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Feasibility Study Final Report

Town of Tillsonburg Operations Facility,

20 Spruce St, Tillsonburg, ON N4G 4Y5

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ROTARY LIFT
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RE: Tillsonburg Operations Facility Feasibility Study Final Report

Attention: Carlos Reyes, Director of Operations and Development, 20 Spruce St, Tillsonburg

It is with the greatest pleasure that Fabrik Architects submits this Feasibility Report for your review in collaboration with Hanscomb Quantity Surveyors. This report provides an assessment of Tillsonburg's Operation Facility's needs and the feasibility of meeting these needs on the existing 20 Spruce Street site. This report includes two design options: Option A which proposes upgrades and additions to the existing site and Option B which proposes a new facility on an alternative site. The end of the report will provide a recommended option based on consideration of the functionality of both designs, phasing and costing among other factors.

As the founder and Principal Architect of Fabrik, I strongly believe in providing meaningful, comprehensive, sustainable design solutions that express each of our Client's respective visions and values. Based on our preliminary design work, Fabrik has developed an understanding and appreciation for the programmatic and organizational needs of Tillsonburg's Public Works' departments and recognizes both the deficiencies and opportunities in the current facility.

Our team understands that improved functionality and efficiency are critical to Public Works operations and that the departments at 20 Spruce St have been seeking facility upgrades for many years. The Roads and Fleet departments have outgrown the original 1978 building and 2000 addition and the forty plus year old facility is overdue for a number of repairs and maintenance items. It is our understanding that the Town of Tillsonburg wishes to increase the capacity of the on site departments and move the Water, Hydro and Parks departments to the updated facility.

Based on this directive and our findings from site visits, workshops and design meetings we have determined that Public Works requires more storage, larger vehicle bays and an administrative addition to accommodate all operations. The following report lays out the details and implications of these findings and their related concept designs with the aim of providing an effective solution for the Town of Tillsonburg's operations requirements.

Our Team thanks you for this opportunity to present a comprehensive Feasibility Report for your consideration. We would be happy to meet with you to answer any questions you may have, further discuss the details of this report and determine next steps. We look forward to continuing the professional relationship between our team and yours.

Regards,

Elisia Neves, Principal Architect, Fabrik
200-135 George St. N, Cambridge ON, elisia@Fabrikarchitects.

Executive Summary

Architectural Concept Design for the Town of Tillsonburg's Operations Facility Upgrades

In 2020 the Town of Tillsonburg issued an RFP for Conceptual Design Alternatives for the Public Works Yard Facility, in October Fabrik was awarded the contract. As per the RFP and subsequent design work the Client has articulated the following project objectives:

1. Explore possibilities for additions and upgrades to the existing facility versus a new facility at an alternative site
2. Determine salt storage capacity requirements and identify the preferred conceptual design of a salt storage facility
3. Determine and establish efficient traffic flow and program adjacencies
4. Provide adequate space and program to consolidate the Water, Hydro and Parks department within the Public Works Yard
5. Consider all reasonable solutions including doing nothing, increasing the capabilities of the existing facility and a new site location
6. Prepare preliminary cost estimates
7. Recommend strategy and timing for implementation of the design

Based on these objectives Fabrik has the following assessments and recommendations.

1. After exploring several site layouts during conceptual design Fabrik presents the following two options:

Option A: Renovations and Upgrades to Existing 20 Spruce St Facility

- Design and build a pre-engineered salt and sand storage building for the North-East corner of the yard
- Extend existing roads bays by 20' to be 80' deep and install larger garage doors
- Renovate existing admin space and build an office addition
- Build a discrete fleet addition at the West end of the existing building
- Infill program between the existing roads bays and proposed fleet addition with Water, Hydro and Parks bays and storage
- Establish one way traffic flow on site
- Relocate fuel island close to fleet

Option B: Build New Operations Facility at Alternative Site

- Design and build a pre-engineered salt and sand storage building for the side yard of the site
- Design and build discrete program areas for each Public Works department within a larger contiguous building
- Design and build a separate area at the front of the building for offices and common spaces
- Establish one way traffic flow on site
- Ensure all departments' yard storage requirements are accommodated on site

In both options the addition of a new salt storage facility is the highest priority item and will serve as the first phase of construction in the existing site option. Cost effectiveness will also be prioritized in both options and inform the nature and implementation of the design. As this is not a publicly accessible site the focus of the concept design is on improving the functionality of the facility with lesser consideration for finishes.

2. Based on our design research and coordination with Britespan we have determined specific requirements for the salt and sand storage building which are described in detail in the appendix of this report starting on page 14.

3. Based on our design research and Public Works consultations Fabrik recommends on-site traffic flow be managed as follows:

In both options all vehicular traffic will enter on the side of the site near the salt storage facility to enable convenient vehicle loading. Once vehicles pass by the salt facility they will follow the drive aisle behind the central building then past the fleet department back out to the road. The fuel island will be located alongside the drive aisle across from fleet to necessitate efficient fueling and improve site access and flow.

This traffic flow will apply to all public works vehicles but excludes salt delivery trucks which will enter and exit the site from the same location, and personal vehicles which will have a separate entrance and parking lot in front of the administrative area. This division of traffic flow by vehicle types will optimize efficiency and safety on-site.

Fabrik also recommends the following program adjacencies:

- Roads located in close proximity to the Salt storage building
- Fleet located on a perimeter wall to allow for waste oil removal and easy access for vehicle servicing
- Admin and common programming centrally located to allow easy access for all departments
  - This includes washrooms, lunchroom, meeting room and locker room
- Hydro and Water departments located adjacent to each other as they already share space and have similar programmatic needs
- Departmental storage in close proximity to relevant department's bays to allow easy access to tools and equipment

4. The conceptual design process and extensive Public Works consultation have informed the program requirements and minimum areas listed by department below:

4.1 Non-Departmental:

- One (1) Private Director Office - 175 SQF
- Two (2) Manager Offices - 150 SQF each
- Meeting Room - 800 SQF
- Lunchroom - 800 SQF
- Locker/Change Room - 500 SQF
- Women's Washroom - 200 SQF
- Men's Washroom - 350 SQF
- General Storage - 400 SQF

4.2 Fleet Department:

- Two (2) Supervisor Offices - 150 SQF each
- Mechanics Office - 200 SQF
- Wash Bay - 1200 SQF
- Welding & Fabrication Bay - 640 SQF
- Two (2) Light Duty Bays - 640 SQF each
- Two (2) Heavy Duty Bays - 1400 SQF each
- Pit/Lube Bay - 1500 SQF
- Service Area - 100 SQF
- File Room - 200 SQF
- Storage - 11000 SQF
- Training Room - 800 SQF

4.3 Roads Department:

- One (1) Supervisor Office - 150 SQF
- Lead Touchdown Area - 50 SQF
- Pavement Marking Storage - 600 SQF
- Traffic Control Devices Storage - 500 SQF
- Photocopier Room - 100 SQF
- Sign Storage - 1000 SQF
- Five (5) Vehicle Bays - 1080 SQF each

4.4 Water Department:

- One (1) Supervisor Office - 150 SQF
- Open Office Space - 400 SQF
- Change Room - 200 SQF
- One (1) Vehicle Bay - 1200 SQF
- Storage - 600 SQF

4.5 Hydro Department:

- One (1) Manager Office - 175 SQF
- Two (2) Supervisor Offices - 150 SQF each
- Open Office Space - 400 SQF
- One (1) Vehicle Bay - 1500 SQF
- Material Storage - 800 SQF
- Large Storage - 700 SQF
- Work Area - 450 SQF

4.6 Parks Department:

- One (1) Supervisor Office - 150 SQF
- Open Office Space - 400 SQF
- One (1) Vehicle Bay - 1400 SQF

These programs are analyzed in a more detailed matrix in the appendix of this report starting on page 15.

5. The following is our assessment of all possible solutions for the Operations Facility:

5.1 No Changes

This option suggests that no upgrades are made to the existing public works yard either at 20 Spruce St or the alternative site. Although, the most economical option, this approach would result in the Roads and Fleet departments continuing to outgrow their current facilities and the perpetuation of substantial inefficiencies in Public Works operations.

5.2 Increased Capabilities at 20 Spruce St.

This solution would entail upgrading the existing public works facility at 20 Spruce Street through renovations and additions. This approach is demonstrated in the Option A concept design shown on page 12 of this report.

5.3 Relocation to Alternative Site

This solution proposes relocating the Operations Facility to an alternative site. This is illustrated in the Option B concept design shown on page 16 of this report.

6. Fabrik sent our concept designs to Hanscomb Quantity Surveyors for preliminary costing in April 2021. They produced a detailed costing report outlining the cost per square foot by phase and with subcategories for new construction and renovation. The contents of their report and a letter outlining our analysis of the report can be found in the appendix of this document starting on page 23. Please note this costing was based on an earlier design for Option A which featured a larger, drive through salt storage facility.

7. Based on our design research and Public Works consultation our recommendations for project implementation are as follows:

Option A:

Phased implementation to allow continuous occupation of the facilities and incremental development according to funding availability

- Phase 1 – Construct Salt Storage Building and relocate fuel island
- Phase 2 – Build fleet addition against existing addition while maintaining operations
- Phase 3 – Renovate existing admin space, extend roads bays and build office addition
- Phase 4 – Renovate and expand existing fleet and storage area to accommodate Hydro, Water & Parks

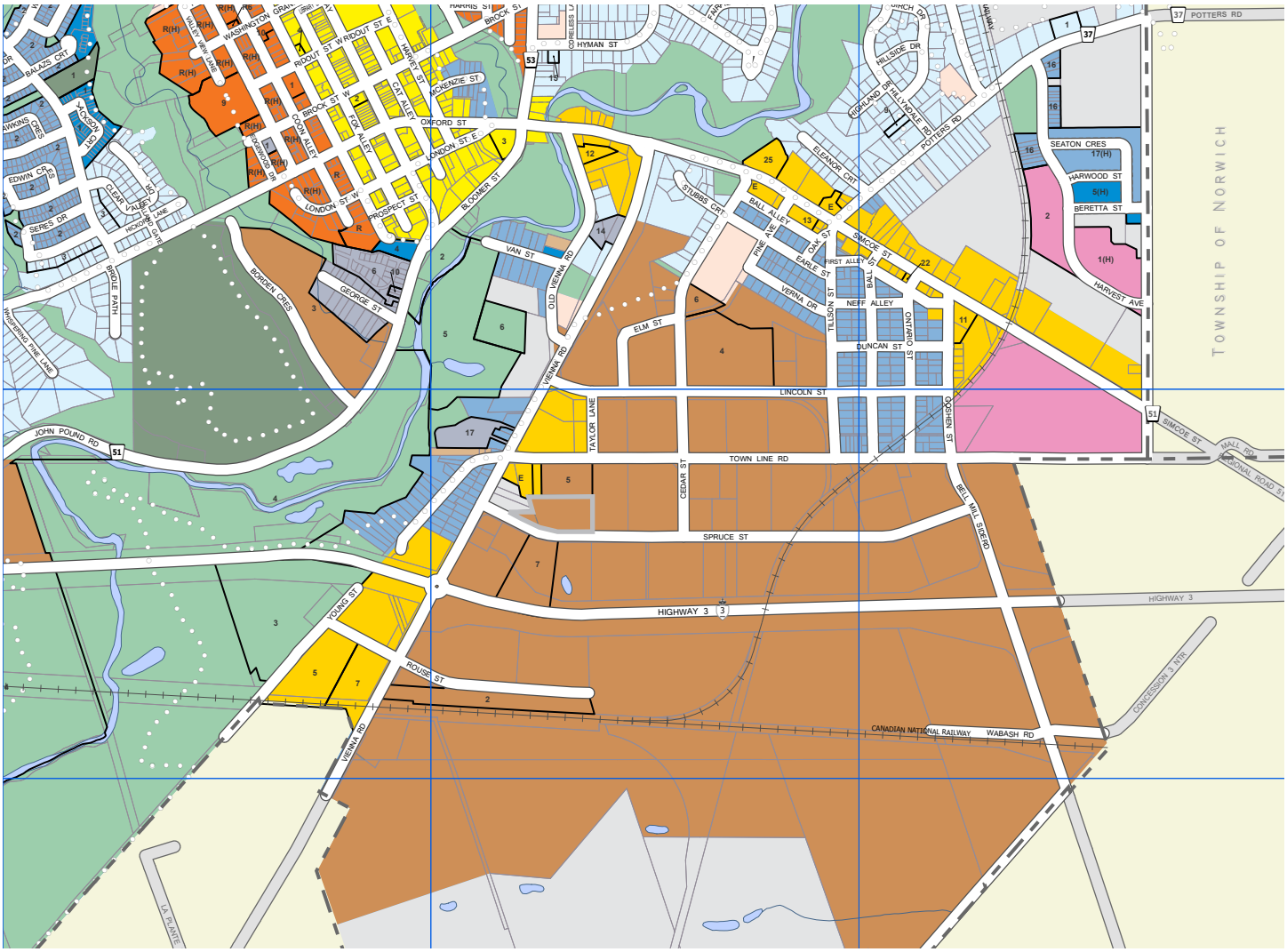
Please note as indicated above this option would require the relocation of the existing fuel island which falls under the jurisdiction and technical specification of the TSSA and is subject to potential environmental assessments. Any decommissioning, relocation and installation of fuel islands will need to be conducted by a contractor from the TSSA's list of licensed contractors. Please refer to the TSSA's Environmental Management Protocol for Fuel Handling Sites in Ontario for more details. Specifically section three of the document addresses operational fuel handling sites and has been included in the appendix of this report.

Option B:

The compartmentalized nature of the Option B layout allows for flexibility in project implementation. Fabrik is currently proposing continuous construction but each department is able to be phased if this is preferred.

The feasibility details of next steps, applicable regulations, and the concept designs are assessed over the following pages in greater detail. Please see the appendix of this report for detailed analysis of programming, costing and salt storage for this project.

