ATTACHMENT 1:

THE CASE FOR CUMMER STATION

Yonge North Subway Extension

NOVEMBER 2023

TORONTO

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Executive Summary

The purpose of this document is to provide an assessment on Cummer Station for a potential future stop on the Province's Yonge North Subway Extension (YNSE) as compared to a Business-as-Usual (BAU) scenario which assumes no station at Yonge Street and Cummer/Drewry Avenues. In addition, the document compiles available data to determine whether to deliver the station through the scope of the YNSE project, or future-proof it for later delivery.

A business case for transit investment is prepared to gather and present evidence to support decision making and to answer the following fundamental questions:

- Strategic Case: If a project is supported by a robust case for change that fits with wider public policy objectives.
- Economic Case: If the project can be demonstrated to show good value for money.
- Financial Case: If the project is financially affordable.
- Deliverability & Operations Case: If the project is achievable.

As a result of Metrolinx's decision to de-scope Cummer Station from the YNSE project, the Case for Cummer Station compares the proposed investment against Business-as-Usual (BAU) scenario (without Cummer Station) and whether to include Cummer Station in the YNSE scope or build the transit line without this station.

The evaluation of each of the four cases provides evidence and data to support the conclusions. Highlights and summary findings of each case include:

Strategic Case:

- The City's modelling indicates that Cummer Station will attract significant ridership, with station usage forecasting over 23,000 combined boardings and alightings during a typical weekday in 2051. AM peak hour projections indicate higher station usage than Metrolinx's projections for neighbourhood stations indicated.
- The Cummer Station area is forecast to meet the population and employment density generally accepted to support higher-order transit, and prescribed by the Growth Plan for the Greater Golden Horseshoe.
- The land use planning framework in the Official Plan supports the intensification of the area around Cummer Station, with significant land designated Mixed Use Areas.
- Official Plan Amendment 615 (July 2022) recently increased the amount of land designated Mixed Use Areas around Cummer Station, and the Yonge North Secondary Plan provides a framework for developing a node of tall and mid-rise buildings at Yonge and Cummer.
- The Yonge North Secondary Plan seeks to transform the area into a transit-supportive urban environment, including improvements to mobility infrastructure to support walking and cycling within a complete community.

- Significant development activity is already occurring around Cummer Station, with 7,900 residential units and 27,000 m2 of non-residential GFA at various stages of the development pipeline across 17 applications.
- The population within 500m of Cummer Station is projected to increase from 4,800 people in 2021 to 13,800 people by 2051, while employment for the same area and timeframe is projected to increase from 4,500 to 5,700 jobs. The 2051 population and employment density is projected to be 249 people and jobs per hectare.

Economic Case:

- Economic benefits are estimated to be $135 million (present value of benefits). Cummer Station will provide significant travel time benefits for users of the station, which is the primary economic benefit of the station.
- The net present value (NPV) of adding Cummer Station ranges from -$340 to -$360 million (2021/2022$) for a "Single Build" scenario, and from -$430 to -$440 million for a "Phased Build" approach.
- The benefit cost ratio (BCR) ranges between 0.24 and 0.29. A "Single Build" scenario has a higher benefit cost ratio (0.28 to 0.29) than a "Phased Build" scenario (0.24 to 0.25).

Financial Case:

- Capital costs are within the range of $445-470M upfront, and $535M-$545M for Phased Build delivery (2022$), as previously reported in EX5.3. Both approaches would require $70 million as part of the Advance Tunnel contract.
- The operating costs for the station were estimated to be $37.2 million (2021$ present value) in Metrolinx's business case documents.
- There are some capital cost savings associated with including Cummer Station within the scope of the current YNSE project.
- Protecting for a future Cummer Station involves near-term expenditures that amount to approximately more than half the cost of a fully-operational station, without achieving any of the strategic or economic benefits.

Deliverability & Operations Case:

- A "Single Build" approach to constructing Cummer Station is deemed more feasible. Constructing Cummer Station is operationally more challenging through a "Phased Build" approach, primarily because the construction process could significantly disrupt then-operational subway service.
- The "Single Build" approach to building Cummer Station would avoid any future subway disruption associated with the delivery of the station. With the information available at this time, a "Phased Build" approach would likely significantly disrupt subway operations north of Finch Station that would be running when the YNSE was complete and open for service.

- TTC bus service can be optimized with Cummer Station, with two routes currently serving Finch Station modified to connect to Cummer instead.
- Requirements for trains and yard/servicing capacity need further study.

Through this analysis, City staff have verified and enhanced the strategic case for Cummer Station and confirmed that the station provides benefits that are a valued contribution to city-building.

