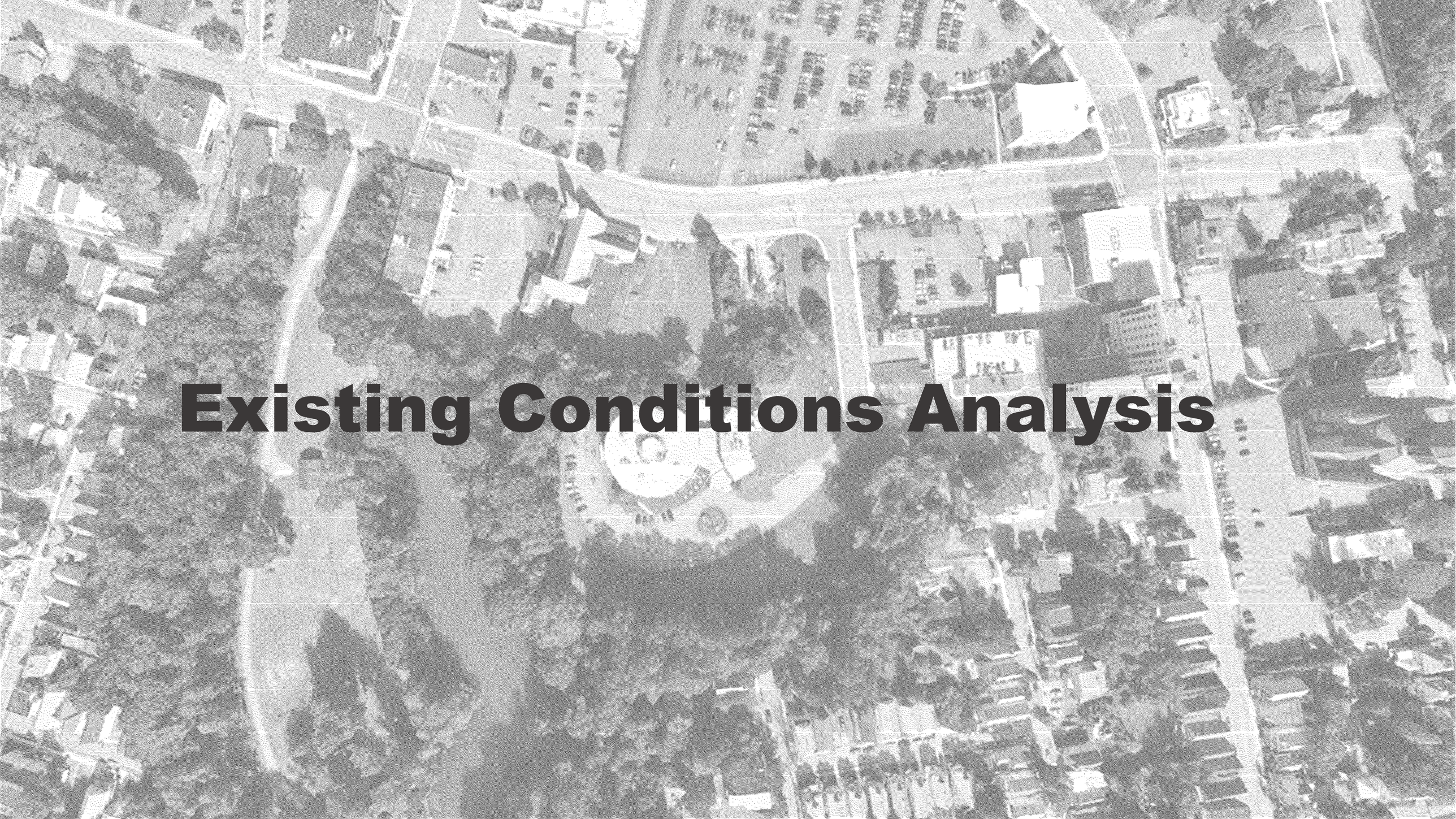
Museum of Innovation and Science

County Legislature Presentation

March 19, 2025

Feasibility Study Team



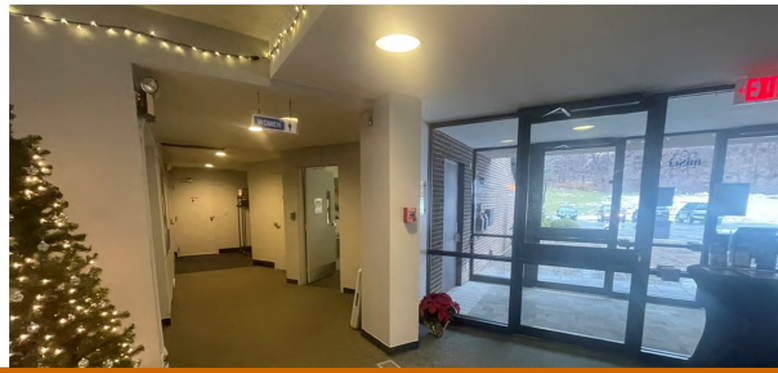
Existing Conditions Analysis

Existing Building

Building Stories: 2 Stories with a basement
Building SF: 43,811 gross sf

Program: Basement: Archives
Ground Floor : Exhibit Space,
Classroom/Event Space
Second Floor : Classrooms, Offices

