



AGENDA

Regular Meeting of the Council of the Village of Chase held in the Council Chamber at the Village Office at 826 Okanagan Avenue on Tuesday, November 26, 2019 at 4:00 p.m.

1. CALL TO ORDER

2. ADOPTION OF AGENDA

Resolution:

“THAT the November 26, 2019 Village of Chase Regular Council meeting agenda be adopted as presented.”

3. ADOPTION OF MINUTES

3.1 Minutes of the Regular meeting of Council held November 12, 2019 Pages 1-6

Resolution:

“THAT the minutes of the Regular meeting of November 12, 2019 be adopted as presented.”

4. PUBLIC HEARINGS

None

5. PUBLIC INPUT ON CURRENT AGENDA ITEMS

This opportunity is for members of the gallery to provide input on items on this Agenda

6. DELEGATIONS

6.1 Dave Underwood, TRUE Consulting LTD. Pages 7-56 Road Conditions Assessment and Upgrading Plan

6.2 Karen Bassett, Chase Lions Club – Off Leash Dog Park Proposal Pages 57-59

7. REPORTS

a) Mayor and Council Reports

8. UNFINISHED BUSINESS

8.1 Council Procedures Amendment Bylaw No. 883-2019 Pages 60-63

- Memo from the Corporate Officer
- Bylaw Amendment

Recommendation:

“THAT Village of Chase Council Procedures Amendment Bylaw No. 883-2019 be read a first time.”

Recommendation:

“THAT Village of Chase Council Procedures Amendment Bylaw No. 883-2019 be read a second time.”

Recommendation:

“THAT Village of Chase Council Procedures Amendment Bylaw No. 883-2019 be read a third time.”

- 8.2 Off-leash Dog Park Pages 64-65
Letter from Peter Van Hoof proposing the Rodeo Grounds on VLA Road as an alternate location for an off-leash dog park.

- 8.3 Donations for Community Christmas Tree and Country Band for Christmas Float
The Chase Lions Club and Garrick Automotive have each donated \$500 towards the purchase of a Community Christmas Tree

The Chase and District Chamber of Commerce and the Chase and District Festival Society have donated \$500 each towards the country band to sing on the Village's float and after the parade for Chase County Christmas

- 8.4 Federal Budget 2020 – Input to our Member of Parliament Pages 66-67
At Council's November 12, 2019 meeting, Administration was directed to deploy a survey to obtain input for MP Mel Arnold's priorities for the 2020 Federal budget.

9. NEW BUSINESS

- 9.1 2019 UBCM Minister Meeting with Honourable Claire Trevena Pages 68-69
Recommendation:
“THAT the letter from the Honourable Claire Trevena, Minister of Transportation and Infrastructure, be received for information.”

- 9.2 Modernizing BC's Emergency Management Legislation – SILGA Pages 70
Feedback Workshop – December 6, 2019 10 a.m. to 2 p.m.

A resolution is required for costs to be covered by Village for Council members intending to attend.

- 9.3 Old Orchard Park Strata K-537– Tree Hazards Pages 71-77
Email comments from Manager of Public Works November 19, 2019
Letter October 28, 2019
Letter January 10, 2017
Letter August 18, 2016 and reply from CAO
Letter October 6, 2015
Letter October 25, 2013

Several conversations over the years have taken place between Old Orchard Park Strata K-537 members and Village staff regarding trees along the creek. As has been noted by the Manager of Public Works, if the trees are on privately owned property such as in the Strata, or in the creek bed area, the Village does not have the jurisdiction to remove or otherwise deal with those trees unless there is an urgent situation. Administration recommends that a letter be written to the Strata

informing them of the various avenues available to them to manage the trees along the creek.

Recommendation:

“THAT the letter from the Old Orchard Park Strata K-537, be received for information; AND

THAT a letter be written to the Old Orchard Park Strata K-537 explaining the options available to them with respect to the trees along the creek.”

9.4 Buy Local Buy Fresh Map Invitation and Participant Survey Pages 78-79

Council is being asked to consider participating in the 2020 map program and to provide some feedback for the producers for improvements.

The Village has participated in the map program each year beginning in 2016 at a cost of \$500 each year.

9.5 Neskonlith Indian Band – Letter from Chief Judy Wilson Pages 80-81

Recommendation:

“THAT Council support Village Administration engaging in discussions with Neskonlith Indian Band staff and engineers to determine whether collaboration on wastewater treatment services is of benefit to both parties and if so, to determine a strategy for such collaboration.”

9.6 2019 Festival of Trees – Quaaout Lodge & Spa at Talking Rock Page 82

An invitation from Quaaout Lodge & Spa at Talking Rock to sponsor a Christmas tree with proceeds now going towards the Little Shuswap Lake Indian Band youth and elders. In 2016, Council sponsored a tree for \$125, and in 2017 for \$100 with those proceeds going to the Chase Christmas Hamper Society.

10. OPPORTUNITY FOR PUBLIC TO SPEAK ON MUNICIPAL MATTERS

This opportunity is for members of the gallery to provide input on any municipal matter

11. RELEASE OF IN CAMERA ITEMS

12. IN CAMERA

13. ADJOURNMENT

Resolution:

“THAT the November 26, 2019 Village of Chase Regular Council meeting be adjourned.”



Minutes of the Regular Meeting of the Council of the Village of Chase
held in the Council Chamber of the Village Office at 826 Okanagan Avenue
on Tuesday, November 12, 2019 at 4:00 p.m.

PRESENT: Mayor Rod Crowe
Councillor Alison (Ali) Lauzon
Councillor Ali Maki
Councillor Steve Scott
Councillor Fred Torbohm

In Attendance: Joni Heinrich, Chief Administrative Officer
Sean O'Flaherty, Corporate Officer
Joanne Molnar, Chief Financial
Clinton Wright, Manager of Public Works Officer
Brian Lauzon, Fire Chief
Maria Beaurain, Deputy Fire Chief

Public Gallery: 7

1. CALL TO ORDER

Mayor Crowe called the meeting to order at 4:00 p.m.

2. ADOPTION OF AGENDA

Moved by Councillor Scott

Seconded by Councillor Lauzon

"THAT the November 12, 2019 Village of Chase Regular Council agenda be adopted as presented."

CARRIED

#2019/11/12_001

3. ADOPTION OF MINUTES

3.1 Regular Meeting of Council held October 22, 2019

Moved by Councillor Maki

Seconded by Mayor Crowe

"THAT the minutes of the Regular meeting of Council on October 22, 2019 be adopted as presented."

CARRIED

#2019/11/12_002

3.2 Special Meeting of Council held October 28, 2019

Moved by Councillor Scott

Seconded by Councillor Torbohm

"THAT the minutes of the Special meeting of Council on October 28, 2019 be adopted as presented."

CARRIED

#2019/11/12_003

4. PUBLIC HEARING

None

5. PUBLIC INPUT ON CURRENT AGENDA ITEMS

Kelly Erickson, of 623 3rd Avenue, regarding item 8.4, inquired if a Building Permit was required for the carport.

The Corporate Officer responded by stating a permit was not required.

Mr. Erickson, then suggested that Mrs. McCormick had conducted herself without malice or criminal intent, and Council should approve the variance.

6. DELEGATIONS

6.1 Brock Endean – Report on Visitor Information Centre Services for 2019

Mr. Endean provided Council with an overview of the 2019 Fee for Service results. He suggested that 2019 was a learning experience for the Chamber in its obligations for visitor services. The service levels in the summer dropped to unacceptable levels and said that would not happen again. He assured Council that the Visitor Centre would be staffed a minimum of 16 hours per week in 2020, regardless of the number of summer students hired.

6.2 Dr. Cornell Bernard – Chase Internet Services

Dr. Bernard expressed frustration with the internet service speeds in Chase. He suggested that lack of high speed internet will deter professionals like himself from working and or living in Chase. Chase already suffers from recruitment challenges of professionals. He said there is a petition floating around the community with 300-plus signatures.

The CAO responded by offering to take the matter to MP Mel Arnold at an upcoming meeting. She also reported that Administration was in conversation with Neskonlith over how the band was able to tap into the fibre optics network available in the area.

7. REPORTS

a) Mayor and Council Reports

Mayor Crowe

- October 25 – Was adorned with the 2019 Poppy Campaign's first poppy by the Royal Canadian Legion's Vice President
- October 28 – Attended a Special meeting of Council
- November 4 – Met with Neskonlith Band Councillor Louis Thomas along with CAO Heinrich
- November 8 – Attended the TNRD Committee of the Whole meeting
- November 11 - Attended the Remembrance Day celebrations
- Attend daily meetings with CAO Heinrich

Councillor Lauzon

- October 28 – Met with a local business to discuss a recent land acquisition
- October 30 - Attended a Chase Country Christmas committee meeting
- November 1 – Met with CAO Heinrich, Councillor Maki, Fire Chief Lauzon regarding Chase Country Christmas' 'Christmas Tree Light Up'
- November 7 – Attended the inaugural Child Care Advisory Committee meeting
- November 11 - Attended the Remembrance Day celebrations

Councillor Maki

- October 30th - met with a Chase Country Christmas member regarding insurance
- November 1 - attended a meeting with Randy Sunderman and Brock Endean regarding the 2020 Tourism Strategy
- November 1 – met with Joanne Johnston from the Chase Country Christmas

- November 1 - met with Councilor Lauzon, CAO Joni Heinrich and Chief Lauzon regarding Chase Country Christmas
- November 1 - met with Brock Endean regarding Chase Country Christmas
- November 8th - met with Joanne Johnston with Chase Country Christmas regarding entertainment

Councillor Scott

- October 28 – Attended a Special meeting of Council
- November 11 - Attended the Remembrance Day celebrations

Councillor Torbohm

- October 28 – Attended a Special meeting of Council
- November 11 - Attended the Remembrance Day celebrations
- Held ongoing meetings with Administration and constituents as required

b) Staff Reports

Fire Chief:

- Fire call outs: 10 (2 structure fires, 2 vehicle fires, 2 false alarms, 1 kitchen fire, 1 gas leak, 1 public service call, 1 emergency lift assist)
- Rescue call outs: 2
- 291 Burning Permits have been issued to date
- There are 22 members and 4 junior fire fighters in the department; 1 member on leave
- Working on the Fire Department's 2020 budget
- Pressure tested 1400 metres of fire hose
- All engines have received their 2019 annual pump service
- 1 member successfully passed the Incident Safety Officer course
- Fire Fighter McClendon and Fire Chief Lauzon were honoured to be part of the Legion Colour Party as part of Remembrance Day
- Fire Chief Lauzon announced he has accepted a full-time job with First Nations Emergency Services Society in Kamloops. Chief Lauzon will remain as Fire Chief

Reports from the CAO, Corporate Officer, CFO, and Manager of Public Works were included in the agenda package.

Moved by Councillor Maki

Seconded by Councillor Scott

"THAT the reports from Council members and staff be received for information."

CARRIED

#2019/11/12_004

8. UNFINISHED BUSINESS

8.1 Election Bylaw 880 - Amendment to Utilize Provincial Voters' List

Moved by Councillor Scott

Seconded by Councillor Lauzon

"THAT Village of Chase Election Bylaw Amendment 880-2019 be adopted."

CARRIED

#2019/11/12_005

8.2 Inter-Community Business Licenses

Moved by Councillor Maki

Seconded by Mayor Crowe

"THAT the Village of Chase Inter-Community Business License Bylaw No. 882-2019 be adopted."

CARRIED
#2019/11/12_006

8.3 Cemetery Fees and Charges

Moved by Councillor Scott

Seconded by Councillor Torbohm

"THAT the Fees and Charges Amendment Bylaw No. 879-2019 be adopted."

CARRIED
#2019/11/12_007

8.4 Variance of Zoning Regulations – 303 Pine Street

Moved by Mayor Crowe

Seconded by Councillor Scott

"THAT Council approves Development Variance Permit DVP3-2019." **CARRIED**
#2019/11/12_008

8.5 Train Whistle Cessation at Pine Street in Chase

Moved by Councillor Maki

Seconded by Mayor Crowe

"THAT Administration be directed to consult with CP Rail regarding the Pine Street and Aylmer Road crossings to determine if either must be upgraded to allow for train whistle cessation, and at what cost to the municipality, and bring back a report to Council." **CARRIED**

#2019/11/12_009

8.6 Council member appointee to Child Care Planning Project Advisory Committee

Moved by Mayor Crowe

Seconded by Councillor Maki

"THAT Councillor Alison Lauzon be appointed to sit on the Child Care Planning Project Advisory Committee." **CARRIED**

#2019/11/12_010

9. **NEW BUSINESS**

9.1 Development Permit DP2019-2

Moved by Councillor Scott

Seconded by Councillor Torbohm

"THAT Development Permit DP2019-2 be approved."

CARRIED
CROWE OPPOSED
#2019/11/12_011

9.2 2018 Annual Report

Moved by Councillor Scott

Seconded by Councillor Lauzon

"THAT the 2018 Village of Chase Annual Report be accepted as presented."

CARRIED
#2019/11/12_012

- 9.3 Mel Arnold – Re-election – Congratulations
Moved by Councillor Scott
Seconded by Councillor Torbohm
“THAT Council send a letter of congratulations to Mel Arnold for his re-election as the Member of Parliament, North Okanagan – Shuswap.” CARRIED
#2019/11/12_013
- 9.4 Chase Country Christmas – Village of Chase Participation
Moved by Mayor Crowe
Seconded by Councillor Scott
“THAT the Village of Chase support the Chase Country Christmas’ Christmas Tree Light Up celebration with grant in aid funding up to \$500 towards a Christmas tree.” CARRIED
#2019/11/12_014
- Moved by Mayor Crowe
Seconded by Councillor Scott
“THAT the Village support the Chase Country Christmas parade by spending up to \$500 towards funding a live band to play on the Village’s parade float.” CARRIED
#2019/11/12_15
- 9.5 Shuswap Trails Strategy Roundtable Annual Meeting
Moved by Councillor Scott
Seconded by Councillor Maki
“THAT Mayor Rod Crowe, Councillor Fred Torbohm and CAO Joni Heinrich attend the Shuswap Regional Trails Roundtable on November 20, 2019, at the Sunnybrae Bible Camp with costs for participation being paid for as per Council’s ADM-21 Expense Reimbursement Policy.” CARRIED
#2019/11/12_016
- 9.6 Federal Budget 2020 – Input to our Member of Parliament
Moved by Councillor Maki
Seconded by Councillor Lauzon
“THAT Administration be directed to deploy a survey to poll the Village’s constituents to inform MP Mel Arnold’s priorities for the 2020 Federal budget.” CARRIED
#2019/11/12_017
- 9.7 2020 LGLA Leadership Forum
Moved by Councillor Maki
Seconded by Councillor Lauzon
“THAT costs associated with any Council members’ attendance at the 2020 LGLA Leadership Forum be approved as per Policy ADM-21, Expense Policy reimbursement.” CARRIED
#2019/11/12_018
- 9.8 Bev Iglesias Request for Community Hall Rental Rate Reduction
Moved by Councillor Maki
Seconded by Mayor Crowe
“THAT the Community Hall rental fees for the ‘Helping Hand’ be waived for the kitchen on December 5 and 6, 2019, and for the main hall on December 14, 2019, considering all fundraising profits will be allocated to the Village’s skatepark.” CARRIED
#2019/11/12_019

10. RELEASE OF IN-CAMERA ITEMS
None

11. IN CAMERA
Moved by Councillor Scott
Seconded by Councillor Lauzon
**"THAT Council recess to an In Camera meeting pursuant to Section 90 (1) of the
Community Charter, paragraph (k), negotiations and related discussions respecting
the proposed provision of a municipal service."**
CARRIED
#2019/11/12_020

12. ADJOURNMENT
Moved by Councillor Maki
Seconded by Councillor Torbohm
**"THAT the November 12, 2019 Village of Chase Regular Council meeting be
adjourned."**
CARRIED
#2019/11/12_021

The meeting concluded at 5:55 p.m.

