UNIVERSITY RESEARCH PARK - ELEMENT LABS

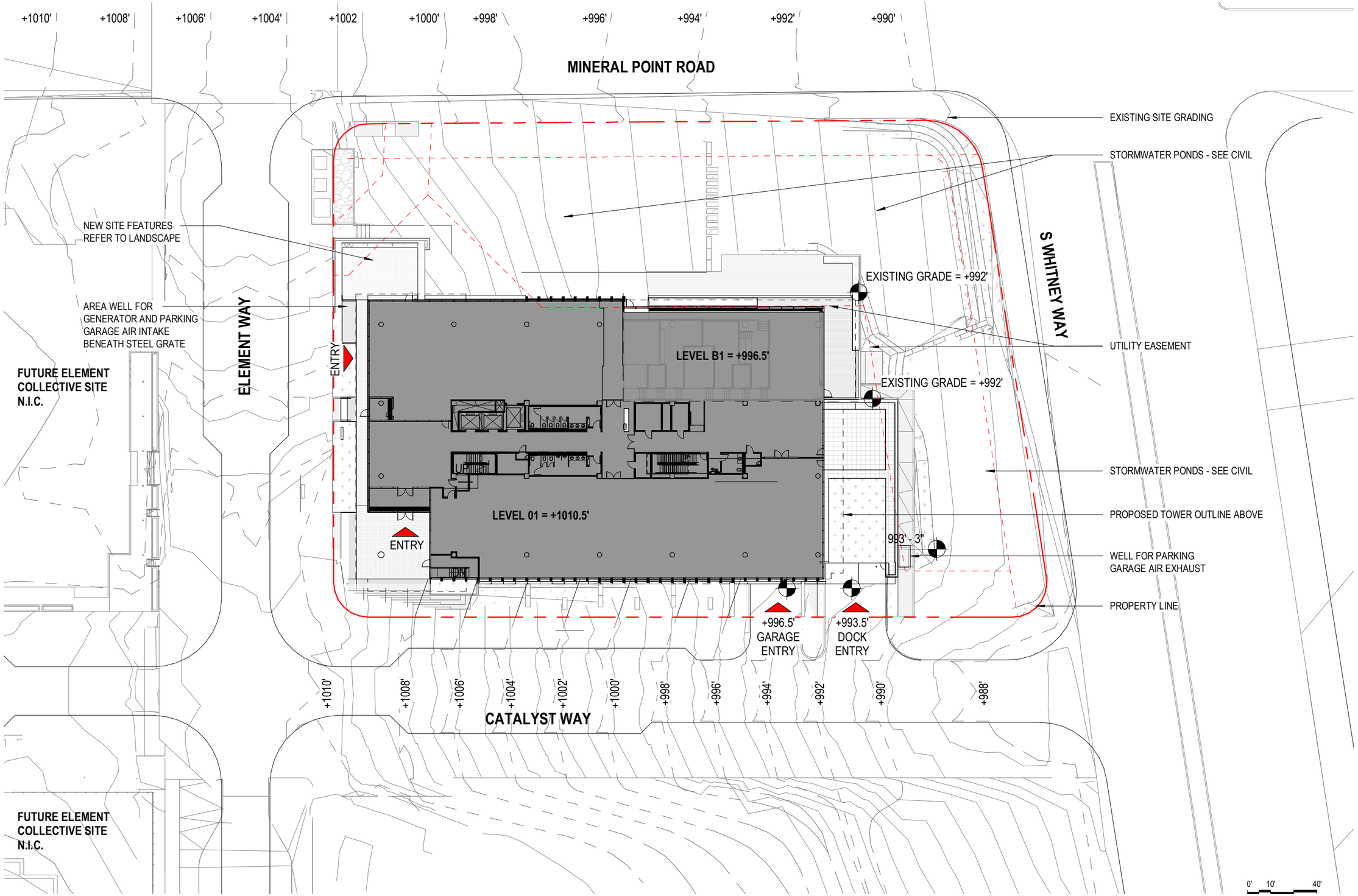
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

CONDITIONAL USE PERMIT
14 JULY 2021

SHEET INDEX

SHEET NUMBER	SHEET NAME	CONDITIONAL USE PERMIT - JULY 14, 2021
A0.00	COVER SHEET	●
A01.01	SITE PLAN	●
A10.01	LEVEL P3 FLOOR PLAN	●
A10.02	LEVEL P2 FLOOR PLAN	●
A10.03	LEVEL P1 FLOOR PLAN	●
A10.04	LEVEL B1 FLOOR PLAN	●
A10.05	LEVEL 1 FLOOR PLAN	●
A10.06	LEVEL 2 FLOOR PLAN	●
A10.07	LEVEL 3 FLOOR PLAN	●
A10.08	LEVEL 4 FLOOR PLAN	●
A10.09	LEVEL 5 FLOOR PLAN	●
A10.10	ROOF FLOOR PLAN	●
A20.01	SOUTH ELEVATION	●
A20.02	EAST ELEVATION	●
A20.03	NORTH ELEVATION	●
A20.04	WEST ELEVATION	●

Perkins&Will

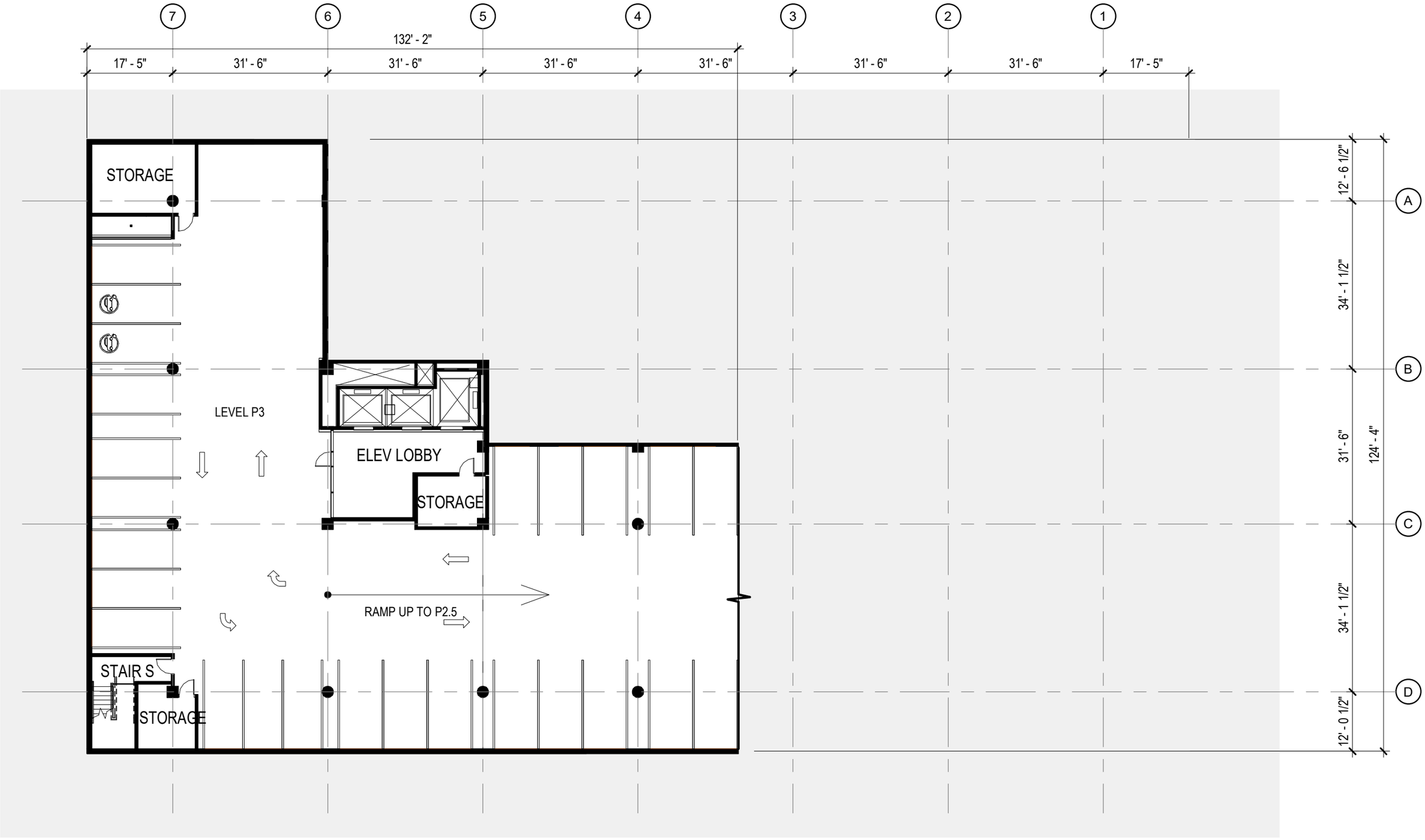


UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A01.01 ARCHITECTURAL SITE PLAN

