

November 26, 2013

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# PUBLIC INFORMATION CENTRE

## MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT SCHEDULE “B”

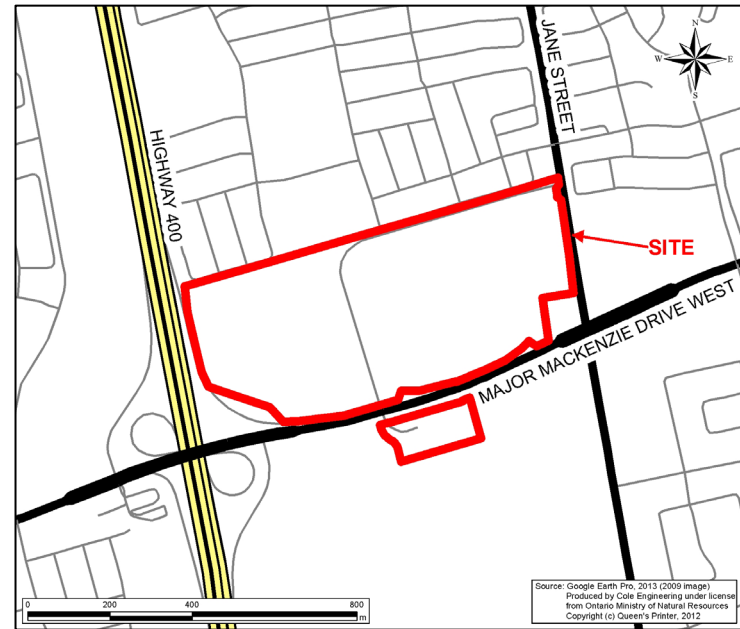
MUNICIPAL SERVICES FOR  
VAUGHAN HEALTHCARE CENTRE PRECINCT

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## PROJECT DESCRIPTION & STUDY AREA

- City of Vaughan acquired a 33.2 ha (82 acre) parcel of land on the northwest quadrant of Major Mackenzie Drive and Jane Street (Study Area) for an urban Vaughan Healthcare Centre Precinct (VHCP) + a 2 ha (5 acre) parcel south of Major Mackenzie Drive as a potential future transit hub.
- VHCP will be anchored by new healthcare hospital referred to as the Mackenzie Vaughan Hospital.
- City has approved the Vaughan Healthcare Centre Precinct Plan (VHCPP) to illustrate and guide development of the site.
- City is in the process of completing a Draft Plan of Subdivision to fulfill *Planning Act* approval requirements.
- VHCP site requires servicing infrastructure, stormwater management ponds, drainage channel re-alignment and roadways.



# PLANNING CONTEXT & STATUS

- City of Vaughan approved VHCPP on November 19, 2013.
- Next phase of planning approvals includes Draft Plan of Subdivision and Zoning By-law Amendment for the lands.
- The City is holding a statutory Public Meeting for Draft Plan and Zoning applications on November 26, 2013.
- Concurrent with the Planning applications, works which are external to the Draft Plan have been identified as being subject to the Municipal Class Environmental Assessment (Class EA) process.
- These additional works include: servicing infrastructure, stormwater management ponds, drainage channel re-alignment and roadways.



# INTEGRATED APPROACH & CLASS EA PROCESS

- The proposed additional works identified are tightly interconnected with the *Planning Act* applications.
- The Municipal Class EA process allows for an **Integrated Approach** to fulfill the requirements of both the Class EA and *Planning Act* review processes concurrently, as a streamlined and efficient means of disseminating information to the public, stakeholders and agencies.

## Municipal Class EA Planning Process

- The Ontario Environmental Assessment Act, R.S.O., 1990 (the EA Act) requires that projects corresponding to a given class of undertakings (e.g. municipal road, transit, water and wastewater projects) follow an approved Class Environmental Assessment (Class EA) process. The Class EA planning process as documented in the MEA Municipal Class EA document (October 2000, amended in 2007 & 2011) includes the following five phases:

**Phase 1 – Problem or Opportunity**

**Phase 2 – Alternative Solution**

**Phase 3 – Alternative Design Concepts for Preferred Solution**

**Phase 4 – Environmental Study Report**

**Phase 5 – Implementation**



# MUNICIPAL CLASS EA SCHEDULE

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→ Depending on their environmental impact, municipal projects are classified in the Municipal Class EA in terms of schedules:

- Schedule A or A+
  - Schedule B
  - Schedule C
- ↓ *Increasing Potential for Impacts*

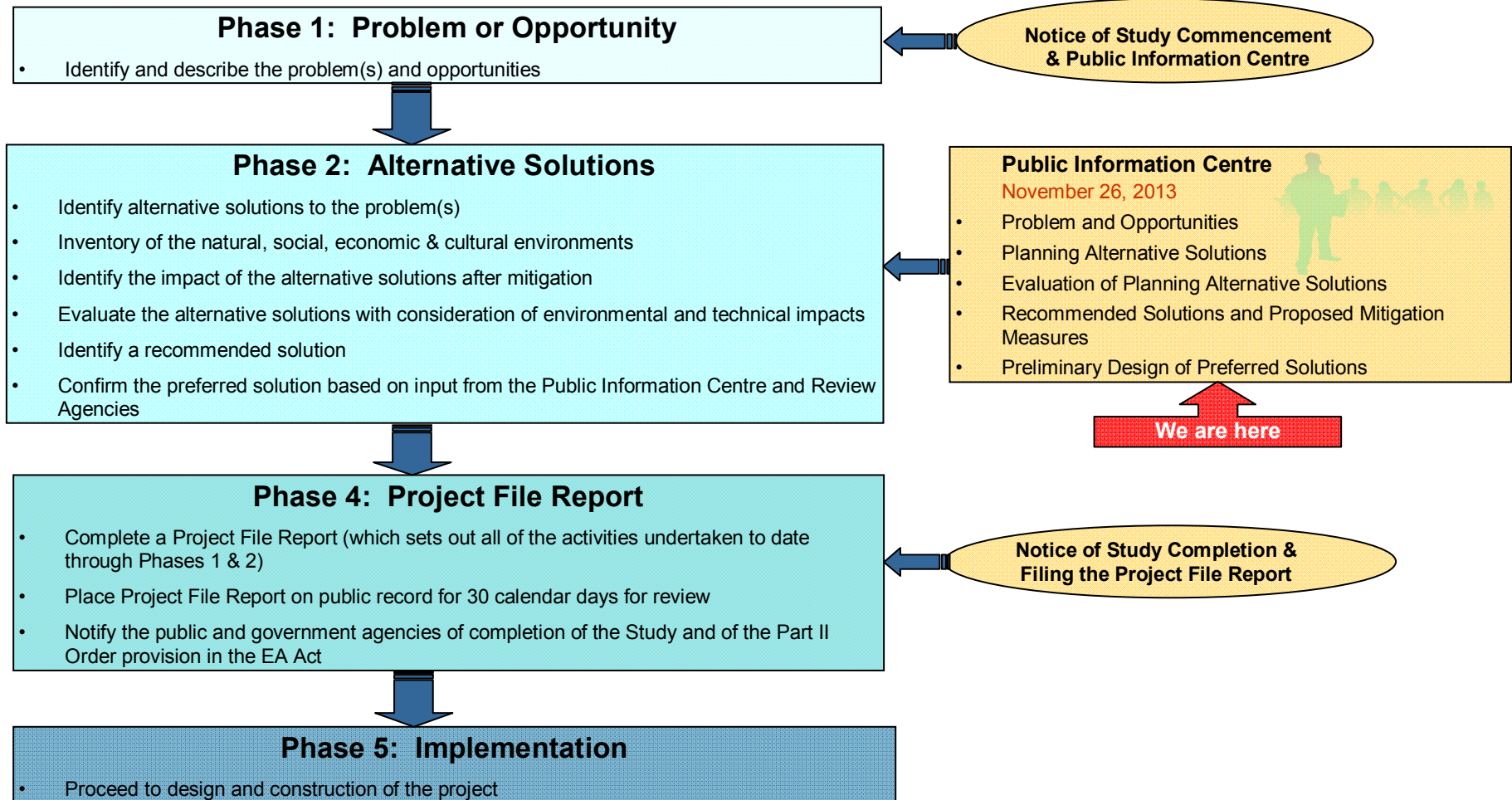
→ This study was designated as Schedule “B” under the MEA Class EA process which includes reviews with the public and relevant agencies prior to implementation.

→ The Class EA will satisfy the requirements and procedures of Phases 1 and 2 of the Municipal Class Environmental Assessment Planning and Design Process as well as providing additional public consultation.

→ A Schedule “B” Class EA concludes with the Notice of Completion and placing of the Project File in a location accessible to the public for a minimum 30-day review period to allow review by the public and agencies which may have an interest in this project.



