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RICHMOND HILL CENTRE / LANGSTAFF URBAN GROWTH CENTRE - TRANSPORTATION STUDY

The Transportation Services Committee recommends the adoption of the recommendations contained in the following report dated March 11, 2010, from the Commissioner of Transportation Services and the Commissioner of Planning and Development Services, subject to adding the word 'financial' to Recommendation No. 1 so that Recommendation No. 1 now reads as follows:

- 1. Regional Council approve a financial allocation within the approved Regional Transportation Roads Capital budget for the Richmond Hill Centre/Langstaff Urban Growth Centre Transportation Study.**

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council approve an allocation within the approved Regional Transportation Roads Capital budget for the Richmond Hill Centre/Langstaff Urban Growth Centre Transportation Study.
2. The Regional Clerk forward this report to the Clerks of the Towns of Markham, Richmond Hill and the City of Vaughan.

2. PURPOSE

The purpose of this report is to provide Committee with an update on the transportation related planning activities related to the Richmond Hill/Langstaff Gateway Regional Centre and Provincial Urban Growth Centre (UGC). The Region is leading the overall planning process in partnership with the Towns of Richmond Hill and Markham and the City of Vaughan. Specifically, there is a need to review and consolidate the recently completed local transportation plans and studies to ensure compatibility and alignment with the broader transportation vision for the area. A separate report is being presented to Planning Committee summarizing the overall process, the resulting products and recommendations, and recommended next steps arising from the planning coordination process for the Centre.

3. BACKGROUND

York Region Planning Department is leading a process to coordinate and support local municipal studies and secondary plans for the Urban Growth Centre

The coordination process for the Regional Centre and Provincial UGC, and the related studies for the Centre being undertaken by Richmond Hill and Markham, was introduced and outlined in a report to the September 9, 2009 meeting of the Regional Planning and Economic Development Committee. The report was received by the Committee, and its recommendations adopted, which were that:

- 1) The Principles drafted for the Centre by the Region, Richmond Hill, Markham and Vaughan be endorsed and continue to shape the implementation of the Centre;
- 2) Regional staff report back to the Committee and Council with an update of the process, and an outline of the emerging policy and implementation directions for the Centre, and;
- 3) The report be circulated for information to the municipalities participating in the coordination process, and to the Province.

Principles and structure for staff collaboration around specific, shared issues has guided the process

The Principles established for the Centre have been fundamental in guiding the process, and shaping the emerging land use and design visions by Richmond Hill and Markham for their respective segments of the Centre. The Principles have provided a level of structure and consistency to the planning and implementation process working towards the achievement of a cohesive Centre. The Principles were formed around the following six common and important issue areas, which required detailed and coordinated approaches:

- 1) Land Use and Urban Design
- 2) Building Complete Communities
- 3) Community Integration
- 4) Physical Infrastructure
- 5) Implementation of Community and Servicing Requirements
- 6) Financial Principles

Working towards common approaches for the above issue areas based on the Principles, staff from the Region and the local municipalities were mobilized into four sub-group teams to discuss and deliver detailed recommendations in the following four areas:

- 1) Community Facilities & Services
- 2) Financial Tools & Models

- 3) Physical Infrastructure
- 4) Planning & Design

A Terms of Reference was developed for each sub-group, and each sub-group was coordinated by senior staff from the Region, Markham and Richmond Hill and supported by a core team with particular expertise. Each group met a minimum of four times over a five month period. The Physical Infrastructure sub-group was led jointly by Kathleen Llewellyn-Thomas, Commissioner of Transportation, York Region and Mary-Frances Turner, President – York Region Rapid Transit Corporation.

Attachment 1 lists the shared principles for the physical infrastructure elements of the Centre. These principles were jointly developed by staff of the Region and the municipalities.

Recommendations arising from the Physical Infrastructure sub-group are that:

- 1) A Centre-wide transportation study be undertaken by the Region, in partnership with the Towns of Richmond Hill and Markham and the City of Vaughan, and;
- 2) The sub-group continue to meet to assess the capacity of and required improvements to water and wastewater servicing for the Centre and the adjacent area, and to further discuss approaches to integrate urban stormwater management techniques, solid waste collection practices and district energy facilities into the development scheme.

This report addresses only the first recommendation of the sub-group – the need for a Centre-wide transportation study.

4. ANALYSIS AND OPTIONS

The Richmond Hill/Langstaff Gateway Urban Growth Centre is strategically located at the intersection of four high order transit systems providing unprecedented transit market share opportunities

The Richmond Hill/Langstaff Gateway Urban Growth Centre is strategically located in the GTA, at the trisect of 3 bus rapid transit lines (Yonge Street VIVA service, Highway 7 VIVA service, and the proposed Highway 407 Transitway), a commuter rail line (Richmond Hill GO line) and a proposed subway extension (Yonge Street Subway). In addition, the Centre is also serviced by Highway 407 tolled highway and Highway 7, which also serves as the municipal boundary between the Town of Richmond Hill and the Town of Markham and the City of Vaughan. When fully developed, the Centre will have a population of approximately 48,000 residents and 31,000 employees.