1" = 40' -0"



PARKING SCHEDULE

TOTAL SPACES: 146

ADA SPACES: 5
ADA VAN SPACES: 1

EV CHARGING STATIONS
PLANNED: 2
FUTURE: 15

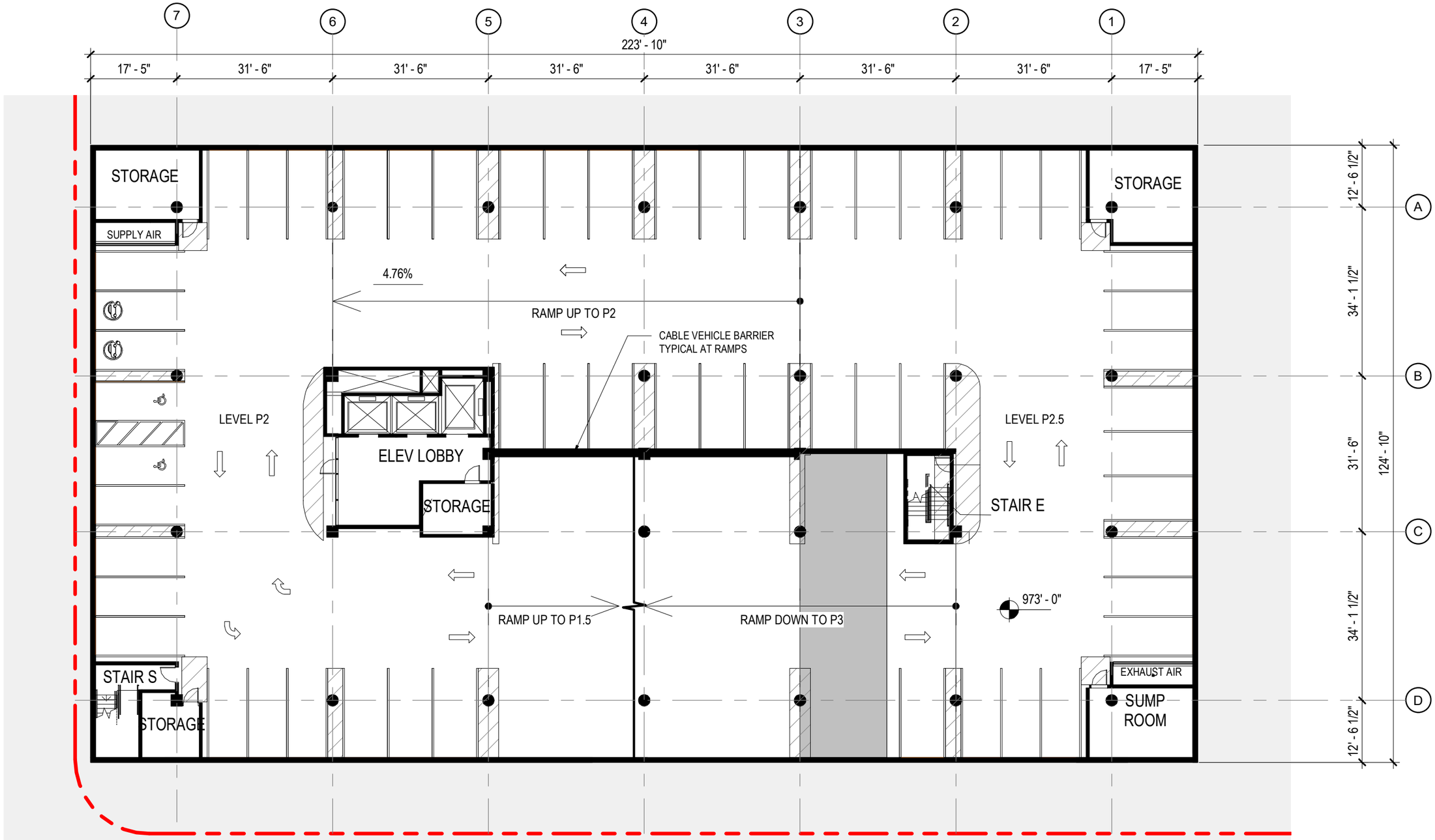
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.01 P3 LEVEL PLAN

0 10' 20' 30'

1" - 20'-0"



PARKING SCHEDULE

TOTAL SPACES: 146

ADA SPACES: 5
ADA VAN SPACES: 1

EV CHARGING STATIONS
PLANNED: 2
FUTURE: 15

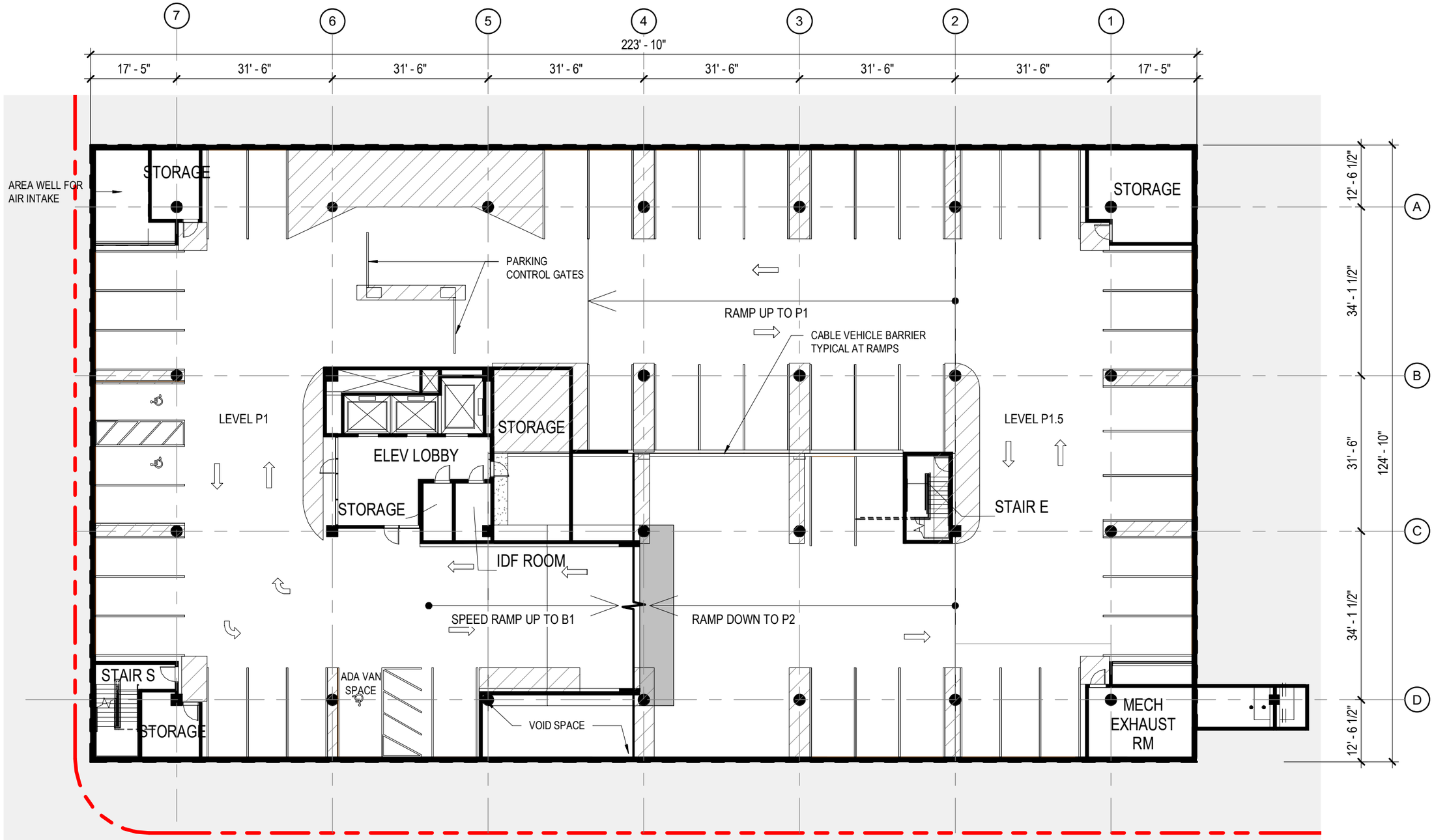
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.02 P2 LEVEL PLAN

