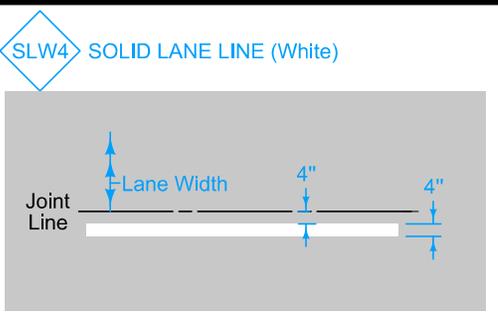
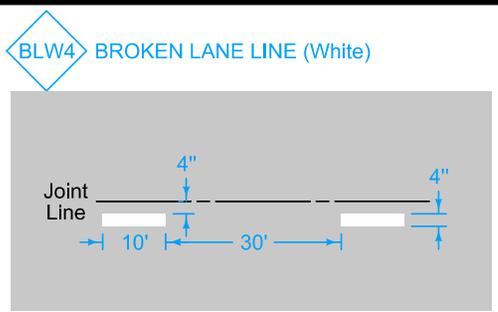
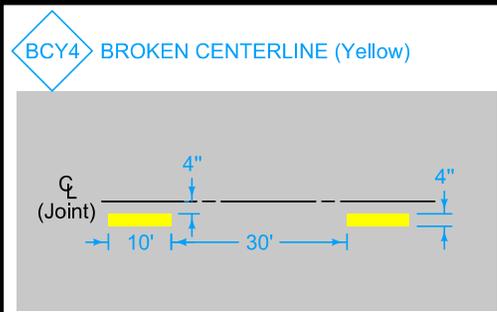


# **Pavement Markings**

# Pavement Markings

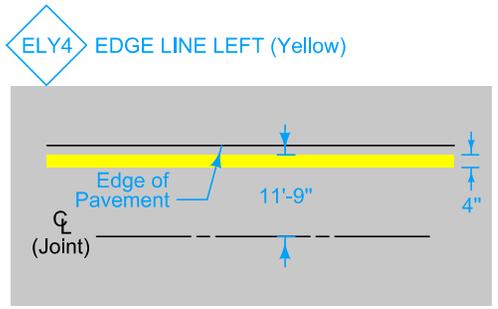
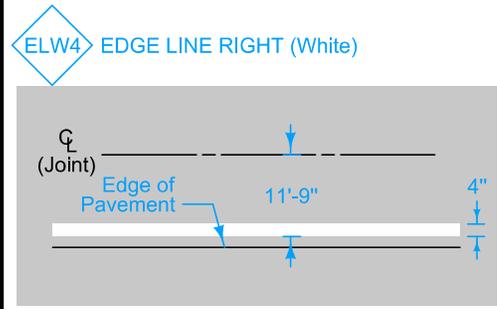
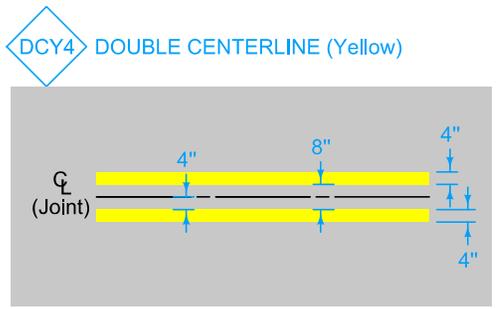
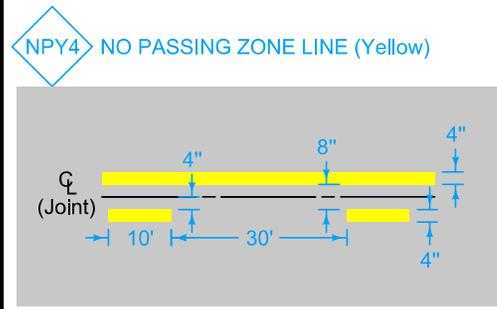
NO.	DATE	TITLE
PM-110	04-16-13	Line Types
PM-111	04-21-15	Symbols and Legends
PM-120	10-21-14	Stop Lines and Islands
PM-210	10-18-11	Separation in Two-Lane Roadway
PM-211	10-18-11	Separation in Four-Lane Roadway
PM-220	10-18-16	Passing Lane
PM-221	10-18-16	Climbing Lane
PM-230	04-17-12	Transition at Abrupt Changes in Pavement Width
PM-240	04-21-15	Railroad Crossing on Two-Lane Roadway
PM-242	04-21-15	Railroad Crossing on Four-Lane Roadway
PM-310	04-19-16	Entrance and Exit Ramps
PM-420	04-19-11	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PM-520	04-19-11	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PM-521	04-19-11	Two-Lane Roadway with Right Turn Lanes
PM-522	10-16-12	Two-Lane Roadway with Left Turn Lanes
PM-550	04-19-11	Two-Lane Roadway with Two-Way Left Turn Lane
PM-560	04-19-11	Divided Multi-Lane Roadway with no Turn Lanes
PM-561	04-19-11	Divided Multi-Lane Roadway with Right Turn Lanes
PM-562	04-19-11	Divided Multi-Lane Roadway with Left Turn Lanes
PM-620	04-19-11	Two-Lane Roadway with no Turn Lanes (Four-Way Stop Condition)
PM-650	04-19-11	Multi-Lane Roadway with Two-Way Left Turn Lane
PM-760	04-19-11	Divided Multi-Lane Roadway Median



Lane layouts shown are typical.

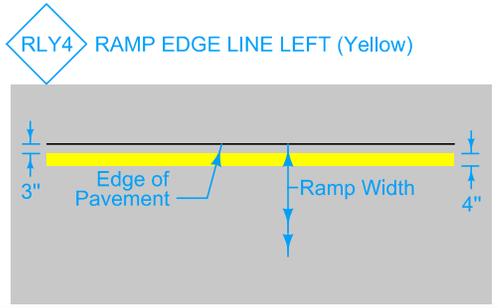
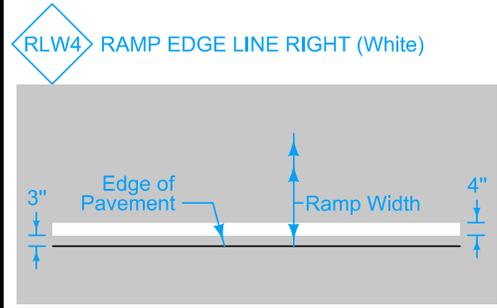
Centerlines and lane lines may be painted either side of centerline.

Drawings on sheets 1 and 2 are oriented to represent direction of traffic moving from left to right.



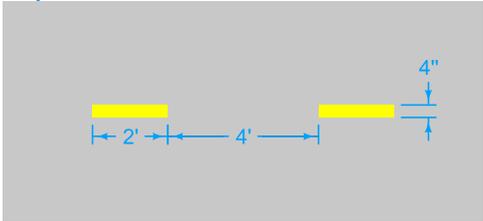
Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
108-22

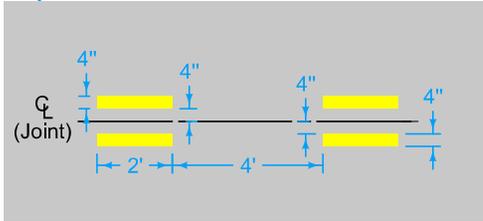


<p>Iowa Department of Transportation</p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: Added details for Edge Lines on ramps to page 1. Added details for Median Nose to page 3.</p> <p><i>Deanna Macfild</i> APPROVED BY DESIGN METHODS ENGINEER</p>	<p>REVISION</p> <table border="1"> <tr> <td>1</td> <td>04-16-13</td> </tr> </table>	1	04-16-13
	1	04-16-13	
<p><b>PM-110</b></p> <p>SHEET 1 of 3</p>	<p><b>LINE TYPES</b></p>		

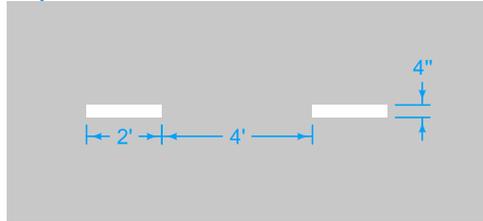
**DLY4** DOTTED LINE (Yellow)



**DDY4** DOUBLE DOTTED LINE (Yellow)



**DLW4** DOTTED LINE (White)



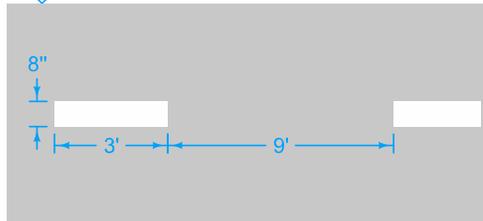
**CHY8** CHANNELIZING LINE (Yellow)



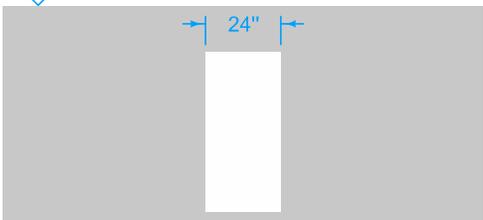
**CHW8** CHANNELIZING LINE (White)



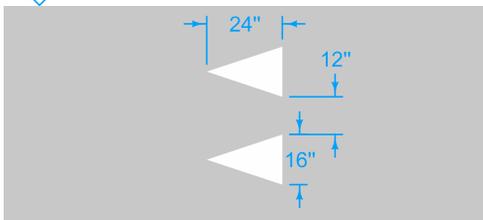
**LDW8** LANE DROP (White)



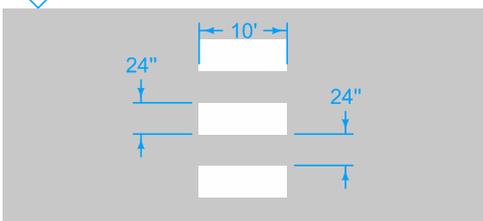
**SLW2** STOP LINE (White)



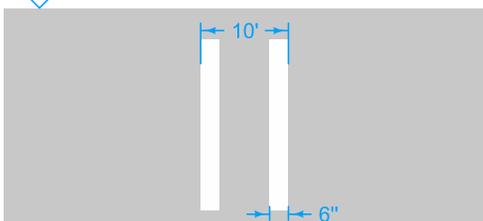
**YLW2** YIELD LINE (White)



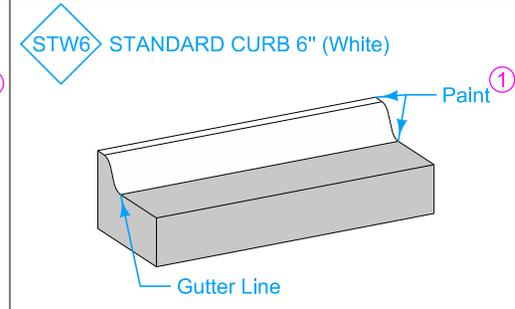
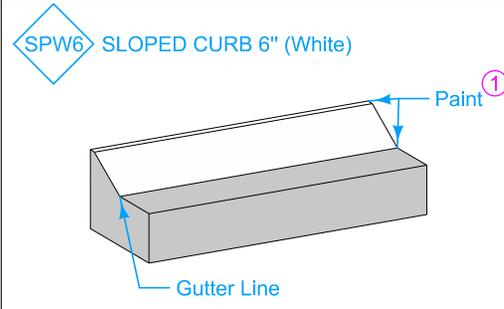
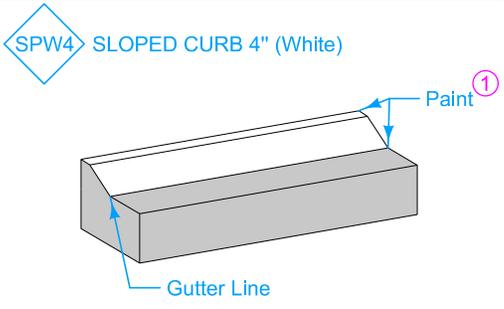
**CBW6** CROSSWALK BAR (White)



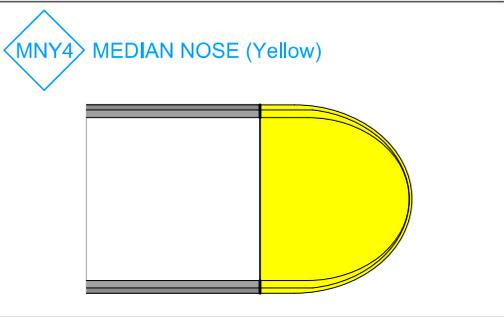
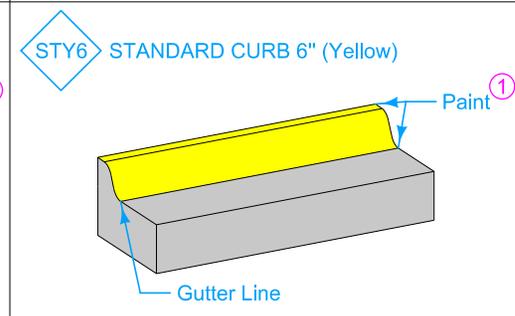
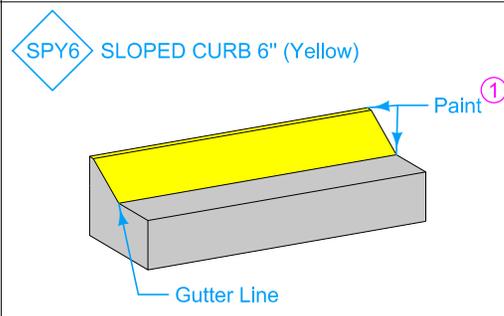
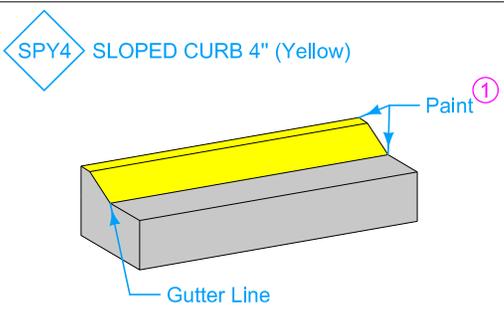
**CLW6** CROSSWALK LINE (White)



 <b>Iowa Department of Transportation</b>	REVISION	
	1	04-16-13
<b>STANDARD ROAD PLAN</b>	<b>PM-110</b>	
SHEET 2 of 3		
<small>REVISIONS: Added details for Edge Lines on ramps to page 1. Added details for Median Nose to page 3.</small>		
<i>Deanna Macfild</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>		
<b>LINE TYPES</b>		

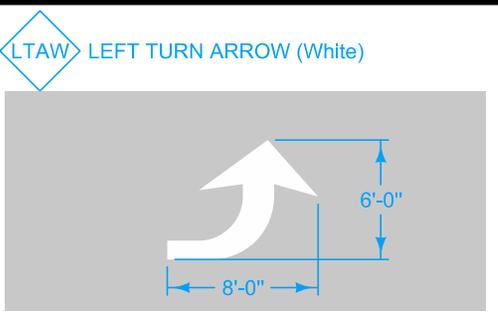
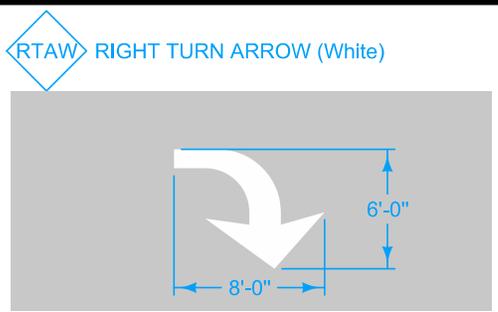
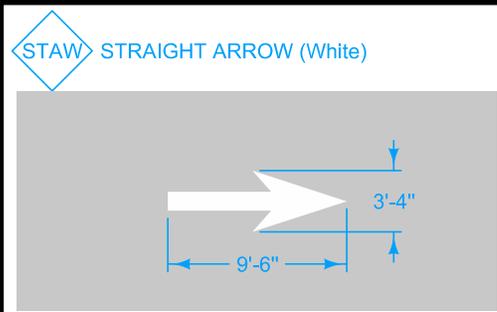


① Apply paint from back of curb to gutter line.



<p>Iowa Department of Transportation</p>	REVISION
	1   04-16-13
<b>STANDARD ROAD PLAN</b>	<b>PM-110</b>
SHEET 3 of 3	
<small>REVISIONS: Added details for Edge Lines on ramps to page 1. Added details for Median Nose to page 3.</small>	
<p>APPROVED BY DESIGN METHODS ENGINEER</p>	

**LINE TYPES**



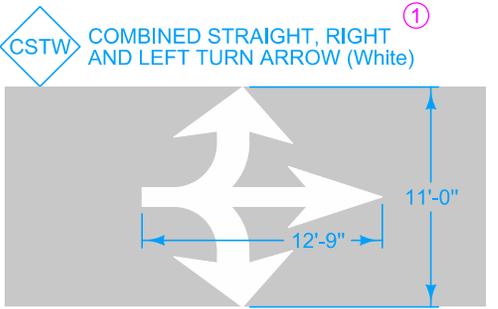
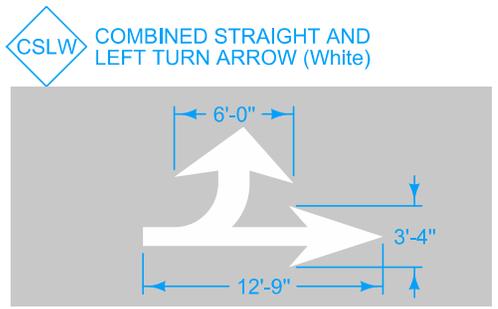
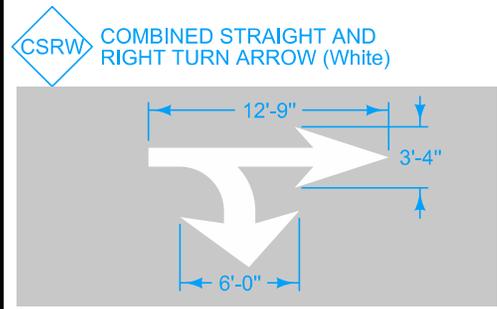
Layouts shown are for typical installations. Drawings are oriented to represent direction of traffic moving from left to right.

Center markings within the lane.

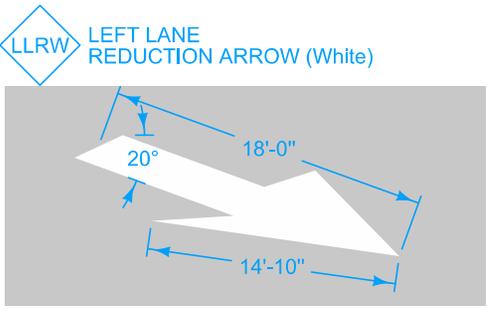
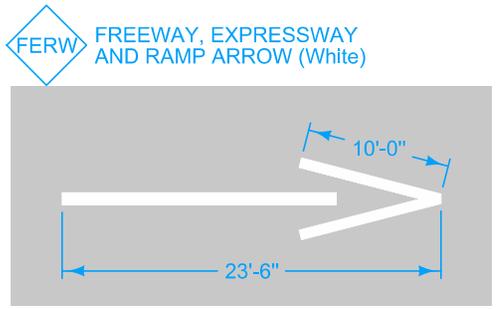
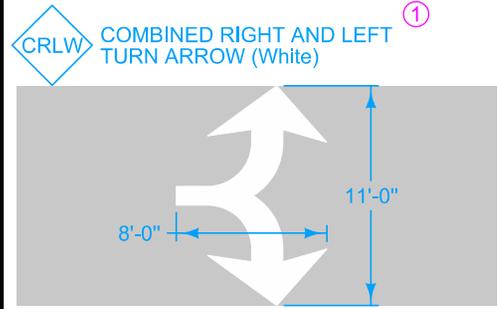
All dimensions shown are nominal. For proper proportion details, see current MUTCD Standard Highway Signs and Markings booklet.