Materials: Brick
Glazing



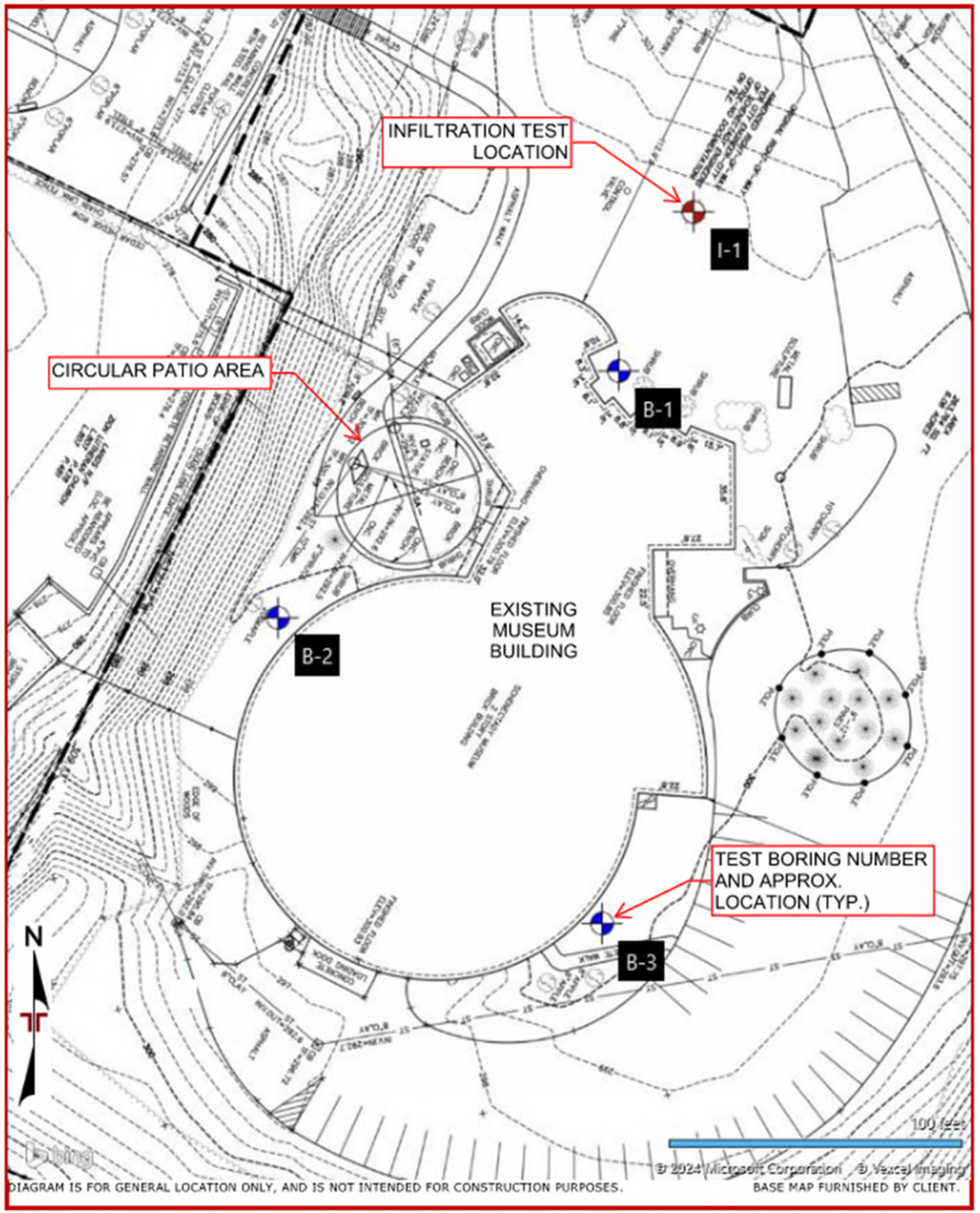
Geotechnical Analysis

- Three exploratory test borings (B-1, B-2, B-3) were completed at the site on October 18, 2024
- A fourth boring (I-1) was completed for infiltration testing

Infiltration Test No.	Test Depth (ft)[1]	Soil Classification at Test Depth	Observed Infiltration Rate (in/hr)[2]
I-1	6.8	Poorly graded sand with silt	7.6

1. Below existing ground surface.
2. Represents the average result of four trials.

Exploration Plan



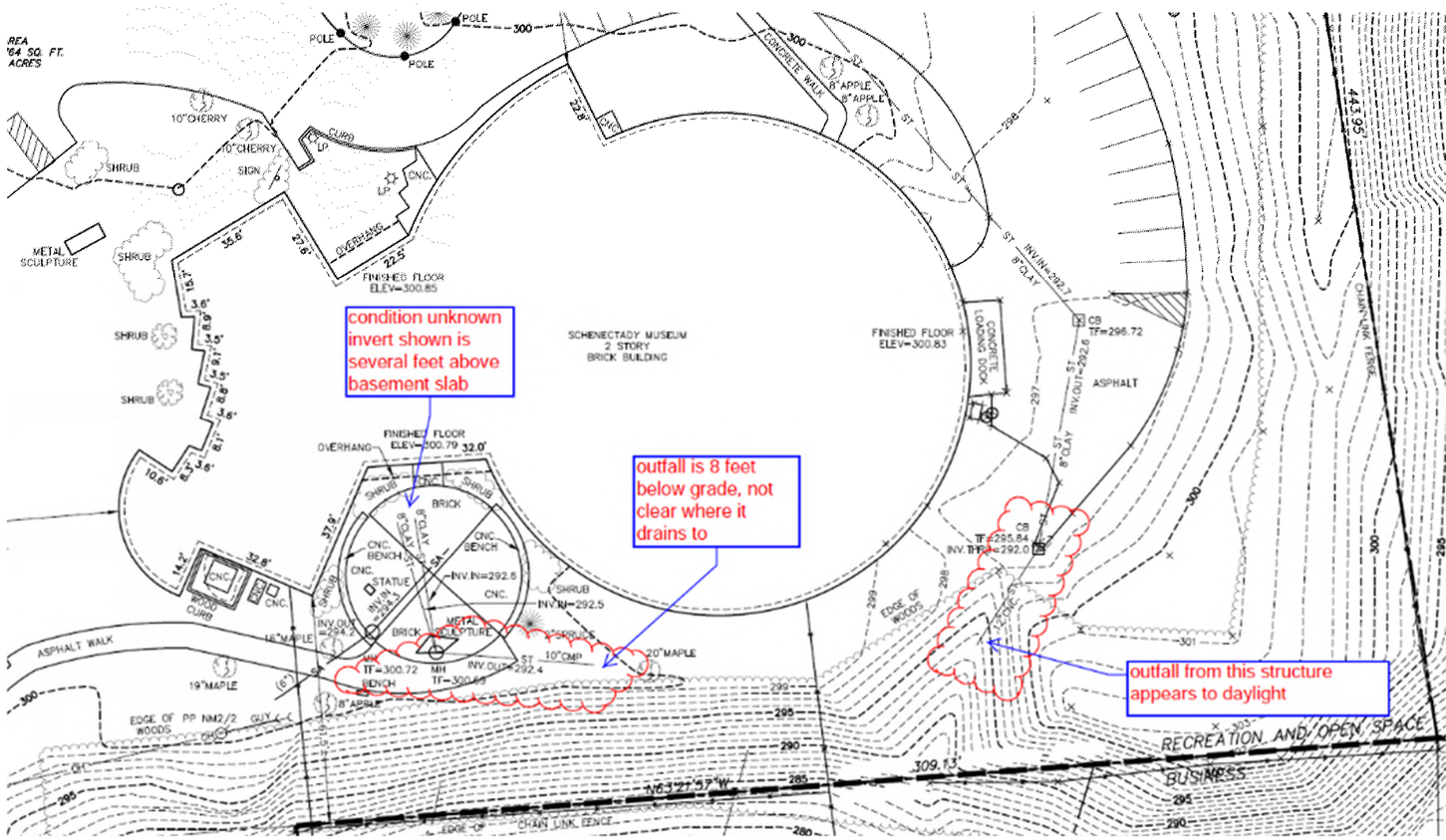
Structural Analysis

In general, the condition of the building structure is very good.

