

Project update

1. Project overview
2. 1 crew vs. 2 crews summary
3. Community outreach and engagement



Project overview





Project scale



1 crew vs. 2 crews Summary



CMAC Workshop Summary – 1 crew vs. 2 crews

Community Impacts	1 Crew	2 Crews	Weighting	Weighted 1 Crew	Weighted 2 Crews
Property access	-2	-4	0.5	-1.0	-2.0
Travel time - Capilano Road	-2	-3	0.3	-0.6	-0.9
Travel time - local area	-3	-5	1.0	-3.0	-5.0
Emergency access	-1	-4	0.8	-0.8	-3.2
Transit service	-1	-5	1.0	-1.0	-5.0
Construction traffic	-2	-5	1.0	-2.0	-5.0
Construction duration	0	5	1.0	0.0	5.0
Construction risk	-1	-2	0.5	-0.5	-1.0
Construction period certainty	2	-2	1.0	2.0	-2.0
Highland traffic diversion	-3	-1	1.0	-3.0	-1.0
Public safety	-1	-2	1.0	-1.0	-2.0
Communal environment	-2	-1	1.0	-2.0	-1.0
Business/commercial	-4	-2	1.0	-4.0	-2.0
Communication effectiveness	0	-2	0.5	0.0	-1.0
Total risk evaluation	-20	-33		-16.9	-26.1

Risk Level



1 crew recommended

CMAC workshop results

- | | 1 crew | 2 crews |
|---|--------|---------|
| • | -16.9 | -26.1 |
- 2 crews have 1.5 times greater impact on the community
 - 1 crew is preferred

Construction schedule



Legend

Capilano Main No. 9 Construction Segments:

- | | |
|--|---|
| 1 Prospect Ave. to Clements Ave. | 4 Handsworth Rd. to Edgewood Rd. |
| 2 Clements Ave. to Montroyal Blvd. | 5 Edgewood Rd. to Eldon Rd. |
| 3 Montroyal Blvd. to Handsworth Rd. | 6 Eldon Rd. to Edgemont Blvd. |

- Line Valve Chamber (Capilano at Edgemont)
- Cross-over Valve Chamber (Edgemont at Capilano)
- Tie-ins and commissioning
- Restoration

Community Outreach and Engagement

Timeframe:	January 2013 – January 2015	February 2015	March – August 2015	August 2015 – February 2016	February 2016 – April 2016	May-June 2016
Project Activity:	Project planning and design	Project planning and preparation	Project preparation	Construction – Pipe Installation	Construction – Valve Chamber	Project complete and final restoration
Community Outreach and Engagement Activity:	Initial outreach and stakeholder meetings	Community Meetings with local area residents and businesses	Public Meeting and ongoing community engagement	Public Meeting and ongoing community engagement	Ongoing outreach and community engagement	

Questions?

