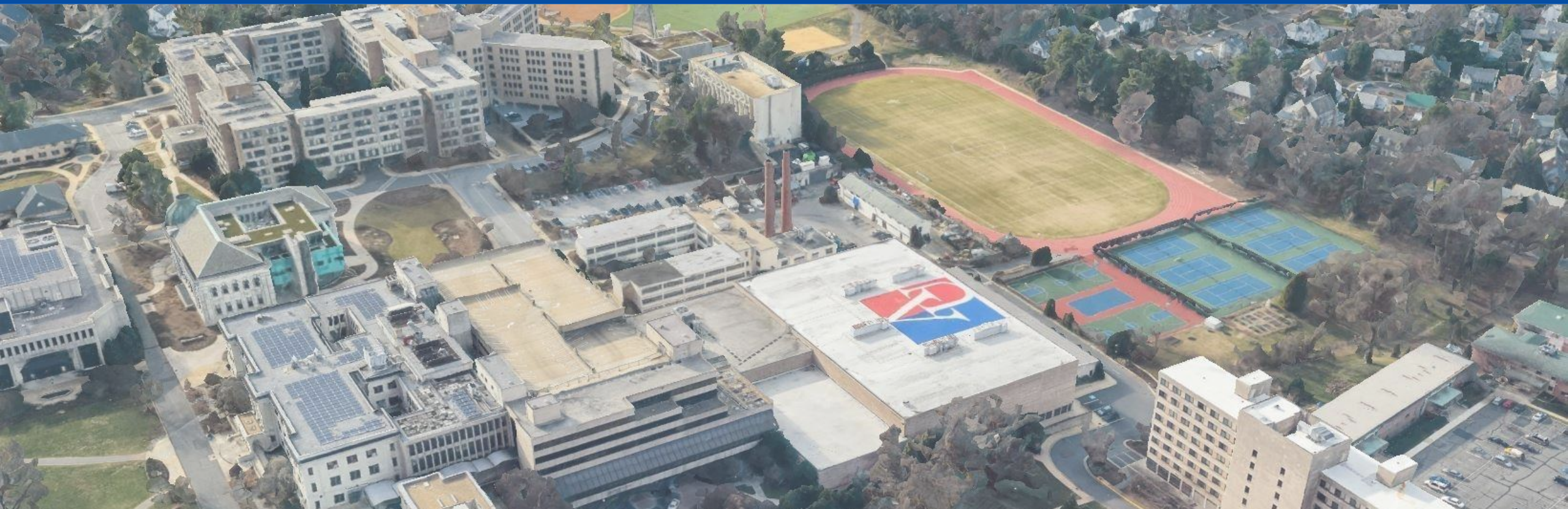
PERKINS EASTMAN
Human by Design

JONATHAN CECI LANDSCAPE ARCHITECTS

FEBRUARY 27, 2023 – FACILITIES PLANNING WORKING GROUP

THE ALAN AND AMY MELTZER CENTER FOR ATHLETIC PERFORMANCE (MELTZER CENTER) AND SPORTS CENTER ANNEX (SCAN)



Ground Rules:

- Respect the Process
- Be present and Engaged
- Follow the Facilitators' Directions
- Allow Every Voice to Be Heard
- Speak Courteously and Respectfully to Others
- Maintain Zero Tolerance for Any Comment (Written or Verbal) that is Meant to Attack or Intimidate Another Person or is Obscene

- **INTRODUCTION**
- **NEIGHBOR QUESTIONS**
- **UPDATES**
  - RENDERING VIEWS
  - NOISE STUDY
  - LIGHTING STUDY
  - PLANT BUFFER DESIGN
- **SCHEDULE REVIEW**
- **FAQ**

What is the access road for?

What will be located on the roof of the buildings and what will it look and sound like?

Where will windows be located and what is plan for addressing light coming from inside and outside the building?

What are the plans for exterior lighting?

How will the use of Reeves Field change?

What will be visible from the neighborhood?

What is the plan for tree removal, preservation, and replacement?

What will happen to the tennis courts?

Why here?

QUESTIONS?

Will there be green roofs?

What are the traffic and parking impacts?

What will the exterior look like?

What activity is going to occur in the area closest to the neighborhood?

Will there be exterior fencing?

Can the building be smaller?

Will there be food service at the facility?

What will the impact on Pedestrian traffic be?

What type of noise will be generated by the building?

What size is the building?

How will light pollution be addressed?

What is the impact on the buffer area?

Why is this building needed?

How will the building serve the public?

What will the hours of operation be?

Others...

RENDERING VIEWS

MELTZER CENTER/SCAN – WEST VIEW FROM NEW PLAZA

This rendering may be updated in the future

MELTZER CENTER/SCAN – WEST VIEW FROM REEVES FIELD

This rendering may be updated in the future

MELTZER CENTER/SCAN – NORTH VIEW FROM UNIVERSITY AVE

MELTZER CENTER/SCAN – NORTH VIEW FROM NEW SERVICE ALLEY

This rendering may be updated in the future

MELTZER CENTER/SCAN – SOUTH VIEW FROM SCAN

MELTZER CENTER/SCAN – EAST VIEW FROM EXISTING SERVICE ROAD

NOISE STUDY

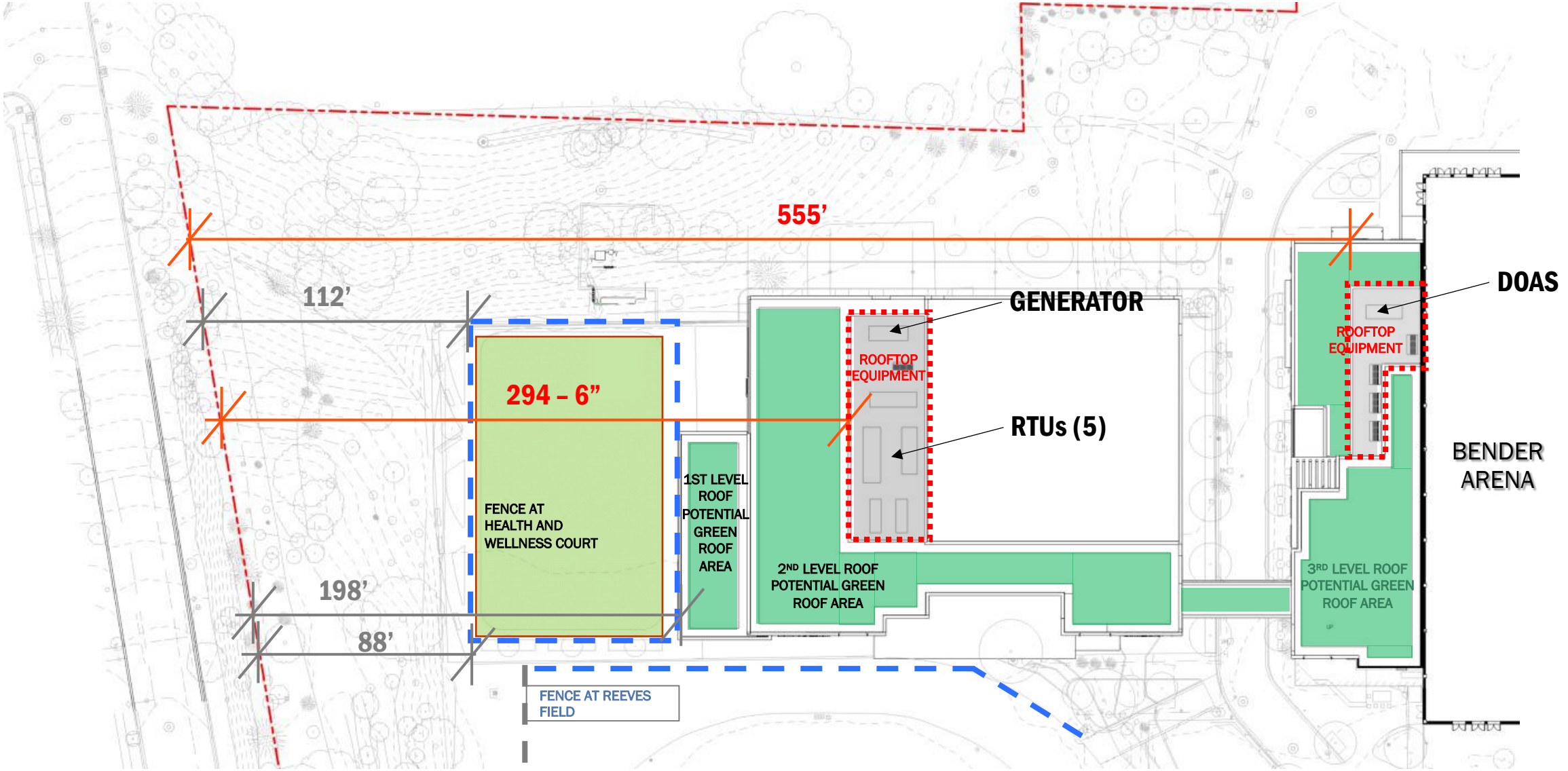
REFERENCE SOUND CHART

Source: Federal Agency Review of Selected Airport Noise Analysis Issues, Federal Interagency Committee on Noise, August 1992.

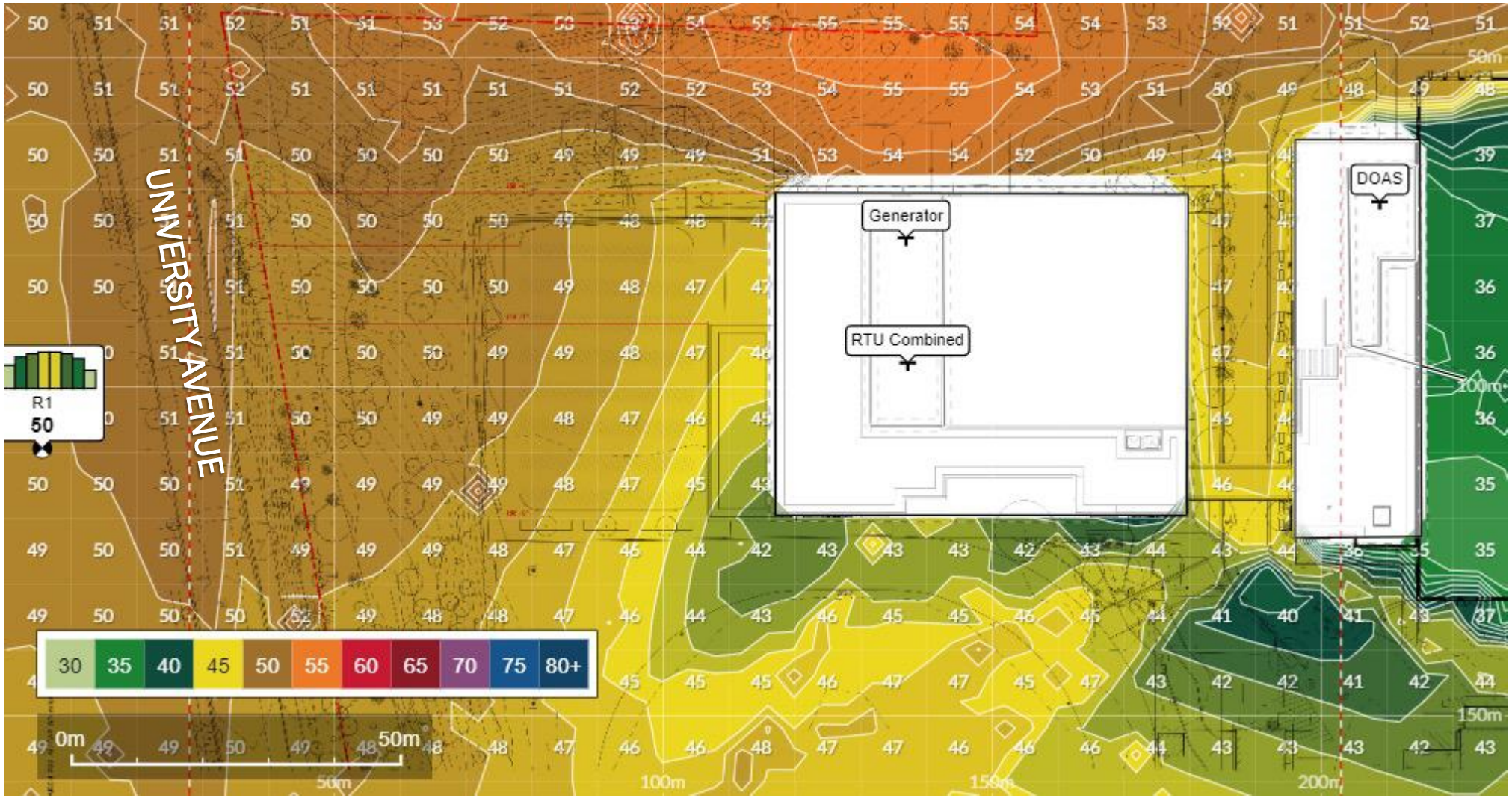
NOISE STUDY - KEY ASSUMPTIONS

- ASSUMES LOCATION OF RECEIVER AT UNIVERSITY AVENUE IS 411 FT FROM MELTZER CENTER NOISE SOURCE.
- ASSUMES THAT THERE ARE NO OTHER STRUCTURES OR OBJECTS BETWEEN THE NOISE SOURCE AND THE RECEIVER.
- DOES NOT INCLUDE BENEFIT FROM TREES AND ELEVATED TERRAIN WHICH MAY PROVIDE MINIMAL TO MODERATE SOUND ABSORPTION AND REFLECTION.
- DOES INCLUDE GENERATOR WITH SOUND ENCLOSURE.
- DOES INCLUDE PROPOSED SOLID AND CONTINUOUS ACOUSTICAL BARRIER/SCREENING FOR EQUIPMENT.

