

**Draft Environmental Impact Statement
for
Rapp Road Residential /Western Avenue Mixed
Use Redevelopment Projects**

Town of Guilderland, New York

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- Appendix D: Phase I Archeological Investigation; Land West of Rapp Road prepared by Hartgen Archeological Associates, Inc.
- Appendix E: Phase I Archeological Investigation; Western Avenue Mixed Use Redevelopment, prepared by Hartgen Archeological Associates, Inc.
- Appendix F: Vegetation Wildlife and Soil Conditions Reports for Site 1, prepared by B. Laing Associates
- Appendix G: Vegetation Wildlife and Soil Conditions Reports for Sites 2 & 3, prepared by B. Laing Associates
- Appendix H: Economic and Fiscal Impact Report, prepared by Camoin Associates
- Appendix I: Alternative Transportation Plans
- Appendix J: Site 1 Stormwater Pollution Prevention Plan, narrative only**
- Appendix K: Site 2 Stormwater Pollution Prevention Plan, narrative only***
- Appendix L: CDTA/Crossgates Transit Center Environmental Documents and CDTA Creighton Manning Engineering Traffic Study
- Appendix M: Site 1 Engineer's Report, prepared by The Chazen Companies
- Appendix N: Site 2 Engineer's Report, prepared Maser Consulting, P.A.
- Appendix O: Sound Level Measurements and Impact Review, prepared by B. Laing Associates
- Appendix P: Air Quality Analysis and Impact Review, Prepared by B. Laing Associates
- Appendix Q: Transit Oriented District Plan Improvements
- Appendix R: Agency Correspondence

Full reports have been submitted and are included in the DEIS:

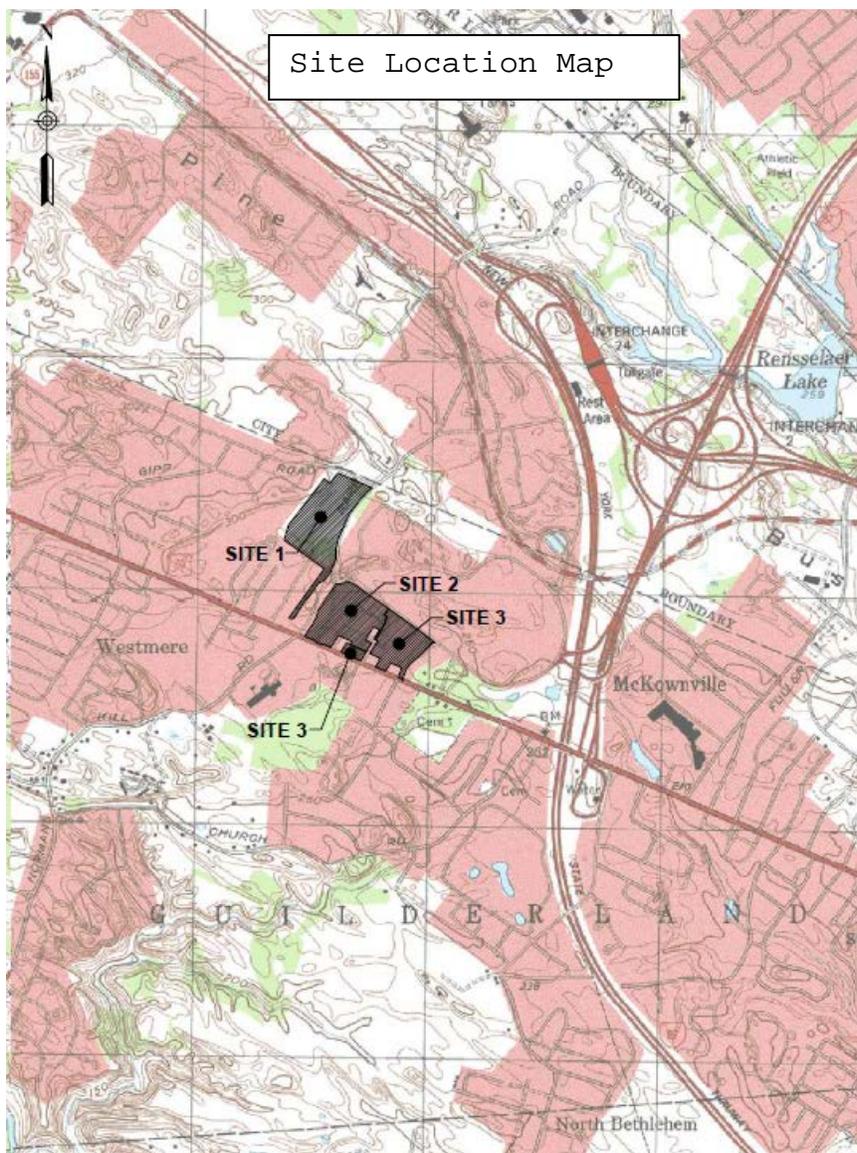
- * Traffic Impact Study, prepared by Maser Consulting, P.A. – Binder 3
- ** Site 1 Stormwater Management Report/SWPPP prepared by Chazen Companies – Binder 4
- *** Site 2 Stormwater Management Report/SWPPP prepared by Maser Consulting, P.A. – Binder 5

Site 3 Stormwater Management Report/SWPPP (conceptual) prepared by Chazen
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SECTION 1 - Executive Summary

This is a Draft Environmental Impact Statement ("DEIS") prepared for the Town of Guilderland Planning Board (the "Planning Board") for the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Projects (the "Project"). The Planning Board is the lead agency for the Project under Article 8 of the New York State Environmental Conservation Law ("ECL") and its implementing regulations (6 NYCRR Part 617), otherwise known as the New York State Environmental Quality Review Act ("SEQRA").

The Project encompasses three development sites, generally located at the intersections of Western Avenue, Crossgates Mall Road and Rapp Road. See Location Map below and Section 9, Figure 1.



1.0 Proposed Action

Site 1

On Site 1, Rapp Road Development, Inc. (the "Project Sponsor") is seeking approval for development of 222 one- and two-bedroom apartments and 3,900 square feet of commercial space on a ±19 acre site on Rapp Road. The proposed mixed-use development includes two five-story buildings and three two-story buildings with 84 covered and 278 surface parking spaces. (See Section 9, Figure 2). This parcel was previously used for decades as a Pig Farm, and is now vacant land. Site 1 is located in the Transit Oriented Development District ("TOD"). Due to specific restrictions in the TOD District for property west of Rapp Road, only multi-family dwellings, which may include certain ground floor commercial uses, are allowed on this site. The proposed mixed-use development complies in all respects with requirements of this zoning district.

Site 1 also identifies an area for potential future development on the northern portion of the site (See Section 9, Figure 2). There is no development currently proposed for this area. This DEIS has included a potential development scenario of 90 apartment units for this area strictly for the purposes of analysis of all potential future cumulative impacts. Actual density limitations on this area will be determined by the Town of Guilderland if, and when, an actual development proposal is made.

Site 2

Site 2 is located on ±16 acres within the TOD District at the intersection of Crossgates Mall Road and Western Avenue. Site 2 was previously developed as a small single-family residential subdivision and is now occupied by generally vacant structures. Redevelopment will require removal of thirteen (13) vacant structures and all associated infrastructure. There is one occupied structure within Site 2 by a tenant of the Applicant.

This site is proposed for development of ±160,000 square feet Costco retail use with associated fueling facility and 700 surface parking spaces. See Figure 3, Section 9. Hours of operation are 10:00 AM to 8:30 PM Monday through Friday; Saturday 9:30 AM to 6:00 PM; and Sunday 10 AM to 6:00 PM. The proposed development complies in all respects with the requirements of the TOD zoning district.

Site 3

Site 3 is located on ±11.34 acres of TOD zoned property between Site 2 and the recently developed hotel on Western Avenue (See Figure 4, Section 9). This site was previously used for decades as a horse farm and more recently for overflow parking for Crossgates Mall. There are no current redevelopment plans for this acreage. A TOD zoning-compliant conceptual plan could include 115,000 SF of retail, 50,000 SF of office space, and 48 apartments and is analyzed in this DEIS.

This DEIS has been prepared consistent with the Positive Declaration issued by the SEQRA lead agency Guilderland Planning Board on August 14, 2019, and the Final Scope approved on October

23, 2019. The DEIS will analyze the following topics with respect to the Rapp Road Residential development (Site 1) and the additional lands in the TOD owned or controlled by entities affiliates of the Project Sponsor (Sites 2 and 3):

- traffic;
- surface water and drainage;
- change in the intensity of use of land and capacity of municipal utility services facilities to support the uses;
- change in the intensity of use of land and capacity of schools to support the uses
- effect on endangered, threatened and/or special concern species and impacts to significant habitat areas;
- effect on the character or quality of historical resources and existing community/neighborhood character, and
- effect on air quality and noise levels.

2.0 Traffic

2.01 The Traffic Impact Study

A Traffic Impact Study analyzing the potential cumulative impacts of development of Site 1, 2 and 3, was prepared by Maser Consulting, PA for this Project (the “Traffic Study”). See Binder 2, Appendix C. The Traffic Study addresses changes in traffic levels and the anticipated effects of the Project on transportation-related use and infrastructure.

Based upon the location, proposed use, estimated number of trips and input from the Town of Guilderland and their consulting engineer and public review of the draft scope, the study area intersections that were assessed include the following:

- Westmere Terrace and Western Avenue
- Western Avenue and Crossgates Mall Driveway
- Western Avenue and Gabriel Terrace
- Western Avenue and Crossgates Mall Road/Johnston Road
- Rapp Road and Crossgates Mall Road
- Rapp Road and Gipp Road
- Rapp Road and Pine Lane
- Rapp Road and Springsteen Road
- Springsteen Road and S. Frontage Road
- Washington Avenue Extension and Springsteen Road/Crossgates Commons
- Crossgates Mall Road and I-87 On/Off Ramp
- Crossgates Mall Road and Crossgates Mall Entrance #1
- Crossgates Mall Road and Crossgates Mall Entrance #2 / Hotel Access
- Crossgates Mall Road and Crossgates Mall Driveway (from Western Avenue)
- Crossgates Mall Road/Proposed Site Driveways
- Crossgates Mall Road/proposed Gabriel Terrace Extension
- South Frontage Road and Rapp Road

Access will continue to be furnished by existing ingress and egress ramps to Washington Avenue Extension, Crossgates Mall Road, Rapp Road and the existing southbound and northbound ramps to the Fuller Road Alternate connection to I-87 and I-90.

A detailed description of each of the Study Area intersections, including existing and future levels of service are contained in this DEIS, Section 3.5 as well as the Traffic Impact Study in Appendix C. The Traffic Study concluded:

As summarized in this Study and as shown on the Level of Service Summary Table No. 3, the proposed Rapp Road Residential (Site 1) and Costco (Site 2) developments will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2022 No-Build and 2022 Future Build Conditions. In addition, as also analyzed in this Study and as shown on Level of Service Summary Table No. 6, the future potential Rapp Road Residential development area identified on Site 1 and future potential Western Avenue Mixed-Use (Site 3) will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2025 No-Build and 2025 Future Build Conditions.

While similar Levels of Service will be experienced, the Maser Traffic Study concluded and recommended, as part of the cumulative impacts analysis, the following conceptual improvements:

- Remove the right turn slip lanes and bring the right turn movements under traffic signal control at the Rapp Road/Crossgates Mall Road intersection.
- Modify the existing traffic signal at the Rapp Road/Crossgates Mall Road intersection.
- Restripe Crossgates Mall Road from Rapp Road to a location just west of the hotel driveway as a three lane section including a separate left turn lane.
- Relocate Gabriel Terrace opposite the Crossgates Mall western driveway, subject to Town approval.
- Provide two driveways to Crossgates Mall Road as well as a connection to/from the Crossgates Mall North Ring Road to provide additional access to I-87/I-90 as well as Washington Avenue for the Rapp Road Residential Development (Site 1).
- Provide two driveways to Crossgates Mall Road for Costco (Site 2), with the northerly access for entering left turns (a separate entering left turn lane will be provided), entering right turns, and exiting right turns only (exiting left turn will be prohibited). The southerly driveway would be for entering right turns only.
- If required, a traffic signal at the Crossgates Mall Road and Gabriel Terrace Connector will be installed.
- If required, the Town could restrict left turns at the Gabriel Terrace Connector Road

southbound approach to Western Avenue.

Since the CDTA Project is behind schedule, the Traffic Study evaluated the traffic impacts associated with development without the roadway improvements called for in the CDTA study. The development proposal does not inhibit/impact the CDTA initiative. In addition, it did evaluate the future operating conditions when such improvements are completed by CDTA (see Traffic Impact Study in Binder 2, Appendix C) and determined that it will accommodate all future traffic.

2.02 The Transit Oriented District

In 2016, the Capital District Transportation Committee partnered with the Town of Guilderland on a land use/transportation plan known as the Westmere Corridor Study. The Westmere Corridor Study examines both transportation and land use together in the corridor and makes recommendations for future land uses, access management and streetscape improvements, pedestrian-bicycle facilities, and transit improvements. One of the recommendations in the Westmere Corridor Study was the establishment of the TOD District in and around Crossgates Mall.

In June 2018, the Town Board adopted the TOD District. See, Guilderland Zoning Law §280-18.1. The Town Board findings in support of the TOD included the following:

The Albany County Planning Board deferred to local consideration.

Positive comments were received on the proposed TOD from the Town's Land Use Advisory Committee, from the Albany Pine Bush Commission and the Capital District Transportation Authority.

The Town Planning Board recommended adoption of the proposed TOD district as being consistent with the recommendations of the comprehensive plan and the Westmere Corridor Study, due to the presence of the heavily used CDTA transit center, direct access via the underutilized ring road to the Northway and walking distance to a regional shopping and entertainment center.

The proposed local law adopts the Westmere Corridor Study recommendations on restricting the types of uses and [increased] density and set back building height and buffering requirements.

The Town Planning Board's recommendation in support of the TOD district states:

Proposed TOD is consistent with recommendations contained in the 2001 Comprehensive Plan specifically:

- Facilitate reinvestment and redevelopment of vacant/underutilized frontage properties along Route 20 with focus on the goals of minimizing frictional traffic congestion on Rt. 20, structures and adequately buffer uses from adjoining residential properties.

- Consider better utilization of the Crossgates Mall Ring Road which provides direct access to the Northway and an excellent access management opportunity for new development. Any future development along the north side of Rt. 20 should use the Ring Road as an alternate means of access.

The Westmere Corridor Study (2016) which was prepared as a recommendation from the 2001 Comprehensive Plan, recommended the creation of a TOD district in this area due to the presence of certain critical features including a high ridership transit stop and future Bus Rapid Transit (BRT) station, a regional shopping and entertainment center, higher density commercial, residential and employment uses, and several large underutilized/vacant parcels and smaller infill lots for future development.

The Study states that the most effective way for the Town to support TOD is to establish development criteria for a defined geographic area incorporating a ½ mile radius from the Crossgates Mall transit station with accommodations for natural boundaries and intact residential areas. The Study identified a boundary map for the TOD district which is included, in large part, as part of the proposed TOD district.

The Study makes a number of land use, density, design, buffering and other recommendations that have been incorporated into the TOD district. Building heights are restricted to the existing Town standard of 35 feet along Western Avenue and abutting residential districts outside the TOD area. A 100 foot building setback is established from any residential districts outside the TOD area and only Multifamily or Mixed Use buildings are permitted west of Rapp Road.

Within the TOD area there are lands previously set aside as protected open space and/or greenspace. These areas including the Karner blue butterfly area on the north and the green space along the Western Avenue frontage on the south should be identified on the zoning map. These areas are already established green space as part of previous special use permit approvals and cannot be used to meet any such requirements for future development.

The TOD was adopted by the Town Board in June 2018. The “Purpose” of the TOD is:

Purpose: The Transit Oriented Development (TOD) District is designed to implement the recommendations of the Westmere Corridor Study (Study) by using an overlay district to support and incentivize development that adequately protects nearby residential neighborhoods and utilizes resources within and near the TOD’s boundary including regional shopping, entertainment, and employment centers, a robust transit service with high ridership and proposed enhancements, direct vehicle access to the interstate highway system, and a nearby business community. The TOD District encourages more compact development, traffic calming measures, better access management, improving the environment for non-automobile oriented modes of transportation, reducing the number of

required parking spaces, supporting mixed-use buildings and pedestrian linkages, and focusing intense development away from existing residential neighborhoods.

Another important aspect of the TOD District is the availability of public transit. See Section 9, Figure 5. The availability of the Capital District Transportation Authority (“CDTA”) bus transit center in close proximity of the proposed project and the addition of pedestrian and bicycle facility linkages to enhance access to the CDTA transit facilities at Crossgates Mall will encourage alternative forms of transportation. See Section 9, Figure 6. In addition, in response to the proposed project CDTA has indicated that it will expand its Cycle! program and add locations for bike share stations in and around Crossgates Mall. This will provide even more opportunities for use of alternative modes of transportation. See Section 9, Figure 5.

2.03 The Capital District Transportation Authority Traffic Study

The CDTA previously announced plans to enhance transit services at Crossgates through construction of a bus transit center together with identified transportation improvements including the relocation of the Ring Road and construction of roundabouts as part of the Washington-Western Avenue BRT Corridor Project (See Appendix L). The improvements proposed for the BRT line were considered necessary to allow bus traffic to move freely without traffic lights. CDTA planned improvements were examined in a traffic impact study prepared by Creighton Manning Engineering (“CME”) in 2015. The 2015 CME traffic study evaluated traffic generation from potential future development on Sites 1, 2 and 3 at the following levels: 350 apartment units, 50,000 s.f. of office space, a 200 room hotel, and 275,000 s.f. of retail space. See Binder 2, Appendix L. That study assumed that all of these developments would be constructed and completed at the same time as the proposed traffic improvements and the proposed Transit Center project. All of the development examined in this DEIS on Sites 1, 2 and 3 is within the scope of the CME traffic study. The CDTA/ Crossgates Transit Center project, including traffic from these potential future developments, was determined to have no significant effect on the environment and received a Negative Declaration under SEQR. See Binder 2, Appendix L. The CDTA/ Crossgates Transit Center project also received a Finding of No Significant Impact from the Federal Transit Administration establishing that the project “qualifies as a Class II Categorical exclusion” under the National Environmental Policy Act of 1969. The development of Sites 1, 2 and 3 will does not inhibit/impact the CDTA initiative.

2.04 Upper Rapp Road Roadway Alternatives

In addition, a variety of transportation alternatives have been analyzed in connection with upper Rapp Road area within the Town of Guilderland and City of Albany in order to reduce traffic traveling through the historic Rapp Road Neighborhood. Such alternatives include:

Alternate 1 - Relocated Upper Rapp Road to East (“Eastern Bypass”)

Alternate 2 - Relocated Upper Rapp Road bypass road (“Western Bypass 1”)

Alternate 3 - Relocated Upper Rapp Road bypass road (“Western Bypass 2”)

Alternate 4 – Southbound only on “Middle Rapp Road”

Alternate 5 – Closure of Rapp Road at northern access to Rapp Road project driveway and Gipp Road but construct with “moveable gates”.

Alternate 6 – Gipp Road Realignment

Alternate 9 – Rapp Road Realignment – No Direct Thru Access

See DEIS Section 3.5 for further discussion of each of the Upper Rapp Road alternatives.

3.0 Ground or surface water quality and quantity and drainage

Stormwater runoff from each of the Project Sites will be managed pursuant to a management plan included in Stormwater Pollution Protection Plans (“SWPPP”) for each of the development Sites. The plans include appropriate stormwater measures to adequately control the increase in stormwater runoff expected from the redevelopment of Sites 1, 2 and 3. Post development runoff rates will be below predevelopment rates, consequently there will be no impact on downstream flooding at the McKownville Reservoir area.

3.1 Site 1

A Stormwater Pollution Prevention Plan (Site 1 SWPPP) has been prepared for this project for the Town’s Stormwater Management Officer’s review. The SWPPP contains the methodology and calculations to support the design of a stormwater management system in accordance with New York State Department of Environmental Conservation (NYSDEC) Stormwater Management Design Manual (SWMDM). The proposed stormwater collection system, consisting of pipes and on-site stormwater management facilities, will adequately collect, treat, and convey the stormwater runoff. Open infiltration basins, underground infiltration chambers, and bioretention will be used to manage and treat stormwater runoff generated by the proposed development and meet the requirements of the NYSDEC SWMDM. Refer to Site 1 SWPPP for more information in Binder 2, Appendix J.

3.2 Site 2

A Stormwater Pollution Prevention Plan (Site 2 SWPPP) has been prepared for this redevelopment Project, and contains the methodology and calculations to support the design of a stormwater management system in accordance with NYSDEC guidelines. An underground stormwater management facility has been designed along with three water quality structures to meet the requirements of the NY State SWM Design Manual.

To address the increase in peak flow and to provide water quality benefits for this runoff a subsurface infiltration system will be employed, based on the requirements of Section 6.3 of the NYSDEC SWMDM. The infiltration system designed for Site 2 provides the required water quality benefits, channel protection, overbank flood protection, and extreme flood protection. Runoff reduction will also be achieved through the aforementioned infiltration practices which are

a standard Stormwater Management Practice (SMP) with Runoff Reduction Capacity as described in Table 3.5 of the updated NYSDEC SWMDM. An outlet control structure will be used in conjunction with the infiltration system to mitigate for peak flows prior to discharging off-site.

Prior to entering the subsurface system, however, the runoff will be pretreated through approved NYSDEC verified proprietary devices. Also, the SWPPP describes the Erosion and Sediment Control Plan to be implemented during construction, and a long-term Operation & Maintenance Plan to be followed post construction.

Refer to Site 2 SWPPP for more information. See Binder 2, Appendix K.

3.3 Site 3

A conceptual Stormwater Pollution Prevention Plan (Site 3 SWPPP) has been prepared in accordance with the NYSDEC SWMDM. The SWPPP includes a proposed stormwater collection system, consisting of pipes and on-site stormwater management facilities, that will adequately collect, treat, and convey the stormwater runoff. Underground infiltration chambers will be used to manage and treat stormwater runoff generated by the proposed development and meet the requirements of the NYSDEC SWMDM.

See Section 3.1 and 3.2 of the DEIS for further discussion.

4.0 Change in the intensity of use of land and the capacity of municipal utility services and schools to support the uses

A. Change in intensity of use of land and capacity of municipal utility service

The Town of Guilderland Department of Water & Wastewater Management provides sewer services to more than 25,000 customers in the Town of Guilderland by collecting wastewater for high-level treatment. The town's system meets or exceeds the standards set by the Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH).

Site 1, 2 and 3 are part of the Town of Guilderland sewer district. Based on consultations with the Town Department of Water & Wastewater Management, the Town's sewer service possesses adequate capacity to meet the current and future needs of the Town and accommodate the proposed development for Site 1, 2 and 3. Engineering details for the collection, distribution, and treatment of the Project's discharges will be coordinated in consultation with the Town of Guilderland Water/Wastewater Department and the Town Designated Engineer (Delaware Engineering).

Fire protection will be provided by the Westmere Fire Department. An adequate supply of water is available to meet required fire flows. The traffic improvements will continue to provide sufficient access by the Fire Department to Sites 1, 2 and 3 and surrounding areas. Individual site plans will be reviewed by the Fire Department to ensure adequate access to all structures is provided and NYS Fire Code requirements met. Adequate existing firefighting apparatus is available and no adverse impacts on the fire company are anticipated, as confirmed verbally with the Westmere Fire Chief.

Police protection will be provided by the Guilderland Police Department, supported by the Albany County Sheriff and the New York State Police as may be required.

Rescue and emergency transportation are provided by Guilderland Emergency Medical Services.

B. Change in intensity of use of land and capacity on schools

Based on the Camoin Report (Appendix H), Census Data for new multifamily residential construction, and the location and design of the Project, a minimal number of school-age children are anticipated to reside in the development and no impacts to the Guilderland School District are anticipated. See, Binder 2, Appendix H.

The presentation to the Town Board in December 2018 by the Town Planner noted that:

On average multi-family developments with 100 units will generate **29** students
On average single-family developments with 100 units will generate **74** students

Between 2001 and 2017, the Guilderland School District experienced a 15.1 % decline in enrollment (approximately 1 % per year) from 5,694 students in 2001 to 4,836 students in 2017.

See Section 3.8 of the DEIS for further discussion.

5.0 Impacts on endangered, threatened and/or special concern species and significant habitat areas

5.01 Site 1

A Vegetation, Wildlife and Soil Conditions Report, prepared by B. Laing Associates, Inc. (“B. Laing Report”) was prepared for the initial Site 1 application in November 2018, and thoroughly evaluated this area. See Binder 2, Appendix F. The Report provides detailed analysis of various species, including, but not limited to, the Karner blue butterfly (endangered), Frosted elfin (threatened), Northern long-eared bat (threatened), Worm snake (special concern), Eastern spadefoot toad (special concern), Eastern hog-nosed snake (special concern), and many other birds and butterflies and moths all detailed in the Report. The Report has been updated with additional field investigations in 2019. The updated Report found that no significant adverse environmental impacts will occur to any endangered, threatened and/or special concern species or to significant habitat areas as a result of the Project. The Report also confirmed that there would be no significant adverse impacts on the Pine Bush Preserve, or the Albany Pine Bush Preserve Commission’s ability to manage the Preserve lands.

Site 1 is identified in the Albany Pine Bush Preserve Management Plan (“Management Plan”) as Area 57, and classified as “Partial Protection”. See Section 9, Figures 8 and 9. The Partial Protection classification contemplates protection of the area of importance to the Preserve through acquisition, conservation easements, or management agreements. Mitigation can occur in a variety of ways including mitigation fees and property set-a-sides. The Environmental Resource scores for Area 57 indicate the importance of the site as a buffer and linkage. According to the Management Plan Buffer

Areas are “Open areas that provide buffer zones, including watershed protection, reduction of impacts from adjacent development, and increased fire manageability.” Linkages are:

Open areas providing linkages that increase contiguity and provide opportunities for dispersal between existing and potential Preserve lands.

Specifically to area 57 (Site 1), the Management Plan states that “Partial development...may be appropriate provided that proper set-a-sides are protected and native pine barren plantings are used for landscaping to ensure that the area can widen and protect the existing Karner blue butterfly linkage between the Crossgates Hill and Preserve lands to the east.” As discussed further below, appropriate buffers and set-a-sides are incorporated in to the development plans for Site 1 protecting and significantly improving the butterfly linkage and contiguity of the Preserve. See Section 9, Figures 2 and 9.

Mitigative Measures

During the course of the B. Laing field work for the Report, the Albany Pine Bush Commission identified three nearby parcels of land as of particular value to its efforts to preserve and manage the Pine Bush Preserve. These parcels identified as Full Protection Areas 62, 78 and 79 in the Pine Bush Management Plan are ±6.8 acres, 1.0 acres and .60 acres, respectively. While no potential significant adverse impacts were identified to any endangered, threatened or species of special concern or their habitat, the Project Sponsor proposes to convey this 8.4 acres of Full Protection Pine Bush lands to the Commission, as mitigation consistent with the Partial Protection designation in the Management Plan. A map has been prepared displaying the location of Site 1 (Area 57) and the existing 200 foot northern buffer area, the land proposed to be conveyed to the Commission (Areas 62, 78 and 79), the existing ±20 acre Karner blue butterfly hill and migration corridor area, and its relation to the balance of the main portion of the Pine Bush Preserve (See Section 9, Figure 9). The existing ±20 acre Karner blue butterfly hill corridor represents a prior accommodation provided by the Project Sponsor, or an affiliate, to facilitate the preservation of the Karner blue butterfly at a location immediately adjacent to Crossgates Mall.

The B. Laing Report was examined by the Albany Pine Bush Preserve Commission and New York State Department of Environmental Conservation. Each indicated that the Rapp Road residential project, with the proposed conveyance of lands and additional benefits, discussed further in DEIS Section 3.3.1.2, would provide positive ecological benefits to the Pine Bush Preserve and mitigate potential adverse impacts. See Binder 2, Appendix R.

In a July 10, 2019 correspondence, NYSDEC supported this proposed conveyance stating:

The proposal by Crossgates to convey the three parcels on the east side of Rapp Road is beneficial. The opportunities provided by transfer of these parcels are likely to provide much greater benefit for Kbb management efforts than what may be lost as a result of this project’s development. It should be noted, however, that one of the parcels is already partially encumbered as part of the defined Kbb Management Area.

In response to the proposed conveyance, and other concessions, the Commission agreed that potential impacts resulting from development of Area 57 (Site 1) would be mitigated. In an April 18, 2019 letter, the Commission stated:

The Commission anticipates that if these protection and education/outreach measures are employed, in addition to those already outlined, and/or proposed (e.g. traffic control on Rapp Road, 200 ft buffer to Gipp Rd.) as part of municipal approval for the proposed project, the most significant potentially adverse environmental impacts outlined in our January 25, 2019 letter may be avoided, and the loss of Partial Protection Area 57 mitigated.

See Binder 2, Appendix R and for additional discussion, see DEIS Section 3.3.

5.02 Sites 2 and 3

The proposed redevelopment Sites 2 and 3 are located to the south of Crossgates Mall and largely previously developed. These areas were evaluated by B. Laing Associates and no identified endangered, threatened, special concern species and/or significant habitat areas were present. While these sites are technically within the Albany Pine Bush Study Area, they are located on the periphery and are not identified in the Pine Bush Management Plan for protection.

6.0 Impacts on the character or quality of important historical resources (please refer to Section 7 for potential impacts on the Rapp Road Historic District)

6.01 Site 1

Hartgen Archeological Associates performed a Phase 1 Archeological Investigation of Site 1 (“Hartgen Report”). The Hartgen Report concluded:

Phase I Investigation of [Site 1] identified a 20th-century assemblage of debris in the southeast corner of the Project, with no visible evidence of architectural materials that suggest the existence of foundation remains.

Based on the results of the Phase I archeological investigation, the proposed development of the Project will not affect any significant archeological resources and no further archeological work is recommended for the site.

See Binder 2, Appendix D.

On March 11, 2019, the New York State Office of Parks, Recreation and Historic Preservation (“OPRHP”) provided comments regarding Site 1 concluding that:

Our office has assessed both the archaeological and historical impacts that might be associated with this action. Based upon this review, it is the OPRHP’s opinion that the project, as submitted, will not impact cultural resources in or eligible for inclusion in the State and National Register of Historic Places.

See Binder 2, Appendix R and DEIS Section 3.4 for further discussion and additional letters from OPRHP in support of traffic alternatives that would reduce traffic utilizing Upper Rapp Road.

6.02 Sites 2 and 3

Hartgen also performed a Phase 1 Archeological Investigation of Sites 2 and 3 which concluded:

Based on the results of the Phase I archeological investigation, the proposed development of the site will not affect any significant archeological resources and no further archeological work is recommended.

See Binder 2, Appendix E.

7.0 Impacts on the character or quality of existing community/neighborhood character

7.01 Site 1

Due to specific restrictions in the TOD District for property west of Rapp Road, only multi-family dwellings, which may include certain ground floor commercial uses, are allowed on this site. The mixed-use development proposed for Site 1 complies in all respects with the requirements of the Guilderland Zoning Law (TOD), including building height, setbacks, greenspace, density and design standards. See Section 9, Figure 1 and Binder 2, Appendix A.

a. Westmere Terrace & Paden Circle neighborhoods

To the east of Site 1 is Crossgates Mall a 1.7 million square foot regional shopping center. See Section 9, Figure 11.



To the south is the Westmere Terrace neighborhood and to the west is a National Grid right of way and the Paden Circle neighborhood. During the early stages of the site plan review process for Site 1, the Project Sponsor engaged the residents in the nearby neighborhoods in a dialogue to address site plan concerns. This resulted in development of site enhancements that include extensive landscaping, additional berms, and fencing to provide a visual screen and mitigate any noise impacts for these neighbors as depicted on the site plan (Figure 2, Section 9) and detailed below:

- A new cul-de-sac will be constructed on tax map parcel number 52.09-4-43.2 (28 Westmere Terrace), which is owned by the applicant.
- A 20-foot high berm along the southern boundary of the Project site is proposed.
- A double row of 12-15 foot high pine trees along the southern boundary of Site 1 across the top of the berm referenced above.
- The relocated cul-de-sac, berm and plantings shall be constructed prior to construction taking place on the Site 1.
- A double row of 8-10-foot tall pine trees along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
- A 6-foot high solid panel vinyl fence in the following locations:
 - a. along the top of the 20-foot berm referenced in above at the southern boundary of Site 1; the fence will run from the northwest boundary of tax map parcel

number 52.09-4-43.2 (28 Westmere Terrace) to the northeast boundary of parcel number 52.10-1-6 (31 Westmere Terrace).

- b. along the western boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).
- c. along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
- d. along the northern boundary of tax map parcel number 52.10-1-6 (31 Westmere Terrace).
- The existing wood fence along the western boundary of tax map parcel number 52.10-1-25 will be replaced with a 6-foot high solid vinyl fence.
- The Applicant will install parking lot light poles that are no higher than 12-feet in the southern most parking lot closest to Westmere Terrace. The exterior lighting will conform to Town Code section 280-28(C) (2), (3) and (4).
- The Applicant will endeavor to not remove on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees may aid as a natural buffer to the Westmere Terrace neighborhood in addition to the substantial proposed landscaping shown on the Site Plan.
- The berm along the western border will be planted with 12-15 foot tall double row of trees.

Traffic alternatives were also examined for Westmere Terrace including:

Alternate 7 - Westmere Terrace Cul-De-Sac Extension Route 1

Alternate 8 - Westmere Terrace Cul-De-Sac Extension Route 2

For further discussion, refer to Section 3.5.3, Alternatives 7 and 8; See also, Section 9, Figure 16 and Binder 2, Appendix I.

- b. Rapp Road Historic District.

To the north of Site 1 is a neighborhood known as the Rapp Road Historic District. This neighborhood is located within the City of Albany and in 2002 was listed on the State and Federal National Registry. A map of the location for the Historic District is shown in Section 9, Figure 12. The Project Sponsor also engaged in similar dialogue with these residents. A currently existing 200-foot wide perimeter buffer on the north side of the Project site will continue to provide a visual buffer between the proposed development on Site 1 and these residences. The distance from the closest occupied house to the Site 1 is over 975 feet. While the distance from the edge of the

historic district to Site 1 is 820 feet. A map showing the distances between Site 1 and the Historic District is contained in Section 9, Figure 13.

The owners of property within the Historic District have described their intention to maintain the legacy of the original settlement by preserving and restoring structures and possibly developing a cultural center to share their history within the District. To support these efforts, the Project Sponsor has proposed to convey five properties located in the Historic District to the Rapp Road Historical Association for use as open space or for the development of the cultural center. See Section 9, Figure 14.

