Appendix L: Landscape Design Report

407 TRANSITWAY - KENNEDY ROAD TO BROCK ROAD

MINISTRY OF TRANSPORTATION - CENTRAL REGION

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Landscape Architecture + Urban Design

July 07, 2016

407-TRANSITWAY (Kennedy Road to Brock Road)
LANDSCAPE COMPOSITION

INTRODUCTION

The Ministry of Transportation (MTO) is proposing an 18 km segment of a transitway facility along the Highway 407 corridor through York Region and Durham Region, from east of Kennedy Road in the City of Markham to east of Brock Road in the City of Pickering (407 Transitway). The 407 Transitway includes eight stations. Subject to the outcome of the study, the 407 Transitway will be implemented initially as bus rapid transit (BRT) with the opportunity to convert to light rail transit (LRT) in the future.

This 18 km segment will form part of the 150 km long high-speed interregional facility planned to be ultimately constructed on a separate right-of-way that parallels Highway 407, from Burlington to Highway 35/115, with stations, parking and access connections. This transitway is a component of the official plans of the stakeholder municipalities and of the Province's commitment to support transit initiatives in the Greater Golden Horseshoe through the Metrolinx Regional Transportation Plan.

The transitway will be a high-speed fully grade separated facility on a separate right-of-way running parallel, and crossing over, or under, Highway 407. This 18 km section will potentially include transit stations at Markham Road, 9th Line, Donald Cousens Parkway/Reesor Road, Whites Road (Sideline 26) and Brock Road. The station design will include bus access to and egress from the stations, bus platforms, layout of the access(es) to/from the arterial road, integration with local transit (bus platforms), parking spaces, Public Pick Up and Drop Off (PPUDO), shelters, buildings and other amenities. The transitway and the stations will initially be designed to support the busway service, with provisions for future conversion to light-rail transit technology. The project limits are presented in Figure 1.

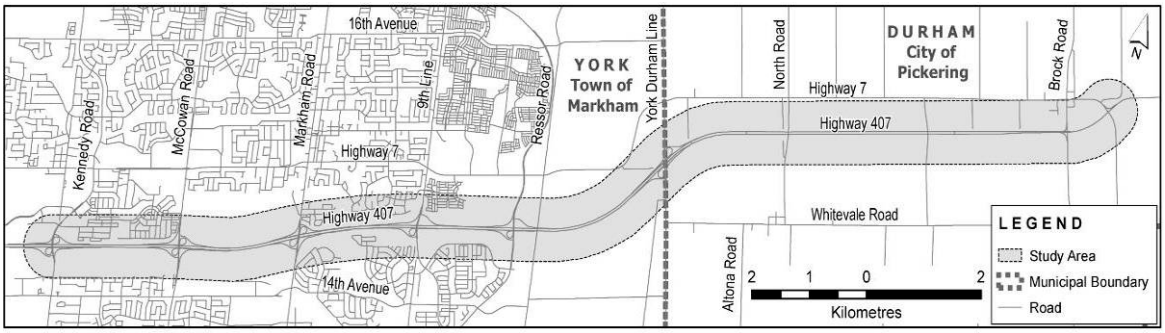


Figure 1. Key Plan of Study Area

The environmental impact of this transit project will be assessed according to the transit project assessment process as prescribed in Ontario Regulation 213/08, Transit Projects and Metrolinx Undertakings.

Generally the route follows the swath of vacant land associated with the highway corridor.

This report provides an inventory and general evaluation of the existing landscape composition and the aesthetic/visual conditions associated with the proposed transitway corridor and station sites. It must be noted that at the time of this report preparation and the preparation of Existing Landscape Composition Analysis drawings (Figures 2 to 14) the exact location of the transitway station sites had not been determined, therefore the station site descriptions do not focus on well defined boundaries.

The Landscape Composition, Recommended Landscape Composition Layout drawings (Drawings L1 to L25) provide a preliminary landscape planting layout for the transitway corridor and station sites.

Field work for this report was carried out in August 2014 and September 2015.

The report has been divided into the following station sites/corridor sections (heading in an easterly direction):

- West Terminus to McCowan Road
- McCowan Road to Markham Road Station
- Markham Road Station
- Markham Road Station to Ninth Line Station
- Ninth Line Station
- Ninth Line to Don Cousens Parkway Station
- Don Cousens Parkway Station
- Don Cousens Parkway Station to York Durham Line
- York Durham Line to Whites Road (Sideline 26) Station
- Whites Road (Sideline 26) Station
- Whites Road (Sideline 26) Station to Dixie Road/Rossland Road (Sideroad 22)
- Dixie Road/Rossland Road (Sideroad 22) to Brock Road Station
- Brock Road Station

GENERAL AESTHETICS

The transitway is to be constructed as a two lane roadway, dedicated to only BRT traffic and eventually LRT traffic. It will be constructed at/near existing grade except where it crosses over/under cross streets, interchange ramps, rail lines, and Highway 407. The route crosses over numerous stream channels including the topographically significant valleylands associated with the Rouge River and West Duffins Creek.

There are very limited views from the corridor to the north and south due to relatively flat geography of the area and the surrounding development. The most significant views are available to the east and west along the Highway 407 corridor.

One of the most significant visual elements along the route is the overhead Hydro transmission lines. Three parallel transmission lines extend along most of the proposed transitway route.

The visual character/aesthetics of each site will be discussed in more detail in the analysis of the individual portions of the proposed transitway.

The following portion of the report focuses the analysis of the woody vegetation communities and visual elements along the proposed transitway route. At this stage of the study the transitway is still in the preliminary design phase, therefore the route may change slightly as the design progresses.

TRANSITWAY CORRIDOR/STATION SITE DESCRIPTIONS

This is a description of the various components of the transitway (corridor sections and potential station sites) starting at the west end of the route. Figures 2 to 13 provide a very general mapping of the site analysis.

West Terminus to McCowan Road

General Location and Surrounding Land Uses:

This section of the proposed route of the transitway extends approximately 2.0 kilometers along the south side of Highway 407.

The transitway route is located in a wide swath of vacant land that parallels the highway. This area of vacant land is flanked to the south by an additional wide strip of undeveloped lands associated with the Hydro overhead utility corridor. The east section of the hydro corridor, near McCowan Road, is occupied by the Cresthaven Golf Course.

A CN rail line is located along south side of the hydro utility corridor and beyond the rail lands is a residential subdivision extending the entire length between Kennedy Road and McCowan Road.

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway are occupied by residential subdivisions.

Visual Character/Impacts of the Corridor:

This section of the proposed transitway is well screened from surrounding development. The only visually sensitive land uses with visual access to the site are:

- Cresthaven Golf Course
- Two cemeteries located between the Hydro corridor and the CN rail line
- Residential subdivision on the north side of Highway 407 (partial visual access to transitway and visual access to the structure carrying the Transitway over the 407 from the Kennedy Station)

Existing Woody Vegetation:

The proposed corridor passes through an open area along the south side of Highway 407. There are no significant vegetation communities in this section of the proposed corridor.

Photograph #1: View of hydro corridor located along the south side of Highway 407 between Kennedy Road and McCowan Road.

Photograph #2: View looking east from Kennedy Road showing the proposed corridor for the transitway along the south side of Highway 407.

Photograph #3: Homes on the north side of Highway 407 with limited views towards the transit corridor.

Photograph #4: A group of mature trees located adjacent to the Cresthaven Golf Course in the vicinity of the potential station site on the west side of McCowan Road.

McCowan Road to Markham Road Station

General Location and Surrounding Land Uses:

This link between McCowan Road and the proposed Markham Road Station is approximately 1.7 kilometres in length. The proposed route follows the south side of Highway 407.

The transitway route along the south side of Highway 407 is located in a wide swath of vacant land that parallels the highway. This area of vacant land is flanked to the south by an additional wide strip of undeveloped lands associated with the Hydro overhead utility corridor. These lands are also vacant/undeveloped, typical of all hydro transmission line corridor lands.

The CN rail line is located along south side of the hydro utility corridor and beyond the rail lands are agricultural fields and some industrial/commercial buildings.

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway are undeveloped, and include woodland areas, vacant lands and some agricultural fields.

Visual Character/impact of the Site:

The west section of this stretch of the proposed transitway route is located on/beside a low wooded ridge running along the south side of the Highway 407. The eastern section is relatively flat.

Visual access to the proposed transitway is very limited except for the highway 407 traffic. The land uses to the south, beyond the CN rail lands are not visually sensitive (agricultural fields, industrial/commercial buildings) and do not have visual access to the transit corridor.

The lands to the north of Highway 407 are not visually sensitive (wooded, agricultural fields and vacant lands). These lands are separated from the highway by a grass berm.

Existing Woody Vegetation:

The only existing vegetation that could be impacted by the proposed transitway is:

- A remnant wooded area located along the south side of Highway 407 (west end of this section of corridor)

Photograph #5: A wooded area located along the proposed route of the transitway between McCowan Road and Markham Road.

Photograph #6: Vacant lands along the proposed route of the transitway approaching Markham Road.

Markham Road Station Site

General Location and Surrounding Land Uses:

The potential station site is located on the south side of the Highway 407 corridor in the area of the Markham Road interchange (west side of Markham Road).

The potential station located in the south-west quadrant of the interchange will be located in a flat area of vacant land adjacent to the south side of Highway 407.

The existing land uses surrounding this potential station site include:

- North – Highway 407 and vacant lands (north side of highway)
- East – Highway 407/Markham Road interchange
- South – Hydro corridor, CN rail line, hydro sub-station
- West – vacant lands

Visual Impacts of the Station Site:

Visual impacts of the station site in the south-west quadrant of the Hwy 407/Markham Road interchange:

- There are no visually sensitive land uses with visual access to this site.

Existing Woody Vegetation:

The Highway 407/Markham Road interchange area has not received any landscape planting.

The existing vegetation that will be impacted by the station site located in the south-west quadrant of the interchange area will be:

- a small remnant wooded area

Photograph #7: A view of mature vegetation located on the potential station site on the west side of Markham Road.

Markham Road Station to Ninth Line Station

General Location and Surrounding Land Uses:

This link between the proposed Markham Road Station and Ninth Line Station site is approximately 1.9 kilometres in length. The proposed route follows the south side of Highway 407.