0 10' 20' 30'

1" - 20'-0"



PARKING SCHEDULE

TOTAL SPACES: 146

ADA SPACES: 5
ADA VAN SPACES: 1

EV CHARGING STATIONS
PLANNED: 2
FUTURE: 15

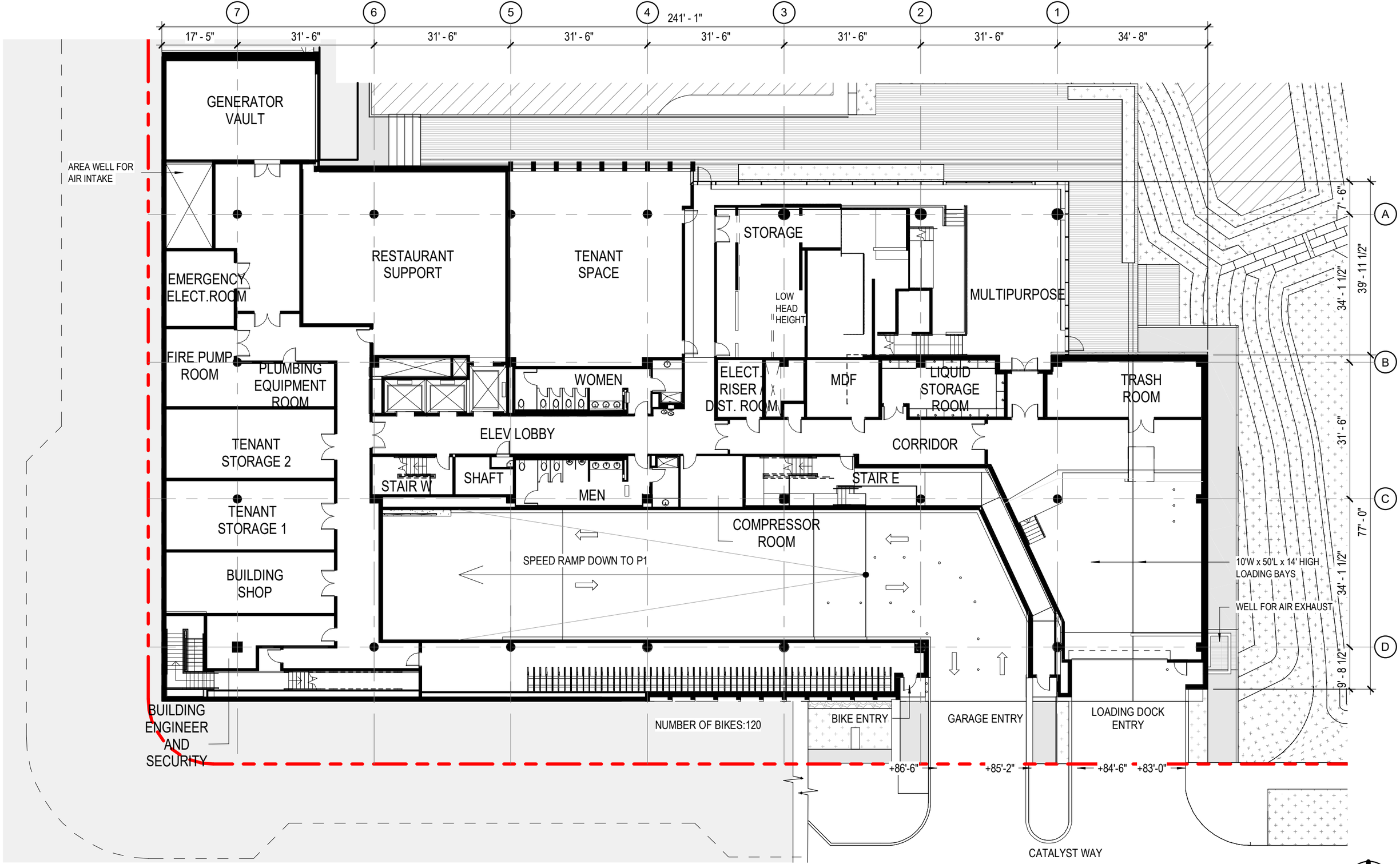
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK - ELEMENT LABS

A10.03 P1 LEVEL PLAN

0 10' 20' 30'

1" - 20'-0"



UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK - ELEMENT LABS

A10.04 B1 LEVEL PLAN

1" - 20'-0"

7 6 5 4 3 2 1

197' - 3 1/2"

5' - 9" 18' - 11"

EXTENTS OF LEVEL 02 ABOVE

AREA WELL FOR GENERATOR AND PARKING GARAGE AIR INTAKE BENEATH STEEL GRATE

RESTAURANT

MULTI-PURPOSE ROOM

VESTIBULE

WOMEN

ELECT. RISER DIST. RM.

FLEXIBLE DINING SPACE

OUTDOOR TERRACE

GLASS GUARDRAIL GR-1

ELEV LOBBY

TELE/DATA

LEVEL 1 FINISH FLOOR: 100'-0" = +1010.5"

STAIR W

SHAFT

MEN

STAIR E

LOBBY

FIRE STAIR FROM ABOVE

TOILET ROOM

VESTIBULE

TENANT SPACE

INTENSIVE GREEN ROOF WITH WEATHERING STEEL EDGE

A B C D

7' - 6" 41' - 5 1/8" 34' - 1 1/2" 31' - 6" 74' - 6" 34' - 1 1/2" 8' - 8 1/8"

ELEMENT WAY

CATALYST WAY

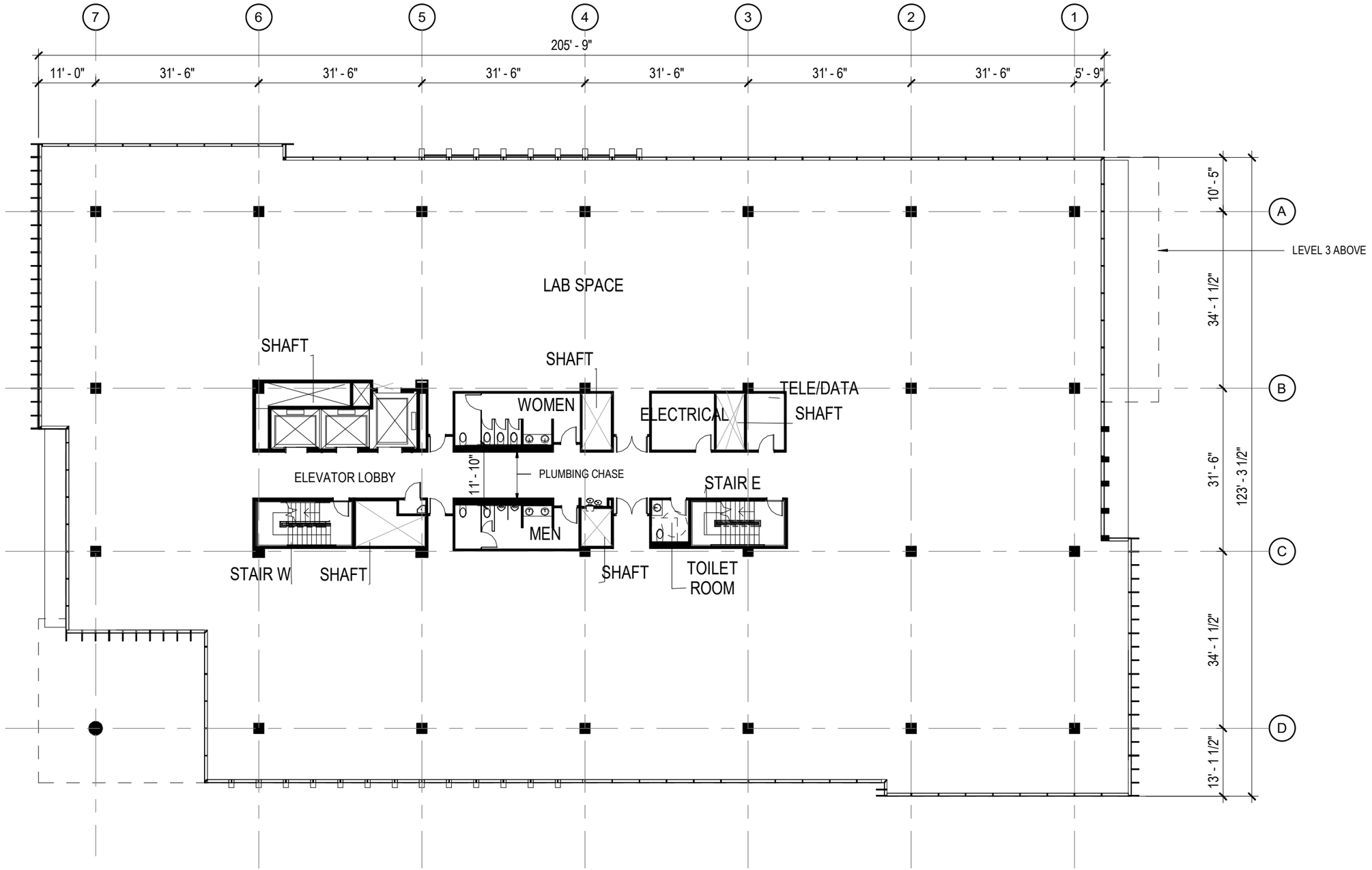
0 10' 20' 30'