Pavement word, symbol, and arrow markings are to be proportionally scaled to fit within the width of the facility upon which they are applied.

Except for the SCHOOL word marking, all markings are to be no more than one lane in length.

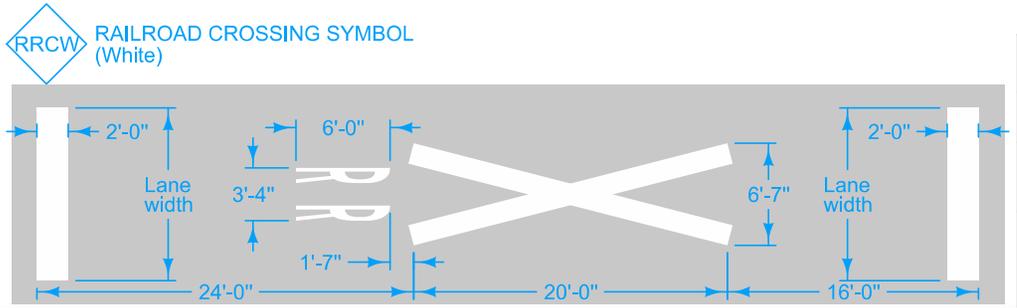
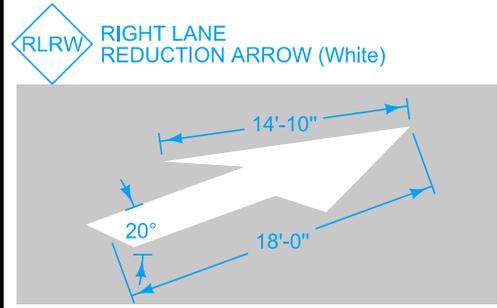


① Add template for Right Turn Arrow (RTAW) to Left Turn Arrow (LTAW) or Combined Straight and Left Turn Arrow (CSLW) to create new templates.



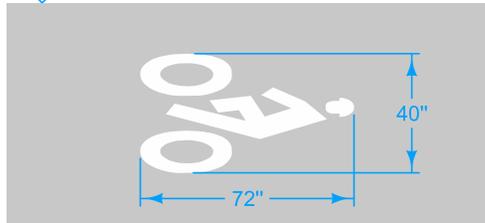
Possible Contract Item:  
Pavement Marking Symbol and Legend Items

Possible Tabulation:  
108-29

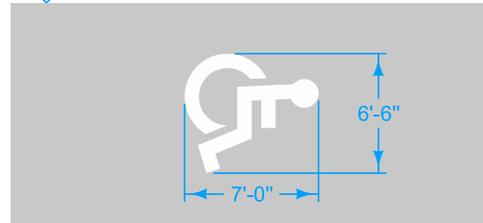


	REVISION
	3 04-21-15
	<b>STANDARD ROAD PLAN</b>
	PM-111
SHEET 1 of 2	
<small>REVISIONS: Added transverse bars and modified dimensions to Railroad Crossing Symbol.</small>	
<i>Brian Smith</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<b>SYMBOLS AND LEGENDS</b>	

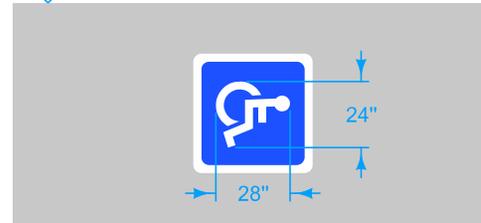
**BLSW** BIKE LANE SYMBOL (White)



**WCSW** WHEELCHAIR SYMBOL (White)

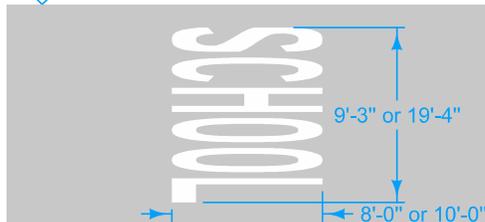


**WPSB** WHEELCHAIR PARKING SYMBOL (Blue)

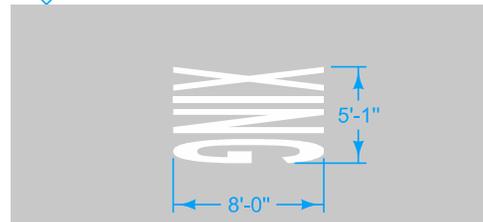


② When placed across one lane, use the smaller dimensions shown. When placed across two lanes, use the larger dimensions shown.

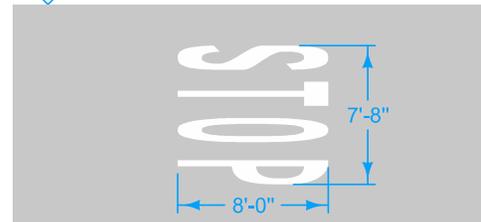
**SCLW** SCHOOL WORD MARKING (White) ②



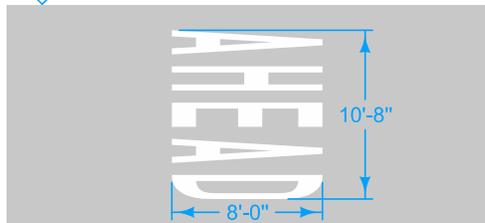
**XNGW** XING WORD MARKING (White)



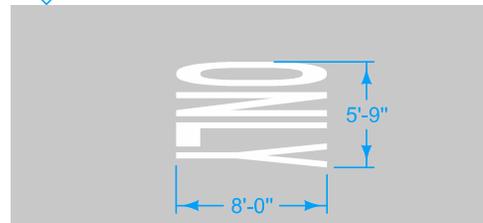
**STPW** STOP WORD MARKING (White)



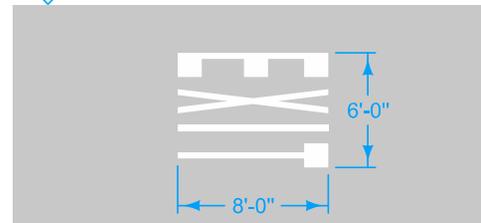
**AHDW** AHEAD WORD MARKING (White)



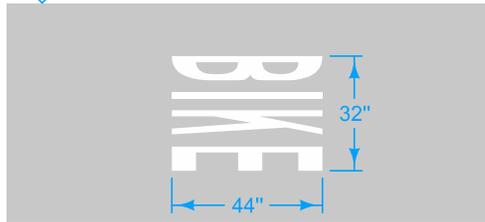
**ONLW** ONLY WORD MARKING (White)



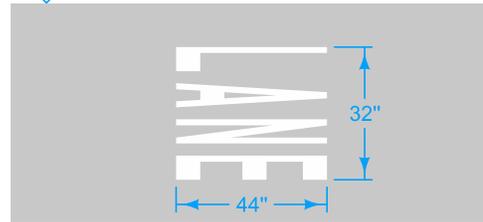
**XITW** EXIT WORD MARKING (White)



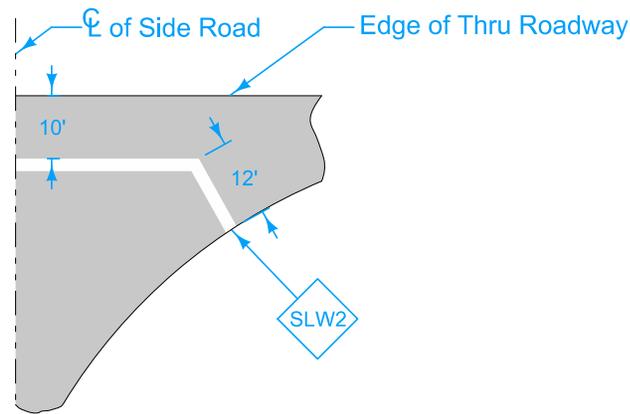
**BIKW** BIKE WORD MARKING (White)



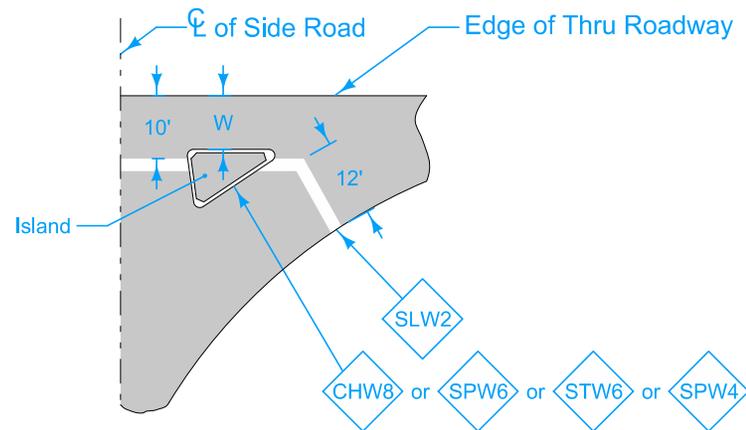
**LANW** LANE WORD MARKING (White)



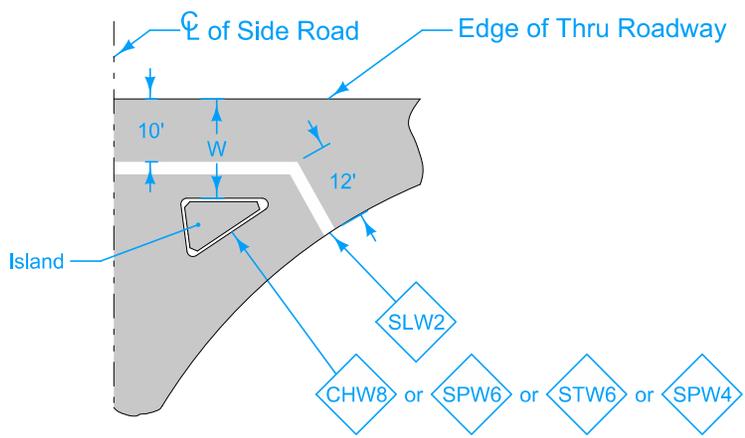
	REVISION
	3   04-21-15
	<b>PM-111</b>
<b>STANDARD ROAD PLAN</b>	SHEET 2 of 2
<small>REVISIONS: Added transverse bars and modified dimensions to Railroad Crossing Symbol.</small>	
<i>Brian Smith</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<b>SYMBOLS AND LEGENDS</b>	



**CASE 'A'**  
**NO ISLAND**



**CASE 'B'**  
**ISLAND AND W < 10 FT.**



**CASE 'C'**  
**ISLAND AND W ≥ 10 FT.**

LEGEND	
CHW8	Channelizing Line (White)
SLW2	Stop Line (White)
SPW6	Sloped Curb 6" (White)
STW6	Standard Curb 6" (White)
SPW4	Sloped Curb 4" (White)

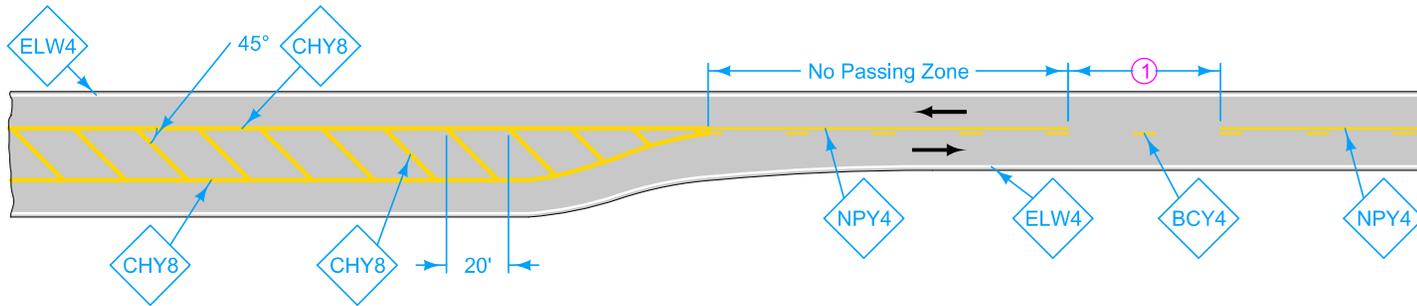
Place Stop Line perpendicular to radius and parallel to Thru Roadway.  
 For line information, see [PM-110](#).  
 For Island information, see [PV-20](#).

Possible Contract Item:  
 Pavement Marking Line Items  
 Possible Tabulation:  
 108-22

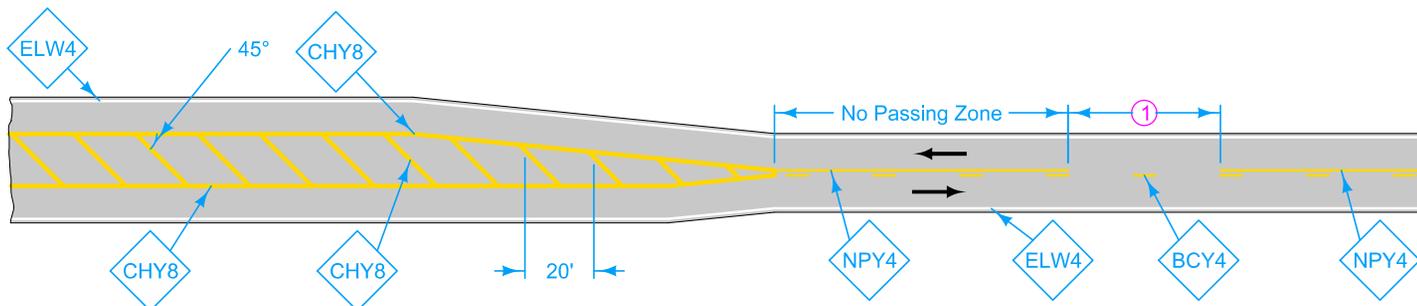
<b>IOWA DOT</b>	REVISION
	3   10-21-14
STANDARD ROAD PLAN	PM-120
SHEET 1 of 1	
REVISIONS: Added CHW8 to Case 'B' and 'C'.	
APPROVED BY DESIGN METHODS ENGINEER	
STOP LINES AND ISLANDS	

For line information, see [PM-110](#).

① If less than 400 feet, join solid yellow lines.



**OFFSET ALL TO ONE SIDE**



**OFFSET SPLIT BETWEEN SIDES**

**FLUSH MEDIANS**

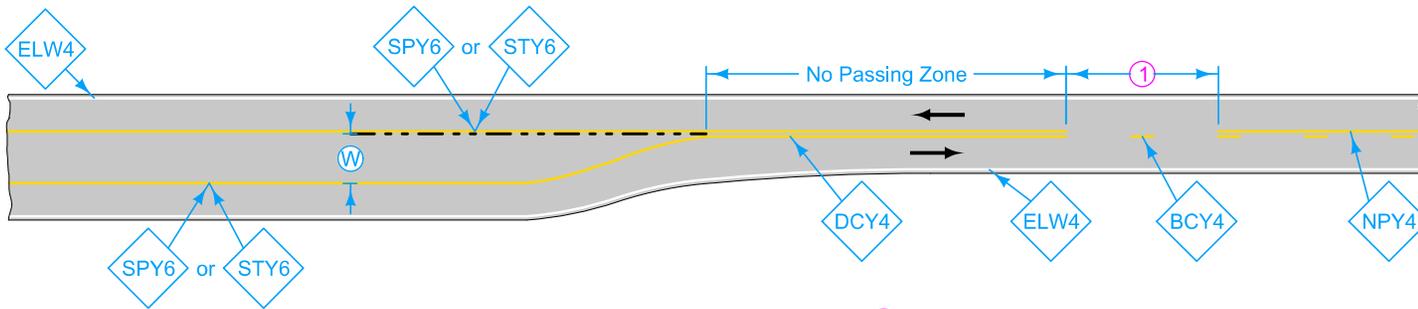
LEGEND	
---	Centerline Extension
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
CHY8	Channelizing Line (Yellow)
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)

Speed (mph)	Length of No Passing Zone
20	300'
25	300'
30	360'
35	360'
40	480'
45	480'
50	600'
55	600'

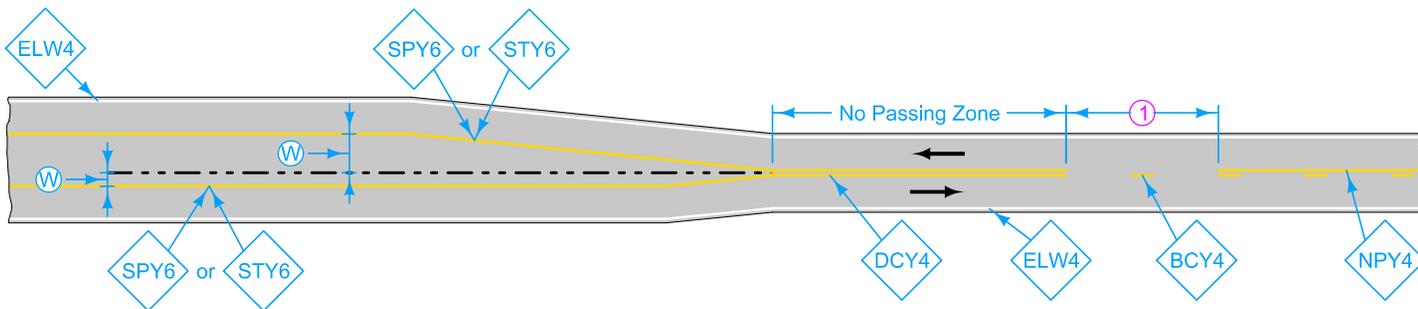
Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
[108-22](#)

<p><b>Iowa Department of Transportation</b></p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: Added additional "W" information and moved to circle note 2. Flush medians: Changed NPZ length table, changed DCY4 to NPY4, and removed "W".</p> <p><i>Deanna Macfild</i> APPROVED BY DESIGN METHODS ENGINEER</p>	REVISION 1   10-18-11
	<b>PM-210</b> SHEET 1 of 2
	<b>SEPARATION IN TWO-LANE ROADWAY</b>



OFFSET  $W$  ALL TO ONE SIDE <sup>②</sup>



OFFSET  $W$  SPLIT BETWEEN SIDES <sup>②</sup>

**RAISED MEDIANS**

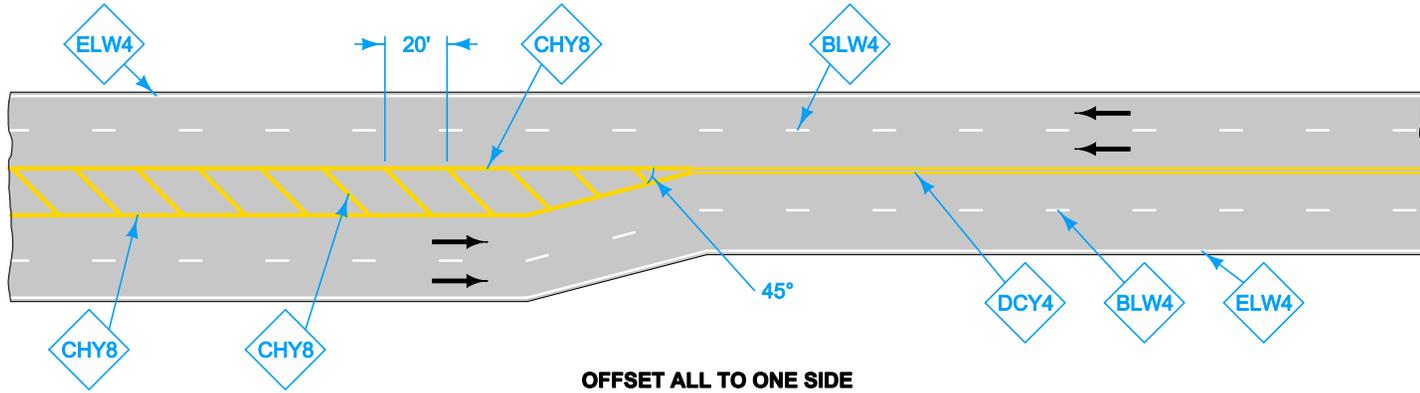
- ① If less than 400 feet, join solid yellow lines.
- ② The offset distance from centerline,  $W$ , can be either the entire width of the offset if the offset is all to one side, or it is the larger of the two partial offsets if the entire width of the offset is split between the two directions of traffic. Measure  $W$  from the midpoint of the centerline to the outside edge of the painted curb.