The transitway route along the south side of Highway 407 is located in a wide swath of vacant land that parallels the highway. This area of vacant land is flanked to the south by a variety of land uses including:

- Vacant lands
- Residential subdivisions
- Wooded valleylands associated with the Rouge River
- Markham Green Golf Course (in the valleyland area)

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway include:

- Vacant lands
- Residential subdivisions
- Wooded valleylands associated with the Rouge River

Visual Character/impact of the Corridor:

This section of the proposed transit corridor passes across the wooded Rouge River valleylands.on the south side of Highway 407. The transit corridor will have a visual impact on the Markham Green Golf Course.

The remainder of the route of the corridor will be buffered from surrounding subdivisions to the south side by existing vegetation, local topography and a grassed berm.

The residential subdivisions located on the north side of Highway 407 to the east and west of the Rouge River valley, do not have visual access to the transit corridor route.

Existing Woody Vegetation:

The existing vegetation that will be impacted by the proposed transitway will be:

- Mixed mature woodlands in the Rouge River valley
- A row of scattered mature trees located along the slope on south side of Highway 407, east of the Rouge River valleylands
- Scattered pioneer species trees in the vacant lands west of Ninth Line.

Photograph #8: A residential subdivision located beside the proposed transit corridor on the east side of Markham Road.

Photograph #9: View of wooded area along the proposed transitway route on the west side of the Rouge River valleylands.

Photograph #10: Some scattered mature trees located along the proposed transitway route on the east side of the Rouge River valleylands.

Ninth Line Station Site

General Location and Surrounding Land Uses:

The proposed station site is located on the south side of the Highway 407 corridor in the area of the Ninth Line interchange (west side of Ninth Line).

This proposed station located in the south-west quadrant of the interchange will be located in a flat area of vacant land adjacent to the south side of Highway 407.

The existing land uses surrounding this potential station site include:

- North – Highway 407 and residential subdivison (north side of highway)
- East – Highway 407/Ninth Line interchange
- South – Residential subdivision
- West – vacant lands and a residential subdivision (beyond vacant lands)

Visual Character/impact of the Site:

Visual impacts of the station site in the south-west quadrant of the Hwy 407/Ninth Line interchange:

- The subdivision to the south of the site will be visually impacted by the site
- The subdivision to the west may be visually impacted by the site (a buffer land use may be constructed in the vacant lands located between subdivision and the station site).

Existing Woody Vegetation:

The Highway 407/Ninth Line interchange area has not received any landscape planting.

The existing vegetation that will be impacted by the station site located in the south-west quadrant of the interchange area will be:

- some scattered young pioneer trees including Russian Olive (elaeagnus angustifolia), Black Locust (robinia pseudoacacia), Manitoba Maple (acer negundo) and Poplar (populus sp.)

Photograph #11: A view of the potential station site on the west side of Ninth Line showing adjacent residential subdivision.

Ninth Line Station to Don Cousens Parkway Station

General Location and Surrounding Land Uses:

This link between the proposed Ninth Line Station and Don Cousens Parkway Station sites is approximately 1.5 kilometres in length. The proposed route follows the south side of Highway 407.

The transitway route along the south side of Highway 407 is located in a swath of vacant land that parallels the highway. This area of vacant land is flanked to the south by a variety of land uses including:

- Vacant lands
- Retail plazas and commercial/industrial warehouses

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway include:

- Vacant lands
- Residential subdivisions
- Agricultural lands

Visual Character/Impacts of the Corridor:

The landscape through this section of the proposed transit corridor is relatively flat.

The residential subdivision, located on the north side of Highway 407, is well separated from the corridor by a large complex of storm water management ponds, and visually buffered from the highway by a large grassed berm.

On the south side of the Highway 407 corridor there is a residential subdivision and a commercial plaza. There is good visual access to the site from both of these land uses, however these homes will soon be buffered by a row of commercial buildings scheduled for construction in the area between them and the proposed transit corridor.

Existing Woody Vegetation:

The existing vegetation that willbe impacted by the proposed transitway will be:

- A narrow strip of mature trees including Black Locust (robinia pseudoacacia) and Norway Spruce (picea abies) located along the south side of Highway 407, east of the at the east end of this section of the corridor.

Photograph #12: A residential subdivision the south side of Highway 407, east of Ninth Line with views over the proposed transitway corridor.

Photograph #13: A retail outlet located to the west of Don Cousens Parkway with views to the proposed transitway corridor.

Don Cousens Parkway Station Site

General Location and Surrounding Land Uses:

The potential station site is located in the south-east quadrant of the Don Cousens Parkway interchange. This site is located in a flat agricultural field.

The existing land uses surrounding the site in the south-east quadrant of the interchange area include:

- North – Highway 407/Don Cousens Parkway interchange area
- East – Reesor Road and agricultural fields
- South – agricultural fields, vacant lands and a farm complex
- West – Highway 407/Don Cousens Parkway interchange area

Visual Character/Impacts of the Site:

Visual impacts of the potential station site in the south-east quadrant of the Hwy 407/Don Cousens Parkway interchange:

- The farm complex located to the south of the site will be visually impacted by this site

Existing Woody Vegetation:

The Highway 407/Don Cousens Parkway interchange area has not received any landscape planting.

The existing vegetation that will be impacted by the station site located in the south-east quadrant of the interchange area will be:

- A small remnant deciduous wooded area
- Some mature deciduous trees located in hedgerows
- Some scattered mature deciduous trees along Reesor Road frontage

Photograph #14: A view of the vacant lands located on the site of the potential station site on the east side of Don Cousens Parkway.

Don Cousens Parkway Station to York Durham Line

General Location and Surrounding Land Uses:

This link between the proposed Don Cousens Parkway Station and York Durham Line is approximately 2.5 kilometres in length. The proposed route follows the south side of Highway 407. The proposed transitway route will cross over a CP rail line and Little Rouge Creek and its wooded valleylands.

This entire section of the transitway corridor crosses through lands identified as part of the Rouge National Urban Park. The national urban park's mandate for these lands is to protect natural heritage, cultural heritage, and agricultural heritage.

The proposed transitway route is located in a swath of vacant/natural regeneration lands that parallels the south side of the highway. This area is flanked to the south by a variety of land uses including:

- Vacant/natural regeneration lands
- Wooded valleylands associated with Little Rouge Creek
- Agricultural lands

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway include:

- Vacant lands/natural regeneration lands
- Wooded valleylands associated with Little Rouge
- Agricultural lands
- A farm complex and several rural residences.

Visual Character/Impacts of the Corridor:

This section of the proposed transitway corridor is surrounded by agricultural lands, vacant lands and the valleylands associated with Little Rouge Creek. The general topography of the area is flat. The only variation in the local terrain is the Highway 407 embankment, constructed to carry the highway over the CP rail line.

The only visually sensitive land uses in the area include a farm complex and a group of rural residences located north of Highway 407. The farm does not have any views of the route and the rural residences may have some distant views partially obscured by existing tree cover.

Existing Woody Vegetation:

The existing vegetation that will be impacted by the proposed transitway will be:

- The wooded area located along the Little Rouge Creek valleylands
- A small woodlot remnant located close to the York Durham line interchange
- Several hedgerows defining agricultural fields

Photograph #15: A view looking west along the proposed transitway corridor site from Reesor Road with the CP rail line underpass in the distance.

Photograph #16: Looking east along the proposed transitway corridor between Reesor Road and York Durham Line showing some scattered pioneer trees.

Photograph #17: Looking west showing vacant/natural regeneration lands along the proposed transitway corridor west of York Durham Line.

Photograph #18: Some scattered mature trees on the west side of York Durham Line.

Photograph #19: Some scattered mature trees and vacant lands on the east side of York Durham Line.

York Durham Line to Whites Road (Sideline 26) Station

General Location and Surrounding Land Uses:

This link between York Durham Line and the proposed Whites Road (Sideline 26) Station sites is approximately 3.5 kilometres in length. The proposed route follows the south side of Highway 407. The route crosses over West Duffins Creek and its wooded valleylands and North Road.

The proposed transitway route is located in a swath of vacant land that parallels the highway. This area of vacant land is flanked to the south by a variety of land uses including:

- Vacant lands
- Wooded valleylands associated with West Duffins Creek
- Agricultural lands

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway include:

- Wooded valleylands associated with West Duffins Creek
- Agricultural lands

Visual Character/Impacts of the Corridor:

This section of the proposed transitway corridor is surrounded by agricultural lands, vacant lands and the valleylands associated with West Duffins Creek. The general topography of the area is flat.

There are no visually sensitive land uses in the vicinity of the proposed transit corridor.

Existing Woody Vegetation:

The existing vegetation that will be impacted by the proposed transitway will be:

- The wooded area located along the West Duffins Creek valleylands
- Several hedgerows defining agricultural fields.

Photograph #20: Vacant lands associated with the proposed transitway corridor east of York Durham Line.

Photograph #21: Vacant lands associated with the proposed transitway corridor east of York Durham Line.

Whites Road (Sideline 26) Station Site

General Location and Surrounding Land Uses:

The proposed Whites Road (Sideline 26) station will be located on the south side of the Highway 407 corridor. The area is relatively flat. The site is occupied by agricultural fields

The existing land uses surrounding the proposed station site located on the south side of Highway 407 include:

- North – Highway 407
- East – agricultural fields
- South – agricultural fields and a woodlot
- West – agricultural fields and a woodlot

Visual Character/Impacts of the Site:

This proposed station site is surrounded by agricultural fields and wooded areas. The general topography of the area is flat.

Visual impacts of the potential station site:

- There are no visually sensitive land uses in the immediate area

Existing Woody Vegetation:

There is a wooded hedgerow on the site.

Photograph #22: A view of the vacant lands/agricultural fields on the potential Whites Road Station site.

Whites Road (Sideline 26) Station to Dixie Road/Rossland Road (Sideroad 22)

General Location and Surrounding Land Uses:

This link between the proposed Whites Road (Sideline 26) Station and Dixie Road/Rossland Road (Sideroad 22) sites is approximately 1.5 kilometres in length. The proposed route follows the south side of Highway 407.

