



Yonge Subway Extension

Preliminary Planning for Transit Project Assessment

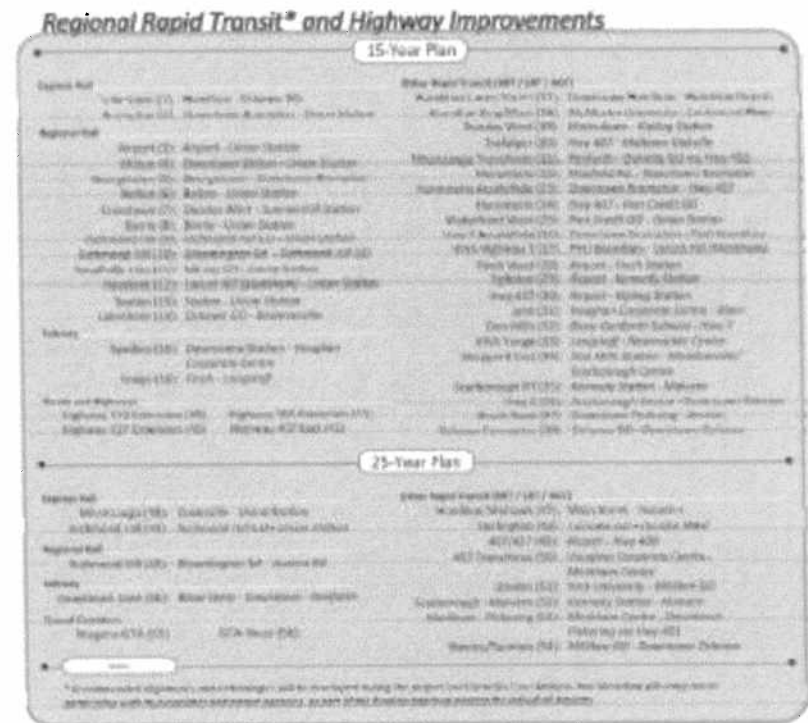


Markham General Committee
September 29, 2008

Regional Transportation Plan September 26th



- Metrolinx Board approves draft RTP to be released for public consultation
- “Within the first 15 years of the RTP’s implementation, the top 15 priorities for early implementation are:
 - VIVA Highway 7 and Yonge Street through York Region
 - Brampton’s Queen Street Acceleride
 - Spadina subway extension to Vaughan Corporate Centre
 - Yonge subway extension to Richmond Hill and capacity improvements...”

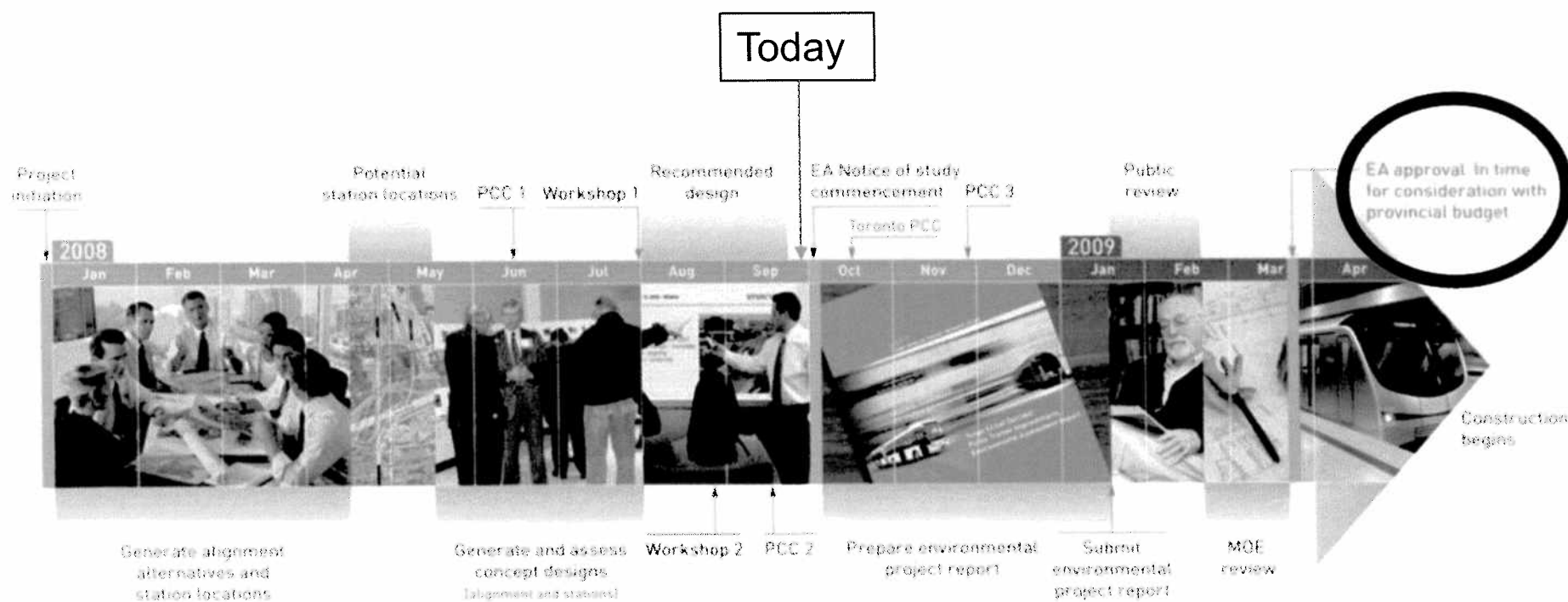


KEY PROJECTS

- The Big Move: Transforming Transportation in the Greater Toronto and Hamilton Area , the draft transportation plan previewed today by Metrolinx, includes proposed projects across the region. Key Projects identified in the draft plan include:
 - * The first subway extensions outside of Toronto, connecting to the Vaughan Corporate Centre and Richmond Hill/Langstaff Gateway...

