

C.5112.002 October 6, 2023

Jay Wilkinson, Chairperson Town of Charlton Planning Board 758 Charlton Road Charlton, NY 12019

Re: The Charlton School - Phase 1A Campus Improvements
Application for Site Plan Approval

Dear Chairman Wilkinson:

On behalf of The Charlton School, Tighe & Bond, whose services in New York are provided by T&B Engineering and Landscape Architecture, P.C. (Tighe & Bond), has prepared a revised submission for the Site Plan Application for Phase 1A Campus Improvements at the School. This submission reflects revisions to the SEQRA EAF and plans in response to comments raised by the Town's Engineering Consultant and the Town Planning Board members at the September 18, 2023 meeting. Please note the plan set has been revised to include the following additional drawings:

- Sheet L-300 Lighting Plan Diagram (Existing Conditions)
- Sheet L-301 Lighting Plan Diagram (Proposed)
- E-103 Electrical Site Phase 1A Lighting Plan (showing electrical layout and lighting controls)
- C-401 Utility Plan 2 (showing water and electric service to the north paddocks)
- C-505 Details 5 (showing additional site septic system details)

We have reviewed the comment letter from Environmental Design Partnership, LLP, dated September 14, 2023. See their comments in regular text and our responses in bold text, below.

1. Section E. Site and Setting of Proposed Action, E.1., land uses on and surrounding the project site, Agricultural box should be checked. Section E.1.b indicates that there are 65.77 acres of agricultural area on the project site.

Response: The box has been checked. The revised EAF Part 1 is included in this submission.

2. Section E.3. Designated Public Resources on or Near Project Site, Section E.3.f, the no box should be checked. A letter was provided from NYSOPRHP that verifies "No archaeological sites were identified by the survey".

Response: The no box has been checked.

3. The project documents should include a Water Supply Narrative. The narrative should describe the project water demands including domestic and fire flow requirements compliant with the New York State Building Code (NYSBC) and the Insurance Services Organization (ISO). The narrative should provide verification that the projected fire flow of 600 gpm, at 20 psi (based on hydrant flow test) meets the minimum requirements (ISO) for the type of

building structures existing, and proposed, within the project site. The narrative should also provide discussion related to the sprinkler requirements, and compliance with the NYSBC for the individual buildings.

## Response: A water supply narrative is provided below

The school is served by municipal water from the Charlton Water District #1, of which water is sourced from the Town of Glenville. The school's water system is private and connects to the municipal water system on Callaghan Boulevard south of the school. A summary of the existing and proposed water usage is provided herein. Over the last four years the school has used an average of 3,225 gallons per day (gpd) based on metered data from the Town of Charlton Water District based on an average of 25 boarding student and 11 day students and 80 to 90 employees. The school has informed us the water usage has been lower than normal the last couple of years because of students transitioning to living at home. The proposed estimated water usage, based on the number of boarding and day students and the number of staff, using the NYSDEC Design Standards Table B3 Hydraulic Loading Rates is 5,020 gpd assumes 32 boarding students, 15 day students and 85 employees. There are 9 bedrooms in each dormitory building but only 8 of them will be occupied at any one time. The extra bedroom is for students with behavioral issues. We used 15 days students to be conservative because that is slightly more than they typically have a year. This increase is reflective of both the use of the design flow rates versus actual flow rates, and the increase in students proposed at the School.

There are proposed upgrades to the existing campus water distribution system proposed to be made as part of the Phase 1A improvement; specific improvements include installation of new eight-inch water mains from Lake Hill Rd to the new dormitory buildings and installation of three new fire hydrants. The eight-inch water main will be capped at the end for future expansion through the school. A section of the existing six-inch water main will be cut and capped and abandoned and one existing fire hydrant will be removed. There are proposed combined domestic and fire service lines for each dormitory building and a proposed domestic line for the maintenance garage as shown on the Utility Plan, Sheet C-400. Hydrant flow testing has been conducted and the results were included with the last submission.

The water supply requirement for the maintenance building in accordance with the New York plumbing code is 37 Water Supply Fixture Units (WSFU) which equals 44 instantaneous peak gallons per minute (gpm). The water supply requirement for the dormitory buildings in accordance with the New York plumbing code is 95 WSFU which equals 67 instantaneous gpm. The building code does not require sprinklers for the maintenance building and therefore no fire protection is proposed for the maintenance building. The dormitory buildings do require sprinklers and need to meet NFPA 13R. The sprinkler system for any one dormitory building will draw approximately 150 gpm which is a conservative calculation according to the plumbing engineer. The hydrant flow testing results showed there is 600 gpm at 20 psi which demonstrates that there is adequate flow and pressure to service the dormitory building sprinkler systems.

We have discussed with the Charlton Water District and they have informed us that they do not need to review the proposed water system design because the school's water system is private. However, they have stated the desire to perform construction observation when the water system is being constructed.

4. The project documents should include a Sanitary Sewer Narrative. The narrative should describe the project sanitary sewer demands and provide the design basis for the proposed subsurface sanitary disposal system. The narrative should include soil test pit information and percolation tests data used to design the subsurface system.

## Response:

A sanitary sewer narrative for the proposed buildings is provided below. No changes are proposed to existing building septic systems.

For the design of the wastewater treatment system for both the dormitories and the maintenance building is in accordance with the "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014", Recommended Standards for Wastewater Facilities, Great Lakes-Upper Mississippi River Board State and Provincial Public Health and Environmental Managers, 2004 (10 States Standards) and the Department of Environmental Conservations Regulation Chapter X, Subpart A, Article 1, Part 750.

Sanitary wastewater flows for the Charlton School have been calculated according to the NYS DEC Design Standards, as summarized in Table 1 and Table 2 below.

Design Flow

2,880

**Table 1**Dormitory Sanitary Wastewater Flows

**Dormitory Sanitary Wastewater Flows** Unit Flow/Unit (GPD) Use Qty Flow (GPD) School Boarding Student 9 75 675 Office Space Employee 3 15 45 720 Total (per Dormitory) # of Dormitories 4

**Table 2**Maintenance Building Sanitary Wastewater Flows

Traintenance Danai	ing Samitary Wast	.cvvacci i lovvo		
Use	Unit	Qty	Flow/Unit (GPD)	Flow (GPD)
Office Building	Employee	4	15	60
After School Classroom	Student	8	10	80
			Design Flow	140

On September 6, 2023, and September 7, 2023, Tighe & Bond completed on-site soil testing to evaluate the soil conditions at the Charlton School, parcel 256.-1-28, for design development of the site to accommodate in-ground, subsurface wastewater absorption. The installation of these subsurface wastewater adsorption fields is required for the proposed infrastructure and building expansions as part of the Phase 1A of the 20 Year Master Plan at the Charlton School.

Site evaluation criteria for the proposed locations of an on-site wastewater treatment system were completed in conformance with the New York Design Standards for Intermediate-Sized Wastewater Treatment Systems, 2014 (Septic Design Standards).

Eight septic deep test pits were excavated across the site to a depth of at least 84inches. Six test pits in the proposed dormitory building absorption field and two test pits in the proposed maintenance building absorption field. The test pits were observed to have mostly uniform profiles, generally consisting of a twelve-inch layer of dark brown topsoil, thirty-six to forty-eight inches of light brown fine to medium sand, and brown medium to coarse sand to the end of each test pit. Roots were observed to a depth of approximately forty-eight inches below grade. Mottling was not observed, and groundwater was not encountered. Ten percolation tests were completed, consistent with the requirements of the Design Standards to establish representative rates of percolation for design development of the absorption system. Percolation test holes were excavated by hand to a depth of approximately 24 inches. Based on observed soils and percolation test data, both the proposed dormitory and maintenance buildings can accommodate conventional absorption field systems. Percolation rates for the site were between three and five minutes per inch, refer to sheet C-003 titled "Geotechnical Investigations" for septic deep test and soil percolation data.

The proposed dormitory sanitary wastewater treatment system will consist of conventional in-ground absorption system with a pump chamber for pressure dose to gravity distribution. The system has been designed so that two of the dormitories combine flows to a single tank, with providing two tanks for all four buildings. Tanks are sized based on the design standards of 1.5 time the wastewater flow, resulting in septic tanks with a capacity of 2,500 gallons. The effluent from both septic tanks will flows via gravity to a precast pump chamber where the duplex pump system will dose effluent to the gravity distribution absorption field through a distribution box with speed levelers to evenly distribute the effluent. The duplex pump system is proposed in lieu of providing a full day's design flow storage above the dosing volume reducing the overall pump chamber size and installed depth. The pump chamber will be equipped with floats connected to a pump controller with high level and low-level audio/visual alarms. The dormitory wastewater system design consists of the following components:

- 4" gravity collection piping
- (2) 2,500-gallon precast septic tanks with effluent filters
- (1) 8' Diameter precast concrete pump chamber with duplex effluent pumps, control floats & control panel with audio/visual alarm
- 2" force main piping
- Precast distribution box with speed levelers
- Conventional stone and pipe absorption field

The dormitory absorption fields consist of twelve 100-foot 4" diameter perforated PVC laterals spaced at 6' on center.

The maintenance building wastewater treatment system is a conventional in-ground absorption system with gravity flow from the building to the absorption field. The waste from the building enters the septic tank and effluent flows out to the

absorption field, evenly distributed through a distribution box with speed levelers. The maintenance building wastewater system consists of the following components:

- 4" gravity collection piping
- (1) 1,000-gallon precast septic tank with effluent filter
- Precast distribution box with speed levelers
- Conventional stone and pipe absorption field

The maintenance building absorption fields consist of two 40-foot 4" diameter perforated PVC laterals spaced at 6' on center.

As part of the demolition of Clemens Cottage, the septic system will be decommissioned, the septic tank will be pumped by a licensed septic hauler, the tank will be cracked to prevent water accumulation, and filled with granular fill.

5. Since the average daily sanitary sewer flows are over 1,000 gpd, the project will require a SPDES permit to be issued by the NYSDEC. Copies of plan and report submissions made to the NYSDEC should be provided to the town.

### Response: Noted.

6. A copy of the NYSDEC final plan approval and SPDES permit should be provided to the town.

# Response: Noted.

7. The plans include a photometric plan for the campus improvements. The applicant should verify that the overall appearance of the project after site improvements will not change, no increase in night glow over the current condition.

Response: The objective for lighting the Phase 1A improvements is to provide safe levels of illumination that support pedestrian movement on campus. Existing lighting on the site cannot be modeled to provide an existing conditions photometric plan due to the absence of data on the existing fixtures; however, the quality of lighting on the campus is generally described by students and staff as too dark. Sheet L-300 provides an inventory of existing lighting on campus. Many of the existing site lighting consists of acorn fixtures which are inefficient due to many factors including out of date technology, translucent and discolored lenses, and no shielding, resulting in uplight in the sky as well as down on the walking surface. Many of the buildings have security floodlights which will be removed. The existing school paths do not have lighting. Existing pole mounted lighting in the paddock areas will be removed.

New lighting proposed for both the dormitory buildings, the maintenance building, and the access driveway will set a new standard for safe levels of illuminance on campus. Sheet L-301 shows which existing lights will be removed and where new light will be installed. Two fixture types are proposed for site lighting. Both fixtures will use LED with a color temperature of no more than 3000K. Fixtures have backlight, uplight, and glare (BUG) ratings consistent with International Dark Sky Association approval. Lighting on the quad, along pedestrian way will be provided by bollard style lights with a mounting height of 3.5 feet. The bollard lights will be operated using a photocell and will turn on 30 minutes before sunset and turn off



30 minutes after sunrise. Based on the photometric plan included as Sheet SL-1A, the bollard lights will provide an average level of illuminance on the walkways of 2.87 footcandles, which is consistent with the Illuminating Engineers Society recommendations of 3 footcandles for building exteriors where safety is a concern. Along the improved driveway, new pole mounted lights, installed with a mounting height of 16 feet will be installed. The pole mounted lights will be operated using a photocell and will turn on 30 minutes before sunset and turn off 30 minutes after sunrise and will include a motion sensitive dimming control which will reduce light power to 30% if no motion is detected after one hour. Based on the photometric plan, the pole mounted lights will provide an average illuminance along the roadway of 1 footcandle. ( Refer to the additional Sheet E-103 for the proposed exterior lighting fixture schedule and site lighting controller schedule. Refer to the site lighting cut sheets that have been included. All lighting improvements occur on the campus interior, and existing conifer trees along Lake Hill Road will continue to provide screening of the campus. The new lighting causes no light spillage off the property.

8. The SWPPP includes a Geotechnical Evaluation. The evaluation provides soil data for the design of the building foundations. The SWPPP also includes soil information obtained from the Natural Resources Conservation Service Saratoga County, New York, and Schenectady County, New York. Based on information provided in these documents the general description of the soils are very well drained gravely sandy loams with seasonal groundwater greater than eight feet below the surface. The stormwater management proposed for the project consists of infiltration basins designed to recharge stormwater runoff directly into the ground, with no off-site discharges proposed. The NYSDEC Stormwater Design Manual requires soil test pits and infiltration testing be completed for infiltration systems. The applicant should complete soil test pits and infiltration tests at each location proposed for stormwater recharge.