The proposed transitway route is located in a swath of vacant land that parallels the highway. This area of vacant land is flanked to the south by a variety of land uses including:

- Vacant/wooded lands
- Agricultural lands

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway include:

- Several small woodlots
- Agricultural lands

Visual Character/Impacts of the Corridor:

This section of the proposed transitway corridor is surrounded by agricultural lands and small remnant wooded areas. The general topography of the area is flat. The only variation in the local terrain is the Sideroad 24 embankment, constructed to carry the sideroad over Highway 407.

Visual impacts of the transitway corridor;

- There are no visually sensitive land uses in the immediate area,

Existing Woody Vegetation:

The existing vegetation that will be impacted by the proposed transitway will be:

- A small remnant woodlot
- Several hedgerows defining agricultural fields

Photograph #23: A remnant wooded area along the proposed transitway corridor east of the Whites Road Station site.

Photograph #24: Looking west from Sideroad 24 along the proposed transitway corridor route.

Dixie Road/Rossland Road (Sideroad 22) to Brock Road Station

General Location and Surrounding Land Uses:

This link between the proposed Dixie Road/Rossland Road (Sideroad 22) Station to Brock Road Station sites is approximately 1.5 kilometres in length. The proposed route follows the south side of Highway 407. This section of the proposed transitway corridor will cross over Urfe Creek and a tributary of East Duffins Creek. Both stream channels have extensive wooded valleylands.

The proposed transitway route is located in a swath of vacant/wooded land that parallels the highway. The proposed corridor is flanked to the south by a variety of land uses including:

- Vacant/wooded lands
- Urfe Creek valleylands and the tributary of East Duffins Creek valleylands (wooded)
- Agricultural lands

Highway 407 is located on the north side of the proposed transitway corridor. The lands along the north side of the highway include:

- Vacant/wooded lands
- Urfe Creek valleylands and the tributary of East Duffins Creek valleylands (wooded)
- Agricultural lands

Visual Character/Impacts of the Corridor:

This section of the proposed transitway corridor is surrounded by agricultural lands and wooded areas. The general topography of the area is flat. The only slight variation in the local terrain are the valleylands associated with Urfe Creek and the tributary of East Duffins Creek

Visual impacts of the transitway corridor;

- There are no visually sensitive land uses in the immediate area.

Existing Woody Vegetation:

The existing vegetation that could be impacted by the proposed transitway will be:

- The wooded valleylands associated with Urfe Creek
- The wooded valleylands associated with the tributary of East Duffins Creek
- A wooded area

Photograph #25: Looking east from Sideroad 24 along the proposed transitway corridor.

Brock Road Station Site

General Location and Surrounding Land Uses:

The proposed site of the Brock Road Station will be located in the south-west quadrant of the Highway 407/Brock Road interchange. The area is slightly undulating, sloping gently towards the East Duffins Creek valleyland located to the east of the site. The site is occupied by a tributary of East Duffins Creek, agricultural fields, and an extensive area of natural regeneration populated by a variety of pioneer tree/shrub species.

The existing land uses surrounding the proposed station site located include:

- North – Highway 407/Brock Road
- East – Brock Road (new alignment) with vacant/wooded lands and agricultural fields beyond
- South – agricultural fields, a small woodlot and a wooded hedgerow
- West – wooded valleylands associated with the tributary of East Duffins Creek, agricultural fields and a wooded hedgerow

Visual Character/Impacts of the Site:

This proposed station site is surrounded by mature vegetation, agricultural fields and wooded areas. The site is well screened from the surrounding rural landscape. The general topography is gently rolling.

Visual impacts of the potential station site:

- There are no visually sensitive land uses in the immediate area

Existing Woody Vegetation:

The proposed Brock Road Station site has a variety of vegetation including:

- a large wooded area along the banks of the tributary of East Duffins Creek
- wooded hedgerows
- a large area of natural regeneration

CONCLUSIONS

In general, the route of the proposed transitway follows a strip of land along the south side of the Highway 407 corridor. This corridor is mostly vacant lands where evidence on natural regeneration of pioneer tree species is starting to occur. There are a few small remnant wooded areas located along the proposed transitway corridor route. The most significant wooded areas are located in the valleyland areas associated with the Rouge River, Little Rouge Creek, West Duffins Creek and Urfe Creek. There are also numerous meadows, riparian corridors and wetlands that add to the value of landscape diversity along the corridor.

The proposed Rouge National Urban Park site located between Donald Cousens Station and York Durham Line is a distinguishing feature along the corridor and will require special attention when landscape mitigation plans are prepared. The unique circumstances of the park will require a tailored approach to restore the local ecosystems, reflecting the biodiversity of the site.

The visual impacts of the proposed transitway corridor and station sites will be changing over time as new urban development is constructed in the vicinity of the route.
At the time of this survey urban development extends as far east as Don Cousens Parkway.

Most of the surrounding urban developments are low rise, and therefore typically have limited views. The most visually sensitive land uses along the corridor are residential neighbourhoods. Other sensitive land uses include two golf courses, a few rural residences, an office building and farm complexes.

Visual impacts from the proposed undertaking from these sensitive land uses will vary seasonally as the existing woody vegetation communities are populated with deciduous species, allowing greater visual impacts during the winter months.

The valleylands are also sensitive to visual impacts as they either include or probably will include pedestrian trails. They are also

The proposed station sites are the areas of most visual concern as they will include station building and extensive parking lots.

Summary of Impacts of Proposed Station Sites			
#	**Station Site**	**Visual Impact***	**Impact on Existing Vegetation**
1	**Markham Road**	low	moderate
2	**Ninth Line (west)**	high	moderate
3	**Don Cousens Pkwy**	low	moderate
4	**Whites Road**	low	low
5	**Brock Road**	low	moderate
** visual impacts on visually sensitive land uses surrounding the site at the time of the survey*			

LANDSCAPE COMPOSITION RECOMMENDED PLANTING LAYOUT DRAWINGS

The Landscape Composition Recommended Planting Layout drawings (L1 – L25) for proposed transitway corridor and stations sites provide landscape plantings to mitigate impacts to the adjacent natural and cultural environment. These landscape plantings will also serve to provide ‘greening’ to the corridor, add tree canopy cover and add to the overall general aesthetics of the project in the context of the existing and proposed surrounding urban development and the natural landscape features.

It is recommended that an ecological approach to restoration planting is developed. This approach to restoration planting will help to recover natural self-sustaining ecosystems, or ecosystem components that support and contribute to the inherent natural biodiversity of the area. This approach will focus on the use on native species.

The landscape restoration planting will be developed providing for the following functional vegetation communities listed below. The location of the various planting schemes will depend on the local conditions of the site and surrounding land uses. The recommended landscape treatments are illustrated on the Landscape Composition Recommended Planting Layout drawings for the Transitway.

The Landscape Composition Recommended Planting Layout drawings (L1 to L25) provide a guide for the detailed landscape planting plans, to be developed during the detailed design stage of the project.

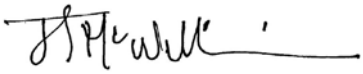
The plans focus on a number of different planting layouts that have been designed for a variety of situations including the following:

Woodland/Naturalization Planting: a mix of native deciduous trees, coniferous trees and shrubs
(plantings to be installed in areas where space is available for significant random planting initiatives)
Visual/Noise Screen Beside Wall: a mix of deciduous trees, coniferous trees, shrubs and vines
Visual/Noise Screen without Wall: a mix of deciduous trees, coniferous trees, and shrubs to be planted in a wide band
(plantings to be installed where space is available to provide a buffer between the transitway and surrounding sensitive land uses)
Rural Screen: a mix of coniferous trees, deciduous trees and shrubs
(plantings to be installed in more rural areas where space is available and visual receptors are located a reasonable distance from the transitway)
Shrub Massing: a mix of shrubs, perennials and ornamental grasses
(plantings to be installed in high profile locations including station site, gateways, high profile sites along the corridor)
Embankment/Slope Stabilization: a mix of coniferous trees, shrubs, and live stakes,
(plantings to be installed in scattered groups along steep banks beside the transitway corridor and stations)
Valley Restoration: a mix of native riparian plantings to meet Conservation Authority requirements *(plantings to be installed at valleyland crossings)*
Riparian Plantings: a mix of native riparian plantings to meet Conservation Authority requirements *(plantings to be installed at stream channel crossings)*
Storm Water Management: a mix of native riparian, emergent and submergent vegetation *(plantings to be installed around Storm Water Management Ponds)*
Wetland Restoration Plantings: restoration of wetland areas disturbed by construction activities. Restoration planting to reflect local ecosystem vegetation (*plantings to be installed along disturbed edge of transitway fill slopes*)
Forest Edge Management: a mix of locally native tree and shrub species to complement/match the adjacent vegetation communities
(plantings to be installed where the transitway passes beside disturbed woodland edge)

