

YUKON GOVERNMENT

Whitehorse Gymnastics & Climbing Feasibility Study

FINAL REPORT

October 2019

EXECUTIVE SUMMARY

Cornerstone Planning Group was contracted by Yukon Government to perform a feasibility study for Polarettes gymnastics and Climb Yukon. The focus of the study was to assess the organizations current and future state in terms of their facility requirements, programming, operations and economics. The study had multiple information inputs, including previous planning documentation, interviews with stakeholders, and industry expertise.

The outcomes of the study are presented in a list format below:

Current State

- Polarettes currently provides programming from a building attached to Vanier Catholic School in Whitehorse. The organization offers a wide range of gymnastics programming including Active Start, Recreational, Competitive, Parkour, Trampoline and School Programming. Since 2014, the group has seen an 87% increase in enrollment. Polarettes is experiencing overcrowding and have reached their capacity given the amount of available programming space.

Polarettes has just finished their 25-year lease with the Government of Yukon, in which they contributed \$5,000 each year towards the initial capital investment by Yukon Government and \$1/year for the lease. They are currently on lease overhold.

The facility condition assessment identified a number of facility maintenance/upgrade items that require attention, but the facility was considered to be in good overall condition.

- Climb Yukon: Climb Yukon is a non-profit organization that offers drop-in climbing from Yukon College and Porter Creek Highschool. They offer drop in bouldering 2 days per week for a total of 4 hours. In addition, they coach a youth climbing team, organize climbing events and attend other climbing events throughout Canada.

Demand

- Polarettes: Demand estimates were calculated based on anticipated population growth, program growth and latent community demand. It is anticipated that Polarettes will experience 62% growth over the next 20-years. Projections were based on year 2017/2018 data.
- Climb Yukon: Demand projections have been based on population and demographic estimates. Given that Climb Yukon has never operated a dedicated facility, reasonable assumptions were used in the development of the projections. It is estimated that Climb Yukon could see 1,577 visitors each year by 2038 (20-years).

Financial Analysis

- Polarettes: With the assumption that Polarettes continues to operate under a similar arrangement (with Yukon Government providing heavily subsidized rent), it is estimated that Polarettes will turn a profit each year. Net profits may be in the range of \$90-160k/year.
- Climb Yukon: If Climb Yukon is able to see 1,577 visitors per year, they could expect to see a net income of \$23k/year by 2038 (20-years).

Accommodation Options

Three accommodation options have been prepared and analyzed to meet the projected space and programming requirements of Polarettes and Climb Yukon.

- Option #1: Polarettes building renovation and addition.
This option was prepared to understand what can be accommodated at the existing Polarettes site.

The concept represents the maximum facility size that can be supported at its current location. This option only addresses the partial needs of Polarettes and does not address any needs of Climb Yukon. Although this is a feasible option, it is expected to cause significant disruption to Polarettes and Vanier Catholic School, limit growth/expansion of Vanier Catholic School and not meet the complete space needs of Polarettes or Climb Yukon. The estimated capital costs for this option is ~\$11 million.

- **Option #2: New site and building – Polarettes and Climb Yukon**
This option explored the feasibility of constructing a new facility that will support all of Polarettes and Climb Yukon's space requirements for the 20-year future. It is assumed that Polarettes operate independently from one another with very little shared facility space. Although this was iterated as a mandatory requirement of Polarettes, it is our view that a mutually agreeable service agreement could be reached between the groups, which would then decrease the overall facility footprint. The estimated capital costs for this option is ~\$17.1 million.
- **Option #3: New site and building – Polarettes and Climb Yukon – Space Efficiencies Realized**
This option explored the feasibility of constructing a new facility that will support all of Polarettes and Climb Yukon's space requirements for the 20-year future assuming that both organizations share support and program space. A service agreement/operating agreement would be required for this option to be successful, but it is our opinion that this is attainable. The space savings of a shared model is not significant within this program (~50m² and ~75m² as drawn) but this option would increase the available program spaces for both groups and presents an opportunity to streamline operational/maintenance staff. Additionally, the estimated capital costs are ~\$400,000 less expensive than option #2. The estimated capital costs for this option is 16.7 million.

In addition to the independent cost analysis performed for the three options, we have reviewed three recent development projects in Yukon to benchmark the cost estimates. The three recent projects that were benchmarked for costing were: Carmacks Arena, Mayo Fire Hall and Kwanlin Dun First Nation Community Hub. Each benchmarked project received 4 or more bids and the median \$/m² ranged between \$5,000/m² and \$7,920/m². The complexity of the gymnastics and climbing facility in comparison to the benchmarked projects is most similar to that of Carmacks Arena, which had a median cost of \$5,000/m². The independent cost analysis performed for this scope of work estimated a capital cost of \$5,000/m² for Option #1 (renovation and expansion) and ~\$6,500/m² for Options #2 and #3 (new builds). Given the benchmarked recent projects, it is realistic to assume that **Option #1, #2 or #3 could be constructed for less than estimated**. For more detailed cost estimates, it is recommended that detailed planning is performed.

Table of Contents

| | | |
|-------|---|----|
| 1 | PROJECT CONTEXT & BACKGROUND | 5 |
| 1.1 | Study Methodology | 5 |
| 1.2 | Spatial Terminology | 6 |
| 1.3 | Documentation Review..... | 7 |
| 2 | CURRENT STATE..... | 8 |
| 2.1 | Polarettes Gymnastics Club | 8 |
| 2.1.1 | Current activities..... | 8 |
| 2.1.2 | Facility Usage | 10 |
| 2.1.3 | Current Staff | 11 |
| 2.1.4 | Lease Review | 12 |
| 2.2 | Climb Yukon Association | 12 |
| 2.3 | Polarettes Facility | 13 |
| 2.3.1 | Building Condition Assessment | 16 |
| 2.3.2 | Functional Facility Deficits..... | 19 |
| 3 | FUTURE DEMAND | 22 |
| 3.1 | Polarettes Gymnastics Club | 22 |
| 3.2 | Climb Yukon | 23 |
| 4 | ECONOMIC ANALYSIS..... | 25 |
| 4.1 | Financial Model..... | 25 |
| 4.1.1 | Polarettes | 25 |
| 4.1.2 | Climb Yukon | 27 |
| 4.2 | Economic Impact Model Review | 29 |
| 5 | FUTURE SPACE REQUIREMENTS..... | 31 |
| 5.1 | Planning assumptions | 31 |
| 5.2 | Schedule of Accommodations | 32 |
| 5.3 | Functional Relationships | 38 |
| 5.4 | Design Guidelines..... | 40 |
| 6 | ACCOMMODATION OPTIONS | 42 |
| 6.1 | Option #1: Building Addition – Polarettes | 42 |
| 6.2 | Option #2: New Site and Building – Polarettes & Climb Yukon | 44 |
| 6.3 | Option #3: New Site and Building – Polarettes & Climb Yukon (Space Efficiencies Realized) | 47 |

6.4 Costing Analysis 50

 6.4.1 Capital Costing – Class D Estimates..... 50

 6.4.2 Operations & Maintenance Cost Estimate 51

6.5 Option Analysis..... 52

7 CONCLUSION..... 54

APPENDIX A – OPTION #1 FACILITY FLOOR PLANS 55

APPENDIX B – OPTION #2 FACILITY FLOOR PLANS 56

APPENDIX C – OPTION #3 FACILITY FLOOR PLANS 57

APPENDIX D – BUILDING CONDITION ASSESSMENT 58

APPENDIX E – BUILDING CODE COMPLIANCE REVIEW 59

APPENDIX F – COSTING ANALYSIS..... 60

APPENDIX G – ECONOMIC IMPACT ASSESSMENT TABLES 61

1 PROJECT CONTEXT & BACKGROUND

Polarettes Gymnastics Club (Polarettes) leases a gymnastics facility located at 15 Duke Street, Whitehorse, Yukon, adjacent to Vanier Catholic Secondary School. The facility is owned by the Yukon Government and is operated through Highways & Public Works – Property Management Division. The gymnastics facility was purpose-built and originally constructed in 1993 and has undergone one major renovation to include a mezzanine viewing area and change rooms.

Polarettes gymnastics programs have seen considerable growth in the past few years (87% membership increase from 2014 to 2018), largely attributed to the dedication and organization of their staff and board members. Polarettes has expressed interest in expanding the facility, as it is no longer able to accommodate current and future programming needs in its current space.

Climb Yukon is a community-led organization dedicated to promoting the sport of climbing in Whitehorse and across Yukon. The organization does not currently have its own facility; instead, using space within Yukon College and Porter Creek Secondary School. Climb Yukon is experiencing increased interest and is likely to continue to grow (particularly given the Olympic debut of sport climbing at Tokyo in 2020). The organization and climbing community would benefit from a climbing gym in Whitehorse.

The organizations make sense to consider for collocation given their specialized athletic focuses, and complimentary support space requirements. The following study will present the current building condition as applicable and provide options for expansion or new construction to meet future programming needs for Polarettes and Climb Yukon.

1.1 STUDY METHODOLOGY

Cornerstone undertook the following 7-step approach when preparing this feasibility study (listed below). The project was initiated in April 2019 and completed in August 2019.

| | |
|---|---|
| Baseline Project Information Gathering | Collected and analyzed previously developed documentation to understand the historical factors driving the study. During this stage project goals and objectives were confirmed, the Cornerstone team toured the facility. |
| Stakeholder Consultation | Cornerstone conducted interviews with the following project stakeholders: Polarettes Gymnastics Club; Climb Yukon; Department of Education; Yukon Freestyle Ski Association; YG - Infrastructure Development; YG - Sports & Recreation; Vanier Catholic Secondary School; & Snowboard Yukon Association. |
| Building Condition Assessment | Cornerstone contracted Associated Engineering Ltd (Associated) to complete the building condition assessments and Kobayashi + Zedda Architects to review existing building code requirements. The assessments detailed any facility deficiencies, national building code non-compliance, energy code non-compliance, recommendations and/or requirements for additional investigation or studies, and an estimate of remaining service life expectancy for major infrastructure components. |

- Conceptual Layouts and Site Plans** Kobayashi + Zedda Architects prepared conceptual layouts for renovation and new construction options, which can be found in the Appendix of this report.
- Lease Assessment** Cornerstone reviewed Polarettes and Climb Yukon's past and projected financial balance sheets for the purpose of estimating revenue and direct/indirect expenditures. The purpose of the review was to establish an affordable lease arrangement between Polarettes, Climb Yukon and YG.
- Economic Impact Model** Cornerstone reviewed the results of the Economic Impact models prepared by Sport Yukon for events run by Polarettes and Climb Yukon.
- Cost Estimate** Class D cost estimates were prepared by SSA|QS for each building addition and new build option. In addition, an O&M cost estimate is included for comparison purposes.

1.2 SPATIAL TERMINOLOGY

Some key space planning terminologies are used in the development of this plan. They are:

- Net Assignable Area (NAA)** Refers to the useable floor area within a space measured to the internal face of enclosing walls or the assigned area if it is an alcove or space.
- Component Gross Area (CGA)** Represents the total net assignable area of all the spaces that are part of a Functional Component plus the circulation pathways that provide access to the spaces within the Component. It is calculated by applying a grossing factor to the Net Assignable area. $CGA = \text{Net Assignable Area} + \text{Circulation within the Component}$.
- Building Gross Area (BGA)** The total area of all levels of a building as measured to the outside face of exterior walls. It includes all Component Gross Area plus an allowance for Major Circulation and Building Systems. It is typically calculated by applying a grossing factor to the Component Gross area.
- Major Circulation** Refers to building circulation spaces that connect the functional components. It also includes small support spaces such as distributed janitor and communications/IT closets that are typically accessed from major circulation.
- Building Systems** Refers to spaces assigned to for mechanical, electrical, HVAC, and communications purposes, as well as the space to the exterior of the facility wall assembly.
- Site Area** Site areas requirements include the land area occupied by the facility plus land required to accommodate functions of ground level outdoor activities, such as materials storage and parking. An allowance for pedestrian and vehicular access and movement is included as well.

1.3 DOCUMENTATION REVIEW

Previous to this study, two documents were developed that are directly related to this scope of work. The studies were developed to assess the feasibility of an expanded/renovated Polarettes facility and to evaluate the feasibility of a net-new climbing facility in Whitehorse. A summary of the documents has been provided in the following tables.

| Facility Development Polarettes and Polar Tumblers Gymnastics Club Northern Front Studio, 2017 |
|--|
|--|

A precluding feasibility study was completed in March 2017. This study reviewed Polarettes' current program activities and presented renovation/development options that would alleviate issues with the existing facility layout. Three development options for the existing Polarettes site were proposed:

- Option A: renovation and expansion to the existing building towards the northwest to accommodate four new trampolines. (~1,000m² of additional area)
- Option B: a "moderate" renovation to existing equipment and gym layout to improve safety and use. (836m²)
- Option C: a full wish list of items, including their optimal layout. (1,750m²)

In addition, the study included a building condition assessment that identified a number of issues, such as a leaking roof, accessibility issues, and poor energy efficiency.

Since the report was completed in 2017, there have not been any changes to the Polarettes facility.

| Feasibility Study For A Climbing Facility In Whitehorse, YT Patricia Duchesneau, 2016 |
|---|
|---|

This feasibility study was completed for Climb Yukon to assess the need for an indoor climbing facility in Whitehorse. The consultant evaluated the chances of success based on a new climbing facility adjacent to a future French School. The study identifies ideal dimensions for two climbing facilities (3,600 sq. ft and 5,600 sq. ft) that would include three types of climbing: top rope, sport climbing, and bouldering. The respective start-up, operating costs, and annual sales were estimated for both alternatives.

Since the report was completed in 2016, there has not been any further development on the construction of a dedicated indoor climbing facility. There continue to be none in Whitehorse or nearby.

2 CURRENT STATE

The following section discusses current activities, estimated facility usage, current staffing, and lease agreements for Polarettes Gymnastic Club and Climb Yukon. This section also includes an overview of the spaces and facilities that the groups use to deliver programming.

2.1 POLARETTES GYMNASTICS CLUB

2.1.1 CURRENT ACTIVITIES

Polarettes activities can be broadly classified into eight categories: Active Start; Recreational; Competitive; Parkour, Trampoline Drop-in, School Programming and cross training/sport groups. These programs are described below and followed by a table listing annual attendance and capacity.

Active Start Active Start is a recreational gymnastics program offered to children from 10 months to 6 years of age and following the Active Start curriculum by Gymnastics Canada. The program teaches kids physical literacy, basic gymnastics, and movement skills. Generally, these programs are offered earlier in the day and children attend with a guardian. Equipment is usually smaller for suitable safety and progression. In 2017-2018, four programs were offered under the Active Start curriculum: BabyGym; Tumble Bugs; Tumble Bunnies; and Tumble Bears. Once children graduate from Active Start they may wish to continue in a recreational program or get invited into a competitive program.

Recreational Recreational programs teach basic gymnastics in accordance with Gymnastics Canada's "fundamentals" and CANGym curriculum. These classes are community centered and focus on physical literacy, motor development, and fundamentals through creative movement. Recreational programs are open to practically all age groups (6 and up). In 2018, classes were typically scheduled during the weekdays in the early evening, and on weekends. The programs are based on age, gender, and experience. They include: GymKids (beginner and experienced), Gym Girls/Boys (beginner and experienced), SuperGirls, Teen Gym, Performance Team and Performance Team Plus.

Competitive During the 2017-2018 fall and winter seasons, the Polarettes had two competitive teams comprised of 60 girls, ages 6-15. The girls train between 4-26 hours per week, starting as early as 6am. The competitive girls have access to the facility between 6:00am – 8:00am (Monday to Thursday) and between 3:00-6:30pm or 3:45-7:45pm daily. The program offers members different levels of commitment and intensity, in accordance with the CANGym curriculum. Competitive members have the opportunity to train for local, Territorial, and National competitions. In 2017 and 2018, Polarettes had 3 Yukon Sport and Recreation high performance funded athletes. Note that Polarettes does not accommodate a competitive Men's Artistic Gymnastics program, as program numbers were not sustainable in years past. Competitive members typically train weekday evenings and on weekends.

The club's Head Coach is one of Yukon's only NCCP Competition 4 Certified coaches, which is an elite level coaching status for Canada; her experience includes preparing athletes for National Teams. The coaching staff is among the most certified in Whitehorse and even exceeds certification standards of Gymnastics Canada. The club hopes to recruit and train more coaches to keep up with the

demand of the community and to continue to operate as the number one gymnastics facility in the North.

Historically, certification levels of the coaching staff have hindered the competition level of members. It has been an ongoing struggle for the club to attract high-level coaches as they are in such high demand elsewhere across Canada. It is the club's opinion that new facilities in Whitehorse could attract elite coaching staff.

- Parkour** In May 2017, the Federation of International Gymnastics (FIG) adopted Parkour as an official gymnastics discipline. Facilities across Canada have seen increasing involvement in these programs, especially from young males. The Parkour program at the Polarettes club has expanded rapidly over the last few seasons, from one class per week to twelve classes per week. In total, there were 235 members in 4 programs, and 64 individuals on a waitlist for the 2017-2018 seasons. The club currently has one certified coach and is expecting to train four more before the 2019 fall season. Polarettes offers beginner, intermediate, and advanced programs for ages 6 and up. The current facility does not include any specific Parkour equipment but has successfully adapted their gym environment.
- Trampoline** Trampoline gymnastics made its Canada Games debut in 2015, following the nation's success at the Olympic level in 2008 and 2012. Polarettes has heard a lot of interest from members to produce a trampoline and tumbling program but they currently do not have the space or equipment. Rather, freestyle skiing and snowboard groups rent the trampolines for cross-training purposes. Polarettes currently has one trampoline to accommodate these groups, which has been a major deterrent for the Freestyle Ski Club of Yukon. In 2018 the Freestyle Ski Club purchased trampolines and moved to another location in Whitehorse.
- Drop In** In addition to the above-mentioned programs, Polarettes offers open drop-in times for club members. In 2018, Polarettes estimates they had 2,400 individual drop-ins. There is no set class during this time, and a Polarettes staff member must be present to ensure the equipment is being safely.
- School Programming** Each weekday Polarettes is booked by school groups. These bookings fluctuate each season/year, but usually occupy 10-12 hours per week. In addition, Polarettes hosts Vanier Catholic School's dry grad event each year.
- Cross Training / Sport Groups / Other** Includes Snowboard Yukon, Freestyle Ski Yukon, Special Olympics, Teegatha'Oh Zheh, Homeschool, Child Development Centre, Judo Yukon and Daycare Facilities. These groups use the Polarettes space when available and with an agreement with the Polarettes group.

Polarettes has been experiencing steady growth over the last few years, which is greatly attributed to the dedication and organization of their staff and board members. In 2018, the Club offered 25 different classes to students between 18 months to 15 years old. These programs are summarized in the following table along with the total attendees and capacity values.

Table 1: Programs offered at Polarettes in 2018 (Winter, Spring, and Fall seasons)

| Program | Name | Attendees | Capacity | *Waitlist |
|--------------|--------------------------|-----------|----------|-----------|
| Active Start | BabyGym | 18 | 20 | 4 |
| | Tumble Bugs | 211 | 230 | 27 |
| | Tumble Bunnies | 156 | 162 | 77 |
| | Tumble Bears | 135 | 136 | 43 |
| Recreational | Super Kids | 50 | 56 | 4 |
| | GymKids | 29 | 32 | 1 |
| | GymKids Beginner | 66 | 72 | 7 |
| | GymGirls Beginner | 85 | 88 | 20 |
| | GymGirls Experienced | 12 | 16 | 1 |
| | GymBoys Beginner | 14 | 16 | 0 |
| | GymBoys Experienced | 4 | 8 | 0 |
| | SuperGirls | 15 | 16 | 0 |
| | Teen Gym | 7 | 10 | 0 |
| | Performance Team | 28 | 32 | 0 |
| | Performance Plus team | 32 | 32 | 0 |
| Competitive | Competition Advanced | 12 | - | 0 |
| | Competition Intermediate | 9 | - | 0 |
| | Competition Introductory | 12 | - | 0 |
| | Interclub | 11 | - | 0 |
| | Hotshots | 8 | - | 0 |
| | Hotshots Mini | 8 | - | 0 |
| Parkour | Parkour Junior | 32 | 44 | 1 |
| | Parkour Intro | 143 | 151 | 40 |
| | Parkour Plus | 48 | 48 | 21 |
| | Parkour** | 12 | 12 | 2 |

*It is important to note that there are multiple scheduled program times that are added under the same program name in the above table. Instances in rows where there are waitlist numbers, and *Attendees* are less than *Capacity* occurs when a certain program is at capacity during a peak time of day.

**Data included program titled Parkour. This is not a distinct program at Polarettes and therefore is part of either junior, intro or plus programs.

In addition to the programming that Polarettes offers, they also host children's birthday parties. Birthday parties are an important source of income for the Club and provide an effective introduction for youth to gymnastics.

2.1.2 FACILITY USAGE

Polarettes provides programming year-round with closures taking place during December 24th-26th. They offer recreational classes in Fall, Winter and Spring and kids camps during the Christmas break, Spring break and Summer break. School classes run the entire school year and competitive classes run from September 1st to August 31st. The following table presents the operating hours for the 2017-2018 seasons (fall, winter, and spring).

Table 2: Polarettes operating hours 2017-2018.

| Day | Hours* | Activity sequence each day |
|-----------|-------------------|---|
| Monday | 6:00 AM - 9:00 PM | Competitive programs → school rentals and drop in → school rentals and recreational → parkour and competitive classes → snowboard Yukon |
| Tuesday | 6:00 AM - 9:00 PM | Competitive programs → pre-school classes and school rentals → after school competitive and recreational programs → drop in or adult gymnastics class |
| Wednesday | 6:00 AM - 9:00 PM | Competitive programs → school rentals → recreational/parkour and competitive classes → drop in or adult gymnastics class |
| Thursday | 6:00 AM - 9:00 PM | Competitive programs → pre-school classes and school rentals → after school competitive and recreational programs → drop in or adult gymnastics class |
| Friday | 8:30 PM - 8:00 PM | School rentals & drop in programs → competitive and recreational/parkour programs → ski programming or other private rentals (occasionally) |
| Saturday | 8:30 AM – 8:45 PM | Gymnastics classes → family drop in → birthday parties → adult drop in (occasionally) |
| Sunday | - | Occasional private bookings between 6:45pm to 8:45pm. |

* Facility hours during the summer change to 7:00am to 6:30pm daily.

The following time-use observations are based on booking data from Polarettes and an online review of the programming and activity schedule:

- One hour is scheduled for gymnastics drop-ins each day.
- Based on historical scheduling information, up to four hours is booked for school programs daily, usually mid-day. Based on the joint use agreement with the school board and Polarettes, school programs get priority booking preference during a 4-hour time window during weekdays.
- Generally, programs offered for kids under the age of five take place during weekday mornings.
- The peak time for the club programs occurs between 4:00 PM-7:00 PM during the weekdays and 9:00 AM-1:00 PM on Saturday based on the booking data.
- Up to eight programs can be accommodated in the facility at one time but it is largely dependent on member safety and the availability of supervisory staff and the type of program.
- Class times vary by competition level. Competitive program bookings may run up to 3 hours and baby programs run between 30 minutes to 60 minutes.
- Staff stagger start-times for programs to reduce the congestion at the entrance of the building and help speed up transitions. Transition time between classes is ~10 minutes.

As mentioned earlier, birthday parties are extremely popular at Polarettes. Polarettes hosts up to seven (7) birthday parties each weekend and are usually booked solid three months in advance. In 2017/2018, Polarettes averaged 4 parties per week for the entire year, which equated to 195 bookings. Birthdays currently may use the entire gym for the two-hours. There is currently no restrictions for time limits on party space or gymnasium space. The facility is limited to the number of birthdays it can host each week by the suitability of space available in the current facility.

2.1.3 CURRENT STAFF

Polarettes currently has three full-time staff, twenty-two part-time coaches and one part-time administrator. Coaches are at various certification levels, which dictate the level of programs they can coach. The following table summarizes the current Polarettes staff.

Table 3: Polarettes staff summary.

| Position | Headcount |
|--|-----------|
| Head Coach (Full Time) | 1 |
| Developmental Coordinator (Full Time) | 1 |
| Recreational Director (Full Time) | 1 |
| Gymnastics and Parkour Coaches (Part-time) | 22 |
| Administrator (Part-time) | 1 |
| Total | 26 |

In addition to full-time and part-time coaching staff Polarettes has an elected board of directors. Generally, the board is comprised of alumni athletes and parents.

2.1.4 LEASE REVIEW

The facility that Polarettes Gymnastics Club leases is owned by the Government of Yukon. Polarettes has been the only lessee for the 836m² (925m² including the mezzanine) gymnastics facility and supporting spaces since 1994. Key points of the original lease include:

- The facility should only be used for gymnastics programming and supporting activities.
- The annual minimum rent will be \$1 per annum in advance of the 20th of April each year.
- Lessee will pay \$5,000 on the 20th of April each year as a contribution towards capital costs for 15 years. A later amendment stated that the lessee will continue to pay contribution until April 2019 at which point the balance will be considered paid in full (25 years).
- The lessor is responsible for maintaining the total building structure including the roof, foundation, all floors, and all load bearing walls. The mechanical and electrical systems together with their fixtures will be maintained in good operating condition.
- The lessor will own expenses to maintain the demised premise and any improvements.
- The lessor will maintain the landscaping and other exterior improvements.
- The lessor is responsible for the utility and janitorial costs associated with maintaining the facility. Note: Polarettes spent an average of ~\$22k each year (2017 and 2018 statistics from financial records) for repair, maintenance and cleaning of the facility.
- The lease makes reference to a joint user agreement which states: Yukon schools will have first priority access to the gymnastics facility during school hours (9:00 AM-3:00 PM Monday to Friday), with 14 days of scheduling notice.

As of the 20th of April 2019 the lease is on overhold, which means Polarettes and the Government of Yukon will need to agree to either renew the lease (status quo or revised) or terminate the agreement.

2.2 CLIMB YUKON ASSOCIATION

Rock climbing has gained a lot of popularity over the past few years in a number of Canadian cities, especially Whitehorse. This is not surprising considering Whitehorse's proximity to a number of established outdoor climbing areas and the Territory's appreciation for outdoor sports. Additionally, in 2018 a survey was distributed to Whitehorse residents to help guide the Parks & Recreation Master Plan. Over 50% of respondents identified that a climbing gym is the most desirable new indoor facility/space for Whitehorse.

Over a decade ago, Yukon's climbing community formed a non-profit organization called Climb Yukon Association. Local climbers and members of the public with various professional backgrounds established the group with a mandate to: build a strong climbing community to promote safe climbing practices; promote physical and mental health; and, offer a place for youth to overcome new challenges and be a

part of a structured team. Soon after forming, Climb Yukon Association identified the need for an indoor climbing facility to train, compete, socialize, and grow the sport of climbing in the Territory.

In Whitehorse, there are currently four indoor climbing walls; all are located in existing educational institutions. The climbing walls are located at the following facilities:

- Yukon College
- Ecole Emilie-Tremblay
- Porter Creek Secondary
- Whitehorse Elementary

These facilities are limited to student use during school hours and for after school programs. Climb Yukon has made arrangements with Yukon College to use their facility two nights per week (up to 4 hours total), but has reported that most nights the Yukon College climbing wall is at maximum capacity (20 individuals).