Regulations – Zoning Bylaw



ZONING BY-LAW No. 3295

- LOW DENSITY RESIDENTIAL TYPE 1 (R1)
- LOW DENSITY RESIDENTIAL TYPE 2 (R2)
- LOW DENSITY RESIDENTIAL TYPE 3 (R3)
- MEDIUM DENSITY RESIDENTIAL (RM)
- HIGH DENSITY RESIDENTIAL (RH)
- MOBILE HOME PARK (RMH)
- CENTRAL COMMERCIAL (CC)
- SERVICE COMMERCIAL (SC)
- ENTREPRENEURIAL (EC)
- GENERAL INDUSTRIAL (MG)
- NEIGHBOURHOOD COMMERCIAL (NC)
- PASSIVE USE OPEN SPACE (OS1)
- ACTIVE USE OPEN SPACE (OS2)
- MINOR INSTITUTIONAL (IN1)
- MAJOR INSTITUTIONAL (IN2)
- FUTURE DEVELOPMENT (FD)
- REGULATORY FLOOD AND FILL
- A, B, 2 — SPECIAL ZONE PROVISIONS -REFER TO ZONING BYLAW

SITE ANALYSIS:

Maximum Lot Coverage: 70%
Minimum Rear Yard Setback: 7.5m (24.6 ft)
Minimum Side Yard Setback: 3m (9.8 ft)
Minimum Front Yard Setback: 15m (49.2 ft)
Minimum Street Setback: 25m (82 ft)
Minimum Landscaped Open Space: 5%
Maximum Height of Building: 15m (49.2 ft)

Regulations - Building Code

THE ONTARIO BUILDING CODE

Occupancy Classification:

Group D - Business and Personal Service
Group F3 - Low Hazard Industrial

Building Classification:

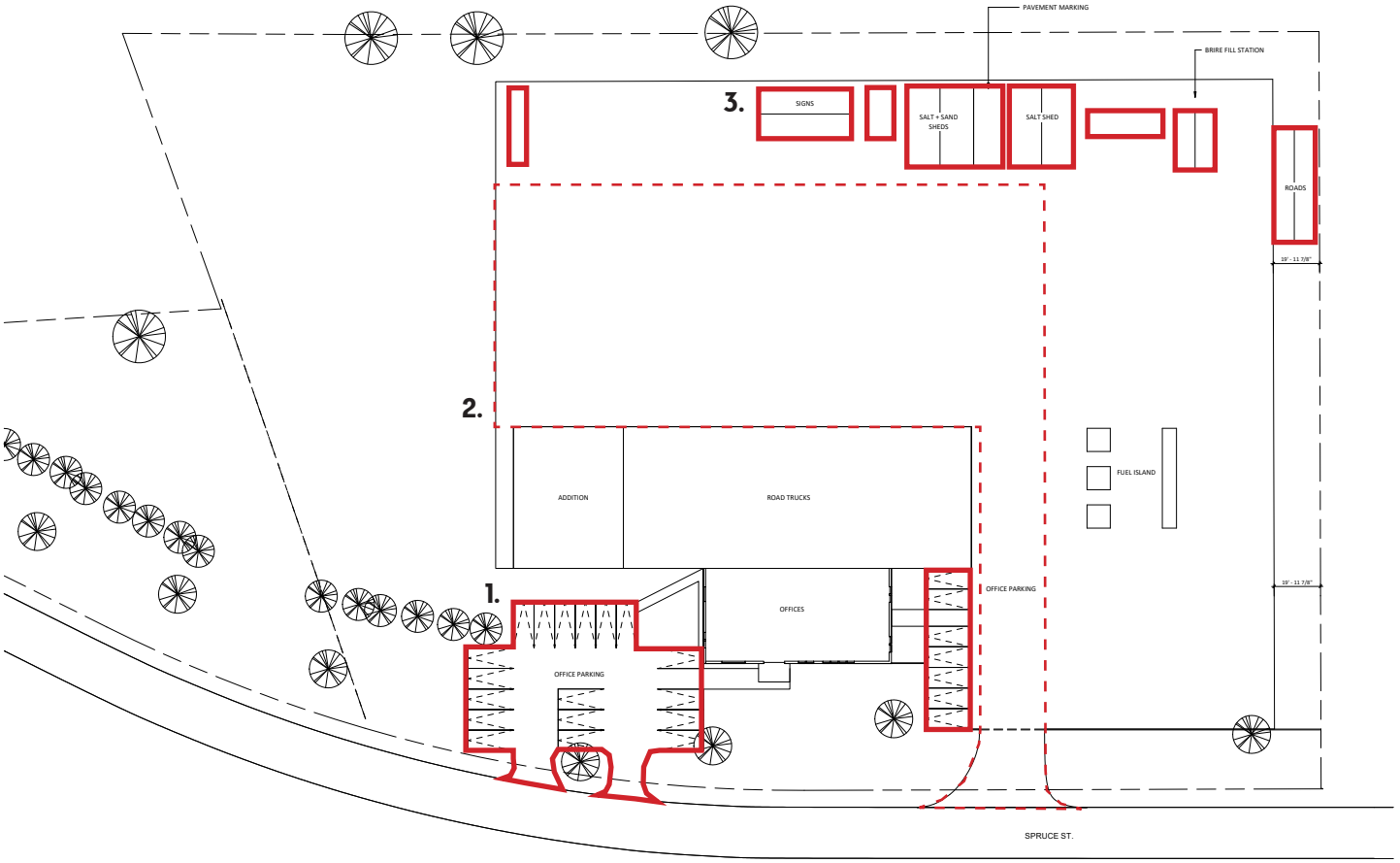
3.2.2.55, Group D, up to 2 Storeys
- Can not exceed 2 storeys
- Can not have an area more than 1000sqm (10,764 sqft) [single street facing]
- Permitted to be of combustible and non-combustible construction
- Floor assemblies, need FRR of 45min minimum
- Load-bearing walls/columns need FRR of 45 min minimum
- Sprinkler system not required

3.2.2.80, Group F, Division 3, 1 Storey
- Can not exceed one storey
- Can not have an area more than 5600sqm (60,278sqft) [single street facing]

Occupant Load:

Office	9.3sqm (100sqft)/person
Storage Garages	46.00sqm (495sqft)/person
Repair of Goods	4.60sqm (50sqft)/person

Existing Condition - Site



ANALYSIS

1. *Inadequate Parking for Future Growth*

- Projected increase in employee and town owned vehicles with additional departments requires a greater number of parking stalls separated in different zones to support different users including employee personal vehicles, visitor parking, and town owned vehicles ranging from small equipment to heavy duty implements

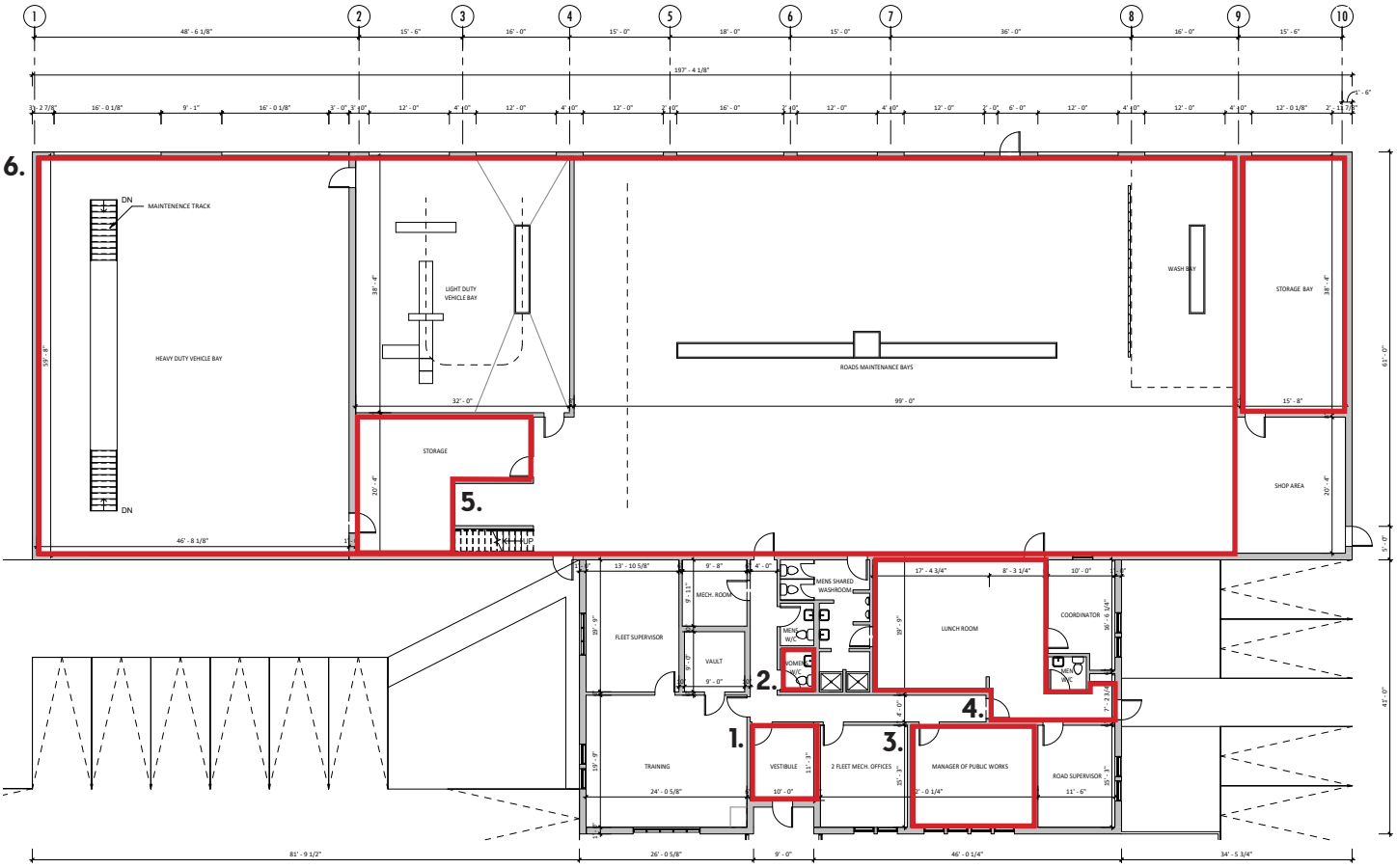
2. *Constrained, Two-Way Traffic Flow*

- The site's current configuration allows for one only one point of entry and exit for fleet, necessitating a two-way traffic flow that terminates in a crowded rear yard, requiring large vehicles operators to reverse with limited turning radii and the assistance of spotters to safely depart the yard

3. *Inadequate, Fragmented Yard Storage*

- The existing salt and sand storage is substantially undersized, requiring frequent restocking during the winter season, surrounding storage sheds are ineffective and impede efficient traffic flow, yard storage requires updating and consolidation to improve functionality

Existing Condition - Building



ANALYSIS

1. *Underutilized, Inefficient Entry Vestibule*

- Current reception style entry vestibule does not effectively serve the building program and has become an underutilized storage space

2. *Inadequate Women's Washroom Facilities*

- Current building only has one women's water closet, needs to reevaluated based on OBC requirements

3. *Inefficient Office Layout*

- Current plan has inconsistent office sizes, resulting in large underutilized spaces and a shortage of total private offices, standardized office sizes would result in a more efficient use of space

4. *Ineffective, Underutilized Lunch Room*

- The current lunch room is undersized with an inefficient layout, resulting in minimal usable space, unable to operate as a functional lunch room, a larger properly programmed lunch room is required to support future growth

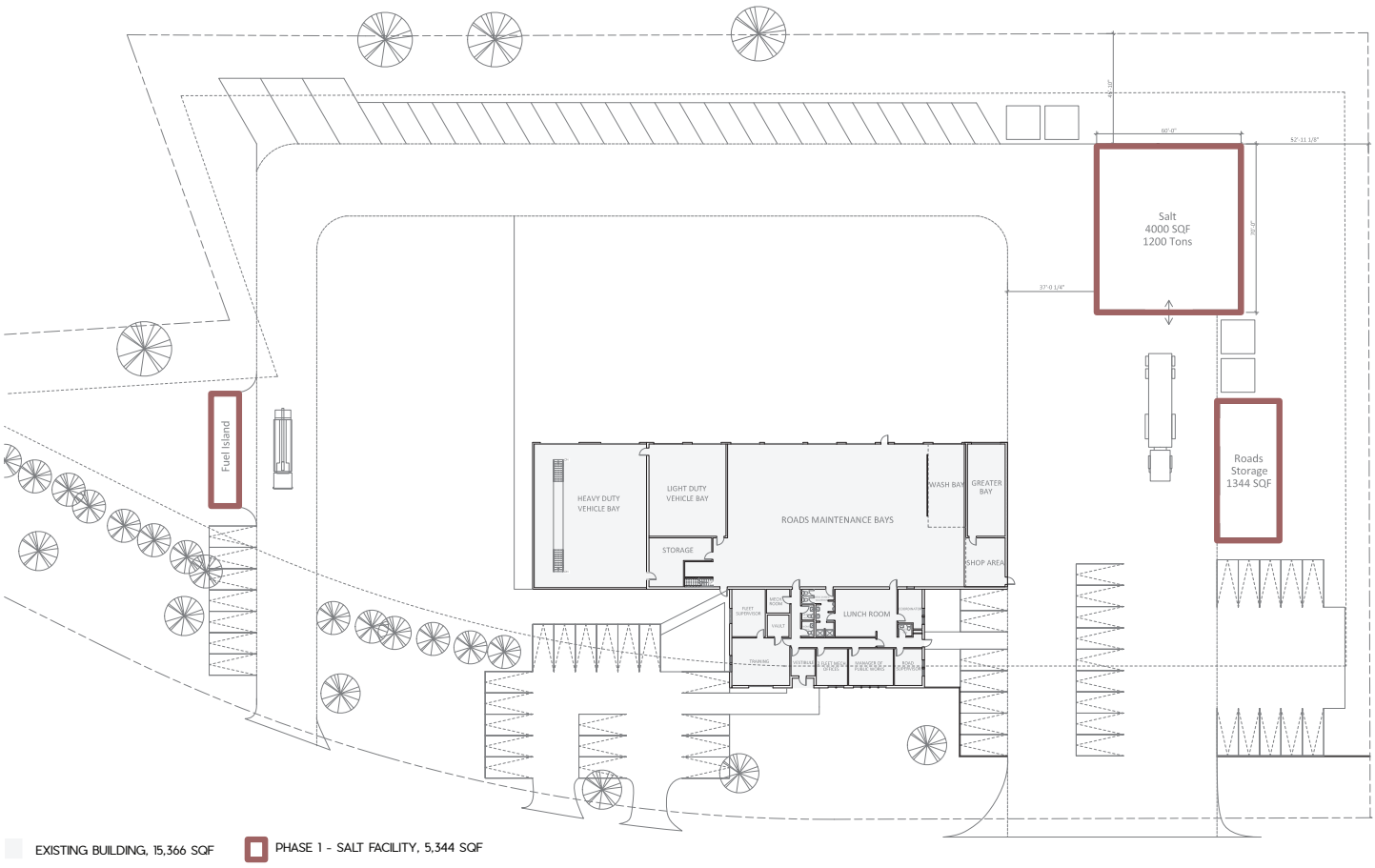
5. *Ineffective Storage Space*

- The existing storage space between the roads and fleet bays is inadequate and inefficient resulting in eastern most roads bay becoming a storage space

