

# Transit Planning Revisited to Enhance Land Potential

## Yonge/Highway 7 Regional Centre

David Wilson, P.Eng., CVS-Life, FSAVE, CPF

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# Today's Discussion...

- **Four Aspects:**

Goal

Current Situation

Opportunities

Preferred Concept



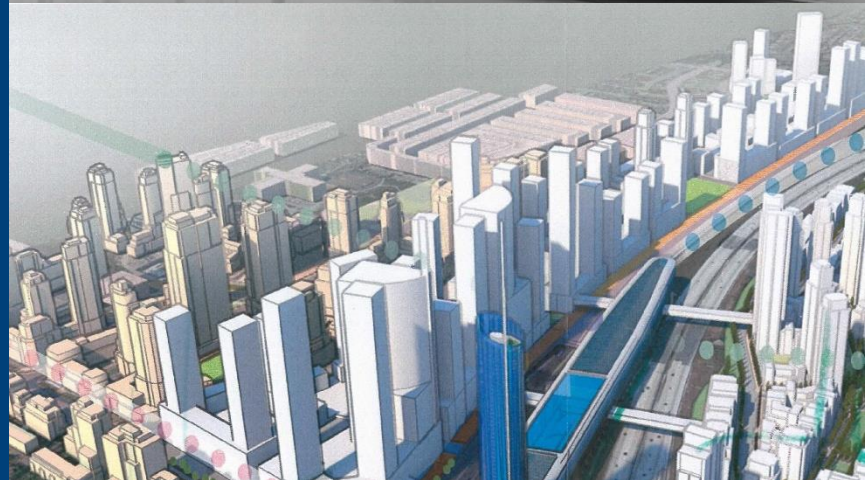
# Is It Possible?

- **Land Potential**
  - Best use of lands
  - Developable parcels
  - Good mobility
- **Effective transit**
  - Good ridership
  - Access
  - Mode interfaces



# Key Project Goal

- Yonge/Highway 7 Regional Centre
  - Enhance land potential
  - Find a balance
    - Transit initiatives
    - Development opportunities



# Situation...

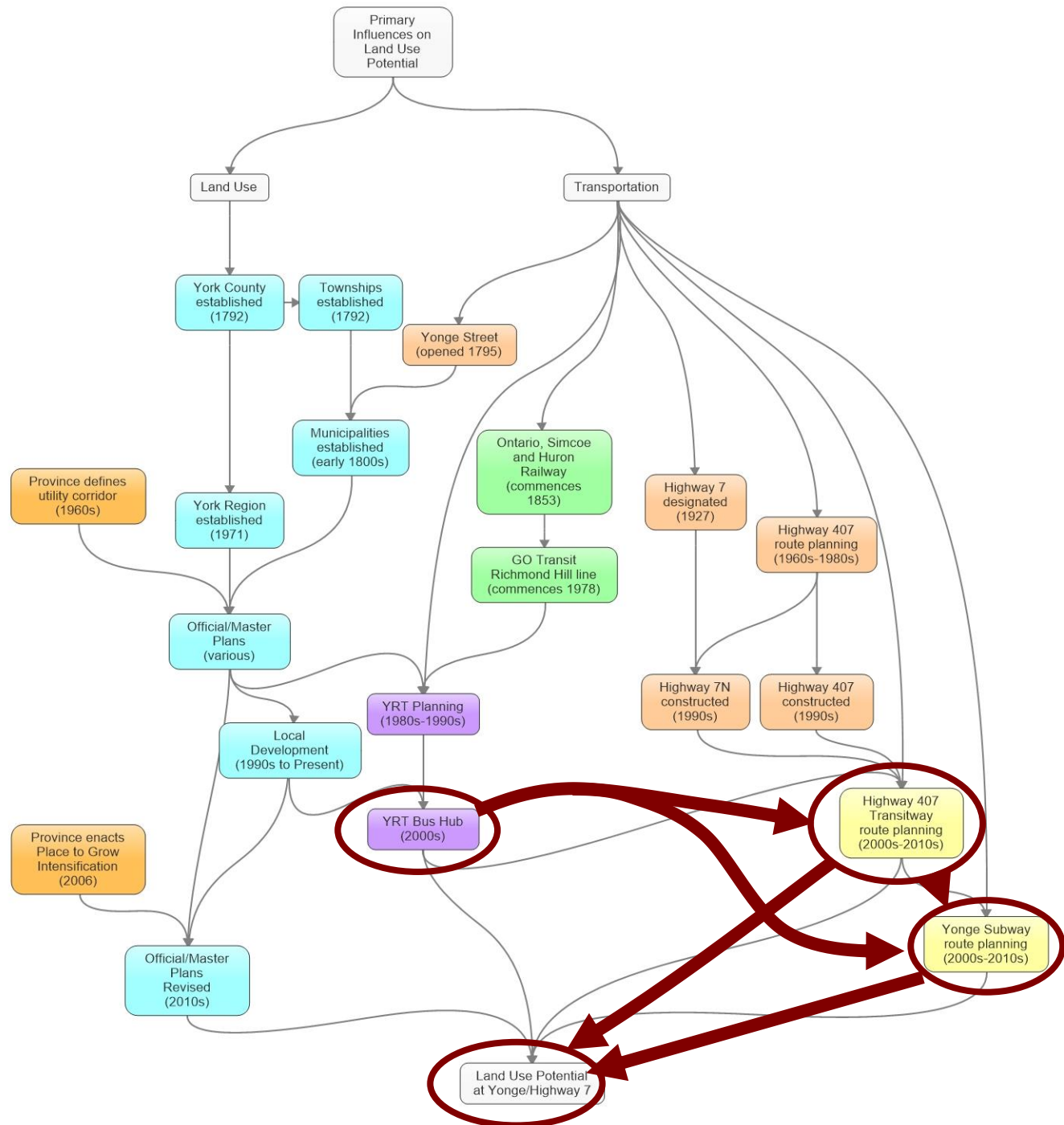
- **Opportunity** –
  - Significant land development potential...maybe!
- **Challenges** -
  - Lands dissected
    - Yonge Subway (future)
    - 407 Transitway (future)
    - Hydro corridor