LEGEND			
---	Centerline Extension	ELW4	Edge Line Right (White)
←	Direction of Traffic	NPY4	No Passing Zone Line (Yellow)
BCY4	Broken Centerline (Yellow)	SPY6	Sloped Curb 6" (Yellow)
DCY4	Double Centerline (Yellow)	STY6	Standard Curb 6" (Yellow)

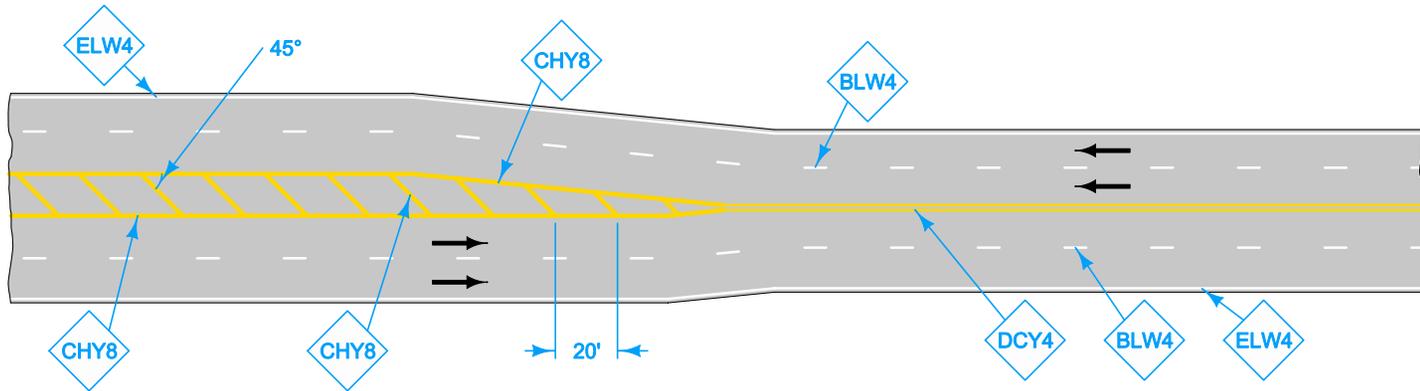
Length of No Passing Zone						
Speed (mph)	$W$ = offset distance from centerline					
	6'	8'	10'	12'	14'	16'
25	200	200	210	250	300	340
35	250	330	410	490	580	660
45	540	720	900	1080	1260	1440
55	660	880	1100	1320	1540	1760
65	780	1040	1300	1560	1820	2080

<p>Iowa Department of Transportation</p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: Added additional "W" information and moved to circle note 2. Flush medians: Changed NPZ length table, changed DCY4 to NPY4, and removed "W".</p> <p><i>Deanna Macfild</i> APPROVED BY DESIGN METHODS ENGINEER</p>	<p>REVISION</p> <table border="1"> <tr> <td>1</td> <td>10-18-11</td> </tr> </table>	1	10-18-11
	1	10-18-11	
	<p><b>PM-210</b></p> <p>SHEET 2 of 2</p>		
<p><b>SEPARATION IN TWO-LANE ROADWAY</b></p>			

For line information, see **PM-110**.



**OFFSET ALL TO ONE SIDE**



**OFFSET SPLIT BETWEEN SIDES**

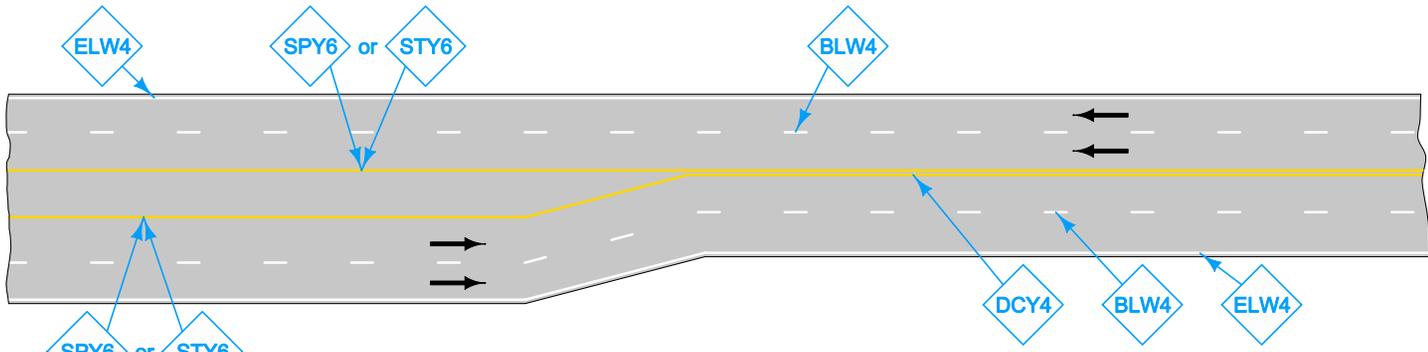
**FLUSH MEDIANS**

LEGEND	
	Direction of Traffic
	DCY4 Double Centerline (Yellow)
	BLW4 Broken Lane Line (White)
	CHY8 Channelizing Line (Yellow)
	ELW4 Edge Line Right (White)

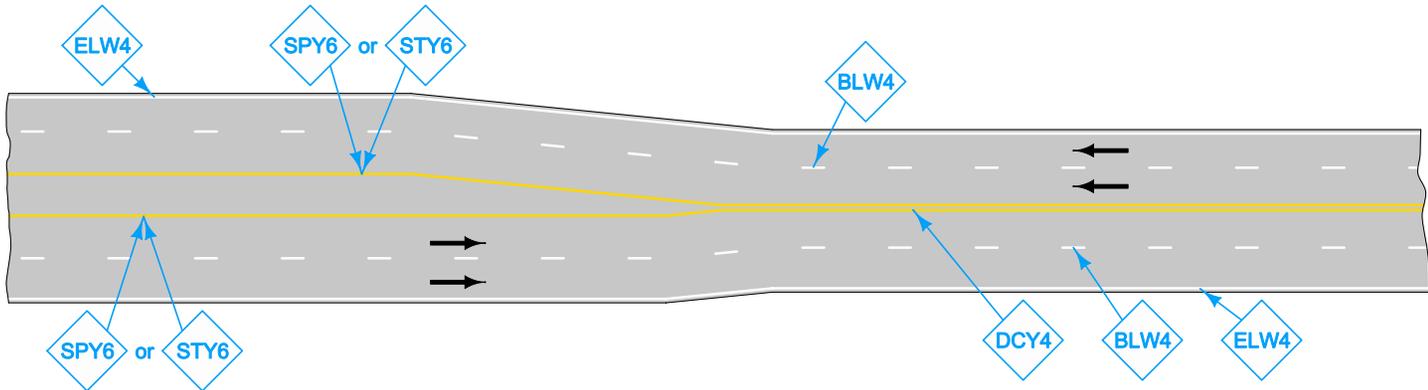
Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
**108-22**

<p>Iowa Department of Transportation</p>	REVISION
	1   10-18-11
<b>STANDARD ROAD PLAN</b>	<b>PM-211</b>
SHEET 1 of 2	
<small>REVISIONS: Removed offset information from general note.</small>	
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<p><b>SEPARATION IN FOUR-LANE ROADWAY</b></p>	



**OFFSET ALL TO ONE SIDE**



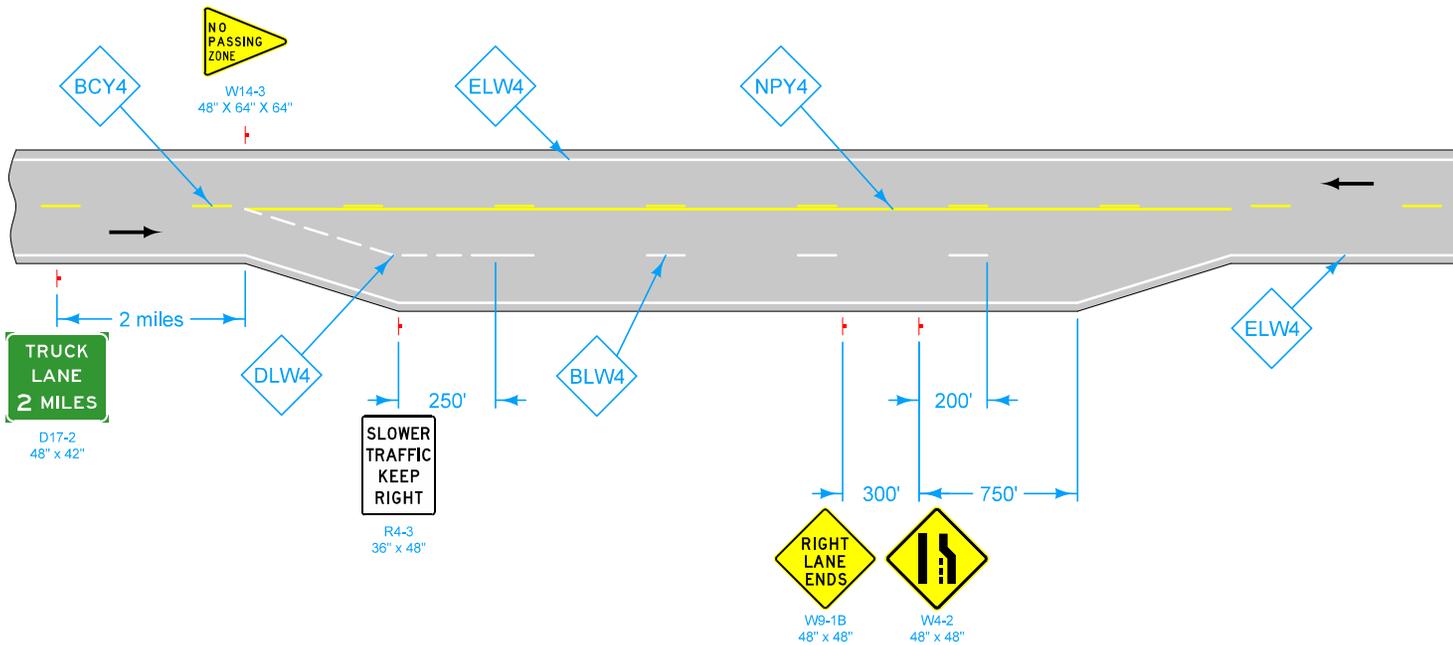
**OFFSET SPLIT BETWEEN SIDES**

**RAISED MEDIANS**

LEGEND			
←	Direction of Traffic	ELW4	Edge Line Right (White)
BLW4	Broken Lane Line (White)	SPY6	Sloped Curb 6" (Yellow)
DCY4	Double Centerline (Yellow)	STY6	Standard Curb 6" (Yellow)

<p>Iowa Department of Transportation</p>	REVISION	
	1	10-18-11
<b>STANDARD ROAD PLAN</b>	<b>PM-211</b>	
REVISIONS: Removed offset information from general note.		
<p>APPROVED BY DESIGN METHODS ENGINEER</p>		
<b>SEPARATION IN FOUR-LANE ROADWAY</b>		

For line information, see [PM-110](#).



LEGEND

- ← Direction of Traffic
- BCY4 Broken Centerline (Yellow)
- BLW4 Broken Lane Line (White)
- ELW4 Edge Line Right (White)
- DLW4 Dotted Line (White)
- NPY4 No Passing Zone Line (Yellow)

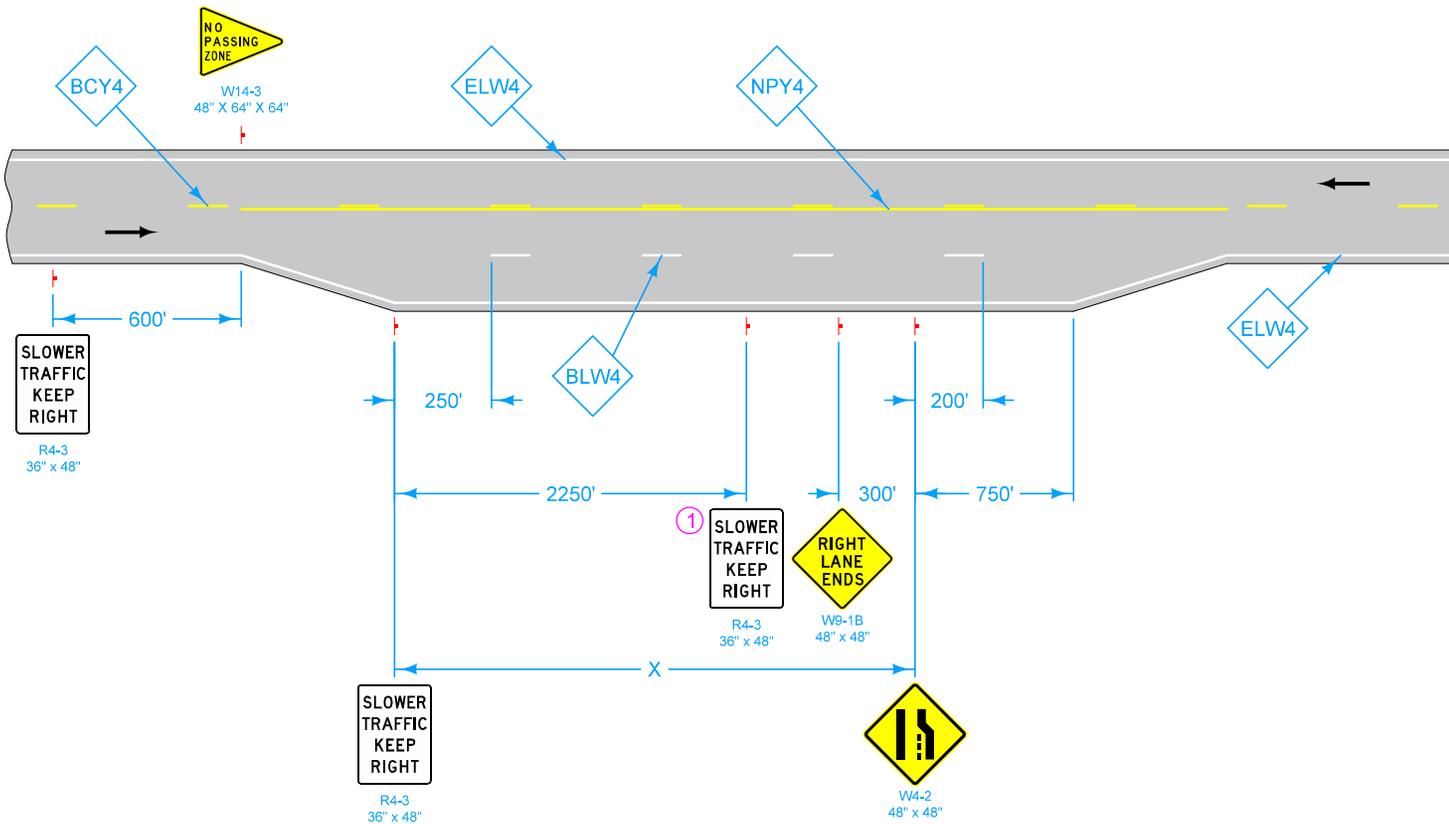
Possible Contract Item:  
Pavement Marking Line Items  
Type 'A' Signs

Possible Tabulation:  
[108-22](#)

	REVISION	
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1	10-18-16	
STANDARD ROAD PLAN	PM-220	
SHEET 1 of 1		
REVISIONS: Changed No Passing Zone sign size from 48" x 60" to 48" x 64". Replaced old DOT logo with new DOT logo.		
APPROVED BY DESIGN METHODS ENGINEER		
PASSING LANE		

For line information, see [PM-110](#).

- 1 If distance X is less than 3000 feet, omit last R4-3 sign. If distance X is greater than 5250 feet, place R4-3 signs at 2250 foot intervals.



SLOWER  
TRAFFIC  
KEEP  
RIGHT  
R4-3  
36" x 48"

1 SLOWER  
TRAFFIC  
KEEP  
RIGHT  
R4-3  
36" x 48"

RIGHT  
LANE  
ENDS  
W9-1B  
48" x 48"

CLIMBING  
LANE  
W4-2  
48" x 48"

SLOWER  
TRAFFIC  
KEEP  
RIGHT  
R4-3  
36" x 48"

LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
BLW4	Broken Lane Line (White)
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)

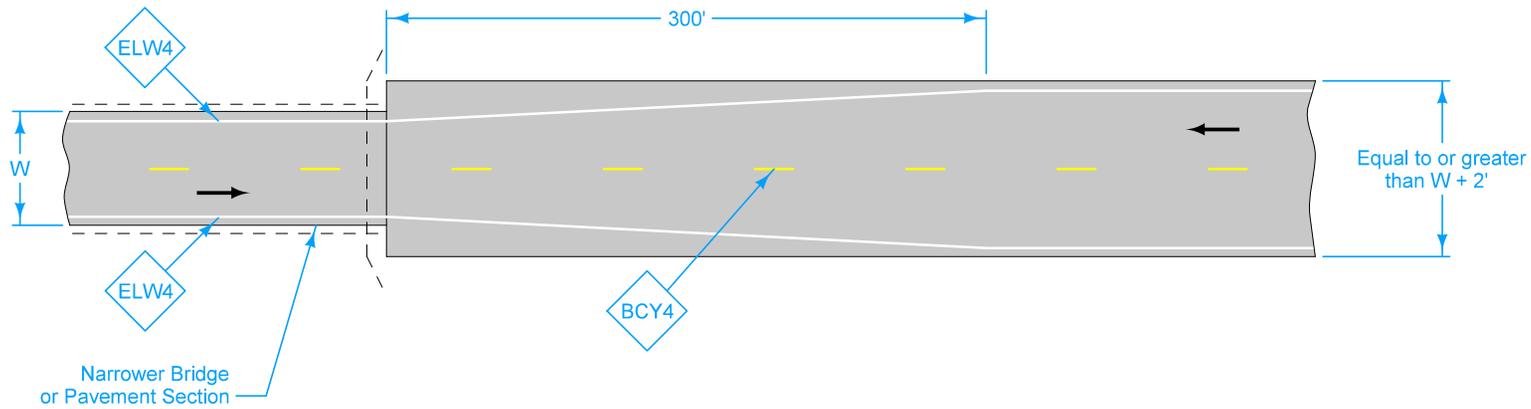
Possible Contract Item:  
Pavement Marking Line Items  
Type 'A' Signs

Possible Tabulation:  
108-22

	REVISION
	1 10-18-16
	STANDARD ROAD PLAN
PM-221	
SHEET 1 of 1	
REVISIONS: Changed No Passing Zone sign size from 48" x 60" x 60" to 48" x 64" x 64". Replaced old DOT logo with new DOT logo.	
Brian Smith APPROVED BY DESIGN METHODS ENGINEER	
CLIMBING LANE	

For line information, see [PM-110](#).

On the approach to a narrower bridge or pavement section, place edge lines on a diagonal from a point 300 feet from the bridge to the gutter line of the bridge.