Table 1
Proposed Development Statistics for Regional Centre/UGC

Planning Area	Land Area (.ha)	Residents	Employees	Density*
RH Centre	70	16,000	16,000	450
Langstaff	47	32,000	15,000	1,000
Centre-Wide	117	48,000	31,000	675

** Expressed as combined people and jobs per gross hectare*

The successful implementation of the Centre is critically dependant on transit improvements and a majority of trips being made to, from and within the Centre by modes other than the single occupancy vehicle (e.g. carpooling, walking, etc.). New and innovative approaches to delivering all types of physical or “hard” infrastructure will be required to achieve the vision of the Centre as an urban, compact, mixed-use and transit-oriented community. This includes water and wastewater servicing, stormwater management, district energy systems, a fine-grained street network with pedestrian and cycling connections, and transportation demand management measures including the reduction of on-site parking facilities.

In summary, below are some of the unique characteristics of the Richmond Hill/Langstaff Gateway Centre that represent opportunities and challenges to developing it as an integrated, efficient and effective UGC.

Opportunities:

- The location of this Centre is unique in the limited opportunities available from a traffic accessibility and capacity perspective but with an abundance of planned transit capacity and opportunity.
- The Centre represents the best opportunity available in York Region, due to the physical constraints of the land area, to maximise and implement sustainable and innovative transportation policies and programs.
- The Centre benefits from an extensive transit network that includes YRT/Viva, GO Rail system, future TTC Yonge Subway Line extension and the proposed Highway 407 Transitway. This network will be staged over the next 25 years.

Challenges:

- One of the major challenges is that this UGC is at the cross-roads of 3 municipalities (Markham, Richmond Hill and Vaughan), is governed by 3 levels of government (4 if you include Transport Canada via the railways). The location requires a collaborative, innovative approach to development by three levels (Local, Regional, Provincial and possibly Federal) of government and four municipalities (Markham, Richmond Hill, Vaughan and York Region). (Note: the Yonge Subway extension will be under the jurisdiction of the TTC/Toronto, creating another level of complexity in delivering transit services to this area.)

- The Centre needs specific implementation policies and programs that are fully integrated and coordinated between the Richmond Hill Centre (RHC) and Langstaff Gateway plans and treat the two as a single UGC to function efficiently as an integrated mobility hub.
- The presence of the Hydro corridor, Highway 407 and Avenue 7 creates a wide physical separation between the north and south portions of the UGC which requires innovative solutions in bridging this gap.

York Region needs to take a leadership role to bring the various local transportations plans and studies into alignment with a broader, long-term strategic vision

York Region is taking a leadership role in bringing the municipalities together to help establish a long-term vision and strategic direction for the Urban Growth Centre as an inter-modal transit ‘mobility hub’ as designated by the Metrolinx Regional Transportation Plan (The Big Move). Further, the planned Yonge Subway extension and Mobility Hub are transportation elements that are not only critical to the Centre, but that require Regional leadership due to their cross-boundary nature.

Both Markham and Richmond Hill have developed detailed plans showing refined road networks to accommodate the proposed developments. These refined road networks will be used as part of this analysis to determine the overall impact on the primary road network and intersections.

Another critical component to the success of the congestion management plan for the area is the role of the proposed 2,000+ spaces of the Toronto Transit Commission commuter parking lot in the City of Vaughan. This commuter lot is to provide parking for passengers to the proposed Yonge Subway, and traffic congestion impacts as a result of this facility need to be addressed as part of the study.

An early and key concentration of the Physical Infrastructure sub-group was to review and compare the interim assumptions and conclusions of the transportation studies being prepared for Richmond Hill (by iTRANS Consulting) and Markham (by IBI Group) for their respective segments of the Centre, as part on their planning study processes. Key aspects of these ongoing studies, based on a “transit-first” and “non-auto” principles, are:

- Development thresholds tied to the performance of the road and transit network, currently being based on non-auto mode shares ranging between 50 and 60 per cent;
- The timing of the Yonge Subway extension, and the level of development that can be accommodated under “pre-“ and “post-subway” scenarios.
- The form, function and timing of the Provincial Mobility Hub within Richmond Hill and the timing of the transit systems that will connect and terminate there (e.g. future 407 Transitway).

- New north-south and east-west street connections (e.g. auto and non-auto) within each segment of the Centre, and across the Highway 407/7/Hydro Corridor linking those segments.
- Transportation Demand Management measures such as reduced parking requirements for development, and carpooling strategies and facilities.