In addition, the Project Sponsor will convey three parcels totaling ± 8.4 acres of land to the Albany Pine Bush Preserve Commission (APBPC) located immediately east of the District and within the District. This conveyance to the APBPC will provide a buffer to the District and ensure that such land is preserved from future development. See, Section 9, Figure 9.

The District is located on Rapp Road and Springsteen Road in the City of Albany. The roadway has a functional class as a Minor Arterial and provides a connection between the City and the Town for regional and commuting traffic between the interstates and the numerous businesses (both large and small) located on Washington Avenue Extension in the City and Western Avenue within the Town. According to the Maser Traffic Study, this roadway segment currently has approximately 501 vehicle trips in the weekday PM Peak Hour and 324 vehicle trips in the weekday AM Peak Hour.

The potential impact of existing and future traffic conditions on the Historic District and residents of Gipp Road, Pine Lane, and Wilan Lane has been evaluated in the DEIS including several alternatives to traffic patterns in this area. These alternatives include, but are not limited to, construction of north-south bypass roads to the east and west of Rapp Road, and closure and partial closure of a section of Rapp Road. See Section 9, Figure 16 and DEIS Section 3.5.4.

Based on the cumulative review of traffic, regardless of the potential transportation alternatives, the Traffic Study determined that level of service B will be maintained on Rapp Road during the AM and PM peak hours and will not result in significant traffic impacts to this area. See DEIS Section 3.5 for additional information concerning alternative traffic options.

7.02 Site 2 and 3

The proposed use at Site 2 and conceptual uses at Site 3 are permitted under the Town's TOD district, subject to issuance of a Special Use Permit. The proposed development plans are consistent with all zoning, set back, height and area requirements. With respect to Sites 2 and 3, the sites will be attractively landscaped with a variety of tree and plant species compatible with local soils and climate conditions. See, Section 9, Figure 15. The landscaping plan will utilize a variety of plant sizes and types to provide an aesthetically pleasing environment and durability. Specially selected trees and shrubs will be planted next to the buildings. The overall effect will be to create a diverse and attractive visual environment. Moreover, the existing grade of Site 2 is lower than surrounding roadways which feature will help minimize potential visual impacts. With respect to Site 3, a landscape plan similar to Site 2 will be designed, however given the speculative nature of this

development, preparation of a hypothetical landscaping plan would serve no reasonable purpose. Any future landscaping plan for Site 3 would require further review and approval by the Town.

See Section 3.4 and 3.5 of the DEIS for further discussion.

8.0 Effect on air quality and noise levels.

8.01 Air Quality

B. Laing Associates prepared a report, Air Quality Analysis and Impact Review, to examine potential air quality impact as a result of the Project. The report found:

No significant air quality impacts are anticipated as a result of the buildout of the Project. Twenty-three (23) signalized and unsignalized intersections were analyzed by the traffic consultant. These analyses were utilized to determine the impacts, if any, to air quality as a result of the proposed action. As provided above, similar Levels of Service and delays will be experienced under the 2022 and 2025 No-Build and Future Build Conditions and so, again, no significant air quality impacts are anticipated.

See, Binder 2, Appendix P.

8.02 Noise Levels

A Sound Level Measurements and Impact Review report was prepared by B. Laing Associates to evaluate sound levels that may occur as a result of the Project. The report examined the data at four monitoring locations to establish an existing base line for sound in the area. Existing vehicular traffic was identified as the primary source of sound. The report examines the results of Maser Engineering Traffic Impact Study and the anticipated additional traffic that will result from the Project and its potential impact on noise. The report concluded: “The analysis revealed that no significant noise impact will occur as a result of the proposed action.”

Further, the mitigative measures employed for Site 1, including the 20 foot high berm and 6 foot high fencing will mitigate noise impacts.

See Section 3.9 of the DEIS and Binder 2, Appendix O for further discussion.

9.0 Project Benefits

The development areas are located entirely within the Town of Guilderland. The proposed action will have a substantial positive impact on municipal revenues and finances within the Town of Guilderland and surrounding municipalities as well as Albany County.

The majority of the site is vacant and underutilized property/structures within the Town of Guilderland. Combined all three Sites currently generate a total amount of \$32,372 per year in property taxes to support local government. As there is no sale of goods/merchandise; there are no sales tax and/or additional form of revenues generated for the town. Current School District revenues

total \$175,718 and revenues to Albany County total \$28,259.

The Camoin Report (Binder 2, Appendix H) outlines the benefits to the Town, School District and County will be significant as a result of substantial new property taxes to be generated when the new development is operational. Camoin also projects more than \$2 million in new annual sales tax being generated as a result of visitors traveling to Albany County and the Town of Guilderland largely driven by the Costco development and new residents being attracted to the new multi-family housing that will attract residents from the region to Guilderland. Although the following estimated figures are not intended to bind either the applicant or the Town Assessor, it is projected that a potential future assessed value and projected tax revenues are as follows:

Projected Tax Revenues Site 1

Projected Assessment	Town	County	School	Total
\$ 18,799,326	\$ 61,506	\$ 50,633	\$ 331,861	\$444,000

Projected Tax Revenues Site 2

Projected Assessment	Town	County	School	Total
\$ 6,000,000	\$19,630	\$16,160	\$105,917	\$141,707

In addition to the substantial tax revenue benefits, the Project will result in the generation of more than 1,175 construction related employment opportunities. The construction payroll is estimated to be approximately \$53 million. The Project will also create approximately 133 part-time and 189 full time permanent employment opportunities, with an annual payroll of \$16.1 million. The median salary for full time employees at Costco was \$38,810 in 2018 .

See Section 3.10 of the DEIS for further discussion.

10.0 Reasonable, Feasible Alternatives Considering the Objectives and Capabilities of Project Sponsor

The DEIS includes a description and evaluation of the range of reasonable alternatives to the proposed action. Alternatives considered include:

1. The “no action” alternative;
2. Alternative site layout;
3. Alternate site uses; and
4. Alternative Location for Costco.

It should be noted that the SEQR regulations provide that the alternatives to be analyzed in a DEIS must “consider[] the objectives of the project sponsor” and such alternatives “for which no discretionary approvals are needed may be described”. Alternatives involving Crossgates Mall property or facilities have been considered but determined to be not feasible. In addition, multiple discretionary approvals would be required from state and local jurisdictions. Crossgates Mall and lands are under different ownership from the applicant, including ownership by a department store,

are subject to separate tenant approval development rights, and separate financing requirements which limit the ability to utilize such properties.

For instance, there is no other location possible for Costco because other locations, including Site 3, lack sufficient acreage for the project and commercial use at Site 1 is not permitted.

Evaluation of potential traffic alternatives for upper Rapp Road within the Town of Guilderland and City of Albany are provided in Section 3.5.

The impacts anticipated for each alternative assessed is summarized within Section 5.0 of this DEIS.

11.0 Summary

This DEIS has been prepared at the direction of the Planning Board as SEQRA Lead Agency to ensure that the Planning Board, together with the other involved and interested agencies and the public, are able to carefully analyze and take a "hard look" at potential environmental impacts of the action and proposed measures to mitigate such impacts.

This DEIS will be subject to agency and public review through a formal SEQRA comment period and a public hearing. At the conclusion of the comment period, a Final Environmental Impact Statement will be prepared and submitted which will address all of the substantive comments made on the DEIS. The entire SEQRA process is structured to allow for the examination of identified relevant environmental issues by technical experts, agencies and the public in order that the Planning Board and other involved agencies may make reasoned and informed decisions.

In order to take a thorough and hard look at all potential environmental concerns, the DEIS identifies and examines a complete range of issues as defined in the Scoping process, potentially related to the Project. These include the impacts of both construction and operation phases of the Project on surface water resources and drainage, vegetation, wetlands, wildlife, land use (community character), transportation, municipal revenues and finances, utilities, cultural resources, noise, visual character.

The DEIS analyzes the potential environmental impacts and where appropriate, identifies possible mitigating measures. Where appropriate, the DEIS also analyzes alternative mitigation measures and the potential impact of such measures. The DEIS also examines potential secondary impacts on surrounding land uses which may result from the construction and operation phase. Finally, the DEIS discusses potential growth inducing aspects of the Project.

The DEIS concludes that, with appropriate mitigating measures in place, the proposed action will provide significant benefits to the Town of Guilderland and the surrounding region, and that any environmental impacts will be minimized to the maximum extent practicable.

SECTION 2 Description of the Proposed Action

2.1 Proposed Action Overview

2.1.1 Site 1

Site 1 is located on ±19 acres of vacant land on Rapp Road west of Crossgates Mall. The site is physically separated from Sites 2 and 3 by Rapp Road and will be developed on currently vacant land. The land was previously used for decades as a pig farm, and the soils and vegetation reflect this.

Site 1 is located within the Town of Guilderland's Transit Oriented District ("TOD"). The only permitted uses in the TOD for this area west of Rapp Road are multi-family dwellings with a non-residential use on the ground floor. The site plan depicts two five-story and three two-story buildings comprised of 222 one and two bedroom apartment units as well as 3,900 sf of commercial space divided among the two-five story buildings. The 222 units across the 19+/- acres generate a proposed density of 11.3 units/acre, well within the 16 units/acre permitted. The buildings have been laid out such that no building is proposed within the 100 or 150 foot setback limitations from a Residential District outside the TOD District. The three two-story thirty-five foot tall buildings are located between ±125 feet and ±235 feet of a Residential District outside the TOD District. The two five-story, 55 feet tall multi-family buildings have been placed 150 feet or greater from a Residential District outside the TOD District. In addition to restricting building heights, proposed site lighting nearest Westmere Terrace has been reduced to 12 feet tall with a 20 feet tall vegetated berm between Westmere Terrace and the development to reduce lighting and visual impacts.

The TOD District requires 1.5 parking spaces per dwelling unit for multifamily use located west of Rapp Road, resulting in a 333-space parking requirement. See Section 9, Figure 2. The site plan proposes a total of 362 parking spaces, comprised of covered and surface parking stalls. In addition, the TOD District recommends pedestrian and bicycle facilities designed to effectively link uses within the District and adjacent to the District to expand and complement bicycle movements and networks in the community. The proposed development on Site 1 creates a walkable community with concrete sidewalks interconnecting each unit, bicycle racks at or near each building, and a ten foot wide multi-use path, where possible, along Rapp Road, connecting the proposed development, Gipp Road, Western Avenue and the Crossgates Mall inner road. The Project Sponsor is in discussions with CDTA to locate a new bus stop for the convenience of the new residents, the surrounding neighborhoods and employees of nearby commercial uses to encourage use of public transit. CDTA also plans to expand its bike ride share program to the area that will encourage use of alternate forms of transportation consistent with the TOD.

The Project proposes a 5.8+/- acre increase in impervious cover post-development, including the proposed parking lots, buildings, sidewalks and community pool for use by tenants within the Site. The TOD District allows up to 75% lot coverage by impervious surfaces. Although the project proposes an increase in impervious cover, 69% of the site will remain as greenspace, either covered by lawn, landscaping or remaining undisturbed. The project is also required to maintain the existing 200 foot heavily forested buffer along the northern boundary as part of a previous project

approval and proposes to maintain the existing berm between the project site and the Paden Circle development on the western perimeter. Additional landscaping is also proposed.

Site 1 will require land grading, and installation of stormwater drainage, water supply, sewage collection, and public utility infrastructure necessary to support the proposed development.

Site 1 also identifies an area reserved for potential future development, for purposes of this DEIS it is referred to as Site 1A, between the northern five-story building and northern driveway from Rapp Road. There is no development currently proposed or contemplated for Site 1A, and this DEIS has included a potential conceptual development scenario for this area strictly for the purposes of analysis of all potential future cumulative impacts.

The inclusion of Site 1A with Site 1 could result in as many as 312 units across the 19+/- acres, generate a proposed density of 16.0 units/acre, consistent with the permitted 16 units/acre per the TOD. Actual density limitations on this area will be determined by the Town of Guilderland if, and when, an actual development proposal is made. The Site 1A conceptual building area would be placed at a distance greater than 150 feet from a Residential District outside the TOD District with a maximum height of 55 feet.

Site 1A is a conceptual development scenario only and would result in a 1.2+/- acre increase in impervious cover post-development, including the proposed parking lots, buildings, sidewalks and community pool. The TOD District allows up to 75% lot coverage by impervious surfaces. 64% of the Site combined Site 1 and 1A will remain as green space, either covered by lawn, landscaping or remaining undisturbed. The Project Site 1A concept also respects the existing 200 foot buffer area along the northern property boundary and the existing berm between the project site and the Paden Circle development on the western perimeter.

Applications for site plan and subdivision approval for Site 1 were made to the Planning Board in November 2018. All area and bulk requirements have been met. The record in support of this development included expert reports on traffic, environmental, stormwater management and cultural/archeological resources with no identified potentially significant environmental impacts.

2.1.2 Site 2

The second proposed redevelopment area is located within the TOD zoning district at the intersection of Crossgates Mall Road and Western Avenue on ±16 acres of land. The eastern portion of the site consists of largely vacant structures. The western portion of the site is heavily wooded and consists of an abandoned roadway which was formerly Rapp Road. It is analyzed for development of a ±160,000 square foot Costco retail facility and related fueling facility with a kiosk, and associated driveways, parking areas, and other infrastructure. This development area is within the study area previously evaluated for similar scale potential future redevelopment as part of the environmental review for the CDTA transit center project at Crossgates. See Binder 2, Appendix L. As demonstrated on the Costco Site Plan, all area and bulk requirements are met. See Section 9, Figure 3 and Binder 2, Appendix A – Site 2 Site Plan. The site plan depicts 700 parking spaces to serve the proposed use, with landscaping interspersed within the parking fields. See Section 9, Figure 3.

Site 2 is located to the east of the intersection of Western Avenue and Rapp Road. The site is bounded by Crossgates Mall Road to the north, residential and commercial uses to the east and to the south, Western Avenue to the south, and Crossgates Mall Road to the west. Access to the site is proposed to be provided by one (1) right-in-right-out driveway off Crossgates Mall Road, one (1) full access driveway off Crossgates Mall Road, and one (1) full-access driveway off Gabriel Terrace.

The Site 2 project proposes the demolition of thirteen (13) vacant structures along with all associated infrastructure.

2.1.3 Site 3

The potential third redevelopment area is located on ±11 acres of TOD zoned property between Site 2 and the existing hotel site. There are no current development plans for this acreage. The Site was previously used for decades as a horse farm. The vegetation and soils reflect this. Strictly for purposes of analysis, the DEIS assumes that a zoning-compliant conceptual plan can be developed and analyzed for potential cumulative impacts purposes. This development area is within the study area previously evaluated for potential future redevelopment as part of the environmental review for the CDTA transit center project at Crossgates. See Binder 2, Appendix L. Based on the prior CDTA traffic analysis, the following potential uses are evaluated: retail, office and residential. Site 3 is located between Crossgates Mall Road to the north and Western Avenue, and currently used for commercial and residential purposes and vacant land. See Section 9, Figure 4 and Binder 2, Appendix A, Concept Plan.

The TOD zoning district permits multi-family dwellings and office and retail space east of Rapp Road. One or more retail buildings totaling 90,000 sf as well as one mixed-use building with 25,000 sf of retail space, 50,000 sf of office space and 48 apartment units could be located within Site 3. The 48 apartment units across the 11+/- acres, generate a proposed density of 4.23 units/acre, well within the 12 units/acre permitted in mixed-use buildings.

The TOD District requires 1 parking space per dwelling unit, 3 spaces per 1,000 gsf for office, and 4 spaces per 1,000 gsf for retail, resulting in a 658-space parking requirement. In addition, the TOD District recommends pedestrian and bicycle facilities designed to effectively link uses within the district and adjacent to the district to expand and complement bicycle movements and networks in the community. The proposed development on Site 3 borders Crossgates Mall and Western Avenue, both equipped with crosswalks for pedestrian and bicycle movements. See Section 9, Figure 6. The Project Sponsor is in discussions with CDTA to locate a new bus stop for the convenience of the new residents, the surrounding neighborhoods and employees of nearby commercial uses to encourage use of public transit. CDTA also plans to expand its bike ride share program to the area that will encourage use of alternate forms of transportation consistent with the TOD.

The conceptual Project proposes an increase in impervious cover post-development, including the proposed parking lots, buildings, sidewalks and community pool. The TOD District allows up to 75% lot coverage by impervious surfaces. The project proposes 25% of the site remaining as

pervious, either covered by lawn, landscaping or remaining undisturbed.

Site 3 will require land grading, and installation of stormwater drainage, water supply, sewage collection, and public utility infrastructure necessary to support the proposed development.

2.2 Site Description

2.2.1 Site 1

Site 1 is located north of properties on Westmere Terrace, south of Gipp Road and west of Rapp Road, in the Town of Guilderland, Albany County, New York. It is immediately bordered on the east by the Crossgates Mall, to the north (across Gipp Road) by a National Grid power line right-of-way, to the west by another National Grid right of way and on the south by residential development. The site is approximately 19.68 acres and is comprised of five (5) tax lots. The property was operated as a pig farm for decades and the soils and vegetation reflect this. Currently, the site is occupied by secondary, successional woodland which is the result of the discontinuance of pig farming and subsequent fill placement decades ago, which altered the original topography. See Section 9, Figure 11.

North: The property to the north of the Site is within the City of Albany and consists of a narrow strip of vacant land and, to the north of that, Gipp Road. A utility right of way lies to the north of Gipp Road. Further to the north, along upper Rapp Road, the Rapp Road Historic District lies between Pine Lane and Washington Avenue Extension/ South Frontage Road within the City of Albany. Further to the north is Washington Avenue Extension where commercial development is prevalent, including the Crossgates Commons retail shopping center which contains Wal-Mart and Home Depot, numerous office complexes and two nursing homes. See Section 9, Figure 11 and 13.

South: The property to the south is residential along Westmere Terrace. The southerly boundary of the Site will be buffered and screened in accordance with Town regulations, plus additional site development enhancements as agreed to in discussions with the Westmere Terrace neighbors and shown on the Site Plan. See, Section 9, Figure 11. Such enhancements include a twenty (20) foot tall berm with landscaping along the southern perimeter of the site in the immediate vicinity of Westmere Terrace and several other amenities. See Section 9, Figure 2.

Further to the southwest and adjacent to the Site is Center Street which is generally occupied by municipal services and a commercial building. Further to the south is U.S. Route 20 a major east-west highway with numerous retail and service businesses. This area to the south including Westmere Terrace is zoned Local Business, Business Non-Retail Professional and Residential-15.

East: Immediately east of the Site 1 is a 1.7 million square foot regional shopping center, Crossgates Mall. This area has been zoned GB-General Business for over 40 years and is also included in the TOD district. See Section 9, Figure 11.

West: A ± 75 foot utility right of way is immediately adjacent to the Site on the west. This area is zoned GB-General Business. Further to the west is a residential neighborhood, Paden Circle, currently zoned Residential-15. See Section 9, Figure 11.

2.2.2 Sites 2 and 3

Sites 2 and 3 are located between Crossgates Mall Road (on the north) and US Route 20 (on the south). The western perimeter is the north-south segment of Crossgates Mall Road and on the east is a new 192-unit hotel. The Sites were previously developed as a residential neighborhood (which are now largely vacant) within a local network of Town Roads – Gabriel Terrace, Lawton Terrace, Rielton Court, and Tiernan Court. Crossgates Mall is located to the north of Sites 2 and 3.

North: Immediately north of Sites 2 and 3 is a regional shopping center, Crossgates Mall. This area has been zoned GB-General Business for over 40 years and is also included in the TOD district. See Section 9, Figure 11.

South: Immediately south of Sites 2 and 3 is Western Avenue. This area has multiple zoning district including: GB-General Business, MR-Multiple Residence, R15-Single-Family Residential and BNRP-Business Non-Retail Professional. See Section 9, Figure 11.

East: Immediately east of Sites 2 and 3 is the newly constructed Homewood Suites, which is also included in the TOD overlay district. See Section 9, Figure 11.

West: Immediately west of Sites 2 and 3 is Rapp Road, Capital City Diner and a vacant parcel owned by the applicant. See Section 9, Figure 11.

2.3 Detailed Description of the Proposed Action

2.3.1 Transit Oriented Development District – Westmere Corridor Study

The Sites for the proposed action are within the Transit Oriented Development District (“TOD”) that was enacted by the Town Board in 2018. See Guilderland Zoning Law §280-18.1. The TOD facilitates the goals identified in the 2016 Westmere Corridor Study. The objectives of the Westmere Corridor Study include:

- create neighborhoods or areas that are pedestrian friendly, supportive of transit and emphasize alternate modes of transportation.
- provide a mix of housing, shopping, entertainment and employment within walking distance (½ mile) of transit
- provide fairly dense development to keep walking distances shorter and maximize the number of people living in, working and visiting the area.

While several elements of TOD are recommended throughout the Westmere Corridor with regard to access management, traffic calming, pedestrian, bicycle and transit improvements, this particular part of the corridor has critical features that would be necessary for a successful TOD neighborhood. These features include the availability of underutilized or vacant land adjacent to major destinations (such as shopping, entertainment and employment centers) that could support

high ridership transit stops. The missing elements, mixed use structures and compact, walkable more “urban” form can be created when land exists to integrate and transition uses into a more connected area with short street blocks, mixed use buildings, public spaces and a strong pedestrian, bicycle and transit presence.

Finally, the Westmere Corridor Study found:

The proposed TOD area has at least four different zoning districts on the existing and proposed zoning map as summarized in Section 5.1.1 of the Westmere Corridor Study. Within the overlay, the **permitted uses should include a wide range of residential, institutional, retail, service, entertainment and employment uses found in the “General Business” (GB) District.** However, several auto-dependent uses are also permitted that should be discouraged on the interior of the overlay district area, such as car dealerships, car rentals, car washes, service garages, drive through windows and other like uses.

Link to the Westmere Corridor Study is found here: https://www.cdcmpo.org/images/linkge_program/AlbCoFinal/guildwestmere_reportreduced.pdf

With the adoption of the TOD, the Town set forth its vision for future development within the TOD boundaries and established specific regulations for future development within the three development areas. Section 280-18.1 of the Town Zoning Law provides:

Purpose. The Transit-Oriented Development (TOD) District is designed to implement the recommendations of the Westmere Corridor Study (study) by using an overlay district to support and incentivize development that adequately protects nearby residential neighborhoods and utilizes resources within and near the TOD's boundary, including regional shopping, entertainment, and employment centers, a robust transit service with high ridership and proposed enhancements, direct vehicle access to the interstate highway system, and a nearby local business community. The TOD District encourages more compact development, traffic-calming measures, better access management, improving the environment for non-automobile-oriented modes of transportation, reducing the number of required parking spaces, supporting mixed-use buildings and pedestrian linkages, and focusing intense development away from existing residential neighborhoods

Permitted uses within the TOD include GB and MR site plan and special uses. Certain uses are explicitly prohibited, including

Single family dwellings

Two family dwellings

Automobile lot, except that the sales and servicing of electric, battery powered, or similar green technology vehicles are allowed as a Special Use

Drive-in movie theater
Restaurant, drive thru

For property west of Rapp Road uses are restricted to Multiple-family dwellings only which may include non-residential ground floor uses that are a permitted use, site plan use or special use permit in the GB district.

The development of Site 1, Site 2 and Site 3 will provide connectivity with nearby neighborhoods, Crossgates Mall and the CDTA transit center at Crossgates Mall by including proposed pedestrian and bicycle enhancements that are consistent with the TOD and Westmere Corridor Study including sidewalks, multi-use paths, benches and bicycle racks. A trail/pedestrian, bicycle multimodal plan shows in detail the locations of such multi-modal improvements that will be incorporated into the Projects. See Section 9, Figure 6.

As the Westmere Corridor Study points out, “Bicycle parking is a critical component in promoting bicycling as a means of transportation, and even for recreational purposes. Convenient, easily used, and secure bicycle parking encourages people to replace some of their car trips with bicycle trips and helps legitimize cycling as a transportation mode by providing parking opportunities equal to motorized modes.” The project promotes multimodal paths that provide connectivity between the Sites, Crossgates Mall, the CDTA bus facility and other trails. See Section 9, Figure 6.

With respect to Site 1, the Project proposes numerous features consistent with the purposes of the TOD:

- Pedestrian Linkages

Constructing a 10’ wide multi-use path where feasible from the project site to Western Avenue, along the west side of Rapp Road thereby connecting the proposed development, Gipp Road, Western Avenue and the Crossgates Mall inner road.

Constructing concrete sidewalks interconnecting each unit, bicycle racks at or near each building while providing connectivity to the surrounding area, including to Crossgates Mall and the CDTA bus facilities.

- Improving Non-automobile Oriented Modes of Transportation

Constructing compact, high density development within walking distance to the Crossgates transit center See, Section 9, Figure 4.

Providing a potential new bus stop for the convenience of the new residents, the surrounding neighborhoods and employees of nearby commercial uses

Development located within CDTA’s new microtransit service area. The CDTA has initiated a new pilot transit program to be located in a few selected areas, including an area covering Crossgates, called microtransit service. This service

provides customers with mobile applications to request rides, which will be delivered with a CDTA-operated vehicle dispatched for curbside pickup. This service is described as a hybrid between CDTA's current fixed route and ridesharing services. See Section 9, Figure 5.

- **Supporting Mixed-Use Buildings**

Site 1 proposes apartment and townhome-style residences. The applicant is proposing to incorporate approximately 3,900 square feet of commercial space in the apartment buildings.

Site 3 conceptually may include a mixed use building to support retail, office and residential development.

- **Compact Development**

Consistent with TOD regulations, two five-story mixed use buildings are proposed on Site allowing density to increase vertically and not horizontally, thus preserving more green space. See Section 9, Figure 2.

2.3.2 Site 1

The site plan proposes two five-story and three two-story buildings comprised of 222 one- and two-bedroom apartment units as well as 3,900 sf of commercial space divided among the two-five story buildings. The 222 units across the 19+/- acres, generate a proposed density of 11.3 units/acre. The project is within the permitted density requirement of the TOD. See, Section 9, Figure 2 and Binder 2, Appendix A - Rapp Road Site Plan.

The site plan depicts two access driveways from Rapp Road with the main access driveway traversing east-west into the site between the two five story apartment buildings and leading to the north-south internal driveway and access to the parking fields and the northern driveway to/from Rapp Road. The site plan proposes a total of 362 parking spaces, comprised of covered and surface parking stalls. In addition, Site 1 promotes a walkable community with concrete sidewalks interconnecting each unit, bicycle racks at or near each building, and a ten foot wide multi-use path along Rapp Road, where feasible, connecting the proposed development, Gipp Road, Western Avenue and the Crossgates Mall inner road. The Project Sponsor is in discussions with CDTA to locate a new bus stop for the convenience of the new residents, the surrounding neighborhoods and employees of nearby commercial uses to encourage use of public transit.

The Project proposes a 5.8+/- acre increase in impervious cover post-development, including the proposed parking lots, buildings, sidewalks and outdoor pool. Although the project proposes an increase in impervious cover, 69% of Site 1 will remain as green space, either covered by lawn, landscaping or remain undisturbed. The project also will maintain the existing 200 foot heavily forested natural buffer along the northern boundary, the existing berm between the project site and the Paden Circle development along the western boundary, and proposes to construct a 20 foot tall berm at the end of Westmere Terrace to the south. Both berms will act as a visual and sound buffer

between the existing residential developments and Site 1. See, Section 9, Figure 2. In addition, both berms will be vegetated with 12 to 15 foot tall trees.

The site lies within the Town of Guilderland Water District 501. Water supply will be provided by a new connection made to the existing water main within Rapp Road.

Site 1 is part of the Town of Guilderland sewer district. The site will be serviced by new sanitary sewer structures, mains and services that discharge to the existing municipal sanitary manhole at the end of Westmere Terrace. The connection made to Westmere Terrace will be a gravity connection, with the existing eight inch main having adequate capacity to accommodate the Site 1 demand. The town's sewer service is adequate to meet the current and future needs of the town and accommodate the applicants proposed development for Site 1. See Binder 2, Appendix R Town of Guilderland Department of Water and Wastewater Will Serve letter.

Stormwater runoff generated from new impervious surfaces will be managed in accordance with New York State Department of Environmental Conservation (NYSDEC) Stormwater Management Design Manual (SWMDM) and State Pollutant Discharge Elimination System (SPDES) General Permit (GP-0-20-001). The Applicant will implement erosion control measures to control soil erosion and sediment generated during construction, including the installation of silt fences, the use of silt sacks in catch basins and an aggressive water spraying program to control fugitive dust. These measures will control erosion to the maximum extent possible. Green infrastructure techniques, in conformance with the NYSDEC SWMDM, are proposed for the site to meet water quality and quantity requirements. An open infiltration basin, two underground infiltration systems, and one bioretention area are proposed to capture, treat and release stormwater runoff at a controlled rate while promoting groundwater recharge. The Project will have no significant effects on existing flooding and ponding and/or erosion. See Binder 2, Appendix M, Site 1 Stormwater Pollution Protection Plan.

2.3.3 Site 2

The site consists of ±16 acres located to the east of the intersection of Western Avenue and Crossgates Mall Road. The eastern portion of Site 2 consists of largely vacant development which includes a mix of one-story and two-story dwellings along with associated infrastructure. The western portion of the site is heavily wooded and consists of an abandoned roadway which was formerly the southern extent of Rapp Road.

This project consists of the construction of a ±160,000 S.F. Costco retail store, a four-bay loading dock, an 18 pump fueling facility with a kiosk, and associated driveways, parking areas, and other infrastructure. Parking will be provided consistent with the requirement of the TOD. Refer to the parking tabulation on the Costco Site Plan in Section 9, Figure 2.

The site is bounded by Crossgates Mall Road to the north, residential and commercial uses to the east and to the south, Western Avenue to the south, and Crossgates Mall Road to the west. Proposed access to the site will be provided by one (1) right-in driveway off Crossgates Mall Road, one (1) full access driveway off Crossgates Mall Road, and one (1) full-access driveway off Gabriel Terrace.

The project proposes the removal of thirteen (13) vacant structures along with all associated infrastructure. The infrastructure associated with the abandoned roadway will also be removed. The existing small drainage ditch will be replaced with a new culvert system.

A 10-inch diameter water main is proposed to service the site. The main is expected to connect to the water main in Western Avenue upon coordination with the Town of Guilderland Department of Water and Wastewater Management. The new building will include a 10-inch fire service lateral and a 3-inch domestic service lateral. Engineering details for the collection, distribution, and treatment of the Project's discharges will be coordinated in consultation with the Town of Guilderland Water/Wastewater Department and the Town Designated Engineer (Delaware Engineering).

Fire hydrants will be proposed around the site. Testing will be done to confirm that fire flows will be adequate to meet the standards of the National Board of Fire Underwriters.

Wastewater will be directed to the municipal gravity sewer main located in Gabriel Terrace. Laterals on the west and north side of the facility will connect to an 8-inch diameter gravity sewer main that will run along the north side of the facility and discharge into an existing manhole near the north end of Gabriel Terrace. Laterals on the south side of the building will connect to a proposed 12-inch diameter gravity sewer main that will run along the south side of the facility and discharge into the existing municipal gravity sewer main near the southeast corner of the facility. Two grease interceptors and one sand separator are proposed. Engineering details for the collection, distribution, and treatment of the Project's discharges will be coordinated in consultation with the Town of Guilderland Water/Wastewater Department and the Town Designated Engineer (Delaware Engineering).

The Town of Guilderland Department of Water & Wastewater Management provides sewer services to more than 25,000 customers in the Town of Guilderland by collecting wastewater for high-level treatment. The town's systems meets or exceeds the standards set by the Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH).

Site 2 is part of the Town of Guilderland sewer district. The town's sewer service is adequate to meet the current and future needs of the town and accommodate the applicants proposed development for Site 2.

2.3.4 Site 3

There is no current development proposed or contemplated for Site 3. A zoning compliant conceptual site plan may propose three one-story and one five-story buildings comprised of commercial, residential and office space. The three one-story buildings will generate 58,700 sf of commercial space identified for retail. The one five-story building be mixed use with each floor covering 25,000 sf. The first floor will be reserved as a commercial space, identified for retail, the second and third floors reserved for office space, and the fourth and fifth floors for residential with a total of 48 units, comprised of one and two-bedroom. The 48 units across the 11.34+/- acres, result in a proposed density of 4.23 units/acre.

Multiple access points throughout the site would be available. The potential 12,500 sf commercial building, along Western Avenue, will have access from Gabriel Terrace, dividing Sites 2 and 3. The remaining buildings will have access from Gabriel Terrace, Crossgates Mall Road and the recently installed drive at the adjacent 192-unit Hotel. These access points will direct vehicles to a shared parking lot between the buildings. The concept plan will propose surface parking spaces consistent with the requirements of the TOD.

The concept plan will propose a 3.1+/- acre increase in impervious cover post-development, including the proposed parking lots, buildings, and sidewalks. It is anticipated that the conceptual project will increase in impervious cover, however, 30% will be green space, either covered by lawn, landscaping or remaining undisturbed.

Water supply will be provided utilizing the existing water service connections on site. The site will be serviced by new sanitary sewer structures, mains and services.

Stormwater runoff generated from new impervious surfaces will be managed in accordance with New York State Department of Environmental Conservation (NYSDEC) Stormwater Management Design Manual (SWMDM) and State Pollutant Discharge Elimination System (SPDES) General Permit (GP-0-20-001). The Applicant will implement erosion control measures to control soil erosion and sediment generated during construction, including the installation of silt fences, inlet protection and an aggressive water spraying program to control fugitive dust. These measures will control erosion to the maximum extent possible. Green infrastructure techniques and planning, in conformance with the NYSDEC SWMDM, are proposed for the site to meet water quality and quantity requirements. An underground infiltration chambers are proposed to capture, treat and release stormwater runoff at a controlled rate while promoting groundwater recharge. The Project will have no significant effects on existing flooding and ponding and/or erosion.

2.4 Purpose, Need and Benefit

The Applicant has proposed residential and commercial uses to accommodate consumer demands of the area and bring a new retailer to the area currently not present.

Site 1 proposes development of a high quality market rate residential development on currently vacant and unimproved land including improvements designed to mitigate potential impacts to neighboring properties as well as providing a public benefit to the Albany Pine Bush Preserve Commission by donating 8.4 acres of high value Pine Bush land adjoining the Karner Blue Hill and corridor area to the immediate north. As acknowledged by the Pine Bush Commission the mitigative measures proposed to assist the Commission's goals and objectives will enhance the ability of the Commission to manage the Pine Bush Preserve. The project will allow the development of the applicant's land to its highest economic use consistent with the only type of use permitted on this site thereby benefiting both the Applicant and the community, while providing a public benefit implementing the Commission's goals and objectives.

