

Kenneth Moore
Architectural Engineering – Lighting/Electrical
September 8, 2014

University of Maryland – Baltimore
Health Sciences Facility III
Tech Report 1, Part 1 Lighting Proposal Memo

Circulation Space - Atrium

Refer to A121E LEVEL ONE FLOOR PLAN EAST and A121W LEVEL ONE FLOOR PLAN WEST

Room 1001: Lobby/Gathering Space

The main atrium will be a suitable space to implement the psychological counterpart system of Spaciousness versus Closure. Since the atrium is 7 stories in height, it will be an interesting challenge to make such a large space seem a pleasing, ambient space. The seventh floor has a series of coves, which will need to be adequately lit to be visible from the ground floor, while not visible from an angle outside of the building .

Outdoor Space + Building Facade

Refer to L101 LANDSCAPE PLAN, L201 PLANTING DETAILS & NOTES, L202 GREEN ROOF PLANTING PLAN, L203 GREEN ROOF PLANTING PLAN

I plan to use the majority of the outdoor space in my lighting design. There are multiple green roofs that can be seen in the planting plans. The majority of the site lighting will have to be integrated into the landscaping, some of which will need to showcase the façade of the building. There is also a large overhang space under the dry lab tower. This will require recessed outdoor lighting fixtures to be integrated into the first story ceiling.

Large Work Space

Refer to A121E LEVEL ONE FLOOR PLAN EAST and A121W LEVEL ONE FLOOR PLAN WEST

Rooms 1140 and 1130: Nanomedicine PDoc/GS/TECH Workstation

The large work space on the first floor is predominantly a workstation space. I will conduct lighting studies of the most appropriate design applicable to the desk height and intended layout. This will most likely result in evenly spaced recessed troffers or equally spaced pendant fixtures.

