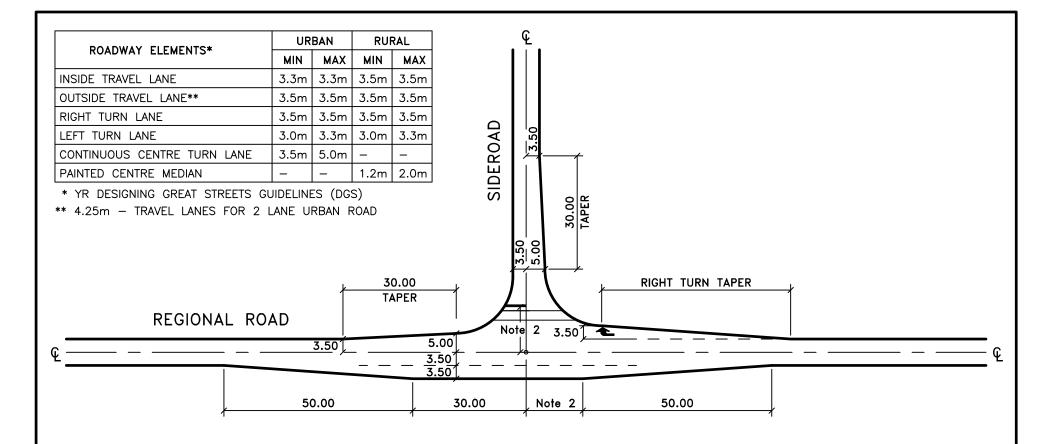
### DS 100 Series - Intersection Design Standard Drawings List

Drawing Number	Drawing Title	Revision Date
DS-100	Slip Around Lane	January 2023
DS-101	"T" Intersection Left Turn Lane Split	January 2023
DS-102	"T" Intersection – Left Turn On Right of Centreline	January 2023
DS-103	2 Lane "X" Intersection	January 2023
DS-104	4 Lane "X" Intersection (without Median Islands)	January 2023
DS-105	4 Lane "X" Intersection (with Median Islands)	January 2023
DS-106	4 Lane "X" Intersection (with Median Islands) Double Left Turn Lane	January 2023
DS-107	Intersection - Regional Road with a Local Road	October 2025
DS-108	Intersection - Regional Road with a Regional Road	October 2025
DS-109	Typical Pavement/Lane Layout for Concrete Slab Raised Medians	January 2023
DS-112	6 Lane "X" Intersection (with Median Islands)	January 2023
DS-119	Pedestrian Equipment and Crosswalks with Tactile Warning Plates (Signalized)	January 2023
DS-120	Pedestrian Crosswalks with Tactile Warning Plates (Unsignalized)	January 2023
DS-121	Concrete Sidewalk Ramps at Intersections	January 2023
DS-122	Concrete Sidewalk Ramps at Intersections with Crossrides	January 2023



#### NOTES:

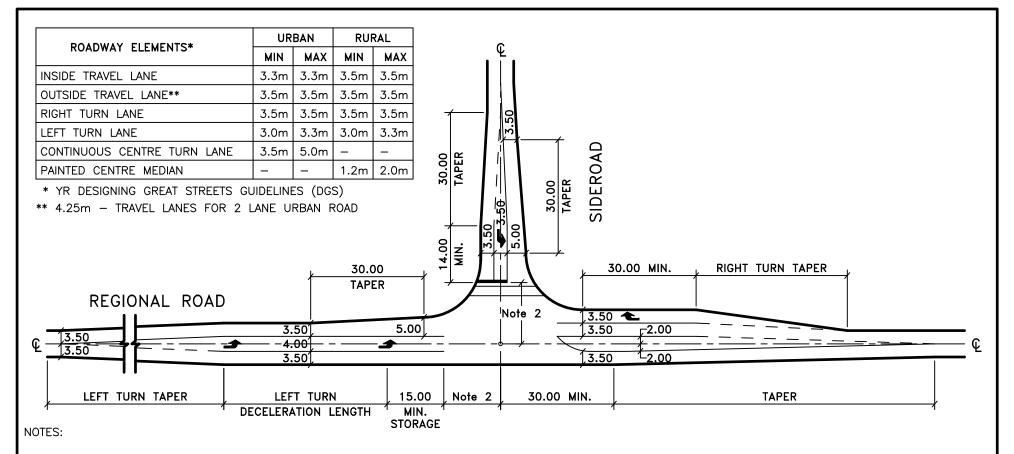
- 1. ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED.
- OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION AND AODA COMPLIANCE.
- 3. MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- RIGHT TURN TAPER RATIOS ARE BASED ON "TAC" MANUAL.
- 5. FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.