yonge subway extension study where we are today

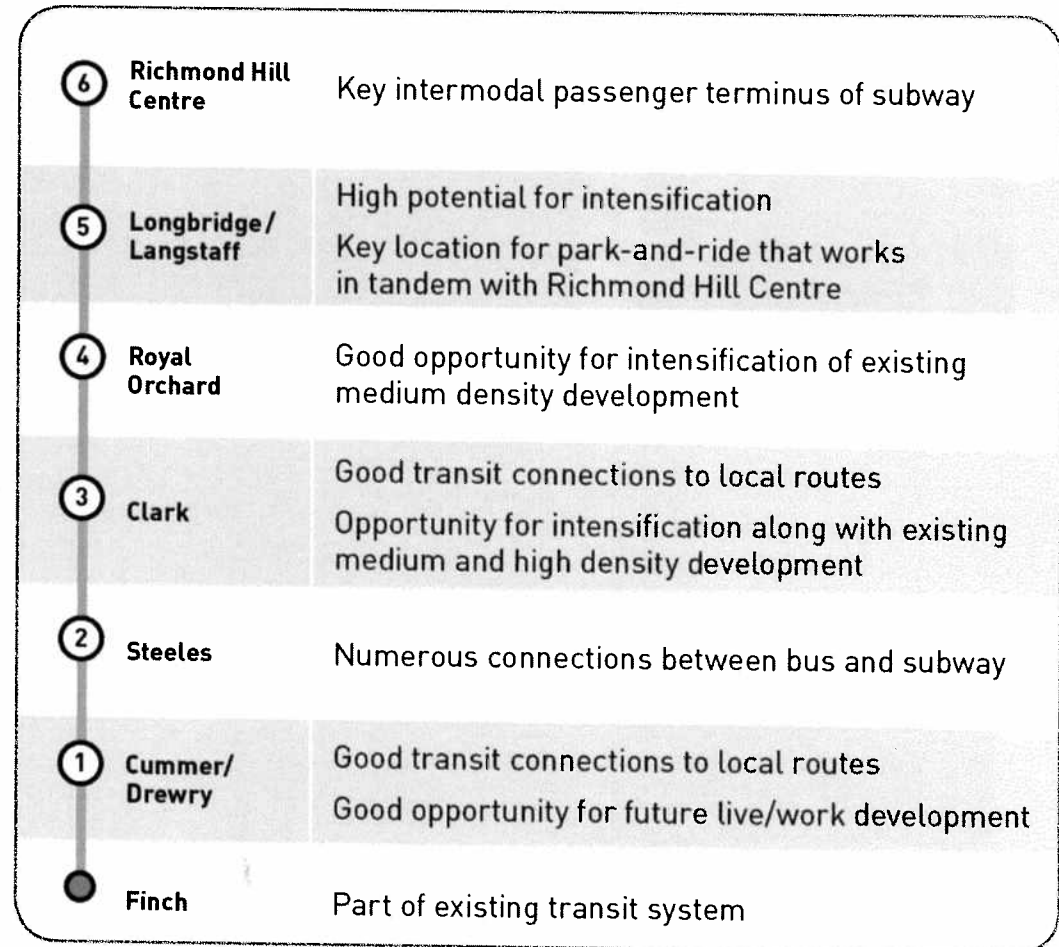
VIVAnext



Recommended Yonge Subway Extension

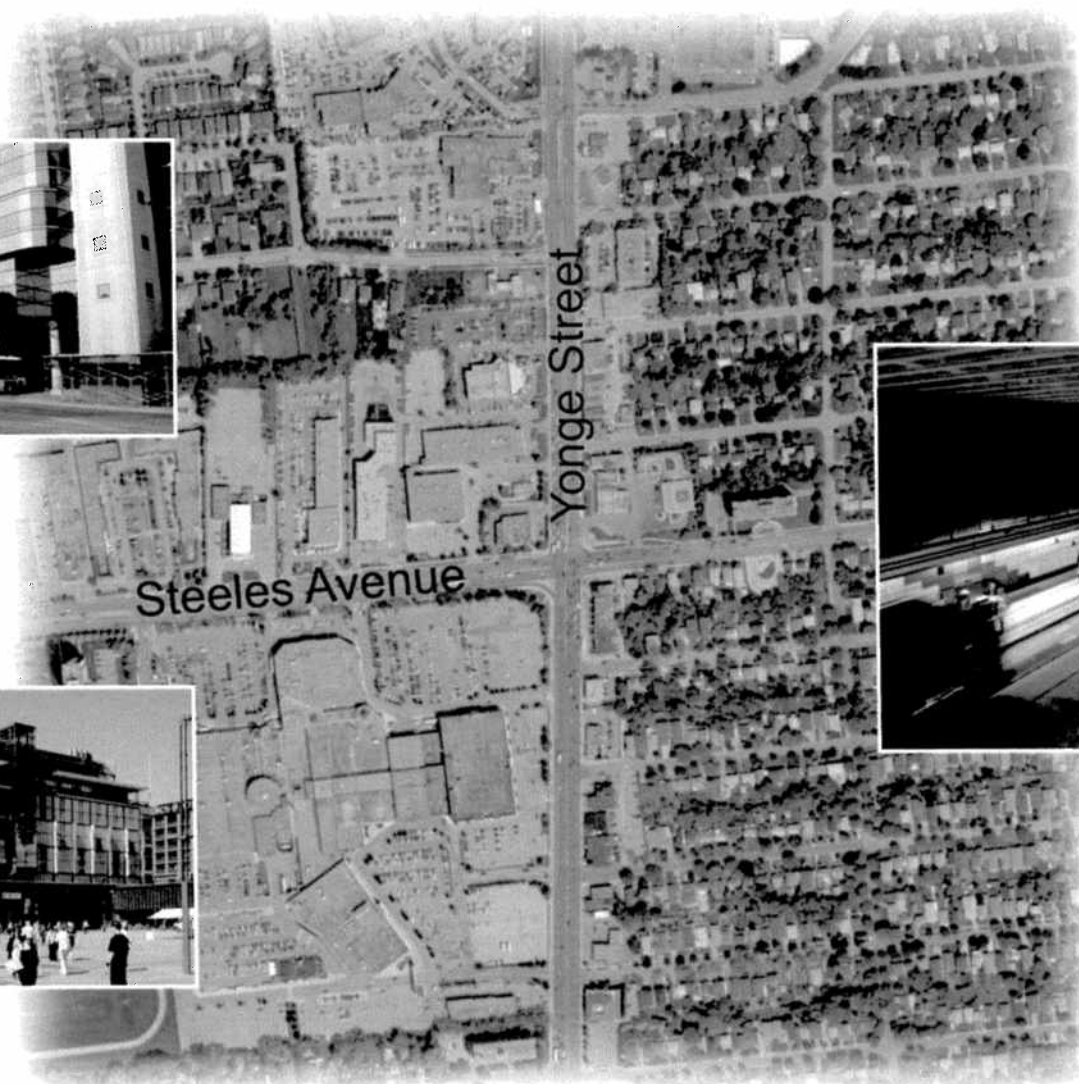


- Six stations
- Two terminal stations
 - * Steeles – Bus Terminal
 - * RHC – Bus Terminal
- Bridge over East Don River
- Alternative alignments into Richmond Hill