# But How?

- Land use potential influenced by:

- Province
- Region
- Municipal
- Transit
- Utilities



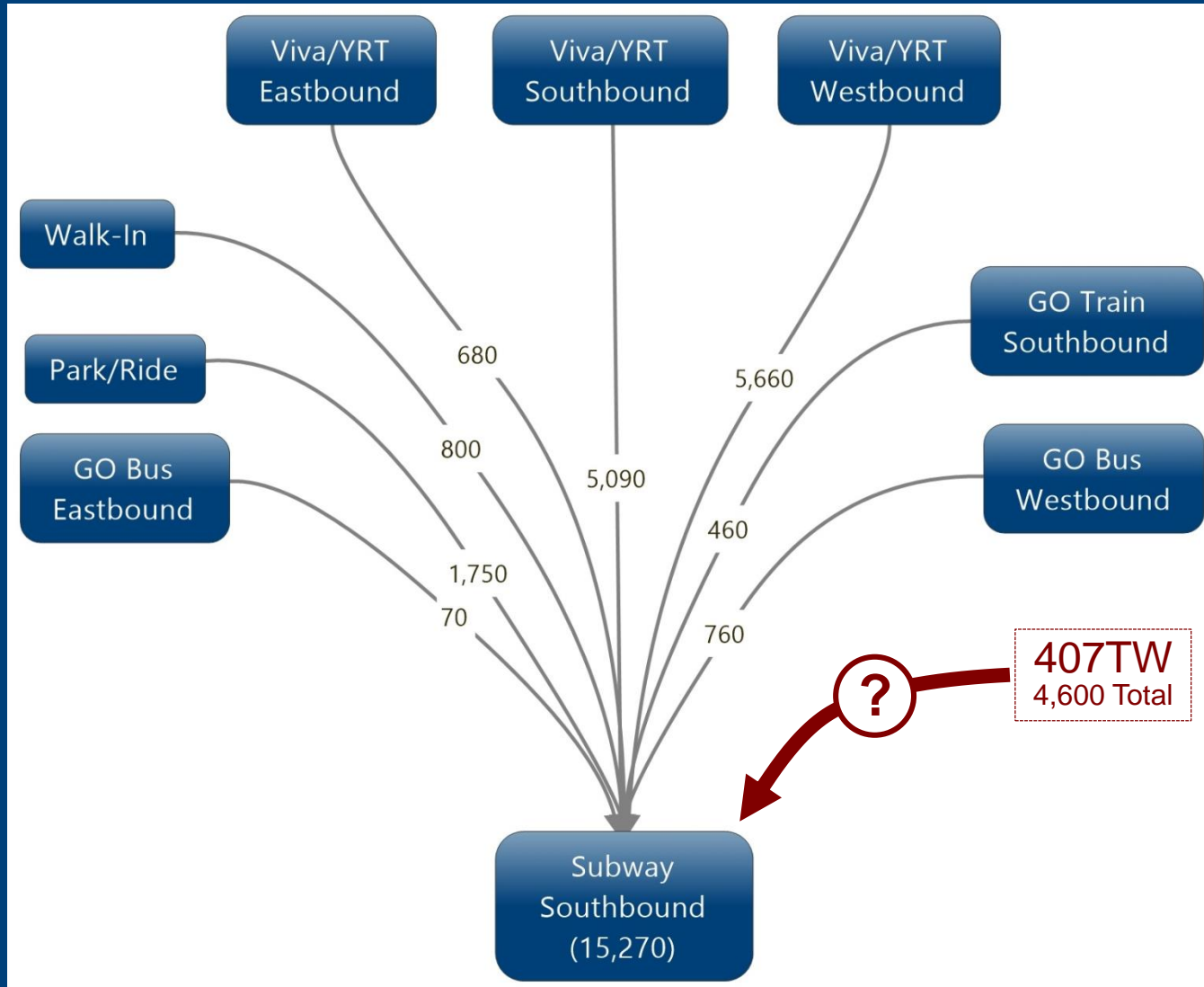
# Baseline Implementation Cost (Subset)

- **Considers**
  - Subway
  - Transitway
  - Development
    - Yonge to CN
    - Hwy 7 to north