POSTED SPEED (km/h)	DESIGN SPEED (km/h)	RIGHT TURN TAPER RATIO
50	50	15:1
60	60	18:1
70	80	24:1
80	90	Note 5

## York Region Transportation

SLIP AROUND LANE

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	X	X	DS-100



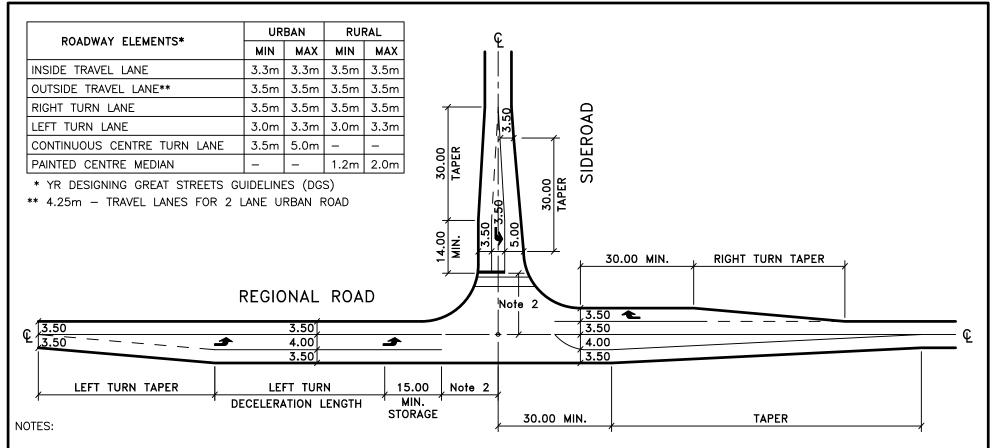
- ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED.
- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- 4. TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5

### York Region Transportation

"T" INTERSECTION LEFT TURN LANE SPLIT

DATE:	JANUARY 2023		SCALE N.T.S.
REV.	Х	Х	DS-101

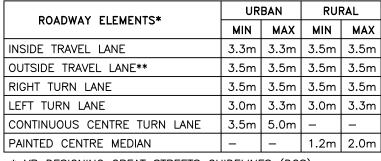


- ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED.
- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- 4. TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

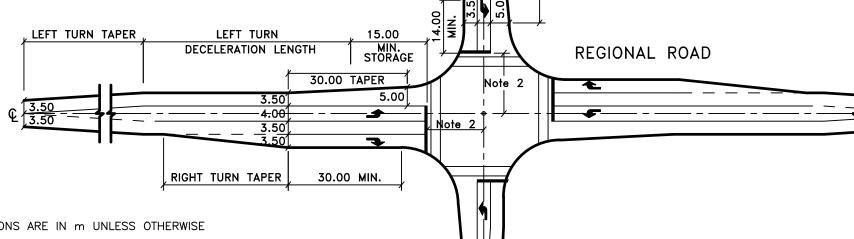
POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5

"T" INTERSECTION
LEFT TURN ON RIGHT OF CENTRELINE

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	X	X	DS-102



- \* YR DESIGNING GREAT STREETS GUIDELINES (DGS)
- \*\* 4.25m TRAVEL LANES FOR 2 LANE URBAN ROAD



SIDEROAD

1. ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED.

