Construction Ready Environmental Scan: Final Report

October 2017

Canada

BRITISH COLUMBIA

Funding provided through the Canada-British Columbia Labour Market Development Agreement.

CONSTRUCTION FOUNDATION OF BC

The views and opinions expressed in this report are those of its author(s) and not the official policy or position of the Government of British Columbia.

The Construction Ready Environmental Scan was produced in 2017 by the Construction Foundation of BC. For additional information on the Foundation please visit www.ConstructionFoundation.ca or contact info@constructionfoundation.ca.

Final Report - Executive Summary

The Construction Ready Environmental Scan has identified that there is a desire to implement collaborative projects in the Lower Mainland and Northern BC that improve the success of youth transitioning from secondary school to employment. There is significant variation in the opportunities available in each area and planning for an implementation phase can be summarized as determined by focusing on three elements: structural factors, system factors and people. Implementation would make use of the existing Construction Ready model, but would require an increased focus on other activities that get young people interested in trades careers, specifically hands on learning, short-term work experiences, and connection to employers prior to graduation. Depending on the community, each approach would be customized to best suit the audiences.

The scan utilized distance outreach, including phone interviews and online surveys, and in person contact, including interviews, round tables and forums, to gather data from 30 school districts, 65 educators, and 55 employers. Group consultation was conducted with approximately 100 youth across both regions.

Community visits were initiated with six First Nations communities, although only three were successfully undertaken. There is growing interest amongst First Nations schools to provide more applied learning and trades discovery options to students. A model of strong partnership networks amongst education and industry stakeholders, flexible implementation solutions, and a creative engagement process based on a version of Construction Ready that relies on identity as the starting point for the Industry ASK, were all identified as key elements of any future implementation development. For example, engagement with First Nations schools identified a need to modify the communication materials and methodology used in implementation.

Based on scan data, provincial implementation represents an opportunity to develop a Skills Ready initiative that is inclusive of multiple trades and technologies sectors. This would be a collaborative project that would use hands on learning and the core Attitude, Skills and Knowledge attributes as the starting point for awareness and readiness related activities. As students gain experience with applied skills, they can start to explore careers in multiple sectors, linking their personal interests and available local employment together to form a continuous pathway through school from discovery into apprenticeship. Implementing Skills Ready as a workforce development solution would require collaboration between multiple industry sectors be implemented over time based on resources available through industry contributions and support from government and other funders.

We are at a critical juncture in BC for this kind of project. Many sectors are facing skills shortages and there is a significant need for creative solutions that bridge the gap between school and employment. The scan identified 3 key opportunities that lay the groundwork for provincial expansion of the model: new curriculum in careers and applied skills, design and technologies, a growing interest from industries in engaging the next generation, and the programming in place to support trades training early. Bringing these together will be critical for workforce development.

The missing piece is a catalyst for change in the way that industry, educators and youth connect.

Based on the research undertaken from the scan, the following key findings are presented:

1. There is significant diversity in the opportunities available for young people in each region and community. These can be summarized as structural factors (geography, demographics and local economies), systems (education, training and HR practices), and people (educator and employer leadership, young people's experiences, and others).
2. Many regions in both the Lower Mainland and the North are experiencing skills shortages across many trades and technologies sectors. Most sectors engaged depend on the same core competencies and transferable skills identified in the Industry ASK.
3. Labour and skill shortages are leading to an increase in interest from employers and industries in engaging young people. This also includes modifications to hiring, training and employment practices, amongst employers in several sectors.
4. Industry in all regions examined expressed an interest to hire high school graduates to meet current and foreseeable labour shortages.
5. All school districts engaged are seeking additional linkages to industry to improve experiential learning and employment outcomes for secondary school students. This is a key gap in school based programming in almost every community.
6. While most school districts offer a common set of programs, there is significant variation in how these programs are run and the diversity of trades that are accessible to young people in any given year.
7. Changes to Careers and Applied Skills, Design and Technologies curriculum, including the addition of two careers classes, present a unique opportunity to increase industry involvement in classroom learning in the secondary school environment.
8. Parent engagement is a critical factor in supporting student pursuit of trades and the transition into training and employment opportunities.
9. Modifying FutureBuilder to be relevant in other regions would require minimal content changes. The tool has been met with positive reception; especially as a digital portfolio project and networking resource.
10. The Construction Ready model can be utilized to effectively engage youth facing barriers to trades entry – including youth in care, young women, and First Nations learners. A support network approach which brings employers, social services, schools, and community resources together could provide early intervention through skills learning and connection to apprenticeship.
11. First Nations schools are offering an increasing number of opportunities for applied learning, and there is significant interest in working collaboratively to increase career exploration and trades discovery. Several barriers exist to increasing these opportunities.
12. While the core concepts in the Industry ASK are relevant in most school contexts examined, modification of the Construction Ready implementation model and communication materials should be made to ensure they resonate and have relevance for all students in urban, rural and First Nations communities.

Based on these findings, the following recommendations are made:

1. Continue the momentum created by Construction Ready. As part of this project:
    a. Implement operations across the province using a network of Catalysts.
    b. Maintain a view to long term sustainability by:
        i. Transitioning to industry funding where possible;
        ii. Seeking funding for ongoing implementation for programming targeted at empowering vulnerable groups;
        iii. Generating industry grants for youth employability.
    c. Evolve into Skills Ready, which would:
        i. Increase linkages with Skills Canada BC;
        ii. Adapt the Construction Ready model to be a youth and industry engagement project that builds multiple sector collaboration to promote trades and technologies careers;
        iii. Use transferable skills and core competencies of the Industry ASK as a starting point for employability;
        iv. Gradually encourage young people into a sector specific focus over time as they gain experiences and awareness of their options.
    d. Create more opportunities for career exploration through experiential learning by:
        i. Developing a stronger employer and educator network across all of BC;
        ii. Improving opportunities for onsite experiences in multiple sectors;
        iii. Articulating a cohesive pathway model for trades discovery and training that coordinates industry participation at multiple points over many years;
        iv. Utilizing industry leadership to encourage students in grades 9 and 10 to access school based exploration and training programs;
        v. Engaging industry groups to improve the link between school based awareness activities and employment;
        vi. Where possible, enabling industry leadership to promote applied learning and trades and technology careers to young women through mentorship.
    e. Improve parent awareness of skills and trade careers through new communication materials and engagement of parent groups in elementary schools.
2. Monitor how and where activities demonstrate industry or public good, prioritize resources according to strong and weak spots.
    a. Use FutureBuilder to implement multi-year monitoring. Use indicators that track increased interest, employment attachment, and apprenticeship progression.
3. Work with First Nations schools and community leadership to develop a partnership that promotes applied learning and connection to employment. This will require creative solutions, developed in partnership, that account for variations in resources, facilities and capacity in each school.
4. Develop a strong provincial network of community groups, employers and educators that support youth looking to transition to employment and training away from their home communities. Focus on apprenticeship where possible.

Contents

Introduction

The Sector Labour Market Partnership Program has enabled exploration of the opportunities and limitations for expansion of the Construction Ready model in the Lower Mainland and Northern BC, as well as six First Nations communities across the province. The scan utilized a range of research collection methods, including phone interviews and online surveys, and in person contact, including interviews, round tables and forums, to gather data from 30 school districts, 65 educators, and 55 employers. Group consultation was conducted with approximately 100 youth total in both regions.

This document is divided into three sections: the first is a summary of findings in the Lower Mainland and Northern BC. This includes consideration for three elements that will affect implementation: structural factors, system factors and people factors. The second section identifies the findings from outreach to First Nations schools in six communities. The third section describes a full provincial implementation plan, from which different components can be implemented over time based on resources available through partnership with government, as well as through contributions from industry.

Section 1: Summary of Scan Activities – Lower Mainland & Northern BC

Through the course of this scan, the Construction Foundation of BC (CFBC) engaged employers, educators, youth, industry associations, and other organizations to examine how the Construction Ready model could be implemented in Northern BC and the Lower Mainland.

This section explains the scan approach, employer and educator engagement outcomes and offers a high-level summary of regional data for the Lower Mainland and the North based on the lines of inquiry identified in the original workplan. The lines of inquiry are attached in Appendix 1. This section also suggests an updated theoretical model for operations planning in each community. The model represents an improvement over previous pilot methodology as it provides an easier way to anticipate barriers and prioritize resources.

The findings from the research are used to assess potential implementation in each regional area on a scale from *development needed* to *very ready*. While it is not an exhaustive ranking, it uses the updated planning methodology to identify a starting point for any potential operations in each area.

Scan Methodology

The intention with environmental scan is to determine where implementation of the Construction Ready pilot has the greatest potential impact and how to adapt the existing tools to circumstances across the province.

Throughout the process, several critical factors have been explored that could potentially impact implementation activities.

1. Existing partnerships between industry and secondary schools;
2. Collaborations between post-secondary and secondary education for the delivery of trades training to secondary students;
3. Linkages to employment and the potential for transitions into apprenticeship following graduation;
4. Barriers to work experience and employment faced by secondary school graduates;
5. Opportunities for broader parent and community engagement to encourage a deeper awareness of construction career potential and realities;
6. Key strategies for increasing awareness and employment readiness using existing programming, community based learning, and education available;
7. Potential collaborators, champions, and employer advocates in each region;
8. Possible adaptions to the FutureBuilder online tool to account for unforeseen variations at the community level.

For a complete summary of the lines of inquiry, which were used as the basis for all interview schedules and consultation activities, please see the attached Appendix 1.

Information Gathering and Analysis

The environmental scan in Northern BC and the Lower Mainland depended on a qualitative process which gathered data from a variety of primary sources and key informants. This process utilized a methodology informed from community and international development literature which suggests a participatory approach that is inclusive of those who will be impacted by the research and the outcomes that result from it. This methodology was most appropriate for the scan outreach and engagement activities as many individuals in the process are active stakeholders in both existing CFBC initiatives and potential Construction Ready implementation activities. As the process relied on information gathering in addition to collaborative problem solving and implementation brainstorming, the narrative contained in this report can be viewed as a first step in the development of collaborative solutions for resolving skill shortages and removing barriers to youth employability.

The following methods were used:

- Phone interviews with employers and educators[1] across the North and Lower Mainland.
- In person interviews with employers, educators and community organizations in the North and Lower Mainland.
- School Visits in Vancouver, Prince George, Terrace, New Westminster, Powell River and Hagensborg, including youth consultation in three schools.
- Educator roundtable in Vancouver.
- Online employer roundtable inclusive of employers working across the greater Vancouver regional area and into the Fraser Valley.
- Employer and educator forums in Burnaby and Prince George.
- Participation in Ministry of Education events for career educators, including hosting discussions on the Industry ASK and Construction Ready strategies.
- Interviews with key informants.
- In person and telephone discussions with individuals from associations and organizations representing different sectors, including aviation, oil and gas, hospitality, technologists and technicians, IT, manufacturing and forestry.

For a summary of educator and employer engagement, please see attached Appendices 2 and 3.

An analysis of secondary source data and reports, as well as analysis of CFBC granting data, was undertaken. An additional survey of entry level and first year apprentice job postings across sectors was undertaken to identify variation between employer expectations based on sector. Secondary data included publicly available sources published by the Industry Training Authority, BuildForce Canada, Work BC, the Ministry of Education and individual school districts.

[1] Educators in this context refers to both secondary and post-secondary teachers and includes trades instructors, administrators, shop teachers and careers educators.

Employer Engagement Outcomes

Several strategies for employer engagement were undertaken. These include phone interviews, in person consultation, online roundtables and the two regional forums. Feedback from employers focused on validating the materials produced so far and identifying modifications, generating initial commitment to participate in implementation and to identify regional labour market data that may affect implementation planning. Additionally, a survey of job postings was undertaken to validate that there were common requirements in entry level and apprenticeship postings across sectors. A total of 54 employers participated in depth interviews, forums or roundtable discussions in the three target regions of the Lower Mainland, North West and North East. The majority of employers interviewed operated primarily in the construction sector, while around 25% also provided services in other sectors as well including manufacturing, forestry, automotive, marine repair, and oil and gas. Ten Employers operated primarily in manufacturing, oil and gas, or automotive.

> "If we had two freshly graduated students both looking for work – the one with their level 1 first aid certificate would immediately be put at the top of the pile."
>
> *Cathy, Provincial Road Building Employer*

The employers most engaged in the scan have been those that are already interested in working with youth. Phone interviews were used to ensure that a variety of industry perspectives were gathered. Employers validated that the Industry ASK is accurate and that the attitude components are the most important consideration when hiring youth. Safety certifications were often cited in the North – especially Construction Safety Training Systems and first aid – whereas Lower Mainland employers identified these as a bonus. In most communities, small and medium sized construction employers are the most significant linkage to employment and apprenticeship both prior to and following secondary school graduation. Some large industry employers provide stable opportunities year on year, while others will take on very few apprentices. Linkages to apprenticeship are strongest in locations where there is a long-established relationship between representatives of industry, post-secondary and secondary schools. Northern Opportunities out of the Peace Region has historically been a shining example of this. In communities where there is minimal construction activity, or the construction industry is predominantly residential, students are not likely to engage with employers until after graduation.

Approximately 20% of the employers engaged provide services to multiple sectors – especially in Northern BC. Most often they were a combination of construction and manufacturing, or oil and gas. Interviews with other sector employers were undertaken through the forums, discussion with other industry organizations, and employer phone calls. These initial discussions have identified that the industry ASK concept has applicability across sectors, in particular the Attitude attributes. Employers observed that even the skill specific attributes identified in the ASK have application for most trades reliant sectors. Employers across sectors are struggling to find young people who are work ready and interested in trades employment.

Amongst employers engaged, awareness of school programs, particularly ITA Youth programs, was higher than expected. However, understanding how to engage with schools remained low. In the

Lower Mainland, some employers are directly contacting schools to seek young workers, but this is having mixed results depending on who they are connecting with at the schools when they reach out. Most employers are not able to identify how they can make available secondary school programming work for them, though several have expressed an interest in offering work experience that turns into full time employment. There is an interest from industry across BC to support awareness activities, to develop interest in trades jobs, and to offer work experience and direct to apprenticeship opportunities to the right candidate. In terms of employer size, most small companies were interested in offering experience more than awareness activities, whereas larger companies could commit to offering more regular and structured opportunities. Almost all employers wanted to share their personal experience with students.

> "Our main concern when hiring is attitude. The rest isn't important to us"
>
> *Kevin, Lower Mainland Contractor*

In addition to employer engagement, a survey of 50 active entry level and first year apprenticeship job postings was conducted. This included not only construction, but a variety of other sectors including manufacturing, marine and automotive. Postings shared some common themes and all required soft skills that have previously been identified in the Attitude attributes of the Industry ASK material. Being motivated, trustworthy, and physically fit, were the most commonly sought attributes. Drivers licenses and WHMIS were the most frequently cited requirements, with driver's license a requirement in 60% of postings. This was less frequently required in the Lower Mainland than other parts of the province. This initial summary indicates that there are common core attributes and requirements for most entry level trades jobs.

The following key learnings can be identified:

1. All 30 employers asked view attitude as the essential core competency that they look for when hiring.
2. Industry in areas facing skills shortages are more interested in being involved in implementation than areas where skills shortages aren't as severe.
3. Industry led outreach is happening in some areas, though there is work to be done to transform outreach into employment.
4. 48 of the employers engaged are willing to hire young people straight out of high school, though some expect safety training or impose age limitations (for example: minimum age of 19 years to be on site).
5. The Industry ASK has potential to be used to communicate employability attributes for new workers across most trades and applied technologies sectors (including drilling technicians and engineering technologists and technicians).
6. At least ten construction employers, including three who work in manufacturing as well, described how they are starting to modify how they hire, employ and train young people. This includes strategies other than wage incentives that make jobs attractive.
7. Poaching and concerns about young workers moving on shortly after training was expressed in all forums – especially amongst small and medium sized employers.
8. Employers are struggling to identify ways to engage young people to be interested in employment in most menial and entry level trades positions.

