



Project: Fairwinds Lake District, Preliminary Design

eDAS File #:

Your File #: KWL 2964.001: **Parkway Collector 50 km/h**

Design Element	Present Conditions	MoT Guidelines Criteria	Proposed Project Criteria	Achieved Project Criteria	Comments / Notes *
Road Classification		Rural Collector			See Note 1 below
Posted Speed		50 km/h	50 km/h		
Design Speed		50 km/h	50 km/h		
Curb & Gutter or Open Shoulder		Open or curb	Curb / gutter		
Basic # of Lanes		2	2		
Minimum Horiz. Curve Radius		75 m	90 m		
Min K Factor on Vertical Curve	Crest	7	7		With street lighting
	Sag	12	7		
Maximum Grade		8 %	9 %		See note 2 below
Maximum Superelevation		%	4 %		
Minimum Stopping Sight Distance		65 m	73 m		
Finished Top Width		NA	NA		
Paved Width		8.2 m	7.0 m		See note 3 below
Gravel Shoulder Width		n/a	n/a		
Cul-de-sac or Hammerhead (Fig. 1420.F – L)		n/a	n/a		
Clear Zone - Offset Width			1.45 m		To fire hydrants
Minimum Right-of-Way Width		20 m	20-25 m		Must contain cuts and fills
Catchment Width in Rock Cuts		0.6 m	0.6 m		Subj to s distance
AADT/SADT (xxxx Design Year)					
Truck Volume		%	%		
Design Vehicle		WB-20			
Intersection Type (Local, Collector, Arterial, T Intersection, Protected T) (Fig. 710.D – H)		Collector	Collector		
Driveway Access Type (Residential or Commercial; Fig. 1420.O or BC Supp. Sect. 730 Type 1A, 1B, 2A, 2B)		NA	NA		

*** - Justification for deviation from guidelines and proposed mitigation must be referenced by footnote number and documented on the following page(s).**

MoT CRITERIA: District Development Approvals: _____ **Date:** _____
(Print Name)

PROPOSED CRITERIA: Engineer of Record: _____ **Date:** _____
(if proposed or achieved criteria is different than MoT criteria)
(Print Name)

ACCEPTED BY: Regional Mgr, Engineering: _____ **Date:** _____
(for exceptions to standards) Prop. Achvd (Signature)

ACCEPTED BY: Chief Engineer: _____ **Date:** _____
(for major exceptions to standards) (Signature)

Project: Fairwinds Lake District, Preliminary Design

eDAS File #:

Your File #: KWL 2964.001 Parkway Collector 50 km/h

Comments / Notes:

Note 1, Classification:

There is only one road in this category, which is Schooner Cove Drive. A preliminary design consisting of plan/ profile and cross-sections has been provided.

The classification proposed above is Rural Collector 50km/h, as requested by MOTi at the meeting of March 26, 2013. An urban designation was originally proposed due to presence of housing along road, but with no access. The rural designation assumes slightly higher actual speeds and is therefore more stringent.

Note 2, Maximum Gradient:

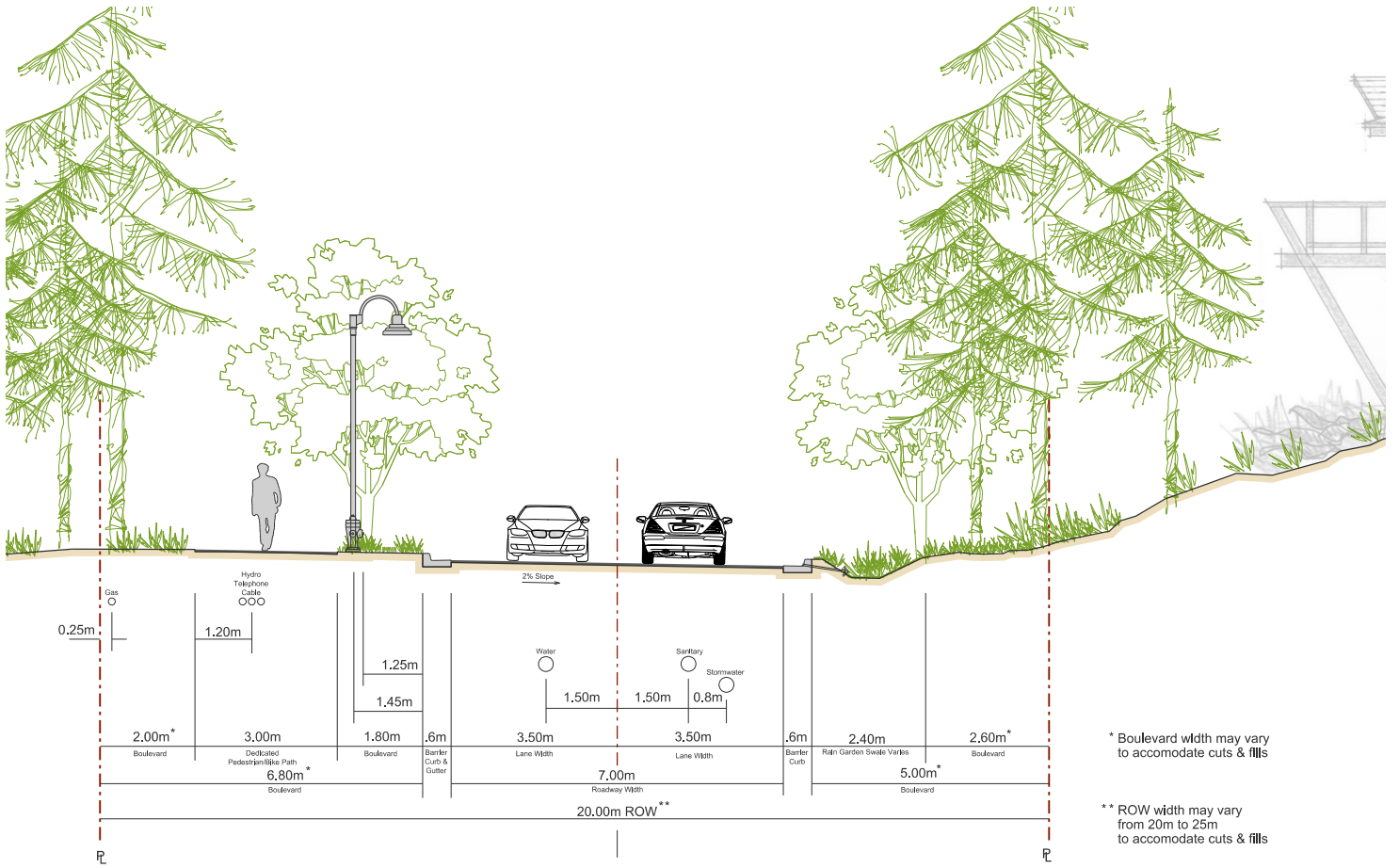
9 % maximum gradient is proposed for 2 locations, where topography does not permit a flatter gradient. The concept was agreed to in principle by MOT in a letter dated Dec 3, 2007.

Location 1: Sta 0+700: length = 165m, combined with 330m radius horizontal curve, The length of steeper gradient is short, and combines with a horizontal curve which greatly exceeds a minimum radius.

Location 2: Sta 1+600: length = 250m, combined with 90m radius reverse curves The length is fairly short and the horizontal curves are better than minimum (75m).

Note 3, Paved Width:

The paved width does not include the curb/gutter. Lane width is 3.5 m with no parking allowed. Deep services are to be located beneath the paved width of the road.



Parkway Collector 50 km/h
Typical Condition



Project: Fairwinds Lake District, Preliminary Design
eDAS File #:
Your File #: KWL 2964.001: Minor Collector 50 km/h

Table with 6 columns: Design Element, Present Conditions, MoT Guidelines Criteria, Proposed Project Criteria, Achieved Project Criteria, Comments / Notes *. Rows include Road Classification, Posted Speed, Design Speed, Curb & Gutter, etc.

* - Justification for deviation from guidelines and proposed mitigation must be referenced by footnote number and documented on the following page(s).