Response: Soil testing and infiltration testing has been completed for each of the three proposed infiltration basins. The SWPPP has been revised to include this information.

9. The SWPPP should include post construction maintenance guidelines for the proposed stormwater management practices.

Response: Post construction maintenance guidelines for the proposed stormwater management practices have been added to the SWPPP.

10. There are several areas where building footing drains discharge to the stormwater infiltration basins. In many cases the drains discharge at, or below, the infiltration basin bottom elevations. Should there be standing water in the basins (winter conditions) there is potential for the water to freeze, and this condition could compromise the footing drains. The SWPPP should provide some discussion related to winter frozen ground conditions, and impact on the stormwater management practices.

Response: The footing drains have been removed for the dormitory buildings and maintenance garage. It was determined they were not needed because of the deep groundwater, well drained soils and that all the proposed buildings are slab on grade construction.



In addition to Mr. Baker's comments, the Planning Board requested additional information at the meeting on September 18, 2023. Specifically, the Board requested information regarding the local fire department review of the application.

Tighe & Bond has discussed and provided information regarding site access and improvements to Fire Chief Christian DeCapria. Chief DeCapria provided an letter indicating the current design improvements for emergency access and fire protection are adequate to meet the Department's needs. The Chief's letter is included in this submission.

The Planning Board requested we submit a suggested Part 2 and Part 3 SEQRA Environmental Assessment Form (EAF). These documents are attached for the Board's use, along with the aforementioned revised Part 1 EAF. We understand the Board will undertake a SEQRA review at the upcoming meeting.

We respectfully request to be placed on the agenda for the October 16, 2023 Planning Board meeting for review. If you have any questions or require additional information about this application, please do not hesitate to contact me at <a href="mailto:bnelson@tighebond.com">bnelson@tighebond.com</a> or 845-516-5803.

Very truly yours,

T&B Engineering and Landscape Architecture, P.C.

Brandee Nelson, PE, LEED AP

Vice President

Christopher Rokos, PE Senior Engineer

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#### **Enclosures**

State Environmental Quality Review (SEQR) Full Environmental Assessment Form (FEAF) Part 1, Part 2 and Part 3
Fire Chief letter, dated September 19, 2023
Site lighting cut sheets
Water usage spreadsheet

Copy: Alex Capo, Executive Director, Charlton School Brett Balzer, AIA, Balzer & Tuck Architecture Charlie Baker, PE, Environmental Design Partnership William Keniry, Esq., Planning Board Attorney

# Full Environmental Assessment Form Part 1 - Project and Setting

# **Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

### A. Project and Applicant/Sponsor Information.

Name of Action or Project:		
Project Location (describe, and attach a general location map):		
Brief Description of Proposed Action (include purpose or need):		
Name of Applicant/Sponsor:	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Project Contact (if not same as sponsor; give name and title/role):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:

# **B.** Government Approvals

<b>B.</b> Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)				
Government Entity	If Yes: Identify Agency and Approval(s) Required	Application (Actual or p		
a. City Counsel, Town Board, ☐ Yes ☐ No or Village Board of Trustees				
b. City, Town or Village ☐ Yes ☐ No Planning Board or Commission				
c. City, Town or ☐ Yes ☐ No Village Zoning Board of Appeals				
d. Other local agencies □ Yes □ No				
e. County agencies □ Yes □ No				
f. Regional agencies □ Yes □ No				
g. State agencies □ Yes □ No				
h. Federal agencies □ Yes □ No				
<ul><li>i. Coastal Resources.</li><li>i. Is the project site within a Coastal Area, or</li></ul>	or the waterfront area of a Designated Inland Wa	terway?	□ Yes □ No	
<ul><li>ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?</li><li>iii. Is the project site within a Coastal Erosion Hazard Area?</li></ul>			□ Yes □ No □ Yes □ No	
C. Planning and Zoning				
C.1. Planning and zoning actions.				
only approval(s) which must be granted to enal  • If Yes, complete sections C, F and G.	mendment of a plan, local law, ordinance, rule of the proposed action to proceed?  In plete all remaining sections and questions in Page 1.	-	□ Yes □ No	
C.2. Adopted land use plans.	· · · · · · · · · · · · · · · · · · ·			
a. Do any municipally- adopted (city, town, vil where the proposed action would be located?		include the site	□ Yes □ No	
If Yes, does the comprehensive plan include spewould be located?		oposed action	□ Yes □ No	
b. Is the site of the proposed action within any l Brownfield Opportunity Area (BOA); design or other?)  If Yes, identify the plan(s):	ocal or regional special planning district (for ex ated State or Federal heritage area; watershed m		□ Yes □ No	
c. Is the proposed action located wholly or part	ially within an area listed in an adopted municip	al open space plan,	□ Yes □ No	
or an adopted municipal farmland protection If Yes, identify the plan(s):				

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district?	□ Yes □ No
b. Is the use permitted or allowed by a special or conditional use permit?	□ Yes □ No
c. Is a zoning change requested as part of the proposed action?	□ Yes □ No
If Yes,  i. What is the proposed new zoning for the site?	
C.4. Existing community services.	
a. In what school district is the project site located?	
b. What police or other public protection forces serve the project site?	
c. Which fire protection and emergency medical services serve the project site?	
d. What parks serve the project site?	
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed components)?	l, include all
b. a. Total acreage of the site of the proposed action? acres	
b. Total acreage to be physically disturbed? acres c. Total acreage (project site and any contiguous properties) owned	
or controlled by the applicant or project sponsor? acres	
c. Is the proposed action an expansion of an existing project or use?  i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles square feet)? % Units:	☐ Yes ☐ No , housing units,
square feet)? % Units:  d. Is the proposed action a subdivision, or does it include a subdivision?	□ Yes □ No
If Yes,  i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	
<ul><li>ii. Is a cluster/conservation layout proposed?</li><li>iii. Number of lots proposed?</li></ul>	□ Yes □ No
iv. Minimum and maximum proposed lot sizes? Minimum Maximum	
<ul> <li>e. Will the proposed action be constructed in multiple phases?</li> <li>i. If No, anticipated period of construction: months</li> <li>ii. If Yes:</li> </ul>	□ Yes □ No
<ul> <li>Total number of phases anticipated</li> <li>Anticipated commencement date of phase 1 (including demolition) month year</li> <li>Anticipated completion date of final phase month year</li> <li>Generally describe connections or relationships among phases, including any contingencies where progred determine timing or duration of future phases:</li> </ul>	

	t include new resid				□ Yes □ No
If Yes, show num	bers of units propo				
	One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase					
At completion					
of all phases					
D 4	1 1 1	• • • • •	1	1	- 77 - 77
	osed action include	new non-residentia	al construction (inclu	iding expansions)?	□ Yes □ No
If Yes,	of structures				
ii Dimensions (	in feet) of largest p	ronosed structure:	height:	width; andlength	
iii. Approximate	extent of building s	space to be heated	or cooled:	square feet	
				I result in the impoundment of any	□ Yes □ No
				result in the impoundment of any agoon or other storage?	⊔ res ⊔ No
If Yes,	s creation of a water	suppry, reservoir,	, pond, lake, waste ia	igoon of other storage:	
	impoundment:				
ii. If a water imp	impoundment:oundment, the prince	cipal source of the	water:	☐ Ground water ☐ Surface water stream	s □ Other specify:
iii. If other than w	vater, identify the ty	pe of impounded/o	contained liquids and	d their source.	
iv. Approximate	size of the proposed	d impoundment.	Volume:	million gallons; surface area:	acres
v. Dimensions o	f the proposed dam	or impounding str	ucture:	height; length	
				ructure (e.g., earth fill, rock, wood, conc	rete):
D.2. Project Op	erations				
			ning on Anadaina da	i	D Vas D Na
				uring construction, operations, or both? or foundations where all excavated	□ Yes □ No
materials will r		mon, grading or in	stanation of utilities	or foundations where all excavated	
If Yes:	cmam onsite)				
	rnose of the excava	tion or dredging?			
				be removed from the site?	·
	at duration of time?				
				ged, and plans to use, manage or dispose	of them.
iv. Will there be	onsite dewatering of	or processing of ex	cavated materials?		□ Yes □ No
v What is the to	ital area to be dredge	ed or excavated?		_acres	
vi What is the m	avimum area to be	worked at any one	time?	acres	
		•		feet	
	vation require blast		n dreaging.	icct	□ Yes □ No
				crease in size of, or encroachment	□ Yes □ No
•	ng wetland, waterbo	ody, shoreline, bea	ch or adjacent area?		
If Yes:	.1 1 . 1 . 1	1.1	CC 4 1 /1		
				vater index number, wetland map number	
description):					

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placem alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in sq	
iii. Will the proposed action cause or result in disturbance to bottom sediments?  If Yes, describe:	Yes □ No
<i>iv</i> . Will the proposed action cause or result in the destruction or removal of aquatic vegetation? If Yes:	□ Yes □ No
acres of aquatic vegetation proposed to be removed:	
expected acreage of aquatic vegetation remaining after project completion:	
• purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):	
proposed method of plant removal:	
if chemical/herbicide treatment will be used, specify product(s):	
v. Describe any proposed reclamation/mitigation following disturbance:	
. Will the proposed action use, or create a new demand for water?	□ Yes □ No
Yes:	
i. Total anticipated water usage/demand per day: gallons/day	
ii. Will the proposed action obtain water from an existing public water supply?	□ Yes □ No
Yes:	
Name of district or service area:	
Does the existing public water supply have capacity to serve the proposal?  Let be a principle of the principle of the proposal.	□ Yes □ No
• Is the project site in the existing district?	□ Yes □ No
Is expansion of the district needed?	□ Yes □ No
Do existing lines serve the project site?  Will be a serve the project site?	□ Yes □ No
ii. Will line extension within an existing district be necessary to supply the project? Yes:	□ Yes □ No
Describe extensions or capacity expansions proposed to serve this project:	
Source(s) of supply for the district:	
iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes:	□ Yes □ No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	
v. If a public water supply will not be used, describe plans to provide water supply for the project:	
vi. If water supply will be from wells (public or private), what is the maximum pumping capacity:	_ gallons/minute.
. Will the proposed action generate liquid wastes?	□ Yes □ No
Yes:	
i. Total anticipated liquid waste generation per day: gallons/day	11 . 1
ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe a approximate volumes or proportions of each):	
approximate volumes of proportions of each).	
i. Will the proposed action use any existing public wastewater treatment facilities?  If Yes:	□ Yes □ No
Name of wastewater treatment plant to be used:	
Name of district:	
<ul> <li>Does the existing wastewater treatment plant have capacity to serve the project?</li> </ul>	□ Yes □ No
<ul> <li>Is the project site in the existing district?</li> </ul>	□ Yes □ No
<ul> <li>Is expansion of the district needed?</li> </ul>	□ Yes □ No

Do existing sewer lines serve the project site?	□ Yes □ No
Will a line extension within an existing district be necessary to serve the project?	□ Yes □ No
If Yes:	
Describe extensions or capacity expansions proposed to serve this project:	
<i>iv.</i> Will a new wastewater (sewage) treatment district be formed to serve the project site?	□ Yes □ No
If Yes:	- 105 - 110
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
What is the receiving water for the wastewater discharge?	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including speci	fying proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point	□ Yes □ No
sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
i. How much impervious surface will the project create in relation to total size of project parcel?	
40,075 Square feet or acres (impervious surface) This includes all new impervious surfaces	
Square feet or acres (parcel size)	
ii. Describe types of new point sources.	
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent pregroundwater, on-site surface water or off-site surface waters)?	roperties,
If to surface waters, identify receiving water bodies or wetlands:	
Will stormwater runoff flow to adjacent properties?	□ Yes □ No
<i>iv.</i> Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	□ Yes □ No
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	□ Yes □ No
combustion, waste incineration, or other processes or operations?	
If Yes, identify:	
i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit,	□ Yes □ No
or Federal Clean Air Act Title IV or Title V Permit?	
If Yes:	
i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□ Yes □ No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO <sub>2</sub> )	
<ul> <li>Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)</li> <li>Tons/year (short tons) of Perfluorocarbons (PFCs)</li> </ul>	
<ul> <li>Tons/year (short tons) of Perhuorocarbons (PFCs)</li> <li>Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)</li> </ul>	
<ul> <li>Tons/year (short tons) of Surfur Flexaritionide (SF<sub>6</sub>)</li> <li>Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)</li> </ul>	
Tons/year (short tons) of Carbon Dioxide equivalent of Trydronourocarbons (Tres)      Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	

h. Will the proposed action generate or emit methane (included landfills, composting facilities)?  If Yes:		□ Yes □ No
<ul><li>i. Estimate methane generation in tons/year (metric):</li><li>ii. Describe any methane capture, control or elimination me electricity, flaring):</li></ul>	easures included in project design (e.g., combustion to go	enerate heat or
i. Will the proposed action result in the release of air polluta quarry or landfill operations?  If Yes: Describe operations and nature of emissions (e.g., die action).		□ Yes □ No
<ul> <li>j. Will the proposed action result in a substantial increase in new demand for transportation facilities or services?</li> <li>If Yes: <ul> <li>i. When is the peak traffic expected (Check all that apply):</li> <li>□ Randomly between hours of</li></ul></li></ul>	: □ Morning □ Evening □ Weekend	□ Yes □ No
<ul> <li>iii. Parking spaces: Existing</li></ul>	g? sting roads, creation of new roads or change in existing available within ½ mile of the proposed site? ortation or accommodations for use of hybrid, electric	Yes No
<ul> <li>k. Will the proposed action (for commercial or industrial profor energy?</li> <li>If Yes: <ul> <li>i. Estimate annual electricity demand during operation of the project other):</li> <li>iii. Anticipated sources/suppliers of electricity for the project other):</li> <li>iiii. Will the proposed action require a new, or an upgrade, to</li> </ul> </li> </ul>	he proposed action: et (e.g., on-site combustion, on-site renewable, via grid/l	□ Yes □ No  ocal utility, or  □ Yes □ No
Hours of operation. Answer all items which apply.     i. During Construction:         Monday - Friday:         Saturday:         Sunday:         Holidays:	<ul> <li>ii. During Operations:</li> <li>Monday - Friday:</li></ul>	