Ref.	Item Description	Baseline
<b>1</b>	<b>Yonge Street Subway Extension</b>	
1.1	Running Structure	\$373,200,000
1.2	Major Structures	\$1,418,400,000
1.3	Sitework	\$10,233,000
1.4	Traffic Management	\$350,000
1.5	Utilities	\$34,000,000
	<b>Construction Subtotal</b>	<b>\$1,836,183,000</b>
M	Markups	\$918,000,000
	<b>Construction Total</b>	<b>\$2,754,183,000</b>
AC	Associated Costs	\$143,450,000
	<b>Project Subtotal</b>	<b>\$2,897,633,000</b>
<b>2</b>	<b>Highway 407 Transitway (LRT Technology)</b>	
2.1	Guideway	\$157,580,000
2.2	Major Structures	\$159,500,000
2.3	Sitework	\$360,000
2.4	Traffic Management	\$100,000
2.5	Utilities	\$0
	<b>Construction Subtotal</b>	<b>\$317,540,000</b>
M	Markups	\$158,800,000
	<b>Construction Total</b>	<b>\$476,340,000</b>
AC	Associated Costs	\$17,000,000
	<b>Project Subtotal</b>	<b>\$493,340,000</b>
	<b>Project Total</b>	<b>\$3,390,973,000</b>

Note: Costs shown only reflect potential differential component costs assessed; this is a subset of the total cost to implement the components identified.

# RHC Subway Transfers – 2031 AM



# Value Engineering Overview

- **VE Definition:**

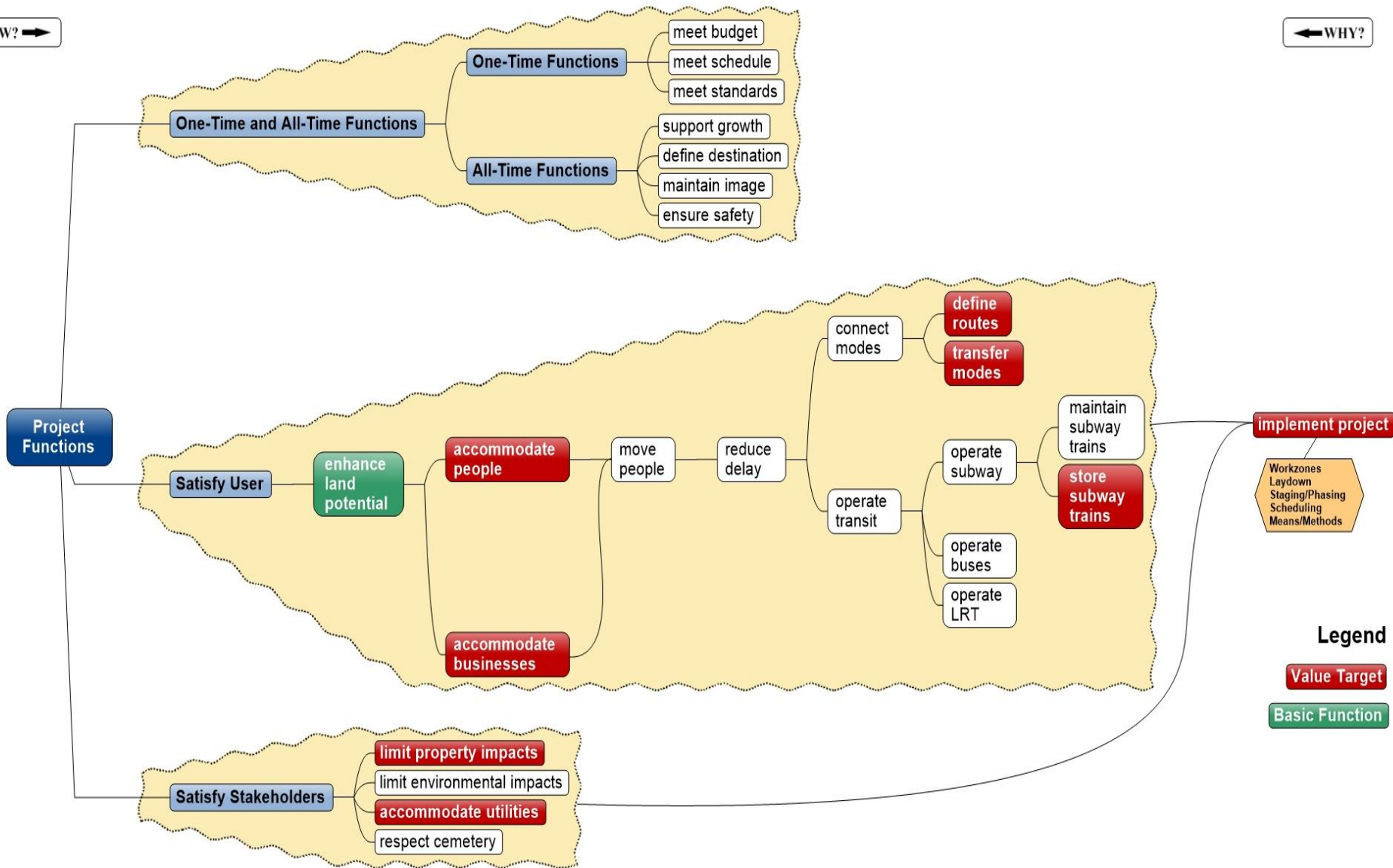
- Value Management is a systematic, creative, function-oriented, team approach to optimize project performance/quality for the resources spent

- **Another way of looking at it:**

$$\text{Value} \sim \frac{\text{Function}}{\text{Resources}^*}$$

\* monetary, schedule, environmental or property impacts, space, etc.