Across the nation, malls are being redeveloped with new retail, entertainment venues, restaurants, hotels, and residential living units. The successful sites have found ways to integrate residential

uses into the mall property, and the presence of attractive and pedestrian safe walkways further enhances the adequacy and convenience factor for residents. The project will have a positive impact on property tax revenue collections by the County, Town and School District.

The Site 1 project will provide many resident amenities, such as an outdoor pool, as well as a club room, mail room, package room, fitness center and multi-purpose room. TOD specific amenities include seven bike racks, a large bike storage room, vehicular and pedestrian access to the shopping center via an internal sidewalk connection and a proposed CDTA bus stop in the immediate vicinity. These facilities together with the existing transit stops at Crossgates Mall and along Western Avenue, will encourage mass transit use due to their convenience to residents at the project. Additionally, as detailed previously, CDTA's pilot microtransit service will provide convenient access to transit. In line with the TOD legislation, the community will provide pedestrian, bicycle, and transit improvements, and vehicular traffic will utilize the existing Crossgates Mall Road to internalize circulation and lessen traffic pressures on Western Avenue.

The Applicant's purpose for the Sites 2 and 3 projects are as follows:

1. To provide a high quality, aesthetically pleasing, commercial and retail development to serve the market area;
2. To provide a commercial retail development that is consistent with local zoning and adjacent land use;
3. To provide a shopping facility that will complement existing retail facilities in the area, and to bring a broader selection of quality merchandise;
4. To take advantage of the regional and local highway network that makes this area highly accessible to all of the Capital Region;
5. To take advantage of the regional mass transportation (CDTA bus system) network that makes this area accessible to the City of Albany and all parts of the region; and
6. To develop the applicant's land to its highest economic use thereby benefiting both the Applicant and the community.
7. To further the goals and recommendations of the Town's Comprehensive Plan, Westmere Corridor Study and TOD district.

The marketability of similar projects at Sites 2 and 3 is tenant driven. The applicant has, therefore, committed economic resources that are commensurate with prospective tenant demands. The Project looks to a number of factors as sources of consumer spending to support its tenant base, including existing retail facilities, current vacancies, market strength/potential, rate of growth of community and other factors.

The direct impact of Costco at Site 2 will bring increased tax revenues to the Town, School District and County. Such impacts can be defined in terms of real property tax revenues, which are expected to be significant, and as the sales at the Site from customers who would have had to go outside of the Town or the County in order to buy the type of goods they desire. For example, a customer may prefer to buy food and household goods items close to their home in the Town of Guilderland, but if stores with the desired prices and selection are unavailable, the customer would

have to go outside the Town. By increasing the merchandise options available, Costco will allow Albany County and the Town of Guilderland to “capture” some of the sales that are currently going to adjacent municipalities in adjoining counties. These captured sales are considered net new sales to the county and town and are used as the direct input for the economic impact model.

Costco is known to carry quality, brand-name merchandise at lower prices than are typically found at conventional sources. Costco presents one of the largest product category selections to be found under a single roof. Categories include groceries, candy, appliances, electronics, automotive supplies, tires, toys, hardware, sporting goods, jewelry, watches, cameras, books, housewares, apparel, health and beauty aids, furniture, office supplies, and office equipment. Although Costco is known for carrying top quality national and regional brands, members can also shop Costco’s private label, Kirkland Signature. There is not currently a Costco in the Town of Guilderland or in Albany County. The nearest Costco location is over an hour and a half east of Site 2 in West Springfield, MA. In the other directions, the nearest Costco locations are further away. To the north, there is a Costco located in Colchester, VT, which is 153 miles from Site 2. There is a Costco in Nanuet, NY 108 miles to the South and 147 miles to the west in Camillus, NY. Given the lack of Costco locations in the middle of this radius, it is likely that the Costco to be developed at Site 2 will capture the market of Costco brand-loyal customers that exist between the site and halfway between these other locations, roughly a radius of a one-hour drive from Site 2. This radius will capture existing Costco customers who drive to get to the other existing locations as well as customers who do not currently shop at Costco but would choose to shop there if there was a store location located closer to their home.

According to market evaluations prepared by Camoin Associates, the project will enhance the Crossgates Mall area as a destination location, while providing unique residential options where public transportation is not only encouraged but demanded. This will fuel growth in the size of the trade area and overall market potential by drawing customers from a greater distance. The projects will create a further inflow of dollars into the Guilderland economy.

The Camoin report (Binder 2, Appendix H) estimated that construction of Site 2 will provide 181 temporary construction jobs and when open the Costco facility will provide, based on average store statistics ± 189 full-time and ± 133 part-time jobs (± 323 employees per store). Given the location of the Site, a numerous public transportation options exist for potential workers at the facility. The minimum wage for Costco is \$15.00 per hour. The median salary for a full-time employee at Costco was \$38,810 in 2019.

Site 3 includes the potential for a mixed use development with commercial, retail and residential options consistent with the goals and objectives of the TOD district. Similar to Site 2, the purpose is to provide high quality, aesthetically pleasing, commercial retail development to serve the market area, and residential development to take advantage of the regional and local highway network that makes this area highly accessible to all of the Capital Region. Future businesses and residential tenants will have ready access to public transportation at the main CDTA transit facility located at Crossgates Mall and other transit routes along Western Avenue a short distance away.

2.5 Construction

It is anticipated that construction of the Rapp Road residential project at Site 1 will occur over a period of approximately 24 months. Construction will occur in a single phase. During construction, it is anticipated that 489 construction jobs will be created. See Camoin report in Binder 2, Appendix H,

Construction of Costco at Site 2 will be completed over a period of approximately 12 – 24 months following receipt of approvals. Construction will occur in a single phase. During construction, it is anticipated that 181 construction jobs will be created. See Camoin report in Binder 2, Appendix H.

During construction, material and equipment staging areas will be on confined areas of each Site. All construction equipment will be kept in these areas when not in use. Construction materials will be delivered to these areas and temporarily stored until ready for use. No hazardous materials other than normal construction fuels and lubricating oils are anticipated to be used during construction. Fuel and lubricating oils may be stored at the staging areas; in such case all applicable environmental regulations will be followed.

Construction workers will arrive and park their vehicles at a designated location on each site or within existing parking facilities within Crossgates Mall during the work day. Because Sites 1 and 2 are separate from each other with existing access to each site, it is not expected that routing of construction traffic will be necessary.

Construction on Site 3 would likely occur over 24 months and would occur in a single phase. During construction it is estimated that 119 jobs would be created. See Camoin report in Binder 2, Appendix H.

2.5.1 Clearing and Grubbing

2.5.1.1 Site 1 - Rapp Road

All clearing and grubbing of the Site will be performed pursuant to the SWPPP in accordance with the SPDES General Permit (GP-0-20-001). The Applicant will endeavor to not remove on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees may aid as a natural buffer to the Westmere Terrace neighborhood in addition to the substantial proposed landscaping shown on the Site Plan. The southern edge of the northern 200 foot deep buffer and the eastern edge of the 50 foot right-of-way will be clearly marked with limit-of-construction fencing. See, Binder 2, Appendix J.

2.5.1.2 Sites 2 and 3 - Western Avenue Property

Since a majority of Sites 2 and 3 will be constructed on previously developed land currently utilized as parking fields and roadways, much of the clearing and grading activities will involve the removal of vacant structures, existing concrete and asphalt surfaces and relocation of existing utilities. Additional grading and clearing activities will also be required and will include removal of the trees, shrubs, stumps and topsoil in the western portion of Site 2. See Binder 2, Appendix K.

2.5.2 Grading and Earthwork

2.5.2.1 Rapp Road and Western Avenue Property

Grading and earthwork operations are required to prepare each Site for the installation of the scheduled improvements (roads, parking lots, utilities, landscaping, buildings, etc.). Finished grades have and will be established to minimize erosion and allow for ease of maintenance.

Excavation of the foundation trenches and utility lines will be completed during this construction phase. Stormwater runoff will be prevented during construction through the use of temporary erosion control facilities in accordance with the individual SWPPP's.

2.6 Reviews, Approvals and Other Compliance Determinations

On July 10, 2019, following a coordinated review, the Planning Board made a determination to act as SEQRA Lead Agency. Because the Rapp Road project (Site 1) is: 1) in the vicinity of other property within the Transit Oriented Development (TOD) District located between Crossgates Mall Road and Western Avenue; and 2) owned or controlled by entities affiliated with the project sponsor and developable consistent with the TOD that utilize the same transportation and municipal facilities, the Planning Board determined that cumulatively there may be a potentially significant adverse environmental impact which should be evaluated in a Draft Environmental Impact Statement.

On August 14, 2019, the Planning Board adopted a Positive Declaration requiring preparation of a draft environmental impact statement to evaluate Site 1 and two other potential development sites. The project sponsor provided a Draft Scope to the Planning Board which was subject to written comments from agencies and the public for 49 days. On October 23, 2019, the Planning Board provided a Final Scope to the project sponsor. Consistent with the Positive Declaration and Final Scope, this DEIS evaluates the three development areas.

2.6.1 Site 1

The Rapp Road Residential Project is a permitted use and compliant with all area and bulk zoning regulations. The following governmental approvals have been identified:

- Planning Board Site Plan and Subdivision (combination)
- Highway Superintendent Driveway permit
- NYSDEC Stormwater SPDES General Permit for construction activities.
- Guilderland IDA Financial assistance for sales and mortgage tax exemptions

- A building permit will be required from the Town Zoning Administrator.

2.6.2 Sites 2 and 3

Costco (Site 2) and the uses at Site 3 are permitted uses and compliant with all area and bulk zoning regulations. The following governmental approvals have been identified:

- Zoning Board of Appeals Special Use Permit for Site 2. This approval will include, by referral, an advisory site plan review by the Town Planning Board.
- Town Board Discontinuance of all or portions of Town roads, approval of road improvements, and acceptance of the dedication of extended Gabriel Terrace.
- Guilderland IDA Financial assistance for sales and mortgage tax exemptions.

Additionally, the Application and the DEIS will be referred to the Albany County Planning Board for a recommendation under Section 239-m of the General Municipal Law. NYSDEC Stormwater SPDES General Permit for construction activities will also be obtained.

A building permit for Site 2 development will be required from the Town Zoning Administrator.

A Nationwide Permit #39 concurrence from the US Army Corps of Engineers (Site 2 only).

SECTION 3 EXISTING ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

3.1 Vegetation, Topography, Geology and Soils

3.1.1 Site 1

3.1.1.1 Existing Environmental Conditions – Vegetation, Topography, Geology and Soils

This property was operated as a pig farm for decades. Currently, the Site is occupied by secondary, successional woodland. This ecological condition is the result of the discontinuance of pig farming and subsequent fill placement decades ago, which substantially altered the original topography. The site is entirely uplands and the dominant characteristics of the uplands are disturbed, fill soils occupied by secondary succession vegetation. See Binder 2, Appendix F for additional details.

Soil investigations on-site determined that Site 1 is dominated by Colonie and Elnora, upland soils which have been heavily disturbed over time. Smaller areas on the Site were identified in the Natural Resource Conservation Service's Soil Survey for Albany County, NY as Stafford or Granby soils were, in fact, also dry, high chroma upland, sandy soils. No deep, somewhat poorly drained soils were identified on-site. Bright yellow chromas (5-6) were identified from a depth of 8 inches to 18 inches on-site. This is often the result of disturbed, fill soils placed on-site (see below). Additionally, no free water was observed within 18 inches of the surface. The lack of an aquiclude prevents water retention and so, hydric conditions have not developed. Thus, it was determined that no Stafford or Granby soils were present on-site.

Well drained soils such as the Colonie, Elnora and Udipsamments series occupy Site 1. Soils on the northern and western portion of the subject site can be considered Udorthents – i.e., urban cut and fills. However, all of the site's soils and vegetation had been substantially disturbed during its use as a pig farm. The pig farm had numerous buildings and pens. Pigs are known to "root," which would extensively gouge the upper soils. Further, the pig farm was kept in an "open aspect" with little to no tree or shrub vegetation and, most likely, continuously exposed soils. The limited cover and exposed soil surface created a considerable amount of erosion. Overtime, the upper soil materials were then transported downhill and filled the lower portions of the topography with a fine, silty sand. This "double" soil horizon (in the "A" layer) is evident in several locations. The site also has considerable fills (up to ten feet deep) on the site's northern half. Filling is also evident on the site's western quarter. As a result of these activities, any small areas of soil which may have been originally somewhat poorly or poorly drained have disappeared. See B. Laing Report for additional details.

The canopy of the woodland is closed and composed mostly of mature to young cottonwood and other treed species. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry and hawthorn. The understory herbaceous layer on-site is marginal and consists mainly of upland species composed of dispersed goldenrod, garlic mustard, Queen Anne's lace, daisy fleabane, and wild geranium. A small isolated field is located on the southwestern

portion of the Site. A complete species list is found at Table 1 of the Rapp Road Wildlife Report in Binder 2, Appendix F.

Site 1 lacks pitch pines and blue lupine and contains few grassland, vegetative species. No suitable habitat exists on-site for the Karner blue butterfly and no Karner blue butterflies were located on the site. This result would be expected due to the closed, woodland canopy on the majority subject property.

3.1.1.2 Potential Impacts

The clearing, grading and excavation activities associated with the Rapp Road residential project will alter soil compaction and expose earth to wind and water erosion. Extensive erosion and sediment control measures will be utilized to protect exposed soil surfaces. Such measures are summarized below. Upon completion of construction, stockpiled topsoil will be redistributed, fertilized and revegetated as soon as practicable to minimize the amount of soil erosion.

Site soil investigations confirm that the soil has adequate bearing capacity to support the proposed development. Bedrock will not be encountered during construction. Due to the short term of the construction period, impacts are expected to be minimal.

3.1.1.3 Mitigative Measures

The following measures will be employed to mitigate the potential impacts on the site due to soil disturbance:

1. A temporary stabilized construction access will be installed at the entrance(s) to the project site, while under construction, to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.
2. Silt fence will be installed parallel to contours to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. Silt fence will be inspected for damage every seven days and after every rain event.
3. Soil stockpiles will be erected to temporarily store usable soil. Stockpiles will be protected from excessive erosion by cover with an erosion control fabric or by installing filter fabric barriers at the perimeter of the piles.
4. Erosion control matting will be installed on slopes steeper than 3:1 to aid in controlling erosion by absorbing rain splash energy and withstand overland flow as well as provide a microclimate to protect and promote seed establishment.
5. Soil amendments such as topsoil, sterilized manure and fertilizer will be added to improve soil growing characteristics in disturbed areas. The site will be revegetated and landscaped as soon as practicable after disturbance. This will help reduce runoff and erosion caused by wind and water on the exposed soil surface and improve soil characteristics.

6. All disturbed areas will be restored in accordance with the Soil Restoration requirements outlined in the NYSDEC SWMDM.

3.1.2 Sites 2 and 3

3.1.2.1 Existing Environmental Conditions – Vegetation, Topography, Geology and Soils

For Sites 2 and 3, a review of the National Resource Conservation Service (NRCS) Soil Survey indicates soils at the site are generally loamy fine sands. The soils in the vicinity of the existing drainage ditch toward the western side of the site are poorly drained, while the soils on the remainder of the site are well-drained. According to the Report of Geotechnical Exploration, dated March 2, 2018, prepared by Maser Consulting P.A., groundwater was encountered at the site at elevations ranging from 260.0' to 268.7' or approximately 12 to 20 feet below the general surface grade. See, Binder 2, Appendix G.

The eastern portion of the site consists of existing vacant structures which includes a mix of one-story and two-story dwellings along with associated infrastructure. The western portion of the site is heavily wooded and consists of an abandoned roadway which was formerly Rapp Road.

Site 2 is ±16 acres and is comprised of approximately two dozen tax lots. The houses within Site 2 are largely unoccupied, some for decades. The vegetation is tending toward secondary succession. In addition, the very disturbed ecological condition of the site's western half is the result of the abandonment of old Rapp Road with its relocation and expansion westward as a part of the Crossgates Mall Road where it connects to Western Avenue. That action resulted in deep ditching of the area to allow drainage for the old Rapp Road, which remains as a roadbed and shoulders, and Crossgates Mall Road. This action occurred in the late 1980s' and early 1990's. This ditching was an excavation ranging from a few feet to approximately 12 feet deep. Thus, it substantially altered the original topography. See, Binder 2, Appendix G.

Site 3 is located on a ±11.34 acres located between Site 2 and the existing 192-unit Hotel (Hilton) site. Currently the site is occupied by vacant residential structures, an overflow parking lot and limited vegetation. It was formerly used as a horse farm.

3.1.2.2 Potential Impacts

The clearing, grading and excavation activities associated with the construction will alter soil compaction and expose earth to wind and water erosion. Extensive erosion and sediment control measures, as enumerated in the SWPPP developed for Site 2, will be utilized to protect exposed soil surfaces. Such measures are summarized above in Section 3.1.1.3. Upon completion of construction, stockpiled topsoil will be redistributed, fertilized and revegetated as soon as practicable to minimize the amount of soil erosion, and all disturbed areas will be restored in accordance with the Soil Restoration requirements outlined in the NYSDEC SWMDM.

Site soil investigations conform that the soil has adequate bearing capacity to support the proposed development. Bedrock will not be encountered during construction. Due to the site's low relief and

the short term of the construction period, impacts are expected to be minimal.

3.1.2.3 Mitigative Measures

The following measures will be employed to mitigate the potential impacts on the site due to soil disturbance:

1. A temporary stabilized construction access will be installed at the entrance(s) to the project site, while under construction, to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.
2. Silt fence will be installed parallel to contours to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. Silt fence will be inspected for damage every seven days and after every rain event.
3. Soil stockpiles will be erected to temporarily store usable soil. Stockpiles will be protected from excessive erosion by cover with an erosion control fabric or by installing filter fabric barriers at the perimeter of the piles.
4. Erosion control matting will be installed on slopes steeper than 3:1 to aid in controlling erosion by absorbing rain splash energy and withstand overland flow as well as provide a microclimate to protect and promote seed establishment.
5. Soil amendments such as topsoil, sterilized manure and fertilizer will be added to improve soil growing characteristics in disturbed areas. The site will be revegetated and landscaped as soon as practicable after disturbance. This will help reduce runoff and erosion caused by wind and water on the exposed soil surface and improve soil characteristics.
6. All disturbed areas will be restored in accordance with the Soil Restoration requirements outlined in the NYSDEC SWMDM.

3.2 Water Resources

3.2.1 Site 1 Water Resources

3.2.1.1 Existing Conditions

Site 1 is entirely uplands with well drained soils/fills dominating the landscape. No streams, rivers, lakes or ponds are located on the Site. No wetlands or hydrologic features occur on-site or adjacent to the site. The lack of hydrologic features onsite is possibly due to (i) the dominance of sands, (ii) the absence of a geologic, impermeable layer or aquiclude beneath the sandy sediment layer, (iii) significant erosion from high topography areas to lower topography areas when the site was a pig farm and (iv) significant, prior cutting and filling of the site's surface. Thus, permeability rate is high and site conditions are dry.

No wetlands are identified on the New York State Department of Environmental Conservation (NYSDEC) freshwater wetlands map or the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) maps. In addition, no hydrologic features are shown on the 1962 United States Geological Survey quadrangle. See Binder 2, Appendix F.

Depth to ground water is an average of 12.5 feet below existing grade.

Site 1 is located within the Lower Hudson River Watershed. The overall site is moderately sloping, with slopes ranging from 0 to 12%, apart from the western portion of the site at the existing berm, which is relatively steep with slopes up to 67%.

Under existing conditions, Site 1 has an overall watershed that encompasses approximately 16.24-acres and partially contains the 19.68-acre parcel. Runoff from the watershed is directed to two points on the parcel. The southern portion of the site discharges to a low area located at the southern edge of the site, at the property line and Westmere Terrace. Runoff flows to one of two existing catch basins in Westmere Terrace, entering the Town of Guilderland storm sewer system. The remaining portion of the site flows east overland, reaching an existing flared end section discharging into an existing 24" HDPE storm line. The storm line is part of the Town of Guilderland storm sewer system and flows east underneath Rapp Road. The general flow path of stormwater runoff is directed toward the existing stormwater management basin located between Interstate 87 and the southeastern corner of Crossgates Mall, ultimately discharging to the McKownville stormwater basin. As part of the planned development the off-site water that discharges through site 1 will be connected to a closed pipe system that directs the offsite flow through site 1 and to the existing closed system that it currently discharges to. The site proposes infiltration practices as a means for stormwater management. These practices will significantly reduce the amount of post-construction stormwater, as well as reduce the runoff rate entering the basin during the peak storm events. Infiltration practices are designed to intercept and temporarily store post-construction stormwater runoff until it infiltrates into the underlying and surrounding soils. Allowing stormwater runoff to infiltrate helps restore a sites natural hydrology and promotes groundwater recharge over discharging to a closed stormwater network. As such, it is anticipated that the Project will not have adverse impacts on stormwater management.

3.2.1.2 Potential Impacts - Construction

Development of the project will require land grading and create additional impervious areas on the project site, thereby altering the hydrologic characteristics of the existing watershed. These alterations have the potential to create indirect impacts on water resources. Impervious areas such as rooftops, roads, driveways, and parking lots increase the time of concentration of stormwater runoff, which if not controlled, has the potential to increase the rate and volume of runoff, overtax municipal closed storm sewer systems at new pipe connections, and generate erosion when discharged overland. In addition, impervious surfaces can introduce additional nutrients and pollutants into surface water resources. As such, the management of stormwater runoff from the site after the construction phase is vital to controlling the impacts of the proposed development on water quality.

During construction, the general flow path of stormwater runoff will be directed toward the

existing stormwater management basin located at the southeastern corner of Crossgates Mall and will be managed pursuant to the SWPPP.

3.2.1.3 Mitigative Measures

In an effort to offset potential adverse impacts on existing downstream systems, the Project proposes to promote groundwater recharge through infiltration practices. The introduction of infiltration practices will allow for a reduction of offsite discharges and reduce the tributary volume to downstream practices. In addition, the site will disturb greater than one-acre during construction. As such, coverage under the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity General Permit Number GP-0-20-001 (effective January 29, 2020 through January 28, 2025) will be required and a Stormwater Pollution Prevention Plan (SWPPP) must be prepared. The SWPPP has been prepared for major activities associated with the proposed development and will include the elements necessary to comply with the national baseline general permit for construction activities enacted by the US Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program, the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity, and all local governing agency requirements. See Binder 2, Appendix J.

The SWPPP considers the impacts associated with the intended development with the purpose of maintaining existing drainage patterns to the greatest extent possible, while continuing the conveyance of upland watershed runoff, controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions, and mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater generated both during and after construction.

In accordance with Table 2 of Appendix B of GP-0-20-001, the SWPPP includes post-construction stormwater management practices, as well as erosion and sediment controls.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, will be developed in accordance with NYSDEC SPDES GP-0-20-001, NYSDEC Standards and Specifications for Erosion and Sediment Control, and the Town of Guilderland General Legislation, Chapter 241 Stormwater Management, Article II stormwater Management and Erosion and Sediment Control.

In addition, the SWPPP provides a list of temporary and permanent construction-phase pollutant controls, as well as good housekeeping practices (i.e. solid and liquid disposal, sanitary facilities, etc.), that will be implemented to mitigate the potential for pollutants in stormwater runoff to enter any adjacent waters and wetlands.

Chapter 3 of the NYSDEC Stormwater Management Design Manual (SWMDM) outlines a six-step planning process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process defines the requirements for Site Planning, Water Quality Treatment, Runoff Reduction, and Water Quantity

(Volume) control, and is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site.

For new development, runoff reduction shall be achieved through infiltration, groundwater recharge, reuse, recycle, and/or evaporation/evapotranspiration of 100% of the post-development water quality volume to replicate pre-development hydrology. For redevelopment, although encouraged, meeting the RRv criteria is not required for redevelopment activities that meet the criteria in Chapter 9. The project proposes meeting 100% of the RRv criteria for the new development through the infiltration practices.

The infiltration practices will significantly reduce the amount of post-construction stormwater, as well as reduce the runoff rate entering the existing basin during the peak storm events. Infiltration practices are designed to intercept and temporarily store post-construction stormwater runoff until it infiltrates into the underlying and surrounding soils. Allowing stormwater runoff to infiltrate helps restore a sites natural hydrology and promotes groundwater recharge over primarily discharging to a closed stormwater network. As such, it is anticipated that the Project will not have adverse impacts on stormwater management. See Binder 2, Appendix J.

For the proposed stormwater quality practices, the table below summarizes the Water Quality Volume (WQv) requirements and volume provided.

Site 1 - Summary of RR Techniques and Standard SMPs with RRv Capacity

RR Technique or Standard SMP with RRv Capacity	NYSD EC Design Variant	Pretreatment Volume Required (% of WQv)	Pretreatment Volume Provided (CF)	WQv Required (CF)	WQv Provided (CF)	RRv Capacity	RRv Provided (CF)
Infiltration Basin	I-2	100	13,576	13,590	29,530	100%	29,530
Underground Infiltration System	I-4	100	9,190	8,620	9,190	100%	9,190
Bioretention (without underdrain)	F-5	25	163	650	1,358	100%	543
Total WQv Required (CF)							22,860
Total WQv Provided (CF)							40,078
Total RRv Provided (CF)							39,263

As indicated in the above table, the WQv provided is greater than the WQv required for the project site. As such, the project is in compliance with the NYSDEC SWMDM and GP-0-20-001.

A comparison of the pre- and post-development watershed conditions was performed for all design points and storm events evaluated herein. For all design points and design storms, this comparison demonstrates that the peak rate of runoff and volume of runoff will be decreased. This decrease will result in a reduced runoff volume to the existing storm water system as well as the existing stormwater

basin, which is considered to be a benefit to the system. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

Site 1 - Summary of Pre- and Post-Development Peak Discharge Rates

Pre- vs. Post-Development Discharge Rate (cfs)						
Design Point (DP)	1-year 24-hour storm event		10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post	Pre	Post
1	0.01	0.00	0.74	0.39	4.57	2.69
2	4.76	1.22	17.78	8.28	45.57	20.77

Site 1 - Summary of Pre- and Post-Development Runoff Volumes

Pre- vs. Post-Development Runoff Volume (af)						
Design Point (DP)	1-year 24-hour storm event		10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post	Pre	Post
1	0.007	0.002	0.079	0.030	0.313	0.131
2	0.529	0.209	1.645	0.792	4.057	2.804

3.2.2 Sites 2 and 3 Water Resources

3.2.2.1 Existing Conditions

For Sites 2 and 3, the Albany County National Resource Conservation Service (NRCS) Soil Survey indicates soils at the site are generally loamy fine sands. The soils in the vicinity of the existing drainage ditch towards the western side of Site 2 are poorly drained, while the soils on the remainder of Sites 2 and 3 are well-drained. According to the Report of Geotechnical Exploration, dated March 2, 2018, prepared by Maser Consulting P.A., groundwater was encountered at the site at elevations ranging from 260.0' to 268.7' or approximately 12 to 20 feet below the general surface grade.

The eastern portion of Site 2 consists of an existing residential development which includes a mix of one-story and two-story dwellings along with associated roadway infrastructure and utilities. The western portion of the site is heavily wooded and consists of an abandoned roadway which was formerly Rapp Road.

There are no watercourses or ponds in the area. A small strip of wetlands, approximately 10 to 20 feet wide and 350 feet long [4,051 square feet (0.093 ac.)], is present on site. These wetlands occur at the bottom of a steeply-sided, drainage ditch. They do not qualify as New York State Department of Environmental Conservation (NYSDEC) regulated wetlands. The wetlands are under the jurisdiction of the US Army Corps of Engineers (ACOE).

The project sites will connect to the existing Town of Guilderland storm sewer system. On Site 2 there are existing culverts that discharge stormwater onto the project site which ultimately drain

to the existing collection system located along Crossgates Mall Road. As part of the planned development the off-site culverts are connected to a new proposed closed storm sewer system that will ultimately discharge through Site 2 and connect to the existing closed pipe system it currently discharges to along Crossgates Mall Road. The general flow path of stormwater runoff is directed toward the existing stormwater management basin located between Interstate 87 and the southeastern corner of Crossgates Mall. The site proposes infiltration practices as a means for stormwater management. These practices will significantly reduce the amount of post-construction stormwater, as well as reduce the runoff rate during the peak storm events. Infiltration practices are designed to intercept and temporarily store post-construction stormwater runoff until it infiltrates into the underlying and surrounding soils. Allowing stormwater runoff to infiltrate helps restore a sites natural hydrology and promotes groundwater recharge.

Under existing conditions, the general flow path of stormwater runoff is directed toward the existing stormwater management basin located at the southeastern corner of Crossgates Mall.

There are no water resources at Site 3.

3.2.2.2 Potential Impacts

The project is a redevelopment project with an increase in impervious cover. Development of the project will require land grading and create additional impervious areas on the project sites, thereby altering the hydrologic characteristics of the existing watershed.

Under existing conditions, the general flow path of stormwater runoff is directed toward the existing stormwater system in Crossgates Mall Road and eventually to the existing stormwater management basins located at the southeastern corner of Crossgates Mall. Post development runoff will be at or below predevelopment rates.

The 0.093-acre wetland on Site 2 will be filled in accordance with USACOE Nationwide Permit No. 39.

3.2.2.3 Mitigative Measures

In an effort to offset and mitigate potential adverse impacts on existing downstream systems, the Project proposes to promote groundwater recharge through infiltration practices across each project site. The introduction of infiltration practices across the project sites will allow for a reduction of offsite discharges and reduce the tributary volume to downstream practices. In addition, each proposed development site will disturb greater than one-acre during construction. As such, coverage under the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity General Permit Number GP-0-20-001 (effective January 29, 2020 through January 28, 2025) will be required and a Stormwater Pollution Prevention Plan (SWPPP) must be prepared for each site. See Binder 2, Appendix K. The Site 2 SWPPP has been prepared for major activities associated with the proposed developments and will include the elements necessary to comply with the national baseline general permit for construction activities enacted by the US Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System

(NPDES) program, the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity, and all local governing agency requirements. See Binder 2, Appendix K.

Site 2 will connect to the existing storm sewer system. The site proposes infiltration practices as a means for stormwater management. These practices will significantly reduce the amount of post-construction stormwater, as well as reduce the runoff rate during the peak storm events. Infiltration practices are designed to intercept and temporarily store post-construction stormwater runoff until it infiltrates into the underlying and surrounding soils. Allowing stormwater runoff to infiltrate helps restore a sites natural hydrology and promotes groundwater recharge. To address the increase in peak flow and to provide water quality benefits for this runoff will be accomplished using a subsurface infiltration system, based on the requirements of Section 6.3 of the New York State Stormwater Management Design Manual. The infiltration system designed for Site 2 provides the required water quality benefits, channel protection, overbank flood protection, and extreme flood protection. Runoff Reduction shall also be achieved through the aforementioned infiltration practices which are a standard Stormwater Management Practice (SMP) with Runoff Reduction Capacity as described in Table 3.5 of the updated New York State Storm Water Management Design Manual (NYSSMDM). An outlet control structure will be used in conjunction with the infiltration system to mitigate for peak flows prior to discharging off-site. Prior to entering the subsurface system, however, the runoff shall be pretreated through approved NYSDEC verified proprietary devices.

The SWPPP considers the impacts associated with the intended development with the purpose of maintaining existing drainage patterns, while continuing the conveyance of upland watershed runoff, controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions, and mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater generated both during and after construction.

The SWPPP identifies the temporary and permanent erosion and sediment control measures that will be implemented during construction to minimize soil erosion and control sediment transport off-site, and after construction to control the quality and quantity of stormwater runoff from the developed sites. Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, will be developed in accordance with NYSDEC SPDES GP-0-20-001, NYSDEC Standards and Specifications for Erosion and Sediment Control, and the Town of Guilderland General Legislation, Chapter 241 Stormwater Management, Article II stormwater Management and Erosion and Sediment Control. See Table 2 of the Costco SWPPP for the Predevelopment and Post Development Peak Flow Summary to the Design Points for the peak flow analysis demonstrating that the proposed development will result in a reduction in flow rates entering the existing stormwater system. Additionally, the proposed development will not have any adverse impacts on the storm system in Crossgates Mall Road nor the properties to the east of the subject property.

In addition, the SWPPPs provide a list of temporary and permanent construction-phase pollutant controls, as well as good housekeeping practices (i.e. solid and liquid disposal, sanitary facilities, etc.), that will be implemented to mitigate the potential for pollutants in stormwater runoff to enter any adjacent waters and wetlands.

3.3 Biological, Terrestrial and Ecology

3.3.1 Site 1

B. Laing Associates performed extensive multi-year and multi-season examinations of Site 1 and prepared a Vegetation, Wildlife and Soil Conditions Report for the Rapp Road Residential Project (“Rapp Road Wildlife Report”) that provided a comprehensive evaluation of potential impacts of the project on Site 1 on endangered, threatened and/or special concern species and other wildlife and potential impacts to significant habitat areas. See, Binder 2, Appendix F. The Rapp Road Wildlife Report concludes that it “analyzed the proposed action in respects to proposed environmental and ecological disturbance and has determined that no significant adverse environmental impacts will occur to any wildlife species, flora or fauna as a result of the Project.”

3.3.1.1 Existing Conditions Description of dominant plant species and ecological communities

Site 1 is located north of Westmere Terrace, south of Gipp Road and west of Rapp Road, in the Town of Guilderland. The site is approximately 19.68 acres and was operated as a pig farm for decades. The Site is occupied by secondary, successional woodland. This ecological condition is the result of the discontinuance of pig farming and subsequent fill placement decades ago, which substantially altered the original topography. Site 1 is entirely uplands and the dominant characteristics of the uplands are disturbed, fill soils and the secondary succession vegetation. No wetlands are present on-site.

The canopy of the woodland is closed and composed mostly of mature to young cottonwood and other tree species. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry and hawthorn. The understory herbaceous layer is marginal and consists mainly of upland species composed of dispersed goldenrod, garlic mustard, Queen Anne’s lace, daisy fleabane, and wild geranium. A small isolated field is located on the southwestern portion of the Site. A complete species list is found at Table 1 of the Rapp Road Wildlife Report. See Binder 2, Appendix F.

Site 1 lacks pitch pines and blue lupine and contains few grassland, vegetative species. This result would be expected due to the closed, woodland canopy on the majority subject property. The site lacks habitat characteristics which occur in the Albany Pine Bush.

The Soil Survey for Albany County identifies Site 1 soils consisting of Colonie loam fine sand, Elnora loamy fine sand, Granby loamy fine sand, Stafford loamy fine sand, and Udipsamments, smoothed.