LEGEND	
	Direction of Traffic
BCY4	Broken Centerline (Yellow)
ELW4	Edge Line Right (White)

Possible Contract Item:  
Pavement Marking Line Items

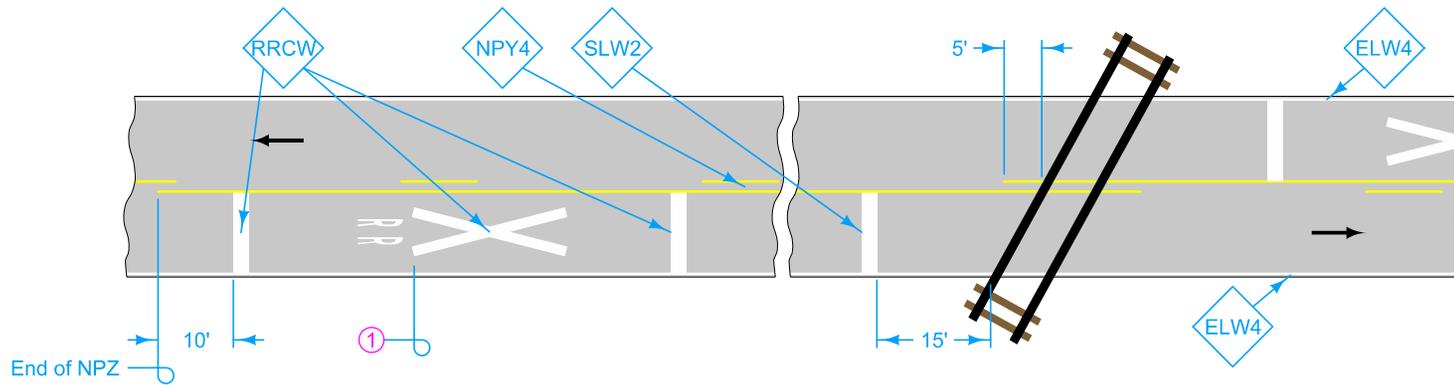
Possible Tabulation:  
[108-22](#)

	REVISION
	New 04-17-12
<b>STANDARD ROAD PLAN</b>	<b>PM-230</b>
REVISIONS: New.	SHEET 1 of 1
 APPROVED BY DESIGN METHODS ENGINEER	
<b>TRANSITION AT ABRUPT CHANGES IN PAVEMENT WIDTH</b>	

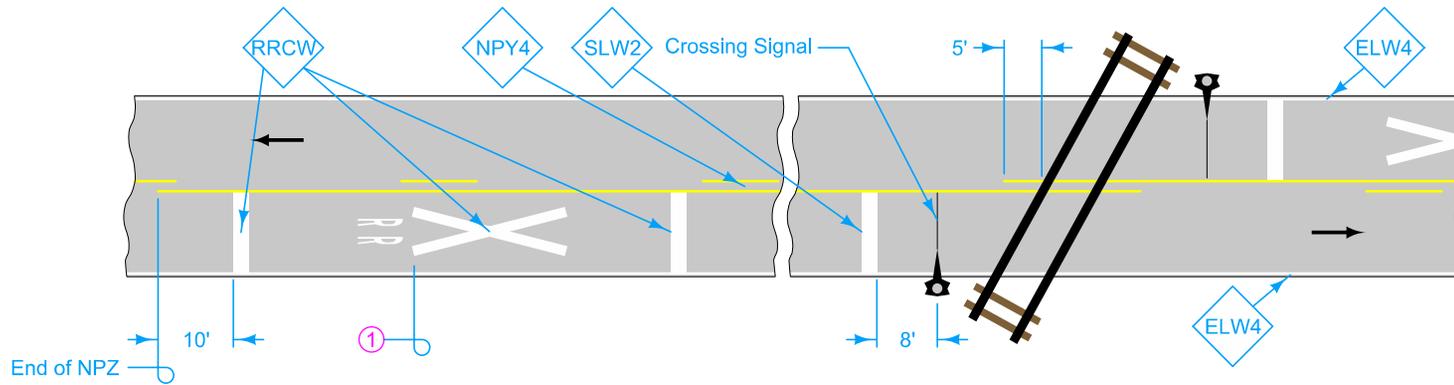
For line information, see [PM-110](#).

For symbol and legend information, see [PM-111](#).

① Location of Grade Crossing Advance Warning sign (W10-1). See [SI-241](#).



**CROSSING WITH CROSSBUCK**



**CROSSING WITH CROSSING SIGNAL**

Possible Contract Items:  
 Pavement Marking Line Items  
 Pavement Marking Symbol and Legend Items

Possible Tabulations:  
[108-22](#)  
[108-29](#)

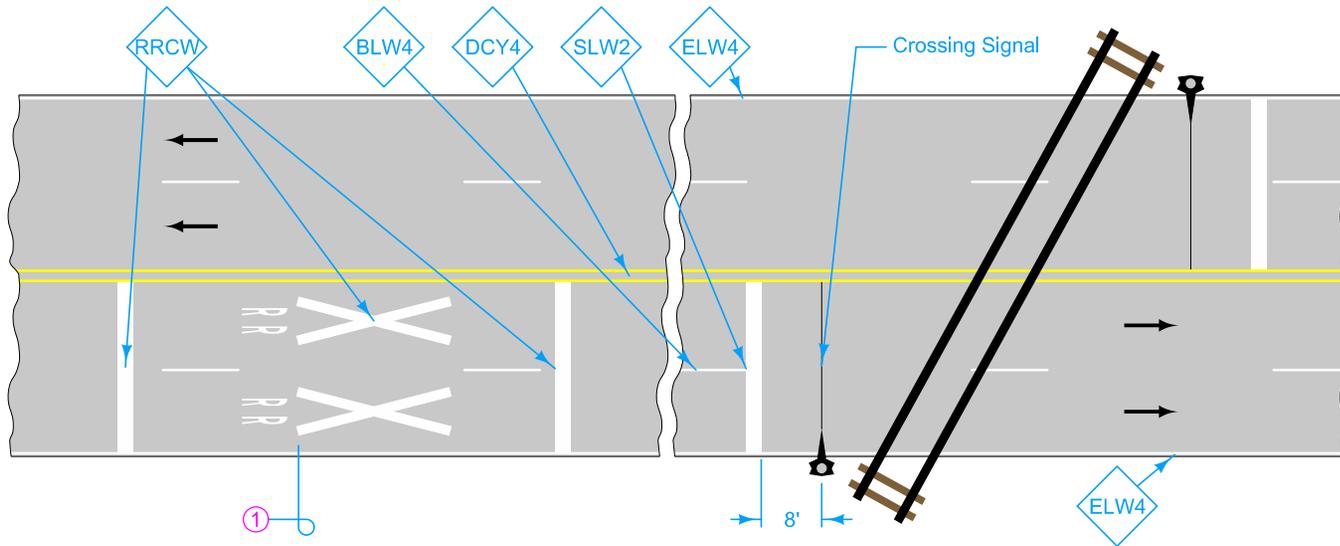
LEGEND	
←	Direction of Traffic
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)
RRCW	Railroad Crossing Symbol (White)
SLW2	Stop Line (White)

	REVISION
	2   04-21-15
<b>STANDARD ROAD PLAN</b>	<b>PM-240</b>
SHEET 1 of 1	
<small>REVISIONS: Changed designation for two transverse bands from SLW2 to RRCW and removed associated dimensions.</small>	
<small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<b>RAILROAD CROSSING ON TWO-LANE ROADWAY</b>	

For line information, see [PM-110](#).

For symbol and legend information, see [PM-111](#).

① Location of Grade Crossing Advance Warning sign (W10-1). See [SI-241](#).



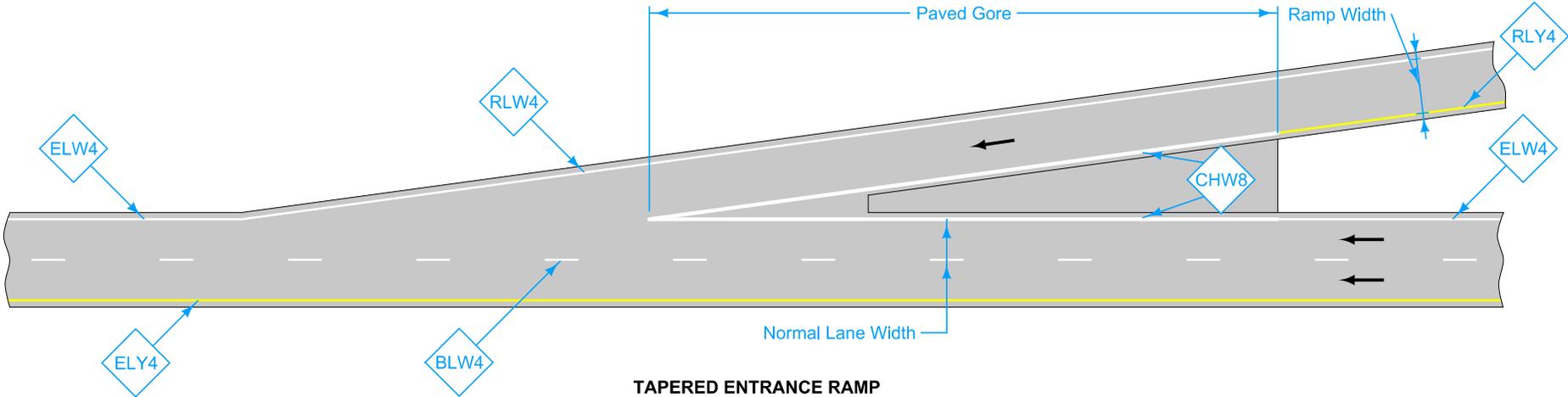
**CROSSING WITH CROSSING SIGNAL**

Possible Contract Items:  
 Pavement Marking Line Items  
 Pavement Marking Symbol and Legend Items

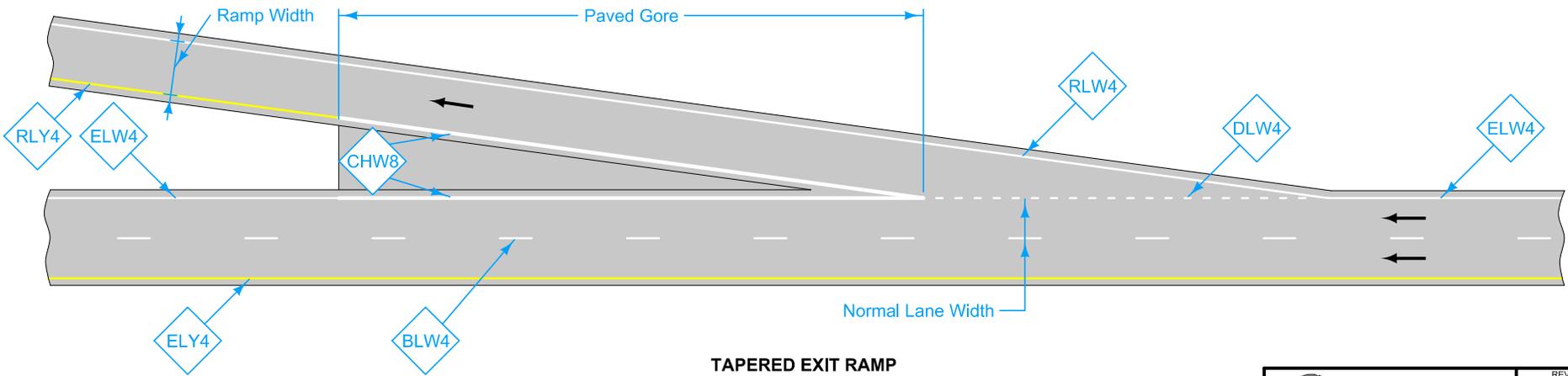
Possible Tabulations:  
[108-22](#)  
[108-29](#)

LEGEND	
← Direction of Traffic	ELW4 Edge Line Right (White)
BLW4 Broken Lane Line (White)	RRCW Railroad Crossing Symbol (White)
DCY4 Double Center Line (Yellow)	SLW2 Stop Line (White)

	REVISION
	2   04-21-15
<b>STANDARD ROAD PLAN</b>	<b>PM-242</b>
SHEET 1 of 1	
<small>REVISIONS: Changed designation for two transverse bands from SLW2 to RRCW and removed associated dimensions.</small>	
<small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<b>RAILROAD CROSSING ON FOUR-LANE ROADWAY</b>	



**TAPERED ENTRANCE RAMP**



**TAPERED EXIT RAMP**

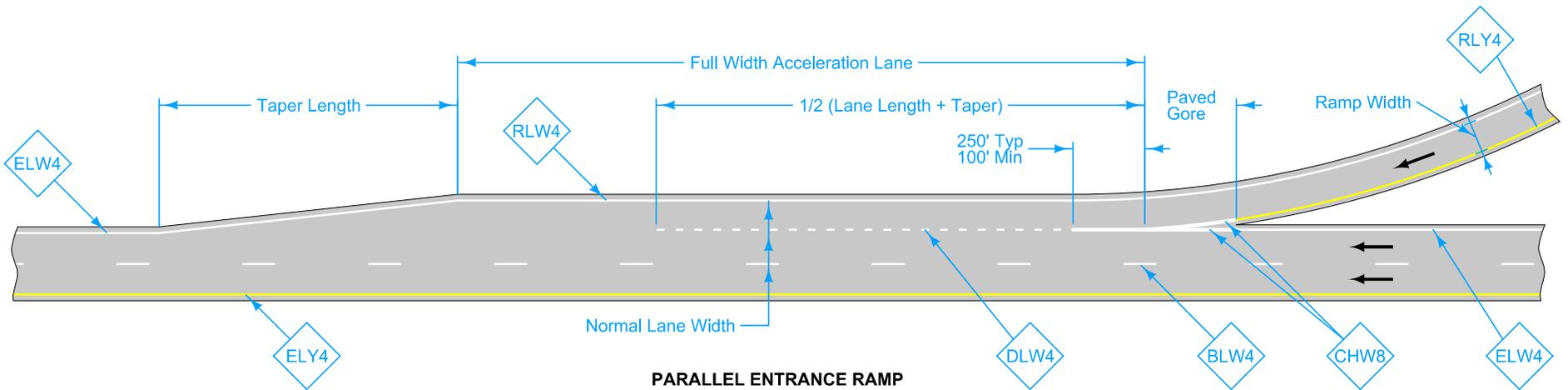
LEGEND					
←	Direction of Traffic	DLW4	Dotted Line (White)	RLW4	Ramp Edge Line Right (White)
BLW4	Broken Lane Line (White)	ELW4	Edge Line Right (White)	RLY4	Ramp Edge Line Left (Yellow)
CHW8	Channelizing Line (White)	ELY4	Edge Line Left (Yellow)	LDW8	Lane Drop (White)

For line information, see [PM-110](#).

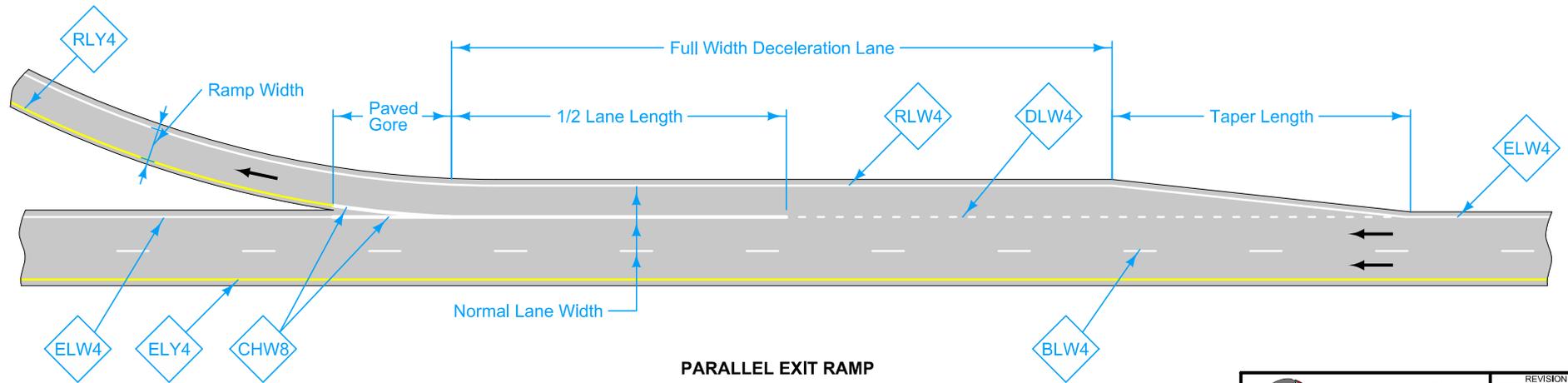
Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
108-22

	REVISION
	3 04-19-16
	<b>STANDARD ROAD PLAN</b>
REVISIONS: Added LDW8 to legend. Added paved gore on Parallel Entrance and Exit Ramps. Added sheet 3, Auxiliary Lane Between Ramps.	<b>PM-310</b>
APPROVED BY DESIGN METHODS ENGINEER	SHEET 1 of 3
<b>ENTRANCE AND EXIT RAMPS</b>	



PARALLEL ENTRANCE RAMP

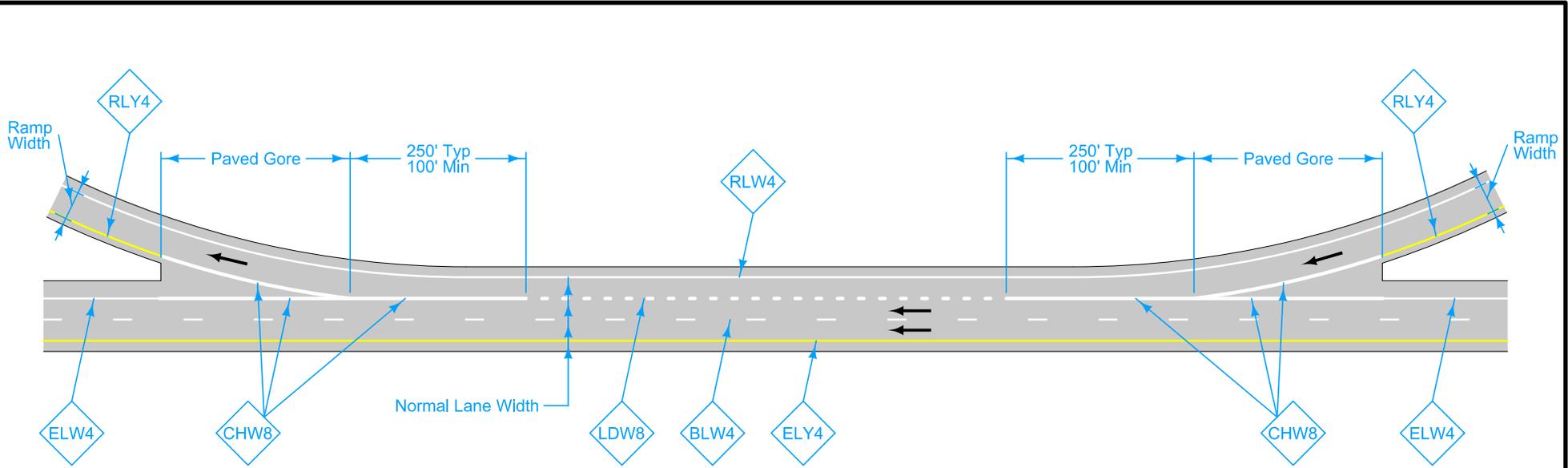


PARALLEL EXIT RAMP

LEGEND

- ← Direction of Traffic
- DLW4 Dotted Line (White)
- RLW4 Ramp Edge Line Right (White)
- BLW4 Broken Lane Line (White)
- ELW4 Edge Line Right (White)
- RLY4 Ramp Edge Line Left (Yellow)
- CHW8 Channelizing Line (White)
- ELY4 Edge Line Left (Yellow)
- LDW8 Lane Drop (White)

