



Markham MUP
(16th Avenue to Bob Hunter Memorial Park)



June 18, 2013
Development Services Committee
Mark Schollen
Schollen & Company Inc.

Purpose of Presentation

- Update Council on additional stakeholder consultation sessions
- Update Council on final design details of MUP & outstanding issues
- Seek Council authorization to proceed with the tendering and construction work for Phase I.
- Budget update
- Schedule update
- Items to be finalized in 2014

Background

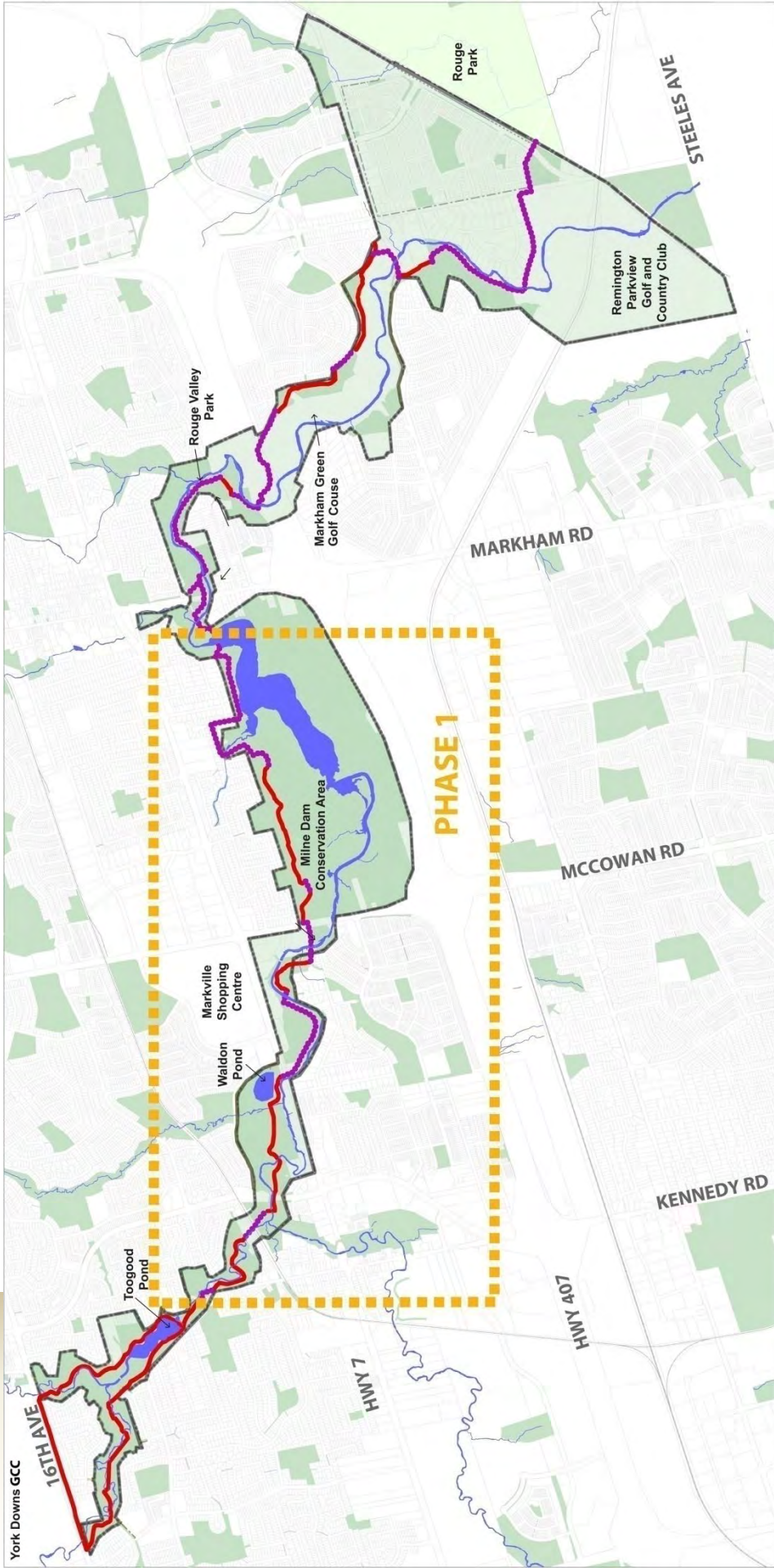
- \$0.85M in funding for Municipal Infrastructure Initiative Ontario in 2008 for installation of MUP plus \$1.1M in our pathways/trails budget for a total of \$1.95M in 2013 Capital budget
- Extensive public consultation process completed over the last four years.
- Environmental Assessment approval for MUP in 2012 by Council and MOE
- Council endorsed phasing of MUP in May 2013 and requested staff to report back with final design details
- Further consultation with Community of Liaison Committee (CLC), Milne Working Group, CPAC and Accessibility committees under taken

Status - Consultation Process

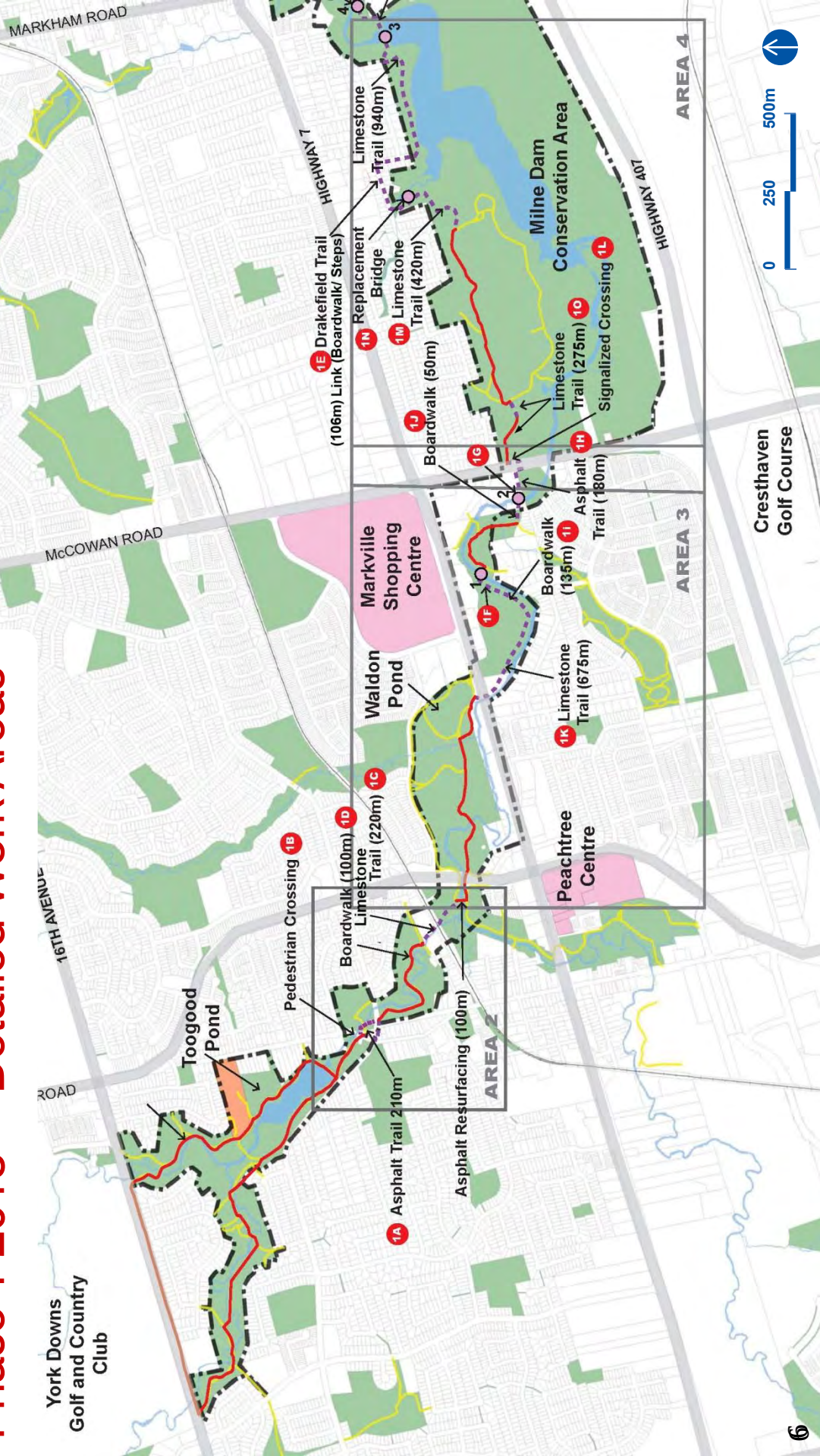
Following additional meetings were conducted:

- Areas 2 & 3
 - Site walk December 3rd , 2012 and April 26, 2013
 - CLC , CPAC & Accessibility meeting - May 23rd & June 4, 2013
- Area 4
 - Site walk and meeting with Milne Working Group (MWG) - April 29, 2013
 - CLC, CPAC, MWG & Accessibility Committees meeting – June 4, 2013
 - Site walk – June 12th , 2013(Accessibility & MWG)

Phasing Plan – Phase 1



Phase 1 2013 – Detailed Work Areas



Phase 1 – Elements to be Constructed

- Limestone Pathways (1,700m)
- Boardwalk (340m)
- Short Section of Stairway (Milne Dam Conservation Park)
- Short Sections of Asphalt Pathway (Grades in excess of 8%)
- 3 Bridges
- Regulatory and Directional Signage
- Accessible parking and pathways (2km - Milne Dam Conservation Park)
- Restoration Planting and Riverbank Stabilization

Phase 1 - Proposed Surfaces and Uses for Markham MUP

Limestone Surface – Hiking, Walking and Cycling

- Proposed to be used in floodplain areas and grades up to 8%. Pathway will be 3.0m wide and will narrow to 2.4 where existing vegetation or obstructions exist.
- Limestone can be compacted well and provides an even gradation in the stone size which provides an adequate surface for cycling.



