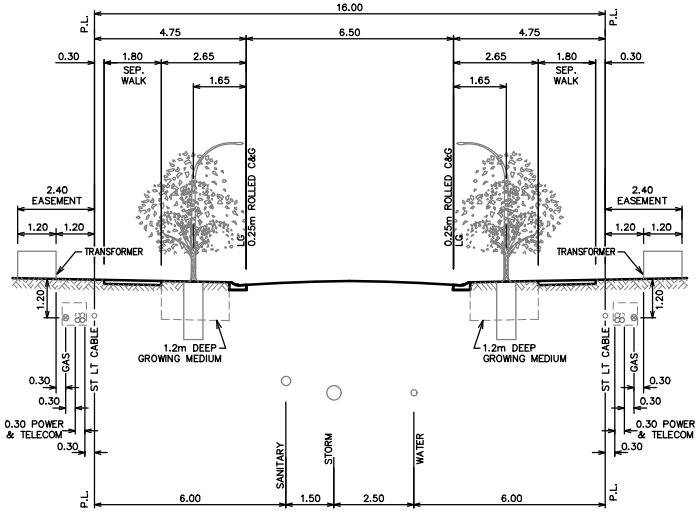
Draft Street Manual Detailed Cross Sections for Discussion

Draft Version 3 | November 2024



BASE CROSS SECTION
NO ON-STREET PARKING

NOTES:
1. SHALLOW UTILITIES TO BE LOCATED IN REAR LANES WHERE PROVIDED.
2. WHERE REAR LANES ARE NOT PROVIDED, THE PREFERRED ALTERNATE LOCATION IS A 2.4m EASEMENT.
3. 1.5m SEPARATION BETWEEN STORM AND SANITARY INCREASES TO A MINIMUM OF 2.0m WHEN PARKING LAYBYS ARE ADDED ON ONE OR BOTH SIDES. SEE STANDARD SPECIFICATIONS WATERWORKS CONSTRUCTION FOR CONSTRAINTS ON UTILITY SPACING AND PIPE SIZING.
4. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.

ALTERNATE CROSS SECTION WITH
PARKING LAYBYS ON BOTH SIDES

PARKING LAYBYS ARE PERMITTED ADJACENT TO:
1. MULTI-FAMILY SITES
2. PLAYGROUNDS / PLAYING FIELDS
3. SCHOOL SITES
4. COMMERCIAL SITES
5. RESIDENTIAL WITH REAR LANE ACCESS

PARKING LAYBYS ARE NOT PERMITTED WHEN FRONT DRIVEWAYS, HYDRANTS, ETC. REDUCE THE POTENTIAL PARKING TO LESS THAN 50% OF THE FRONTAGE.

*RIGHT-OF-WAY WIDENS TO ACCOMMODATE PARKING LAYBYS AS WARRANTED AND DEEP UTILITY SPACING INCREASES AS WIDER RIGHT-OF-WAY IS PROVIDED.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
30 km/h

PERMIT	SEAL	THE CITY OF CALGARY ROADS DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC** FILE: D:\WZTS Projects\Martinson Gate\1002 Calgary Cross Section Edits_Revised Sections\01_Local.dwg DATE: October 25, 2024 4:20:02 AM ISC: UNRESTRICTED	No. / Date / Revision / App'd	Drawn / Date	CROSS SECTION LOCAL	Figure 1
				Designed		File Number 1002
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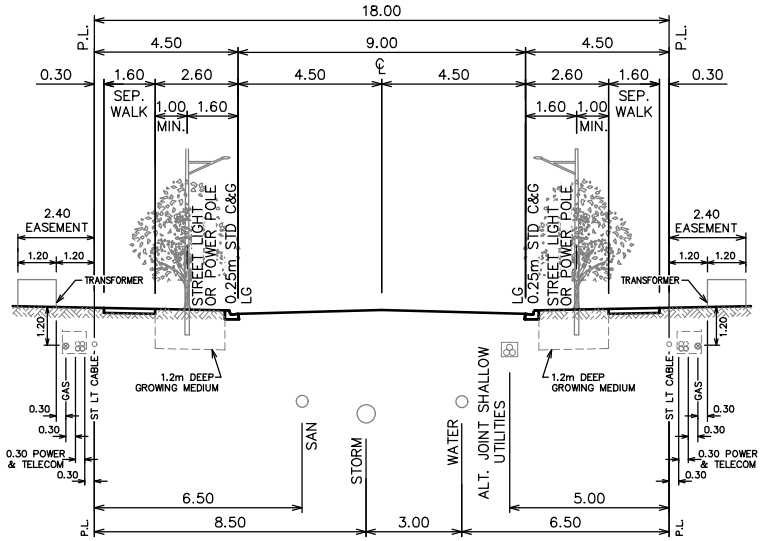
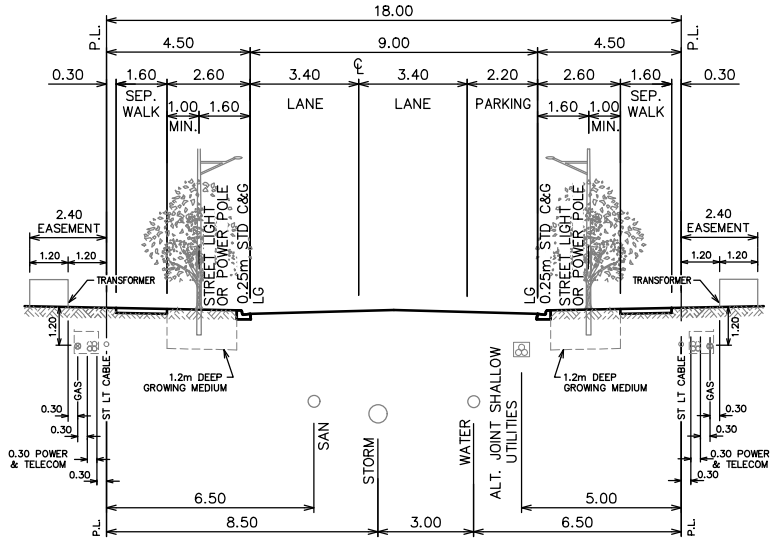