NOTES:

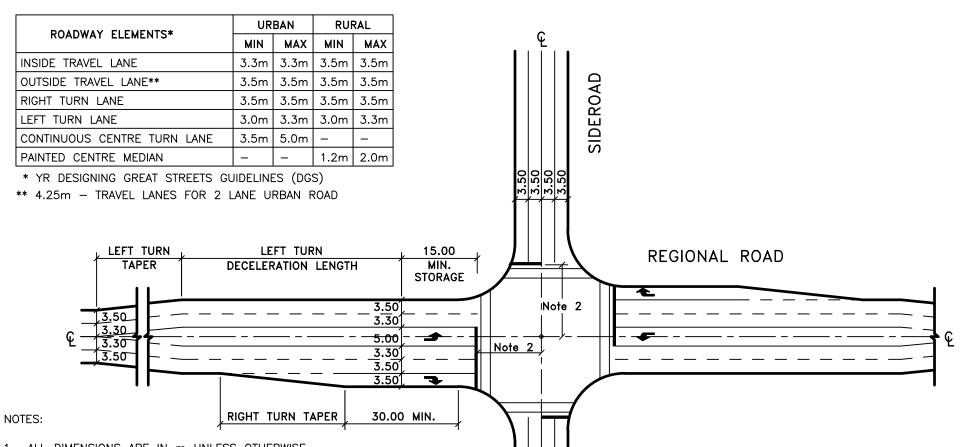
- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- 3. MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- 4. TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- 5. FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5
	1	I	

### **Public Works** York Region Transportation

2-LANE "X" INTERSECTION

DATE:	JANUARY 2023		SCALE N.T.S.
REV.	X	Х	DS-103

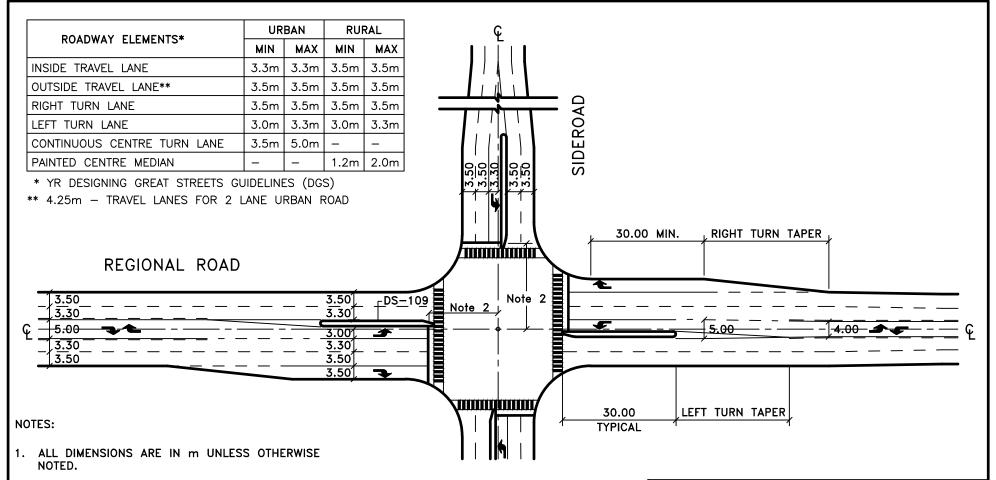


- ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED.
- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- 4. TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5

4-LANE "X" INTERSECTION (WITHOUT MEDIAN ISLANDS)

DATE:	JANUARY 2023		SCALE N.T.S.
REV.	X	X	DS-104

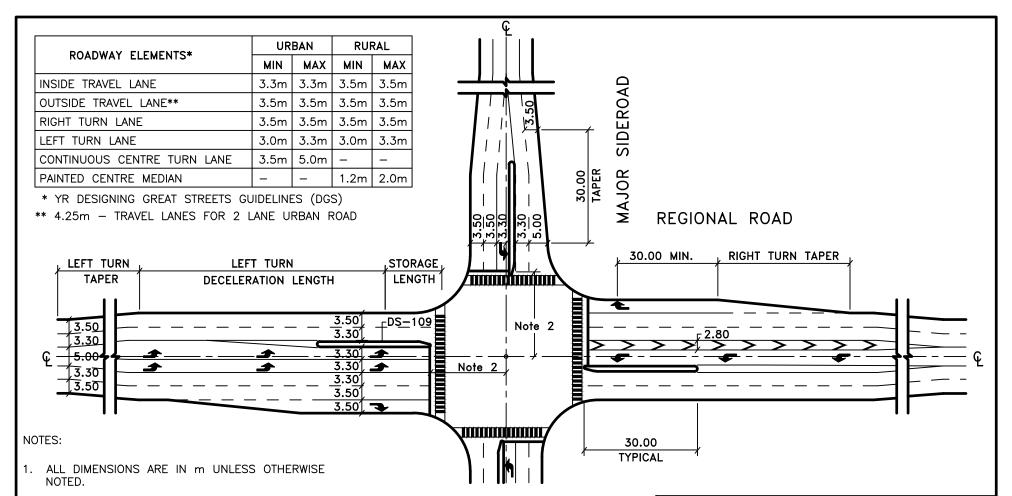


- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- 4. TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5