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction,	□ Yes □ No
operation, or both? If yes:	
i. Provide details including sources, time of day and duration:	
	<del></del>
<i>ii.</i> Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?	□ Yes □ No
Describe:	
n. Will the proposed action have outdoor lighting? If yes:	□ Yes □ No
<ul><li>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</li></ul>	
<i>ii.</i> Will proposed action remove existing natural barriers that could act as a light barrier or screen?	□ Yes □ No
Describe:	
o. Does the proposed action have the potential to produce odors for more than one hour per day?	□ Yes □ No
If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest	
occupied structures:	
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons)	□ Yes □ No
or chemical products 185 gallons in above ground storage or any amount in underground storage?	
If Yes:	
<ul><li>i. Product(s) to be stored</li></ul>	
iii. Generally, describe the proposed storage facilities:	
q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides,	□ Yes □ No
insecticides) during construction or operation?	
<ul><li>If Yes:</li><li>i. Describe proposed treatment(s):</li></ul>	
ii. Will the proposed action use Integrated Pest Management Practices?	□ Yes □ No
r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal	□ Yes □ No
of solid waste (excluding hazardous materials)? If Yes:	
<i>i.</i> Describe any solid waste(s) to be generated during construction or operation of the facility:	
• Construction: tons per (unit of time)	
• Operation : tons per (unit of time)	
<ul><li>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</li><li>Construction:</li></ul>	
Construction.	
• Operation:	
iii. Proposed disposal methods/facilities for solid waste generated on-site:	<del></del>
Construction:	
Operation:	

s. Does the proposed action include construction or modification of a solid waste management facility?   Yes  No  If Yes:  i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or				
other disposal activities):				
<ul> <li>ii. Anticipated rate of disposal/processing:</li> <li> Tons/month, if transfer or other non-combustion/thermal treatment, or</li> </ul>				
• Tons/hour, if combustion or thermal treatment				
iii. If landfill, anticipated site life: years				
t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous □ Yes □ No waste?				
If Yes:  i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility:				
azardous wastes or constit	tuents:			
	us constituents:			
		□ Yes □ No		
wastes which will not be so	ent to a hazardous waste facilit	y:		
a. Existing land uses.  i. Check all uses that occur on, adjoining and near the project site.  □ Urban □ Industrial □ Commercial □ Residential (suburban) □ Rural (non-farm)  □ Forest □ Agriculture □ Aquatic □ Other (specify):				
Current	Acrossa After	Changa		
Current Acreage	Acreage After Project Completion	Change (Acres +/-)		
		_		
		_		
		_		
		_		
		_		
		_		
		_		
		_		
	ombustion/thermal treatment	ombustion/thermal treatment, or reatment years cial generation, treatment, storage, or disposal of hazard generated, handled or managed at facility: azardous wastes or constituents: offsite hazardous constituents: offsite hazardous waste facility? wastes which will not be sent to a hazardous waste facility project site. ential (suburban) Rural (non-farm)		

c. Is the project site presently used by members of the community for public recreation?	
i. If Yes: explain:	□ Yes □ No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  If Yes,  i. Identify Facilities:	□ Yes □ No
e. Does the project site contain an existing dam?	□ Yes □ No
If Yes:	□ Tes □ No
i. Dimensions of the dam and impoundment:	
• Dam height: feet	
• Dam length: feet	
• Surface area: acres	
• Volume impounded: gallons OR acre-feet ii. Dam's existing hazard classification:	
iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility Yes:	□ Yes □ No lity?
i. Has the facility been formally closed?	□ Yes □ No
If yes, cite sources/documentation:	
<i>ii.</i> Describe the location of the project site relative to the boundaries of the solid waste management facility:	
iii. Describe any development constraints due to the prior solid waste activities:	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:	□ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?	□ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr	□ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?	□ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site	□ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:	□ Yes □ No  red: □ Yes □ No □ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site	□ Yes □ No  red: □ Yes □ No □ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr remedial actions been conducted at or adjacent to the proposed site?  If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:    Yes - Spills Incidents database	□ Yes □ No  red: □ Yes □ No □ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes - Spills Incidents database  Provide DEC ID number(s):  Neither database  ii. If site has been subject of RCRA corrective activities, describe control measures:  iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?	□ Yes □ No  red: □ Yes □ No □ Yes □ No
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:  i. Describe waste(s) handled and waste management activities, including approximate time when activities occurr he proposed waste(s) handled and waste management activities, including approximate time when activities occurr he proposed site? If Yes:  i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:    Yes - Spills Incidents database	□ Yes □ No  red: □ Yes □ No □ Yes □ No

v. Is the project site subject to an institutional control limiting property uses?	□ Yes □ No
<ul> <li>If yes, DEC site ID number:</li> <li>Describe the type of institutional control (e.g., deed restriction or easement):</li> </ul>	
<ul> <li>Describe the type of institutional control (e.g., deed restriction or easement):</li> <li>Describe any use limitations:</li> </ul>	
Describe any engineering controls:	
<ul> <li>Will the project affect the institutional or engineering controls in place?</li> </ul>	□ Yes □ No
Explain:	
E.2. Natural Resources On or Near Project Site	
a. What is the average depth to bedrock on the project site? feet	
b. Are there bedrock outcroppings on the project site?	□ Yes □ No
If Yes, what proportion of the site is comprised of bedrock outcroppings?%	
c. Predominant soil type(s) present on project site:	%
	% %
	%
d. What is the average depth to the water table on the project site? Average: feet	
e. Drainage status of project site soils:   Well Drained:   % of site	
□ Moderately Well Drained:% of site	
□ Poorly Drained% of site	
f. Approximate proportion of proposed action site with slopes:   0-10%:  % of site	
□ 10-15%:% of site □ 15% or greater:% of site	
	D.V. D.N.
g. Are there any unique geologic features on the project site?  If Yes, describe:	□ Yes □ No
1 200, 400011001	
h. Surface water features.	
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers,	□ Yes □ No
ponds or lakes)?	
ii. Do any wetlands or other waterbodies adjoin the project site?	$\square$ Yes $\square$ No
If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i.	
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal,	□ Yes □ No
state or local agency?  iv. For each identified regulated wetland and waterbody on the project site, provide the following information	on.
• Streams: Name Classification	
<ul> <li>Lakes or Ponds: Name</li> <li>Classification</li> </ul>	
Wetlands: Name Approximate Size     Wetland No. (if regulated by DEC)	e
• Wetland No. (if regulated by DEC)	□ Yes □ No
waterbodies?	- 1 <b>c</b> s - 110
If yes, name of impaired water body/bodies and basis for listing as impaired:	
i. Is the project site in a designated Floodway?	□ Yes □ No
j. Is the project site in the 100-year Floodplain?	□ Yes □ No
k. Is the project site in the 500-year Floodplain?	□ Yes □ No
1. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?	□ Yes □ No
If Yes:  i. Name of aquifer:	
6. I raine of aquiter.	

m. Identify the predominant wildlife species that occupy or use the project site:	
n. Does the project site contain a designated significant natural community?  If Yes:  i. Describe the habitat/community (composition, function, and basis for designation):	□ Yes □ No
ii. Source(s) of description or evaluation:	
iii. Extent of community/habitat:	
• Currently: acres	
Following completion of project as proposed: acres	
• Gain or loss (indicate + or -): acres	
<ul> <li>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened specific species and listing (endangered or threatened):</li> <li>i. Species and listing (endangered or threatened):</li> </ul>	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern?	□ Yes □ No
If Yes:  i. Species and listing:	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing?  If yes, give a brief description of how the proposed action may affect that use:	□ Yes □ No
E.3. Designated Public Resources On or Near Project Site	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?  If Yes, provide county plus district name/number:	□ Yes □ No
b. Are agricultural lands consisting of highly productive soils present?  i. If Yes: acreage(s) on project site?  ii. Source(s) of soil rating(s):	□ Yes □ No
The second secon	
<ul> <li>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark?</li> <li>If Yes:</li> <li>i. Nature of the natural landmark: □ Biological Community □ Geological Feature</li> </ul>	□ Yes □ No
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area?  If Yes:  i. CEA name:	□ Yes □ No
ii. Basis for designation:	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissi Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Pl If Yes:  i. Nature of historic/archaeological resource:   Archaeological Site   Historic Building or District  ii. Name:   iii. Brief description of attributes on which listing is based:	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	□ Yes □ No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?  If Yes:  i. Describe possible resource(s):  ii. Basis for identification:	□ Yes □ No
h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?  If Yes:  i. Identify resource:  ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or	□ Yes □ No
etc.): miles.	
<ul> <li>i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?</li> <li>If Yes:  i. Identify the name of the river and its designation:</li> </ul>	□ Yes □ No
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	□ Yes □ No
<ul> <li>F. Additional Information</li> <li>Attach any additional information which may be needed to clarify your project.</li> <li>If you have identified any adverse impacts which could be associated with your proposal, please describe those in measures which you propose to avoid or minimize them.</li> </ul>	npacts plus any
<ul><li>G. Verification</li><li>I certify that the information provided is true to the best of my knowledge.</li></ul>	
Applicant/Sponsor Name Date	
Signature Briddle Title	

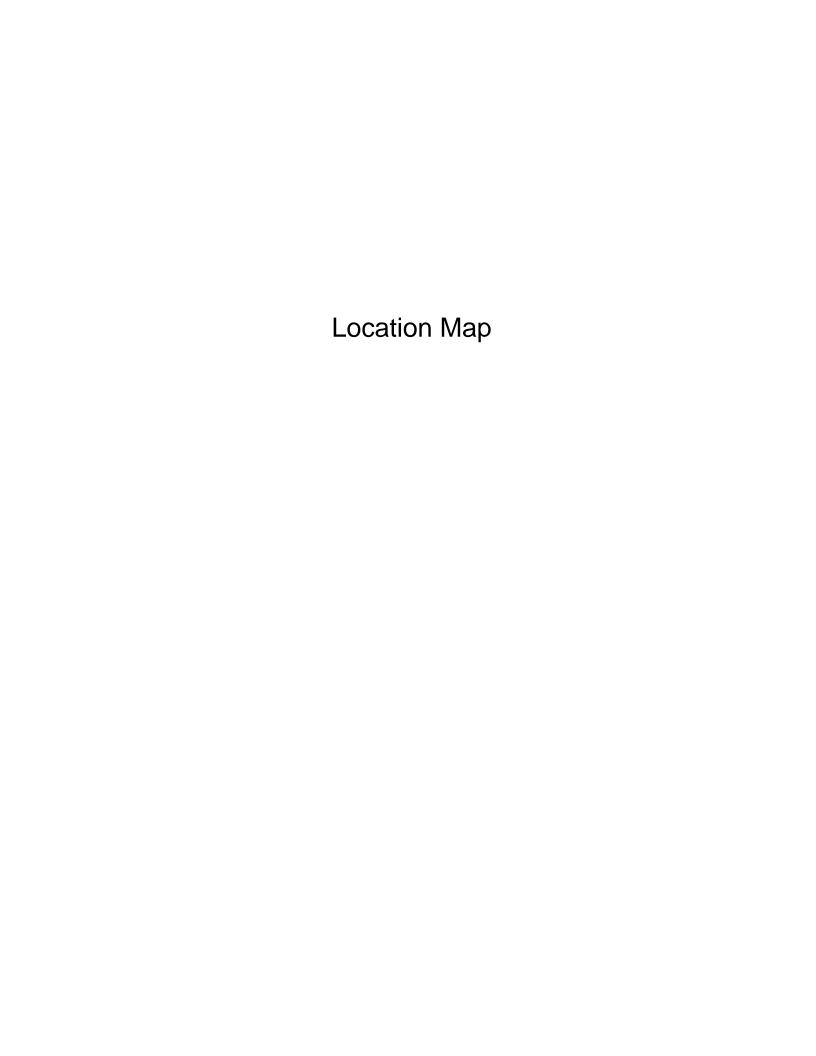


**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas:Mohawk Valley Heritage Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.I. [Aquifers]	Yes
E.2.I. [Aquifer Names]	Principal Aquifer, Sole Source Aquifer Names:Schenectady-Niskayuna SSA

E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	SARA002
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No



This map was produced to conform with the National Geospatial Program US Topo Product Standard



BURNT HILLS, NY 2023

# NY Natural Resource Heritage No Impact Letter

#### NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program 625 Broadway, Fifth Floor, Albany, NY 12233-4757 P: (518) 402-8935 | F: (518) 402-8925 www.dec.ny.gov

June 19, 2023

Arica McCarthy
Tighe & Bond
47 W Market Street, Ste 2
Rhinebeck, NY 12572

Re: Charlton School -- 322 Lake Hill Road County: Saratoga Town/City: Charlton

Dear Arica McCarthy:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 5 Office, Division of Environmental Permits, at dep.r5@dec.ny.gov.