Soil investigations on-site determined and confirmed that the site is dominated by drained soils Colonie and Elnora and upland soils which have been heavily disturbed over time. Those much smaller areas depicted on the Soil Survey for Albany County as Stafford or Granby soils were, in fact, also dry, high chroma upland, sandy soils. No deep, somewhat poorly drained soils were identified on-site. Bright yellow chromas (5-6) were identified from a depth of 8 inches to 18

inches on-site. This is often the result of disturbed, fill soils placed on-site. Additionally, no free water was observed within 18 inches of the surface. The lack of an aquiclude prevents water retention and hydric conditions have not developed. Thus, contrary to the Albany County Soil Survey, it was determined that no Stafford or Granby soils were present on-site. Soils on the northern and western portion of the subject site can be considered Udorthents – i.e., urban cut and fills.

It is noted that all of the soils and vegetation have been substantially disturbed during its use as a pig farm. The pig farm had numerous buildings and pens. Pigs are known to “root” which would extensively gouge the upper soils. Further, the pig farm was kept in an “open aspect” with little to no tree or shrub vegetation and, most likely, continuously exposed soils. The limited cover and exposed soil surface created a considerable amount of erosion. Overtime, the upper soil materials were then transported downhill and filled the lower portions of the topography with a fine, silty sand. This “double” soil horizon (in the “A” layer) is evident in several locations. The Site also has considerable fills (up to ten feet deep) on the northern half of the Site. Filling is also evident on the site’s western quarter. As a result of these activities, any small areas of soil which may have been originally somewhat poorly or poorly drained have disappeared.

3.3.1.2 Description of wildlife species

B. Laing conducted several site surveys and observed many wildlife species during their on-site field inventories. Between December 7, 2016 and October 17, 2019, B. Laing personnel conducted approximately 20 such surveys (See Appendix C in the Rapp Road Wildlife Report). Wildlife recorded consisted of species common to the Guilderland/Albany area including sparrows, hawks, and mammals typical of suburban areas. Potential endangered, threatened, and special concern species are discussed below. A complete species list is found at Table 2 of the Rapp Road Wildlife Report.

3.3.1.3 Habitat assessment of the site, focusing on potential threatened and endangered species and species of special concern habitat

The NYSDEC New York Natural Heritage Program was consulted for information regarding rare animals, rare plants, and significant ecosystems at the Site and provided a letter listing species located within the vicinity of Site 1, which included the Karner blue butterfly (federal/state endangered) and frosted elfin (state threatened).

Several species identified as special concern were also listed within the vicinity of Site 1, including the eastern wormsneak, eastern spadefoot toad and inland barrens buckmoth. Several other species of butterflies and moths were also noted as occurring in the Albany Pine Bush, but are not listed species. Pitch pine scrub oak barrens were also noted as a significant ecological community.

The US Fish and Wildlife Service’s IPAC system was also consulted which noted the northern long-eared bat as a potentially occurring species within the vicinity of the Site and no critical habitat.

B. Laing conducted multiple on-site field studies of Site 1 and actively searched for endangered,

threatened, special concern and/or rare species, including flora and fauna of special concern both on-site and off-site and to the north of Gipp Road. The Site was examined for habitats that would be deemed conducive to the presence of those species documented to occur in the area. None were found. A description of such species and Site 1 habitat is provided below.

3.3.1.4 Habitat requirements and survey methodology for each species

This section of the DEIS will analyze the conditions of Site 1 and its surrounds and habitat requirements for the identified endangered, threatened and species of special concern. B. Laing Associates has conducted numerous surveys of the Site and the area spanning several years and the results are set forth in the Rapp Road Wildlife Report. See Appendix F. Search methodologies employed for locating listed species and species of special concern varied depending on the subject species:

- For locating listed lepidopterans (e.g. butterflies), transects were walked throughout habitat which were found to be conducive to flying adults. In addition, these transects were specifically searched for those host plants, of which their larvae are specialists. In addition, nocturnal surveys were conducted, including lighting and “sheet” attraction methods
- For locating listed herptiles (e.g., worm snake, eastern hognose snake, etc.), trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. In addition, nocturnal surveys were conducted, including listening for vocalizing frogs and toads.

The following summarizes the habitat requirements from the Rapp Road Wildlife Report.

3.3.1.5 Threatened and Endangered Species

NYSDEC defines threatened species as “any native species likely to become an endangered species within the foreseeable future in New York State.”

NYSDEC defines endangered as:

- (1) native species in imminent danger of extirpation or extinction in New York listing in section 182.3(b) of this Part and that are listed as endangered in section 182.5(a) of this Part; or
- (2) species listed as endangered by the United States Department of the Interior in the *Code of Federal Regulations* (50 CFR Part 17)

The federal definition of endangered species is “any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.

Federal definition of “threatened species” is “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

3.3.1.5.1 Karner Blue (*Lycaeides melissa samuelis*) – Endangered Species

The Karner blue is a small butterfly with a wingspan of about one inch. The male and female vary in appearance. The topside of the male is silvery or dark blue with narrow black margins. The female is grayish brown, especially on the outer portions of the wings, to blue on the topside, with irregular bands of orange crescents inside the narrow black border. In both sexes, the underside is gray with a continuous band of orange crescents along the edges of both wings and with scattered black spots circled with white. The Karner blue butterfly is found in small populations from Minnesota to New Hampshire where their main food source, the blue lupine (*Lupinus perrennis*), are present.

- Habitat Requirements

Karner blue butterflies are found in New York in the Albany Pine Bush area. They have four typical life cycles and produce two broods. Broods appear May to mid-June and mid-July to early August. These butterflies occupy areas that are dry and sandy with open woods and clearings (shrubby and field habitats) that support blue lupine, the sole food source for the larvae and caterpillar. Vegetative species connected with this type of habitat include pitch pine (*Pinus rigida*) and scrub oak/bear oak (*Quercus ilicifolia*) communities with interspersed grassy fields.

Based on the Rapp Road Wildlife Report, no Karner blue butterflies were located on Site 1. Site 1 does not provide adequate or suitable habitat for the Karner blue butterfly. The Site is primarily a closed/covered forested canopy. There is no blue lupine on Site 1. No blue lupine species were identified or were expected to occur on Site 1 within either the closed canopy woodland or the small, isolated field located to the southwest. As noted, blue lupine requires open sandy areas with open space and low shrubby to herbaceous growth. See Appendix F – Rapp Road Wildlife Report for photographs outlining habitats on site.

- Karner Blue Hill Preserve and Corridor Area

In addition to the lack of on-site suitable habitat for this species, the secondary successional woodland area (south of Gipp Road) separating the Site 1 from Gipp Road acts as and will continue to act as a buffer area from the proposed development and the northern site boundary. This 200-foot existing buffer area is consistent with the recommendation in the 2017 Management Plan that Partial Protection of the overall Site is warranted. See, Section 9, Figures 2 and 9. Per the site plan, the buffer will also protect the linkage between Crossgates “Butterfly” Hill and preserve lands to the north and west of the Site. In other words, partial development of Site 1 is consistent with the Management Plan provided certain measures are taken to ensure that other identified ecological resources and functions are maintained. See Binder 2, Appendix R.

The Site’s existing 200-foot northern buffer area is currently a densely wooded, secondary growth vegetative community with a significant amount of fill having disturbed the original soils. Also, for many decades prior to its being allowed to go “fallow,” the site (and buffer area) was a pig farm. Thus, in the modern period (i.e., the last approximately 100 years or more), the site was/has

been highly disturbed and does not constitute Pine Bush habitat.

- Traffic impacts on dispersal of species.

The potential adverse impacts on the Karner blue butterfly migration along the corridor area and crossing Rapp Road, based on increase in traffic on Rapp Road, was examined.

The potential impacts of increased vehicular traffic on Rapp Road was raised as a concern and compared to traffic travelling on Route 155. The comparison of traffic on Rapp Road to Route 155 as affecting dispersal patterns of certain species (i.e. Karner blue butterfly and worm snake) is not appropriate. Route 155 is a two to three lane (45' – 50' paved width), heavily travelled Principal Arterial with a 45 MPH speed limit. According to NYSDOT, traffic volumes on Route 155 are estimated to be over 20,000 vehicles per day with approximately 4.5% trucks. By contrast, Rapp Road is a two-lane (approximately 22' wide paved width) Minor Arterial with a 30 MPH speed limit. Daily traffic volume on Rapp Road between Gipp Road and Springsteen is approximately 3,900 vehicles according to NYSDOT or less than 20% of the Route 155 traffic with only 1.25 % truck trips. Per the Maser Traffic Study, traffic is anticipated to increase in the AM/PM and Saturday peak hours, however the intersection Level of Service remain the same in the year 2022 which results in no significant traffic impacts on Rapp Road. See, Binder 2, Appendix C. Trucks are not authorized/discouraged from traveling on Rapp Road (i.e. local delivery trucks only). Therefore, Rapp Road is dissimilar in comparison to Route 155 with little to no impact on dispersal.

- Increased traffic from connector road and impact on Karner Blue Butterfly Hill Preserve

The project includes a connection between the northern Crossgates Ring Road and Rapp Road in the northwest corner of the Crossgates Mall site. This area consists of landscaping along Rapp Road and an existing parking lot within the Mall site. On the Rapp Road Residential project site, an access road from Rapp Road to the project is proposed opposite the connection at Crossgates Mall. See, Section 9, Figure 2.

These areas on the east and west side of Rapp Road are south, and not part, of the existing Karner Blue Hill Preserve area which will remain undisturbed and not impacted by such improvements. The existing utility right-of-way to the north of the Crossgates site on the east side of Rapp Road forms a portion of the Karner blue butterfly preserved area which was identified in prior NYSDEC SPDES Permits for Crossgates Mall. See Section 9, Figure 10. The access road on the opposite side of Rapp Road to the Site 1 Residential project is also located over 200 feet south of the Karner Blue Hill Preserve Area. The connection at Crossgates Mall will be further from the Karner Blue Hill Preserve area than the existing parking facilities. See, Section 9, Figure 2 and 9. These access improvements will have no impact on the Karner Blue Hill Preserve area and its intended functions and purpose.

The Karner Blue Hill Preserve area contains extensive buffering, including existing dunes (one approximately 20 feet in height adjacent to the parking facilities), that were designed to “channel” the butterfly migration path along the National Grid power line right of way to Rapp Road and

then to the north toward other areas in the Pine Bush Preserve and deter migration to the south where the connector road is proposed.

According to the Pine Bush Commission's Protection Priorities and Vision Plan (see Section 9, Figure 8), the Karner blue butterfly corridor follows a route to the north at Rapp Road/Gipp Road and then to the west to encourage migration of butterflies to existing Preserve lands to the west. The Project has been designed to avoid any impacts to listed species and in accordance with the goals and objectives of the Pine Bush Management Plan.

Therefore, the proposed access road to the Rapp Road Residential project and the connection between Rapp Road and the northern ring road respects the boundary of the Karner Blue Hill Preserve area and will be located over 200-feet from the northern property boundary. These improvements will have no impact on the Karner Blue Hill Preserve area and its intended functions and purpose.

Moreover, the northern ring road exists today and has been located south of the Karner Blue Butterfly Hill Preserve for approximately 25 years. According to the NYSDEC, in that time Karner blue butterfly numbers have increased steadily in the management corridor. In 2016, the Preserve's Karner blue butterfly population "exceeded the 3,000 butterfly minimum established on the 2003 federal Karner blue Butterfly Recovery Plan." See Binder 2, Appendix R - NYSDEC 2017 publication. It is not expected that the vehicles traveling east-west and south of the corridor area will have any impact on the intended dispersal patterns of the butterfly to the northwest of the mall.

This is particularly relevant because the Karner blue butterfly corridor area is anticipated to be expanded to the north, and away from the mall and connector road. This will occur when Area 62 and two additional parcels are conveyed from the applicant to the Pine Bush Commission as proposed by the project sponsor. See Section 3.3.1.7.2 and 3.3.1.2. for further discussion of potential expansion of Karner Blue Butterfly Hill Preserve. See Section 9, Figure 9.

Conclusion

No Albany Pine Bush or suitable habitat exists on-site for the Karner blue butterfly, and no Karner blue butterflies were located on the site. Thus, there are no potential adverse impacts to the Karner blue butterflies as a result of the Project. Further, as noted above, partial protection of the Site was recommended in the 2017 Management Plan to protect the linkage between Crossgates Hill and preserve lands to the east. The proposed development is consistent with the goals and objectives of the Management Plan and no impacts to the Karner Blue Hill Preserve area nor its intended functions and purposes will occur.

3.3.1.5.2 Frosted Elfin (*Callophrys irus*) - Threatened

Frosted elfin males are gray-brown above and females are reddish overall or in patches. The frosted elfin occurs from Florida north to New England, and west to Alabama and Wisconsin. In the eastern parts of its range, it occurs in mostly small patches of habitat, but larger populations are found further west, where the habitat is more contiguous.

- Habitat Requirements

The life cycle of the frosted elfin begins with a yellowish-green caterpillar that feeds on the flowers and fruits of lupines (*Lupinus sp.*) and false indigo (*Baptisia tinctoria*). Examples of host plants include lupines, false indigo and rattlebox (*Crotalaria sagittalis*). The chrysalis or pupa weaves a loose threaded cocoon in organic material and leaf litter to over winter. The elfin takes flight between late April and May and has one brood. They are weak fliers but are efficient colonizers that establish small, scattered populations. These insects inhabit open, second growth woods, roadside areas near host plants, Pine Barrens, and open brushy fields. See, Binder 2, Appendix F.

Similar to the Karner Blue butterfly, Site 1 does not provide adequate or suitable habitat for the frosted elfin butterfly. The elfin relies on specific host plants including lupines, false indigo and rattlebox which the caterpillar feeds on which have not been identified on Site 1. The Site is also separated by the closed canopy, densely vegetated, secondary successional woodland area from the Pine Bush communities to the north and northwest which acts as a further deterrent to any potential of this weak flying species to possibly occupy the Site. The 200-foot buffer area along the northern perimeter of the Site will continue to be respected as a part of this Project.

Conclusion

No suitable habitat exists on-site for the frosted elfin. No frosted elfin were located on the site thus, there are no potential adverse impacts to the frosted elfin as a result of the Project.

3.3.1.5.3 Northern Long-eared Bat (*Myotis septentrionalis*) – Threatened (State and Federal)

The northern long-eared bat was listed in April 2015. The northern long-eared bat's range includes much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. Like most Northeastern bats, they feed solely on flying insects and presumably males spend the summer preparing for the breeding season and winter that follows; the females spend the summer raising their pups.

- Habitat Requirements

Northern Long-eared bats are typically associated with cave habitats when hibernating in the winter and trees with crevasses and snags for roosting in the summer. Suitable potential summer roosting/maternity habitat is characterized by numerous trees (e.g. dead, dying, or alive) or snags, down to 3 inches diameter breast height (d.b.h.). The northern long-eared bat is currently presumed by USFWS to have a biology and life history very similar to the Indiana bat (*Myotis sodalis*), with a difference being that the northern long-eared bat will also roost in old, loosely sealed, or abandoned structures. See, Binder 2, Appendix F.

The subject site does not contain any cave habitats or abandoned structures and is, therefore, not suitable habitat for winter-hibernating northern long-eared bats. There are a number of large trees such as cottonwood and red maple, including some older, broken individuals that have the potential

to provide summer roosting habitat for this species. However, according to the NYSDEC website, the Site is outside the 5-mile radius of the nearest, recorded winter hibernaculum and is more than 7-miles away from known hibernacula. There are no confirmed summer occurrences of the NLEB in Guilderland and Albany County. Furthermore, none were found on the Site. The applicant will comply with all applicable laws, rules and regulations regarding tree clearing activities.

Conclusion

The site is largely comprised of secondary growth woodland, some of which will be cleared for the project. Because this site is outside the 5-mile radius of the nearest, recorded winter hibernaculum and is slightly more than 7-miles away from known hibernacula, and because there have been no confirmed summer occurrences in Albany County, it is not likely that these bats would be found on or near the site. Therefore, there are no anticipated potential adverse impacts on the northern long-eared bat as a result of the project.

3.3.1.6 Species of Special Concern

NYSDEC defines a special concern species as “any native species for which a welfare concern or risk of endangerment has been documented in New York State.”

3.3.1.6.1 Worm Snake (*Carphophis amoenus*)

The worm snake is characterized as an un-patterned brown snake with a pink belly, pointed head and small eyes. Its range is southern New England to central Georgia, west to southeast Nebraska, eastern Kansas, eastern Oklahoma and extreme northeast Texas.

- **Habitat Requirements**

The worm snake breeds from April to May and September to October. During cold periods, it retreats deep into soil. The snakes dwell in damp locations such as under rocks, decaying logs or stumps in loose soils. Typical habitat for the species includes damp hilly woodlands, partially wooded or grassy hillsides above streams and farmland bordering woodlands. The worm snake predominantly feeds on earthworms. See, Binder 2, Appendix F.

Site 1 does not provide adequate or suitable habitat for the worm snake. The preferred habitat for the snake is shallow, sandy soils within or bordering damp woodlands or streams. the Site’s vegetation is dominated by upland species; it has been substantially filled; it has been subject to significant erosion. These factors have caused the wetter soils to fill and they are now on the drier end of their drainage class (i.e., moderately well drained). On-site soil samples also confirmed the absence of wetter soil types, with a well-drained, sandy soil actually being present.

Worm snakes are intolerant of dry conditions and often disappear from areas that have been cleared of vegetation and experienced significant soil disturbances, such as the vast majority of Site 1. The worm snake is found at or near the soil surface for most of the year. However, the soil surface of the Site has been very significantly disturbed for many decades from (i) surface grubbing by pigs, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting

from both. These activities would have eliminated the species decades ago from the Site.

Approximately 12 years ago a worm snake was located in the right-of-way to the northeast approximately 1,500 feet from the Site. Potential migration of the species to Site 1 is unlikely due to the conditions of the site which are not conducive to the species and limitations caused by adjacent roadways. The worm snake in general is not very mobile. Gipp and Rapp Roads are paved roads and as such, barriers to the species.

Conclusion

No worm snakes were located on the Site and there is little to no suitable habitat exists on-site or in the vicinity for this species. Thus, there are no potential adverse impacts to the snake as a result of the Project.

3.3.1.6.2 Eastern Spadefoot Toad (*Scaphiopus holbrookii*)

The spadefoot is described as a stout toad with very elliptical pupils and a sickle-shaped spade on each hind foot. The eastern spadefoot occurs in much of the eastern United States, from Alabama eastward and north to Massachusetts.

- **Habitat Requirements**

Breeding occurs from March to September during extremely heavy rains. Egg deposition occurs in temporary pools or ponds. Eastern Spadefoot Toads will travel to reach these breeding areas. The toad is nocturnal and lives in shallow holes protecting itself from inclement weather above. The eastern spadefoot is typically found in areas of moist meadows, “prairie” woodlands and pine scrub with shallow, sandy soils. It inhabits areas with sandy or friable soils. This species feeds on other frogs and toads as well as any prey they can catch. See, Binder 2, Appendix F.

The Site does not provide adequate or suitable habitat for the eastern spadefoot toad. As noted herein, the majority of Site 1 was and is significantly disturbed. No moist habitats occur on-site. This is the result of (i) surface grubbing by pigs, (ii) agricultural practices, (iii) disturbed, fill soils placed on-site and (iv) extensive erosion resulting from both. These activities (especially grubbing in the upper soils) would have eliminated the species decades ago, if it had occurred on the Site.

No wetlands, streams, ponds or waters occur on or near the Site. The average distance from wetlands, that the eastern spadefoot toad will travel, post-breeding, has been recorded between 130 meters (426 feet) with a maximum of 449 meters (1,473 feet). The closest mapped wetlands are 6,000 feet from the Site.

Potential dispersion of the species to the Site is unlikely and limited by the excessive distances to the nearest wetlands, intervening roadways to the north and east, adjacent residential developments to the west and south, developments on its western boundary and major shopping center to the east.

Conclusion

Little to no suitable habitat exists on-site or in the vicinity for the eastern spadefoot toad. Thus, there are no potential adverse impacts to the toad as a result of the Project.

3.3.1.6.3 Eastern Hog-Nosed Snake (*Heterodon platirhions*)

- **Habitat Requirements**

The Rapp Road Wildlife Report analyzed the survey results of the Site for the eastern hognosed snake and confirmed no such species are located on Site 1 and that the Site does not contain suitable habitat for such species. The dense woodlands lack “sunning” areas this species regularly uses. Further, similar to the worm snake discussion above, the severe upper soils disturbance and vegetation removed resulting from the former pig farm use, erosion and filling are especially hard on herptiles such as the hog-nosed snake. Relatively undisturbed, sandy soils are an essential habitat characteristic for hog-nosed snakes. See, Binder 2, Appendix F.

B. Laing conducted a full analysis of potential impacts on the eastern hog-nosed snake. The Rapp Road Wildlife Report found that the Site 1 was previously completely disturbed and was used as a pig farm. Based on this prior use, the upper soils were effectively destroyed (as well as the vegetation removed). The prior use and lack of currently suitable habitat makes it highly unlikely for any such herptile species cited above to utilize the Site. This species was not located on the Site and that the Site does not contain suitable habitat for such species.

Conclusion

While surveying for eastern hog-nosed snake, trained observers methodically walked the Site in rough transects, searching for individual organisms, as well as their habitat and under objects beneath which they might roost/hide. No individuals of this species were found on Site 1.

3.3.1.6.4 Avian Species - Eastern whip-poor-will (*Caprimulgus vociferus*), Cooper’s hawk (*Accipiter cooperii*), Sharp-shinned hawk (*Accipiter striatus*).

The eastern whip-poor-will, Cooper’s hawk, and sharp-shinned hawk, as birds, are much more mobile species. While it may be possible that these avian species visit certain areas of the Site, such species will continue to be able to use the Site’s wooded northern 200 foot wide undeveloped area and wooded permanent setbacks in the build condition along with other nearby heavily wooded areas upon completion of the development. There are no potential significant adverse impacts to such avian species. See, Binder 2, Appendix F.

No eastern whip-poor-wills have been observed on Site (even during several nocturnal studies when personnel specifically listened for this species in the late spring and summer when they are very vocal). This species would be found more likely in the Albany Pine Bush itself where its large acreage of its habitat may be found. Sharp-shinned hawks were also never observed on site. One Cooper’s hawk was observed during field investigations, but it was soaring high over the Site,

and so was not utilizing it. The site and many other sites may provide hunting habitat for these hawk species. As none of these species have been observed to use the site, there are no potential significant adverse impacts to such avian species. See, Binder 2, Appendix F.

No lighting impacts will exist in respect to these species either. Eastern whip-poor-will are very unlikely to exist on site (and have not to date), and therefore, would not be impacted by artificial lighting. Regardless, the lighting will conform to the Town of Guilderland Town Code which states that no light will exist in excess of 0.2 foot candles at the property line. This lighting level will occur at the southern boundary of the 200 foot wide buffer provided south of Gipp Road.

3.3.1.6.5 Other identified Butterflies and Moths

New York Natural Heritage Program identified several other species of butterflies and moths, including: Inland Barrens Buckmoth (*Hemileuca maia*, Special Concern), Edwards' Hairstreak (*Satyrium edwardsii*, Unlisted), Bird Dropping Moth (*Cerma cora*, Unlisted), Twostriped Cord Grass Moth (*Macrochilo bivittata*, Unlisted), Barrens chytonix (*Chytonix sensilis*, Unlisted) and Pine Barrens Zanclognatha (*Zanclognatha martha*, Unlisted). These species have been documented in pitch pine/scrub oak barrens of the Albany Pine Bush. See, Binder 2, Appendix F.

- **Habitat Requirements**

Site 1 does not provide adequate or suitable habitat for these butterflies and moths. These species prefer sandy pine barrens/pine bush and pitch pine/scrub oak habitats which do not occur on Site 1. Site 1 is outside the Albany Pine Bush area where these species have been documented. The canopy of the woodland on Site 1 is closed and composed mostly of mature and young cottonwood. Other treed species include white pine, red maple, black cherry, and boxelder. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry, and hawthorn. Site 1 does not constitute a pitch pine/scrub oak barrens/pine bush community habitat where these species could occur. Additionally, the Barrens chytonix and Two-striped Cord Grass Moth inhabit maritime grasslands and wetlands, respectively, and there are no wetlands on-site or within a 0.5 mile of same.

Field surveying specific to butterflies and moths was conducted over the course of the past three years. The search methodology included walking transects and active searching for day-flying butterflies and moths as well as nocturnal moth surveying via standard blacklight-attracting of same. As none of the above lepidopteran species' habitat exists on site, these species were not expected to occur and no individuals of same were observed on site.

Conclusion

Little to no suitable habitat exists on Site 1 or in the vicinity of Site 1 for these butterflies and moths. In addition, no such species were observed on site. Thus, there are no potential adverse impacts as a result of the Project.

3.3.1.7 Considerations related to the Albany Pine Bush and long-term resource protection and management of the Pine Bush Preserve

3.3.1.7.1 The 2017 Management Plan Update for the Albany Pine Bush Preserve March 2017; (“2017 Management Plan”)

The Albany Pine Bush Preserve Commission (“Commission”) was established in 1988 pursuant to Environmental Conservation Law Article 46 which provides authority to the Commission for management of the Albany Pine Bush Preserve. Pursuant to 46-111, the Commission shall:

1. Prepare or cause to be prepared within thirty months of the effective date of this section a management plan for the preserve; provided that elements of the management plan may be prepared and submitted for approval before the entire plan is completed. Such plan shall cover management of all dedicated lands...
2. The management plan shall be the fundamental document defining the protection and beneficial public use goals for the preserve and the means and techniques for their attainment.

In 2017, the Commission adopted the current Albany Pine Bush Management Plan Update (“Management Plan”).

Within the Pine Bush “Study Area”, properties are identified and classified as “Full Protection”, “Partial Protection” and “Open Space” based on several ranking criteria representing the Commission’s future vision for such properties and the identified ecological significance of such property, such as linkage, buffer etc. The Management Plan, Table 9 lists Site 1 as area #57 and recommends “Partial Protection.”

Regarding the Site 1, this partial protection designation is described in the Management Plan as:

Partial development of area 57 may be appropriate provided proper set-asides are protected and native pine barren plantings are used for landscaping to ensure that the area can widen and protect the existing Karner blue butterfly linkage between Crossgates Hill and Preserve lands to the east.

The 2017 Pine Bush Management Plan provides:

... although full protection of all areas within the Pine Bush Protection and Project Review Area would be desirable, protection of an entire area may not always be necessary or feasible. For example, only a portion of an area may support an important resource or serve as a linkage or buffer. **Similarly, a portion of an area may already be disturbed and the disturbed portion of the area might not contribute to any of the**

protection criteria. (emphasis added) 2017 Management Plan, P. 59.

The 2017 Management Plan provides long-term resource protection and management of the Pine Bush Preserve and includes the vision and goals of the Pine Bush Commission for the future of the Pine Bush Preserve. In its classification of various properties, the Commission considers the ecological resource protection and management goals, which include:

1. Protect and manage an ecologically viable inland pitch pine-scrub oak barrens ecosystem to achieve/maintain the long-term goal of at least 2,000 fire-manageable acres using prescribed burns and other management techniques.
2. Protect and manage linkages that improve Preserve contiguity and enhance species dispersal.
3. Protect and manage buffer areas, particularly those that facilitate the Commission's fire management program.
4. Protect and manage significant cultural and natural resources, including Karner blue butterflies and other Species of Greatest Conservation Need, water resources, and historic/archeological sites. As with the ecological goals, the recreational use goal is unchanged and generally consistent with those outlined in the original Management Plan. The recreational use goal for the Preserve is: Maintain and enhance public access to the Preserve in locations where doing so will not adversely impact ecological resources.

The Rapp Road Residential project is proposed on vacant property in the Town of Guilderland, Albany County, New York. As previously described, Site 1 was operated for decades as a pig farm and partially filled. Currently, Site 1 is made up of a closed canopy, secondary successional woodland. The disturbed, ecological condition is the result of the prior operations of the pig farm and fill placement which substantially altered the original soils and topography on the subject property. Site 1 does not contain any Albany Pine Bush habitat. No wetlands or hydric soil conditions are present on-site. The dominant characteristics of the uplands are disturbed, fill soils and secondary succession vegetation. There is no blue lupine vegetation. As part of the proposed development, the Site will be graded and/or landscaped in accordance with the site plan. The disturbed, but naturally recurring, plant and wildlife on this portion of the property will be removed. However, the 200 foot wide buffer area spanning the northern part of the Site will not be disturbed.

The Rapp Road Wildlife Report described:

... all of the site's soils and vegetation had been substantially disturbed during its use as a pig farm. The pig farm had numerous buildings and pens. Pigs are known to "root" which would extensively gouge the upper soils. Further, the pig farm was kept in an "open aspect" with little to no tree or shrub vegetation and, most likely, continuously exposed soils. The limited cover and exposed soil surface created a considerable amount of erosion[.]

Over time, the upper soil materials were then transported downhill and filled the lower portions of the topography with a fine, silty sand. This “double” soil horizon (in the “A” layer) is evident in several locations. The site also has considerable fills (up to ten feet deep) on the site’s northern half. Filling is also evident on the site’s western quarter. In this case, these soils occur as a berm that bisects the subject property. The northern-western berm is up to 20 feet high per the topographic survey with cut/filled soils.

Accordingly, the former use of Site 1 as a pig farm fully altered the soils and vegetation on the Site.

With respect to Area 57 (i.e. Site 1), the development will not impact the existing 200’ wide undeveloped area on its north boundary which effectively separates and buffers development on Site 1 from the Karner Blue Hill Preserve and the identified corridor area to the north and west of the site. Section 9, Figures 2 and 9. The 200 foot wide undeveloped area contains trees approximately 50 feet high. These trees are only 5 feet shorter than the proposed buildings. The trees already shade Gipp Road and some of the electrical right-of-way to the north. The proposed development will not add to this existing condition. Further, the 200 feet of densely vegetated lands will act to eliminate any significant increase in light (at night, 0.2 footcandles at the southern woodland edge per Guilderland’s Town Code) from reaching the Albany Pine Bush corridor which occurs north of Gipp Road. See Binder 2, Appendix F.

The proposed 200’ undeveloped area on the north side of the site is consistent with the Management Plan’s recommendation for partial protection as it will continue to assist in the goals of the Management Plan to ensure that the Karner Blue Butterflies continue to disperse along and within the established migration corridor area located north of the Site to the main part of the Preserve and away from the project site. Only the northern portion of the site is in the vicinity of the linkage corridor (north of Gipp Road) between the Crossgates Hill to the east and the Pine Bush Preserve lands to the west. Migration to the south is contrary to the goals of the Management Plan. Per the Plan, this northern area will provide an adequate buffer between development on the site and the linkage corridor north of Gipp Road.

Based on the B. Laing Wildlife Report (Binder 2, Appendix F), there is no likelihood that development of the Project will result in any potentially adverse impacts with regard to the protection and management of the adjacent (north of Gipp Road) protected lands.

In addition, the small area which the Commission and NYSDEC noted to be a part of the Karner Blue Butterfly Preserve (the extreme north-east corner of the 200’ wooded buffer area on the north-end of the Site) will remain undeveloped. This portion of Site 1 has never been managed to provide habitat for any protected species. This area has re-vegetated as a dense, secondary growth woodland. Trees in this area were measured at a height of 50 feet. The understory is dominated by non-native species. No development is proposed in this area and NYSDEC will retain whatever rights it has to manage this area.

It is noted that in a July 10, 2019 correspondence, NYSDEC stated that they had examined the proposed site plan and stated: “Based on a preliminary review of the 7/2/19 plan, it appears that

the area proposed to be left undeveloped will provide a substantial buffer to the Crossgates - Kbb Management Area.” See, Binder 2, Appendix R.

In summary, the area of the Site does not contain any Karner Blue Butterflies nor does it contain any habitat suitable for the species. There are no management activities associated with Karner blue habitat/Pitch Pine-Scrub Oak habitat at this location. There are no proposed changes to the 200-foot northern buffer area, which contains the small area of the Karner Blue Hill Preserve (unmanaged as such) on the far northeast corner of the overall site. This area is not proposed for development and as such is consistent with Pine Bush Management Plan’s goals for the migration corridor to link the Karner Blue Hill Preserve to the Preserve lands located to the northwest. Therefore, there is no impact to NYSDEC’s future management of the Karner Blue Butterfly Preserve. The development is, therefore, consistent with the vision plans of the Pine Bush Commission.

3.3.1.7.2 Proposed Donation of “Full Protection” Land to Pine Bush Preserve

During the course of the B. Laing field work for the Report, the Albany Pine Bush Commission identified a nearby parcel of land as of particular value to its efforts to preserve and manage the Pine Bush Preserve.

While no potential significant adverse impacts were identified to any endangered, threatened or species of special concern or their habitat the project sponsor proposed to voluntarily convey ±6.8 acre parcel to the Commission (Tax Map parcel no. 52.02-1-16) identified as “Area 62” on the Pine Bush Management Plan, as well as Tax Map parcels 52.06-2-35 (±1.0 acre) and 52.06-2-29.1 (±0.60 acres) totaling 8.4 acres of land designated for Full Protection. This land conveyance supports expansion of the existing Karner Blue Hill Preserve and migration corridor by providing an improved protected linkage to the Pine Bush Preserve lands to the west See Section 9, Figure 9.

Area #62 has very sandy, dry soils and contains pitch pine-scrub oak vegetation, typical of the Albany Pine Bush. This area is adjacent to and north of the Karner Blue Hill Preserve which is managed by NYSDEC and the Pine Bush Commission. Area 62 is not currently managed and contains a mature overstory tree canopy. With an extension of the Karner Blue Hill Preserve corridor northward, the area would significantly contribute to available Karner Blue Butterfly habitat in that area. This conveyance will enable expanded management, and continue to foster, the recovery plan for the Karner Blue Butterfly.

In a July 10, 2019 correspondence, NYSDEC supported this proposed conveyance stating:

The proposal by Crossgates to convey the three parcels on the east side of Rapp Road is beneficial. The opportunities provided by transfer of these parcels are likely to provide much greater benefit for Kbb management efforts than what may be lost as a result of this project’s development. It should be noted, however, that one of the parcels is already partially encumbered as part of the defined Kbb Management Area.

See Binder 2, Appendix R.

In response to the proposed conveyance, and other concessions, the Commission agreed that potential impacts resulting from development of Area 57 (Site 1) would be mitigated. In an April 18, 2019 letter, the Commission stated:

The Commission anticipates that if these protection and education/outreach measures are employed, in addition to those already outlined, and/or proposed (e.g. traffic control on Rapp Road, 200 ft buffer to Gipp Rd.) as part of municipal approval for the proposed project, the **most significant potentially adverse environmental impacts outlined in our January 25, 2019 letter may be avoided, and the loss of Partial Protection Area 57 mitigated.**

See Binder 2, Appendix R.