# SCHEDULE B – MUNICIPAL CLASS EA



# PURPOSE AND PROBLEM / OPPORTUNITY

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## PURPOSE

- Transform under utilized lands into a vibrant healthcare Precinct with primary focus to deliver a new healthcare facility and a range of health care related uses.
- Vaughan Healthcare Centre Precinct is intended to develop at higher densities to support existing and planned transit along arterial roads and within Precinct with network of streets, stormwater and water and wastewater servicing.

## PROBLEM / OPPORTUNITY

- How to provide municipal services and transportation infrastructure to accommodate a hospital and related development and uses, as part of the Vaughan Healthcare Centre Precinct Plan.



# KEY NATURAL ENVIRONMENT EXISTING CONDITIONS

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## Aquatic Environment

- Site is currently vacant and is bounded by residential subdivision and stormwater management (SWM) pond to the north.
- SWM pond outlets to a channel (comprised of two unnamed tributaries that are part of West Don River system) that crosses western portion of site from north to south before entering culvert at Major Mackenzie Drive.
- Wetland community located along both tributaries is dominated by cattails and grasses and is important for flood attenuation and erosion control.
- Provide low functioning habitat for a few warmwater fish species found that likely originated from SWM pond.

## Terrestrial Environment

- Vegetation communities present are: Mineral Cultural Meadow, Cattail Mineral Shallow Marsh, Reed Canary Grass Mineral Meadow Marsh and Redtop Mineral Meadow Marsh.
- No Species at Risk or species ranked as rare in the GTA are present.

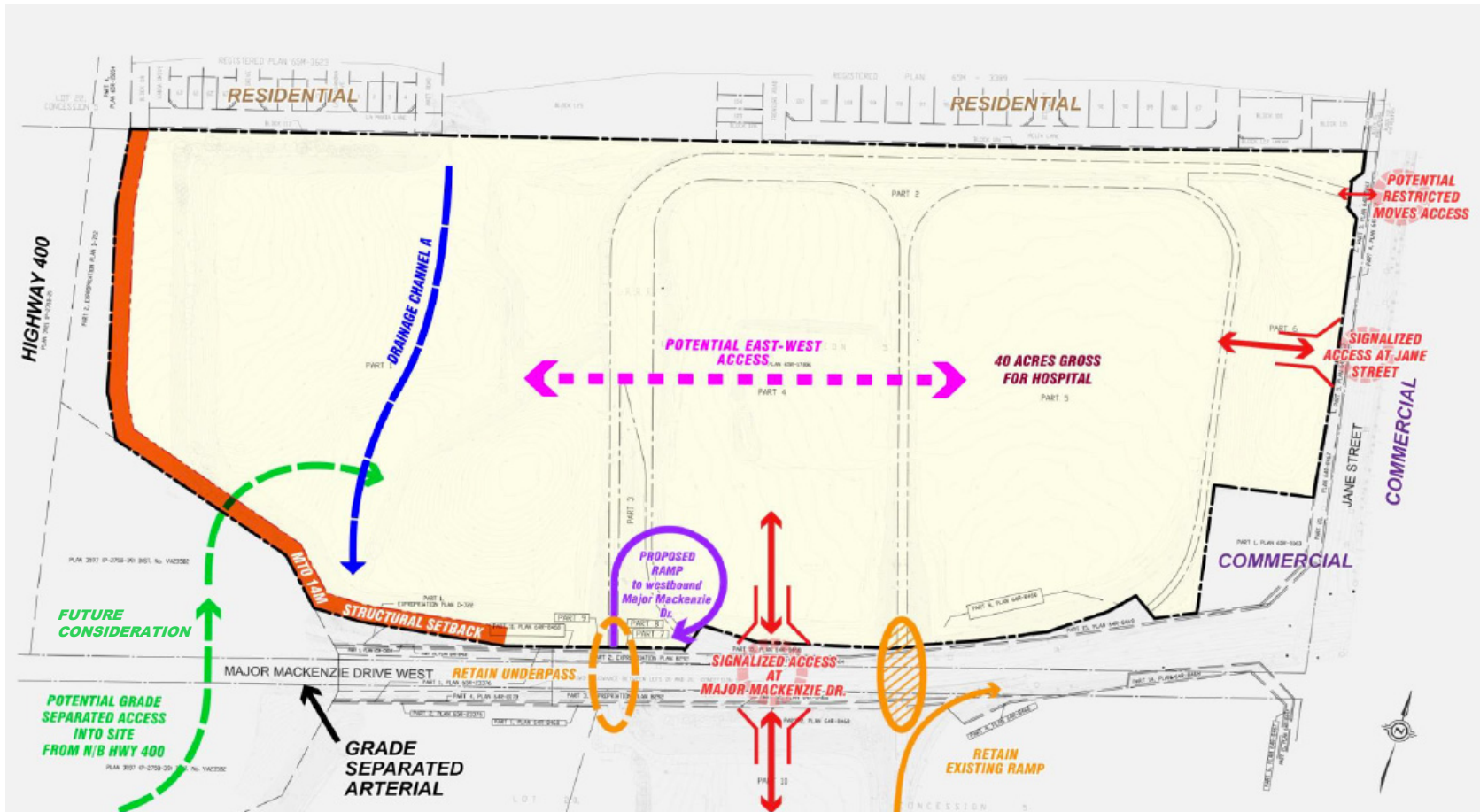




# LAND USE FEATURES MAP



# CONSTRAINTS AND OPPORTUNITIES





# INTERSECTIONS

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## Key Roadway Intersections

- Based on site size and development uses for the site - two (2) signalized intersections are needed on arterial roads.

### → Jane Street

- Entrance to site from Jane Street requires full intersection for connectivity, traffic flow and safety but existing entrance is only a partial intersection.
- New intersection identified is only alternative that provides full intersection and is setback sufficiently from Major Mackenzie Drive.

### → Major Mackenzie Drive

- Highway 400 abuts west side of site and ramp on Major Mackenzie Drive has MTO setbacks requirement of 14 m for intersections.
- York Region requires new intersection to be setback sufficiently from Jane Street.
- Only one alternative existed that met both setback requirements for the intersection on Major Mackenzie Drive.

# ROADWAYS & TRANSIT – EXISTING CONDITIONS

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## Roadways

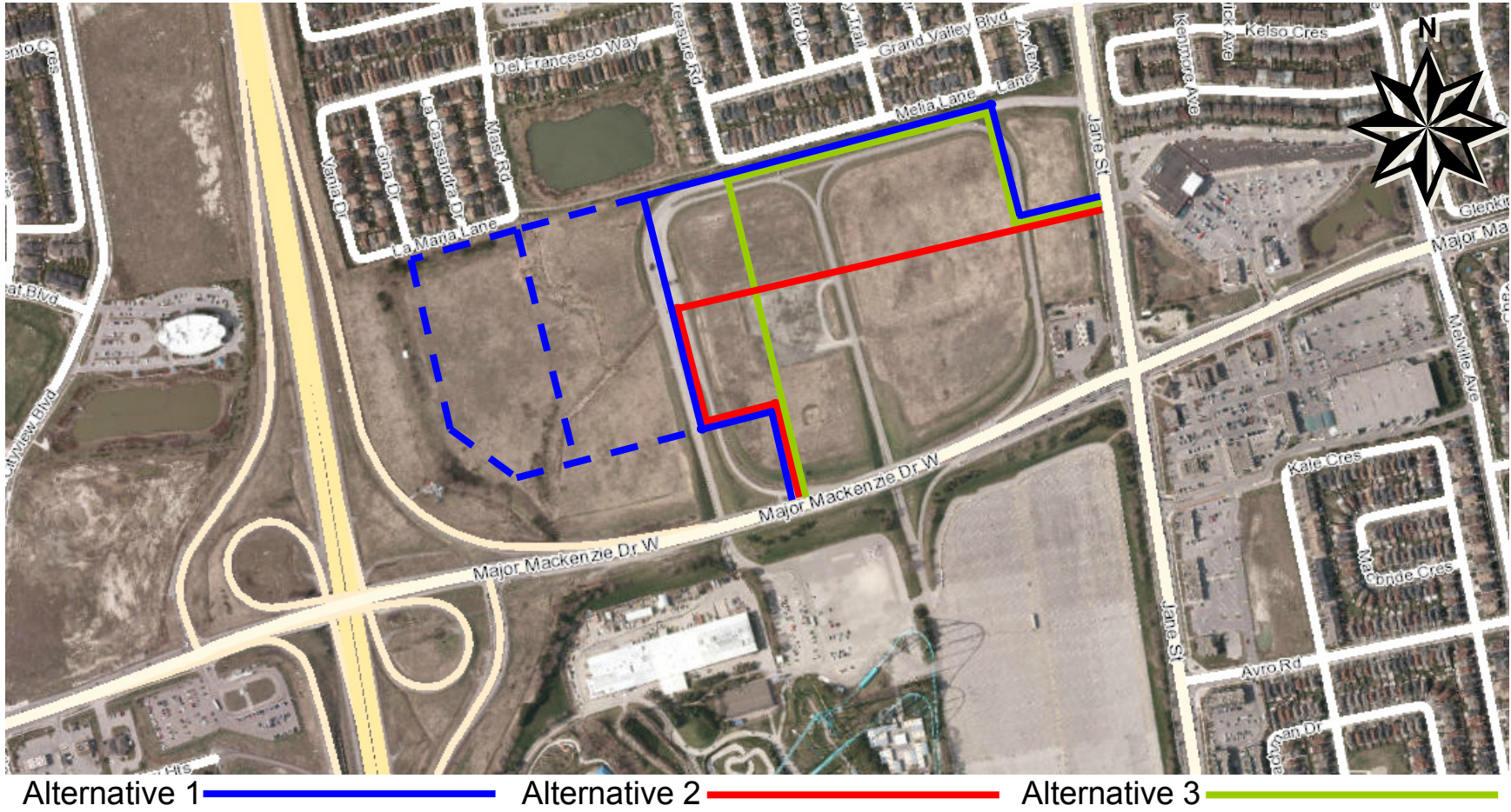
- Jane Street and Major Mackenzie Drive are arterial roads but outside of development site.
- Existing underpasses from development site to Canada's Wonderland.
- Proposed future Highway 400 ramp extension is not considered part of project (may be constructed in later phases of precinct development and would be subject to MTO Class EA process).

