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NOTICE OF SPECIAL COUNCIL MEETING
#C18-22

This is to inform you a special meeting of City Council will be held as follows:

DATE OF MEETING: JULY 10, 2018

PLACE OF MEETING: COUNCIL CHAMBERS, CITY OFFICE

TIME OF MEETING: 6:00 PM

PURPOSE OF MEETING:

a) Delegation – Bill Kendrick RE: North End Plan

b) Request for Decision RE: North End Plan Final Report

DATE MEETING REQUESTED: July 9, 2018
MEETING REQUESTED BY: WAYNE POTOROKA, MAYOR

Original signed by: July 9, 2018
Cory Bellmore, CAO Date

THE CITY OF DAWSON

Request for Decision

TO: Mayor and Council

FROM: Clarissa Huffman, Community Development & Planning Officer (CDO)

DATE: 20 June, 2018

SUBJECT: North End Planning Report Adoption

RECOMMENDATION

It is respectfully recommended that Council:

1. Accept the North End Final Report and direct administration to provide the report to Yukon Government as the preferred development concept option for the North End Planning Area, for further research and refinement.

PURPOSE

To provide direction to administration that Council supports the presented concept plan and associated report for presentation to Yukon Government.

BACKGROUND

The North End Planning project is about creating a conceptual plan for a future residential subdivision in the North End of Dawson City. The North End Plan will establish:

1. Location, number, and size of new lots;
2. Proposed servicing (sewer and water) and road access for new lots;
3. Estimated costs for subdivision development and proposed lot prices; and,
4. Other recommendations around aspects such as zoning, shared community spaces, protection of heritage and other values, etc.

The City of Dawson, with project funding from Yukon Government, commissioned Groundswell Planning to manage this planning exercise and assist Council and administration in developing a concept plan for presentation to Yukon Government. The concept plan created from this project will be used as a baseline for future planning studies in the area, with the end goal of releasing lots for development in a way that is forward-thinking and realistic.

CURRENT STATUS

The project was granted an extension to June 29, 2018 (based on two previous extensions to April 30, 2018 and May 31, 2018). In order to move forward with this project, administration must provide to Yukon Government the final preferred concept plan and associated explanatory report.

Jane Koepke, Principal of Groundswell Planning, spoke to Council on June 19, 2018 as a delegate and explained the three options that are being considered. These options are revised from earlier iterations, and have been amended to consider Council feedback, administration feedback, and community input. It was recommended by Council via resolution to recommend Option 2B for inclusion in the report (the same as recommended by administration).

In order to proceed with this project, Council was asked to make a recommendation on the preferred concept option. The final report is scheduled to be presented to Yukon Government on June 29, 2018, pending adoption of the Plan by Council. It is important to note that the concept will likely be refined further as more work has been done, but this work cannot be commissioned until a decision has been made on the high-level direction of the long-term plan for the planning area. Therefore, Yukon Government has been clear that no further extensions will be granted for the concept selection.

CONSIDERATIONS / DISCUSSION

It was recommended by administration that Option 2 be selected for the final report, for a variety of reasons. The pros and cons of each option we previously presented to Council, however a short overview of why administration recommends Option 2 is as follows:

1. Removes cul-de-sacs, as feedback was received that they are not ideal, and some considered them to be 'awkward'.
2. Less fragmented greenspace – it was heard that the community values greenspace and habitat 'corridor' protection.
3. Does not require the moving of historic structures in the Third Avenue area.
4. More respectful of historic street grid – Edward St. is kept open as a walking path for pedestrian access.
5. Grading and fill can be implemented in a manner that is much less detrimental to private property owners for 2B than with 2C.
6. Roads may need to be slightly widened from their current size, but are not widened more than their existing road right-of-way (the majority of roads in Dawson do not occupy their full surveyed right-of-way).
7. Road alignment requires significantly less fill material than Option 3, and therefore will have slightly less associated cost.

APPENDICES / SCHEDULES

Appendix A. North End Planning Final Report

APPROVAL & CAO COMMENTS

Respectfully Submitted,

Clarissa Huffman, CDO — Date

I have reviewed and have no further comments regarding this report.

Cory Bellmore, CAO — Date

DAWSON CITY NORTH END PLAN

Final Report



Submitted to

THE CITY OF DAWSON Y.T. INCORPORATED JAN. 9, 1902

By

Groundswell Planning

In association with

INUKSHUK PLANNING & DEVELOPMENT LTD

MORRISON HERSHFIELD

Across the River Consulting

Monarda Communications

UNDERHILL GEOMATICS LTD

CHILKOOT GEOLOGICAL ENGINEERS LTD.

JUNE 2018

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Cover image credits: Historical photos courtesy of Parks Canada

Executive Summary

In order to address the significant housing pressures Dawson City is experiencing, the Government of Yukon and City of Dawson are working jointly to explore the potential for developing new residential lots in the North End area of the Historic Townsite. A series of background investigations were conducted between 2016 and 2018 to determine, at a broad scale, the feasibility of developing the North End. The results confirmed the overall suitability of the area and both parties elected to advance the project with conceptual planning in 2018.

A multi-disciplinary Planning Team led by Groundswell Planning initiated the North End planning process in February 2018. The purpose of the North End Plan was to determine:

1. Relevant housing best practices for the City to incorporate into the new development;
2. The location, number, and size of new lots;
3. Proposed servicing (sewer and water) and road access for new lots;
4. Related community amenities;
5. Zoning and/or other provisions required to develop the area;
6. Estimated costs of development and potential for cost recovery; and
7. A long-term development plan and implementation approach.

The North End planning area comprised over 100 lots dating back to the original 1898 townsite survey, approximately 35 of which are privately owned and/or occupied. The majority of the remaining lots are titled to the City of Dawson. The area was densely occupied during the Gold Rush era but was the first section of the Historic Townsite to depopulate in subsequent decades, resulting in the sparsely populated, predominantly vegetated neighbourhood that exists today.

The North End area is subject to a number of development constraints of varying complexity, including:

- Challenging geotechnical conditions, including permafrost, downslope movement of colluvial materials, and several geohazards (i.e. the Moosehide Slide and a debris flow channel);
- Heritage resources, including 23 registered historic sites and 79 tent platforms and a cemetery dating back to the Klondike Gold Rush;
- Numerous encroachments involving City lots, road right-of-ways, and laneways by private property owners in the area;
- Potential environmental contamination of public lands from on-site and off-site sources; and,
- Lack of municipal water or sewer infrastructure, including to currently occupied lots.

The North End holds special values, particularly for those living in the area. These values include the North End's natural and "off-the-beaten-path" character and the heritage resources situated throughout it. The broader community appears to have a strong interest in purchasing potential lots in the North End should they become available. A "successful" North End development, according to the public and City of Dawson Council, would exercise caution around geohazards, provide a range and mix of housing, uphold historic character, efficiently use land, and service the area. The central planning challenges that emerged –

notwithstanding the numerous development constraints – were around appropriate density, achieving a balance between greenspace and new lots, and minimizing impacts to existing property owners. Numerous property owners have a strong interest in resolving their encroachments and the opportunity to enlarge their lots and/or purchase new adjacent lots should they be developed.

After two rounds of design and input from both Council and residents, the Planning Team created a final concept for the North End that would facilitate the development of 28 new residential lots (10 small, 12 medium, and 6 large), create a pilot micro-housing project on City leased land, and involve the reconfiguration and consolidation of numerous privately titled lots in the area to allow for adjacent development and/or address longstanding encroachments. A continuous corridor of greenspace would be retained between Second and Third avenues and a municipal historic site enhanced as a neighbourhood and community park amenity.

Access to new lots in the Typhoid Cemetery/Third Avenue area would be achieved via a new one-way access road and Third Avenue and Edward Street would be closed, with a portion retained for pedestrian access. The steep topography between Second and Third avenues and recommended avoidance of cut-and-fill road construction techniques necessitates the introduction of significant amounts of fill both to construct the new roadway and re-grade Second Avenue and adjacent private accesses. The determination of a final road alignment will require more detailed geotechnical investigation should the project proceed.



Dawson North End final design concept

Servicing the new development and existing properties in the area would be achieved via the extension of the City of Dawson's current "dead-end" watermains along Second Avenue and the new roadway and the relocation of the associated bleeders. This approach has the lowest capital cost but lifecycle costs should be

considered, particularly around energy use for the bleeder system, prior to a final decision. Sewer lines would be installed in the same trench and tie-in to existing sewermain manholes on Second and Third avenues at Edward Street.

The North End servicing concept and accompanying Class 'C' cost estimate broke the development out into three nodes as follows:

- **Node 1** – 16 new and two (2) existing privately owned lots in the Front Street block and Second Avenue area (in the vicinity of Edward and George streets);
- **Node 2** – Three (3) new and 10 existing privately owned lots[1] situated along the north end of Second Avenue and Judge Street;
- **Node 3** – Nine (9) new lots and five (5) existing privately owned lots between Second and Third avenues.

The development of all three nodes is projected to cost a total of $3.9 million dollars and generate about $2.8 million dollars in lot sales and Local Improvement Charges, leaving a shortfall of approximately $1.0 million to be bridged via a public subsidy and/or other funding. The development of Nodes 1 & 2 presents a more favourable financial picture, with a funding shortfall of $315,800. Node 1 development is projected to run at a deficit of $139,400. All three financial scenarios are predicated on the assumption that existing property owners support the application of a Local Improvement Charge to contribute towards the cost of servicing their lots.

	Node 1	Nodes 1&2	Nodes 1-3
New Lot Sales	16	19	28
Existing Lots Serviced	2	12	17
Total Costs	$1,439,400	$2,185,800	$3,922,500
Total Revenues	$1,300,000	$1,870,000	$2,870,000
Funding Required	$139,400	$315,800	$1,052,500
Subsidy Per New Service Connection	$7,744	$10,187	$23,389

Proceeding with North End development will require follow-up field investigations and preliminary design work, along with negotiations with individual property owners around encroachments and servicing. Regardless of a decision to develop, the City of Dawson will need to address its now known environmental liabilities in the North End, relocate a portion of Front Street encroaching upon private property, and resolve longstanding encroachment issues with residents for the sake of good governance.

Recent private sector development of residential lots in the Dawson City Historic Townsite and examples in other Yukon communities suggest that North End development costs could be reduced, and local benefits increased, by employing an alternative development model utilizing small local subcontractors working under the direction of a Construction Manager. The co-achievement of servicing upgrades and new lot development further suggests the eligibility of the North End for infrastructure funding. Furthermore, the major infrastructure works currently underway in the community could create a timing and cost savings opportunity. Both governments should actively consider and explore such measures to optimize the appeal, timeliness, and affordability of future North End residential development.

[1] The servicing concept assumes that fourteen currently surveyed and privately owned lots are consolidated, resulting in ten private lots.

1.0 Introduction

Dawson City is situated in the Traditional Territory of the Tr'ondëk Hwëch'in (TH), at the culturally, historically, and ecologically rich setting of the confluence of the Klondike and Yukon rivers in central Yukon. The City of Dawson municipality has a population 1,375-strong (Statistics Canada, 2017) and serves a population of 2,229 (Yukon Bureau of Statistics, September 2017) when peripheral rural subdivisions are included.

Dawson is growing rapidly and experiencing acute shortages of suitable housing and availability of land for building. Specific local constraints pose challenges to bridging the housing gap, including topography, peripheral industrial and mining activity, and the high cost of expanding and operating service infrastructure in a remote location. The 2012 Official Community Plan (OCP) set out a direction for a more compact urban form to promote both financial and environmental sustainability amidst these population growth pressures. Facilitating the ability of Dawson residents to live, work and play in close, walkable proximity to amenities and services is central to the achievement of the OCP's direction.

The North End of Dawson City is one of the last substantial opportunities for new serviced residential lots within the Historic Townsite. The area was densely occupied during the Klondike Gold Rush era but was the first section of the town to depopulate in the subsequent decades. Today, the area is home to over a dozen residences, many of them historic. The remainder of the area has transformed over time into greenspace, the evidence of its former occupation remaining in the form of various artefacts.

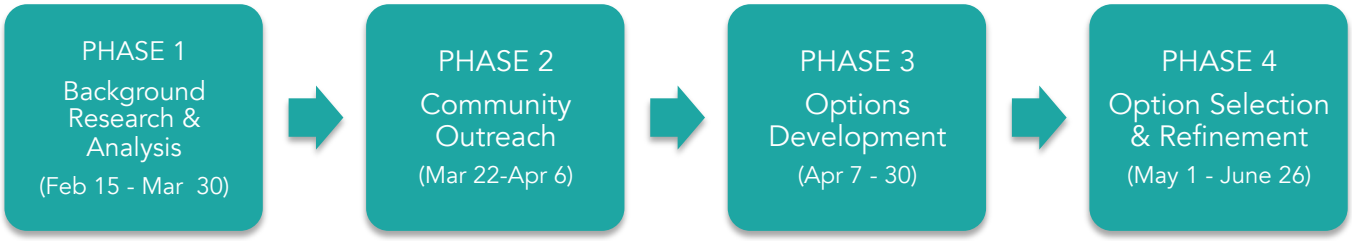
In the interests of meeting growing demand for new residential lots, the Government of Yukon and City of Dawson committed to working jointly to explore the potential for North End development via a Project Charter in 2016. The Government of Yukon initiated a series of background investigations into the North End between 2016 and 2018 to determine, at a broad scale, the feasibility of developing the area for residential lots. The results confirmed the overall suitability of the area, as well as specific development challenges requiring mitigation, and the City of Dawson and Government of Yukon committed to take the next step: creating a conceptual plan for a residential development in the North End.

A multi-disciplinary Planning Team led by Groundswell Planning of Whitehorse, Yukon, initiated the North End planning process in February 2018. The purpose of the North End Plan was to determine:

8. Relevant housing best practices for the City to incorporate into the new development;
9. The location, number, and size of new lots;
10. Proposed servicing (sewer and water) and road access for new lots;
11. Related community amenities;
12. Zoning and/or other provisions required to develop the area;
13. Estimated costs of development and potential for cost recovery; and
14. A long-term development plan and implementation approach.

1.1 Methodology

The North End Plan was developed via a four-phase process between February and June 2018. Each phase is briefly described here.



Phase 1 - Background Research & Analysis

The initial phase was dedicated to the review of background reports undertaken for the North End area, including:

- Geotechnical evaluation
- Geohazard assessment
- Phase 1 Environmental Site Assessment
- Heritage Resources Overview Assessment
- Heritage Resources Impact Assessment
- Preliminary civil/servicing design

On the basis of document review and selected interviews, the Planning Team delineated low, medium, and high potential areas for development and outlined potential mitigation measures. Desktop reviews of Dawson housing market conditions and housing best practices were conducted, the former resulting in a hypothetical customer profile from which target lot prices could be formulated. In addition, the Team worked with Council to develop a draft set of "success criteria" that was intended to guide the development of the draft concepts and ultimately support the selection of a final option.

Phase 2 - Community Outreach

With development constraints and potential delineated, the Planning Team engaged with Dawson City residents and stakeholders over a two-week period to understand values for the planning area and community issues, interests, and ideas. The Team also sought specific feedback on Council's draft "success criteria" as well as market demand for housing in the North End. The Planning Team visited Dawson City for resident and stakeholder meetings from April 4-6, 2018.

Phase 3 - Options Development

The Planning Team synthesized both community input and key development constraints to create two conceptual designs for a North End development. The housing potential and advantages and disadvantages of each concept were described. The Team developed a preliminary servicing scheme and calculated associated capital cost and cost recovery potential for review by Council.

Phase 4 – Options Selection & Refinement

In the final project phase, the Planning Team presented its draft concepts to the broader community and Council for input and direction via an online survey in early May and Committee of the Whole meeting on May 15, 2018 (to which North End residents were invited). This initial review resulted in direction to the Team to refine one of the original concepts to better address public and resident input. The Team returned to the drawing board and created several variations of the concept, which were presented for public and Council review and input at a Committee of the Whole meeting on June 19, 2018. Council approved the final concept and associated reporting on June 26, 2018.

2.0 Overview of the Planning Area

The North End planning area is located in the northern end of the Historic Townsite of the City of Dawson and within the Traditional Territory of the Tr'ondëk Hwëch'in (TH). The planning area encompasses approximately 7.4 hectares of primarily undeveloped land situated between Front Street and Third Avenue along the east-west quadrant and Edward Street and the "mud bog" event area/City snow dump along the north-south quadrant.



Figure 1. Orthophoto of the planning area and boundaries

2.1 Land Tenure

The North End planning area is primarily undeveloped at present but consists of about 100 lots – virtually all 50x60 feet in dimension – dating back to the original 1898 townsite survey. The majority (approximately 80) of the surveyed parcels within the area are titled to the City of Dawson. About 35 surveyed parcels are under private ownership – three of them sharing tenure with the City of Dawson. In addition, 17 or so parcels are untitled Yukon Commissioner's lands, held for the purposes of a Yukon River bridgehead reserve and the Third Avenue (or "Typhoid") Cemetery. There are no TH Settlement Lands located within the planning area.

The area's gradual depopulation in the early to mid-20th century resulted in the naturalization of not only surveyed lots but also a historic road right-of-way. Historic Third Avenue (also called Steele Avenue) was once situated between Front Street and present-day Third Avenue (or surveyed Fourth Avenue).

Please refer to Appendix A for an overview of land tenure in the planning area.

2.2 Land Use, Zoning and Other Regulations

The 2012 Official Community Plan designates the majority of the North End area as Urban Residential. A strip of land along the waterfront west of Front Street, as well as a ten-parcel area situated at the intersection of Judge and Front streets is designated Downtown Core. The Zoning Bylaw further delineates these areas into R1 – Single Detached/Duplex Residential and C1 - Core Commercial.

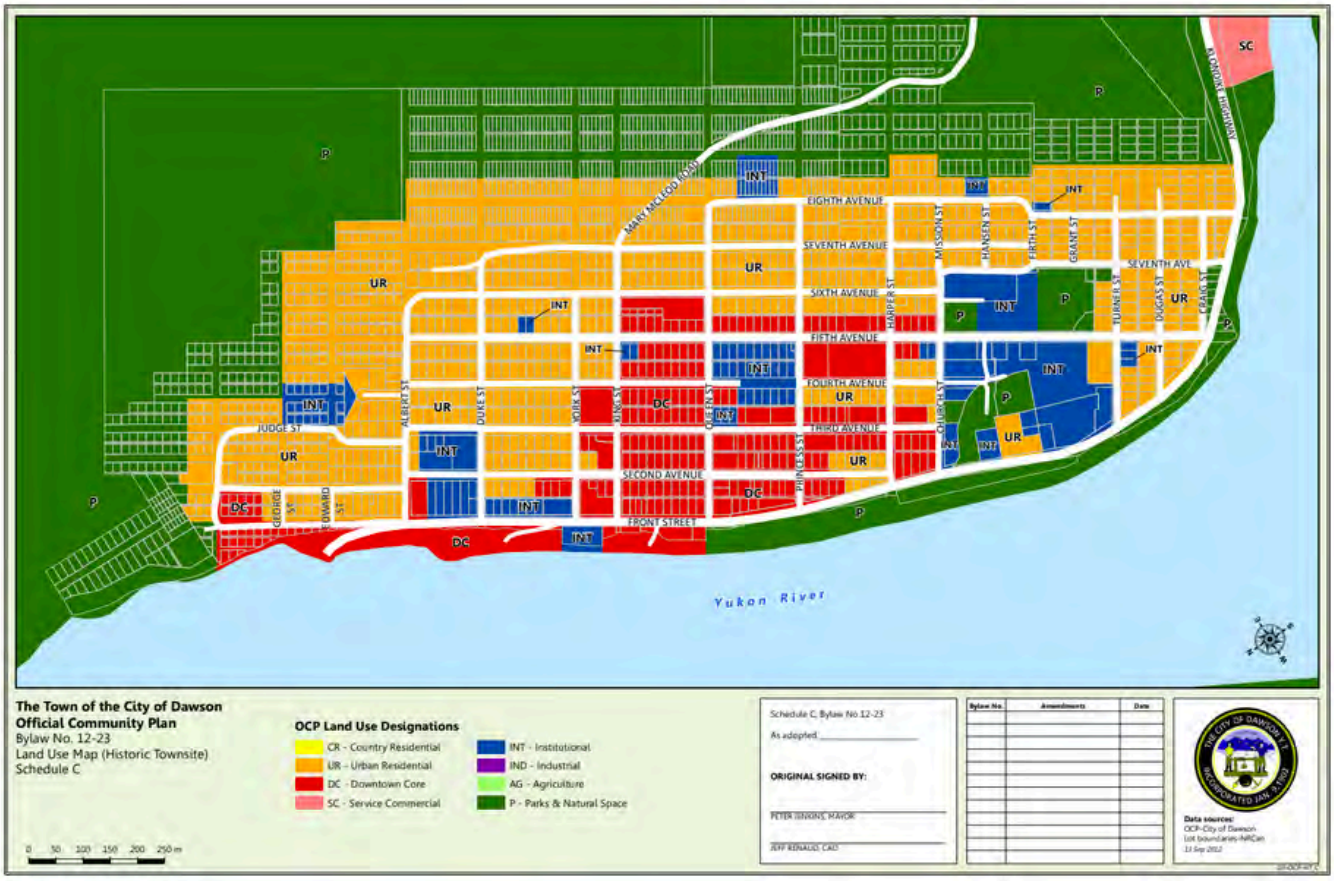


Figure 2. Land Use Designations map from the City of Dawson Official Community Plan (2012)

There are two exceptions to the C1 and R1 zoning in the planning area. The Typhoid Cemetery is zoned P2 - Institutional and the former site of St. Mary's Hospital, utilized for mud bogs and snow dumping, is zoned P1 – Parks and Natural Space.

The North End area is included as a Heritage Character Area in the Heritage Management Plan for the City of Dawson. Associated management guidelines provide direction around the protection of heritage buildings, infill construction, and treatment of landscape features. Design in the Dawson Style is recommended for new infill construction in the Residential Heritage Management Area (to which the North End belongs), although replication of suitable historic styles is also permitted. The Heritage Management Plan also provides guidance on streetscape.

2.3 Municipal Servicing

2.3.1 Sanitary Sewer Servicing

The existing sanitary sewer collection in Dawson is a conventional gravity collection system consisting of sewermains and manholes that flow by gravity to either a lift station or directly to the wastewater treatment plant. When the sewer flows to a lift station, the lift station pumps the wastewater to a point in the collection system where it can flow by gravity to the wastewater treatment plant.

Installing sanitary sewer service into the North End area would require tying into the existing manholes on either Second Avenue or Third Avenue at Edward Street, both of which flow into the York Street lift station. The preferred tie-in location will be determined based on the elevation of the sewermain at the manholes (invert of the pipe) to ensure the system can flow by gravity, as well as the length and configuration of the sewermains required to complete the tie-in.

From a capacity perspective, the York Street lift station is currently being replaced and it is the Team's understanding that the new lift station has included sufficient capacity to service the North End area. It is unlikely that the capacity of the gravity collection system and lift station will be exceeded in the event of future North End development; however, the capacity of the collection system and lift station should be confirmed as part of any further design.

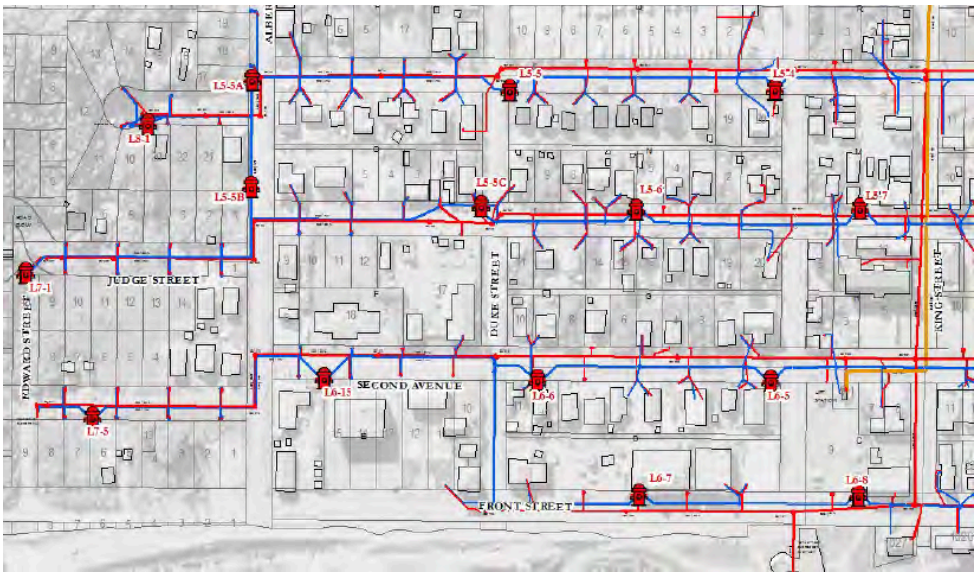


Figure 3. Diagram of the City of Dawson water and sewer collection system in the North End (red indicates sewer; blue indicates water)

2.3.2 Water Servicing

The existing water distribution system in Dawson is unique to a northern climate in that is relies on continuous flows through the watermains for freeze protection.

Typical water distribution systems that experience temperatures below freezing (0°C) bury watermains below the depth of frost; however, the presence of permafrost in Dawson rules out the option of burying the watermains at a depth that is not susceptible to frost/freezing. For this reason, the watermains in Dawson are shallow buried (buried within the zone that experiences seasonal frost in the winter) and the distribution system is designed to maintain flow in the watermains for freeze protection. Treated well water (i.e., water source) enters the main pumphouse at around 2°C and is heated to around 10°C. The heated water is then pumped to circulate water through the looped distribution system to maintain a temperature of around 5°C. The recirculated water that returns to the pumphouse is blended with the treated well water and reheated to 10°C as part of the circulation pumping operations.

The original water system was designed with six (6) watermain loops that start and end at the main pumphouse. Pumps in the pumphouse circulate flow in each loop. The loops of the original system provided water servicing as far north as Duke Street. In subsequent years, watermains that branched off the loops were installed to service the areas north of Duke Street. These branches are not part of the loop and therefore water is not circulated in these lines from pumping operations at the pumphouse. Bleeders connected to the sanitary sewers at the dead-end of the watermain (end of each branch) were installed to maintain continuous flow through the watermain. The bleeders at each dead-end are turned on in the fall when temperatures drop below freezing and are turned off in the spring/summer when the frost in the ground around the watermains melts.

To extend water servicing to the North End planning area, the existing dead-end watermains on Third Avenue and Second Avenue that terminate at Edward Street would be extended and the bleeder moved to the new dead-end of the watermain. Alternatively, the watermain loops may be extended. The main advantages of proceeding with looped water servicing include reduced bleeder flows, which contributes to reduced heating costs at the pumphouse and treatment requirements at the wastewater treatment plant, and increased system servicing redundancy in the event of a watermain failure. In a failure scenario, the looped watermain option can supply water in both directions to maintain flow to a larger area compared to a dead-end watermain in which the downstream section of the watermain will run out of water.

2.4 Site Conditions

The following section provides a brief summary of the background investigations commissioned for the North End area commissioned by the Government of Yukon. Report recommendations relevant to a future development plan and implementation are included in Section 11.0 Implementation. Readers are encouraged to refer to the source document for further detail and/or explanation.

2.4.1 Geotechnical Conditions

A geotechnical evaluation undertaken by Chilkoot Geological Engineers Ltd. found that approximately 40% of the surveyed and undeveloped lots in the planning area are suitable for development from a terrain and soil condition perspective. Both fluvial and colluvial deposits (as well as fills) are prevalent in the study area in a predominantly frozen state and are undergoing periglacial, mass wasting and/or thaw degradation processes. In addition, differential and downslope movement of colluvial materials near the toe of the Moosehide Slide and its confluence with adjacent fluvial materials could result in increased maintenance challenges and/or risks to future property owners in some portions of the planning area.

Optimum subsurface conditions were found in the vacant Front Street block; in fact, this portion of the planning area was the only one identified as being conducive to concrete slab-on-grade construction and accordingly – larger multi-unit and/or storey buildings.

Naturally occurring asbestos may be encountered in the area as the use of crushed asbestos rock for road fill is known to have occurred in the past in Dawson City and the Moosehide Slide debris is compromised of serpentinized rock that may harbour asbestos. This issue adds complexity and potential risk of exposure during installation of deep utilities. This challenge has been successfully mitigated for the municipal servicing projects currently underway in Dawson and these “lessons learned” can be applied to any North End development.

The report concluded that while North End soil types and conditions pose additional geotechnical challenges relative to standard infrastructure design and construction, they are reasonably consistent with baseline conditions elsewhere in the townsite and can largely be mitigated. The presence of permafrost necessitates the

minimization of thermal and physical disturbances to both surficial and subsurficial materials and the processes affecting them. Granular pads, lot access, and individual lot drainage requirements will need to be carefully considered in order to control surface drainage and minimize disturbance to underlying soils.

The geotechnical evaluation report recommended a 30-meter setback from the toe of the Moosehide Slide as a measure of insurance both from geohazards and higher rates of downslope movement. The 30-meter setback was based on a 150-year development horizon. The portion of the east-west setback extending from Third Avenue to Front Street also coincides with the discharge path of an erosion gully (see Section 2.4.2). In subsequent conversations with the report's author, the geotechnical setback was qualified as a best practice versus rigidly fixed entity. Please refer to Appendix A for a base map of the project area illustrating the recommended setback.

2.4.2 Geohazards

A geohazard assessment conducted by Chilkoot Geological Engineers Ltd. was preliminary and qualitative in nature and intended to qualitatively estimate the probability of occurrence and level of severity of any identified geohazard. The Moosehide Slide was the primary focus of the geohazard assessment undertaken. The Moosehide Slide is believed to have resulted from a one-time rock slope or wedge failure associated with a combined high porewater pressures and a seismic event. The presence of an unstable block of soil and rock near the headscarp of the slide has been previously identified; the study focused on characterize the slide features in order to better under associated failure mechanisms.

The movement of the lower portions of the Moosehide Slide are attributed to rock glacier mechanisms, while movement in the upper realms of the slide appear to associated with earth flow mechanisms. Downslope movement of the slide has been monitored and up to 20 centimeters of annual creep has been recorded in some areas of the slide. The probability of the unstable block failing and propagating to developed areas is considered extremely remote; however, permanent development in the former mission/hospital site (currently the City snow dump and summer event area) is discouraged to achieve a factor of safety.



Figure 4. Moosehide Slide (Credit: Parks Canada)

In addition to the Moosehide Slide, the study identified the presence of additional geohazards in the form of an erosion gully and previously poor slope conditions in the Third Avenue/Judge Street portion of the planning area. The discharge area of the gully and slope was pinpointed to the planning area. However, the study noted that the state of natural revegetation promotes increased overall slope stability.

Overall, the study concluded that the geomorphic conditions within the study area facilitate continued residential development in the North End subject to upslope monitoring, avoidance of development within a prescribed 30-meter setback from known potential geohazards, and follow-up modeling of the unstable block.

2.4.3 Heritage Resources

A Heritage Resources Overview Assessment and follow-up Heritage Resources Impact Assessment (HRIA) were conducted by Ecofor Natural and Cultural Resource Consultants (Ecofor) in the planning area to better quantify and qualify heritage values in the planning area. These studies found significant heritage resources, including:

- 23 previously recorded sites documented in the Yukon Historic Sites Inventory (YHSI);
- 79 historic platforms/features (believed to be old wall tent platforms)
- The Third Avenue/Typhoid Cemetery area and associated potential for unmarked burials outside of the surveyed graveyard boundaries; and
- Potential for buried and ground surface heritage resources throughout the planning area.



Figure 5. Paul Denhardt cabins

The report recommended avoidance of disturbance to and/or excavation of any heritage resources, on-site monitoring by an archaeologist if ground-disturbing impacts can't be avoided, and Systematic Data Recovery excavations for the historic platforms/features. Yukon Historic Sites Unit was contacted by the Planning Team to discuss options around the historic tent platforms and expressed a willingness to assist the City of Dawson in mitigating these impacts in a cost-effective manner. The Planning Team also met with the City of Dawson Heritage Advisory Committee to understand their interests and expectations. The Committee emphasized their preference for retaining the historic streetscape.

There are several other heritage values present in the planning area worth noting. One is the Paul Denhardt cabin complex, located on Lot 4 Block F. The three buildings have been declared a Municipal Historic Site by the City under the *Historic Resources Act*. The other is the gravesite of Father Judge, located on Lot 31 in the northwest corner of the planning area.

2.4.4 Contamination

Associated Environmental Consultants conducted a Phase 1 Environmental Site Assessment (ESA) for the planning area to determine the potential for environmental contamination that could impact future residential development. The ESA identified four on-site Areas of Potential Environmental Concern (APECs) and five off-site APECs. The on-site APECs relate to historic occupation by Standard Oil Company, use of possible embalming agents, a possible oil spill, and scattered and buried debris. A Phase 2 ESA is recommended to further confirm and/or delineate these APECs.