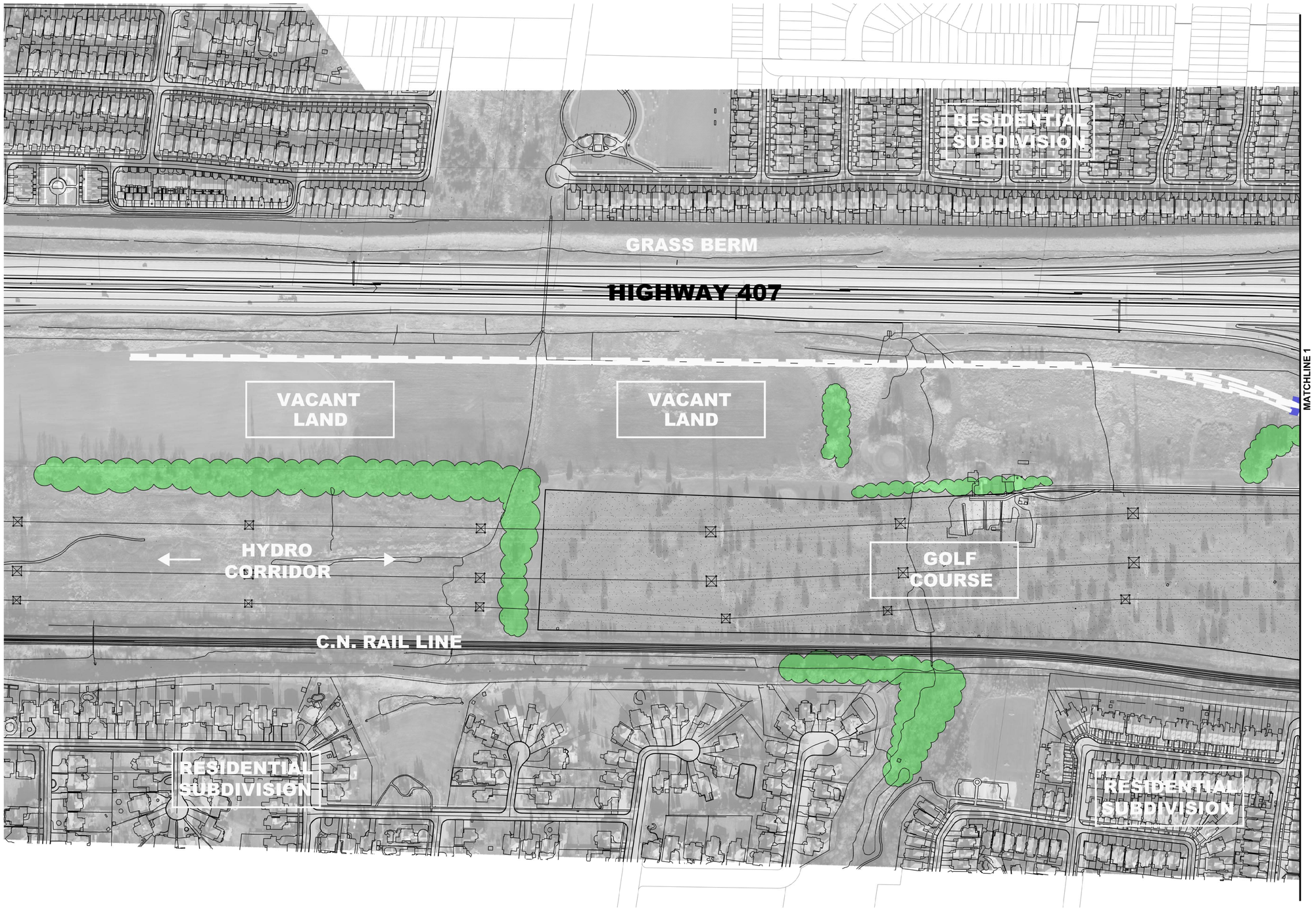
Preliminary planting plans have been provided for the station sites. These landscape designs are very preliminary in nature and will require a far greater level of detail once the station layouts have been finalized in the detailed design stage of the project.

These detailed landscape plans for the station sites can also take on an ecological approach in coordination with a more typical landscape design features.

Report prepared by:



James McWilliam, BES, BLA, OALA, CSLA, McWilliam & Associates



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

JAMES McWILLIAM
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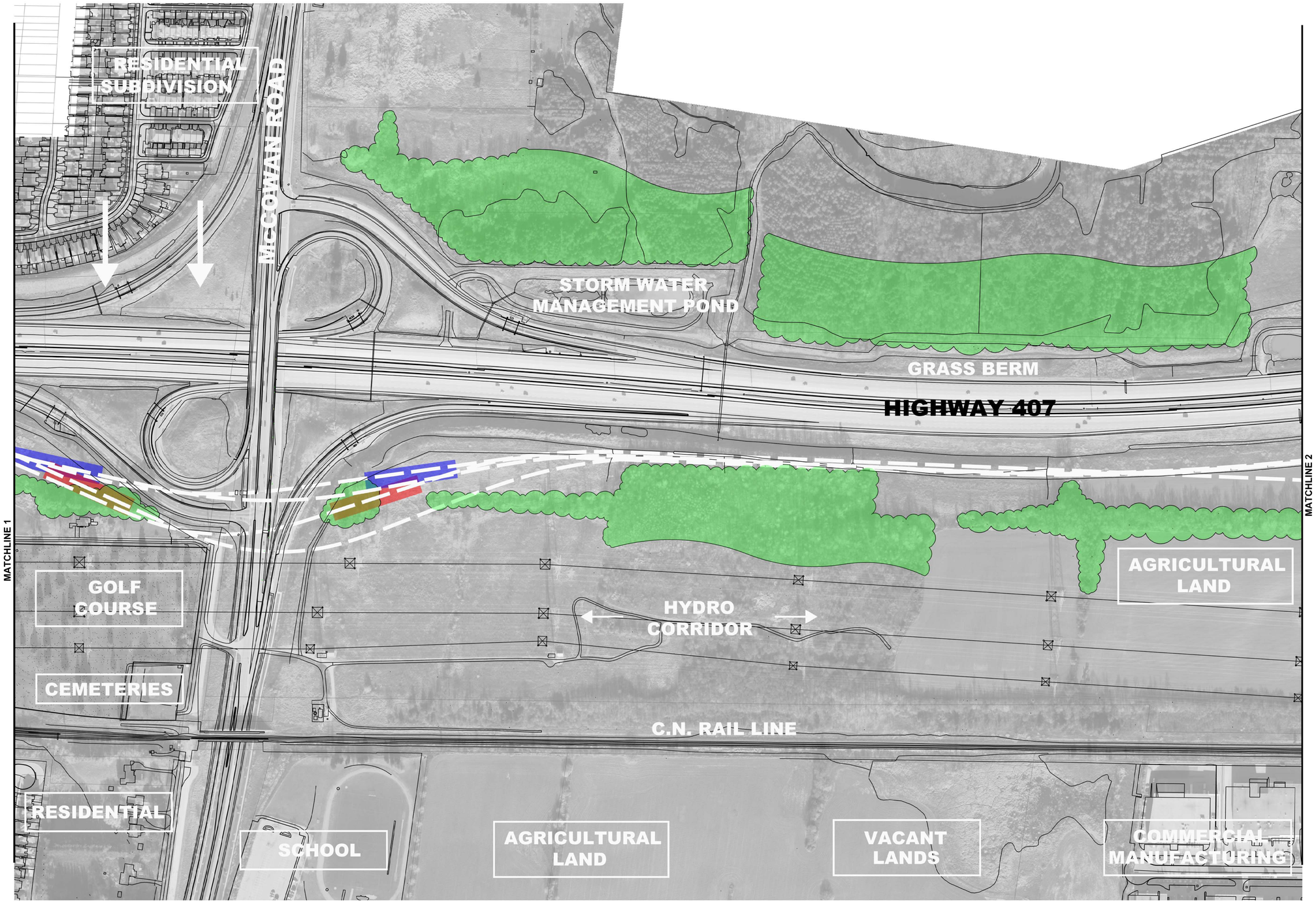
PROJECT
407 TRANSITWAY EAST EXTENSION KENNEDY ROAD TO BROCK ROAD

DRAWING
EXISTING LANDSCAPE COMPOSITION ANALYSIS

NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 2



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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EXISTING LANDSCAPE
COMPOSITION ANALYSIS

NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 3

LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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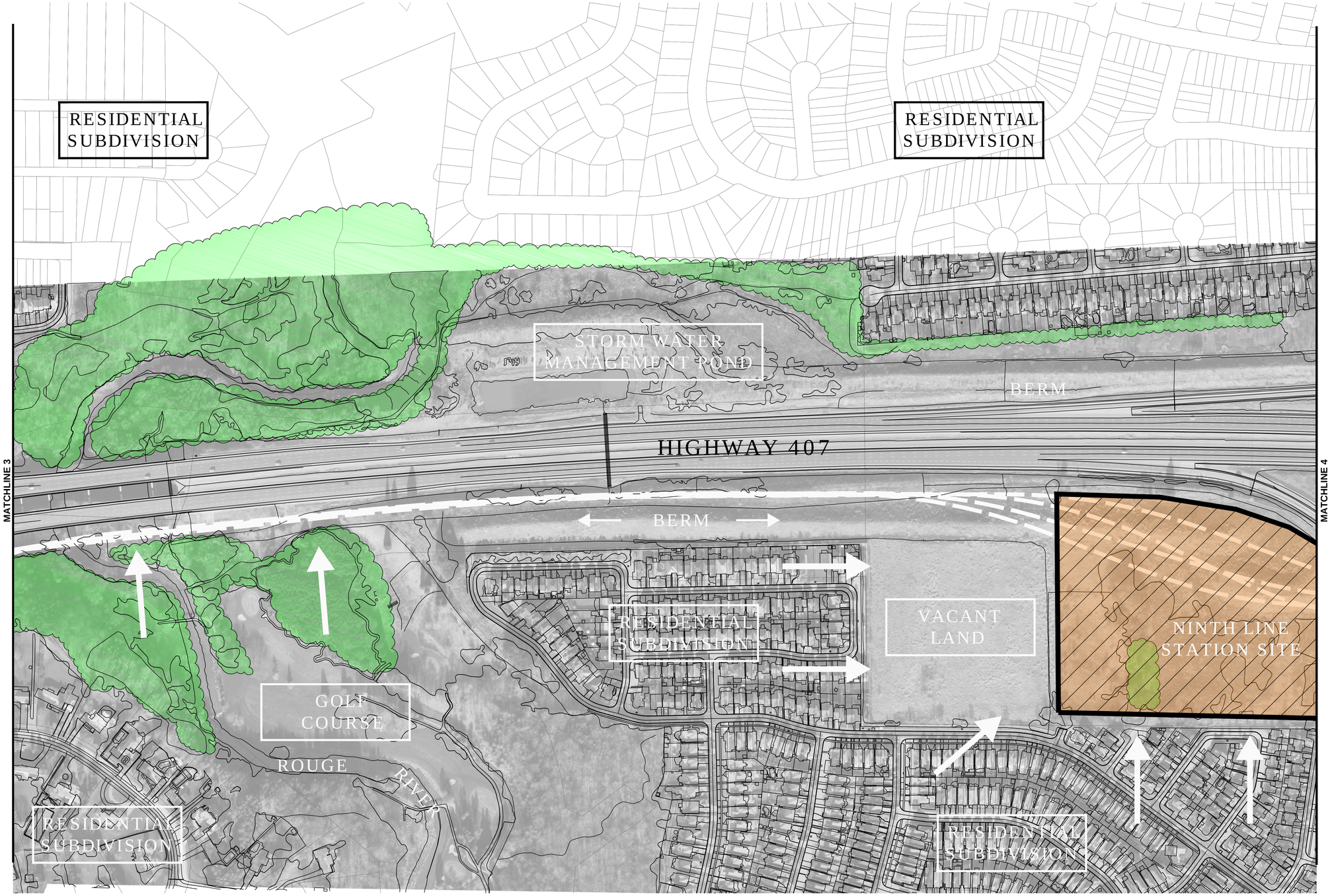
NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 4