Sincerely,

Heidi Krahling

Environmental Review Specialist New York Natural Heritage Program



# NYS OPRHP Letter of No Effect & Phase 1 Archaeology Assessment



KATHY HOCHUL Governor ERIK KULLESEID
Commissioner

June 16, 2023

Arica McCarthy Planner Tighe & Bond 47 W Market Street Ste 2 Rhinebeck, NY 12572

Re: DEC

Charlton School - Phase 1A Development 322 Lake Hill Rd, Burnt Hills, NY 12027

23PR04413

# Dear Arica McCarthy:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6NYCRR Part 617).

OPRHP has reviewed the Phase I Archaeological Survey Report prepared for this project (June 2023; 23SR00330). No archaeological sites were identified by the survey. Therefore, it is the opinion of the OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If you have any questions, I can be reached at Jessica. Schreyer@parks.ny.gov.

Sincerely,

Jessica Schreyer

Jessica E. Schreyen

Historic Preservation Program Analyst - Archaeologist

# Full Environmental Assessment Form Part 2 - Identification of Potential Project Impacts

Project : Date :

**Part 2 is to be completed by the lead agency.** Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

# **Tips for completing Part 2:**

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "Yes" to a numbered question, please complete all the questions that follow in that section.
- If you answer "No" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)  If "Yes", answer questions a - j. If "No", move on to Section 2.	□NC	) -	YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d		
b. The proposed action may involve construction on slopes of 15% or greater.	E2f		
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a		
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a		
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e		
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q		
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	Bli		
h. Other impacts:			

2. Impact on Geological Features			
The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)	ıt □ NO		YES
If "Yes", answer questions a - c. If "No", move on to Section 3.	Relevant	No, or	Moderate
	Part I Question(s)	small impact may occur	to large impact may occur
a. Identify the specific land form(s) attached:	E2g		
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark.  Specific feature:	E3c		
c. Other impacts:			
3. Impacts on Surface Water  The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)  If "Yes", answer questions a - l. If "No", move on to Section 4.	□ NC	) 🗀	YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h		
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b		
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a		
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h		
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h		
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c		
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d		
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e		
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h		
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h		
k. The proposed action may require the construction of new, or expansion of existing,	D1a, D2d		

wastewater treatment facilities.

1. Other impacts:			
<b>4. Impact on groundwater</b> The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquife (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)  If "Yes", answer questions a - h. If "No", move on to Section 5.	□ NC	) [	YES
ij Tes , unswer questions a n. ij 140 , move on to section 3.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c		
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer.  Cite Source:	D2c		
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c		
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l		
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h		
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l		
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c		
h. Other impacts:			
5. Impact on Flooding  The proposed action may result in development on lands subject to flooding.  (See Part 1. E.2)  If "Yes", answer questions a - g. If "No", move on to Section 6.	□NC	) 🗆	YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i		
b. The proposed action may result in development within a 100 year floodplain.	E2j		
c. The proposed action may result in development within a 500 year floodplain.	E2k		
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e		
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k		
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	Ele		

g. Other impacts:			
6. Impacts on Air  The proposed action may include a state regulated air emission source.  (See Part 1. D.2.f., D.2.h, D.2.g)  If "Yes", answer questions a - f. If "No", move on to Section 7.	□ NO		YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
<ul> <li>a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: <ol> <li>i. More than 1000 tons/year of carbon dioxide (CO<sub>2</sub>)</li> <li>ii. More than 3.5 tons/year of nitrous oxide (N<sub>2</sub>O)</li> <li>iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)</li> <li>iv. More than .045 tons/year of sulfur hexafluoride (SF<sub>6</sub>)</li> <li>v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions</li> <li>vi. 43 tons/year or more of methane</li> </ol> </li> </ul>	D2g D2g D2g D2g D2g D2g		
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g		
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g		
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g		
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s		
f. Other impacts:			
7. Impact on Plants and Animals  The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. If "Yes", answer questions a - j. If "No", move on to Section 8.	mq.)	□NO	□ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o		
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o		
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p		
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p		

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c		
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community.  Source:	E2n		
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m		
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat.  Habitat type & information source:	E1b		
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q		
j. Other impacts:			
8. Impact on Agricultural Resources The proposed action may impact agricultural resources. (See Part 1. E.3.a. ar	nd b.)	□ NO	□ YES
If "Yes", answer questions a - h. If "No", move on to Section 9.			
If "Yes", answer questions a - h. If "No", move on to Section 9.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	Part I	small impact	to large impact may
a. The proposed action may impact soil classified within soil group 1 through 4 of the	Part I Question(s)	small impact may occur	to large impact may occur
<ul> <li>a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.</li> <li>b. The proposed action may sever, cross or otherwise limit access to agricultural land</li> </ul>	Part I Question(s) E2c, E3b	small impact may occur	to large impact may occur
<ul> <li>a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.</li> <li>b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).</li> <li>c. The proposed action may result in the excavation or compaction of the soil profile of</li> </ul>	Part I Question(s) E2c, E3b E1a, Elb	small impact may occur	to large impact may occur
<ul> <li>a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.</li> <li>b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).</li> <li>c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.</li> <li>d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10</li> </ul>	Part I Question(s) E2c, E3b E1a, Elb	small impact may occur	to large impact may occur
<ul> <li>a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.</li> <li>b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).</li> <li>c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.</li> <li>d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.</li> <li>e. The proposed action may disrupt or prevent installation of an agricultural land</li> </ul>	Part I Question(s)  E2c, E3b  E1a, Elb  E3b  E1b, E3a	small impact may occur	to large impact may occur
<ul> <li>a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.</li> <li>b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).</li> <li>c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.</li> <li>d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.</li> <li>e. The proposed action may disrupt or prevent installation of an agricultural land management system.</li> <li>f. The proposed action may result, directly or indirectly, in increased development</li> </ul>	Part I Question(s)  E2c, E3b  E1a, Elb  E3b  E1b, E3a  El a, E1b  C2c, C3,	small impact may occur	to large impact may occur

9. Impact on Aesthetic Resources  The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)  If "Yes", answer questions a - g. If "No", go to Section 10.		) 🗆	YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h		
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b		
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h		
<ul><li>d. The situation or activity in which viewers are engaged while viewing the proposed action is:</li><li>i. Routine travel by residents, including travel to and from work</li><li>ii. Recreational or tourism based activities</li></ul>	E3h E2q, E1c	_ _	_ _
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h		
f. There are similar projects visible within the following distance of the proposed project:  0-1/2 mile  ½ -3 mile  3-5 mile  5+ mile	D1a, E1a, D1f, D1g		
g. Other impacts:			
10. Impact on Historic and Archeological Resources  The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)  If "Yes", answer questions a - e. If "No", go to Section 11.		) 🗆	YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e		
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f		
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory.  Source:	E3g		

d. Other impacts:			
If any of the above (a-d) are answered "Moderate to large impact may e. occur", continue with the following questions to help support conclusions in Part 3:			
<ol> <li>The proposed action may result in the destruction or alteration of all or part of the site or property.</li> </ol>	E3e, E3g, E3f		
<ul><li>ii. The proposed action may result in the alteration of the property's setting or integrity.</li></ul>	E3e, E3f, E3g, E1a, E1b		
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3		
11. Impact on Open Space and Recreation  The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.  (See Part 1. C.2.c, E.1.c., E.2.q.)  If "Yes", answer questions a - e. If "No", go to Section 12.	□NO	) 🗆	YES
•	Relevant	No, or	Moderate
	Part I Question(s)	small impact may occur	to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p		
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q		
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q		
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c		
e. Other impacts:			
12. Impact on Critical Environmental Areas  The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)  If "Yes", answer questions a - c. If "No", go to Section 13.		)	YES
	Relevant	No, or	Moderate
	Part I Question(s)	small impact may occur	to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d		
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d		
c. Other impacts:			

13. Impact on Transportation  The proposed action may result in a change to existing transportation systems (See Part 1. D.2.j)  If "Yes", answer questions a - f. If "No", go to Section 14.	s. 🔲 N0	O 🗖	YES
if ites, answer questions a j. if ito, go to section in.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j		
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j		
c. The proposed action will degrade existing transit access.	D2j		
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j		
e. The proposed action may alter the present pattern of movement of people or goods.	D2j		
f. Other impacts:			
14. Impact on Energy The proposed action may cause an increase in the use of any form of energy. (See Part 1. D.2.k)  If "Yes", answer questions a - e. If "No", go to Section 15.	□No	О 🗆	YES
1) Tes , answer questions a c. 1) Tro , go to section 13.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k		
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k		
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k		
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g		
e. Other Impacts:			
15 I A N 1 O I I I I I I			
15. Impact on Noise, Odor, and Light  The proposed action may result in an increase in noise, odors, or outdoor ligh (See Part 1. D.2.m., n., and o.)  If "Yes", answer questions a - f. If "No", go to Section 16.	ting. $\square$ NC	) 🗆	YES
J ,	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m		
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d		

c. The proposed action may result in routine odors for more than one hour per day.

D2o

d. The proposed action may result in light shining onto adjoining properties.	D2n	
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	
f. Other impacts:		

#### 16. Impact on Human Health The proposed action may have an impact on human health from exposure $\square$ NO $\square$ YES to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) If "Yes", answer questions a - m. If "No", go to Section 17. Relevant Moderate No,or Part I small to large **Ouestion(s)** impact impact may may cccur occur a. The proposed action is located within 1500 feet of a school, hospital, licensed day E1d П П care center, group home, nursing home or retirement community. Elg, Elh b. The site of the proposed action is currently undergoing remediation. Elg, Elh П c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action. Elg, Elh d. The site of the action is subject to an institutional control limiting the use of the П property (e.g., easement or deed restriction). e. The proposed action may affect institutional control measures that were put in place Elg, Elh П to ensure that the site remains protective of the environment and human health. D2t f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health. g. The proposed action involves construction or modification of a solid waste D2q, E1f П management facility. D2q, E1f h. The proposed action may result in the unearthing of solid or hazardous waste. П D2r, D2s i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste. j. The proposed action may result in excavation or other disturbance within 2000 feet of E1f, E1g a site used for the disposal of solid or hazardous waste. E1h E1f, E1g k. The proposed action may result in the migration of explosive gases from a landfill П П site to adjacent off site structures. D2s, E1f, 1. The proposed action may result in the release of contaminated leachate from the D2r project site. m. Other impacts:

17. Consistency with Community Plans  The proposed action is not consistent with adopted land use plans.  (See Part 1. C.1, C.2. and C.3.)  If "Yes", answer questions a - h. If "No", go to Section 18.	□NO		YES
If Tes , unswer questions a - n. If Two , go to section 10.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b		
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2		
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3		
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2		
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb		
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j		
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a		
h. Other:			
18. Consistency with Community Character  The proposed project is inconsistent with the existing community character.  (See Part 1. C.2, C.3, D.2, E.3)  If "Yes", answer questions a - g. If "No", proceed to Part 3.	□NO	) DY	/ES
The proposed project is inconsistent with the existing community character.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3)	Relevant Part I	No, or small impact	Moderate to large impact may
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3)  If "Yes", answer questions a - g. If "No", proceed to Part 3.  a. The proposed action may replace or eliminate existing facilities, structures, or areas	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3)  If "Yes", answer questions a - g. If "No", proceed to Part 3.  a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.  b. The proposed action may create a demand for additional community services (e.g.	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3)  If "Yes", answer questions a - g. If "No", proceed to Part 3.  a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.  b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)  c. The proposed action may displace affordable or low-income housing in an area where	Relevant Part I Question(s)  E3e, E3f, E3g  C4  C2, C3, D1f	No, or small impact may occur	Moderate to large impact may occur
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3)  If "Yes", answer questions a - g. If "No", proceed to Part 3.  a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.  b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)  c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.  d. The proposed action may interfere with the use or enjoyment of officially recognized	Relevant Part I Question(s)  E3e, E3f, E3g  C4  C2, C3, D1f D1g, E1a	No, or small impact may occur	Moderate to large impact may occur
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3)  If "Yes", answer questions a - g. If "No", proceed to Part 3.  a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.  b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)  c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.  d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.  e. The proposed action is inconsistent with the predominant architectural scale and	Relevant Part I Question(s)  E3e, E3f, E3g  C4  C2, C3, D1f D1g, E1a  C2, E3	No, or small impact may occur	Moderate to large impact may occur

Project : Date :