Phase 1 - Proposed Surfaces and Uses for Markham MUP

Asphalt Surface – All Uses; Accessible

- Proposed to be used on trails with grades more than 8% and connecting short sections between existing asphalt segments.
- Pathway will be 3.0m wide and will narrow to 2.4m where existing vegetation or obstructions exist and 2.0m at underpasses.



Phase 1 - Proposed Surfaces and Uses for Markham MUP

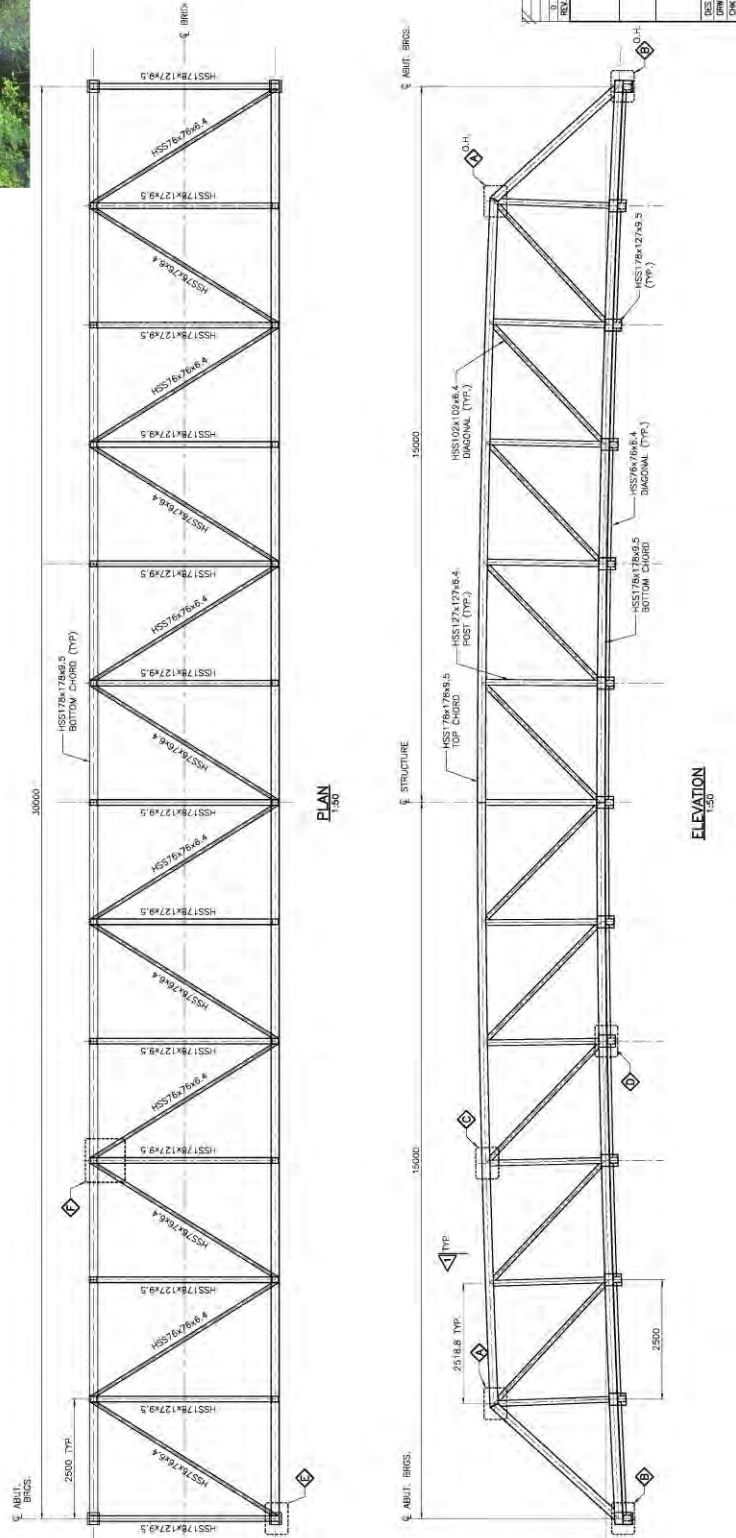
Boardwalk – All Uses; Accessible

- Proposed to be used in areas with high ecological sensitivity or prone to erosion, regular flooding or to preserve hydrological functions
- Proposed 1.8-2.4m width depending on environment and provision for accessibility and maintenance
- Proposed to utilize rough hewn hemlock for durability and local availability