MoT CRITERIA: District Development Approvals: (Print Name) Date:

PROPOSED CRITERIA: Engineer of Record: (Print Name) Date:
(if proposed or achieved criteria is different than MoT criteria)

ACCEPTED BY: Regional Mgr, Engineering: (Signature) Date:
(for exceptions to standards) Prop. Achvd

ACCEPTED BY: Chief Engineer: (Signature) Date:
(for major exceptions to standards)

Project: Fairwinds Lake District, Preliminary Design

eDAS File #:

Your File #: KWL 2964.001 **Minor Collector 50 km/h**

Comments / Notes:

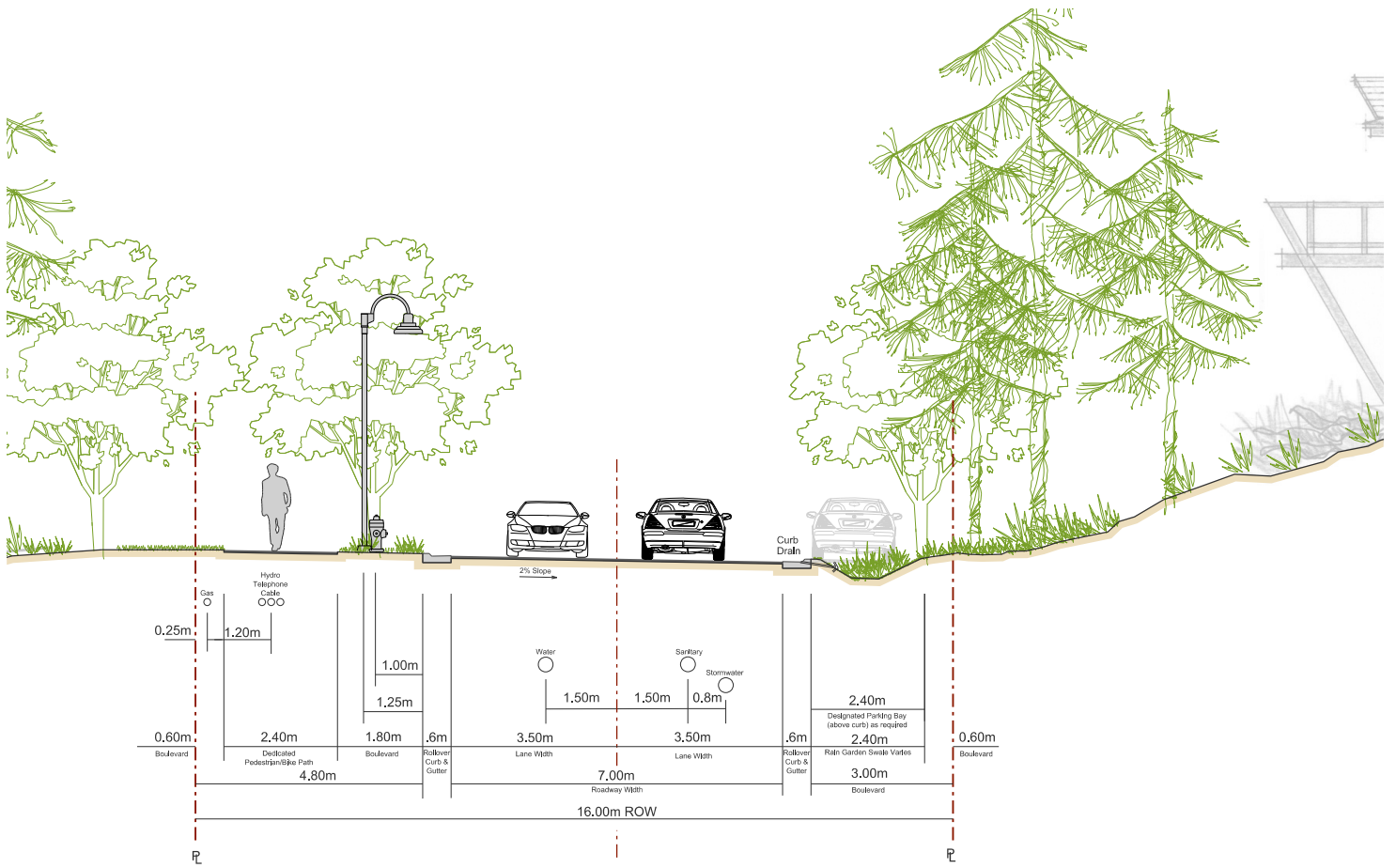
Note 1, Classification:

There is only one road in this category, which is Bonnington Drive.

Note 2, Paved Width:

The Lane Width does not include the curb/gutter. The paved width is 3.5m. Parking is proposed outside the travelled pathway, above the curb, in clusters of 2 to 3 spots.

Deep services are to be located beneath the paved width of the road.