MELTZER CENTER/SCAN PROJECT – PROPOSED MECH. EQUIP. DIAGRAM



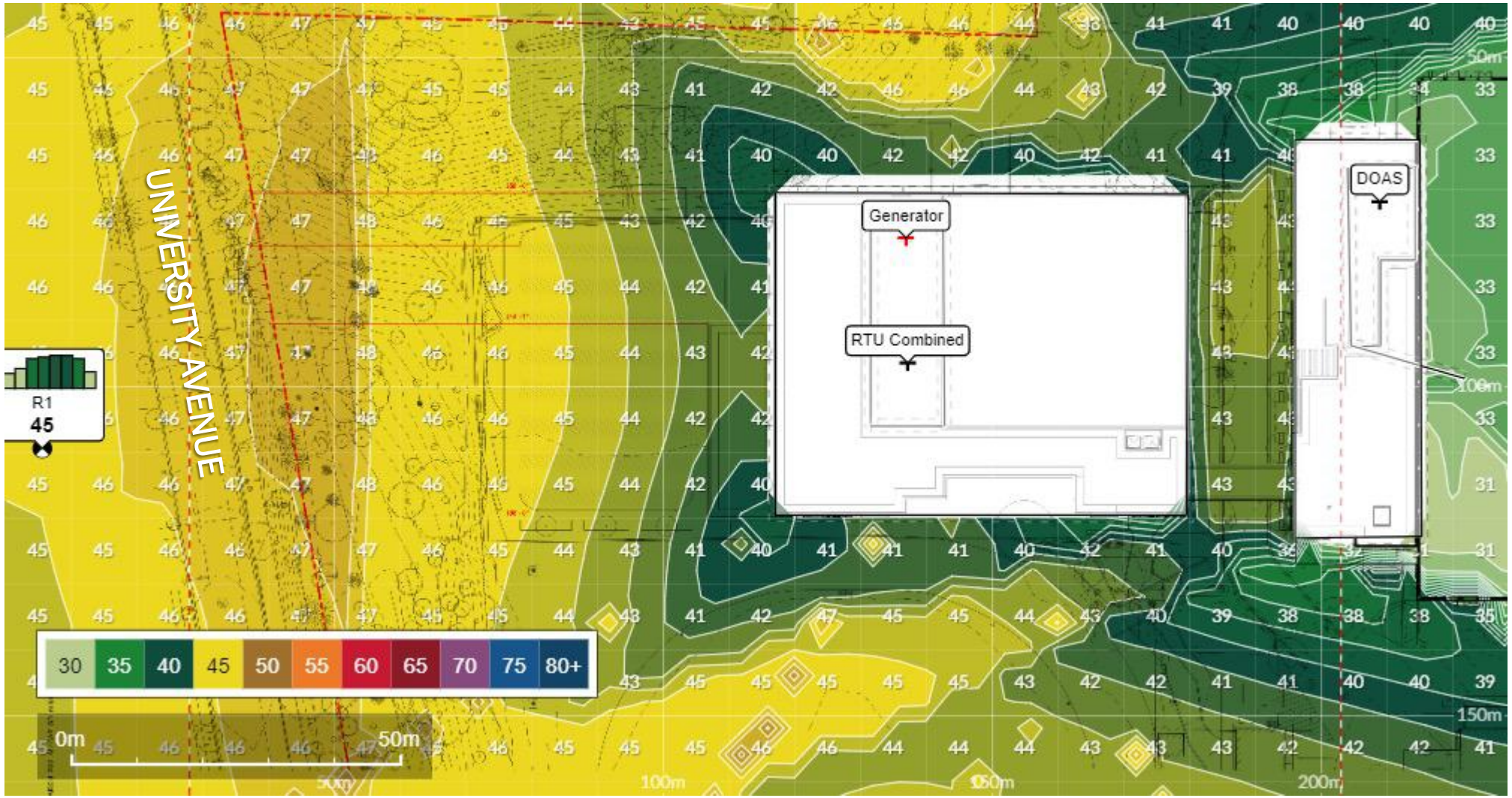
MELTZER CENTER/SCAN PROJECT – SOUND DIAGRAM @ 5' ELEV. (1ST FLOOR RESIDENCE) – RTU'S, DOAS & GENERATOR ON



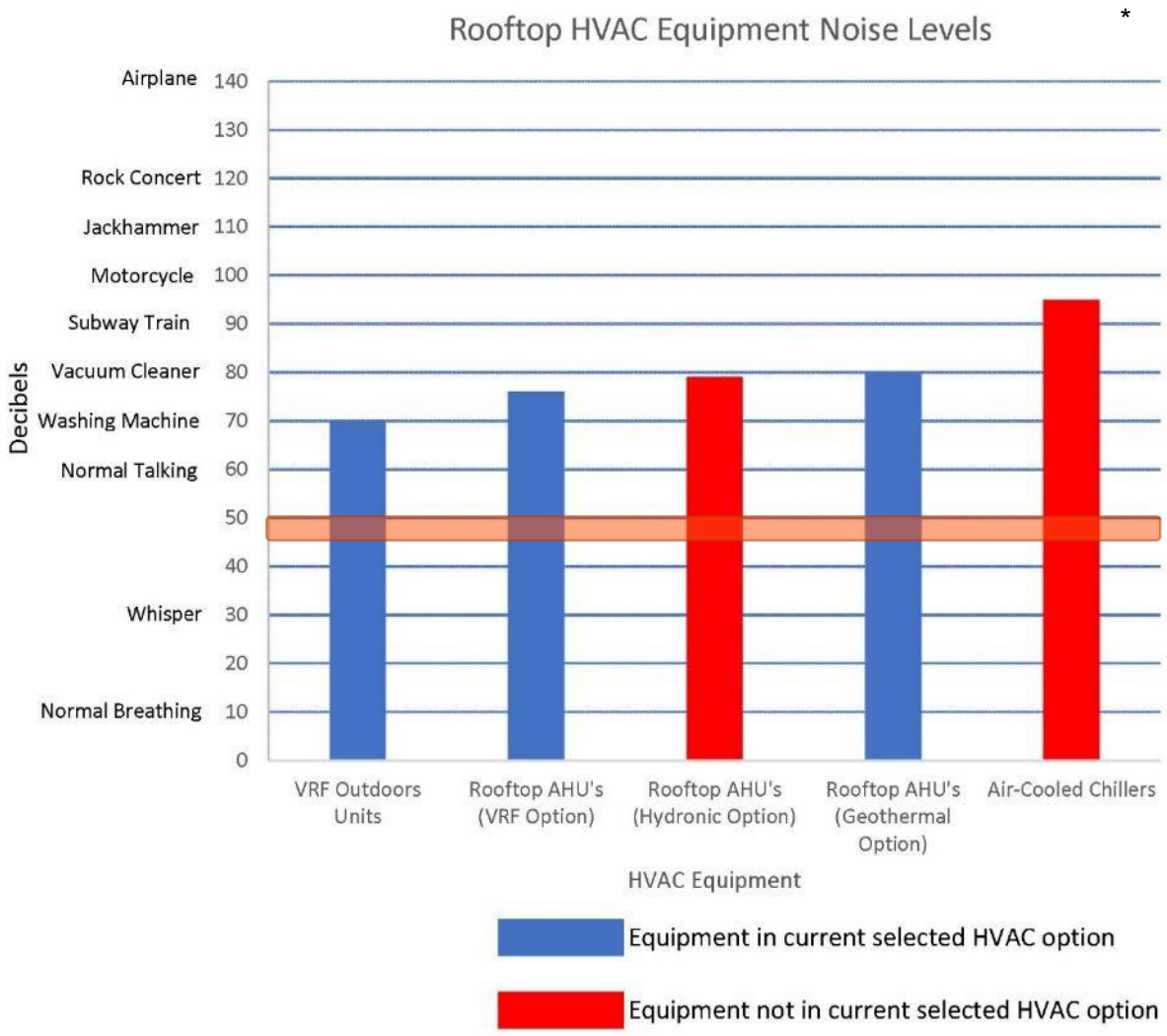
MELTZER CENTER/SCAN PROJECT – SOUND DIAGRAM @ 5' ELEV. (1ST FLOOR RESIDENCE) – RTU'S, DOAS ON & GENERATOR OFF

MELTZER CENTER/SCAN PROJECT – SOUND DIAGRAM @ 13’ ELEV. (2ND FLOOR RESIDENCE) – RTU’S, DOAS & GENERATOR ON

MELTZER CENTER/SCAN PROJECT – SOUND DIAGRAM @ 13’ ELEV. (2ND FLOOR RESIDENCE) – RTU’S, DOAS ON & GENERATOR OFF



MELTZER CENTER/SCAN PROJECT – MECH. EQUIP. SOUND (DBA) CHART*



D.C Noise Code

Chapter 27 Noise Control of District of Columbia Municipal Regulations, Section 2701 MAXIMUM SOUND LEVELS provides a guideline on maximum noise levels per zone.

ZONE	MAXIMUM NOISE LEVEL	
	Daytime	Nighttime
Commercial or light manufacturing zone	65 dB(A)	60 dB(A)
Industrial zone	70 dB(A)	65 DB(a)
Residential, special purpose, or waterfront zone	60 db(A)	55 db(A)

ESTIMATED DECIBEL RANGE @ UNIVERSITY AVENUE (45-50 dba)

* ***Decibels measured at source.***
Acoustical impacts will decrease with distance and mitigation - calculations in progress and more information will be forthcoming.

NOISE STUDY - KEY FINDINGS

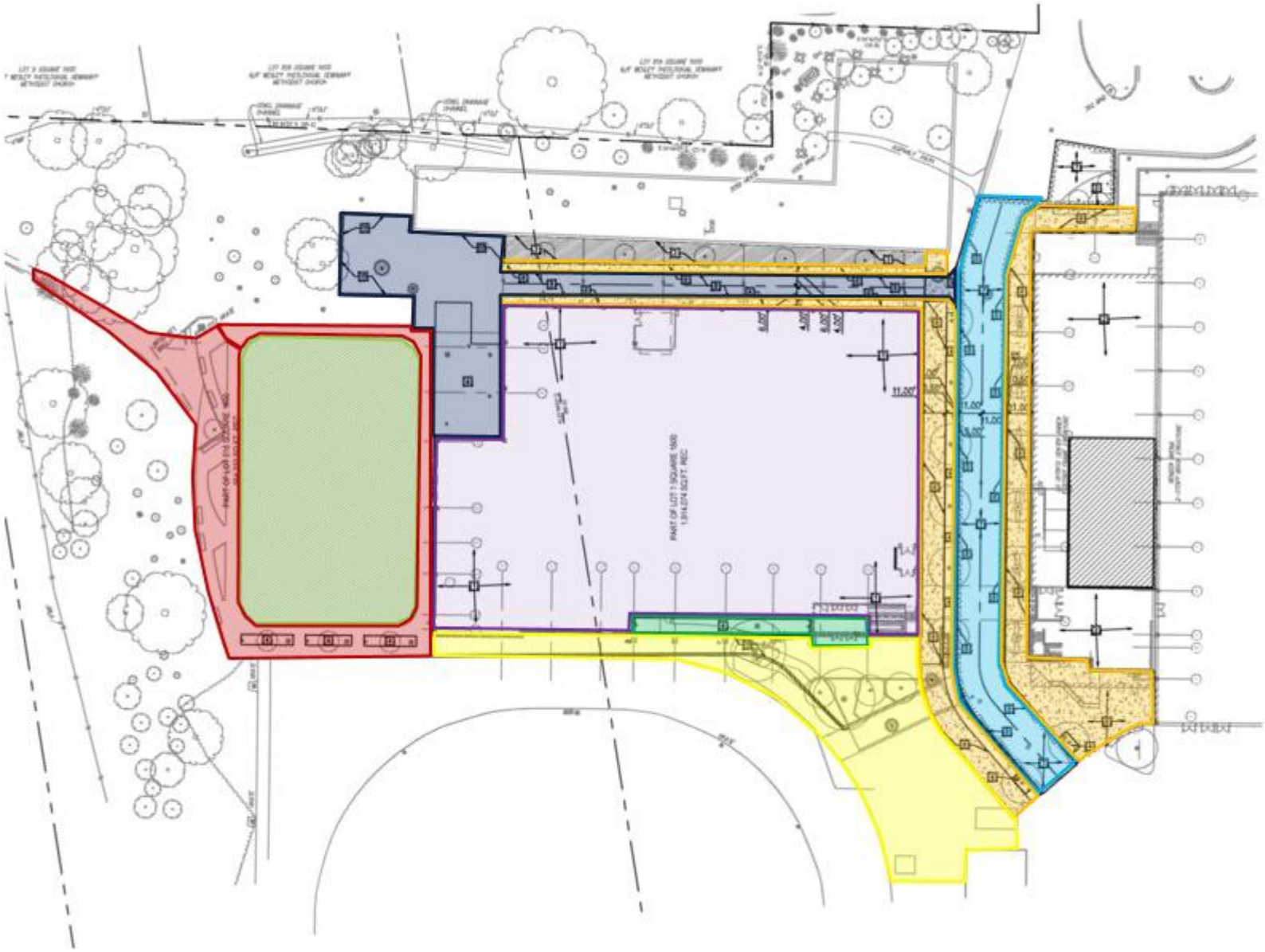
- THE PREDICTED NOISE LEVELS AT THE RECEIVER LOCATION AT UNIVERSITY AVENUE ARE BETWEEN 45 AND 50 DBA AND ARE CONSISTENT WITH WHAT MAY BE EXPECTED IN A QUIET SUBURBAN RESIDENTIAL NEIGHBORHOOD*.
- THE NOISE LEVEL OF THE RTUS IS ANTICIPATED TO BE ~45 DBA.
- NO NOTICEABLE DIFFERENCE IN NOISE LEVELS IS ANTICIPATED FOR 1ST VS. 2ND STORY LEVELS AT RESIDENCES.
- HIGHEST ANTICIPATED LEVEL WILL OCCUR WHEN EMERGENCY GENERATOR IS RUNNING DURING SCHEDULED TESTING OR UNPLANNED POWER OUTAGES.
- FULL REPORT TO BE POSTED ON AUNP FORUM.

* THE AMBIENT BACKGROUND NOISE LEVEL IS ANTICIPATED TO BE BETWEEN 50-55 DBA DUE TO VEHICLE TRAFFIC, SIRENS, AIRPLANES, ETC.

LIGHTING STUDY

EXTERIOR LIGHTING GOALS

- ADDRESS PUBLIC SAFETY BY PROVIDING ADEQUATE ILLUMINATION.
- ENHANCE CHARACTER OF BOTH OPEN SPACES AND BUILDINGS.
- LIMIT LIGHT TRESPASS IN SKY AND BEYOND PROPERTY LINES.
- PROVIDE FULL CUT-OFF LUMINAIRES WHERE APPLICABLE (WASHINGTON GLOBE CAMPUS STANDARD – NOT APPLICABLE).
- PROVIDE ENERGY CODE CONTROLS TO DIM EXTERIOR LUMINAIRES AFTER MIDNIGHT.
- PROVIDE 3000K OR 3500K COLOR TEMPERATURE FOR WARM/NEUTRAL ILLUMINATION.



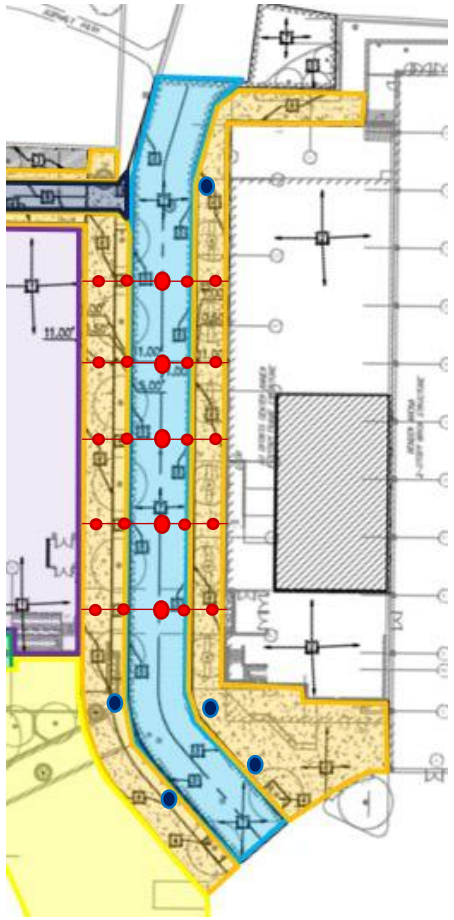
LIGHT LEVEL RECOMMENDATIONS

ILLUMINATING ENGINEERING SOCIETY HANDBOOK AND AU DESIGN GUIDELINES

AREA	FC
ROAD	5-10
SERVICE ROAD	3-5
WALKWAY	5-10
PLAZA	3-5
PATH	3-5
FIELD	20-30
BUILDING ENTRY	10-15
BUILDING FAÇADE	0.5-2

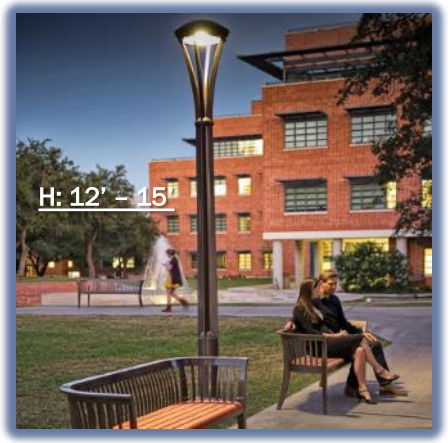
REFERENCE IF TRACK AND FIELD WERE ILLUMINATED:
TRACK AND FIELD – 50FC
SOCCER – 150FC

MELTZER CENTER-SCAN ROAD/WALKWAY



1. Catenary Lighting Across the Street between Trees - 3000K/3500K
   Intimacy, visual coherence with bridge, gathering

2. Supplement with Pole Lighting (can also be used in Plaza) - 3000K/3500K



MELTZER CENTER SERVICE ROAD

1. Low-Level Pole Lights on Residential Side for Road and Walkway -

- Full cut-off, backlight control
- Can be removed if residential building in constructed in future
- Can be equipped with motion sensor to dim lighting if no occupancy is on the service road