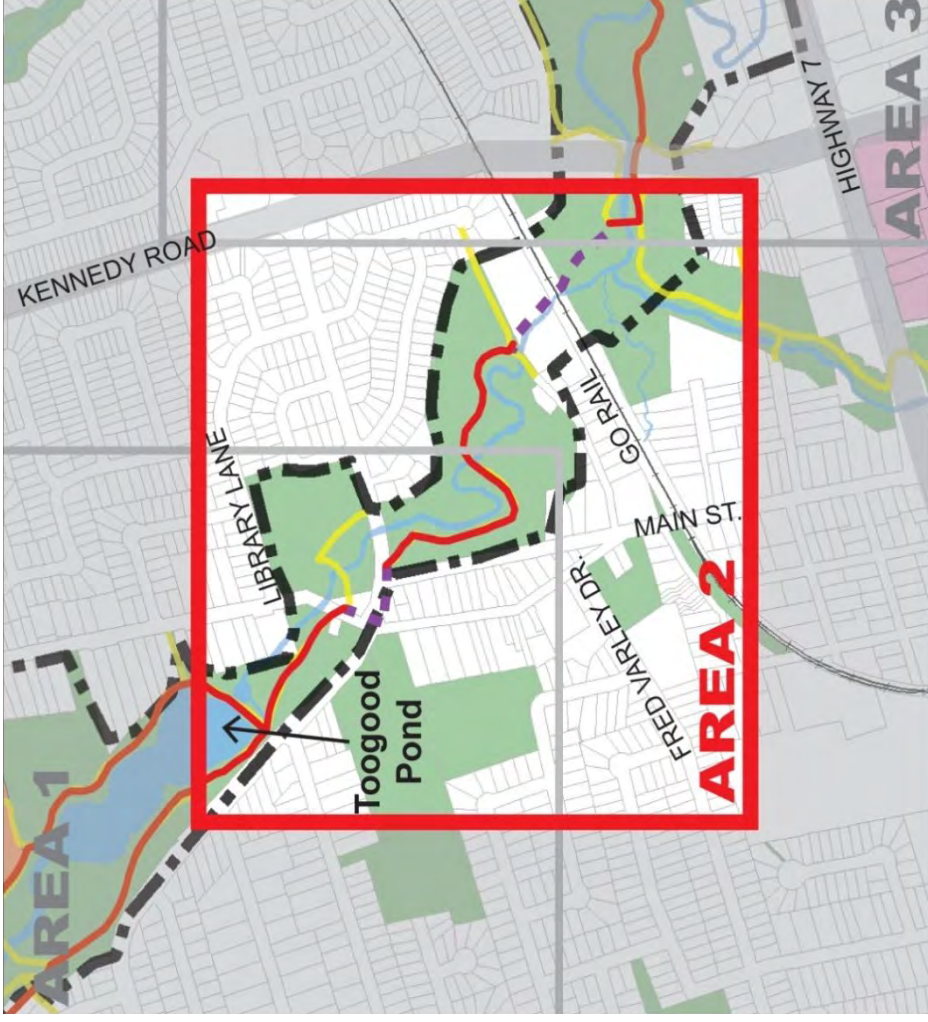
Proposed Bridge Design for Markham MUP

- 2 bridges in AREA 3 and one in AREA 4

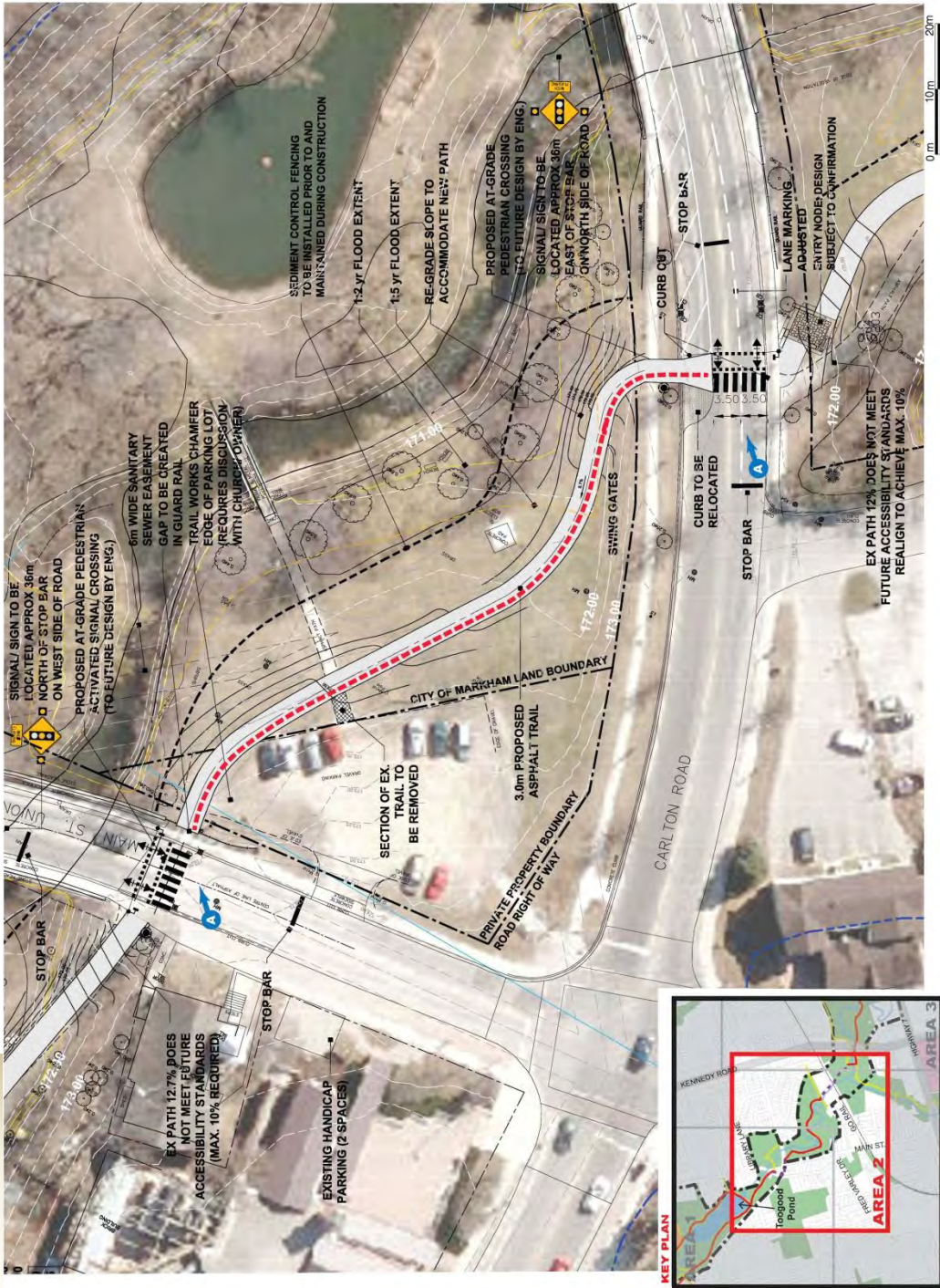


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Area 2 – Detailed Design



Area 2 – Detailed Design Main St and Carlton Rd - Option 2



DESCRIPTION OF RECOMMENDED OPTION 2:

1. Trail through parkland makes key linkage to side trail connecting to nearby library.
2. Avoids alterations to traffic management at nearby intersection.
3. Avoids loss of parking and access along west side of Main St.
4. Trail makes logical and direct connections southward and northward.

This option IS RECOMMENDED as it represents the safest and most effective trail configuration in the largest section of the multi-modal system. The large experience through parkland directly connecting to adjoining trails and the picnic area is more desirable and safer than the roadside trail option 3.

CONSTRAINTS OF OPTION 2:

1. Minor curb and linemarking adjustments to Carlton Rd.
2. Minor parking restrictions south side of Carlton Rd.



Area 2 – Detailed Design



B Multi-use Pathway at Edge in Boulevard



A Pedestrian Activated Signal Crossing

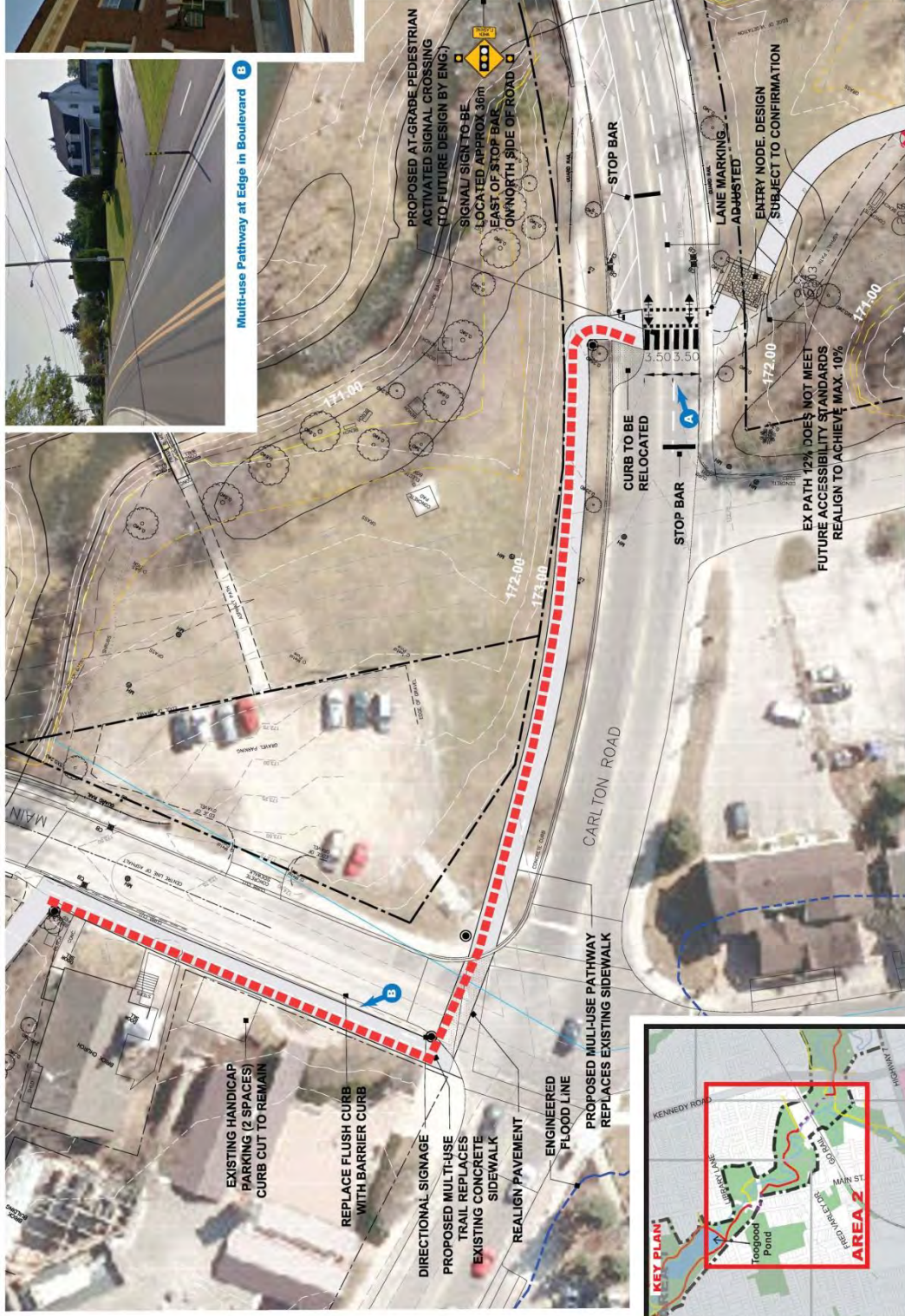
DESCRIPTION OF OPTION 3:

1. Utilizes existing sidewalk widened to accommodate the multi-use pathway on west side of Main St.
2. Utilizes the existing intersection to make an east-west crossing of Main St.
3. Takes advantage of wide landscaped boulevard north side of Carlton Rd.

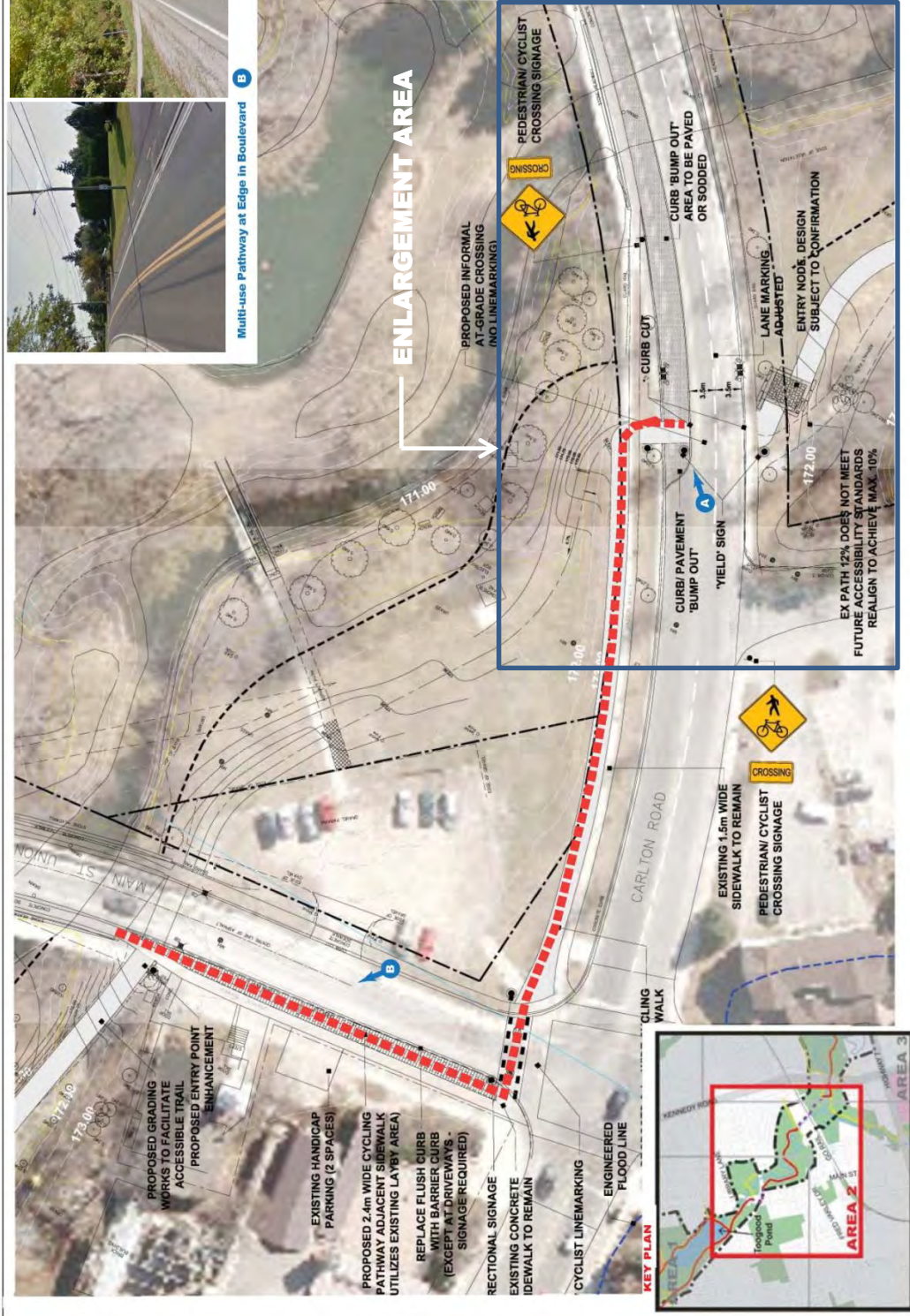
This option is NOT RECOMMENDED due to safety concerns, loss of access and parking along Main St and lack of direct configuration of the pathway in the context of the larger Multi-use Pathway system.