Recommendations:

- Concur with the recommendations noted in the Terracon report.

- It is not clear if a functioning footing drain is in place around the base of the foundation wall. If not, surface infiltration could remain temporarily trapped in the fill around the foundation wall especially during heavy storms or Spring thaw.



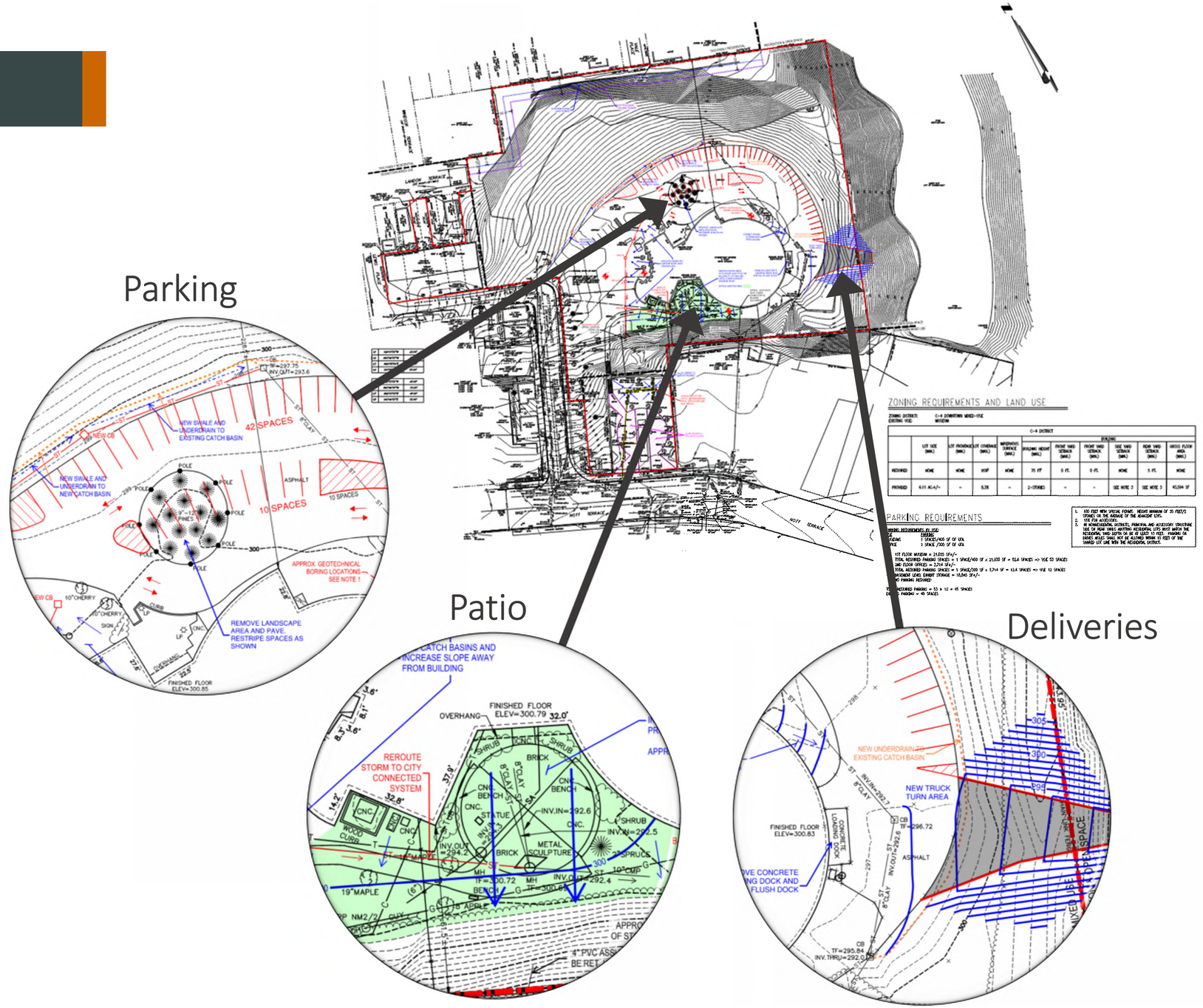
RYAN BIGGS CLARK DAVIS
ENGINEERING & SURVEYING

Civil Analysis

By implementing these comprehensive drainage improvements, MiSci may benefit from reduced water intrusion risks, extended pavement life, and a more effective stormwater management system, supporting the long-term preservation and usability for the site.

Recommendations:

- Drainage improvements at the museum of innovation and science
- East Side of the building grades
- North parking lot improvements and reconfiguration
- West Side lawn area new catch basins
- South Side patio area reconstructed slope
- Truck access to loading dock
- Locomotive Display Area (Improvements by the City of Schenectady



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MEP Analysis

The MEP systems are of varying ages, and most are in poor condition beyond their expected service life and in need of replacement.

Recommendations:

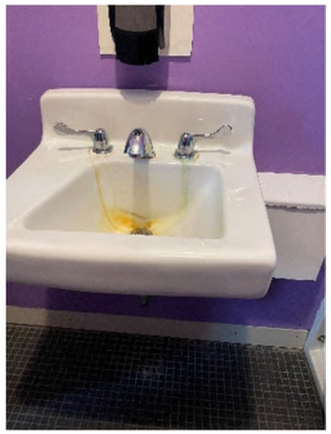
- Replace plumbing fixtures
- Water distribution, hot water heater, sewage pump upgrades
- Replace roof/storm drain system
- Natural gas pipe supports
- Update building HVAC system and rooftop units
- Updates to electrical distribution
- Replace lighting
- Update fire alarm system
- New card access control/security system
- General electric upgrades
- Update tele/Data System

