CITY OF SALMONARM

AGENDA

City of Salmon Arm
Development and Planning Services Committee

Monday, October 21, 2024, 8:00 a.m.
Council Chambers of City Hall
500 – 2 Avenue NE, Salmon Arm, BC

Pages

1. CALL TO ORDER

2. ACKNOWLEDGEMENT OF TRADITIONAL TERRITORY

We acknowledge that we are gathering here on the traditional territory of the Secwepemc people, with whom we share these lands and where we live and work together.

3. ADOPTION OF AGENDA

Motion for Consideration
THAT: the Agenda be adopted as presented.

4. APPROVAL OF MINUTES — 4 - 8

Motion for Consideration
THAT: the Development and Planning Services Committee Meeting Minutes of October 7, 2024 be approved.

5. DISCLOSURE OF INTEREST

6. REPORTS

6.1 Development Permit Application No.456 — 9 - 35
Legal: Lot A, Section 15, Township 20, Range 10, W6M, KDYD, Plan 41170, Except Plan EPP78302
Civic: 2401 9 Avenue SW
Owner: Sunshine Traders LTD., INC No.288892
Agent: Vicki Topping – MQN Architects

Motion for Consideration
THAT: the Development and Planning Services Committee recommends to Council that Development Permit No. 456 be authorized for issuance for Lot A, Section 15, Township 20, Range 10, W6M, KDYD, Plan 41170 Except Plan EPP78302 in accordance with the drawings attached to the Staff Report dated October 21, 2024 as Appendix 5;

AND THAT: Development Permit No. 456 vary Zoning Bylaw No.2303 as follows:

1. Section 19.4 – Maximum Height of Principal Buildings– increase the maximum height from 10.0 m to 10.4 m.

AND FURTHER THAT: Issuance of Development Permit No. 456 be withheld subject to receipt of an Irrevocable Letter of Credit in the amount of 125% of the

Estimate) for landscaping.

6.2 Zoning Bylaw Amendment Application No. 1283 36 - 74

Legal:
1. Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan KAP46907 (1730 9 Avenue NE);
2. That part of the North West ¼ Section of Section 13 included in Amended Plan B411; Township 20, Range 10, W6M, KDYD, Except: (1) Plans B723, B730, 3343, 4484, 7905, 8357, 10782 and 13709 (2) Parcel 16 Shown on Plan A1064 (3) Plan KAP54125 (1470 TCH NE); and
3. Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan EPP124656 (1671 2 Avenue NE)
Civic: 1730 9 Avenue NE, 1470 TCH NE and, 1671 2 Avenue NE
Owner: Providential Developments Inc.
Agent: Matthew Senf

Motion for Consideration

THAT: the Development and Planning Services Committee recommends to Council that a bylaw be prepared for Council's consideration, adoption of which would add to Zoning Bylaw No. 2303 Section 60 – CD-22 – Comprehensive Development Zone-22, as per Appendix 8 attached to the staff report dated October 21, 2024;

AND THAT: A bylaw be prepared for Council's consideration which would rezone the properties legally described as Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan KAP46907 (1730 9 Avenue NE), That part of the North West ¼ Section of Section 13 included in Amended Plan B411; Township 20, Range 10, W6M, KDYD, Except: (1) Plans B723, B730, 3343, 4484, 7905, 8357, 10782 and 13709 (2) Parcel 16 Shown on Plan A1064 (3) Plan KAP54125 (1470 TCH NE) and Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan EPP124656 (1671 2 Avenue NE) be rezoned from R-10 (Residential Zone) and R-14 (Compact Strata/Multi-Family Residential Zone) to CD-22 (Comprehensive Development Zone 22), subject to:

i. Dedication or registration of Statutory Right(s) of Way dedicating a trail connection of the Turner Creek Trail through 1730 9 Avenue NE and 1470 TCH NE and a trail connection from 2 Avenue NE to the TCH Frontage Road, in close alignment with the existing trail system;

ii. Submission of Traffic Impact Analysis (TIA) completed to the satisfaction of the City Engineer with acknowledgement that the owner/applicant is responsible for any and all off-site improvements recommended by the TIA and the registration of a *Land Title Act*, Section 219 covenant to address the findings and recommendations of the TIA report, and;

iii. Ministry of Transportation and Infrastructure approval.

6.3 Zoning Bylaw Amendment Application No. 1293 75 - 93

Legal: Lot A, Section 10, Township 20, Range 10, W6M, KDYD, Plan 22795, ExceptPlans 25227, EPP72884, and EPP81913 Parcel A (Plan B6455) of Lot 12, Section 10, Township 20, Range 10, W6M, KDYD,Plan 481, Except Plans KAP61466 and EPP69793
Civic: 2270 10 Avenue SW and 2220 10 Avenue SW
Owner: 546531 BC Ltd.
Agent: D. Blackburn

Motion for Consideration
THAT: the Development and Planning Services Committee recommends to Council that a bylaw be prepared for Council's consideration, adoption of which would amend Zoning Bylaw No. 2303 by rezoning the north portion of Lot A, Section 10, Township 20, Range 10, W6M, KDYD, Plan 22795, Except Plans 25227, EPP72884, and EPP81913 from A-1 (Agriculture Zone) to C-3 (Service Commercial Zone) and the entire parcel of Parcel A (Plan B6455) of Lot 12, Section 10, Township 20, Range 10, W6M, KDYD, Plan 481, Except Plans KAP61466 and EPP69793 from C-5 (Tourist Commercial Zone) to C-3 (Service Commercial Zone) as per Appendix 8 in the Staff Report dated October 21, 2024.

AND THAT: final reading of the zoning amendment bylaw be withheld subject to Ministry of Transportation and Infrastructure approval.

6.4 City Engineer – Water and Sanitary Service Delivery Management Plans 94 - 182

Motion for Consideration
THAT: the Development and Planning Services Committee recommends to Council to receive for information the Water and Sanitary Service Delivery Management Plans and endorse the continued lifecycle management of the assets in support of these services in alignment with the SDM plans.

6.5 Chief Financial Officer – Water and Sewer Rates 183 - 189

Motion for Consideration
THAT: the Development and Planning Services Committee recommends to Council closing the water sustainable asset replacement funding gap utilizing the Water Frontage Parcel Tax by phasing the annual increases over a (2, 3, 5 or 10) year period and that a Water Frontage Parcel Tax Amendment Bylaw be brought forward for Council's consideration;

AND THAT: the Committee supports closing the sewer sustainable asset replacement funding gap utilizing the Sewer Frontage Parcel Tax by phasing the annual increases over a (2, 3, 5 or 10) year period and that a Sewer Frontage Parcel Tax Amendment Bylaw be brought forward for Council's consideration;

AND FURTHER THAT: the Committee supports Water and Sewer User Fee increases for 2025 and 2026 equal to 3% and that a Fee for Service Amendment Bylaw be brought forward for Council's consideration.

7. FOR INFORMATION

8. IN-CAMERA

Motion for Consideration
THAT: pursuant to Section 90(1)(k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the Council, could reasonably be expected to harm the interests of the municipality if their were held in public; of the Community Charter, Council move In-Camera.

9. ADJOURNMENT

DEVELOPMENT AND PLANNING SERVICES

Minutes of a Meeting of the Development and Planning Services Committee of the City of Salmon Arm

October 7, 2024, 8:00 a.m.
Council Chambers of City Hall
500 – 2 Avenue NE, Salmon Arm, BC

COUNCIL PRESENT:	Mayor A. Harrison Councillor K. Flynn Councillor T. Lavery Councillor L. Wallace Richmond Councillor D. Cannon
ABSENT:	Councillor S. Lindgren Councillor D. Gonella
STAFF PRESENT:	Chief Administrative Officer E. Jackson Director of Engineering & Public Works R. Niewenhuizen Director of Planning & Community Services G. Buxton Deputy Corporate Officer B. Puddifant Corporate Officer R. West Senior Planner C. Larson Manager of Planning & Building M. Smyrl Planner, M. Paiement Executive Assistant M. Evans-Bunkis

---

1. CALL TO ORDER

Mayor Harrison called the meeting to order at 8:00 a.m.

2. ACKNOWLEDGEMENT OF TRADITIONAL TERRITORY

We acknowledge that we are gathering here on the traditional territory of the Secwepemc people, with whom we share these lands and where we live and work together.

3. ADOPTION OF AGENDA

Moved by: Councillor Cannon
Seconded by: Councillor Flynn

THAT: the Agenda be adopted as presented.

Carried Unanimously

4. APPROVAL OF MINUTES

Moved by: Councillor Lavery
Seconded by: Councillor Wallace Richmond

THAT: the Development and Planning Services Committee Meeting Minutes of September 3, 2024 be approved.

Carried Unanimously

5. DISCLOSURE OF INTEREST

6. REPORTS

6.1 Development Permit Application No. 455

Legal: Parcel A (LA115566), Section 14, Township 20, Range 10, KDYD, Plan 7527
Civic: 231 - 7 Street SE
Owner: 438198BC Ltd.
Agent: J. Purewal

Moved by: Councillor Flynn
Seconded by: Councillor Cannon

THAT: the Development and Planning Services Committee recommends to Council that Development Permit No. 455 be authorized for issuance for Parcel A (LA115566), Section 14, Township 20, Range 10, KDYD, Plan 7527 in accordance with the site plan and elevation drawings attached as Appendix 6, 7 & 8 in the staff report dated October 7, 2024.

AND THAT: the following variances to provisions of Zoning Bylaw No. 2303 be approved as follows:

Section 10.4 – Maximum Height of the Principal Building – increase the height of the principal building from 15 m (49.2 ft) to 16 m (52.5 ft).

Section 4.12.1 (a) – Fences and Retaining Walls – increase the height of the retaining wall from 2 m (6.5 ft) to 4 m (13.1 ft).

AND THAT: a bylaw be prepared for Council's consideration, adoption of which would authorize the City to enter into a housing agreement for market rental housing for Parcel A (LA115566), Section 14, Township 20, Range 10, KDYD, Plan 7527.

AND THAT: issuance of Development Permit No. 455 be withheld subject to:

i. the Registration of a Land Title Act Section 219 Covenant; and

ii. the receipt of an Irrevocable Letter of Credit in the amount of 125% of a landscape estimate.

Carried Unanimously

6.2 Development Permit Application No. 458

Legal: Lot 1, Section 15, Township 20, Range 10, W6M, KDYD, Plan 42481, Except Plan EPP126392
Civic: 1160 4 Avenue SW
Owner: SA Valley Tire Ltd. / W. Laird
Agent: W. Laird

W. Laird, the agent, was available to answer questions from the Committee.

Moved by: Councillor Lavery
Seconded by: Councillor Wallace Richmond

THAT: the Development and Planning Services Committee recommends to Councial that Development Permit No. 458 be authorized for issuance for Lot 1, Section 15, Township 20, Range 10, W6M, KDYD, Plan 42481, Except Plan EPP126392 in accordance drawings attached as Appendix 7.

Carried Unanimously

6.3 Development Variance Permit Application No. 605

Legal: Lot 1, Section 19, Township 20, Range 9, W6M, KDYD, Plan 17283
Civic: 3361 16 Avenue NE
Owner: Daniel Folkman
Agent: Owner

D. Folkman, the applicant, outlined the application and was available to answer questions from the Committee.

Moved by: Councillor Wallace Richmond
Seconded by: Councillor Cannon

THAT: the Development and Planning Services Committee recommends to Council that Development Variance Permit No. 605 be authorized for issuance for Lot 1, Section 19, Township 20, Range 9, W6M, KDYD, Plan 17283 to facilitate the construction of an Accessory Dwelling Unit by varying Zoning Bylaw No. 2303, as follows:

i) Section 6.12.2 reducing the rear parcel line setback from 3.0 m to 1.4 m; and

ii) Section 6.12.4 reducing the interior side parcel line setback from 2.0 m to 1.4 m

Carried Unanimously

6.4 Zoning Bylaw Amendment Application No. 1300

Legal: Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12005 and Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12198
Civic: 821 & 861 - 28 Street NE
Owner: Fireside Electric Ltd., J. Thompson
Agent: Crowne Pacific Development Corp. / B. Giese

B. Giese, Crowne Pacific Development Corp., the agent, was available to answer questions from the Committee.

Moved by: Councillor Lavery
Seconded by: Councillor Cannon

THAT: the Development and Planning Services Committee recommends to Council that a bylaw be prepared for Council's consideration, adoption of which would amend Zoning Bylaw No. 2303 by rezoning Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12005 and Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12198 from C-3 (Service Commercial) to C-6 (Tourist / Recreational Commercial);

AND THAT: final Reading of the Zoning Amendment Bylaw be withheld subject to:

a. The consolidation of the subject parcels;

b. The Registration of a Land Title Act Section 219 Covenant on the Title of the subject parcel restricting residential use to Rental Housing; and

c. Ministry of Transportation and Infrastructure approval.

Carried Unanimously

6.5 Development Variance Permit No. 606

(see Item 6.4 for Staff Report)
Legal: Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12005 and Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12198
Civic: 821 & 861 28 Street NE
Owner: Fireside Electric Ltd., J. Thompson
Agent: Crowne Pacific Development Corp./B. Giese

B. Giese, Crowne Pacific Development Corp., the agent, was available to answer questions from the Committee.

Moved by: Councillor Flynn
Seconded by: Councillor Cannon

THAT: the Development and Planning Services Committee recommends to Council that Development Variance Permit No. 606 be authorized for issuance for Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12005 and Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan 12198 subject to the final approval of Zoning Amendment Application No. 1300 to vary the provisions of Zoning Bylaw No. 2303 as follows and as shown in Appendix 10 attached to the Staff Report dated October 7, 2024:

Section 4.12.1a - increase the maximum height of a retaining wall and fence in an interior yard from 2.0 metres (6.5 feet) to 3.8 metres (12.5 feet); and

Section 20.5 - increase the maximum height of a principle building from 19 metres (62.3 feet) to 20 metres (65.62 feet) in accordance with the drawings attached to the Staff Report dated October 7, 2024.

Carried Unanimously

7. FOR INFORMATION

8. IN-CAMERA

9. ADJOURNMENT

There being no further business on the agenda, the meeting adjourned at 8:51 a.m.

_____

MAYOR, A. HARRISON

CITY OF SALMON ARM

REQUEST FOR DECISION

To: Development & Planning Services Committee

From: Planner I

Title: Development Permit Application No.456

Legal:	Lot A, Section 15, Township 20, Range 10, W6M, KDYD, Plan 41170, Except Plan EPP78302
Civic:	2401 9 Avenue SW
Owner:	Sunshine Traders LTD., INC No.288892
Agent:	Vicki Topping – MQN Architects

Date: October 21, 2024

Executive Summary/Purpose:
The proposal is for the construction of a new 3-storey motel building with 32 rooms adjacent to the existing Travelodge motel building. The proposal includes a variance request to increase the height of the proposed new building from 10.0 m to 10.4 m.

Motion for Consideration:

THAT: Development Permit No. 456 be authorized for issuance for Lot A, Section 15, Township 20, Range 10, W6M, KDYD, Plan 41170 Except Plan EPP78302 (2401 9 Avenue SW) in accordance with the drawings attached as Appendix 5;

AND THAT: Development Permit No. 456 vary Zoning Bylaw No.2303 as follows:

1. Section 19.4 – Maximum Height of Principal Buildings– increase the maximum height from 10.0 m to 10.4 m.

AND FURTHER THAT: Issuance of Development Permit No. 456 be withheld subject to receipt of an Irrevocable Letter of Credit in the amount of 125% of the Estimate) for landscaping.

Staff Recommendation:

THAT: The Motion for Consideration be adopted.

Proposal:
The proposal is for the construction of a new 32 room, 3-storey, 550m^2 (592ft^2) motel building adjacent to the existing 35 room motel, bringing the total number of rooms on the site to 67 units. The existing restaurant building would be demolished. The Development Permit includes a variance request to increase the height of a principle building from 10.0 m to 10.4 m.

Background:
The subject property is designated Highway Service/Tourist Commercial in the Official Community Plan (OCP) and is zoned C-5 (Tourist Commercial) in Zoning Bylaw No.2303 (Appendix 3 & 4). The subject property (Appendix 1) is approximately 5,209 m^2 (1.28 ac) with an existing 725 m^2 building and a 190.0 m^2 restaurant (see Appendix 5). The restaurant portion would be demolished to accommodate the proposed building. Site photos are attached in Appendix 9. Except for the height of the new building, the proposal meets the requirements of the C-5 Zone (Appendix 10).

The proposed building is a contemporary commercial style, 3-storey structure with matching design to the existing motel. Proposed to a maximum height of 10.4 m (34.12 ft.), the building exceeds the 10 m maximum height permitted, as highlighted in the attached building elevations (see Appendix 6). This variance would permit a pitched roof on the third storey of the new building to align with the roof design of the existing motel (see the attached design rational in Appendix 7).

Relevant Policy(ies):
The proposed development is subject to the guidelines of the Highway Service/Tourist Commercial Development Permit Area as described in the OCP, suggesting characteristics under the topics of siting and building, landscaping and screening, as well as access, circulation and parking area guidelines.

Siting and Building
The total building area of the existing building and the new building would be approximately 1,275 m^2 total floor area. The proposal would facilitate the provision of 32 additional sleeping units, creating 67 units in total. The site and design of the new building being proposed is compatible with the form and character of the surrounding buildings (OCP Policy 9.6.16). While somewhat simple, the building design is reasonably featured and articulated including a pitched roof to provide visual interest (OCP 9.6.18).

Landscaping and Screening
The applicant has been working with staff to address the landscaping, adjusting their proposal to create a landscaped area and apply more street trees along 9 Avenue SW (OCP Policy 9.6.28) than in the original proposal. The applicant has also incorporated fire-smart species throughout the proposed development. With no current landscaping along the parcel frontage this would be an improvement to the streetscape and presentation of the site. A landscape plan has been completed and prescribes a range of trees for screening along the parcel lines, as well as decorative shrubs, perennials and grasses for ground cover. Staff are of the opinion that the proposed landscape aligns with the OCP guidelines (see the attached Landscape Plan in Appendix 8).

Access, Circulation, and Parking Area
There is a total of 67 parking stalls proposed, meeting the requirement (1 parking spaces per unit) as specified by the Zoning Bylaw. Parking areas will be hard surfaced. The applicant has ensured

that curb let-downs will be provided to accommodate universal accessibility. The applicant has addressed comments regarding access and circulation, adjusting their proposal to include a safe pedestrian route from the new building to the existing sidewalk along 9 Avenue SW (OCP 9.6.33).

Referral Comments:

Fire Department
No concerns.

Building Department
No concerns.

Engineering Department
Comments are attached as Appendix 11.

Design Review Panel
The Design Review Panel supports the application as presented. The minutes from the Design Review Panel meeting are attached as Appendix 12.

Planning Department
In the opinion of staff that the proposal reasonably aligns with the Highway Service/Tourist Commercial Development Permit Area guidelines as described in the OCP. The form and character proposed is consistent with these guidelines. Overall, staff are satisfied with the design and support the development permit as proposed.

Staff view the height variance request as reasonable and are supportive of such a height variance as it is a relatively minor increase from the 10 m (0.4 m increase) and allows for a pitched roof on the third storey to match the roof design of the existing motel building. This 4% height increase is by definition *minor* as per the Development Procedures Bylaw No.4640. Staff have no concerns with the requested height and support the proposal as presented.

Financial Considerations:

At the time of Building Permit, Development Cost Charges would be charged at the commercial rate ($34.65/m^2 or 3.22/ft^2).

Committee Recommendations:

N/A

Public Consultation:

Pursuant to the *Local Government Act* and City of Salmon Arm Development Permit Procedures Bylaw notices are mailed to land owners within a 30 m radius of the application. The notices outline the proposal and advises those with an interest in the proposal to provide written submission prior to the Hearing and information regarding attending the Hearing. It is expected that the Hearing for this application will be held on October 28, 2024.

Alternatives & Implications:

N/A

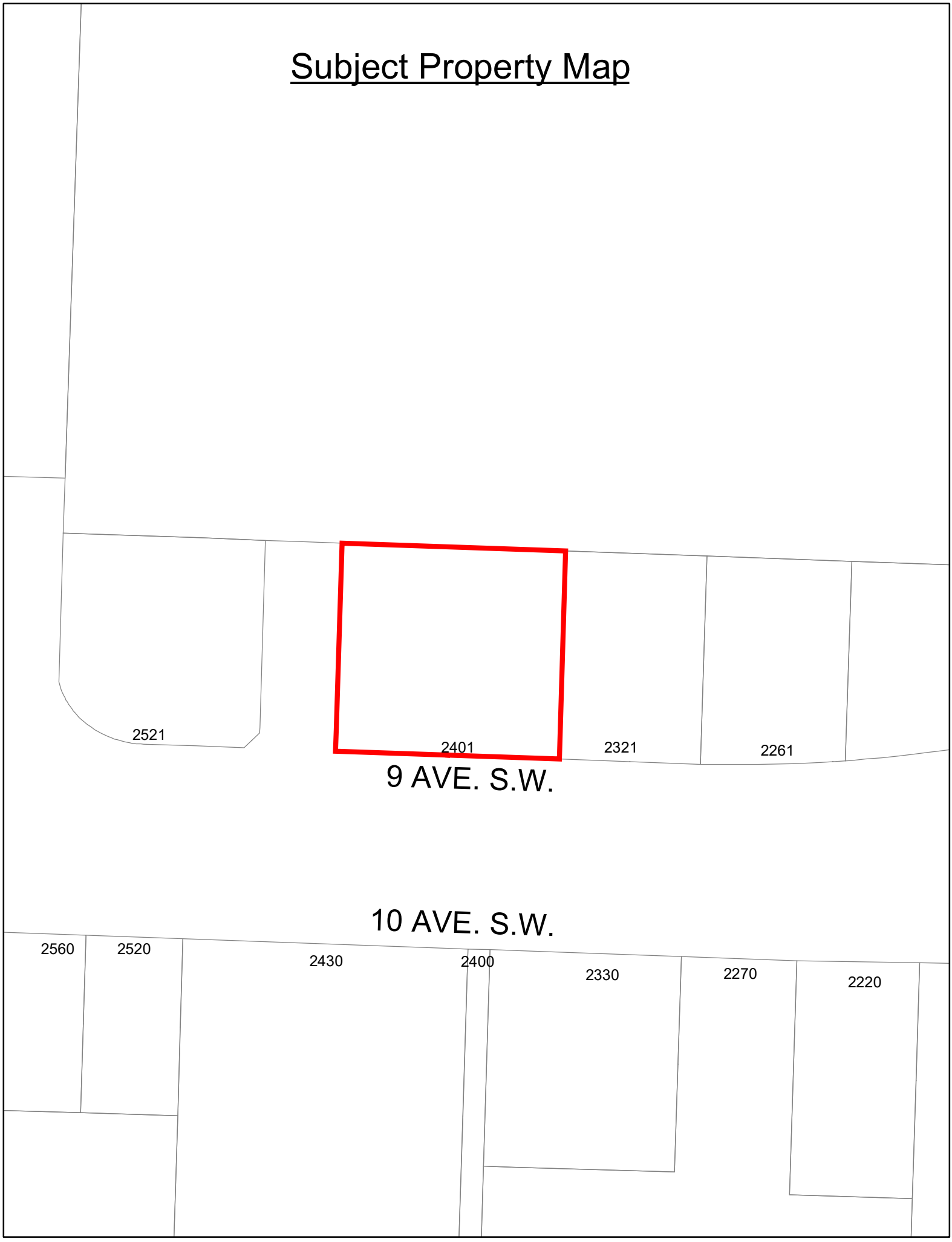
Prepared by: Planner I
Reviewed by: Manager of Planning & Building
Reviewed by: Director of Planning & Community Services

Approved by: Chief Administrative Officer

Attachments:

- Appendix 1 – Subject Property
- Appendix 2 – Ortho Maps
- Appendix 3 – OCP Map
- Appendix 4 – Zoning Map
- Appendix 5 – Site Plan
- Appendix 6 – Building Elevations
- Appendix 7 – Letter of Rationale
- Appendix 8 – Landscape Plan
- Appendix 9 – Site Photos
- Appendix 10 – Zoning Table
- Appendix 11 – Engineering Department Comments
- Appendix 12 – Design Review Panel Minutes

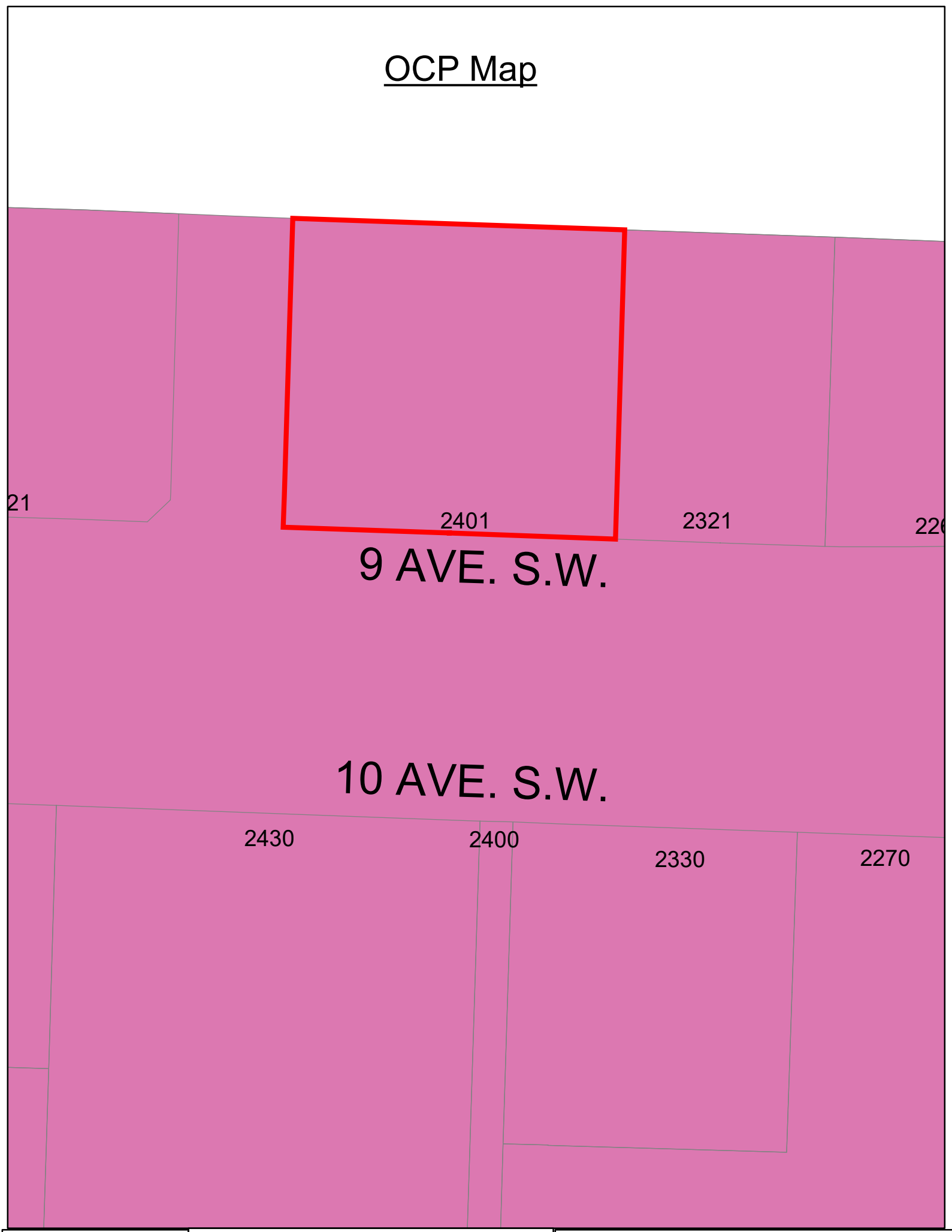
Subject Property Map

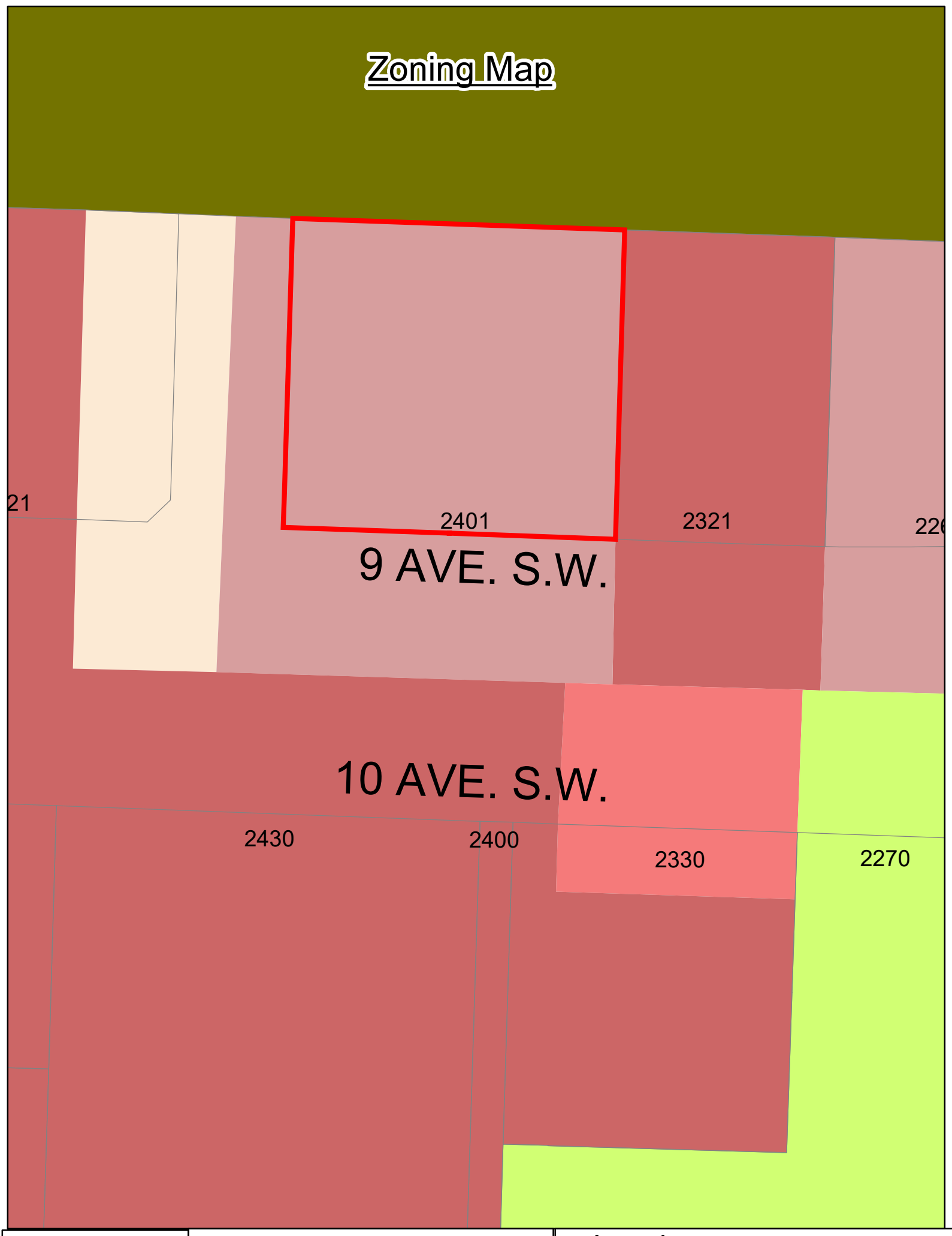



Ortho Map
(2991M)
2521
2401
2321
2261
9 AVE. S.W.
No. 1
10 AVE. S.W.
2560
2520
2430
2400
2330
2270
2220
2090
2600
2650
N
0 1530 60 90 120
Meters
Legend
Subject Property
Parcels


Ortho Map
2401
2321
9 AVE. S.W.
N
0 4.5 9 18 27 36
Meters
Legend
Subject Property
Parcels

OCP Map


21
2401
2321
9 AVE. S.W.
10 AVE. S.W.
2430
2400
2330
2270
N
0 5 10 20 30 40
Metres
Legend
Subject Property
Parcels
Commercial - Highway Service / Tourist


Zoning Map
21
2401
2321
9 AVE. S.W.
10 AVE. S.W.
2430
2400
2330
2270
N
0 5 10 20 30 40
Meters
Legend
Subject Property
Parcels
A-1
C-3
C-4
C-5
IR
R-1

2 SITE KEY PLAN
DP101 SCALE: 1" = 20'-0"

SITE LEGEND

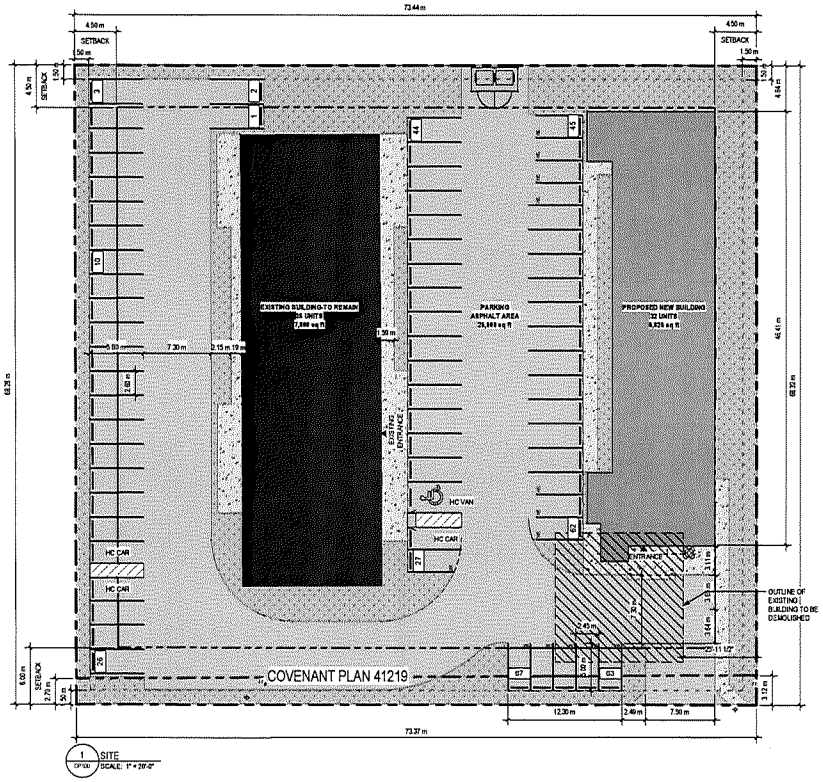
- EXISTING BUILDING
- EXISTING BUILDING TO BE DEMOLISH
- NEW BUILDING
- CONCRETE SIDE WALK
- LANDSCAPING
- ASPHALT PAVING
- PROPERTY LINE
- SETBACK

2024-05-29

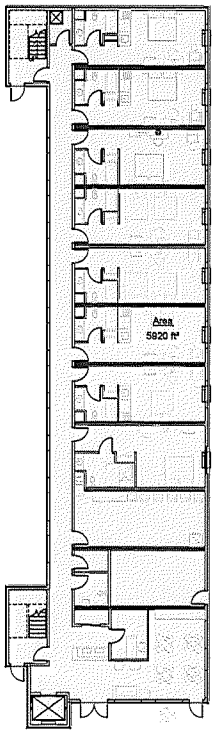
N

MOTEL ROOM NET FLOOR AREA

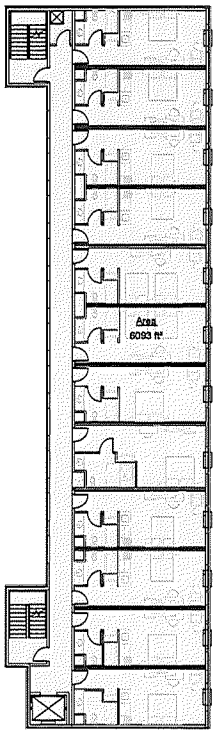
SUITE TYPE	NUMBER OF SUITE	AREA
KING W/ KITCHENETTE	10	282 SF
QUEEN W/ KITCHENETTE	10	282 SF
DOUBLE QUEEN	6	282 SF
KING SUITE	3	282 SF
ACCESSIBLE KING	3	282 SF
TOTAL	32	



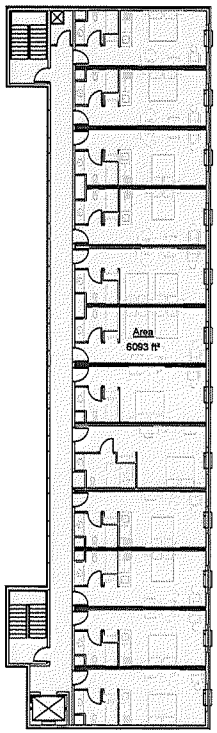
1 SITE
DP101 SCALE: 1" = 20'-0"



3 GFA MAIN FLOOR
DP101 SCALE: 1: 150



4 GFA SECOND FLOOR
DP101 SCALE: 1: 150



5 GFA THIRD FLOOR
DP101 SCALE: 1: 150

PROPERTY INFORMATION

CIVIL ADDRESS:	2401 9 AVENUE, SALMON ARM, BC	
LEGAL ADDRESS:	PLAN 41170, LOT A, TOWNSHIP 20, RANGE 10, MERIDIAN 6, LAND USE 34 PID: 013-822-918	
CURRENT ZONING:	C-5	
PROPOSED ZONING:	C-5	
LOT AREA:	4,784.94 m²	51,500.17 ft²

BUILDING INFORMATION

NUMBER OF NEW BUILDINGS:	1	
BUILDING FOOTPRINT (ALL BUILDINGS)	1275 m² (GI)	13,725 ft² (MP)
TOTAL GROSS FLOOR AREA (GFA):	EXISTING BUILDING 1408.83 m² (GI) NEW BUILDING 1662.46 m² (GI)	15,173.21 ft² (MP) 17894.6 ft² (MP)
TOTAL NET FLOOR AREA (NFA):	EXISTING BUILDING 725 m² (GI) NEW BUILDING 550 m² (GI)	7,800 ft² (MP) 5,925 ft² (MP)
NUMBER OF STOREYS:	3	
DRIVEWAYS AND PARKING AREAS:	2371.85 m² (GI)	25530.48 ft² (MP)

ZONING ANALYSIS

JURISDICTION	SALMON ARM, BC	
PRINCIPLE USES:	MOTEL	
ACCESSORY USES:	N/A	

SUBDIVISION REGULATIONS:	REQUIRED	PROVIDED
MIN. SITE WIDTH: MIN. SITE DEPTH: MIN SITE AREA:	30.0 m N/A 2,000 m² (0.2 HEC.)	68.28 m 72.44 m 5014.48 m²
DEVELOPMENT REGULATIONS:	**REQUIRED**	**PROVIDED**
MAX SITE COVERAGE BUILDINGS (GI / MP) MAX SITE COVERAGE (%) MAX BUILDING HEIGHT	N/A 75% MAX. SITE COVERAGE INCL. BUILDINGS, STRUCTURES, PARKING 10 m	1378.73 m² / 14429.82 ft² 74% 3 STOREY / 10.4m
SETBACKS:	REQUIRED	PROVIDED
FRONT YARD (SOUTH): REAR YARD (NORTH): SIDE YARD (EAST): SIDE YARD (WEST):	6.0 m 4.5 m 4.5 m 4.5 m	6.0 m 4.5 m 4.5 m 4.5 m
LANDSCAPE BUFFERS:	REQUIRED	PROVIDED
FRONT YARD (NORTH): REAR YARD (SOUTH): SIDE YARD (EAST): SIDE YARD (WEST):	N/A N/A N/A N/A	N/A N/A N/A N/A
FLOOR AREA RATIO (FAR):	1.0	0.5

PARKING CALCULATION

MOTEL USE - 1 STALL PER SLEEPING OR KITCHEN UNIT	WIDTH	LENGTH	HEIGHT	REQUIRED	PROPOSED	%
TOTAL REQUIRED PARKING				67	67	
STANDARD PARKING STALL	2.6 m	5.8 m	2.2 m	-	50	
SMALL STALLS (*20% OF STALLS MAY BE SMALL SIZE)	2.4 m	5.0 m	2.2 m	-	12	
ACCESSIBLE CAR STALL SIGN POSTED INFRONT OF SPACE 1.2m ABOVE FINISHED GRADE.	2.4 m	5.8 m	2.2 m	51-100 STALLS = 2	3	
ACCESSIBLE VAN STALL (+ 1.5m MIN. AISLE BESIDE. CAN SHARE w/2 STALLS) SIGN POSTED INFRONT OF SPACE 1.2m ABOVE FINISHED GRADE. SHALL INCLUDE "VAN ACCESSIBLE".	3.3 m	5.8 m	2.2 m	51-100 STALLS = 1	1	
				REQUIRED	PROPOSED	
VISITOR STALLS	N/A			N/A	N/A	
TOTAL PARKING STALLS				64	64	
LOADING STALLS (BETWEEN 466m²-2799.9m² GFA)	3.7 m	N/A	3.7 m	-	-	
BIKE STALLS	N/A			N/A	N/A	

MQN ARCHITECTS

SITE PLAN

TRAVELODGE - SALMON ARM
2401 9 AVENUE, SALMON ARM, BC

DRAWING: DP101

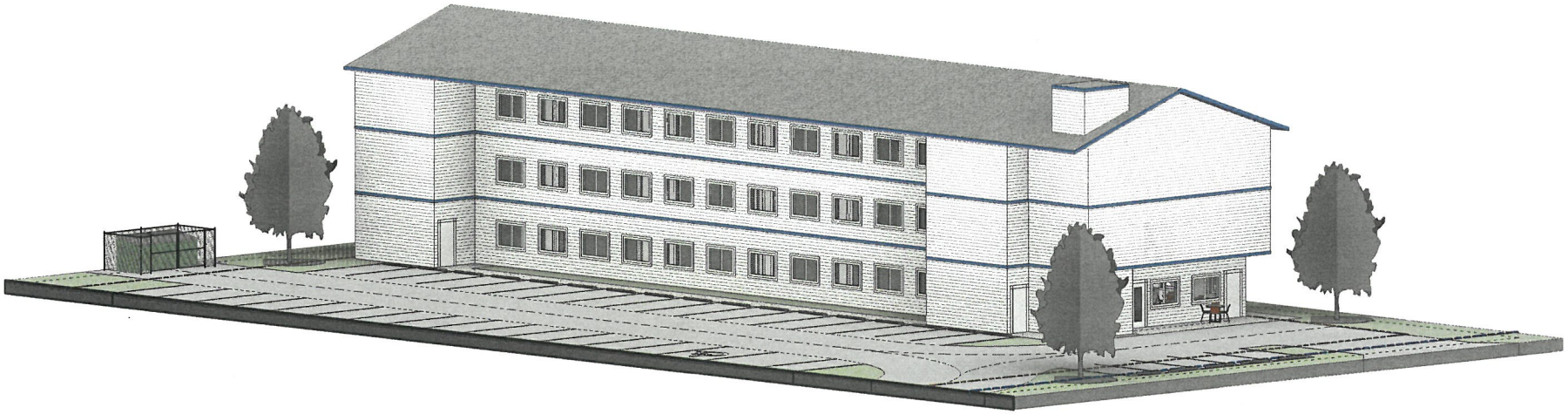
ISSUED FOR DEVELOPMENT PERMIT ON 2024/05/10

PROJECT: 23900
SCALE: As indicated

TRAVELODGE - SALMON ARM

2401 9 AVENUE, SALMON ARM, BC

WYNDHAM

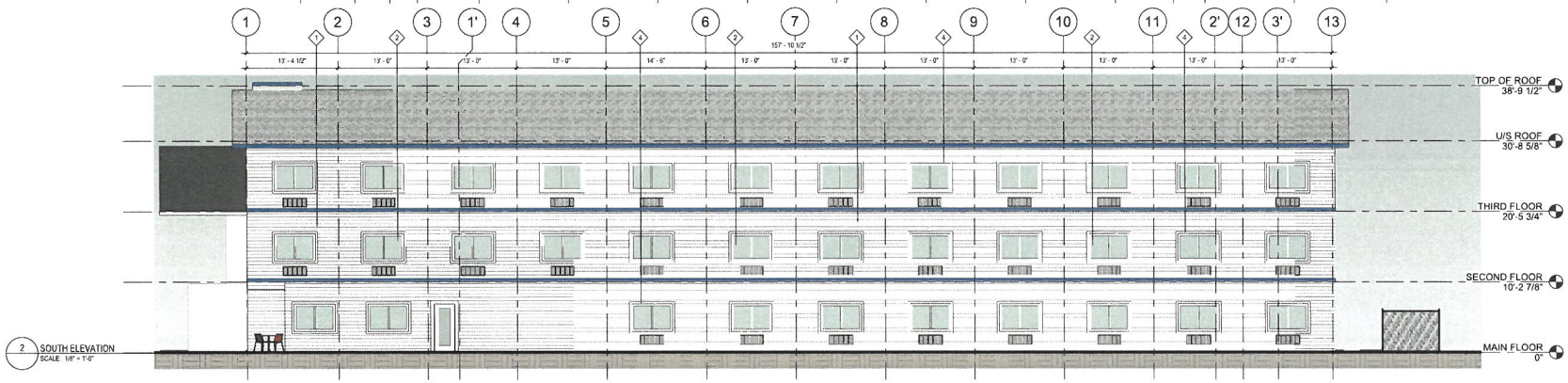


2024-05-14

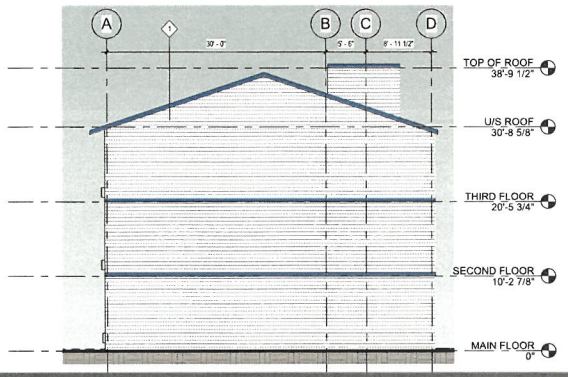
MQN ARCHITECTS

TRAVELODGE - SALMON ARM
PROJECT #: 23900
ISSUED FOR DEVELOPMENT PERMIT
2024/05/10

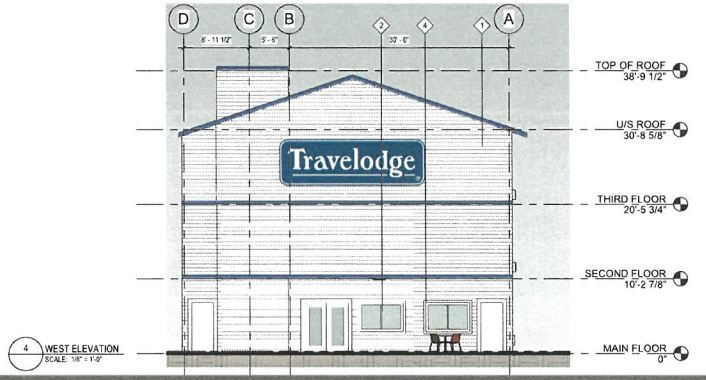
1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



3 EAST ELEVATION
SCALE: 1/8" = 1'-0"



4 WEST ELEVATION
SCALE: 1/8" = 1'-0"

EXTERIOR FINISH LEGEND

1. HORIZONTAL LAP SIDING COLOR: WHITE
2. SEALED GLAZING UNIT
3. ASPHALT SHINGLES
4. WHITE DOOR/WINDOW TRIM
5. BLACK METAL RAILING

2024-05-14

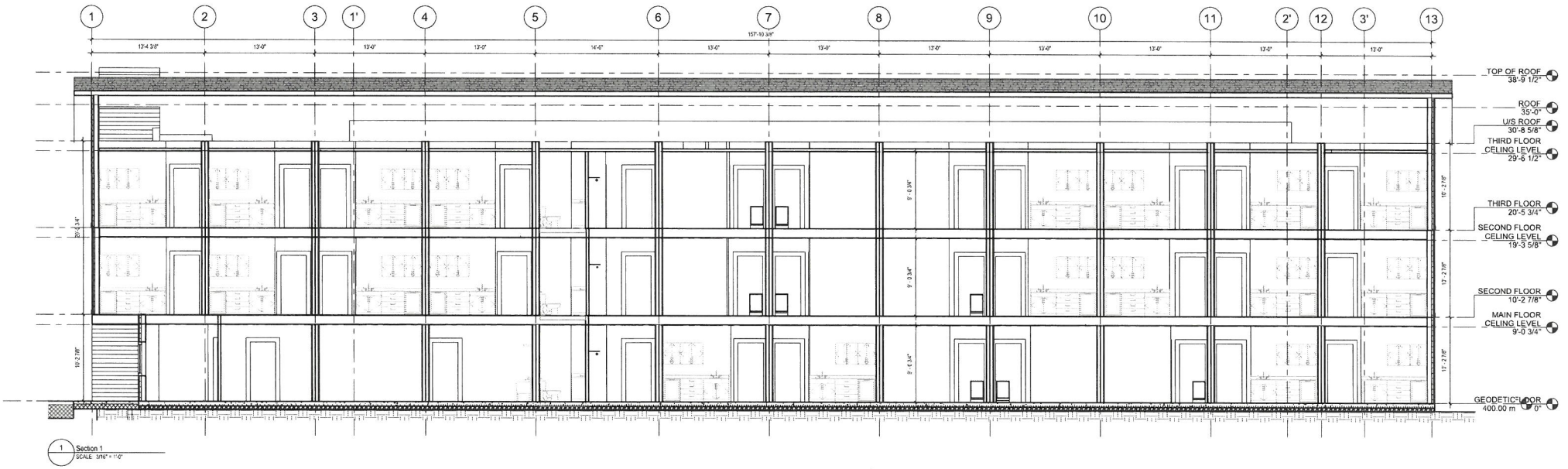
IMQN ARCHITECTS

ELEVATIONS

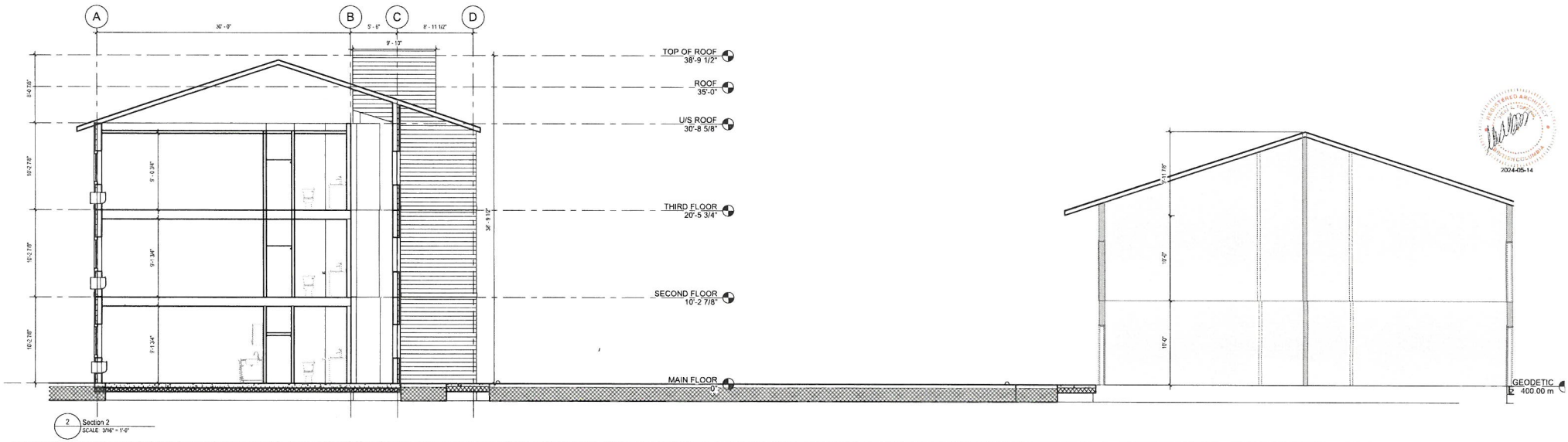
TRAVELODGE - SALMON ARM
2401 9 AVENUE, SALMON ARM, BC

ISSUED FOR DEVELOPMENT PERMIT
ON 2024/05/10

DRAWING: DP106
PROJECT: 23900
SCALE: As Indicated



1 Section 1
SCALE 3/16" = 1'-0"



2 Section 2
SCALE 3/16" = 1'-0"

2024-05-14

MQN ARCHITECTS

SECTIONS

TRAVELODGE - SALMON ARM
2401 9 AVENUE, SALMON ARM, BC

ISSUED FOR DEVELOPMENT PERMIT
ON 2024/05/10

DRAWING: DP107
PROJECT: 23900
SCALE: 3/16" = 1'-0"

City of Salmon Arm
Development Planning
P.O. Box 40
500 2 Avenue NE
Salmon Arm, BC V1E 4N2
Phone: 250.803.4010

MQN ARCHITECTS
Suite 100-3313 32nd Ave
Vernon, BC V1T 2M7
250-542-1199
Info@mqn.ca
www.mqn.ca

September 26, 2024

RE: DESIGN RATIONAL – TRAVELODGE NEW MOTEL BUILDING, 2401 9 AVENUE SALMON ARM, BC

Attn: Development Planning

To accompany the information and drawings submitted for the Development Permit application, I am writing to provide a letter of rationale for the proposed new motel building on the Travelodge site at the above noted address. The owner is proposing a new three storey motel building adjacent to the existing Travelodge motel building. The existing motel building is to remain in place. The new motel building will have 32 rooms, 20 of the rooms with kitchenettes. The new addition to the property will cater to the travelling public, a growing industry in Salmon Arm. The new building will make use of an already successful Travelodge location.