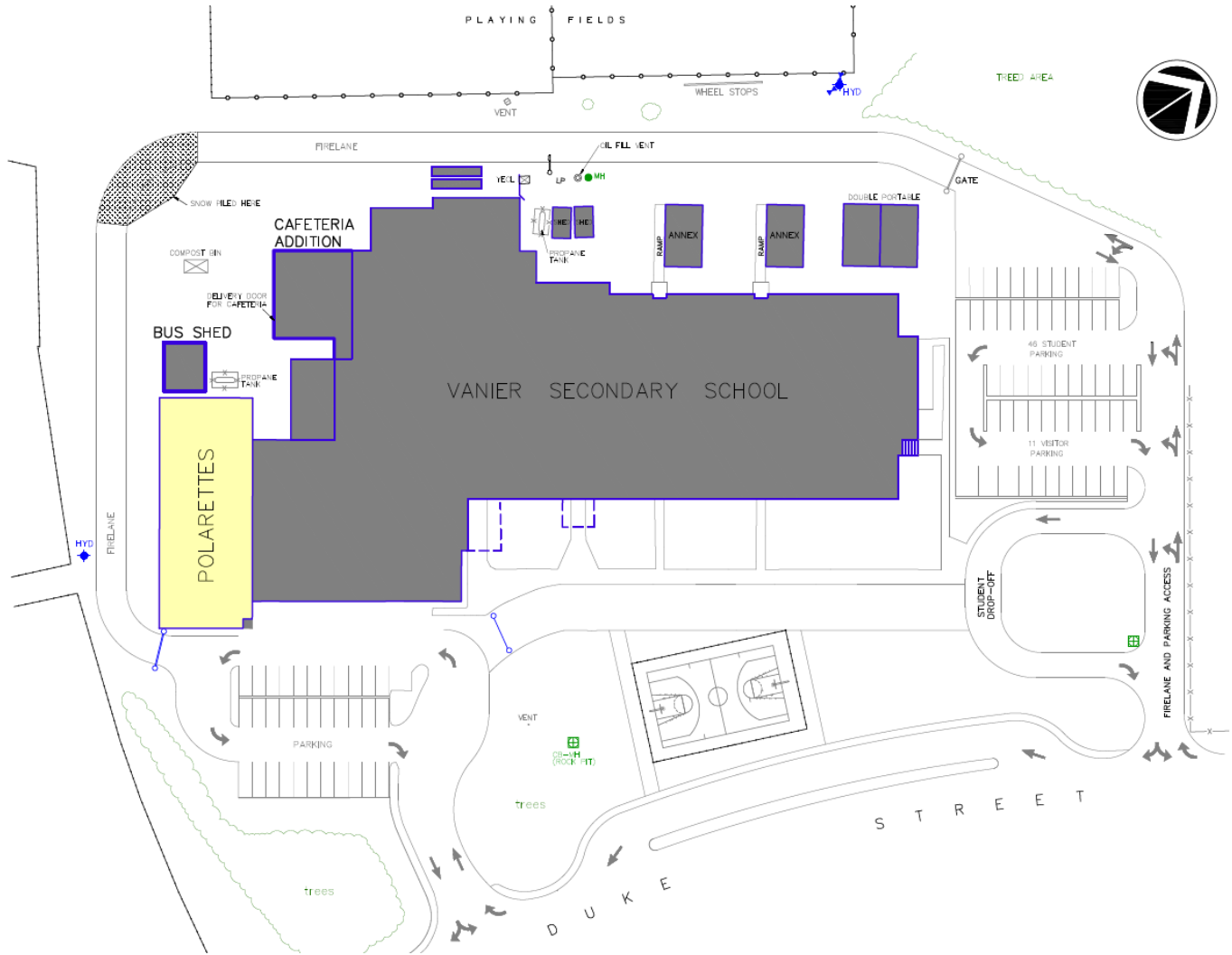
Today, Climb Yukon supports a youth program and various annual competitions (held in Juno, University of Alberta, Porter Creek High School). The youth program includes sessions 2-3 times per week, and has approximately 20 children enrolled. It was also noted that Climb Yukon is currently working with Ta'an Kwach'an First Nation to help support their youth programming.

Currently there is no governing body for climbing in the Yukon, which limits funding that Climb Yukon can receive from Yukon Government Sports and Recreation Branch; however, Climb Yukon Association is the foremost climbing-specific organization in the Yukon and has been approached by Climbing Escalade Canada (CEC) to become a member. Climb Yukon intends to apply as the governing body, similar to Yukon Gymnastics Association.

2.3 POLARETTES FACILITY

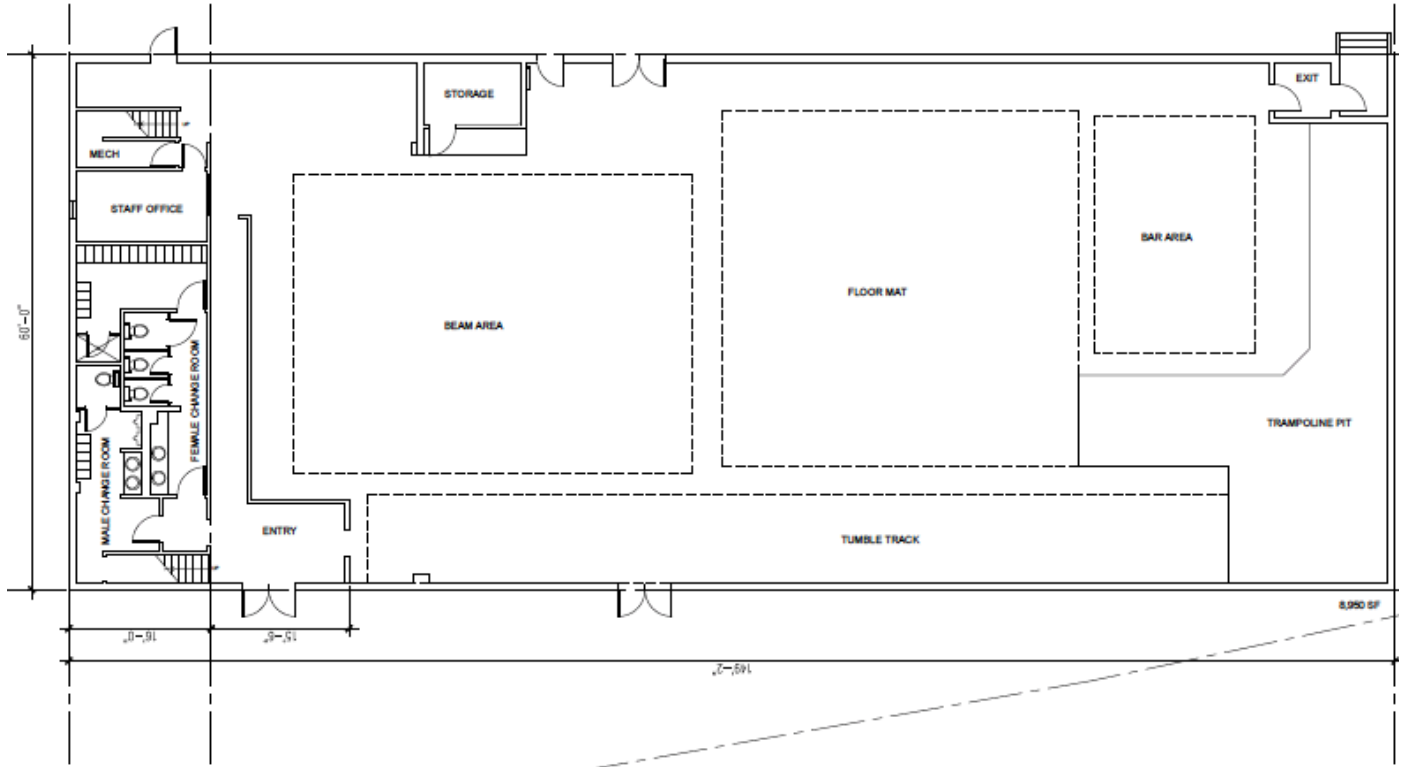
Polarettes operates from a leased space directly attached to Vanier Catholic School. The site is approximately 4.0 Hectares (10 Acres) in size and houses the Polarettes, Vanier Catholic School, various school owned sheds, a basketball court and two playing fields. There are thirty-three (33) standard parking spots located in front of Polarettes. This area is paved with curbs, and adequately demarcated for vehicle circulation and parking. There is limited space between the southwest corner of the Polarettes facility and the fence line. A gravel fire lane (6m wide) encircles the facility from the parking area to the playing fields, restricting expansion in the southwest direction. The school recently constructed a shed to the west of the existing facility to shelter a 12-passenger bus. The shed building does not have a permanent foundation nor is it built to code. Vanier Catholic School has expanded their existing building to include a new cafeteria to the south west of the building. In addition, the school has two temporary trailers where they are accommodating overflow classrooms. The school anticipates an expansion to include additional classrooms will be required in less than 10 years. This expansion is likely to occur to the northeast of the existing school.

Figure 1: Polarettes Gymnastics Club site plan.

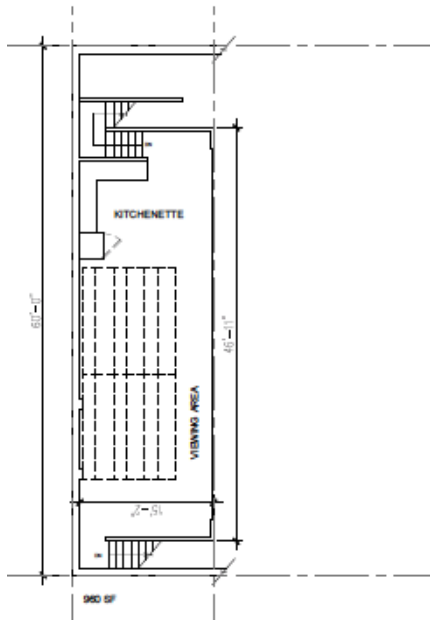


The original Polarettes facility was completed in 1993 with a total area of 609 m² and expanded in 1999 to a total of 836 m². The facility consists of a main floor and a mezzanine. The main floor accommodates all gymnastics activities, change rooms and offices, and the second floor contains a viewing area and kitchen. The following figure introduces the current state of the gym by zone.

Figure 2: Polarettes gymnastic zones (NTS).



1 FLOOR PLAN
1/8" = 1'-0" (HALF SCALE AT 11x17)



2 MEZZANINE PLAN
1/8" = 1'-0" (HALF SCALE AT 11x17)

The overall size of the gymnasium is 836m² with an additional 89m² of space in the mezzanine. The table below introduces the size of each assigned space.

Table 4: Current size of spaces within Polarettes gymnasium

| Floor level | Space | NSM | Notes |
|------------------------|--------------------|------------|---|
| Main Floor | Exit Vestibule | 7 | |
| | Trampoline pit | 78 | |
| | Tumble Track | 89 | Part of gymnasium. 1 exterior access |
| | Floor Mat | 149 | Part of gymnasium |
| | Gymnasium | 349 | Includes beam and bar areas. |
| | Storage | 7 | |
| | Entry | 12 | |
| | Female Change Room | 27 | 2 sinks, 3 toilets (1 accessible), 19 lockers, 1 shower |
| | Male Change room | 13 | 2 sinks, 2 urinals, 1 toilet (accessible), 5 lockers |
| | Staff office | 11 | |
| | Mech. room | 3 | |
| Subtotal (NSM) | | 745 | |
| Subtotal (CGSM) | | 799 | |
| Subtotal (BGSM) | | 836 | Total site footprint |
| Mezzanine | Viewing Area | 44 | |
| | Kitchenette | 15 | |
| Subtotal (NSM) | | 59 | |
| Subtotal (CGSM) | | 82 | |
| Subtotal (BGSM) | | 89 | |

2.3.1 BUILDING CONDITION ASSESSMENT

A building condition assessment has been included within this scope of work to assess the current buildings overall condition and identify factors that may impact the decision to renovate, build new or move to a different location. The building condition assessment includes a review of the structural, mechanical, electrical, civil and code compliance of the facility. Associated Engineering Ltd has completed the engineering review (includes codes issues related to structural, mechanical, electrical and civil) in May 2019 and Kobayashi + Zedda Architects Ltd completed the building envelope and associated code compliance review in June 2019.

The approach used for the building condition assessment included historical documentation review, discussions with operational staff and a visual walk through survey. There were no intrusive investigations as part of the assessment.

This section consolidates the findings of both groups into one summary. A rating of each building aspect has been assigned based on the findings of the assessment, where relevant and applicable. Rating System: 1=Very Good, 2 = Good, 3 = Fair, 4 = Poor, 5 = Very Poor. Refer to the Appendix for the complete reports.

2.3.1.1 Structural Review

| Aspect | Description | Rating |
|------------|--|--------|
| Foundation | Reinforced concrete strip footings dado walls, slab on grade. Foundations were completely covered in finishes and therefore could not be inspected for defects. No defects were seen in the walls that would indicate settlement or give any clue that something is failing within the foundations. | 2 |
| Walls | Metal studs with plywood sheathing. Some impact and hairline cracks were noted that were deemed not to be affecting the wall structure and are no reason for concern. Metal studs have been used within the walls of the building and due to cold bridging (result of thin 100mm insulation); visually one can see the stud location. Since the cladding is in relatively good condition and the climate is relatively dry, moisture may only be entering the walls from the outside due to humidity working its way into the structure during the summer. In winter there may be moisture getting into the cavity from the gym side as a result of the leaks in the vapour barrier or leaks in the roof. Intrusive tests are required to verify the potential moisture issue. | 2 |
| Roof | Parallel corded trussed roof with plywood diaphragm. From a visual inspection, there appears to be zero deflection in the trusses. Under snow loading, this would result in pooling on the roof and could cause roof leaks, which have been reported by the operational staff. | 2 |

Given that there are no indications of movement or failures of the substructure, it is recommended that a further review be done in 20-years. The stud wall thermal bridging indicates that they may be susceptible to condensation, but the remaining service life is in excess of 15-years and therefore should be assessed then. Roof trusses are in good condition and should be reassessed in 20-years.

2.3.1.2 Mechanical Review

| Aspect | Description | Rating |
|-----------------|--|--------|
| HVAC | Main air handling unit, local exhaust fans, gas fired heating, electrical heating and controls. At the time of the assessment none of the local exhaust fans appeared to be in operation. There is no Air Conditioning unit present within the facility, which results in extreme temperatures in the summer months. | 4 |
| Plumbing | Drainage and water fixtures. Visual inspection did not indicate any plumbing issues. | 3 |
| Fire Protection | Wet pipe sprinkler system excluding system components located in the school next door. Visual inspection did not indicate any fire protection mechanical issues. | 2 |

The age of the mechanical components (air handling unit, sumps and the hot water tank) are all past their average life expectancy and although they appear to be functioning correctly it is recommended that at a minimum the air handling unit is upgraded.

2.3.1.3 Electrical Review

| Aspect | Description | Rating |
|--------------------|---|--------|
| Power Distribution | Panels, switches, breakers and transformers. Both electrical panels are operating correctly but due to their age, they most likely suffer from degradation. Further maintenance will become an issue as it will be increasingly difficult to locate parts | 3 |

| | | |
|----------------------------------|--|---|
| | and expertise. The electrical panel in the stairway is located directly under a sprinkler and requires a hood for protection. | |
| Cables and Raceway | Cables and conduit/EMT. All cables and conduit appeared to be in good condition and in conformance with code. The electric baseboard heater within the boys' washroom was missing and there was exposed wiring that should be addressed as soon as possible. | 2 |
| Area Lighting | Indoor and outdoor lighting fixtures and mounts. Gymnasium lighting fell below the recommended levels; it is suggested to upgrade the lighting fixtures. | 3 |
| Emergency Lighting & Exit Lights | Emergency lighting and exit lights. Stairway lighting was found to be just under the advised standard. It is recommended to add a small wall mounted luminary. The emergency lighting, although not to current code, are appropriate due to the age of the facility (grandfathered). It is recommended that the current emergency lights are upgraded to today's code requirement. | 4 |
| Receptacles | Indoor receptacles only. Spot tests of the receptacles showed that they were functioning correctly. Operations staff noted that in certain instances the breaker is tripped. This may be a result of daisy-chained receptacles, which could not be determined during the visual inspection. | 2 |
| Fire Alarm System | Fire alarms and pull stations. Devices were not tested during the inspection although they appeared to be in good condition. It was noted by operational staff that something in the Polarettes gym triggers the alarms within Vanier School. This was not observed during the assessment and requires further investigation to determine the cause. | 3 |

2.3.1.4 Civil Review

| Aspect | Description | Rating |
|--------------------------|--|--------|
| Grounds | Partially Wood. No repairs are required. | 2 |
| Pathways | Concrete. No repairs are required. | 2 |
| Vehicle Parking Surface | Bitumen. The bitumen surfaces contain areas with thermal cracking but are considered to be in reasonable overall condition. No repairs are required. | 2 |
| Vehicle parking Drainage | Off parking rock pit and spill over into forest. There is a definite low spot identified that results in flooding. It is recommended that this is rectified. | 5 |
| Vehicle parking Curbs | Concrete curbing and islands. Numerous cracks and damage to the curbing was identified but it is not considered a major concern and does not require immediate repair. | 2 |

The parking area pavement and the concrete around the building should have a further review in 10-years. It is recommended that the curbing be entered into a capital maintenance plan for renewal over the next 10-years. The rock drain has no residual life left and should be replaced as soon as feasible.

2.3.1.5 Building Code Compliance Review

The code compliance review identified a number of issues with the current facility. A summary of the items that are non-compliant with building code is shown below:

- **Barrier-free Design:** Polarettes is not currently in compliance as no entrances are barrier free. A barrier free ramp access and power door operator should be installed. If showers are provided in a

building, at least one must be accessible. The current barrier free water closets, shower and water fountain do not meet current accessibility requirements.

- **Spatial Separation:** The North East elevation requires non-combustible cladding and a wall assembly with a 45min FRR. It is currently an unrated assembly with wood cladding. For the North West elevation, either the bus garage needs to be moved at least 12m away to allow an unrated wall assembly and with combustible cladding as exists currently, or construction of a 1h rated wall with non-combustible cladding.
- **Seismic Loading:** Global structural stability is a concern due to the fact that there are no structural wall details included within the record drawings. As such, it is not possible to know how this building will react during an earthquake. It is recommended that a seismic analysis is performed on both the Polarettes gymnasium and Vanier Catholic School.
- **Energy Efficiency:** Envelope requires upgrade to meet current energy code.
- **Handrails to the Mezzanine:** Non-compliant with regards to current lateral code requirements.
- **Energy Code:** The air-handling unit is not equipped with automatic controls capable of setting back or shutting down the systems during periods of non-use.
- **Energy Code:** The gas fired duct furnaces must have a minimum heating efficiency of 81%, whereas Polarettes currently is rated at 78%.
- **Seismic Loading:** Global structural stability is a concern due to observations of the sheathing, masonry and steel studs. Due to the connection ties, the studs would be highly prone to local buckling during an event.

The findings of the building condition assessment and code review will be used to determine the feasibility of potentially renovating/expanding the existing facility as well as providing information to help assess the current costs associated with building issues and shortfalls.

2.3.2 FUNCTIONAL FACILITY DEFICITS

A facility may not be suitable for the activities it supports, regardless of a facility's physical condition. A functional facility review observes the alignment between the building and its occupants, informing recommendations to better the performance of the building for its intended use.

The following list of functional facility deficits were derived from information captured during user group interviews and observations made during the facility tour. These functional deficits are separate from the building assessment completed by registered professionals.

Building Entrance and Foyer There is no vestibule located at the main entrance. During winter months cold air easily enters the facility whenever someone opens the door.

Facility users are asked to take their shoes off in the foyer before proceeding through the facility. Due to the size of this space it is very congested during peak programming times.

There is no reception area at the entrance of the building. The reception area is located on the direct opposite side of the facility.

Accessibility The facility entrance, mezzanine, and washrooms are not universally accessible.

Office Space The existing office has limited access to natural light and is inadequately heated. There is limited storage for professional documents/files, printer/copier, or meetings.

- Change Rooms** The women's change room is undersized for the current membership and does not have enough lockers for their competitive programs.
- There is no change area for men within the facility. Men use the men's washrooms to change when necessary.
- There is a desire for family/gender neutral washrooms to support parents with young toddlers requiring space for changing diapers.
- First Aid Room** The facility does not have an adequate First Aid room. Due to the nature of the sport a First Aid room is a very important asset for first response in case of an emergency.
- Coaches Lounge** The existing coaches lounge was converted into storage space out of necessity. There is no designated area for breaks, collaboration with other coaches, private meetings, etc.
- Storage** Overall the facility is lacking adequate storage spaces. As a result, equipment is being stored in an unsafe manner throughout the facility. A private storage company has donated a 10'x10' unit for Polarettes' use (offsite), but the rental tenure is uncertain.
- There is no dedicated area for building supply storage (janitor closet). As a result, supplies are stored in inappropriate locations.
- Parking** The parking area in front of the Polarettes facility is often full as it is shared with Vanier School. As such, individuals often park in the fire lane.
- Multi-Purpose Room** Currently birthday parties and camps are hosted in the mezzanine, which can be very disruptive to other gym users. These programs require a space that can accommodate a multitude of activities, such as: lunch/snack prep, crafts, naps, storage, etc.
- Tumble Track and Landing Zone** Polarettes does not offer a formal competitive tumbling program for their athletes as the current tumble track is too short and the landing area is inadequate. In order to accommodate a competitive tumbling program, the facility requires a 25m long track with a double mini-trampoline and landing zone with both soft and hard landing options.
- Trampoline and Ceiling Heights** Polarettes currently operates with one trampoline and limited ceiling clearance (6.8m from tramp surface to underside of truss). Safe ceiling heights of at least 10m (tramp to truss) and additional trampolines are required in order to accommodate a competitive trampoline program and other supplementary programs such as: ski, snowboard, and parkour.

Competitions Due to a number of facility constraints such as those listed above, Polarettes is capable of only hosting inter-Territory level competitions, such as Yukon Championships and Arctic Winter Games. An upgraded facility could host major events such as: Midnight Sun Gymnastics Invitational; Western Canadian Gymnastics Championships, Elite Canada; Canadian Gymnastics Championships; Canada Winter Games; and National Level training camps. These events would promote gymnastics and associated movement sports in Yukon and provide better competitive options for young Yukoners.

3 FUTURE DEMAND

3.1 POLARETTES GYMNASTICS CLUB

A number of factors will impact the future demand for Polarettles. To estimate demand, the following factors have been considered:

- **Population Growth:** The Yukon Bureau of Statistics projects the 0-14 age cohort to increase 32% by 2040 (average annual increase of 1.5% from 2018). As the youth population increases in the Territory it is assumed that the number of members and casual users will also increase, approximately proportionally. Polarettles programs contained 1,097 youth members in 2018 (excluding all single use members such as drop-in's, school groups and birthday parties).
- **Program Growth:** Polarettles has identified multiple programs that they have current demand for but are unable to accommodate due to a shortage in facility space or coaching staff. It is expected that Polarettles will expand their current recreational and competitive gymnastics and Parkour streams as well as introduce trampoline gymnastics. It is assumed that the trampoline gymnastics program could attract 200 participants in the first year of operation.
- **Latent Community Demand:** There are regular waitlists for a variety of programs, indicating interest beyond capacity within the community. Additionally, with newly renovated or new space, it is expected that there will be an increase in program interest as a result of latent community demand.

Using the identified future demand factors, it is estimated that Polarettles could see as many as 2,097 participants in the 20-year future (Year 2038).

Table 5: Polarettles participant projections (for programming)

| Program | Participants (2017/18) | Population Growth Increase (2038) | Program Growth Increase (1% annually) | Latent Community Demand Increase (5%) | Estimated # of Participants |
|--------------|------------------------|-----------------------------------|---------------------------------------|---------------------------------------|-----------------------------|
| Active Start | 520 | 180 | 114 | 26 | 841 |
| Recreational | 282 | 98 | 62 | 14 | 456 |
| Competitive | 60 | 21 | 13 | 3 | 97 |
| Parkour | 235 | 82 | 52 | 12 | 380 |
| Trampoline | 200 | 69 | 44 | 10 | 323 |
| | 1,297 | 450 | 286 | 65 | 2,097 |

In addition to participants registered for programming, Polarettles sees a large number of visitors each year. In 2017/2018, Polarettles saw ~13,000 visitors for Birthday Parties, Drop-ins, Rentals and Camps. Applying the same growth factors to the current visitor attendance numbers results in ~21,000 estimated visitors in the 20-year future (by 2038). The table below outlines the growth in Polarettles visitors.

Table 6: Polarettles visitor projections

| Program | Visitors (2017/18) | Population Growth Increase (2038) | Program Growth Increase (1% annually) | Latent Community Demand Increase (5%) | Estimated # of Visitors |
|------------------|--------------------|-----------------------------------|---------------------------------------|---------------------------------------|-------------------------|
| Birthday Parties | 3510 | 1217 | 773 | 176 | 5676 |

| Program | Visitors (2017/18) | Population Growth Increase (2038) | Program Growth Increase (1% annually) | Latent Community Demand Increase (5%) | Estimated # of Visitors |
|----------------|--------------------|-----------------------------------|---------------------------------------|---------------------------------------|-------------------------|
| Drop-in | 2399 | 832 | 528 | 120 | 3879 |
| Daytime Rental | 5480 | 1901 | 1207 | 274 | 8861 |
| Camp Programs | 1440 | 499 | 317 | 72 | 2329 |
| | 12829 | 4450 | 2825 | 641 | 20745 |

From the above tables it is apparent that program attendance can be expected to increase over the foreseeable future. The estimate shows a 62% increase in participation over a 20-year future. With an expected increase in participation, staff support must also increase.

The accuracy of using a high-level estimation technique such as this is considered low; however, when comparing the estimated growth to the historical growth of Polarettes it is seen that 62% over 20-years is not unrealistic. Since 2014 the Club has seen an increase in membership of 87%, which is attributed to new leadership. However, this rate of growth is not likely to be maintainable in the future, as Whitehorse's population is simply not large enough. For these reasons, a 62% increase over 20-years is considered attainable and realistic.

3.2 CLIMB YUKON

Climb Yukon does not currently have a membership program and instead is completely run on a drop-in basis. They also do not have a dedicated space for indoor climbing. As such, the estimated future demand for climbing in Whitehorse is based on a number of assumptions that cannot be corroborated with historical information.

The anticipated number of visitors to Climb Yukon has been based on a population and demographic analysis. Using 2018 Whitehorse area figures, it was assumed that each year the climbing facility would see ~1,580 distinct visitors. The table below identifies the method to reach this figure.

Table 7: Estimated Climb Yukon visitors

| Age Group | 2018 Population | % of population that is expected to visit Climb Yukon | Climb Yukon Visitors | Notes |
|----------------|-----------------|---|----------------------|---|
| 5 to 9 years | 1,848 | 20% | 370 | High likelihood that children aged 5 to 9 will attend a birthday party at Climb Yukon |
| 10 to 14 years | 1,716 | 10% | 172 | Target demographic for Climb Yukon |
| 15 to 19 years | 1,634 | 10% | 163 | Target demographic for Climb Yukon |
| 20 to 24 years | 1,781 | 10% | 178 | Target demographic for Climb Yukon |
| 25 to 29 years | 2,368 | 5% | 118 | |
| 30 to 34 years | 2,795 | 5% | 140 | |
| 35 to 39 years | 2,641 | 5% | 132 | |
| 40 to 44 years | 2,287 | 2% | 46 | |
| 45 to 49 years | 2,238 | 2% | 45 | |
| 50 to 54 years | 2,155 | 2% | 43 | |

| Age Group | 2018 Population | % of population that is expected to visit Climb Yukon | Climb Yukon Visitors | Notes |
|-------------------|-----------------|---|----------------------|---|
| 55 to 59 years | 2,488 | 2% | 50 | |
| 60 to 64 years | 2,203 | 2% | 44 | |
| 65 years and over | 3,832 | 2% | 77 | |
| Total | 29,986 | | 1,577 | Total approximate participation in one year |

The estimated total participation in one year is approximately 5% of the overall population of the Whitehorse area. This includes visitors that only attend once per year (either for a drop in or special event). Participants that are likely to come more than once represent approximately 3% of the overall Whitehorse area population, which is in line with National recreation averages. For reference, hockey participation is ~6% nationally.

Forecasted participation for 2028 and 2038 are estimated at ~1,740 and ~1,910 respectively, based on the future population numbers and the rates in the above table. Although this method of estimation is high level and is not based on any Whitehorse specific historical data, it is considered realistic for this level of planning.