## Transit

- Transit options were not evaluated since the only location available is on the south side of Major MacKenzie Drive.
- Location would provide transit opportunities for Canada's Wonderland and Vaughan Healthcare Centre Precinct and connections between GO, York Region and Vaughan transit systems.
- Location of entrance between Highway 400 setbacks and Jane Street setbacks limits location of transit facility.


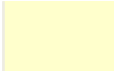


# ROADWAYS – ALTERNATIVE SOLUTIONS



# ROADWAYS – EVALUATION OF ALTERNATIVE SOLUTIONS

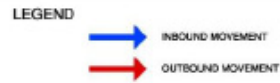
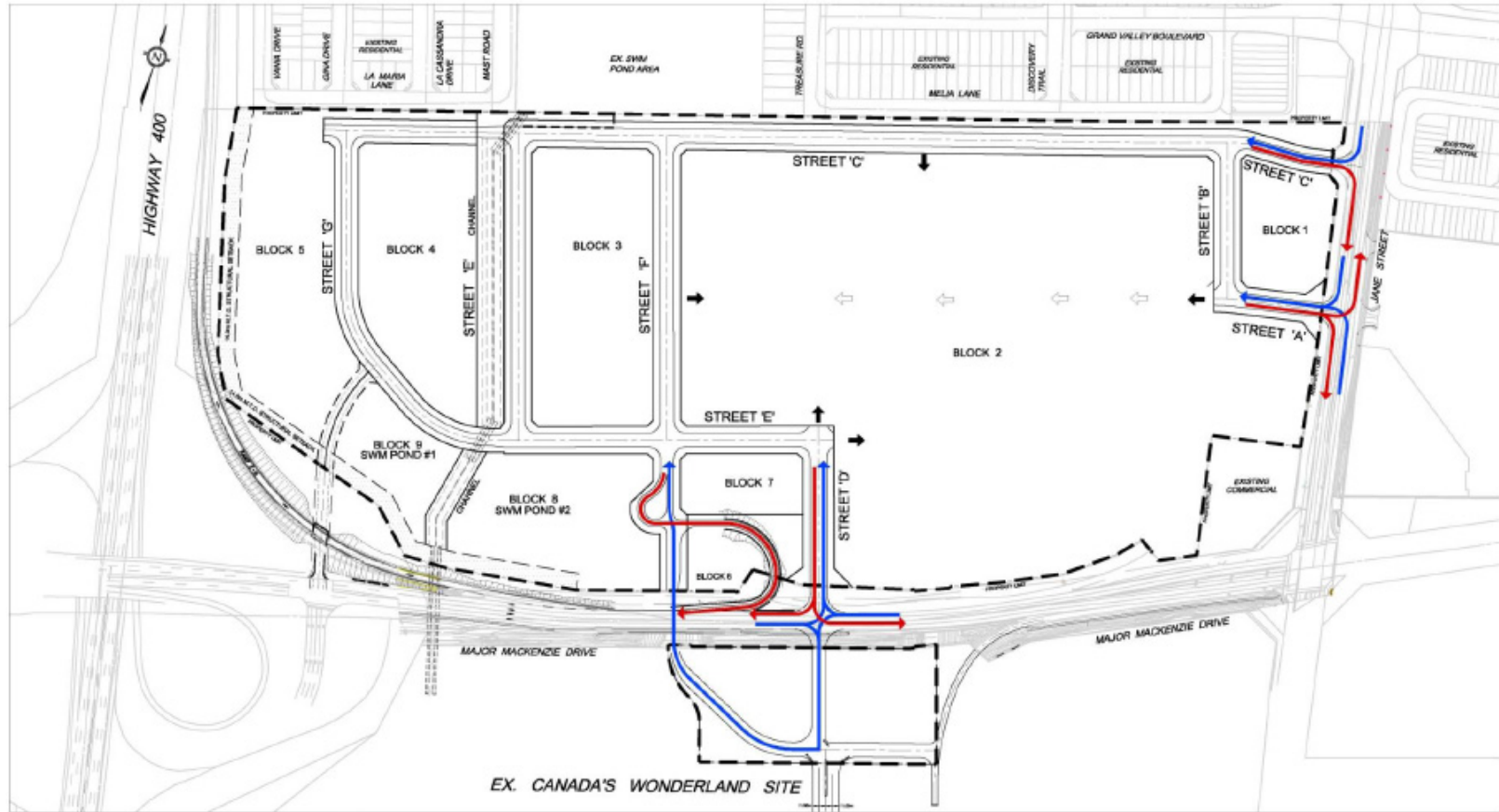
ROADWAYS	Alternative 1	Alternative 2	Alternative 3
<i>Description of Alternatives</i>	<i>Street D to Street F (or E or G) to Street C to Street A to Jane St</i>	<i>Street through middle of site to connect with Street A at Jane St</i>	<i>Street D to Street C to Street A to Jane St</i>
Natural Environment	- Minimal impact on existing conditions and matches preferred channel alternative	- Potential to impact existing channel if continues through Streets E&G	- Minimal impact on existing conditions - Accommodates proposed channel location
Social-Cultural Environment	- Noise impacts from vehicles on residential development to the north	- Minimal noise impacts on residential development to the north	- Noise impacts from vehicles on residential development to the north
Technical Environment	- Roadway layout most compatible with development blocks for hospital	- Bisected hospital site leaving too small area for development of hospital	- Limits expansion of hospital to additional block to west
Financial Environment	- Similar construction and maintenance costs to other alternatives	- Similar construction and maintenance costs to other alternatives	- Similar construction and maintenance costs to other alternatives
<b>OVERALL RATING</b>	- Provides flexibility in phasing in of construction of all development blocks	- Reduced flexibility in phasing in of construction of all development blocks	- Most costly (construction and maintenance) and limits hospital block development

<b>Rating:</b>	Preferred 	Less Preferred 	Least Preferred 
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**NOTE:** Do Nothing was not evaluated further since it would not address problem statement



# ROADWAYS – RECOMMENDED SOLUTION (ALTERNATIVE 1)



# SANITARY – EXISTING AND PROPOSED

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## Existing and Proposed Sanitary Conditions:

- Site currently has no sanitary services.
- Sanitary sewers will connect to future North East Vaughan collector sewer to be construction by York Region in the Jane Street corridor.
- Region will begin sewer EA at beginning of 2013.
- Construction is expected to take place between 2017-2021.

