GEI Consultants

April 14, 2025

Melissa Kiddie
Natural Heritage Planner
City of Hamilton
71 Main Street West, 5th Floor
Hamilton, ON L8P 4Y5

Dear Ms. Kiddie:

RE: Environmental Impact Study Addendum
Dickenson Limited Partnership and Dickenson GP Inc.
City of Hamilton

This Environmental Impact Study (EIS) Addendum has been prepared to reflect the revisions to the proposed Draft Plan of Subdivision (Draft Plan), for the Dickenson Limited Partnership and Dickenson GP Inc. properties, located at 9451, 9593, 9867, 9517, 9569 and 9579 Dickenson Road and 1205 Glancaster Road (herein referred to as the Subject Lands). The proposed revisions are reflective of the comments received from the City of Hamilton (City) in their undated letter, received February 2024. This EIS Addendum expands upon the results and interpretations presented within the EIS dated September 2023 as a result of the revisions to the proposed Draft Plan (2025).

The September 2023 EIS provided a detailed characterization of the natural environmental setting and characteristics of the Subject Lands, including an assessment of the occurrence of natural heritage features, functions and linkages in accordance with the Urban Hamilton Official Plan (UHOP). This characterization and assessment is provided in Section 3 of the September 2023 EIS. As a brief overview, the Subject Lands were found to contain the following natural heritage features:

- Wetlands (non-provincially significant; Ecological Land Classification (ELC) Units MAS2-1, MAM2-2, MAM2-10, SAF1-3, SAS1-1 and SWD4-1);
- Woodland (non-significant; ELC Unit FOD6-5);
- Significant Wildlife Habitat (SWH) (ELC Units FOD6-5, SAF1-3, CUM); and
- Fish Habitat (Direct: Watercourses (WC) 2AB and 2C, and Pond WC2AB-S2; Candidate Direct: Pond 1; Indirect: WC1, 2A, and 2B, Ponds 2, 3, and 4, and HDFs-H1, H2, H3, and H5).

ELC Units are shown on Figure 3 in the September 2023 EIS (attached as **Figure 1, Appendix A).** SWH is shown on Figure 10 in the September 2023 EIS (attached as **Figure 2**, **Appendix A**). Watercourses and HDFs are shown on Figure 9 in the September 2023 EIS (attached as **Figure 3, Appendix A**).

The wetlands were staked by the Niagara Peninsula Conservation Authority (NPCA) in 2020 and 2021. The surveyed limits of those wetlands are provided in **Appendix C**. These wetland limits defined the ELC wetland community limits as shown on all Figures from the September 2023 EIS. The overlay of the ELC communities and the staked wetland limits are shown on **Figure 4** (**Appendix A**)**.**

Within the adjacent lands, candidate significant and non-significant woodlands and candidate fish habitat (associated with offsite WC1 and WC2) were identified within the adjacent lands. The adjacent woodland communities could also support species at risk (SAR) and SAR habitat, as well as SWH.

The purpose of this EIS Addendum is to address the updated Draft Plan. It is acknowledged that this updated Draft Plan continues to propose the removal and replication of non-significant natural heritage features and functions, as did the previous Draft Plan iteration. The decision to remove and replicate non-significant natural heritage features and functions was only made when it had been determined through discussion with the Project Team that it was not possible to retain the feature(s) in a manner that either entirely avoids impacts to the feature, minimizes the impacts where they cannot be avoided, or mitigates identified impacts (e.g., the Mitigation Hierarchy). The decision to ultimately remove a feature was only made when: (i) policies do not prohibit the removal of the feature; (ii) the feature is of generally low ecological function such that it is feasible to create a feature of equal or greater ecological function; and (iii) consultation with the Project Team has determined that it is not possible to adjust the plan to retain the feature in-situ.

As an example, through the Mitigation Hierarchy process it was determined with the Project Team that it would be possible to retain Watercourse 1 and its associated wetlands predominantly in place, with minimal direct impact, and identification of mitigation measures to minimize those impacts on the retained feature. Though of similar nature to Watercourse 1, the discussion with the Project Team regarding the other watercourses on-site determined that: (i) there are no policies that prohibit the relocation of the watercourses; (ii) the watercourses are of low ecological function; and, (iii) it would not be possible to retain the watercourses in place without impacting the ability of the development to meet the intended/permitted use of the Subject Lands (i.e., large scale warehousing to support the adjacent Airport). As such, removal and replication of the watercourses was recommended to ensure the watercourse function remains on the landscape with no negative impact as a result of the proposed development. A similar analysis was completed for all features on the Subject Lands.

1.0 PREVIOUS DRAFT PLAN (2023)

The Subject Lands are proposed to be subdivided into several large blocks of land to support industrial land-uses (Blocks 1, 2, 3 and 4). In addition to the development blocks, the 2023 Draft Plan (**Figure 4, Appendix A**) included one new road (referred to as Street A), six Natural Heritage System (NHS) Blocks (Blocks 9, 10, 13, 16, 17 and 18) and three Stormwater Management (SWM) Pond Blocks (Blocks 11, 12 and 14). The NHS Blocks were to be dedicated to the City through the Draft Plan approval process to ensure that the NHS is maintained by a public agency in perpetuity.

The Draft Plan that was the basis for the September 2023 EIS included the following from a natural heritage perspective:

- Retention of the non-significant woodland (1.02 ha) with minor encroachment (0.07 ha) on the eastern extent as a result of grading associated with the buffer to the realigned Watercourse 2 (WC2) corridor. A 15 m vegetated protection zone (VPZ) was provided to the retained woodland and included in the NHS Block 13. Retention of this feature also retains the identified bat maternity colony SWH;
- Removal of 2.61 ha of woodlot (currently located in eight woodlot units across the Subject Lands) to be re-planted at slightly greater than a 1:1 area ratio into three NHS Blocks (Blocks 10, 13 and 18) each with a VPZ incorporated into the Blocks adjacent to the created woodland;
- Removal of 1,722 trees (outside of woodlot removal) and compensation planting for these trees at a 1:1 ratio on site within the VPZs, road right of way, around SWM ponds and throughout the streetscape;
- Removal and re-creation of 5.14 ha of wetland (currently located in several smaller wetland units across the Subject Lands) at a 1:1.23 ratio within the proposed Watercourse 1 (WC1) corridor (NHS Block 10) and within the realigned WC2 corridor (NHS Watercourse Channel Blocks 16 and 17) with a 15 m VPZ (wetland setback) incorporated into the NHS Blocks. The wetlands will be designed to re-create breeding and overwintering habitat for amphibian and turtle species to address removal of the anthropogenic pond (SAF unit) identified as SWH;
- Retention of the WC1 corridor and its existing wetlands (0.46 ha) with a 15 m VPZ, and daylighting 49 m of a piped watercourse within the NHS Blocks 9 and 10. Wetland removals and impacts associated with the proposed road crossing over indirect fish habitat will be addressed through the Municipal Class Environmental Assessment process. Wetland removal associated with the proposed road alignment is accounted for in the wetland removal calculation;
- Realignment of WC2, using natural channel design, within an open channel corridor with a minimum 15 m VPZ from the low flow channel (fish habitat setback) within the NHS Watercourse Channel Blocks 16 and 17. The conceptual watercourse corridor design was presented in the *Tributaries of Twenty Mile Creek Conceptual Natural Corridor and Wetland Design Brief* (GEO Morphix, 2023);
- Re-creation of breeding and nectaring pollinator habitats within the NHS Blocks to retain habitat for Monarch within the Subject Lands, offsetting for the removal of existing patches of Milkweed; and
- Reconfiguration of Headwater Drainage Feature (HDF) H3 along the north-central property limit within an open conveyance swale (no separate Block was shown for this feature on the 2023 Draft Plan) outletting into the realigned WC2 corridor.

The previous Development Concept is illustrated on **Figure 5** (**Appendix A**). A summary of the net gain achieved in natural heritage area is provided in **Table 1** and a summary of the net gain achieved in drainage feature length is provided in **Table 2**.

Table 1: Natural Heritage Feature Replication Areas – 2023 Draft Plan

Natural Heritage Feature Type	Area Retained (ha)	Area Removed (ha)	Area Created (ha)	Replication Ratio	Net Gain/Loss in Area by Feature Type (ha)	VPZ* (m)
Treed Areas (Woodlot/Woodland)						
Non-significant Woodland (FOD)	1.02	0.07	2.65	1:0.99	+2.58	15
Woodlot (CUP, CUW/SWD, CUW)	0	2.61	0		-2.61	N/A
Total Treed Area (Woodlot/Woodland)	**1.02**	**2.68**	**2.65**	**1:0.99**	**-0.03**	**15**
Wetland						
Non-significant Wetland (MAM, MAS, SAS, SAF, SWD)	0.46	5.14	6.32 (0.12 within WC1 corridor and 6.2 within WC2 corridor)	1:1.23	+1.18	15
Overall Total	**1.48**	**7.82**	**8.97**	**N/A**	**+1.15**	**N/A**
*VPZ will be planted with native, non-invasive species for additional naturalized areas						

Table 2: Drainage Feature Length Replication – 2023 Draft Plan

Drainage Feature	Existing Length (m)	Proposed Length (m)	Change in Length (m)
Watercourses and HDF-H3			
Watercourses			
WC1	304*	353	+49
WC2 (WC 2A, 2B, 2AB, 2C)	1,626*	2,110	+484
Total Watercourses	*1,930*	*2,463*	*+533*
HDF-H3			
HDF-H3	747	326	- 421
Overall Watercourses and HDF-H3	**2,677**	**2,789**	**+112**
*excluding piped portion			

It is acknowledged that the existing WC2 channel lengths within **Table 2** (above) are different from that represented within the 2023 EIS. As part of this EIS Addendum, the consultant team decided to move forward with GEO Morphix's linework calculations, whereas the length previously calculated was an estimate by GEI's GIS team. For consistency, all watercourse lengths quoted within this document have been provided by GEO Morphix.

As outlined in **Table 1**, the 2023 Draft Plan provided for a net gain in natural heritage feature area of 1.15 ha. In addition, a net gain in ecological function will also be obtained for both wetland and woodland communities. Specifically, where isolated woodlots are planned for removal, replication will occur through planting of communities to create higher functioning woodlands that will be planted with native diversity and increase wildlife habitat availability. Similarly, the removal of narrow, low functioning wetland communities along the watercourse will be re-created by creating wetlands that will be hydrologically supported within the WC1 and WC2 corridors. These wetlands will be designed to support various biophysical functions such as flood mitigation, carbon sequestration, and increased habitat complexity.

The creation of these features within the context of a connected natural heritage system (NHS) will add differing habitat types throughout the site to provide variability of habitats (e.g., foraging, stopover, breeding, overwintering) to various terrestrial and aquatic species that may not currently be using the Subject Lands. This will provide an opportunity for local wildlife from adjacent lands to populate the restored NHS corridors. Created habitats were specifically designed to be more interconnected (via contiguous connections and removal of barriers (e.g. piped sections of WC1 and WC2) to facilitate the movement of wildlife and organisms throughout the site.

Further, as outlined in **Table 2**, the 2023 Draft Plan provided for a net gain in watercourse length of 533 m and an overall net gain of watercourses and HDF-H3 on the landscape of 112 m. This table includes HDF H3 since the NPCA considers this a regulated feature, despite GEI evaluating the feature as an HDF. Although the HDF Assessment identified a number of other HDFs on the Subject Lands (**Figure 3, Appendix A**), the classification of these HDFs, as a result of the assessment, resulted in them not needing to be retained on the landscape. For this reason, **Table 2** does not include these other HDFs, however, the natural channel design (GEO Morphix) contemplates the provision of smaller swales within the WC2 corridor to assist in replicating the functions of these other HDFs that are proposed for removal. Such functions include flow conveyance and allochthonous inputs.

In addition to the above, the WC2 realignment will result in the removal of two online ponds. This will decrease the thermal loading to downstream habitats while also decreasing nutrient loading.

In addition to the NHS Blocks, three Stormwater Management (SWM) Pond Blocks were proposed to provide SWM controls (Blocks 11, 12 and 14). As a result, three SWM outfalls were proposed into the NHS Blocks. Two SWM outfalls to the realigned WC2 corridor (NHS Watercourse Channel Block 17) and one outfall into the WC1 corridor (NHS Block 10). Details related to these outfalls were provided in the *Functional Servicing Report* (MGM, 2023) and the September 2023 EIS assessed the impacts of these outfalls and recommended mitigation measures.

Within the 2023 Draft Plan, Street A crosses the realigned WC2 corridor and the retained WC1 corridor for a total of two watercourse crossings. As outlined in the September 2023 EIS, both watercourse crossings were designed to provide for wildlife passage.

From a natural heritage perspective, the September 2023 EIS confirmed that the proposed Draft Plan would have the following effects:

- No negative impacts to the non-significant woodland (and associated SWH) as it was to be retained in place with a 15 m VPZ. Minor encroachment (0.07 ha) was proposed to facilitate construction of the realigned WC2 corridor. Encroachment into this feature was proposed to be accounted for as part of the Tree Protection and Management Plan (TPMP; GEI 2023) to ensure that no loss of trees occurs within the Subject Lands (in accordance with the City of Hamilton's Tree Protection Guideline; 2010);
- No net loss in treed areas will occur following the proposed woodlot removal. The total woodlot area would be replicated as non-significant woodlands at a slightly greater than 1:1 ratio (resulting in a 0.04 ha gain, when not considering the non-significant woodland encroachment discussed above). The created woodlands were proposed to be located adjacent to the WC1 and WC2 corridors to create a more connected NHS that is floristically diverse and comprised of native species. The created woodland habitats were within NHS Blocks 10, 13 and 18;
- Net gain in the number of trees within the Subject Lands and an increase in native tree cover. A commitment to review opportunities to preserve additional trees during the detailed design stage was made, as this is conditional upon the receipt of final grading details;
- Net gain in wetland area as the total wetland area on site would be replicated at a 1:1.23 ratio (a total of 6.32 ha of wetland created, resulting in a 1.18 ha gain). The created wetlands would increase floristic diversity and provide enhanced ecological functions (enhanced wildlife habitat, indirect fish habitat benefits, native plants, etc.) relative to the existing wetlands on the Subject Lands. The enhanced wildlife habitat will replicate and enhance the SWH functions associated with the anthropogenic pond (SAF) that will be removed;
- Maintain flow conveyance to downstream (offsite) habitats as well as a gain in watercourse length (49 m gain within WC1 through the daylighting, 414 m gain in WC2). Other indirect fish habitat functions (coarse sediment supply, allochthonous material contribution) will also be supported within the proposed NHS;
- Enhance the WC2 corridor through realignment using natural channel design principles and the incorporation of various aquatic and terrestrial habitat types; and
- Net gain in habitat for Monarch resulting from the inclusion of pollinator habitats within the NHS Blocks.

The September 2023 EIS concluded that no negative impacts to natural heritage features and functions were expected as a result of the proposed Draft Plan (2023) provided that the proposed mitigative and restorative measures were implemented and monitored. It has been our experience in other municipalities that non-significant wetland and non-significant woodlands, and other treed areas (hedgerows, woodlots) are able to be removed and replicated provided that the no negative

impact test has been met. Additionally, it is common practice for degraded watercourse features to be restored into larger natural channel corridors using natural channel design principles, as demonstrated by the NPCA who has approved in principle the design presented within the September 2023 EIS.

A policy conformance review completed by Jennifer Lawrence and Associates Inc. (provided within Appendix F of the September 2023 EIS), confirmed that the proposed Draft Plan was consistent with the Urban Hamilton Official Plan (UHOP) and Airport Employment Growth District (AEGD) Secondary Plan NHS policies.

2.0 UPDATED DRAFT PLAN (2025)

The Draft Plan (2025) (**Figure 5, Appendix A**) has been updated to respond to comments received from the City in 2024, as described below.