1" - 20'-0"

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK - ELEMENT LABS

A10.05 LEVEL 01 PLAN



UNIVERSITY RESEARCH PARK
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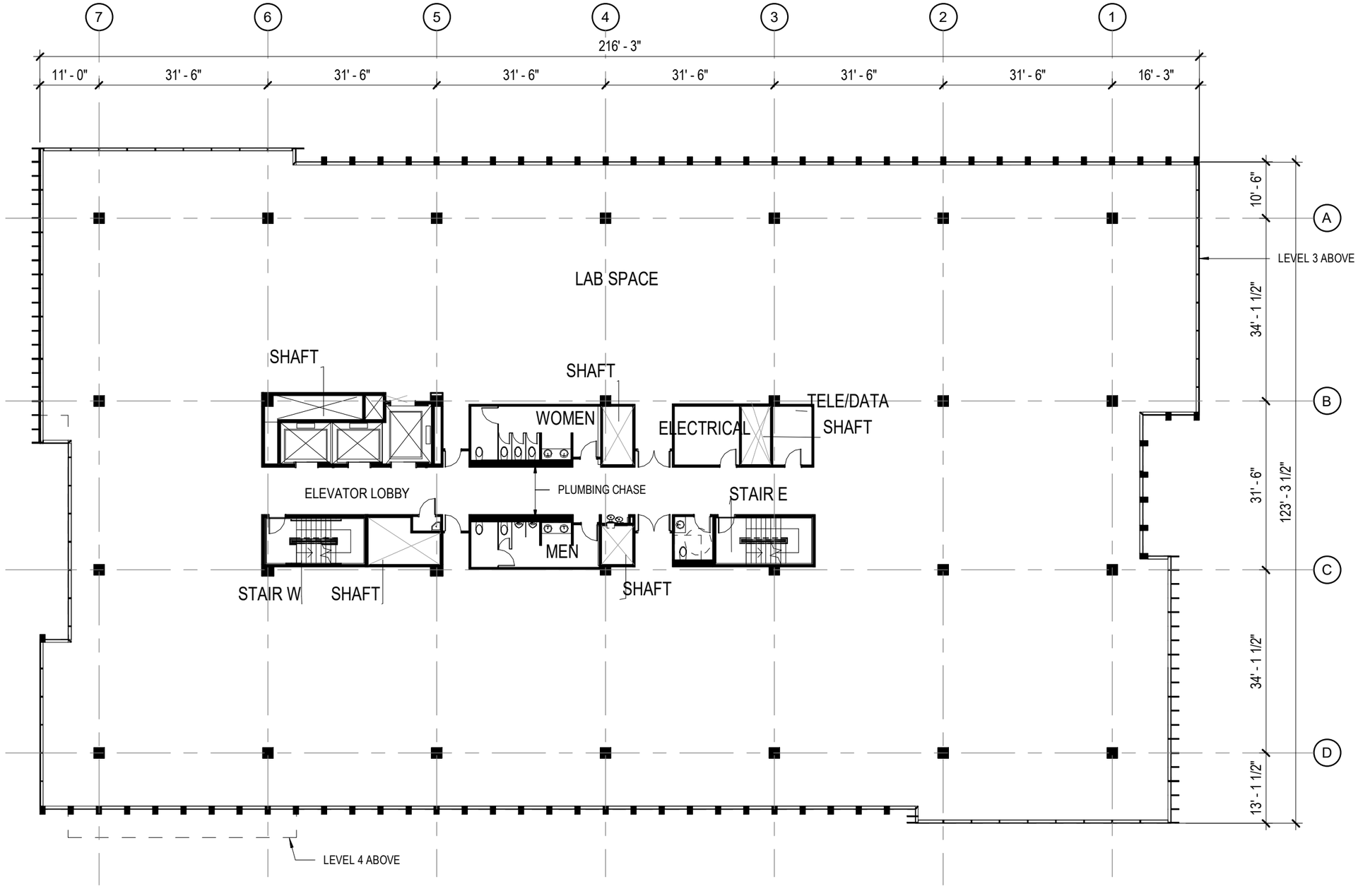
UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.06 LEVEL 02 PLAN

0 10' 20' 30'

1" - 20'-0"



UNIVERSITY RESEARCH PARK
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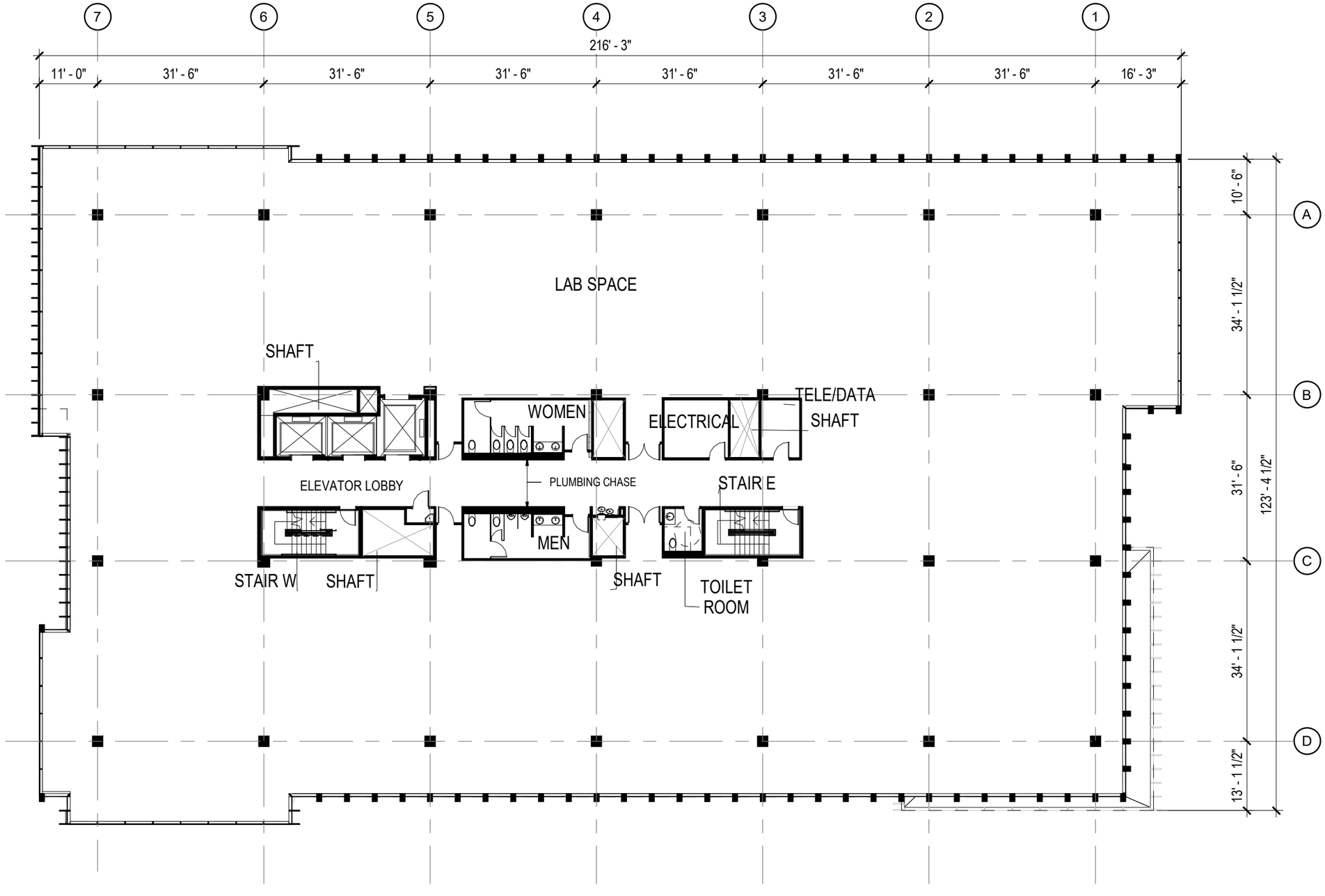
UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.07 LEVEL 03 PLAN