Rod Crowe, Mayor

Sean O'Flaherty, Corporate Officer

Road Condition Assessment and Upgrading Plan

Village of Chase



TRUE

ENGINEERING ■ PLANNING ■ URBAN DESIGN ■ LAND SURVEYING

October 2019

Project No. 1377-071

Distribution List

| <i># of Hard Copies</i> | <i>PDF Required</i> | <i>Association / Company Name</i> |
|-------------------------|---------------------|-----------------------------------|
| | | |
| | | |
| | | |
| | | |

Revision Log

| <i>Revision #</i> | <i>Revised by</i> | <i>Date</i> | <i>Issue / Revision Description</i> |
|-------------------|-------------------|-------------|-------------------------------------|
| | | | |
| | | | |
| | | | |
| | | | |

Report Submission

Report Prepared By:

Report Reviewed By:

Todd Turnbull, AScT, CPWI 3

*Dave Underwood, P. Eng.
Project Engineer*

R:\Clients\1300-1399\1377\1377-07\105 Reports\Village of Chase-Road Condition Assessment and Upgrading Plan\1377-071-Chase Road Condition Assessment & Upgrading Plan-October 2019.docx

Table of Contents

| | | |
|------------|--|-----------|
| 1.0 | Introduction | 1 |
| 1.1 | Background..... | 1 |
| 1.2 | Project Scope | 1 |
| 2.0 | Road Condition Assessment..... | 2 |
| 2.1 | BC MoTI Pavement Surface Condition..... | 2 |
| 2.2 | On Site Road Assessment..... | 3 |
| 2.3 | Road Pavement Assessment Rules | 4 |
| 3.0 | Road Upgrading Options | 9 |
| 3.1 | Reconstruction Design Standards | 9 |
| 3.2 | Upgrading Strategies | 11 |
| 3.3 | Capital Cost Estimates for Road Upgrading | 12 |
| 4.0 | Road Upgrading Program and Priorities | 13 |
| 4.1 | Comprehensive Crack Sealing Program | 13 |
| 4.2 | Road Upgrading Program | 13 |
| 4.2.1 | High Priority Roads | 17 |
| 4.2.2 | Medium Priority Roads..... | 21 |
| 4.2.3 | Low Priority Roads..... | 25 |
| 5.0 | Summary and Recommendations | 29 |
| 5.1 | Summary | 29 |
| 5.2 | Recommendations | 29 |

APPENDICES

Appendix A – Road Condition Assessment Form

Appendix B – Road Assessment Summary

Appendix C – Asphalt Core Report

List of Tables

| | |
|--|----|
| Table 2-1: MoTI Distress Classifications for Pavement | 2 |
| Table 2-2: MoTI Pavement Distress Index Condition Range | 3 |
| Table 2-3: Road Condition Inventory Results (July 2019)..... | 4 |
| Table 3-1: Roadworks Maintenance/Upgrading Unit Cost Budget..... | 12 |
| Table 4-1: Road Upgrading Priority Rankings | 15 |
| Table 5-1: Summary of Road Conditions by PDI Rating Range | 29 |
| Table 5-2: Summary of Road Upgrading Recommendations..... | 31 |

List of Figures

| | |
|---|----|
| Figure 2-1: Road Condition Inventory Results by Condition Category (July 2019)..... | 4 |
| Figure 2-2: Pavement Examples Showing Good Condition (> 7)..... | 5 |
| Figure 2-3: Pavement Examples Showing Fair Condition (5 - 7) | 5 |
| Figure 2-4: Pavement Examples Showing Poor Condition (< 5) | 6 |
| Figure 2-5: Road Condition Ratings | 7 |
| Figure 2-6: Pavement Distress Index Ratings | 8 |
| Figure 1: Village of Chase Highway Classifications..... | 10 |
| Figure 4-1: Crack Sealing | 14 |
| Figure 4-2: Priority Rankings of 'Poor' Condition Rating | 16 |

List of Acronyms

| | |
|------|---|
| MoTI | Ministry of Transportation and Infrastructure |
| PDI | Pavement Distress Index |
| TRUE | TRUE Consulting |

1.0 Introduction

1.1 Background

In July of 2019, TRUE Consulting was asked by the Village of Chase to conduct a Pavement Surface Condition Report of outlined municipal roads. The primary objective was to identify all required upgrading, establish priorities and prepare a report to serve as a resource in capital planning.

1.2 Project Scope

The scope of work is briefly summarized as follows:

- Conduct a field assessment visually evaluating the condition of outlined paved roads maintained by the municipality using methodology contained in the BC Ministry of Transportation and Infrastructure's (MoTI) "Pavement Surface Condition Rating Manual."
- Compile roadworks assessment data and categorize roads based on upgrading needs.
- Identify the appropriate approaches to achieve the upgrading objectives, i.e. crack sealing, mill and overlay, or reconstruction.
- Prepare cost estimates for the upgrading or maintenance of roads to maintain or upgrade to a "good" condition rating.
- Prioritize roads to be upgraded based on current condition and function.
- Produce a report describing the road condition assessment and presenting upgrading recommendations with capital cost estimates.

For the purpose of this inventory, the municipal streets were assigned a segment number and a condition rating based on a cursory visual inspection. Either using the condition rating or actual construction data, the depreciated "value" and replacement costs for each road segment was computed.

Asphalt road cores were completed on all outlined roads and referenced as part of TRUE recommendations. A report summary (KamTech Quality Management – July 4, 2019) is attached within along with Figure 2.7 indicating core locations.

2.0 Road Condition Assessment

2.1 BC MoTI Pavement Surface Condition

The road condition assessment was undertaken using the MoTI Pavement Surface Condition Rating Manual Fifth Edition (August 2016) as a reference document. The MoTI document provides a standardized means of assessing highways throughout British Columbia. The general methodology of the MoTI manual comprises measurement or identification of pavement distress parameters. The manual describes a total of twelve distress classifications summarized as follows:

TABLE 2-1: MOTI DISTRESS CLASSIFICATIONS FOR PAVEMENT

| Crack Type | Probable Cause |
|---|---|
| 1. Longitudinal Wheel Path Cracking (LWP) | heavy traffic loading during spring thaw |
| 2. Longitudinal Joint Cracking (LJC) | poor construction, frost action, moisture changes |
| 3. Pavement Edge Cracking (PEC) | frost action, inadequate pavement substructure, heavy traffic loading, poor drainage, inadequate pavement width |
| 4. Transverse Cracking (TC) | low/high temperatures, frost action, reflection cracks from substructure |
| 5. Meandering Longitudinal Cracking (MLC) | frost action, poor construction |
| 6. Alligator Cracking (AC) | repeated traffic loading, insufficient pavement substructure, poor asphalt mix design |
| 7. Rutting (RUT) | poor construction, unsuitable pavement substructure |
| 8. Shoving (SHV) | vehicle stop/start, heavy traffic on steep grades, poor asphalt mix design, unstable pavement substructure |
| 9. Distortion (DST) | frost heaves, poor pavement substructure |
| 10. Bleeding (BLD) | poor mix design, poor construction |
| 11. Potholes (POT) | poor construction, drainage issues, poor asphalt mix design |
| 12. Ravelling (RAV) | poor asphalt production, poor construction, aging/weathering |

Some of the pavement distresses are indicators of problems such as poor substructure or base gravels. Examples of the indicators include pavement edge cracking, alligator cracking, rutting, shoving, distortion and potholes. All of these pavement condition parameters are indicative of conditions not permanently resolvable by milling and overlay.

2.2 On Site Road Assessment

On site road assessments using the MOTI Pavement Condition Rating system were conducted by senior technical staff of TRUE over a 2 day period in July 2019. On site assessment activities included:

- Initially a visual driving overview was completed followed by a detailed walking survey.
- Pavement distresses were noted and visually approximated based on severity and density level.
- Other forms of distress noted included drainage conditions, past crack sealing and patching.
- The distresses, as well as relevant notes on each road segment were recorded on standard evaluation forms for each segment. Several photographs were also taken of each road segment.

Detailed measurements of each distress parameter were not undertaken because of time constraints. No geotechnical investigations were undertaken through the course of the assessment study. Several streets such as Cottonwood Street, had surface deficiencies clearly indicating base and subbase deficiencies. In these cases, geotechnical investigations may be necessary to assess the adequacy of the overall pavement structure and assist in finalization of reconstruction scope and costs. Asphalt cores were completed on all assessed roads in July 2019 and reported within attached document Appendix C.

All field data for pavement condition parameters were tabulated in a spreadsheet and methodology from the MOTI used to calculate a pavement distress index for each road segment. The pavement distress index (PDI) is a numerical value generally between 10 (good condition) and 1 (poor condition).

To assist in an overall understanding of the condition of the Village's roads assessed; good, fair and poor classifications have been assigned to PDI ranges. These are:

TABLE 2-2: MOTI PAVEMENT DISTRESS INDEX CONDITION RANGE

| Condition Classification | Pavement Distress Index |
|--------------------------|-------------------------|
| Good | > 7 |
| Fair | 5 to 7 |
| Poor | < 5 |

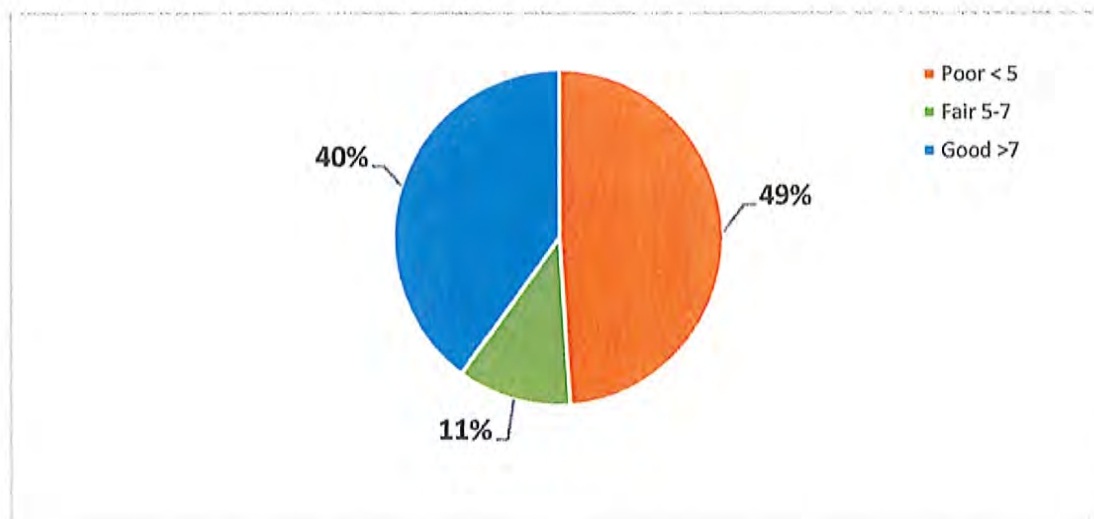
2.3 Road Pavement Assessment Rules

The pavement assessments for all roads surveyed are presented on spreadsheets in Appendix B. General conditions, i.e. good, fair and poor, for all assessed municipal streets are illustrated in Figure 2.5. The assessment is summarized in the tabulation following.

TABLE 2-3: ROAD CONDITION INVENTORY RESULTS (JULY 2019)

| PDI Rating | Length [m] | Total Length [%] | Road Condition Category | PDI Rating Range | Total Length (%) |
|-------------|------------|------------------|----------------------------|------------------|------------------|
| Poor | | | Poor | <5 | 49% |
| <2 | 535 | 12.03% | Fair Good | 5-7 | 11% |
| 2-3 | 195 | 4.38% | | >7 | 40% |
| 3-4 | 240 | 5.40% | | Total | 100.0% |
| 4-5 | 1195 | 26.87% | | | |
| Good | | | | | |
| 7-8 | 288 | 6.48% | | | |
| 8-9 | 605 | 13.60% | | | |
| 9-10 | 887 | 19.95% | | | |
| Fair | | | | | |
| 5-6 | 90 | 2.02% | | | |
| 6-7 | 412 | 9.26% | | | |

FIGURE 2-1: ROAD CONDITION INVENTORY RESULTS BY CONDITION CATEGORY (JULY 2019)



Fifteen of the road segments are categorized to be in “poor” condition, i.e., having a ranking of less than 5 points on the pavement distress index. Roads classified as “poor” will require extensive upgrades and most likely will require reconstruction. A significant number of the roads in this category appear to be compromised as a result of base and drainage deficiencies.

Five road segments are ranked between 5 and 7 on the pavement distress index, categorizing them to be in “fair” condition. These road assets will require a variety of upgrades depending on the type of distress.

Finally, the remaining fourteen road segments are categorized as “good” condition. These roads will likely only require basic maintenance to extend their service life and keep them in “good” condition into the future. Maintenance treatments that will be required on many of the roads include crack sealing and patching. It is crucial that the distresses in these “good” assets are addressed in a timely manner as the pavement without maintenance will degrade at a much faster rate.

For perspective of the three road condition categories, examples of each are presented on the following photos:

FIGURE 2-2: PAVEMENT EXAMPLES SHOWING GOOD CONDITION (> 7)



Cedar Avenue – Between Cottonwood Street and Start of Curb Section North



Lakeshore Drive –
Between Second
Avenue and
House #315

FIGURE 2-3: PAVEMENT EXAMPLES SHOWING FAIR CONDITION (5 - 7)



Beach Drive – Between Crescents



Lakeshore Drive – Between Beach Drive and
House #536

FIGURE 2-4: PAVEMENT EXAMPLES SHOWING POOR CONDITION (< 5)