BASE CROSS SECTION
NO ON–STREET PARKING



ALTERNATE CROSS SECTION
WITH ON–STREET PARKING
ON ONE SIDE

NOTES:
1. STREET LIGHTS ON OPPOSITE SIDE FROM POWER POLES, IF NOT ON SHARED POLES.
2. BOULEVARD TREES ON OPPOSITE SIDE FROM OVERHEAD POWER POLES.
3. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
30 km/h

PERMIT | SEAL

Calgary

DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**
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ISC: UNRESTRICTED

No.	Date	Revision	App'd

Drawn | Date
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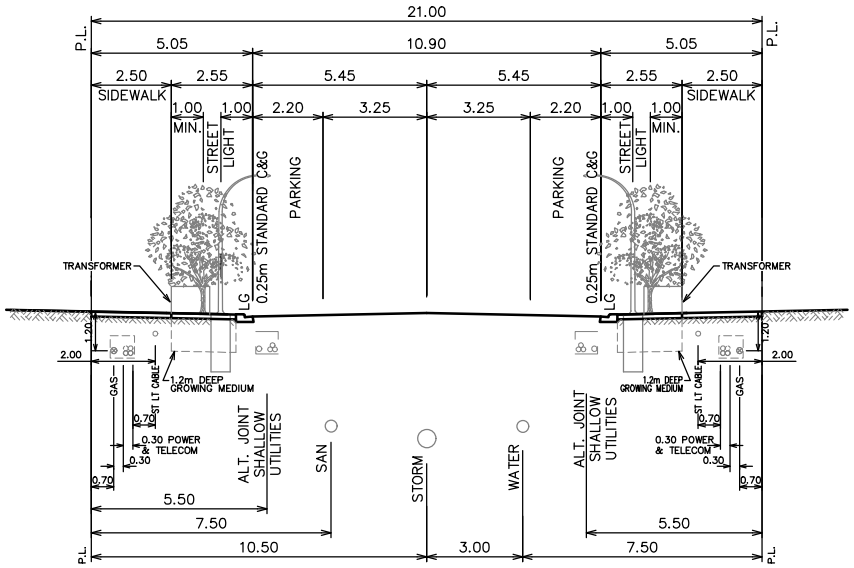
Scale:

CROSS SECTION
LOCAL – INDUSTRIAL

Figure 2
File Number 1002



NOTES:
1. SHALLOW UTILITIES TO BE IN REAR LANES, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.
3. SOIL CELLS TO BE USED FOR TREES WHERE BOULEVARD AREA IS HARD SURFACED.
4. NEED FOR PEDESTRIAN SCALE LIGHTING TO BE ASSESSED.
5. NO BUSES ON LOCAL ROADS.
6. MID-BLOCK BULB-OUTS TO BE PROVIDED AS REQUIRED TO ASSIST IN MEETING TARGET SPEED.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
30 km/h

PERMIT	SEAL	Calgary		Drawn	Date	CROSS SECTION LOCAL HIGH ACTIVITY	Figure 3
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**		Designed			
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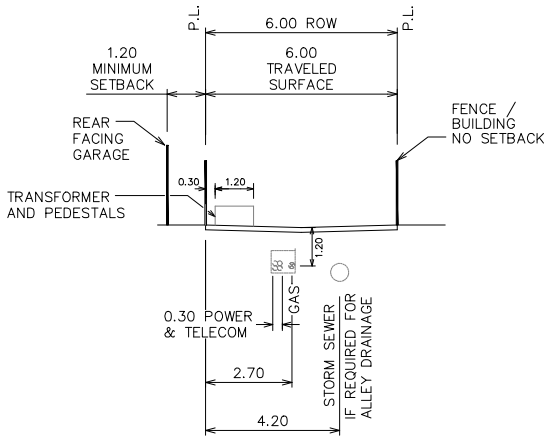
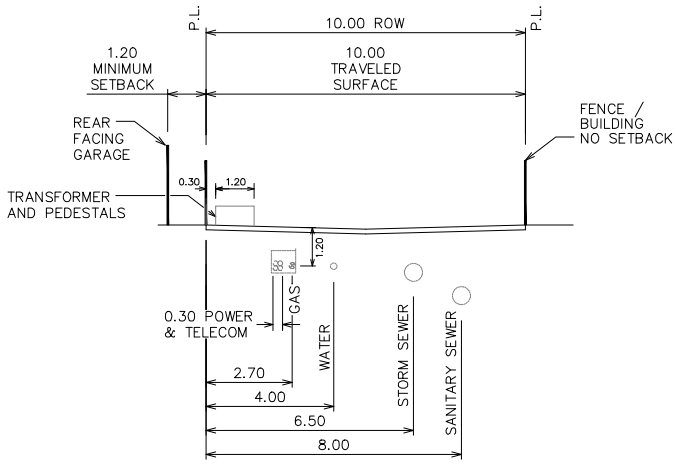