Educator Engagement Outcomes

Several activities were completed as a part of the educator engagement, including phone interviews using a structured question schedule, in person interviews, roundtables and forums. Connection was possible with educators in all but two of the Lower Mainland and North districts. A total of 30 districts provided data, with shop teachers, career counselors and administrators providing insight. A total of 39 educators provided information through interviews or in person engagement, with data analysis from CFBC data sources available from an additional 23 educators.

Educator engagement identified where the existing model could be implemented as well as where adaptations could be made. Several opportunities have been identified, and some can use existing partnerships or community based initiative. Examples of these partnerships include, the Vancouver Regional Construction Association's education committee's presentations in schools across the Lower Mainland, Northern Regional Construction Association's Heavy Metal Rocks which provides intensive hands on trades experience, and the Northern Opportunities initiative that was created in the Peace Region.

Educators identified limitations and opportunities within their district and provided feedback on FutureBuilder activities and use as a classroom tool in school programming. Most districts engaged are interested in developing a stronger partnership with industry and employers as part of building more cohesive careers programming. Based on feedback from career educators, there is great value in broadening the entry point from a specific sector to transferable skills – to switch from Construction Ready as the starting point, to Skills Ready.

This conclusion responds to two key findings. The first is that young people are going through a process of personal discovery at the same time as they are identifying their next steps. Using skills exploration and the core competencies of the Industry ASK as a starting point, we can empower young people to realize a personal capacity first and enter sector employment as experiences are acquired. As skills are often transferable over a lifetime, but especially in the first stages of development, approaching the project from a broader multi-sector view is both reflective of the economic outlook for BC and responsive to a young person's discovery process.

> "A lot of career awareness has to start at school. If you can get industry on board, they have an influence."
>
> *Mike, Educator Northwest BC*

Second, with the pending implementation of the Ministry of Education new careers curriculum in September 2018, there is an opportunity to coordinate meaningful career exploration using industry leadership. There may be a limited amount of space in schools for industry engagement on career discovery. Building a collaborative approach that is inclusive of several industries that rely on trades and technologies means that a coherent and consistent message can be provided to young people.

Several educators observed that where there have been multiple demands placed on the education system from industries outreach, doors have closed permanently as too much of the demand overwhelm educator time – especially when the demand is attached to student workers without

reciprocal support. Educator fatigue is a significant risk to successfully bringing more young people into trades and technology careers. Best practices have been observed in both regions where collaborative short-term industry and school projects happen annually (for example Heavy Metal Rocks), or were undertaken previously. Best practices are reflected in the principles guiding Construction Ready to date including providing a coordinated point of contact to educators and employers, building trust over time by demonstrating support to secondary school programs, engaging employers in a targeted way to ensure there are positive opportunities for students, and mediating expectations on all sides through the work of the Catalyst. It is not a far step from where Construction Ready is now, to a Skills Ready initiative that incorporates other sectors. If a collaboration is built, fatigue can be mitigated by providing support that teachers need to run programs without overwhelming them with duplicative programming or high demands on limited time.

As well, by leveraging ongoing support over time, youth can be encouraged to build their own transition pathway into employment based on accurate and locally relevant information and a strong connection to potential employers throughout the course of secondary school. Attitude, skills and knowledge would be the starting point, employment in the sector would be the arrival point, and implementation would support the exploration pathway in between.

Information gathered from educators suggest that there are finite resources in the school system to respond to all inquiries from industry, and a limited number of students interested in jobs in those industries. Opportunities for industry outreach are currently limited, especially if several employers or associations are trying to recruit for their own businesses or sectors without offering something to support what exists in the secondary school space. It has been observed that there is an incredible opportunity to transform the way that young people in BC discover and prepare for trades careers, structured and meaningful industry participation in career exploration at the secondary school level is a key part of the transformation.

As research involved several different data collection strategies, there is variation in the total number of districts that data is available for in the following findings. Educator engagement identified several key findings:

1. There is significant variation in the strength and consistency of industry and secondary school linkages across the province.
2. All 31 districts engaged are interested in improving their connection to industry. This ranges from work experience programming to industry participation in classroom activities.
3. With some exceptions, trade career related programming offered in a school facility has a general trades or skills focus, and does not distinguish between sectors. However, at least four districts provide programs with a stated construction employment focus. These often have a heavy, or primarily, carpentry focus. Other programs that have sector specific focus, such as automotive, hospitality, or marine, were noted in some schools as well. Dual credit programming, meaning college run trades training, is available to varying degrees in all districts interviewed except two.
4. Individual employer or educator leadership has a greater impact on the strength and continuity of partnerships than proximity to major industry.

5. Of the 16 asked, only two districts expressed that they have formulated a continuous construction trades pathway for students from trades discovery through to training – including employment experience. However, all are providing a diversity of applied skills and career exploration learning options from grade 9 to 12. Half indicated that they are developing a pathway in their district for construction, though many suggested a general trades pathway is of higher interest. One district, Coast Mountain School District, demonstrated how they can support and encourage students through an apprenticeship pathway using trades specific math courses over multiple school years starting in grade 10.
6. Educators in both the roundtable and forums identified that there is frequently a disconnect between career exploration classes and trades training programs, though efforts are being made to establish continuity. All 31 districts engaged expressed a need for industry to be involved for this to occur.
7. All but 3 of the 31 districts examined can provide frequent construction related work experience, all but 2 identified that they provide dual credit options for students who express an interest. All educators interviewed identified youth motivation or employer connection as the key barriers to work experience prior to graduation.
8. Of the 8 districts asked, all said that dual credit trades training requires work experience prior to application, undertaken during the program, or both. The experience prior to application did not necessarily need to be in the trade they were applying to.
9. In those 8 districts examined there was no coordinated employment support provided to youth or employers once program participation has been completed – this is anticipated to be similar in most areas.
10. While not one of the original lines of inquiry, shop teachers and career educators in 18 districts were asked about their approach to the new Careers, and Applied Design, Skills and Technologies curriculums. Most identified that the new curriculum will significantly influence their activities in the coming years. It was observed in the Lower Mainland roundtable, and no less than 8 interviews, that the intended goals and implementation strategies of Construction Ready run parallel to the updated curriculum. Shop class and career educators in both regions identified that implementation of that curriculum in their district will be more meaningful if partnered with projects like Construction Ready, especially where experiential learning opportunities for youth can be generated.
11. Of the 12 districts that provided information on K-9 opportunities, all are looking to improve hands on learning and career exploration. Around half have a clear implementation plan and robust educator support. This includes a place for industry engagement both in providing information and offering exploration experiences such as in class activities or presentations. As the scan focus was on secondary schools, not all districts could respond to inquiries about K-9 opportunities as educators weren't familiar with those opportunities.

Lines of Inquiry: Summary of Regional Information

> "We are seeing less and less youth that possess applied skills. While the age of computers is important – we still need to pass on our grass roots skills if we want to ensure trades continue."
>
> *Joe, Lower Mainland Employer*

Scan research identified industry and educator champions in most districts and uncovered some common trends in program at the high school level. An inventory of potential collaborators has been developed. Ultimately, in each community there is an opportunity to implement some form of the initiative. Adaptation to secondary school environments across BC may be as simple as using the resources in classroom activities – such as was indicated in Fort St John – to building new programming to reach areas that don't have a lot of opportunities – such as in Hagensborg.

In almost all regions of the province applied learning is offered through shop class environments, and locally developed programs. Most districts make use of the ITA Youth Trades programs on a regular basis. Career programming in each area is approached with the same tools, but how students prepare for and seek employment varies because of several interrelated factors. All 31 districts have expressed an interest in integrating industry relationships into how they implement career exploration – either in existing programming or through new curriculum offerings.

Regional engagement has highlighted unique opportunities, barriers, and challenges to implementation of the Construction Ready model across the province. There has been a huge appetite from industry and secondary schools to improve the opportunity for experiential learning, industry connection, and improved transitions into training and employment.

There were several common themes in school environments across Northern BC and the Lower Mainland. These included low student interest in trades jobs, limited awareness of employment options, and understanding of long term careers in the construction industry. As well, all 31 districts engaged identified the need for stronger partnerships between educators and employers.

Skills for Life

In both the Lower Mainland and Northern BC other industries have been identified as potential collaborators in a modified version of Construction Ready. This initiative would rely on the methodology of building partnerships and supporting youth career exploration, but would be more inclusive of student trades and technologies jobs across sectors. Modifications to the existing model could be made so that the focus of Catalyst led employer engagement, as well as any communications materials, would start from transferable skills and the industry ASK. Over time emphasis would be placed more on sector specific information – especially as it relates to student's personal interest, local employment opportunity or overall technical skill demand. The only significant modification needed would be in the materials and branding produced to date. Additional resources could be developed that rely on subject matter expertise, which includes

sector or regional specific career exploration tools including material adapted to multiple sectors that rely on trades and technology workers.

In a Skills Ready initiative, Catalysts with backgrounds in multiple sectors would be sought. To replicate full implementation like the current Construction Ready model, as many as 8 Catalysts would be needed to cover all the Lower Mainland. In the North, 2-3 Catalysts would be needed to cover north of 100 Mile House. This would maintain a 1:20,000 Catalyst to secondary student ratio, which is the approximate ratio for the existing Construction Ready pilot. The ability for any Catalyst to cover this size of a population will vary based on population density and other factors identified in the Three Factor Analysis section of this report. An alternative assessment on the number of Catalysts required for effective implementation to all of BC could be done based on high/low participation rates in trades programs per capita, by the number of educators engaged in career programming or several other factors. Additional Catalysts may be sought to support specific groups in each community such as youth in care or underrepresented portions of the population. This would be one strategy for developing a solid support network to support vulnerable youth to connect with meaningful career opportunities. This was a key challenge identified in the Lower Mainland and additional tracking and support of at risk individuals may positively affect long term apprenticeship completion.

A common theme throughout regional engagement has been the need for knowledge sharing across regions for both educators and employers. This includes more support for industry best practices for engaging and hiring youth and educator practices in the delivery of trades discovery and career exploration. As such, in a provincial expansion there could be a need for distinction between provincially coordinated activities, such as post-graduation labour mobility or pre-graduation technical training, and regionally initiated activities such as industry donations to trades programs or work experience and career exploration opportunities. As there is diversity in industry and the primary economic activity available in each region, provincial implementation could be conducted best if it includes industry oversight from multiple sectors, educational resource development to create teacher tools that cover a broad spectrum of skills and careers, and strategic coordination with other provincial organizations such as the ITA and Skills BC. Regional implementation would be shaped by factors inherent in each community and may be as specific as the opportunity available in an individual school.

In terms of both operations funding, and long-term sustainability, research into existing and previous industry and school collaboration suggest there be significant consideration to be given to how industry contributions are generated on an ongoing basis. Significant industry fundraising efforts could be undertaken immediately to help fill in gaps in career exploration available to high school students. Precedent for this includes the large-scale industry partnership previously undertaken in Fort St John under Norther Opportunities. Industry funds to a youth focused initiative could encourage a focus on applied learning by supporting those in each school that are delivering unique experiential learning opportunities to students, such as materials for a student's personal projects in a shop class or out of school activity.

Ultimately, by creating more opportunities for young people to learn applied skills, improve their confidence and make informed decisions based on hands on work experience, there is an increase to the public good and an improved chance of building a made in BC labour force to resolve skill shortages.

The Industry ASK, Development of New Materials & FutureBuilder

Research conducted under the environmental scan has reiterated the importance of the attributes outlined in the Industry ASK. Employers identified that these continue to be the starting point for young workers – especially safety. Educators have confirmed that the communication materials previously produced have relevance to classroom learning in all regions – both currently and with the new curricula developments. Consultation through the scan has also identified the relevance of the Industry ASK attributes across several sectors that rely on trades and technologies. How this resource can be modified for other sectors has been explored initially, and several opportunities exist to incorporate it more significantly into career exploration in classrooms.

Interest in FutureBuilder has been expressed in all areas, though how it is used and interpreted will likely be different in each district. Variations in teacher interest, local opportunity, and how programs are structured in each school will affect uptake. No significant modification to the tool will be needed for it to be relevant in both the North and Lower Mainland. Recommendations have been made to simplify the data entry process and improve how students understand connecting to employers using the tool. The scan activities further clarified how the tool could be used in classroom learning, especially as a career exploration tool. It was also identified that FutureBuilder can be used as a means of encouraging students to develop a personal network of potential employers. This was suggested in Prince George, where several of the youth consulted viewed awareness of what companies they can call for work as being the main barrier to employment on graduation from trades training.

Educators in each region identified that there is a need to offer the right incentives through FutureBuilder in order to get young people to register and use the tool. Through consultation, it was identified that this will be either through integration as a classroom tool or by adding additional benefits to the user experience. Additional benefits identified included unique opportunities to meet employers, better employer connection for work experience or personal benefits and rewards such as prizes or safety certification. For the latter, the CFBC has already initiated the LearnSafe project which will provide students an opportunity to access free safety certification through their account.

Additional career exploration activities that simplify the roll out of new careers courses at the secondary level may attract more teachers and students to FutureBuilder. This would serve a dual purpose for educators as first it resolves some of the concern with changes to career courses, such as increased community connections, and second it helps students to develop a comprehensive career pathway through self-reflection and exploration through networking. As such, FutureBuilder may meet the requirements for the capstone project component of the new careers curriculum, especially as it relates to mentorship and experiential learning. This opportunity resonates with both rural and urban educators and many suggested that it can be integrated into programming

that isn't construction specific. Educators in New Westminster and Prince George both expressed an interest in piloting this concept in the Fall of 2017.

Northern BC

Encouraging a Flexible Approach to Implementation in Northern BC

In Northern BC, many communities have been founded around one dominant industry which requires a workforce with strong applied skills. Some communities continue to require a highly skilled trades workforce, while others are facing higher than provincial average rates of unemployment as industry activity declines or has become temporarily dormant.

> "As an employer in Prince Rupert, it is difficult to find workers. Making that connection with the high school would provide a link to potential future employees."
>
> *Brian, Northwest HVAC employer*

In communities such as Stewart for example, this has a significant impact on not only the school programs, but also the student population. Educator and employer context observed that as commodity prices decline, families leave town, only to return when prices rise and mining activities resume.

The variations in work opportunities available over time, seasonality of work, and boom and bust vulnerabilities means that young people will need transferable skills over the course of their careers if they intend to work locally. Mitigating these vulnerabilities is more than a workforce development challenge – there are larger community needs at play. However, encouraging young people to become aware of, and prepare for, flexible employment is something that can be achieved through a modified version of Construction Ready. This can be approached in 3 ways: (1) develop additional communication materials, learning resources and employer engagement strategies to improve youth awareness of self-employment and transferable skills, (2) create unique solutions to provide more hands-on learning, and (3) develop resources to support improvements in employer hiring practices.

In the first approach, industry presence can help improve the reception of this message. Representatives can work with teachers and students to map out how skills transfer across industries through avenues such as presentations and mentorship. Relaying industry experience from employers locally, and far away in the case of remote communities, can provide career information in an accessible way. Additional resources focusing on information that helps students improve their understanding of apprenticeship as a training process could improve long term completion outcomes – especially if they are given the tools to map their own skills acquisition process.

Pre-built lesson plans for teachers can provide practical information to support in class career planning, especially around sector variations made tangible through real-life examples of trades and technology projects. As well, career based activities that encourage young tradespeople to learn basic business skills would encourage resilience over time – especially as employer interviews identified that several young people in their communities are likely to end up self-employed or in positions of management and company ownership at some point if they try to work locally. The most significant opportunity for introduction of these types of materials will be in the new grade 10, 11 and 12 career exploration courses. Any awareness and reflection resources could also be integrated into FutureBuilder and delivered online to reach students at a distance and by teachers in career classes. This integration would be done similar to how the Industry ASK Rubric is used for Construction Ready.