3.3.1.8 Pitch Pine Scrub Oak Barrens

The NY Natural Heritage Program identified that pitch pine scrub oak barrens is a significant natural community and the Albany Pine bush contains good to excellent quality barrens which is moderately sized with excellent physiognomic diversity in a fragmented landscape.

In July 2014, the Albany Pine Bush was designated as a National Natural Landmark based on its unique combination of geologic (sand dunes) and ecological (pitch pine – scrub oak) features. The dunes found in the Pine Bush are the result of wind-moving sand that had accumulated in glacial Lake Albany after the Wisconsin glacier melted 12,000 years ago. The sand dunes are reported to be the largest field of inland parabolic sand dunes in eastern United States. The Albany Pine Bush preserve is an example of inland pine barren ecosystems that possesses fire-dependent habitat for many species of plants and animal species, including the Karner blue butterfly.

However, Site 1 does not contain pitch pine-scrub oak barrens/Albany Pine Bush. This terrestrial community is located within the Albany Pine Bush preserve “Study Area”. No pitch pine-scrub oak barrens occur on Site 1 as it is a closed canopy woodland and composed mostly of mature and young cottonwood. Other treed species include white pine, red maple, black cherry, and boxelder. Shrubs identified in this area include Japanese honeysuckle, Tartarian honeysuckle, serviceberry, and hawthorn. The Site does not constitute a pitch pine scrub oak barrens habitat as characteristics of this terrestrial community are not present.

In the build condition, an undeveloped area approximately 200-foot deep from north to south across the entire frontage with Gipp Road will remain. This proposed undeveloped area is also closed canopy woodland, composed mostly of cottonwood with dense, tangled undergrowth. It has been in this successional state following substantial fill and soils disturbance approximately two decades ago. Before its current ownership, the site, including the proposed buffer, was a pig farm for many decades. As a pig farm, the vegetation was virtually stripped (and kept clear by the farmer and pigs), soils were rooted-through and a great deal of surface erosion occurred. In short, in the

modern period, Site 1 has not been, and is not, Albany Pine Bush habitat – i.e. pitch pine scrub oak barrens.

Off-site and north of Gipp Road, pitch pine scrub oak habitat can be found within the Albany Pine Bush Preserve, including the Karner Blue Hill Preserve located well to the north east of Site 1. The development proposes an east-west connector road between the northern ring road and Rapp Road in the northwest corner of the Crossgates Mall site. This area currently consists of landscaping along Rapp Road and a parking lot within the Mall site. On the Rapp Road Residential project site, an access road from Rapp Road to the project is proposed opposite the connection at Crossgates Mall.

These areas are south, and not part, of the existing Karner Blue Hill Preserve area which will remain undisturbed and not impacted. The existing Karner Blue Hill Preserve area and utility right-of-way to the north of Crossgates Mall on the east side of Rapp Road forms a portion of the Karner Blue Butterfly Preserve area. This area was identified in the 1994 and 1996 NYSDEC SPDES Permits for Crossgates Mall. An access road is proposed to the Rapp Road Residential project to form a four way intersection at Rapp Road and will be located over 200 feet south of the northern property boundary (the 200-foot buffer area). The connector road at Crossgates Mall will be no closer to the Karner Blue Hill Preserve area than the existing parking facilities that exist today.

The Karner Blue Hill Preserve area contains extensive buffering, including existing dunes (one approximately 20 feet in height adjacent to the parking facilities), that were designed to “channel” the butterfly migration path along the National Grid power line right of way to Rapp Road and then to the north toward other areas in the Pine Bush Preserve and deter migration to the south where the connector road is proposed.

According to the Pine Bush Commission’s Protection Priorities and Vision Plan (See Section 9, Figure 8), the Karner Blue butterfly corridor follows a route to the north at Rapp Road/Gipp Road and then to the west to encourage migration of butterflies to existing Preserve lands to the west. The Project has been designed in compliance with and will not adversely impact the goals and objectives of the Pine Bush Management Plan.

Therefore, both the proposed access road to the Rapp Road Residential project and the connector road between Rapp Road and the northern ring road respects the existing boundary of the Karner Blue Hill Preserve area and will be located over 200-feet from the northern property boundary (west of Rapp Road). In combination with the proposed donation of land designated as “full protection” located to the north of the Karner Blue Hill Preserve area, which can be restored to pitch pine scrub oak habitat, and expand the Karner Blue Hill Preserve area, these improvements will have a beneficial impact on the Karner Blue Hill Preserve area and its intended functions and purpose.

During construction of the proposed project, a portion of the existing forested condition will change in the southern/central portion of Site 1. There have been no blue lupine plants found on the site. Further, if pitch pine/ scrub oak ever did occur on site, it has been gone for many decades due to its prior use as a pig farm which eliminated all remnants of “pine bush” native habitat. Blue lupine plants, which occur in the National Grid corridor, will not be affected by the project and, to the extent

this area is potential Karner Blue butterfly habitat, it will continue to exist. The project will maintain the existing 200-foot buffer area which represents an existing barrier to the flight of endangered or threatened species to Site 1. See Binder 2, Appendix F. The Wildlife Report concluded that there would be no significant adverse impacts on an endangered, threatened, species of special concern or rare species.

The Pine Bush Management Plan identifies the Site as Partial Protection indicating that development of the Site is appropriate. The project respects the designation of the Management Plan by maintaining the 200-foot buffer area to the north of the Site, which will continue to act as a natural buffer and encourage the Karner blue butterfly migration to the north and west of the Site as contemplated in the Management Plan. The project will not separate the butterfly Management Area and lupine patches in the powerline right-of-way from other nearby areas of Pine Bush habitat.

3.3.1.9 Impact on the ability to manage the Pine Bush Preserve, including fire management

The Pine Bush Preserve Commission conducts fire management of the Pine Bush Preserve pursuant to the Pine Bush Management Plan. Based on the existing highly developed character of the area, the Commission has never been able to utilize fire management techniques to manage the elimination of invasive species in this area and would not be expected to utilize fire management at the Site (i.e., in the northern 200 foot wide buffer). To the extent the Commission has mechanically managed this area, the proposed development of Site 1 will not interfere with such management of the Pine Bush.

Rather, as noted above, the Management Plan for this area provides the Commission's vision for management to be from the Karner Blue Hill Preserve in a west by northwest path away from the subject Site. The intent being that the Karner Blue butterflies will migrate to the main section of the Preserve through a natural corridor and over easements previously obtained for such purposes. To facilitate such migration, the Commission employs the placement of blue lupine plants along the corridor in an effort to both promote migration and to increase Karner Blue populations.

The Site is not identified for full protection in the Management Plan, rather it is identified for partial protection meaning partial development of the site may be appropriate while protecting some portion of the area. Moreover, the applicant is proposing the donation of 8.4 acres of land that will enhance the management capabilities of the Commission and NYSDEC by expanding the Karner Blue Hill and corridor area where the butterflies are known to occur. To try and encourage Karner Blue butterflies to migrate to the south and away from the identified corridor area would be contrary to the goals and objectives of the Management Plan. If Karner blue butterflies were able to migrate south across Rapp and Gipp Roads to the Site, they would encounter developments to the immediate west and south of the Site that would impede their migratory path. They would then be required to travel north and cross a second road to return to the migration corridor to the main section of the Preserve.

Conclusion

The existing Karner Blue Hill Preserve area was designed to encourage Karner blue butterflies to

migrate to the north and west, away from the proposed connector road and access driveway and the Site. With the inclusion of the 8.4 areas of land proposed to be donated to the Pine Bush Preserve to the north of the Karner Blue Hill Preserve area and away from the connector road, continued proper management of the corridor area will encourage preservation of the Karner blue butterfly.

The project is consistent with the goal and objectives of the 2017 Management Plan and no impacts to the Karner Blue Hill Preserve area nor its intended functions and purposes will occur.

3.3.1.10 Mitigative Measures

1. Convey to the Commission: ± 6.8 acre parcel (Tax Map parcel no. 52.02-1-16); ± 1.0 acre (Tax Map parcel no 52.06-2-35) and ± 0.60 acres (Tax Map parcel no 52.06-2-29.1) for a total of 8.4 acres.
2. Provide enhanced education and outreach opportunities within and outside of Crossgates Mall including:
 - An indoor kiosk space for Albany Pine Bush-related exhibits and materials.
 - An Albany Pine Bush-related wall mural to update and replace the current Karner blue butterfly display in the mall.
 - Outdoor signage recognizing the Albany Pine Bush.

See Binder 2, Appendix R.

The applicant will continue its cooperative monitoring efforts of the Management Area and adjacent National Grid right-of-way with NYSDEC. All the previously developed Karner Blue butterfly habitat or buffer zones will continue to be maintained. No significant impacts have been identified. Therefore, no additional mitigative measures are proposed or required.

3.3.2 Sites 2 and 3

3.3.2.1 Existing Conditions

Being on the opposite side of Crossgates Mall from Karner Blue Hill Preserve area, Sites 2 and 3 are even more remote and further removed from the Karner Blue Hill Preserve and corridor area. While located within the Pine Bush Study Area, they have properly not been identified for protection status. B. Laing examined Sites 2 and 3 for the potential presence of the same threatened, endangered, species of special concern and rare species identified above and found none. There is no habitat for such species on Sites 2 and 3, which have been previously developed to residential uses and roadways. Two individuals of an “exploitably vulnerable” flower were located on Site 2 and will be relocated to another similar location in the vicinity.

Vegetation on-site is consistent with a secondary succession woodland as a result of new growth

after decades of use as a farm followed by residential development. The canopy of the woodland is moderately closed (in the western half, flanking old Rapp Road) to open (in the eastern half, minimally-maintained residential lots and houses) and composed of young white pine, red maple, black cherry, cottonwood, and boxelder. Shrubs identified in this area include Japanese honeysuckle, tartarian honeysuckle, serviceberry and hawthorn.

No pitch-pine scrub oak barrens occur on Site and the site contains few grassland species. Blue lupine was specifically searched for and was not found. This result was expected due to the distance to the Albany Pine Bush (approximately 1,200 feet across the Crossgates Mall and its associated roads and parking) and the secondary growth, woodland canopy on the majority subject property. There is an area of the site which largely lacks trees and shrubs (i.e., a field), just to the northwest of where Lawton Terrace and Western Avenue intersect. This area was specifically searched for the potential for any Albany Pine Bush herbaceous plants such as blue lupine; none was found and the area was shown to be largely lawn and disturbance-oriented species. In addition, Sites 2 and 3 are not mentioned in the Albany Pine Bush 2017 Management Plan. The complete plant list can be found in Sites 2 and 3, Table 1 of B. Laing report contained in Appendix G.

A small ditch, formerly providing drainage for the now-abandoned bed of old Rapp Road constitutes less than one-tenth of an acre (0.093 acres) of wetlands present on the Site.

3.3.2.2 Potential Impacts

Sites 2 and 3 do not contain species typical of the Albany Pine Bush (whether or not they are “listed” species). They are even more remote and further removed from the Karner Blue Hill Preserve and corridor area than Site 1. Thus, there is even fewer potential for impacts to the Albany Pine Bush any listed species. The linear wetlands area will be filled in accordance with the ACOE Nationwide Permit process.

3.3.2.3 Mitigative Measures

Two individual “exploitably vulnerable” flowers will be transplanted to another appropriate location similar to that in which they were found in the vicinity before redevelopment begins. No additional mitigative measures are proposed.

3.4 Historic, Cultural and Archeological Resources

3.4.1 Site 1 - Rapp Road

3.4.1.1 Existing Conditions

A Phase I Archeological Investigation, Rapp Road Development ("Cultural Resources Report Site 1") has been prepared by Hartgen Archaeological Associates, Inc. for Site 1. The Cultural Resources Report Site 1 is contained in Appendix D of this DEIS. According to the Cultural Resources Report Site 1, there are no archaeological sites or historic structures located on Site 1, nor are any properties located within or directly adjacent to Site 1 that have been determined to be eligible for listing in the State and Natural Register of Historic Places. With respect to Site 1, the New York State Office of

Parks, Recreation and Historic Preservation provided comments in a March 11, 2019 letter concluding that:

Our office has assessed both the archaeological and historical impacts that might be associated with this action. Based upon this review, it is the OPRHP's opinion that the project, as submitted, will not impact cultural resources in or eligible for inclusion in the State and National Register of Historic Places.

See Binder 2, Appendix D.

3.4.1.2 Rapp Road Historic District

The northern perimeter of Site 1 is located 230 feet from the southern boundary of the Historic District and the closest occupied structure in the Historic District is located over 390 feet away. The closest occupied building in the District is almost 1,000 feet away from the location of the nearest proposed building on Site 1. A map of the location for the Historic District is shown in Section 9, Figure 12.

The Historic District was created as a result of the Great Migration (1927-1963) and has remained intact with decedents of the original homeowners for 90 years. The families who migrated predominately from Shubuta Mississippi to Albany, New York built their Rapp Road homes, mostly by hand, and relied on scrap materials from deteriorating buildings throughout the City of Albany. The buildings were built as small southern-style homes, similar in style to the former Shubuta, Mississippi homes.

This District was listed on the State and Federal National Registry in 2002. Currently, the existing 200-foot wide perimeter buffer on the north side of the Project Site 1 will be maintained to provide a visual buffer between the proposed development on Site 1 and these residences.

According to the 2002 National Register of Historic Places Registration Form, within the "Rapp Road Community Historic District", there are 27 irregularly shaped lots and fifteen (15) houses built during the period of significance between 1930-1952. According to the National Register criteria, the District is "property associated with events that have made a significant contribution to the broad patterns of our history and the property is associated with the lives of persons significant in our past." The areas of significance include "social history, community planning and development and ethnic history/black".

Originally the land was part of a larger tract of land that extended to the north and was purchased in or around 1930 by Rev. Louis Parson. At that time Rapp Road possessed a more rural character that attracted the members of the congregation of Rev. Parson of the Church of God in Christ in Shubuta. They were among some 5 million African Americans who fled the south to escape the oppressive conditions seeking better educational and employment opportunities and quality of life in the north.

In the mid-twentieth century, the northern section of the development was acquired by New York State for the extension of Washington Avenue. The District includes the remaining 27 parcels.

There are currently 16 homes and one operable smoke house. Eight of the 16 homes are occupied by descendants of the original homeowners.

The owners of property within the Historic District seek to maintain the legacy of the original settlement by preserving and restoring structures and possibly developing a cultural center to share their history. To support these efforts, the Project sponsor has been asked to convey five properties to the Rapp Road Historical Association, owned by the Project Sponsor, located in the Historic District upon completion of the development / SEQRA approval process that is underway. See Section 9, Figure 14. In addition, the Project Sponsor's conveyance of several parcels of land requested by the Pine Bush Commission located adjacent to the east of the District and within the District will ensure that such land is preserved from future development which is intended to benefit the District. See Section 9, Figure 9.

3.4.1.2 Potential Impacts

Existing and future traffic conditions are the primary concern raised by residents of the Historic District.

When the Historic District was initially designated, the character of the area included, among others, Crossgates Mall, Crossgates Commons, Daughters of Sarah, hundreds of thousands of commercial office space square footage along Washington Avenue Extension, SUNY Albany and thousands of vehicles travelling between Western Avenue and Washington Avenue Extension through Rapp Road daily. The current AADT on Rapp Road/Springsteen Street through the District is 8,470 vehicles within the Town of Guilderland and 3,827 vehicles within the City of Albany.

Rapp Road is a transportation connector road between Washington Avenue Extension in the City of Albany and U. S. Route 20 in the Town of Guilderland. Residents in the area have indicated that there is an existing traffic condition that negatively impacts their neighborhood and future traffic will cause further negative impacts. The Maser Traffic Impact Study (TIS) examined weekday AM, PM and Saturday peak hour trips on upper Rapp Road and found:

The proposed Rapp Road Residential (Site 1) and Costco (Site 2) developments will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2022 No-Build and 2022 Future Build Conditions. In addition, as also analyzed in the TIS the future potential Rapp Road Residential development area identified on Site 1 and future potential Western Avenue Mixed-Use (Site 3) will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2025 No-Build and 2025 Future Build Conditions.

See Binder 2, Appendix C.

The cumulative development of Site 1 with 222 residential units and commercial development at Sites 2 and 3 will generate, based on the Traffic Study, new trips to upper Rapp Road, however there is no significant adverse impact identified at intersections at South Frontage Road. The Traffic Study demonstrates that there is no degradation in levels of service at intersections in the vicinity of the neighborhood.

The projects are not out of character with the area, rather they are authorized pursuant to the Town of Guilderland's TOD district. The Rapp Road residential development is consistent with the Town's TOD district as the use is permitted and meets all area and bulk requirements. The project respects the 200 foot buffer area extending along the entire northern property boundary separating the project from the historic district with this substantial buffer.

3.4.1.3 Mitigative Measures

3.4.1.3.1 Land Donation

To help support efforts to maintain the integrity of the District boundaries and prevent further encroachment of incompatible uses, the Project Sponsor proposes to convey five properties located in the Historic District to the District's not-for-profit entity, the Rapp Road Historical Association. See Section 9, Figure 14. In addition, the Project Sponsor's conveyance of three several parcels of land totaling 8.4 acres to the Pine Bush Commission located immediately east of the District and within the District will ensure that such land is also preserved from future development. See Section 9, Figure 9.

3.4.1.3.2 Road Alternatives

While the Traffic Study concludes there would be no decrease in level of service for intersections within the Historic District, the DEIS evaluates several alternative modifications to Rapp Road to address traffic concerns raised by the Historic District. These alternatives include:

Alternate 1 - Relocated Upper Rapp Road to East ("Eastern Bypass")

Alternate 2 - Relocated Upper Rapp Road bypass road ("Western Bypass 1")

Alternate 3 - Relocated Upper Rapp Road bypass road ("Western Bypass 2")

Alternate 4 - Southbound only on "Middle Rapp Road"

Alternate 5 - Closure of Rapp Road at northern access to Rapp Road project driveway and Gipp Road, but construct with "moveable gates".

Alternate 6 - Gipp Road Realignment

Alternate 9 - Rapp Road Realignment - No Direct Thru Access

See Section 3.5 for further discussion of the Upper Rapp Road alternatives.

3.4.2 Sites 2 and 3

3.4.2.1 Existing Conditions

A Phase I Archeological Investigation, Western Avenue Properties ("Cultural Resources Report Sites 2 and 3") has been prepared by Hartgen Archaeological Associates, Inc. for Sites 2 and 3. The Cultural Resources Report Sites 2 and 3 is contained in Appendix E of this DEIS. According to the Cultural Resources Report Sites 2 and 3, there are no archaeological sites or historic structures located on Site 2 or 3, nor are any properties located within or adjacent that have been determined to be eligible for listing in the State and Natural Register of Historic Places. See, Binder 2, Appendix E.

3.4.2.2 Potential Impacts

Hartgen Archaeological Associates has assessed the potential impact on cultural and archaeological resources. In completing their assessment, Hartgen Archaeological Associates reviewed the Sites and relied on extensive documentary research and an actual field study of each Site.

The results of their studies found no significant historic or archeological resources are known to exist on the Sites. The redevelopment of Sites 2 and 3 are also permitted in the TOD and will not be visual from nor have an impact on the historic district.

3.4.2.3 Mitigative Measures

No adverse impacts on cultural resources are expected as a result of the redevelopment of Sites 2 and 3.

3.5 Traffic and Transportation

3.5.1 Existing Conditions

3.5.1.1 Regional Transportation Systems

The proposed development Sites are located adjacent to Crossgates Mall which has excellent access from local and regional roadways. Washington Avenue Extension (Principal Arterial Expressway) is to the north of the Crossgates Mall site. US Route 20 (Principal Arterial) is to the south, the New York State Thruway (Principal Arterial Interstate) is to the east and Rapp Road (Minor Arterial) is located to the west. Washington Avenue Extension, US Route 20, the Northway and Rapp Road will continue to be directly provided upon construction of the projects. Washington Avenue Extension, Western Avenue, Rapp Road and Crossgates Mall Road by their interconnection to the NYS Thruway can all be considered part of the regional transportation system.

Just north of Crossgates Mall is where the New York State Thruway (I-87 southbound and I-90 eastbound and westbound) and the Northway (I-87 northbound) intersect. Regional connections are afforded at this location to points north to Plattsburgh and Montreal via the Northway (I-87), east to

Boston via the Thruway (I-90) and west to Syracuse, Rochester and Buffalo via the Thruway (I-90).

State and local roadways also provide for convenient access to other locations within the Capital District. Fuller Road, to the east of the Crossgates Mall Site, and Rapp Road and New Karner Road, to the west provide connections between Washington Avenue Extension, US Route 20 and NY Route 5.

3.5.1.2 Highway Access

A Traffic Impact Study (TIS) has been prepared by Maser Consulting, P.A. and is included in this DEIS as Appendix C. The TIS provides a detailed analysis of highway capacity in this area.

Access to the three Sites is currently provided by Washington Avenue Extension, US Route 20, the Northway, Rapp Road and Crossgates Mall Road. On and off ramps service the site ring road from Washington Avenue Extension from both east and westbound lanes. Similarly, access to and from the Northway is provided by two separate inbound and outbound service ramps/flyovers. Crossgates Mall is also accessed by the existing Crossgates Mall Road which was constructed in 1994 and runs parallel to the mall between Rapp Road and the Northbound flyover. Access to US Route 20 exists at the Mall main entrance. These roadways provide connections to the New York State Thruway (I-90) and the New York State Thruway/Northway (I-87). A description of each of these roadways is provided below:

A. I-87 (NYS Thruway/Northway)

I-87 is a north/south limited access highway (NYSDOT Functional Class 11 – Principal Arterial Interstate). North of NYS Thruway Interchange Number 24, I-87 is known as the Adirondack "Northway" and is under the jurisdiction of the State of New York. South of Interchange Number 24, I-87 becomes part of the NYS Thruway System which is under the jurisdiction of the NYS Thruway Authority. I-87 has a posted speed limit of 55 MPH in the immediate area and 65 MPH in the rural areas.

B. I-90 (NYS Thruway)

I-90 is an east/west oriented limited access highway (NYSDOT Functional Class 11 – Principal Arterial Interstate). West of NYS Thruway is Interchange Number 24, I-90 is part of the NYS Thruway system and is under the jurisdiction of the NYS Thruway Authority. East of NYS Thruway Interchange Number 24, I-90 is known as the Northside Arterial and is under the jurisdiction of the State of New York. I-90 has a posted speed limit of 55 in the vicinity of Albany and 65 MPH in other areas.

C. Washington Avenue Extension

Washington Avenue Extension is an east/west oriented arterial roadway and is under the jurisdiction of the New York State Department of Transportation (NYSDOT Functional Class 12 – Principal Arterial Expressway). It has a posted speed limit of 55 MPH. In the vicinity of the site, Washington Avenue Extension has an AADT of 25,415 vehicles west of

Springsteen Road and 29,821 vehicles east of the Crossgates Mall ramps. In the vicinity of the site Washington Avenue Extension is signalized at its intersections with Rapp Road/Springsteen Road and Fuller Road.

D. Rapp Road/Springsteen Street

Rapp Road is a north/south oriented two lane local roadway which originates at Crossgates Mall Road in the Town of Guilderland (NYSDOT Functional Class 16 – Minor Arterial). It has a posted speed limit of 30 mph and an AADT of 8,470 vehicles within the Town of Guilderland and 3,827 vehicles within the City of Albany. Rapp Road continues north into the City of Albany and splits into two roads (Rapp Road and Springsteen Street) both terminating at Washington Avenue Extension. The Rapp Road Historic District is located in this area within the City of Albany.

E. Western Avenue (US Route 20)

Western Avenue is an east/west oriented four lane arterial roadway and is under the jurisdiction of the New York State Department of Transportation (NYSDOT Functional Class 14 – Principal Arterial - Other). It has a posted speed limit of 40 MPH and an AADT of 28,821 vehicles in the vicinity of Crossgates Mall. In the vicinity of the Crossgates Mall site, Western Avenue is signalized at various intersections, including Johnston Road, the Crossgates Mall driveway, Church Road, the Fuller Road Alternate exit ramp, Crossgates Mall Road and Schoolhouse Road.

The Traffic Study identifies current traffic conditions in the vicinity of Sites 1, 2 and 3. Existing levels of service at each of the study intersections are identified.

3.5.1.3 Public Transportation

Local and regional bus service is available in Albany County. The Capital District Transportation Authority (CDTA) is the primary local bus service serving points within the county. The service area of the CDTA, which is headquartered in Albany, is centralized around the urban and suburban areas of Albany, Schenectady, and Troy, with some rural service existing on a limited basis.

Public transportation is currently provided to Crossgates Mall by the Capital District Transportation Authority. Individual stops at the Crossgates “station” weekly carried an average of 12,243 riders a week to and from Crossgates over the past year. The Mall station’s popularity as a destination has now increased its level of service to a main transfer station. See Section 9, Figure 4. Taxi service is also provided by all local companies is also well established and is available anywhere around the property as well as ride sharing services.

CDTA announced its plan to construct a new state-of-the-art transit center at Crossgates, together with a series of transportation improvements along the ring road. See, Binder 2, Appendix L. CDTA is in the process of relocating the existing bus stop to the east, adjacent to the Forever 21 store. To date, CDTA has not advanced the above referenced improvements except for the interim relocation of the existing transit center to the location referenced herein.

3.5.1.4 Pedestrian Transportation Systems

Pedestrian access is available to Crossgates Mall and the CDTA bus stop by way of US Route 20 and Crossgates Mall Road. Sidewalks were installed along the northern side of US Route 20 in the vicinity of the US Route 20 driveway and extend to the existing Mall site near the CDTA bus station. A pedestrian access/bike path was also constructed as part of a prior mall expansion at the western portion of the site along and connecting to Rapp Road. There are no pedestrian facilities along Rapp Road. Bicycle access can be made from both Western Avenue and Rapp Road. Bike racks are located at entrances around the Mall. See Section 9, Figure 6.

3.5.1.5 Year 2019 Existing Traffic Volumes

Traffic counts were conducted in November 2017, November/December 2018 and September/October 2019 to determine the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours in the vicinity of the three development sites. The resulting Year 2019 Existing Traffic Volumes are shown on Figures No. 2, 3 and 4 for each of the peak hours, respectively. (Appendix A of TIS.) A copy of the traffic count data is contained in Appendix E of the TIS. See Binder 2, Appendix C.

Based upon a review of the traffic counts and NYSDOT traffic data, the peak hours are identified as follows:

Weekday Peak AM Hour	7:30 AM – 8:30 AM
Weekday Peak PM Hour	4:30 PM – 5:30 PM
Saturday Peak PM Hour	12:30 PM – 1:30 PM

For purposes of the TIS, a Design Year of 2022 has been utilized in completing the traffic analysis for Site 1 and Site 2. In order to account for normal background traffic growth in the area, the Year 2019 Existing Traffic Volumes were increased by an annual growth factor of .5% to the 2022 Design Year. In addition to the background growth factor, traffic generated by other planned developments in the area (1700 Designer Residences and Great Oaks Residential Apartments) was also accounted for. The resulting Year 2022 No-Build Traffic Volumes are shown in Figures No. 11, 12 and 13 of the TIS. See Binder 2, Appendix C.

3.5.1.6 Site Generated Traffic Volumes

Site 1

As shown in the table below, the proposed 222-unit mixed-use residential development (Site 1) would generate 24 entering trips and 78 exiting trips during the Weekday Peak AM Hour, 78 entering trips and 46 exiting trips during the Weekday Peak PM Hour and 78 entering trips and 78 exiting trips during the Saturday Peak Hour.

**HOURLY TRIP GENERATION RATES
AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES**

SITE 1 RAPP ROAD RESIDENTIAL 222 APARTMENT UNITS	ENTRY HTGR* VOLUME		EXIT HTGR* VOLUME		TOTAL HTGR* VOLUME	
WEEKDAY PEAK AM HOUR	0.11	24	0.35	78	0.46	102
WEEKDAY PEAK PM HOUR	0.35	78	0.21	46	0.56	124
SATURDAY PEAK HOUR	0.35	78	0.35	78	0.70	156

THE ABOVE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017.
ITE LAND USE 220 – MULTIFAMILY HOUSING (LOW-RISE)

Site 2

As shown in the table below, the proposed 160,000 s.f. Costco retail facility with 18 fueling stations (Site 2) would generate 146 “new” entering trips and 116 “new” exiting trips during the Weekday Peak AM Hour, 300 “new” entering trips and 300 “new” exiting trips during the Weekday Peak PM Hour and 396 “new” entering trips and 417 “new” exiting trips during the Saturday Peak Hour. It is noted that based on Costco’s hours of operation, there will be no impact on AM commuter traffic.

In order to provide a conservative analysis, estimates of the amount of traffic to be generated by Site 2 were based on the hourly Trip Generation Rates for both the retail and 18 fueling stations separately. It should be noted that not all trips to the Costco facility would be “new” to the adjacent roadway system and a significant portion would be “interplay” (i.e. a significant portion would be “interplay” between the Crossgates Mall, “interplay” between the Costco retail and fueling stations, and as “pass-by” traffic from the existing traffic stream along Western Avenue, Rapp Road and Crossgates Mall Road).

**HOURLY TRIP GENERATION RATES
AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES**

SITE 2 COSTCO 160.000 S.F. + 18 Fueling Stations “NEW” TRIPS	ENTRY HTGR* VOLUME		EXIT HTGR* VOLUME		TOTAL HTGR* VOLUME	
WEEKDAY PEAK AM HOUR		146		116		262
WEEKDAY PEAK PM HOUR		300		300		600**
SATURDAY PEAK HOUR		396		417		813**

THE ABOVE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017.
ITE LAND USE 857 – DISCOUNT CLUB & ITE LAND USE 944 – GASOLINE/SERVICE STATION

** TRIP REDUCTIONS TAKEN BASED ON INTERPLAY WITH MALL AND PASS-BY TRIPS (SEE TABLE 2 APPENDIX B OF TIS.)

3.5.2 Potential Impacts

The Traffic Impact Study analyzed the potential cumulative impacts of development of Site 1, 2 and 3, and incorporating the 2016 CDTA traffic study recommendations conducted to examine potential impacts of a new bus transit center project at Crossgates, was prepared by Maser Consulting, PA for this Project. The Traffic Study addresses changes in traffic levels and the anticipated effects of the Project on the LOS for the 17 intersections within the study area and new site driveways.

3.5.2.1 Rapp Road Historic District

Arrival and departure vehicle distributions for Site 1 and Site 2 were developed based on a review of existing traffic volumes, expected travel patterns, and site layout. (See TIS, Appendix A). For Site 1, 20% of trips would travel on Rapp Road through the Historic Neighborhood. For Site 2, 10% of trips would travel on Rapp Road through the Historic Neighborhood. The resulting increase in traffic volumes for the Peak Hours is shown in the table below.

**ANTICIPATED SITE GENERATED TRAFFIC VOLUMES
COMPARED WITH EXISTING TRAFFIC VOLUMES - RAPP ROAD HISTORIC NEIGHBORHOOD**

	EXISTING VOLUME	SITE 1	SITE 2	COMBINED
“NEW” TRIPS		20% OF TOTAL	10% OF TOTAL	
WEEKDAY PEAK AM HOUR	285	21	27	48
WEEKDAY PEAK PM HOUR	501	25	54	79
SATURDAY PEAK HOUR	324	32	76	108

3.5.2.2 Intersections

In order to determine existing and future traffic operating conditions at the Study Area Intersections, it was necessary to perform a Synchro analysis (capacity analyses). The following is a brief description of the analysis method utilized in this report:

Signalized Intersection Capacity Analysis

The capacity analysis for signalized intersections were performed in accordance with the procedures described in the Highway Capacity Manual – 6th Edition published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service “A” represents the best condition and a Level of Service “F” represents the worst condition. A Level of Service “C” is generally used as a design standard while a Level of Service “D” is acceptable during peak periods. A Level of Service “E” represents an operation near capacity. In order to identify an intersection’s Level of Service, the average amount

of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

Unsignalized Intersection Capacity Analysis

The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the Highway Capacity Manual – 6th Edition. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement (major street left turns and minor street movements) to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in the traffic Impact Study (See Binder 2, Appendix C).

In summary, the Traffic Study concluded:

In order to evaluate current and future traffic operating conditions at each of the Study Area Intersections, SYNCHRO analyses were conducted utilizing the procedures described above. A detailed description of each of the Study Area intersections, including Existing and Future levels of Service are outlined in the TIS (Binder 2, Appendix C). In addition, summarized below is a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service for each of the Study Area Intersections. Table No. 3 of the Traffic Study summarizes the Year 2019 Existing, Year 2022 No-Build and Year 2022 Build (which includes Site 1 and Site 2) Levels of Service, delays and volume-to-capacity (v/c) ratios. Table No. 6 of the Traffic Study in Traffic Study summarizes the Year 2025 No-Build (which includes Sites 1 and 2) and Year 2025 Build Conditions (which includes Sites 1A and 3). The capacity analysis (Binder 2, Appendix D to Traffic Study) also shows the existing geometry including lane widths, traffic control including signal phasing/timing (where appropriate) as well as the results of the analysis.

1. Western Avenue (US Route 20) and Crossgates Mall Driveway

The Crossgates Mall driveway intersects Western Avenue at a signalized, “English Couplet System” intersection. The Western Avenue eastbound approach consists of three lanes in the form of a separate left turn lane and two through lanes and the Western Avenue westbound approach consists of three lanes in the form of two separate through lanes and a shared through/right turn lane. The Crossgates Mall Road southbound driveway approach consists of three lanes in the form of a double left turn lane and a separate right turn lane.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes) indicates that the intersection is projected to continue to operate at an overall Level of Service “B” or better during each of the Peak Hours.