Special Purpose Space – Large Conference Room

Refer to A121E LEVEL ONE FLOOR PLAN EAST

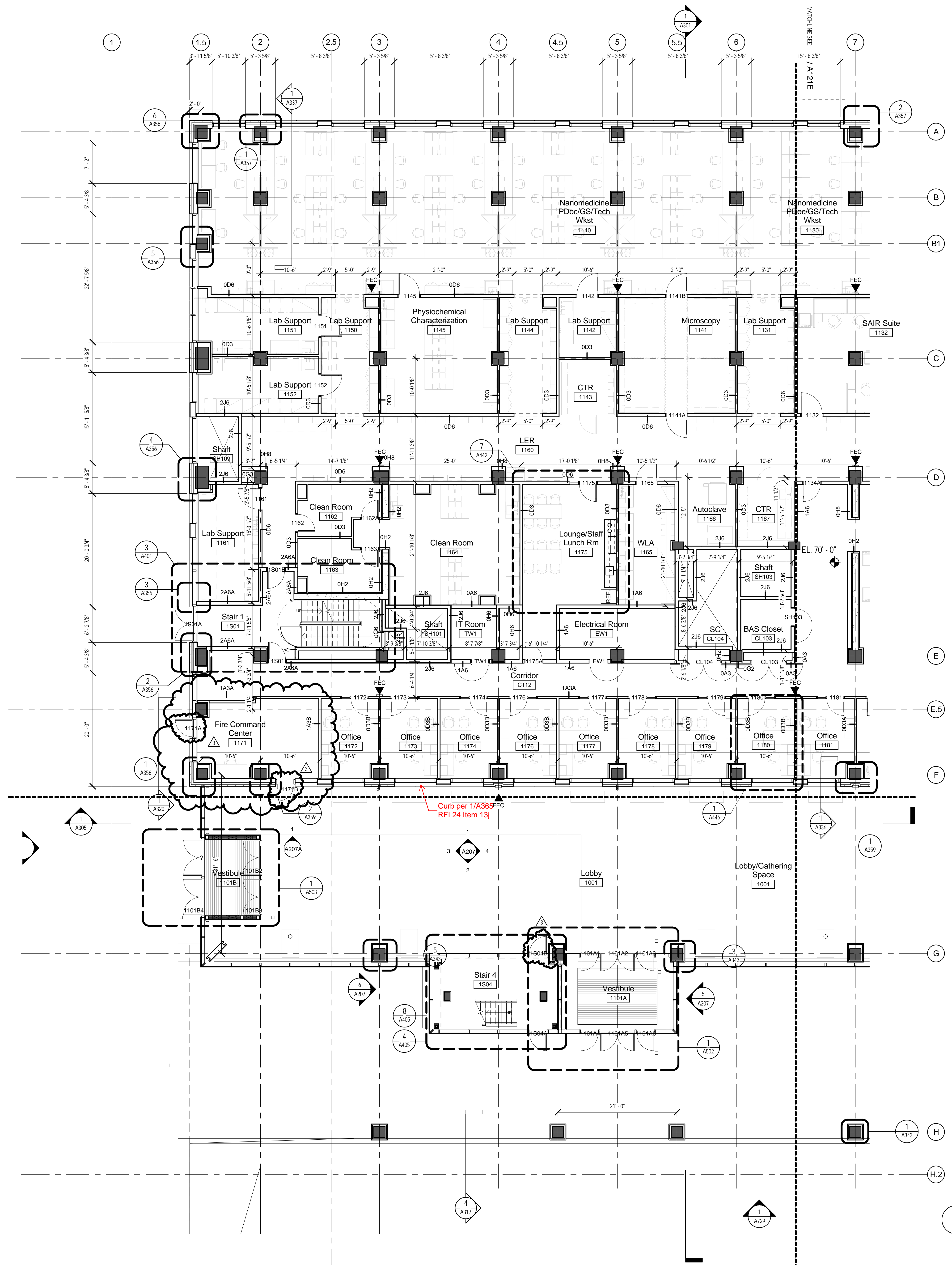
Room 1010: Meeting Room

There are many conference rooms in this section of the building, however this one is located on the first floor with the majority of the room consisting of curtain walls. This means that the

lighting design of the outdoor space must not interfere with the conference room lighting, and vice versa. This will be an important study in reducing glare and maximizing daylighting potential. The large conference room will be a suitable space for the three schematic design concepts. I would like to integrate this room into the surrounding landscape of the outdoor space which can be seen upon entering the space from the elevator lobby. My initial thoughts include cove lighting in the conference room ceiling and around the north wall of the room.

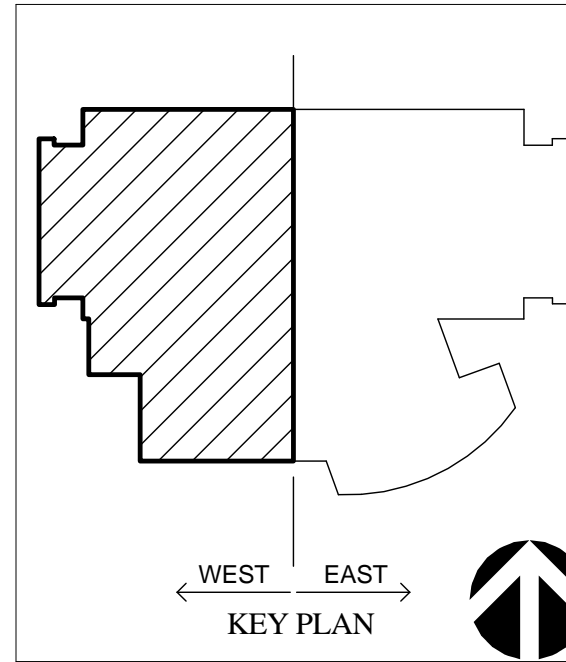
EAST/WEST FLOOR PLAN NOTES

- WHERE INDICATED ON THESE PLANS, LABORATORY CASEWORK AND FURNITURE ARE SHOWN FOR REFERENCE ONLY. SEE THE LAB FURNISHING PLANS AND FURNITURE PLANS FOR LAYOUTS, DIMENSIONS, DETAIL KEYS AND OTHER INFORMATION.
- REFER TO SHEET A519 FOR DETAILS AT TYPICAL INTERIOR COLUMNS NOT INCLUDED IN ENLARGED PLAN DETAILS.
- REFER TO SHEET A540 FOR DETAILS AT WALL BASES AND THRESHOLDS.
- REFER TO ENLARGED FURNITURE PLANS A800LBA TO A816 FOR LOCATIONS OF FLOOR BOXES.
- REFER TO SHEETS A160LB THROUGH A171 FOR FINISH PLANS THAT COORDINATE WITH FINISH SCHEDULE.
- PROVIDE ELECTROMAGNETIC AND/OR LEAD SHIELDING AS REQUIRED BY THE PROJECT SPECIFICATIONS.
- REFER TO THE SPECIFICATIONS FOR FIRE EXTINGUISHER REQUIREMENTS IN BACK OF HOUSE AREAS.



1 FLOOR PLAN - LEVEL 01 WEST
1/8" = 1'-0"

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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. _____
EXPIRATION DATE: _____

REGISTRATION / STAMP

PROJECT TITLE:
HEALTH SCIENCES FACILITY III

UMB BUILDING NO.: HSF III
UMB PROJECT NO.: 11-385
A/E PROJECT NO.: 12.14006.00
CAD FILE NO.:
DATE: 07/25/2014
DONOR NAME:

