Attachment 1

Mount Dennis Community Association **The 12** **Blue Green Canada**
116 Spadina Avenue, Suite 300
Toronto, ON M5V 2K6

Laura Albanese, MPP (York South—Weston)
Ministry of Finance
7th Floor, Frost Building South
7 Queen's Park Crescent
Toronto, Ontario M7A 1Y7

December 6, 2015

Dear Ms. Albanese,

On Thursday November 19th at a public meeting organized by Crosslinx Transit Solutions (CTS), the local community in York South—Weston was presented with several poster boards detailing the company's plans for the Eglinton Maintenance and Storage Facility (EMSF) and the Kodak lands. While there were some improvements to the site design, including incorporating the Scotiabank Building into the site plans, several of the poster boards featured a worrying new structure referred to as a "Backup Power Facility" for the Eglinton Crosstown LRT, and an adjacent site reserved for a future GO/UP Express power facility. This was the first time plans for these power facilities had been shared with the public. The poster boards offered little information on their purpose or the need for these installations.

When asked for more information on these facilities, the members of the CTS team provided the following details:

- The Eglinton Crosstown LRT Backup Power Facility would be a natural gas power plant.
- The power plant will include six 3.3 megawatt (MW) gas-fired generators: Five for use during the regular operation of the power plant and one to act as a back up or fail safe.
- Its purpose is to provide emergency backup power for the Eglinton Crosstown transit system and in the event of a blackout or unplanned power disturbance it would be "fired up" to get the LRT vehicles back to the EMSF:
    - No details were provided on the amount of electric power needed to run the LRT vehicles and stations along the Eglinton Crosstown line to justify this facility.
    - No clarity was given as to how often the facility would need to be "fired up" for regular maintenance and testing.
- The Backup Power Facility would be turned on to provide peak power relief if requested by Toronto Hydro.

As this meeting did not include a formal presentation or public question and answer session it was difficult to gauge the community's reaction to the new backup power facility. However, as York South—Weston is made up of well-organized communities that quite recently fought the introduction of hundreds of diesel train trips running through it every day, one can understand that being asked to host a surprise gas-fired power plant and unknown UP Express power source will not be very popular.

On November 24, 2015 CTS held a Business Opportunities and Information Session on the Eglinton Crosstown LRT Project. At this meeting it was further revealed that this new proposed gas-fired power plant is scheduled to be built by CTS in the first of the six project construction segments.

It is not clear why such a facility is needed. It is also unclear why cleaner electric power options have not been considered. A natural gas-fired power plant that will emit CO_2 and add pollution to the York South—Weston community air shed including harmful NO_x and particulate matter.

We have been told by the Provincial government that the electrification of regional transit is to be a transformative move to address climate change. We know that when public transit infrastructure is built, it is expected to last for the long-term and have its use optimized. There is no better opportunity to get public transit off of fossil fuels than through this major infrastructure build.

Cleaner sources of backup power exist that are more in line with Ontario's Climate Change Strategy. As this proposed gas-fired power plant was added to the plans without any public consultation we are left in the dark to wonder whether cleaner alternative power options were ever considered for the EMSF.

We ask that you request CTS to stop work on this proposed natural gas-fired power plant, which is scheduled to begin in the project's first construction segment, to allow cleaner alternative power options, which do not harm the health of the community, and are more in line with Ontario's Climate Change Strategy, to be properly explored.

As the proposed gas-fired power plant was not previously presented for public consideration nor was it, to our knowledge, initially included in the agreements between Infrastructure Ontario and the CTS consortium, stopping this power plant should not constitute a change order. It should be well within the Province's rights to explore other back up power alternatives without financial penalty.

In May and June 2014, over a year ago, the installation of solar panels on the roof of the EMSF and on other planned buildings on the Kodak lands was proposed by the Toronto Community Benefits Network and members of the Mount Dennis Community Association to Metrolinx, CTS

company representatives, and the proponents in Infrastructure Ontario's process on the $9.2 Billion Eglinton Crosstown LRT contract. In theory, a significant solar installation could be placed on the roof of the EMSF given the publicly available details of the planned building; it is expected to be at least 4 storeys high, it is not under any shadow, and the roof area will be nearly two acres in size.

Within the community, on an adjacent site directly across Industry Street, two existing privately-owned buildings have extensive solar panel arrays that were installed in response to Ontario government encouragement.

Based on what we know about the plans for the EMSF it has the potential to support the largest rooftop solar project in North America. Paired with energy storage, it is possible that this system could meet the needs of the EMSF and the Crosstown LRT vehicles.

Such an installation would be an excellent and visible demonstration of the Province, Metrolinx, and CTS taking their sustainability mandates seriously. It would show a response to community desires for more clean technologies to be utilized on the Kodak employment lands and could set the example for other LRT projects planned throughout Ontario.

Many Canadian-made alternative energy options are available today and could provide backup power for the Crosstown LRT. For example, energy storage technologies are commercially viable, with grid-scale solutions deployed across North America and internationally.

New York City's Metropolitan Transit Authority recently installed a large on-site energy storage system.[1] The system features a 400 kilowatt-hour array of CellCube vanadium redox flow batteries at its new facility in downtown Manhattan as part of an effort to cut energy consumption and shaving peak electricity use. The system stores energy from the grid during cheap off-hours rates and draws power from batteries when rates are high, ensuring resiliency in case of grid disruptions.

Sumitomo Electric, the sister company to Metrolinx's supplier of UP Express trains, has installed a large capacity solar / wind / storage hybrid system that uses a vanadium redox flow battery.[2] Both projects involve American Vanadium, a Canadian mining company out of Vancouver, for source of primary materials.

Ontario's Independent Electricity System Operator recently offered contracts to five companies for nine separate energy storage projects totalling 16.75 MW to provide long duration capacity services.[3] Once the projects are operational, they will demonstrate their ability to support reliability by responding to changing grid conditions.

Energy storage technology can play a vital role in helping Ontario's electricity system to lower costs for ratepayers and decrease carbon emissions. *Unleashing the Value of Energy Storage*, a white paper written by Dr. Andrew Ford (professor emeritus at Washington State University) concludes that large scale energy storage technology can reduce the energy costs of Ontario businesses and consumers by a cumulative total ranging from $6.5 billion to more than $8 billion over a 20-year period, while helping the Province achieve its carbon reduction goals.[4]

By committing to the Eglinton Crosstown, the Province boldly agreed to fund the largest infrastructure project in Canada. The EMSF, an important part of this project, represents an opportunity to further demonstrate Ontario's commitment to innovation and to acting on Climate Change.

York South—Weston area residents are expressing their willingness to host clean, green technologies at the Kodak employment lands in the centre of their community, and are actively seeking the economic revitalization this can mean for their community. Given the new business development locations identified in the EMSF plans for the Kodak lands, there may be an opportunity for strategic attraction of clean technology manufacturing and service industries into this area, and realize the community's vision of a Green Centre of Excellence.