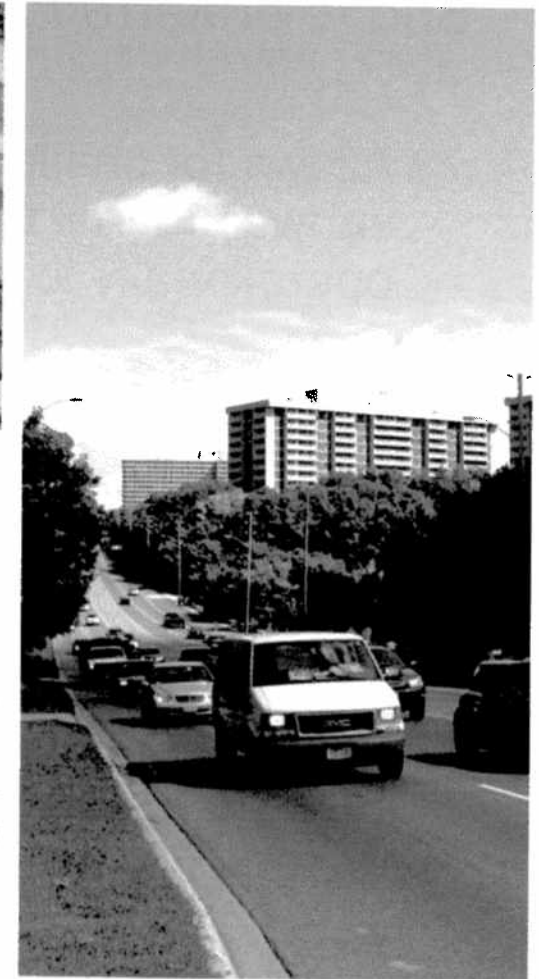
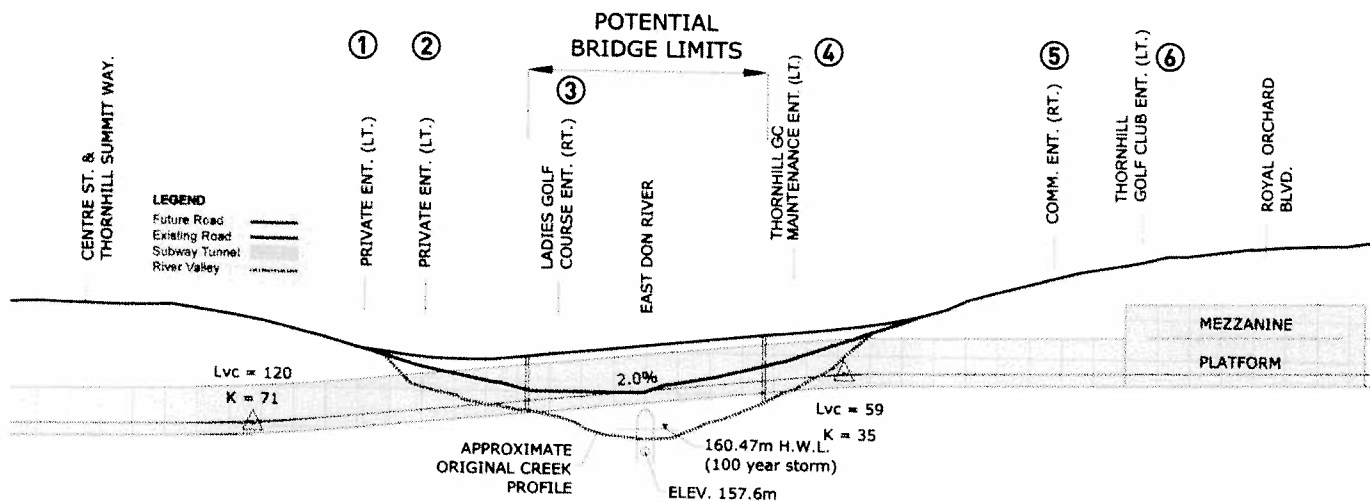
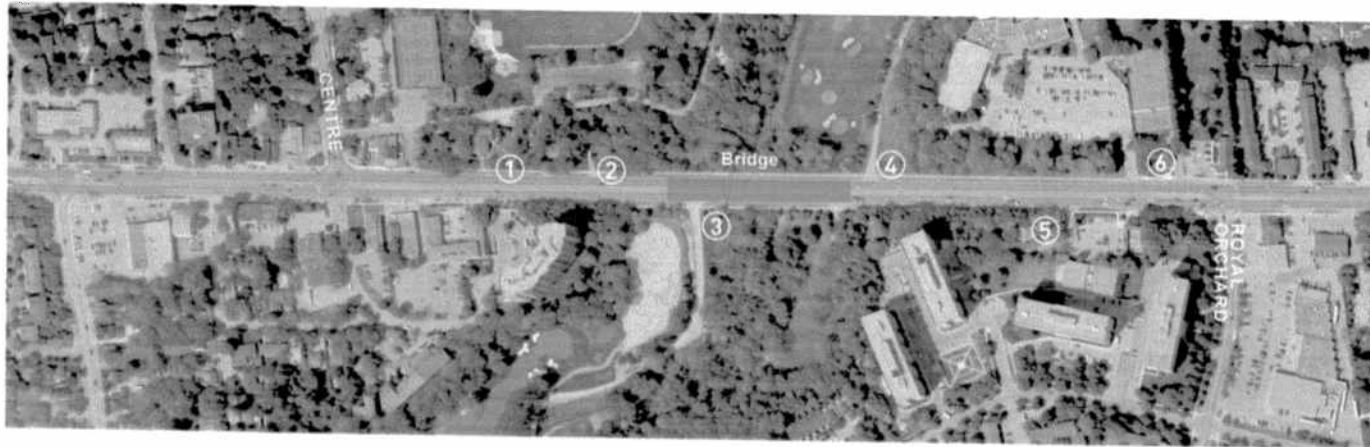
steeles station key considerations

