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#5 MINE-FAN HOUSE CUMBERLAND B C

1. View from the west

HERITAGE ASSESSMENT

2013 November 07
JY13020

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FAN HOUSE #5 MINE
CUMBERLAND B C

HERITAGE ASSESSMENT

INDEX

APPENDICES

1. INTRODUCTION

1.1 At the request of Judith Walker, Senior Planner of the Corporation of the Village of Cumberland a Fee Proposal was submitted dated 2013 August 14, which in its revised form dated 2013, August 28 was accepted.

1.2 An initial site visit was carried out on Tuesday, August 27th at 10:15 a.m. in the company of Rob Crisfield and Judith Walker. At that time a better understanding of the Scope of Work was obtained and was incorporated in the revised Fee Proposal of 2013 August 28. The Scope of work for the Heritage Assessment is as follows:-

1.2.1. Initial Site Visit to establish the overall scope of the project and to provide you with a brief written assessment of the Scope of Work.

1.2.2. To carry out a Heritage Assessment of the Fan House using Parks Canada's *Standards and Guidelines for the Conservation of Historic Places in Canada* (S&G). This will include the preparation of a Statement of Significance (SOS) to provide details of the site; history and Character Defining Elements (CDE) of the place. To make report to the Corporation.

1.3 It would appear that the scope of work covers four (4) elements as follows:

1.3.1. Initial site review to assess overall scope of the project;

1.3.2. Assess the merits of the Fan House as having heritage value for the Village;

1.3.3. Assess the Fan House in its current condition as a candidate for preservation;

1.3.4. Recommend legal methods for the protection of the Fan House.

1.4 In reviewing both your letter and that of Harold Bates, P.Eng. dated September 19, 2012, I have a much better understanding of both the physical attributes of the historic place and the diplomatic problems provided with a "hostile" owner. See Appendix C for the Bates Report.

I will be able to provide you with consulting services on all of the above elements, but as you state in your last paragraph, a site visit will be required to develop and finalize the detailed scope of work. I have provided the initial site visit as a fixed fee and now address the first two elements of clauses 1.3.1 and 1.3.2.

Once approval has been given of the acceptance of this Report then it would be appropriate to complete the project with addressing the last to elements, namely:-

1.4.1. To assess the current condition of the Fan House and to make recommendations as to its conservation. Again, a report will be prepared for the Corporation.

1.4.2. To provide direction as to what tools are available or will be necessary to provide non-voluntary

2. STATEMENT OF SIGNIFICANCE

2.1 The Statement of Significance (SOS) is part of the mandatory documentation for an historic place listed on the Canadian Register of Historic Places (CRHP). The three part Statement will explain to a broad audience **what** the historic place includes (Description of Historic Place). **Why** the place has been determined to have heritage value (Heritage Value), and will identify the major functions, or *Character-Defining Elements*,(CDE) that speak directly to its heritage value and should be protected.

2.2 The SOS is intended to:

2.2.1 Explain the heritage value of a historic place to visitors viewing the on-line Register, including planners, developers, educators, researchers, heritage professionals, tourists and members of the public.

2.2.2 In conjunction with existing policy documents, statements of significance or heritage character statements, provide guidance to property owners, planners, architects and others interested in the conservation or rehabilitation of historic places, and will broadly identify the features of the places that should be protected when undertaking a project.

2.2.3 Guide the preparation of a Heritage Conservation Plan.

2.3 As can be seen in the Statement of Significance that in addition to the actual concrete remnants the site of the structure within the narrow canyon are both Character-Defining Elements (CDE).

2.4 The Statement of Significance is attached under Appendix A.

3. HERITAGE ASSESSMENT

This assessment is in four parts, first an **Introduction** as to what the Fan House is; second the **Physical Description** of the Fan House; third a review of the **Local Legislation** and finally a **Conclusion** which will indicate why I feel that the #5 Mine – Fan House has Heritage Value.

3.1 Introduction

3.1.1 The site visit of 2013 August 27 followed by an additional site visit on 2013 September 3 provided the background on which this assessment is based.