A cohesive, aligned transportation plan for this Urban Growth Centre is a critical element of the planning process

The local transportation studies are progressing well and are generally consistent in their assumptions, approaches, and interim recommendations. It is clear that these critical transportation considerations for the Centre warrant, and would benefit from, a broader review that includes a Regional analysis of the larger and surrounding area, a “testing” and confirmation of the studies’ assumptions, and a detailed analysis that includes the Regional road and transit networks.

An over-arching transportation study must now be conducted to confirm the full transportation requirements to meet the needs of an integrated Richmond Hill/Langstaff Gateway UGC in the context of the larger Regional setting of the Centre. The Study will be based on the shared principles and be consistent with York Region, Metrolinx, Provincial and Local policies and plans, including the recently updated York Region Transportation Master Plan.

A proposed Terms of Reference for the Centre-wide transportation study has been completed (*Attachment 2*). The recommendations of the study will form part of the Region’s planning and approval framework for the secondary plans for the Centre, and subsequent development approvals. The study will also inform the assumptions for the recommended comprehensive fiscal analysis for the Centre.

Relationship to Vision 2026

The planning and implementation of the Richmond Hill Centre/Langstaff Gateway, and the coordination being undertaken to achieve it, is an excellent example of good planning and inter-municipal and agency cooperation. The planning objectives and related process are highly consistent with and will serve to advance all eight goal areas of Vision 2026, and especially “Quality Communities for a Diverse Population”, “Managed and Balanced Growth”, “Infrastructure for a Growing Region” and “Engaged Communities and a Responsive Region”.

5. FINANCIAL IMPLICATIONS

Regional funding allocation will be required for the proposed Richmond Hill/Langstaff Gateway Centre-Wide Transportation Study. A study such as this is required due to the

Centre's unique geographic location and major transit infrastructure integration needs. It is not anticipated that similar studies will be required for other Regional growth centres. It is estimated that approximately \$200,000 would be required to meet the requirements for the study as set out in the attached Terms of Reference. It is recommended that \$200,000 be allocated from Design and Survey for Future Projects (#39910) account which is funded 88% through Development Charges.

6. LOCAL MUNICIPAL IMPACT

Leadership for the proposed Centre-Wide Transportation Study would be provided by York Region staff (Transportation, Environment and Planning). Regional staff will work closely with local municipal representatives from Markham, Richmond Hill and Vaughan to ensure alignment of transit modal split targets, road connections, phasing of major transit infrastructure and assessment of fiscal impacts.

7. CONCLUSION

The successful development of the Richmond Hill/Langstaff Gateway Regional Centre and Provincial Urban Growth Centre (UGC) will be dependent upon sound transportation demand management. Providing public transit alternatives, managing traffic congestion with a well-planned road and pedestrian network and managing parking supply are all critical elements to the economic success of the Centre. A Regionally led Centre-Wide Transportation Study will provide the basis for ensuring future alignment of transportation infrastructure and associated policies.

For more information on this report, please contact Irene McNeil at Ext. 5021.

The Senior Management Group has reviewed this report.

(The two attachments referred to in this clause are attached to this report.)

SHARED PRINCIPLES – Physical Infrastructure

1. The provincially-designated **Mobility Hub** is the central and most important destination, origin and transfer point for transit trips within the Centre, and has a **Region-wide significance**. Development will therefore serve to enhance access to and support the **efficient functioning** of this facility
2. Development and related phases will proceed on the basis of **transit-priority** and non-auto travel modes such as **walking** and **cycling**, and the demonstration of sufficient transportation capacity to, from and within the Regional Centre
3. **Phasing and staging** of development within each precinct or neighbourhood will be **tied to triggers related to infrastructure capacity**, including community and social services and facilities, transportation, on-site energy generation (e.g. district energy), and water and waste water
4. A **transportation study/master plan** will include a comprehensive review of wide-area (e.g. including lands north to 16th Avenue) transportation facilities, and include current conditions, identify short, medium and long-term transportation improvements, related development thresholds, and triggers
5. **Transportation capacity** will be assessed on the basis of **congestion management and linking such management to mode split goals for all modes of access (auto, bike, walk, transit and rideshare)**
6. A comprehensive and integrated **mobility plan** and strategy – addressing all modes of transportation with an emphasis on **non-auto modes** – will be prepared by the applicants as a condition of development approvals, consistent with the findings of the wide-area transportation study/master plan
7. A **fine-grained street grid** network will be planned and implemented through the development approvals and phasing process, including the identification of additional road, pedestrian, cycling and transit linkages
8. **Transportation Demand Management (TDM)** measures, strategies and programs, including bike, walk and ride-sharing programs for residents/employees and transit pass incentives, will be required by the municipalities as a condition of development approvals for each phase
9. **Parking supply and design** will reflect and support the transit-priority of the Regional Centre, and shall include parking management approaches that include the establishment of consistent and low maximum parking standards, and on-street parking in appropriate areas
10. Development **triggers** (e.g. opening of subway, TDM measures, etc.) for each phase of development will include **performance-based standards** that are tied to mode shares for transit and other non-auto modes
11. **Transportation capacity**, including transit mode shares and non-auto measures, will be monitored for and throughout each phase of development