The City does not have funding budgeted to proceed with either approach to enable the delivery of Cummer Station as part of the YNSE. As such, Council has requested the Province fund all associated costs required to deliver Cummer Station as part of its YNSE project. Should the Province not agree to pay for the costs associated with Cummer Station, there would be no funding available for Metrolinx to deliver Cummer Station as part of the YNSE project.

INTRODUCTION

The Case for Cummer Station will provide an assessment for a potential future station on the Yonge North Subway Extension (YNSE) as compared to a Business-as-Usual (BAU) scenario to assess the benefit of including this station in the Province's YNSE scope. The assessment will define the rationale and requirements for delivering Cummer Station and respond to motions of Toronto City Council regarding the status of a potential subway station at Yonge Street and Cummer/Drewry Avenues. The Case for Cummer Station is structured within the same framework as Metrolinx's Business Case Guidance document. It has been compiled from existing available data reviewed by the City of Toronto and supplemented with new data developed by the City for an assessment based on the Rapid Transit Evaluation Framework (RTEF), not all aspects of which are included by Metrolinx's business case.

The structure of this document is as follows:

- Executive Summary provides a high-level overview of entire document.
- Introduction provides the purpose and background of the business case.
- Strategic Case evaluates the investment against broader policies and city-building objectives, within the City's Rapid Transit Evaluation Framework assessment process.
- Economic Case blended with a Financial Case based on cost information from EX5.3 – Update on Metrolinx Subways Program – Second Quarter 2023, with two scenarios: build now vs. protect now and build later with specific discussion on Transit Oriented Communities (TOC) potential revenue assessment.
- Deliverability & Operations Case builds on construction scenarios to outline protection measures, constraints, and risks.
- Conclusion summarizes the results of the analysis.

A business case for transit investment is prepared to gather and present evidence to support decision making and to answer the following fundamental questions:

- Strategic Case: If the station is supported by a robust case for change that fits with wider public policy objectives.
- Economic Case: If the station can be demonstrated to show good value for money and social benefits.
- Financial Case: If the station is financially affordable.
- Deliverability & Operations Case: If the delivery and operations are achievable.

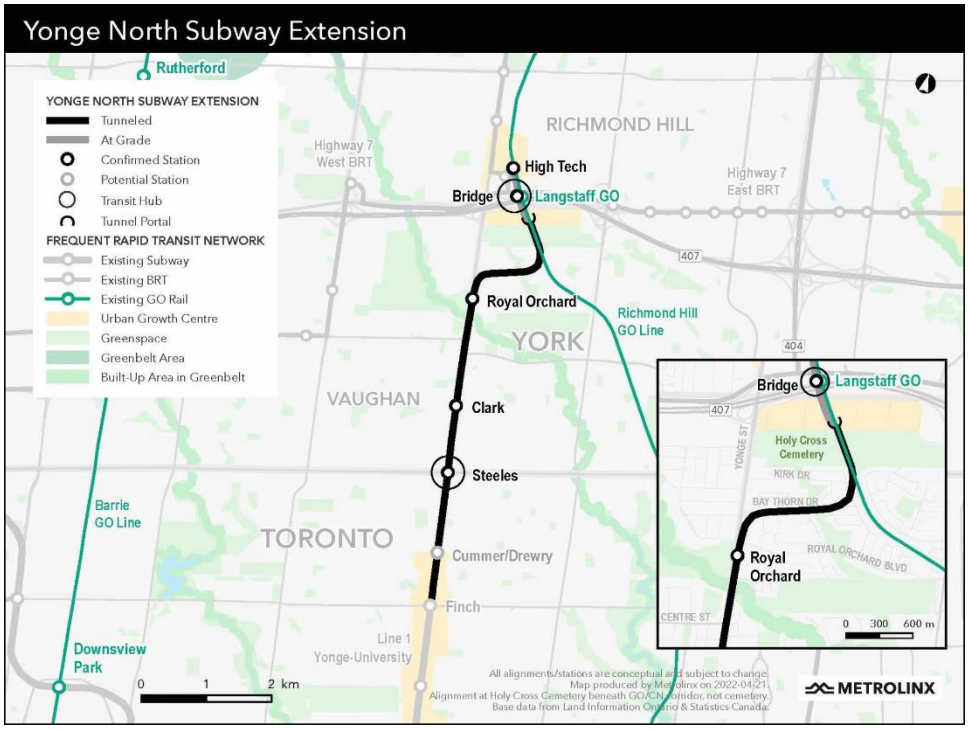
This case for Cummer Station has the following objectives:

- Document the assessment of Cummer Station, as currently contemplated, recognizing Toronto City previous City analyses and comments;
- Compare four different strategic cases for Cummer Station that answer the four fundamental questions;
- Investigate and evaluate options that might have additional transit benefits and/or reduced capital or operating costs such as proceeds from TOC funding opportunities.