- To address the City's request to provide for the retention of the entire southerly woodland, an easterly shift of the north-south extent of the WC2 corridor (Blocks 16 and 17) has been provided which removes the 0.07 ha encroachment into the southern woodland and provides for the full 15 m buffer to the woodland, outside of the realigned WC2 corridor. This shift of the WC2 corridor has also increased the amount of area available for created woodland between the retained woodland (Block 13) and the realigned WC2 corridor (Block 17) by 0.55 ha. The changes to the WC2 alignment have resulted in the need to widen the WC2 corridor (Block 16) in the northwest corner of the Subject Lands in order to ensure the minimum 1:1.23 wetland compensation area is retained. The revised WC2 corridor has resulted in the ability to provide for 6.94 ha of wetland creation within the WC2 corridor which, when combined with the 0.12 ha proposed for creation associated with the daylighting of a buried portion of WC1, equates to a 1:1.37 wetland area replication ratio. This is greater than the 1:1.23 wetland area replication ratio that was provided through the 2023 Draft Plan. Details pertaining to the updated natural channel design and proposed wetland re-creation areas are provided in the updated *Tributaries of Twenty Mile Creek Conceptual Natural Corridor and Wetland Design Brief* (GEO Morphix, 2025);
- To address the City's request to retain as many existing trees as possible, the Draft Plan (2025) has been revised to retain an existing Cultural Plantation (CUP) and nearby hedgerows along the western property limit (relocated Block 18). This has resulted in the ability to protect additional existing trees, reducing the required number of compensation plantings, while also providing an area for tree planting within existing gaps in the canopy and open areas west and north of the CUP. As a result of the retention of this CUP and additional planting area, the NHS Block on the north side of WC2 (Draft Plan 2023 Block 18), has been relocated to this western location. No buffer is proposed for this woodlot given existing disturbances within the community from anthropogenic uses and the low existing ecological function; however, a Drainage Block (Block 21) provides for an approximately 17 m wide conveyance swale that is required along the east side of this woodlot to convey external flows northerly to the realigned WC2 corridor. This Drainage Block is located along the entire easterly limit of the retained/created woodlot block and will effectively function as a buffer between the industrial land uses to the east and the treed area within Block 18;

- The majority of the northern CUW unit continues to be proposed for removal; however, to address the City's request to retain as many existing trees as possible, trees within the northern CUW unit, that are located within 7.5 m of the realigned WC2 corridor (Block 16), will be retained within a landscape buffer within Block 1 of the Draft Plan. This can be secured through a Draft Plan condition. Based on GEI's analysis, there are a total of 30 trees within 7.5m of Block 16 in the CUW unit, of which one is a Manitoba Maple, and one is a White Ash. Given that Manitoba Maple is identified as an invasive species in Ontario and White Ash is in decline due to the Emerald Ash Borer, these two trees will be removed and replaced with native species that are not in decline. No buffer will be provided to the dripline of these existing trees; however, tree protection measures will be implemented during the construction period in accordance with the updated TPMP (GEI 2025);
- The conveyance swale directing external flows from the residential lots on Glancaster Road towards the WC2 corridor has been shown in a block (Block 21) and shifted to the east side of the woodlot (Block 18) on the western portion of the Subject Lands. This swale is shown within a 17 m wide Drainage Block and contains the City's required 4 m access route along the eastern side of the swale. The swale is not expected to require any long-term maintenance and would be planted with native, self-sustaining vegetation. The swale would not have any internal site drainage conveyed into the feature; rather, it is only intended to collect drainage from the retained/created woodland block as well as adjacent residential lots;
- To address the City's request to have greater connectivity between the woodlot (Block 18), the conveyance swale (Block 21) and the WC2 corridor (Block 16), the northwestern alignment of the WC2 corridor has been revised to allow the conveyance swale to connect into the corridor in closer proximity to Block 18 than would have existed if the WC2 corridor alignment had remained as shown on the 2023 Draft Plan; and
- To ensure that HDF H3 is appropriately accommodated, Block 22 has been added to the Draft Plan to provide for the relocated HDF.

The created woodlands (within Blocks 10 and 13) continue to be provided in the 2025 Draft Plan; however, the created woodland associated with Block 13 has slightly increased as a result of shifting WC2 corridor further east. As previously described, by retaining the southern woodland it will protect existing SWH habitat and the woodland functions, while providing for enhancement of this features through increased size, genetic diversity, and structural variability by adding a similar woodland community immediately adjacent that will result in an overall increase in biodiversity. Three SWM Ponds (Blocks 11, 12 and 14) continue to be proposed in generally the same location as on the previous Draft Plan (2023). Details related to these ponds and the stormwater management approach are provided in the *Functional Servicing Report* (MGM, 2025).

The revised Draft Plan (2025) continues to provide for two watercourse crossings on Street A that will be sized to accommodate wildlife movement. Exclusionary fencing and other mitigation measures will be explored during the detailed design stage to ensure that wildlife/vehicle interactions are limited to the extent possible. The WC2 corridor continues to be designed using natural channel design principles and will accommodate the wetland replication within the floodplain. This will allow for a "like-for-like" compensation approach since the wetlands proposed for removal are riparian. The WC1 and WC2 corridors will provide increased habitat variability and connectivity within the localized landscape (site-based) by connecting retained and created features. By creating well defined corridors it will reduce fragmentation and allow for increased

opportunities for biotic and abiotic movement within the corridor, hydrological and nutrient cycling, and the long-term maintenance of ecological health and integrity. This will also allow for the systems to be better connected for genetic diversity within the larger NHS. The details pertaining to the natural channel design, wetland and habitat creation within the WC2 corridor is provided in the updated *Tributaries of Twenty Mile Creek Conceptual Natural Corridor and Wetland Design Brief* (GEO Morphix, 2025).

Within the WC1 corridor, an additional 0.19 ha of meadow habitat will be created outside of the existing wetland limits (Block 9). This addition of meadow habitat is located within the floodplain within existing agricultural areas.

Finally, the Draft Plan (2025) continues to provide for the realignment of HDF H3 outletting into the realigned WC2 corridor however, through the provision of a Drainage Block (Block 22) this has been formalized in the Draft Plan.

It continues to be the Owner's intent that the NHS Blocks will be dedicated to the City through the Draft Plan approval process to ensure that the NHS is maintained by a public agency in perpetuity. The entirety of the NHS will be permanently fenced to act as a physical barrier to prevent unintended impacts from the adjacent development blocks. Opportunities to include educational signage (e.g., no mow or no dumping signs) can be explored during the detailed design stage to further discourage interaction with the NHS. Given the planned use of the site, it is not expected that the NHS would experience the same level of human interaction as, for example, a residential development where residents and domesticated pets are engaging with their neighbourhoods and communities. There will be a 4 m access route along both sides of the watercourse corridor, as required by the City, which can also act as a trail. Though fencing along the perimeter of the NHS buffer blocks would limit the ability of some wildlife to move outside of the NHS, the nature of the proposed development and adjacent land uses is such that movement of wildlife out of the NHS corridor would not be recommended. The watercourse crossings internal to the Draft Plan are designed to provide for wildlife movement within the watercourse corridors.

The updated Development Concept is provided on **Figure 6** (**Appendix A**). A summary of the habitat replication areas is provided within **Tables 3** and **4**, below.

Table 3: Natural Heritage Feature Replication Areas – 2025 Draft Plan

Natural Heritage Feature Type	Area Retained (ha)	Area Removed (ha)	Area Created (ha)	Replication Ratio	Net Gain in Area by Feature Type (ha)	VPZ*** (m)
Treed Areas (Woodlot/Woodland)						
Non-significant Woodland (FOD)	1.09	0	2.51	N/A	+2.51	15 m from retained FOD, 10 m from created woodland
Woodlot (CUP, CUW/SWD, CUW)	0.19*	2.42	0.90	1:0.37	-1.52	0 m**
Total Treed Area (Woodlot/Woodland)	**1.28***	**2.42**	**3.41**	**1:1.41**	**+0.99**	**Variable by feature**

Natural Heritage Feature Type	Area Retained (ha)	Area Removed (ha)	Area Created (ha)	Replication Ratio	Net Gain in Area by Feature Type (ha)	VPZ*** (m)
Wetland						
Non-significant Wetland (MAM, MAS, SAS, SAF, SWD)	0.46	5.14	7.15 (0.12 within WC1 corridor and 7.03 within WC2 corridor)	1:1.39	+2.01	15 m from wetland limit
Overall Total	**1.79**	**7.56**	**10.56**	**N/A**	**+3.00**	**N/A**

*does not include the 7.5 m wide landscaping buffer where trees will be retained within existing CUW adjacent to WC2 corridor

**no VPZ on wooded area within Block 18, however 17 m wide swale (Block 21) is proposed on the eastern side of Block 18.

***7.07 ha of VPZ will be planted with native, non-invasive species for additional naturalized areas

Table 4: Drainage Feature Length Replication – 2025 Draft Plan

Drainage Feature	Existing Length (m)	Proposed Length (m)	Change in Length (m)
Watercourses and HDFs			
Watercourses			
WC1	304	353	+ 49
WC2 (WC 2A, 2B, 2AB, 2C)	1,626	2,340	+ 714
HDFs			
HDF-H3	747	326	- 421
Total Watercourses and HDFs	**2,677**	**3,019**	**+ 342**
Swales			
Western Swale	Not Existing	258	+ 258
Overall Total Drainage Features	**2,677**	**3,277**	**+ 600**

As presented within **Table 3**, a net gain in area of all natural heritage feature types will continue to be achieved as part of the 2025 Draft Plan with an increase in overall net gain in natural heritage features of 1.85 ha as compared to the 2023 Draft Plan for a total of 3 ha of additional natural heritage features to be created on the Subject Lands. This includes the addition of the following areas as compared to the 2023 Draft Plan:

- Retained Features (an additional 0.26 ha retained):
  - 0.07 ha of FOD within the non-significant woodland will be retained through adjustment to the location of the WC2 corridor; and

  - 0.19 ha of woodlot will be retained on site through the protection of the western CUP and adjacent hedgerows.
- Created Features (an additional 1.59 ha created):
  - 0.76 ha of additional treed areas (woodland/woodlot) will be created on site through the shifting of the realigned WC2 channel corridor easterly and the creation of an additional woodlot on the western side of the Subject Lands; and
  - 0.83 ha of additional wetland habitat will be created on site within the realigned WC2 channel corridor.

While not necessarily a natural heritage feature type, it is also important to note that 0.19 ha of meadow has also been added to the 2025 Draft Plan (within Block 9). Plantings within this meadow could include pollinator-specific plantings (e.g., Common Milkweed plantings to support Monarch butterfly). A variety of pollinator plants will be included throughout the NHS with a variety of blooming periods to support different nectaring requirements. As shown within **Table 4**, a net gain in overall drainage feature length will continue to be achieved. Most importantly, a gain in watercourse length of 600 m will have been achieved (this includes both the watercourse and HDF lengths given that the NPCA considers HDF-H3 to be a regulated watercourse). This is a gain of 488 m in watercourse length as compared to the 2023 Draft Plan.

The updated proposal will result in an increase of 0.83 ha of wetland cover, 1.04 ha of woodland/woodlot, and 600 m length of watercourse within the Subject Lands as compared to the 2023 Draft Plan. In addition, individual tree compensation for trees located outside of treed areas (e.g., hedgerows) continues to be proposed. No loss in wetland, woodland/woodlot and treed cover is expected as a result of the proposed application. Rather, an increase in habitat is expected, as well as a functional gain through additional biodiversity benefits (e.g., native plantings, wildlife habitat enhancements).

Although not discussed in detail within this Addendum, the 2023 Draft Plan and the 2025 Draft Plan both provide for stormwater management facilities which will require outlets to the on-site watercourses. It is acknowledged that refinements to the SWM strategy may continue to occur through detailed design; however, as long as the erosion exceedance threshold criteria is met, pre to post development flow rate contributions are met and Level 1 quality control is achieved, impacts from an ecological perspective will have been mitigated.

3. WETLAND REPLICATION RATIOS

In the absence of guidelines from the City and NPCA, GEI utilized the Toronto and Region Conservation Authority's (TRCA) Guideline for Determining Ecosystem Compensation (herein referred to as the "TRCA's Ecosystem Compensation Guideline"; 2023) to confirm that the wetland replication ratio was appropriate and in-keeping with best management practices. It is common to utilize guidelines prepared by other Conservation Authorities (CAs) and/or municipalities, in the absence of specific guidelines at the local municipal level. For example, as directed by the City, the CVC/TRCA Headwater Drainage Feature Assessment Guidelines (2014) were utilized to assess headwater drainage features on the Subject Lands. By adopting guidelines from other municipalities/CAs, municipalities can utilize best management practices that have been evaluated and accepted by nearby municipalities and CAs thereby providing for consistency in approach within a geographic region.

The TRCA's Ecosystem Compensation Guideline introduces the topic of wetland compensation as an "important tool to help ensure that the critical ecosystem functions and services lost through development and infrastructure are restored back on the landscape for the betterment of communities". The TRCA has developed an approach to be applied when offsetting has been identified as part of the Mitigation Hierarchy and where development plans to affect natural features. The TRCA's Ecosystem Compensation Guideline identifies several different wetland compensation opportunities, such as on-site compensation, offsite compensation and/or cash-in-lieu compensation. On-site compensation is proposed to ensure that the ecosystem structure and functions will be compensated within the Subject Lands. The TRCA Ecosystem Compensation Guideline considers that some treed communities may take longer to establish in comparison to communities with less trees (e.g., meadow marsh), thus, differing compensation ratios are recommended based on the basal area of the feature that is proposed to be impacted.

The basal area for treed wetland communities (SWD) within the Subject Lands was determined by GEI's Arborist using the collected tree inventory data.

Based on the TRCA's Ecosystem Compensation Guidelines, the following areas of wetland would be required to be re-created on the Subject Lands:

- MAM, MAS, SAS and SAF communities: Existing communities total 4.88 ha. Based on an assumed basal area of 5 m^2/ha or less, given that these communities are characterized by the general absence of tree cover, they will be replaced at a 1:1 ratio resulting in the requirement to create 4.88 ha of wetland area; and
- SWD communities: Existing communities total 0.26 ha. Based on basal areas of 53.78 m^2/ha and 32.05 m^2/ha, respectively, they will be replaced at the maximum identified compensation ratio of 5:1 resulting in the requirement to create 1.30 ha of wetland area

As a result, a total of 6.18 ha of wetland compensation is required (4.88 ha for the MAM, MAS, SAS and SAF communities and 1.30 ha for the SWD communities) to account for the removal of 5.14 ha of wetland from the Subject Lands, based on the TRCA's Ecosystem Compensation Guideline.

As outlined in **Table 3**, 7.15 ha of wetland is proposed for re-creation within the WC1 and WC2 corridors, which is above the calculated requirement of the TRCA's Ecosystem Compensation Guidelines. Specifically, an additional 0.97 ha of wetland habitat will be provided above the TRCA's Ecosystem Compensation Guidelines.

4.0 UPDATED RESTORATION COMMITMENTS

The restoration concept presented within Section 6 of the September 2023 EIS would not be substantively changed by the updates to the Draft Plan, apart from: (1) the minor changes to the alignment and the increased corridor width associated with the realigned WC2 corridor; and (2) the location and size of retained and created woodland and treed areas. Otherwise, the restoration concept and its associated principles are largely unchanged. As previously noted, several times throughout the EIS, all created areas including created woodlots, woodlands, wetlands, watercourse corridors and VPZs will be planted with native species.

If required by the City, the consideration for salt-tolerant species within the WC2 corridor can be explored when selecting the plant materials during detailed design and can be a draft plan condition. That said, limiting all species within the WC2 corridor to salt-tolerant species would be restrictive and reduce biodiversity. In the Study Team's experience, is not necessary to provide salt-tolerant species throughout the watercourse corridor. Salt-tolerant species could be focused within areas that could be expected to experience salt runoff such as immediately downstream of SWM outfalls.

Opportunities to explore retaining or reusing existing plant material (either alive plants as transplant material or dead trees to create habitat structures) into the NHS design will be explored further during detailed design and can be a draft plan condition. Specifically, opportunities to transplant locally uncommon and rare plant species will be explored at detailed design.

It is acknowledged that specific details surrounding the woodland and woodlot compensation, such as planting densities, planting techniques, species lists and targeted ELC communities, have not been provided within the EIS as they are intended to be provided within the NHS Design Brief as part of the detailed design scope of work.

GEO Morphix has completed a preliminary water availability assessment to confirm that the wetlands within both watercourse corridors can be sufficiently supported. This hydroperiod modelling will be further refined at detailed design; however, it has been confirmed that wetland hydroperiod functions can be supported in the watercourse corridors. As discussed within the EIS, the targeted wetland community type will be determined during the detailed design stage once the final hydroperiod modelling has been completed.

Finally, there are several comments from the City regarding the long-term function, protection and monitoring of the NHS. As discussed within Section 8 of the EIS, a 10-year post-construction monitoring program has been recommended to determine whether the NHS is functioning as designed. This is a comprehensive monitoring program as other monitoring programs typically requested by provincial and federal authorities are 3-5 years. This post-construction monitoring plan also considers the potential for adaptive management if deficiencies are identified. The NHS will be conveyed to the City to ensure protection in perpetuity. After conveyance of the NHS occurs to the City, and the 10-year monitoring program is complete, the City can choose to monitor the NHS as part of a larger municipal monitoring program. It has been our experience in other municipalities that they undertake holistic monitoring of created and retained portions of the NHS in public ownership.

A commitment to refine the restoration concept is provided below within **Section 6**.

5.0 REVIEW OF IMPACT ASSESSMENT

The impact assessment completed within Section 5 of the September 2023 EIS would not be substantively changed by the updates to the Draft Plan (2025). Some high-level items are discussed below, however, the mitigative and restorative measures presented within the September 2023 EIS are the same recommendations that would be provided based on the updated Draft Plan (2025). Overarching mitigation measures identified within the EIS included:

- Working outside of sensitive ecological timing windows (e.g., warmwater fisheries window, migratory bird and bat maternity roosting windows);

- Completing wildlife rescues prior to removal of any of the features;
- Erecting tree protection fencing and erosion and sediment control (ESC) fencing prior to construction activities along the outer limits of the NHS;
- Enacting spill prevention and response measures during construction;
- Limiting construction activities adjacent to retained woodlands in the early mornings or nights during the active bird and bat season;
- Removal of trees should follow arboricultural best management practices;
- Regularly cleaning construction equipment to reduce potential transportation of invasive species;
- Disposing of all trees that are not incorporated into the NHS design locally to reduce transportation and slow the spread of invasive species;
- Erecting permanent fencing along the edge of the VPZs to define the NHS and to discourage pedestrians from interacting with the NHS;
- Incorporating habitat enhancement structures into the constructed NHS;
- Directing new lighting away from the NHS;
- Following the City's Salt Management Plan so that snow is stored away from natural features and melt water is conveyed into the storm sewer network; and
- Invasive species management.

The above noted mitigation measures incorporate many standard, best management practices.