3.1.2 The Fan House is an important industrial artefact from the days when Cumberland was the centre of the coal mining industry in B.C. From a cultural perspective, it is a strong physical reminder of the kinds of heavy construction projects that were carried out adjacent to the actual mineshaft to ensure that the min could function. Without a Fan House, to provide a steady supply of pressurized fresh air, the miners working in #5 Mine could not adequately breathe. Therefore, they were likely to be asphyxiated by the gases produced in the mining process with industrial methane.

3.1.3 Consequently, the retention of these industrial remnants that provided the lifeblood to the miners should be preserved to honour these workers of the mining industry of Cumberland.

3.1.4 The Cumberland coal mine workings are located within the Temperate Coastal Rain Forest and because of the weather conditions that maintain this eco-system, the preservation of wood structures is a challenge. There are very few, if any, of the timber constructed mine operation buildings remaining. All that is now left after a period of over 140 years are the more permanent materials of stone and concrete. In the case of the Fan House what now remains are only the original concrete elements. These elements, at over 140 years old, are showing a sign of neglect and in some areas collapse has taken place. These collapsed elements have occurred due to three causes:-

i) The lack of weather protection has rotted out the wood framed structure over the remaining concrete;

ii) The pressure exerted on certain concrete elements by natural growth of trees that had grown up around the structure;

3.1.5 Although these actions have taken place, there are still sufficient remains of the Fan House to enable it to be interpreted to indicate to the general public what the structure was and its very important role in the mining industry in Cumberland.

3.2 Physical Description

3.2.1 Below is given a detailed physical description of the Fan House and its setting within the context of the #5 Mine. Refer to Appendix B for Site Notes on the physical form of the building.

i) This industrial archaeological site consist of a number of +/- 15" wide reinforced concrete walls resting upon a +/- 20" wide foundation footings. These walls are configured in a "y" formation with the wider section consisting of a 11' wide by 10'

high central section flanked by two rectangular bays 7′ wide, 10′ high and 11′-4″ deep. This wide section at 27′-6″ is reduced in width to 14′-0″ by two 13′ long splayed walls at approximately 30^0.

2. View from west across canyon showing concrete fin walls with collapsed wall & roof to the south (right)

3. From north looking down canyon with north exterior wall

ii) It is assumed that the wider section was for two air intakes with the central area for fan equipment. From these two sections of air entered the 14′ wide, 21′-6″ long and 10′ high rectangular section which, at its east end was reduced in size to 14′ wide and 6′ high.

4. East 14′ wide section looking towards horizontal mine shaft

iii) This rectangular area would then have carried the pressurized air directly into a horizontal shaft whose entry is demarked by a splayed concrete wall to the north and a straight concrete wall at the south.

5. Concrete fin wall to north of blocked horizontal mine shaft

iv) As the air duct and shaft to #5 Mine has been blocked off, it is not possible to observe the exact configuration of the connecting of ducts from the Fan House to the mineshafts.

6. East towards blocked horizontal mine shaft

v) Over two sections of the concrete wall structure are reinforced concrete "roof" slabs, and roof slab over the southwest rectangular has collapsed and is laying at approximately 60° in the space of the 7′ wide, 10′ high and 11′-4″ long section where the original south wall has also collapsed. It would appear that this collapse is partly due to the presence of a +/- 29″ diameter maple (recently removed). The pressure exerted on the concrete by the tree could have aggravated it and partially caused its collapse.

7. Collapsed roof section over south bay

8. Fin walls looking west with collapsed roof slab to left

vi) The two 13″ wide concrete fin walls to the western most section have two sets of three 1¼″ diameter metal hinge pins cast into their east faces which could have been used to support some sort of doors or shutters.

9. Fin wall showing two metal hinges

vii) In addition to the remaining concrete structure of the Fan House are two other concrete elements. First, a large approximately 10′ x 12′ concrete slab located to the southwest. Associated with this slab is a plinth approximately 3′ x 2′ and 2′ high which is surmounted with 4# 1″ diameter steel rods at each corner.