# Critical Functional Objectives

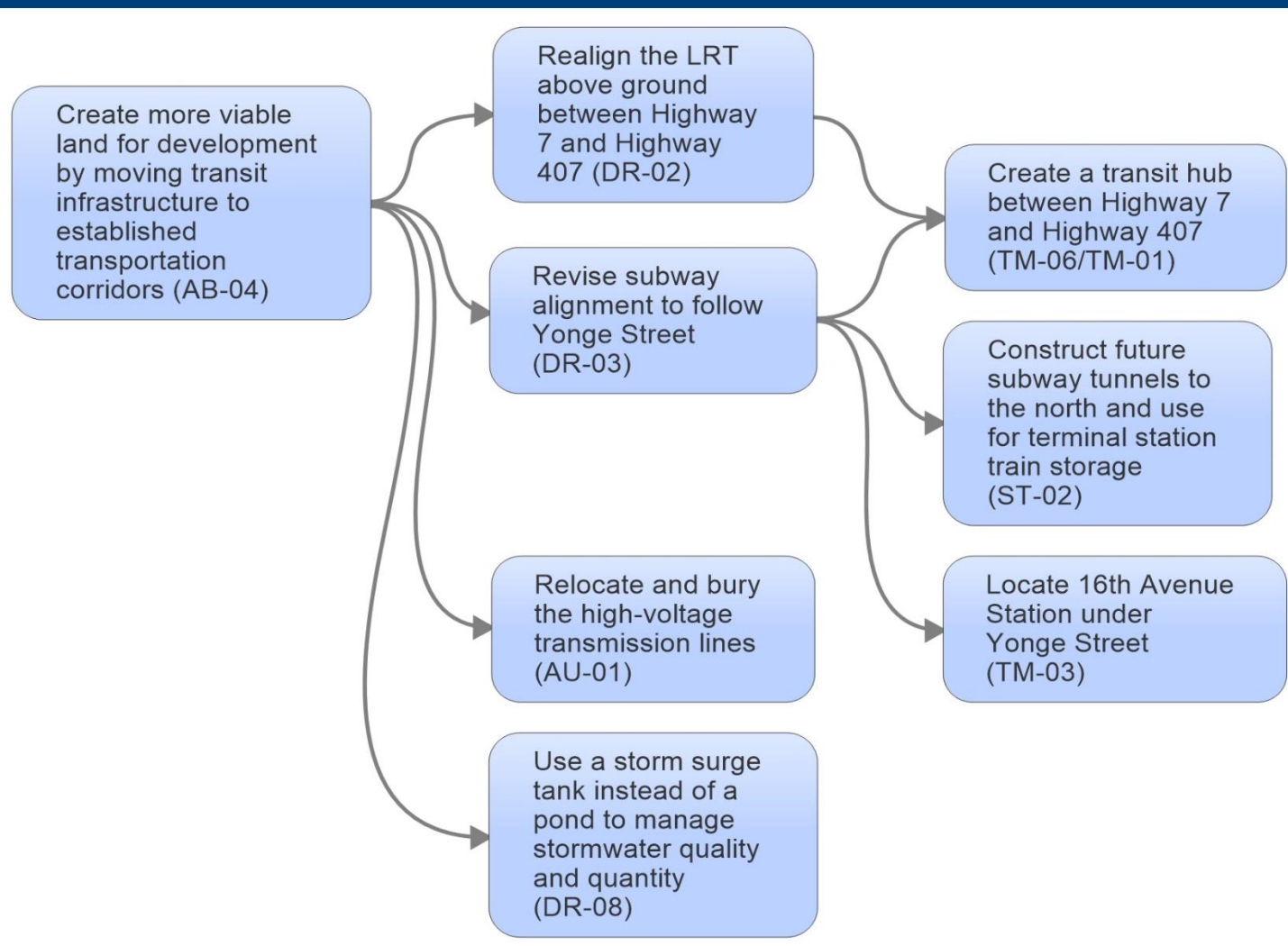


## Legend

Value Target

Basic Function

# 8 Key Opportunities



# Preferred Concept

## ● Transit

- Subway (on Yonge)
  - Near-term
    - RHC (Hwy 407) Station
    - Storage (future tunnels)
  - Longer-Term
    - 16<sup>th</sup> Ave Station
    - Bantry Station (optional)
- 407 Transitway (along 7)
- Transit Hub
  - Between Hwys 407 and 7