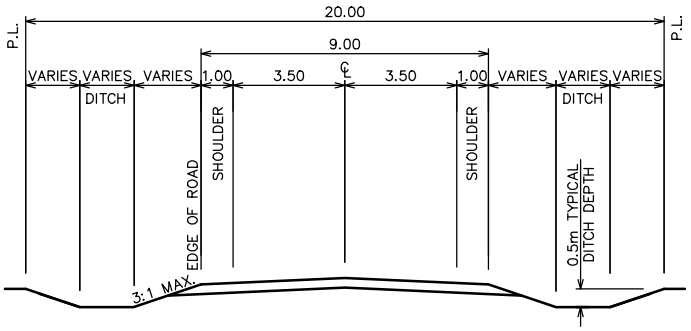


NOTES:
1. TRAVELLED WAY TO BE HARD SURFACED
2. LOCATION OF TRANSFORMER AND PEDESTALS TO AVOID DRIVEWAYS AND TO BE CONFIRMED IN THE FIELD.
3. MAXIMUM SIZE OF STORM SEWER IS 610mm DIAMETER AND A MAXIMUM DEPTH OF 3.50m.
4. STORM SEWER INVERT MUST BE LESS THAN 1.22m DIFFERENCE WITH THE INVERT OF ANY SANITARY SEWER.

NEW CROSS-SECTION. ANY
NOTES DESIRED?

FOR DISCUSSION
OCTOBER 2024

PERMIT	SEAL	Calgary				Drawn / Date	CROSS SECTION ALLEY
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED METRIC FILE: D:\WZTS Projects\Martinson Gdly\1002 Calgary Cross Section Edits_Revised Sections\04_Alley.dwg DATE: October 25, 2024 8:35:25 AM ISC: UNRESTRICTED	No.	Date	Revision	App'd	Designed Checked Scale:	Figure 4 File Number 1002



NOTES:
1. CROSS SECTION TO BE USED ONLY IN UNSERVICED AREAS WITH NO STORM POND.
2. WHERE A PATHWAY IS REQUIRED, THE RIGHT-OF-WAY SHOULD BE INCREASED TO 23.0m AND A 3.0m WIDE PATHWAY PROVIDED ADJACENT TO THE PROPERTY LINE.

NEW CROSS-SECTION. ANY NOTES DESIRED?

FOR DISCUSSION
OCTOBER 2024

PERMIT	SEAL	Calgary		Drawn	Date	CROSS SECTION LOCAL – RURAL
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC** FILE: D:\WZTS Projects\Martinson Gate\1002 Calgary Cross Section Edits_Revised Sections\06_Local - Rural.dwg DATE: October 25, 2024 4:23:56 AM ISC: UNRESTRICTED	No. Date Revision App'd	Designed		Figure 5
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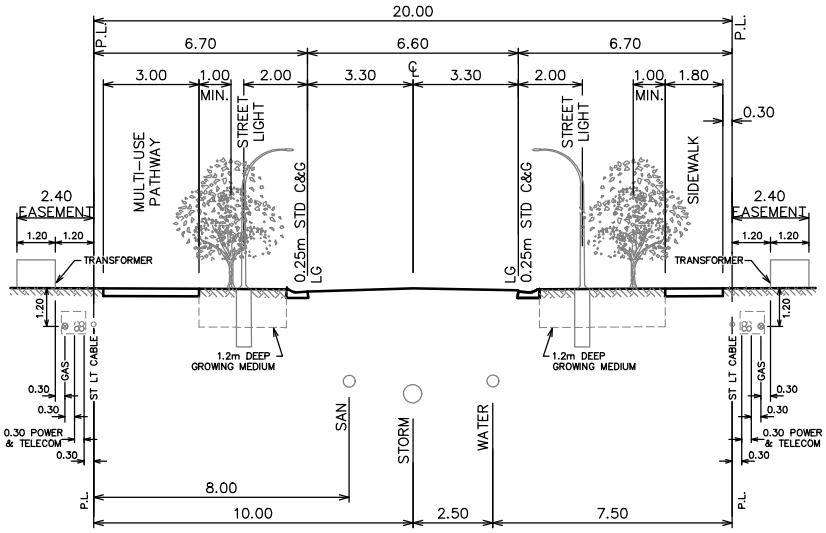
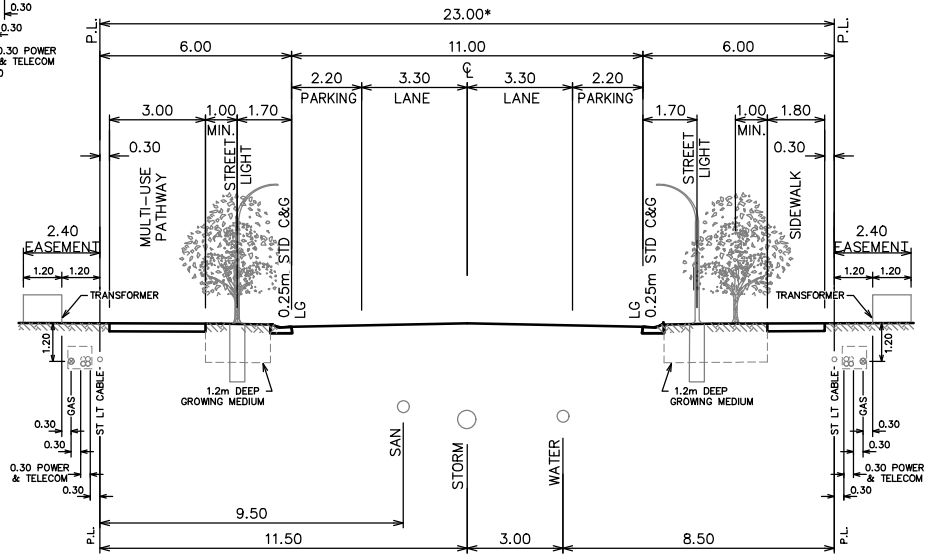