4 ECONOMIC ANALYSIS

4.1 FINANCIAL MODEL

Financial models have been prepared for Polarettes and Climb Yukon. The section that follows identifies the assumptions surrounding each model.

4.1.1 POLARETTES

The economic analysis for Polarettes Gymnastics has a number of underlying assumptions:

- The model uses historical income statements as baselines for expected expenses and revenues. The majority of the chart of accounts are projected forward based on 2018 values with the exception of Grants & Subsidies and General & Administration Expenses. Exceptions were made for these line items as 2018 was seen as an anomaly. For example, in 2018 Polarettes received special funding from CDF for equipment upgrades.
- The organization uses their savings to furnish/provide equipment into the future.
- Revenues and expenses will increase as a function of the Whitehorse area population growth over the next 10 and 20 years. Additional growth factors have been applied to program, membership and rental/drop in fees as a result of increased services offerings.
- Polarettes will expand their services to include a trampoline and tumbling program as well as increasing their current programming as a result of an expanded facility.
- Polarettes continues to operate under similar circumstances as it does today, i.e., Yukon Government continues to provide Polarettes a facility for programming and activities and in exchange Polarettes provides a small capital contribution.
- In comparison to other similar facilities throughout Canada, Polarettes programming fees were noted to be discounted. It is assumed that Polarettes will begin to increase their program costs to move towards a financial position that allows the group to contribute towards rent/lease costs.

The economic analysis is considered high level and is provided to estimate an order of magnitude for potential net income. The following table presents 2017 and 2018 actual values from Polarettes income statement as well as 2028 and 2038 projections. Specific assumptions to each line item are provided for reference.

Table 8: Polarettes economic model

| Description | 2017 | 2018 | 2028 | 2038 | Assumptions |
|-----------------|-----------|-----------|-----------|-----------|--|
| REVENUES | | | | | |
| Membership Fees | \$520 * | \$8,529 | \$17,889 | \$22,859 | Takes into consideration memberships due = assumes all memberships are paid by organization year-end. Assumes fees increase proportional to population and inflation. |
| Program Fees | \$333,403 | \$307,281 | \$431,912 | \$551,901 | Assumes programs increase proportional to Whitehorse area population growth and increases 10% as a result of increased programming offerings. Assumes an increase in program fees year over year equivalent to inflation. It is expected that users will gradually pay more for the programs as they currently pay |

| Description | 2017 | 2018 | 2028 | 2038 | Assumptions |
|-------------------------|------------------|------------------|------------------|------------------|--|
| | | | | | comparatively less than other similar organizations. |
| Rental/Drop Ins | \$71,305 | \$59,167 | \$71,660 | \$78,901 | Assumes drop-ins increase proportional to Whitehorse area population growth and increases 10% as a result of increased availabilities |
| Fundraising/Raffle | \$24,131 | \$68,640 | \$75,576 | \$83,213 | Assumes increase proportional to Whitehorse area population growth |
| Clothing Sales | \$5,188 | \$4,918 | \$5,415 | \$5,962 | Assumes increase proportional to Whitehorse area population growth |
| Grants and Subsidies*** | \$28,100 | \$152,128 | \$50,000 | \$75,000 | Assumes the organization can secure 50k per year for 10 years and 75k per year for the following 10-years. The club currently receives a \$20k/year Yukon Gymnastics Association coaching subsidy. |
| Other | \$20,944 | \$46,738 | \$51,461 | \$56,661 | Special event revenue, comp and travel recovery: Assumes increase proportional to Whitehorse area population. |
| Total Revenues | \$483,591 | \$647,401 | \$703,912 | \$874,496 | |

| EXPENSES | | | | | |
|-----------------------|-----------|-----------|-----------|-----------|---|
| Program Expenses | \$82,731 | \$125,130 | \$175,882 | \$224,744 | Assumes programs increase proportional to Whitehorse area population growth and increases 10% as a result of increased programming offerings. Assumes an increase in program expenses year over year equivalent to inflation. |
| Payroll Expenses | \$296,135 | \$283,784 | \$343,705 | \$378,435 | Assumes programs increase proportional to Whitehorse area population growth and increases 10% as a result of increased programming offerings. |
| Lease Cost | \$1 | \$1 | TBA | TBA | The current lease agreement (on overhold) states that the club will pay \$1/year for the lease. |
| Capital Contributions | \$5,000 | \$5,000 | TBA | TBA | |

| Description | 2017 | 2018 | 2028 | 2038 | Assumptions |
|-----------------------------------|------------------|------------------|------------------|------------------|--|
| General & Administration Expenses | \$85,791 | \$207,558** | \$94,461 | \$104,006 | Assumes 2017 as base year, increase proportional to Whitehorse area population growth. Assumes minimal equipment is purchased over next 10 and 20 years. |
| Total Expenses | \$469,657 | \$621,473 | \$614,048 | \$707,185 | |
| NET INCOME | \$13,934 | \$25,927 | \$89,864 | \$167,311 | |

*The 2017 value is comparatively low to the 2018 as the majority of membership dues were outstanding and therefore captured in the program expense category (accounts receivable).

**The 2018 value is comparatively high as there was a significant amount of equipment purchased.

***Environmental scan for grants and subsidies resulted in finding a number of subsidies available to Polarettes. For example, federally, Polarettes may choose to apply for to Aviva Community Fund, Canada Post Community Fund, Fueling Women Champions and multiple Government of Canada Funds. Territorially, Polarettes could access Kid's Recreation Fund, Community Development Fund, Culture Quest, Youth Investment Fund, amongst others. It is assumed that 50k and 75k per year is realistic for the organization.

As shown above, Polarettes is projected to have positive net income for the foreseeable future. In 2028 it is estimated that Polarettes could expect a net income of ~\$90,000 and a net income of \$167,000 in 2038.

This estimate, although high level and based on a number of assumptions is considered realistic as there is a significant historical financial data used as a basis for the analysis.

4.1.2 CLIMB YUKON

The economic analysis for Climb Yukon has been developed based on a number of assumptions, as the organization does not currently have its own dedicated space or strong data on registered membership. The following assumptions have been used:

- The future membership base for Climb Yukon has been based on a population and demographic analysis, showing that each year the climbing facility could see ~1,600 distinct visitors. Table 7 in section 3.2 identifies the method to reach this figure.
- Visitor attendance for year 2028 and 2038 are forecasted to be ~1,750 and ~1,900 respectively.
- The cost for admission to Climb Yukon has been based on the previously developed report "Feasibility Study for a Climbing Facility in Whitehorse," written by Patricia Duchesneau. In this report, a number of similar facilities have been benchmarked for admission costs (membership, 10-punch pass, drop in, gear rentals etc.).
- 10% of all visitors will purchase a yearly membership, 15% will purchase a monthly membership, 20% will purchase a 10-punch pass and 55% will be drop in visitors.
- Climb Yukon will seek donations, pursue fundraising activities and secure grants and subsidies each year.
- Climb Yukon will operate under a similar arrangement to Polarettes, where Climb Yukon would be responsible each month for a capital contribution to be paid to Yukon Government.
- No additional demand analysis has been performed to confirm the community interest in a climbing facility as part of this study.

The economic analysis is considered high level and is provided to estimate an order of magnitude for potential net income. The following table presents actual 2018 figures as well as 2028 and 2038 projections. Specific assumptions to each line item are provided for reference.

Table 9: Climb Yukon economic model

| Description | 2018 | 2028 | 2038 | Assumptions |
|-----------------------------------|------------------|------------------|------------------|--|
| REVENUE | | | | |
| Membership Fees | \$- | \$87,585 | \$111,917 | Assumes 10% of all visitors purchase yearly memberships |
| Drop In/Rental | \$1,135 | \$47,679 | \$60,924 | Assumes 55% of all visitors pay drop-in rates. It is assumed that 75% of children aged <9 will attend birthday parties at Climb Yukon. |
| Competition/Courses /Events | \$285 | \$20,743 | \$26,505 | Assumes 60% of children aged >9 will take an intro course; 30% of remaining visitors will enlist in an intro course. |
| Fundraising/Donation | \$2,279 | \$5,000 | \$5,000 | Assumes Climb Yukon will actively seek donations and lead fundraising activities. |
| Food and Merchandise | \$320 | \$1,000 | \$1,500 | Assumes Climb Yukon will offer drinks and snacks. |
| Grants and Subsidies* | \$- | \$20,000 | \$35,000 | Assumes Climb Yukon will actively pursue grants and subsidies. |
| Gear Rental | \$- | \$13,308 | \$17,005 | Assumes 50% of the visitors will rent climbing gear. |
| Total Revenue | \$4,019 | \$195,314 | \$257,852 | |
| EXPENSE | | | | |
| Program Expenses | \$5,445 | \$12,000 | \$15,334 | Accounts for equipment and route expertise specialists. Growth between scenarios are based on population growth. |
| Payroll Expenses | \$- | \$105,000 | \$134,170 | Assumes 1 full time staff and two part time staff. Growth between scenarios are based on population growth. |
| Lease Cost | \$- | TBA | TBA | |
| Capital Contributions | \$- | TBA | TBA | |
| General & Administration Expenses | \$4,202 | \$77,300 | \$85,111 | Includes allowances for insurance, admin supplies, memberships, accounting and legal, software, marketing, wall maintenance etc. |
| Total Expense | \$9,647 | \$194,300 | \$234,615 | |
| NET INCOME | \$(5,628) | \$1,014 | \$23,237 | |

* Environmental scan for grants and subsidies resulted in finding a number of subsidies available to Climb Yukon, assuming they become a Territorial Sport Organization. Climb Yukon could access grants and subsidies through the Community Development Fund (Yukon Government) and Lotteries Yukon Fund. It is expected that as climbing increases popularity that more grant opportunities will become available.

As shown in the table above, Climb Yukon could expect to see a positive net income in 2028 and 2038 using the underlying assumptions. We recommend a review of the books of similar facilities in BC or AB (e.g. the Hive, Cliffhanger, or Calgary Climbing Centre) to verify the results of this model and uncover risks.

4.2 ECONOMIC IMPACT MODEL REVIEW

A review of the economic impact models has been included as part of this scope of work. Economic impact models were prepared by Sport Yukon in May of 2019. The models looked at the impact of:

1. The total economic impact of Whitehorse, Yukon and Canada for a major gymnastics' competition hosted within Whitehorse. This was based on the 2018 Midnight Sun Invitational held in Whitehorse.
2. The total visitor economic impact of Whitehorse, Yukon and Canada for a major gymnastics' competition hosted within Whitehorse. This was based on the 2018 Midnight Sun Invitational held in Whitehorse.
3. The total economic impact of Whitehorse, Yukon and Canada for climbing clinics, a national climbing competition and a provincial youth climbing competition. As there is no Whitehorse climbing gym precedent, a number of assumptions were used for the analysis. The Community Services department of Infrastructure Development Branch prepared the assumptions.

The following summary tables have been generated using the commonly accepted Steam 2.0 model developed in partnership with the Canadian Sport Tourism Alliance (CSTA) and the Canadian Tourism Research Institute. This model relies on the most recent and detailed set of input-output tables and multipliers from Statistics Canada and coefficients that align with the most recent Government Revenues Attributed to Tourism report. For the full economic impact assessment tables, please see the appendix.

Table 10: Polarettes Economic Impact assessment results

| | Total Economic Impact | | | Total Visitor Impact | | |
|---|-----------------------|--------------------|--------------------|----------------------|--------------------|--------------------|
| | Whitehorse | Yukon | Canada | Whitehorse | Yukon | Canada |
| Initial Expenditure | \$566,236 | \$566,236 | \$566,236 | \$438,536 | \$438,536 | \$438,536 |
| Gross Domestic Product | \$298,027 | \$344,272 | \$486,116 | \$251,010 | \$283,750 | \$417,514 |
| Wages & Salaries | \$202,267 | \$227,478 | \$307,837 | \$172,862 | \$189,906 | \$265,600 |
| Employment (full-year jobs) | 3.7 | 4 | 5.2 | 3.4 | 3.6 | 4.7 |
| Taxes (Direct Impact) | \$77,206 | \$79,646 | \$79,646 | \$69,456 | \$71,063 | \$71,063 |
| Taxes (Direct, Indirect and Induced Impact) | \$95,590 | \$106,190 | \$136,941 | \$81,769 | \$89,426 | \$118,413 |
| Industry Output | \$679,094 | \$738,435 | \$1,026,917 | \$536,044 | \$587,933 | \$861,121 |
| Total Impact (\$) | \$1,274,978 | \$1,416,375 | \$1,957,811 | \$1,041,685 | \$1,151,015 | \$1,662,648 |
| Total/Initial Expenditure | 2.25 | 2.50 | 3.46 | 2.38 | 2.62 | 3.79 |

It can be seen that the total economic impact of hosting a competition similar to the 2018 Midnight Sun Invitational has a ~\$1.3 million impact on Whitehorse, ~\$1.4 million on Yukon and ~\$2 million on Canada as a whole.

Table 11: Climbing Gym Impact assessment results

| | Climbing Clinics | | | National Climbing | | | Provincial Youth Climbing | | |
|---|------------------|-----------------|-----------------|-------------------|------------------|------------------|---------------------------|------------------|------------------|
| | Wht. | Yukon | Canada | Wht. | Yukon | Canada | Wht. | Yukon | Canada |
| Initial Expenditure | \$11,102 | \$11,102 | \$11,102 | 153,509 | \$153,509 | 153,509 | 224,317 | \$224,317 | \$224,317 |
| Gross Domestic Product | \$6,156 | \$7,007 | \$10,249 | \$87,090 | \$98,628 | \$144,606 | 128,640 | 145,352 | \$213,898 |
| Wages & Salaries | \$4,136 | \$4,592 | \$6,424 | \$59,399 | \$65,479 | \$91,484 | \$88,611 | \$97,293 | 136,078 |
| Employment (full-year jobs) | 0.1 | 0.1 | 0.1 | 1.1 | 1.2 | 1.5 | 1.7 | 1.8 | 2.3 |
| Taxes (Direct Impact) | \$1,712 | \$1,763 | \$1,763 | \$24,177 | \$24,785 | \$24,785 | \$35,603 | \$36,413 | \$36,413 |
| Taxes (Direct, Indirect and Induced Impact) | \$2,010 | \$2,207 | \$2,912 | \$28,415 | \$31,110 | \$41,098 | \$41,913 | \$45,822 | \$60,675 |
| Industry Output | \$13,441 | \$14,728 | \$21,310 | 186,935 | 204,928 | \$298,748 | 274,308 | \$300,853 | 440,880 |
| Total Impact (\$) | \$25,743 | \$28,534 | \$40,895 | \$361,839 | \$400,145 | \$575,936 | \$533,472 | \$589,320 | \$851,531 |
| Total/Initial Expenditure | 2.32 | 2.57 | 3.68 | 2.36 | 2.61 | 3.75 | 2.38 | 2.63 | 3.80 |

The economic impact of climbing clinics, national climbing events and provincial youth climbing events is not as great as the gymnastics in terms of total impact dollars but when looking at the impact per initial expenditure, the ratios are similar. This means that the expected financial impact is approximately proportional for gymnastics and climbing with respect to initial expenditure or in other terms, the return on investment is similar between the groups.

5 FUTURE SPACE REQUIREMENTS

Future space requirements have been prepared for two possible accommodation options: two separate facilities: one for Polarettes and the other for Climb Yukon, and a consolidated facility for Polarettes and Climb Yukon together.

5.1 PLANNING ASSUMPTIONS

The preparation of the schedule of accommodations (space list) is based on a number of planning assumptions specific to the future operation of Polarettes and Climb Yukon as well as the type of equipment considered. The assumptions are as follows:

- Space allocations for gymnastic program areas have been assigned based on the sizing and descriptions presented in the *FIG Apparatus Norms 2006* prepared by the *Federation Internationale De Gymnastique*. Net assigned areas include the necessary space for safety matting around the apparatus.
- Current and future program offerings are the leading justification for the suggested spaces. For example, two floor mats (12m x 12m) have been provided to allow recreational and competitive streams of participants to train simultaneously. The peak time profiles of both groups necessitates the need for two floor mats.
- The future facility should have a ceiling clearance height of 10m to accommodate all existing and future programs. Trampoline gymnastics demands the highest clear ceiling height of 10m. This ceiling height would not accommodate international competition events, which requires 12m.
- It is assumed that a greater female:male ratio of program participants (Polarettes) will continue into the future. This will have little impact on the program as we are considering gender neutral change spaces.
- The assigned Climb Yukon program spaces (top rope and bouldering climbing walls) have been based on wall length requirements identified within the terms of reference, which state there should be a minimum of 24m of bouldering and 24m of rope climbing.
- Operational and participant assumptions have driven the space allocation for administration and participant support space. Assumptions can be found in the *Future Demand* section of this report.
- The consolidated schedule of accommodations assumes only the lobby and reception area and first aid room are shared between Polarettes and Climb Yukon. This is a result of feedback that was collected during user stakeholder sessions where there was a concern raised around the safety of mixing Polarettes participants with Climb Yukon participants. Additional space saving opportunities exists should this barrier be eliminated/mitigated.

5.2 SCHEDULE OF ACCOMMODATIONS

The following schedule of accommodations has been prepared to outline the space requirements for a stand-alone gymnastics facility able to support the programming and activities of Polarettes.

Table 12: Stand-alone Polarettes gymnastic facility schedule of accommodations

| Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|---------------------------------|-----------|------|-----------------|---|
| Entry/Vestibule | 7.5 | 1 | 7.5 | Vestibule to prevent winter/summer air impacting internal climate. |
| Reception/Lobby | 20.0 | 1 | 20.0 | Reception workstation for participant check in/out, seating to remove footwear for parents and participants and storage for shoes and clothing. This space should feature an area for retail sales of club clothing and uniforms. |
| Party Room | 40.0 | 2 | 80.0 | Requires utility sink and kitchenette. This space will be used to support children's birthday parties for groups up to 15. |
| Dance Studio | 40.0 | 1 | 40.0 | This space will support Polarettes programs as a space that is used for stretching, dance training and basic fitness. It could also be used to support birthday party rentals. |
| Recreational Floor | 196.0 | 1 | 196.0 | Includes arena (40'x40'), edge and safety zone. Not to competition standards due to the edge and safety zone. |
| Competitive Floor | 324.0 | 1 | 324.0 | Includes arena (40'x40'), edge and safety zone. This floor will be able to support competitions. |
| Olympic Trampoline | 14.5 | 2 | 29.0 | Requires 2m clearance between wall/objects and edge of the floor mats. Requires ceiling height of 12m. |
| Super Trampoline | 26.0 | 1 | 26.0 | Assuming a 10x20' super trampoline. Requires ceiling height of 12m. |
| Foam Pit | 60.0 | 1 | 60.0 | Assume 5m x 12m, should be at least 3m in depth. Foam pit should be adjacent to the bar zone, trampoline and tumble track. |
| Preschool/Recreational Bar Area | 40.0 | 1 | 40.0 | Bar area for junior athletes. |
| Competitive Bar Area | 60.0 | 1 | 60.0 | Bar area for competitive athletes. Bar area should be adjacent to the foam pit. |
| Beam Zone | 15.0 | 8 | 120.0 | Includes space for 10 standard length beams. |
| Tumble Track | 123.0 | 1 | 123.0 | Includes track, apparatus, landing and safety mats. One end of the track should be adjacent to the foam pit for practice. |
| Vault Track | 80.5 | 1 | 80.5 | Includes 25m run up track, apparatus and landing area. |
| Double Mini Trampoline Track | 10.0 | 1 | 10.0 | Apparatus and landing area; shares vault track run up. |

| Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|----------------------------|-----------|------|-----------------|--|
| Parkour Zone | 75.0 | 1 | 75.0 | Dedicated area to Parkour equipment and training. This zone will feature a variety of apparatus for Parkour and should be adjacent to the recreational floor for stretching and instruction. |
| Viewing Area | 108.0 | 1 | 108.0 | Assume bleacher style seating for up to 100 people. This area should be elevated and have a direct view to the gymnastics floor. |
| Equipment Storage | 25.0 | 1 | 25.0 | Storage room. Assume significant amount of storage is stored on the perimeter of the gymnastics zones. |
| Changeroom, Gender Neutral | 64.0 | 1 | 64.0 | Assume 4 change stalls, 2 shower, 80 half sized lockers, 4 washrooms, 4 hand sinks |
| Washroom, Public | 42.0 | 0 | 0.0 | Public washroom, accessible and unisex |
| Office | 18.4 | 0 | 0.0 | Head coach and coordinators: Workstation, shelving and space for small meetings with up to 3 people. |
| Staff / Coach Room | 4.5 | 1 | 4.5 | Staff support space for respite and a place to eat. |
| First Aid Room | 11.2 | 2 | 22.4 | |
| Janitor Closet | 18.0 | 1 | 18.0 | Janitor closet with floor utility sink and shelving for supplies and equipment. |

Subtotal 1545.4

Component Gross Factor 386.4 25%

Building Gross Factor 289.8 15%

Total Building 2221.5

The following schedule of accommodations has been prepared to outline the space requirements for a stand-alone climbing facility able to support the programming and activities of Climb Yukon.

Table 13: Stand-alone Climb Yukon facility schedule of accommodations

| Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|------------------------|-----------|------|-----------------|--|
| Entry/Vestibule | 5.0 | 1 | 5.0 | Vestibule to prevent winter/summer air impacting internal climate. |
| Reception and Lobby | 18.0 | 1 | 18.0 | Reception workstation to register participants, shelving storage for rental climbing gear (chalk, shoes, harnesses etc.), retail space for climbing gear. Assume a first aid station is included within the reception counter. |
| Change room, Universal | 41.1 | 1 | 41.1 | Changing stalls (2), Changing/shower stall (2), lockers (40), sinks (2), washroom (2) |
| Bouldering Area | 85.0 | 1 | 85.0 | Assume 4.5m high (~15'). Space to accommodate 24m (length) of rope climbing. There should a zone above the bouldering area for climbing training equipment including finger boards, rings, peg boards, etc. |

| Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|-----------------------|-----------|------|-----------------|--|
| Top Rope Area | 85.0 | 1 | 85.0 | Assume 10m high (33'). Space to accommodate 24m (length) of bouldering wall. |
| Birthday/Fitness Room | 40.0 | 1 | 40.0 | Requires access to a sink and kitchenette, space to support fitness training when not used for party rentals. Fitness activities may include stretching, yoga, free weights etc. |
| Storage Room | 18.0 | 1 | 18.0 | Storage for holds, wall repair items, rope, cleaning supplies etc. |
| Office | 10.0 | 1 | 10.0 | Staff support office with 1 workstation and kitchenette. |
| Janitor Closet | 5.0 | 1 | 5.0 | Janitor closet with floor utility sink and shelving for supplies and equipment. |

Subtotal 307.1

Component Gross Factor 76.8 25%

Building Gross Factor 57.6 15%

Total Building 441.5

The total gross building area of both facilities (Polarettes Gymnastics and Climb Yukon) is ~2,660m². As separate buildings there are no space saving opportunities and there is less program flexibility. When the facilities are consolidated there is a space savings opportunity of ~50m² which is made up of the combined lobby, reception and first aid room. Although this is not seen as a significant space savings, the flexibility for programming for both organizations increase significantly. Both organizations now have access to additional birthday party/dance/fitness space. Some operational savings may be realized in heating and security costs. The following schedule of accommodations outlines the space requirements for a consolidated Polarettes and Climb Yukon facility, assuming that both entities continue to operate independently.

Table 14: Consolidated Polarettes and Climb Yukon facility schedule of accommodations

| Function | Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|----------------------------|---------------------|-----------|------|-----------------|--|
| Gymnastics/ Climb Yukon | Entry/Vestibule | 7.5 | 1 | 7.5 | Vestibule to prevent winter/summer air impacting internal climate. |
| Gymnastics/ Climb Yukon | Reception/ Lobby | 30.0 | 1 | 30.0 | POLARETTES: Reception workstation for participant check in/out, seating to remove footwear for parents and participants and storage for shoes and clothing. This space should feature an area for retail sales of club clothing and uniforms. CLIMB: Reception workstation to register participants, shelving storage for rental climbing gear (chalk, shoes, harnesses etc.), retail space for climbing gear. Assume a first aid station is included within the reception counter. |

| Function | Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|------------|---------------------------------|-----------|------|-----------------|--|
| Gymnastics | Party Room | 40.0 | 2 | 80.0 | Requires utility sink and kitchenette. This space will be used to support children's birthday parties for groups up to 15. |
| Gymnastics | Dance Studio | 40.0 | 1 | 40.0 | This space will support Polarettes programs as a space that is used for stretching, dance training and basic fitness. It could also be used to support birthday party rentals. |
| Gymnastics | Recreational Floor | 196.0 | 1 | 196.0 | Includes arena (40'x40'), edge and safety zone. Not to competition standards due to the edge and safety zone. |
| Gymnastics | Competitive Floor | 324.0 | 1 | 324.0 | Includes arena (40'x40'), edge and safety zone. This floor will be able to support competitions. |
| Gymnastics | Olympic Trampoline | 14.5 | 2 | 29.0 | Requires 2m clearance between wall/objects and edge of the floor mats. Requires ceiling height of 12m. |
| Gymnastics | Super Trampoline | 26.0 | 1 | 26.0 | Assuming a 10x20' super trampoline. Requires ceiling height of 12m. |
| Gymnastics | Foam Pit | 60.0 | 1 | 60.0 | Assume 5m x 12m, should be at least 3m in depth. Foam pit should be adjacent to the bar zone, trampoline and tumble track. |
| Gymnastics | Preschool/Recreational Bar Area | 40.0 | 1 | 40.0 | Bar area for junior athletes. |
| Gymnastics | Competitive Bar Area | 60.0 | 1 | 60.0 | Bar area for competitive athletes. Bar area should be adjacent to the foam pit. |
| Gymnastics | Beam Zone | 15.0 | 8 | 120.0 | Includes space for 10 standard length beams. |
| Gymnastics | Tumble Track | 123.0 | 1 | 123.0 | Includes track, apparatus, landing and safety mats. One end of the track should be adjacent to the foam pit for practice. |
| Gymnastics | Vault Track | 80.5 | 1 | 80.5 | Includes 25m run up track, apparatus and landing area. |
| Gymnastics | Double Mini Trampoline Track | 10.0 | 1 | 10.0 | Apparatus and landing area; shares vault track run up. |
| Gymnastics | Parkour Zone | 75.0 | 1 | 75.0 | Dedicated area to Parkour equipment and training. This zone will feature a variety of apparatus for Parkour and should be adjacent to the recreational floor for stretching and instruction. |
| Gymnastics | Viewing Area | 108.0 | 1 | 108.0 | Assume bleacher style seating for up to 100 people. This area should be elevated and have a direct view to the gymnastics floor. |

| Function | Space Name | Area (m2) | Qty. | Total Area (m2) | Notes |
|----------------------------|---------------------------|-----------|------|-----------------|---|
| Gymnastics | Equipment Storage | 25.0 | 1 | 25.0 | Storage room. Assume significant amount of storage is stored on the perimeter of the gymnastics zones. |
| Gymnastics | Changeroom, Universal | 64.0 | 1 | 64.0 | Assume 4 change stalls, 2 shower, 80 half sized lockers, 4 washrooms, 4 hand sinks |
| Gymnastics | Washroom, Public | 42.0 | 0 | 0.0 | Public washroom, accessible and unisex |
| Gymnastics | Office | 18.4 | 0 | 0.0 | Head Coach and Coordinators: Workstation, shelving and space for small meetings with up to 3 people. |
| Gymnastics | Staff / Coach Room | 4.5 | 1 | 4.5 | Staff support space for respite and a place to eat. |
| Gymnastics/ Climb Yukon | First Aid Room | 11.2 | 2 | 22.4 | |
| Gymnastics | Janitor Closet | 18.0 | 1 | 18.0 | Janitor closet with floor utility sink and shelving for supplies and equipment. |
| Climbing Gym | Changeroom, Universal | 7.5 | 1 | 7.5 | Changing stalls (2), Changing/shower stall (2), lockers (40), sinks (2), washroom (2) |
| Climbing Gym | Bouldering Area | 5.0 | 1 | 5.0 | Assume 4.5m high (~15'). Space to accommodate 24 linear meters of rope climbing. There should a zone above the bouldering area for climbing training equipment including finger boards, rings, peg boards, etc. |
| Climbing Gym | Top Rope Area | 41.1 | 1 | 41.1 | Assume 10m high (33'). Space to accommodate 24 linear meters of bouldering wall. |
| Climbing Gym | Birthday/ Fitness Room | 85.0 | 1 | 85.0 | Requires access to a sink and kitchenette, space to support fitness training when not used for party rentals. Fitness activities may include stretching, yoga, free weights etc. |
| Climbing Gym | Storage Room | 85.0 | 1 | 85.0 | Storage for holds, wall repair items, rope, cleaning supplies etc. |
| Climbing Gym | Office | 40.0 | 1 | 40.0 | Staff support office with 1 workstation and kitchenette. |

Subtotal 1834.5

Component Gross Factor 458.6 25%

Building Gross Factor 344.0 15%

Total Building 2637.1

As noted above, the space savings are only ~50m² with the consolidated model. Greater efficiencies could be achieved assuming a more integrated operating model. In the event that Polarett and Climb Yukon agrees to work closely together and share spaces, it is anticipated that the overall building size could decrease to ~2,550m².

