

#2019034

City of Thunder Bay
Police Facility Needs Assessment Study

ADDENDUM REPORT - DECENTRALIZED
HEADQUARTERS STUDY

October 2020 - FINAL REV1



City of Thunder Bay
Police Facility Needs Assessment
Addendum Report
October 20, 2020

AGENDA

- Introduction
- Methodology
- Options Review
- Financial Analysis
- Conclusions
- Discussion



METHODOLOGY

1. Police functions we evaluated to determine which activities could be located external to an administrative and operational HQ building.
2. Various Options for multi-site campuses were developed and evaluated for impacts on space requirements and staffing.
3. A literature search was conducted to find research relating to the impacts of bricks and mortar police facility location on crime prevention.
4. The operation and capital cost differentials between development options were evaluated using existing cost modelling and applying both complexity and scale cost multipliers.
5. The net present value of the 25 year combined capital and operating costs was calculated using existing financial modelling.

OPTIONS OVERVIEW

Option A – Baseline

- New Consolidated Central HQ as per the original report

Options B, B1 & B2 – New Central HQ Plus Satellite

- New Central HQ with various functions decentralized to South Core

Options C & C1 – Existing Renovated HQ Plus Satellites

- Renovation and small addition to existing HQ with various remaining functions decentralized to North and South Cores

Option D – New Smaller South Core HQ Plus Ancillary Building

- New smaller HQ in or near to South Core with remaining functions in an ancillary building, location to be determined

Option E – New South Core HQ plus North Core Satellite

- New HQ housing most functions with remaining functions located in a small North Core Satellite

SITE LOCATION

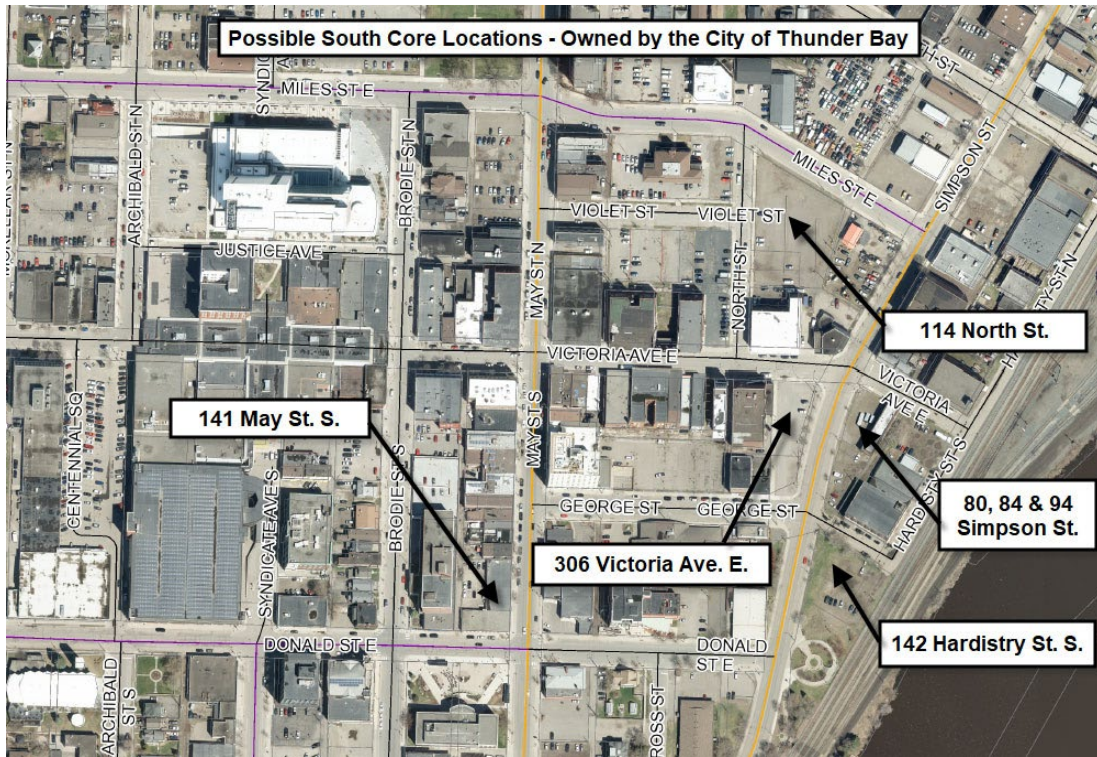
Individual site assessment for recommendations on the viability of specific sites is not within the scope of this addendum study.

To allow consideration of the impacts of locating police facilities in different geographical areas of the city, minimum required site areas were projected for various combinations of TBPS operational divisions.

Available city-owned land within the South Core was identified and evaluated against site size criteria and other location criteria developed in the original needs' assessment study.

Site acquisition and remediation costs have not been considered in the comparison of development options and therefore the total project costs identified for each option does not include these costs. Revenue from disposal of surplus land and buildings has been included where applicable.