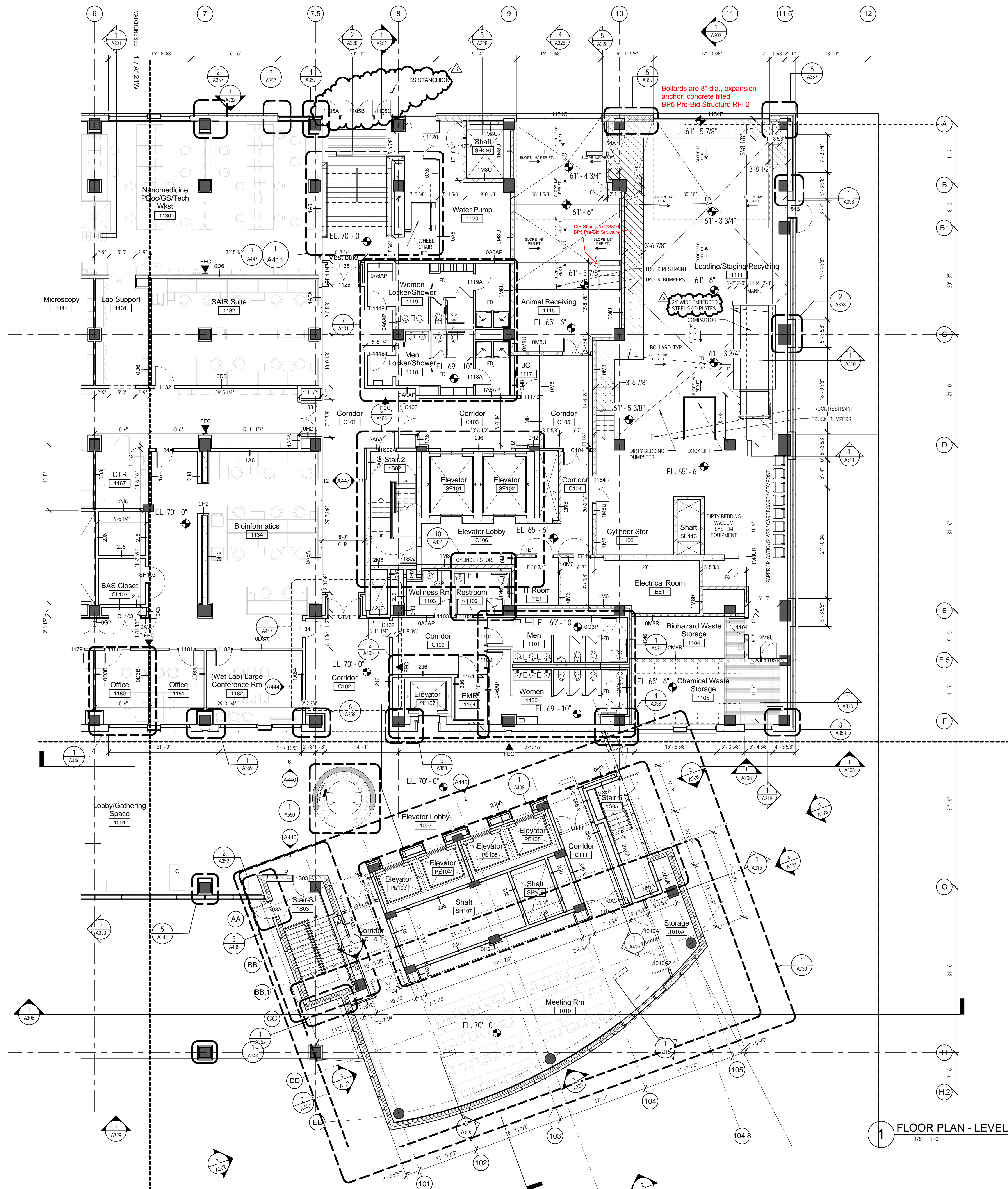
SHEET TITLE:
LEVEL ONE FLOOR PLAN - WEST

Revisions		
No.	Date	Item
1	05/08/14	Addendum 4
2	6/13/14	Bulletin 9
3	7/25/14	Bulletin 10

SHEET NO.
A121W

EAST/WEST FLOOR PLAN NOTES

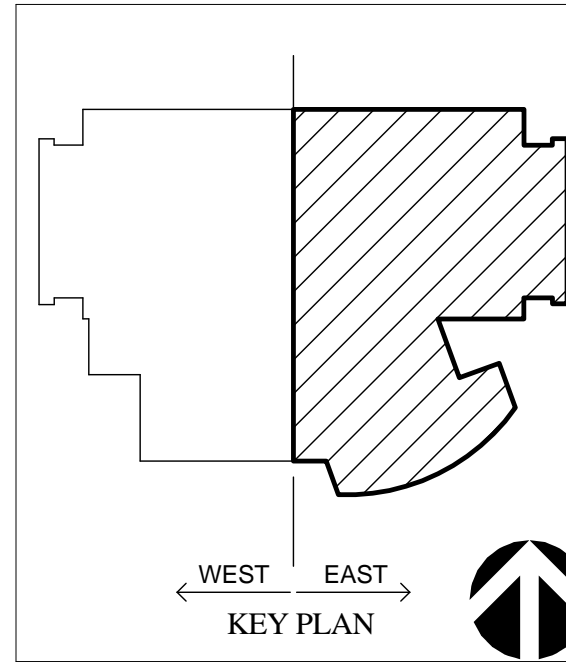
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1 FLOOR PLAN - LEVEL 01 EAST
1/8" = 1'-0"