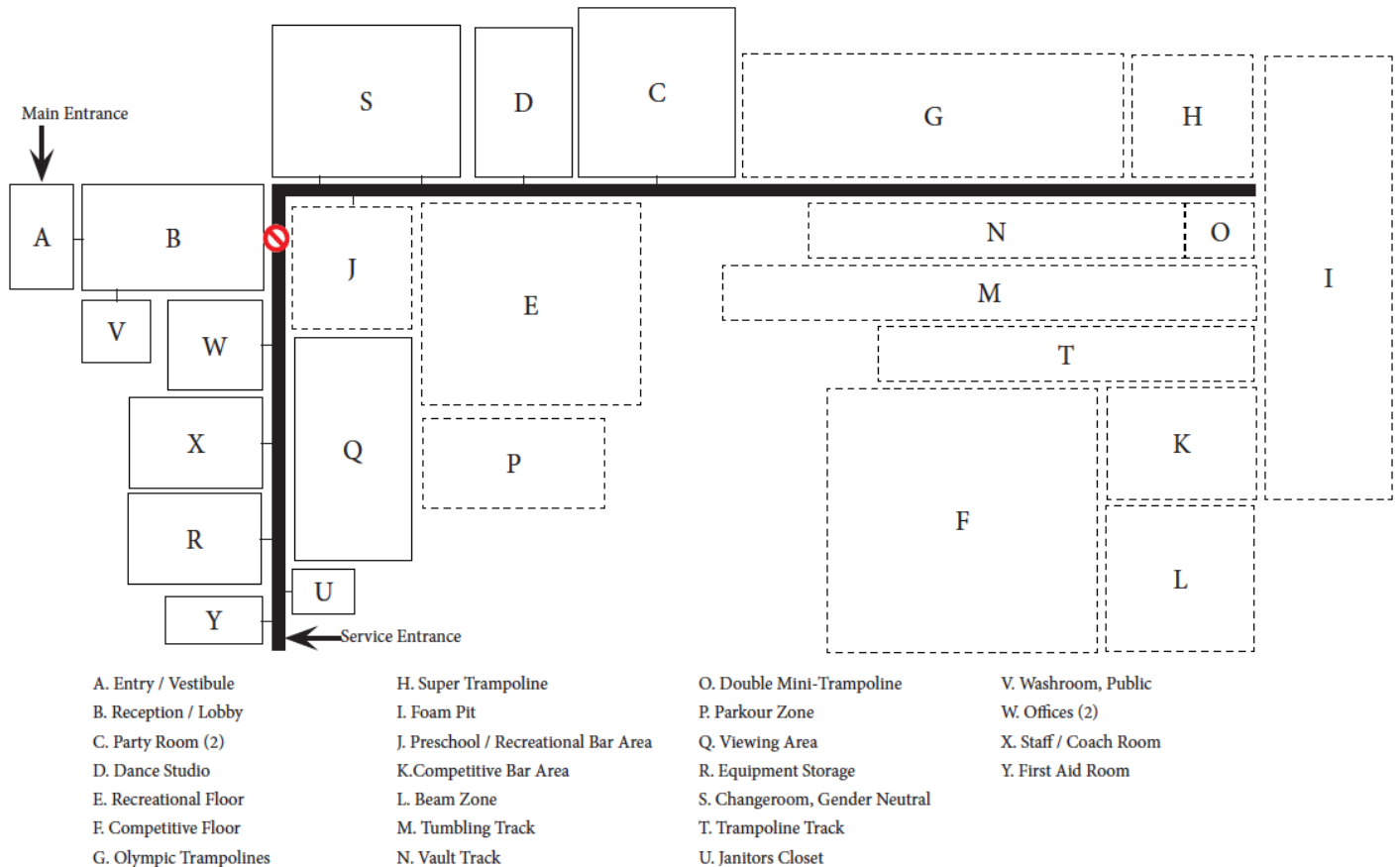
The site requirements for the three different building variations have been prepared assuming that each facility will provide a parking stall for each staff member and 3 stalls for every 100m² of gross building area, consistent with the current buildings zoning. Polarettes and Climb Yukon do not have any functional need for outdoor space other than parking. The following table summarizes the facility gross areas and site area requirements (including the estimated building footprints).

Table 15: Building and Site area requirements

| | Polarettes Standalone | | Climb Yukon Standalone | Consolidated Facility (Independent Operation) | Consolidated Facility (Shared Operation) | Notes |
|-----------------------------------|---------------------------|--------------------------|--------------------------|---|--|--|
| | Current (m ²) | Future (m ²) | Future (m ²) | Future (m ²) | Future (m ²) | |
| Facility Gross Areas | 925 | 2222 | 441 | 2637 | 2568 | |
| Facility Footprint | 836 | 1933 | 351 | 2263 | 2228 | Assumes admin and support spaces are two storeys |
| Staff Parking Stall | 1600 | 192 | 96 | 288 | 288 | Assume 1 stall per staff. Area includes parking circulation. |
| Public Parking Stalls | | 2144 | 448 | 2560 | 2496 | Assume 3 stalls per 100m ² of gross building area. Area includes parking circulation. |
| Outdoor Circulation & Landscaping | - | 1281 | 269 | 1533 | 1504 | Assumes 30% of total assigned area is required for outdoor circulation and landscaping |
| Site Area (m ²) | 2436 | 5549 | 1164 | 6644 | 6516 | |
| Site Area (acres) | - | 1.37 | 0.29 | 1.64 | 1.61 | |

5.3 FUNCTIONAL RELATIONSHIPS

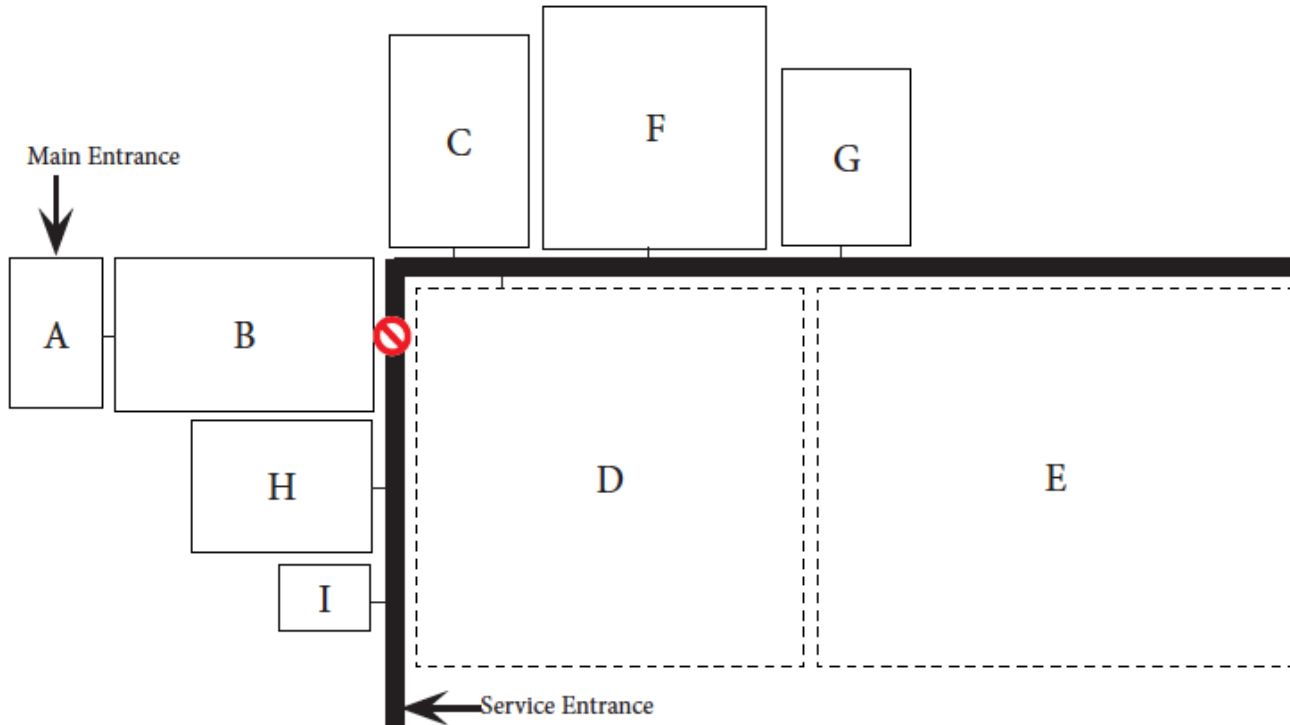
The following diagrams are intended to present functional relationships between rooms (closed rectangles) and open spaces (dashed rectangles); it is not intended to be a floor plan. Figure 3: Polarettes functional relationship diagram



The following section summarizes the required space adjacencies for an ideal Polarettes facility.

- Entry/Vestibule is located adjacent to reception. The reception counter should be the first space you see once entering the facility. This is to ensure that reception staff know who is in the facility at all times.
- The gender neutral changerooms should be closely located to reception. Once children have checked in, they should move directly to the changerooms.
- The vault, tumbling track, trampoline track, competitive bars and super trampoline should be adjacent to the foam pit. The other end of both tracks must have designated space for a hard landing.
- The vault track space will be used as a double mini trampoline area.
- The recreational floor should be located adjacent to the parkour area. This is ideal for programming as the participants will often use the recreational floor space for stretching before and after Parkour.
- Ideally, the facility should be zoned such that the trampoline area, competitive area and recreational area can be sectioned off. This is required for participant safety and to increase the buildings flexibility.
- The Viewing Area should have sight lines to all programming areas of the facility.
- The Party room should be in close proximity to the recreational area to allow for easy transition of groups between the spaces.
- Chaperones of participants should have access to a washroom from the reception area.

Figure 4: Climbing facility functional relationship diagram



- | | |
|--------------------------|----------------------------|
| A. Entry / Vestibule | F. Birthday / Fitness Room |
| B. Reception / Lobby | G. Storage Room |
| C. Changeroom, Universal | H. Office |
| D. Bouldering Area | I. Janitor Closet |
| E. Top Rope Area | |

The following section summarizes the main adjacencies for an ideal Climbing Facility.

- Entry/Vestibule is located adjacent to reception.
- The universal change rooms should be located close to reception to reduce the amount of traffic through the facility.
- An office shall be located adjacent to reception for administrative purposes and to support reception.
- Storage is located adjacent to both the bouldering area and top rope area for route setting, and maintenance purposes.

5.4 DESIGN GUIDELINES

The following design guidelines are presented as considerations to conceptual and facility design. The functionality of the building is of utmost importance and should support the intended vision of the occupants and support the intended activities. This includes the occupant's overall image, intended operating hours, level of security, projected growth expectations, sophistication of technology, desired room acoustics and economic objectives.

Ceiling Height: The clear ceiling height of the Polarettes gymnasium is determined based on the activity that requires the most height. To support the future programming of Polarettes the ceiling height required is 10m (supports trampoline gymnastics and regional competition requirements). A clear height of 10m meets the program requirements and only precludes the club from hosting international meets, which they seldomly have the opportunity to host. For reference, the table below identifies the ceiling height requirements as per FIG International Apparatus Norms, 2006.

Table 16: FIG Apparatus Norms Ceiling Heights

| Discipline | Height of Hall (m) International Arena |
|-----------------------------|---|
| Men's Artistic Gymnastics | 8.00-10.00 |
| Women's Artistic Gymnastics | 8.00-10.00 |
| Rhythmic Gymnastics | 10.00-12.00 |
| Trampoline Gymnastics | - |
| Trampoline | 10.00-12.00 |
| Double Mini-Trampoline | 8.00-10.00 |
| Tumbling Track | 8.00-10.00 |
| Acrobatic Gymnastics | 8.00-10.00 |
| Aerobic Gymnastics | 8.00-10.00 |

Ceiling height of a climbing facility is dependent on the types of climbing offered. It is recommended that the ceiling height for top rope climbing be at least 10m. For top rope competitions the height of the wall is required to be 15.24m (50'). It is not expected that this facility will support top rope competitions requiring more than 10m of ceiling height. To support bouldering the ceiling height should be approx. 5m (generally bouldering walls are 4.5m (15') tall).

Acoustics: Acoustics through a gymnastics facility are important to consider. It is recommended that throughout the gymnasium space that sound is dampened to prevent echoing and ultimately distractions for groups of participants, as there may be multiple groups of gymnasts training at the same time. The dance studio and birthday party room should be acoustically separated from the rest of the facility as these spaces will support noisy, distracting activities. The administration space and staff room should also have acoustic separation to allow staff to have access to quiet space.

The climbing gym area will be a bustling space and therefore should feature noise dampening techniques to prevent echoing. The administration area of the facility should be acoustically separated from the gymnasium.

Staff Health and Wellness: In addition to being a functional space, the building should support occupant health and wellness. Access to natural light, acoustically separated rooms and high-quality indoor air systems are all contributing factors to staff satisfaction which should be addressed in the building design.

Flexibility: The design of the facility must be able to easily adapt to changing program needs and demands. It should be anticipated that the gymnastics space will be rearranged multiple times over its life span. The foam pit location will not be able to move throughout the building's lifespan and so special consideration around the location is required. This should be determined in consultation with the facility operators.

Technology: The building design should support increasing demand on IT infrastructure. It should be expected that additional cabling will be required in the future and therefore extra (or larger) conduit should be used for IT. Although gymnastics and climbing will not be significantly impacted by technology changes, the activities surrounding the sports will. For example, administration and coaching staff will likely increase their interaction with technology for daily tasks and teaching. WiFi will be needed throughout the facility. A PA system is required. Integrated music speakers are required. The gymnastics and climbing areas should have separate PA and music systems as these spaces will operate independently.

Secure/Safe: Providing a secure/safe space is important on multiple levels. Staff and participants feeling secure in their facility is a top priority and should be supported using CPTED principles. Safety will also be addressed through glazing in group rooms, and security cameras at all entrances.

Sustainability: The building and site design should be energy efficient and support reducing the cost of operation and the output of carbon. Development of the new facility should incorporate as many sustainability features as possible including such as:

- Water, waste and energy efficiency
- Sustainability building features
- Energy and heat recovery
- Landscaping

The impacts of climate change within the Whitehorse area should be identified prior to building design to ensure the proposed design will withstand the changing environment, including increased snow load, possibility of flooding, and temperature changes.

6 ACCOMMODATION OPTIONS

Three different accommodation options have been prepared to address the space shortfalls experienced at Polarettes and new space for a climbing gymnasium. The options are:

- Option #1: Building Addition – Polarettes
- Option #2: New Site and Building – Polarettes & Climb Yukon
- Option #3: New Site and Building – Polarettes & Climb Yukon (Space efficiencies realized)

The following area summary table outlines the facility and site requirements for each of the options.

Table 17: Accommodation Option Requirements Summary

| | Option #1 | Option #2 | Option #3 | Notes |
|-----------------------------------|----------------|----------------|----------------|--|
| | m ² | m ² | m ² | |
| Facility Gross Area | 2222 | 2637 | 2568 | - |
| Facility Footprint | 1933 | 2263 | 2228 | Assumes admin and support spaces are two storeys |
| Staff Parking | 192 | 288 | 288 | Assume 1 stall per staff. Area includes parking circulation. |
| Public Parking | 2144 | 2560 | 2496 | Assume 3 stalls per 100m ² of gross building area. Area includes parking circulation. |
| Outdoor Circulation & Landscaping | 1281 | 1533 | 1504 | Assumes 30% of total assigned area is required for outdoor circulation and landscaping |
| Site Area (m ²) | 5549 | 6644 | 6516 | |
| Site Area (acres) | 1.37 | 1.64 | 1.61 | |

The sections below introduce and describe the accommodation options that have been considered. Floor plans are presented at a conceptual level; it is expected that these floor plans will be revised during future planning studies. For reference, all conceptual floor plan designs can be found in the appendix.

It should be noted that the concept areas are larger than the functional program. The difference is realized in the net-to-component/gross efficiency factors used. The functional program assumes a net-to-component efficiency factor of 25% and component-to-gross efficiency factor of 15%. These values are commonly applied to facilities of this nature for space estimating purposes. It is likely that detailed architectural design can find efficiencies in building area to closer reflect the areas estimated in the functional program.

6.1 OPTION #1: BUILDING ADDITION – POLARETTES

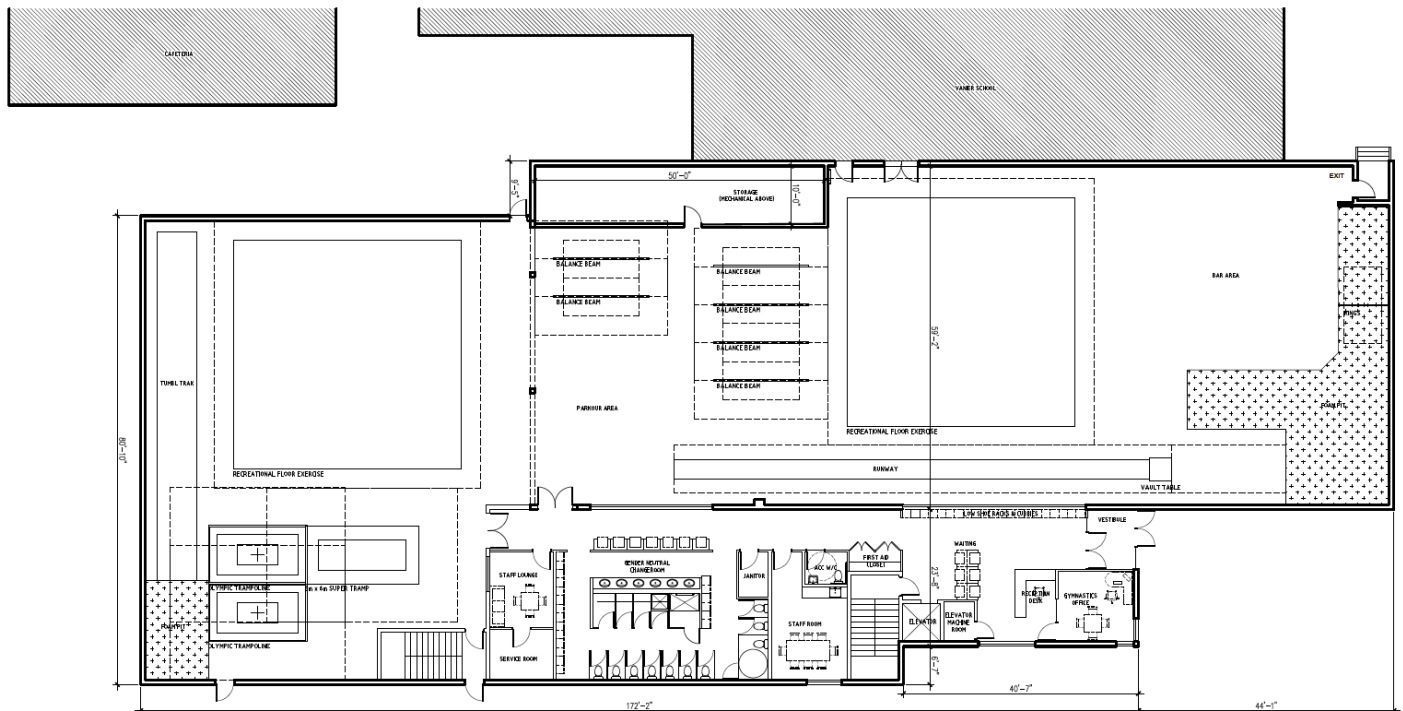
Option #1 considers the redevelopment of the Polarettes facility in its existing location. This option would renovate the existing space as well as expand the building to accommodate the additional program areas. This option requires a number of changes to the site that will impact Polarettes and Vanier Catholic School.

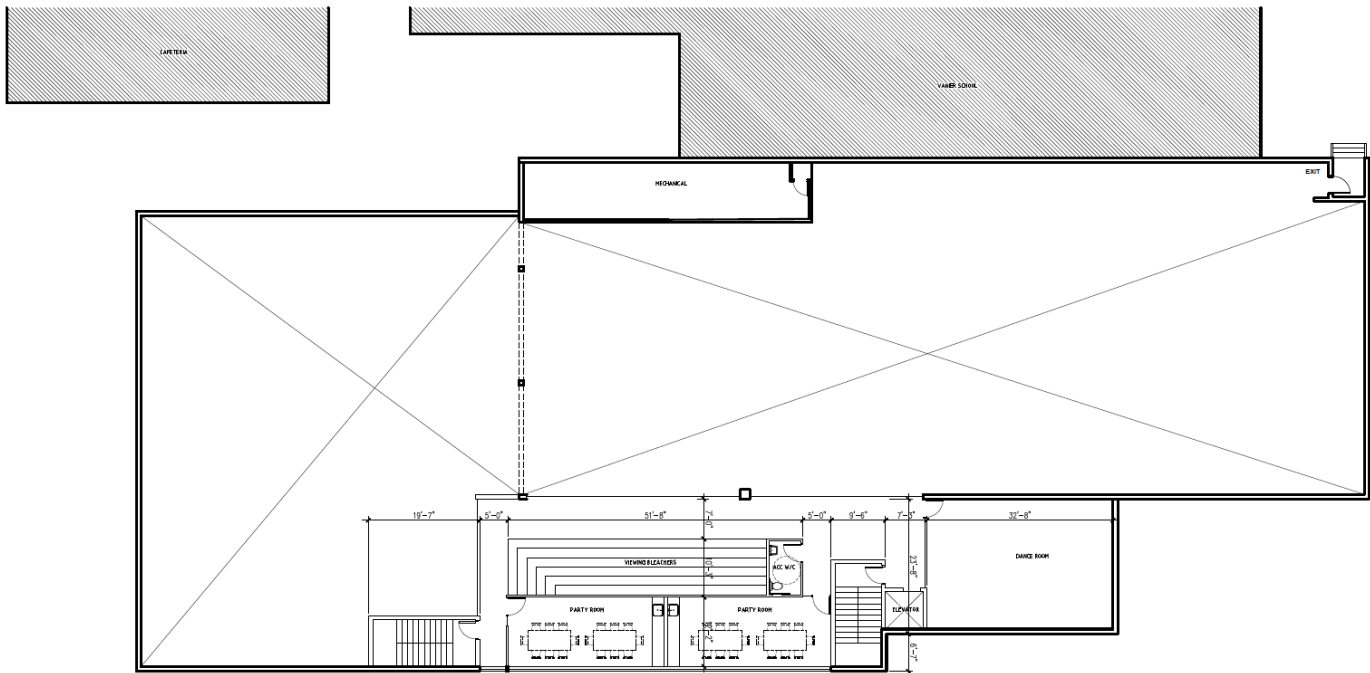
Considerations for this option include:

- Not all of the programming areas could be accommodated within this option. The following spaces/areas could not be accommodated due to the size of the site: tumbling track, coordinators office (head coach office has been accommodated) and dedicated space for a competitive sized floor area (instead there are two recreational floors).

- Additional parking has been included on the North West corner of the site. Due to the size of the site, only 32 of the 57 required new stalls could be accommodated. This assumes that parking butts up against the Vanier Catholic School soccer field.
- Peak operating times for Polarettes is in the evenings after school and on Saturdays. It is expected that parking on Saturdays will be the most congested as significant gymnastics programming takes place as well as extensive use of the soccer fields.
- Relocation of the following structures:
 - Vanier Catholic School bus shelter – Location to be determined during detailed planning.
 - Vanier Catholic School recycling and compost bins – Location to be determined during detailed planning.
 - Polarettes propane tank – Location to be determined during detailed planning.
- Snow removal: The removal of snow should be reviewed to ensure there are no issues with the current contracted service.
- Vanier Catholic School supply routes: Currently, supplies are brought into the cafeteria via doors that are adjacent to the newly proposed expansion area. The volume of the supplies brought through this entrance is not significant and the expansion will not impact the accessibility for the delivery team.
- Fire Response Activities: The building addition plan does not impede or change the existing fire lane. Additionally, the expansion will not impact the fire departments response access to the gymnasium or the school. This has been verified by the Architectural team.
- Parking: Additional parking is required to support the expanded facility. It is assumed that additional parking will be provided adjacent to the sports field, North of Vanier School.
- Vanier Catholic School has indicated that they also require additional teaching space. Although this option shows a feasible solution to Polarettes space issues, it limits future expansion of Vanier Catholic School.

Figure 5: Option 1: Building Addition – Polarettes (main floor and mezzanine)





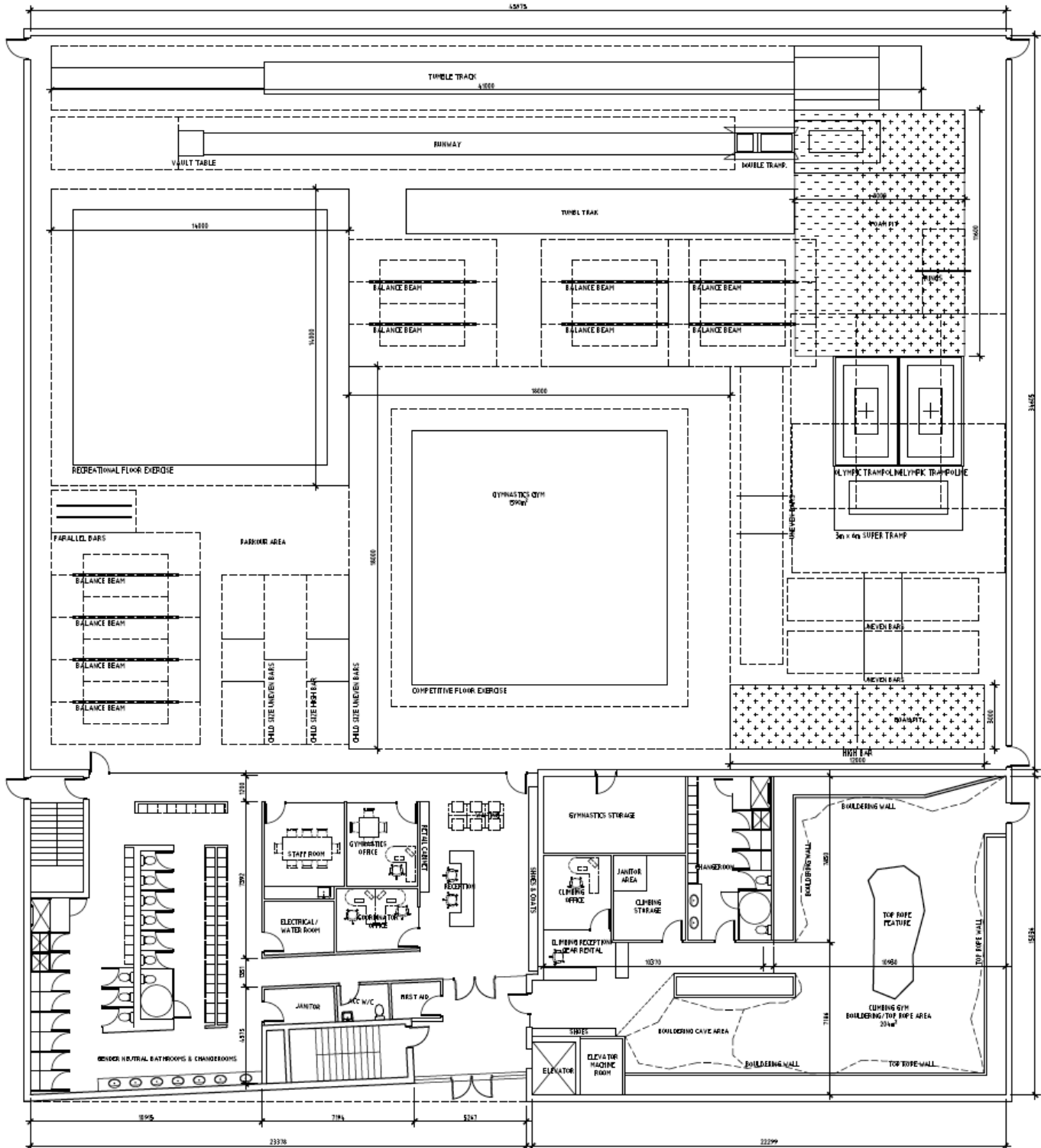
Full scale concept plans can be found in Appendix A.