It is our hope that this natural gas-fired power plant can be avoided and that the facility's needs for electricity can be supplied by more innovative and cleaner power sources.

Sincerely,

Mount Dennis Community Association,

The 12, and

Blue Green Canada

CC: The Honourable Kathleen O. Wynne, Premier of Ontario, The Honourable Glen R. Murray, Minister of Environment and Climate Change, The Honourable Steven Del Duca, Minister of Transportation, The Honourable Bob Chiarelli, Minister of Energy, The Honourable Brad Duguid, Minister of Economic Development, Employment and Infrastructure, Ward 11 City Councillor Frances Nunziata, and Ward 12 City Councillor Frank Di Giorgio.

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[1] "American Vanadium to Install Battery System in New York," Jim Polson *Bloomberg*, April 23, 2014. http://www.bloomberg.com/news/articles/2014-04-23/american-vanadium-to-install-battery-system-in-new-york

[2] "Hokkaido Elec to invest in 60 MWh redox flow battery for grid storage," *Green Car Congress* July 7, 2013. http://www.greencarcongress.com/2013/07/hokkaido-20130707.html

[3] Energy Storage Procurement Phase II, November 23, 2015. http://www.ieso.ca/Pages/Participate/Energy-Storage-Procurement/default.aspx

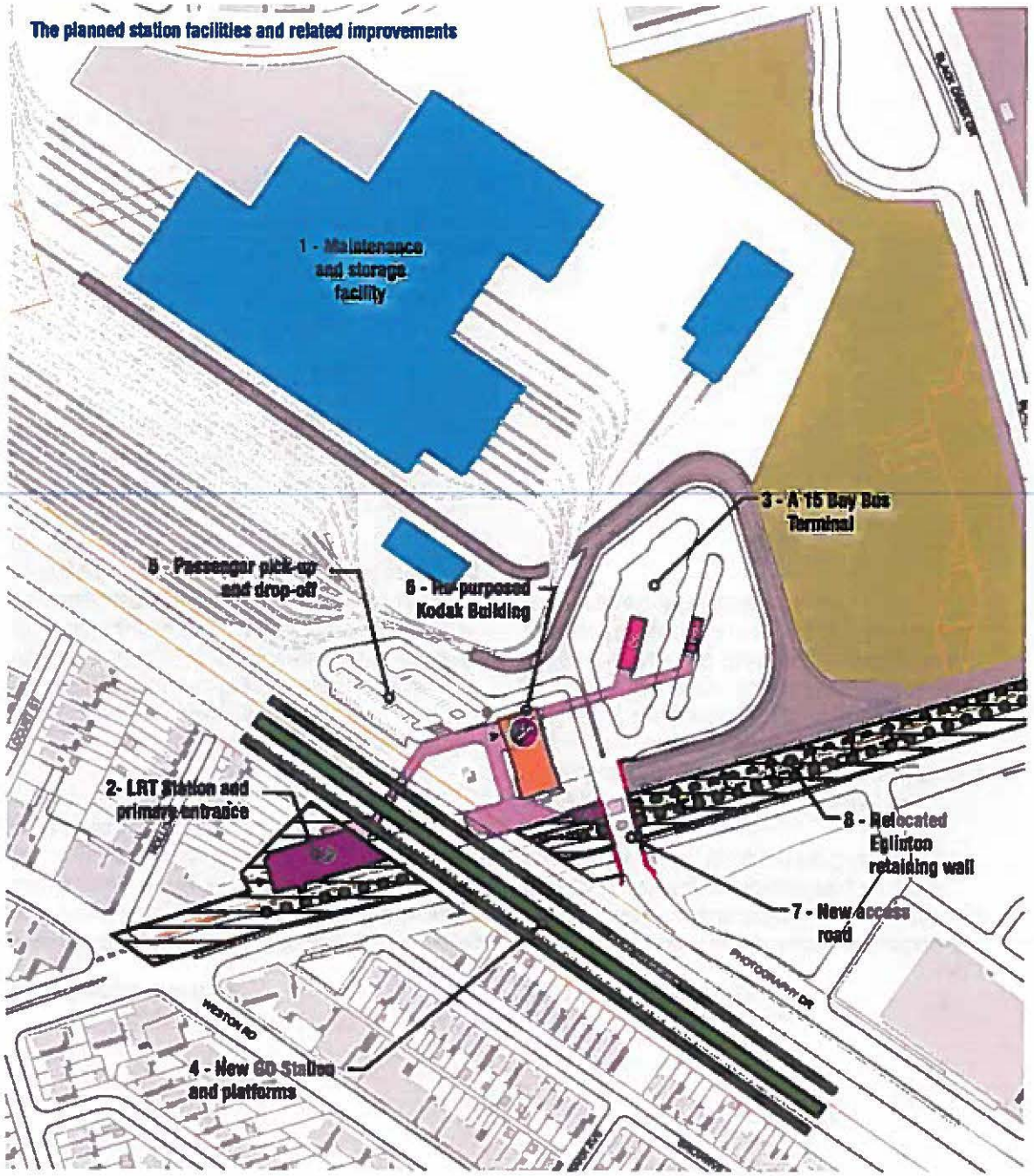
[4] "Unleashing the Value of Energy Storage: A Case Study of Fuel-Free, Compressed Air Energy Storage for the Ontario Power System" *A White Paper from NRStor Inc.*, June, 2015 by Dr. Andrew Ford. http://www.nrstor.com/unleashing-value-of-energy-storage-ontario/

The Planned Station Facilities

The diagram to the right illustrates the planned facilities and improvements for the Kodak Lands. While they have been identified as requirements in the contract for the design and construction of the Crosstown, their final design will be determined during the detailed design process to be undertaken by the selected development team.

1. A maintenance and storage facility designed to accommodate the service requirements of the LRT vehicles both on opening day and as the line is extended over the longer term
2. An LRT station running beneath the rail corridor with a primary entrance off of Weston Road and a secondary entrance east of the rail corridor
3. A 15 bay bus terminal with below grade connections to other transit services
4. Provision for a new GO Train station with two platforms and provision for a third
5. A passenger pick-up and drop-off with parking to support the Kodak building
6. A re-purposed Kodak Building located at the heart of the station which will act as the primary point of transfer between transit facilities
7. Demolition of Photography Drive bridge and the creation of a new access road
8. A relocated Eglinton retaining wall to provide space for the construction of the LRT and increase sidewalk space and streetscape improvements along the north side of Eglinton Avenue

The key moves to inform the design of the detailed station facilities are identified on the pages that follow.



The Kodak Lands Tomorrow

Major Themes From Public Consultation

Over the course of the Mobility Hub Study there were a range of ideas shared with the team regarding the future of the Kodak Lands. These included:

- Maintain and re-purpose Kodak Building No. 9
- Design the station as a connection
- Provide for a future road connection
- Design the MSF to face the street and preserve for new development

What Changes Will Occur?

Given the large scale of the Kodak Lands and its existing employment lands designation, the site was selected to contain a Maintenance and Storage Facility (MSF) for the Crosstown line. The facility will be capable of maintaining the vehicles required for the Crosstown on opening day and over the longer term when the line is extended.