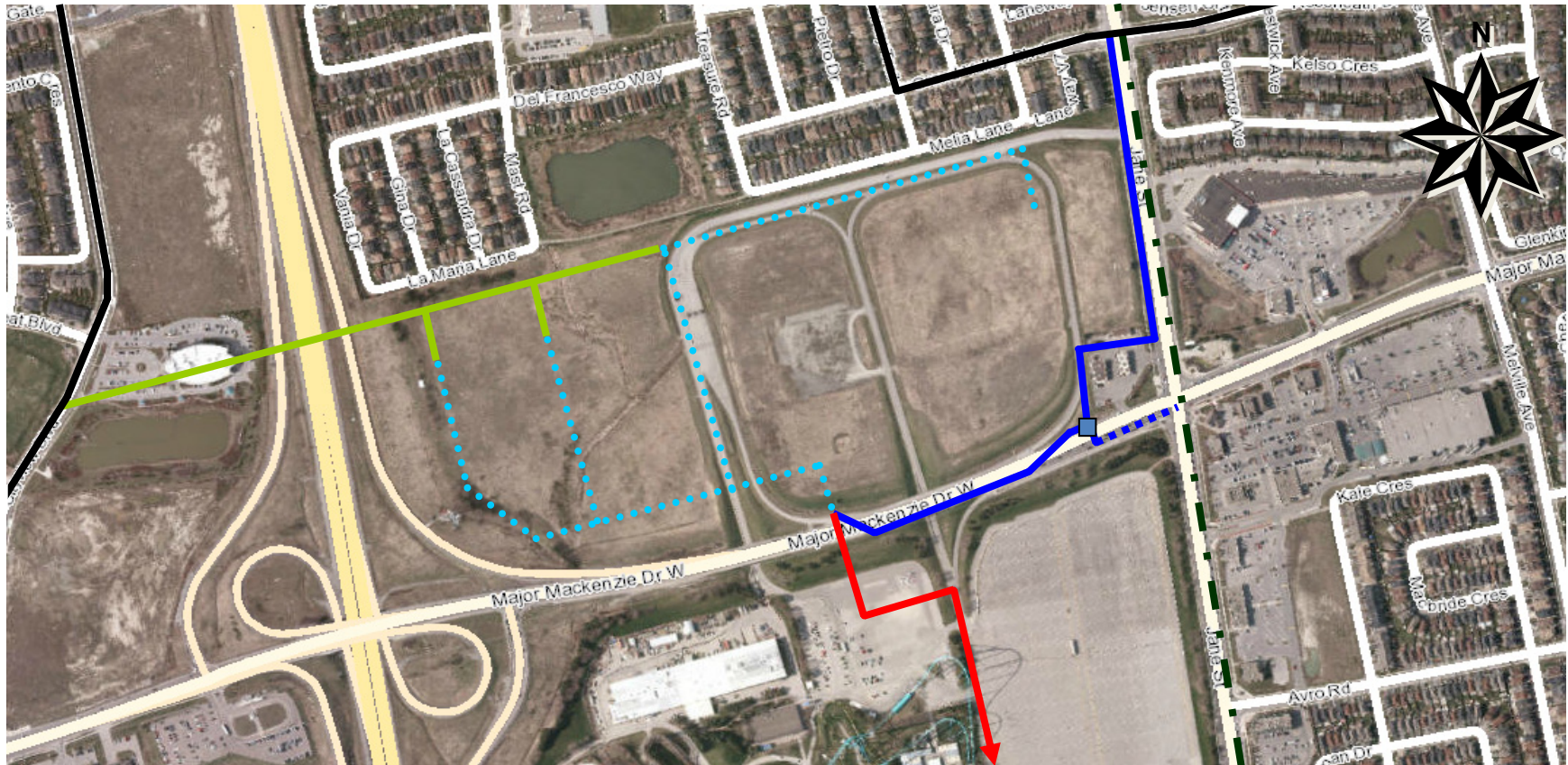
## Interim alternative solutions:

1. Connect to Existing Sanitary Sewer at Jane St / Grand Valley Blvd.
2. Connect to Existing Pumping Station on Canada's Wonderland Property (south end of site).
3. Extend sanitary sewer underneath Highway 400 to connect to existing sanitary sewer on Cityview Blvd.





# SANITARY – ALTERNATIVE SOLUTIONS



Alternative 1 ——— Alternative 2 ———> Alternative 3 ——— Temporary Pumping Station ■  
Future Connection ····· Planned Internal Servicing ····· Future (By Others) - - - Existing ———



# SANITARY – EVALUATION OF ALTERNATIVE SOLUTIONS

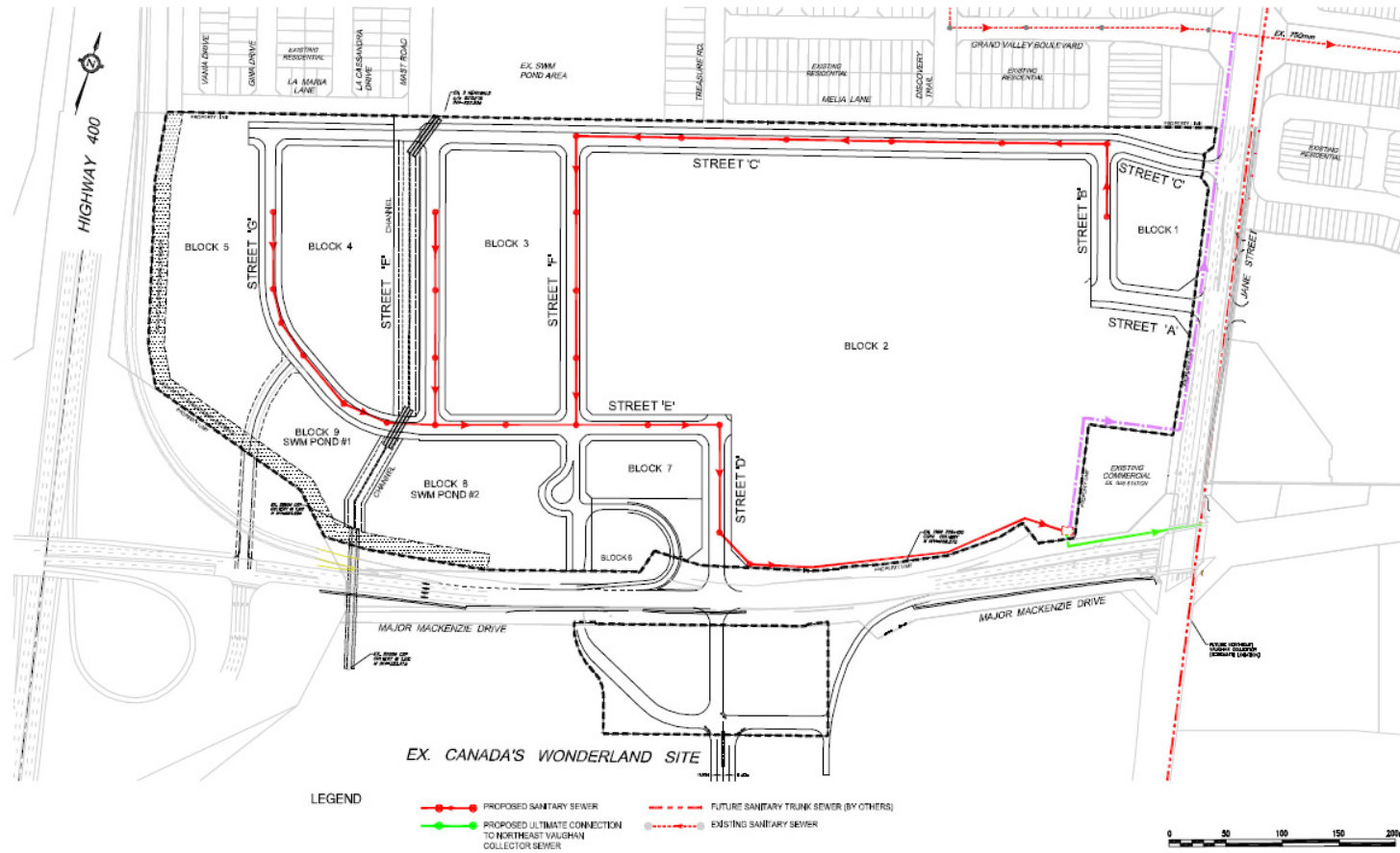
<b>SANITARY</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
<i>Description of Alternatives</i>	<i>Connect to existing sanitary sewer located at Jane St and Grand Valley Blvd</i>	<i>Connect to existing pumping station located at southeast end of Canada's Wonderland site</i>	<i>Extend to the west under Highway 400 and connect to existing system on Cityview Blvd</i>
Natural Environment	- Minimal impact with forcemain construction in road allowances	- Minimal impact with sewer construction through parking area	- Not evaluated due to technical and financial issues
Social-Cultural Environment	- Traffic disruption from construction on Jane St but can be combined with watermain construction	- No traffic disruption with sewer on private property - Impact on Canada's Wonderland users during construction	- Not evaluated due to technical and financial issues
Technical Environment	- Temporary pumping station required - Temporary forcemain constructed on Jane St from pumping station to Grand Valley Boulevard - Easy to add gravity connection at Jane St to NE Vaughan Collector for long term connection	- Gravity sewer constructed to Canada's Wonderland pumping station (S end of site) - Sewers to be disconnected for long term connection to NE Vaughan Collector	- Requires crossing underneath Highway 400 which is difficult to obtain approvals for and to construct - Existing sanitary system on west side of Highway 400 does not have sufficient capacity to handle flows from site
Financial Environment	- Permanent easements required for sewer and pumping station - Temporary forcemains (shorter length of forcemain) and pumping station	- Permanent easements required for sewer - Temporary sewers (longest length of sewer to south end of Wonderland site)	- Costly (length and approvals) to cross underneath Highway 400 to connect to existing system on Cityview Blvd
<b>OVERALL RATING</b>	- Shortest forcemain requirements and easiest connection to address long term solution	- Financial limitation for cost of length of sewers required and easements - Costly to connect to long term solution	- Too difficult and costly to cross Highway 400 to reach existing sanitary services and insufficient capacity in existing system