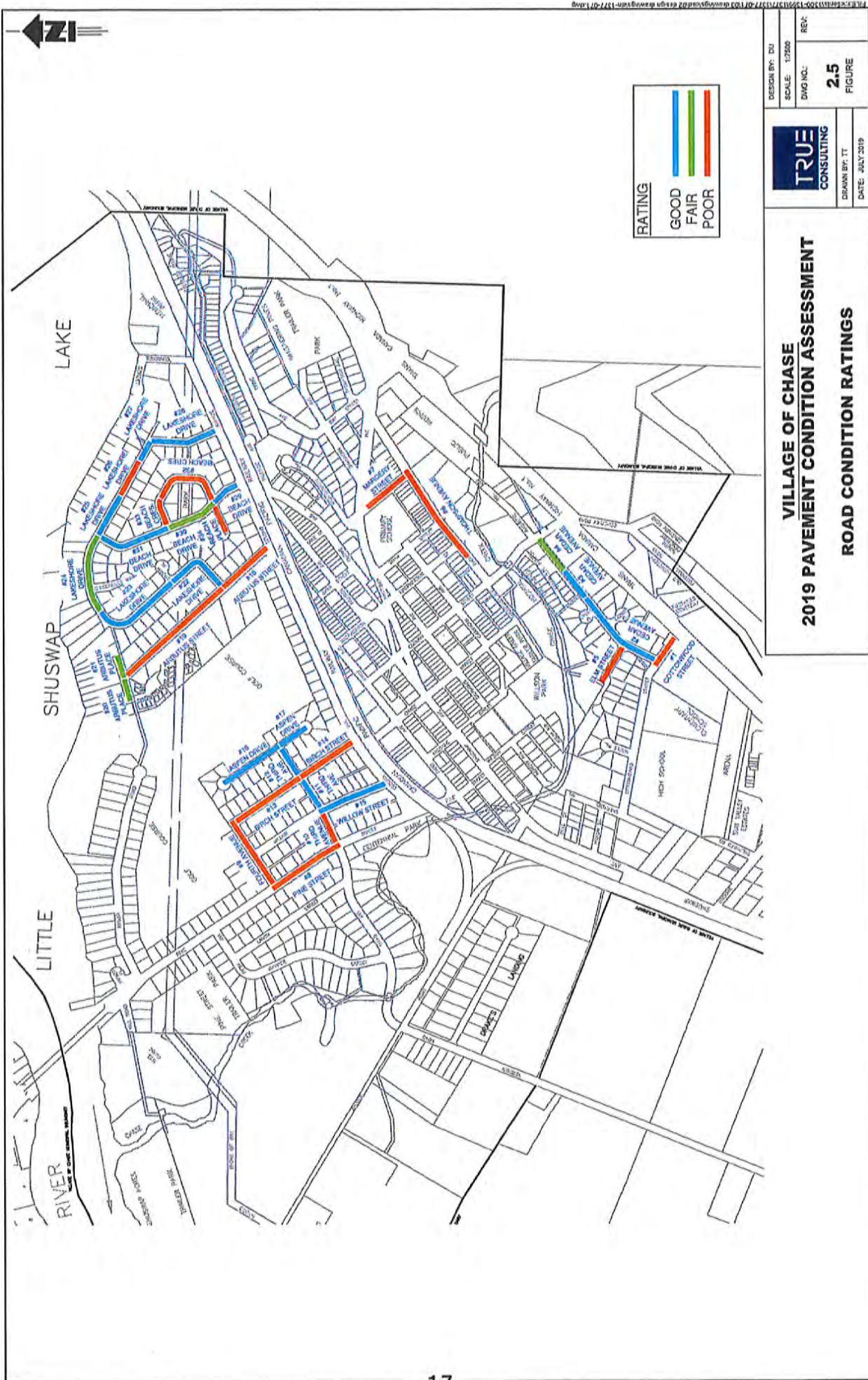


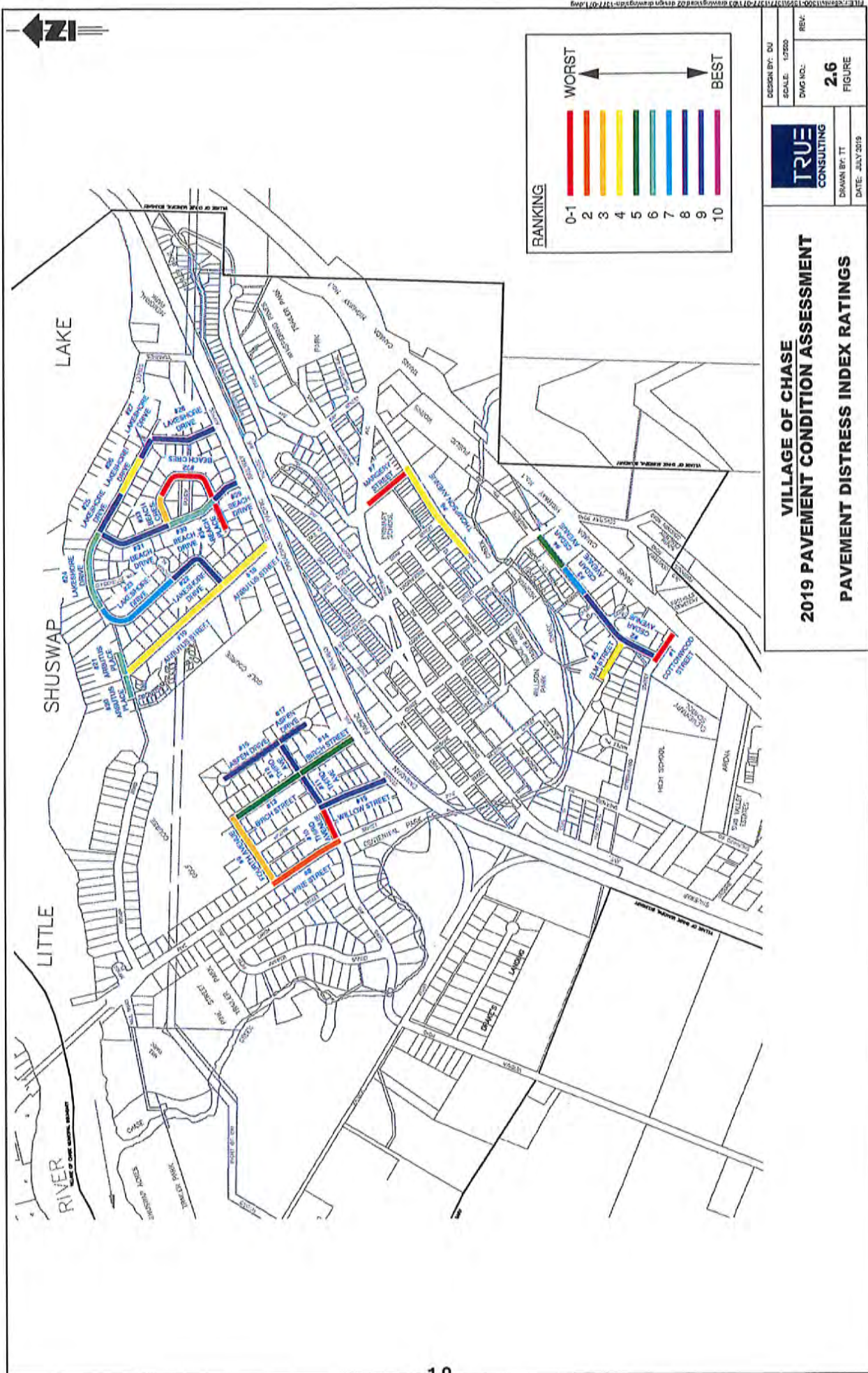
Fourth Avenue – Between Pine Street and
Birch Street



Margery Street – Between Thompson Avenue
and Shuswap Avenue

The PDI values or ratings for the assessed municipal streets are presented by colour codes in Figure 2.6. This figure assists in understanding the rankings of individual streets in any of the broader good/fair/poor condition categories. As an example, Beach Crescent and Arbutus Street are both classified in the poor condition category, however, Arbutus Street (from Figure 2.6) has a modestly higher (better) PDI of 4 as compared to 1 for Beach Crescent. A breakdown of the PDI values for all surveyed road segments in the Village are contained in Appendix B.





VILLAGE OF CHASE
2019 PAVEMENT CONDITION ASSESSMENT
PAVEMENT DISTRESS INDEX RATINGS

TRUE CONSULTING
 DESIGN BY: DU
 SCALE: 1:2500
 DRAWN BY: TT
 DATE: JULY 2019

REV: 2.6
 FIGURE

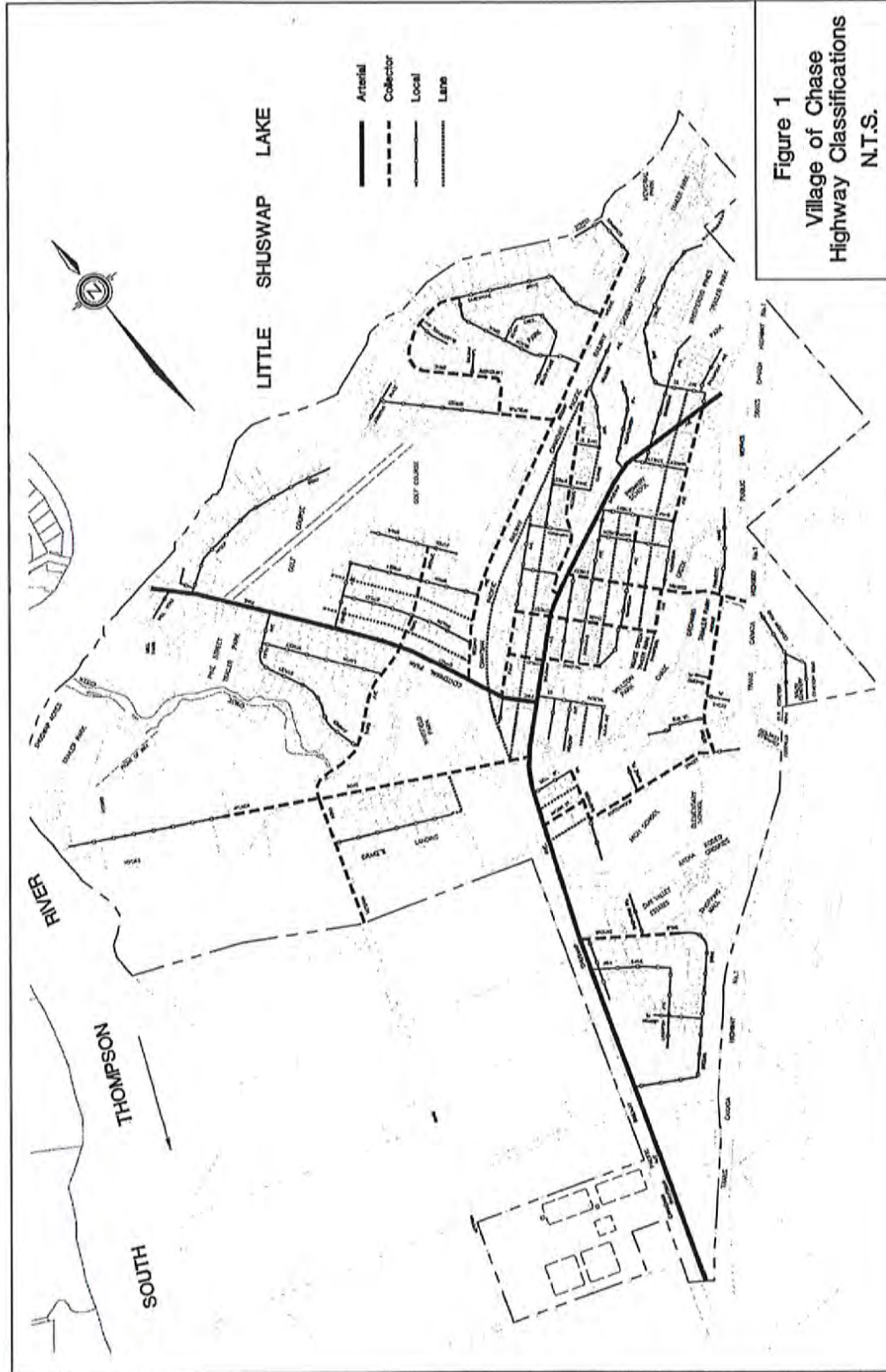
3.0 Road Upgrading Options

3.1 Reconstruction Design Standards

The Village's Subdivision and Development Servicing Bylaw contains a street network map which identifies major network and collector roads with the Village. This map follows as Figure 1.

Within the "poor" condition category there are a number of low volume residential streets, i.e. Cottonwood Street and Beach Place, where reconstruction will require complete asphalt, base and subbase removal and replacement. In these cases, the Village will have to make a decision as to whether curb, gutter, sidewalk and possibly lighting will be included in the reconstruction scope. These ancillary works increase the cost of road reconstruction by approximately 2.5 times the cost, from approximately \$500 to \$1250 per meter. Some municipalities have policies whereby the existing standard is replaced when a low volume local neighbourhood road is reconstructed.

For local low volume roads requiring reconstruction, it is assumed that the existing standard would be constructed. Fronting property owners may be asked if they would want the scope expanded to include curb, gutter, sidewalk, etc. on a local improvement basis.



3.2 Upgrading Strategies

Upgrading strategies including preventative maintenance applicable to Village of Chase assessed roads are:

- crack sealing, preventative maintenance
- overlay
- mill and repave
- reconstruction

Lower maintenance costs are associated with crack sealing and higher maintenance and upgrading costs are associated with reconstruction.

Crack sealing is intended to keep water from entering the cracks in an existing asphalt surface and thereby increasing the life of a road. Many roads in the Village of Chase especially those in the “good” or “fair” categories, are good candidates for crack sealing as a method of extending the service life of the existing asphalt surface. Crack sealing involves the installation of a sealant followed by a finish in Portland Cement or equivalent. It is ideal to install crack sealant into clean dry cracks during the spring season when they are at their widest.

Overlaying is used when the road still has a solid base but there are cracks or areas of thin pavement that cannot be repaired with basic crack sealing treatment. An overlay involves covering the existing asphalt surface with a new layer. First the existing asphalt is cleaned and dried before tack is applied to the surface as a bonding agent, then the overlaying asphalt is applied. It is often beneficial to crackseal the existing cracks previous to overlaying, in order to minimize reflection cracking through the new overlaid surface. Overlays have proven to be a very effective method for extending service lifetime of low volume residential streets.

Mill and repavement is ideal for situations where the surface is very poor and reflection cracking will inevitably occur if the surface is overlaid. Mill and repaving occurs in the same manner as overlaying, however, before resurfacing all of the previous asphalt surface is ground and removed. Therefore the base structure still remains and a complete new surface is applied.

Mill and overlay is particularly applicable to streets with curb, gutter and sidewalks where the asphalt surface is reaching the end of its service life. Examples where mill and overlay is applicable include Birch Street and Arbutus Street.

The last and most expensive option to address a deteriorating road condition is reconstruction. Reconstruction is the recommended approach where base or subbase deficiencies are identified as the primary causes of the surface deterioration, i.e. Beach Crescent and Fourth Avenue. Reconstruction typically comprises complete removal and replacement of granular subbase, crush gravel base and asphalt.

Appendix B of this report provides general recommendations for the appropriate option to maintain or upgrade assessed roads within the Village.

3.3 Capital Cost Estimates for Road Upgrading

The condition assessment spreadsheet (Appendix A) includes data for the segment road length and pavement width. The spreadsheet provides a relatively straightforward means to develop budget capital cost estimates for the recommended upgrading strategy. The unit costs presented in Table 3-1 were incorporated into the spreadsheet for the purpose of developing budget capital cost estimates to preserve or upgrade the pavement surface.

TABLE 3-1: ROADWORKS MAINTENANCE/UPGRADING UNIT COST BUDGET

| Item | Unit of Measurement | Unit Price |
|--|---------------------|------------|
| Mill and Repave | m ² | \$40.00 |
| Reconstruct c/w Base and Subbase Grade | m ² | \$60.00 |
| Curb and Gutter | m | \$140.00 |
| Sidewalk | m | \$150.00 |
| Overlay | m ² | \$25.00 |
| Street Light (30m interval) | m | \$200.00 |
| Crack Sealing | m | \$2.50 |
| Contingency & Engineering Allowance | | 30% |

It is essential to note that the spreadsheet develops budget capital cost estimates to maintain or upgrade the existing asphalt or pavement structure surface. The budget capital cost estimates derived from the spreadsheet do not include:

- works to address adverse soil bearing conditions below subbase.
- allowances to provide ancillary works, i.e. curb, gutter, sidewalk, or street lighting or to widen the existing pavement surface.
- allowances to upgrade storm drainage works. Every street in the Village is unique in terms of storm water management. At the time that a street segment is identified for upgrading, an assessment of appropriate storm water management improvements should be undertaken.
- allowances for the concurrent upgrading of storm, water and/or sanitary sewer infrastructure. Prior to the finalization of any cost estimates for capital improvements the condition of subsurface infrastructure would be reviewed and any upgrading considered necessary included in the project budget. At a minimum water services should be

assessed and replaced as considered appropriate concurrent with a road upgrading project.

4.0 Road Upgrading Program and Priorities

4.1 Comprehensive Crack Sealing Program

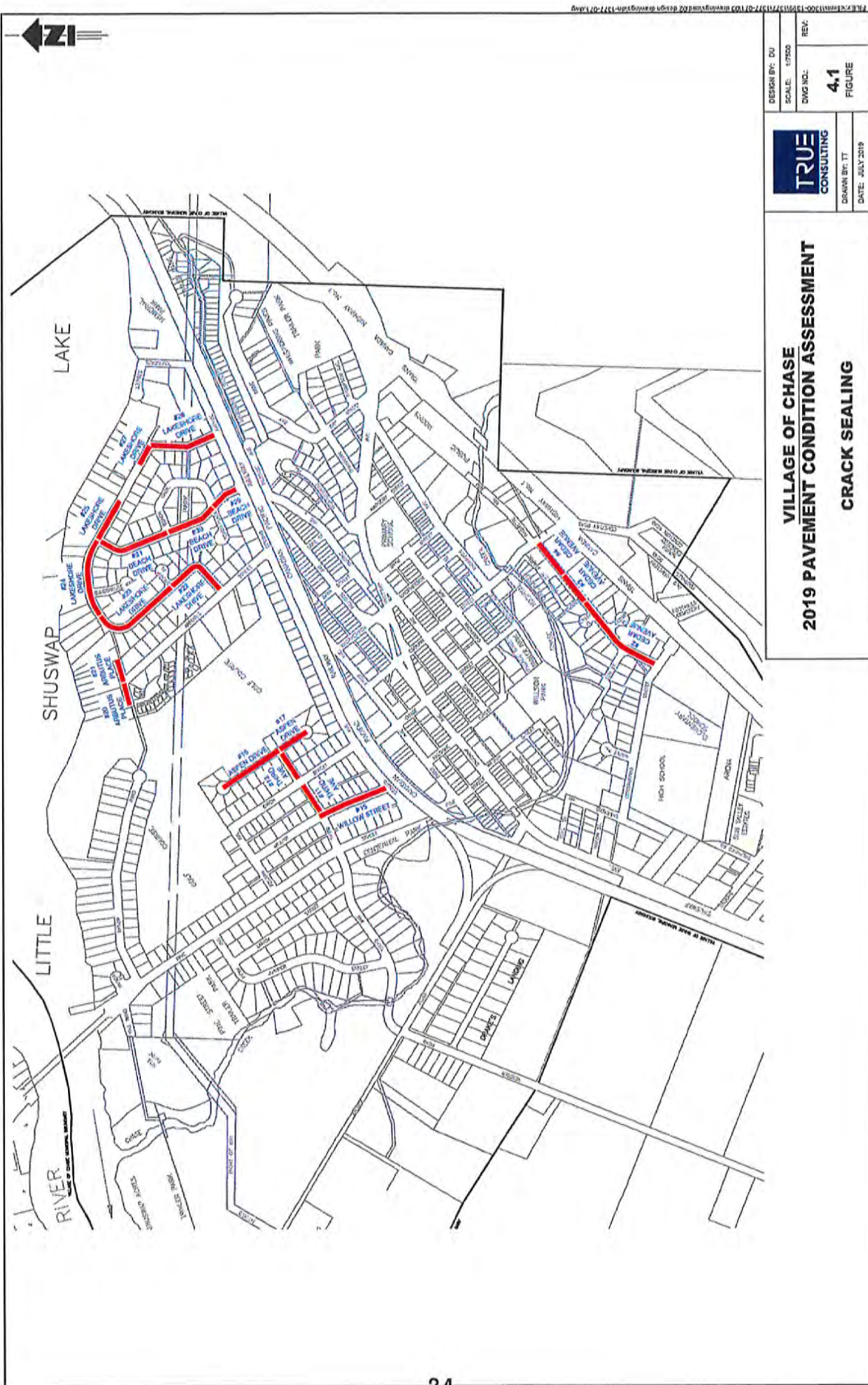
A comprehensive crack sealing program is suggested having the objective of preserving the road surface quality as indicated by the pavement distress index. Functionally, crack sealing prevents stormwater from entering the road base materials. Stormwater flow through cracks into the road subbase and base materials results in an acceleration of road surface deterioration.