2. Building-Mounted Wall Luminaires - 3500K

- Scallop lighting pattern on wall
- Can be equipped with motion sensor to dim lighting if no occupancy is on the service road
- Can add uplight component to illuminate mural wall if desired

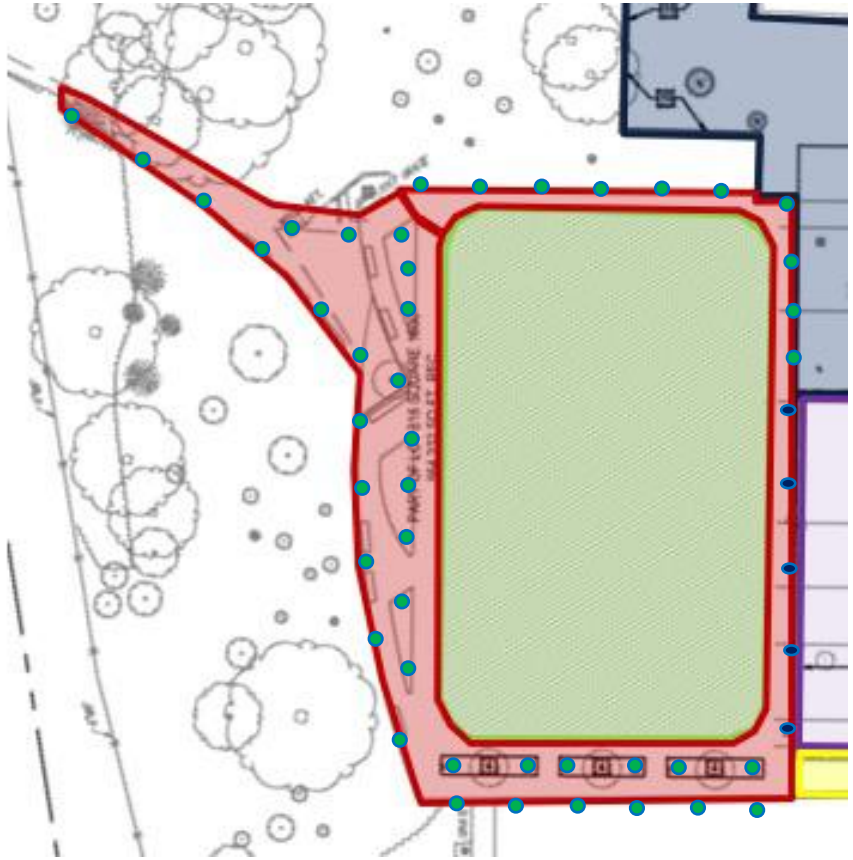
MELTZER CENTER ENTRY PLAZA

1. Area and Bollard – 3000K/3500K

MELTZER CENTER ENTRY PLAZA

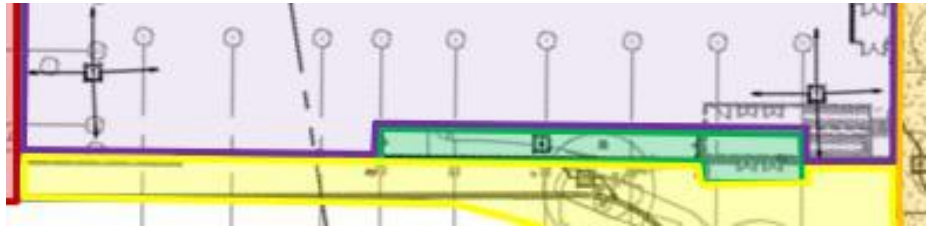
2. Forward throw Step lights - 3000K/3500K
   Linear under-bench/landsMELTZER CENTERe tree lighting
   Combo lights for fewer poles

PEDESTRIAN PATH AND MELTZER CENTER FIELD



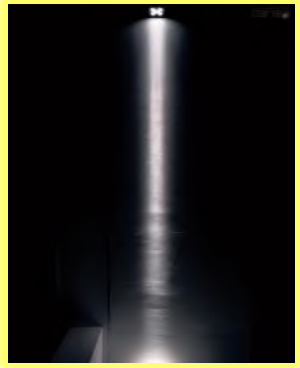
1. Continue pedestrian/bollard family from Plaza – 3000K/3500K
2. 2. Building-Mounted Wall Luminaires - 3500K

MELTZER CENTER BUILDING ENTRY - ARCHITECTURE

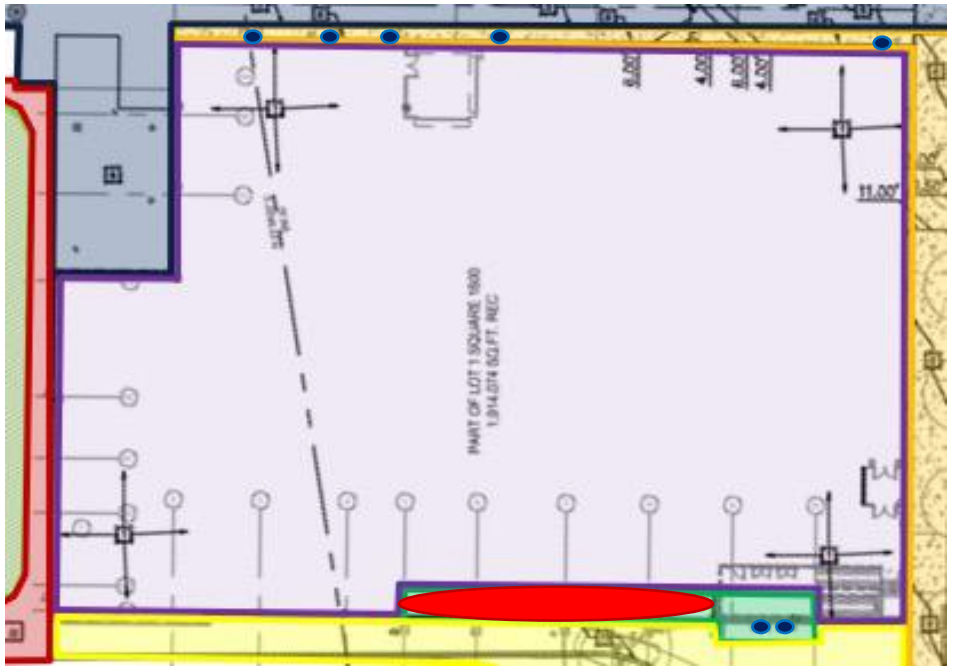


Luminaires to aim down only.
Create contrast with non-lit surfaces, but no excessive glare

1. Column Narrow Beam Spotlight - 3000K/3500K
2. Linear wall graze luminaire
3. Canopy downlights
4. Tall Front Canopy (mullion mounted uplight under canopy only)



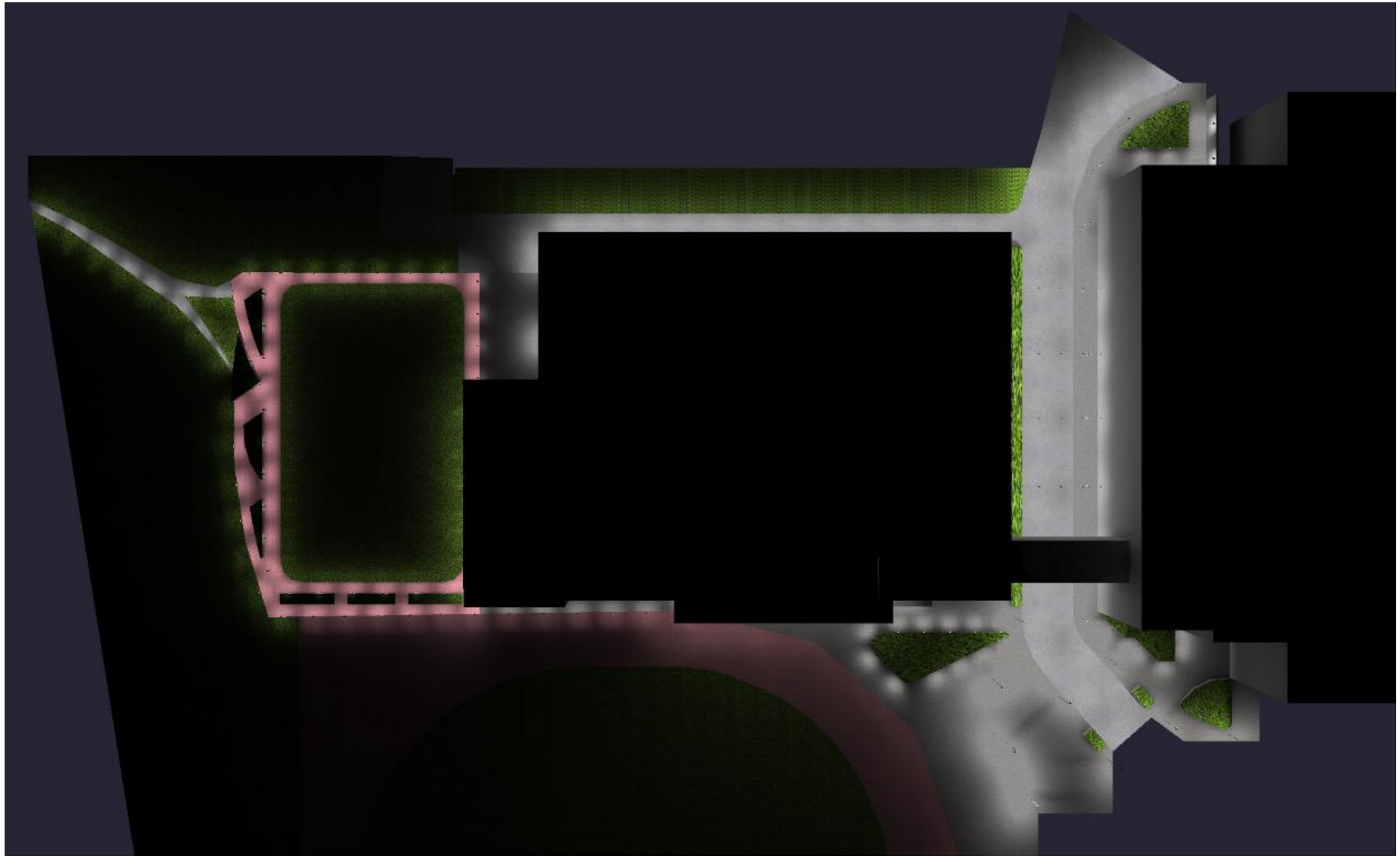
MELTZER CENTER BUILDING - FACADES



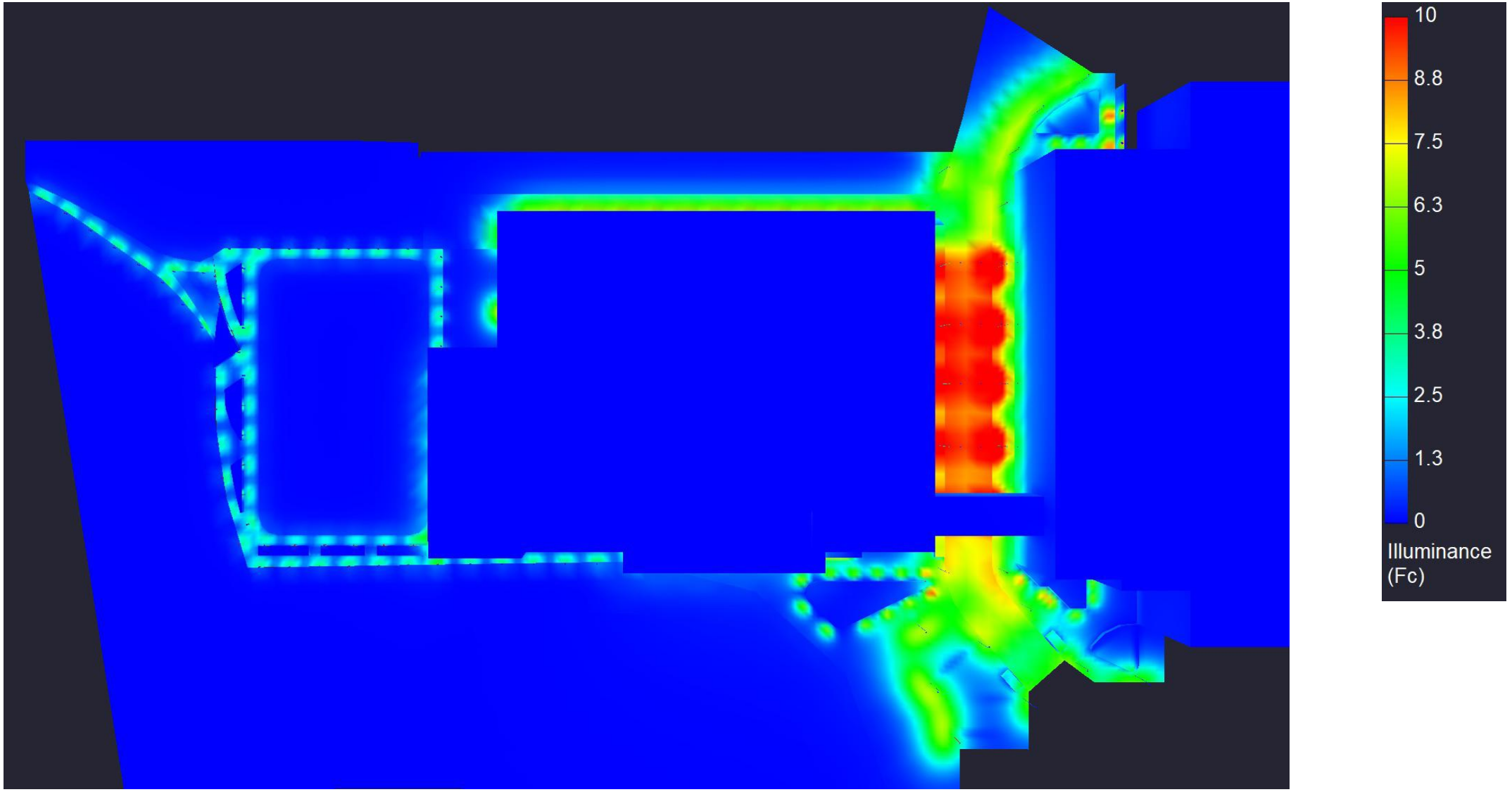
1. Egress lighting at doors - 3000K/3500K
2. Lighting through exterior windows
3. Murals
4. Tall Front Canopy (mullion mounted uplight under canopy only)

Luminaires to aim down
only except under main canopy.