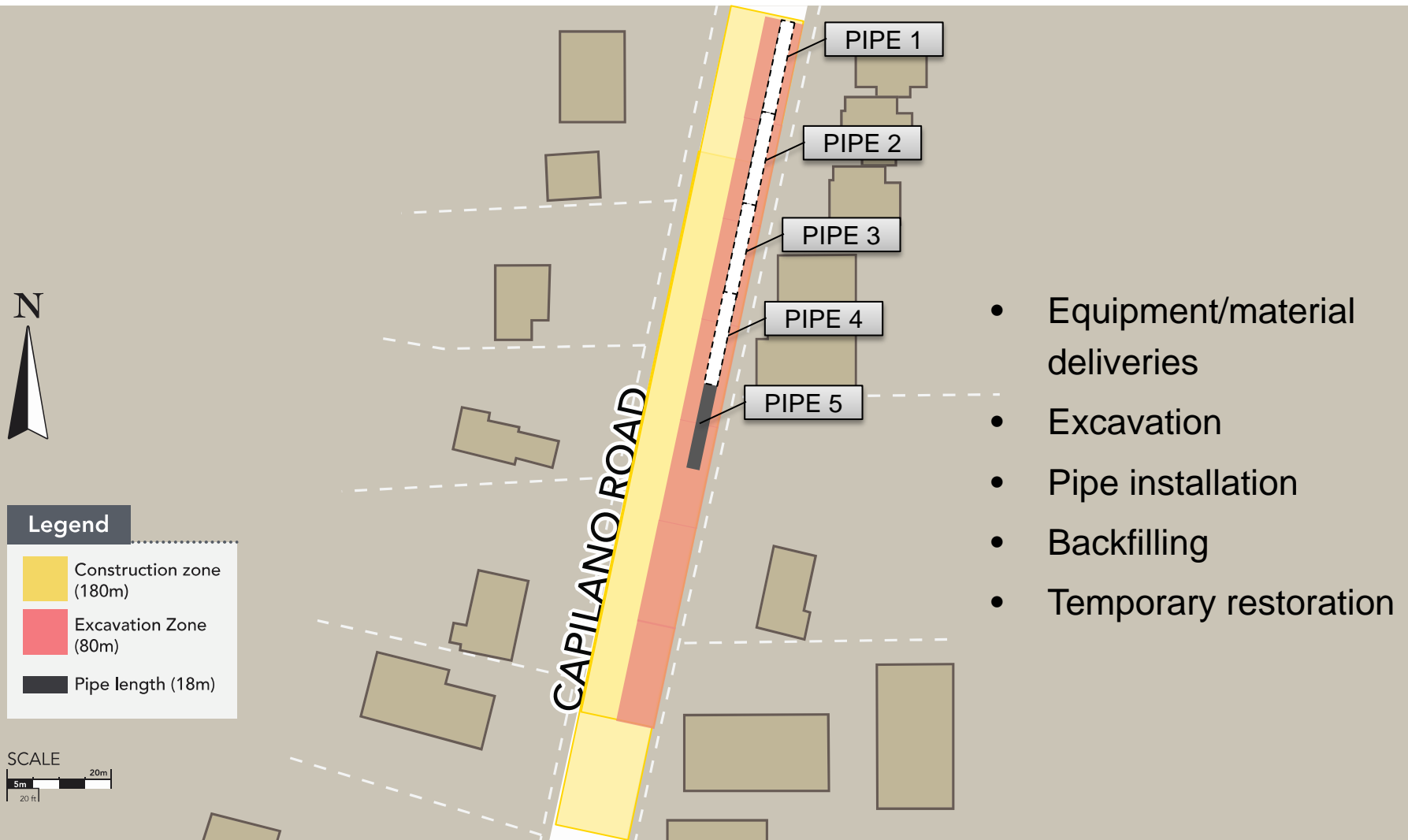
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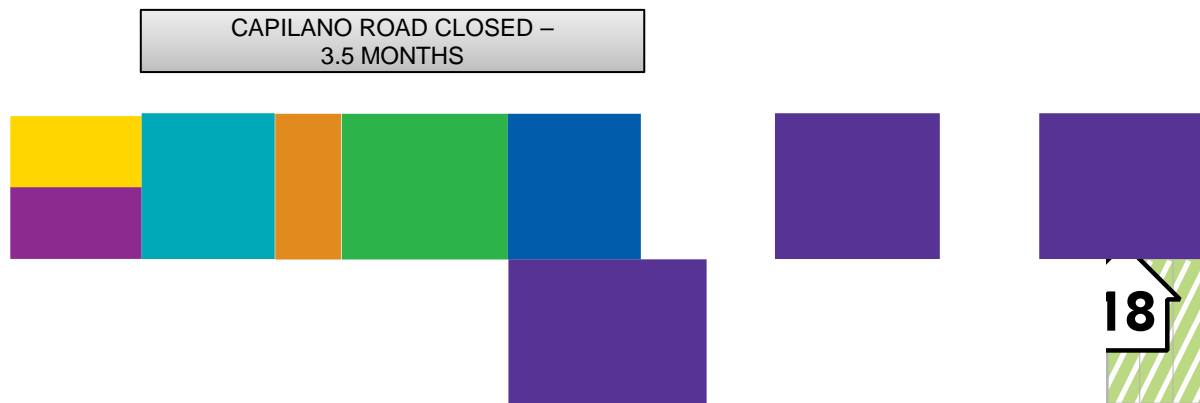
END