# Full Environmental Assessment Form Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

## **Reasons Supporting This Determination:**

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact
  occurring, number of people affected by the impact and any additional environmental consequences if the impact were to
  occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where
  there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse
  environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

	Determination of S	Significance - T	Type 1 and Unl	listed Actions	
SEQR Status:	☐ Type 1	☐ Unlisted			
Identify portions of EA	F completed for this Project:	□ Part 1	□ Part 2	□ Part 3	
					FEAF 2019

Upon review of the information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on the plus this additional support information recorded on this EAF, as noted, plus this additional support information recorded on the	mation
and considering both the magnitude and importance of each identified potential impact, it is the co	onclusion of the _ as lead agency that:
☐ A. This project will result in no significant adverse impacts on the environment, and, therefore statement need not be prepared. Accordingly, this negative declaration is issued.	ore, an environmental impact
☐ B. Although this project could have a significant adverse impact on the environment, that in substantially mitigated because of the following conditions which will be required by the lead age	
There will, therefore, be no significant adverse impacts from the project as conditioned, and, there declaration is issued. A conditioned negative declaration may be used only for UNLISTED action	
☐ C. This Project may result in one or more significant adverse impacts on the environment, a statement must be prepared to further assess the impact(s) and possible mitigation and to explore a impacts. Accordingly, this positive declaration is issued.	
Name of Action:	
Name of Lead Agency:	
Name of Responsible Officer in Lead Agency:	
Title of Responsible Officer:	
Signature of Responsible Officer in Lead Agency:	Date:
Signature of Preparer (if different from Responsible Officer)	Date:
For Further Information:	
Contact Person:	
Address:	
Telephone Number:	
E-mail:	
For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:	
Chief Executive Officer of the political subdivision in which the action will be principally located Other involved agencies (if any) Applicant (if any) Environmental Notice Bulletin: <a href="http://www.dec.ny.gov/enb/enb.html">http://www.dec.ny.gov/enb/enb.html</a>	(e.g., Town / City / Village of)

# Impact on Land

The proposed action will occur as one phase of multiple phases based on the School's 20-year master plan. Site construction will last for one year. The Charlton School campus is compactly sited, and all proposed improvements will occur within this area. The project actions for the Phase 1A campus upgrades will consist of the following improvements:

- Demolish two Maintenance Buildings and Clemens Cottage on the east side of the campus
- Demolish the two wood garages and shed on the west side of the campus
- Remove 13,805 square feet of existing driveway
- Clear 43,135 square feet of existing wooded area
- Construct four (4) new dormitory cottages and a new maintenance garage (22,996 square feet of new building footprint)
- Install related infrastructure upgrades to serve the new building and facilitate future expansion
- Construct 36,939 square feet of new access driveway, parking, and pedestrian walkways to service the new buildings
- Reconfigure the paddock space to accommodate the new construction and provide water and electricity to the paddocks

As for new campus infrastructure and utilities, Phase 1A will also consist of the following improvements:

- Construct three (3) stormwater infiltration basins
- Extend the existing water service to all new buildings
- Install new on-site septic systems, one for the maintenance building and one for the four dormitories
- Reconfigure the driveway to coordinate with new campus layout
- Add new site lighting and landscaping
- Upgrade/abandon utility lines to service new buildings
- Install a generator

In total, the site is proposed to have 4.90-acres physically disturbed to construct the improvements. Clearing will be limited to the area where the new maintenance facility will be constructed. Stormwater management facilities have been designed consistent with the New York State Stormwater Management Design Manual Chapter 9, Redevelopment. The three infiltration basins are proposed to mitigate, treat, and recharge the additional stormwater runoff from the development created by the proposed 0.92-acre area of additional impervious surfaces on the campus. Site soils have suitable capacity to infiltrate stormwater.

The nearest abutting private residence from the project site is approximately 0.03 mile, at 369 Lake Hill Road, while the second closes private residence is 0.2 mile, both along Lake Hill Road.

The proposed land alterations as described will not have a significant adverse impact to the existing campus and surrounding neighborhood's land surface.

# **Impact on Plants and Animals**

The project site will result in a minimal loss of flora. The improvements will require 43,135 square feet of existing wooded area be cleared on the western portion of the site.

A letter was obtained from the New York Natural Resource Heritage stating that there are no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

Impacts associated with land clearing activities will be mitigated by the addition of landscaping with the construction of the new buildings. A landscaping plan has been prepared that proposes numerous new trees and other vegetation.

The proposed clearing as described will not have a significant adverse impact on New York State or Federally identified threatened, endangered, special concern, or rare plants and animals and their associated habitats.

# Impact on Agricultural Resources

The site falls within the Saratoga County Agriculture District #2 and portions of the Project parcel are actively farmed. More than 2.5-acres will be disturbed on soils that are considered prime farmland / mineral soil group 2 (Chenango silt loam) and farmland of statewide importance (Windsor loamy sand). However, the improvements will occur in an area of the parcel that is used for the existing Charlton School campus footprint.

The proposed agricultural land disturbance as described will not have a significant adverse impact to the agriculture district and active farming operations.

# Impact on Historic and Archeological Resources

According to publicly available data, the site is located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory. An archaeologist conducted a Phase 1 Survey of the site in relationship to the proposed demolition and construction improvements. The findings of the survey have been reviewed by the New York State (NYS) Office of Parks, Recreation, and Historic Preservation (OPRHP) and OPRHP has provided a Letter of No Effect to signify that the proposed improvements will not impact any archaeological and/or historic resources, listed in or eligible for, the New York State and National Registers of Historic Places.

The proposed land alterations will not have a significant adverse impact to any historic or archaeological resources on site or in the vicinity of the project.

## Impact on Energy

The proposed action will involve an increase in energy usage to support the new dormitory and maintenance buildings. The new buildings will meet the most current codes and standards for energy efficiency and there will not be a significant increase in energy consumption compared to the existing service.

The proposed buildings will not have a significant adverse impact on energy usage for the School.

# Impact on Noise, Odor, and Light

During construction, additional noise will be generated typical of construction. Hours of construction are anticipated to occur between the hours of 7am to 7pm on Monday-Friday, excluding federal holidays. Operation noise will remain at current levels. All new proposed

lighting for the improvements, particularly for the new buildings, will be Dark Sky compliant. There are no anticipated odors to be produced by the proposed action.

The proposed campus improvements will not have a significant adverse impacts on existing noise, odor, or light conditions.



# **Charlton Fire Department Office of the Fire Chief**

677 Charlton Road, Ballston Lake NY 12019 (518) 399-1967

**Chief Christian DeCapria Assistant Chief Aaron Dyer** 

9/19/23

To Whom It May Concern:

I have met with Christopher Rokos from Tighe and Bond several times over the past year to discuss emergency access for the planned construction project at the Charlton School. I submitted to Christopher turning radius documents that provided specs for spacing requirements to get an aerial ladder truck from the East Glenville Fire Department through the Charlton School complex. An aerial ladder truck was utilized for specs as this would be the largest fire apparatus that will respond to the Charlton School complex for fire alarms and structure fire calls. The access plans provided therefore provide sufficient spacing requirements to maneuver fire and EMS apparatus through the complex.

We discussed access to dorms for fire suppression efforts in the event of a fire in those locations. I supported the present plan for emergency vehicle access, with the application of appropriate fire suppression and monitoring systems in accordance with the Fire Code of New York State, in the four dorms that are being planned for construction.

If this project is approved for construction, my department will update our current fire preplans to reflect the addition of the four dorms on the Charlton School complex.

Feel free to contact me if you have any questions.

Regards,

Christian DeCapria
Fire Chief
Charlton Fire Department

Date:	Customer:		
Project:			
Туре:		 Qty:	



Beta Pendant LED

BPL

Type: \_\_\_

Order Code:



			Pole	Order C				
BPL	Series	<b>BPL</b> Beta Pendant LED	:		Seri	es Hei	ight Finish	Options
	_ Optics	R1 Type I Distribution	R2 Type II Distribution	<b>R3</b> Type III Distributior	R4 Type IV Distribution	R5R Type V (Round) Distribution	R5S Type V (Square) Distribution	
	Mounting	1 Single	<b>2C</b> Double Cluster	<b>3C</b> Triple Cluster	<b>4C</b> Quadruple Cluster	<b>W</b> Wall Mount	P* Pendant	* Interior use only
	Light Engine	5G350 nominal 33W	5G530 nominal 49W	<b>5G700</b> nominal 64W	5G105 nominal 95W			
	— ССТ	<b>27¹*</b> 2700K	<b>30</b> <sup>1</sup> 3000K	<b>35*</b> 3500K	<b>40</b> 4000K	<b>50*</b> 5000K		<sup>1</sup> 2700K and 3000K IDA Approved *Consult factory.
	Power Cord Length	<b>12</b> 12'	<b>15</b>	<b>18</b> 18'	<b>20</b> 20'	<b>25</b> 25'	XX XX'	
	_ Finish	WH White	<b>BK</b> Black	<b>BL</b> Semi-Matte Black	<b>BZ</b> Bronze	<b>SV</b> Silver	<b>SP</b> Specify Premium Color	
	Voltage	UNV <sup>2,5</sup> 120V-277V	<b>120</b> 120V	<b>240</b> 240V	<b>277</b> 277V	<b>347</b> <sup>3,4,6</sup> 347V	<b>480</b> <sup>3,4,5</sup> 480V	<sup>2</sup> Please specify voltage <sup>3</sup> Equipped with step-down transformer <sup>4</sup> Wattage increases to light engines as suc 55W, 75W, 115W <sup>3</sup> Not available with PCT or HL50 <sup>6</sup> Not available with HL50
	Options	HS <sup>7</sup> House Side Shield (180°)	DM <sup>8</sup> Dimming (0-10V)	PCT <sup>10,11</sup> Photocell Tenon See page 9 for details	HL50 <sup>8,9</sup> Hi-Lo Switching Low Output 50%	MS <sup>8,11</sup> Motion Sens Optional Pho (meets Title Requirement Spec Sheet for	otocell 24 ts). See Pole	<sup>7</sup> Type I, II, III, and IV only <sup>8</sup> DM, HLXX, or MS only. Cannot be combin <sup>9</sup> 120V, 240V, 277V only <sup>10</sup> 120V, 240V, 277V, 347V only <sup>11</sup> PCT or MS only. Cannot be combined.

P	'n	od	uct	t١	10	ď	ifi	С	a	ti	0	n	S

Please list modification requirements for review by factory:

**Approvals** 





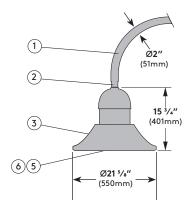








#### **BPL**



## **Specifications**

- **1. Mounting Arm -**  $\emptyset$ 2" (51mm) curved arm attaches to pole by means of a transition fitter supplied with fixture.
- **2. Fixture Connection -** The fixture cap is securely fastened to curved arm using a steel connector.
- **3. Fixture Hood -** Decorative low-copper aluminum shade.
- **4. Gasketing -** (Not shown) Continuous molded gaskets provide weatherproofing, dust, and insect control.
- **5. LED Array -** High Flux LEDs mounted to metal core PCB and attached to external heat sink for maximum LED performance and life. CCT tolerance within a 3 step bin and provided with a minimum CRI of 80. LED light engine has a reported lumen maintenance of 98% at 50,000 hours. L70 calculated greater than 100,000 hours. Exposed face rated to IP65.

- **6. LED Optics -** (not shown) Technical Optics (R1, R2, R3, R4, R5S and R5R) use Selux signature light pattern acrylic lens holder to secure proprietary silicone optics. Internal micro house side shield available for distributions types I, II, III & IV.
- **7. LED Driver -** (not shown) LEDs are driven by RoHS compliant constant current programmable LED driver. Driver includes 0-10V dimming to 10%, meets the requirements of IP66. Driver assembly located inside the head and accessible through the the hinged door.
- **8. Surge Protection -** (not shown) Designed to protect luminaire from electrical surge (20kA).

Exterior Luminaire Finish - Selux utilizes a high qualityPolyester Powder Coating. AllSelux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultra violet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ) and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

#### 5 Year Limited LED Luminaire Warranty -

Selux offers a 5 Year Limited Warranty to the original purchaser that the Beta Pendant LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the fixture, LED driver and LED light engine when installed and operated according to Selux instructions. Fixture suitable for ambient temperature of 35° C (95° F). For details and exclusions, see "Selux Terms and Condition of Sale."

**Listings and Ratings:** Tested to IESNA LM-79-08 and LM-80 test standards at 25° C ambient temperature. Rated for wet locations.

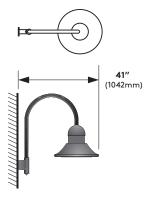
Visit selux.us for our LED End of Life recycling policy.

For Buy American compliance on poles, please consult the factory.

# Mounting

#### Wall Mount

**EPA =**  $1.7 \text{ft}^2 (0.16 \text{m}^2)$ Weight = 38lbs. (17.2kg)



#### Single

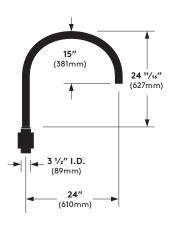
**EPA =**  $1.7 \text{ft}^2 (0.16 \text{m}^2)$ **Weight =** 38lbs. (17.2 kg)





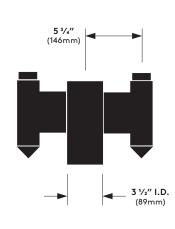
#### Arm

Curved steel tubing supplied with fixture head. Arm radius = 12" (305mm). Steel fitter slips over pole and is secured with (3) stainless steel screws.