2.4.5 Encroachments

A key constraint to orderly development in the North End is the large number of existing encroachments. The general nature of these encroachments is categorized and described below.

Encroachments Involving Roadways/Laneways	Encroachments Involving Surveyed Lots
• Traveled roadway encroaching on private property • Dwelling encroaching on right-of-way of active roadway • Dwelling (historic and non) encroaching on surveyed but inactive road right-of-way and/or laneway • Accessory structure encroaching on active road-right-of-ways and laneways • Accessory structure encroaching on surveyed but inactive road-right-of-way and/or laneway	• Dwelling substantively situated on private parcel with encroachment on City-owned land • Dwelling situated entirely on City parcel without permission • Dwelling on private lot extending onto adjacent lot under the same ownership, non-conforming to Zoning Bylaw • Dwelling on privately owned lot encroaching on an adjacent lot under different private ownership

The Planning Team heard repeated mentions of septic fields being located off of private property boundaries and/or under roadways but confirmation was outside the scope of its work.

One specific area of encroachments – Block G in the southeastern portion of the planning area - poses a significant challenge and warrants more detailed explanation here due to its influence over the final design concept. Three private property owners are implicated as follows:

1. Property Owner #1 – Property Owner #1 has title to portions of Lots 3 & 4 (Block G). The remainder of Lots 1-6 (Block G) is titled to the City of Dawson. The owner's residence (included in the YHSI) is located in the (surveyed) Third Avenue right-of-way (ROW) and the City's Lot 4. An accessory building, also included in the YHSI, is currently used for business purposes and is located to the north of the main residence on Lot 5 (City land). An unsurveyed minor road accessing the shop and residence runs through City-owned portions of Lots 1-5, the private portions of Lots 3-4, and minor portions of the City's surveyed laneway. The business is light industrial in nature and may not conform with the Zoning Bylaw.
2. Property Owner #2 - Property Owner #2 owns Lots 9 & 10 (Block G). A cabin listed in the YHSI occupies portions of both lots and encroaches on the surveyed public laneway and Third Avenue right-of-way. The owner is believed to park in the Third Avenue ROW to the south of the residence.
3. Property Owner #3 – Property Owner #3 owns Lots 7 & 8 (Block G). There is another YHSI listed structure on Lot 7. There are no building encroachment issues; however, the main access for this owner is via (surveyed) Fourth Avenue and the property's main parking access in the ROW.

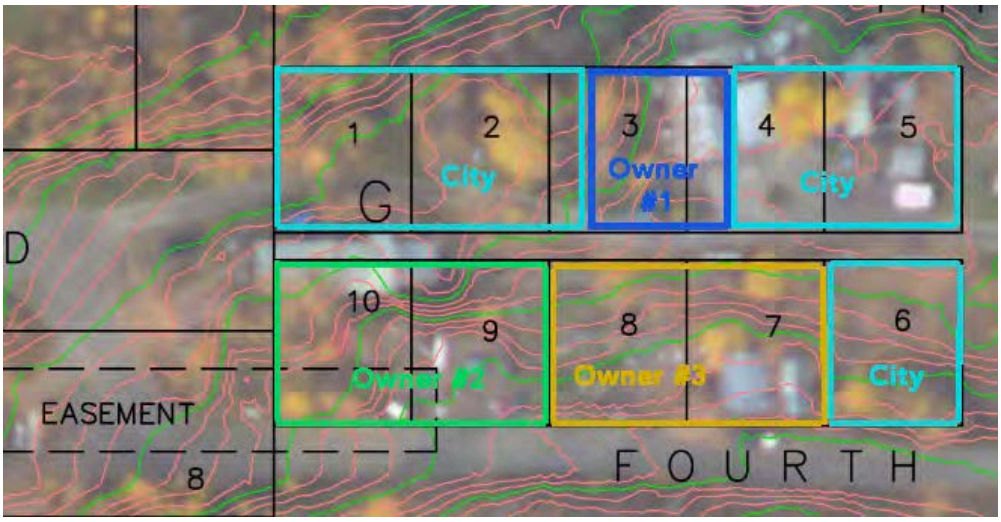


Figure 6. Typhoid Cemetery area property ownership and encroachments

2.4.6 Developable Areas

Of all the development constraints, geotechnical and geohazard issues - in combination with recognized historic sites – were felt to pose the most significant limitations. As such, the report, *Geotechnical Evaluation Proposed North End Subdivision* (Chilkoot Geological Engineers, 2016) and several conversations with its author (also a Team member) were invaluable to the determination of development potential across the planning area.

The Team synthesized all of the background information and categorized North End lots and other candidate areas as having good, marginal, or low development potential. For the most part, the Team's categorization of development potential adhered to the geotechnical evaluation results, in particular the report's Figure 10 and

accompanying write-up. However, in a few instances, the Planning Team's assessment deviated slightly from the geotechnical report recommendations as follows:

Area 18 – The report recommends a 30-meter wide geotechnical setback from the toe of the slide through this zone as the toe will encroach into it over the (approximate) 150-year development horizon. It further recommended that a shallow lined and armoured ditch be constructed along the entire toe of the slide debris to channel surface water from Area 17 towards a discharge at Front Street. During subsequent discussion, the report's author indicated that this setback could potentially be relaxed up to a maximum of 15 metres.

Figure 7. Figure 10 from *Geotechnical Evaluation Proposed North End Subdivision* (Chilkoot Geological Engineers Ltd.)



Area 21 – The report recommends that residential development not be allowed on Lots 2 and 13 Block C due to their proximity to the leading edge of the slide debris and associated pronounced rates of movement. In subsequent discussion, the report's author communicated that the lots could be suitable for non-permanent dwellings and/or a public building where the City was assuming the liability for increased building maintenance.

Area 24 – The lots in this area were deemed suitable for lot development but 4 Block F was eliminated from consideration due to the presence of the Paul Denhardt Cabin Municipal Historic Site.

Area 29 – The lots in this area were deemed suitable for lot development but the combination of steep bedrock terrain and preference for keeping the cemetery slope and associated platform structures intact led to the determination of low development potential.

Area 38 – The report states that Lots 1 and 2 Block G are unsuitable for development due to the steep slope their westerly portions encompass. In subsequent discussions, this finding was revised. The bench at the top of the slope in question is considered potentially suitable for development; the limited developable area is a planning and lot configuration challenge versus geotechnical one.

A working map was created highlighting good and moderate development potential and is included in Appendix B.

3.0 Market Context & Customer Profiles

3.1 Housing Demand

The broader community context for the North End Plan is important to understand. Dawson is growing rapidly, with 18% more residents in 2017 than in 2010. Official population projections expect this trend to continue, adding another 510 people by 2030. This combination of land scarcity, high development costs, and strong population growth have created a "perfect storm" of housing pressures. Median rents have risen over 30% in the last 3 years and vacancies are at or near zero. The cost of a serviced lot has risen 500% in 10 years, from $15,000 in 2009 to near $80,000 in 2018. Building costs are currently pushing past $250/ft^2.

Financial constraints to home ownership affect many Dawsonites. Dawson's economy is prone to seasonal swings and household incomes are 19% lower than the Yukon average; nonetheless, the cost of living is 16% higher than in Whitehorse. 20% of households have a total annual income under $30,000. These realities pose barriers to obtaining mortgage financing for new home construction for some, which may be a cause for significantly lower rates of home ownership in the community[2].

The acute shortage of appropriate housing has been repeatedly raised in community economic and needs surveys since 2011. Both the 2017 Household Survey (133 responses) and the 2017 Business Retention and Expansion Survey (33 interviews) conducted by KDO again confirmed housing as the top priority for improving Dawson and strengthening the economy, ahead of recreation, transportation, infrastructure or other investments.

- In the most recent 2017 Housing Rental & Ownership Demand Survey (130 responses):
    - Only 55% of renters are satisfied their housing needs are being met
    - Rental need is dominated by 'affordable' single-person units with access to laundry
    - 44% of renters are planning to build a home to own in the next 5 years, and 36% are contemplating the same
    - A large portion of residents who would like to build a home indicated they can not afford to do so given current market land prices and construction costs.

Analysis of the socio-economic context and official demographic projections informs a 2030 forecast of additional new housing needs of 160 rental and 105 owned units as follows:

	Total	TH	Target	Ownership	Rental
1-bedroom	190	40	150	25	125
2-bedroom	115	25	90	55	35
3-bedroom	30	5	25	25	
Total	335	70	265	105	160

(Please note that Tr'ondëk Hwëch'in (TH) citizens comprise approximately 21% of the Dawson population. This need is separated out to allow for the supply of the TH government housing programs, although less ownership is expected in this segment as the TH home ownership programs are in their infancy and will take time to grow.)

Interestingly, the strong demand for rental housing has not translated into significant private sector opportunities yet. Given the high cost of construction, a traditional business case to build multi-unit housing at market rents is

[2] Home ownership rates are at 46% for Dawson residents, much lower than the Yukon average of 66%.

difficult to make in this small, remote location where exit strategies for investors are extremely limited. Banks are wary to lend and even social enterprise housing developers such as Klondike Development Organization (KDO) that utilize government grants need public guarantees to access loans. However, the example of the recent successful first KDO 8-plex project has stimulated others to explore the potential with these government funding supports.

Four multi-unit projects are in different stages of progression in the Downtown Core and although still encountering challenges, will provide 30-40 new rental units if completed. The necessary government funding supports for these include 10-year City of Dawson tax rebates and a Yukon Housing Corporation Municipal Matching Grant, and Council policy offers these exclusively for development in the Downtown Core as it seeks to incentivize revitalization of vacant sites in that area. In addition, other large properties in the Historic Site are also suitable and may soon be made available for multi-unit residential development, including the former Korbo Apartments and Alexander McDonald Lodge sites. There should be sufficient sites outside of the North End Planning Area for the foreseeable pace of multi-unit rental development in the near horizon if adequate government funding and financing supports are in place.

3.2 Market Profiles

Regardless of the achievement of other markers of success, the Planning Team recognized from the outset that the project would ultimately fail if it results in lots that nobody can (or wants to) buy. Keeping the end user in mind was critical. Based on responses to previous related public surveys, income and market demand data, and standard mortgage rates and rules, the Team initially developed a series of three hypothetical customer profiles to use as starting points in its analysis of market "fit" as follows:

	Customer 1	Customer 2	Customer 3
Annual Income	$55,000	$75,000	$105,000
Down Payment	$15,000	$30,000	$50,000
Lot Size	3000	5000	6500
Lot Price	$60,000	$90,000	$120,000
Dwelling Size (ft^2)	700	1100	1750
# of Bedrooms	2	3	4
Building Cost (per ft^2)	$240	$225	$220
Other Development Costs	$26,000	$30,000	$35,000
Total Cost to Buyer (Mortgage Amount + Down Payment)	$254,000	$367,500	$540,000

These customer profiles were intended to provide early reference points for useful discussion. Any development configurations or business/cost recovery models that propose lot prices beyond these were considered likely to fail, as the market simply wouldn't have the financial capacity to buy them. While these prices may still induce "sticker shock" and concerns about affordability, the Team believes they are within sufficient range of the current market (approximately $80,000 for a regular 5000 ft^2 lot) that they can be expected to sell within the 3-5 year range, given population and demand projections.

4.0 Community & Stakeholder Engagement

4.1 Phase 2 Engagement – March/April

In order to inform the development of conceptual options, the Planning Team provided a number of input opportunities for Dawson residents, including:

Input Opportunity	Timeline	Participation
Online Survey	March 22-April 2	97 surveys
North End Resident Dessert & Walkabout Workshop	April 4	~20 ppl
Contractors & Developers Lunch Workshop	April 5	~20 ppl
Dawson City Dessert & Design Studio Workshop	April 5	~12 ppl

In addition to these efforts, the Planning Team sent a package introducing the project and Team members to Dawson residents north of Albert Street. A North End Facebook page was launched on March 23rd and garnered about 40 likes and almost as many interactions (reactions, shares, comments, etc.) from Dawson residents. The Team also received several emails from residents.

One-on-one meetings were also held with Tr'ondëk Hwëch'in, the Roman Catholic Diocese, and Klondike Development Organization to gather information and perspectives.



Figures 8-10. Scenes from March/April community engagement

4.1.1 Online Survey Results

Almost 100 Dawson residents participated in an initial online survey exploring two main topics: criteria for a successful North End development and demand for lots in the North End. The survey was administered via Survey Monkey for the purposes of quickly and broadly canvassing the community and results should not be considered statistically valid. Please refer to Appendix C for the complete results.

- **Neighbourhood of Residency**

Almost half (45%) of the respondents to the online survey lived within the Historic Townsite of Dawson City but not in the North End. About 1 in 5 respondents lived in the North End (considered north of Albert Street for purposes of survey). 32% lived elsewhere in the Dawson area.

- **"Success" Criteria**

The online survey explored the criteria against which Dawson City residents would evaluate the success of a North End residential development. Respondents were asked to indicate their level of agreement with a pre-determined set of criteria that had been developed with Mayor and Council (see Section 5.0). Survey respondents placed a priority on exercising caution with geohazards, range and mix of housing, land use efficiency, and servicing. The lowest ranked criteria were support from North End residents and property owners and housing as many people as possible.

- **Lot Demand**

Almost 40% of survey respondents indicated interest in buying a lot in the North End, while almost 48% responded "maybe". Only 14% responded "no".

When given the choice between small (50 x 60 foot), medium (50 x 100 foot), and large (50 x 130 foot) lots for maximum prices of $60,000, $90,000, and $120,000 respectively, a majority of survey participants indicated a preference for a medium-sized lot, followed closely by a small lot.

4.1.2 Key Themes

The key themes that emerged from the survey comments, workshops, and social media interactions included:

North End & Dawson residents value the "wild", natural character of the North End.

The vegetated, natural character of the North End – including its bird and amphibian life – emerged as a key value in the planning area. There was strong interest in retaining vegetation and greenspace and creating new amenities such as a park centering on the Paul Denhardt cabins and improved trail connections through the area.

Housing is a serious community need and affordability is important.

The Team heard that housing is an urgent need in Dawson. There were concerns that the Team's proposed lot price thresholds were too high to be affordable for those who need it most. One workshop participant in his mid-to-late 20s stressed that lot availability is a deciding factor for long-term residency in the community for people his age. Affordability also relates to better outcomes; some contractors noted that high lot prices mean that owners lack the resources to prepare their lots properly.

What Dawson Residents Said: Survey #1 Comments

"Focus on families for a change. With apartments being developed, we are taking care of that demand. Think about the future and where we're going to put families who want to set down roots."

"I would like to keep the North End feeling like the North End. Yes, more people but lot of open space and not too dense…."

"When planning lots think about how people live. They may want a small house but they also want 2 cars, a shed, animals, etc. It's not going to look like the "little house" pictures you see on the net…."

"Make all small lots. You don't need a yard to grow grass especially in the proposed area. Keep it small and lots of 'em."

"Keep the prices attainable. The prices listed above are high, in my opinion."

"Dawson's housing shortage means that there is a shortage for all demographics and needs. My priority is high density, starter home lots for young people wanting to stay in Dawson. These people are young professionals and entrepreneurs who want to stay here long-term."

"Retaining the semi-forested integrity of the North End is important for our town."

"I do not want to see a whole lot of tiny crammed lots and houses…"

"Let's get a good plan that survives."

"I can't think it would be affordable to develop serviced lots here. Who would pay for all of this?

Detached dwellings are generally preferred and some density is acceptable.
Many workshop participants pictured a series of small to medium sized detached dwellings, with density being achieved through smaller lot sizes. There was some interest in exploring ways to accommodate very small dwellings and even higher density for the sake of affordability. There were not many mentions of larger multi-unit buildings to achieve density. Density was seen as necessary by some to offset the anticipated high costs of servicing.

North End development should be done differently.
There were concerns that new lots would look like "gravel piles" and detract from the area's natural character. Concerns about altered drainage and off-site drainage impacts were raised numerous times. In requesting a "different" approach, ideas weren't limited to site preparation either: one workshop participant suggested that a co-housing development be explored.

Residential development of the area should be serviced.
Consistent with the public survey results, bringing piped water and sewer to the North End was generally seen as an important "win" and rationale for further residential development by stakeholders.

Development in the North End will be challenging.
A range of challenges were raised by workshop participants, including encroachment and access issues for existing property owners, prevalence of permafrost in the area, naturally occurring asbestos, high costs of servicing, drainage patterns, and presence of artifacts, etc. A few participants urged the City and Planning Team to take their time and plan properly.

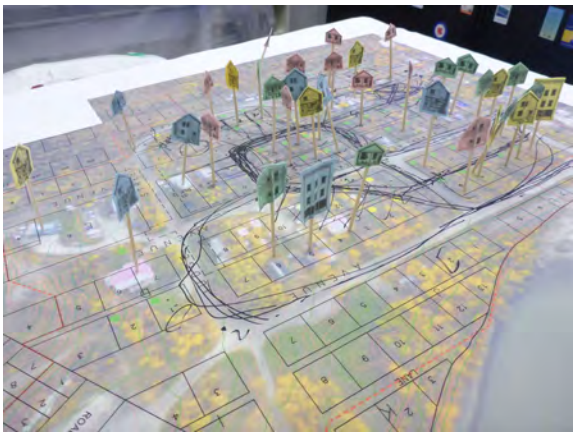


Figure 11. Neighbourhood design workshop results

4.2 Phase 3 Engagement – May/June

After the initial round of community engagement held between March 22 and April 5, 2018, the Team summarized the input they received in a first "What We Heard" report. Two concepts were developed and released for further input by the community and then Council itself via two opportunities:

Input Opportunity	Timeline	Participation
Online Survey	May 2-11	60 surveys
Team Presentation/Q&A Session with North End Residents	May 15	~20-25 ppl

In addition to these efforts, the Planning Team sent a letter to Dawson residents situated north of Albert Street. The Team also corresponded via email with several North End residents and met with two property owners in person. Social media posts and communications continued.

4.2.1 Online Survey Results

60 people participated in the second online survey. The survey was administered via Survey Monkey for the purposes of quickly and broadly canvassing the community and results should not be considered statistically valid. Please refer to Appendix C for the complete results. Highlights from the survey results are as follows:

- **Neighbourhood of Residency**

Almost half of respondents lived in the North End (considered north of Albert Street for purposes of survey). 31% lived elsewhere in the Historic Townsite, and 25% lived outside of the townsite altogether. The second survey's proportion of North End resident participants was double that of the initial survey.

- **Preferred Concepts**

Concept 2 received slightly more support than Concept 1, with 38% in support and 34% not in support. A majority of survey respondents supported Front Street sub-option B (mix of small/large lots) followed by sub-option A (all large lots). The least supported option was for four-plex lots. New lots on Judge Street were generally supported (58% vs. 30% opposing). The proposed micro-housing concept received mixed reviews - support (44%), opposition (31%), and quite a few neutral responses (25%).

4.2.2 Key Themes

The following is a summary of "what we heard" about both concepts from survey comments, correspondence with North End residents, and the May 15th Council meeting:

- *There are too many lots proposed in both concepts – level of density will destroy natural values & greenspace*
- *Cul-de-sacs are awkward (*others felt they would create a quiet, unique character)*
- *One-way streets won't work*
- *Historic street grid should be respected: don't close Edward Street!*
- *Concept 2 road is too wide and segments greenspace (*others felt it was a more elegant layout vs. cul-de-sacs)*
- *Current property owners should receive right-of-first refusal to purchase new adjacent lots*
- *Servicing may not be affordable or desired by some existing residents*
- *Historic structures should be respected and not moved where possible*
- *Lot prices are too high*
- *Other areas in Dawson may be more appropriate for development*
- *Small lots will results in off-street impacts and "sprawl" (*others felt small lots were crucial for affordability and starter homes)*
- *Some support and need for micro-housing*
- *Encroachments of current property owners should be addressed prior to planning new development*
- *Challenging ground conditions may result in ongoing maintenance to underground infrastructure*

What Dawson Residents Said: Survey #2 Comments

"NO MULTI FAMILY RESIDENCES! They belong in the downtown core. We need places for families."

"Large road is unreasonable size for the area. Does not conform with historical streetscape shape/form."

"The (Concept 2) road layout provides a more natural traffic flow and encourages movement through the community by foot/bicycle and doesn't feel as invasive when entering cul-de-sacs without being a resident there."

"By going through with this plan, you would inevitably destroy the layout and historical background of my neighbourhood."

"There are a few good things: the interneighbourhood green space, and the Denhardt cabin park, plus development of empty block (but not Edward Street closure), and some of the lots along Second Avenue, but everything else is very problematic and probably super expensive to do."

"Great!"

5.0 Success Criteria

Given the broad range of constraints identified for the North End area through the background studies, "trade-offs" between competing values and objectives and were expected. The development of "success" criteria for the North End conceptual design was proposed to assist the Team in its identification and ultimate recommendation of prospective solutions, assist Council in its decision-making role, and improve transparency and trust in the process.

The table below illustrates the set of success criteria and public and Council ranking, developed in three steps:

Success Criteria	Council Ranking	Public Ranking
Conforms with Heritage Management Plan	1	6
Retains the existing street grid	4	8
Comprehensive, long-term planning approach	2	n/a
Supported by North End residents/property owners	6	9
Protects heritage resources (not mandated to be protected by law)	6	n/a
Adopts a precautionary approach in regards to potential geohazards in the area	3	1
Resolves existing encroachment issues	3	n/a
Facilitates the provision of urban water and sewer services to new properties	3	3
Promotes efficient use of available land	3	2
Creates new neighbourhood amenities	6	7
Satisfies and/or is aligned with market needs and preferences	4	8
Supported by Dawson residents	6	5
Provides a range and mix of housing options (including affordable)	4	1
Minimizes risks of property damage or maintenance challenges for future owners	4	4
Supported by other governments (TH, YG)	5	n/a
Facilitates the provision of urban water and sewer services to existing properties	6	3
Supported by Dawson stakeholder groups	7	n/a
Creates opportunities for government and/or other partnerships	8	n/a
Achieves cost recovery	5	n/a
Houses as many people as possible	9	10

1. The criteria were initially developed by the Planning Team and subsequently refined, expanded and assigned a preliminary ranking by Council in mid-March.
2. Public input into the draft criteria was sought in late March/early April via the online survey. The public ranking results are indicated. (Please note that for sake of brevity, not all draft Council criteria were included in the survey).
3. Council reconvened to review the public results in mid-April and revised their ranking of several criteria.

Dawson residents placed a priority on exercising caution with geohazards, providing a range and mix of housing, land use efficiency, and servicing. Support from North End residents was the second lowest ranked criteria.

Council placed a markedly higher priority on conformance with the Heritage Management Plan and lower priority on range and mix of housing but also ranked precautionary approach and servicing and efficient use of land near the top.

Interestingly, both Council and the public ranked "houses as many people as possible" the lowest.

6.0 Preliminary Development Concepts

6.1 Phase 3 - Concepts #1 and #2

6.1.1 Overview

Subsequent to the initial round of stakeholder and public engagement in March/April, the Planning Team prepared Concepts #1 and #2 for Council and public review. The primary difference between the two concepts was road layout and the approach to resolving the Typhoid Cemetery area access and encroachment issues. The secondary design challenge related to the narrow width of the eastern end of Judge Street and need to drill and blast steep bedrock and/or relocate a large historic building that encroaches on the road right-of-way to achieve safe two-way travel. Both concepts assumed that this portion of Judge Street would remain its current width.

Both concepts also included a common set of sub-options specific to the 10-lot block B of City land located between Front Street and Second Avenue. These sub-options ranged from a small number of multi-residential building lots to twelve small (50 x 60/70 foot) lots to six large (50 x 130 foot) lots. Please refer to Appendix D for further explanation and comparison of the two initial design concepts.

6.1.2 Council Direction

After listening to the Team's presentation of the options and public and North End resident input, Council directed the Planning Team on May 15th to pursue Concept #2 further and work to resolve some of the key concerns with it in another round of design. It also directed the Team to pursue sub-option B for Front Street (six 50 x 60 (or 70) foot lots and three 50 x 130 foot lots), the option most supported by survey respondents. Council indicated a preference for closing Edward Street to create a new lot (subject to clarity around the public's understanding of continued pedestrian access) and avoiding drilling and blasting of steep bedrock to widen the roadway in the Third Avenue/Judge Street area.

6.2 Phase 4 - Concepts 2a, 2b & 2c

6.2.1 Design Challenges

The refinement of Concept #2 hinged around a key design element/challenge: the consolidation of private parcels in the Typhoid Cemetery area, closure of the steep corner/narrow width portion of Third Avenue, and need to provide access to four of the six private parcels affected from the north. The Team prepared three variations on Concept #2 for further input and consideration: Concepts 2a, 2b, and 2c.

With the widening of Judge Street ruled out as a viable option, all three concepts assumed that any new access road and the portion of Judge Street east of Second Avenue would be designated for one-way travel only. As such, they shared common features of quieter/narrower streets, a unique, non-grid like character and need for driver/resident adjustment.

The recommendation in the geotechnical study that new road construction avoid cut and fill techniques and instead utilize fill construction was the other major design constraint. The Team worked from the assumption of a maximum 8.5% design grade and 10-metre right-of-way width to conceptualize the extent of fill required to achieve the two steep alignments and understand the resulting impacts to Second Avenue and adjacent properties. Please refer to Appendix E for further explanation and comparison of the three final design concept options.

7.0 Final Development Concept

7.1 Concept Features

After weighing the advantages and disadvantages of Concepts 2a, 2b, and 2c, Council directed the Planning Team to pursue a final concept reflecting Concept 2b. Please refer to Appendix F for an illustration of the Team's final concept.

7.1.1 Lot Yield, Sizes, and Layout

The proposed development concept yields a total of 28 new lots as follows:

- 10 small;
- 12 medium; and
- Six 6) large.

20 of the new lots can be accessed via Second Avenue, Third Avenue or Judge Street in their current configurations. The remaining eight require the construction of a new road that would branch off at a 90° angle from Second Avenue two lots north of George Street and connect up to the current alignment of Third Avenue just north of the Typhoid Cemetery. Edward Street would be closed to vehicle traffic and Third Avenue would terminate in a cul-de-sac just south of the cemetery.

Lot Sizes & Market Demand

The Team classified lot sizes as follows:

Small: 2500 – 4499 ft²
Medium: 4500-6499 ft²
Large: 6500 ft² +

The distribution of lot sizes corresponds closely to the results of the first online survey, where 39% of respondents indicated a preference for a medium-sized lot, 32% preferred a small lot, and 27% preferred a large lot.

The concept envisions the reconfiguration and consolidation of six privately owned lots (or lot portions) in the Typhoid Cemetery area to address encroachments as well as ensure legal access to each lot. A similar treatment is proposed for three other lots – two located on Judge Street and the other on Second Avenue – for the purposes of addressing encroachments and achieving minimum lot size for the R1 zone currently applicable to the planning area. Various other encroachments exist throughout the planning area but do not pose equivalent barriers to the creation of new lots in the North End; these should be addressed via the framework presented in Section 8.0.

7.1.2 Greenspace and Neighbourhood Amenities

In keeping with the wishes of North End residents, the North End development concept envisions both the retention of greenspace and minor, site-sensitive interventions to better facilitate public enjoyment of them.

An interior corridor of greenspace between 2nd and Third avenues is retained in the concept, and a formal City park created to encompass the Paul Denhardt Cabin Municipal Historic Site. The natural and historic character of the site is its defining feature and should be upheld; as such, the park is proposed as a site for quiet contemplation and learning. The park should receive minor infrastructure such as a picnic table, benches and interpretative signs to facilitate spontaneous use and visitation by Dawson residents and visitors. Yukon Historic Sites Branch should advise on recommended treatments to the buildings themselves. A short trail is proposed to facilitate access to the new park from a small pull-out on the new road.

Two other trails are proposed in place of the roadway sections proposed for decommissioning: Edward Street and the Typhoid Cemetery corner of Third Avenue. The trail surface should be approximately six feet wide to facilitate off-road vehicle passage but restrict motor vehicles. The trails should be properly graded for drainage

and surfaced with White Channel gravel or similar material. Bollards or other barriers could be installed to restrict motorized vehicles as necessary. Fencing and/or shrubbery would be installed to create privacy between these public trails and adjacent properties.

While not directly related to North End re-development, it is important to note that the private properties located in the northwest portion of the planning area (and owned by the Roman Catholic Diocese) also comprise valued greenspace in the North End. The Church would like to enhance the site, including more formalized parking at the upper terrace of Lot 31 and an upgraded walking trail from the parking area to the gravesite itself. The Church has put forward a nomination for the canonization of Father Judge to the Vatican; should this be successful, a more significant investment may be warranted at the site to accommodate the anticipated increase in visitation.

Housing Best Practices

The Team undertook a review of housing best practices in support of the project, the results of which are included in Appendix G. The proposed design concept reflects many aspects of the best practices the Team compiled into its "Top 10" list as follows:

- A range of lot sizes and pricing promotes a diversity of housing options for a diversity of residents;
- Narrower roads promote a pedestrian-friendly network and human-scale design;
- Multiple walkways allow for pedestrian permeability throughout the area;
- Affordable housing built form and policy innovation are encouraged; and
- Nearby park and greenspaces and walkable distances to employment and amenities help create a complete neighbourhood.

Lastly, it is important to note that the geotechnical evaluation recommends a shallow lined ditch (or French drain) through the interior greenspace and park area for the purposes of conveying drainage and potential debris flows; this recommendation should be revisited given the high importance North End residents place on undisturbed greenspace and the likely negative impacts to the site's aesthetics.

7.1.3 Affordable Housing Pilot Project

Lots 2 and 13 Block C of the North End were identified as being prone to higher rates of downslope movement due to their proximity to the toe of the slide. The Planning Team proposes that these two lots be consolidated and utilized for an affordable housing innovation project. The City of Dawson would retain ownership but lease the land to a third party to provide small non-permanent rental units – essentially "tiny homes" – with affordable monthly rents. Parking and servicing would need to be carefully considered and the proposed development would require either rezoning of the area or the creation of a new stand-alone zone (see Section 9.0). Challenges aside, such a project would see two marginal lots brought into productive use and help the City of Dawson and its housing partners provide a new, innovative rental housing option that could be piloted and transferred to other areas in the community.

7.2 Civil Design

7.2.1 Roadways

Concept #2 includes a proposed one-way roadway to serve as the main road access for eight (8) new lots and four (4) existing lots (including newly reconfigured lots in the Typhoid Cemetery area). The prevalence of permafrost in the area necessitates the construction of new roadways utilizing fill (versus cut and fill) techniques. The average grade between Second and Third avenues roughly along the alignment of the proposed new roadway is around 12%; the fill required to achieve a more conventional maximum design grade of 8-8.5% would extend across Second Avenue (into the City lot proposed for affordable housing) and Second Avenue and existing private property accesses would need to be re-graded accordingly. The Team estimates that the fill

required would raise the elevation of Second Avenue approximately three (3) metres at the new road intersection.

All other lots would be accessed off Second Avenue and Judge Street. The surveyed Government of Yukon lot upon which Edward Street is currently situated would be closed and converted into a 40 x 130 foot residential lot and adjacent public trail.



Figure 12. Looking north up Judge Street & Second Avenue (note narrow width approaching top of hill)

One-way operation, with the entrance off Second Avenue and exit along Judge Street, is proposed for the new roadway to ensure user safety in a narrow right-of-way. One-way streets operation is generally simpler and may result in fewer potential conflicting movements. Pedestrians would expect traffic only from one direction and the crossing distance is narrower. Vehicle conflict points at intersections are also reduced. For the anticipated volumes of traffic, unsignalized intersections should suffice and intersection controls can be limited to stop controls on minor approaches. Consideration could be given for a narrow two-way road design, possibly incorporating pull-outs at appropriate intervals with necessary sightlines.

The more detailed design of roadways for the North End area should be informed by their desired function, not vice versa. The proposed road's primary purpose would be to provide access to new properties – including emergency access – and not to facilitate efficient traffic movement. Based on the low density of the area the new roadway would service (i.e. 12 lots), the roadway will see traffic volumes typical for a Public Lane (less than 500 vehicles per day) or a typical Residential Street (less than 1,000 vehicles per day).

Follow-up study will be required to refine the roadway design and gain clarity around the following design criteria:

1) **Traffic Impact Study:** A Traffic Impact Study (TIS) should be undertaken to confirm traffic volumes for the proposed roadway. The TIS should be a simple exercise intended to define the traffic volumes that will be considered in the new roadway design and determine the accompanying Road Classification. It is anticipated that the roadway can be classified as a typical Public Lane, which generally has a lower roadway standard compared to a typical Residential Street.