VIVA next



development of east don river bridge concepts

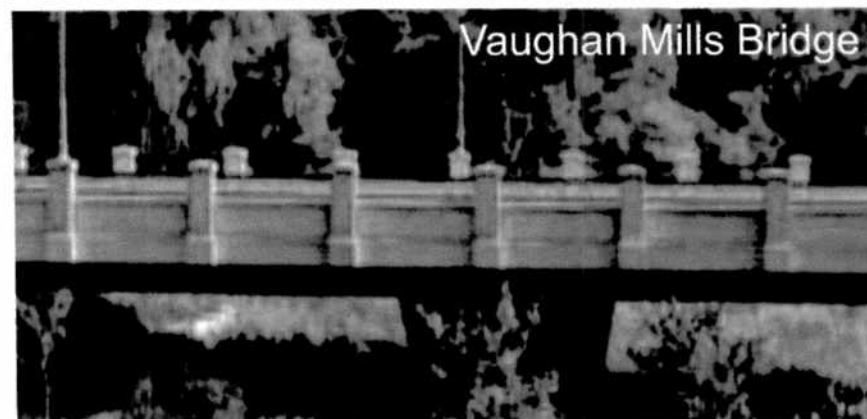
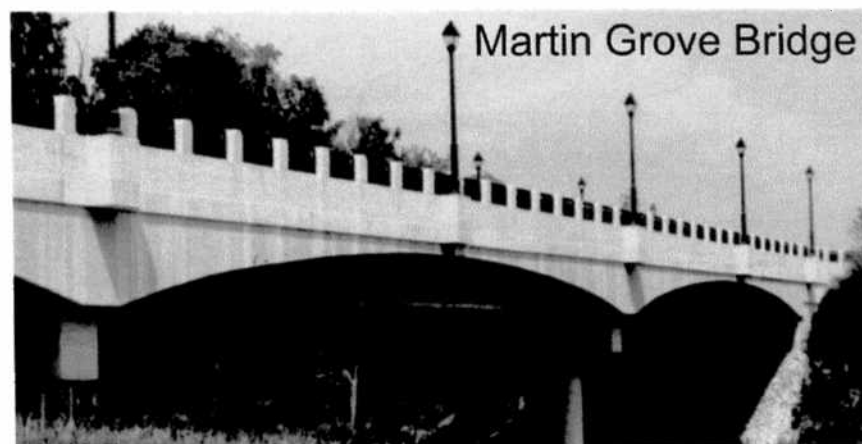
VIVAnext