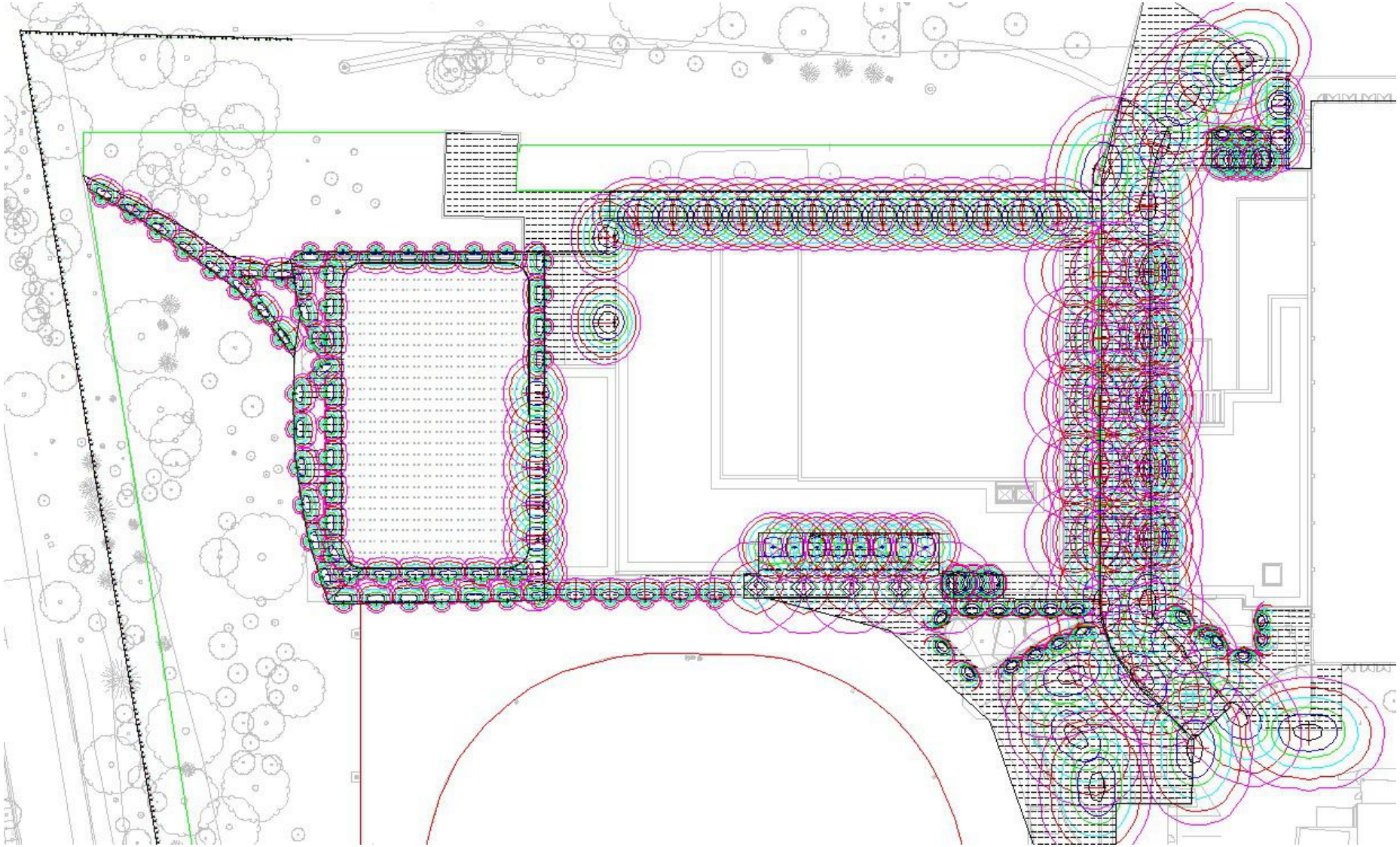
TOP VIEW LIGHT RENDERING



TOP VIEW LIGHT LEVELS

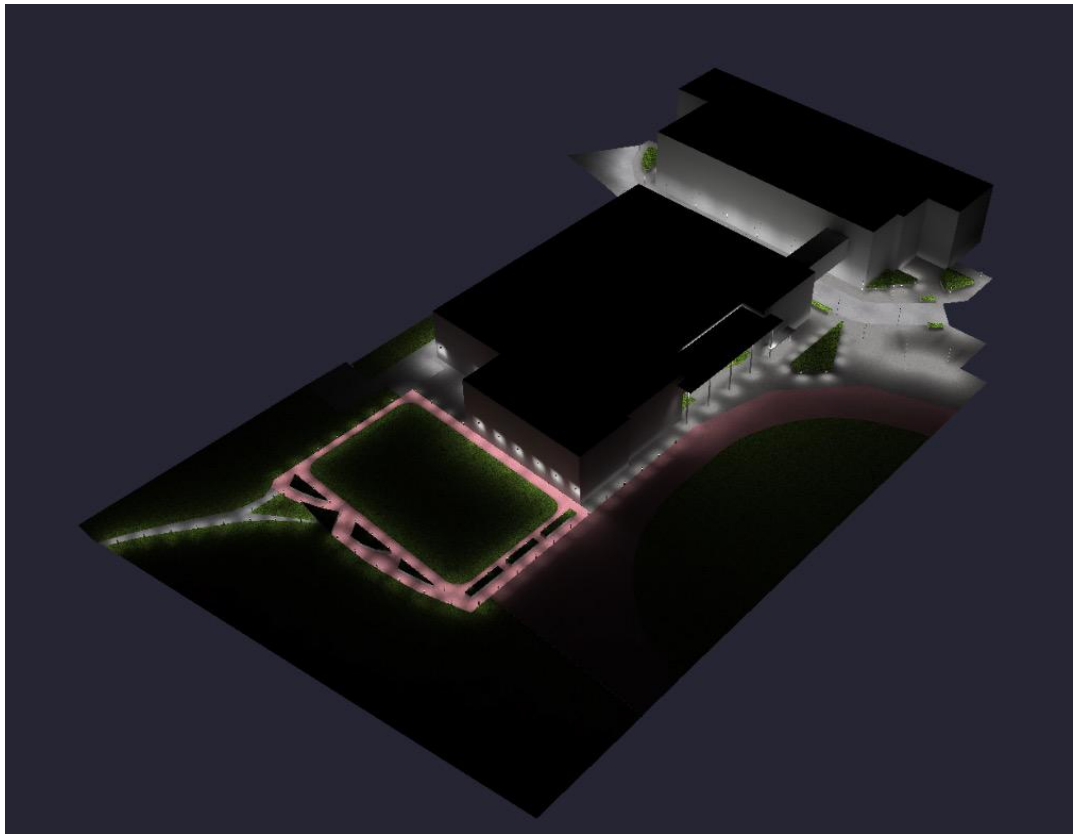


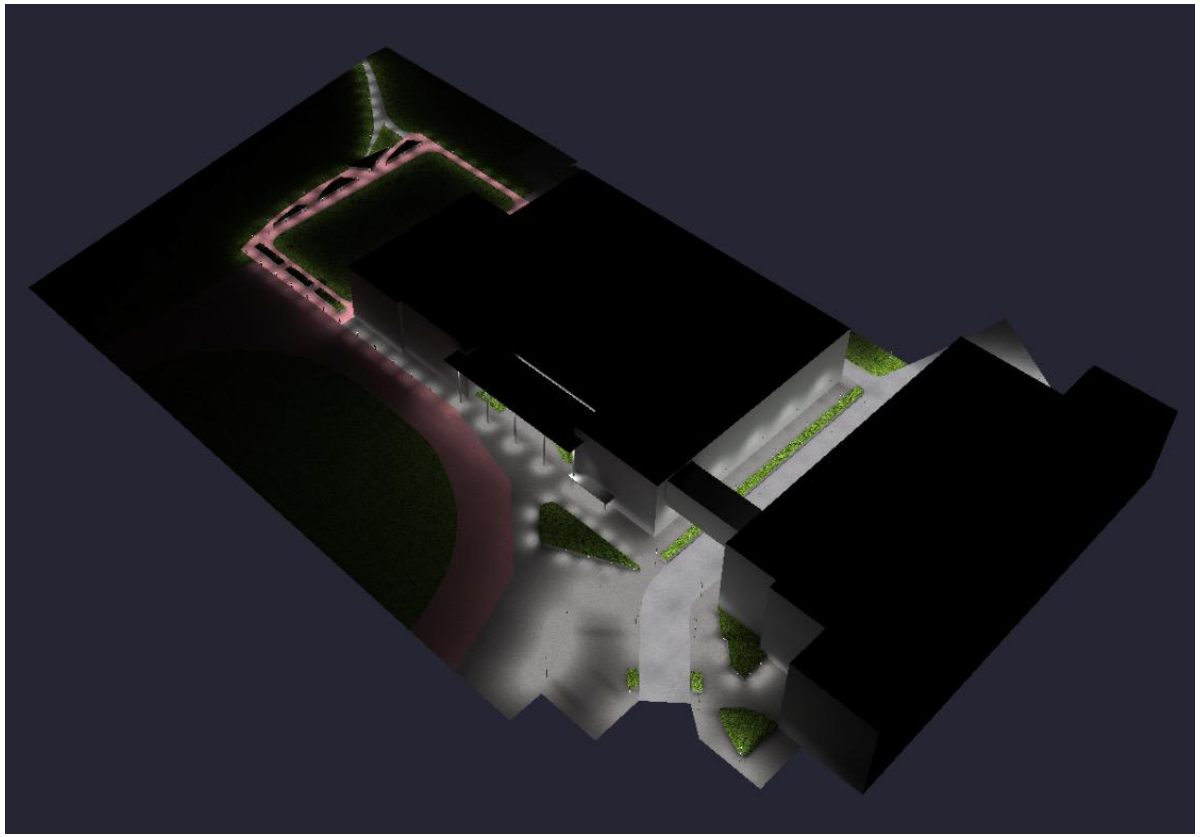
TOP VIEW LIGHT DISTRIBUTION PATTERNS



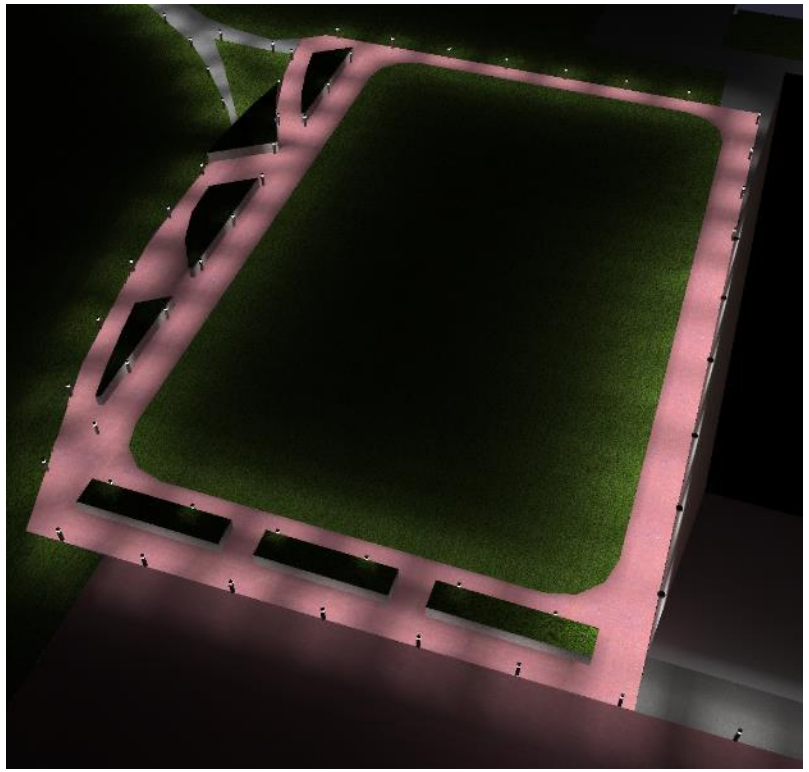
Patterns
5 fc
3 fc
2 fc
1 fc
0.5 fc
0.25 fc

ISO LIGHT VIEW FROM N-W AND S-W



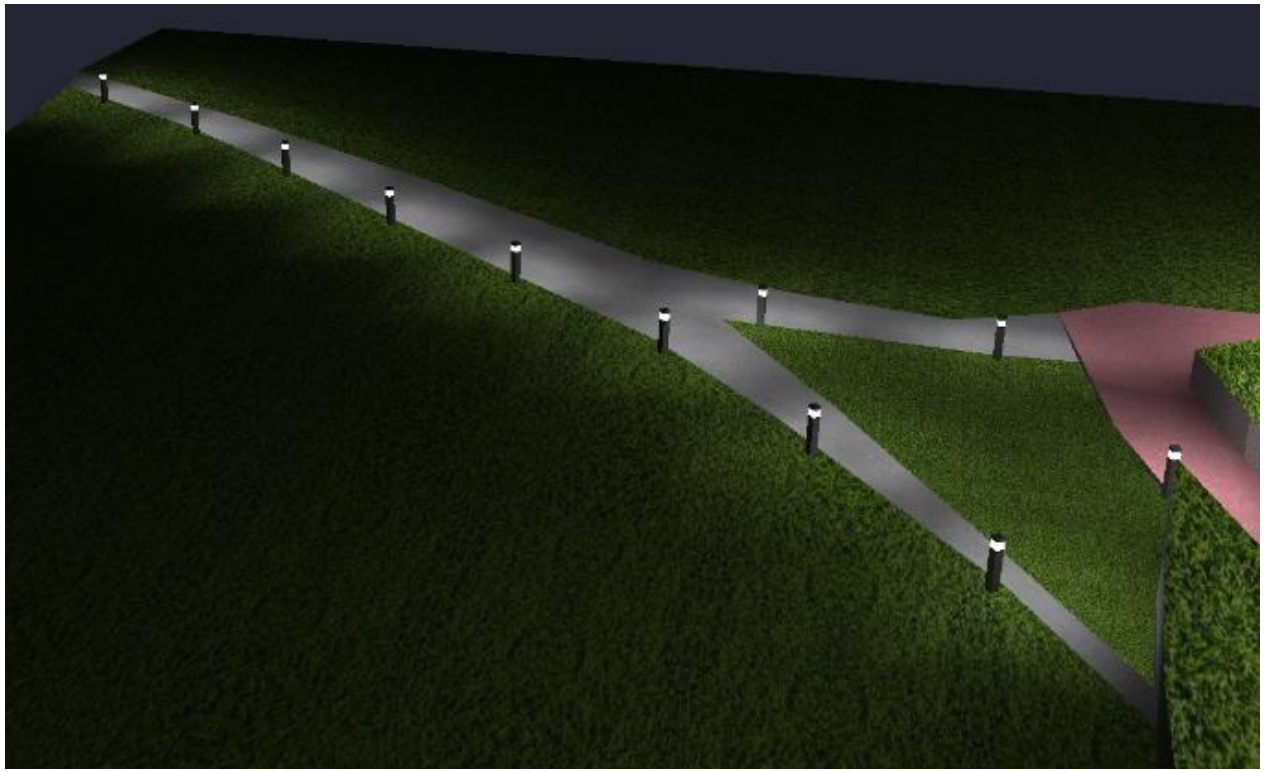


MELTZER CENTER FIELD, WALK, AND PATH – LIGHT PHOTOMETRICS & VIEW



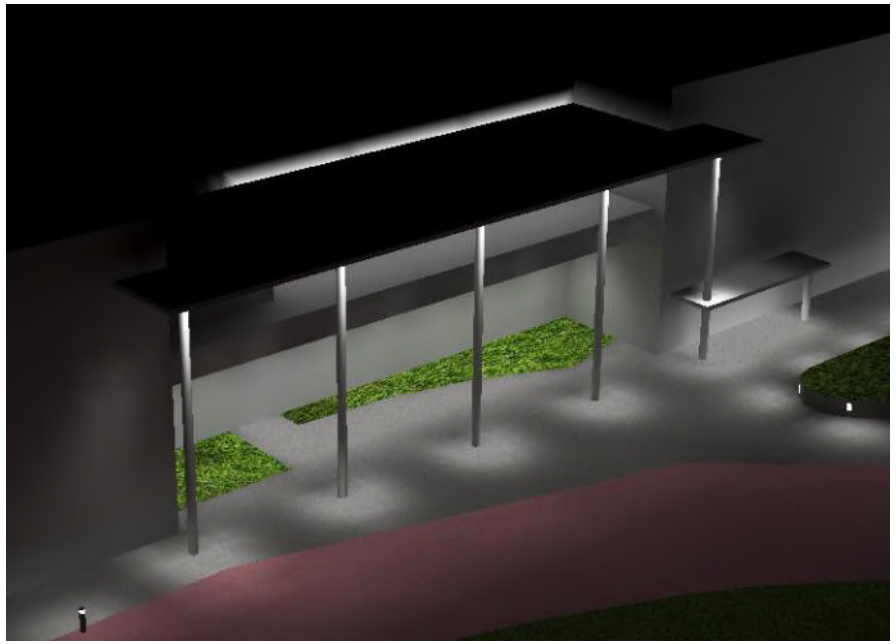
Track

Illuminance (Fc)
Average = 2.21
Maximum = 5.5
Minimum = 0.3



Neighbor Path

Illuminance (Fc)
Average = 2.00
Maximum = 4.3
Minimum = 0.2



Building Entry

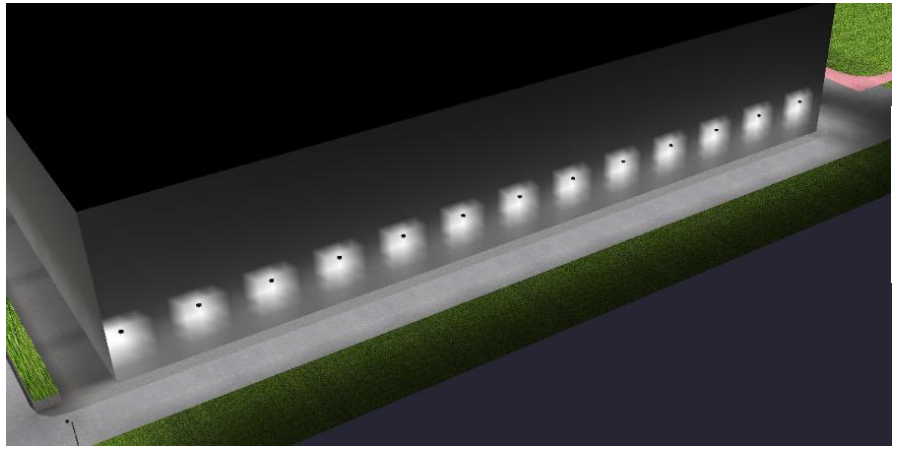
Illuminance (Fc)
Average = 7.84
Maximum = 12.4
Minimum = 2.5