As shown in Figure 4-1, the crack sealing program is intended to include all roads with a good condition rating category or recommended for overlaying. Crack sealing requirements will vary significantly between road segments. The estimated cost of the crack sealing program is based on limited measurements of actual crack lengths and experience with similar programs in other municipalities. Measuring the crack lengths within each assessed road segment represents detail beyond the scope of this study.

4.2 Road Upgrading Program

The road upgrading program focuses on road segments assessed in poor condition. As illustrated in Figure 2.5, there are a total of 15 road segments that are classified as poor condition. Within this category, higher priority is assigned:

- to major municipal roads.
- to road segments where a separate infrastructure deficiency exists, in most cases a drainage problem.



| | | |
|---------------|-----------------|--------|
| DESIGN BY: DU | SCALE: 1:7500 | REV: |
| DWG NO: | 4.1 | FIGURE |
| DRAWN BY: TT | DATE: JULY 2019 | |

TRUE CONSULTING

VILLAGE OF CHASE

2019 PAVEMENT CONDITION ASSESSMENT

CRACK SEALING

Table 4-1 lists all street segments in the poor category with a priority rating for upgrading.

TABLE 4-1: ROAD UPGRADING PRIORITY RANKINGS

| High Priority | Medium Priority | Low Priority |
|-------------------------|------------------------|--------------------------|
| ▪ Margery Street (#7) | ▪ Thompson Avenue (#6) | ▪ Cottonwood Street (#1) |
| ▪ Pine Street (#8) | ▪ Fourth Avenue (#9) | ▪ Elm Street (#5) |
| ▪ Third Avenue (#10) | ▪ Beach Crescent (#32) | ▪ Birch Street (#13) |
| ▪ Arbutus Street (#18) | ▪ Beach Crescent (#33) | ▪ Birch Street (#14) |
| ▪ Lakeshore Drive (#26) | ▪ Beach Place (#34) | ▪ Arbutus Street (#19) |

Sections following provide a brief description of proposed upgrading for road segments listed in Table 4-1 and illustrated in Figure 4-2.



4.2.1 High Priority Roads

Segments judged to be a high priority for upgrading are illustrated in Figure 4.2 and described following:

4.2.1.1 Margery Street (Road #7)

Margery Street is a local road about 120m in length with an average pavement width of 7.7m. The PDI of the pavement surface is -0.88 on the basis of the severe edge, transverse, and alligator cracking throughout. Previously placed asphalt patches and potholes are abundant on the upper portion. The turf boulevards sit adjacent to the road edge and are well above the paved surface which is trapping storm



water run-off; thus entering the cracks and saturating the base gravels. The asphalt surface is the worst encountered within reporting.



Reconstruction is the recommended approach for upgrading Margery Street at which time the subgrade should be evaluated for any required replacements. It is also suggested that storm sewer catchbasins (2) be installed and tied to the existing infrastructure on Shuswap Avenue. Approximately 60m of asphalt curbing will ensure surface water is directed into the storm system and not eroding the pavement edge.

| | |
|---|-----------------|
| Reconstruction to Existing Area | \$55,440 |
| Storm Sewer Installations | \$10,000 |
| Asphalt Curbing | <u>\$2,700</u> |
| Subtotal | \$68,140 |
| Option to Reconstruct to Urban Standard | \$107,040 |
| Storm Sewer Installations | <u>\$10,000</u> |
| Total | \$117,040 |

Pine Street (Road #8) From Third Avenue to Fourth Avenue

This segment of Pine Street is designated as an arterial road that is \pm 195m in length and has 9.1m asphalt width between the existing concrete curbs. A concrete sidewalk is located on the west side. The PDI of the pavement surface is 2.44 on the basis of moderate longitudinal wheel path, meandering longitudinal and alligator cracking. Rutting is throughout both traffic lanes and, combined with cracking types, indicates structure failures due to loading. Asphalt core results indicate 100mm to 125mm of thickness with approximately 250mm of base gravels. It is also apparent that settlements have occurred at a few catchbasins and sections of the concrete curb has spalling (\pm 40m).



Reconstruction is recommended at which time the road structure should be reviewed and designed for traffic loads occurring on Pine Street.



| | |
|--------------------------------|----------------|
| Reconstruction of Pine Street | \$106,470 |
| Concrete Curb & Gutter Repairs | \$7,000 |
| Storm Sewer Repairs | <u>\$5,000</u> |
| Subtotal | \$118,470 |

4.2.1.2 Third Avenue (Road #10) From Pine Street to Willow Street

This segment of Third Avenue is 95m in length, averages 6.8m in width and is a designated collector. Extensive cracking is present throughout which results in a PDI rating of -0.83. A few pot holes are located near the mid-point of this road. Storm water drainage is contained at the pavement edges due to higher boulevards and thus allowing the base gravels to become saturated over time. Further damage occurs during freeze/thaw events and the road cannot sustain traffic loads.

Accordingly, it is suggested that reconstruction include establishing drainage swales and a storm sewer collection system that would tie to the existing storm manhole on Pine Street.



| | |
|---|----------------|
| Reconstruction of Existing Area | \$38,760 |
| Storm Sewer Installations | \$10,000 |
| Drainage Swales | <u>\$3,000</u> |
| Subtotal | \$51,760 |
| Option to Reconstruct to Urban Standard | \$79,610 |
| Storm Sewer Installations | \$10,000 |
| Drainage Swales | <u>\$3,000</u> |
| Subtotal | \$92,610 |

4.2.1.3 Arbutus Street (Road #18) From Second Avenue to Lakeshore Drive

This segment of Arbutus Street is about 130m in length, 7.5m average width and has a pavement distress rating of 4.5. It is a collector road until north of Lakeshore where it is designated local. Visible pavement edge, transverse and alligator cracking is frequent with a severity rating of moderate to extensive. The east side of the northbound lane is predominately worse due to drainage containment at the pavement edge.



Milling and repaving is the recommended approach for upgrading. Furthermore, approximately 300m² of base reconstruction along with storm swale grading complete with localized storm sewer drywells should be included prior to asphalt placement.

| | |
|---|----------------|
| Mill and Repave to Existing Area | \$39,000 |
| ±300m ² of Base Reconstruction | \$13,500 |
| Localized Storm Sewer Installations | \$10,000 |
| Drainage Swales | <u>\$4,000</u> |
| Subtotal | \$66,500 |

| | |
|---|----------------|
| Option to Reconstruct to Urban Standard | \$94,900 |
| ±300m ² of Base Reconstruction | \$13,500 |
| Localized Storm Sewer Installations | \$10,000 |
| Drainage Swales | <u>\$4,000</u> |
| Subtotal | \$122,400 |

4.2.1.4 Lakeshore Drive (Road #26) From House #325 to House #340

This segment of road has a pavement distress rating of 4.79 which is the lowest of all segments of Lakeshore Drive. It is a local road segment that is 90m in length and 7.3m wide. A total of 8 asphalt cores were completed on Lakeshore Drive with 7 having a thickness over 56mm; this segment measured 27mm with varying layers of gravels and chip seal asphalt.

Cracking includes moderate longitudinal joint and pavement edge, yet alligator cracking is extensive. Storm drainage deficiencies and suspected substandard base are the primary contributing factors to the pavement failures.

Milling and repaving is recommended complete with base evaluation and repairs and localized storm sewer improvements. Reconstruction of base gravels may be required throughout the entire segment pending the geotechnical inspection.



| | |
|---|----------------|
| Mill and Repave to Existing Area | \$26,280 |
| ±360m ² of Base Reconstruction | \$16,200 |
| Localized Storm Sewer Installations | <u>\$9,000</u> |
| Subtotal | \$51,480 |

| | |
|---|----------------|
| Option to Reconstruct to Urban Standard | \$64,980 |
| ±300m ² of Base Reconstruction | \$16,200 |
| Localized Storm Sewer Installations | <u>\$9,000</u> |
| Subtotal | \$90,180 |



4.2.2 Medium Priority Roads

Roads assigned a low or medium priority for upgrades are generally local residential roads where there is traffic flow connectivity between neighbourhoods. From Figure 4.2, a total of 5 road segments are identified as medium priority upgrading and are described following:

4.2.2.1 Thompson Avenue (Road #6) From Margery Street to Southwest End

This segment of Thompson Avenue represents a length of 240m with the pavement width averaging 7.2m. The pavement surface has a pavement distress rating of 4.57 derived from high severity longitudinal wheel path cracking and moderate alligator cracking. Considering this segment is a designated collector, the asphalt core results indicate thin asphalt (29mm and 35mm). The road profile is lacking a defined crown or crossfall which is confining storm water run-off to unsuitable locations.



Localized storm sewer installations along with $\pm 150\text{m}^2$ of base reconstruction shall be included with the recommended milling and repaving.

| | |
|--|----------------|
| Mill and Repave to Existing Area | \$69,120 |
| $\pm 150\text{m}^2$ of Base Reconstruction | \$6,750 |
| Localized Storm Sewer Installations | \$6,000 |
| Drainage Swales in Boulevards | <u>\$9,000</u> |
| Subtotal | \$90,870 |

| | |
|--|----------------|
| Option to Reconstruct to Urban Standard | \$172,320 |
| $\pm 150\text{m}^2$ of Base Reconstruction | \$6,750 |
| Localized Storm Sewer Installations | \$6,000 |
| Drainage Swales in Boulevards | <u>\$9,000</u> |
| Subtotal | \$194,070 |



4.2.2.2 Fourth Avenue (Road #9)

Fourth Avenue is 170m in length with an average pavement width of 6.8m and is a designated local road. A pavement distress rating of 3.19 reflects the moderate cracking, patching, and storm drainage issues throughout. The storm drainage is the major contributing factor as the existing drywell (near Willow) has failed, shoulders have overgrown containing drainage, and the road profile has lost any definition that may have been. Boulevards are generally lower than the road edge, yet high shoulders are preventing functionality.

It is recommended, as part of reconstruction, that the road be raised approximately 0.2 – 0.3m to aid in drainage. Localized storm sewer installations and replacements should be included as part.



| | |
|---|-----------------|
| Reconstruction of Existing Area | \$69,360 |
| Storm Sewer Installations | <u>\$10,000</u> |
| Subtotal | \$79,360 |
| Option to Reconstruct to Urban Standard | \$142,460 |
| Storm Sewer Installations | <u>\$10,000</u> |
| Subtotal | \$152,460 |



4.2.2.3 Beach Crescent (Road #32) From Beach Drive South to House #31

The segment of Beach Crescent, representing a length of 175m and a width of 7.1m, is a local road with moderate longitudinal joint, pavement edge and transverse cracking throughout. High severity alligator cracking and distortion are also visible on the entire segment. The negative pavement distress rating of -1.23 reflects the settlement of the previously placed utility trench and storm drainage containment at the road edges. Apparent base saturation has led to majority failures within that remove the capability of this segment handling any traffic loads.

Concurrently with road reconstruction, modest localized storm sewer installations and road profile raising is recommended. Drainage swales exist for the most part, yet are under utilized due to settlements within the travelled surface.



| | |
|---|-----------------|
| Reconstruction of Existing Area | \$74,550 |
| Localized Storm Sewer Installations | <u>\$35,000</u> |
| Subtotal | \$109,550 |
| Option to Reconstruct to Urban Standard | \$149,800 |
| Storm Sewer Installations | <u>\$35,000</u> |
| Subtotal | \$184,800 |

4.2.2.4 Beach Crescent (Road#33) From House #31 to Beach Drive North

Moderate pavement edge cracking and alligator cracking along with extensive distortion give this local road section a pavement distress rating of 3.76. The segment is 70m in length and averages 6.3m in width with a few utility trench crossings that have settlement. High boulevards are containing storm drainage to the pavement edge and within the traffic lanes.



The recommended reconstruction should include localized storm sewer installations, asphalt curbing, and road profile raising in part.



| | |
|---|-----------------|
| Reconstruction to Existing Area | \$24,460 |
| Localized Storm Sewer Installations | \$15,000 |
| Asphalt Curbing (±60m) | <u>\$2,700</u> |
| Subtotal | \$42,160 |
| Option to Reconstruct to Urban Standard | \$56,560 |
| Localized Storm Sewer Installations | <u>\$15,000</u> |
| Subtotal | \$71,560 |

4.2.2.5 Beach Place (Road #34)

Beach Place is consistent with findings on Beach Crescent (Segment #32) relating to cracking severity and settlement within utility trenches. The cul-de-sac has settled in numerous locations and ponding storm water throughout. Boulevards do not allow any drainage off the road surface whatsoever. This local road is 70m in length, 6.6m in width, ends with a 25m diameter cul-de-sac and has a pavement distress rating of 1.91.



Reconstruction is the recommended approach for upgrading and should be in conjunction with localized storm sewer installations and ±40m of asphalt curbing.

| | |
|---|-----------------|
| Reconstruction to Existing Area | \$27,720 |
| Localized Storm Sewer Installations | \$12,000 |
| Asphalt Curbing | <u>\$1,800</u> |
| Subtotal | \$41,520 |
| Option to Reconstruct to Urban Standard | \$57,820 |
| Localized Storm Sewer Installations | <u>\$12,000</u> |
| Subtotal | \$69,820 |



4.2.3 Low Priority Roads

As described previously, roads assigned a low or medium priority for upgrades are generally local residential roads where there is a traffic flow connectivity between neighbourhoods. Figure 4.2 indicates 5 road segments identified as low priority upgrading and are summarized as follows:

4.2.3.1 Cottonwood Street (Road #1) From Cedar Avenue to Southeast End

This segment of Cottonwood Street is designated local and is 75m in length and averages 11m in width. The negative pavement distress rating of -0.14 derives from moderate to high cracking and distortion along with the settlements of the previously placed utility trench. High boulevards along with the mentioned settlements result in severe storm water ponding throughout this road segment.



Reconstruction is the recommended approach for upgrading at which time it is suggested the road cross-section be modified to crossfall south into the lower play fields and that the utility trench subgrade be evaluated for specification requirements.

| | |
|---|----------|
| Reconstruction to Existing Area | \$49,500 |
| Cross-Section and Boulevard Modifications | \$3,000 |
| Subtotal | \$52,500 |
| Option to Reconstruct to Urban Standard | \$81,750 |
| Localized Storm Sewer Installations | \$15,000 |
| Subtotal | \$96,750 |



4.2.3.2 Elm Street (Road #5)



Elm Street is 100m in length and 7.3m in width that terminates, at the west end, with a half moon cul-de-sac. This locally designated road has a pavement distress rating of 4.19 reflecting the failed utility trench base and poor road drainage. All the boulevards are graded to the pavement edge trapping storm water.