0 10' 20' 30'

1" - 20'-0"



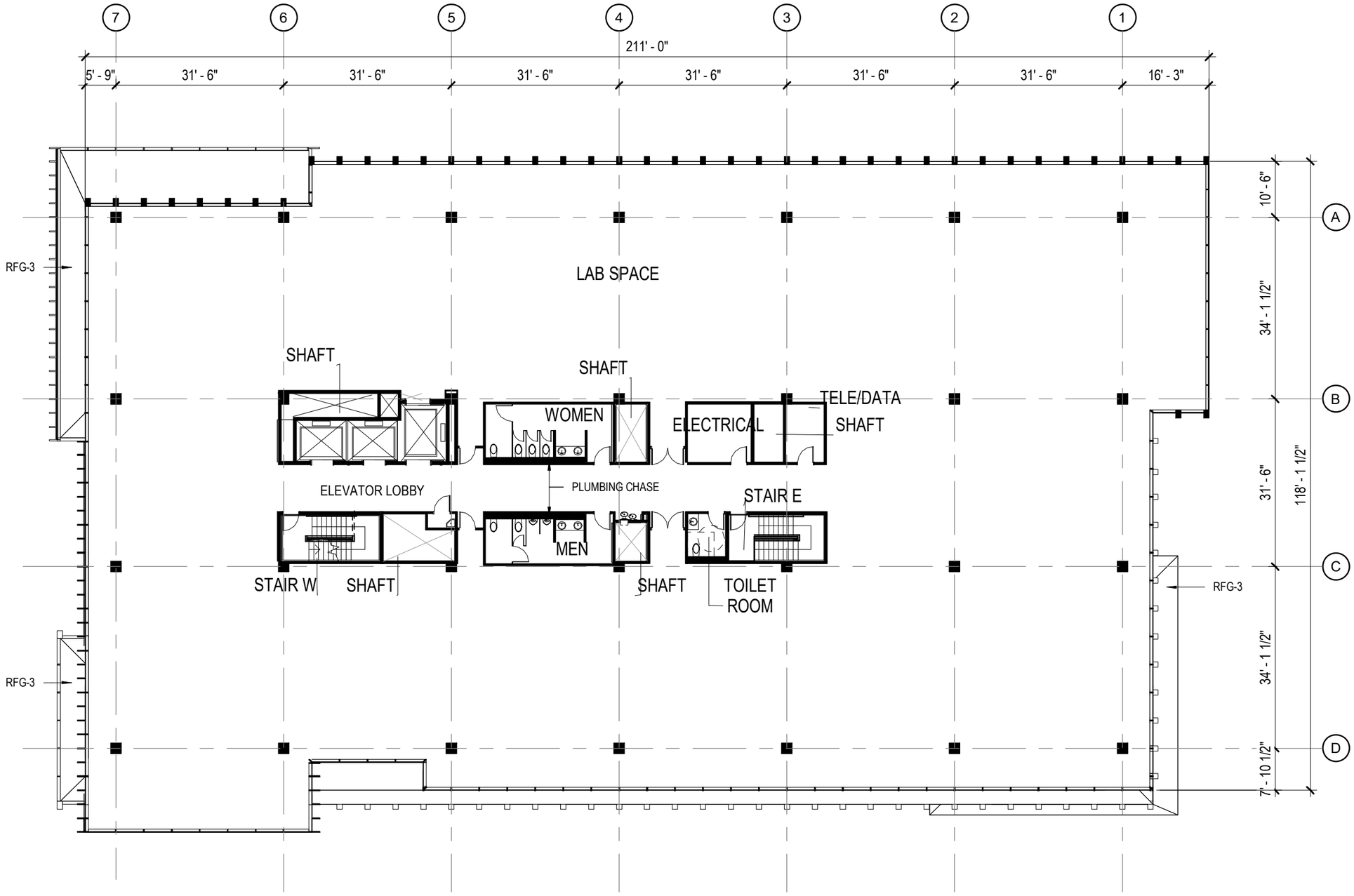
0 10' 20' 30'

1" - 20'-0"

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.08 LEVEL 04 PLAN



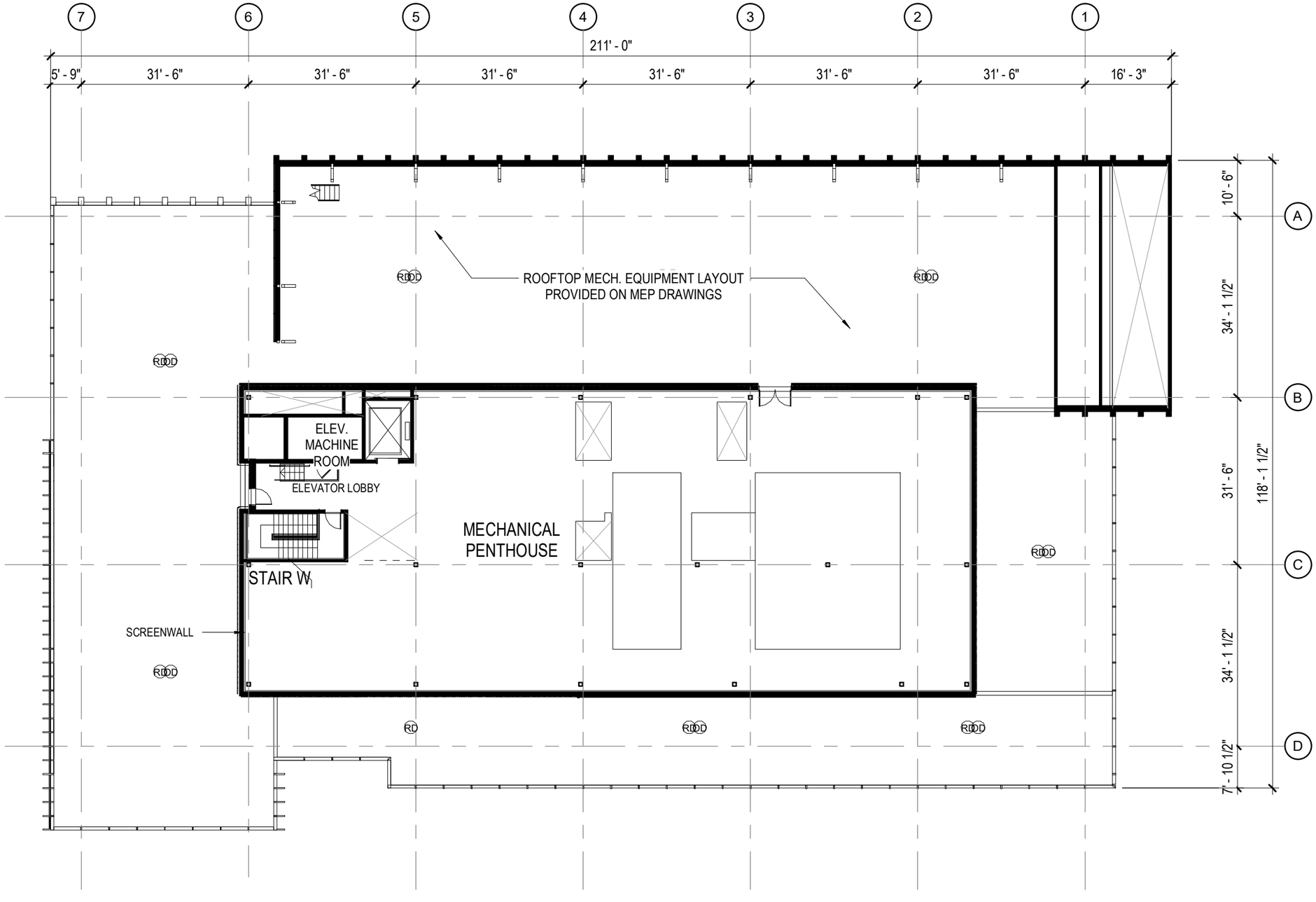
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.09 LEVEL 05 PLAN

