

Table of Minimum Offsets

The following table of offsets gives the minimum required offsets for infrastructure across the major reviewing sections. Each tab is all-inclusive, meaning that all the offsets are self-contained in each tab. We have several tabs to facilitate ease of use, so if a surface drawing is being drafted or reviewed then the Complete Streets tab can be used easily, or if a landscaping drawing is being drafted or reviewed then the Landscaping tab can be used. These offsets are applicable to most cases. However, they may vary for infill or non-standard situations as existing conditions may require unique offsets, as determined by the City.

Domain: Complete Streets (Volume 2)			
Subdomain: Complete Streets (Volume 2)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Intersection edge of pavement	Traffic control cabinet	Located outside the Clear Sight Triangles to allow for required sightlines	
Commercial/Industrial access edge of pavement	Traffic control cabinet	10.0m	
Curb Ramps	Commercial Crossing	1.0m	Flare to flare
Shared-use paths, walkways, and sidewalks	Property line	0.3m	Property line to edge of shared-use path, walkway, or sidewalk
Subdomain: EPCOR Drainage (Volume 3)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Face of Curb	Sanitary and storm mains	1.5m	
Curb Ramps	Catchbasins and catchbasin manholes	0.5m	
Bus stop pad	Storm and sanitary services	1.5m	1.5 m from the edge of the bus stop pad. Drainage prefers sewer services to not to be buried under the bus stop pad
Driveways	Catchbasins	1.5m	Edge of driveway.
Intersection	Catchbasins	Locate at End of Curve OR Beginning of Curve and not within the curb ramp and crosswalk	
Subdomain: EPCOR Water (Volume 4)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
PL	Curb cook	0.1m	0.3m from PL for side lot services
Face of Curb (FOC)	Watermain	1.5m (<= 400 mm mains)	
FOC	Watermain	2.0m (> 400 mm mains)	
PL	Watermain in alley, utility lot, walkway, or URW	1.2m (preferably 2.0m)	Mains in walkways are to be dimensioned to side PL.
PL	Water services	Extend service into lot 1.5m beyond the edge of the shallow utility easement	If the water service enters a parcel where there isn't a shallow utility easement, the water service shall extend into the lot a minimum of 1.5m beyond the property line.
PL	Flushpoint	1.5m	Plug is 5.0m from PL
FOC	Hydrant	Preferred: 3.0m for any ROW with Monowalk. Min 1.5 m - max 3.5 m offset acceptable.	If the monolithic walk is greater than 2.5 m wide, include a 90 degree bend in the hydrant lead and locate the hydrant and the control valve 0.3 m behind the back edge of the walk.
FOC	Hydrant	1.5m for any ROW with Separate Walk	Where the walk is greater than 2.0 m into the boulevard or where no walk exists.
Edge of Walk	Hydrant	0.3m	
Edge of Bus Stop	Hydrant	6.0m	Hydrants located within 45 m of the approach side of the bus stop or 15 m of the departure side must be labeled "To be white disked (Fire Dept. Use Only) at commissioning."
Edge of Driveway	Hydrant	To be located on the opposite lot line from driveway	If unable, minimum 1.5m (preferably 2.0m)
Corner of intersection	Hydrant	To be installed at the beginning of the curve of the curb return	Where not in conflict with item 4.2.14.
Alley	Valves	6.0m of the approach & 3.0m of the departure	
Arterial road & collector road intersection	Valves	30m	
Property Line	Valves	To be located on the projection of PL, where possible or dimension to a PL	
Utility lot, walkway or URW	Valves	0.5m from PL or its projection	
Subdomain: Landscaping (Volume 5)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
FOC (local)	Trees (centre of tree)	1.0m, 1.25m preferred	Trees to be placed in line with or further from Face of Curb than Streetlight Poles.
FOC (Collector)	Trees (centre of tree)	1.25m / 1.65m	1.25 m ROW < 20m, 1.65 m ROW > 20m. Trees to be placed in line with or further from Face of Curb than Streetlight Poles.
FOC (Arterial)	Trees (centre of tree)	2.0m	Trees to be placed in line with or further from Face of Curb than Streetlight Poles.
Intersection	Trees (centre of tree)	15m	
Edge of Sidewalk, Driveway, Walkway, and Shared-Use Path	Trees (centre of tree)	1.0m, preferred 1.5m	
Edge of Sidewalk, Walkway and Shared-Use Path	Shrubs	0.5m	Shrubs at maturity
Edge of walk	Litter receptacle	0.6m	
Edge of commercial or industrial access	Trees (centre of tree)	1.5m	
Back of walkway	Benches	1.0m	
Back of walkway	Picnic Table	1.0m	
Boulevard curb	Mulched beds	2.5m	Within boulevard curb along arterial and collector roadways.
Stop signs and yield signs	Trees (centre of tree)	3.5m	
All other signs	Trees (centre of tree)	2.0m	
Transit zones/bus pads	Trees (centre of tree)	3.5m	In addition to the 3.5 m clearance, ensure trees do not create sightline obstructions for vehicles approaching transit zones.
Property line	Trees (centre of tree, in walkway or shared-use path ROW)	1.0m	
Property line	Trees (centre of tree, in boulevard)	1.0m	
Property Line	Deciduous trees (in open parkland)	2.5m	From centre of tree, in open parkland where there is turf between the fence and the tree rather than a bed.