Bridge preferred:

- ✦ Allows for shallow, relatively flat subway tunnel that will be operationally least costly
- ✦ Allows for a shallow subway station at Royal Orchard – easier pedestrian access, quicker emergency response and lower station cost
- ✦ Presents an opportunity to improve road profile on Yonge Street for pedestrians and drivers
- ✦ Presents an opportunity to naturalize the valley



- Identified as an “Anchor Hub” in Metrolinx Regional Transportation Plan
- Due to geographic spread of the lands, needs to be serviced by more than one subway station
- Project team has proposed two stations to serve the urban growth centre
 - Langstaff station along west side of Langstaff lands
 - Richmond Hill Centre station north of Highway 7

richmond hill | langstaff gateway alternative station and alignments

VIVAnext

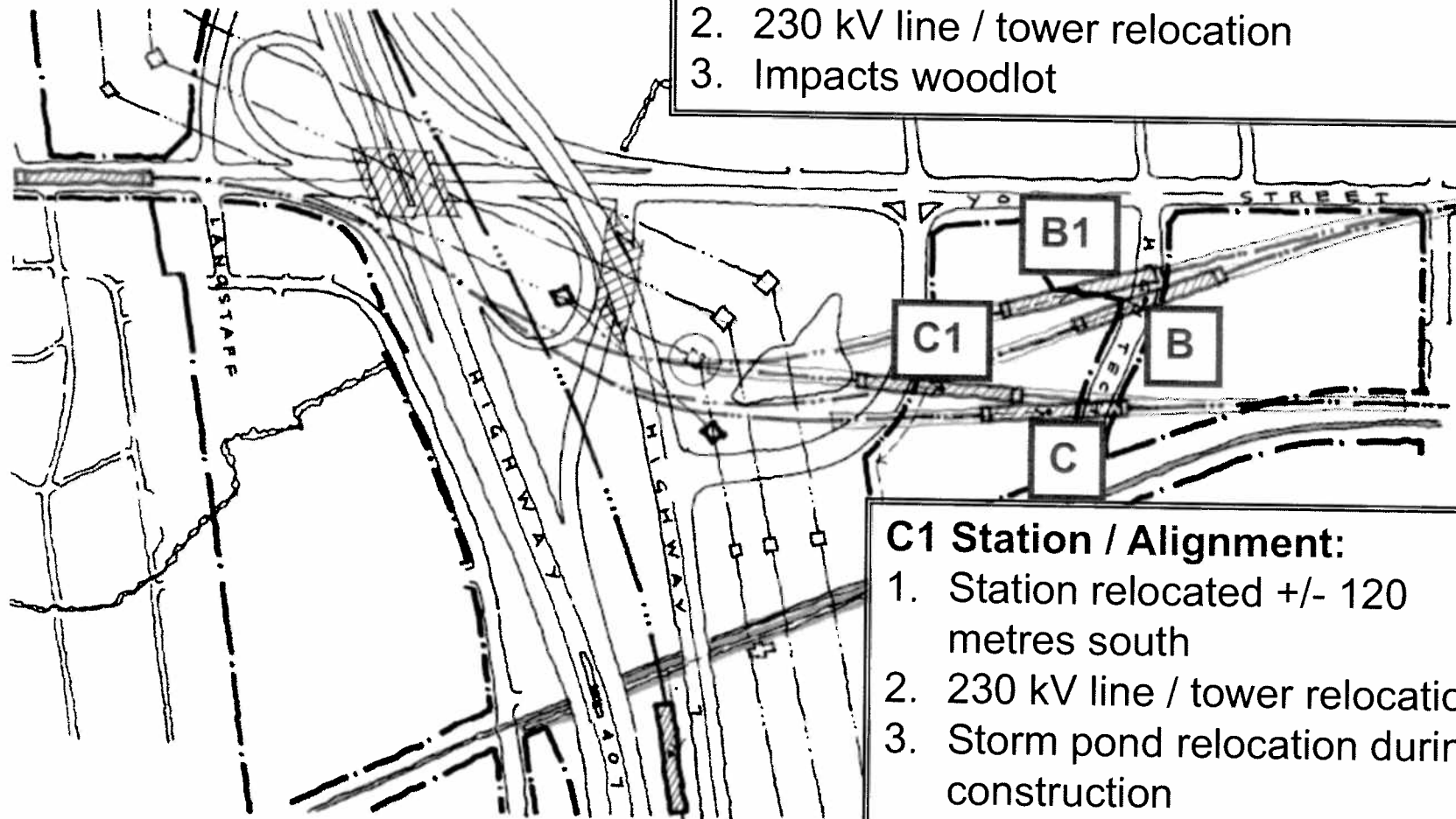


addressing markham's comments: series one – B and C alignment modifications



B1 Station / Alignment:

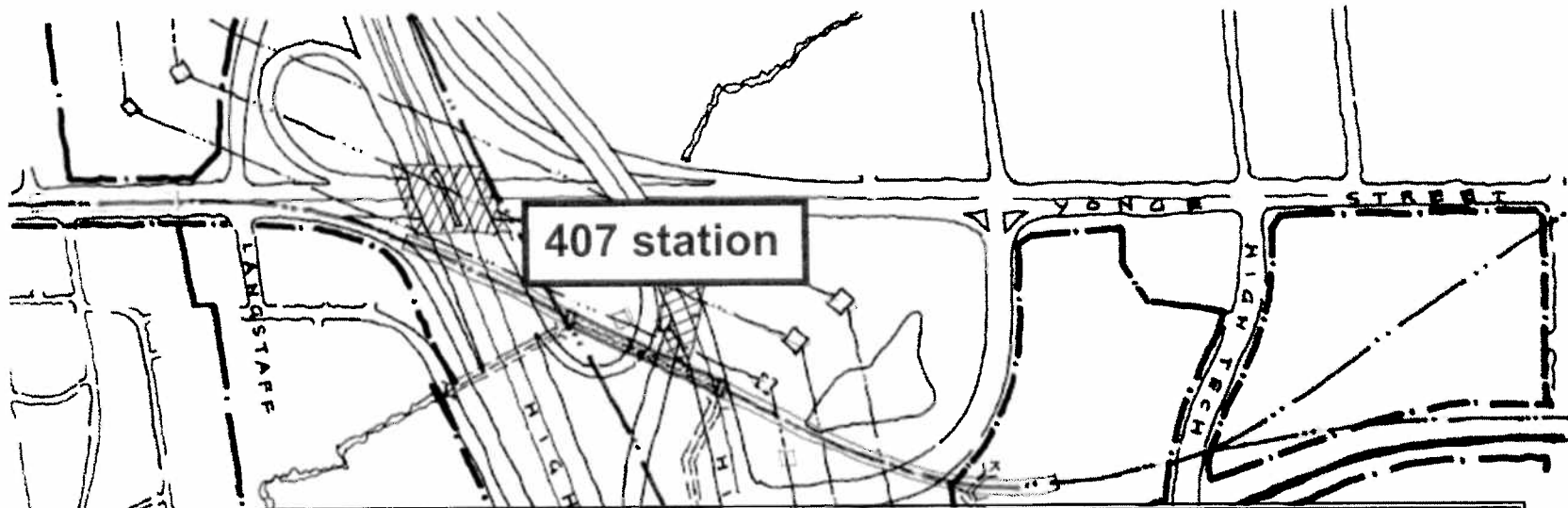
1. Station relocated +/- 70 metres south
2. 230 kV line / tower relocation
3. Impacts woodlot



C1 Station / Alignment:

1. Station relocated +/- 120 metres south
2. 230 kV line / tower relocation
3. Storm pond relocation during construction
4. Cut/cover construction in hydro corridor

addressing markham's comments: series two – 407 station alternative



407 / 7 Station / Alignment:

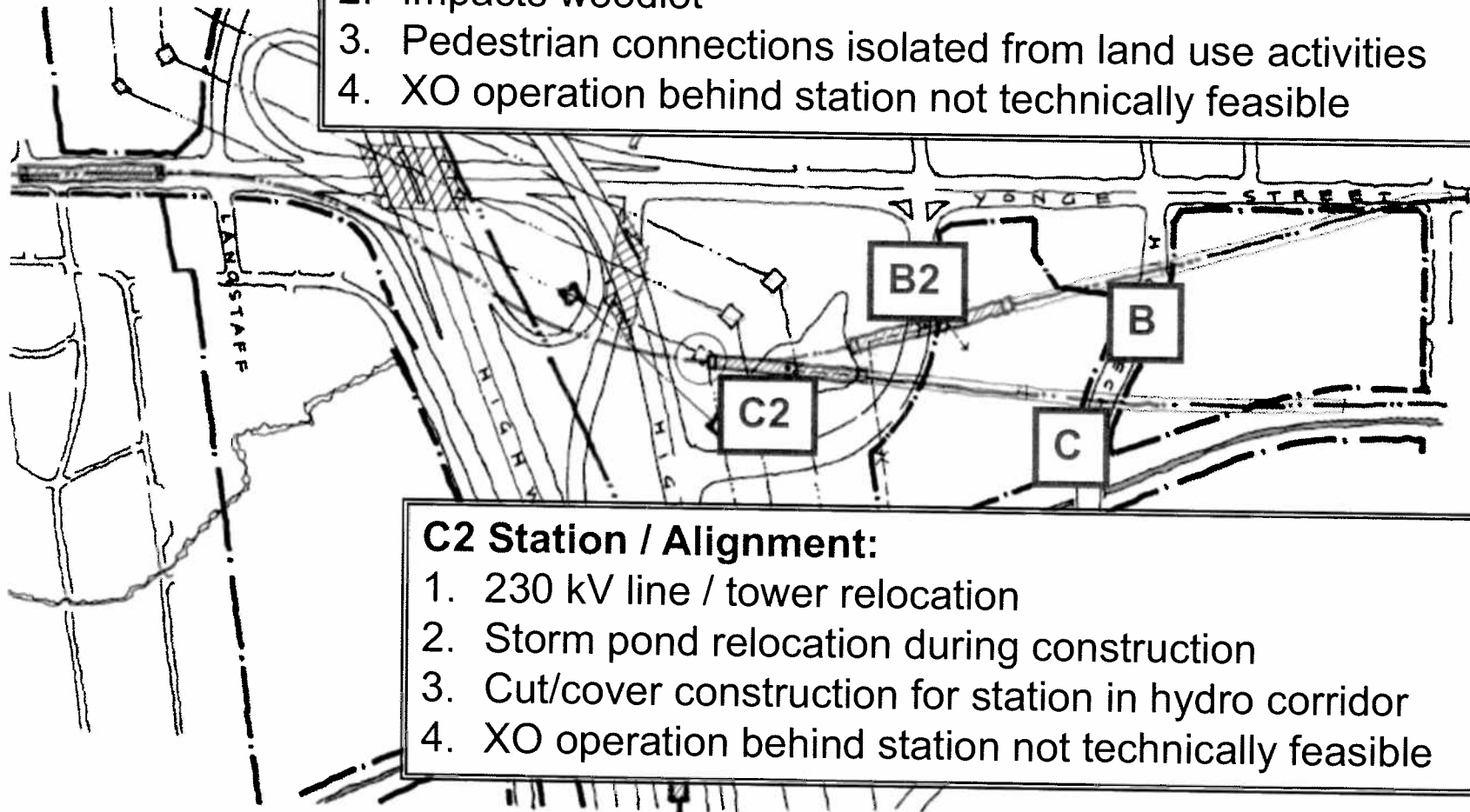
1. Shifts Langstaff station south
2. Eliminates Royal Orchard Station
3. Eliminates Richmond Hill Centre Station
4. Travel distance, subway – commuter parking increased
5. Pedestrian connections isolated from land use activities
6. Cross over structure impacts 407 – special construction required
7. Tail track impacts hydro corridor – require cut and cover under 500 kV