The above two elements could be interpreted as the floor slab of a wood building (structure) and the pier block the support for some form of electrical transmission pole. Most Fan Houses of this era were powered by hydro electricity and this house is likely to follow this pattern. In Appendix D is a photograph of part of the interior of the Fan House for #4 Mine. This shows a concrete structure and the scale of the electrical equipment.

10. Concrete slab to south of main structure

11. Foundation block for electrical power pole?

viii) The Fan House is located across a small natural canyon at such a height that it can directly connect horizontally with a shaft into Mine #5. This shaft is not at the pithead of the mine. Its siting in the narrow canyon forms a visual statement break by cutting this natural canyon.

12. Approach into canyon from the south with Fan house in center

13. East side of canyon

14. Canyon and Fan house from the south

15. Looking across canyon to the east, note fill to left

3.2.2 At the current time, many changes have been made to the area in the vicinity of the Fan House. These are as follows:

i) All trees and vegetation have been removed from the canyon;

16. From the west all vegetation removed

ii) The grade at the base of the concrete structure has been undermined;

17. Exposed base of concrete foundation on north side

18. Undermining of concrete foundations on south side

iii) A huge amount of blasted rock has been placed to both sides of the Fan House, which appears to be the bed for a future road.

19. Placement of blasted rock fill to south side of Fan house

20. Placement of blasted rock fill to north side of Fan house

3.3 Current Local Legislation

Below are quoted a number of references to both the #5 Mine – Fan House and to Heritage and Historic places within the Village which are then analysed to make a case for the Heritage Value that the Fan House has.

3.3.1 Within the Parks & Greenways Master Plan—Consolidated Version—22 July 2013, Corporation of the Village of Cumberland (Bylaw 706-2004) under Schedule C clause ii) Proposed Parks: Priority A is listed as follows for the Fan House: -

Proposed Park: No. 5 Fan House Park

Action: Park in Coal Valley Estates (Phase 5)

Park Classification: Pocket

Proposed Area: 0.2 ha.

3.3.2 The following is noted under Schedule C clause ii) Proposed Parks: Priority A:

> *"Note: These areas are rated as "Priority A" due to public input, pending development, sensitive eco-system and/or* ***historical significance*** (my bold italics) *and meet the criteria for acquisition (refer to chart).*
>
> *These areas may constitute a park requirement and/or level of protection through development or flag important considerations in future plans and activities".*

3.3.3 Also indicated under Schedule C, 5.0 parks and Greenways Priorities:

Land for park acquisition is located throughout the Village, based on Regional Growth Strategy policies, OCP designated future residential development, existing and proposed development.

Based on the OCP, recommendations for land acquisitions and / or protection include:

*iv) "****significant historical sites*** *and/or artefacts such as No.4 Mine site, No.5 Japanese Town site" (*my bold italics*)*

3.3.4 Under a) Criteria for Parkland Acquisition:

Land acquisition for parks should be prioritized given that there are limited funds available. The following guidelines provide a framework of park design criteria, to assist in the redevelopment of existing and new parks servicing the needs of the residents of the Village.

In general, parkland serving the needs of the residents of the Village should: x) protect significant historical artefacts and heritage landscapes,

In addition to the above the same clause lists the following elements that relate specifically to heritage:

The heritage value of the artefacts and landscapes can be additionally assessed through the following considerations:

i) ***Uniqueness;***

ii) *Continued productivity*

iii) *Diversity;*

iv) *Sacredness;*

v) *Representativeness*

vi) ***Symbolic importance;***

vii) ***Special associations;***

viii) *Aesthetic quality;*

ix) ***Relative age;***

x) *Sprit of place.*

These criteria weigh the relative importance of artefacts and landscapes with the Village's history and the future value to the community. (My bold italics)

3.3.5 The above Cumberland documents all refer to the concerns related to the historic artefacts from the coal-mining era of Cumberland. In 2.3.1 direct reference is made to the #5 Mine Fan House to be proposed as a pocket park and in 6. (e) ii of the parks plan, the area proposed is .2 hectare (.5 acre).