2) **Confirmation of One-Way vs. Two-Way:** Since a single family lot typically produces around 10 vehicle daily trips, 120 or so vehicle trips per day can be anticipated – roughly equivalent to around 12 vehicles during the peak hour. As mentioned above, the TIS will likely conclude that a Public Lane road type will suffice from a functionality perspective. The study, combined with the roadway design standard and safety considerations, would further advise on whether the proposed one-way or modified narrow two-way road is most appropriate.

3) **Roadway Design Standard:** The road cross-section design will be dependent on the available right-of-way and the other ancillary function the road is intended to serve. At a minimum, the road should have a driving surface of six (6) metres to accommodate emergency vehicle access and deployment. No parking should be permitted on either side. A wider road cross-section would be required to accommodate parking or extra width for wider travel lanes (larger vehicles) if needed. Also, space for walkways, ditches, trees, and utilities would also need to be taken into account for total road right-of-way.

4) **Safety Considerations:** As mentioned previously, there are some significant grade differences to overcome between Second and Third avenues and grades as high as 10% may need to be considered. These types of grades are typically avoided when possible; however, the roadway may be designed to maintain appropriate vertical and horizontal sightlines and appropriate grades at intersections.

5) Optimal Alignment: The conceptual road alignment should be revisited in the interests of minimizing fill and associated impacts to Second Avenue and existing private property driveways. Ideally, the new intersection would be sited further north along Second Avenue to reduce the amount of fill required to achieve safe design grades; however, any gains made in this respect will need to be carefully weighed against the implications of encroaching further into the recommended geotechnical setback and identified debris flow pathway and drainage course. The alignment of the north-south section of the new roadway should also be carefully examined to achieve the desired lot yield and minimize the amount of road fill and fill required to achieve safe access to adjacent new lots.

Ultimately the City will need to be comfortable with the road standard that is applied to the site and should be closely engaged as part of preliminary design to ensure the appropriate considerations are being integrated into the roadway design.

7.2.3 Water and Sewer

The North End development concept envisions the extension of the current water and sewer servicing configuration – specifically dead-end watermains with bleeders - to minimize the capital costs to service the area. The proposed servicing scheme is organized into three separate nodes as follows:

- **Node 1** – 16 new and two (2) existing privately owned lots in the Front Street block and Second Avenue area (in the vicinity of Edward and George streets);
- **Node 2** – Three (3) new and 10 existing privately owned lots[3] situated along the north end of Second Avenue and Judge Street;
- **Node 3** – Nine (9) new lots and five (5) existing privately owned lots between Second and Third avenues.

Detailed servicing diagrams illustrating the three nodes and accompanying servicing infrastructure needs is included in Appendix H. It is important to note that servicing any new or existing Front Street lots lacking access to Second Avenue would require the registration of an easement on title to allow the City to carry out any needed repairs. This requirement applies to three of the new proposed lots in the Front Street block as well as an undetermined number of the privately owned lots in Block C (between George and Judge streets).

[3] The servicing concept assumes that fourteen currently surveyed and privately owned lots are consolidated, resulting in ten private lots.

As outlined in Section 2.3, the existing water and sewer systems appear to have sufficient capacity to meet the servicing needs of the proposed North End area; however, it is recommended that the design criteria of the new York Street lift station and new water treatment plant be reviewed to ensure the water distribution and sewer collection system are able to meet the needs of the proposed North End area.

From a capital cost perspective, extending the dead-ends to service the North End area is the preferred option; however, it is unclear if it makes sense from a life cycle cost perspective due to the potential reduced energy costs of proceeding with looped servicing. At a minimum, it is recommended that any dead-end servicing to the North End area take into consideration future watermain looping. It is further recommended that a separate study be undertaken to identify whether or not there are energy costs savings that justify proceeding with looped watermain servicing (please see Section 11.2).

From a capacity perspective, the water distribution system is designed for fire flow scenarios. Given the size of the North End area that will be serviced, it is unlikely that the additional water demand from this area will compromise the ability of the existing water system to meet the fire flow needs of the community. That said, it is recommended that the pumping capacity of the new water treatment plant be reviewed as part of subsequent design to confirm the water distribution will be met.

7.3 Cost Recovery

7.3.1 Projected Costs and Revenues

The Team undertook a Class C level cost estimate for implementing the final North End development concept by each node, presented in Appendix I. Using these cost estimates, a high-level cost recovery summary was developed (see table below).

	High-Level Cost Recovery Summary		
	Node 1	**Nodes 1&2**	**Nodes 1-3**
New Lot Sales	16	19	28
Existing Lots Serviced	2	12	17
Costs			
Costs to Date	$300,000	$300,000	$300,000
Further Planning	$50,000	$50,000	$50,000
Engineering & Legal Survey	$90,000	$151,000	$290,000
Civil Works	$749,400	$1,256,800	$2,409,500
Third Party Utilities	$25,000	$50,000	$150,000
Contingency (30%)	$225,000	$378,000	$723,000
Total	**$1,439,400**	**$2,185,800**	**$3,922,500**
Revenues			
Lot Sales	$1,240,000	$1,510,000	$2,360,000
Local Improvement Charges	$60,000	$360,000	$510,000
Funding Required	$139,400	$315,800	$1,052,500
Total	**$1,439,400**	**$2,185,800**	**$3,922,500**
Sales & Charges Recovery Ratio	90%	86%	73%
Subsidy Per New Service Connection	$7,744	$10,187	$23,389

The anticipated costs are $1.4 million for developing Node 1, $2.2 million for developing Nodes 1 & 2, and $3.9 million for developing Nodes 1-3. Projected revenues through lot sales and local improvement charges are $1.3 million for Node 1, $1.9 million for Nodes 1 & 2, and $2.9 million for Nodes 1-3.

Both Node 1 and Nodes 1 & 2 require relatively small funding amounts, for which a case can be made to infrastructure upgrade programs, as this is a hybrid infill development (see Section 11.1.3). The funding of just $8,000-$10,000 per new service connection would soon be recovered from the new property tax and utility fees accruing annually, estimated to be $4,000 per new home and $1,200 for an existing home. Of course, the case for Nodes 1 & 2 is predicated on the assumption that owners will agree to pay a Local Improvement Charge. Developing Nodes 1-3 will require about 200% more public funding than Nodes 1&2 while delivering only 33% more service connections/lots.

Cost Recovery Model Notes

1. Lot price estimates of $120,000, $90,000 and $60,000 were applied as per market profiles;
2. Assumes a local improvement charge of $30,000 per existing lot serviced;
3. Civil works includes road building, water and sewer installations, storm drainage and allowance for heritage, geohazard and geotechnical work required;
4. Third party utilities are power, telephone and cable (not validated within scope);
5. Further planning includes recommended property owner negotiations;
6. Phase II ESA, environmental investigations and remediation are excluded from project costs as these are liabilities to be addressed regardless and not directly attributable to land development; and,
7. A 'New Service Connection' includes both new lots and the existing lots gaining service.

7.3.2 Lot Pricing

The implementation and financing model and whether or not the City of Dawson or Government of Yukon would be the final lot sales vendor has not yet been determined. As such, it is unclear which sales and valuation policies would apply. Government of Yukon policy typically prices lots using a blend of market value and development cost to achieve cost recovery without disrupting the private marketplace. City of Dawson sold its new country residential lots on Hillside Crescent similarly in 2014.

If the development extends beyond Node 1, it is clear that the economic capacity of the community is not sufficient to achieve even close to cost recovery. City of Dawson and Government of Yukon will need to balance their public policy goals of maximizing cost recovery in fairness to existing tax and ratepayers and enabling pricing at which residents can afford to finance purchase and home building. Lot pricing is beyond the scope of this study. This task should first be informed through the engagement of a qualified professional to undertake an independent appraisal, as was done by City of Dawson for the Hillside Crescent development. The Team heard repeated concerns that its hypothetical lot prices were too high for the local market; both the City and Government of Yukon can bear this in mind.

7.4 Other Recommendations

While not integral to the fulfillment of the North End development concept, the Team recommends the City of Dawson pursue the following measures for North End neighbourhood:

1. Relocate the encroaching portion of Front Street from the Lots 3, 4, and 31 owned by the Roman Catholic Diocese and complete the land transfer for the associated road right-of-way; and,
2. Work with Yukon Historic Sites to create an interpretive trail showcasing some of the tent platforms in the Typhoid Cemetery area and link the trail to the 9th Avenue Trail.

8.0 Framework for Addressing Encroachments

One of the biggest challenges to the development and/or redevelopment of the North End are property encroachments. The challenge relates to the considerable number of them, the historic nature of many, and the need to understand their complexity not only in relation to one another but in the context of Dawson City as a whole. There is no perfect solution to this challenge. However, the Planning Team feels that there is a workable solution – one predicated on the consideration and resolution of encroachments within an overarching framework.

8.1 Guiding Principles

The Team's framework sets out to address encroachments within the planning area issues in a manner that:

- Is fair, transparent, and consistent;
- Avoids setting a problematic precedent for the City;
- Upholds and/or reinstates City, territorial, and/or national legislation;
- Upholds and/or reinstates conformity with the Official Community Plan and/or Zoning Bylaw;
- Upholds and/or reinstates legitimate and lawful occupation and use of private and/or public lands;
- Protects historic buildings where possible, giving priority to those original to the site;
- Ensures proper legal access for all lots;
- Considers whether an inconvenience or hardship to property owners is self-imposed; and
- Facilitates orderly development, parcel and/or road configurations generally consistent with development patterns in the Historic Townsite.

In some cases, not all Guiding Principles will be simultaneously achievable and trade-offs will be required. The City should endeavour to meet as many principles as possible in its application of the framework.

8.2 Recommended Approaches

The Planning Team has delineated nine general types of encroachments in the planning area, all of which relate either to roadways and laneways and/or surveyed lots. The framework recommends a standard approach and provides direction where exceptions may be required (and can be currently anticipated). The responsible party is effectively the party financially and/or otherwise responsible for addressing the encroachment.

It should be noted that not all encroachments are created equal, at least from a project implementation standpoint. The City of Dawson should assign highest priority to resolving encroachments that pose a direct constraint to development (i.e. the land in question is proposed for new housing and/or related access). A moderate to low priority would be assigned to those encroachments posing little to no development constraint (i.e. land in question already developed or generally unsuitable for new housing and/or related access purposes).

Ideally, the resolution of encroachments in the planning area would be coordinated between the City of Dawson and individual property owners to achieve an economy of scale and efficiencies where surveying is concerned. For example, lot enlargements (the responsibility of private owners) should be timed to proceed alongside the survey that will be required in preparation for the sale of new lots and associated access.

#	Description of Encroachment	Recommended Approach	Potential Exception	Responsible Party	Priority
Encroachments Involving Roadways and Laneways					
1	Traveled roadway encroaching on private property	Relocate roadway off property and in surveyed right-of-way	City to purchase land and/or negotiate land swap	City	High
2	Dwelling (historic and non) encroaching on right-of-way for traveled roadway	Encroachment agreement	Permit purchase at market value if remainder of road right-of-way proposed for new residential lot(s)	Property owner and City	Medium
3	Dwelling (historic and non) encroaching on surveyed but inactive road right-of-way and/or laneway	Permit land purchase at market value subject to lot consolidation where lot is non-conforming	None anticipated	Property owner	Medium
4	Accessory structure (historic and non) encroaching on active road-right-of-ways and laneways	Relocate buildings off right-of-way	None anticipated	Owner of dwelling(s)	Medium
5	Accessory structure (historic and non) encroaching on surveyed but inactive road-right-of-ways and laneways	Relocate buildings off right-of-way	Incorporation of laneway into lot extension; subject to lot consolidation where lot is non-conforming	Property owner	Low
Encroachments Involving Surveyed Lots					
6	Dwelling substantively situated on private parcel with encroachment on City-owned land	Permit land purchase at market value	None anticipated	Property owner	High
7	Dwelling situated entirely on City parcel without formal authorization	Remove dwelling	Permit land purchase for occupied residential dwelling subject to it meeting applicable codes and servicing	Property owner	High
8	Dwelling on privately owned lot extending on an adjacent lot under the same ownership, non-conforming to Zoning Bylaw	Consolidate lots; allow for non-standard lot configurations	None	Property owner	Low
9	Dwelling on privately owned lot encroaching on an adjacent lot under different private ownership	To be negotiated between property owners	City to consider assistance where City lands could help resolve situation	Property owners; City as needed	Low

9.0 Framework for Addressing Current Property Owner Impacts & Opportunities

The success of North End development will be judged both on the basis of how well it meets the needs of prospective residents but also the degree to which current residents accept it. New residential lots will create indirect impacts to property owners, many of which the Team has made best efforts to address in the final design. Development may also create direct impacts for individual property owners that the City must anticipate and address proactively. Equally so, the City must be prepared to respond to property owners' expressed interests in specific opportunities they see as a logical extension of new development in the North End.

9.1 Guiding Principles

Direct impacts to property owners, as well as potential opportunities, should be addressed in a manner that:

- Protects the overall intent of North End development to provide housing and home ownership opportunities with a priority on those whose household housing needs are not sufficiently met;
- Mitigate and/or compensate for any direct negative impacts on individual properties from development;
- Treat all property owners being similarly impacted in a consistent manner;
- Encourages owners of private lots most implicated in (and critical to) the successful redevelopment of the North End to cooperate; and,
- Encourages existing property owners to service their lots (as applicable).

9.2 Recommended Approaches

#	Description of Impact/ Opportunity	Recommended Approach	Responsible Party
a	Loss of current legal access and/or parking for lot(s) due to development layout	Enlarge lots to reinstate access and/or retain parking use; consolidate lots. City contribution subject to lot servicing.	City
b	Property access affected by reconfigured and/or re-graded roadways	Undertake work needed to ensure safe access to all lots	City
c	Creation of new residential lot(s) directly adjacent to private properties	Make available for purchase by adjacent owners if lot is not purchased through the initial lottery on condition of residential development; highest bidder if two adjacent owners. Subject to original property being serviced.	City/Property owner
d	Enlargement of lot to incorporate historic but inactive laneway	Allow land purchase at market value, subject to original lot being in conformance with Zoning Bylaw and lot servicing	Property owner
e	Financial hardship from introduction of servicing and/or need to purchase land to resolve encroachment issue	• 15-year repayment period • Allow lot consolidation (i.e. one service per lot) *Alternative:* • Deferment of payment	City/Property owner

9.2.1 Site-Specific Approaches

- **Typhoid Cemetery Area**

The final design concept creates both impacts and opportunities for the three property owners in the Typhoid Cemetery area. These impacts/opportunities and proposed approaches are summarized below.

Owner	Encroachments	Impact	Opportunity
#1	Owner can purchase land to resolve encroachments on currently owned portions of Lot 3/4	Loss of access – City to compensate with its portion of Lot 4 (not including the encroached upon portion); privacy screening from new roadway may be negotiated Need to relocate building on Lot 5 – see Opportunity	Owner has right of first refusal to purchase laneway between Lots 3/4 and 7/8 to enlarge property
#2	Owner can purchase laneway and a portion of Lots 1&2 to address encroachments and achieve required side lot setback	Loss of access & parking – City to compensate with a portion of Fourth Ave right-of-way and privacy screening (fence, landscaping, etc.) from new trail	Not applicable
#3	Not applicable	Loss of access & parking – City to compensate with a portion of Fourth Ave right-of-way and privacy screening (fence, landscaping, etc.) from new trail	Not applicable

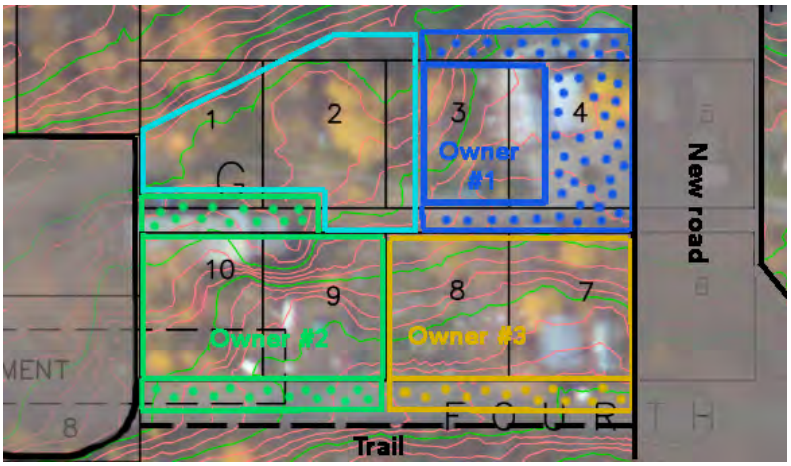


Figure 13. Typhoid Cemetery area lot enlargements (dotted areas) and new lot (turquoise border)

The proposed arrangement hinges on the property owners consolidating and servicing the lots in question. Front yard setbacks would still not be achieved for Owner #2 and Owner #3 and this would need to be resolved either via policy (see Section 10) or subdivision of the road right-of-way. The latter approach may pose a particular challenge in the instance of Owner #3 due to the need for adequate turning radius in the proposed new cul-de-sac on Third Avenue.

- **Second Avenue**

Two lots facing Second Avenue pose a particular planning and zoning challenge. The southerly one-half of Lot 2 Block G is privately owned and occupied by the DeWolfe cabin (YHSI listed), which appears to partially encroach on City's Lot 1 Block G to the south. Another residence (not historic) is located on Lot 1 without formal authorization and has been occupied on a rental basis for a number of years.

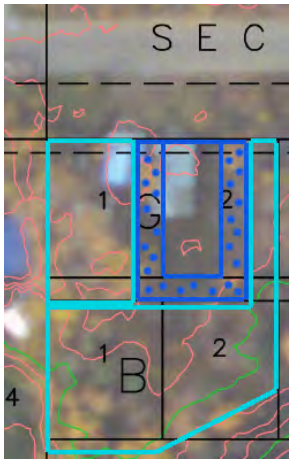


Figure 14. Second Avenue lot enlargement (dotted area) and two new lots (turquoise border)

The Team recommends allowing the enlargement of the privately owned portion of Lot 2 to the south, north, and east – all at the owner's expense. This will bring the lot into conformity with the R1 zone minimum lot size of 2500 ft^2 and restore required side-lot setbacks. A proper front-yard setback for the historic cabin would still not be achieved, however, and is best addressed via policy (see Section 10). The enlargement to the north should be restricted to approximately 10-12 feet to leave approximately 13-15 feet for a driveway access for the new parcel occupying Block B Lots 1&2. Any enlargement would be contingent on the new lot being serviced.

Lot 1 Block G would be enlarged into the historic laneway, creating a new (approximately) 40x70 foot lot. The current owner/landlord for the building could be given the opportunity to purchase the lot subject to the City receiving proof of the building meeting applicable health and safety codes, building relocation to conform with the Zoning Bylaw, and agreement to service the lot. Should those conditions not be met, the building should be relocated at its owner's expense.

- **Judge Street**

Three privately owned lots are of interest here. Lots 6 & 7 Block D are occupied by a residence that encroaches into the surveyed Second Avenue right-of-way. Lot 6 Block E to the east is accessed from the same right-of-way. A YHSI registered shop is located on the southeast corner of the property and encroaches into the Judge Street right-of-way.

The development concept proposes the creation of a new (approximately) 50 x 100 foot lot in the Second Avenue right-of-way. Lots 6 & 7 Block G should be consolidated and enlarged sufficiently to address the encroachment and leave a sufficient side-yard setback (contingent on servicing). The shop on Lot 6 Block E should be addressed through an encroachment agreement. The City will need to restore access to Lot 6 Block E in cooperation with the property owner.

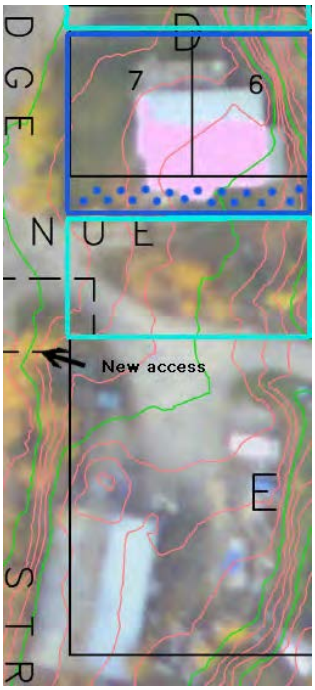


Figure 15. Judge Street lot enlargement (dotted area), new lot in right-of-way, and relocated property access

9.2.2 Establishing Market Pricing

City of Dawson Sales of Municipal Lands Policy #14-04 provides direction from Council to establish the terms and conditions for the disposition of City-owned lands. This planning exercise, as well as any future ones, will satisfy the requirements of the policy to allow for the release. However, the policy provides no specific guidance with regard to valuation. The price of the small portions of land to be sold to existing property owners should be determined as follows:

- **Closed laneway purchases** – Extend the above stated guiding principle of treating all impacted owners in a consistent manner and consider other recent similar sales in the community. For example, a laneway sale agreed to in 2015 in the south end of the Historic Townsite valued the land as low as \$4.55/ft^2. Increasing this to reflect the market since that time suggests a laneway purchase value estimate of approximately \$6/ft^2.

- **Encroachment purchases** – Apply the loss of land sales revenue (cost recovery) that accrues to the City as a consequence of resolving the matter. The estimated average price used in the cost recovery projection implies a purchase value estimate of \$18/ft^2 in these circumstances.

9.2.3 Contribution of Current Property Owners to Services

The *Assessment and Taxation Act* defines a 'Local Improvement' to include the street and storm drainage improvements and new water and sewer services envisaged in the development concept. The *Municipal Act* enables the City of Dawson to authorize such an undertaking as a local improvement, and to specify:

- The benefitting properties;
- The total cost of the local improvement;
- The portion to be levied against the benefitting properties; and
- The specific cost to be levied against each benefitting property as a local improvement tax.

There is no record of the City of Dawson previously authorizing such a tax, although it was anticipated during the previous North End property owner negotiations of the 1990s, and the draft agreements. While City of Whitehorse has a bylaw (2011-21) that establishes procedures and rules for application of these taxes that could serve as a model, in the absence of local precedent the City has considerable leeway to determine how to apply a charge in this circumstance. Of course, care should also be taken in that the methodology of application here may also set such a long-term precedent.

Importantly, the *Municipal Act* allows for benefitting property owners to object to the tax, and if the majority do so, the tax cannot be levied (although the City may still proceed with the improvement at its own cost). In the case of North End development, this places considerable influence into the hands of a very small number of owners. The City will need to ensure that owners positively perceive the service upgrade value received relative to the amount to be charged. While the amount must be rationalized and fair to City tax and ratepayers outside the benefitting area, a process of gentle negotiation with the beneficiaries is recommended to establish the appropriate charge. The charges included in the cost recovery model of this report are estimates of this balance only, as such a negotiation is beyond the Team's scope.

Local improvement taxes (paid along with annual property taxes) are typically amortized over a 15-year period to ease the burden upon owners. Under such an arrangement, a $30,000 levy is reduced to $2,000 per year plus any interest charges. The approach could also consider following the example of the Government of Yukon Rural Electrification Policy that provides for a deferment of up to 15 years. This would allow benefitting owners to enjoy the full remaining life cycle of previously installed septic systems before incurring the costs due for the new piped services.

The selection of the best approach will be informed by the final development financing and implementation business model. Only the municipality, as the taxing authority, can levy the improvement tax. However, Government of Yukon may finance and/or build the development. If so, suitable arrangements will need to be in place to ensure collection and remittance of these revenues in a mutually acceptable manner.

10.0 Zoning

Current zoning applicable to privately owned and/or potentially developable land parcels in the North End is predominantly R1 – Single Detached/Duplex Residential. The portion of Block C occupied by the Whitehouse Cabins and the bridgehead reserve parcels are zoned C1 - Core Commercial. The Typhoid Cemetery is zoned P2 - Institutional and the former site of St. Mary's Hospital, now owned by the Roman Catholic Diocese, is zoned P1 – Parks and Natural Space.

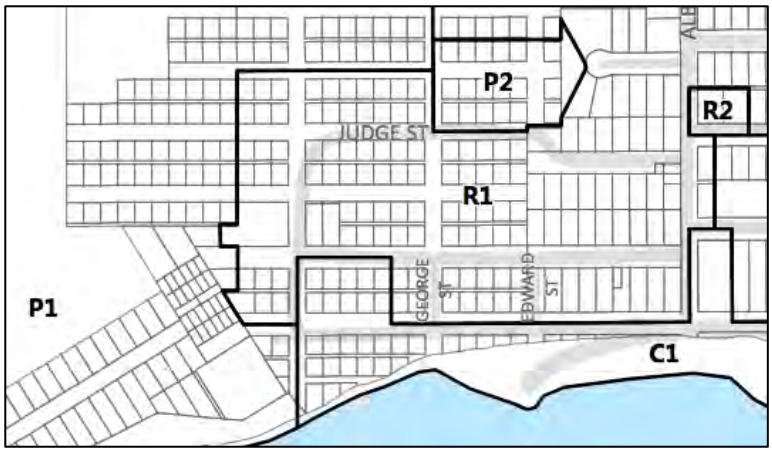


Figure 16 (above). Zoning map for the North End Area
Figure 17 (below). R1 – Single Detached/Duplex Residential Requirements from City of Dawson Zoning Bylaw

	COLUMN 1	COLUMN 2	
.1	Minimum parcel size	232.3 m^2	(2,500 $ft.^2$)
.2	Minimum parcel width	7.6 m	(25 ft.)
.3	Minimum setback of buildings from:		
	• front parcel line	3.0 m	(10 ft.)
	• interior side parcel line		
	➢ for a dwelling	1.5m	(5 ft.)
	➢ for a non-dwelling accessory building	0.6 m	(2 ft.)
	• exterior side parcel line	3.0 m	(10 ft.)
	• rear parcel line	1.5 m	(5 ft.)
.4	Maximum parcel coverage	50%	
.5	Minimum floor area of dwelling unit	23.8 m^2	(256 $ft.^2$)
.6	Maximum height for:		
	• Principal Building	10.7 m	(35 ft.)
	• Accessory Building	6.1 m	(20 ft.)

The Team reviewed the R1 zone requirements in the City of Dawson Zoning Bylaw (2012) to determine their suitability with respect to the proposed North End development concept. The Team concluded that the R1 zone is largely compatible with continued, orderly development of the North End. The envisioned lots will meet the minimum parcel size and width requirements, and the maximum parcel coverage of 50% should provide a sufficient building footprint on even the smallest lots.

The R1 zone could pose undesirable limitations in a few specific instances, however. The requirement to conform with the Zoning Bylaw to consolidate and/or enlarge existing privately owned lots will be difficult to achieve for an anticipated two (2) properties with historic buildings with little to no front yard setback. Side yard setbacks could also pose challenges to development of a small lot with terrain constraints. The Zoning Bylaw could be amended to provide flexibility for these specific situations. If this approach is undesirable, a new zone may need to be created.

The R1 zone requirements are unlikely to successfully facilitate the affordable micro-housing pilot project as well. Instead of creating an exception within the R1 zoning requirements, the Team recommends the creation of a new Housing Innovation (or similarly named) zone that relaxes limits on the number of dwellings, setbacks, and minimum floor areas subject to the achievement of public policy aims and fulfilment of health and safety requirements.

The P2, C1, and P1 zoning currently in place in the North End planning area is appropriate and should continue to apply. Lot 4 Block F (the Paul Denhardt cabins) and the contiguous lots intended to remain as greenspace could be rezoned P1.

11.0 Implementation

11.1 Implementation Approaches

11.1.1 Leveraging Other Major Infrastructure Works

The City of Dawson and Government of Yukon are currently working in partnership to deliver a multi-year program of water and sewer upgrades in the community. Subject to final funding and project approvals, it is expected that the civil works projects for 2019, on both Fifth Avenue and Third Avenue (between Albert and King Streets) will be soon be tendered. The latter project is located in very close proximity to the North End.

If the use of general contractors from outside Dawson is anticipated rather than the community-based model discussed below, leveraging these other works to achieve savings in mobilization/demobilization costs and cost efficiencies of scale should be considered. If necessary for tender timing while the final design is completed, anticipated change orders could be included in the work scopes to enable this.

11.1.2 A Community-Based Model

The cost projections included in Section 7.0 are based on the market prices recently established through public tenders of other municipal civil works underway nearby. All of these contracts were awarded to general contractors from outside of Dawson and the majority of the economic benefits and profits will leave the community. By comparison, a 17-lot development adjacent to the North End planning area was completed in 2014-15 by a private developer using local contractors at much lower unit costs, enabling lower lot prices and a profit margin.

One need not look far for a successful alternative. In response to community concerns about economic benefits of large infrastructure projects being realized by outside contractors, the Village of Teslin, Government of Yukon and the Teslin Tlingit Council have worked together for several years to implement a community-based delivery model instead. A project manager is hired and the work contracts broken down to sizes manageable by the local contractors. This approach spreads benefits across the community and particularly towards smaller First Nation businesses, in so doing upholding Final Agreement Chapter 22 commitments and the spirit of reconciliation. Road upgrades, storm drainage, lift stations and other infrastructure developments similar to what is envisioned for the North End have all been successfully completed in this manner and considerable local capacity has been built along the way.

For this model to be successful, a Construction Manager would be required that is proficient in directing and tracking construction activities. The Construction Manager would be hired by the Owner (City/Yukon Government) and would in turn hire local contractors through Government of Yukon's Third Party Equipment Rental and track construction progress and costs and advise the Owner as construction progresses. In this model, the City and/or Government of Yukon would take on the responsibility of General Contractor and the local contractors would be hired as Sub-Contractors.

An example of the successful implementation of this model where a Construction Manager directed local contractors to complete work through Government of Yukon's Third Party Rental was the Mayo River Flood Control project. Following the completion of this project, it was awarded the 2017 Yukon Engineering Excellence Award.

The City of Dawson and Government of Yukon should explore the potential for this model to be applied to the North End project and reduce costs, improve recovery, and result in reduced lot prices to the public.

11.1.3 Funding

Government of Yukon policy directs that land development for sale to the private market in Yukon be undertaken on a cost recovery basis, and infrastructure funding has generally not been applied to developments. However, there have been examples (such as Carmacks) where new lots have been developed in conjunction with funded infrastructure projects such that lots could be offered at prices that reflect community economic capacity rather than their 'true' development cost.

This approach is not a pure land development, but rather a hybrid of infill development and infrastructure upgrades that will also serve many existing residences, businesses and public amenities. In regards to the North End, a case could be made that improving storm drainage, extending full services for environmental sustainability, and upgrading sub-standard roads and mitigating geohazards for public safety are in keeping with the goals and objectives of current federal infrastructure funds administered by Government of Yukon. These works would also qualify for gas tax funds allocated to Dawson.

The full looped servicing to eliminate bleeding is a major system performance enhancement that is not required to service the new lots and is certainly eligible for funding. The cost-benefit case for this should be made independently, considered for separate funding and not be integrated into the cost recovery model for North End development.

However, the funding question that must be answered is one of prioritization. The City has a long program of required future upgrades to its existing infrastructure in water, sewer, solid waste and recreation services and will need to determine how this project fits within these other requests, for a limited pool of money.

11.1.4 Partnerships

The final development concept includes a 50 x 130 foot lot that would be retained by City of Dawson and leased to a partner to construct and operate micro-housing rentals. This would avoid any potential liability of selling the lot, should the site prove unstable over time for a larger building. The micro buildings could be more easily adjusted or even moved off site should this occur and this use is in keeping with current commercial use of this block.

Klondike Development Organization representatives have expressed early interest in such a partnership, as such buildings may be more affordable to construct per rental unit delivered than apartment buildings. While such a lease would not generate immediate cost recovery revenues, it would add to the project goals of delivering on community housing needs and broadening the socio-economic profile of the beneficiaries. An early public Request for Expressions of Interest should be issued in the next planning phases to offer and confirm partnership interest in this.

11.2 Follow-up Investigations

11.2.1 Background Report Recommendations

A number of recommendations were made in the background reports commissioned by Government of Yukon in preparation for North End planning. If and/or when the project advances, these recommendations should be revisited. Please refer to the table below.