Section 13.2 of the Natural Heritage Reference Manual (NHRM; 2010) highlights that "the PPS definition for "negative impacts" does not state that all impacts are negative, nor does it preclude the use of mitigation to prevent, modify or alleviate the impacts to the significant natural heritage feature or area. For example, the Manual states that, "*demonstration of no negative impacts on a significant woodland through mitigation measures may be contemplated, provided that factors such as the successional state and replaceability of woodland components and functions within a reasonable time frame (e.g., 20 years) are considered*". The NHRM considers that even where all functions may take some time to be restored, the test of no negative impact can still be satisfied through recreation and succession of established communities.

<u>Endangered and Threatened Species</u>

There were no endangered or threatened species identified on the Subject Lands.

Threatened and endangered species may be present within 120 m of the Subject Lands; however, no negative impacts are expected given they are located offsite.

<u>Significant Wetlands and Significant Woodlands</u>

There are no significant wetlands or significant woodlands on the Subject Lands.

There are significant woodlands within the 120m adjacent lands (i.e., within the EIS Study Area). Two candidate significant woodlands are located adjacent and offsite to the Subject Lands: one immediately north of Dickenson Road and one immediately west of Glancaster Road. It is understood from the City of Hamilton that the woodland north of Dickenson Road has been assessed as significant based on ecological work completed to support an adjacent development application.

No mapped significant wetlands are located within 120 m of the Subject Lands. The closest provincially significant wetland (PSW; Upper Twenty Mile Creek Wetland Complex) is approximately 400 m north of the Subject Lands. Wetlands within the Subject Lands are not expected to be hydrologically connected to this wetland since they drain to different watercourses (the PSW drains north-east towards Twenty Mile Creek, whereas the Subject Lands drains south-east towards Three Mile Creek). It is acknowledged that Three Mile Creek ultimately confluences with Twenty Mile Creek; however, this confluence is well downstream of the Subject Lands.

There are no changes to the impact assessment completed for offsite features (i.e., Section 5.1 Significant Wetlands and Section 5.2 Significant Woodlands of the September 2023 EIS) as a result of the 2025 Draft Plan.

Significant Wildlife Habitat

Alterations within SWH were assessed within the September 2023 EIS. Specifically, alterations within Snapping Turtle habitat, wetland amphibian breeding SWH, and Monarch habitat were assessed because of impacts to these habitats as a result of the proposed realigned WC2 corridor. Mitigative and restorative measures presented within Section 5.3 of the September 2023 EIS continue to be applicable. As noted within the EIS, these habitats will be replicated throughout the NHS. Currently turtle nesting areas are poor quality and unlikely to result in successful clutches (within actively ploughed agricultural fields or along existing road shoulders); however, within the proposed NHS the addition of turtle nesting beaches is recommended, which will increase habitat availability on site and encourage turtles away from high conflict areas (e.g., roads). The watercourse crossings associated with Street A will both be designed to facilitate wildlife passage, providing for safe movement of turtles (and other wildlife) without the need to cross busy roads.

The September 2023 EIS assessed the impact to bat maternity colony SWH as a result of the previous proposal to remove a small portion of the southern woodland (0.07 ha). The 2025 Draft Plan now retains this entire woodland in place (Block 13). As a result, no encroachment into bat maternity colony SWH will occur, and no direct impacts are expected. Indirect impacts presented within Section 5.3 of the September 2023 EIS may still occur; therefore, the mitigative measures provided in the September 2023 EIS continue to be applicable.

Other wildlife enhancements have been recommended as part of the Restoration Concept (within Section 6.3.2.5 of the EIS). This will increase the amount and availability of productive habitat on site for aquatic and terrestrial species within connected watercourse corridors.

Fish Habitat

Realignment of the WC2 corridor was previously contemplated within Section 5.6 of the September 2023 EIS. There are no substantial changes to the impact assessment as a result of the reconfiguration of the WC2 corridor; however, an additional 154 m in channel length will be created as a result of the reconfiguration in comparison to the 2023 Draft Plan. Additional channel length in general provides several biophysical benefits such as increased habitat availability, increased floodplain connectivity, improved water quality, increased complexity of the stream and climate resilience.

No changes to the WC1 corridor were proposed with the 2025 Draft Plan. As such, mitigative measures outlined in Section 5.6 of the September 2023 EIS continue to be applicable.

There are no impacts to SAR fish habitat as a result of the proposed development. One watercourse on the adjacent lands has been identified as habitat for Grass Pickerel, the watercourse adjacent to WC1 (on the Airport Lands). This watercourse is not hydrologically connected to the watercourses on the Subject Lands; rather, that watercourse flows north-east towards Twenty Mile Creek, while the WC1 watercourse flows south towards Three Mile Creek. It is acknowledged that Grass Pickerel is identified within Three Mile Creek, however this is located far downstream (approximately 5.3 km) from the Subject Lands and the fish habitat protection measures and enhanced riparian corridor along WC1 and WC2 outlined within the September 2023 EIS will also work to protect this Grass Pickerel population.

Adjacent Lands

Aside from the significant wetland (located north of the Subject Lands), candidate/confirmed significant woodlands (located north and west of the Subject Lands) and the continuation of WC 1 and 2 within the Airport Lands (east of the Subject Lands), no other natural heritage features are identified within the adjacent lands. The majority of the adjacent lands are residential or associated with the Airport Lands. Two roads (Dickenson Road to the north and Glancaster Road to the west) will act as physical and permanent barriers between the Subject Lands and any adjacent natural heritage features. Any activities within the Subject Lands are not expected to negatively impact any adjacent natural heritage on the opposite side of these roadways, as these roads act as a clear and defined break. Additionally, mitigation measures identified within the September 2023 EIS and further elaborated on in the Addendum will also protect off-site features.

Woodlot and Woodland Replication

The 2025 Draft Plan provides for the retention of the entire existing woodland (FOD 1.09 ha) as well as an existing woodlot (CUP, 0.24 ha). The 2025 Draft Plan also provides for the creation of 3.41 ha of woodlot and woodland habitat within the Subject Lands (an increase of 0.76 ha from the 2023 Draft Plan).

The locations for woodlot creation have shifted slightly within the Subject Lands since the 2023 Draft Plan to add additional plantings near the retained woodland (FOD) resulting from the shift in the WC2 corridor, as well as relocation of a proposed planting area from the north of WC2 to the area around the western woodlot (CUP). This will provide additional benefits to the existing treed area and habitat opportunities given the variation in ages of trees.

No formal VPZ will be provided along the outer limits of the western woodlot (CUP). No impacts are expected provided tree protection measures identified within the TPMP are implemented. Vegetative planting is permitted within the TPZs of existing trees, as this is not expected to negatively impact the function of the existing woodlot. A 17 m wide conveyance swale will be provided along the length of the eastern woodlot boundary. Construction of the conveyance swale is not expected to negatively impact the retained woodlot as the woodland is anticipated to be tolerant to disturbance from existing active agricultural practices. The conveyance swale will be

vegetated with native plant material and no long-term maintenance is expected; therefore, in a post-development scenario it will provide buffering functions to the retained (and created) woodlot. As noted within Section 13.2 of the Natural Heritage Reference Manual (Ontario Ministry of Natural Resources 2010), the replacement of woodland components and functions within a reasonable time frame are contemplated and are not considered a negative impact under the Provincial Policy Statement (now the Provincial Planning Statement 2024).

The mitigative measures outlined within Section 5.4 and 5.7 of the September 2023 EIS continue to be applicable.

Wetland Replication

A net gain of 1.92 ha of wetland will be created within the WC1 and WC2 corridors, which is an increase in created wetland of 0.74 ha as compared to the 2023 Draft Plan. This increase in wetland area is a result of the shift to the realigned WC2 corridor and the change in the watercourse alignment and widths at the upstream extent. The increase in wetland replication area will inherently provide further additional area and thus, provide greater opportunities to enhance the anticipated ecological benefits (e.g., increase in habitat availability, increase area of native plantings) as compared to the 2023 Draft Plan.

As noted within Section 3 of this Addendum, the wetland compensation is above and beyond the TRCA's Ecosystem Compensation Guidelines. The net gain in wetland habitat on site will aide in increasing the wetland cover both within the Subject Lands and within the City's NHS.

The replication of wetlands within the WC1 and WC2 corridors were contemplated as part of the September 2023 EIS. As such, the mitigative measures outlined within Section 5.5 of the September 2023 EIS continue to be applicable.

6.0 POLICY CONFORMANCE

The policy conformance review completed by Jennifer Lawrence and Associates Inc. (provided within Appendix F of the September 2023 EIS) has been updated to reflect the revisions in the 2025 Draft Plan and is included as **Appendix B** to this Addendum. The policy conformance review has also been updated to include PPS (2024) policies to address concerns raised by the City in their 2024 comments. As outlined in **Appendix B**, the Draft Plan (2025) continues to be consistent with the Urban Hamilton Official Plan (UHOP) and Airport Employment Growth District (AEGD) Secondary Plan NHS policies and is also consistent with the PPS natural heritage, natural hazard, climate change and biodiversity policies.

7.0 DETAILED DESIGN NEXT STEPS

Within the September 2023 EIS, several commitments were made to complete additional items during the detailed design stage. This EIS Addendum has resulted in some additional commitments. These commitments (September 2023 EIS and this Addendum) as well as other higher-level next steps are summarized below and would be completed to the satisfaction of the City and NPCA (where applicable) as conditions of draft plan approval.

- Complete detailed invasive species mapping within retained features, closer to the time of site alteration, to evaluate the presence and extent of Category 1 invasive species. Following the completion of the invasive species mapping, an invasive species management plan will be prepared. The rationale for not completing this at this stage is the timing of construction is uncertain, and site conditions could change (e.g., increased colonization of Common Reed within wetland habitats). By completing these surveys closer to construction, it will accurately portray the invasive species and their abundance prior to site alteration and development. As acknowledged within Section 8 of the September 2023 EIS, invasive species plant monitoring will be completed within created and retained portions of the NHS during post-construction monitoring;
- Prepare a NHS Design Brief confirming the restoration design approach for the retained and created NHS. The NHS Design Brief will include planting details (such as the native plant selections for each community) based on site specific conditions and review development phasing opportunities. The NHS Design Brief will be informed by the detailed water availability assessment and will inform the landscape design plans:
    - During the phasing review, opportunities to create features within the NHS (e.g., realigned watercourse and wetlands) ahead of the removal of the existing features will be explored. Where feasible, features will be created prior to the removal of the existing features to reduce lag times between creation and removal of features;
    - Review opportunities to incorporate salt-tolerant species into the planting plan, particularly in areas where salt loading is expected (i.e., at stormwater outfalls); and
    - Explore opportunities to retain or reuse existing plant material (either alive plants for transplant or dead trees to create habitat structures) into the NHS design through protection, transplantation, seed collection, and/or incorporation of dead material (e.g., tree snags) or live stakes.
- Complete a detailed water availability assessment to confirm the hydroperiod requirements for the created wetlands, as well as determining whether additional mitigative measures (e.g., rooftop contributions) are required. GEO Morphix previously completed a preliminary water availability assessment which confirmed that wetland hydroperiods could be supported within both watercourse corridors;
- Complete landscape design plans in accordance with NHS Design Brief. Landscape design plans are to be prepared by a Landscape Architect in good standing with the OALA;
- Update TPMP with finalized grading limits to finalize preservation and removal trees. The updated TPMP continues to apply a precautionary approach and conservatively assumes removals of trees; however, once detailed site grading is available opportunities to retain additional trees will be explored. Once the final number of trees proposed for removal is understood, opportunities to compensate for these removals on site will be reviewed as follows:
    - Opportunities to compensate for all trees within the Subject Lands will be prioritized. Compensation will occur within the streetscape, along road right of ways, surrounding the SWM ponds and within VPZs. If all trees cannot be compensated on-site, they will be compensated through cash-in-lieu as permitted by the City. All tree removals will be compensated in accordance with the City's Tree Protection Guidelines (2017).

- Prepare a Monitoring Plan that will build on the 10-year monitoring program presented within Section 8 of the September 2023 EIS. Within the Monitoring Plan, detailed station mapping will be prepared showing where the monitoring stations will be located within both created and retained features;
    - All baseline surveys have been completed as part of the EIS and is not intended to be repeated; however, one additional survey (invasive species) is recommended prior to construction to document (1) the presence and (2) extent and abundance of Category 1 invasive species within retained habitats. A 10-year post-construction monitoring program has been proposed to monitor the effectiveness and design of the created features. Comparisons of post-construction data can be made to existing baseline data for retained communities, or to reference community types and/or to design parameters for created communities (e.g., created wetlands will be designed to support amphibian breeding habitat, so amphibian call count surveys will be completed to determine if amphibians are using the new habitats). Post-construction monitoring is proposed over a 5 year period within retained features (Years 1,2,3 and 5) and over a 10 year period within created features (Years 1,2,3,5,7,9,10).
- Prepare and submit Request for Review to DFO. This process cannot be completed until at least 60% design drawings have been prepared. Channel realignments are commonly accepted approaches with DFO and are not expected to impact the permissibility of the project. Given the proposed mitigation measures it is our opinion that a HADD (harmful alteration, disruption or destruction) can be avoided and thus a *Fisheries Act* Authorization is likely not required. This will be confirmed with DFO through the Request for Review process;
- Apply for Scientific Collectors Permit(s) (fish and wildlife) to complete wildlife salvage(s) prior to natural feature removal; and
- Apply for NPCA permits for the removal and re-creation of wetlands and the realignment of WC2 and HDF-H3 (O. Reg. 41/24).

7.0 CONCLUSIONS

It continues to be GEI's professional opinion that the 2023 Draft Plan was sufficient to demonstrate that there would be no negative impacts to the natural heritage features and functions and that an appropriate NHS was proposed consistent with the Provincial Policy Statement (2020), the City's UHOP and AEGD Secondary Plan and NPCA's regulation (O. Reg. 155/06); however, in an effort to work with the municipality, the Draft Plan (2025) has been updated address comments received from the City from a natural heritage perspective, which has resulted in additional natural heritage features retained and additional areas of natural heritage restoration identified. The 2025 Draft Plan also results in no negative impacts to the natural heritage features and functions and incorporates an appropriate NHS, consistent with the Provincial Planning Statement (2024), the City's UHOP and AEGD Secondary Plan and NPCA's regulation (O. Reg. 41/24).

The NHS has been designed in accordance with federal, provincial and local policies, and is ecologically justifiable. The proposed NHS will result in a larger, more connected natural heritage system with a mosaic of habitat and vegetation types that are not currently present within the landscape. The Proposed NHS will be planted with a nature-first approach using only native plant materials that are locally sourced to prevent transplant shock. The NHS is intended to be protected in the long-term through the conveyance to the City.

Should you have any questions regarding this EIS Addendum, please contact one of the undersigned.

Yours truly,
GEI Consultants

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smale@geiconsultants.com

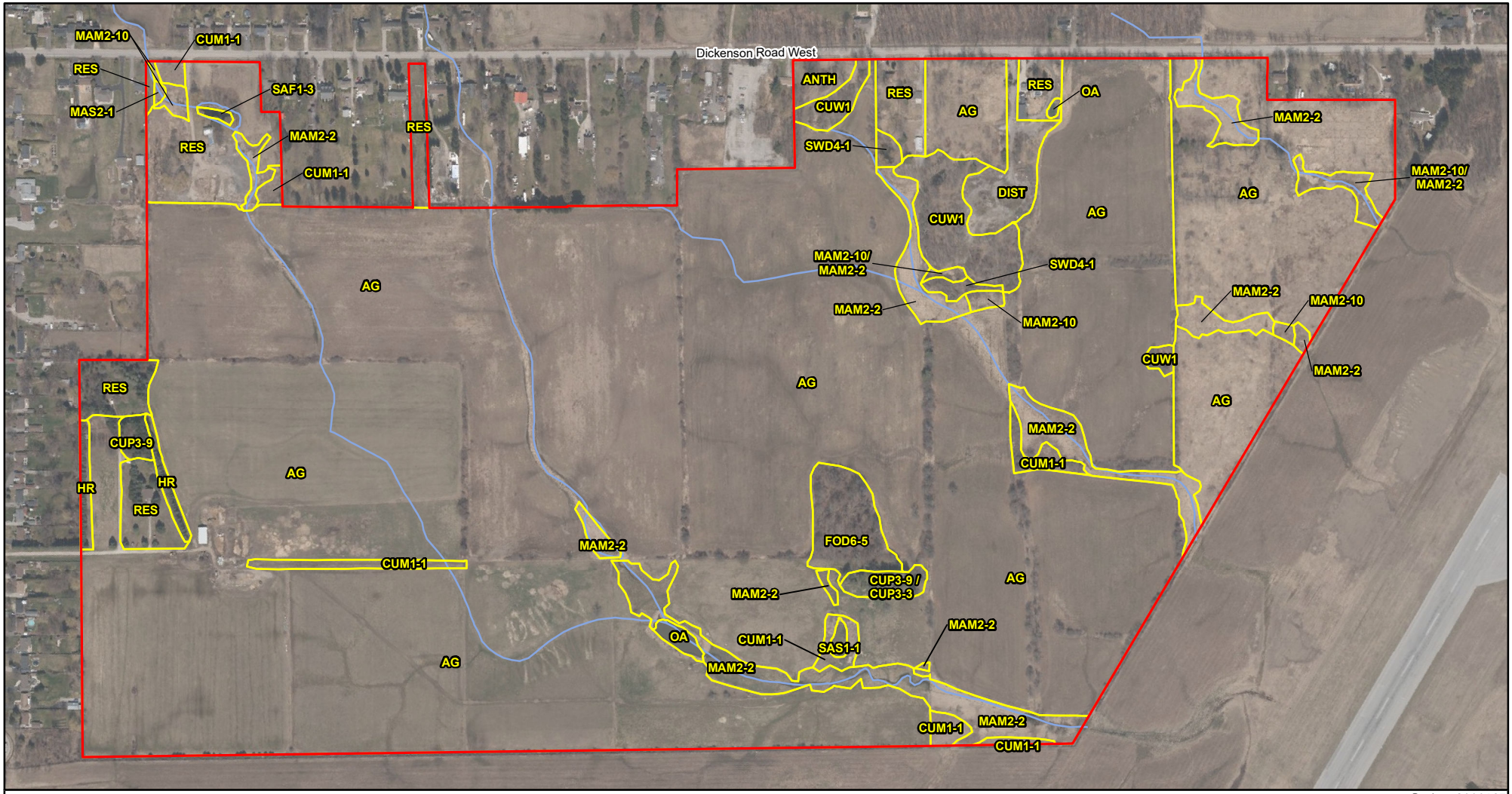
Attachments:

Appendix A – Figures

Appendix B – Updated Policy Conformance Review

Appendix C – JD Barnes Wetland Surveys

APPENDIX A – FIGURES



Project 2000197

NOTES:

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4. Features from Map B.8-2 of the Urban Hamilton Official Plan - Airport Employment Growth District

Legend

- Subject Lands
- Ecological Land Classification
- Drainage Feature [4]

ELC Legend

AG, Agricultural
ANTH, Anthropogenic
CUM1-1, Dry - Moist Old Field Meadow
CUP3-3, Scotch Pine Coniferous Plantation
CUP3-9, Norway Spruce Coniferous Plantation
CUW1, Cultural Woodland
DIST, Disturbed
FOD6-5, Fresh – Moist Sugar Maple – Hardwood Deciduous Forest
HR, Hedgerow
MAM2-2, Reed-canary Grass Mineral Meadow Marsh
MAM2-10, Forb Mineral Meadow Marsh
MAS2-1, Cattail Mineral Shallow Marsh
OA, Open Aquatic
RES, Residential
SAF1-3, Duckweed Floating-leaved Shallow Aquatic
SAS1-1, Pondweed Submerged Shallow Aquatic Type
SWD4-1, Willow Mineral Deciduous Swamp

Air Force One Environmental Impact Study
Dickenson Limited Partnership and Dickenson GP Inc.