BASE CROSS SECTION
NO ON-STREET PARKING

NOTES:
1. SHALLOW UTILITIES TO BE IN REAR LANES, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. WHERE REAR LANES ARE NOT PROVIDED THE PREFERRED ALTERNATE LOCATION IS IN A 2.4m WIDE EASEMENT.
3. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED



ALTERNATE CROSS SECTION
WITH PARKING LAYBYS ON BOTH SIDES

PARKING LAYBYS ARE PERMITTED ON:
1. MULTI-FAMILY SITES
2. PLAYGROUNDS / PLAYING FIELDS
3. ACTIVITY CENTRES CROSS-SECTION FOR MORE INTENSE LAND USE AREAS

PARKING LAYBYS ARE NOT PERMITTED WHEN FRONT DRIVEWAYS, HYDRANTS, TRANSIT STOPS, ETC. REDUCE THE POTENTIAL PARKING TO LESS THAN 50% OF THE FRONTAGE.

*RIGHT-OF-WAY WIDENS TO ACCOMMODATE PARKING LAYBYS AS WARRANTED

TARGET SPEED
40 km/h

FOR DISCUSSION
OCTOBER 2024

PERMIT | SEAL

Calgary

DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**
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DATE: October 25, 2024 4:48:17 AM
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No.	Date	Revision	App'd

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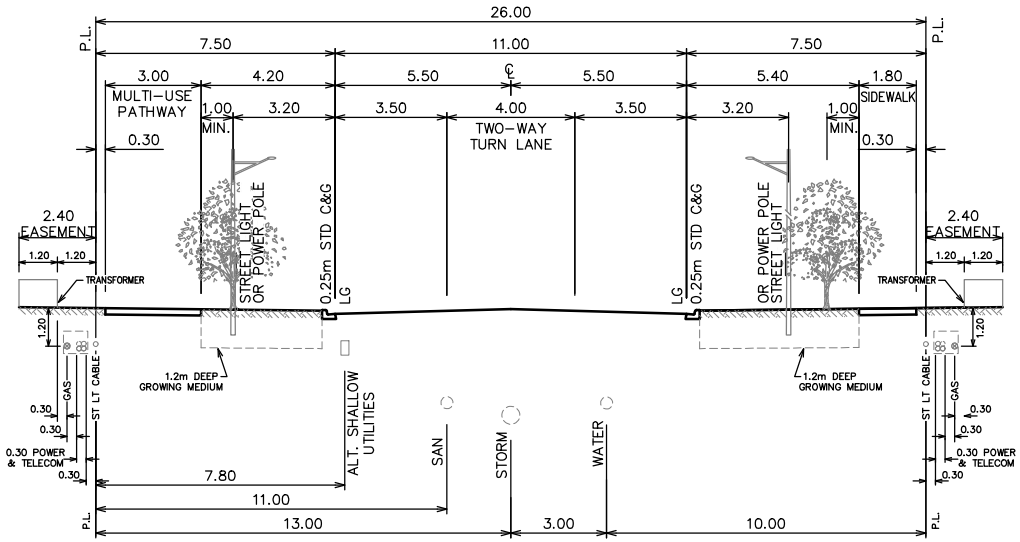
CROSS SECTION COLLECTOR

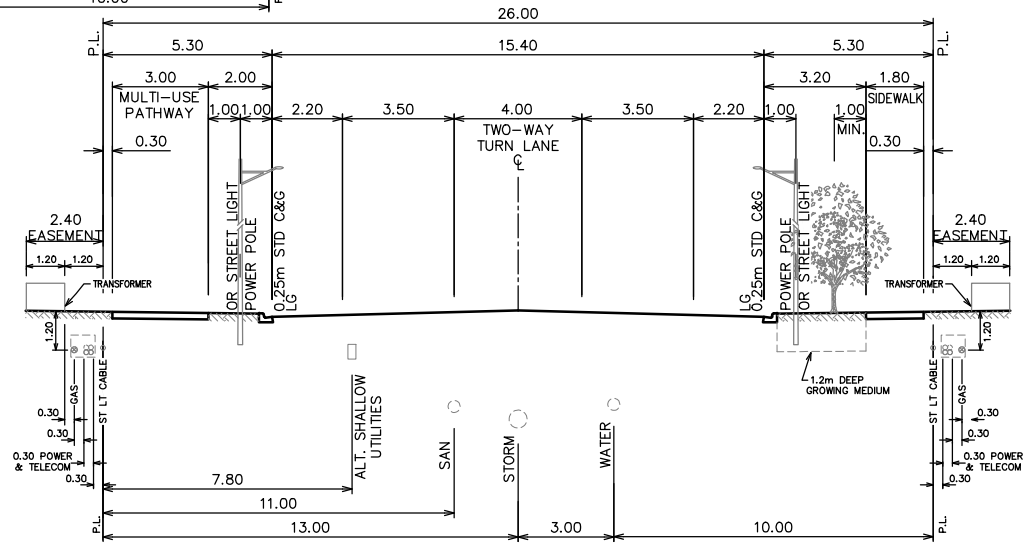
Figure **6**
File Number **1002**



BASE CROSS SECTION
NO ON–STREET PARKING

NOTES:
1. ALT. UTILITIES IS AN ALTERNATIVE LOCATION FOR ANY UTILITY THAT CANNOT BE ACCOMMODATED IN THE 2.4m WIDE EASEMENT.
2. STREET LIGHTS ON OPPOSITE SIDE FROM POWER POLES, IF NOT ON SHARED POLES.
3. BOULEVARD TREES ON OPPOSITE SIDE FROM OVERHEAD POWER POLES.
4. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED



ALTERNATE CROSS SECTION
WITH PARKING LAYBYS ON BOTH SIDES

PARKING LAYBY WARRANTED ADJACENT TO:
1. SMALL PARCEL INDUSTRIAL SITES
2. RETROFIT PROJECTS DUE TO CHANGING LAND USE
3. INADEQUATE BOULEVARD SPACE ADJACENT TO MUP FOR TREE WHEN PARKING LAYBY PROVIDED.