12. **Traffic congestion will be managed** throughout the build-out of the Regional Centre in a manner that supports transit, walking and cycling as the primary travel modes, and that takes advantage of state-of-the-art technologies
13. The **“walk-to” catchment areas** for the transit stations will be not be uniform, and will be based on pedestrian and cycling connectivity and associated travel times, generally based on a maximum 15-20 minute walk for the majority of people

DRAFT

Draft Terms of Reference (Last updated Feb 25, 2010)

Centre –Wide Transportation Study Richmond Hill–Langstaff Urban Growth Centre

York Region is partnering with the Towns of Richmond Hill and Markham, together with the City of Vaughan, to build a complete, cohesive and integrated Regional Centre and Provincial Urban Growth Centre (the “Centre”). The Centre is a designated anchor Mobility Hub in the Metrolinx Regional Transportation Plan. The planning and build-out of the Centre will emphasize non-auto trip making, a high transit market-share, and a compact and mixed-used urban form as a part of a congestion-management approach to transportation to, from and within the Centre.

The Towns of Richmond Hill and Markham have each undertaken separate transportation studies for their respective areas of the Richmond Hill/Langstaff Gateway as part of a larger planning exercise. To that end, the Region is leading a Centre-Wide Transportation Study, in collaboration with the local municipalities and Metrolinx; linking and expanding upon the locally-led transportation studies to meet mutual challenges and seize opportunities to promote a viable and accessible Centre.

1. BACKGROUND

The Provincial Growth Plan for the Greater Golden Horseshoe (Places to Grow) identifies an Urban Growth Centre at the crossroads of Yonge Street and Highway 7/Highway 407. Identified as the Richmond Hill/Langstaff Gateway Urban Growth Centre (UGC), this site has been identified in local, regional and provincial plans as a major growth area and a major hub for high-density residential development and employment, and includes unprecedented transit opportunities. Urban growth centres will be a focal area for investment in institutional and region-wide public services, as well as commercial, recreational, cultural and entertainment uses supported by major transit infrastructure. The UGC is a planned compact and complete community where amenities are within short distance of residents and workers. The high density, mixed used development will reduce the need for long distance commuting trips.

The Metrolinx ‘Big Move’ Regional Transportation Plan (RTP) has identified this location as an ‘anchor’ hub – a designation which refers to the potential for the highest level of development and transportation integration. According to the definition in the ‘Big Move’ report, Mobility hubs are *major transit station areas* with significant levels of transit service planned for them in the RTP, high development potential, and a critical function in the regional transportation

system as major trip generators. They are places of connectivity where different modes of transportation — from walking to high-speed rail (note: MTO has identified the ultimate technology of the 407 Transitway as a rail-based rapid transit (e.g. LRT technology) — come together seamlessly and where there is an intensive concentration of employment, living, shopping and/or recreation. In addition to serving as places to arrive, depart and wait for transit, successful mobility hubs have the potential to become vibrant places of activity and destinations.”

The Richmond Hill/Langstaff Gateway UGC is strategically located in the GTA, at the trisect of 3 bus rapid transit lines (Yonge Street VIVA service, Highway 7 VIVA service, and the proposed Highway 407 Transitway), a commuter rail line (Richmond Hill GO line) and a proposed subway extension (Yonge Street Subway). In addition, the Centre is also serviced by Highway 407 tolled highway and Avenue 7, which also serves as the municipal boundary between the Town of Richmond Hill and the Town of Markham and the City of Vaughan to the west.

Langstaff Gateway; The Markham portion of the site is bounded by Highway 407/7 to the North, Bayview Avenue to the East, Holy Cross Cemetery to the South and Yonge Street to the West.

Full build-out of the Langstaff Gateway anticipates:

- 15,140 residential units/31,790 people
- 217,850 m² of non-residential floor space.