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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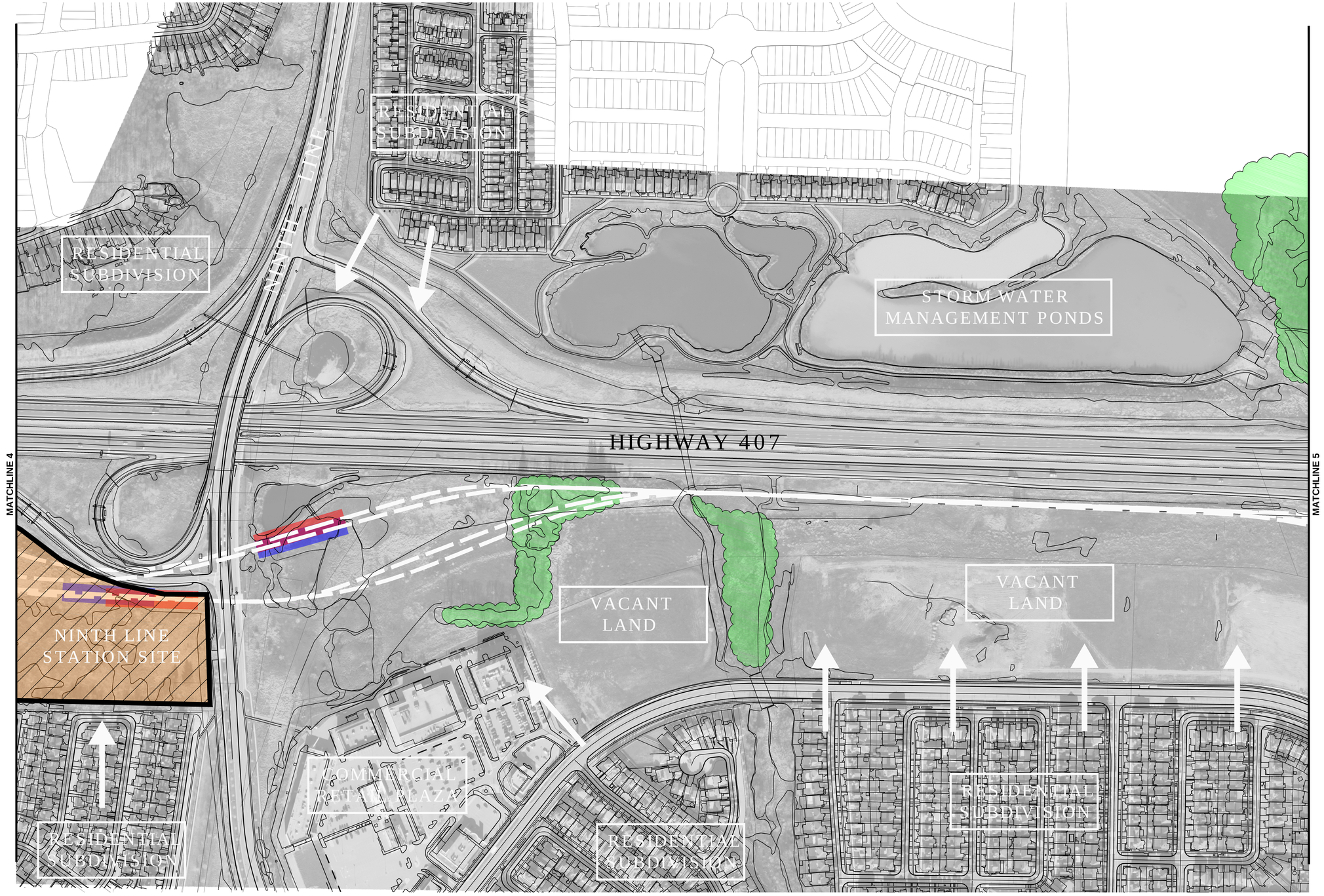
NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 5



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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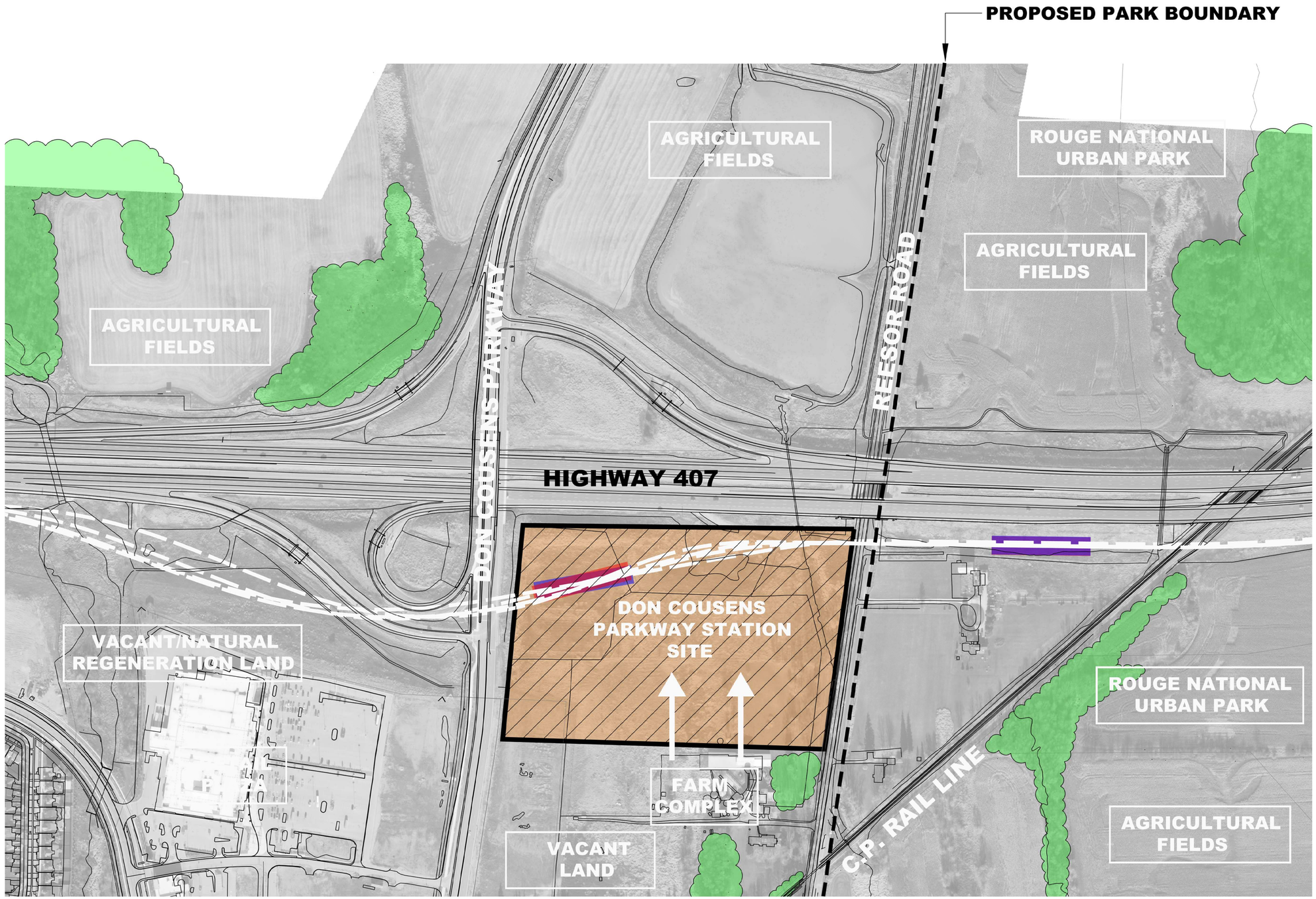
NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 6