Building Facade

Illuminance (Fc)
Average = 3.71
Maximum = 8.5
Minimum = 1.1

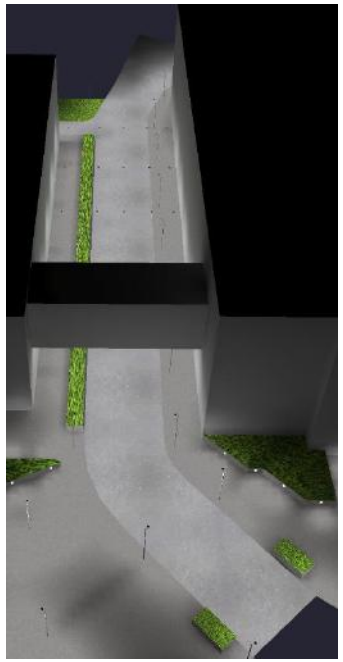
Plaza

Illuminance (Fc)
Average = 2.53
Maximum = 7.8
Minimum = 0.1



Service Road

Illuminance (Fc)
Average = 5.21
Maximum = 7.5
Minimum = 1.3



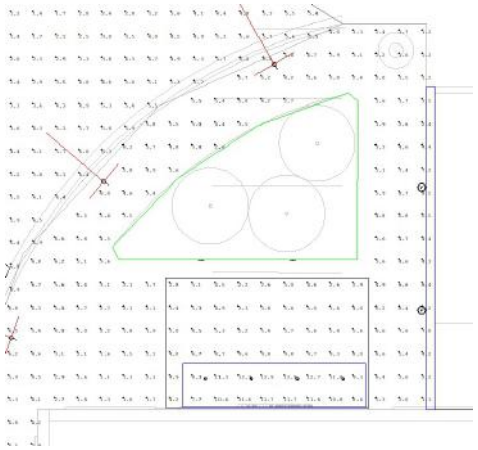
Main Road

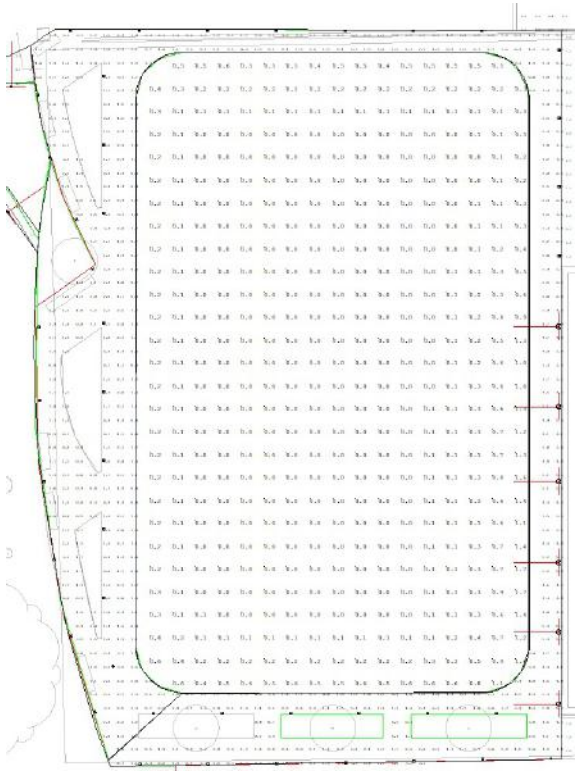
Illuminance (Fc)
Average = 7.90
Maximum = 12.4
Minimum = 1.3

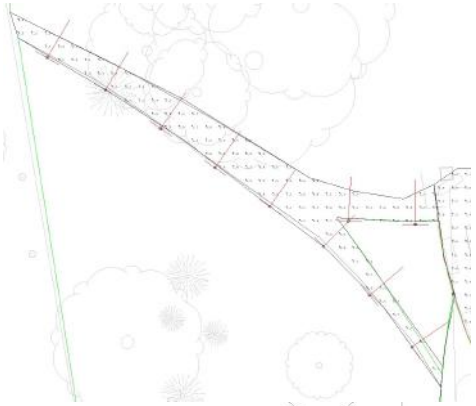
SCAN Entry

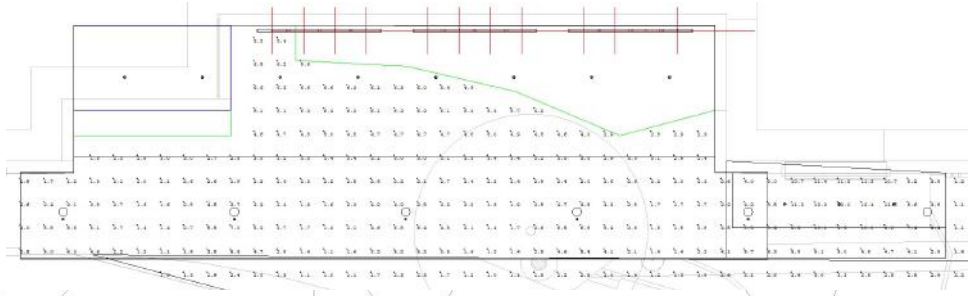
Illuminance (Fc)
Average = 6.94
Maximum = 12.9
Minimum = 2.1

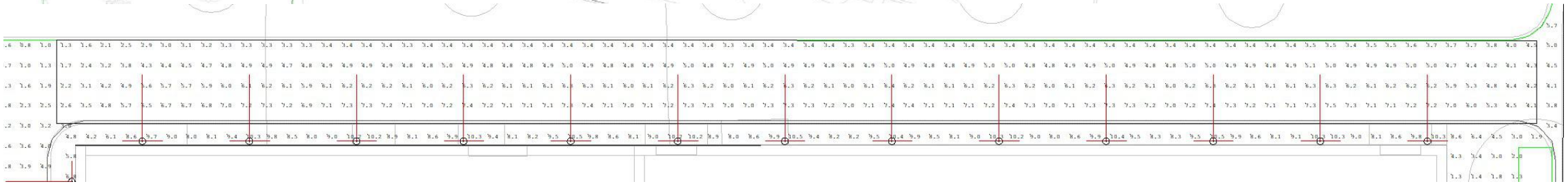
NOTE: No under bench lighting shown at tiered seating





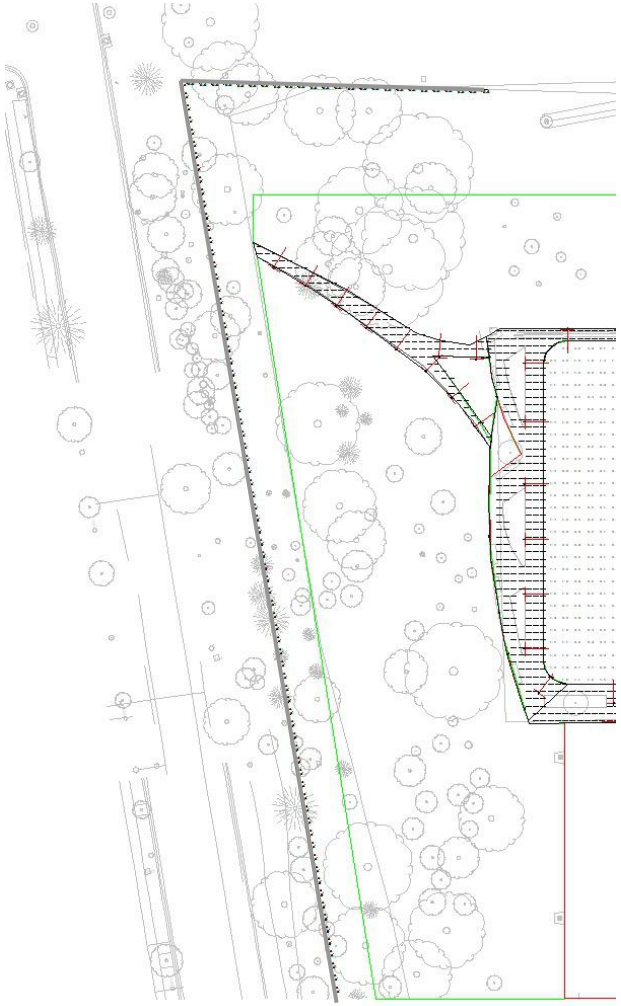






FULL REPORT WITH ALL PHOTOMETRICS TO BE POSTED ON AUNP FORUM

UNIVERSITY AVENUE PROPERTY LINE LIGHT CALCULATIONS



Field Lights OFF

Obtrusive Light - Compliance Report

LEED v4, LZ2 - Moderate Ambient Lighting
Filename: Site
2/23/2023 3:30:40 PM

Illuminance

Maximum Allowable Value: 0.1 Fc

Calculations Tested (2):

Calculation Label	Test Results	Max. Illum.
ObtrusiveLight_Ill_Seg1	PASS	0.0
ObtrusiveLight_Ill_Seg2	PASS	0.0

NOTE: No trees or elevations included in lighting model

PLANT BUFFER DESIGN

Each of the following planting approaches suggests a different palette of plant species based on anticipated growing conditions and microclimates:

Approach #1 – The Evergreen Windbreak

- Primary Benefit: May allow for the eventual maturation of a solid evergreen plant screen.
- Key Considerations: May require clear cutting areas of existing deciduous plantings, in order to create the growing conditions that are suitable for a robust evergreen screen, and the resultant screening may not appear very continuous in the early years after planting.

Approach #2 – The Woodland Understory

- Primary Benefit: Celebrates the existing woodland character of this campus edge by leaving much of the existing planting intact but with selective infill of evergreen understory specimens to densify the visual screening.
- Key Considerations: May not result in a dense solid wall of green but instead leaves intact a mature buffer that provides psychological foregrounding and separation from the campus.

Approach #3 – A Hybrid Approach

- **Primary Benefit: Combines aspects of the first two approaches by being more opportunistic in looking to create dense clusters of new evergreen plantings in gaps in the canopy or where existing trees are aging and/or structurally unsound.**
- **Key Considerations: May not yield a wall of green but may fill some of the existing gaps and windows while preserving a sense of maturity along this campus edge.**

E = Evergreen, D = Deciduous

PLANTING TYPE I TREES

E

THUJA 'GREEN GIANT'

E

MAGNOLIA BRACKEN'S BROWN BEAUTY

E

ILEX X 'NELLIE STEVENS'

E

PICEA ORIENTALIS

PLANTING TYPE II SHRUBS

E

MYRICA PENSYLVANICA

E

VIBURNUM X PRAGENSE

D

HAMAMELIS VIRGINIANA

D

AESCULUS PARVIFLORA

PLANTING TYPE III SMALL SHRUBS

E

AZALEA 'AUTUMN EMBERS'

E

ILEX CRENATA

D

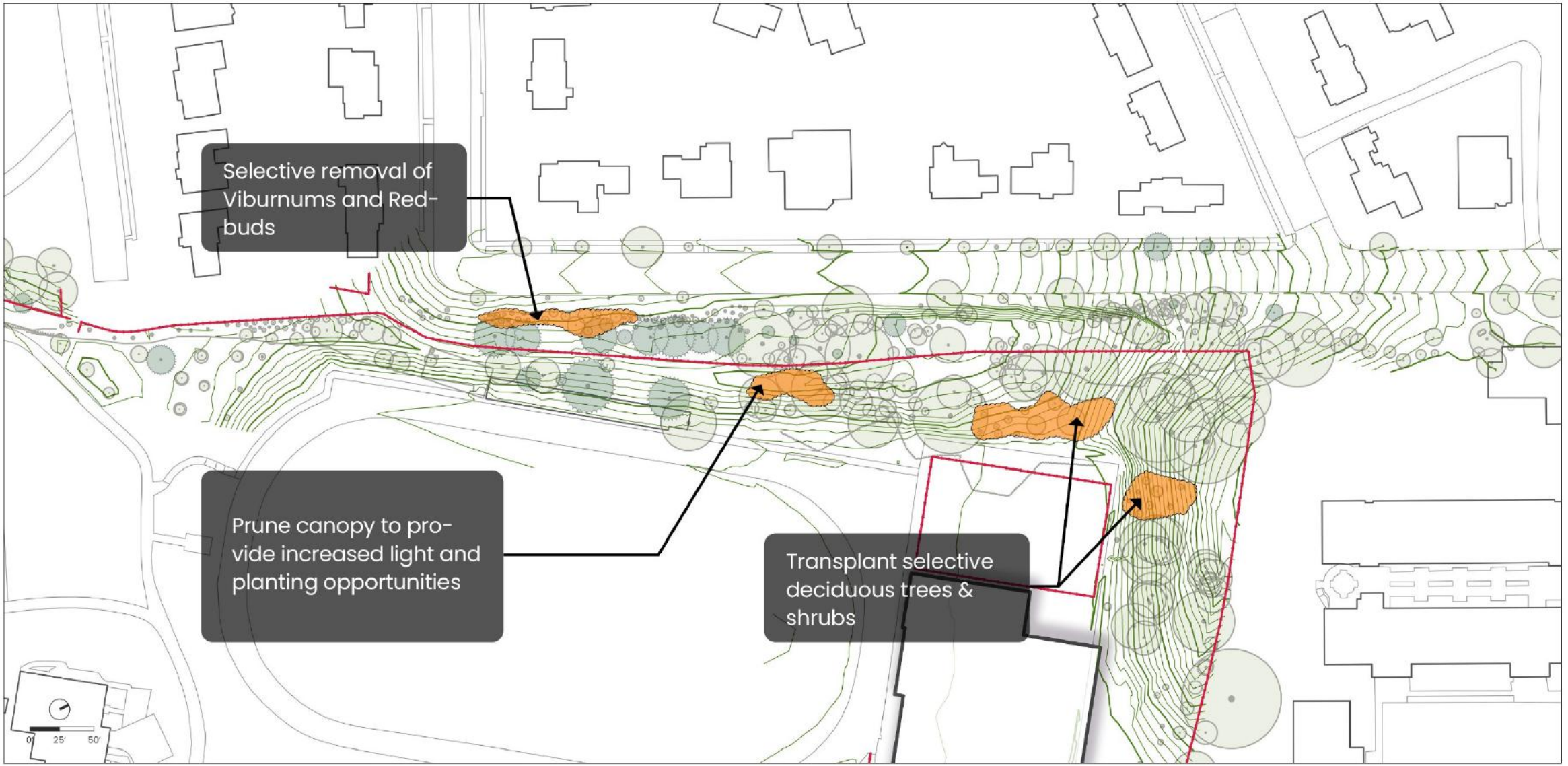
HYDRANGEA QUERCIFOLIA

D

FOTHERGILLA 'BLUE SHADOW'