Property Line	Coniferous trees (in open parkland)	2.5m	From edge of mature spread of tree, in open parkland where there is turf between the fence and the tree rather than a bed.
Subdomain: Streetlighting (Volume 6)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
FOC	Streetlight Pole (centre of pole)	1.25m along Local Streets, 1.25m along Collectors; 2.0m along Arterials; 2.6m for monowalks along Local and Collector Streets, 3.0m for monowalks adjacent to School Sites	
FOC	Multiparty trench	2.5m	Centerline of trench
Intersection	Streetlight Pole (centre of pole)	0.9m	
Edge of sidewalk or walkway	Streetlight Pole (centre of pole)	0.5m / preferred 1.0m	
Edge of shared-use paths	Streetlight Pole (centre of pole)	0.5m / preferred 1.5m	
Driveway (Residential)	Streetlight Pole (centre of pole)	0.5m with standard base and 0.75m with utility box	
Driveway/Access (Commercial or Industrial)	Streetlight Pole (centre of pole)	1.5m	
Subdomain: EPCOR Power (Volume 7)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
FOC	Multiparty trench	2.5m	Centerline of trench
FOC	Transformer	SEE NOTES	Offset is required. See the specific and applicable cross-section(s) found in Complete Streets Design and Construction Standards.
Corner cut	Power crossings	3.0m	
Corner cut	Transformer	6.0m	
Corner cut	1-phase or 3-phase cubicle	30m	
Bus stop pad	Transformer/Switching cubicle	3.0m	From edge of bus pad to edge of base
Road crossing	Transformer/Switching cubicle	3.0m	From centre to closest duct in crossing
Transportation control devices and signs	Pad-mounted equipment	3.0m	From edge of pad
Bus stop pad	Power crossings	3.0m	From edge of bus pad to crossing
Residential driveways	Transformer	2.0m	From edge of equipment to driveway
Intersection edge of pavement	Transformer/Switching cubicle	15m	From centre of transformer/switching cubicle
Commercial/Industrial access edge of pavement	Transformer/Switching cubicle	10m	
Edge of walkway property line	Pad-mounted equipment	3.0m	From edge of equipment to edge of walkway property line
PL	Main power/Multiparty trench	1.0m	Actual required minimum offset may change depending on sidewalk type and alignment of shallow utilities.
Subdomain: Gas			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
FOC	Multiparty trench	2.5m	Centerline of trench
Subdomain: Telecommunications			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
FOC	Multiparty trench	2.5m	Centerline of trench
Subdomain: General			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Location of all surface appurtenances associated with underground utilities (including, but not limited to, transformers, cubicles, catch basins, manholes and utility covers, water valves, power/telecom vaults)	Active Transportation Infrastructure	Located outside of any sidewalks, shared-use paths, walkways, crosswalks, and curb ramps; See also the City's Design and Construction Standards Volumes 3, 4, and 7	

Domain: EPCOR Drainage (Volume 3)			
Subdomain: Complete Streets and Roadways (Volume 2)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Storm and sanitary mains	Face of Curb	1.5m	
Storm and sanitary services	Bus stop pad	1.5m	1.5 m from the edge of the bus stop pad, Drainage prefers sewer services are not to be buried under the bus stop pad
Catchbasins and catchbasin manholes	Curb Ramps	0.5m	
Catchbasins	Driveways	1.5m	Edge of driveway.
Catchbasins	Intersection	Locate at End of Curve OR Beginning of Curve and not within the curb ramp and crosswalk	
Subdomain: EPCOR Water (Volume 4)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Sanitary & Storm Main	Watermain	2.5m (preferably 3.0m)	Additional clearance may be required at the Engineer's (EWSI) discretion, including when pipe diameters are greater than 300 mm.
Sanitary Main, Storm Main and Catch Basin Leads Crossing	Watermain	0.3 m when crossing under water main 0.5 m when crossing over water main	Catch basin leads must be shown where they cross water mains.
MH	Watermain	2.5m	
Oversized MH (Ø1800 & larger)	Watermain	3.0m	From the centreline to centreline (watermains <= 600 mm)
Catch Basin	Watermain	1.5m	
Catch Basin lead	Watermain	2.5m (preferably 3.0m)	
Storm Sanitary service	Watermain	2.5m (preferably 3.0m)	When paralleling main
Storm and Sanitary service crossing	Watermain	0.15m	Vertical Crossing
Storm Sanitary service	Large water service, Ø100 & larger	3.0m	Provide dimension from PL to services. Large water service to be in own trench.
Storm Sanitary service	Water Services	0.3 m	For typical dual and single services for single family, duplex, and semi-detached lots. Services 50mm and smaller to be laid in same trench as storm and sanitary services, to the right of the sanitary service when facing lot to be served.
MH shaft	Water Services	2.0m	
Catch Basin	Water Services	2.5m	
Catch Basin lead	Water Services	2.5m	
Storm and Sanitary Main	Water Services	1.5m (2.5m preferred)	For small services only (50mm and smaller). When paralleling. Water service cannot be between a storm main and a sanitary main.
Storm and Sanitary joint	Water Services	1.5m	Clearance is from joint, not centre of fitting (tee, cross, bend, etc.)