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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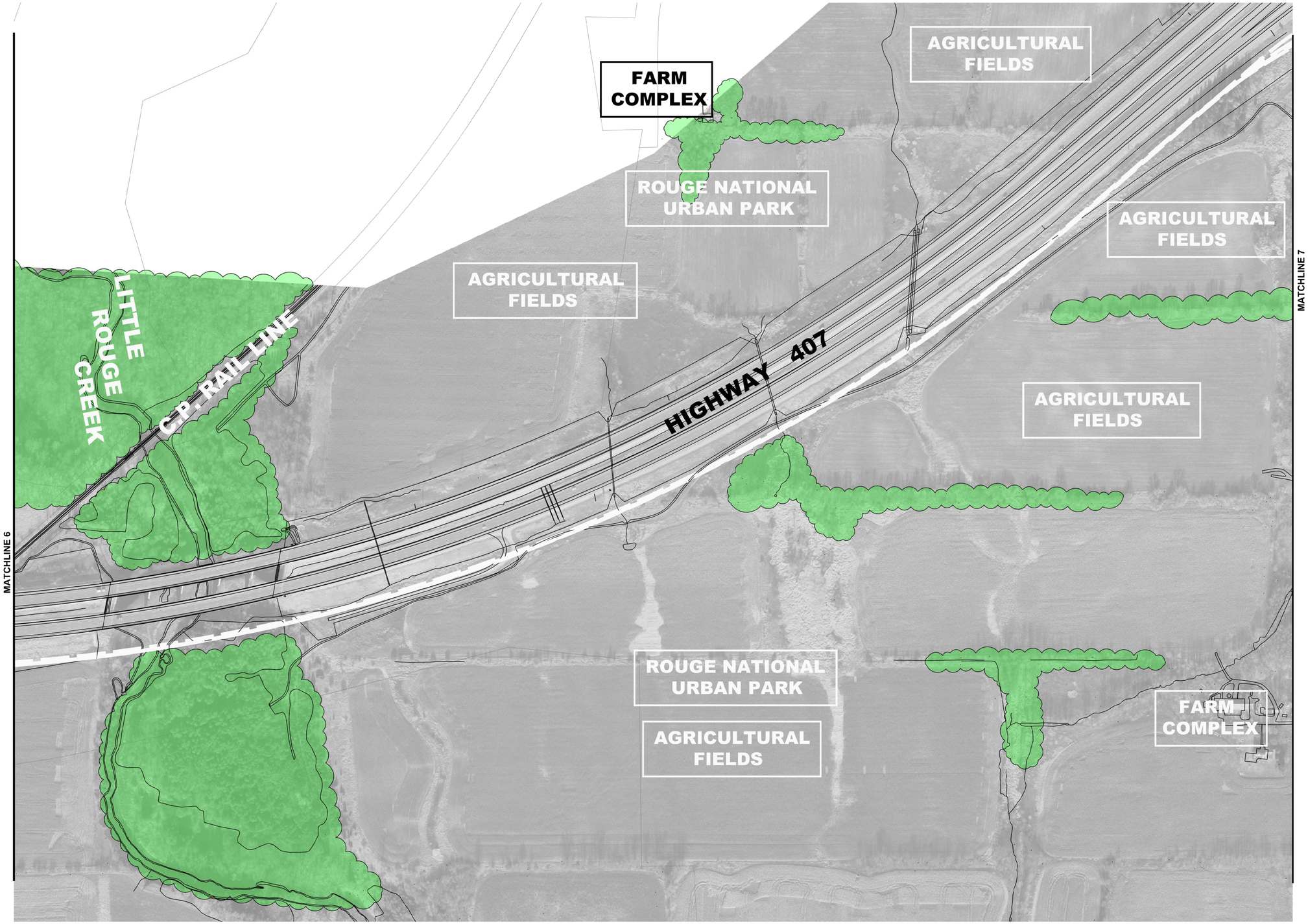
DRAWING
EXISTING LANDSCAPE
COMPOSITION ANALYSIS

NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 7



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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DRAWING
EXISTING LANDSCAPE
COMPOSITION ANALYSIS

NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 8

LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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DRAWING
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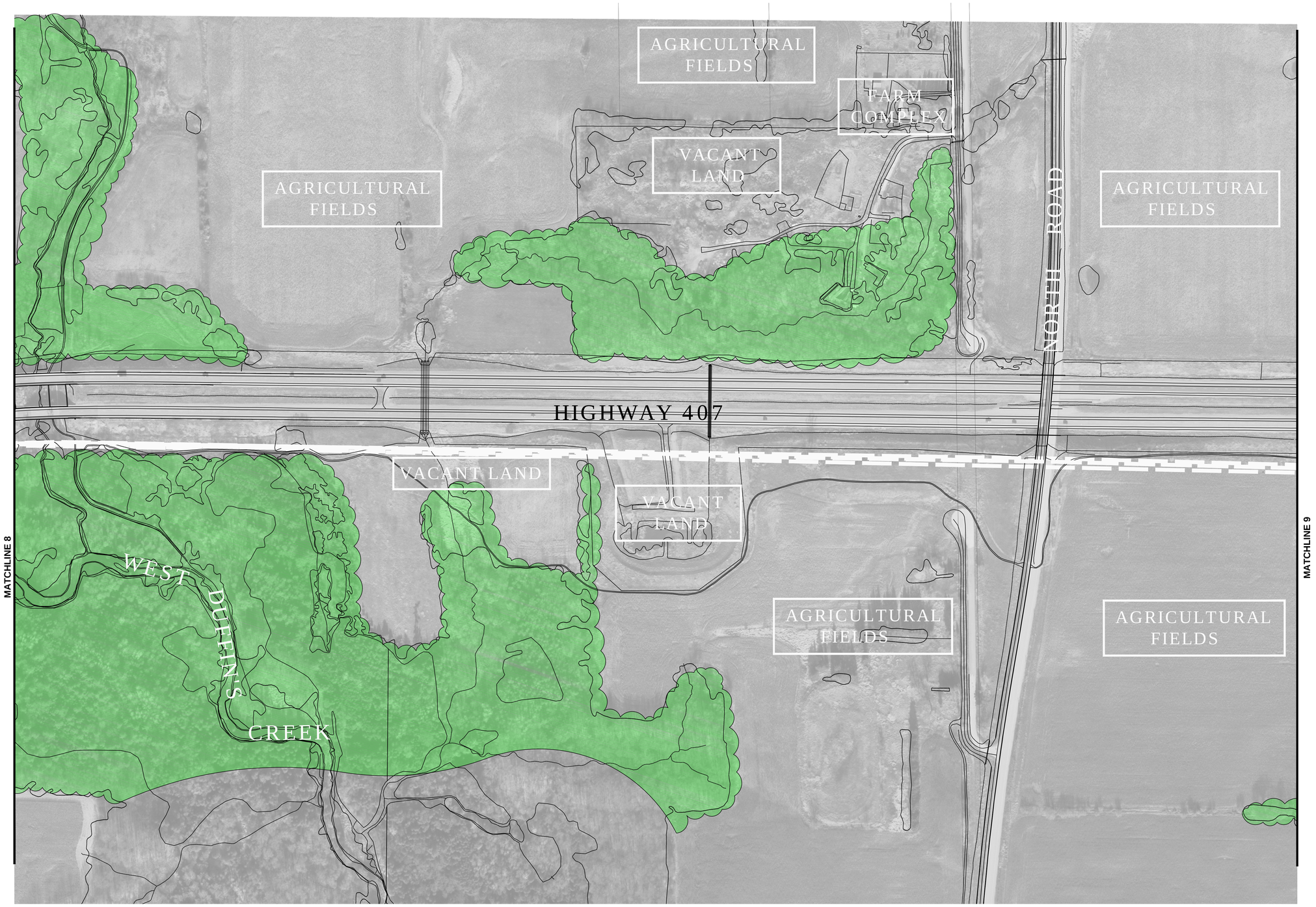
NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 9



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

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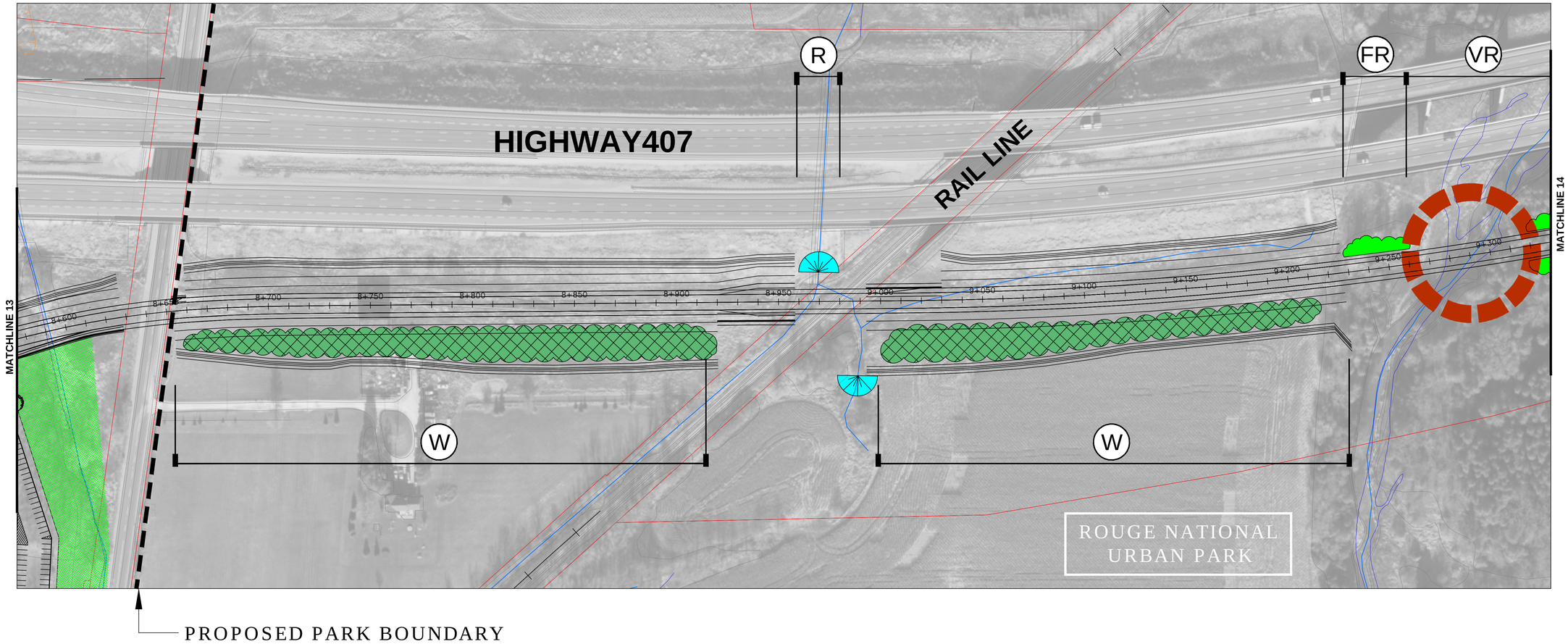
NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 10



NOTE:
WHERE TRANSITWAY CORRIDOR PASSES THROUGH ROUGE NATIONAL URBAN PARK LANDS
PROVIDE AN ECOLOGICAL APPROACH TO RESTORATION IN CONSULTATION WITH PARS CANADA

LEGEND

- B — EMBANKMENT/ SLOPE STABILIZATION
- VISUAL SCREEN (BESIDE WALL)
- SWP — STORMWATER MANAGEMENT POND
- V — VISUAL/NOISE SCREEN (WITHOUT WALL)
- RS — RURAL SCREEN
- W — WOODLAND PLANTING
- S — SHRUB MASSING
- FR — FOREST EDGE RESTORATION
- VR — VALLEY RESTORATION
- WR — WETLAND RESTORATION
- R — RIPARIAN PLANTING
- DECIDUOUS TREES
- CONIFEROUS TREES