4-LANE "X" INTERSECTION (WITH MEDIAN ISLANDS)

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	Х	Х	DS-105

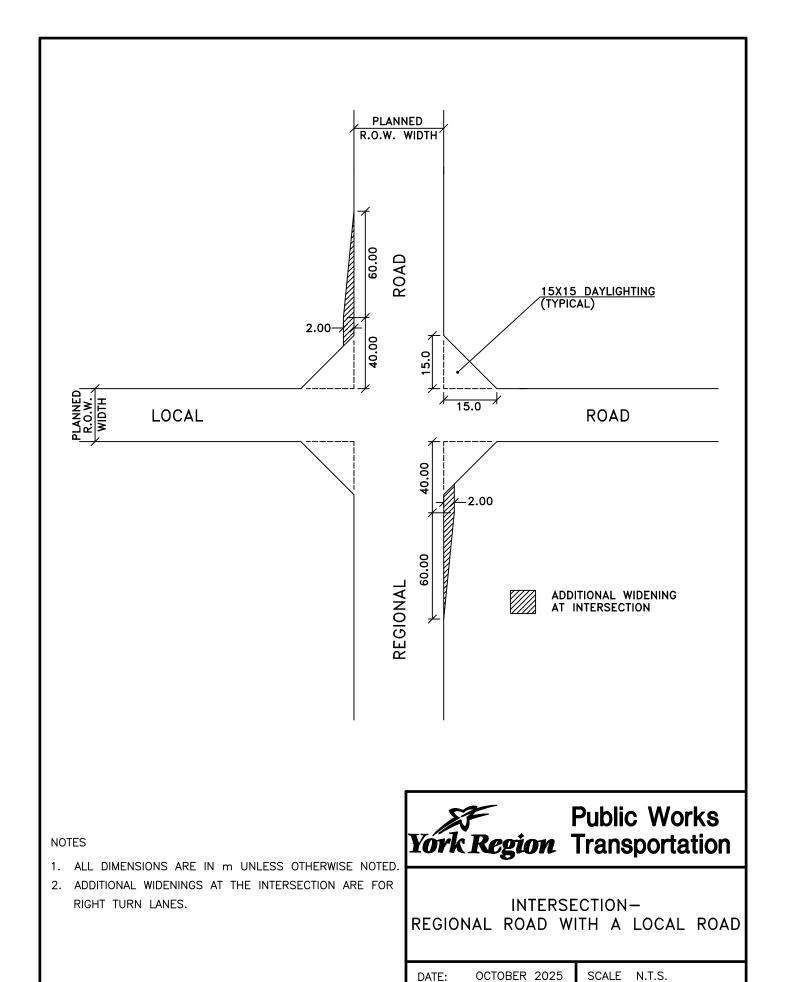


- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5