# **Mulitple Pole Fitter**

Fabricated steel fitter base and transition to pole. Secured to pole with (4) 3/4" NPT steel threaded pipe. Specify stainless steel Allen head set screws. Decorative caps at bottom of mounting arm locations are formed aluminum and drilled for water drainage.



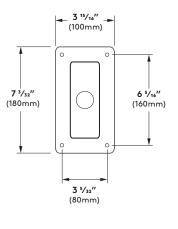
## Stem for Pendant Mount (Interior use only)

stem length (10' max.) Fromed steel canopy ( $\rightarrow 5.0$ "/12.7mm) supplied with crossbar for junction box mounting. Junction box to be secured for load bearing requirements appropriate to local codes.



#### Wall Mount Back Plate

Fabricated steel mounting. Secured to wall with 5/16" (8mm) diameter fasteners (by others).



# Mounting

#### Double

Die-cast aluminum double round luminaire mounting arms secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3 1/2 " tenon.

**EPA =** 3.9ft<sup>2</sup> (0.36m<sup>2</sup>) **Weight =** 86lbs. (39.0kg)

#### Triple

Die-cast aluminum triple round luminaire mounting arms secured to pole with four stainless steel, Allen head set screws.

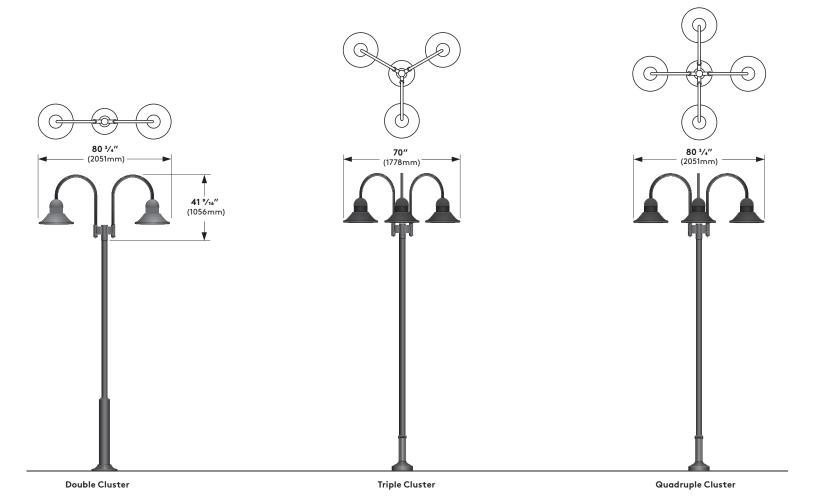
Outer slip fitter for 3 1/2" tenon.

**EPA =** 5.6ft² (0.52m²) **Weight =** 124lbs. (56.2kg)

#### Quad

Die-cast aluminum quadruple round luminaire mounting arms secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3 1/2" tenon.

**EPA** = 7.3ft<sup>2</sup> (0.68m<sup>2</sup>) **Weight** = 162lbs. (73.4kg)

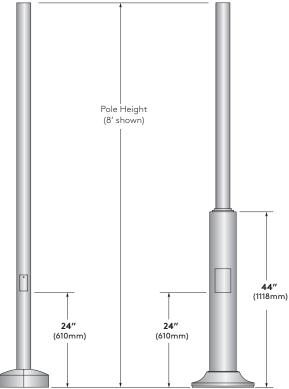


#### **Pole Information**

Refer to pole specification sheets for construction details, anchorage information and additional options.

# A35 & S35 S635 Round Straight Aluminum & Round Straight Steel Poles

**Round Stepped Steel Poles** 



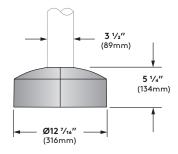
Shown with standard base covers.

#### **Base Cover Information**

Refer to pole specification sheets for construction details, anchorage information and additional options.

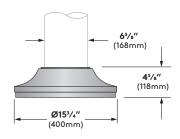
# Standard Base Cover (BC5) Supplied with A35 and S35

Two-piece cast aluminum



#### Standard Base Cover (BC6) Supplied with S635

One-piece cast aluminum



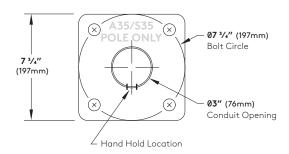
# Pole Data Chart

Pole Series	Bolt		EP/	A Informat	tion		∐aiab+	Finish	Ontions	
Pole Series	Circle	70mph	80mph	90mph	100mph	110mph	- Height	FINISH	Options	
\$635 3 1/2" Diameter Stepped Steel Pole	Ø9"	57.6	44.3	34.6	27.5	22.8		WH White	BC5	
A35 3 ½" Diameter Straight Aluminum Pole	Ø7 ³/₄''	16.1	12.2	9.4	7.3	5.9	<b>8</b> 8ft.	BK Black	Two-piece base cover for A35 and S35 poles	
S35 3 ½" Diameter Straight Steel Pole	Ø7 ³/₄''	14.8	11.3	8.6	6.7	5.4			BC6 Two-piece base cover for S635 pole	
<b>\$635</b> 3 ½" Diameter Stepped Steel Pole	Ø9"	45.6	35.0	27.3	21.6	17.8		BL Semi- Matte Black	REC	
A35 3 ½" Diameter Straight Aluminum Pole	Ø7 ³/4"	12.4	9.3	7.1	5.4	4.3	<b>10</b> 10 ft.		GFCI Receptacle with weatherproof cover	
S35 3 ½" Diameter Straight Steel Pole	Ø7 ³/4"	11.4	8.6	6.5	4.9	3.9		BZ Bronze	REC2	
<b>S635</b> 3 ½" Diameter Stepped Steel Pole	Ø9"	37.6	28.7	22.3	17.5	14.4		SV Silver	GFCI Receptacle with padlockable in-use cover	
A35 3 ½" Diameter Straight Aluminum Pole	Ø7 ³/₄''	9.9	7.3	5.4	4.0	3.1	<b>12</b> 12 ft.	CD a v	REC3 USB & Duplex Receptacle with	
S35 3 ½" Diameter Straight Steel Pole	Ø7 ³/4"	9.1	6.7	4.9	3.6	2.8		SP Specify Premiur	weatherproof cover	
<b>S635</b> 3 ½" Diameter Stepped Steel Pole	Ø9"	31.7	24.2	18.6	14.6	11.9		Color	REC4 USB & Duplex Receptacle with	
A35 3 ½" Diameter Straight Aluminum Pole	Ø7 ³/4"	8.0	5.8	4.2	3.0	2.2	<b>14</b> 14 ft.		weatherproof padlockable in-use cover  MS	
S35 3 ½" Diameter Straight Steel Pole	Ø7 ³/4"	7.3	5.3	3.8	2.7	1.9			Motion Sensor with Optional Photocell (Meets Title 24 Requirements)	
<b>S635</b> 3 ½" Diameter Stepped Steel Pole	Ø9"	21.7	15.8	12.3	9.6	7.6			* Weatherproof cover intended for	
A35 3 ½" Diameter Straight Aluminum Pole	Ø7 ³/4"	4.9	3.2	2.2	1.4	N/A	<b>16</b> 16 ft.		portable tools or other portable equipment connected to the outlet	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 ³/4"	4.4	2.8	1.9	N/A	N/A	. <b>10</b> 16 ft.	equipment connected to the or only when attended. For other quirements please consult fact		



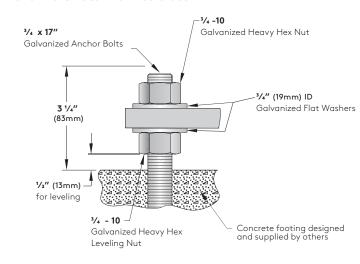
#### **Bolt Circle for A35 & S35**

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown



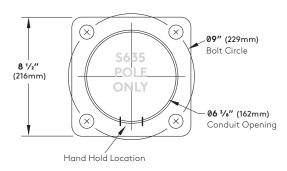
Note: Adequate drainage must be provided in concrete foundation.

#### Anchor Bolt Detail for A35 & S35



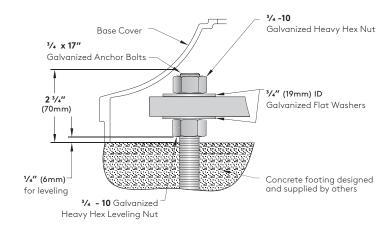
#### **Bolt Circle for S635**

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



**Note:** Adequate drainage must be provided in concrete foundation.

# **Anchor Bolt Detail for S635**





#### **Round Pole Motion Sensor**

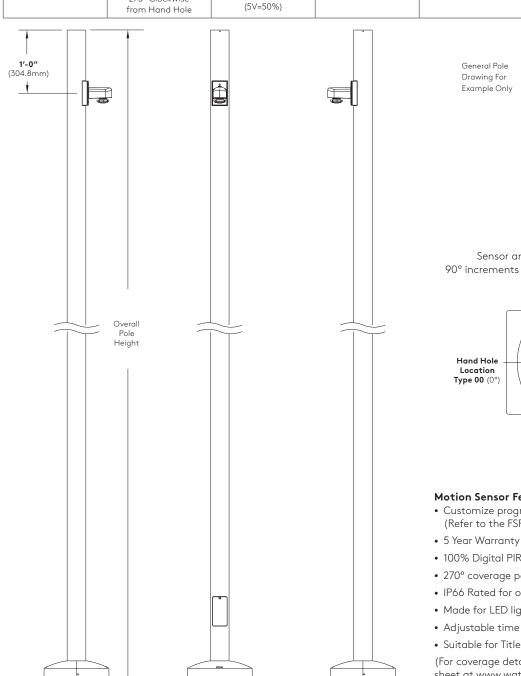
The Selux outdoor rated sensor incorporates Passive Infrared (PIR) Technology for motion sensing and also includes built-in photocell. Sensor comes pre-installed in cast aluminum housing painted to match pole finish.

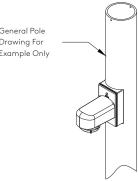
Series	Hand Hole Orientation	Dim Level	Photocell Feature	Voltage
	00 0° Clockwise from Hand Hole	<b>D0</b> (Off)		
MS	90° Clockwise from Hand Hole	<b>D1</b> (1V=10%)	Y Yes	<b>UNV</b> (100-347VAC
Motion Sensor	<b>18</b> 180° Clockwise from Hand Hole	<b>D3</b> (3V=30%)	<b>N</b> No	single phase or 208/230/480VAC phase-to-phase)
	<b>27</b> 270° Clockwise from Hand Hole	<b>D5</b> (5V=50%)		

## **Factory Defaults:**

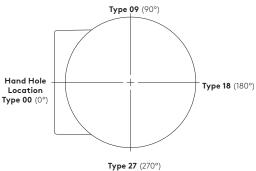
Delay to Dim: 5 minutes Delay to Off: 1 hour Sensitivity: Max

Custom Programming: Consult Factory





Sensor angular orientation from hand hole  $0^{\circ}$ 90° increments clockwise around pole (Type 00, 09, 18, 27)



#### **Motion Sensor Features**

• Customize programming using smartphone application (Refer to the FSP-321 at www.wattstopper.com)

**Top View** 

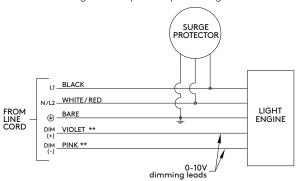
- 100% Digital PIR Detection, excellent RF Immunity
- 270° coverage pattern
- IP66 Rated for outdoor applications
- Made for LED light source
- Adjustable time delays, max/min dim levels, and ramp rates
- Suitable for Title 24 applications

(For coverage details refer to wattstopper FSP-321 spec sheet at www.wattstopper.com)



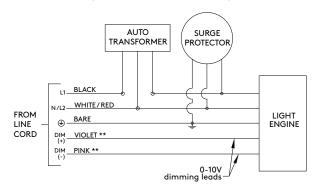
# Standard Wiring (120V-277V)

\*\*When dimming is not required cap dimming wires.



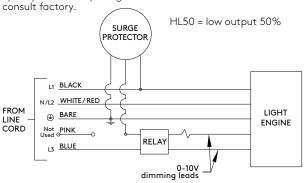
# Standard Wiring (347/480V with Step-down Transformer)

\*\*When dimming is not required cap dimming wires.



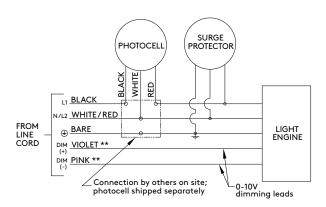
#### Hi-Lo Switching Option (HL) Wiring HL50 Only

120V, 240V, 277V. When blue is energized, light output will be at "Lo" level. Specify low-level by using the level listed below. For other combinations,

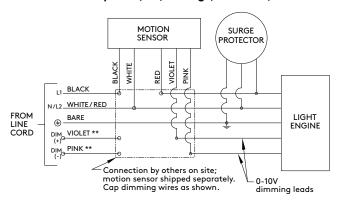


## Photocell Option (PCT) Wiring

\*\*When dimming is not required cap dimming wires.



