UCAT TRANSIT FLEET GARAGE/MAINTENANCE FACILITY SITE SELECTION & CONCEPT PLAN

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

DRAFT

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APPENDICES

1.0 EXECUTIVE SUMMARY

Ulster County Area Transit (UCAT) has outgrown its current transit facility which is located at 1 Danny Circle on Golden Hill. This transit garage was built in 2005 and can house a maximum of 36 vehicles, leaving the rest of the fleet outdoors, exposed to the elements. As space has become tight in the existing facility, three outdoor storage facilities for spare parts have been constructed. The site also contains a refueling station. In addition, the County is conducting a study on the feasibility of converting its fleet to all electric vehicles. UCAT does not have the space to meet its current needs at the existing facility, and requires an expansion. This report is designed to determine the best site, weighting needs and cost, for the county to move forward with.

The County is looking to determine the best location on County-owned property to serve its transit program over the next 10 years. The additional needs include:

- The indoor housing of all transit buses including the addition of 13 more vehicles to a maximum count of 49
- The indoor storage of parts (in particular tires) which are temperature sensitive
- The potential to include a 100% electric facility
- Expanded training and driver services
- Meet county requirements for designs to be LEED certified, as well as provide green energy via a solar array.

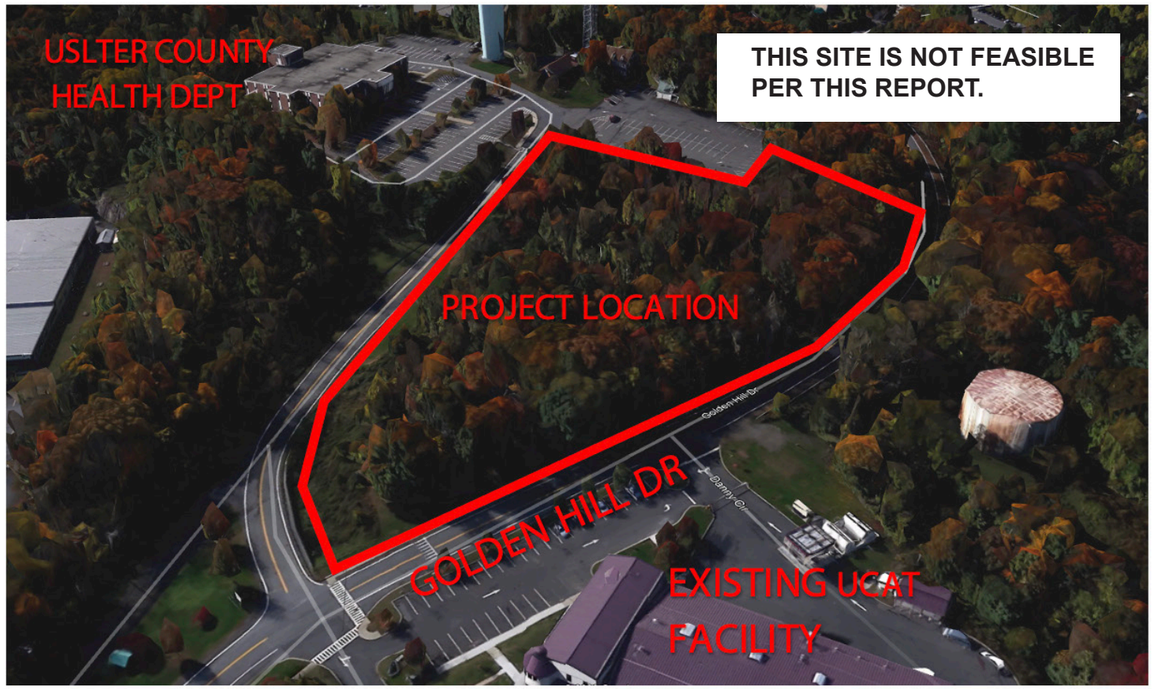
Three options for study were identified by the Technical Advisory committee (TAC). These include:

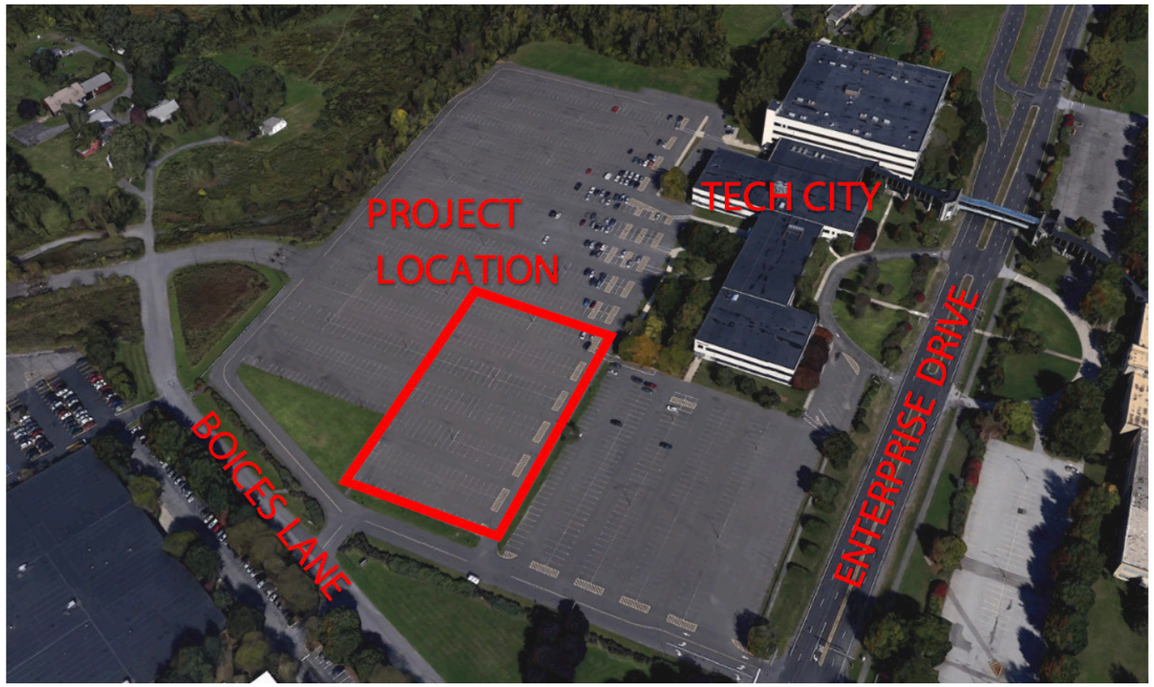
1. **The expansion of the current transit garage to accommodate all projected space and program needs**
2. **his option has proven unfeasable due to existing site conditions`**
3. **The creation of a separate facility on the Golden Hill Complex**
4. **The creation of a satellite facility on the Tech City site**

Onsite analysis of each location was conducted including the investigation of all technical data available including utility studies, soils and environmental reports and analysis, topographic information, traffic analysis, solar orientation, drainage analysis, wetland and flood plain considerations, bed rock limitations, as well as colocation assessment to the existing Golden Hill facility.

Concurrently, building and site plans were developed for each option to determine feasibility and to help identify construction limitation which would affect cost. Finally, a cost analysis of each option was created and added to the evaluation matrix. The results were then weighted for importance to the County and the community.

The conclusion, as will become evident in the following report, is that building a second storage building on the Golden Hill site near but not contiguous to the existing facility provides UCAT with the ability to address all the current issues and goals for the county.





2.0 INTRODUCTION

UCAT's transit facility on Golden Hill was built in 2005 for a bus fleet of 18 vehicles. UCAT currently has 36 vehicles with plans to expand to 49 vehicles in the next 20 years. The transit fleet has outgrown its current space. The lack of an adequately sized facility has caused difficulties and compromises for UCAT transit operations due to inefficiencies, lack of parts storage and reduced life expectancy for fleet vehicles exposed to the weather. This has necessitated the need for a Site Selection Study and Concept Plan that analyzes alternative site locations and develops a concept plan of the preferred location. The site selection process will include conceptual construction costs in order to prepare a capital program for implementation.

Passero Associates (PA) was retained to conduct the study. PA worked with UCAT, TAC and County staff throughout the study to provide comment and feedback. Three options were analyzed for the site selection: Expanding the current location; building a new facility on County-owned land at Golden Hill or building a new facility on County-owned land at Tech City. The site analysis investigated over 20 different criteria, from zoning, environmental, topography, utilities, access, and costs. To aid in this analysis, site selection checklists were used. After each site was thoroughly researched, the three options went through a comparative analysis using a decision matrix to arrive at a comprehensive, transparent selection for a preferred site.

PA's architects and engineers designed concept plans for each viable location that illustrates in 3D how a new transit building could fit on the site and how the buses could access it. A draft final recommended plan will be presented to the public for review and comment. The final plan will address the comments and be presented to the County Executive for adoption.

Ulster County is aggressively pursuing electrification of the existing bus fleet, which are expensive assets ($1mil+) that should be properly maintained and protected in order to maximize effectiveness and efficiency.

An all indoor facility (in comparison to storing some buses outside like the current conditions) provides the following benefits to UCAT:

- Space for Buses to be protected from harsh NY winters.
- Space for Interior Electric charging stations to be protected from harsh NY winters.
- Less noise pollution onto residential neighborhoods during washing & maintenance work.
- Less light pollution onto residential neighborhoods due to the need for outside storage security grade lighting.
- All buses can be locked inside for proper security from vandalism.

3.0 SITE INVESTIGATION & RESEARCH

3.1 SITE VISIT

Passero Associates conducted a site visit of the current facility on Golden Hill on September 17, 2020. During the visit, PA staff walked through the existing facility and toured the area around the building. The site visit made it apparent the existing facility is inadequate to service the existing needs of UCAT in terms of code compliance, storage space, administrative space/capabilities, and bus storage bays. The site is too constrained by steep topography and property boundaries to expand the building. The proposed facility would need to provide the ability to store the projected 49 bus fleet for the County, provide ample storage for maintenance equipment & appropriate administrative space.

Site visits were also made for Option #2 (vacant site on Golden Hill adjacent to Mental Health) and Option #3 (Tech City). Option #2 is heavily wooded and has a hilly terrain. It is accessed off of Golden Hill Dr. and there are utilities to service the new building nearby. Option #3 is located in the large parking lot for the former Bank of America facility on the north side of the City of Kingston. The site offers excellent access to major highways from Enterprise Dr. and utilities are adjacent to the site. There is a 500-year floodplain restriction that crosses through the property, but there is ample room to locate a new transit facility on the property and remain out of the floodplain.

Additionally, Passero Associates has provided site checklists for all three possible site locations. These checklists designate the information required to properly assess the locations. These checklists are provided in **Appendix G**.

3.2 ENVIRONMENTAL DUE DILIGENCE

Passero Associates investigated the environmental impacts at all three site locations. Considering data from the following databases:

- US Department of Agriculture National Resources Conservation Service – Web Soil Survey
- NYSDEC Online Environmental Resource Mapper
- US Fish & Wildlife Service National Wetlands Inventory
- FEMA's National Flood Hazard FIRMETTE Mapper
- NYD State Historic Preservation Office – Cultural Resource Information System
- County provided information on transit fleet

3.2.1 SOILS

Soils within the project area were reviewed for their hydrologic soil group in accordance with the USDA's NRCS Soil Survey. The soil characteristics present on the sites are summarized below and the soils map can be found in **Appendix C**.

Site #1: The existing UCAT Facility is seated on the North Side of Golden Hill Drive. The site is entirely comprised of "Stockbridge-Farmington-Rock outcrop complex, hilly" soils. This means the site is likely to contain shallow bedrock outcrops which could require rock blasting. In order to provide an expansion for the existing facility, the existing large retaining wall would have to be removed and rebuilt farther north, with large quantities of soil imported to the site to fill in the steep downward slopes.

Site #2: The Golden Hill location is seated on the South Side of Golden Hill Drive. The site is comprised of "Stockbridge-Farmington-Rock outcrop complex, hilly" & "Farmington-Rock outcrop complex, steep" soils. This means the site is likely to contain shallow bedrock outcrops which could require rock blasting. In order to construct the proposed facility, reinforced slopes would be required to provide a flat area to develop the facility. The site topography makes it possible to design the site to minimize soil import/export.

Site #3: The Tech City location is seated on the West Side of Enterprise Drive, on the Northern side of the City of Kingston. This site is almost completely pre-developed, with most soils being classified as sandy-loams or unclassified cut/fill land. The tech city site project area is an existing parking lot, with no rock outcrops. The site topography makes it possible to design the site to minimize soil import/export.

3.2.2 WETLANDS / CREEKS

The sites were reviewed for the existence of federal and state regulated wetlands within the property boundaries. Federal wetlands were researched using the National Wetlands Inventory (NWI) using an online U.S. Fish and Wildlife website search. State regulated wetlands were researched using the NYSDEC's online Environmental Resource Mapper website.

Site #1: Review of the existing UCAT facility indicates there are not federal or state wetlands on the project site. The state has flagged this area as a potential home to rare plants and animals.

Site #2: Review of the golden hill site indicates there are not federal or state wetlands on the project site. The state has flagged this area as a potential home to rare plants and animals.

Site #3: Review of the Tech City indicates there are not federal or state wetlands in the project area. The state has flagged this area as a potential home to rare plants and animals.

Refer to **Appendix D** for the federal and state regulated wetlands mapping.

3.2.3 NYSDEC ENVIRONMENTAL RESOURCES

The NYSDEC has an Environmental Resource Mapper on its website. The Environmental Resource Mapper is an interactive mapping application that can be used to identify some of New York State's natural resources and environmental features that are state protected, or of conservation concern. It displays the following:

- Animals and plants that are rare in New York, including those listed as Endangered or Threatened (generalized locations). [Updated May 2008]
- Significant natural communities, such as rare or high-quality forests, wetlands, and other habitat types.
- New York's streams, rivers, lakes, and ponds; water quality classifications are also displayed

According to this database, all sites are flagged for potential rare and endangered animals in the vicinity of the project. This is due to the golden hill location vicinity to Rondout Creek and Lawton Park, and Tech City's vicinity to Esopus creek.

3.2.4 FLOODPLAIN

According to FEMA's National Flood Hazard FIRMette Mapper, the Golden Hill locations are located outside the 100 year floodplain per community panel no. 36111C0470G dated 11/18/2016.

The Tech City site is located close to Esopus Creek. Half of the western parking lot is within the 500-year floodplain. The proposed location of the bus facility is positioned outside of this floodplain.

Refer to **Appendix E** for the FIRM maps of the sites.

3.2.5 STATE HISTORIC PRESERVATION OFFICE REVIEW

The sites were reviewed for the presence of archaeological sensitive areas using online GIS tools found at the NYS Historic Preservation Office (SHPO). We have reached out to SHPO, who provided the following review for Golden Hill and Tech City:

Sites #1 & #2 located at Golden Hill are within an archaeologically sensitive location. Construction at the Golden Hill site would therefore require a Phase 1A/1B archaeological survey conducted by a 36 CRF 61 qualified archaeologist.

Site #3 in Tech City has already seen significant ground disturbance, therefore SHPO has issued a Letter of No Impact for this location, and no further review is required.

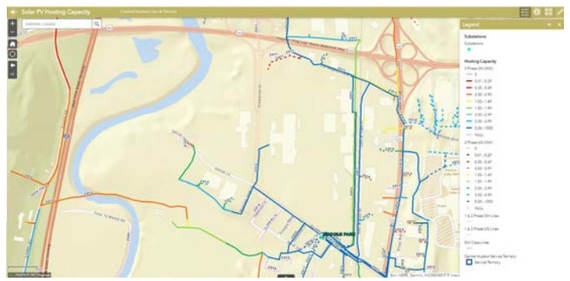
See **Appendix F** for the provided letters.

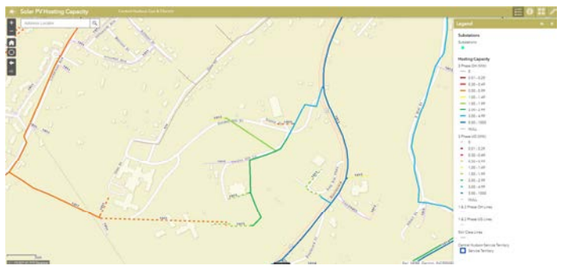
3.3 RESEARCH

Ulster County and local utility companies provided an array of record maps & information regarding the Golden Hill and Tech City sites. Architectural drawings for the existing UCAT facility, core samples from the nearby Ulster County Jail Site (now abandoned) & utility record maps were used to determine needs of each site. The site selection process also took advantage of the "Dig Safely New York" (DIGSAFE) program. This program is a government provided service which automatically notifies all appropriate utility providers in the project vicinity to provide record maps and/or paint their utilities in the area for a survey team to use.

The DIGSAFE requests are broken down in the site checklists provided in **Appendix G**.

The UCAT facility project has placed an importance on providing electric buses to the people of Ulster County. Therefore, the future site must be able to provide adequate electric infrastructure to charge the buses. Central Hudson Power has provided an online tool to track the power capacity of their overhead and underground wire network (ranged in mega-watts [MW]).





3.4 TRAFFIC ANALYSIS

The scope of this study is to identify future options for UCAT bus fleet storage, anticipating a modest increase in bus storage capacity over the next 20 years. In 2019, UCTC staff conducted a preliminary analysis of traffic conditions in and around the Golden Hill facility, examining traffic volumes and crash history/crash type at various locations, including the intersection of Rte 32 and Golden Hill Drive. That analysis identified a total of eight reported crashes over a ten-year period (2009-2018) at this intersection, with five of those crashes attributable to animals.

Under present and future site conditions, it is believed that a new UCAT facility will not cause a significant increase in traffic volumes at the site, as staffing is not likely to increase by more than 5-10 persons during that time period. Under present site conditions, the intersection does not appear to meet any of the MUTCD warrants recommending a traffic signal and current data indicates UCAT staff increases alone will have no adverse impact on traffic conditions at the intersection. In the event that an expanded UCAT facility is constructed at Golden Hill, further analysis of the intersection will be performed prior to approvals. In addition, any other future development proposals at Golden Hill will need to conduct a traffic analysis in order to assess potential impacts to traffic safety.

Intersection of Golden Hill Drive and Route 32 in the City of Kingston

	Distance	33ft of Intersection	
	TOTAL_CRASHES	8	
	Months	120	
	Dates:	2/28/2009	2/28/2019
		# ACC	%
Severity	FATAL	0	0.0%
	PROPERTY_DAMAGE_AND_INJURY	2	25.0%
	INJURY	0	0.0%
	PROPERTY_DAMAGE	3	37.5%
	NON_REPORTABLE	3	37.5%
		8	
Crash Type	REAR_END	0	0.0%
	OVERTAKING	0	0.0%
	HEAD_ON	0	0.0%
	RIGHT_ANGLE	1	12.5%
	SIDESWIPE	0	0.0%
	LEFT_TURN_AGAINST_OTHER_CAR	0	0.0%
	RIGHT_TURN_AGAINST_OTHER_CAR	0	0.0%
	RIGHT_TURN_WITH_OTHER_CAR	0	0.0%
	LEFT_TURN_WITH_OTHER_CAR	0	0.0%
	OTHER	7	87.5%
	UNKNOWN	0	0.0%
		8	
Time of Day	TOD_6_10	2	25.0%
	TOD_10_16	1	12.5%
	TOD_16_19	3	37.5%
	TOD_19_24	1	12.5%
	TOD_24_6	1	12.5%
		8	
Season	Spring_3_5	3	37.5%
	Summer_6_8	0	0.0%
	Fall_9_11	3	37.5%
	Winter_12_2	2	25.0%
		8	
Day of week	Sun	1	12.5%
	Mon	1	12.5%
	Tue	0	0.0%
	Wed	0	0.0%
	Thurs	0	0.0%
	Fri	3	37.5%
	Sat	3	37.5%
		8	
Collision Type	COLLISION_WITH_MOTOR_VEHICLE	1	12.5%
	COLLISION_WITH_FIXED_OBJ	2	25.0%
	COLLISION_WITH_BIKE_PED	0	0.0%
	COLLISION_WITH_ANIMAL	5	62.5%
	COLLISION_WITH_OTHER	0	0.0%
		8	

3.5 ENVIRONMENTAL JUSTICE

All options considered for this study were designed considering the FTA Circular C 4703.1. ENVIRONMENTAL JUSTICE POLICY GUILDANCE FOR FEDERAL TRANSIT ADMINISTRATION RECIPIENTS. The existing bus facility located at Golden Hill has been operating in the area for many years. The proposed project is converting outdoor storage of county assets to indoor storage. The quantity and quality of vehicular movement in the area will not be adversely affected. In addition, the desired conversion of the bus fleet to an electric fleet will enhance environmental quality, diminish air quality & noise levels for the area. Any potential environmental impacts can be mitigated through design.

The FTA could require a formal Environmental Justice Analysis should the area near the project be determined to have a majority of low-income and / or minority populations.

4.0 PROJECT COORDINATION & PUBLIC ENGAGEMENT

4.1 TAC MEETINGS

Present members of TAC committee:

- Brian Slack – Principal Transportation Planner, Ulster County Transportation Council
- Dennis Doyle – Director, Ulster County Planning Board, Ulster County Transportation Council
- Sajaa Ahmed – Director, Ulster County Area Transit
- Jacob Blosser – Projects Manager II, Ulster County Buildings and Grounds
- Nick Hvozda – Deputy Coordinator, Department of the Environment at Ulster County
- Evelyn Wright – Deputy Ulster County Executive
- Dan Coots – Coordinator, NYDOT Region 8
- Brian Atkinson – Building Supervisor, Ulster County Area Transit
- Robert Buser – Deputy Commissioner DPW-Maintenance, Ulster County Buildings and Grounds
- William Califano – UCAT Maintenance and Safety Coordinator
- Amanda Lavalle – Director, Ulster County Department of the Environment
- Toni Rose – Deputy Director, Ulster County Area Transit

Four progress meetings were conducted with the UCAT TAC on the following dates:

- 09/17/20 – UCAT – Site Selection & Data Gathering
- 10/15/20 – UCAT – Site Selection TAC Meeting
- 10/29/20 – UCAT Progress Meeting
- 11/12/20 – UCAT Progress Meeting

4.2 PUBLIC ENGAGEMENT

Ulster County Area Transit has created a website to provide public engagement on the site selection process.

A public notice for an online public engagement meeting will be sent out to the public. The meeting is planned to be held via ZOOM call in Mid January.

A presentation will be made to legislation at the county level should public leaders deem it necessary.

NOTE: This section of the report will be revised to reflect public participation as project progresses.

5.0 SITE SELECTION ANALYSIS & SITE LAYOUT FEASIBILITY

5.1 OPTION #1 – EXPAND / RENOVATE EXISTING SITE

The existing UCAT facility houses the existing 40 bus fleet and provides the maintenance bays, storage, fueling station and administrative services. However, the site is cramped and is running at capacity for its design. The site proposal to expand the existing facility to meet the current and future needs is summarized below.

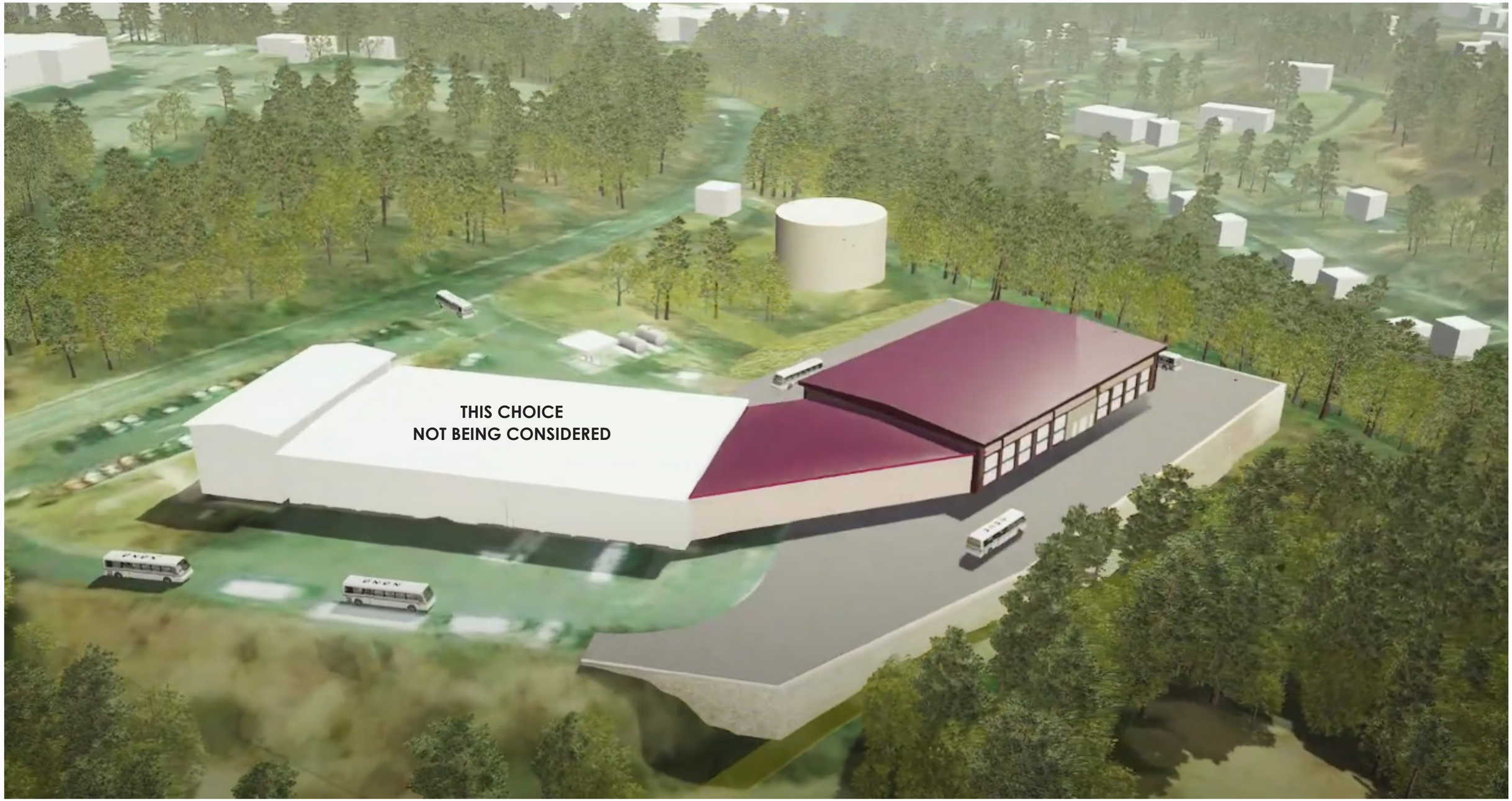
PROS

- Expansion of existing site keeps all departments / services in one central location.
- Expansion of existing facility would require the least amount of utility work, as utilities are already provided for the building.
- Would not be adjacent to the proposed housing project located on the abandoned Ulster County Jail Site.
- Would be the cheapest building construction option.