3.3.6 In addition to the mention of the #5 Main-Fan House the documents also mention ***historical significance***, ***significant historical sites***, and ***heritage value of the artefacts and landscapes.*** The latter quote goes on to give a list of criteria to be taken into account when assessing parkland acquisition. All through the documents references are made to historic elements, therefore there

is a strong case for the conservation of many of the sites and artefacts.

Jonathan Yardley Architect

3.4 Conclusion of Heritage Assessment

Based on the above listed below are a number of comments and reasons why the #5 Mine –Fan House has heritage significance and as such should be conserved. In approaching this Heritage Assessment Parks Canada's *Standards and Guidelines for the Conservation of Historic Places in Canada* has been used. Below are my findings and recommendations.

3.4.1 Cumberland is most important as a company town devoted to coalmining and as such efforts should be made to respect and honour this activity. The core Village does have many physical remnants of its former life with the preservation of a number of historic buildings, both residential and commercial, however there is a lack of preserved physical evidence which is protected to show the coalmining activities.

3.4.2 With the #5 Mine – Fan House there is an opportunity to provide the first steps in this recognition. This first step should, I believe, lead to a detailed inventory be made of the remaining industrial archaeology of the coalmine sites.

3.4.3 This inventory of the mine sites would be of the surviving artefacts which mainly consist of concrete foundations and structures where the wood superstructures and buildings have long since rotted away in the Temperate Rain Forest of western Canada. By a detailed analysis of these concrete structures and remains a better picture and understanding will be made of the location and extent of the mining operations.

3.4.4 The remaining elements of #5 Mine – Fan House are a vital part of this process. It is known that they are in a poor structural condition (see Appendix D -Bates Report); however they should not be allowed to disintegrate at a fast speed. It is recommended

that this be curtailed by addressing both the physical protection from vandals and possible limited weather protection. This could take the form of a metal fenced pathway around and through the site to provide both viewing and protection of and from potentially unstable concrete.

3.4.5 As the Statement of Significance indicated the siting of the Fan House is a Character-Defining Element and as such a sufficient area around the building should be contained within any proposed park. It is recommended that an area at least 2 times the width (30 feet) of the structure be reserved each side. i.e. 60 feet. This would give a width of the dedicated area of approximately 150 feet.

4. CONCLUSION

4.1 Based upon this investigation I confirm that from a historic perspective the #5 Mine-Fan House has heritage significance.

4.2 The main reason for this statement is that the #5 Mine-Fan House has heritage value primarily as an industrial archaeological remains of the coalmining industry that was only reason that the Village of Cumberland exists today. It should be retained conserved, suitably displayed and interpreted for the public to learn from and enjoy.

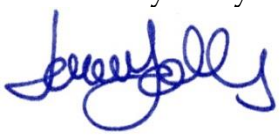
4.3 The method of conservation has been alluded to in clauses 3.4.4 and 3.4.5; however it will be necessary to carry out a more detailed condition assessment to arrive at recommendations for its conservation.

4.4 In the Fan House the Village has a fine example of one of the extant concrete structures related to the coalmining industry. In addition it is recommended that a more detailed investigation and

analysis be carried out of all the other industrial archaeological remains that exist in the environs of the village.

4.5 I trust that this Heritage Assessment Report will provide the basis for the conservation of this important structure. I would be pleased to answer any comments or questions that you may have. I look forward to your positive response.

Yours very truly



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APPENDIX A
Statement of Significance

FAN HOUSE #5 MINE, CUMBERLAND, BC

Description of Historic Place

The Fan House, #5 Mine is a ruin located in the CDMU-6 zone to the west of the Village of Cumberland. It is located across a small natural canyon at such a height that it can directly connect horizontally with a shaft into Mine #5.

Heritage Value

The heritage value of The Fan House, #5 Mine ruin lies with its connection with the history of western settlement and coal mining in Cumberland and the province of British Columbia.