2. Western Avenue (US Route 20) and Gabriel Terrace/1700 Design Residences

Gabriel Terrace intersects Western Avenue opposite 1700 Design Residences at a full movement, unsignalized intersection. The Western Avenue eastbound and westbound approaches each consists of three lanes in the form of a two-way left turn lane, a separate through lane and a shared through/right turn lane. The Gabriel Terrace (southbound approach) and 1700 Designer Residences (northbound approach) each consist of one lane for left, through and right turn movements.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that Gabriel Terrace southbound and 1700 Designer Residences northbound approaches (minor movements) are currently operating at a Level of Service “F” during both the Weekday Peak PM and Saturday Peak Hours. The Western Avenue eastbound and westbound left turns are currently operating at a Level of Service “C” or better.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that Gabriel Terrace southbound and 1700 Designer Residences northbound approaches (minor movements) are projected to operate at a Level of Service “F” during each of the Peak Hours. The Western Avenue eastbound and westbound left turns are projected to operate at a Level of Service “C” or better.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that 1700 Designer Residences northbound approach (minor movements) is projected to continue to operate at a Level of Service “F” during each of the peak Hours. The Gabriel Terrace Connector Road southbound approach (minor movements), if required, the Town could restrict left turns and therefore operate at a Level of Service “B” during the Weekday Peak AM Hour, operate

at a Level of Service “D” during the Weekday Peak PM Hour and operate at a Level of Service “C” during the Saturday Peak Hour. It should be noted the Gabriel Terrace Connector Road will provide access to Crossgates Mall via Crossgates Mall Road (the southerly Mall Ring Road) and from there directly to the I-87/I-90 highway system. The Western Avenue eastbound and westbound left turns are projected to continue to operate at a Level of Service “C” or better.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that 1700 Designer Residences northbound approach (minor movements) is projected to operate at a Level of Service “F” during each of the peak Hours. The Gabriel Terrace Connector Road southbound approach (minor movements), if required, the Town could restrict left turns and therefore operate at a Level of Service “B” during the Weekday Peak AM Hour, operate at a Level of Service “D” during the Weekday Peak PM Hour and operate at a Level of Service “C” during the Saturday Peak Hour. It should be noted the Gabriel Terrace Connector Road will provide access to Crossgates Mall via Crossgates Mall Road (the southerly Mall Ring Road) and from there directly to the I-87/I-90 highway system. The Western Avenue eastbound and westbound left turns are projected to operate at a Level of Service “C” or better.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that 1700 Designer Residences northbound approach (minor movements) is projected to continue to operate at a Level of Service “F” during each of the peak Hours. The Gabriel Terrace Connector Road southbound approach (minor movements), if required, the Town could restrict left turns and therefore operate at a Level of Service “B” during the Weekday Peak AM Hour, projected operate at a Level of Service “E” during the Weekday Peak PM Hour and projected to continue operate at a Level of Service “C” during the Saturday Peak Hour. It should be noted the Gabriel Terrace Connector Road will provide access to Crossgates Mall via Crossgates Mall Road (the southerly Mall Ring Road) and from there directly to the I-87/I-90 highway system. The Western Avenue eastbound and westbound left turns are projected to continue to operate at a Level of Service “C” or better.

3. Western Avenue (US Route 20) and Crossgates Mall Road/Johnston Road

Crossgates Mall Road intersects Western Avenue opposite Johnston Road at a full movement, signalized intersection. The Western Avenue eastbound and westbound approaches each consist of three lanes in the form of a separate left turn lane, a separate through lane and a shared through/right lane. The Crossgates Mall Road southbound approach consists of three lanes in the form of a separate left turn lane, separate through lane and a separate right turn lane. The Johnston Road northbound approach consists of three lanes in the form of a separate left turn lane, a shared through/right lane and a separate right turn lane.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year

2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour, is currently operating at an overall Level of Service “D” during the Weekday Peak PM Hour and is currently operating at an overall Level of Service “B” during the Saturday Peak Hour.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour, is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour and is projected to operate at an overall Level of Service “B” during the Saturday Peak Hour.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour, is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak PM Hour and projected to operate at an overall Level of Service “C” during the Saturday Peak Hour.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “D” during the Weekday Peak AM Hour, is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour and is projected to operate at an overall Level of Service “C” during the Saturday Peak Hour.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak AM Hour, is projected to continue to operate at an overall Level of Service “D” during the Weekday Peak PM Hour and projected to continue to operate at an overall Level of Service “C” during the Saturday Peak Hour.

4. Rapp Road and Crossgates Mall Road

Rapp Road and Crossgates Mall Road intersects at a full movement, signalized intersection. The Crossgates Mall Road northbound approach consists of two lanes in the form of a shared left/through lane and a separate channelized right turn lane. The Rapp Road eastbound approach consists of two lanes in the form of a shared left/through lane and a separate channelized right turn lane. The Crossgates Mall Road westbound approach consists of two lanes in the form of a separate left turn lane and a shared through/right lane. The Crossgates Mall northerly ring road (southbound approach) consists of two lanes in the form of a shared left/through lane and a shared through/right lane.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” or better during each of the Peak Hours. It is recommended to remove the right turn slip lanes and bring the right turn movements under traffic signal control and modify/optimize the existing traffic signal.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” or better during each of the Peak Hours. It is recommended to remove the right turn slip lanes and bring the right turn movements under traffic signal control and modify/optimize the existing traffic signal.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” or better during each of the Peak Hours. It is recommended to remove the right turn slip lanes and bring the right turn movements under traffic signal control and modify/optimize the existing traffic signal.

5. Rapp Road and Gipp Road

Gipp Road intersects Rapp Road at a “T” shaped, unsignalized intersection. The Rapp Road northbound approach consists of one lane for left/through movements and the Rapp Road southbound approach consists of one lane for through/right movements. The Gipp Road eastbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that Gipp Road eastbound approach (minor movements) is currently operating at a Level of Service “B” during each of the Peak Hours. The Rapp Road northbound left turn is currently operating at a Level of Service “A”.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that Gipp Road eastbound approach (minor movements) is projected to operate at a Level of Service “B” during each of the Peak Hours. The Rapp Road northbound left turn is projected to operate at a Level of Service “A”.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that Gipp Road eastbound approach (minor movements) is projected to operate at a Level of Service “C” or better during each of

the Peak Hours. The Rapp Road northbound left turn is projected to continue to operate at a Level of Service “A”.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that Gipp Road eastbound approach (minor movements) is projected to operate at a Level of Service “C” or better during each of the Peak Hours. The Rapp Road northbound left turn is projected to operate at a Level of Service “A”.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that Gipp Road eastbound approach (minor movements) is projected to continue to operate at a Level of Service “C” or better during each of the Peak Hours. The Rapp Road northbound left turn is projected to continue to operate at a Level of Service “A”.

6. Rapp Road and Pine Lane

Pine Lane intersects Rapp Road at a “T” shaped, unsignalized intersection. The Rapp Road northbound approach consists of one lane for left/through movements and the Rapp Road southbound approach consists of one lane for through/right movements. The Pine Lane eastbound approach consists of one lane for left and right turn movements. All approaches to the intersection are “stop” sign controlled.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that all approaches to the intersection are currently operating at a Level of Service “B” or better during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service “B” or better during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that all approaches to the intersection are projected to continue to operate at a Level of Service “B” or better during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service “B” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that all approaches to the intersection are projected to continue to operate at a Level of Service “B” or better during each of the Peak Hours.

7. Rapp Road and Springsteen Road

Rapp Road intersects Springsteen Road at a “Y” shaped, unsignalized intersection. The Rapp Road northbound approach continues as Springsteen Road as a one-way road and the Rapp Road southbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the Rapp Road southbound approach (minor movements) is currently operating at a Level of Service “B” or better during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the Rapp Road southbound approach (minor movements) is projected to operate at a Level of Service “B” or better each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Rapp Road southbound approach (minor movements) is projected to continue to operate at a Level of Service “B” or better during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the Rapp Road southbound approach (minor movements) is projected to operate at a Level of Service “B” or better each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Rapp Road southbound approach (minor movements) is projected to continue to operate at a Level of Service “B” or better during each of the Peak Hours.

8. Springsteen Road and S. Frontage Road

Springsteen Road intersects S. Frontage Road at an unsignalized intersection. The Springsteen Road eastbound approach consists of two lanes in the form of a separate left turn lane and a shared through/right lane and is “stop” sign controlled. The S. Frontage Road southbound approach consists of one lane for left/through movements and the S. Frontage Road northbound approach consists of one lane for through/right movements and are also “stop” sign controlled.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that all approaches to the intersection are currently operating at a Level of Service “A” during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that all approaches to the intersection are

projected to operate at a Level of Service “A” during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that all approaches to the intersection are projected to continue to operate at a Level of Service “A” during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service “A” during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that all approaches to the intersection are projected to operate at a Level of Service “B” or better during each of the Peak Hours.

9. Washington Avenue Extension and Springsteen Road/Crossgates Commons

Springsteen Road intersects Washington Avenue Extension opposite Crossgates Commons at a signalized intersection. The Washington Avenue Extension northbound approach consists of five lanes in the form of a separate left turn lane, three through lanes and a separate right turn lane and the Washington Avenue Extension southbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and a separate right turn lane. The Springsteen Road eastbound approach consists of one lane for right turn movements only and the Crossgates Commons westbound approach consists of three lanes in the form of a double left turn lane and a shared through/right lane.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” during the Weekday Peak AM Hour and is currently operating at an overall Level of Service “D” during both the Weekday Peak PM and Saturday Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “D” during both the Weekday Peak PM Hour and Saturday Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and continue to operate at an overall Level of Service “D” during both the Weekday Peak PM and Saturday Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year

2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and is projected to operate at an overall Level of Service “D” during both the Weekday Peak PM Hour and Saturday Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak AM Hour and continue to operate at an overall Level of Service “D” during both the Weekday Peak PM and Saturday Peak Hours.

10. Crossgates Mall Road and I-87 On/Off Ramps

The I-87 On/Off Ramps intersects Crossgates Mall Road at a “T” type, signalized intersection. The Crossgates Mall Road northbound approach consists of two lanes in the form of a separate through lane and a channelized right turn lane and the Crossgates Mall Road southbound approach consist of two lanes in the form of a separate left turn lane and separate through lane. The I-87 Off Ramp (westbound approach) consists of three lanes in the form of a double left turn lane and a separate channelized right turn lane at Crossgates Mall Road. It should be noted for analysis purpose, the I-87 Off Ramp approach was analyzed as two lanes in the form of a separate left turn lane and shared left/right turn lane to account for short storage lanes.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” during the Weekday Peak AM Hour, is currently operating at an overall Level of Service “C” during the Weekday Peak PM Hour and is currently operating at an overall Level of Service “D” during Saturday Peak Hour.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour, is projected to operate at an overall Level of Service “C” during the Weekday Peak PM Hour and is projected to operate at an overall Level of Service “D” during Saturday Peak Hour.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour, is projected to continue to operate at an overall Level of Service “C” during the Weekday Peak PM Hour and projected to continue to operate at an overall Level of Service “D” during the Saturday Peak Hour.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” during the Weekday Peak AM Hour, is projected to

operate at an overall Level of Service “C” during the Weekday Peak PM Hour and is projected to operate at an overall Level of Service “D” during Saturday Peak Hour.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” during the Weekday Peak AM Hour, is projected to operate at an overall Level of Service “D” during the Weekday Peak PM Hour and projected to continue to operate at an overall Level of Service “D” during the Saturday Peak Hour.

11. Crossgates Mall Road and Mall Driveway (For Reference Driveway #1)

Crossgates Mall Driveway (For Reference Driveway #1) intersects Crossgates Mall Road at a “T” type, unsignalized intersection.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the Crossgates Mall Driveway (minor approach) is currently operating at a Level of Service “C or better during each of the Peak Hours. The Crossgates Mall Road eastbound left turn is currently operating at a Level of Service “A”.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the Crossgates Mall Driveway (minor approach) is projected to operate at a Level of Service “C” or better during each of the Peak Hours. The Crossgates Mall Road eastbound left turn is projected to operate at a Level of Service “A”.

Year 2022 Build Traffic Volumes with Gabriel Terrace Connector - As discussed in Section B of the TIS, the Gabriel Terrace Connector Road will connect to Crossgates Mall opposite the westerly Crossgates Mall driveway. Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the new Gabriel Terrace Connector northbound approach (minor approach) is projected to operate at a Level of Service “B” during the Weekday Peak AM Hour, is projected to operate at a Level of Service “C” during the Weekday Peak PM Hour and is projected to operate at a Level of Service “F” during the Saturday Peak Hour. It is recommended to restripe Crossgates Mall Road from Rapp Road to a location just west of the hotel driveway as a three lane section including a separate left turn lane. If required, the addition of a traffic signal will improve Levels of Service. (Levels of Service “B” or better).

Year 2025 No-Build Traffic Volumes with Gabriel Terrace Connector - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the new Gabriel Terrace Connector northbound approach (minor approach) is projected to operate at a Level of Service “B” during the Weekday Peak AM Hour, is projected to operate at a Level of Service “C” during the Weekday Peak PM Hour and is projected to operate at a Level of Service “F” during the Saturday Peak Hour. It is recommended

to restripe Crossgates Mall Road from Rapp Road to a location just west of the hotel driveway as a three lane section including a separate left turn lane. If required, the addition of a traffic signal will improve Levels of Service. (Levels of Service “B” or better).

Year 2025 Build Traffic Volumes with Gabriel Terrace Connector - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the new Gabriel Terrace Connector northbound approach (minor approach) is projected to operate at a Level of Service “B” during the Weekday Peak AM Hour, is projected to operate at a Level of Service “F” during both the Weekday Peak PM and Saturday Peak Hours. It is recommended to restripe Crossgates Mall Road from Rapp Road to a location just west of the hotel driveway as a three lane section including a separate left turn lane. If required, the addition of a traffic signal will improve Levels of Service. (Levels of Service “B” or better).

12. Crossgates Mall Road and Mall Driveway (For Reference Driveway #2)/Hotel

Crossgates Mall Driveway (For Reference Driveway #2) intersects Crossgates Mall Road opposite the Hotel connector road at a full movement, signalized intersection.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B or better during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “B” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” or better during each of the Peak Hours.

13/14. Crossgates Mall Road and Crossgates Mall Main Access Road

The Crossgates Mall Main Access Road from the Western Avenue couplet intersects Crossgates Mall Road at two signalized intersections.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year

2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “C” or better during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” or better during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” or better during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that the intersection is projected to operate at an overall Level of Service “C” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the intersection is projected to continue to operate at an overall Level of Service “C” or better during each of the Peak Hours.

15. S. Frontage Road and Rapp Road

Rapp Road intersects Rapp Road at a “Y” shaped, unsignalized intersection. The S. Frontage Road westbound approach consists of one lane for left/through movements and the S. Frontage Road eastbound approach consists of one lane for through/right movements. The Rapp Road approach is one-way for southbound traffic only.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that S. Frontage Road westbound left turn is currently operating at a Level of Service “A” during each of the Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that S. Frontage Road westbound left turn is projected to operate at a Level of Service “A” during each of the Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that S. Frontage Road westbound left turn is projected to continue to operate at a Level of Service “A” during each of the Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that S. Frontage Road westbound left turn is projected to operate at a Level of Service “A” during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that S. Frontage Road westbound left turn is projected to continue to operate at a Level of Service “A” during each of the Peak

Hours.

16. Western Avenue (US Route 20) and Westmere Terrace

Westmere Terrace intersects Western Avenue at a “T” shaped, unsignalized intersection. The Western Avenue eastbound approach consists of three lanes in the form of a center turning lane for left turn movements and two through lanes and the Western Avenue westbound approach consists of two lanes in the form of a separate through lane and a shared through/right turn lane. The Westmere Terrace southbound approach consists of one lane for left and right turn movements and is “stop” sign controlled.

Year 2019 Existing Traffic Volumes - Capacity analysis conducted utilizing the Year 2019 Existing Traffic Volumes indicates that Westmere Terrace southbound approach (minor movements) is currently operating at a Level of Service “E-F” during each of Peak Hours.

Year 2022 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 No-Build Traffic Volumes indicates that Westmere Terrace southbound approach (minor movements) is projected to operate at a Level of Service “E-F” during each of Peak Hours.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that Westmere Terrace southbound approach (minor movements) is projected to operate at a Level of Service “F” during each of Peak Hours.

Year 2025 No-Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 No-Build Traffic Volumes indicates that Westmere Terrace southbound approach (minor movements) is projected to operate at a Level of Service “F” during each of Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that Westmere Terrace southbound approach (minor movements) is projected to continue to operate at a Level of Service “F” during each of Peak Hours.

17/18. Rapp Road and Rapp Road Residential Proposed Site 1 Driveway(s)

As discussed in Section B, access to the Site 1 (Rapp Road Residential) is proposed via two driveway connections to Rapp Road.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Rapp Road Residential Site Driveway(s) are projected to operate at a Level of Service “B” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Rapp Road Residential Site Driveway(s) are projected to operate at a Level of Service “B” or better during each of the Peak Hours.

19. Rapp Road and Costco Site 2 Northerly Driveway

As discussed in Section B, Site 2 is proposed to have two driveways to Rapp Road, with the northerly access for entering left and right turns and exiting right turns only (exiting left turns will be prohibited).

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Site 2 Rapp Road Northerly Driveway is projected to operate at a Level of Service “B” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Site 2 Rapp Road Northerly Driveway is projected to operate at a Level of Service “B” or better during each of the Peak Hours.

20. Rapp Road and Site 2 Southerly Driveway

As discussed in Section B, Site 2 is proposed to have two driveways to Rapp Road, with the southerly access for entering right turns only.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Site 2 Rapp Road Southerly Driveway is projected to operate at a Level of Service “A” during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Site 2 Rapp Road Southerly Driveway is projected to operate at a Level of Service “A” during each of the Peak Hours.

21. Gabriel Terrace Connector Road and Site 2 Driveway

As discussed in Section B, access to Site 2 is also proposed via the Gabriel Terrace Connector Road.

Year 2022 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2022 Build Traffic Volumes indicates that the Site 2 Driveway to the Gabriel Terrace Connector Road is projected to operate at a Level of Service “C” or better during each of the Peak Hours.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Site 2 Driveway to the Gabriel Terrace Connector Road is projected to operate at a Level of Service “D” or better during each

of the Peak Hours.

22. Gabriel Terrace Connector Road and Western Avenue Mixed-Use Site 3 Driveway

As discussed in Section B, access to the Potential Western Avenue Mixed-Use Development (Site 3) is also proposed via the Gabriel Terrace Connector Road.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Western Avenue Mixed-Use Site 3 Driveway is projected to operate at a Level of Service “C” or better during each of the Peak Hours.

23. Hotel Connector Road and Western Avenue Mixed-Use Site 3 Driveway

As discussed in Section B, access to Potential Western Avenue Mixed-Use Development (Site 3) is also proposed via the Hotel Connector Road.

Year 2025 Build Traffic Volumes - Capacity analysis conducted utilizing the Year 2025 Build Traffic Volumes indicates that the Western Avenue Mixed-Use Site 3 Driveway is projected to operate at a Level of Service “A” during each of the Peak Hours.

The Maser Traffic Impact Study concluded:

The proposed Rapp Road Residential (Site 1) and Costco (Site 2) developments will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2022 No-Build and 2022 Future Build Conditions. In addition, as also analyzed in the TIS the future potential Rapp Road Residential development area identified on Site 1 and future potential Western Avenue Mixed-Use (Site 3) will not result in a significant impact on the existing roadway network. Similar Levels of Service and delays will be experienced under Future 2025 No-Build and 2025 Future Build Conditions.

3.5.3 Mitigative Measures

While similar Levels of Service will be experienced, the Maser Traffic Study concluded and recommended, as part of the cumulative impacts analysis, the following conceptual improvements:

- Remove the right turn slip lanes and bring the right turn movements under traffic signal control at the Rapp Road/Crossgates Mall Road intersection.
- Modify the existing traffic signal at the Rapp Road/Crossgates Mall Road intersection.
- Restripe Crossgates Mall Road from Rapp Road to a location just west of the hotel driveway as a three lane section including a separate left turn lane.

- Relocate Gabriel Terrace opposite the Crossgates Mall western driveway.
- Provide two driveways to Rapp Road as well as a connection to/from the Crossgates Mall North Ring Road to provide additional access to I-87/I-90 as well as Washington Avenue for the Rapp Road Residential Development (Site 1).
- Provide two driveways to Rapp Road for Costco (Site 2), with the northerly access for entering left turns (a separate entering left turn lane will be provided), entering right turns, and exiting right turns only (exiting left turn will be prohibited). The southerly driveway would be for entering right turns only.
- If required, a traffic signal at the Crossgates Mall Road and Gabriel Terrace Connector will be installed.
- If required, the Town could restrict left turns at the Gabriel Terrace Connector Road southbound approach to Western Avenue.

3.5.4 Upper Rapp Road Alternative Mitigative Measures

Alternate 1 - Relocated Upper Rapp Road to East (“Eastern Bypass”)

- Construct two way relocated Rapp Road shown in Section 9, Figure 16 and Appendix I.
- The Eastern Bypass would be located on private property within the City of Albany on tax map numbers 52.02-1-16, 52.06-2-35, 52.06-2-29.1, 52.06-2-33. The bypass would connect on the north at the existing Springsteen Street, near South Frontage Road, traverse to the south and then west to connect at Rapp Road, north of the National Grid right of way.
- The Eastern Bypass would be purchased by and dedicated to the City of Albany for highway purposes.
- Modify Rapp Road to include two cul-de-sacs on the north and south ends of the existing Rapp Road.
- Install proper traffic signage and traffic controls to accommodate Eastern Bypass and the two cul-de-sacs.

Discussion. While shifting traffic from Rapp Road to the Eastern Bypass would provide a decrease in traffic on Rapp Road, the land upon which the Eastern Bypass would be located is identified as Area 62 in the Albany Pine Bush Preserve Commission’s 2017 Management Plan. Area 62 is designated as “Full Protection” meaning the land has been determined to contain or serve some environmental and ecological resources or purposes important to the Pine Bush Preserve. As part of the Rapp Road residential project, the project sponsor has proposed to convey this land to the Pine Bush Commission for management purposes as part of the Pine Bush Preserve. The Karner blue corridor area has been established and part of the planning

and management for the preservation of the Karner Blue butterfly for decades immediately adjacent to such Eastern Bypass road. If the Eastern Bypass is constructed, this environmental benefit would not be possible and/or the benefit significantly diminished. The new road and cul-de-sacs would potentially impact linkage for the Karner blue butterfly in this area contrary to the Management Plan. On October 7, 2019, the Pine Bush Preserve Technical Committee commented that this alternative is not acceptable as being contrary to the Pine Bush Management Plan. In this alternative, traffic would be shifted from the front of the existing homes on the east side of Rapp Road to the rear of these homes.

Alternate 2 - Relocated Upper Rapp Road bypass road (“Western Bypass 1”)

- Construct two way north-south Western Bypass 1 shown in Section 9, Figure 16 and Appendix I.
- The Western Bypass 1 would be located on private property within the City of Albany and traverse between Rapp Road, commencing to the north of Pine Lane, and traveling northwest to the rear of property owned by the Daughters of Sarah, and connecting with the South Frontage Road on the east side of the Daughters of Sarah.
- Modify existing Rapp Road to create new intersection to accommodate new Western Bypass 1 road.
- Modify existing South Frontage Road to create new intersection to accommodate new Western Bypass 1 road.
- Modify Rapp Road to include cul-de-sac located on the south end of the existing Rapp Road north of the Western Bypass 1 intersection.
- Install proper traffic signage and traffic controls at existing Rapp Road and South Frontage Road to accommodate Western Bypass 1.
- Dedicate Western Bypass 1 to the City of Albany.

Discussion. The Western Bypass 1 road is shown in Section 9, Figure 16 and Appendix I. The Western Bypass 1 would be situated on private property within the City of Albany. It would allow traffic to bypass travelling north and south on Rapp Road through the Historic District by offering a direct alternate connection to/from Washington Avenue Extension.

The land upon which the Western Bypass 1 would be constructed is identified as Area 29 in the Albany Pine Bush Preserve Commission’s 2017 Management Plan. Area 29 is designated as “Full Protection” meaning the land has been determined to contain valuable environmental resources. In addition, the land is immediately adjacent to, abutting and/or part of land that has been protected/preserved as part of the Pine Bush Preserve by an agreement or easement for the Karner Blue butterfly corridor area managed by the Pine Bush Commission. The Karner blue corridor area has been established and part of the planning and management for the preservation of the Karner Blue butterfly for decades immediately adjacent to such Western

Bypass 1 road. On October 7, 2019, the Pine Bush Preserve Technical Committee commented regarding the Eastern Bypass road as not being acceptable and contrary to the Pine Bush Management Plan. It is likely that the Western Bypass 1 road would be similarly unacceptable based on its close proximity and/or actual encroachment into this corridor area. In this alternative, traffic would be shifted from the front of the existing homes on the west side of Rapp Road to the rear of these homes.

Alternate 3 - Relocated Upper Rapp Road bypass road (“Western Bypass 2”)

- Construct two way north-south Western Bypass 2 shown in Section 9, Figure 16 and Appendix I.
- The Western Bypass 2 would be located on private property within the City of Albany and traverse between Rapp Road, commencing to the north of Pine Lane, and traveling northwest to the rear of property owned by the Daughters of Sarah, and connecting with Columbia Circle Drive East to the west of the Daughters of Sarah.
- Modify existing Rapp Road to create new intersection to accommodate new Western Bypass 2 road.
- Modify existing Columbia Circle Drive to create new intersection to accommodate new Western Bypass 2 road.
- Modify Rapp Road to include cul-de-sac located on the south end of the existing Rapp Road north of the Western Bypass 1 intersection.
- Install proper traffic signage and traffic controls at existing Rapp Road and Columbia Circle Drive East to accommodate Western Bypass.
- Dedicate Western Bypass 2 to the City of Albany.

Discussion. The Western Bypass 2 road is shown in Section 9, Figure 16 and Appendix I. The Western Bypass 2 would be situated on private property within the City of Albany. It would allow traffic to bypass travelling north and south on Rapp Road through the Historic District by offering a direct connection to Columbia Circle Drive East and its close proximity to its intersection with Washington Avenue Extension.

The land upon which the Western Bypass would be constructed is identified as Area 29 in the Albany Pine Bush Preserve Commission’s 2017 Management Plan. Area 29 is designated as “Full Protection” meaning the land has been determined to contain valuable environmental resources. In addition, the land is immediately adjacent to, abutting and/or part of land that has been protected/preserved as part of the Pine Bush Preserve by an agreement or easement. In other words, the existing Karner Blue butterfly corridor area managed by the Pine Bush Commission. The Karner blue corridor area has been established and part of the planning and management for the preservation of the Karner Blue butterfly for decades immediately adjacent to such Western Bypass 2 road. On October 7, 2019, the Pine Bush Preserve

Technical Committee commented regarding the Eastern Bypass road as not being acceptable and contrary to the Pine Bush Management Plan. It is likely that the Western Bypass 2 road would be similarly unacceptable based on its close proximity and/or actual encroachment into this corridor area. In this alternative, traffic would be shifted from the front of the existing homes on the west side of Rapp Road to the rear of these homes.

Alternate 4 – Southbound only on “Middle Rapp Road”

- Make Rapp Road within the Town of Guilderland one-way southbound only is shown in Section 9, Figure 16 and Appendix I.
- Install proper traffic signage and traffic controls at existing Rapp Road within the Town of Guilderland to prohibit northbound traffic (i.e. one way signage), immediately north of the new northern Project driveway through to the municipal boundary with the City.

Discussion. Pursuant to the “one-way” alternative, traffic, including the residents of Gipp Road and Pine Lane and the Rapp Road Historic District, will be allowed to travel southbound from north Rapp Road to Crossgates Mall, Western Avenue and the interstates. However, northbound traffic on Rapp Road will be prohibited north of the Rapp Road Project’s northern driveway. Such traffic traveling north will be diverted to the new connector road to the Crossgates ring road to the east, or to the Rapp Road project on the west.

The one-way alternative will result in fewer traffic trips through upper Rapp Road and through the Rapp Road Historic District. Specifically, 161 PM peak trips, 244 AM peak trips and 211 Saturday peak trips. Emergency services, and other City services, would continue to have access to and from property located within the City on Wilan Lane and Pine Lane. Mutual support services, between the City and Town would be maintained as such Town service providers would be authorized to travel north on Rapp Road and disregard the short one-way section of Rapp Road. City mutual support services to the Town would not be impacted.

Pedestrian connectivity would be maintained to Gipp Road.

Alternate 5 – Closure of Rapp Road at northern access to Rapp Road project driveway and Gipp Road.

- Close Rapp Road at northern access to Rapp Road project driveway and Gipp Road shown in Section 9, Figure 16 and Appendix I.
- Modify Rapp Road within the Town of Guilderland to create a dead end prior to the existing intersection of Gipp Road/Rapp Road.
- Modify Rapp Road within the Town of Guilderland to create a dead end at the new Site driveway/Rapp Road.
- Install proper traffic signage and traffic controls at existing Rapp Road within the Town of Guilderland to allow access for only emergency vehicular use.

Discussion. Rapp Road would be closed between the Project site's northerly access and Gipp Road with the use of crash gates that will allow access over Rapp Road between the City of Albany and Town of Guilderland for emergency service providers. No thru traffic would be allowed which would eliminate traffic traveling through the Rapp Road Historic District. With no traffic traveling through this section, it is assumed that improved east-west linkage for the butterfly corridor would also occur.

This alternative is the same as Alternative 4, except mutual emergency services between the Town and the City would be eliminated which is considered to be a disadvantage. Pedestrian connectivity would be maintained to Gipp Road.

Similar to Alternative 4, residents within the Town and the City, located on, or utilizing Gipp Road for access, will access Western Avenue via Gipp Road. The residents within the Historic District will also access Western Avenue via travelling on Washington Avenue Extension a short distance to access the Crossgates Mall Ring Road to Western Avenue.

Alternate 6 – Gipp Road Realignment

- Construct two way realigned Gipp Road shown in Section 9, Figure 16 and Appendix I.
- A portion of Gipp Road within the City of Albany would be abandoned approximately 200' from its intersection with Rapp Road.
- Other lands in the City and the Town would need to be dedicated and/or an easement provided to complete the realignment.
- Gipp Road would be realigned to traverse in a north-south direction through the existing 200' buffer area in the northern portion of Site 1 and connect with the proposed east-west driveway and connect to Rapp Road at the new intersection of Rapp Road, the northern Site 1 driveway and the connector road to Crossgates. The realigned Gipp Road would be located to the south of the DEC Karner Blue Preserve located in the northeast corner of Site 1.
- The portion of the realigned Gipp Road within Site 1 will be located on private property and the Town will be required to pay just compensation to purchase such lands or for an easement interest.
- Install proper traffic signage and traffic controls to accommodate the Gipp Road realignment.

Discussion. The realignment of Gipp Road would shift its current intersection with Rapp Road approximately 100' to the south. It is anticipated that such a realignment would encourage east bound Gipp Road vehicles to utilize Crossgates Mall Road as opposed to traveling north on Rapp Road to Washington Avenue Extension.

The realigned Gipp Road would traverse north-south through the northern 200 foot buffer area. It would be located to the south of the DEC Karner Blue Preserve area in the northeast corner of Site 1. The realignment could potentially expand the Karner Blue Corridor area in this immediate vicinity if the portion of Gipp Road in the City is abandoned and donated for future management by the Pine Bush Commission.

Approval of the Gipp Road realignment by the City of Albany Common Council would be required because the City would need to abandon a portion of a City road and dedicate additional land for the realignment.

In addition, if the Gipp Road Realignment were coupled with Alternative 4, it would allow Guilderland residents continued access from/to their properties to/from Western Avenue generally as it exists today, while reducing traffic through the Historic District. City of Albany residents within the Historic District, Pine Lane and other residential development in the City, and commuter traffic traveling north on Rapp Road would be required to access Washington Avenue Extension through Crossgates.

Alternate 7 – Westmere Terrace Cul-De-Sac Extension Route 1

- Construct one way north driveway section from the proposed Westmere Terrace cul-de-sac to connect with Site 1 project parking facilities and drive aisles as shown in Section 9, Figure 16 and Appendix I.
- Allow Westmere Terrace residents only the ability to access Site 1 project parking facilities and drive aisles by implementing an electronic gate access with a key fob system, access triggered by car approach to gate, or other method to ensure that the access is solely intended for Westmere Terrace residents.
- Install proper traffic signage and traffic controls to accommodate the Westmere Terrace cul-de-sac extension.

Discussion.

The Westmere Terrace Cul-De-Sac Extension Route 1 would avoid to the greatest extent practicable impacting the proposed enhanced landscaping and berm to be located at the southern side of Site 1 intended to buffer potential visual and noise impacts from the Project.

This alternative would allow Westmere Terrace residents, who have indicated an existing difficulty with making a left turn at the unsignalized intersection of Westmere Terrace and Western Avenue, an alternative access to Western Avenue through Site 1, to Rapp Road and to the Crossgates Mall Road/Western Avenue signalized intersection.

This alternative allows for the maximum retention of the proposed berm and landscaping along the southern boundary of Site 1.

Alternate 8 – Westmere Terrace Cul-De-Sac Extension Route 2

- Construct one way east driveway section from the proposed Westmere Terrace cul-de-sac to connect with Rapp Road as shown in Section 9, Figure 16 and Appendix I.
- Allow Westmere Terrace residents only the ability to connect with Rapp Road by implementing an electronic gate access with a key fob system, access triggered by car approach to gate, or other method to ensure that the access is solely intended for Westmere Terrace residents.
- Install proper traffic signage and traffic controls to accommodate the Westmere Terrace cul-de-sac extension.

Discussion.

The Westmere Terrace Cul-De-Sac Extension Route 2 would avoid to the greatest extent practicable impacting the proposed enhanced landscaping and berm to be located at the southern side of Site 1 intended to buffer potential visual and noise impacts from the Project.

This alternative would allow Westmere Terrace residents an alternative access to Western Avenue through a driveway connection to Rapp Road and to the Crossgates Mall Road/Western Avenue signalized intersection. This potential alternative will permit residents, who have indicated difficulty with making a left turn at the unsignalized Westmere Terrace and Western Avenue intersection, an alternative route to a signalized traffic light.

This alternative allows for the maximum retention of the proposed berm and landscaping along the southern boundary of Site 1.

Alternate 9 – Rapp Road Realignment – No Direct Thru Traffic

- Rapp Road south of Gipp Road is realigned to connect with the Crossgates Mall ring road west of Macy's as shown in Section 9, Figure 16 and Appendix I.
- The realigned is located within the Town of Guilderland.
- Gipp Road and Pine Lane will continue to have northbound access to Rapp Road.
- Southbound access from Gipp Road and Pine Lane to Rapp Road will remain, but is realigned to connect with the mall ring road.
- Emergency vehicle access through Rapp Road will be provided to avoid the Crossgates Mall Ring Road.

Discussion.

It is anticipated that such a realignment would reduce the current number of vehicles traversing Rapp Road by utilizing the Crossgates Mall ring road and Crossgates Mall Road. Drivers would be expected to utilize Crossgates Mall ring road and Crossgates Mall Road Rapp Road traveling

north to reach Washington Avenue Extension. By doing so, a reduction in number vehicles traveling north through the Historic District may be achieved.