Minor Collector 50 km/h

Typical Condition



Project: Fairwinds Lake District, Preliminary Design
eDAS File #:
Your File #: KWL 2964.001: Urban Local, 50 km/h

Table with 6 columns: Design Element, Present Conditions, MoT Guidelines Criteria, Proposed Project Criteria, Achieved Project Criteria, Comments / Notes *. Rows include Road Classification, Posted Speed, Design Speed, Curb & Gutter, Basic # of Lanes, Minimum Horiz. Curve Radius, Min K Factor on Vertical Curve (Crest/Sag), Maximum Grade, Maximum Superelevation, Minimum Stopping Sight Distance, Finished Top Width, Paved Width, Gravel Shoulder Width, Cul-de-sac or Hammerhead, Clear Zone - Offset Width, Minimum Right-of-Way Width, Catchment Width in Rock Cuts, AADT/SADT, Truck Volume, Design Vehicle, Intersection Type, and Driveway Access Type.

* - Justification for deviation from guidelines and proposed mitigation must be referenced by footnote number and documented on the following page(s).

MoT CRITERIA: District Development Approvals: _____ Date: _____
(Print Name)

PROPOSED CRITERIA: Engineer of Record: _____ Date: _____
(if proposed or achieved criteria is different than MoT criteria)
(Print Name)

ACCEPTED BY: Regional Mgr, Engineering: _____ Date: _____
(for exceptions to standards) [] Prop. [] Achvd
(Signature)

ACCEPTED BY: Chief Engineer: _____ Date: _____
(for major exceptions to standards)
(Signature)

Project: Fairwinds Lake District, Preliminary Design

eDAS File #:

Your File #: KWL 2964.001 **Urban Local, 50 km/h**

Comments / Notes:

Note 1, Classification:

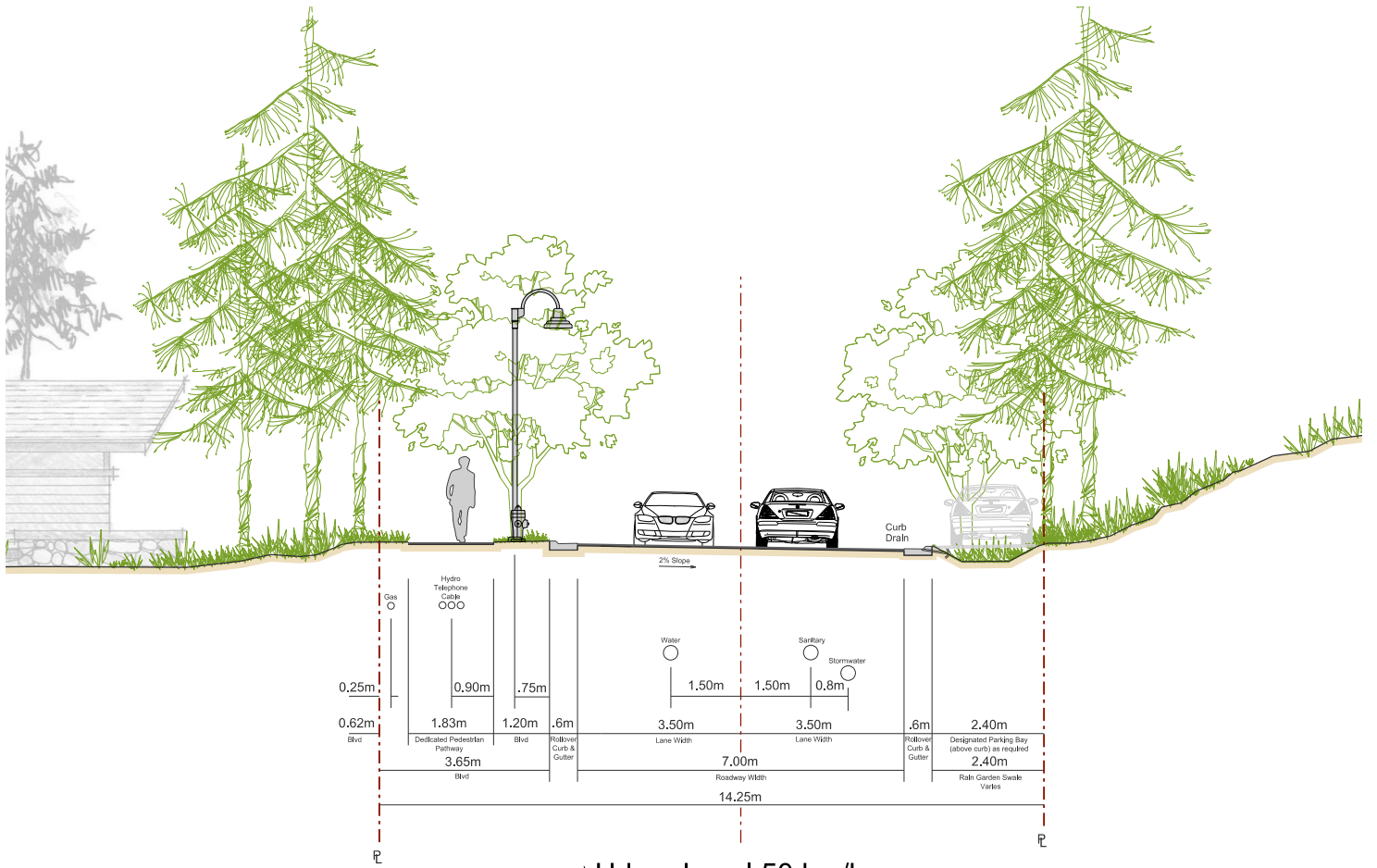
This classification is proposed for roads serving residential properties only which may include single family and multi-family residences. The 50 kph speed is proposed for the portion of local roads that will have more traffic, in many cases provide "through" service. Cul-de-sacs are generally not included in this category.