Background Report	Recommendations for Further Study – Pre-Design
Geotechnical Evaluation Proposed North End Subdivision (Chilkoot Geological Engineers Ltd., 2016)	• Documentation of existing structure conditions in area prior to construction • Detailed topographical survey • Detailed geotechnical investigation • Natural hazards assessment • Seismic evaluation
Geotechnical Evaluation - Geohazard Assessment Moosehide Slide Area (Chilkoot Geological Engineers Ltd., 2017)	• Annual monitoring of Moosehide Slide • Modeling of unstable blocks
Heritage Heritage Resource Impact Assessment: City of Dawson North End Planning Study (Ecofor, 2018)	None recommended unless development or peripheral infrastructure is located upslope of planning area
Phase I Environmental Site Assessment City of Dawson North End Study Area (Associated Environmental, 2017)	Phase II ESA of identified Areas of Potential Environmental Concern and including: • Groundwater monitoring of existing wells on site • Quantitative investigation into presence of asbestos in areas proposed for development

11.2.2 Other Studies

As outlined in Section 2.3, the Team recommends that the City review potential energy cost savings that could justify providing looped servicing to the North End area. The potential energy cost savings in question are as follows:

- Reduced Heating Costs at Water Treatment Plant – The well water enters the water treatment plant at around 2°C, while the recirculated water returns to the water treatment plant at around 5°C. Having a looped water distribution system reduces the amount of water that is discharged into the sewer system through bleeders at the dead-end, which in turn decreases the heating requirements at the water treatment plant (recirculated water enters the water treatment plant around 3°C warmer than well water). Part of this review needs to consider bleeder flow requirements for frost protection in the sewermain and whether or not bleeder flow are required in addition to the residential bleeder flows that are employed in the winter for freeze protection at each water/sewer service.

- Reduced Wastewater Treatment Plant Energy Costs – Reducing the bleeder flows decreases the wastewater flows that will enter the wastewater treatment plant. Lower flows will ultimately reduce energy costs at the wastewater treatment plant.

The intent of this exercise would be to inform decision-making around the long-term operation and maintenance of Dawson City's water infrastructure to help create a more sustainable community.

11.3 Development Plan

Moving the North End concept from idea to reality will require coordination and cooperation moving forward. The Planning Team has outlined a sequence of logical next steps for the City of Dawson and Government of Yukon to consider. These steps, or tasks, can be categorized under four broad categories:

- Work required irrespective of development;
- Preliminary design;
- Detailed design; and,
- Construction/implementation.

The following sections provide more detail on each of these areas and links to a final implementation table. Please note that the timelines in the table represent a 'best case' scenario geared towards bringing lots to market as quickly as possible.

11.3.1 Work Required Irrespective of Development

The background studies and planning work undertaken to date have highlighted several issues in the North End area that are not directly attributable to future development but could be addressed simultaneously. These include:

- **Environmental investigations and remediation** – The Phase I Environmental Site Assessment (ESA) recommended that a Phase II ESA to better understand possible sources of environmental contamination in the area. The Areas of Potential Environmental Concern (APECs) should be considered environmental liabilities by the City of Dawson and action taken regardless of the development decision.

- **Encroachments –** Regardless of whether or not development proceeds in the North End, the issue of encroachments in the North End requires resolution in the interests of good governance. Should development proceed, property owners will need to be dealt and negotiated with on an individual basis, the goal being to incorporate any lot changes and encroachment agreements (for properties both implicated in development and not) into the larger survey and administrative tasks for the new development and maximize the number of serviced lots. In the event that development does not proceed, or proceeds for only a portion of the planning area, the City of Dawson should still work with property owners to bring their lots and land use into conformance in a manner that balances property owner needs with the preservation of future development options.

- **Front Street relocation –** Front Street currently encroaches on numerous parcels owned by the Roman Catholic Diocese and the road needs to be relocated, irrespective of North End development.

11.3.2 Preliminary and Detailed Design

Following the selection of the preferred development concept, the preliminary design of the proposed subdivision should be initiated. The intent of a preliminary design exercise is to advance the concept to a point in which all of the design criteria has been refined and the scope of the work is identified. For this project, items that should be undertaken as part of the preliminary design include the following:

- **Traffic Impact Study (TIS) and roadway design** - As outlined in 7.2.1, the TIS will identify the Road Classification based on anticipated traffic volumes which will feed into the roadway design standards that

will be used to ensure safe traffic movement in the area as well as achieve appropriate emergency vehicle access to the area.

- **Stormwater management plan** - There are some existing drainage paths through the site and the purpose of a stormwater management plan is to define the storm events and drainage path that will need to be maintained in the site design. This includes culvert sizing, ditches and any stormwater retention ponds necessary to mitigate drainage issues to the area.

- **Grading design** - Following the completion of the TIS and stormwater management plan, a grading plan will be completed which will take into consideration the road design requirements, drainage requirements as well as the access requirements to each of the existing and proposed lots.

- **Servicing design -** Following the completion of the grading design, a servicing layout for water and sewer will be undertaken. The layout will outline the proposed alignment of the new water and sewer infrastructure (watermain, fire hydrants, bleeder manholes, sewermain, manholes) as well as the locations of the proposed services to each lot. The servicing design will also consider the power and other utilities that are required for the proposed development.

- **Geotechnical investigation -** A geotechnical investigation is required to inform the design for the buried infrastructure and roadway. There is an existing geotechnical investigation; however, additional tasks have been identified to further define some of the site geotechnical/geohazard constraints. In addition, the debris flow path/drainage course between Second and Third avenues requires further examination in the context of both road location and the retention of natural greenspace. The preliminary design may proceed prior to the completion of these additional geotechnical investigations; however, these tasks should be scheduled to ensure the geotechnical engineer has sufficient information to provide design recommendations as part of the detailed design phase.

- **Refined lot layout -** The outcome of the grading design and servicing design will inform whether or not any changes are required to the lot layout and the lot layout can be finalized.

At the completion of the preliminary design, the design of the proposed subdivision will be at a 30% to 50% design stage. The roadway and servicing design as well as the lot layout will be advanced to the point where there will be no substantial changes to the scope of the work. At this stage the project, all parties should be in agreement with the scope of the work.

The detailed design stage essentially involves taking the scope of the work defined in the preliminary design stage to a point where a contractor can construct it. This involves developing design drawings and technical specification that provide the necessary information and details for a contractor to order materials and plan and construct the work. Once the detailed design package (drawings and specifications) is complete, the Owner can procure the services of a contractor to complete the work. While preliminary and detailed design are underway, the City of Dawson and Government of Yukon can work behind the scenes to make sure that the supporting administrative processes are in place for property owner servicing payments, new lot sales, etc.

11.3.3 Implementation/Construction

A new legal survey of the subdivision, including new road right-of-ways, lot enlargements, lot consolidations, and easements, would be the first task completed prior to actual construction. After construction is complete, the land lottery would be the final task.

Task	Timing	Work Required Irrespective of Development	Preliminary Design/ Detailed Design	Construction/ Implementation	Project Milestone
1	Summer/Fall 2018	Phase II ESA			
2	TBD	Environmental remediation (if required)			
3	Summer 2018	Make decision as to project viability			YG/City to determine subdivision viability and extent (i.e. Nodes 1-3)
3	Fall/Winter 2018/19	Resolve encroachments; negotiate with property owners			
4	Fall/Winter 2018/19		OPTIONAL TASK: Review feasibility of including water, sewer, road improvements within existing contracts		YG/City understand options to advance infrastructure works
5	Fall-Winter 2018/19		Complete preliminary design and detailed design for subdivision		
7	Fall-Winter 2018/19		OPTIONAL TASK: Request cost via a contemplated change order to existing public works contract		YG and City gain certainty around costs to inform decision-making. No commitment is made yet.
8	Spring-Fall 2019		Prepare administrative and financing mechanisms for lot sales, servicing payments, etc.		
9	Spring 2019			Legal survey of subdivision and construction tendering	Contract is awarded
10	Spring 2019			Pre-construction heritage resource recovery (as needed)	
11	Spring-Fall 2019	Relocate Front Street off encroachment		Construction, including extension of utilities and roadway improvements and associated monitoring (heritage, etc.)	
12	Winter/Spring 2019-20			Lots released for sale	

Appendix A

Study Area Base Map

DAWSON NORTH END PLANNING

SCALE: 1:750

15 0 7.5 15 30 45 60 75 metres

Study Area

GEOTECHNICAL EVALUTION

Geotechnical Setbacks

developable Lots

Southern limit of slide debris

Western limit of colluvial apron deposits

LAND AVAILABILITY

City of Dawson

Mixed: City of Dawson/Private

Private

Yukon Commissioner–Titled

Yukon Commissioner–Untitled

HERITAGE

Platform (evidence of old structure)

Grave

Yukon Historic Site Inventory

D18–024

Appendix B

Developable Areas

DAWSON NORTH END PLANNING

SCALE: 1:750

15 0 7.5 15 30 45 60 75 metres

Study Area

Surveyed lot with good development potential

Surveyed lot with moderate development potential

No lot but good development potential

Note:

Any lots not indicated are considered undevelopable due to terrain, lane tenure, or other constraints.

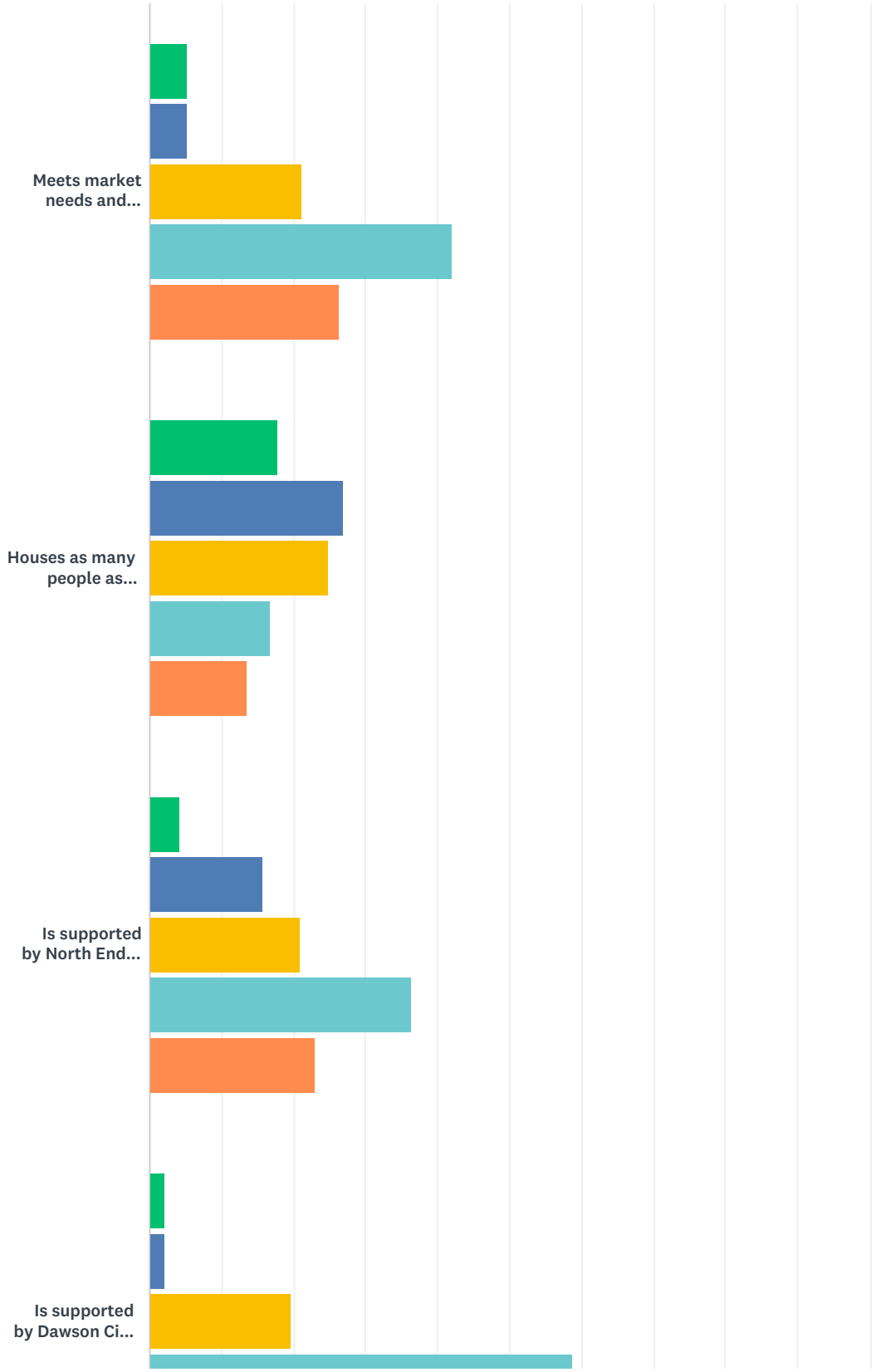
WATER AVENUE
ROMAN CATHOLIC MISSION
ROAD
LANE
FIRST AVENUE
SECOND AVENUE
THIRD AVENUE
FOURTH AVENUE
FIFTH AVENUE
GEORGE STREET
JUDGE STREET
EDWARD STREET
POWERLINE EASEMENT
CEMETERY

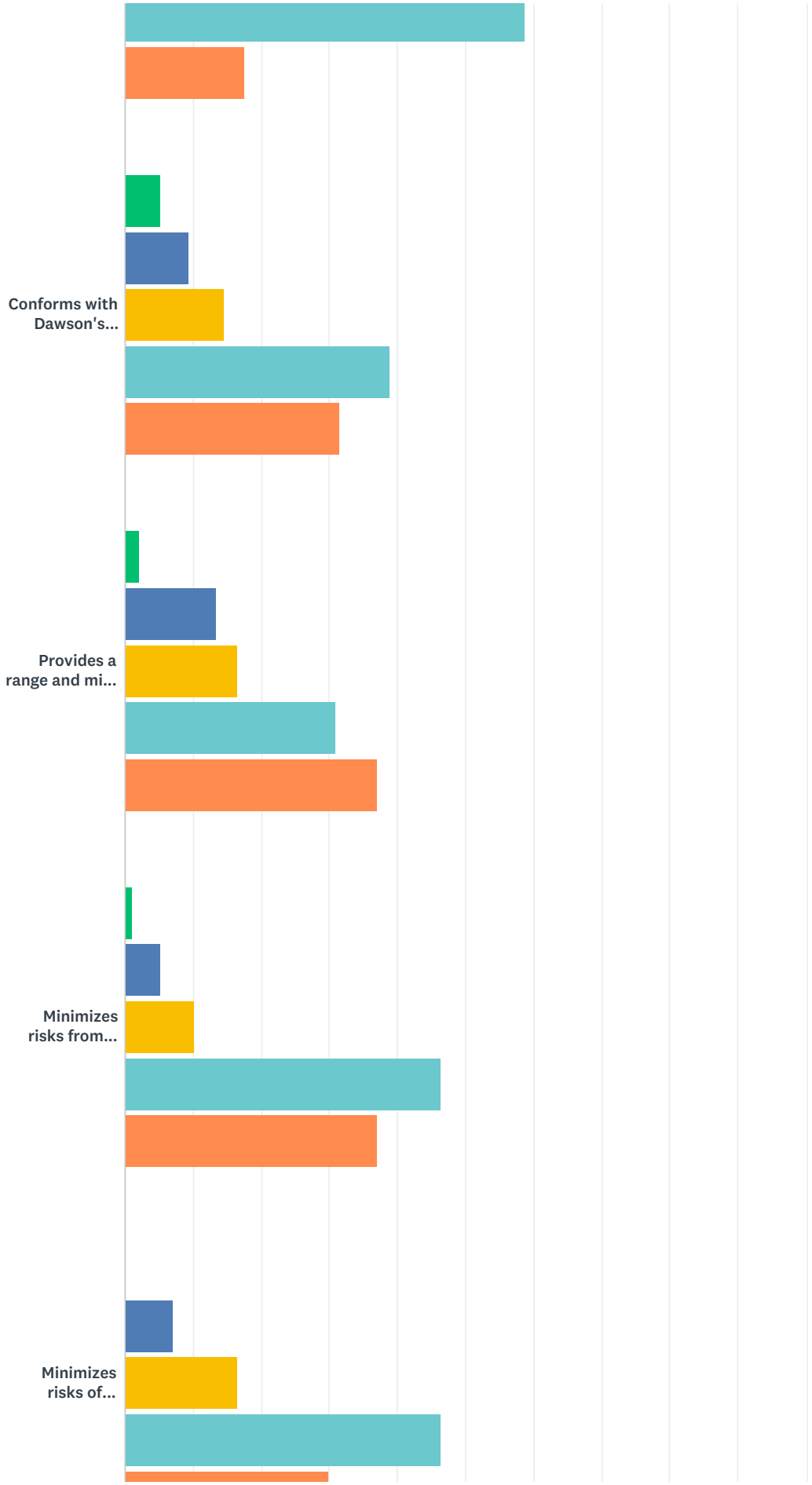
Appendix C

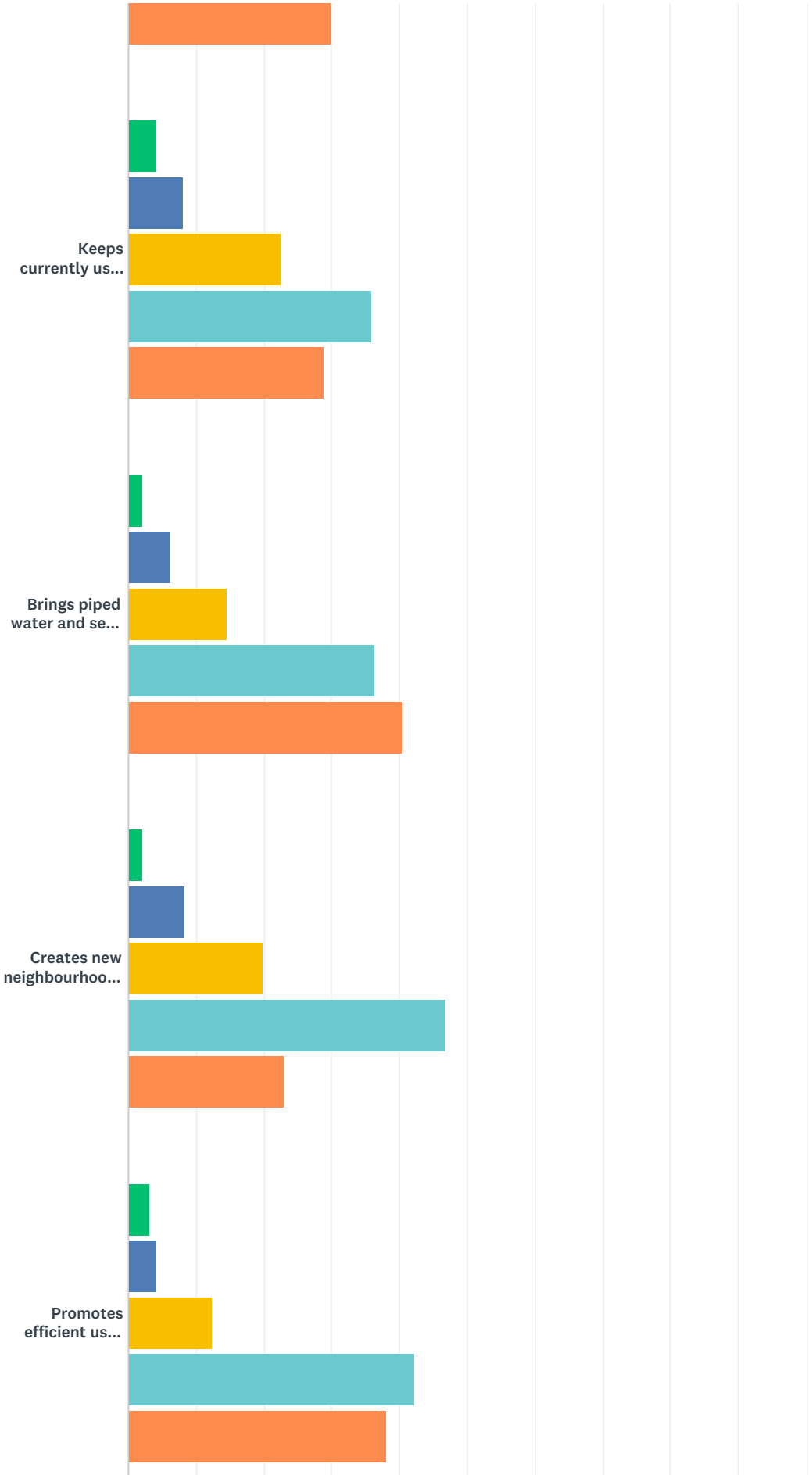
Online Survey Results

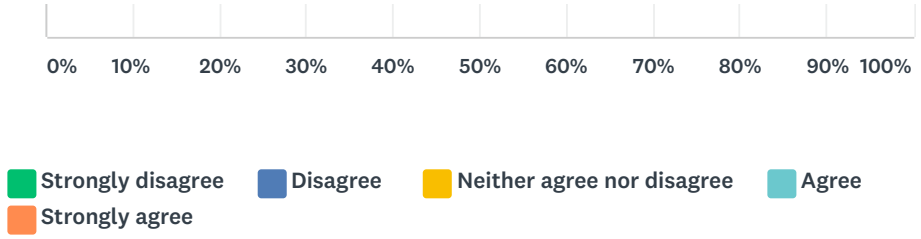
Q1 Please indicate your level of agreement with the following statements. A North End residential development would be successful if it:

Answered: 97 Skipped: 0




Conforms with Dawson's...
Provides a range and mi...
Minimizes risks from...
Minimizes risks of...


Keeps currently us...
Brings piped water and se...
Creates new neighbourhoo...
Promotes efficient us...



	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE	TOTAL
Meets market needs and demand	5.26% 5	5.26% 5	21.05% 20	42.11% 40	26.32% 25	95
Houses as many people as possible	17.71% 17	27.08% 26	25.00% 24	16.67% 16	13.54% 13	96
Is supported by North End residents and property owners	4.17% 4	15.63% 15	20.83% 20	36.46% 35	22.92% 22	96
Is supported by Dawson City residents	2.06% 2	2.06% 2	19.59% 19	58.76% 57	17.53% 17	97
Conforms with Dawson's Heritage Management Plan	5.26% 5	9.47% 9	14.74% 14	38.95% 37	31.58% 30	95
Provides a range and mix of housing options, including affordable	2.06% 2	13.40% 13	16.49% 16	30.93% 30	37.11% 36	97
Minimizes risks from potential geohazards in the area	1.03% 1	5.15% 5	10.31% 10	46.39% 45	37.11% 36	97
Minimizes risks of maintenance challenges for future owners	0.00% 0	7.22% 7	16.49% 16	46.39% 45	29.90% 29	97
Keeps currently used roads open for continued use	4.12% 4	8.25% 8	22.68% 22	36.08% 35	28.87% 28	97
Brings piped water and sewer to the North End	2.08% 2	6.25% 6	14.58% 14	36.46% 35	40.63% 39	96
Creates new neighbourhood or community spaces	2.08% 2	8.33% 8	19.79% 19	46.88% 45	22.92% 22	96
Promotes efficient use of limited land	3.09% 3	4.12% 4	12.37% 12	42.27% 41	38.14% 37	97

Q2 Please share any additional considerations (or criteria) that should inform the development options and Council's final selection :

Answered: 39 Skipped: 58

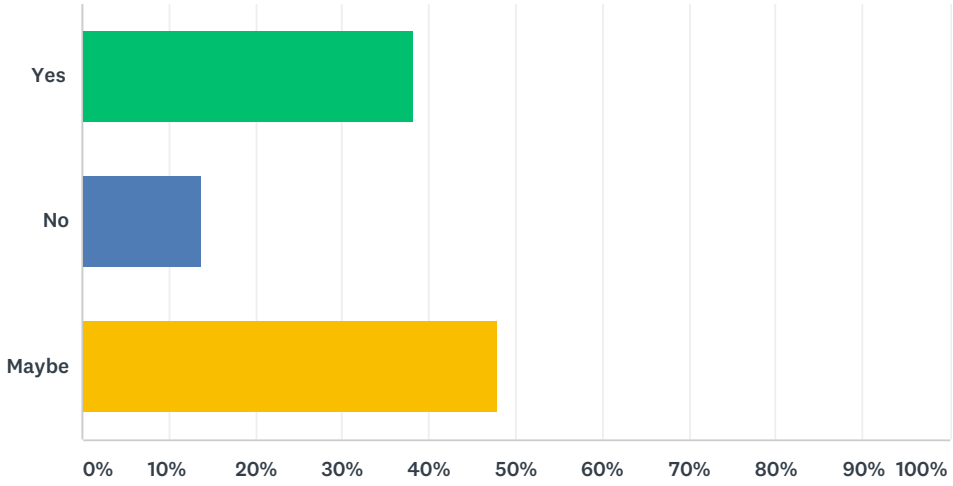
#	RESPONSES	DATE
1	Affordable housing for couples and families is the most needed, as the most foundational for our community.	NaN/NaN/0NaN NaN:NaN PM
2	It's difficult to answer the questions on this survey if we don't know what it is you are actually planning to do in the area.	NaN/NaN/0NaN NaN:NaN PM
3	Some space for new homes would be good, but not to the point of squishing many suites onto lots, or having really tiny lots. one of the healthy & beautiful realities of living in Dawson is that you can walk from one green space at the south end of town, all the way to green space at the north end. This is a physical and mental health benefit, not to mention that it is good for the wildlife that do end up wandering through town.	NaN/NaN/0NaN NaN:NaN PM
4	Consultation with TH.	NaN/NaN/0NaN NaN:NaN PM
5	the ground in the north end is very unstable. Our house has moved down the hill about 5' in 20 years.	NaN/NaN/0NaN NaN:NaN PM
6	You shouldn't have accepted by the community or north end residents as a criteria. This should be a good plan that makes sense for the future, not just today. It seems that a lot is being done to make it easy for single (or two) person households, like allowing for smaller developments. How about doing something for families for a change? All Dawsonites face geotechnical risks on their land. Don't take the worry too far.	NaN/NaN/0NaN NaN:NaN PM
7	The land between the river and Front st should not be developed, and should be kept as a green space.	NaN/NaN/0NaN NaN:NaN PM
8	Greenhouse gas emissions, firefighting capacity in the North End, improved road access/width	NaN/NaN/0NaN NaN:NaN PM
9	We need to develop the north end . With two members from mayor and council living in the north end.On water subsidies ,with septic fields these folks need to be totally totally with drawn from this process and councils finial selection.	NaN/NaN/0NaN NaN:NaN PM
10	Small lots for small houses. Make for great start up homes so people can get their feet wet. I want to build myself a nice little two storey. 😊	NaN/NaN/0NaN NaN:NaN PM
11	we need to respect the configuration of the north end as it is also. we first need to figure out how to deal with property lines and property use. property lines are not always where the property is being used and where the roads are.	NaN/NaN/0NaN NaN:NaN PM
12	This plan should look to the future and answer the question: what do we want this area to look like? It shouldn't be focused on just the demands of today. As for geo risks, we all deal with them in Dawson. We can't be afraid of them.	NaN/NaN/0NaN NaN:NaN PM
13	As long as hillside building units are built with retaining walls as hill under the slide is moving.	NaN/NaN/0NaN NaN:NaN PM
14	I would love to be able to stay in Dawson. But, the housing market is so small it makes long term investment hard for people just entering. Affordable lots for a growing community.	NaN/NaN/0NaN NaN:NaN PM
15	should maximize number of lots while minimizing cost to achieve i.e. smaller more affordable lots, some areas potentially without water and sewer, just lots	NaN/NaN/0NaN NaN:NaN PM
16	Small is good. Summer rental cabins as an income generator and help with community need should be allowed. If water and sewer go up to the north end will my taxes- not on the grid but in the municipality increase? Water delivery rate hikes is not fair. In town residents should have to pay for water use.	NaN/NaN/0NaN NaN:NaN PM

17	While I acknowledge that any drastic development in the north end will be met with criticism and likely anger from current north end residents, I urge you to strongly consider this development. Bringing water and sewer to those lots currently unserviced, and opening up land for development is a win for Dawson	NaN/NaN/0NaN NaN:NaN PM
18	Keep the recreation space on hospital hill, develop a green space for event use	NaN/NaN/0NaN NaN:NaN PM
19	The Current Residents should have 1st dibs on the land adjacent to their properties. I think most people in the North End like the way it is. Wild and lacking of too many people!! Something does however need to happen with the slide area that needs to be give reverence to The Walk the TH did during the time of curfew or The Legend of the slide or something to honour Trondek Hwechin. There are heritage dugouts at the base of the slide.	NaN/NaN/0NaN NaN:NaN PM
20	Need to consider impact on existing commercial business property.	NaN/NaN/0NaN NaN:NaN PM
21	I would be glad to see affordable housing prioritized especially for our elderly community.	NaN/NaN/0NaN NaN:NaN PM
22	I think affordable housing is very important especially for our elderly and younger community alike. Please make sure the council prioritizes this.	NaN/NaN/0NaN NaN:NaN PM
23	The plan should definitely include plans for a reconstruction of St. Mary's hospital as an affordable housing apartment building project.	NaN/NaN/0NaN NaN:NaN PM
24	Cost of building infrastructure in the low/swampy areas including raising roads or lots and structures.	NaN/NaN/0NaN NaN:NaN PM
25	The town needs to grow. Many people want to buy a home and live here. No one over 40 really wants to carry water and relieve themselves in an outhouse at 40 below unless they are unemployed.	NaN/NaN/0NaN NaN:NaN PM
26	The North has a unique social character. I would like to maintain this and keep housing densities down. In order to justify this cost wise then it would make sense not to get hung up on supplying water and sewer services to each residence. Consider closing part of Front Street to minimize the conflict of a heaver traffic flow with the ferry traffic.	NaN/NaN/0NaN NaN:NaN PM
27	General affordability relative to the economics of the area. Right now there seems to be inflation of value due to artificial circumstances, particularly landowners sitting on vacant lots and buildings. Current "market value" for town lots is quite high.	NaN/NaN/0NaN NaN:NaN PM
28	Any attempts to maintain the quiet, historical, and private feel of the north end would be appreciated. please don't change the road layout - I love the jog in 3rd ave, my favourite street!	NaN/NaN/0NaN NaN:NaN PM
29	Priority should be on entry level home ownership housing -- high density with affordable home ownership. Leave the large lot/large homes (1500 sq ft plus) to the dome once the mining is done.	NaN/NaN/0NaN NaN:NaN PM
30	People enjoy the north end for the reason it has not been developed !	NaN/NaN/0NaN NaN:NaN PM
31	Do not cram in as many people as possible into the North end. Make lots of varying function (ie, commercial) and size affordable to those who can afford to buy one and want to develop it to fit their budget, needs and desires. Community spaces and a minimal number of subsidized properties should be added to the mix.	NaN/NaN/0NaN NaN:NaN PM
32	The North End is a jewel in Dawson. I often walk those forested streets and stop to pick strawberries and raspberries along the way when the season is right. I think that there is a need for housing and development in Dawson and that certain areas of the North End would be well-suited to this (specifically both sides of 2nd Ave between White House Cabins/Judge Street and Albert Street as well as the east side of Front Street South of the White House Cabins to Albert Street) I also feel that the North End is a jewel because of it's sparse population and abundance of wild flora and fauna. To develop 3rd Avenue in any way I feel would be a big mistake and would be more trouble then it's is worth (ie moving buildings and re-routing roads).	NaN/NaN/0NaN NaN:NaN PM
33	I’m not sure “houses as many people as possible” is a good mind set in that area. I think the lots and areas should be proportionate and able to fit more then a 600-800 sq ft residence.	NaN/NaN/0NaN NaN:NaN PM
34	Addresses the invasive plants issue and preserves what is currently some of the best warbler habitat in Dawson.	NaN/NaN/0NaN NaN:NaN PM

35	Cemetery should not be impacted. Density should not be a priority, but match existing lot sizes and zoning in North end	NaN/NaN/0NaN NaN:NaN PM
36	I think Dawson needs to move away from Historic.	NaN/NaN/0NaN NaN:NaN PM
37	As 2 Council members live in the North End, it would be good to have an unbiased selection committee	NaN/NaN/0NaN NaN:NaN PM
38	Lots should be priced at $40-45k to enable the entry level buyers. This is the current average price for undeveloped lots. There should be a limit of 1 lot per arms length buyer to limit speculation. If there is a building requirement it should be 5 years or greater. It is not necessary that the revenue from lot sales pay for the cost of the development since a new development increases the overal tax base and is addresses many other needs in the community.	NaN/NaN/0NaN NaN:NaN PM
39	Please do it right the 1st time with no minimums. Over engineer. Dig that whole place out, fill & compact, then put everything on concrete piles. Sustainable, energy efficient buildings. Solar energy and battery storage is already becoming cost affordable. Historic Guidelines for new construction will need to be expanded to keep it from looking like a ticky tacky sub-division.	NaN/NaN/0NaN NaN:NaN PM

Q3 Would you be interested in purchasing a serviced lot in a future North End development?