3.6 Land Use and Zoning

3.6.1 Town of Guilderland Zoning

Zoning for the area is Transit Oriented Development District (“TOD). All of the Sites are located within the TOD district enacted by the Town Board in June 2018. See, Guilderland Zoning Law §280-18.1. Permitted uses in the TOD district include a broad range of residential, general and commercial goods and services such as local shopping centers and regional shopping centers, gasoline service stations, restaurants, motels and apartment buildings. Specifically, all uses within the existing Multiple Residence and General Business districts are authorized by either issuance of a Special Use Permit or Site Plan approval. The Rapp Road site, however, only authorizes Multiple-Family Dwellings, plus commercial use on the first floor up to 4,000 square feet.

3.6.2 Existing Land Use

Properties immediately surrounding the Sites include individual businesses such as restaurants, gas stations, a bank and a real estate office, single family residences and vacant land. See, Section 9, Figure 11.

National Grid power line property exist along the north and west borders of Site 1. The adjacent area is dominated by commercial uses, including Crossgates Mall, Crossgates Commons and significant office development along Washington Avenue Extension and U.S. Route 20. Residential subdivisions exist further to the west and north and also located to the south off of US Route 20.

3.6.3 Site 1

3.6.3.1 Potential Impacts

The proposed action is consistent with existing TOD zoning and complies with all setback and buffering standards, therefore, no adverse impact is expected in the build condition. The use proposed for Site 1 complies in all respects to the TOD requirements and no variances are requested. The use of Site 1 for residential apartments is appropriate and was established in the TOD as the only allowable use at this location given its proximity to the residential developments on Westmere Terrace and Paden Circle.

3.6.3.2 Mitigative Measures

There are no potential significant adverse environmental impacts relative to land use and zoning, however the following measures have been incorporated into the proposed action.

To address potential visual and noise comments that were raised by residents to the south and west of the Site, the project sponsor collaborated with residents residing to the south and west of Site 1, modified the site plan and included certain site enhancements, as depicted on the Site Plans:

- A new cul-de-sac will be constructed on tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).
- A 20-foot high berm along the southern boundary of the Project site is proposed.
- A double row of 12-15 foot high pine trees along the southern boundary of Site 1 across the top of the berm referenced above.
- The relocated cul-de-sac, berm and plantings shall be constructed prior to construction taking place on the Site 1.
- A double row of 8-10-foot tall pine trees along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace) owned by the applicant.
- A 6-foot high solid panel vinyl fence in the following locations:
 - a. along the top of the 20-foot berm referenced in above at the southern boundary of Site 1; the fence will run from the northwest boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace) to the northeast boundary of parcel number 52.10-1-6 (31 Westmere Terrace).
 - b. along the western boundary of tax map parcel number 52.09-4-43.2 (28 Westmere Terrace).
 - c. along the northern boundary of tax map parcel number 52.09-4-43.1 (24-26 Westmere Terrace).
 - d. along the northern boundary of tax map parcel number 52.10-1-6 (31 Westmere Terrace).
- The existing wood fence along the western boundary of tax map parcel number 52.10-1-25 will be replaced with a 6-feet high solid vinyl fence.
- The Applicant will install parking lot light poles that are no higher than 12-feet in the southern most parking lot closest to Westmere Terrace. The exterior lighting will conform to Town Code section 280-28(C) (2), (3) and (4).
- The Applicant will endeavor to not remove on-site mature trees near the southern property boundary unless necessary for building development and site improvements so that these existing mature trees may aid as a natural buffer to the Westmere Terrace neighborhood in addition to the substantial proposed landscaping shown on the Site Plan.
- The berm along the western border will be planted with 12-15 foot tall double row of trees.

The Site Plan respects the 200 foot natural vegetative buffer along the northern portion of Site 1 which acts as a buffer to the properties located to the north of Site 1, and will screen the Project from view of the residents to the north. Additional plantings will be placed on the existing berm located on the western portion of the Site. Section 9, Figure 2 and 9.

3.6.4 Sites 2 and 3

The proposed and potential developments analyzed for Sites 2 and 3 are permitted uses in the TOD zone subject to issuance of a special use permit by the Zoning Board of Appeals. Land uses in the immediate vicinity of the Sites are predominantly commercial in character. The adjacent area is dominated by commercial uses, including Crossgates Mall, and significant retail and office development along Washington Avenue Extension and U.S. Route 20. The Sites were part of a former single family residential area. However, single family and two family homes are no longer permitted in this location. See, Section 9, Figure 11 and Guilderland Zoning Law §280-18.1.

No additional mitigative measures are proposed since no adverse impacts are anticipated.

3.7 Character of the Community/Neighborhood

3.7.1 Site 1 Character of the Community/Neighborhood

3.7.1.1 Existing Conditions

Site 1 is vacant land located to the immediate west of Crossgates Mall and on the west side of Rapp Road. A National Grid power line right of way borders the western boundary. Further to the west of Site 1 is a residential neighborhood (Paden Circle), as well as on the southern border (Westmere Terrace). A residential neighborhood is also located to the north of Site 1 within the City of Albany. The Site is located on a commuter road, Rapp Road (Urban Minor Arterial), that links two Principal Arterials, U.S. Route 20 and Washington Avenue Extension and bisects the residential neighborhood to the north. See Section 9, Figure 11.

3.7.1.2 Potential Impacts

Due to specific restrictions in the TOD District for property west of Rapp Road, only multi-family dwellings, which may include certain ground floor commercial uses, are allowed on this site. The two-story buildings are situated to the western side of the Site. The five story buildings are situated in closer proximity to Rapp Road which is consistent with the TOD height design strategy for higher buildings to be situated farther away from residentially zoned properties.

Construction of the Project will remove existing vegetation and produce noise and possible dust impacts which will be temporary in nature.

During operation, Site lighting will be provided to illuminate the several parking fields throughout the development. Consistent with Town requirements, the parking lot lighting will not exceed 16 feet in height from finished grade and shall have cutoff type luminaires to prevent light above the fixture.

3.7.1.3 Mitigative Measures

As depicted on the Site Plan (Section 9, Figure 2), the Site will be generously landscaped with an emphasis on native plant material to achieve a visually appealing site with appropriate site screening. Within parking areas, plant materials will be selected which are able to withstand the weight of snow cleared from the parking lot, are able to withstand heat and drought, and do not create blind corners and intersections for drivers. Plantings include:

Street Trees:

- *Acer rubrum* (Red Maple)
- *Platanus x acerifolia* 'Bloodgood' (Bloodgood London Planetree)
- *Tilia cordata* (Littleleaf Linden)
- *Zelkova serrata* (Zelkova)

Evergreen Trees:

- *Pinus strobus* (Eastern White Pine)
- *Pinus sylvestris* (Scotch Pine)

Flowering Trees:

- *Amelanchier grandiflora* 'Autumn Brilliance' (Autumn Brilliance Serviceberry)
- *Cercis canadensis* (Eastern Red Bud)
- *Cornus alternifolia* (Pagoda Dogwood)
- *Crataegus crusgalli inermis* (Thornless Cockspur Hawthorn)

Foundation & Accent Shrubs:

- *Amelanchier Canadensis* (Serviceberry)
- *Callicarpa Americana* (Beautyberry)
- *Cephalanthus occidentalis* (Buttonbush)
- *Cornus racemose* (Gray Dogwood)
- *Cornus sericea baileyii* (Red Twig Dogwood)
- *Forsythia x 'Northern Gold'* (Northern Gold Forsythia)
- *Hamamelis virginiana* (Witchhazel)
- *Hydrangea macrophylla* (Bigleaf Hydrangea)
- *Ilex glabra* (Inkberry)
- *Lindera benzoin* (Spicebush)
- *Rhus aromatic 'Gro-Lo'* (Gro Lo Sumac)
- *Spiraea x bumalda 'Anthony Waterer'* (Anthony Waterer Spiraea)
- *Viburnum tomentosum* (Doublefile Viburnum)

As noted above, the Applicant's collaboration with residents residing to the south and west of Site 1 resulted in changes to the Site Plan, including the provision of additional landscaping which is detailed in Section 3.6.3. The Project Sponsor also proposed, as follows:

- All construction work will comply with the Town's Noise Ordinance. In addition,

construction hours for building construction and site work on the site near Westmere Terrace shall be between 7:00 AM and 5:00 PM, Monday through Friday and 9:00 AM to 4:00 PM on Saturday with no construction activities on Sundays or holidays. This limitation shall not apply to construction work being performed within the interior of any buildings after building walls have been constructed, or exterior building or site work being performed, for example landscaping work, or masonry work on the outside of buildings, etc., within acceptable dBA levels set forth in the noise ordinance. The applicant will continue to work with the Westmere neighbors to minimize disruptions during construction.

Potential dust from construction is addressed in the SWPPP and includes watering practices to avoid such potential impacts. See, Binder 2, Appendix J.

The potential use of native “Pine Bush” species for screening atop the existing and proposed berms is not proposed at this time. Because the purpose of the proposed landscaping is to act as a visual screen between the project and the neighboring properties, “Pine Bush” vegetation species is not preferred. Moreover, maintaining the thick vegetation in the northern berm will encourage wildlife species to continue to migrate to the north and west of the site and act as a buffer to the land uses to the north. It is not the intent of the Project to possibly attract endangered species away from the established corridor area located to the north of the Site with native plantings, but such plantings may be incorporated into the Project landscaping during site plan review. The Site currently does not provide any habitat for such species and in such condition fulfills the Management Plans goals to encourage migration to the north and west away from Site 1.

Site and parking lot lighting will be located and screened without intruding upon the environment or neighboring properties. Based on the proximity of the Site, sodium vapor lighting is proposed so as to reduce the attraction of such lighting on insects. The lighting will be at least 200 feet south of the established Albany Pine Bush corridor located north of Gipp Road and will conform to the 0.2 foot-candle limit set in the Town Code. The intervening vegetation will further reduce this light to an insignificant level. See, Binder 2, Appendix F.

The Applicant will install parking lot light poles that are no higher than 12-feet in the southern most parking lot closest to Westmere Terrace. The exterior lighting will conform to Town Code section 280-28(C) (2), (3) and (4).

To address potential visual and noise comments that were raised by residents to the south and west of the Site, the project sponsor collaborated with residents residing to the south and west of Site 1, modified the site plan and included certain site enhancements. See Section 3.6.3.2 for further discussion.

3.7.2 Sites 2 and 3 Character of the Community/Neighborhood

3.7.2.1 Existing Conditions

Sites 2 and 3 are located within a primarily vacant residential neighborhood between the existing Crossgates Mall Road and US Route 20. Development along US Route 20 is highly commercial in

character. Existing commercial uses in the general vicinity include gas stations, fast food restaurants, service stations, a funeral home, a church, a real estate office, an office building complex and other commercial uses.

3.7.2.2 Potential Impacts

The redevelopment projects proposed at Sites 2 and 3 are permitted under the TOD zoning district subject to issuance of a Special Use Permit by the Zoning Board of Appeals.

Construction will be limited to the hours specified in the Town code. Potential dust from construction will be addressed in the SWPPP and include watering practices to avoid such potential impacts. Noise will be temporary in nature. Demolition of thirteen (13) structures will occur. Structures will be subject to lead and asbestos surveys and demolition will occur in accordance with the Town's permitting requirements. See, Binder 2, Appendix K.

During operation, Site lighting will be provided to illuminate the parking fields throughout the development consistent with Town Code requirements.

3.7.2.3 Mitigative Measures

To maintain a visual continuity throughout Site 2, landscaping associated with Costco will be consistent with existing landscaping in the vicinity at Crossgates Mall. The landscaping plan will include a variety of tree and plant materials compatible with local soils and climatic conditions in a variety of sizes and colors to provide continuous foliage throughout the year. A mixture of plant species will be selected so that if a specific disease or insect strikes one type of plant, others will be in place that will not be affected. Section 9, Figure 15.

Ornamental trees, shrubs, and ground covers will be planted adjacent to the building within planting beds. Plant material will be selected on the basis of the following characteristics: hardiness, aesthetics, growth characteristics, safety, and ability to withstand sun and shade. Plant material will be planted in masses in order to create a pleasing landscape. No invasive plant species shall be used.

Existing fences and landscaped berms along Crossgates Mall Road will continue to be maintained except at the proposed Gabriel Terrace Extension Road location.

3.7.2.4 Mitigative Measures applicable to Sites 2 and 3

- Construction equipment will be properly muffled in accordance with all applicable regulations.
- Equipment will be required to be properly maintained to reduce noise and vibration.
- The site will be required to be maintained in an orderly manner during all construction periods. Crews will be responsible for daily policing of the site and removing wastes to a central, fenced area for collection prior to disposal.

- All packaging, demolition and construction debris will be promptly removed from the site by a private waste-hauler and disposed of in an approved construction and demolition debris landfill.
- Demolition of the structures will be in accordance with all state and local laws, rules and regulations.
- Dust suppression measures will be implemented as required during dry conditions.
- Erosion control measures will be implemented in accordance with the approved SWPPPs.

3.8 Schools, Community Facilities and Services

This section discusses existing local services, including medical, educational, police, ambulance, and fire protection services. Existing public utilities are also described including wastewater, water supply, electric and telephone.

3.8.1 Existing Conditions

3.8.1.1 Police Protection

Police protection in the Town of Guilderland is provided by the Guilderland Police Department. The Department currently provides 24 hour coverage of the Town with a staff of four sergeants and 26 patrol officers. The Police Department operates with a traffic safety unit, a community services unit and a criminal investigative unit staffed with two investigators and a senior investigator. The Police department also oversees the operations of Guilderland Emergency Services

The New York State Police also patrol the area.

The Albany County Sheriff's Department provides lock-up facilities at the Albany County Jail.

3.8.1.2 Fire Protection

The Town of Guilderland receives fire protection from six volunteer fire companies. The Sites are within the jurisdiction of the Westmere Fire District and its 63 active volunteers. The fire station is located on Route 20 about one half mile from Crossgates Mall. The department covers approximately 12 square miles within the Town of Guilderland with calls dispatched from the Guilderland Police Dispatch.

The Department reports an average response time of 5-6 minutes, handling about 375-450 calls annually.

The Westmere Volunteer Fire Department is equipped with the following vehicles:

- One pick-up truck used to carry firefighters attending training or performing non-emergency fire work, for the Town's Firefighter Assist and Search Team (FAST), and as a back-up rescue vehicle;
- 4 pumper trucks with a minimum of a 500 gallon water tank, maximum of 750 gallon water tank, and a minimum pump of 500 GPM and maximum of 1,500 GPM;
- 1 aerial ladder truck with a maximum height 89 feet, equipped with a 1,500 GPM pump, ground ladders, rescue equipment and thermal imager;
- 1 heavy rescue truck equipped with the jaws of life, air bags, rescue ropes and harnesses, compressed air foam system and spare air cylinders; and
- 2 Chief Cars

3.8.1.3 Ambulance Service

Rescue and emergency transportation for the area is provided by Guilderland Emergency Services (GEMS) which took over from the Western Turnpike Rescue Squad which ceased operations at the end of 2018. GEMS is a Town operated service that operates as a division of the Town Police Department. It has approximately 25 paramedics, 21 EMTs and operates out of stations at Centre Drive and Carmen Road.

In 2018 GEMS responded to 5659 calls. GEMS transports individuals from these areas to St. Claire's, Ellis, Albany Medical Center, St. Peter's or Albany Memorial hospitals, as indicated.

Dispatch for emergency and rescue services is handled by the Town of Guilderland Police Department, Communications Division.

3.8.1.4 Schools

The District has five elementary schools, one middle school and one high school. The area is served by the Westmere Elementary School.

Three private elementary schools are located in the Town of Guilderland: the Hebrew Academy of the Capital District, Christ the King, and St. Madeline Sophie.

According to the New York State Department of Education statistics, enrollment at the Guilderland School District has decreased by 89 students from academic year 2013/2014 through 2017/2018. In the last academic year class sizes have ranged from 326 students in the 2nd grade to 412 students in the 12th grade. In 2001, the District enrollment was at its peak with 5,694 students. In 2017, there were 4,836 students, a decrease of 858 students (approximately 15 %) since 2001.

3.8.1.5 Water Service

Based on the Town of Guilderland Department of Water and Wastewater Management 2018 Annual Report, the Town of Guilderland draws water from three different sources: The Watervliet Reservoir, processed at the Town of Guilderland Water Treatment Plant (WTP); three Town owned wells; and

fully treated water from The City of Albany which obtains its raw water from the Alcove Reservoir. In addition, the Town has four storage tanks, Relyea, Westmere, Fort Hunter, and Guilderland Water Treatment Plant Clearwell. The Guilderland Filtration Plant is designed to operate at a capacity of 5.0 million gallons per day (MGD).

Under existing conditions, Site 1 and Site 3 are undeveloped and generate an average daily domestic water demand of 0 GPD. Site 2 is comprised primarily of abandoned single family homes, with homes occupied at 8 Gabriel Terrace and 8 Rielton Court. 8 Gabriel Terrace is a three bedroom single family home built in 1961, 8 Rielton Court is a three bedroom single family home built in 1950. Calculations for the average daily domestic water demand for the two homes is below. The calculation assumes that the homes have been updated since their construction and utilize post 1994 plumbing code fixtures. The 110 gallons per day per bedroom is taken from the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014).

$$Q = (6 \text{ bedrooms} \times 110 \text{ GPD}) = 660 \text{ GPD}$$

A water line, at least 8" in size, is located along Western Avenue (US Route 20) for connection to the system. There is a Town water pump station located immediately adjacent to Site 1. Adequate supplies of potable water are available to serve the proposed projects.

3.8.1.6 Sewer Service

3.8.1.6.1 Sites 1, 2 and 3

Site 1 is within the Town sewer district. Wastewater from this area in Town is transferred to the Dillenbeck pump station which flows to and is treated by the Albany County Wastewater Treatment Plant. Guilderland maintains collector and interceptor sewers as part of this system. Waste is directed by gravity flow to the collector sewers.

The Town of Guilderland Department of Water & Wastewater Management provides sewer services to more than 25,000 customers in the Town of Guilderland by collecting wastewater for high-level treatment. The Town's systems meets or exceeds the standards set by the Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH). Based on consultation with the Town's Water/Wastewater Department, the Town's sewer service is adequate to meet the current and future needs of the town and accommodate the applicants proposed development.

Under existing conditions, Site 1 and Site 3 are undeveloped and generate an average daily sewer demand of 0 GPD. Site 2 is comprised primarily of abandoned single family homes, with homes occupied at 8 Gabriel Terrace and 8 Rielton Court. 8 Gabriel Terrace is a three bedroom single family home built in 1961, 8 Rielton Court is a three bedroom single family home built in 1950. Calculations for the average daily sewer demand for the two homes is below. The calculation assumes that the homes have been updated since their construction and utilize post 1994 plumbing code fixtures. The 110 gallons per day per bedroom is taken from the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014).

$$Q = (6 \text{ bedrooms} \times 110 \text{ GPD}) = 660 \text{ GPD}$$

Site 1, 2 and 3 are part of the Town of Guilderland sewer district. The Town's sewer services are adequate to meet the current and future needs of the town and accommodate the applicants proposed development for Site 1, 2 and 3.

3.8.2 Potential Impacts

3.8.2.1 Police Protection

Current manpower and equipment capacities are anticipated to be adequate to meet the additional demand generated by the proposed projects. The Town will receive substantial tax revenues from the project that will more than offset any increased service demands.

3.8.2.2 Fire Protection

Current manpower and equipment capacities are anticipated to be adequate to meet the additional demand generated by the proposed projects. The Town will receive substantial tax revenues from the project that will more than offset any increased service demands.

3.8.2.3 Ambulance Service

Current manpower and equipment capacities are anticipated to be adequate to meet the additional demand generated by the proposed projects. The Town will receive substantial tax revenues from the project that will more than offset any increased service demands.

3.8.2.4 Schools

Based on the planned single-two bedroom units, the location and target audience of the development in Site 1 for young professional and empty nesters, it is not anticipated that there will be a significant amount of school age children added to the Town of Guilderland. The School District will receive substantial tax revenue from the Project which will more than offset the costs from any additional students.

While believed to be on the high side, national statistics from Rutgers and the National Association of Homebuilders estimate that multi-family housing could generate between 0.22 and 0.36 school age children per unit. At 222 units, multiplied by the average of the two statistics, it is estimated that Site 1 could yield 64 new school age children at a stabilized occupancy which is expected to be approximately three years from grand opening. According to data prepared by the CDRPC based on the 2000 Census, for newer residential construction in Albany County (outside of Albany City) apartments generated 0.03 school age children/unit. For southern Saratoga County, apartments generated 0.24 school age children/unit. These potential new student metrics are significantly less than new enrollment that might be generated by single family homes. See, presentation by Town Planner to the Town Board posted on the Town's website at https://www.townofguilderland.org/sites/guilderlandny/files/uploads/town_board_development_powerpoint_presentation_2018-12-18_-_final.pdf. According to CDRPC (2000 Census), single

family homes generated 0.81 and 0.73 school age children/unit in Albany and Saratoga County, respectively.

The School District will receive substantial tax revenue from the Project which will more than offset the costs from any additional students. While these figures are not intended to be binding on the applicant or the Guilderland Tax assessor, it is projected that a future assessed value for the Site at full build out would be in the range of \$ 18,799,326. Annual revenues to the School District are estimated to be \$437,778.

3.8.2.5 Water Service

3.8.2.5.1 Site 1

Based on the Town of Guilderland Department of Water and Wastewater Management 2018 Annual Report, the Town of Guilderland draws water from three different sources: The Watervliet Reservoir, processed at the Town of Guilderland Water Treatment Plant (WTP); three Town owned wells; and fully treated water from The City of Albany which obtains its raw water from the Alcove Reservoir. In addition, the Town has four storage tanks, Relyea, Westmere, Fort Hunter, and Guilderland Water Treatment Plant Clearwell. The Guilderland Filtration Plant is designed to operate at a capacity of 5.0 million gallons per day (MGD).

Site 1 will require an additional 37,060 gallons per day (GPD). Water service will be supplied to the Site by a new connection to the existing municipal water main within Rapp Road and looped to the water system within Westmere Terrace (See Figure 17A, Section 9). Adequate capacity exists to accommodate the needs at Site 1. Based on the Town of Guilderland Department of Water and Wastewater Management 2018 Annual Report, Site 1 will generate between approximately \$53,740.00 and \$72,270.00 in water district/use fees. See Binder 2, Appendix M.

Water is currently supplied and available to Site 1 by the Town of Guilderland Westmere Water District. Additional water demands for these areas will also be supplied by the Westmere Water District. Currently, there is no water usage at Site because it is vacant land.

Site 1 proposes apartment units within two five-story buildings and three two-story buildings. These buildings will have a 222 units with a mix of one- and two-bedroom units for a total of 333 bedrooms. The anticipated water demand and sewage loading is calculated using the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014) standard of 110 gallons per day (gpd) per bedroom. In addition, the approximately 4,300 sf commercial space is calculated using an estimated loading of 0.1 gpd per sf. As such, the anticipated average daily domestic water demand for the proposed development serviced by The Town of Guilderland's water and sewer infrastructure is as follows:

$$Q = (333 \text{ bedrooms} \times 110 \text{ GPD}) + (3,900 \text{ sf} \times 0.1 \text{ GPD}) = 37,020 \text{ GPD}$$

Water service will be supplied to the Site by a new connection to the existing municipal water main within Rapp Road.

Water is currently supplied and available to Site 1A by the Town of Guilderland Westmere Water District. Additional water demands for these areas will also be supplied by the Westmere Water District. Currently, there is no water usage at Site because it is vacant land.

Site 1A proposes 90 apartment units with a mix of one- and two-bedroom units for a total of 135 bedrooms. The anticipated water demand and sewage loading is calculated using the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014) standard of 110 gallons per day (gpd) per bedroom. The anticipated average daily domestic water demand for the proposed development serviced by The Town of Guilderland's water and sewer infrastructure is as follows:

$$Q = (135 \text{ bedrooms} \times 110 \text{ GPD}) = 14,850 \text{ GPD}$$

Based on information supplied by Town officials, the Westmere Water District has adequate capacity to meet this additional demand.

3.8.2.5.2 Sites 2 and 3

At Site 2, as a retail facility, Costco is a relatively low demand user of water resources. Binder 2, Appendix N, "Site 2 Engineering Report," projects water supply requirements for the Costco. The daily water use per day for use is projected to be approximately 5,500 gallons (GPD). It is significant to note that this demand is also "off-peak," on both a daily and seasonal basis from the higher demand levels generated by other users of the supply and distribution systems. Based on information supplied by Town officials, the Westmere Water District has adequate capacity to meet this additional demand.

Water service will be supplied to the Site via the existing pipe network that exists on-site (See Figure 17A, Section 9). Adequate capacity exists to accommodate the needs at Site 2. Based on the Town of Guilderland Department of Water and Wastewater Management 2018 Annual Report, Site 2 will generate approximately \$6,900.00 in water district/use fees.

Site 3 proposes the potential development of a 115,000 square foot commercial space, 50,000 square foot office space and 48 multi-family apartments. The 48 multi-family apartments would have a mix of one- and two-bedroom units for an estimated total of 72 bedrooms. The anticipated water demand and sewage loading is calculated using the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014) an estimated loading of 0.1 gallons per day (gpd) per square foot for the commercial space, 0.1 gpd per square foot for office space and 110 gpd per bedroom for the residential space. As such, the anticipated average daily domestic water demand and sewage loading for the proposed development serviced by The Town of Guilderland's water and sewer infrastructure is as follows:

$$\begin{aligned} Q &= (115,000 \text{ sf} \times 0.1 \text{ GPD}) + (50,000 \text{ sf} \times 0.1 \text{ GPD}) + \\ &(72 \text{ bedrooms} \times 110 \text{ GPD}) \\ &= 24,420 \text{ GPD} \end{aligned}$$

Water service will be supplied to the Site by the extension of the water lines from the newly constructed Hotel to the existing infrastructure on-site to create a water system loop (See Figure 17A,

Section 9). Adequate capacity exists to accommodate the needs at Site 3. Based on the Town of Guilderland Department of Water and Wastewater Management 2018 Annual Report, Site 3 will generate approximately \$25,320.00 in water district/use fees.

3.8.2.5.3 Cumulative Analysis Water

Water is proposed to service the project site from a main in Western Avenue. Hydrant flow testing data, performed by Guardian Fire Protection Inc. Theoretical fire flow calculations were performed based on the hydrant flow testing data. Based upon the hydrant flow testing data the Rapp Road Residential/Western Avenue Mixed Use Redevelopment Project area is projected at 4,536 for 20 psi.

$$Q_R = Q_F \times (H_R / H_F)^{0.54}$$

Where:

Q_R = Rated Capacity (gpm) at 20 psi

Q_F = Total Test Flow

H_R = $P_S - 20$ psi

H_F = $P_S - P_R$

P_S = Static Pressure

P_R = Residual Pressure

Western Avenue Hydrant:

P_S = 73 psi

P_R = 70 psi

H_R = 73 psi – 20 psi = 53 psi

H_F = 73 psi – 70 psi = 3 psi

Q_F = 962 gpm

$Q_R = (962 \text{ gpm}) \times (53 \text{ psi} / 3 \text{ psi})^{0.54}$

$Q_R = 4,536 \text{ gpm}$

Based on this hydrant flow testing, there is sufficient flow to the site for fire protection.

For purposes of planning for the project as it relates to fire suppression demands, Table b105.1(2) in Appendix B of the 2015 International Fire Code was referenced to correlate the range of building sizes, the various types of building construction back to a fire flow in gallons per minute. A copy of Table b105.1(2) is highlighted below to show that based on fire flows up to 4,250 gallons per minute that depending on the type of building construction can range from 0-164,200 SF in size. The buildings proposed on Sites 1-3 would all fall within the 0-164,200 SF range and the type of building construction on any of the buildings could fall within the various categories to achieve the required fire flow. Note this is being used for planning purposes only and at the time of the building permit for any of the proposed buildings in the building plans fire suppression system design and specific flow needs for the type of building construction would need to be designed and submitted as part of the building permit process. It should also be noted that additional

measures for fire protection could be implemented as part of the detailed design of the buildings and things like water storage tanks and/or fire pumps could be introduced to the building designs that could also support the fire protection designs.

APPENDIX B

FIRE-FLOW CALCULATION AREA (square feet)					FIRE-FLOW (gallons per minute) ^a	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V-A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	3
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	4
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.

b. Measured at 20 psi residual pressure.

It is expected that development of Site 1, 1A, 2 and 3 will require 81,830± GPD of additional water from the system. The capacity of the current system is approximately 5 million gallons per day (MGD).

Below is a table summarizing the total average day demands for each site by use and the total average daily demand, maximum demand and peak hourly demand for the three project sites.

Cumulative Summary of Anticipated Water Demand

Use	No. of Units	Hydraulic Loading (GPD)	Average Day Demands (GPD)
Site 1			
Apartments	333 bedrooms	110 / unit	36,630 GPD

Commercial	3,000 sq.ft	0.1 / unit	430	GPD
Site 1A¹				
Apartments	135 bedrooms	110 / unit	14,850	GPD
Site 2				
Commercial	160,000 sq.ft.	5,500	5,500	GPD
Site 3				
Commercial	115,000 sq.ft.	0.1 / unit	11,500	GPD
Office	50,000 sq.ft.	0.1 / unit	5,000	GPD
Apartments	72 bedrooms	110 / unit	7,920	GPD
Average Day Total			81,830	GPD
Maximum Day (2x Average Day)			163,660	GPD
Peak Hourly (4x Average Day)			327,320	GPM

There is an increase of 81,170 GPD compared to the cumulative existing demand of Sites 1, 2 and 3. The Town's water system possesses sufficient capacity to serve the anticipated combined water demand from Sites 1, 2 and 3.

3.8.2.6 Sewer Service

3.8.2.6.1 Site 1

The existing sewer system will be extended to service Site 1 from Westmere Terrace. Wastewater from this area in Town is transferred to the Dillenbeck pump station which flows to and is treated at the Albany County North Wastewater Treatment Plant. Guilderland maintains collector and interceptor sewers as part of this system. Adequate capacity exists within the eight-inch main in Westmere Terrace to convey the anticipated sewer demand generated by Site 1. See, Binder 2, Appendix M.

Site 1 proposes apartment units within two five-story buildings and three two-story buildings. These buildings will have 222 units with a mix of one- and two-bedroom units for a total of 333 bedrooms. The anticipated water demand and sewage loading is calculated using the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014) standard of 110 gallons per day (gpd) per bedroom. In addition, the approximately 3,900 sf commercial space is calculated using an estimated loading of 0.1 gpd per sf. As such, the anticipated average daily sewage loading for the proposed development serviced by The Town of Guilderland's water and sewer infrastructure is as follows:

$$Q = (333 \text{ bedrooms} \times 110 \text{ GPD}) + (3,900 \text{ sf} \times 0.1 \text{ GPD}) = 37,020 \text{ GPD}$$

3.8.2.6.2 Sites 2 and 3

As indicated in the Table below, the total anticipated sewage flow for the Costco retail use is estimated to be 5,500 GPD.

¹ Site 1A at this time is conceptual only. Values generated as part of Site 1A have been included as a conservative approach.

Site 3 proposes the potential development of a 115,000 square foot commercial space, 50,000 square foot office space and 48 multi-family apartments. The multi-family apartments will have a mix of one- and two-bedroom units for an estimated total of 72 bedrooms. The anticipated water demand and sewage loading is calculated using the *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems* (March 5, 2014) an estimated loading of 0.1 gallons per day (gpd) per square foot for the commercial space, 0.1 gpd per square foot for office space and 110 gpd per bedroom for the residential space. As such, the anticipated average daily domestic water demand and sewage loading for the proposed development serviced by The Town of Guilderland’s water and sewer infrastructure is as follows:

$$Q = (115,000 \text{ sf} \times 0.1 \text{ GPD}) + (50,000 \text{ sf} \times 0.1 \text{ GPD}) + (72 \text{ bedrooms} \times 110 \text{ GPD})$$

$$= 24,420 \text{ GPD}$$

3.8.2.6.3 Cumulative Analysis Sewer

Wastewater is currently directed by gravity flow to the collector sewers, which ultimately discharge to the Dillenbeck Pump Station.

Costco, plus the additional potential development at Site 3, will add 29,920± GPD of wastewater to the system. Rapp Road Residential Development at Site 1 will add 51,910± GPD of wastewater to the system for a total 81,830± GPD of wastewater.

Below is a table summarizing the total average day demands for each site by use and the total average daily demand, maximum demand and peak hourly demand for the three project sites.

Summary of Anticipated Sewer Loading

Use	No. of Units	Hydraulic Loading (GPD)	Average Day Demands (GPD)
Site 1			
Apartments	333 bedrooms	110 / unit	36,630 GPD
Commercial	3,900 sq.ft.	0.1 / unit	390 GPD
Site 1A²			
Apartments	135 bedrooms	110 / unit	14,850 GPD
Site 2			
Commercial	160,000 sq.ft.	5,500	5,500 GPD
Site 3			
Commercial	115,000sq.ft.	0.1 / unit	11,500 GPD
Office	50,000 sq.ft.	0.1 / unit	5,000 GPD
Apartments	72 bedrooms	110 / unit	7,920 GPD
Average Day Total			81,790 GPD
Maximum Day (2x Average Day)			163580 GPD
Peak Hourly (4x Average Day)			327,160 GPM

The Town of Guilderland Department of Water & Wastewater Management provides sewer services to more than 25,000 customers in the Town of Guilderland by collecting wastewater for

² Site 1A at this time is conceptual only. Values generated as part of Site 1A have been included as a conservative approach.

high-level treatment. Based on the analysis above and consultations with the Department of Water & Wastewater Management, the Town's systems meets or exceeds the standards set by the Department of Environmental Conservation (DEC) and the New York State Department of Health (DOH).

Site 1, 2 and 3 are part of the Town of Guilderland sewer district. There is an increase of 81,170 GPD compared to the cumulative existing demand for Sites 1, 2 and 3. The Town's sewer service is adequate to meet the current and future needs of the Town and accommodate the applicants proposed development for Site 1, 2 and 3. See Binder 2, Appendix R, Town of Guilderland Water and Wastewater Will Serve letter.

3.8.2.7 Alternate Distribution to Nott Road Wastewater Treatment Plant

An alternate to the project discharging to the Dillenbeck Pump Station would be to redirect the flows from the project area to the receiving sewers that convey sewer to the Nott Road wastewater treatment plant. It has been reported that the Nott Road WWTP has a permitted facility design flow of 3.60 MGD and is operating under capacity.

Redirecting existing and future demand to the Nott Road WWTP will require new distribution infrastructure, a new pump station to be constructed at the Project, as well as improvements to the municipal sewer network from the terminus manhole, near the intersection of Johnston Road and Western Avenue to Ashford Drive. The new pump station would be located near the newly constructed hotel. Approximately 4,900 linear feet of new sewer lines would be required to be extended from the new pump station along Crossgates Mall Road to Johnston Road and connect near the intersection of Johnston Road and Ashford Drive (See Section 9, Figure 17B).