CONS

- The site has a very large retaining wall that would have to be torn down and pushed out to provide the necessary space. Further pushing the retaining wall will greatly increase its height and become extremely expensive.
- The existing site is close to a water tower / water main that runs down Golden Hill and into a residential area.
- This water main would limit how far the existing site could be expanded.

The existing topography and requirement to tear down and rebuild a very large retaining wall makes this site an unfeasible choice. As the cost for this portion of the project alone would add millions of dollars to the project. Secondly, expanding the site due to the water main is too limited to justify the work. This proposed site also includes updating the inside of the existing UCAT facility to provide more workspace, storage space and bring the building to current building codes.



5.2 OPTION #2 – GOLDEN HILL LOCATION

The proposed Golden Hill site is adjacent to the existing UCAT facility and Ulster County Department of Health. This site proposal is to construct a new facility with ample space to house the entire bus fleet, plus future needs. The proposal also includes some administrative space and maintenance bays for routine upkeep. The site proposal to meet the current and future needs is summarized below.

PROS

- Development of this site keeps all departments / services in the same area.
- The site has access to all necessary utilities that are currently utilized by other county buildings.
- The site provides enough space to meet the needs and wants of UCAT.

CONS

- Would be adjacent to the proposed housing project located on the abandoned Ulster County Jail Site.
- The site involves the most tree clearing and earth moving to create a level area for the facility. The Site will utilize slope reinforcement and could involve rock blasting of shallow bedrock / outcrops.

This site was compared to the other two options in a detailed site selection matrix located in Section 5.4. In both unweighted and weighted scenarios, this site selection came out with the highest score and is the site recommended by this report.

Traffic for the Golden Hill area is currently a public concern. This proposal has zero increase in traffic for the area, as the existing facility, staff, and resources are already located in the area, but need more space to be effective.

This site has two options for the size of the facility. A 23,000 SF facility that is designed to house the entirety of the current fleet would provide Ulster County with the space it requires today. However, this report is considering the needs of UCAT over the next decade and expansion of the bus fleet is expected. Therefore, a 30,000 SF facility was also created in order to house the 49 expected vehicles UCAT would possess. The proposed site would be designed to match both building sizes, meaning minimal site alterations would be required for UCAT to expand the facility in the future. The proposed building could be built as a “shell” with no insulation or heating to limit costs, with the potential to be heated at a later time as necessary.

This proposed site also includes updating the inside of the existing UCAT facility to provide more workspace, storage space and bring the building to current building codes.

PASSERO ASSOCIATES
engineering architecture

UCAT GOLDEN HILL SITE

20202987.0001
NOVEMBER, 2020
KINGSTON, NY

5.3 SITE OPTION #3 TECH CITY SITE

The proposed Tech City site is located on Enterprise Drive, North of the city of Kingston and a 15 minute drive from the existing UCAT facility. This site proposal is to construct a new facility with ample space to house the entire bus fleet, plus future needs. The proposal also includes some administrative space and a fully equipped set of maintenance bays for routine and major upkeep.

The Tech City site would require a facility approximately 10,000 SF larger than one proposed for the Golden Hill site. This is due to requiring redundant facilities that are already provided for Golden Hill by the existing UCAT facility, uch as maintenance bays, wash bays, administrative offices, enlarged parts storage, etc.

The Tech City alternative is illustrative to show how the area west of Enterprise Drive can accommodate the facility. Other portions of the Tech City campus on the east side of Enterprise Drive are similarly capable of such accommodation at similar cost, with the exception of acquisition costs, as the County does not own enough of the land for a suitable location.

PROS

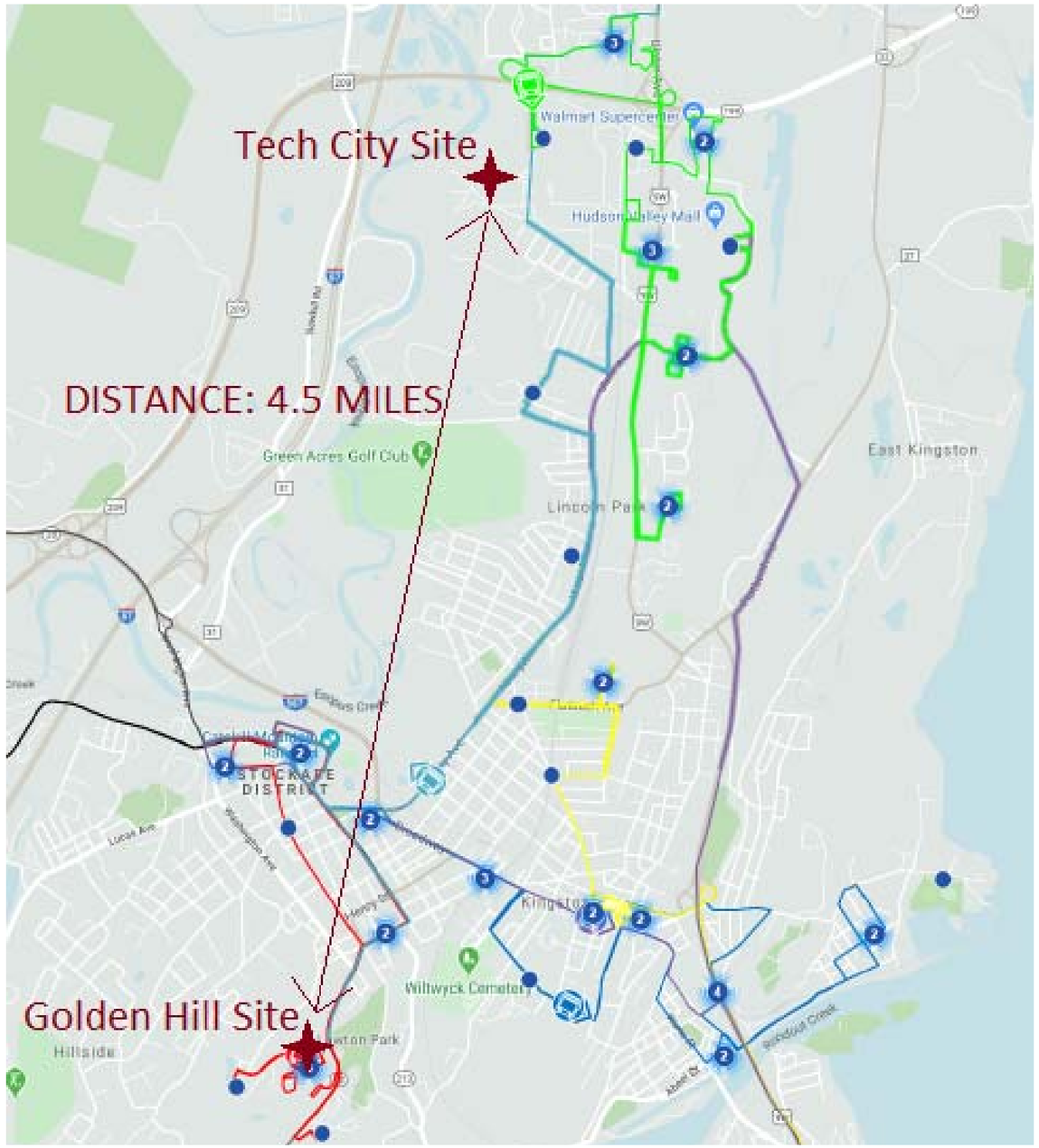
- The site is extremely flat and is almost entirely pre-developed. The facility would be placed in an existing parking lot and would require significantly less earthwork, no tree clearing, and some pavement alterations (creating islands, restriping, etc).
- The site has access to all necessary utilities that are currently utilized by other industrial centers, as well as the currently unused building on the property.
- The site provides enough space to meet the needs and wants of UCAT. This site is the most flexible due to the amount of space available.

CONS

- The site would be on the other side of the city from the existing UCAT facility, unable to utilize existing services at Golden Hill. The building therefore needs to create redundant services and storage for equipment / parts.
- The site is located in an environmental easement to NYSDEC due to previous uses of the area by the IBM corporation. The site selection matrix and cost estimates consider money for site remediation as required by the state.
- The site would require the most expensive building option.
- The site is a potential location for other county projects to revitalize the Tech City area. The proposed bus facility may not align to the areas master plan.

This site was compared to the other two options in a detailed site selection matrix located in Section 5.4. In both unweighted and weighted scenarios, this site selection fell short for the Golden Hill location.

This proposed site also includes updating the inside of the existing UCAT facility to provide more workspace, storage space, and bring the building to current building codes.



HORIZONTAL SCALE
40 0 20 40 80
SCALE: 1"=40'

N

PASSERO ASSOCIATES
engineering architecture

UCAT TECH CITY SITE

20202987.0001
NOVEMBER, 2020
KINGSTON, NY

5.4 SITE SELECTION MATRIX

Passero Associates created a detailed site selection matrix in order to compare all potential site locations based on twelve critical factors discussed with the TAC committee. The matrix divides each site into two scoring columns, unweighted and weighted.

The unweighted column values each of the twelve critical factors the same as all other factors. An example is "Compatible with adjacent uses" is just as important to this project as the cost to develop the site.

The weighted column incorporates a weight factor (WF) into the matrix, this weight factor causes some critical factors to be more important than others. An example is the weighted factor for "Utilities available nearby" of (0.5), this is because all sites have ample access to all utilities, so this critical factor is not as important to the decision process. Compare that to the weighted factor of "Cost to Develop Site" of (2.0). This means the site development costs are 4X as important in the decision-making process comparatively.

Based on this matrix in both unweighted and weighted scenarios, the new facility at golden hill came out with the highest score and is the site recommended by this report.

Project Name: UCAT Transit Facility Site Selection
Project No: 20202987.0001
Reviewed by: ABG

	SITE SELECTION DECISION MATRIX	SITE 1 (EXPAND EXISTING LOCATION) UNWEIGHTED	(WF)	WEIGHTED	SITE 2 (GOLDEN HILL) UNWEIGHTED	(WF)	WEIGHTED	SITE 3 (TECH CITY) UNWEIGHTED	(WF)	WEIGHTED	COMMENTS
1	ACCOMMODATE TRANSIT PROGRAM/FLEET SIZE	1	0.75	0.75	4	0.75	3	5	0.75	3.75	Tech City has a sprawling, flat parking lot behind an abandoned complex to work with.
2	ACCESSIBLITY FOR BUSES & STAFF	3	1	3	3	1	3	4	1	4	Both Golden Hill locations are located near other government facilities, but are not nearby major arterial roadways. Tech City is adjacent to Major Roadways, but is not adjacent to existing facilities.
3	PROXIMITY TO EXISTING FACILITIES	5	1	5	5	1	5	2	1	2	Using the existing site creates no travel to access existing-proposed facilities. Site #2 is across the street, creating minimal/negligable travel. Tech City is located on the opposite side of the City of Kingston, about 15 minutes drive time.
4	PUBLIC OWNED LAND	5	0.5	2.5	5	0.5	2.5	5	0.5	2.5	All Locations are owned by Ulster County
5	UTILITIES AVAILABLE NEARBY	5	0.5	2.5	5	0.5	2.5	5	0.5	2.5	All locations possess full utility access
6	COMPATIBLE WITH ADJACENT USES	5	0.75	3.75	3	0.75	2.25	3	0.75	2.25	Both Golden Hill locations are adjacent to other Ulster County Facilities, Tech City is an abandoned Tech Park that is being repurposed by the County for future development. Proposed affordable housing project is near site #2
7	COMPATIBLE WITH MASTER PLAN	5	1	5	5	1	5	2	1	2	Both Golden Hill locations are contained within the area used for Ulster County Facilities, Tech City would utilize industrial space the county plans to revitalize over the next few years.
8	PROVIDES FLEXIBILITY TO MEET FUTURE NEEDS	1	1	1	3	1	3	5	1	5	The existing Golden Hill location is already cramped, expansion would further this issue. SITE #2 provides more space and ample turning room for all bus sizes. Tech City has a massive area to work with.
9	ABILITY TO ACCOMMODATE FLEET ELECTRIFICATION PROGRAM	4	1	4	4	1	4	4	1	4	All locations have electricity access to accommodate the program.All sites would need to place charge stations for the buses inside the facility.
10	COST TO DEVELOP SITE	1	2	2	2	2	4	4	2	8	The existing golden hill location has no developable area without major site work, including a large retaining wall and importing massive quantites of soil. Site #2 would require clear cutting a large portion of the project area, earth work and stabilization of slopes greater than 1:3. The project also calls for the expansion of an existing storm water facility. The Tech City site is flat, existing parking lot and would be aprox. $1-1.5 million cheaper to develope the site. However, there is a significant potential cost to complete environmental remediation due to the NYSDEC environmental easement over the area.
11	COST TO DEVELOP FACILITY	5	1.5	7.5	3	1.5	4.5	1	1.5	1.5	The existing golden hill location would be the easiest facility to construct as all the existing maintenance, storage and necessary equipment is already on site. Site #2 adjacent to the existing site is slightly more expensive as some basic maintenance equipment would be required, but all major work can be completed at the original location. Tech City would be the most expensive facility due to the need for maintenance equipment to be installed at the facility, likely offsetting the costs saved from site development.
12	ENVIRONMENTAL CONCERNS	2	1.5	3	3	1.5	4.5	2	1.5	3	All three locations are flagged by NYSDEC for potential rare plants/animals. Both Golden Hill locations would require the clear cut of existing woodlands. The Tech City location is subject to an environmental easement to the DEC due to the IBM corporation's previous use of the area. The existing site has a large existing watermain that flows downhill from the existing water tower, right where the expansion of the existing facility would likely fit.
	SUBTOTAL	**42 UNWEIGHTED**		**40 WEIGHTED**	**45 UNWEIGHTED**		**43.25 WEIGHTED**	**42 UNWEIGHTED**		**40.5 WEIGHTED**	Based on this Decision Matrix, Site #2 Golden Hill Location is recommended

1: POOR
2: BELOW AVERAGE
3: AVERAGE
4: ABOVE AVERAGE
5: BEST

WF=WEIGHT FACTOR

6.0 PREFERRED SITE

6.1 TRANSIT FACILITY

The new Transit facility would entail the combination of keeping the existing golden hill facility and constructing a new, primarily vehicle storage facility across the road. This new facility is projected to be approximately 30,800 gross square feet. The program for this facility would be 16 new storage bay to accommodate up to 41 busses indoors. The building would also house a small office suite, dispatch, break room for drivers, lockers, toilets a small maintenance area and utility space.

The building would be a one story high bay space with solar collectors on the roof and be able to accommodate an entire fleet of electric buses with indoor charging capability.

The existing transit facility would still house the majority of the maintenance, office and training functions. Two of the existing bus storage bays would be converted to indoor parts storage, training would be expanded and some outstanding accessibility issues would be addressed. There are also a few maintenance upgrades which have been incorporated. The roof would be retrofitted to accommodate solar collectors and the facility would be upgraded to provide complete electric charging to the fleet.

The mechanical system is envisioned to be as energy efficient and sustainable as possible in an effort to achieving net zero. Measures to study when the final design is created include geothermal with radiant floor slabs, super insulation, thermal mass storage and solar orientation.

6.2 GOLDEN HILL SITE

The preferred golden hill site would incorporate new pedestrian access between the existing UCAT bus facility, the proposed facility, and the Ulster County Health Department. The proposed site includes a new sidewalk along the Golden Hill drive extension. This sidewalk will connect to the existing sidewalk at the intersection located in front of the existing UCAT facility. The project will also use a portion of the existing walkway that leads from Golden Hill Drive to the parking lot located at the top of golden hill. The project will demolish most of this path, however the northern end will connect to the proposed pavement of the new facility, providing an easy walking path between both bus facilities for the staff.

The site has an existing storm water management area on the east side, this area will be expanded to provide ample storm water quality and quantity control for the proposed facility.

The site is mainly forested hills with shallow bedrock / potential rock outcrops. The project incorporates tree clearing and rock blasting to bring the site to grade for the proposed facility. The site will incorporate reinforced slopes and approximately 100’ of retaining wall for steep slopes.

Preliminary cost estimates show about 32,000 cubic yards of soil will be moved around on site for the proposed design. The site will be designed to not import / export of soils for the project.

6.2 COST ESTIMATES

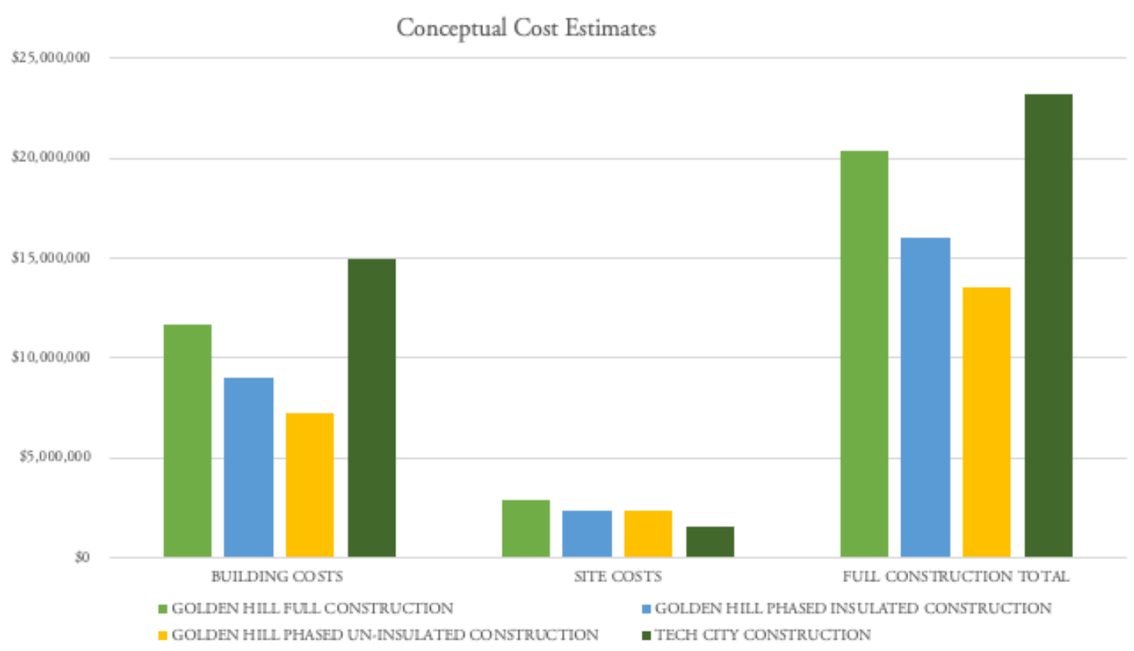
Preliminary Cost estimates for the Golden Hill site were developed to take into account demolition of existing features, site preparation, facility development, pavement and utilities. A breakdown of the total preliminary costs are shown below:

Building cost @ 30,000 SF = $11,676,400

Site cost = $2,889,560

Total Cost = $20,392,344 (includes 30% in contingencies and soft cost)

Preliminary Cost Estimates for all the proposed sites are provided in Appendix L.



7.0 FINAL PLAN & RECOMMENDATIONS

The Golden Hill site provides UCAT with a new facility capable of housing the current and future needs of the fleet. With ample utilities and electricity available, the fleet will be able to embrace fleet electrification programs and maintain an easy flow of operation due to the adjacent sites. Use of the existing facility for administrative purposes, storage and major repair work allows for the continued operation of a relatively new facility.

The proposal for the Golden Hill location also included a “phased” design, where the facility is built out to ±23,000 sf instead of the full 30,000 sf. This design removes some bus bays, leaving expansion of the fleet in the future subject to another design project, but saves on site and building cost for a combined savings of approximately $3,000,000.

The second phase of the storage facility can be planned and built as necessary when the fleet grows to the full 49 bus fleet. The site will be designed to accommodate this expansion and easily facilitate future expansion.

APPENDIX A: PROGRAMMING SPACE ANALYSIS

UCAT Transit Facility - EXISTING FACILITY SPACE ANALYSIS

EXISTING BUILDING
Ulster, NY

PASSERO ASSOCIATES engineering architecture

AREA NAME	QUANTITY	ROOM SIZE L	ROOM SIZE W	ROOM SQUARE FOOTAGE	TOTAL SQUARE FOOTAGE	AREA SUB-TOTALS	AREA GRAND TOTALS	NOTES
OFFICE BUILDING AREA								
Reception area:								
Vestibule	1	7	6.5	46	46			
Lobby/ Waiting area	1	12	13	156	156			
Receptionist's desk	1	11.5	6.5	75	75			
						276		
Office areas:								
Asst. Manager	1	12.25	6.5	80	80			
Office	1	11.5	8	92	92			
Open Office Area	2	29	14	406	812			
Dispatch	1	17	11	187	187			
Administrator	1	15.5	15.5	240	240			
Bus Dispatcher	1	10.75	9.25	99	99			
Maintenance Office/Workshop	1	12	12	144	144			
						1,654		
Office support areas:								
Conference Room	1	13.5	7.75	105	105			
Train/Test	1	11.25	7.25	82	82			
Break Room/Vending	1	15	13.5	203	203			
Storage	2	7.75	5.75	45	89			
Break Room/Kitchen	1	14.5	11	160	160			
Closet	1	4	3	12	12			
						649		
Multi-purpose room areas:								
Training room	1	36.5	27.5	1,004	1,004			
Kitchenette	1	7.25	3	22	22			
Storage	1	19.5	2	39	39			
						1,065		
Restrooms:								
Lobby Restroom	1	6	7	42	42			
Office Restrooms	2	16.5	8	132	264			
Training Restrooms	2	7	6	42	84			
						390		
Additional areas:								
Elev. Mechanical	1	7.25	5.5	40	40			
Janitor Closet	1	7	4.25	30	30			
LAN.	1	8.75	5	44	44			
Electrical	1	11	7	77	77			
Mechanical Room/Vestibule	1	22	17	374	374			
						564		
AREA SUB-TOTAL						4,599		
ADD CIRCULATION SPACE						690		
AREA GRAND TOTAL							**5,289**	
GARAGE BUILDING AREA								
Storage Garage:								
Storage Bay	6	90	14	1,260	7,560			
Restrooms/ Showers	2	20	8.75	175	350			
Lockers	2	30	6.75	203	405			
						8,315		
Maintenance Garage:								
Maintenance Bay	3	90	17	1,530	4,590			
- Pit	1	44.5	3	134	134			
Managere's Office	1	21.75	8.75	190	190			
Forklift Charging Area	1	8.75	8.25	72	72			
Bulk Fluids	1	13	8.75	114	114			
Parts Storage	1	64.25	8.75	562	562			
						5,662		
Wash Bay:								
Wash Bay	1	90	20	1,800	1,800			
						1,800		
Additional areas:								
Mechanical Room/Vestibule	1	25	8.75	219	219			
HVAC Platform	1	34.5	13.75	474	474			
Tire shed storage	1	20	20	400	400			
						1,093		
AREA SUB-TOTAL						16,737		
ADD CIRCULATION SPACE						2,510		
AREA GRAND TOTAL							**19,247**	
OFFICE AREA TOTAL							5,289	
GARAGE AREA TOTAL							19,247	
FACILITY SPACE (GRAND TOTAL)							**24,536**	

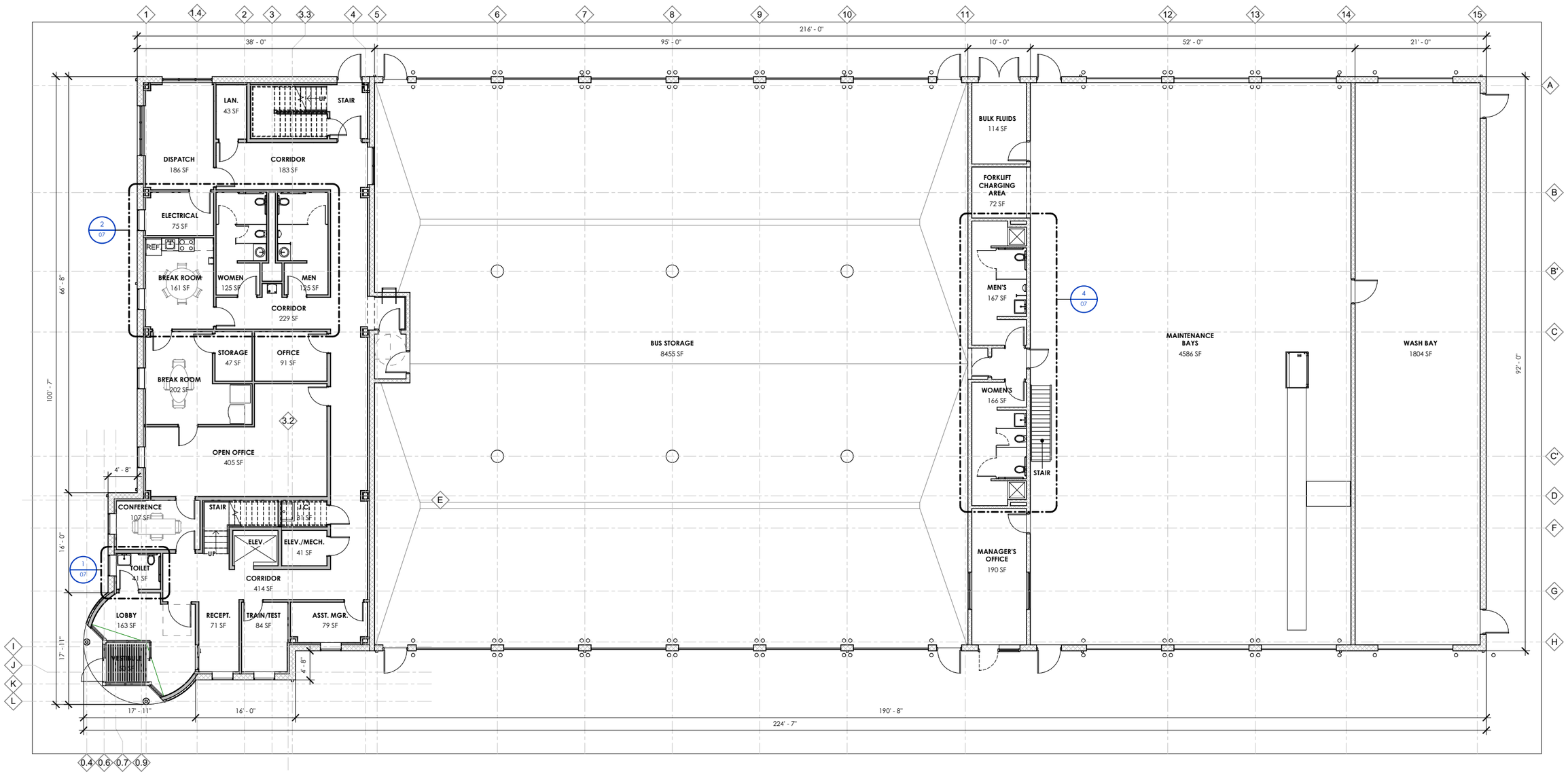
UCAT Transit Facility - PROPOSED FACILITY SPACE ANALYSIS