<b>Rating:</b>	Preferred	Less Preferred	Least Preferred
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**NOTE:** Do Nothing was not evaluated further since it would not address problem statement



# SANITARY – RECOMMENDED SOLUTION (ALTERNATIVE 1)



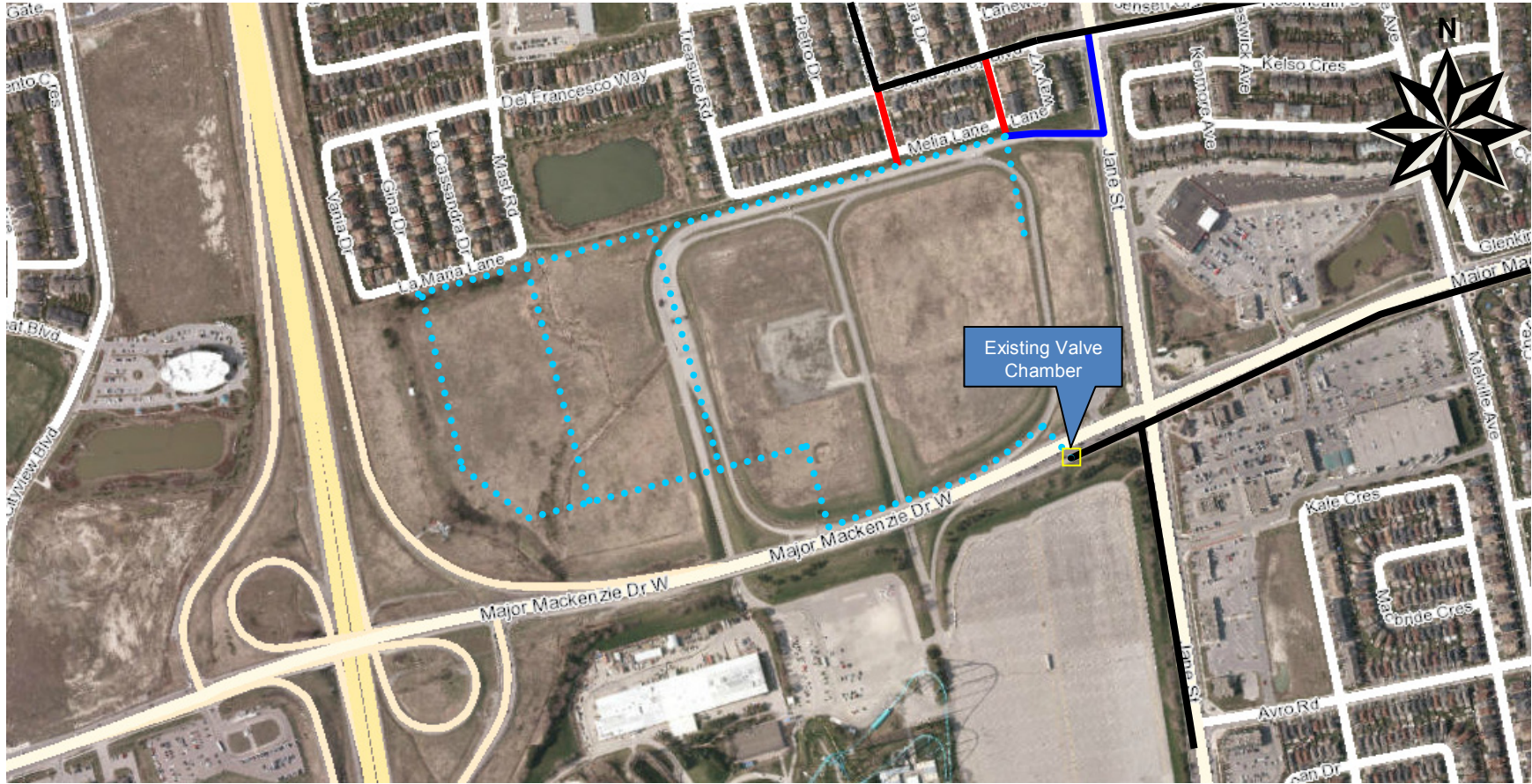
## WATER – EXISTING CONDITIONS

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- Site currently has no water services.
- Existing watermains in vicinity of Precinct are capable of providing adequate flows and pressures for development.
- Existing watermain on south side of Major Mackenzie Drive which terminates 100 m west of Jane Street (last accessible connection point to municipal distribution system).
- Existing watermain at Jane Street and Grand Valley Boulevard.
- Existing private watermain system located in Canada's Wonderland.



# WATER – ALTERNATIVE SOLUTIONS



Alternative 1 — Alternative 2 — Existing — Planned Internal Water Servicing.....



# WATER – EVALUATION OF ALTERNATIVE SOLUTIONS

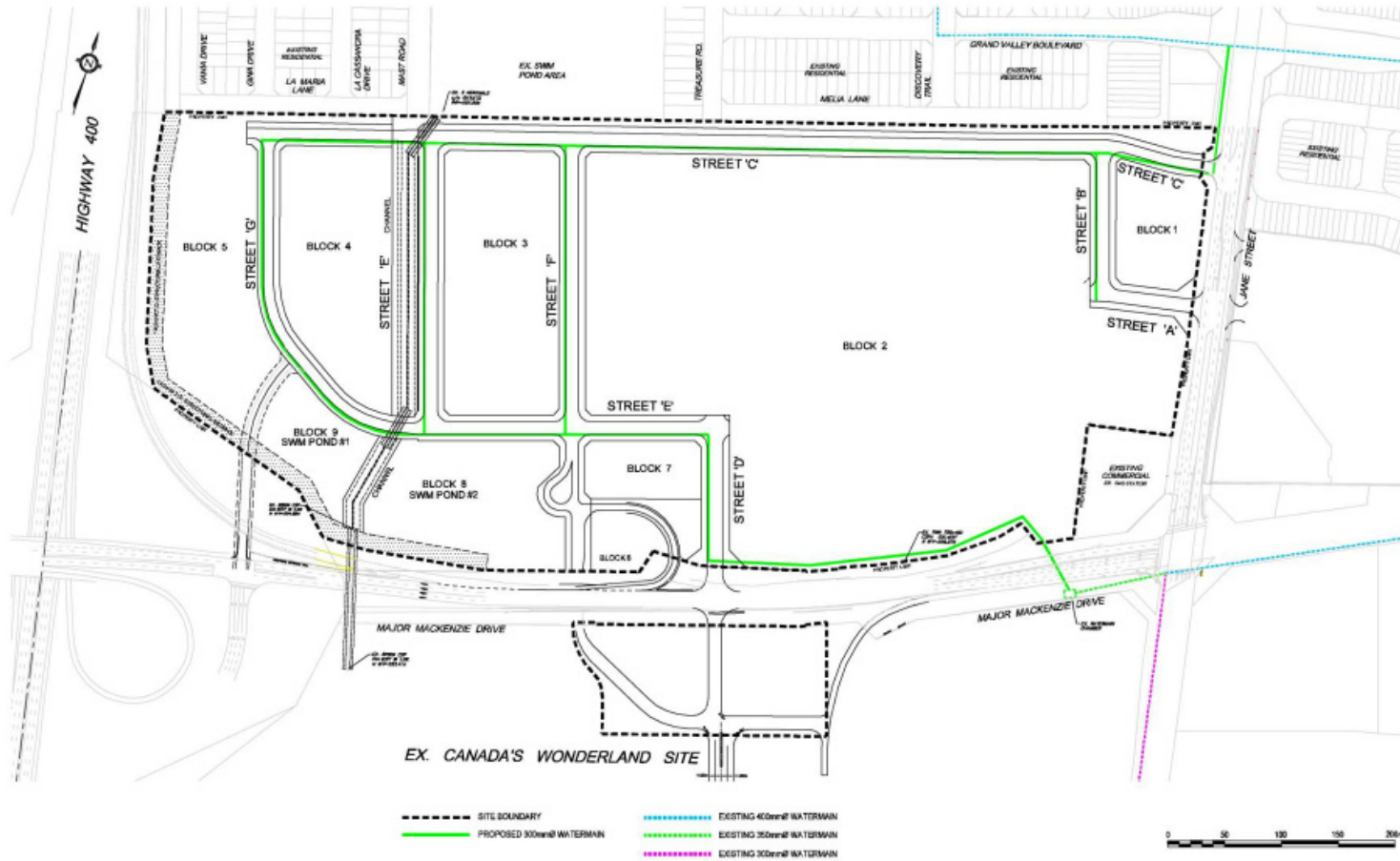
<b>WATER</b>	<b>Alternative 1</b>	<b>Alternative 2</b>
<i>Description of Alternatives</i>	<i>Watermain on Jane St to connect at Grand Valley Blvd</i>	<i>Watermain from Street C along Discovery Trail or Melia Lane to Grand Valley Blvd</i>
Natural Environment	- Minimal impact due to construction with road right-of-ways	- Minimal impact due to construction with road right-of-ways
Social-Cultural Environment	- Disruption to traffic on Jane St but can be minimized by combining with sewer construction	- Disruption to residential development with road closure
Technical Environment	- Ability to combine with sewer construction - Medium timeline for construction - Provides secure looped system	- Disruption to residences on in residential development in addition to disruption on Jane St for sewer - Short timeline for construction - Provides secure looped system
Financial Environment	- Longer watermain length than for Alternative 2 but reduced cost when combined with sewer	- Shorter watermain but requires construction costs for watermain and sewer separately
<b>OVERALL RATING</b>	- Ability to combine construction of watermain with sewer on Jane St - Provides secure looped system	- Disruption from both watermain and sewer construction - Provides secure looped system