OPTION	MIN. HQ SITE AREA	MIN. SATELLITE AREA	NOTES
OPTION A Base Case New HQ any location	6.3 acres (2.5ha)	none	Applies to any new location
OPTION B New Central HQ with South Satellite	5.6 acres (2.3ha)	1.3 acres (0.5ha)	south core satellite includes Exhibits, Comm Services
OPTION B1 New Central HQ with South Satellite	5.6 acres (2.3ha)	1.4 acres (0.6 ha)	south core satellite includes Patrol & Comm Services
OPTION B2 New Central HQ with South Satellite	5.6 acres (2.3ha)	0.7 acres (0.3 ha)	South core satellite includes Patrol
OPTION C Existing HQ with South & North Satellites	3.6 acres (1.5 ha)	South – 2.2 acres (0.9 ha) North – 1.1 acre (0.4 ha)	South core satellite includes Exhibits, Range North core satellite is covert (no public access)
OPTION C1 Existing HQ with South & North Satellites	3.8 acres (1.6 ha)	South - 0.7 acres (0.3 ha) Support Building - 2.9 acres (1.2 ha)	south core satellite includes Comm Services Support Bldg includes Exhibits, Range, Comm Services
OPTION D New South HQ with North Satellite	5.0 acres (2.0 ha)	1.5 acres (0.6 ha)	satellite is covert (no public access) includes Range
OPTION E New South HQ with North Satellite	5.2 acres (2.1 ha)	0.9 acres (0.4 ha)	north satellite includes Comm Services



SITE	ISSUE	NOTES
114 North Street	See Facility Needs Assessment Report for evaluation Min site area for satellite Proximity to rail line – HQ to be outside exclusion zone	See Report for HQ site evaluation Meets area requirement Location is within exclusion zone
141 May St (HR Building)	Min. site area for HQ Min site area for satellite Proximity to rail line – HQ to be outside exclusion zone	Requirement not met Requirement not met Location is within exclusion zone
80,84,90 Simpson St	Min. site area for HQ Min site area for satellite Proximity to rail line – HQ to be outside exclusion zone	Requirement not met Requirement not met Location is within exclusion zone
306 Victoria Ave E	Min. site area for HQ Min site area for satellite Proximity to rail line – HQ to be outside exclusion zone	Requirement not met Requirement not met Location is within exclusion zone
142 Hardisty St. S	Min. site area for HQ Min site area for satellite Proximity to rail line – HQ to be outside exclusion zone	Requirement not met Requirement not met Location is within exclusion zone

LITERATURE REVIEW

We completed a literature search based on the question “Does locating a police facility (headquarters building or satellite building) in a ‘hot spot’ or high crime area result in a reduction of crime in that area?”

We found a large amount of research and anecdotal evidence supporting the fact that having more of the **general public** living, working and visiting downtown areas typically results in greater overall levels of perceived public safety and general crime prevention.

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We review of literature found no scientific or academic research that documented, proved or disproved statistical crime reduction in a geographic area resulting from the location of a police facility (headquarters or satellite) in the area.

OTHER ISSUES CONSIDERED

Proximity to the Courthouse vs the Hospital

- officers attend court only if required to testify - immediate remand is completed by video which does not require trips to the courthouse,
- 5-8 officers are required by the Police Services Act to be stationed at the courthouse to provide security; these officers have permanent locker facilities in the courthouse and do not travel back and forth from HQ,
- officers are often required to make multiple trips to the hospital (sometimes in a single shift) as a standard part of providing law enforcement services and due to the large increase in Mental Health calls for service.

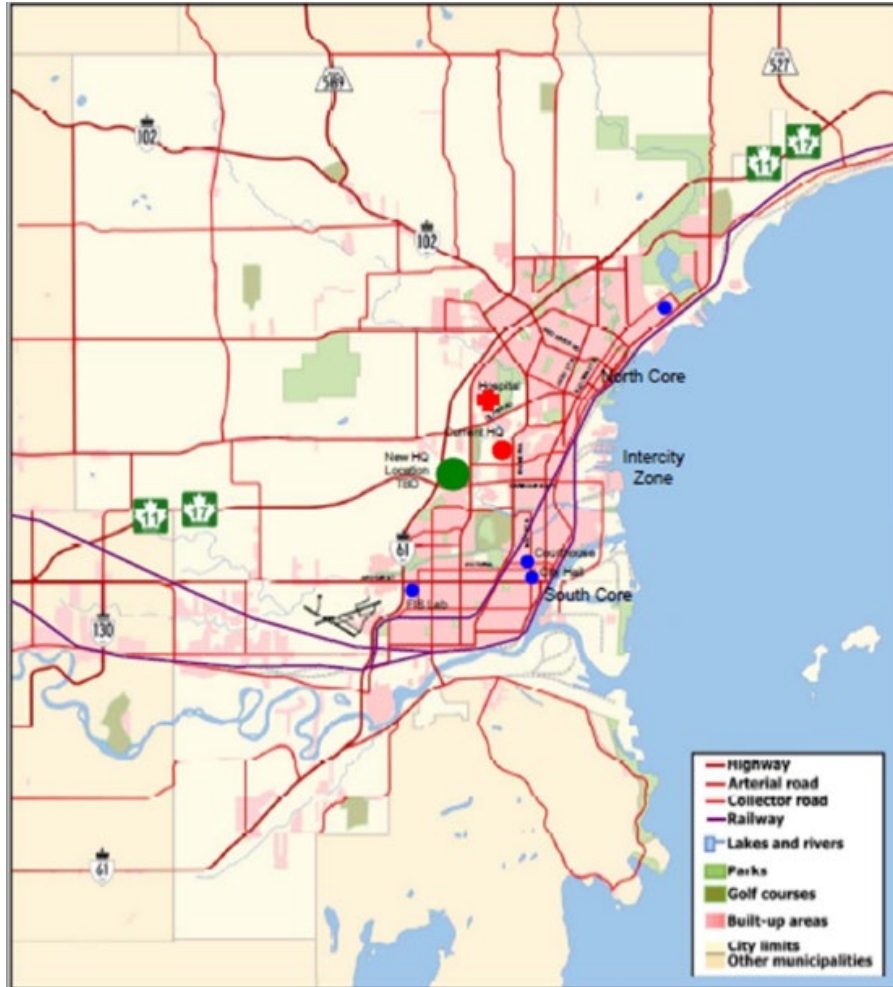
Crime Prevention through Environmental Design (CPTED)

- provides guidelines for community-based initiatives (outside of policing) and general urban design for crime prevention based on principles directed at the physical layout of public spaces to influence human behaviour,
- CPTED does not provide guidelines for the geographic location, site selection, or sizing and placement of police facilities for the purpose of crime prevention.