# Preferred Concept

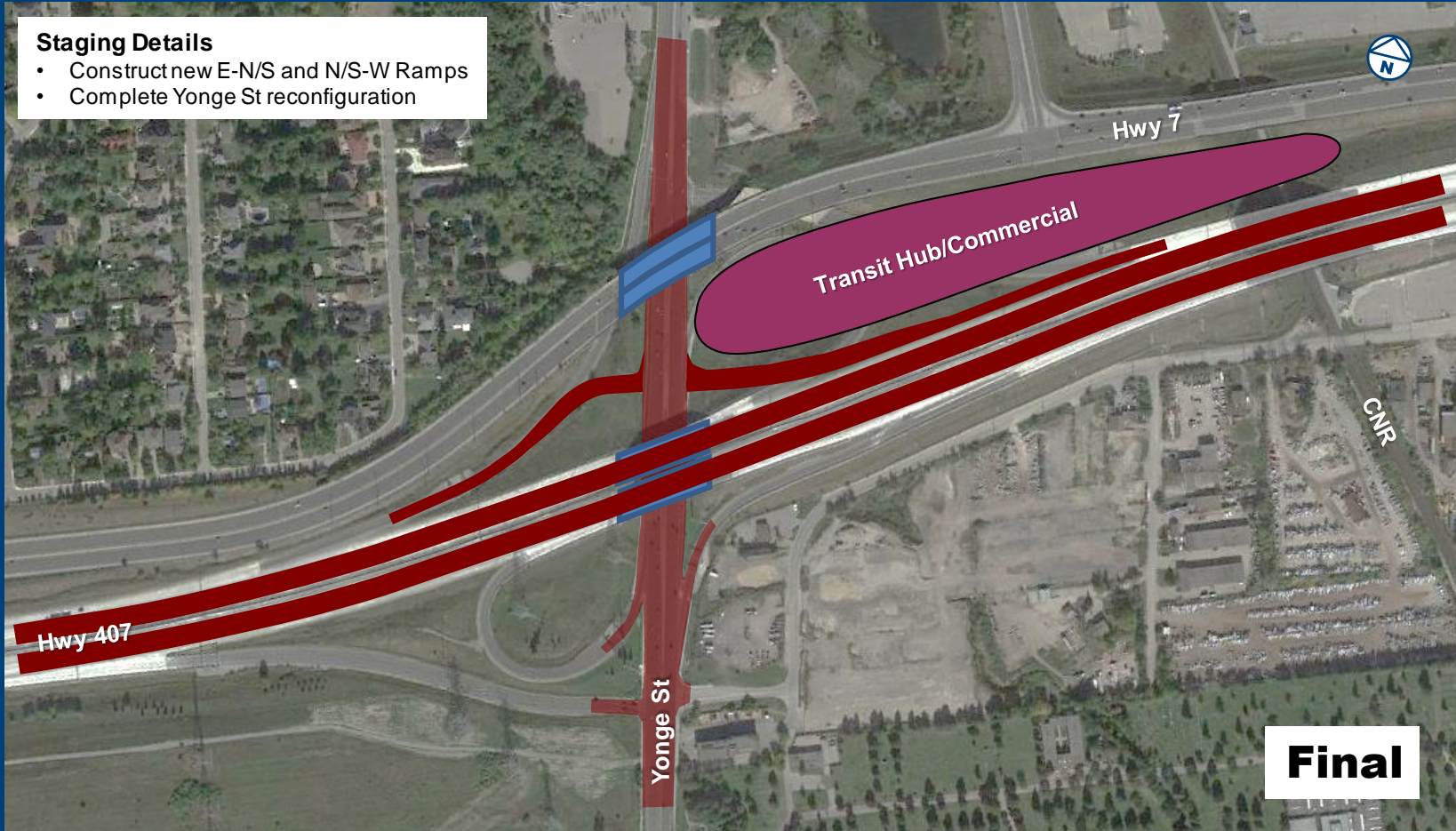
- **Hydro Lines**
  - Compact transmission lines
- **Storm Pond**
  - Storage tanks
- **Roadways**
  - Reconfigured Yonge IC