NEW BUILDING
Ulster, NY

PASSERO ASSOCIATES engineering architecture

AREA NAME	QUANTITY	ROOM SIZE L	ROOM SIZE W	ROOM SQUARE FOOTAGE	TOTAL SQUARE FOOTAGE	AREA SUB-TOTALS	AREA GRAND TOTALS	NOTES
OFFICE BUILDING AREA								
Reception area:								
Vestibule	1	10	8	80	80			
Lobby	1	12	12	144	144			
						224		
Office areas:								
Dispatch	1	17	11	187	187			
Administrator	1	15.5	15.5	240	240			
Bus Dispatcher	1	10.75	9.25	99	99			
Maintenance Office/Workshop	1	12	12	144	144			
						671		
Office support areas:								
Break Room	1	30	20	600	600			
Storage	2	7.75	5.75	45	89			
Closet	1	4	3	12	12			
						701		
Restrooms:								
Office Restrooms	2	7	7	49	98			
						98		
Additional areas:								
Janitor Closet	1	7	4.25	30	30			
LAN.	1	8.75	5	44	44			
Electrical	1	11	7	77	77			
Mechanical Room/Vestibule	1	22	17	374	374			
						525		
AREA SUB-TOTAL						2,218		
ADD CIRCULATION SPACE						333		
AREA GRAND TOTAL							**2,551**	
GARAGE BUILDING AREA								
Storage Garage:								
Storage Bay	16	100	16	1,600	25,600			
Restrooms/ 1 Shower each	2	21	9	189	378			
Lockers	2	20	10	200	400			
Parts Storage	1	64.25	8.75	562	562			
						26,940		
Additional areas:								
Mechanical Room/Vestibule	1	25	9	225	225			
HVAC Platform	1	35	14	490	490			
						715		
AREA SUB-TOTAL						27,655		
ADD CIRCULATION SPACE						4,148		
AREA GRAND TOTAL							**31,803**	
OFFICE AREA TOTAL							2,551	
GARAGE AREA TOTAL							31,803	
FACILITY SPACE REQUIREMENTS (GRAND TOTAL)							**34,355**	

APPENDIX B: ARCHITECTURAL LAYOUTS



EXISTING - FIRST FLOOR PLAN

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EXISTING - SECOND FLOOR PLAN

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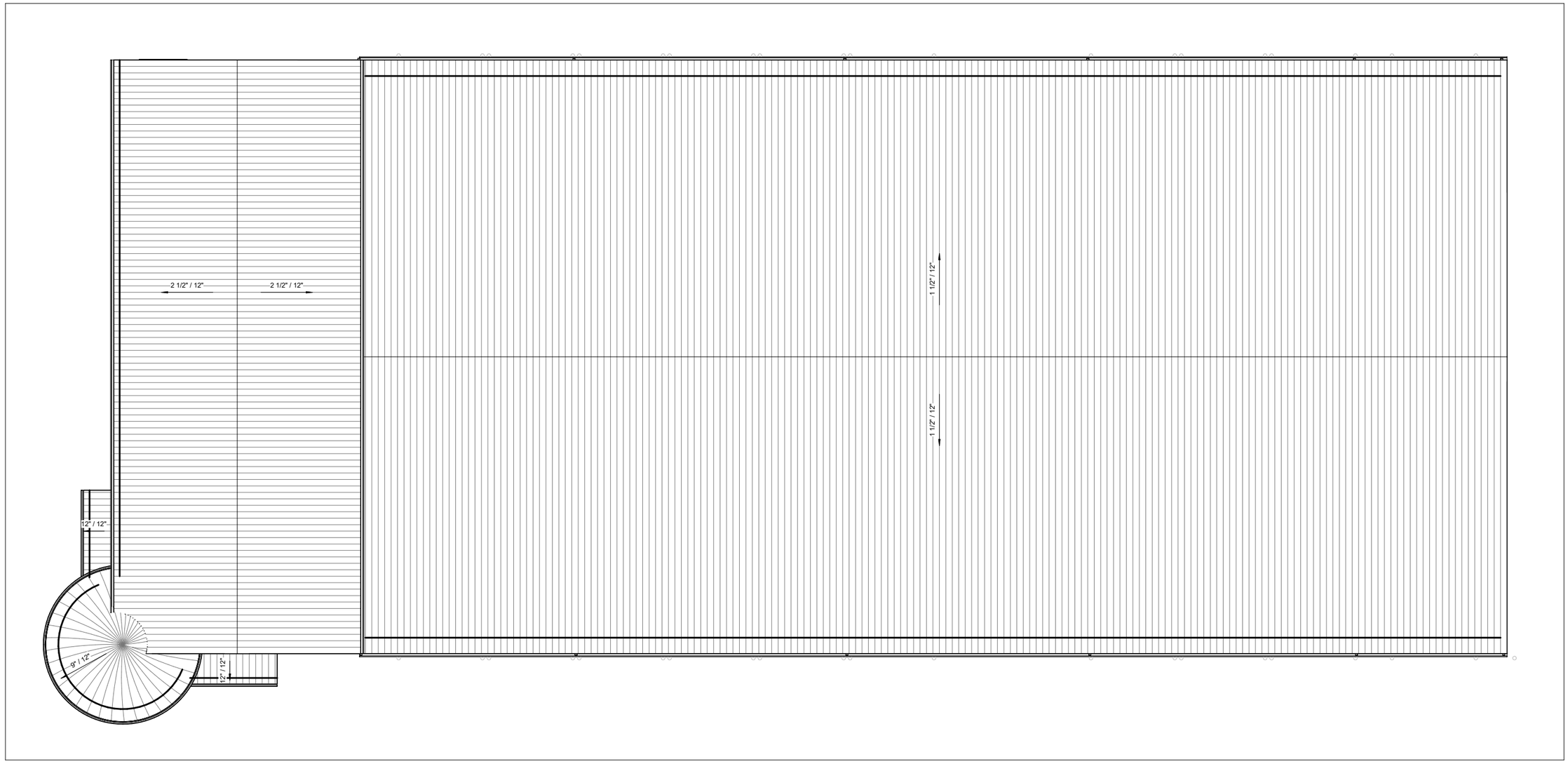
02



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04

EXISTING - ROOF PLAN

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03

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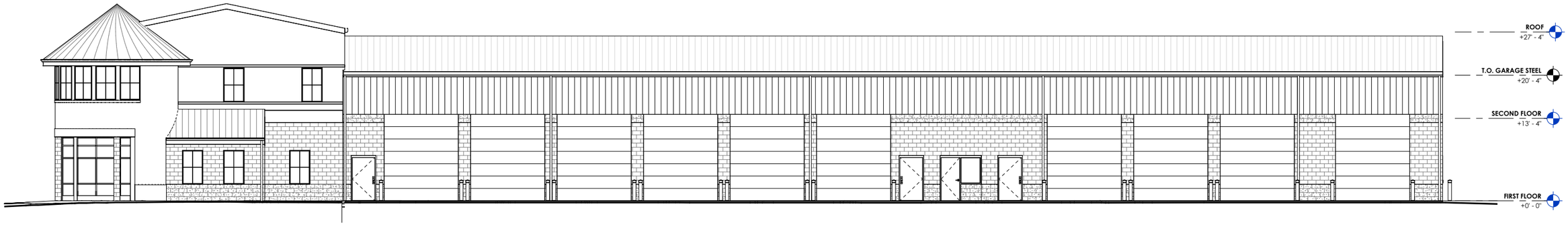
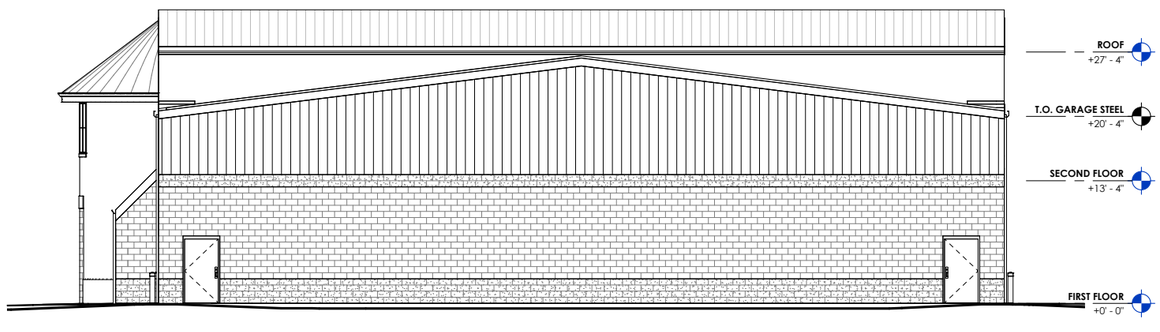


1 EXISTING EAST ELEVATION

0' 1' 2' 4' 8'
1/8" = 1'-0"

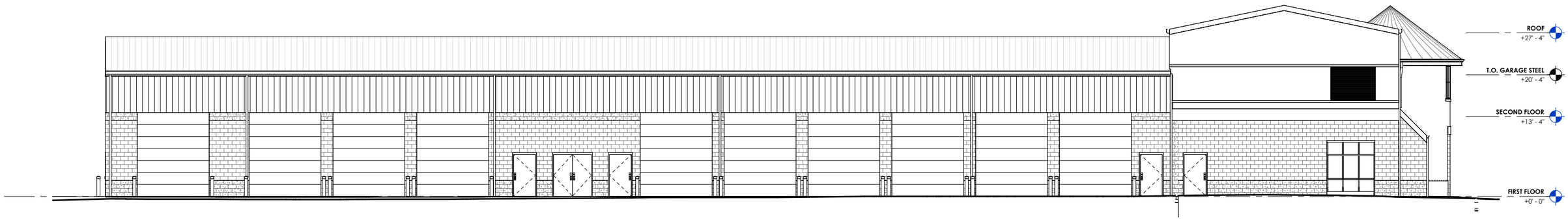
2 EXISTING SOUTH ELEVATION

0' 1' 2' 4' 8'
1/8" = 1'-0"



3 EXISTING NORTH ELEVATION

0' 1' 2' 4' 8'
1/8" = 1'-0"



4 EXISTING WEST ELEVATION

0' 1' 2' 4' 8'
1/8" = 1'-0"

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EXISTING - EXTERIOR ELEVATIONS

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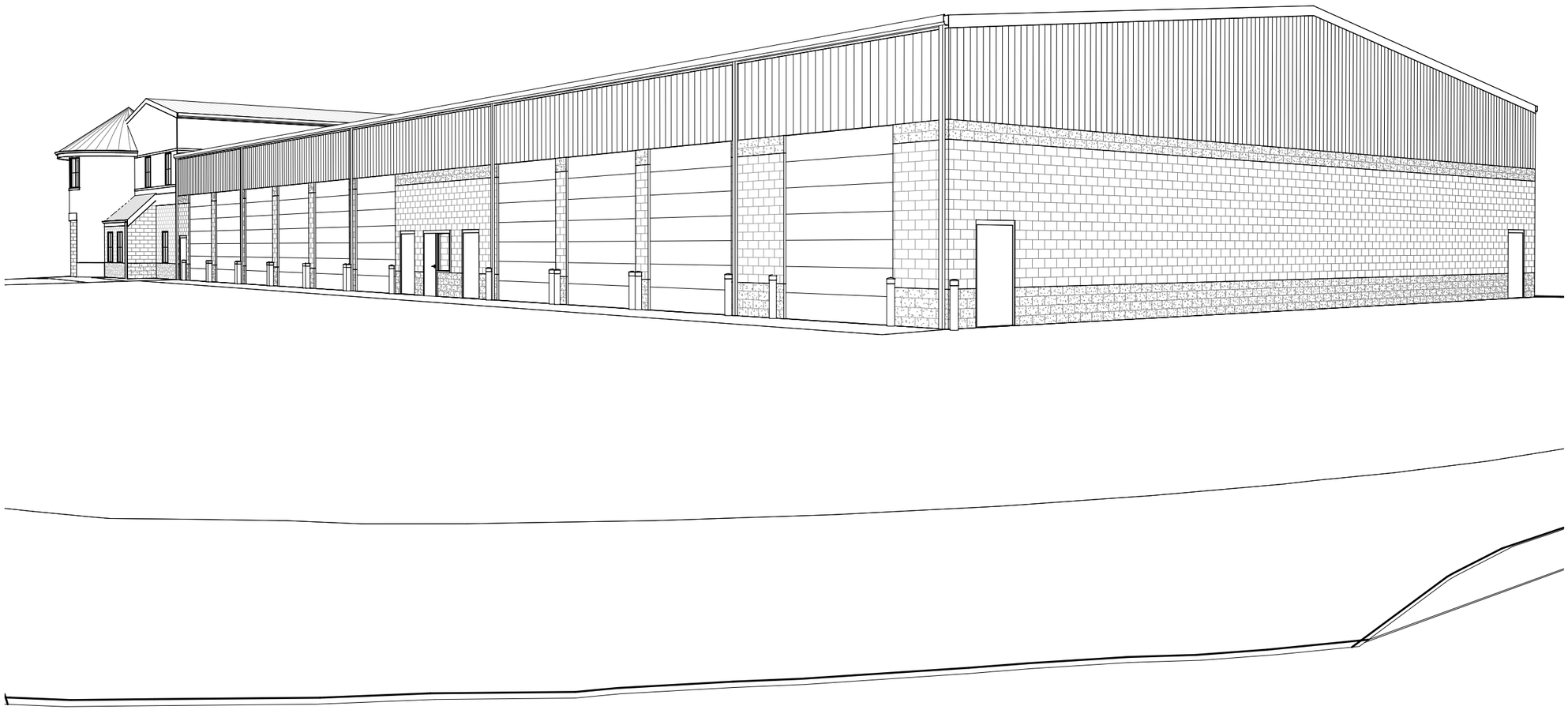
04

EXISTING - EXTERIOR PERSPECTIVE



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EXISTING - EXTERIOR PERSPECTIVE

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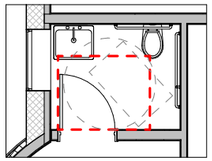
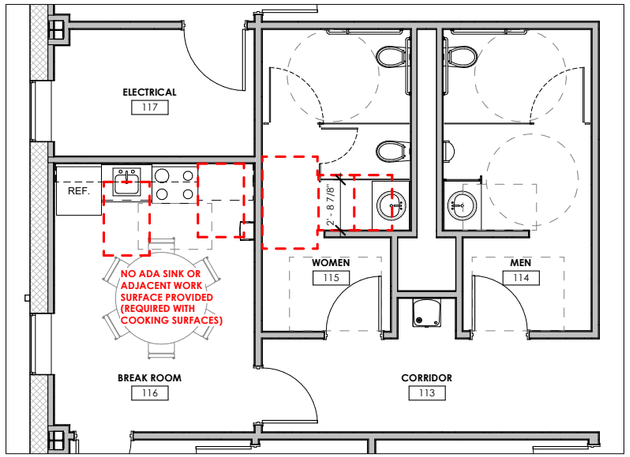


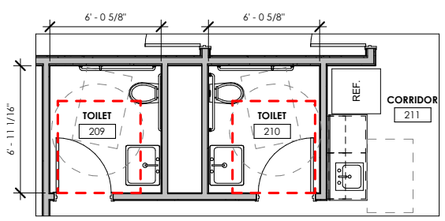
1 EXISTING FIRST FLOOR PLAN - LOOBY TOILET ROOM

0' 1' 2' 4' 8'
1/4" = 1'-0"



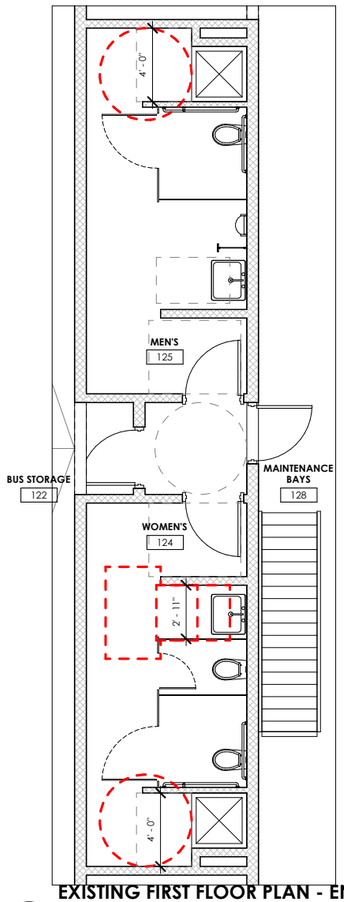
2 EXISTING FIRST FLOOR PLAN - ENLARGED PLAN

0' 1' 2' 4' 8'
1/4" = 1'-0"



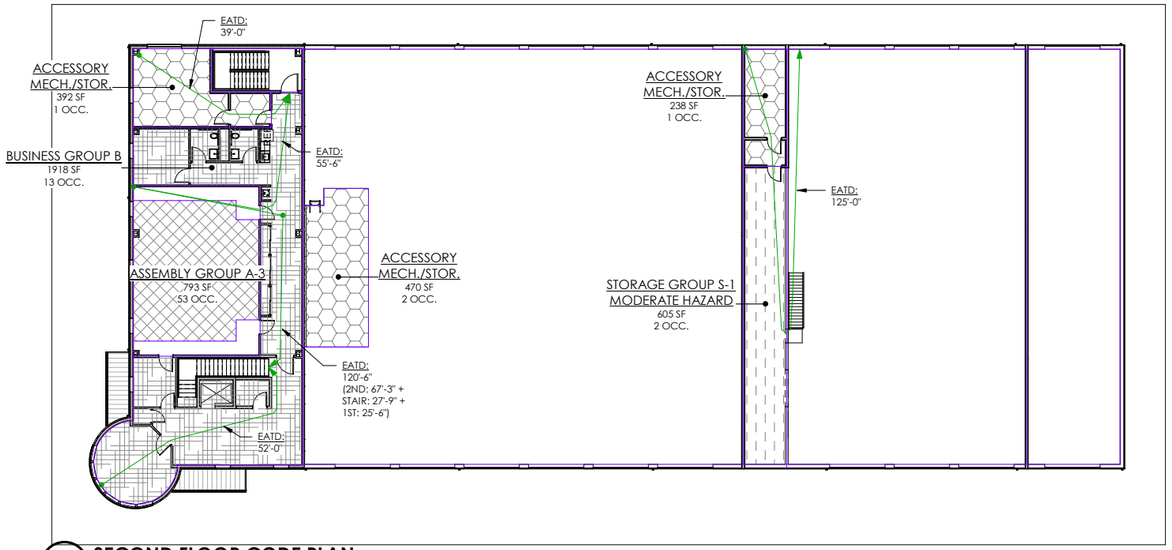
3 EXISTING SECOND FLOOR PLAN - TOILET ROOMS

0' 1' 2' 4' 8'
1/4" = 1'-0"



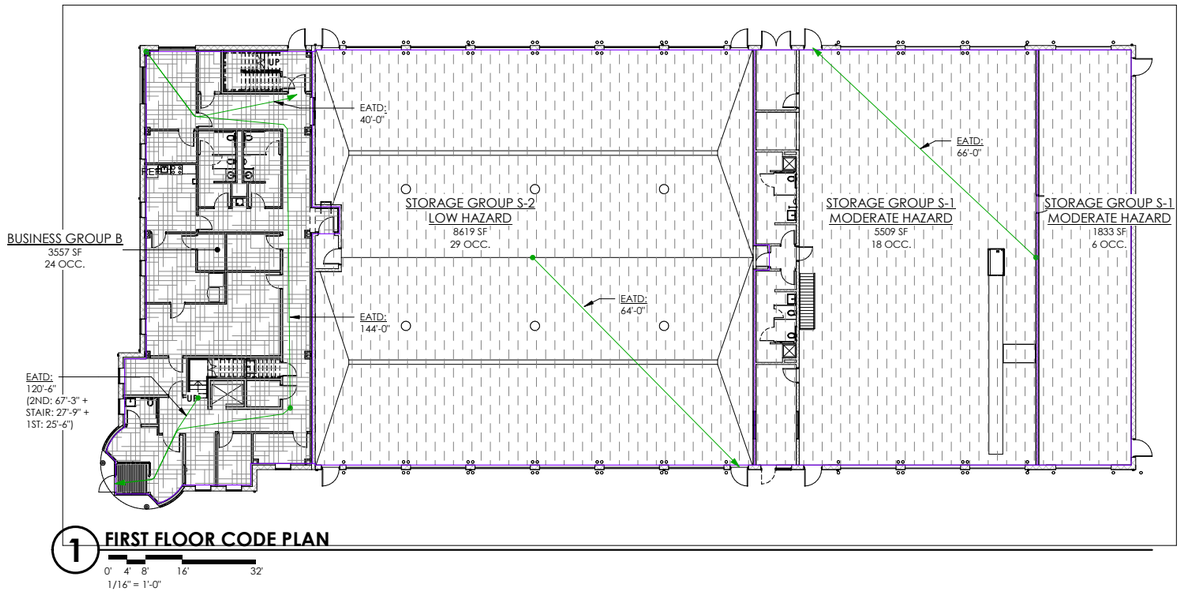
4 EXISTING FIRST FLOOR PLAN - ENLARGED RESTROOMS

0' 1' 2' 4' 8'
1/4" = 1'-0"



2 SECOND FLOOR CODE PLAN

0' 4' 8' 16' 32'
1/16" = 1'-0"



1 FIRST FLOOR CODE PLAN

0' 4' 8' 16' 32'
1/16" = 1'-0"

CODE LEGEND

- ACCESSORY MECH./STOR.
- ASSEMBLY GROUP A-3
- BUSINESS GROUP B
- STORAGE GROUP S-1 MODERATE HAZARD
- STORAGE GROUP S-2 LOW HAZARD

EXIT REQUIREMENTS:

1. TWO EXITS REQUIRED FROM 2ND FLOOR WITH OVER 29 OCCUPANTS
2. EXIT ACCESS TRAVEL DISTANCE WITH SPRINKLERS
   A. ASSEMBLY: 250'
   B. BUSINESS: 250'
   C. STORAGE: 250'
3. OPEN STAIR IS ACCEPTABLE AS EXIT ACCESS STAIRWAY IF UNDER 250' MAX EXIT ACCESS TRAVEL DISTANCE.

CODE - OCCUPANCY SCHEDULE OFFICE BUILDING

AREA TYPE	AREA PER OCC.	AREA	OCC. LOAD
FIRST FLOOR			
BUSINESS GROUP B	150	3557 SF	24
SECOND FLOOR			
ACCESSORY MECH./STOR.	300	392 SF	1
ASSEMBLY GROUP A-3	15	793 SF	53
BUSINESS GROUP B	150	1918 SF	13
Grand total		6659 SF	91

PLUMBING REQUIREMENTS:

1. ASSEMBLY:
   A. TOILETS: 1 PER 125 MALE/ 1 PER 65 FEMALE
   B. LAVATORIES: 1 PER 200
   C. DRINKING FOUNTAINS: 1 PER 500
   D. SERVICE SINK: 1
2. BUSINESS:
   A. TOILETS: 1 PER 25 FOR FIRST 50, 1 PER 50 OVER 50
   B. LAVATORIES: 1 PER 40 FIRST 80, 1 PER 80 OVER 80
   C. DRINKING FOUNTAINS: 1 PER 100
   D. SERVICE SINK: 1
3. PROVIDED/REQUIRED:
   A. TOILETS:
      a. 3 MALE PROVIDED/ 2 REQUIRED
      b. 3 FEMALE PROVIDED/ 2 REQUIRED
   B. LAVATORIES:
      a. 2 EACH PROVIDED/ 2 REQUIRED
   C. DRINKING FOUNTAINS:
      a. 2 PROVIDED/ 1 REQUIRED
   D. SERVICE SINK:
      a. 1 PROVIDED/ 1 REQUIRED

CODE - OCCUPANCY SCHEDULE GARAGE BUILDING

AREA TYPE	AREA PER OCC.	AREA	OCC. LOAD
FIRST FLOOR			
STORAGE GROUP S-1 MODERATE HAZARD	300	7342 SF	24
STORAGE GROUP S-2 LOW HAZARD	300	8619 SF	29
SECOND FLOOR			
ACCESSORY MECH./STOR.	300	708 SF	3
STORAGE GROUP S-1 MODERATE HAZARD	300	605 SF	2
Grand total		17275 SF	58

PLUMBING REQUIREMENTS:

1. STORAGE:
   A. TOILETS: 1 PER 100
   B. LAVATORIES: 1 PER 100
   C. DRINKING FOUNTAINS: 1 PER 1,000
   D. SERVICE SINK: 1
2. FACTORY:
   A. TOILETS: 1 PER 100
   B. LAVATORIES: 1 PER 100
   C. DRINKING FOUNTAINS: 1 PER 400
   D. SERVICE SINK: 1
3. PROVIDED/REQUIRED:
   A. TOILETS:
      a. 2 MALE PROVIDED/ 1 REQUIRED
      b. 2 FEMALE PROVIDED/ 1 REQUIRED
   B. SHOWERS:
      a. 1 EACH PROVIDED/ 0 REQUIRED
   C. LAVATORIES:
      a. 1 EACH PROVIDED/ 1 REQUIRED
   D. DRINKING FOUNTAINS:
      a. **0 PROVIDED/ 1 REQUIRED**
   E. SERVICE SINK:
      a. **0 PROVIDED/ 1 REQUIRED**

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EXISTING - EGRESS/ PLUMBING

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1 **FIRST FLOOR - LAYOUT**

0' 2' 4' 8' 16'
1/8" = 1'-0"

1 FIRST FLOOR PLAN

0" 4' 8' 16' 32'

3/32" = 1'-0"