OTHER ISSUES CONSIDERED

Strategic Core Objectives

- Increased density through establishment of new Police, Fire and Emergency Medical Services in downtown core areas is seen as desirable, however,
- General and hypothetical strategic objectives for the future of the downtown core must be integrated with the reality of TBPS safety and operational objectives in the determination of appropriate sites,
- As a basic criterion, all potential downtown sites for police services facilities, regardless of location, must support the safe and efficient operational requirements of the police service, as determined by the police service.



Thunder Bay Police Service
OPTION B1 LOCATION MAP

Option A - New Fully Centralized HQ
OPTION B2 LOCATION MAP

Option A - New Fully Centralized HQ		Central HQ
100-Senior Administration		540
201-223-HQ Administration		490
211-214-Training & Range		1,960
224-Court & Records		640
231-Exhibits & QM Stores		840
241-Communications		380
301-302-Uniform Patrol		450
303-Community Services		350
304-ETU/Canine		160
311-Investigations		800
312-Criminal Intelligence		510
401-402-Public Areas		450
403-Community/Multipurpose Rm		200
411-415-Lockers & Common Areas		1,550
501-Cell Block		1,360
601-Custodial & Building Services		550
701-Fleet & Indoor Parking		990

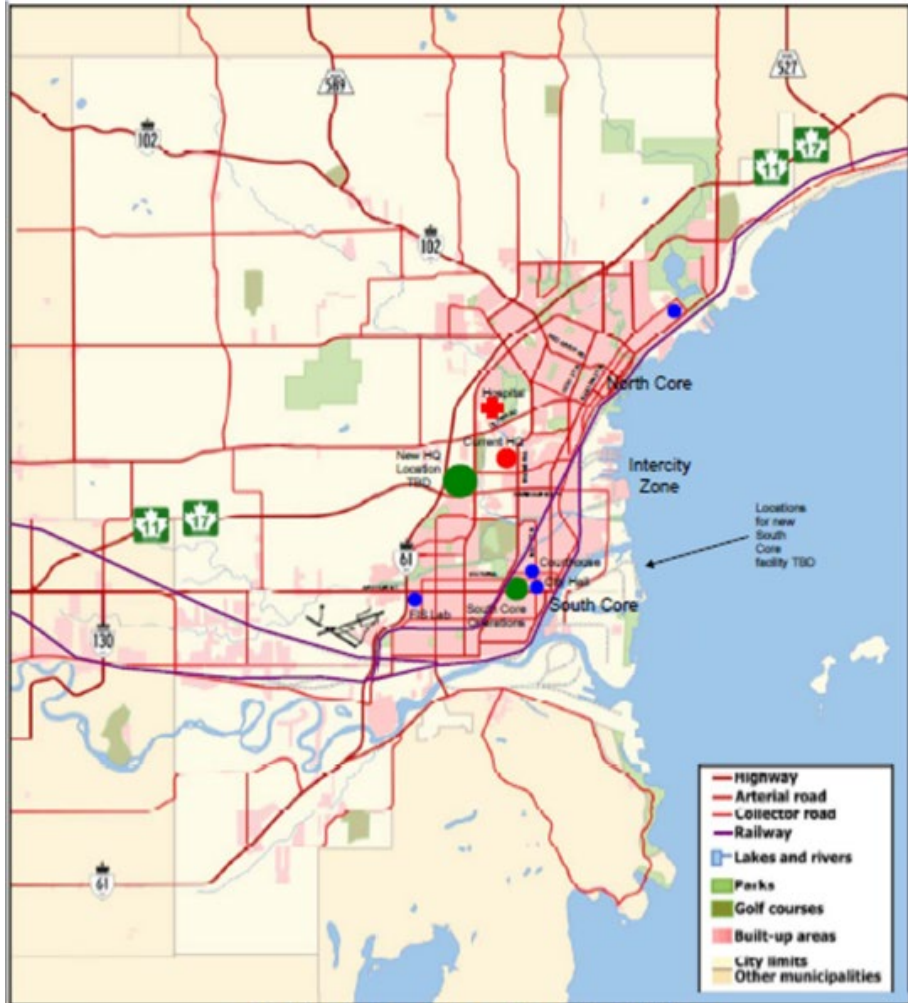
Est. GFA 12,220 sqm

Option A
New Fully-Centralized Headquarters
 (all TBPS operations - approx 379p)
 12,220 sqm GFA
 2-3 Floors

All administrative & support functions
 All patrol operations
 All investigative operations
 Total 379p

Site Area Calculations (approx):

Building footprint	9,000	
On-grade parking	7,000	200 spaces
Open space, circulation, etc. (60% of above)	9,600	
	25,600 sqm	
	6.3 acres	



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Option B - New Central HQ + South Core Facility

Option B - New Central HQ + South Core Facility	New HQ	South Core Facility	Added Area Compared to Option A
100-Senior Administration	540		
201-223-HQ Administration	490		
211-214-Training & Range	1,960		
224-Court & Records	640		
231-Exhibits & QM Stores		840	
241-Communications	380		
301-302-Uniform Patrol	450		
303-Community Services		500	150
304-ETU/Canine	160		
311-Investigations	800		
312-Criminal Intelligence	510		
401-402-Public Areas	450	50	50
403-Community/Multipurpose Rm	200		
411-415-Lockers & Common Areas	1,520	75	45
501-Cell Block	1,360		
601-Custodial & Building Services	550	100	100
701-Fleet & Indoor Parking	990		
	Est. GFA 11,000 sqm	1,565 sqm	
	Total Est. GFA 12,565 sqm (rounded)		345