6. *Inadequate, Undersized Bays*

- Insufficient number of heavy duty bays for fleet capacity, size of existing fleet and roads bays is inadequate to store and service existing vehicles and cannot support future growth

OPTION A: 20 Spruce St Renovations and Upgrades

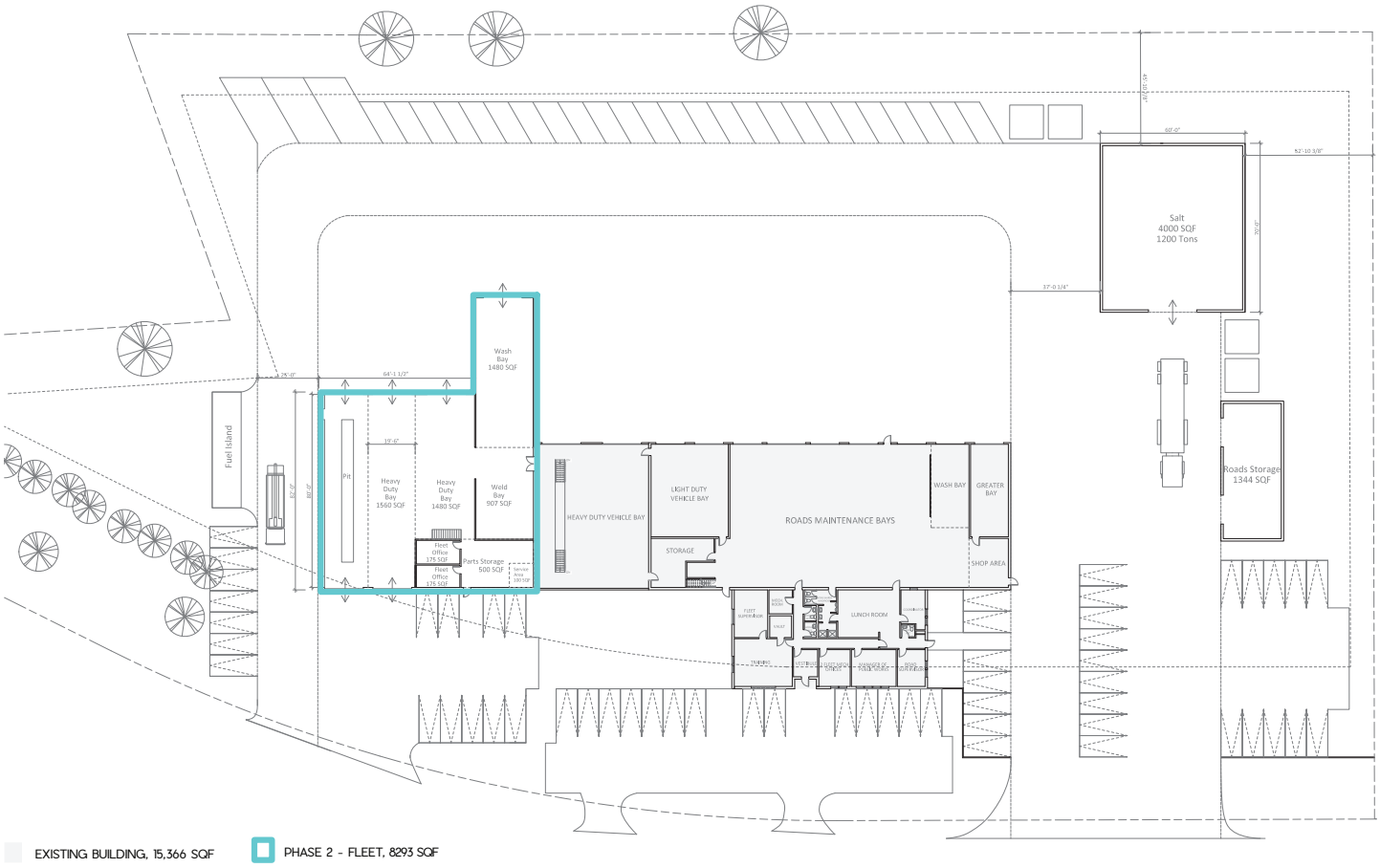


PHASE 1 - Description

Construction of New Salt Facility and Associated Site Works

- Construction of new 4000 sqf pre-engineered fabric salt storage building in eastern yard and adjacent roads storage building
- Paving and site works to establish a drive through one-way traffic flow from the east to west behind the existing building
- Relocate the fuel island to the western side yard to improve traffic flow
- Increase parking stalls for visitor, employee and town vehicle parking
- Relocate sweeping pile and material bunkers along new vehicular path of travel

OPTION A: 20 Spruce St Renovations and Upgrades

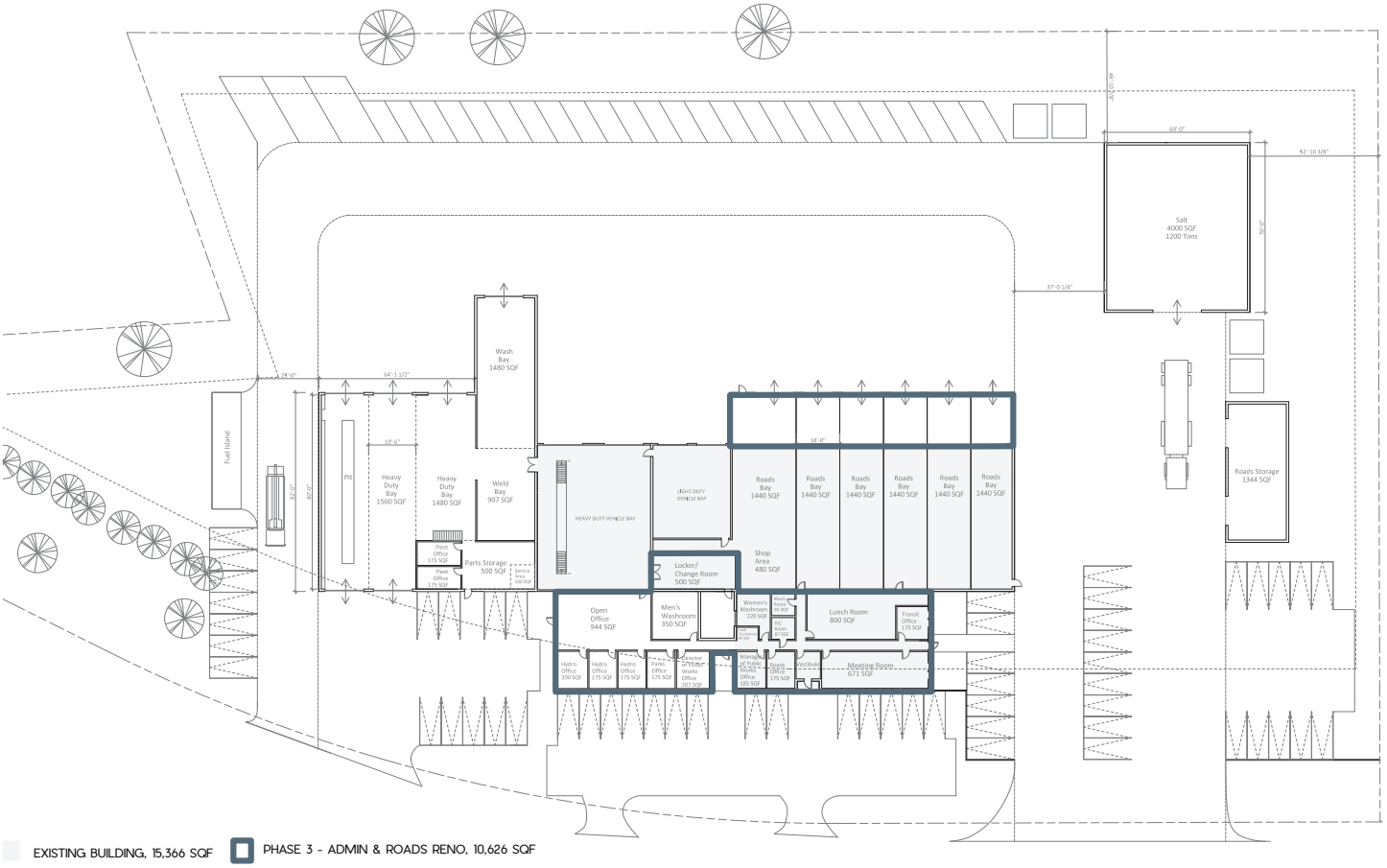


PHASE 2 - Description

Construction of New Fleet Addition

- Construction of a new 8293 sqf fleet addition to existing building in western yard
- Addition to include new drive through pit bay and heavy duty bays, one weld bay, a wash bay, two offices and storage
- Fleet will continue to operate in existing bays during construction allowing full operations on site
- Extension of existing paving to surround new addition and continue to increase parking count
- At the end of this phase water/WW staff will move in

OPTION A: 20 Spruce St Renovations and Upgrades

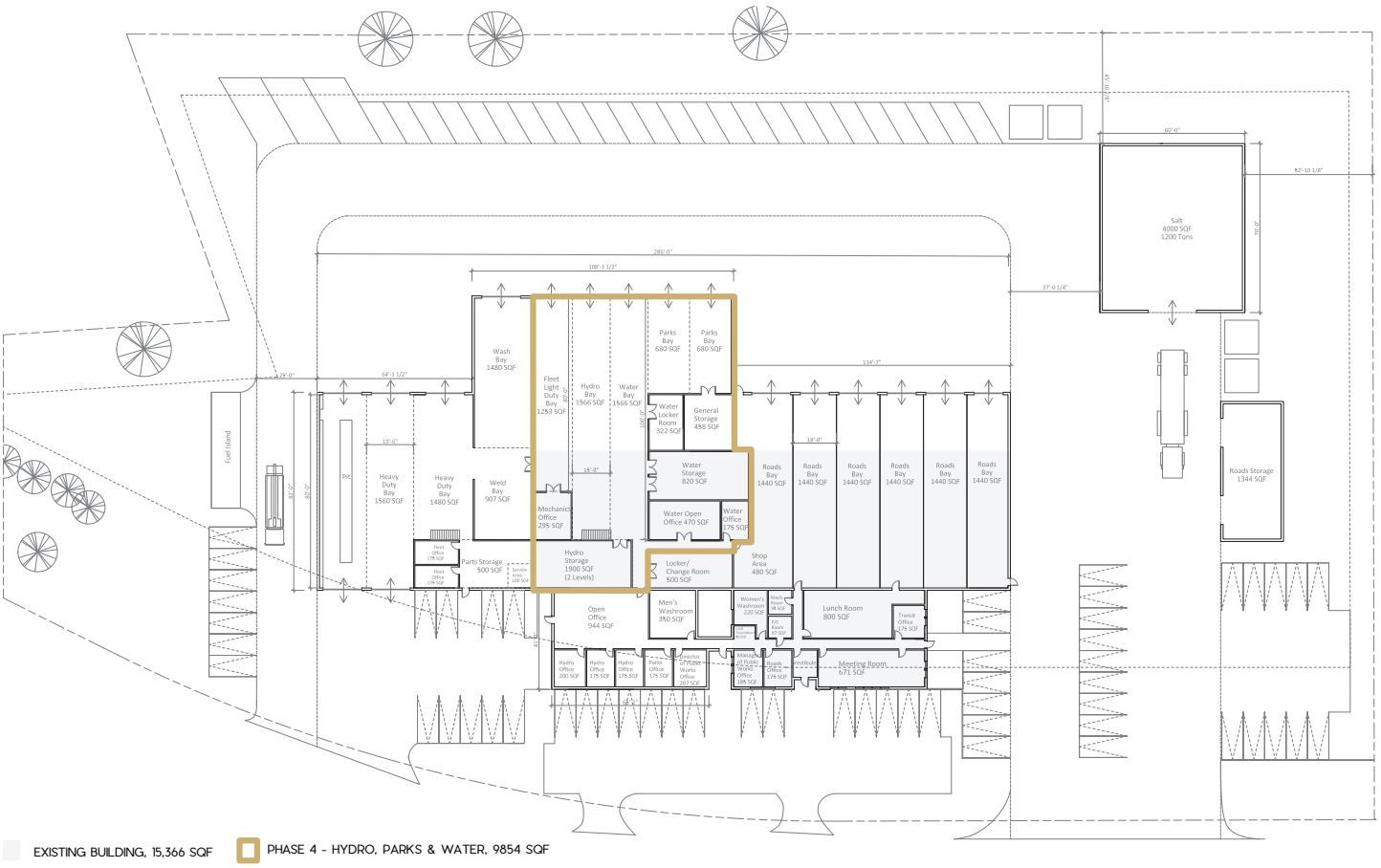


PHASE 3 - Description

Renovation and Addition to Roads and Administration Spaces

- Extend existing roads bays by 20 feet to improve capacity and functionality
- Relocate roads shop area and open up storage bay
- Renovate existing administration spaces to improve functionality and efficiency of space usage
- Construct addition to the west of existing offices to house water and parks offices
- Convert existing storage space into new locker/change room for employees
- Further extend paving to complete final parking count