Typical pipe construction

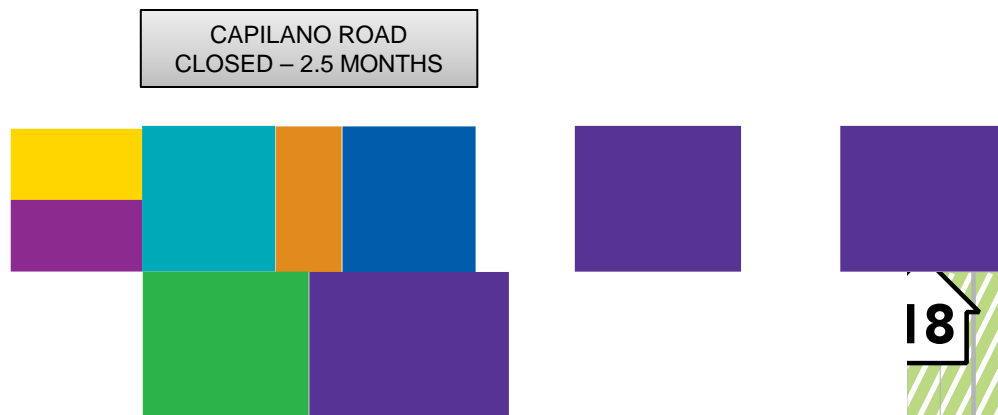
The average property will be directly impacted by construction activities for approximately 10 days