Of the 32 rooms three are planned to be accessible, complete with roll-in showers. The main entrance of the building is located on the south side, complete with reception, elevator and breakfast room. The existing restaurant building on site is proposed to be demolished to accommodate the new motel building. The existing motel building has 35 units, added to the new proposed 32 units a total of 64 units are proposed. The new design includes 67 parking stalls, no variance i7 parking is required. The property is located in the C-5 Tourist Commercial zone, no change in zone is proposed.

The maximum height permitted of a principal building in the C-5 Tourist Commercial zone is 10.0m, the height of the new motel building is proposed to be 10.4m, measured to the mid point of the sloped roof. This will allow a pitched roof on the third storey to match the roof design of the existing building providing a continuous aesthetic throughout the site. The elevator penthouse is proposed to be 11.9m. The exterior siding materials on the new building will match the materials of the existing motel building.

The existing shed which is over the setback will be removed. Illustrated in the architectural drawings, the subject property is sufficient in size to support the intended use and works within the existing zoning. I am happy to answer any questions regarding this scope of work. Please feel free to reach out to our office at any time to discuss further.

Sincerely,

Vicki Topping, Architect AIBC, Partner
MQN Architects

REGISTERED ARCHITECT
VICKI A. TOPPING
BRITISH COLUMBIA
2024-09-26

Brian F. Quiring
Architect AIBC, MAA, M.Arch

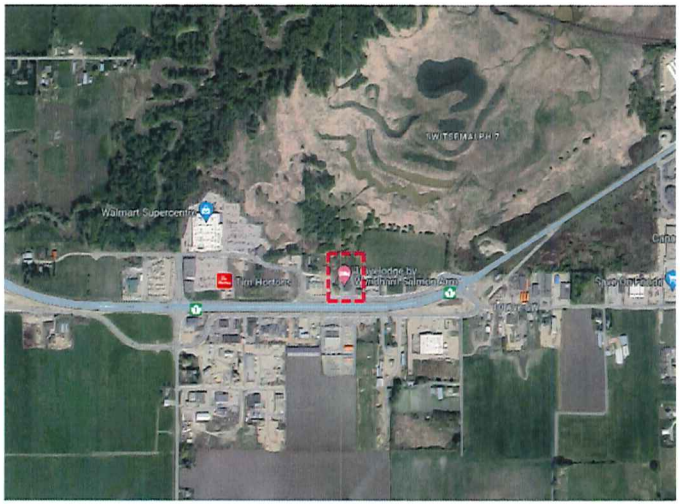
Vicki A. Topping
Architect AIBC, M.Arch. LEED AP+

Roger B. Green
Architect AIBC, MRAIC, M.Arch

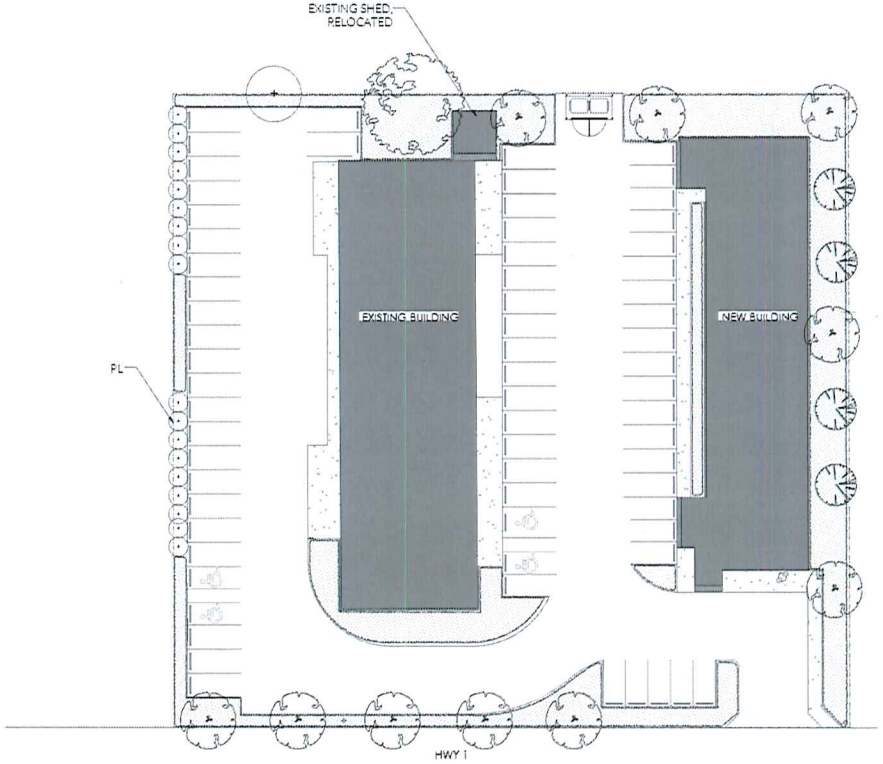
TRAVELODGE

2401 Trans-Canada Hwy, Salmon Arm, BC

SCHEMATIC LANDSCAPE PACKAGE



1 KEY PLAN
NTS



2 PROJECT SITE
Scale 1:250

1:250 0 2.5m 5 7.5 9 10.5 11 12.5 14 15.5 17 18.5

revision . issue

DESCRIPTION	DATE	NO.
Issued for DP	08/11/2024	003
Issued for DP	05/09/2024	002
Issued for DP	04/26/2024	001

CLIENT
MQN Architecture

PROJECT
Travelodge
Salmon Arm, BC

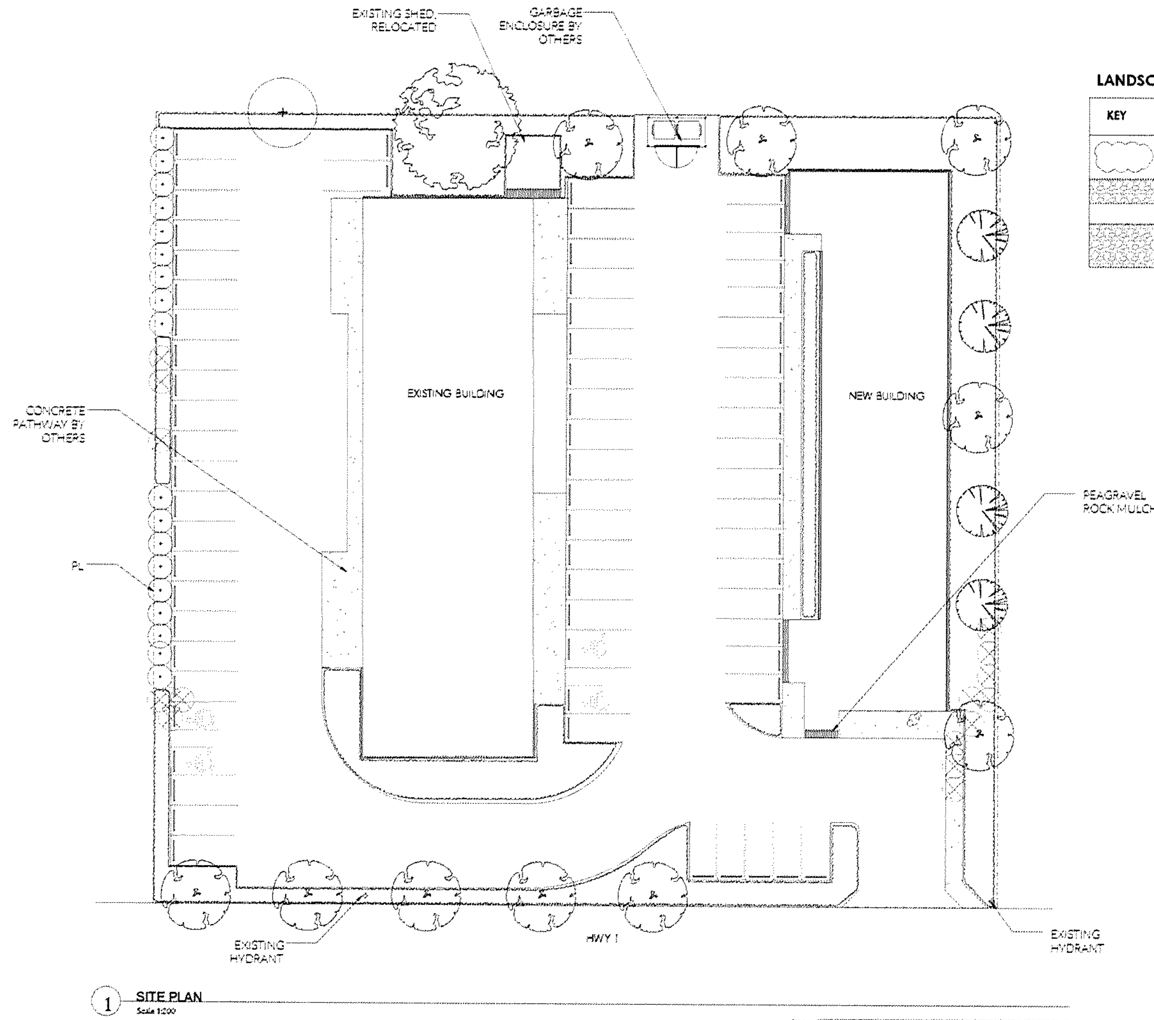
SHEET TITLE
COVER SHEET

design by . Sarah L. Enns
project number . 24003
date . APR 2024

NORTH

SCALE
1:250
PAGE
24" x 36"

SHEET NUMBER
L-01



1 SITE PLAN
Scale 1:200

LANDSCAPE LEGEND

KEY	REF.	DESCRIPTION
		ORNAMENTAL PLANTING
	1 / LD01	PEAGRAVEL DRIP STRIP ASSISTS WITH DRAINAGE
		WASHED PEAGRAVEL ROCK MULCH

TREE LEGEND

Existing Tree to Retain	Existing Tree to Remove	Acer fremanii Scarsen'	Carpinus carolinia	Pinus flexilis 'Vanderwolf's Pyramid

TREES					
QUAN.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
10	see legend	Acer freemanii 'Scarsen'	Scarlet Sentinel Maple	B&B: 6cm caliper, 1.8m std	As shown
1	see legend	Carpinus caroliniana	American Hornbeam	B&B: 6cm caliper, 1.8m std	As shown
4	see legend	Pinus flexilis 'Vanderwolf's Pyramid	Vanderwolf Pine	B&B: 3.0m height, Single Leader	As shown

the fiELDroom landscape architecture

revision . issue

DESCRIPTION	DATE	NO.
Issued for DP	08/11/2024	003
Issued for DP	05/09/2024	002
Issued for DP	04/26/2024	001

CLIENT
MQN Architecture

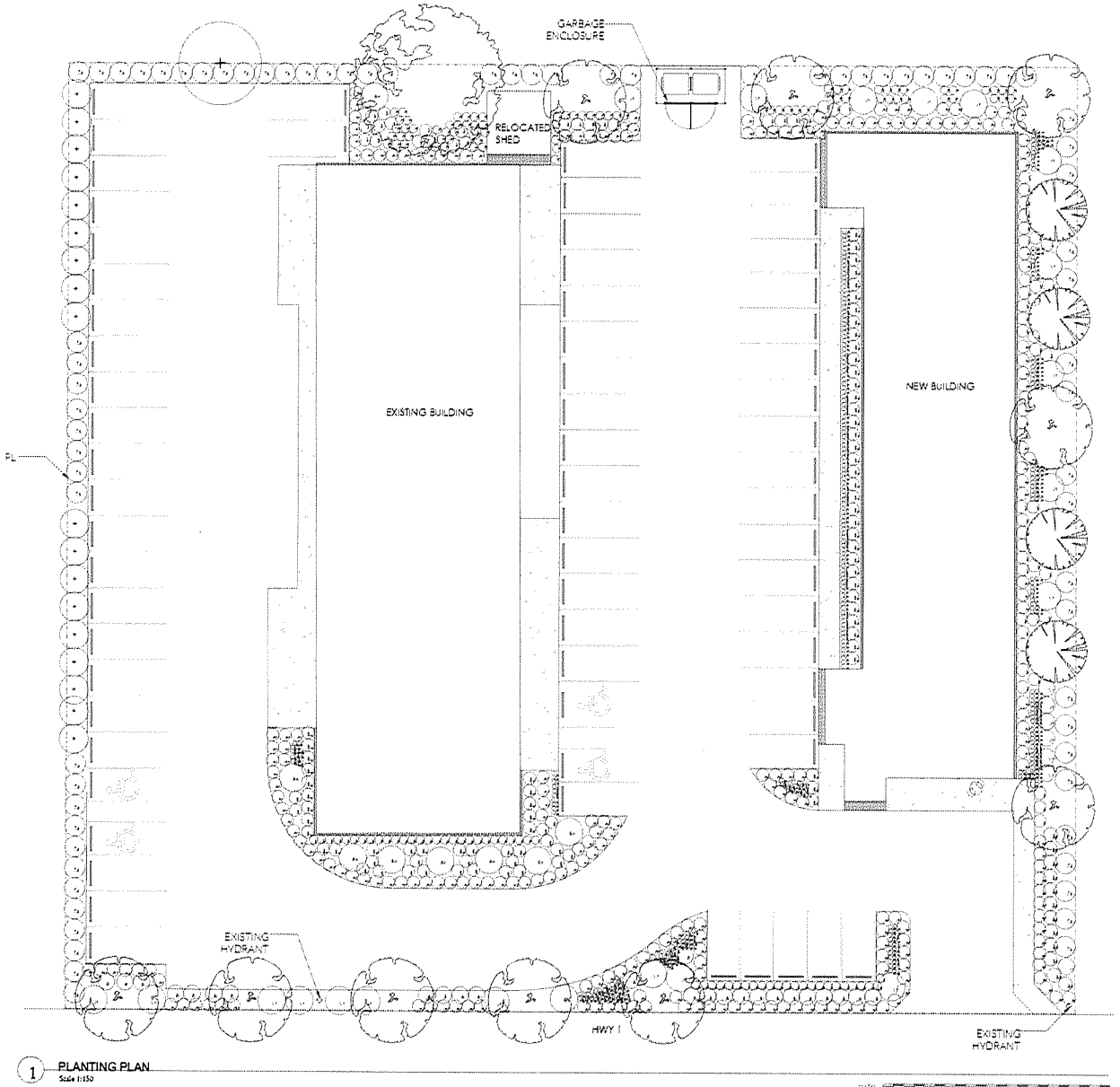
PROJECT
Travelodge
Salmon Arm, BC

SHEET TITLE
SITE PLAN

design by . Sarah L. Enns
project number . 24003
date . APR 2024

NORTH
SCALE 1:200
PAGE 24" x 36"

SHEET NUMBER
L-02



1 PLANTING PLAN
Scale 1:150

PLANT SCHEDULE

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	CONTAINER SIZE	SPACING
SHRUBS					
Ar	229	Arctostaphylos uva-ursi	Bearberry	#3 Pot	900mm O.C.
Bu	61	Buxus sempervirens 'Mont Bruno'	Mont Bruno Boxwood	#3 Pot	900mm O.C.
Ph	8	Physocarpus opulifolius 'Diabolo'	Diabolo Ninebark	#5 Pot	2000mm O.C.
Pl	25	Pinus mugo var. pumilio	Dwarf Mugo Pine	#5 Pot	1200mm O.C.
Sp	12	Spiraea betulifolia 'Glow Girl'	Glow Girl Birchleaf Spirea	#5 Pot	1000mm O.C.
To	74	Thuja occidentalis 'Degroot's Spire'	Degroot's Spire Cedar	1.6m Ht	1500mm O.C. or As Shown
Vt	27	Viburnum trilobum 'Redwing'	American Cranberry	#5 Pot	2000mm O.C.
PERENNIALS/GRASSES					
A	226	Amsonia tabernaemontana	Eastern Blue Star	#1 Pot	300mm O.C.
B	20	Baptisia australis	Blue Wild Indigo	#1 Pot	900mm O.C.
H	81	Helliopsis helianthoides	Oxeye Sunflower	#3 Pot	600mm O.C.
P	52	Panicum virgatum 'Shenandoah'	Switchgrass	#3 Pot	600mm O.C.
R	146	Rudbeckia fulgida 'Little Goldstar'	Little Goldstar Black-Eyed Susan	#1 Pot	300mm O.C.
S	69	Sporobolus heterolepis	Prairie Dropseed	#3 Pot	900mm O.C.

TREE LEGEND

Existing Tree to Retain	Existing Tree to Remove	Acer tremant 'Scanzam'	Carpinus caroliniana	Pinus flexilis 'Vanderwolf's Pyramid'

TREES					
QUAN.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
10	see legend	Acer tremant 'Scanzam'	Scarlet Tantow Maple	6cm caliper 1.5m std	As shown
1	see legend	Carpinus caroliniana	American Hornbeam	6cm caliper 1.5m std	As shown
4	see legend	Pinus flexilis 'Vanderwolf's Pyramid'	Vanderwolf Pine	3.0m height single leader	As shown

The FIELD room landscape architecture

revision . issue

DESCRIPTION	DATE	NO.
Issued for DP	08/11/2024	003
Issued for DP	05/09/2024	002
Issued for DP	04/26/2024	001

CLIENT
MQN Architecture

PROJECT
Travelodge
Salmon Arm, BC

SHEET TITLE
PLANTING PLAN

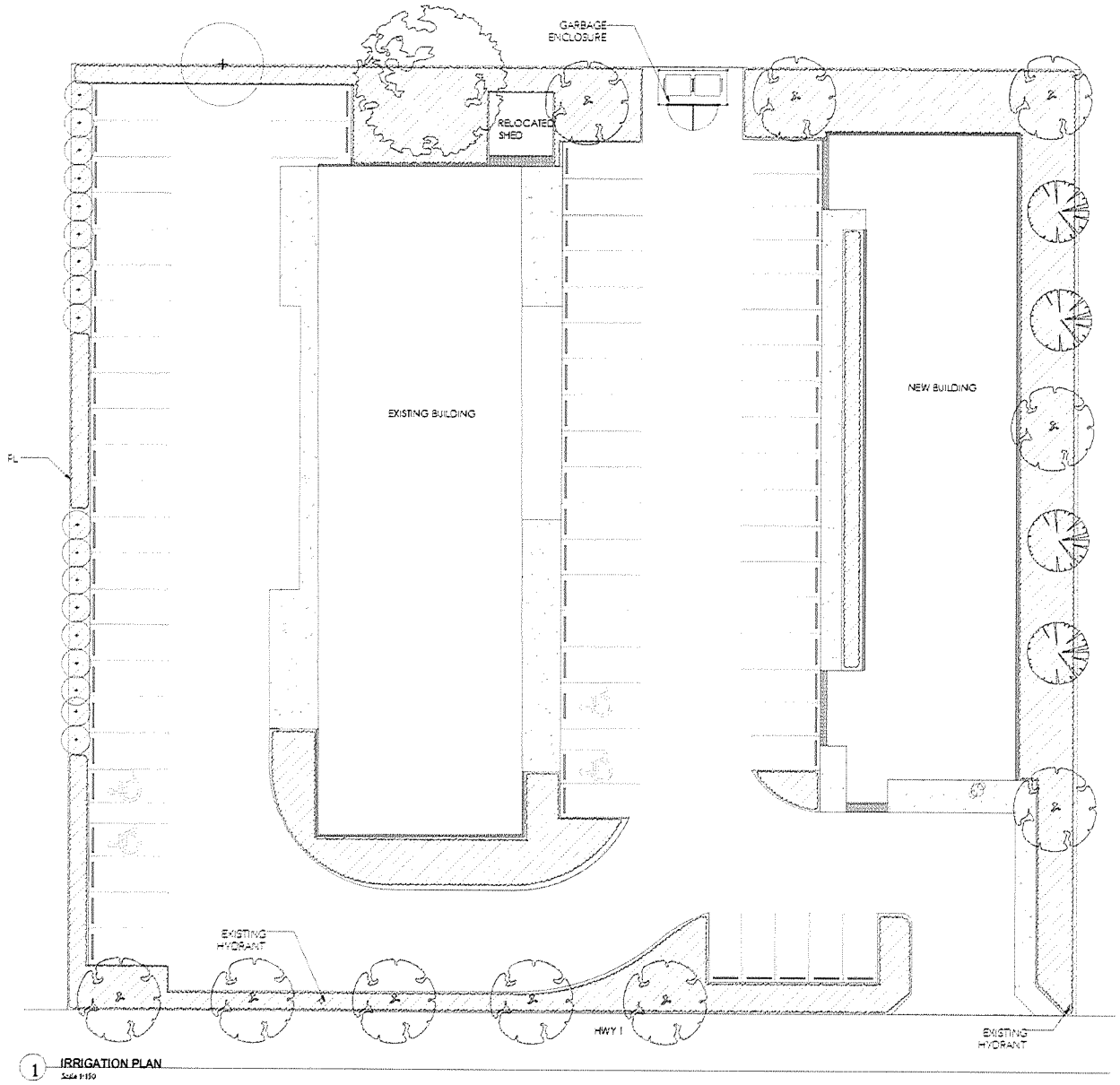
design by . Sarah L. Enns
project number . 24003
date . APR 2024

NORTH | SCALE 1:150 | PAGE 24" x 36"

SHEET NUMBER
L-03

IRRIGATION LEGEND

	SHRUB BED AREA SUBSURFACE DRIP LINE SYSTEM



1 IRRIGATION PLAN
Scale 1:150

the FIELD landscape architecture

revision . issue

DESCRIPTION	DATE	NO.
Issued for DP	08/11/2024	003
Issued for DP	05/09/2024	002
Issued for DP	04/26/2024	001

CLIENT
MQN Architecture

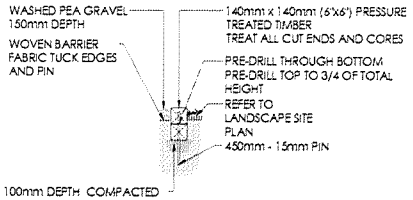
PROJECT
Travelodge
Salmon Arm, BC

SHEET TITLE
IRRIGATION PLAN

design by . Sarah L. Enns
project number . 24003
date . APR 2024

NORTH
SCALE 1:150
PAGE 24" x 36"

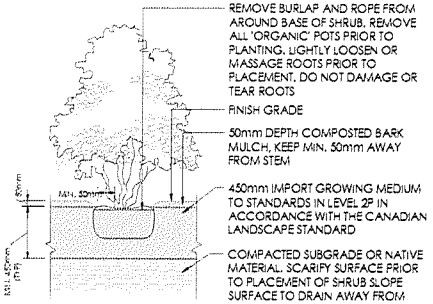
SHEET NUMBER
L-04



NOTES:

1. APPLY ROMEX ROMPOM PROFI-DEKO TO AGGREGATE AS PER MANUFACTURER'S INSTRUCTIONS TO PREVENT AGGREGATE MIGRATION
   Romex Contact: Joe Steinbach 778-903-5602

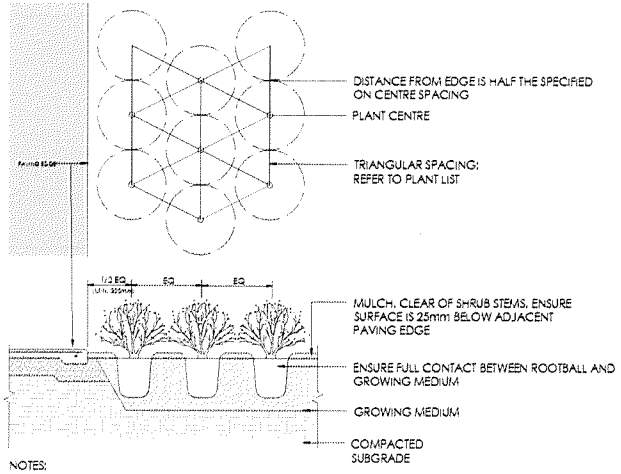
1 DRIP STRIP
Scale 1:20



NOTES:

1. SHRUB TO BE PLANTED LEVEL WITH FINISH GRADE
2. COMPOSTED BARK MULCH AT 50mm DEPTH TO BE KEPT AT LEAST 50mm AWAY FROM STEMS OF SHRUB
3. CONTRACTOR TO NOTIFY CONSULTANT AND CITY REPRESENTATIVE OF POORLY DRAINING SOILS PRIOR TO PLANTING.
4. DISTURBED SUBGRADE, NATIVE MATERIAL, OR IMPORT FILL TO BE SUITABLY COMPACTED IN ACCORDANCE WITH CANADIAN LANDSCAPE STANDARDS TO PREVENT SETTLEMENT OF ROOTBALL
5. PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD, DISEASED, DAMAGED, OR DEFECTIVE BRANCHES IN ACCORDANCE WITH THE CANADIAN LANDSCAPE STANDARD

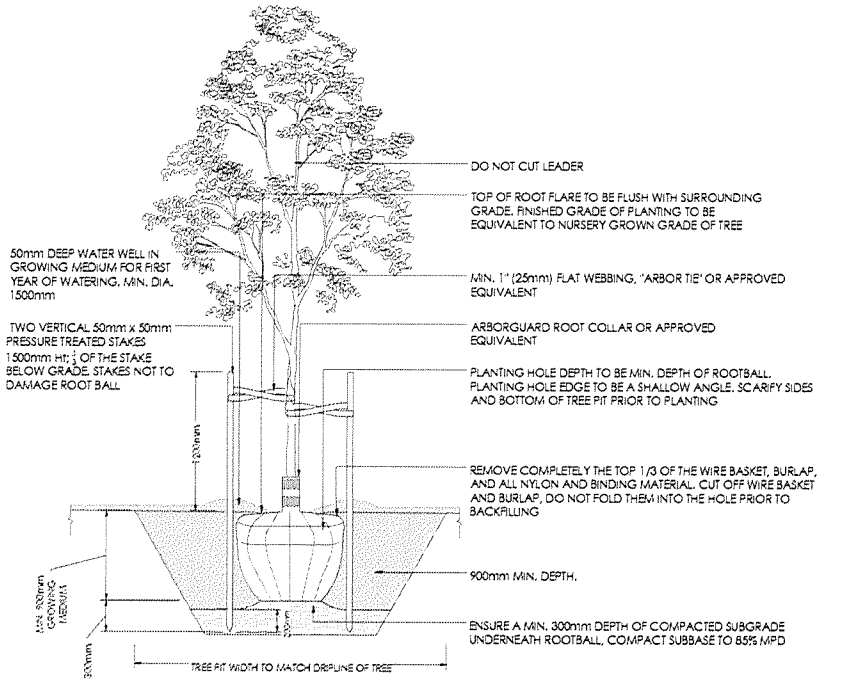
2 SHRUB PLANTING
Scale 1:20



NOTES:

1. REFER TO CANADIAN LANDSCAPE STANDARD FOR COMPACTION AND PREPARATION REQUIREMENTS FOR PLANTING BEDS
2. REFER TO TYPICAL SHRUB PLANTING DETAILS FOR INFORMATION ON MULCH AND GROWING MEDIUM
3. ENSURE MATURE SHRUB FORM WILL NOT OVERHANG WALKWAY
4. ADJACENT PAVING BASE COURSE TO EXTEND 150mm INTO PLANTING BED

3 PLANTING LAYOUT
Scale 1:20



4 TREE PLANTING
Scale 1:20

the FIELDroom landscape architecture

revision . issue		
Issued for DP	08/11/2024	003
Issued for DP	05/09/2024	002
Issued for DP	04/26/2024	001
DESCRIPTION	DATE	NO.

CLIENT
MQN Architecture

PROJECT
Travelodge
Salmon Arm, BC

SHEET TITLE
DETAILS

design by . Sarah L. Enns
project number . 24003
date . APR 2024

NORTH | SCALE AS SHOWN | PAGE 24" x 36"

SHEET NUMBER
LD-01

1. Looking northwest, towards existing motel.

2. Looking west. View of the front property line.

3. Looking north, towards the rear property line.

Photos taken on July 24, 2024

PROPERTY INFORMATION

CIVIL ADDRESS:	2401 9 AVENUE, SALMON ARM, BC	
LEGAL ADDRESS:	PLAN 41170, LOT A, TOWNSHIP 20, RANGE 10, MERIDIAN 6, LAND USE 36 PID: 013-932-918	
CURRENT ZONING:	C-5	
PROPOSED ZONING:	C-5	
LOT AREA:	4,799.94 m^2	51,666.17 ft^2

BUILDING INFORMATION

NUMBER OF NEW BUILDINGS:	1	
BUILDING FOOTPRINT (ALL BUILDINGS)	1275 m^2 (SI)	13,725 ft^2 (IMP)
TOTAL GROSS FLOOR AREA (GFA):	EXISTING BUILDING 1409.63 m^2 (SI)	15,173.21 ft^2 (IMP)
	NEW BUILDING 1662.46 m^2 (SI)	17894.6 ft^2 (IMP)
TOTAL NET FLOOR AREA (NFA):	EXISTING BUILDING 725 m^2 (SI)	7,800 ft^2 (IMP)
	NEW BUILDING 550 m^2 (SI)	5,925 ft^2 (IMP)
NUMBER OF STOREYS:	3	
DRIVEWAYS AND PARKING AREAS:	2371.85 m^2 (SI)	25530.46 ft^2 (IMP)

ZONING ANALYSIS

JURISDICTION	SALMON ARM, BC
PRINCIPLE USES:	MOTEL
ACCESSORY USES:	N/A

SUBDIVISION REGULATIONS:	**REQUIRED**	**PROVIDED**
MIN. SITE WIDTH:	30.0 m	68.28 m
MIN. SITE DEPTH:	N/A	73.44 m
MIN SITE AREA:	2,000 m^2 (0.2 HEC.)	5014.48 m^2
DEVELOPMENT REGULATIONS:	**REQUIRED**	**PROVIDED**
MAX SITE COVERAGE BUILDINGS (SI / IMP)	N/A	1339.73 m^2 / 14420.82 ft^2
MAX SITE COVERAGE (%)	75% MAX. SITE COVERAGE INCL. BUILDINGS, STRUCTURES, PARKING	74%
MAX BUILDING HEIGHT	10 m	*3 STOREY / 10.4m*
SETBACKS:	**REQUIRED**	**PROVIDED**
FRONT YARD (SOUTH):	6.0 m	6.0 m
REAR YARD (NORTH):	4.5 m	4.5 m
SIDE YARD (EAST):	4.5 m	4.5 m
SIDE YARD (WEST):	4.5 m	4.5 m
LANDSCAPE BUFFERS:	**REQUIRED**	**PROVIDED**
FRONT YARD (NORTH):	N/A	N/A
REAR YARD (SOUTH):	N/A	N/A
SIDE YARD (EAST):	N/A	N/A
SIDE YARD (WEST):	N/A	N/A
FLOOR AREA RATIO (FAR):	1.0	0.5

PARKING CALCULATION

MOTEL USE - 1 STALL PER SLEEPING OR KITCHEN UNIT	**WIDTH**	**LENGTH**	**HEIGHT**	**REQUIRED**	**PROPOSED**	**%**
TOTAL REQUIRED PARKING				67	67	
STANDARD PARKING STALL	2.6 m	5.8 m	2.2 m	-	58	
SMALL STALLS (***20%** OF STALLS MAY BE SMALL SIZE)	2.4 m	5.0 m	2.2 m	-	12	
ACCESSIBLE CAR STALL **SIGN POSTED INFRONT OF SPACE 1.2m ABOVE FINISHED GRADE.**	2.4 m	5.8 m	2.2 m	51-100 STALLS = 2	3	
ACCESSIBLE VAN STALL **(+ 1.5m MIN. AISLE BESIDE. CAN SHARE w/2 STALLS)** **SIGN POSTED INFRONT OF SPACE 1.2m ABOVE FINISHED GRADE. SHALL INCLUDE "VAN ACCESSIBLE".**	3.3 m	5.8 m	2.2 m	51-100 STALLS = 1	1	
				REQUIRED	**PROPOSED**	
VISITOR STALLS	N/A			N/A	N/A	
TOTAL PARKING STALLS				64	64	
LOADING STALLS (BETWEEN 450m²-2500m² GFA)	3.7 m	N/A	3.7 m	-	-	
BIKE STALLS	N/A			N/A	N/A	

CITY OF SALMON ARM

Memorandum from the Engineering and Public Works Department

TO:	Gary Buxton, Director of Planning
DATE:	July 17, 2024
PREPARED BY:	Mustafa Zakreet, Engineering Assistant
APPLICANT:	Vicki Topping – MQN Architects
SUBJECT:	Development Permit- DP-456
LEGAL:	Lot A, Section 15, Township 20, Range 10, W6M, KDYD, Plan 41170 Except Plan EPP78302
CIVIC:	2401 - 9 Avenue SW

Further to your referral dated May 31, 2024, we provide the following servicing information.

Comments are based on the Subdivision/Development as proposed in the referral. If the development plans for the property change significantly, comments below may change

General:

1. Full municipal services are required as noted herein. Owner / Developer to comply fully with the requirements of the Subdivision and Development Services Bylaw No 4293. Notwithstanding the comments contained in this referral, it is the applicant's responsibility to ensure these standards are met.

2. Comments provided below reflect the best available information. Detailed engineering data, or other information not available at this time, may change the contents of these comments.

3. Properties shall have all necessary public infrastructure installed to ensure properties can be serviced with underground electrical and telecommunication wiring upon development.

4. Property under the control and jurisdiction of the municipality shall be reinstated to City satisfaction.

5. Owner / Developer will be responsible for all costs incurred by the City of Salmon Arm during construction and inspections. This amount may be required prior to construction. Contact City Engineering Department for further clarification.

6. Erosion and Sediment Control (ESC) measures will be required prior to the commencement of construction. ESC plans to be approved by the City of Salmon Arm.

7. Any existing services (water, sewer, hydro, telus, gas, etc) traversing the proposed lot must be protected by easement or relocated outside of the proposed building envelope. Owner/Developer will be required to prove the location of these services. Owner / Developer is responsible for all associated costs.

8. At the time of building permit the applicant will be required to submit for City review and approval a detailed site servicing / lot grading plan for all on-site (private) work. This plan will show such items as parking lot design, underground utility locations, pipe sizes, pipe elevations, pipe grades, catchbasin(s), control/containment of surface water, contours (as required), lot/corner elevations, impact on adjacent properties, etc.

9. For the off-site improvements at the time of building permit the applicant will be required to submit for City review and approval detailed engineered plans for all off-site construction work.

These plans must be prepared by a qualified engineer. As a condition of building permit approval, the applicant will be required to deposit with the City funds equaling 125% of the estimated cost for all off-site construction work.

10. An undeveloped right-of-way exists along the western property line of the subject parcel. The property being served to the north is outside of City jurisdiction and is not anticipated to be developed in the near future. The nature of any future development may also dictate the type of infrastructure required (driveway for a strata vs. a roadway for a subdivision, sizing of pipes). With consideration of the aforementioned, under Section 4.4.2 of the SDSB 4293, construction of the road or any main extensions is not required at this time.

Roads / Access:

1. 9 Avenue SW, on the subject property's southern boundary, is designated as an Urban Local Road standard, requiring 20.0m road dedication (10.0m on either side of road centerline). Available records indicate that no additional road dedication is required (to be confirmed by a BCLS).

2. 9 Avenue SW was recently updated by the Ministry of Transportation to an Urban Local Road standard. No further upgrade is required.

3. A 25m road right-of-way exists along the western property line. The construction of the road to the local road standards is a condition of this development; however, per General Conditions, Item 10, construction of the roadway is not required at this time.

4. The proposed development includes a new access road, and reinstating the curb at the two existing letdowns is a condition of this development.

5. Owner / Developer is responsible for ensuring all boulevards and driveways are graded at 2.0% towards the existing roadway.

Water:

1. The subject property fronts a 200mm diameter Zone 1 watermain on 9 Avenue SW. No upgrades will be required at this time.

2. Records indicate that the existing property is serviced by a 50mm size service from the 200mm diameter watermain on 9 Avenue SW. Engineer to determine if the service is adequately sized to satisfy the proposed use. All existing inadequate / unused services must be abandoned at the main. A remote-frequency (RF) water meter head is required, which will be supplied by the City at the time of building permit, at the Owner / Developer's cost. Owner / Developer is responsible for all associated costs.

3. Extension of the watermain to the northwest parcel line on the undeveloped road would be required; however, per General Conditions, Item 10, extension of the watermain is not required at this time.

4. The subject property is in an area with sufficient fire flows and pressures according to the 2011 Water Study (OD&K 2012).

5. Fire protection requirements to be confirmed with the Building Department and Fire Department.

Sanitary:

1. The subject property fronts a 200mm diameter sanitary sewer on 9 Avenue SW. No upgrades will be required at this time.

2. Records indicate that the existing property is serviced by a 150mm service from the sanitary sewer on 9 Avenue SW. All existing inadequate/unused services must be abandoned at the main. Owner / Developer is responsible for all associated costs.

3. Extension of the sanitary main to the northwest parcel line on the undeveloped road would be required; however, per General Conditions, Item 10, extension of the sanitary main is not required at this time.

4. The subject property is in an area with no current sanitary capacity concerns according to the City Sanitary Study (Urban Systems 2016).

Drainage:

1. The subject property fronts a 300mm diameter storm sewer on 9 Avenue SW. No upgrades will be required at this time.

2. Records indicate that the existing property is not serviced from the storm sewer on 9 Avenue SW.

3. Extension of the storm main to the northwest parcel line on the undeveloped road would be required; however, per General Conditions, Item 10, extension of the storm main is not required at this time.

4. An Integrated Stormwater Management Plan (ISMP) conforming to the requirements of the Subdivision and Development Servicing Bylaw No. 4293, Schedule B, Part 1, Section 7 shall be provided.

5. Where onsite disposal of stormwater is recommended by the ISMP, an “Alternative Stormwater System” shall be provided in accordance with Section 7.2.

6. Where discharge into the Municipal Stormwater Collection System is recommended by the ISMP, this shall be in accordance with Section 7.3. The proposed parcel(s) shall be serviced (each) by a single storm service connection adequately sized (minimum 150mm) to satisfy the servicing requirements of the development. Owner / Developer’s engineer may be required to prove that there is sufficient downstream capacity within the existing City Storm System to receive the proposed discharge from the development. All existing inadequate / unused services must be abandoned at the main. Owner / Developer is responsible for all associated costs

Geotechnical:

1. A geotechnical report in accordance with the Engineering Departments Geotechnical Study Terms of Reference for: Category A (Building Foundation Design) is required.

Mustafa Zakreet, EIT
Engineering Assistant

Jenn Wilson P.Eng.
City Engineer

CITY OF SALMONARM

DESIGN REVIEW PANEL MINUTES

August 7, 2024, 2:30 pm - Online, City Hall

Present:	Al Waters (Panel Member) Verna Burton (Panel Member) Bill Laird (Panel Member - Chair) M. Mason & M. McColl (Applicants – DP-457) E. Gooch (Applicant – DP-455) V. Topping & J. Kirkham (Applicants – DP-456) Chris Larson (Senior Planner) Aubree Jeffrey (Planner)
Absent:	Trent Sismey (Panel Member) Dennis Lowe (Panel Member) Marc Lamerton (Panel Member)

Application No. DP-457
981 12 Street SE – Terra Civis / Browne Johnson (amendment and variance)

Staff and the agents provided an overview of the proposal under current application, noting that this project has proceeded under a previous DP but that through development on the site the need for retaining walls has been clarified and the previously approved designs of two of the buildings requires change. Panel members asked questions to clarify and discussed the proposal, positively noting the proposed retaining wall's design and finishes at this key visible location. The DRP noted no concerns with the proposed buildings or the retaining wall variances. The DRP is supportive:

Panel Recommendation

THAT the DRP supports application DP-457 as presented.

Application No. DP-456
2401 9 Avenue SW – Travelodge Motel / MQN Architects

Staff and the design team provided an overview of the proposal under current application. It was noted that the proposal site and landscape plan will be revised based on staff comments to incorporate pedestrian access and additional landscaping / street trees. Panel members discussed the proposal, including snow clearance, additional landscaping, and pedestrian circulation, noting their general support with these changes expected to be incorporated. There was discussion regarding enhancement of the street-facing south elevation potentially being enhanced, but it was noted that this proposed building is accessory to the existing building, is reasonably featured, and that the proposed landscaping contributes to interest in the building face. The height variance was considered minor. With this noted, the DRP is supportive:

Panel Recommendation

THAT the DRP supports application DP-456 as presented.

Application No. DP-455
231 7 Street SE – Purewal, J. / 438198BC Ltd. (EFG Architect)

Staff and the designer provided an overview of the proposal under current application. Panel members discussed the proposal, noting the need for housing, and the positive form and character proposed. The balcony features for each unit were noted. Clarification was requested regarding the retaining wall height and location of the garbage/recycling enclosure. Snow clearance and lane access was discussed. The height variance was considered minor. The DRP is supportive:

Panel Recommendation

THAT the DRP supports application DP-455 as presented.

Endorsed on behalf of Design Review Panel

CITY OF SALMON ARM

REQUEST FOR DECISION

To: Development & Planning Services Committee

From: Manager of Planning & Building

Title: Zoning Bylaw Amendment Application No. 1283

Legal: Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan KAP46907 (1730 9 Avenue NE), That part of the North West ¼ Section of Section 13 included in Amended Plan B411; Township 20, Range 10, W6M, KDYD, Except: (1) Plans B723, B730, 3343, 4484, 7905, 8357, 10782 and 13709 (2) Parcel 16 Shown on Plan A1064 (3) Plan KAP54125 (1470 TCH NE) and Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan EPP124656 (1671 2 Avenue NE)

Civic: 1730 9 Avenue NE, 1470 TCH NE and, 1671 2 Avenue NE
Owner: Providential Developments Inc.
Agent: Matthew Senf

Date: October 21, 2024

Executive Summary/Purpose:

The purpose of this application is to amend the Zoning Bylaw to accommodate the development of up to 354 residential multiple family dwellings and assisted living units within apartments, triplexes, duplexes and other multiple family building formats in the CD – 22 Zone (Comprehensive Development Zone - 22). The CD – 22 zone would apply to three sites – 1730 9 Avenue NE, 1470 TCH NE and, 1671 2 Avenue NE.

Motion for Consideration:

THAT: A bylaw be prepared for Council's consideration, adoption of which would add to Zoning Bylaw No. 2303 Section 60 – CD-22 – Comprehensive Development Zone-22, as per Appendix 8 attached to the staff report dated October 21, 2024;

AND THAT: A bylaw be prepared for Council's consideration which would rezone the properties legally described as Lot 1, Section 13, Township 20, Range 10, W6M, KDYD, Plan KAP46907 (1730 9 Avenue NE), That part of the North West ¼ Section of Section 13 included in Amended Plan B411; Township 20, Range 10, W6M, KDYD, Except: (1) Plans B723, B730, 3343, 4484, 7905, 8357, 10782 and 13709 (2) Parcel 16 Shown on Plan A1064 (3) Plan KAP54125 (1470 TCH NE) and Lot A, Section 13, Township 20, Range 10, W6M, KDYD, Plan EPP124656 (1671 2 Avenue NE) be rezoned from R-10 (Residential Zone) and R-14 (Compact

Strata/Multi-Family Residential Zone) to CD-22 (Comprehensive Development Zone 22), subject to:

i) Dedication or registration of Statutory Right(s) of Way dedicating a trail connection of the Turner Creek Trail through 1730 9 Avenue NE and 1470 TCH NE and a trail connection from 2 Avenue NE to the TCH Frontage Road, in close alignment with the existing trail system;

ii) Submission of Traffic Impact Analysis (TIA) completed to the satisfaction of the City Engineer with acknowledgement that the owner/applicant is responsible for any and all off-site improvements recommended by the TIA and the registration of a *Land Title Act*, Section 219 covenant to address the findings and recommendations of the TIA report, and;

iii) Ministry of Transportation and Infrastructure approval.

Staff Recommendation:
THAT: The motion for consideration be adopted.

Proposal:
This proposal is to amend the Zoning Bylaw to accommodate the development of residential multiple family dwelling buildings for residential and assisted living units in a new Comprehensive Development Zone (CD – 22). The zone would apply to 1730 9 Avenue NE, 1470 TCH NE and 1671 2 Avenue NE. The applicant is proposing up to 354 residential and assisted living units, consistent with the Medium Density Official Community Plan designation and density bonus provisions of the Official Community Plan (OCP).

Background:

The subject property is comprised of three (3) parcels - 1730 9 Avenue NE (North Site), 1470 TCH NE and 1671 2 Avenue NE (South Site) (Appendices 1 and 2). The area of the subject property totals approximately 5.98 ha (14.7 ac) in area. The subject property is designated in the OCP as Residential Medium Density and zoned R-10 (Residential Zone) and R-14 (Compact Strata/Multi-Family Residential Zone) (see Appendices 3 and 4).

The general topography of the subject property is characterized by undulating and steep topography, bisected by Turner Creek. Portions of the Turner Creek Trail traverse the subject property and are not currently protected by Statutory Right of Way nor dedicated for public use. The trail system in this section is a heavily used part of the network and is maintained by the Shuswap Trail Alliance and the City. Appendix 5 shows the approximate location of proposed Greenways and neighbourhood parks.

Appendix 6, Steep Slopes & Watercourses Map, highlights the physical challenges with developing on the site. Large portions of the site are impacted by steep topography and watercourses. In the included conceptual site plans the developer intends to build on those areas of less challenging topography for building sites.

The Zoning Map attached (Appendix 4) shows the mix of zones in the immediate area, predominantly Institutional and Commercial zones. Land uses adjacent to the site and subject parcel include the following:

North:	R-10	Residential	Single Family Dwellings
South:	R-10	Residential	Single Family Dwellings
East:	R-10 & R-11	Residential	Single Family Dwellings and Strata Single Family Dwellings
West:	C-6	Commercial	Hilltop Hotel

Staff note that the subject property is bisected by a watercourse and development is subject to the Riparian Area Protection Regulation (RAPR). At the time of writing this report, the developer is working with the Province to finalize two required reports with regard to the watercourses on the subject property. The first report is specific to the installation of culverts in the panhandle section adjacent to the TCH Frontage Road. The installation of new culverts is needed to prevent seasonal flooding and erosion (Section 9 approval). That work is being supervised by a Qualified Environmental Professional (QEP) and has received the necessary approvals. The work is slated to commence in early 2025.