YNSE Background and Context

The Province's Yonge North Subway Extension (YNSE) will extend the TTC's Line 1 service north from Finch Station to a new terminus at High Tech Road in Richmond Hill. The 8km extension with five stops serving Toronto, Vaughan, Markham and Richmond Hill will make it faster and easier for more people to travel by transit while cutting down on traffic congestion and pollution. The first stop on the YNSE is Steeles Station which is within Toronto's municipal boundaries. Should Cummer Station be built, it would also fall within Toronto's boundaries. Originally, Cummer Station was planned by the Province as part of the YNSE project until the release of Metrolinx's Initial Business Case, which resulted in a decision by Metrolinx to de-scope the station.

Figure 1: Yonge North Subway Extension Map



Source: www.metrolinx.com

Methodology

The methodology used to undertake the analysis in this business case included the following:

- New planning analysis including assessment of population and employment, land use analysis, development pipeline data, and review of development opportunities including TOC potential.
- New ridership modelling analysis from the City of Toronto GTAModel v4, including station usage, travel time benefits, congestion measures, greenhouse gas emissions, and vehicle kilometres travelled.

- Review and compilation of information previously presented in Metrolinx's business case documents for the Yonge North Subway Extension, primarily including the Initial Business Case (IBC) and the Neighbourhood Stations Analysis (NSA).
- Review and compilation of information previously presented through Executive Committee report EX5.3 – Update on Metrolinx Subways Program – Second Quarter 2023, including information supplied by Metrolinx on Cummer Station.

THE FOUR CASES DISCUSSION

STRATEGIC CASE

Rapid Transit Evaluation Framework

The City's Rapid Transit Evaluation Framework (RTEF) is organized around three principles containing eight evaluation criteria. The City's RTEF aligns with many aspects of the Strategic Case from Metrolinx's business case guidance.

Table 1: Overview of the City's Rapid Transit Evaluation Framework (RTEF)

Outcomes	Criteria	Objectives
Serving People	Choice	Develop an integrated network that connects different modes to provide for more travel options
	Experience	Capacity to ease crowding / congestion; reduce travel times; make travel more reliable, safe, and enjoyable
	Social Equity	Allow everyone good access to work, school, and other activities
Strengthening Places	Shaping the City	Use the transportation network as a tool to shape the residential development of the City
	Healthy Neighbourhoods	Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walking and cycling within and between neighbourhoods
	Public Health and Environment	Support and enhance natural areas; encourage people to reduce how far they drive; mitigate negative impacts
Supporting Prosperity	Affordability	Improvements to the transportation system should be affordable to build, maintain, and operate
	Supports Growth	Investment in public transportation should support economic development: allow workers to get to jobs more easily; allow goods to get to markets

Choice – Develop an integrated network that connects different modes to provide for more travel options.

Table 2: Summary of Choice Measures

Measure	Evaluation for Cummer Station
Number of connections available	**3 bus routes connect at station**
Connections to existing cycling infrastructure	**Potential extension of Reimagining Yonge streetscape improvements**
Transit access to major destinations	**No major regional destinations** **Several secondary schools**

- Cummer Station would provide a direct connection to two surface transit routes that would terminate at a bus loop to be built near the station: 42 Cummer, 125 Drewry.
- Cummer Station would also connect with the 97 Yonge bus, which runs parallel to the Yonge subway line and would have a stop on Yonge Street at the station.
- Cummer Station would provide direct access to an excellent pedestrian and cycling environment through a planned reconfiguration of Yonge Street. Reimagining Yonge will transform the streetscape design of Yonge Street by reducing travel lanes, adding dedicated separated cycle tracks, and widening the public realm. While the current project extends from Sheppard to Finch, the Yonge Street North Secondary Plan includes direction to undertake similar improvements to Steeles Avenue.
- Development approvals around Cummer Station are being required to implement boulevard improvements with an enhanced public realm.
- While there are no major regional destinations at Cummer Station, several secondary schools would be served including Drewry Secondary School, and Ecole Secondaire Catholique Mgr-de-Charbonnel, Avondale Secondary Alternative School.

Experience – Capacity to ease crowding / congestion; reduce travel times; make travel more reliable, safe and enjoyable.