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NEW FACILITY PROGRAM

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OCTOBER 19, 2020

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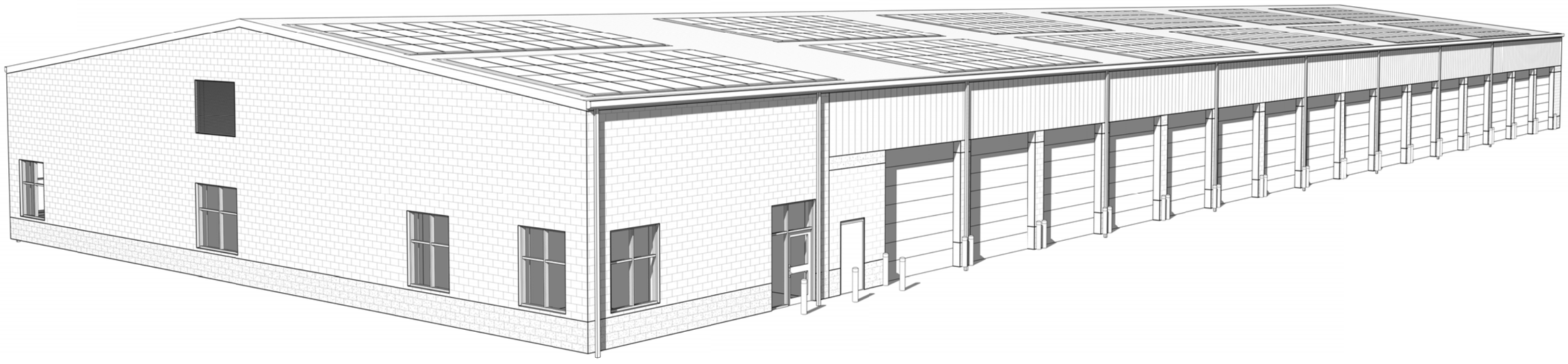

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NEW FACILITY MASSING

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UCAT TRANSIT FACILITY
OCTOBER 19, 2020

APPENDIX C: SOILS MAP AND CORE SAMPLE DATA FROM JAIL SITE

Soil Map—Ulster County, New York
(Site #1 Existing UCAT Facility)

Map Scale: 1:1,290 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

11/19/2020
Page 1 of 3

Soil Map—Ulster County, New York
(GOLDEN HILL DR)

Map Scale: 1:1,440 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

9/28/2020
Page 1 of 3

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

9/28/2020
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York
Survey Area Data: Version 19, Jun 11, 2020

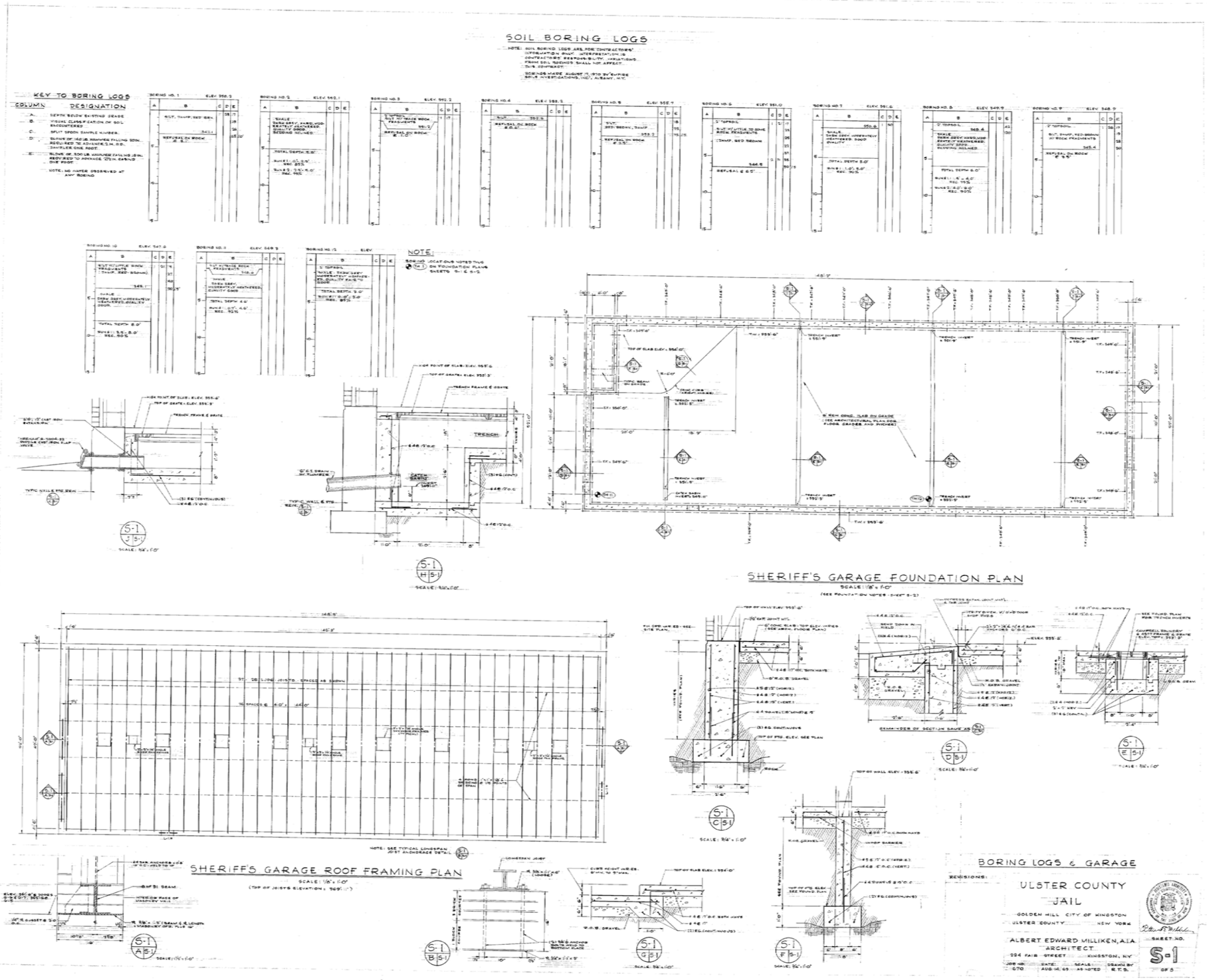
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

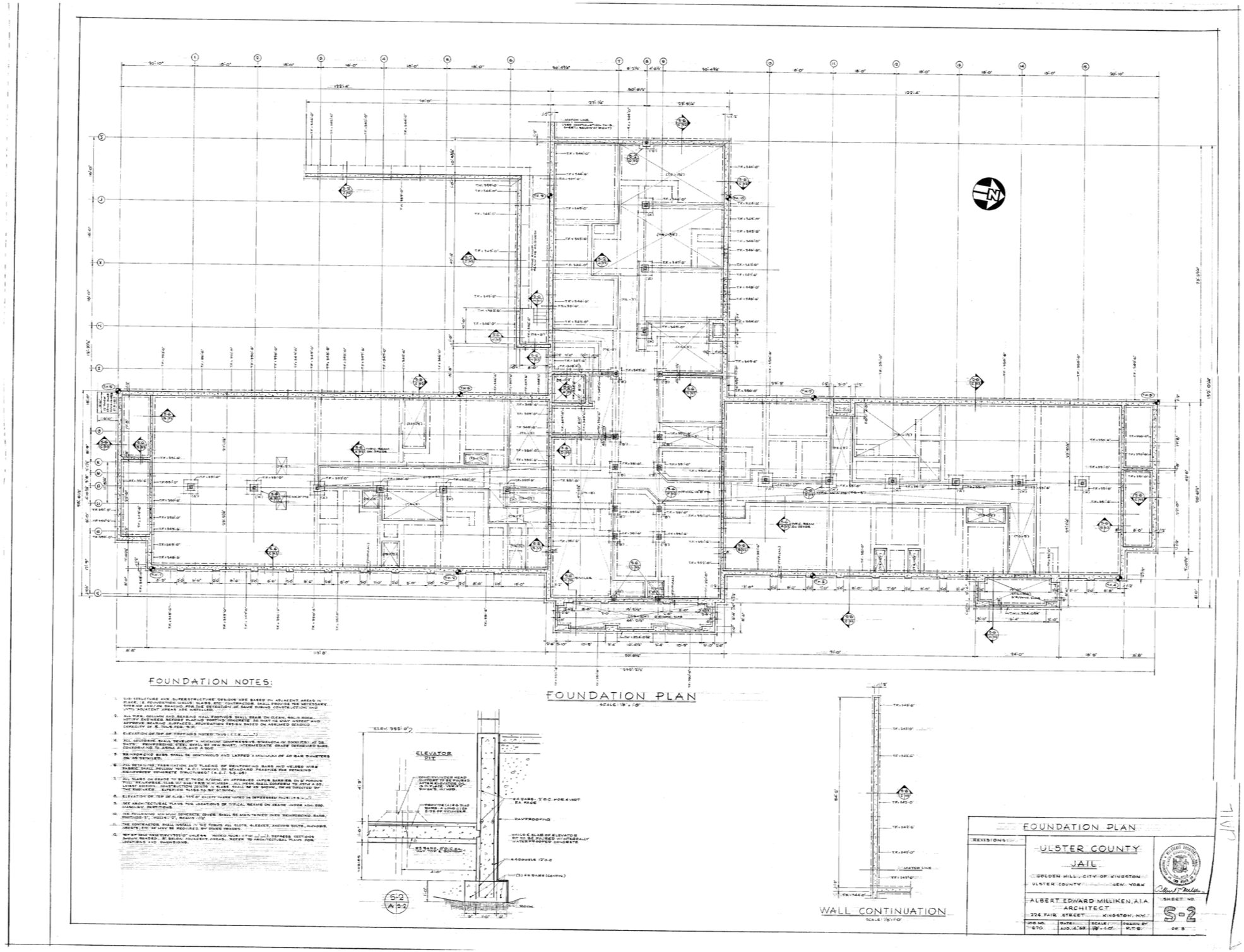
Date(s) aerial images were photographed: Oct 7, 2013—Sep 3, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

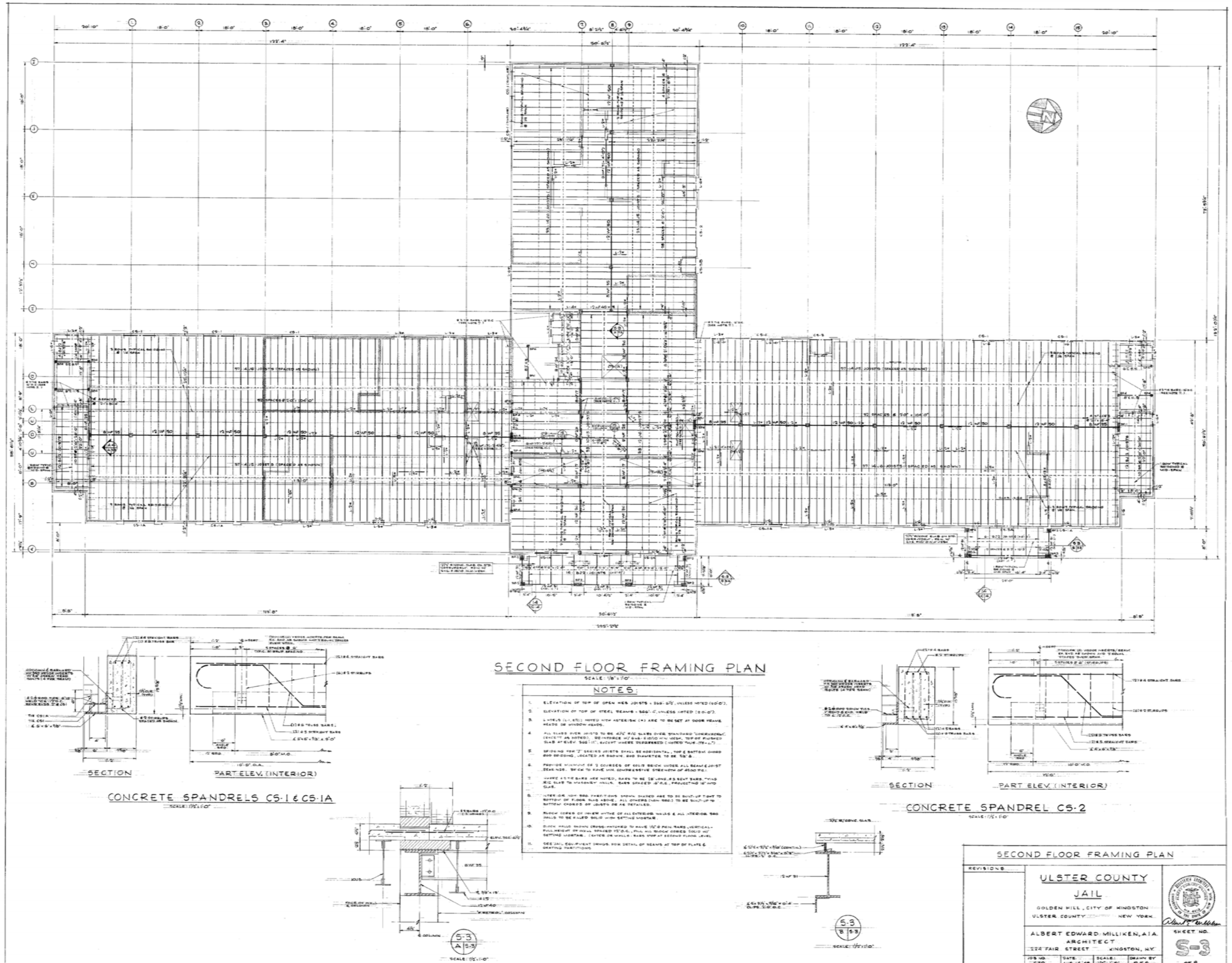
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
STD	Stockbridge-Farmington-Rock outcrop complex, hilly	3.9	100.0%
Totals for Area of Interest		**3.9**	**100.0%**


SOIL BORING LOGS
KEY TO BORING LOGS
SHERIFF'S GARAGE FOUNDATION PLAN
SHERIFF'S GARAGE ROOF FRAMING PLAN
BORING LOGS & GARAGE
ULSTER COUNTY JAIL
GOLDEN HILL CITY OF KINGSTON
ULSTER COUNTY NEW YORK
ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
224 FAIR STREET KINGSTON, NY
S-1


FOUNDATION NOTES:
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"
ELEVATOR PIT
WALL CONTINUATION
FOUNDATION PLAN
REVISIONS:
ULSTER COUNTY JAIL
GOLDEN HILL, CITY OF KINGSTON
ULSTER COUNTY NEW YORK
ALBERT EDWARD MILLIKEN, A.I.A. ARCHITECT
224 FAIR STREET KINGSTON, N.Y.
SHEET NO. S-2
JOB NO. 670
DATE: AUG. 4, '63
SCALE: 1/8" = 1'-0"
DRAWN BY: R.T.G.
OF 8 SHEETS

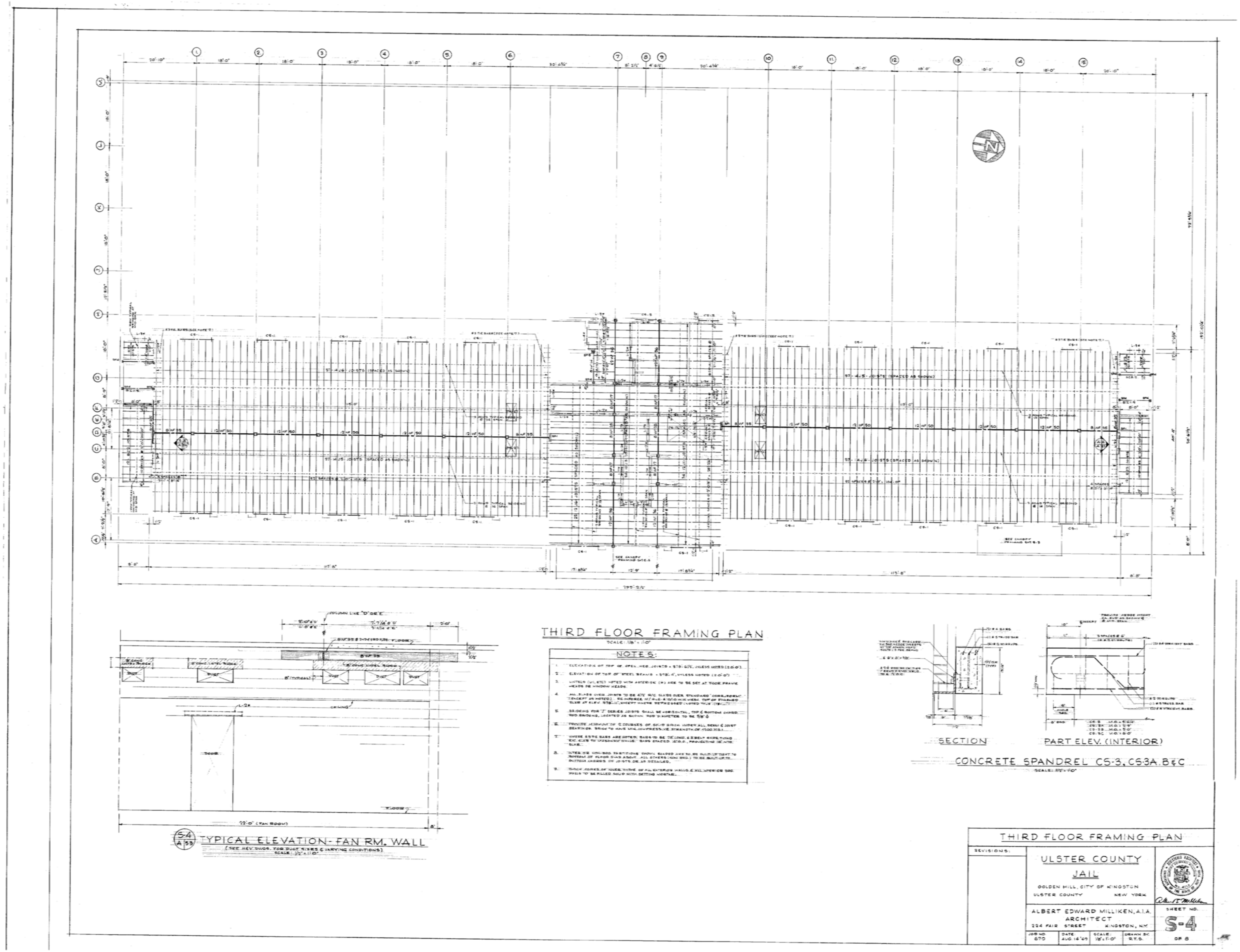
DRAFT

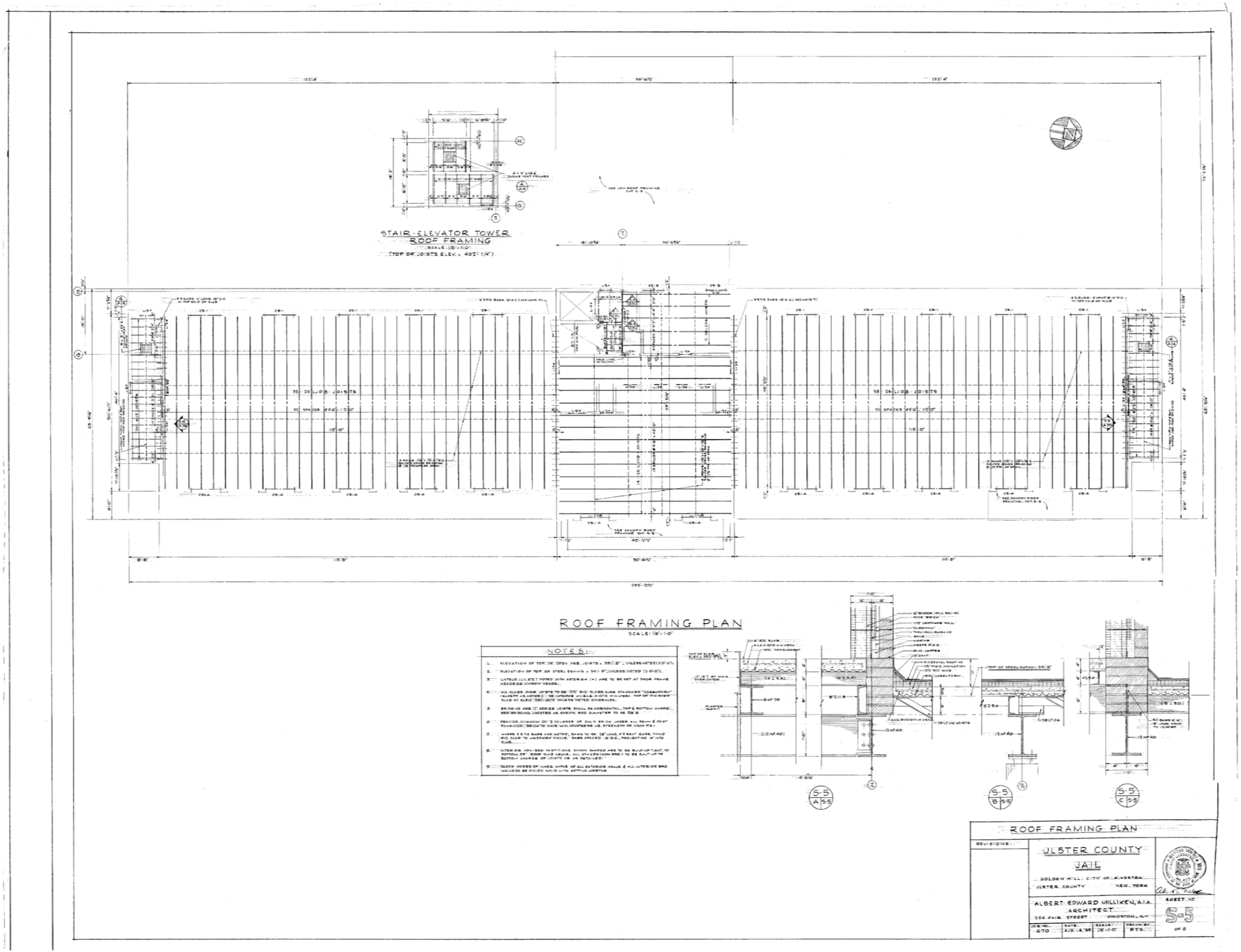
DRAFT

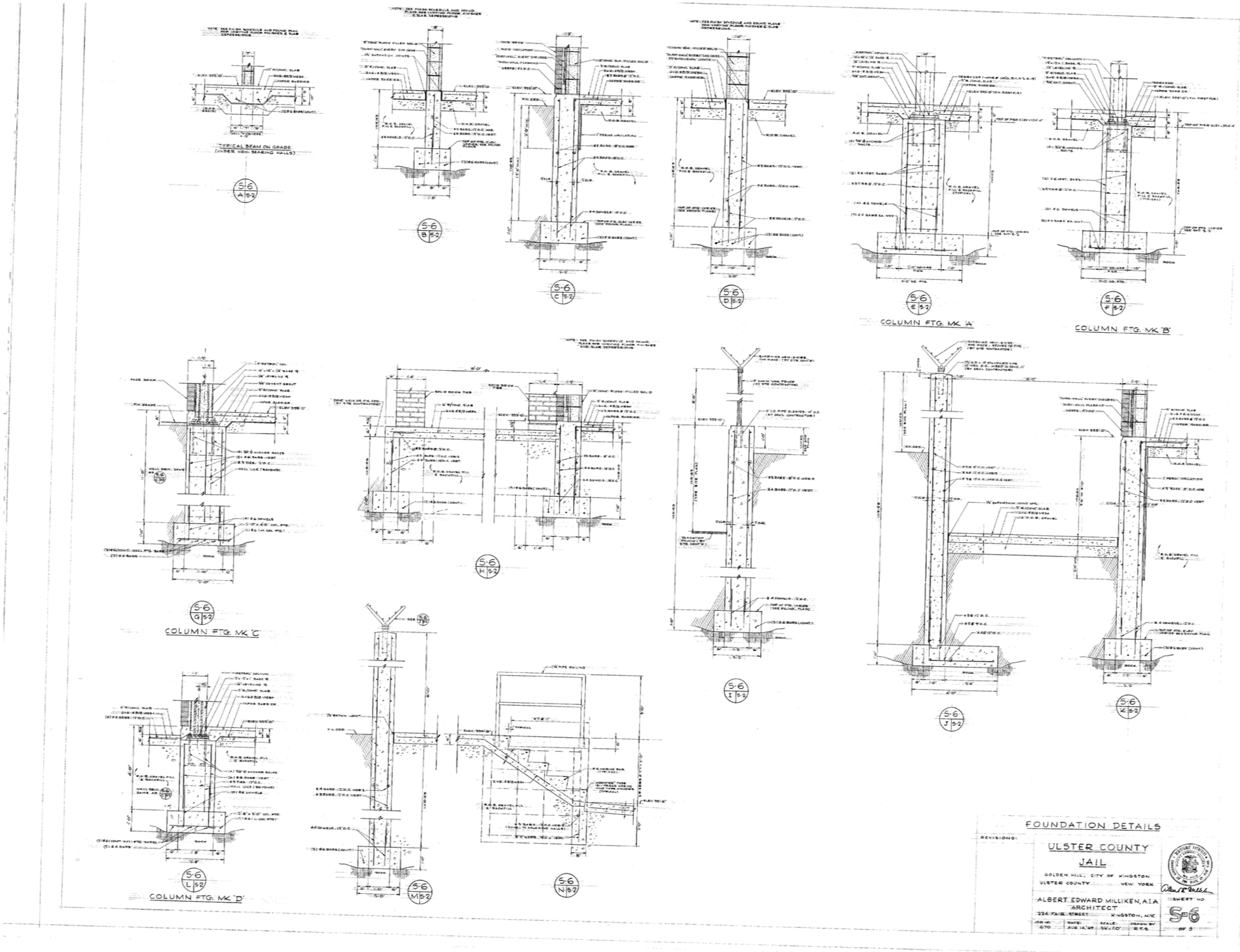

SECOND FLOOR FRAMING PLAN
NOTES
SECTION
PART ELEV. (INTERIOR)
CONCRETE SPANDRELS CS-1 & CS-1A
SECTION
PART ELEV. (INTERIOR)
CONCRETE SPANDREL CS-2
SECOND FLOOR FRAMING PLAN
REVISIONS
ULSTER COUNTY
JAIL
GOLDEN HILL, CITY OF KINGSTON
ULSTER COUNTY NEW YORK
ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
224 FAIR STREET KINGSTON, N.Y.
JOB NO. 670
DATE AUG 14 '69
DRAWN BY R.T.S.
SHEET NO.
S-3
OF 8