0 10' 20' 30'

1" - 20'-0"



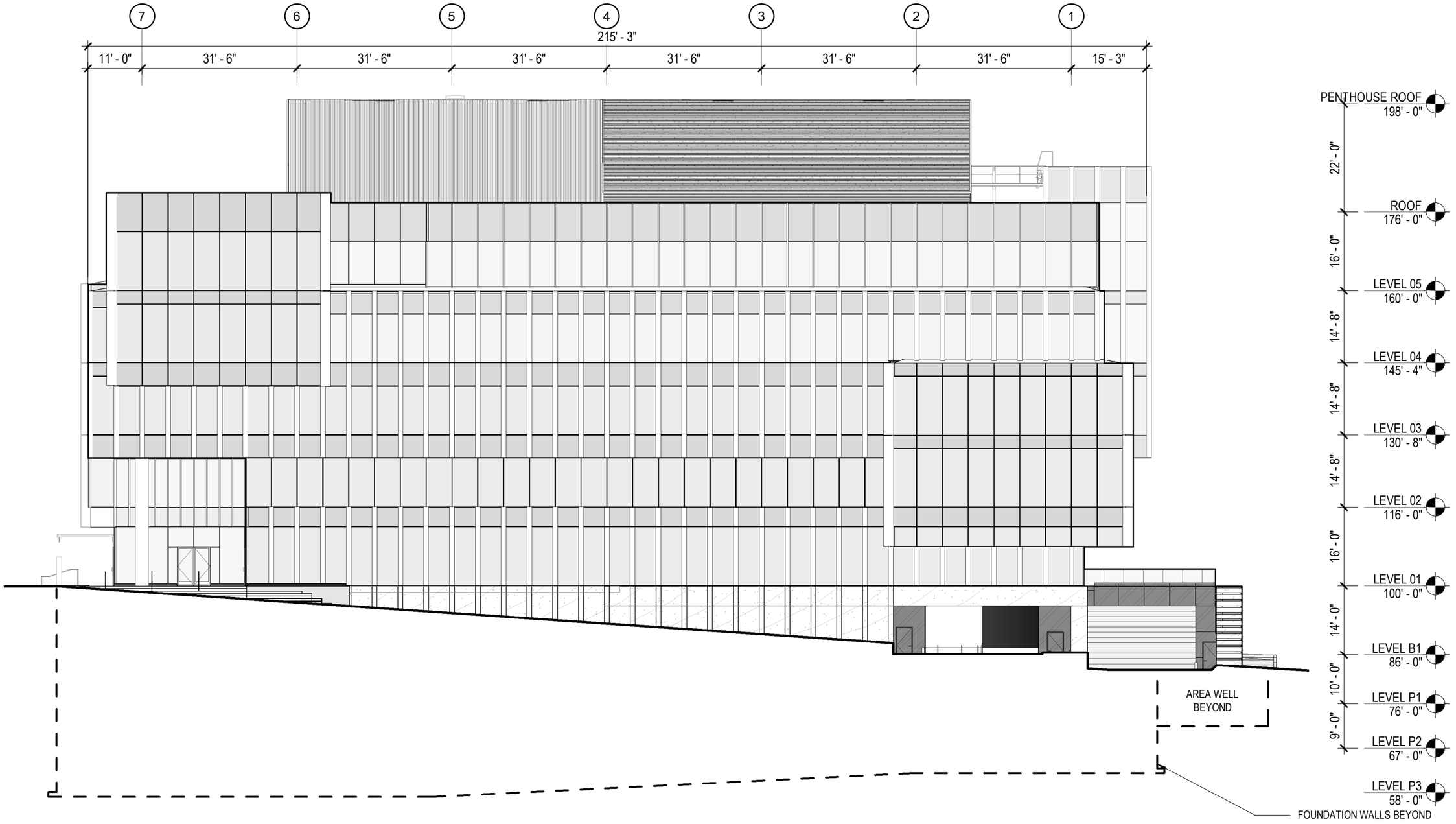
0 10' 20' 30'

1" - 20'-0"

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A10.10 ROOF PLAN



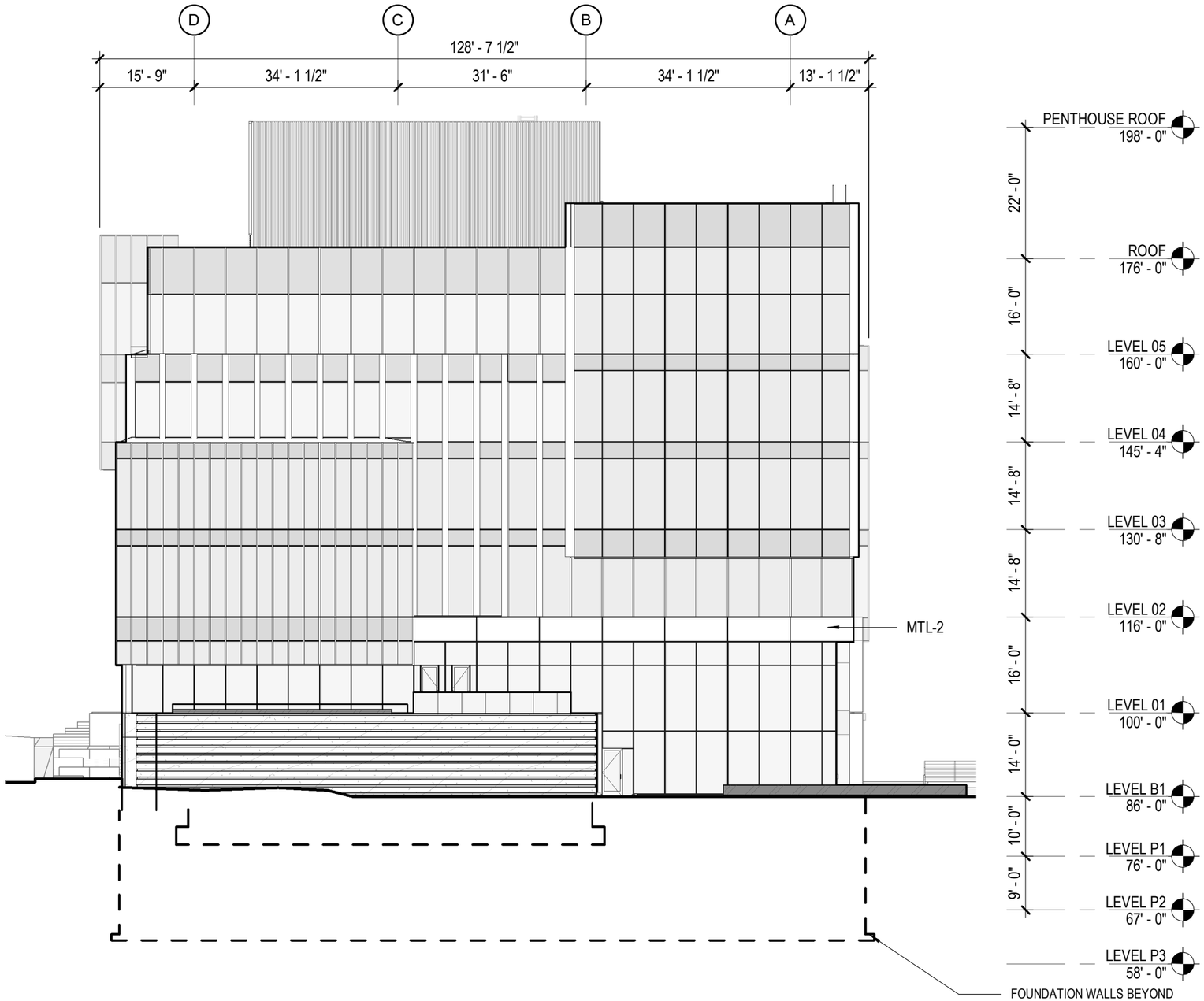
0 10' 20' 30'