Second, providing more hands-on employment experiences will increase awareness through direct exposure – something that is desired by schools and industry, but not always possible in the regions examined because of the absence of relationships between educators and employers. Unique approaches may need to be developed for communities that have minimal opportunities for firsthand experience. One suggestion identified was to have individuals from outside the community provide short term, project based, experience at the school. This could be undertaken by a Catalyst or by a representative from industry such as a certified tradesperson. A key part of these experiences would be to ensure that students have a clear understanding of the next steps in their pursuit of training and employment.

Third, there may be a need to develop resources or training to encourage employers to modify how they approach hiring, training and retaining youth. Anecdotally, companies in Northern BC that provide workers the opportunity to train in multiple trades, or in multiple applications of the same trade, have expressed fewer concerns with long term worker retention. A communications campaign in collaborating with industry organizations and the ITA to share good experiences of hiring young people and encouraging the adoption of best practices for training and retaining youth could improve opportunities for youth employment – especially in areas vulnerable to market shifts.

Underlining all 3 of these approaches is a need for cross-sector collaboration. The line between sectors is most blurred in this region, especially in the case of heavy industry. As such, industries in Northern BC could benefit from collaborative engagement strategies that encourage youth to upskill and prepare for employment across several sectors and entry level positions. Construction, forestry, manufacturing, resource extraction – such as mining and oil and gas – as well as the marine service and manufacturing sector make up a diverse patchwork of economic activity across the whole region. Young people consulted in this region expressed a willingness to relocate for employment, though most wanted to stay in the north. Employers engaged across several sectors were open to this solution and they identified a need to encourage self-reliance as many young people will end up operating their own business at some point in their career – regardless of the sector they are interested in.

Some of the current implementation strategies would need to be adopted to address various challenges in the North – especially in response to industry opportunity. Areas with an industry presence and larger population can offer trades exploration in community. Students in smaller towns are less likely to have access to robust hands on learning for a variety of reasons, including prohibitively small class sizes and an absence of shop or trades teachers. The role of the Catalyst is likely different here as they will need to develop creative approaches to hands on learning in addition to facilitating employment opportunities. Also, as there is a smaller youth population over a diverse economic and geographic area, awareness of the impact of the intraregional variations will be an important component of the Catalyst's capacity.

Building on what is implemented locally, a broader regional and provincial support network could be developed that included Catalysts, and industry and education partners. Through this network, opportunities for youth mobility to pursue training and employment beyond secondary school could be encouraged and assisted.

Lines of Inquiry for Northern BC

What are the existing partnerships between industry and secondary schools?

Currently partnerships between schools and industry revolve around three streams of activities. The first is awareness activities that are conducted in partnership with industry groups as early as elementary school, second is industry provision of onsite experience in the form of school initiated work experience or employment, and the third is partnerships around major activities or events. These events vary in size from Youth Discover the Trades days where industry representatives are at the school for a day, to Heavy Metal Rocks which involves significant industry coordination as well as time and financial contributions. Northern Opportunities based in Fort St John has been the most significant partnership in this region and provides significant learning for other areas of BC, including considerations for ongoing sustainability. Some districts also cited the presence of an industry advisory group, or construction advisory group, as part of their programs implementation strategy. Additional information on stakeholders engaged, see Appendices 2 and 3.

At the same time, educators in three districts, and even some communities within two of the larger districts, expressed no connection to, or very limited relationships, with industry. Reasons cited for minimal relationships include fluctuations in work available because of seasonality or boom and bust vulnerabilities, a lack of major industry and certified tradespeople available locally, accessibility and distance between the community and worksites, and, in two cases, a minimal understanding amongst industry of the career programming options available and no dedicated school career staff available to increase that awareness.

Industry partnerships with secondary schools in this region expand beyond construction into areas with transferable skill sets. Mining, forestry and agriculture are all active partners across the region and the presence of oil and gas has created significant opportunities for student learning and connection directly to employment following school in some communities.

In the five communities where partnerships were identified as being strong, this was a result of the initiative of one, or a few, individuals on both the industry and education sides. The scan has identified that it has been both employers and educators that have initiated outreach originally. One educator identified that it has been easier to partner with large companies as there is always one central point of contact such as a marketing or human resources manager. Smaller companies are less secure partners as they can be harder to connect with, less responsive to requests – often because there are no dedicated HR staff, and have fluctuating amounts of work available.

New collaborations were also emerging from the scan activities. In the case of the Prince George forum, during the discussion of barriers small employers face in offering short term work experience, one employer identified that they would offer experience in their design and engineering department more than the trades. For laboring or trades positions on the shop floor, safety is a more immediate concern and the training is time-prohibitive (two days of orientation for a five-day work placement). This was identified by district career representatives present to be the first time that a construction employer had initiated an offer for non-trades work experience.

What collaborations exist between post-secondary and secondary education for the delivery of trades training to secondary students?

All districts but two identified that they have a stable partnership established with a post-secondary institution. The scale of these range from small numbers of students engaged in dual credit programs, to the Career Technical Center housed at College of New Caledonia to serve the needs of the high school population.

Many of the districts, including Prince Rupert and Parts of the Coast Mountain district, have a limited ability to provide dual credit trades training as they face a rotating set of offerings meaning that programs are only available every other year or even more sporadically. This limits the opportunity for students to access training at the right time or in a trade that they want to explore. Distance from training centers and low student interest were the two most often cited reasons for minimal post-secondary partnerships. Mobile training options are available in this region, but there has been minimal secondary school access to these.

What are the existing linkages to construction employment and apprenticeships that exist for students?

In most communities, small and medium sized construction employers are the most significant linkage to employment and apprenticeship both prior to and following graduation. Some large industry employers provide stable opportunities year on year, while others will not take on apprentices. Linkages to apprenticeship are strongest in locations where there is a long-established relationship between representatives of industry, post-secondary and secondary. In communities where there is minimal construction activity, or the construction industry is predominantly residential, students are not likely to engage with employers until after graduation.

In many communities, youth will need to move to find work or apprenticeship. Labour mobility has been observed to be a challenge, with student interest being a key determinant. Based on interviews with district administrators, long distance partnerships between education and employers are extremely limited or none-existent. Collaboration across school districts occurs, but initial investigation indicates that it is rare for a student to transfer districts for a trades or career program. Reasons identified for this included a lack of contact between post-secondary institutions and the school district, financial resources to support students living away, and student maturity. A potential solution may be a supported network of educators and industry representatives to assist in these transitions – especially where linkages to apprenticeship employment can occur simultaneously. There is significant variation in linkages to employment between the core and peripheral communities and there is a role for Construction Ready activities in both areas – including as a supporter of potential labour mobility.

At least five districts, including Prince George, Dawson Creek and Fort St John, have established strategies for providing support needed to access the construction sector through school based career programming, including exploratory programs and through formal work experience

commitments from employers. A districts ability to offer pre-graduation connection to employment is often related to their ability to provide summer experience.

Youth consulted in Prince George identified that they are working outside of school in trades and construction jobs – most often with family. However, many were not able to draw the connection between casual work experience, the training programs available through school and potential careers post-graduation. At the same time, in some areas of the Northwest with high unemployment or seasonal employment, educators expressed that youth are not working at all nor are they seeing their families working consistently.

What are the barriers to in-school work experience and employment faced by secondary school graduates?

A lack of employer connection, experience, safety awareness, and support networks were cited in every community as a barrier to employment for students and graduates. These were identified by both educators and employers. The attitude attributes from the Industry ASK were reinforced as the most critical sign of work readiness. In this region, without being asked, employers and educators acknowledged on multiple occasions that attitude was the most difficult to teach and a critical threat to student success.

> "Our school is basically 10% pure academic and 90% heading into careers/work force/trades. But with little or no exposure to what trades options there are."
>
> *Northwest Educator*

Through the Forum, school schedules were identified as a barrier to gaining experience in the sector. However, most educators identified that they had the ability to develop flexible options for students if industry partnerships could be established. In interviews with educators in eight districts, the ability to offer independent learning opportunities varied drastically. They all identified student initiative as a key factor in the provision of work experience opportunities and the participation in existing programming.

General student awareness of trades, careers and the soft skills they need to find and keep a job were critical barriers to student success identified across the region. In areas where small school populations were present, educators expressed frustration in being able to guarantee follow through from students when opportunities were arranged. This was a critical issue in one community where few employer relationships were possible and previous negative experiences had damaged relationships with most available employers. To this end, student readiness appears as a frequent barrier to experience and employment in this region. Youth consultation with graduating students identified concerns around job search techniques and connection to employers as key barriers. Participation in a school based career program was identified by youth as a key step towards employment readiness.

What are the opportunities for broader parent and community engagement to encourage a deep awareness of construction career potential and realities?

Parent involvement is low in all communities of this region. While districts are experimenting with different strategies to engage parents, this remains a critical challenge. The key places where

parents are involved are information sessions that emphasize employment linkages through trades programming and activities that celebrate student success. Partnerships with other service providers and community associations is possible, and further investigation is needed to identify how collaboration would work in each community.

Direct collaboration between the public school and Band operated schools is occurring in most of the North-West districts and all four of the districts interviewed in the Northeast. This can include sharing staff resources or contracting staff out, sharing space, or transferring between schools. No information was collected from other districts. Additional programming opportunity may be available through enhancement of these partnerships.

What are the additional key strategies for increasing awareness and employment readiness using existing programming, district staff, community based learning, or training?

Based on information gained from educators, discrepancy between areas with significant industry activity and those with minimal industry correlates with student interest and knowledge of trades. In communities that have established industry partnerships, there is also a higher level of student awareness of trades career opportunities. The presence of industry does make trades work more accessible, especially where there is a dominant industry such as forestry or oil and gas. In the Prince George youth consultation, around three quarters of the participants identified that they had a relative who worked in the trades, and around half expressed they felt they had a strong understanding of the apprenticeship system. This is high compared to both Lower Mainland consultation and the existing pilot regions where the portion is usually around 10-20%.

With the variation between training opportunities, industry linkages, and general exposure across the region, an innovative approach to student engagement would need to be created. This could be developed based on the Construction Ready model.

How can FutureBuilder be adapted to account for activities happening at the community level?

There was a high level of interest in all communities for the use of FutureBuilder. Safety certifications that were unique to other sectors were identified for the certifications category, and employers emphasized the need for youth to engage with safety training prior to employment – especially first aid and training to identify hazards, personal protective equipment, and worker rights and responsibilities.

In focused FutureBuilder discussions with all stakeholder groups in this region several concerns were raised around the number of hours required for the Jobs category. For many, the ability to access work was limited by geography and youth readiness. Some concerns were expressed that students would not relate the work they are doing for family as work hours and that volunteering was not occurring on a broad scale. Many educators expressed concern that youth did not have summer or part time jobs. Youth in the roundtable discussion all expressed having previous employment experience; however, all of them were already engaged in a career program at the school which suggests they may be more highly motivated towards employment that their

colleagues in academic programming. The discrepancy between educator perception and youth experience may in part because part time jobs are not reported to educators, that educators – especially those in the career centers – are encountering the youth who may need a little more guidance than their peers, or that youth are not working in the summer as much as they are working part time during the school year. Further investigation into this will be beneficial as it could help identify student motivations towards and barriers to employment.

Analysis of Model for Northern BC

There are a variety of ways the Construction Ready model could be adapted to Northern BC. Significant variation exists between distinct core and periphery communities. In the latter, the absence of significant partnerships is a barrier to youth discovery and readiness. Where collaborations have been established, there is value to supporting implementing the Industry ASK materials and FutureBuilder, as well as the development of new materials to improve awareness of careers locally. The role of the Catalyst is likely to be different in this region than other parts of the province and awareness of intraregional variation will be a critical component of Catalyst led implementation.

1. **The Industry ASK** – Stakeholders were presented with the Industry ASK materials and the reception was positive. Adaptation of the ASK to regional contexts could include a focus on the transferability to other sectors. Making the material more user friendly for a younger audience in elementary or middle school was suggested. An ASK resource for parents was also proposed.
2. **FutureBuilder** – Based on consultation at the forum, there is interest from educators in using FutureBuilder as a living digital resume and as a way of linking students to employers. Employers were receptive to using the tool when hiring youth; they were most keen on the certification category. Concerns were raised that students may find it difficult to interpret the six existing categories, and in some cases, not enough options were available in the community to fill out all categories. In some cases, the number of work hours required to complete all 4 levels may need to be reduced to make it more accessible to a broader audience.
3. **Ongoing Stakeholder Engagement** – The diversity of trades based sectors in the region suggests that a multi-sector approach may be necessary. As well, the geography of the region represents a unique challenge when creating ongoing stakeholder engagement as student mobility limits opportunity for firsthand experience and distance limits employer engagement in the classroom. There is a desire to expand the base of employers involved in all districts and include more small and medium sized companies. Clear and accessible points of entry for employers should be identified and working groups established and led by a Catalyst or associated stakeholder organization – at least for the first year. Looking towards long term sustainability, a collaborative structure with key annual events could be established in this region as most districts have a consistent seasonal calendar and restricted window of time for some activities. Ongoing fundraising will be required to ensure these are sustained. A unique solution for distance engagement of industry and

youth could be pursued and would have potentially immense positive outcomes for learners in remote communities.

4. **Construction Career Catalysts –** All districts were interested in working with a Catalyst to coordinate partnerships with industry, to lead presentations which included employers, to raise awareness of the diversity of career options and pathways, and to increase employer commitment to school based programs. Employers in several areas identified a desire to have a representative in the schools to carry a message of work readiness to young people.
5. **Building Relationships –** The need for more direct support to students to develop soft skills and basic readiness was identified as a significant consideration for a regional implementation of Construction Ready. Strong relationships were identified as a critical part of helping young people to develop soft skills. For example, many stakeholders in both core and periphery communities expressed concern that students were not learning basic work habits at home which led to a lack of soft-skills for some young workers. Many of these students aren't ready to enter full time employment on graduation. A solution was proposed by a group of educators and employers at the Prince George forum. This would be a sort of "gap year" where students would maintain social connections through school, but go through a gradual transition into full time employment with clear progress markers around academic progression, course completion and at work accomplishments. This would require a strong network of employers who understood their role as a mentor and could take the risk to support youth to develop their employment readiness while still running an effective crew. This sort of solution would require a very strong partnership, but could be a critical resource for youth who are not yet ready for employment.

Lower Mainland

Construction Ready implementation in the Lower Mainland would start with awareness of trades and technology careers. This will require a plan to collaborate between educators and multiple industries to increase awareness youth knowledge of career pathways. This would best be achieved through hands on learning and unique experiences. A stakeholder engagement summary is attached in Appendices 2 and 3.

> "We like it when they're green because we can mentor them the way we want. We're trying to set them up for apprenticeship programs, to pay for their training. We'll put them on different sites with different mentors. It's a lot of coordination, but it's worth it in the long run."
>
> *Brenda, Wall & Ceiling Employer, Lower Mainland*

The infrastructure to support trades training in secondary school is in place across the region and employers are interested in getting involved with providing experience to youth as part of the career exploration and discovery process. As there is already momentum being built in parts of the region by schools and industry partnering on career awareness, there is a significant opportunity to develop a comprehensive initiative that implements activities and events that support student transitions into employment. Based on initial employer consultation, long term sustainability through industry funding for operations will be easier in this region than other parts of the province.

Unlike in the North, the majority of career coordinators in the Lower Mainland are not tradespeople and have minimal experience with the construction sector. This has created a different conversation and approach to enabling student readiness for trades and technologies than other parts of the province. Construction Ready's focus on work readiness, safety, FutureBuilder as a communication and tracking tool, and building sector awareness will have value throughout the region, though what is prioritized may differ in each of the 4 main areas.