OPTION A: 20 Spruce St Renovations and Upgrades

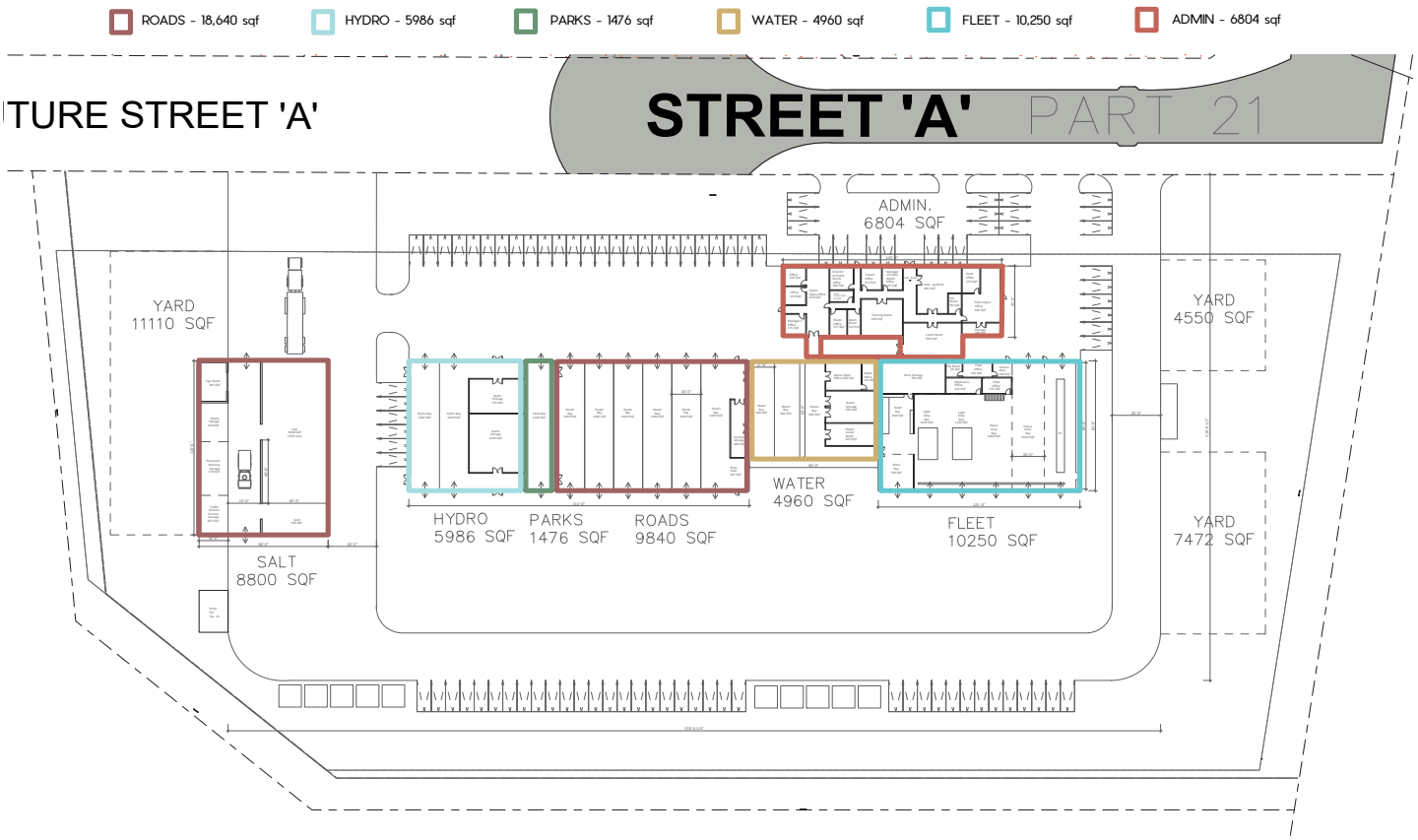


PHASE 4 - Description

Renovation and Addition to Accommodate Water, Hydro and Parks

- Renovate existing heavy duty and light duty bays and extend in line with fleet wash bay to accommodate five new bays: 1 fleet, 1 hydro, 1 water, 2 parks
- Resulting space to include hydro storage, fleet mechanics offices, and water storage and office spaces
- End of phase 4 hydro, water and parks relocate to 20 spruce st

OPTION B: New Operations Facility at Alternative



DESCRIPTION

Construct New Public Works Facility on an Alternative Site for all Departments Concurrently

- Construct new 48,116 sqf facility on alternative undeveloped site for all departments : roads, fleet, hydro, water, parks
- Create connected but discrete programming for each department to optimize efficiency and functionality
- Relocate all currently fragmented public works storage to new site
- Extensive site works including paving, servicing and storm water management to support new facility
- Optimize parking and traffic flow for streamlined operations

Concept Design Analysis

SITE OPTIONS EXPLORED

OPTION A: Renovations and Upgrades to Existing 20 Spruce St Facility

PROS	CONS
- Makes use of existing facilities - More economical - Project can be completed in phases as funding is acquired	- Tight site layout - Less space for each department - Phased construction means slower project execution and less efficient operations

OPTION B: Build New Operations Facility at Alternative Site

PROS	CONS
- Ample space for all departments and yard storage - Room for future growth	- Higher construction costs - Doesn't make use of existing facilities

Next Steps

COMPLETED

4 - 5 Weeks

Feasibility Study & Concept Design

- Develop concept designs for both site options in accordance with stakeholder consultation and biweekly design meetings
- Determine what information is required to support a complete Site Plan application
- Prepare Site Plan with enough information about existing property, proposed and existing structures, and neighboring properties, fire routes, easements, etc.
- Prepare feasibility report summarizing findings from concept design

3 - 4 Months

Detailed Design, Drawings and Permits

- Prepare and submit detailed drawings and associated documents for the Project to the Client for review (60%, 90%, 100%)
- Hold all progress design meetings following the Client's review at each submission, as well as at any other point throughout the design phase
- Undertake permitting and construction approval process
- Permit Review: 20 Business Days

2 - 4 Months

Tender Documents and Award

- Prepare documents for public tender and draft RFP
- Host bidders walk through and issue addenda
- Award project and provide documents to General Contractor

1-4 Years

Construction

- Coordination between Client, consultants and contractor to maintain design intent through construction
- Substantial completion and Client takeover
- Warranty review one year after substantial completion date

Appendix

20 Programming Analysis

21 Enlarged Concept Plans

23 Costing Letter

25 Costing Report

38 Salt Storage Building Quote

41 TSSA Environmental Management Protocol for Fuel Handling Sites in Ontario - Section 3.0

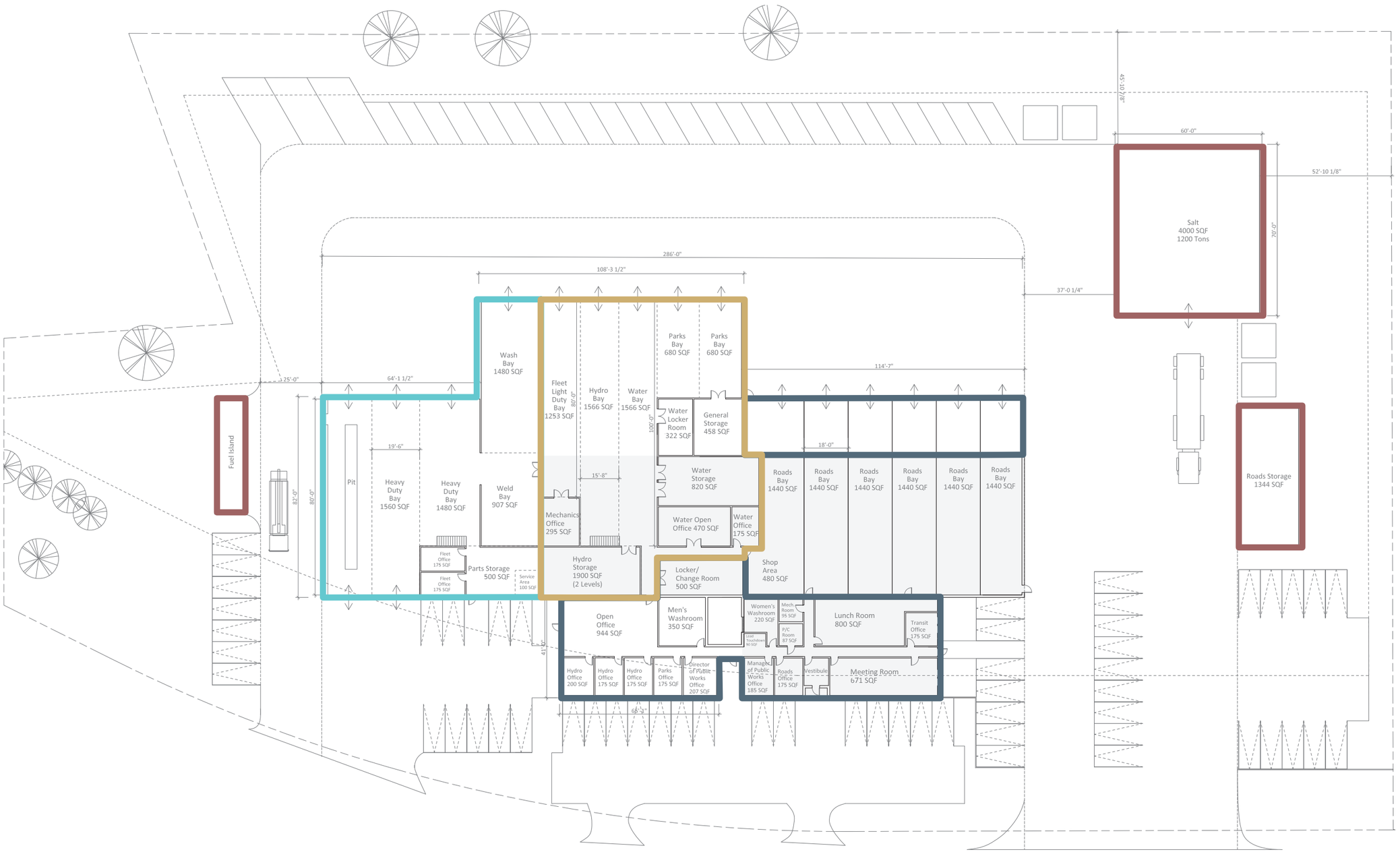
Programming Analysis

Department	Program	Description	Location	Unit Area(SQF)	Quantity	Net Area(SQF)	Width	Length	Height
Common Programs	Manager Offices	For Dan & Transit Coordinator	Interior	175	2	350			
	Carlos' Office		Interior	200	1	200			
	General Storage		Enclosed	400	1	400			
	Meeting room	Seats approx. 20 people	Interior	600	1	600			
	Lunchroom	Should accommodate min. 20 people, include 2 touchdowns	Interior	800	1	800			
	Locker/Change Room Area	Used by all depts. - **56 lockers?**	Interior	500	1	500			
	Women's Washrooms	2 stalls, 2 showers	Interior	200	1	200			
	Men's Washrooms	3 stalls, 3 urinals, 3 showers	Interior	350	1	350			
						3,400			
Roads	Private Office	For Jeff	Interior	150	1	150			
	Lead Touchdown		Interior	75	1	75			
	Photocopier Room		Interior	100	1	100			
	Salt Storage	Includes sign, roads storage	Conditioned	7200	1	7,200			
	Maintenance Bays	Drive-Thru?	Interior	1080	5	5,400	18'	60'	20'
	Storage	For tools and supplies	Interior	500	1	500			
						13,425			
Fleet	Supervisor Offices	Dave & Tracy	Interior	150	2	300			
	Mechanics Office	Shared by 3 people?	Interior	200	1	200			
	Protected Wash Bay	Used for all fleet units	Interior or	1200	1	1,200	18'	20'	30'?
	Welding & Fabrication Bay	Separate from oil etc. for safety reasons	Interior	640	1	640	16'	40'	17'?
	Light Duty Bays		Interior	640	2	1,280	16'	40'	17'?
	Heavy Duty Bays		Interior	1500	2	3,000	18'	80'	30'+
	Pit/Lube Bay	Located on exterior wall/last bay for fall prevention	Interior	1500	1	1,500	18'	80'	30'+
	Oil Tank Storage		Exterior	150	1	150			
	Hand wash/cleanup area		Interior	100	1	100			
	Service Counter		Interior	100	1	100			
	File Room	Including photocopier	Interior	200	1	200			
	Storage	Parts storage	Conditioned	1100	1	1,100			
	Training Room	Should accommodate 15-20 ppl.	Interior	600	1	600			
						10,370			
Water	Manager Office	For Alex	Interior	175	1	175			
	Supervisor Office	For David	Interior	150	1	150			
	Open Office	6 workstations	Interior	65	6	390			
	Vehicle Bays	1 for vehicles, 1 for stock	Interior	608	2	1,216	16'	38'	17'?
	Storage	Stores saws, pumps, trimmers etc.	Conditioned	600	1	600			
						2,531			
Hydro	Manager Office	For Ian	Interior	175	1	175			
	Supervisor Offices		Interior	150	2	300			
	Open Office Space	5 workstations	Interior	65	5	325			
	Vehicle Bays		Interior	1800	1	1,800	18'	100'	
	Material Storage		Interior	800	1	800			
	Large Item Storage		Interior	700	1	700			
	Meter Work Area		Interior	450	1	450			
						4,550			
Parks	Supervisor Office		Interior	150	1	150			
	Open Office Space	5 Workstations	Interior	65	5	325			
	Vehicle Bays		Interior	670	2	1,340			
						1,815			
Engineering Provisional	Manager Office	For Shayne	Interior	175	1	175			
	Workstations	Could be cubicles, but offices preferred	Interior	65	5	325			
	Drawing Room		Interior	150	1	150			
	Plotting room		Interior	150	1	150			
	Equipment Room/Storage	Stores site + survey equipment	Conditioned	100	1	100			
						900			
Net Program Area						**36,091**			
Total Project Area	Circulation	30% addition to the net program area			1.3	**46,918**			