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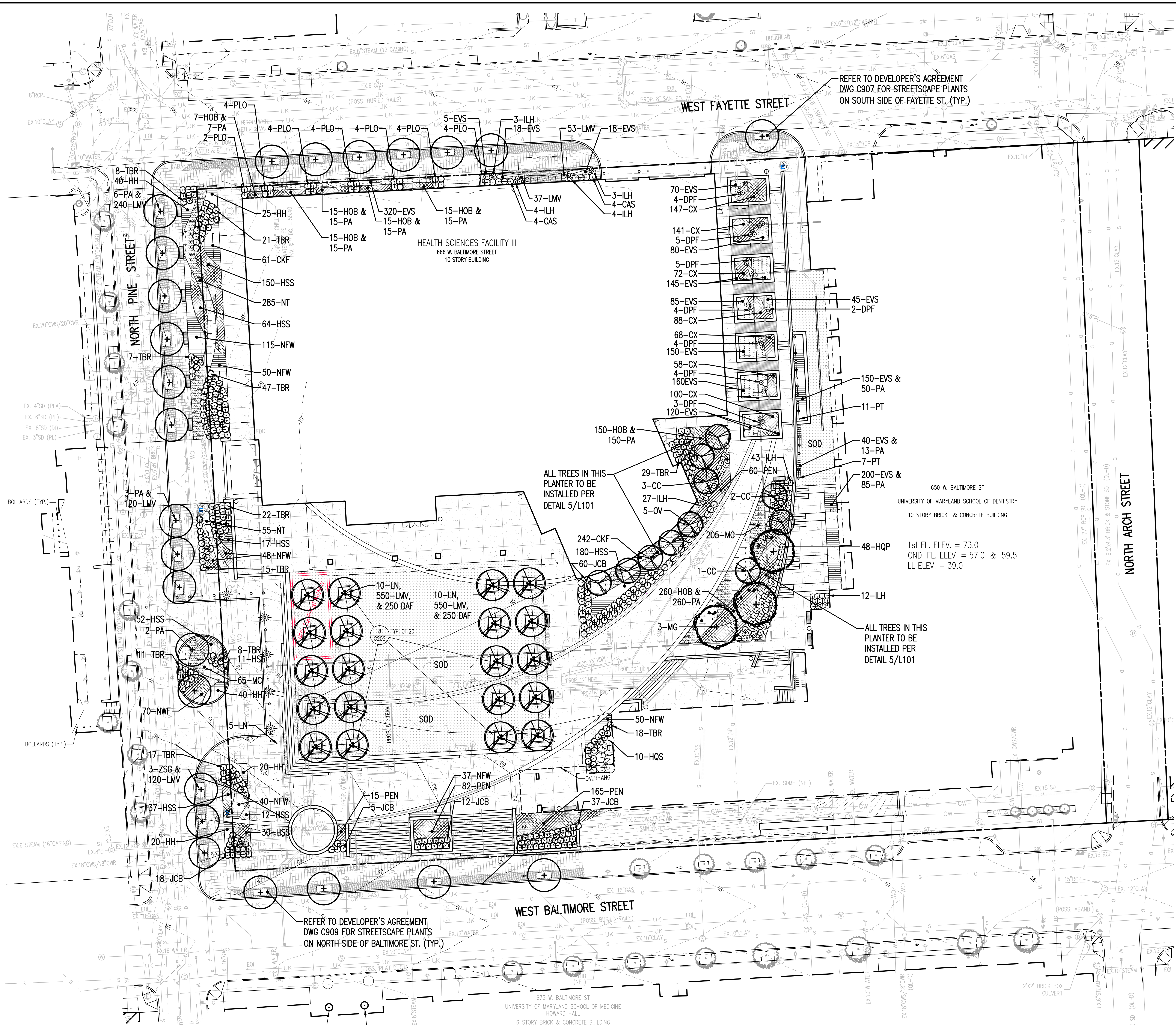
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LEVEL ONE FLOOR PLAN - EAST

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No.	Date	Item
1	04/18/14	Addendum 3
2	05/08/14	Addendum 4
3	6/13/14	Bulletin 9
4	6/13/14	Addendum 5
5	7/25/14	Bulletin 10