Impacted homes and businesses



2 Crews



Numbers are approximate

Construction traffic - deliveries



Construction traffic - pipe delivery



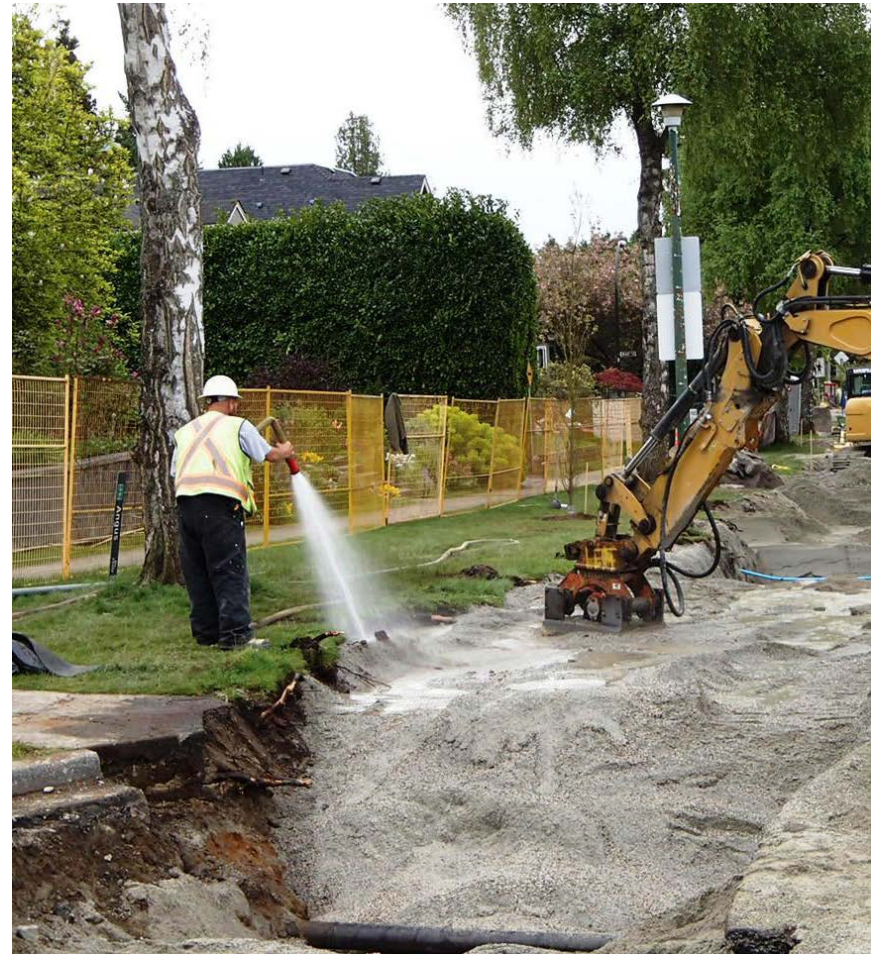
Excavation



Construction traffic - pipe installation



Backfilling



Temporary pavement

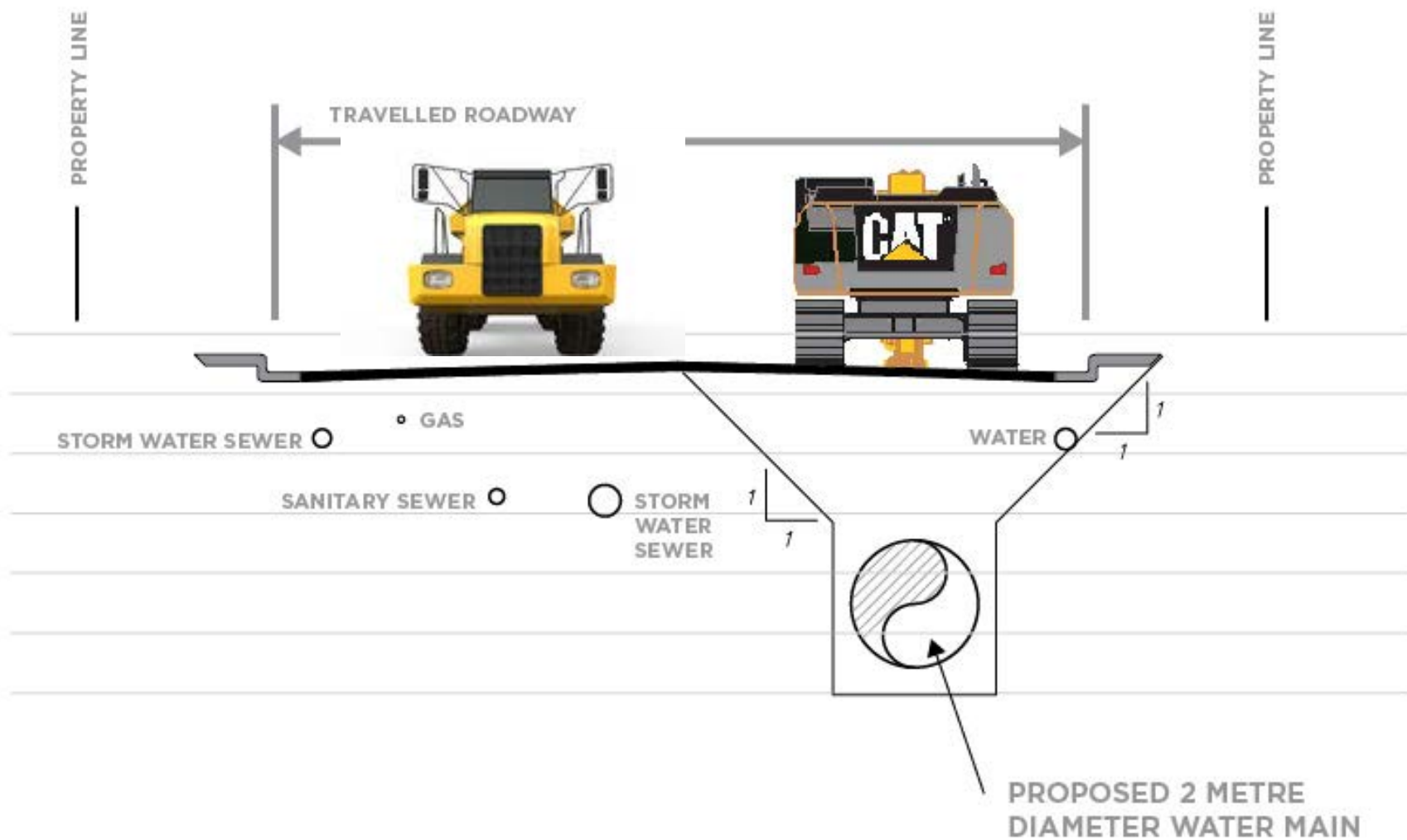
Installed following completion of each segment