Site & Parking	Town Owned Vehicle Spaces		Exterior	160	25				
	Employee Parking	Based on org chart from client	Exterior	160	42				
	Service Reception Parking		Exterior	NA	8				
	Off Road Equipment Parking	Interior and exterior	Interior	NA	19				
	Brine Fill Station		Exterior	NA	1				
	Fuel Island	Used by fleet for all city vehicles	Exterior	NA	1				

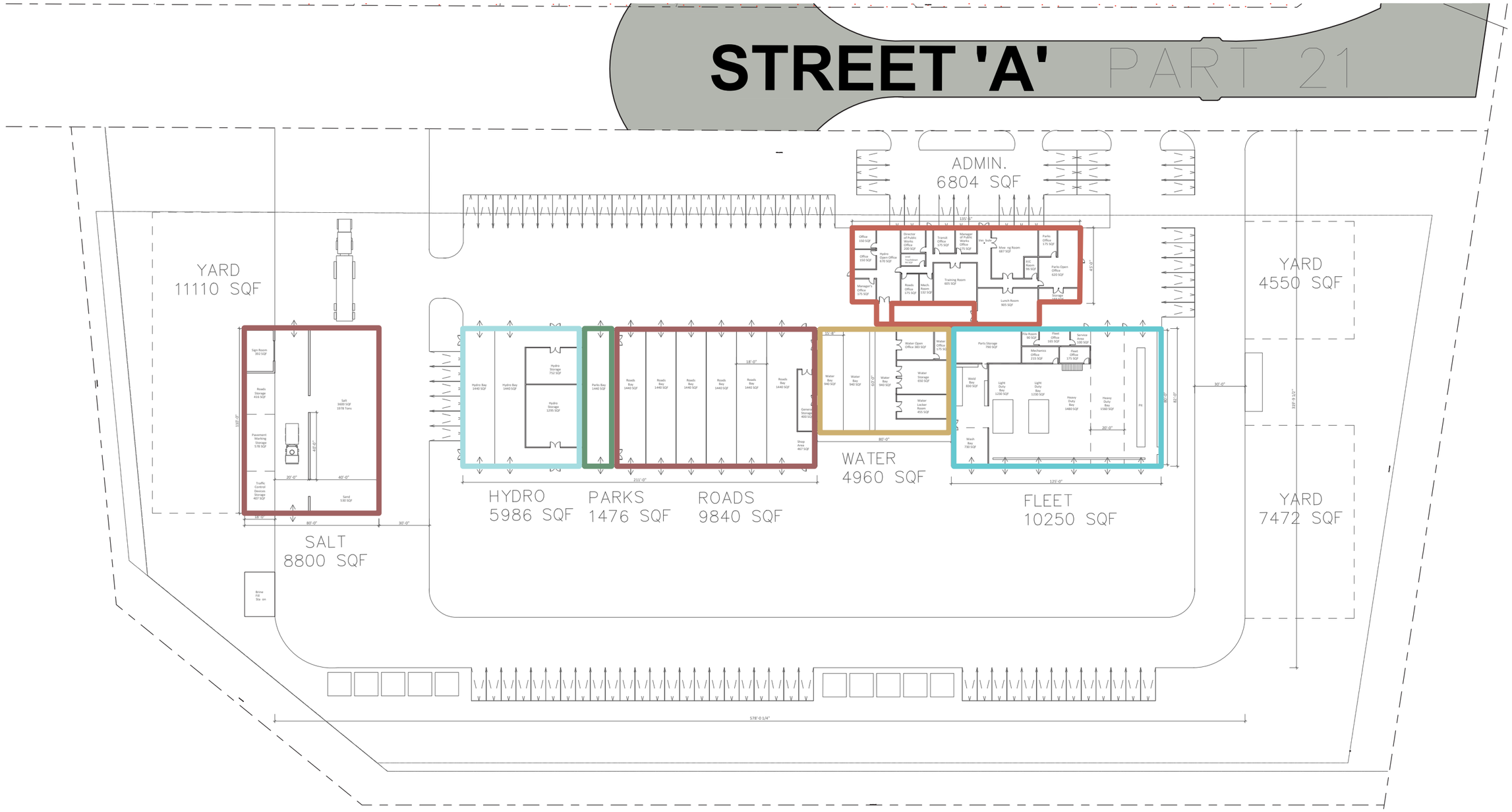
OPTION A: 20 Spruce St Renovations and Upgrades

EXISTING BUILDING, 15,366 SQF
PHASE 1 - SALT FACILITY, 7200 SQF
PHASE 2 - FLEET ADDITION, 9334 SQF
PHASE 3 - ADMIN & ROADS RENO, 12,741 SQF
PHASE 4 - HYDRO, PARKS & WATER, 10,587 SQF



OPTION B: New Operations Facility at Alternative Site

ROADS - 18,640 sqf
HYDRO - 5986 sqf
PARKS - 1476 sqf
WATER - 4960 sqf
FLEET - 10,250 sqf
ADMIN - 6804 sqf



Costing Letter

Elisia Neves, President, Principal Architect
Fabrik Architects inc.
135 George Street, Suite 200
Cambridge ON, N1S 5C3

April 12th, 2021

Attn: Town of Tillsonburg

Client: Town of Tillsonburg
Project Title: Tillsonburg Operations Facility
Project Address: 20 Spruce St, Ontario N4G 4Y5

Re: Professional Opinion on Cost Cutting Strategies

To Whom it May Concern,

This letter summarizes our professional opinion on the cost consulting report prepared by Hanscomb Quantity Surveyors on April 12th, and opportunities fabrik has identified to possibly lower project costs. Hanscomb's report provides order of magnitude cost estimates for both design options, as such it is considered to be within 30% accuracy of the final costs, this is a substantial margin of error and reflects the limited amount of information currently known about the proposed construction assembly and finishes. With this 30% margin in mind there is potential for the cost of the 20 Spruce St and VIP Site options to be closer to $9,811,550 and $12,320,560 respectively. In these preliminary costing estimates it is also standard practice to make conservative assumptions on the scope of work, finishes, design work etc. and build in contingencies and escalation rates resulting in higher costs across the board.

Another major costing factor is the effect of the Covid-19 Pandemic on construction costs. Rigorous pandemic protocols alongside market volatility due to supply chain restrictions has increased the cost of construction materials and processes in the medium term future but are expected to improve as government restrictions ease. These factors mean there is ample opportunity to decrease project costs based on the design decisions made going forward and the Town of Tillsonburg's choice of consultants and contractors.

Finally fabrik would like to highlight that the estimated cost of $14,016,500 for the 20 Spruce St option is based on a 4% per year escalation cost over four years due to phasing, the current cost for the scope of work for 20 Spruce St is measurably less.

Within the costing report fabrik has identified a few specific items that have demonstrated potential for cost savings. These are: the salt facility in phase one, site works across all phases, square footage cost and contingencies across all phases. These costs are discussed in more detail below.

SALT FACILITY

Hanscomb has priced the salt facility for 20 Spruce St at $1,408,000. Based on fabrik's analysis, up to $923,000 of this amount has potential for cost reduction. We have received a detailed quote from Britespan –

which we have shared with you – that priced the building, foundation and an electrical allowance at $485,000. This figure covers the majority of the costs associated with a building like this and only excludes site works, consulting costs and some mechanical scope. As such fabrik believes that the scope of work associated with the design and construction of the salt building can be executed for substantially less than the 1.4 million estimated by Hanscomb.

SITE WORKS

Hanscomb has budgeted $1,922,800 for site development items over the four phases of construction at 20 Spruce St. This fee accounts for the cost of paving, signage, grading etc. and given that the 20 Spruce St is only 3.8 acres this is a substantial allotment. If fabrik assumes that site development will predominantly be limited to asphalt paving and regrading this pricing becomes quite generous. Hanscomb's quote accounts for the potential of unforeseen site issues related to soil conditions and grading, barring these issues we believe their allotment is significantly more than would be necessary to execute the scope of work associated with site development.

CONTINGENCIES

Hanscomb has included two contingencies and an escalation rate in their costing that combined amount to a 19% increase in pricing. Fabrik recommends that the Town of Tillsonburg consider these fees as extras rather than part of the base price as they are controlled by the Client and consultants. Instead we advise that the Town refer to the column for net construction costs when considering the budget for this project. We further outline the nature and adaptability of each contingency below:

Design & Pricing: This 10% contingency allows for further changes to the design going forward. This is controlled by both the Client and the Architect. As Fabrik has done detailed consultation and concept designs for this feasibility study it is unlikely that there will be significant changes to the design in terms of area and scope going forward unless specifically requested by the Client. As a result this contingency could be significantly reduced.

Construction Allowance: This 5% contingency allows for change orders or other modifications during construction. This is controlled predominantly by the Client's requests for changes or is the responsibility of the contractor and the consultants and can be negotiated within their respective contracts. This means this contingency could be significantly reduced through advanced planning.

Escalation Allowance: This 4% per year escalation rate allows for increases in labour and material costs over time due to inflation. This can be controlled by the Client by setting an accelerated construction schedule that allows for cost savings.

Fabrik recognizes and values the importance of cost effectiveness in all of our projects and regularly works with our clients to ensure their budgetary goals are met. We are happy to coordinate with the Town of Tillsonburg going forward to find more cost efficiencies and to discuss other value engineering opportunities. Please do not hesitate to contact us with any questions or concerns regarding project cost that you might have.

Thank you,

Elisia Neves

Elisia Neves, Architect, OAA, MRAIC, B.A.S (HON), M.Arch
Principal

Hanscomb Costing Report

APRIL 12, 2021 Ref # HAM2754

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Fabrik Architects
T: (519) 743-0608
E: haley@fabrikarchitects.ca

Attn: Fabrik Architects

Re: Tillsonburg Public Works Yard Facility, Tillsonburg, Ontario

Dear Ms. Gamble :

Please find attached our Order Of Magnitude Estimate for the Tillsonburg Public Works Yard Facility, in April 2021.

This Order Of Magnitude Estimate is intended to provide a realistic allocation of direct construction costs and is a determination of fair market value. Pricing shown reflects probable construction costs obtainable in the April 2021 area on the effective date of this report and is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the work.

Hanscomb has prepared this estimate(s) in accordance with generally accepted principles and practices. Our general assumptions are included in Section 3 of this report and any exclusions are identified in Section 1.6. For quality assurance, this estimate has been reviewed by the designated Team Lead as signed below and Hanscomb staff are available and pleased to discuss the contents of this report with any interested party.

Requests for modifications of any apparent errors or omissions to this document must be made to Hanscomb within ten (10) days of receipt of this estimate. Otherwise, it will be understood that the contents have been concurred with and accepted.

We trust our estimate is complete and comprehensive and provides the necessary information to allow for informed capital decisions for moving this project forward. Please do not hesitate to contact us if you have any questions or require additional information.

Yours truly,

Hanscomb Limited
Principal

Craig Bye
PQS(F), MRICS
Director

Hanscomb Limited
Team Lead

Melissa Trautmann
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Manager, Senior Cost Consultant

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TILLSONBURG PUBLIC WORKS YARD FACILITY TILLSONBURG, ONTARIO

Report Date : April 2021

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A Tillsonburg Public Works Yard Facility Option 1, 20 Spruce Street
B Tillsonburg Public Works Yard Facility Option 2, Alternate Site

1. INTRODUCTION

1.1 PURPOSE

This Order Of Magnitude Estimate is intended to provide a realistic allocation of direct construction costs for the Tillsonburg Public Works Yard Facility' Tillsonburg, Ontario, located in April 2021 with the exception of the items listed in 1.6 Exclusions.

1.2 DESCRIPTION

The Tillsonburg Public Works Yard Facility, Tillsonburg, Ontario located in April 2021 is comprised of the following key elements:

The project includes the redevelopment of the Tillsonburg Public Works Yards located in Tillsonburg, Ontario. The scope of work includes but is not limited to new construction, mechanical & electrical infrastructure, demolition and site works as required.

1.3 METHODOLOGY

Hanscomb has prepared this estimate(s) in accordance with generally accepted principles and practices. Hanscomb staff are available to discuss its contents with any interested party.

From the documentation and information provided, quantities of all major elements were assessed or measured where possible and priced at rates considered competitive for a project of this type under a construction management form of contract in April 2021.

Pricing shown reflects probable construction costs obtainable in the April 2021 area on the effective date of this report. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the work.

1.4 SPECIFICATIONS

For building components and systems where specifications and design details are not available, quality standards have been established based on discussions with the design team.

1. INTRODUCTION

1.5 ESTIMATE CLASSIFICATION AND COST PREDICTABILITY

Estimates are defined and classified based on the stage of a project's development and the level of information available at the time of the milestone estimate.

> This Order Of Magnitude Estimate is considered to have an expected degree of accuracy of +/- 20-30%. In other words, bid results might vary by this amount if the construction budget were set at this milestone estimate.

At the initial stages of a contemplated project, the cost accuracy of the estimate is low as there may be little or no information available to inform a first high-level concept estimate or order of magnitude estimate. As a project nears design completion and is ready to be released to market for tender, the level of accuracy of the estimate is high as the detail is generally extensive and typically represents the information on which contractors will bid.