Table 3: Summary of Experience Measures

Measure	Evaluation for Cummer Station
Station usage **(Boardings and alightings in 2051)**	**11,900 daily weekday boardings** **11,500 daily weekday alightings**
Transit ridership change **(Daily riders attracted to transit system in 2051)**	**+1,400 weekday transit trips**
Average transit travel times	**+50 seconds run time on Line 1**

- Cummer Station is forecast to have approximately 23,000 combined boardings and alightings during a typical weekday in 2051 (based on the City's ridership modelling from GTAModel v4). This is similar to the existing daily ridership at stations such as Wilson, Eglinton West, Wellesley, Keele, or Main Street stations (2019 pre-Covid data from TTC). For comparison with other "neigbourhood stations" on the YNSE, the City's modelling forecasts Cummer to have higher ridership than Clark and Royal Orchard.
- During the AM peak hour, Cummer Station is forecast to have about 2,600 boardings and 1,300 alightings, for 3,900 total station users (based on the City's model, applying a peak hour factor to the peak period). For comparison, Metrolinx's Neighbourhood Stations Analysis (NSA) forecasted 2,100 boardings and alightings in the AM peak hour in 2041.
- Cummer Station is forecast to add about 450 trips to the transit system in the AM peak, and about 600 trips during the PM peak (based on the City's ridership modelling). Total system ridership is forecast to increase by about 1,400 trips during a typical weekday with the station included.
- Cummer Station is anticipated to marginally increase pressure on the busiest parts of the Yonge Subway line during peak periods, adding about 100 passengers to the Yonge Subway line south of Bloor-Yonge Station during the AM peak period.
- Metrolinx's Initial Business Case estimated that the inclusion of Cummer Station would add about 50 seconds to the Line 1 run time.

Social Equity – Provide everyone good access to work, school and other activities.

Table 4: Summary of Social Equity Measures

Measure	Evaluation for Cummer Station
NIAs served by higher order transit stops	**None**
Estimated number of equity deserving residents served by higher order transit* (500 m radius of station) (2021)	**1,900 (2021)**

* Population weighted by Neighbourhood Equity Index is used as a proxy for estimated number of equity-deserving residents.

- There are no Neighbourhood Improvement Areas (NIAs) that would be directly served by Cummer Station.
- The closest NIAs to Cummer Station are York University Heights (Jane-Finch) and Downsview, both located about 4.5km to the west of Cummer Station. The 125 Drewry bus does not extend far enough west to reasonably serve these neighbourhoods. Travel demand from these NIAs to the east is better served by the 36 Finch West and 84 Sheppard West bus routes, which would not connect at Cummer Station.
- As with the addition of any new station, residents of NIAs across the city will have improved access to the area around Cummer Station and its destinations, amenities, and employment opportunities with the existence of the station.

- The area within a 500m catchment radius of Cummer Station is estimated to have about 1,900 equity deserving residents who would benefit from the opportunity for improved transit access.

Shaping the City – Use the transportation network as a tool to shape the residential development of the City.

Table 5: Summary of Shaping the City Measures

Measure	Evaluation for Cummer Station
Higher order transit service to residential growth areas	**Station is within a Mixed Use Areas land use designation.**
Area and proportion of land within walking distance (500m) of higher order transit stops designated for population growth	**25.4 ha (32%) of land is designated Mixed Use Areas.**
Population within walking distance (500m) of higher order transit stops	**4,800 (2021)** **13,800 (2051)**
Population density within walking distance (500m) of higher order transit stops	**61 people/ha (2021)** **176 people/ha (2051)**

- The City's land use planning framework is aligned to support significant residential development around the Cummer Station area.
- Official Plan Amendment 615 (July 2022) redesignated additional lands around Cummer Station from Neighbourhoods to Mixed Use Areas, a designation that supports significant development and where the Official Plan intends growth to be directed to.
- The Yonge Street North Secondary Plan directs the tallest and most dense development to nodes around the two transit stations within the Secondary Plan boundaries, one of which is the intersection of Yonge Street with Cummer/Drewry Avenues. The Yonge Drewry/Cummer Node is planned to develop with a mix of tall, mid-rise and low-rise buildings, with a height/density peak at the main intersection.
- Permitted land uses within the Yonge Street North Secondary Plan boundaries are planned to allow population and employment to exceed the minimum people and jobs per hectare requirements for Protected Major Transit Station Areas (PMTSAs).
- There are over 7,900 residential units under construction, approved, or under review within 500m of Cummer Station (based on five years of development pipeline data ending June 2023). Several primarily residential tall building developments have been approved around Yonge and Cummer on the justification that they would be directly accessible to higher-order transit.
- The population and employment density within 500m of Cummer Station is projected to increase to 249 people and jobs per hectare by 2051 (based on the City's

population and employment projections). This exceeds the density target of 200 residents and jobs combined per hectare for Major Transit Station Areas served by a subway, prescribed by the *Growth Plan for the Greater Golden Horseshoe*.