Storm and Sanitary service	Hydrants	2.5m	
CB lead	Valve	3.0m	
Drainage Infrastructure or non-potable water infrastructure	Infrastructure with a thrust block (reducer, tee, cross or bend)	1.5m	
Drainage Infrastructure or non-potable water infrastructure including storm and sanitary services	Water Joint	1.5m	Clearance is from the joint not from the center of fitting (tee, cross, bend, etc.). Clearance also applies to tie in joints (i.e. plugs after BVs).
Storm inline tee/ sanitary core-bell insert and service line	Water mainstop	0.3m	
Subdomain: Landscaping (Volume 5)			
Domain Infrastructure	Minimum Clearance	Minimum Clearance	Minimum Clearance
Storm and sanitary services	Trees	1.8m	Centre of tree
Storm and sanitary manholes	Trees	1.8m	Centre of tree
Subdomain: Streetlighting (Volume 6)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Storm and sanitary services	Streetlights and power poles	2.0m	
Subdomain: EPCOR Power (Volume 7)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Drainage/Sanitary Main, Catch basin, manhole, vault other large drainage structure	Main power trench	2.0m	Troughed to 1.5 m either side of catch basin if less than 2.0 m
Manhole, catch basin, storm and sanitary services	1-phase pad-mounted equipment	4.5m	3.0 m is required from the ground grid to the other utility
Manhole, catch basin, storm and sanitary services	3-phase pad-mounted equipment	5.0m	3.0 m is required from the ground grid to the other utility
Catch basin, storm and sanitary services	Power crossings	3.0m	Crossings in roadways must be 3.0 m from catch basins
Subdomain: Gas			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Storm and sanitary mains	Gas crossings and line	Minimum 1.5m, preferred 3.0m	
Storm and sanitary services	Gas crossings and line	Minimum 1.5m, preferred 3.0m	
Catchbasins and catchbasin manholes	Gas crossings and line	Minimum 1.5m, preferred 3.0m	
Subdomain: Telecommunications			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Storm and sanitary mains	Telecommunications pedestal and line	Minimum 1.5m, preferred 3.0m	
Storm and sanitary services	Telecommunications pedestal and line	Minimum 1.5m, preferred 3.0m	

Item Number	Domain: EPCOR Water (Volume 4)			Notes
Subdomain: Complete Streets (Volume 2)		Minimum Clearance (Unless otherwise specified)		
4.2	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance (Unless otherwise specified)	Notes
4.2.1	Curb cock	PL	0.1m	0.3m from PL for side lot services
4.2.2	Waterman	Face of Curb (FOC)	1.5m (<= 400 mm mains)	
4.2.3	Waterman in alley, utility lot, walkway, or driveway	FOC	2.0m (> 400 mm mains)	
4.2.4	Water services	PL	1.2m (preferably 2.0m)	Mains in walkways are to be dimensioned to side PL
4.2.5	Hydrant	PL	6.0m service into lot 1.5m beyond the edge of the shallow utility easement	If the water service enters a parcel where there isn't a shallow utility easement, the water service shall extend into the lot a minimum of 1.5m beyond the property line.
4.2.6	Hydrant	FOC	1.5m	Plug 0.5m from PL
4.2.7	Hydrant	FOC	Preferred: 3.0m for any ROW with Monowalk Min 1.5 m - max 3.5 m offset acceptable.	If the monolithic walk is greater than 2.5 m wide, include a 90 degree bend in the hydrant lead and locate the hydrant and the control valve 0.3 m behind the back edge of the walk.
4.2.8	Hydrant	FOC	1.5m for any ROW with Separate Walk	Where the walk is greater than 2.0 m into the boulevard or where no walk exists.
4.2.9	Hydrant	Edge of Walk	0.3m	
4.2.10	Hydrant	Edge of Bus Stop	0.3m	Hydrants located within 4.5 m of the approach side of the bus stop or 1.5 m of the departure side must be labeled "To be white disked (Fire Dept. Use Only at commissioning)".
4.2.11	Hydrant	Edge of Driveway	To be located on the opposite lot line from driveway	If unable, minimum 1.5m (preferably 2.0m)
4.2.12	Hydrant	Corner of intersection	To be installed at the beginning of the curve of the curb return	Where not in conflict with item 4.2.14.
4.2.13	Valves	Alley	6.0m of the approach & 3.0m of the departure	
4.2.14	Valves	Arterial road & collector road intersection	30m	
4.2.15	Valves	Property Line	To be located on the projection of PL, where possible or dimension to a PL	
4.2.16	Valves	Utility lot, walkway or URW	0.5m from PL or its projection	
Subdomain: EPCOR Drainage (Volume 3)		Minimum Clearance (Unless otherwise specified)		Notes
4.3	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance (Unless otherwise specified)	Notes
4.3.1	Waterman	Sanitary & Storm Main	2.5m (preferably 3.0m)	Additional clearance may be required at the Engineer's (EWS) discretion, including where pipe diameters are greater than 300 mm.
4.3.2	Waterman	Sanitary Main, Storm Main and Catch Basin Levels Crossing	0.3 m when crossing under water main 1.5 m when crossing over water main	Catch basin leads must be shown where they cross water mains.