Temporary paving complete

Final paving of Capilano Road at end of construction





CAPILANO ROAD CROSS-SECTION



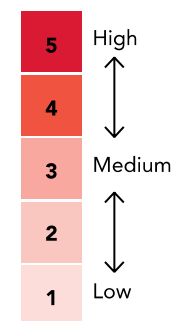
Construction impact summary - 2 crews

- Higher local traffic impacts
- Increased volume of construction traffic
- Construction traffic conflicts may increase schedule duration
- Transit shuttle service is not possible on Capilano Rd
- Emergency services will have more difficulty getting to and accessing properties
- Increased property access issues

Construction impact evaluation: 1 crew

Construction Impact	1 & 2	3	4	5	6	(L)		(X)		Subtotal
Property access	1	3	2	3	3	1	1	1	1	16
Local travel time	1	2	2	2	2	2	1	1	1	14
Emergency access	1	3	2	3	3	2	1	1	1	17
Transit service	1	1	1	1	1	1	1	1	1	9
Construction traffic	3	3	3	3	3	2	2	2	2	23
Construction period	1	3	3	3	2	1	2	2	2	19
Construction risk	1	1	1	1	1	2	2	3	3	15
Construction cost	1	1	1	1	1	1	1	1	1	9
Total risk evaluation (out of a possible 360)										122

Evaluation Criteria



Maximum individual score is 45

Legend

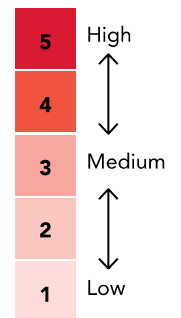
Capilano Main No. 9 Construction Segments:

1 Prospect Ave. to Clements Ave.	4 Handsworth Rd. to Edgewood Rd.	(L) Line Valve Chamber (Capilano at Edgemont)
2 Clements Ave. to Montroyal Blvd.	5 Edgewood Rd. to Eldon Rd.	(X) Cross-over Valve Chamber (Edgemont at Capilano)
3 Montroyal Blvd. to Handsworth Rd.	6 Eldon Rd. to Edgemont Blvd.	Tie-ins and commissioning

Construction impact evaluation: 2 crews

Construction Impact	1 & 2	3	4	5	6	(L)		(X)		Subtotal
Property access	1	5	4	5	3	1	1	1	1	22
Local travel time	1	4	4	4	2	2	1	1	1	20
Emergency access	1	5	4	5	3	2	1	1	1	23
Transit service	1	5	5	5	5	5	5	1	1	33
Construction traffic	3	5	5	5	4	3	2	2	2	31
Construction period	1	2	2	2	2	1	2	2	2	16
Construction risk	1	3	3	3	2	3	2	2	2	21
Construction cost	1	2	2	2	1	1	1	1	1	12
Total risk evaluation (out of a possible 360)										178

Evaluation Criteria



Maximum individual score is 45

Legend

Capilano Main No. 9 Construction Segments:

1 Prospect Ave. to Clements Ave.	4 Handsworth Rd. to Edgewood Rd.	(L) Line Valve Chamber (Capilano at Edgemont)
2 Clements Ave. to Montroyal Blvd.	5 Edgewood Rd. to Eldon Rd.	(X) Cross-over Valve Chamber (Edgemont at Capilano)
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Access to no exit streets