Note 2: Min Radius:

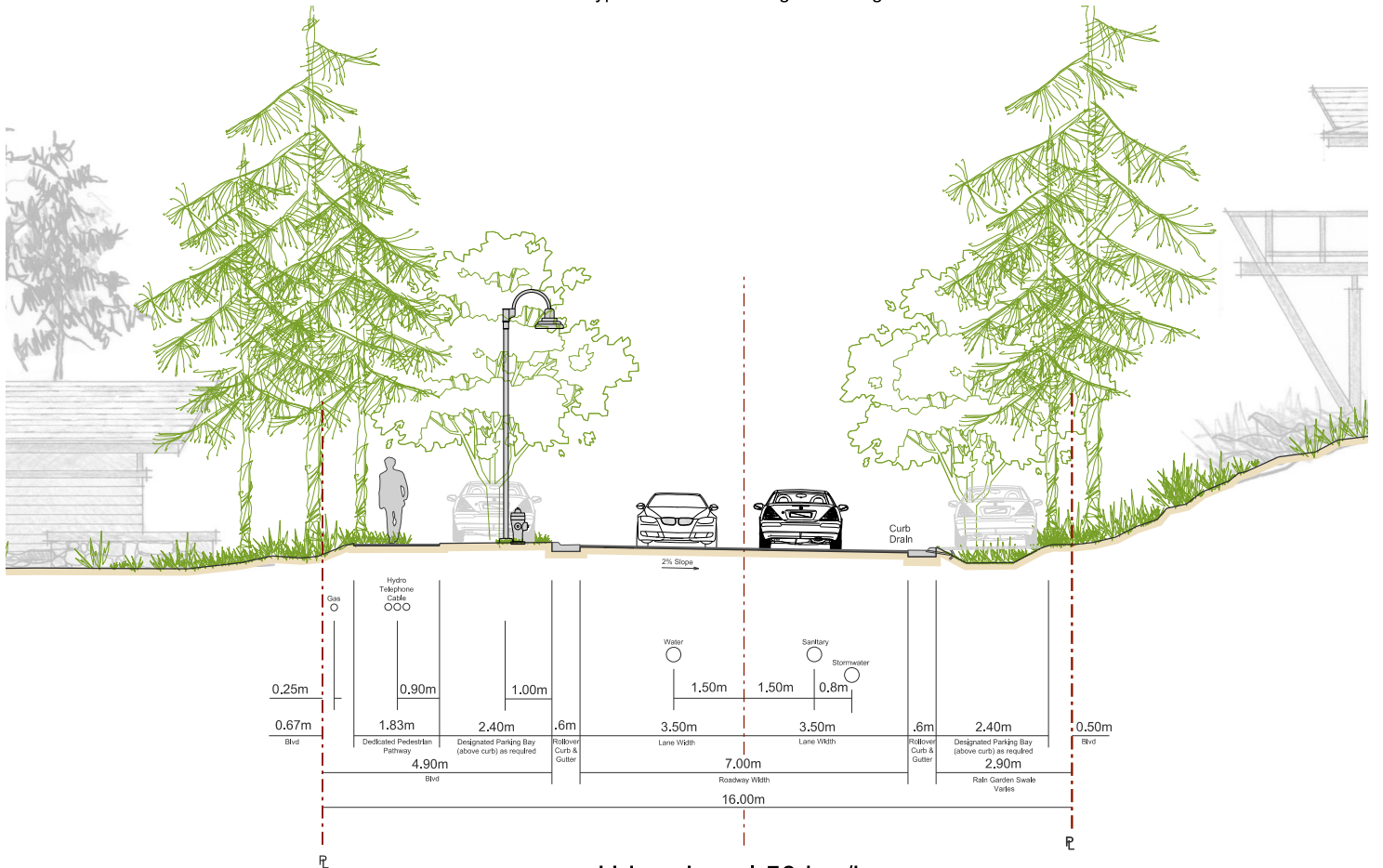
Most horizontal curves meet the standard of 80m radius. However, there are a few exceptional cases where 50m is proposed, and these are connected to side branches of Tee intersections where a stopping or starting condition applies.

