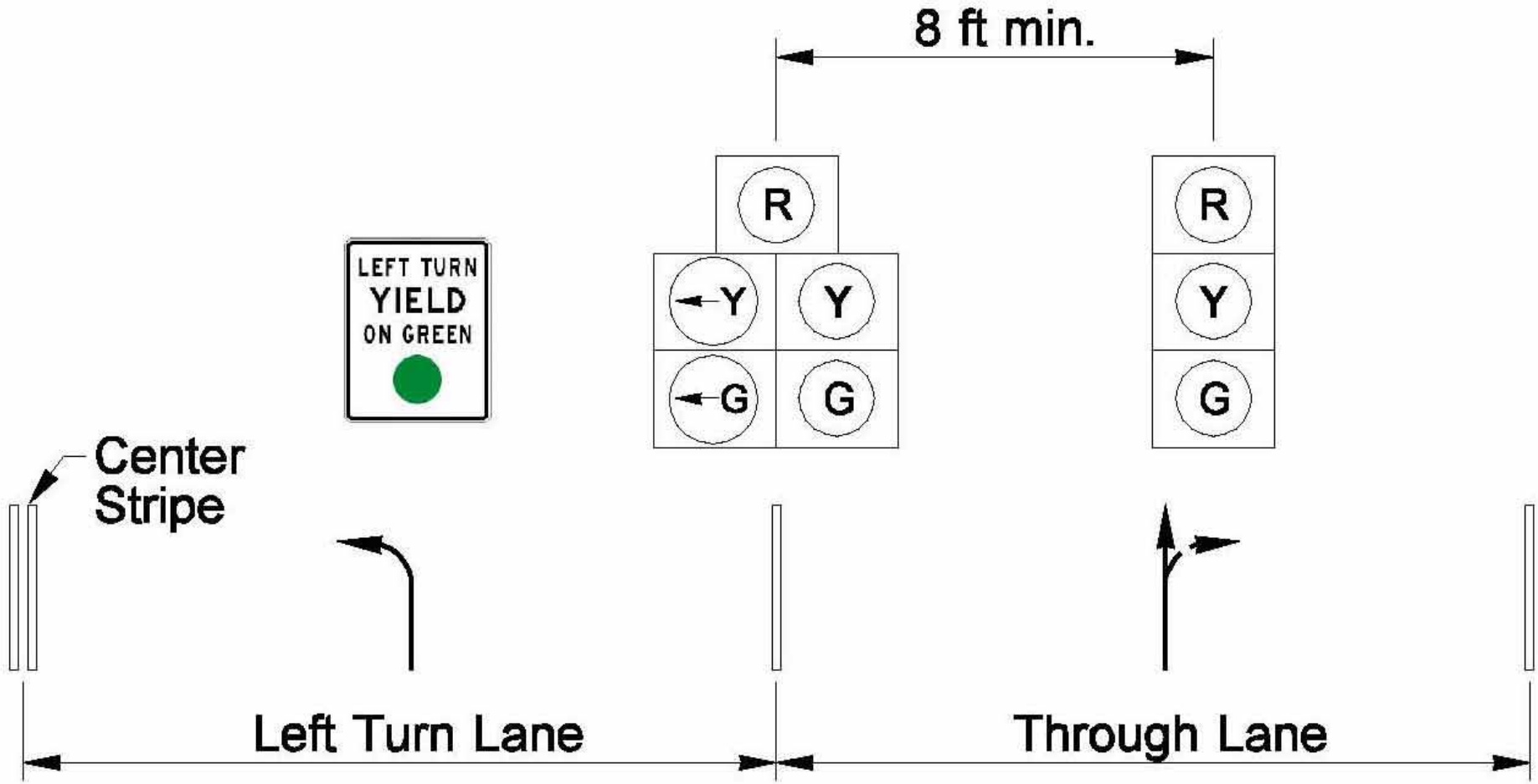
(Left turn and through movements terminate independently.)