Under existing conditions, per conversations with the Town Water/Wastewater Department and record drawings, the eight-inch sanitary sewer main within Johnston Road experiences a bottleneck where the slope of the main is approximately 0.27% and is underperforming. The existing sanitary sewer main between Johnston Road and Ashford Drive would be required to be upgraded to a ten-inch main with adequate slope, creating more capacity within the line. The existing eight-inch main, at the bottleneck, has a capacity of approximately 0.76 cfs. Improving the municipal sanitary sewer from the terminus Johnston Road manhole to the Ashford manhole to a 10-inch main would allow for enough capacity to accommodate the increase in flow, as well as alleviate the existing bottleneck in the main. A 10-inch PVC pipe laid at a slope of approximately 0.27%, to match the existing slope, would have a capacity 1.14 cfs (737,133 GPD; 512 GPM) of flow, enough to handle the flow generated by the Project.

3.8.3 Mitigative Measures

3.8.3.1 Police Protection

No mitigative measures are proposed since no significant adverse impacts are expected.

3.8.3.2 Fire Protection

For firefighting purposes, an extensive sprinkler system will be installed in compliance with local, State, Federal, and insurance company specifications. Hydrants will be provided on the Sites that will also meet the above mentioned specifications.

Adequate pressures exist in the distribution system to supply the exterior site fire hydrants.

The Project Sponsor will continue to work closely with the Westmere Volunteer Fire Department to maintain appropriate fire protection systems for the proposed projects. For instance, the entrance to the Rapp Road residential project as shown on the Site Plan (see Section 9, Figure 1) was previously modified to accommodate the provision of fire trucks entering and exiting the Site.

No mitigative measures are proposed since no significant adverse impacts are expected.

3.8.3.3 Ambulance Service

No mitigative measures are proposed since no significant adverse impacts are expected.

3.8.3.4 Schools

The project will result in significant tax revenues to the Guilderland School District. No mitigative measures are proposed since no significant adverse impacts are anticipated. See Section 3.10 for further information.

3.8.3.5 Water Service

No additional mitigative measures are proposed since no adverse impacts are anticipated.

3.8.3.6 Sewer Service

The Westmere Terrace collection system has adequate carrying capacity to accept the anticipated demand generated by Site 1. In addition, it should be noted that the single-family homes on Lawton Terrace, Gabriel Terrace, Rielton Court, and Tiernan Court, that comprise Sites 2 and 3, have existing sanitary sewer service connections that discharge to the Dillenbeck Pump Station. Currently, 17 of the 19 homes are vacant and therefore not generating flow. If these homes were to be reoccupied, they have the right to discharge to the existing Pump Station, with the existing sanitary sewer connection. Site 1, 2 and 3 are part of the Town of Guilderland sewer district. Based on the above calculations and discussions with the Town's Water/Wastewater Department, the Town's sewer service is adequate to meet the current and future needs of the town and accommodate the applicants proposed development for Site 1, 2 and 3.

No additional mitigative measures are proposed since no adverse impacts are anticipated.

3.9 Air Quality and Noise

3.9.1 Air Quality

3.9.1.1 Existing Conditions

Sites 1, 2 and 3 are located in the Town of Guilderland, Albany County. The climate in Albany, New York is warm during the summer when average temperatures tend to be in the 80's and very cold during winter when average temperatures tend to be in the 30's. The National Oceanic and Atmospheric Administration (NOAA) record this local climate in Albany International Airport, New York. The warmest month of the year is July with high average temperature of 84 degrees Fahrenheit, while the coldest months of the year are January and February with a high average of temperature between 31 and 35 degrees Fahrenheit. Temperature variations between night and day tend to be fairly consistent during summer season with a difference that can reach 22 degrees Fahrenheit, and comparable in winter months with an average difference of approximately 15 to 17 degrees Fahrenheit. The annual average precipitation in Albany is between around 39.35 inches. This locale receives about 60.3 inches of snow per year on average.

NYSDEC monitors air quality throughout the state. There are currently 58 active air monitoring sites in New York State. Parameters observed vary from air monitoring sites. Historically, two (2) monitoring sites have been located within NYSDEC Region 4 in Albany County. These monitoring sites are identified as 0101-33 located in Loudonville at 300 Albany Shaker Road and 0101-13 at the Albany County Health Department at South Ferry and Green Streets, Albany, NY 12202. More recently, a third monitoring site (0101-34) was set up in South Albany located at 274 S. Pearl Street Albany, NY 12202. This monitoring site setup was a result of community concerns of air quality in the South Albany community.

Various parameters are evaluated, such as for carbon monoxide, ozone, particulate matter and sulfur dioxide, etc.

3.9.1.2 Potential Impacts

The first level of "air quality screening" as provided in NYSDOT's The Environmental Manual (TEM) is essentially a review of the traffic analysis consistent with the Highway Capacity Manual (HCM). This Traffic Impact Study was provided by Maser Consulting P.A. and is attached as a separate appendix to the Draft Environmental Impact Statement (DEIS). The TEM provides guidance on determination for a required microscale analysis which is based on the consideration of several standards. See, Binder 2, Appendix P.

Per TEM I-1 Level of Service (LOS) Screening, intersections potentially impacted by the Project must be screened for overall Level of Service (LOS). If the LOS is A, B, or C, no further analyses are required. If any signalized intersections have LOS predicted D, E, or F, significant vehicle queuing may occur and further analysis may be required for up to the three worst intersections. In this case, traffic data was collected from historical NYSDOT data and through field data collection. Sixteen (16) existing intersections and seven (7) new intersections, as listed in Table 2, were analyzed by the traffic engineer. The traffic data included seven (7) signalized intersections and

sixteen (16) unsignalized intersections. LOS was analyzed in the existing (2019), no build (2022, 2025) and build condition (2022, 2025) of the Project in the AM, PM and Saturday phase. The build conditions considered development of Site 1 and redevelopment of Sites 2 and 3. Figure 2 depicts the analyzed intersections in aerial view.

Sensitive receptors (i.e., schools, hospitals, etc.) were located during this air quality analysis for potential impact. In microscale dispersion modeling, link length and queues for intersections are set between 1,000 and 1,200 foot receptor analysis for free flow links. This is required by The Environmental Manual (TEM). Most sensitive receptors observed were outside this required distance. One such receptor, Westmere Elementary School was noted as occurring 700 feet south of proposed Site 2 south of Western Avenue. In addition, a place of worship (i.e., McKownville United Methodist Church) is located within a half a mile of the proposed development. Figure 2 to the air quality report depicts the proposed site locations and receptors in a one mile radius. The ambient air quality standards cited above were set to protect the public health and welfare, including sensitive individuals. Thus, in the end, all such receptors are subject to the same standards.

Twenty-three (23) intersections and unsignalized were analyzed for the AM, PM and peak house scenarios and potential future air quality impacts in the years 2022 and 2025. No significant air quality impacts are anticipated as a result of the buildout of the Project. These analyses were utilized to determine the impacts, if any, to air quality as a result of the proposed action. As provided above, similar Levels of Service and delays will be experienced under the 2022 and 2025 No-Build and Future Build Conditions. Therefore, no significant air quality impacts are anticipated.

3.9.1.3 Mitigative Measures

No mitigative measures are proposed since there are no significant adverse environmental impacts identified. See, Binder 2, Appendix P.

3.9.2 Noise Levels

3.9.2.1 Existing Conditions

A Sound Level Measurements and Impact Review report was prepared by B. Laing Associates to evaluate sound levels that may occur as a result of the Project. The report examined the data at four monitoring locations to establish an existing base line for sound in the area during the AM/PM peak and midday hours. The locations include: Rapp Road (Project Site 1), Lawton Terrace (Project Site 2); Gabriel Terrace (Project Site 3) and McKownville Church/Dunkin Donuts. Existing vehicular traffic was identified as the primary source of sound in the area.

3.9.2.2 Potential Impacts

The report examines the results of Maser Engineering Traffic Impact Study, the anticipated additional traffic that will result and its potential impact on noise levels.

The report concluded: “When compared to the existing condition, the 2022 build-out predicts

increases in traffic levels at varying levels during the various measuring periods. These increases will result in noise level increases of less than 3 dB(A) which are considered unnoticeable to tolerable according to NYSDEC standards shown in Table 3B. No changes are anticipated with vehicle speed or mix that would affect that conclusion.” The report found that there would be no significant noise impacts anticipated at Westmere Terrace or to Rapp and Springsteen Roads, north of Gipp Road in the build condition. Moreover, Westmere Terrace will be further buffered from development by creation of a twenty foot tall berm with landscaping at its northern end as proposed on the Site Plan.

McKownville Church and Westmere Elementary School were identified as potential sensitive receptors in the vicinity. The report concluded that these receptors are already impacted by existing noise/sound levels from Western Avenue and New York State Thruway (I-87.) The anticipated increase in traffic generated by the proposed projects will produce sound pressure level increases of less than 3 dB(A) which will be unnoticeable. In addition, the Westmere Elementary School is situated on Johnston Road, on the opposite side of Western Avenue. This receptor is impacted the existing noise/sound levels from Western Avenue and would experience sound pressure level increases of less than 3 dB(A) which will be unnoticeable.

In summary the report concluded that the “analysis revealed that no significant noise impact will occur as a result of the proposed action.” See, Binder 2, Appendix O.

3.9.3.3 Mitigative Measures

As proposed on the Site Plan, a twenty foot tall berm will be created with landscaping at the northern end of Westmere Terrace. No other mitigative measures are proposed since there are no significant adverse environmental impacts identified. See, Binder 2, Appendix O.

3.10 Municipal Revenues and Finances

3.10.1 Existing Conditions

The proposed action will have a substantial positive impact on municipal revenues and finances within the Town of Guilderland and surrounding municipalities. Currently, Sites 1, 2 and 3 are vacant land within the Town. Based on current tax rates, these properties generate the following in taxes to the Town and School District combined:

	Assessed Value	Town	School District ()
Site 1 (Four Parcels)	\$ 1,299,800	\$ 2,285	\$22,945
Site 2 (Twenty-five Parcels)	\$5,087,531	\$16,645	\$89,809

Site 3 (Thirteen Parcels)	\$ 3,566,769	\$ 13,441	\$62,963
Total	\$ 9,954,100	\$ 32,372	\$175,718

These values do not include existing revenues to Albany County of \$28,259.

3.10.2 Potential Impacts

Based on the single-two bedroom units, the location and target audience of the development in Site 1 for young professional and empty nesters, it is not anticipated that there will be a significant amount of school age children added to the Town of Guilderland. The School District will receive substantial tax revenue from the Project which will more than offset the costs from any additional students.

Upon development of the Projects, the Town and School District will receive significant additional revenues, particularly from the Site 2 development, because, as solely a retail project, it will have no potential adverse impact on School District resources.

Projected Tax Revenues Site 1

Projected Assessment	Town	County	School	Total
\$ 18,799,326	\$ 61,506	\$ 50,633	\$ 331,861	\$444,000

Projected Tax Revenues Site 2

Projected Assessment	Town	County	School	Total
\$ 6,000,000	\$19,630	\$16,160	\$105,917	\$141,707

In addition to the substantial tax revenue benefits, the Project will result in the generation of numerous construction related employment opportunities and other direct and induced benefits.

Based on the analysis by Camoin (Appendix H) Site 1 is expected to generate the following economic benefits:

Annual Economic Impact

Upon Project completion and occupation, Site 1 will have the following ongoing annual economic impacts:

- Significant contribution of new property tax revenue to Albany County, Town of Guilderland, and the School District.
- 76 new jobs along with an associated over \$3.0 million in new wages and over \$9.1 million in new sales in Albany County.

- Nearly \$1.7 million in new wages and nearly \$5.1 million in new sales will be in the Town of Guilderland.

Construction Impact

The construction phase of Site 1 will result in the following one-time benefits:

- 489 new jobs along with an associated nearly \$19.5 million in new wages and over \$50.9 million in new sales in Albany County.
- 159 new jobs along with an associated over \$10.6 million in new wages and nearly \$25.5 million in new sales in the Town of Guilderland.

Site 2 is expected to generate the following economic benefits:

Annual Fiscal Impact

Upon project completion and occupation, Site 2 will have the following ongoing annual fiscal impacts:

- Significant contribution of new property tax revenue to Albany County, the Town of Guilderland and School District.
- New sales tax revenue resulting from on-site sales and employee earnings of an estimated \$2 million to local government.

Annual Economic Impact

Upon Project completion and occupation, Site 2 will have the following ongoing annual economic impacts:

- 142 new jobs along with an associated over \$3.9 million in new wages and over \$114.4 million in new sales in Albany County.
- 187 new jobs along with an associated over \$5.1 million in new wages and over \$133.3 million in new sales in the Town of Guilderland.

Construction Impact

The construction of Site 2 will result in the following one-time benefits:

- 181 new jobs along with an associated nearly \$13.2 million in new wages and over \$34.6 million in new sales in Albany County.

- 75 new jobs along with an associated over \$7.2 million in new wages and nearly \$17.3 million in new sales in the Town of Guilderland.

Site 3 is expected to generate the following economic benefits:

Annual Fiscal Impact

Upon Project completion and occupation, Site 3 will have the following ongoing annual fiscal impacts:

- Significant contribution of new property tax revenue to Albany County the Town of Guilderland and the School District.
- New sales tax revenue resulting from household spending, on-site sales and on-site employee earnings of more than \$90,000 to local government.

Annual Economic Impact

Upon Project completion and occupation, Site 3 will have the following ongoing annual economic impacts:

- 119 new jobs along with an associated nearly \$6.6 million in new wages and nearly \$14.7 million in new sales in Albany County.
- 144 new jobs, over \$10.3 million in new wages and over \$19.1 million in new sales in the Town of Guilderland.

Construction Impact

The construction of Site 3 will result in the following one-time benefits:

- 509 new jobs along with an associated nearly \$20.3 million in new wages and nearly \$53.0 million in new sales in Albany County.
- 165 new jobs along with an associated over \$11.0 million in new wages and nearly \$26.5 million in new sales in the Town of Guilderland.

3.10.3 Mitigative Measures

No potential significant adverse environmental impact has been identified and none is proposed. The Project will result in positive economic benefits.

SECTION 4.0 UNAVOIDABLE ADVERSE IMPACTS

This section of the DEIS identifies any unavoidable impacts which may occur due to construction and operation of each project.

Construction activities may result in dust, odors, fumes, noise and vibrations. Fuel will be consumed. Vegetation will be removed. Increased impervious areas will be created and stormwater runoff handled pursuant to a SWPPP and NYSDEC General Permit Existing vegetated areas will be temporarily or permanently disturbed during and post-construction. However, the land proposed for development has been previously disturbed and the loss of significant wildlife habitat is not anticipated. Solid waste will be generated during and post-construction and can be accommodated by local waste disposal options.

Per Section 3.2.2.2, a small ditch, formerly providing drainage for the now-abandoned bed of old Rapp Road constitutes less than one-tenth of an acre (0.093 acres) of wetlands present on the Site. This area will be filled in accordance with USACOE Nationwide Permit No. 39.

Local services such as water, sewage, solid waste disposal and police and fire protection will be required, however, the tax revenues generated will exceed the cost of supplying such services. Some of these demands will be offset by removal of the existing residences on Sites 2 and 3.

Traffic will be generated; however, upon the opening of the projects, it is expected that current levels service and traffic conditions will be maintained on area roadways.

While the Traffic Study established that levels of service in the build condition would not be degraded at area intersections, alternate transportation options to potentially address the increased traffic concern in upper Rapp Road and the Historic District traffic and easier access for Westmere Terrace residents, were evaluated showing advantages and disadvantages to each option. See Section 3.5.

In summary, the adverse impacts which cannot be avoided consist of short term activities which are local and minor in nature. Alternative traffic options are provided to potentially mitigate perceived impacts, however no improvements were identified to maintain existing levels of services. Nevertheless, as more fully discussed in the Traffic Impact Study, several conceptual improvements were identified and recommended. See Section 3.5.

SECTION 5.0 REASONABLE ALTERNATIVES ANALYSIS

This section of the DEIS discusses potential alternatives to the proposed action, in addition to potential traffic alternatives, which meet the objectives and capabilities of the Applicant.

The following alternatives were examined to afford reviewing agencies and the public the opportunity to assess the implications of the proposed action in relation to other possible alternatives on the Site. It should be noted that land and associated development costs for the Project Sites are extremely high and require a use which generates significant revenue in order to make a reasonable return on the project sponsor's investment.

None of the alternatives examined would achieve either the same or similar objective to that sought by the project sponsor. These alternatives are examined in detail to afford the Town of Guilderland Planning Board, which is evaluating the proposed action, the opportunity to assess the implications of the action in relation to other possible alternatives.

5.1 Alternative Land Uses

The Town of Guilderland Zoning Ordinance permits a range of possible uses for the site. Section 2.3.1 of this DEIS, elaborates on all of the allowed uses for the Sites. The TOD authorizes all site plan uses and special permit uses listed in the GB and MR districts, except several prohibited uses. Only multiple family dwellings, plus ground floor, non-residential uses up to 4,000 SF are permitted within the building and within the TOD west of Rapp Road.

5.1.1 Site 1

Site 1 is located west of Rapp Road and, pursuant to the TOD, no alternative land uses are permitted west of Rapp Road. Therefore, no alternate land uses may be feasibly examined.

5.1.2 Site 2

Of those uses allowed in the underlying General Business and Multiple Residence zones (all of which require a Special Use Permit or site plan approval), several are typical components of a regional shopping center, local shopping center or retail center as proposed at this location and consistent with other uses in the area. Those uses include retail outlets and department stores, automotive accessory and parts stores, appliance and furniture stores, liquor stores, restaurants and fast food establishments (without drive thru), auto repair shops, theaters and places of public assembly, skating rinks, designed local and regional shopping centers, amusement arcades in regional shopping centers, hardware stores, garden supply stores, paint and wallpaper stores, barber or beauty shops, news shops, drug stores, flower shops, and branch banks. Since these uses are consistent with those that are typically found in or in the vicinity of regional shopping centers, and the proposed projects, no additional attention will be given to these. Some, or many of the above, may actually be included in the proposed Project at this time or as uses change in the future.

Uses that are allowed in the General Business zone, but which currently do not meet with the goals and objectives or the ability of the project sponsor to construct and operate on the Project Site, include

commercial schools (barber, dance, art, beauty), public buildings and grounds, hospitals, auto sales (new and used), mobile home sales, recreational vehicle sales, rental of trucks and/or trailers, drive-in theaters, public utilities, betting parlors, animal hospitals, dance and disco halls, equipment rental and storage, newspaper offices or print shops, and radio or television stations. These uses are not within the area of expertise of the project sponsor to develop, lease and/or operate and constitute uses which are incompatible with the ability of the project sponsor to successfully manage on the Project Site. Furthermore, many of the above uses are inconsistent with and incompatible with the operations of the existing businesses and other uses in the area.

At Site 2, the Project involves new redevelopment that will replace an existing, largely unoccupied residential neighborhood. Single family dwellings are prohibited uses in the TOD. The Project will involve redevelopment of houses, streets and other space into retail space and associated infrastructure. A limited portion of the Project involves the conversion of undeveloped or underdeveloped land, including the former location of Rapp Road.

For comparison purposes, this document evaluates the alternative of developing one free standing office buildings at Site 2. Access would be provided by the Town road. The acreage available to support an office use is approximately 15± acres. According to TOD, the maximum allowable lot coverage of structures and parking areas is 75 percent. Additionally, per the TOD, three parking spaces per 1000 square feet of gross floor area is required.

When considering these requirements and applying them to the available land located in the southern portion of the Project Site, approximately 11.25 acres may be buildings, roadways and parking areas (75 percent of 15± acres = 11.25 acres). If the most efficient office building development included one story structure and if three parking spaces per 1000 square feet of gross floor area is required, the following calculations may be made:

362,500 SF of building coverage (2.5 acres) x 4 floors/one building = 362,500 SF (Footprint assumes 108,750 SF – 20% additional for common areas)

362,500 SF GLA, 3spaces/1000 SF GLA/space = 1,088 spaces

124.5 spaces/acre; 1,088 spaces = 8.74 acres

(Assumes 350 SF per parking space for circulation road, interior islands, parking spaces and isles)

2.5 acres of building coverage + 8.74 acres parking = 11.24 acres

11.25 acres is allowable in the zone.

The water requirements for the facility will be approximately 36,250 GPD and a similar amount of sewage can be expected to be generated.

A 362,500 SF office development would employ approximately 1,088 persons based on average figures for worker density for office uses.

The local service demands as it relates to roads, parks and other municipal services would be similar to that required by the retail facilities. However, an office development would be expected to generate more peak hour traffic. This type of facility would not generate sales tax, however. Therefore, net tax revenues to the community will be substantially lower with an office building, compared to the proposed action.

Current vacancy rates within the Albany CBD for Class A, Class B and Class C office space are currently within an unacceptable range for the applicant to undertake the financial risk of an office development of this size and magnitude.

OFFICE MARKET STATISTICS					
MARKET	INVENTORY	OVERALL VACANCY	DIRECT WTD. AVG. CLASS A GROSS RENTAL RATE MODIFIED GROSS	DIRECT WTD. AVG. CLASS B GROSS RENTAL RATE MODIFIED GROSS	DIRECT WTD. AVG. CLASS C GROSS RENTAL RATE MODIFIED GROSS
			psf/yr	psf/yr	psf/yr
Albany CBD					
Class A	1,700,000	204,000 (12%)	\$21.75		
Class B	475,000	187,500 (39%)		\$14.00	
Class C	600,000	300,000 (50%)			\$12.00
*ALBANY CBD Parking— Covered,\$140-170/month— Surface , \$100/month					

5.1.3 Site 3

Retail, office and residential redevelopment of Site 3 may be developed at some point in the future. No other land uses are within the capabilities of the project sponsor. The maximum square footage that may be developed was evaluated in the DEIS. Increasing the scale would likely require one or more variances from the Zoning Board of Appeals and depending upon the required number of parking spaces that would be required to support the use and the provision of sufficient greenspace.

5.2 Alternative Scale of Retail Facility

A retail center of a smaller or larger scale than the redevelopment at Site 2 is possible. However, this Project is tenant driven by a new use to this market area and specific demands for required space for their stores. Similarly, financing of a retail facility requires tenant commitments at a level anticipated for the proposed redevelopment Project at Site 2. Therefore, the proposed Project is the minimum size that would meet the needs of the new use.

Assuming that a retail facility of a reasonable and appropriate use of the site, the following analysis explores the development of a larger as well as a smaller such facility in the project site. A retail facility of a smaller scale than that proposed, while in theory possible is not economically feasible and does not meet the goals or objectives of the project sponsor. Land costs and development costs preclude this option. Additionally, commitments to the potential tenant requires specific floor areas which do not allow the size of the facility to be reduced. Furthermore, the high development costs, and existing site constraints make a smaller retail facility impractical at this time.

The potential impacts associated with the redevelopment of Site 2 have been analyzed in this DEIS. The decision to construct this Project is guided by market and tenant demands.

A larger, with additional stories, retail facility could be considered for the project site. A project of such scale would generate impacts to water, sewer, community services, police or fire protection, municipal revenues, etc., that would be well within the existing capacity of such systems and services to accommodate.

Such a large scale facility, however, is not practical for a 15 acre site. Development of such a larger facility would require more parking spaces. This will consume more of the site than is available and also potentially impact greenspace requirements.

5.3 Alternative Site Layouts

Alternative site plan configurations could be considered for the Projects. Regarding Site 1, the existing site configuration, including building-floor plan, parking layout and ring road must, however, be considered. Additionally, the existence of the "butterfly management area" and associated "migration corridor" is a key factor in considering alternative site layouts, especially at Site 1. The development restriction on the parcels of land west of Rapp Road is also a factor in determining site configurations.

The Management Area must be preserved in its existing location. This influences the location of the Rapp Road development at Site 1 as well as the location of the connection to the ring road so as to continue to completely avoid this area. With the existing site constraints described above, the most logical area to develop is land west of Rapp Road as proposed, and respect the Management Area and associated corridor, and south of the Town road, as proposed. By focusing development in these areas, potential impacts associated with the Management Area are avoided and also meet the objectives of the TOD district. The TOD encourages an increase in height away from adjacent residential districts as proposed on the site plan by creating a distance requirement from such district where building heights may be increased. Such zoning constraints are significant limitations on alternate site layouts at Site 1.

Moreover, it is necessary to abandon Town roads and extend one road to properly intersect at Crossgates Mall Road to provide adequate access to Sites 2 and 3. It may, therefore, be concluded that, with the exception of minor road realignment and access to Crossgates Mall Road, as called for as a goal of the TOD to focus development to the ring road, no other logical layout of the projects are viable on the various sites given the constraints which exist.

Alternate site layouts may be considered in the future for Site 3 that may include individual uses or buildings on the site rather than all uses enclosed in a single structure. The configuration of the site, size of the project and number of parking spaces required may change and is speculative at this time.

No alternative was identified that had any substantial advantage over that which is proposed nor each other.

5.4 Alternative Locations

Shifting the Rapp Road residential development to the interior ring road to the west of Macy's has been examined and is not feasible for many reasons. First and foremost, the Rapp Road development does not have common ownership with Crossgates Mall. Additionally, Crossgates Mall is subject to tenant and lender restrictions prohibiting and limiting outparcel development, as well as being in separate ownership with tenant and lender restrictions on use. The location is not of sufficient acreage to support the project, including the size of the project the number of parking spaces and required greenspace. The area is approximately 5.50 acres and currently utilized as parking for the mall. Moving the five story buildings and other buildings to this location would be immediately south of the established Karner Blue Butterfly Hill located adjacent and immediately north of this parking area and could have other unintentional adverse environmental consequences. Moreover, approved and required parking spaces for the mall would be removed. Additional traffic generated from the project at this location would still utilize upper Rapp Road for ingress and egress not address the desire for decreased traffic on the upper Rapp Road neighborhood.

5.5 The "No Action" Alternative

Under the "No Action" alternative the existing sites would remain as they are today and contrary to the objective of the Project Sponsor. Existing site conditions were described in detail in Section 2 of this DEIS. The Site 1 would remain as underdeveloped land generating limited revenues to the Town and School District and not provide the significant beneficial impacts to the local municipal resources. The potential environmental and public benefits of the conveyance of 8.4 acres of land for the expansion of the Karner Blue Hill Preserve and corridor area to the north would also not come to fruition.

Sites 2 and 3 would remain as an unoccupied area, with a parking area and undisturbed land, and would also not provide the significant beneficial impacts to the local municipal resources. Under the "no action" alternative, local traffic conditions will remain as they currently exist.

Traffic conditions would also remain the same and over time, based on standard growth rates, continue to increase the number of vehicles utilizing upper Rapp Road.

Without the redevelopment of Sites 1, 2 and 3, uses including the proposed Costco, and other uses, would not be realized within the Town or surrounding area.

SECTION 6.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The proposed Project, like any development, will require the short-term and long-term commitment of environmental resources. Land development, whether residential, commercial, or otherwise, results in land being manipulated in some way and converted into another use. The addition of impervious surfaces, and the associated human and mechanical activities, alters the landscape and the pre-development environment. The majority of land on the project sites have already been disturbed and manipulated by past human development. The Project Sponsor has made every effort to concentrate new development in previously disturbed areas, where for example, the Lawton/Gabriel Terrace neighborhood currently exist.

The Project will involve conversion of land to a new use which will commit the land to the new use for the foreseeable future. Approximately 10+/- acres of existing vegetation on Site 1 will be removed, however, significant amount of landscaping will remain and will be added associated with the development. A small amount of existing vegetation at Sites 2 and 3 will be removed.

Resources consumed during construction of the development, including fossil fuels, electricity, and construction materials, will be committed for the life of the Project. Non-renewable fossil fuels will be irretrievably lost through the use of gasoline and diesel-powered construction equipment during construction. To the extent feasible, commitments will also be made for the use of renewable and/or recyclable resources such as construction and building materials including timber, copper, ductile iron, concrete, and glass. The need for construction jobs will be an irretrievable commitment of labor resources.

The long-term demand for water and energy resources will increase when the proposed land uses are operational. The proposed Project would result in the long-term commitment of these resources throughout the operation of the Project. However, the amounts of water and energy used in operation of the proposed Project would be relatively small in relation to regional consumption, and sufficient quantities of water and other resources are available locally and, in the region, to accommodate this demand.

Offsetting this development, and the potential greenhouse gas emissions, is the proposed conveyance of 8.4 acres to the Pine Bush Commission where such land will be preserved from future development and utilized in connection with the preservation efforts for the endangered Karner blue butterfly.

A small ditch, formerly providing drainage for the now-abandoned bed of old Rapp Road constitutes less than one-tenth of an acre (0.093 acres) of wetlands present on the Site. This area will be filled in accordance with USACOE Nationwide Permit No. 39.

SECTION 7.0 GROWTH INDUCING ASPECTS

Construction and operation of the Projects may lead to some development of complementary uses in the general vicinity of the Site. If such were to occur, either through development or redevelopment, the result would be an overall upgrade of the Town commercial area, located along U.S. Route 20.

The Projects are located on a previously developed, but currently vacant sites. Surrounding existing land uses include numerous and extremely diversified businesses and enterprises, such as supermarkets, fast food restaurants, banks, real estate offices, gas stations and professional offices. Most of these uses would be expected to remain. Development of vacant land and/or redevelopment of some of these uses could occur following appropriate planning, zoning and environmental approvals. Such development would likely be similar in character to that which has already occurred and authorized under the TOD district. Vacant lands which may be most subject to development include lands located on US Route 20.

The causal relationship between Projects and other planned growth in the area (such as new houses built and new residents moving to the community to work) is difficult to accurately predict, given the areas current rate of growth. Much of this growth will occur notwithstanding the proposed redevelopment, and has been considered in this analysis. The Projects could affect the rate of such growth, however, this is also difficult to predict. Although the proposed activities may lead to further development, it is not dependent on future development, nor would such development be dependent on the proposed action.

Given the required planning and environmental review, such development, redevelopment or rehabilitation of some existing uses in the surrounding the Project Sites should have positive impacts upon the Town in terms of employment, net revenues and visual character. Any development would be generally beneficial to the Guilderland area by providing jobs and tax revenues. In addition, redevelopment and rehabilitation of existing uses would improve the land use and aesthetic value of the area. Redevelopment of existing uses in this area are not expected to significantly adversely affect topography, drainage, water quality, wildlife or vegetation. Any such redevelopment would be an upgrade of existing uses.

The Project will provide employment opportunities for hundreds of area workers, during both construction and operations. Because of the growing regional population and resulting increasing demand for retail shopping facilities, the local retail structure is expected to experience positive ripple effects from the operation of these Projects. Crossgates Mall, and the redevelopment of Sites 2 and 3, are expected to encourage local shoppers to patronize local retail facilities by providing further incentive to remain in the area to shop.

This Project should positively affect municipal revenues if secondary growth, particularly in the retail sector, were to occur. There are excess dollars available to support additional retail space, particularly the new Costco who currently has no presence within 90+/- miles of this geographic area. This is evidenced by the tenant demand. Therefore, no significant net loss in revenues from displacement of existing businesses would be expected.

Future residents are expected to utilize the readily accessible CDTA transit services at Crossgates and

a new bus stop. Employees of the new businesses would also benefit from these transit services and avoid having to utilize personal transportation to get to and from their jobs.

Growth of the surrounding area, if it occurs, has the potential to affect municipal services in a variety of ways. Growth in the retail sector will provide additional sales tax benefits to local municipalities. Other growth will also increase property tax revenues as well as revenues derived from building permit and other zoning applications and review.

Additional water demand would be generated. By the time the Project is operational, the Town is still expected to have excess permitted capacity, which would be adequate to serve development of a larger scale. Some of this demand is “off set” by the redevelopment of residential neighborhoods on Sites 2 and 3.

Similarly, such development and redevelopment would generate additional wastewater demands. Again, the Town presently has excess sewage disposal capacity to accommodate many new uses in the near future. Some of this demand is “off set” by the redevelopment of residential neighborhoods on Sites 2 and 3.

Such development would generate additional solid waste requiring disposal. During construction, additional construction and demolition debris would be added to the waste stream. Currently, private C&D landfills in the area are accepting such wastes. After construction, the Project will utilize an approved private company to pick up solid waste generated to transfer to the Town of Guilderland Landfill or other appropriate location. The Town does not provide solid waste pick-up service, and businesses and residences must contract with private companies for solid waste removal.

Further redevelopment and development would generate additional demands on fire, police, and rescue services. It is likely that tax revenues from new development would outweigh the costs of supplying these services (which must be supplied now to existing land uses that provide lower tax revenues than would occur after new development).

An examination of the secondary and cumulative impacts of proposed and on-going development in the area, both with and without the Projects, indicates that no significant adverse secondary or cumulative impacts will occur to the Project Site or the areas which have not already been anticipated. For example, the traffic analysis for the Project incorporated anticipated traffic volumes from other development projects in the area.

SECTION 8.0 EFFECTS ON THE USE AND CONSERVATION OF ENERGY RESOURCES

Through the utilization of sustainable design techniques, selection of energy efficient and environmentally sensitive construction materials and mechanical systems, and a commitment to conservation practices and low impact development techniques, the propose Project will utilize energy wisely and ensure the conservation and protection of the surrounding natural environment in the short term and long term. As with all development projects, energy will be consumed during construction and will continue to be consumed upon completion and use of the facilities and residences of the proposed Project.

All aspects of construction will comply with the NYS Uniform Fire and Building Code, the New York State Energy Conservation Construction Code and all Town of Guilderland regulations. During construction, energy will be used to power equipment and various construction vehicles.

Once construction is complete and homes and businesses are occupied, energy will be required for heating and cooling purposes. heating and air conditioning, lighting and transportation. The design and plans for all energy conservation systems within the development will take into account the New York State Energy Code. However, a developer of a residential property does not have control of energy conservation measures once the houses, or apartments are sold and occupied, nor on commercial development.

The buildings will utilize advanced techniques to reduce energy use. Measures which will be included in the Project plans at Site 2 include: extensive use of insulation materials; strictly controlled use of exterior glass; installation of a computer controlled Energy Management System which will control peak load usage; HVAC equipment equipped with economizer equipment which senses the most economical introduction of fresh air; time clock and photo cell controlled lighting circuits which reduce unnecessary energy consumption; and water conservation fixtures which reduce water usage and sewer discharges.

Vegetated areas adjacent to the building will consist of deciduous and evergreen trees. The addition of the trees will help to provide passive cooling of the building in summer and act as windbreaks during the winter.

Improved public transit facilities provided by CDTA for residents at the project (Site 1 and 3) will also encourage public transit use and thereby conserve fossil fuel resources as well. Such facilities will also enable workers at the Costco to utilize public transportation to and from work.