NOTE:
SEE L25 FOR PLANTING LAYOUTS

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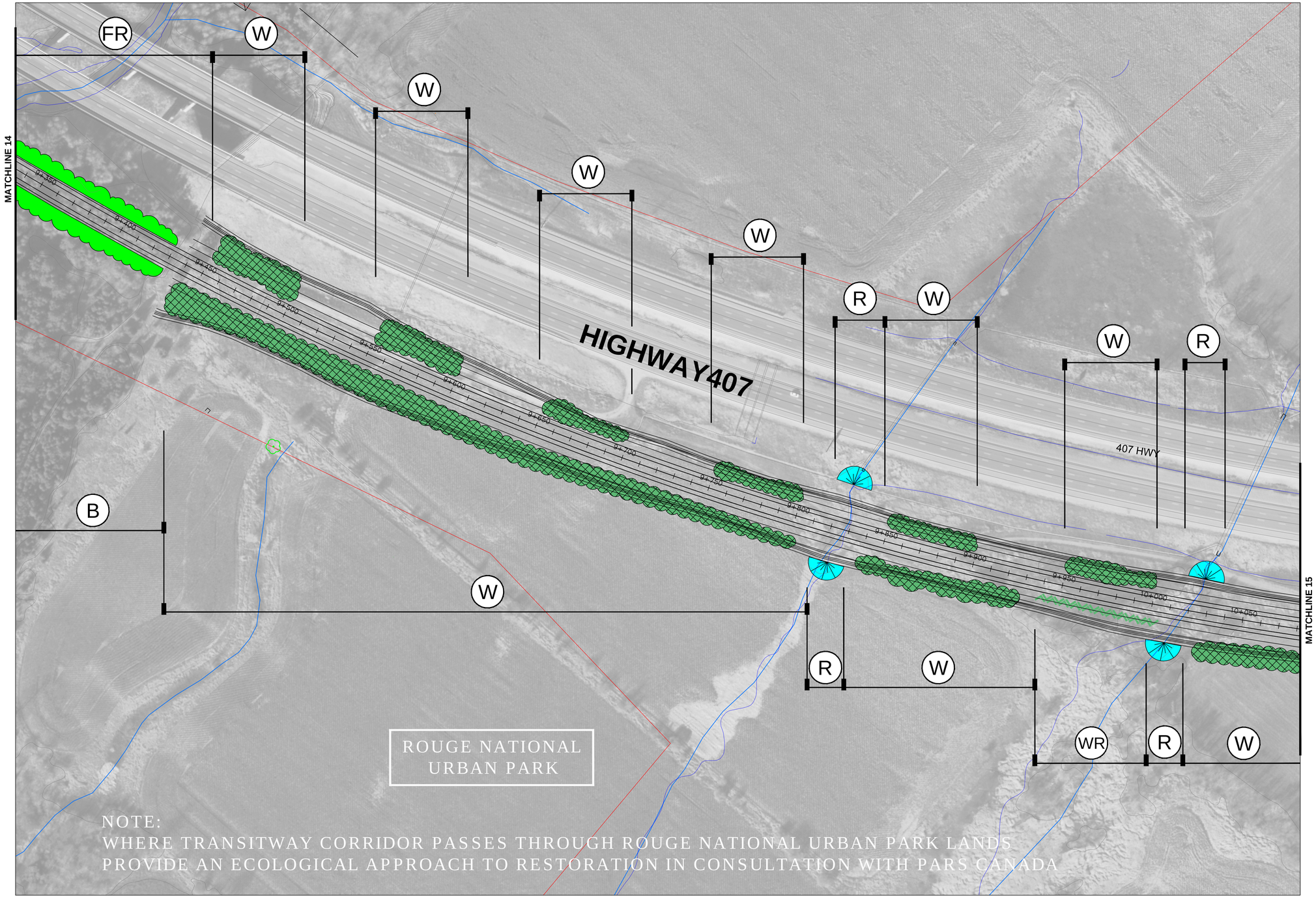
PROJECT
407 TRANSITWAY
EAST EXTENSION
KENNEDY ROAD TO BROCK ROAD

DRAWING
LANDSCAPE COMPOSITION
RECOMMENDED PLANTING LAYOUT

NORTH

SCALE:	1:1000
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	L11



LEGEND

- B — EMBANKMENT/ SLOPE STABILIZATION
- N — VISUAL SCREEN (BESIDE WALL)
- SWP — STORMWATER MANAGEMENT POND
- V — VISUAL/NOISE SCREEN (WITHOUT WALL)
- RS — RURAL SCREEN
- W — WOODLAND PLANTING
- S — SHRUB MASSING
- FR — FOREST EDGE RESTORATION
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- WR — WETLAND RESTORATION
- R — RIPARIAN PLANTING
- DECIDUOUS TREES
- CONIFEROUS TREES

NOTE:
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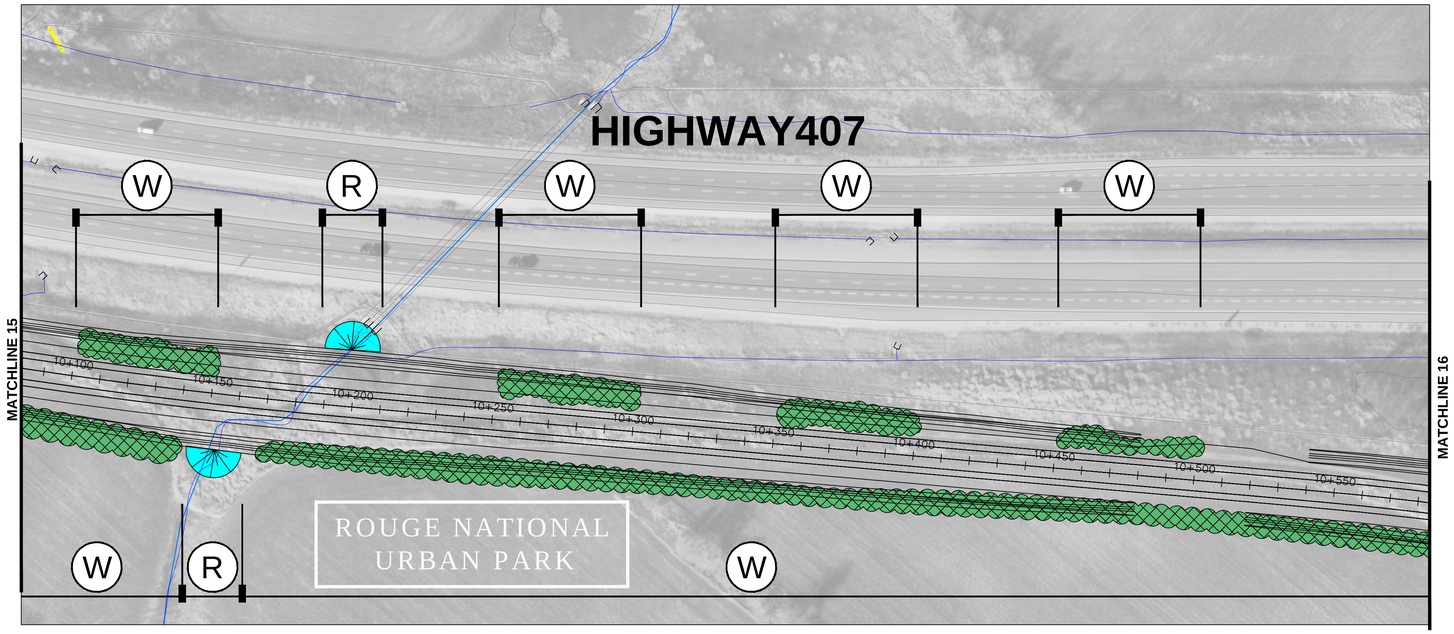
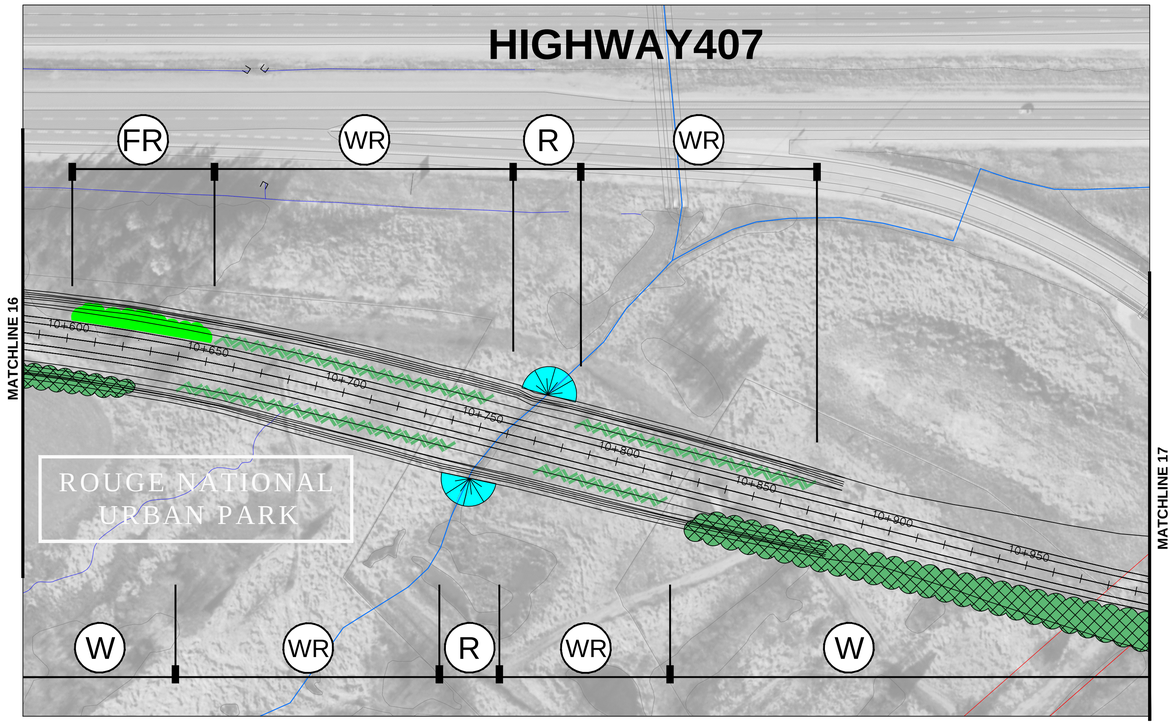
PROJECT
407 TRANSITWAY
EAST EXTENSION
KENNEDY ROAD TO BROCK ROAD