<b>Rating:</b>	Preferred	Less Preferred	Least Preferred
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**NOTE:** Do Nothing was not evaluated further since it would not address problem statement



# WATER – RECOMMENDED SOLUTION (ALTERNATIVE 1)



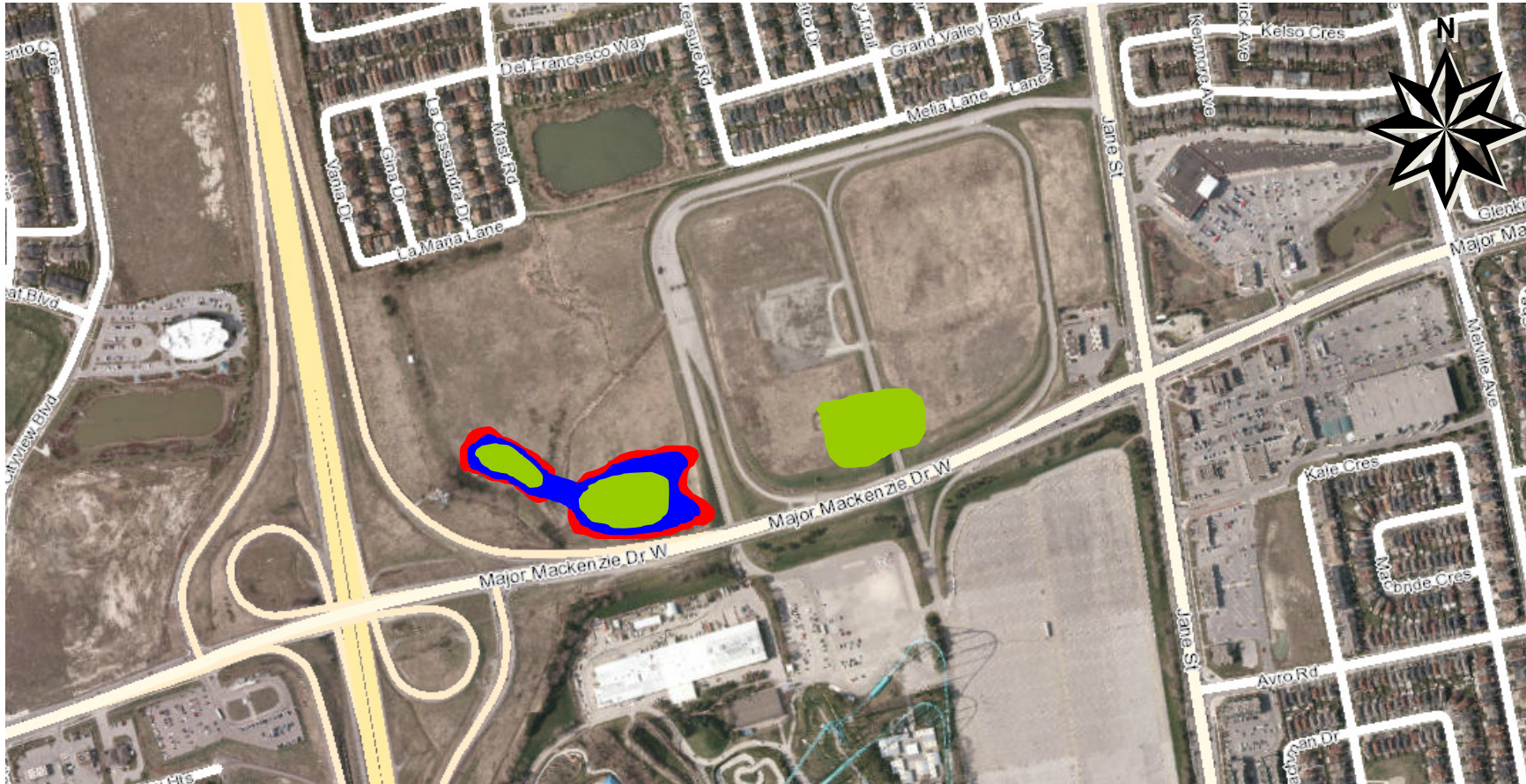
## STORMWATER – EXISTING CONDITIONS

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- No stormwater management ponds currently exist on the site.
- Topography of site generally slopes from northeast to southwest.
- Four (4) drainage outlets for the site:
  - Water exits to the south under Major Mackenzie Drive through two (2) road underpasses and two (2) existing culverts.
  - Runoff directed through underpasses and runoff that outlets through east culvert both enter Canada's Wonderland storm sewer system.
  - Runoff entering west culvert travels south in drainage channels.
- All runoff from site is conveyed to West Don River.
- Naturalized channel exists on west side that conveys runoff from stormwater pond on residential site to the north.
- New stormwater ponds will be sized to provide Enhanced Level of Water Quality Protection combined with Low Impact Development (LID).