4.3.3	Waterman	MH	2.5m	
4.3.4	Waterman	Oversized MH (Ø1800 & larger)	3.0m	From the centreline to centreline (watermains <= 600 mm)
4.3.5	Waterman	Catch Basin	1.5m	
4.3.6	Waterman	Catch Basin lead	2.5m (preferably 3.0m)	
4.3.7	Waterman	Storm Sanitary service	2.5m (preferably 3.0m)	When paralleling main
4.3.8	Waterman	Storm and Sanitary service crossing	0.15m	Vertical Crossing
4.3.9	Large water service, Ø100 & larger	Storm Sanitary service	3.0m	Provide dimension from PL to services. Large water service to be in own trench.
4.3.10	Water Services	Storm Sanitary service	0.3 m	For typical dual and single services for single family, duplex, and semi-detached lots. Services 50mm and smaller to be led in same trench as storm and sanitary services, to the right of the sanitary service when facing lot to be served.
4.3.11	Water Services	MH shaft	2.0m	
4.3.12	Water Services	Catch Basin	2.5m	
4.3.13	Water Services	Catch Basin lead	2.5m	
4.3.14	Water Services	Storm and Sanitary Main	1.5m (2.5m preferred)	For small services only (50mm and smaller). When paralleling water service cannot be between a storm main and a sanitary main. Clearance is from joint, not centre of fitting (tee, cross, bend, etc.)
4.3.15	Water Services	Storm and Sanitary joint	1.5m	
4.3.16	Hydrants	Storm and Sanitary service	2.5m	
4.3.17	Water Services	CG lead	3.0m	
4.3.18	Water Services	Drainage Infrastructure or non-potable water infrastructure	1.5m	Clearance is from the joint not from the center of fitting (tee, cross, bend, etc.). Clearance also applies to tie in joints (i.e. plugs after BVs).
4.3.19	Water Services	Storm inline tee sanitary control inset and service line	0.3m	
Subdomain: General / EPCOR Water (Volume 4)		Minimum Clearance (Unless otherwise specified)		Notes
4.4	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance (Unless otherwise specified)	Notes
4.4.1	Waterman	Watermain	1.5m	If the carriageway allows for two water mains to be located within the street or easement.
4.4.2	Waterman	Any other utility crossing the water main	1.0 m vertical	Does not include storm and sanitary sewer mains and DPS mains.
4.4.3	Tapping Valve Sleeve (TVS)	All pipe joints, including other appurtenances, including other tapped valves	1.5m	
4.4.4	Water mainstop	To other manholes including adjacent bell, collar, plug or coupling	0.6m	
4.4.5	Water mainstop	From any water joint i.e. bend, tee, cross, valves, etc.	0.6m	
4.4.6	Water mainstop	Storm inline tee sanitary control inset and service line	0.3m	
4.4.7	Water Main and Any Utility Crossing	Deflection or joint on other utility (including water main)	1.5 m horizontal separation	All crossings shall be at 90 degrees to the water infrastructure. If this cannot be achieved, the crossing shall not be at an angle of less than 45 degrees.
Subdomain: Landscaping (Volume 5)		Minimum Clearance		Notes
4.5	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
4.5.1	All water infrastructure	Soil cells	See Volume 4 Section 1.15	
4.5.2	Valve, hydrant, curb cock (CC), or waterman	Face	1.2m	For fencing on private property, offset for fencing on public property will be at 1.2m or greater, at the discretion of the City.
4.5.3	Watermains, services, manual air vents	Deciduous tree	1.8m	Ensure that these dimensions are measured from the actual service location and not the property line.
4.5.4	Watermains, services, manual air vents	Coniferous tree	3.5m	Ensure that these dimensions are measured from the actual service location and not the property line.
4.5.5	Hydrant	Deciduous tree	3.5m	
4.5.6	Hydrant	Coniferous tree	7.0m	
4.5.7	Hydrant	Shrub	1.0 m behind hydrant and 1.5 m on either side of the hydrant (extending to road)	
4.5.8	Valve, hydrant, curb cock (CC), or waterman	Movable street and parks furniture including but not limited to benches, tables, and waste receptacles	3.0m	
4.5.9	Valve, hydrant, curb cock (CC), or waterman	Immovable street and parks furniture including but not limited to signs, public art, and retaining walls	3.0m	
4.5.10		Provide a dimension from the landscaping element to the water appurtenance if: Within 3.0 m of water service Within 5.0 m of valve, hydrant or curb cock or any other infrastructure		
Subdomain: Streetlighting (Volume 6)		Minimum Clearance		Notes
4.6	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
4.6.1	Hydrant	Streetlight pole (centre of pole)	1.8m	Edge to edge with pedestal, transformer, telecommunication cabinets & streetlight poles
4.6.2	Water services	Streetlight pole (centre of pole)	1.8m	
4.6.3	Waterman	Streetlight pole (centre of pole)	1.8m	
Subdomain: EPCOR Power (Volume 7)		Minimum Clearance		Notes
4.7	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
4.7.1	Water services and hydrants/flush point/air vents	1-phase pad-mounted equipment (transformers)	4.5m	
4.7.2	Water services and hydrants/flush point/air vents	3-phase pad-mounted equipment (transformers)	5.0m	
4.7.3	Water services	Power services and Power Cables Paralleling Water Service	1.8m	Clearance is from the actual water service location, not from the water service symbol.