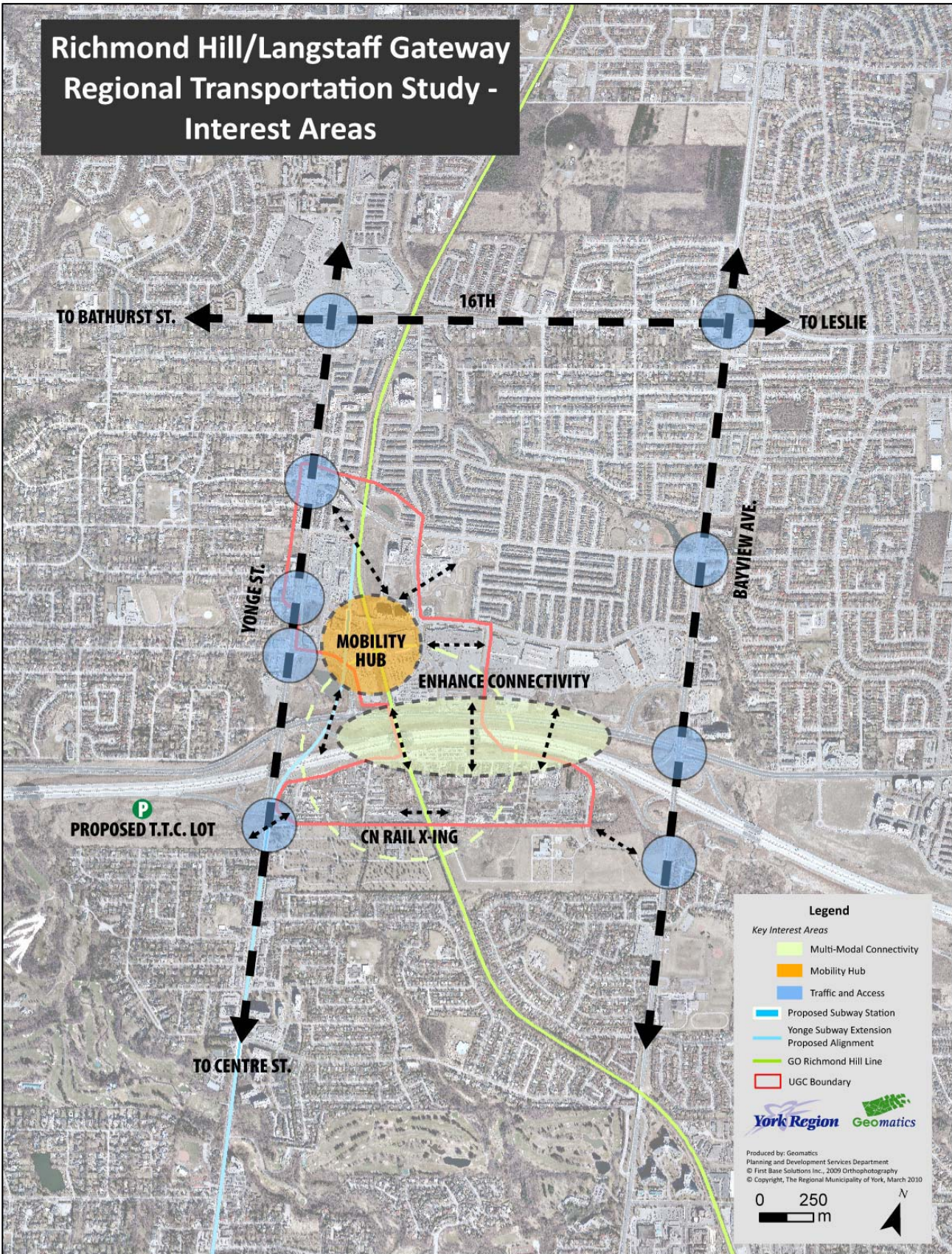
Richmond Hill Regional Centre is bounded by Bantry Avenue to the North, Red Cedar Avenue (with connections to Bayview Avenue) to the East, Highway 407/7 to the South, and Yonge Street to the west.

Full build-out of the Richmond Hill Regional Centre anticipates:

- 7,800 residential units/15,600 people
- 432,700 m² of non-residential floor space.

Both Municipalities have developed detailed plans showing refined road networks to accommodate the proposed developments. These refined road networks will be used as part of this analysis to determine the overall impact on the primary road network and intersections.

Another critical component to the success of the congestion management plan for the area is the role of the proposed 2,000+ spaces of the Toronto Transit Commission commuter parking lot in the City of Vaughan. This commuter lot is to provide parking for passengers to the proposed Yonge Subway, and traffic congestion impacts as a result of this facility need to be addressed as part of the study.



York Region is taking a leadership role in bringing the municipalities together to help establish a long-term vision and strategic direction for the Urban Growth Centre as an inter-modal transit 'mobility hub' as designated by the Metrolinx Regional Transportation Plan (The Big Move). This has resulted in a series of guiding (or shared) principles for the planning of an integrated and coordinated Richmond Hill/Langstaff Gateway UGC.

Attachment 1 lists the shared principles for the physical infrastructure elements of the coordinated UGC. These principles were jointly developed by the Region and the municipalities.