<p>Option B New Central Headquarters (most TBPS operations) 11,000 sqm GFA 2-3 Floors</p> <p>All administrative & support functions All patrol & investigative operations Training & range Total approx. 345p</p>	+	<p>Option B South Core Bldg. (selected operations) 1,565 sqm GFA 1 Floor</p> <p>Exhibits & QM Stores (4p) Community Services (30p) + recept. Lockers & common areas Public-access spaces This will not be a 24/7 building</p>
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Site Area Calculations (approx):		Site Area Calculations (approx):
Building footprint	8,000	1,500
On-grade parking	6,200 170 spaces	1,700 45 spaces
Open space, circulation, etc. (60% of above)	8,520	1,920
	22,720 sqm	5,120 sqm
	5.6 acres	1.3 acres

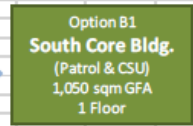
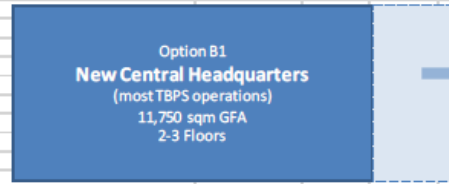
Risks & Disadvantages:
Building vulnerable not occupied 24/7 (exhibits)
Loss of time spent travelling between facilities
Loss of communication amongst units
Total space required is more than central HQ



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Option B1 - New Central HQ + South Patrol & CSU

Option B1 - New Central HQ + S. Core Patrol/CSU	New HQ	South Core Facility	Added Area Compared to Option A
100-Senior Administration	540		
201-223-HQ Administration	490		
211-214-Training & Range	1,960		
224-Court & Records	640		
231-Exhibits & QM Stores	840		
241-Communications	380		
301-302-Uniform Patrol	405	110	65
303-Community Services		500	150
304-ETU/Canine	160		
311-Investigations	800		
312-Criminal Intelligence	510		
401-402-Public Areas	450	150	150
403-Community/Multipurpose Rm	200		
411-415-Lockers & Common Areas	1,475	175	100
501-Cell Block	1,360	15	15
601-Custodial & Building Services	550	100	100
701-Fleet & Indoor Parking	990		
	Est. GFA 11,750 sqm	1,050 sqm	580
	Total Est. GFA 12,800 sqm (rounded)		



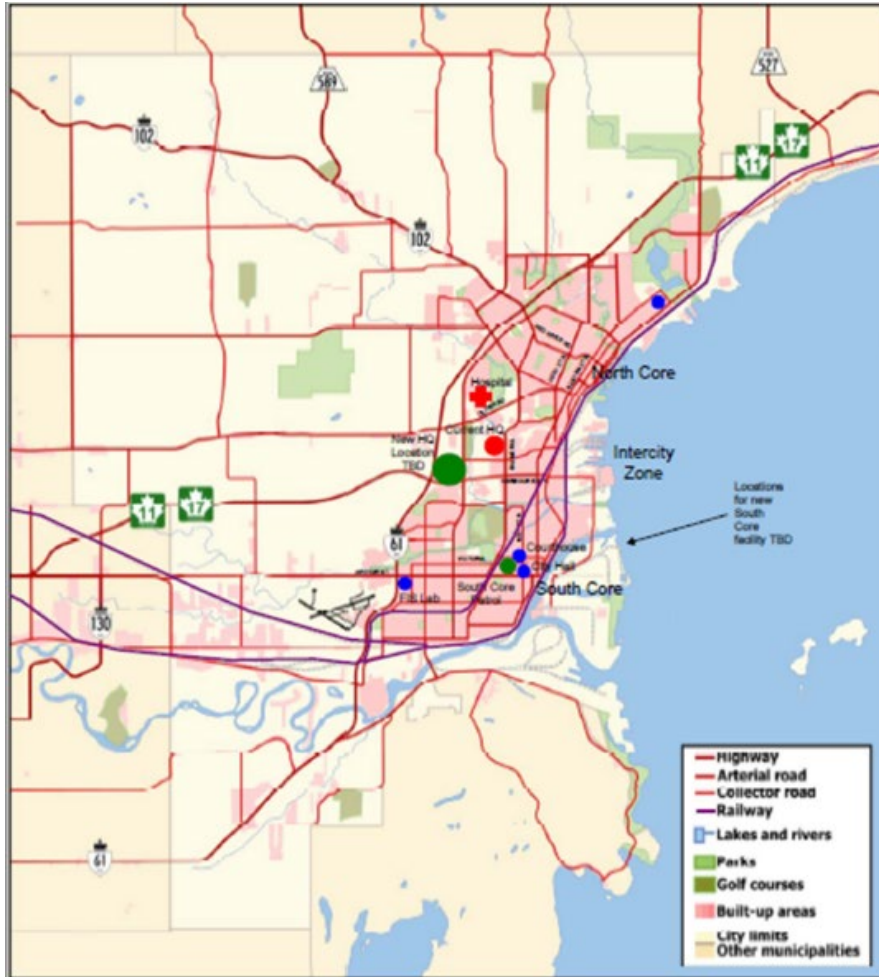
All administrative & support functions
All patrol & investigative operations
Training & range
Total approx. 304p

Uniform Patrol for South Core (45p)
Additional supervisors required (5/Sgt, 5/Sets)
Community Services (30p)
Lockers & common areas
Public-access spaces (incl. community room)
No detention area (secure interview room)
No investigative functions (interview room only)

Site Area Calculations (approx):	
Building footprint	8,000
On-grade parking	6,200 170 spaces
Open space, circulation, etc. (60% of above)	8,520
	22,720 sqm
	5.6 acres

Site Area Calculations (approx):	
	1,100
	2,500 66 spaces
	2,160
	5,760 sqm
	1.4 acres