4.7.4	Valves and curb cocks	Power cables <= 40 kV	1.0m	Minimum distance between CC and any power cables. Telecommunication cables, gas mains, duct lines
4.7.5	Valve or water appurtenances is crossed on both sides	Power cables <= 40 kV	1.8m	
4.7.6	Valve crossings	Pad-mounted equipment	1.5m	Edge to edge
4.7.7	Hydrants with control valves more than 2m from hydrant	Power cables <= 40 kV crossing between control valve and hydrant	Hydrants: 3m Valves: 1.0m	Hydrant: 1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
4.7.8	Hydrants	Main power cable and duct bank	3.0m	See ED11 Standard for Clearing Around Hydrants for reduced clearances (Volume 7, ED11 Standards)
4.7.9	Hydrants	Power cables <= 40 kV	3.0m	1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
4.7.10	Water Main	Secondary Power Cable (<=750 V)	2 m from edge of pipe	
4.7.11	Water Main	Primary Power Cable (<=40 kV)	4 m from edge of pipe	Primary power to be located on opposite side of the road unless power is in a four party trench or otherwise approved by the Engineer.
4.7.12	Water Main	High Voltage Power Cable (>40 kV)	See Notes	To be designed based on safe levels of approach and excavation allowance
4.7.13	Waterman	Pad-mounted equipment	3.0m	
4.7.14	All water infrastructure	Grounding rods	1.8m	
Subdomain: Gas		Minimum Clearance		Notes
4.8	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
4.8.1	Waterman	Gas main	1.8m	
4.8.2	Valve or curb cock (CC)	Gas mains or ductlines	1.0m	
4.8.3	Valve or water appurtenances is crossed on both sides	Gas mains or ductlines	1.8m	
4.8.4	Hydrant	Gas mains or ductlines	1.5m	1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
4.8.5	Hydrants with control valves more than 2m from hydrant	Gas mains or ductlines crossing between control valve and hydrant	Hydrants: 3m Valves: 1.0m	Hydrant: 1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
4.8.6	Water services	Gas services and gas crossings	1.8m	Clearance is from the actual water service location, not from the water service symbol.
4.8.7	Water services	Gas mains or ductlines	1.8m	
Subdomain: Telecommunications		Minimum Clearance		Notes
4.9	Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
4.9.1	Waterman	Telecommunication cable, conduits, pipes and pedestals	1.8m	
4.9.2	Valve or curb cock (CC)	Telecommunication cable	1.0m	
4.9.3	Hydrant	Telecommunication cable	1.5m	1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
4.9.4	Valve or water appurtenances is crossed on both sides	Telecommunication cable	1.8m	
4.9.5	Hydrants with control valves more than 2m from hydrant	Telecommunication cable crossing between control valve and hydrant	Hydrants: 3m Valves: 1.0m	Hydrant: 1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
4.9.6	Water services	Telecommunication cable, conduits, pipes and pedestals	1.8m	

* Dimension symbol and legend can be used instead of dimension line to avoid clutter.

Domain: Landscaping (Volume 5) (SEE ADDITIONAL NOTES AT THE BOTTOM)			
Subdomain: Complete Streets and Roadways (Volume 2)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Trees	Face of Curb (Local)	1.0m, 1.25m preferred	Trees to be placed in line with or further from Face of Curb than Streetlight Poles.
Trees	Edge of Sidewalk, Walkway, Driveway, and Shared-Use Path	1.0m, preferred 1.5m	
Trees	FOC (Collector)	1.25m / 1.65m	1.25 m ROW < 20m, 1.65 m ROW > 20m. Trees to be placed in line with or further from Face of Curb than Streetlight Poles.
Trees	FOC (Arterial)	2.0m	Trees to be placed in line with or further from Face of Curb than Streetlight Poles.
Trees	Edge of commercial or industrial access	1.5m	
Trees	Stop signs and yield signs	3.5m	
Trees	All other signs	2.0m	
Trees	Transit zones/bus pads	3.5m	In addition to the 3.5 m clearance, ensure trees do not create sightline obstructions for vehicles approaching transit zones.
Trees	Intersection	15m	
Trees (in walkway or shared-use path ROW)	Property line	1.0m	
Trees (in boulevard)	Property line	1.0m	
Deciduous trees (in open parkland)	Property line	2.5m	From centre of tree, in open parkland where there is turf between the fence and the tree rather than a bed.
Coniferous trees (in open parkland)	Property line	2.5m	From edge of mature spread of tree, in open parkland where there is turf between the fence and the tree rather than a bed.
Shrubs	Edge of Sidewalk, Walkway and Shared-Use Path	0.5m	Shrubs at maturity.
Mulched beds	Boulevard curb	2.5m	Within boulevard curb along arterial and collector roadways.
Benches	Back of walkway	1.0m	
Litter receptacle	Edge of Walk	0.6m	
Picnic Table	Back of walkway	1.0m	
Subdomain: EPCOR Drainage (Volume 3)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Trees	Storm and sanitary services	1.8m	
Trees	Storm and sanitary manholes	1.8m	
Subdomain: EPCOR Water (Volume 4)****			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Soil cells	All water infrastructure	See Volume 4 Section 1.15	
Fence	Valve, hydrant, curb cock (CC), or watermain	1.2m	For fencing on private property, offset for fencing on public property will be at 1.2m or greater, at the discretion of the City
Deciduous tree	Watermains, services, manual air vents	1.8m	Ensure that these dimensions are measured from the actual service locations and not the property line.