Figure 1
Ecological Land Classification

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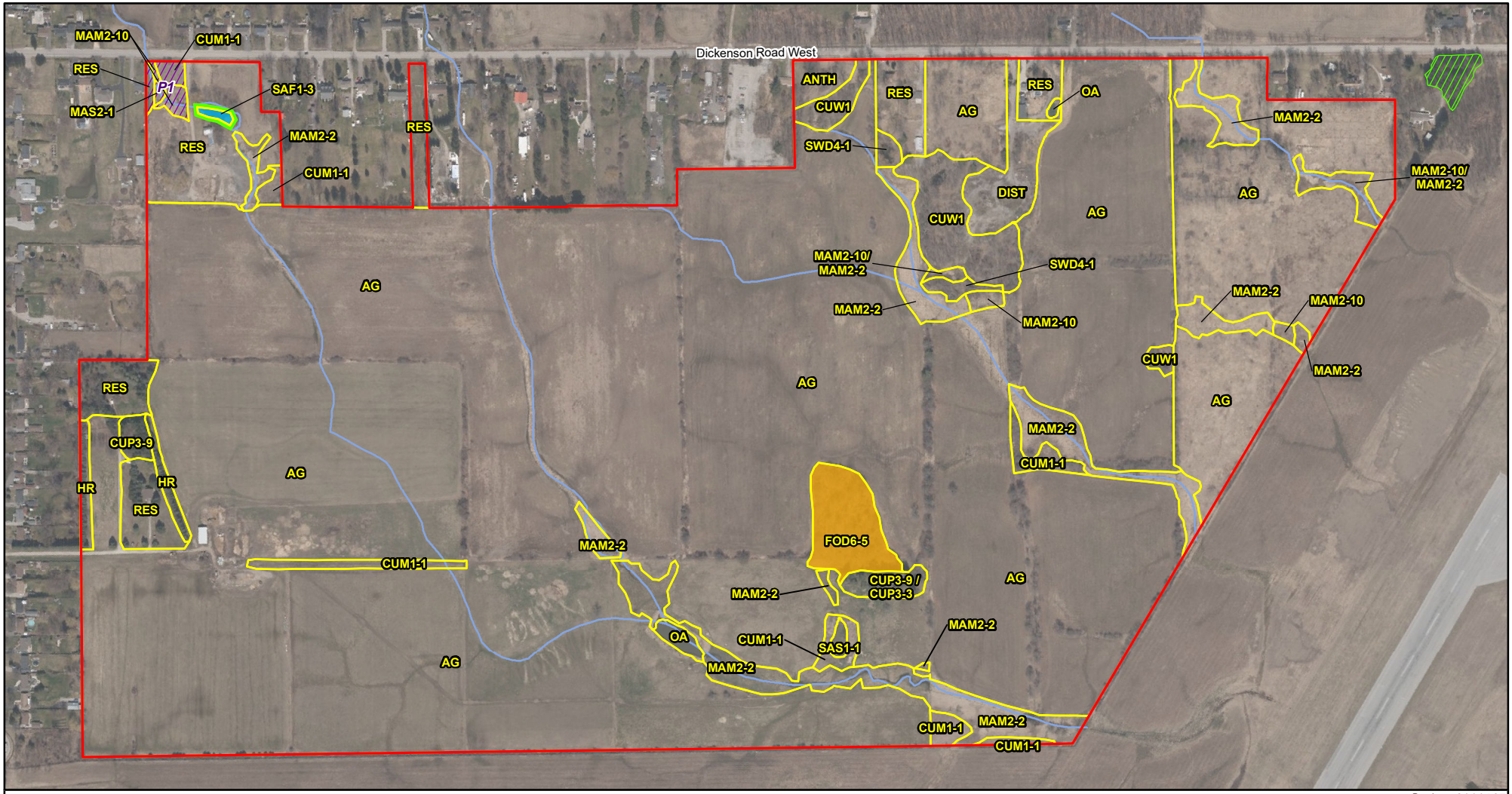

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Legend

- Subject Lands
- Ecological Land Classification
- Drainage Feature
- Bat Maternity Colonies
- Candidate Eastern Wood Pewee Habitat
- Wetland Amphibian Breeding Habitat

Habitat for Species of Special Concern

- Snapping Turtle
- Monarch

ELC Legend

AG, Agricultural
ANTH, Anthropogenic
CUM1-1, Dry - Moist Old Field Meadow
CUP3-3, Scotch Pine Coniferous Plantation
CUP3-9, Norway Spruce Coniferous Plantation
CUW1, Cultural Woodland
DIST, Disturbed
FOD6-5, Fresh – Moist Sugar Maple – Hardwood Deciduous Forest
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SAF1-3, Duckweed Floating-leaved Shallow Aquatic
SAS1-1, Pondweed Submerged Shallow Aquatic Type
SWD4-1, Willow Mineral Deciduous Swamp

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Figure 2
Significant Wildlife Habitat

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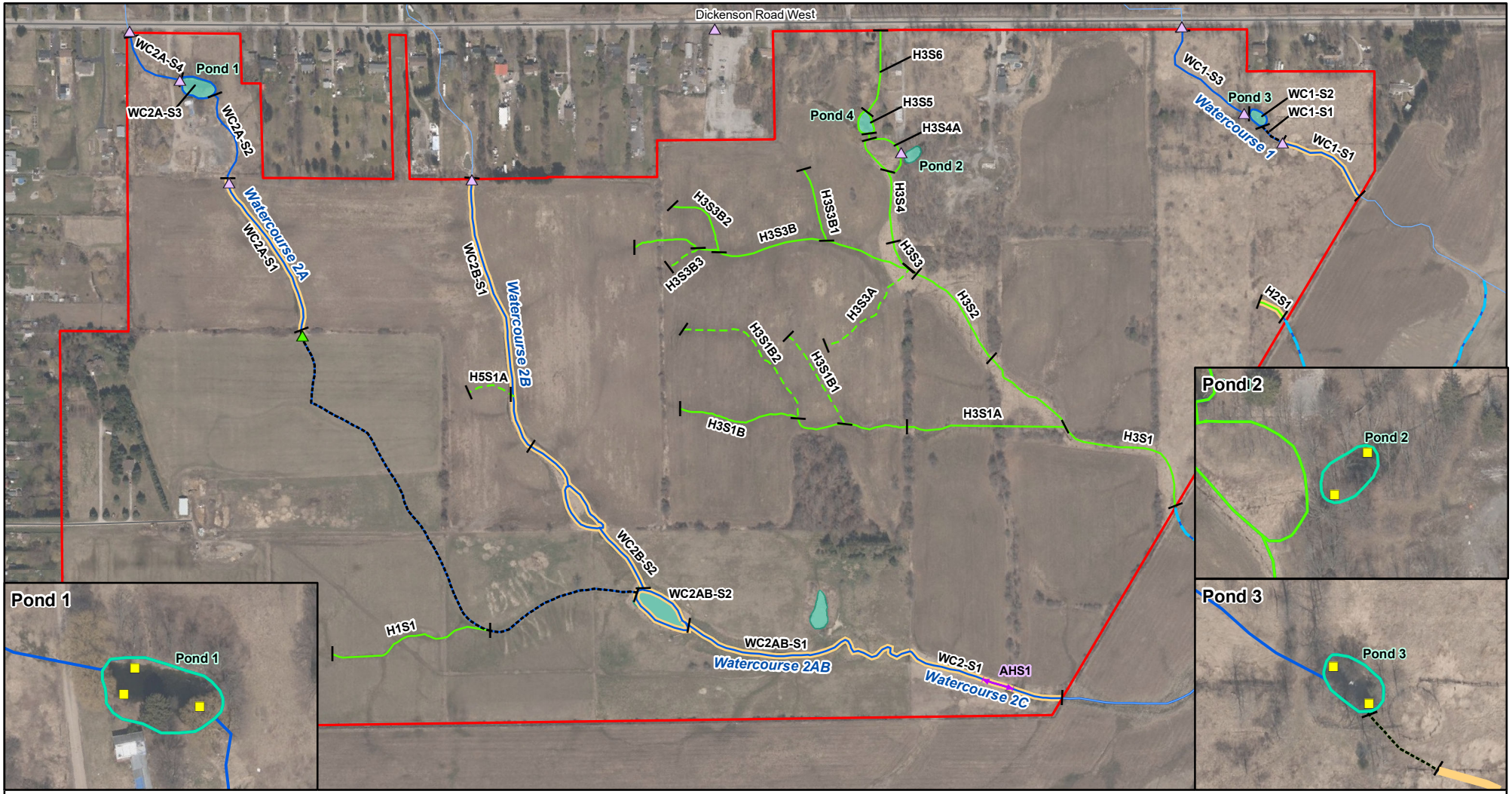

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Legend

- Subject Lands
- Culvert
- Tile Drain Inlet
- Piped
- Offsite Headwater Drainage Feature
- Offsite Watercourse
- Minnow Trap
- Aquatic Habitat Station
- Fish Community Sampling Reach
- Pond Location

HDFA Management Recommendations

- Mitigation
- No Management Required

Watercourse Constraint Rankings

- Medium Constraint

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Figure 3
Aquatic Survey Locations, HDF Management Recommendations and Watercourse Constraint Rankings

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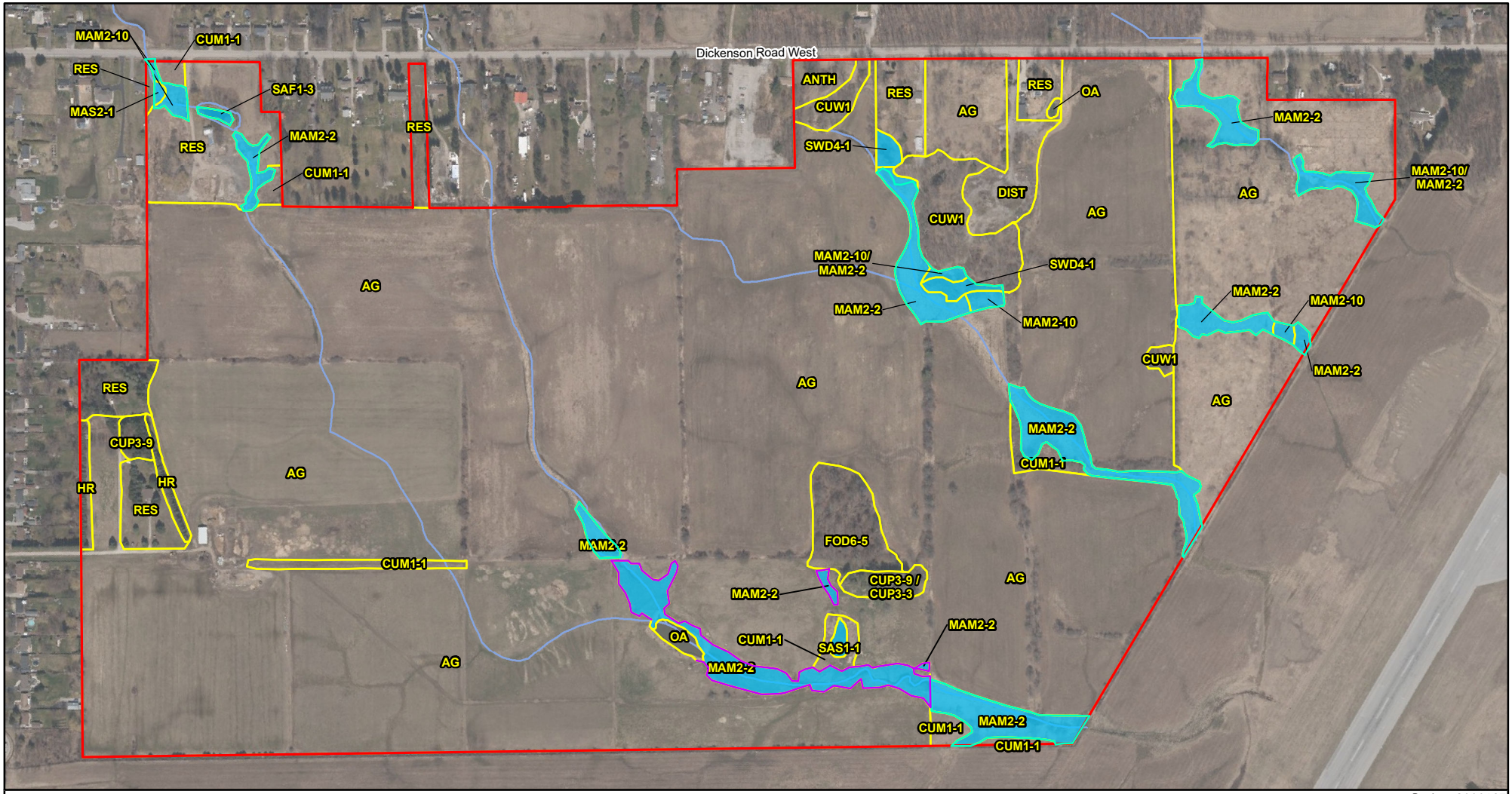

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Legend

- Subject Lands
- Ecological Land Classification
- Drainage Feature
- Wetland
- Staked Wetland Limits (NPCA, September 25, 2020)
- Staked Wetland Limits (NPCA, August 20, 2021)

ELC Legend

AG, Agricultural
ANTH, Anthropogenic
CUM1-1, Dry - Moist Old Field Meadow
CUP3-3, Scotch Pine Coniferous Plantation
CUP3-9, Norway Spruce Coniferous Plantation
CUW1, Cultural Woodland
DIST, Disturbed
FOD6-5, Fresh – Moist Sugar Maple – Hardwood Deciduous Forest
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SAS1-1, Pondweed Submerged Shallow Aquatic Type
SWD4-1, Willow Mineral Deciduous Swamp

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Figure 4
Staked Wetland

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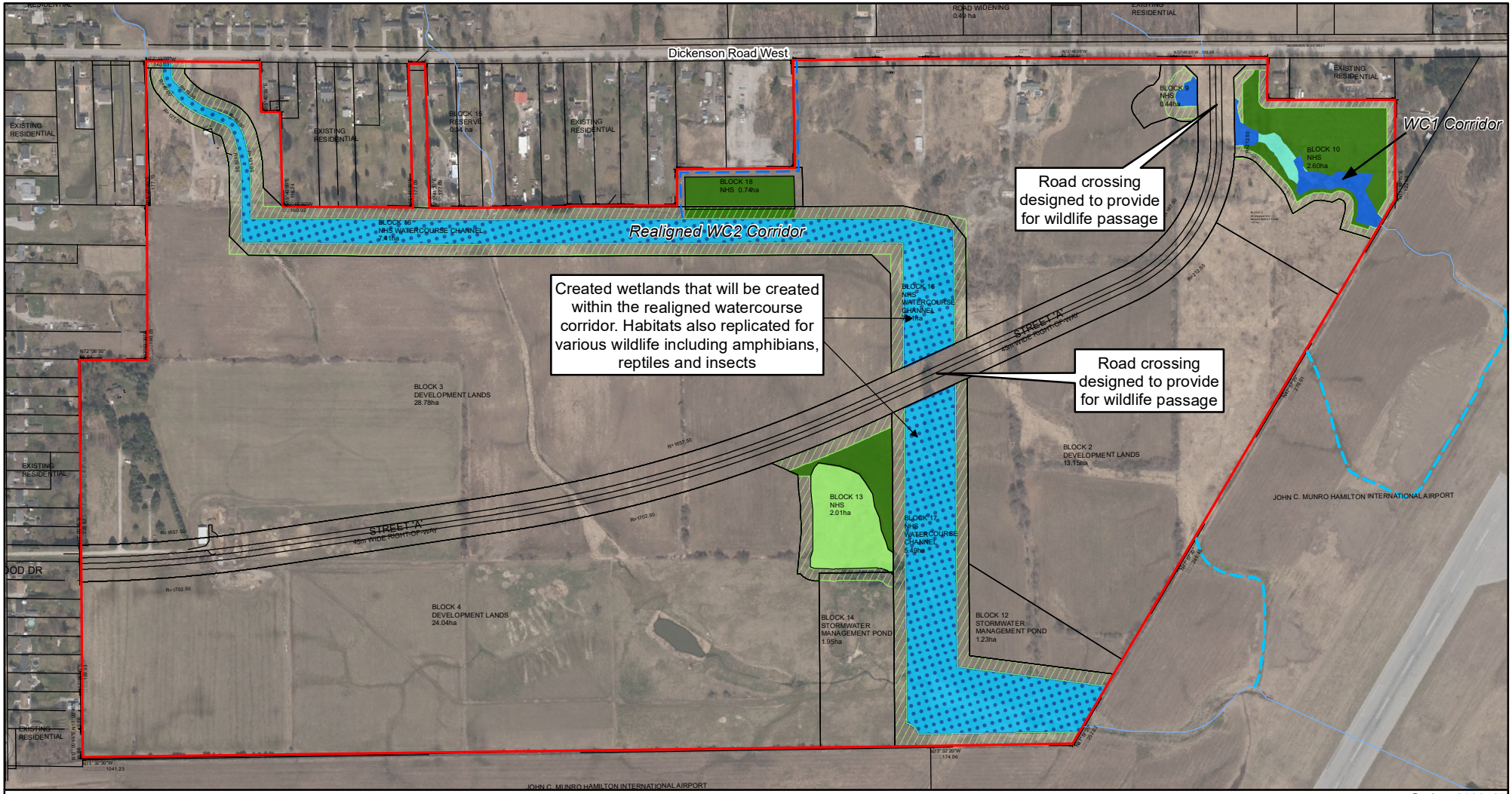

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* Created wetlands throughout the Realigned Watercourse Corridor.