In conjunction with the recommended milling and repaving allowances should be made to repair the utility trench gravels, install localized storm sewers complete with asphalt curbing, and establish boulevard swales between property access points

| | |
|---|----------------|
| Mill and Repave to Existing Area | \$29,200 |
| ±260m ² of Base Reconstruction | \$11,700 |
| Localized Storm Sewer Installations | \$10,000 |
| Asphalt Curb (±50m) | \$2,250 |
| Drainage Swales in Boulevards | <u>\$3,000</u> |
| Subtotal | \$56,150 |



| | |
|---|----------------|
| Option to Reconstruct to Urban Standard | \$72,200 |
| ±260m ² of Base Reconstruction | \$11,700 |
| Localized Storm Sewer Installations | \$10,000 |
| Drainage Swales in Boulevards | <u>\$3,000</u> |
| Subtotal | \$96,900 |

4.2.3.3 Birch Street (Road #13) From Third Avenue to Fourth Avenue / (Road #14) From Second Avenue to Third Avenue

These two road segments are representative of each other and have a pavement distress rating of 4.97. Segment #13 is 190m in length compared to segment #14 being 140m. The average pavement width is 7.4m. Both road segments have moderate alligator and pavement edge cracking due to storm drainage containment at the pavement edge. The boulevards are generally low, yet the shoulder turf has overgrown to an elevation higher than the edge of pavement. As expected in aged asphalt, transverse and meandering longitudinal cracking is throughout.

Milling and repaving is the recommended approach and should include provisions for localized base replacements, boulevard swale definition and grading, as well as localized storm sewer installations.



Road #13

| | |
|---|-----------------|
| Mill and Repave to Existing Area | \$56,240 |
| ±120m ² of Base Reconstruction | \$5,400 |
| Drainage Swales in Boulevards | \$5,800 |
| Localized Storm Sewer Installations | <u>\$21,000</u> |
| Subtotal | \$88,440 |

| | |
|---|-----------------|
| Option to Reconstruct to Urban Standard | \$137,940 |
| ±120m ² of Base Reconstruction | \$5,400 |
| Drainage Swales in Boulevards | \$5,800 |
| Localized Storm Sewer Installations | <u>\$21,000</u> |
| Subtotal | \$170,140 |

Road #14

| | |
|---|-----------------|
| Mill and Repave to Existing Area | \$40,880 |
| ±100m ² of Base Reconstruction | \$4,500 |
| Drainage Swales in Boulevards | \$4,200 |
| Localized Storm Sewer Installations | <u>\$15,000</u> |
| Subtotal | \$64,580 |

| | |
|---|-----------------|
| Option to Reconstruct to Urban Standard | \$101,080 |
| ±100m ² of Base Reconstruction | \$4,500 |
| Drainage Swales in Boulevards | \$4,200 |
| Localized Storm Sewer Installations | <u>\$15,000</u> |
| Subtotal | \$124,780 |



4.2.3.4 Arbutus Street (Road #19) From Lakeshore Drive to Arbutus Place

This segment of Arbutus Street is 305m in length and averages 7.5m in width. It is a local road with a pavement distress rating of 4.5 due to moderate pavement edge, transverse, and alligator cracking. Contained storm run-off at the pavement edges have caused localized base failures. Boulevards on the west side are generally lower than the road edge.



Allowances should be made for localized base reconstruction and storm swale/drainage improvements as part of the recommended mill and repave upgrading.

| | |
|---|----------------|
| Mill and Repave to Existing Area | \$91,500 |
| ±230m ² of Base Reconstruction | \$10,350 |
| Localized Storm Sewer Installations | <u>\$6,000</u> |
| Subtotal | \$107,850 |

| | |
|---|----------------|
| Option to Reconstruct to Urban Standard | \$222,650 |
| ±230m ² of Base Reconstruction | \$10,350 |
| Drainage Swales | <u>\$6,000</u> |
| Subtotal | \$239,000 |



5.0 Summary and Recommendations

5.1 Summary

As a result of the condition assessment study that was completed for all selected roads in the Village of Chase, a PDI rating was calculated for each road segment. The PDI rating is generated based on the MoTI Pavement Surface Condition Rating Manual. The methodology provided by the MoTI manual was used to identify the type and extent of surface cracking of a road segment. The PDI rating permits condition comparisons of individual road segments and provides a classification system.

4.4km of roads were assessed as part of this document, the conditions for which are summarized as follows:

TABLE 5-1: SUMMARY OF ROAD CONDITIONS BY PDI RATING RANGE

| Road Condition | PDI Rating Range | km (% of Total) |
|----------------|------------------|-----------------|
| Good | > 7 | 1.78 km (40%) |
| Fair | 5 to 7 | 0.50 km (11%) |
| Poor | < 5 | 2.16 km (49%) |

5.2 Recommendations

With about 40% of the assessed municipal streets having a pavement surface in "good" condition, preventative maintenance in the form of a crack sealing program is recommended. The objective is to prevent water flow through cracks which compromises granular base materials leading to accelerated pavement surface deterioration.

Road segments having a "poor" condition rating should be the focus of the Village's road capital improvement budget. There are a total of 15 road segments that are in the "poor" condition category. Each of the 15 road segments have been assigned a priority for improvements; low, medium and high. A higher priority is assigned to major municipal roads and/or road segments where a separate infrastructure deficiency exists, such as the most common deficiency; a lack of drainage. Lower priorities are low volume residential roads and/or roads where future development is anticipated that will assist with the funding of road improvements.

Table 5-2 lists all road segments having a "poor" condition rating grouped by priority. The order of listing in each group is not an order of priority. Table 5-2 provides the PDI rating and recommended upgrading for each road segment to existing standards. Estimates are provided

to upgrade to urban standards, i.e. curb, gutter and sidewalks where historical cost data is available.

Of the 15 road segments listed in Table 5-2 a majority will require reconstruction including subbase gravels. An inadequate subbase is considered as the primary contributing factor to the poor condition of many roads in the Village of Chase.

Subbase reconstruction represents about 25% of the reconstruction cost per square meter. It is recommended that the Village assess the feasibility of establishing a gravel stockpile that can be used for road reconstruction purposes.

TABLE 5-2: SUMMARY OF ROAD UPGRADING RECOMMENDATIONS

| Segment | PDI | Upgrading Proposed | To Existing Standard | To Urban Standard | Comment |
|------------------------|-----|-----------------------|-------------------------|----------------------|--|
| High Priority | | | | | |
| 1) Margery Street | 7 | -0.88 Reconstruction | \$55,440 | \$107,040 | Subgrade Review |
| 2) Pine Street | 8 | 2.44 Reconstruction | \$106,470 | In Place | Structure Failure |
| 3) Third Avenue | 10 | -0.83 Reconstruction | \$38,760 | \$79,610 | Drainage Issues |
| 4) Arbutus Street | 18 | 4.50 Mill & Repave | \$39,000 | \$94,900 | Localized Base Replacements |
| 5) Lakeshore Drive | 26 | 4.79 Mill & Repave | \$26,280 | \$64,980 | Localized Base Replacements |
| Medium Priority | | | | | |
| 1) Thompson Avenue | 6 | 4.57 Mill & Repave | \$69,120 | \$172,320 | Drainage Issues |
| 2) Fourth Avenue | 9 | 3.19 Reconstruction | \$69,360 | \$142,460 | Drainage Issues |
| 3) Beach Crescent | 32 | -1.23 Reconstruction | \$74,550 | \$149,800 | Utility Trench Failure |
| 4) Beach Crescent | 33 | 3.76 Reconstruction | \$26,460 | \$56,560 | Utility Trench Failure |
| 5) Beach Place | 34 | 1.91 Reconstruction | \$27,720 | \$57,820 | Utility Trench Failure |
| Low Priority | | | | | |
| 1) Cottonwood Street | 1 | -0.14 Reconstruction | \$49,500 | \$81,750 | Utility Trench Failure, Drainage Issues |
| 2) Elm Street | 5 | 4.19 Mill & Repave | \$29,200 | \$72,200 | Utility Trench Failure, Drainage Issues |
| 3) Birch Street | 13 | 4.97 Mill & Repave | \$56,240 | \$137,940 | Drainage Issues |
| 4) Birch Street | 14 | 4.97 Mill & Repave | \$40,880 | \$101,080 | Drainage Issues |
| 5) Arbutus Street | 19 | 4.50 Mill & Repave | \$91,500 | \$222,650 | Drainage Issues |

APPENDIX A

Road Condition Assessment Form

| Pavement Distress Rating System – Severity Levels | | | |
|---|---|--|--|
| Distress Type | Low Severity | Moderate Severity | High Severity |
| Longitudinal Wheel Path Cracking (LWP) | Single cracks with no spalling; mean unsealed crack width < 5mm | Single or multiple cracks; moderate spalling; mean unsealed crack width 5-20mm | Single or multiple cracks; severe spalling; mean unsealed crack width >20mm; alligator |
| Longitudinal Joint Cracking (LJC) | Single cracks with no spalling; mean unsealed crack width < 5mm | Single or multiple cracks; moderate spalling; mean unsealed crack width 5-20mm | Single or multiple cracks; severe spalling; mean unsealed crack width >20mm; alligator |
| Pavement Edge Cracking (PEC) | Single cracks with no spalling; mean unsealed crack width < 5mm | Single or multiple cracks; moderate spalling; mean unsealed crack width 5-20mm | Single or multiple cracks; severe spalling; mean unsealed crack width >20mm; alligator |
| Transverse Cracking (TC) | Single cracks with no spalling; mean unsealed crack width < 5mm | Single or multiple cracks; moderate spalling; mean unsealed crack width 5-20mm | Single or multiple cracks; severe spalling; mean unsealed crack width >20mm; alligator |
| Meandering Longitudinal Cracking (MLC) | Single cracks with no spalling; mean unsealed crack width < 5mm | Single or multiple cracks; moderate spalling; mean unsealed crack width 5-20mm | Single or multiple cracks; severe spalling; mean unsealed crack width >20mm; alligator |
| Alligator Cracking (AC) | Not rated | Interconnected cracks forming a complete block pattern; slight spalling and no pumping | Interconnected cracks forming a complete block pattern, moderate to severe spalling, pieces may move and pumping may exist |
| Rutting (RUT) | Less than 10mm | 10 to 20mm | Greater than 20mm |
| Shoving (SHV) | Barely noticeable to noticeable | Rough ride | Very rough ride |
| Distortion (DST) | Not rated | Noticeable swaying motion; good car control | Fair to Poor car control |
| Bleeding (BLD) | Not rated | Distinctive appearance with free excess asphalt | Free asphalt gives pavement surface a wet look; tire marks are evident |
| Potholes (POT) | Less than 25mm deep | 25 to 50mm deep | Greater than 50mm deep |
| Ravelling (RAV) | Not rated | Aggregate and/or binder worn away; surface texture rough and pitted; loose particles exist | Aggregate and/or binder worn away; surface texture is very rough and pitted |

| Pavement Distress Rating System – Density Levels | | | | | | | |
|--|--------|------|-------|--------------|----------|-----------|------------|
| Distress Type | Units | None | Few | Intermittent | Frequent | Extensive | Throughout |
| Longitudinal Wheel Path Cracking (LWP) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Longitudinal Joint Cracking (LJC) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Pavement Edge Cracking (PEC) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Transverse Cracking (TC) | Number | 0 | 1-2 | 3-4 | 5-7 | 8-10 | >10 |
| Meandering Longitudinal Cracking (MLC) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Alligator Cracking (AC) | Area | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Rutting (RUT) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Shoving (SHV) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Distortion (DST) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Bleeding (BLD) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |
| Potholes (POT) | Number | 0 | 1-2 | 3-4 | 5-6 | 7-9 | >10 |
| Ravelling (RAV) | Length | 0% | < 10% | 10-20% | 20-50% | 50-80% | 80-100% |

APPENDIX B

Road Assessment Summary

STATIC INFORMATION

PDI

Cost Estimate

| Road # | Road Name | Road Category | Start | End | Road Length [m] | Road Width [m] | PDI | Drainage Deduct | Total Deduct | General PDI Category | Recommended Maintenance | Recommended Maintenance Estimate | Upgrade to Urban Standard Estimate (includes Recommended Maintenance) |
|--------|---------------|---------------|---------------|--------------|-----------------|----------------|------|-----------------|--------------|----------------------|-------------------------|----------------------------------|---|
| 1 | Cottonwood St | Local | Cedar Ave | East Cds | 75 | 11 | -0.1 | 1.0 | 10.1 | Poor | Reconstruction | \$49,500.00 | \$81,750.00 |
| 2 | Cedar Ave | Collector | Cottonwood St | Start Curb | 220 | 7.4 | 9.4 | 0.0 | 0.6 | Good | Crack Seal | \$550.00 | \$95,150.00 |
| 3 | Cedar Ave | Collector | Start Curb | End Curb | 78 | 9.8 | 7.1 | 0.0 | 2.9 | Good | Crack Seal | \$195.00 | \$22,815.00 |
| 4 | Cedar Ave | Collector | End Curb | Coburn St | 90 | 8.4 | 5.3 | 0.3 | 4.7 | Fair | Overlay | \$18,900.00 | \$57,600.00 |
| 5 | Elm St | Local | Cedar Ave | Cds | 100 | 7.3 | 4.2 | 1.0 | 5.8 | Poor | Mill and Repave | \$29,200.00 | \$72,200.00 |
| 6 | Thompson Ave | Collector | Margery St | SW End | 240 | 7.2 | 4.6 | 1.0 | 5.4 | Poor | Mill and Repave | \$69,120.00 | \$172,320.00 |
| 7 | Margery St | Local | Thompson Ave | Shuswap Ave | 120 | 7.7 | -0.9 | 1.0 | 10.9 | Poor | Reconstruction | \$55,440.00 | \$107,040.00 |
| 8 | Pine St | Arterial | 3rd Ave | 4th Ave | 195 | 9.1 | 2.4 | 0.0 | 7.6 | Poor | Reconstruction | \$106,470.00 | \$106,470.00 |
| 9 | Fourth Ave | Local | Pine St | Birch St | 170 | 6.8 | 3.2 | 1.0 | 6.8 | Poor | Reconstruction | \$69,360.00 | \$142,460.00 |
| 10 | Third Ave | Collector | Pine St | Willow St | 95 | 6.8 | -0.8 | 1.0 | 10.8 | Poor | Reconstruction | \$38,760.00 | \$79,610.00 |
| 11 | Third Ave | Collector | Willow St | Birch St | 87 | 7 | 9.6 | 0.3 | 0.4 | Good | Crack Seal | \$217.50 | \$37,627.50 |
| 12 | Third Ave | Collector | Birch St | Aspen Dr | 80 | 7.3 | 9.6 | 0.3 | 0.4 | Good | Crack Seal | \$200.00 | \$34,600.00 |
| 13 | Birch St | Local | Fourth Ave | Third Ave | 190 | 7.4 | 5 | 1.0 | 5.0 | Poor | Mill and Repave | \$56,240.00 | \$137,940.00 |
| 14 | Birch St | Local | Third Ave | Second Ave | 140 | 7.3 | 5 | 1.0 | 5.0 | Poor | Mill and Repave | \$40,880.00 | \$101,080.00 |
| 15 | Willow St | Local | Second Ave | Third Ave | 160 | 6.9 | 8.4 | 1.0 | 1.6 | Good | Crack Seal | \$400.00 | \$69,200.00 |
| 16 | Aspen Dr | Local | Third Ave | North Cds | 145 | 7.5 | 9.6 | 0.3 | 0.4 | Good | Crack Seal | \$362.50 | \$62,712.50 |
| 17 | Aspen Dr | Local | Third Ave | South Cds | 85 | 7 | 8.8 | 1.0 | 1.2 | Good | Crack Seal | \$212.50 | \$36,762.50 |
| 18 | Arbutus St | Collector | Second Ave | Lakeshore Dr | 130 | 7.5 | 4.5 | 1.0 | 5.5 | Poor | Mill and Repave | \$39,000.00 | \$94,900.00 |
| 19 | Arbutus St | Local | Lakeshore Dr | Arbutus Pl | 305 | 7.5 | 4.5 | 1.0 | 5.5 | Poor | Mill and Repave | \$91,500.00 | \$222,650.00 |
| 20 | Arbutus Pl | Local | Arbutus St | West End | 52 | 7.3 | 6.6 | 0.3 | 3.4 | Fair | Overlay | \$9,490.00 | \$31,850.00 |
| 21 | Arbutus Pl | Local | Arbutus St | East End | 55 | 10 | 6.9 | 0.0 | 3.1 | Fair | Overlay | \$13,750.00 | \$37,400.00 |
| 22 | Lakeshore Dr | Collector | Arbutus St | Balsam Pl | 150 | 7.2 | 8.6 | 0.0 | 1.4 | Good | Crack Seal | \$375.00 | \$64,875.00 |
| 23 | Lakeshore Dr | Collector | Balsam Pl | House #547 | 210 | 7.7 | 7.3 | 0.0 | 2.7 | Good | Crack Seal | \$525.00 | \$90,825.00 |
| 24 | Lakeshore Dr | Collector | House #547 | Beach Dr | 195 | 7.2 | 6.8 | 1.0 | 3.2 | Fair | Overlay | \$35,100.00 | \$118,950.00 |
| 25 | Lakeshore Dr | Local | Beach Dr | House #340 | 105 | 7.5 | 9.6 | 0.3 | 0.4 | Good | Crack Seal | \$262.50 | \$45,412.50 |
| 26 | Lakeshore Dr | Local | House #340 | House #325 | 90 | 7.3 | 4.8 | 1.0 | 5.2 | Poor | Mill and Repave | \$26,280.00 | \$64,980.00 |
| 27 | Lakeshore Dr | Local | House #325 | House #315 | 60 | 7.2 | 9.9 | 0.0 | 0.1 | Good | Crack Seal | \$150.00 | \$25,950.00 |
| 28 | Lakeshore Dr | Local | House #315 | Second Ave | 145 | 7.3 | 8.7 | 0.0 | 1.3 | Good | Crack Seal | \$362.50 | \$62,712.50 |
| 29 | Beach Dr | Local | Second Ave | Beach Cres S | 65 | 6.7 | 8.6 | 0.3 | 1.4 | Good | Crack Seal | \$162.50 | \$28,112.50 |
| 30 | Beach Dr | Local | Beach Cres S | Beach Cres N | 110 | 6 | 6.8 | 1.0 | 3.2 | Fair | Overlay | \$16,500.00 | \$63,800.00 |
| 31 | Beach Dr | Local | Beach Cres N | Lakeshore Dr | 190 | 7.3 | 9.7 | 0.0 | 0.3 | Good | Crack Seal | \$475.00 | \$82,175.00 |
| 32 | Beach Cres | Local | Beach Drive | House #31 | 175 | 7.1 | -1.2 | 1.0 | 11.2 | Poor | Reconstruction | \$74,550.00 | \$149,800.00 |
| 33 | Beach Cres | Local | House #31 | Beach Dr | 70 | 6.3 | 3.8 | 1.0 | 6.2 | Poor | Reconstruction | \$26,460.00 | \$56,560.00 |
| 34 | Beach Pl | Local | Beach Dr | West Cds | 70 | 6.6 | 1.9 | 1.0 | 8.1 | Poor | Reconstruction | \$27,720.00 | \$57,820.00 |