Coniferous tree	Watermains, Services, manual air vents	3.5m	Ensure that these dimensions are measured from the actual service locations and not the property line.
Deciduous tree	Hydrant	3.5m	
Coniferous tree	Hydrant	7.0m	
Shrubs	Hydrant	1.0 m behind hydrant and 1.5 m on either side of the hydrant (extending to road)	
Movable street and parks furniture including but not limited to benches, tables, and waste receptacles	Valve, hydrant, curb cock (CC), or watermain	1.5m	
Immovable street and parks furniture including but not limited to signs, public art, and retaining walls	Valve, hydrant, curb cock (CC), or watermain	3.0m	
Provide a dimension from the landscaping element to the water appurtenance if: Within 3.0 m of water service Within 5.0 m of valve, hydrant or curb cock or any other infrastructure			
Subdomain: Landscaping (Volume 5)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Shrub beds and planting beds	Shrub bed, fence, furniture, buildings, trees, and any other obstruction	2.5m	
Shrub beds, planting beds, and trees	Any play space envelope (playground equipment and splash parks)	5m	
Shrub beds and planting beds	Edge of bed	0.5m	Must be 500 mm (0.5 m) of mulched space between the edge of the mature shrub and the edge of the bed
Coniferous Tree	Edge of bed	0.5m	Must be 500 mm (0.5 m) of mulched space between the edge of the mature coniferous tree and the edge of the bed
Litter receptacle	Bench	3.0m	
Subdomain: Landscaping Offleash Areas (Volume 5)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Offleash Area	Residential Areas and cemeteries (property line)	100m	Unless separated a berm, fencing, trees or other mitigation measures and at the discretion of the City.
Offleash Area	Arterial roads	50m	Unless separated by fencing or other mitigation methods and at the discretion of the City
Offleash Area	Golf Courses and public areas that attract high concentrations of people	50m	Unless separated by fencing or other mitigation methods and at the discretion of the City
Offleash Area	Multi-use trails and equestrian trails	25m	Unless separated by fencing or other mitigation methods and at the discretion of the City
Offleash Area	School grounds or play areas and associated walking routes	25m	Unless separated by fencing or other mitigation methods and at the discretion of the City
Offleash Area	Pools, splash parks, sports fields, and picnic areas	25m	Unless separated by fencing or other mitigation methods and at the discretion of the City
Offleash Area	Natural areas, wildlife corridors, and other environmentally sensitive areas	Determine case by case	As determined on a case by case basis with the City
Subdomain: Streetlighting (Volume 6)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Trees	Streetlights and power poles	3.0m	
Trees	Streetlight cable	1.0m	For arterial road boulevards
Subdomain: EPCOR Power (Volume 7)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Trees	Main power trench	1.0m	Measured from the main power cable.
Trees and shrubs	3-phase switching cubicle	3.0m on each side where doors open	From edge of base
Trees and shrubs	Transformer	2.0m on sides 3.0m in front of doors 1.5m behind base	Measured from edge of base Minimum 3.0 m clearance in front of doors required for hot stick operation Measured from edge of base
Trees and shrubs	Power crossings	1.0m	Measured horizontally offset from the power crossing alignment
Trees and shrubs	1-phase switching cubicle	3.0m front 4.0m sides 2.5m behind base	From edge of base
Landscaped road island	Power crossings	SEE NOTES	See Note 1 below
Landscaped road island	Pad-mounted equipment	SEE NOTES	See Note 1 below
Subdomain: Gas and Pipelines			
Trees			Contact the utility for setbacks
Trees, shrubs, shrub and planting beds	Pipelines		Planting distances from low, intermediate and high-pressure pipelines are to be observed as dictated by the Pipeline Authority.
Subdomain: Telecommunications			
Trees			Contact telecomm company for setbacks

ADDITIONAL NOTES

*For deciduous tree(s), all measurements from centre of tree(s), for coniferous trees all measurements are from the edge of the mature spread, unless stated explicitly otherwise
** In general, setback distances apply to the majority of tree and tree form shrub species. However, certain species require different setbacks, such as those trees with suckering root systems or large hanging canopies (i.e. Poplars and Willows). Planting Populus spp. on parkland adjacent to private property is generally not recommended. However: - All other Populus spp., including columnar varieties, shall have a minimum setback of 10m from private property lines and 5.0m from hard surface areas where sub surface compaction has occurred. - Should Northwest Poplar, Balsam Poplar and Cottonwood be referenced, the minimum setback distances from hard surfaces shall be 10m, unless special construction details are used.
- Should Northwest Poplar, Balsam Poplar and Cottonwood be referenced, the minimum setback distances from private property lines shall be 15m due to root encroachment concerns.
- Some allowances may be made at the discretion of Forestry at the City if there is special construction mitigation in place, such as a root barrier.
*** Some offsets related to construction practices (not design offsets) are provided in Volume 5, Landscaping. These must be adhered to by the Developer, Contractor, and Consultant. See Volume 5, Landscaping "Trees and Shrub Planting Setbacks" for further information.