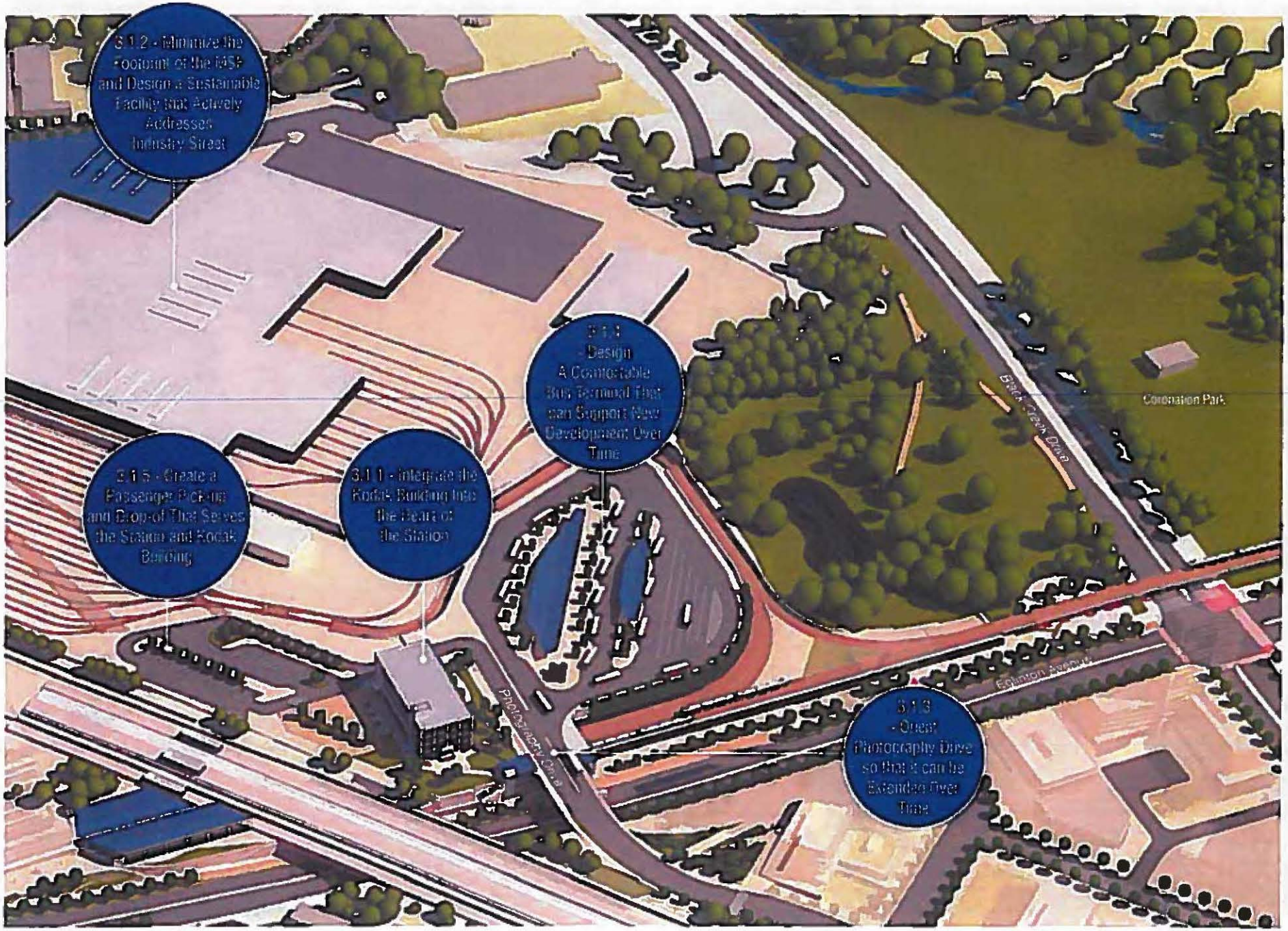
At the southern end of the site will be the new Mount Dennis Station. The station will include an LRT platform with two entrances, a 15 bay bus terminal, a future GO Train stop and facilities for passenger pick-up and drop-off. In order to accommodate the tracks and LRT station, the existing retaining wall along Eglinton will be shifted north creating room for wider sidewalks and a new multi-use path.

Kodak Building No 9. will be maintained and refurbished, and act as the primary point of connection between the various modes of transit at the station.

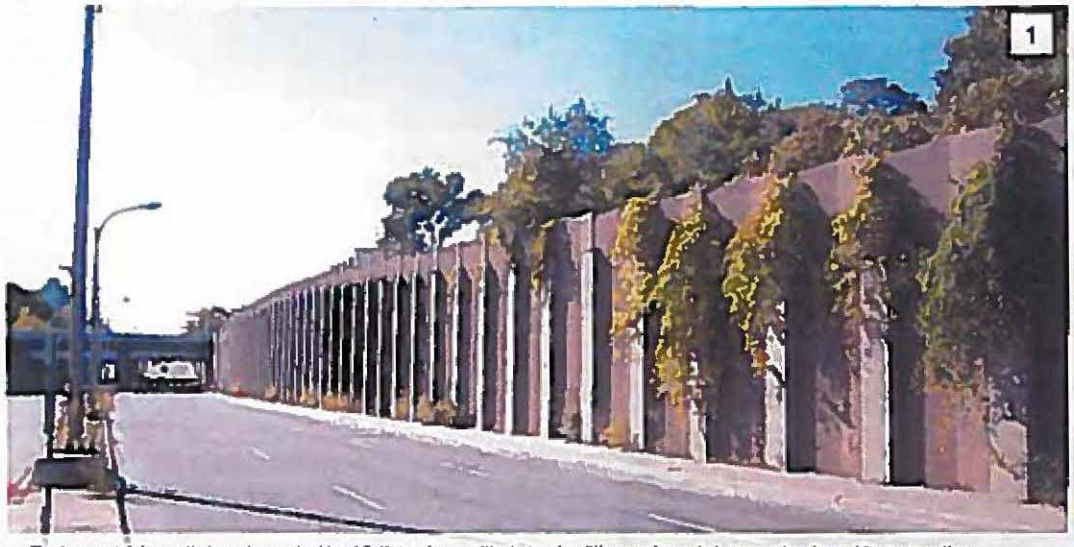
What Do We Want to Achieve?

Mount Dennis Station and the Kodak Lands will be an important multi-modal transit hub supporting seamless transfers for passengers and containing the critical infrastructure needed to support the Crosstown Line.