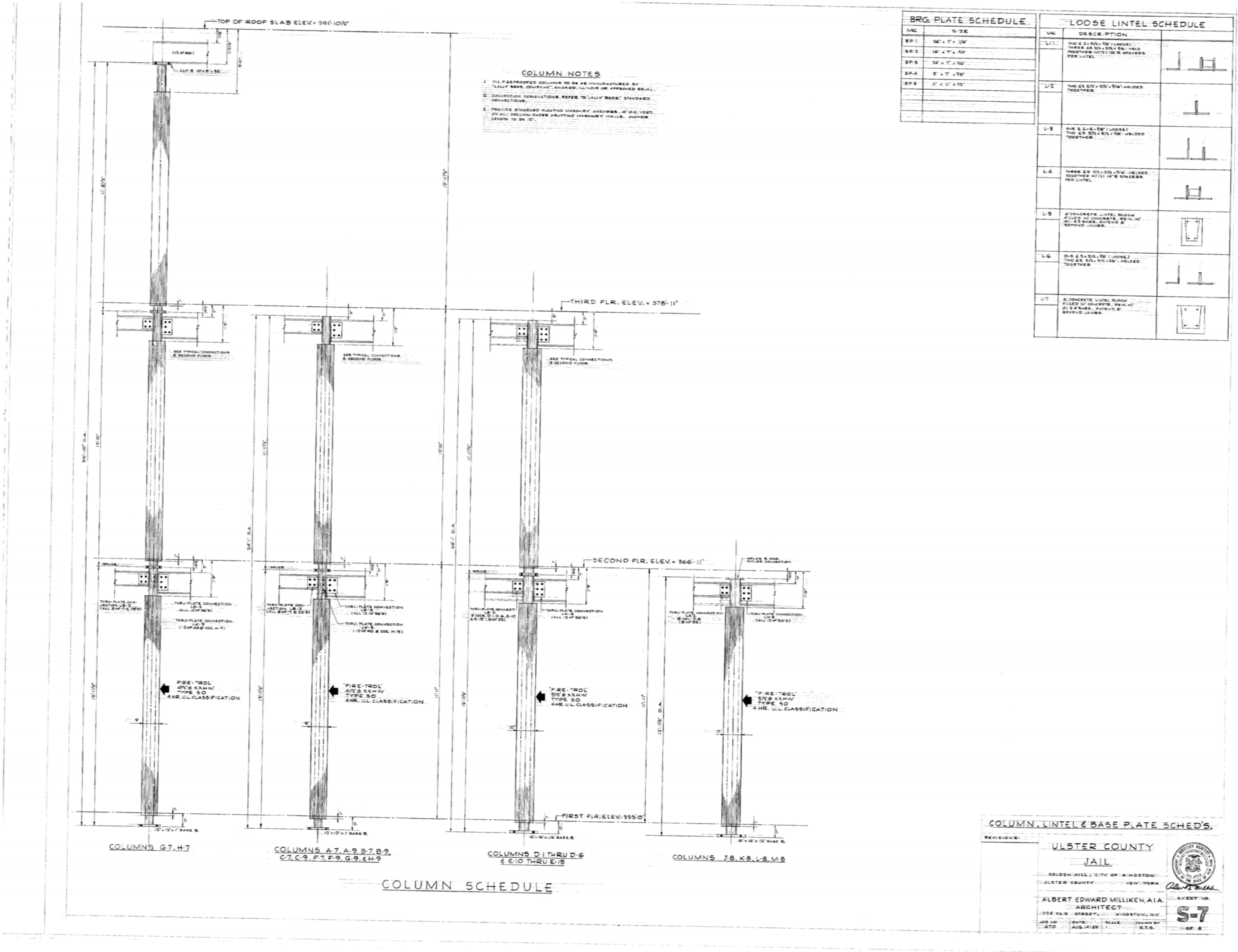
DRAFT

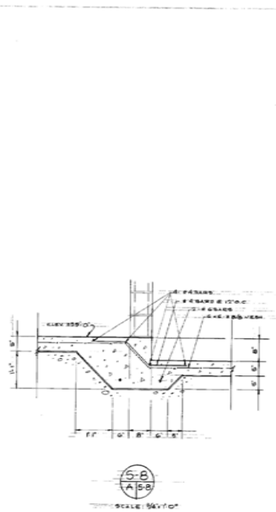
DRAFT

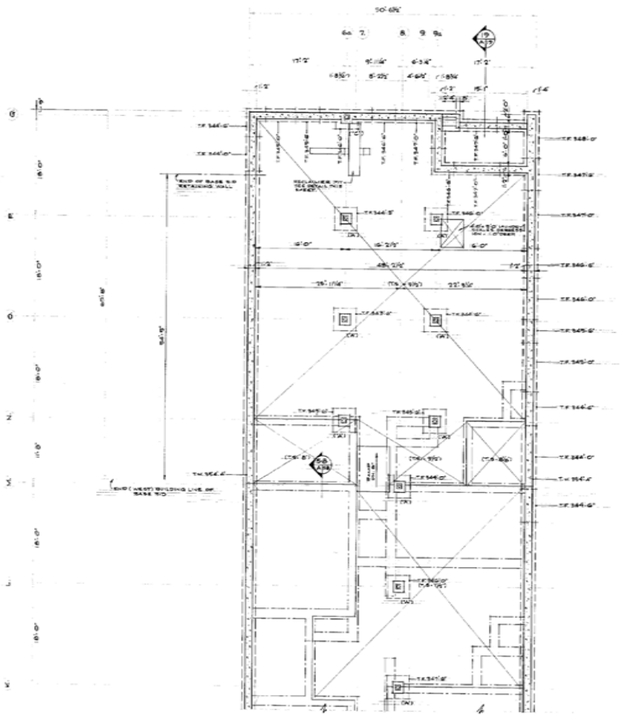

THIRD FLOOR FRAMING PLAN
NOTES:
TYPICAL ELEVATION- FAN RM. WALL
SECTION
PART ELEV. (INTERIOR)
CONCRETE SPANDREL CS-3, CS3A, B&C
THIRD FLOOR FRAMING PLAN
ULSTER COUNTY
JAIL
ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
S-4


STAIR-ELEVATOR TOWER
ROOF FRAMING
SCALE: 1/8"=1'-0"
(TOP OF JOISTS ELEV. = 402'-1/4")
ROOF FRAMING PLAN
SCALE: 1/8"=1'-0"
NOTE 5:
1. ELEVATION OF TOP OF OPEN WEB JOISTS = 399'-0", UNLESS NOTED OTHERWISE.
2. ELEVATION OF TOP OF STEEL BEAMS = 399'-8", UNLESS NOTED OTHERWISE.
3. LINTELS (L1, ETC.) NOTED WITH ASTERISK (*) ARE TO BE SET AT DOOR FRAME HEADS OR WINDOW HEADS.
4. 3/4" SLABS OVER JOISTS TO BE 2'0" R.C. SLABS OVER STANDARD "CORRUGATED" (EXCEPT AS NOTED). REINFORCE W/6x6-W1.4/W1.4 WELDED WIRE FABRIC. TOP OF FINISHED SLAB AT ELEV. 399'-0" UNLESS NOTED OTHERWISE.
5. BRIDGING FOR "S" SERIES JOISTS SHALL BE HORIZONTAL TOP & BOTTOM CHORD BRIDGING, LOCATED AS SHOWN, 5/8" DIAMETER TO BE USED.
6. PROVIDE MINIMUM OF 2 COURSES OF SOLID BRICK UNDER ALL BEAMS & JOIST BEARINGS. BRICK TO HAVE MIN. COMPRESS. VE STRENGTH OF 4500 P.S.I.
7. WHERE 8"X 16" BARS ARE NOTED, BARS TO BE 16" LONG, 8" RIVET BARS, TYPE MIC SLAB TO MASONRY WALLS. BARS SPACED @ 8'-0" O.C., PROJECTING 8" INTO SLAB.
8. INTERIOR NON-BRG. PARTITIONS SHOWN SHADED ARE TO BE BUILT UP TIGHT TO BOTTOM OF SLAB ABOVE. ALL OTHERS (NON-BRG.) TO BE BUILT UP TO BOTTOM CHORDS OF JOISTS OR AS DETAILED.
9. BLOCK CORES OF LINTEL WHERE OCCUR AT ALL EXTERIOR WALLS & ALL INTERIOR BRG. WALLS TO BE FILLED SOLID WITH CEMENT MORTAR.
S-5 A S-5
S-5 B S-5
S-5 C S-5
ROOF FRAMING PLAN
REVISIONS:
ULSTER COUNTY
JAIL
GOLDEN HILL, CITY OF KINGSTON
ULSTER COUNTY NEW YORK
ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
324 FAIR STREET KINGSTON, N.Y.
JOB NO. 670
DATE: 3.25.14.'69
SCALE: 1/8"=1'-0"
DRAWN BY: B.T.O.
SHEET NO. S-5
OF 8


TYPICAL BEAM ON GRADE
(UNDER NON-BEARING WALLS)
5-6 A 5-2
5-6 B 5-2
5-6 C 5-2
5-6 D 5-2
5-6 E 5-2
COLUMN FTG. MK 'A'
5-6 F 5-2
COLUMN FTG. MK 'B'
5-6 G 5-2
COLUMN FTG. MK 'C'
5-6 H 5-2
5-6 I 5-2
5-6 J 5-2
5-6 K 5-2
5-6 L 5-2
COLUMN FTG. MK 'D'
5-6 M 5-2
5-6 N 5-2
FOUNDATION DETAILS
REVISIONS:
ULSTER COUNTY
JAIL
GOLDEN HILL, CITY OF KINGSTON
ULSTER COUNTY NEW YORK
ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
224 FAIR STREET KINGSTON, N.Y.
JOB NO. 670
DATE: AUG. 14, '69
SCALE: 1/4"=1'-0"
DRAWN BY R.T.S.
SHEET NO. S-6
OF 9


BRG. PLATE SCHEDULE
LOOSE LINTEL SCHEDULE
COLUMN NOTES
TOP OF ROOF SLAB ELEV.
THIRD FLR. ELEV. = 378'-11"
SECOND FLR. ELEV. = 366'-11"
FIRST FLR. ELEV. 355'-0"
COLUMNS G.7, H.7
COLUMNS A.7, A.9, B.7, B.9, C.7, C.9, F.7, F.9, G.9, &H.9
COLUMNS D.1 THRU D.6 & E.10 THRU E.15
COLUMNS J.8, K.8, L.8, M.8
COLUMN SCHEDULE
COLUMN, LINTEL & BASE PLATE SCHED'S.
ULSTER COUNTY JAIL
GOLDEN HILL, CITY OF KINGSTON
ULSTER COUNTY NEW YORK
ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
S-7

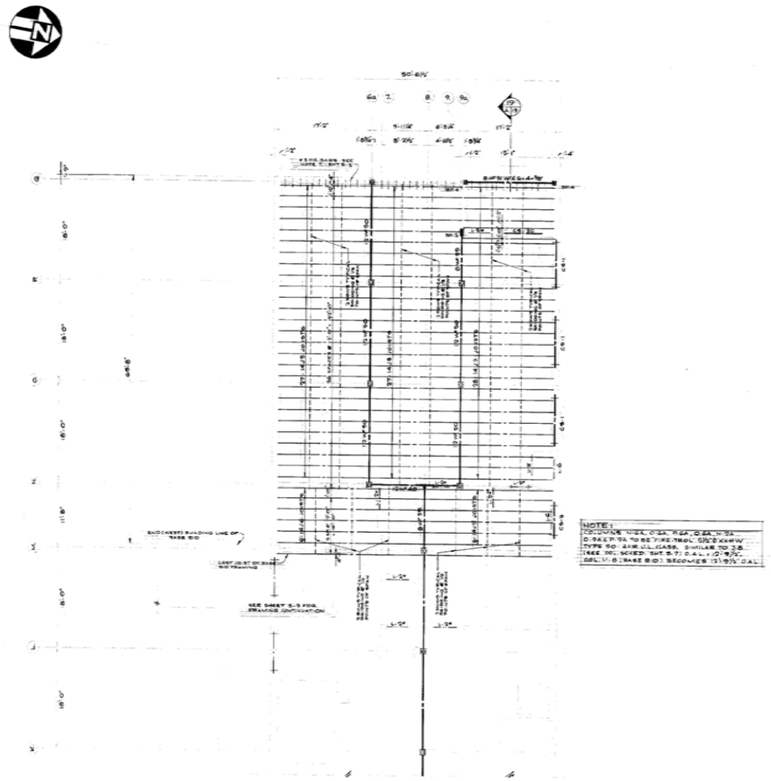




FOUNDATION PLAN-ALTERNATE No. 1

SEE FOUNDATION NOTES - SHEET S-2

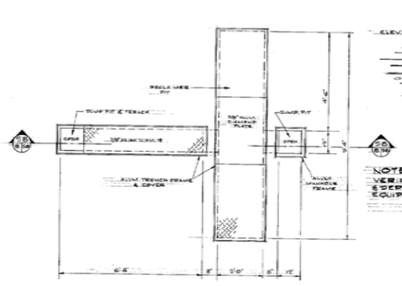
SCALE: 1/8" = 1'-0"



ROOF FRAMING PLAN-ALTERNATE No. 1

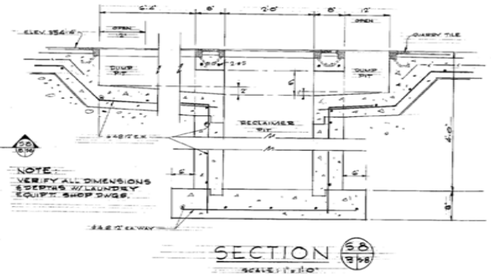
SEE FRAMING NOTES - SHEET S-3

SCALE: 1/8" = 1'-0"



RECLAIMER PIT PLAN

SCALE: 1/2" = 1'-0"



NOTE:
VERIFY ALL DIMENSIONS & STEPS W/ LAUNDRY EQUIPT. SHOP DWGS.

SECTION

SCALE: 1" = 1'-0"

FOUNDATION & FRAMING PLANS - ALTER. No. 1

REVISIONS

ULSTER COUNTY

JAIL

GOLDEN HILL, CITY OF KINGSTON

ULSTER COUNTY NEW YORK

ALBERT EDWARD MILLIKEN, A.I.A.
ARCHITECT
224 FAIR STREET KINGSTON, N.Y.

JOB NO. 'GTO' | DATE: AUG 14 '69 | SCALE: | DRAWN BY: R.T.S.

SHEET NO. S-8 OF 8

APPENDIX D: STATE AND FEDERAL WETLANDS

DRAFT

U.S. Fish and Wildlife Service
National Wetlands Inventory

GOLDEN HILL DRIVE

September 28, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

GOLDEN HILL DRIVE

September 28, 2020

1:2,257

0 0.02 0.04 0.08 mi

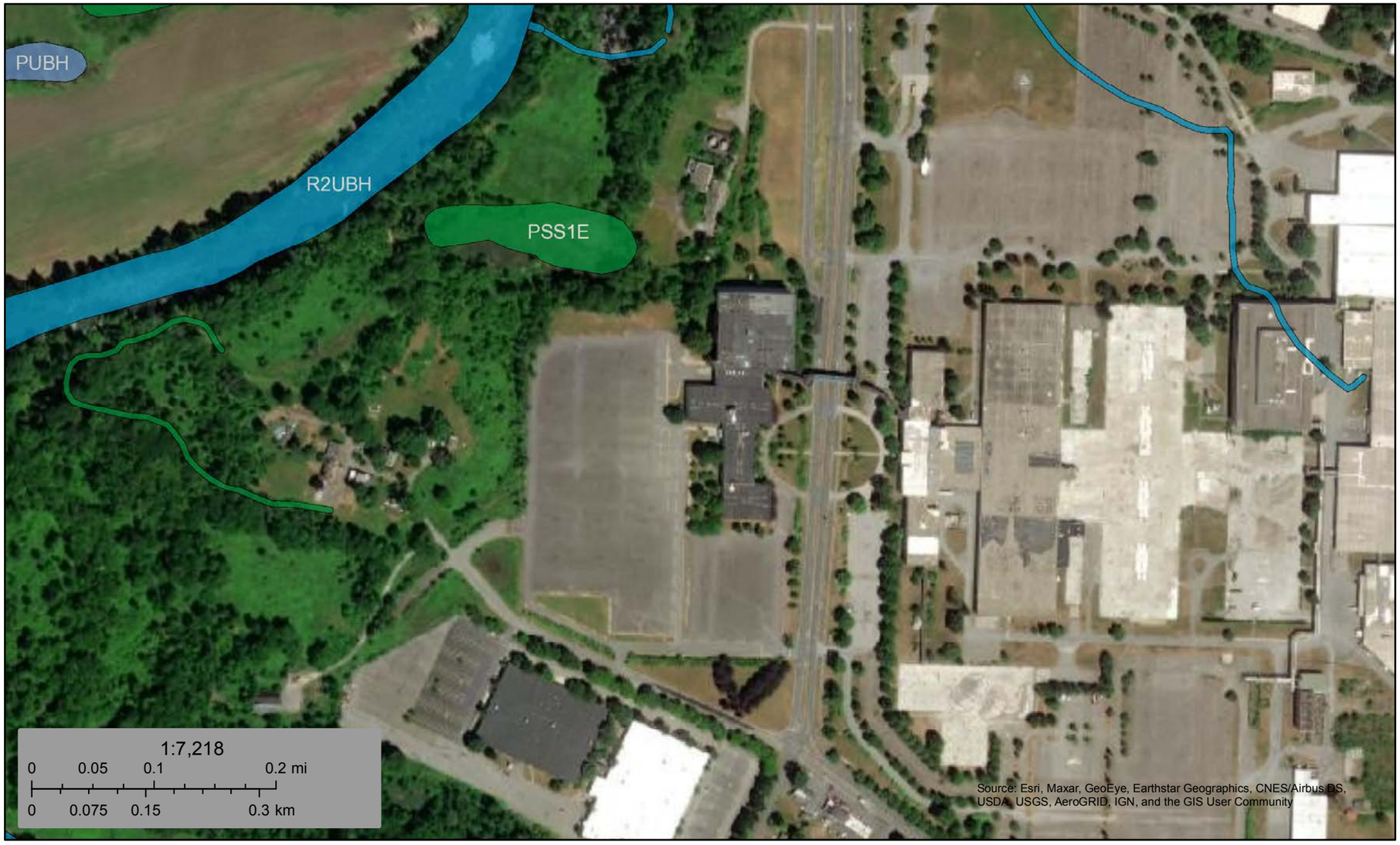
0 0.03 0.07 0.13 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

U.S. Fish and Wildlife Service
National Wetlands Inventory

101 ENTERPRISE DR



September 28, 2020

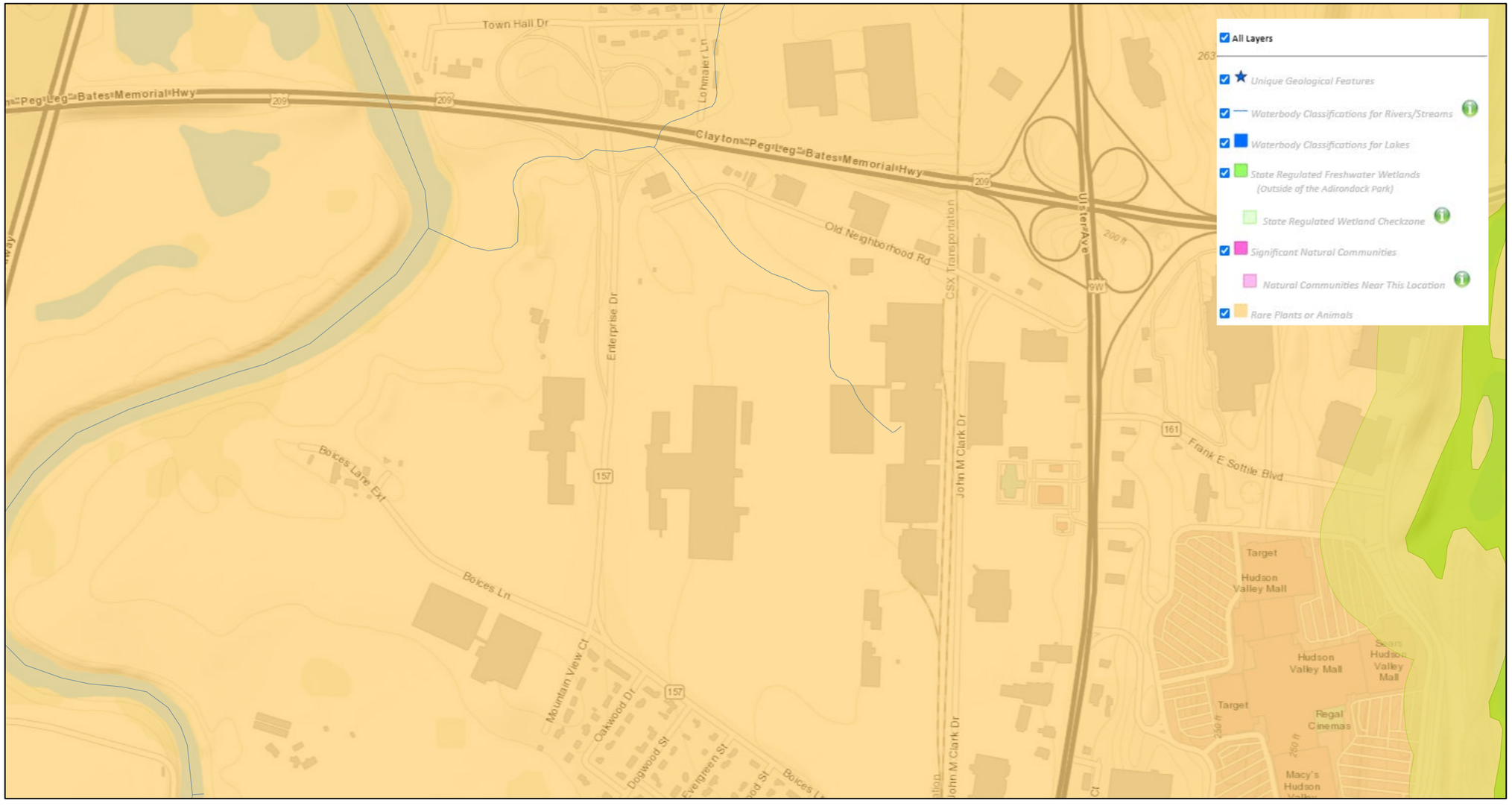
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

101 ENTERPRISE DR



September 28, 2020

1:9,028

0 0.07 0.15 0.3 mi

0 0.13 0.25 0.5 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

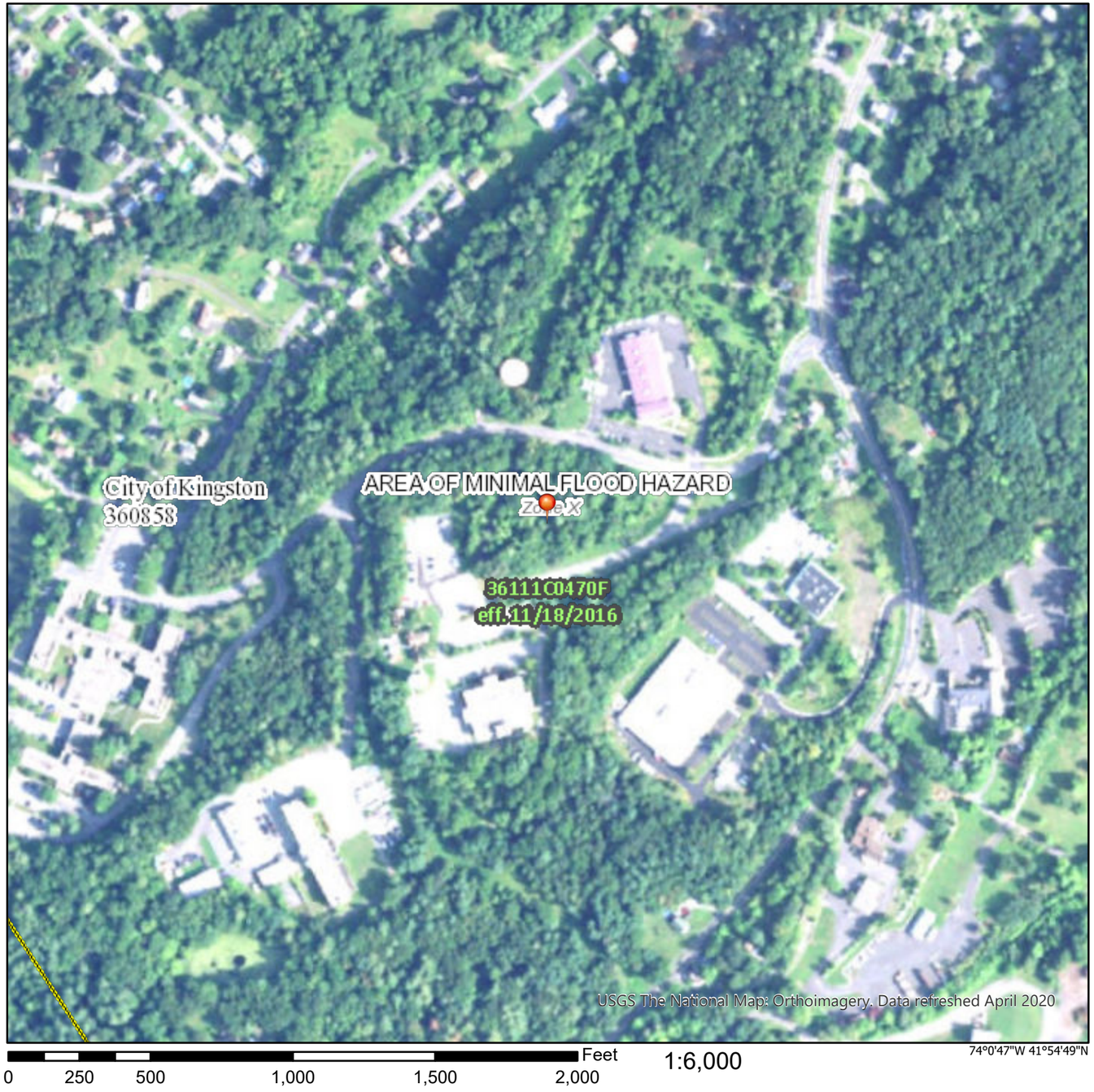
NYS Department of Environmental Conservation
Not a legal document

DRAFT

APPENDIX E: FEMA MAP

National Flood Hazard Layer FIRMette

74°1'24"W 41°55'16"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

74°0'47"W 41°54'49"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

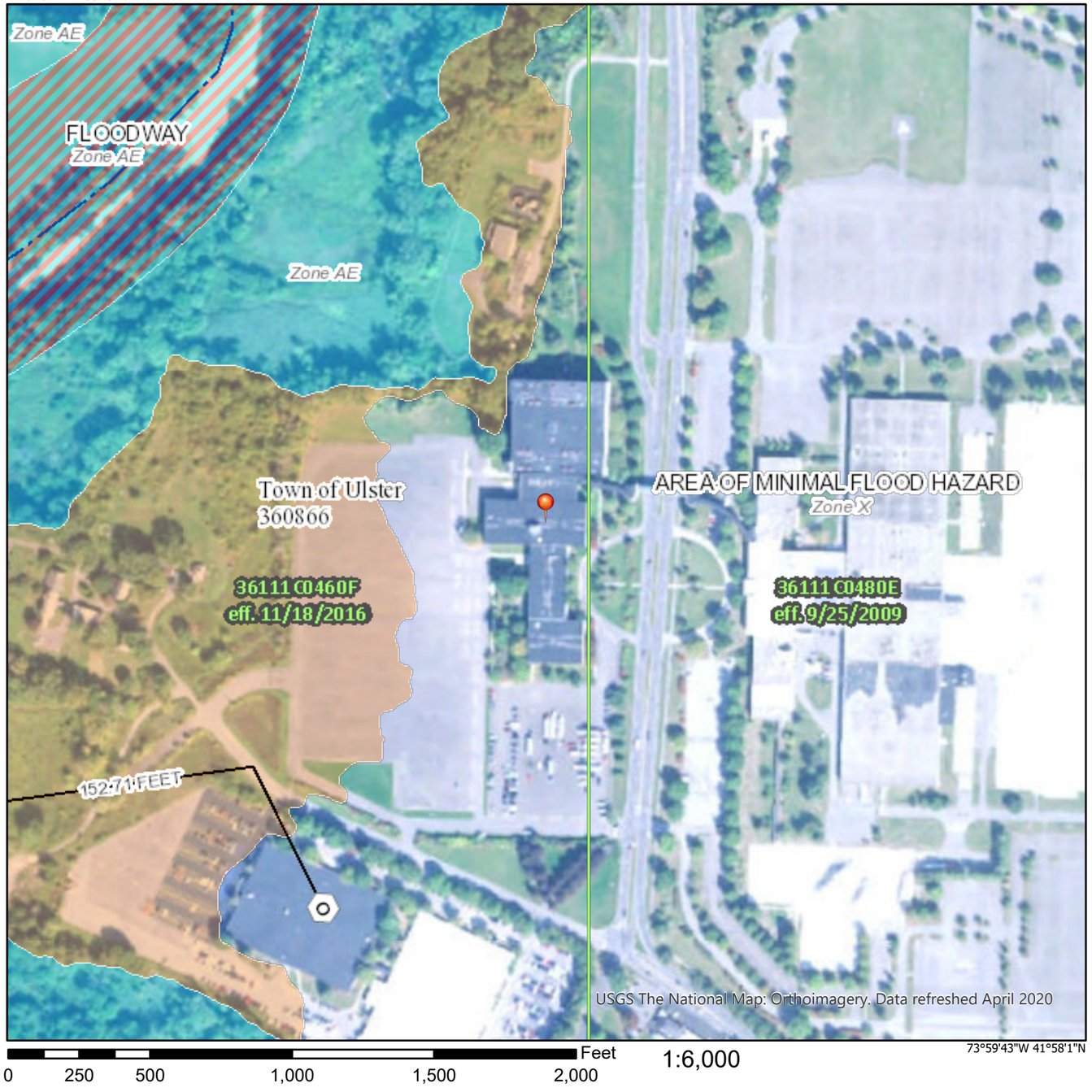
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/28/2020 at 3:28 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

74°0'20"W 41°58'28"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

73°59'43"W 41°58'1"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/28/2020 at 3:25 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX F: ARCHAEOLOGICAL SENSITIVE AREA AND SHPO LETTERS

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

ARCHAEOLOGY COMMENTS

Phase IA/IB Archaeological Survey Recommendation
Project: UCAT Golden Hill Bus Facility: New Construction
PR#: 20PR06544
Date: 27 October 2020

Your project is in an archaeologically sensitive location. Therefore, the State Historic Preservation Office/Office of Parks, Recreation and Historic Preservation (SHPO/OPRHP) recommends a Phase IA/IB archaeological survey for components of the project that will involve ground disturbance, unless substantial prior ground disturbance can be documented. A Phase IA/IB survey is designed to determine the presence or absence of archaeological sites or other cultural resources in the project's Area of Potential Effects (APE).