No exit streets – long duration closures

Teviot Place

Eldon Road / Fonteyn Way

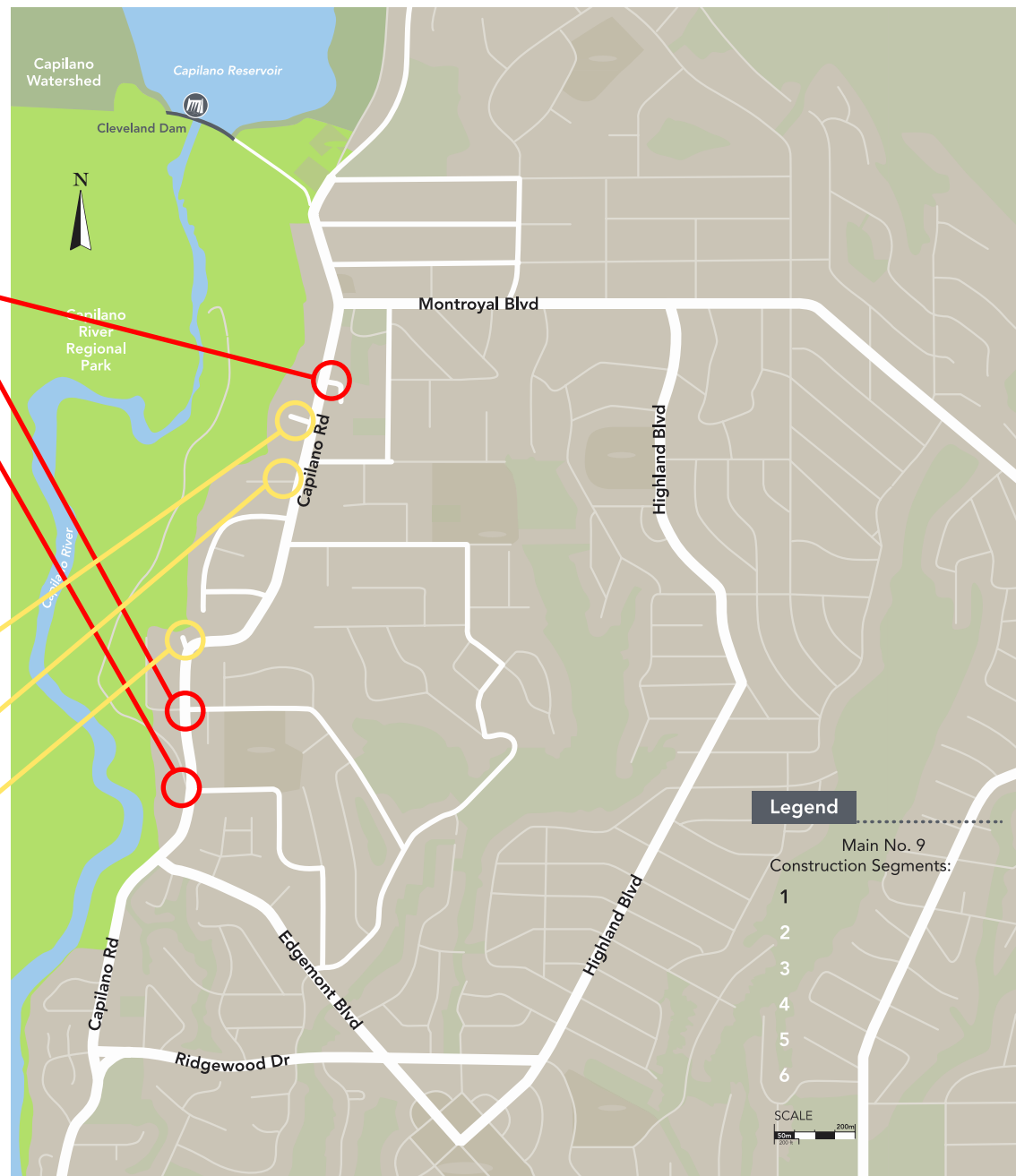
Capilano Park Road

No exit streets – short duration closures

4565 – 4583 Capilano Road