Cumberland, once Canada's smallest and westernmost city, was founded in 1888 by coal baron Robert Dunsmuir who eventually dug 8 mines in the area. The original settlement had been named Union after the Union Coal Company (which took its name from the union of British Columbia with Canada in 1871). Cumberland was producing 700 to 1000 tons a day by 1897, employing 600 men and supporting a town of 3,000. In 1898, the post office address of Union was changed to Cumberland, as many of the town miners were from the famous English coal-mining district of Cumberland in England. Today, many of the town's streets are named after that English district. Cumberland remained an active coal-mining town until 1966 despite enduring devastating mine explosions, 2 world wars and bitter labour disputes.

A mine Fan House was a semi-circular enclosure/structure that housed the large fan that forced air down below into the mine. The

air ventilation was necessary for the miners to breathe and to remove dangerous gases such as methane, hydrogen sulfide, and carbon monoxide. Often the total weight of the air pumped through the mine exceeds the total weight of coal removed. Cumberland mines were notoriously gassy, filing with methane gas many times a year. This meant that the fan house was absolutely critical to the safe operation of a mine. This ruin serves as a reminder of the construction that had to be completed in the area of a mine before active mining could take place.

Character-Defining Elements

The heritage character of the the Fan House, #5 Mine ruin is defined by the following elements:

20 inch-wide concrete foundations

remaining reinforced concrete walls

remains of concrete roof slabs

horizontal connection to #5 mine shaft

siting in narrow natural canyon

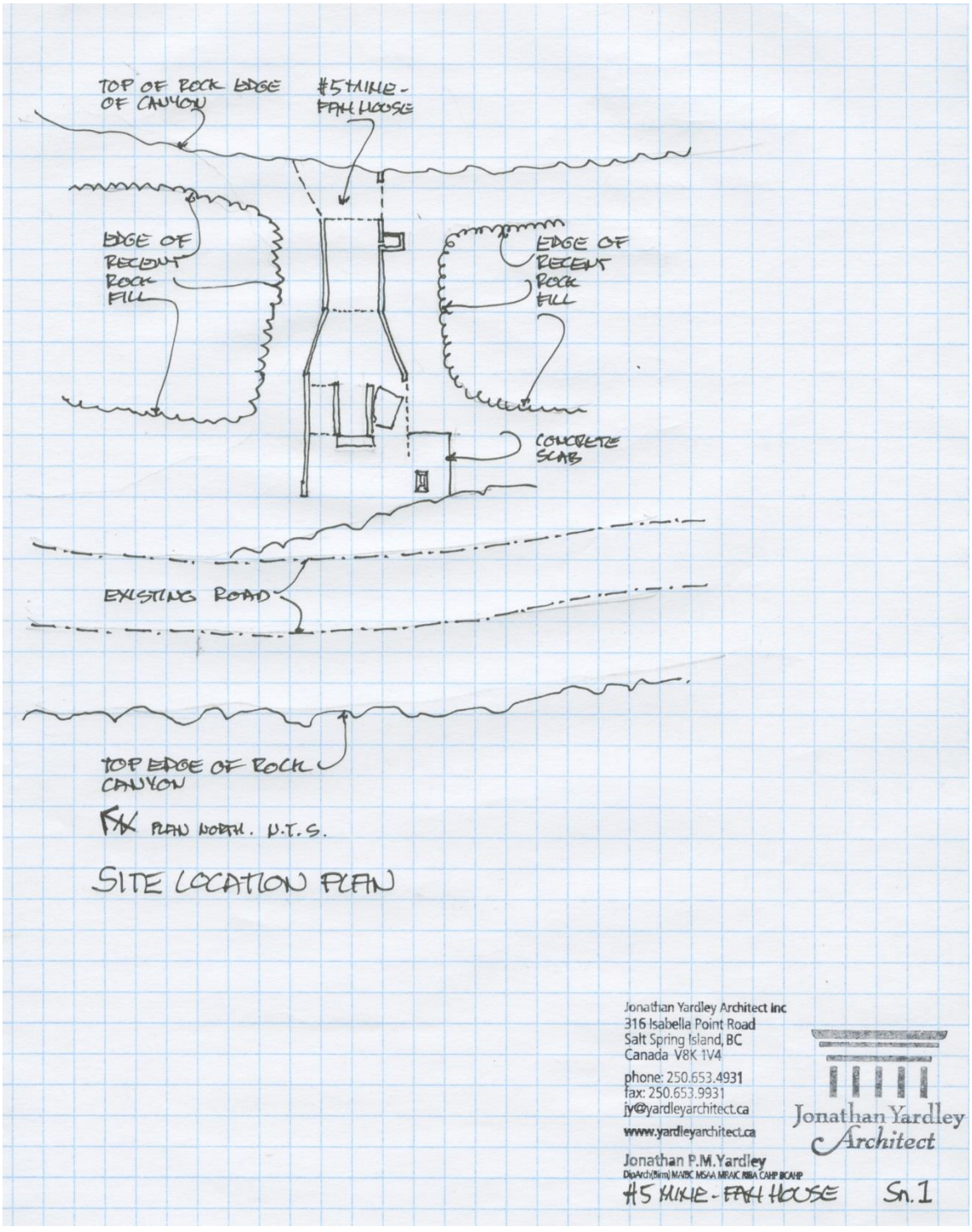
connection with the history of coalmining in Cumberland