# STORMWATER – ALTERNATIVE SOLUTIONS



Alternative 1

Alternative 2

Alternative 3



# STORMWATER – EVALUATION OF ALTERNATIVE SOLUTIONS

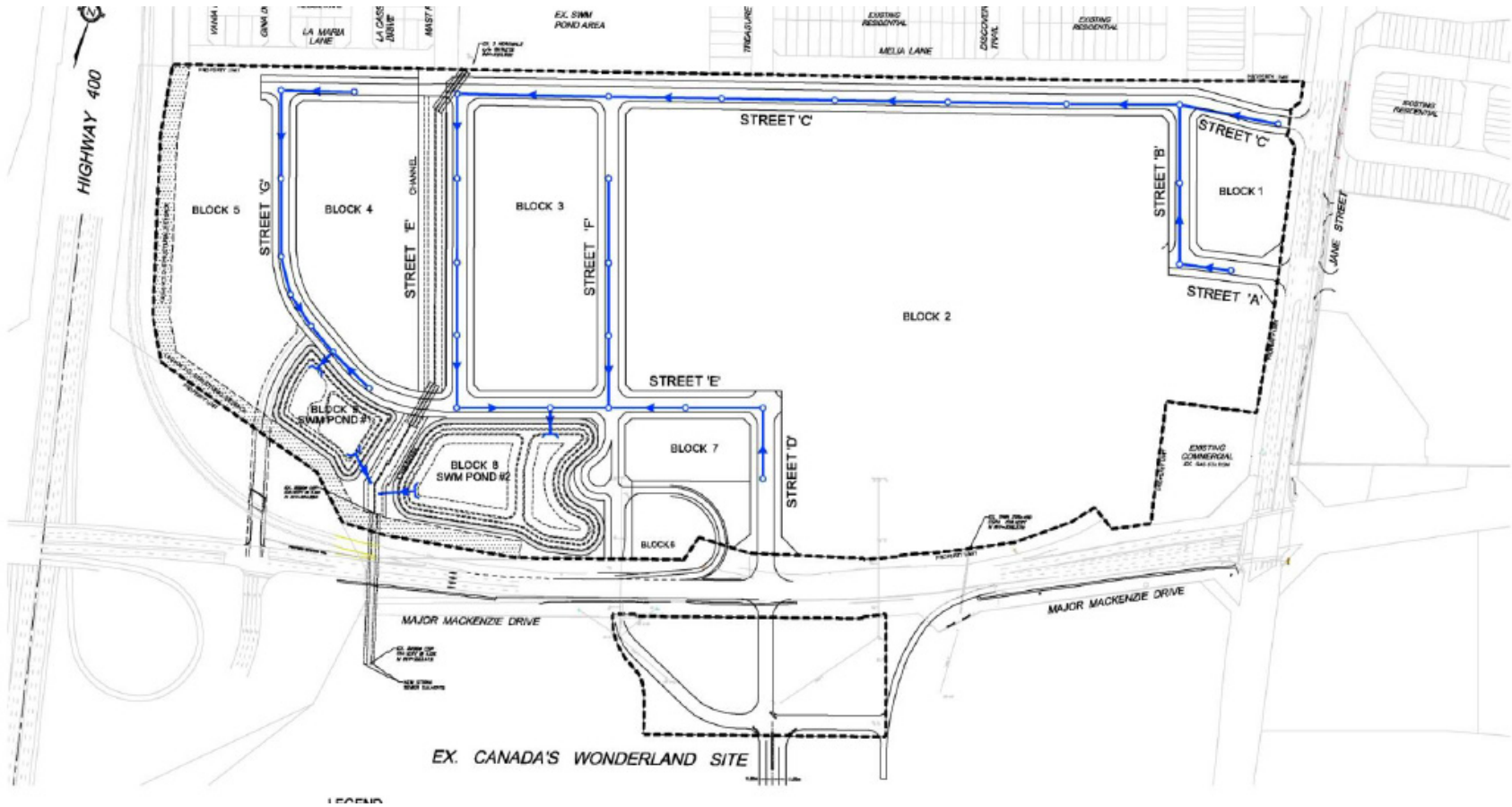
<b>STORMWATER</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
<i>Description of Alternatives</i>	<i>1 large stormwater pond in southwest end of site</i>	<i>2 stormwater ponds in southwest end of site</i>	<i>3 stormwater ponds (same as Alternative 2 but includes 1 pond for hospital)</i>
Natural Environment	<ul style="list-style-type: none"> <li>- Site slopes northeast to southwest will capture most of runoff</li> <li>- Least impact with construction of 1 pond</li> </ul>	<ul style="list-style-type: none"> <li>- Site slopes northeast to southwest will capture most of runoff</li> <li>- Medium impact with construction of 2 ponds</li> </ul>	<ul style="list-style-type: none"> <li>- Greatest impact with construction of 3 man-made ponds</li> </ul>
Social-Cultural Environment	<ul style="list-style-type: none"> <li>- Requires relocation of channel</li> </ul>	<ul style="list-style-type: none"> <li>- Accommodates proposed channel location</li> </ul>	<ul style="list-style-type: none"> <li>- Accommodates proposed channel location</li> </ul>
Technical Environment	<ul style="list-style-type: none"> <li>- No phasing of development requires construction of full sized pond at start</li> <li>- Permits low impact development strategies</li> </ul>	<ul style="list-style-type: none"> <li>- Allows phasing/flexibility in construction of ponds with block development</li> <li>- Pond 1 receives runoff from lands west of channel</li> <li>- Pond 2 receives runoff from lands east of channel</li> <li>- Permits low impact development strategies</li> </ul>	<ul style="list-style-type: none"> <li>- Allows phasing in construction of ponds with development</li> <li>- Requires additional pond to be maintained</li> <li>- Limits development of hospital block</li> </ul>
Financial Environment	<ul style="list-style-type: none"> <li>- Less expensive to construct</li> <li>- Lowest maintenance costs</li> </ul>	<ul style="list-style-type: none"> <li>- Offset construction costs by only constructing Pond #2 until all development blocks constructed</li> <li>- Medium maintenance costs once both ponds constructed</li> </ul>	<ul style="list-style-type: none"> <li>- Most expensive to construct</li> <li>- Expensive maintenance costs</li> </ul>
<b>OVERALL RATING</b>	<ul style="list-style-type: none"> <li>- Reduces flexibility in phasing in of construction of all development blocks</li> </ul>	<ul style="list-style-type: none"> <li>- Provides flexibility in phasing in of construction of all development blocks</li> </ul>	<ul style="list-style-type: none"> <li>- Most costly (construction and maintenance) and limits hospital block development</li> </ul>

<b>Rating:</b>	Preferred	Less Preferred	Least Preferred
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**NOTE:** Do Nothing was not evaluated further since it would not address problem statement



# STORMWATER – RECOMMENDED SOLUTION (ALTERNATIVE 2)





# DRAINAGE CHANNEL – ALTERNATIVE SOLUTIONS



Alternative 1 

Alternative 2 

Alternative 3 



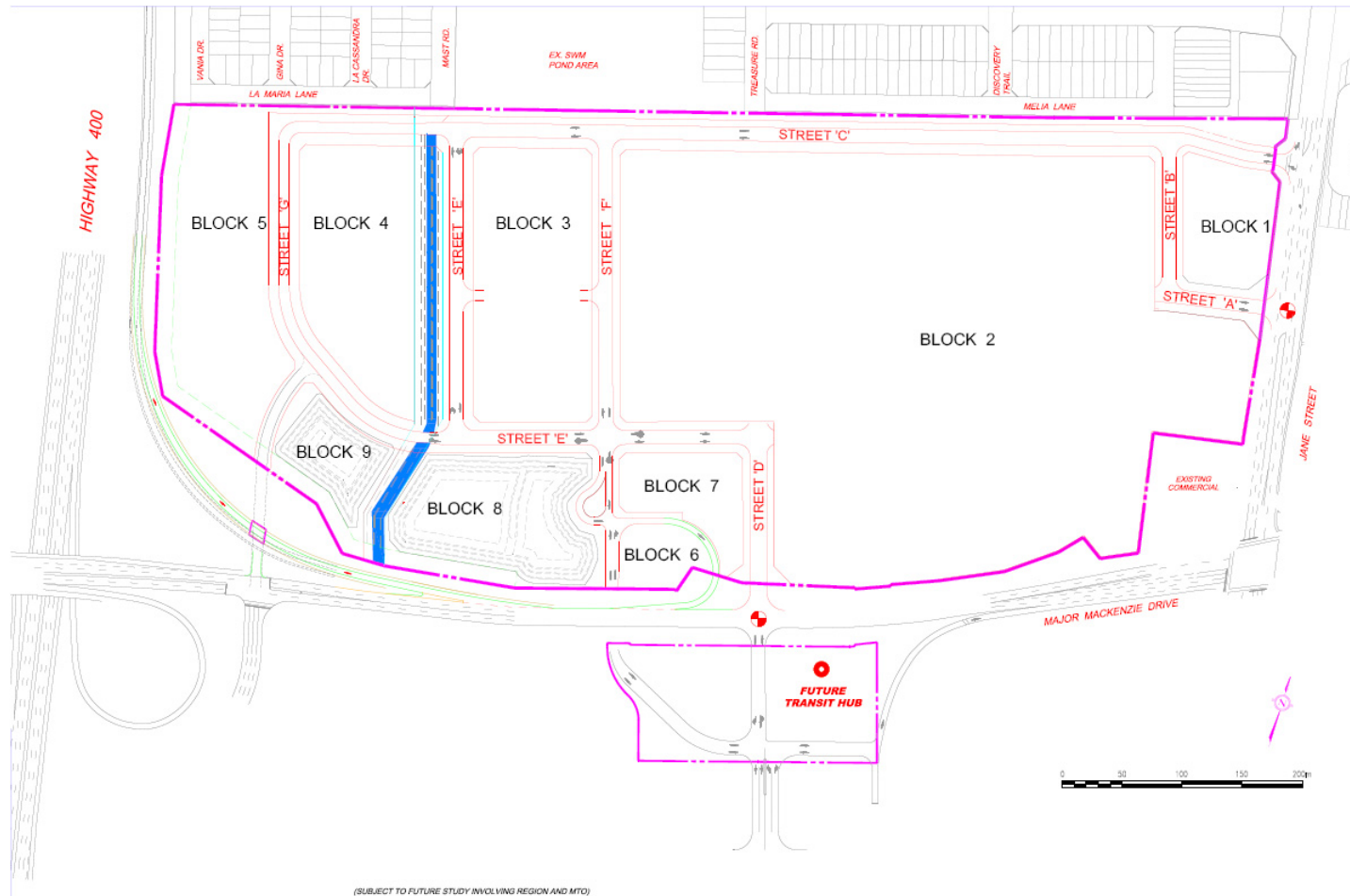
# DRAINAGE CHANNEL – EVALUATION OF ALTERNATIVE SOLUTIONS

<b>DRAINAGE CHANNEL</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>
<i>Description of Alternatives</i>	<i>Follows tree berm on west side of site</i>	<i>North-south channel located west of existing channel</i>	<i>Channel in existing location</i>
Natural Environment	-Greatest impact with full re-construction of channel	-Partial use of existing channel	-Minimizes impact by maintaining existing channel
Social-Cultural Environment	-Limited walkways due to land required for channel to provide flow capacity	-Provides for development of walkways along channel	-Walkways somewhat limited by design shape and loss of development land
Technical Environment	-More gradual grade change requires wider channel to accommodate flows causing land loss -Limits development blocks	-Maximizes development blocks (minimal land loss) -Provides downgradient flow and greatest flow capacity -Compatible with proposed internal road layout	-Awkward shape limits block development and results in unusable land
Financial Environment	-Most expensive to construct	-Cost to develop portion of new channel -Minimal land loss for development	-Low construction cost but loss of land for development
<b>OVERALL RATING</b>	-Results in land loss and limits development block	-Maximizes development of blocks and increases channel capacity	-Limits development blocks
<b>Rating:</b>	Preferred	Less Preferred	Least Preferred