A transportation study must now be conducted to confirm the full transportation requirements to meet the needs of an integrated Richmond Hill/Langstaff Gateway UGC in the context of the larger Regional setting of the Centre. The Study will be based on the shared principles and be consistent with York Region, Metrolinx, Provincial and Local policies and plans, including the recently updated York Region Transportation Master Plan.

In summary, below are some of the unique characteristics of the Richmond Hill/Langstaff Gateway Centre that represent opportunities and challenges to developing it as an integrated, efficient and effective UGC.

Opportunities:

1. The location of this Centre is unique in the limited opportunities available from a traffic accessibility and capacity perspective but with an abundance of planned transit capacity and opportunity.
2. The Centre represents the best opportunity available in York Region, due to the physical constraints of the land area, to maximise and implement sustainable and innovative transportation policies and programs.
3. The Centre benefits from an extensive transit network that includes YRT/Viva, GO Rail system, future TTC Yonge Subway Line extension and the proposed Highway 407 Transitway. This network will be staged over the next 25 years.

Challenges:

4. One of the major challenges is that this UGC is at the cross-roads of 3 municipalities (Markham, Richmond Hill and Vaughan), is governed by 3 levels of government (4 if you include Transport Canada via the railways). The location requires a collaborative, innovative approach to development by 3 levels (Local, Regional, Provincial and possibly Federal) of government and 4 municipalities (Markham, Richmond Hill, Vaughan and York Region). (note: the Yonge Subway extension will be under the jurisdiction of the TTC/Toronto, creating another level of complexity in delivering transit services to this area.)

5. The Centre needs specific implementation policies and programs that are fully integrated and coordinated between the Richmond Hill Centre (RHC) and Langstaff Gateway plans and treat the two as a single UGC to function efficiently as an integrated mobility hub
6. The presence of the Hydro corridor, Highway 407 and Avenue 7 creates a wide physical separation between the north and south portion of the UGC which requires innovative solutions in bridging this gap

2. STUDY OBJECTIVES

The main objectives of this Centre-wide Transportation Study include:

- i. A **review** of existing studies and their conclusions/recommendations (Regional TMP, Richmond Hill TMP, Langstaff Transportation Study (IBI), Richmond Hill/Urban Strategies (iTRANS) study, Sustainable Travel Choices, YRT/Viva 5-Yr Service Plan, etc.) to clearly identify **gaps in assumptions and opportunities**.
- ii. The development of a complete, integrated, and strategic transportation **network plan** that will accommodate and support the land use plan of the Urban Growth Centre, with a focus on non-auto modes and the appropriate transit modal split target consistent with the phased implementation of new transit infrastructure and services over time. Specifically, the 3 critical elements of the network plan will address:
 - The development of a comprehensive Transportation Demand Management (**TDM**) plan that includes infrastructure, policies and programs to reduce travel needs, reduce single-occupant-vehicle use, promote transit use and promote active transportation. Plan development would also include a governance structure specific to responsibilities/roles for coordination and implementation of the TDM plan.
 - Development of a **parking** reduction strategy that includes minimum and maximum parking standards consistent with transit modal share targets, on-street parking and charging for parking and coordination/phasing of the parking reduction strategy with the TDM Plan Access to/from the commuter parking facilities will also be assessed, with a particular emphasis on the role and function of the proposed Toronto Transit Commission parking lot in Vaughan opposite the Centre.
 - Development of transportation key performance indicators (KPIs) that will be used as triggers for monitoring the success of the transportation plan and managing the of development phasing.

- Development of a comprehensive transportation infrastructure and development **phasing** plan including, policies and programs, ensuring that the pace of development matches the timing of the implementation of required transportation infrastructure and transit services, and that are consistent with pre-established KPI benchmark. For example, achievable modal split targets should be developed that reflect development on phase-by-phase basis.
- iii. An **implementation strategy** that includes, but is not limited to, identifying agency leads for implementing the recommendations of the study as well as private sector networks integral to plan implementation. This strategy will include a scoping of the role and priority projects of Metrolinx as they impact the full implementation of the Centre, with a particular emphasis on the EA-approved Yonge Subway Extension and the Mobility Hub.

3. SCOPE OF WORK

Below are the specific requirements to address the study objectives:

A. The Network Plan:

The network plan will provide a complete, integrated, and sustainable transportation network that will accommodate and support the land use plans of the Urban Growth Centre

1. Provide a Centre-wide review of transportation facilities, and include current conditions, identify short, medium and long-term transportation improvements, related development thresholds, and triggers
2. Determine feasible standards/assumptions (eg. Transit modal split targets, background traffic growth, etc) for reasonable congestion levels and practical congestion management solutions acceptable to all four municipalities. Standards and assumptions should be calibrated across all peak hour access modes (auto, transit, bike, walk and rideshare).
3. Conduct transportation capacity analysis and assess capacity needs on the basis of congestion management. Capacity is defined as peak hour capacity within each access mode (auto, transit, bike, walk and rideshare) necessary to maintain congestion levels within a desired/targeted level of service (LOS). The optimization of intersection capacities will be a critical element of this analysis though care must be taken to ensure that improvements and measures recommended to increase vehicle capacity, do not conflict with objectives to promote walking and improve the pedestrian environment.