CONSTRAINTS OF OPTION 3

1. Prohibits daycare drop off area and driveway access to Varley Art Gallery and church.
2. Dogging southward of trail at Main St. is counter to desire lines for trail users who may still cross Main St. at their own risk (should a crossing not be provided).
3. Civil works along west side of Main St and at intersection to accommodate the multi-use pathway will be costly and will limit access and parking.
4. Potential safety concerns at MUP crossing at intersection due to space/ configuration constraints.



Area 2 – Detailed Design Main St and Carlton Rd - Option 4



A Multi-use Pathway at Edge in Boulevard
B Informal Pedestrian Crossing (no signal)

ENLARGEMENT AREA

DESCRIPTION OF OPTION 3:

1. Utilizes existing sidewalk widened to accommodate the multi-use pathway on west side of Main St.
2. Utilizes the existing intersection to make an east-west crossing of Main St.
3. Takes advantage of wide landscaped boulevard north side of Carlton Rd.

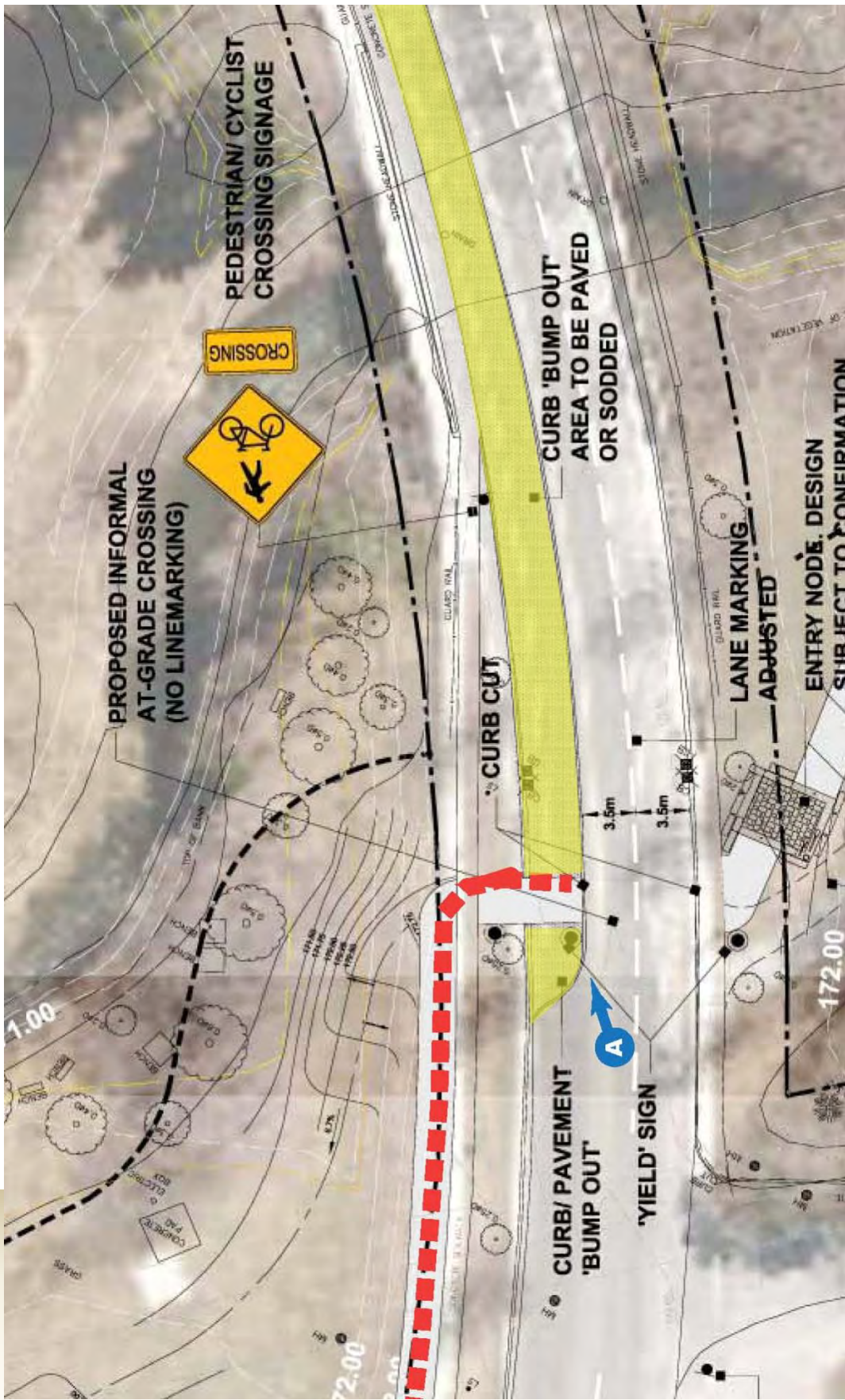
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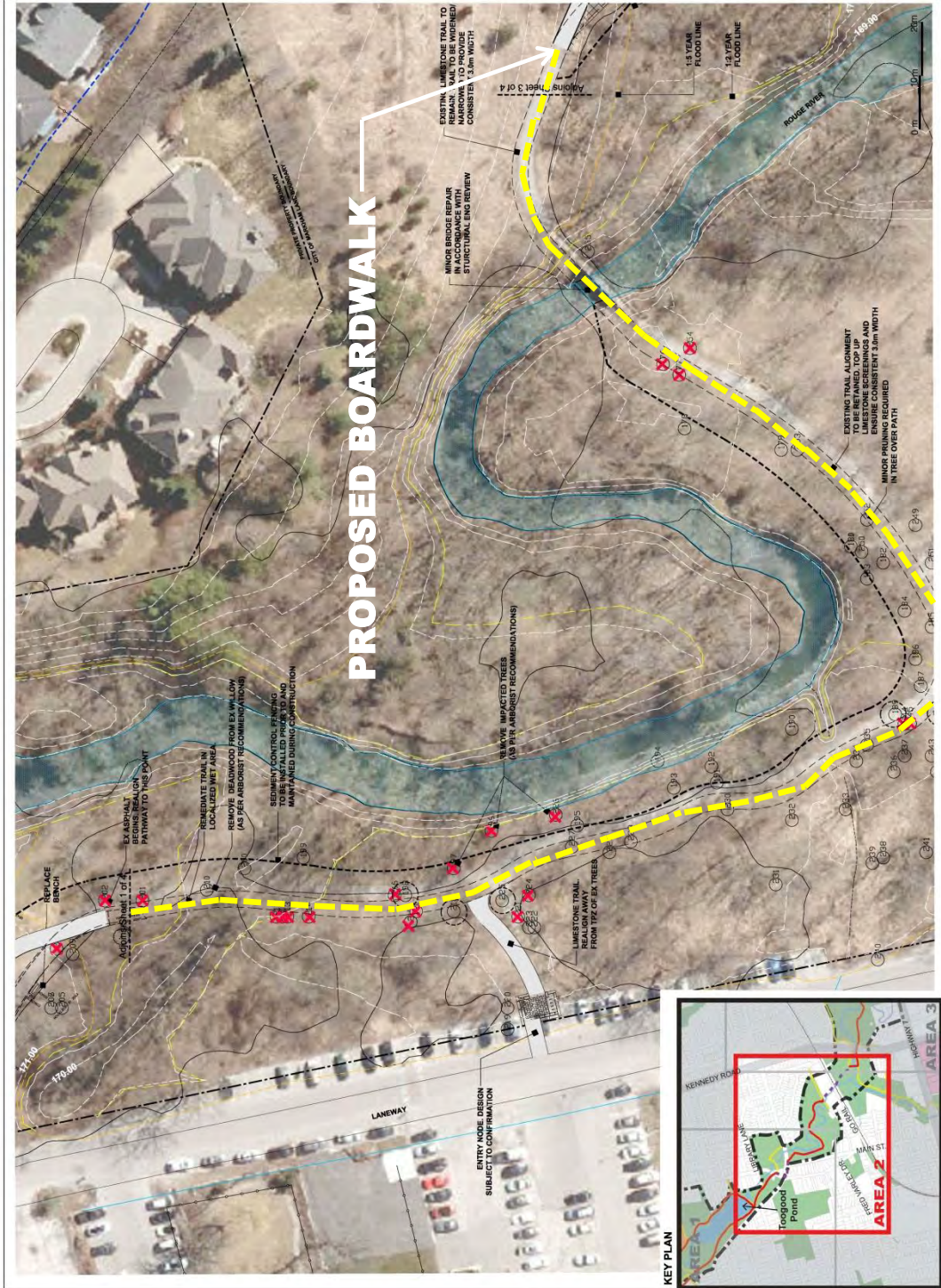
Area 2 – Detailed Design Option 4 Enlargement Area