**NOTE:** Do Nothing was not evaluated further since it would not address problem statement

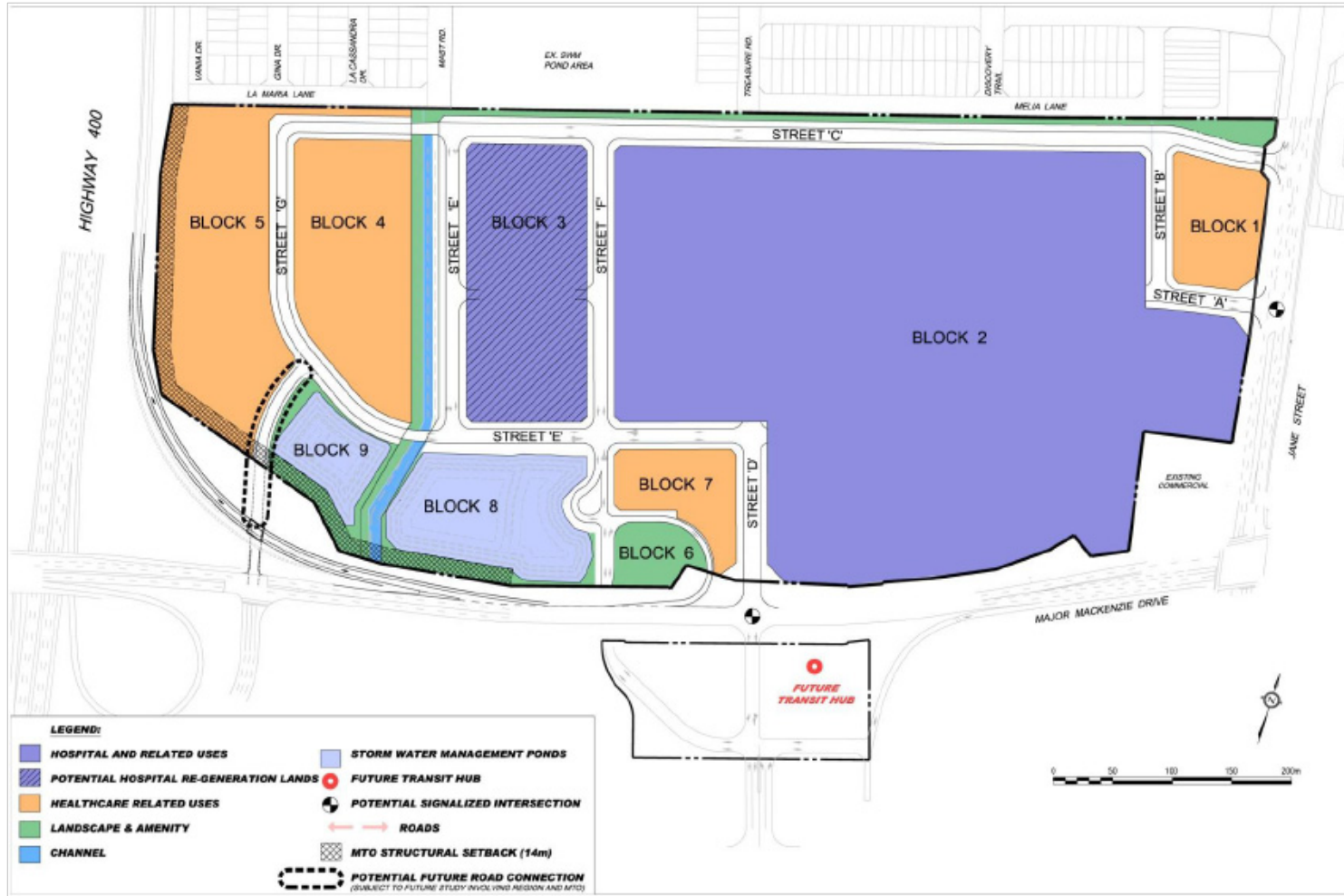


# DRAINAGE CHANNEL – RECOMMENDED SOLUTION (ALTERNATIVE 2)

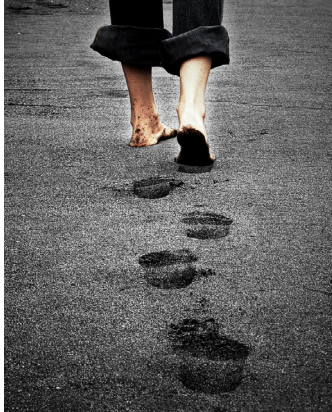
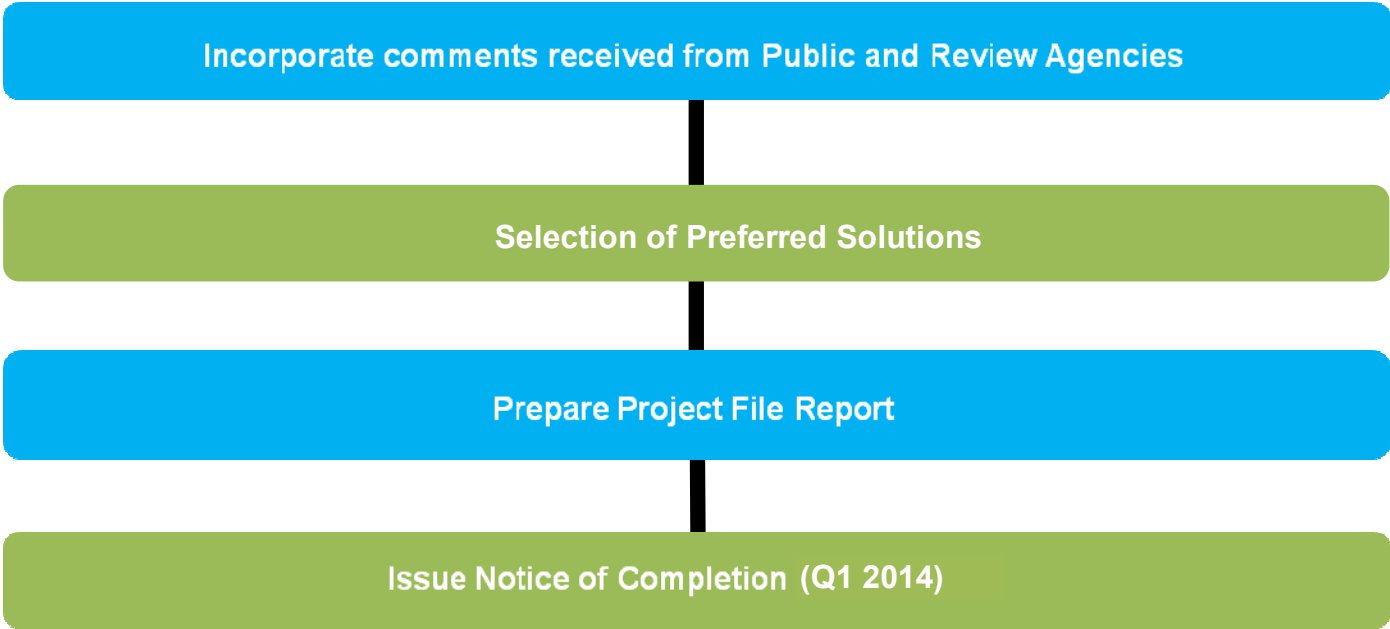




# VHCPP – LAND USE & ROAD NETWORK



# NEXT STEPS





## REMAIN INVOLVED IN THE STUDY

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Your comments are important as they will be reviewed and considered as part of the Study. Please indicate your interest to remain involved with the Study by submitting your completed comment sheet or by contacting one of the following team members:

**Mr. John Chadwick, P.Geo.**  
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***Thank you for attending and providing your input***