4. Provide a comprehensive and integrated mobility plan and strategy that will address all modes of transportation with an emphasis on trip reduction and promoting non-auto modes
5. Develop a development approval policy framework that will require development proposals to be consistent with the findings of this area-wide transportation study/master plan
6. Develop/confirm the fine-grained street network that integrates walking, cycling and transit with personal vehicle use (note: this work is included in each of the local transportation plans)
7. Undertake a physical feasibility review of key elements of the recommended street network
8. Review and assess the impact of the CN rail corridor and the feasibility of implementing the strategies as outlined in current studies/plans.
9. Develop a road network that is sensitive to the surrounding residential neighbourhoods (minimizes infiltration of traffic) while providing for optimum traffic flow/movement and facilitates pedestrian activity at intersections.
10. Design concept and strategic directions for the mobility hub and associated transit facilities

B. Transportation Demand Management:

Provide a Transportation Demand Management (TDM) plan that includes infrastructure, policies and programs to reduce travel needs, reduce single-occupant-vehicle use, promote and increase transit, bike, walk and rideshare use and promote active transportation.

1. Review and assess the availability of various TDM measures, strategies and programs, including bike, walk and ride-sharing programs for residents/employees. Transit pass incentives should also be explored within the context of cost and the relationship of such to drive alone commuting.
2. Review and assess bicycle parking requirements within the developments, at bus stops, subway stations, and other planned public transit facilities in the area. Bicycle parking requirements within developments should be addressed within in the context of desired mode split targets for this mode of commuter access.
3. Provide and recommend a policy framework with regard to bicycle parking and the requirements as mentioned above that can be easily integrated into the local municipality zoning bylaws.
4. Explore development incentives that encourage enhancements of trip-end facilities that contribute to higher bicycle mode splits (e.g., FAR bonuses

for shower/locker facilities and/or other bike infrastructure that exceeds base level development requirements).

5. Review and assess both internal and external pedestrian and cycling network needs, including additional midblock crossings of Highway 407/7 that can be integrated with existing municipal and York Region Pedestrian and Cycling Master Plans.
6. Recommend policies, programs and infrastructure that will make the Richmond Hill Centre/Langstaff Gateway UGC a showcase for TDM in Canada

C. Parking Strategy:

Provide a surface parking reduction strategy that includes minimum and maximum parking standards, limits on land area allowed for surface parking, on-street parking and charging for parking

1. Review and assess parking standards and policies in this area, including on-going work being done by Markham on proposed parking policy (IBI study), RapidCo's parking opportunity study along the rapid transit corridors, and any other available related studies.
2. Develop a parking management and design strategy that:
 - calibrates parking standards to area specific mode split targets
 - establishes consistent and low minimum and maximum parking standards for all development types
 - utilizes shared parking opportunity among different land uses
 - provides a framework for charging for parking
 - provides on-street parking to achieve land use goals in appropriate areas
3. The Town of Richmond Hill is currently developing a parking strategy that should be in final draft form before the start of this study. As such, findings from this strategy to be reviewed and incorporated into this study.

D. Infrastructure Phasing Plan:

Provide a comprehensive transportation infrastructure phasing plan that is performance based and includes policies and programs that will accommodate the phasing of residential and non-residential developments

1. Assessment of development triggers (e.g. opening of subway, TDM measures, etc.) for each phase of development that are linked to infrastructure or program implementation and will include performance-based standards that are tied to mode shares for transit and other non-auto modes

2. Provide specific policies and recommendations of how the municipalities can incorporate these measures as condition of development approvals for each phase of the development.
3. A phasing plan that is tied to triggers related to infrastructure capacity and opening schedule of each major facility such as Subway station, improvements to the GO Rail system, mobility hub, or mid-block crossings between Richmond Hill Centre and Langstaff Gateway (note: phasing plan cannot simply tie to opening of certain transit facilities, it should also be tied to utilisation of these facilities.)
4. A phasing plan that will proceed on the basis of transit-priority and non-auto travel modes such as walking and cycling, and the demonstration of sufficient transportation capacity to, from and within the Regional Centre.
5. A phasing plan that will identify a fine-grained internal and external street network to support all modes of transportation.
6. Provide and recommend a policy framework to be integrated into the local municipality and Regional official plans / secondary plans / block / precinct plans.
7. Explore the opportunity to coordinate infrastructure phasing plan to geocode data that objectively links residential trip (origins) to commuter trip (destination). Calibrate transit planning (routing), bike and walk networks to geocode data to assure reasonable and meaningful links between the provision of alternative mode infrastructure and programs.