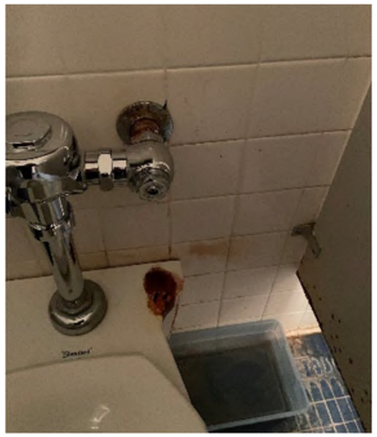
Boiler #1

Boiler #2

Boiler #3

Typical HVAC Controls at MiSci





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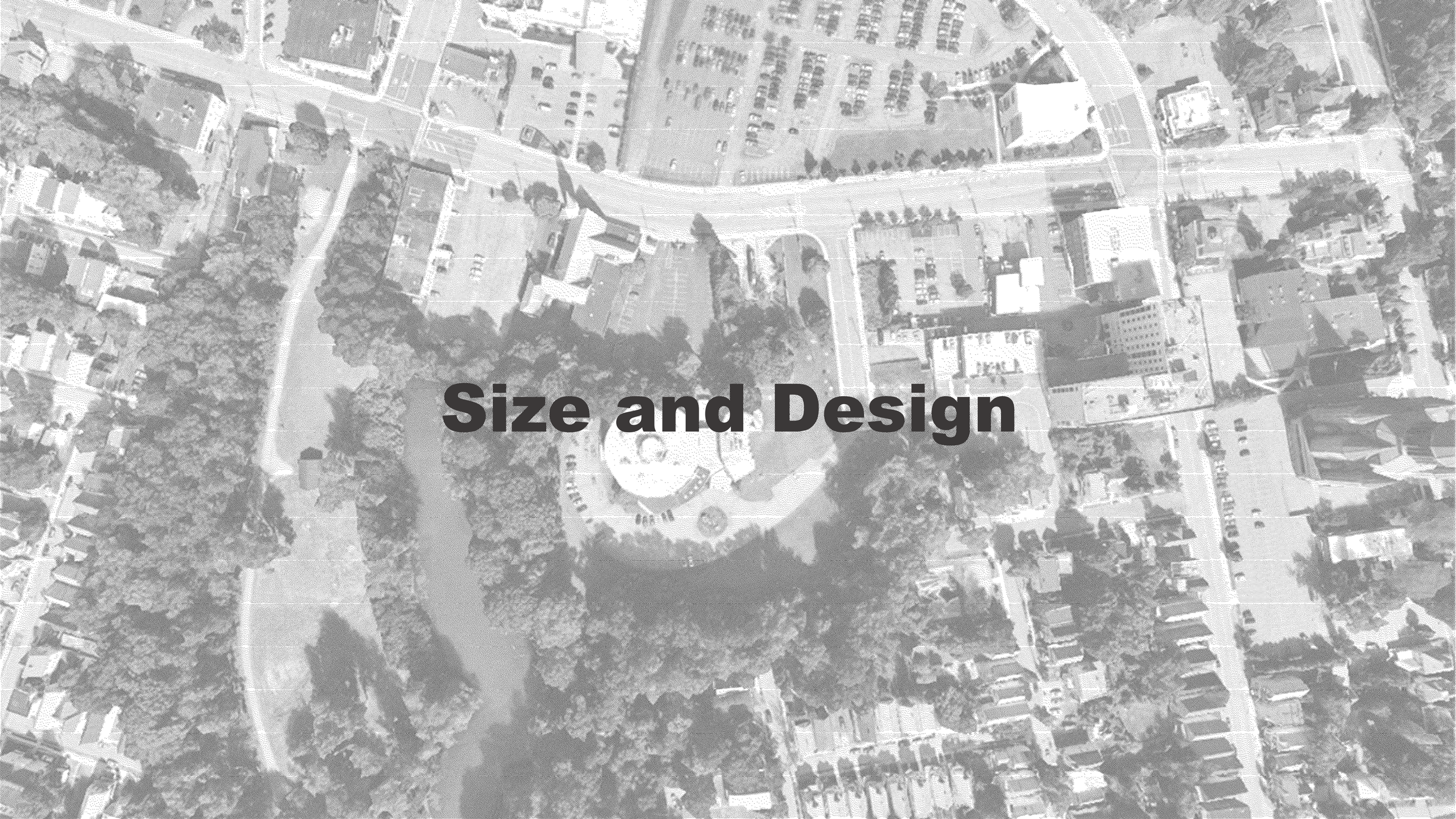
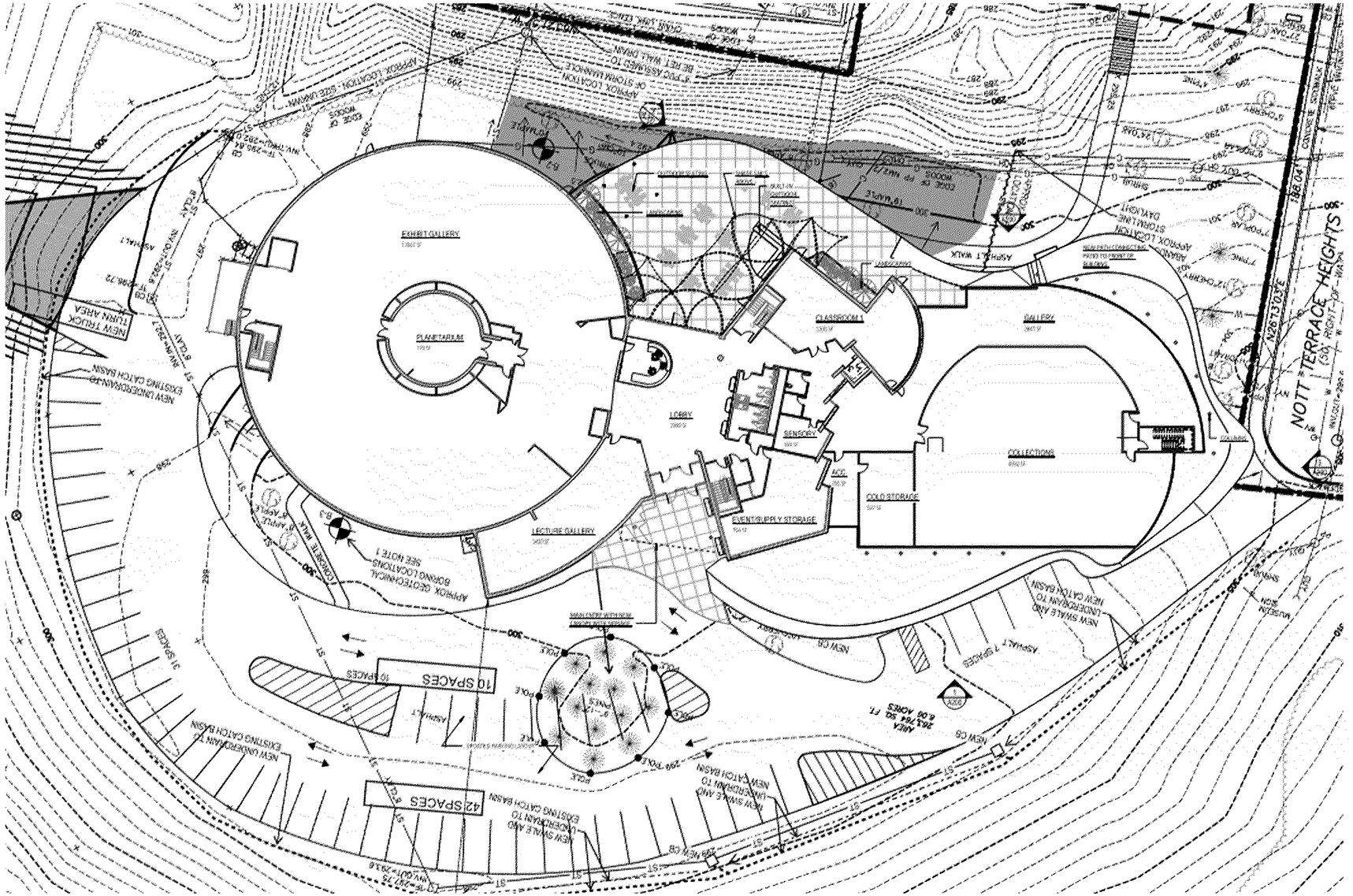