The scan of the Lower Mainland started with the partnership that was created in the follow up to the original 2015 forums undertaken in the Sector Labour Market Partnership leading to the Construction Ready pilot. A dialogue created at that forum led the Vancouver Regional Construction Association's education committee to work with several school districts to lead presentations about careers in construction. A digital roundtable was held with most of the committee and an in-depth analysis of FutureBuilder occurred as part of it. Several opportunities for collaboration have been identified and while the committee is composed of mostly large sized employers, it represents a launching point for deeper employer and school collaboration across the region.

As part of the scan, outreach to the Sunshine Coast and the Sea to Sky corridor was initiated. Significantly, there is a high level of interest in Construction Ready as an initiative that assists students to leave community for work. It was somewhat surprising to discover that youth express a high level of interest in moving from the areas on the outer edges of the Lower Mainland to Vancouver and the surrounding area for work. This stands in contrast to northern communities where students expressed a desire not to leave their community for work. For implementation, this

suggests a possible regional integration of project activities in a broader regional area which includes southern Vancouver Island.

While awareness was identified as a critical missing piece in terms of youth readiness for construction jobs, a basic lack of interest in pursuing trades careers was identified in almost every district interviewed. Several schools identified that enrollment in shop classes, in school career programming and dual credit programs was limited by interest. Even in Mission, where a strong school district trades training facility exists, interest in programs remains a key consideration. While some districts have long established programs that continue to grow, general youth interest in trades and construction jobs remains low. This was verified by educators and youth consulted.

During both the forum and the educator roundtable, parents were identified as being the key barrier to students participating in career discover, trades training and work experience in construction jobs.

Lines of Inquiry for the Lower Mainland

What are the existing partnerships between industry and secondary schools?

The Vancouver Regional Construction Association was the industry partner most often identified. Several industry and employer associations have district level relationships as members of steering committees or advisory councils. Each district has specific employers they call on frequently for school programs. Most partnerships or collaborations identified by educators were in support of work experience for students, and in some cases trades training.

When asked about barriers to partnerships, industry expressed concerns about youth readiness. They expressed a need to create a supported structure of transition for students that ensured students had a demonstrated interest before arriving on site. FutureBuilder was identified as a means of demonstrating interest and during a discussion with employers and educators, it was identified that FutureBuilder would be used as a bridge between them as well if the tool was adapted for that.

What collaborations exist between post-secondary and secondary education for the delivery of trades training to secondary students?

All districts have partnerships with post-secondary for the implementation of dual credit programming. All districts have seats in classes at colleges or trades training facilities and the offerings are more diverse in this region than elsewhere in BC. Most trades training is happening on campus at post-secondary institutions and students are accessing it with minimal barriers. Student interest, parent support, and affordability were the most commonly cited limitations for accessing these opportunities. Some districts have few seats allocated, and more interest than available spots while others experience challenges filling the seats they have.

What are the existing linkages to construction employment and apprenticeships that exist for students?

Some employers are directly contacting schools to seek young workers. Some school programs, such as the trades sampler at Tupper Tech, are structured so that the link to industry is strong and students leave school directly into employment. Almost all the careers educators in the 18 districts engaged identified y have some connection to construction employers, though not all are aware of the opportunities presented by industry or the distinction between different types of construction that may be most accessible close by. All districts expressed a need for more connections with employers, though this was sometimes tempered by low student interest in pursuing work experience. The significant number of secondary schools, combined with the high level of demand in the region for skilled labour, suggests that linkages could be improved. Employers who have successfully engaged with students in the past identified the enthusiasm and commitment of counsellors as a key factor in the success of the youth on their sites.

What are the barriers to in-school work experience and employment faced by secondary school graduates?

Lower Mainland educators identified that the biggest barriers to in-school work experience was parent support. As well, misconceptions about the trades, transportation requirements to go to work, school scheduling limitations, unrealistic student expectations, and work ethic were also cited as barriers. Youth engagement in Planning 10 classes in New Westminster identified a few key barriers to student's pursuing sector based employment. These included a general lack of awareness of what a trade was, what would be considered a construction job other than trades, and minimal interest in going to work in general.

The scan provided an opportunity to test the materials and FutureBuilder with 2 groups of grades 10-11 students. While by no means a definitive sample, some informative observations were made. Only 7 of the 50 students identified that they were actively seeking summer work or currently working. Of the 7, 4 of these students were looking for trades related work. However, when asked, most of the 50 indicated that they would be interested in working at some point in high school and their ideal environment would include flexible hours, time off, and interesting tasks. This highlights some important considerations in mediating employer and youth expectations of work experience during high school – especially full-time summer employment.

Industry identified that the barriers to offering work experience include age restrictions set in HR policy, union restrictions, and the time required to set up students for short term experience as being key barriers to pre-graduation experience. Employment for graduates is often shaped by their interest in working. A high-level of demand is encouraging employers to adapt their hiring practices to be more flexible with young hires, but there are still clear expectations around safety and the other attitude attributes in the Industry ASK.

Using the Industry ASK, employers identified punctuality/dependability, willingness to learn, and hard working as being the most critical missing attributes they see in young workers. In this regard, like in the North, employers in the Lower Mainland perceived youth being a barrier to their own success. As well, industry identified that there is a lack of knowledge of the career options available in the sector. This was a key barrier to a young person's progression into higher paying roles.

In consultation with youth, employers, educators and other service providers, exposure to industry appears to be a very significant barrier to youth pursuing construction jobs in this region. Construction Ready could be instrumental in changing perceptions on all sides by reducing some of these barriers – particularly around readiness – and improving linkages between stakeholders.

What are the opportunities for broader parent and community engagement to encourage a deep awareness of construction career potential and realities?

Parent engagement was identified as the most critical barrier to youth pursuing trades programming and construction jobs. It has been identified that successful parent engagement would need to start in elementary school where there is a higher level of involvement in school

activities. Data and statistical based tools targeted at parents, as well as communication materials that dispel myths about the sector and promote hands on learning could remove barriers.

Industry stakeholders are interested in what role they can have in engaging parents. A communications campaign could target parents by focusing on job readiness, long term career potential in construction, and the accessibility of employment directly from school as a result of in school training programs.

Consultation with ACCESS and the BC Federation of Youth in Care Network were included in the research activities. In consultation with educators, concerns were raised about the minimal supports to indigenous learners and youth in care. Initial consultation has identified the need for early intervention and additional supports along the journey towards apprenticeship for specific groups of vulnerable youth.

What are the additional key strategies for increasing awareness and employment readiness using existing programming, district staff, community based learning, or training?

Additional strategies in the Lower Mainland could focus on hands on career engagement which takes students outside of the school environment. Applied learning through whole school projects could be a unique opportunity to partner with industry to increase the interest in construction jobs. In this context, Construction Ready would be utilized as a way of sourcing volunteers and fundraising to support both the project operations as well as school based projects.

How can FutureBuilder be adapted to account for activities happening at the community level?

No significant changes to FutureBuilder have been suggested as a result of engagement in this region. Safety training and certification was repeatedly identified by larger employers as a key way for youth to express that they're ready for work and are committed to employment. Using FutureBuilder to demonstrate certifications and other safety training could provide a means of convincing employers to take on young workers. Using the tool as part of a parent engagement strategy may be possible, but could require significant modification to the existing infrastructure to meet the intention described above.

> "We would love to have a couple schools use FutureBuilder next year, specifically in the spring when most students are building their resumes and looking for summer work."
>
> *Karen, Lower Mainland Educator*

Early in the scan it was suggested that FutureBuilder could be used more heavily to increases awareness of the sector through specifically developed activities that require outreach to industry. This would require integration of FutureBuilder into school based activity by educators, and commitment from employers to respond to student questions. This is being tested in the two current pilot regions, and was something that employers interviewed expressed initial interest in. Three districts identified that they could pilot this as part of the roll out of their new careers exploration classes.

Analysis of Model for the Lower Mainland

The focus on awareness, experience and readiness that form the base of the Construction Ready model would apply to the Lower Mainland, but implementation strategies will differ based on the four areas of the Rural Coast, Vancouver, South Mainland and Fraser Valley. The scale of the region is significant, and therefore adaptation of the model would need to clearly define the geographical focus and scope of activities. This would be possible to do based on key schools across the region that have been identified as champions including New Westminster, Surrey, Delta, Mission and Vancouver. The following is a summary level analysis of the model as it applies to the Lower Mainland.

1. **The Industry ASK** – There is a strong interest in adapting this tool to elementary and middle schools as part of a broader strategy of trades and construction sector awareness. It was frequently identified that tying together awareness of sector opportunities and attitude attributes through practical experiences would contribute to an increase in employment readiness and successful youth participation with school classes, career programs and transitions following graduation
2. **FutureBuilder** - Employers and educators have both expressed an interest in using the tool. Youth consulted identified interest in many of the activities within the app, especially those that involved hands on learning, but many felt that they hadn't done enough to fill it all out. Supporting youth to understand the tool and to demonstrate self-reflection would be a key activity in this region.
3. **Ongoing Stakeholder Engagement** – Components of a formal collaboration between industry and secondary educators are in place in the Lower Mainland. Initial implementation may require a collaborative committee established as a working group that drives activities in the region. Depending on resources, there could be multiple committees across the region. There is significant opportunity in this region to support young people facing barriers into apprenticeship.
4. **Construction Career Catalyst –** Industry groups and employers are jumping at the opportunity to engage the schools. There is a significant opportunity for the role of the Catalyst as the creator of a space for stakeholder collaboration and formalizing partnerships to support youth experiencing the sector. Employers interviewed expressed a need for support with understanding school programs and making it work for their company. Intraregional mobility may mean that the Catalyst can be an ongoing support to students as they move for school and transition into work in other parts of the region.
5. **Building Relationships –** Increased connection between schools and small to medium sized employers could benefit careers programming. Large scale commitment from the major general contractors in the region could have an immediate impact on youth interested in trades – especially as seeing their peers working the sector was identified by youth as a reason they would be interested in construction jobs. Continuing the momentum created by the VRCA education committee and schools could have a significant long-term impact on hiring practices across the region – and potentially the province.

Updated Model for Implementation Planning: Three Factor Analysis

There are several factors that impact the success of a student's transition from high school into the workforce. Scan consultation suggests that labour market attachment can be affected by personal experiences, local employment opportunities, school and community programs, employer engagement, educator leadership and a significant number of other factors. Based on the above analysis, it is suggested that a consistent planning framework be developed. This framework would allow for continuity in planning and tracking project activities. A model for implementation using a three-factor analysis is proposed here. For a matrix of these factors as they have been tested in the scan analysis, please refer to Appendix 4. The framework proposed below is intended as an iterative planning model that would be adapted and improved as pilot testing occurs and new information is generated.

Following the Lines of Inquiry and scan data generated, three distinct categories of factors that could impact planning and implementation have been identified. The three categories chosen are structural factors, system factors, and people factors. They range from those which the project can't directly affect, but which impact activities significantly, to those that can be directly affected by implementation. Depending on which of these factors are present or absent, implementation of Construction Ready would change. Some factors are beyond the effect of the current project model (such as resource prices), while others, such as the absence of employer and educator partnerships can be impacted through project activities. Using these distinct facts, staff can determine where time and resources of Construction Career Catalysts or other stakeholders should be prioritized.

Using a building metaphor, it can be imagined that Structural factors are the land on which the building is being built as well as the regulation governing the building process, the System factors are the materials and equipment available for the project, and the People factors are the builders, owners and end users that give function and meaning to the structure as it is built and occupied. In the creation of the building it is in the interplay between all factors that something significant is constructed, opportunities are created and new practices can emerge.

Structural factors include demographic, geographic, and economic considerations that cannot be affected through project activities, but significantly impact where and how resources are to be allocated. The simplest example of this would be travel. Population density impacts the accessibility of communities and would affect how frequently Catalysts could connect with students, educators or employers in a specific area. Another example of structural factors would be shifts in international market prices that may affect opportunities for employer engagement or contributions to pilot activities. Planning based on economic factors could be short term or long term and would differ in each community based on local industry activities.

System factors include industry and education operations at the local, regional and provincial level. These factors include things such as a colleges dual-credit policy or a company's safety regulations. System factors may be affected through project activities, but are likely beyond the scope of the

work Catalysts will undertake. System factors may be something indirectly impacted by project activities. For example, how frequently carpentry training is offered in a community is not likely to be affected by a Catalyst working with a post-secondary institution, however they can collaborate with a school to increase and demonstrate interest in training, which may lead to more frequent training offerings. System factors can determine how much a Catalyst complements existing programming instead of generating new opportunities. Measuring progress towards affecting system factors is difficult, though not impossible.

People factors, such as the educator and employer champions who are developing and implementing programing opportunities in the K-12 system, were often cited as being the key determinant of successful youth transitions. People factors are the direct domain of project activities and can be addressed and monitored in both the short term and long term. The importance of people factors was evident in communities where participation in trades programs declined following the retirement of a key educator or industry champion. A key people factor is parents, including their perceptions of trades employment and their support for their children's participation in trades related programs. Parents were a factor that every district identified as a challenge .Building relationships and developing new opportunities for stakeholder connection are the primary activities that can lead to changes in this category.

Employer and educator networks are also part of people factors. For example, in Prince George educators have an established relationship with a couple of large scale industry employers who are supporting education opportunities for a few students in forestry related occupations. However, smaller scale construction companies remain difficult for educators to engage, even when student interest in construction related career program is strong.

Using the three categories, a consistent theoretical model for planning emerges. At the initial stages, this represents a structure to inventory known factors and identify unknown factors. As project activities are undertaken in each region, new information, learnings, and opportunities emerge which improves the model and shapes who is invited to be involved and what new opportunities for discovery and connectivity are created. The model allows project staff to identify significant variations in each school district and community. This information provides a foundation for monitoring progress at a macro provincial level and a discreet regional, or even school, level.

Scan findings suggest that one size doesn't fit all communities. While there are some common challenges and opportunities prevalent in all school districts examined, significant variations persist. Opportunities available for high school students differ at the provincial, regional, school district, and even school specific levels. These variations require a flexible approach to project planning and implementation that is balanced with consideration for practical implementation challenges – such as managing scope and limited resources. Maintaining consistent follow up with stakeholders and monitoring the impacts of project activities across BC could become difficult without a consistent framework to compare, contrast and ultimately guide all activities. The different factors that have been identified so far, as well as the initial analysis conducted with them, is based on the data available and are not considered exhaustive. Additional engagement

would be necessary in the ramp up phase of implementation to ensure that all significant factors are identified.

In the next section, the structural, system and people factor concepts are summarized and suggestions for how to utilize this model in planning are provided. A matrix of these factors as identified from the scan data is attached in Appendix 4 and consideration is given to how it tracks community readiness. Note that this is a starting point based on the research undertaken so far and the model will likely evolve in the first stages as it is tested.

Structural Factors

The term structural has been chosen as it references those factors that are fixed and beyond the influence of project activities, but significantly impact planning and implementation. Structural factors are the economic, demographic, and geographical factors that affect the development of communities historically and in the present day.

Structural factors impact implementation, but are beyond the impact of project activities in the immediate term. Mitigation strategies would need to be developed in areas where structural factors restrict youth discovery opportunities as well as employment options. In areas where structural factors are creating significant opportunities for youth, the focus would need to be on building interest and career awareness.

Structural factors influence perceptions, opportunities available for trades and technologies work, as well as affecting the presence or absence of system and people factors. These may be things such as public investment or major industry activity that impact how a community has been formed and sustained over time. For example, Northern communities that are founded around a strong industry may have a positive perception of trades employment when the economy is strong, and that perception may shift when activities slow.

Structural factors affect the opportunities available for young people when they graduate. In some areas examined, especially the northwest, structural factors are the key barrier to employment for young people. In many of these areas, economic outlooks may result in migration upon graduation. This was noted in most rural communities of Northwest BC, as well as the Sunshine Coast. Structural factors in the lower mainland have created several opportunities for young people in terms of both employment and training opportunities being created by employers in response to high demand for labour and skilled workers in the short and long term. This was prominent in the Fraser Valley and throughout the Vancouver area.