SHEET NO.
A121E

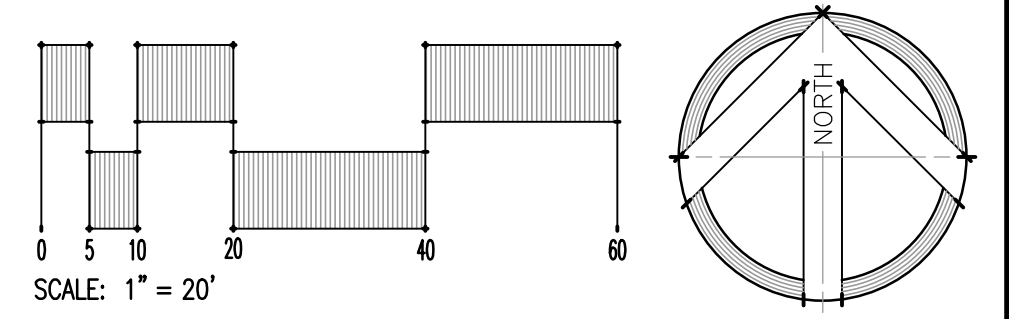
REVISIONS		
NO.	DATE	ITEM



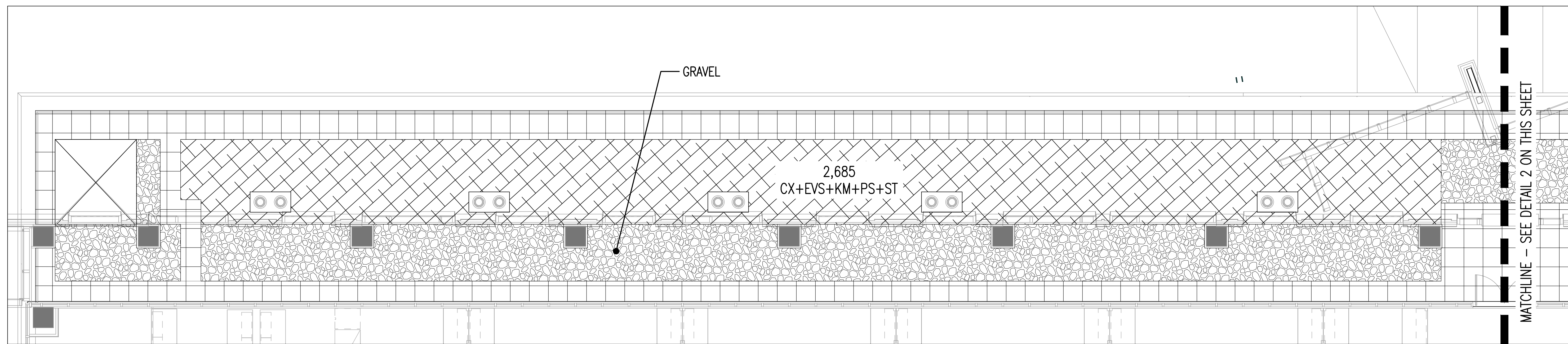
LEGEND

PROPERTY LINE	PROPOSED WALK	PROPOSED SHADE TREE	PROPOSED SHRUBS/GRASSES/PERENNIALS/GROUNDCOVERS
EXISTING TREES	PROPOSED HEAVY DUTY PAVEMENT	PROPOSED MULTI-STEM TREE	PROPOSED SOD
EXISTING SHRUBS	LIMIT OF PROPOSED BELOW FINISH GRADE	PROPOSED ORNAMENTAL TREE	
EXISTING WALK	PROPOSED BUILDING	PROPOSED SHRUBS	
EXISTING ROAD			
EXISTING CURB			
EXISTING BUILDING			