A separate approval process is required for RAPR setbacks from proposed development. Areas in which development may not occur will be defined more accurately through the second RAPR report process. The RAPR report to address the location of buildings and setbacks from the riparian areas is still under review with the Province. The details of that report, including development setbacks from the watercourse and mitigation are to be addressed in more detail by the applicant at the Development Permit stage and may alter the location of buildings and amenities. The rezoning application does not trigger Provincial approval of that report; however, approval prior to the issuance of a Development Permit is required by legislation.

Staff note that the access from 1470 TCH NE and the frontage road parallel with the Trans Canada Highway is affected by the alignment of Turner Creek and trail system. At the Development Permit stage, areas to be dedicated or protected by Statutory Right of Way for riparian or trail (public access and use) would be confirmed.

Conceptual drawings submitted in support of the rezoning application are enclosed as Appendix 7 and a draft version of the CD – 22 – Comprehensive Development Zone is attached as Appendix 8. There is a boundary adjustment subdivision application associated with the rezoning which realigns the shared property line between the north and south parcel further to the south, creating a larger development area for the northern part of the site. The two parcels to the south (1671 2 Avenue NE and 1470 TCH NE) could be consolidated to create the south development site.

Relevant Policy(ies):

The proposed zoning aligns with the OCP's Urban Residential Objectives listed in Section 8.2 and the Urban Residential Policies listed in Section 8.3, including providing a variety of housing types and housing options. In terms of siting, the proposal appears aligned with OCP Siting Policies under Section 8.3.19, including good access to pedestrian routes, recreation, community services, schools and utility servicing. The map attached as Appendix 9 shows community facilities within close proximity to the subject property.

OCP section 8.3.11 supports up to 80 units/ha for assisted living units.

Any future development of the subject property would be subject to the guidelines of the Multi-Family Residential Development Permit Area. At that time site plans, access/egress, site circulation, building massing and landscaping would be scrutinized through the Development Permit Guidelines.

Referral Comments:

Fire Department
No concerns at the rezoning stage provided emergency access is installed.

Building Department
No concerns at the rezoning stage.

Engineering Department
The proposed increase in density brings about a number of necessary improvements to adjacent City Infrastructure in order to safely accommodate the proposed number of dwelling units. The registration of a Section 219 covenant to address the requirement of a Traffic Impact Assessment (TIA) will be required prior to rezoning approval. The applicant has been advised that the covenant proposed as a condition of rezoning specifies that further development of the site (including Development Permit) may not proceed until the report is complete, approved by the City Engineer and any improvements required as a result of that report are at the cost of the developer.

Servicing information provided to the applicant in advance of development outlines the servicing requirements for later stages of development (Appendix 10).

Ministry of Transportation & Infrastructure

MOTI has granted preliminary approval (Appendix 11). MOTI is supportive of the proposal provided that the access to the highway frontage road is maintained as an emergency access with public trail only. The access point is to be secured with a locking gate. The applicant and City have confirmed that this is acceptable. Final Reading of the proposed rezoning is subject to MOTI approval.

Planning Department
In assessing the requests associated with this proposal, staff have referred to R-14 zone as a comparable, (see Table 1 below). The R-14 zone is supported in the Residential Medium Density designation with a density bonus for assisted living units.

The conceptual drawings illustrate twelve multiple family residential buildings, including one assisted living building. The site plans also show access for the north site from 9 Avenue NE and access to the south site from 2 Avenue NE. Emergency access for both sites would be constructed from the sites to through the panhandle to the TCH frontage road. That access point would be limited to emergency response crews only (via gate key) and pedestrian trail access only.

The proposed development includes multiple family dwellings (assisted living and market units) clustered in areas suitable for the topographical challenges; the actual siting of the buildings would be proposed at the time of Development Permit. The developer has indicted that should the rezoning be supported they intend to develop the north site before the south site.

Table 1 – Comparable Zones

Regulation	R-10	R-14	R-5	Proposed
Multi Family Residential Use	No	Yes	Yes	Yes
Max Building Height	10m	13m	15m	25m
Minimum Parcel Size	450m^2	775 m^2	775m^2	24022m^2
Setbacks (Front/Side/Exterior/Rear)	6m/1.5m/6m/6m	5m/1.8m/5m/5m	5m/5m/2.5m/5	Varies but greater than minimums of R-14 zone
Density	22 units/ha	40 units/ha	100 units/ha (130 units with amenities)	59 units/ha*

**OCP No. 4000 allows for 80 units/ha for assisted living units where the zoning permits.*

Multiple Family Dwellings

The proposed development generally aligns with the strategic themes identified in the Salmon Arm Community Housing Strategy considering density and diversity that fits with the character of the community, and developing opportunities to address rental housing needs. Within the Community Housing Strategy, apartment housing accounted for 13% of the housing stock within Salmon Arm (2016). The proposed CD zone does not permit single family dwellings with permitted uses focussed on multiple family dwellings. The proposed development would allow for multiple family dwellings and assisted living units, providing variety of housing options clustered to retain trees, environmental areas, and public access to trails and to limit grading of the site. The building massing and details will be reviewed further via a Development Permit application at a later stage of development.

The maximum residential density permitted is 50 dwelling units per hectare, except for assisted living which allows for up to 80 units/ha. As the subject property is approximately 5.98 hectares in area, the maximum permitted density would be approximately 354 dwelling units assuming: 1) the net site area of the subject parcel; and 2) utilizing density bonus.

The unit location and types provided with the detailed submission in support of the application is detailed in the drawings and table below (Table 2). These are proposed numbers and locations that will be finalized at the time of Development Permit.

Table 2 – Unit Types, Unit Count & Location

Unit Type	Unit Count Total (approx. 354 units)	Total Number of Units Per Location

Assisted Living	140	140 on North Site
Apartment Units	188	188 - 82 on North Site, 106 on South Site
Townhomes	26	26 – 12 on North Site, 14 on South Site

Building Height

An increased maximum principle building height from 13m (R-14 zone) to 25m has been requested within the proposed CD zone. In the opinion of staff, the requested building heights are to accommodate development on the challenging topography with the buildings proposed to be constructed into the landscape. Conceptual drawings illustrate a building at the proposed height in relation to the topography.

Parking

With respect to parking requirements relative to the proposed development concept, 354 units would trigger a parking requirement of 1.25 stalls per unit for a total of 376 parking stalls. The applicant has completed a preliminary parking analysis and has identified areas of under building and surface parking that could accommodate the required number of parking spaces for the maximum number of units (Appendix 7), which would equate to 420 required parking stalls. The number of stalls would be confirmed at the time of Development Permit(s). The applicant has stated that no parking variances are anticipated.

Location

As noted earlier in this report, the subject property is located in close proximity to recreation, schools, and commercial areas. As such the density and housing format maximizing clustered development is supported by staff.

Staff view the proposed CD zone as presented to be consistent with OCP residential objectives and policy, as well as the Community Housing Strategy.

Turner Creek Trail

Turner Creek Trail bisects the site and an unprotected (social) trail runs along the west portion of the subject property (primarily over 1470 TCH NE). With the development of the subject property there is an opportunity to work with the developer to ensure the dedication of the trail system, ensuring public access to the trails in perpetuity. This is a key feature of the site development. At the Development Permit stage the alignment of the trails, statutory rights of way securing public access and construction will be finalized. The applicant has indicated support for the trail system and continues to work with staff on the alignment of the trials. Secured public access to this portion of the trail system would remedy long standing issues with public trespass over private property.

Financial Considerations:
NA

Committee Recommendations:
NA

Public Consultation:
Pursuant to the *Local Government Act* bylaw amendment notices are mailed and hand delivered to occupiers and land owners within a 30m radius of the application. Newspaper ads are placed in two editions of the local paper. The notices advise of the date that Council is to consider first reading of the bylaw. Given that the subject property is within the Urban Containment Boundary, the OCP designation is consistent with the proposed zoning and the purpose of the rezoning is to provide residential units, Council is prohibited from holding a Statutory Public Hearing on the bylaw. It is expected that the date Council would consider first reading is November 12, 2024.

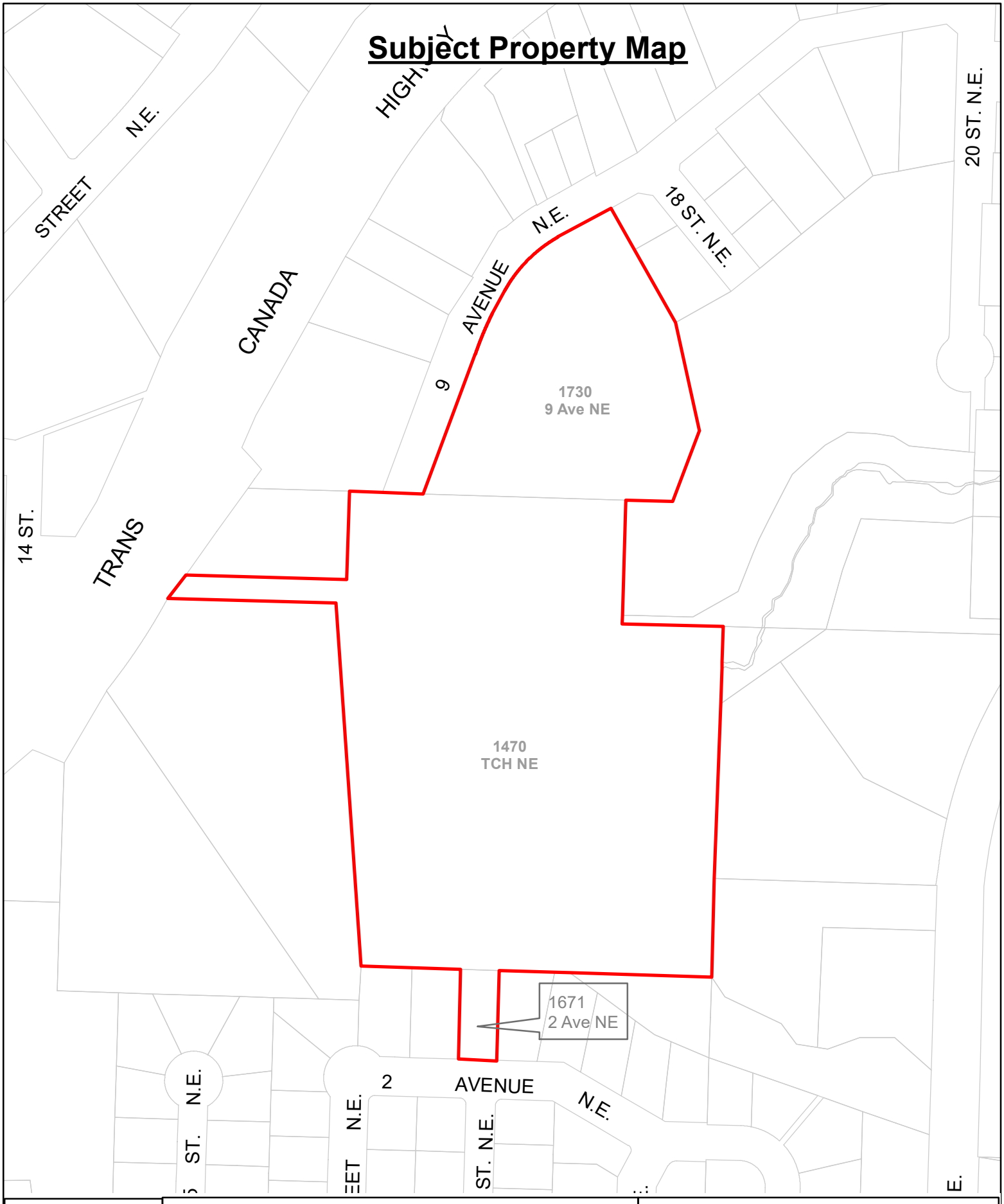
Alternatives & Implications:
Council may not support elements of the proposed CD – 22 zone and may consider giving staff direction to amend those components of the zone.

Prepared by: Manager of Planning and Building
Reviewed by: Director of Planning and Community Services
Approved by: Chief Administrative Officer

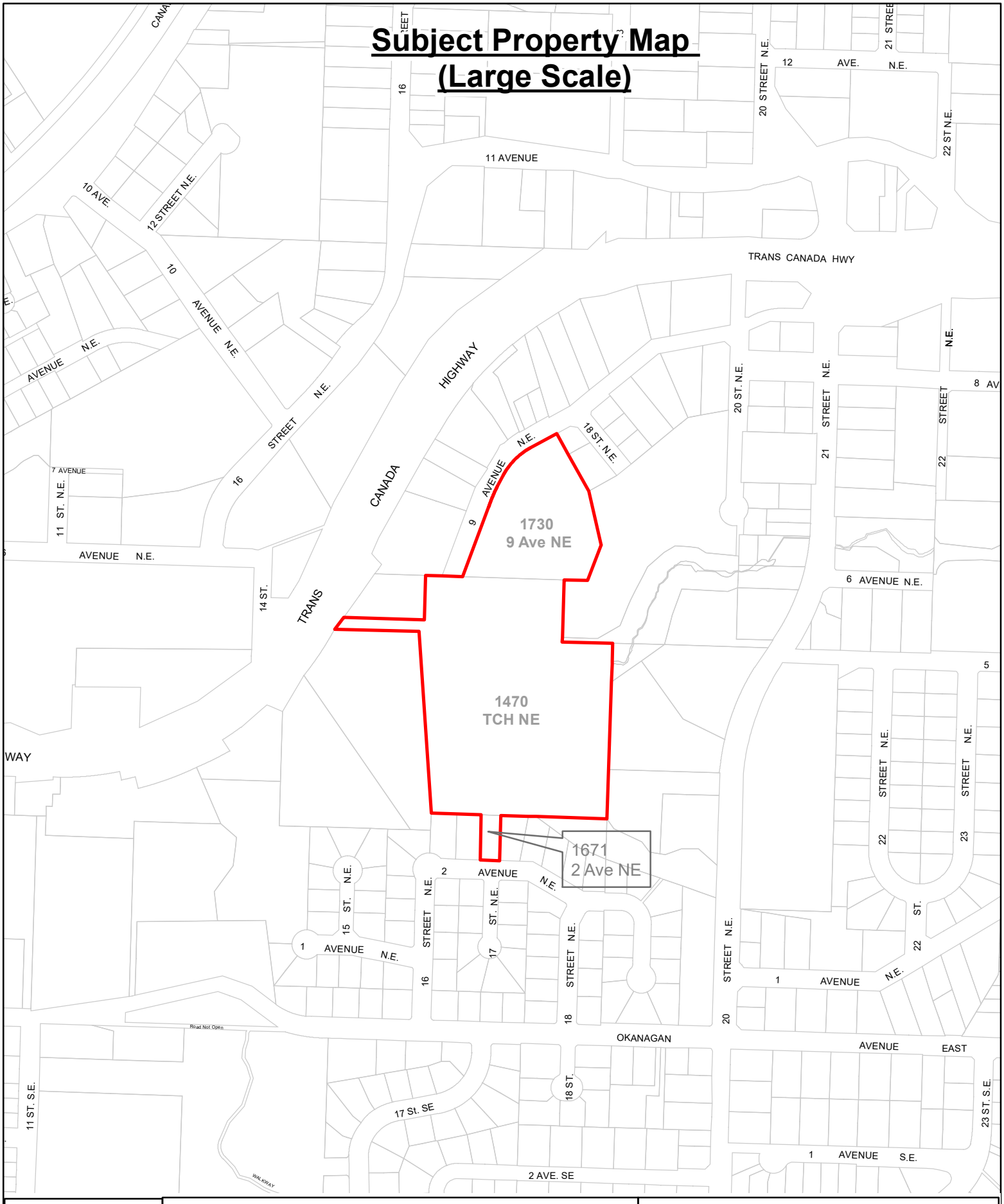
Attachments:

- Appendix 1 – Subject Property Map (small scale and large scale)
- Appendix 2 – Ortho Map (small scale and large scale)
- Appendix 3 – OCP Map
- Appendix 4 – Zoning Map
- Appendix 5 – Proposed Parks and Greenways Map
- Appendix 6 – Steep Slopes and Watercourses Map
- Appendix 7 – Conceptual Site Plan and Elevation Drawings
- Appendix 8 – Draft CD – 22 – Comprehensive Development Zone
- Appendix 9 – Community Facilities Map
- Appendix 10 – Engineering Servicing Report dated April 10, 2024
- Appendix 11 – Ministry of Transportation Referral Response, dated July 30, 2024

Subject Property Map



Subject Property Map (Large Scale)




Ortho Property Map
(Small Scale)
CANADA
TRANS
9 AVENUE N.E.
18 ST. N.E.
2 AVENUE
N
0 15 30 60 90 120
m
Subject Property
Parcels

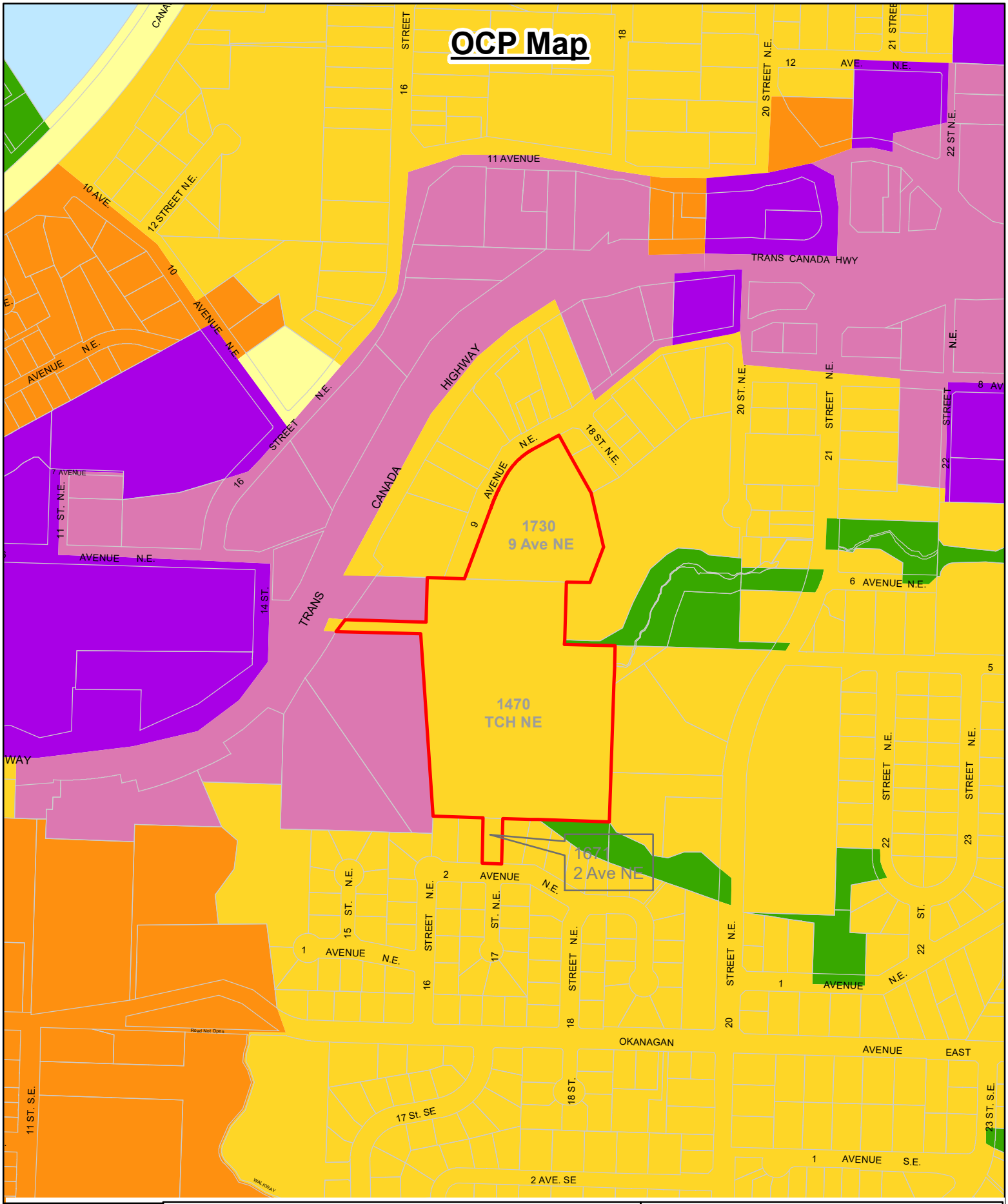
Ortho Property Map (Large Scale)

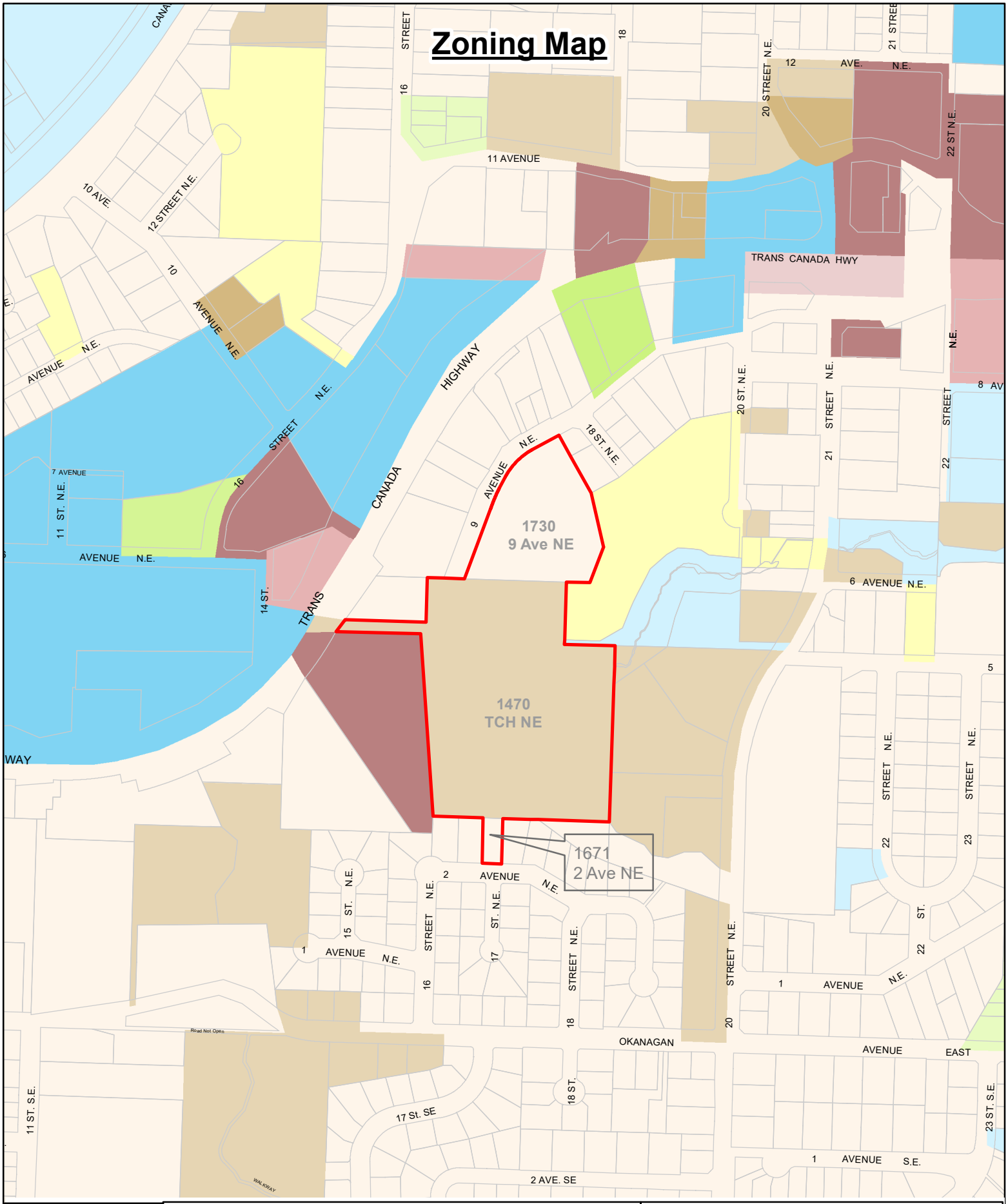
N

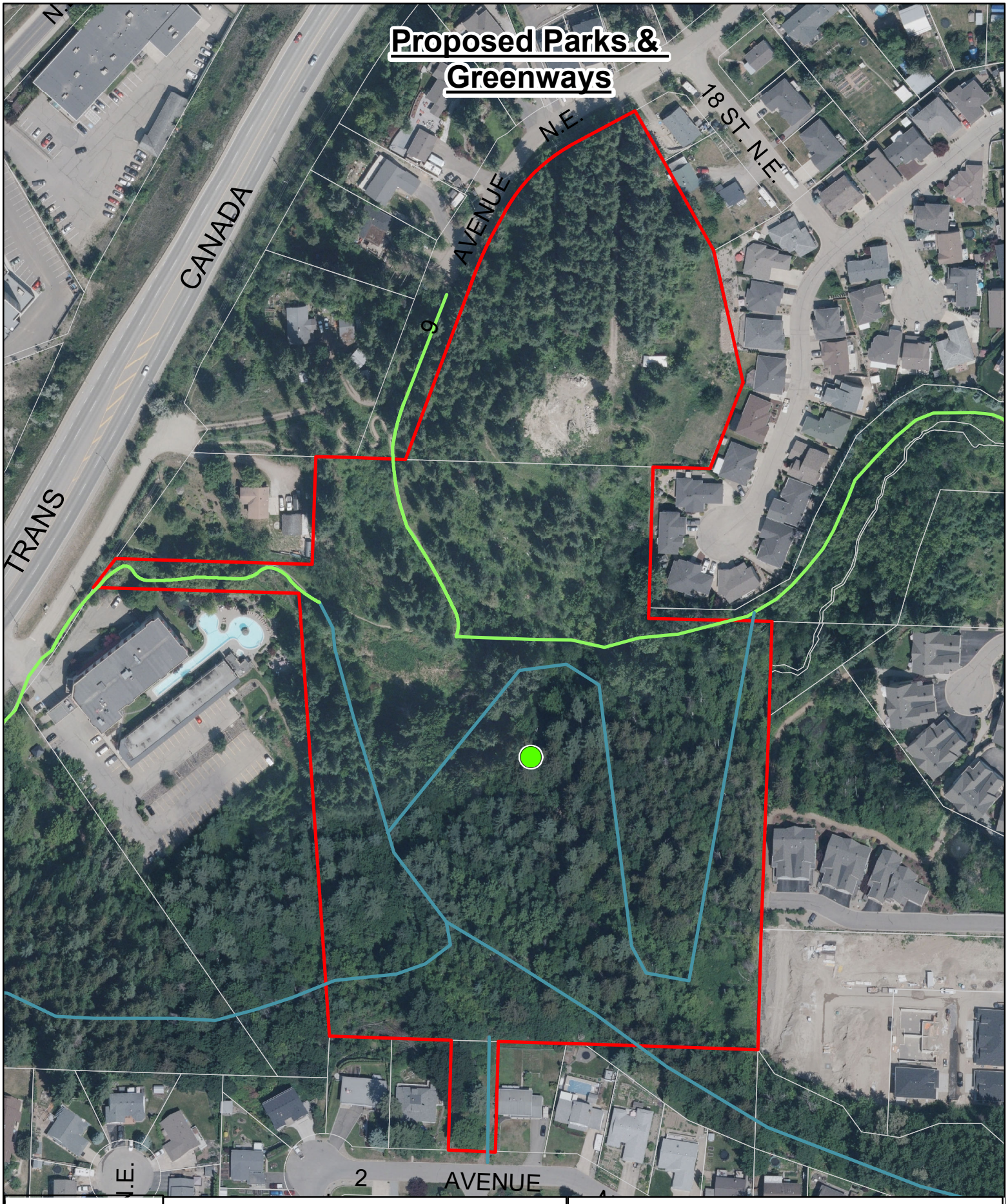
0 45 90 180 270 360 m

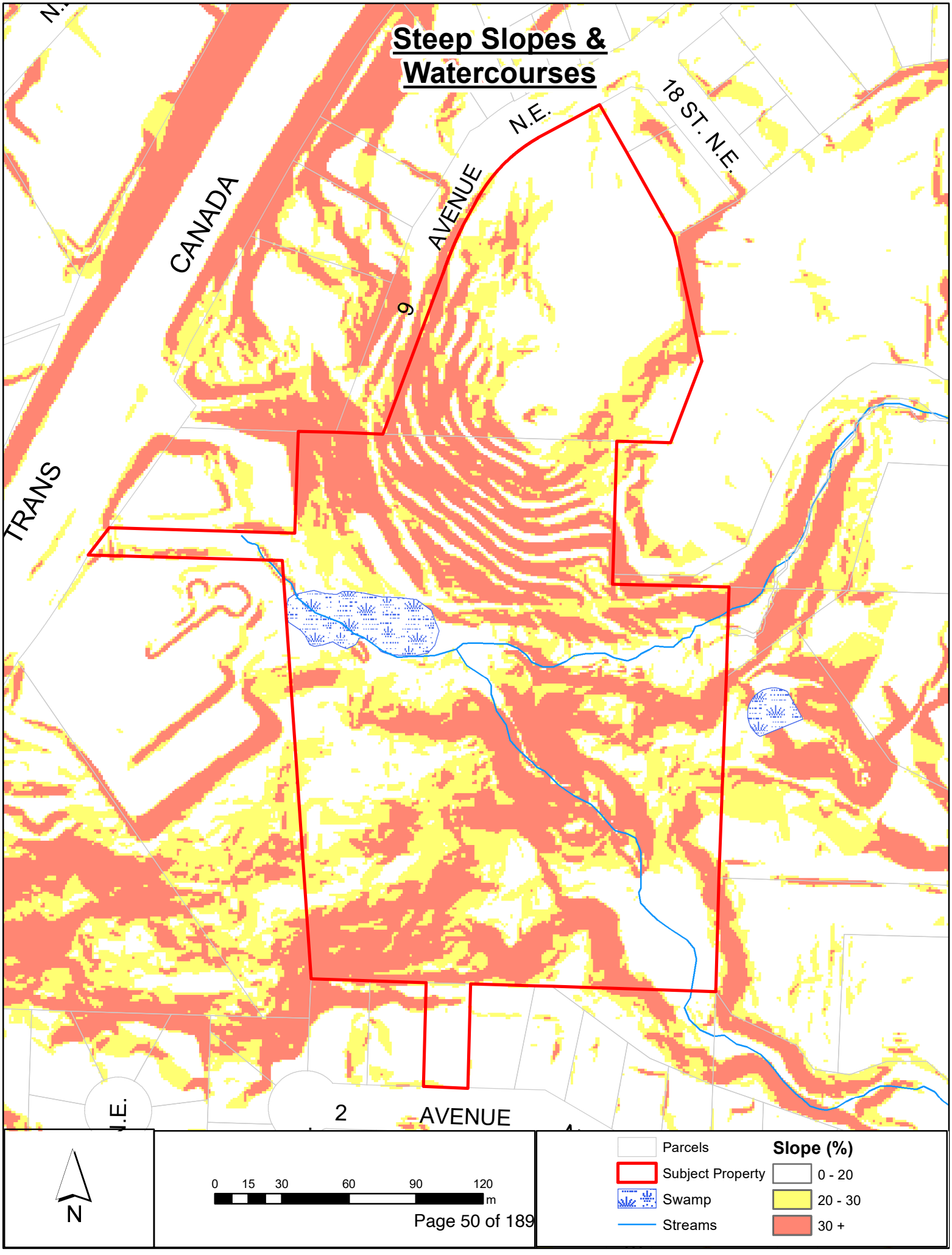
Subject Property

Parcels


OCP Map
1730
9 Ave NE
1470
TCH NE
1671
2 Ave NE
11 AVENUE
TRANS CANADA HWY
10 AVE.
12 STREET N.E.
9 AVENUE N.E.
18 ST. N.E.
20 ST. N.E.
6 AVENUE N.E.
14 ST.
2 AVENUE N.E.
1 AVENUE N.E.
OKANAGAN
AVENUE EAST
17 St. SE
2 AVE. SE
1 AVENUE S.E.
11 ST. S.E.
23 ST. S.E.
Road Not Open
WALKWAY
Subject Property
Parcels
Park
Environmentally Sensitive Lake Areas
Institutional
Residential - Low Density
Residential - Medium Density
Residential - High Density
Commercial - Highway Service / Tourist
N
0 45 90 180 270 360
m


Zoning Map
1730
9 Ave NE
1470
TCH NE
1671
2 Ave NE
11 AVENUE
TRANS CANADA HWY
HIGHWAY
CANADA
TRANS
OKANAGAN
AVENUE EAST
2 AVE. SE
17 St. SE
Road Not Open
WALKWAY
0 45 90 180 270 360 m
N
Subject Property
Parcels
C-3
C-5
C-6
CD-7
CD-17
CD-21
P-1
P-3
R-5
R-10
R-11
R-14


Proposed Parks & Greenways
CANADA
TRANS
9 AVENUE N.E.
18 ST. N.E.
2 AVENUE
N
0 15 30 60 90 120
m
Subject Property
Parcels
Proposed Neighbourhood Park (Approx. Location)
Greenway
EGW
PGW


Steep Slopes & Watercourses
18 ST. N.E.
N.E.
AVENUE
CANADA
TRANS
9
2
AVENUE
N
0 15 30 60 90 120
m
Parcels
Subject Property
Swamp
Streams
Slope (%)
0 - 20
20 - 30
30 +

NORTH SITE

TURNER CREEK
REZONING

ARCHITECTURAL DRAWING LIST	
SHEET NUMBER	SHEET NAME
A-0.0	COVER SHEET
A-0.1	SITE LOCATION
A-0.2	ZONING DATA
A-0.3	DATA
A-0.4	SITE DIAGRAM
A-0.5	SITE PLANNING PRECEDENTS
A-0.6	ARCHITECTURE PRECEDENTS
A-0.7	MASSING
A-0.8	MASSING
A-0.9	PUBLIC SPACE
A-0.10	PUBLIC SPACE
A-0.11	SITE RENDER
A-1.0	TURNER CREEK - PROPOSED SITE PLAN
A-1.1	TURNER CREEK - PROPOSED SITE PLAN SOUTH
A-1.2	SECTION SOUTH SITE
A-1.3	TURNER CREEK - PROPOSED SITE PLAN NORTH
A-1.4	SECTION NORTH SITE
A-1.5	TURNER CREEK - PRO. SITE PLAN - GRADE

These renders are proposed to help put the formal masses of the proposal into context with some urban design potentials. Materiality, detailing, colour, and other elements of design are not displayed as to be final proposals, rather to give some life and context to the masses.

1/4" = 1'-0"

NORTH SITE

TURNER CREEK		
CURRENT ZONING:	REQUIRED	PROVIDED
PRINCIPLE USE	R1	CD
		APARTMENT HOUSING
		TOWNHOMES
		ASSISTED LIVING QUARTERS
PARCEL SIZE	MINIMUM 450 M²	36257.8 M²
LOT WIDTH	MINIMUM 14 M	VARIES BUT GREATER THAN REQUIRED
LOT DEPTH	MINIMUM 35 M	"
MAXIMUM LOT COVERAGE (BUILDINGS)	45%	14%
MAXIMUM LOT COVERAGE (BUILDINGS...	N/A	CALCULATIONS IN PROGRESS
MAXIMUM BUILDING HEIGHT	10M	24.18M TO ROOF (6 STORIES + PARKADE ON A/B)
SETBACKS (FRONT)	FRONT YARD (WEST) - 6M - 19'-8 2/9"	VARIES BUT GREATER THAN REQUIRED
SETBACKS (SIDE)	SIDE YARD (UNDER 2.5 STOREYS) - 6M -...	"
SETBACKS (SIDE)	SIDE YARD (SOUTH) - 1.5M	"
SETBACKS (REAR)	REAR YARD (NO LANE) - 6M	"
SETBACKS (SIDE)	SIDE YARD (NORTH) - 6M	"
BUILDING FRONTAGE	N/A	50 m
UNIT COUNT	130 PER HECTARE FOR ASSISTED LIVING	140 UNITS OVER 1.75 HECTARES
	112 PER HECTARE FOR OTHER (WITH...	94 UNITS OVER1.87 HECTARES

SOUTH SITE

TURNER CREEK		
CURRENT ZONING:	REQUIRED	PROVIDED
PRINCIPLE USE	R4	CD
		APARTMENT HOUSING
		TOWNHOMES
PARCEL SIZE	MINIMUM 775 M²	24022.3 M²
LOT WIDTH	MINIMUM 30 M	VARIES BUT GREATER THAN REQUIRED
LOT DEPTH	MINIMUM 35 M	"
MAXIMUM LOT COVERAGE (BUILDINGS)	70%	14%
MAXIMUM LOT COVERAGE...	N/A	CALCULATIONS IN PROGRESS
MAXIMUM BUILDING HEIGHT	15M	22.08M (6 STORIES (1 IS BASEMENT))
SETBACKS (FRONT)	FRONT YARD (WEST) - 6M - 19'-8 2/9"	VARIES BUT GREATER THAN REQUIRED
SETBACKS (SIDE)	SIDE YARD (UNDER 2.5 STOREYS) - 5M - 16'-4...	"
SETBACKS (SIDE)	SIDE YARD (SOUTH) - 2.4M	"
SETBACKS (REAR)	REAR YARD (NO LANE) - 5M	"
SETBACKS (SIDE)	SIDE YARD (NORTH) - 5M	"
BUILDING FRONTAGE	N/A	50 m
UNIT COUNT	130 PER HECTARE FOR ASSISTED LIVING	N/A
	112 PER HECTARE FOR OTHER (WITH BONUSES)	120 UNITS OVER 2.40 HECTARES

1/4" = 1'-0"

N

NORTH SITE TOTALS	No.	SF	Total SF
ASSISTED LIVING...	140		
APARTMENT C	41		
APARTMENT D	41		
TOWNHOMES	12		
TOTAL	234		

ASSISTED LIVING BLOCK A+B	No.	SF	Total SF
B1 - 1 BEDROOM	131	575	75325
S1 - 1 BEDROOM	9	450	4050
AMENITY SPACE	X3		
COMMON FOOD AREA	X1	5200	
TOTAL	140		79375

APARTMENT BLOCK C	No.	SF	Total SF
A - 1 BED + DEN	13	620	8060
B - 2 BED	14	900	12600
C - 3 BED	14	930	13020
TOTAL	41		33680

APARTMENT BLOCK D	No.	SF	Total SF
A - 1 BED + DEN	13	620	8060
B - 2 BED	14	900	12600
C - 3 BED	14	930	13020
TOTAL	41		25620

NORTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	229	222
ACCESSIBLE	10	9
LOADING BAY	1	1
TOTAL	240	232

ASSISTED LIVING PARKING LOT	No.		REQ No.
REGULAR STALLS	59		46
ACCESSIBLE	3		3
LOADING BAY	1		1
REQUIRED (1 PER 3...			
TOTAL	63	13 EXCESS	50

APARTMENT BLOCK... PARKING LOT	No.	REQ No.
REGULAR STALLS	122	117
ACCESSIBLE	8	6
TOTAL	130	123

APARTMENT BLOCK D PARKING LOT	No.	REQ No.
REGULAR STALLS	60	80
ACCESSIBLE	4	3
TOTAL	64	83

TOWNHOMES	No.	SF	Total SF
STANDARD	12	1500	18000
TOTAL	12		18000

S

SOUTH SITE TOTALS	No.	SF	Total SF
APARTMENT A	53		36660
APARTMENT B	53		45960
TOWNHOMES	14		44000
TOTAL	120		126620

APARTMENT BLOCK A	No.	SF	Total SF
A - STUDIO	6	560	3360
B - 1 BED	18	600	10800
C - 1 BED + DEN	18	700	12600
D - 2 BED	11	900	9900
TOTAL	53		36660

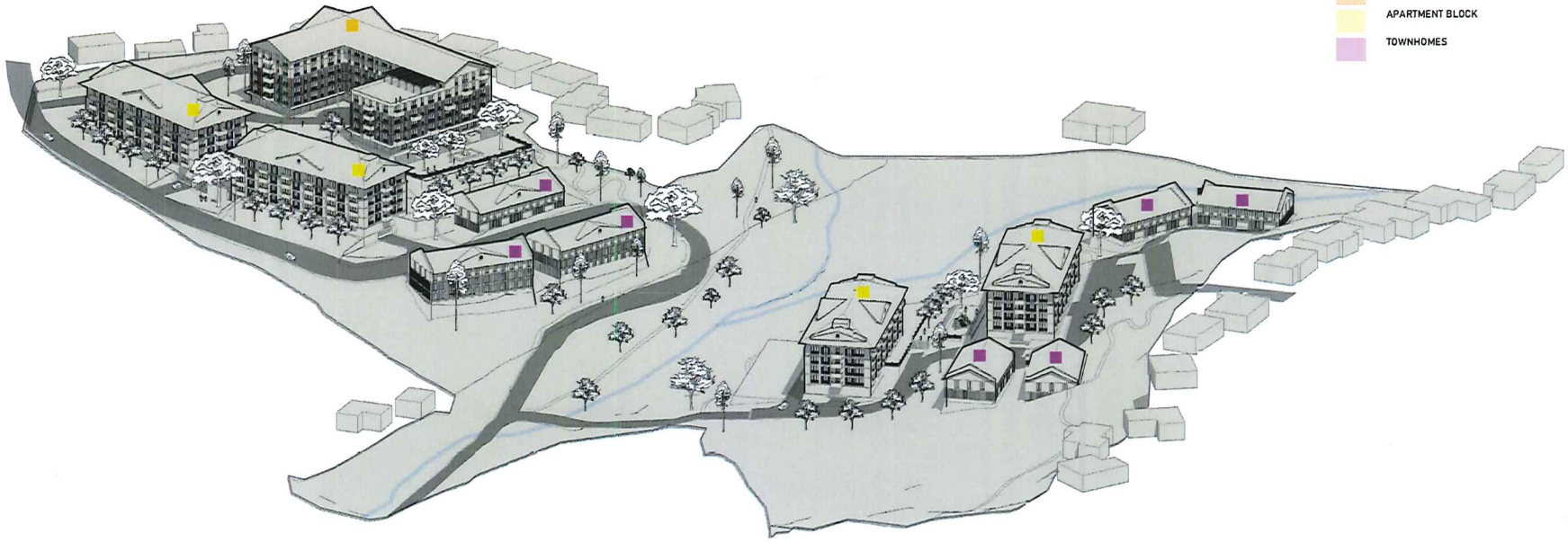
APARTMENT BLOCK B	No.	SF	Total SF
A - STUDIO	6	560	3360
B - 1 BED	18	600	10800
C - 1 BED + DEN	18	700	12600
D - 2 BED	11	900	9900
TOTAL	53		45960

SOUTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	172	141
ACCESSIBLE	8	8
TOTAL	180	149

APARTMENT BLOCK A PARKING LOT	No.	REQ No.
REGULAR	71	78
ACCESSIBLE	4	4
TOTAL	75	82

APARTMENT BLOCK B PARKING LOT	No.	REQ No.
REGULAR	71	78
ACCESSIBLE	4	4
TOTAL	75	82

TOWNHOMES	No.	SF	Total SF
UPPER	4	3000	12000
MID	4	3000	12000
LOWER	6	3000	18000
TOTAL	14		42000



N

NORTH SITE TOTALS	No.	SF	Total SF
ASSISTED LIVING...	140		
APARTMENT C	41		
APARTMENT D	41		
TOWNHOMES	12		
TOTAL	234		

S

SOUTH SITE TOTALS	No.	SF	Total SF
APARTMENT A	53		36660
APARTMENT B	53		45960
TOWNHOMES	14		44000
TOTAL	120		126620

NORTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	229	222
ACCESSIBLE	10	9
LOADING BAY	1	1
TOTAL	240	232

SOUTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	172	141
ACCESSIBLE	8	8
TOTAL	180	149

1/4" = 1'-0"

BGA

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

www.bluegreenarchitecture.com

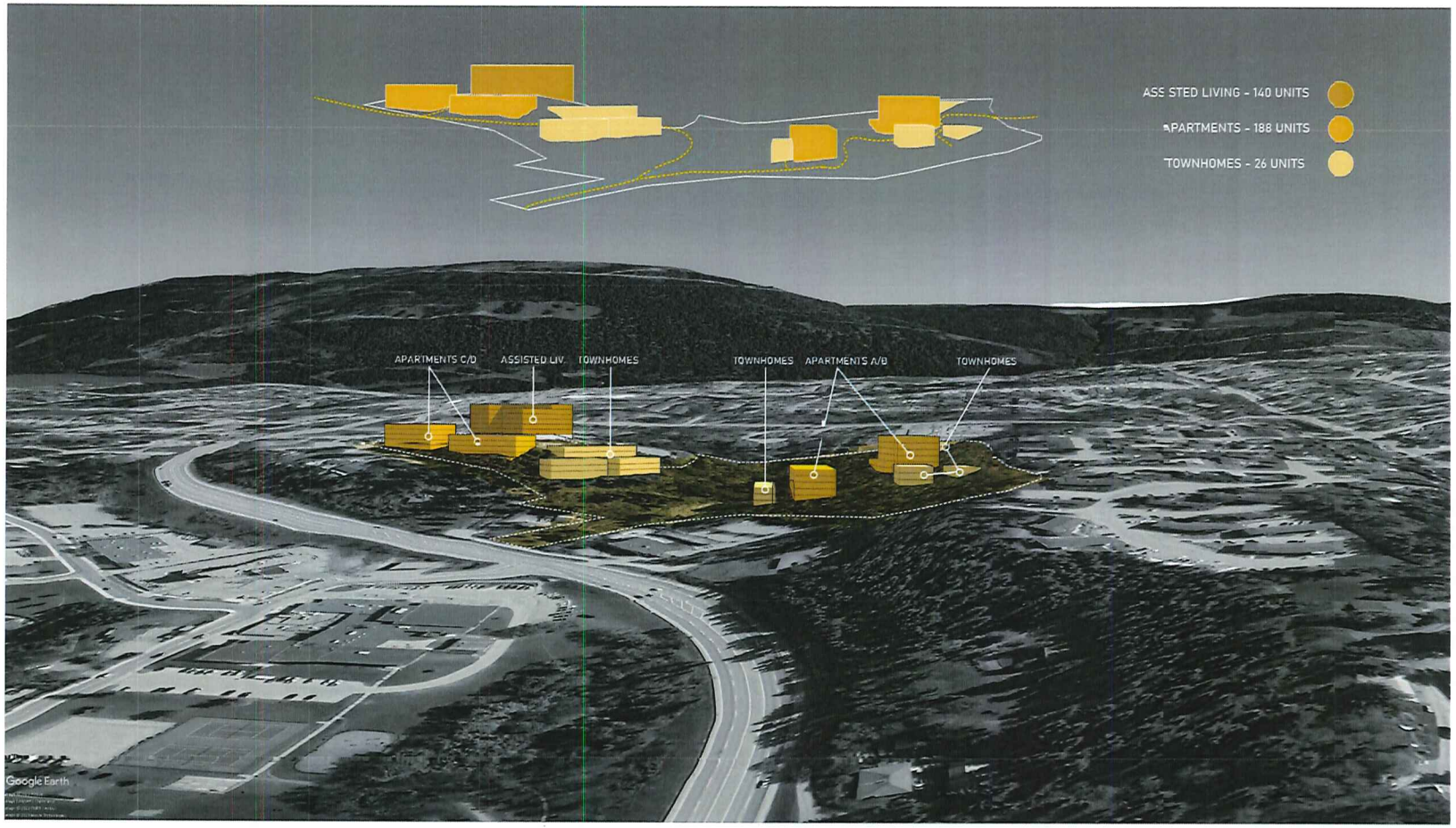
SITE DIAGRAM

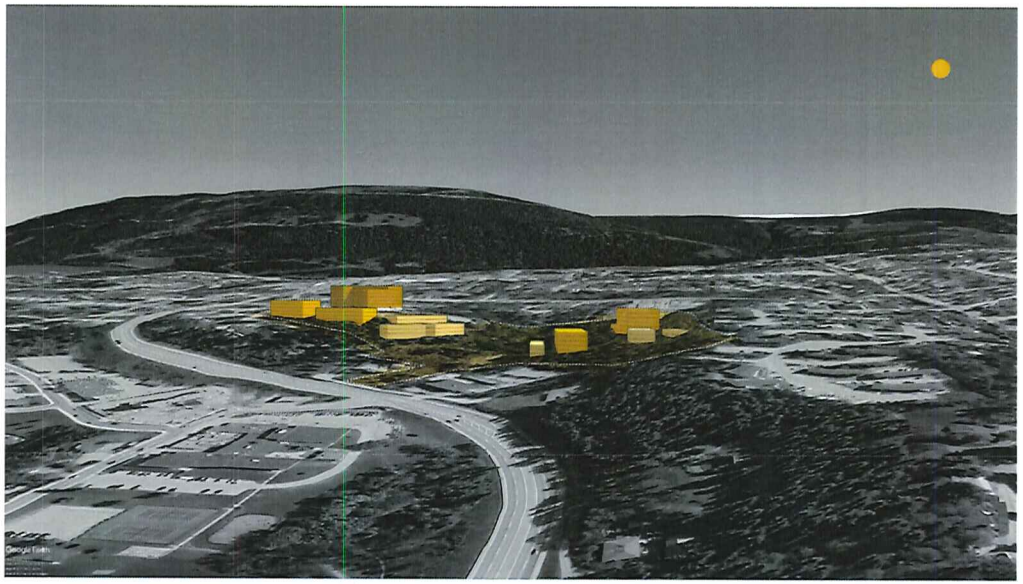
2024 02 01

TURNER CREEK C.P

A-0.4

2024-02-02 3:23:07 PM


ASS STED LIVING - 140 UNITS
APARTMENTS - 188 UNITS
TOWNHOMES - 26 UNITS
APARTMENTS C/D
ASSISTED LIV.
TOWNHOMES
TOWNHOMES
APARTMENTS A/B
TOWNHOMES
Google Earth



Previous site render. General massing on the site.