Milestone cost estimates or "checks" are recommended as the project design develops to keep track of scope and budget. Early detection of potential budget overruns will allow for remedial action before design and scope are locked in. The number of milestone estimates will depend on a project's size and schedule and cost predictability will improve as the design advances.

According to the Canadian Joint Federal Government/Industry Cost Predictability Taskforce, industry standards for estimate classification and cost estimate accuracy may be summarized as follows:

COST ESTIMATE CLASSIFICATION SYSTEM						
AACE	Class 5	Class 4	Class 3		Class 2	Class 1
DND			Indicative		Substantive	
RAIC	OME	Sketch Design	Design Develop		Contract Documents	Tender Documents
GOC	OME	**D**	**C**	← **B** →		**A**
Design Documentation % Complete		**12.5%**	**25.0%**		**95.0%**	**100.0%**
Cost Estimate Accuracy (+/-%)	**+/- 30%**	**+/- 20-30%**	**+/- 15-20%**		**+/- 10-15%**	**+/- 5-10%**

Legend

AACE Association for the Advancement of Cost Engineering
DND Department of National Defence
GOC Government of Canada
RAIC Royal Architectural Institute of Canada
OME Order of Magnitude Estimate

While the classification categories differ from one authority to the next, the overarching principle for cost predictability remains the same – as the level of detail and design development increases, so does the level of accuracy of the estimate.

1. INTRODUCTION

1.6 EXCLUSIONS

This Order Of Magnitude Estimate does not provide for the following, if required:

- Cost of contaminated soil removal
- Equipment beyond that identified in this estimate
- Financing costs
- Premiums associated with P3 procurement model
- Impact costs related to any potential force majeure has not been factored into the estimate. Items may include, but are not limited to trade tariffs, currency risk, labour disruption and pandemics.
- Fixtures, Furniture & Equipment
- Fuel Tanks
- Weigh Scale
- Project Soft Costs
- Consultants, permits, etc.
- Harmonized Sales Tax (HST)
- Premium time / after hours work

2. DOCUMENTATION

This Order Of Magnitude Estimate has been prepared from the documentation provided.

All of the above documentation was received from Fabrik Architects and was supplemented with information gathered in meeting(s) and telephone conversations with the design team, as applicable.

Design changes and/or additions made subsequent to this issuance of the documentation noted above have not been incorporated in this report.

3. COST CONSIDERATIONS

3.1 COST BASE

All costs are estimated on the basis of competitive bids (a minimum of 3 general contractor bids and at least 3 subcontractor bids for each trade) being received in April 2021 from general contractors and all major subcontractors and suppliers based on a construction management form of contract. If these conditions are not met, bids received could be expected to exceed this estimate.

3.2 UNIT RATES

The unit rates in the preparation of this Order Of Magnitude Estimate include labour and material, equipment, subcontractor's overheads and profit. Union contractors are assumed to perform this work.

3.3 GENERAL REQUIREMENTS AND FEE

General Requirements and Fee cover the General Contractor's indirect costs which may include but not be limited to supervision, site set up, temporary utilities, equipment, utilities, clean up, etc. as covered in Division 1 General Conditions of the Contract Documents. It also includes the contractor's fees and should not be confused with Design or Consultant fees which are excluded from the Construction Costs and carried separately in the Owner's Total Project Costs.

3.4 DESIGN AND PRICING ALLOWANCE

An allowance of 10% has been included to cover design and pricing unknowns. This allowance is not intended to cover any program space modifications but rather to provide some flexibility for the designers and cost planners during the remaining contract document stages.

It is expected that this allowance amount will be absorbed into the base construction costs as the design advances. The amount by which this allowance is reduced corresponds to an increase in accuracy and detailed design information. Hanscomb recommends that careful consideration be made at each milestone estimate to maintain adequate contingency for this allowance.

As a project nears completion of design, Hanscomb recommends retaining some contingency for this allowance for the final coordination of documents.

3.5 ESCALATION ALLOWANCE

All costs are based on April 2021 dollars. An allowance of 4% per annum has been made for construction cost escalation that may occur between April 2021 and the anticipated bid date for the project. Escalation during construction is included in the unit rates.

For escalation, the budgeted amount will typically decline as the time to award nears. Forecasting escalation requires careful assessment of a continually changing construction market which at best is difficult to predict. The escalation rate should be monitored. The following milestone dates have been considered in developing our estimate.

3. COST CONSIDERATIONS

3.6 CONSTRUCTION ALLOWANCE

An allowance of 5.0% has been made to cover constrution (post contract) unknowns. This allowance, also known as the Post Contract Contingency (PCC), is intended to cover costs for change orders during construction that are not foreseeable. It is not intended to cover scope changes to the contract. The amount carried in a budget for this allowance is typically set at the initial planning stage and should be based on the complexity of the project and the probability of unknowns and retained risks.

3.7 CASH ALLOWANCE

Cash allowances are intended to allow the contractor to include in the bid price the cost for work that is difficult to fully scope at the time of tendering based on factors that are beyond the Owner and Prime Consultant's control. Cash allowances attempt to reduce the risks by dedicating a set amount for use against a certain cost that cannot yet be detailed. The Contractor is obligated to work as best as possible within the limitations of the Cash Allowance.

Examples of Cash Allowances include hardware, inspection and testing, site conditions, replacement of existing elements during demolition for renovation, hazardous materials abatement, signage, etc.

Any Cash Allowances if applicable are included either in the details of this estimate under the appropriate discipline or at the summary level.

3.8 TAXES

No provision has been made for the Harmonized Sales Tax. It is recommended that the owner make separate provision for HST in the project budget.

3.9 SCHEDULE

Pricing assumes an accelerated schedule of work for this project. Premiums for off-hour work, working in an operational facility, accelerated schedule, etc., if applicable, are identified separately in the body of the estimate.

3.10 STATEMENT OF PROBABLE COSTS

Hanscomb has no control over the cost of labour and materials, the contractor's method of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is made on the basis of experience, qualifications and best judgment of the professional consultant familiar with the construction industry. Hanscomb cannot and does not guarantee that proposals, bids or actual construction costs will not vary from this or subsequent cost estimates.

3. COST CONSIDERATIONS

3.11 ONGOING COST CONTROL

Hanscomb recommends that the Owner and design team carefully review this document, including line item description, unit prices, clarifications, exclusions, inclusions and assumptions, contingencies, escalation, and mark-ups. If the project is over budget, or if there are unresolved budgeting issues, alternative systems/schemes should be evaluated before proceeding into the next design phase.

It is recommended that a final updated estimate at the end of the design stage be produced by Hanscomb using Bid Documents to determine overall cost changes which may have occurred since the preparation of this estimate. The final updated estimate will address changes and additions to the documents, as well as addenda issued during the bidding process. Hanscomb cannot reconcile bid results to any estimate not produced from bid documents including all addenda.

This estimate does not constitute an offer to undertake the work, nor is any guarantee given that an offer, to undertake the work at the estimate(s) price, will subsequently be submitted by a construction contractor. Unless explicitly stated otherwise, it is assumed that competitive bids will be sought when tender documents have been completed. Any significant deviation between bids received and a pre-tender estimate prepared by Hanscomb from the same tender documents, should be evaluated to establish the possible cause(s).

Hanscomb is taking all necessary steps to stay abreast of the potential impacts to the Canadian construction industry that may result from the current pandemic. We are in close contact with consultants, contractors, suppliers and industry to help understand the current and future risks to our local markets. As noted herein, this estimate report is based on current market data.

TILLSONBURG PUBLIC WORKS YARD FACILITY
TILLSONBURG, ONTARIO

Report Date : April 2021

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Tillsonburg Public Works Yard Facility Option 1, 20 Spruce Street

New Construction	25,671	SF	227.79	$5,847,600
Renovation	13,211	SF	157.20	$2,076,800
Site Works & Other	1	Sum		$2,052,900
Infrastructure Upgrades	1	Sum		$716,800
Hazardous Material Abatement	1	Sum		$198,200
NET CONSTRUCTION COST	**38,884**	**SF**	**280.12**	**$10,892,300**
Design & Pricing Allowance	10.0%			$1,054,200
SUB - TOTAL CONSTRUCTION COST	**38,884**	**SF**	**307.23**	**$11,946,500**
Construction Allowance (5%)	5.0%			$597,500
TOTAL CONSTRUCTION COST (CURRENT)	**38,884**	**SF**	**322.60**	**$12,544,000**
Escalation (4% per annum)				$1,472,500
TOTAL CONSTRUCTION COST (ESCALATED)	**38,884**	**SF**	**360.47**	**$14,016,500**

Tillsonburg Public Works Yard Facility Option 2, Alternate Site

New Construction	48,116	SF	237.18	$11,412,000
Renovation	0	SF	0.00	$0
Site Works & Other	1	Sum		$3,240,900
Infrastructure Upgrades	1	Sum		$0
Hazardous Material Abatement	1	Sum		$0
NET CONSTRUCTION COST	**48,116**	**SF**	**304.53**	**$14,652,900**
Design & Pricing Allowance	10.0%			$1,465,200
SUB - TOTAL CONSTRUCTION COST	**48,116**	**SF**	**334.98**	**$16,118,100**
Construction Allowance (5%)	5.0%			$805,800
TOTAL CONSTRUCTION COST (CURRENT)	**48,116**	**SF**	**351.73**	**$16,923,900**
Escalation (allow 1 year @ 4% per annum)				$676,900
TOTAL CONSTRUCTION COST (ESCALATED)	**48,116**	**SF**	**365.80**	**$17,600,800**

Notes:

[1] Please note that the above costs are PRELIMINARY and are subject to change with design.

[2] The above costs are estimated to reflect current market conditions with respect to material & labour costs and contractor project load capacity

[3] An allowance of 10% for design & pricing and scope contingency has been included to provide some further flexibility in design.

[4] An allowance of 5% construction contingency has been included for change orders during construction.

[5] An allowance of 4% per annum has been included to cover potential cost increases in labour and material from this current date to the time of construction start to allow for project approval and design.

[6] The above costs exclude items as outlined on page 4 Section 1.6

[7] The above costs exclude any premiums resulting pandemics such as Covid-19

TILLSONBURG PUBLIC WORKS YARD FACILITY
TILLSONBURG, ONTARIO

ORDER OF MAGNITUDE ESTIMATE
Tillsonburg Public Works Yard Facility Option 1, 20 Spruce Street

Report Date : APRIL 12, 2021
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Tillsonburg Public Works Yard Facility Option 1, 20 Spruce Street	Const. Type	Projected Area of Work	Net Const. Rate ($/SF)	Net Const. Cost ($)	Haz Mat Allowance $15.00	Design & Pricing 10.0%	Total Construction Cost	Construction Allowance 5.0%	Current Total Const. Cost	Escalation Allowance Yrs	Escalation Allowance 4.0% p.a.	Escalated Total Const. Cost
PHASE 1												
New Construction		**7,200 SF**	**98.00**	**$705,600**	**$0**	**$35,300**	**$740,900**	**$37,000**	**$777,900**		**$31,100**	**$809,000**
Salt Facility	New	7,200 SF	98.00	$705,600	$0	$35,300	$740,900	$37,000	$777,900	1.0	$31,100	$809,000
Renovation		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition of Existing		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition (not required)	Reno	1 Nil	0.00	$0	$0	$0	$0	$0	$0	1.0	$0	$0
Site Works & Other		**1 Sum**		**$380,200**	**$0**	**$38,000**	**$418,200**	**$20,900**	**$439,100**		**$17,500**	**$456,600**
Allowance for site development	Site	1 Sum	277,200.00	$277,200	$0	$27,700	$304,900	$15,200	$320,100	1.0	$12,800	$332,900
Allowance for mechanical site services	Site	1 Sum	43,600.00	$43,600	$0	$4,400	$48,000	$2,400	$50,400	1.0	$2,000	$52,400
Allowance for electrical site services	Site	1 Sum	59,400.00	$59,400	$0	$5,900	$65,300	$3,300	$68,600	1.0	$2,700	$71,300
TOTAL		**7,200 SF**	**150.81**	**$1,085,800**	**$0**	**$73,300**	**$1,159,100**	**$57,900**	**$1,217,000**		**$48,600**	**$1,265,600**
PHASE 2												
New Construction		**8,354 SF**	**264.01**	**$2,205,500**	**$0**	**$220,600**	**$2,426,100**	**$121,300**	**$2,547,400**		**$207,900**	**$2,755,300**
Fleet	New	8,354 SF	264.00	$2,205,500	$0	$220,600	$2,426,100	$121,300	$2,547,400	2.0	$207,900	$2,755,300
Renovation		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition of Existing		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition (not required)	Reno	1 Nil	0.00	$0	$0	$0	$0	$0	$0	2.0	$0	$0
Site Works & Other		**1 Sum**		**$441,000**	**$0**	**$44,200**	**$485,200**	**$24,300**	**$509,500**		**$41,600**	**$551,100**
Allowance for site development	Site	1 Sum	321,600.00	$321,600	$0	$32,200	$353,800	$17,700	$371,500	2.0	$30,300	$401,800
Allowance for mechanical site services	Site	1 Sum	50,500.00	$50,500	$0	$5,100	$55,600	$2,800	$58,400	2.0	$4,800	$63,200
Allowance for electrical site services	Site	1 Sum	68,900.00	$68,900	$0	$6,900	$75,800	$3,800	$79,600	2.0	$6,500	$86,100
Infrastructure Upgrades		**1 Sum**		**$41,100**	**$0**	**$4,100**	**$45,200**	**$2,300**	**$47,500**		**$3,900**	**$51,400**
Allowance for modifications @ interface		1 Sum	41,100.00	$41,100	$0	$4,100	$45,200	$2,300	$47,500	2.0	$3,900	$51,400
TOTAL		**8,354 SF**	**321.71**	**$2,687,600**	**$0**	**$268,900**	**$2,956,500**	**$147,900**	**$3,104,400**		**$253,400**	**$3,357,800**
PHASE 3												
New Construction		**5,089 SF**	**325.00**	**$1,653,900**	**$0**	**$165,400**	**$1,819,300**	**$91,000**	**$1,910,300**		**$238,500**	**$2,148,800**
Administration and Roads	New	5,089 SF	325.00	$1,653,900	$0	$165,400	$1,819,300	$91,000	$1,910,300	3.0	$238,500	$2,148,800
Renovation		**7,652 SF**	**187.00**	**$1,430,900**	**$114,800**	**$154,600**	**$1,700,300**	**$85,000**	**$1,785,300**		**$222,900**	**$2,008,200**
Administration and Roads	Reno	7,652 SF	187.00	$1,430,900	$114,800	$154,600	$1,700,300	$85,000	$1,785,300	3.0	$222,900	$2,008,200
Demolition of Existing		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition (not required)	Reno	1 Nil	0.00	$0	$0	$0	$0	$0	$0	3.0	$0	$0
Site Works & Other		**1 Sum**		**$672,700**	**$0**	**$67,300**	**$740,000**	**$37,000**	**$777,000**		**$97,000**	**$874,000**
Allowance for site development	Site	1 Sum	490,500.00	$490,500	$0	$49,100	$539,600	$27,000	$566,600	3.0	$70,700	$637,300