TARGET SPEED
40 km/h

FOR DISCUSSION
OCTOBER 2024

PERMIT | SEAL

THE CITY OF CALGARY
ROADS

DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**

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No.	Date	Revision	App'd

Drawn | Date
Designed
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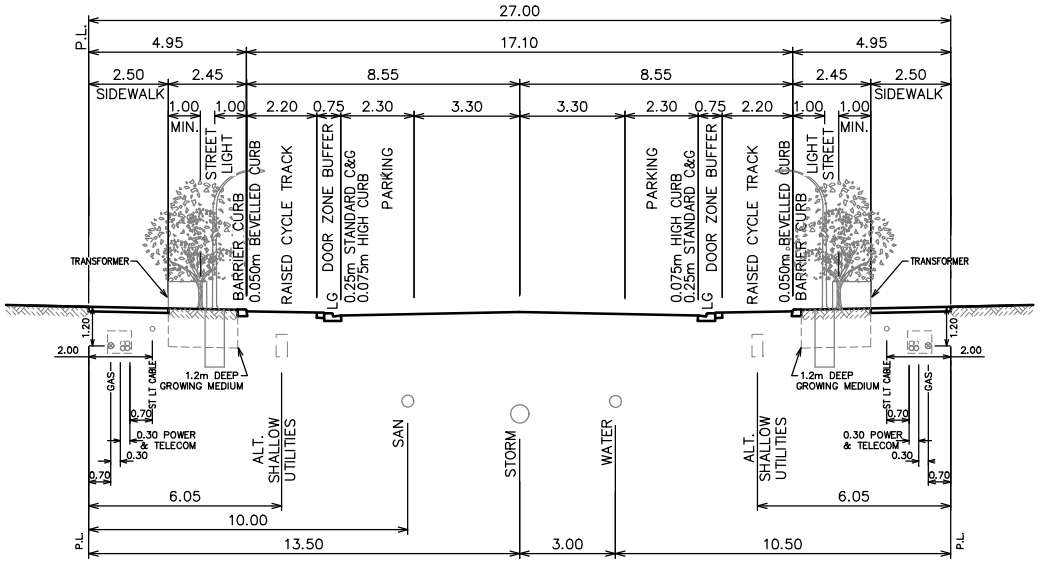
Scale:

CROSS SECTION
COLLECTOR – INDUSTRIAL

Figure **7**
File Number **1002**



NOTES:

1. SHALLOW UTILITIES TO BE IN REAR LANES, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.
3. SOIL CELLS TO BE USED FOR TREES WHERE BOULEVARD AREA IS HARD SURFACED.
4. NEED FOR PEDESTRIAN SCALE LIGHTING TO BE ASSESSED.
5. SEE PENDING TECHNICAL BULLETIN FOR GUIDANCE ON BUS STOPS WITH RAISED CYCLE TRACKS.
6. MID-BLOCK BULB-OUTS TO BE PROVIDED AS REQUIRED TO ASSIST IN MEETING TARGET SPEED.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
40 km/h

PERMIT | SEAL

Calgary

DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**

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Drawn	Date	
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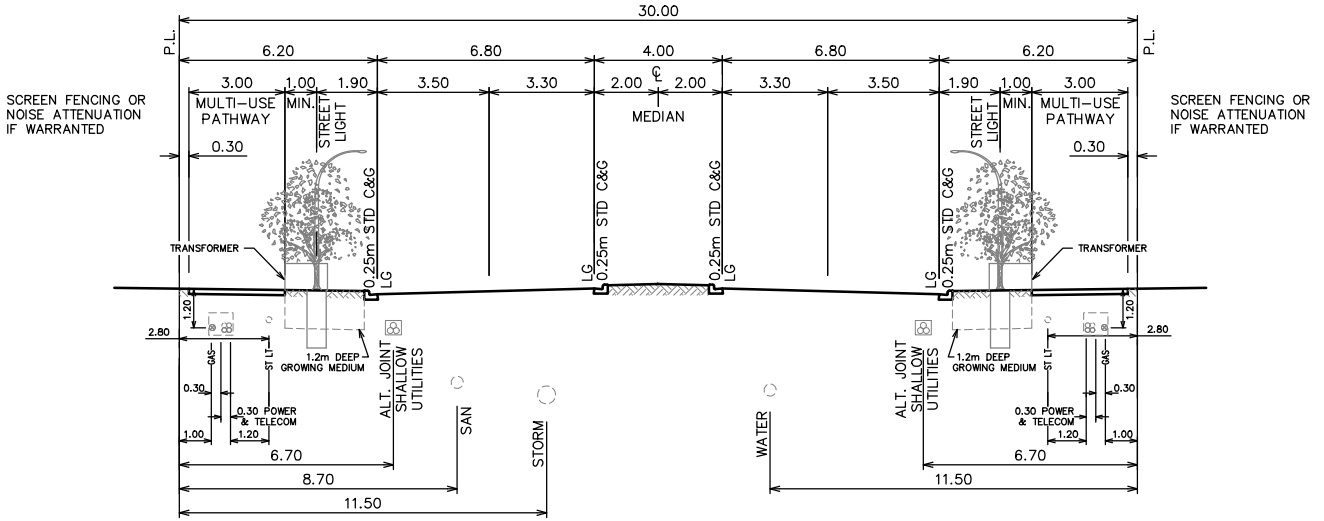
Scale:		