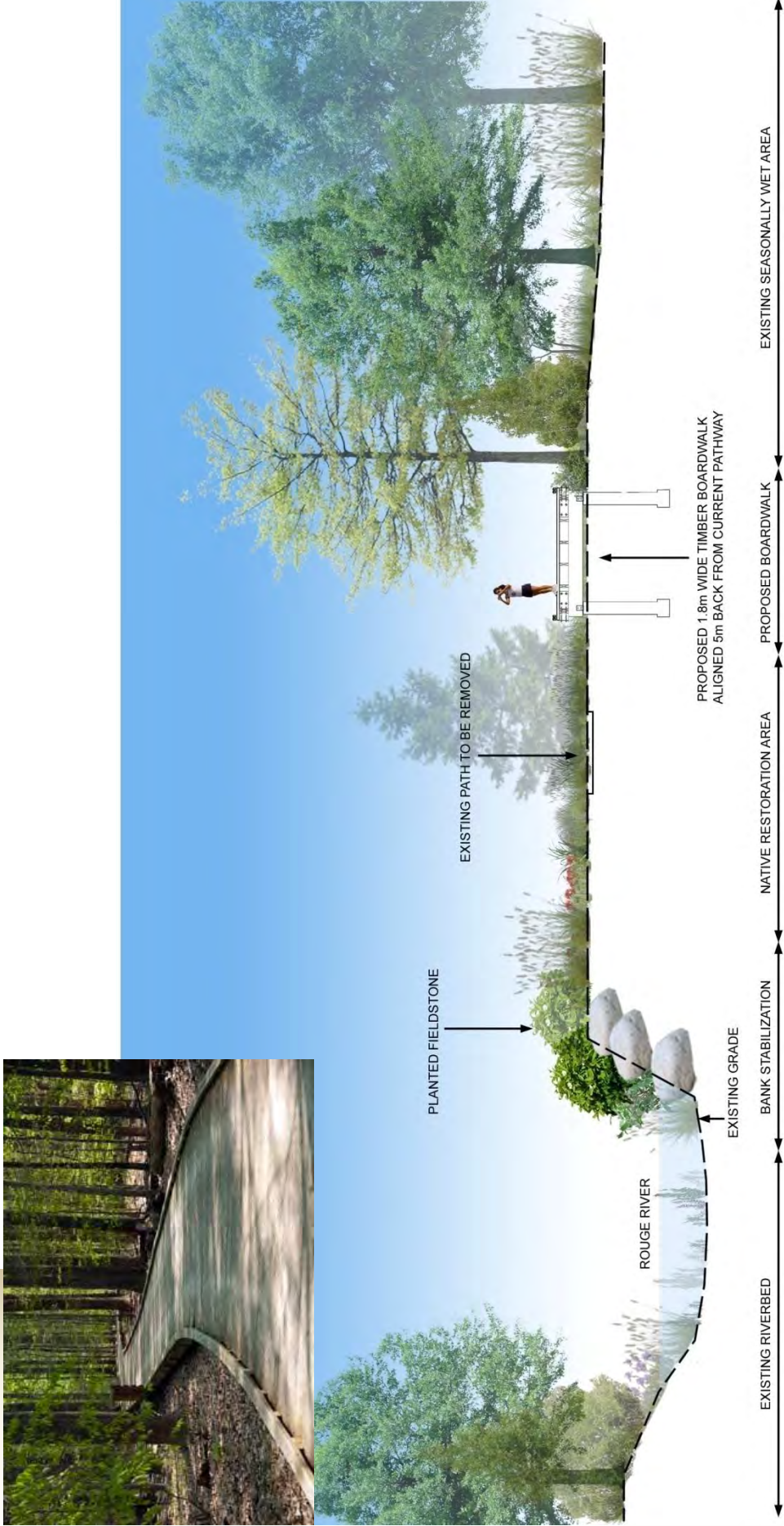
Consultant Recommendations

- **Option 2**
 - Safe crossings of Carlton Rd and Main St
 - Enables continuous and most direct, north-south trail connection
 - Makes additional trail connection to library
 - Does not encroach on drop-off and entry conditions for gallery, church and daycare on Main Street
 - Type of pedestrian signal to be vetted by the local Councillor & BIA
- **Option 3 – 2nd Choice**
 - Limits number of new road crossings to one pedestrian activated signal across Carlton Road
 - Takes advantage of widened boulevard on north side of Carlton Rd
 - Requires minor modification of existing boulevard on Main St to accommodate MUP (sacrificing drop-off/ entry function)

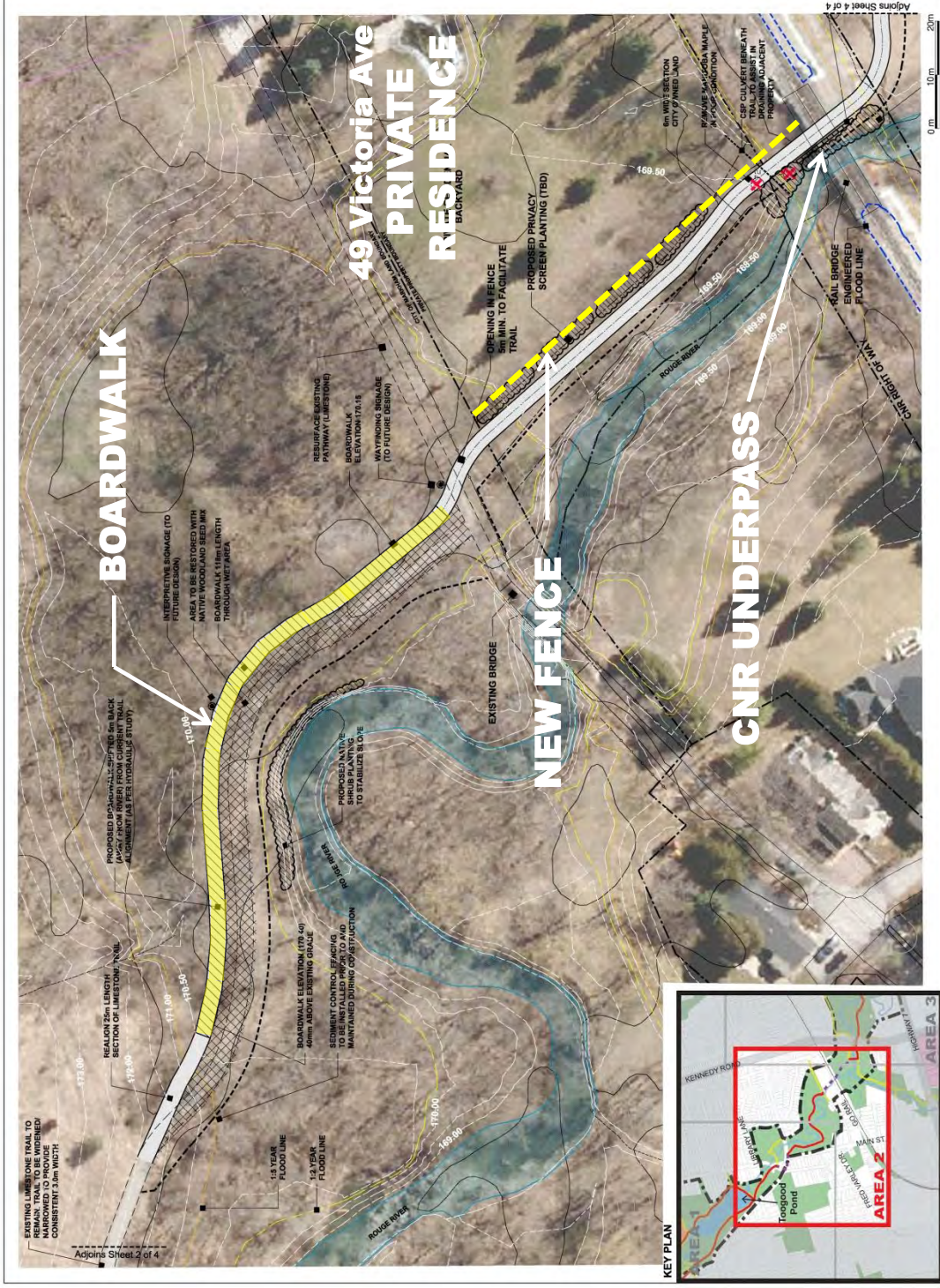
Area 2 – Detailed Design Carlton Rd to Proposed Boardwalk