Size and Design

Site Plan Information

Existing Building

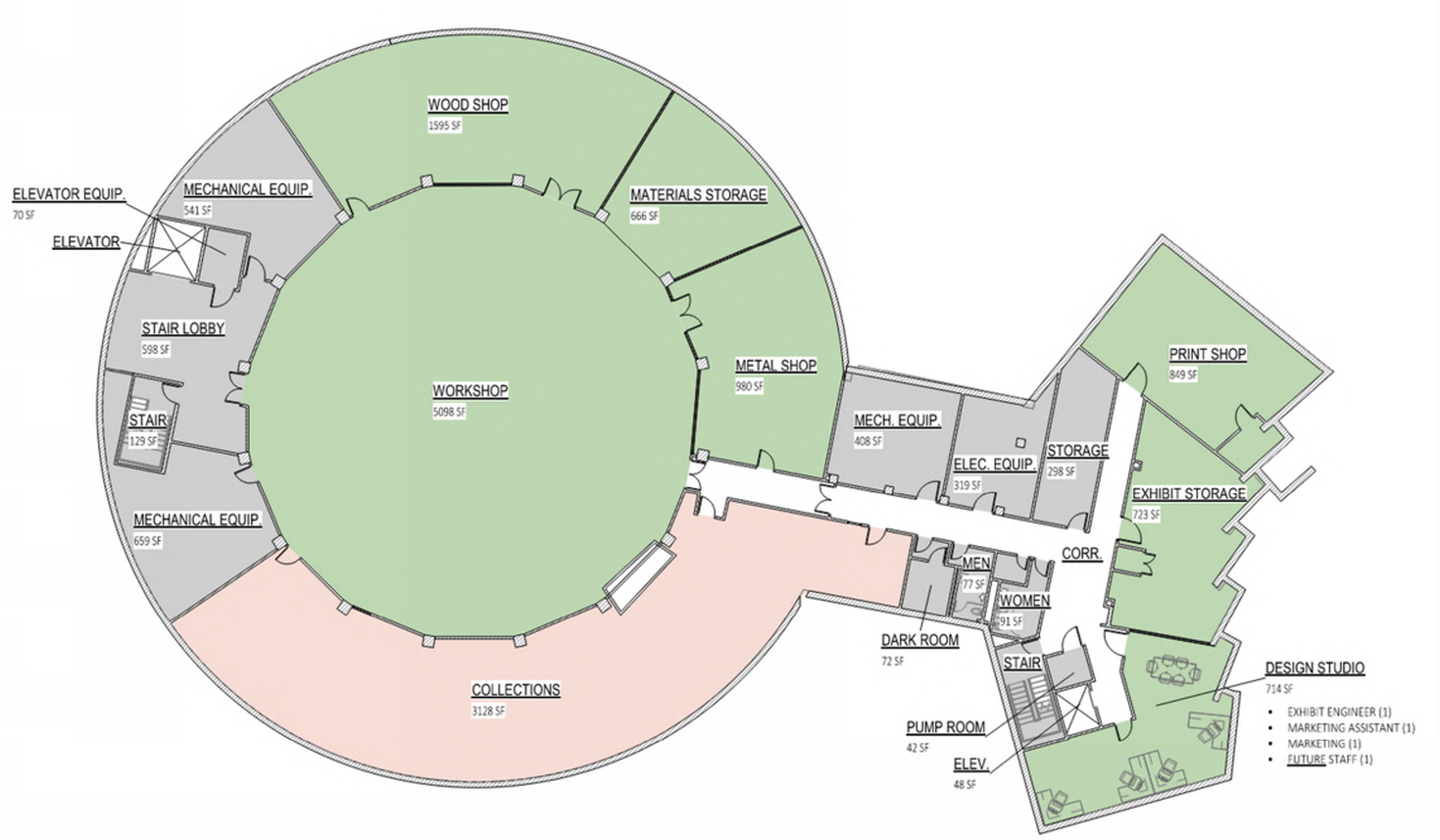
New Building Addition



Size and Design: Phase 1

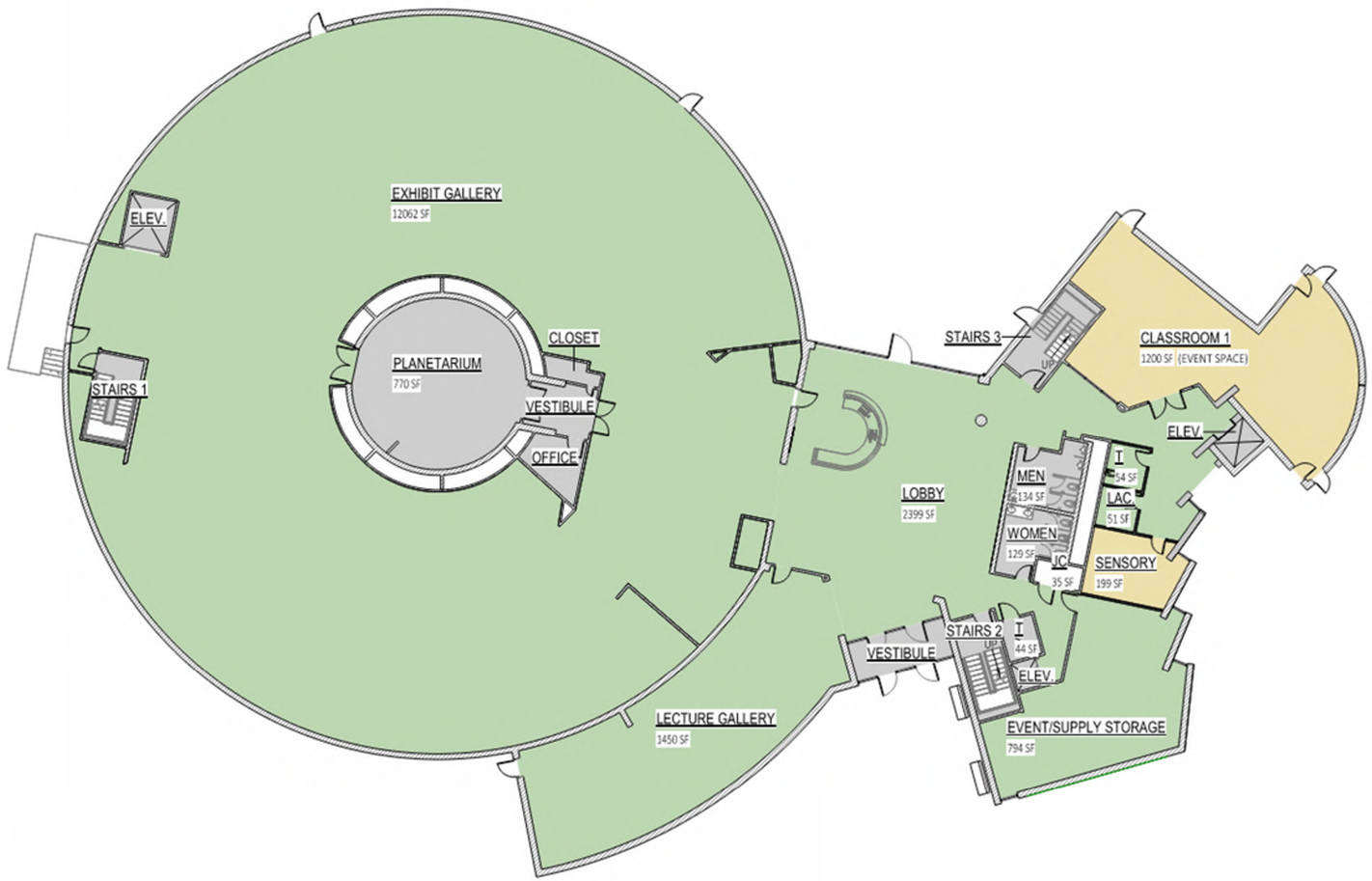
Proposed Basement Floor Plan (Existing building)

- Collections/Archives
- Education
- Exhibition Galleries