If you consider the entire project area to be disturbed, documentation of the disturbance will need to be reviewed by SHPO/OPRHP. Examples of disturbance include mining activities and multiple episodes of building construction and demolition. Documentation of ground disturbance typically consists of soil bore logs, photos, or previous project plans. Agricultural activity is not considered to be substantial ground disturbance.

Please note that in areas with alluvial soils or fill archaeological deposits may exist below the depth of superficial disturbances such as pavement or even deeper disturbances, depending on the thickness of the alluvium or fill. Evaluation of the possible impact of prior disturbance on archaeological sites must consider the depth of potentially culture-bearing deposits and the depth of planned disturbance by the proposed project.

Our office does not conduct archaeological surveys. A 36 CFR 61 qualified archaeologist should be retained to conduct the Phase IA/IB survey.

Please also be aware that a Section 233 permit from the New York State Education Department (SED) may be necessary before archaeological fieldwork is conducted on State-owned land. If any portion of the project includes the lands of New York State, you should contact the SED before initiating survey activities. The SED contact is Christina Rieth and she can be reached at christina.rieth@nysed.gov. Section 233 permits are not required for projects on private land.

If you have any questions concerning archaeology, please contact Philip Perazio at philip.perazio@parks.ny.gov.

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

October 29, 2020

Austin Goodwin
Civil Engineer
Passero Associates
242 W. Main St Suite 100
Rochester, NY 14614

Re: DEC
Ulster County Area Transit Tech City Site
Town of Ulster, Ulster County, NY
20PR06545

Dear Austin Goodwin:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project 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 OPRHP 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 (6 NYCRR Part 617).

Based upon this review, it is the opinion of 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 further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

APPENDIX G: SITE SELECTION CHECKLISTS

DRAFT

Project Name: UCAT Transit Facility Site Selection

Site No: 1: Existing Facility Expansion

Reviewed by: ABG

	SITE SELECTION CHECKLIST	SITE #1	REMARKS
1	TAX ID #	YES	Tax ID# is shown on the plans.
2	PROPERTY BOUNDARY AREA-FROM TAX MAPS	YES	Total parcel is over 41 acres emcompassing a large portion of Golden Hill, the plans show a "project area" instead.
3	PARCEL ZONING INFORMATION	YES	Zoning information is shown on the plans
4	AERIAL MAPPING (LIDAR)	YES	Aerial mapping and topographic LIDAR are shown on the plans
5	COMPATIBLE USE WITH ADJACENT PROPERTIES	YES	Golden Hill is a group of Ulster County buildings.
6	KNOWN EASMENTS – REQUESTS ABSTRACTS DEEDS	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
7	COMPATIBLE WITH TOWN MASTER PLAN	YES	Golden Hill is used for Ulster County Buildings
8	ACCESSIBLITY FROM EXISTING STREETS/ROADWAYS	YES	Project area is adjacent to Golden Hill Road
9	WOODLOT OR SENSITIVE VEGETATION	WOODS / ROCK OUTCROP	Golden Hill is subject to possible rock outcrops/shallow bedrock
10	FLOOD PLAIN- ELEVATION	NONE	No Floodplains are located on Golden Hill
11	WETLANDS -DEC/USACE	NONE	No Wetlands are within the project area
12	ARCHEO SENSATIVE AREAS/SHPO	PHASE 1A/1B	Reconnaissance level survey was performed for original construction
13	SANITARY SEWER – RECORD MAPS	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
14	SANITARY SEWER CAPACITY TO SERVE	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
15	WATER SERVICE – RECORD MAPS	REQUESTED	Large water line from existing tower is likely in place
16	WATER SERVICE CAPACITY TO SERVE	YES	DIGSAFE submitted, County/City contacted to provide record maps
17	GAS/ELECTRIC/TELECOM – RECORD INFO	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
18	GAS/ELECTRIC/TELECOM CAPACITY TO SERVE	YES	DIGSAFE submitted, County/City contacted to provide record maps
19	NYSDEC SPILL DATA BASE	NONE	
20	SOIL SURVEY – GEOTECH REPORT - DEPTH OF BEDROCK	RECOMMENDED	Due to outcrop soils, a geotechnical survey is HIGHLY reccommended.
21	SPECIAL USE PERMITS REQUIRED	NONE	
22	FEASIBLE SATELLITE FACILITY?	N/A	Site is cramped as Is, expansion would require a massive retaining wall and massive amounts of imported soil.

Project Name: UCAT Transit Facility Site Selection

Site No: 2: Golden Hill Site

Reviewed by: ABG

	SITE SELECTION CHECKLIST	SITE #2	REMARKS
1	TAX ID #	YES	Tax ID# is shown on the plans.
2	PROPERTY BOUNDARY AREA-FROM TAX MAPS	YES	Total parcel is over 41 acres emcompassing a large portion of Golden Hill, the plans show a "project area" instead.
3	PARCEL ZONING INFORMATION	YES	Zoning information is shown on the plans
4	AERIAL MAPPING (LIDAR)	YES	Aerial mapping and topographic LIDAR are shown on the plans
5	COMPATIBLE USE WITH ADJACENT PROPERTIES	YES	Golden Hill is a group of Ulster County buildings.
6	KNOWN EASMENTS – REQUESTS ABSTRACTS DEEDS	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
7	COMPATIBLE WITH TOWN MASTER PLAN	YES	Golden Hill is used for Ulster County Buildings
8	ACCESSIBLITY FROM EXISTING STREETS/ROADWAYS	YES	Project area is adjacent to Golden Hill Road
9	WOODLOT OR SENSITIVE VEGETATION	WOODS / ROCK OUTCROP	Golden Hill is subject to possible rock outcrops/shallow bedrock
10	FLOOD PLAIN- ELEVATION	NONE	No Floodplains are located on Golden Hill
11	WETLANDS -DEC/USACE	NONE	No Wetlands are within the project area
12	ARCHEO SENSATIVE AREAS/SHPO	SUBMITTED	Reconnaissance level survey was performed for original construction
13	SANITARY SEWER – RECORD MAPS	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
14	SANITARY SEWER CAPACITY TO SERVE	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
15	WATER SERVICE – RECORD MAPS	REQUESTED	Large water line from existing tower is likely in place
16	WATER SERVICE CAPACITY TO SERVE	YES	DIGSAFE submitted, County/City contacted to provide record maps
17	GAS/ELECTRIC/TELECOM – RECORD INFO	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
18	GAS/ELECTRIC/TELECOM CAPACITY TO SERVE	YES	DIGSAFE submitted, County/City contacted to provide record maps
19	NYSDEC SPILL DATA BASE	NONE	
20	SOIL SURVEY – GEOTECH REPORT - DEPTH OF BEDROCK	RECOMMENDED	Due to outcrop soils, a geotechnical survey is HIGHLY reccommended.
21	SPECIAL USE PERMITS REQUIRED	NONE	
22	FEASIBLE SATELLITE FACILITY?	N/A	Golden Hill location outweighs the steep grading costs due to its proximity to the existing facility

Project Name: UCAT Transit Facility Site Selection

Site No: 3: Tech City Site

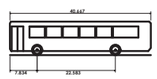
Reviewed by: ABG

	SITE SELECTION CHECKLIST	SITE #3	REMARKS
1	TAX ID #	YES	Tax ID# is shown on the plans.
2	PROPERTY BOUNDARY AREA-FROM TAX MAPS	YES	The Parcel boundaries are shown on the plans
3	PARCEL ZONING INFORMATION	YES	Zoning information is shown on the plans
4	AERIAL MAPPING (LIDAR)	YES	Aerial mapping and topographic LIDAR are shown on the plans
5	COMPATIBLE USE WITH ADJACENT PROPERTIES	YES	The parcel is an abandoned complex within tech city. Not in proximity to existing transportation buildings.
6	KNOWN EASMENTS – REQUESTS ABSTRACTS DEEDS	YES	NYSDEC Encironmental easement covers the area due to previous use by IBM corporation.
7	COMPATIBLE WITH TOWN MASTER PLAN	SORT OF	TECH CITY is "ours to play with" in words of UCAT but the county has plans to revitalize the area
8	ACCESSIBLITY FROM EXISTING STREETS/ROADWAYS	YES	The site is surrounded by access roads and adjacent to a US highway
9	WOODLOT OR SENSITIVE VEGETATION	NONE	Site is a flat existing parking lot
10	FLOOD PLAIN- ELEVATION	500yr floodplain	Back half of site is within 500 year floodplain
11	WETLANDS -DEC/USACE	NONE	Site is not within floodplains, site is marked for potential rare plants/animals
12	ARCHEO SENSATIVE AREAS/SHPO	SUBMITTED	Site was submitted to SHPO for archeological significance
13	SANITARY SEWER – RECORD MAPS	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
14	SANITARY SEWER CAPACITY TO SERVE	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
15	WATER SERVICE – RECORD MAPS	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
16	WATER SERVICE CAPACITY TO SERVE	YES	DIGSAFE submitted, County/City contacted to provide record maps
17	GAS/ELECTRIC/TELECOM – RECORD INFO	REQUESTED	DIGSAFE submitted, County/City contacted to provide record maps
18	GAS/ELECTRIC/TELECOM CAPACITY TO SERVE	YES	DIGSAFE submitted, County/City contacted to provide record maps
19	NYSDEC SPILL DATA BASE	NONE	
20	SOIL SURVEY – GEOTECH REPORT - DEPTH OF BEDROCK	RECOMMENDED	Due to unknown condition of existing pavement, survey recommended
21	SPECIAL USE PERMITS REQUIRED	NONE	
22	FEASIBLE SATELLITE FACILITY?	FEASIBLE	Site is likely to encounter setbacks due to the floodplain & existance of an environmental easement from NYSDEC.

APPENDIX H: BUS TURNING ANALYSIS

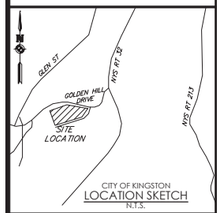
HORIZONTAL SCALE
30 0 15 30 60
SCALE: 1"=30'

N



NABI 40 LFW Low Floor Bus	
Overall Length	40.667ft
Overall Width	8.499ft
Overall Body Height	9.660ft
Min Body Ground Clearance	1.150ft
Track Width	8.499ft
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	44.000ft

PASSERO ASSOCIATES
engineering architecture



Client:
ULSTER COUNTY
1 DANNY CIRCLE
KINGSTON, NY 12401

PASSERO ASSOCIATES
242 West Main Street Suite 100 (585) 325-1000
Rochester, New York 14614 Fax: (585) 325-1691

Principal-in-Charge Dan Savage, PE.
Project Manager Dan Savage, PE.
Designed by Austin Goodwin, EIT.

STATE OF NEW YORK · JESS DANIEL SAVAGE · LICENSED PROFESSIONAL ENGINEER · 092235

Revisions

No.	Date	By	Description
1			

GOLDEN HILL LOCATION CONCEPT ULSTER COUNTY FLEET GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No.
20202987.0001

Drawing No. C 101
Sheet No. 1

Scale: 1" = 30'

Date OCTOBER 2020

NOT FOR CONSTRUCTION

APPENDIX I: UCAT VEHICLE INVENTORY

Vehicle Inventory for Ulster County - Ulster County Area Transit
Active Fixed

Operator Veh ID	Model Year	Body Mfg.	Model	Service	Length	Seats	Bike Rack	Fuel	Chassis Model	Trans Model	Bus Del Date	Fund Source	PIN	Vehicle Cost New	Last Miles
42	2005	ORION	ORION 7	Fixed	40	34	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	12/19/2009	NY-03-450,X549,X553	8TRU30.001	$ 468,509.00	287,670
55	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	7/29/2010	ARRA-NY-96-X021-00	8TRU30	$ 553,192.75	372,630
56	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/7/2010	ARRA-NY-96-X021-00	8TRU30	$ 553,192.75	402,860
57	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/14/2010	NY-90-X614-00	8TRU30	$ 553,192.75	374,426
58	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/21/2010	NY-90-X614-00	8TRU30	$ 553,192.75	368,821
59	2010	ORION	ORION 7	Fixed	35	32	TRUE	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/14/2010	NY-90-X654-00	8TRU30	$ 553,192.75	404,918
60	2012	GILLIG	LOW FLOOR	Fixed	29	26	TRUE	DIESEL	Low Floor	B400R	1/9/2012	NY-90-X654-00	8TRU53	$ 353,009.00	283,373
61	2012	GILLIG	LOW FLOOR	Fixed	29	26	TRUE	DIESEL	Low Floor	B400R	1/10/2012	NY-90-X654-00	8TRU53	$ 353,009.00	277,059
62	2014	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	7/12/2013	NY-90-X668-00	8TRU28	$ 223,226.00	174,111
63	2014	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	7/12/2013	NY-90-X668-00	8TRU28	$ 223,226.00	192,081
67	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	12/29/2014	NY-90-X720-00	8TRU62	$ 238,600.00	221,190
69	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	11/24/2015	NY-90-X752-00	8TRU62	$ 198,627.00	174,658
70	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	11/24/2015	NY-90-X752-00	8TRU62	$ 198,627.00	189,526
71	2015	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	3000 pts	11/24/2015	NY-90-X752-00	8TRU62	$ 198,627.00	167,336
72	2015	ARBOC	SPIRIT	Fixed	24	17	TRUE	Unleaded	CG33803	6L90	07/23/2015	Local Funds	8TRU82	$ 142,000.00	111,903
73	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/25/2017	NY-90-X765-00	8TRU64	$ 247,855.00	144,261
74	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/27/2017	NY-34-0016-00	8TRU84	$ 247,855.00	137,429
75	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/27/2017	NY-34-0016-00	8TRU84	$ 247,855.00	160,537
76	2017	EL DORADO	PASSPORT	Fixed	30	25	TRUE	DIESEL	HC/TC	B400R	01/25/2017	NY-34-0016-00	8TRU84	$ 247,855.00	126,470
78	2018	GILLIG	LOW FLOOR	Fixed	30	26	TRUE	DIESEL	Low Floor	B400R	03/12/2018	2017-045	8TRU78	$ 407,803.00	57,681
79	2018	GILLIG	LOW FLOOR	Fixed	30	26	TRUE	DIESEL	Low Floor	B400R	03/16/2018	2017-045	8TRU78	$ 407,803.00	50,058
80	2018	ARBOC	SPIRIT	Fixed	26	21	TRUE	Unleaded	CG33803	6L90	10/03/2018	2018-009	8TRU	$145,500.00	32,100
81	2018	ARBOC	SPIRIT	Fixed	26	21	TRUE	Unleaded	CG33803	6L90	10/03/2018	2018-009	8TRU	$145,500.00	25,278
82	2018	ARBOC	SPIRIT	Fixed	26	21	TRUE	Unleaded	CG33803	6L90	10/03/2018	2018-009	8TRU	$145,500.00	36,810
83	2019	GILLIG	LOW FLOOR	Fixed	40	31	TRUE	DIESEL	Low Floor	B400R	03/15/2019	2018-009	8TRU	$ 433,166.00	13,532
84	2019	ARBOC	LOW FLOOR	Fixed	26		TRUE	GAS	CG33803	6L90	10/02/2018	2019-073	8TRU	$ 145,540.00	3,923
85	2019	ARBOC	LOW FLOOR	Fixed	26		TRUE	GAS	CG33803	6L90	02/27/2020	2019-073	8TRU	$ 148,492.00	4,416
86	2019	COACH/FORD	PHOENIX	Fixed	23	18	TRUE	GAS	E-450	Z-TYPE	06/03/2020	2019-038	8TRU	$ 66,511.00	359
87	2019	COACH/FORD	PHOENIX	Fixed	23	18	TRUE	GAS	E-450	Z-TYPE	06/03/2020	2019-038	8TRU	$ 66,511.00	368
9072	2007	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	09/15/2007	NY-03-0425	8TRU22	$ 307,160.00	330,404
9073	2007	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	09/15/2007	NY-90-X552-00	8TRU22	$ 307,160.00	319,877
9111	2011	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	04/01/2012	NY-96-X024 NY-90-X552	8TRU22	$ 378,295.00	239,187
9112	2011	GILLIG	LOW FLOOR	Fixed	35	32	TRUE	DIESEL	Low Floor	B400R	04/01/2012	NY-90-X67-00 NY-96-X024	8TRU22	$ 378,295.00	237,915
9161	2016	FORD	Phoenix	Fixed	23	14	TRUE	GAS	E-450	Z-TYPE	06/20/2016	NY-90-x769-00	8TRU74	$ 66,511.00	44,915
9162	2016	FORD	Phoenix	Fixed	23	14	TRUE	GAS	E-450	Z-TYPE	06/20/2016	NY-90-x769-00	8TRU74	$ 66,511.00	46,259

APPENDIX J: UCAT EV CHARGING ASSUMPTIONS

Assumptions for EV Charging Equipment at UCAT Storage Facility

11/18/2020

ABB Model HVC-C can serve up to 3 depot-box dispensers from one 150KW power cabinet in sequential charging mode. Note: the ABB model is provided as an example, alternate make/models may be used

Chargers

-Assume two (2) HVC 150C power cabinets needed per three (3) parking bays (i.e. six buses).

-Each power cabinet requires 1x 250A circuit breaker (3 phase, 480V) and an external disconnect

-Budgetary estimate for each HVC 150C with three (3) dispensers installed (from the point of connection at the power cabinet): $180,000

-Power cabinets and depot boxes may be installed overhead or ground mounted

Electrical Infrastructure

-The building service should be sized for the additional peak load for EV charging

-Assume all upgrades to primary service to site are offset by utility incentives

Generator/Backup Power

-Backup power should be provided via automatic transfer for all building loads

Attachments:

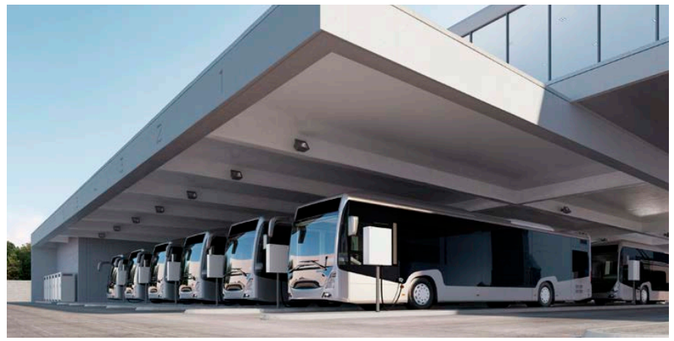
ABB HVC-C Data Sheet

HVC-C 150KW Preliminary One-Line Drawing

PRODUCT LEAFLET

Electric Vehicle Infrastructure

HVC-C UL depot charging for electric fleets



HVC Depot Boxes and power cabinets, lined up at a depot site.

ABB HVC-C UL Depot Charging systems offer a highly reliable, intelligent and cost-effective solution to charge large EV fleets such as buses, trucks and other commercial vehicles.

A practical solution for busy depots

ABB Heavy Vehicle Charger (HVC) products enable electric buses and trucks to charge at the depot ensuring flexibility and scale for every fleet operation that is transitioning to zero-emission transportation.

Key Benefits
+ Smart charging
+ Small infrastructure footprint at vehicle interface
+ Flexible design for roof and floor mounting
+ SAE J1772 CCS and OCPP 1.6 compliant
+ Remote diagnostics and management tools

Sequential Charging

Improving total cost of ownership is easy using the sequential charging feature offered by ABB's depot chargers. This feature allows connection of up to three depot charge boxes with a single power cabinet and vehicles are charged sequentially over time. The system can follow an embedded, predefined charging process or remote triggers sent by a fleet management system via OCPP 1.6.

- Vehicles are charged with high power, maximizing vehicle availability
- The required grid connection is smaller, reducing upfront investments and operational costs
- The compact depot box is easy to install at sites with space constraints
- Optimal utilization of installed infrastructure meaning lower investments in charging equipment.

Buy America

ABB can offer the HVC-C Depot Charging Solution with compliance to the Buy America Act Rule 49 CFR Part 661.5.

Future-proof modular design

Power cabinets can be upgraded from 100 or 150 kW in the field, as well as add additional depot charge boxes, allowing operators to scale their operation and to spread investments over time.

Safe and reliable operation

ABB fast chargers are designed to the highest international electrical, safety, and quality standards, and are certified by notified bodies - guaranteeing safe and reliable operation.

Connectivity and remote services

ABB chargers come with an extensive suite of connectivity features including remote services such as monitoring, management, diagnostics and software upgrades. These advanced services provide equipment owners with powerful insights into their charging operations while enabling high uptime.

ABB is your experienced partner

ABB HVC products are based on a decade of high power experience in EV charging solutions. ABB has installed over 13,000 fast charging systems in more than 80 countries – and is the leading EV infrastructure technology supplier globally.

Overnight charging 100 kW - 150 kW

A field upgradeable system with future proof reliability

HVC 100C

Upgrade

HVC 150C

HVC 150C*

—

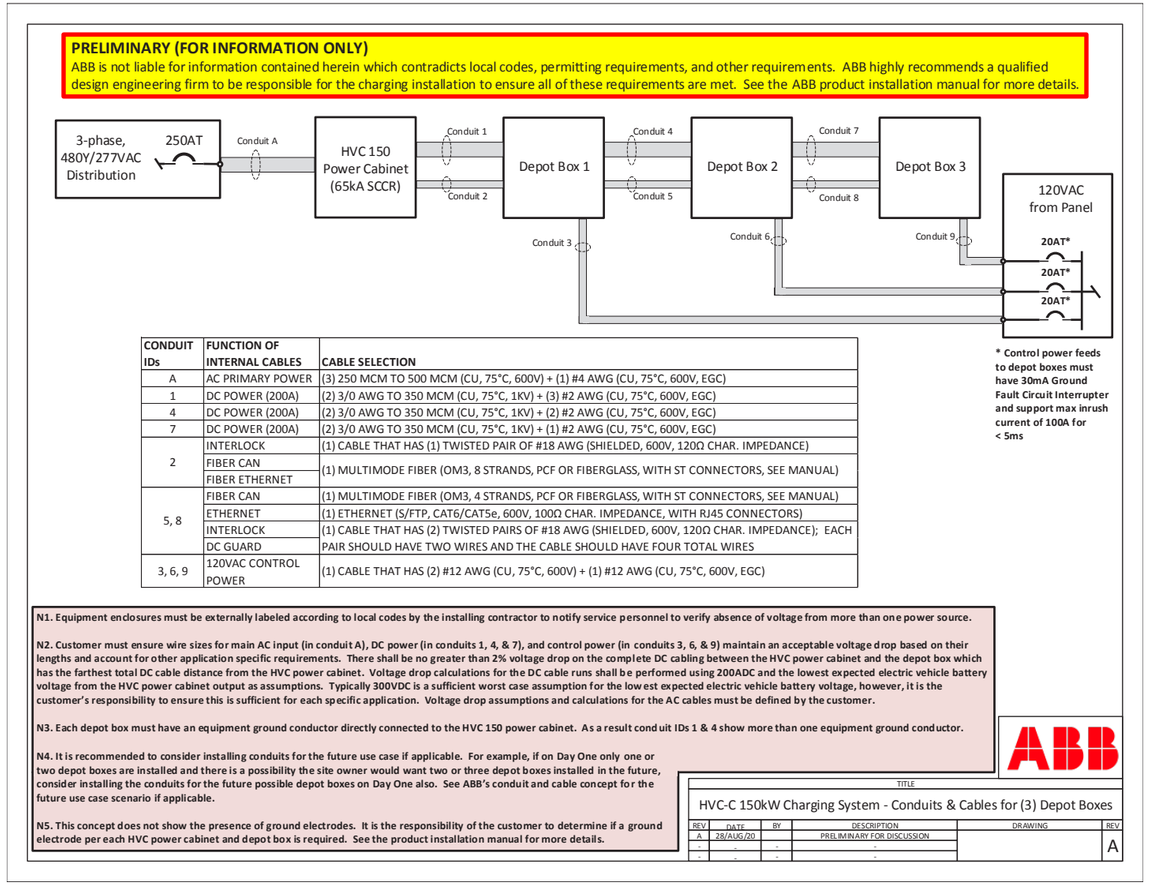
A power upgrade can be done in the field by adding an extra power module. No groundworks, digging and disturbance to the site are required.