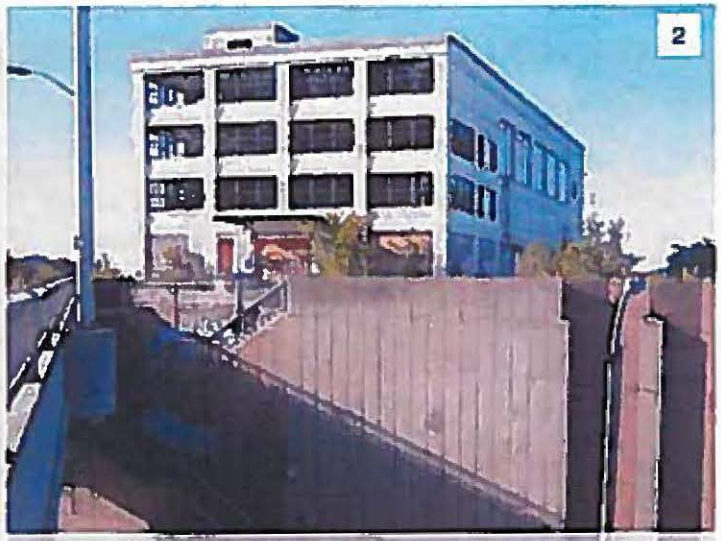
As the primary link between transit modes, the refurbished Kodak Building will be the heart of the new transit station and home to new uses such as office, retail and or community space. In order to preserve for intensification of the site over the long-term, the design of the MSF and station access road will help to support the extension of Photography Drive and the redevelopment of the bus terminal site.


3.1.2 - Minimize the Footprint of the MSF and Design a Sustainable Facility that Actively Addresses Industry Street
3.1.4 - Design A Comfortable Bus Terminal that can Support New Development Over Time
3.1.5 - Create a Passenger Pick-up and Drop-off That Serves the Station and Kodak Building
3.1.1 - Integrate the Kodak Building into the Heart of the Station
3.1.3 - Queue Photography Drive so that it can be Extended Over Time
Coronation Park
Broadway
Printing Plant Drive
Edinburgh Avenue

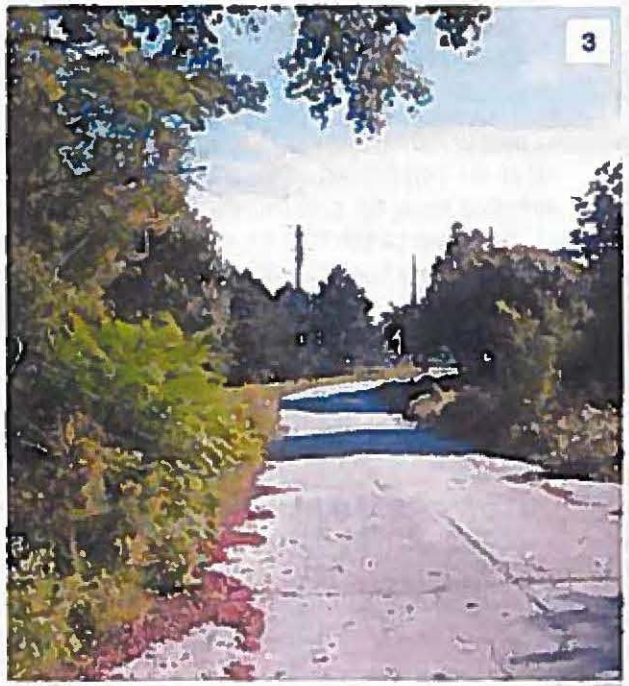

5 Key Strategies For The Kodak Lands



The large retaining wall along the north side of Eglinton Avenue illustrates the difference in grade between the site and its surroundings



The Kodak Building No. 9 is the sole remaining structure on the site and in a state of disrepair



The lands along Keelesdale Valley Drive are wooded and located within the valley

View overlooking the site from the Kodak Building

3.1 The Kodak Lands

The Kodak Lands Today

The Kodak Lands are a large parcel of land east of the rail corridor between Eglinton Avenue, Industry Street and Black Creek Drive. It is the former site of a large Kodak plant which occupied the area from 1913 to 2005. The site has since been cleared and all that remains is Kodak Building No.9, the former employee building for the plant. Kodak Building No.9 sits on an elevated piece of land overlooking the city and will be preserved by Metrolinx.

While the site is substantial in scale, it is currently isolated from the residential and retail community by the rail corridor to its west and a significant grade change to the south along Eglinton Avenue. The eastern side of the site, alongside Black Creek Drive and either side of Keelesdale Drive, is lower then the rest of the property and located within the Black Creek valley lands.

3.1.1 Integrate the Kodak Building into the Heart of the Mount Dennis Station

A unique feature of the Mount Dennis Station will be the preservation of the Kodak Building No 9. Its location gives the building a commanding view over Eglinton with sightlines that stretch to downtown. While the building is currently in a state of disrepair, once restored it will be an important reminder of the role that the Kodak lands once played within the community and has the potential to become a key community gathering place over the longer term.

A key strategy to supporting the rehabilitation and reuse of the building is to integrate it with the station facilities in a way that encourages a high number of passenger transfers through the building. This can be achieved by treating the building as the central connecting place between the LRT, bus, GO Transit and passenger pick-up and drop-off facilities so that all transfers pass through the structure. This will elevate the Kodak Building's profile within the station and can help to support new uses within the building such as the provision of station amenities or community uses requiring easy access.

Over the mid- to long-term, the Kodak Building is expected to be a stand-alone structure amongst what will otherwise be modestly scaled station facilities. A landscape strategy should be developed for the publicly accessible lands around the building and applied to the surrounding station facilities, such as the bus terminal and PPUDO, to tie them together, create a cohesive landscape setting and enhance the stations image from future adjacent development. The strategy should incorporate hard and soft landscaping, planting and significant use of trees to reinforce the valley setting. It should coordinate with the design of elements such as the bus shelters, bridge details, lighting and street furnishing to act as a complimentary design extension of the station.