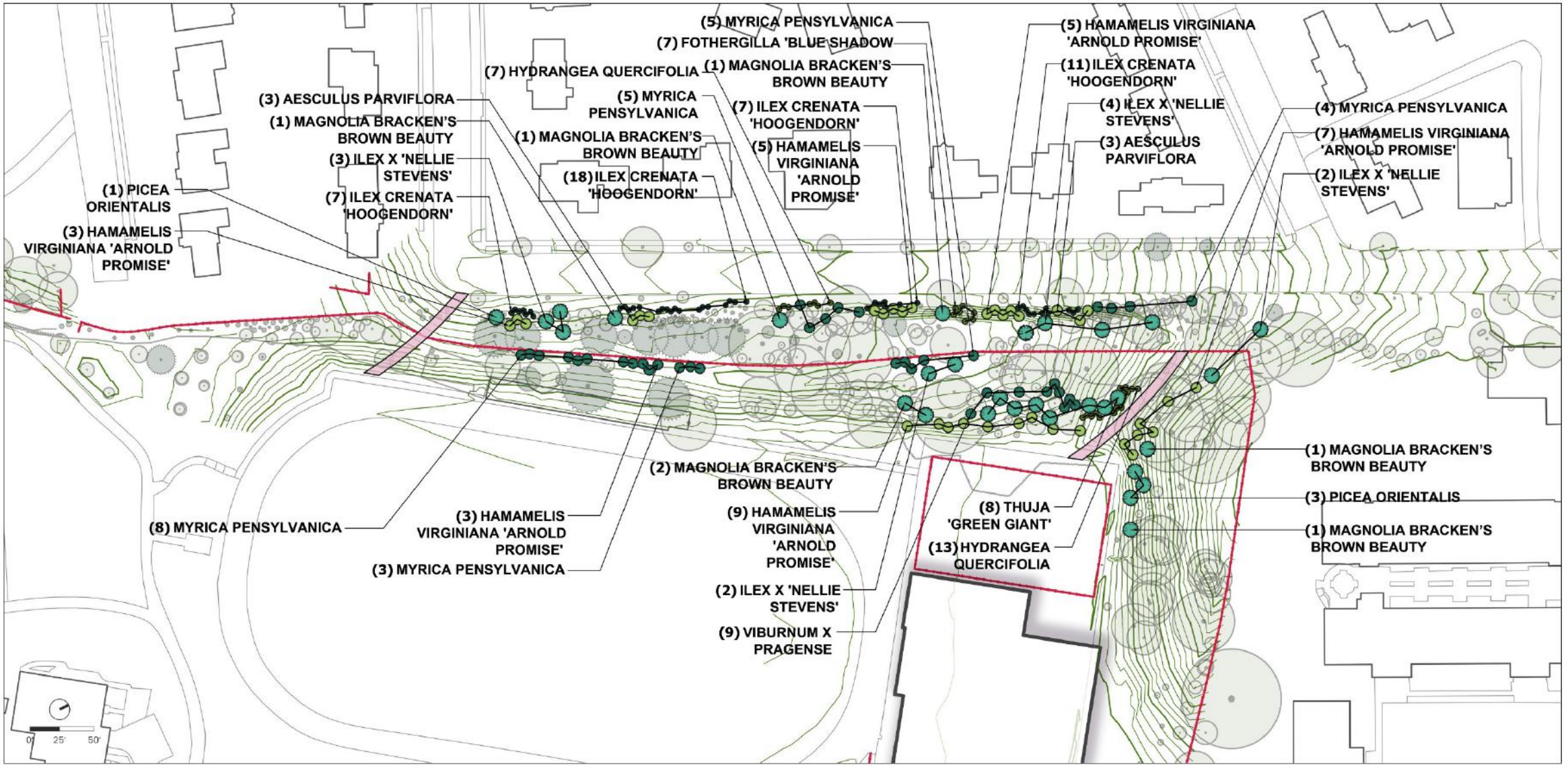
EXISTING CONDITION

DESIGNED TO SUPPLEMENT



SURGERY: REMOVAL, PRUNING AND TRANSPLANTING

DESIGNED TO SUPPLEMENT



Evergreen trees · Deciduous shrubs · Evergreen shrubs · Deciduous, small shrubs · Evergreen, small shrubs

Proposed Mulch Paths

PLANTING PLAN

DESIGNED TO SUPPLEMENT

MELTZER CENTER/SCAN PROJECT – GEO-IMAGING (VIEW 2)

MELTZER CENTER/SCAN PROJECT – GEO-IMAGING (VIEW 3)

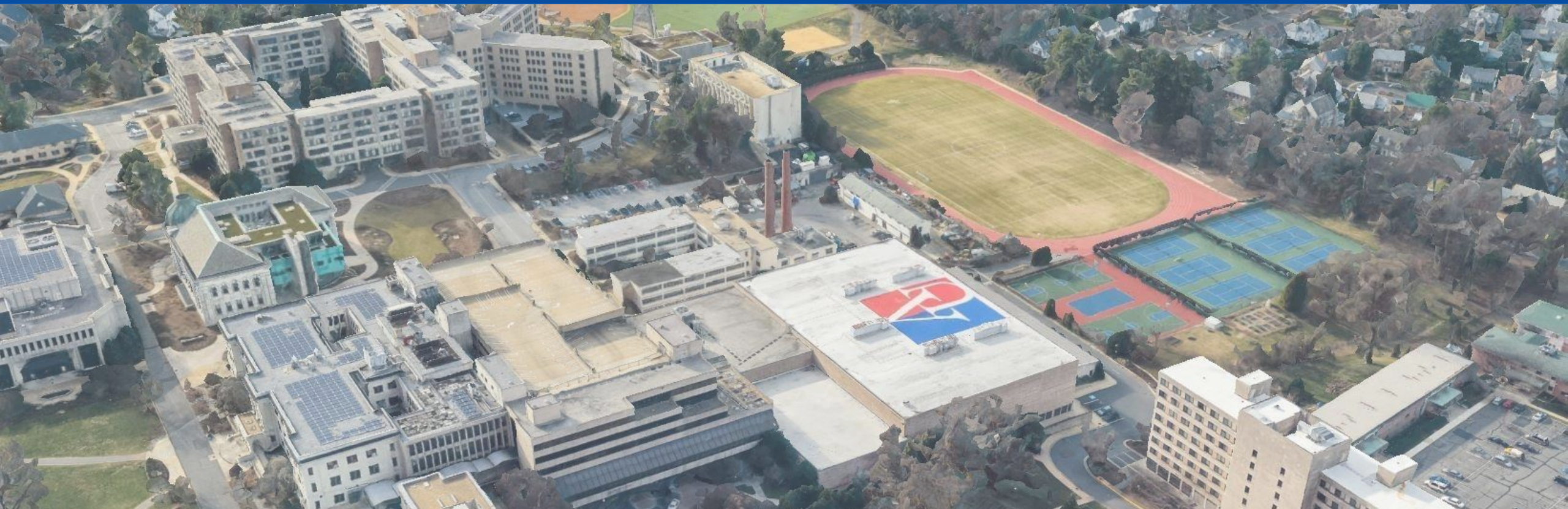
MELTZER CENTER/SCAN PROJECT – GEO-IMAGING (VIEW 4)

MELTZER CENTER/SCAN PROJECT – GEO-IMAGING (VIEW 6)

MELTZER CENTER/ SCAN PROJECT – GEO-IMAGING (VIEW 13)

SCHEDULE REVIEW

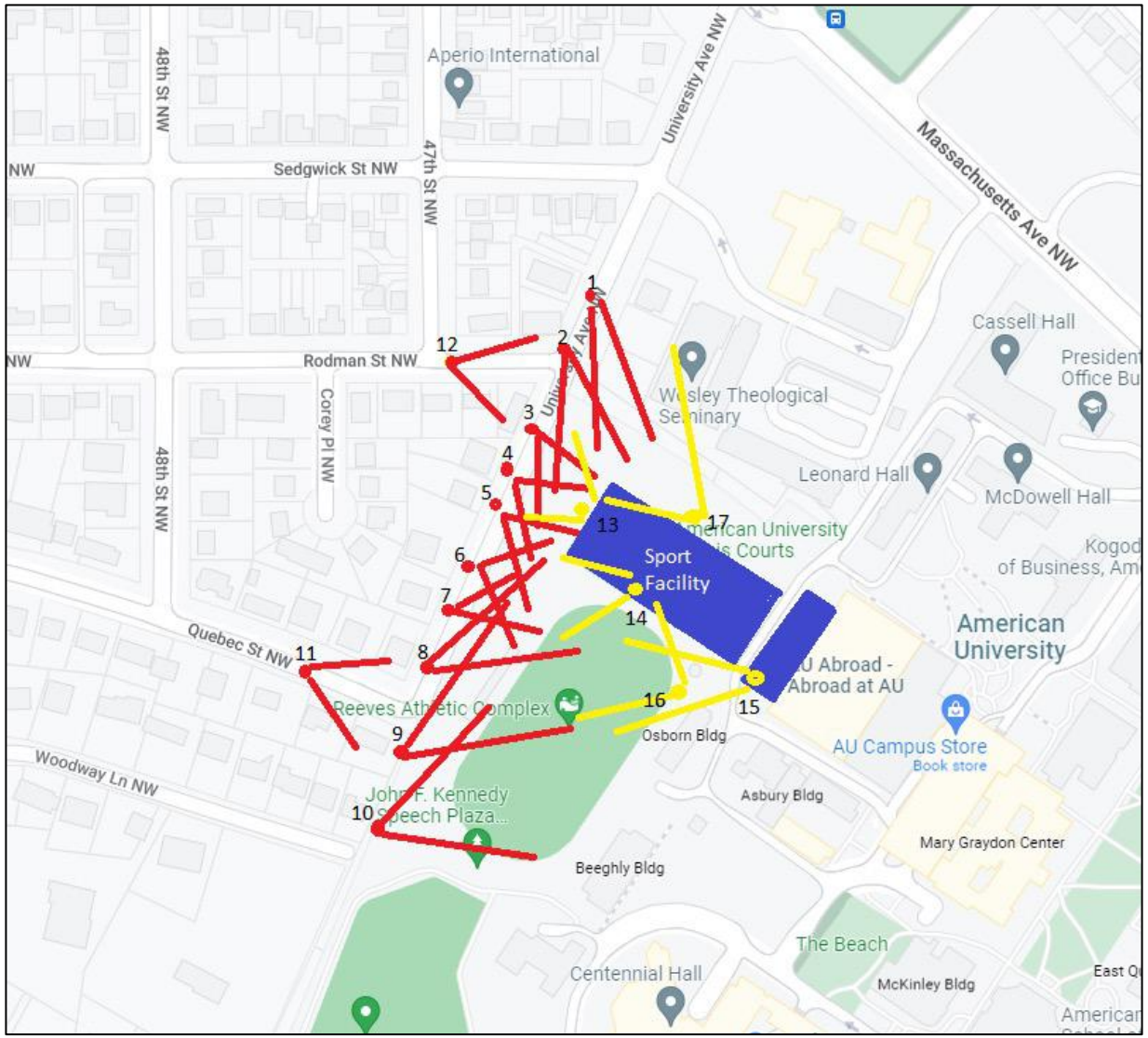
- **12/13:** FPWG meeting.
- **1/18:** Steering Committee meeting.
- **1/24:** FPWG meeting.
- **1/26:** Information forum #1.
- **Late January:** Release of NOI.
- **2/6:** FPWG meeting.
- **2/7:** CLC meeting.
- **2/27:** FPWG meeting.
- **3/1:** ANC 3D.
- **3/2:** Information forum #2.
- **3/9:** ANC 3E.
- **3/15:** FPWG meeting.
- **3/21:** ANC 3A.
- **3/28:** FPWG meeting.
- **4/4:** Steering Committee meeting.
- **Early April:** Filing of FPA.
- **April:** Additional post-FPA filing FPWG meeting(s).
- Formal ANC approval prior to ZC hearing.