**** Dimension symbol and legend can be used instead of dimension line to avoid clutter.
Note 1: See the City of Edmonton Design and Construction Standards Volume 5 – Landscaping ... shallow utilities shall not be placed in Landscaped Road Islands. Written permission for power crossings or pad mounted equipment in Landscaped Road Islands is the responsibility of the developer. Ducts must be continuous and cannot have trees within 1.0 m of the duct. Other plantings such as small shrubs or flowers would be allowed over top of the crossing.
Distances from overhead power utilities shall be as per the requirements established by the Utility Authority.

Domain: Streetlighting (Volume 6)*			
Subdomain: Complete Streets (Volume 2)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlight Pole	FOC	1.25m along Local Streets; 1.25m along Collectors; 2.0m along Arterials; 2.6m for monowalks along Local and Collector Streets 3.0m for monowalks adjacent to School Sites	
Streetlight Pole	Edge of sidewalk or walkway	0.5m , preferred 1.0m	
Streetlight Pole	Edge of shared-use path	0.5m, preferred 1.5m	
Streetlight Pole	Intersection	0.9m	
Streetlight Pole	Driveway (Residential)	0.5m with standard base and 0.75m with utility box	Edge of driveway
Streetlight Pole	Driveway/Access (Commerical or Industrial)	1.5m	Edge of access
Multiparty trench	FOC	2.5m	Centerline of trench
Subdomain: EPCOR Drainage (Volume 3)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlights and power poles	Storm and sanitary services	2.0m	
Subdomain: EPCOR Water (Volume 4)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlight Pole (centre of pole)	Hydrant	1.8m	Edge to edge with pedestal, transformer, telecommunication cubicles & streetlightlight poles
Streetlight Pole (centre of pole)	Water services	1.8m	
Streetlight Pole (centre of pole)	Watermain	1.8m	
Subdomain: Landscaping (Volume 5)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlight Pole	Trees	3.0m	
Streetlight Cable	Trees	1.0m	For arterial road boulevards
Subdomain: EPCOR Power (Volume 7)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlight Pole	Primary or secondary cables	1.0m / 0.3m	1.0 m clearance required if streetlighting is installed after power is installed. 300 mm clearance required if streetlighting is installed at the same time as the power is installed. See standard for trenching around street light pole bases (Volume 7: EPCOR D&T)
Streetlight Pole	Power crossings	1.5m	To the closest power crossing duct
Main streetlight trench	Pad-mounted equipment	Common trench	See base standards and trough standards (Volume 7: EPCOR D&T)
Subdomain: Gas			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlight Pole	Gas crossings and lines	1.0m	
Subdomain: Telecommunications			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Streetlight Pole	Telecommunication lines and pedestals	1.0m	

*All measurements from centre of pole

Domain: EPCOR Distribution and Transmission (Volume 7) (SEE ADDITIONAL NOTES AT THE BOTTOM)			
Subdomain: Complete Streets and Roadways (Volume 2)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Transformer	Corner cut	6.0m	
Transformer	FOC	SEE NOTES	Offset is required. See the specific and applicable cross-section(s) found in Complete Streets Design and Construction Standards.
Transformer	Residential driveways	2.0m	From edge of equipment to driveway
Transformer/Switching cubicle	Bus stop pad	3.0m	From edge of bus pad to edge of base
Transformer/Switching cubicle	Road crossing	3.0m	From centre to closest duct in crossing
Transformer/Switching cubicle	Intersection edge of pavement	15.0m	
Transformer/Switching cubicle	Commercial/Industrial access edge of pavement	10.0m	
Pad-mounted equipment	Edge of walkway property line	3.0m	From edge of equipment to edge of walkway property line
Pad-mounted equipment	Transportation control devices and signs	3.0m	From edge of pad
1-phase or 3-phase cubicle	Corner cut	30.0m	
Multiparty Trench	FOC	2.5m	Centerline of trench
Main power/multiparty trench	Property Line	1.0m	Actual required minimum offset may change depending on sidewalk type and alignment of shallow utilities.
Power crossings	Bus stop pad	3.0m	From edge of bus pad to crossing
Power crossings	Corner cut	3.0m	
Subdomain: EPCOR Drainage(Volume 3)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Main Power Trench	Drainage/Sanitary Main, Catch basin, manhole, vault other large drainage structure	2.0m	Troughed to 1.5 m either side of catch basin if less than 2.0 m
1-phase pad-mounted equipment	Manhole, catch basin, storm and sanitary services	4.5m	3.0 m is required from the ground grid to the other utility
3-phase pad-mounted equipment	Manhole, catch basin, storm and sanitary services	5.0m	3.0 m is required from the ground grid to the other utility
Power crossings	Catch basin, storm and sanitary services	3.0m	Crossings in roadways must be 3.0 m from catch basins
Subdomain: EPCOR Water (Volume 4)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
1-phase pad-mounted equipment (transformers)	Water services and hydrants/flush points/air vents	4.5m	
3-phase pad-mounted equipment (transformers)	Water services and hydrants/flush points/air vents	5.0m	
Power services and Power Cables Paralleling Water Service	Water services	1.8m	Clearance is from the actual water service location, not from the water service symbol
Power cables <= 40 kV	Valves and curb cocks	1.0m	Minimum distance between CC and any power cables. Telecommunication cables, gas mains, duct lines
Power cables <= 40 kV	Valve or water appurtenances is crossed on both sides	1.8m	
Pad-mounted equipment	Valve casings	1.5m	Edge to edge
Power cables <= 40 kV crossing between control valve and hydrant	Hydrants with control valves more than 2m from hydrant	Hydrants: 3m Valves 1.0m	Hydrant: 1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
Main power cable and duct bank	Hydrants	3.0m	See EDTI Standard for Trenching Around Hydrants for reduced clearances (Volume 7: EDTI Standards)
Power cables <= 40 kV	Hydrants	3.0m	1.0m is allowed if encased in wood, trough to 1.5m on each side of hydrant
Secondary Power Cable (<=750 V)	Water Main	2 m from edge of pipe	
Primary Power Cable (<=40 kV)	Water Main	4 m from edge of pipe	Primary power to be located on opposite side of the road unless power is in a four party trench or otherwise approved by the Engineer.