Hanscomb

TILLSONBURG PUBLIC WORKS YARD FACILITY
TILLSONBURG, ONTARIO

ORDER OF MAGNITUDE ESTIMATE
Tillsonburg Public Works Yard Facility Option 1, 20 Spruce Street

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Tillsonburg Public Works Yard Facility Option 1, 20 Spruce Street	Const. Type	Projected Area of Work	Net Const. Rate ($/SF)	Net Const. Cost ($)	Haz Mat Allowance $15.00	Design & Pricing 10.0%	Total Construction Cost	Construction Allowance 5.0%	Current Total Const. Cost	Escalation Allowance Yrs	Escalation Allowance 4.0% p.a.	Escalated Total Const. Cost
Allowance for mechanical site services	Site	1 Sum	77,100.00	$77,100	$0	$7,700	$84,800	$4,200	$89,000	3.0	$11,100	$100,100
Allowance for electrical site services	Site	1 Sum	105,100.00	$105,100	$0	$10,500	$115,600	$5,800	$121,400	3.0	$15,200	$136,600
Infrastructure Upgrades		**1 Sum**		**$481,700**	**$0**	**$48,200**	**$529,900**	**$26,500**	**$556,400**		**$69,500**	**$625,900**
Allowance for modifications @ interface		1 Sum	54,500.00	$54,500	$0	$5,500	$60,000	$3,000	$63,000	3.0	$7,900	$70,900
Allowance for modifications to existing exterior cladding	Site	1 Sum	216,800.00	$216,800	$0	$21,700	$238,500	$11,900	$250,400	3.0	$31,300	$281,700
Allowance for modifications to existing roof coverings	Site	1 Sum	210,400.00	$210,400	$0	$21,000	$231,400	$11,600	$243,000	3.0	$30,300	$273,300
TOTAL		**12,741 SF**	**332.72**	**$4,239,200**	**$114,800**	**$435,500**	**$4,789,500**	**$239,500**	**$5,029,000**		**$627,900**	**$5,656,900**
PHASE 4												
New Construction		**5,028 SF**	**255.09**	**$1,282,600**	**$0**	**$128,300**	**$1,410,900**	**$70,600**	**$1,481,500**		**$251,700**	**$1,733,200**
Fleet	New	955 SF	264.00	$252,100	$0	$25,200	$277,300	$13,900	$291,200	4.0	$49,500	$340,700
Hydro, Parks & Water	New	4,073 SF	253.00	$1,030,500	$0	$103,100	$1,133,600	$56,700	$1,190,300	4.0	$202,200	$1,392,500
Renovation		**5,559 SF**	**116.19**	**$645,900**	**$83,400**	**$72,900**	**$802,200**	**$40,200**	**$842,400**		**$143,100**	**$985,500**
Fleet	Reno	666 SF	0.00	$0	$10,000	$1,000	$11,000	$600	$11,600	4.0	$2,000	$13,600
Hydro, Parks & Water	Reno	4,893 SF	132.00	$645,900	$73,400	$71,900	$791,200	$39,600	$830,800	4.0	$141,100	$971,900
Demolition of Existing		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition (not required)	Reno	1 Nil	0.00	$0	$0	$0	$0	$0	$0	4.0	$0	$0
Site Works & Other		**1 Sum**		**$559,000**	**$0**	**$55,900**	**$614,900**	**$30,700**	**$645,600**		**$109,700**	**$755,300**
Allowance for site development	Site	1 Sum	407,600.00	$407,600	$0	$40,800	$448,400	$22,400	$470,800	4.0	$80,000	$550,800
Allowance for mechanical site services	Site	1 Sum	64,100.00	$64,100	$0	$6,400	$70,500	$3,500	$74,000	4.0	$12,600	$86,600
Allowance for electrical site services	Site	1 Sum	87,300.00	$87,300	$0	$8,700	$96,000	$4,800	$100,800	4.0	$17,100	$117,900
Infrastructure Upgrades		**1 Sum**		**$194,000**	**$0**	**$19,400**	**$213,400**	**$10,700**	**$224,100**		**$38,100**	**$262,200**
Allowance for modifications @ interface		1 Sum	41,100.00	$41,100	$0	$4,100	$45,200	$2,300	$47,500	4.0	$8,100	$55,600
Allowance for modifications to existing roof coverings	Site	1 Sum	152,900.00	$152,900	$0	$15,300	$168,200	$8,400	$176,600	4.0	$30,000	$206,600
TOTAL		**10,587 SF**	**253.28**	**$2,681,500**	**$83,400**	**$276,500**	**$3,041,400**	**$152,200**	**$3,193,600**		**$542,600**	**$3,736,200**
TOTAL (PHASE 1,2,3,4)		**38,882 SF**	**275.04**	**$10,694,100**	**$198,200**	**$1,054,200**	**$11,946,500**	**$597,500**	**$12,544,000**		**$1,472,500**	**$14,016,500**

Notes:
[1] Please note that the above costs are PRELIMINARY and are subject to change with design.
[2] The above costs are estimated to reflect current market conditions with respect to material & labour costs and contractor project load capacity
[3] An allowance of 10% for design & pricing and scope contingency has been included to provide some further flexibility in design.
[4] An allowance of 5% construction contingency has been included for change orders during construction.
[5] An allowance of 4% per annum has been included to cover potential cost increases in labour and material from this current date to the time of construction start to allow for project approval and design.
[6] The above costs exclude items as outlined on page 4 Section 1.6
[7] The above costs exclude any premiums resulting pandemics such as Covid-19

TILLSONBURG PUBLIC WORKS YARD FACILITY
TILLSONBURG, ONTARIO

ORDER OF MAGNITUDE ESTIMATE
Tillsonburg Public Works Yard Facility Option 2, Alternate Site

Report Date : APRIL 12, 2021

Page No. : B - 1

Tillsonburg Public Works Yard Facility Option 2, Alternate Site	Const. Type	Projected Area of Work	Net Const. Rate ($/SF)	Net Const. Cost ($)	Haz Mat Allowance $15.00	Design & Pricing 10.0%	Total Construction Cost	Construction Allowance 5.0%	Current Total Const. Cost	Escalation Allowance Yrs	Escalation Allowance 4.0% p.a.	Escalated Total Const. Cost
New Construction		**48,116 SF**	**237.18**	**$11,412,000**	**$0**	**$1,141,100**	**$12,553,100**	**$627,600**	**$13,180,700**		**$527,200**	**$13,707,900**
Salt Facility	New	8,800 SF	98.00	$862,400	$0	$86,200	$948,600	$47,400	$996,000	1.0	$39,800	$1,035,800
Fleet	New	10,250 SF	264.00	$2,706,000	$0	$270,600	$2,976,600	$148,800	$3,125,400	1.0	$125,000	$3,250,400
Administration and Roads	New	6,804 SF	325.00	$2,211,300	$0	$221,100	$2,432,400	$121,600	$2,554,000	1.0	$102,200	$2,656,200
Hydro, Parks & Water	New	22,262 SF	253.00	$5,632,300	$0	$563,200	$6,195,500	$309,800	$6,505,300	1.0	$260,200	$6,765,500
Demolition of Existing		**- SF**	**0.00**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**
Demolition (not required)	Reno	1 Nil	0.00	$0	$0	$0	$0	$0	$0	1.0	$0	$0
Site Works & Other		**1 Sum**		**$3,240,900**	**$0**	**$324,100**	**$3,565,000**	**$178,200**	**$3,743,200**		**$149,700**	**$3,892,900**
Allowance for site development	Site	1 Sum	1,689,100.00	$1,689,100	$0	$168,900	$1,858,000	$92,900	$1,950,900	1.0	$78,000	$2,028,900
Allowance for mechanical site services	Site	1 Sum	606,200.00	$606,200	$0	$60,600	$666,800	$33,300	$700,100	1.0	$28,000	$728,100
Allowance for electrical site services	Site	1 Sum	945,600.00	$945,600	$0	$94,600	$1,040,200	$52,000	$1,092,200	1.0	$43,700	$1,135,900
TOTAL		**48,116 SF**	**304.53**	**$14,652,900**	**$0**	**$1,465,200**	**$16,118,100**	**$805,800**	**$16,923,900**		**$676,900**	**$17,600,800**

Notes:

[1] Please note that the above costs are PRELIMINARY and are subject to change with design.
[2] The above costs are estimated to reflect current market conditions with respect to material & labour costs and contractor project load capacity
[3] An allowance of 10% for design & pricing and scope contingency has been included to provide some further flexibility in design.
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[5] An allowance of 4% per annum has been included to cover potential cost increases in labour and material from this current date to the time of construction start to allow for project approval and design.
[6] The above costs exclude items as outlined on page 4 Section 1.6
[7] The above costs exclude any premiums resulting pandemics such as Covid-19

Salt Storage Building Quote

688 Josephine St. N.
Wingham, ON N0G 2W0
1-800-407-5846
www.britespanbuildings.com

September 29, 2021

Fabrik Architects Inc.
135 George St N Suite 200
Cambridge, ON
N1S 5C3

Attn: Haley Gamble

Haley,

Based on my understanding of your requirements from our recent conversation, I have prepared and attached a budget proposal to provide you with a solution to meet your needs. I am confident that we can meet your delivery requirements, which I have also detailed in the proposal.

Please review the information attached to ensure that this matches your requirements. Also, please contact me if you have any questions or if you wish to make changes to the information below.

Thank you for your interest in **BRITESPAN Building Systems.**

Sincerely,

Mike Pollard

Ontario General Manager
Britespan Building Systems of Ontario Inc.
P: 1-800-407-5846 C: 519.280.0888
mpollard@britespanbuildings.com
www.britespanbuildingsystems.com

Att.

BRITESPAN
BUILDING SYSTEMS OF ONTARIO

688 Josephine St. N.
Wingham, ON N0G 2W0
1-800-407-5846
www.britespanbuildings.com

September 29, 2021 **Quote#TOT08042021R2**

Budget Estimate: 60' x 70' BRITESPAN Apex Series
Town of Tillsonburg
Tillsonburg, ON

60L10 x 70 long BRITESPAN Apex Building
*Based on current building code and building officials acceptance of engineering
*Based on F3 Low Hazard, Low Importance (.8), Exposed Classification
*CSA-A660 Certified
*FR (Fire Retardant) Fabric included
*HDG trusses, purlins, end wall, steel and cables
*BMEC Authorization – Building Code Requirements
*Based on site location Tillsonburg, ON site loads KPa 1/50 Ss-1.3, Sr-.4, Wind .49
Building Installation (based on non-union wages)
Installation equipment (crane & aerial lift)
Termination materials and concrete anchors
Engineering: (2) set of stamped structural and foundation drawings
Freight to site

End#1 Enclosed
FR Fabric cladding
Structural steel framework, Framed for (1) 204' wide x 30' high opening

End#2 Enclosed
FR Fabric cladding
Structural steel framework,

Ventilation:
(2) 48" x 48' Gable Louvered Vents

Excluded
- site preparation, drainage, excavation, compactions, granular, and finishing
- building permit, fees and approvals, site specific engineering
- lighting, electrical, plumbing, HVAC, foundation and final floor

Warranty Fifteen (15) year prorated manufacturers warranty on fabric and fifteen (15) prorated manufacturers warranty on steel against chipping or flaking of the coating and substantial performace against all defects in material and workmanship.

For only those items specifically mentioned above, and with the clear knowledge that items listed under "subject to" may have an effect on this estimate, the value is as follows:

Total $167,900.00
Plus HST

Foundation Cast In Place (Budget price only subject to engineers review of site and Geo Tech Report)
Proposed cast in place concrete wall 8' above grade with footing and frost wall $195,000.00
Plus HST

Foundation Pre-Cast Wall (Budget price only subject to engineers review of site and Geo Tech Report)
Proposed precast wall option wall 8' above grade with footing and frost wall $130,000.00
Plus HST

Electrical (Budget Price Only Actual requirements to be determined by designer)
Budget allowance for lighting, and panels, does not include running power source to building $38,000.00
Plus HST

Continued:

688 Josephine St. N.
Wingham, ON N0G 2W0
1-800-407-5846
www.britespanbuildings.com

Subject To: The following items need to be evaluated before the final price can be confirmed:

1. Maneuverability of equipment on & around the perimeter of the building (30' ft. of level, solid ground needed around the perimeter)
2. Foundation being installed in accordance to BRITESPAN Building Systems spacing specification's
3. Anchors wet set to Britespan Building specification by foundation contractor.
4. Excavated materials from foundation are to be moved away from site where work is to be performed is the responsibility of the customer.
5. Area large enough to lay down and assemble a 72' wide truss and set up crane for hoisting trusses.
6. The requirement of any gravel or other fill not included
7. There are no obstacles in/around the building area unless noted and agreed to
8. The site is level, compacted and drained so that equipment can operate effectively and safely
9. No existing gas, hydro, electrical, or water lines to be worked around
10. Site has easy access for delivery of building and customer to off load building
11. This quote is based on the crew doing their work during regular work hours of the week Monday through Friday working 8 AM to 5PM. If the site requires weekend or specialty evening work, the labor will be higher.
12. Effects of prevailing wage, this quote is based on Non Union Wages
13. Unimpeded work schedule, including work on weekends if required
14. Customer to provide place or bins for disposal of left over material
15. Customer to provide site specific safety requirements over and above our standard safety policy (e.g. if safety fenced off area is required)
16. Customer is responsible for the removal of snow for the scheduled crew start time.
17. Additional options added to the original building quotation
18. Spatial separation and firewall requirements / site specific engineering unless included in quote
19. Building code occupancy or site condition changes
20. Subject to engineering site review
21. Pending building permit approvals
22. In-field fabric welding is part of the fabric building process

Terms of contract:
40% upon order
50% upon delivery .
10% upon client activity in the building or substantial completion
of the building and BRITESPAN Building Systems scope of work (whichever is 1st)
*Quote is valid for 30 days unless otherwise noted

Delivery: Approximately 8-10 weeks from a clean signoff on project details

The project you described is one that we can complete with confidence. We will do everything we can to deliver in a timely manner once a decision is made.