APPENDIX

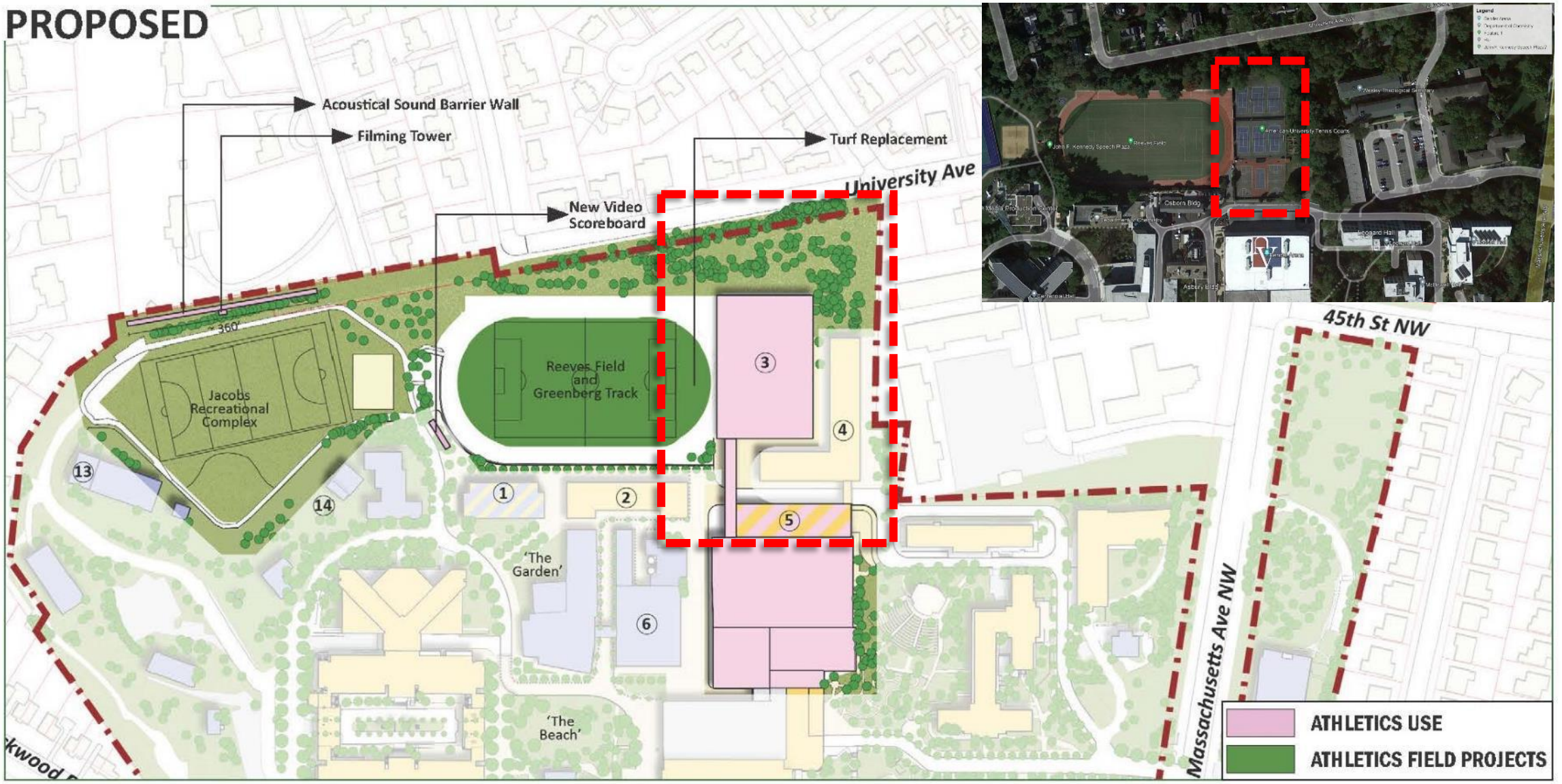
GEO-IMAGING

MELTZER CENTER/ SCAN PROJECT – GEO-IMAGING



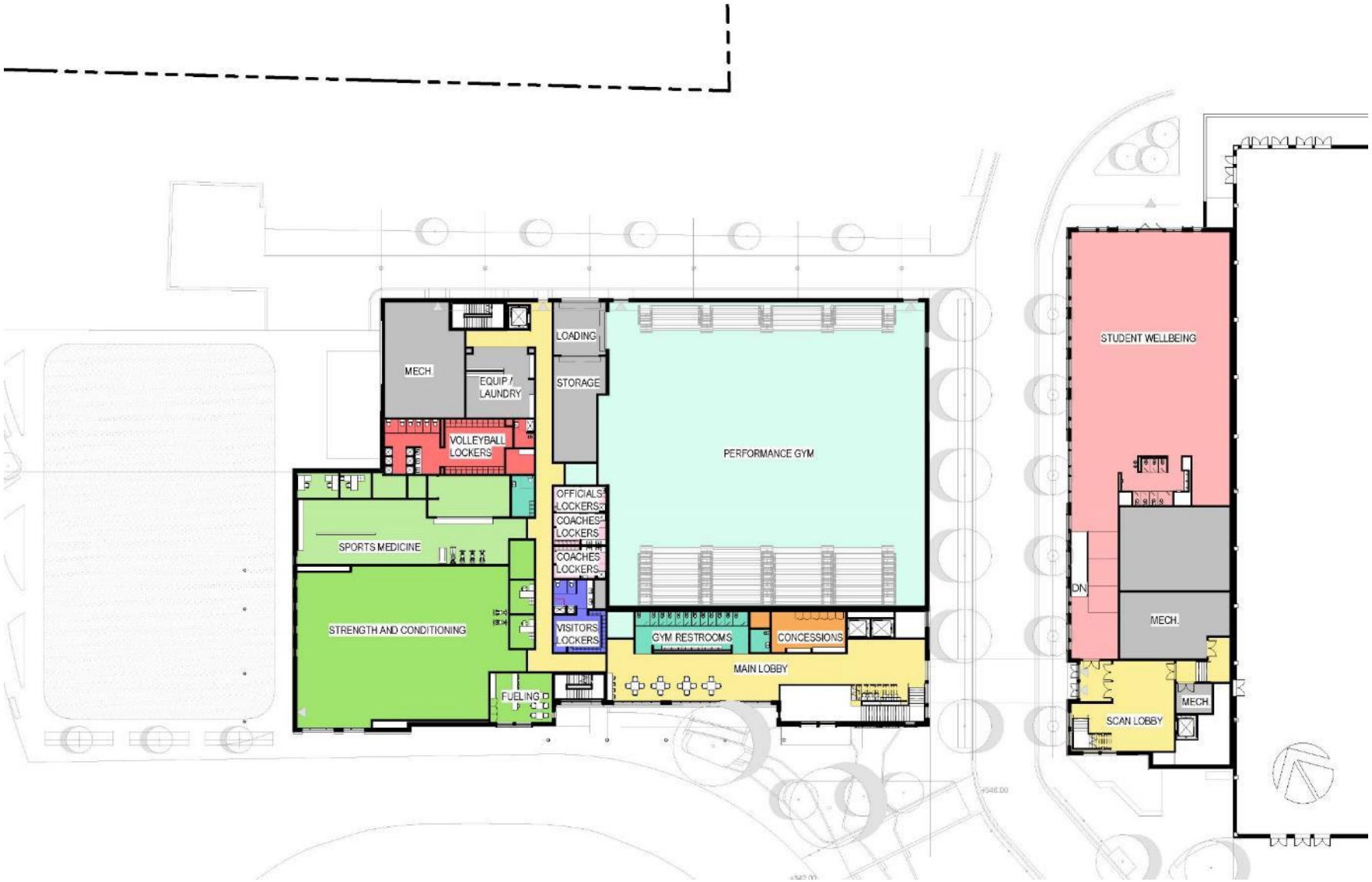
2021 CAMPUS PLAN

MELTZER CENTER/SCAN PROJECT AREA – 2021 CAMPUS PLAN

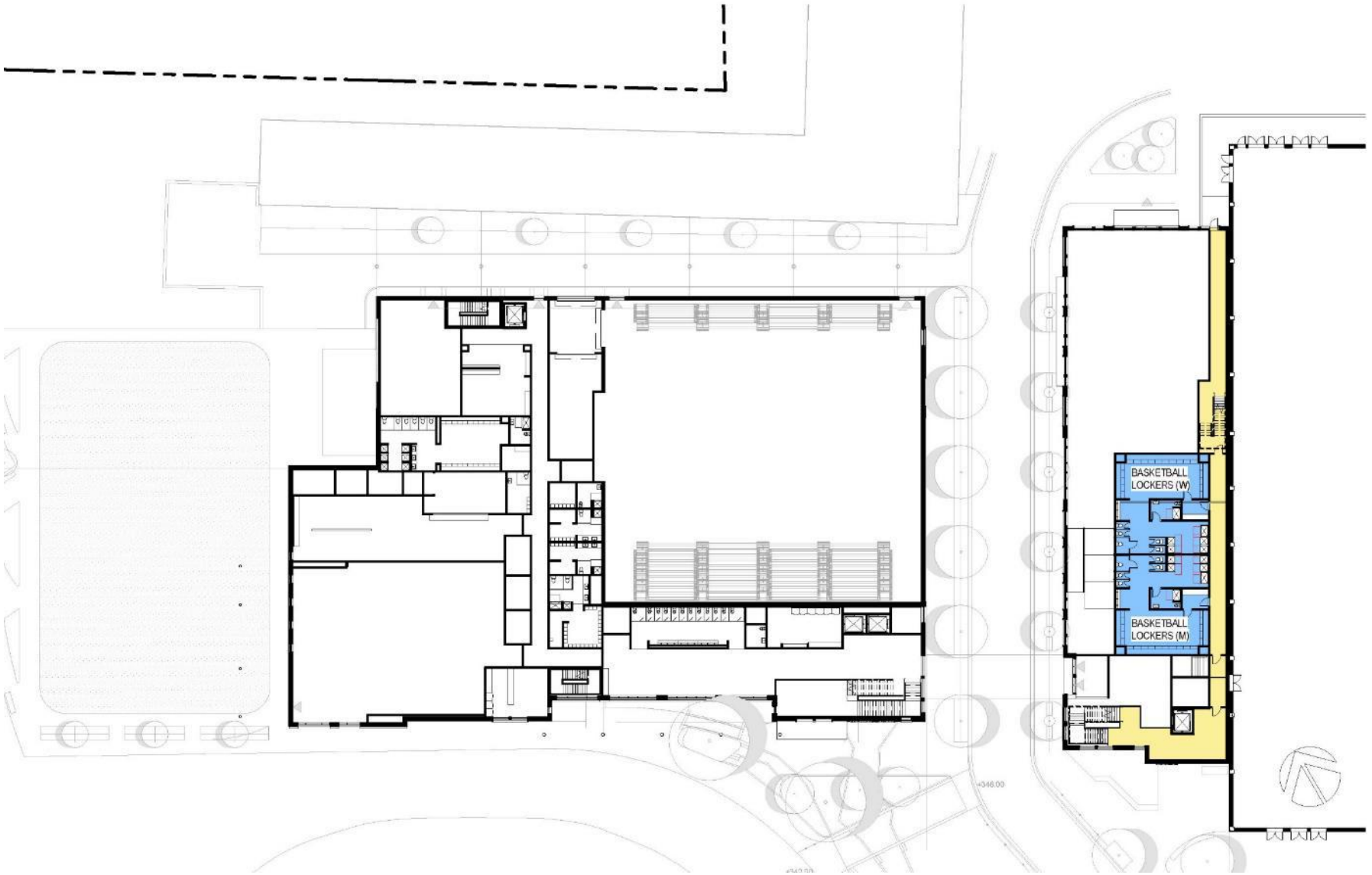


INTERIOR FLOOR PLANS

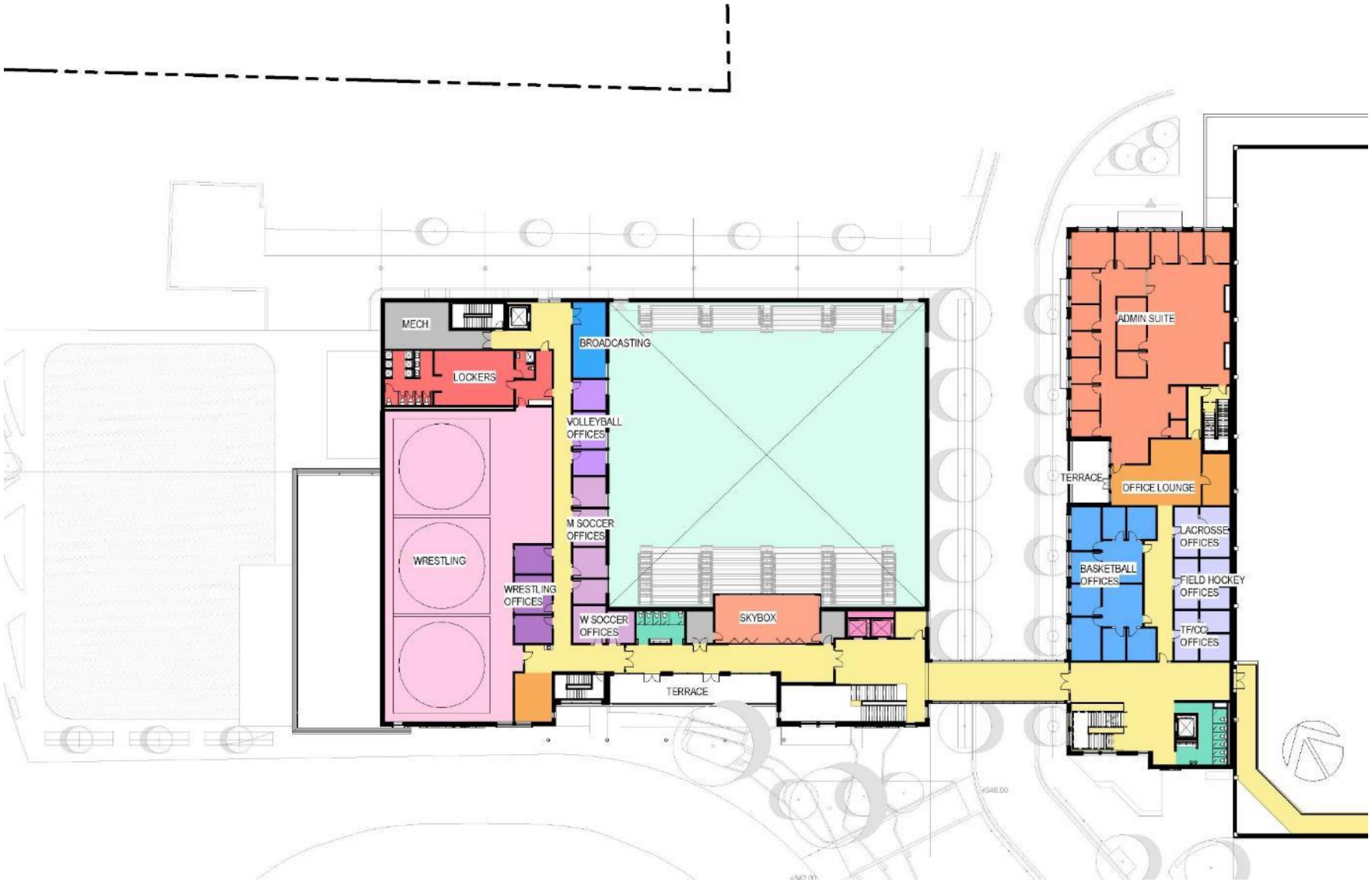
MELTZER CENTER/ SCAN PROJECT – BUILDING PLANS, FIRST LEVEL



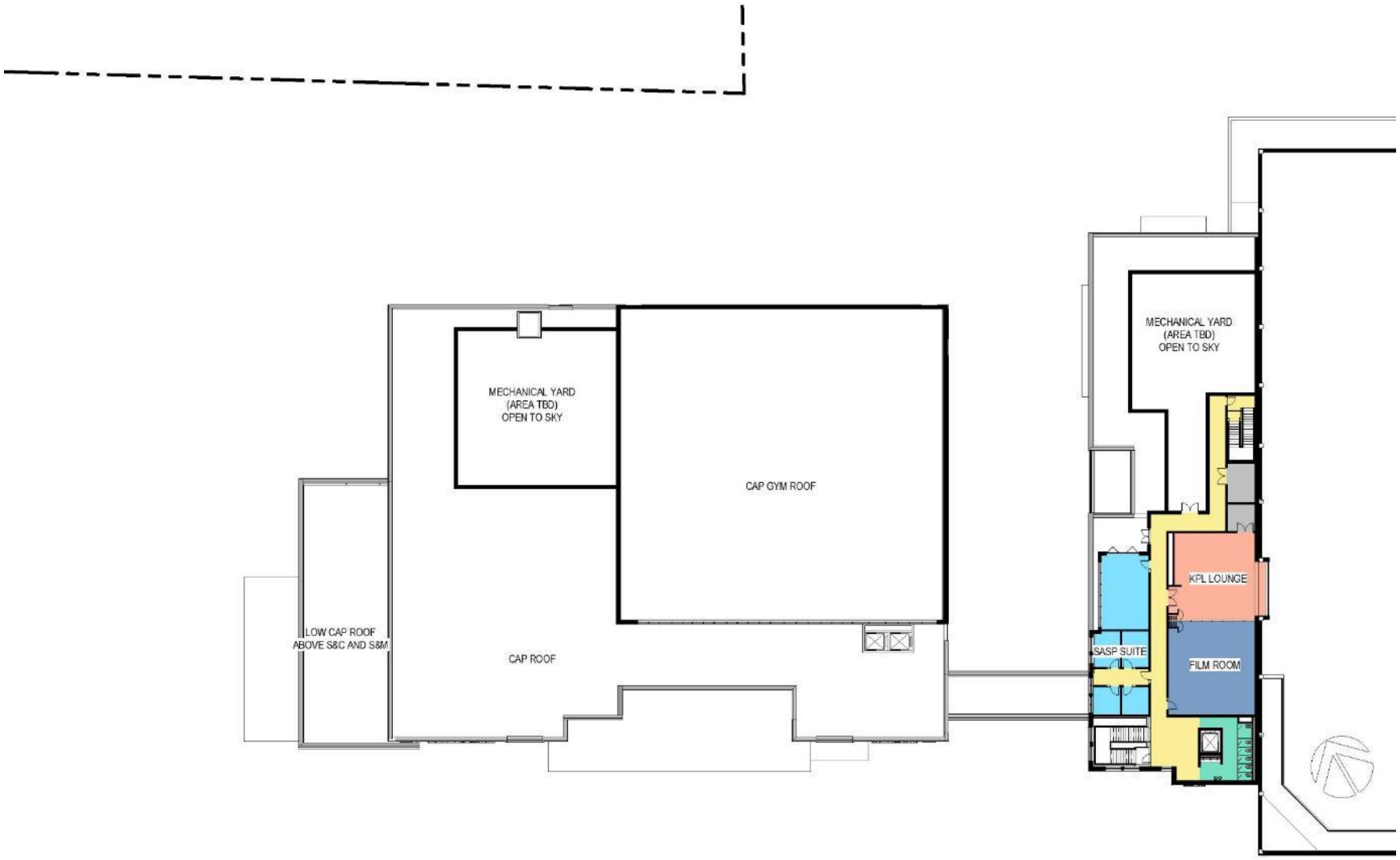
MELTZER CENTER/ SCAN PROJECT – BUILDING PLANS, MEZZANINE LEVEL



MELTZER CENTER/ SCAN PROJECT – BUILDING PLANS, 2ND LEVEL



MELTZER CENTER/ SCAN PROJECT – BUILDING PLANS, 3RD LEVEL



ZONING AND SETBACK ANALYSIS

*APPROVED CAMPUS PLAN VS. SMALLER PROPOSED PLAN

MELTZER CENTER

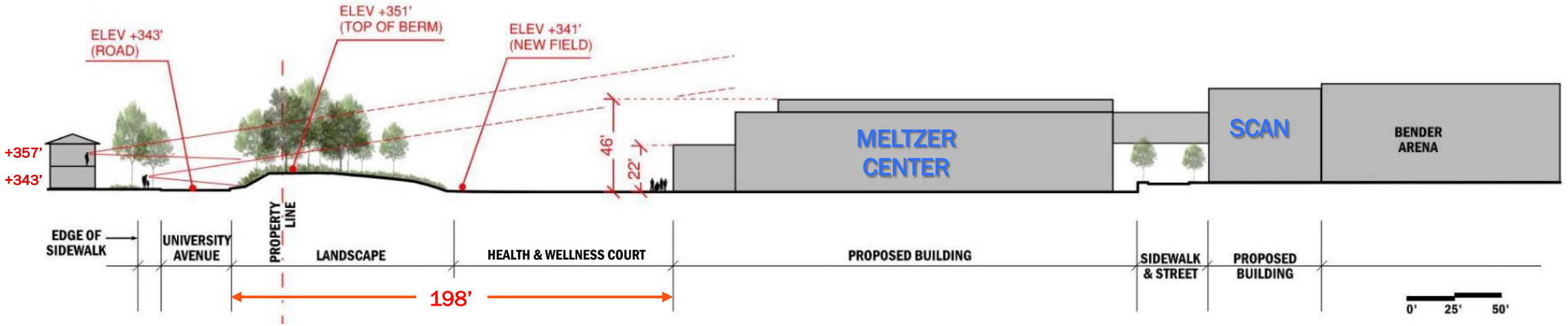
	*APPROVED Campus Plan- Meltzer Center	PROPOSED Meltzer Center
Length	266’	237’
Width	180’	160’
Height	3 Stories (Up to 60’)	48’
Size (GFA)	75,000 GFA	52,862 GFA
Closest Distance to Univ. Ave.	110’	180’-200’