- Administration
- Existing Space/Dept.



Size and Design: Phase 1

Proposed First Floor Plan (Existing Building)



- Collections/Archives
- Education
- Exhibition Galleries
- Administration
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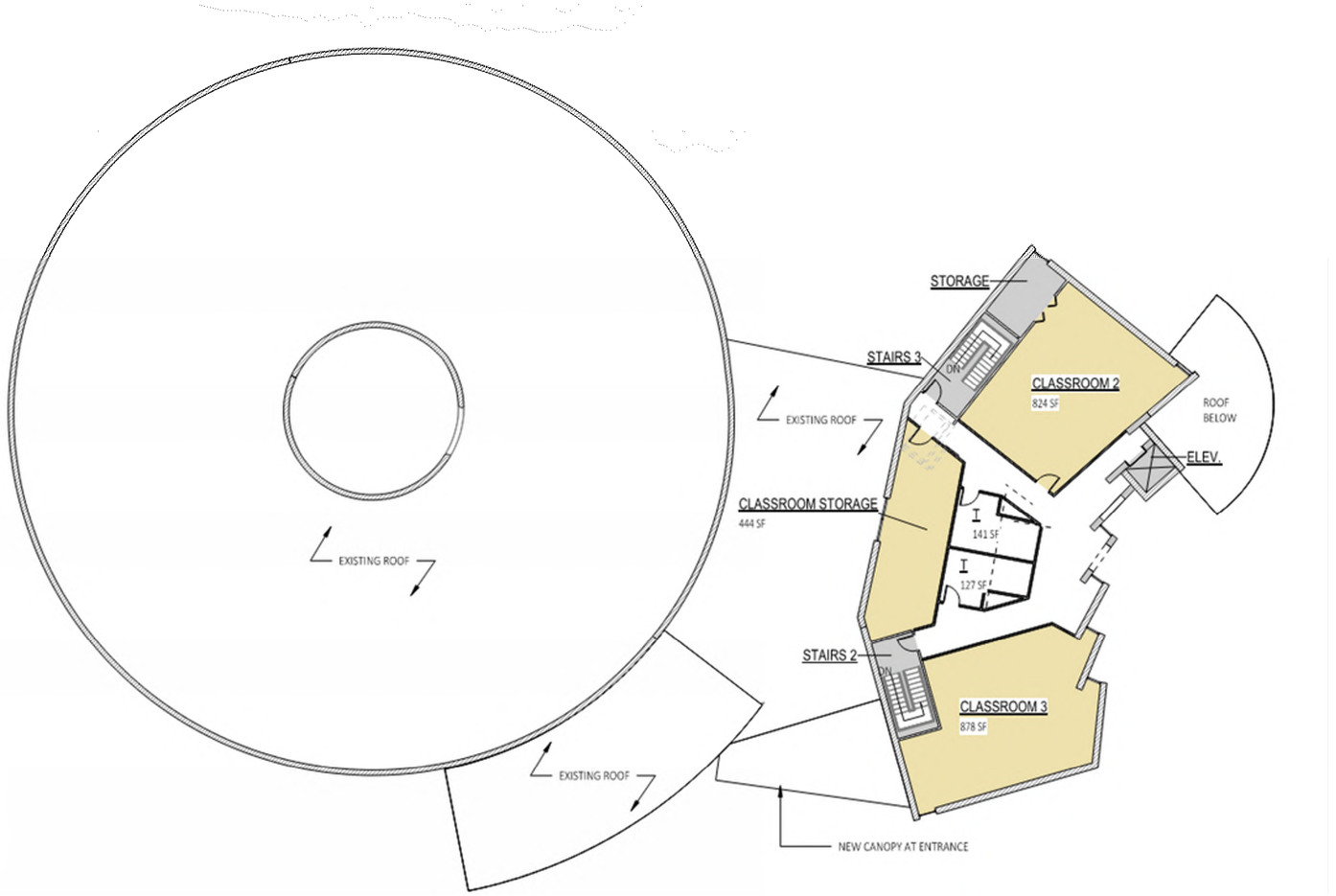
Size and Design: Phase 1