4-LANE "X" INTERSECTION (WITH MEDIAN ISLANDS)
DOUBLE LEFT TURN LANE

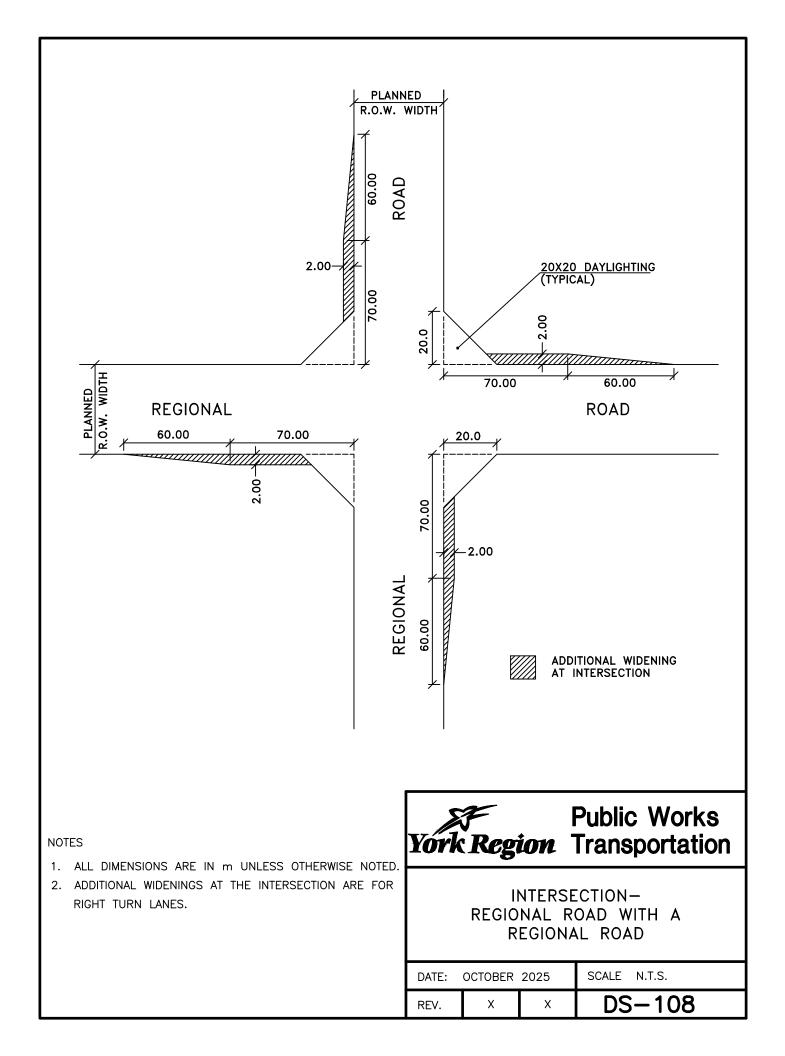
DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	X	X	DS-106

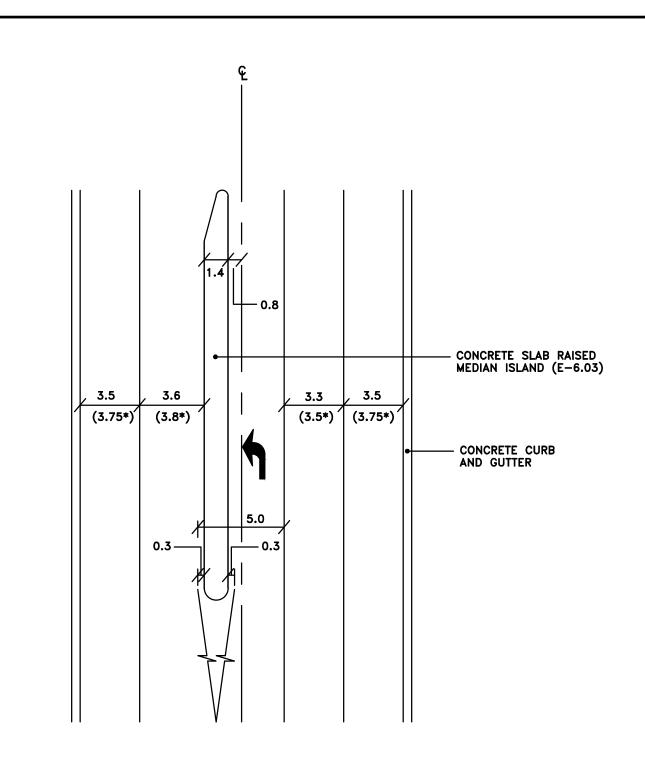


DS-107

Χ

REV.