Healthy Neighbourhoods – Changes in the transportation network should strengthen and enhance existing neighbourhoods; promote safe walking and cycling within and between neighbourhoods.

Table 6: Summary of Healthy Neighbourhoods Measures

Measure	Evaluation for Cummer Station
Area and proportion of land within walking distance (500 m) of higher order transit stops designated as Neighbourhoods	**33.7 ha (43%) of land is designated Neighbourhoods.**
Amenity and public realm improvements **(Improvements to streetscapes, facilities, stations, stops, or vehicles related to a transport trip)**	**Potential extension of Reimagining Yonge streetscape improvements north of Finch Hydro Corridor.**
Road safety benefits **(Reduction in auto VKT as proxy for reduced accidents resulting in death or injury)**	**2,500 fewer auto VKT per day.**
Access to community amenities	**Several secondary schools within walking distance of Cummer Station.**

- Cummer Station will increase transportation options for residents living in surrounding neighbourhoods, enhancing the quality of life for area residents.
- Cummer Station will encourage transit use by making higher-order transit more attractive and accessible to nearby residents. This will promote additional walking within the neighbourhood, including the majority of trips to access the station.
- Toronto City Council has adopted the Yonge Street North Secondary Plan to guide future growth around Cummer Station, in part by defining the boundary between Mixed Use Areas and Neighbourhoods given the new transit context.
- The Yonge Street North Secondary Plan calls for major public realm improvements along Yonge Street to support development and transit, similar to the Reimagining Yonge streetscape improvements currently under study between Sheppard Avenue and the Finch Hydro Corridor. Cummer Station would be directly connected to this improved, transit-supportive streetscape.

Public Health and Environment – Support and enhance natural areas; encourage people to reduce how far they drive; mitigate negative impacts.

Table 7: Summary of Public Health and Environment Measures

Measure	Evaluation for Cummer Station
Total daily GTA system wide transit passengers (2051)	**3,424,700**
Change in daily vehicle kilometres travelled (VKT) (2051)	**2,500 fewer auto VKT per day.**
Major environmental challenges	**None anticipated**

- There are no significant Natural Areas, Parks, or Open Spaces that would be negatively impacted by the introduction of Cummer Station.
- Modelling indicates that Cummer Station's impact on automobile usage in the region is negligible. Differences in vehicle kilometres travelled are not significant within the context of regional VKT.
- There is one listed heritage property on the City's Heritage Register that may be impacted by the construction of Cummer Station: The Newtonbrook Store at 5926 Yonge Street, located at the northwest corner of Yonge & Drewry. Heritage resources must be appropriately conserved but do not preclude development of a transit station.
- Cummer Station is located in an area that has been identified as having archaeological potential in the City's Archaeological Management Plan. Only the southeast corner of the Yonge & Cummer intersection is not considered to have archaeological potential. Archaeological potential does not preclude the development of a transit station.

Supports Growth – Investment in public transportation should support economic development: allow workers to get to jobs more easily; allow goods to get to markets more efficiently.

Table 8: Summary of Supports Growth Measures

Measure	Evaluation for Cummer Station
Higher order transit service to employment growth areas	**Station is within a Mixed Use Areas land use designation.**
Area and proportion of land within walking distance (500 m) of higher order transit stations designated for employment growth	**25.4 ha (32%) of land is designated Mixed Use Areas. No General or Core Employment Areas designations are within 500m.**
Jobs within walking distance (500 m) of higher order transit stations	**4,500 (2021)** **5,700 (2051)**

Employment density within walking distance (500 m) of higher order transit stations	57 jobs/ha (2021) 73 jobs/ha (2051)

- There are approximately 4,500 jobs within a 500m radius of Cummer Station in 2021. This is projected to increase to 5,700 jobs in 2051.
- The Official Plan designates land around Cummer Station as Mixed Use Areas, which can accommodate employment growth. Official Plan Amendment 615 redesignated additional lands around Cummer Station from Neighbourhoods to Mixed Use Areas, providing greater opportunity to support employment growth around the station.
- There is approximately 27,000 square metres of non-residential gross floor area under construction, approved, or under review within 500m of Cummer Station (based on five years of development pipeline data ending June 2023).
- The population and employment density within 500m of Cummer Station is projected to increase to 249 people and jobs per hectare by 2051. This exceeds the density target of 200 residents and jobs combined per hectare for Major Transit Station Areas served by a subway, prescribed by the *Growth Plan for the Greater Golden Horseshoe*.