Ruin of reinforced concrete walls

Siting in natural canyon

Collapsed roof slab

APPENDIX B
Site Notes



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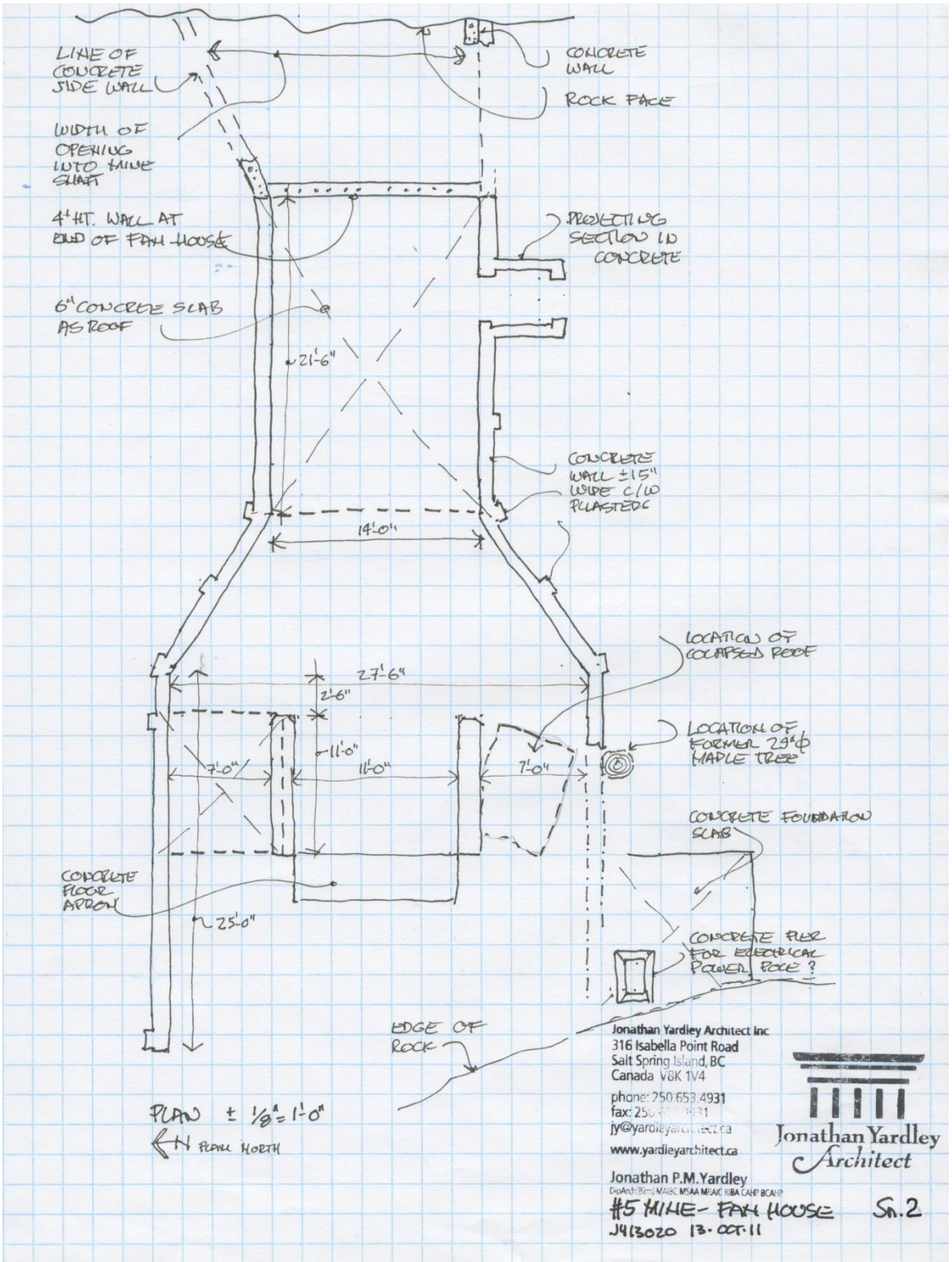
#5 MILE - FAN HOUSE Sh. 1