#### **NOTES**

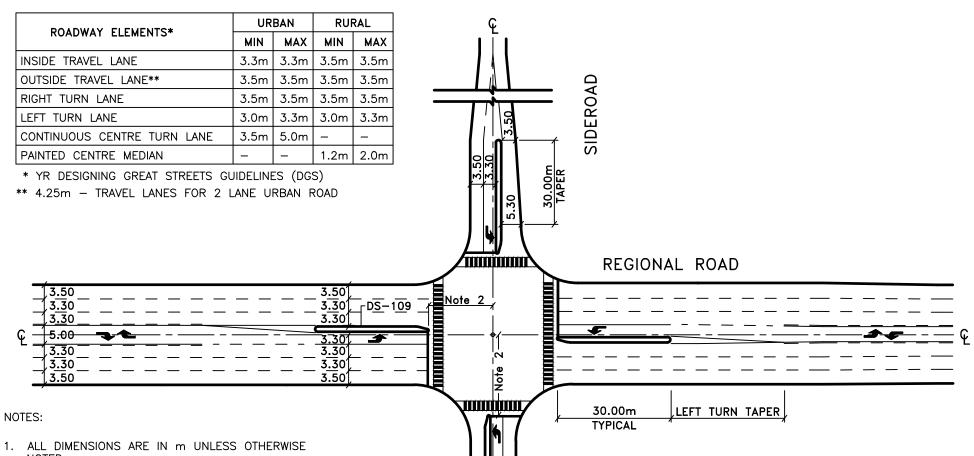
- 1. ALL DIMENSIONS ARE IN m UNLESS OTHERWISE NOTED.
- 2. DIMENSIONS ARE FROM EDGE OF PAVEMENT TO EDGE OF LANE OR EDGE OF LANE TO EDGE OF LANE.
  - \* EXISTING CONDITIONS



### **Public Works**

TYPICAL PAVEMENT/LANE LAYOUT FOR CONCRETE SLAB RAISED MEDIANS

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	×	×	DS-109

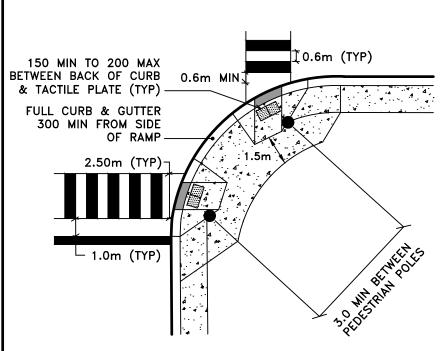


- NOTED.
- 2. OFFSET VARIES ACCORDING TO SIDEROAD WIDTH AND/OR ANGLE OF INTERSECTION.
- MINIMUM 7.5m RADIUS. REFER TO DGS\* FOR CURB RETURN CONSIDERATIONS. INCREASE RADIUS FOR INDUSTRIAL AREAS OR ROADS WITH HIGH VOLUMES OF RIGHT TURNING TRUCKS. USE TURNING TEMPLATES TO CONFIRM.
- 4. TURN TAPER RATIOS AND DECELERATION LENGTHS ARE BASED ON "TAC" MANUAL.
- FOR HIGHER DESIGN SPEEDS, REFER TO "TAC" MANUAL CHAPTER 10.
- 6. STORAGE LENGTHS VARY WITH TRAFFIC VOLUMES.

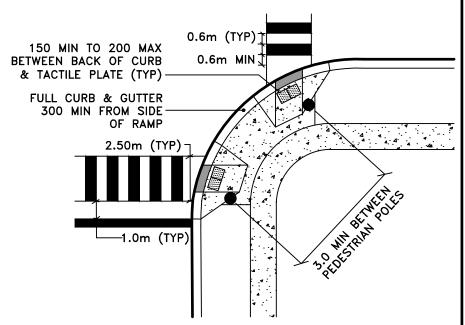
POSTED SPEED (km/hr)	DESIGN SPEED (km/hr)	LEFT TURN TAPER RATIOS	RIGHT TURN TAPER RATIOS
50	50	8:1-30:1	11:1-17:1
60	60	15:1-36:1	14:1-17:1
70	80	15:1-48:1	17:1-24:1
80	90	27:1-54:1	Note 5

6-LANE "X" INTERSECTION (WITH MEDIAN ISLANDS)