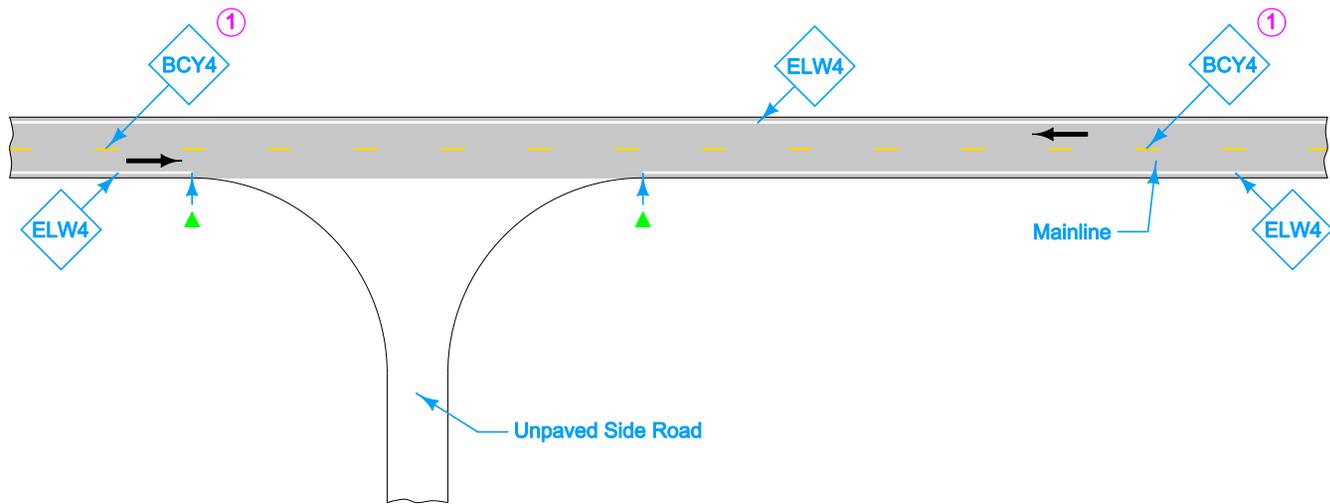
 <b>STANDARD ROAD PLAN</b>	REVISION		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px; text-align: center;">3</td> <td style="width: 20px; text-align: center;">04-19-16</td> </tr> </table>	3	04-19-16
	3	04-19-16	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; text-align: center;"><b>PM-310</b></td> <td style="width: 20%; text-align: center;">SHEET 2 of 3</td> </tr> </table>	<b>PM-310</b>	SHEET 2 of 3	
<b>PM-310</b>	SHEET 2 of 3		
REVISIONS: Added LDW8 to legend. Added paved gore on Parallel Entrance and Exit Ramps. Added sheet 3, Auxiliary Lane Between Ramps.			
 APPROVED BY DESIGN METHODS ENGINEER			
ENTRANCE AND EXIT RAMPS			



**AUXILLARY LANE BETWEEN RAMPS**

LEGEND			
←	Direction of Traffic	DLW4	Dotted Line (White)
BLW4	Broken Lane Line (White)	ELW4	Edge Line Right (White)
CHW8	Channelizing Line (White)	ELY4	Edge Line Left (Yellow)
		RLW4	Ramp Edge Line Right (White)
		RLY4	Ramp Edge Line Left (Yellow)
		LDW8	Lane Drop (White)

	REVISION
	3   04-19-16
<b>STANDARD ROAD PLAN</b>	<b>PM-310</b>
SHEET 3 of 3	
<small>REVISIONS: Added LDW8 to legend. Added paved gore on Parallel Entrance and Exit Ramps. Added sheet 3, Auxiliary Lane Between Ramps.</small>	
<small>APPROVED BY DESIGN METHODS ENGINEER</small>	
<b>ENTRANCE AND EXIT RAMPS</b>	



Roadways may or may not have edge lines. When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ▲s). When the stop controlled roadway has edge lines but the free flow roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.

For line information, see [PM-110](#).

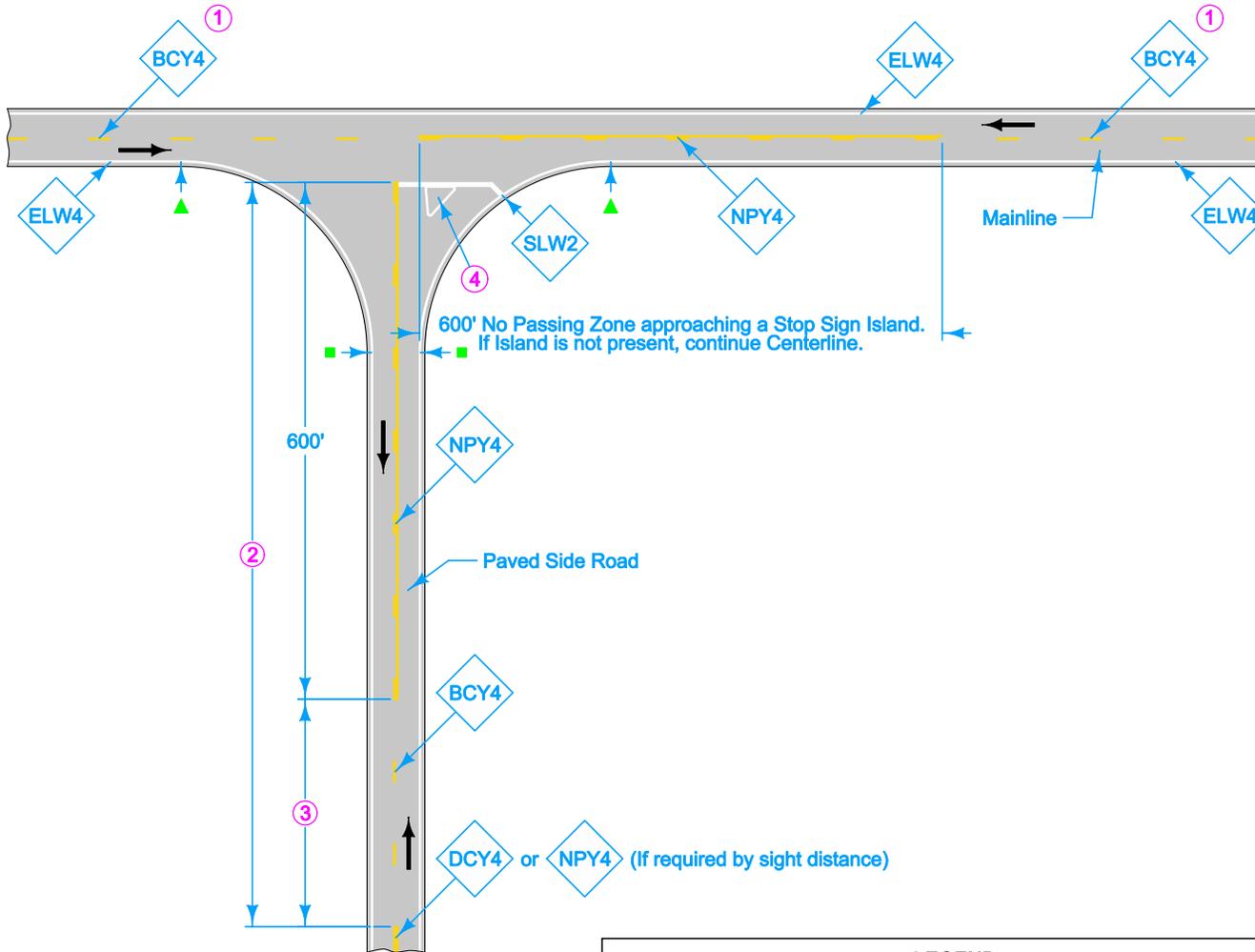
- ① Broken Centerline changes to No Passing Zone Line or Double Centerline if required by sight distance.

LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
ELW4	Edge Line Right (White)

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
[108-22](#)

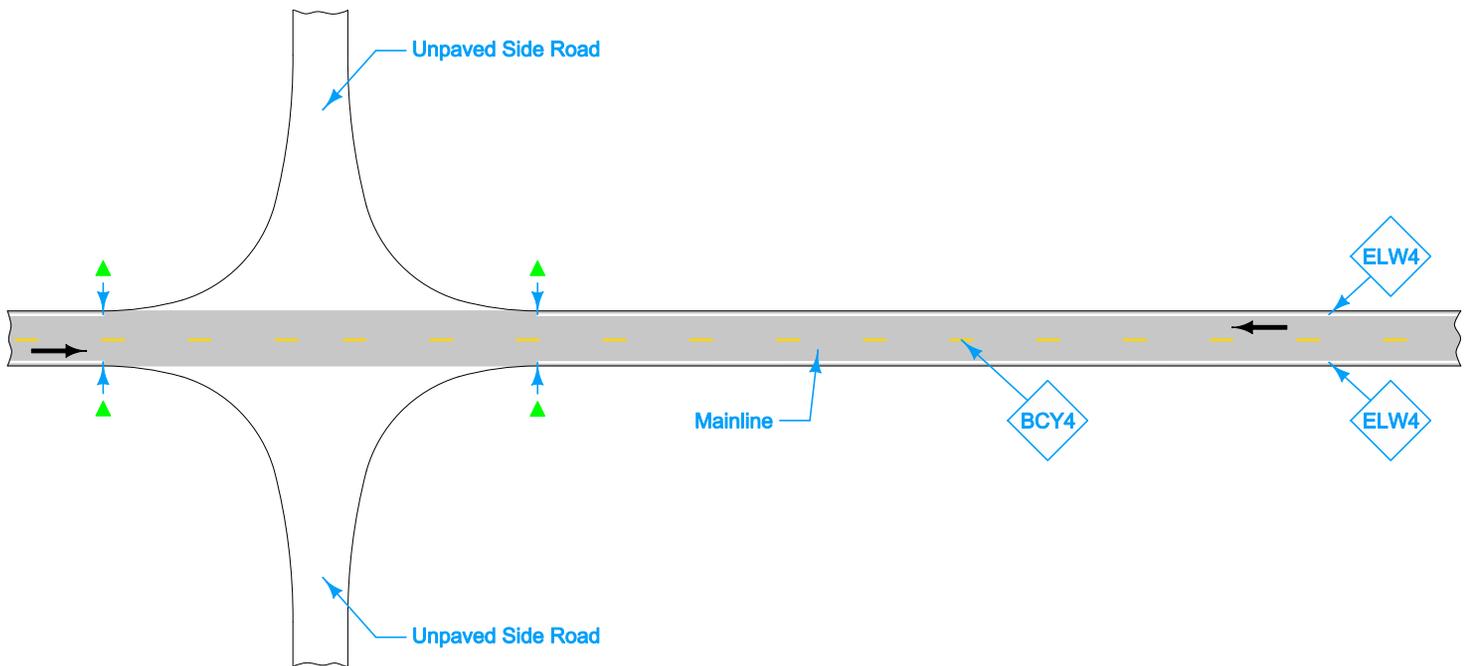
	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-420</b>
REVISIONS: New, Partial Inclusion of Detail 9101.	SHEET 1 of 2
<i>Deanna Mifflin</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>TWO-LANE ROADWAY WITH NO TURN LANES (ONE-WAY STOP CONDITION)</b>	



- ① Broken Centerline changes to No Passing Zone Line or Double Centerline if required by sight distance.
- ② If less than 1000 feet, extend Yellow Line to Stop Line.
- ③ If less than 400 feet, join Yellow Lines.
- ④ For Island information, see [PM-120](#).

LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)
	DCY4 or NPY4 (If required by sight distance)

 Iowa Department of Transportation	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-420</b>
REVISIONS: New. Partial Inclusion of Detail 9101.	SHEET 2 of 2
<i>Deanna Maifield</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>TWO-LANE ROADWAY          WITH NO TURN LANES          (ONE-WAY STOP CONDITION)</b>	



Roadways may or may not have edge lines. When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ▲s). When the stop controlled roadway has edge lines but the free flow roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.

Terminate all mainline centerline markings at the edge of the thru lanes of a paved side road.

For line information, see [PM-110](#).

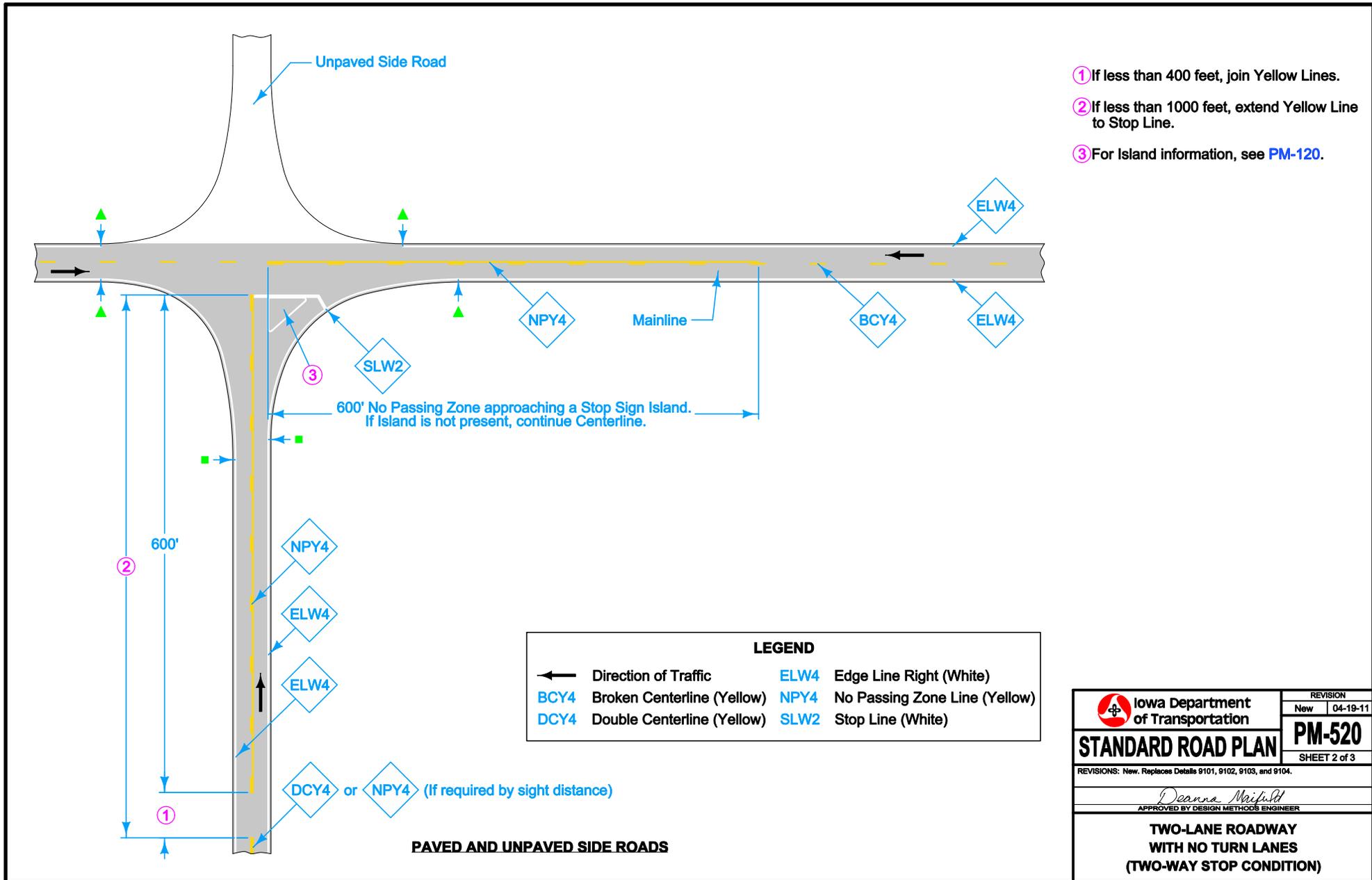
LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
ELW4	Edge Line Right (White)

**UNPAVED SIDE ROADS**

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
[108-22](#)

<p>Iowa Department of Transportation</p>	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-520</b>
REVISIONS: New. Replaces Details 9101, 9102, 9103, and 9104.	SHEET 1 of 3
<p>Deanna McFadden APPROVED BY DESIGN METHODS ENGINEER</p>	
<p><b>TWO-LANE ROADWAY WITH NO TURN LANES (TWO-WAY STOP CONDITION)</b></p>	



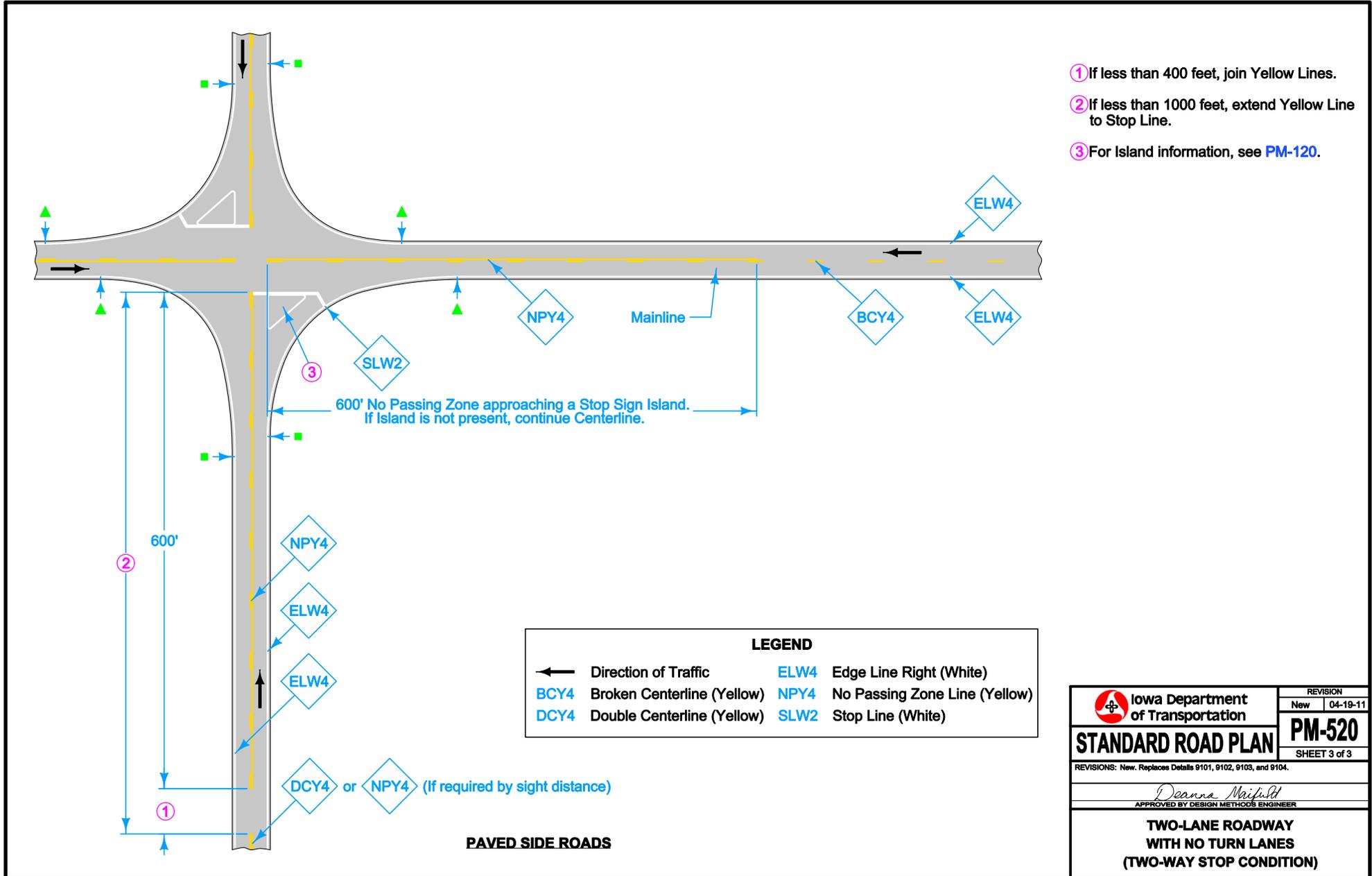
- ① If less than 400 feet, join Yellow Lines.
- ② If less than 1000 feet, extend Yellow Line to Stop Line.
- ③ For Island information, see [PM-120](#).