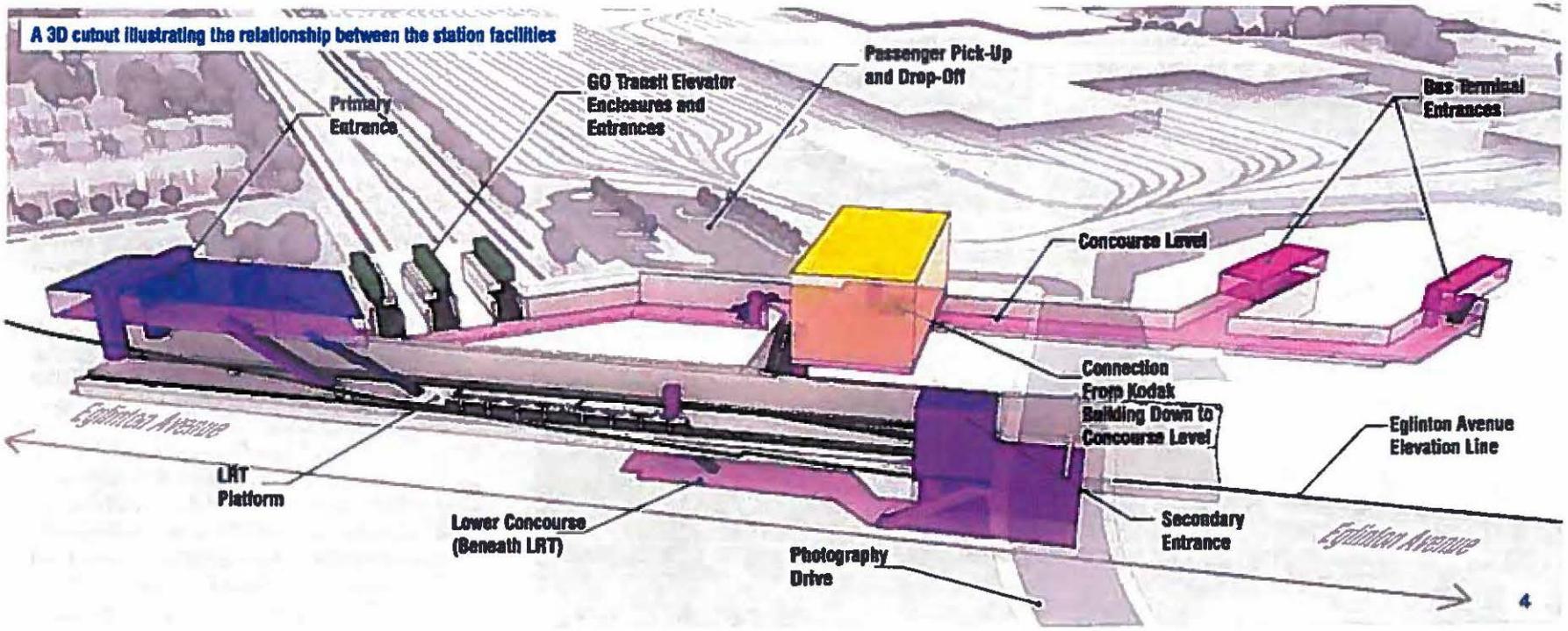
Access to the Mount Dennis Station and the Kodak building from the surrounding neighbourhoods is made challenging by the location of the rail corridor and grade differences. For most people, the quickest and most direct route to the Kodak Building will be via the station entrances. Station facilities should be arranged to allow access to the Kodak Building from all station entrances without having to go through a fare-paid zone.

Integrating the Kodak building into the station will help to support its re-use and revitalization *(Skyscrapercity user Flar)*

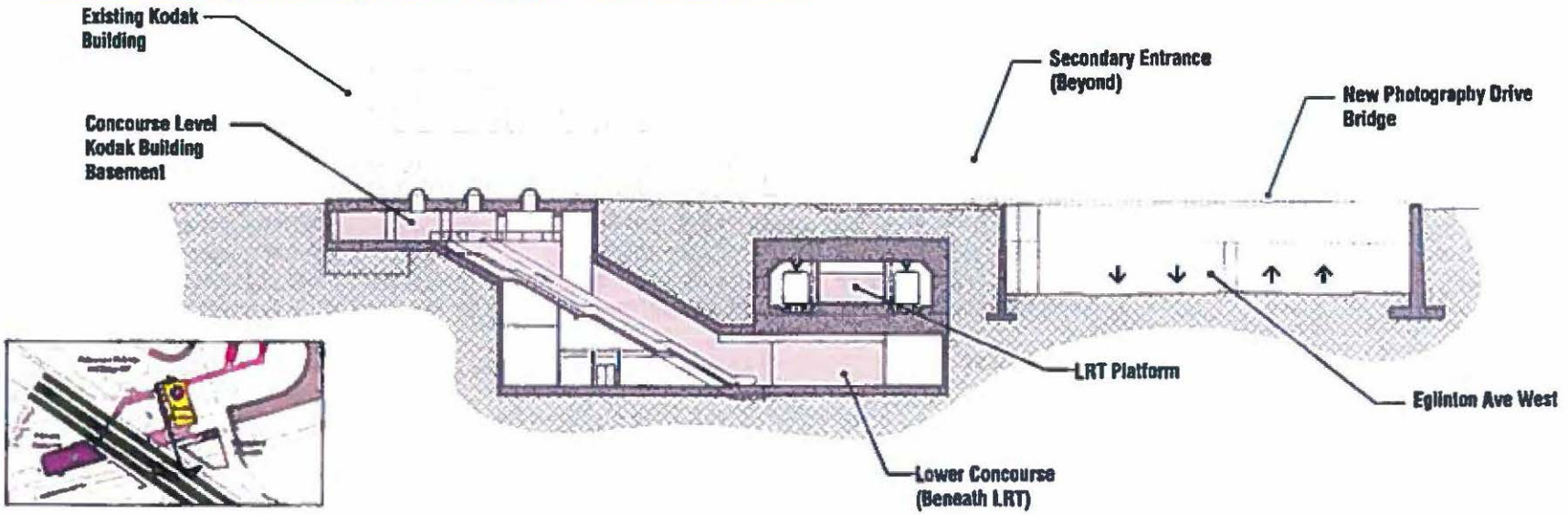
Integrating vertical circulation in the Kodak Building would help to reactivate the lower parts of the structure *(Mark Ahsmann)*

Higher levels of pedestrian traffic through the Kodak Building will help to support passenger amenities such as a coffee shop *(sustainacity.com)*

A 3D cutout illustrating the relationship between the station facilities



Cross section illustrating the relationship of the Kodak Building to the station concourse and LRT



3.1.2 Minimize the Footprint of the Maintenance and Storage Facility (MSF) and Design a Sustainable Facility that Actively Addresses Industry Street

The Mount Dennis Station has been designated a Mobility Hub within the Big Move due to its importance within the regional transit network. While the primary objectives of a Mobility Hub designation relate to providing seamless transfers and establishing a high quality user experience, it is also a stated objective to support "placemaking". This includes promoting a higher-density, mixed-use environment and attractive public realm.

The MSF will occupy a majority of the lands around the Mount Dennis Station. To demonstrate a commitment to sustainability, the facility should be a showcase of sustainable design through the incorporation of features such as a planted rooftop, green energy systems, heat and/or water management features. The footprint of the facility should be minimized to provide opportunities for new development and facilitate connections between the station and neighbouring areas. Strategies could include the stacking of uses within the MSF facility to minimize the building footprint and the accommodation of parking either below grade or in structures.

The MSF should be designed to face Industry Street so that it can enhance the character of the business park and contribute to the creation of a more walkable environment. This could be achieved by locating more active uses such as office or a publicly accessible cafeteria space alongside Industry Street and shifting parking to the rear or side of the facility. Where large areas of fencing are required, generous landscaping along the street edge should be used to enhance the attractiveness of the facility and enhance the pedestrian environment.