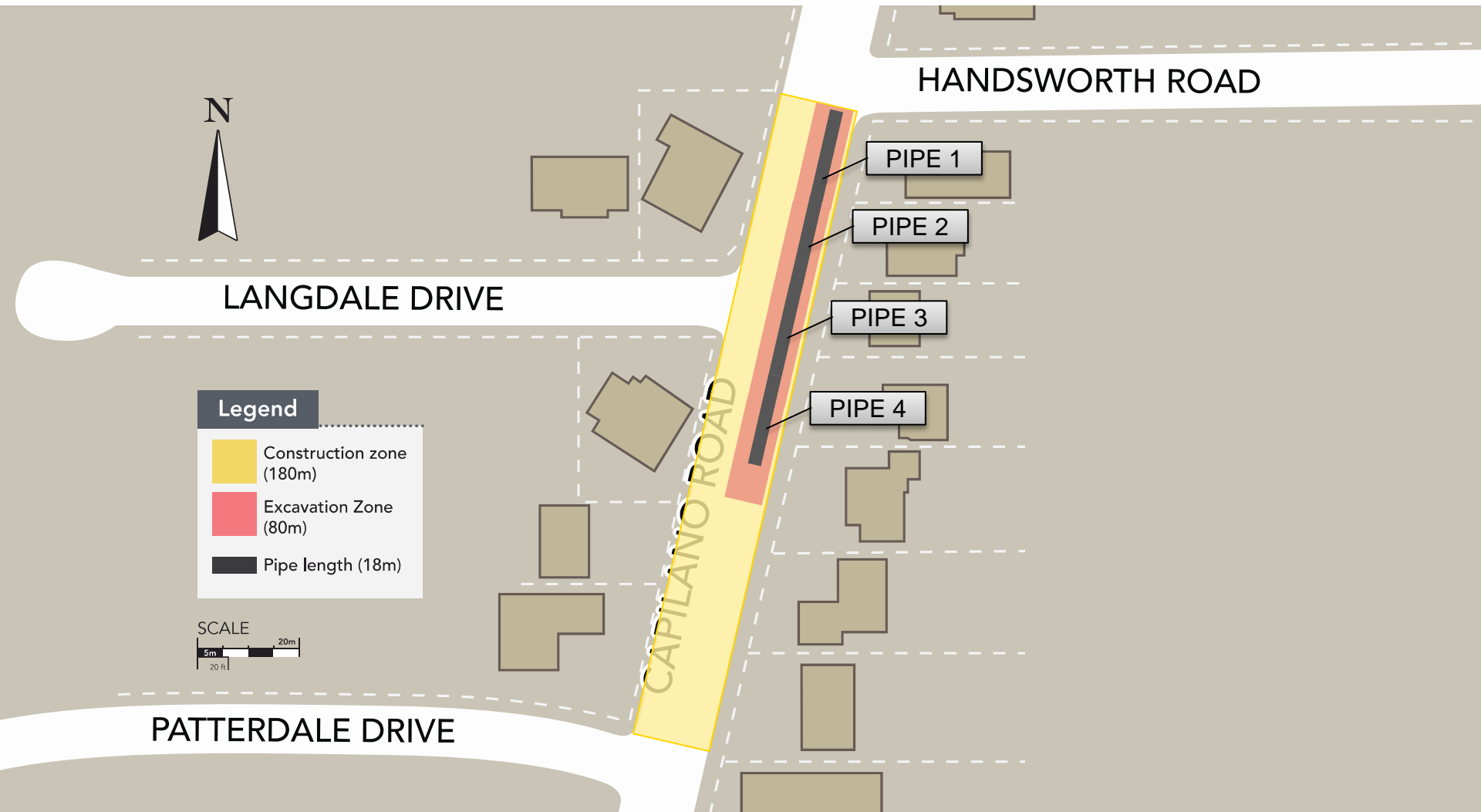
Langdale Drive

4235 – 4249 Capilano Road



No exit streets — short duration closures

The average property will have no daytime access for 2 to 3 hours.