Design Manual – Signals page 850-31a



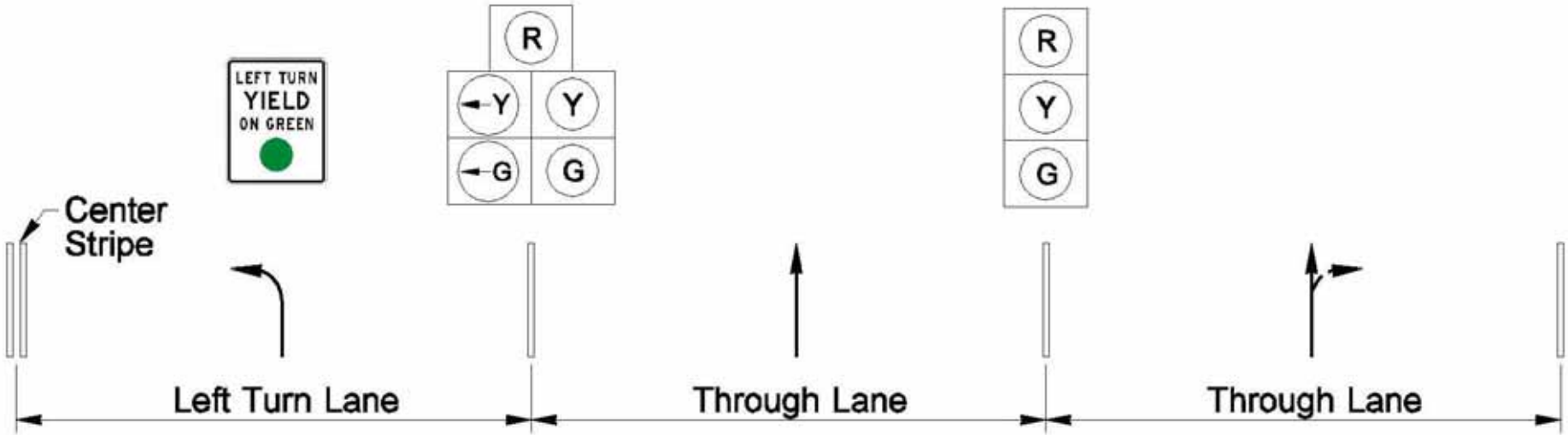
One Through Lane
With Protected / Permissive Left Turn Phasing

Design Manual – Signals page 850-31b



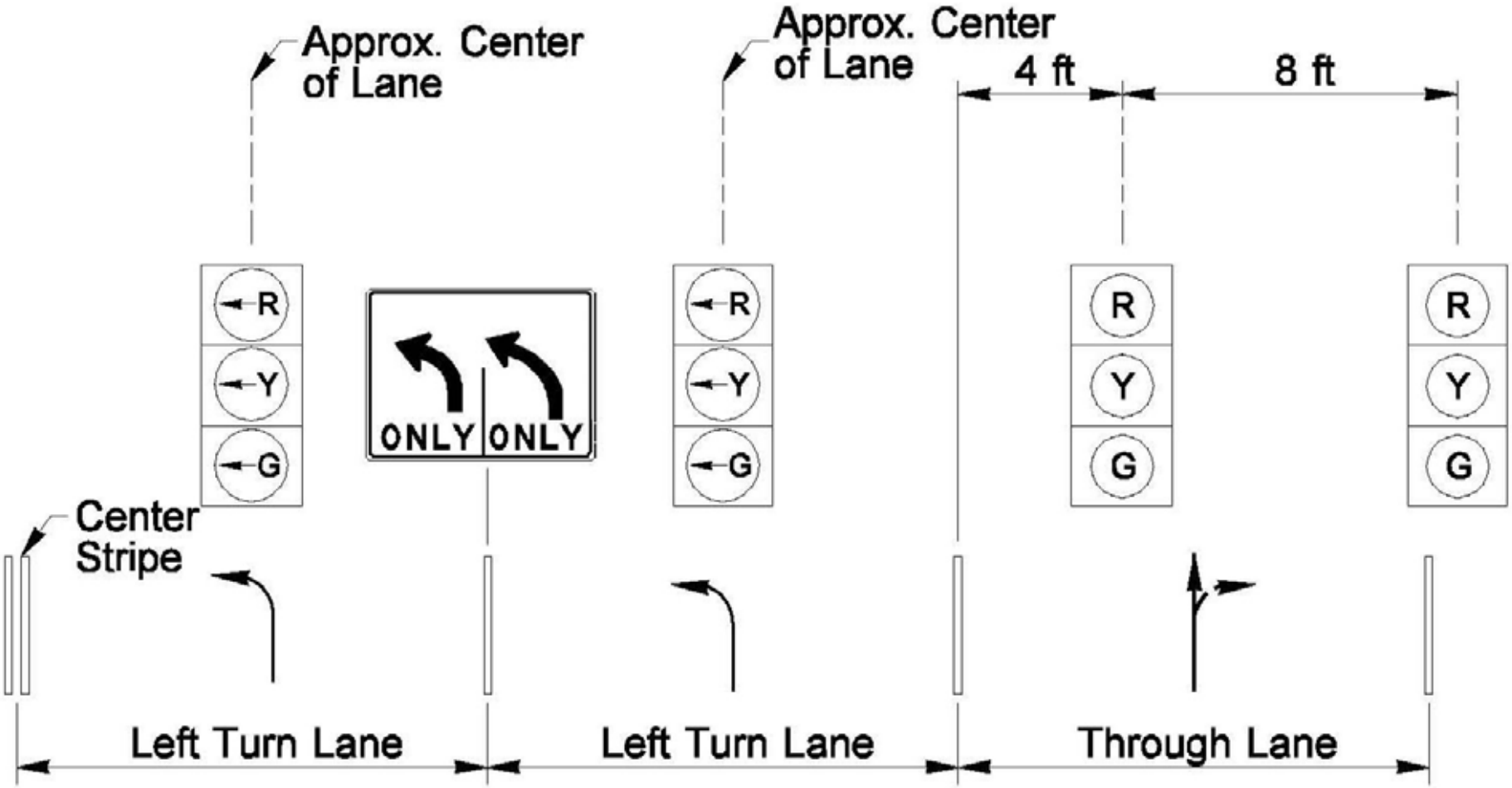
One Through Lane and One Left Turn Storage Lane With Protected / Permissive Left Turn Phasing