addressing markham's comments: series three – XO structure behind station



B2 Station / Alignment:

1. 230 kV line / tower relocation
2. Impacts woodlot
3. Pedestrian connections isolated from land use activities
4. XO operation behind station not technically feasible



C2 Station / Alignment:

1. 230 kV line / tower relocation
2. Storm pond relocation during construction
3. Cut/cover construction for station in hydro corridor
4. XO operation behind station not technically feasible

richmond hill | langstaff gateway subway station alternatives

VIVAnext



MX urban growth
centre – anchor hub

B Shift

Richmond Hill Centre
Subway Station Area

C Shift

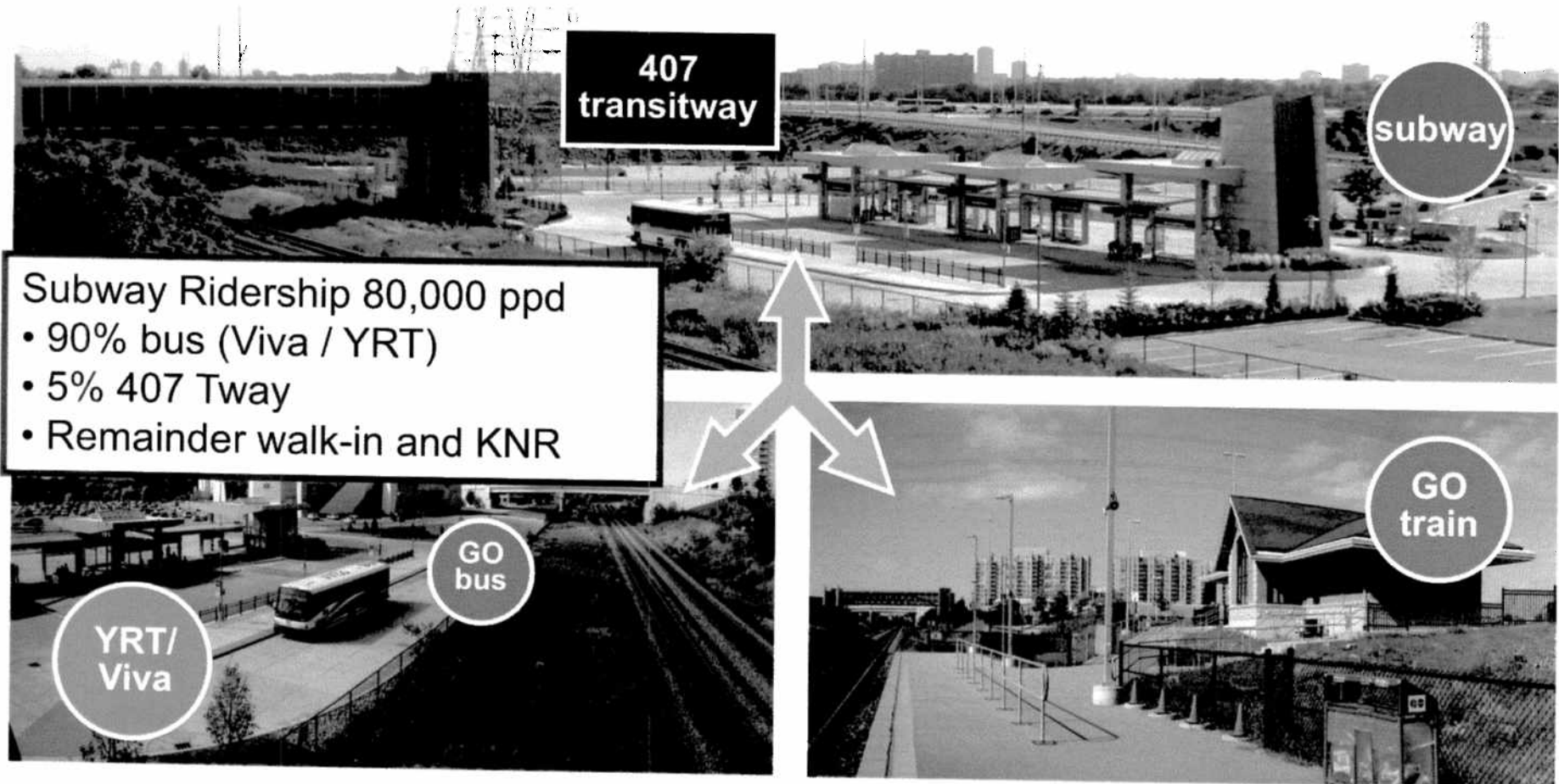
407 station proposal

Longbridge | Langstaff