6.2 ha of wetland will be created within the realigned WC2 corridor.

Legend

- Subject Properties
- External Drainage Feature (HDF H3)
- Offsite Headwater Drainage Feature
- Offsite Watercourse
- Realigned Watercourse 2 Corridor (7.51 ha)
- Created Wetland *
- Additional Created Wetland (0.12 ha)
- Retained Wetland (0.46 ha)
- Created Woodland/Woodlot (2.65 ha)
- Retained Woodland (1.02 ha)
- Planted Buffer Area (7.04 ha)

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Dickenson Limited Partnership and Dickenson GP Inc.

Figure 5
Development Concept – 2023 Draft Plan

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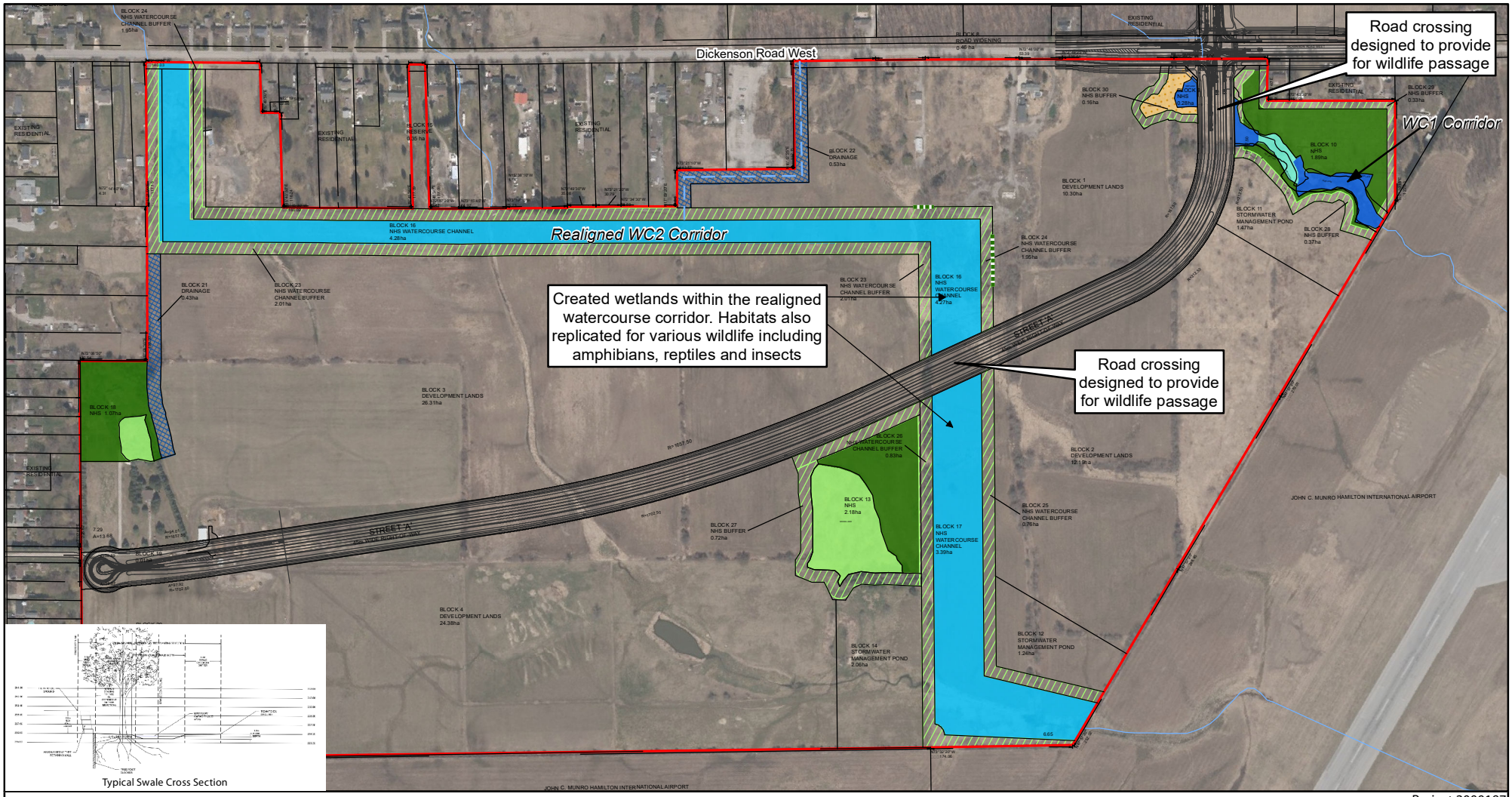

Typical Swale Cross Section

Project 2000197

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* Created wetlands throughout the Realigned Watercourse Corridor. 7.03 ha of wetland will be created within the realigned WC2 corridor.

Legend

- Subject Properties
- Tree Preservation within 7.5 metres of Watercourse Corridor
- External Drainage Feature (HDF H3)
- Offsite Watercourse
- Swale
- Realigned Watercourse Corridor (7.72 ha) *
- Additional Created Wetland (0.12 ha)
- Retained Wetland (0.46 ha)
- Created Woodland/Woodlot (3.41 ha)
- Retained Woodland/Woodlot (1.28 ha)
- Created Meadow (0.19 ha)
- Planted Buffer Area (7.07 ha)

Tree Preservation

Total trees on Subject Lands	2782
Trees proposed for removal	1873
Trees proposed for preservation (excluding 7.5 m setback to watercourse corridor)	879
Trees proposed for preservation within 7.5m setback to watercourse corridor associated with northern woodland	30
Total trees proposed for preservation	**909**
Percentage of overall trees for preservation	Approx. 33%

Air Force One Environmental Impact Study
Dickenson Limited Partnership and Dickenson GP Inc.

Figure 6
Development Concept – 2025 Draft Plan

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APPENDIX B – UPDATED POLICY CONFORMANCE REVIEW

Environmental Planning Policy Analysis
Provincial Planning Statement, Urban Hamilton Official Plan and Airport Employment Growth District Secondary Plan
Air Force One
City of Hamilton
April 2025

Policy #	Policy	Conformity Analysis
Provincial Planning Statement (2024)		
2.9.1 Energy Conservation, Air Quality and Climate Change	Planning authorities shall plan to reduce greenhouse gas emissions and prepare for the impacts of a changing climate through approaches that: a) Support the achievement of compact, transit supportive, and complete communities; b) Incorporate climate change considerations in planning for and the development of infrastructure, including stormwater management systems, and public service facilities; c) Support energy conservation and efficiency; d) Promote green infrastructure, low impact development, and active transportation, protect the environment and improve air quality; and e) Take into consideration any additional approaches that help reduce greenhouse gas emissions and build	This policy is written as a direction to planning authorities to reduce greenhouse gas emissions and prepare for impacts of a changing climate through a number of various approaches. Since the policy is written as direction to the City, rather than the proponent of a development application, the City should address how they have incorporated climate change considerations in planning for and the development of infrastructure, including SWM systems and public service facilities as well as how they have promoted green infrastructure and low impact development to protect the environment and improve air quality. As a result, in my opinion, this policy is not directly applicable to the proponent of a development application. Notwithstanding the above, from an environmental planning perspective, this analysis addresses (b) and (d) as it relates to the proposed development. From a site-specific perspective, the proposed development incorporates the City's required stormwater management approach for the AEGD Secondary Plan which includes bioswales (green infrastructure / LIDs) along both sides of the new Arterial Road, dry SWM ponds and other measures that provide for Enhanced SWM, as per the AEGD Secondary Plan requirements. The proposed development provides 19.23 ha of natural heritage features and natural cover (including wetlands, woodlands, meadow habitat, buffers, watercourse corridors, treed areas and drainage swales). This total doesn't account for the enhanced canopy cover and infiltration measures provided within the road right-of-way.
4.1 Natural Heritage		
4.1.1	Natural features and areas shall be protected for the long term.	The EIS (GEI, 2023) and the EIS Addendum (GEI, 2025) have demonstrated that the natural features and areas on the Subject Lands shall be protected for the long term through the identification of a natural heritage system that will be dedicated to the City through the draft plan process.
4.1.2	The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.	The EIS (GEI, 2023) and the EIS Addendum (GEI, 2025) have demonstrated that the diversity and connectivity of natural features on the Subject Lands and the long-term ecological function and biodiversity of natural heritage systems will be maintained, restored and improved through the identification of a natural heritage system that consists of wetlands, woodlands, watercourses and wildlife habitat.
4.1.3	Natural heritage systems shall be identified in Ecoregions 6E and 7E, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.	The EIS (GEI, 2023) and the EIS Addendum (GEI, 2025) have identified a natural heritage system on the Subject Lands that consists of wetlands, woodlands, watercourses (indirect fish habitat) and wildlife habitat.
4.1.4	Development and site alterations shall not be permitted in: a) Significant wetlands in Ecoregions 5E, 6E and 7E, and b) Significant coastal wetlands.	The EIS (GEI, 2023) confirmed that there are no significant wetlands or significant coastal wetlands on the Subject Lands.
4.1.5	Development and site alteration shall not be permitted in: a) Significant wetlands in the Canadian Shield north of Ecoregions 5E, 6E and 7E; b) Significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River);	Subsection (a) is not applicable as the Subject Lands are not in the Canadian Shield. The EIS (GEI, 2023) has confirmed that there is significant wildlife habitat (subsection d) and that there are no significant woodlands, valleylands or areas of natural and scientific interest and no coastal wetlands that are not subject to policy 4.1.4b on the Subject Lands. Candidate significant woodlands and significant wildlife habitat were identified on the adjacent lands.

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	c) Significant valleylands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River); d) Significant wildlife habitat; e) Significant areas of natural and scientific interest; f) Coastal wetlands in Ecoregions 5E, 6E and 7E that are not subject to policy 4.1.4.b) Unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.	The EIS (GEI, 2023) and the EIS Addendum (GEI, 2025) have demonstrated that the proposed development will result in no negative impacts to the significant wildlife habitat on or adjacent to the Subject Lands.
4.1.6	Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.	The EIS (GEI 2023) identified indirect fish habitat within all of the drainage features with the exception of the southern online cattle pond and the watercourse immediately downstream of that pond which were identified as direct fish habitat. Candidate direct fish habitat was also identified within an anthropogenic pond in the north-west corner of the Subject Lands. The Department of Fisheries and Oceans will be engaged through the Request for Review Process at the detailed design phase, which is the normal protocol.
4.1.7	Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.	The EIS (GEI, 2023) did not identify any habitat of endangered species or threatened species on the Subject Lands.
4.1.8	Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 4.1.4, 4.1.5 and 4.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural heritage features or on their ecological functions.	The EIS (GEI ,2023) and the EIS Addendum (GEI ,2025) has confirmed that the proposed development adjacent to the significant wildlife habitat (associated with the southern woodland) will have no negative impact on the natural features or their ecological functions. In addition, the SWH associated with the man-made pond in the northwest corner of the Subject Lands will be replicated within the realigned watercourse corridor. There is a significant woodland and candidate SWH on the lands to the north of Dickenson Road (within 120m of the Subject Lands).
4.2 Water		
4.2.1	Planning authorities shall protect, improve or restore the quality and quantity of water by: a) Using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development; b) Minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts; c) Identifying water resources systems; d) Maintaining linkages and functions of water resource systems; e) Implementing necessary restrictions on development and site alteration to: 1. Protect all municipal drinking water supplies and designated vulnerable areas 2. Protect, improve or restore vulnerable surface and ground water, and their hydrologic functions;	This is a direction to the City and, as such, they will need to confirm that their policies are consistent with these PPS policies. Notwithstanding that this is a City directive from the Province, it is my opinion that, through the completion of the AEGD Subwatershed Study (2011) and Subwatershed Study Update (2017) the City has addressed this policy requirement. Also, notwithstanding that this is a City directive from the Province, on a site-specific basis, the EIS (GEI, 2023), EIS Addendum (GEI, 2025), the Hydrogeological Report (Terra Dynamics, 2023) and the Functional Servicing Study (MGM Consulting, 2025) have built upon the recommendations in the AEGD SWS and SWS Update. Water resource systems (groundwater and surface water) were assessed to determine if there are any linkages between ground and surface water resources. Drainage features, including watercourses and a Headwater Drainage Feature, will be retained on the landscape and impacts to groundwater are not anticipated as a result of the proposed development. The Hydrogeological Report did not identify the presence of any municipal drinking water supplies or designated vulnerable areas, vulnerable surface or ground water.

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	f) Planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality; and g) Ensuring consideration of environmental lake capacity, where applicable.	
4.2.2	Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored, which may require mitigative measures and/or alternative development approaches.	The Hydrogeological Assessment (Terra-Dynamics, 2023) confirmed that the Niagara Peninsula Source Protection Authority did not map any Significant Groundwater Recharge Areas on the Subject Lands and the fieldwork confirmed that no groundwater discharge areas have been identified on the Subject Lands. The Assessment also confirms that the drainage features on-site are primarily intermittent with some that are ephemeral. No sensitive surface water features were identified.
4.2.3	Municipalities are encouraged to undertake, and large and fast-growing municipalities shall undertake, watershed planning to inform planning for sewage and water services and stormwater management, including low impact development, and the protection, improvement or restoration of the quality and quantity of water.	This is a direction to the City. A Subwatershed Study was prepared by the City as part of the AEGD Secondary Planning process. The AEGD Secondary Plan includes policies that were informed by the SWS including direction regarding stormwater management, low impact development and the protection, improvement and restoration of the quality and quantity of water.
4.2.4	Despite policy 4.2.3, where planning is conducted by an upper-tier municipality that includes one or more lower-tier large and fast-growing municipalities, the upper-tier municipality shall undertake watershed planning in partnership with lower-tier municipalities, including lower-tier large and fast-growing municipalities.	This policy is not applicable as there is no lower-tier municipality.
4.2.5	All municipalities undertaking watershed planning are encouraged to collaborate with applicable conservation authorities.	This is a direction to the City. It is my understanding that the AEGD Subwatershed Study was completed in collaboration with the applicable conservation authority.
5.1 General Policies for Natural and Human-Made Hazards		
5.1.1	Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.	The flooding hazards have been identified within the FSR (MGM Consulting, 2025) and the erosion hazards have been identified in the Conceptual Natural Corridor and Wetland Design Brief (GEO Morphix, 2025). All flooding and erosion hazards are contained within the NHS Watercourse Channel Blocks (Blocks 9, 10 16 and 17). No development is proposed within flooding or erosion hazards.
5.2 Natural Hazards		
5.2.1	Planning authorities shall, in collaboration with conservation authorities where they exist, identify hazardous lands and hazardous sites and manage development in these areas, in accordance with provincial guidance.	This is a direction to the City. The Conservation Authority maps the approximate flooding and erosion hazards. Proponents are required to refine those hazard limits through development applications. As noted above, the FSR (MGM Consulting, 2025) and the Conceptual Natural Corridor and Wetland Design Brief (GEO Morphix, 2025) have refined the flooding and erosion hazards, respectively.
5.2.2	Development shall generally be directed to areas outside of: a) Hazardous lands adjacent to the shorelines of the Great Lakes – St. Lawrence River system and large inland lakes which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards; b) Hazardous lands adjacent to a river, steam and small inland lake systems which are impacted by flooding hazards and/or erosion hazards; and c) Hazardous sites.	a) Not applicable – there is no Great Lakes – St. Lawrence River system or large inland lake shorelines on the Subject Lands. b) The flooding and erosion hazards have been identified within the FSR (MGM Consulting, 2025) and the Conceptual Natural Corridor and Wetland Design Brief (GEO Morphix, 2025), respectively. All flooding and erosion hazards are contained within the NHS Watercourse Channel Blocks (Blocks 9, 10 16 and 17). No development is proposed within flooding or erosion hazards. c) Not applicable – there are no hazardous sites on the Subject Lands.
5.2.3	Development and site alteration shall not be permitted within: a) The dynamic beach hazard;	a) Not applicable – there is no dynamic beach hazard on the Subject Lands. b) Not applicable – the Subject Lands are not adjacent to connecting channels.