LINE OF CONCRETE SIDE WALL
CONCRETE WALL
ROCK FACE
WIDTH OF OPENING INTO MINE SHAFT
4' HT. WALL AT END OF FAN HOUSE
PROJECTING SECTION IN CONCRETE
6" CONCRETE SLAB AS ROOF
21'-6"
CONCRETE WALL ±15" WIDE C/W PLASTERED
14'-0"
LOCATION OF COLLAPSED ROOF
27'-6"
2'-6"
LOCATION OF FORMER 29"ϕ MAPLE TREE
11'-0"
11'-0"
7'-0"
7'-0"
CONCRETE FOUNDATION SLAB
CONCRETE FLOOR APRON
25'-0"
CONCRETE PLER FOR ELECTRICAL POWER POLE ?
EDGE OF ROCK
PLAN ± 1/8" = 1'-0"
PLAN NORTH
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#5 MINE - FAN HOUSE
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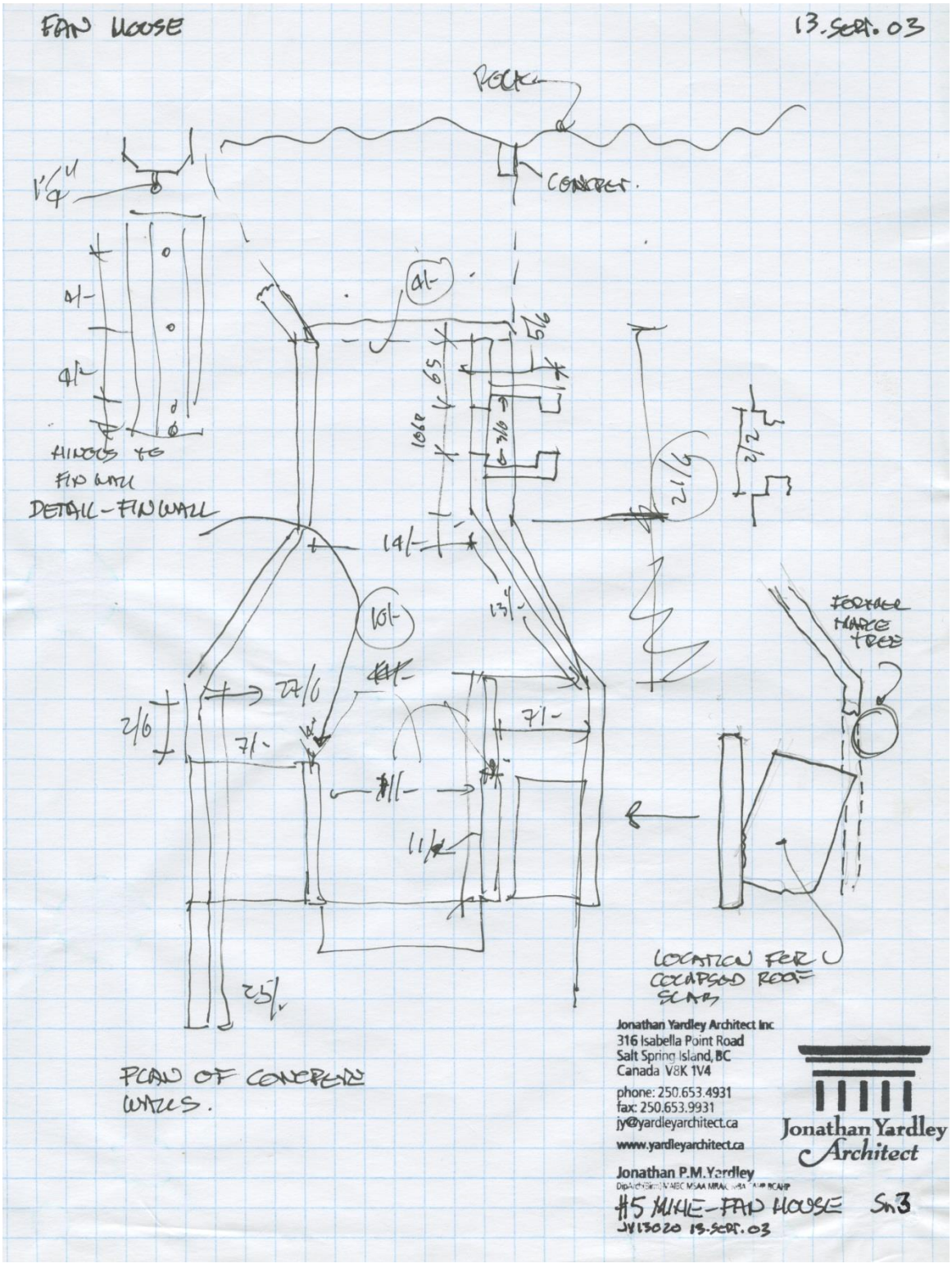
Sh.2