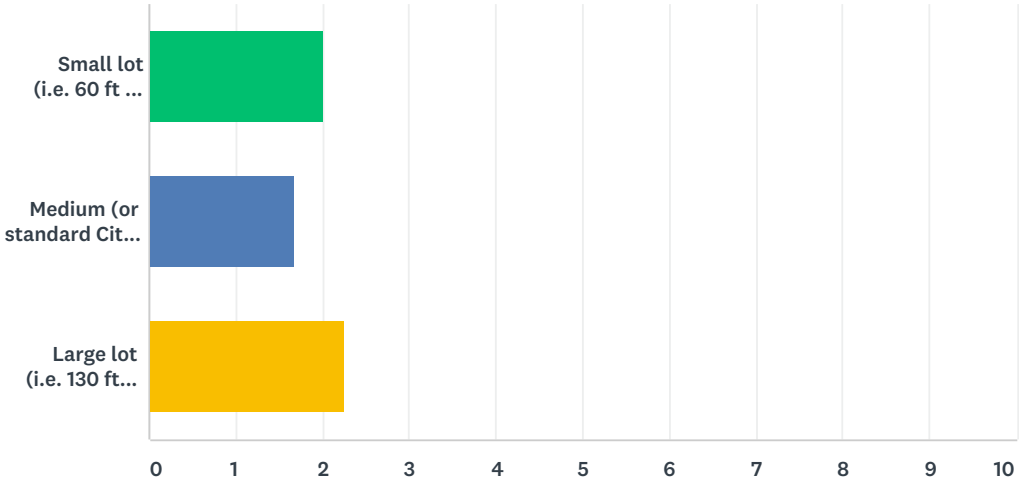
Answered: 94 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	38.30%	36
No	13.83%	13
Maybe	47.87%	45
TOTAL		94

Q4 Please rank your lot preferences from 1 to 3 (note that purchasers are typically given 5 years to pay for a lot)

Answered: 88 Skipped: 9



	1	2	3	N/A - I AM NOT INTERESTED IN PURCHASING A LOT IN THE NORTH END	TOTAL	WEIGHTED AVERAGE
Small lot (i.e. 60 ft x 50 ft) for up to $60,000	32.35% 22	29.41% 20	32.35% 22	5.88% 4	68	2.00
Medium (or standard City) lot (i.e. 100 ft x 50 ft) for up to $90,000	39.39% 26	50.00% 33	7.58% 5	3.03% 2	66	1.67
Large lot (i.e. 130 ft x 50 ft) for up to $120,000	26.92% 21	11.54% 9	48.72% 38	12.82% 10	78	2.25

Q5 Is there anything else you would like the Planning Team and Council to consider around developing lots for Dawson City residents?

Answered: 41 Skipped: 56

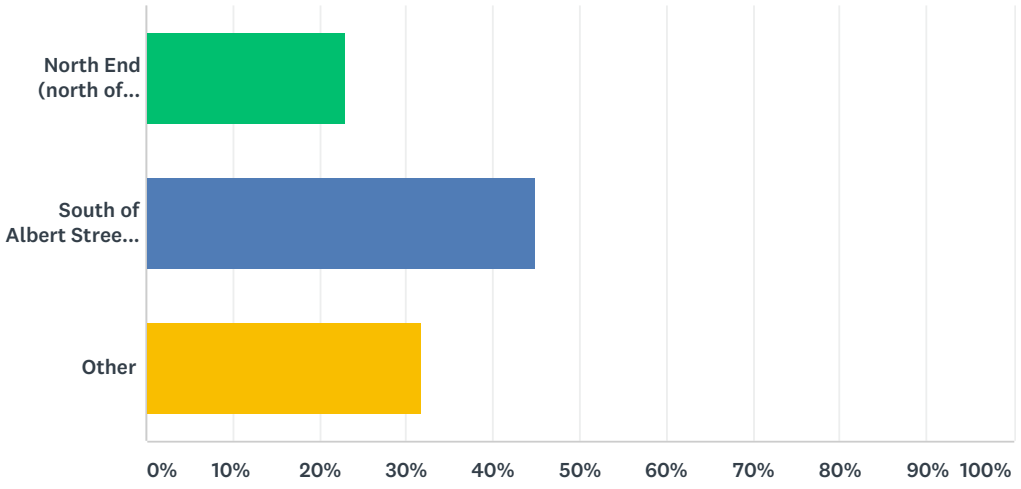
#	RESPONSES	DATE
1	Affordability! Some form of a financing plan to allow couples of families to build starter homes.	NaN/NaN/0NaN NaN:NaN PM
2	I am concerned that as a property owner in the North End whose property is adjacent to the area in question that this is the first I am hearing of this project.	NaN/NaN/0NaN NaN:NaN PM
3	Keep trees in place, because that helps keep dust down. Keep the mud bog area available for rentals, as that is a "commons" used by many groups over the summer/ over the years.	NaN/NaN/0NaN NaN:NaN PM
4	PermaFrost, potential for historical resource discovery, slope stability i.e. when is moosehide gonna let loose again	NaN/NaN/0NaN NaN:NaN PM
5	utilities needed	NaN/NaN/0NaN NaN:NaN PM
6	Focus on families for a change. With apartments being developed, we are taking care of that demand. Think about the future and where we're going to put families who want to set down roots.	NaN/NaN/0NaN NaN:NaN PM
7	Larger lots for larger apartment buildings	NaN/NaN/0NaN NaN:NaN PM
8	The development of country residential lots in the boundaries of Dawson City has bin non existent since the in fill on the Dome. In my opinion we need to change that	NaN/NaN/0NaN NaN:NaN PM
9	Lot price is un affordable	NaN/NaN/0NaN NaN:NaN PM
10	i would like to keep the north end feeling like the north end. yes, more people but lot of open space and not too dense....	NaN/NaN/0NaN NaN:NaN PM
11	Think about the future. Not just today's needs. Also, the town needs lots for families. We have had developments for small lots. How about lots for families for a change?	NaN/NaN/0NaN NaN:NaN PM
12	60 000$! 50x60?! That’s crazy!	NaN/NaN/0NaN NaN:NaN PM
13	- Could someone buy 2 adjacent 'small lots' and merge them into 1? - $90K for a standard serviced lot seems notably higher than prices for YG/City lots in recent lotteries, such as the lots just north of Albert. Are these new lot prices set higher to incorporate/offset the infrastructure improvement costs (i.e. installing water and sewer to the currently unserviced area?)	NaN/NaN/0NaN NaN:NaN PM
14	why are the prices so high? The last subdivision built is selling lots at $12/sqft not $18-20	NaN/NaN/0NaN NaN:NaN PM
15	Steep driveways and giant rock filled foundation baskets at the edge of the hill are not good planning. When planning the lots think about how people live. They may want a small house but they also want 2 cars, a shed, animals etc. Its not going to look like the "little house" pictures you see on the net. People have too much stuff and 'toys' and extra parts cars in yards and planning should reflect that. Leave some green and a place to gather. I don't recommend disturbing the cemetery. A few duplexes or a multi unit condo would be good to see.	NaN/NaN/0NaN NaN:NaN PM
16	The prices set for these lots are outrageous.	NaN/NaN/0NaN NaN:NaN PM
17	Ensuring that houses have adequate off street parking for the dwelling built. And ENFORCING the use of driveways	NaN/NaN/0NaN NaN:NaN PM
18	That the property owners would like to have 1st crack at the properties so that they can have options so to not have someone build right next door...North End people like the wild and the space.	NaN/NaN/0NaN NaN:NaN PM

19	make all small lots. you dont need a yard to grow grass especially in the proposed area. keep it small and lots of em.	NaN/NaN/0NaN NaN:NaN PM
20	For a long time now, many north end residents have been wishing and requesting to purchase lots adjacent to their properties but the opportunity has been denied. Council should consider advocating for, and supporting this, as part of a friendly and encouraging approach to developing the north end.	NaN/NaN/0NaN NaN:NaN PM
21	It would be nice to see site photos from the ground as well. Will these sites require septic?	NaN/NaN/0NaN NaN:NaN PM
22	You will need to boost up the city workers who do the work on the ground if this takes place. With so many new homes already they are already earning their paycheck.	NaN/NaN/0NaN NaN:NaN PM
23	We don't want a tiny house development boom in the North end.	NaN/NaN/0NaN NaN:NaN PM
24	Keep the prices attainable. This prices listed above are high, in my opinion.	NaN/NaN/0NaN NaN:NaN PM
25	North end residents appreciate privacy and large yard sizes. But, there is a need for single-resident or young couple housing. So perhaps a mix of lots is a good option - 1 or 2 large lots and a few smaller ones, or 1 lots zoned for an apartment building, or some sort of multi-family dwelling.	NaN/NaN/0NaN NaN:NaN PM
26	Is the proposed lot pricing in the previous question for a serviced lot?	NaN/NaN/0NaN NaN:NaN PM
27	Dawson's housing shortage means that there is a shortage for all demographics and needs. It is a tough situation. Council can be applauded for taking on the N End development and supported in what they decide. Only good will come out of it! My priority is high density, starter home lots for young people wanting to stay in Dawson. These people are young professionals and entrepreneurs who want to stay in Dawson long-term. They will use their starter homes to lever larger homes as they grow their families.	NaN/NaN/0NaN NaN:NaN PM
28	i would like them to consider the horses !gentrification of neighbourhoods has allways proven to overwhelmingly disregard those whom don't have voices, those who created the the allure of the areas in the first place are the ones who suffer from development of those places.not to mention the foxes dogs squirrels ,flying squirrels and various weasels. this might seem funny to some but I am being serious.	NaN/NaN/0NaN NaN:NaN PM
29	The reason I picked the lot sizes above as I did was based on price. That seems like a high price considering before you build more work would have to be done. Really a preferred size would be the 100 x 50 but $90,000 is a lot of money!	NaN/NaN/0NaN NaN:NaN PM
30	Must not block access to the dog park	NaN/NaN/0NaN NaN:NaN PM
31	Keep lot prices reasonable. 90000 for a ready to build on lot is ok. Ie filled and services connected. 90000 for lots as is currently is too mich	NaN/NaN/0NaN NaN:NaN PM
32	The Slide. That shit moves every year. Slowly, but surely. Plan carefully or it will end up in someone's cabin some day.	NaN/NaN/0NaN NaN:NaN PM
33	I feel that it is important to create lots that are affordable but I don't think that you should turn the North End into another north of Albert Street development with so many tiny lots crammed up against each other. While this makes sense in some places and enables there to be more housing in a space I think that retaining the semi-forested integrity of the North End is important for our town.	NaN/NaN/0NaN NaN:NaN PM
34	90,000 seems high, comparatively, for a standard City lot.	NaN/NaN/0NaN NaN:NaN PM
35	120,000 is quite steep for a lot.. when you consider having to also build a house there.	NaN/NaN/0NaN NaN:NaN PM
36	Leaving older growth or established trees and green space. Leaving a buffer of trees along front st to absorb ferry sound pollution.	NaN/NaN/0NaN NaN:NaN PM
37	No more building above Albert Street. Ground is not compacted and possible chance of a future landslide.	NaN/NaN/0NaN NaN:NaN PM

38	Flowing with the landscape rather than standard grid.	NaN/NaN/0NaN NaN:NaN PM
39	Your lot prices are totally out of step with reality. YTG prices for undeveloped lots in Dawson were $45k in 2017. That was reasonable price.	NaN/NaN/0NaN NaN:NaN PM
40	single family sustainable homes with yards are good. need a place to put that vehicle also in 40 below. spending money on the infrastructure, build some nice looking properties,	NaN/NaN/0NaN NaN:NaN PM
41	Both rental and purchase options should be considered in the final lot development plan - not everyone in Dawson wants or can afford to purchase a lot.	NaN/NaN/0NaN NaN:NaN PM

Q6 Which area of Dawson City do you live in?

Answered: 91 Skipped: 6



ANSWER CHOICES	RESPONSES	
North End (north of Albert Street)	23.08%	21
South of Albert Street in the Historic Townsite	45.05%	41
Other	31.87%	29
TOTAL		91

Q7 Please share any general comments, ideas, or concerns you have about the North End planning process here:

Answered: 42 Skipped: 55

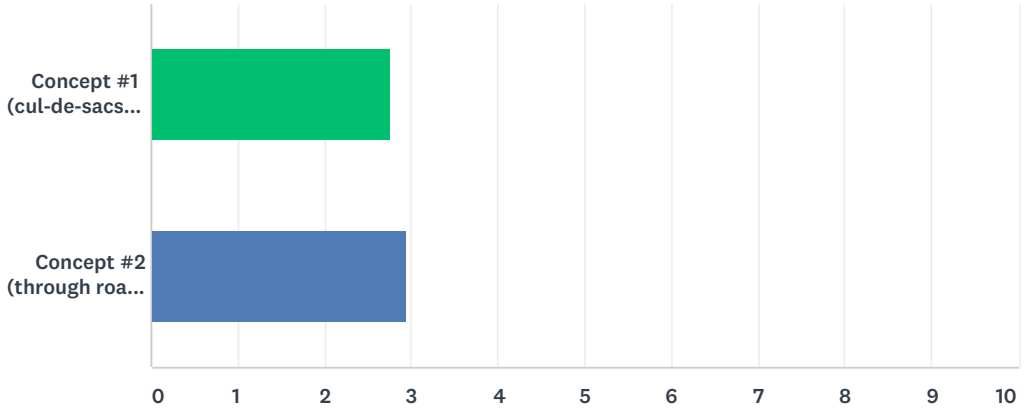
#	RESPONSES	DATE
1	Better road planning needs to be done to accommodate the new units. The first north end subdivision (that Greg Hackonson is building) has left the corner of Albert and 6th very dangerous and the stop sign doesn't change that. People speed to get up Albert which is now very narrow as new houses don't have enough room for vehicles so they park on Albert and it is now a one lane road. Also contractors need to be respectful of their permit conditions and the neighbors who currently live in the area, something Mr. Hackonson also chose not to do when the first houses were going up.	NaN/NaN/0NaN NaN:NaN PM
2	I will be very concerned if there are any plans for residential developments in the area of the typhoid cemetery because my property is next to this area and I bought it specifically because of its access to the green belt area, trails and forest.	NaN/NaN/0NaN NaN:NaN PM
3	Lots should be big enough for people to have gardens, as we are all engaged in food security conversations & issues up here. What about another suite of community gardens, by the way? I believe the ones the Rec Dept runs are annually oversubscribed.	NaN/NaN/0NaN NaN:NaN PM
4	Tokenism in the consultation process, citizens should be truly involved not just given an opportunity to be heard and ignored.	NaN/NaN/0NaN NaN:NaN PM
5	I can't think it would be affordable to develop serviced lots here. The ground is very steep and unstable. Who would pay for all this?	NaN/NaN/0NaN NaN:NaN PM
6	I hope this plan looks far into the future and asks what we want this neighbourhood to like. Don't just focus on the now or people's personal interests. The reality is that the north end is dying and the homes up there won't have much value in the future if they aren't serviced. People purchased lots with the understanding that water and sewer would be coming. They're still waiting. We have folks using outhouses. Is that sensible? And for those folks lucky enough to have a septic field, what happens when they need to be replaced? This area needs a plan, and I sure hope this process produces one that is workable. It's unfortunate that you're having to plan around a neighbourhood that already exists. This situation could have been avoided if the town had followed through on their previous north end plan.	NaN/NaN/0NaN NaN:NaN PM
7	The City will probably not recoup it's costs on this project and I as rate payer will be left holding the bag.	NaN/NaN/0NaN NaN:NaN PM
8	Please talk to two or three locals and past city employees about this. You guys know who they are. We have had enough complete engineering failures by listening to the engineers.	NaN/NaN/0NaN NaN:NaN PM
9	Lot pricing must enable lower income individuals to enter to enter the housing market. People working at higher income levels already have housing or it is provided with the position. Individuals looking for housing that do not want to rent are at the lower income levels.	NaN/NaN/0NaN NaN:NaN PM
10	Flood the market. Drive prices down. 😁	NaN/NaN/0NaN NaN:NaN PM
11	what happens if the typhoid graveyard residents decide to haunt new home owners	NaN/NaN/0NaN NaN:NaN PM
12	I want to maintain the charm of the north end. we need to sort out the lots that are already there and their boundaries. I occupy part of Judge street and an alley with my house and I would like to purchase this land and I think others are in the same position. I also would like to purchase a small lot and build a small house on it for rental.....	NaN/NaN/0NaN NaN:NaN PM
13	Let's get a good plan that survives.	NaN/NaN/0NaN NaN:NaN PM
14	These questions are a bit too general, and I'm not sure what you'll be able to do with this data. It might be helpful to conduct another public survey once more information is available, with more nuanced questions and options for answers.	NaN/NaN/0NaN NaN:NaN PM

15	The more government involvement the higher the end cost as is obviously already developing	NaN/NaN/0NaN NaN:NaN PM
16	multi-family, and able to house professionals who cannot find housing.	NaN/NaN/0NaN NaN:NaN PM
17	First I have heard of it was this evening.	NaN/NaN/0NaN NaN:NaN PM
18	Development should consider the trees and plants in the area and consider low impact building, a few areas should be reserved for a green space even though housing is top priority, need to consider green space	NaN/NaN/0NaN NaN:NaN PM
19	I want to see a North End that maintains it's wildness and it's space. People whom live in the North End don't want to have it like it is in the rest of Dawson...that's why they live up there. It's peaceful. It's got a ton of bird activity. It's got space and it's like it's own heritage park. There is so much heritage! A few more houses in the lower part would be ok but as you go up the hill towards the slide, it's a magical part of Dawson that's still intact as it has been for a long time.	NaN/NaN/0NaN NaN:NaN PM
20	dont try to mix big lots and small lots either make all small lots or i guess you could make big lots but that would be just insane with the currant situation.	NaN/NaN/0NaN NaN:NaN PM
21	North end residents should continue to be a key part of the planning and development process.	NaN/NaN/0NaN NaN:NaN PM
22	Will lots be sold as is for building /development by owners? Will the city be building structures as investments?	NaN/NaN/0NaN NaN:NaN PM
23	The north end should absolutely be developed.	NaN/NaN/0NaN NaN:NaN PM
24	I'm in favour.	NaN/NaN/0NaN NaN:NaN PM
25	I have a concern with any plan that creates a higher density of population than the rest of Dawson. I also want to grandfather to provide for existing uses and to not substantially increase taxes since there is no increase in services to some existing residences.	NaN/NaN/0NaN NaN:NaN PM
26	I'm interested in hearing what alternative development strategies might be considered in terms of zoning and land use in the area. Also, if water and sewer are going to be a big cost maybe those things don't have to be a priority, considering plenty of residents in other areas of dawson do without.	NaN/NaN/0NaN NaN:NaN PM
27	Please do a survey again when there is a modicum of detail available to provide to survey takers. This was incredibly bereft of detail and I hope that its results will be not be informing future directions taken to any large degree.	NaN/NaN/0NaN NaN:NaN PM
28	Housing is a major issue which Dawson has worked on for decades. The KDO consultants have done excellent work to help Council determine what's best to do. Once housing is addressed, a large number of economic and social issues become easier to work with. It's unclear whether or not the territorial gov't can assist Dawson with land development. My hope would be that the two levels of gov't can work collaboratively. I hope the City can move forward with NE Develop with or without YTG as the housing shortage is simply too large an issue. NE Residents will be greatly impacted by new housing, something they understand as inevitable. Ideally development can respect the privacy they've enjoyed. But can NE residents expect their neighbor to go undeveloped? Of course not. The existing NE development over the past 15 years seems successful --- lots sold, house built, families growing and now houses being sold to the 2nd round of owners. We can expect the same for this next phase of development. Finally -- is it feasible to build homes in the north end pit? If so -- housing needs would trump any recreation, snow removal or special event activity.	NaN/NaN/0NaN NaN:NaN PM
29	North end look great the way it is ... Why trees .! Dont take it aways ...	NaN/NaN/0NaN NaN:NaN PM
30	We have a lot on third between Duke and Albert. We paid $30,000 for it and its 50 x 100 which is why I think $90,000 is a bit high!!	NaN/NaN/0NaN NaN:NaN PM
31	Concerned lots will be placed where lots have no business being.	NaN/NaN/0NaN NaN:NaN PM

32	No high density initiatives. Development should match current lots	NaN/NaN/0NaN NaN:NaN PM
33	Don't fuck this one up. Responsible planning and effective execution are essential in developing the North End to benefit current and future residents of Dawson City. YT? Why not?! Give 'em a reason to stay!!	NaN/NaN/0NaN NaN:NaN PM
34	I think I've said most of what I feel already so I will just reiterate that I think that all of third avenue/Judge Street between Wayne's and The Typhoid Cemetery/Wally's should be left alone. That Street is beautiful and charming. The appropriate place to develop lots in the North End (and those that make the most sense to service) are lots South of the White House Cabins to Albert Street on both 2nd Ave and Front Street.	NaN/NaN/0NaN NaN:NaN PM
35	It would be nice if any development didn't affect the serenity of the 9th avenue trail, and ensures there is still access to the trail from the area.	NaN/NaN/0NaN NaN:NaN PM
36	I am pleased that the City is reaching out to citizens. An issue that I currently see in the north end is that there are a lot of vehicles parked on the street.	NaN/NaN/0NaN NaN:NaN PM
37	I like that the city is looking into developing the north end. I hope that they will make decent sized kits for a decent price.	NaN/NaN/0NaN NaN:NaN PM
38	Why isn't more of the slide / mudbog / dog park area being used? Can more roads and lots be built up the slide area?	NaN/NaN/0NaN NaN:NaN PM
39	It is hard for lower income residents , especially new and young people starting out to get to purchase lots in Dawson Town proper . The banks won't finance land purchase without a house construction .	NaN/NaN/0NaN NaN:NaN PM
40	I do not want to see a whole lot of tiny crammed lots and houses.	NaN/NaN/0NaN NaN:NaN PM
41	I am concerned it will be packed full of large houses on small lots as in other recent development. Removal of natural trees and gradient of land.	NaN/NaN/0NaN NaN:NaN PM
42	The procurement process concerns me... a lot. Filling the area with multi-unit buildings is alright to a certain level, sustainable single-family homes are needed and make a better fit for the north end.	NaN/NaN/0NaN NaN:NaN PM

Q1 Please indicate your level of support for the two development concepts:

Answered: 59 Skipped: 1



	STRONGLY OPPOSE	SOMEWHAT OPPOSE	NEITHER OPPOSE NOR SUPPORT	SUPPORT	STRONGLY SUPPORT	TOTAL	WEIGHTED AVERAGE
Concept #1 (cul-de-sacs, more lots/units overall, even distribution of small/medium lots)	33.90% 20	13.56% 8	11.86% 7	23.73% 14	16.95% 10	59	2.76
Concept #2 (through road, slightly less lots/units overall, more medium vs small lots)	31.03% 18	3.45% 2	17.24% 10	36.21% 21	12.07% 7	58	2.95

Q2 Please provide any comments or suggestions on Concept #1:

Answered: 37 Skipped: 23

#	RESPONSES	DATE
1	I do not think that this is a practical option due to the snow removal concerns on cul-de-sacs, and the costs associated with developing the cul-de-sacs and also cost of maintaining three dead-end water and sewer lines. The reconfiguration of privately owned lots and moving of existing buildings also seems unnecessarily costly and impractical. Additionally problematic is the fact that the proposed green space is very fragmented by proposed streets and lots for development and this poses problems for the ecology of the area, as drainage patterns will change the vegetation and therefore the wildlife that can live there. As well, from a population ecology standpoint, fragmented green space cannot support the same population levels for insects, mammals, birds or amphibians as continuous space. This fragmented green space will not preserve the "wild" character of the neighbourhood, but will simply look like unkempt areas in between developed lots.	5/13/2018 11:36 PM
2	option 1 is impractical for many reasons, including the cost and difficulty of moving structures to allow for road realignment, snow removal/traffic concerns on cul-de-sacs. Additionally, while preserving the “wild character” of the north end was stated as one of the main priorities identified by the first survey, this plan leaves relatively little green space (though slightly better than option 2 in this regard) I believe because the proposed green spaces are small and cut off from one another by roads and lots that they will be unable to maintain significant populations of wildlife or amphibians (developed areas, ie roads, lots are barriers to movement, and populations need a critical area to provide food, nesting space etc). Rather than maintain the character of the neighbourhood these “green space” areas will simply appear as unkempt empty lots, unless they are continuous and larger. My main question about both of these concepts is do either of them actually provide access to enough new potential lots to be worth the cost and disruption of what is currently one of the most unique and authentic areas of Dawson?	5/13/2018 10:05 PM
3	too many lots, fail to consider north end residents inputs such as edward street being open for traffic,it fails to to preserve green sites, it does not respect heritage sites , wildlife(woodfrogs,migratory birds species,nesting sites)	5/13/2018 9:29 PM
4	Too many lots and no respect for heritage sites, wildlife (frog pounds, shorebird and migratory birds nesting) and feedback from North End residents.	5/13/2018 7:36 PM
5	While it does provide a few more housing units, I feel cul-de-sacs are not conducive to an organic feeling of place. They feel disorienting and sometimes exclusive.	5/13/2018 1:30 PM
6	Option one should not have a cul de sac on Judge St. Also, you have ignored all the comments about lot prices from the first survey.	5/12/2018 8:28 AM
7	I feel like the cup-de-sac option makes more sense as there is really no reason for through traffic in this end of town, and as a resident with young children it often feels unsafe as tourists and bored teens often drive through here now at unsafe speeds. There are access trails to the 9th Ave trail, so the walk-through, walking around feel is much better suited to this end of town, where recently there are many, many runners, dog/baby walkers who want a quiet place to walk or who are accessing 9th Ave trail or the dog park. I also like that this option opens up more lots and smaller lots that are more affordable.	5/12/2018 1:00 AM
8	ACK! Three cul-de-sacs? Please no. I predict major traffic issues. Straighten 3rd ave - the funkiest street in Dawson? Gotta be joking. 26-30 lots? Too many! Please, just keep it simple - develop the easy lots on Front Street, between Edward and George Street and leave it at that. Don't change the precious North End too much - it's the best part of Dawson and is an authentic, interesting "green space" as is - no need to create cheesy parks in the area.	5/12/2018 12:27 AM
9	Too many small lots/ residences	5/11/2018 11:29 PM
10	Too many cul-de-sacs, I can see road access getting quite congested easily. Also I would prefer to see less lots, as it would make each lot a bit more private.	5/11/2018 4:15 PM
11	There is a big demand for housing units in Dawson. Considering the price on the lots (which is quite steep compared to what lots have sold for in the past), I think it is more valuable to have a higher quantity of smaller lots to house more people. It is both more affordable and more plentiful.	5/11/2018 4:08 PM

12	get rid of the cul-de-sacs, access too complicated	5/11/2018 4:07 PM
13	Why are you trying to move an historic cabin? This will cost a lot with minimal benefit considering at most one extra lot in that area. Why are you making dead ends that will increase traffic substantially on Third Ave? Concept 1 will not work as proposed or will be super expensive. Who will pay for it?	5/11/2018 2:58 PM
14	The map above does not even show all of the concept lol, so is very misleading!!! there are a few good things: the interneighbourhood green space, and the Denhardt cabin park, plus development of empty block (but not Edward closure), and some of the lots along Second ave, but everything else is very problematic and probably super expensive to do	5/11/2018 2:30 PM
15	Parking and traffic would be an issue with so many small lots. I am not (yet) a homeowner but one of the healthy components of living in the north is the balance between spaciousness and neighbourliness. We look at tensions in cities that come from people living "in each others' pockets" so to speak - and we have the chance to avoid that here by planning well.	5/11/2018 11:22 AM
16	By going through with this plan, you would inevitably destroy the layout and historical background of my neighbourhood. Not to mention the cultural heritage of it too.	5/10/2018 10:40 PM
17	I actually like concept #1 best, but there are too many things that make it impractical, including the cul de sac and moving historic homes.	5/10/2018 4:23 PM
18	I think it is better to have many small lots making it more affordable and creating more homes	5/10/2018 2:32 PM
19	cul de sac road style is not in keeping with the historical streetscape, would probably not be easy to maintain, and one way traffic would not be ensured or easily controlled.	5/10/2018 8:38 AM
20	We need more housing in the core. More and smaller lots means lower per capita cost for municipal infrastructure. Cul-de-sac design preferred to through road as long as there’s pedestrian/bicycle thoroughfare	5/9/2018 11:12 PM
21	Leave more greenspace.	5/7/2018 9:15 PM
22	Small lots creat no room for parking. This creates too much car/junk overflow onto the road.	5/7/2018 9:10 PM
23	I like the quiet nature of cul-de-sacs and think this would be a good fit for this part of town.	5/7/2018 7:56 PM
24	There needs to be more housing in Dawson especially for people who can't afford a house.	5/7/2018 7:28 PM
25	I feel like concept #1 will give the development a more neighbourhoodly feel	5/7/2018 6:21 PM
26	Concept 1 should include a connection between third avenue and judge street. Without such a connection the only way to access many of the lots will be via third ave. This would transform a currently quiet street to a very busy one. There doesn't seem to be any logical reason to eliminate the connection between these two streets other than minimizing the amount of traffic at the north end of judge street, which in my opinion is unreasonable and presents a conflict.	5/6/2018 9:51 AM
27	Like that it is different	5/4/2018 11:15 PM
28	Too many cul de sac, even on a road that already exist..	5/4/2018 8:56 PM
29	Requires the relocation of our shop, for the cost of about $60,000.00. This area was grandfathered in when we bought the lots. Who's going to pay for that? This concept also shows a new lot in the bottom of our driveway. how do we gain access to our house, and who is going to pay for that?	5/4/2018 5:50 PM
30	I would prefer we didn't relocate the additional units	5/4/2018 4:02 PM

31	First oval i dont understand why edward stree should be remove . for living in this neighbourhood , i been seein a really important flow of trafic passing true there on a daylie basis. Whot the addition of potentially 40 lot i think this road is NECESSARY for this neighbourhood. Strongly oppose to 4 plex.. What is this kind of ideal ... This is not downtown .. Its a quiet space of town where people goes for walk in famylly or with their pet ... There is already enought noise from the ferry no need for 4 plex .. Includind the fact that removing that forest witch is a noise buffer from the ferry and all the vehicle around .I personally thing 4 plex or duplex shouldnt be even a option .. Why is there private propriety that are subdivided on third ?? Those are threee properties i dont get that ...that isnt any body buisnes to subdivided those.and some of those road are totally invading resident that are allready living there.... And all those cul de sac dont seem like a really good ideal for circulation wise ... All the tourists are going to end up in there and disturbe the resident more thant regular trafic .... And 40 more lot !?!seem insane to me. And seem like a hell of a cost whent there is other place in town that could be use. Like the camp ground. That is already next to wather and sewers acces .. Minimum cost and on top of that the environememt allready got nuke ! Flat and stable ,ready to be built on !!! I dont understant why that option does seem to be look over ... They only need 2 years notice ... Dont they ? Tiw year waiting instead of what 5 years of construction that will piss off every body that live and enjoy their home and living space in northend..	5/4/2018 10:50 AM
32	strongly oppose. too jam packed, cul de sac on judge , you want to kill sell or move the window cabin ?,witch many people like and has become a famous place in the north end jim robb and many people have painted it ! and you want to subdevide lots at the top of third ? the old log cabin sits on ? doesnt make sence . also dont like the idea of changing that road that seems to be someones driveway right now. this one is a bit better maybe if you put a cul de sac at the top of the new road and	5/4/2018 9:36 AM
33	In concept 2 you make a through road from 3rd av to 2nd.. Concept one should inlcude that through road, there is no reason to omit it and make it only be a trail.	5/3/2018 5:13 PM
34	I support it so long as there is a foot trail from one cul-de-sac to the other.	5/2/2018 1:59 PM
35	Greenspace on left top corner doesn't appear to have any public access - bounded entirely by private lots. This should be opened up in some way with pedestrian access. Prefer sub-options b) or c) for the large block. Appreciate the connectivity of the green space surrounding Paul Denhardt cabins.	5/1/2018 9:56 PM
36	-I like the large greenspace around the cabins -unsure about access to the other greenspace as it seems to be between lots	5/1/2018 9:55 PM
37	I am wary of the cul de sac's. They don't make sense logistically or sustainable. While i know dawson is small this is still a concern in the long hall. Dead ends don't make sense for Garbage trucks, snow plow, city grating, and maintenance. It will mean more gas use and measured over the years could add up to a large value. That being said i like that there are more small lots in concept 1. I like the green space in both. Each creates nice green ally way/avenue between Front street and the hill.	5/1/2018 9:49 PM

Q3 Please provide any comments or suggestions on Concept #2:

Answered: 34 Skipped: 26

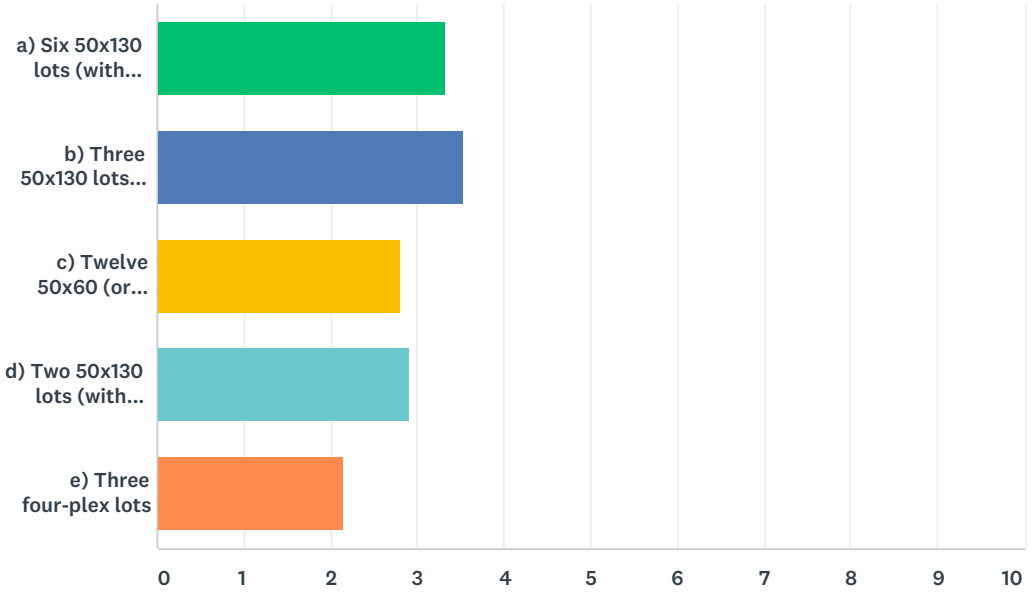
#	RESPONSES	DATE
1	This is the worse of two terrible options, in my opinion. The through road, while not having the problems associated with the cul-de-sacs will change the character of the neighbourhood irrevocably, and unacceptably. It is highly unlikely that the one-way street would be respected by residents or visitors, and the proposed road runs right past the door of at least one existing house which is located close to the property line on its lot, rendering this dwelling nearly unlivable from dust, noise and danger to pets and children and even adults as they exit the house mere feet from the proposed street. This option only further fragments the small amount of proposed green space left after streets and lots are developed, exacerbating the ecological and aesthetic problems described above for Concept #1. Further, the roads as proposed in this concept seem to be very wide, much wider than the existing streets, which are serving the neighbourhood perfectly well. I fail to see how wide streets are in keeping with the stated goals of preserving the wild off the beaten path feel of the area.	5/13/2018 11:36 PM
2	In my opinion this option is the worse of two terrible choices. The development of the through road will change traffic patterns destroying the quiet “end of the road” “almost out of town” feel of the area. The road is proposed to butt up against one already developed lot, where the house stands very near the property line. A through road just outside the front door of this house would render the dwelling almost uninhabitable due to noise, dust, and danger to children and pets of having traffic passing within feet of the door. On a more practical note regarding the road, I wonder if the design team looked at the ground they are proposing to build a road on, as a portion of the proposed road route is low swampy unstable ground which will greatly increase maintenance costs for this road. Additionally, while preserving the “wild character” of the north end was stated as one of the main priorities identified by the first survey, this plan leaves only a very few islands of green space between a few of the lots proposed for development. Fragmenting the green space to this extent will change the ecology to the extent that these spaces will be unable to maintain significant populations of wildlife or amphibians (developed areas, ie roads, lots are barriers to movement, and populations need a critical area to provide food, nesting space, and altered drainage patterns from developed lots will change vegetation growth, which in turn affects the bird, mammal, insect and amphibian populations that can survive). This concept does not preserve the wild character of the north end, it leaves a few undesirable lots undeveloped in the midst of development. In both of the proposed concepts the roads appear to be very wide - another feature which is not at all in keeping with the stated value of maintaining the current character of the neighbourhood. This option provides only four additional lots over option 1, which cannot possibly provide enough per lot savings to the cost of water & sewer to be worth the extra disruption to the neighbourhood. I am quite disappointed to see that there is no space for overall comments on this survey so I will include them here. My recommendation to the plannig team is to go back to the drawing board and come up with a comment that disrupts current residents and existing green space less. Please also provide estimates of per lot cost for water and sewer under each scenario, as well as a comparison to the cost if no new roads were built and water and sewer ran along existing roadways only. This is a vital information that potential buyers and existing residents need to make an informed choice about what they would like to see happen in the north end. I understand that this plan is in part to attempt to address the need for housing and lots in Dawson, however there is a significant amount of empty and under used space in the downtown core and the south end (RV park, old Korbo apartment site, Gold nugget motel site, numerous empty lots) that should be opened and development encouraged on before we consider changing the nature of one of the more unique neighbourhoods in Dawson.	5/13/2018 10:05 PM
3	too many lots, fail to consider north end residents inputs such as edward street being open for traffic,it fails to to preserve green sites, it does not respect heritage sites , wildlife(woodfrogs,migratory birds species,nesting sites)	5/13/2018 9:29 PM
4	Too many lots and no respect for heritage sites, wildlife (frog pounds, shorebird and migratory bird nesting) and feedbacks from the North End resident.	5/13/2018 7:36 PM
5	This is my preferred choice. The road layout provides a more natural traffic flow and encourages movement through the community by foot/bicycle and doesn't feel as invasive when entering cul-de-sacs without being a resident there.	5/13/2018 1:30 PM

6	Seems awkward way to configure access, reduced number of lots is a downer. I also think this road location would cut right through a natural stream and be a big headache, or cause way too much damage to existing land.	5/12/2018 1:00 AM
7	One-way street? Yuck! I'm sorry, but this all looks so awful. Again, I think you're trying to force too many lots into this unique and weird, awkward place (the North End). Obviously this is to make it financially feasible/beneficial, but I'm afraid that there won't be the demand for upwards of 30 lots and many of them will go unsold. The lots look small, expensive, and difficult to build upon. Look at the recent Dome lot sales - in all there were only 8 families/people who put their names in for that lottery (many people had others put names in on their behalf), those lots are far more desirable and within a similar price range. Please, Mayor and Council, have the courage to reject this plan and start again. Better to take a bit more time and do this properly, rather than ruin one of Dawson's coolest areas. Better still - break the lease with the RV park in town (or don't renew it) and develop those lots!	5/12/2018 12:27 AM
8	Like larger lots	5/11/2018 11:29 PM
9	I like the through road access and the fewer number of lots. With a few tweaks, it could be really nice.	5/11/2018 4:15 PM
10	Not too sure about getting rid of Edward street. With a few tweaks I think Concept 2 would work.	5/11/2018 4:07 PM
11	The road envisioned is way too wide.... not historic at all. Why does it not go up hill with George St is aligned already? You would need to move historic buildings and this will cost lots of money. Why are there lots in front of the Denhardt Cabin? - this should truly be a park from all angles. Ruining an area instead of making it better.	5/11/2018 2:58 PM
12	The map above does not even show the whole concept lol, so is very misleading!!! there are a few good things: the interneighbourhood green space, and the Denhardt cabin park, plus development of empty block (but not Edward closure), and some of the lots along Second ave, but everything else is very problematic and probably super expensive to do	5/11/2018 2:30 PM
13	Provides quite a few lots, and still overs room for yards. With local food security as a top-of-mind concern, it would make senses to prioritize lots where gardening can happen. As well, dust control in Dawson summers would be better mitigated by lots that still have trees, and that can grow greenery. Kids also need space to run around without dealing with cars. However, in my opinion the overall desire to develop the north end still needs to be kept as a question. There are other spots in town to develop. For example, can the City please purchase the crazy/abandoned 70s building across from the school and tear it down and build an apt. building in that spot - that would be an excellent space for families, having their kids right across the street. As well, there will be more lots on the Dome once mining is done up there - isn't that correct? Is that part of the deal with Slinky Mines? Best case for City development would be to build elsewhere. If the N End *has* to be used, use the cul-de-sac idea with fewer lots. The quality of home life for those already living in the area will be impacted pretty negatively (and again I emphasize that I'm not in that area, and not yet a homeowner).	5/11/2018 11:22 AM
14	By going through with this plan, you would inevitably destroy the layout and historical background of my neighbourhood. Not to mention the cultural heritage of it too.	5/10/2018 10:40 PM
15	I like concept #2 because it's practical. However, the proposed road width looks like WAY too much. Less than 60 foot roads are a nice feature of the north end. That should be the case here. Also, the road appears to go right past someones property when it exits the "heart" and onto Second. Why not move it south of there and then you could get that little lot in there like you could in the concept #1 plan. I don't like the one way idea. It isn't practical. Local traffic, yes. One way, no. Also, there is no reason to close the road by the cemetery. I would open that back up.	5/10/2018 4:23 PM
16	Bigger lots mean less homes. We need homes not yards.	5/10/2018 2:32 PM
17	large road is unreasonable sixe for the area. Does not conform with historical streetscape shape/form. Would like to see an option with the road coming in/out at George St. and regular continuation of Third Ave. (and inner alleyway).	5/10/2018 8:38 AM
18	This is also totally fine, but demand seems to be for smaller more afcordable lots.	5/9/2018 11:12 PM
19	Leave more greenspace.	5/7/2018 9:15 PM
20	Don’t agree with the ‘one way’.	5/7/2018 9:10 PM
21	I'd be a bit concerned about the increase in traffic around the loop.	5/7/2018 7:56 PM
22	We should have more small lots/apartments	5/7/2018 7:28 PM

23	I think concept #2 is kind of strange looking. And I think having a one way street is a terrible idea; a traffic collision waiting to happen.	5/7/2018 6:21 PM
24	I definitely prefer concept number 2 for lot quality and preserving the "feeling" of the North End, but worry that I could never afford the price for the medium lots (90+development costs). Because the lot prices throughout the plan are so high, an additional housing unit for generating income would be a necessity were I to buy, in which case a medium lot would make more financial sense than a small lot. So, though I'm voting for what I feel is best for the North End/the community, I may be voting myself out of options as a young professional with hopes/plans to buy or build (or even rent at a reasonable rate!) in the near future.	5/6/2018 6:32 PM
25	It is unclear to me whether there will be access to the interneighbourhood green space from Third Avenue. If this not part of the plan, I would like to see it incorporated.	5/6/2018 9:51 AM
26	Great.	5/4/2018 8:56 PM
27	Same as above.	5/4/2018 5:50 PM
28	In the two plant that the one that kind of make more sence ... But still ... Without repeting myself again. 4 plex and duplex should be a option ...wouldnt suit what north end is all about .. But you probably dobt care since nobe of the devellopment people live in that neighbourhood... also , i been in those meeting to speak about concert of that devellopement... And it seem that more or less nothing of the concernt of northend resident did got take in consideration.. That kind of a shame ... Let have bunch of cake and spreak about stuff that wont matter .. We just need to have that meeting to feel better about herself .. I am sorry to be rude but that how i feel about it the.last chance we " can express" our feeling about it .. Hopefully those survey will be look over .. Anyway concept number 2 make a bit more sence but still think 40 household its a massif/ terrifying change for this oart of town ... But i do suport those micro housing pilot projet.. That seem like something less impacting and more suitable for the northend concept plans	5/4/2018 10:50 AM
29	no one way streets ! again the window cabin lot is to be messed with .! this one is a bit better maybe if you put a cul de sac at the top of the new road and a drive way for the hexagon cabin using the old road. and incompass the 50x 60 lots in to the others as thats a really speep hill anyway . some suggestions ... also there is one lot jumbled with the yellow and the small green space that should be green space	5/4/2018 9:36 AM
30	Concept 2 should have a through road in the northern part connecting Second ave and third ave, not just a trail	5/3/2018 5:13 PM
31	Totally ruins existing tenants lifestyle and enjoyment of lot. Turns quiet lot into busy high traffic area	5/3/2018 3:29 PM
32	Prefer sub-options b) or c) for the large block. (same as above). Don't like the abrupt truncation of Third Ave into a cul de sac. Judge St would be the only one way street in Dawson and I'm not 100% sure I like it in this particular spot. I don't think people would respect/honour it. While I appreciate the through road, I don't like that it cuts the Denhardt park in half.	5/1/2018 9:56 PM
33	not sure how well followed the one way street will be	5/1/2018 9:55 PM
34	I prefer the layout of the road on this concept. I think there would be more thoroughfare by walkers which would give it more life. AS mentioned before, i dont like that it doesnt have as many small lots. this road design would make maintenance more sustainable and well designed (wouldn't have to turn around and use more gas). I like this concept has a better flow for pedestrians, traffic and layout of lots.	5/1/2018 9:49 PM

Q4 Please rank the five sub-options in order of preference (1 being first choice and 5 being last choice):

Answered: 49 Skipped: 11



	1	2	3	4	5	TOTAL	SCORE
a) Six 50x130 lots (with potential for one secondary suite)	28.89% 13	20.00% 9	22.22% 10	13.33% 6	15.56% 7	45	3.33
b) Three 50x130 lots (with secondary suite potential) and six 50x60 (or 50x70) lots	18.60% 8	37.21% 16	25.58% 11	16.28% 7	2.33% 1	43	3.53
c) Twelve 50x60 (or 50x70) lots	21.28% 10	10.64% 5	25.53% 12	12.77% 6	29.79% 14	47	2.81
d) Two 50x130 lots (with secondary suite potential) and two four-plex lots	9.09% 4	29.55% 13	13.64% 6	38.64% 17	9.09% 4	44	2.91
e) Three four-plex lots	18.60% 8	0.00% 0	11.63% 5	18.60% 8	51.16% 22	43	2.16

Q5 Please share any other suggestions or comments you may have about this Front Street block with us:

Answered: 32 Skipped: 28

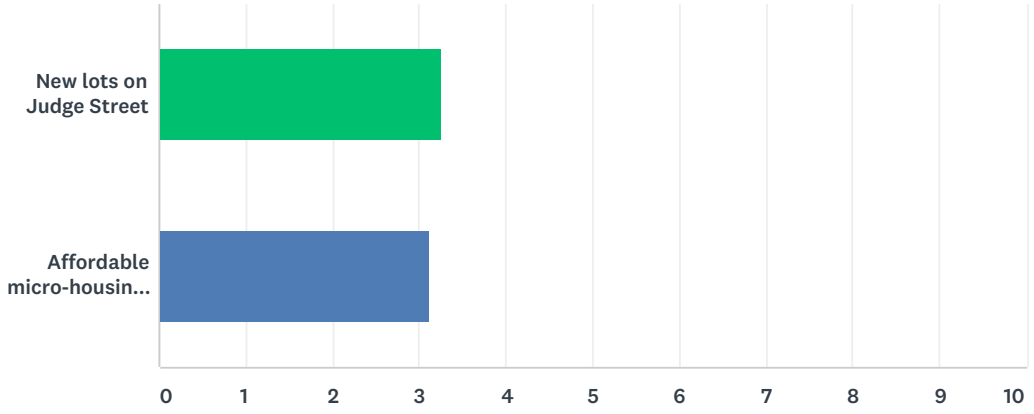
#	RESPONSES	DATE
1	Any of the above configurations of this block could be achieved by water and sewer along existing roads, without the expense and damage to the character of the neighbourhood from adding roadways through the green space	5/13/2018 11:39 PM
2	This space could be left as it is because of the number of animals using it as a sanctuary. This space is also a buffer keeping everyone from hearing the loud sound of the ferry landing . We need these trees and roots to support the soil as the ferry is already disturbing the riverside. This area is a canal of streams that provides nutrient for the frogs and the birds.Cutting these trees will definetly turn 2nd ave into a very loud place to live noting that the residents already experience their house to shake when the ferry lands. A bridge might stop the shaking but would still greatly affect the fauna and flora of such a fragile ecosystem.Edward street is very valued by the residents and this was agreed in the first meeting among the north end residents present.	5/13/2018 9:36 PM
3	The green space is appreciated by many North End residents as much for it's aesthetics aspect as for the protection it provides from the noise of the ferry. It provide habitat for a dwilling population of wood frogs, many shorebirds and migratory birds, owls and hares. The trees and shrubs also act has a barrier against the erosion caused by the ferry landing and the associated traffic.	5/13/2018 7:44 PM
4	I think finding a balance between density and maintaining character is important here.	5/13/2018 1:33 PM
5	I think for affordability and to create a really cool neighbourhood with maximum people, plus keeping all thing equal, option C would be the best.	5/12/2018 1:04 AM
6	Please, only develop this section of the North End and leave the rest alone. Mahsi!	5/12/2018 12:29 AM
7	I think the 3 4-plex lots should moved north of George Street	5/11/2018 11:34 PM
8	I think that having 4-plex housing facing the water would be best. There could be noise issues from the ferry.	5/11/2018 4:32 PM
9	Great work, I am happy that the northend is being developed as Dawson is in desperate need of housing.	5/11/2018 4:18 PM
10	I think that the issues with the existing property owners needs to be resolved before development happens. There are some individuals that are using land that is not owned by them and this all should be sorted out before you move forward with development.	5/11/2018 4:13 PM
11	George Street should not be closed.	5/11/2018 2:59 PM
12	I think it is a mistake to shut down George St. It is well used. I agree though that something should go in the rest of this block.	5/11/2018 2:32 PM
13	The fact that Dawson is bracketed by green space is very important to quality of life here because it a) encourages people to walk further (the loop that can be done by using the 9th Ave Trail and the dike walkway is a heavily used loop) b) allows east-west passages for wildlife so they don't have to go through downtown c) maintains leafiness/greenery that helps keep summer dust down d) it's simply beautiful	5/11/2018 11:27 AM
14	I strongly oppose any development in this area from the council. Leave the north end alone	5/10/2018 10:45 PM
15	NO MULTI_FAMILY RESIDENCES! They belong in the downtown core. We need family homes and lots! Plus, how many one room apartments do we really need? There are others being built. We need places for families. End stop.	5/10/2018 4:25 PM
16	This area is generally unused and could house so many people !	5/10/2018 2:34 PM

17	these lots should be developed with huge consideration to their connection with the town core and with respect to historical control. The visual landscape, fit with existing buildings on Front (e.g. Whitehouse Cabins) should be expected to compliment the area. Low density development on all lots in the north end is critical for maintaining the existing neighbourhood and appeal of the north end. Traffic near the ferry landing is an issue in the summertime for north end residents, same with bottle necking in the north end during events in the north end pit so parking and vehicle access needs to be considered re: development of this area.	5/10/2018 8:48 AM
18	B- Good mix of options maintaining density.	5/9/2018 11:18 PM
19	Going to be really really noisy spot. Dusty too.	5/7/2018 9:17 PM
20	The waiting list at the 8-plex in town shows that Dawson needs more affordable apartment-style housing. Maybe there would be enough space for shared yard / garden beds / BBQ area etc. (?)	5/7/2018 8:05 PM
21	Unless someone is going to recreate the St. Mary's hospital, I don't think this is the part of town in which, for the sake of the heritage aesthetic, to development large buildings. One of the outstanding features of the hospital building was not only its size, but also its relative isolation and consequent visual impact. I think the developments on the Front Street section should retain the scale of the rest of the deep north end of town.	5/7/2018 6:26 PM
22	I made my selections under the assumption that a 4-plex rental unit would be more affordable than a secondary suite on a single family dwelling. My preference for this area would be to create affordable rental units.	5/6/2018 6:39 PM
23	Options d and e present challenges in my mind. for Option d to be more appealing I think the two smaller lots should be placed on either corner to make them more desirable. I think it is unlikely that someone will want to pay $120 000 for a lot in between two fourplexes. At least with a corner lot the property is more marketable. Alternatively the two fourplexes could be side by side, placing only one of the single dwelling lots next to fourplex. Ultimately, options d an e will result in considerably more people in the neighbourhood. Is there a demand for that amount of multi-dwelling units to support these options? The cost of the small, med and large lots has been disclosed, but from reading the package I have not come across pricing for these lots. What cost is being proposed for these lots?	5/6/2018 10:50 AM
24	Those maps are ambiguous and confusing.	5/4/2018 6:45 PM
25	Was it not proven a few years back that this area is sliding into the river while searching for a location for the treatment plant?	5/4/2018 6:02 PM
26	Edward street should remain ! It a hight circulated acces in nothend. Why do we need to remore this acces that always been .?? By adding all those new property . people will need more riad acces and not the opposite. I dont get this to be honest. And 4 plex... Is that a joke ? Your micro housing projet seem like a nice projet to integrate in this environment but 4plex or 2plex ... It seem like something went wrong somewhere... Is not the city center ... It the last naturral beauty in town that will get nuke for bunch of 4 plex ??? That even worst than the nightmare I've been having about this development project. Option 1 or 2 may be considerate without Edward street being remove. These other option doesnt seem appealing	5/4/2018 11:03 AM
27	this part really pisses me off because on the walk there was a general consensus with the north end residents they shouldnt take out that road (edward) and in both plans they take it out . i understand your bottom line is to put in houses and recover cost but come on dont say your consulting resident and then pull that. maybe if you want to cut cost think about putting houses where the camp ground in town is ,you own the property and theres allready white chanel and water !save a few hundred thousand dollars wont you. and you wont have to deal with us !:) you also dont realize how much the ferry is a nusence your gonna charge people up the wazzzuuu for your cost recovery and what your selling is not prime real estate. i dont think your "market value "applys if im going to be honest . antoher concept that seems to disregard the residents is the idea of a Quad plex ? i think general everyone (residents) agreed that if anything should come to the north end it would be SMALL single family homes low impact to the enviorment and so on . thats all i have to say for now thanks	5/4/2018 9:54 AM
28	By removing the forest, you will be destroying a natural sound barrier from the ferry.	5/3/2018 5:15 PM
29	No tall develomemts	5/3/2018 3:32 PM
30	4 plex lots would be better suited for the downtown core.	5/2/2018 8:07 AM
31	All single residential lots should have secondary suite potential.	5/1/2018 10:00 PM

32	B and c are both great solutions. I think more small to mid-size rental units are what Dawson needs desperately. But with that in mind having stand-alone units might give incentive for more young professionals of Dawson more reason to stay! Property that feels like they own it rather than 4 plexes. I think many employers in Dawson have difficulty keeping the young professionals around for long. Affordability and lack of opportunity to buy/build. I feel your targets for these types of spaces at the cost of the lots (to much) would want stand alone units.	5/1/2018 9:56 PM

Q6 Please indicate your level of support for these two common elements of Concepts 1 and 2:

Answered: 53 Skipped: 7



	STRONGLY OPPOSE	SOMEWHAT OPPOSE	NEITHER OPPOSE NOR SUPPORT	SUPPORT	STRONGLY SUPPORT	TOTAL	WEIGHTED AVERAGE
New lots on Judge Street	23.08% 12	7.69% 4	11.54% 6	34.62% 18	23.08% 12	52	3.27
Affordable micro-housing pilot project	21.15% 11	9.62% 5	25.00% 13	25.00% 13	19.23% 10	52	3.12

Q7 Please share any comments or suggestions in relation to these two concept features here:

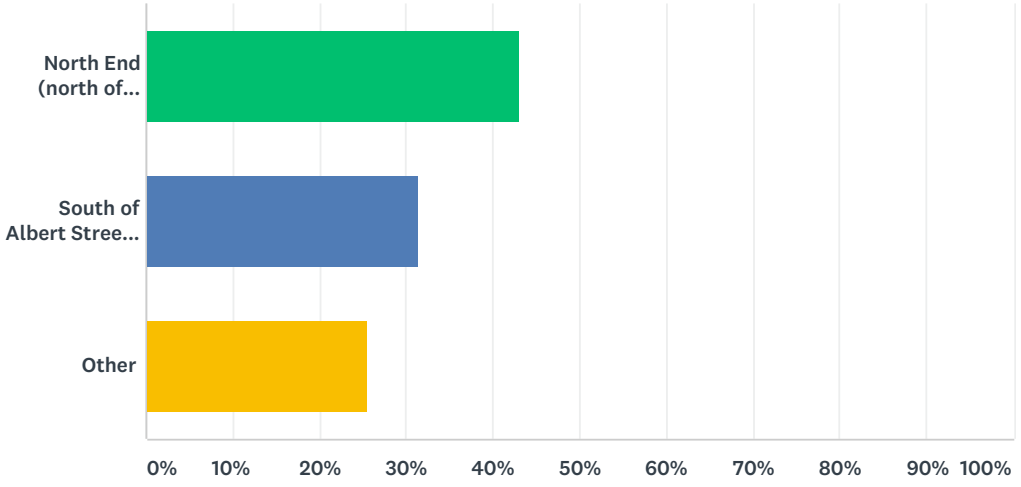
Answered: 25 Skipped: 35

#	RESPONSES	DATE
1	The north side of Judge street is an appropriate place for new lots to be developed as the area is already disturbed by the parade ground, and existing lots. Development here can be easily serviced from existing Judge St, does not fragment green space and does not significantly change the character of the neighbourhood.	5/13/2018 11:41 PM
2	I agree that dawson city needs affordable housing (such as those micro-housing) in times of housing crisis as it is. On the other hand i strongly disagree that the north end is the most suitable place for development. In fact, the downtown area is in my opinion a better place because of the better and easiest access to the services.Downtown dawson has numerous empty lots already own by the city that could be developped intto housing more effeciently. The reason for that is that the sewers are already in and the powerlines are there too as the plumbing.The campground in town is also a big lot that could provide lots of housing possibilities. The two goverment own campground at both ends of town are spacious enough and to accomodate tourists.I beleive the north end should be left as it is and as it was for hundreads of years.	5/13/2018 10:00 PM
3	There is a lack of housing opportunities in Dawson, especially for people with a modest earning. Affordable housing is a must and the downtown area have a lot of potential for it...	5/13/2018 7:48 PM
4	I totally support any creative solutions to the housing crisis in Dawson, and I feel this would be beneficial to those who need simple, low-cost housing and maybe aren't ready to invest in a more expensive, permanent situation.	5/13/2018 1:35 PM
5	I am not against increasing density in my neighbourhood, but I think these two lots are not really viable, and would be weird. Just how I feel. Both would not affect me directly.	5/12/2018 1:07 AM
6	I don't like the micro housing	5/11/2018 11:36 PM
7	Not sure how I feel about the micro housing project. I would prefer to see a permanent house on lots there, but if that is not recommended due to the ground condition, micro housing could be a good alternative.	5/11/2018 4:22 PM
8	A pocket neighbourhood or micro housing will cause overcrowding in the area and that is not something I want to see.	5/11/2018 4:15 PM
9	at what expense for water and sewer? Who gets to pay for it? Minimal benefit in my opinion.	5/11/2018 3:01 PM
10	It may be an OK idea or it should be sold to Whitehouse Cabins so they can expand their business and offer tenting options. Perhaps the big block south that is empty should also have a campground and open up the easy to service lots associated with the existing Gold Rush Campground in town	5/11/2018 2:34 PM
11	Microhousing: a concept that distracts with cuteness. Tiny homes: - Do not allow for adequate storage (summer and winter extremes here require different equipment and wardrobe for each, as a necessity, not a luxury - where will I store my tobaggan?) - Do not allow for food security. Emergency planning frameworks typically suggest having enough food & supplies for 2-3 months. Not possible to store this in a microhouse. - Discourage tidy yards, as again, there's not enough room indoors, so people hang things all over their outside walls. - Are cheaper to heat, yes, but then are we looking at increased fire hazard with homes so close together?	5/11/2018 11:34 AM
12	Your concepts are outright despicable. Moving heritage homes is absolutely ludicrous.	5/10/2018 10:47 PM
13	The owners of proximate lots should get first crack at them as long as they build homes or, in the case of the lease lot, work with the town to come meet the need. The reality is that those folks have been up there for awhile and they would likely support the project if the town worked with them to meet their goals, too. Also, the lot that cuts off second avenue past judge might make access to FLynn's lot impossible and maybe dangerous.	5/10/2018 4:29 PM
14	Nico housing is exactly what Dawson needs within city limits.	5/10/2018 2:35 PM

15	I understand there are land easement issues related to the development of the two Judge St. lots. Neighbouring property owners concerns should be addressed first, prior to planning lot sale/development. Existing land owners should be given the option to purchase adjacent property/lots if they are deemed saleable by the City. Many north end residents have been expressing to the municipality for many, many years now that they are interested in purchasing existing adjacent lots. The municipality is ignoring these requests and now formally with this plan/concept moving away from allowing this as a possibility. The municipality should prioritize existing north end residents, listen to the issues and concerns, before moving ahead with central planning.	5/10/2018 8:57 AM
16	Diverse housing needs— some people just need a room. Especially transient workers.	5/9/2018 11:19 PM
17	Micro housing is a short term fix. As new young people start families and grow with our town we will be a town full of tiny housing and no family homes. There are plenty of existing tiny and a shortage of large 3-4 bedroom family homes.	5/7/2018 9:15 PM
18	I think the micro-housing pilot would be very cool.	5/7/2018 6:27 PM
19	I support the lots on Judge street so long as lot prices/development take into consideration any geotechnical issues such as shifting and drainage.	5/6/2018 6:42 PM
20	I need to know more about the micro-housing option before I can decide whether I support it or not. How will the City determine who will be managing these lots? Will they be operated under a lease? Will these lots be serviced? What will the building limitations be on these lots (i.e. how many micro houses per lot, how long can a unit stay in place before it needs to be relocated, etc.). The information provided is far too limited to expect a reasonable understanding of this aspect of the plan and to form an informed opinion.	5/6/2018 10:55 AM
21	the lot that is drawn between Shmidt's property and Flynn's property is the driveway that gives access to our home	5/4/2018 6:05 PM
22	this seems to be the lower impact development folks want , even along front Edawrd to george small detached houses or "tinyhouses" that would fit in with the more rustic quirky culture of the northend,and at the same time having a low impact on the ecology of the area that we all appreciate . we have been hauling water and pooping in holes(compost toilets) for years and like it just fine. the north should stay a place where you need to carry your water , it keeps you in shape in the winter ! theses allready seasonal water up front to whitehouse cabins. this policy of not selling lots because they dont have servises that ive herd is going to cost the city alot to make this project happen. why not promote alternative soulutions and set an example while cutting the cost by passing it to the future owners they can put in compost toilets and water tanks perhaps somesort of common grey water system the city can hook up ?	5/4/2018 11:23 AM
23	Micro housing projet seem like a good ideal that will suit the environment of northend and will suit the integrity of this neighbourhood..it would not need the entire northend to be nuke and filed with white chanel .. I feel this should be spred over more of those development lot .. Eco frendly, environment friendly. Little housing would insert themself in northend and would allow nature to remain and florists.	5/4/2018 11:12 AM
24	No mobile or trailered homes	5/3/2018 3:34 PM
25	Interesting pilot project idea!	5/1/2018 10:02 PM

Q8 Which area of Dawson City do you live in?