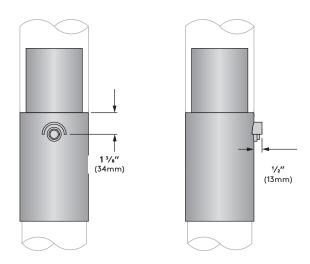
#### Motion Sensor Option (MS) Wiring (120-480V)

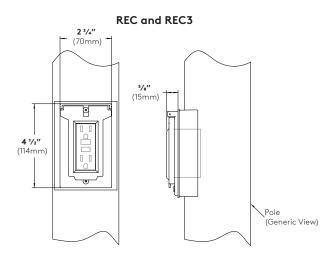


Wire Designation Table						
Source Voltage (VAC)	Wire Color	Wire Designation				
120\/ 277\/ 7 47\/	Black	L1				
120V, 277V, or 347V	White	Neutral				
2001/ 2401/ 4001/	Black	L1				
208V, 240V, or 480V	Red	L2				
UNV	Black	L1				
(120V-277V)	White	Neutral (120/277V) or L2 (208/240V)				

#### **Optional Accessories**

**Photo Cell Tenon (PCT)** - Button type photocell mounted in cast aluminum pole top tenon. Tenon has integral cast visor to prevent false start/ stop cycle and can be oriented for optimum performance. Refer to luminaire spec sheet to determine if this option is applicable.



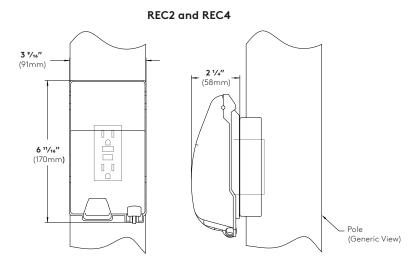


Cover shown in the closed position

**GFCI Receptacle (REC) -** 120V 15A GFCI duplex receptacle with weatherproof, self-closing cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel (120V only).

**USB & Duplex Receptacle (REC3)** (not shown) - 120V 20A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5A, 5V USB outlets. With weatherproof, self-closing cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

REC3 does not incorporate GFCI (Ground Fault Circuit Interrupter) protection, and shall be powered by a GFCI protected branch circuit (by others).



Cover shown in the closed position

**GFCI Receptacle (REC2) -** 120V 15A GFCI duplex receptacle with weatherproof, self-closing, padlockable in-use cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel (120V only).

**USB & Duplex Receptacle (REC4)** (not shown) - 120V 20A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5A, 5V USB outlets. With weatherproof, self-closing padlockable in-use cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

REC4 does not incorporate GFCI (Ground Fault Circuit Interrupter) protection, and shall be powered by a GFCI protected branch circuit (by others).

#### Beta Pendant LED

## **Photometry**

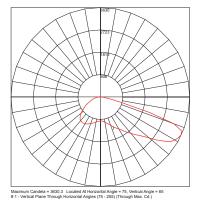
# selux

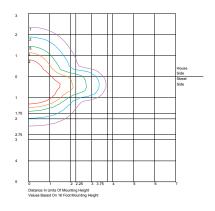
# R1 Optics / 64W LED / 3000K CCT

Catalog #: BPL-X-R1-5G700-30-XX-UNV Delivered Lumens: 6881 Input Watts: 64.45W Efficacy: 107 lm/W CCT: 2979K CRI (Ra): 82.1 Maximum candela of 3630 at 65° IES classification: Type II Mounting Height: 16' (4.9 m)

BUG Rating: B2-U0-G1 Power Factor: 0.995

Total Harmonic Distortion: 6.82%



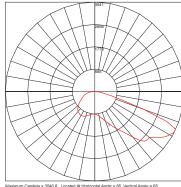


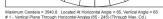
# R2 Optics / 64W LED / 3000K CCT

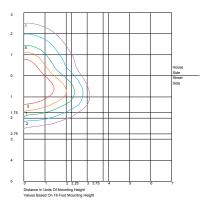
Catalog #: BPL-X-R2-5G700-30-XX-UNV Delivered Lumens: 6675 Input Watts: 64.17W Efficacy: 104 lm/W CCT: 2979K CRI (Ra): 82.1 Maximum candela of 3541 at 65°

IES classification: Type II Mounting Height: 16' (4.9 m) BUG Rating: B2-U0-G1 Power Factor: 0.995

Total Harmonic Distortion: 6.82%





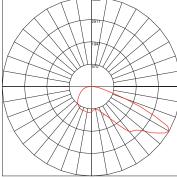


#### R3 Optics / 64W LED / 3000K CCT

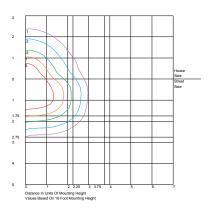
Catalog #: BPL-X-R3-5G700-30-XX-UNV Delivered Lumens: 6615 Input Watts: 64.27W Efficacy: 103 lm/W CCT: 2979K CRI (Ra): 82.1 Maximum candela of 3882 at 60°  $\,$ IES classification: Type III

Mounting Height: 16' (4.9 m) BUG Rating: B1-U0-G1 Power Factor: 0.995

Total Harmonic Distortion: 6.82%



Maximum Candela = 3881.8 Located At Horizontal Angle = 45, Vertical Angle = 60 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



#### **Photometry**

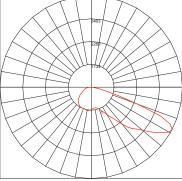


#### R4 Optics / 64W LED / 3000K CCT

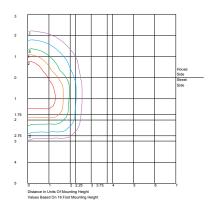
Catalog #: BPL-X-R4-5G700-30-XX-UNV Delivered Lumens: 6750 Input Watts: 65.03W Efficacy: 104 Im/W CCT: 2979K CRI (Ra): 82.1 Maximum candela of 4537 at 62.5° IES classification: Type III Mounting Height: 16' (4.9 m)

Mounting Height: 16' (4.9 m) BUG Rating: B2-U0-G1 Power Factor: 0.995

Total Harmonic Distortion: 6.82%



Maximum Candela = 4537.4 Located At Horizontal Angle = 35, Vertical Angle = 62.5 # 1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)

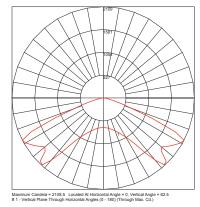


## R5R Optics / 64W LED / 3000K CCT

Catalog #: BPL-X-R5R-5G700-30-XX-UNV

Delivered Lumens: 6823 Input Watts: 63.82W Efficacy: 107 Im/W CCT: 2979K CRI (Ra): 82.1 Maximum candela of 2109 at 62.5° IES classification: Type V Mounting Height: 16' (4.9 m) BUG Rating: B2-U0-G1 Power Factor: 0.995

Total Harmonic Distortion: 6.82%



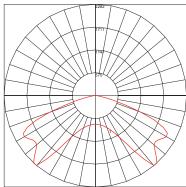
1 House Seed On 16 Foot Mounting Height
Values Based On 16 Foot Mounting Height

# R5S Optics / 64W LED / 3000K CCT

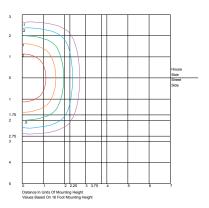
Catalog #: BPL-X-R5S-5G700-30-XX-UNV

Delivered Lumens: 6783 Input Watts: 64.07W Efficacy: 106 Im/W CCT: 2979K CRI (Ra): 82.1 Maximum candela of 2282 at 42.5° IES classification: Type VS Mounting Height: 16' (4.9 m) BUG Rating: B2-U0-G1 Power Factor: 0.995

Total Harmonic Distortion: 6.82%



Maximum Candela = 2281.5 Located At Horizontal Angle = 45, Vertical Angle = 42.5 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



Date:	Customer:		
Project: _			
Type:		Qtv:	



# Inula Bollard LED



IBL	Series	<b>IBL</b> Inula Bollard LED	I						
	Height	1.5 1.5'. (consult factory)	2 2' (consult factory)	<b>2.5</b> 2.5'	<b>3</b> 3'	<b>3.5</b> 3.5′	<b>4</b> 4'		
	Light Engine	<b>1Q</b> <sup>1</sup> 7.6W/577Im	<b>2Q90</b> 14.1W/1156lm	2Q90MU 14.1W/854lm (max uniformity	2Q180 14.1W/1156lm	<b>3Q</b> 20.5W/1689lm	<b>4QS</b> 27.2W/2246lm	<b>4QD</b> 27.2W/2246lm	*Based on 5000K CCT. <sup>1</sup> Not available with EM.
	ССТ	AM <sup>2</sup> Amber	<b>27<sup>2</sup>*</b> 2700K	<b>30</b> <sup>2</sup> 3000K	<b>35*</b> 3500K	<b>40</b> 4000K	<b>50*</b> 5000K		<sup>2</sup> IDA Approved. *Consult factory
	Finish	WH White	<b>BK</b> Black	<b>BL</b> Semi-Matte Black	<b>BZ</b> Bronze	<b>SV</b> Silver	<b>SP</b> Specify Premium Color		
	Voltage	UNV 120-277V	<b>120</b> 120V	<b>208</b> 208V	<b>240</b> 240V	<b>277</b> 240V	<b>347</b> <sup>3</sup> 347V	<b>480</b> <sup>3</sup> 480V	*50 or 60 Hertz. <sup>3</sup> Requires step down transformer, 60 Hertz Only.
	Options	DM Dimming (0-10V)	HL30 <sup>6,9,11</sup> Hi-Lo Switching 100-30%	REC <sup>4,5,15</sup> GFCI Receptacle with weather- proof cover	REC2 <sup>4,5,15</sup> GFCI Receptacle with padlockable in-use cover	REC3 <sup>4,5,15</sup> USB & Duplex Receptacle with weather-	REC4 <sup>4,5,15</sup> USB & Duplex Receptacle with weatherproof	EM <sup>7,8,12</sup> Emergency Battery Pack -20C	4120V Only.  Not available in 2.5' height.  Only available with 120V,240V or 277  Not available with IQ.  120V or 277V only.  Not available with DM Option.
		PC <sup>10,11</sup> Photocell	LP11,13,14 Lower Power Version Decreases Light Output by 60%	HP <sup>11</sup> High Power Version Increases Light Output by 100%		proof cover	padlockable in-use cover		<sup>10</sup> Not available at 480V. <sup>1</sup> Not available with EM option. <sup>2</sup> Not available with PC or LP option. <sup>3</sup> Not available with HL30 or HP option. <sup>4</sup> For 1Q, 20xx and 3Q please consult factory. <sup>5</sup> See page 6 for details.

















#### **IBL**



Net Weight (35lbs)

#### **Specifications**

**Fixture Housing -** Die cast low-copper and lowiron aluminum fixture body provides corrosion resistance in marine environments.

**Gasketing -** (not shown) Continuous gaskets provide weather-proofing, dust, and insect control between castings.

**LED Light Engine -** (not shown) High efficiency LED light engine equipped with brand-name LEDs, available in 2700K, 3000K, 4000K, 5000K CCT tolerance within a 3-step MacAdams ellipse, and Amber CCT. Suitable temperature range (-40C to +45C).

**Optics -** (not shown) Proprietary vandal and UV resistant acrylic optic provides optimal light blending between quadrants.

**Surge Protector -** (not shown) Designed to protect luminaire from electrical surge (20kA).

**Hi-Lo Switching Option -** (not shown) Controlled switching between 100% and 30% power. See wiring diagrams for additional details

**Low Power Option -** (not shown) 60% decrease in Lumen output in same physical package.

**High Power Option -** (not shown) 100% increase in Lumen output in same physical package.

**Light Chamber -** Castings around Light Engine are painted with special Matte Black light absorbing powder coat paint. Meets International Dark-Sky Association (IDA) requirements B0, U0, and G0 BUG ratings at 2700K and 3000K CCT.

**Low-Temperature Emergency Battery Pack Option -** (not shown) Provide 90 minutes of constant-power egress lighting when external power is lost. -20°C to +55°C ambient temperature operation.

**Exterior Luminaire Finish -** Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultraviolet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide. ® **5 Year Limited LED Luminaire Warranty -** Selux offers a 5 Year Limited Warranty to the

original purchaser that the Inula Bollard LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the LED driver and LED array when installed and operated according to Selux instructions. For details, see "Selux Terms and Condition of Sale."

**Listings and Ratings:** Tested to NRTL Wet Location and IESNA LM-79-08 standards. LED tested to LM-80 standards.

Luminaire tested to IK10 standard, IDA Approved and Lighting Facts Certified.

Luminaire and LED tested at 25°C (77°F) ambient temperature.

Visit selux.us for our LED End of Life recycling policy.