In order to contribute to the character of the black Creek Business Park the MSF should be designed to front Industry Street with active uses while shifting inactive warehouse space and parking to the rear

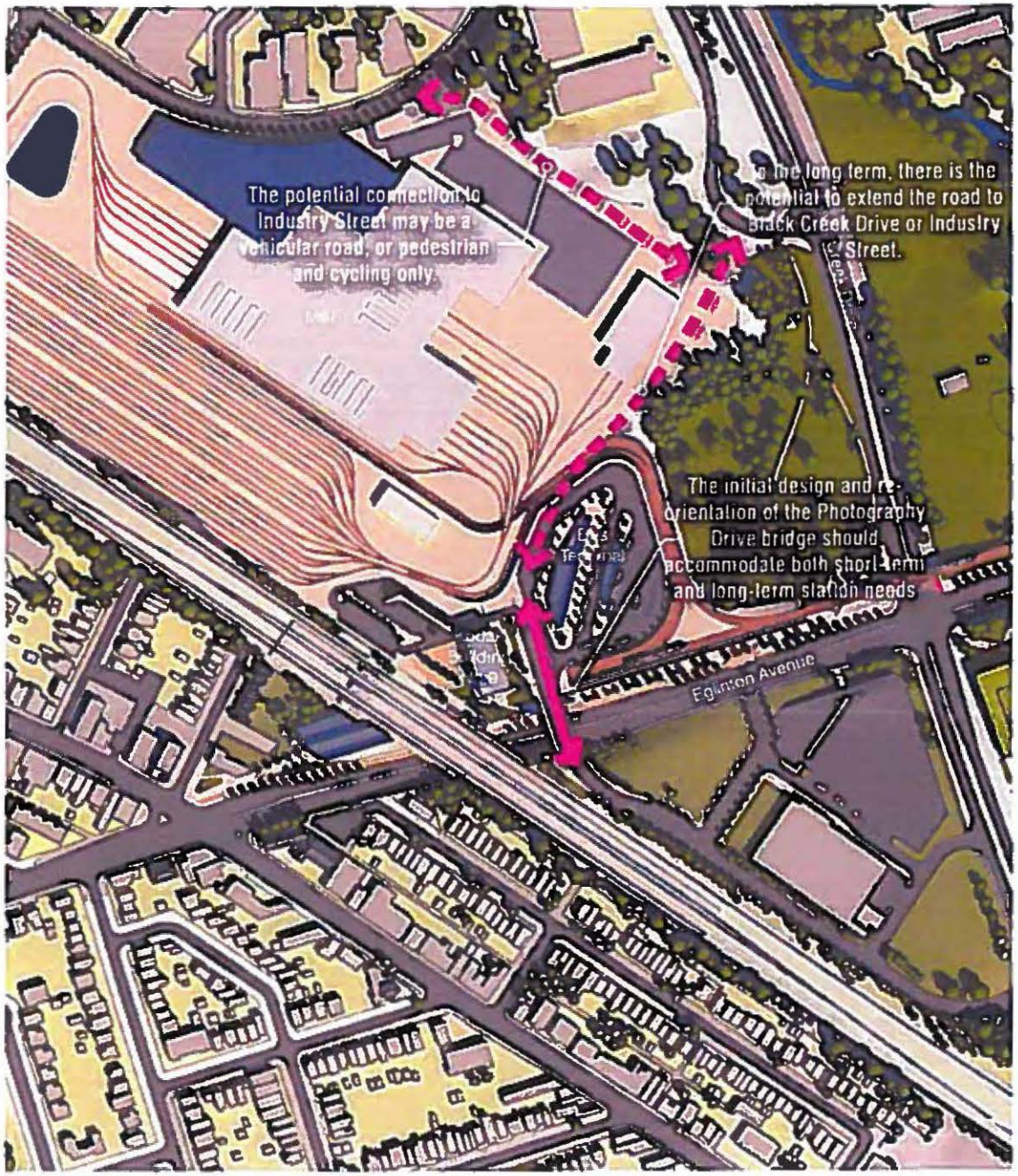
3.1.3 Orient Photography Drive so that it can be Extended Over Time

It is anticipated that Photography Drive will be the main access route for busses and vehicles using the passenger pickup and drop-off. It is also anticipated that the road will serve non-station-related activities by providing access to the Kodak Building for people walking, biking or traveling by car.

An aspiration of the Mobility Hub Study is to improve connections between the station, Black Creek Drive and the Black Creek Business Park via an extension of Photography Drive. While land constraints and the scale of the bus terminal may make this impractical in the short-term, an opportunity may exist to reduce the size of the bus terminal if the LRT is extended west and the station is no longer required to accommodate as many busses. This would enable Photography Drive to be extended north to Black Creek Drive or Industry Street.

An extension of Photography Drive would help to enhance station connectivity and create a new street address for the redevelopment of the bus terminal site. The station design should anticipate this eventuality by identifying how the street could be extended, and designing the station and MSF facilities to support that possibility.

The demolition of the existing Photography Drive bridge and creation of a new structure creates an opportunity to enhance the nature of the Eglinton rail underpass for pedestrians and cyclists. The new bridge should include public sidewalks and consideration should be made for how pedestrian oriented lighting and artwork could be integrated beneath the bridge along Eglinton Avenue.