DATE:	JANUARY 2023		SCALE N.T.S.
REV.	X	X	DS-112



#### RAMP WITHOUT BOULEVARD



#### **NOTES**

- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 2. SEE STANDARD DRAWING DS-400 FOR PAVEMENT MARKING LEGEND
- 3. THIS STANDARD IS TO BE USED AS A GUIDE ONLY AND WILL REQUIRE ADJUSTMENTS TO SUIT FIELD CONDITIONS
- 4. THE FIRST ZEBRA MARKING MUST BE 0.6m FROM CURB
- 5. SEE STANDARD DRAWING E-6.07 FOR TACTILE WARNING PLATE DETAILS
- 6. TACTILE WARNING PLATES MUST EXTEND THE WIDTH OF THE DROPPED CURB RAMP
- 7. SEE STANDARD DRAWING DS-408 FOR FULL INTERSECTION LAYOUT
- SEE STANDARD DRAWING DS-121 FOR RAMP DETAIL

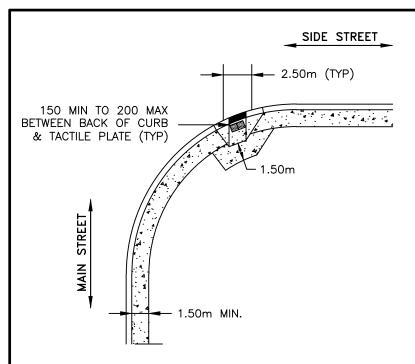
RAMP WITH BOULEVARD



#### Public Works Transportation

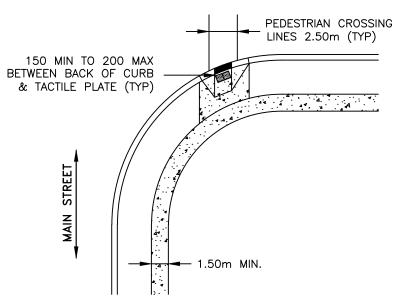
PEDESTRIAN EQUIPMENT AND CROSSWALKS WITH TACTILE WARNING PLATES (SIGNALIZED)

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	×	×	DS-119



RAMP WITHOUT BOULEVARD

SIDE STREET



NOTES

- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 2. SEE STANDARD DRAWING DS-400 FOR PAVEMENT MARKING LEGEND.
- 3. THIS STANDARD IS TO BE USED AS A GUIDE ONLY AND WILL REQUIRE ADJUSTMENTS TO SUIT FIELD CONDITIONS.
- 4. TACTILE WARNING PLATES MUST EXTEND THE WIDTH OF THE DROPPED CURB RAMP.
- 5. SEE STANDARD DRAWING E-6.07 FOR DETECTABLE WARNING PLATE DETAILS.
- 6. SEE STANDARD DRAWING DS-408 FOR FULL INTERSECTION LAYOUT.
- SEE STANDARD DRAWING DS-121 FOR RAMP DETAIL.

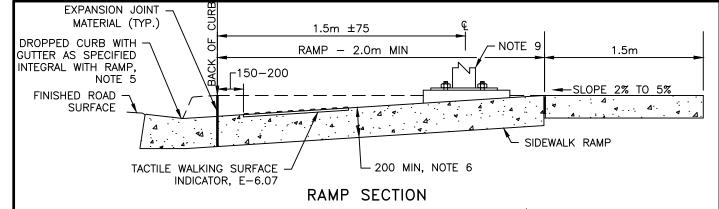
RAMP WITH BOULEVARD

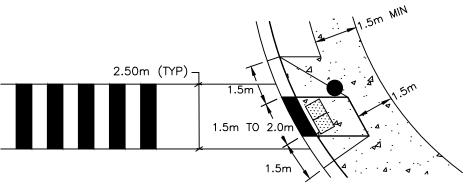


Public Works
Transportation

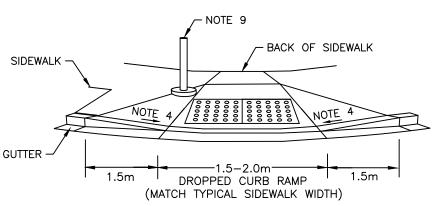
PEDESTRIAN CROSSWALKS WITH TACTILE WARNING PLATES (UNSIGNALIZED)