BGA

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

www.bluegreenarchitecture.com

SITE RENDER

2024 02 01

TURNER CREEK C.P

A-0.11

2024-02-02 3:23:36 PM

1 SITE PLAN - Entire Site
1 : 2000

N

NORTH SITE TOTALS	No.	SF	Total SF
ASSISTED LIVING...	140		
APARTMENT C	41		
APARTMENT D	41		
TOWNHOMES	12		
TOTAL	234		

NORTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	229	222
ACCESSIBLE	10	9
LOADING BAY	1	1
TOTAL	240	232

S

SOUTH SITE TOTALS	No.	SF	Total SF
APARTMENT A	53		36660
APARTMENT B	53		45960
TOWNHOMES	14		44000
TOTAL	120		126620

SOUTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	172	141
ACCESSIBLE	8	8
TOTAL	180	149

BGA

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

www.bluegreenarchitecture.com

TURNER CREEK - PROPOSED SITE PLAN

2024 02 01

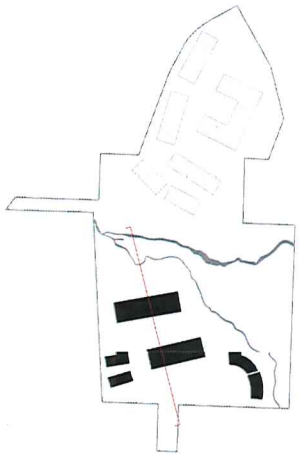
TURNER CREEK C.P

A-1.0

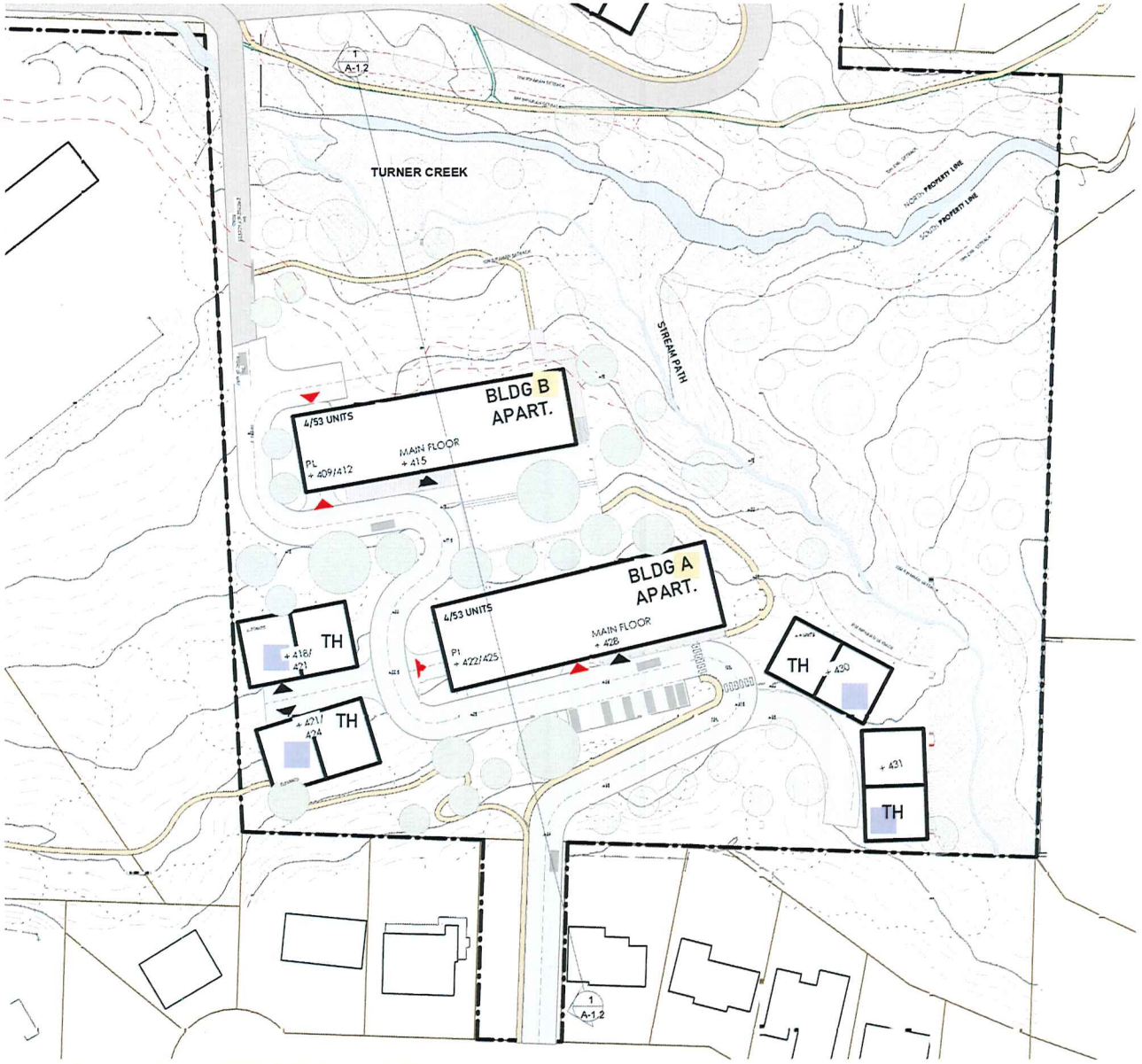
2024-02-02 3:23:42 PM

SOUTH SITE TOTALS	No.	SF	Total SF
APARTMENT A	53		36660
APARTMENT B	53		45960
TOWNHOMES	14		44000
TOTAL	120		126620

SOUTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	172	141
ACCESSIBLE	8	8
TOTAL	180	149



1 SITE PLAN - South
1 : 1000



As indicated

BGA

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

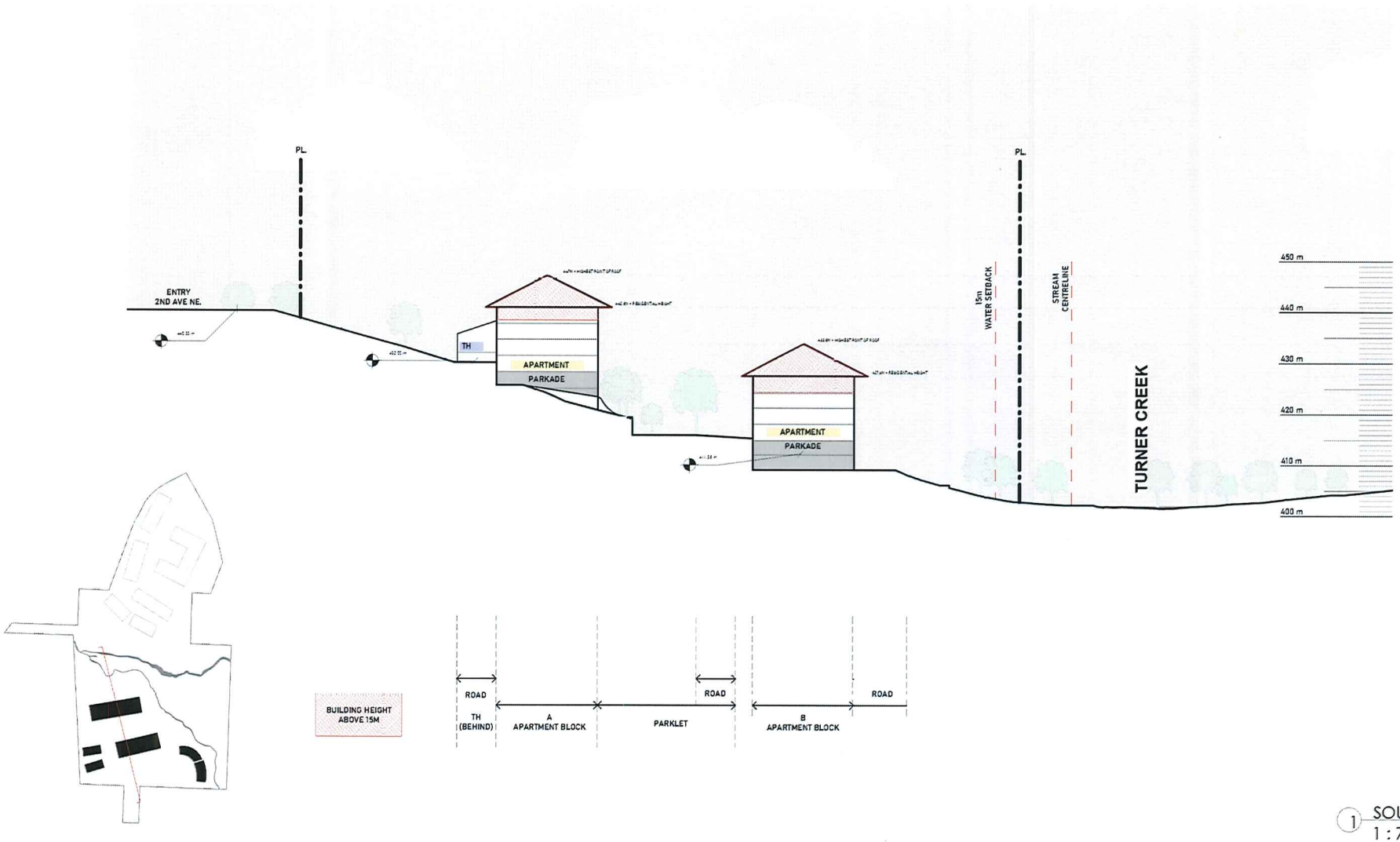
www.bluegreenarchitecture.com

TURNER CREEK - PROPOSED SITE PLAN SOUTH

2024 02 01
TURNER CREEK C.P

A-1.1

2024-02-02 3:23:49 PM



1 SOUTH SECTION
1 : 750

As indicated

BGA

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

www.bluegreenarchitecture.com

SECTION SOUTH SITE

2024 02 01

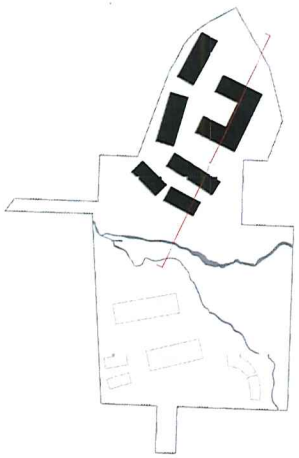
TURNER CREEK C.P

A-1.2

2024-02-02 3:23:51 PM

NORTH SITE TOTALS	No.	SF	Total SF
ASSISTED LIVING...	140		
APARTMENT C	41		
APARTMENT D	41		
TOWNHOMES	12		
TOTAL	234		

NORTH SITE TOTALS PARKING LOT	No.	REQ No.
REGULAR STALLS	229	222
ACCESSIBLE	10	9
LOADING BAY	1	1
TOTAL	240	232



As indicated

BGA

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

www.bluegreenarchitecture.com

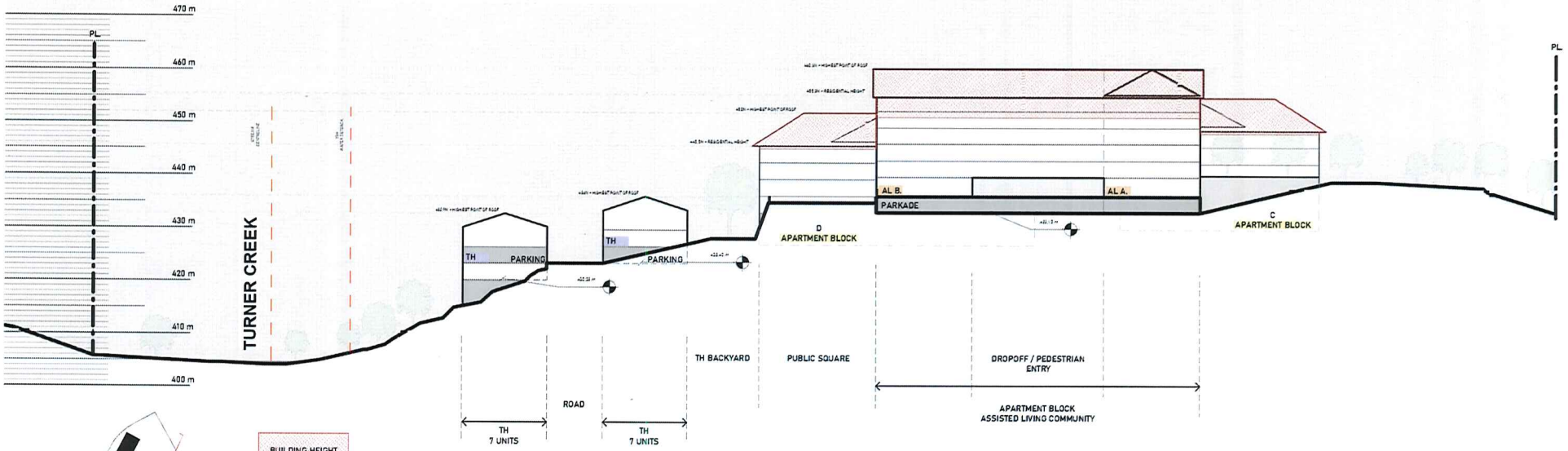
TURNER CREEK - PROPOSED SITE PLAN NORTH

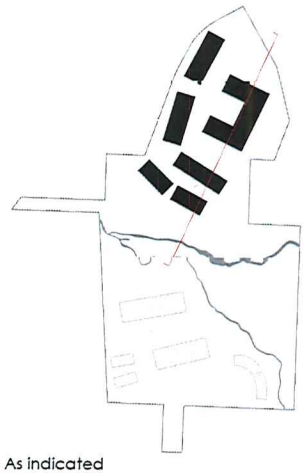
2024 02 01

TURNER CREEK C.P

A-1.3

2024-02-02 3:23:56 PM





2 NORTH SECTION
1 : 750

As indicated

DRAWING SET IS SCALED TO 11X17 SHEET SIZE

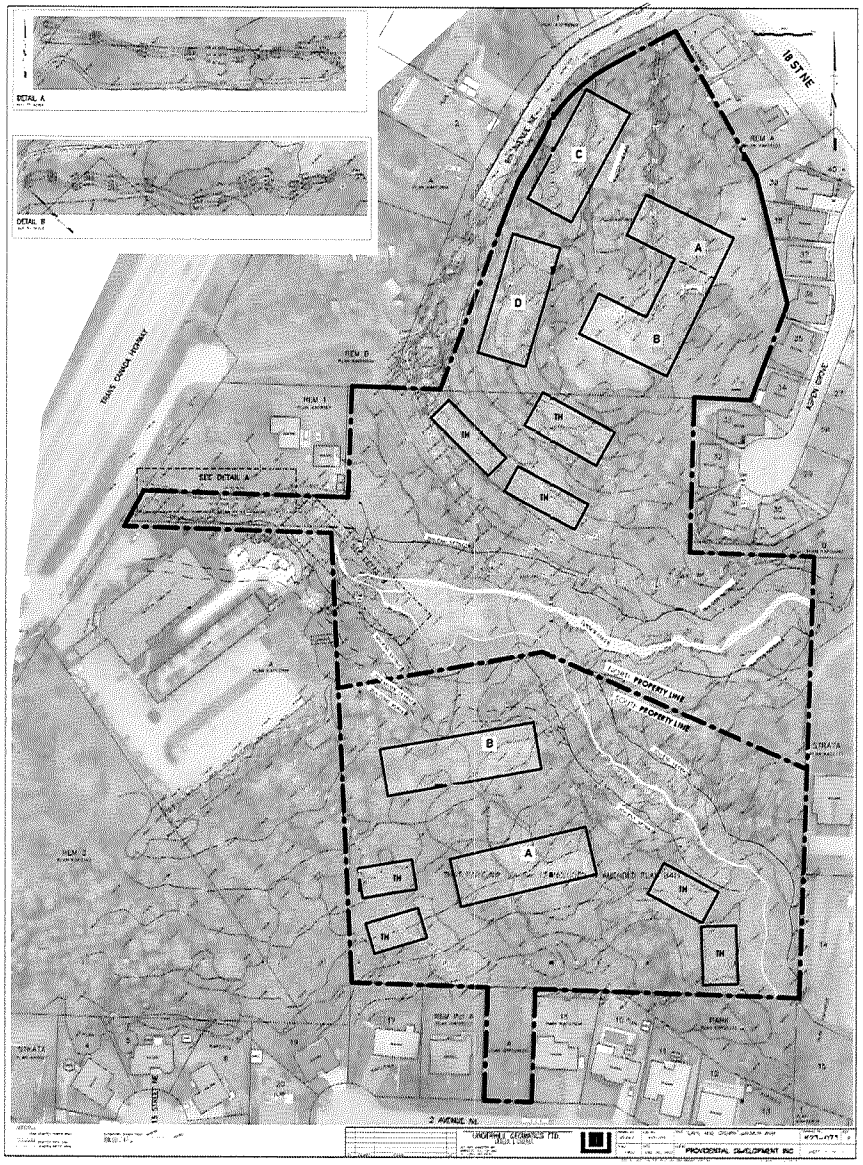
BGA www.bluegreenarchitecture.com

SECTION NORTH SITE

2024 02 01
TURNER CREEK C.P

A-1.4

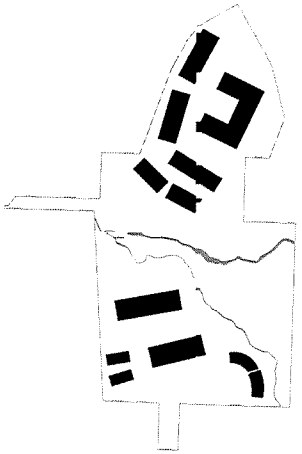
2024-02-02 3:23:58 PM



ASSISTED LIVING BLOCK
APARTMENT BLOCK
TOWNHOMES
WALKING PATHWAYS
MAIN PEDESTRIAN ENTRY(IES)
PARKING GARAGE ENTRY

NORTH SITE
3.45 Hectares
8.52 Acres
245 Units

SOUTH SITE
2.45 Hectares
6.04 Acres
125 Units



1 SITE PLAN - Entire Site - Grade
1 : 2000

SECTION 60 - CD- 22 - COMPREHENSIVE DEVELOPMENT ZONE

Purpose

60.1 The purpose of the CD - 22 Zone is to provide for multiple family dwellings for assisted living and strata units, in row houses, apartment buildings or forms on lands designated in the OCP as medium density.

Regulations

60.2 On a *parcel zoned* CD – 22, no *building* or *structure* shall be constructed, located or altered and no plan of subdivision approved which contravenes the regulations set out in the CD - 22 *Zone* or those regulations contained elsewhere in this Bylaw.

Permitted Uses

60.3 The following uses and no others are permitted in the R-14 *Zone*:

.1 *multiple family dwellings*
.2 *triplexes*
.3 *duplexes*
.4 *assisted living housing* with or without a *dining area*
.5 *secondary suites*
.6 *boarding home*
.7 *commercial daycare facility*
.8 *group childcare*
.9 *family childcare facility*
.10 *home occupation*
.111 *accessory use*

Maximum Height of Principal Buildings

60.4 The maximum *height* of *any principal building* shall be 25 metres (82 ft.).

Maximum Height of Accessory Buildings

60.5 The maximum *height* of any accessory *building* shall be 6 metres (19.7 feet).

Maximum Parcel Coverage

60.6 The total maximum *parcel coverage* for *principal* and *accessory buildings* shall be 55% of the *parcel area*, of which 10% shall be the maximum parcel coverage for *accessory buildings*.

Minimum Parcel Area

60.7

.1 The minimum *parcel area* for a *duplex* shall be 600 square metres (6,458.6 square feet).
.2 The minimum *parcel area* for all other uses shall be 900 square metres (9,687.8 square feet).
.3 *Duplexes, triplexes* and *multiple family dwellings* may be subdivided into strata lots smaller than the preceding provided the *parcel* is comprehensively developed under a single Development Permit.

Minimum Parcel Width

60.8

.1 The minimum *parcel width* shall be 30 metres (98.5 feet).

.2 The minimum *parcel width* for a *duplex parcel* shall be 14 metres (45.9 feet).

.3 Notwithstanding the preceding, *duplexes, triplexes* and *multiple family dwellings* may be subdivided into narrower strata lots provided the *parcel* is comprehensively developed under a single Development Permit.

Minimum Setback of Principal Buildings

60.9 The minimum *setback* of *principal buildings* from the:

.1	*Front parcel line*	
	- adjacent to a *highway* shall be	5.0 metres (16.4 feet)
	- adjacent to an internal *access route* shall be	2.0 metres (6.6 feet)
.2	*Rear parcel line* shall be	5.0 metres (16.4 feet)
.3	*Interior side parcel line*	
	- adjacent to a *parcel zoned* R-14 shall be	1.2 metres (3.9 feet)
	- all other cases shall be	1.8 metres (5.9 feet)
.4	*Exterior side parcel line*	
	- adjacent to a *highway* shall be	5.0 metres (16.4 feet)
	- adjacent to an *access route* shall be	2.0 metres (6.6 feet)

.5 Minimum clear driveway length for accessing any garage or carport shall be 5 metres (16.4 feet).

.6 Minimum separation between residential *buildings* on the same *parcel* of not more than one storey in height shall be 1.5 metres (4.9 feet)

.7 Minimum separation between residential *buildings* on the same *parcel* of more than one storey in height shall be 3 metres (9.8 feet)

Refer to Section 4.9 for "Special Building Setbacks" which may apply.

Minimum Setback of Accessory Buildings

60.10 The minimum *setback* of accessory *buildings* from the:

.1	*Front parcel line* shall be	5.0 metres (16.4 feet)
.2	*Rear parcel line* shall be	1.0 metre (3.3 feet)
.3	*Interior side parcel line* shall be	0.6 metre (1.9 feet)
.4	*Exterior side parcel line* shall be	5.0 metres (16.4 feet)

Refer to "Pound and Animal Control Bylaw" for special setbacks which may apply.

Maximum *Density*

60.11 The maximum permitted *density* based on the gross *parcel* area, shall be as follows:

.1 40 *dwelling units* per hectare (16.2 per acre); or

.2 59 *dwelling units* or *sleeping units* per hectare for *Assisted Living Housing*; and

.3 subject to providing the specified amenity(ies), other than *Assisted Living Housing,* listed in Table 60.1, permitted density may increase as specified up to a maximum of 50 *dwelling units* per hectare (20.2 per acre); and

for the purposes of the CD – 22 Zone, *secondary suites* shall not be included in the calculation of *density*.

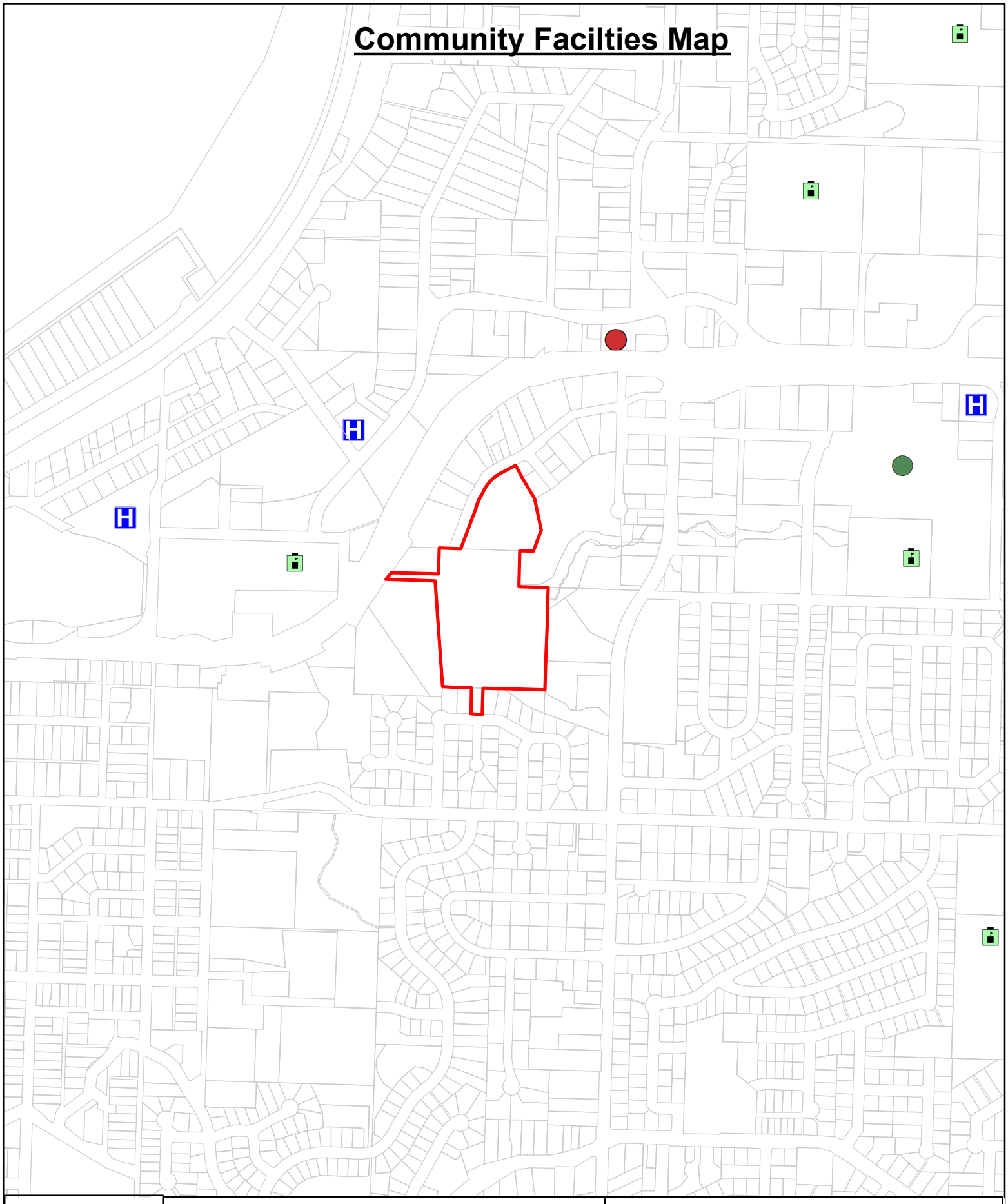
Parking

60.13 Required off-street parking shall be as prescribed in Appendix I.

TABLE 60.1

AMENITY TO BE PROVIDED	ADDED DENSITY
1. Provision of each fully accessible dwelling unit (e.g. wheelchair access)	□ 2 units per hectare (0.8 units per acre)
2. Provision of *commercial daycare facility* 7 to 10 children 11 to 15 children 16 or more children	□ 3 units per hectare (1.2 units per acre) □ 4 units per hectare (1.6 units per acre) □ 7 units per hectare (2.8 units per acre)
2. Provision of below *grade* parking for at least 50% of the required off street parking	□ 10 units per hectare (4.0 units per acre)
3. Provision of each rental *dwelling unit*	□ 2 units per hectare (0.8 units per acre)
4. Provision of affordable rental *dwelling units* in accordance with special agreement under s. 483 of the Local Government Act	□ 5 units per hectare (2.0 units per acre)

Community Facilties Map



CITY OF SALMON ARM

Memorandum from the Engineering and Public Works Department

TO:	Gary Buxton, Director of Planning
DATE:	April 19, 2024
PREPARED BY:	Chris Moore, Engineering Assistant
APPLICANT:	**Providential Developments Inc**
SUBJECT:	**SUBDIVISION APPLICATION NO. 24.01 & ZON 1283**
LEGAL:	That Part of North West 1/4, 13-20-10, PlanB411, W6M, KDYD Except Plans B730, B723, 3343, 4484, 7905, 8357, 10782 And 13709 and Lot 1, 13-20-10, W6M, KDYD, Plan KAP46907 and Lot A, 13-20-10, W6M, KDYD, Plan EPP124656
CIVIC:	**1730 - 9 Avenue NE & 1470 TCH NE & 1671 2 Avenue NE**

Further to your referral dated 10 March, 2024, we provide the following servicing information.

As a condition of rezoning the Owner / Developer shall undertake a Traffic Impact Assessment (TIA). This shall include a Traffic Generation Analysis based on the highest and best use for the proposed zoning. Recommendations from the TIA may result in additional road improvement requirements. Prior to completion of rezoning a covenant shall be registered on title specifying that the requirements of the TIA are to be fulfilled prior to any further development.

The following comments and servicing requirements are not conditions for Rezoning; however, these comments are provided as a courtesy in advance of any development proceeding to the next stages:

Comments are based on the Subdivision/Development as proposed in the referral. If the development plans for the property change significantly, comments below may change

General:

1. Full municipal services are required as noted herein. Owner / Developer to comply fully with the requirements of the Subdivision and Development Services Bylaw No 4293. Notwithstanding the comments contained in this referral, it is the applicant's responsibility to ensure these standards are met.

2. Comments provided below reflect the best available information. Detailed engineering data, or other information not available at this time, may change the contents of these comments.

3. Properties shall have all necessary public infrastructure installed to ensure properties can be serviced with underground electrical and telecommunication wiring upon development.

4. Property under the control and jurisdiction of the municipality shall be reinstated to City satisfaction.

5. Owner / Developer will be responsible for all costs incurred by the City of Salmon Arm during construction and inspections. This amount may be required prior to construction. Contact City Engineering Department for further clarification.

6. Erosion and Sediment Control (ESC) measures will be required prior to the commencement of construction including vegetation removal. ESC plans to be approved by the City of Salmon Arm.

7. At the time of subdivision / building permit the applicant will be required to submit for City review and approval a detailed site servicing / lot grading plan for all on-site (private) work. This plan will show such items as parking lot design, underground utility locations, pipe sizes, pipe elevations, pipe grades, catchbasin(s), control/containment of surface water, contours (as required), lot/corner elevations, impact on adjacent properties, etc.

8. For the on-site development, prior to commencement the applicant will be required to submit to the City for review and approval detailed engineering plans in accordance with the requirements of the Subdivision and Development Servicing bylaw 4293. These plans must be prepared by a qualified professional engineer. As a condition of final subdivision approval, the applicant will be required to deposit with the City for a period of 1 year, funds equaling 10% of the estimated cost for all works that are to be transferred to the City.

9. For the off-site improvements at the time of subdivision / building permit the applicant will be required to submit for City review and approval detailed engineered plans for all off-site construction work. These plans must be prepared by a qualified engineer. As a condition of subdivision / building permit approval, the applicant will be required to deposit with the City funds equaling 125% of the estimated cost for all off-site construction work.

Roads / Access:

1. 9 Avenue NE, on the subject property's northern boundary, is designated as an Urban Local Road standard, requiring 20.0m road dedication (10.0m on either side of road centerline). Available records indicate that no additional road dedication is required (to be confirmed by a BCLS). However, a cul-de-sac is required at the south end of 9 Avenue NE and additional dedication will be required to accommodate the cul-de-sac.

2. 9 Avenue NE is currently constructed to an Interim Local Road standard. Upgrading to an Urban Local Road standard across the frontage of the subject property is required, in accordance with Specification Drawing No. RD-2. Upgrading may include, but is not limited to, road widening and construction, curb & gutter, sidewalk, boulevard construction, street lighting, fire hydrants, street drainage and hydro and telecommunications.

3. Construction of a cul-de-sac at the south end of 9 Avenue NE in accordance with Specification Drawing No. RD-11 will be required. Since the cul-de-sac length already exceeds 160m, construction of an emergency access link to TCH NE (Service Road), (as shown on the development plans) shall be required, prior to occupancy of any dwellings. The emergency access shall comply with the requirements of Policy 3.11, shall be owned and maintained by the owner / future strata and shall have a statutory right of way for access in favor of the City. Owner / Developer is responsible for all associated costs.

4. TCH NE (Service Road), on the subject property's western boundary, is designated as an Urban Local Road standard, requiring 20.0m road dedication (10.0m on either side of road

centerline). Available records indicate that no additional road dedication is required (to be confirmed by a BCLS).

5. TCH NE (Service Road) is currently constructed to an Interim Local Road standard. Upgrading to an Urban Local Road standard across the frontage of the subject property is required, in accordance with Specification Drawing No. RD-2. Upgrading may include, but is not limited to, curb & gutter, sidewalk, boulevard construction and street lighting. Owner / Developer is responsible for all associated costs.

6. Access onto TCH NE (Service Road) may be restricted to emergency vehicles and active transportation users only, subject to comments from MOTI and shall be included in the Traffic Impact Assessment. Owner / Developer is responsible for all associated costs including any required improvements identified in the TIA.

7. 2 Avenue NE, on the subject property's southern boundary, is designated as an Urban Local Road standard, requiring 20.0m road dedication (10.0m on either side of road centerline). Available records indicate that no additional road dedication is required (to be confirmed by a BCLS).

8. 2 Avenue NE is currently constructed to an Interim Local Road standard. Upgrading to the current Urban Local Road standard is required, in accordance with Specification Drawing No. RD-2. Upgrading may include, but is not limited to curb & gutter, sidewalk, boulevard construction and street lighting. Owner / Developer is responsible for all associated costs.

9. Owner / Developer is responsible for ensuring all boulevards and driveways are graded at 2.0% towards the existing roadway.

10. Internal roadways are to be a minimum of 7.3m measured from face of curb. Truck turning movements shall be properly analysed to ensure internal road network will allow emergency and service vehicle access and shall conform to the requirements of Policy 3.11.

11. Construction and dedication of greenways / trails will be required as per the City's Greenways Strategy. Additional dedication of the Turner Creek watershed may also be required including all Riparian Areas Protection Regulation (RAPR) areas.

Water:

1. The subject property fronts a 100mm diameter Zone 2 watermain on 9 Avenue NE, a 150mm diameter Zone 2 watermain on 2 Avenue NE and a 200mm diameter Zone 1 watermain on TCH NE (Service Road). Upgrading the watermain on 9 Avenue NE to 200mm diameter across the frontage of the property is required.

2. Since high density developments require minimum 200mm diameter watermains, the Owner / Developer's authorized engineer is to complete a flow test on the closest fire hydrants to confirm that the existing watermains on 9 Avenue NE and 2 Avenue NE servicing the property are adequately sized to provide fire flows in accordance with the requirements of the

Subdivision and Development Servicing Bylaw No 4293. Offsite upgrades may be required in order to achieve the required fire flows for development

3. Looping of the Zone 2 municipal watermain between 9 Avenue NE and 2 Avenue NE will be required, including statutory right of ways for access and maintenance.

4. Records indicate that 1730 9 Avenue NE is serviced by a service of unknown size from the 100mm diameter watermain on 9 Avenue NE. 1470 TCH NE and 1671 2 Avenue NE are unserviced. All existing inadequate / unused services must be abandoned at the main. Owner / Developer is responsible for all associated costs.

5. All proposed lots are to be serviced by a single metered water service connection (as per Specification Drawing No. W-10), adequately sized to satisfy the proposed use (minimum 25mm). Water meter will be supplied by the City at the time of building permit, at the Owner / Developer's cost. Owner / Developer is responsible for all associated costs. Bare Land Strata developments with ground oriented access have the option of a bulk water meter installed at property line at time of subdivision with invoicing to the Strata Corporation or individual strata lot metering with invoicing to each strata lot (currently on an annual flat rate). To qualify for the second option each unit requires a separate outside water service shut-off connected to the onsite private water main. Contact Engineering Department for more information. All meters will be provided at time of building permit by the City, at the owner/developers cost.

6. Fire hydrant installation will be required. Owners consulting Engineer shall review the site to ensure placement of fire hydrants meet the high density spacing requirements of 90m.

7. Fire protection requirements to be confirmed with the Building Department and Fire Department.

Sanitary:

1. The subject property fronts a 200mm diameter sanitary sewer on the south and west property lines of 1470 TCH NE. Subject to item 3, no upgrades will be required at this time, however additional right of way will be required to provide a total of 6m width.

2. All proposed lots are each to be serviced by a single sanitary service connection adequately sized (minimum 100mm diameter) to satisfy the servicing requirements of the development. Owner / Developer is responsible for all associated costs.

3. The sanitary sewer has identified downstream capacity concerns according to the City Sanitary Study (Urban Systems 2016). Owner / Developer's engineer will be required to prove that there is sufficient downstream capacity within the existing City Sanitary System to receive the proposed discharge from the development or recommend upgrades. Owner / Developer is responsible for all associated costs; however, may be entitled to DCC credits if upgrades are considered excess or extended.

4. Records indicate that 1730 9 Avenue NE is currently serviced by a septic field. Decommissioning of the septic field, in accordance with building departments requirements

will be a condition of the subdivision. 1470 TCH NE and 1671 2 Avenue NE are unserviced. Owner / Developer responsible for all associated costs.

Drainage:

1. The subject property fronts a 750mm and 375mm diameter storm sewer which terminates at the frontage of the property on TCH NE (Service Road), into which the Turner Creek discharges, and a 200mm diameter storm sewer on 2 Avenue NE. No upgrades are anticipated at this time.

2. None of the subject properties are currently serviced with City storm.

3. Right of Ways may be required for natural drainage features to the extents of the RAPR approved extents.

4. An Integrated Stormwater Management Plan (ISMP) conforming to the requirements of the Subdivision and Development Servicing Bylaw No. 4163, Schedule B, Part 1, Section 7 shall be provided.

5. Where onsite disposal of stormwater is recommended by the ISMP, an "Alternative Stormwater System" shall be provided in accordance with Section 7.2.

6. Where discharge into the Municipal Stormwater Collection System is recommended by the ISMP, this shall be in accordance with Section 7.3. The proposed parcel(s) shall be serviced (each) by a single storm service connection adequately sized (minimum 150mm) to satisfy the servicing requirements of the development. Owner / Developer's engineer may be required to prove that there is sufficient downstream capacity within the existing City Storm System to receive the proposed discharge from the development. Owner / Developer is responsible for all associated costs.

7. Where discharge into the Turner Creek is recommended, this shall be in accordance with Section 7.16.6 and shall be subject to RAPR approvals.

Geotechnical:

1. A geotechnical report in accordance with the Engineering Departments Geotechnical Study Terms of Reference for: Category A (Building Foundation Design), Category B (Pavement Structural Design), Category C (Landslide Assessment), is required.

Chris Moore
Engineering Assistant

Jenn Wilson P.Eng.
City Engineer

Your File #: ZON-1283 / SUB-24.01
eDAS File #: 2024-01912
Date: July/30/2024

Providential Developments Inc.;
c/o City of Salmon Arm
500 2nd Avenue NE
PO Box 40
Salmon Arm, BC V1E 4N2
Canada

Re: Proposed Bylaw for:
(1) 1730 9 Avenue NE or Lot 1, 13-20-10 W6M, KDYD Plan KAP46907,
(2) 1671 2 Avenue NE or Lot A, 13-20-10 W6M, KDYD Plan EPP124656 and
(3) 1470 Trans Canada Highway NE or PID 014-073-951 That Part of North West 1/4 13-20-10 Plan B411; W6M, KDYD Except Plans B723, B730, 3343, 4484, 7905, 8357, 10782 AND 13709 Parcel 16 Shown on Plan A1064 PLAN KAP54125

Thank you for the additional information to rezone the subject properties from R1 Single Family Residential Zone and R4 Medium Density Residential Zone to CD-22 Comprehensive Development.

The Ministry supports residential development of the subject properties with all accesses off the municipal roads, 9th Ave NE and 2nd Ave NE. The Ministry does not support development vehicular access to the TCH Frontage Road. However, with the additional information provided, the Ministry will accept a municipal emergency access to the TCH frontage road which must be gated, locked and only accessible to the municipality.

Preliminary Approval is granted for the rezoning for one year pursuant to section 52(3)(a) of the *Transportation Act*, subject to the following conditions:

Provision of a suitably worded covenant to restrict vehicle direct access to Trans Canada Highway frontage road, except for a municipal emergency access which must be gated, locked and only accessible to the municipality and the municipal emergency services. Registerable under Section 219 of the Land Title Act in favour of the City of Salmon Arm and His Majesty The King in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, Parliament Buildings, Victoria, BC, V8V 1X4, Canada. Covenant to be registered on property PID 014-073-951 with priority over any financial charges. It is recommended you submit a draft version of the document to the ministry before

Local District Address
Salmon Arm Area Office Bag 100 Stn Main 850C 16th Street NE Salmon Arm, BC V1E 4S4 Canada Phone: (250) 712-3660 Email: ds.salmonarm@gov.bc.ca

obtaining signatures from landowners and affected charge holders to ensure suitability of the document. Please include indemnity and release clauses, samples attached.

If the applicant is proposing a municipal subdivision involving the property PID 014-073-951, submission of a municipal subdivision application to our office will be required.

If you have any questions please feel free to call Tara Knight at (778) 824-0043.

Yours truly,

Tara Knight
Development Officer

Attached: Sample Indemnity and release clauses

CITY OF SALMONARM

REQUEST FOR DECISION

To: Development & Planning Services Committee

From: Planner ll

Title: Zoning Bylaw Amendment Application No. 1293

Legal:	Lot A, Section 10, Township 20, Range 10, W6M, KDYD, Plan 22795, Except Plans 25227, EPP72884, and EPP81913 Parcel A (Plan B6455) of Lot 12, Section 10, Township 20, Range 10, W6M, KDYD, Plan 481, Except Plans KAP61466 and EPP69793
Civic:	2270 10 Avenue SW and 2220 10 Avenue SW
Owner:	546531 BC Ltd.
Agent:	D. Blackburn

Date: October 21, 2024

Executive Summary/Purpose:
To rezone the north portion of 2270 10 Avenue SW from A-1 (Agriculture) to C-3 (Service Commercial) and 2220 10 Avenue SW from C-5 (Tourist Commercial) to C-3 (Service Commercial).

Motion for Consideration:

THAT: a bylaw be prepared for Council's consideration, adoption of which would amend Zoning Bylaw No. 2303 by rezoning the north portion of Lot A, Section 10, Township 20, Range 10, W6M, KDYD, Plan 22795, Except Plans 25227, EPP72884, and EPP81913 from A-1 (Agriculture Zone) to C-3 (Service Commercial Zone) and the entire parcel of Parcel A (Plan B6455) of Lot 12, Section 10, Township 20, Range 10, W6M, KDYD, Plan 481, Except Plans KAP61466 and EPP69793 from C-5 (Tourist Commercial Zone) to C-3 (Service Commercial Zone) as per Appendix 8 in the Staff Report dated October 21, 2024.

AND THAT: final reading of the zoning amendment bylaw be withheld subject to Ministry of Transportation and Infrastructure approval.

Staff Recommendation:

THAT: The Motion for Consideration be adopted.

Proposal:
The proposal is to rezone the north portion of 2270 10 Avenue SW from A-1 (Agriculture) to C-3 (Service Commercial) and the entire parcel at 2220 10 Avenue SW from C-5 (Tourist Commercial) to C-3 (Service Commercial) as shown in Appendix 8.

Background:
The subject properties are located at 2270 and 2220 10 Avenue SW, south of the Trans Canada Highway and west of Westgate Public Market (Appendices 1, 2 & 3). The property at 2270 is split-designated Highway Service/Tourist Commercial (HC) and Salmon Valley Agriculture (SVA) and the property at 2220 is designated Highway Service/Tourist Commercial (HC) in the City's Official Community Plan (OCP). The property at 2270 is zoned A-1 (Agriculture) and the property at 2220 is zoned C-5 (Tourist Commercial) in the Zoning Bylaw (Appendices 4 & 5).

The applicant is seeking to rezone the parcels along the Highway Service/Tourist Commercial OCP designation to the C-3 (Service Commercial) Zone to be consistent with existing uses on the parcels. Since there is outside storage of equipment (and as per section 17.10 of Zoning Bylaw No. 2303), outside storage shall be screened as per Appendix III of Zoning Bylaw No. 2303 (Appendix 6). The south portion of the property at 2270 is in the Agricultural Land Reserve (ALR) (Appendix 7), however this portion is to remain zoned A-1 (Agriculture). Screening and landscaping as per the Agricultural Land Commission (ALC) guidelines for development adjacent to ALR lands will be required at time of Development Permit.

Adjacent land uses include the following:

North:	10 Avenue SW & Trans Canada Highway	Zoned A-1 & C-3
South:	Agriculture	Zoned A-1 (ALR)
East:	Westgate Public Market & Agriculture	Zoned C-3 & A-1 (ALR)
West:	Vacant & Agriculture	Zoned C-3/C-4 & C-3/A-1 (ALR)

The property at 2220 is approximately 0.310 ha (0.766 ac) in area and the portion of the property at 2270 proposed to be rezoned is approximately 0.762 ha (1.883 ac). A site plan indicating which areas are proposed to be rezoned is attached as Appendix 8. Site photos are attached as Appendix 9.

Relevant Policies:
Rezoning the properties to the C-3 Zone is supported by the OCP based on the properties' current Highway Service/Tourist Commercial (HC) OCP designation.

This rezoning proposal is consistent with the following OCP policies:

a. "Continue to support the development, redevelopment, and infilling of City Centre and Highway Service/Tourist Commercial designated lands along the Trans Canada Highway between 30 Street SW and 30 Street NE as the primary commercial areas in the City" (9.3.1).
b. "Encourage land uses in the Highway Service/Tourist Commercial area which are distinguished by an orientation toward access by vehicular traffic. Uses included are automotive services, tourist accommodation, entertainment and recreational tourist services, minor repair, retail commercial warehousing, retail and food outlets, and upper floor dwelling units" (9.3.15).

c. “Commercial Corridor West of City Centre to 30 Street SW – The Highway Service/Tourist Commercial area on the west side of the City Centre is oriented toward vehicle service and retail warehousing uses. Activities have relatively low site coverage (e.g. automotive and recreation vehicle sales, large buildings and associated parking lots). This area serves the needs of the community and region” (9.3.18 a).

Referral Comments:

Fire Department
No Fire Dept. concerns.

Building Department
N/A

Engineering Department
In the event that the two lots are consolidated, only a single access on 10 Avenue SW and one set of services (water. sanitary and storm services) will be permitted.

Planning Department
The purpose of the C-3 Zone (Appendix 10) is to accommodate commercial uses which are oriented towards vehicular traffic and require large areas of land for storage and/or display purposes and/or to accommodate large buildings. Some of the existing buildings do not meet the requirements of the C-3 Zone (setbacks, building height, and permitted uses) and would therefore become non-conforming through the rezoning process. The owners have acknowledged this non-conformity and are aware that no development or subdivision can occur before the non-conformity is addressed (Appendix 11).

The applicant has not indicated the desire to add any new buildings or structures to the site and it is expected that the rezoning will be the extent of development at this stage. However, any future site (re)development would require the issuance of a Development Permit, at which time siting and building, massing, landscape and screening, as well as access, circulation and parking requirements would be addressed in more detail.

Staff support the rezoning of the subject properties from A-1 (Agriculture Zone) and C-5 (Tourist Commercial Zone) to C-3 (Service Commercial Zone).

Financial Considerations:
None.

Committee Recommendations:
N/A

Public Consultation:
Pursuant to the *Local Government Act* and City of Salmon Arm Zoning Bylaw notices are mailed to land owners within a 30 m radius of the application. Newspaper ads are placed in two editions of the local paper in advance of the Statutory Public Hearing. The notices outline the proposal and advises those with an interest in the proposal to provide written submission prior to the Statutory Public Hearing and information regarding attending the Hearing. The applicant must post a Notice of Development/Rezoning sign on the subject property at least 10 days prior to the

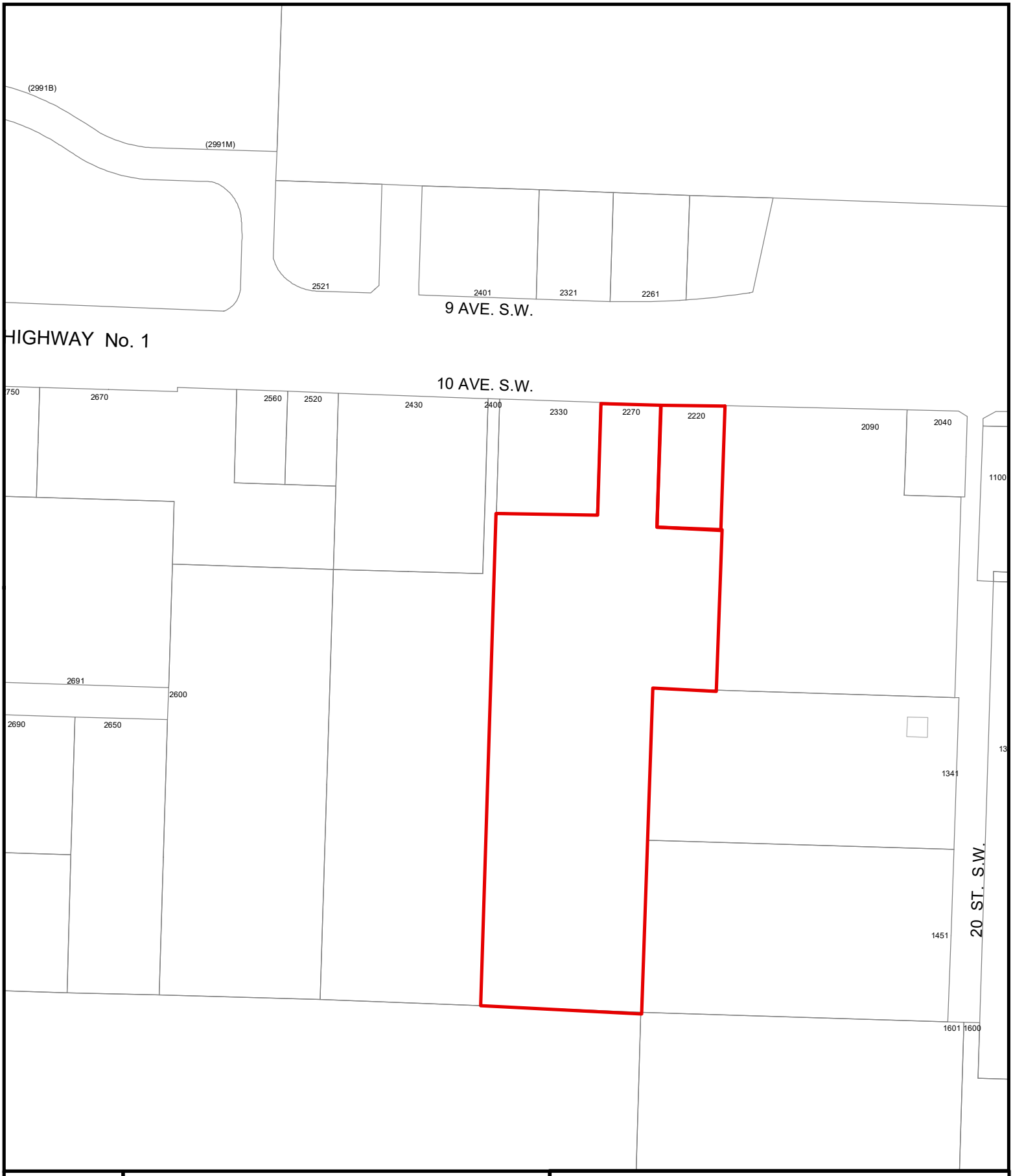
Statutory Public Hearing. It is expected that the Hearing for this application will be held on November 12, 2024.