—

* 150 kW overnight charging system with three depot charge boxes; shown mounted on pedestal option.

Technical specifications

Configurations		HVC 100C	HVC 150C
Maximum output power		100 kW	150 kW
AC Input voltage		UL: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) CSA: 3-phase, 600Y/347 VAC +/-10% (60 Hz)	
AC Input connection		L1, L2, L3, GND (no neutral)	
Rated input power		117 kVA	170 kVA
Rated input current		UL: 132 A / CSA: 108 A	UL: 198 A / CSA: 168 A
Recommended upstream circuit breaker(s)		UL: 1 x 200 A / CSA: 1 x 150 A	UL: 1 x 250 A / CSA: 1 x 250 A
Output voltage range		150 – 850 VDC	
Maximum DC output current		166 A	200 A
Vehicle connection interface		CCS/Combo Type 1 Connector	
Cable length		3.5 m (11.5 ft) standard; 7 m (23 ft) optional	
DC connection standard		SAE J1772 - IEC 61851-23 / DIN 70121 - ISO 15118	
Environment		Indoor/Outdoor	
Operating temperature		Standard: -10 °C to +50 °C (de-rating characteristic applies) Optional: -35 °C to +50 °C	
Protection		Power Cabinet: IP54 – IK10 (equivalent to NEMA 3R) Depot Charge Box: IP65 - IK10	
Network connection		GSM/3G modem | 10/100 base-T Ethernet	
Compliance and Safety		CSA No. 107.1-16 and UL 2202 certified by TUV BA Rule 49 CFR Part 661.5 (Optional)	
Dimensions			
Power Cabinet	Dimensions (H x W x D)	2030 x 1170 x 770 mm / 79.9 x 46.1 x 30.3 in	
	Weight	1340 kg / 2954 lbs	
Depot Charge Box (without pedestal)	Dimensions (H x W x D)	800 x 600 x 210 mm / 31.5 x 23.6 x 8.3 in	
	Weight	61 kg / 134.5 lbs (with 7 m / 23 ft cable)	
Depot Charge Box (with pedestal)	Dimensions (H x W x D)	1914 x 600 x 400 mm / 75.4 x 23.6 x 16.3 in	
	Weight	181 kg / 398 lbs (with 7 m / 23 ft cable)	



CONDUIT IDs	FUNCTION OF INTERNAL CABLES	CABLE SELECTION
A	AC PRIMARY POWER	(3) 250 MCM TO 500 MCM (CU, 75°C, 600V) + (1) #4 AWG (CU, 75°C, 600V, EGC)
1	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (3) #2 AWG (CU, 75°C, 600V, EGC)
4	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (2) #2 AWG (CU, 75°C, 600V, EGC)
7	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (1) #2 AWG (CU, 75°C, 600V, EGC)
2	INTERLOCK	(1) CABLE THAT HAS (1) TWISTED PAIR OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE)
	FIBER CAN	(1) MULTIMODE FIBER (OM3, 8 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	FIBER ETHERNET	
5, 8	FIBER CAN	(1) MULTIMODE FIBER (OM3, 4 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	ETHERNET	(1) ETHERNET (S/FTP, CAT6/CAT5e, 600V, 100Ω CHAR. IMPEDANCE, WITH RJ45 CONNECTORS)
	INTERLOCK	(1) CABLE THAT HAS (2) TWISTED PAIRS OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE); EACH PAIR SHOULD HAVE TWO WIRES AND THE CABLE SHOULD HAVE FOUR TOTAL WIRES
	DC GUARD	
3, 6, 9	120VAC CONTROL POWER	(1) CABLE THAT HAS (2) #12 AWG (CU, 75°C, 600V) + (1) #12 AWG (CU, 75°C, 600V, EGC)

—

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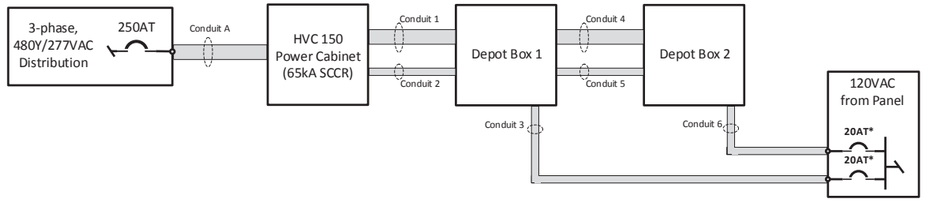
PRELIMINARY (FOR INFORMATION ONLY)
ABB is not liable for information contained herein which contradicts local codes, permitting requirements, and other requirements. ABB highly recommends a qualified design engineering firm to be responsible for the charging installation to ensure all of these requirements are met. See the ABB product installation manual for more details.



* Control power feeds to depot boxes must have 30mA Ground Fault Circuit Interrupter and support max inrush current of 100A for < 5ms

CONDUIT IDs	FUNCTION OF INTERNAL CABLES	CABLE SELECTION
A	AC PRIMARY POWER	(3) 250 MCM TO 500 MCM (CU, 75°C, 600V) + (1) #4 AWG (CU, 75°C, 600V, EGC)
1	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (2) #2 AWG (CU, 75°C, 600V, EGC)
4	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (1) #2 AWG (CU, 75°C, 600V, EGC)
2	INTERLOCK	(1) CABLE THAT HAS (1) TWISTED PAIR OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE)
	FIBER CAN	(1) MULTIMODE FIBER (OM3, 8 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	FIBER ETHERNET	
5	FIBER CAN	(1) MULTIMODE FIBER (OM3, 4 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	ETHERNET	(1) ETHERNET (S/FTP, CAT6/CAT5e, 600V, 100Ω CHAR. IMPEDANCE, WITH RJ45 CONNECTORS)
	INTERLOCK	(1) CABLE THAT HAS (2) TWISTED PAIRS OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE); EACH PAIR SHOULD HAVE TWO WIRES AND THE CABLE SHOULD HAVE FOUR TOTAL WIRES
	DC GUARD	
3, 6	120VAC CONTROL POWER	(1) CABLE THAT HAS (2) #12 AWG (CU, 75°C, 600V) + (1) #12 AWG (CU, 75°C, 600V, EGC)

N1. Equipment enclosures must be externally labeled according to local codes by the installing contractor to notify service personnel to verify absence of voltage from more than one power source.

N2. Customer must ensure wire sizes for main AC input (in conduit A), DC power (in conduits 1, 4, & 7), and control power (in conduits 3, 6, & 9) maintain an acceptable voltage drop based on their lengths and account for other application specific requirements. There shall be no greater than 2% voltage drop on the complete DC cabling between the HVC power cabinet and the depot box which has the farthest total DC cable distance from the HVC power cabinet. Voltage drop calculations for the DC cable runs shall be performed using 200ADC and the lowest expected electric vehicle battery voltage from the HVC power cabinet output as assumptions. Typically 300VDC is a sufficient worst case assumption for the lowest expected electric vehicle battery voltage, however, it is the customer's responsibility to ensure this is sufficient for each specific application. Voltage drop assumptions and calculations for the AC cables must be defined by the customer.

N3. Each depot box must have an equipment ground conductor directly connected to the HVC 150 power cabinet. As a result conduit IDs 1 & 4 show more than one equipment ground conductor.

N4. It is recommended to consider installing conduits for the future use case if applicable. For example, if on Day One only one or two depot boxes are installed and there is a possibility the site owner would want two or three depot boxes installed in the future, consider installing the conduits for the future possible depot boxes on Day One also. See ABB's conduit and cable concept for the future use case scenario if applicable.

N5. This concept does not show the presence of ground electrodes. It is the responsibility of the customer to determine if a ground electrode per each HVC power cabinet and depot box is required. See the product installation manual for more details.

TITLE: HVC-C 150kW Charging System - Conduits & Cables for (2) Depot Boxes

REV	DATE	BY	DESCRIPTION	DRAWING	REV
A	28/AUG/20		PRELIMINARY FOR DISCUSSION		A
-	-	-	-		
-	-	-	-		

PRELIMINARY (FOR INFORMATION ONLY)
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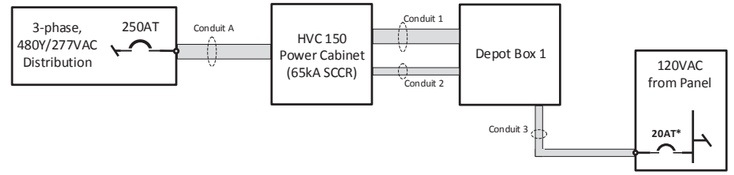


* Control power feeds to depot boxes must have 30mA Ground Fault Circuit Interrupter and support max inrush current of 100A for < 5ms

CONDUIT IDs	FUNCTION OF INTERNAL CABLES	CABLE SELECTION
A	AC PRIMARY POWER	(3) 250 MCM TO 500 MCM (CU, 75°C, 600V) + (1) #4 AWG (CU, 75°C, 600V, EGC)
1	DC POWER (200A)	(2) 3/0 AWG TO 350 MCM (CU, 75°C, 1KV) + (1) #2 AWG (CU, 75°C, 600V, EGC)
2	INTERLOCK	(1) CABLE THAT HAS (1) TWISTED PAIR OF #18 AWG (SHIELDED, 600V, 120Ω CHAR. IMPEDANCE)
	FIBER CAN	(1) MULTIMODE FIBER (OM3, 8 STRANDS, PCF OR FIBERGLASS, WITH ST CONNECTORS, SEE MANUAL)
	FIBER ETHERNET	
3	120VAC CONTROL POWER	(1) CABLE THAT HAS (2) #12 AWG (CU, 75°C, 600V) + (1) #12 AWG (CU, 75°C, 600V, EGC)

N1. Equipment enclosures must be externally labeled according to local codes by the installing contractor to notify service personnel to verify absence of voltage from more than one power source.

N2. Customer must ensure wire sizes for main AC input (in conduit A), DC power (in conduits 1, 4, & 7), and control power (in conduits 3, 6, & 9) maintain an acceptable voltage drop based on their lengths and account for other application specific requirements. There shall be no greater than 2% voltage drop on the complete DC cabling between the HVC power cabinet and the depot box which has the farthest total DC cable distance from the HVC power cabinet. Voltage drop calculations for the DC cable runs shall be performed using 200ADC and the lowest expected electric vehicle battery voltage from the HVC power cabinet output as assumptions. Typically 300VDC is a sufficient worst case assumption for the lowest expected electric vehicle battery voltage, however, it is the customer's responsibility to ensure this is sufficient for each specific application. Voltage drop assumptions and calculations for the AC cables must be defined by the customer.

N3. Each depot box must have an equipment ground conductor directly connected to the HVC 150 power cabinet. As a result conduit IDs 1 & 4 show more than one equipment ground conductor.

N4. It is recommended to consider installing conduits for the future use case if applicable. For example, if on Day One only one or two depot boxes are installed and there is a possibility the site owner would want two or three depot boxes installed in the future, consider installing the conduits for the future possible depot boxes on Day One also. See ABB's conduit and cable concept for the future use case scenario if applicable.

N5. This concept does not show the presence of ground electrodes. It is the responsibility of the customer to determine if a ground electrode per each HVC power cabinet and depot box is required. See the product installation manual for more details.

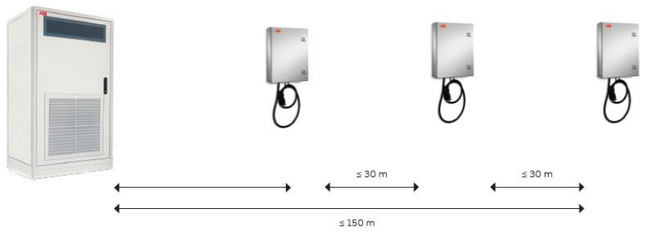
TITLE: HVC-C 150kW Charging System - Conduits & Cables for (1) Depot Box

REV	DATE	BY	DESCRIPTION	DRAWING	REV
A	28/AUG/20		PRELIMINARY FOR DISCUSSION		A
-	-	-	-		
-	-	-	-		

APPENDIX K: PREVIOUS CONCEPT ITERATIONS / ALTERNATIVES

PRELIMINARY (FOR INFORMATION ONLY)
ABB is not liable for information contained herein which contradicts local codes, permitting requirements, and other requirements. ABB highly recommends a qualified design engineering firm to be responsible for the charging installation to ensure all of these requirements are met. See the ABB product installation manual for more details.

Distance limitation



More details on cable entry into the depot box coming soon...

TITLE

HVC-C 150kW Charging System – Misc. Install Considerations

REV.	DATE	BY	DESCRIPTION	DRAWING	REV.
A	28/AUG/20		PRELIMINARY FOR DISCUSSION		A
-	-	-	-		
-	-	-	-		

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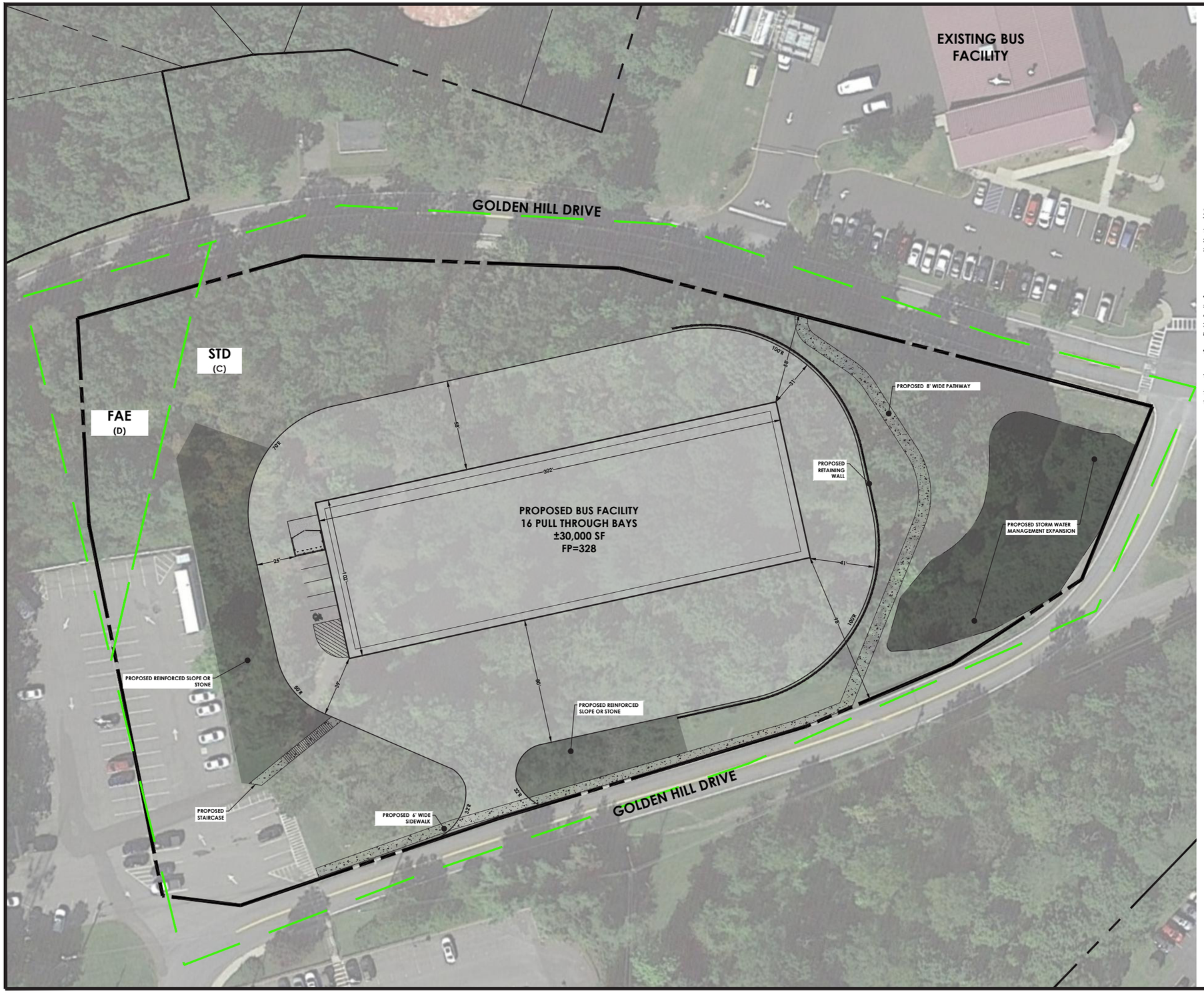
engineering architecture

UCAT GOLDEN HILL SITE

20202987.0001
NOVEMBER, 2020
KINGSTON, NY



HORIZONTAL SCALE

30 0 15 30 60

SCALE: 1"=30'

N

SITE DATA

1. TAX ACCOUNT NUMBER: 56.40-1-19.300
2. PARCEL ADDRESS: GOLDEN HILL DRIVE
3. TOTAL PARCEL AREA: 41.02 ACRES (1,786,828 SF)
   TOTAL PROJECT AREA: 4.41 ACRES (192,070 SF.)
   TOTAL PROJECT IMPERVIOUS AREA: XX ACRES (XX SF.)
   TOTAL PROJECT GREENSPACE AREA: XX ACRES (XX SF)
4. EXISTING ZONING: RRR ONE-FAMILY RESIDENTIAL
5. PROPOSED ZONING: RRR ONE-FAMILY RESIDENTIAL
6. EXISTING USE: VACANT
7. PROPOSED USE: BUS FACILITY
8. THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY.
9. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
10. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
11. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
12. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)		
	REQUIRED	PROPOSED
LOT		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
BUILDING SETBACK		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	58' TO GOLDEN HILL ROAD
SIDE	27' FOR ONE SIDE, >15' FOR OTHER SIDE	>27'
REAR	30'	98' TO GOLDEN HILL ROAD
BUILDING		
HEIGHT	35'	28'-0"
LOT COVERAGE	30%	15.6% OF PROJECT AREA
PARKING		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

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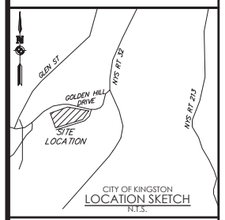


Client:
ULSTER COUNTY
1 DANNY CIRCLE
KINGSTON, NY 12401

PASSERO ASSOCIATES
242 West Main Street Suite 100 (585) 325-1000
Rochester, New York 14614 Fax: (585) 325-1691
Principal-in-Charge Dan Savage, PE.
Project Manager Dan Savage, PE.
Designed by Austin Goodwin, EIT.

STATE OF NEW YORK
JESSE DANIEL SAVAGE
LICENSED PROFESSIONAL ENGINEER
092235

Revisions

No.	Date	By	Description
1			

GOLDEN HILL
LOCATION CONCEPT
ULSTER COUNTY FLEET
GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No.
20202987.0001

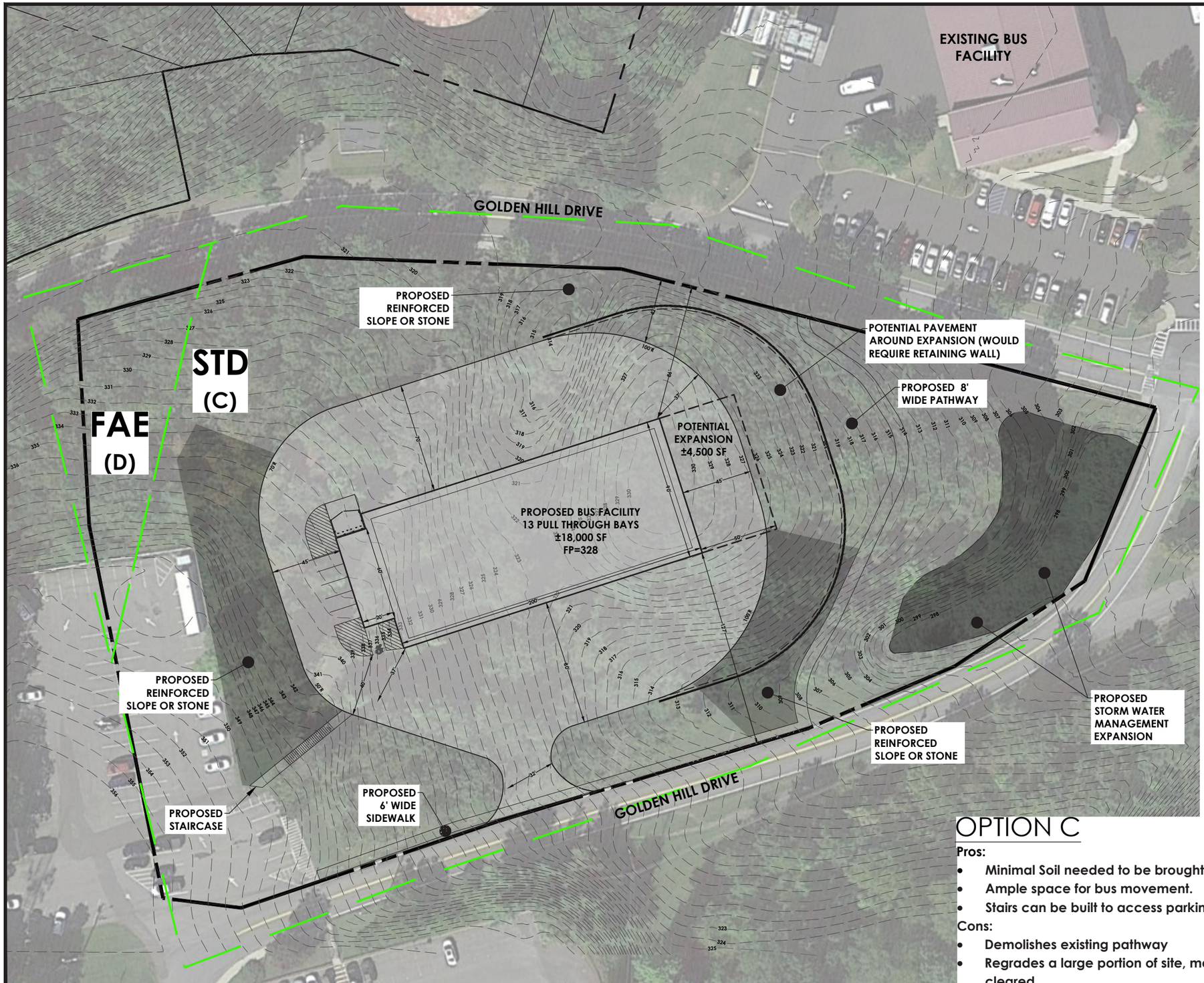
Drawing No.
C 101

Sheet No.
1

Scale:
1" = 30'

Date
OCTOBER 2020

NOT FOR CONSTRUCTION



HORIZONTAL SCALE
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SCALE: 1"=30'

N

SITE DATA

1. TAX ACCOUNT NUMBER: 56.40-1-19.300
2. PARCEL ADDRESS: GOLDEN HILL DRIVE
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   TOTAL PROJECT IMPERVIOUS AREA: XX ACRES (XX SF.)
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4. EXISTING ZONING: RRR ONE-FAMILY RESIDENTIAL
5. PROPOSED ZONING: RRR ONE-FAMILY RESIDENTIAL
6. EXISTING USE: VACANT
7. PROPOSED USE: BUS FACILITY
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9. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
10. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
11. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
12. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)

	REQUIRED	PROPOSED
LOT		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
BUILDING SETBACK		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	127'
SIDE	27' FOR ONE SIDE, >15' FOR OTHER SIDE	>27'
REAR	30'	97'
BUILDING		
HEIGHT	35'	
LOT COVERAGE	30%	
PARKING		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

OPTION C

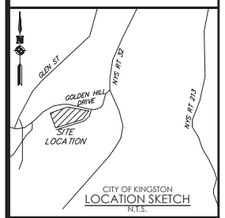
Pros:

- Minimal Soil needed to be brought on/off site.
- Ample space for bus movement.
- Stairs can be built to access parking lot.

Cons:

- Demolishes existing pathway
- Regrades a large portion of site, majority of trees on site will be cleared

PASSERO ASSOCIATES
engineering architecture



LOCATION SKETCH
N.T.S.

Client:
ULSTER COUNTY
1 DANNY CIRCLE
KINGSTON, NY 12401

PASSERO ASSOCIATES
242 West Main Street Suite 100
Rochester, New York 14614
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Project Manager Dan Savage, PE.
Designed by Austin Goodwin, EIT.