APPENDIX C

Referenced Material

- Asphalt Core Report – KamTech Quality Management – July 4, 2019
 - Figure 2.7: Road Coring Locations (July 4, 2019)



Core Report

TO: Derek Young, True Consulting

File: QM19-46
Date: July 4, 2019

FROM: Brent Traxel, ASCT

RE: Chase, BC Coring

Coring took place in Chase, BC to investigate depths of existing asphalt and gravels beneath. All cores were taken on designated roads @ locations maximum 100m apart. Base gravels were visually inspected to maximum permit able depths. Results from investigation below.



Cottonwood Street

1

❖ **20m south of Cedar Ave. SBL, 2.8m o/s from C/L**

○ *Depth of asphalt - 80mm*

- Well graded clean gravel with minimal fracture found below asphalt to approx. 12" below top of asphalt.



Cedar Ave.

1

❖ **100m east of Cottonwood St. EBL, 2.1m o/s from C/L**

○ *Depth of asphalt – 58mm*

- Asphalt appears to be dense and in good shape. Well graded base gravels with some fracture found below asphalt to approx. 12" below top of asphalt.



2

❖ **200m east of Cottonwood St. WBL, 1.9m o/s from C/L**

○ *Depth of asphalt – 48mm*

- Well graded base gravels with some fracture found below asphalt to approx. 12" below top of asphalt.

3

❖ **300m east of Cottonwood St. EBL, 1.6m o/s from C/L**

○ *Depth of asphalt – 30mm*

- Asphalt very thin and in poor shape. Well graded base gravels with some fracture found below asphalt to approx. 12" below top of asphalt.



Elm Steet

1

❖ **30m north of Cedar Ave. SBL, 1.7m o/s from C/L**

- *Depth of asphalt – 56mm*
 - Well graded base gravels densely packed, some fracture throughout to approx. 10" below top of asphalt.

2

❖ **80m north of Cedar Ave. NBL, 2.0m o/s from C/L**

- *Depth of asphalt – 63mm*
 - Asphalt generally in good dense condition 1-1/2"–2" minus, clean gravel with minimal fracture found below asphalt to approx. 12" below top of asphalt.



Margery Street

1

❖ **20m north of Thompson Ave. SBL, 1.2m o/s from C/L**

- *Depth of asphalt – 75mm*
 - Asphalt mostly rotten top 20mm separated from main core (no tack) well graded base gravels densely packed, some fracture throughout to approx. 12" below top of asphalt.

Thompson Ave.

1

❖ **100m west of Margery St. EBL, 2.1m o/s from C/L**

- *Depth of asphalt – 29mm*
 - 1" minus from below asphalt to 4", below 4" some oversized (2–2-1/2") to 12" below grade. All base gravels well compacted.

2

❖ **@ intersection with Macpherson St. WBL, 1.4m o/s from C/L**

- *Depth of asphalt – 35mm*
 - Asphalt very thin on this road. 1" minus from below asphalt to 6", below 6" some oversized (2–2-1/2") to 12" below grade. All base gravels well compacted.



Aspen Drive

1

❖ **100m North of 3Rd Ave. NBL, 1.9m o/s from C/L**

- *Depth of asphalt – 63mm*
 - Good 1" minus dense base gravels from below asphalt to 7", 7" to 12" below pavement 2" minus dense base Gravels.



2

❖ **15m North of 3Rd Ave. SBL, 2.4m o/s from C/L**

- *Depth of asphalt – 72mm*
 - 1-1/2" minus dense base gravels from below asphalt to 10".

3

❖ **30m South of 3Rd Ave. NBL, @ C/L**

- *Depth of asphalt – 105mm – top 80mm dense bottom 25mm rotten*
 - 1" minus course base gravels with minimal fracture to 14".



3Rd Ave.

1

❖ **Between Aspen and Birch, WBL, 2.0m o/s from C/L**

- *Depth of asphalt – 54mm*
 - Densely packed 2" minus base gravels with high fracture to 10".

2

❖ **Between Birch and Willow, EBL, 0.5m o/s from C/L**

- *Depth of asphalt – 61mm*
 - Good 1-1/2" minus dense base gravels from below asphalt to 12".

3

❖ **Between Willow and Pine, WBL, 2.9m o/s from C/L**

- *Depth of asphalt – 50mm*
 - Dirty Gravels with signs of organics to 5" below asphalt, clean well graded below that to 12".



Pine Street.

1

- ❖ **14m north of 3rd Ave. NBL, 3.1m o/s from C/L**

- *Depth of asphalt – 100mm*
 - Clean, dense, well grade base gravels below to 10".

2

- ❖ **14m south of 4th Ave. SBL, 4.1m o/s from C/L**

- *Depth of asphalt – 125mm*
 - Densely packed 1-1/2" minus base gravels with high fracture to 10".



4th Ave.

1

- ❖ **Between Pine and Willow EBL, 1.5m o/s from C/L**

- *Depth of asphalt – 80mm*
 - Round rocks to 4" from 4" to 12" Clean, dense, well grade base gravels.

2

- ❖ **Between Willow and Birch WBL, 0.8m o/s from C/L**

- *Depth of asphalt – 42mm*
 - 1" base gravel with fracture to 12"

Birch Street.

1

- ❖ **20m south of 4th Ave. SBL, 2.3m o/s from C/L**

- *Depth of asphalt – 98mm*
 - Well graded base gravels to 10"

2

- ❖ **5m south of 3rd Ave. NBL, 0.4m o/s from C/L**

- *Depth of asphalt – 62mm*
 - Well graded base gravels to 10"



3

- ❖ **20m north of 2nd Ave. SBL, 1.9m o/s from C/L**
 - *Depth of asphalt – 65mm*
 - Well graded base gravels to 12"

Willow Street.

1

- ❖ **25m north of 2nd Ave. NBL, 2.2m o/s from C/L**
 - *Depth of asphalt – 92mm*
 - Well graded base gravels to 10"

2

- ❖ **25m south of 3rd Ave. SBL, 1.1m o/s from C/L**
 - *Depth of asphalt – 110mm*
 - 1" base gravels to 12"



Arbutus Street.

1

- ❖ **100m north of 2nd Ave. NBL, 1.8m o/s from C/L**
 - *Depth of asphalt – 89mm*
 - Well graded base gravels to 10"

2

- ❖ **200m north of 2nd Ave. SBL, 1.2m o/s from C/L**
 - *Depth of asphalt – 70mm*
 - Well graded base gravels to 10"

3

- ❖ **300m north of 2nd Ave. NBL, 2.6m o/s from C/L**
 - *Depth of asphalt – 83mm*
 - Well graded base gravels to 10"

Arbutus Place.

1

- ❖ **10m west of Arbutus Street. EBL, 1.8m o/s from C/L**
 - *Depth of asphalt – 81mm*
 - Well graded base gravels to 12"

2

- ❖ **10m east of Arbutus Street. WBL, 1.4m o/s from C/L**
 - *Depth of asphalt – 78mm*
 - Well graded base gravels to 10"

Lakeshore Drive.

1

- ❖ **100m north of 2nd Ave. NBL, 2.3m o/s from C/L**
 - *Depth of asphalt – 56mm*
 - 1-1/2" Well graded base gravels to 12"

2

- ❖ **200m north of 2nd Ave. SBL, 1.6m o/s from C/L**
 - *Depth of asphalt – 27mm*
 - 1" Well graded base gravels to 6", 6"-8" old asphalt/chip seal then 8"-12" good gravels.



3

- ❖ **300m north of 2nd Ave. SBL, 1.9m o/s from C/L**
 - *Depth of asphalt – 68mm*
 - Well graded base gravels to 10"

4

- ❖ **400m north of 2nd Ave. SBL, 1.1m o/s from C/L**
 - *Depth of asphalt – 58mm*
 - Well graded base gravels to 12"

5

- ❖ **500m north of 2nd Ave. NBL, 2.2m o/s from C/L**
 - *Depth of asphalt – 58mm*
 - 2" Well graded base gravels to 10"

6

- ❖ **600m north of 2nd Ave. SBL, 1.5m o/s from C/L**
 - *Depth of asphalt – 70mm*
 - Well graded base gravels to 12"

7

- ❖ **700m north of 2nd Ave. NBL, 3.2m o/s from C/L**
 - *Depth of asphalt – 85mm, Lifts separated Top 30mm, Bottom 55mm*
 - Darker coloured base gravel (Grey) still dense with fracture 12"



8

- ❖ **800m north of 2nd Ave. SBL, 3.0m o/s from C/L**
 - *Depth of asphalt – 65mm*
 - Same slightly darker gravel dense to 10"

Beach Drive.

1

- ❖ **100m north of 2nd Ave. NBL, 2.0m o/s from C/L**
 - *Depth of asphalt – 46mm*
 - Well graded base gravels to 10"

2

- ❖ **200m north of 2nd Ave. SBL, 1.5m o/s from C/L**
 - *Depth of asphalt – 78mm*
 - Well graded base gravels to 12"



3

- ❖ **300m north of 2nd Ave. NBL, 1.7m o/s from C/L**
 - *Depth of asphalt – 80mm*
 - Well graded base gravels to 10"

Beach Cres.

1

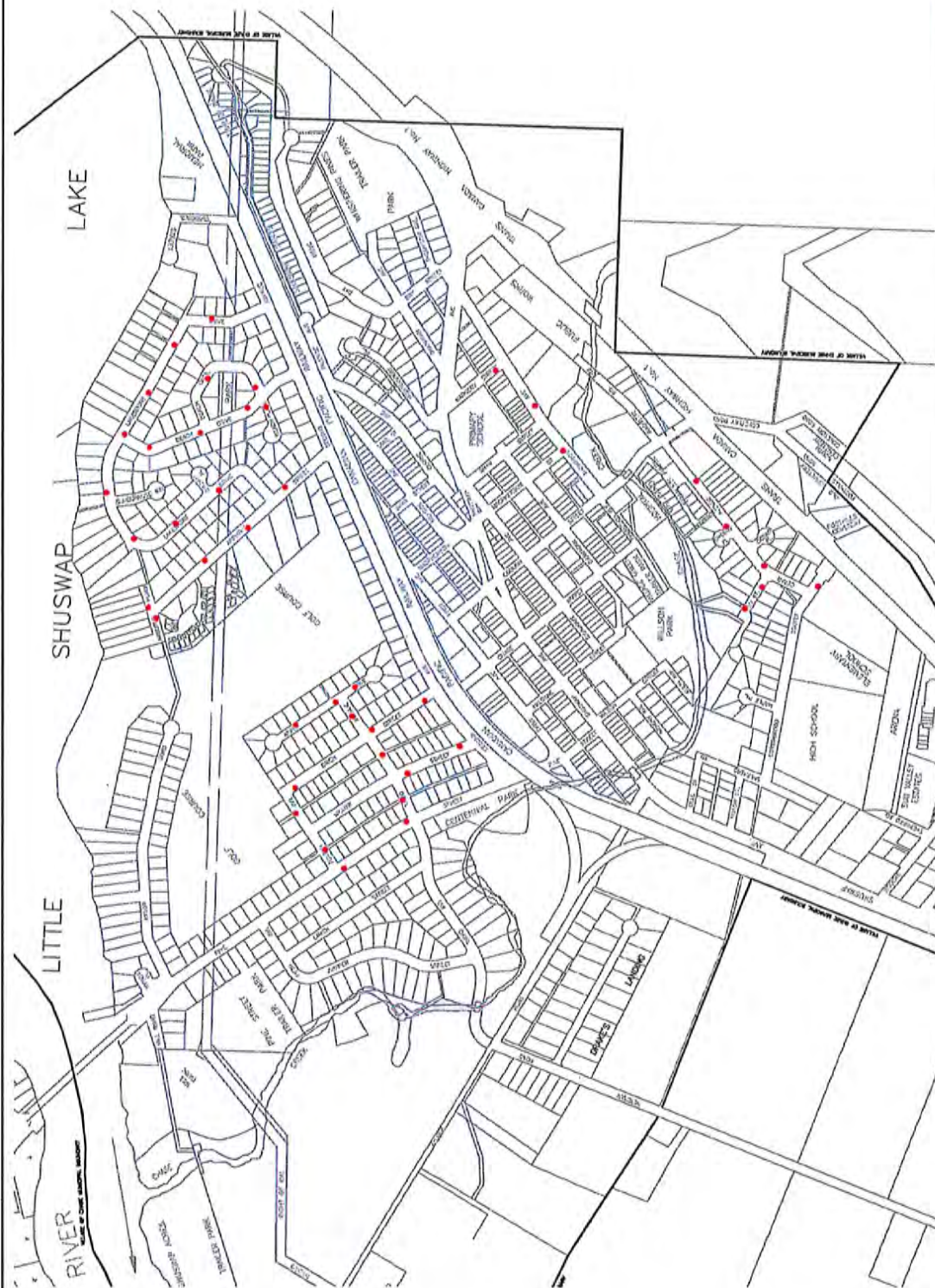
- ❖ **100m east of Beach Drive. (north) EBL, 1.8m o/s from C/L**
 - *Depth of asphalt – 55mm*
 - Well graded base gravels to 12"

2

- ❖ **20m east of Beach Drive. (south) WBL, 1.2m o/s from C/L**
 - *Depth of asphalt – 43mm*
 - Well graded base gravels to 12"

3

- ❖ **20m West of Beach Drive. (south) @ C/L**
 - *Depth of asphalt – 36mm*
 - Well graded base gravels to 10"



| | |
|-----------------|------|
| DESIGN BY: DU | |
| SCALE: 1:7500 | REV: |
| DWG NO.: | 2.7 |
| FIGURE | |
| TRUE CONSULTING | |
| DRAWN BY: TT | |
| DATE: JULY 2019 | |

VILLAGE OF CHASE
2019 PAVEMENT CONDITION ASSESSMENT
ROAD CORING LOCATIONS (July 4, 2019)



CHASE LIONS CLUB
P.O. BOX 12, CHASE, BRITISH COLUMBIA V0E 1M0

To Mayor and Council:

Nov 21/19

Re: Proposed Off Leash Dog Park at Mill Park:

In 2016, The Chase Lions Club started to fund raise for an off leash dog park.