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	b) Defined portions of the flooding hazard along connecting channels (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers); c) Areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard; and d) A floodway regardless of whether the area of inundation contains high points of land not subject to flooding.	c) The only development proposed within the flooding or erosion hazards are the two watercourse crossings (necessary to implement the City's Transportation Master Plan) and stormwater pond outfalls (necessary to convey flows to the receiving watercourse). d) No development is proposed within a floodway.
5.2.4	Planning authorities shall prepare for the impacts of a changing climate that may increase the risk associated with natural hazards.	This is a direction to the City rather than to development proponents. The City of Hamilton has a Climate Action Strategy, recently updated in 2024. The action items are directed towards City-led initiatives, which is in-keeping with the PPS policy requirement. As it relates to natural hazards, the City has 2024 Sewer Design Criteria that identify the IDF curves for sizing SWM facilities. Section 7.2.4 (Rainfall Intensity) states the following: *An IDF study was completed in 2022 to assess appropriateness of COH's current IDF curve with respect to climate projections. It was determined that, at this time, the IDF curve and its application would remain as-is but should be re-evaluated approximately every 5 years.* It has been my experience that one method by which municipalities prepare for the impacts of a changing climate on risks associated with natural hazards is to address this within the rainfall intensity requirements of their IDF curves. In doing so, the City establishes a standard criteria, applicable across the City, that is to be incorporated into stormwater management proposals for new development. Based on Section 7.2.4 of the City's Design Criteria, staff have satisfied themselves that the current IDF curve is sufficient with respect to climate projections. As such, through the use of the City's IDF curve in the design of the stormwater management for the site, the proposed development has prepared for the impacts of a changing climate from risks associated with natural hazards. In addition, the Conceptual Natural Corridor and Wetland Design Brief (GEO Morphix, 2025) identifies a meander belt for the realigned watercourse that incorporates a 20% factor of safety which addresses issues of under prediction.
Urban Hamilton Official Plan – Volume 1		
C.2 General Policies		
C.2.2.2	The boundaries of Core Areas and Linkages, shown on Schedule B-Natural Heritage System (NHS), are general in nature. Minor refinements to such boundaries may occur through the EIS, watershed studies accepted by the City without an amendment to this Plan. Major changes to boundaries, the removal or addition of Core Areas and Linkages identified on Schedule B- NHS and Schedules B1-8-Detailed Natural Heritage Features require an amendment to this Plan.	No Core Areas (depicted in olive green) are shown on the Subject Lands on Schedule B – NHS of the UHOP or Schedule B.8-2 of the AEGD Secondary Plan (AEGD SP). Two Linkages are shown on the Subject Lands on Schedule B – NHS of the UHOP however, these Linkages do not appear on Schedule B.8-2 of the AEGD Secondary Plan (AEGD SP). Early on in the process of this application, City staff (S. Robichaud) confirmed for the Broccolini Study Team that the AEGD Secondary Plan schedules supercede the UHOP Schedules.

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		It is important to note that a Subwatershed Study was completed to more closely examine the lands within the AEGD in an effort to identify Core Areas and Linkages for designation within the Secondary Plan. The lack of these features on the Subject Lands within the AEGD SP is an important consideration and reflects the fact that the SWS authors (and the approval authority – City of Hamilton) did not believe there to be features of sufficient size or quality to qualify as a Core Area or Linkage on the Subject Lands. Five 'Key Hydrologic Features – Streams' are shown on the Subject Lands on UHOP Schedule B and those same features are shown as 'Support/Indirect Fish Habitat' on Schedule B.8-2 of the AEGD SP. Although no Core Areas or Linkages are shown on the AEGD Schedules, Policy 2.2.2 does allow for refinements to the natural heritage system through an EIS. There are two Core Areas shown on AEGD SP Schedule B.8-2, within 120m of the Subject Lands, located north of Dickenson Road. There are also Linkages within 120 m of the Subject Lands (i.e., north of Dickenson Road between the two Core Areas as well as a Linkage west of Glancaster Road).
C.2.2.4	Notwithstanding the designations on Schedule E-1 - Urban Land Use Designations, the policies of this Plan shall apply to Core Areas not currently identified on Schedule B - Natural Heritage System and Schedules B-1 to B-8 - Detailed Natural Heritage Features. Additional Core Areas may be mapped and identified or Core Area boundaries may be refined under the following circumstances and may require an amendment to this Plan: a) individual Environmental Impact Statements; b) watershed or subwatershed studies; c) natural areas inventories; d) Environmental Assessments; or, e) other similar studies.	Schedule E-1 does not identify any Core Areas on the Subject Lands and the detailed site-specific natural heritage fieldwork did not identify any features on the Subject Lands warranting the designation of Core Area.
C.2.2.5	Where the Province has provided guidelines on technical criteria to identify Core Areas, the City shall update its criteria to reflect the provincial directions. The City shall undertake an Official Plan amendment to update the existing criteria and applicable schedules.	The Province has not provided guidelines on technical criteria to identify Core Areas.
C.2.2.6	Where provincial direction for identifying Core Areas does not exist, the City shall establish its own criteria in cooperation with other agencies, stakeholders, and the public. The City shall include the criteria and identify Core Areas and features on the applicable schedules through an Official Plan amendment.	To our knowledge, the City has not established its own criteria in cooperation with other agencies, stakeholders, and the public to identify Core areas. To our knowledge, the City has not included any technical criteria through an OPA. As such, to our knowledge there are no technical criteria available to assist the City or proponents in identifying Core Areas. The City's position is that the OPA designates all Key Natural Heritage Features (KNHFs) and Key Hydrologic Features (KHFs) as Core Areas however, such a position disregards Policies 2.2.5 and 2.2.6 of the UHOP wherein it is clear that the City intended to develop specific technical criteria (in the absence of the Province providing such criteria) to identify Core Areas and that such criteria were to be developed through public consultation and incorporated into the UHOP through an OPA. This is one of the most crucial policies that the City must consider when suggesting that all KNHFs and KHFs are automatically Core Areas. If that was the case, there would have been no need for the OP to suggest that the City would establish technical criteria to identify Core Areas and that such criteria would be vetted through a public consultation process and OPA.
C.2.2.8	All natural features, required vegetation protection zones, and enhancement or restoration area on a property shall be placed under appropriate zoning in	All natural features proposed for retention and/or realignment, required VPZs and restoration areas, will be dedicated to the City through the draft plan process.

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	the zoning by-law and/or protected through a conservation easement to the satisfaction of the City or the relevant Conservation Authority (CA) or deeded to a public authority. Acquisition by a public body may also be considered as an option for protecting natural features and functions.	
C.2.3 Natural Heritage System – Core Areas		
C.2.3	It is the intent of this policy to preserve and enhance Core Areas and to ensure that any development or site alteration within or adjacent to them shall not negatively impact their natural features or their ecological functions.	As noted above, no Core Areas are identified on the Subject Lands in the UHOP or AEGD SP Schedules and no Core Areas, meeting the City's definition in Policy 2.3.2 (see below) were identified on the Subject Lands. Five drainage features, identified as KHFs (streams) within the UHOP were assessed through the EIS (along with other drainage features that were not identified in the AEGD SP schedules). Two of these were determined to be headwater drainage features (HDFs) while three were determined to be watercourses (labeled as Watercourses (WC) 1, 2A, 2B and 2C). Only those features that meet the definition of watercourse should be considered KHFs (streams). Consistent with the AEGD SP, the EIS determined that all drainage features on the Subject Lands are indirect fish habitat, which qualifies as a KNHF within the UHOP. In addition, narrow riparian wetlands were identified along many of the drainage features. These would also be considered a KNHF as well as a KHF. Finally, significant wildlife habitat (SWH) was also identified, which would be considered a KNHF. Two wooded areas were assessed for significance through the EIS however, neither qualify as significant woodlands. Notwithstanding that none of these features meet the definition of Core Area as outlined in UHOP Policy 2.3.2, the majority of these features will be retained on the landscape, some of which will be in a modified form/location. As such, if the intent of this policy is to protect and enhance features in order to ensure no negative impact, this test has been met through the retention of some features in-situ, re-creation of other features and maintenance of functions for other features. Overall, there will be an increase in natural cover on the Subject Lands as compared to existing conditions.
C.2.3.1	In accordance with the policies of this Plan, Schedule B NHS, identifies Core Areas to include key natural heritage features and key hydrological features. Core Areas of the City's NHS also include other locally and provincially significant areas. Schedule B – NHS shall be amended when new Core Areas are identified.	This policy indicates that Schedule B of the UHOP identifies Core Areas that include KNHFs and KHFs but does not indicate that every KNHF or KHF is automatically a Core Area. This interpretation is supported by the fact that not every KNHF or KHF on the subset schedules B1 through B8 are shown as Core Areas on Schedule B. This interpretation is also supported by the fact that UHOP Policy 2.2.6 specifically states that the City will create technical criteria to support the identification of Core Areas. If KNHFs and KHFs automatically become Core Areas, there is no need to create separate technical criteria to identify Core Areas. This is an important distinction as City staff are interpreting the UHOP to suggest that every KNHF and KHF are automatically considered a Core Area, which is not borne out in the City's own schedules and is not in-keeping with the description of Core Areas (in Section 2.3.2) as being the most important components of the NHS. The description, as well as Policy 2.2.6 and the UHOP schedules, support the Study Team's interpretation that KNHF and KHF cannot automatically be considered Core Areas but rather, in the absence of technical criteria as required in Policy 2.2.6, must meet the test of being one of the most important components of the NHS. In addition, it has been my professional experience that, through OPAs in other portions of Hamilton, features identified as Core Areas on Schedule B have been removed even though the feature existed on the landscape. This supports the

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		interpretation that not every natural heritage feature, simply by virtue of being a wetland, drainage feature, indirect fish habitat, SWH, etc., is automatically a Core Area and must be retained in-situ on the landscape. The findings in the EIS (GEI, 2023) are consistent with the findings of the SWS (i.e., Core Areas are not present within the Subject Lands).
C.2.3.2	Core Areas include key natural heritage features, key hydrological features and provincially significant and local natural areas that are more specifically identified by Schedule B-1-8 – Detailed Natural Heritage Features. Core Areas are the most important components in terms of biodiversity, productivity and ecological and hydrological functions.	Schedule B-8 is the only schedule that identifies any KNHF or KHF on the Subject Lands (KHF – streams). To date, the City's review of the EIS has indicated that the wooded areas, riparian wetlands, SWH and indirect fish habitat identified through the EIS automatically designate these features as Core Areas. However, as outlined earlier in this table, that is an incorrect and inappropriate application of UHOP policy. A review of Schedule B reveals that, for the most part, Core Areas are large, contiguous areas of land, which would be in-keeping with the understanding that these are the most important components of the NHS. This is in contrast to the small, degraded and isolated features on the Subject Lands. Based on this understanding, while natural heritage features exist on the Subject Lands, none of them have been assessed as representing the most important components of the NHS in terms of biodiversity, productivity and ecological and hydrological functions, which likely explains why they were not identified through the Subwatershed Plan or the Secondary Plan as Core Areas. Notwithstanding the above, in an attempt to address City concerns, the southern woodland is proposed for retention with a 15m buffer. The watercourses, HDFs and wetlands are retained on the landscape albeit in a modified location, all with appropriate buffers.
C.2.3.3	The natural features and ecological functions of Core Areas shall be protected and where possible and deemed feasible to the satisfaction of the City enhanced. To accomplish this protection and enhancement, vegetation removal and encroachment into Core Areas shall generally not be permitted, and appropriate vegetation protection zones (VPZ) shall be applied to all Core Areas.	There are no Core Areas on the Subject Lands. Notwithstanding that none of the features meet the description of Core Area as outlined in UHOP Policy 2.3.2, the majority of the features will be retained on the landscape, some of which will be in a modified form/location. All of the features will be enhanced by virtue of invasive species removal and/or adjacent plantings.
C.2.5 Core Areas – Outside of the Greenbelt Plan Area		
C.2.5.2	New development and site alteration shall not be permitted within provincially significant wetlands (PSWs), significant coastal wetlands or significant habitat of threatened and endangered species.	There are no PSWs, significant coastal wetlands or significant habitat of threatened or endangered species on the Subject Lands. The fact that there is no subsequent policy indicating that new development and site alteration shall not be permitted within non-PSWs suggests that there is opportunity for development and/or site alteration within wetlands that are not deemed to be provincially significant, as is proposed on the Subject Lands.
C.2.5.3	New development and site alteration shall not be permitted within fish habitat, except in accordance with provincial and federal requirements.	The watercourses and HDFs have been evaluated as either indirect or direct fish habitat. Policy 2.5.3 allows for site alteration within fish habitat if it is in accordance with provincial and federal requirements. Only the Federal *Fisheries Act* would apply.

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		As outlined in the EIS, based on professional experience, there is a level of confidence that DFO will not have any concerns with the proposed alterations given these features are indirect fish habitat or highly impacted direct fish habitat, as the functions of these features will be replicated and the habitat within and along these features will be improved/enhanced as compared to existing conditions through the use of natural channel design. It is possible that a Federal *Fisheries Act* Authorization could be required for the realignment of the watercourses, however, it is possible that given the mitigation measures proposed DFO may not require a Fisheries Act Authorization as it is the consultant team's opinion that harmful alteration, disruption and destruction (HADD) can be avoided. Whether a Fisheries Act Authorization is required would be determined through the Request for Review process. No DFO authorizations will be required for the removal of the HDFs given the provided mitigation measures (e.g., removal outside of sensitive timing windows, installation and monitoring of erosion and sediment control measures, etc.) and it has been determined that a HADD can be avoided.
C.2.5.4	New development and site alteration shall not be permitted within significant woodlands, significant valleylands, SWH and significant ANSIs unless it has been demonstrated that there shall be no negative impacts on the natural features or on their ecological functions.	There are no significant woodlands, significant valleylands or ANSI on the Subject Lands. SWH was identified within the deciduous forest (FOD), a cultural meadow and meadow marsh community within the NW corner of the property and within an anthropogenic pond (identified as a shallow aquatic; SAF). The FOD will be retained in place with 15 m setbacks. The remainder of the SWH will have its functions replicated throughout the vegetated buffers and realigned channel corridor to ensure that there are no negative impacts.
C.2.5.5	New development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in Section C.2.5.2 to C.2.5.4 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there shall be no negative impacts on the natural features or on their ecological functions.	The EIS (GEI, 2023) confirmed that a PSW (Upper Twenty Mile Creek Wetland Complex) and significant woodland are located within 120 of the Subject Lands (north of Dickenson Road). The EIS further noted that Candidate SWH and SAR habitat may also be present on the adjacent lands. Candidate fish habitat is also present within the adjacent Airport Lands associated with WC1 and WC2. The EIS (GEI, 2023) and EIS Addendum (GEI, 2025) have demonstrated that the proposed development and site alteration on the Subject Lands will not have a negative impact on the PSW, significant woodlands, candidate SAR and SWH habitat since they are located across Dickenson Road and associated with a different tributary. The proposed mitigative measures within the Subject Lands will prevent adverse impacts to downstream (receiving) candidate fish and fish habitat.
C.2.5.7	Streams are mapped in Schedule B - NHS. Streams have been separated into two classes: Coldwater Watercourse/ Critical Habitat and Warmwater Watercourse/ Important/Marginal Habitat. If the stream has not been classified as part of an EIS, subwatershed study, or other study, a scoped EIS is required to determine the classification.	The EIS has confirmed the presence of numerous drainage features, three of which are considered watercourses while the remainder are considered HDFs and thus are not watercourses / streams. Policy 2.2.2 allows for refinements to natural heritage feature designations through an EIS, as was done through this application.
C.2.5.8	New development or site alteration subject to Policies C.2.5.3 to C.2.5.7 requires, prior to approval, the submission and approval of an EIS which demonstrates to the satisfaction of the City and the relevant CA that: a) There shall be no negative impacts on the Core Area's natural features or their ecological functions. b) Connectivity between Core Areas shall be maintained, or where possible, enhanced for the movement of surface and ground water, plants and wildlife across the landscape. c) The removal of other natural features shall be avoided or minimized by the planning and design of the proposed use or site alteration wherever possible.	An EIS has been prepared in support of the proposed development. The EIS has demonstrated that: a) There are no Core Areas within the Subject Lands and the EIS has demonstrated that there will be no negative impacts to the Core Areas within 120m of the Subject Lands as a result of the proposed development. b) There are no Core Areas on the Subject Lands and the EIS has demonstrated that there will be no negative impact to linkages within 120m of the Subject Lands. There is currently no existing connectivity through the Subject Lands that needs to be maintained or enhanced however, watercourses and one HDF will remain open and continue to convey flows downstream and will provide for connectivity within the Subject Lands; c) Non-Core Area natural features are either maintained in-situ (i.e., southern woodland, western woodlot and northeastern wetland) or replicated on-site resulting in no loss of natural heritage area or function on the Subject Lands. In fact, with the retention of the southern woodland, western woodlot and northeastern wetland, realigned