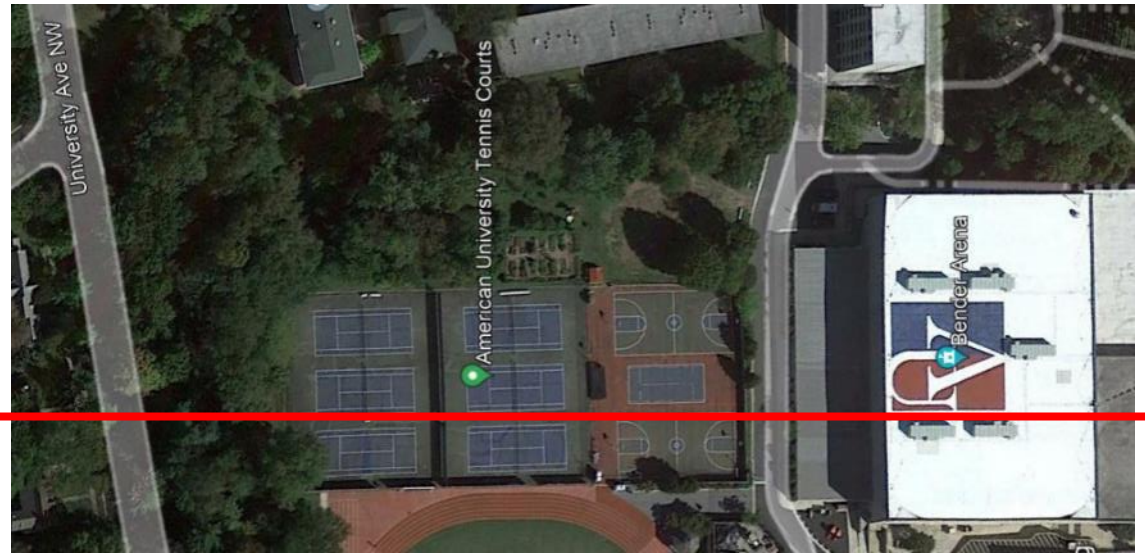
SCAN

	*APPROVED Campus Plan- SCAN	PROPOSED SCAN
Length	236’	208’
Width	40’	40’
Height	5 Stories (up to 60’)	51’
Size (GFA)	55,000 GFA	35,610 GFA

*Per approved Campus Plan: Final lengths and widths to be determined as part of Further Processing.

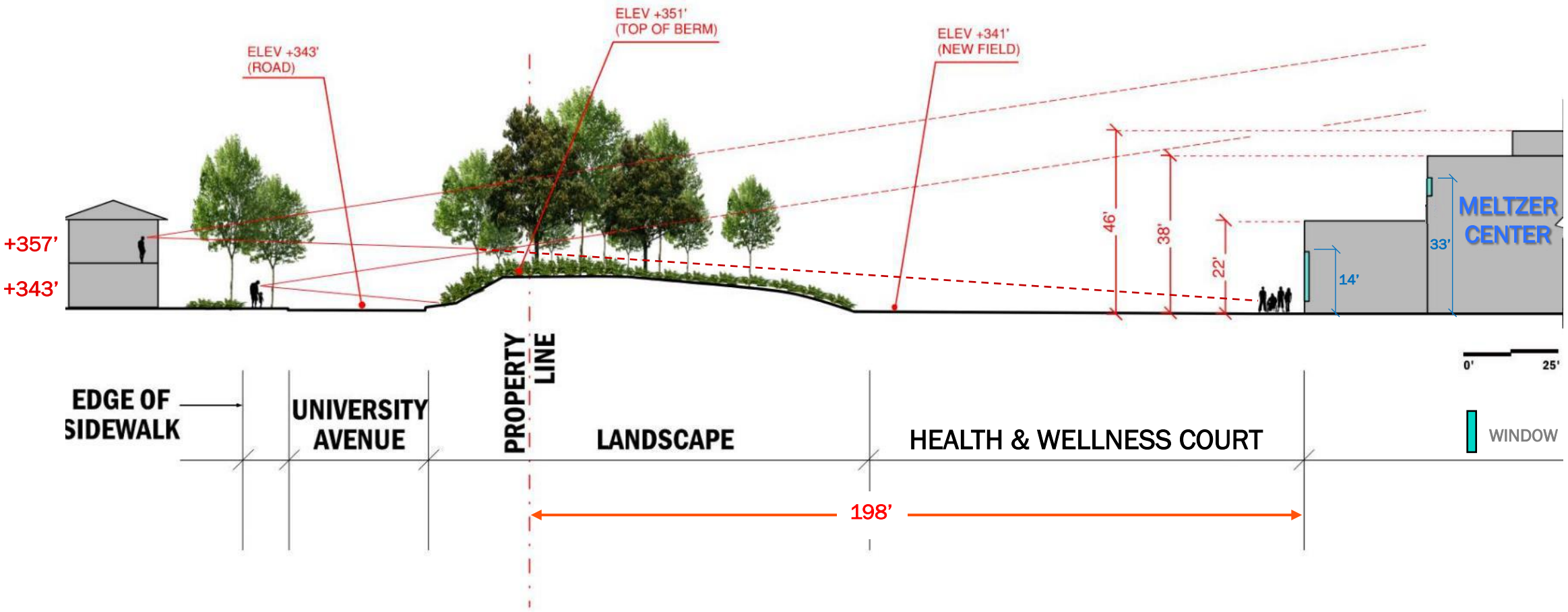
MELTZER CENTER/ SCAN PROJECT – SITE SECTION @ UNIV. AVE.





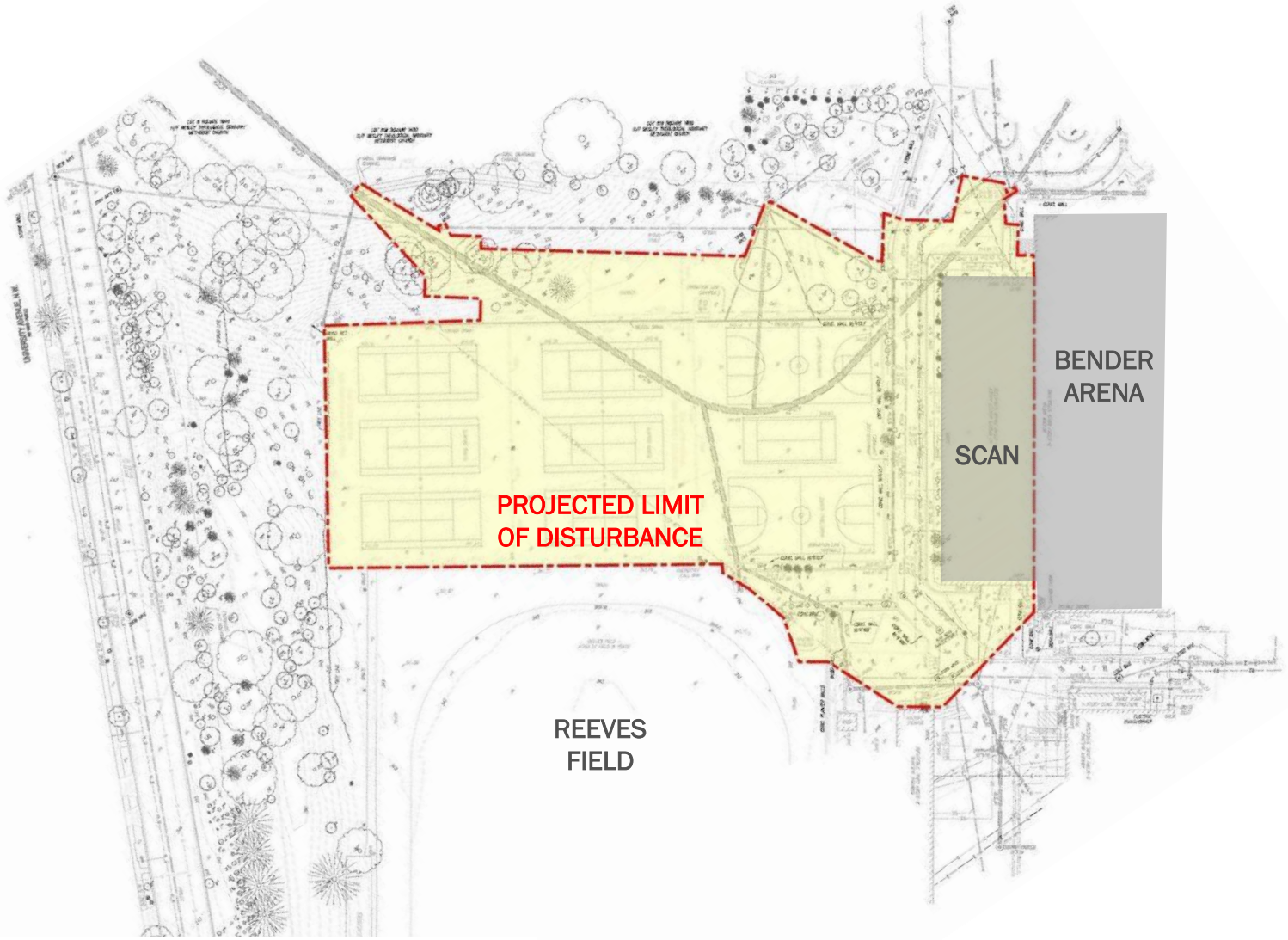
KEY PLAN

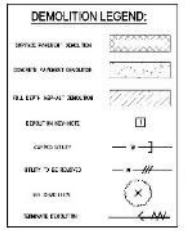
MELTZER CENTER/ SCAN PROJECT – SITE SECTION DETAIL



LIMIT OF CONSTRUCTION PLAN

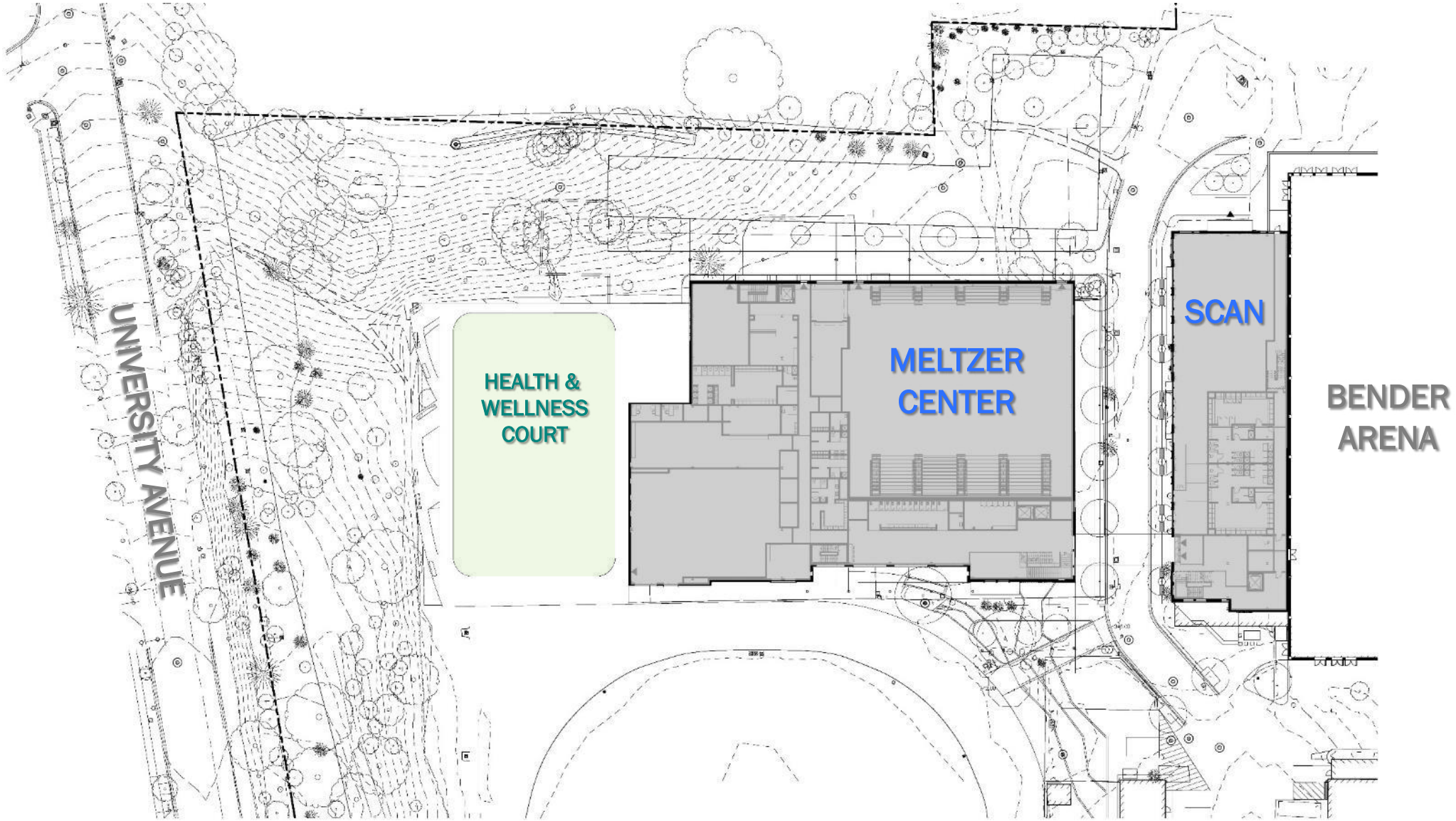
MELTZER CENTER/ SCAN PROJECT – LIMIT OF CONSTRUCTION





HEALTH AND WELLNESS COURT

MELTZER CENTER/ SCAN PROJECT – PROPOSED SITE PLAN



HEALTH AND WELLNESS COURT

- What it is:
  - An area where athletes recovering from injuries will perform stretching and other related activities.
  - An area where groups of athletes will perform motion and movement exercises such as sprints.
  - An area where small groups (e.g. 3 vs. 3) of soccer players will play pick up games.
  - An area that is ~17,500 SF (as compared to typical soccer field size of ~80,000 SF).
  - An area that will be accessible to neighbors when not in use by AU.
- What it is not:
  - An area where events with spectators will take place.
  - An area where field hockey games will happen.
  - An area where concerts will occur.
  - An area with exterior lighting (other than what may be needed for safety and security).