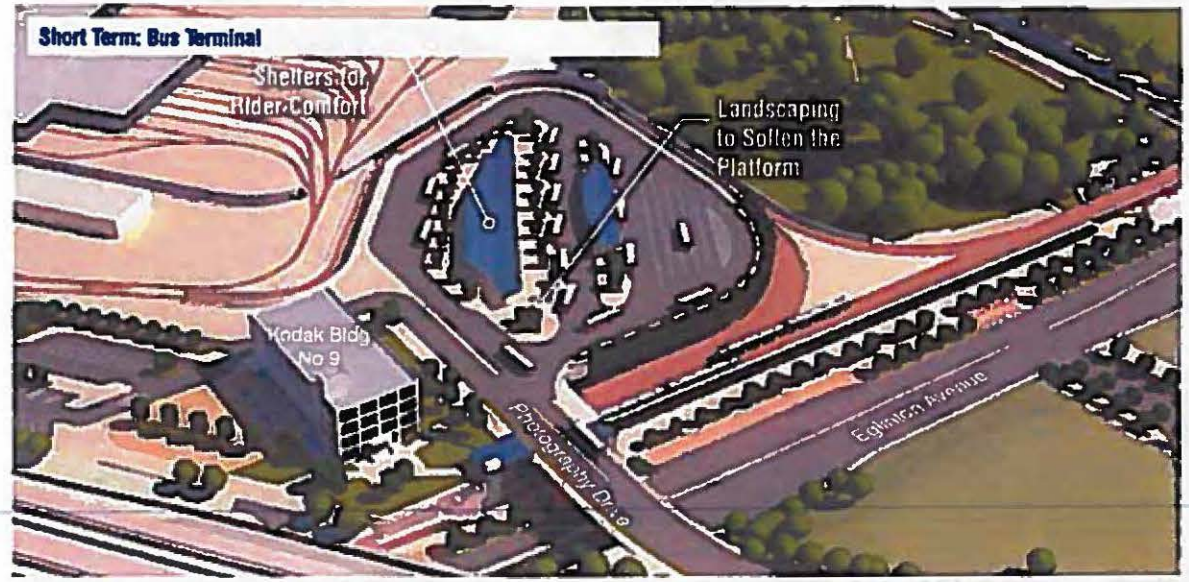


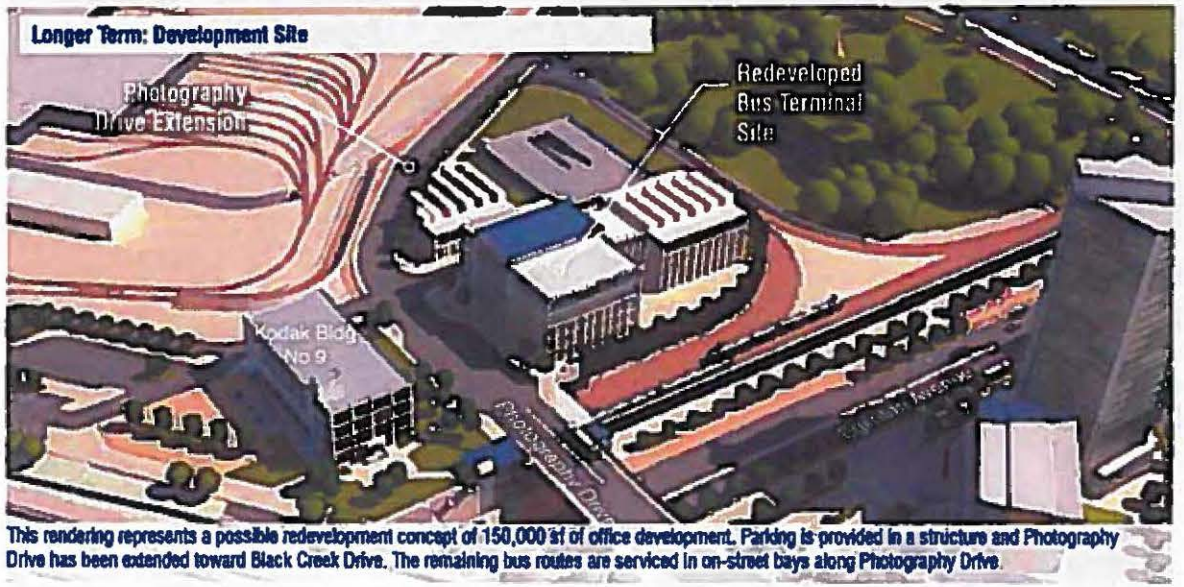
3.1.4 Design A Comfortable Bus Terminal That can Support New Development Over Time

As the terminus of the Crosstown, Mount Dennis Station will require a substantial 15 bay bus facility capable of accommodating all of the feeder routes from north, south and west of the station. In order to both minimize transfer time for passengers and to maximize development potential on the Black Creek Triangle Area, the facility should be located within the Kodak Lands.

To accommodate the high number of transfers anticipated between bus, LRT and GO services, the terminal should be designed to provide seamless links to the other station facilities. Waiting passengers should be afforded a comfortable, sheltered place to wait and real-time signage indicating the arrival times of various transit services. In addition, an opportunity exists to capitalize on the size of the terminal to incorporate features such as trees and planting that can help to enhance the passenger experience by improving the platform space.

It is anticipated that it may be possible to decrease the size of the bus terminal over time if the LRT is extended further west. A decrease in the size of the bus terminal would free up land next to the Kodak Building for redevelopment. This would help to increase the density and mix of uses at the station, support ridership and increase activity on the land around the station. The design of the bus terminal should anticipate this potential by ensuring that it is located where it can have an address off of Photography Drive or another street over time and by organizing it so that it is capable of accommodating new uses should it no longer be required.





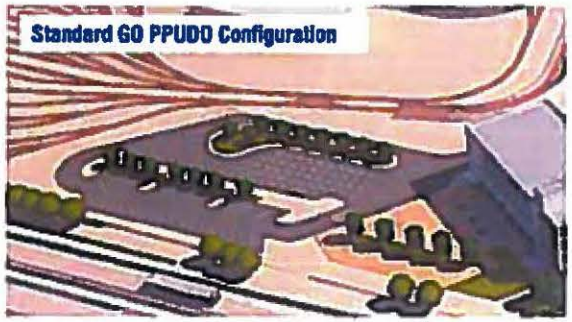
This rendering represents a possible redevelopment concept of 150,000 sf of office development. Parking is provided in a structure and Photography Drive has been extended toward Black Creek Drive. The remaining bus routes are serviced in on-street bays along Photography Drive.

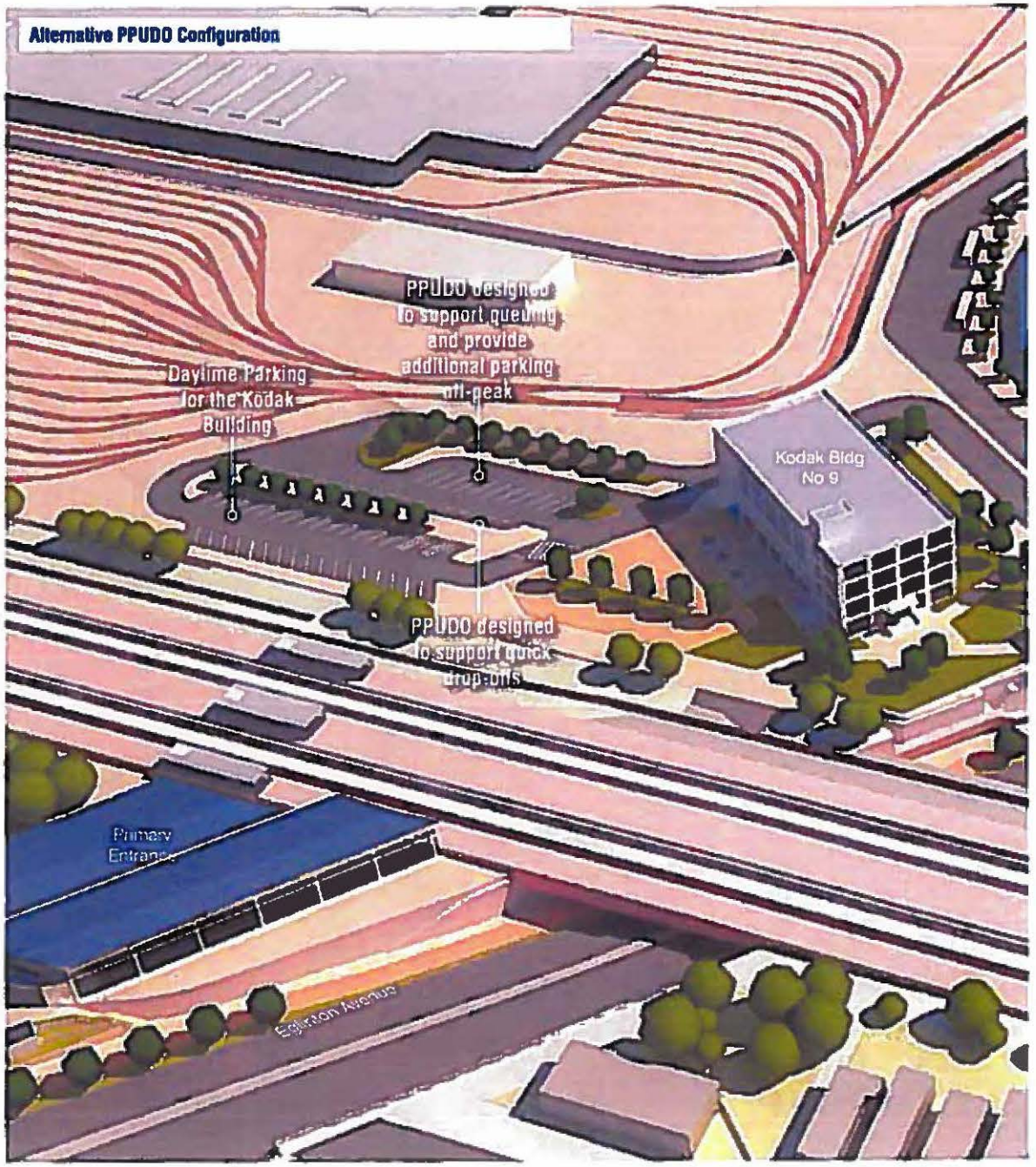
3.1.5 Create a Passenger pick-up and Drop-off (PPUDO) That Serves the Station and Kodak Building