Alternatives & Implications:
N/A

Prepared by: Planner ll
Reviewed by: Manager of Planning & Building
Reviewed by: Director of Planning & Community Services
Approved by: Chief Administrative Officer

Attachments:

- Appendix 1 – Location Map
- Appendix 2 – Ortho Map
- Appendix 3 – Subject Properties
- Appendix 4 – OCP Map
- Appendix 5 – Zoning Map
- Appendix 6 – Zoning Bylaw No. 2303 Appendix lll
- Appendix 7 – ALR Boundary Map
- Appendix 8 – Site Plan
- Appendix 9 – Site Photos
- Appendix 10 – C-3 Zone
- Appendix 11 – Letter


(2991B)
(2991M)
2521
2401
2321
2261
9 AVE. S.W.
HIGHWAY No. 1
10 AVE. S.W.
750
2670
2560
2520
2430
2400
2330
2270
2220
2090
2040
1100
2691
2600
2690
2650
1341
1451
20 ST. S.W.
1601
1600
N
0 25 50 100 150
Meters
Parcels
Subject Parcels

N

0 25 50 100 150
Meters

Parcels

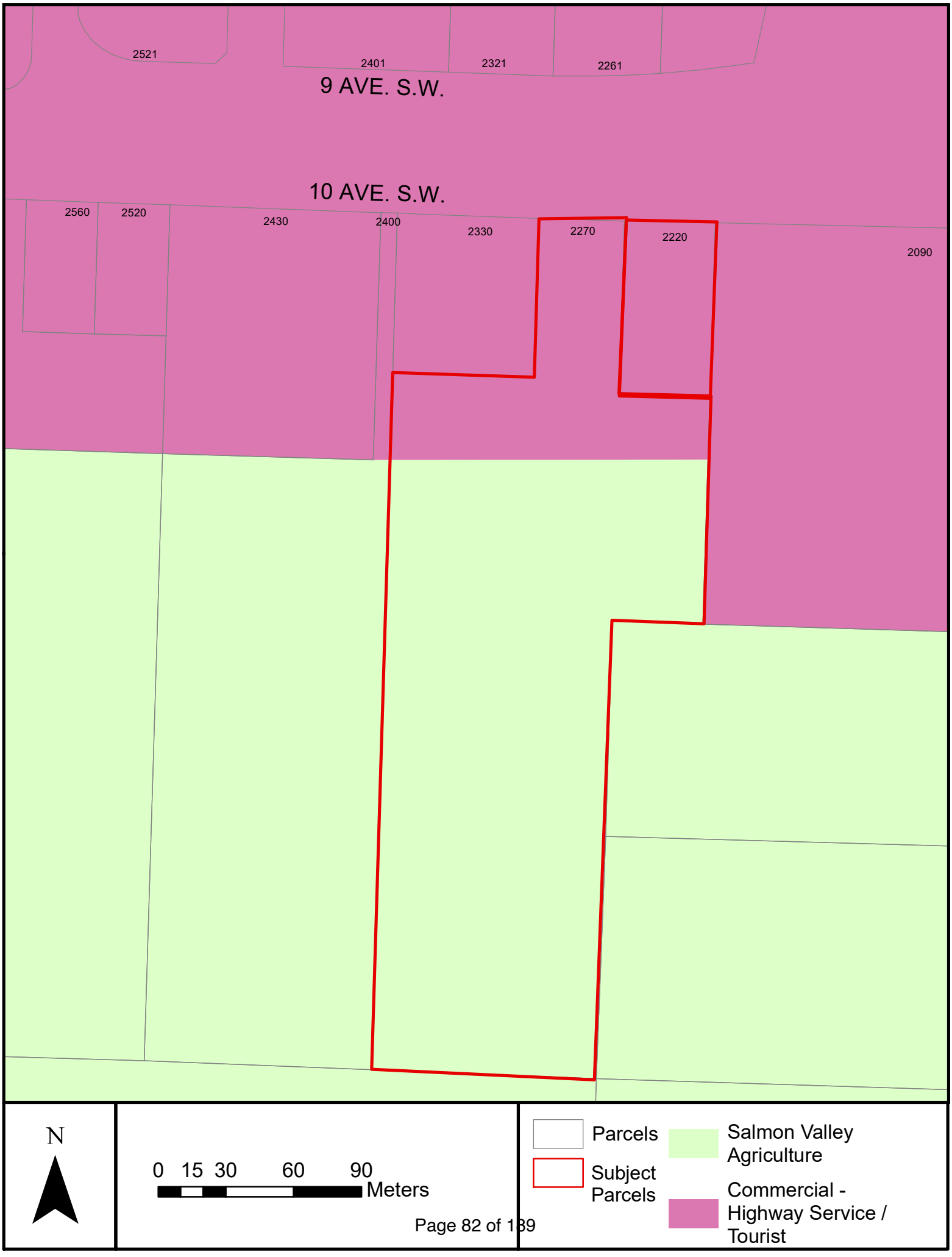
Subject Parcels

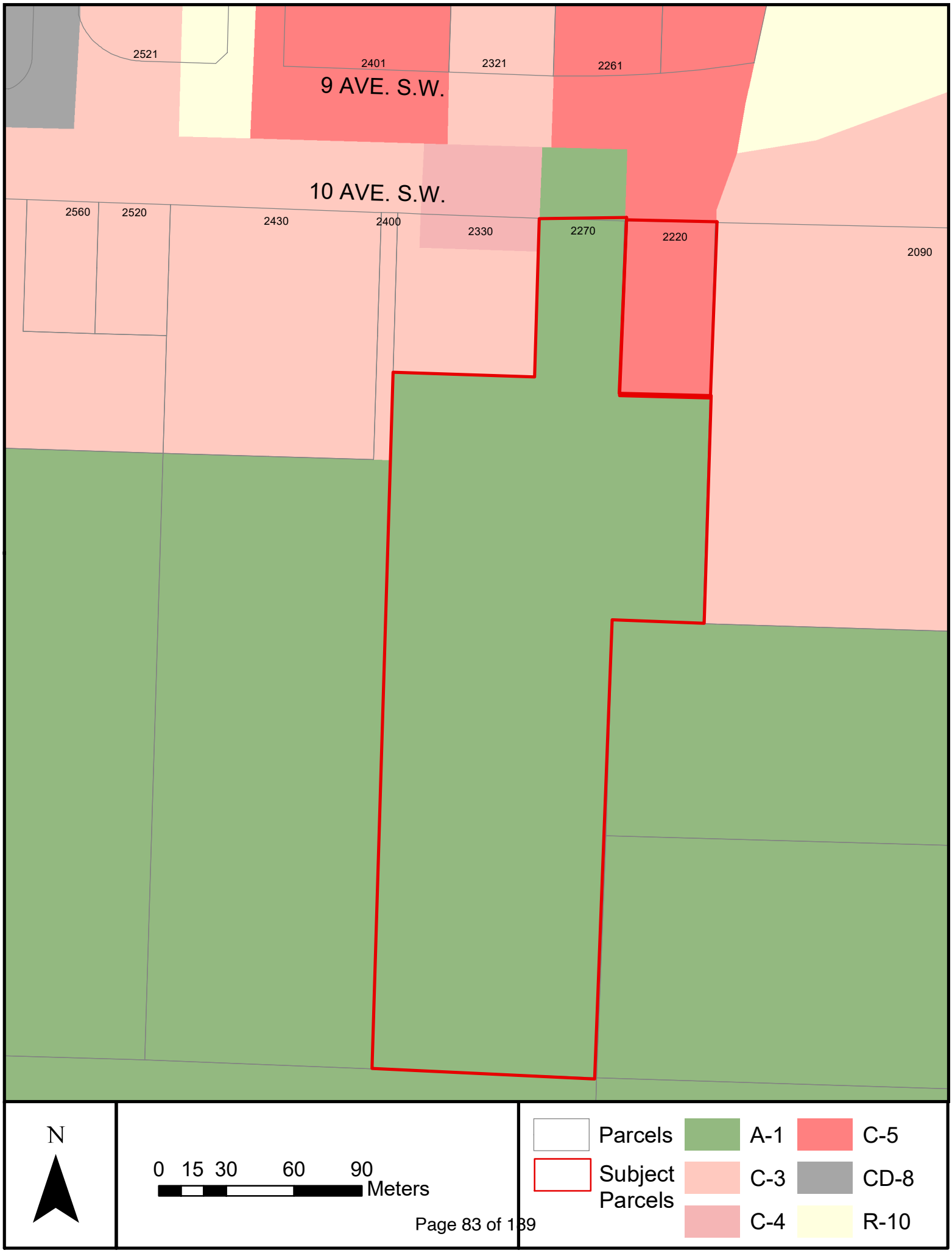
N

0 15 30 60 90
Meters

Parcels

Subject Parcels


2521
2401
2321
2261
9 AVE. S.W.
10 AVE. S.W.
2560
2520
2430
2400
2330
2270
2220
2090
N
0 15 30 60 90
Meters
Parcels
Subject Parcels
Salmon Valley Agriculture
Commercial - Highway Service / Tourist


2521
2401
2321
2261
9 AVE. S.W.
10 AVE. S.W.
2560
2520
2430
2400
2330
2270
2220
2090
N
0 15 30 60 90
Meters
Parcels
Subject Parcels
A-1
C-3
C-4
C-5
CD-8
R-10

APPENDIX III - SCREENING AND LANDSCAPING REQUIREMENTS

1. Screening

All storage yards shall be completely screened from public view and adjacent properties. Screening fence heights shall be not less than 2.0 metres (6.5 feet) nor greater than 2.4 metres (8.0 feet).

Forms of acceptable screening are as follows:

.1 A uniformly painted solid wall fence of uniform height;

.2 Walls of concrete block, masonry custom units, or buildings located adjacent to a property line.

.3 Chain link fencing with mature evergreen tree hedge planted on-site adjacent to fencing to block view of the top of the chain link fence.

2. Landscaping

In conjunction with the provision of screening, continuous landscaping shall be provided, except that chain link fencing with solid evergreen hedge, shall satisfy the landscaping requirement.

.1 Where solid wall fencing is used fronting a highway, such fencing is to be set back a minimum of 1.5 metres (4.9 feet) to accommodate landscaping.

.2 Landscaping shall comprise any of the following combinations: trees, trees and ground cover; raised earth berms with trees and ground cover.

.3 Minimum calliper of trees shall be 6.5 cm (2.5 inches).

.4 To assist with control of the codling moth, the planting of codling moth host trees, including all apples and crab apples (Malus spp.), all pears (Pyrus spp.), quince (Cyclondia oblonga) and flowing quince or japonica (Chaenomeles japonica) is discouraged on all developments, excluding commercial orchards. #2843


2521
2401
2321
2261
9 AVE. S.W.
10 AVE. S.W.
2560
2520
2430
2400
2330
2270
2220
2090
N
0 15 30 60 90
Meters
Parcels
ALR
Subject Parcels

Sketch Plan of Areas of
Lot A, Plan 22795 Except Plans 25227, EPP72884 and EPP81913 and
Parcel A (Plan B6455) of Lot 12, Plan 481 Except Plans KAP61466 and EPP69793
both of Sec 10, Tp 20, Rge 10, W6M

Scale 1:1000 BCGS 82L.064

50 0 50 100

All distances are in metres.

The intended plot size of this plan is 432mm in width by 560mm in height (C size) when plotted at a scale of 1:1000

2220 REQUEST Change from C5 TO C3

REQUEST PORTION OF 2220 to BE REZONED to C3 ALONG ALR BOUNDARY.

PORTION OF 2220 to REMAIN ALR A1

Trans – Canada Highway

10 Avenue SW

1
Plan EPP120036

A
Plan EPP81913

Rem
Pcl A
Plan
B6455
0.310 ha

Rem 1
Plan KAP52617

KAP52748 Plan R/W

Area of Rem A
outside the ALR
0.762 ha

Approximate ALR Boundary (from ALC mapping)

Easement Plan EPP120037

Rem A
Plan 22795

Covenant Plan EPP61713

Rem 14
Plan 481

Area of Rem A
in the ALR
3.01 ha

2
Plan 28324

1
Plan 28324

Rem 1
Plan 12381

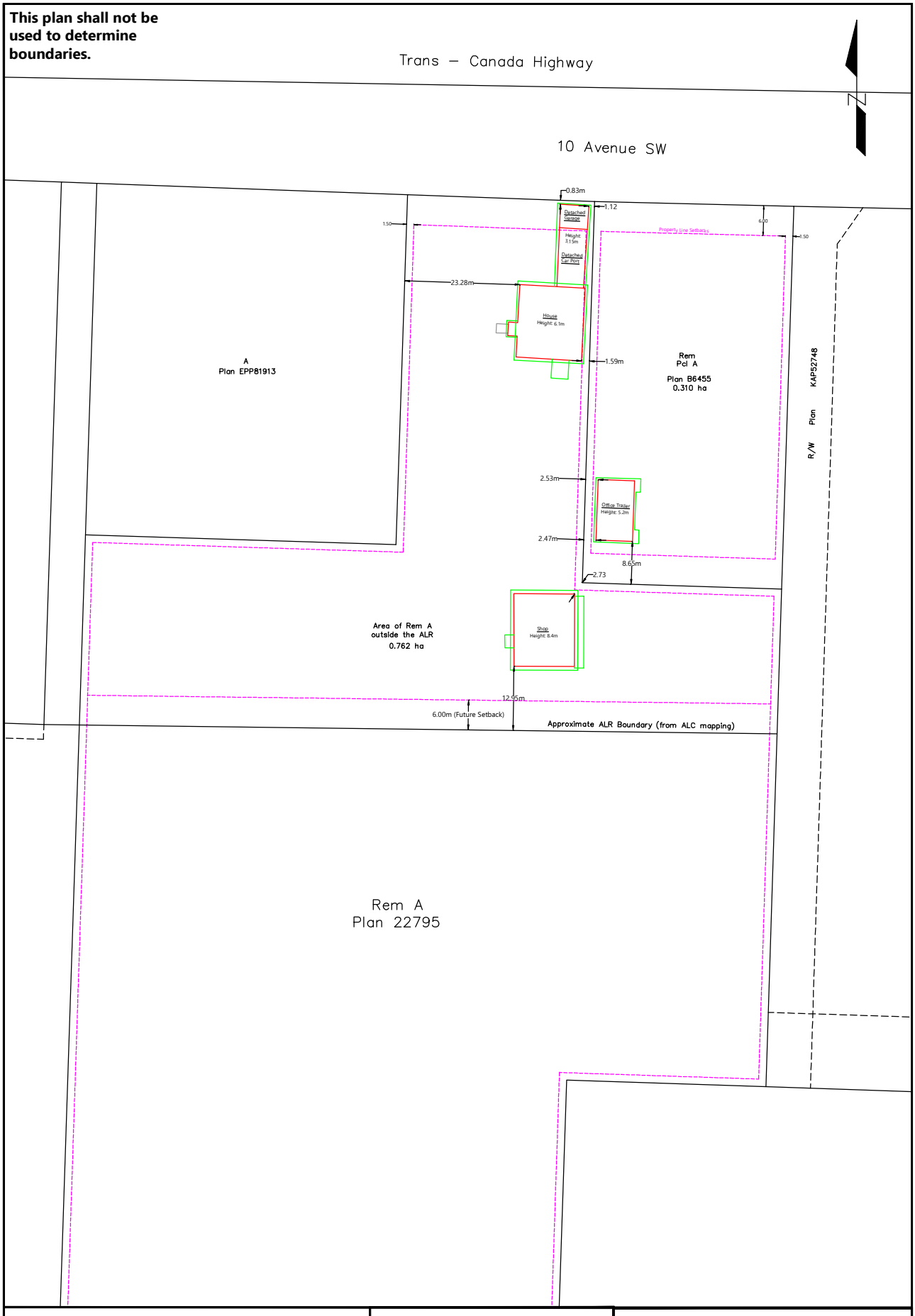
A
Plan 29515

37.77 40.24 70.65 76.98 77.28 62.70 40.23 38.39 29.21 147.97 71.28 40.23 270.15 201.73 100.59

April 15, 2024

BROWNE JOHNSON LAND SURVEYORS
B.C. AND CANADA LANDS
SALMON ARM, B.C. 250-832-9701
File: 107-24 107-24.raw

This plan shall not be used to determine boundaries.



PLOT PLAN SHOWING ASBUILT SURVEY

LOCATION: Blackburn Excavating
2220 10 Ave SW, Salmon Arm, BC V1E 1T4

BLACKBURN SURVEYING LTD
250.804.5465
blackburnsurveying@gmail.com

PLAN

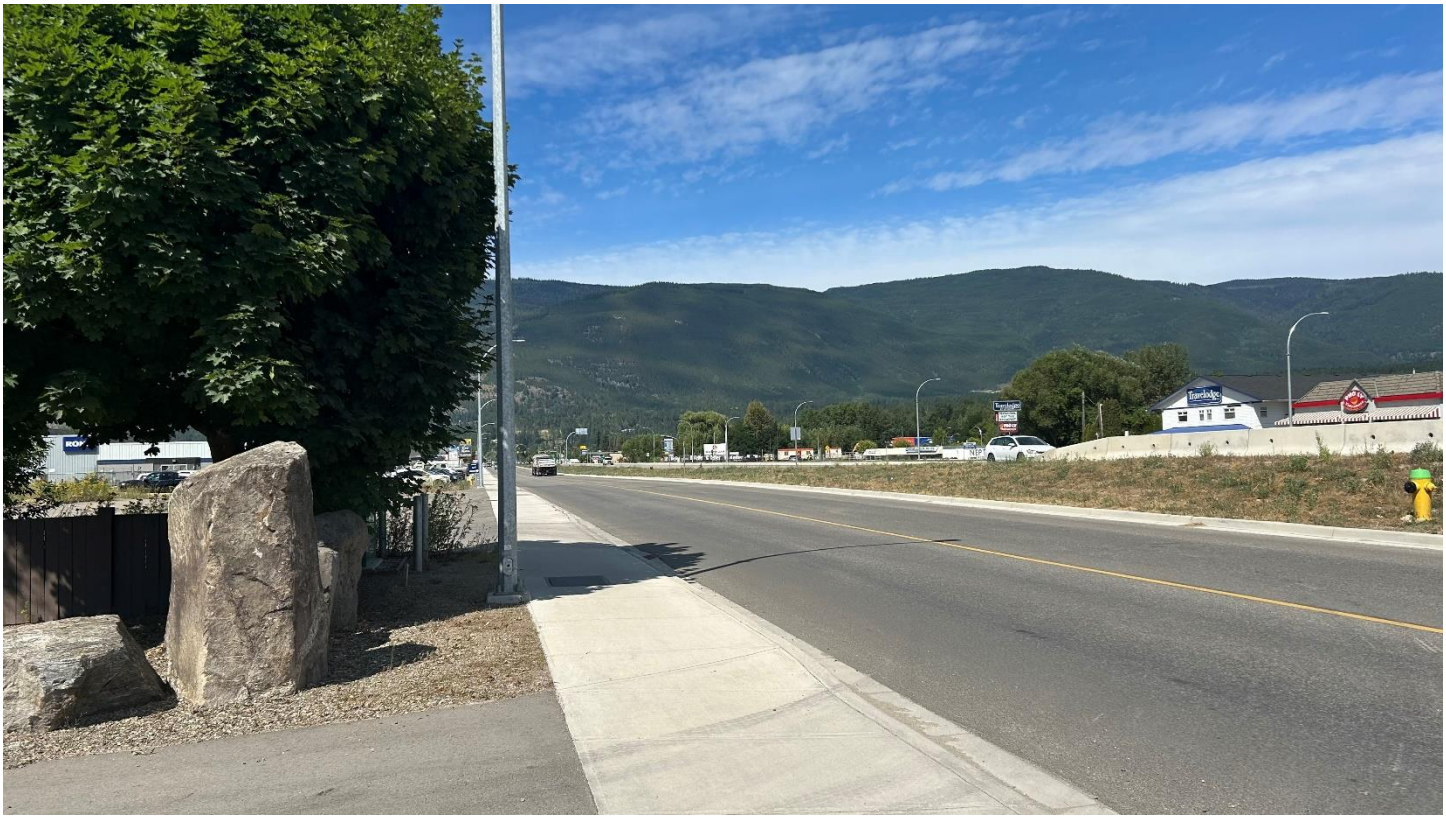
SCALE: 1 : 700 0 7 14 21 28 35

DATE:9/16/2024 | PAGE: 1 OF 1 | FILE: BBEX

View of 10 Avenue SW looking northeast from 2220 10 Avenue SW.

View of 10 Avenue SW looking northwest from 2220 10 Avenue SW.

View of 10 Avenue SW looking east from 2270 10 Avenue SW.



View of 10 Avenue SW looking northwest from 2270 10 Avenue SW.

View of 2220 10 Avenue SW looking south from 10 Avenue SW.

View of the back of 2270 10 Avenue SW looking southwest from 2220 10 Avenue SW.

View of the front of 2270 10 Avenue SW looking south from 10 Avenue SW.

SECTION 17 - C-3 - SERVICE COMMERCIAL ZONE

Purpose

17.1 The C-3 *Zone* is intended to accommodate commercial uses which are oriented towards vehicular traffic and require large areas of land for storage and/or display purposes and/or to accommodate large *buildings*. New *developments zoned* C-3 may be required to obtain a *Development Permit* as per the requirements of the *Official Community Plan.*

Regulations

17.2 On a *parcel zoned* C-3, no *building* or *structure* shall be constructed, located or altered and no plan of subdivision approved which contravenes the regulations set out in the C-3 *Zone* or those regulations contained elsewhere in this Bylaw.

Permitted Uses

17.3 The following uses and no others are permitted in the C-3 *Zone:*

.1 auto parts and accessories (new) sales;
.2 automotive repair shop, excluding *fuel service stations*;
.3 automotive sales and rental lots and showroom (new and used);
.4 boat and trailer sales and rental showrooms, including minor repairs;
.5 *building* supply establishment;
.6 *cafe;* #2736
.7 car wash;
.8 *commercial daycare facility*;
.9 *craft distillery and brewery*
.10 electrical appliance repair shop;
.11 farm equipment sales and rental;
.12 frozen food lockers, including retail sales;
.13 funeral home including accessory crematorium;
.14 greenhouses and nurseries, including retail sales;
.15 *high technology research and development;* #4368
.16 *home occupation*; #2782
.17 laboratory, scientific and research;
.18 laundromat;
.19 locksmith shop;
.20 *licensee retail store;* #3223
.21 *mini warehousing*;
.22 *mobile food vending;* #4240
.23 *mobile home* sales; #2736
.24 moving and storage establishment;
.25 *neighbourhood pub;* #3223
.26 *offices;*
.27 *outside vending*; #2837
.28 *personal service establishment;* #4049
.29 print shop;
.30 *public use*;
.31 *public utility*;
.32 radiator repair shop;
.33 *recreation facility-indoor*;
.34 recreation vehicle sales, repair, rental and assembly on parcels greater than 1.0 hectare with maximum 25% of gross floor area to be used for *parts assembly*. #2596
.35 rental and repair of tools, small equipment; #2736
.36 *restaurant*;
.37 *retail store;* #4049
.38 tire sales and repair establishment;

Permitted Uses con't

17.3 The following uses and no others are permitted in the C-3 Zone:

.39 *transportation use*;
.40 truck sales and rental lots and showroom;
.41 upholstery shop;
.42 *upper floor dwelling units*;
.43 veterinary hospital;
.44 *accessory use*;

Maximum Height of Principal Buildings

17.4 The maximum *height* of the *principal buildings* shall be 10.0 metres (32.8 feet).

Maximum Height of Accessory Buildings

17.5 The maximum *height* of accessory *buildings* shall be 6.0 metres (19.68 feet).

Minimum Parcel Size or Site Area

17.6 The minimum *parcel* size or *site* area shall be 465.0 square meters (5,005.4 square feet).

Minimum Parcel or Site Width

17.7 The minimum *parcel* or *site* width shall be 15.0 metres (49.2 feet).

Minimum Setback of Principal Buildings

17.8 The minimum *setback* of the *principal buildings* from the:

.1	*Front parcel line* shall be	6.0 metres (19.7 feet)
.2	*Rear parcel line*	
	- adjacent to a residential *zone* shall be	3.0 metres (9.8 feet)
	- all other cases shall be	1.0 metre (3.3 feet)
.3	*Interior side parcel line*	
	- adjacent to a residential *zone* shall be	3.0 metres (9.8 feet)
	- all other cases shall be	1.0 metre (3.3 feet)
.4	*Exterior side parcel line* shall be	6.0 metres (19.7 feet)

Minimum Setback of Accessory Buildings

17.9 The minimum *setback* of accessory *buildings* from the:

.1	*Front parcel line* shall be	6.0 metres (19.7 feet)
.2	*Rear parcel line* shall be	1.0 metre (3.3 feet)
.3	*Interior side parcel line* shall be	1.0 metre (3.3 feet)
.4	*Exterior side parcel line* shall be	6.0 metres (19.7 feet)

Outside Storage

17.10 Outside storage shall be screened as per Appendix III.

Parking and Loading

17.11 Parking and loading shall be required as per Appendix I.

From: Dachs B <blackburnsurveying@gmail.com>
Sent: Tuesday, October 1, 2024 8:57 AM
To: Morgan Paiement
Cc: Mike Blackburn; BLACKBURN EXCAVATING
Subject: Re: [External] Blackburn Zoning Amendment ZON-1293

Good morning Morgan,

Please accept this email response in lieu of your requested letter to council.

I acknowledge that rezoning the properties located at 2220 and 2270 10th Ave sw will result in non conforming buildings.

We will address the elements of non-conformity in the coming months.

Dachs Blackburn

CITY OF SALMON ARM

REQUEST FOR DECISION

To: Mayor & Members of Council

Title: City Engineer – Water and Sanitary SDM Plans

Date: October 21, 2024

Motion for Consideration:

THAT: Council receive for information the Water and Sanitary Service Delivery Management Plans and endorse the continued lifecycle management of the assets in support of these services in alignment with the SDM plans.

Background:

The City adopted a Service Delivery Management Policy and strategy in 2021 and has continued to improve upon sustainable service delivery practices throughout the organization. The water and sanitary SDM plans have been completed and in some cases gone through several draft iterations as practices and data improve.

The SDM plans review the customer expectations of a service along with associated actions that the City takes that define service levels. Costs to run the service are calculated for the full lifecycle of the assets including acquisition, operations, maintenance, replacement and decommissioning. Finally, risks to the sustainable delivery of services are reviewed and risk treatment plans created based on the balancing of current funding levels and desired service levels.

The plans form the basis of budget requests, provide direction for staff regarding asset management and foster invaluable discussion between staff, Council and the public regarding the optimal balance for the community.

The water and sanitary SDM plans are attached to this report along with the presentation to Council.

Legislative authority / plans / reports:

X	Official Community Plan		Master Plan
	Community Charter/LGA		Other
X	Bylaw/Policy (SDM Policy)	X	Corporate Strategic Plan
	Zoning Bylaw	X	2024-2028 Financial Plan
		X	Long Term Financial Plan

Financial Considerations:

All three SDM plans indicate that the risks to sustainable delivery of service will increase over time based on underfunding of the desired service levels. Strategies for increasing funding for water and sewer have been forwarded under separate cover for Council consideration.

Alternatives & Implications:

Sustainable Service Delivery has three main levers that can be used by Councils:

- Risk: Setting/adjusting risk tolerance levels for the organization
- Service Level: Increasing or decreasing service levels (may impact risk)
- Cost: Increasing or decreasing funding levels (may impact service levels and/or risk levels)

SDM planning seeks to optimize the balance of the three levers by collecting, analyzing and reporting data in a manner that empowers staff and council to spend the right amount on the right asset at the right time.

The SDM plans in their current state acknowledge limitations in confidence levels and quality of data and recommend continuous improvement pathways. Council may choose not to endorse the plans as they stand and have staff bring them forward at a different time.

Communication:

Staff intend to post the SDM plans endorsed by Council on the City's website along with an 'executive story' summarizing the contents and key messages from the plans. Over time, staff will actively engage the public in discussions regarding the perceived value of services and the public's desired service levels based on actual costs to deliver the services.

Prepared by: City Engineer
Reviewed by: Chief Financial Officer
Approved by: Chief Administrative Officer

Attachments:

- Presentation Slides
- Water SDM Plan
- Sanitary SDM Plan

CITY OF SALMONARM

Service Delivery Management

Water

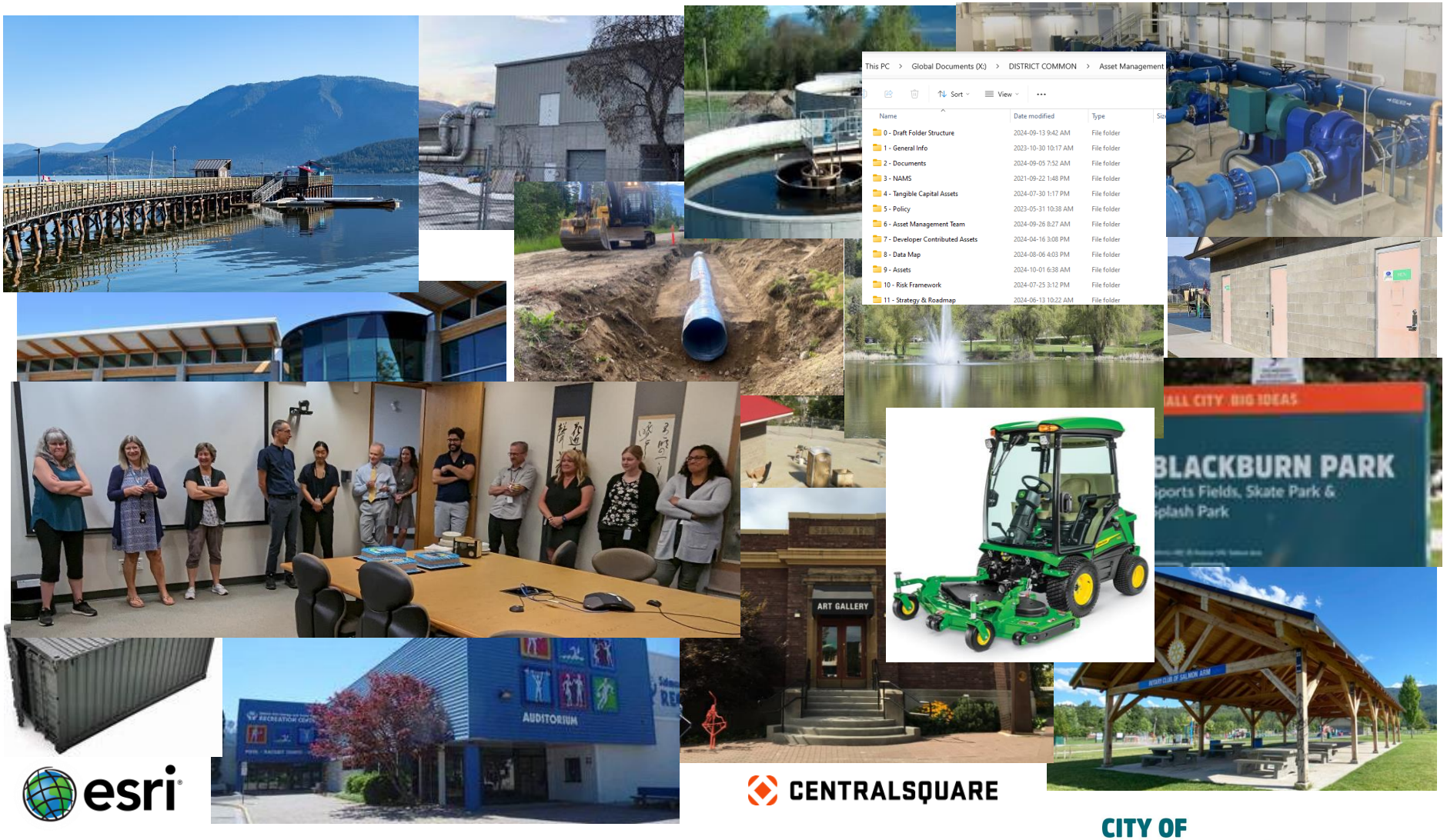
Sanitary

21 October 2024

Agenda

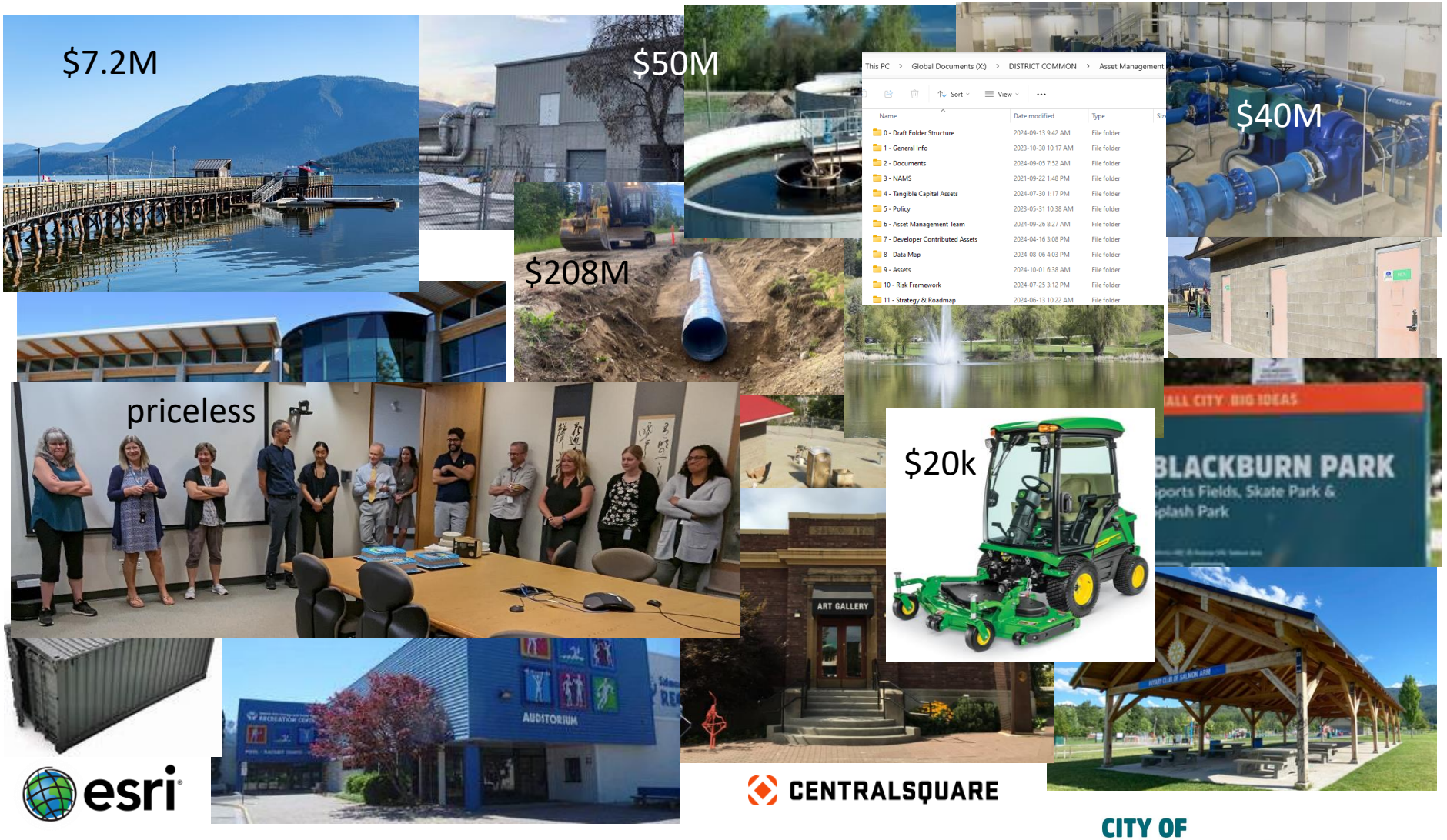
- City of Salmon Arm - Asset Summary
- Water Assets
- Sanitary Assets
- Feedback from Council

City of Salmon Arm - Assets

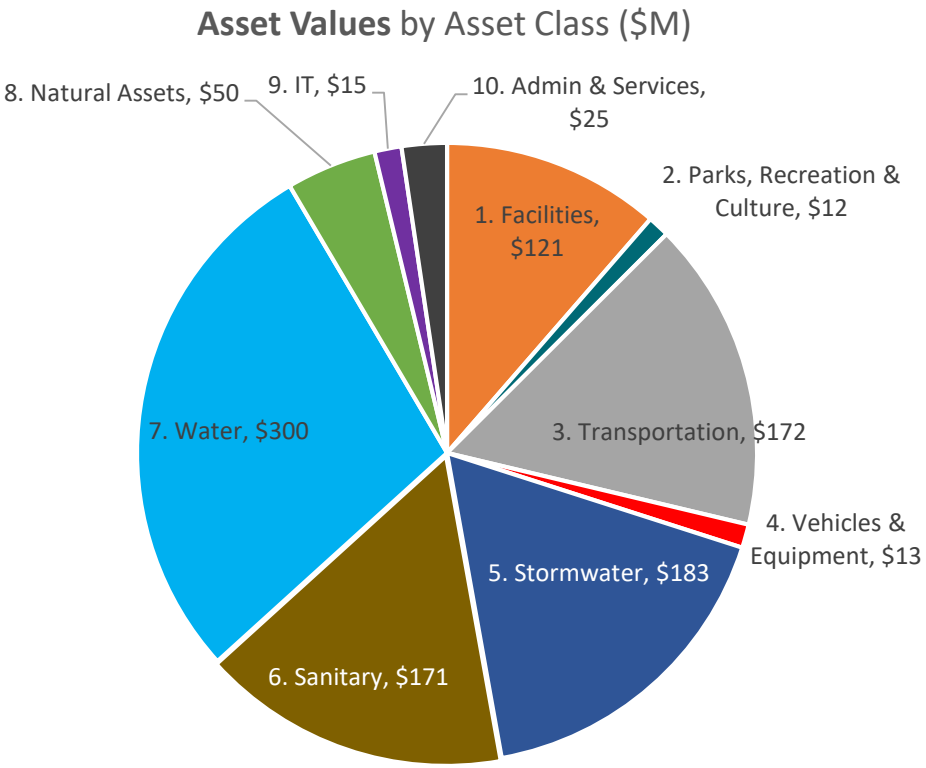


CITY OF SALMONARM

City of Salmon Arm – Asset Values

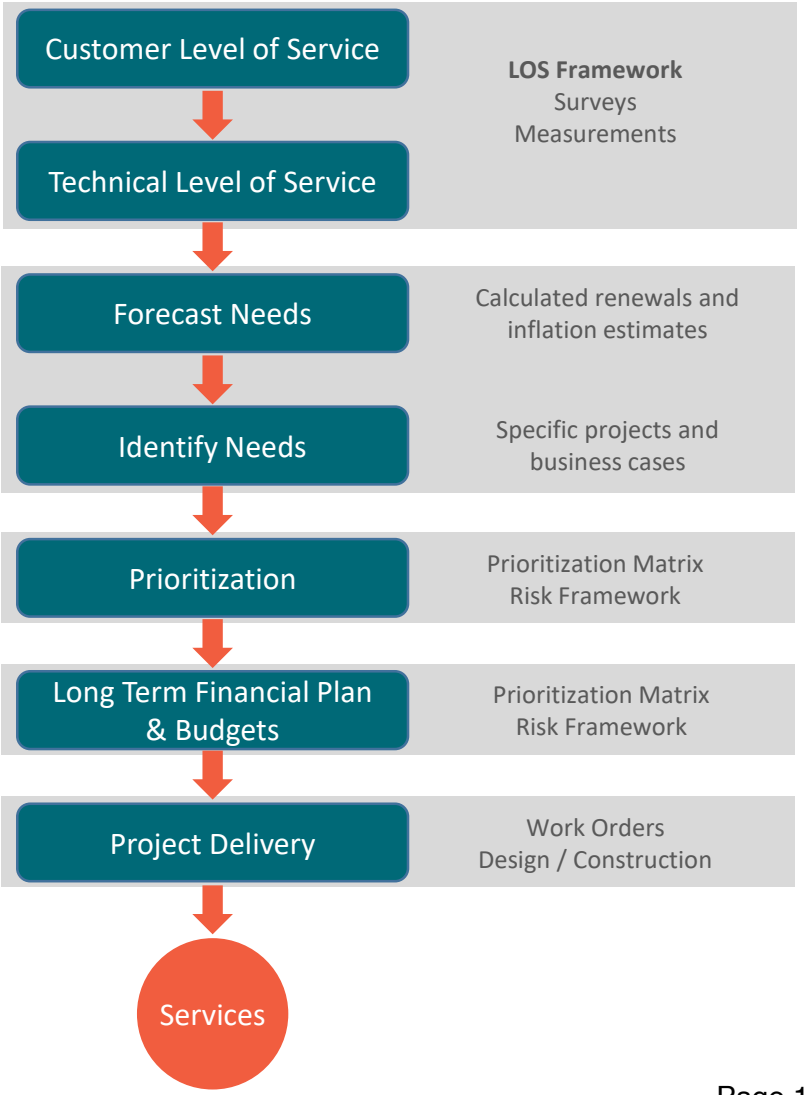


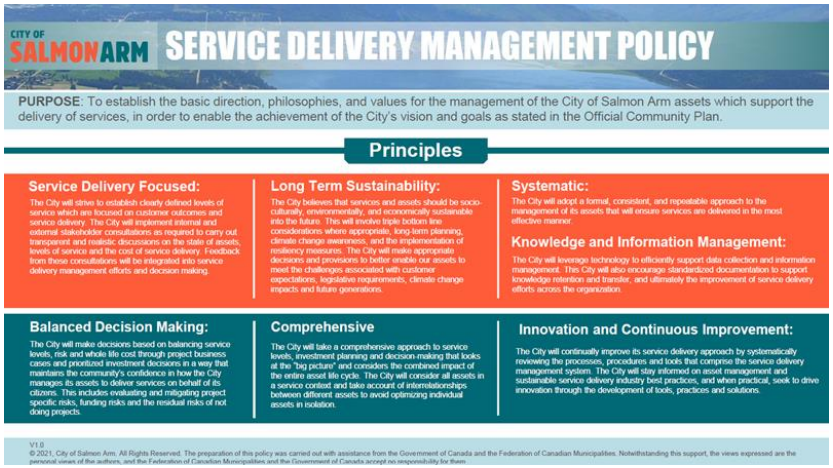
Asset value is significant

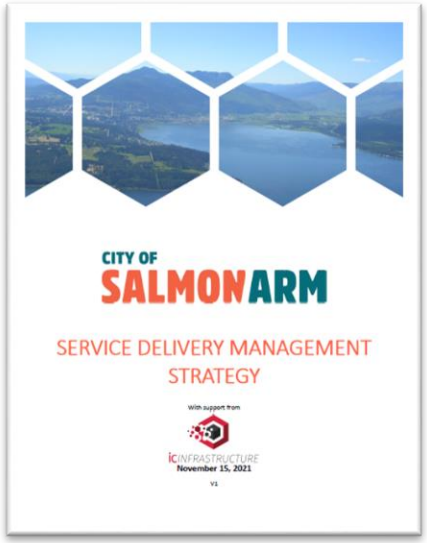


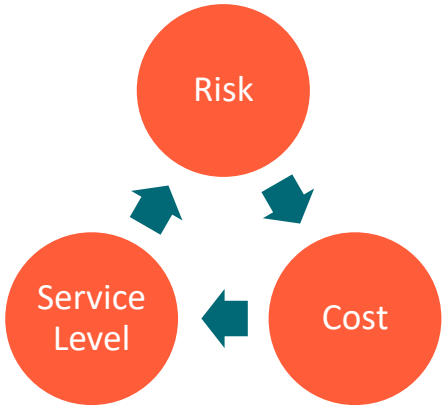
Total Asset Value: ~$1,062,000,000

Service Delivery Management









Service Delivery Management Plan Overview

- Purpose of the Plan
- Asset Description
- Levels of Service
- Future Demand
- Lifecycle Management Plan
- Financial Summary
- Service Delivery Management Practices
- Monitoring and Improvement Program

Today we are looking at 2 major asset types & the services they provide

Water

$294M

Sanitary

$171M

Summary of our Water Services

Water

$294M

Assets We Own

Treatment Plant	Pump Stations	Water Main	Hydrants	Reservoirs
2	9	203	864	15
18 ML/day	across 5 zones	km of pipe		33k L Capacity

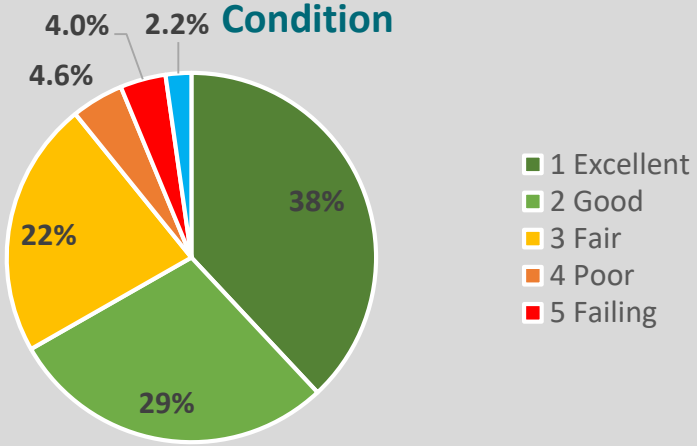
Replacement Value

Treatment Plant	Pump Stations	Water Main	Hydrants	Reservoirs
$41,375,911	$14,100,000	$208,356,515	$8,640,000	$21,350,000

Services Delivered

- ✓ Deliver potable water supply to the City of Salmon Arm that tastes, looks, and smells good
- ✓ Provide water reliably and at sufficient pressure
- ✓ Ensure sufficient capacity to fight fires and meet normal usage requirements, consistent with best practices

Condition

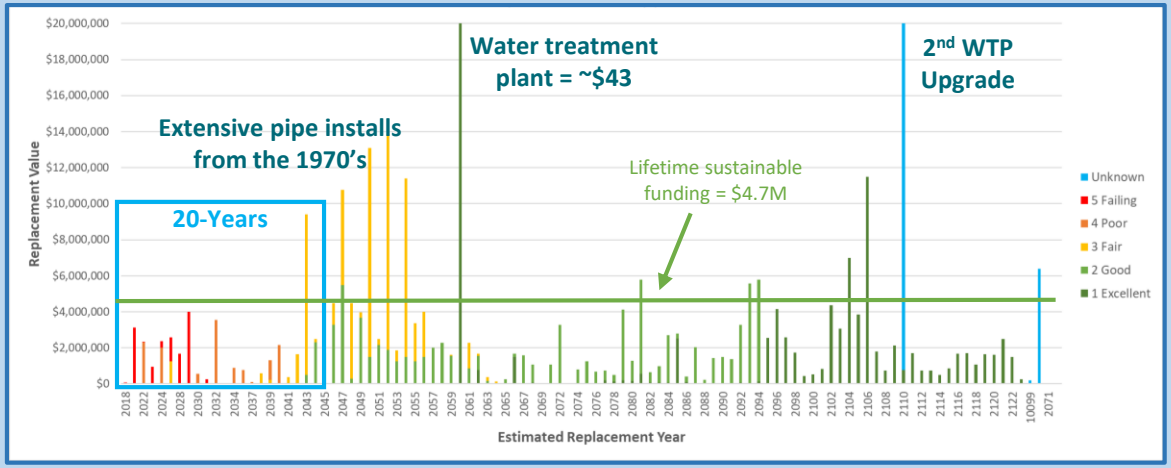


Summary of our Water Services

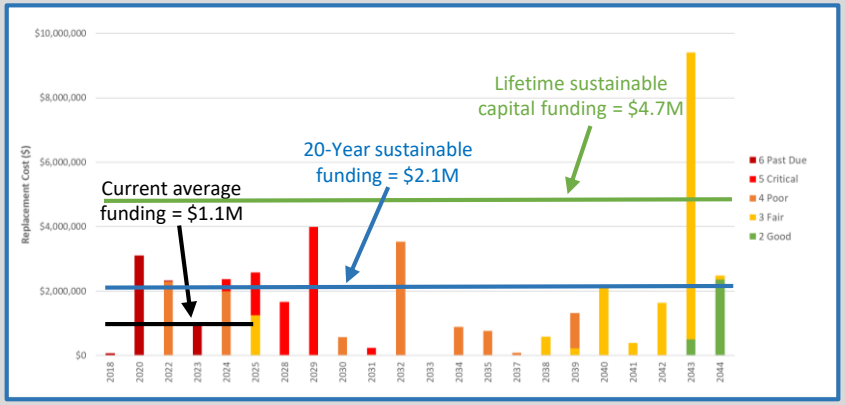
Key Terms

Operations	Focus on the day-to-day activities to provide the service
Maintenance	Activities needed to maintain the assets in service condition
Capital Renewal	Replacing the asset at the end of its useful life
Capital New	New assets that increase capacity or service levels
Sustainable Funding	$ needed to replace each asset at the end of its life

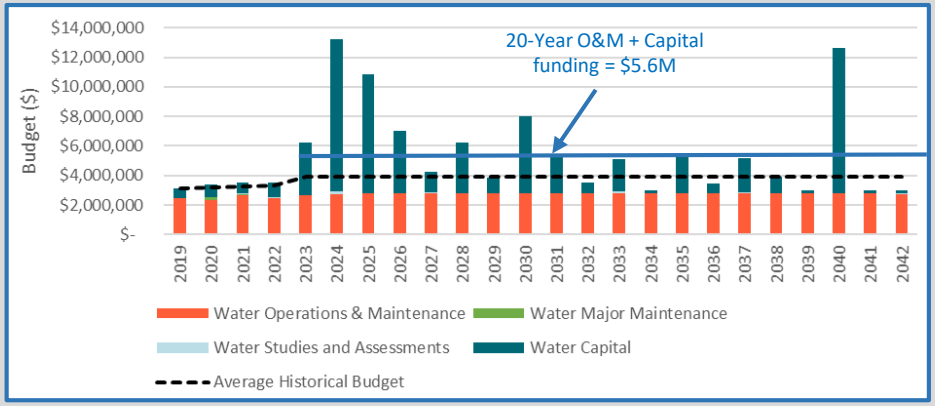
Water Assets – Replacement Timing



20-Year Capital Renewals



20-Year Budget Requirements



Summary of our Sanitary Services

Sanitary

$171M

Assets We Own

Treatment Plant	Lift Stations	Gravity Main	Force Main	Manholes
1 6,700m³/d	7	123km of pipe	8.5km of pipe	2110

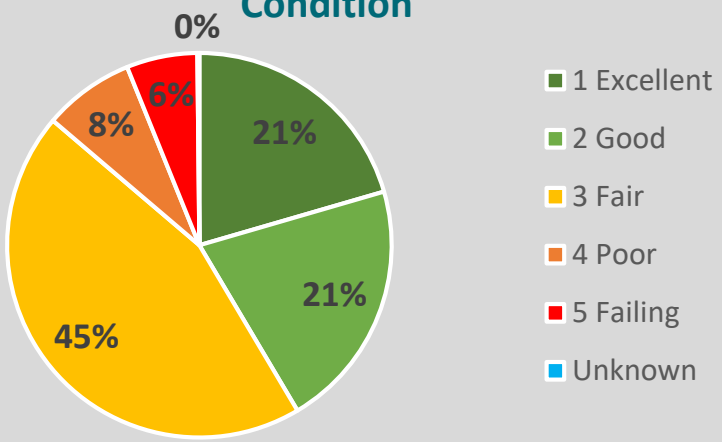
Replacement Value

Treatment Plant	Lift Stations	Gravity Main	Force Main	Manholes
$57,485,000	$8,500,000	$99,007,000	$6,334,000	$12,660,000

Services Delivered

- ✓ Deliver sanitary sewer services to the City of Salmon Arm that does not pollute the lake and meets regulatory requirements
- ✓ Sanitary service is available and reliable within the urban area
- ✓ There is sufficient sanitary capacity for day-to-day usage

Condition

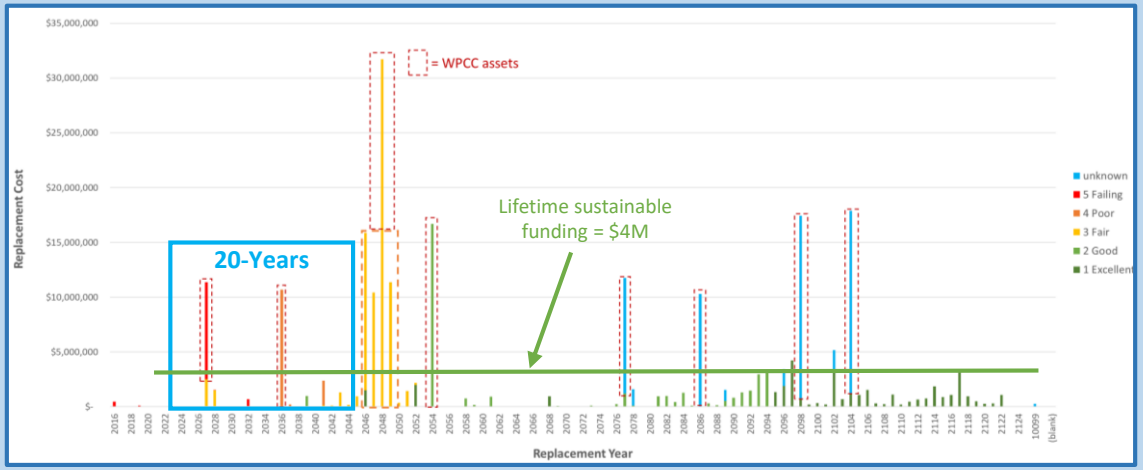


Summary of our Sanitary Services

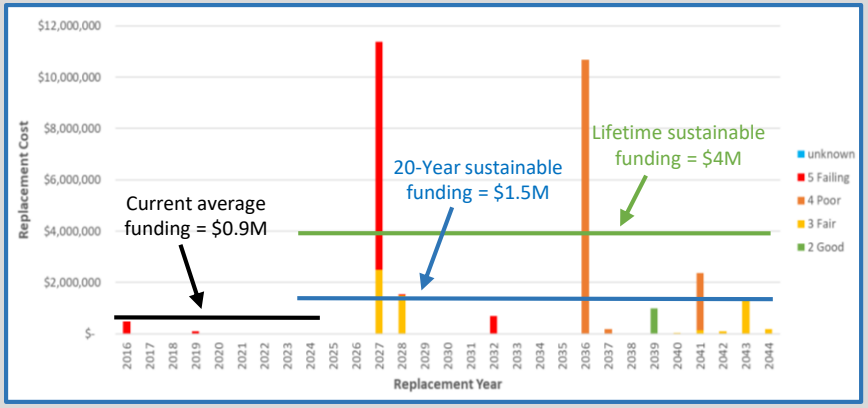
Key Terms

Operations	Focus on the day-to-day activities to provide the service
Maintenance	Activities needed to maintain the assets in service condition
Capital Renewal	Replacing the asset at the end of its useful life
Capital New	New assets that increase capacity or service levels
Sustainable Funding	$ needed to replace each asset at the end of its life

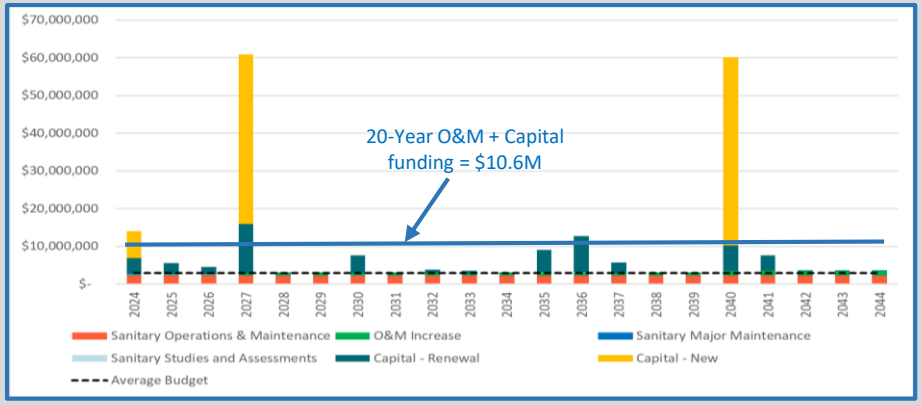
Sanitary Assets – Replacement Timing



20-Year Capital Renewals



20-Year Budget Requirements



Final Thoughts

- Future Demand
- Lifecycle Management Plan
- Service Delivery Management Practices
- Monitoring and Improvement Program
- Funding Options

QUESTIONS?