STATE OF NEW YORK · JESSE DANIEL SAVAGE · LICENSED PROFESSIONAL ENGINEER · 092235

Revisions

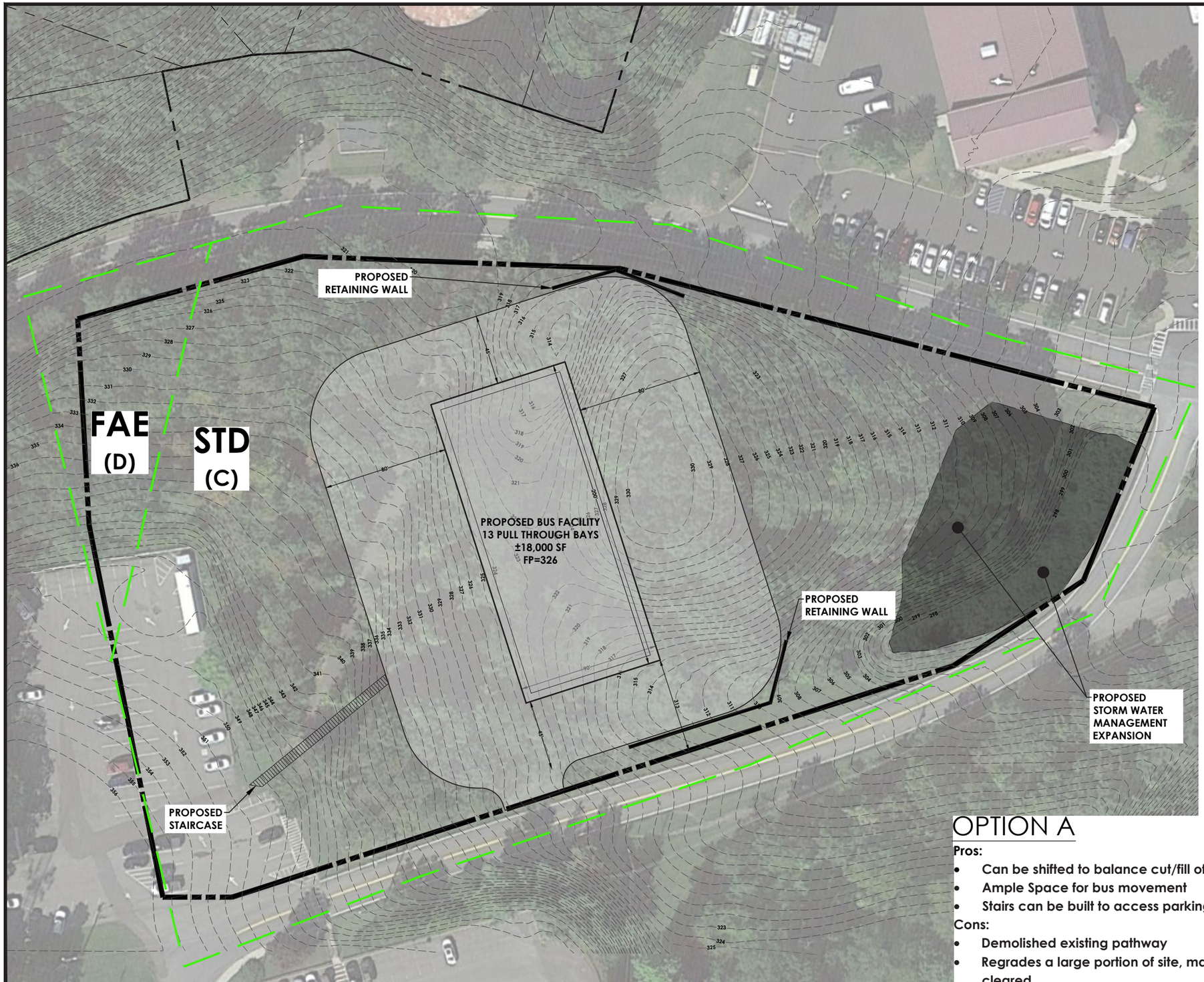
No.	Date	By	Description
1			

GOLDEN HILL
LOCATION CONCEPT
ULSTER COUNTY FLEET
GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No. 20202987.0001
Drawing No. C 101
Sheet No. 1
Scale: 1" = 30'
Date OCTOBER 2020

NOT FOR CONSTRUCTION



HORIZONTAL SCALE

30 0 15 30 60

SCALE: 1"=30'

N

SITE DATA

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10. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
11. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
12. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)		
	REQUIRED	PROPOSED
LOT		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
BUILDING SETBACK		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	
SIDE	27' FOR ONE SIDE, >15' FOR OTHER SIDE	
REAR	30'	
BUILDING		
HEIGHT	35'	
LOT COVERAGE	30%	
PARKING		
STALLS		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

OPTION A

Pros:

- Can be shifted to balance cut/fill of soils.
- Ample Space for bus movement
- Stairs can be built to access parking lot

Cons:

- Demolished existing pathway
- Regrades a large portion of site, majority of trees on site will be cleared

PASSERO ASSOCIATES
engineering architecture

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1 DANNY CIRCLE
KINGSTON, NY 12401

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Revisions

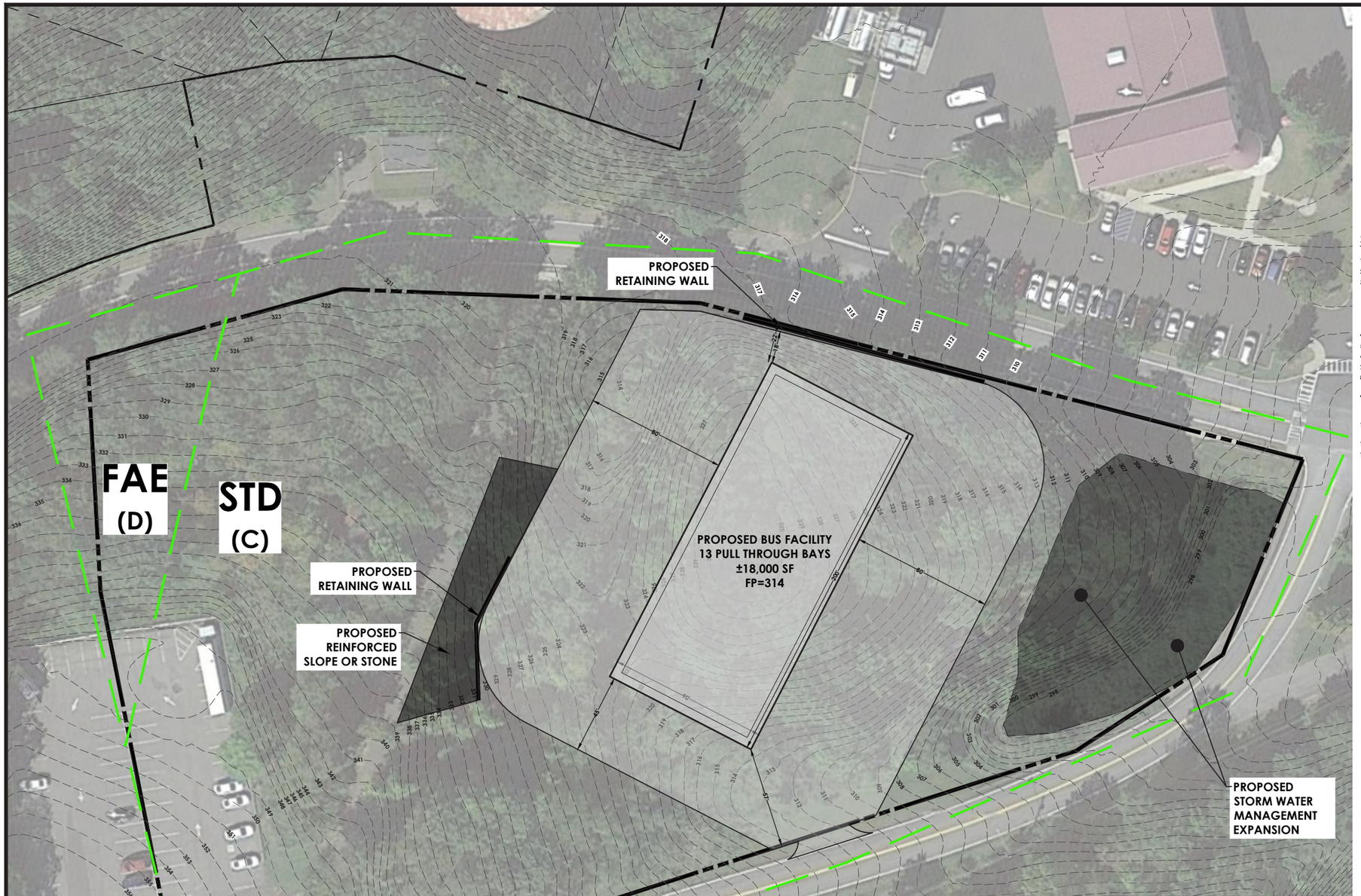
No.	Date	By	Description
1			

GOLDEN HILL
LOCATION CONCEPT
ULSTER COUNTY FLEET
GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No. 20202987.0001
Drawing No. C 101
Sheet No. 1
Scale: 1" = 30'
Date OCTOBER 2020

NOT FOR CONSTRUCTION



HORIZONTAL SCALE
30 0 15 30 60
SCALE: 1"=30'

N

SITE DATA

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10. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0470F DATED 11/18/2016.
11. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
12. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - ONE-FAMILY RESIDENTIAL (RRR)

	REQUIRED	PROPOSED
LOT		
WIDTH	100'	>100'
DEPTH	125'	>125'
AREA	12,500	1,786,828 SF
BUILDING SETBACK		
FRONT	30' (25' OF FRONT BUILDING FACE IS >25° ANGLED FROM ROAD)	57'
SIDE	27' FOR ONE SIDE, >15' FOR OTHER SIDE	>27'
REAR	30'	22'
BUILDING		
HEIGHT	35'	
LOT COVERAGE	30%	
PARKING		
STALLS		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

OPTION B

Pros:

- Least Amount of overall site disturbance
- Saves the existing pathway and trees to the west.
- Access to existing parking lot from existing pathway

Cons:

- No room for expansion
- Excavation through multiple feet of bedrock is highly likely
- Requires short retaining walls & reinforced slopes or stone
- Will result in excess soil that needs to be trucked off site

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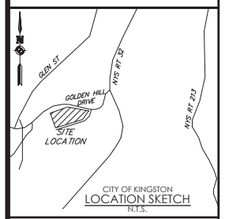

Client:
ULSTER COUNTY
1 DANNY CIRCLE
KINGSTON, NY 12401

PASSERO ASSOCIATES
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Rochester, New York 14614
(585) 325-1000
Fax: (585) 325-1691
Principal-in-Charge Dan Savage, PE.
Project Manager Dan Savage, PE.
Designed by Austin Goodwin, EIT.

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Revisions

No.	Date	By	Description
1			

GOLDEN HILL
LOCATION CONCEPT
ULSTER COUNTY FLEET
GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No. 20202987.0001
Drawing No. C 101
Sheet No. 1
Scale: 1" = 30'
Date NOVEMBER 2020

NOT FOR CONSTRUCTION

HORIZONTAL SCALE
60 0 30 60 120
SCALE: 1"=60'

N

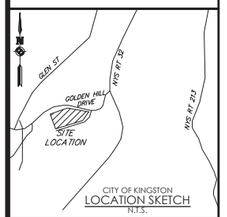
SITE DATA

1. TAX ACCOUNT NUMBER: 48.7-1-29.100
2. PARCEL ADDRESS: 101-899 ENTERPRISE DRIVE, ULSTER, NY 12401
3. TOTAL PARCEL AREA: 24.64 ACRES (1,073,483 SF)
   TOTAL PROJECT AREA: 2.59 ACRES (113,000 SF.)
   TOTAL IMPERVIOUS AREA: 17.68 ACRES (770,268 SF.)
   TOTAL GREENSPACE AREA: 6.96 ACRES (303,215 SF)
4. EXISTING ZONING: OFFICE AND MANUFACTURING DISTRICT (OM)
   PROPOSED ZONING: OFFICE AND MANUFACTURING DISTRICT (OM)
5. EXISTING USE: VACANT
6. PROPOSED USE: BUS FACILITY
7. THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY.
8. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
9. PROPERTY IS LOCATED IN ZONE X PER FIRM MAP COMMUNITY PANEL NO. 36111C0460F DATED 11/18/2016.
10. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
11. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - OFFICE AND MANUFACTURING (OM)

	REQUIRED	PROPOSED
LOT		
WIDTH	N/A	1,451'
DEPTH	N/A	953'
AREA	N/A	1,073,483 SF
BUILDING SETBACK		
FRONT	40'	143'-0"
SIDE	10'	217'-0"
REAR	10'	>10'
PARKING SETBACKS		
FRONT YARD SETBACK	10'	EXISTING
BUILDING		
HEIGHT	75	28'-0"
GREEN SPACE	10%	EXISTING +11,200 SF ADDED GREENSPACE
LOT COVERAGE	50%	2.8% (NOT COUNTING EXISTING STRUCTURE
PARKING		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

PASSERO ASSOCIATES
engineering architecture



LOCATION SKETCH
N.T.S.

Client:
ULSTER COUNTY
1 DANNY CIRCLE
KINGSTON, NY 12401

PASSERO ASSOCIATES
242 West Main Street Suite 100
Rochester, New York 14614
(585) 325-1000
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Principal-in-Charge Dan Savage, PE.
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Designed by Austin Goodwin, EIT.

STATE OF NEW YORK
DANIEL JOSEPH SAVAGE
LICENSED PROFESSIONAL ENGINEER
092235

Revisions

No.	Date	By	Description
1			

SITE #1
BASEMAP
ULSTER COUNTY FLEET GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No. 20202987.0001
Drawing No. C 101
Sheet No. 1
Scale: 1" = 60'
Date OCTOBER 2020

NOT FOR CONSTRUCTION

HORIZONTAL SCALE
60 0 30 60 120
SCALE: 1"=60'

N

SITE DATA

1. TAX ACCOUNT NUMBER: 48.7-1-29.100
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5. EXISTING USE: VACANT
6. PROPOSED USE: BUS FACILITY
7. THERE ARE NO FEDERALLY REGULATED WETLANDS ON THIS PARCEL ACCORDING TO THE USACOE FEDERAL WETLAND INVENTORY.
8. THERE ARE NO STATE REGULATED WETLANDS ON THIS PARCEL ACCORDING TO NYSDEC WETLAND INVENTORY. THERE IS RARE PLANTS AND / OR ANIMALS REPORTED.
9. PROPERTY IS LOCATED IN FLOOD PLAIN X PER FIRM MAP COMMUNITY PANEL NO. 36111C0460F DATED 11/18/2016. A PORTION OF THE SITE IS WITHIN THE 500 YEAR FLOODPLAIN (PART OF ZONE X, MINIMAL HAZARD)
10. STORM SEWER AND DRAINAGE FACILITIES WILL BE PRIVATE.
11. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE CURRENT DEVELOPMENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY.

ZONING REQUIREMENTS - OFFICE AND MANUFACTURING (OM)

	REQUIRED	PROPOSED
LOT		
WIDTH	N/A	1,451'
DEPTH	N/A	953'
AREA	N/A	1,073,483 SF
BUILDING SETBACK		
FRONT	40'	
SIDE	10'	
REAR	10'	
PARKING SETBACKS		
FRONT YARD SETBACK	10'	12'
BUILDING		
HEIGHT	75	
GREEN SPACE	10%	
LOT COVERAGE	50%	
PARKING		
STALLS		
STALL SIZE (PERPENDICULAR)	9'X18'	9'X18
DRIVE AISLE WIDTH	24'	24'

PASSERO ASSOCIATES
engineering architecture

Client:
ULSTER COUNTY
1 DANNY CIRCLE
KINGSTON, NY 12401

PASSERO ASSOCIATES
242 West Main Street Suite 100
Rochester, New York 14614
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Principal-in-Charge Dan Savage, PE.
Project Manager Dan Savage, PE.
Designed by Austin Goodwin, EIT.

STATE OF NEW YORK · DANIEL JOSEPH SAVAGE · 092235 · LICENSED PROFESSIONAL ENGINEER

Revisions

No.	Date	By	Description
1			

TECH CITY LOCATION CONCEPT
ULSTER COUNTY FLEET GARAGE FACILITY

Town/City: ULSTER
County: ULSTER State: NEW YORK

Project No. 20202987.0001
Drawing No. C 101
Sheet No. 1
Scale: 1" = 60'
Date OCTOBER 2020

NOT FOR CONSTRUCTION

APPENDIX L: PRELIMINARY COST ESTIMATES

PASSERO ASSOCIATES
engineering architecture

242 West Main Street
Rochester, NY 14614-1122
T 585 325 1000
F 585 325 1691
www.passero.com

PROJECT: Ulster County Area Transit Bus Facility Site Selection | **Project No.:** 20202987.0001 | **By:** ABG
LOCATION: City of Kingston, NY | **Date:** 12/15/2020 | **Reviewed By:** JDS
CLIENT: Ulster County Area Transit | **Revised By:** | **Date:**

CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #2 GOLDEN HILL PHASED CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - SITE PREP / GRADING				
1	CLEARING AND GRUBBING	1	LS	$50,000.00	$50,000.00
2	BEDROCK BLASTING	2,000	CY	$150.00	$300,000.00
3	SITE GRADING	25,000	CY	$27.00	$675,000.00
	TOTAL SECTION D				**$1,025,000.00**
	SECTION U - UTILITIES				
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	$300.00	$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,100	LF	$200.00	$220,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	$300.00	$45,000.00
4	GAS & ELECTRIC	150	LF	$200.00	$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	$150.00	$22,500.00
	TOTAL SECTION U				**$362,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				
1	CONDUIT)	6	EA	$4,000.00	$24,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	$25,950.00
	TOTAL SECTION L				**$49,950.00**
	SECTION P - PAVEMENT				
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	45,000	SF	$18.00	$810,000.00
2	SIDEWALKS	5,000	SF	$25.00	$125,000.00
	TOTAL SECTION P				**$935,000.00**
	SECTION R - RETAINING WALL				
1	RETAINING WALL	250	SF	$125.00	$31,250.00
	TOTAL SECTION R				**$31,250.00**

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LOCATION: City of Kingston, NY | **Date:** 12/15/2020 | **Reviewed By:** JDS
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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #1 GOLDEN HILL FULL CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - SITE PREP / GRADING				
1	CLEARING AND GRUBBING	1	LS	$50,000.00	$50,000.00
2	BEDROCK BLASTING	2,000	CY	$150.00	$300,000.00
3	SITE GRADING	32,180	CY	$27.00	$868,860.00
	TOTAL SECTION D				**$1,218,860.00**
	SECTION U - UTILITIES				
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	$300.00	$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,100	LF	$200.00	$220,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	$300.00	$45,000.00
4	GAS & ELECTRIC	150	LF	$200.00	$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	$150.00	$22,500.00
	TOTAL SECTION U				**$362,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				
1	LIGHT POLES (POLES, BASES, FIXTURES, CABLE, CONDUIT)	6	EA	$4,000.00	$24,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	$30,450.00
	TOTAL SECTION L				**$54,450.00**
	SECTION P - PAVEMENT				
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	57,500	SF	$18.00	$1,035,000.00
2	SIDEWALKS	5,000	SF	$25.00	$125,000.00
	TOTAL SECTION P				**$1,160,000.00**
	SECTION R - RETAINING WALL				
1	RETAINING WALL	750	SF	$125.00	$93,750.00
	TOTAL SECTION R				**$93,750.00**

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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #1 GOLDEN HILL FULL CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - DEMOLITION/GRADING				**$1,218,860.00**
	SECTION U - UTILITIES				**$362,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				**$54,450.00**
	SECTION P - PAVEMENT				**$1,160,000.00**
	SECTION R - RETAINING WALL				**$93,750.00**
	GOLDEN HILL FULL BUILD CONCEPTUAL TOTAL				**$2,889,560.00**

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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #1 FULL CONSTRUCTION BUILDING COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-	EST. QUAN. X UNIT PRICE
	SECTION BS - BUILDING SHELL				
1	FOUNDATIONS AND CONCRETE	30,000	SF	$85.00	$2,550,000.00
2	ENVELOPE	30,000	SF	$135.00	$4,050,000.00
3	MEP	30,000	SF	$70.00	$2,100,000.00
	TOTAL SECTION BS				**$8,700,000.00**
	SECTION BE - BUILDING EQUIPMENT				
1	OVERHEAD DOORS	32	LS	$2,500.00	$80,000.00
2	FINISHES	8,000	SF	$35.00	$280,000.00
3	FIXTURES	12	LS	$200.00	$2,400.00
4	CHARGING STATIONS	30	LS	$60,000.00	$1,800,000.00
5	FIBER / TELECOMMUNICATIONS	20,000	SF	$6.50	$130,000.00
	TOTAL SECTION BE				**$2,292,400.00**
	SECTION BS - BUILDING SPECIALTIES				
1	BATHROOMS/LOCKERS	6	EA	$4,000.00	$24,000.00
2	SOLAR COLLECTORS	12,000	SF	$55.00	$660,000.00
	TOTAL SECTION BS				**$684,000.00**
	SECTION BS - BUILDING SHELL				**$8,700,000.00**
	SECTION BE - BUILDING EQUIPMENT				**$2,292,400.00**
	SECTION BS - BUILDING SPECIALTIES				**$684,000.00**
	SUBTOTAL				**$11,676,400.00**

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CLIENT: Ulster County Area Transit | **Revised By:** | **Date:**

CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #2 GOLDEN HILL PHASED CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - SITE PREP / GRADING				
1	CLEARING AND GRUBBING	1	LS	$50,000.00	$50,000.00
2	BEDROCK BLASTING	2,000	CY	$150.00	$300,000.00
3	SITE GRADING	25,000	CY	$27.00	$675,000.00
	TOTAL SECTION D				**$1,025,000.00**
	SECTION U - UTILITIES				
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	$300.00	$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,100	LF	$200.00	$220,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	$300.00	$45,000.00
4	GAS & ELECTRIC	150	LF	$200.00	$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	$150.00	$22,500.00
	TOTAL SECTION U				**$362,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				
1	CONDUIT)	6	EA	$4,000.00	$24,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	$25,950.00
	TOTAL SECTION L				**$49,950.00**
	SECTION P - PAVEMENT				
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	45,000	SF	$18.00	$810,000.00
2	SIDEWALKS	5,000	SF	$25.00	$125,000.00
	TOTAL SECTION P				**$935,000.00**
	SECTION R - RETAINING WALL				
1	RETAINING WALL	250	SF	$125.00	$31,250.00
	TOTAL SECTION R				**$31,250.00**

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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #2 GOLDEN HILL PHASED CONSTRUCTION SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - DEMOLITION/GRADING				**$1,025,000.00**
	SECTION U - UTILITIES				**$362,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				**$49,950.00**
	SECTION P - PAVEMENT				**$935,000.00**
	SECTION R - RETAINING WALL				**$31,250.00**
	GOLDEN HILL PHASED BUILD CONCEPTUAL TOTAL				**$2,403,700.00**

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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR GOLDEN HILL

ITEM NO.	OPTION #2 PHASED CONSTRUCTION BUILDING COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING	EST. QUAN. X UNIT PRICE
	SECTION BS - BUILDING SHELL				
1	FOUNDATIONS AND CONCRETE	23,600	SF	$85.00	$2,006,000.00
2	ENVELOPE	23,600	SF	$135.00	$3,186,000.00
3	MEP	23,600	SF	$70.00	$1,652,000.00
	TOTAL SECTION BS				**$6,844,000.00**
	SECTION BE - BUILDING EQUIPMENT				
1	OVERHEAD DOORS	24	LS	$2,500.00	$60,000.00
2	FINISHES	8,000	SF	$35.00	$280,000.00
3	FIXTURES	12	LS	$200.00	$2,400.00
4	CHARGING STATIONS	20	LS	$60,000.00	$1,200,000.00
5	FIBER / TELECOMMUNICATIONS	15,000	SF	$6.50	$97,500.00
	TOTAL SECTION BE				**$1,639,900.00**
	SECTION BS - BUILDING SPECIALTIES				
1	BATHROOMS/LOCKERS	6	EA	$4,000.00	$24,000.00
2	SOLAR COLLECTORS	10,000	SF	$55.00	$550,000.00
	TOTAL SECTION BS				**$574,000.00**
	SECTION BS - BUILDING SHELL				**$6,844,000.00**
	SECTION BE - BUILDING EQUIPMENT				**$1,639,900.00**
	SECTION BS - BUILDING SPECIALTIES				**$574,000.00**
	SUBTOTAL				**$9,057,900.00**

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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR TECH CITY

ITEM NO.	OPTION #3 TECH CITY SITE COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING WAGE)	EST. QUAN. X UNIT PRICE
	SECTION D - SITE PREP / GRADING				
1	SITE PREPARATION (MILLING, PAVEMENT BOXOUT)	1	LS	$20,000.00	$20,000.00
	TOTAL SECTION D				**$20,000.00**
	SECTION E - ENVIRONMENTAL REMEDIATION				
1	UNKNOWN CONSERVATIVE COST SHOULD DEC REQUIRE SOIL REMEDIATION	1	LS	$325,000.00	$325,000.00
	TOTAL SECTION E				**$325,000.00**
	SECTION U - UTILITIES				
1	SANITARY (INCLUDES MH, SEWER, COMPLETE IN PLACE)	150	LF	$300.00	$45,000.00
2	STORM (MANHOLES, CBs, PIPE)	1,300	LF	$200.00	$260,000.00
3	WATER (SERVICE, HYDRANTS, VALVES)	150	LF	$300.00	$45,000.00
4	GAS & ELECTRIC	150	LF	$200.00	$30,000.00
5	FIBER / TELECOMMUNICATIONS	150	LF	$150.00	$22,500.00
	TOTAL SECTION U				**$402,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				
1	LIGHT POLES (POLES, BASES, FIXTURES, CABLE, CONDUIT)	8	EA	$4,000.00	$32,000.00
2	LANDSCAPING (TREES, SHRUBS)	1	LS	2% OF UTILITIES + PAVEMENT	$24,250.00
	TOTAL SECTION L				**$56,250.00**
	SECTION P - PAVEMENT				
1	PAVEMENT (BOXOUT, BASE, ASPHALT, CURB STRIPING)	45,000	SF	$18.00	$810,000.00
	TOTAL SECTION P				**$810,000.00**
	SECTION D - SITE PREP / GRADING				**$20,000.00**
	SECTION E - ENVIRONMENTAL REMEDIATION				**$325,000.00**
	SECTION U - UTILITIES				**$402,500.00**
	SECTION L - LANDSCAPE AND LIGHTING				**$56,250.00**
	SECTION P - PAVEMENT				**$810,000.00**
	TECH CITY CONCEPTUAL TOTAL				**$1,613,750.00**

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CONCEPTUAL ESTIMATE OF PROBABLE COSTS FOR TECH CITY

ITEM NO.	OPTION #3 TECH CITY BUILDING COST DESCRIPTION	ESTIMATE QUANTITY	UNIT	UNIT PRICE (REFLECT NON-PREVAILING	EST. QUAN. X UNIT PRICE
	SECTION BS - BUILDING SHELL				
1	FOUNDATIONS AND CONCRETE	40,000	SF	$85.00	$3,400,000.00
2	ENVELOPE	40,000	SF	$135.00	$5,400,000.00
3	MEP	40,000	SF	$70.00	$2,800,000.00
	TOTAL SECTION BS				**$11,600,000.00**
	SECTION BE - BUILDING EQUIPMENT				
1	OVERHEAD DOORS	32	LS	$2,500.00	$80,000.00
2	FINISHES	10,000	SF	$35.00	$350,000.00
3	FIXTURES	16	LS	$200.00	$3,200.00
4	CHARGING STATIONS	30	LS	$60,000.00	$1,800,000.00
5	FIBER / TELECOMMUNICATIONS	32,000	SF	$6.50	$208,000.00
	TOTAL SECTION BE				**$2,441,200.00**
	SECTION BS - BUILDING SPECIALTIES				
1	BATHROOMS/LOCKERS	8	EA	$4,000.00	$32,000.00
2	SOLAR COLLECTORS	16,000	SF	$55.00	$880,000.00
	TOTAL SECTION BS				**$912,000.00**
	SECTION BS - BUILDING SHELL				**$11,600,000.00**
	SECTION BE - BUILDING EQUIPMENT				**$2,441,200.00**
	SECTION BS - BUILDING SPECIALTIES				**$912,000.00**
	SUBTOTAL				**$14,953,200.00**