1" - 20'-0"

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK - ELEMENT LABS

A20.01 SOUTH ELEVATION



UNIVERSITY RESEARCH PARK
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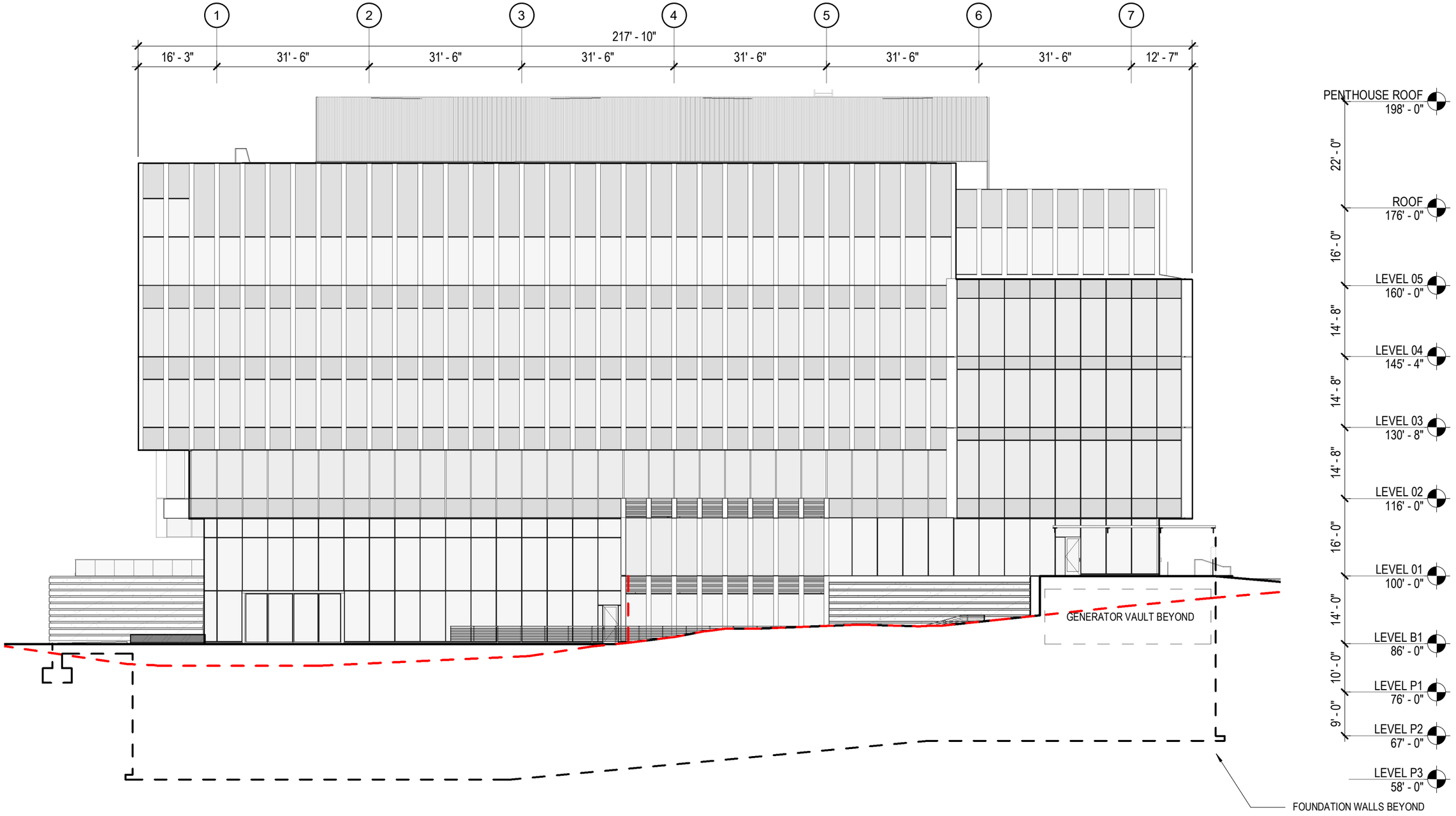
UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A20.02 EAST ELEVATION

0 10' 20' 30'

1" - 20'-0"



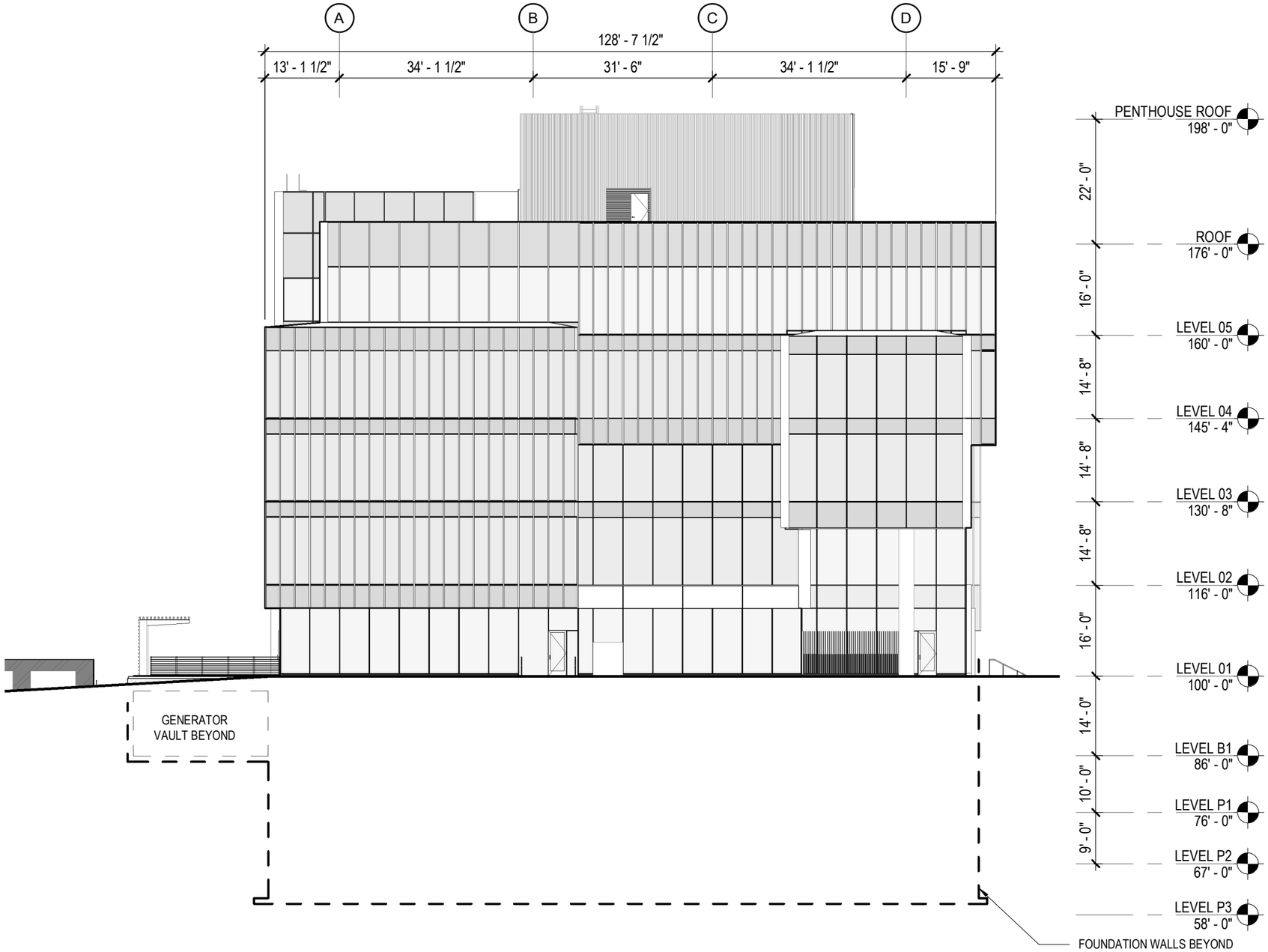
0 10' 20' 30'