Thank you for the opportunity, we look forward to working with you!

Mike Pollard

Ontario General Manager
Britespan Building Systems of Ontario Inc.
P: 1-800-407-5846 C: 519.280.0888
mpollard@britespanbuildings.com
www.britespanbuildingsystems.com

ENVIRONMENTAL MANAGEMENT PROTOCOL FOR FUEL HANDLING SITES IN ONTARIO TSSA EMP-2012 August 2012

Technical Standards and Safety Authority
Fuels Safety Program
3300 Bloor Street West, 14th Floor,
CentreTower
Toronto ON M8X 2X4
Tel: (416) 734-3300
Fax: (416) 231-7525
www.tssa.org

- Soil, Groundwater and Sediment Standards For Use Under Part XV.1 of the Environmental Protection Act (April 2011 and as updated)

2.1 MOE/TSSA Jurisdiction

The reporting procedure for an escape of product requires the proponent to contact the Spills Action Centre (SAC), MOE. Where an escape of product occurrence has been reported to SAC, Fuels Safety Program (FSP) will be informed. A FSP inspector may conduct an on-site visit to supplement the investigation and an order to bring about compliance may also be issued. The TSSA and MOE work cooperatively to minimize the duplication of effort in responding to environmental matters at fuel handling sites. When the remediation or management of a petroleum impact is required at an operating fuel handling site, the regulatory lead is with the FSP, TSSA.

Where an environmental impact caused by the escape of product poses the likelihood of an off-site environmental impact or an adverse effect to any drinking water supply, the regulatory lead will be transferred to MOE, regardless of whether the site is "operational" or not. Provided the site remains under the jurisdiction of FSP, the process within this Protocol will apply. TSSA will retain jurisdiction where the off-site impacts are limited to municipally owned land. (i.e. roadways).

Upon permanent closure of a fuel handling site, refer to the direction provided in sections 2.4.2 (Permanent Closure) and 8.3 (Decommissioning of Sites) of the LFHC, or, as applicable, section 9 (Environmental Responsibilities) of the FOC. MOE is the regulatory lead for environmental matters following the permanent closure of a fuel handling site once the required reports have been submitted to the TSSA under the LFHC and FOC.

A fuel handling site is considered "operational" provided the fuel handling equipment remains installed on the property, even if such equipment is not in use. In such a case, the site is regulated by TSSA. The removal of all fuel handling equipment from a property and the completion of the applicable LFHC or FOC environmental requirements constitutes a permanent closure and as such, on-going environmental matters are regulated by the MOE.

Reporting to the "Director" of FSP is accomplished by contacting the MOE's SAC at 1-800-268-6060.

3.0 Operational Fuel Handling Sites

Where a petroleum product has escaped at an operational site, certain reporting, investigative and corrective action is necessary. Appendix B of this Protocol provides a general outline of an acceptable process for conducting a site investigation. If contaminant concentrations at a site exceed those described below, corrective action acceptable to the Director must be completed.

The following explains the obligation and methodology to report, assess and manage or cleanup an escape of product:

3.1 Spills

Any spill of a petroleum product in excess of the following must be immediately reported to the Director, FSP, in accordance with the provisions of the LFHC or, where applicable, the FOC (similar to the requirements of MOE's O. Reg. 675/98, EPA):

100 L at sites restricted from public access (i.e. bulk facility, residential properties)

25 L at sites with public access (i.e. retail service station)

Spills of lesser quantities need not be reported to FSP unless the spill could:

- create a hazard to public health or safety;
- contaminate any fresh water source or waterway;
- interfere with the rights of any person; or
- allow entry of product into a sewer system or underground stream or drainage system.

The implementation of appropriate investigative and mitigative actions per the LFHC or FOC, as applicable, and this Protocol are required to ensure any environmental impact is properly evaluated and, where necessary, mitigated.

3.2 Leaks

All confirmed leaks, regardless of quantity released, must be immediately reported to the Director, FSP. Where applicable, the implementation of mitigative actions per the LFHC or FOC, as applicable, and this Protocol is also required.

3.3 Discovery of a Petroleum Product that has Escaped to the Environment or Inside a Building

The discovery of a petroleum product that has escaped to the environment or inside a building must be addressed pursuant to the following protocols. The three scenarios described below discuss actions required to address environmental conditions on site, at the property boundary, and off-site:

3.3.1 Environmental Conditions On-Site (within the property boundaries)

Separate Phase Product Discovered in a Monitoring Well or Excavation:

- Where separate phase product is detected within a monitoring well, observation well or excavation, the initial discovery must be reported to the Director, FSP. A full delineation of the extent of separate phase product and related dissolved and residual contamination must then be completed. All practical efforts to recover the product must be employed. Findings of the delineation must be reported to the Director, FSP.

Discovery of Petroleum Product-Derived Vapour in an Enclosed Space, Excavation or Monitoring Well:

- Where petroleum product derived vapour is discovered in an enclosed space, excavation, observation well or monitoring well, an investigation of the cause of the vapours is necessary. This investigation may indicate that a leak or spill is the cause of the vapours. If the findings of the investigation reveal the potential for a fire or explosion hazard, the Director, FSP must be notified immediately. The potential for any explosion or fire hazards must be eliminated.

If the findings confirm a spill, leak or escape of product by any other means, the occurrence must be reported to the Director if environmental conditions contravene those found in Table A of this Protocol.

Discovery of Soil or Groundwater Impact Related to a Petroleum Product:

Where soil or groundwater quality has been altered due to impact from a petroleum product, but the soil or groundwater quality meets permissible SCS for an operational site (Table 4 or Table 5 SCS), as applicable), no reporting or mitigative actions are required provided that:

- Table 2 or Table 3 SCS, as applicable, are met at the property boundary;
- no immediate corrective action is required as per section 4.0 of this Protocol; and
- the property is not classified as an "environmentally sensitive area" as defined by the MOE regulations.

Where the aforementioned conditions are not met, the occurrence must be reported to the Director, FSP. A delineation of the full extent of the exceedance is required. Following the complete delineation, options available to mitigate such an occurrence include:

- restore the on-site environment to Table 4 or Table 5 SCS, as applicable;
- restore the property boundary environment to Table 2 or Table 3 SCS, as applicable; or
- implement a Contaminant Management Plan (CMP) as per section 4.1 of this Protocol.

An alternative measure acceptable to the Director to address situations where the site is classified as sensitive (as defined by MOE regulations) or where conditions exceed applicable criteria is the submission of a Risk Assessment (RA). The RA must be prepared in accordance with the process outlined in the MOE regulations. The RA must then be reviewed and accepted by the MOE. The TSSA does not review or approve RAs. A copy of the MOE's acceptance must be provided to FSP.

In the case of an environmentally sensitive area, a proponent must either submit an RA to the MOE for their review and acceptance, or restore the environment to the applicable SCS.

3.3.2. Environmental Conditions at the Property Boundaries

Where soil or groundwater quality at the property boundary of the site meets Table 2 or Table 3 of the SCS, as applicable, no reporting or mitigative actions are required provided site conditions are acceptable (no exceedance of Table 4 or Table 5 SCS as applicable, and no immediate corrective action required).

Where soil or groundwater quality at the property boundary of the site exceeds Table 2 or Table 3 of the SCS, as applicable, report the findings to the Director. A delineation of the full extent of the exceedance is required. Off-site migration of petroleum product derived impacts above applicable full depth SCS must be mitigated through remediation, or evaluated through the implementation of a CMP. Written acknowledgement from the affected property owner(s) or their respective agent is required for FSP's approval to implement a CMP. Failure to address the environmental management of an off-site impact will result in the transfer of jurisdiction to MOE.

3.3.3. Environmental Conditions Off-Site (beyond the property boundaries)

Where soil or groundwater quality beyond the property boundary of the site meets Table 2 or Table 3 of the SCS, as applicable, no reporting or mitigative actions are required, provided on-site and

property boundary conditions are acceptable.

Where soil or groundwater quality beyond the property boundary of the site exceeds Table 2 or Table 3 of the SCS, as applicable, and where it is reasonable to conclude that the exceedance has been caused by the migration of petroleum related contaminants from the site, report the findings to the Director. A delineation of the full extent of the exceedance may be necessary.

Where off-site impacts to a municipal roadway exist, on a case-by-case basis and in consultation with the TSSA, the proponent may notify the municipality, in writing (with copy to TSSA), of the impacts, and providing the municipality concurs, further delineation on the roadway may not be required.

Where off-site migration of petroleum product derived impacts above applicable full depth SCS has occurred, a full depth remediation of the impacted soil and/or groundwater to Table 2 or Table 3 SCS, as applicable, on the impacted property(s) and at the property boundary of the fuel handling site may be required. The implementation of a CMP may only be acceptable if the owner(s) of the impacted off-site property(s) has been apprised of the situation, provided written concurrence to the use of a CMP, and where FSP has accepted the use of the CMP.

The CMP must ensure that further migration and/or accumulation of petroleum related contamination does not occur, and that site conditions remain safe for continued operation (see section 4.1 for details on the CMP).

Table A summarizes the reporting and investigative obligations of a proponent where there has been an escape of product at a site.

Reporting to the "Director" of FSP is accomplished by contacting the MOE's SAC at 1-800-268-6060.

Table A
SUMMARY OF REPORTING AND INVESTIGATIVE OBLIGATIONS

Situation	Reporting Obligations	Investigative Obligations
On the Property		
3.1 Spills	Report to FSP as per the LFHC or FOC, as applicable, if one of the following conditions exist: ➢ >100 litres at sites restricted from public access (bulk plant); ➢ >25 litres at sites with public access (retail operation); or ➢ where reporting exemptions as approved by the Director have been contravened.	Recover escaped product. Determine extent of contamination as necessary.
3.2 Leaks	Report all confirmed leaks to	Investigate all suspected leaks.

Situation	Reporting Obligations	Investigative Obligations
	FSP.	Recover escaped product from confirmed leaks. Determine extent of contamination as necessary.
3.3 Discovery of a Petroleum Product that has Escaped to the Environment or Inside a Building		
3.3.1 Environmental Conditions On Site (within the property boundaries):		
Discovery of liquid product in a monitoring well or excavation	Report all such occurrences to FSP.	Recover product and determine extent of product and related contamination.
Petroleum vapours in an enclosed space, excavation or monitoring well **Discovery of petroleum related soil or groundwater contamination**	Report if source is confirmed to be from a leak, spill (as per spill section above), or if related contamination exceeds reportable levels.	Determine source and extent of vapours.
Conditions meet Table 3/5 (non potable)	No reporting required provided that environmental conditions at the property boundary meet Table 3.	
Conditions exceed Table 5 (non potable)	Report to FSP.	Determine the extent of contamination and either restore to applicable levels or implement a CMP.
Conditions exceed Table 2/4 (potable)	Report to FSP.	Determine the extent of contamination and either restore to applicable levels or implement a CMP.
3.3.2 Environmental Conditions at the Property Boundaries		
Conditions meet Table 2 or 3, as applicable:	Report to FSP only if environmental conditions on property exceed Table 4 or 5,	

Situation	Reporting Obligations	Investigative Obligations
	as applicable.	
Conditions exceed Table 2 or 3, as applicable:	Report to FSP.	Determine the extent of contamination and either restore to applicable levels or implement a CMP.
3.3.3 Environmental Conditions Off-Site (beyond the property boundaries)		
Conditions meet Table 2 or 3, as applicable:	No Reporting.	
Conditions exceed Tables 2 or 3, as applicable:	Report to FSP.	Determine the extent of contamination. If restricted to non-sensitive, municipally owned receptors, communicate with affected owners and restore to applicable levels or implement a CMP. If contamination has migrated to any other property, contact FSP and the MOE.

4.0 Site Restoration at Operational Fuel Handling Sites

The intent of site remediation at an operational site is to return petroleum-impacted soils and groundwater to conditions such that there will be no likelihood of the following:

- off-site migration of petroleum related contaminants exceeding the applicable SCS; or
- unacceptable safety conditions for continued operation.

A proponent-driven (voluntary) remediation may be conducted at any time at a site. An environmental remediation will be required by FSP if immediate corrective action is deemed necessary based on the site conditions.

FSP encourages communication with our Environmental Office to discuss proposed remediation programs to facilitate compliance with legislative requirements. It is the responsibility of the proponent and their consultant to ensure the applicability and effectiveness of the selected program. When performing assessments and remedial programs FSP requires the use of personnel meeting the requirements of a "Qualified Person" as defined under O.Reg 153/04.

Immediate corrective action is necessary to eliminate:

- the presence of liquid phase-separated product evident on the surface or in the subsurface, and/or migrating off-site;

fabrik

※

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