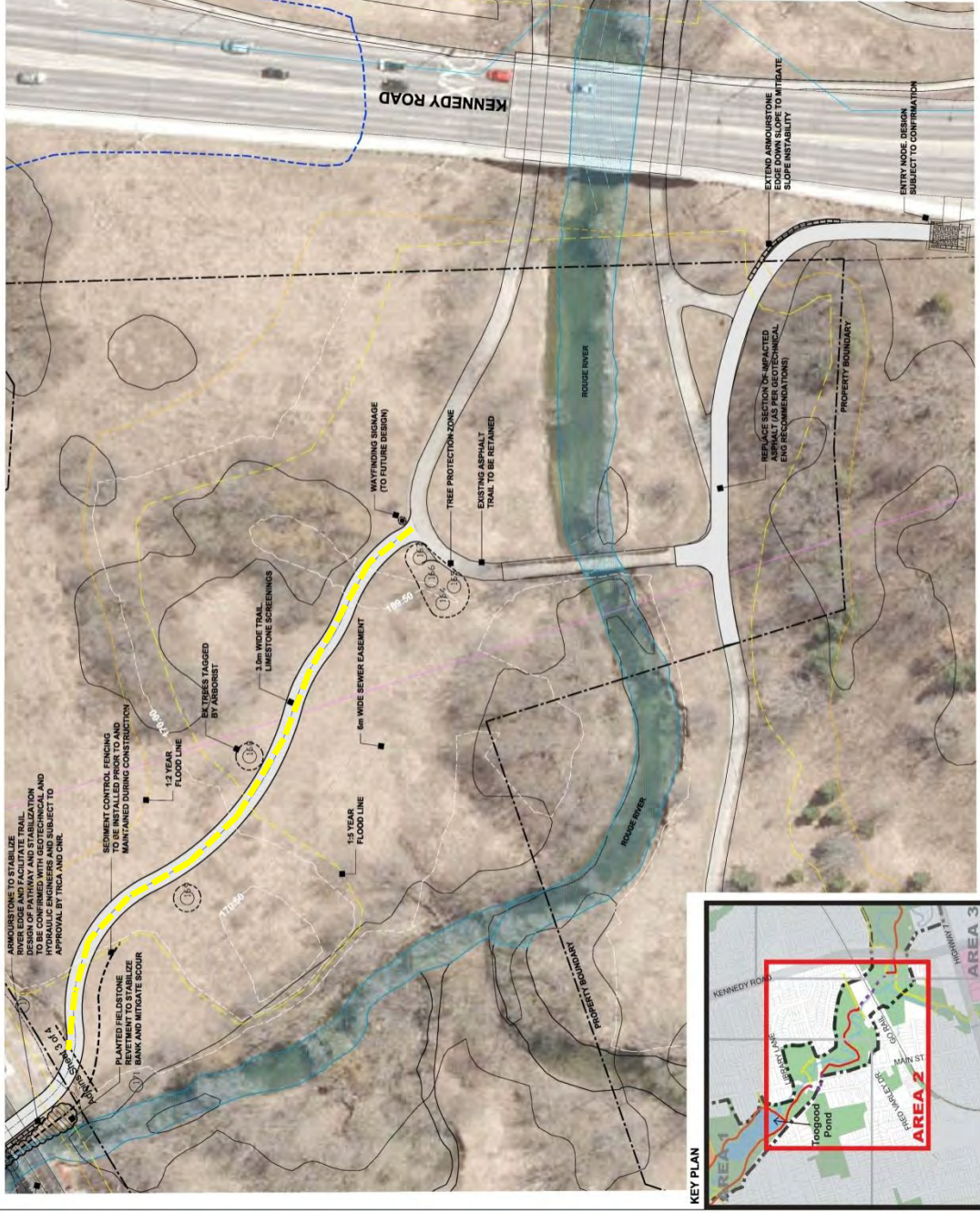
Area 2 – Detailed Design Cross Section at Proposed Boardwalk



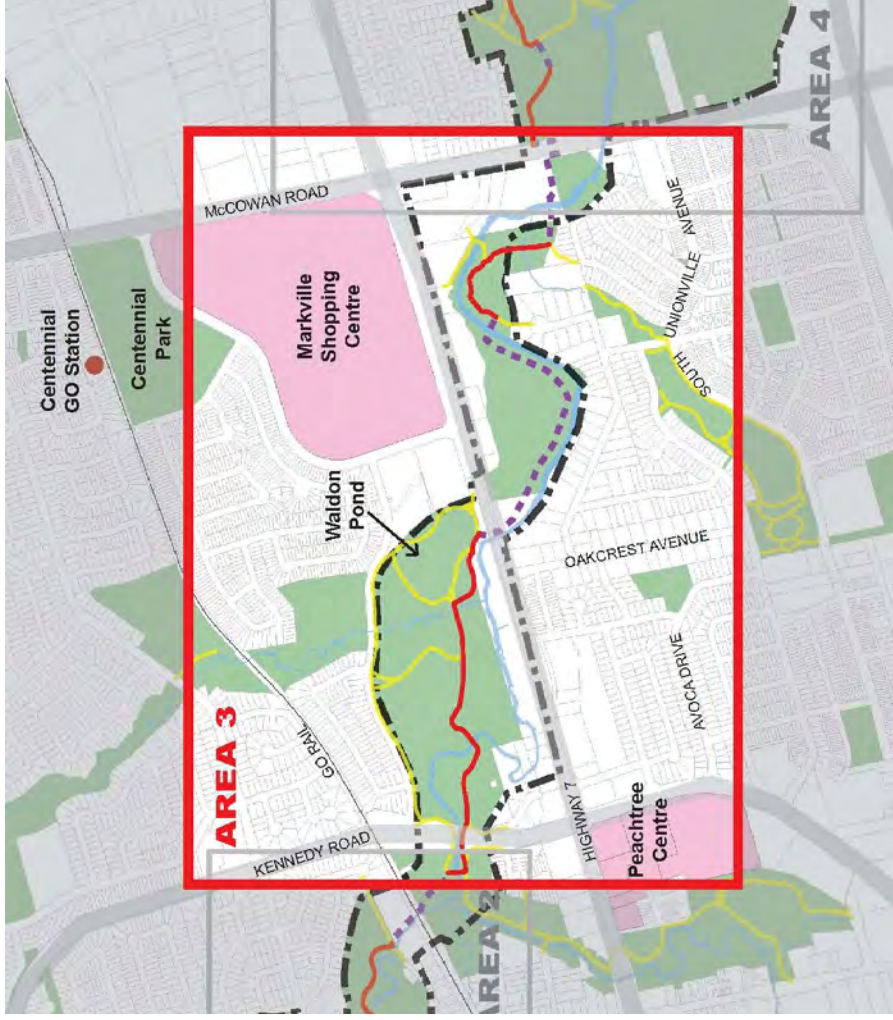
Area 2 – Detailed Design



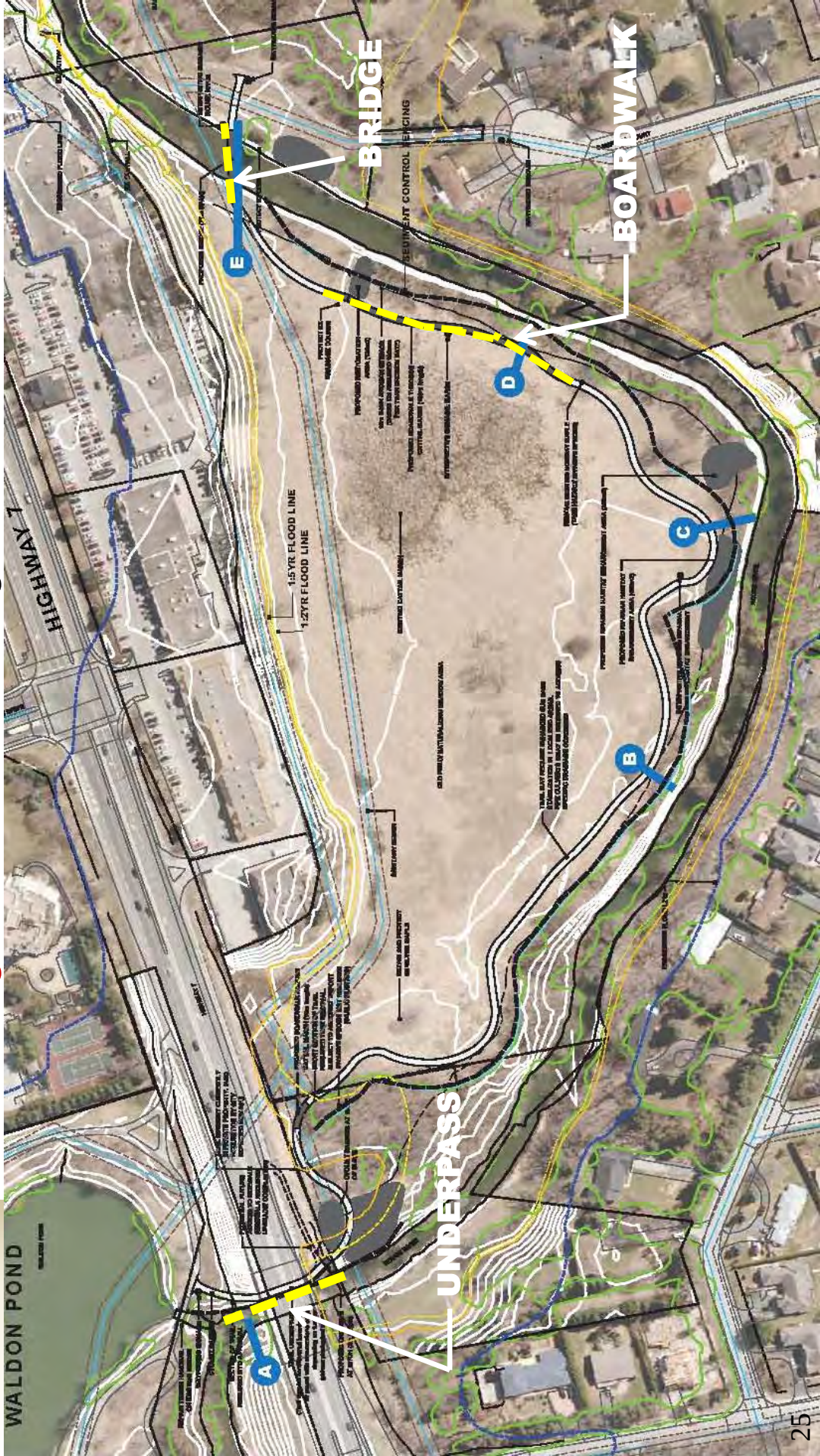
Area 2 – Detailed Design CNR Underpass to Kennedy Rd