Structural factors create challenges that range from inaccessibility of work experience opportunities that help students build employability, to their inability to find sustained work in entry level employment as there are either no jobs, or the jobs available require a higher level of skill than youth possess. This is most common in Northern BC in areas where there are several short-term contracts and significant variations in employment based on seasonality of work.

Structural factors also affect the makeup and size of companies that could be engaged in implementation. In general, small and medium companies will be easiest to access, however the

larger companies are more likely to provide several entry level positions at once. Prince Rupert is a good example of this, where several of the larger companies have not been accessible to local schools, but medium sized employers have. In some rural areas, work experience is inconsistent as it is only available when there is significant work being undertaken. In urban areas, and areas of significant economic activity, entry level work experience is more accessible and employers are more likely to be engaged because the need for labour is strong. This was seen in several of the urban areas explored, including Vancouver and Prince George. Employment transition from foundation training into apprenticeship remains around 50% across the regions examined. From youth consultation, it is anticipated that this is a consistent percentage for this age group too – if not slightly high.

Based on scan data, structural factors that influence project planning can be:

- Number of new job starts or building permits issued
- Number of new trades and technologies positions being created by economic growth
- Economic activity, including long and short-term infrastructure contracts
- Sustained economic activity – including in residential and commercial construction, resource extraction, industrial developments (from construction to operations), major manufacturing contracts, innovations in product development or design and others
- Age of current workforce
- Number of skilled journeypersons available for apprenticeship sponsorship (or individuals with sign-off authority)
- Proximity to economic activity
- Proximity to, or accessibility of, education and technical training opportunities (secondary and post-secondary institutions)
- Public infrastructure investment projects

Systems Factors

Includes the education and training systems available in each community. Employment practices and the format and makeup of companies in terms of size and apprenticeship training opportunities are also considered part of System factors. Unions, industry associations and community organizations are also considered system factors.

System factors can be influenced. For example, employment policy is one factor that restricts opportunities for youth and has been encountered in both the north and Lower Mainland – particularly around larger companies. Age restrictions or certification pre-requisites can influence the opportunities available. In Prince George, it was identified that one of the major local employers has consistently posted for journeyman millwrights, but no apprenticeship millwright positions are offered even where journeymen are available for oversight.

Another system factor is the training options available to high school students, including shop class opportunities and other discovery programming, as well as technical training. In the Lower Mainland, specifically the Fraser Valley, students have access to a broader scope of training options including programs such as bricklaying. In the north, post-secondary training options are less diverse and less frequently available.

Systems factors also affect the transition from training to employment. In several communities, work experience and employer connection are happening prior to program completion. In Prince George, several of the high school students taking the welding foundations program were going to work with employers they had met through high school work experience. The interplay between structural and people factors are key determinants of how successful student transitions will be.

System factors affect planning as they are the basis for building relationships and student preparation. Where system factors are absent – such as where students can't access training – there is often a gap in potential student work readiness. Many system factors cannot be addressed through implementation activities as they are overseen by other organizations. However, a key part of implementation would be to complement and enhance the programming and training options available by improving the connection to industry. There is a strong desire from both employers and educators in both regions to develop or increase these kinds of activities.

System Factors that affect planning can be:

- Programs that exist to encourage youth exploration of trades (in middle school, secondary school, at post-secondary, and outside of school)
- Educator resources available to support students pursuing work experience with local employers prior to graduation
- Possibilities of implementing secondary school programming based on facilities available
- Number of youth participants in ITA Youth programming
- Number and diversity of employers engaged in ITA Youth programming
- Union presence and training options
- Post-secondary programming available in high school
- Presence of post-secondary training locally

- Established presence of employer organizations, coordination networks or representatives
- Hiring practices of medium and large-scale employers
- HR policy limiting youth employment (age or prerequisite certifications/training)
- Accessibility of safety training and certification
- Exposure to tools and applied learning in community, at home or at school

People Factors

People factors are those things that are affected by an individual's independent actions. These include young people themselves and their interest in trades employment, exposure to different careers, and their personal support networks. People factors include the leaders within the education and industry communities that can build implementation partnerships. Individuals are most often a determining factor in the success and longevity of programming.

Most people factors can be affected by project implementation as relationships are built and opportunities are created either near where young people are, or through facilitating connection to training or employment options in other communities. In several of the areas examined, networks have been initiated either through educator or industry leadership. Collaboration was the common theme in all areas where there was significant opportunity for students to experience trades or technologies employment.

> "I am struggling to find good carpenters and helpers. We cannot grow without good people."
>
> *Hamish, Lower Mainland Employer*

People factors affect planning and implementation in several ways. Employer and educator champions are needed to generate opportunities for young people to become interested in, to prepare for and ultimately connect with employment. Implementation of the project creates a community of industry support for students over multiple years. To establish this, employers need to believe in the goal and want to give back as a certain amount of volunteerism is required. Through the scan, it was identified that these employers were present in different areas and in different types of trades. The most significant factor that affects interest appears to be labour need – though a notable number of individuals are interested in participating because they want to give someone the chance they were given.

The scan also identified a need to provide additional supports to groups of young people facing unique barriers. This includes those young people studying at the First Nations schools participating in the scan, as well as indigenous youth in urban contexts. Working with First Nations schools would require a modified methodology to planning and implementation. This would be responsive to unique learning environments, but would also have to account for other system factors that demand collaborative solutions. An additional project would need to be undertaken to ensure that the staff and resources needed to do this well would be available.

There is also a need to provide additional supports to youth in and transitioning from care, immigrant youth, young women and others facing financial hardship. Implementing a solution that empowers and enables these groups of youth would require collaboration with other organizations. The scan has enabled initial exploration of this with groups including the Federation of BC Youth in Care Networks and ACCESS. Collaborative implementation would make use of subject matter expertise and leverage existing supports. At the community level, collaborations with neighborhood houses and social service providers will enable a stronger network of support surrounding young people as they leave education and start employment and ideally

apprenticeship. The main goal identified in the scan research would be to increase resilience and self-reliance early. Wherever possible, funds will be raised from industry to meet gaps in employability – such as driver's licenses or experiences that require travel. This is an investment in prevention.

Based on the responses of educators and employers, especially from those that have been in the education system for over 20 years, people related factors were identified as the most significant determinant of sustainability. While system factors can determine what is possible, people factors make things happen. It is through the partnerships established, and the fundraising activities undertaken, that industry engagement can be organized to support ongoing implementation. Partnership development was identified to be easier in areas where big industry is present and where economic stability is consistent. It was people factors that were most frequently identified as the thing that led to a decline of a project or collaboration – especially where retirements had occurred.

People factors that affect planning and implementation include:

- Industry and education partnerships established
- Connections in place to link young people and apprenticeship opportunities prior to graduation
- Partnerships created to improve awareness of careers in trades and technology sectors
- Employer engagement in career and shop programs
- Educator leadership in the development of work experience opportunities
- Educator leadership in the development of a coherent trades pathway for training and experience through multiple years of secondary school
- Parent support of youth participation in trades programming
- Youth awareness of opportunities for trades exploration and personal interest in hands on learning (pre-secondary school engagement)
- Youth perceptions of trades and technologies careers
- Industry leadership – company or individual level
- Opportunities created by employers for youth to experience employment

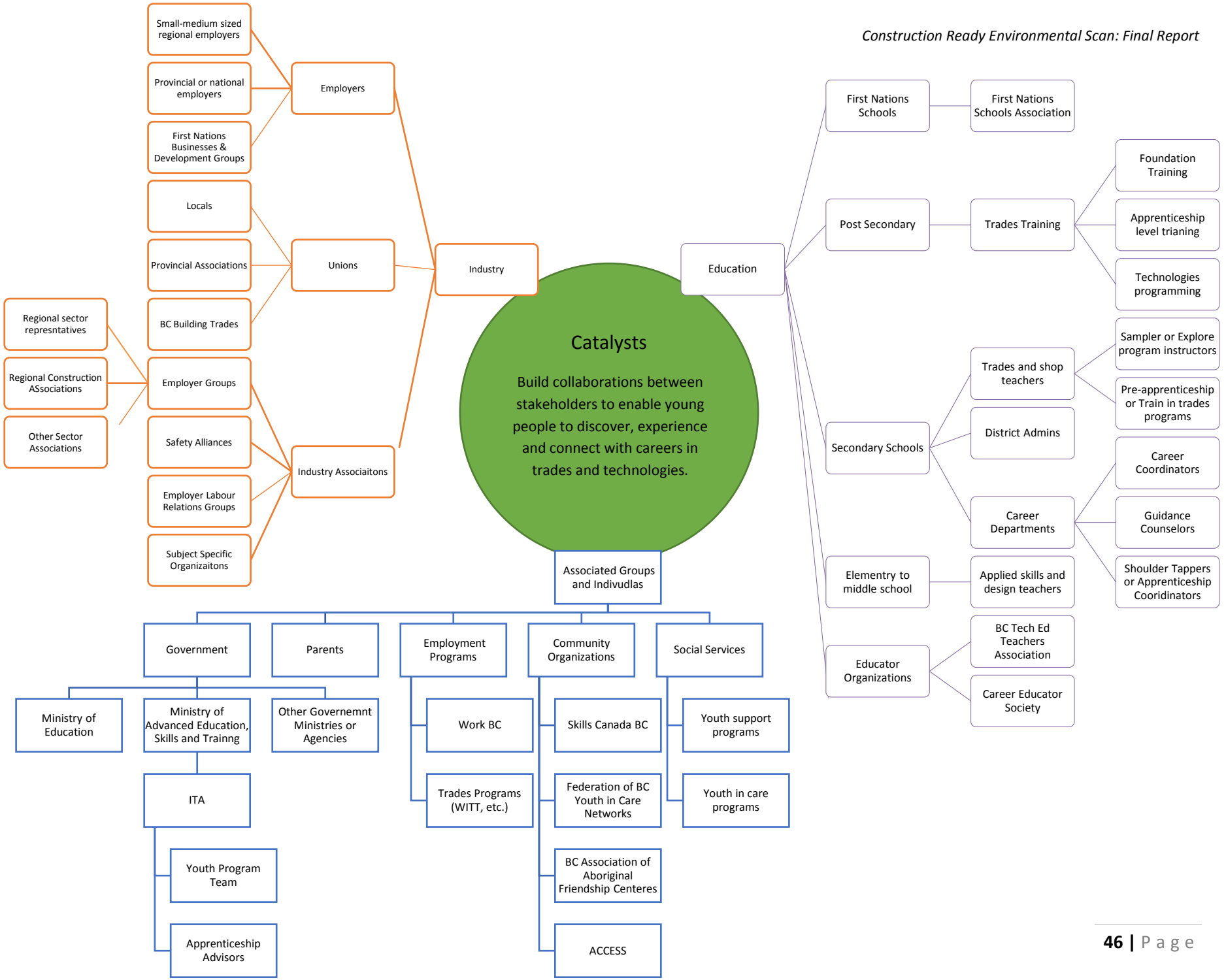
People Factors Example: Relationships Map

The following graphic maps the people factors that have been identified through the scan. This is a conceptual representation of the individuals and organizations potentially involved in implementation. The presence – or absence – of these can be seen to affect overall project goals.

The map is divided into three groups, with the Catalyst playing a central role of building relationships and coordinating efforts to engage youth. The first group is industry, which includes stakeholder groups and individuals who are providing opportunity for young people to explore jobs through short experiences, as well as intending to hire full time. Within this group are all the stakeholder groups that have a direct impact on employment outcomes. Engagement with all branches of this section have begun either through Construction Ready, this Environmental Scan or other Foundation initiatives.

The second group is education, and specifically the educators most directly involved in encouraging, preparing and training youth for employment in trades and technology careers. These stakeholders are the gatekeepers for all awareness activities related to promoting the Industry ASK, sector based employment, and any of the project activities to be undertaken. Navigating these relationships can pose a challenge, especially as each school district manage their career and shop programs differently.

The third group are stakeholders that support implementation through coordination of resources, direct funding to project operations or to youth employability, advocacy, or they are part of the network supporting young people transitioning from school into employment. It should be noted that this section represents those groups that have already been engaged and would immediately be part of project planning and delivery. Additional stakeholders are likely to be identified through implementation.


Catalysts
Build collaborations between stakeholders to enable young people to discover, experience and connect with careers in trades and technologies.
Industry
Small-medium sized regional employers
Provincial or national employers
First Nations Businesses & Development Groups
Employers
Locals
Provincial Associations
BC Building Trades
Unions
Regional sector represntatives
Regional Construction ASsociations
Other Sector Associations
Employer Groups
Safety Alliances
Employer Labour Relations Groups
Subject Specific Organizaitons
Industry Associaitons
Education
First Nations Schools
First Nations Schools Association
Post Secondary
Trades Training
Foundation Training
Apprenticeship level trianing
Technologies programming
Secondary Schools
Trades and shop teachers
Sampler or Explore program instructors
Pre-apprenticeship or Train in trades programs
District Admins
Career Departments
Career Coordinators
Guidance Counselors
Shoulder Tappers or Apprenticeship Cooridinators
Elementry to middle school
Applied skills and design teachers
Educator Organizations
BC Tech Ed Teachers Association
Career Educator Society
Associated Groups and Indivudlas
Government
Parents
Employment Programs
Community Organizations
Social Services
Ministry of Education
Ministry of Advanced Education, Skills and Trainng
Other Governemnt Ministries or Agencies
ITA
Youth Program Team
Apprenticeship Advisors
Work BC
Trades Programs (WITT, etc.)
Skills Canada BC
Federation of BC Youth in Care Networks
BC Association of Aboriginal Friendship Centeres
ACCESS
Youth support programs
Youth in care programs

Implementation Starting Points: Provincial Consideration and Regional Variations

Based on the environmental scan data, an initial starting point for implementation can be produced. The starting point will vary for the provincial, macro level plan, and the community or school district level planning. The challenge identified in the environmental scan was that there are provincial targets and goals that would need to be translated in to an implementation methodology in each community. Determinant factors in these areas will shape what is needed and what can be created in the short term and long term. Critically, there is a huge appetite and interest for this type of programming in the high schools engaged in each area. The priority for implementation activities, in terms of focusing on increasing awareness of skilled trades jobs, improving employability readiness, creating connections to industry and supporting teacher efforts, will change locally even though the goal remains the same across the province.

At the provincial level, the starting point for implementation would be to engage with other sectors, align activities, project resources and communication materials with changes at the Ministry of Education, and to immediately undertake industry fundraisers to support a Skills Ready initiative in partnership with other provincial organizations. This would enable oversight from multiple stakeholders and would form the basis for long term sustainability. By revamping the existing model to align with curriculum changes and multiple sectors, activities undertaking can provide new opportunities for career exploration through experiential learning to a broader group of young people, safety certification for course credits and industry support to educator initiative. These are the priorities of the CFBC and have already begun to be integrated into current projects.

As the focus shifts to operational implementation of a Skills Ready project in each region, the role of the Catalyst, the partnerships built with industry and educators, and the targeted engagement with youth will change based on the previously identified factors. Using the above definitions of structural, system and people factors, each area identified in the engagement plan has been be separated in to three categories of readiness. These readiness categories require different types of resources, strategies and partnerships to implement the pilot model. A breakdown of the determining factors and how they equate to the rating system is attached in Appendix 4.

It should be noted that there were no areas that responded negatively to the Construction Ready model. Employers across the regions examined expressed a need to do more to prepare the next generation and all districts are working with what is available to them to create the best opportunities for student success. As such, this ranking reflects current conditions identified in the scan, and not individual educator or employer efforts.

These rankings are based on the data available and are not exhaustive. Additional engagement would be necessary in the ramp up phase of implementation to ensure that all additional stakeholders are identified.