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		watercourses and drainage feature, and application of buffers, there will be a net increase in natural heritage area / vegetated cover on the Subject Lands in comparison to the existing agriculturally influenced features.
C.2.5.9	An EIS shall propose a VPZ which: a) has sufficient width to protect the Core Area and its ecological functions from impacts of the proposed land use or site alteration occurring during and after construction, and where possible and deemed feasible to the satisfaction of the City, restores or enhances the Core Area and/or its ecological functions; and b) is established to achieve, and be maintained as natural self-sustaining vegetation.	As outlined in the EIS (GEI, 2023), there are no Core Areas on the Subject Lands. Notwithstanding the absence of Core Areas, the EIS has proposed the following VPZs to the natural features that are proposed for retention / enhancement, of which the greatest constraint will be the guiding constraint: 1. 15 m VPZ to the retained northeastern wetland and to the created wetlands within the realigned watercourse corridor; 2. 15 m VPZ to the southern woodland; 3. 10 m VPZ to the created woodlands associated with Blocks 10 and 13); and, 4. 15m VPZ to indirect fish habitat within the realigned watercourse corridor and along the northeastern watercourse. The EIS (GEI, 2023) and EIS Addendum (GEI, 2025) have demonstrated that: a) The proposed VPZs are of sufficient width to protect the non-Core Area natural heritage features and ecological functions from impacts of the proposed land use both during and after construction. Although not Core Areas, the VPZs will serve to enhance the features through the provision of additional habitat, shading and allochthonous materials. b) Indirect fish habitat is not normally provided with a 15 m vegetated buffer rather this is typically afforded to occupied fish habitats. For example, the HDFA Guidelines does not prescribe buffers for these types of feature. As such, the provision of any buffer to indirect fish habitat is a benefit and enhancement over existing conditions. c) The VPZs will be planted with native, non-invasive species, designed to be natural and self-sustaining with no long-term maintenance requirements.
C.2.5.10	Where VPZ widths have not been specified by watershed and sub-watershed plans, secondary, EAs and other studies, the following VPZ widths shall be evaluated and addressed by EIS's. Other agencies, such as CAs, may have different VPZ requirements. a) Coldwater Watercourse and Critical Habitat – 30-metre VPZ on each side of the watercourse, measured from the bankfull channel. b) Warmwater Watercourse and Important and Marginal Habitat – 15 metre VPZ on each side of the watercourse, measured from the bankfull channel c) PSWs– 30-metre VPZ, measured from the boundary of the wetland, as approved by the CA or Ministry of Natural Resources. d) Unevaluated wetlands – Unevaluated wetlands and locally significant wetlands require a 15 metre VPZ, measured from the boundary of the wetland, as approved by the CA or Ministry of Natural Resources, unless an EIS recommends a more appropriate VPZ. e) Woodlands – 10-metre VPZ, measured from the edge (drip line) of the woodland. f) Significant woodlands – 15-metre VPZ, measured from the edge (drip line) of the significant woodland.	Of the recommended VPZs listed, marginal fish habitat (15 m), unevaluated wetlands (15 m) and woodlands (10 m) are applicable. While our findings have not supported the conclusion, it is recognized that the City has indicated the southern woodland could be considered a significant woodland, thus, requiring a 15 m VPZ. To address this concern, a 15 m VPZ has been provided to the existing southern woodland. Both the retained and created wetlands have a proposed 15 m VPZ, consistent with the UHOP recommendations. The new low-flow channel within the realigned watercourse corridor will be buffered by a minimum of a 15 m VPZ however, in most cases, the VPZ will be greater than 15 m given the other adjacent constraints that require their own VPZs (i.e., wetlands). The northeastern watercourse (WC1) will have a minimum of a 15 m setback applied to the low flow channel. A 15 m VPZ is proposed for the southern woodland, whereas the UHOP requires a minimum 10m VPZ to non-significant woodlands; however, this buffer was applied to the feature not because of its ecological form and function but rather in an effort to work with the City to address their comments. The EIS (GEI, 2023) has confirmed that these VPZs are ecologically appropriate.

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	g) ANSIs – Life and Earth Science ANSIs require a 15-metre VPZ. h) Significant Valleylands – As required by the relevant CA. i) Significant Habitat of Threatened or Endangered Species and SWH: the minimum VPZ shall be determined through EIS's, dependent on the sensitivity of the feature.	
C.2.5.11	VPZ widths greater or less than those specified in a) to i) above may be required if ecological features and functions warrant it, as determined through an approved EIS. Widths shall be determined on a site-specific basis, by considering factors such as the sensitivity of the habitat, the potential impacts of the proposed land use, the intended function of the VPZ, and the physiography of the site.	See above.
C.2.5.12	Permitted uses within a vegetation protection zone shall be dependent on the sensitivity of the feature, and determined through approved studies. Generally, permitted uses within a vegetation protection zone shall be limited to low impact uses, such as vegetation restoration, resource management, and open space. Permitted uses within the vegetation protection zone shall be the same uses as those within the Core Area in Policy C.2.5.1 and the vegetation protection zone should remain in or be returned to a natural state.	The EIS (GEI, 2023) identified appropriate vegetation protection zones (VPZs) for the southern woodland (and SWH associated with the southern woodland), fish habitat and wetlands on the Subject Lands. No development is proposed within those VPZs except for a 4 m access route within the 15 m setback to the wetlands along both sides of the realigned watercourse corridor, in-keeping with the City's requirement to provide an access route for future maintenance. This 4 m access route can also be used as a trail along the watercourse corridor. SWM outfalls will also be located within the wetland VPZ within the watercourse corridor; however, the extent of disturbance will be minimized to the extent possible. The remainder of the VPZ along the watercourse corridor and all other VPZs will be naturalized.
C.2.5.13	All plantings within VPZs shall use only non-invasive plant species native to Hamilton. The City may require that applicants for development or site alteration develop a restoration or management plan for the VPZ as a condition of approval.	As confirmed in the EIS (GEI, 2023) and EIS Addendum (GEI, 2025) only native, non-invasive plant species will be used within VPZs.
2.11 Tree and Woodland Protection		
C.2.11.1	The City recognizes the importance of trees and woodlands to the health and quality of life in our community. The City shall encourage sustainable forestry practices and the protection and restoration of trees and forests.	This is a direction to the City. Notwithstanding that, the southern woodland on the Subject Lands is being retained in its entirety with an appropriate VPZ and an existing cultural woodland is being retained on the western portion of the property for a total of 1.28 ha of retained wooded area. While the cultural woodland is proposed for removal, tree planting is proposed within Blocks 10, 13 and 18 resulting in 3.41 ha of created wooded area on the Subject Lands.
C.2.11.2	Opportunities for tree planting on City-owned lands (such as lands designated Open Space and inactive portions of parks) shall be identified and implemented in co-operation with government agencies and local interest groups. In restoration efforts, the City shall plant only native species, preferably those of local origin.	This is a direction to the City and is not applicable to this application.
C.2.11.3	Where the City is undertaking infrastructure work, existing woodland resources shall be protected and preserved, where feasible. If it is necessary for infrastructure works to destroy any trees, excluding trees that are listed as threatened or endangered species, the City shall endeavour to compensate by re-planting on site and/or planting trees elsewhere.	This is a direction to the City when undertaking infrastructure work and is not applicable to this application.
C.2.11.4	The City shall maintain and update as necessary a Woodland Conservation Bylaw and Tree Protection Policy. A Woodland Protection Strategy to protect	This is a direction to the City to prepare and update a Woodland Conservation Bylaw and Tree Protection Policy/Woodland Protection Strategy. This is not applicable to this application.

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	tree cover on new development sites within urban and rural settlement areas and provides technical direction and practices to protect trees and other vegetation during construction shall be prepared to minimize the impacts on trees and woodlands to be retained.	
C.2.11.5	The City shall prepare and update, as necessary, an Urban Forest strategy to protect publicly and privately owned trees and supporting vegetation within the Urban Area, in accordance with Section C.5.6 – Green Infrastructure.	This is a direction to the City to prepare and update an Urban Forest Strategy and is only applicable to this application in so much as the City would review the application in light of the Urban Forest Strategy.
Urban Hamilton Official Plan Volume 2 - AEGD Secondary Plan		
B.8.2 Vision and Principles		
B.8.2.2 a), b) and e) Sense of Place Principles	The employment district is vibrant and visually appealing. It is a working community with a unique sense of place derived from a strong connection to its natural setting and the existing airport. The intent is to: a) Balance a high intensity of use with large conserved natural areas b) Design with nature by protecting streams, mature trees, wetlands, significant habitat and integrating topography into developments e) Encourage a distinct character for the district (e.g., airport or natural heritage theme)	a) There are no existing large natural areas (i.e., Core Areas) on the Subject Lands to conserve however, all natural features (i.e., wetlands, watercourses, woodlands) are either retained in-situ or re-created on-site. There will be no loss in natural heritage area on site. b) The proposed development designs with nature in many ways. Watercourses on the Subject Lands are either protected in-situ or enhanced through the use of natural channel design as part of a realignment. Trees will be retained within the southern woodland and western cultural wooded area, despite them not being a Core Area. Areas of narrow riparian wetland (5.14 ha) will be removed and replicated on-site within the watercourse corridor at a minimum 1:1 area ratio. A portion of the northeastern riparian wetland (0.46 ha) will remain in-situ (that portion outside of the footprint of the required east-west road – Garth Street extension). There will be no overall loss of natural features on the Subject Lands and the provision of buffers will result in an increase of natural cover on the Subject Lands as compared to existing conditions. The development that is required to support the adjacent airport requires the provision of large-scale warehousing facilities. Such facilities require a single finished floor elevation, which often necessitates extensive grading to support servicing and stormwater management. As a result, integrating existing topography into the development of these lands is generally not feasible if airport supportive facilities are to be constructed however, where feasible (i.e., the northeastern wetland, western woodlot and the southern woodland) have been retained along with their original topography. e) The character of an area is established through the Secondary Plan. It is unclear what the intention of this direction is as it relates to each specific development however, this site has been developed in-keeping with the Secondary Plan policies for airport development (airport theme) and has protected and enhanced natural heritage features (natural heritage theme).
B.8.2.3 a), d) and e) Public Realm Principles	Beautiful public spaces, streets and parks reinforce the employment district's character as a green, vibrant and prosperous community. The public realm provides structure and amenity to the employment district. The intent is to: a) Integrate nature into the public realm by retaining natural areas for use as buffers, open spaces and trail systems. d) Integrate innovative stormwater management infrastructure e) Use native species in landscaping.	a) Existing natural areas (i.e., the northeastern wetland, western woodlot and the southern woodland) and re-created natural areas (realigned watercourse corridor, woodland creation) are integrated into the proposed development. Buffers to existing and proposed natural features are provided. The 4m maintenance access road, that the City requires along either side of the watercourse corridor, can be used as a trail to provide pedestrians with access to the natural heritage system. d) The AEGD requires the use of innovative stormwater management through the use of bioswales adjacent to the roadway. This has been incorporated into the design of the Subject Lands. Rooftop water can be directed to the

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		created wetlands within the watercourse corridor, if necessary and based on a water availability assessment to be completed as a condition of draft plan approval. e) A landscaping plan can be a condition of approval. As noted in the EIS, all plantings within and adjacent to natural features will utilize native, non-invasive species.
B.8.2.4 i) Built Form Principles	The employment district has attractive, energy efficient, and green buildings. The AEGD Urban Design Guidelines ensure that high quality developments respect and enhance the public realm and natural environment. The intent is to: i) Maximize efficiency of lot layout to take advantage of natural features.	The lot layout has been guided by stormwater management and grading constraints, along with protection of existing wetlands and woodlands in-situ where feasible as well as the re-creation of wetlands and wooded areas along the realigned watercourse corridor and adjacent to existing natural features (i.e., adjacent to the northeastern wetland, the central watercourse corridor, western woodlot and the southern woodland). Those natural features not retained in-situ are replicated at a minimum 1:1 area ratio and buffered with appropriate VPZs.
B.8.2.8 Relationships with Surrounding Land Use Principles	There is a seamless transition from surrounding residential and agricultural areas to the employment district. The entire district functions as a single community. The intent is to: c) Integrate streets, trails, and open space systems with neighbouring developments	As noted above, the 4m maintenance access road that the City requires along both sides of the watercourse corridor can be used as a trail. The trail will direct the pedestrians along the natural heritage system and can include educational signage if deemed necessary by the City. The trail can connect to a future sidewalk on Dickenson Road allowing for additional pedestrian access into and out of the natural heritage system.
B.8.2.9 Services and Infrastructure Principles	Infrastructure provides services in a manner that protects and enhances the natural environment while increasing the attractiveness of the employment district. The intent is to: a) Integrate innovative, low impact, sustainable storm water management techniques into all aspects of the employment district	a) Bioswales are provided along both sides of the east-west road and rooftop water can be directed to the created wetlands within the watercourse corridor, if necessary and based on a water availability assessment to be completed as a condition of draft plan approval. These bioswales will be vegetated with native plant materials and are intended to be self-sustaining (i.e., no long-term management required).
B.8.2.11 Natural Heritage Principles	Through sustainable design and appropriate development the employment district protects and enhances the natural environment. The intent is to: a) Develop in a manner that is sensitive to the natural environment; b) Use innovative sustainable storm and wastewater infrastructure to protect water quality and source water; c) Protect and integrate provincially and municipally significant natural features, such as streams, valleylands, wetlands, mature trees and forests into the employment district's development, implement provincial policy and meet municipal policy; e) Connect the employment district's open space system to surrounding natural areas to allow employees to enjoy and explore the region's natural heritage.	a) The proposed development has been designed to be sensitive to the natural environment. The EIS (GEI, 2023) has evaluated the natural heritage features on-site and determined that, other than significant wildlife habitat and fish habitat, there are no other Provincially significant features or functions on the Subject Lands. Further, the EIS (GEI, 2023) has confirmed that the significant wildlife habitat and fish habitat do not qualify as Core Areas, as per the description in Section 2.3.2 of the UHOP. This evaluation is in-keeping with the conclusions of the SWS wherein no Core Areas were identified on the Subject Lands through that process. Despite not being Core Areas and not meeting the criteria to be considered provincially significant, the northeastern wetland and the southern woodland will be retained in-situ and will be provided with 15m VPZs. The western woodlot will also be retained in place. The northeastern watercourse will remain in-situ while other watercourses and HDFs will be realigned and existing narrow riparian wetlands will be replicated within the new watercourse corridor. The northern cultural woodland will be removed with compensatory plantings provided in Blocks 10, 13 and 18, all situated adjacent to, or in proximity to, the existing/proposed NHS to ensure the areas are not isolated. All trees removed outside of the cultural woodland will be compensated for in accordance with the City's Tree Protection Guidelines within the natural feature buffers, around the SWM ponds and along the streetscape. It is expected that a net gain in trees will be achieved as a result of the proposed application. b) Bioswales are provided along both sides of the east-west road and rooftop water can be directed to the created wetlands within the watercourse corridor if needed, based on a water availability assessment to be completed as a condition of draft plan approval. c) There are limited provincially or municipally significant natural features on the Subject Lands (i.e., only SWH present and municipally significant wetlands and indirect fish habitat). Notwithstanding the lack of significant natural features,

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		the majority of the existing natural features will either be maintained or re-created on-site and provided with VPZs, resulting in an increase in natural cover on the Subject Lands as compared to pre-development conditions. e) Given the presence of the airport to the south and east, the only potential areas for connection are to the north and west. When the lands north of Dickenson Road develop, potential for pedestrian connection between the northeastern wetland and the Core Area north of Dickenson Road will be available along the new east-west road (Garth Street extension) and pedestrian connection may be available north of Dickenson Road along a future watercourse corridor that would connect to the proposed realigned watercourse corridor on the Subject Lands. There are no east-west natural heritage connections on the Subject Lands and, as such, an east-west pedestrian linkage, via the NHS, is not feasible but connections via the sidewalk along the east-west road to the natural heritage system will be available.
B.8.5 Natural Open Space		
B.8.5 and B.8.5.1	The AEGD Secondary Plan recognizes, preserves and protects natural heritage features as key elements of the area's character and eco-industrial design. Lands designated Natural Open Space on Map B.8-1 – Airport Employment Growth District Land Use Plan shall comply with Section B.3.5.3 – Parkland Policies, Section C.2 – Natural Heritage System and Section C.3.3 – Open Space Designations	There are no areas designated as Natural Open Space on Map B.8-1-AEGD Land Use Plan on the Subject Lands. In fact, only those areas identified as Core Areas on Map B.8-2 of the AEGD SP are shown as Natural Open Space on Map B.8-1. This further supports the Study Team's position that there was never any intention to designate any features on the Subject Lands as requiring preservation in-situ otherwise, the features would have been shown as Natural Open Space on Map B.8-1 and would therefore be subject to Section C.2 of the AEGD.
B.8.9 Water Resources and Stormwater Management		
B.8.9	An integral component during the creation of this Secondary Plan was the preparation of the Subwatershed Plan for the watersheds within the Secondary Plan Area. Lands within the AEGD are uniquely situated within the headwaters of four watersheds, Sulphur Creek (Cootes Paradise), Twenty Mile Creek (Lake Ontario), Welland River (Niagara River) and Big Creek (Grand River). The myriad of small headwater features, combined with restrictions on open water/wetland features imposed by the airport, present a unique challenge in terms of protection of stream corridors and natural heritage features, and storm water management design that require state of art technologies consistent with Low Impact Development design.	It is agreed that the myriad of small headwater features, including the HDFs and watercourses on the Subject Lands, combined with restrictions on open water / wetland features imposed by the airport, present a unique challenge in terms of protecting stream corridors and natural heritage features as well as SWM design. The existing location of the HDFs and watercourses on the Subject Lands would prohibit the use of the land for airport related development (i.e., large scale warehousing serviced by bioswales and dry ponds and the necessary grading and road infrastructure) if left in their existing locations and provided the required VPZs. In addressing this unique challenge, the consultant team first evaluated the characteristics and significance of the existing natural heritage features on the Subject Lands. Efforts were made to retain some of the features in-situ (i.e., southern woodland and northeastern wetland plus 15 m VPZ and western woodlot) while proposing the replication and re-creation of other features on the Subject Lands. Where it was not possible to retain a feature in-situ the consultant team collaborated to identify an appropriate management approach for each feature. HDF H3 will remain open, in a vegetated swale similar to existing conditions but in a slightly different location further west of its current location. The narrow riparian wetlands along the HDFs and existing watercourses will be re-created within the central watercourse corridor and provided with a 15 m VPZ. The re-created wetlands have been designed to minimize any open water component, in-keeping with the airport requirements. The HDFs have been evaluated in accordance with the TRCA/CVC's Headwater Drainage Feature Assessment Guidelines (2014), as per the approved EIS ToR.
B.8.9.1	The recommendations of the Subwatershed Plan shall be implemented and the important ground water features identified in the Subwatershed Plan for the	Figure 2.8.4 of the Subwatershed Plan identified a small area of significant groundwater recharge area. However, the Hydrogeological Assessment (Terra-Dynamics, 2023) confirmed that there are no Significant Groundwater Recharge Areas