Answered: 51 Skipped: 9



ANSWER CHOICES	RESPONSES	
North End (north of Albert Street)	43.14%	22
South of Albert Street in the Historic Townsite	31.37%	16
Other	25.49%	13
TOTAL		51

Q9 Please share any general comments, ideas, or concerns you have about the North End planning process or concepts here:

Answered: 32 Skipped: 28

#	RESPONSES	DATE
1	I understand that the purpose of this exercise is to investigate the practicality of opening new lots in the north end, thus addressing the housing problem in Dawson and possibly lowering the per lot cost of bringing piped water and sewer to the north end. I cannot see how the development of new roads in the neighbourhood will achieve the second goal, when it would be possible to open a very similar amount of lots to development by using the existing 1st, 2nd and 4th avenues for piping and opening only land which can be accessed off one of these three streets. This would also allow continuous green space alleviating the ecological concerns of fragmentation. I would recommend that the planning team go back to the drawing board and come up with options that do not involve new roads, do not fragment green space and include cost estimates for the infrastructure & roadways for each concept, as this information is crucial to allow Dawsonites, and north end residents in particular to make an informed consideration and comment on the proposals. I understand and appreciate the need for housing in Dawson, however it is disturbing to me that the north end is being considered for development when there is an entire block in the center of town being used for an RV park - this would be an ideal location for high-density housing, while the north end should be kept as a low-density area, primarily wild greenspace until other options closer to the downtown core, and already disturbed sites in the south end of town are developed as housing sites. I would also like to see the City encourage owners of empty lots/buildings to develop them before eroding the green space in the north end, and irrevocably changing the character of one of the most unique and authentically "Dawson" neighbourhoods left in town. There is plenty of space for people who want to live "just like everyone else" - let's keep the north end for those who are happy with something a little bit different.	5/13/2018 11:55 PM
2	I am concern about the city	5/13/2018 10:19 PM
3	The North End planning process pushed by the city of Dawson have failed to consider the concerns of the North End residents regarding the unwanted development of this unique area of town. The North End used to be frowned upon by the Dawsonite. It was a working class and mostly native neighbourhood. The aggressive way this project is being carried bring to mind the colonialist ways of the euro-canadian governments in their treating with the traditional inhabitants of the land. The plan has it is presented in this survey fail to take consideration of the impact the development will have on the old residents, on the rent which will likely pike with new and costly lots, on the quality of life, this part of town being know for it's calm, cozy and green qualities, but also on the wildlife which thrives in this haven of wilderness amongst a fast developing settlement. No mere park will provide the diversity and authenticity the natural bushes hold for the many birds, mammals and amphibians who inhabit this fragile wetland and forested habitat. It is also not a secret that the slide as much as the ferry cause a fast erosion process which is even further degrading the fragile equilibrium between human settlement and wild habitat that the North End has been able to provid, for THOUSAND of years.	5/13/2018 8:13 PM
4	While I'm thrilled that more development is taking place, my main concern is the proposed cost of lots. There are many of us who have been waiting anxiously to see what may develop of more housing becoming available, and it was extremely disappointing to learn that this project isn't taking a longer view on how to recoup the costs of the investment required.	5/13/2018 1:36 PM
5	Lot prices are way too high. Small lots 50*60 should be about $25,000. Please listen to comments. Development plan should maximize number of lots. Building requirements should be five years or longer.	5/12/2018 8:33 AM
6	I think it is extremely important to keep the "character" of the north end, keeping it quiet with lots of green space. Also, with almost all of us not conforming to the survey, there has to be a sensitivity to what is already built and occupied. I am very open to new neighbours! But those who live and are invested here should not see decreased property value or quality of life, as much as possible. I am mostly pleased with the ideas presented.	5/12/2018 1:11 AM

7	Gosh, I just love the North End. Please don't ruin it. We've already lost so many cool trails and historic bits (hand-built stairs, etc.) due to the 4th ave extension and the Hakkonson development. I'm not completely against change and I understand the need for lot development, but this just seems desperate and unwise.	5/12/2018 12:34 AM
8	development should be phased from south to north (Albert to Judge) to match existing lot sizes at Edward to locate the plex lots at north end of development	5/11/2018 11:39 PM
9	I feel that all northenders should be living within their lot limits, and if they are on city land, or other land, they should have to move to be within their own limits, or buy the lot that they are currently occupying (when the lots are available for purchase). Just because northend residents have been occupying unowned land for years, it doesn't make it theirs. It is inequitable that they are occupying extra land while there are Dawsonites that are in desperate need of housing and land. Bottom line, everyone should live within the limits of the land that they own, and just because they don't want to change, that shouldn't determine the future of the northend.	5/11/2018 4:42 PM
10	I am not opposed to development in the northend. I just think that the concepts need to be tweaked to better accommodate existing homes in the area. The issues with the existing property owners in the area also needs to be positively resolved. I would hate to see the uniqueness of the northend lost with this development.	5/11/2018 4:18 PM
11	I would like to see more affordable plots – or options for those who cannot afford to pay into a 60,000 plot (which does not include building costs)...	5/11/2018 4:11 PM
12	Go back to the drawing board.	5/11/2018 3:01 PM
13	If new roads are to be opened up they should open up the original old ones in their exact locations not move them all around and make them wide like southern towns and the rest of Dawson. The neighbourhood should not be built with more cars in mind.	5/11/2018 2:35 PM
14	Let's fill in the townsite first before we remove the semi-wild spaces that are in the North End. The CIBC building by the river would also be a cool location for a multiplex.	5/11/2018 11:35 AM
15	I strongly oppose the north end plan. And my friends, associates, and my neighbours oppose it to. You people have no business developing the north end in such a disgusting way. You will suffocate what is left of Dawson city. You will bankrupt the culture that thrives. You will displace people and alienate who remains. And in turn we will have an ugly residential area lurking with people like you. Leave the north end alone.	5/10/2018 10:54 PM
16	These are good concepts. With some tweaks, this neighbourhood would be bettered. Well done. There's lots of work, though, in getting people onside. Work with them and they'll buy in.	5/10/2018 4:30 PM
17	I think developing the north end only makes sense.	5/10/2018 2:35 PM
18	I've lived in a lot of places. One of my fave things about Dawson is it's "urban density" with spectacular wilderness surrounds. It's the best of both worlds - walking distance to amenities and trails. Keep the density so young families can stay!!	5/9/2018 11:21 PM
19	The North End is plagued with issues related to drainage, roads, access, and capacity as it is. The City seems to deflect these concerns at every opportunity, yet wants to expand and further these problems without resolution. The North represents some of the last remaining trees/greenspace in all of Dawson. I really don't understand this plan in the long-term and think pandering to gold companies is sad.	5/7/2018 9:20 PM
20	I think this consultation with the community is great. It's impossible to please everyone, but it should offer some useful ideas and any clear preferences or concerns of residents.	5/7/2018 8:10 PM
21	Pricing seems a bit steep, it's not Whitehorse	5/7/2018 6:24 PM
22	I agree with the comment from the "What We Heard" document that affordable lot prices are a major deciding factor in whether or not to continue to live/work/raise a family in Dawson (as mid-30's professionals).	5/6/2018 6:44 PM

23	I would like to see the quiet and calm nature of the north end preserved if this development was to move forward. Over the past two years I have observed considerable increases in traffic as a result of new developments in the area. This has also resulted in people driving too fast and paying less attention to children playing outside. I fear that with concept 1 third avenue will become a busy thoroughfare that is unsafe for children. I would like to see local traffic only in this area, with reduced speed limits and signage indicating children are at play (maybe even street signs given that third ave is currently unmarked, despite my requests for signage). I am concerned with the high price of the lots that are being developed. Given the increase in the tax base for that result from selling these lots what is the rationale for selling them for such a high price. In 2012 we purchased a 50x100 lot for $28,500. Two years later YG put out a lottery for lots in the north end subdivision. At that time the lot just south of our was priced at $60,000. Now, two years later you are proposing to sell lots of the same size for $90,000. This increase of $30,000 is not reflective of market conditions and should be reconsidered. The local economy cannot support these prices and I fear that we will see the City put the services in at a huge cost and the lots will sit vacant for years because people can't afford them. This is a real risk that needs to be fully considered. I would also like to know what the pricing was based on (this was not discussed in the information package). Overall, I support the development of affordable lots in the north end as long as this development ensures consideration for the look and feel of the area.	5/6/2018 11:06 AM
24	Keep the lots affordable, they should not exceed 70,000 max. Who could afford a lot that was 120,000 plus sewer hook up from road, plus pad, etc. Young people are the future of our community, if they can’t afford to buy a lot and build a home, they will leave. I’d love to see the City take a stance against all the property owners who have lots that have buildings on them that are derelict, rotting, full of crap-these are full of great development potential, but alas will remain as eyesores for our community. I’d also like to know why there’s no development around the mayor’s house?! Everything but, kinda suspicious?! I cannot believe the prices you want to charge for lots...a damn shame.	5/5/2018 12:07 AM
25	I think opening lots along 2nd avenue is a good idea, but the land is a bog there, and the cost of digging them out and laying a proper foundation would be very formidable. I wonder who will shoulder these costs. The idea of a lot at the bottom of our driveway concerns me the most of course	5/4/2018 6:25 PM
26	I dont understand why greener options havent been conciderate for this part of town .. It would be a perfect concept of development for this part of town... Water tank with water delivery and compsted toilet and so and so ... A perfect projet to conserve the integrity of this erea where People have been living this way for a long time already .. And it would reduce major cost and impacts on the environment of of this beautifull place witch northend is .. At the same time educated and open mind the citizens of dawson about their daily waste and consuption of water .. There is no need for 20 littre of water wasted for every piss that peoples are taking .. I dont thin moving 40 New property in northend is the way to solve housing problem in dawson when there is other place that would suit a considerate amount of hoyse for lower cost. That development projet will destroy why northend is northend and why people love it .. And honestly i am scare of the integrity of the people that been livi g there and the wY they been living for a long time by a Hadding 40 new house And occupant that wouldn't understand north end As it is and make ancestral resident change their ways of living to suit that new devellopement . i personnaly dobt feel this projet to be concerns about people ,flore and faune that allready live in this neighbourhood. It with sad regret that we willl see the last of what use to be dawson northend life getting torn apart to white chanel And 4 plex ... My sincere condolences.. We will miss you dear northend. What next, a bridge, cause the ferry will be be to noise ... And let kick those horses out of there. . they stink. .. What about all those old house around we should fine those people to put them up to our new neighbourhood standard ... Can t wait to see all the good comming out of it ...	5/4/2018 12:33 PM
27	i hope we see some of the suggestions in future plans this time. specifically about the road ! we all know dawson needs more affordable houseing, but we dont want to see the neighborhood runined just so you can recover costs ! im also concerned the consultants dont have a good idea of how we live here and the disarming way they talk to people is annoying . we arnt children about to throw a temper tantrum. Being civil ,respectful ,reasonable avoiding conflict in this discussion i understand but its annoying especially when in the end you dont feel like your being lisined too. soo maybe try to give real answers insted of beating around the bush. thanks sorry if thats harsh i know this is a tuff part of your job dealing with residents but im just being honest.	5/4/2018 11:46 AM
28	The planning process has been extremely one sided, without any proper consideration of important aspects like the quality of living and how your "fit as many people into the north end" & "make as much money as we can" mentality is.	5/3/2018 5:17 PM

29	I don't like either concept enough to support either although I supported not over the other as a preference earlier	5/3/2018 3:36 PM
30	I believe that this is a good step in the right direction. My only comment on the matter is that my hopes are that the city does not price this lots to high. Affordable housing starts with the lot prices. I want to see this community grow and have people that want to stay here. More dollars will be left in the local economy that way instead of vacant lots priced to high. I'm not suggesting selling the lots for cheap but a fair price.	5/3/2018 10:02 AM
31	It looks like a good mix of green space to keep character and usable lots to help with the housing shortage.	5/2/2018 8:09 AM
32	I Lived on duke for the past year, love the north end, i like both concepts although i prefer the road on concept 2. I do find that if you are hoping to have young professional types as a target which it feels like you are these lots are too expensive. I am really glad this is happening and in general I think you are going about it in all the right ways! Lots of support.	5/1/2018 10:02 PM

Appendix D

Overview of Development Concepts
April 30, 2018



Overview of Development Concepts

April 30, 2018

1. Introduction

The following overview is intended to orient City of Dawson Mayor and Council to the two development concepts for the North End that will be released for public comment on May 1, 2018. The two concept designs and accompanying servicing diagrams should be reviewed in tandem with this report for complete context.

2. Summary of Options

The Planning Team has prepared two development concepts, the primary difference between them being road layout. Both concepts include a variety of sub-options specific to the 10-lot block B of City land located between Front Street and 2nd Avenue. These sub-options range from a small number of multi-residential building lots to twelve small (50 x 60/70 ft) lots to six large (50 x 130 ft) lots. In other portions of the planning area, there is far less flexibility due to terrain and other challenges.

Explanatory notes accompanying both concept designs include:

1. Concepts are intended to be highly conceptual and final results may vary.
2. Some lot sizes indicated are estimates only. Dimensions are indicated in feet.
3. Historical survey in planning area is comprised primarily of 50 x 60 ft lots.
4. Numerous surveyed lots in the planning area are not highlighted and considered extraneous to concept review.
5. George Street would be widened.
6. Lot size categories are approximate as follows:
   - Small – 50 x 60 ft
   - Medium – 50 x 90 ft
   - Large – 50 x 130 ft
7. Housing unit estimates assume:
   - Lots zoned for four-plexes are built out accordingly
   - A maximum of one secondary suite permitted on larger lots only
   - Micro-housing project accommodates 4 units
8. Concepts assume that encroachments impeding new development are addressed in cooperation with private landowners involved

A high-level comparison of the two concepts is included in Table 1 below:

	Concept #1	Concept #2
Number of lots	26-35	22-31
Housing units	33-41	29-37
Lot size distribution	Lot sizes (outside of Front Street block) o Small – 11 o Medium – 10 o Large – 2	Lot sizes (outside of Front Street block) o Small – 4 o Medium – 13 o Large – 2
Road layout	Closure of Edward St, creation of 4 cul-de-sacs and re-opening of portion of historic Steele Ave	Closure of Edward St, construction of new road connecting 2nd Ave to (current) 3rd Ave, eastern block of Judge St. converted to one-way
Pilot project	Affordable micro-housing project	Affordable micro-housing project
Neighbourhood amenity space	Paul Denhardt cabins neighbourhood park	Paul Denhardt cabins neighbourhood park
Advantages	• Variety of lot sizes to promote a range and mix of housing types • Promotes efficient use of land • Retains some greenspace within the development • Pedestrian flow through area maintained • Creates neighbourhood park space • Requires 3 relocations of privately owned buildings that are encroaching on City laneways and/or land • Cul-de-sacs help preserve quiet, "off the beaten path" character • Re-opens a portion of historic Steele Avenue	• Variety of lot sizes to promote a range and mix of housing types • Promotes efficient use of land • Retains some greenspace within the development • Pedestrian flow through area maintained • Creates neighbourhood park space • Requires 1 relocation of privately owned buildings that are encroaching on City laneways and/or land • Through road may facilitate better vehicular traffic flow
Disadvantages	• Need for multiple relocations of privately owned buildings that are encroaching on City laneways and/or land • Cul-de-sacs disrupt vehicular traffic flow and complicate snow removal • Interior roads are more narrow than typical right-of-way width (15 vs 20m min) • Impacts about 10 historic tent platforms	• Management and compliance around transition from two-way to one-way road may be challenging • Park setting may be less tranquil next to through road • Through road may require large culvert/additional cost • Impacts about 10 historic tent platforms

Table 1. Comparison of North End Development Concepts



DEVELOPMENT CONCEPT #1

SUB-OPTIONS A-E

a) Six 50x130 single family lots

b) Three 50x130, six 50x60-70 single family lots

c) Twelve 50x60-70 single family lots

d) Two 50x130 single family, two 4-plex lots

e) Three 4-plex lots



LEGEND

- New lot
- Park/protected area
- Inter-neighbourhood greenspace
- Private lot
- Reconfigured private lot
- City lot - strategic reserve
- Pedestrian access

SCALE: 1:1000

20 0 10 20 40 60 80 100 metres

CONCEPT #1 SUMMARY

- **26-35 lots** available for sale
- Distribution of **lot sizes** outside of Front Street block (sub-options A-E):
  - Small – 11
  - Medium – 10
  - Large – 2
- Potential for **33 – 41 housing units** total (including Front Street block)
- 1 City lease for **affordable micro housing** project

EXPLANATORY NOTES:

1. Concept is presented for discussion purposes: final results may vary.
2. Some lot sizes indicated are estimates only. Dimensions are indicated in feet.
3. Historical survey in planning area is comprised primarily of 50x60 ft lots.
4. Numerous surveyed lots in the planning area are not highlighted and considered extraneous to concept review.
5. George Street would be widened.
6. Lot size categories are approximate as follows:
   - Small – 50 x 60 ft
   - Medium – 50 x 90 ft
   - Large – 50 x 130 ft
7. Housing unit estimates assume:
   - Lots zoned for four-plexes are built out accordingly
   - A maximum of one secondary suite permitted on larger lots only
   - Micro-housing project accommodates 4 units
8. Assumes that encroachments impeding new development are addressed

DAWSON CITY NORTH END PLAN

DEVELOPMENT CONCEPT #2

SUB-OPTIONS A-E

a) Six 50x130 single family lots

b) Three 50x130, six 50x60-70 single family lots

c) Twelve 50x60-70 single family lots

d) Two 50x130 single family, two 4-plex lots

e) Three 4-plex lots



LEGEND

- New lot
- Park/protected area
- Inter-neighbourhood greenspace
- Private lot
- Reconfigured private lot
- Pedestrian access

SCALE: 1:1000

20 0 10 20 40 60 80 100 metres

CONCEPT #2 SUMMARY

- **22-31 lots** available for sale
- Distribution of lot sizes outside of Front Street block (sub-options A-E):
  - Small – 4
  - Medium – 13
  - Large – 2
- Potential for **29 – 37 housing units** total (including Front Street block)
- 1 City lease for **affordable micro housing** project

EXPLANATORY NOTES:

1. Concept is presented for discussion purposes: final results may vary.
2. Some lot sizes indicated are estimates only. Dimensions are indicated in feet.
3. Historical survey in planning area is comprised primarily of 50x60 ft lots.
4. Numerous surveyed lots in the planning area are not highlighted and considered extraneous to concept review.
5. George Street would be widened.
6. Lot size categories are approximate as follows:
   - Small – 50 x 60 ft
   - Medium – 50 x 90 ft
   - Large – 50 x 130 ft
7. Housing unit estimates assume:
   - Lots zoned for four-plexes are built out accordingly
   - A maximum of one secondary suite permitted on larger lots only
   - Micro-housing project accommodates 4 units
8. Assumes that encroachments impeding new development are addressed

Appendix E

Overview of Revised
Development Concepts
June 6, 2018

Overview of Revised Development Concepts

June 6, 2018

1. Introduction

The following overview is intended to orient City of Dawson Mayor and Council to three refined elements of Development Concept #2 for the North End that were created subsequent to the Council presentation and North End resident session on May 15, 2018.

2. What We Heard

The second round of public engagement around the North End Plan introduced Concepts 1 and 2 for review and input between May 1 and 11. 60 people responded to an online survey[1] and several North End residents reached out in person and via e-mail to discuss their ideas and concerns with the Team. In addition, approximately 20 people attended the Council session on May 15th.

Concept 2 was slightly more supported than Concept 1, with 38% in support and 34% not in support. A majority of survey respondents supported Front Street sub-option B (mix of small/large lots) followed by sub-option A (all large lots). The following is a summary of "what we heard" about both concepts:

- *There are too many lots proposed in both concepts – level of density will destroy natural values & greenspace*
- *Cul-de-sacs are awkward (*others felt they would create a quiet, unique character)*
- *One-way streets won't work*
- *Historic street grid should be respected: don't close Edward Street!*
- *Concept 2 road is too wide and segments greenspace (*others felt it was a more elegant layout vs. cul-de-sacs)*
- *Current property owners should receive right-of-first refusal to purchase new adjacent lots*
- *Servicing may not be affordable or desired by some existing residents*
- *Historic structures should be respected and not moved where possible*
- *Lot prices are too high*
- *Other areas in Dawson may be more appropriate for development*
- *Small lots will results in off-street impacts and "sprawl" (*others felt small lots were crucial for affordability and starter homes)*
- *Some support the micro-housing*
- *Encroachments of current property owners should be addressed prior to planning new development*
- *Challenging ground conditions may result in ongoing maintenance to underground infrastructure*

[1] The Team notes that the geographic distribution of survey participation changed significantly between the first and second online surveys, with 43% of respondents living north of Albert Street for Survey #1 versus 23% for Survey #2.

2. Decisions Made to Date

After discussing resident concerns and the development concepts in camera, Mayor and Council made three key decisions on the evening of May 15, 2018. These included:

1. Concept 2's general layout was selected due to its perceived higher likelihood of success in addressing the complicated terrain, road access, heritage resources and encroachments present in the southeast (Typhoid Cemetery/3rd Avenue) portion of the planning area;
2. The general level of density and balance between greenspace and developed areas was deemed appropriate for the final concept; and
3. Sub-option B for Front Street was selected to move forward into the final concept.

Council further instructed the Planning Team to further explore the following:

1. A revised Concept 2 road layout(s) that could better address resident concerns; and
2. Whether opposition to closing Edward Street incorporated a full understanding of continued pedestrian access at this location.

The second request created project timing and budget implications that administration and the Project Manager could not successfully resolve. Instead, the decision was made to support Council with selecting the final design elements and present these for final discussion and public comment during a Committee of the Whole meeting on June 19th. As such, the following Concept 2 revisions have retained the closure of Edward Street previously envisioned for the time being.

3. Concept 2 Revisions

Overview of Design Constraints

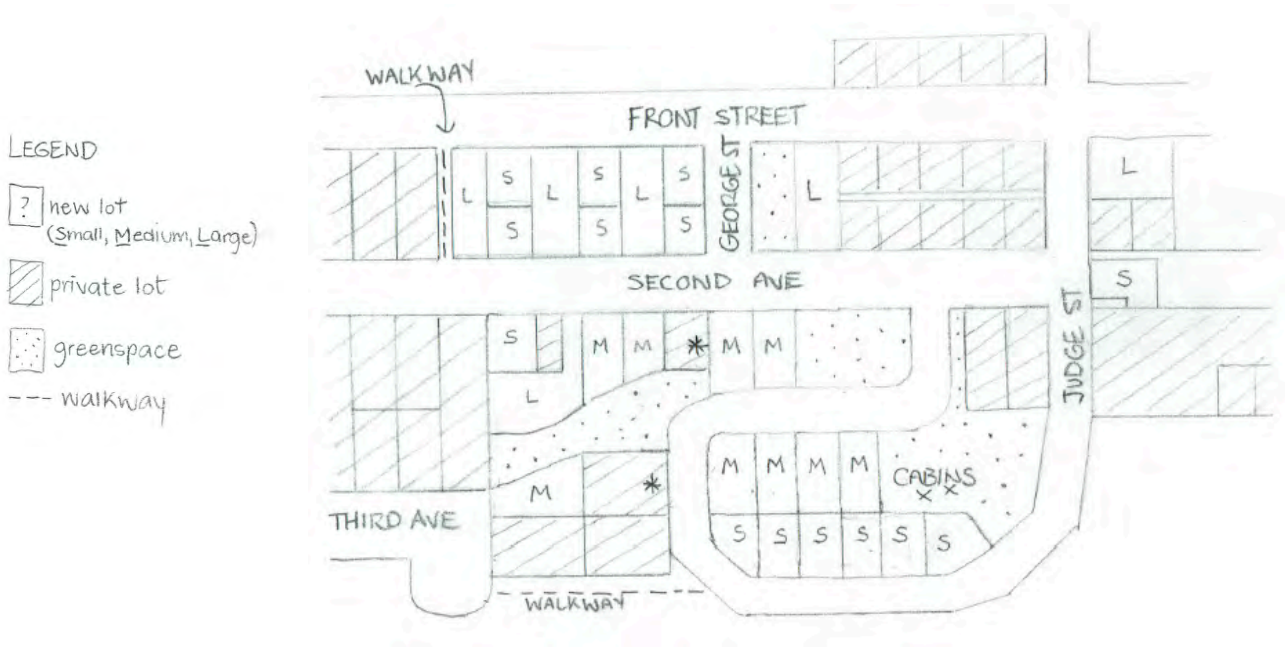
Concept 2 is "anchored" by a central design challenge: the consolidation of private parcels in the Typhoid Cemetery area and closure of the steep corner of 3rd Avenue, and the accompanying need to provide access to private parcels from the north. The other major constraint is the narrow width of the eastern end of Judge Street and need to undertake both drilling/blasting of steep bedrock and relocation of a large historic building that encroaches on the road right-of-way to create adequate width for safe two-way travel.

In response to both Council and public concerns about minimizing impacts to historic buildings to the extent possible, the Team determined that widening Judge Street was not a suitable option to pursue at this time. All revised concepts assume that any new access road and the portion of Judge Street east of 2nd Avenue is designated for one-way travel only. As such, they share the same underlying advantage and disadvantage of quieter/narrower streets and unique character and potential inconvenience and need for driver and resident adjustment.

The other general development constraint that has a major bearing on road access in the planning area is the prevalence of permafrost and recommendation in the geotechnical study that new road construction avoid cut and fill techniques and instead utilize fill construction. Generally speaking, a maximum grade of 8-8.5% and right-of-way width of 20 metres (for two-way travel) is desired for new residential roads.

Options 1-3

The Team developed three variations on Concept 2 for consideration and discussion by Mayor and Council. Please note that lot configurations are still highly conceptual; the Team's main focus was on access and resulting impacts on existing private lots and development potential overall. The following is an overview of each option and its advantages and disadvantages.

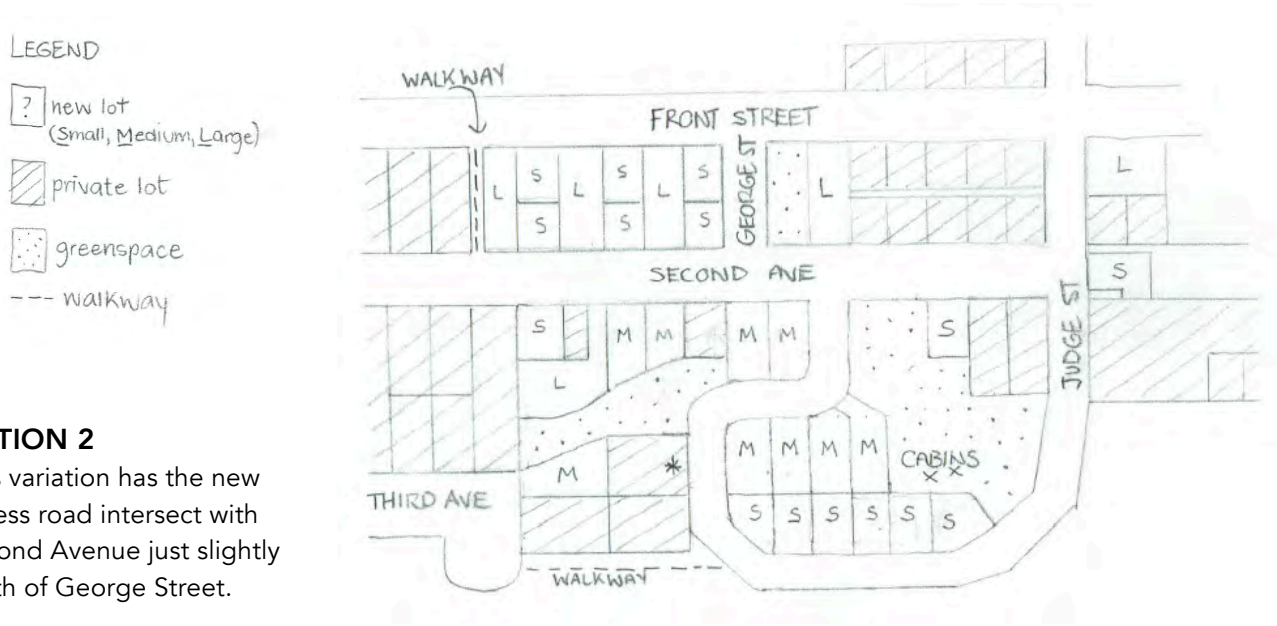


OPTION 1

This closely resembles the original Concept 2 but leaves a vegetative buffer between the new access road and private property.

Advantages: Requires the least amount of fill by working with the existing grades in the area; maximizes developable land for housing and facilitates a mix of small/medium lots; creates minimal need to re-grade existing properties to tie into new road elevations; Paul Denhardt cabins are more accessible by vehicle.

Disadvantages: Alignment intersects a debris flow channel and drainage area, necessitating a (possibly) large culvert; greenspace is fragmented; Paul Denhardt cabins are more accessible by vehicle; overall road configuration less desirable with close proximity to Judge Street and more traffic disturbance for the two private properties "sandwiched" in between.



OPTION 2

This variation has the new access road intersect with Second Avenue just slightly north of George Street.

Advantages: Alignment avoids the debris flow channel and drainage area, likely avoiding the need for a (possibly) large culvert; maximizes developable land for housing and facilitates a mix of small/medium lots; avoids additional fragmentation of greenspace in the area and creates a "green corridor" contiguous to the envisioned Paul Denhardt cabin park space; need to fill across 2nd Avenue impacts City property and new lots more than existing private properties

Disadvantages: Requires significantly more fill than Option 1 to achieve design grade with the naturally steep terrain between 2nd and 3rd avenues; requires fill and regrading of 2nd Avenue that will add to cost.



OPTION 3

This variation has the new access road intersect with Second Avenue just slightly north of George Street.

Advantages: Alignment avoids the debris flow channel and drainage area avoiding the need for a (possibly) large culvert; retains the most contiguous greenspace of any option and supports the "green corridor" linking to envisioned Paul Denhardt cabin park space.

Disadvantages: Requires significantly more fill than Options 1 or 2 to achieve design grade with the naturally steep terrain between 2nd and 3rd avenues; requires fill and regrading of 2nd Avenue and George Street (to Front Street); creates significant grade differences (~ 3.5 metres) between new road/2nd Avenue and private residence at southeast corner of 2nd Avenue/new road; need for extensive regrading will add to cost.

4. Cost and Feasibility

The elevation profile sketches contained on the following pages were intended to help Council understand at a basic level some of the potential cost and feasibility implications of Options 2 and 3. The top profile shows Second Avenue, which has a 6.6% grade currently. The middle profile shows the profile of the terrain for Option 2, and the bottom profile shows the terrain profile for Option 3.

We draw your attention to the following:

- Option 3 will require significantly more fill than Option 2 to achieve a target road grade of ~8-8.5%. Not only will that fill extend 2nd Avenue to George Street (to Front Street approximately), but fill will be required along a longer section of 2nd Avenue. This will increase road construction costs.

- Option 3 will result in the new access road grade (at the intersection with 2nd Avenue) being in the range of 3.5 metres higher than adjacent parcels of land. The private residence at the southeast corner of 2nd Avenue and George Street will be significantly impacted and access would be compromised.

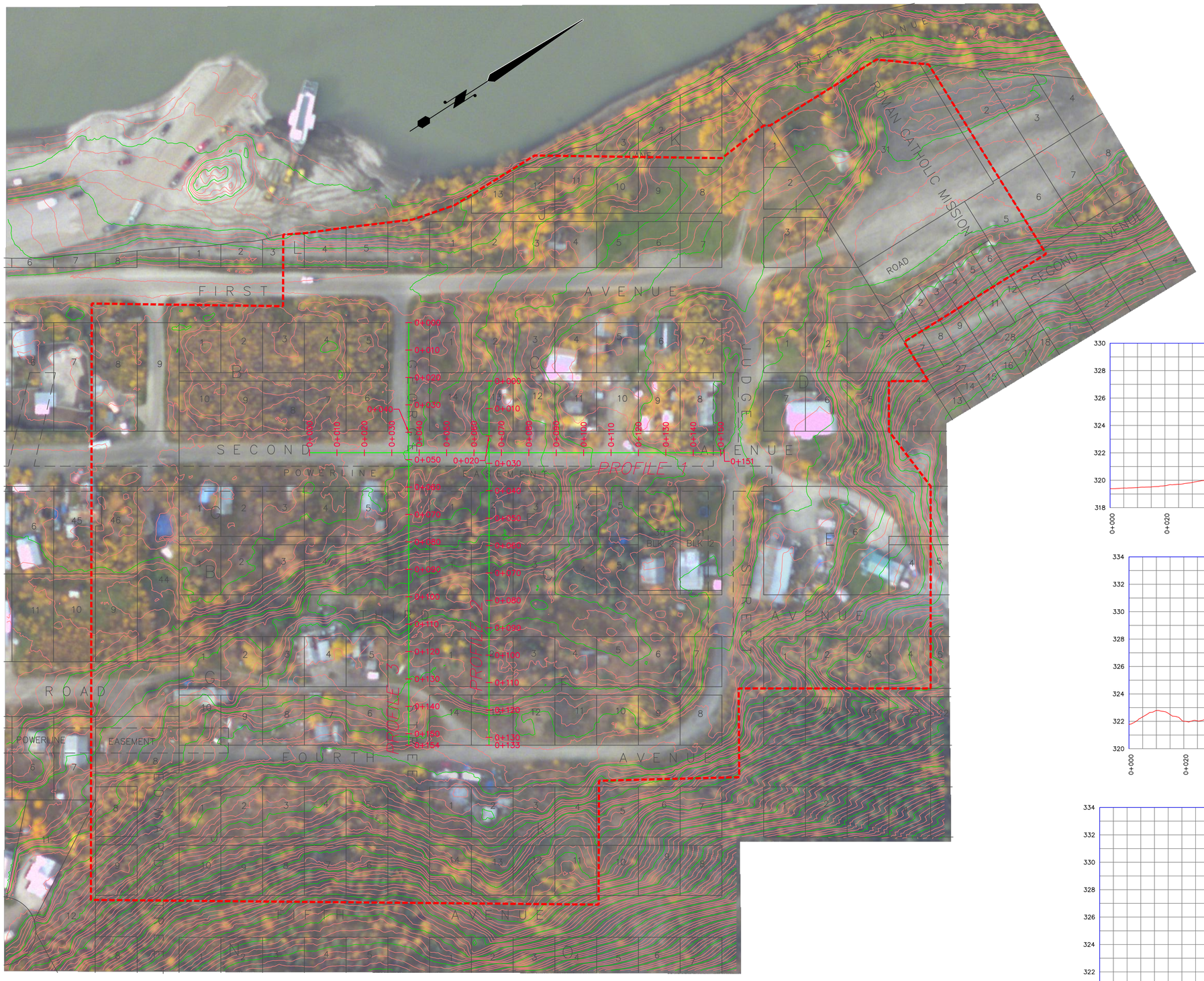
- Option 2 will result in the new access road grade (at the intersection with 2nd Avenue) being in the range of 3.0 metres higher than adjacent parcels of land. However, the alignment of the road means that the proposed City micro-housing lease and new lots are implicated more so than existing residences. Nonetheless, these grade differences will necessitate additional Some re-grading will likely be needed to ensure existing private properties maintain safe sightlines and driveway grades for 2nd Avenue access but disturbance should be minimal.