No exit streets – short duration closures

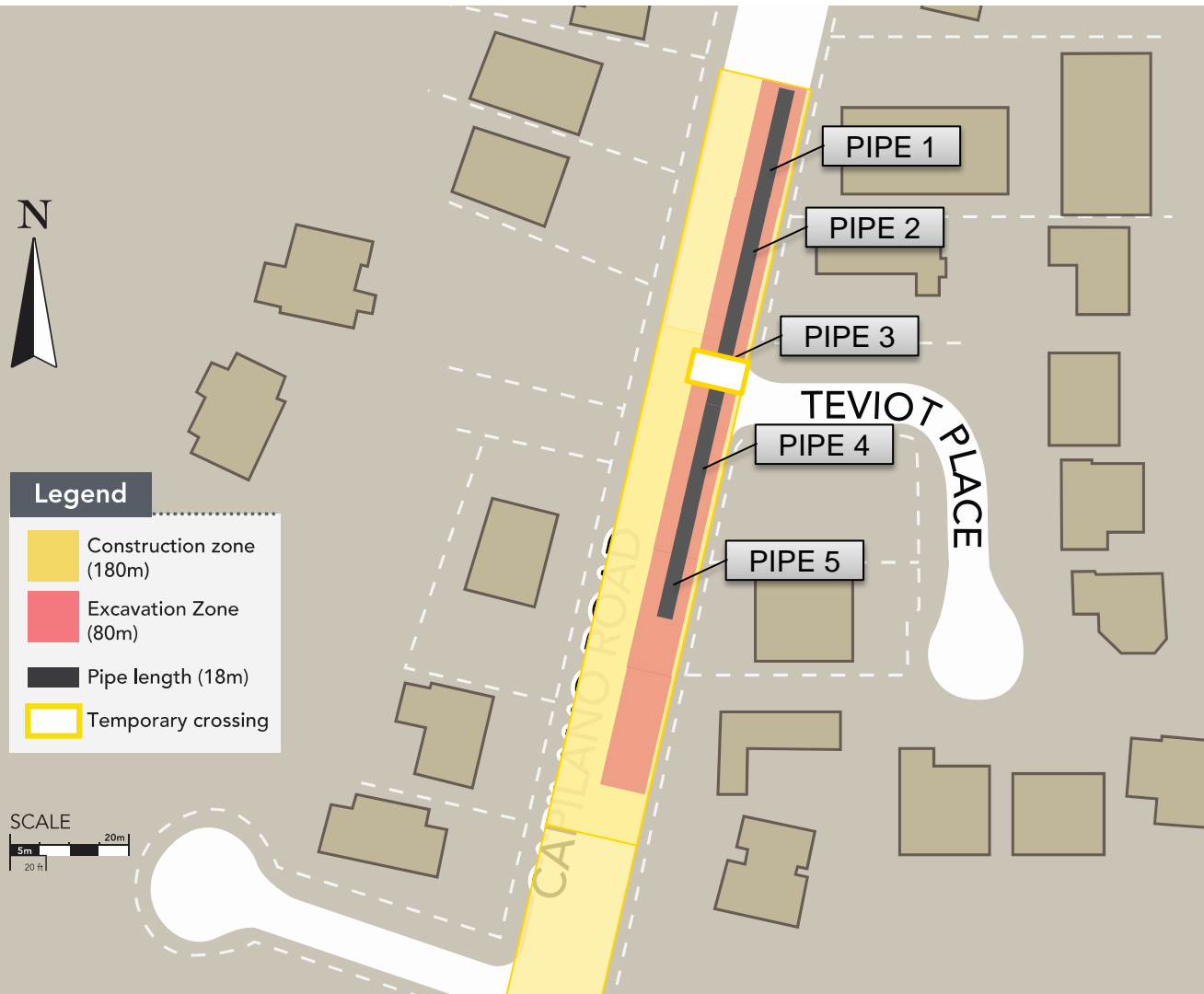
No driveway/street access (2-3 hours)



No exit streets — long duration closures

The average property will have no daytime access for 1 to 2 days.

Between 8pm and 7am, access will be maintained using a temporary crossing.



No exit streets — long duration closures

No daytime access (1-2 days)

*Overnight access maintained using a temporary crossing
(between 8pm and 7am)*