High Voltage Power Cable (>40 kV)	Water Main	See Notes	To be designed based on safe limits of approach and excavation allowance.
Pad-mounted equipment	Watermain	3.0m	
Grounding rods	All water infrastructure	1.8m	
Subdomain: Landscaping (Volume 5)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Main power trench	Trees	1.0m	Measured from the main power cable.
1-phase switching cubicle	Trees and shrubs	3.0m front 4.0m sides 2.5m behind base	From edge of base
3-phase switching cubicle	Trees and shrubs	3.0m on each side where doors open	From edge of base
Pad-mounted equipment	Landscaped road island	SEE NOTES	See Note 1 below
Transformer	Trees and shrubs	2.0m on sides 3.0m in front of doors 1.5m behind base	Measured from edge of base Minimum 3.0 m clearance in front of doors required for hot stick operation Measured from edge of base
Power crossings	Trees and shrubs	1.0m	Measured horizontally offset from the power crossing alignment
Power crossings	Landscaped road island	SEE NOTES	See Note 1 below
Subdomain: Street Lighting (Volume 6)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Pad-mounted equipment	Main streetlight trench	Common trench	See base standards and trough standards (Volume 7: EPCOR D&T)
Primary or secondary cables	Streetlight Davit Poles or Contactors	1.0m / 0.3m	1.0 m clearance required if streetlighting is installed after power is installed. 300 mm clearance required if streetlighting is installed at the same time as the power is installed. See standard for trenching around street light pole bases (Volume 7: EPCOR D&T)
Power crossings	Streetlight Davit Poles or Contactors	1.5m	To the closest power crossing duct
Subdomain: Gas			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Pad-mounted equipment	Gas crossing	3.5m	From centre of equipment (minimum 2.0 m from ground grid)
Pad-mounted equipment ground grid	Main gas trench	1.0m	From ground grid to gas line trench
Main power trench	Main	1.0m	Parallel, see Note 2 below
Power crossings	Main	1.0m	Parallel
Power crossings	Main or service	300mm	Without mechanical separation, see Note 3 below
Subdomain: Telecommunications			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Pad-mounted equipment	Main communications trench	Common trench	See base standards and trough standards (Volume 7: EPCOR D&T)
Pad-mounted equipment	Communications pedestals	3.0m	Minimum 3.0 m from case of transformer or switching cubicle to case of pedestal, see Note 4 below
Primary or secondary cables	Communication vault	300mm	Minimum clearance between edge of communication vault and edge of primary or secondary cable
Power crossings	To the closest power crossing duct	Power crossing	Communications equipment
Subdomain: Pipeline Rights-of-Ways (Other Than ATCO IP for Servicing the Subdivision)			
Domain Infrastructure	Subdomain Infrastructure	Minimum Clearance	Notes
Pad-mounted equipment	From edge of right-of-way	10.0m	From edge of pipeline right-of-way to edge of ground grid
Power crossings	From edge of right-of-way	5.0m	Power crossing ducts perpendicular to pipeline are to be extended a minimum of 5.0 m from edge of right-of-way to end of crossing duct

ADDITIONAL NOTES
These are preferred minimum horizontal clearances. Consult with EDTI Land Servicing for discussion of the possibility of any deviation to these approved clearances due to specific circumstances.
Clearances are from centre to centre of furniture, trench or duct unless otherwise noted.
Note 1: See the City of Edmonton Design and Construction Standards Volume 5 – Landscaping ... shallow utilities shall not be placed in Landscaped Road Islands. Written permission for power crossings or pad mounted equipment in Landscaped Road Islands is the responsibility of the developer. Ducts must be continuous and cannot have trees within 1.0 m of the duct. Other plantings such as small shrubs or flowers would be allowed over top of the crossing.
Note 2: If it is mutually agreed that gas is in the same trench as power, refer to refer to EDTI Underground Distribution Standard 600070046001 for the typical roadway cross-section to use.
Note 3: Where mutually agreed, an approved method of mechanical separation could be used to reduce the crossing from 300 mm (i.e. 5 Party Trenching, using a sleeve, fastened to the I.P. gas line, as mechanical separation and 100 mm of sand between the sleeve and the power cable).
Note 4: If communications pedestals are placed with 3.0 m from the edge of the ground grid of pad mounted power equipment, the two pieces of equipment will be bonded. A detail drawing is required.
Note 5: Landscaping clearances are for work on City of Edmonton road allowances only. Landscaping clearances on EDTI utility rights-of-way (URW) are as per the URW documents.