At that time the Chase Lions Club did not have the funds in place to complete this project and gave the Village of Chase funds to hold in trust. The Village budget at that time did not allow for expenditure on an off leash dog park and therefore could not assist the Lions Club with this project.

Our funds were then returned to the Club.

The Chase Lions Club, now has all the funding in place to install the fencing. We have done a walk around with COA Heinrich and Public Works Foreman Clint Wright and have come up with a plan for a much more suitable location than the original proposal of 2016.

Our upcoming pancake breakfast should secure enough funding to purchase a few benches, and trees and possible water source can be installed in the spring.

Our club also may be interested in doing this as a 2 phase project.

The second, in another year, would install pathways from the RV park area around the side of the ball diamond and join to the existing dog park area once installed.

Firstly, we are seeking council approval, to initiate Phase 1 with the Dog Park being in the back behind the Mill Park ball diamond, there is plenty of space for both the dog park and a large parking area.

Thank you for your time,

Chase Lions Club

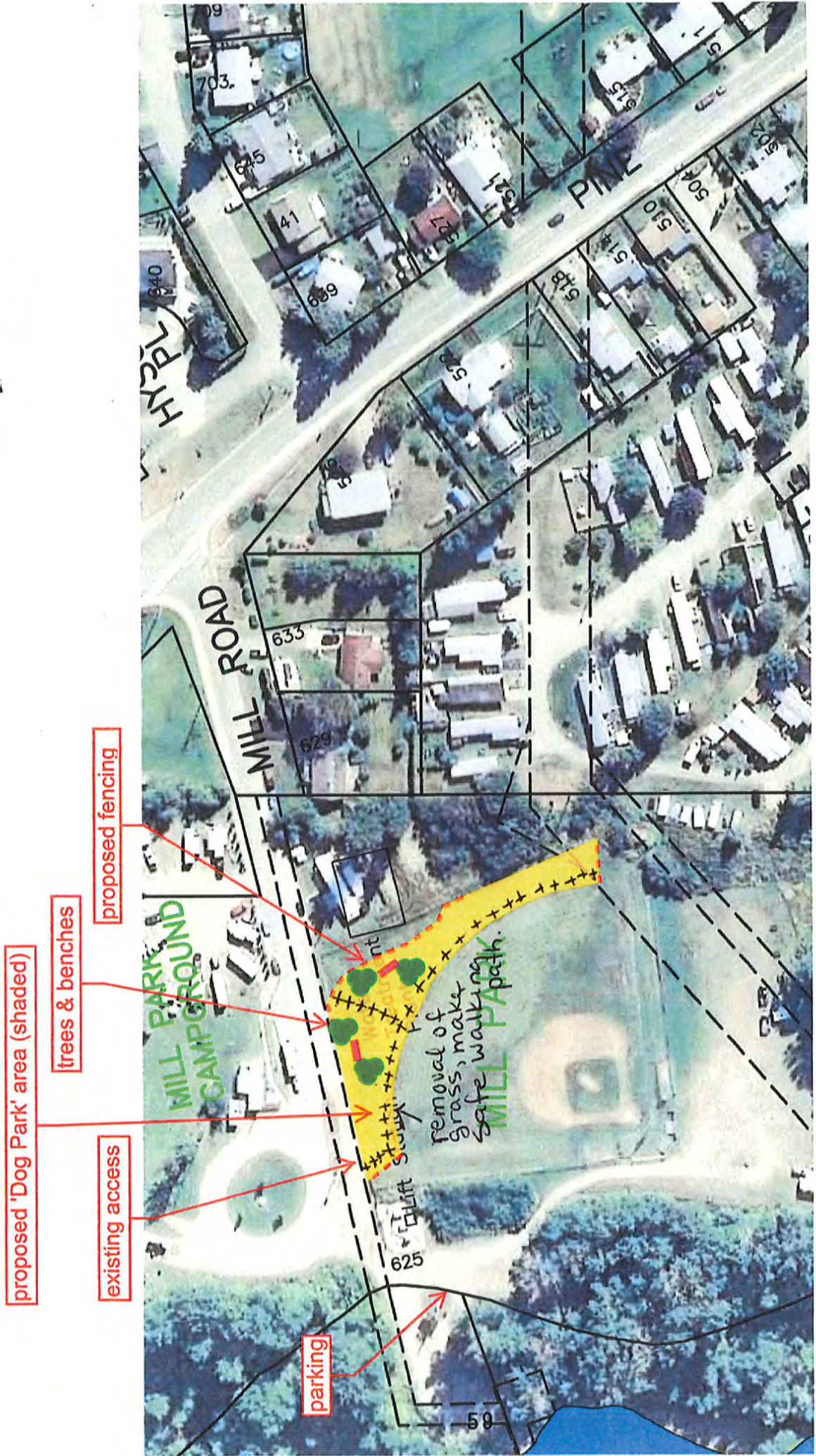
Naun Bassett
Secretary,
250-318-4527.





Phase 1

Phase 2





VILLAGE OF CHASE

Memorandum

Date: 19 November 2019

To: Mayor and Council

From: Corporate Officer

RE: Council Procedures Bylaw Amendment

This bylaw is an amending bylaw to *Council Procedures Bylaw 783-2012*.

At the October 22, 2019 Regular meeting, Council resolved to allow for up to two members of Council to participate electronically provided a 'physical' quorum is present; and to remove the requirement for 48 hours' notice.

Administration was also directed to include a provision for having a *Notice of Motion* so that items Council members wish to bring forward are merely introduced at a Council meeting, and subsequently fully considered by Council at the following meeting. This will provide Council the ability for thoughtful consideration of a matter and avoids having to consider any matter unexpectedly.

Recommendation:

THAT Village of Chase Council Procedures Amendment Bylaw No. 883-2019 be given first three readings.

Respectfully submitted,

Approved for Council Consideration by CAO

**VILLAGE OF CHASE
BYLAW NO. 883 – 2019**

A BYLAW TO AMEND VILLAGE OF CHASE COUNCIL PROCEDURES BYLAW 783-2012

WHEREAS the Council of the Village of Chase has adopted Council Procedures Bylaw No. 783-2012;

AND WHEREAS The Council of the Village of Chase deems it necessary to amend Bylaw No. 783-2012;

NOW THEREFORE, the Council of the Village of Chase, in open meeting assembled, enacts as follows:

1. This bylaw may be cited for all purposes as "Council Procedures Amendment Bylaw No. 883-2019".

2. Section 3, *DEFINITIONS*, is hereby amended by adding:

"Notice of Motion means an opportunity for a Council member to announce a business item they wish to be included on the next Council meeting agenda in order to avoid consideration of such matter unexpectedly;"

3. Section 9, *AGENDAS*, is hereby replaced in entirety with:

AGENDAS

a) The Agenda for all open Council or Committee meetings, shall proceed in the following order:

| Second Tuesday of the Month | Fourth Tuesday of the Month |
|---|--|
| Call to Order | Call to Order |
| Adoption of the Agenda | Adoption of the Agenda |
| Adoption of the Minutes | Adoption of the Minutes |
| Public Hearings | Public Hearings |
| Delegations | Delegations |
| Public Input on Current Agenda Items | Public Input on Current Agenda Items |
| Reports a) Mayor and Council b) Staff | Reports a) Mayor and Council |
| Unfinished Business | Unfinished Business |
| New Business | New Business |
| | Opportunity for Public to speak on Municipal Matters |
| Notice of Motion | Notice of Motion |
| In Camera | In Camera |
| Release of In Camera Items | Release of In Camera Items |
| Adjournment | Adjournment |

4. Section 21, *ELECTRONIC PARTICIPATION*, is hereby replaced in entirety with:

ELECTRONIC PARTICIPATION

- a) A member of Council who is unable to attend a meeting may participate by electronic means in accordance with section 128 of *the Community Charter*, providing Administration is able to secure the necessary equipment and make suitable timely requisite preparations.
- b) The Chairperson may not participate electronically.
- c) A maximum of up to two Council members may participate in any Council meeting by electronic means at any given meeting subject to having a physical quorum in the Council Chambers.
- d) A council member is not permitted to participate electronically in a meeting if that member does not join the meeting at its scheduled start time.
- e) A council member participating electronically will be deemed to have voted in the affirmative during technical interruptions, disconnections, and unintelligible responses during a meeting.

5. Section 12, *NOTICE OF MOTION*, is hereby inserted:

NOTICE OF MOTION

- a) If a member introduces a Notice of Motion:
 - 1. They may provide the Notice of Motion which they intend to present to Council by giving a copy of such motion to the Corporate Officer during or prior to the meeting of the Council. The Notice of Motion shall be read out at the meeting by the introducing Council member, and shall appear in the minutes of that meeting as a Notice of Motion and must be placed onto the agenda of the next meeting under *Unfinished Business*.
 - 2. Alternatively, the Council member may give the Notice of Motion to the Corporate Officer more than 6 days prior to the meeting, and it will be placed on the agenda as a motion for consideration at the meeting, when that member will provide only an introduction to the motion;
 - 3. The Council member will then provide any relevant background information to the Corporate Officer more than 6 days prior to the meeting that the item is to appear on the agenda under *Unfinished Business*.
 - 4. Any Notice of Motion that is considered time-sensitive and/or urgent can be dealt with at the same meeting it is introduced subject to a 2/3 vote of all members present to waive the next meeting requirement.

6. All subsequent sections will be adjusted sequentially.

READ A FIRST TIME THIS __ DAY OF __, 2019

READ A SECOND TIME THIS __ DAY OF __, 2019

READ A THIRD TIME THIS __ DAY OF __, 2019

ADOPTED THIS __ DAY OF __, 2019

Rod Crowe, Mayor

Sean O'Flaherty, Corporate Officer

Tuesday Nov 19/19

NOV 20 2019

Chase Council

I have it from a reliable source
That a dog park is in the works for
behind the ball park. I for one have
been lobbying for a long time now
and so appreciate this new development.

If I may, There is an
alternative to this sight and
would like to share my thoughts.

The ~~base~~ Lions Park is usually
full all summer and could use
more space. The proposed dog park
sight could afford a number of
new rights for RV's which would
generate large amounts of money
that could fund many more

Projects including a state of the art
Dog park. The location I have
come up with is at the Rodio
grounds on VLA. There is enough
room to segregate small and large
dogs and still have plenty of room
for parking.

Thank you for taking the time
to listen to my plea on behalf of all
dogs in Chass which by the way
number far greater than your figures
indicate.

Amfoc
239 Willow St
Chass AC



VILLAGE OF CHASE

Memorandum

Date: November 22, 2019
To: Mayor and Council
From: CAO
RE: Survey Results – Questions posed to solicit input for MP Arnold meeting
November 28, 2019

At its November 12, 2019 meeting Council directed Administration to obtain input for MP Mel Arnold's 2020 Federal Budget Submission. A survey was deployed with the following questions and answers provided:

1. What transportation infrastructure such as roads and bridges should we request financial support for from the Federal government in 2020?

- Get our provincial government to get their butt in gear and finish our highway through
- Easy and safe accesses on and off new highway
- Finish the TCH through Chase
- Brooke Drive intersections and paving
- The walking bridge over at Wilson park. Bike paths
- Better access to new hwy one... concerned over change in access to the highway in and out of chase
- Sidewalks
- drainage ditches replaced with culverts
- Rebuild the bridge at Willson park
- more Police
- Over pass at the train crossing on pine street
- Chase hwy1 entrances and exits
- Over or under pass at one of the train crossings

2. Are there needs in Chase relating to employment, social supports and housing that you think we should share with MP Arnold?

- Federal aid for our lumber Industry
- connect road to Sun Peaks
- More doctors and lab staff
- Community Hall roof replacement
- More rental spaces for families
- Chase needs to bring some sort of industry into the area to provide more employment to local people so that the money doesn't go elsewhere - would also keep families in chase
- More housing
- Need more housing for young families

- We need more lab techs for the blood lab
- Longer hours in the medical clinic
- More doctors
- Housing for seniors to stay in the community as long as possible
- Sustainability for small business

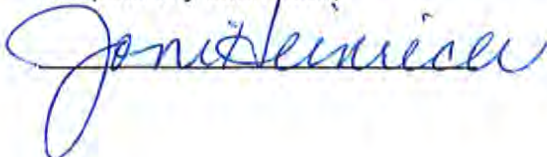
3. Are there needs in Chase for enhanced water, wastewater, parks or energy infrastructure?

- sewage lagoons get out of control
- start planning to add solar panels to appropriate places
- Replacement of waterline under Hwy 1 to reservoir
- A dog park would be appreciated and a great attraction for tourists. If its near the exit of the new highway, people would be encouraged to stop. They currently use the small patch of grass near the gas station. It would also be used year round by the citizens of Chase, especially if lighting was provided.
- water safety concerns
- Better storm drainage – replace ditches with proper infrastructure
- Replace the community hall
- dog park
- We need more walking trails all along Chase Creek and all along the waterfront between the two boat launches
- an improved boat launch
- Dog park
- A proper and safe boat launch

4. Please provide any other input relating to programs or projects that the Federal government should support in Chase.

- Support our Trail Alliance
- Pave our streets
- road to SUNPEAKS
- Connectivity ranges and speeds (broadband)
- Federal funding to support summer staffing
- Expand the bike and golf cart routes
- Explore a transit system for folks who commute to Kamloops for work or school
- More programs for youth like after school programs
- Chase hwy1 entrances and exits
- Mayor and Council need guidance with budgets
- Focus on small business and a boat launch that can actually be utilized

Respectfully submitted,





OCT 22 2019

His Worship
Mayor Rod Crowe
Village of Chase
PO Box 440
Chase BC V0E 1M0

Reference: 288749

Dear Mayor Crowe,

Re: Thank you for meeting at UBCM 2019

Thank you for taking the time to meet with me at the Union of British Columbia Municipalities (UBCM) Convention in Vancouver. I was glad to have the opportunity to discuss improvements through Chase.

This convention is an essential part of my year, because I can connect face-to-face with leaders like you who know their communities better than anyone. Your neighbours and local businesses come to you first with their ideas and frustrations. The provincial government relies on your insight to guide our plans, and I want you to know how much I appreciate the work you do.

This year's theme of resiliency and change brought home how important it is for governments to collaborate so that we are ready for the unexpected challenges that can face us. We will always accomplish more together. As my ministry works to build a healthy and lasting transportation network with new options and new directions, consultation and partnership will continue to be at the heart of our approach.

As discussed during our meeting, the ministry remains committed to advancing upgrades along the Highway 1 corridor through Chase. Please do not hesitate to contact Jennifer Fraser, Director, Trans-Canada Highway Program, to discuss the project status in more detail, including plans for gateway signage. She can be reached directly by telephone at 250 828-4298 or by email at Jennifer.Fraser@gov.bc.ca and would be pleased to assist you.

I have also asked Jesse Skulmoski, Director, Strategic Initiatives, to follow up with you directly to discuss your interest in active transportation funding opportunities. Mr. Skulmoski can be reached by telephone at 778 974-5274 or by email Jesse.Skulmoski@gov.bc.ca.

RECEIVED
Village of Chase
OCT 28 2019

.../2

Ministry of Transportation
and Infrastructure

Office of the Minister

Mailing Address:
Parliament Buildings
Victoria BC V8V 1X4

I appreciated your invitation to visit and will keep it in mind next time I am in the area.

Thank you again for taking the time to meet with me, and thank you for everything you do to support your community.

Yours sincerely,



Claire Trevena
Minister

Copy to: Todd Stone
MLA, Kamloops-South Thompson

Grant Main, Deputy Minister

Kevin Richter, Associate Deputy Minister

Deborah Bowman, Assistant Deputy Minister
Transportation Policy and Programs Department

Renée Mounteney, Assistant Deputy Minister
Highway Services

Jennifer Fraser, Director
Trans-Canada Highway Program

Mike Lorimer, Executive Director
Southern Interior Region

Jesse Skulmoski, Director
Strategic Initiatives

Sean O'Flaherty

From: Joni Heinrich
Sent: November 19, 2019 9:58 AM
To: Director Rod Crowe; Alison Lauzon; Steven Scott; Fred Torbohm; Ali Maki; Sean O'Flaherty
Cc: Sean O'Flaherty
Subject: RE: Save the Date! Modernizing BC's Emergency Management Legislation

SILGA and Emergency Management BC are pleased to announce a 1/2 day session will be held in Kamloops to get feedback on the discussion paper "*Modernizing BC's Emergency Management Legislation*".