Subway Station



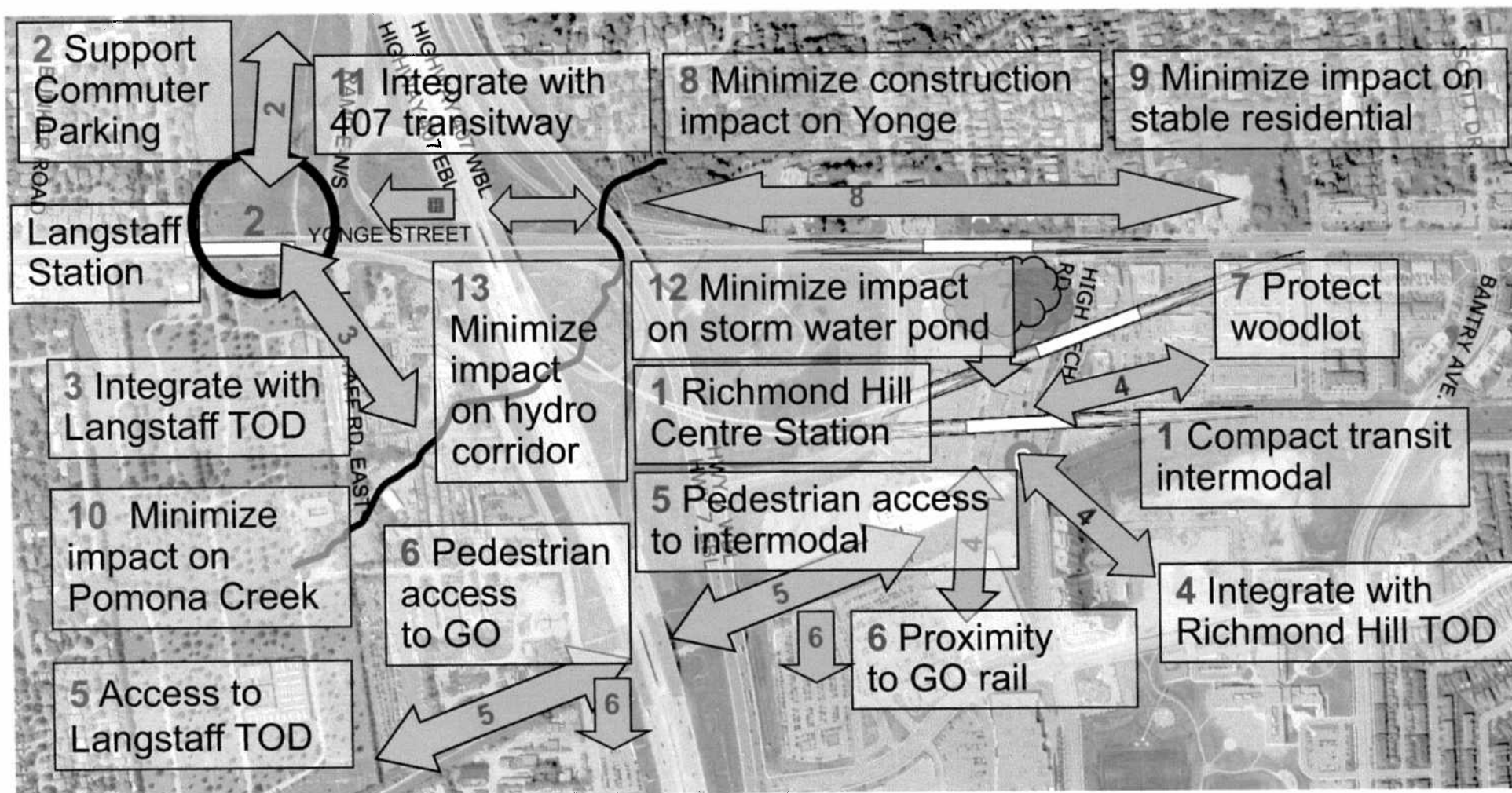
key considerations at richmond hill centre

VIVAnext



richmond hill centre alignments

VIVA next



- In planning for the Richmond Hill | Langstaff urban growth centre, the Towns of Richmond Hill and Markham are encouraged to consider:
 - ✦ Coordinating planning across jurisdictions to achieve density targets and to create complete communities
 - ✦ Optimizing existing and planned transit investments through transit – oriented development
 - ✦ Improving walkability and the pedestrian environment through urban design and built form

¹ Metrolinx Technical Paper: "Proposed Size and Location Of Urban Growth Centres in the Greater Golden Horseshoe – April 2008"

discussion

VIVAnext