Note 3: Paved Width:

The proposed width has set at 7.0 m excluding curb and gutters. This proposed parking is outside the travelled portion of the road, above the curb, in clusters of 2 to 3 spaces. Reduced widths to 6.0m may be considered at detail design stage at the discretion of the MoTI representative. Deep services are to be located beneath the paved width of the road.



Urban Local 50 km/h
Typical Condition - Single Fronting



Urban Local 50 km/h
Typical Condition - Double Fronting



Project: Fairwinds Lake District, Preliminary Design

eDAS File #:

Your File #: KWL 2964.001: **Urban Limited Local, 30 km/h (Cul-de-Sacs)**

Design Element	Present Conditions	MoT Guidelines Criteria	Proposed Project Criteria	Achieved Project Criteria	Comments / Notes *
Road Classification		Urban Local			See Note 1 below
Posted Speed		30 km/h	30 km/h		
Design Speed		30 km/h	30 km/h		
Curb & Gutter or Open Shoulder		Curb/ gutter	Curb /gutter		
Basic # of Lanes		2	2		
Minimum Horiz. Curve Radius		30 m	30 m		
Min K Factor on Vertical Curve	Crest	2	2		With street lighting
	Sag	4	2		
Maximum Grade		10%	12/ 10 %		Tan/ curve, note 2
Maximum Superelevation		RC	RC		
Minimum Stopping Sight Distance		30 m	30 m		
Finished Top Width		10.0 m	10.2/ 11.1 m		To back of path
Paved Width		8.2 m	6.0 m		See note 3 below
Gravel Shoulder Width		n/a	n/a		
Cul-de-sac or Hammerhead (Fig. 1420.F – L)		n/a	n/a		
Clear Zone - Offset Width					
Minimum Right-of-Way Width		varies	16.0 / 14.25 m		dbl/ sgl frontage
Catchment Width in Rock Cuts		0.6 m	0.6 m		
AADT/SADT (xxxx Design Year)					
Truck Volume		%	%		
Design Vehicle					
Intersection Type (Local, Collector, Arterial, T Intersection, Protected T) (Fig. 710.D – H)					
Driveway Access Type (Residential or Commercial; Fig. 1420.O or BC Supp. Sect. 730 Type 1A, 1B, 2A, 2B)					

* - Justification for deviation from guidelines and proposed mitigation must be referenced by footnote number and documented on the following page(s).

MoT CRITERIA: District Development Approvals: _____ Date: _____
(Print Name)

PROPOSED CRITERIA: Engineer of Record: _____ Date: _____
(if proposed or achieved criteria is different than MoT criteria) (Print Name)

ACCEPTED BY: Regional Mgr, Engineering: _____ Date: _____
(for exceptions to standards) Prop. Achvd (Signature)

ACCEPTED BY: Chief Engineer: _____ Date: _____
(for major exceptions to standards) (Signature)

Project: Fairwinds Lake District, Preliminary Design

eDAS File #:

Your File #: KWL 2964.001 **Urban Limited Local, 30 km/h (Cul-de-Sacs)**

Comments / Notes:

Note 1, Classification:

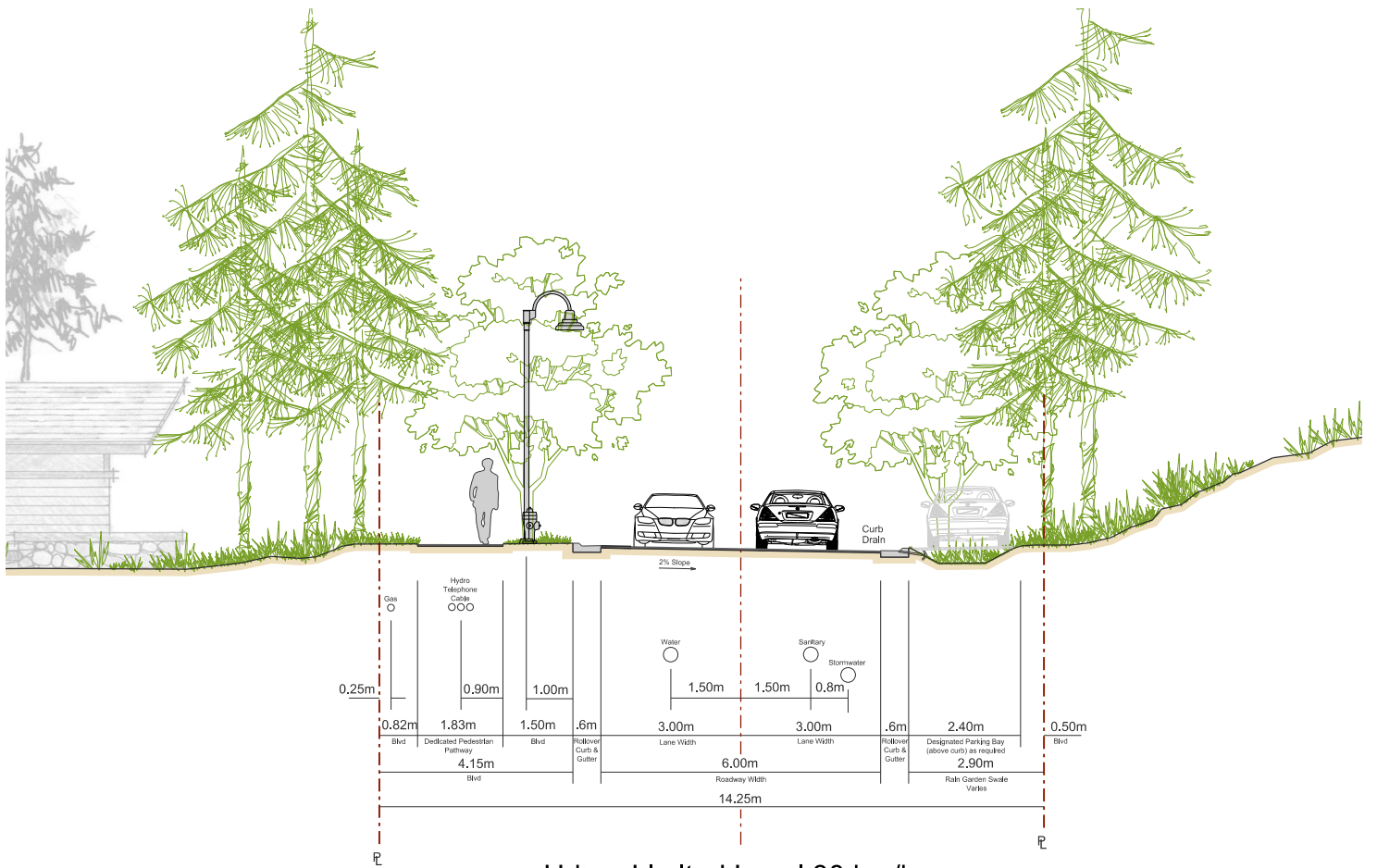
This classification is proposed for cul-de sac roads serving residential properties only which may include single family and multi-family residences.