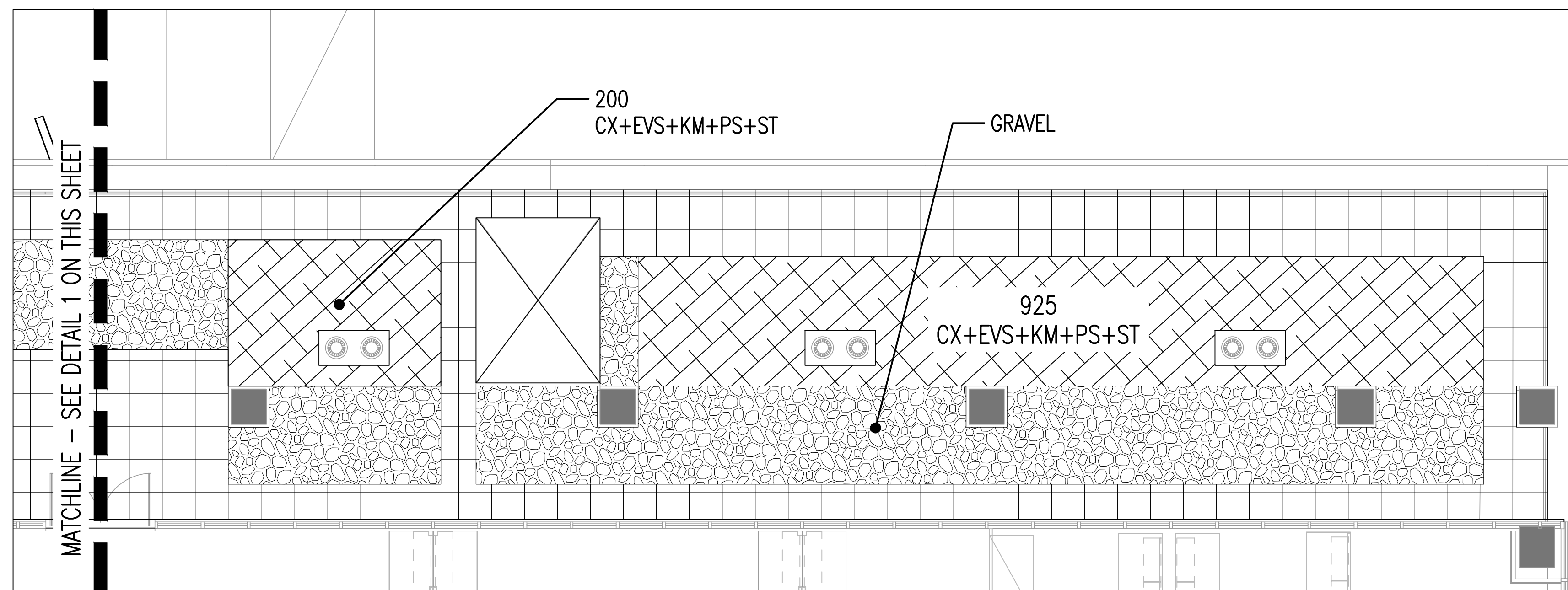
Land Index
 Main Index



24.11.1988-UMB Health Sciences Facility III (HSF III) Landscape Plan - L101 Jul 18, 2014 10:08am

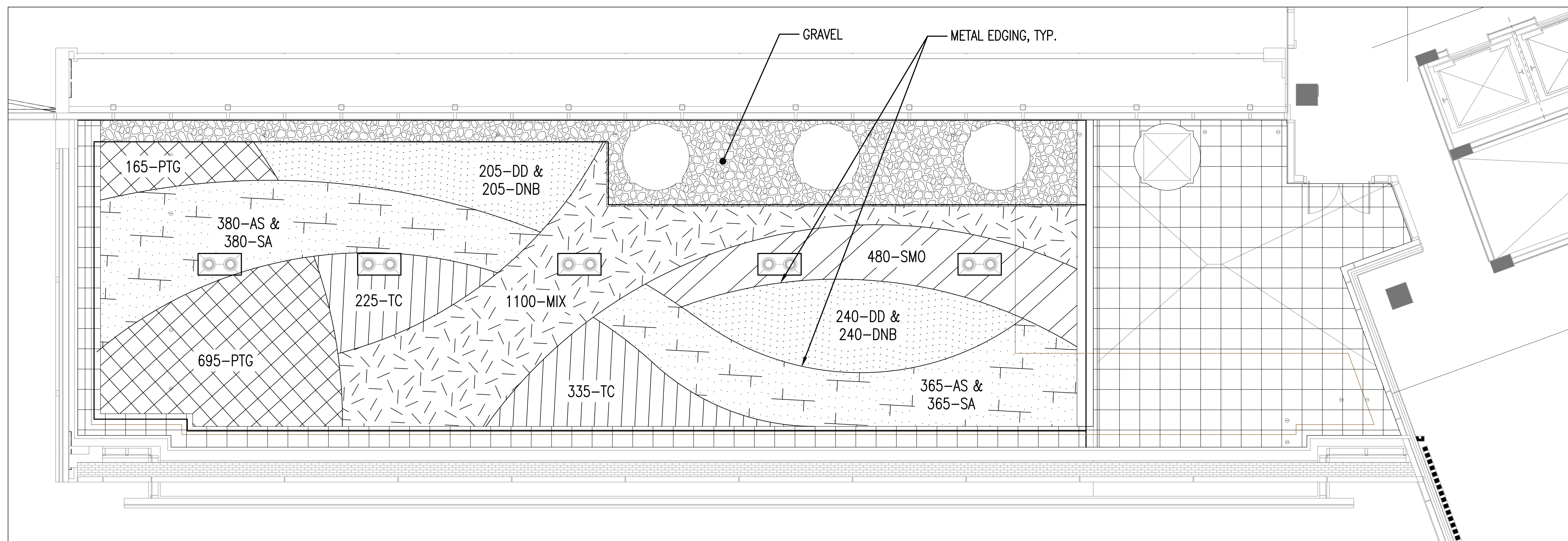


① GREEN ROOF #1 (BLDG LEVEL 2) SCALE: 1" = 5'



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NOTE:
REFER TO SHT. L203 FOR PLANT SCHEDULE, GREEN ROOF AS-BUILT TABLES, AND
MAINTENANCE SCHEDULE FOR GREEN ROOFS.