ECONOMIC CASE

Table 9: Economic Case

Measure	Evaluation for Cummer Station
Travel Time Savings	$125 million (2021$ PV)
Crowding Relief	$7 million (2021$ PV)
Incremental Fare Revenue	$9.5 million (2021$ PV)
Greenhouse Gas Emissions Reductions	Not significant
Road Network Decongestion	Not significant
Capital Costs Single Build Phased Build	$445-470 million (2022$ PV) $535-545 million (2022$ PV)
Operating Costs	$37.2 million (2021$ PV)
Net Present Value (NPV) Single Build Phased Build	-$340.7 to -$365.7 million (2022$ PV) -$430.7 to -$440.7 million (2022$ PV)
Benefit Cost Ratio (BCR) Single Build Phased Build	0.28 to 0.29 0.24 to 0.25

Note: Present values are reported in the original base year used in the source data, and have not been adjusted to a common base year. As a result, the NPV and BCR are calculated on a blended base year of 2021/2022 dollars.

Economic Benefits

- Cummer Station is estimated to provide approximately $135 million in the total present value of benefits (2021$).
- Economic benefits are primarily made up of transit system user benefits, the largest portion of which is attributable to user travel time savings ($125 million present value), and a moderate amount of crowding relief ($7 million).
- Producer benefits largely consist of extra fare revenue. Cummer Station is estimated to generate approximately $9.5 million in incremental fare revenue (present value).
- External benefits accruing to society, such as greenhouse gas emissions reductions or road network decongestion, are projected to be small or not significant compared to a project without Cummer Station. This is largely attributed to Cummer Station ridership largely projected to be redistributed to other YNSE transit stations or services in the absence of the station, rather than a loss of transit ridership.

Economic Costs

- As noted in the Financial Case, the capital costs of Cummer Station (Single Build) are estimated to be approximately $445-470 million (2022$ present value). A Phased Build would involve a capital cost of up to $535-545 million (2022$ present value).
- Metrolinx's Neighbourhood Stations Analysis (NSA) indicates the present value of future operating costs associated with Cummer Station to be $37.2 million. This includes operating costs for the station itself (e.g. staffing, utilities, maintenance, etc.), and incremental operating costs accruing to the transit service on the line (e.g. electricity). This information is required to estimate the total present value of costs. In the absence of updated information, this assumption has been applied in this analysis.
- The net present value (NPV) of adding Cummer Station ranges from -$340 to -$360 million (2021/2022$) for a Single Build scenario, and from -$430 to -$440 million for a Phased Build approach. The NPV reported here is lower than Metrolinx's NSA, primarily due to differences in the capital cost and its underlying assumptions.
- The benefit cost ratio (BCR) ranges between 0.24 and 0.29. A Single Build scenario has a higher benefit cost ratio (0.28 to 0.29) than a Phased Build scenario (0.24 to 0.25). The BCR reported here is lower than indicated in Metrolinx's NSA, which is largely attributable to the difference in capital costs used in the analyses.

FINANCIAL CASE

Cost and Schedule – Improvements to the transportation system should be affordable to build, maintain and operate.

The Cost and Schedule criteria of the City's Rapid Transit Evaluation Framework aligns with the Financial Case of Metrolinx's Business Case Guidelines.

Table 10: Capital Costs (2022$)

Contract	Single Build	Phased Build
Advance Tunnels Contract	$70+ million • Headwalls • Utility relocations	$70+ million • Headwalls • Utility relocations
Stations, Rail & Systems Contract	$375-400 million • Full cut-and-cover station construction • Property acquisition	$250-275 million • Underground station box rough-in (platform and concourse levels) • Emergency exit • Property for emergency exit (future main entrance)
Phase 2 Station Contract	No additional cost	$215-225 million • Main entrance and second entrance • Tunnel ventilation and service rooms • Bus loop • Full station finishes • Property for bus loop and second entrance • Systems contingency
Total Cost	$445-470 million	$535-545 million

Note: Capital cost estimates have been provided by Metrolinx. Capital costs are provided in 2022$, except for Phase 2 construction costs which include an allowance for inflation to 2060$. Property cost components of the estimates do not include an allowance for inflation. Escalation factors must be added to the stated construction costs to determine year-of-expenditure (YOE) cost estimates. The margin of error associated with the current level of design is -50% to +100% of stated costs.