CROSS SECTION
COLLECTOR
HIGH ACTIVITY

Figure **8**

File Number **1002**

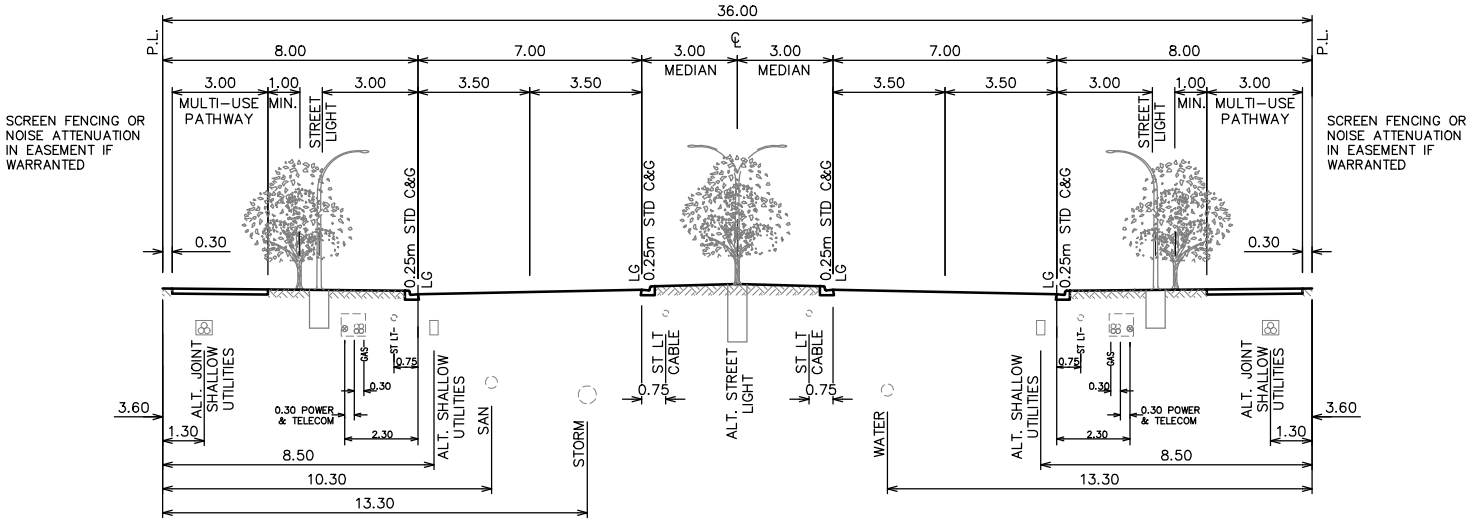


NOTES:
1. SHALLOW UTILITIES TO BE IN REAR LANE, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE.
3. NEED FOR PEDESTRIAN SCALE LIGHTING TO BE ASSESSED.

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
50 km/h

PERMIT	SEAL	Calgary		Drawn / Date	CROSS SECTION ARTERIAL – 4 LANES DIVIDED 50 km/h	Figure 9
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC** FILE: D:\WZTS Projects\Marlinson Gdl\1002 Calgary Cross Section Edits_Revised Sections\09_Arterial - 4 Lanes Divided - 50kph.dwg DATE: October 25, 2024 5:42:15 AM ISC: UNRESTRICTED	No. / Date / Revision / App'd	Designed Checked Scale:		File Number 1002



NOTES:

1. SHALLOW UTILITIES TO BE IN REAR LANE, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. WHERE REAR LANES NOT PROVIDED, PREFERRED LOCATION FOR SHALLOW UTILITIES IS IN BOULEVARD AND THEN UNDER MULTI-USE PATH.
3. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE.
4. NEED FOR PEDESTRIAN SCALE LIGHTING TO BE ASSESSED.
5. MULTI-USE PATHWAY TO BE 3.5m WIDE IF PART OF 5A NETWORK. DISTANCE BETWEEN PATH AND STREET LIGHT IS REDUCED AS NEEDED.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
70 km/h

PERMIT	SEAL	Calgary			Drawn	Date	CROSS SECTION ARTERIAL – 4 LANES DIVIDED 70 km/h
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC** FILE: D:\WZTS Projects\Martinson Gate\1002 Calgary Cross Section Edits_Revised Sections\10_Arterial - 4 Lanes Divided - 70kph.dwg DATE: October 25, 2024 5:48:37 AM ISC: UNRESTRICTED	No.	Date / Revision / App'd	Designed		Figure 10
					Checked		File Number 1002
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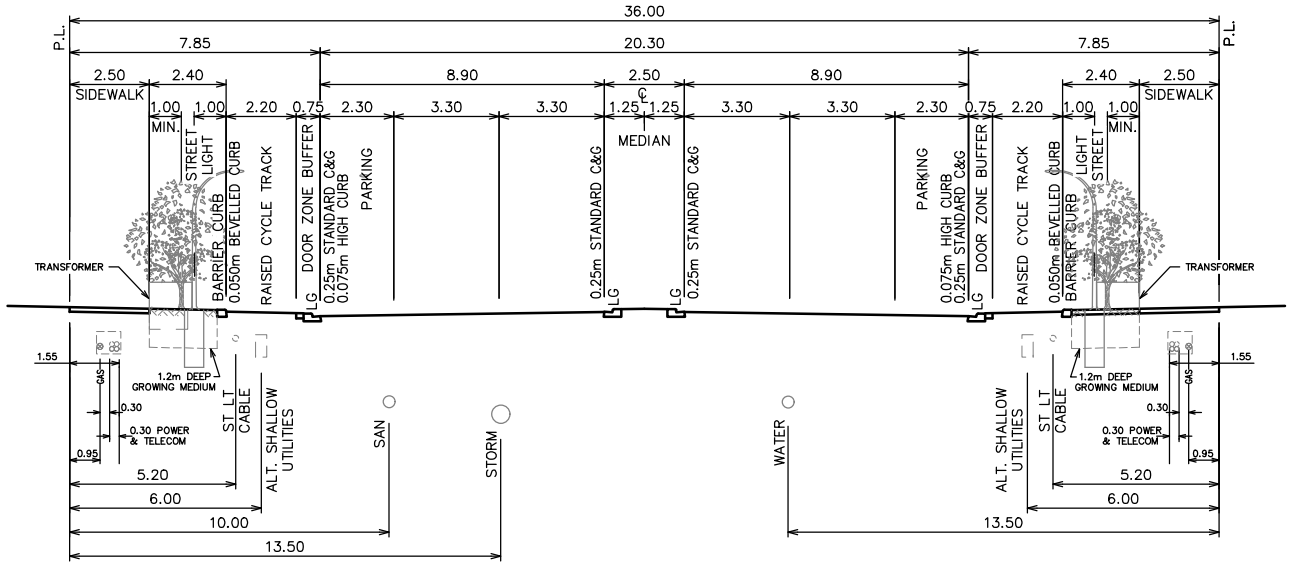