CITY OF SALMON ARM

Sanitary System

SERVICE DELIVERY MANAGEMENT PLAN

2024

TABLE OF CONTENTS

Sanitary System – SDM Plan

1 Introduction

1.1 Background

This Service Delivery Management (SDM) Plan communicates the actions required for the responsive management of sanitary services (and assets in support of this service), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period.

The SDM plan is to be read in conjunction with the City of Salmon Arm planning documents. This should include the SDM Policy and SDM Strategy along with other key planning documents:

- City of Salmon Arm Sanitary Sewer Master Plan (Urban Systems, 2016)
- City of Salmon Arm Corporate Strategic Plan (Urban Systems 2022)
- City of Salmon Arm Official Community Plan (November 2011)
- City of Salmon Arm Long Term Financial Plan (2005)
- City of Salmon Arm Liquid Waste Management Plan (Dayton & Knight Ltd., 2012)

The infrastructure assets covered by this asset management plan include:

- Wastewater Pollution Control Centre (WPCC)
- Gravity Main
- Force Main
- Service Connections
- Pump Stations
- Manholes
- Machinery and Equipment
- SCADA Systems

These assets support the collection, conveyance and treatment of wastewater from approximately 5414 residential, commercial, industrial and institutional lots in the City of Salmon Arm.

1.2 Goals and Objectives

The goal in managing infrastructure assets in support of our core services is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,

- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

2 Levels of Service

2.1 Customer Research and Expectations

Future revisions of the SDM plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required, service risks and consequences with the community's ability and willingness to pay for the service.

A sample table has been provided below with some broad performance that may be incorporated into future solicitations for community input.

Table 2.1: Community Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
Quality How satisfied are you with the performance of the sanitary system from an odour control and treatment perspective?					
Function How satisfied are you with the function of the sanitary system? (Does it do what you want it to do, when you want it to do it?)					
Capacity and Use How satisfied are you with the capacity of the system to take any generated waste?					
Overall Value How satisfied are you with the value of the sanitary system to collect, convey and treat wastewater for $X/day					

Community satisfaction information can inform future iterations of the Strategic Plan and in the allocation of resources in the budget.

2.2 Strategic and Corporate Goals

This SDM plan is prepared under the direction of the City of Salmon Arm vision, values, goals and objectives.

Our vision is:

Salmon Arm is a community that has a comfortable, safe lifestyle and a vibrant feeling. The community deeply values the city's magnificent natural setting with its healthy ecosystems. The city is nestled between mountains and the shore of Shuswap Lake, offering beautiful scenery, greenery, rich agricultural land, and a desirable climate.

As the regional centre of the Shuswap, Salmon Arm has an abundance of recreational, educational, commercial, tourism, health care, and cultural opportunities and services. The strong and growing economy supports varied employment and shopping, and innovative businesses and industry.

The community is spirited, diverse and inclusive, with housing for residents of all ages and needs. Everyone works together towards a shared vision of a good quality of life for all.

In the vibrant city centre, people live, work, visit, meet, shop and spend time enjoying diverse artistic and cultural activities. Downtown's unique urban identity combines heritage preservation, a walkable environment, and high quality, mixed-use developments. Green space extends throughout the city, including active recreation sites, and natural parks with trails. The city abounds with safe walking and cycling opportunities, connecting neighbourhoods, the city centre, natural areas and parks. (City of Salmon Arm Official Community Plan 2011)

Our values are:

- Commitment to pragmatic leadership
- Excellence in service delivery
- Foster trusted relationships with our partners
- Respect what makes us unique
- Enable future generations to inherit a city that is vibrant, prosperous and sustainable
- Encourage citizen participation and input
- Ensure an efficient government
- Facilitate flexible and balanced planning processes

Relevant goals and objectives and how these are addressed in this asset management plan are:

Table 2.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in AM Plan
Strategic Plan – Assets driver	We will diligently reinvest in core services and infrastructure	The ongoing development, refinement and use of this SDM plan will help us focus the core sanitary services and infrastructure needing investment
Strategic Plan – Environment/Waterfront Driver	We will protect and enhance our waterfront and natural assets	This plan will focus on infrastructure prioritization and investment that ensures appropriate environmental protection
OCP 13.2.1	Develop and manage utilities in a manner that emphasizes	This asset management plan helps facilitate educated fiscal decision

	energy conservation, environmental sustainability and fiscal responsibility	making and efficient spending, which in turn drives sustainable and energy efficient options and solutions.
OCP 13.2.4	Improve the City's sanitary system based on best practices to improve sanitary service quality.	The customer and technical levels of service defined in this plan will drive the achievement of this objective.

The City of Salmon Arm will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this SDM Plan. Management of infrastructure risks is covered in Section 6.

2.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the sanitary service management are outlined in Table 3.3.

Table 2.3: Legislative Requirements

Legislation	Requirement
British Columbia Municipal Wastewater Regulation	Operating certificate for the collection, treatment and discharge of municipal wastewater.
Organic Matter Recycling Regulation (OMRR)	Biosolids
EOCP (Environmental Operators Certification Program)	WPCC Operator & Utilities certifications

2.4 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by Organisational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the asset management plan are:

Quality: How good is the service … what is the condition or quality of the service?

Function: Is it suitable for its intended purpose …. Is it the right service?

Capacity/Use: Is the service over or under used … do we need more or less of these assets?

The current and expected customer service levels are detailed in Table 3.5 and Table 3.6. Table 3.5 shows the expected levels of service based on resource levels in the current long-term financial plan.

Table 2.4: Customer Levels of Service

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Quality	Wastewater does not pollute lake	Customer service requests related to quality	Negligible	
	Organizational measure	Testing of Effluent to meet requirements of Operational Certificate	Generally meeting regulations	Expected to get worse until WPCC is upgraded
		Microbiological tests	Meeting 100% of the regulations	Expected to stay the same
		Smoke Testing	Existing cross connections have been resolved	Expected to stay the same
	The service is available reliably	Customer service requests related to service downtime	Negligible (majority of service downtime are blockages on homeowner side	Expected to get worse
	Organizational measure	Condition of assets providing service	See Section 5.4	Expected to get worse
	Confidence levels		Med-High	Med-High
Function	Sanitary service is provided reliably in areas that need it	Service requests related to sanitary extensions/connections	Negligible	Expected to stay the same
	Organizational measure	Percent of properties serviced by sanitary sewer in the urban area (as defined by Sewer boundaries in DCC Bylaw)	Currently Unknown	Expected to get better
	Confidence levels		High	High
Capacity & Use	Sufficient capacity for day-to-day usage	Service requests related to blockages/back-ups	Very low number of complaints- majority of service blockages are on homeowner side (private property).	Expected to stay the same
	Organizational measure	Number of service interruptions a year/SCADA readings	2023 - 2 mainline blockage, 4 Service Interruptions	Expected to stay the same
	Confidence levels		High	High

2.5 Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Operations** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs)
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement)
- **Upgrade/New** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library)

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.

Table 3.5 shows the technical levels of service expected to be provided under this SDM Plan. The 'Desired' position in the table documents the position being recommended in this SDM Plan.

Table 2.5: Technical Levels of Service

Service Attribute	Service Activity Objective	Performance Measure	Current Performance *	Desired for Optimum Lifecycle Cost**
TECHNICAL LEVELS OF SERVICE				
Operations	Administration	Amount	$694,950	Adequate
	GIS Maintenance	Amount	$19,400	Adequate
	Asset Management	Amount	$24,800	Adequate
	Manholes	Amount	$38,200	Adequate
	Mains	Amount	$13,300	Adequate
	Brush Removal	Amount	$9,500	Adequate
	Services	Amount	$67,500	Adequate
	Monitoring and Testing	Amount	$138,000	Adequate
	SCADA	Amount	$11,800	Adequate
	Biosolids Handling	Amount	$185,000	Increasing

Service Attribute	Service Activity Objective	Performance Measure	Current Performance *	Desired for Optimum Lifecycle Cost**
	Grass and Weed Control	Amount	$10,350	Adequate
	Sewage Lift Stations	Amount	$107,700	Adequate
	Sewage treatment and Disposal	Amount	$ 862,400	Adequate
	Flushing Mains	Frequency	Once per 5 year cycle	Adequate
	Video & condition inspection program	Frequency	Once per 15-20 year cycle	$20,000
		TOTAL BUDGET	**$2,177,900 / year**	**$2,202,900 / year**
Maintenance	Sewage Collection Systems	Amount	As Required	Adequate
	Sewage Lift Stations	Amount	As Required	Adequate
	Sewage treatment and Disposal	Amount	As Required	Adequate
	Spot treatments	Frequency	As required	As required
		Budget	**$0**	**$0**
Replacement/ Renewal	Renewals as per Capital Plan (mains replaced at 100% of their anticipated useful life)	Amount	$900,000	$1,500,000 per year (20 year average)
		Budget	**$900,000 per year** (5-yr rolling average)	**$1,500,000** (incl. drainage extensions & replacements)
Upgrade / New	Upgrade/New as per Master Plans	Amount	As Required	$5,573,000 per year (20 year average)
		Budget	**$205,000 *Developer contributions not inc.** (5-yr rolling average)	**$5,573,000 per year** (Avg planned costs 2024 – 2045)

Note: * Current activities and costs (currently funded).

** Desired activities and costs to sustain current service levels and achieve minimum life cycle costs (not currently funded)

It is important to monitor the service levels provided regularly as these will change. The current performance is influences by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

3 Future Demand

3.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

3.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in Table 4.1.

3.3 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.1.

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management.

Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.1. Further opportunities will be developed in future revisions of this asset management plan.

Table 3.1: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services	Demand Management Plan
Population Growth	Steady increase in population of 1-2% per year	Steady population increase 1-2% concentrated within urban area	System upgrades will be required when anticipated	Continue to maintain an up-to-date master plan that forecasts and details improvements required for future capacity. Continue to maintain an up-to-date DCC bylaw to help ensure adequate funding available for upgrades. Inflow and infiltration programs and public education (source control) will also be implemented reduce non-sewage volumes.
Increase sanitary service area	Service 5414 lots with 123 km of sanitary mains	Expand service area to include: industrial, commercial lands as well as residential and First Nations	Increase in service population above & beyond typical annual growth; potentially more infrastructure for O&M; Additional types of flows may have impact on	Maintain a Master Plan as above that models different growth scenarios; Keep OCP policies limiting expansion; set utility rates adequately to fund any network expansions adequately.

			biological processes at WPCC	
Increased regulations	Currently treating to OC	Potential for increased testing or treatment parameters for contaminants such as pharmaceuticals, PFAS, etc.	Increased footprint and cost to treatment/testing	Consideration of potential regulation changes when planning for upgrades (specifically WPCC). Land purchases for additional space.
Changing Density Regulations	Suites only allowed in appropriately zoned locations	SSMUH regulations (4 units per SFD lot)	Increased maximum density putting pressure on existing pipe capacity.	Update Master Plan with full build-out scenarios to determine area with future capacity concerns and update funding models such as DCC bylaw as necessary.

3.4 Asset Programs to Meet Demand

The new assets required to meet demand can be acquired, donated or constructed. Additional assets are discussed in Section 5.9.

Acquiring new assets will commit the City of Salmon Arm to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long-term financial plan (Refer to Section 5).

The vast majority of sanitary assets are acquired through development.

4 Sanitary Lifecycle Management Plan

The lifecycle management plan details how the City of Salmon Arm plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while managing life cycle costs.

4.1 Asset Summary

The City owns a wide variety of sanitary assets which are spread out over a large geographical area. Overall the City's sanitary assets are in fair condition and it is important that we keep up with renewing assets as they reach the end of their useful age in order to maintain the existing condition levels and keep maintenance costs low.

4.2 Sanitary Assets We Own

The City of Salmon Arm owns and manages an extensive network of sanitary assets throughout the city that provide wastewater treatment services for residential, institutional, commercial, and industrial. These assets include:

Gravity Main Pipe	Force Main Pipe	Manholes	Lift Stations	Treatment Plant
123.1 km	8.5 km	2110	7	6,700m^3/d

All asset data is stored in our GIS system, which is our central asset database and updated regularly as changes are made (new assets installed, or major maintenance completed on existing assets).

4.3 Sanitary Assets Worth

Each sanitary asset has specific replacement costs based on current estimates, or appraised values. By category, the total current replacement values are:

Gravity Main Pipe	Force Main Pipe	Manholes	Lift Stations	Treatment Plant
$99,007,000	$6,334,000	Included in gravity main value	$8,500,000	$57,458,000

Combined Replacement Value of Sanitary Assets
$171M

This number is likely conservative, given the significant cost increases seen over the last few years.

4.4 Condition of Assets

Condition is not currently monitored in a formal way; however, most of the assets are operated and/or inspected at intervals and deficiencies noted. The City takes samples of older mains when working in the immediate area to determine an accurate anticipated remaining life. These condition samples can be used to adjust the average expected life of an asset over time. When no inspection results are available, the City uses age data to calculate an estimated condition. Condition is measured using a 1-5 grading system as detailed in Table 4.1: Asset Condition Rating Model.

Table 4.1: Asset Condition Rating Model

Condition Grading	Description of Condition
1	**Excellent**: only planned maintenance required or <=30% of Useful Life
2	**Good**: minor maintenance required plus planned maintenance or <60% of Useful Life
3	**Fair**: significant maintenance required or <80% of Useful Life
4	**Poor**: significant renewal/rehabilitation required or <90% of Useful Life
5	**Failing:** physically unsound and/or beyond rehabilitation or >90% of Useful Life
Unknown	**Unknown:** insufficient information available to determine asset condition

The calculated condition ratings outlined in Table 5.1 have been updated from previous SDM plans to better reflect the deterioration curve of most assets being non-linear. This updated condition curve better accounts for the nuances of condition as an asset approaches the end of its useful life. A comparison of the previous versus new condition curves is shown below.

Figure 4-1: Condition Curve

Using this method and the updated condition curve, sanitary assets are in fair condition overall, with 42% being in Excellent or Good condition. However, there is a large percentage of assets in Fair condition (45%) that will need replacing over the next 15-30 years. A summary of this is shown below.

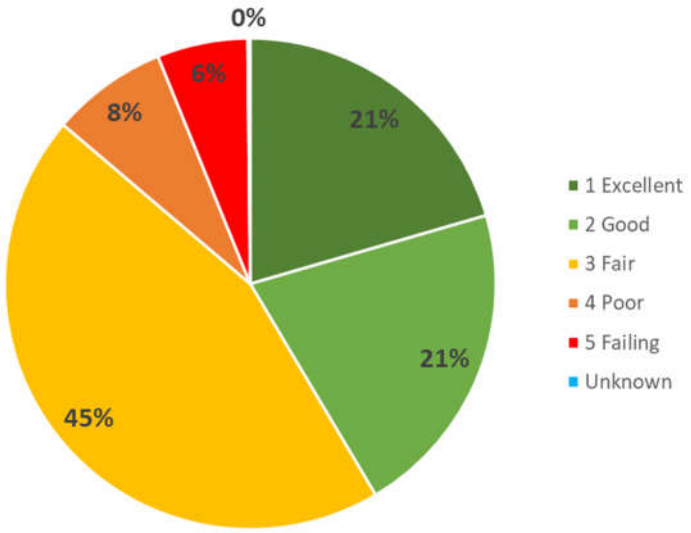


Figure 4-2: Sanitary Asset Condition Profile – by replacement cost

Of the assets in Poor, Critical, or Past Due condition, most are related to the WPCC.

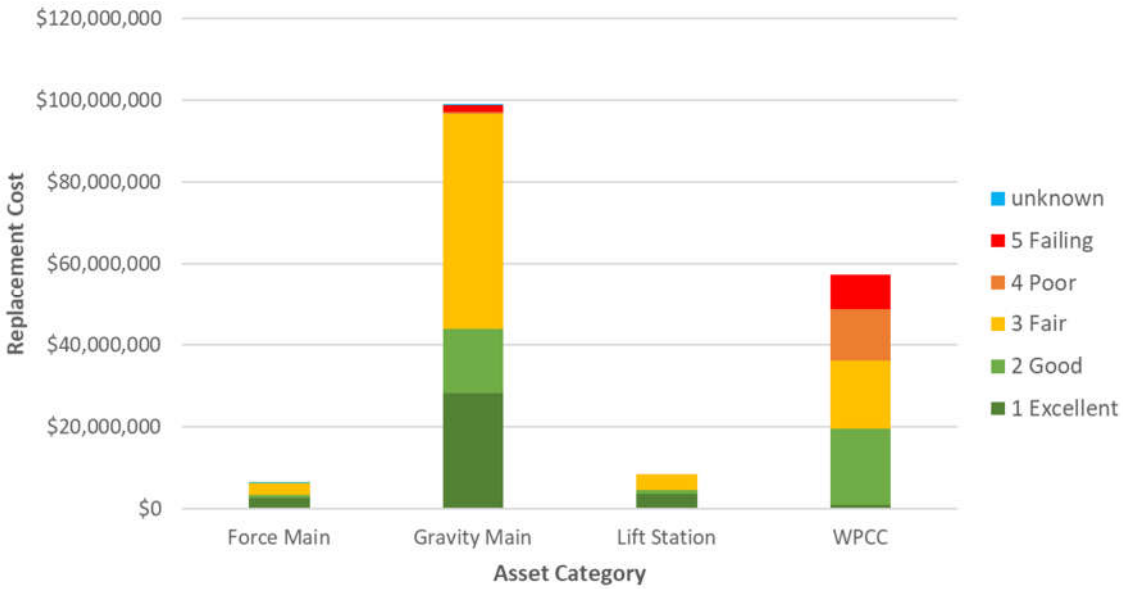


Figure 4-3: Asset Condition Profile - by asset type

The value and quantity of assets installed over time varies depending on several factors including market conditions, grant availability and regulatory changes. This age profile is shown in Figure 4-4: Asset Age/Install Profile.

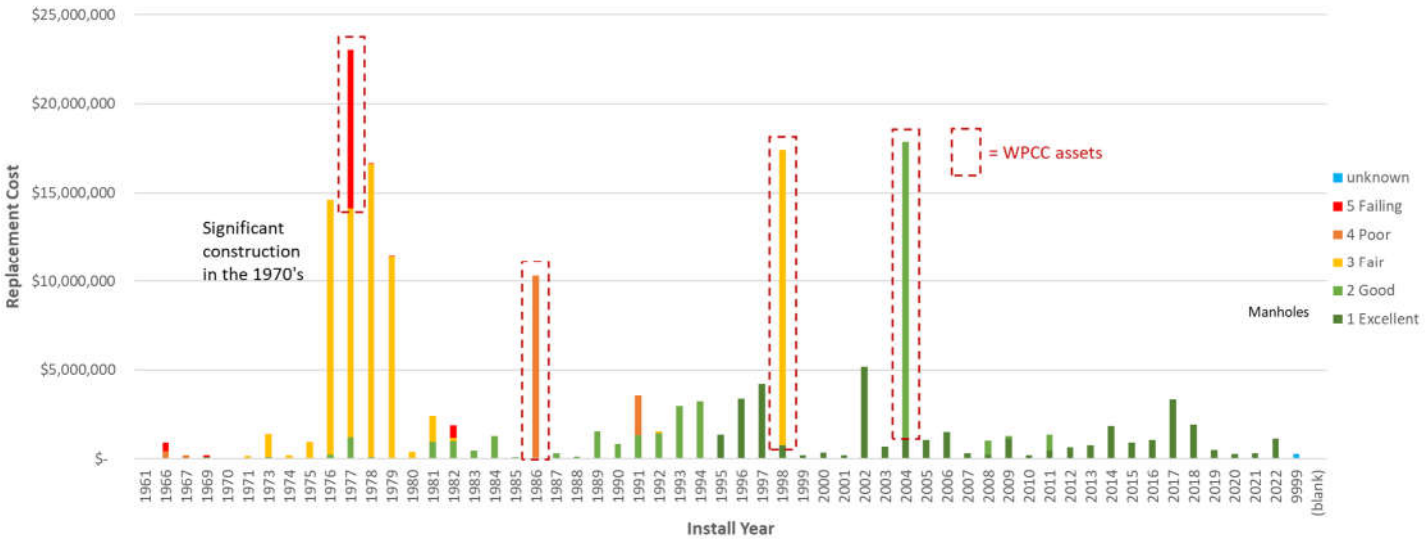


Figure 4-4: Asset Age/Install Profile

A large portion of the sanitary system assets were installed between 1975 and 1980, in coordination with the construction of the WPCC; over $50M of pipe was installed (Current Replacement Cost). The WPCC upgrades are highlighted in the figure, showing the steady upgrades made to the treatment plant.

4.5 Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available. However, there are insufficient resources to address all known deficiencies. There are only 3 gravity mains in the system that may have capacity deficiencies in a 20-year study period. Locations where deficiencies in service performance are known are detailed in Locations where deficiencies in service performance are known are detailed in Table 4.2: Known Service Performance Deficiencies.

Table 4.2: Known Service Performance Deficiencies

Location	Service Deficiency
WPCC	The treatment plant is nearing capacity, and is scheduled for an upgrade.
Deficient Sanitary Mains (86 m)	Flow capacity deficiencies in a 20 year study period.

The above service deficiencies were identified by City staff and Sanitary Master Plan assessments. Although they do not currently present any service deficiencies, clay pipes approaching their Useful Lives were prioritized for replacement in the Sanitary Sewer Management Plan due to operations and maintenance costs.

4.6 Asset Replacement Timing

Accurately predicting when each asset will need replacing is difficult, but a process has been developed that factors in the age of an asset and its average useful life (AUL), to approximate when each asset will likely need replacing. When the calculated condition rating becomes Poor, more detailed condition assessments are made on those assets to fine tune the timing of a replacement or major maintenance event, aligned to the target level of service. The criticality rating (risk to service delivery) of the assets are also considered while fine tuning the asset replacement schedule to ensure that where resources are insufficient to replace all assets, the most critical assets are replaced first.

Using this process an estimated timeline of asset replacements has been developed based on the available data. Figure 5-5 shows the calculated replacement timeline with the current condition ratings associated with those assets.

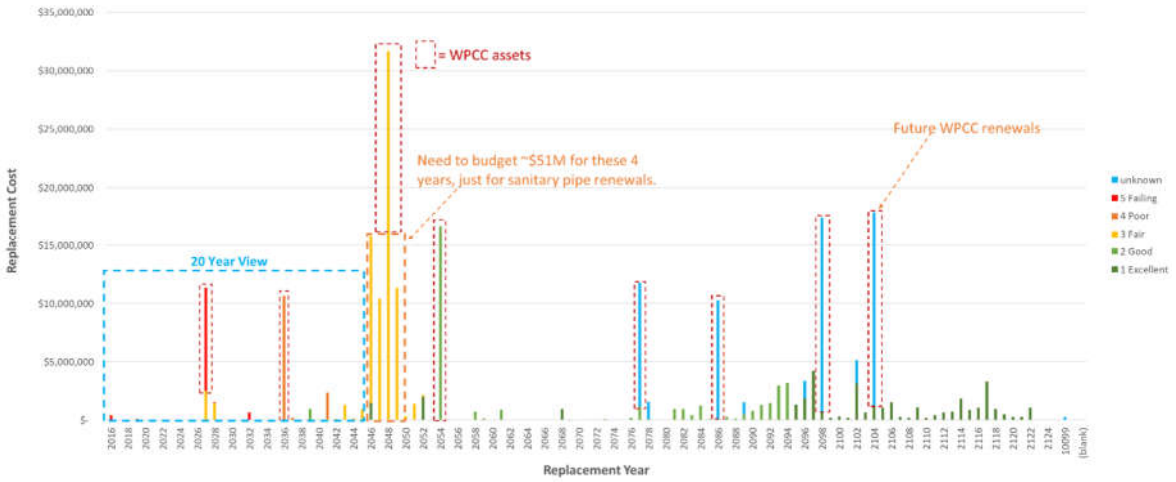


Figure 4-5: Asset Replacement Timing

Highlighted in Figure 5-5 is the large WPCC assets which are nearing end of life and will need a replacement and/or renewal. Approximately $20M will be needed in the next 20 years for renewals, and another $32M in the 20-30 year horizon.

Additionally, an estimated $51M of sanitary pipe will need replacement between 2046 and 2049. This work will most likely be adjusted and spread out over a greater number of years, once physical assessments of those assets are completed, and a more precise Anticipated Useful Lives are determined.

Since WPCC assets have an AUL of 50 years, they will need a second renewal within the timespan shown in Figure 5-5. For this reason, the "Future WPCC renewals" are also included in the chart, beginning in 2077. The condition of these assets is listed as "unknown" as they are future assets.

4.7 Renewal / Replacement Investment Needs

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future operations and maintenance costs.

Assets requiring renewal/replacement are identified from one of two methods:

- **Method 1** uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- **Method 2** uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or expert opinions and assessments from our operations teams

Method 1 and 2 were completed for this SDM plan and the results analysed. There are strengths and weaknesses to both methods. Specifically, Method 2 was more accurate at predicting the short term

renewals and capital upgrade projects but may not properly capture all calculated renewal projects. Method 1 captured the full scope of any calculated renewal projects but does not reflect any Adjusted Anticipated Useful Lives based on condition assessments, professional knowledge or risk assessment prioritization. Since the results from Method 1 and 2 were overall very similar, and Method 1 is uses cleaner data, Method 1 was chosen as the predicted renewal costs.

Using Method 1, asset renewals and replacements are Capital expenditures that can be predicted into the future based on the Anticipated Useful Life of the assets. There are two views considered for capital investment needs into sanitary assets. A "lifetime" view, and a "20-Year" view aligned to the current 20-year forecast. The lifetime view will give a more accurate indication of total sustainable requirements over the long term, while the 20-year view is a more accurate shorter-term view.

4.7.1 20 Year View

Over the next 20 years, an estimated $30M in capital renewals is required to maintain the existing sanitary infrastructure at the current service levels. Major items include refurbishing the WPCC Stage I & Stage II (approximately $20M) and replacement of sanitary main reaching the end of its service life. Figure 5-3 illustrates the 20-year calculated replacement costs.

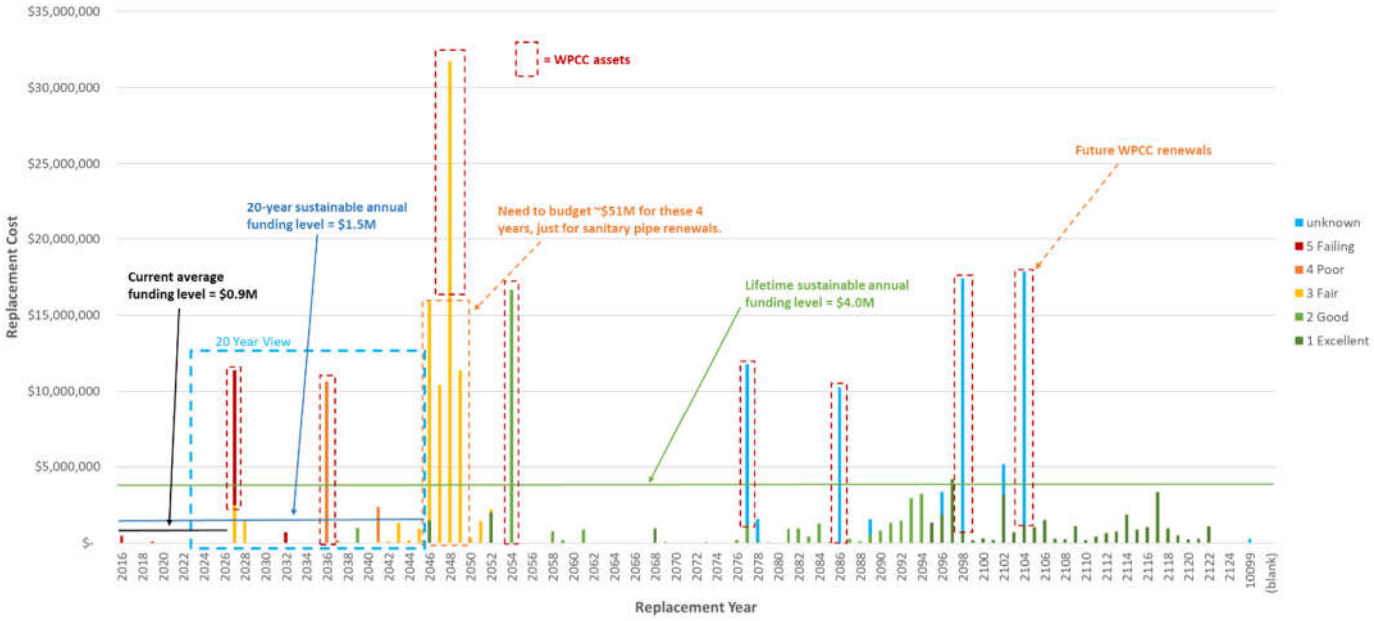
20 Year Replacement Costs	Average Replacement Funding	20 Year Annual Shortfall
$1.5M	$0.9M (annual)	$0.6M

Figure 4-6: 20 Year Capital Replacements

The current calculated replacement costs require an average of $1.5 million in annual replacement costs. Based on current funding (5-year average), there is an annual shortfall of $0.6M. Some replacements may be delayed if physical inspections confirm an extended useful life, or if different service levels are set based on balancing service delivery risks (ie. Operating low criticality mains to failure). With appropriate operations and maintenance based on condition inspection programs, it is anticipated that many mains will perform past their anticipated useful life which will shift the replacements to later years and lower the required average annual funding level.

4.7.2 Lifetime View

The lifetime view of our assets extends roughly 100 years into the future, and reflects those assets recently installed with an expected 100-year lifespan. At a high level, this would include a gradual replacement of all assets over this time frame. This timeline of replacements is shown in the chart below and totals approximately $171M. Averaged out over the timeframe, and factoring in the various lifespans of each assets, this would require an annual funding level of approximately $4.0M to cover asset replacements.



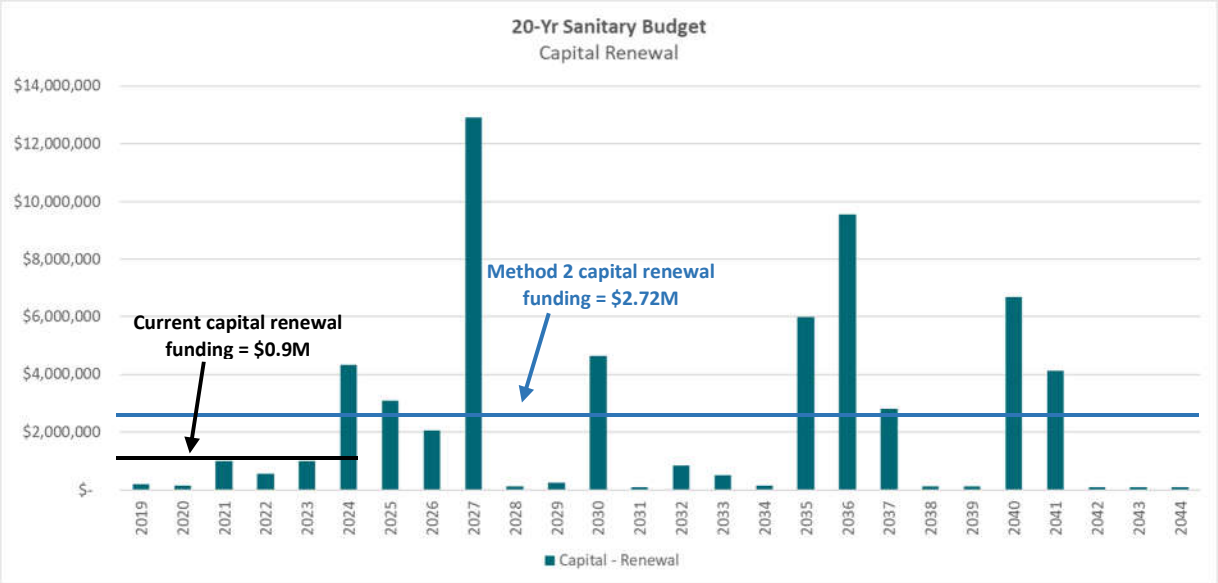
Lifetime Sustainable Replacement Costs	Average Replacement Funding	Annual Shortfall
$4.0M annual	$0.9M	$3.1M

Figure 4-7: Lifetime Asset Renewals/Replacements

4.7.3 Method 2 – Inspections and Assessments

Using Method 2, City of Salmon Arm staff have examined all aspects of our Sanitary system and generated a detailed list of required capital renewals over the next 20 years. These capital renewals closely align with our Method 1 calculations, but are considered more accurate in terms of costs and timing.

A summary of annual capital renewal Expenditures is shown below in .



20 Year Replacement Costs	Average Replacement Funding	20 Year Annual Shortfall
$2.72M	$0.9M (annual)	$1.82M

Figure 4-8: Method 2 Capital Renewal Requirements

Based on the details in Method 2, there is a total of $54M of capital renewal expenditures identified for the next 20 years. This equates to an annual capital renewal funding requirement of $2.72M, which is greater than the estimated $1.5M annually from Method 1.

It should be noted that Method 2 is considered more accurate as it is based on assessments from our staff and WPCC operators and is not calculated base on age data as per Method 1.

4.7.4 Asset Sustainability Ratio

An Asset Sustainability Ratio is defined as the annual budget for capital replacements divided by the annual depreciation of the assets. Service Delivery Management best practices recommend an Asset Sustainability Ratio of between 80-90% in order to ensure long-term sustainable service delivery. The remaining funding gap will usually be closed by grants, developer contributions through redevelopment and maximizing asset lifespans through excellent operations and maintenance.

In both the 20-Year view and the Lifetime view, there is an annual funding shortfall. The shortfalls can be expressed as Asset Sustainability Ratios; 60% in the 20-year view and 22% in the Lifetime view, and 33% in the Method 2 view. Since there are currently few sanitary assets in poor condition, the Asset Sustainability Ratio indicates that a sharp increase in rates will be required in the near future to avoid additional risk to service delivery. A more prudent approach may be to increase rates consistently over a greater length of time. Funding options will be analyzed through the City's 5-year and long-term financial plans.

4.7.5 Renewal Ranking Criteria

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant
- Have the potential to reduce lifecycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[4]

The Capital Renewals 20-year plan currently incorporates renewal ranking criteria; however, future iterations of the Sanitary Service Delivery Management Plan will incorporate ranking criteria into the planning process with the aim to customize service levels for different criticalities of infrastructure to reduce overall lifecycle costs.

4.8 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity. The operations budgets cover all resources that support ongoing operations of the asset including staffing, utilities, technology, equipment and materials.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. sanitary gravity main pipe repairs, Catch basin cleaning, main flushing. Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Operations and Maintenance budgets need to increase as the asset inventory increases in order to maintain service levels. Some budgets are proportional such as utility costs, while some jump up when certain thresholds are met (additional staff or equipment when the inventory reaches a certain size). The trend in Sanitary O&M budgets are shown in Figure 4-9: Sanitary O&M Budget vs CPI.

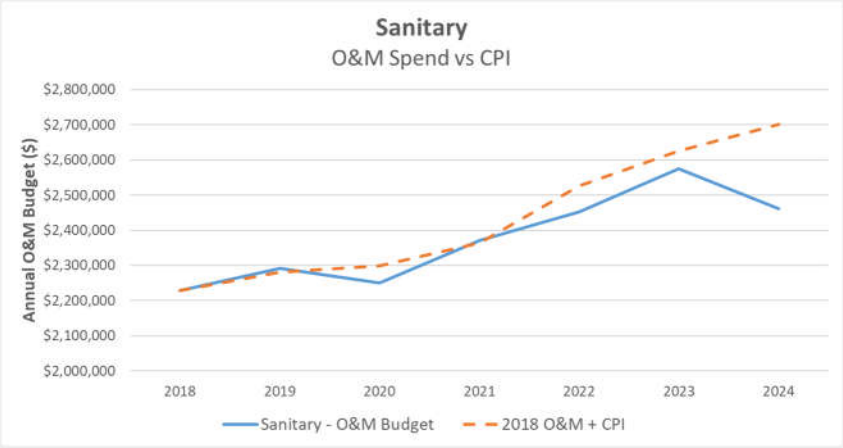


Figure 4-9: Sanitary O&M Budget vs CPI

[4] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

While the O&M budget has been trending upwards, when compared to CPI inflation it has been falling behind in relation to the 2018 budget. A trend line that does not keep up with asset growth and inflation implies that Operations and Maintenance levels are likely deteriorating (less money spent on more assets). This may mean that technical service levels may not be met consistently and that the condition of the assets may deteriorate more rapidly due to reduced O&M levels. However, there also may be changes in best practice or technology that result in savings, for example, a good pipe inspection program may result in less flushing based on actual rather than assumed condition, or energy efficient upgrades to a pump station may result in annual operational savings.

Sanitary Services has not seen substantial savings due to changes in best practices or technology, therefore the O&M budget should at a minimum mirror the CPI increases in order to maintain the current service levels. With these increases, maintenance expenditure levels will be considered adequate to meet projected service levels, which may be less than or equal to current service levels. The 20-year budget forecast is shown below in Figure 4-10: Operations and Maintenance Expenditure Trends, and shows an average O&M annual budget of $2.21M.

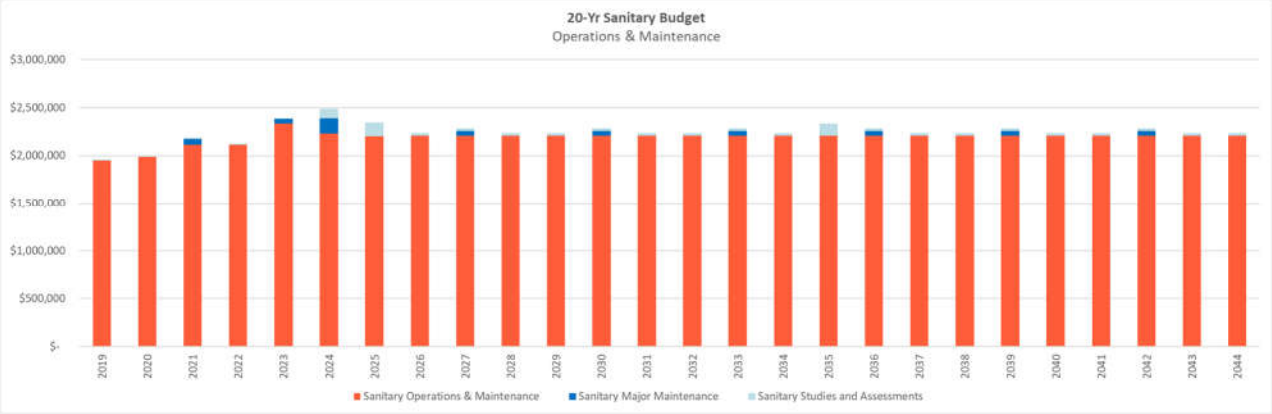


Figure 4-10: Operations and Maintenance Expenditure Trends

Combining the Capital Renewal and O&M expenditures provides a more complete view of funding requirements to maintain our current service levels. Figure 4-11: O&M + Capital Renewal Budget shows this combined view.

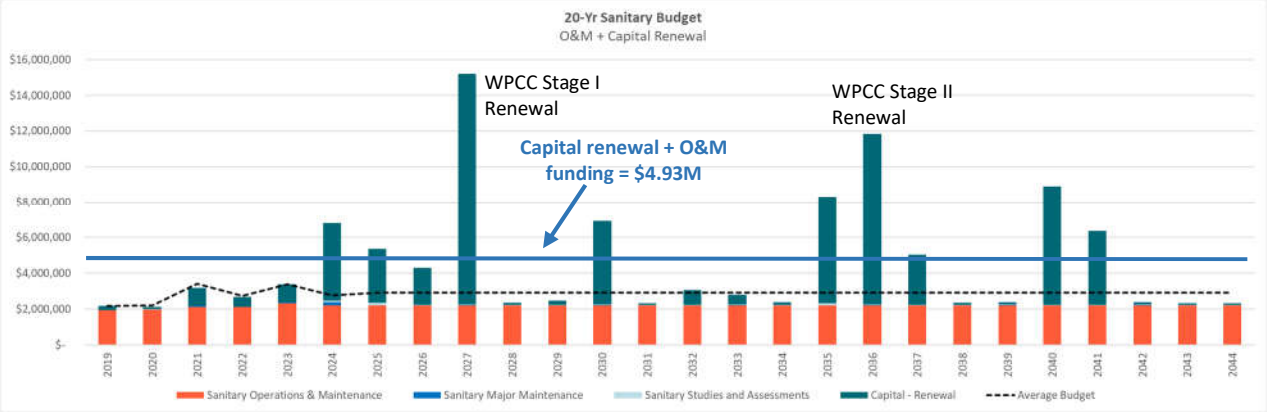


Figure 4-11: O&M + Capital Renewal Budget

The combined Capital Renewal and O&M 20-year budget is $4.93M annually.

The Stage I renewal in 2027 may not be needed as it will potentially be included in the Stage IV upgrade happening in the same year.

To maintain current service levels, the overall Sanitary budget will need to increase to account for the upcoming Capital Renewal requirements. Forward looking budget recommendations will be outlined in the 2025 Rate Submission for Sanitary Services.

4.9 Asset Expansion Plan

Asset networks are expanded through a variety of means:

- **New Assets**: create an asset in the City's inventory that did not previously existing and may be:
  - **Capital Projects:** assets constructed by the City through annual capital expenditures
  - **Contributed Assets**: constructed by third parties such as developers and assumed by the City
  - **Donated Assets**: constructed and donated by third parties such as non-profit groups or estates; these may be new or used assets
  - **Purchased Assets**: assets purchased by the City in either new or used condition
- **Upgraded Assets**: are capital expenditures by the City that replace and improve an existing asset beyond its existing capacity or function

Asset acquisition may be driven by growth, social or environmental needs or changes in regulations. These additional assets are considered in Section 4.4.

4.9.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as master planning documents, community requests, proposals identified by strategic plans or partnerships with others. Candidate proposals are inspected to verify need and to develop a preliminary capital estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

The City currently prioritizes capital acquisitions using metrics such as alignment with strategic and master plans and contributions to risk reduction and service delivery.
Capacity and Function issues are timed to coincide with an asset renewal or development where possible. For example, sanitary mains are generally upsized to handle anticipated usage demands when the original main is replaced due to deterioration.

4.9.2 Future Upgrades / New Assets Expenditures

Projected upgrade / new asset expenditures are summarized in Figure 5-12. The projected upgrade/new capital works program includes a major WPCC Stage IV upgrade in 2027 and a Stage V upgrade in 2040. The two major upgrade projects are the Stage IV and Stage V upgrades at the WPCC, which will be needed to maintain sufficient capacity in the sanitary system. It is anticipated that over $97M will be spent on new upgrades to the WPCC over the next 20 years. All amounts are shown in real values.