**LEGEND**

←	Direction of Traffic	ELW4	Edge Line Right (White)
BCY4	Broken Centerline (Yellow)	NPY4	No Passing Zone Line (Yellow)
DCY4	Double Centerline (Yellow)	SLW2	Stop Line (White)

 Iowa Department of Transportation	REVISION New 04-19-11
	PM-520
SHEET 2 of 3	
REVISIONS: New. Replaces Details 9101, 9102, 9103, and 9104.	
<i>Deanna Mifflin</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
TWO-LANE ROADWAY WITH NO TURN LANES (TWO-WAY STOP CONDITION)	

**PAVED AND UNPAVED SIDE ROADS**



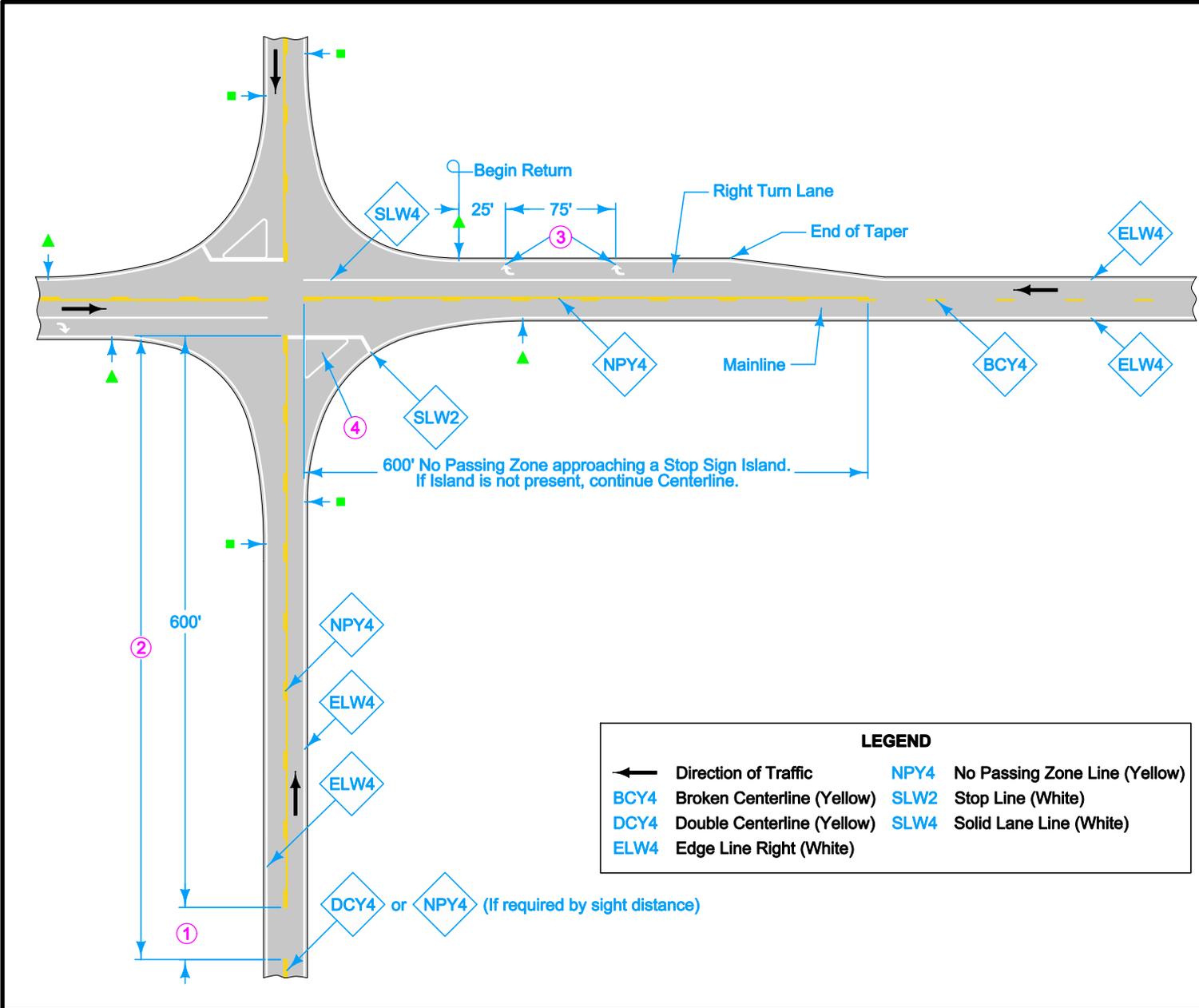
- ① If less than 400 feet, join Yellow Lines.
- ② If less than 1000 feet, extend Yellow Line to Stop Line.
- ③ For Island information, see PM-120.

**LEGEND**

←	Direction of Traffic	ELW4	Edge Line Right (White)
BCY4	Broken Centerline (Yellow)	NPY4	No Passing Zone Line (Yellow)
DCY4	Double Centerline (Yellow)	SLW2	Stop Line (White)

 <b>Iowa Department of Transportation</b>	REVISION
	New 04-19-11
STANDARD ROAD PLAN	PM-520
REVISIONS: New. Replaces Details 9101, 9102, 9103, and 9104.	SHEET 3 of 3
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>	
TWO-LANE ROADWAY WITH NO TURN LANES (TWO-WAY STOP CONDITION)	

**PAVED SIDE ROADS**



Roadways may or may not have edge lines. When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ▲s). When the stop controlled roadway has edge lines but the free flow roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.

Terminate all mainline centerline markings at the edge of the thru lanes of the side road.

Start Solid Lane Line for Right Turn Lane at end of taper.

For line information, see [PM-110](#).

For symbol and legend information, see [PM-111](#).

- ① If less than 400 feet, join Yellow Lines.
- ② If less than 1000 feet, extend Yellow Line to Stop Line.
- ③ Symbol and Legend (when listed in [108-29](#)).
- ④ For Island information, see [PM-120](#).

Possible Contract Items:  
 Pavement Marking Line Items  
 Pavement Marking Symbol and Legend Items

Possible Tabulations:  
[108-22](#)  
[108-29](#)

LEGEND	
	Direction of Traffic
BCY4	Broken Centerline (Yellow)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)
SLW4	Solid Lane Line (White)

<p>Iowa Department of Transportation</p>	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-521</b>
REVISIONS: New. Replaces Details 9102, 9103, and 9104.	SHEET 1 of 1
<p>APPROVED BY DESIGN METHODS ENGINEER</p>	
<p><b>TWO-LANE ROADWAY WITH RIGHT TURN LANES</b></p>	

Roadways may or may not have edge lines. When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ▲s). When the stop controlled roadway has edge lines but the free flow roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.

Terminate all mainline centerline markings at the edge of the thru lanes of the side road.

For line information, see [PM-110](#).

For symbol and legend information, see [PM-111](#).

- ① If less than 400 feet, join Yellow Lines.
- ② If less than 1000 feet, extend Yellow Line to Stop Line.
- ③ Symbol and Legend (when listed in 108-29).
- ④ For Island information, see [PM-120](#).

Possible Contract Items:  
 Pavement Marking Line Items  
 Pavement Marking Symbol and Legend Items

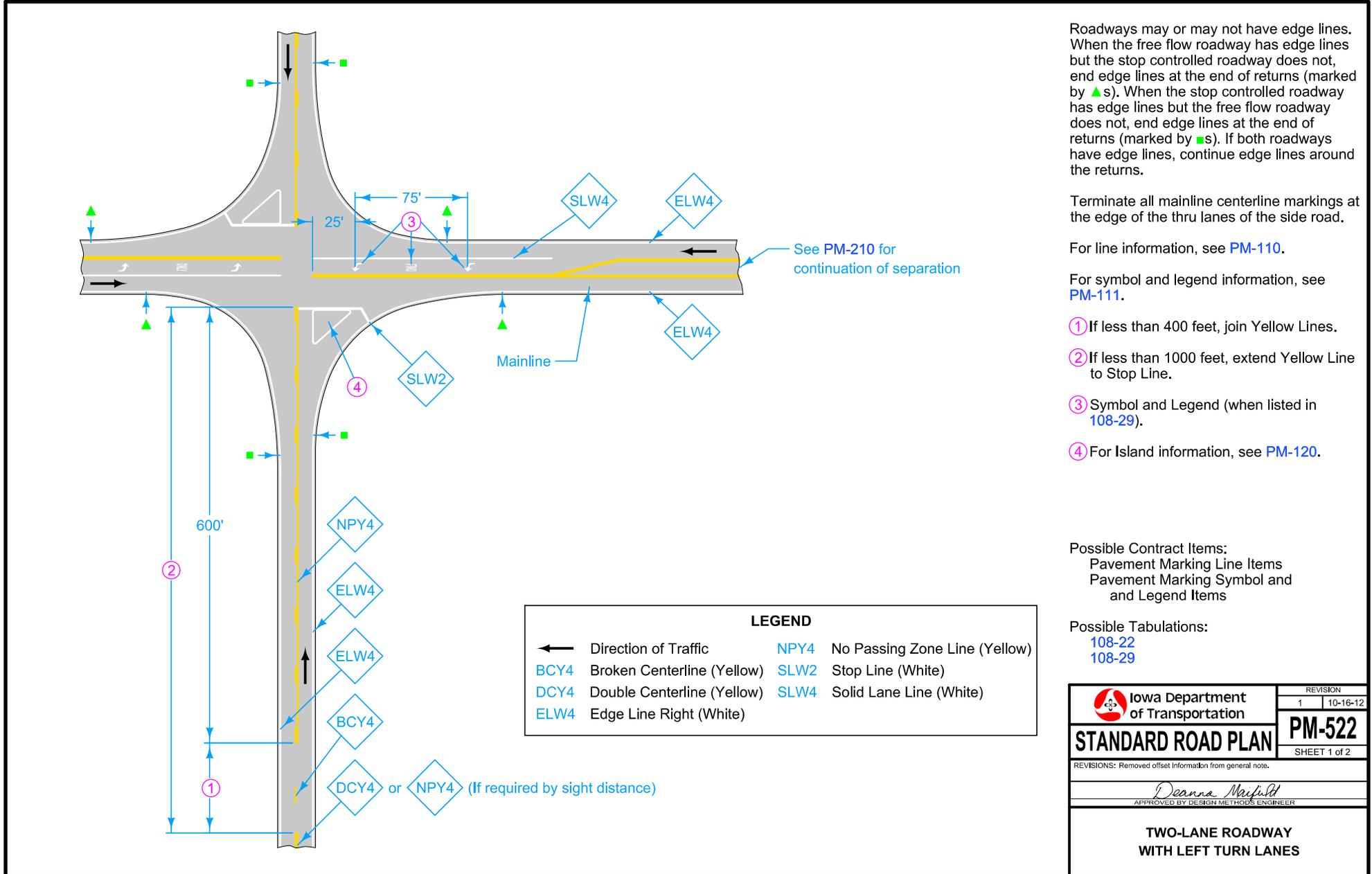
Possible Tabulations:  
[108-22](#)  
[108-29](#)

 Iowa Department of Transportation	REVISION	
	1	10-16-12
<b>STANDARD ROAD PLAN</b>		<b>PM-522</b>
		SHEET 1 of 2

REVISIONS: Removed offset information from general note.

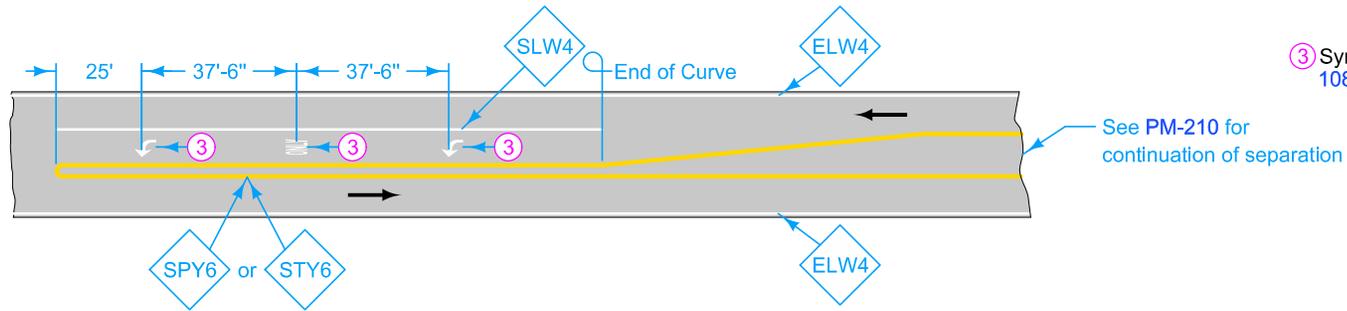
*Deanna Macfield*  
 APPROVED BY DESIGN METHODS ENGINEER

**TWO-LANE ROADWAY  
 WITH LEFT TURN LANES**



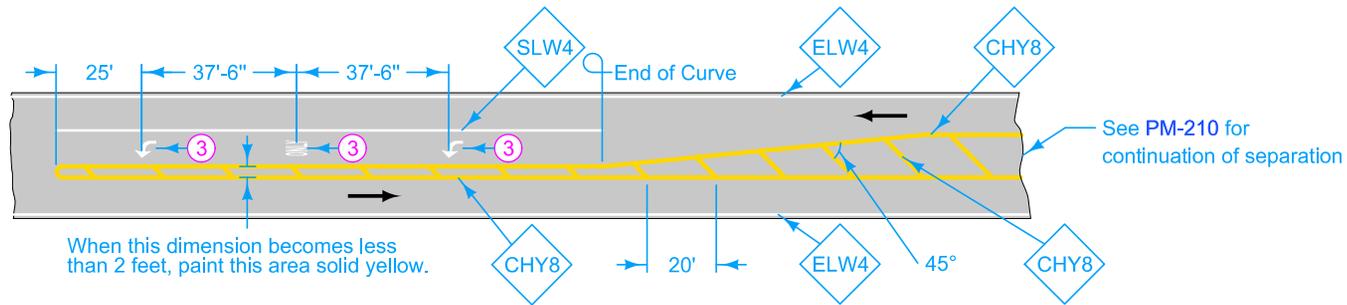
LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)
SLW4	Solid Lane Line (White)

① DCY4 or NPY4 (If required by sight distance)



③ Symbol and Legend (when listed in 108-29).

**CURBED CHANNELIZED ISLAND**

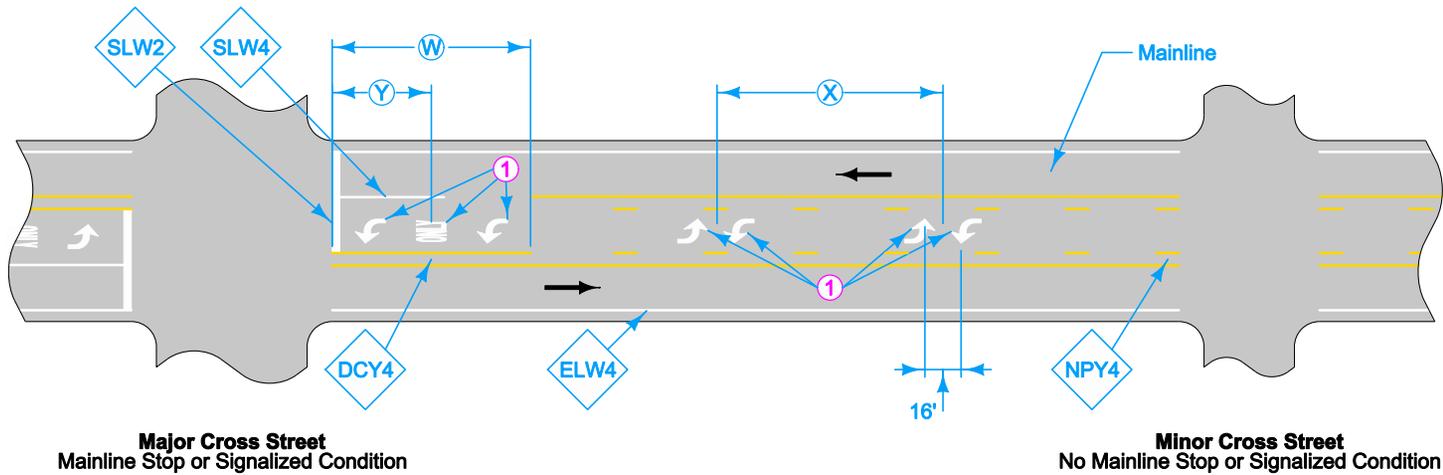


**PAINTED CHANNELIZED ISLAND**

**LEGEND**

- ← Direction of Traffic
- CHY8 Channelizing Line (Yellow)
- ELW4 Edge Line Right (White)
- SLW4 Solid Lane Line (White)
- SPY6 Sloped Curb 6" (Yellow)
- STY6 Standard Curb 6" (Yellow)

 <b>Iowa Department of Transportation</b>	REVISION	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px; text-align: center;">1</td> <td style="width: 50px; text-align: center;">10-16-12</td> </tr> </table>	1
1	10-16-12	
STANDARD ROAD PLAN	PM-522	
REVISIONS: Removed offset information from general note.		
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>		
TWO-LANE ROADWAY WITH LEFT TURN LANES		



Terminate all mainline centerline markings at the edge of the property line.

Spacing between center of Symbols and Legends used within Left Turn Only Storage Length is  $37\frac{1}{2}$  feet.

For line information, see [PM-110](#).

For symbol and legend information, see [PM-111](#).

① Symbol and Legend (when listed in 108-29).

Ⓜ Storage Length to be 150 feet minimum.

ⓧ Typical spacing (in feet) between sets of arrows should be approximately 10 times the speed limit (MPH) or one set located at mid-block.

Ⓨ Distance from lane line termination to center of Left Turn Only Symbol and Legend is  $\frac{1}{2}$  the Storage Length.