Risks & Disadvantages:
Additional supervisory staff required
Add'l clerical/reception position (1p)
Loss of operational efficiency, effectiveness & flexibility
Loss of time spent travelling between facilities
Loss of communication amongst units
Total space required is more than central HQ
Additional uniform supervisors & commander (5/Sgt)



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Option B2 - New Central HQ + South Core Patrol

Option B2 - New Central HQ + S. Core Patrol		New HQ	South Core Facility	Added Area Compared to Option A	
100-Senior Administration		540			
201-223-HQ Administration		490			
211-214-Training & Range		1,960			
224-Court & Records		640			
231-Exhibits & QM Stores		840			
241-Communications		380			
301-302-Uniform Patrol		405	110		65
303-Community Services		350			
304-ETU/Canine		160			
311-Investigations		800			
312-Criminal Intelligence		510			
401-402-Public Areas		450	80		80
403-Community/Multipurpose Rm		200			
411-415-Lockers & Common Areas		1,475	175		100
501-Cell Block		1,360	15		15
601-Custodial & Building Services		550	100		100
701-Fleet & Indoor Parking		990			
	Est. GFA	12,100 sqm			
	Total Est. GFA	12,580 sqm (rounded)	480 sqm		360

Option B2 New Central Headquarters (most TBPS operations) 12,100 sqm GFA 2-3 Floors	+	Option B2 South Core Bldg. (portion of Patrol) 480 sqm GFA 1 Floor
All administrative & support functions All patrol & investigative operations Training & range Total approx. 334p	Uniform Patrol for South Core (45p) Additional supervisors required (5/Sgt, Sgts) Reception/clerical (1p) Lockers & common areas Limited public-access spaces No detention area (secure interview room) No investigative functions (interview room only)	

Site Area Calculations (approx):		Site Area Calculations (approx):	
Building footprint	8,000		500
On-grade parking	6,200 170 spaces		1,200 30 spaces
Open space, circulation, etc. (60% of above)	8,520		1,020
	22,720 sqm		2,720 sqm
	5.6 acres		0.7 acres

Risks & Disadvantages:

- Additional supervisory staff required
- Add'l clerical/reception position
- Loss of operational efficiency, effectiveness & flexibility
- Loss of time spent travelling between facilities
- Loss of communication amongst units
- Total space required is more than central HQ
- Additional uniform supervisors & commander (5/Set)



Option C - Existing HQ + N/S Core Facilities		Existing HQ	South Core Facility	North Core Facility	Added Area
100-Senior Administration		540			
201-223-HQ Administration		490			
211-214-Training & Range			1,960		
224-Court & Records		640			
231-Exhibits & QM Stores			840		
241-Communications		380			
301-302-Uniform Patrol		450			
303-Community Services			500		
304-ETU/Canine			160		
311-Investigations		800			
312-Criminal Intelligence				510	
401-402-Public Areas		300	180		30
403-Community/Multipurpose Rm			200		
411-415-Lockers & Common Areas		1,490	100	60	100
501-Cell Block		1,360	20		20
601-Custodial & Building Services		400	150		80
701-Fleet & Indoor Parking				990	
	Est. GFA	6,850 sqm	4,110 sqm	1,640	150
	Total Est. GFA	12,600 sqm (rounded)			

Option C Existing Headquarters (selected TBPS operations)	+	Option C South Core Bldg. (selected operations)	=	Option C North Core Bldg. (selected)
6,850 sqm GFA 2 Floors		4,110 sqm GFA 1-2 Floors (large footprint)		
All administrative functions		Training & range (2p + attendees)		Criminal Intelligence (18p)
Majority of support functions		Exhibits & QM Stores (4p)		Lockers & common areas
All patrol & investigative operations		Community Services (30p)		Fleet & indoor parking
Total approx. 324p		ETU/Canine (net 1p)		No public access
		Lockers & common areas		This will not be a 24/7 building
		Public-access spaces		This will not be a 24/7 building

Site Area Calculations (approx):		Site Area Calculations:	Site Area Calculations:
Building footprint	4,000	3,500	1,700
On-grade parking	5,000 140 spaces	2,000 55 spaces	1,000 25 spaces
Open space, circulation, etc. (60% of above)	5,400	3,300	1,620
	14,400 sqm	8,800 sqm	4,320 sqm
	3.6 acres	2.2 acres	1.1 acres

Risks & Disadvantages:

- Buildings vulnerable not occupied 24/7 (exhibits, weapons, ammunition)
- Off-site fleet operations will result in loss of efficiency and time
- Loss of time spent travelling between facilities
- Loss of communication amongst units
- Total space required is more than central HQ



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Option C1 - Existing HQ + S. Core Patrol, N. Support Building

Option C1 - Existing HQ + N/S Facilities	Existing HQ	South Core Patrol	Support Building	Added Area
100-Senior Administration	540			
201-223-HQ Administration	490			
211-214-Training & Range			1,960	
224-Court & Records	640			
231-Exhibits & QM Stores			840	
241-Communications	380			
301-302-Uniform Patrol	410	110		65
303-Community Services			500	
304-ETU/Canine			160	
311-Investigations	800			
312-Criminal Intelligence			510	
401-402-Public Areas	300	80	100	30
403-Community/Multipurpose Rm			200	
411-415-Lockers & Common Areas	1,490	175	60	175
501-Cell Block	1,360	15	20	35
601-Custodial & Building Services	400	100	80	
701-Fleet & Indoor Parking			990	
	Est. GFA	6,810 sqm	480 sqm	5,420
	Total Est. GFA	12,710 sqm (rounded)		305