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	X	Х	DS-120





#### RAMP PLAN



#### NOTES

#### RAMP ELEVATION

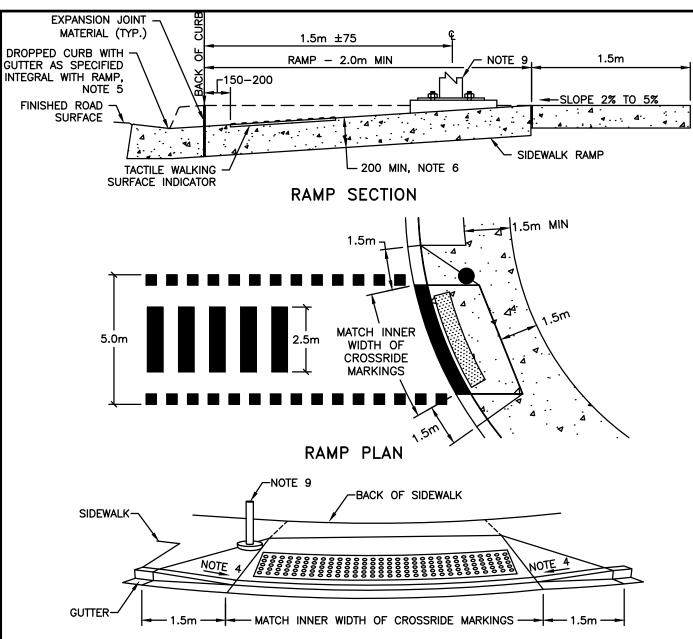
- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 2. SLOPE OF RAMP SHALL NOT EXCEED 10%.
- 3. CROSS SLOPE OF RAMP SHALL NOT EXCEED 2% IN EITHER DIRECTION.
- 4. CROSS SLOPE OF FLARED SIDE OF RAMP SHALL NOT EXCEED 10%.
- 5. DROPPED CURB AT RAMP SHALL BE MODIFIED TO ELIMINATE 30mm STEP AT GUTTER LINE.
- MINIMUM THICKNESS OF RAMP IS 200mm. MINIMUM THICKNESS OF SIDEWALK AND FLARED SIDES ADJACENT TO RAMP IS 150mm.
- 7. TACTILE WARNING PLATES SHOULD EXTEND THE WIDTH OF THE DROPPED CURB RAMP.
- 8. SEE STANDARD DRAWING DS-408 FOR FULL INTERSECTION LAYOUT.
- 9. ACCESSIBLE PEDESTRIAN SIGNAL POLE FOR SIGNALIZED INTERSECTIONS ONLY.
- 10. JOINTS MUST NOT BE TROWELLED.



#### Public Works Transportation

CONCRETE SIDEWALK RAMPS AT INTERSECTIONS

DATE:	VANUAR	V 2023	DC_121	
DATF:	JANIJAR	Y 2023	SCALE N.T.S.	



#### NOTES

#### RAMP ELEVATION

- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 2. SLOPE OF RAMP SHALL NOT EXCEED 10%.
- 3. CROSS SLOPE OF RAMP SHALL NOT EXCEED 2% IN EITHER DIRECTION.
- 4. CROSS SLOPE OF FLARED SIDE OF RAMP SHALL NOT EXCEED 10%.
- 5. DROPPED CURB AT RAMP SHALL BE MODIFIED TO ELIMINATE 30mm STEP AT GUTTER LINE.
- MINIMUM THICKNESS OF RAMP IS 200mm. MINIMUM THICKNESS OF SIDEWALK AND FLARED SIDES ADJACENT TO RAMP IS 150mm.
- 7. TACTILE WARNING PLATES SHOULD EXTEND THE WIDTH OF THE DROPPED CURB RAMP.
- 8. SEE STANDARD DRAWING DS-413 AND DS-414 FOR CROSSRIDE PAVEMENT MARKING DETAIL.
- ACCESSIBLE PEDESTRIAN SIGNAL POLE FOR SIGNALIZED INTERSECTIONS ONLY.
- 10. JOINTS MUST NOT BE TROWELLED.



### Public Works Transportation

CONCRETE SIDEWALK RAMPS AT INTERSECTIONS WITH CROSSRIDES

DATE:	JANUAR	Y 2023	SCALE N.T.S.
REV.	Х	Х	DS-122