Summary of Rankings: Development Needed, Mostly Ready and Very Ready

In areas that are Very Ready, structural and system factors are in place for quick implementation, and there are the people factors, specifically industry or education champions available, to launch collaborative implementation immediately. For example, employers and educators in both the Northeast and Lower Mainland have been reaching out to ask when implementation could happen and what the next steps will be. In these areas, there is significant potential for improving experiential learning opportunities – especially for groups that are not well represented in industry, such as young women, as well as those who need additional support, such as youth in Care. This was observed in as a key opportunity in New Westminster. System factors, including post-secondary relationships and educational programming options were identified in several trades. In these areas, the most significant role for implementation will be increasing opportunities for youth to connect with employers for hands on learning. They also represent areas with significant opportunity for earlier engagement, including promoting trades and applied learning in elementary and middle school. Economic opportunity and proximity to industry activity are key factors in these areas. The role of the Catalyst in these areas would be to leverage existing programming and relationships to improve the pathway from discovery to employment in apprenticeship by facilitating increased employer connections and awareness activities. This would augment gaps in current opportunities. Partnership development could be undertaken quickly. In areas that are Very Ready, unique experiential learning opportunities could be developed in a short time. A significant distinction between this category and Mostly Ready is the identification for long term sustainability. In these areas, previous industry contributions suggest that there is a network available for sustainable operations based on industry contributions. The time to get to this point is anticipated to be shorter. In terms of transformation to Skills ready, those communities in these areas have already been identified as having interested employers from multiple sectors or have an employment makeup that is dominated by construction trades over other industrial trades.

Mostly Ready means that that there are some factors in place, but barriers may exist to full implementation in the short term. Amongst other considerations, this may mean that relationships are not strong between school and industry, that economic factors pose a barrier to work experience, or that system factors limit in school programming availability. In areas that are considered mostly ready, implementation activities would focus on using industry leadership to fill in gaps in current opportunities for students. Partnership development would be slower to build as there may not be an existing forum in place, however a strong individual interest on both employer and educator sides have been noted. As well, the Mostly Ready category includes schools that are taking on changes to the new curriculum and have expressed a need and want for external industry support to implement more opportunities for experiential learning and community connections for students. Several of the areas in this category would require two priorities: increased employer connections for work experience, and increased opportunities to increase student interest in trades and skilled employment. Sustainability in these areas would require targeted fundraising and industry engagement activities to develop, and would be a medium-term outcome. As well, many of these areas have an economic make up that relies on industrial trades outside of the

construction sector, building this network would be a critical next step to ensure broad economic opportunity for youth.

Development Needed indicates that there are several factors that are currently preventing implementation of the model and that additional programming may need to be created to initiate career discovery and connection opportunities. For example, in areas such as the Central Coast and far north, distance is the biggest determining factor for student opportunities. In several areas, a provincial network of student support would be an activity that would be needed to encourage students to access trades a training and employment outside of their home communities. In some cases, especially where employment opportunities are at a minimum, work experience could be undertaken through a community project and outside experts – such as loaned representatives from industry who could provide short term training through project based learning. Several of the communities in this area have a majority aboriginal student population and several of the findings from the First Nations section of this report could inform implementation activities. Implementation could not rely on partnerships as much as the organizations and individuals may be absent. In these areas, structural and system factors are the biggest challenge and a unique approach to implementation is suggested. For more on this see the detailed high-level plan in section 3. Long term sustainability without targeted grants or government funding may be a larger challenge in these areas as the presence of major donors

Summary Ranking

Very Ready

- Vancouver East (New Westminster)
- South Mainland (Delta, Surrey, Abbotsford)
- Fraser Valley (Mission, Chilliwack to Hope)
- Northeast (Prince George, Dawson Creek, Fort St John)

Mostly Ready

- Vancouver West (includes North and West Van., Vancouver, Richmond, Langley, Coquitlam and Burnaby)
- Rural Coast (Sunshine Coast to Sea to Sky).
- Northwest (Prince Rupert, Terrace, Smithers, Kitimat)

Development Needed

- Northwest (Haida Gwaii and Nisga'a)
- Central Coast (Highway 20 and the Bulkley Valley)
- North (Stikine district & Fort Nelson)

No Response Available from an Educator Prior to Final Reporting

- Nechako Lakes

Section 2: First Nations Career Exploration

It is with gratitude that the Construction Foundation of BC acknowledges the insight gained through visits to the traditional territories of the Nuxalk, Gitxaala, and Tsimshian people. The Foundation would also like to express gratitude to the insight shared from those working on the traditional territories of the Ahousaht, Skeetchestn, and Sts'ailes people.

The Environmental Scan utilized the relationship already being built with representatives of the First Nations Schools Association (FNSA) as a starting point for exploration of training opportunities and limitations in indigenous communities throughout BC. The Construction Foundation of BC has been participating in a dialogue on trades and applied learning options, including the development of financial and industry support for school based activities. This relationship identified a need for an alternative approach to the core components of the Construction Ready model that was more responsive to the opportunities and barriers inherent in First Nations schools in BC. This need formed the base for scan activities.

To investigate how the model could be adapted, exploratory visits were undertaken, outreach to educators occurred by phone and in person, and engagement of community leadership was initiated in cooperation with a cultural advisor. Progress was made towards an improved understanding of how the model could be adapted. Based on the scan's findings, an ongoing partnership process is suggested that would include a balance of individuals with knowledge of community contexts, experience developing learning programming for indigenous youth, and experience providing trades and skills exploration programs. A key role for this group would be to develop a support network of individuals that could assist young people as they transition from school to employment or training away from home. This group would also encourage the acquisition of skills that could be applied to community development and sustained employment locally.

As scan activities progressed, it was done with consideration for each community's unique structure and interest. Wherever visits occurred, outreach to administration and leaders occurred. In respect of the knowledge shared, a gift to support applied learning has been offered as an acknowledgement. The next step is to continue to build collaboration leading towards an implementation proposal that is inclusive of young people's goals, long term strategies to support youth, and relies on partnership for implementation.

Community Visits

Visits to First Nations operated schools in six communities were intended to build relationships and gain a better understanding of the current programming offered. Exploratory visits were possible in three, and factors beyond our control limited visits to the other three. These include periods of mourning, unforeseen events in the community, and evacuations due to wildfires. Consultation with education representatives in the other three were possible through both in person meetings at FNSA gatherings and through follow up telephone interviews. Throughout the process significant considerations to protocol was given, and the advice of a cultural advisor was sought. Ultimately, this report represents a starting point for an ongoing relationship with educators, youth, and the community members.

As part of the ongoing commitment to these relationships, trips are planned to all remaining communities. These will test different hands on learning activities and career discussion strategies. Follow up with all participants is ongoing, and this research will be suggested as a potential starting point for ongoing project development.

Educators and community members from the following communities were included in scan activities:

- Bella Coola (Nuxalt)
- Lax Kw'alams (Tsimshian)
- Kitkatla (Gitxaala)
- Ahousaht
- Sts'ailes
- Skeetchestn

Considerations for Adaptation

Each school operates as a self-governing entity. As such, it is on the initiative of the educator and local administration that programming is implemented. While all schools conform to BC curriculum, how classes are run and which subjects are taught varies widely. While funding dictates opportunities to a certain extent, each school has a significant amount of autonomy. Some schools have collaborated in recent years to provide larger scale hands on learning to middle and high school students. This includes the intro-to-construction trailer that rotates through schools along highway 20 and a multi-school go kart challenge in the interior. Program offerings vary significantly and educators are collaborating and sharing information between themselves extensively. Of the three communities visited, all identified teacher retention to be a challenge when implementing consistent applied learning programs to all grades.

The largest school population was 100 students in grade 7-12. Most schools had around 15 students in grades 9-12. In all schools interviewed or visited, small class sizes enabled the educators to have one on one conversations with students about careers, though actual exploration of the

career was limited. While their structure and size enables them to do unique things – and provides an opportunity to maximize a flexible schedule and student interests – educators are significantly limited by scale and available resources.

Many educators expressed that there has been a university bias in school offerings to date, but that that is changing. Very few educators had a clear understanding of trades training systems and there is an opportunity to share information and awareness regarding trades and career pathways. All schools were interested in offering a variety of hands on learning opportunities and several identified a need to translate the experiential learning into career exploration – though this was identified as being a challenge because of available staff capacity, resources, and work opportunities.

> "Awareness of what's possible can be limited to what you can see."
>
> *First Nations Educator, Northwest BC*

Schools are demonstrating creativity in their implementation of programs for students interested in the trades or technologies, and several are interested in providing more hands-on learning opportunities as well as work experience. A lot of the projects undertaken have relied on teacher capacity and an ability to make use of available resources. In some cases, work experience opportunities have been arranged by an educator, most often these happened in town and transportation was a barrier. More and more energy is being put into the cooperative education programs, though the provision of technical education is limited.

In all cases, staff turnover was identified as being a barrier to developing long term or sustained career and trades programming. Two of the six schools identified that they currently have a staff member with trades certification or experience to lead programing – though both are missing full shop facilities. In the three communities visited, educators described how finding staff has been the key barrier to running shop classes. All three schools visited had a shop with tools available to them. In the sixth school, there was neither a teacher nor a shop, though they are building their own as part of this year's skills programming. Several schools have undertaken smaller hands on learning projects. These range from craft projects to makers spaces. However, it was identified that extrapolating small hands-on activities to career exploration has had low success. In several interviews, educators and community members identified that a more engaging trades specific project or experience may be a better way of relating classroom learning to career conversations. Building a transition plan based on student interest is not always possible as students are unsure of what they want.

All educators interviewed identified that there is an existing, or recent, project undertaking which brought in community members with specific knowledge to lead trades or craft related projects. Most of these were carving projects, though some have implemented boat building and other traditional craft projects (weaving, cooking, trail building which include traditional harvesting and others). Funding and availability of qualified persons were cited as reasons that these weren't sustained or was a limited offering. Very few had brought in an external person to lead skills training, only Ahousaht identified this as something they have tried as part of their shed building project. Interviews with those familiar with several First Nations schools verified that a mix of capacity is present in most other schools and that only a few schools have a relationship with the

public-school district to offer programs collaboratively. Distance from a public institution was identified by educators interviewed to be the primary, though not only, reason for why collaborations are limited. In some cases, students will transfer between the nation's school and the nearest public school for all or part of their middle and secondary education. In practice, supports are in place from band administration and educators to create as seamless a transition as possible. As one educator identified, "It's about creating equitable opportunity wherever the students land." This sentiment became a running theme throughout the scan.

A key line of inquiry explored the difference between employer connections both in and outside of community. In consultation with students, most identified a willingness to travel for work or education, though the majority asked weren't interested in doing that prior to graduation. All were interested in trying things locally, and many had already gained experience in some hands-on activities. All places visited were on or near the ocean and youth identified they had fishing, boating and basic engine maintenance skills – regardless of gender. Several of the youth in the Prince Rupert area identified that they could work in town because they had a relative or friend to stay with. Some identified that they knew of someone with a construction company that they could gain experience with. In conversation with community members and educators in Bella Coola, it was identified that young people are accessing work experience options in the surrounding area. This is happening through base educator facilitation for school credit and on the student's initiative. Most student employment occurred as summer jobs in tourism.

Partnerships with industry from outside of the community exist in very few schools. Most have the ability to access opportunities with band operated businesses or departments – such as housing or public works. Some nations operate their own construction firms, and a direct link to employment is possible. Several schools cited a need for connecting youth with visiting trades people. There are some key barriers to this including cost, coordination barriers, and varying schedules. While none of the six schools contacted have a permanent relationship with industry external to the community, several communities that the Foundation has worked with, including the Gitxsan, do have an established model for industry engagement. However, this is conditional on industry presence locally or within the region.

Linkages between education options and employment are often integrated through the continuing education department which isn't always associated with the school. The Gitxaala have demonstrated leadership in providing ongoing trades training opportunities in community that link to employment opportunities. Youth can access these upon graduation. The Nuxalk Nation is providing strong support to members through the delivery of Carpentry apprenticeship training and work hours through the nation's housing program. This has been identified as an opportunity for high school students to experience trades first hand. All schools expressed an interest in building a base set of skills that could serve students throughout their life, regardless of employment outcome. This sentiment was echoed by community representatives and leaders interviewed. When asked about employment opportunities, several educators and community members identified the need for trades generalists, individuals who could adapt to a variety of tasks

depending on the work available. Most identified that they have a current need for a Red Seal carpenter.

Most young people engaged expressed a strong desire to stay in, or at least connected to, their community. Transitioning from secondary school to employment was identified as being a significant challenge for several students, especially those that will need to leave town for work or school. Educators identified that many students are not aware of their options and not ready for the independent living that would be required to work or study away. In some cases, individual students have left to live with a relative, but returned shortly after. Those who have been seen to be most successful were those with a strong out of community support network. In interviews with community members and continuing education instructors, mentorship was identified to be a critical component to any employment initiative or training undertaken. The ideal, as identified by community representatives, would be to develop the skills that lead to economic development and local employment so that young people could stay long term.

As the First Nations Schools participating in the scan are all at a starting point in the development of their career exploration and applied skills programming, there is an opportunity to develop a continuum of training starting in middle school and building up over time. Uniquely, educators interviewed know their students well because they often follow the same core group of students over multiple years. This provides a chance for multi-year support and the development of a transition plan that evolves as students access new experiences. Most educators have some form of career exploration or transition plan tool, however, additional resources could be developed for skills training if there were consistent opportunities available year over year and in many communities. This may take a five year or more commitment to partnership.

Every community member and school educator interviewed expressed a deep passion for student learning and identified a need to continue to provide applied learning opportunities for young people. There was support for trades learning and the perceptions of trades and technology jobs was generally positive. There is an amazing opportunity for collaboration that could develop unique experiences for youth.

Based on activities undertaken in the Environmental Scan, the following recommendations can be made:

1. **Adapt Industry ASK –** It is recommended that the Industry ASK resources are modified so that personal identity and wellbeing is the starting point. This was identified by several community members as being integral to how student learning is approached. A process of community consultation is suggested that gives specific attention to concerns around terminology or language used. This process may include developing activities that encourage youth to identify how they can develop this in community, with consideration given to values identified in traditional teachings. As such, regional or local variation could be required for some resources.
2. **Develop Partnerships for Experiential Career Exploration** – Collaboration directly with schools has been identified as appropriate in most areas, as long as updates are provided

to administrators and community leaders as activities are developed and implemented. Three types of school and industry partnerships are recommended for consideration:

1) Intensive or short-term learning opportunities sponsored by industry. These may be organized in community or bring several schools together in a central location.
2) Work experience and trades exploration through band operated departments.
3) Work experience, Youth Work in Trades or other short-term experiences organized outside of the community. This will require employer champions and community support.

3. **Building Readiness Together** – All communities engaged expressed an interest in the Construction Ready model – particularly improving connections to employers. The accessibility of awareness and hands on learning options may limit trades discovery. Creating a solution that is both respectful of history while providing continuous, or repeating, experiences that draw on community resources, outside support and partnerships over distance will require support from a variety of sources. This includes not only community leadership and band administration, but post-secondary institutions, industry, youth themselves, and funders at the provincial and federal levels. This will require collaboration and may take time, progressing ins several stages.
4. **Real Examples** – Based on feedback around the Construction Ready materials and presentations, it has been identified that there is a need to show how careers can be connected to life in community. There have been recommendations for the development of additional communication tools regarding career opportunities that are based in resilience and self-reliance, as well as inclusive of indigenous individuals who can share firsthand experience or demonstrate leadership within trades and technologies sectors.

Next Steps

Based on the findings of this scan, a partnership approach to project development will be undertaken by the Construction Foundation of BC in partnership with educators from First Nation's schools. As opportunities emerge, funding for specific engagement activities will be pursued. If a Skills Ready initiative is undertaken, individuals with experience working with indigenous communities in BC will be sought. The Foundation will take the approach that we are supporting the initiative of the schools themselves as they can provide community insight and build the relationships needed in implementation.