Possible Contract Items:  
 Pavement Marking Line Items  
 Pavement Marking Symbol and Symbol Items

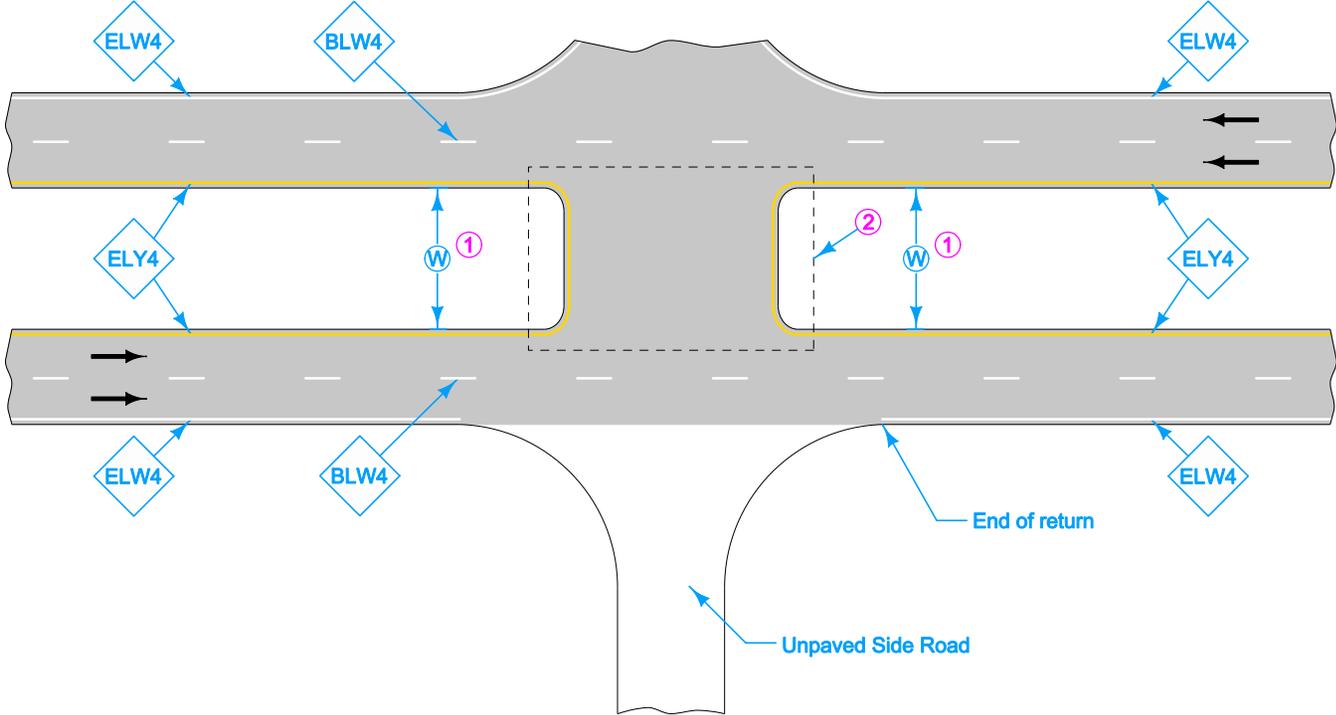
Possible Tabulations:  
[108-22](#)  
[108-29](#)

LEGEND			
←	Direction of Traffic	NPY4	No Passing Zone Line (Yellow)
DCY4	Double CenterLine (Yellow)	SLW2	Stop Line (White)
ELW4	Edge Line Right (White)	SLW4	Solid Lane Line (White)

Iowa Department of Transportation	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-550</b>
REVISIONS: New. Replaces Detail 9403.	SHEET 1 of 1
<i>Deanna McFadden</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>TWO-LANE ROADWAY                  WITH TWO-WAY LEFT TURN LANE</b>	

For line information, see [PM-110](#).

- ① **W** is the width between pavement edges. Measure **W** from pavement edge to pavement edge. When **W** values are different, use the smaller of the two.
- ② See [PM-760](#) for markings placed in the median.



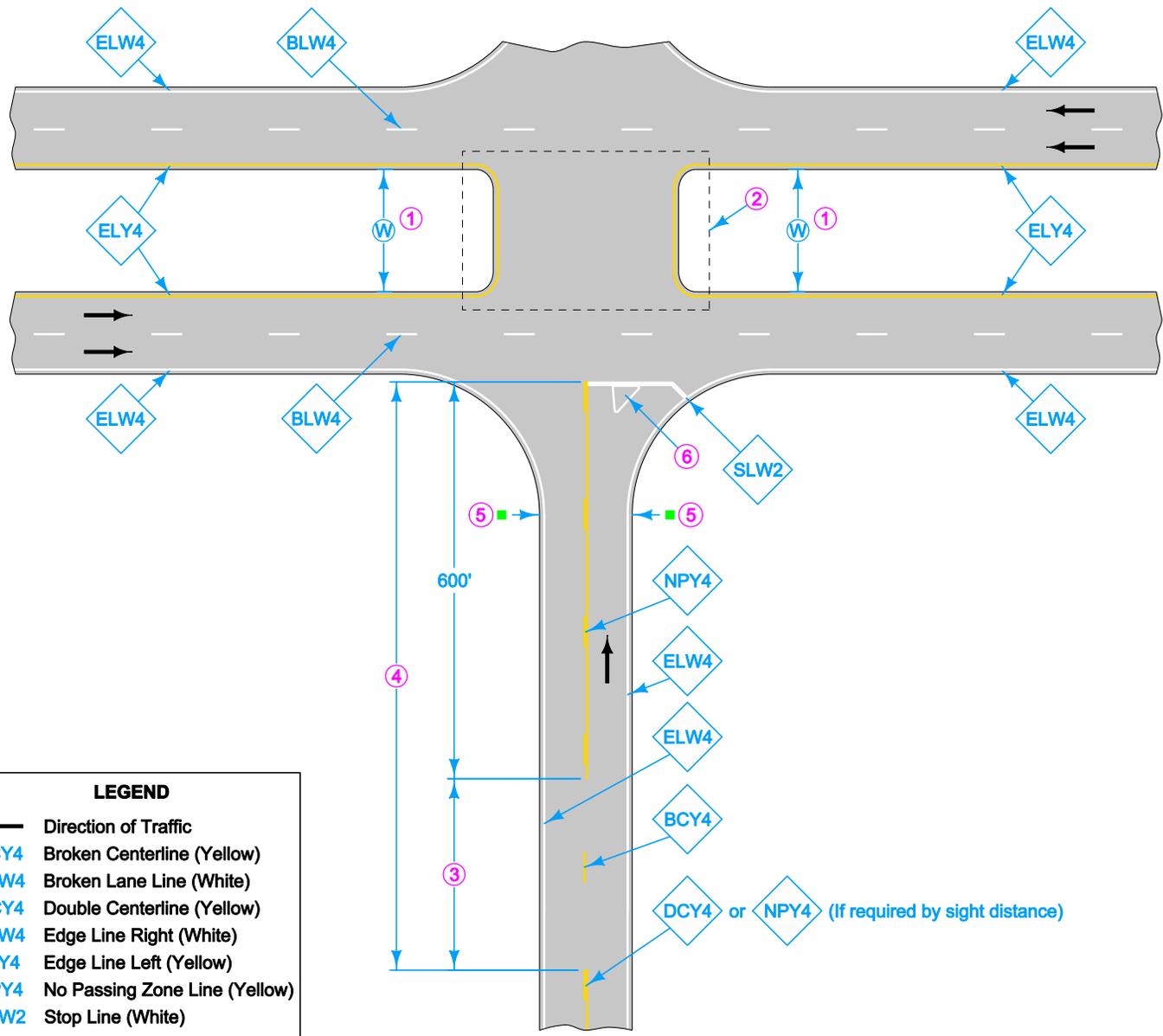
LEGEND	
←	Direction of Traffic
BLW4	Broken Lane Line (White)
ELW4	Edge Line Right (White)
ELY4	Edge Line Left (Yellow)

**UNPAVED SIDE ROAD**

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
[108-29](#)

<p>Iowa Department of Transportation</p>	REVISION	
	<table border="1"> <tr> <td>New</td> <td>04-19-11</td> </tr> </table>	New
New	04-19-11	
<b>STANDARD ROAD PLAN</b>	<b>PM-560</b>	
REVISIONS: New. Replaces Detail 9107.	SHEET 1 of 2	
<p>APPROVED BY DESIGN METHODS ENGINEER</p>		
<p><b>DIVIDED MULTI-LANE ROADWAY WITH NO TURN LANES</b></p>		



- ① **W** is the width between pavement edges. Measure **W** from pavement edge to pavement edge. When **W** values are different, use the smaller of the two.
- ② See **PM-760** for markings placed in the median.
- ③ If less than 400 feet, join Yellow Lines.
- ④ If less than 1000 feet, extend Yellow Line to Stop Line.
- ⑤ When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.
- ⑥ If Island present, see **PM-120**.

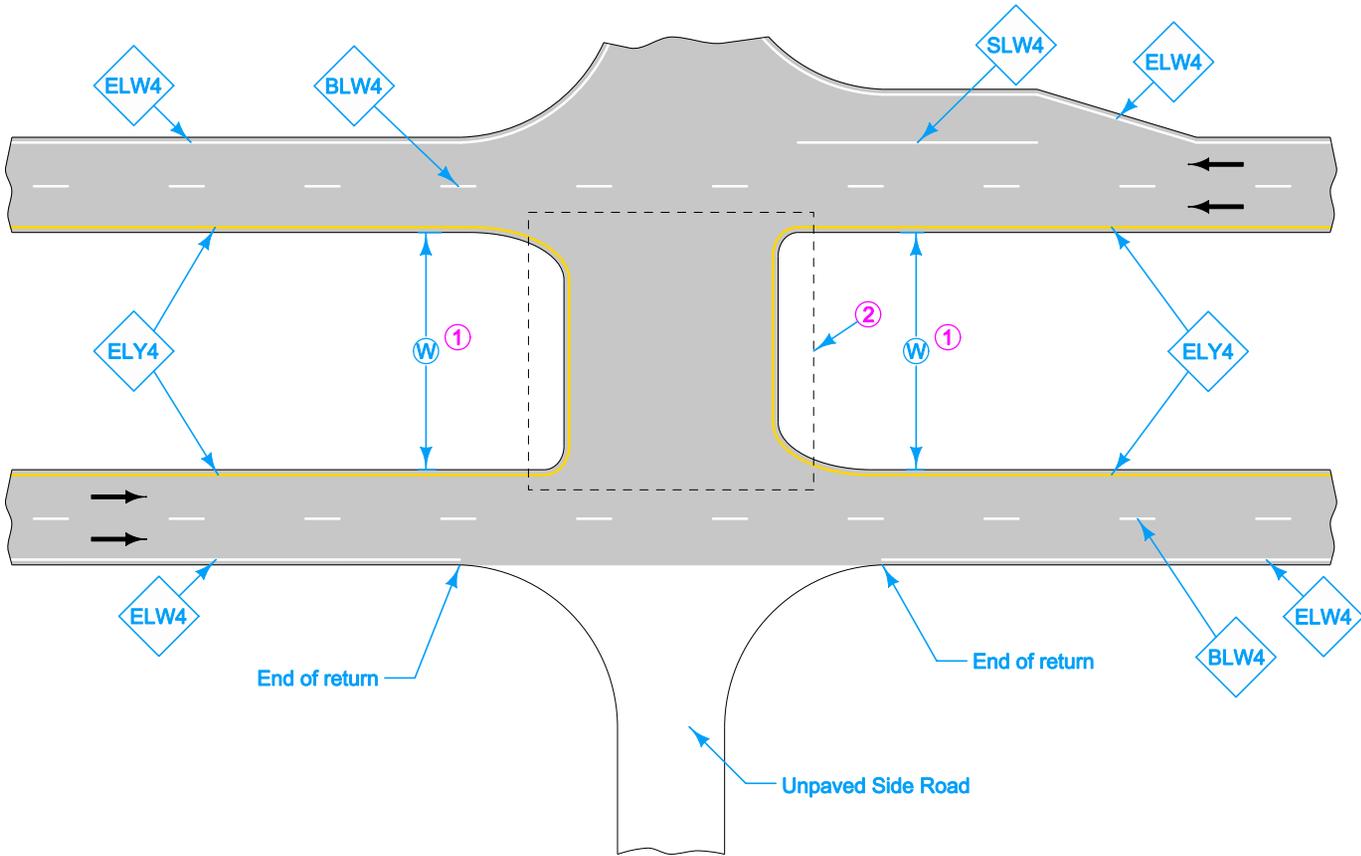
LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
BLW4	Broken Lane Line (White)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
ELY4	Edge Line Left (Yellow)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)

**TWO-LANE PAVED SIDE ROAD**

 Iowa Department of Transportation	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-560</b>
REVISIONS: New. Replaces Detail 9107.	SHEET 2 of 2
<i>Deanna Mairfeld</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>DIVIDED MULTI-LANE ROADWAY          WITH NO TURN LANES</b>	

For line information, see [PM-110](#).

- ①  $W$  is the width between pavement edges. Measure  $W$  from pavement edge to pavement edge. When  $W$  values are different, use the smaller of the two.
- ② See [PM-760](#) for markings placed in the median.



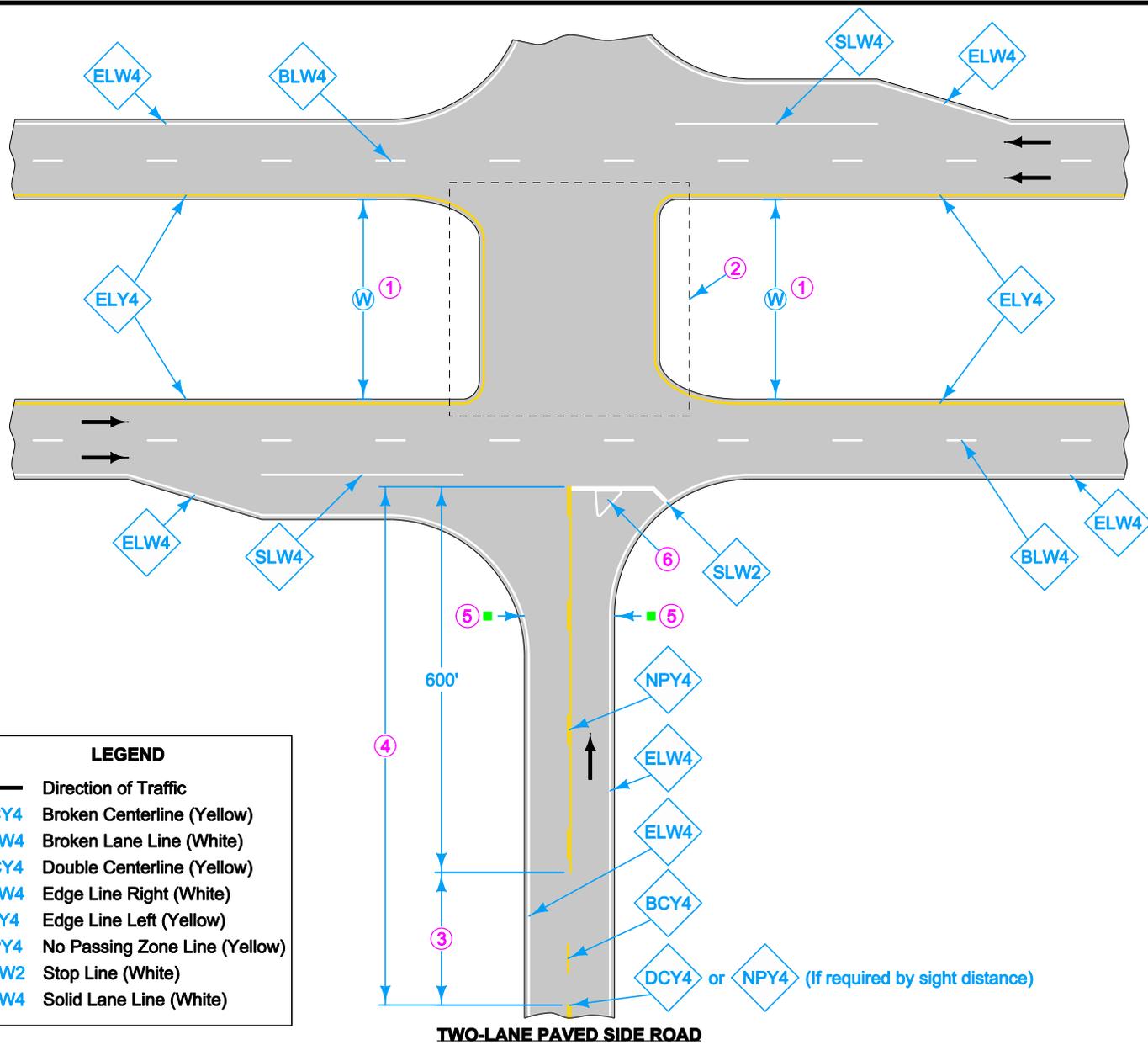
LEGEND	
←	Direction of Traffic
BLW4	Broken Lane Line (White)
ELW4	Edge Line Right (White)
ELY4	Edge Line Left (Yellow)
SLW4	Solid Lane Line (White)

**UNPAVED SIDE ROAD**

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
**108-29**

<p>Iowa Department of Transportation</p>	REVISION	
	<table border="1"> <tr> <td>New</td> <td>04-19-11</td> </tr> </table>	New
New	04-19-11	
<b>STANDARD ROAD PLAN</b>	<b>PM-561</b>	
REVISIONS: New. Replaces Detail 9107.	SHEET 1 of 2	
<p>Deanna Mifflin APPROVED BY DESIGN METHODS ENGINEER</p>		
<p><b>DIVIDED MULTI-LANE ROADWAY WITH RIGHT TURN LANES</b></p>		



- ① **W** is the width between pavement edges. Measure **W** from pavement edge to pavement edge. When **W** values are different, use the smaller of the two.
- ② See **PM-760** for markings placed in the median.
- ③ If less than 400 feet, join Yellow Lines.
- ④ If less than 1000 feet, extend Yellow Line to Stop Line.
- ⑤ When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.
- ⑥ If Island present, see **PM-120**.

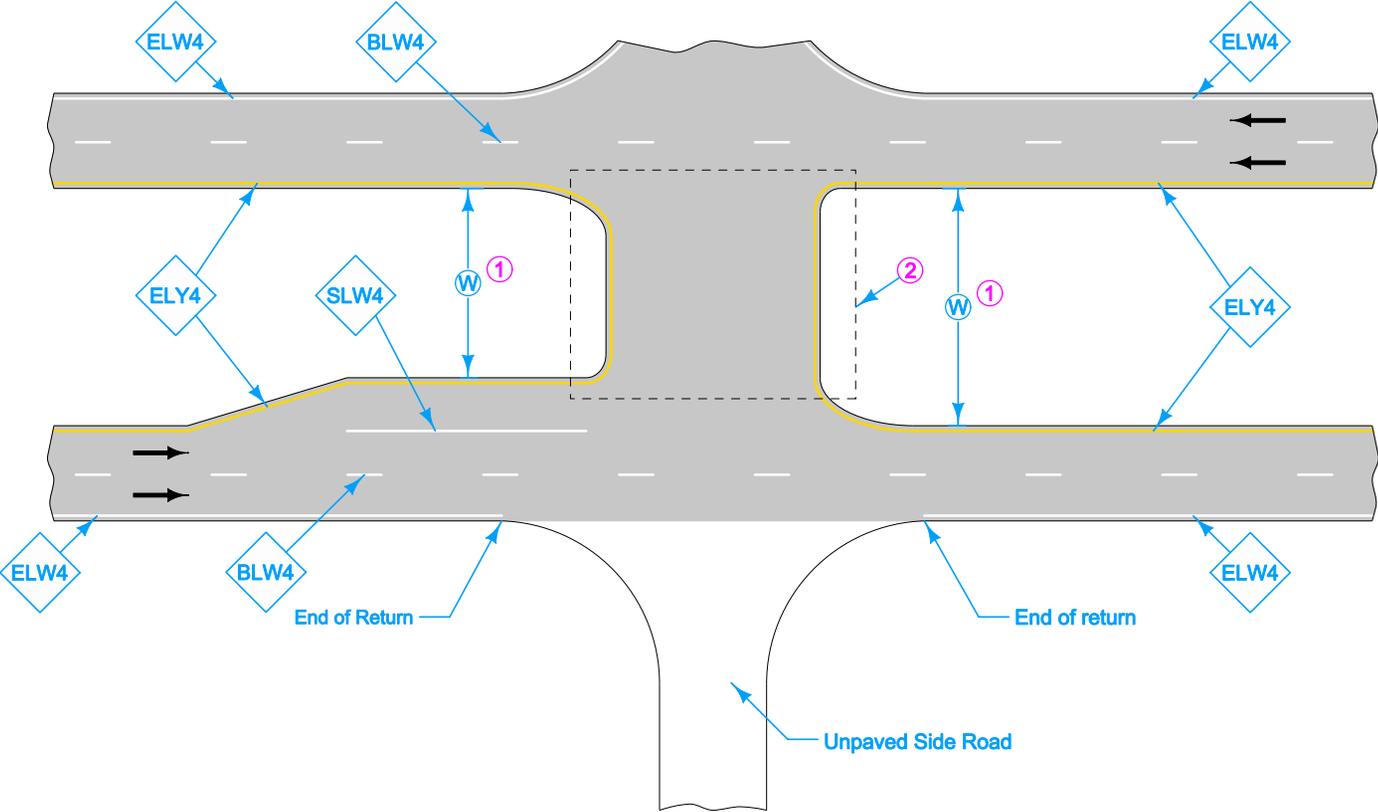
LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
BLW4	Broken Lane Line (White)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
ELY4	Edge Line Left (Yellow)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)
SLW4	Solid Lane Line (White)

**TWO-LANE PAVED SIDE ROAD**

 Iowa Department of Transportation	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-561</b>
REVISIONS: New. Replaces Detail 9107.	SHEET 2 of 2
<i>Deanna Mairfeld</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>DIVIDED MULTI-LANE ROADWAY          WITH RIGHT TURN LANES</b>	

For line information, see [PM-110](#).