#### Profiles IBL-XX-4QD



# **Mounting Information**

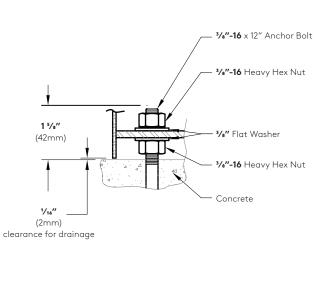
#### Notes

- 1. Bollard orientation is critical, rod and hand hole locations are critical.
- 2. Locate single bolt and hand hole location.
- ${\tt 3.}$  Adequate drainage must be provided in concrete foundation.
- 4. Conduit should be stubbed up above the concrete footing.

# Hand hole side of pole **Ø7** 1/8" (Ø200mm) Fixture O.D. **Ø6"** (Ø152mm) Bolt Circle 3" **Ø4** 1/2" (Ø114mm) (76mm) Conduit Opening 1 1/2" (38mm) 2 5/8" 2 5/8" (66mm) (66mm) 120°

# **Bolt Circle Detail (Not to Scale)**

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.

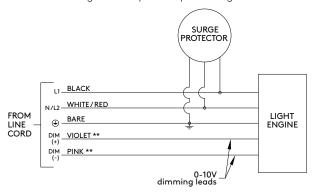




#### Wiring Diagrams

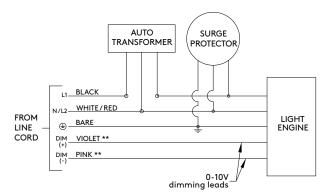
#### Standard Wiring (120V-277V)

\*\*When dimming is not required cap dimming wires.



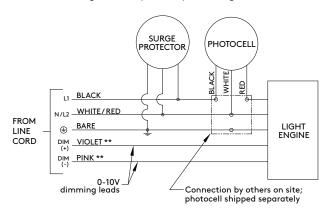
#### Standard Wiring (347/480V with Step-down Transformer)

\*\*When dimming is not required cap dimming wires.



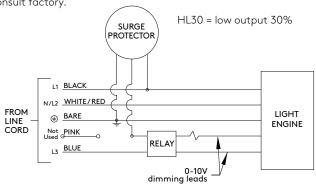
#### Photocell Option (PC) Wiring

\*\*When dimming is not required cap dimming wires.



# Hi-Lo Switching Option (HL) Wiring HL30 Only

120V, 240V, 277V. When blue is energized, light output will be at "Lo" level. Specify low-level by using the level listed below For other combinations, consult factory.



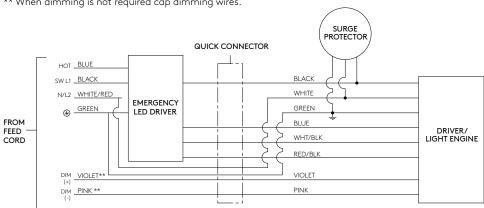
Wire Designation Table				
Source Voltage (VAC)	tage (VAC) Wire Color Wire Designation			
120\/ 277\/ 7.47\/	Black	L1		
120V, 277V, or 347V	White Neutral	Neutral		
208V, 240V, or 480V	Black	L1		
208V, 240V, or 480V	Red	L2		
UNV	Black	L1		
(120V-277V)	White	Neutral (120/277V) or L2 (208/240V)		



# **Wiring Diagrams**

# Standard Wiring (120V-277V) with (EM) Option

100% light output at 10V, down to 1% light output at 0V. \*\* When dimming is not required cap dimming wires.

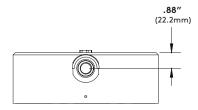


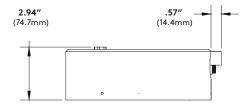
Wire Designation Table			
Source Voltage (VAC)	Wire Color	Wire Designation	
	Black	L1 (Switched)	
120V or 277V	White	Neutral	
	Red	Hot (Unswitched)	
	Black	L1 (Switched)	
208V or 240V	Blue	L2	
	Red	Hot (Unswitched)	
	Black	L1 (Switched)	
UNV (120V-277V)	White	Neutral (120/277V) or L2 (208/240V)	
(1201 2771)	Red	Hot (Unswitched)	

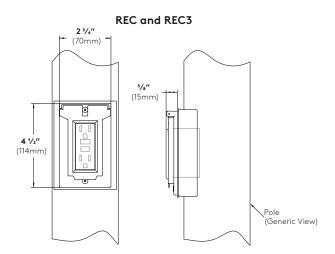


# **Optional Accessories**

**Photo Cell (PC)** - Integrated in top cap for 360° of orientation adjustment in the field.





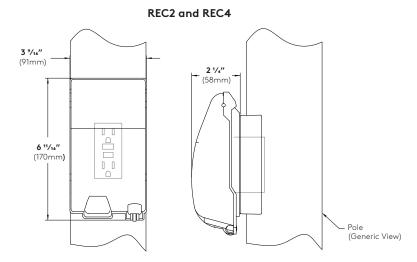


Cover shown in the closed position

**GFCI Receptacle (REC) -** 120V 15A GFCI duplex receptacle with weatherproof, self-closing cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel (120V only).

**USB & Duplex Receptacle (REC3)** (not shown) - 120V 20A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5A, 5V USB outlets. With weatherproof, self-closing cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

REC3 does not incorporate GFCI (Ground Fault Circuit Interrupter) protection, and shall be powered by a GFCI protected branch circuit (by others).



Cover shown in the closed position

**GFCI Receptacle (REC2) -** 120V 15A GFCI duplex receptacle with weatherproof, self-closing, padlockable in-use cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel (120V only).

**USB & Duplex Receptacle (REC4)** (not shown) - 120V 20A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5A, 5V USB outlets. With weatherproof, self-closing padlockable in-use cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

REC4 does not incorporate GFCI (Ground Fault Circuit Interrupter) protection, and shall be powered by a GFCI protected branch circuit (by others).

# **Photometry**

#### 1Q / 8W LED / 5000K CCT

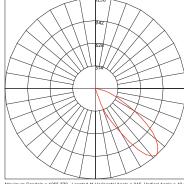
Catalog #: IBL-X-1Q-50-XX-120-DS

Report #: 1197031-50

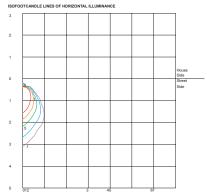
Maximum candela of 1256 at 42.5° from vertical.

Mounting Height = 4' (1.22 m) 577 Delivered Lumens 75 Lumens per Watt

B0-U0-G0



Maximum Candela = 1255.772 Located At Horizontal Angle = 315, Vertical Angle = 42.5 # 1 - Vertical Plane Through Horizontal Angles (315 - 135) (Through Max. Cd.)



#### 2Q90 / 14W LED / 5000K CCT

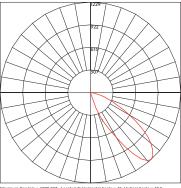
Catalog #: IBL-X-2Q90-50-XX-120-DS

Report #: 1197029-50

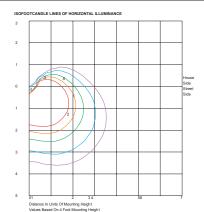
Maximum candela of 1229 at 42.5° from vertical.

Mounting Height = 4' (1.22 m) 1158 Delivered Lumens 82 Lumens per Watt

B0-U0-G0



Maximum Candela = 1229.367 Located At Horizontal Angle = 45, Vertical Angle = 42.5 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



# 2Q90MU / 14W LED / 5000K CCT

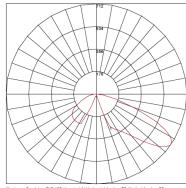
Catalog #: IBL-XX-2Q90MU-50-XX-UNV

Report #: 13374611.02

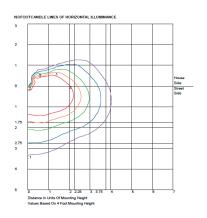
Maximum candela of 712 at 55° from vertical.

Mounting Height = 4' (1.22 m) 854 Delivered Lumens 81 Lumens per Watt

B1-U0-G1



Maximum Candela = 712.185 Located At Horizontal Angle = 75, Vertical Angle = 55 # 1 - Vertical Plane Through Horizontal Angles (75 - 255) (Through Max. Cd.)



# 2Q180 / 14W LED / 5000K CCT

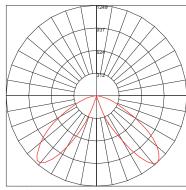
Catalog #: IBL-X-2Q180-50-XX-120-DS

Report #: 1197024-50

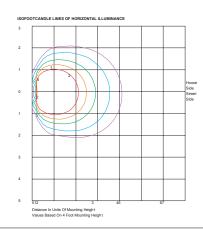
Maximum candela of 1249 at 42.5° from vertical.

Mounting Height = 4' (1.22 m) 1156 Delivered Lumens 81 Lumens per Watt





Maximum Candela = 1248.93 Located At Horizontal Angle = 85, Vertical Angle = 42.5 # 1 - Vertical Plane Through Horizontal Angles (85 - 265) (Through Max. Cd.)



#### **Photometry**

#### 3Q / 20W LED / 5000K CCT

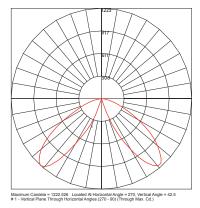
Catalog #: IBL-X-3Q-50-XX-120-DS

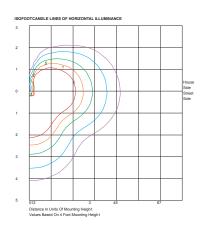
Report #: 1197021-50

Maximum candela of 1223 at 42.5° from vertical.

Mounting Height = 4' (1.22 m) 1689 Delivered Lumens 82 Lumens per Watt

B1-U0-G0





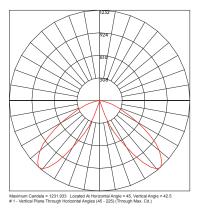
#### 4QS / 27W LED / 5000K CCT

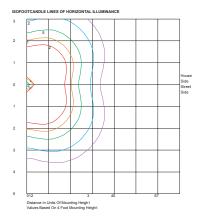
Catalog #: IBL-X-4QS-50-XX-120-DS

Report #: 1197039-50

Maximum candela of 1232 at 42.5° from vertical.

Mounting Height = 4' (1.22 m) 2246 Delivered Lumens 83 Lumens per Watt B1-U0-G0





#### 4QD / 27W LED / 5000K CCT

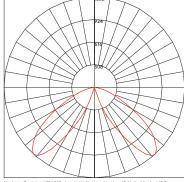
Catalog #: IBL-X-4QD-50-XX-120-DS

Report #: 1197039-50

Maximum candela of 1232 at 42.5° from vertical.

Mounting Height = 4′ (1.22 m) 2246 Delivered Lumens 83 Lumens per Watt

B1-U0-G0



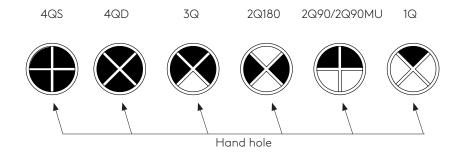
Maximum Candela = 1231.833 Located At Horizontal Angle = 45, Vertical Angle = 42.5 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)

3	2	
2		
2		
1		
		House
0		0 ide Street
		Side
1		_
1.75		
2		$\dashv$
2.75		
3		$\neg$
•		$\neg$
5	0 1 2 2.25 3 3.75 4 5 6	7

Multiplier Chart			
3000K to Amber	0.22		
3000K to 2700K	0.92		
3000K to 4000K	1.00		
3000K to 4000K	1.00		
3000K to 5000K	1.07		



# **LED Light Engine Distribution Guide**



TM-21 Lifetime Calculation					
Links Francisco			Maintenance (% a	t hours)	D
Light Engine	(°C)	25K	50K	70K	Reported L <sub>70</sub> '
A 112	25°C	99.8%	99.8%	99.8%	L <sub>70</sub> (12K) > 70,000 hours
All <sup>2</sup>	40°C	99.8%	99.8%	99.8%	L <sub>70</sub> (12K) > 70,000 hours

 $<sup>1. \</sup> Calculated \ in \ accordance \ with IESNA\ TM-21-11, projected \ values \ are \ within \ 6 \ times \ (6x) \ the \ IESNA\ LM-80-08 \ test \ duration$ 

<sup>2.</sup> Thermal measurements based on Order Code: IBL-x-2Q90MU-27-SV-UNV



Project Name: The Charlton School

Project Number: **C5112-002**Project Location: **Burnt Hills, NY** 

Description: Water Usage Calculations

Prepared By: CJR Date: October 6, 2023 Page: 1

# **Existing Water Usage**

	Gallons per year	Weekdays	(GPD)
2019-2020 School year	918240	261	3518

	Gallons per year	Weekdays	(GPD)
2020-2021 School year	1056890	261	4049

	Gallons per year	Weekdays	(GPD)
2021-2022 School year	669370	261	2565

	Gallons per year	Weekdays	(GPD)
2022-2023 School year	721800	261	2766

# **Proposed Water Usage**

Use	Unit	GPD/Unit	# Units	(GPD)
School Boarding	Per Student	110	32	3520
School Day	Per Student	15	15	225
Employee	Per Employee	15	85	1275

TOTAL 5,020