As such, the Foundation will work in collaboration to develop the infrastructure for implementing a unique model of skills learning and career exploration by:

1. Prioritizing student learning and school activity in all relationships, with consideration and respect given to nation and band oversight
2. Supporting educators to lead student engagement
3. Working in partnership with associations and organizations to build support for hands on learning activities in and out of school as available

Section 3: High Level Work Plan

There is a desire amongst industry and secondary schools to develop a provincial initiative that encourages young people to start career exploration early, to prepare for employment through exploration of the Industry ASK and career resources, and to connect to employment experience prior to their transition from secondary school. The development of an implementation network of employers across BC to support youth exploration and preparation for trades and technologies careers represents a significant opportunity to address skill shortages that are already experienced in many sectors.

By creating an opportunity for industry to support applied learning and career exploration, Skills Ready would be a unique opportunity to implement an innovative, made in BC solution, to workforce development. Through industry collaboration in the high school environment there is an opportunity to lead a transformation in what is possible in terms of building, growing, and sustaining trades and technology industries in BC. Using hands on learning and personal development as a starting point, implementation in these areas would support a discovery and training pathway that includes first hand sector experience and the pursuit of apprenticeship or other full-time employment at graduation. From building interest, to creating stronger labour market attachment, multi-sector collaboration can provide the industry relationships and support that addresses current gaps in youth transitions from high school to trades and technology employment.

This section explores the concept further and lays out a high-level work plan for a full-scale initiative that would work across BC to either augment existing programming or develop new opportunities depending on what is available in each area. Two concepts, the Shift and Build Together, are incorporated as projects within the larger Skills Ready initiative. These address opportunities and needs that were identified through the environmental scan activities.

It should be noted that the plan identified below represents a big vision theory of implementation of the Skills Ready Concept. Operations funding would need to be developed and sustained for at least the first five years for the initiative to be successful. However, even if smaller scale portions of the concept were to be implemented there would be a noticeable benefit to young people and employers across BC. There is also significant benefit to the public good as project activities could help develop the next generation of creative, engaged, and skilled BC citizens that grow and sustain our communities and economy.

Towards Multi-Sector Collaboration

Based on the research conducted through the environmental scan, it has been identified that there is a strong interest across sectors for a youth centered initiative that provides a bridge between industry and youth. The current risk in the secondary school environment is that sectors compete for limited space in school based activities. This competition may prevent progress being made as efforts would be disjointed and overwhelming to educators – ultimately leading to disengagement.

The operations for the project will include a strong frontline team and an industry liaison that would build collaboration across sectors. To ensure that there is a meaningful, and cohesive, effort made, the industry liaison will work to engage representatives of multiple sectors to oversee project implementation and guide the development of all resources. This collaboration has been initially undertaken by the Foundation on the subject of safety through the LearnSafe initiative.

Gathering support will take time, and should be done with great attention to ensure that industry organizations and employers are demonstrating their commitment for those activities undertaken through collaboration. Starting with 3 key sectors – manufacturing, construction and forestry – we are establishing the baseline for collaboration with additional sectors: resources (mining, oil and gas), automotive, ship building/marine, aerospace, information technology and others. By working through a cohesive mechanism, we can provide the resources to young people that can help them make informed decisions about the skills and jobs they want to pursue.

The frontline team will be made up of Catalysts with multiple subject matter expertise. Catalysts build relationships at the community level with industry, educators and youth and provide opportunities to get involved in discovery and experience related activities. They work with educators to make use of in school opportunities while acting as a bridge to employers. Catalysts provide a continuum of support to schools, instead of one-off presentations, that will translate into a cohesive pathway into employment in any of the trades and technology sectors. Because the starting point is universal employability and transferable applied skills, Catalysts play a critical role in ensuring the industry connection is diverse and appropriate.

Included in Skills Ready will be sector-specific variations of FutureBuilder and the communications materials produced to date. These variations can demonstrate the transferability of applied skills and core competencies inherent in the Industry ASK. This is a strong starting point for short term success and long-term sustainability because it attracts a broader base of industry supporters. A multi-sector resource will also enable the project team to engage educators on a broader level as they see it as a more applicable resource for a wider spectrum of students.

Supporting Youth Across BC

Recognizing that all youth are vulnerable, but some face unique barriers, Skills Ready will have the infrastructure to also identify and support target groups of youth before they leave school. It is an investment in prevention. By working with community and education partners, the core Catalyst team will provide unique support that encourage employability while addressing barriers through industry contributions. This is early intervention to support target groups of youth in care, young women, indigenous youth, and immigrant youth, empowering them to access the resources needed to improve their employability and establish a connection to apprenticeship before they transition out of school.

As well, project implementation represents a continued commitment to build relationships with First Nations schools and students. This has begun under the Environmental Scan and represents a long-term commitment to partnership. Where opportunities arise, we will implement project activities in First Nations communities in collaboration with indigenous leaders.

Through collaboration, industries can best support youth to discover and experience their own passions and invest into their future. This is done through connection with committed employers, tradespeople, and mentors. Bridging the gap between education and employment requires an empathetic approach to relationship building that is based on common goals and a deep respect for individual needs and how ready youth are for work in each community.

Skills Ready presents a unique opportunity for education, government, and multiple industry stakeholders to partner towards an innovative solution to skills shortages in BC. With a focus on building collaborations, Skills Ready implementation can elevate industry's efforts to engage the next generation, essentially kick starting a transformation of how trades and technology based industries recruit and retain young workers. This will generate a solution that can be sustained through industry initiative and fundraising over the coming decade as hundreds of thousands of skilled workers retire.

Staff Structure

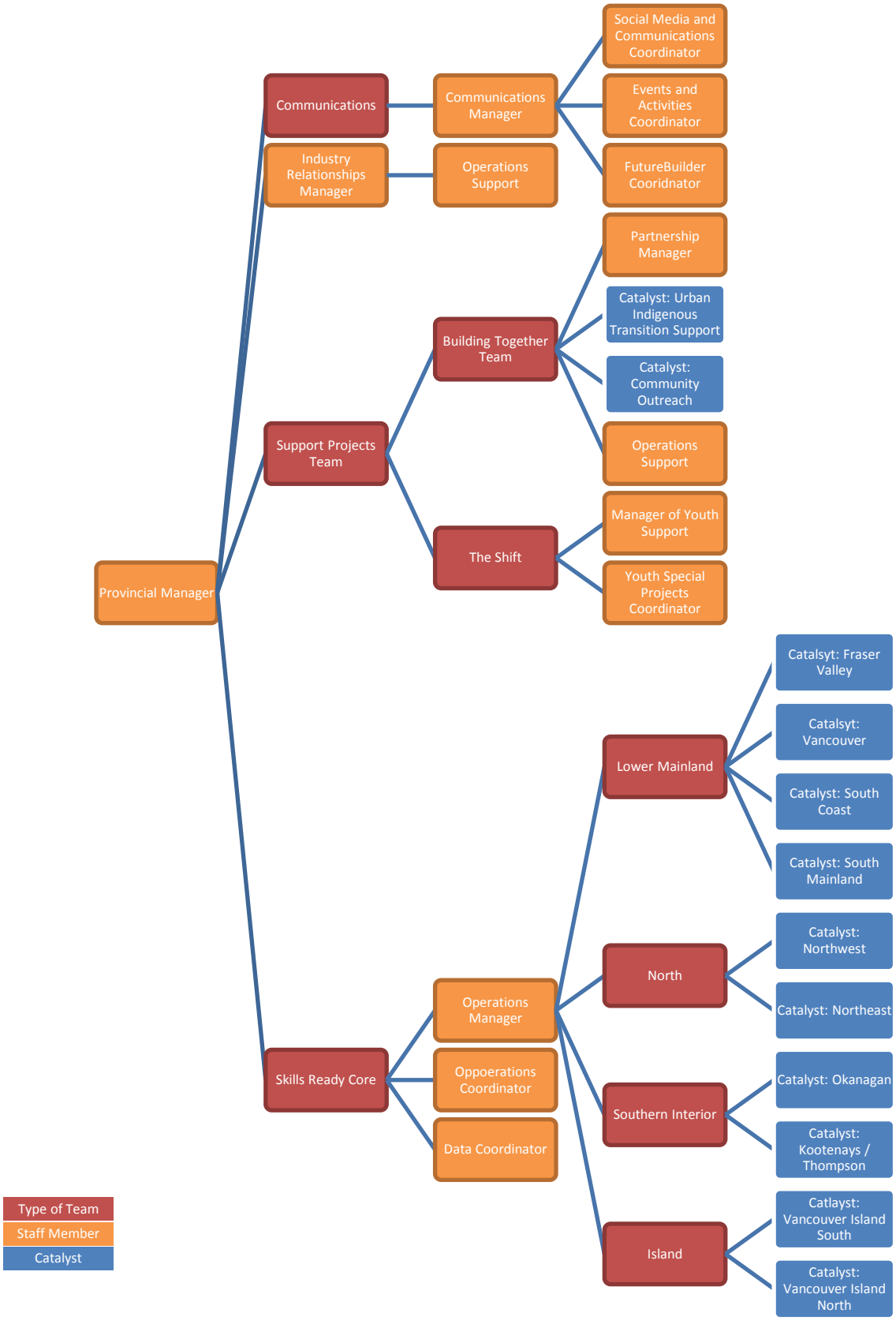
The following structure identifies an ideal version of Skills Ready. This structure uses flexible implementation teams to react to emergent opportunities while implementing a common project. This would be an effective way of responding to variations in regional challenges, evolving needs of project partners, and multi-sectoral variations.

In this model of full provincial operations, 12 Catalysts are proposed using the current ratio of 1:20,000 students. Catalyst would form a diverse team of subject matter experts, including individuals who can provide support to indigenous learners as well as at risk youth. To this end, ongoing training is suggested to address concerns of cultural sensitivity and best practices for working with vulnerable populations.

In the spirit of partnership, not all these positions would need to be within the Construction Foundation of BC. Partner organizations, such as the BC Federation of Youth in Care Network, or Access may be best suited to provide implementation support.

In the suggested implementation plan, Catalysts would be hired over two years as activities ramp-up and new opportunities are developed. The Catalyst role may differ based on community or regional need, and could eventually evolve to provide training or hands on learning experiences in remote areas.

Skills Ready Staff Map



Activity List

The following activities are proposed to be undertaken through Skills Ready.

Ramp up Activities

The Construction Ready pilot demonstrated that building collaboration with educators in secondary schools takes time. In order to be included in planning for the 2018/2019 school year, ramp-up activities should begin up to eight months prior to the September 2018 school year start. This timeline ensures a targeted approach will enable a great scale of activity in a shorter period.

To this end, the following program activities are proposed. These would provide the opportunity for youth, employers and educators to participate in small scale activities, to establish employer networks and partnerships to lead program activity, and encourage educator awareness of Skills Ready opportunities. It would also enable some successful work experience connections for the summer of 2018, a key first step in gathering buy-in for project objectives.

The following activities would be initiated as early as November 2017 in anticipation of building stakeholder support prior to September of 2018.

Skills Ready Core Program

1. Establish an initial staff presence in the Lower Mainland and North
    a. Hire an Operations Manager – This individual would require experience working in or alongside the secondary school system in BC. Tasks include building educator support and identifying regional test groups
    b. Hiring process for a minimum of 2 Catalysts
    c. Hire data coordinator position to assist with tracking efforts
    d. Hire a Communications Coordinator to lead social media engagement and special events
    e. Hire an Industry Relationships Manager – This individual would be responsible for building and managing cross sectoral partnerships
2. Complete consultation with multiple sectors
    a. Gather sector specific insight to develop career awareness and Industry ASK resources
    b. Gather stories and other examples for social media engagement
    c. Build additional multi-sector buy in for a coordinated model of secondary school engagement
    d. Complete an inventory of threats and opportunities for Skills Ready that will guide partnership development and implementation activities
3. Initiate cross-sectoral partnership
    a. Build relationships with key associations, groups and businesses in each sector in support of implementation
    b. Coordinate efforts to develop sector specific career tools under the Skills Ready umbrella
    c. Provide opportunities to test multi-stakeholder engagement activities

4. Develop and test a multi stakeholder governance model for Skills Ready advisory which incorporates industry representatives, government organizations, union representatives and educators
5. Complete implementation and evaluation plans
    a. Based on sector stakeholder consultation, the Construction Ready pilot model and the Construction Ready Environmental Scan complete an implementation plan that includes updated performance indicators
6. Develop Communication Materials
    a. Complete sectoral research through consultation to develop career pathway tools, and adapt the Industry ASK with sector variation
    b. Develop an implementation and content management plan for FutureBuilder as a multi-sectoral career exploration, connection and tracking tool
    c. Develop social media strategies for Skills Ready, with sector specific engagement strategies developed as a complement to core messaging
    d. Develop video and other digital promotion tools for Skills Ready
    e. Design and order collateral
    f. Design presentations for Skills Ready with a sector specific modification plan to incorporate industry presenters
    g. Develop website presence for Skills Ready that details sector specific resources as well as a digital version of the Industry ASK rubric
7. Test Skills Ready implementation
    a. Using the Construction Ready model, work with sector partners to test the Skills Ready implementation model
    b. Initiate outreach, special events, presentations and other awareness building activities
8. Evaluate and modify Skills Ready test groups for broad implementation starting September 2018

The Shift: Skills Ready additional supports for youth in care and youth transitioning from care

1. Establish staff team
    a. Hire Manager of Youth Support – This individual would lead the development of best practices for engaging youth in care and would advise on the direction of program implementation for youth facing unique barriers to work readiness. They would also be responsible for outreach and partnership development with alternative schools, social agencies, and youth in care support services
    b. Hire Youth Special Projects Coordinator – Responsible for coordinating implementation approach and providing day to day operations support.