NOTES:

1. SHALLOW UTILITIES TO BE IN REAR LANES, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE WITH 20 CUBIC METRES OF GROWING MEDIUM PER TREE.
3. SOIL CELLS TO BE USED FOR TREES WHERE BOULEVARD AREA IS HARD SURFACED.
4. NEED FOR PEDESTRIAN SCALE LIGHTING TO BE ASSESSED.
5. SEE PENDING TECHNICAL BULLETIN FOR GUIDANCE ON BUS STOPS WITH RAISED CYCLE TRACKS.
6. MID-BLOCK BULB-OUTS TO BE PROVIDED AS REQUIRED TO ASSIST IN MEETING TARGET SPEED AND PROVIDE 4.0m WIDE MEDIAN REFUGE FOR MID-BLOCK CROSSINGS.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
50 km/h

PERMIT | SEAL

Calgary

DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**

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DATE: October 25, 2024 5:57:26 AM
ISC: UNRESTRICTED

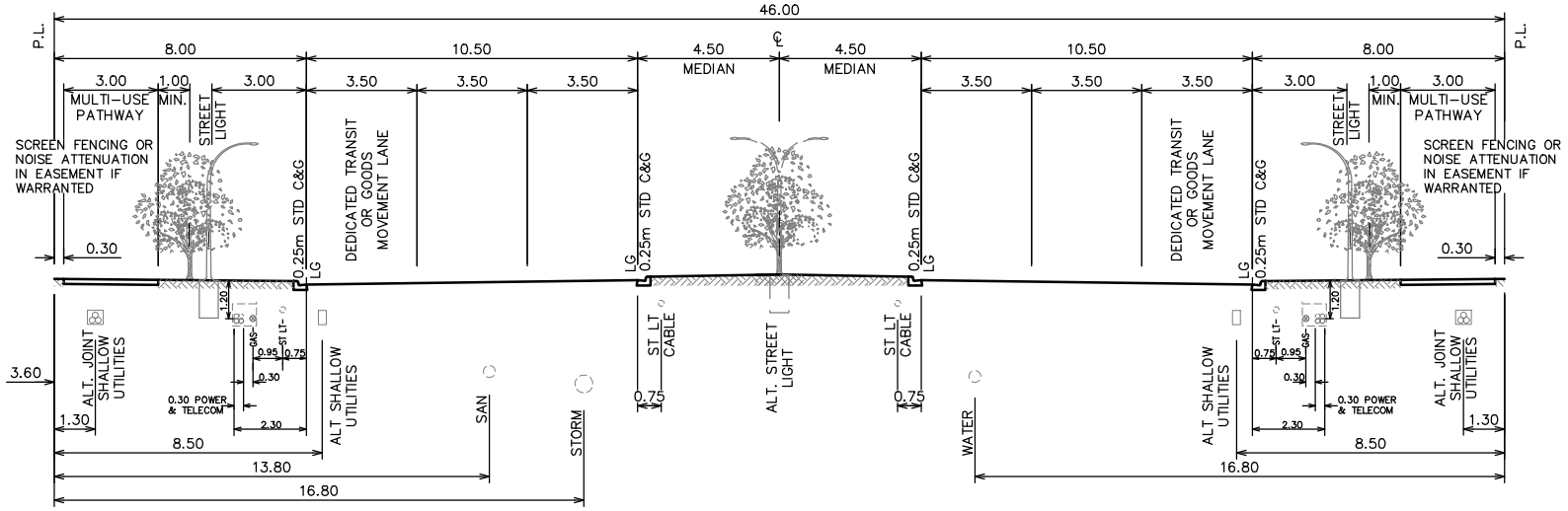
No.	Date	Revision	App'd

Drawn | Date
Designed
Checked
Scale:

CROSS SECTION ARTERIAL HIGH ACTIVITY

Figure **11**

File Number **1002**



NOTES:
1. SHALLOW UTILITIES TO BE IN REAR LANE, WHERE PROVIDED. SEE ALLEY CROSS SECTION.
2. WHERE REAR LANES NOT PROVIDED, PREFERRED LOCATION FOR SHALLOW UTILITIES IS IN BOULEVARD AND THEN UNDER MULTI-USE PATH.
3. MINIMUM 1 LARGE CANOPY TREE EVERY 10m OF BLOCK FACE.
4. NEED FOR PEDESTRIAN SCALE LIGHTING TO BE ASSESSED.
5. MULTI-USE PATHWAY TO BE 3.5m WIDE IF PART OF 5A NETWORK. DISTANCE BETWEEN PATH AND STREET LIGHT ALIGHNMENT IS REDUCED AS NEEDED.