Area 3 – Detailed Design

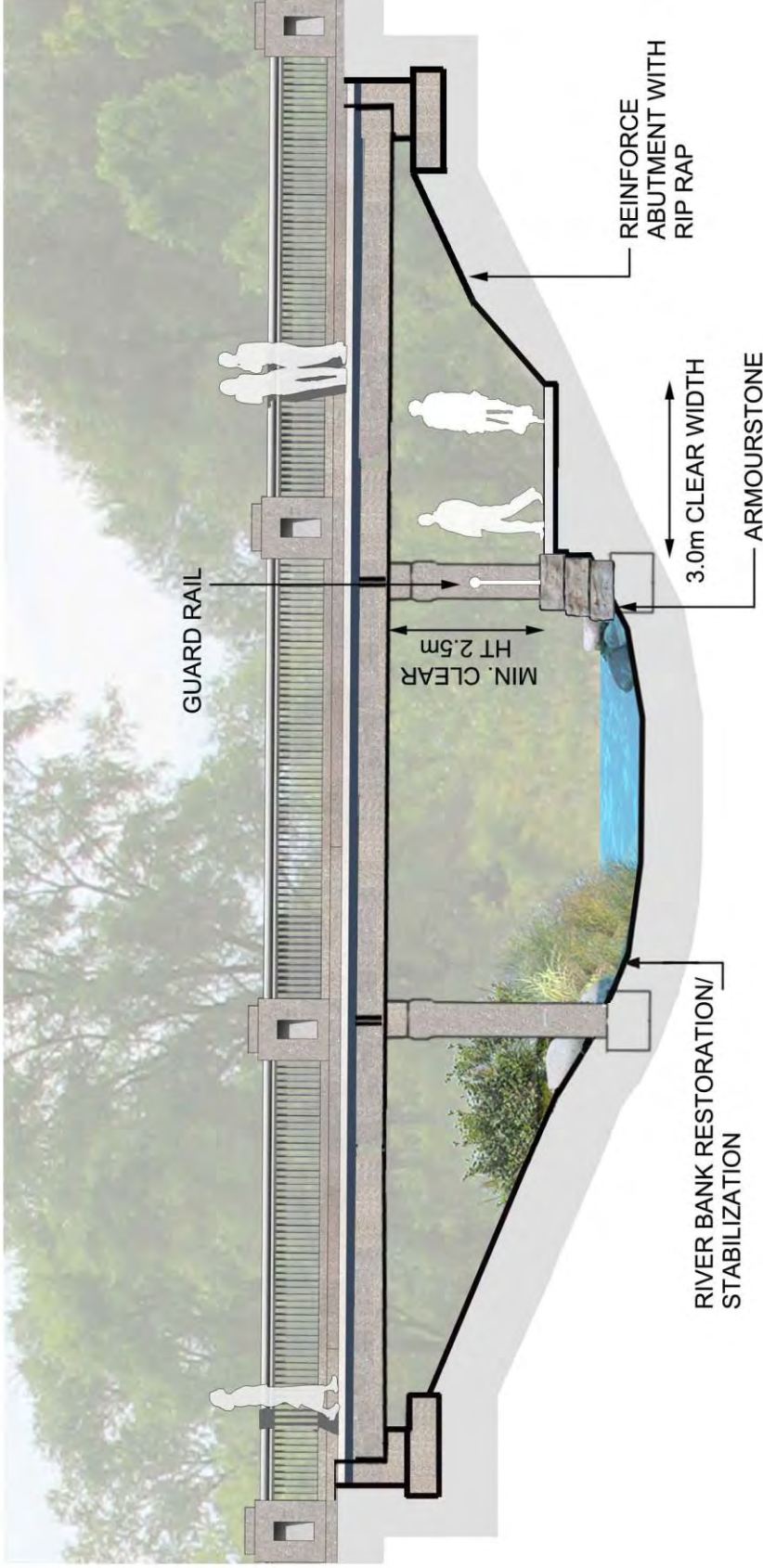


Area 3 – Detailed Design West Sector Through Meadow



Area 3 – Detailed Design Highway 7 Underpass

- Requires York Region, MTO encroachment agreements



Area 3 – Detailed Design East Sector Through Private Lands

- 3.0m Limestone surface trail through wet meadow, 50m boardwalk, 25m bridge



Area 3 – Detailed Design

McCowan Rd Crossing – Option 1

- Full signalized intersection potentially with dedicated left hand turning lane



McCowan Rd Crossing – Option 2

- Pedestrian activated signal 60m north of Milne Park driveway



Area 4 – Detailed Design



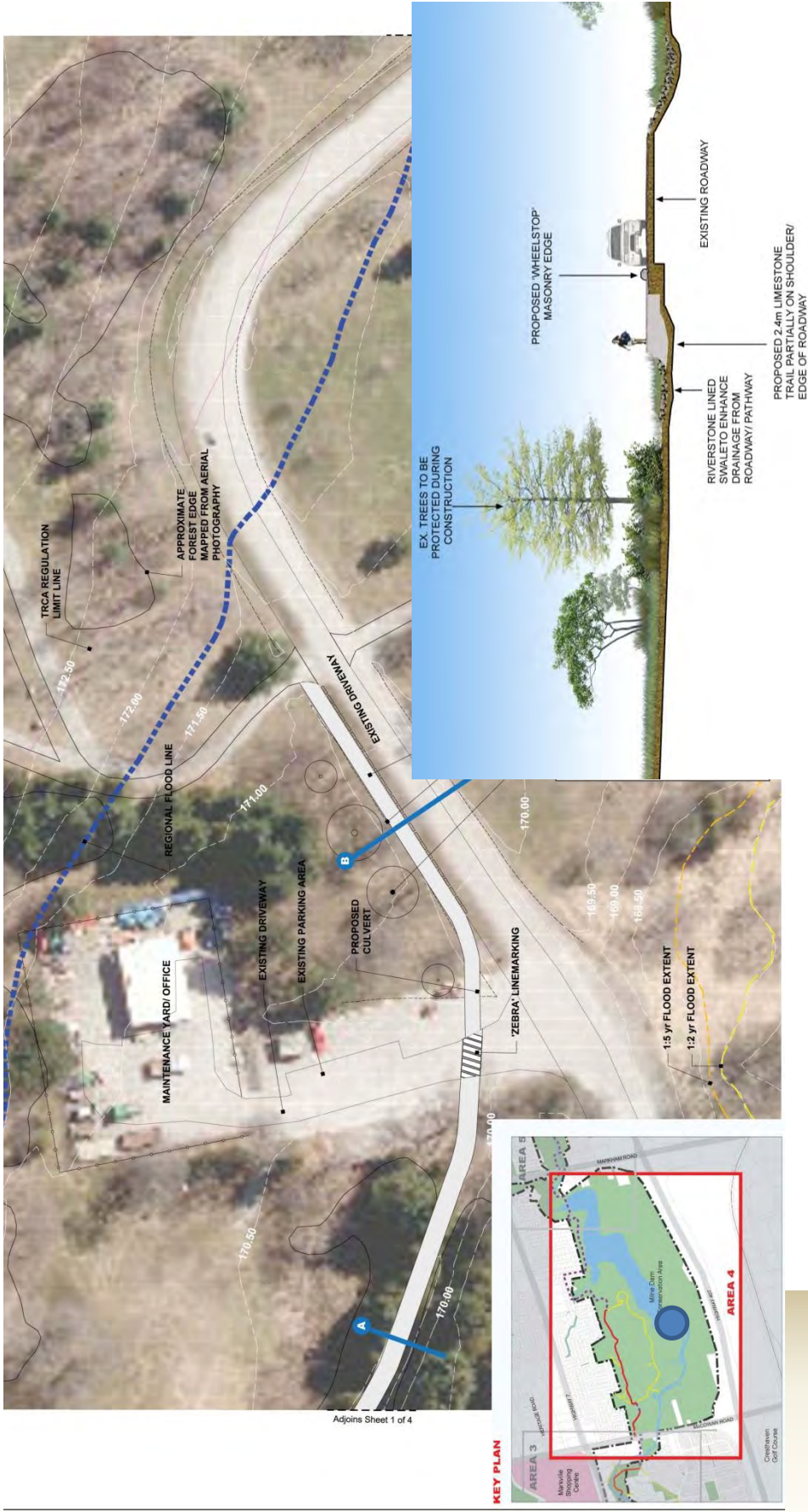
Phase I – Recommended to construct to Drakefield Rd

Phase II – Drakefield Rd to Markham Road (2014/2015)