E. Network Optimization:

A congestion management plan that will focus on the optimization of intersection capacity

1. Incorporate state-of-the-art technologies such as Intelligent Transportation System (ITS), scrambled intersections, transit priority signals, or cycling signals to manage traffic congestion and to accommodate/encourage other modes of travel such as transit, walking and cycling in this area
2. Identify and develop a transportation capacity and demand monitoring program linked to the phasing of development
3. Consider a wider area of influence, beyond the limits of the Centre (eg. including lands north to 16th Ave), in determining the network function and capacity.

F. Implementation Strategy:

Identify agency leads and mechanisms for implementing the recommendations of the study

- Identify the lead agencies responsible for implementing specific recommendations of this study
- Evaluate and identify partnerships and collaborations between the public and private sector in the implementation of plan recommendations (e.g., TMA's , parking authorities, local and business improvement districts, etc.)
- Define roles and responsibilities of all partners to ensure a systematic and collaborative approach to plan implementation, with a particular emphasis on the role of Metrolinx.

G. Funding Strategy:

- Develop a funding strategy for the implementation of specific improvements including timing of the improvement relative to development proposals are to be developed and incorporated into this study.

4. RELATED TRANSPORTATION STUDY REPORTS IN THE AREA

- Langstaff Land Use and Built Form Master Plan, Draft Transportation Report (August 2009) – IBI Group has completed the draft transportation study for this area
- Richmond Hill Regional Centre (TBD) – iTrans/HDR has completed a transportation planning study for this area. The study is included as part of the Richmond Hill Regional Centre Preferred Concept Report dated September 9, 2009. (link to the concept report: http://www.richmondhill.ca/subpage.asp?pageid=op_areastudy_rhcentre_design)
- Region's Transportation Master Plan
- Regional TOD Guidelines
- Metrolinx 'Big Move'
- Sustainable Travel Choices Study
- Rapid Transit EAs
- YRT/Viva 5 Year Service Plan (2010-2015)

ATTACHMENT 1

SHARED PRINCIPLES – Physical Infrastructure

1. The provincially-designated **Mobility Hub** is the central and most important destination, origin and transfer point for transit trips within the Centre, and has a **Region-wide significance**. Development will therefore serve to enhance access to and support the **efficient functioning** of this facility
2. Development and related phases will proceed on the basis of **transit-priority** and non-auto travel modes such as **walking** and **cycling**, and the demonstration of sufficient transportation capacity to, from and within the Regional Centre
3. **Phasing and staging** of development within each precinct or neighbourhood will be **tied to triggers related to infrastructure capacity**, including community and social services and facilities, transportation, on-site energy generation (e.g. district energy), and water and waste water
4. A **transportation study/master plan** will include a comprehensive review of wide-area (e.g. including lands north to 16th Avenue) transportation facilities, and include current conditions, identify short, medium and long-term transportation improvements, related development thresholds, and triggers
5. **Transportation capacity** will be assessed on the basis of **congestion management and linking such management to mode split goals for all modes of access (auto, bike, walk, transit and rideshare)**
6. A comprehensive and integrated **mobility plan** and strategy – addressing all modes of transportation with an emphasis on **non-auto modes** – will be prepared by the applicants as a condition of development approvals, consistent with the findings of the wide-area transportation study/master plan
7. A **fine-grained street grid** network will be planned and implemented through the development approvals and phasing process, including the identification of additional road, pedestrian, cycling and transit linkages
8. **Transportation Demand Management (TDM)** measures, strategies and programs, including bike, walk and ride-sharing programs for residents/employees and transit pass incentives, will be required by the municipalities as a condition of development approvals for each phase
9. **Parking supply and design** will reflect and support the transit-priority of the Regional Centre, and shall include parking management approaches that include the establishment of consistent and low maximum parking standards, and on-street parking in appropriate areas
10. Development **triggers** (e.g. opening of subway, TDM measures, etc.) for each phase of development will include **performance-based standards** that are tied to mode shares for transit and other non-auto modes

11. **Transportation capacity**, including transit mode shares and non-auto measures, will be monitored for and throughout each phase of development
12. **Traffic congestion will be managed** throughout the build-out of the Regional Centre in a manner that supports transit, walking and cycling as the primary travel modes, and that takes advantage of state-of-the-art technologies
13. The **“walk-to” catchment areas** for the transit stations will be not be uniform, and will be based on pedestrian and cycling connectivity and associated travel times, generally based on a maximum 15-20 minute walk for the majority of people

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