Option C1 Existing Headquarters (selected TBPS operations) 6,810 sqm GFA 2 Floors	Option C1 S. Core Patrol (Patrol only) 480 sqm GFA 1 Floor	Option C1 Support Bldg. (selected operations) 5,420 sqm GFA 1-2 Floors (large footprint)
No expansion to existing HQ All administrative functions Majority of support functions Majority of patrol operations All Investigative operations Total approx. 296p	Uniform Patrol (part. 33p) Lockers & common areas No public access	Training & range (2p + attendees) Exhibits & QM Stores (4p) Criminal Intelligence (18p) Community Services (30p) ETU/Canine (1p) Lockers & common areas Fleet & indoor parking Public access spaces This will not be a 24/7 building

Site Area Calculations (approx):	Site Area Calculations:	Site Area Calculations:
Building footprint	4,500	5,000
On-grade parking	5,000 140 spaces	1,200 30 spaces
Open space, circulation, etc. (60% of above)	7,500	1,020
	15,200 sqm	2,720 sqm
	3.8 acres	0.7 acres

Risks & Disadvantages:

- Buildings vulnerable not occupied 24/7 (exhibits, weapons, ammunition)
- Additional supervisory & support staff req'd
- Off-site fleet operations will result in loss of efficiency and time
- Loss of time spent travelling between facilities
- Loss of communication amongst units
- Total space required is more than central HQ



Thunder Bay
Police Service

Option D - New South Core HQ + N. Training/Special Ops

Option D - New S. HQ + Training/Special Ops	New South HQ	North Core Operations	Added Area Compared to Option A
100-Senior Administration	540		
201-223-HQ Administration	490		
211-214-Training & Range		1,960	
224-Court & Records	640		
231-Exhibits & QM Stores	840		
241-Communications	380		
301-302-Uniform Patrol	450		
303-Community Services	350		
304-ETU/Canine		160	
311-Investigations	800		
312-Criminal Intelligence		510	
401-402-Public Areas	450		
403-Community/Multipurpose Rm	200		
411-415-Lockers & Common Areas	1,550	80	80
501-Cell Block	1,360		
601-Custodial & Building Services	400	200	50
701-Fleet & Indoor Parking	990		
	Est. GFA 9,440 sqm	2,910 sqm	130
	Total Est. GFA 12,350 sqm (rounded)		

Option D New South Headquarters (selected TBPS operations) 9,440 sqm GFA 2-3 Floors	+	Option D Satellite Bldg. (selected operations) 2,910 sqm GFA 2 Floors (large footprint)
All administrative functions Majority of support functions All patrol operations All investigative operations Fleet Total approx. 358p		Training & range (2p + attendees) ETU/Canine (1p) Criminal Intelligence (18p) Lockers & common areas No public access This will not be a 24/7 building

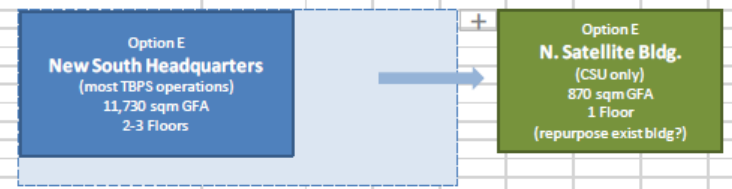
Site Area Calculations (approx):		Site Area Calculations (approx):	
Building footprint	6,000		2,700
On-grade parking	6,700 190 spaces		1,000 25 spaces
Open space, circulation, etc. (60% of above)	7,620		2,220
	20,320 sqm		5,920 sqm
	5.0 acres		1.5 acres

Risks & Disadvantages:
Building vulnerable not occupied 24/7 (weapons, ammunition)
Loss of time spent travelling between facilities
Loss of communication amongst units
Total space required is more than central HQ



Thunder Bay Police Service
Option E - New South Core HQ + Community Satellite

Option E - South HQ + Community Satellite	New HQ	North Satellite	Added Area Compared to Option A
100-Senior Administration	540		
201-223-HQ Administration	490		
211-214-Training & Range	1,960		
224-Court & Records	640		
231-Exhibits & QM Stores	840		
241-Communications	380		
301-302-Uniform Patrol	450		
303-Community Services		350	
304-ETU/Canine	160		
311-Investigations	800		
312-Criminal Intelligence	510		
401-402-Public Areas	370	150	70
403-Community/Multipurpose Rm	200		
411-415-Lockers & Common Areas	1,490	120	60
501-Cell Block	1,360		
601-Custodial & Building Services	550	250	250
701-Fleet & Indoor Parking	990		
	Est. GFA 11,730 sqm	870 sqm	380
	Total Est. GFA 12,600 sqm (rounded)		



All administrative functions		Community Services (30p)
Majority of support functions		Add'l reception/clerical (1p)
All patrol operations		Lockers & common areas
Training & range (2p + attendees)		Public-access Areas
Exhibits & QM Stores (4p)		This will not be a 24/7 building
All investigative operations		
Total approx. 349p		
Site Area Calculations (approx):		Site Area Calculations (approx):
Building footprint	6,800	1,000
On-grade parking	6,300 175 spaces	1,200 35 spaces
Open space, circulation, etc. (60% of above)	7,860	1,320
	20,960 sqm	3,520 sqm
	5.2 acres	0.9 acres
		Risks & Disadvantages:
		Building vulnerable not occupied 24/7
		Loss of time spent travelling between facilities
		Loss of communication amongst units
		Total space required is more than central HQ

COST CONSIDERATIONS

Construction (hard) costs per square meter were developed for Option 2 in the TBPS Facility Needs Assessment Study (Appendix F Class D estimates). This baseline cost per square meter reflects the average cost per square meter for the construction of a single centralized police facility.

- GFA / Gross Square Metres required in HQ building: 12,200 sm
- Class D estimate of probable construction costs (rounded): \$45,026,000
- Base Case construction costs per square meter: \$3,691 / sm

The cost per square meter for Renovations to the existing HQ building taken from the Class D Cost Estimate in Appendix F of the original report.