- Metrolinx estimates the capital construction cost for a "Single Build" Cummer Station to be between $445-470 million (2022$), if the station was built together with the current YNSE project. (As reported through EX5.3 in June 2023).
- The capital cost would increase to $535-545 million (2022$) if Cummer Station was built as part of a phased approach (with approximately half the costs incurred in the near-term, and the other half by 2060). (As reported through EX5.3 in June 2023). The protection required to build Cummer Station through a Phased Build is estimated to required 70-80% of the cost of the Single Build.
- There is limited potential for Transit Oriented Communities (TOC) development at or around Cummer Station. Many sites already have development approvals in place, or applications under review. Other sites have constraints limiting their developability. As such, no estimate has been provided for land value uplift or incremental tax revenue from TOC that could offset capital construction costs for the station.

Operating Costs

- There will be incremental operating costs associated with the lifecycle operation of the station, including staffing costs (e.g. station ambassadors, security personnel), utility costs (e.g. station power), and maintenance costs (e.g. routine escalator/elevator maintenance).
- Conversely, there will be savings from reduced bus operations resulting from an optimization of bus routes. With Cummer Station, the 42 Cummer and 125 Drewry routes would be shortened from their current terminus at Finch Station, to a bus loop provided at Cummer Station. This will result in a reduction in bus operating costs.
- Metrolinx's NSA estimated an incremental operating cost of $37.2 million (2021$ present value) for Cummer Station, which has been applied in this business case in the absence of updated information. The present value of operating costs for a delayed Phased Build scenario may be lower, as net operating costs for the station are positive and will not incurred in the early years of the project.
- Metrolinx estimates that including Cummer Station would add approximately 50 seconds of run time to subway service operating on Line 1, which could increase operating costs (e.g. additional traction power for braking and acceleration) associated with this operational change.

Commercial Considerations

- The YNSE project will be delivered through a Progressive Design Build (PDB) procurement model. This model typically includes a phase where the project sponsor works with a preferred development partner to identify design refinements, optimize scope matters, and identify potential improvements to the project.
- Major scope changes could lengthen the design and construction process for the project. Delays in procurement and contract award due to scope changes and additional design work can mean taking on additional escalation costs.
- Variations to scope post contract award often involve substantial markups, as the project sponsor and construction consortium must agree to vary the scope. Design changes from variations at this point in the project can also be disruptive to the timely delivery of the project, impacting schedule and cost.
- Timely decisions (prior to procurement, prior to contract awards) about the desired delivery method for the station can help mitigate some of these costs.

Including Cummer Station within the day-one scope for the project is the least expensive way to deliver the station in the long run. It avoids certain throwaway costs for alternative facilities that are not needed with a full station, costs associated with temporary works related to the rough-ins that would be modified later, costs associated with disruption to service during future construction, and escalation costs related to construction inflation, which recently have been running ahead of consumer inflation rates.

Metrolinx has advised that both a "Single Build" and "Phased Build" scenario for Cummer Station would require roughly $70 million (present value) for the Advanced Tunnels contract

headwalls and utility relocations. Another $250-275 million (present value) is required for the Stations, Rail & Systems contract related to the "Phased Build" scenario for the construction of the station box and associated structures to facilitate future fit-out of a station. Together, a Phased Build approach is estimated to amount to roughly 70-80% of the cost of a full station, without realizing any of the benefits.

DELIVERABILITY & OPERATIONS CASE

Cummer Station was intended to be constructed by means of a cut-and-cover excavation between pre-installed headwalls within the Yonge Street ROW, at a depth of around 18-22 metres. As discussed elsewhere in this business case, Metrolinx has proposed two delivery methods for Cummer Station: 1) a "Single Build," which would construct the station together with the YNSE project; 2) a "Phased Build," which would protect for the future construction of the station by pre-building headwalls and a station box below the Yonge Street ROW.

Delivery

- Metrolinx has indicated that the vertical and horizontal alignment geometry of the subway tunnels north of Finch Station will be designed to protect for a Single Build or Phased Build of Cummer Station. This is included in the base scope and cost.
- Metrolinx's IBC classifies the constructability of Cummer Station to be of medium complexity, due to factors such as its location within the Yonge Street ROW, the station's location within an area of transitioning street related retail and higher density development, and planned bus facilities located some distance from the station. (It should be noted that this assessment assumed that Cummer Station is delivered as as a Single Build as part of the YNSE base scope; the construction complexity is likely increased for Phased Build.)
- Metrolinx's subsequent NSA indicated complexity around interfacing with the Finch Station box structure to the south, and prolonged utility relocations and traffic staging that need to be completed.
- Metrolinx has indicated that there would be no impacts to the design of the tunnel alignment whether there was a Cummer Station, or whether Cummer Station was delivered through a Single Build or Phased Build approach. The base scope and cost includes a track profile that can accommodate Cummer Station.
- Metrolinx's NSA indicates that some land acquisition would be required for an Emergency Exit Building (EEB) even in the absence of Cummer Station. The EEB is conceptually proposed on the main entrance site, and would be designed and located in a manner that would allow for future integration with a main entrance building delivered through a Phased Build.
- Additional property would need to be acquired to deliver a Cummer Station, including land for the secondary entrance building and bus loop.
- Station entrances may occupy sites that would otherwise be developed. However, as noted elsewhere in the business case, TOC development is challenging due to constraints related to parcel size and land assembly at the station sites.
- TOC integration into station entrances requires structural supports to be included in the design of the entrance to carry or distribute the load of the TOC. This would have structural design implications for the entrance additional cost associated with it.