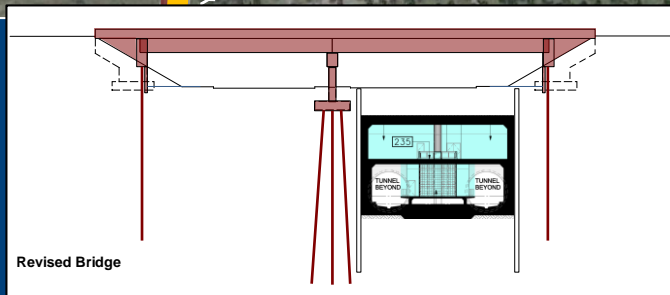
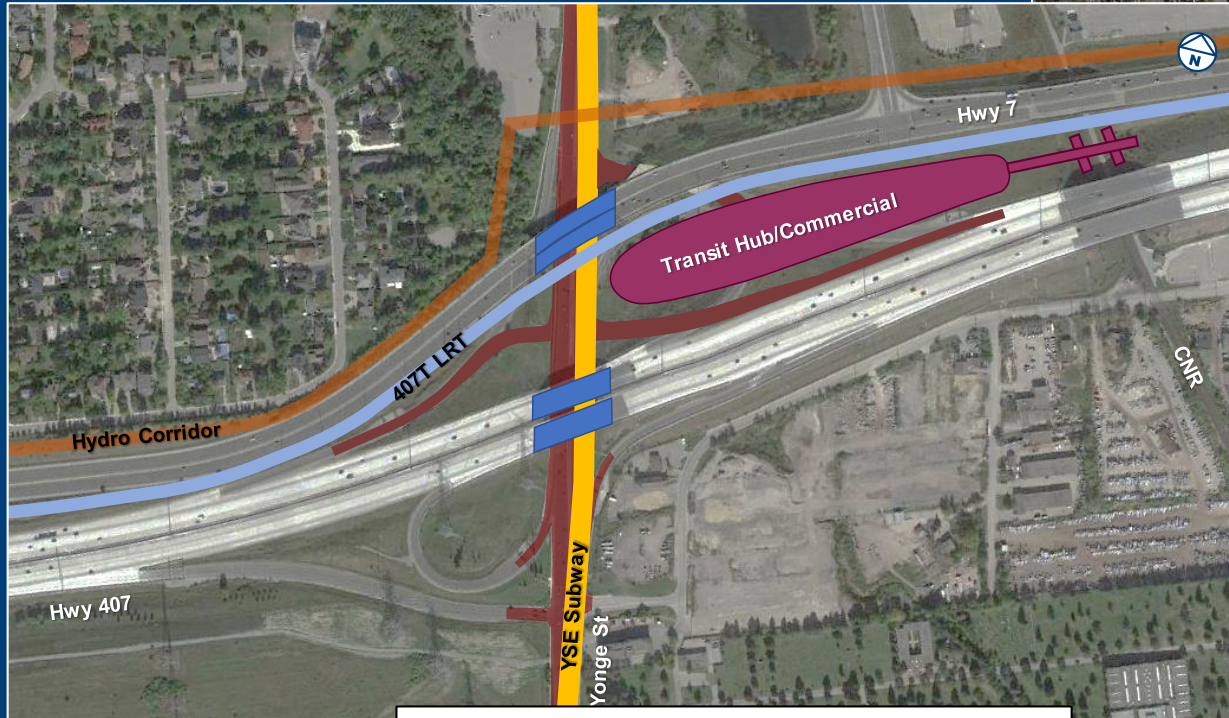
# Yonge IC Reconfiguration

## Staging Details

- Construct new E-N/S and N/S-W Ramps
- Complete Yonge St reconfiguration



# Preferred Concept



Legend	
(B)	Bus Terminal
(S)	Yonge Subway Ext'n
(L)	407 Transitway LRT
(R)	GO Commuter Rail
[Red Shaded Area]	Yonge/Hwy 7 Regional Centre
[Orange Shaded Area]	Hydro Transmission Line Corridor

# Preferred Concept Implementation Cost

Ref.	Item Description	Baseline	Alternative 2A	Difference
<b>1</b>	<b>Yonge Street Subway Extension</b>			
1.1	Running Structure	\$373,200,000	\$490,800,000	\$117,600,000
1.2	Major Structures	\$1,418,400,000	\$803,400,000	-\$615,000,000
1.3	Sitework	\$10,233,000	\$52,646,000	\$42,413,000
1.4	Traffic Management	\$350,000	\$300,000	-\$50,000
1.5	Utilities	\$34,000,000	\$137,040,000	\$103,040,000
	<b>Construction Subtotal</b>	<b>\$1,836,183,000</b>	<b>\$1,484,186,000</b>	<b>-\$351,997,000</b>
M	Markups	\$918,000,000	\$763,000,000	-\$155,000,000
	<b>Construction Total</b>	<b>\$2,754,183,000</b>	<b>\$2,247,186,000</b>	<b>-\$506,997,000</b>
AC	Associated Costs	\$143,450,000		-\$143,450,000
	<b>Project Subtotal</b>	<b>\$2,897,633,000</b>	<b>\$2,247,186,000</b>	<b>-\$650,447,000</b>
<b>2</b>	<b>Highway 407 Transitway (LRT Technology)</b>			
2.1	Guideway	\$157,580,000	\$115,000,000	-\$42,580,000
2.2	Major Structures	\$159,500,000	\$90,000,000	-\$69,500,000
2.3	Sitework	\$360,000	\$576,000	\$216,000
2.4	Traffic Management	\$100,000	\$50,000	-\$50,000
2.5	Utilities	\$0	\$0	\$0
	<b>Construction Subtotal</b>	<b>\$317,540,000</b>	<b>\$205,626,000</b>	<b>-\$111,914,000</b>
M	Markups	\$158,800,000	\$102,800,000	-\$56,000,000
	<b>Construction Total</b>	<b>\$476,340,000</b>	<b>\$308,426,000</b>	<b>-\$167,914,000</b>
AC	Associated Costs	\$17,000,000	\$0	-\$17,000,000
	<b>Project Subtotal</b>	<b>\$493,340,000</b>	<b>\$308,426,000</b>	<b>-\$184,914,000</b>
	<b>Project Total</b>	<b>\$3,390,973,000</b>	<b>\$2,555,612,000</b>	<b>-\$835,361,000</b>

Note: Costs shown only reflect potential differential component costs assessed; this is a subset of the total cost to implement the components identified.