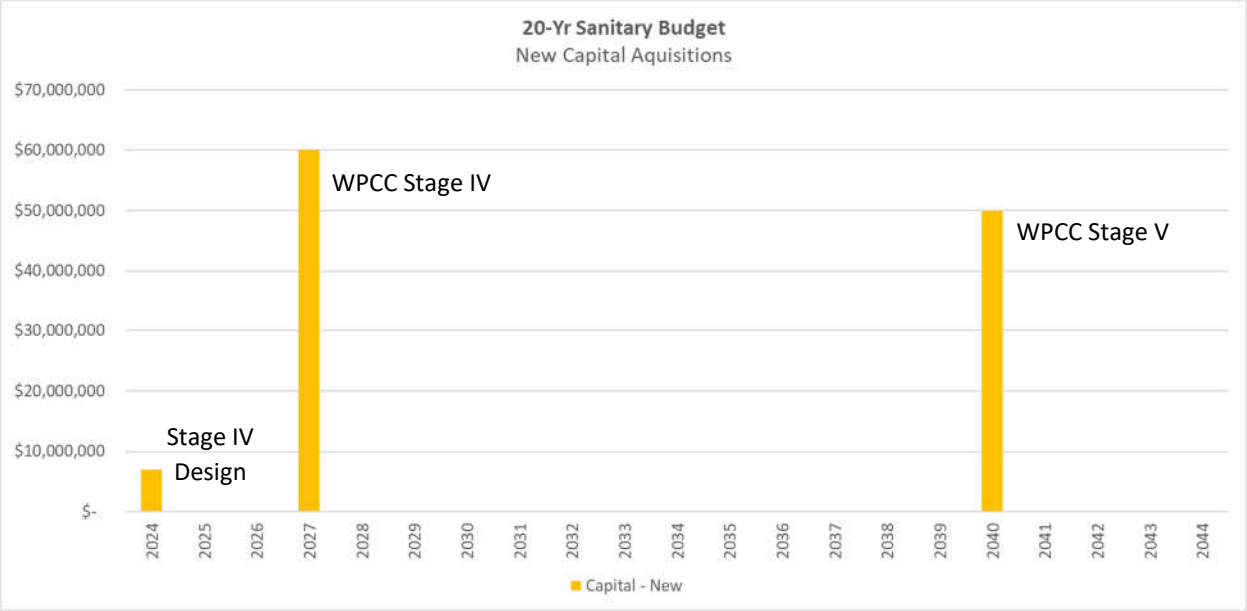


Figure 4-12: New Capital Acquisitions

Expenditures on new assets required to accommodate growth within current service levels are included in the capital works program and will be accommodated in the Long Term Financial Plan. Expenditure on new assets providing increased service levels have been included in the capital works program where included in master planning; however, will be prioritized only to the extent of the extent of available funds.

The funding of all new capital needs to include a life cycle analysis to ensure that the operations, maintenance and decommissioning or replacement can be funded over the full life cycle of the asset.

The vast majority of the projects are Capital Upgrade as opposed to brand new assets. Capital Upgrade generally will have a lower anticipated increase to Operations and Maintenance than a new asset. For example, the Operations and Maintenance costs on a 250mm watermain vs. 150mm watermain is negligible; however, a new 250mm watermain would require flushing, valve and hydrant operations and inspections, etc.

4.10 Inflation

Inflation in construction services has been much higher than normal over the last 5 years, ranging from 25% to 40%, depending on the specific type of construction. This is having a significant effect on cost estimates and overall replacement costs for the City of Salmon Arm assets. Replacement costs for many assets need to be adjusted, and as a result the overall funding requirement for the city will increase.

4.11 Disposal

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Where assets are disposed of, any costs or revenue gained from asset disposals should be accommodated in the long term financial plan. At this time there is no disposal plan for any of the assets in the sanitary network.

4.12 Projected 20-Year Budget Requirements

The combined budget forecast for Sanitary services shows a system that is relatively well funded, but has several new capital and renewal capital projects in the future that will require different funding strategies if service levels are to be maintained.

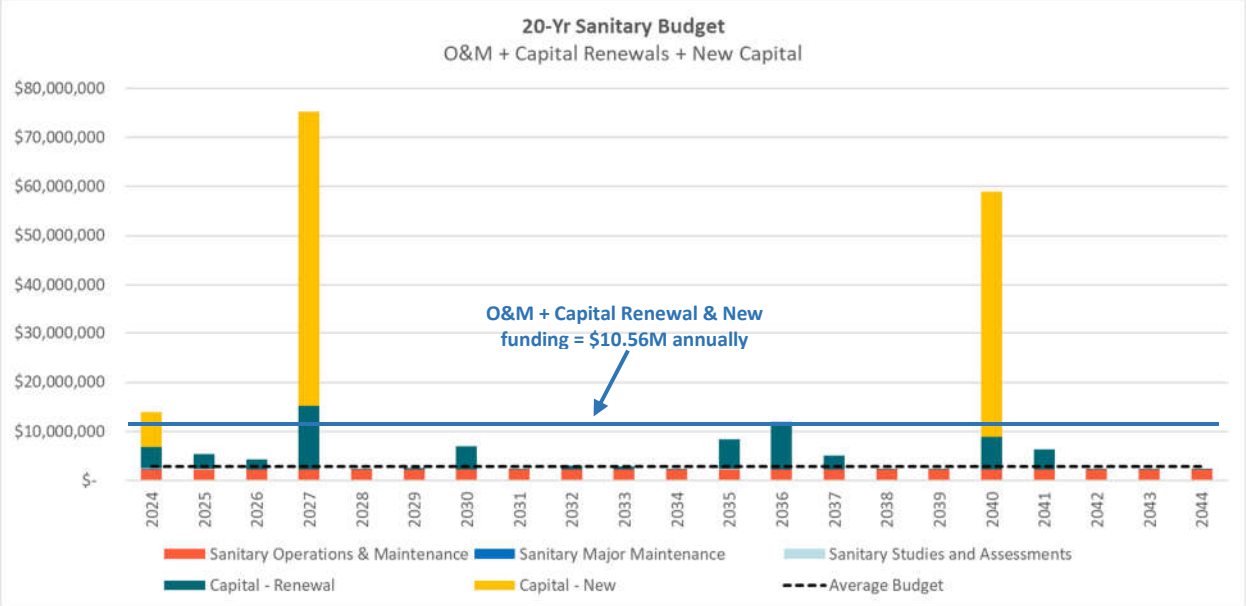


Figure 4-13: Sanitary Budget with New Capital

The combined expenditures over the next 20 years average $10.56M per year, including the major new capital projects. A financial summary is outlined in Section 7 to discuss various options and the impact on service levels. Of note, long term debt will be used to fund the WPCC Stage IV upgrade in 2027, which will be outlined in more detail in Section 7.

5 Risk Management Plan

The purpose of infrastructure risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2009 as: 'coordinated activities to direct and control with regard to risk[5].

An assessment of risks[6] associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock'. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

5.1 Asset Criticality and Critical Assets

Asset Criticality is a ranking of assets that indicates the severity of impact if that asset fails. Some assets within the City of Salmon Arm water assets have a much higher impact than others. In future iterations of the Sanitary SDM Plan, asset criticality will factor into the long term planning in a more defined way.

5.1.1 Assets with Level 5 Criticality

Critical assets are defined as those which have a catastrophic consequence of failure measured by the worst impact to Health and Safety, Service Delivery, Environment, Finances or Regulatory Requirements. Similarly, critical failure modes are those which have the highest consequences. Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Table 5.1: Critical Sanitary Assets

Level 5 Critical Asset(s)	Failure Mode	Impact
WPCC	Capacity, electrical, fire, bacteriological	Environmental consequences for Shuswap Lake; not meeting regulatory requirements
Foreshore Main – Gravity main (Phases 2 and 3)	Pipe failure	Service interruptions upstream of failure; potentially leaks into riparian area; major consequences to WPCC due to inflow volumes.
Foreshore Main – Forcemain	Pipe Failure	Service interruptions upstream of failure; potentially leaks into riparian area; major consequences to WPCC due to inflow volumes.

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

[5] ISO 31000:2009, pg.2
[6] Refer to Appendix E

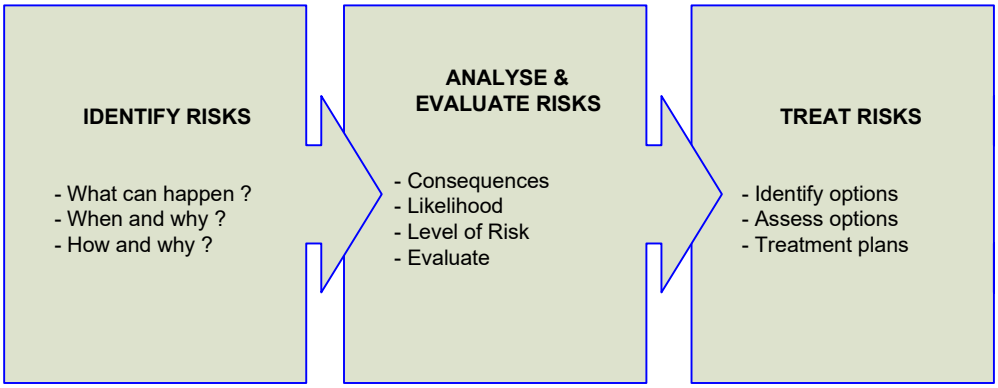
5.2 Risk Assessment

The risk management process used in this project is shown in Figure 6.1 below.

It is an analysis and problem solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

Figure 5-1: Risk Management Process – Abridged



The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences (asset criticality) should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

An assessment of risks associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, 'financial shock' or a reduction in service.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment cost after the selected treatment plan is implemented is shown in Table 6.2. These risks and costs are reported to management and Council.

Table 5.2: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
WPCC	Reaches Capacity	VH	Stage IV Upgrade	H	$60,000,000
WPCC	Pump Failure	H	Replace pumps	M	$100,000
WPCC	Failure	H	Source control – public education		$500,000
Foreshore main – Gravity, Phase 2	Breaks in main leading to service interruptions, leaks into riparian area or major consequences to WPCC due to inflow volumes.	H	Line pipe in existing location	M	$1,500,000

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Foreshore main – Gravity, Phase 3	Breaks in main leading to service interruptions, leaks into riparian area or major consequences to WPCC due to inflow volumes.	H	Replace pipe	H	$6,600,000
Foreshore main – Forcemain	Breaks in main leading to service interruptions, leaks into riparian area or major consequences to WPCC due to inflow volumes.	H	Replace pipe (sinking)	M	$1,500,000
Clare's Cove Pump Station	Age related failure causing sewer backups in Canoe	H	Replace pump station	M	$200,000
Sanitary mains	Plugs	H	Annual spot treatments and regular maintenance (3 year flushing rotation, removal of roots, grease and build-up)	M	$30,000
Wharf Street Trunk to Foreshore Main	Risk of failure	H	Line pipe in existing location	M	$40,000

Note: * The residual risk is the risk remaining after the selected risk treatment plan is operational

5.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service.

Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Our current measure of resilience is shown in Table 5.3: Resilience, which includes the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

Table 5.3: Resilience

Threat / Hazard	Resilience LMH	Improvements / Interventions
Impacts of Climate Change	High	Flood assessment for all infrastructure; flood proof where necessary
Critical Infrastructure reaching capacity	Medium	Continued master planning identifying capacity upgrades and triggers; enhance resourcing of capital works planning and development team
Lack of funding in emergency situations	Medium	Enhance Emergency Response Plans and increase reserve transfers.

5.4 Service and Risk Trade-Offs

The decisions made in adopting this AM Plan are based on the objective to achieve the optimum benefits from the available resources.

5.4.1 What we cannot do

With the renewal and acquisition of assets from the large expenditures taking place from 2024 to 2027, the City will update its Long Term Financial Plan to account for the operations and maintenance of the acquired assets. This will lead to some capital projects that are unable to be undertaken within the next 10 years including:

- Expansion of sanitary main to the Airport and South industrial parks
- Replace all AC mains at the target service level of 100% AUL

5.4.2 Service trade-off

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Increased number and severity of service interruptions
- Decreased customer satisfaction in the reliability and function of the sanitary network
- Slower growth or different types of industry in Industrial Park development

Significant decreases in service levels are anticipated to appear near the end of the timeframe of this plan.

5.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may maintain or create risk consequences. These include:

- Increased risk of damage to infrastructure around sanitary mains such as roadways and buildings
- Increased risk of environmental consequences

These actions and expenditures are considered in the projected expenditures, and where developed are included in the Risk Management Plan.

6 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

6.1 Asset Value and Projections

6.1.1 Asset Valuations

Each sanitary asset has specific replacement costs based on current estimates, or appraised values. By category, the total current replace values are:

Gravity Main Pipe	Force Main Pipe	Manholes	Lift Stations	Perforated Pipe
$99,007,000	$6,334,000	Included in gravity main value	$8,500,000	$57,458,000

Combined Replacement Value of Sanitary Assets
$171M

This number is likely conservative, given the significant cost increases seen over the last few years.

6.1.2 Sustainable Funding to Maintain Service Delivery

Two key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category are:

- asset renewal funding ratio
- medium term budgeted expenditures/projected expenditure (over 20 years of the planning period)

6.1.2.1 Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[8]: 33% (Method 2)

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 20 years of forecasting that we expect to have 33% of the funds required for the optimal renewal and replacement of assets.

6.1.2.2 20 Year Financial Planning Period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 20 year period. This provides input into 20 year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the 20 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

[8] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

The projected operations, maintenance and capital renewal expenditure required over the 20 year planning period is $4,930,000 on average per year not including the new capital projects. With new capital included, the average expenditure required over the 20-year planning period is $10,560,000 annually.

Estimated (budget) operations, maintenance and capital renewal funding is $2,917,000 on average per year giving a 20 year funding shortfall of -$2,074,000 per year. This indicates 42% of the projected expenditures needed to provide the services documented in the asset management plan. This excludes upgrade/new assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 20-year life of the Long Term Financial Plan.

6.2 Projected 20-Year Expenditures

The figure below shows the projected expenditures for the 20 year long term financial plan. The total projected expenditures over the 20 year period is $218M, averaging $10.56M annually

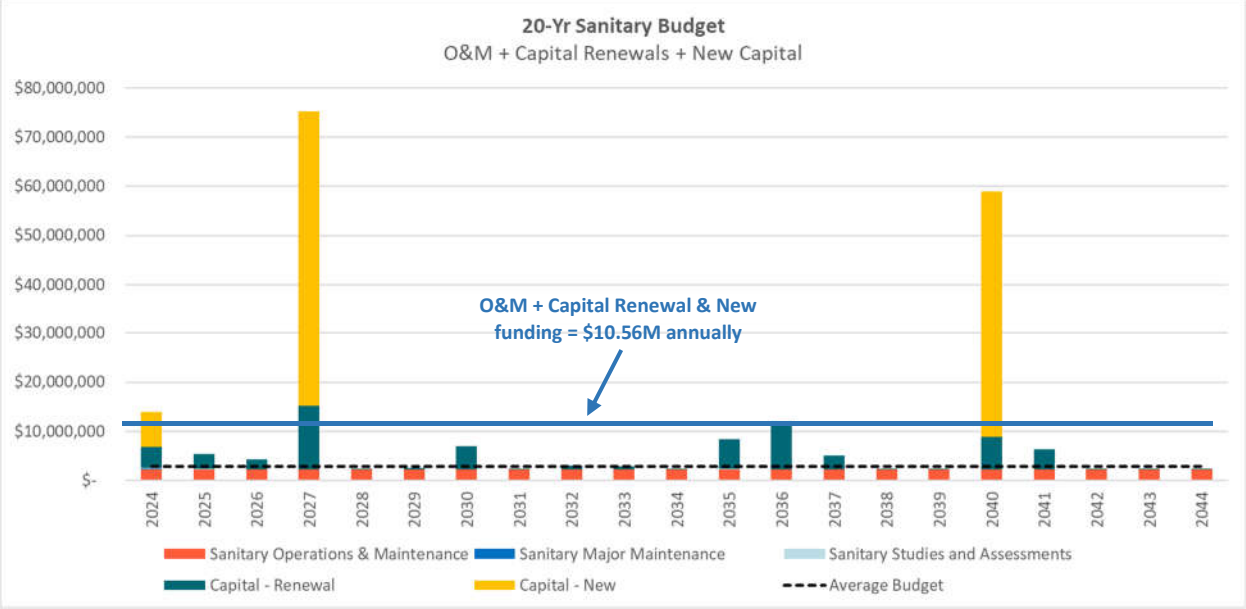


Figure 6-1: Projected 20-Year Sanitary Expenditures

6.3 Funding Strategy

Funding for assets is provided from the budget and long term financial plan. The financial strategy of the entity determines how funding will be provided, whereas the asset management plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

6.4 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the service.

Additional assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. However, renewing and replacing assets before they approach the end of their useful lives will reduce the operations and maintenance needs on aging infrastructure.

Additional assets will also add to future depreciation forecasts.

6.5 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

- The asset register used to produce the Age Profile, Condition Profile and Replacement Costs is mature and presents accurate data and 2024 dollar values
- Asset conditions are based on their current age and expected lifespan
- The dollar values for the Long Term Financial Plan created in 2002 are accurate for the current 2024 budget and future funding (funding is actually expected to be higher due to increased population growth and tax base).

6.6 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale[9] in accordance with Table 7.5.

Table 6.1: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%

[9] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

Confidence Grade	Description
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy ± 40%
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be C - Uncertain. The asset register is mostly complete however the conditions and replacement costs are based on assumptions and best estimates, which increases the uncertainty in the data.

7 Plan Improvement and Monitoring

7.1 Status of Asset Management Practices

7.1.1 Accounting and Financial Data Sources

The main sources of accounting and financial data for this Asset Management Plan are the City of Salmon Arm's Long Term Financial Plan and the 2024 Budget. As the Long Term Financial Plan is due to be updated funding amounts can only be predicted based on past performance rather than future planning.

7.1.2 Asset Management Data Sources

Asset information is stored and managed in a GIS database. Upcoming Renewal and Upgrade/New projects are digitally filed as project sheets and added to the GIS as they are completed. If no project sheets are available, renewal timing is calculated based on age and AUL (Average Useful Life) to determine when assets will need renewal/replacement well into the future.

The calculated renewal timing and annual budgets works well to create a high level picture of budget requirements 20-100 years into the future.

The individual project sheets and assessments provide more accurate timing for those assets within 1-20 years.

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.1.

Table 7.1: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Improve communications between departments in AM team (Engineering, Utilities, Finance, GIS)	AM Team	Staff Time	ongoing
2	Improve reporting on customer input for service level research	Customer Service, Engineering, Utilities	Staff Time	1 year
3	Update Long Term Financial Plan in conjunction with Asset Management Plan	Finance, AM Team	Staff Time	4 years
4	Update Asset Register and GIS information to include upcoming projects in the 20 year planning period	AM Team	Staff Time, ArcGIS software	1 year
5	Improve budgeting process and capital works planning, by allocation of funds into Operations, Maintenance, Renewals	AM Team, Finance	Staff time	2 years

	and Upgrade/New to better align with SDM			
6	Improve assessment and reporting of asset condition, function and capacity	Engineering, Utilities	Staff time, System studies	1 year
7	Improve the process to identify critical assets	Engineering, Utilities	Staff time	6 months
8	Improve ability to manage data and provide scenario modeling through AM software	Engineering, Utilities, IT	Staff time; consultant time	2 years
9	Create service level hierarchies based on asset criticality to maximize longevity of assets	Engineering, Utilities	Staff time	6 months

7.3 Monitoring and Review Procedures

This SDM plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels, risks and/or resources available to provide those services as a result of budget decisions.

The SDM Plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the long term financial plan.

The SDM Plan will be due for complete revision and updating every 5 years or after completion of a relevant master plan.

7.4 Performance Measures

The effectiveness of the SDM plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this SDM plan are incorporated into the long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the asset management plan
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans
- The Asset Renewal Funding Ratio achieving the target of 0.9

8 References

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- City of Salmon Arm Sanitary Sewer Master Plan (Urban Systems, 2016)
- City of Salmon Arm Corporate Strategic Plan (November 2013)
- City of Salmon Arm Official Community Plan (November 2011)
- City of Salmon Arm Long Term Financial Plan (2005)

CITY OF SALMON ARM

Water System

SERVICE DELIVERY MANAGEMENT PLAN

2024

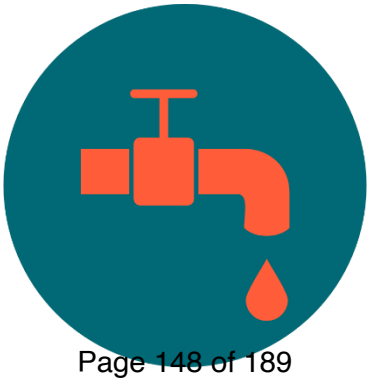


TABLE OF CONTENTS

Water System – SDM Plan

1 Introduction

1.1 Background

This Service Delivery Management (SDM) plan communicates the actions required for the responsive management of water services (and assets in support of this service), compliance with regulatory requirements, and funding needed to provide the required levels of service over a 20-year planning period.

The SDM plan is to be read with the City of Salmon Arm planning documents. This should include the SDM Policy and SDM Strategy where these have been developed along with other key planning documents:

- City of Salmon Arm Corporate Strategic Plan (Urban Systems 2022)
- City of Salmon Arm Official Community Plan (November 2011)
- City of Salmon Arm 2011 Water Study (Opus Dayton Knight, 2012)
- City of Salmon Arm Long Term Financial Plan (2005)

The infrastructure assets covered by this asset management plan are:

- Reservoirs
- Pump Stations
- Watermains
- Valves
- Hydrants
- Services
- Water Treatment Facilities
- Machinery and Equipment
- SCADA Systems

These assets support the treatment and conveyance of water services to provide reliable potable water supply to approximately 18,811 residents, as well as commercial, industrial, and institutional users in Salmon Arm.

1.2 Goals and Objectives of Asset Ownership

The goal in managing infrastructure assets in support of our core services is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and

- Linking to a long-term financial plan which identifies required, affordable expenditure and how it will be allocated.

Other references to the benefits, fundamentals principles and objectives of asset management are:

- International Infrastructure Management Manual 2015 [1]
- ISO 55000[2]

[1] Based on IPWEA 2015 IIMM, Sec 2.1.3, p 2| 13
[2] ISO 55000 Overview, principles and terminology

2 Levels of Service

2.1 Customer Research and Expectations

Future revisions of the SDM plan will incorporate community consultation on service levels and costs of providing the service. This will assist the Council and stakeholders in matching the level of service required, service risks and consequences with the community's ability and willingness to pay for the service.

A sample table has been provided below with some broad performance that may be incorporated into future solicitations for community input.

Table 2.1: Community Satisfaction Survey Levels

Performance Measure	Satisfaction Level				
	Very Satisfied	Fairly Satisfied	Satisfied	Somewhat satisfied	Not satisfied
Quality How satisfied are you with the Taste, smell, and appearance of City Water					
Function How satisfied are you with the function of the water system? Does it do what you want it to, when you want it to?					
Capacity and Use How satisfied are you with the capacity of the water system for both domestic and fire fighting purposes?					
Overall Value How satisfied are you with the value of the water system to treat and convey potable water for domestic and firefighting purposes for $X/day					

Community satisfaction information is used in developing the Strategic Plan and in the allocation of resources in the budget.

2.2 Strategic and Corporate Goals

This SDM plan is prepared under the direction of the City of Salmon Arm vision, values, goals and objectives.

Our vision is:

Salmon Arm is a community that has a comfortable, safe lifestyle and a vibrant feeling. The community deeply values the city's magnificent natural setting with its healthy ecosystems. The city is nestled between mountains and the shore of Shuswap Lake, offering beautiful scenery, greenery, rich agricultural land, and a desirable climate.

As the regional centre of the Shuswap, Salmon Arm has an abundance of recreational, educational, commercial, tourism, health care, and cultural opportunities and services. The strong and growing economy supports varied employment and shopping, and innovative businesses and industry.

The community is spirited, diverse and inclusive, with housing for residents of all ages and needs. Everyone works together towards a shared vision of a good quality of life for all.

In the vibrant city centre, people live, work, visit, meet, shop and spend time enjoying diverse artistic and cultural activities. Downtown's unique urban identity combines heritage preservation, a walkable environment, and high quality, mixed-use developments. Green space extends throughout the city, including active recreation sites, and natural parks with trails. The city abounds with safe walking and cycling opportunities, connecting neighbourhoods, the city centre, natural areas and parks. (City of Salmon Arm Official Community Plan 2011)

Our values are:

- Commitment to pragmatic leadership
- Excellence in service delivery
- Foster trusted relationships with our partners
- Respect what makes us unique
- Enable future generations to inherit a city that is vibrant, prosperous and sustainable
- Encourage citizen participation and input
- Ensure an efficient government
- Facilitate flexible and balanced planning processes

Relevant goals and objectives and how these are addressed in this asset management plan are:

Table 2.2: Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in AM Plan
OCP 13.2.1	Develop and manage utilities in a manner that emphasizes energy conservation, environmental sustainability, and fiscal responsibility.	The SDM plan helps facilitate educated fiscal decision making and efficient spending.
OCP 13.2.3	Continue to manage the City's potable water supply consistent with best practices.	The SDM plan defines operations and maintenance required to meet best practices and applicable regulations and helps facilitate educated funding decisions.
OCP 13.3.3	Continue to carry our an infrastructure analysis through capital assets management that identifies the age and condition of the city's water, sanitary sewer and storm drainage utilities and uses this information to identify priorities for upgrading and improving the system.	This is a detailed SDM Plan document.

The City of Salmon Arm will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan prepared in conjunction with this SDM Plan. Management of infrastructure risks is covered in Section 6.

2.3 Legislative Requirements

There are many legislative requirements relating to the management of assets. These include:

Table 2.3: Legislative Requirements

Legislation	Requirement
Drinking Water Protection Act	Operating requirements treatment and supply of drinking water including operating permits.
Drinking Water Protection Regulation	Drinking water quality requirements including treatment, construction and operation of water systems, monitoring, reporting and public notification regulations/requirements.

2.4 Customer Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service. These are supplemented by Organisational measures.

Customer Levels of Service measure how the customer receives the service and whether value to the customer is provided.

Customer levels of service measures used in the asset management plan are:

Quality: How good is the service … what is the condition or quality of the service?

Function: Is it suitable for its intended purpose …. Is it the right service?

Capacity/Use: Is the service over or under used … do we need more or less of these assets?

The current and expected customer service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the expected levels of service based on resource levels in the current long-term financial plan.

Organisational measures are measures of fact related to the service delivery outcome e.g. number of occasions when service is not available, condition %'s of Very Poor, Poor/Average/Good, Very good.

These Organisational/Organizational measures provide a balance in comparison to the customer perception that may be more subjective.

Table 2.4: Customer Levels of Service

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Quality	Water Tastes, looks and smells good	Customer Service requests related to quality	Negligible (very low even when Metford is significant source)	Expected to stay the same
	Organizational measure	Testing to Provincial Regulations	Meeting 100% of the regulations	Expected to stay the same
		Microbiological tests	Meeting 100% of the regulations	Expected to stay the same

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
	Water service is provided reliably	Service requests - water reliability	Very low number of complaints	Expected to stay the same
	Organizational measure	Number of service interruptions a year	2023 - 2 Breaks	Expected to get worse
		Age & Condition of water infrastructure	See Section 5.4	Expected to get worse
	Confidence levels		High	High
Function	Water service is provided reliably in areas that need it	Service requests related to water extensions/connection	A few requests in Gleneden area	Expected to stay the same
	Organizational measure	Percent of properties serviced by water in the urban area, and rural areas with know water issues	Currently unknown	Expected to get better
	Pressure is sufficient	Service requests - pressure	Low number of complaints	Expected to stay the same
	Organizational measure	Static pressure tests/Water Master Plan	Generally good; some low pressure areas	Expected to stay the same
	Confidence levels		High	High
Capacity & Use	Sufficient capacity to fight fires	Feedback from fire department; complaints related to pressure	Medium	Expected to get better (hydrants all painted)
	Organizational measure	Calculated 4-hour fire flows	Medium	Expected to get worse
	Sufficient capacity for domestic & ICI usage	Complaints	Some complaints due to parcel size limitations for irrigation	Expected to stay the same
	Organizational measure	SCADA	Excess capacity available during regular usage; some capacity available during summer usage	Expected to get better due to funding of water conservation initiatives
	Confidence levels		High	High

2.5 Technical Levels of Service

Technical Levels of Service - Supporting the customer service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities to best achieve the desired customer outcomes and demonstrate effective performance.

Technical service measures are linked to the activities and annual budgets covering:

- **Operations** – the regular activities to provide services (e.g. opening hours, cleansing, mowing grass, energy, inspections, etc.
- **Maintenance** – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. road patching, unsealed road grading, building and structure repairs),
- **Renewal** – the activities that return the service capability of an asset up to that which it had originally (e.g. road resurfacing and pavement reconstruction, pipeline replacement and building component replacement),
- **Upgrade/New** – the activities to provide a higher level of service (e.g. widening a road, sealing an unsealed road, replacing a pipeline with a larger size) or a new service that did not exist previously (e.g. a new library).

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.

Table 3.5 shows the technical levels of service expected to be provided under this SDM Plan. The 'Desired' position in the table documents the position being recommended in this SDM Plan.

Table 2.5: Technical Levels of Service

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
TECHNICAL LEVELS OF SERVICE				
Operations	Administration	FTE and efficiency	TBD ($854,900)	
	Reservoir inspection and cleaning	Frequency	5 year inspection/cleaning ($114,350)	Adequate
	Purification and treatment	Meeting Regulations	Meeting Regulations ($582,250)	Adequate
	Watermain Flushing	Frequency	Once per 4 year cycle ($65,000)	Reduce (moved from 3 year to 4 year cycle) ($45,000)
	Operating Hydrants	Frequency	Type A – full service every other year Type B – inspection ($97,000)	Adequate
	Flow Testing	# of Hydrants	Once per 5 year cycle ($45,000)	Adequate
	Pump Stations	Frequency	Annual inspections & Operational 100% ($459,150)	Adequate
	Water Quality Testing	Frequency	Per regulations ($39,750)	Adequate
	Cross Connection Control	% of properties in compliance	Close to 100% ($20,000)	Adequate

Service Attribute	Service Activity Objective	Activity Measure Process	Current Performance *	Desired for Optimum Lifecycle Cost **
	Service Delivery Management	Amount	$20,800 Annually	Adequate
Operational Cost			$2,298,200	$2,278,200
Maintenance	Hydrant Repair/Painting	Frequency	Planned and Reactive	Adequate
	Valve Repair	Frequency	Planned and reactive ($50,500)	Adequate
	Main Repair	Frequency	Reactive ($86,500)	Adequate
	Service Repair	Frequency	Reactive ($245,000)	Adequate
	Meter Repair	Frequency	Reactive ($51,000)	Adequate
	WTP Maintenance	Frequency	Planned and Reactive	Adequate
	Metford Maintenance	Frequency	Planned and Reactive ($27,500)	Adequate
Maintenance Cost			$460,500	$460,500
Renewal	Annual Renewals	Prioritized Capital Works Plan	$444,000/yr (10 yr avg)	$1,263,000/yr (10 yr avg.)
Renewal Cost			$ 581,000 (2019)	$1,263,000/yr (10 yr avg.)
Upgrade/ New	Annual Upgrades	Prioritized Capital Works Plan	$148,000/yr (10 yr avg)	$50,000 per year – prioritize projects
Upgrade/New Cost			$ 194,000 (2019)	$461,050/yr (10 yr avg.)

Note: * Current activities and costs (currently funded).

** Desired activities and costs to sustain current service levels and achieve minimum life cycle costs (not currently funded)

It is important to monitor the service levels provided regularly as these will change. The current performance is influences by work efficiencies and technology, and customer priorities will change over time. Review and establishment of the agreed position which achieves the best balance between service, risk and cost is essential.

3 Future Demand

3.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

3.2 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets were identified and are documented in Table 4.3.

3.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and use of assets are shown in Table 4.3.

Table 3.1: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Climate Change	2 to 3 times winter usage experienced through summer irrigation.	Longer drought periods increasing demand.	Prematurely hitting peak flows at WTP and throughout system requiring substantial infrastructure upgrades.
Population Growth	1-2% steady growth with recent significant spike (unconfirmed 9%) and requests for expansion to IR land	High growth rates for an interim period of time and expansion into previously un-serviced IR lots	Reduced life cycle of assets due to capacity related deficiencies.
Industry Growth	Medium rate of expansion of industrial and commercial farm use	High growth rates for an interim period of time	Reduced life cycle of assets due to capacity related deficiencies.
Poor ground water quality in Gleneden	Low number of properties serviced by municipal system	Increased demand for municipal servicing	Inadequate funding for lifecycle of new mains due to low density.
Changing Density Regulations	Suites only allowed in appropriately zoned locations	SSMUH regulations (4 units per SFD lot), now medium density	Increased density putting pressure on existing system capacity, potentially changing fire flow requirements

3.4 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures.

Opportunities identified to date for demand management are shown in Table 4.2. Further opportunities will be developed in future revisions of this SDM Plan.

Table 3.2: Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Climate Change	Substantial infrastructure upgrades due to summer irrigation.	Create and implement detailed Water Conservation Strategy & stepped water restrictions to reduce irrigation demand.
Population Growth	Minor system upgrades required sooner than anticipated.	Continue to maintain an up-to-date master plan that forecasts and details improvements required for future capacity. Continue to maintain an up-to-date DCC bylaw to help ensure adequate funding available for upgrades.
Poor ground water quality in Gleneden	Inadequate funding for lifecycle of new mains due to low density.	Ensure new extensions are developer funded and secured lifecycle funding (operations, maintenance & renewal) funds are secured in annual budgets.
Changing Density Regulations	Increased density putting pressure on existing system capacity, potentially changing fire flow requirements	Update Master Plan with full build-out scenarios to determine area with future capacity concerns and update funding models such as DCC bylaw as necessary. Review bylaw requirements for fire flows

3.5 Asset Programs to Meet Demand

The new assets required to meet demand can be acquired, donated or constructed. Additional assets are discussed in Section 5.9.

Acquiring these new assets will commit ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the long term financial plan further in Section 5.

The vast majority of water assets are acquired through development.

4 Water Asset Management

The lifecycle management plan details how the City of Salmon Arm plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while managing life cycle costs.

4.1 Asset Summary

The City owns a wide variety of assets in the water class which are spread out over a large geographical area. Overall the City's water assets are in good condition and it is imperative that we keep up with renewing assets as they reach the end of their useful age in order to maintain the existing condition levels and keep maintenance costs low.

4.2 Water Assets We Own

The City of Salmon Arm owns and manages an extensive network of Water assets throughout the city that provide potable water supply for residential, institutional, commercial, and industrial use as well as fire suppression infrastructure and supply. These assets include:

Water Main	Pump Stations	Reservoirs	Hydrants	Treatment Plant
203 km of pipe	9 across 5 zones	15 33k L Capacity	864	2 18 ML/day

All asset data is stored in our GIS system, which is our central asset database and updated regularly as changes are made (new assets installed, or major maintenance completed on existing assets).

4.3 Water Assets Worth

The current replacement cost of our water assets provides a deeper understanding of the scale of infrastructure the city is responsible for maintaining and replacing. Each asset has specific replacement costs based on current estimates, or appraised values. By category, the total current replacement values are:

Water Main	Pump Stations	Reservoirs	Hydrants	Treatment Plant
$208,356,515	$14,100,000	$21,350,000	$8,640,000	$41,375,911

Combined Replacement Value of Water Assets
$294M

This number is likely conservative, given the significant cost increases seen over the last few years.

4.4 Condition of Assets

Condition is not currently monitored in a formal way; however, most of the assets are operated and/or inspected at relative intervals and deficiencies noted. The City takes samples of older mains when working in the immediate area to determine an accurate anticipated remaining life. These condition samples can be used to adjust the average expected life of an asset over time. When no inspection results are available, the City uses age data to calculate an estimated condition. Condition is measured using a 1-5 grading system as detailed in Table 4.1: Asset Condition Rating Model.

Table 4.1: Asset Condition Rating Model

Condition Grading	Description of Condition
1	**Excellent**: only planned maintenance required or <=30% of Useful Life
2	**Good**: minor maintenance required plus planned maintenance or <60% of Useful Life
3	**Fair**: significant maintenance required or <80% of Useful Life
4	**Poor**: significant renewal/rehabilitation required or <90% of Useful Life
5	**Failing:** physically unsound and/or beyond rehabilitation or >90% of Useful Life
Unknown	**Unknown:** insufficient information available to determine asset condition

The calculated condition ratings outlined in Table 5.1 have been updated from previous SDM plans to better reflect the deterioration curve of most assets being non-linear. This updated condition curve better accounts for the nuances of condition as an asset approaches the end of its useful life. A comparison of the previous versus new condition curves is shown below.

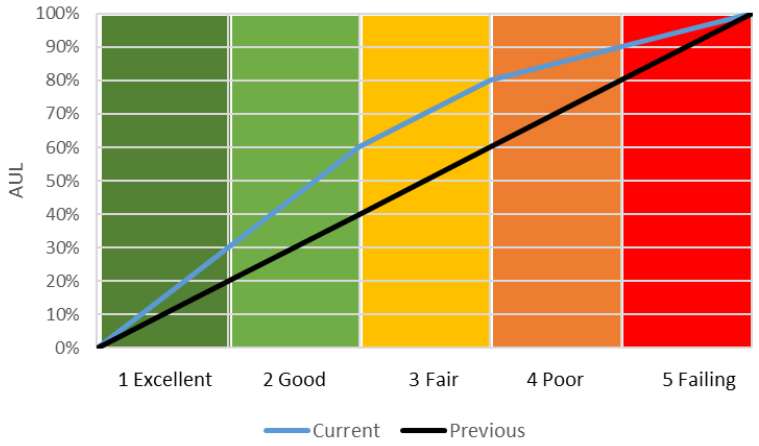


Figure 4-1: Condition Curve

Using this method, water assets are in relatively very good condition overall, with 89% being in Excellent, Good, or Fair condition. Only 4% are at the Failing stage, which is a healthy position to be in. Information for Hydrants is currently being improved, which will allow condition ratings to be applied to those assets (currently listed as “unknown” condition). A summary of the asset conditions is shown below.

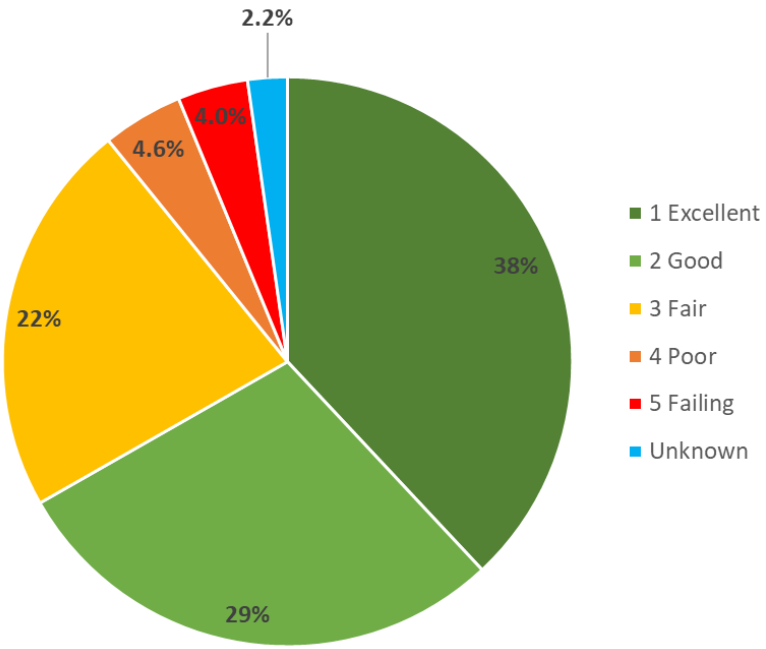


Figure 4-2: Water Asset Condition Profile - by replacement cost

Of the assets in Poor, or Failing condition, most are water pipes that are part of the regular replacement program for pipes at the end of their useful service life. There are also 2 pump stations in "Poor" condition, that are being addressed as part of the capital replacement program. They are located at 5 Corners (Zone 5) and at Canoe Beach (Zone 2).

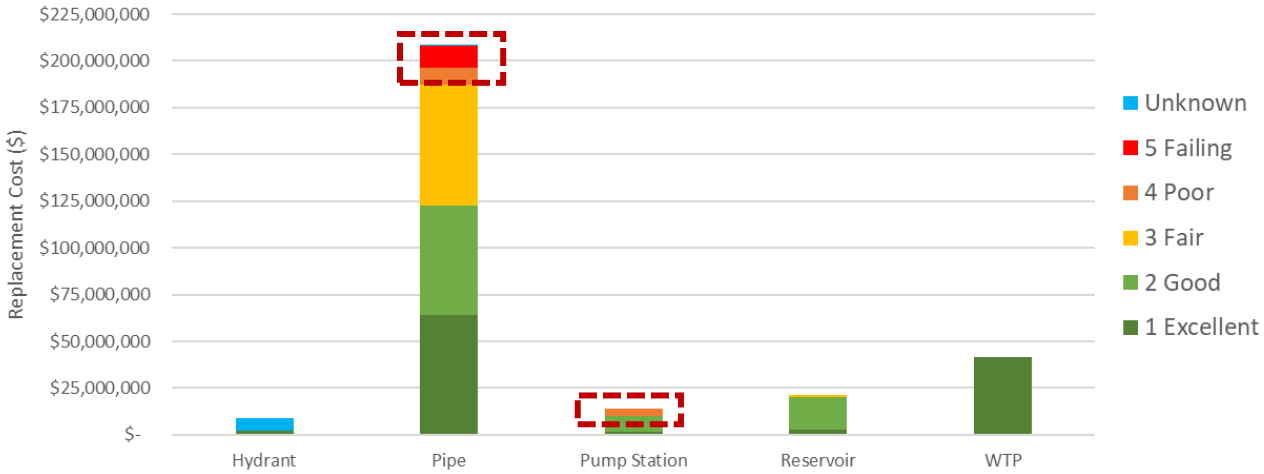


Figure 4-3: Asset Condition Profile - by asset type

A contributing factor to the amount of pipes with a "Failing" rating is related to Ductile Iron pipes. Based on analysis of currently installed pipes, we have reduced the Average Useful Life of these assets to 50 years from 70 years. This is a result of failure analysis and condition monitoring on these assets, which are not lasting as long as originally thought.

The value and quantity of assets installed over time varies depending on several factors including market conditions, grant availability and regulatory changes. This age profile is shown in Figure 4-4: Asset Age Profile.

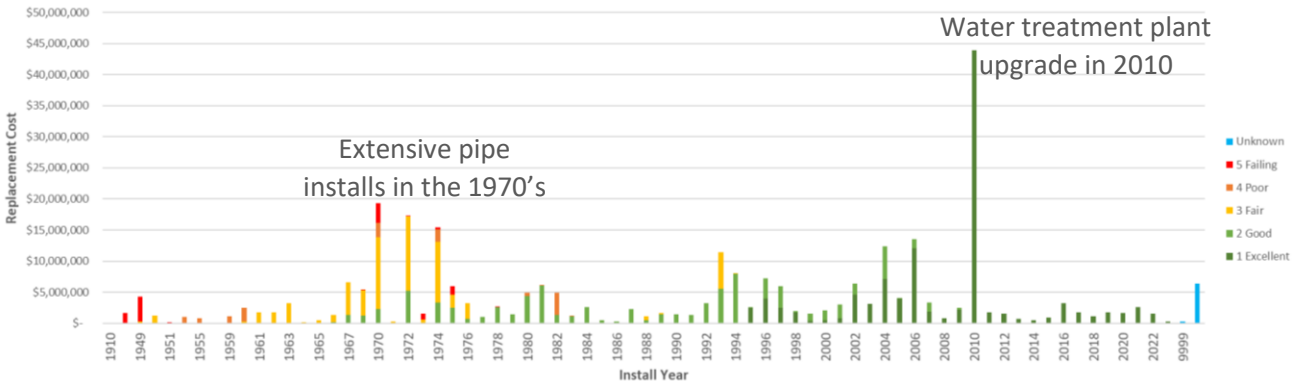


Figure 4-4: Asset Age Profile

A large quantity of the watermain was installed in the 1970's when over $60M of pipe was installed. Those assets installed in the 1970's will be coming due for renewal in approximately 20 years.

4.5 Asset Capacity and Performance

Assets are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in Table 4.2: Known Service Performance Deficiencies.

Table 4.2: Known Service Performance Deficiencies

Location	Service Deficiency
Refer to Water Master Plan	Fire Flow Deficiencies
Refer to Water Master Plan	Pressure Deficiencies
Refer to GIS Mapping	Insufficient Hydrant Coverage

The fire flow and pressure service deficiencies were identified from the City of Salmon Arm 2011 Water Study (Opus Dayton Knight, 2012). Hydrant spacing deficiencies were identified using the City's GIS mapping.

4.6 Asset Replacement Timing

Accurately predicting when each asset will need replacing is difficult, but a process has been developed that factors in the age of an asset and its average useful life (AUL), to approximate when each asset will likely need replacing. When the calculated condition rating becomes Poor, more detailed condition assessments are made on those assets to fine tune the timing of a replacement or major maintenance event, aligned to the target level of service. The criticality rating (risk to service delivery) of the assets are also considered while fine tuning the asset replacement schedule to ensure that where resources are insufficient to replace all assets, the most critical assets are replaced first.

Using this process an estimated timeline of asset replacements has been developed based on the available data. Figure 5-5 shows the calculated replacement timeline with the current condition ratings associated with those assets.

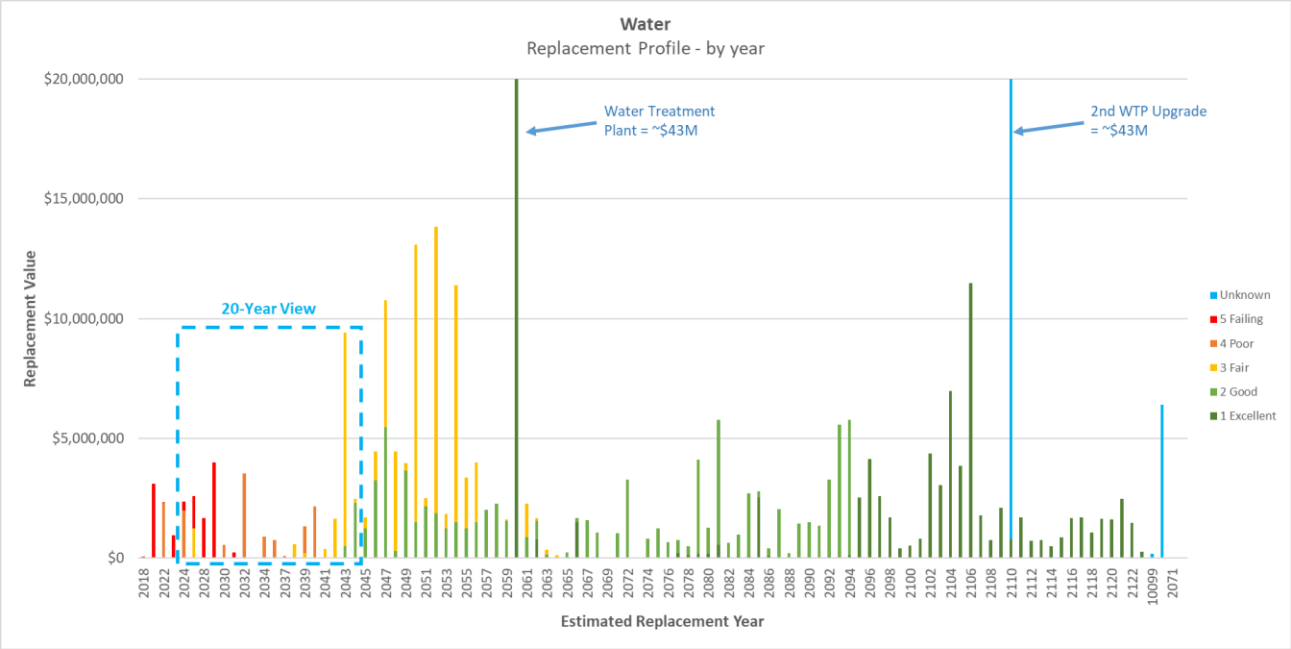


Figure 4-5: Asset Replacement Timing

Highlighted in the chart above is the large group of assets that will need replacement between 2043 and 2054. In those 11 years, an estimated $80M of asset replacements required. This is largely a replacement of the asbestos concrete water pipes installed in the 1970's.

Since Water Treatment Plant assets have an AUL of 50 years, they will need a second renewal within the timespan shown in Figure 5-5. For this reason, the "2nd WTP renewal" is also included in the chart, in 2110. The condition of that asset is listed as "unknown" as it is a future asset.

Each of the major asset classes has specific average useful life ratings, based on manufactures specs, real-life results, and physical assessments. These ratings help calculate the condition of the assets. Water assets AUL's are shown below.

AUL (average useful life) by Asset Class

Water Main	Pump Station	Reservoir	Hydrant	Treatment Plant
50-100 years*	50 years	75 years	75 years	50 years

*depending on material. Ductile Iron = 50 yrs, PVC = 100 yrs

4.7 Renewal / Replacement Investment Needs

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original service potential.

Work over and above restoring an asset to original service potential is considered to be an upgrade/expansion or new work expenditure resulting in additional future O&M costs.

Assets requiring renewal/replacement are identified from one of two methods.