Operations

- With Cummer Station, two TTC bus routes (42 Cummer and 125 Drewry) would be modified to connect to the subway system at Cummer Station. A bus loop would be provided to permit these buses to terminate and turn around. Without Cummer Station, these two bus routes would continue to connect to the subway line at Finch Station.
- Metrolinx's NSA indicates that including Cummer Station would increase Line 1 run times by approximately 50 seconds. Subway passengers travelling through Cummer Station would experience additional travel time on their journey, while residents accessing or transferring to the subway at Cummer would save travel time. The additional run time may require additional trains and operators, and an associated increase in operating costs.
- The Single Build approach to building Cummer Station would avoid any future subway disruption associated with the delivery of the station. With the information available at this time, a Phased Build approach would likely significantly disrupt subway operations north of Finch Station that would be running when the YNSE was complete and open for service.
- Requirements for trains and yard/servicing capacity with Cummer Station will need further study.

Conclusions

Through this analysis, City staff have verified and enhanced the strategic case for Cummer Station as articulated by Metrolinx in the business case, which was the basis for the Provincial decision not to include Cummer in the YNSE project.

It should be noted that this case for Cummer Station has been put together using existing and new information developed within the limited time and resources available, and should not be considered a comprehensive evaluation of the benefits and costs of Cummer Station from the City's perspective.

Nevertheless, the analysis presented above does indicates that there are benefits to including Cummer Station within the scope of the Province's YNSE project, with a particularly strong strategic case that supports the City's planning policy framework and city-building objectives.

Highlights of some of the benefits include the following:

- Cummer Station will attract significant ridership, with station usage forecasting over 23,000 combined boardings and alightings during a typical weekday in 2051. The City's 2051 AM peak hour station usage forecast (3,900 riders) exceeds Metrolinx's 2041 ridership forecasts (2,100 riders).
- The Cummer Station area has been planned and is forecast to meet the population and employment density generally accepted to support higher-order transit.
- The land use planning framework in the Official Plan supports the intensification of the area around Cummer Station, with significant land designated Mixed Use Areas.

- Official Plan Amendment 615 recently increased the amount of land designated Mixed Use Areas around Cummer Station, and the Yonge North Secondary Plan provides a framework for developing a node of tall and mid-rise buildings at Yonge and Cummer.
- The Yonge North Secondary Plan seeks to transform the area into a transit-supportive urban environment, including improvements to mobility infrastructure to support walking and cycling within a complete community.
- Significant development activity is already occurring around Cummer Station, with 7,900 residential units and 27,000 m^2 of non-residential GFA at various stages of the development pipeline across 17 applications.
- Cummer Station will provide $125 million in travel time benefits for users of the station (present value), the primary economic benefit of the station.
- The estimated benefit cost ratio of Cummer Station varies between 0.24 and 0.29, accounting for the range of capital cost estimates and delivery methods. This is lower than Metrolinx's BCR primarily due to a difference in capital costs in the analyses.
- There are some capital cost savings associated with including Cummer Station within the scope of the YNSE project. Protecting for a future Cummer Station involves near-term expenditures that amount to approximately 70-80% of the cost of the fully-operational station, without achieving any of the strategic or economic benefits.
- From a deliverability perspective, a Single Build approach to constructing Cummer Station is deemed more feasible. Constructing Cummer Station is operationally more challenging through a Phased Build approach, primarily because the construction process could significantly disrupt then-operational subway service.

Based on the inability of the City to secure sufficient funds from TOC developments in the station area as noted above, and the City's current significant financial constraints, the City does not have funding budgeted to proceed with either approach to enable the delivery of Cummer Station as part of the YNSE. As such, Council has requested the Province fund all associated costs required to deliver Cummer Station as part of its YNSE project. Should the Province not agree to pay for the costs associated with Cummer Station, there would be no funding available for Metrolinx to deliver Cummer Station as part of the YNSE project.