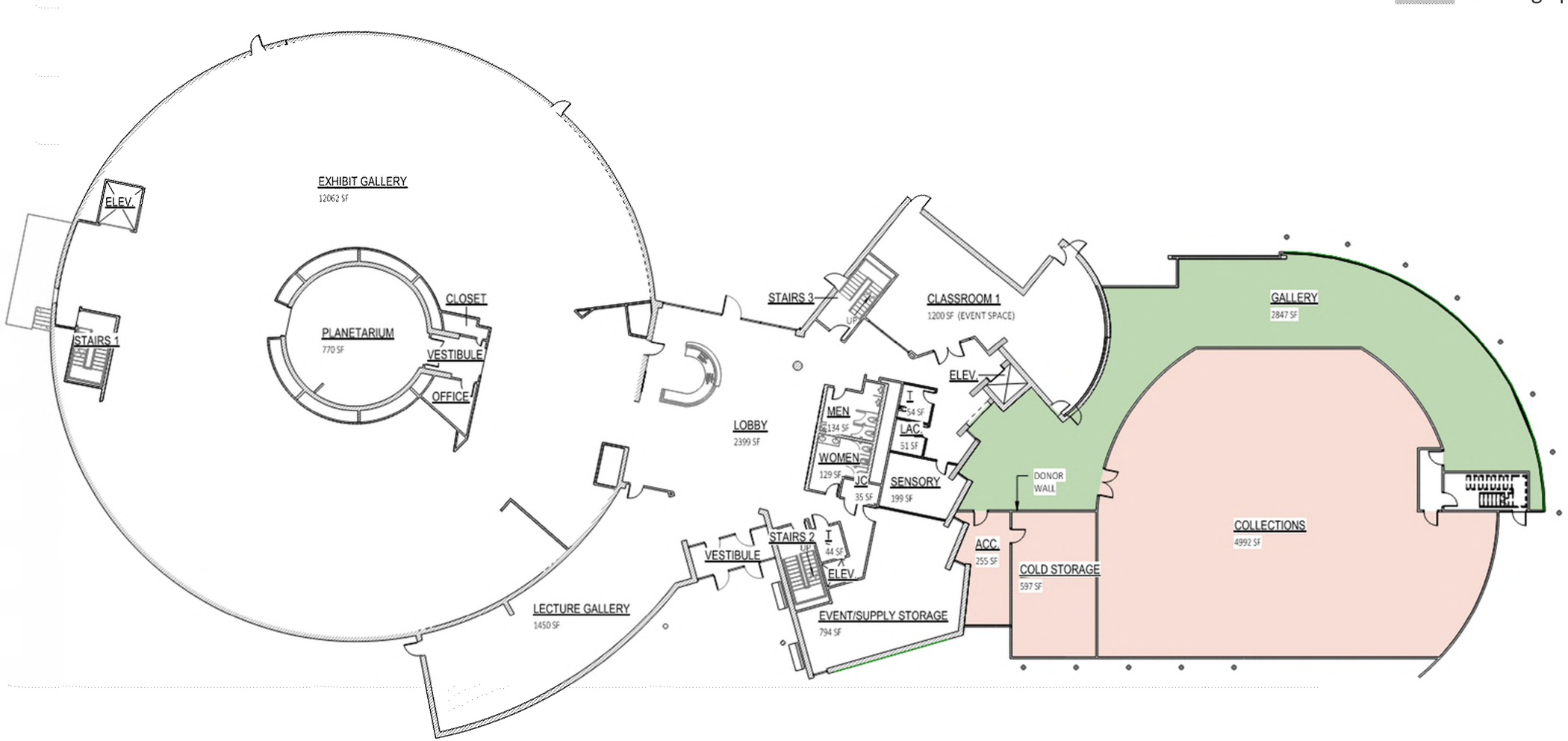
Proposed Second Floor Plan (Existing Building)



- Collections/Archives
- Education
- Exhibition Galleries
- Administration
- Existing Space/Dept.

Size and Design: Phase 2

Proposed First Floor Plan (Addition)