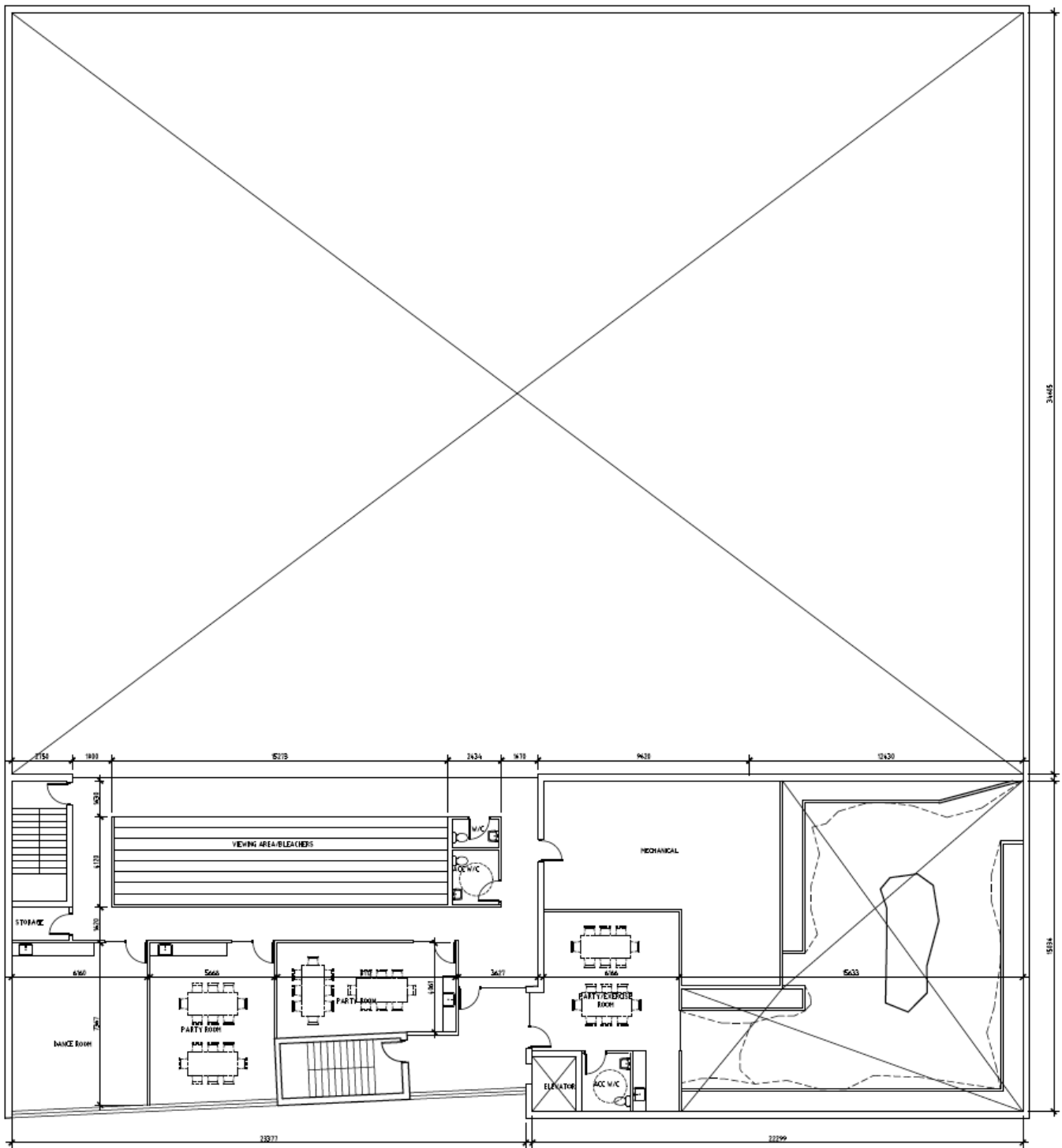
6.2 OPTION #2: NEW SITE AND BUILDING – POLARETTES & CLIMB YUKON

Option #2 considers the development of a new facility able to support Polarettes and Climb Yukon under one roof. This option assumes:

- All programmed spaces and areas are accommodated within the new facility.
- The program requirements for option #2 do not realize the potential space efficiencies that are associated with sharing spaces. This assumes that both organizations continue to operate as separate entities and there is very little shared space within the facility.
- This option assumes that a site is secured that is at least 1.64 acres. The location of this site has not been identified as part of this study.
- All parking requirements are fulfilled at the new site and it does not rely on street parking.
- The use of the existing Polarettes facility after the new building has been constructed has not been considered. It was noted during interviews that Vanier Catholic School has the current demand to use the space should it become available. This space could help offset the need for portables on site.

Figure 6: Option 2- New site and building – Polarettes & Climb Yukon (main floor and mezzanine)





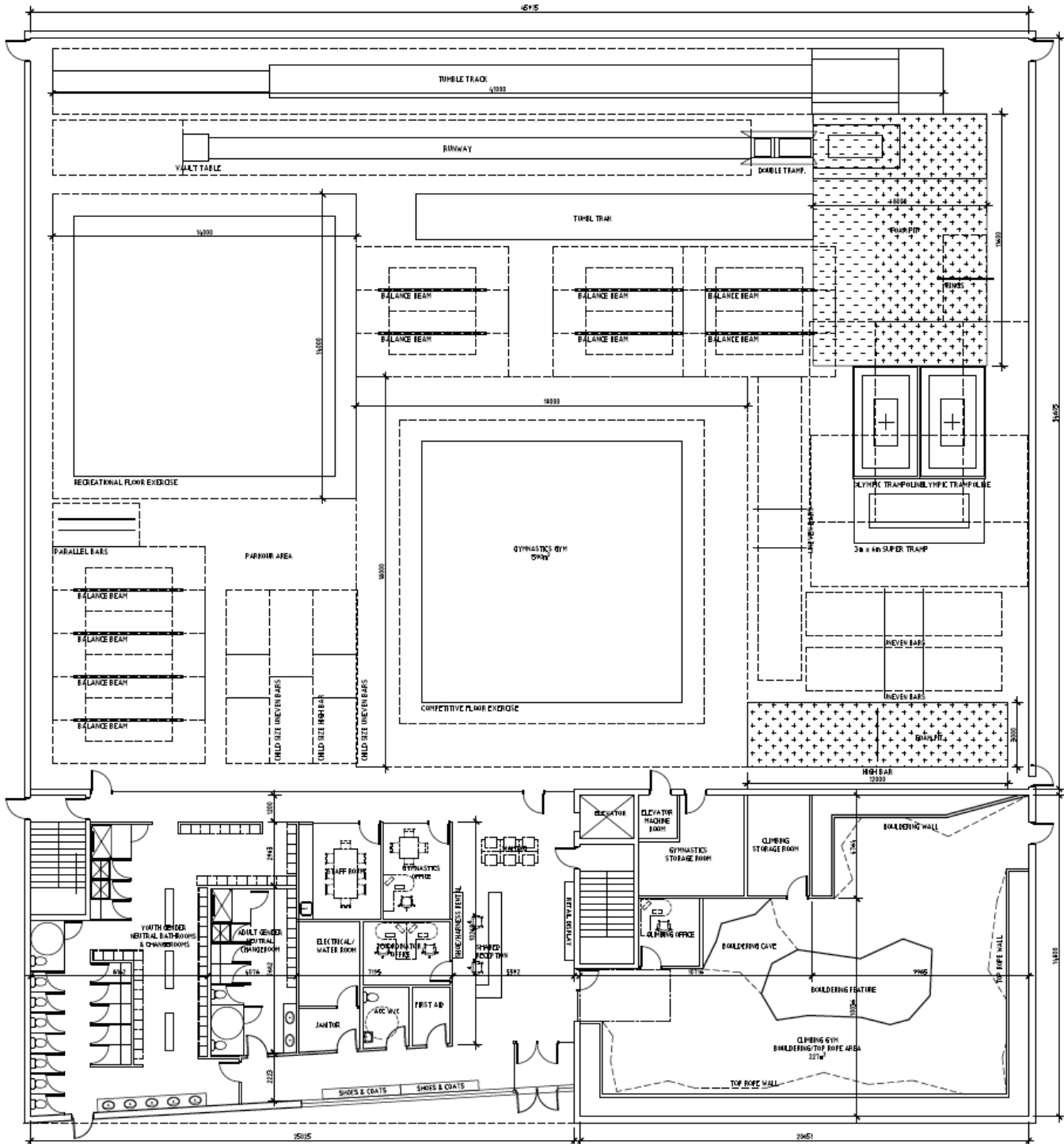
Full scale concept plans can be found in Appendix B.

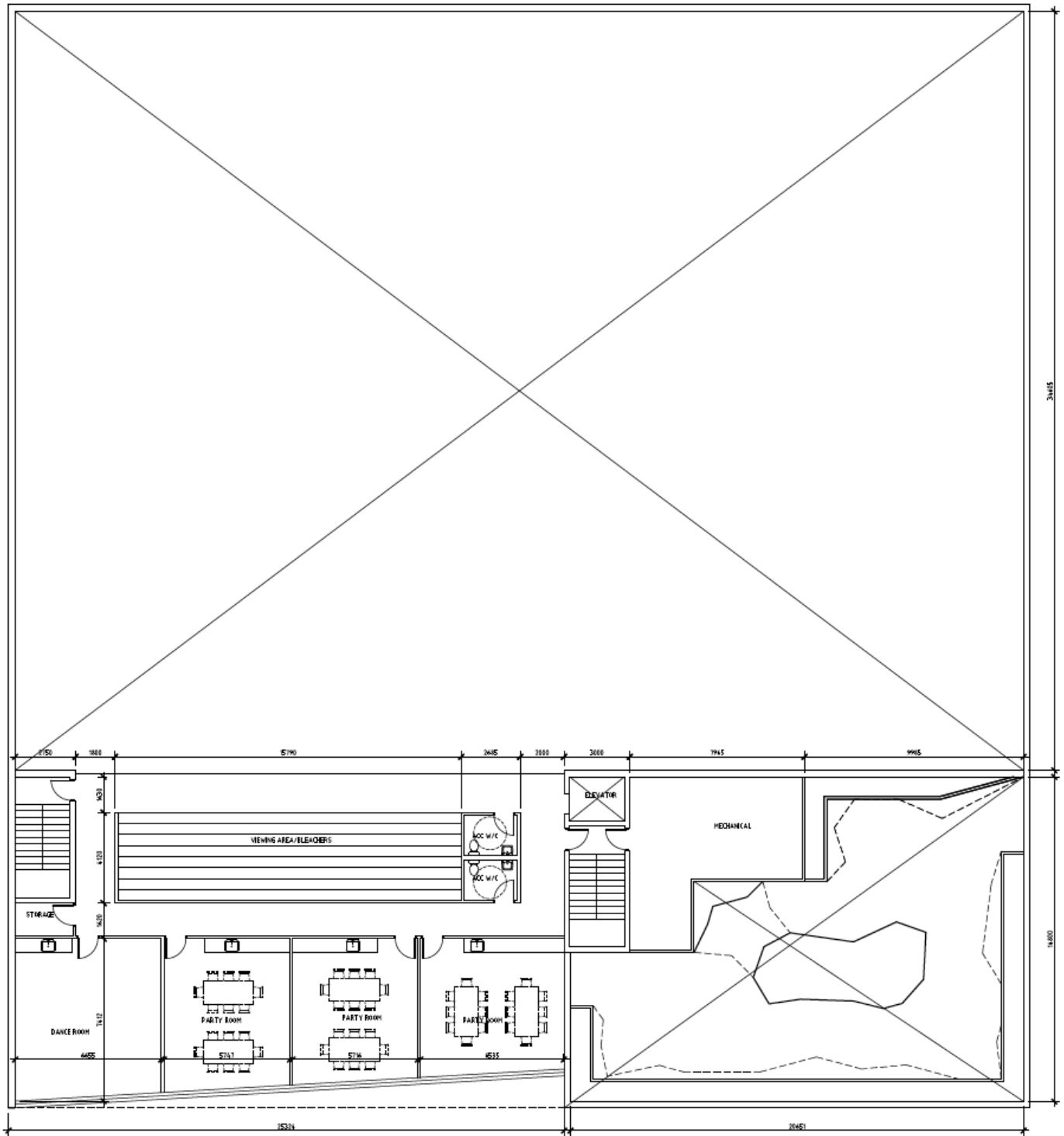
6.3 OPTION #3: NEW SITE AND BUILDING – POLARETTES & CLIMB YUKON (SPACE EFFICIENCIES REALIZED)

Option #3 considers the development of a new facility able to support Polarettes and Climb Yukon under one roof. This option assumes:

- The program requirements for option #3 assume that Polarettes and Climb Yukon maximize the facility area, taking advantage of all space sharing opportunities. This option assumes that the two organizations work closely together. This option assumes:
 - Change rooms and washrooms are unisex and shared amongst the clubs but separated between adults and children. This has been adopted to support the concerns of Polarettes around mixing adults with children.
 - Reception and the lobby are shared and run by a common staff member.
 - The dance studio and fitness space has been consolidated. This space should be scheduled to ensure both organizations have access to the space.
 - Party rooms can be booked by both organizations as they have demand for them.
 - Operational complexities are addressed between Polarettes and Climb Yukon, including participant, staffing and financial.
- All parking requirements are fulfilled at the new site and it does not rely on street parking.
- The use of the existing Polarettes facility after the new building has been constructed has not been considered. It was noted during interviews that Vanier Catholic School has the current demand to use the space should it become available. This space could help offset the need for portables on site.

Figure 7: Option 3 - New site and building – Polarettes & Climb Yukon (space efficiencies realized) (main floor and mezzanine)





Full scale concept plans can be found in Appendix C.

6.4 COSTING ANALYSIS

6.4.1 CAPITAL COSTING – CLASS D ESTIMATES

Class D costing has been prepared by *SSA Quantity Surveyors* for each of the three accommodation options. Estimates are provided at a +/-50% accuracy level, consistent with Yukon Government policy. The cost analysis is based on the following underlying assumptions:

- Analysis has been based on the programmed spaces only. No detailed design documents have been used.
- Unit rates have been used for each discipline based on current information from similar projects and benchmarked assumptions and allowances for a project of this size and type.
- It is assumed that the work will be tendered on a design bid build (DBB) basis.
- A 15% design contingency has been applied to construction costs.
- A 10% allowance for design fees has been included.
- The analysis excludes the following:
 - Cost of any additional land.
 - Construction contingency.
 - Escalation contingency and forward escalation.
 - Furniture, furnishings and equipment.
 - Legal fees and city administrative costs associated with the project.
 - Municipal building permit costs, development cost charges and any other municipal costs.
 - GST.
 - Phasing allowance.
 - Hazardous materials identification and removal.
 - Adverse environmental conditions.
 - Unknown adverse archeological conditions.
 - Project procurement costs.
 - Project financing costs.
 - Significant utility upgrades.

The table below summarizes the anticipated costs of each option.

Table 18: Class D costing analysis summary

| | Option 1: Building Addition - Polarettes | Option 2: New Site and Building - Polarettes & Climb Yukon | Option 3: New Site and Building - Polarettes & Climb Yukon (Space efficiencies realized) |
|--|---|---|---|
| Construction | \$ 10,099,000 | \$ 15,510,000 | \$ 15,124,000 |
| Design Fees (10%) | \$ 1,010,000 | \$ 1,551,000 | \$ 1,512,000 |
| Surveys | \$ 10,000 | \$ 10,000 | \$ 10,000 |
| Commissioning | \$ 50,000 | \$ 50,000 | \$ 50,000 |
| Testing and Inspections | \$ 15,000 | \$ 15,000 | \$ 15,000 |
| Estimated Project Budget | \$ 11,184,000 | \$ 17,136,000 | \$ 16,711,000 |
| Cost per m2 (Construction only) | \$ 4,546 | \$ 5,881 | \$ 5,889 |
| Cost per m2 (Total) | \$ 5,034 | \$ 6,498 | \$ 6,506 |

*Construction costs are calculated based on programmed areas and account for new build, renovations and site work. See the appendix for a complete breakdown of the estimated costs.

The least expensive option is not surprisingly the building addition option, which renovates the current Polarettes facility and expands the building footprint to accommodate additional programming space. This option does not include any consideration for a climbing gym, as it was determined that the existing site is too small to accommodate both gymnastics and climbing. The most expensive option is Option #2, which proposes a new facility for Polarettes and Climb Yukon. This configuration assumes that both groups operate independently with very few space sharing opportunities realized.

In addition to the independent cost analysis performed for the three options, we have reviewed three recent development projects in Yukon to benchmark the cost estimates. The three recent projects that were benchmarked for costing were: Carmacks Arena, Mayo Fire Hall and Kwanlin Dun First Nation Community Hub. Each benchmarked project received 4 or more bids and the median \$/m² ranged between \$5,000/m² and \$7,920/m². The following table introduces the benchmarked projects.

Table 19: Benchmark facilities, cost-per-area.

| | Building Gross Area (m²) | Median Cost (\$/m²) | Notes |
|--------------------|--|---------------------------------------|---|
| Carmacks Arena | 2,899 | \$ 5,007 | Not including ice-plant. Tendered in 2018. |
| Mayo Fire Hall | 702 | \$ 7,320 | Includes complex building systems (exhaust handling). Also includes office space for other organizations. Tendered in 2019. |
| KDFN Community Hub | 3,174 | \$ 7,924 | Complex architectural design with extensive site landscaping. Tendered in 2019. |

The complexity of the gymnastics and climbing facility in comparison to the benchmarked projects is most similar to that of Carmacks Arena, which had a median cost of \$5,000/m². The independent cost analysis performed for this scope of work estimated a capital cost of \$5,000/m² for Option #1 (renovation and expansion) and ~\$6,500/m² for Options #2 and #3 (new builds). Given the benchmarked recent projects, it is realistic to assume that **Option #1, #2 or #3 could be constructed for less than estimated**. For more detailed cost estimates, it is recommended that detailed planning is performed.

6.4.2 OPERATIONS & MAINTENANCE COST ESTIMATE

To estimate the operations and maintenance (O&M) costs associated with each development option, current state costs were collected and used as the baseline for analysis. For the Polarettes facility, O+M consists of:

- Sewer/Water fees
- Garbage removal fees
- Electricity fees
- Heating Fuel fees
- Janitorial, repair and maintenance fees

In 2018/2019, O+M at the Polarettes facility totalled \$44,931. The breakdown of the O+M costs are shown in the table that follows.

Table 20: Operation and Maintenance costs 2018/2019

| Sewer/ Water | Garbage | Electrical | Heating Fuel | Janitorial, repair and maintenance Fees | 2018/2019 Total Cost |
|-----------------|---------|------------|-----------------|--|-------------------------|
| \$ 947 | \$ 301 | \$ 16,744 | \$4,938 | \$ 22,000 | \$ 44,931 |

Using this information as a baseline for the development options, O+M costs have been estimated for each development option. The estimates assume:

- Sewer/Water, garbage, and janitorial fees will increase proportionately to the area of the facility.
- To account for electrical system upgrades, it is assumed that the electricity usage will improve by 10% in the renovated and newly developed options.
- The heating fuel usage is estimated to decrease by 30% following building envelop upgrades and mechanical system upgrades.

Table 21: O+M estimates for development options

| | Building Gross Area | Sewer/ Water | Garbage | Electrical | Heating Fuel | Janitorial, repair and maintenance Fees | Total O+M |
|---|---------------------------|-----------------|---------|------------|-----------------|--|-------------------|
| CURRENT - Polarettes | 925 | \$ 947 | \$ 301 | \$ 16,744 | \$4,938 | \$ 22,000 | \$ 44,931 |
| Option 1: Building Addition - Polarettes | 2222 | \$ 2,274 | \$ 723 | \$ 36,185 | \$8,300 | \$ 52,825 | \$ 100,308 |
| Option 2: New Site and Building - Polarettes & Climb Yukon | 2637 | \$ 2,699 | \$ 858 | \$ 42,955 | \$9,853 | \$ 62,707 | \$ 119,073 |
| Option 3: New Site and Building - Polarettes & Climb Yukon (Space efficiencies realized) | 2568 | \$ 2,629 | \$ 836 | \$ 41,835 | \$9,596 | \$ 61,073 | \$ 115,970 |

As shown in the table above, it is estimated that O+M will cost between \$100k and \$115k per year for each of the options. The larger the facility the higher the anticipated O+M costs are.

6.5 OPTION ANALYSIS

The following table compares each of the options in terms of meeting program requirements, future flexibility, anticipated organization disruption and capital costs.

Table 22: Option Analysis Matrix

| Comparison Criteria | Option #1 – Renovated and expanded Polarettes | Option #2 – New site and facility Polarettes and Climb Yukon | Option #3 – New site and facility Polarettes and Climb Yukon – Shared spaces |
|-------------------------|---|--|--|
| Program Requirements | Does not meet all of the requirements. This plan does not include a competition sized floor for daily use (but does allow for competitions when required), coordinators office or tumbling track. This option does not consider any Climb Yukon spaces. | Meets all of the program requirements of Polarettes and Climb Yukon. | Meets all of the program requirements of Polarettes and Climb Yukon. |

| Comparison Criteria | Option #1 – Renovated and expanded Polarettes | Option #2 – New site and facility Polarettes and Climb Yukon | Option #3 – New site and facility Polarettes and Climb Yukon – Shared spaces |
|-------------------------------------|---|--|---|
| Future Flexibility | This option improves the quantity and quality of programming that can be offered. Future requirements will be limited to gymnastics floor space that is provided. There is no additional space on the site for expansion of Vanier Catholic school or Polarettes. | Includes all of the required spaces anticipated for the 20-year future. Depending on the site selected there may be an option to expand the facility in the future. | Includes all of the required spaces anticipated for the 20-year future. Depending on the site selected there may be an option to expand the facility in the future. |
| Anticipated Organization Disruption | <p>High – The renovation and expansion will cause significant disruption to the daily operations of Polarettes. It is likely that Polarettes will have to offer reduced programming or move to a temporary location during construction. No impact to Climb Yukon.</p> <p>This option will also result in limited disruption to Vanier Catholic School.</p> | Low – Neither Polarettes nor Climb Yukon will be impacted by the construction of a new facility at a new location. Both organizations could continue to maintain programming during construction. | Low – Neither Polarettes nor Climb Yukon will be impacted by the construction of a new facility at a new location. Both organizations could continue to maintain programming during construction. |
| Capital Costs | This is the least costly option as not all of the program requirements can be accommodated due to site constraints. This option will also be less costly per m ² as renovations are cheaper than new construction. | This is the most expensive option as it requires new construction and the procurement of new land (not included with cost analysis). This option also has the most program space which results in the highest capital costs. | This option is marginally less than option #2 due to the fact that the facility is smaller due to space efficiencies with an integrated operating agreement between Polarettes and Climb Yukon. |

7 CONCLUSION

From the information collected and from our analysis, the following high-level conclusions can be made in regard to Polarettes and Climb Yukon:

- Considering current and future demand, the current facility condition and the goals and aspirations of Polarettes, they are justified in requiring additional, more suitable programming space. Their operational leadership and staff are aligned in their aspirations and have the capacity to operate a larger facility.
- Climb Yukon is currently operating as a small community group. Their major limitation for growth is the fact that they do not have consistent access to a suitable climbing facility that supports their organizations goals. There is a significant amount of uncertainty with respect future demand projections as a dedicated climbing facility would be a completely new amenity to the City of Whitehorse. The demand and economic analysis model is considered appropriate and reasonable and therefore it is our view that with careful planning, a climbing gym could be successful within Whitehorse. The group does not currently have internal operational capacity to manage a climbing facility and therefore will require support.

Option #1 – Building Addition - Polarettes

This option has been prepared to understand what can be accommodated at the existing Polarettes site. The concept presented represents the maximum facility size that can be supported at its current location. This option addresses the majority of the needs of Polarettes but none of Climb Yukon. Although this is a feasible option, it is expected to cause significant disruption to Polarettes and limited disruption to Vanier Catholic School, limit future growth of Vanier Catholic School and not meet the ideal space needs of Polarettes or Climb Yukon. The estimated capital costs for this option is ~\$11 million.

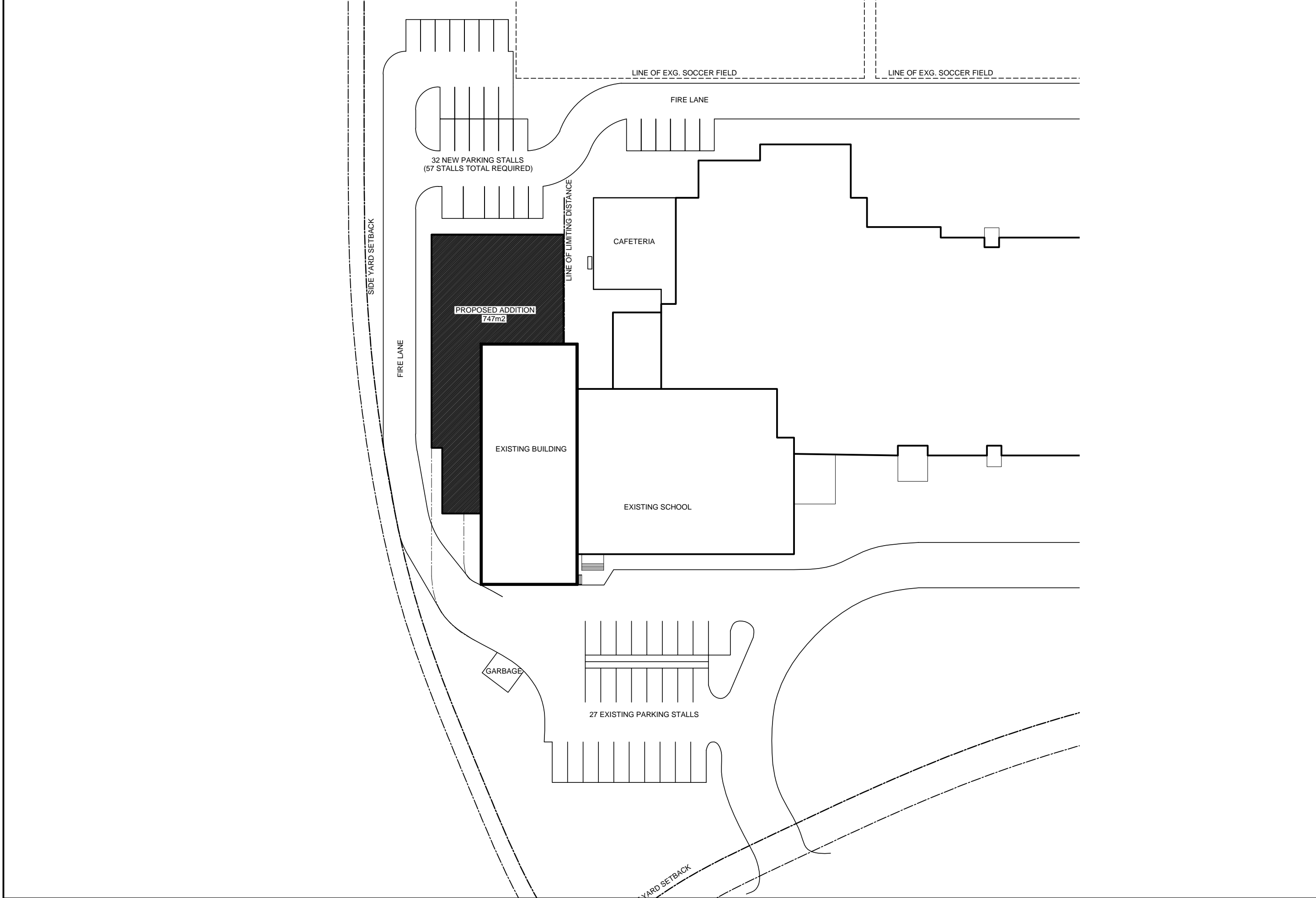
Option #2 – New Site and Building – Polarettes and Climb Yukon

This option explored the feasibility of constructing a new facility that will support all of Polarettes and Climb Yukon's space requirements for the 20-year future. It is assumed that Polarettes and Climb Yukon operate independently from one another with very little shared facility space. The estimated capital costs for this option is ~\$17.1 million.