This discussion paper has been developed in response to direction that Emergency Management BC has received to repeal and replace the current *Emergency Program Act* to strengthen emergency management within the province. **As local authorities have a critical role in emergency management, your feedback is essential. This is your opportunity to let the provincial ministry understand the issues front line local government staff and officials deal with when an emergency occurs.**

Date: December 6th

Time: 10 am to 2:00 pm

Location: TBD

Cost: \$25 (lunch included)

RSVP please for catering purposes, including dietary restrictions

WHO NEEDS TO BE AT THIS SESSION? We encourage all elected officials to attend. We also invite all staff who are involved in emergency operations with your municipality or regional district. This is the time for critical input and the expertise of staff and their feedback is very important.

HOW IT WILL WORK:

EMBC staff will provide an overview of the proposed legislation and then break the group up into round tables (like a world cafe) to delve into the most important issues surrounding emergency management and to capture comments, feedback on the new program and to dialogue. There will be a short break for lunch.

The discussion paper is available online at <https://engage.gov.bc.ca/govtogetherbc/consultation/emergency-program-act-modernization>,

To RSVP, including dietary needs, email the SILGA office at yoursilga@gmail.com. For any additional questions regarding the session, please contact Shelley Sim at shelleysim@telus.net

And remember to mark December 6th on your calendar!

Thanks, Alison

Alison Slater

Sean O'Flaherty

From: Clint Wright
Sent: November 19, 2019 3:14 PM
To: Sean O'Flaherty
Subject: Old Orchard Mobile Home Park - report of dangerous trees -

Good afternoon Sean,

Fallen or dangerous trees on Privately owned property backing onto a water course are the responsibility of the property owner. Property Owners should reference documents regarding the removal or topping of trees within a protected water course. For further information it is recommended that they contact Front Counter BC.

http://www.env.gov.bc.ca/wld/documents/bmp/BMPTreeRemoval_WorkingDraft.pdf

Best Regards,

Clinton Wright
Manager of Public Works
The Village of Chase
Box 440, 1067 Paquette Rd,
Chase, BC, V0E 1M0
250.318.1190 Mobile



October 28, 2019

RECEIVED
MAYOR OF CHASE
OCT 28 2019

Mayor and Village Council of Chase
826 Okanagan Ave.,
Chase, BC V0E 1M0

Dear Mayor and Council,

We live in Old Orchard Park and wish to draw your attention to the aged and dying Cottonwood trees that line the banks of Chase Creek where our homes are located. These trees are unstable and present a danger to our lives and property because they are brittle and break as they age and die and are subject to the frequent windstorms that blow through Chase. During the severe storm we had on Friday October 25th, one very large tree split and is presently hanging dangerously ready to fall.

Cottonwood trees have a relatively short life span, they naturally die off as the permanent trees mature. If you look along the bank of Chase Creek where it meets our park you can see maple and other permanent trees trying to grow between the older Cottonwoods. Some of the Cottonwoods are obviously dying and have large dead limbs and we are concerned that these old trees are becoming weaker as they age and could topple at any time. For the safety of our residents and property we strongly request that these trees be removed.

We are very concerned about this hazard and would appreciate your attention to this matter as soon as possible.

Yours sincerely,

OLD ORCHARD PARK STRATA K-537
PO Box 406,
Chase, BC
V0E 1M0
ted1tompkins@yahoo.ca

January 10 2017

Honorable
Mike Todd
MLA Shuswap Lake

Dear Sir:

I live in Old Orchard Park and wish to draw your attention to the aged and dying Cottonwood trees that line the banks of Chase Creek where our homes are located. These trees are unstable and present a danger to our lives and property because they *are* brittle and break as they age and die and are subject to the frequent windstorms that blow through Chase.

Cottonwood trees have a relatively short life span. They provide soil stability and shelter that allows more long-lived trees to become established and they naturally die off as the permanent trees mature. If you look along the bank of Chase Creek where it meets our park you can see maple and other permanent trees trying to grow between the older Cottonwoods. Some of the Cottonwoods are obviously dying and have large dead limbs and we are concerned that these old trees are becoming weaker as they age and could topple at any time. For the safety of our residents and property we strongly request that these trees be removed.

We are very concerned about this hazard and would appreciate your attention to this matter as soon as possible.

Yours sincerely,

Brian Kurucz
Chairman Strata K 537
Old Orchard Park

Cc. Mayor Rick Berrigan

August 18, 2016

Mayor and Village Council of Chase
826 Okanagan Ave.,
Chase, BC V0E 1M0

Dear Mayor and Council,

I live in Old Orchard Park wish do draw your attention to the aged and dying Cottonwood trees that line the banks of Chase Creek where our homes are located.

These trees are unstable and present a danger to our lives and property because they are brittle and break as they age and die and are subject to the frequent windstorms that blow through Chase.

Cottonwood trees have a relatively short life span. They provide soil stability and shelter that allows more long-lived trees to become established and they naturally die off as the permanent trees mature. If you look along the bank of Chase Creek where it meets our park you can see maple and other permanent trees trying to grow between the older Cottonwoods. Some of the Cottonwoods are obviously dying and have large dead limbs and we are concerned that these old trees are becoming weaker as they age and could topple at any time. For the safety of our residents and property we strongly request that these trees be removed.

We are very concerned about this hazard and would appreciate your attention to this matter as soon as possible.

Yours sincerely,

OLD ORCHARD PARK STRATA K-537



Village of Chase

PO Box 440, 826 Okanagan Ave,
Chase, British Columbia V0E 1M0
Office: **250.679-3238**
Fax: 250.679-3070
www.chasebc.ca

August 25, 2016

Brian Kurucz
PO Box 1647
Chase, BC
V0E 1M0

Dear Mr. Kurucz:

RE: Cottonwood Trees Lining Chase Creek

Thanks for your letter of August 18, 2016. You need to be aware that the trees lining Chase Creek near your home are not on Village of Chase property and therefore we have been in contact with Front Counter BC (Provincial Government) regarding these trees. They have advised us that they will not remove these trees. You would need to hire someone to remove the trees. In order to do so you would need to make an application for a Section 11 – Change Approval for Work in and About a Stream which can be found at the following link:
<http://www.frontcounterbc.gov.bc.ca/Start/surface-water/>

Also, enclosed is a document regarding Best Management Practices for Removing Trees in Riparian Areas.

If you have any questions you can contact Front Counter BC directly at 250-828-4131.

Thank you.

Sincerely,
VILLAGE OF CHASE

Joni Heinrich, CAO

JH/wm
Encl.

October 6, 2015

Mayor and Village Council of Chase
826 Okanagan Ave,
Chase, BC V0E 1M0

Dear Mayor and Council,

I live in Old Orchard Park wish do draw your attention to the aged and dying Cottonwood trees that line the banks of Chase Creek where our homes are located.

These trees are unstable and present a danger to our lives and property because they become brittle and break as they age and die and are subject to the frequent windstorms that blow through Chase.

Cottonwood trees have a relatively short life span. They provide soil stability and shelter that allows more long-lived trees to become established and they naturally die off as the permanent trees mature. If you look along the bank of Chase Creek where it meets our park you can see maple and other permanent trees trying to grow between the older Cottonwoods. Some of the Cottonwoods are obviously dying and have large dead limbs and we are concerned that these old trees are becoming weaker as they age and could topple at any time. For the safety of our residents and property we strongly request that these trees be removed.

We are very concerned about this hazard and would appreciate your attention to this matter as soon as possible.

Yours sincerely,

OLD ORCHARD PARK STRATA K-537

October 25, 2013

Mayor and Village Council of Chase
826 Okanagan Ave,
Chase, BC V0E 1M0

Dear Mayor and Council,

Old Orchard Park Strata has requested twice in writing (see attached letters from July 2009 and June 2013), that the Village trim or top the mature trees along Chase Creek to a safe level and we have received no response.

We are concerned with the trees on both sides of the creek between our properties and the Health Center and Wilson Park. The older trees are subject to rot and breakage and high winds have frequently broken the tops off trees with debris landing close to our homes.

If you do not feel the responsibility lies with the Village, please let us know who is, so we may take up the matter with the correct authorities.

Our residents are very concerned about this hazard and we would appreciate your attention to this matter as soon as possible.

Yours sincerely,

Rodger Berglund, Chairman
Old Orchard Park Strata K-537
PO Box 406
566 Coburn Street
Chase, BC V0E 1M0

Encl: 2



October 31, 2019

Attn. Mayor and Council, Village of Chase
c/o Joni Heinrich, CAO
PO Box 440, 826 Okanagan Ave
Chase, BC. V0E1M0

Dear Mayor and Council, Village of Chase,

Buy Local BC is very pleased to announce the 5th Annual 2019 Buy Local! Buy Fresh! Thompson Shuswap map. The ongoing support of our sponsors for this initiative contributes directly to the map production budget, including coordination, design, and printing costs. Village of Chase is a founding sponsor and one of our key stakeholders. Given the long tradition of agriculture in the region, it's important to have you represented, and we want to thank you once again for your support. We now ask for your continued support in 2020 and beyond.

This direct marketing tool serves both residents and tourists alike, by connecting local farms, retailers and restaurants with consumers. This year's 2019 Thompson Shuswap map once again showcased 50 participants, including 27 farms and over 20 other listings. The new map was well received in the community as always, proving to be a cost effective advertising tool for participating businesses to reach this market. Our NEW 2020 edition again covers Kamloops to Salmon Arm, east to Sicamous, west to Chase, and north to Clearwater. Next year, we hope for continued renewal and growth of new farms and businesses after a strong 2019 season.

Our annual campaign includes the free valley-wide printed map showing locations of farms and advertisers, an online map and directory of participants, a parallel signage campaign for farms and food products, and the option to participate in our booth at local events this season. Our Twitter channel @BuyLocalBC continues to gain subscribers and we are always working on new short videos featuring our farmers and participants. Visit the campaign website www.buylocalbc.org for farm listings, more information and links, and new video releases. This year we were also very happy to launch our 7th Annual Buy Local! Buy Fresh! Okanagan edition with over 75 participants!

The map showcases our region's collection of local farms, food producers, and promotes local food businesses and events. Organized by location, it is important that the names of the districts and municipalities are included on the map. Following this model, we use the names of the regional districts to organize the farm listings, and the logos for sponsor municipalities are printed on the map cover.

Your special rate of \$600 (less \$100 discount by Feb. 5, 2020) includes the cover logo space and a 3"x1.5" ad space on the frame of the map page. You have generously donated your ad space to Chase Farm & Craft Market each year since you joined the initiative. We offer municipalities an extra option to sponsor a package of farm listings on behalf of their local farms. Larger ad space is also available as an option. I value our relationship with the Village of Chase and look forward to discussing suitable options for your district.

Registration officially ends on March 31, 2020, and the new edition launches by July to start the 2020 season. Let me know if you have any other questions for this year. To confirm your participation for 2020, please send an email or feel free to call us at (250) 869-7248.

With thanks for your support,

Shayne Wright
Coordinator, Buy Local BC Initiative

Mail
Buy Local BC Initiative
16025 Barkley Rd
Lake Country, BC V4V1B4

Email
coordinator@buylocalbc.org
Telephone
(250) 869-7248

www.buylocalbc.org



— Okanagan Valley —



— Thompson Shuswap —

Thank you for supporting the Annual Buy Local! Buy Fresh! Okanagan & Thompson Shuswap maps.

This direct marketing tool serves both residents and tourists alike, by connecting local farms, retailers and restaurants with consumers. Our annual campaign includes the free valley-wide printed maps showing locations of farms and advertisers, an online version of the maps at buylocalbc.org and parallel signage campaign for farms and food products, options to participate in our booth at local events, and posts to our Twitter channel @BuyLocalBC.

PARTICIPANT SURVEY, Nov. 2019

To help us plan for upcoming editions, please take a moment and complete this short survey on how we have done so far, and developing the campaign going forward.

(Please return by Nov 30. Responses are confidential.)

1. Please describe ways the map supports economic, community, tourism, and/or agricultural development goals in your region.

2. As production costs continue increasing each year, we have held sponsorship rates constant, and decreased our farm listing rate each edition (from \$75 in 2013 down to \$45 in 2019).

To improve our current sustainability:

a. Which changes of campaign format would you support?

Eg. To printed booklet, to other printed format, more digital content, other (please list).

b. What changes to the hardcopy map regions would you support?

Eg. Okanagan & Shuswap together, Thompson Okanagan together, other (please list).

c. What rate increase could you support, if necessary? Eg. Modest < 10%, Small < 5%, None.

3. Do you intend to participate in 2020? ____ Yes / No / Undecided

Ongoing annually, budget permitting? ____ Yes / No / Undecided

4. Please list any other comments or suggestions for developing the campaign. Thank you!

Mail
Buy Local BC Initiative
16025 Barkley Rd
Lake Country, BC V4V1B4

Email
coordinator@buylocalbc.org
Telephone
(250) 869-7248

www.buylocalbc.org



Neskonlith Indian Band

Box 318, Chase, BC V0E 1M0
Phone (250) 679-3295 Fax (250) 679-5306
www.neskonlith.org



November 7, 2019

VIA EMAIL: cao@chasebc.ca

Ms. Joni Heinrich
826 Okanagan Avenue
Chase, BC V0E 1M0

Dear Ms. Heinrich:

RE: Potential Collaboration: Regional Wastewater Planning

Thank you for today's meeting, we are encouraged that our purpose in reaching out to the Village has been significantly clarified.

As indicated, Neskonlith is engaged in a process of assessing our wastewater capacity on all our reserves including Chase. The purpose of assessing our capacity, is to aid us in long range planning that will propose the development of adequate infrastructure for our community.

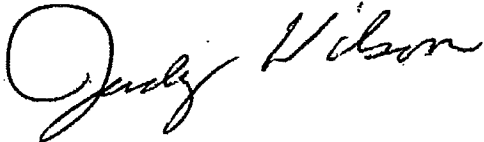
Given the proximity of Chase to reserve land, it is clear that a joint approach to infrastructure planning could be mutually beneficial for both communities. To this end, for the purposes of this capacity assessment project that we are currently engaged in, we would like to be able to report out to Indigenous Services Canada by December, if there is any appetite on the Village's part to begin a very high level conversation on the potential for collaboration given any pre-existing geographical, legal, or planning constraints.

We are requesting a letter from the Village indicating whether or not it is prepared to direct staff to engage in these discussions with Neskonlith solely for the purpose of assessing whether a collaboration on infrastructure development is at all possible and further to identify the path forward fully mindful of the Village's and Neskonlith's existing obligations, commitments, and other factors that would define the parameters of such a working relationship.

Given the existence of the Protocol Agreement between Neskonlith and Chase, we are of the view that this is exactly the sort of endeavor that will deepen and streamline a functional working relationship between the Village and Neskonlith.

Thank you for your consideration.

Yours truly,

A handwritten signature in cursive script, reading "Judy Wilson". The signature is written in black ink and is positioned above the printed name.

Chief Judy Wilson



Dear Potential Sponsor,

The Holiday Season is quickly approaching, a time to reflect on how fortunate we are and to give back to the community.

We are hosting the Festival of Trees again and would like to know if you would be interested in sponsoring a tree. Trees this year will be \$150.00 with the proceeds going to support the local youth and to make the holidays even more special for the elders in our community.

We would like for each sponsor to decorate their tree. We know that this season is very busy, and it can be hard to find the time. If you would like to drop off your decorations and have our staff decorate your tree, please let us know in advance.

Guests will be voting on which tree is their favorite and the winning tree's sponsor will be awarded a \$200.00 Gift Certificate to be used anywhere in the resort (excluding the gift shop). Voting guests also have the chance to win a Bed and Breakfast Package for 2.

Please let us know as soon as possible if you wish to participate. The deadline for confirmation of sponsorship is November 29th, 2019, the trees will be at Quaaout ready to decorate starting November 30th. The deadline for decorating is Friday December 6th.

Please contact Lynn, Cindy or Natasha B. at 250-679-3090 or email safety@quaaoutlodge.com to register or if you have any questions.

Thank you for giving back to the community

Quaaout Lodge Social Committee