Build Together: Skills Ready First Nations Schools Pathway & Partnership Development

1. Establish staff team
    a. Hire a Facilitator of Indigenous Partnerships – This individual would be responsible for coordinating efforts to build partnership between First Nations School educators to develop and implement a Skills Ready that is relevant to community and inclusive of Indigenous youth identities
    b. Identify cultural advisors
    c. Engage urban aboriginal community partners who can assist in implementation
2. Establish a Terms of Operation for a Build Together initiative
    a. Initiate dialogue with educators and community representatives to establish a Terms of Operation for consultation, planning and eventual implementation
3. Coordinate school consultation and initiate visits to communities with First Nations schools that identify an interest in participation.
    a. Consult with educators to identify unknown opportunities and gaps
    b. Identify community champions to partner with schools for sustained implementation
    c. Consult youth to inventory current skills and identify interests. Information from up to 40 schools will form the basis for planning
4. Identify industry collaborators and champions that will contribute to the development of an industry-partnered, applied skills learning initiative
5. Submit proposals for funding that establishes an approach for implementing applied learning and career exploration for First Nations communities facing barriers to Skills Ready participation

Full Implementation

Running from 2018- 2023

Skills Ready Core

1. Scale up staff team
    a. Hire additional Catalysts
    b. Hire additional communications and operations support
2. Communications Projects
    a. Online engagement
        i. Make labour market information accessible
        ii. Tell the story: youth share their own success
3. Awareness activities
    a. Career presentations
    b. Project specific learning activities
    c. Trades Camps
    d. Career days on site
        i. Whole class exploration of manufacturing and pre-fabrication facilities
    e. Tours of facilities
    f. Short term job experience
        i. Rotating positions between office and shop floor
    g. Exchange a trade days
        i. Students see where one particular skill has multiple applications across sectors
    h. Parent engagement
        i. Bring your kid to work days
        ii. Project showcases for parents of middle school students entering high school
        iii. Outreach to elementary parent groups
    i. Online and digital engagement tools
        i. Career program resources that are aligned to curriculum
        ii. Lesson plans on safety
    j. Industry ASK resources
        i. Online and print material related to employer expectations and job postings
        ii. Updated rubric for construction and other sectors
    k. Sector specific career exploration resources
        i. Labour market information made digestible to a youth audience as young as middle school, or earlier as appropriate
        ii. Career maps for trades and technologies that focus on transferable skills, as well as specific sectors.
        iii. Resources on alternative energy, manufacturing process and green building practices
4. Readiness and connection activities
    a. Employer networking opportunities for students

   b. Educator and employer small scale networking opportunities
   c. Employer in school activities (shop class showcases and guest lectures)
   d. Interview events
      i. Networking opportunities
      ii. Summer and spring-break opportunity fairs
   e. Free safety certifications
   f. Work experience opportunities
   g. Pre-apprenticeship rotations
      i. Youth cycle through multiple sub-trades over the course of a month
   h. Self-assessment activities
      i. Online resources used in classroom learning
      ii. Catalyst led engagement activities in classroom (shop and career classes)
   i. FutureBuilder
      i. Generate incentives for youth to document and track their progress towards work readiness
      ii. Offer training sessions for educators and employers
      iii. Develop online webinars and tutorials to encourage use
      iv. Implement sector exploration tools within FutureBuilder
      v. Integrate into two new careers classes for career exploration and connection
      vi. Integrated as a capstone project
      vii. Integrate into shop classes under ADST curriculum
      viii. Use in support of Workforce Certificate Training 12
5. Partnership Development – Towards Sustainability
   a. Focus on developing community partnerships between industry and educators to support ongoing program implementation
6. Ongoing evaluation and project oversight
   a. Maintain sector coordination group
   b. Maintain project advisory group including government, industry, and other stakeholders
   c. Engage youth consultation and evaluation specialists
   d. Engage evaluation consultant for 6 month evaluations of progress towards outcomes and implementation strategies
7. Fundraising
   a. Targeted fundraising to support youth readiness including support to Skills Canada BC regional competitions
   b. Fundraising for grants to youth facing barriers to employment
   c. Fundraising for apprenticeship tuition for those not eligible for free tuition
   d. Fundraising from major donors for ongoing operations support

The Shift

1. Integrate youth in care support plan for core Skills Ready program
2. Develop materials for foster parents
    a. Trades and sector specific information
    b. Breakdown of available programs and resources to support youth transitioning into apprenticeship
3. Develop a support network of community groups and services supporting youth transitioning from care into trades employment, including:
    a. Post-secondary institutions
    b. Social services
    c. Employment services
    d. District administrators and alternative education teachers
    e. Youth advocates
4. Provide grants to youth in care seeking employment and apprenticeship
5. Implement special projects for youth in care to experience hands on learning

Build Together

1. Deliver applied learning opportunities for indigenous youth
2. Support work experience and apprenticeship experience for youth from indigenous communities
3. Test an integrated support plan which relies on a network of employer and community supports to aid the transition into employment and apprenticeship
    a. Improve supports to youth seeking training and employment opportunities away from their home communities

Transition Planning

Starting Fall of 2022

Skills Ready Core

1. Develop core funding from industry sponsors to support ongoing awareness, readiness, and implementation activities over time
2. Sunset networks or activities in areas where implementation is not leading to increase youth interest in trades and technologies
3. Build effective partnerships at a regional level that can be sustained through employer and educator initiative, even as people retire or change positions. Identify minimal required resources for ongoing sustainability and potential organizations that can integrate activities into their core business model

The Shift

1. Establish ongoing fund development plan in collaboration with partnership organizations
2. Identify most effective granting streams and target fundraising for those activities

Build Together

1. Develop a funding model that can integrate activities into existing and ongoing funding sources at the provincial and federal level
2. Establish strong relationships with industry champions

Appendices

1. Lines of Inquiry
2. School Engagement Summary
3. Employer Engagement Inventory

Appendix 1: Lines of Inquiry

The following lines of inquiry were used to guide all interview schedules, forum activities, and consultation strategies.

1. What are the existing partnerships between industry and secondary schools?
    a. What additional partnerships are ready to be developed?
2. What collaborations exist between post-secondary and secondary education for the delivery of trades training to secondary students?
    a. Where may additional collaborations be developed, including with industry based training partners?
3. What are the existing linkages to construction employment and apprenticeships that exist for students?
    a. Where are there potential to develop pathways into apprenticeship following graduation?
    b. If local employment opportunities are available, what options for technical and work based training can be accessed?
4. What are the barriers to in-school work experience and employment faced by secondary school graduates?
    a. If construction is not a high demand occupation, what other applied skills opportunities exist?
5. What are the opportunities for broader parent and community engagement to encourage a deep awareness of construction career potential and realities?
6. What are the additional key strategies for increasing awareness and employment readiness using existing programming, district staff, community based learning, or training?
7. Who are some of the potential collaborators, champions, and employer advocates in each region?
    a. Where can Construction Ready partner with existing government programming in regions such as those associated with the School Districts or Ministry of Education, Ministry of Advanced Education, Ministry of Jobs, Tourism and Skills Training, or the ITA?
8. How can FutureBuilder be adapted to account for activities happening at the community level?

Appendix 2: School Engagement Summary

The following details the districts that were examined to determine the programming options, existing partnerships and the challenges to, or opportunities for, youth transitions into trades and the construction sector.

Lower Mainland/Southern Coast

The Lower Mainland and Southern Coast areas encompass potentially 18 school districts from Powell River to Hope. The 18 districts include:

1. SD 35 - Langley
2. SD 36 - Surrey
3. SD 37 - Delta
4. SD 38 - Richmond
5. SD 39 - Vancouver
6. SD 40 - New Westminster
7. SD 41 - Burnaby
8. SD 42 - Maple Ridge-Pitt Meadows
9. SD 43 - Coquitlam
10. SD 44 - North Vancouver
11. SD 45 - West Vancouver
12. SD 46 - Sunshine Coast
13. SD 47 - Powell River
14. SD 48 - Sea to Sky
15. SD 33 - Chilliwack
16. SD 34 - Abbotsford
17. SD 75 - Mission
18. SD 78 - Fraser-Cascade

This region represents upwards of 60% of the overall BC construction industry and contains significant demographic, geographical and economic variation that affects awareness of, and relationship with, the construction sector and employment.

This region has been divided into 4 distinct areas:

- Vancouver (North Vancouver, West Vancouver, Vancouver, New Westminster, Richmond, Coquitlam and Burnaby)
- South Mainland (Delta, Surrey, Langley)
- Fraser Valley (Abbotsford, Mission, Maple-Ridge, Chilliwack, Hope)
- Rural Coast (Sunshine Coast, Powell River and Sea to Sky)

Northern BC

The largest geographical area, Northern BC presents significant discrepancies in access to both employment and training opportunities for youth seeking construction careers.

The area considered as part of Northern BC for this scan includes up to 13 districts across 6 core communities and 8 periphery communities. Core communities include centers, such as Prince George, Terrace or Fort St. John, where a post-secondary institution and the school district can offer frequent trades training at the secondary level. Periphery communities are characterized by limited trades or applied skills training, limited access to school supported work experience, and barriers such as minimal employment potential or prohibitive geography.

The 13 districts include:

1. SD 27 - Cariboo-Chilcotin
2. SD 28 - Quesnel
3. SD 49 - Central Coast
4. SD 57 - Prince George
5. SD 59 - Peace River South
6. SD 60 - Peace River North
7. SD 81 - Fort Nelson
8. SD 91 - Nechako Lakes
9. SD 50 - Haida Gwaii
10. SD 52 - Prince Rupert
11. SD 54 - Bulkley Valley
12. SD 82 - Coast Mountains
13. SD 87 - Stikine

This region has been divided into 2 areas:

- Northeast (Cariboo-Chilcotin, Quesnel, Prince George, Peace River South and North, Fort Nelson, Nechako Lakes)
- Northwest (Central Coast, Haida Gwaii, Prince Rupert, Bulkley Valley, Coast Mountains and Stikine)

School District No.	District Name	Forum or Round Table Participant[2]	Phone interview or in person engagement		CFBC program data and other data sources[3]
			Career Coordinator, Principal or another District Administrator	Shop or Trades Teacher	
27	Cariboo-Chilcotin		Yes - 2	Yes	CFBC Data
28	Quesnel	Yes			Multiple
33	Chilliwack			Yes	Multiple
34	Abbotsford			Yes	Multiple
35	Langley		Yes - 2	Yes	CFBC Data
36	Surrey	Yes - 2	Yes	Yes	CFBC Data
37	Delta		Yes		CFBC Data
38	Richmond		Yes		CFBC Data
39	Vancouver	Yes	Yes - 3	Yes	Multiple
40	New Westminster	Yes	Yes	Yes	CFBC Data
41	Burnaby		Yes	Yes	CFBC Data
42	Maple Ridge-Pitt Meadows	Yes	Yes	Yes - 2	Multiple
43	Coquitlam		Yes		CFBC Data
44	North Vancouver	Yes			CFBC Data
45	West Vancouver		Yes	Yes	CFBC Data
46	Sunshine Coast		Yes - 2		CFBC Data
47	Powell River	Yes - 2	Yes - 4	Yes	Multiple
48	Sea to Sky			Yes	CFBC Data
49	Central Coast		Yes		No Data Available
50	Haida Gwaii			Yes	CFBC Data
52	Prince Rupert		Yes		CFBC Data
54	Bulkley Valley	Yes	Yes		CFBC Data
57	Prince George	Yes - 3	Yes - 2	Yes	Multiple
59	Peace River South		Yes		CFBC Data
60	Peace River North		Yes		Multiple
75	Mission		Yes		Multiple
78	Fraser-Cascade		Yes		Multiple
81	Fort Nelson		Yes		CFBC Data
82	Coast Mountains	Yes	Yes - 3		Multiple
87	Stikine		Yes		CFBC Data
91	Nechako Lakes				No Data Available
92	Nisga'a			Yes	CFBC Data
	Total	10 Districts 14 Educators	24 Districts 36 Educators	15 Districts 15 Educators	

[2] Number indicated if multiple educators present at one event. Note duplicates removed if educator present at a forum and roundtable.
[3] CFBC program data, ITA data, district reports or another source

Appendix 3: Employer Engagement Summary

Employer engagement was completed through in person interviews, forums in Vancouver and Prince George, and phone calls. The following identifies a summary of contact made.

Region	Total	Phone		
		In Person	Interview	Multiple
Lower Mainland*	30	10	14	6
Northeast	14	6	8	0
Northwest	10	1	7	2
Total	54	17	29	8

Employer Primary Sector**	
Automotive	2
Construction	44
Manufacturing	4
Oil & Gas	4

*Several of the employers in the Lower Mainland have operations in Northern BC, but they are identified as Lower Mainland employers. Examples include Harris Rebar, PCL, Houle, Jacob Brothers, and Ledcor.

**Count does not include employer or industry associations that were initially consulted such as ASTTBC, Canadian Manufacturers and Exporters, Go2HR, and representatives from automotive, forestry and other manufacturing sector organizations.

Appendix 4: Readiness Factors

	Development Needed	Mostly Ready	Very Ready
Structural Factors			
Economic opportunities	Presence of major industry activity that relies on trades, limited opportunity for employer engagement prior to graduation, limited apprenticeship opportunities, limited employment outcomes post-graduation.	Presence of major economic activity including large scale industry or active medium sized operations. Some diversity in trade employment. Some opportunity for employer engagement prior to graduation, limited apprenticeship opportunities, limited employment outcomes post-graduation	Sustained economic activity across a diverse number of sectors. Opportunities for employment prior to graduation in many entry level occupations. Region is not vulnerable to high significant boom and bust cycles.
Geography	Physical geography poses a barrier to accessing education and training opportunities.	Entry level positions are within commuting distance for most students, access to education and training opportunities is moderate to high.	Entry level positions are within commuting distance by bus, access to education and training opportunities is high.
Demographic factors	Small populations lead to minimal number of opportunities for first employment. Limited number of job openings from retirements.	Retirements are anticipated to be high in the coming years, medium to large populations lead to broader opportunities for first employment.	Opportunities created by retirements. Large population base increases number of employment opportunities through demand side factors.
System Factors			
Secondary school education	School has minimal trades or hands on learning programming	School offers some shop class and hands on learning programs, offers some career programs or trades focused training	School offers a divers number of shop programs and has high participation rates. Unique opportunities for career exploration and employer connection available. School may offer in house trades training or exploration
ITA programming	School has minimal access to ITA programming or grants	School has access to most or all program options for students	School accesses all programing and has developed an incremental plan for implementing ITA programming and grants for students

Number and diversity of employers engaged in ITA Youth programming	Limited numbers of employers participating	Some employers engaged in Explore and Work programs	Several employers involved on an annual basis in both Explore and Work programs, diverse trade participation
Union presence	There is no or limited union presence	Union presence is strong in some trades, training opportunities vary	Strong union presence with diverse training opportunities for entry level and professional upgrading
Facilities available for shop class and trades training	Limited school facilities for shop class or trades training. Missing equipment	Some schools have facilities, or school has facilities but is missing equipment needed to implement programming	The school has its own facilities or can share facilities. Equipment in place to run programs
Dedicated support for work experience	Minimal access to work experience options	School actively uses work experience programs based on student initiative	School seeks new employers for students to access work experience
Dual Credit or Post-Secondary training in high school[4]	No to minimal dual credit options available to students	Some dual credit options available to students, some demand though not all available seats are used	Several dual credit options, high student demand for enrollment and several seats available
Post-secondary training presence locally	Students must travel for post-secondary training	Some post-secondary training available locally	Several post-secondary training opportunities available locally
Established presence of employer organizations	No employer organization present	Active employer organization	Employer organization interested in supporting, or already working with, high school students
HR Policy and Hiring practices of local employers	HR policy and hiring practices in many companies are prohibitive for young workers and high school students	HR policy and hiring practices for some companies are prohibitive for young workers and high school students	HR policy and hiring practices provide several opportunities for young workers and high school students
Safety training and certification	Safety training and certification is not available to most students	Safety training and certification is made available to students at cost	Safety training and certification is made available to most students for free
Tools and applied learning opportunities	Exposure to tools and applied learning in community, at home or at school is minimal	Exposure to tools and applied learning in community, at home or at school is minimal or occurs only at high school levels	Exposure to tools and applied learning in community, at home or at school is common for all ages

[4] Note this may also be considered in the ITA programming category

People factors			
Partnerships: Industry and Educators	Industry and secondary school educators have no established partnership	Industry and secondary school educators have some collaboration	Industry and secondary school educators have structured partnership
Partnerships: Post-Secondary and Secondary	Post-secondary and secondary educators have no established partnership	Post-secondary and secondary educators have some collaboration	Post-secondary and secondary educators have structured partnership
Industry engagement	There is no to minimal employer engagement in school programs – particularly amongst trades employers	There is some industry engagement in school programs, though it is mostly restricted to work experience and specific days	There is frequent and ongoing engagement from industry to improve awareness of and access to employment
Educator leadership: Work Experience	Work experience opportunities are not readily available to students	Educators support students interested in work experience to connect with employers	Educators actively promote work experience opportunities for students
Educator Leadership: Trades Pathways	No trades pathway or continuous opportunity to try and train for trades is available or identified	Educators can guide students through trades training and experience programs available at school, support is sporadic and not continuous	Educators have developed a coherent trades pathway for training and experience through multiple years of secondary school
Parent support	Parents actively discourage trades employment or unregister students from programs	Parents are note noted to either encourage or discourage students	Parents actively encourage students to pursue trades and take advantage of programs
Youth awareness	Youth are not aware of the programs available to them locally or in other communities	Youth are moderately aware of programs available to them to gain experience and training	Youth are actively pursuing programs to gain experience and training
Industry leadership: Outreach to Schools	Industry has not contacted schools about creating opportunities for students	Industry has contacted schools to be involved in work experience	Industry is actively creating opportunities for youth to become aware of their sector and access work experience
Industry leadership: Contributions to student learning	Industry has not contributed funds or materials to support student learning	Industry has contributed either funds, time or materials to support student learning	Industry regularly contributes funds and materials and time to support student learning