# Performance Summary

## ● Transit

- Established corridors
- Shorter/fewer curves
- Easier to stage
- Hub on unused lands

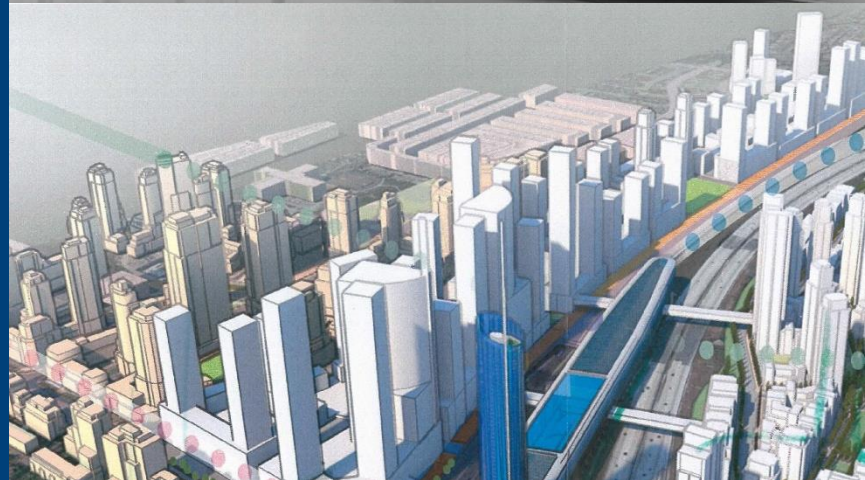
## ● Development

- 394,000 m<sup>2</sup> GFA
- Improved flexibility
  - Land uses
  - Configuration



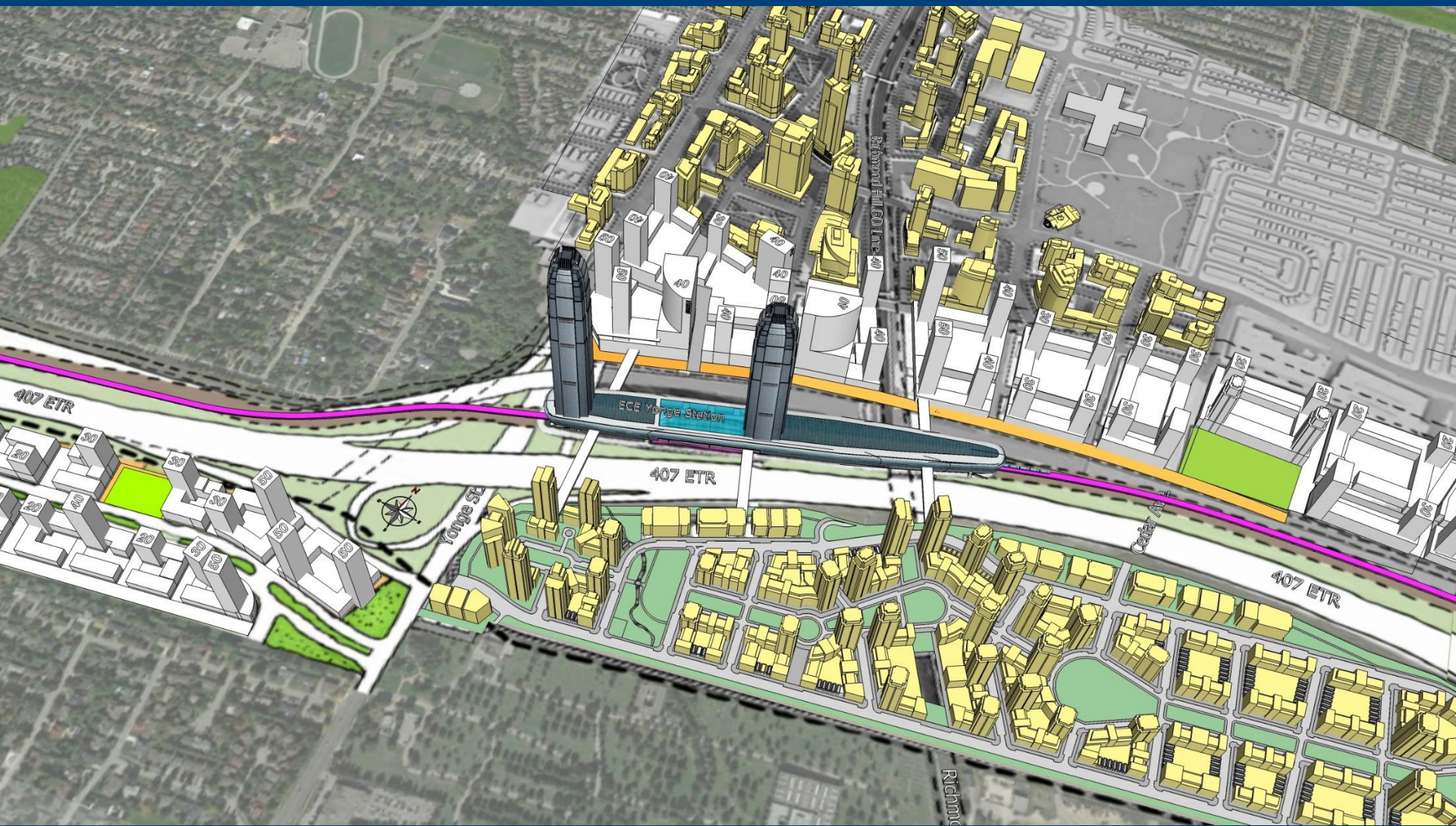
# Economics Summary

- Reduces capital cost of transit
  - \$836 M
- Increases economic value of Yonge/Hwy 7
  - \$2.1 B\*



\* Excludes potential commercial/retail component of transit hub.