③ GREEN ROOF #2 (BLDG LEVEL 6) SCALE: 1" = 5'

KEY PLAN

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ME Engineers
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SCIENCES
FACILITY III**

UMB BUILDING NO.: HSF III
UMB PROJECT NO.: 11-385
SRI PROJECT NO.: 11068
CAD FILE NO.:
DATE: 07/25/14
DONOR NAME:

SHEET TITLE:
**GREEN ROOF
PLANTING
PLAN**

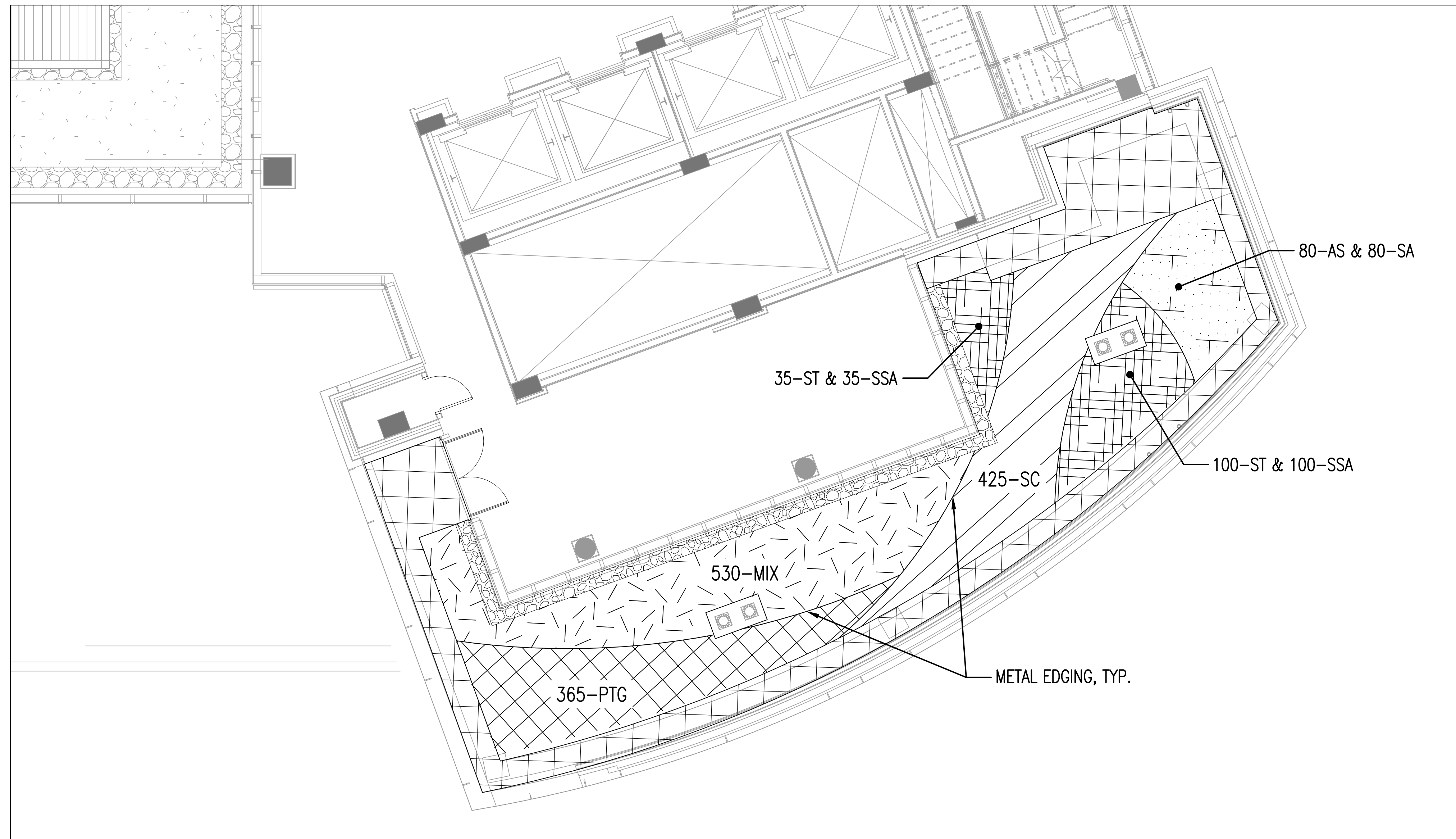
REVISIONS		
NO	DATE	ITEM

SHEET NO.
L202

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PLANT SCHEDULE FOR GREEN ROOFS