ADDITIONAL NOTES FROM DGSS VERSION TO BE ADDED AS NEEDED

FOR DISCUSSION
AUGUST 2024

TARGET SPEED
70 km/h

PERMIT	SEAL	Calgary			Drawn	Date	CROSS SECTION ARTERIAL – 6 LANES
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED **METRIC**			Designed		Figure 12
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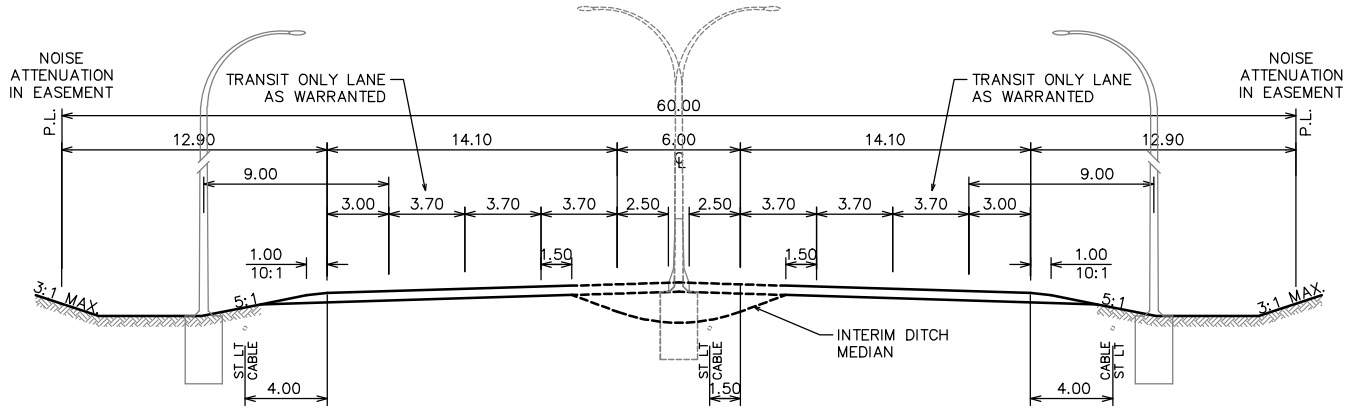
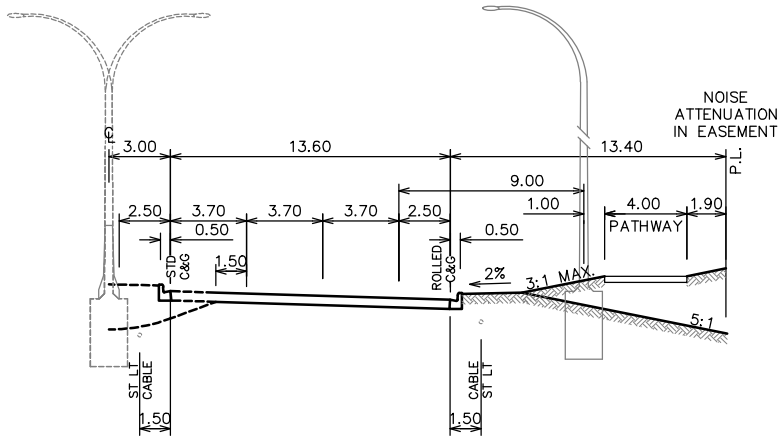


DEPRESSED MEDIAN
4-LANE STAGE
OPEN SHOULDER



DEPRESSED MEDIAN
4-LANE STAGE
CURB AND GUTTER

NOTES ARE FROM CURRENT VERSION OF DGSS
– SOME NOTES DELETED AS IRRELEVANT TO CROSS SECTION

NOTES:

1. THE AVERAGE VEHICULAR WHEEL PATHS ARE BETWEEN 1.05m (PASSENGER VEHICLES) AND 1.30m (BUSSES/TRUCKS) FROM CENTRELINE OF DRIVING LANES, MANHOLES IN ROADWAY SHOULD BE INSTALLED OUTSIDE OF VEHICULAR WHEEL PATHS AND BIKE LANES.
2. MULTI-USE PATHWAYS ARE PERMITTED OUTSIDE OF CLEARZONE.
3. SETBACK TO STREET LIGHT POLE MAY VARY WITH DESIGN SPEED.
4. THIS STANDARD IS INTENDED AS A GUIDELINE FOR NEW DEVELOPMENT, WHERE NOT APPLICABLE MAKE ADJUSTMENTS AS REQUIRED.
5. OFFSETTING OF ROADWAY CENTRELINE WITHIN RIGHT OF WAY IS NOT RECOMMENDED DUE TO FUTURE UTILITY CONFLICTS

FOR DISCUSSION
OCTOBER 2024

TARGET SPEED
80 km/h OR HIGHER

PERMIT	SEAL	Calgary		Drawn	Date	CROSS SECTION SKELETAL	Figure 13
		DIMENSIONS ARE METRES UNLESS OTHERWISE NOTED METRIC FILE: D:\WZTS Projects\Martinson Gdb\1002 Calgary Cross Section Edits_Revised Sections\13_Skeletal.dwg DATE: October 25, 2024 4:23:36 AM ISC: UNRESTRICTED	No. Date Revision App'd	Designed			File Number 1002
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