# The Possible...



Courtesy: Jim Jones, Regional Councillor, City of Markham



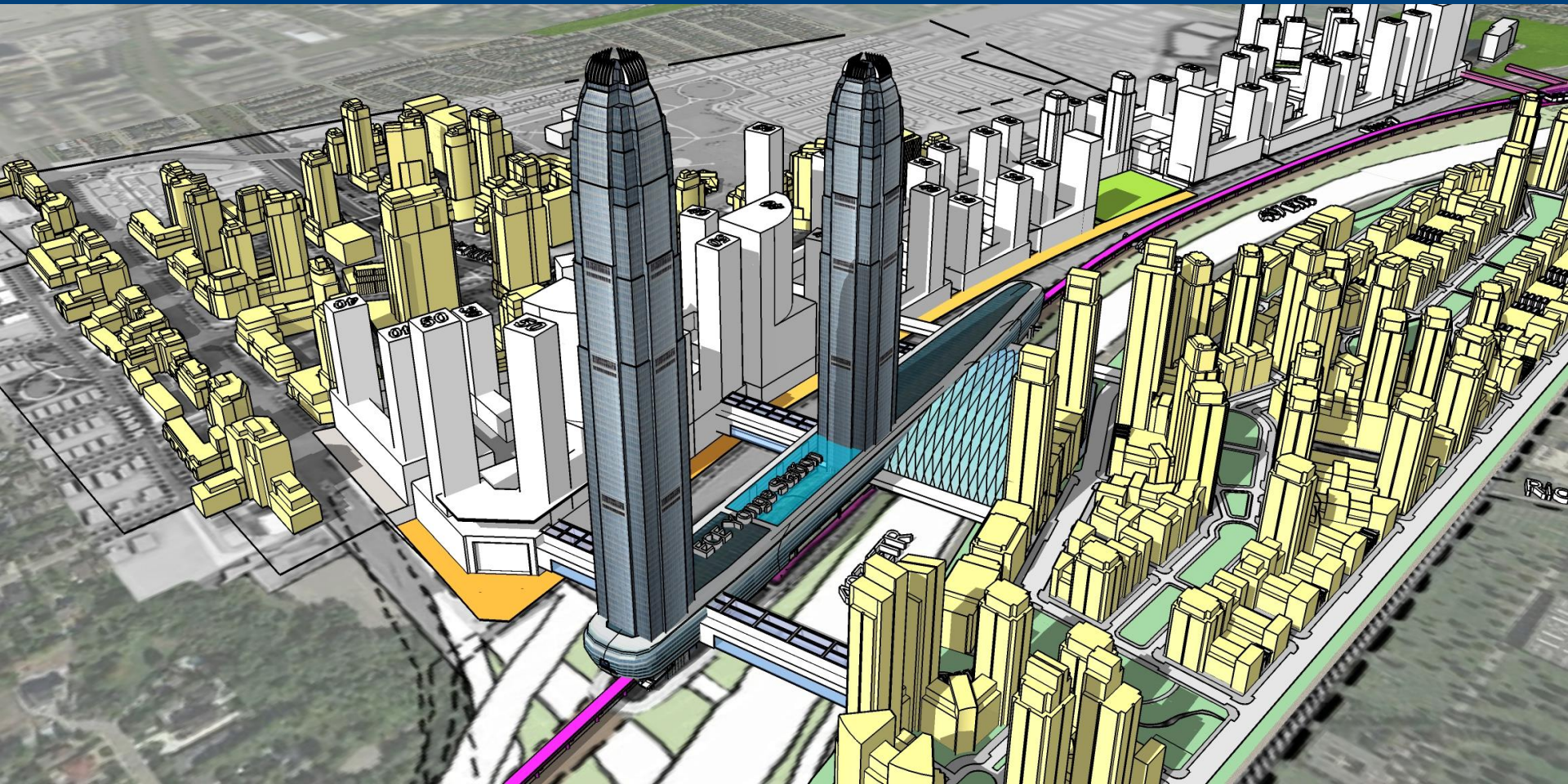
# So Now What?



**“We’re Going to Revisit This!”**



It IS Possible...



# Closing...

- **Four Aspects:**

Goal

Challenges

Opportunities

Preferred Concept



# Contact

David C. Wilson, P.Eng., CVS-Life, FSAVE, CPF  
President  
NCE Value Engineers Inc.

[david.wilson@nceve.com](mailto:david.wilson@nceve.com)