DAWSON NORTH END PLANNING

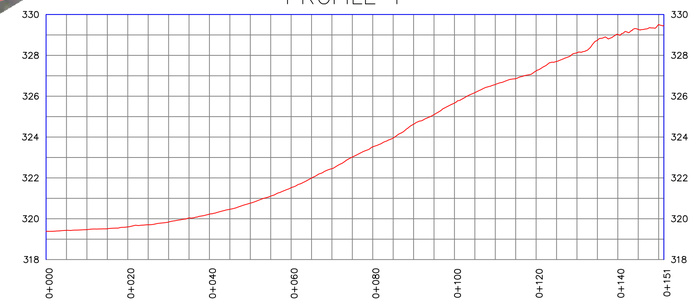
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15 0 7.5 15 30 45 60 75 metres

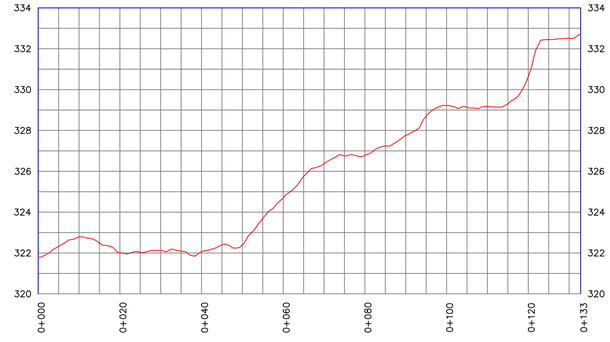
Study Area



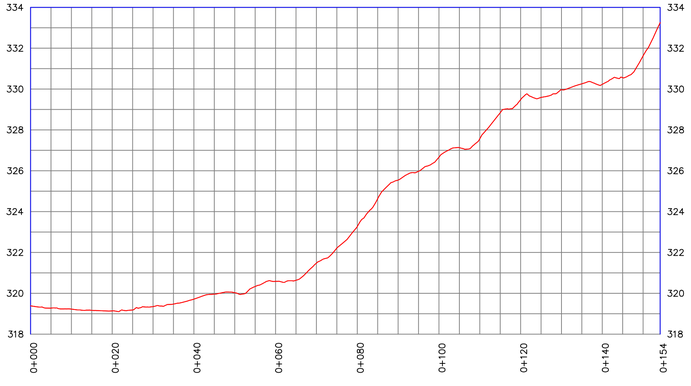
PROFILE 1



PROFILE 2

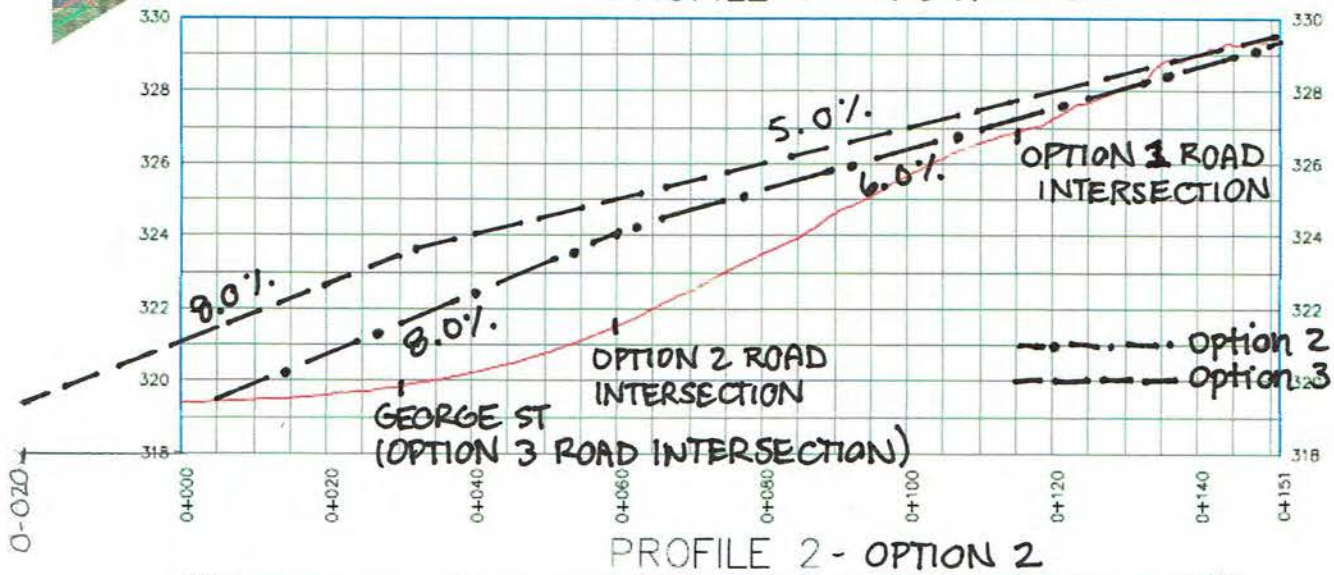


PROFILE 3

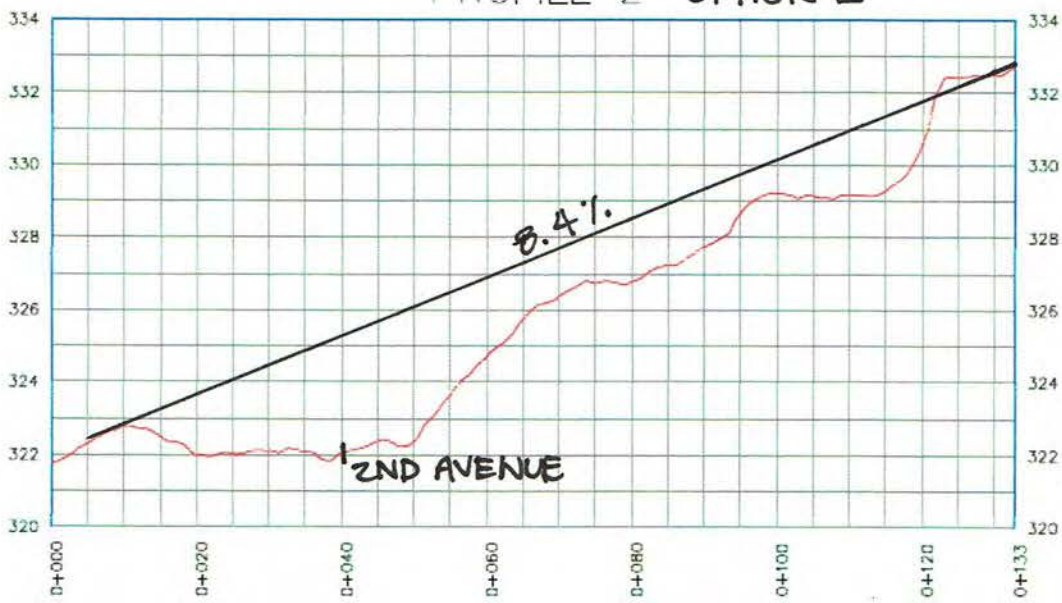


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PROFILE 1 - 2ND AVENUE



PROFILE 2 - OPTION 2



PROFILE 3 - OPTION 3

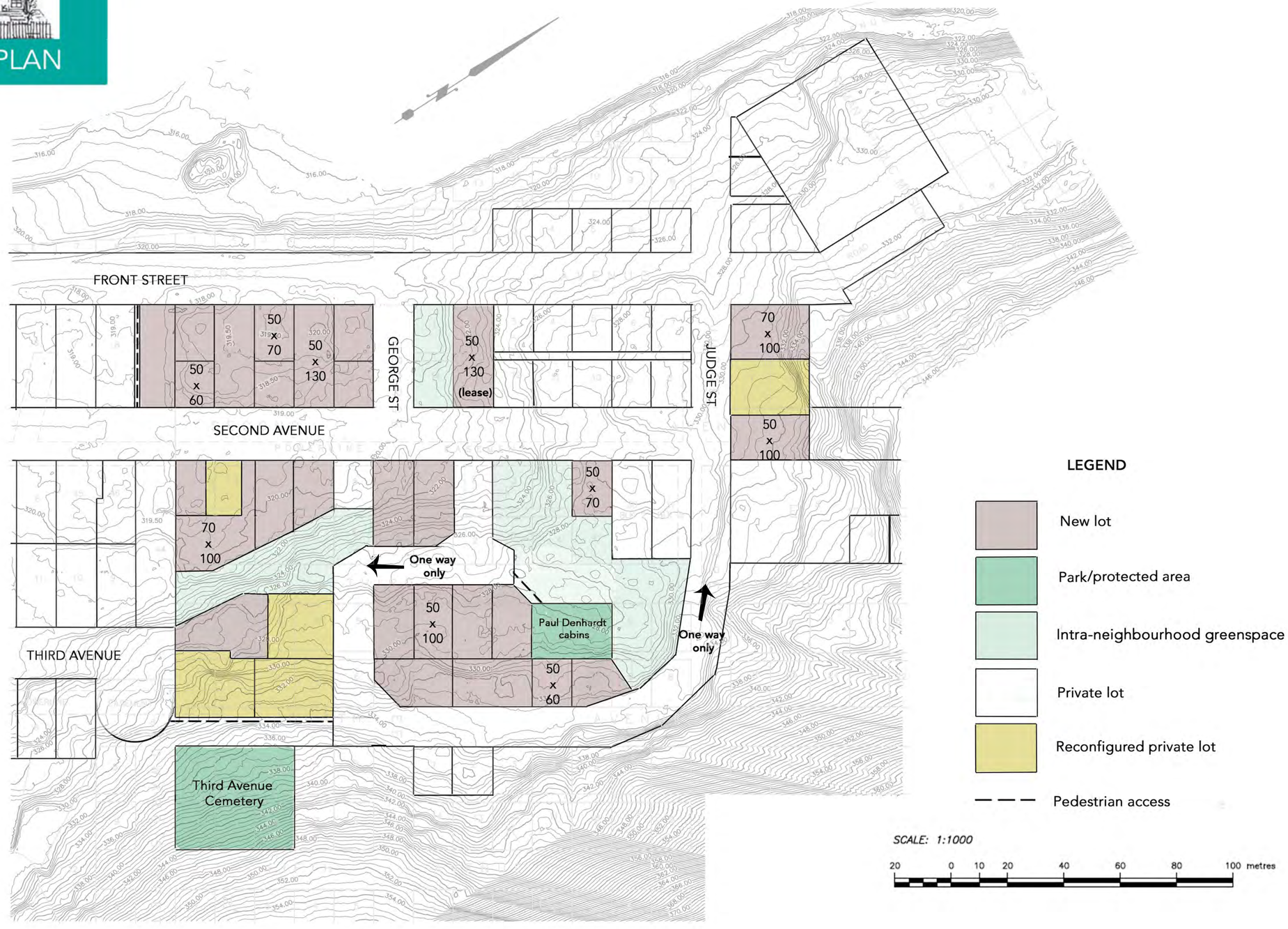


Appendix F

Final Development Concept

DAWSON CITY NORTH END PLAN

FINAL DEVELOPMENT CONCEPT



CONCEPT SUMMARY

- **28 lots** available for sale
- Distribution of **lot sizes**:
  - Small – 10
  - Medium – 12
  - Large – 6
- Potential for **a minimum of 28 new housing units**
- 1 City lease for **affordable micro housing** project

Appendix G

Housing Best Practices

Summary of Housing Best Practices

The Scope of Work included a review of best practices related to "the provision of a range and mix of housing". The Project Team reviewed a range of literature on the topic and presents the following "Top 10" practices that it feels are most applicable to the issue of housing range and mix in Dawson City:

#1. *A **complete community** enables people of different social and financial circumstances and at different stages of life to exercise choice about where to live.* *Providing a range and mix of housing – including affordable and multi-family - options is fundamental to that choice. There is a growing body of knowledge pointing to housing and neighbourhood diversity as an indirect social determinant of health, wellness, and productivity for lower income individuals in particular.*

The Moral and Ethical Imperative for Affordable Housing

The affordable housing challenge has become extreme in many communities worldwide, sparking conversations about the meaning of housing and its role in the health and well being of communities.

Perhaps the most significant thread of these conversations is the concept of housing as a human right, enshrined in the Universal Declaration of Human Rights, Internal Convenant on Economic, Social and Cultural Rights and numerous other United Nations treaties (all of which Canada is a signatory to). "Housing as a human right" has become a cornerstone of housing plans across Canada.

Some jurisdictions are drawing clear connections between "housing as a human right" and the role of municipalities in facilitating housing supply and options. For example, the Ontario Human Rights Commission published a 2012 guide for municipalities to understand the human rights implications of development decisions.

The professional code of ethics for planners across North America either indirectly or explicitly states that planners have a responsibility to recognize and support the needs of under-represented and disadvantaged people and balance the needs of individuals with the broader needs of communities.

#2. *Neighbourhood-level conceptual planning is increasingly adopting a **performance-based approach** by focusing on outcomes first, and prescriptive standards second.* *This promotes innovation, minimizes bias, and provides flexibility by enabling a variety of design responses to changing conditions and project circumstances.*

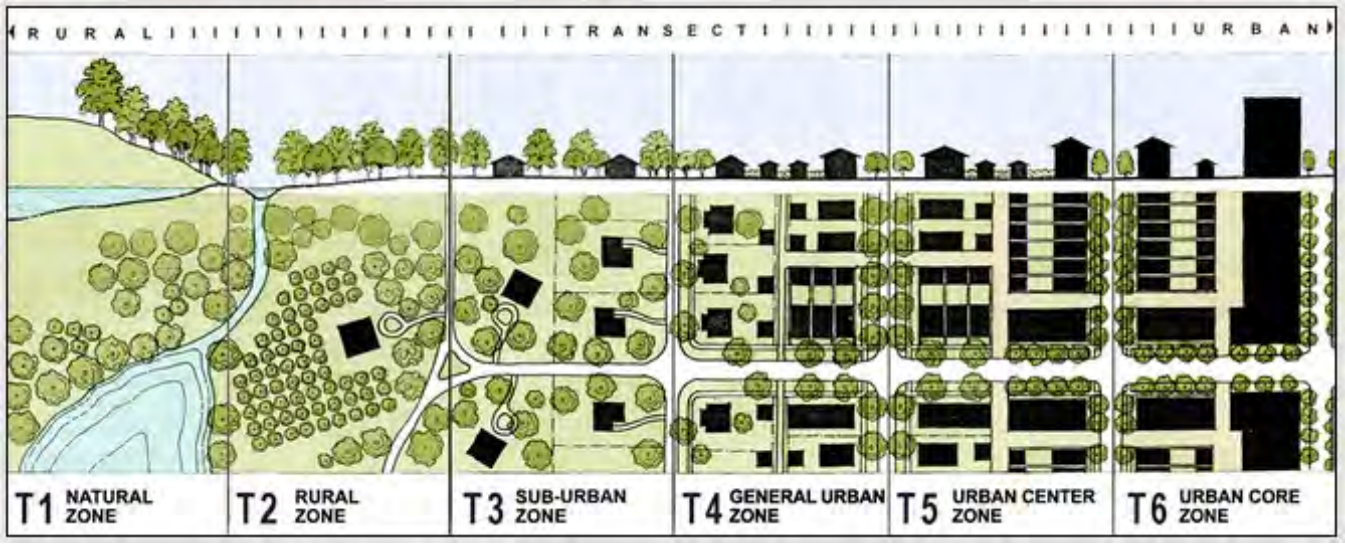
#3. *The concept of **"complete" neighbourhoods** dictates that:*

- *Residents are well connected within and to the surrounding community (via trails, roads, etc.);*
- *Special character and respect for place is upheld;*
- *Inclusiveness is achieved through housing diversity and public spaces for all ages;*
- *A full range of transportation options is available, including active ones;*
- *Self-sufficiency is promoted through local food production, accessibility, and recreation; and*
- *Resident safety and security is woven into design of streets, building, public and private spaces.*

#4. ***Mixed density developments*** *have a mix of housing types that are not segregated from one another.* *These developments may integrate apartment buildings, town homes, semi-detached and detached dwellings into the same neighbourhood.* ***Transect model planning*** *is a way of ensuring that developments are compatible with adjacent land uses and creating a core cohesive area by:*

- *Allowing increased height and density on the outside of blocks, and maintaining lower heights and density on the inside of blocks*
- *Building along mixed-use corridors and keeping most traffic along central corridors*
- *Situating less dense developments in the middle of blocks that have less traffic, but have access to the amenities of the more dense corridors*
- *Slowly 'stepping up' density over several blocks so that each development is only slightly more/less dense than the adjacent development*
- *Organizing commercial areas around central commerce corridors and planning them as an extension of existing commercial areas to create continuity*

Above: A rural-to-urban transect example (Source: Center for Applied Transect Studies)



#5. *Use of* ***zoning and development guidelines*** *to support higher density/more intensive residential development forms that uphold the scale and character of existing low density single family areas, including:*

- *Laneway housing – frontage onto a laneway that would normally be a service road/garage access*
- *Duplexes, tri-plexes, four-plexes – no side-lot land wastage on parcels*
- *Small lot subdivisions – narrow lots with small side-lot setbacks, maximum 45% lot coverage to prevent over-densification, shorter front-lot setbacks and porches to keep "eyes on street"*



Left: An example of a small lot subdivision situated within larger lot development

(Source: modative.com)

#6. **Mixed use** – or mixed **commercial-residential** areas - create a symbiotic relationship between the needs of both residents and local businesses and foster economic growth. Mixed use should consider:

- *Locating residential or office commercial uses above street-level commercial businesses*
- *Work/live, as well as live/work, opportunities*
- *Stepping back upper storeys to provide for a more pedestrian scaled environment and to reduce the street "wall"*
- *Adaptability to current and future market trends*
- *Form-based zoning that includes specific range of heights and site-specific regulations*
- *Good access and visual prominence, including separate and well-defined commercial and residential entrances*

*#7. Neighbourhoods should be designed for the "human scale" – a design philosophy that uses human experience of a place, as well as the needs of people as design challenges, to create places that work for everyone. Relevant elements of **inclusive and people-oriented design** include:*

- *Road designs value pedestrians over vehicles*
- *Garages are situated in the back of residences versus front*
- *"Permeable" (facilitates movement of people in all directions) grid design*
- *Natural and architectural landmarks should be 'framed' (or aimed at) by the street orientation*
- *Sense of place is facilitated socially through high-quality common, or 'public realm' spaces that "break up" urban areas and create mid-block connections*
- *Narrow residential streets*
- *Square grid design (optimal 450' x 450' size), which can be adapted to a Heritage Block Size that accounts for historical design of roads while mimicking areas that function best)*

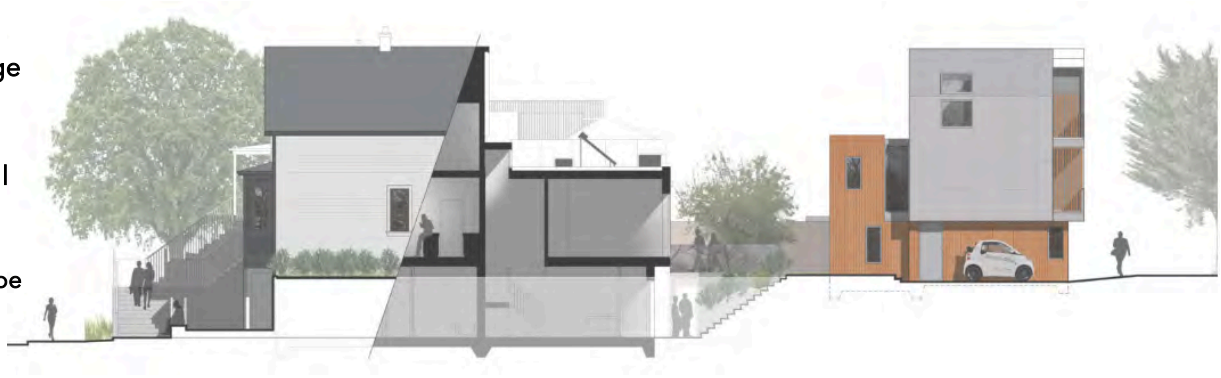
#8. Affordable housing and single-occupant dwelling needs are being increasingly accommodated through measures such as:

- Pocket villages – subdivision comprised of 'tiny homes' (<1000 ft^2) organized around common amenities, strictly limited parking and indoor/outdoor living spaces
- Micro-apartments – affordable, highly efficient units heavily reliant on space-sensitive design

#9. Municipalities are exercising a broader range of policy and program tools to ensure affordable housing, including density bonusing, inclusionary zoning, rent restrictions, resale price restrictions, secondary suite policies, housing funds, and demolition policies.

Left: Heritage home facing street and multiple infill units behind

(Source: Shape Architecture)



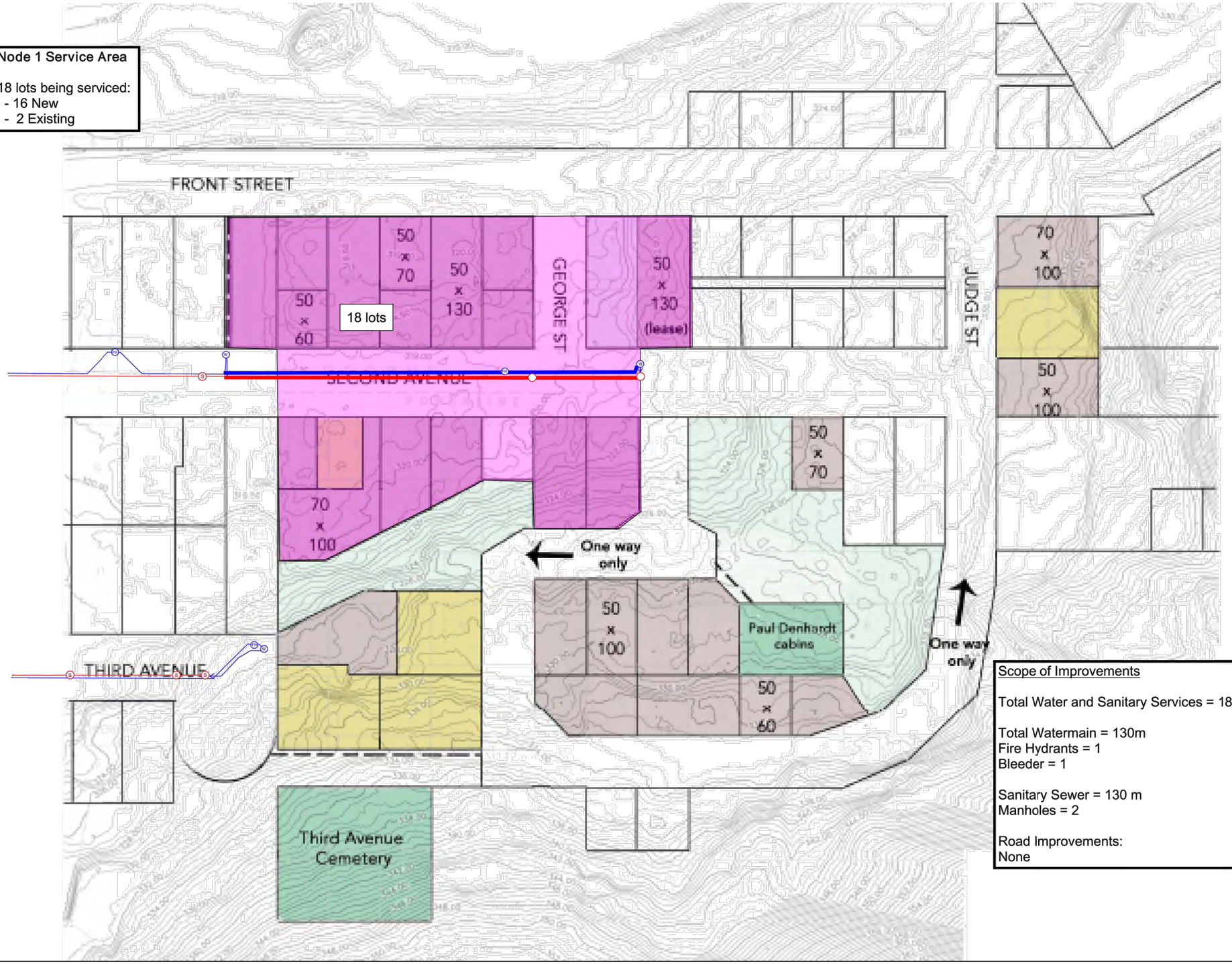
#10. Some communities with significant **heritage** values are moving towards more flexibility to **support density**, such as on and off-site density bonuses, off-street infill, etc.

Appendix H

Servicing Concepts

Node 1 Service Area

18 lots being serviced:
- 16 New
- 2 Existing



Scope of Improvements

Total Water and Sanitary Services = 18 lots

Total Watermain = 130m
Fire Hydrants = 1
Bleeder = 1

Sanitary Sewer = 130 m
Manholes = 2

Road Improvements:
None

MORRISON HERSHFIELD | Yukon | The City of Dawson

Dawson City North End Plan
Node 1 Servicing Concept

NOT TO SCALE

1801893
Jun 25, 2018

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Node 2 Service Area

Total of 31 lots being serviced:
- 19 New
- 12 Existing

FRONT STREET

18 lots

13 lots
*Assumes that privately owned lots would be reconfigured from 14 lots to 10 lots

GEORGE ST

JUDGE ST

SECOND AVENUE

THIRD AVENUE

One way only

One way only

Paul Denhardt cabins

Third Avenue Cemetery

50 x 70

50 x 130

50 x 60

50 x 130 (lease)

70 x 100

50 x 100

50 x 70

50 x 100

70 x 100

50 x 60

Scope of Improvements

Total Water and Sanitary Services = 31 lots

Total Watermain = 230m
Fire Hydrants = 2
Bleeder = 1

Sanitary Sewer = 230 m
Manholes = 3

Road Improvements:
None

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MORRISON HERSHFIELD

Yukon

Dawson City North End Plan
Node 2 Servicing Concept

NOT TO SCALE

1801893
Jun 25, 2018

Node 3 Service Area

Total of 45 lots being serviced:
- 28 New
- 17 Existing

FRONT STREET

SECOND AVENUE

THIRD AVENUE

GEORGE ST

JUDGE ST

18 lots

13 lots
*Assumes that privately owned lots would be reconfigured from 14 lots to 10 lots

14 lots

One way only

One way only

Paul Denhardt cabins

Third Avenue Cemetery

50 x 70

50 x 130

50 x 60

50 x 130 (lease)

70 x 100

50 x 100

50 x 70

70 x 100

50 x 100

50 x 60

Scope of Improvements

Total Water and Sanitary Services = 45
Total Watermain = 470 m
Fire Hydrants = 4
Bleeders = 2

Sanitary Sewer = 470 m
Manholes = 7

Road Improvements
Extend George Street up to Third Avenue and around to Judge Street ~3,000 m2 new roadwork (grading, ditching and road structure)

MORRISON HERSHFIELD

Yukon

Dawson City North End Plan
Node 3 Servicing Concept

NOT TO SCALE

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Jun 25, 2018

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Appendix I

Class ‘C’ Cost Estimate

Subdivision Servicing
Class C Cost Estimate

Item	Description	Unit	Unit Price	Quantity	Total
1	Node 1	**Number of services**		**18**	
1.0	General Requirements (Mobilization / Demobilization)		10% of construction	1	**$61,000**
1.1	Water				
1.1.1	200mm Watermain	lm	$750	130	$97,500
1.1.2	Water Service to Property Line	ea	$3,800	18	$68,400
1.1.3	Fire Hydrant c/w line valves	ea	$13,000	1	$13,000
1.1.4	Bleeder	ea	$12,500	1	$12,500
				Subtotal	**$191,400**
1.2	Sanitary				
1.2.1	200mm Sanitary Sewer	lm	$1,600	130	$208,000
1.2.2	Manhole (average depth assumed to be 2 vertical meters)	ea	$10,000	2	$20,000
1.2.3	Sanitary Service to Property Line	ea	$8,000	18	$144,000
				Subtotal	**$372,000**
1.3	Roadworks (Subbase cut, preparation, base gravels, road gravels)				
1.3.1	Culverts and Drainage Allowance	LS	$40,000	1	$40,000
				Subtotal	**$40,000**
1.4	Allowances				
1.4.1	Geotech and Geohazard Allowance	LS	$60,000	1	$60,000
1.4.2	Heritage Allowance	LS	$25,000	1	$25,000
				Subtotal	**$85,000**
				Node 1 Subtotal	**$749,400**
				Engineering and Legal Survey (12%)	$90,000
				General Contingency (30%)	$225,000
				Node 1 Total	**$1,064,400**
2	Node 2 (Includes Node 1)	**Number of services**		**31**	
2.0	General Requirements (Mobilization / Demobilization)		10% of construction	1	**$107,000**
2.1	Water				
2.1.1	200mm Watermain	lm	$750	230	$172,500
2.1.2	Water Service to Property Line	ea	$3,800	31	$117,800
2.1.3	Fire Hydrant c/w line valves	ea	$13,000	2	$26,000
2.1.4	Bleeder	ea	$12,500	1	$12,500
				Subtotal	**$328,800**
2.2	Sanitary				
2.2.1	200mm Sanitary Sewer	lm	$1,600	230	$368,000
2.2.2	Manhole (average depth assumed to be 2 vertical meters)	ea	$10,000	3	$30,000
2.2.3	Sanitary Service to Property Line	ea	$8,000	31	$248,000
				Subtotal	**$646,000**
2.3	Roadworks (Subbase cut, preparation, base gravels, road gravels)				
2.3.1	Culverts and Drainage Allowance	LS	$90,000	1	$90,000
				Subtotal	**$90,000**
1.4	Allowances				
1.4.1	Geotech and Geohazard Allowance	LS	$60,000	1	$60,000
1.4.2	Heritage Allowance	LS	$25,000	1	$25,000
				Subtotal	**$85,000**
				Node 2 Subtotal	**$1,256,800**
				Engineering and Legal Survey (12%)	$151,000
				General Contingency (30%)	$378,000
				Node 2 Total	**$1,785,800**

Notes:
Unit prices were based on 2018 rates for work in Dawson.
The cost estimate presented above was prepared with limited site information and based on probable conditions affecting the project. The cost estimate represents a summation of all identified project elemental costs and should be used for financial planning to establish direction for future stages of the project and to obtain preliminary project approval.

Subdivision Servicing
Class C Cost Estimate

3	Node 3 (Includes Nodes 1 and 2)		**Number of services**	**45**	
3.0	General Requirements (Mobilization / Demobilization)		10% of construction	1	**$212,000**
3.1	Water				
3.1.1	200mm Watermain	lm	$750	470	$352,500
3.1.2	Water Service to Property Line	ea	$3,800	45	$171,000
3.1.3	Fire Hydrant c/w line valves	ea	$13,000	4	$52,000
3.1.4	Bleeder	ea	$12,500	2	$25,000
				Subtotal	**$600,500**
3.2	Sanitary				
3.2.1	200mm Sanitary Sewer	lm	$1,600	470	$752,000
3.2.2	Manhole (average depth assumed to be 2 vertical meters)	ea	$10,000	7	$70,000
3.2.3	Sanitary Service to Property Line	ea	$8,000	45	$360,000
				Subtotal	**$1,182,000**
3.3	Roadworks (Subbase cut, preparation, base gravels, road gravels)				
3.3.1	New Roadway to Services Third Avenue	m^2	$70	3,000	$210,000
3.3.3	Culverts and Drainage Allowance	LS	$120,000	1	$120,000
				Subtotal	**$330,000**
1.4	Allowances				
1.4.1	Geotech and Geohazard Allowance	LS	$60,000	1	$60,000
1.4.2	Heritage Allowance	LS	$25,000	1	$25,000
				Subtotal	**$85,000**
				Node 3 Subtotal	**$2,409,500**
				Engineering and Legal Survey (12%)	$290,000
				General Contingency (30%)	$723,000
				Node 3 Total	**$3,422,500**

Notes:
Unit prices were based on 2018 rates for work in Dawson.
The cost estimate presented above was prepared with limited site information and based on probable conditions affecting the project. The cost estimate represents a summation of all identified project elemental costs and should be used for financial planning to establish direction for future stages of the project and to obtain preliminary project approval.