Option #3 – New Site and Building – Polarettes and Climb Yukon – Space Efficiencies Realized

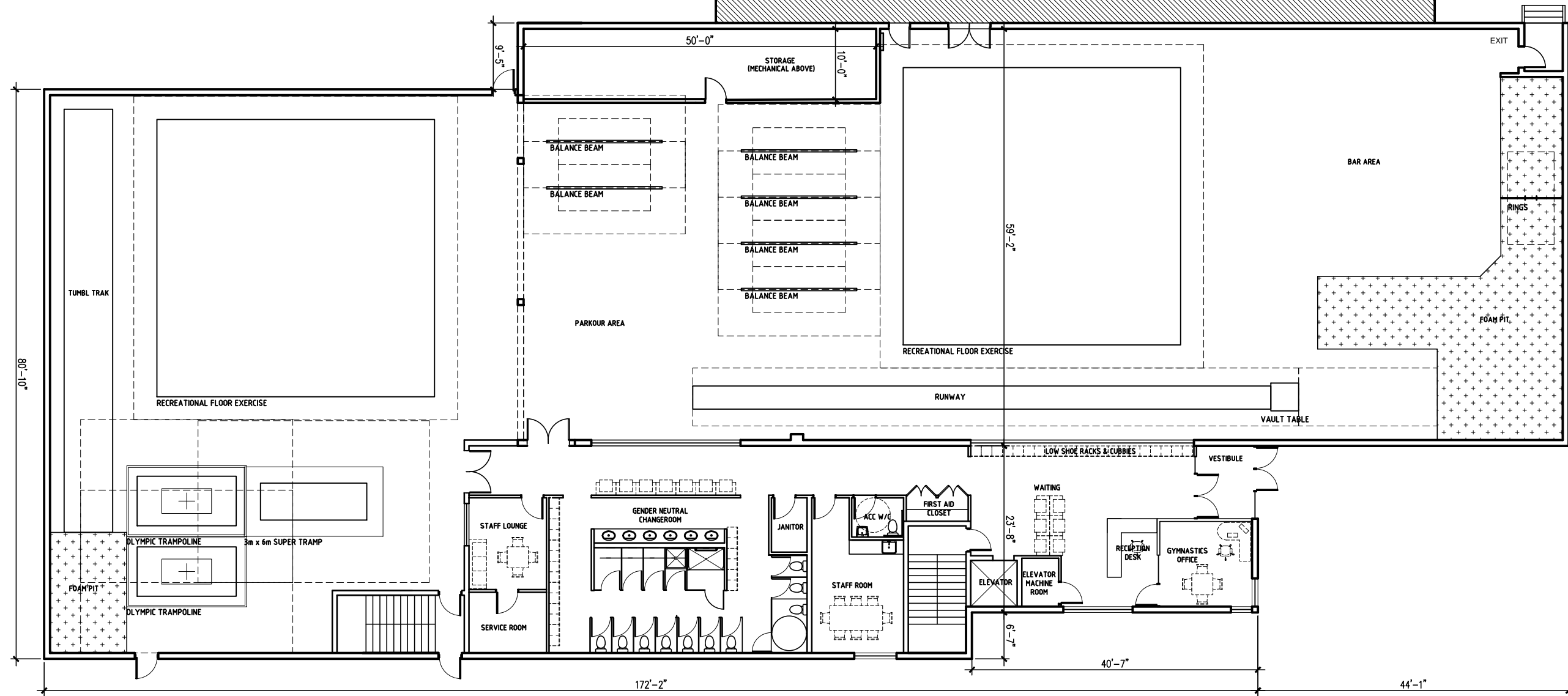
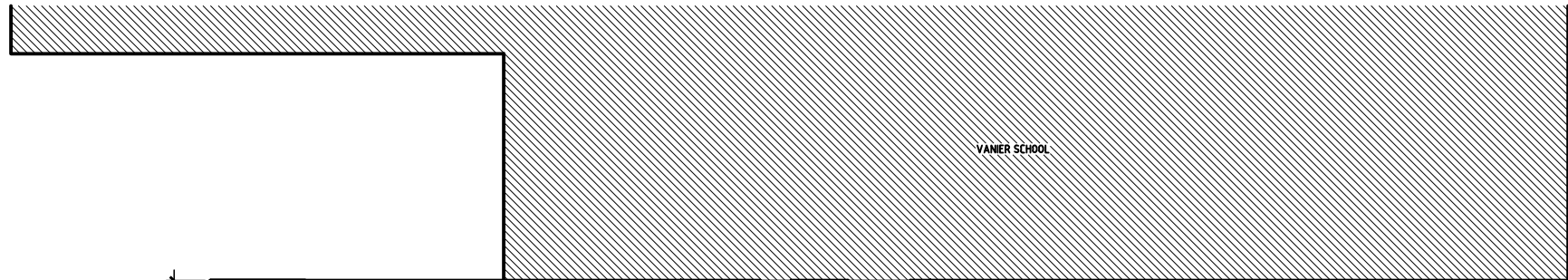
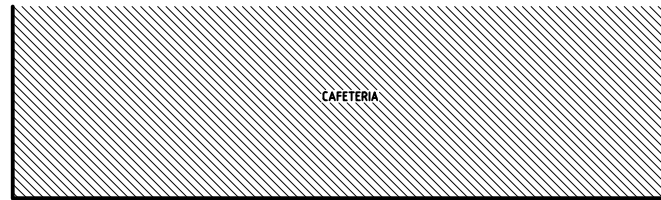
This option explored the feasibility of constructing a new facility that will support all of Polarettes and Climb Yukon's space requirements for the 20-year future assuming that both organizations share support and program space. A service agreement/operating agreement would be required for this option to be successful, but it is our opinion that this is attainable. The space savings of a shared model is not significant within this program (~50m² and ~75m² as drawn) but this option would increase the available program spaces for both groups and presents an opportunity to streamline operational/maintenance staff. The estimated capital costs for this option is 16.7 million, approx. \$400k less than option #2.

APPENDIX A – OPTION #1 FACILITY FLOOR PLANS



| | | | | | | | |
|------------|--|-------------|-------------|-------------|------------------|--------------|--|
| 1.1 | PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING | | | REV. DATE | ISSUE | NOTES: | Kobayashi + Zedda Architects Ltd. 26-1114 First Avenue Whitehorse, Yukon, Canada Y1A 1A3 Phone: 867-633-6874 Fax: 867-633-4602 e-mail: architect@kzayk.ca |
| | DRAWING: RENOVATION OPTION- SITE PLAN | STRUCTURAL: | MECHANICAL: | ELECTRICAL: | DATE: 2019-10-15 | SCALE: 1:650 | DRAWN: ST |

WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER DIMENSIONS SHOWN ON THIS PLAN. ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THIS PLAN. THE ARCHITECT SHALL BE RESPONSIBLE TO THE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.



PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING

DRAWING: RENOVATION OPTION- GROUND FLOOR

CLIENT:

DATE: 2019-10-15

SCALE: 1:200

DRAWN: ST

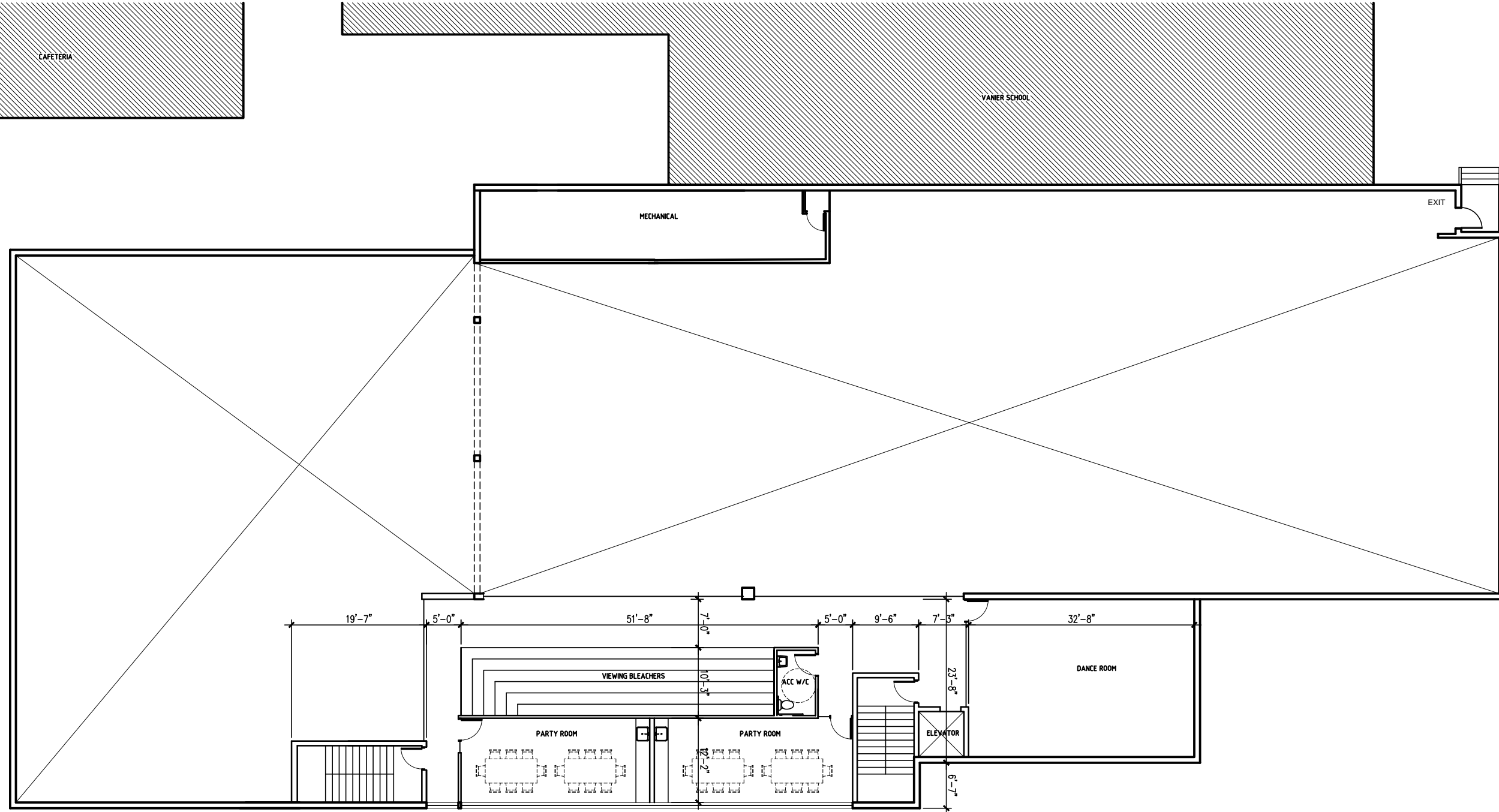
CHECKED:

REV. DATE ISSUE

NOTES:
 WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER DIMENSIONS SHOWN ON THIS DRAWING. ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THIS DRAWING. ANY VARIATIONS SHALL BE SUBJECT TO THE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

Kobayashi + Zedda
 Architects Ltd.
 26-1114 First Avenue
 Whitehorse, Yukon, Canada
 Y1A 1A3
 Phone: 867-633-6874
 Fax: 867-633-4602
 e-mail: architect@kzaya.yk.ca

1.2



Kobayashi + Zedda
Architects Ltd.
26-1114 First Avenue
Whitehorse, Yukon, Canada
Y1A 1A3
Phone: 867-633-6874
Fax: 867-633-4602
e-mail: architect@kzayk.ca

NOTES:
WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER DIMENSIONS SHOWN ON THIS DRAWING. ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THE ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THIS DRAWING. THE ARCHITECT SHALL BE RESPONSIBLE TO THE ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

| REV. | DATE | ISSUE |
|------|------|-------|
| | | |

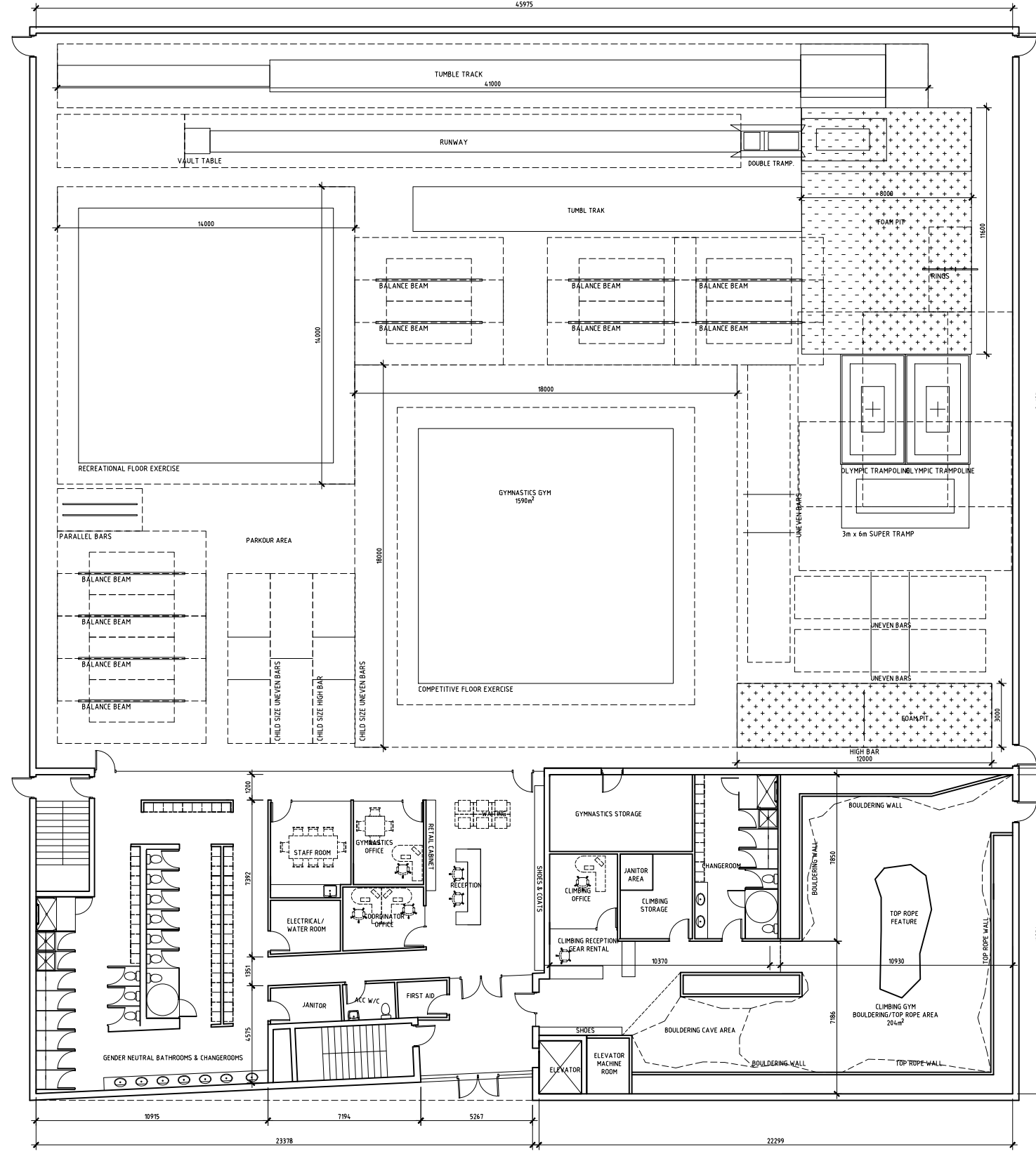
| | |
|--|--------------|
| PROJECT: WHITEHORSE GYMNASIICS & CLIMBING FEASIBILITY PLANNING | STRUCTURAL: |
| DRAWING: RENOVATION OPTION- SECOND FLOOR | MECHANICAL: |
| CLIENT: | ELECTRICAL: |
| DATE: 2019-10-15 | SCALE: 1:200 |
| DRAWN: ST | CHECKED: |

1.3

APPENDIX B – OPTION #2 FACILITY FLOOR PLANS

OPTION 2: NEW SITE & BUILDING- POLARETTES & CLIMB YUKON

GROUND FLOOR:
2,341m²



PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING

DRAWING: OPT 2- NEW SITE & BUILDING- POLARETTES & CY - 1F

CLIENT:

DATE: 2019-10-04

SCALE: 1:200

DRAWN: ST

CHECKED:

STRUCTURAL:

MECHANICAL:

ELECTRICAL:

REV. DATE ISSUE

NOTES:

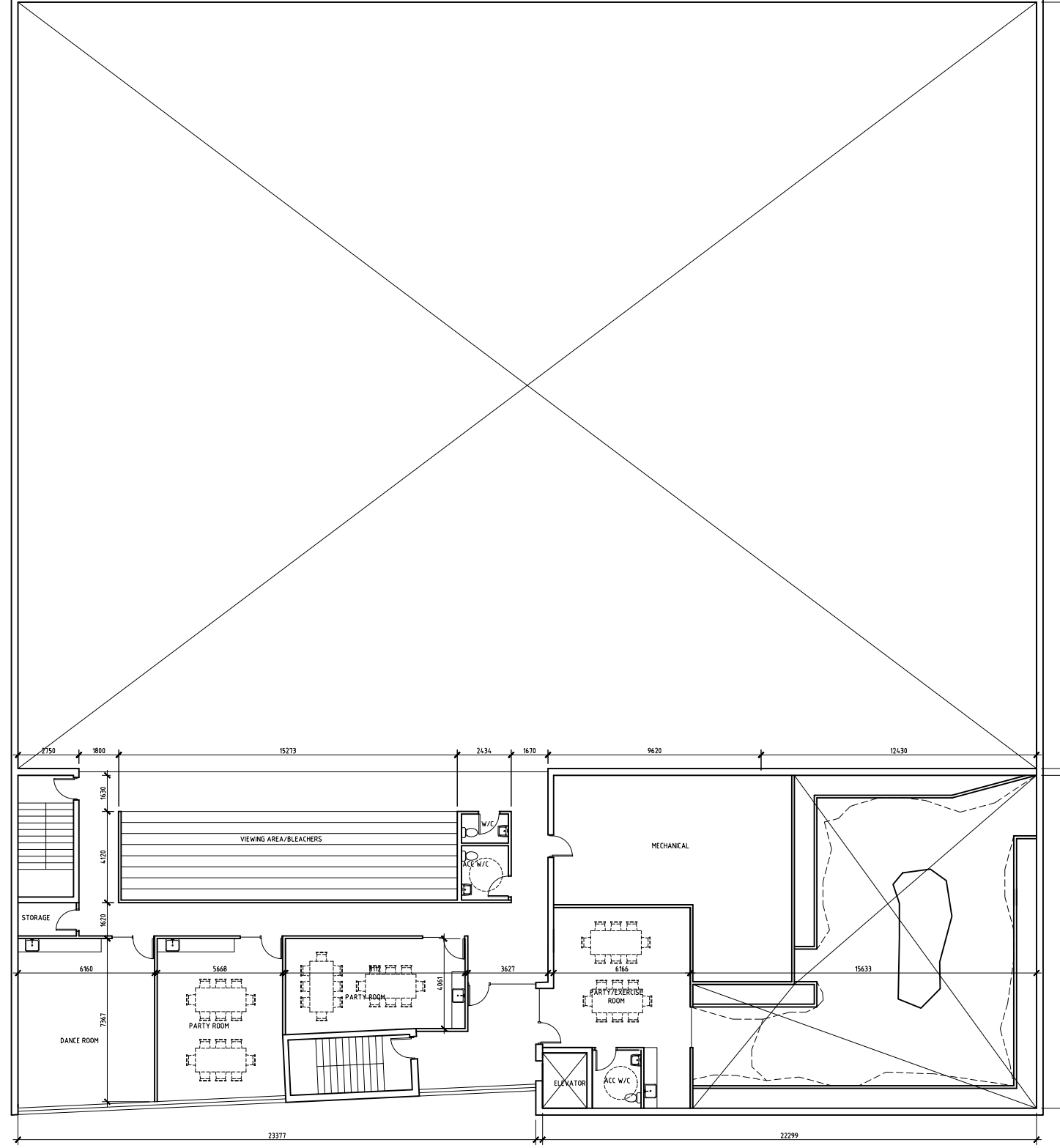
WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS. THE DRAWINGS, SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

Kobayashi + Zedda Architects Ltd.

26-114 First Avenue
Yukon, Canada
Y1A 1A3
Phone: 867-633-8874
Fax: 867-633-4902
e-mail: architect@kzya.ca

OPTION 2: NEW SITE & BUILDING- POLARETTES & CLIMB YUKON

**SECOND FLOOR:
487m²**



PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING

DRAWING: OPT 2- NEW SITE & BUILDING- POLARETTES & CY - 2F

CLIENT:

DATE: 2019-10-04

SCALE: 1:200

DRAWN: ST

CHECKED:

STRUCTURAL:

MECHANICAL:

ELECTRICAL:

REV. DATE

ISSUE

NOTES:

WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS. ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

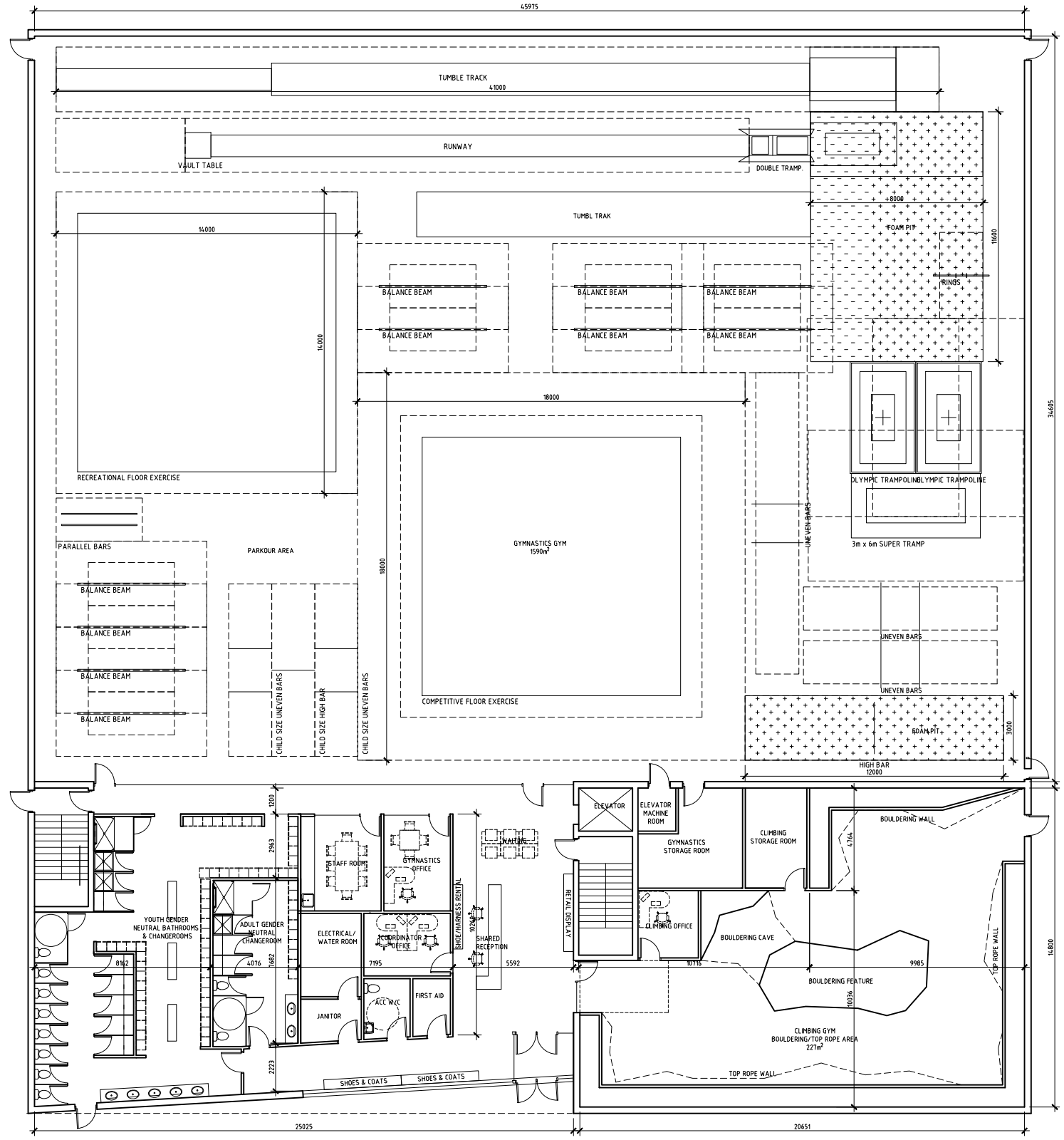
Kobayashi + Zedda Architects Ltd.