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	AEGD shall be protected including recharge and discharge areas, water balance, and existing private and public wells.	(SGRAs) mapped on the Subject Lands (NPSPA, 2013) and no groundwater discharge areas have been identified on the Subject Lands.
B.8.9.3	The stream corridors in the Subwatershed Plan for the Secondary Plan Area shall be protected in accordance with Section B.8.12 of this Secondary Plan to address flood/erosion control and fish habitat requirements, as well as storm water management to prevent increases in flooding and erosion, enhance water quality and maintain the existing conditions of water balance.	Refer to analysis of Policy B.8.12. The drainage features on the Subject Lands that have been confirmed as HDFs would not qualify as a stream corridor as shown in the Subwatershed Plan. There are no flooding or erosion hazards associated with HDFs due to the small upstream catchment area (i.e., less than 50 ha). Even though the HDFs should not be considered 'streams' in the context of the Subwatershed Plan, one of the features will remain open (HDF H3) and the flow conveyance of the other HDFs will be maintained through the proposed stormwater management measures, as provided for in the HDFA guidelines. It may also be possible, at detailed design, to incorporate small swale features within the watercourse corridor to provide for similar functions to those of the existing HDFs. No increases to flooding or erosion will result from the watercourse realignment and all watercourse corridors have been sized to contain the flooding and erosion hazards. Water quality will be enhanced through the provision of on-site stormwater management requirements that achieve MECP and AEGD stormwater guidelines as well as enhanced riparian vegetation along the watercourse corridor that will provide for additional shading to the watercourse.
B.8.9.6	The SWM system for the Secondary Plan Area is required to incorporate measures such as green roofs, rain gardens, rainwater harvesting on individual lots, and combined with additional measures such as biofilters, grassed swales, and perforated storm sewers, that are implemented within road rights of ways to encourage infiltration and reduce quantity of runoff reaching local drainage features.	Rooftop water will be collected and directed to the created wetlands, if necessary, based on the water availability assessment that will be completed as a condition of approval. Bioswales are proposed along both sides of the municipal road to encourage infiltration and reduce the quantity of runoff reaching local drainage features.
B.8.9.12	SWM facilities shall be designed to complement the natural characteristics of the area and provide visual amenity for surrounding development.	The dry SWM ponds are located in proximity to the watercourse corridor (outside of the 15 m VPZ). The ponds will be landscaped and will provide a visual amenity for those nearby residents and/or employees who use the proposed trail on site.
B.8.12 Natural Heritage System		
B.8.12.1	Within the AEGD, there are wetlands, streams, woodlands, meadows, successional areas and hedgerows which are identified as Core Areas, Linkages and Hedgerows in Map B.8-2 –AEGD NHS. The policies of Volume 1 Section C.2.0 –NHS apply, with the exception of Section C.2.4.	As previously noted, while there are wetlands, streams, woodlands and hedgerows on the Subject Lands, there are no Core Areas identified on Map B.8-2 of the AEGD SP on the Subject Lands. Please refer to the UHOP policy analysis for conformity with Volume 1 policies.
B.8.12.2	Streams are identified in Map B.8-2 –AEGD NHS. If the stream has not been classified as part of an EIS, Subwatershed study or other study, a scoped EIS is required to determine the classification.	The streams on the Subject Lands were classified as part of the SWS. The site-specific EIS (GEI, 2023) and Natural Corridor and Wetland Design Brief (GEO Morphix, 2025) also assessed the classification of these drainage features and have confirmed that two of the five are HDFs rather than watercourses/streams.
B.8.14 Eco-Industrial Design and Urban Design Policies		
B.8.14.15 Stormwater Guidelines	Water resources and environmental criteria addressing the following shall be met throughout the area:	As noted earlier, two of the watercourses on site (one of which is partially piped through tile drains under existing conditions) will be realigned within a central watercourse corridor. The northeastern watercourse, that flows through the

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	a) Protection and maintenance of stream corridors to address flood control and fish habitat regulatory requirements	northeastern wetland, will be retained in-situ and a piped section will be daylighted. Fish habitat regulatory requirements can be addressed with DFO at detailed design as per normal practice.
B.8.14.25 Site Development, Disturbance, Natural Corridors and Greenways	Appropriate development intensity and the efficient use of land in site planning shall be encouraged.	The proposed concept plan results in appropriate development intensity and the efficient use of land while still maintaining and increasing the extent of natural cover on the Subject Lands in comparison to existing conditions.
B.8.14.27 Site Development, Disturbance, Natural Corridors and Greenways	Site disturbance should be minimized and replanting to compensate for tree removals and to provide cooling and shade for streets, building and open spaces shall be encouraged.	Tree preservation and compensation have been addressed through the EIS (GEI, 2023), the EIS Addendum (GEI, 2025) and the Tree Management and Preservation Plan (GEI, 2025). A landscaping plan will be a condition of approval. Tree removal and compensation requirements for those trees removed outside of the wooded areas will follow the City's Tree Protection Guidelines.
B.8.14.28 Site Development, Disturbance, Natural Corridors and Greenways	Green spaces that integrate with the AEGD's NHS and greenspace beyond the district shall be encouraged.	The east-west road corridor is expected to have significant green space associated with it (i.e., wide bioswales along both sides, enhanced tree planting). This green space will integrate/connect with the watercourse corridors on the Subject Lands with sidewalk connections to the 4 m wide maintenance trails along either side of the watercourse corridor. Given the presence of the airport to the south and east, there is no ability to integrate with the NHS beyond those limits on the Subject Lands. Connections north of Dickenson Road and west of Glancaster Road will be feasible when those lands advance for development.
B.8.14.29 Site Development, Disturbance, Natural Corridors and Greenways	The use of measures to reduce heat island effects shall be encouraged.	This will be addressed through the landscaping plans.
B.8.14.30 Site Development, Disturbance, Natural Corridors and Greenways	Roadway design promoting naturalized areas and green corridors shall be encouraged.	As noted earlier, bioswales will be provided along both sides of the roadway.
B.8.14.32 Relationship to Natural Edges	Landscape buffers that address the interface and edges and provide naturalized buffers between developed areas of the site, streets and adjacent natural features are encouraged.	Landscaped buffers are proposed within all VPZs.
B.8.14.33 Relationship to Natural Edges	Building setbacks shall be required for development adjacent to the boundary of natural features under the jurisdiction of the NPCA, HCA and GRCA. VPZs shall comply with Sections C.2.5.9 to C.2.5.15 inclusive of Volume 1.	VPZs have been provided within Buffer Blocks 23 – 30 inclusive and, as such, specific building setbacks should not be required outside of the watercourse corridor and wetland and woodland/buffer blocks.
B.8.14.34 Relationship to Natural Edges	The location of outdoor uses and facilities, as well as employee recreation facilities, is encouraged to be in proximity to the visual and physical amenity of natural areas.	The trail, that will take advantage of the 4 m maintenance access road along both sides of the watercourse corridor, will be accessible to employees for recreation and will be in proximity to the re-created wetlands and retained woodland.

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B.8.14.71 Landscape Quality	Landscaping that supports ecology through the design of naturalized groves of trees (deciduous and evergreen) and areas incorporating low maintenance native plant species (woody shrubs, ground covers, grasses and perennials) are encouraged.	A landscaping plan will be a condition of approval both for the developed portion of the site as well as the watercourse corridor and the VPZs associated with the retained and re-created features. As noted in the EIS (GEI, 2023) and EIS Addendum (GEI, 2025), plantings will consist of native, non-invasive plant species.

APPENDIX C – JD BARNES WETLAND SURVEYS

SKETCH SHOWING ECOLOGICAL LAND CLASSIFICATION

PART OF LOTS 1, 2 AND 3 CONCESSION 3

GEOGRAPHIC TOWNSHIP OF GLANFORD

CITY OF HAMILTON

SCALE 1:2000

50 0 50 100 150 metres

J.D. BARNES LIMITED

© COPYRIGHT

METRIC DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

DICKENSON ROAD WEST
(ROAD ALLOWANCE BETWEEN CONCESSIONS 2 AND 3)

PART 1 PLAN 62R-13473 | PART 2 PLAN 62R-13473 | PART 1 PLAN 62R-14245 | PART 2 PLAN 62R-14245 | PART 1 PLAN 62R-12128

INST. No. VM171696 | INST. No. CD279898 | INST. No. VM85201 | PART 3, PLAN 62R-13473 | PART 4, PLAN 62R-13473 | INST. No. VM233409 | INST. No. VM222040 | INST. No. VM71700 | INST. No. HL272409 | PART 3, PLAN 62R-14245 | PART 4, PLAN 62R-14245 | INST. No. VM222134 | INST. No. AB108907 | INST. No. HL242637 | PART 2, PLAN 62R-12128 | INST. No. CD190067 | INST. No. CD476172 | INST. No. VM44418 | PART 1, PLAN 62R-9303 | PART 2, PLAN 62R-9303 | PART 1, PLAN 62R-8385 | PART 2, PLAN 62R-8385 | INST. No. VM190157 | INST. No. VM246276 | PART 4 PLAN 62R-8572 | PART 3 PLAN 62R-8572 | INST. No. CD99696 | INST. No. HL217728 | INST. No. VM237853 | INST. No. HL313845 | INST. No. VM128479 | INST. No. VM36528

PART 2 PLAN 62R-3238 | PART 1 PLAN 62R-3238

INST. No. HL58666

L O T 1

INST. No. CD139094

INST. No. CD214554

INST. No. VM63393

INST. No. AB338386

LIMIT BETWEEN LOTS 1 AND 2, CONCESSION 3

PART 1, PLAN 62R-8572

PART 2 PLAN 62R-8572

PART 1, PLAN 62R-11335

PART 2, PLAN 62R-11335

LIMIT BETWEEN LOTS 3 AND 4, CONCESSION 3

GLANCASTER ROAD
REGIONAL ROAD No. 53
ROAD ALLOWANCE BETWEEN FORMER TOWNSHIPS OF GLANFORD AND ANCASTER

LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16
LOT 17
LOT 18

1230 PLAN REGISTERED

C O N C E S S I O N

PART 1 PLAN 62R-7171

PART 2 PLAN 62R-7171

PART 3 PLAN 62R-7171

ARKWOOD DRIVE
(DEDICATED BY REG. PLAN 1230)

L O T 2

L O T 3

L O T 4

LIMIT BETWEEN LOTS 2 AND 3, CONCESSION 3

PART 1 PLAN 62R-17734

PART 2 PLAN 62R-11334

PART 2 PLAN 62R-11334

3

CAUTION

THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED EXCEPT FOR THE PURPOSE INDICATED IN THE TITLE BLOCK.

NOTE

BOUNDARY INFORMATION IS COMPILED FROM AVAILABLE PAPER RECORDS, AND HAS NOT BEEN VERIFIED BY ACTUAL FIELD MEASUREMENTS.

LEGEND

W# □ DENOTES FLAG SET

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SURVEY COMPLETED ON THE 25th DAY OF SEPTEMBER, 2020.

J.D.BARNES LIMITED
LAND INFORMATION SPECIALISTS
SURVEYING MAPPING GIS
401 WHEELABRATOR WAY, SUITE A, MILTON, ON L9T 3C1
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DRAWN BY:	CHECKED BY:	REFERENCE NO.:
AP		20-30-513-01-ELC
FILE: G:\20-30-513\01\Drawing\20-30-513-01-A_elc.dgn		DATED: SEPTEMBER 30th, 2020

PLOTTED: 9/30/2020

SKETCH OF WETLAND FLAGS SET ON

PART OF LOTS 2 AND 3 CONCESSION 3

GEOGRAPHIC TOWNSHIP OF GLANFORD

CITY OF HAMILTON

SCALE 1 : 750

25 0 10 20 30 40 50 metres

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METRIC DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

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LEGEND

#⊠ DENOTES WETLAND FLAG SET ON AUGUST 20TH, 2021.

PART 1, PLAN 62R-8572

PART 1, PLAN 62R-11335

PART 1 PLAN 62R-17734

PART 2 PLAN 62R-11334

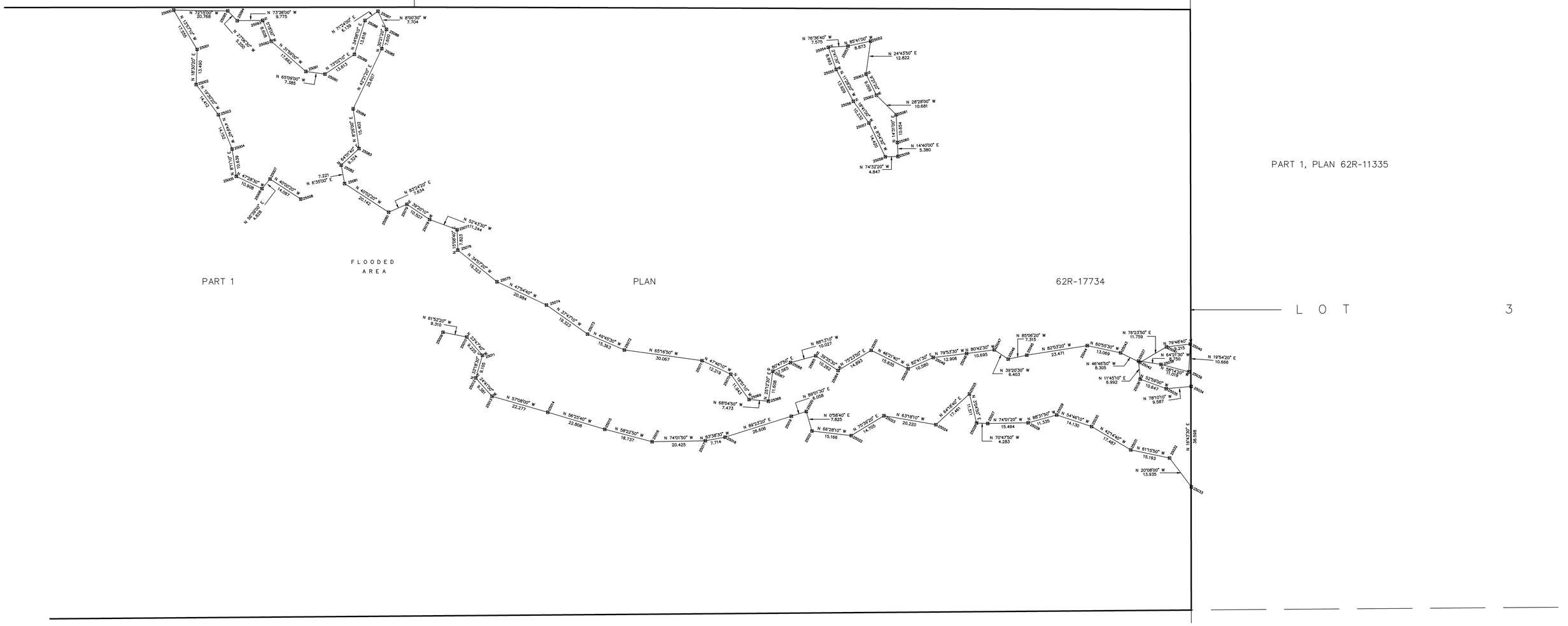
LOT 2

LOT 3

CONCESSION 3

LIMIT BETWEEN LOTS 2 AND 3, CONCESSION 3

FLOODED AREA



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FIELD WORK COMPLETED ON THE 20th DAY OF AUGUST, 2021.

J.D.BARNES LIMITED
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DRAWN BY:	CHECKED BY:	REFERENCE NO.:
SC	TJS	20-30-513-01-WETLAND
PLOTTED: 9/2/2021		DATED: SEPTEMBER/01/2021

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