The passenger pick-up and drop off at the Mount Dennis Station will be a multi-purpose facility serving both GO services and passengers accessing busses or the LRT. As such, the facility should be designed to reflect these characteristics incorporating features that enable the quick drop-off and pick-up of passengers from TTC services as well as the queuing that often occurs for the pick-up of GO Transit users.

In addition to supporting passenger pick-up and drop-off, the facility should also be designed to provide longer term parking for users of the Kodak Building. Opportunities to design the PPUDO facility to provide additional parking for the Kodak Building off-peak should also be explored.

A typical GO PPUDO (shown below) is a series of lanes parallel to the drive aisle that face the station entrance. While this configuration provides a more direct line of sight for passengers and drivers, an alternative configuration with lanes angled from the drive aisle could meet queuing space and sight-line requirements while providing additional off-peak parking for the Kodak Building.





Eglinton LRT – Power Supply

Date: January 11, 2016

METROLINX
An agency of the Government of Ontario

Contract Requirements

Provide two independent power supply methods and the capability to switch between them as follows:

- A connection to the Toronto Hydro Grid as follows:
  - 3 – 10 MW feeders with the capability to supply all the electricity needs of the project including appropriate redundancy

- A power supply facility located on the site of the Maintenance and Storage Facility as follows:
  - Capable of delivering all the required electricity for the ECRLT, excluding emergency ventilation
  - Recover the heat from the equivalent of one 3MW generating unit (approximately 879 kW)
  - Provide distribution infrastructure to provide this heat to the locations within the EMSF building

Major Advantages

- Ability to operate the system in the event of a failure of the Toronto Hydro supply
- Potential to reduce peak demand on the overall electricity supply
- Optimize cost efficiency between the two power supply options

Other Issues

- Permitting and Approvals
  - Responsibility of CTS, includes amendment to existing EA
- Schedule
  - Getting the back up power facility built is critical to the schedule as it will allow power to the site earlier than Toronto Hydro connection. This will assist with vehicle acceptance, testing and commissioning.

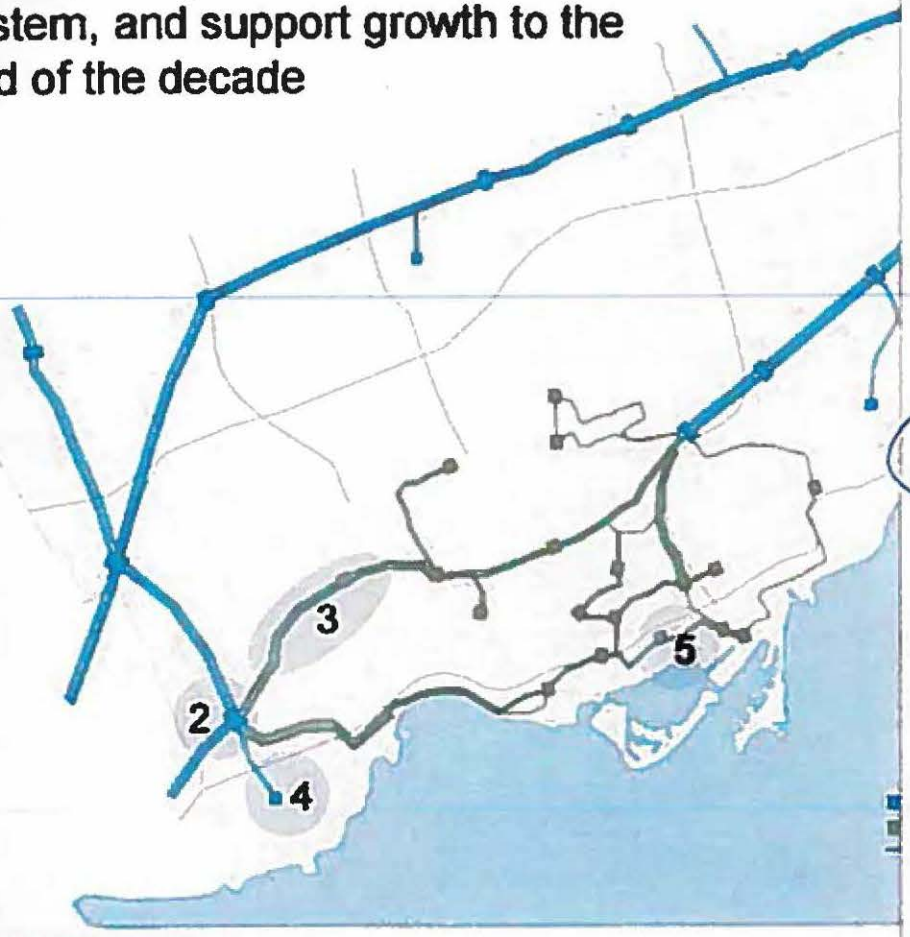
Discussion

- Options and Opportunities?


METROLINX
PRESTO
UP
Union
Pearson
Express

Near-term Projects Being Implemented

These near-term projects maximize the capability of the existing system, and support growth to the end of the decade



1. Conservation efforts and distributed generation development are underway (throughout Toronto)

2. Special Protection Systems will provide additional supply security under low-probability events

3. Expansion of Runnymede Transformer Station (TS) and 115 kV upgrades will accommodate new community growth and the new Eglinton Crosstown LRT

4. Expansion of Horner TS will relieve overloading at Manby TS and allow for future growth in the area

5. Completing Phase Two of Copeland TS will allow for connecting new customers in the downtown core