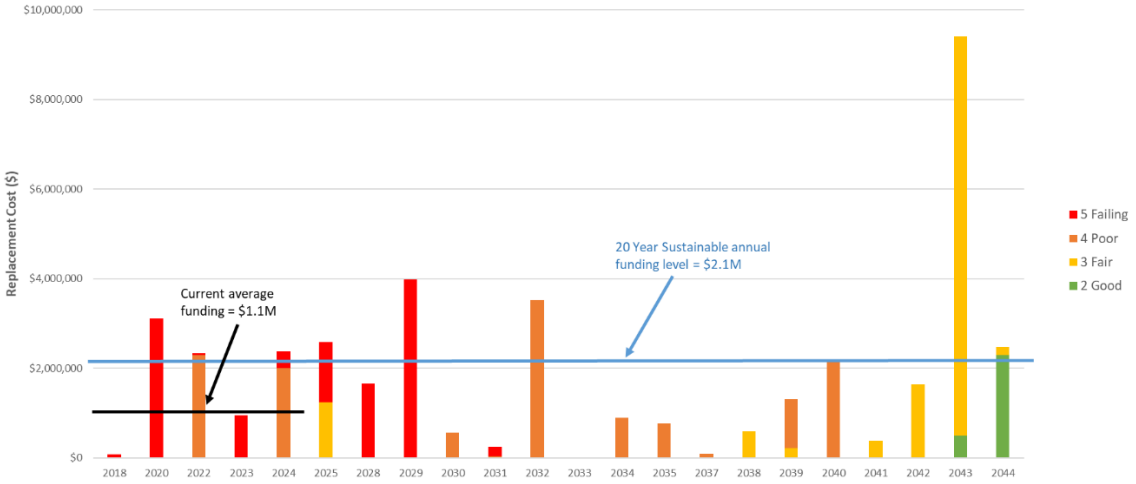
- **Method 1** uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- **Method 2** uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or

Method 1 and 2 were completed for this SDM plan and the results analysed. There are strengths and weaknesses to both methods. Specifically, Method 2 was more accurate at predicting the short term renewals and capital upgrade projects but may not properly capture all calculated renewal projects. Method 1 captured the full scope of any calculated renewal projects but does not reflect any Adjusted Anticipated Useful Lives based on condition assessments, professional knowledge or risk assessment prioritization. Since the results from Method 1 and 2 were overall very similar, and Method 1 uses cleaner data, Method 1 was chosen as the predicted renewal costs.

Using Method 1, asset renewals and replacements are Capital expenditures that can be predicted into the future based on the Anticipated Useful Life of the assets. There are two views considered for capital investment needs into sanitary assets. A "lifetime" view, and a "20-Year" view aligned to the current 20-year forecast. The lifetime view will give a more accurate indication of total sustainable requirements over the long term, while the 20-year view is a more accurate shorter-term view.

4.7.1 20 Year View

Over the next 20 years, we anticipate approximately $41M in capital renewals required to maintain our existing water infrastructure at the current service levels. The focus will be on replacing water main pipes as they reach the end of their service life. Some replacements may be delayed if physical inspections confirm they can last longer, which will shift the replacements to later years and lower the required average annual funding level.



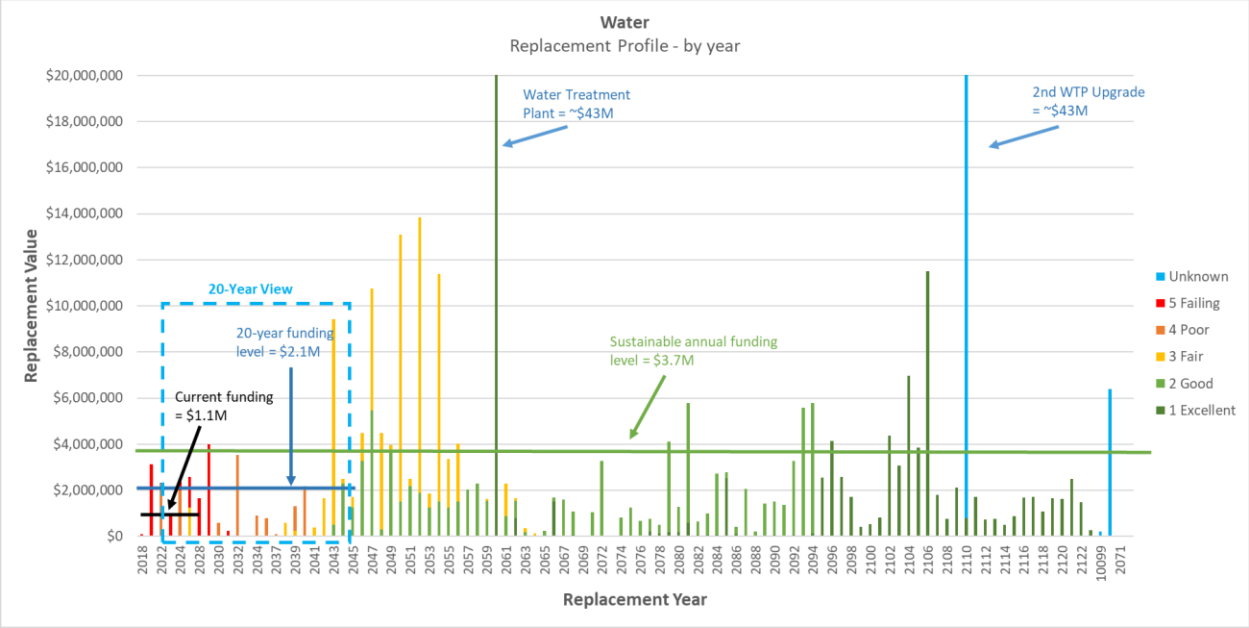
20 Year Replacement Costs	Average Replacement Funding	20 Year Annual Shortfall
$2.1M	$1.1M	$1.0M

Figure 4-6: 20 Year Capital Replacements

In the figure above, assets in Failing condition account for ~$12M of replacements costs.

4.7.2 Lifetime View

The lifetime view of our assets extends roughly 100 years into the future, and reflects those assets recently installed with an expected 100-year lifespan. At a high level, this would include a gradual replacement of all assets over this time frame. This timeline of replacements is shown in the chart below and totals approximately $294M. Averaged out over the timeframe, and factoring in the various lifespans of each assets, this would require an annual funding level of approximately $3.7M to cover asset replacements (not including annual operations and maintenance costs).



Lifetime Replacement Costs	Average Replacement Funding	Lifetime Annual Shortfall
$4.7M	$1.1M	$3.6M

Figure 4-7: Lifetime Asset Renewals / Replacements

In both the 20-Year view and the Lifetime view, there is an annual funding shortfall. This is leading to a growing backlog of work which will grow larger the longer it's left under-funded. Our objective is to minimize the funding gap and ensure long-term sustainability of our water assets as our city continues to grow.

The City's water infrastructure is in generally good condition; however, there are some large value items that are reaching the end of their useful life. The major projects identified in the short term for renewal are the Trans Canada Highway and 97B watermain replacement/upgrade projects.

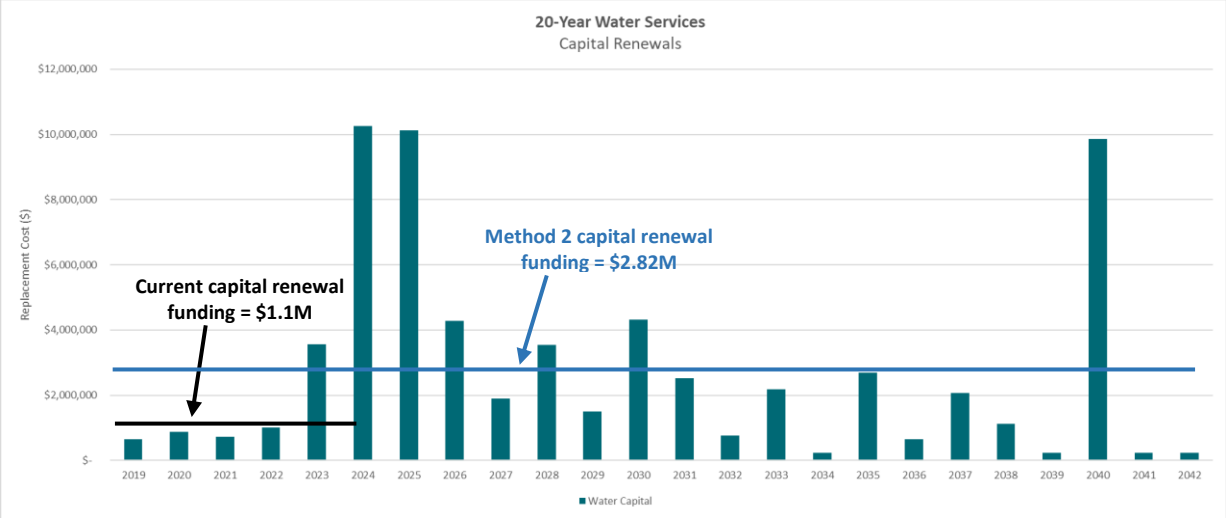
Deferred renewal and replacement, i.e. those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the risk management plan.

Renewals and replacement expenditure in the capital works program will be accommodated in the long term financial plan. This is further discussed in Section 7.

4.7.3 Method 2 – Inspections and Assessments

Using Method 2, City of Salmon Arm staff have examined all aspects of our Water system and generated a detailed list of required capital renewals over the next 20 years. These capital renewals closely align with our Method 1 calculations, but are considered more accurate in terms of costs and timing.

A summary of annual capital renewal Expenditures is shown below in .



20 Year Replacement Costs	Average Replacement Funding	20 Year Annual Shortfall
$2.82M annual	$1.1M annual	$1.72M

Figure 4-8: Method 2 Capital Renewal Requirements

Based on the details in Method 2, there is a total of $59M of capital renewal expenditures identified for the next 20 years. This equates to an annual capital renewal funding requirement of $2.82M, which is greater than the estimated $2.1M annually from Method 1.

It should be noted that Method 2 is considered more accurate as it is based on assessments from our staff and Water Treatment Plant operators and is not calculated base on age data as per Method 1.

4.7.4 Asset Sustainability Ratio

An Asset Sustainability Ratio is defined as the annual budget for capital replacements divided by the annual depreciation of the assets. Service Delivery Management best practices recommend an Asset Sustainability Ratio of between 80-90% in order to ensure long-term sustainable service delivery. The remaining funding gap will usually be closed by grants, developer contributions through redevelopment and maximizing asset lifespans through excellent operations and maintenance.

In both the 20-Year view and the Lifetime view, there is an annual funding shortfall. The shortfalls can be expressed as Asset Sustainability Ratios; 52% in the 20-year view and 23% in the Lifetime view, and 39% in the Method 2 view. Since there are currently few water assets in poor condition, the Asset Sustainability Ratio indicates that a sharp increase in rates will be required in the near future to avoid additional risk to

service delivery. A more prudent approach may be to increase rates consistently over a greater length of time. Funding options will be analyzed through the City's 5-year and long-term financial plans.

4.7.5 Renewal Ranking Criteria

It is possible to prioritise renewals by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have high use and subsequent impact on users would be significant
- Have the potential to reduce lifecycle costs by replacement with a modern equivalent asset that would provide the equivalent service.[3]

The Capital Renewals 20-year plan currently incorporates renewal ranking criteria; however, future iterations of the Water Service Delivery Management Plan will incorporate ranking criteria into the planning process with the aim to customize service levels for different criticalities of infrastructure to reduce overall lifecycle costs.

4.8 Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity. The operations budgets cover all resources that support ongoing operations of the asset including staffing, utilities, technology, equipment and materials.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again, e.g. Service or main repairs, hydrant painting. Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Operations and Maintenance budgets need to increase as the asset inventory increases in order to maintain service levels. Some budgets are proportional such as utility costs, while some jump up when certain thresholds are met (additional staff or equipment when the inventory reaches a certain size). The trend in Water O&M budgets are shown in **Error! Reference source not found.**.

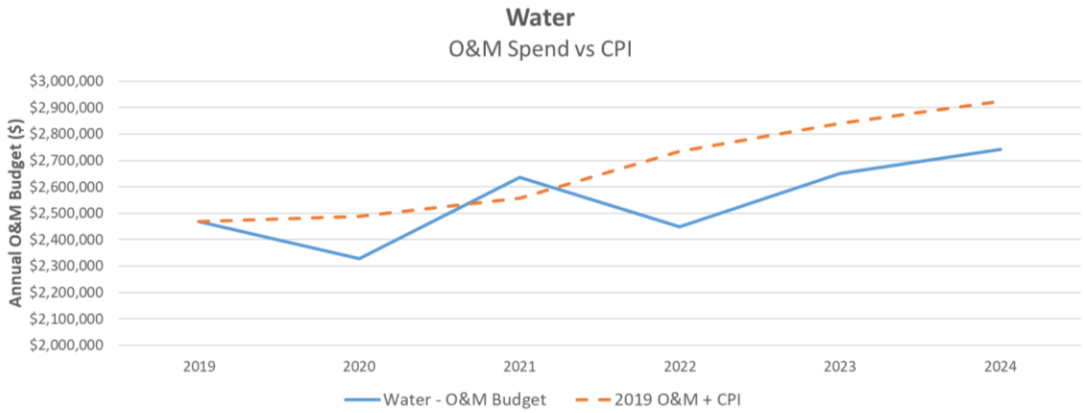


Figure 4-9: Water O&M Budget vs CPI

[3] Based on IPWEA, 2015, IIMM, Sec 3.4.5, p 3|97.

While the O&M budget has been trending upwards, when compared to BC CPI inflation it has been falling behind in relation to the 2019 budget. A trend line that does not keep up with asset growth and inflation implies that Operations and Maintenance levels are likely deteriorating (less money spent on more assets). This may mean that technical service levels may not be met consistently and that the condition of the assets may deteriorate more rapidly due to reduced O&M levels. However, there also may be changes in best practice or technology that result in savings, for example, a good pipe inspection program may result in less flushing based on actual rather than assumed condition, or energy efficient upgrades to a pump station may result in annual operational savings.

Water Services has not seen substantial savings due to changes in best practices or technology, therefore the O&M budget should at a minimum mirror the CPI increases in order to maintain the current service levels. With these increases, maintenance expenditure levels will be considered adequate to meet projected service levels, which may be less than or equal to current service levels. The 20-year budget forecast is shown below in **Error! Reference source not found.** and shows an average O&M annual budget of $2.77M.

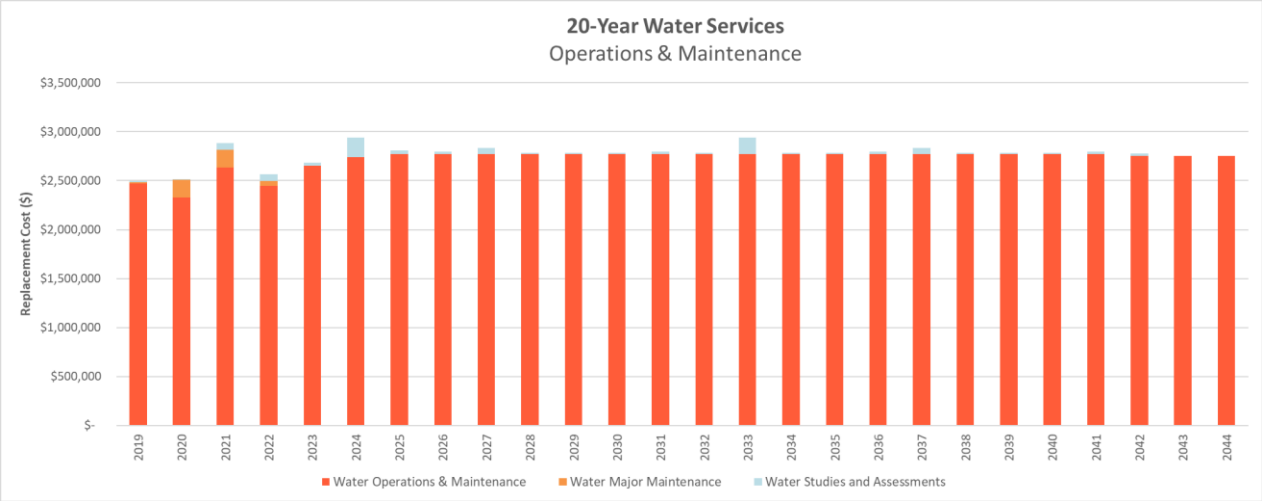


Figure 4-10: Operations and Maintenance Expenditure Trends

Combining the Capital Renewal and O&M expenditures provides a more complete view of funding requirements to maintain the current service levels. Figure 4-11: O&M + Capital Expenditures**Error! Reference source not found.Error! Reference source not found.** shows this combined view.

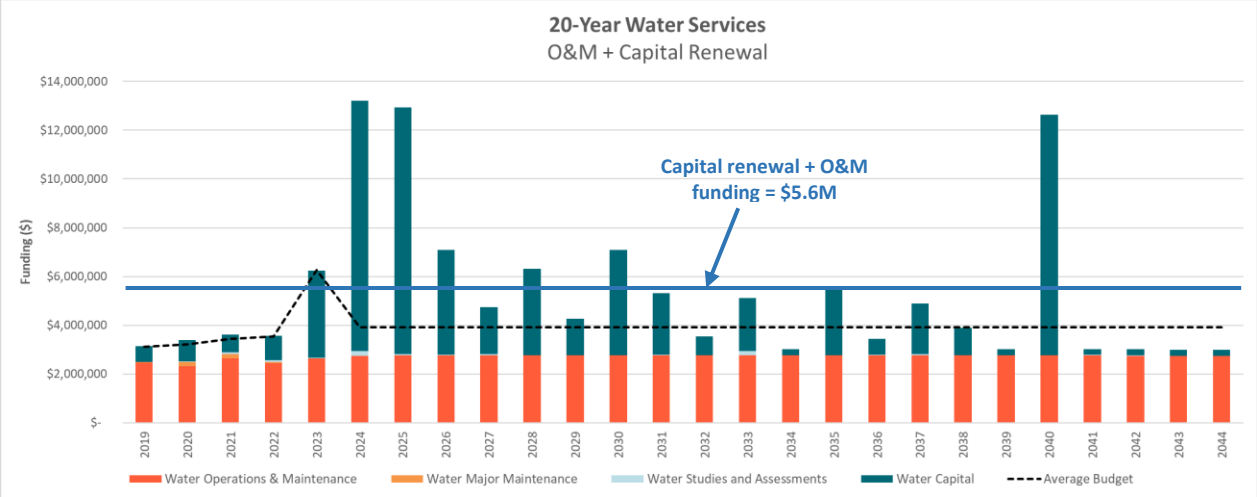


Figure 4-11: O&M + Capital Expenditures

The combined O&M and Capital budget is an average of $5.6M annually if fully funded.

To maintain current service levels, the overall Water budget will need to increase to account for the upcoming Capital Renewal requirements. Forward looking budget recommendations will be outlined in the 2025 Rate Submission for Water Services.

4.9 Creation / Acquisition / Upgrade Plan

Asset networks are expanded through a variety of means:

- **New Assets**: create an asset in the City's inventory that did not previously existing and may be:
  - **Capital Projects:** assets constructed by the City through annual capital expenditures
  - **Contributed Assets**: constructed by third parties such as developers and assumed by the City
  - **Donated Assets**: constructed and donated by third parties such as non-profit groups or estates; these may be new or used assets
  - **Purchased Assets**: assets purchased by the City in either new or used condition
- **Upgraded Assets**: are capital expenditures by the City that replace and improve an existing asset beyond its existing capacity or function

Asset acquisition may be driven by growth, social or environmental needs or changes in regulations. These additional assets are considered in Section 4.4.

4.9.1 Selection Criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as master planning documents, community requests, proposals identified by strategic plans or partnerships with others. Candidate proposals are inspected to verify need and to develop a preliminary capital estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes.

The City currently prioritizes capital acquisitions using metrics such as alignment with strategic and master plans and contributions to risk reduction and service delivery. Capacity and Function issues are timed to coincide with an asset renewal or development where possible. For example water mains are generally upsized to handle anticipated usage demands when the original main is replaced due to deterioration.

4.9.2 Future Upgrades / New Assets Expenditures

At this time, no major new water assets are projected within the 20-year planning horizon, other than DCC funded watermain expansions.

Some minor new capital assets are included in the above capital expenditures in section 5.7. Future iterations of this Water SDM Plan will separate those new assets.

4.10 Inflation

Inflation in construction services has been much higher than normal over the last 5 years, ranging from 25% to 40%, depending on the specific type of construction. This is having a significant effect on cost estimates and overall replacement costs for the City of Salmon Arm assets. Replacement costs for many assets need to be adjusted, and as a result the overall funding requirement for the city will increase.

4.11 Disposal

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation. Where assets are disposed of, any costs or revenue gained from asset disposals should be accommodated in the long term financial plan. At this time there is no disposal plan for any of the assets in the water network.

4.12 Projected 20-Year Budget Requirements

The combined budget forecast for Water services shows a system that is relatively well funded, but has several capital renewal projects in the future that will require funding strategies if service levels are to be maintained.

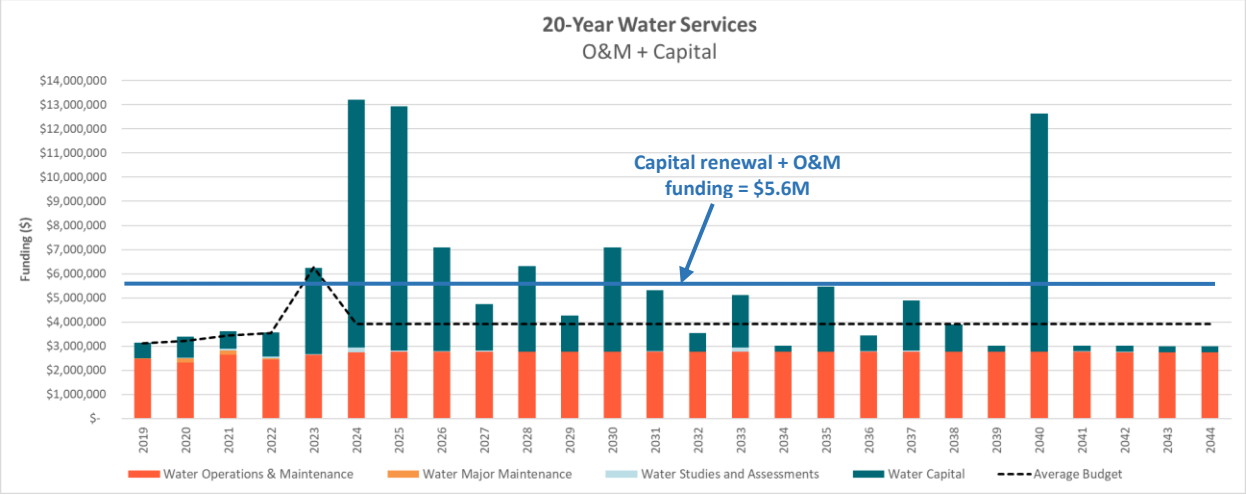


Figure 4-12: Water O&M + Capital Budget

The combined expenditures over the next 20 years average $5.6M per year, including capital projects. A financial summary is outlined in Section 7 to discuss various options and the impact on service levels.

5 Risk Management Plan

The purpose of infrastructure risk management is to document the results and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2009 Risk management – Principles and guidelines.

Risk Management is defined in ISO 31000:2009 as: 'coordinated activities to direct and control with regard to risk[4].

An assessment of risks[5] associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock'. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

5.1 Asset Criticality and Critical Assets

Asset Criticality is a ranking of assets that indicates the severity of impact if that asset fails. Some assets within the City of Salmon Arm water assets have a much higher impact than others. In future iterations of the Water SDM Plan, asset criticality will factor into the long term planning in a more defined way.

5.1.1 Assets with Level 5 Criticality

Critical assets are defined as those which have a catastrophic consequence of failure measured by the worst impact to Health and Safety, Service Delivery, Environment, Finances or Regulatory Requirements. Similarly, critical failure modes are those which have the highest consequences. Critical assets have been identified and their typical failure mode and the impact on service delivery are as follows:

Level 5 Critical Asset(s)	Failure Mode	Impact
Water Treatment Plant	Electrical/Capacity	Water Quality Advisory
Zone 2 Booster Station	Age related component failure/flood	Water shortages throughout all zones
Park Hill Reservoir (Zone 1)	Age related failure	Water& Fire flow shortages for Canoe
McLeod Reservoir (Zone 2) / TCH Zone 2 Crossing	Age related failure	Fire flow shortages for Zone 2 - 5
Zone 5 Reservoir	Age related failure	Water& fire flow shortages for Zone 5

By identifying critical assets and failure modes investigative activities, condition inspection programs, maintenance and capital expenditure plans can be targeted at the critical areas.

[4] ISO 31000:2009, pg.2
[5] Refer to Appendix E

5.2 Risk Assessment

The risk management process used in this project is shown in Figure 6.2 below.

It is an analysis and problem solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks.

The process is based on the fundamentals of the ISO risk assessment standard ISO 31000:2009.

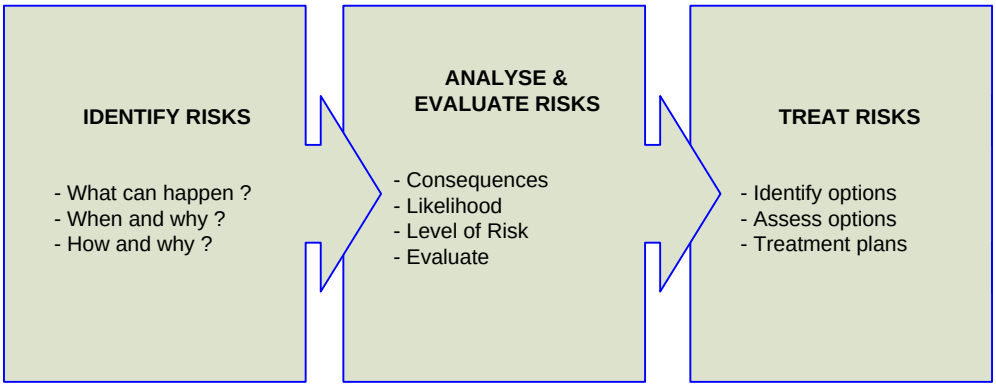


Figure 5-1: Risk Management Process – Abridged

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

An assessment of risks associated with service delivery from infrastructure assets has identified the critical risks that will result in significant loss, 'financial shock' or a reduction in service.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the Infrastructure Risk Management Plan. The residual risk and treatment cost after the selected treatment plan is implemented is shown in Table 6.2. These risks and costs are reported to management and Council.

Table 5.1: Critical Risks and Treatment Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Zone 5 Booster Station	Failure of existing pipes to transmit necessary water flows	High	Replace mainline Feed to reservoir	Low	$3,000,000
Zone 2 Booster Station	Failure leading to large scale water outages	High	Rebuild Booster Station & external piping	Low	$ 6,300,000
97B Watermain	Age related failure potentially affecting highway	High	Replace watermain in alternate location away from highway	Low	$ 1,500,000
Zone 5 Reservoir	Failure leading to Zone 5 water outages	High	Replace Zone 5 Booster with pumps able to keep up to average flows	Low	See Above

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan	Residual Risk *	Treatment Costs
Park Hill Reservoir	Failure leading to large scale water outages	High	Structural/Condition inspections nearing life expectancy	High	$ 5,000
Mcleod Reservoir	Failure leading to large scale water outages	High	Structural/Condition inspections nearing life expectancy	High	$ 5,000
Water Treatment Plant	Capacity Issues	High	Continued Water Conservation Policies, Enforcement & Education	Medium	$ 50,000
Lakeshore Road Watermain	Failure due to Landslide	High	Review options for stabilizing Lakeshore & replace watermain	Low	$500,000
Ductile Iron Watermain Pipe	Main break/leak	High	Prioritized Replacement Plan	Low	TBD
Metford Dam	Loss of year-round water source & Reservoir due to turbidity and drought	High	Add additional Reservoir Storage	Low	TBD (Several million)

Note: * The residual risk is the risk remaining after the selected risk treatment plan is operational

5.3 Infrastructure Resilience Approach

The resilience of our critical infrastructure is vital to our customers and the services we provide. To adapt to changing conditions and grow over time we need to understand our capacity to respond to possible disruptions and be positioned to absorb disturbance and act effectively in a crisis to ensure continuity of service.

Resilience is built on aspects such as response and recovery planning, financial capacity and crisis leadership.

Our current measure of resilience is shown in Table 5.2: Resilience, which includes the type of threats and hazards, resilience assessment and identified improvements and/or interventions.

Table 5.2: Resilience

Threat / Hazard	Resilience LMH	Improvements / Interventions
Climate Change causing more droughts	Medium	Water Conservation Policy, enforcement & education
Contamination of Water Source	Medium	Emergency response plans and Implementing Source Protection Control Plan
Loss of Metford Dam as secondary water source and reservoir due to Climate Change	Low	Add additional Reservoir storage to meet fire storage requirements
Lack of funding in emergency situations	Medium	Enhance Emergency Response Plans and increase reserve transfers.

Threat / Hazard	Resilience LMH	Improvements / Interventions
Critical Infrastructure reaching capacity	Medium	Continued master planning identifying capacity upgrades and triggers; enhance resourcing of capital works planning and development team

5.4 Service and Risk Trade-Offs

The decisions made in adopting this SDM Plan are based on the objective to achieve the optimum benefits from the available resources.

5.4.1 What we cannot do

With the renewal and acquisition of assets from the large expenditures taking place from 2024 to 2027, the City will update its Long Term Financial Plan to account for the operations and maintenance of the acquired assets. This will lead to some capital projects that are unable to be undertaken within the next 10 years including:

- New Reservoirs for fire flow storage to mitigate loss of Metford Dam Storage
- Expansion of water system into rural areas
- 20 Avenue NE Watermain Extension

5.4.2 Service trade-off

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Lower reliability of the service due to main breaks; and
- Lower reliability of the service due to insufficient fire storage.

5.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may maintain or create risk consequences. These include:

- Increased risk of service interruptions;
- Increased risk of damage to infrastructure around watermains such as roadways; and
- Increased risk of customer dissatisfaction.

These actions and expenditures are considered in the projected expenditures, and where developed are included in the Risk Management Plan.

6 Financial Summary

This section contains the financial requirements resulting from all the information presented in the previous sections of this SDM plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

6.1 Asset Value and Projections

6.1.1 Asset Valuations

Each water asset has specific replacement costs based on current estimates, or appraised values. By category, the total current replace values are:

Water Main	Pump Stations	Reservoirs	Hydrants	Treatment Plant
$208,356,515	$14,100,000	$21,350,000	$8,640,000	$41,375,911

Combined Replacement Value of Water Assets
$294M

This number is likely conservative, given the significant cost increases seen over the last few years.

6.1.2 Sustainable Funding to Maintain Service Delivery

Two key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category are:

- asset renewal funding ratio
- medium term budgeted expenditures/projected expenditure (over 20 years of the planning period)

6.1.2.1 Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[6]: 39% (Method 2)

The Asset Renewal Funding Ratio is the most important indicator and indicates that over the next 20 years of forecasting that we expect to have 39% of the funds required for the optimal renewal and replacement of assets.

6.1.2.2 20 Year Financial Planning Period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 20 year period. This provides input into 20 year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the 20 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

[6] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

The projected operations, maintenance and capital renewal expenditure required over the 20 year planning period is $5,600,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $3,915,000 on average per year giving a 20 year funding shortfall of -$1,688,000 per year. This indicates 43% of the projected expenditures needed to provide the services documented in the asset management plan. This excludes upgrade/new assets.

Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 20-year life of the Long Term Financial Plan.

6.2 Projected 20-Year Expenditures

The figure below shows the projected expenditures for the 20 year long term financial plan. The total projected expenditures over the 20 year period is $117M, averaging $5.6M annually.

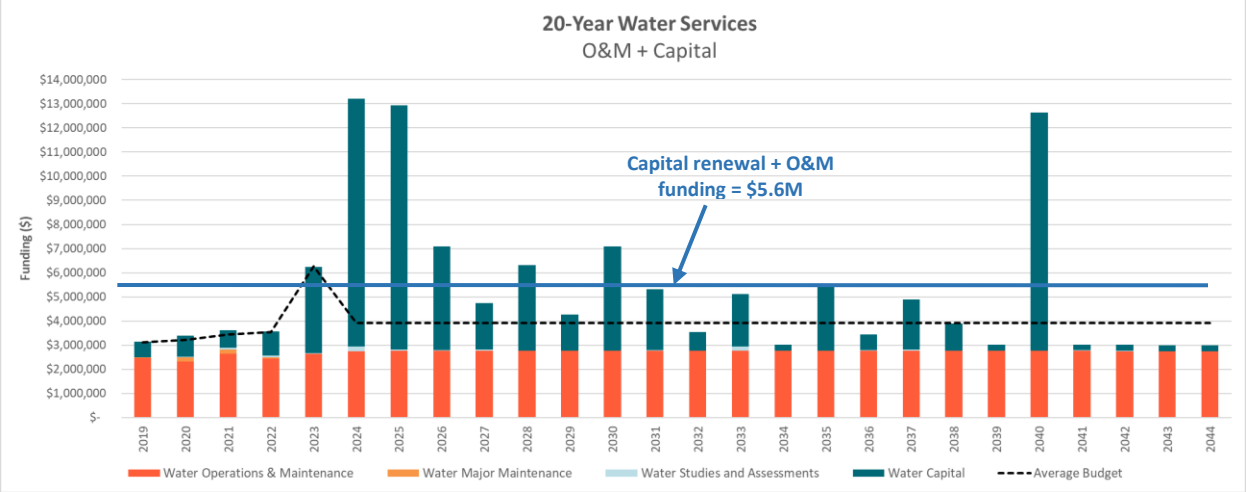


Figure 6-1: Projected 20-Year Sanitary Expenditures

6.3 Funding Strategy

Funding for assets is provided from the budget and long term financial plan. The financial strategy of the entity determines how funding will be provided, whereas the asset management plan communicates how and when this will be spent, along with the service and risk consequences of differing options.

6.4 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to the service.

Additional assets will generally add to the operations and maintenance needs in the longer term, as well as the need for future renewal. However, renewing and replacing assets before they approach the end of their useful lives will reduce the operations and maintenance needs on aging infrastructure.

Additional assets will also add to future depreciation forecasts.

6.5 Key Assumptions Made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan are:

- The asset register used to produce the Age Profile, Condition Profile and Replacement Costs is mature and presents accurate data and 2024 dollar values
- Asset conditions are based on their current age and expected lifespan
- The dollar values for the Long Term Financial Plan created in 2002 are accurate for the current 2024 budget and future funding (funding is actually expected to be higher due to increased population growth and tax base).

6.6 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale[7] in accordance with Table 7.5.

Table 6.1: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy ± 40%
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is considered to be C - Uncertain. The asset register is mostly complete however the conditions and replacement costs are based on assumptions and best estimates, which increases the uncertainty in the data.

[7] IPWEA, 2015, IIMM, Table 2.4.6, p 2|71.

7 Plan Improvement and Monitoring

7.1 Status of Asset Management Practices

8.1.1 Accounting and financial data sources

The main sources of accounting and financial data for this Asset Management Plan are the City of Salmon Arm's Long Term Financial Plan and the 2024 Budget. As the Long Term Financial Plan is due to be updated funding amounts can only be predicted based on past performance rather than future planning.

8.1.2 Asset management data sources

Asset information is stored and managed in a GIS database. Upcoming Renewal and Upgrade/New projects are digitally filed as project sheets and added to the GIS as they are completed. If no project sheets are available, renewal timing is calculated based on age and AUL (Average Useful Life) to determine when assets will need renewal/replacement well into the future.

The calculated renewal timing and annual budgets works well to create a high level picture of budget requirements 20-100 years into the future.

The individual project sheets and assessments provide more accurate timing for those assets within 1-20 years.

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 8.1.

Table 8.1: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
2	Improve Replacement Cost valuation	Engineering	Staff/Consultant	1 year
3	Implement condition assessment process	Engineering	Staff Time/Budget	1 year
4	Improve tracking process for service level indicators (eg. customer complaints)	Utilities/Engineering Customer Service	Staff Time	6 months
5	Update GIS database to better align with SDM processes	GIS Coordinator	Staff Time	6 months
6	Update Capital renewal & upgrade/new project tracking to better align with SDM process	Engineering/Utilities	Staff Time	6 months
7	Adjust budgeting and forecasting processes to clearly separate Operations, Maintenance, Renewal and Upgrade/New	Finance/AM Team	Staff Time	1 year
8	Update LTFP and iterate with SDM plan as necessary	Finance/AM team	Staff Time	2 years

9	Complete formal risk/resiliency assessment of water class	Engineering/Utilities	Staff/Consultant	5 years
10	Update Asset Register to reflect estimated replacement dates in 20 year Capital plan & more accurate reflection of hydrants, valves and services	SDM team	Staff Time	1 month
11	Improve the process to identify critical assets	Engineering, Utilities	Staff time	6 months
12	Improve ability to manage data and provide scenario modeling through AM software	Engineering, Utilities, IT	Staff time; consultant time	2 years
13	Create service level hierarchies based on asset criticality to maximize longevity of assets	Engineering, Utilities	Staff time	6 months

7.3 Monitoring and Review Procedures

This SDM plan will be reviewed during annual budget planning processes and amended to show any material changes in service levels, risks and/or resources available to provide those services as a result of budget decisions.

The SDM Plan will be updated annually to ensure it represents the current service level, asset values, projected operations, maintenance, capital renewal and replacement, capital upgrade/new and asset disposal expenditures and projected expenditure values incorporated into the long term financial plan.

The SDM Plan will be due for complete revision and updating every 5 years or after completion of a relevant master plan.

7.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this SDM plan are incorporated into the long term financial plan
- The degree to which 1-5 year detailed works programs, budgets, business plans and corporate structures take into account the 'global' works program trends provided by the asset management plan
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Strategic Plan and associated plans
- The Asset Renewal Funding Ratio achieving the target of 0.9

8 References

- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.
- IPWEA, 2015, 2nd edn., 'Australian Infrastructure Financial Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMM.
- IPWEA, 2015, 3rd edn., 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM
- IPWEA, 2012 LTFP Practice Note 6 PN Long Term Financial Plan, Institute of Public Works Engineering Australasia, Sydney
- City of Salmon Arm Sanitary Sewer Master Plan (Urban Systems, 2016)
- City of Salmon Arm Corporate Strategic Plan (November 2013)
- City of Salmon Arm Official Community Plan (November 2011)
- City of Salmon Arm Long Term Financial Plan (2005)

CITY OF SALMON ARM

REQUEST FOR DECISION

To: Development and Planning Services Committee

Title: Chief Financial Officer – Water and Sewer Rates

Date: October 21, 2024

Motion for Consideration:

THAT: The Committee recommends to Council closing the water sustainable asset replacement funding gap utilizing the Water Frontage Parcel Tax by phasing the annual increases over a (2, 3, 5 or 10) year period and that a Water Frontage Parcel Tax Amendment Bylaw be brought forward for Council's consideration;

AND THAT: The Committee supports closing the sewer sustainable asset replacement funding gap utilizing the Sewer Frontage Parcel Tax by phasing the annual increases over a (2, 3, 5 or 10) year period and that a Sewer Frontage Parcel Tax Amendment Bylaw be brought forward for Council's consideration;

AND THAT: The Committee supports Water and Sewer User Fee increases for 2025 and 2026 equal to 3% and that a Fee for Service Amendment Bylaw be brought forward for Council's consideration.

Background:

The 2025 Budget Presentation is scheduled for December 2 and 3, 2024. In order to proceed with the annual billing of water and sewer user fees in early December, it is necessary for Council to review and establish the user fees in advance of budget discussions.

Last year, staff discussed reviewing and setting the utility rates for the next few years in 2024. This report brings forward options for rate increase phasing to reduce the funding gap for sustainable asset replacements for Council's consideration.

As cited in previous reports the use of long-term debt and the accumulation of reserves to undertake certain projects is prudent and a combination of both funding mechanisms is a good strategy to maintain a healthy financial foundation. In order to accomplish this, the City must continue to transfer to reserves to ensure sufficient funding is in place to minimize future borrowing costs.

The purpose of this discussion is to understand the preferred funding source and phasing option. Following this discussion a report and bylaw amendments to establish water and sewer rates will be brought forward for Council consideration at the Regular Council Meeting on November 12, 2024 and November 25, 2024.

Staff Recommendation:

User fees are collected to operate and maintain components of the water and sewer systems including replacement, new or and upgraded major infrastructure. Frontage parcel taxes are directed towards preventative maintenance, debt servicing and capital costs of the utilities infrastructure. Frontage parcel taxes are levied against property that is capable of being connected to the water/sewer system, whether or not they are connected. Whereas the user fee is levied against only the users of the system.

Either funding source could be utilized to close the sustainable replacement funding gaps. However, given these costs directly relate to sustainable infrastructure replacement, it is recommended to utilize the frontage parcel tax. This funding source also results in the lowest financial impact on an individual basis.

It is further recommended to increase user fees at the same rate as inflation (BC CPI), to address inflationary changes impacting operating and maintenance such as labour, equipment and materials. The current BC CPI for 2024 (January to September) is 2.3%. The 5 year average BC CPI is 3.3%. It is recommended to increase user fees by 3% for 2025 and 2026.

Table 1: Residential - Flat Rate User

Utility Fee	2024	2025 (rounded to the nearest $1)	Difference	2026 (rounded to the nearest $1)	Difference
Water Fund	$ 399.00	$ 411.00	$ 12.00	$ 423.00	$ 12.00
Sewer Fund	385.00	397.00	12.00	409.00	12.00
Total	784.00	808.00	24.00	832.00	24.00
Discount (10%)	(78.40)	(80.80)	(2.40)	(83.20)	(2.40)
Net Total	$ 705.60	$ 727.20	$ 21.60	$ 748.80	$ 21.60

The City's Service Delivery Management (SDM) processes have significantly advanced allowing projections of the water and sewer funding requirements over a twenty (20) year planning horizon for all lifecycle costs, and a lifetime projection of replacement costs based on average Anticipated Useful Life (AUL's).

The Water and Sewer SDM plans have been previously presented to Council and form the basis of the following financial analysis for future expenditures. The Water Asset Sustainability (Renewal) Funding Ratio is currently 39% and the Sewer Asset Sustainability Ratio is 33% over a 20-year planning period. Lower Asset Sustainability Funding Ratios (ASFR) indicate increasing risk and/or decreasing service levels over time. The financial discussion below offers options for Council's consideration to close the funding gap over time.

Financial Considerations:

Long Term Replacement Funding:

The simplified sustainable infrastructure replacement funding model (AUL of each asset divided by the Current Replacement Cost (CRC)) demonstrates an intuitive approach to fair and equitable intergenerational funding. Taxation and user fees are smoothed as much as possible since funding is spread across the life of the asset. This model does not consider investment returns, which can have a compounding impact on funding, reducing the need for tax/user fee driven funding for replacement.

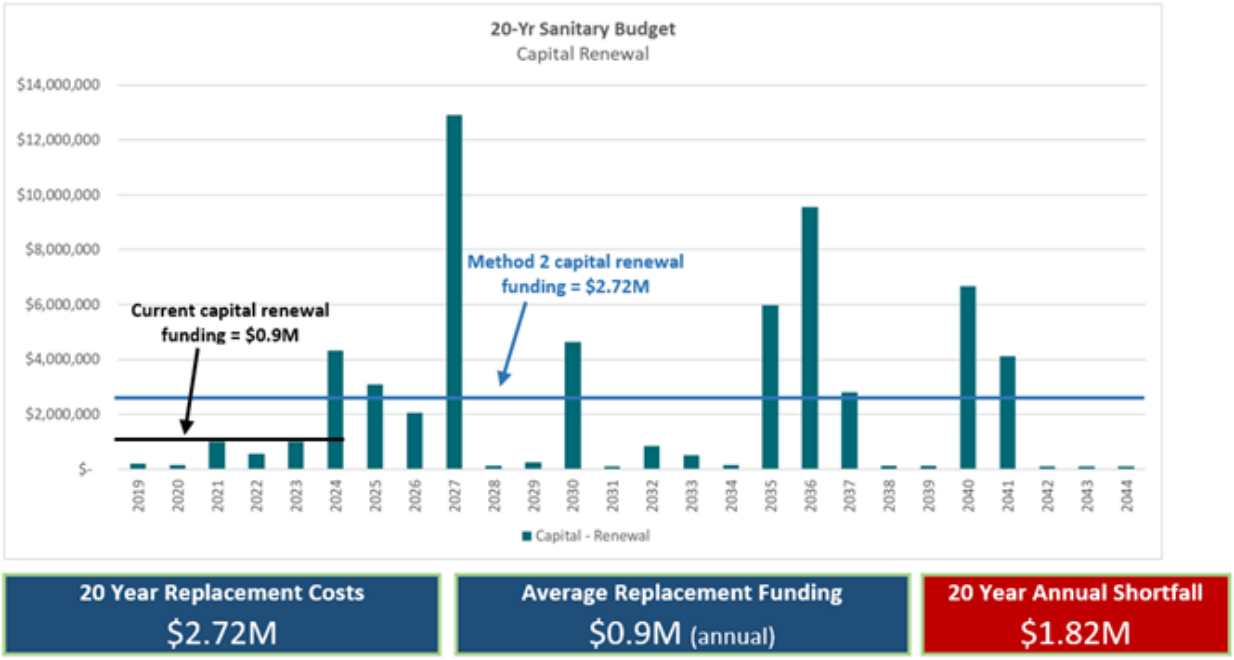
Current average funding allocations (to Capital and Reserves) are below that estimated for sustainable replacement of assets. For simplicity, the amounts referenced below assume that annual replacement funding was initiated at the start of the assets useful life.

Table 2: Estimated Annual Replacement Funding Gap

Utility Fund	Current Average Funding (Capital and Reserve Transfers)	Annual Sustainable Funding (Capital and Reserve Transfers)	Funding Gap
Water Fund	$1,100,000	$2,820,000	($1,720,000)
Sewer Fund	$900,000	$2,720,000	($1,820,000)

Figure 1: Water Funding Gap for Capital Renewals

Figure 2: Sewer Funding Gap for Capital Renewals



Long Term Replacement Funding Options:

Two funding sources were considered to narrow the funding gaps:

1) Increase the Frontage Parcel Tax Rate, or
2) Increase the User Fee Rate

Each funding source was considered under a phased approach over 2, 3, 5 and 10 years, resulting in annual increases as follows:

Table 3: Funding Gap Phasing Scenarios

Time Period	Water Fund	Sewer Fund
10 Years	$172,000 / year	$182,000 / year
5 Years	$344,000 / year	$364,000 / year
3 Years	$573,333 / year	$606,667 / year
2 Years	$860,000 / year	$910,000 / year

Financial Impact – Water Fund:

1) Water Frontage Parcel Tax Rate

   The current Water Frontage Parcel Tax Rate is $2.08 per taxable foot of frontage. The tax rate must be increased to **$4.45** per taxable foot of frontage to close the funding gap.

Table 4: Water Frontage Parcel Tax Change / Phasing Scenario

Time Period	Water Fund	Annual Increase per Taxable Foot	Annual Increase per Average Residential Lot (60 Feet)	Total Increase per Average Residential Lot (60 Feet)
10 Years	$172,000 / year	$0.24	$14.25	$142.47
5 Years	$344,000 / year	$0.47	$28.49	$142.47
3 Years	$573,333 / year	$0.79	$47.59	$142.47
2 Years	$860,000 / year	$1.19	$71.24	$142.47

Inflationary and growth impacts have not be considered for simplicity.

2) Water User Fee

The current user fee for a Residential Flat Rate User is $399.00. User fees must be increased by 47.9% to close the funding gap, equating to a Residential Flat Rate User Fee of **$590.00.**

Table 5: Water User Fee Change / Phasing Scenario

Time Period	Water Fund	Annual Increase per Residential User	Total Increase per Residential User
10 Years	$172,000 / year	$19.07	$191.00
5 Years	$344,000 / year	$38.15	$191.00
3 Years	$573,333 / year	$63.58	$191.00
2 Years	$860,000 / year	$95.37	$191.00

Inflationary and growth impacts have not be considered for simplicity.

This analysis has not considered other inflationary increases that may be required to address operating cost changes over time. The proposed increases address only sustainable funding gaps.

Financial Impact – Sewer Fund:

1) Sewer Frontage Parcel Tax Rate

The current Sewer Frontage Parcel Tax Rate is $1.98 per taxable foot of frontage. The tax rate must be increased to **$5.56** per taxable foot of frontage to close the funding gap.

Table 6: Sewer Frontage Parcel Tax Change / Phasing Scenario

Time Period	Sewer Fund	Annual Increase per Taxable Foot	Annual Increase per Average Residential Lot (60 Feet)	Total Increase per Average Residential Lot (60 Feet)
10 Years	$182,000 / year	$0.36	$21.47	$214.68
5 Years	$364,000 / year	$0.72	$42.94	$214.68
3 Years	$606,667 / year	$1.19	$71.56	$214.68
2 Years	$910,000 / year	$1.79	$107.34	$214.68

Inflationary and growth impacts have not be considered for simplicity.

2) Sewer User Fee

The current user fee for a Residential Flat Rate User is $385.00. User fees must be increased by 64.7% to close the funding gap, equating to a Residential Flat Rate User Fee of **$634.00.**

Table 7: Sewer User Fee Change / Phasing Scenario

Time Period	Sewer Fund	Annual Increase per Residential User	Total Increase per Residential User
10 Years	$182,000 / year	$24.84	$249.00
5 Years	$364,000 / year	$49.68	$249.00
3 Years	$606,667 / year	$82.80	$249.00
2 Years	$910,000 / year	$124.20	$249.00

Inflationary and growth impacts have not be considered for simplicity.

This analysis has not considered other inflationary increases that may be required to address operating cost changes over time. The proposed increases address only sustainable funding gaps.

Alternatives & Implications:

The Committee has the option not to address sustainable asset replacement. The impacts of this would result in reduced or eliminated ability to provide services such as:

- delivery of potable water,
- reliable and sufficient pressure,
- public protection (i.e. fires),
- environmental protection, and
- ability to meet regulatory requirements.

Communication: NA

Prepared by: Chief Financial Officer
Approved by: Chief Administrative Officer

Attachments: N/A