- 3.0m Limestone re-surfacing on existing trail

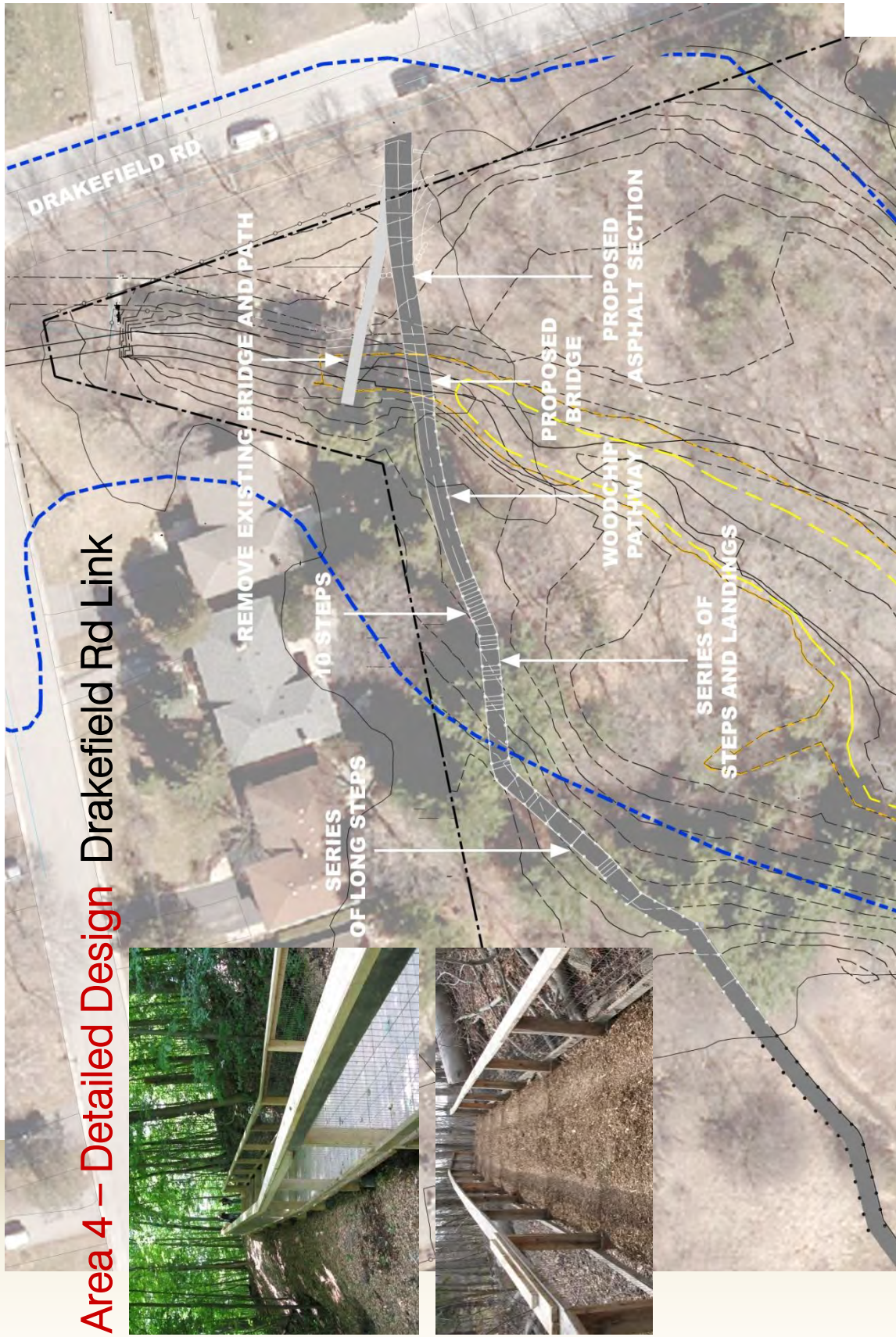


- 2.4m wide limestone trail at shoulder of roadway separated with wheelstop



- 3.0m Limestone surface trail, short section of 2.4m wide boardwalk over wet area

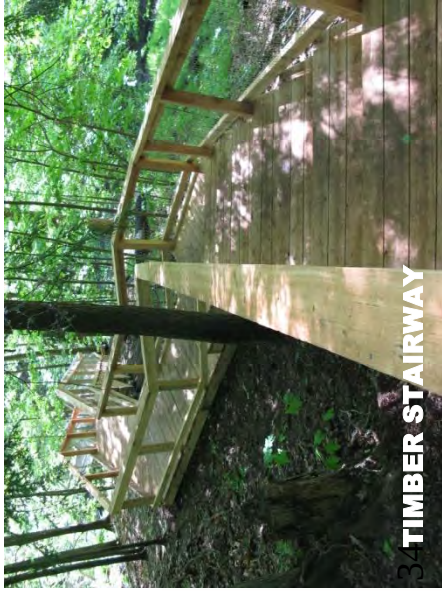
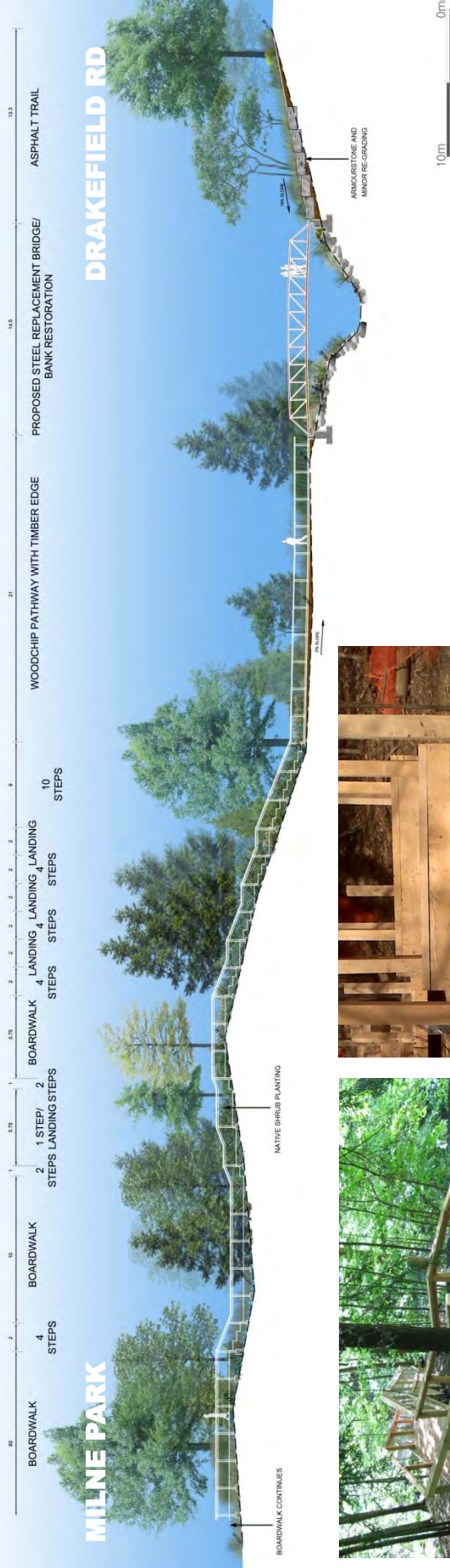




Area 4 – Detailed Design Drakefield Rd Link

Area 4 – Detailed Design Drakefield Rd Link

- 1.8m Boardwalk/ stairway and short section of woodchip path
- 14.5m Span steel truss bridge re-aligned over channel, short section of asphalt down steep slope



Phase 1 - Accessible Trail Design Elements

- Not all pathways within the study area can be designed to be accessible
- Create accessible pathways where possible and practical (this is consistent with suggestions from the CLC)
- Select key areas to create accessible pathways (e.g. Toogood Pond, Milne Park Conservation Area) and do it well
- Follow the design criteria outlined in the Final Proposed Built Environment Standard (AODA)
- **Signage is Key:** Ensure that signage and mapping/messaging clearly communicates which pathways are accessible so that users can make an informed personal decision about which pathways they will use

Area 4 – Detailed Design

- 3.0m Limestone screening, forms 2km loop pass beach area, wooded area



Outstanding Issues 2014

- Planting – detailed planting plan to be finalized for Spring/Fall 2014 installation (Phase 1 & 2)
- Flood vulnerable areas
 - Signage/Gates
 - Detour routes
- Signage/Entrance features
- Points of interest/Educational
- Property acquisition
- Confirm main and secondary trail access points (Phases 2 and 3)
- Maintenance requirements & budget

Outstanding issues 2014 - Proposed Entry Points



Operations and Maintenance Issues – Outstanding Issues

- Flooding (all areas)



Looking north toward Hwy 7 over meadow in AREA 3

Seasonal flooding will affect design and construction scheduling



Budget

- Currently, there is \$1.95M in 2013 capital budget and \$0.21M from Region of York for Phase 1 for a total of \$2.16M.
- Estimated cost for PHASE 1:
 - AREA 2 – \$0.50M
 - AREA 3 – \$1.50M
 - AREA 4 - \$0.85M
 - Total - \$2.85M
- Shortfall - \$0.69M
- Staff will structure tender document to adjust works to meet budget
- Staff will report back with tender award and final scope of work

Next Steps

- **Ongoing communication with agencies including:**

- MTO encroachment permit (SUBMITTED)
- CNR crossing agreement (SUBMITTED)
- TRCA permit for alteration within floodplain (3 PERMITS APPLIED)
- MNR permit (COMPLETE – NO ISSUES)
- Easements across private lands/ property acquisition (2 PROPERTIES IN PROGRESS)
- Ministry of Tourism, Culture and Sport (UNDERWAY ALL SECTIONS)

- **Finalization of details and plans – June/July**

- **Tender Period – August 2013**

- **Construction Period – Fall 2013/ Spring 2014 (weather dependent)**



Markham MUP
(16th Avenue to Bob Hunter Memorial Park)



June 18, 2013
End Presentation

Mark Schollen
Schollen & Company Inc.