26-1114 First Avenue
Yukon, Canada
Y1A 1A3
Phone: 867-633-6874
Fax: 867-633-4602
e-mail: architect@kzay.ca

APPENDIX C – OPTION #3 FACILITY FLOOR PLANS

OPTION 3: NEW SITE & BUILDING- POLARETTES & CLIMB YUKON (SPACE EFFICIENCIES REALIZED)

GROUND FLOOR:
2,341m²



Kobayashi + Zedda Architects Ltd.
26-114 First Avenue
Y1A 1A3
Phone: 867-633-6874
Fax: 867-633-4902
e-mail: architect@kzay.ca

NOTES:
WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

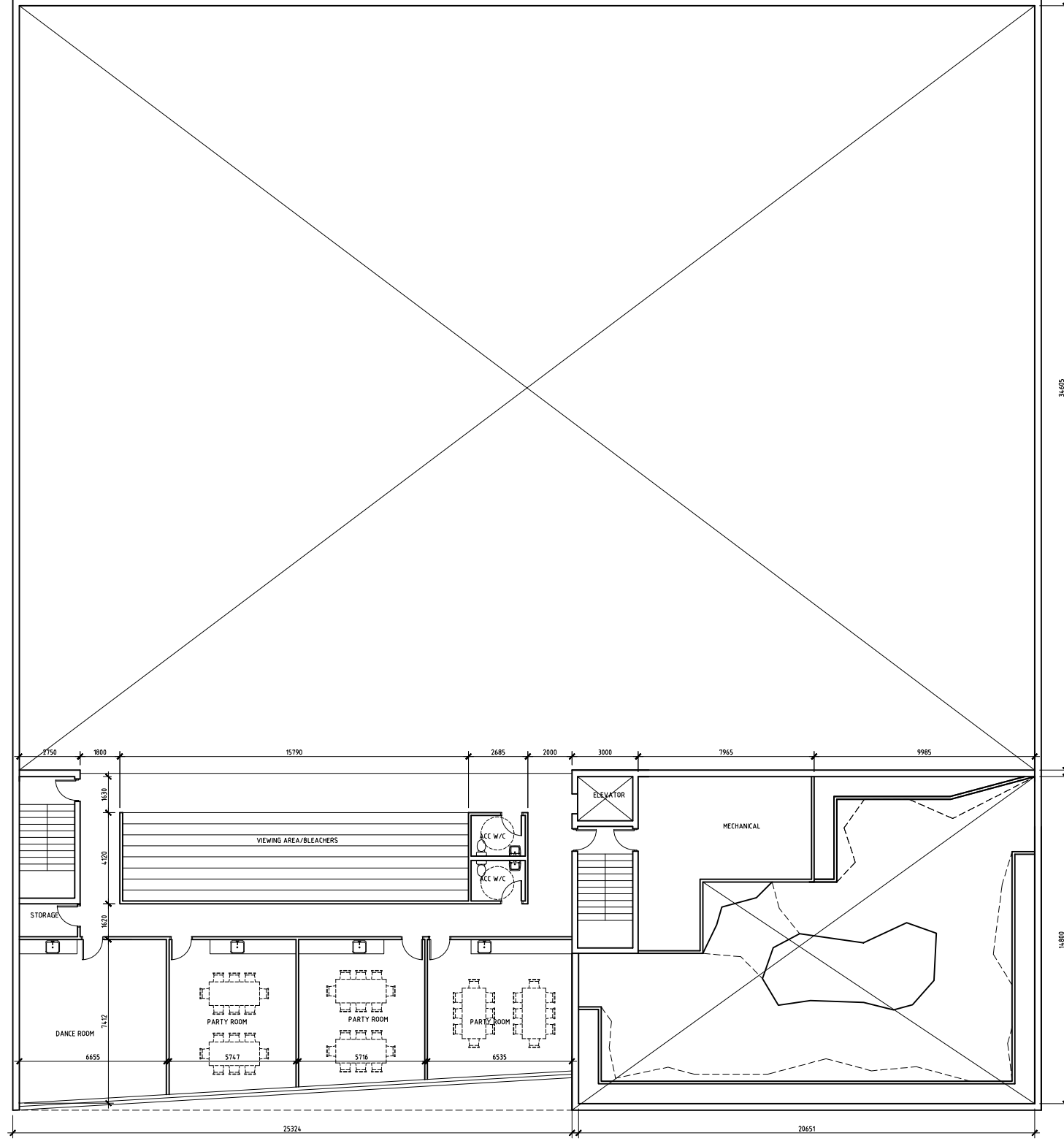
PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING
DRAWING: OPT 3- NEW SITE & BUILDING- POLARETTES & CY SHARED 1F
CLIENT:

STRUCTURAL:
MECHANICAL:
ELECTRICAL:

DATE: 2019-10-04 **SCALE:** 1:250 **DRAWN:** ST **CHECKED:**

OPTION 3: NEW SITE & BUILDING- POLARETTES & CLIMB YUKON (SPACE EFFICIENCIES REALIZED)

**SECOND FLOOR:
420m²**



PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING

DRAWING: OPT 3- NEW SITE & BUILDING- POLARETTES & CY SHARED 1F

CLIENT:

DATE: 2019-10-04

SCALE: 1:250

DRAWN: ST

CHECKED:

REV. DATE

ISSUE

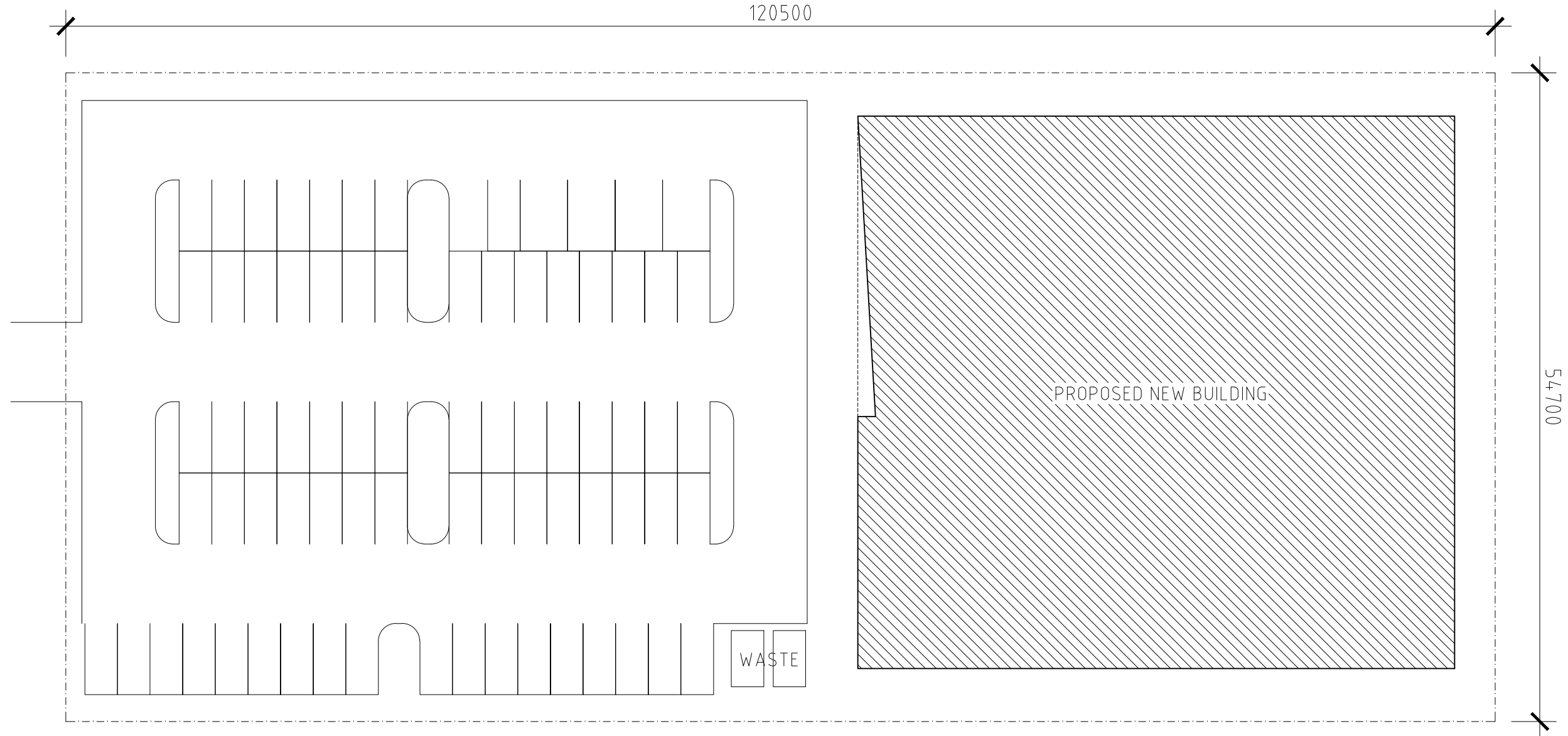
NOTES:

WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS. ARCHITECT SHALL BE INFORMED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

Kobayashi + Zedda Architects Ltd.

26-114 First Avenue
Whitehorse, Yukon, Canada
Y1A 1A3
Phone: 867-633-6874
Fax: 867-633-4602
e-mail: architect@kzay.ca

POSSIBLE PARKING



Kobayashi + Zedda
Architects Ltd.
26-114 First Avenue
Edmonton, Alberta T6E 1A3
Phone: 867-633-6874
Fax: 867-633-4902
e-mail: architect@kzay.ca

NOTES:
WRITTEN DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT FOR REVIEW BEFORE PROCEEDING WITH FABRICATION.

| REV. | DATE | ISSUE |
|------|------|-------|
| | | |

| PROJECT: WHITEHORSE GYMNASTICS & CLIMBING FEASIBILITY PLANNING | |
|--|--|
| STRUCTURAL: | |
| MECHANICAL: | |
| ELECTRICAL: | |

DRAWING: PROPOSED NEW BUILD- PARKING/LOT AREA

CLIENT:

DATE: 2019-10-04 SCALE: 1:400 DRAWN: ST CHECKED:

4.1

APPENDIX E – BUILDING CODE COMPLIANCE REVIEW

Polarettes National Building Code Analysis- Part 3

| | | |
|----|--|--|
| 1 | Building Code Version | 2015 |
| 2 | Project Type | <input checked="" type="checkbox"/> Addition and Renovation |
| 3 | Major Occupancy Classification | Superimposed Occupancies: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 1 st Floor: Assembly |
| 4 | Building Area | 831m ² |
| 5 | Floor Area | 1 st Floor: 831m ² |
| 6 | Mezzanine Area (m²) | 62m ² |
| 7 | Building Height | Approx. 7.5m |
| 8 | High Building | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 9 | Exit Facilities | Every floor area that is intended for occupancy has been provided with access to exits and exits that comply; <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 10 | Direction of Door Swings, Ramps, Stairs, Handrails and Guards | Every door, ramp, stair, handrail, and guard comply; <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>Polarettes is not currently in compliance as no entrances are barrier free. A barrier free ramp access and power door operator should be installed.</i> |
| 11 | Number of Streets/Firefighter Access | 3 |
| 12 | Building Classification | 3.2.2.26 |
| 13 | Sprinkler System | <input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required Proposed: Entire building <i>If there are openings through a firewall, other than those for piping, tubing, wiring and totally enclosed noncombustible raceways, the fire alarms system shall apply to the floor areas on both sides of the firewall as if they were in the same building. [3.2.4.2 (1)]</i> |
| 14 | Fire Alarm System | <input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required <i>If there are openings through a firewall, other than those for piping, tubing, wiring and totally enclosed noncombustible raceways, the fire alarms system shall apply to the floor areas on both sides of the firewall as if they were in the same building. [3.2.4.2 (1)]</i> <i>If a fire alarm system is required in any portion of a building, it shall be installed throughout the building. [3.2.4.2 (3)]</i> <i>If Vanier and Polarettes would like to separate fire alarm systems, the</i> |

| | | |
|----|---|--|
| | | <i>existing doors between must be removed the fire wall made continuous.</i> |
| 15 | Standpipe System | <input type="checkbox"/> Required <input checked="" type="checkbox"/> Not Required |
| 16 | Water Supply Adequate For Firefighting | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No City Water |
| 17 | Potable Water Service/Supply Adequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No City Water |
| 18 | Permitted Construction | <input checked="" type="checkbox"/> Combustible <input checked="" type="checkbox"/> Non Combustible <input checked="" type="checkbox"/> Combo Actual: <input checked="" type="checkbox"/> Combustible <input checked="" type="checkbox"/> Non Combustible <input checked="" type="checkbox"/> Combo |
| 19 | Occupant Load | First Floor: 77 Mezzanine: 28 |
| 20 | Barrier-free Design | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>Polarettes is not currently in compliance as no entrances are barrier free. A barrier free ramp access and power door operator should be installed. If showers are provided in a building, at least one must be accessible. The current barrier free water closets, shower, and water fountain do not meet current accessibility requirements.</i> |
| 21 | Hazardous Substances | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 22 | Required Fire Resistance Ratings: | Not required. |
| 23 | Spatial Separation | <u>North East Elevation:</u> LD 3.7m, Area 66m ² = approx.. 42% unprotected openings, 45min FRR <u>South East Elevation:</u> LD 21.7m, Area 142m ² = 100% unprotected openings, no FRR <u>South West Elevation:</u> LD 15.4m, Area 351m ² = approx.. 100% unprotected openings, no FRR <u>North West Elevation:</u> LD 1m, Area 142m ² = approx. 0%, 1h FRR <i>The wall separating Vanier and Polarettes is a Firewall. The other walls are unrated non-combustible construction (steel stud) with combustible cladding (wood).</i> <i>The North East elevation requires non-combustible cladding and a wall assembly with a 45min FRR. It is currently an unrated assembly with wood cladding. For the North West elevation, either the bus garage needs to be moved at least 12m away to allow an unrated wall assembly</i> |

| | | |
|----|--------------------------------------|---|
| | | <i>and with combustible cladding as exists currently, or construction of a 1h rated wall with noncombustible cladding.</i> |
| 24 | Plumbing Fixture Requirements | <p>Currently acceptable: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Male to female ratio- 50:50</p> <p>Required: 3 male, 5 female water closets</p> <p><i>If showers are provided in a building, at least one must be accessible for each gender or be universal.</i></p> |
| 25 | Energy Efficiency | <p>Climate zone 7b</p> <p><i>Envelope requires upgrade to meet current energy code.</i></p> |

APPENDIX F – COSTING ANALYSIS

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY

CLASS 'D' PROGRAM ESTIMATE REPORT (Revision 3) (OPINION OF PROBABLE COST)

October 31, 2019



SSA QUANTITY SURVEYORS LTD

COST PLANNING | VALUE MANAGEMENT | PROJECT CONTROLS

203 – 3320 Richter Street, Kelowna, BC V1W 4V5 **TEL** 250 763 6677 **FAX** 250 762 6684 **WEB** ssaqs.com

**WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019**

THIS SHEET INTENTIONALLY BLANK FOR PAGINATION FOR 2 SIDED PRINTING

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019

| <u>CONTENTS</u> | <u>PAGE NO.</u> |
|---|-----------------|
| 1. INTRODUCTION..... | 1 |
| 2. LEVEL OF RISK | 2 |
| 3. BASIS OF THE ESTIMATE | 2 |
| 4. EXCLUSIONS..... | 3 |
| 5. STATEMENT OF PROBABLE COSTS | 3 |
| 6. CLASS 'D' ESTIMATE SUMMARY FOR OPTION 1 – BUILDING ADDITION – POLARETTES | 4 |
| 7. CLASS 'D' ESTIMATE SUMMARY FOR OPTION 2 – NEW SITE AND BUILDING – POLARETTES AND CLIMB YUKON | 5 |
| 8. CLASS 'D' ESTIMATE SUMMARY FOR OPTION 3 – NEW SITE AND BUILDING – POLARETTES AND CLIMB YUKON (SPACE EFFICIENCIES)..... | 6 |
| 9. CLASS 'D' ESTIMATE DETAILS | 7 |

**WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019**

THIS SHEET INTENTIONALLY BLANK FOR PAGINATION FOR 2 SIDED PRINTING

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)

October 31, 2019

1. INTRODUCTION

The Infrastructure and Development Branch of Yukon Government has contracted Cornerstone Planning Group to prepare a feasibility study for Polarettes Gymnastics Club and Climb Yukon. The study identifies the future space requirements for both groups and presents three development options. SSA Quantity Surveyors Ltd. (SSAQS) has been contracted by Cornerstone Planning Group to prepare Class D and O&M estimates for each of the three development options.

The Cornerstone Planning Group has prepared some initial Program Information and associated Planning for the project, and SSAQS has prepared this this Class 'D' Program Estimate (Opinion of Probable Cost) for the various Options described for the project.

For the detail on the initial program and planning please refer to the separate information prepared by the Cornerstone Planning Group.

Based upon the information provided, we have developed this Program Estimate at a Class D level for the project.

This Class D Estimate Report presents estimates for 3 Options:

- 1.1. Option 1 – Building Addition – Polarettes.
- 1.2. Option 2 – New Site and Building – Polarettes and Climb Yukon.
- 1.3. Option 3 – New Site and Building – Polarettes and Climb Yukon (Space Efficiencies).

Please note the Exclusions in Section 4 below.

Notes:

- The Program Spaces have been provided by the Cornerstone Planning Group.
- We have used unit rates for each discipline based upon current information from similar projects and our benchmarked assumptions and allowances for a project of this size and type in Whitehorse.
- We have had no discussions with design consultants regarding the building architecture. We have had no discussions with design consultants regarding structure, systems, civil and site.
- We have not included any allowances for future expansion of the facility.
- We have excluded allowances for Furniture, Furnishings and Equipment including all gymnastics and climbing equipment.
- Assumptions and allowances are identified in this report.

This Class 'D' Estimate (Opinion of Probable Cost) is based on the Program Areas described above. Our knowledge of the project is limited to the program information provided to us.

Pricing is based upon current **3rd Quarter 2019** unit rates that we consider reasonable, but competitive, for the scope as described to us, the size, type and complexity of project, and its location in Whitehorse, YK.

A location factor that, in our opinion, is appropriate relative to the Lower Mainland of BC, has been included.

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019

The estimated construction costs reflect our opinion of the current construction industry market conditions for this size and type of project in Whitehorse. It has been assumed that the work will be tendered in the public domain on a Design Bid Build (DBB) basis, competitively tendered to a minimum of 3 competent general contractors, where each trade contract is bid on a competitive stipulated price basis. The pricing in this estimate is predicated upon a minimum of three qualified trade contractors for each significant trade, bidding for the work on a competitive basis and there will be no sole source non-competitive trade contracts. It is also predicated upon the assumption that the project will be bid with normal and reasonable market conditions and that any unforeseen, aberrant or abnormal market conditions are not contemplated in the estimate.

The Goods and Services Tax (GST) has been excluded.

This estimate is our opinion of fair market value for the construction of this project, and is not a prediction of low bid. Fair Market value is our opinion of a reasonable bid price under normal market conditions.

2. LEVEL OF RISK

As per the Government of Yukon Guidelines, we confirm that the risk associated with this Opinion of Probable Costs at a Class D level is $\pm 50\%$.

3. BASIS OF THE ESTIMATE

3.1. Cost Base

Pricing shown reflects our opinion of probable construction costs obtainable in the 3rd Quarter of 2019 on the effective date of this report.

3.2. Contingencies

- 3.2.1. **Design Contingency** – An allowance of 15% has been included. This allowance, when included, is a reserve of funds included in the estimate and which is allocated to cover pricing adjustments resulting from incomplete design information and design detailing that is not currently available.
- 3.2.2. **Escalation Contingency** – Forward escalation has not been included. This allowance, when included, is a reserve of funds to cover possible price increases from the time that the estimate is prepared to the time that the project is tendered.
- 3.2.3. **Phasing Allowance** – No allowance has been included. This allowance, when included, is for any work required to maintain the operation of the facility while construction proceeds.
- 3.2.4. **Construction Contingency** – No allowance has been included. The construction contingency is a reserve of funds which is allocated to cover change orders that are required during the course of construction, and is not intended to be a scope change contingency.

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019

4. EXCLUSIONS

The following items are specifically excluded from this estimate:

- 4.1. Land Purchase costs.
- 4.2. Building Permit.
- 4.3. All Municipal Cost Charges, Building Permit Fee etc.
- 4.4. Legal Fees.
- 4.5. City Administrative Costs.
- 4.6. Furniture, Furnishings and Equipment.
- 4.7. Escalation.
- 4.8. GST.
- 4.9. Hazardous Materials identification and removal other than those allowed for.
- 4.10. Adverse environmental conditions.
- 4.11. Unknown adverse archeological conditions.
- 4.12. Adverse soil and/or subsoil conditions.
- 4.13. Project Procurement costs.
- 4.14. Project Financing Costs.
- 4.15. Significant Utility Upgrades.

5. STATEMENT OF PROBABLE COSTS

Estimates of construction costs prepared by SSA Quantity Surveyors Ltd. represent our best judgement as Professional Cost Consultants/Quantity Surveyors familiar with the construction industry. It is recognised, however, that we do not have control over the cost of labour, materials or equipment, over architect/engineering design, over a contractor's method of determining prices, or over market or negotiating conditions. Accordingly, we cannot and do not warrant or represent that bids or negotiated prices will not vary from this nor any subsequent estimate of design/construction cost or evaluation prepared by or agreed to by us.

**WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019**

6. CLASS 'D' ESTIMATE SUMMARY FOR OPTION 1 – BUILDING ADDITION – POLARETTES

| SUGGESTED PROJECT BUDGET SHEET - DESIGN BID BUILD (DBB) ROUNDED TO THOUSANDS | | | | | |
|--|---|---------------------|--|-----------------|---------------------|
| | | ESTIMATED VALUE | REIMBURSABLE EXPENSES (EXCLUDED AS INSTRUCTED BY CLIENT) | GST EXCLUDED | TOTALS |
| 1 | Land | EXCLUDED | | EXCLUDED | EXCLUDED |
| 2 | Construction | \$10,099,000 | | EXCLUDED | \$10,099,000 |
| 3 | Contingency for Construction (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 4 | Design Fees (10% - as instructed by Client) | \$1,010,000 | EXCLUDED | EXCLUDED | \$1,010,000 |
| 5 | Quantity Surveyor (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 6 | Facility Programmer (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 7 | Landscape Consultant (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 8 | Environmental Consultant (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 9 | Other Consultants (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 10 | Surveys (Land) | \$10,000 | EXCLUDED | EXCLUDED | \$10,000 |
| 11 | Commissioning | \$50,000 | EXCLUDED | EXCLUDED | \$50,000 |
| 12 | Testing & Inspections | \$15,000 | EXCLUDED | EXCLUDED | \$15,000 |
| 13 | Legal | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 14 | Fire Safety Plans (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 15 | Administrative Costs | EXCLUDED | | EXCLUDED | \$0 |
| 16 | Insurance (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 17 | City Cost Charges | EXCLUDED | | EXCLUDED | \$0 |
| 18 | Building Permit | EXCLUDED | | EXCLUDED | \$0 |
| 19 | Off-Site Services | EXCLUDED | | EXCLUDED | \$0 |
| 20 | Furniture, Furnishings and Equipment | EXCLUDED | | EXCLUDED | \$0 |
| 21 | Escalation Contingency | EXCLUDED | | EXCLUDED | \$0 |
| 22 | General Project Contingency (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 23 | | | | | |
| 24 | Sub-Total | \$11,184,000 | \$0 | \$0 | \$11,184,000 |
| 25 | | | | | |
| 26 | SUGGESTED PROJECT BUDGET | | \$11,184,000 | | \$11,184,000 |

Note:

This sheet is subject to limiting conditions contained in the accompanying report.

**WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019**

**7. CLASS 'D' ESTIMATE SUMMARY FOR OPTION 2 – NEW SITE AND BUILDING – POLARETTES AND CLIMB
YUKON**

| SUGGESTED PROJECT BUDGET SHEET - DESIGN BID BUILD (DBB) ROUNDED TO THOUSANDS | | | | | |
|--|---|---------------------|--|-----------------|---------------------|
| | | ESTIMATED VALUE | REIMBURSABLE EXPENSES (EXCLUDED AS INSTRUCTED BY CLIENT) | GST EXCLUDED | TOTALS |
| 1 | Land | EXCLUDED | | EXCLUDED | EXCLUDED |
| 2 | Construction | \$15,510,000 | | EXCLUDED | \$15,510,000 |
| 3 | Contingency for Construction (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 4 | Design Fees (10% - as instructed by Client) | \$1,551,000 | EXCLUDED | EXCLUDED | \$1,551,000 |
| 5 | Quantity Surveyor (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 6 | Facility Programmer (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 7 | Landscape Consultant (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 8 | Environmental Consultant (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 9 | Other Consultants (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 10 | Surveys (Land) | \$10,000 | EXCLUDED | EXCLUDED | \$10,000 |
| 11 | Commissioning | \$50,000 | EXCLUDED | EXCLUDED | \$50,000 |
| 12 | Testing & Inspections | \$15,000 | EXCLUDED | EXCLUDED | \$15,000 |
| 13 | Legal | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 14 | Fire Safety Plans (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 15 | Administrative Costs | EXCLUDED | | EXCLUDED | \$0 |
| 16 | Insurance (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 17 | City Cost Charges | EXCLUDED | | EXCLUDED | \$0 |
| 18 | Building Permit | EXCLUDED | | EXCLUDED | \$0 |
| 19 | Off-Site Services | EXCLUDED | | EXCLUDED | \$0 |
| 20 | Furniture, Furnishings and Equipment | EXCLUDED | | EXCLUDED | \$0 |
| 21 | Escalation Contingency | EXCLUDED | | EXCLUDED | \$0 |
| 22 | General Project Contingency (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 23 | | | | | |
| 24 | Sub-Total | \$17,136,000 | \$0 | \$0 | \$17,136,000 |
| 25 | | | | | |
| 26 | SUGGESTED PROJECT BUDGET | | \$17,136,000 | | \$17,136,000 |

Note:

This sheet is subject to limiting conditions contained in the accompanying report.

**WHITEHORSE GYMNASTICS AND CLIMBING FACILITY FEASIBILITY STUDY
CLASS 'D' PROGRAM ESTIMATE REPORT - OPINION OF PROBABLE COST (Revision 3)
October 31, 2019**

**8. CLASS 'D' ESTIMATE SUMMARY FOR OPTION 3 – NEW SITE AND BUILDING – POLARETTES AND CLIMB
YUKON (SPACE EFFICIENCIES).**

| SUGGESTED PROJECT BUDGET SHEET - DESIGN BID BUILD (DBB) ROUNDED TO THOUSANDS | | | | | |
|---|---|----------------------------|--|-------------------------|---------------------|
| | | ESTIMATED VALUE | REIMBURSABLE EXPENSES (EXCLUDED AS INSTRUCTED BY CLIENT | GST EXCLUDED | TOTALS |
| 1 | Land | EXCLUDED | | EXCLUDED | EXCLUDED |
| 2 | Construction | \$15,124,000 | | EXCLUDED | \$15,124,000 |
| 3 | Contingency for Construction (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 4 | Design Fees (10% - as instructed by Client) | \$1,512,000 | EXCLUDED | EXCLUDED | \$1,512,000 |
| 5 | Quantity Surveyor (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 6 | Facility Programmer (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 7 | Landscape Consultant (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 8 | Environmental Consultant (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 9 | Other Consultants (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 10 | Surveys (Land) | \$10,000 | EXCLUDED | EXCLUDED | \$10,000 |
| 11 | Commissioning | \$50,000 | EXCLUDED | EXCLUDED | \$50,000 |
| 12 | Testing & Inspections | \$15,000 | EXCLUDED | EXCLUDED | \$15,000 |
| 13 | Legal | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 14 | Fire Safety Plans (excluded as instructed by Client) | EXCLUDED | EXCLUDED | EXCLUDED | \$0 |
| 15 | Administrative Costs | EXCLUDED | | EXCLUDED | \$0 |
| 16 | Insurance (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 17 | City Cost Charges | EXCLUDED | | EXCLUDED | \$0 |
| 18 | Building Permit | EXCLUDED | | EXCLUDED | \$0 |
| 19 | Off-Site Services | EXCLUDED | | EXCLUDED | \$0 |
| 20 | Furniture, Furnishings and Equipment | EXCLUDED | | EXCLUDED | \$0 |
| 21 | Escalation Contingency | EXCLUDED | | EXCLUDED | \$0 |
| 22 | General Project Contingency (excluded as instructed by Client) | EXCLUDED | | EXCLUDED | \$0 |
| 23 | | | | | |
| 24 | Sub-Total | \$16,711,000 | \$0 | \$0 | \$16,711,000 |
| 25 | | | | | |
| 26 | SUGGESTED PROJECT BUDGET | | \$16,711,000 | | \$16,711,000 |

Note:

This sheet is subject to limiting conditions contained in the accompanying report.