- Renovation of existing HQ building: \$3,630 / sm

This cost per square meter was then applied to Options A through E in this Addendum study to allow for direct comparison. A Complexity / Economy of Scale Factor was applied to adjust the baseline cost per square meter to reflect the impact of differences resulting from building construction / occupancy type and economies of scale in multi-site options.

CONSTRUCTION COSTS

OPTION DESCRIPTION	Gross Square Metres	Construction Baseline \$/SM	Complexity / Scale Factor	Estimated Construction \$
Summary Chart Explanatory Note		1	2	3
Option A Baseline - New Centralized HQ Facility				
OPTION A TOTALS	12,220	3,691	1.00	\$45,025,668
Option B				
S. Core Satellite housing Community Services, Exhibits Storage and Quartermaster	1,565	3,691	1.04	\$ 6,007,472
Centralized HQ New-Build for remainder	11,000	3,691	1.05	\$42,631,050
OPTION B Totals	12,565			\$48,638,522
Option B1				
S. Core Satellite housing Community Services and portion of Uniform Patrol	1,050	3,691	1.04	\$4,030,572
Centralized HQ New-Build for remainder	11,750	3,691	1.05	\$45,537,713
OPTION B1 Totals	12,800			\$49,568,285
Option B2				
S. Core Satellite housing portion of Uniform Patrol only	480	3,691	1.04	\$1,842,547
Centralized HQ New-Build for remainder	12,100	3,691	1.05	\$46,894,155
OPTION B2 Totals	12,580			\$48,736,702
Option C				
S. Core Satellite housing Training, Firing Range, Exhibits Storage, Quartermaster, Community Services and Specialized Ops	4,110	3,691	1.17	\$17,748,912
N. Core Satellite housing Intelligence Unit and Fleet Operations	1,640	3,691	1.17	\$7,082,291

Renovate and expand Existing HQ for remainder	6,850	3,630	1.05	\$26,108,775
OPTION C Totals	12,600			\$50,939,978
Option C1				
S. Core Satellite housing a portion of Uniform Patrol	480	3,691	0.98	\$1,736,246
N. Core Satellite housing Training, Firing Range, Exhibits Storage, Quartermaster Stores, Community Services, Intelligence Unit and Specialized Ops	5,420	3,691	1.04	\$20,705,403
Renovate and expand Existing HQ for remainder	6,810	3,630	1.15	\$28,428,345
OPTION C1 Totals	12,710			\$49,133,748
Option D				
Satellite in location tbd housing Training, Firing Range, Intelligence Unit and Specialized Ops	2,810	3,691	1.17	\$12,134,901
S. Core HQ New-build housing the remainder	9,440	3,691	1.04	\$36,236,762
OPTION D Totals	12,250			\$48,371,662
Option E				
Satellite in N.Core housing Community Services	870	3,691	1.04	\$3,339,617
S. Core HQ New-build housing the remainder	11,730	3,691	1.00	\$43,295,430
OPTION E Totals	12,600			\$46,635,047

OPERATING COSTS

	Option A (\$25.92/sqft)	Option B (\$27.58/sqft)	Option B1 (\$29.39/sqft)	Option B2 (\$29.19/sqft)	Option C (\$29.89/sqft)	Option C1 (\$31.59/sqft)	Option D (\$27.55/sqft)	Option E (\$26.86/sqft)
Marketing	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Parking	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Communications	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Utilities	\$181,008	\$202,873	\$206,667	\$203,115	\$203,438	\$205,214	\$199,401	\$203,438
Gasoline	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$330,000
Repairs and Maintenance	\$30,168	\$33,812	\$34,445	\$33,852	\$33,906	\$34,202	\$33,234	\$33,906
Computer	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Office Supplies	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
General	\$181,008	\$202,873	\$206,667	\$203,115	\$203,438	\$205,214	\$199,401	\$203,438
Miscellaneous	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Materials and Services	\$7,240	\$8,115	\$8,267	\$8,125	\$8,138	\$8,209	\$7,976	\$8,138
Contracted Services	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Rent	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
Range Cost (Revenue)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest	\$1,609,777	\$1,832,308	\$1,665,254	\$1,632,299	\$1,734,301	\$1,708,531	\$1,634,182	\$1,559,220
Additional Staffing	\$0	\$50,000	\$50,000	\$280,000	\$50,000	\$330,000	\$0	\$50,000
Total	\$3,409,201	\$3,729,981	\$4,049,103	\$3,952,186	\$4,054,454	\$4,321,740	\$3,662,644	\$3,643,493
Variance vs. Option A	\$0	\$320,780	\$639,902	\$542,985	\$645,253	\$912,539	\$253,443	\$234,292

OPERATING COSTS

Operating 25-year Lifetime						
	Facility Size (Sqft)	Operating	Capital	Capital Renewal	Total	Variance vs. Option A
Option A	131,535	\$80,467,606	\$35,903,668	\$11,338,000	\$127,709,275	\$0
Option B	135,249	\$86,881,075	\$58,071,567	\$12,988,196	\$157,940,838	\$30,231,564
Option B1	137,778	\$97,020,273	\$59,022,395	\$13,216,395	\$169,259,062	\$41,549,788
Option B2	135,410	\$94,625,576	\$58,032,151	\$12,978,736	\$165,636,463	\$37,927,189
Option C	135,625	\$90,766,009	\$66,580,532	\$15,030,347	\$172,376,889	\$44,667,614
Option C1	136,809	\$100,439,477	\$66,832,181	\$15,090,743	\$182,362,401	\$54,653,126
Option D	132,934	\$84,697,575	\$57,535,667	\$12,859,580	\$155,092,821	\$27,383,546
Option E	135,625	\$85,872,571	\$55,745,592	\$12,429,962	\$154,048,124	\$26,338,850