Design Manual – Signals page 850-31c



Two Through Lanes and One Left Turn Storage Lane
With Protected / Permissive Left Turn Phasing

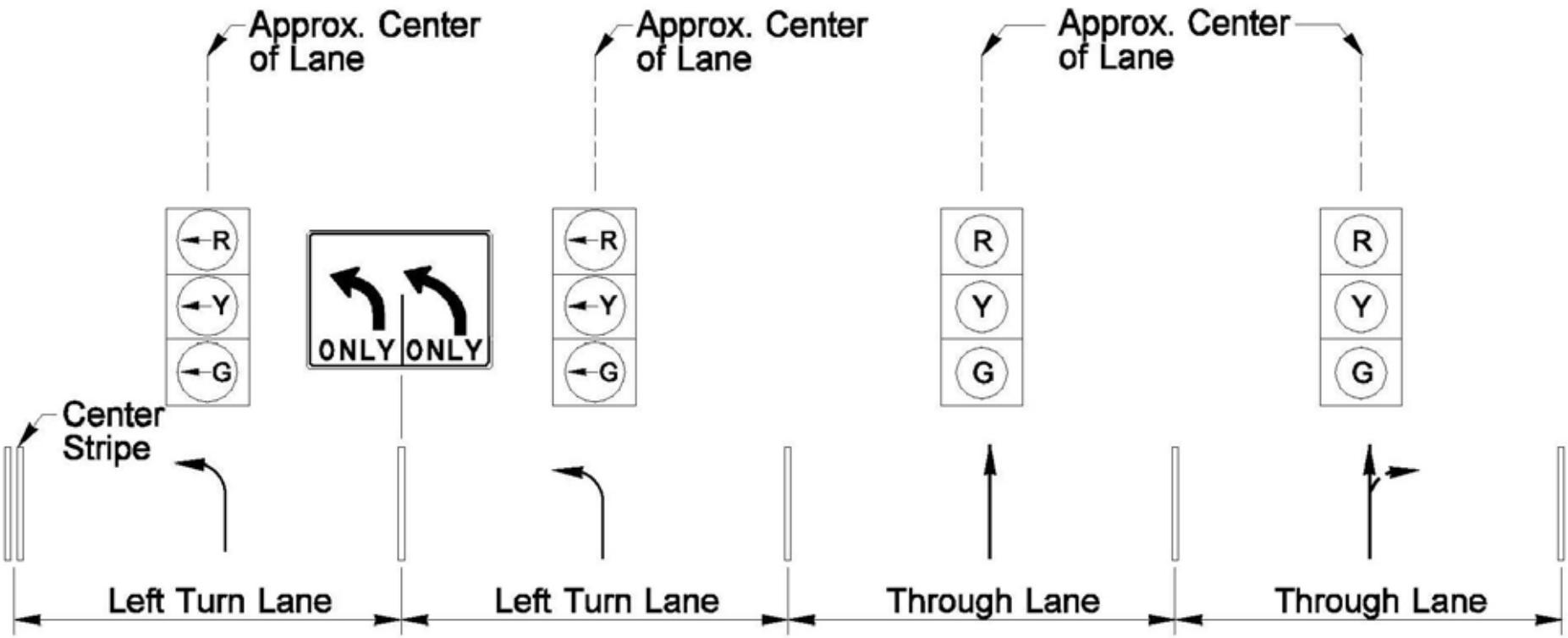
Design Manual – Signals page 850-32a



One Through Lane and Two Left Turn Storage Lanes With Protected Left Turn Phasing

(Left Turn and Through Movements Terminate Independently.)

Design Manual – Signals page 850-32b



Two Through Lanes and Two Left Turn Storage Lanes With Protected Left Turn Phasing

(Left turn and through movements terminate independently.)