- ①  $W$  is the width between pavement edges. Measure  $W$  from pavement edge to pavement edge. When  $W$  values are different, use the smaller of the two.
- ② See [PM-760](#) for markings placed in the median.



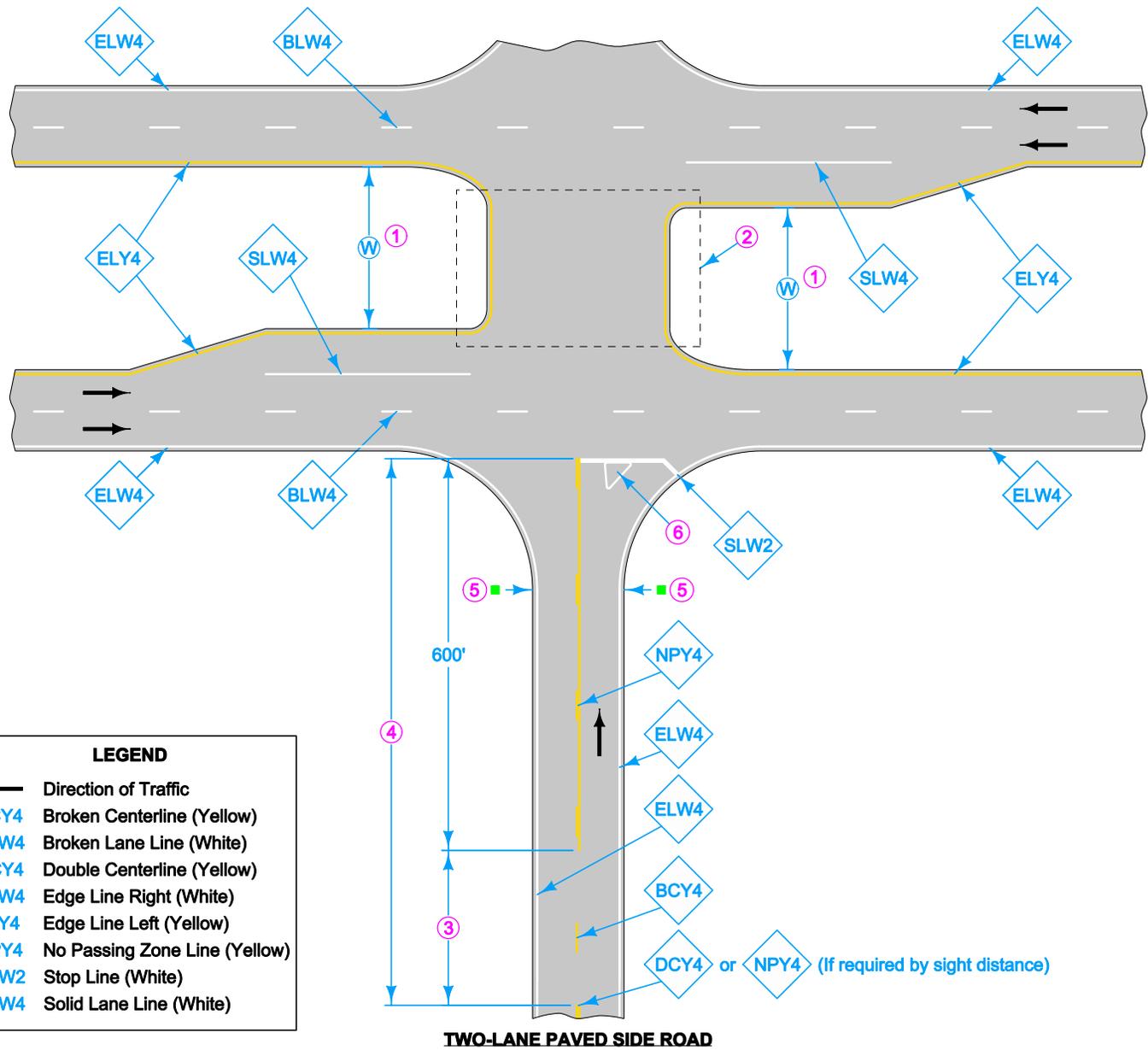
LEGEND	
	Direction of Traffic
BLW4	Broken Lane Line (White)
ELW4	Edge Line Right (White)
ELY4	Edge Line Left (Yellow)
SLW4	Solid Lane Line (White)

**UNPAVED SIDE ROAD**

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
108-29

	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-562</b>
REVISIONS: New. Replaces Detail 9107.	SHEET 1 of 2
 APPROVED BY DESIGN METHODS ENGINEER	
<b>DIVIDED MULTI-LANE ROADWAY WITH LEFT TURN LANES</b>	



- ① **W** is the width between pavement edges. Measure **W** from pavement edge to pavement edge. When **W** values are different, use the smaller of the two.
- ② See **PM-760** for markings placed in the median.
- ③ If less than 400 feet, join Yellow Lines.
- ④ If less than 1000 feet, extend Yellow Line to Stop Line.
- ⑤ When the free flow roadway has edge lines but the stop controlled roadway does not, end edge lines at the end of returns (marked by ■s). If both roadways have edge lines, continue edge lines around the returns.
- ⑥ If Island present, see **PM-120**.

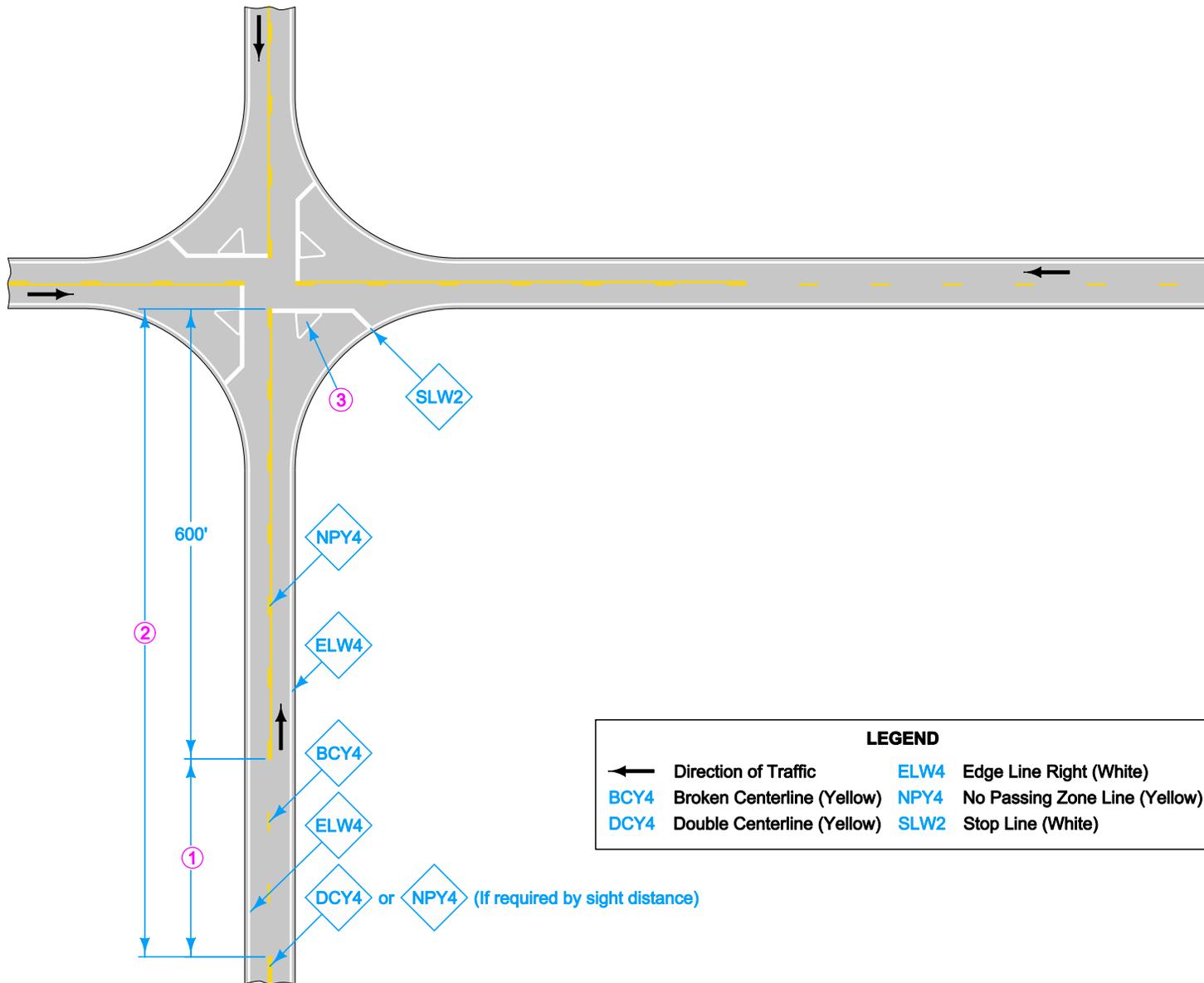
LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
BLW4	Broken Lane Line (White)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
ELY4	Edge Line Left (Yellow)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)
SLW4	Solid Lane Line (White)

 Iowa Department of Transportation	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-562</b>
REVISIONS: New. Replaces Detail 9107.	SHEET 2 of 2
<i>Deanna Mairfeld</i> APPROVED BY DESIGN METHODS ENGINEER	
<b>DIVIDED MULTI-LANE ROADWAY          WITH LEFT TURN LANES</b>	

**TWO-LANE PAVED SIDE ROAD**

For line information, see [PM-110](#).

- ① If less than 400 feet, join Yellow Lines.
- ② If less than 1000 feet, extend Yellow Line to Stop Line.
- ③ If Island present, see [PM-120](#).

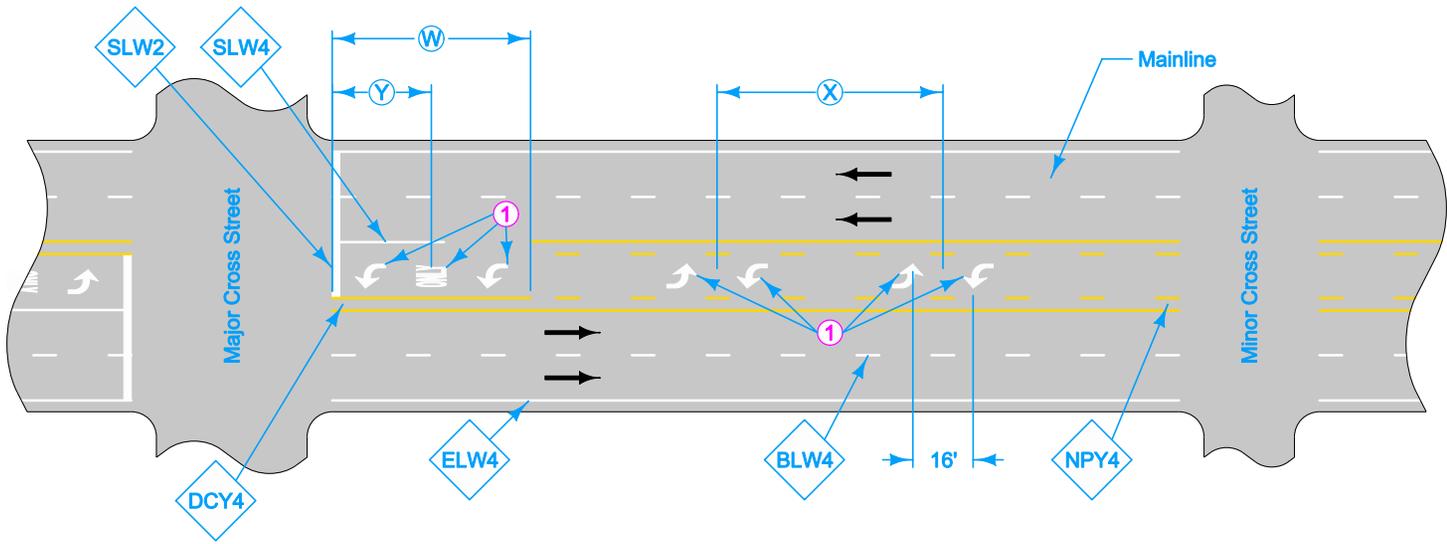


LEGEND	
←	Direction of Traffic
BCY4	Broken Centerline (Yellow)
DCY4	Double Centerline (Yellow)
ELW4	Edge Line Right (White)
NPY4	No Passing Zone Line (Yellow)
SLW2	Stop Line (White)

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
[108-22](#)

<p>Iowa Department of Transportation</p>	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-620</b>
REVISIONS: New.	SHEET 1 of 1
<p>Deanna Mifflin APPROVED BY DESIGN METHODS ENGINEER</p>	
<p><b>TWO-LANE ROADWAY WITH NO TURN LANES (FOUR-WAY STOP CONDITION)</b></p>	



**Major Cross Street**  
Mainline Stop or Signalized Condition

**Minor Cross Street**  
No Mainline Stop or Signalized Condition

Terminate all mainline centerline markings at the edge of the property line.

Spacing between center of Symbols and Legends used within Left Turn Only Storage Length is 37½ feet.

For line information, see [PM-110](#).

For symbol and legend information, see [PM-111](#).

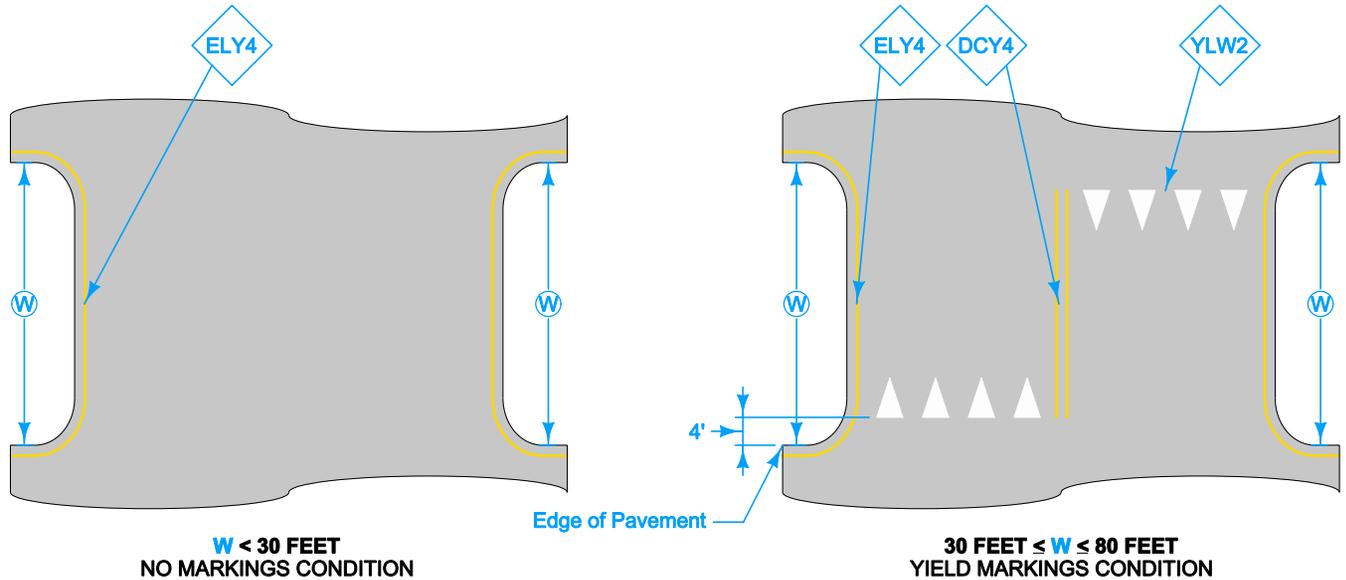
- ① Symbol and Legend (when listed in 108-29).
- Ⓜ Storage Length to be 150 feet minimum.
- ⓧ Typical spacing (in feet) between sets of arrows should be approximately 10 times the speed limit (MPH) or one set located at mid-block.
- Ⓨ Distance from lane line termination to center of Left Turn Only Symbol and Legend is ½ the Storage Length.

Possible Contract Items:  
Pavement Marking Line Items  
Pavement Marking Symbol and Legend Items

Possible Tabulations:  
[108-22](#)  
[108-29](#)

LEGEND			
←	Direction of Traffic	NPY4	No Passing Zone Line (Yellow)
BLW4	Broken Lane Line (White)	SLW2	Stop Line (White)
DCY4	Double Centerline (Yellow)	SLW4	Solid Lane Line (White)
ELW4	Edge Line Right (White)		

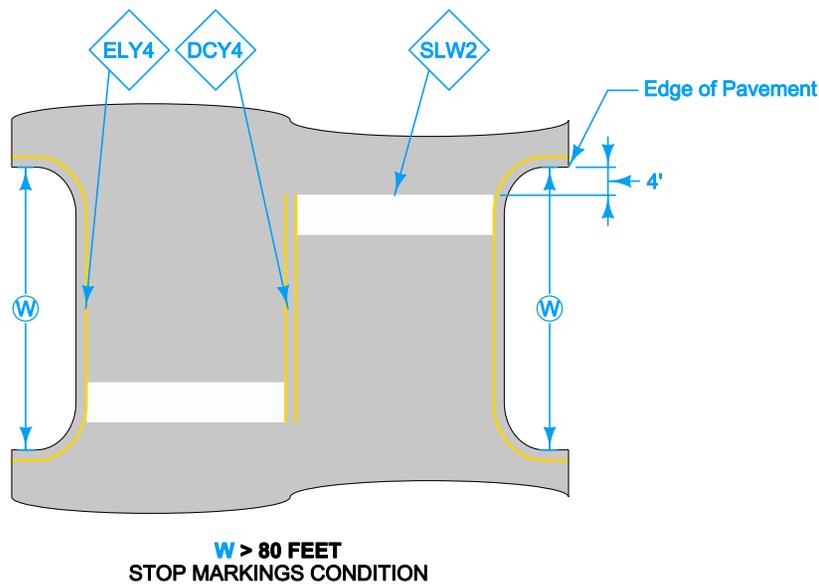
 Iowa Department of Transportation	REVISION
	New    04-19-11
STANDARD ROAD PLAN	PM-650
REVISIONS: New. Replaces Detail 9403.	SHEET 1 of 1
 APPROVED BY DESIGN METHODS ENGINEER	
MULTI-LANE ROADWAY WITH TWO-WAY LEFT TURN LANE	



$W$  is the width between pavement edges. Measure  $W$  from pavement edge to pavement edge. When  $W$  values are different, use the smaller of the two.

Omit median edge lines if neither connecting side road has painted edge lines.

For line information, see [PM-110](#).



LEGEND	
←	Direction of Traffic
DCY4	Double Centerline (Yellow)
ELY4	Edge Line Left (Yellow)
SLW2	Stop Line (White)
YLW2	Yield Line (White)

Possible Contract Item:  
Pavement Marking Line Items

Possible Tabulation:  
[108-29](#)

<p>Iowa Department of Transportation</p>	REVISION
	New 04-19-11
<b>STANDARD ROAD PLAN</b>	<b>PM-760</b>
REVISIONS: New, Partial Inclusion of Detail 9107.	SHEET 1 of 1
 APPROVED BY DESIGN METHODS ENGINEER	
<b>DIVIDED MULTI-LANE ROADWAY MEDIAN</b>	