DRAWING
LANDSCAPE COMPOSITION
RECOMMENDED PLANTING LAYOUT

NORTH

SCALE:	1:1000
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	L12





NOTE:
WHERE TRANSITWAY CORRIDOR PASSES THROUGH ROUGE NATIONAL URBAN PARK LANDS PROVIDE AN ECOLOGICAL APPROACH TO RESTORATION IN CONSULTATION WITH PARS CANADA

LEGEND

- B — EMBANKMENT/ SLOPE STABILIZATION
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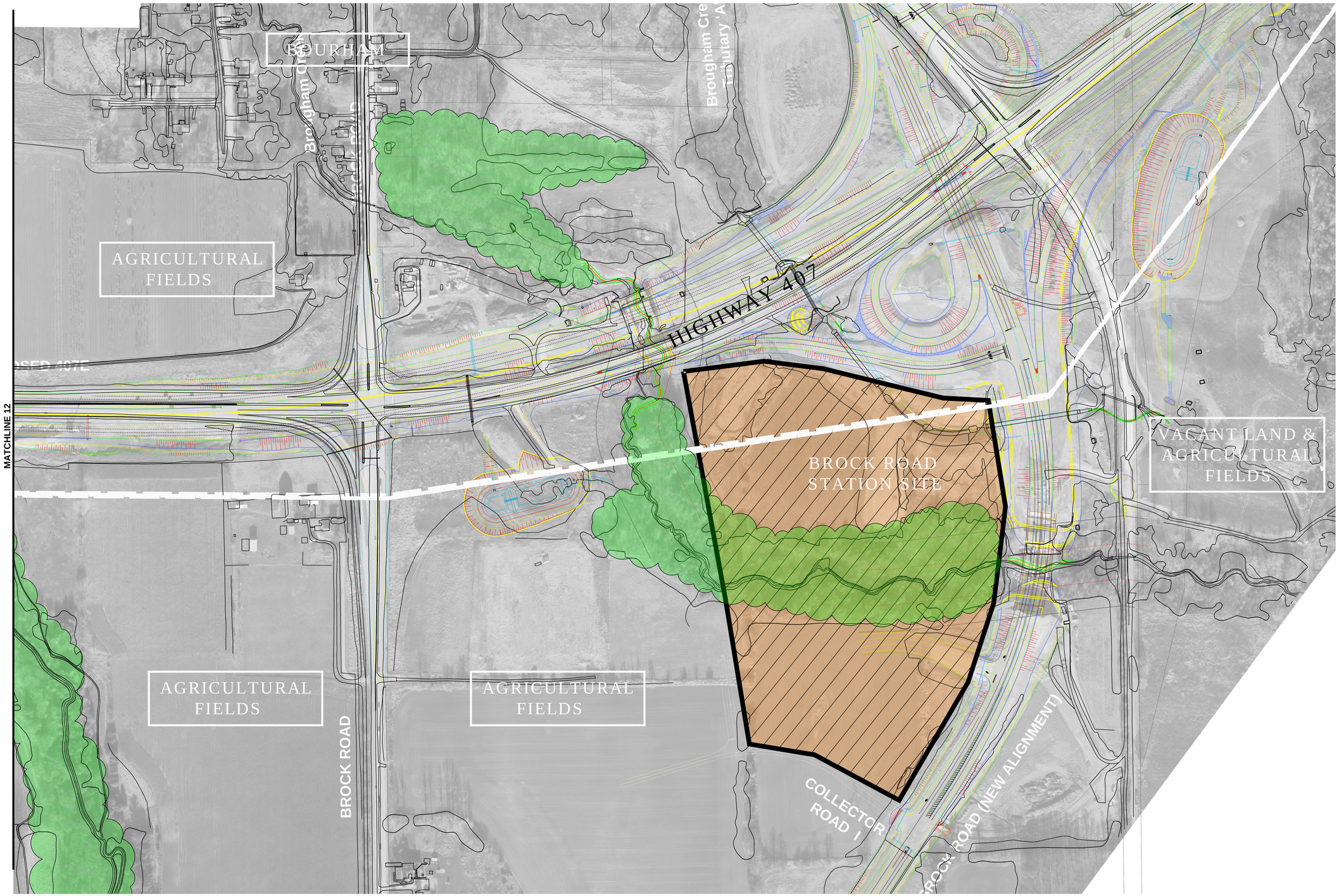
PROJECT
407 TRANSITWAY
EAST EXTENSION
KENNEDY ROAD TO BROCK ROAD

DRAWING
LANDSCAPE COMPOSITION
RECOMMENDED PLANTING LAYOUT

NORTH

SCALE:	1:1000
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	L13



LEGEND

POTENTIAL STATION SITE

PROPOSED TRANSITEWAY ROUTE(S)

EXISTING MATURE TREE COVER (APPROXIMATE)

VIEWS FROM VISUALLY SENSITIVE LAND USES

JAMES McWILLIAM
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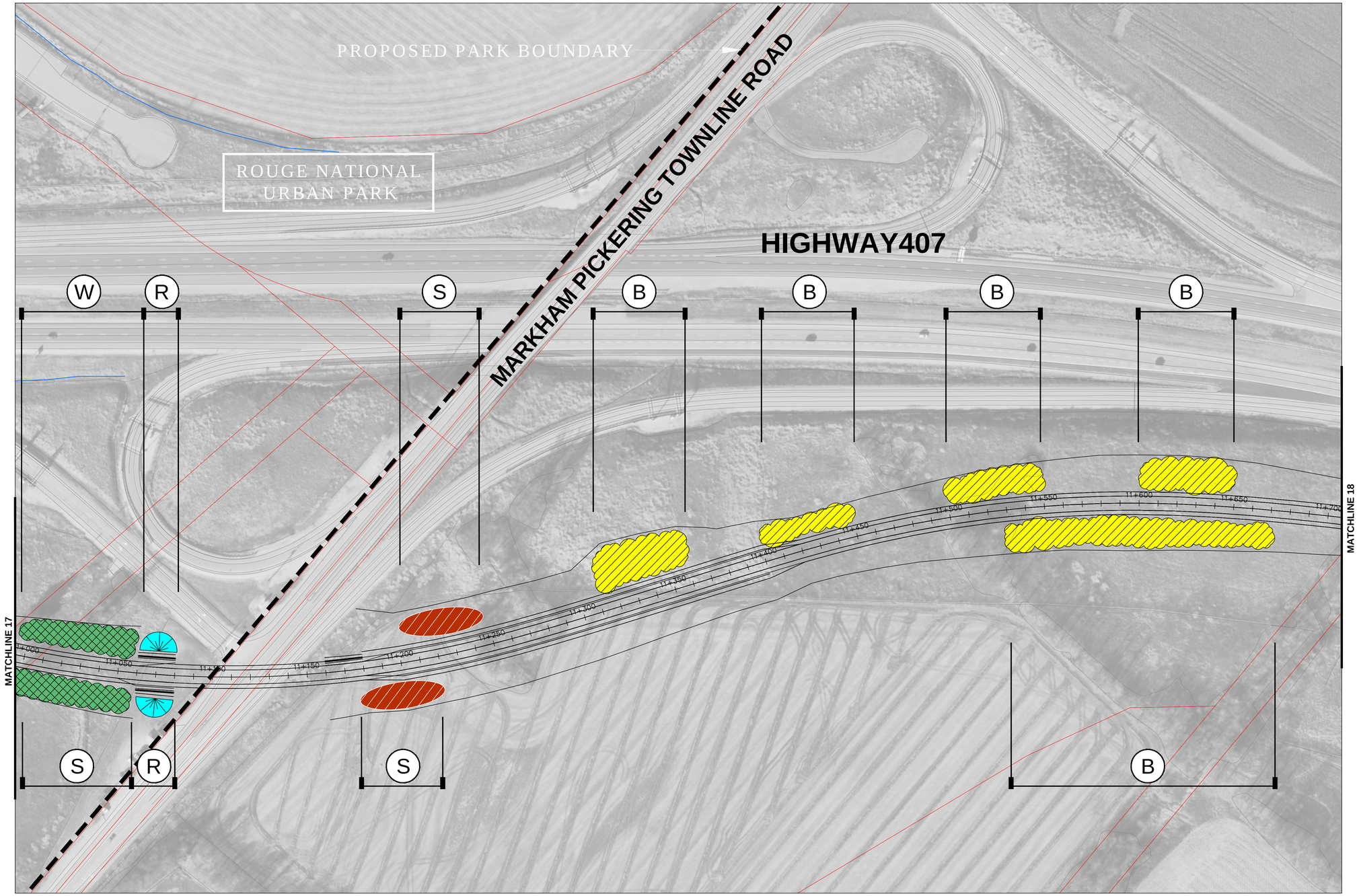
PROJECT
407 TRANSITWAY EAST EXTENSION KENNEDY ROAD TO BROCK ROAD

DRAWING
EXISTING LANDSCAPE COMPOSITION ANALYSIS

NORTH

SCALE:	N.T.S.
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	FIGURE 14



NOTE:
WHERE TRANSITWAY CORRIDOR PASSES THROUGH ROUGE NATIONAL URBAN PARK LANDS
PROVIDE AN ECOLOGICAL APPROACH TO RESTORATION IN CONSULTATION WITH PARS CANADA

LEGEND

- B — EMBANKMENT/ SLOPE STABILIZATION
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PROJECT
407 TRANSITWAY EAST EXTENSION KENNEDY ROAD TO BROCK ROAD

DRAWING
LANDSCAPE COMPOSITION RECOMMENDED PLANTING LAYOUT

NORTH

SCALE:	1:1000
DATE:	OCTOBER 2015
DESIGN BY:	J.S.M.
DRAWN BY:	T.F.G.
SHEET:	L14