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	CONT.	SPACING	COMMENTS
GREEN ROOF #1							
762	CX	Carex appalachica	Appalachian Sedge	1 GAL	CONT.	8" O.C.	
762	EVS	Epimedium x versicolor 'Sulphureum'	Barrenwort	1 GAL	CONT.	8" O.C.	
762	KM	Koeleria macrantha	Prairie Junegrass	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
762	PS	Phlox subulata	Moss Phlox	1 GAL	CONT.	8" O.C.	
762	ST	Sedum ternatum	Sedum	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
GREEN ROOF #2							
745	AS	Allium schoenoprasum	Chive	Bulb	BULB	8" O.C.	
445	DD	Delosperma dyeri	Ice Plant	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
445	DNB	Delosperma nubigenum 'Basutoland'	Ice Plant	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
1,100	MIX	Emory Knoll Farms Mid-Atlantic Blend	Mixed blend (Emory Knoll Farms)	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
860	PTG	Phedimus takesimensis 'Golden Carpet'	Stonecrop / Sedum	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
480	SMO	Sedum montanum ssp. orientale	Stonecrop / Sedum	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
745	SA	Sesleria autumnalis	Autumn Moor Grass	1 GAL	CONT.	8" O.C.	
560	TC	Talinum calycinum	Fameflower	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
GREEN ROOF #3							
80	AS	Allium schoenoprasum	Chive	Bulb	BULB	8" O.C.	
530	MIX	Emory Knoll Farms Mid-Atlantic Blend	Mixed blend (Emory Knoll Farms)	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
365	PTG	Phedimus takesimensis 'Golden Carpet'	Stonecrop / Sedum	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
135	SSA	Sedum spurium 'Album Superbum' a.k.a. 'White Form'	Stonecrop / Sedum	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
135	ST	Sedum ternatum	Stonecrop / Sedum	3" deep X 1.5" plug	PLUG	2.6 PLUGS PER S.F.	
80	SA	Sesleria autumnalis	Autumn Moor Grass	1 GAL	CONT.	8" O.C.	
425	SC	Sesleria caerulea	Blue Moor Grass	1 GAL	CONT.	8" O.C.	



1 GREEN ROOF #3 (BLDG LEVEL 7)

PROJECT NAME: HEALTH SCIENCES FACILITIES III MDE NO. 13-SF-0263		
AS-BUILT DATA FOR GREEN ROOF #1 *TO BE COMPLETED BY THE CERTIFYING ENGINEER		
FEATURE	DESIGN	*AS-BUILT
SURFACE AREA	1,400 SF	
PLANTING MEDIA THICKNESS	8"	
PLANTINGS	SEE DWS L202 & L203	

DATE AS-BUILT ACCEPTED BY MDE: _____

AS-BUILT CERTIFICATION

I hereby certify that the stormwater management facilities (both BMPs and ESD practices) shown on the plans have been constructed in accordance with the plans approved by the Maryland Department of the Environment, except as noted in red on the "AS BUILT" drawings.

Name (Printed) _____ Signature _____

Maryland Registration Number (PE or LS) _____ Date _____

MDE No. _____

Facilities being certified (list each individually using facility ID number and/or description):

GREEN ROOF #1

"Certify" means to state or declare a professional opinion based on sufficient and appropriate onsite inspections and material tests conducted during construction.

PROJECT NAME: HEALTH SCIENCES FACILITIES III MDE NO. 13-SF-0263		
AS-BUILT DATA FOR GREEN ROOF #2 *TO BE COMPLETED BY THE CERTIFYING ENGINEER		
FEATURE	DESIGN	*AS-BUILT
SURFACE AREA	2,000 SF	
PLANTING MEDIA THICKNESS	8"	
PLANTINGS	SEE SHS L202 & L203	

DATE AS-BUILT ACCEPTED BY MDE: _____

AS-BUILT CERTIFICATION

I hereby certify that the stormwater management facilities (both BMPs and ESD practices) shown on the plans have been constructed in accordance with the plans approved by the Maryland Department of the Environment, except as noted in red on the "AS BUILT" drawings.

Name (Printed) _____ Signature _____

Maryland Registration Number (PE or LS) _____ Date _____

MDE No. _____

Facilities being certified (list each individually using facility ID number and/or description):

GREEN ROOF #2

"Certify" means to state or declare a professional opinion based on sufficient and appropriate onsite inspections and material tests conducted during construction.

PROJECT NAME: HEALTH SCIENCES FACILITIES III MDE NO. 13-SF-0263		
AS-BUILT DATA FOR GREEN ROOF #3 *TO BE COMPLETED BY THE CERTIFYING ENGINEER		
FEATURE	DESIGN	*AS-BUILT
SURFACE AREA	600 SF	
PLANTING MEDIA THICKNESS	8"	
PLANTINGS	SEE SHS L203	

DATE AS-BUILT ACCEPTED BY MDE: _____

AS-BUILT CERTIFICATION

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GREEN ROOF #3

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STORMWATER MAINTENANCE SCHEDULE	ENVIRONMENTAL SENSITIVE DESIGN		
PRACTICE	FREQUENCY OF INSPECTION	PREVENTATIVE MAINTENANCE	MAINTENANCE REQUIREMENTS
GREEN ROOFS	SEASONALLY (AND AFTER A MAJOR STORM)		PROVIDE PERIODIC IRRIGATION, WEEDING, FERTILIZING, AND N-FILL PLANTING AS NEEDED. CLEAN ASSOCIATED DRAINAGE PIPES, INLETS, STONE EDGE DRAINS, AND OTHER STRUCTURES DRAINING TO/FROM PRACTICE.

Land Index

Main Index



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GREEN ROOF PLANTING PLAN & NOTES

REVISIONS		
NO	DATE	ITEM

SHEET NO.
L203