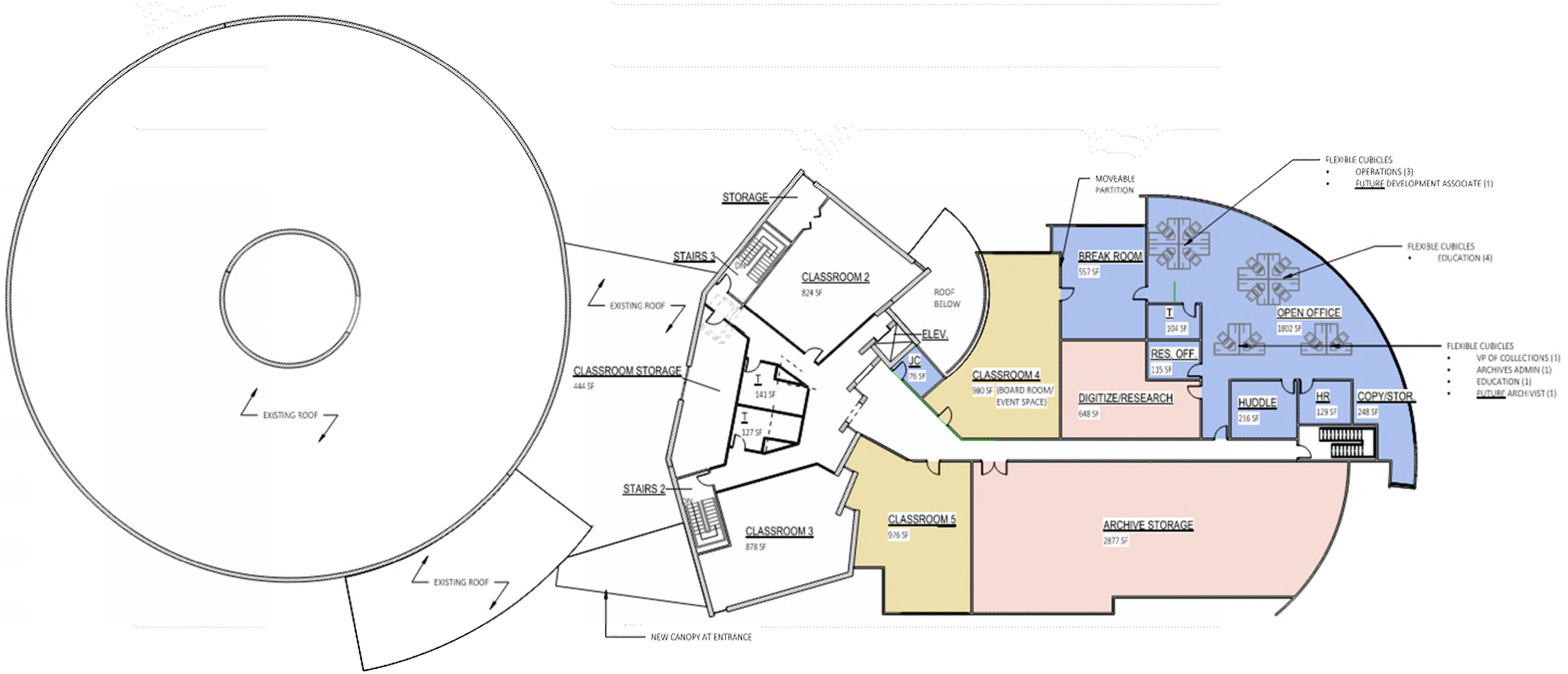


- Collections/Archives
- Education
- Exhibition Galleries
- Administration
- Existing Space/Dept.

Size and Design: Phase 2

Second Floor Plan (Addition)

- Collections/Archives
- Education
- Exhibition Galleries
- Administration
- Existing Space/Dept.



Phasing Recommendations

Building Design

Building Design

Phasing

Phase 1:

Existing Building Renovations

- Demolition Work
- Replace Roof
- Update Interior Finishes
- New bathroom layout and fixtures
- New Entry Canopy
- MEP Scope of work upgrades

Site Renovations

- Remove circle at parking lot and fill, seal and paint parking spots. Existing parking to be resealed
- Tractor trailer turn around
- Re-grade land at existing patio

Phase 2:

New Construction Addition

- Building addition (new walls, ceilings, doors, storefront, windows, roof, exterior siding, interior finishes)
- MEP scope of work

Site Renovations

- Replace entire parking lot asphalt and paint parking spots
- Remove patio pavers and replace with new concrete patio with sidewalks that connect to the front of the building

Cost Estimate

Cost Estimate

miSci Draft Conceptual Budget	Date	3/18/2025	SUMMARY SHEET						
DIV.		LABOR		MAT'L		SUB	TOTAL	$ / SF
1000	General Conditions, Including Temporary Facilities	15,334		2,191		394,310	**411,834**	9.40
2050	Demolition	0		0		241,400	**241,400**	5.51
2000	Site Work, Including Utilities, Clearing, Paving, Excavation/Backfill	0		0		169,000	**169,000**	3.86
3000	Concrete Walks and Foundations	0		0		31,749	**31,749**	0.72
4000	Masonry	0		0		15,000	**15,000**	0.34
5000	Structural Steel and Misc. Metals	0		0		10,000	**10,000**	0.23
6000	Rough and Finish Carpentry	0		0		314,370	**314,370**	7.18
7000	Thermal &Moisture, Caulking and Flashing	0		0		687,349	**687,349**	15.69
8000	Doors, Frames, Hardware, Windows	3,250		16,580		30,000	**49,830**	1.14
9000	Interior Finishes, Wall Covering, Drywall, Taping, Patching, Painting	0		0		1,087,625	**1,087,625**	24.83
10000	Specialties, Pool, Carriage House, Pool House,	0		0		44,686	**44,686**	1.02
11000	Equipment	0		0		25,000	**25,000**	0.57
12000	Furnishings	0		0		108,763	**108,763**	2.48
13122	Special Construction	0		0		0	**0**	0.00
14000	Hoisting Equipment	0		0		15,000	**15,000**	0.34
15300	Fire Sprinkler	0		0		0	**0**	0.00
15400	Plumbing	0		0		317,490	**317,490**	7.25
15500	HVAC	0		0		1,971,495	**1,971,495**	45.00
16000	Electrical	0		0		2,190,550	**2,190,550**	50.00
17000	Miscellaneous	0		0		200,000	**200,000**	4.57
	TOTAL	18,584		18,771		7,853,786	**7,891,141**	180.12
							0	0.00
	SUB TOTAL						**7,891,141**	180.12
	DESIGN FEE						**610,400**	13.93
	CONTINGENCY					**0.100**	**789,114**	18.01
	TOTAL PRICE						**9,290,655**	212.06
	TOTAL BUILDING AREA		43,811	SF				

COMMENTS:

The conceptual estimates were based upon the following documents;
C101 - dated 11/22/2024 by Engineering Ventures
D100, D101 & D102 dated 01/07/2025 by C2 Architecture
miSci Program Requirements date 12/20/2024
C2 Architecture Renderings dated 12/20/2024
A100, A101, A102, & A200 dated 12/20/2024 by C2 Architecture

Cost Estimate

miSci Conceptual Phase II Addition | **12/14/2025** | **SUMMARY SHEET**

DIV.		LABOR		MAT'L		SUB	TOTAL	$ / SF
1000	Building Addition	0		0		5,000,000	**5,000,000**	265.10
2050	Sitework modifications to Existing Patio	0		0		275,000	**275,000**	14.58
7000	Façade modifications to Existing Building	0		0		200,000	**200,000**	10.60
3000		0		0		0	**0**	0.00
	TOTAL	0		0		5,475,000	**5,475,000**	290.28
							0	0.00
	SUB TOTAL						**5,475,000**	290.28
	DESIGN FEES						**345,900**	18.34
	CONTINGENCY					**0.100**	**547,500**	29.03
	TOTAL PRICE						**6,368,400**	337.65
	TOTAL BUILDING AREA		18,861	SF				

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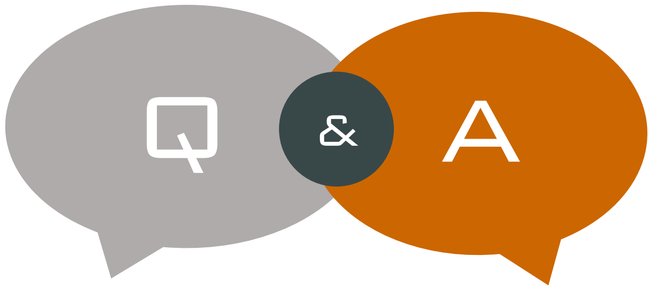
A100, A101, A102, & A200 dated 12/20/2024 by C2 Architecture
HVAC Option Study dated 06/22/2021 by ME Engineering.

Q & A SESSION



THANKS FOR LISTENING

QUESTIONS?