OPTION COMPARISON SUMMARY CHART											PROS		CONS	
OPTION DESCRIPTION	Notes	Green Space Index	Construction Based \$/sq ft	Complexity / Scale Factor	Estimate Construction \$	Estimate Light	Estimate Total Project \$	Staffing	Annual Operating \$	Net Present Value \$	100% Option Core Area Total Construction Operational Expenses New Land Costs Cost Effectiveness	100% Option Core Area Total Core Structure Operational Expenses Higher Land Costs Cost Inflexible Additional High Impact Costs High Operational Demand		
Option A Baseline - New Centralized HQ Facility														
Option A Totals		11,210	\$ 8,891	1.00	\$ 93,023,868	110.77%	\$ 99,879,208	879	\$ 8,898,203	\$ 111,482,878	✓	✓		
Option B														
S. Core Satellite housing Community Services, Exhibits Storage and Quartermaster		1,546	\$ 8,891	1.04	\$ 8,267,472	114.77%	\$ 8,894,811	85						
Centralized HQ New-Build for remainder		11,090	\$ 8,891	1.00	\$ 97,801,260	110.77%	\$ 107,222,671	843						
OPTION B Totals		12,636			\$ 106,068,732		\$ 116,117,482	928	\$ 8,129,802	\$ 124,754,689	✓	✓		
Option B1														
S. Core Satellite housing Community Services and portion of Uniform Patrol		1,260	\$ 8,891	1.04	\$ 4,280,872	114.77%	\$ 4,629,812	83						
Centralized HQ New-Build for remainder		11,710	\$ 8,891	1.00	\$ 95,547,716	110.77%	\$ 101,641,899	856						
OPTION B1 Totals		12,970			\$ 99,828,588		\$ 106,271,711	939	\$ 4,099,208	\$ 110,470,919	✓	✓		
Option B2														
S. Core Satellite housing portion of Uniform Patrol only		680	\$ 8,891	1.04	\$ 1,861,847	114.77%	\$ 2,183,128	50						
Centralized HQ New-Build for remainder		12,100	\$ 8,891	1.00	\$ 106,894,209	110.77%	\$ 111,954,938	853						
OPTION B2 Totals		12,780			\$ 108,756,056		\$ 114,138,066	903	\$ 4,961,208	\$ 119,199,274	✓	✓		
Option C														
S. Core Satellite housing Training, Firing Range, Exhibits Storage, Quartermaster, Community Services and Specialized Ops		4,510	\$ 8,891	1.17	\$ 17,768,812	110.77%	\$ 19,446,877	38						
N. Core Satellite housing Intelligence Unit and Fleet Operations		1,840	\$ 8,891	1.17	\$ 7,281,291	114.77%	\$ 8,128,908	18						
Renovate and expand existing HQ for remainder		6,850	\$ 8,891	1.00	\$ 26,108,775	100.00%	\$ 26,857,600	635						
OPTION C Totals		13,200			\$ 51,158,878		\$ 54,433,385	671	\$ 4,994,408	\$ 104,886,191	✓	✓		
Option C1														
S. Core Satellite housing a portion of Uniform Patrol		680	\$ 8,891	0.88	\$ 1,796,268	114.77%	\$ 2,050,960	31						
N. Core Satellite housing Training, Firing Range, Exhibits Storage, Quartermaster Storage, Community Services, Intelligence Unit and Specialized Ops		3,420	\$ 8,891	1.04	\$ 30,706,400	110.77%	\$ 33,989,499	59						
Renovate and expand existing HQ for remainder		6,870	\$ 8,891	1.00	\$ 28,429,840	100.00%	\$ 29,197,336	296						
OPTION C1 Totals		11,970			\$ 60,932,508		\$ 65,237,795	386	\$ 4,821,740	\$ 104,650,536	✓	✓		
Option D														
Satellite in location: Old Housing Training, Firing Range, Intelligence Unit and Specialized Ops		2,810	\$ 8,891	1.17	\$ 12,184,901	110.77%	\$ 13,441,908	21						
S. Core HQ New-build housing the remainder		9,880	\$ 8,891	1.04	\$ 86,296,762	110.77%	\$ 95,199,679	856						
OPTION D Totals		12,690			\$ 98,481,663		\$ 108,641,587	877	\$ 8,882,848	\$ 117,524,435	✓	✓		
Option E														
Satellite in N. Core housing Community Services		870	\$ 8,891	1.04	\$ 3,095,817	114.77%	\$ 3,381,898	31						
S. Core HQ New-build housing the remainder		12,100	\$ 8,891	1	\$ 106,290,683	110.77%	\$ 117,954,938	853						
OPTION E Totals		12,970			\$ 109,386,500		\$ 121,336,836	884	\$ 8,884,846	\$ 130,221,682	✓	✓		

NOTES

- Baseline \$/sqm reflect the average cost /sqm of a single centralized police facility new-build or renovation as applicable.
- The Complexity / Scale Factor adjust the baseline cost per sqm to reflect the impact of differences in complexity and economies of scale in a multi-site option.
- Estimated Construction Cost is (SQM x Baseline \$/sqm x Complexity/Scale Factor).
- Soft Cost (Light) is the impact of soft costs expressed as a multiplier of Construction Costs and includes all soft cost components except land acquisition and remediation cost.
- Estimated Total Project Cost is Estimated Construction \$ a soft Cost (Light) not incl land costs.
- Annual Operating Cost is Baseline Operating Cost plus staffing related cost increases and an allowance for the wage related overhead of a multi-site campus.
- Net Present Value Cost is the total capital and operating cost over 20 years expressed as the present value of total costs to be spent over time.
- Staffing increases reflect added supervisory and front-line staff required for a multi-site campus.