FAN HOUSE
13. SEPT. 03
ROCK
CONCRETE
DETAIL - FIN WALL
FEATURE MAPLE TREE
LOCATION FOR COLLAPSED ROOF SLAB
PLAN OF CONCRETE WALLS.
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#5 MIKE - FAN HOUSE Sh3
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FAN HOUSE, CUMBERLAND

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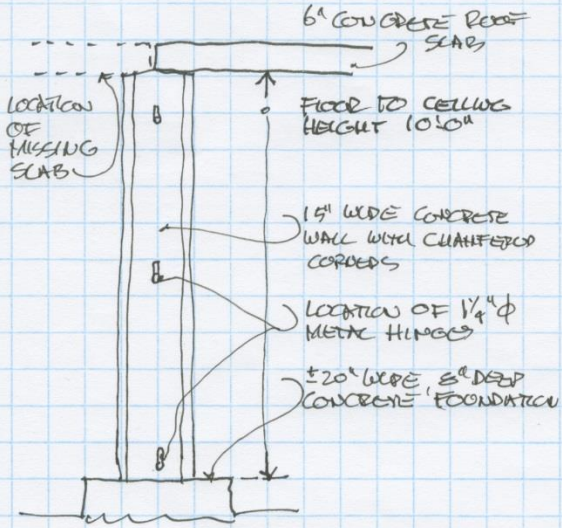

ELEVATION OF CONCRETE DIVIDING WALLS – SHOWING HINGES.

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#5 MIKE-FAN HOUSE

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S.4

APPENDIX C (separate document)
Bates Report

APPENDIX D
Fan House - #4 Mine