Note 2, Maximum Gradient:

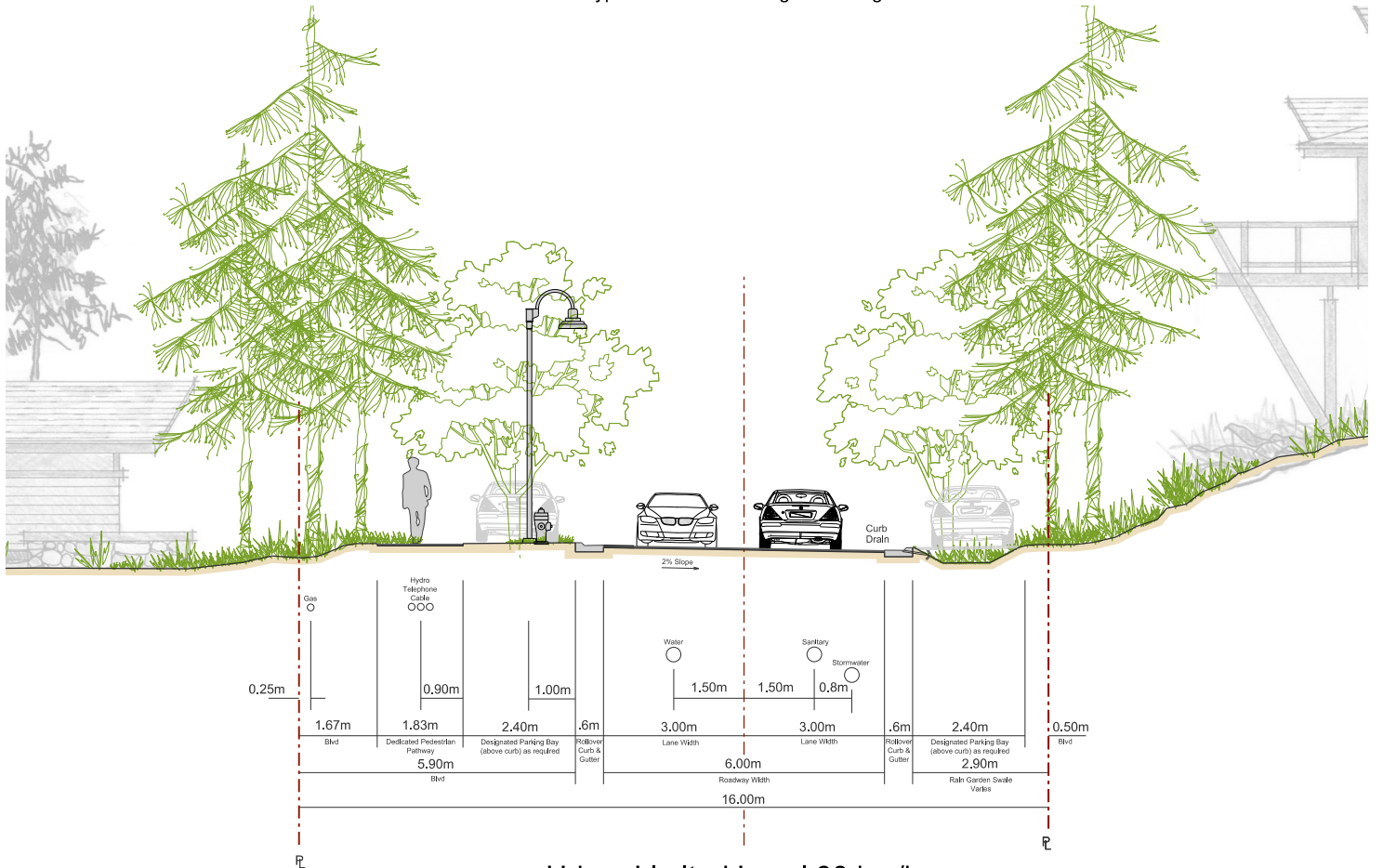
A 12% maximum gradient is proposed for tangents, where necessary to adapt to difficult terrain. Lengths of steep gradient are typically short, in the range of 100 to 250m. This is supported by many examples in earlier phases at Fairwinds, where grades up to 13.1% were approved and constructed on public roads.

Note 3, Paved Width:

The proposed width to be determined at detailed design with turning circles to show access for emergency vehicles. The proposed parking is outside the travelled portion, above the curb, in groups of 2 or 3 spaces, at intervals. Proposed widths are 6.0m not including curb and gutter but subject to above and approval from the MoTi representative. Deep services are to be located beneath the paved width of the road.



Urban Limited Local 30 km/h
Typical Condition - Single Fronting



Urban Limited Local 30 km/h
Typical Condition - Double Fronting