9. CLASS 'D' ESTIMATE DETAILS

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY

CLASS "D" ESTIMATE (OPINION OF PROBABLE COSTS)

| Line Number | Description | | Quantity | Unit | BGSM/ CGSM | Lump Sum Allowance | Architectural | Demolition | Structural | ESCS | Electrical | Mechanical | TOTAL EXCLUDING MARKUPS (rounded) | ESTIMATED VALUE EXCLUDING MARKUPS (rounded) |
|-------------------|---|------|----------|------|----------------|-----------------------|---------------|------------|------------|------|------------|------------|--|---|
| UNIT RATES | | | | | | | | | | | | | | |
| 1 | OPTION 1 - BUILDING ADDITION POLARETTES | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | Base Building Addition | NEW | | | 1,296.0 | | 400.00 | 0.00 | 350.00 | 0.00 | 200.00 | 400.00 | 1,350.00 | \$1,750,000 |
| 4 | | | | | | | | | | | | | | |
| 5 | New Gymnastics Area (Fitout) | NEW | | | 1,296.0 | | 400.00 | 0.00 | 0.00 | 0.00 | 300.00 | 400.00 | 1,100.00 | \$1,426,000 |
| 6 | Extensive renovation. Existing building requires building envelope upgrades, taller ceiling and reconfiguration of gymnastics equipment | RENO | | | 925.0 | | 900.00 | 75.00 | 300.00 | 0.00 | 300.00 | 400.00 | 1,975.00 | \$1,827,000 |
| 7 | | | | | | | | | | | | | | |
| 8 | TOTAL BUILDINGS | | | | 2,221.0 | | | | | | | | | \$5,003,000 |
| 9 | | | | | | | | | | | | | | |
| 10 | Building Lump Sum Allowances | | | | | | | | | | | | | |
| 11 | Exterior Overhangs and awnings | | 1 | l/s | | 25,000.00 | | | | | | | | \$25,000 |
| 12 | | | | | | | | | | | | | | |
| 13 | Building Lump Sum Allowances Sub-Total | | | | | | | | | | | | | \$25,000 |
| 14 | | | | | | | | | | | | | | |
| 15 | TOTAL BUILDING BEFORE MARKUPS | | | | 2,221 | | | | | | | | | \$5,028,000 |
| 16 | Location Factor | | | | | | | | | | | | 35.0% | \$1,760,000 |
| 17 | Overhead & Profit | | | | | | | | | | | | 15.0% | \$1,018,000 |
| 18 | Phasing Allowance | | | | | | | | | | | | 0.0% | \$0 |
| 19 | Building Design Contingency | | | | | | | | | | | | 15.0% | \$1,171,000 |
| 20 | Building Forward Escalation Allowance | | | | | | | | | | | | 0.0% | See Summary |
| 21 | Building Construction Contingency | | | | | | | | | | | | 0.0% | See Summary |
| 22 | | | | | | | | | | | | | | |
| 23 | ESTIMATED TOTAL - BUILDING | | | | | | | | | | | | | \$8,977,000 |
| 24 | On Site | | | | | | | | | | | | | |
| 25 | On site allowance including parking, hard and soft landscaping | | 3,327 | m2 | | 150.00 | | | | | | | | \$499,000 |
| 26 | Allowance for upgrading incoming services | | 1 | ls | | 130,000.00 | | | | | | | | \$130,000 |
| 27 | | | | | | | | | | | | | | |
| 28 | Site Sub-Total | | | | | | | | | | | | | \$629,000 |
| 29 | Location Factor | | | | | | | | | | | | 35.0% | \$220,000 |
| 30 | Overhead & Profit | | | | | | | | | | | | 15.0% | \$127,000 |
| 31 | Phasing Allowance | | | | | | | | | | | | 0.0% | \$0 |
| 32 | Site Design Contingency | | | | | | | | | | | | 15.0% | \$146,000 |
| 33 | Site Forward Escalation Allowance | | | | | | | | | | | | 0.0% | \$0 |
| 34 | Site Construction Contingency | | | | | | | | | | | | 0.0% | See Summary |
| 35 | | | | | | | | | | | | | | |
| 36 | ESTIMATED TOTAL - SITE | | | | | | | | | | | | | \$1,122,000 |
| 37 | | | | | | | | | | | | | | |
| 38 | ESTIMATED TOTAL CONSTRUCTION COST - OPTION 1 - BUILDING ADDITION POLARETTES | | | | | | | | | | | | | \$10,099,000 |

WHITEHORSE GYMNASISTICS AND CLIMBING FACILITY

CLASS "D" ESTIMATE (OPINION OF PROBABLE COSTS)

| Line Number | Description | Quantity | Unit | BGSM/ CGSM | Lump Sum Allowance | Architectural | Demolition | Structural | ESCS | Electrical | Mechanical | TOTAL EXCLUDING MARKUPS (rounded) | ESTIMATED VALUE EXCLUDING MARKUPS (rounded) |
|-------------|--|----------|-------|----------------|-----------------------|---------------|------------|------------|------|------------|------------|--|---|
| 1 | OPTION 2 - NEW SITE AND BUILDING - POLARETTES AND CLIMB YUKON | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | Base Building | NEW | | 2,637.0 | | 400.00 | 0.00 | 350.00 | 0.00 | 200.00 | 400.00 | 1,350.00 | \$3,560,000 |
| 4 | | | | | | | | | | | | | |
| 5 | Gymnastics/Climbing Gym Interior | NEW | | 2,637.0 | | 700.00 | 0.00 | 0.00 | 0.00 | 350.00 | 600.00 | 1,650.00 | \$4,351,000 |
| 6 | | | | | | | | | | | | | |
| 7 | TOTAL BUILDINGS | | | 2,637.0 | | | | | | | | | \$7,911,000 |
| 8 | | | | | | | | | | | | | |
| 9 | Building Lump Sum Allowances | | | | | | | | | | | | |
| 10 | Exterior Overhangs and awnings | | 1 | l/s | | | 25,000.00 | | | | | | \$25,000 |
| 11 | | | | | | | | | | | | | |
| 12 | Building Lump Sum Allowances Sub-Total | | | | | | | | | | | | \$25,000 |
| 13 | | | | | | | | | | | | | |
| 14 | TOTAL BUILDING BEFORE MARKUPS | | | 2,637 | | | | | | | | | \$7,936,000 |
| 15 | Location Factor | | | | | | | | | | | 35.0% | \$2,778,000 |
| 16 | Overhead & Profit | | | | | | | | | | | 15.0% | \$1,607,000 |
| 17 | Phasing Allowance | | | | | | | | | | | 0.0% | \$0 |
| 18 | Building Design Contingency | | | | | | | | | | | 15.0% | \$1,848,000 |
| 19 | Building Forward Escalation Allowance | | | | | | | | | | | 0.0% | See Summary |
| 20 | Building Construction Contingency | | | | | | | | | | | 0.0% | See Summary |
| 21 | | | | | | | | | | | | | |
| 22 | ESTIMATED TOTAL - BUILDING | | | | | | | | | | | | \$14,169,000 |
| 23 | On Site | | | | | | | | | | | | |
| 24 | Demolition EXCLUDED | | | m2 | | | | | | | | | \$0 |
| 25 | On site allowance including parking, hard and soft landscaping | | 4,007 | m2 | | 150.00 | | | | | | | \$601,000 |
| 26 | Allowance for incoming services | | 1 | ls | | 150,000.00 | | | | | | | \$150,000 |
| 27 | | | | | | | | | | | | | |
| 28 | Site Sub-Total | | | | | | | | | | | | \$751,000 |
| 29 | Location Factor | | | | | | | | | | | 35.0% | \$263,000 |
| 30 | Overhead & Profit | | | | | | | | | | | 15.0% | \$152,000 |
| 31 | Phasing Allowance | | | | | | | | | | | 0.0% | \$0 |
| 32 | Site Design Contingency | | | | | | | | | | | 15.0% | \$175,000 |
| 33 | Site Forward Escalation Allowance | | | | | | | | | | | 0.0% | \$0 |
| 34 | Site Construction Contingency | | | | | | | | | | | 0.0% | See Summary |
| 35 | | | | | | | | | | | | | |
| 36 | ESTIMATED TOTAL - SITE | | | | | | | | | | | | \$1,341,000 |
| 37 | | | | | | | | | | | | | |
| 38 | ESTIMATED TOTAL CONSTRUCTION COST OPTION 2 - NEW SITE AND BUILDING POLARETTES AND CLIMB YUKON | | | | | | | | | | | | |
| | | | | | | | | | | | | | \$15,510,000 |

WHITEHORSE GYMNASTICS AND CLIMBING FACILITY

CLASS "D" ESTIMATE (OPINION OF PROBABLE COSTS)

| Line Number | Description | Quantity | Unit | BGSM/CGSM | Lump Sum Allowance | Architectural | Demolition | Structural | ESCS | Electrical | Mechanical | TOTAL EXCLUDING MARKUPS (rounded) | ESTIMATED VALUE EXCLUDING MARKUPS (rounded) |
|-------------|---|----------|-------|----------------|--------------------|---------------|------------|------------|------|------------|------------|-----------------------------------|---|
| 1 | OPTION 3 - NEW SITE AND BUILDING POLARETTES AND CLIMB YUKON (SPACE EFFICIENCIES) | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | Base Building | NEW | | 2,568.0 | | 400.00 | 0.00 | 350.00 | 0.00 | 200.00 | 400.00 | 1,350.00 | \$3,467,000 |
| 4 | | | | | | | | | | | | | |
| 5 | Gymnastics/Climbing Gym Interior | NEW | | 2,568.0 | | 700.00 | 0.00 | 0.00 | 0.00 | 350.00 | 600.00 | 1,650.00 | \$4,237,000 |
| 6 | | | | | | | | | | | | | |
| 7 | TOTAL BUILDINGS | | | 2,568.0 | | | | | | | | | \$7,704,000 |
| 8 | | | | | | | | | | | | | |
| 9 | Building Lump Sum Allowances | | | | | | | | | | | | |
| 10 | Exterior Overhangs and awnings | | 1 | l/s | | | 25,000.00 | | | | | | \$25,000 |
| 11 | | | | | | | | | | | | | |
| 12 | Building Lump Sum Allowances Sub-Total | | | | | | | | | | | | \$25,000 |
| 13 | | | | | | | | | | | | | |
| 14 | TOTAL BUILDING BEFORE MARKUPS | | | 2,568 | | | | | | | | | \$7,729,000 |
| 15 | Location Factor | | | | | | | | | | | 35.0% | \$2,705,000 |
| 16 | Overhead & Profit | | | | | | | | | | | 15.0% | \$1,565,000 |
| 17 | Phasing Allowance | | | | | | | | | | | 0.0% | \$0 |
| 18 | Building Design Contingency | | | | | | | | | | | 15.0% | \$1,800,000 |
| 19 | Building Forward Escalation Allowance | | | | | | | | | | | 0.0% | See Summary |
| 20 | Building Construction Contingency | | | | | | | | | | | 0.0% | See Summary |
| 21 | | | | | | | | | | | | | |
| 22 | ESTIMATED TOTAL - BUILDING | | | | | | | | | | | | \$13,799,000 |
| 23 | On Site | | | | | | | | | | | | |
| 24 | Demolition EXCLUDED | | 0 | m2 | | | 0.00 | | | | | | \$0 |
| 25 | On site allowance including parking, hard and soft landscaping | | 3,948 | m2 | | | 150.00 | | | | | | \$592,000 |
| 26 | Allowance for incoming services | | 1 | ls | | | 150,000.00 | | | | | | \$150,000 |
| 27 | | | | | | | | | | | | | |
| 28 | Site Sub-Total | | | | | | | | | | | | \$742,000 |
| 29 | Location Factor | | | | | | | | | | | 35.0% | \$260,000 |
| 30 | Overhead & Profit | | | | | | | | | | | 15.0% | \$150,000 |
| 31 | Phasing Allowance | | | | | | | | | | | 0.0% | \$0 |
| 32 | Site Design Contingency | | | | | | | | | | | 15.0% | \$173,000 |
| 33 | Site Forward Escalation Allowance | | | | | | | | | | | 0.0% | \$0 |
| 34 | Site Construction Contingency | | | | | | | | | | | 0.0% | See Summary |
| 35 | | | | | | | | | | | | | |
| 36 | ESTIMATED TOTAL - SITE | | | | | | | | | | | | \$1,325,000 |
| 37 | | | | | | | | | | | | | |
| 38 | ESTIMATED TOTAL CONSTRUCTION COST - OPTION 3 - NEW SITE AND BUILDING POLARETTES AND CLIMB YUKON (SPACE EFFICIENCIES) | | | | | | | | | | | | |

APPENDIX G – ECONOMIC IMPACT ASSESSMENT TABLES

EVENT INFO

Provincial sport Organization info/ stats. These numbers apply to the responses below:

394 registered athletes

80% Youth

20% Adult (18+)

40 registered coaches

Type of Event (youth participant, adult participant, or general/mixed):

Types of events that bring people from out of town to the gym:

Climbing competition Local:

a) 50-250 participants mixed + parents, spouses, children, siblings, friends (spectating) + 20-40 officials + volunteers

- Attendees (regardless of role) come from Alberta, Manitoba, Saskatchewan, BC and some small numbers from the USA

b) OR if youth specific event ~300 participants + parents and siblings + 20-40 officials / volunteers

- Attendees (regardless of role) come from Alberta, Manitoba, Saskatchewan, BC and some small numbers from the USA

Climbing competition provincial

a) 100-150 participants mixed + parents, spouses, children, siblings, friends (spectating) + 20-30 officials + volunteers

- Attendees (regardless of role) come from Alberta, Manitoba, Saskatchewan, BC and some small numbers from the USA

b) OR if youth specific event ~300 participants + parents and siblings + 20-40 officials + volunteers

- Attendees (regardless of role) come from Alberta, Manitoba, Saskatchewan, BC and some small numbers from the USA

Climbing competition National

2019 Open bouldering nationals (adult): 97 participants + 60 officials / volunteers / coaches + 200 spectators

Clinic / Camp

10-40 participants + 2-4 coaches + 3-5 setters

- Attendees (regardless of role) come from Alberta, Manitoba, Saskatchewan, BC, Ontario, Quebec, Maritimes and some small numbers from the USA

Scope of Event (Regional/National/International):

PARTICIPANTS

From the 2015 Bouldering World Cup in Toronto (lead climbing would bring way more people)

Number of participants (includes coaches and officials): ?
Number of out of town participants: ?
Percentage of out of town participants staying overnight: ?

IF INTERNATIONAL: (all based on qualifying quotas)

Number of participants from Canada: 38
Number of participants from US: 14
Number of participants from Overseas: 93

IF REGIONAL OR NATIONAL:

Number of participants from other Yukon communities (outside Whitehorse): (see above)
Number of participants from other provinces/territories: ?

Is any portion of the event covered by local organizers? (ie. hotel, food or local transportation)
Event is funded by the host gym with some contribution by the CECs main sponsor MEC.

SPECTATORS

Number of spectators (family travelling with, local spectators): Depends on advertising?
Number of out of town spectators: ~60 of # of competitors
Percentage of out of town spectators staying overnight: All

IF INTERNATIONAL:

Number of spectators from Canada: 60%?
Number of spectators from US: 10% of # of competitors
Number of spectators from Overseas: ? 30% of # of competitors? (Mostly coaches and support team)

IF REGIONAL OR NATIONAL:

Number of spectators from other Yukon communities (outside Whitehorse): ?
Number of spectators from other provinces/territories: ?

| Table #1(A) - Economic Impact Summary - Combined Total: | Whitehorse (CA) | Yukon | Canada |
|--|------------------------|------------------|------------------|
| (Dollars) | | | |
| Initial Expenditure | \$153,509 | \$153,509 | \$153,509 |
| Gross Domestic Product (at basic prices) | | | |
| Direct Impact | \$67,841 | \$70,743 | \$70,743 |
| Indirect Impact | \$7,532 | \$11,703 | \$38,426 |
| Induced Impact | \$11,717 | \$16,182 | \$35,436 |
| Total Impact | \$87,090 | \$98,628 | \$144,606 |
| Total/Direct (A) | 1.28 | 1.39 | 2.04 |
| Total/Initial (B) | 0.57 | 0.64 | 0.94 |
| Wages & Salaries | | | |
| Direct Impact | \$51,561 | \$53,585 | \$53,585 |
| Indirect Impact | \$4,484 | \$6,877 | \$22,678 |
| Induced Impact | \$3,354 | \$5,017 | \$15,221 |
| Total Impact | \$59,399 | \$65,479 | \$91,484 |
| Total/Direct (A) | 1.15 | 1.22 | 1.71 |
| Total/Initial (B) | 0.39 | 0.43 | 0.60 |
| Employment (full-year jobs) | | | |
| Direct Impact | 1.0 | 1.0 | 1.0 |
| Indirect Impact | 0.1 | 0.1 | 0.3 |
| Induced Impact | 0.1 | 0.1 | 0.2 |
| Total Impact | 1.1 | 1.2 | 1.5 |
| Total/Direct (A) | 1.12 | 1.16 | 1.52 |
| Total/\$1 Million (B) | 7.22 | 7.67 | 10.08 |
| Taxes (Direct Impact) | | | |
| Federal | \$13,850 | \$14,115 | \$14,115 |
| Provincial | \$6,935 | \$8,946 | \$7,200 |
| Municipal | \$3,392 | \$1,724 | \$3,469 |
| Total | \$24,177 | \$24,785 | \$24,785 |
| Taxes (Direct, Indirect and Induced Impact) | | | |
| Federal | \$15,923 | \$17,211 | \$21,671 |
| Provincial | \$8,485 | \$11,276 | \$13,795 |
| Municipal | \$4,006 | \$2,622 | \$5,632 |
| Total | \$28,415 | \$31,110 | \$41,098 |
| Industry Output | | | |
| Direct & Indirect | \$170,200 | \$181,816 | \$239,431 |
| Induced Impact | \$16,735 | \$23,112 | \$59,317 |
| Total Impact | \$186,935 | \$204,928 | \$298,748 |
| Total/Initial (B) | 1.22 | 1.33 | 1.95 |

| Table #1(A) - Economic Impact Summary - Combined Total: | Whitehorse (CA) | Yukon | Canada |
|--|------------------------|------------------|------------------|
| (Dollars) | | | |
| Initial Expenditure | \$224,317 | \$224,317 | \$224,317 |
| Gross Domestic Product (at basic prices) | | | |
| Direct Impact | \$100,025 | \$103,917 | \$103,917 |
| Indirect Impact | \$11,214 | \$17,426 | \$57,321 |
| Induced Impact | \$17,401 | \$24,009 | \$52,659 |
| Total Impact | \$128,640 | \$145,352 | \$213,898 |
| Total/Direct (A) | 1.29 | 1.40 | 2.06 |
| Total/Initial (B) | 0.57 | 0.65 | 0.95 |
| Wages & Salaries | | | |
| Direct Impact | \$76,940 | \$79,606 | \$79,606 |
| Indirect Impact | \$6,687 | \$10,244 | \$33,850 |
| Induced Impact | \$4,984 | \$7,444 | \$22,622 |
| Total Impact | \$88,611 | \$97,293 | \$136,078 |
| Total/Direct (A) | 1.15 | 1.22 | 1.71 |
| Total/Initial (B) | 0.40 | 0.43 | 0.61 |
| Employment (full-year jobs) | | | |
| Direct Impact | 1.5 | 1.5 | 1.5 |
| Indirect Impact | 0.1 | 0.1 | 0.5 |
| Induced Impact | 0.1 | 0.1 | 0.3 |
| Total Impact | 1.7 | 1.8 | 2.3 |
| Total/Direct (A) | 1.12 | 1.16 | 1.53 |
| Total/\$1 Million (B) | 7.38 | 7.82 | 10.28 |
| Taxes (Direct Impact) | | | |
| Federal | \$20,399 | \$20,752 | \$20,752 |
| Provincial | \$10,290 | \$13,156 | \$10,645 |
| Municipal | \$4,914 | \$2,505 | \$5,016 |
| Total | \$35,603 | \$36,413 | \$36,413 |
| Taxes (Direct, Indirect and Induced Impact) | | | |
| Federal | \$23,492 | \$25,363 | \$31,989 |
| Provincial | \$12,595 | \$16,620 | \$20,463 |
| Municipal | \$5,826 | \$3,839 | \$8,223 |
| Total | \$41,913 | \$45,822 | \$60,675 |
| Industry Output | | | |
| Direct & Indirect | \$249,455 | \$266,562 | \$352,732 |
| Induced Impact | \$24,853 | \$34,291 | \$88,147 |
| Total Impact | \$274,308 | \$300,853 | \$440,880 |
| Total/Initial (B) | 1.22 | 1.34 | 1.97 |

| Table #1(A) - Economic Impact Summary - Combined Total: | Whitehorse (CA) | Yukon | Canada |
|--|------------------------|--------------|---------------|
| (Dollars) | | | |
| Initial Expenditure | \$566,236 | \$566,236 | \$566,236 |
| Gross Domestic Product (at basic prices) | | | |
| Direct Impact | \$218,157 | \$229,788 | \$229,788 |
| Indirect Impact | \$40,774 | \$60,134 | \$142,309 |
| Induced Impact | \$39,096 | \$54,349 | \$114,018 |
| Total Impact | \$298,027 | \$344,272 | \$486,116 |
| Total/Direct (A) | 1.37 | 1.50 | 2.12 |
| Total/Initial (B) | 0.53 | 0.61 | 0.86 |
| Wages & Salaries | | | |
| Direct Impact | \$168,711 | \$176,628 | \$176,628 |
| Indirect Impact | \$22,422 | \$34,000 | \$82,728 |
| Induced Impact | \$11,134 | \$16,850 | \$48,481 |
| Total Impact | \$202,267 | \$227,478 | \$307,837 |
| Total/Direct (A) | 1.20 | 1.29 | 1.74 |
| Total/Initial (B) | 0.36 | 0.40 | 0.54 |
| Employment (full-year jobs) | | | |
| Direct Impact | 3.2 | 3.3 | 3.3 |
| Indirect Impact | 0.3 | 0.5 | 1.2 |
| Induced Impact | 0.2 | 0.3 | 0.7 |
| Total Impact | 3.7 | 4.0 | 5.2 |
| Total/Direct (A) | 1.16 | 1.22 | 1.59 |
| Total/\$1 Million (B) | 6.51 | 7.03 | 9.12 |
| Taxes (Direct Impact) | | | |
| Federal | \$45,618 | \$46,722 | \$46,722 |
| Provincial | \$21,671 | \$27,581 | \$22,698 |
| Municipal | \$9,918 | \$5,343 | \$10,226 |
| Total | \$77,206 | \$79,646 | \$79,646 |
| Taxes (Direct, Indirect and Induced Impact) | | | |
| Federal | \$54,166 | \$59,139 | \$72,897 |
| Provincial | \$28,658 | \$37,623 | \$45,846 |
| Municipal | \$12,766 | \$9,428 | \$18,199 |
| Total | \$95,590 | \$106,190 | \$136,941 |
| Industry Output | | | |
| Direct & Indirect | \$623,256 | \$660,811 | \$837,066 |
| Induced Impact | \$55,839 | \$77,624 | \$189,851 |
| Total Impact | \$679,094 | \$738,435 | \$1,026,917 |
| Total/Initial (B) | 1.20 | 1.30 | 1.81 |

| Table #1(A) - Economic Impact Summary - Visitor: | Whitehorse (CA) | Yukon | Canada |
|---|------------------------|--------------|---------------|
| (Dollars) | | | |
| Initial Expenditure | \$438,536 | \$438,536 | \$438,536 |
| Gross Domestic Product (at basic prices) | | | |
| Direct Impact | \$195,159 | \$202,866 | \$202,866 |
| Indirect Impact | \$21,905 | \$34,036 | \$111,891 |
| Induced Impact | \$33,946 | \$46,848 | \$102,757 |
| Total Impact | \$251,010 | \$283,750 | \$417,514 |
| Total/Direct (A) | 1.29 | 1.40 | 2.06 |
| Total/Initial (B) | 0.57 | 0.65 | 0.95 |
| Wages & Salaries | | | |
| Direct Impact | \$150,077 | \$155,369 | \$155,369 |
| Indirect Impact | \$13,063 | \$20,013 | \$66,088 |
| Induced Impact | \$9,721 | \$14,524 | \$44,143 |
| Total Impact | \$172,862 | \$189,906 | \$265,600 |
| Total/Direct (A) | 1.15 | 1.22 | 1.71 |
| Total/Initial (B) | 0.39 | 0.43 | 0.61 |
| Employment (full-year jobs) | | | |
| Direct Impact | 3.0 | 3.1 | 3.1 |
| Indirect Impact | 0.2 | 0.3 | 0.9 |
| Induced Impact | 0.2 | 0.2 | 0.7 |
| Total Impact | 3.4 | 3.6 | 4.7 |
| Total/Direct (A) | 1.12 | 1.16 | 1.53 |
| Total/\$1 Million (B) | 7.68 | 8.13 | 10.69 |
| Taxes (Direct Impact) | | | |
| Federal | \$39,824 | \$40,525 | \$40,525 |
| Provincial | \$20,062 | \$25,647 | \$20,764 |
| Municipal | \$9,570 | \$4,890 | \$9,773 |
| Total | \$69,456 | \$71,063 | \$71,063 |
| Taxes (Direct, Indirect and Induced Impact) | | | |
| Federal | \$45,858 | \$49,521 | \$62,457 |
| Provincial | \$24,561 | \$32,409 | \$39,924 |
| Municipal | \$11,350 | \$7,495 | \$16,032 |
| Total | \$81,769 | \$89,426 | \$118,413 |
| Industry Output | | | |
| Direct & Indirect | \$487,560 | \$521,022 | \$689,113 |
| Induced Impact | \$48,484 | \$66,910 | \$172,007 |
| Total Impact | \$536,044 | \$587,933 | \$861,121 |
| Total/Initial (B) | 1.22 | 1.34 | 1.96 |

| Table #1(A) - Economic Impact Summary - Combined Total: | Whitehorse (CA) | Yukon | Canada |
|--|------------------------|-----------------|-----------------|
| (Dollars) | | | |
| Initial Expenditure | \$11,102 | \$11,102 | \$11,102 |
| Gross Domestic Product (at basic prices) | | | |
| Direct Impact | \$4,802 | \$5,044 | \$5,044 |
| Indirect Impact | \$544 | \$841 | \$2,735 |
| Induced Impact | \$811 | \$1,122 | \$2,469 |
| Total Impact | \$6,156 | \$7,007 | \$10,249 |
| Total/Direct (A) | 1.28 | 1.39 | 2.03 |
| Total/Initial (B) | 0.55 | 0.63 | 0.92 |
| Wages & Salaries | | | |
| Direct Impact | \$3,577 | \$3,746 | \$3,746 |
| Indirect Impact | \$325 | \$498 | \$1,617 |
| Induced Impact | \$232 | \$348 | \$1,061 |
| Total Impact | \$4,134 | \$4,592 | \$6,424 |
| Total/Direct (A) | 1.16 | 1.23 | 1.71 |
| Total/Initial (B) | 0.37 | 0.41 | 0.58 |
| Employment (full-year jobs) | | | |
| Direct Impact | 0.1 | 0.1 | 0.1 |
| Indirect Impact | 0.0 | 0.0 | 0.0 |
| Induced Impact | 0.0 | 0.0 | 0.0 |
| Total Impact | 0.1 | 0.1 | 0.1 |
| Total/Direct (A) | 1.12 | 1.16 | 1.52 |
| Total/\$1 Million (B) | 7.03 | 7.50 | 9.84 |
| Taxes (Direct Impact) | | | |
| Federal | \$990 | \$1,012 | \$1,012 |
| Provincial | \$491 | \$627 | \$513 |
| Municipal | \$231 | \$124 | \$238 |
| Total | \$1,712 | \$1,763 | \$1,763 |
| Taxes (Direct, Indirect and Induced Impact) | | | |
| Federal | \$1,135 | \$1,229 | \$1,545 |
| Provincial | \$601 | \$791 | \$977 |
| Municipal | \$274 | \$187 | \$390 |
| Total | \$2,010 | \$2,207 | \$2,912 |
| Industry Output | | | |
| Direct & Indirect | \$12,284 | \$13,126 | \$17,177 |
| Induced Impact | \$1,158 | \$1,602 | \$4,133 |
| Total Impact | \$13,441 | \$14,728 | \$21,310 |
| Total/Initial (B) | 1.21 | 1.33 | 1.92 |