1" - 20'-0"

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A20.03 NORTH ELEVATION



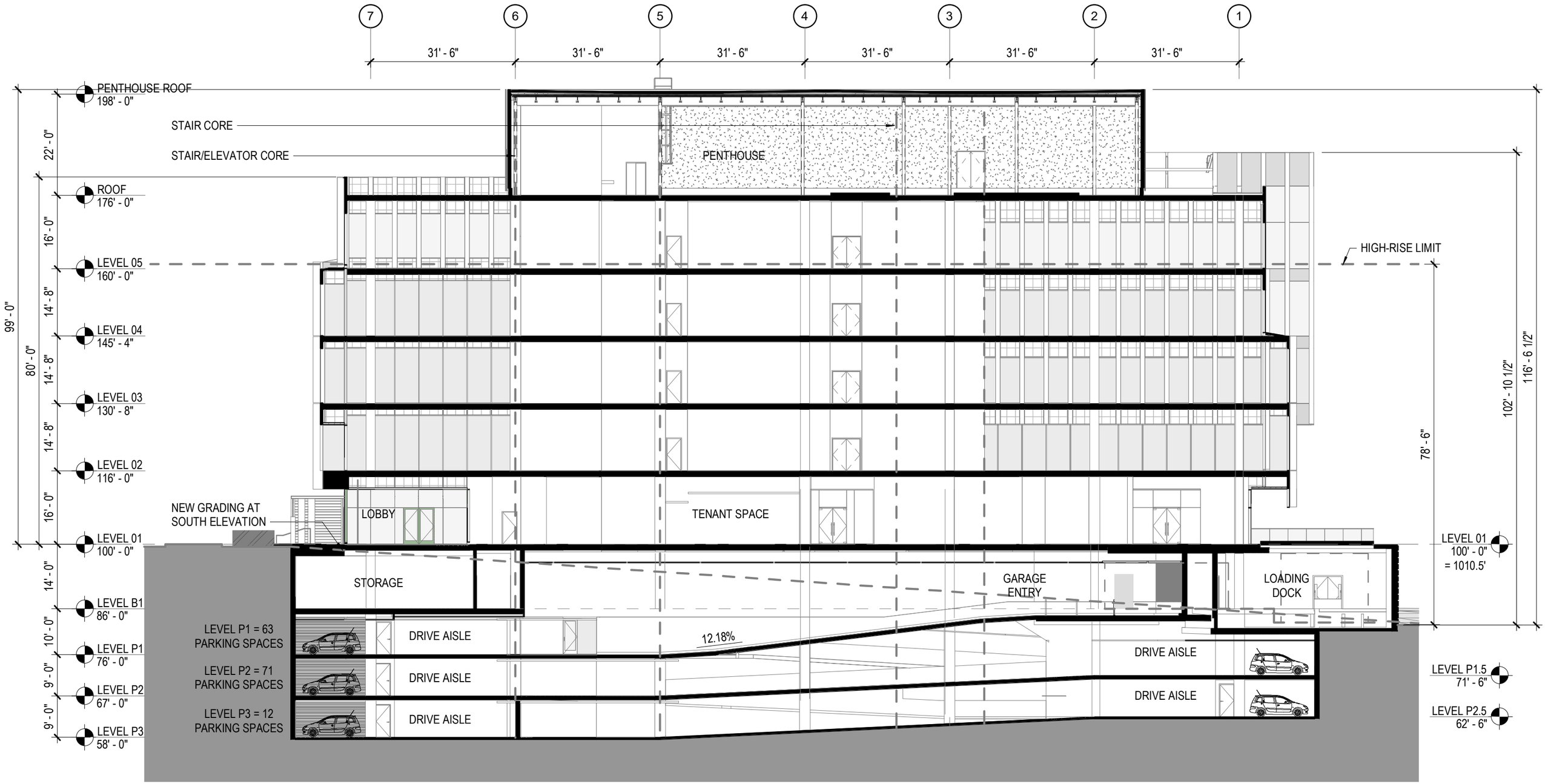
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

A20.04 WEST ELEVATION

0 10' 20' 30'

1" - 20'-0"



0 10' 20' 30'

1" = 20'-0"

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK -
ELEMENT LABS

BUILDING HEIGHT CALCULATION

UNIVERSITY RESEARCH PARK - ELEMENT LABS

1 JUNE 2021
PW PROJECT #021130.000

ISSUED FOR SITE PLAN APPROVAL DOCUMENTS

FACILITY	OWNER	ARCHITECT	INTERIOR DESIGN	STRUCTURAL	MEP	CIVIL	LANDSCAPING	CONTRACTOR	.	.	CITY OF MADISON, WI
	UNIVERSITY RESEARCH PARK 510 Charmany Drive, Suite 250 Madison, WI 53719	Perkins and Will 410 Michigan Ave, Suite 1600 Chicago, IL 60611	Perkins and Will 410 Michigan Ave, Suite 1600 Chicago, IL 60611	GRAEF 1010 East Washington Avenue, Suite 202 Madison, WI 53703	J. H. FINDORFF & SON INC. 300 South Bedford Street Madison, WI 53719	SmithGroup 44 East Mifflin Street, Suite 500 Madison, WI 53703	Perkins and Will 80 South 8th Street, #300 Minneapolis, MN 55402	J. H. FINDORFF & SON INC. 300 South Bedford Street Madison, WI 53703			

PARKING LOT PLAN SITE INFORMATION BLOCK

SITE ADDRESS	MINERAL POINT RD. / WHITNEY WAY (425 CHARMANY DR.)
SITE ACERAGE (TOTAL)	1.44 ACRES
NUMBER OF BUILDING STORIES (ABOVE GRADE)	5 (EXCLUDING PENTHOUSE)
BUILDING HEIGHT	96 FEET
CONSTRUCTION TYPE (NEW STRUCTURES OR ADDITIONS)	1B
TOTAL SQUARE FOOTAGE OF BUILDING	156,000 SQFT
USE OF PROPERTY	BUSINESS
GROSS SQUARE FEET OF OFFICE	115,722 SQFT
GROSS SQUARE FEET OF RETAIL AREA	4,504 SQFT
NUMBER OF EMPLOYEES IN WAREHOUSE	NA
NUMBER OF EMPLOYEES IN PRODUCTION AREA	500
CAPACITY OF RESTAURANT / PLACE IN ASSEMBLY	200
NUMBER OF BICYCLE STALLS SHOWN	60
NUMBER OF PARKING STALLS:	

SMALL CAR	NA
LARGE CAR	118
ACCESSIBLE	5
TOTAL	123

NUMBER OF TREES SHOWN	46

SHEET INDEX

SHEET NUMBER	SHEET NAME	SCHEMATIC DESIGN - 18 MAR 2021	DESIGN DEVELOPMENT - 27 MAY 2021	SITE PLAN APPROVAL - 1 JUN 2021
01-GENERAL				
G00-01	COVER SHEET, INDEX OF DRAWINGS		•	•
G01-01	LEVEL P2-B1 CODE COMPLIANCE PLANS		•	•
G01-02	LEVEL 01-03 CODE COMPLIANCE PLANS		•	•
G01-03	LEVEL 04-ROOF CODE COMPLIANCE PLANS		•	•
G10-10	AXONOMETRICS	•	•	
02-CIVIL				
CE100	EXISTING CONDITIONS		•	•
CP100	SITE PREP AND EROSION CONTROL PLAN		•	•
CP500	EROSION CONTROL DETAILS		•	•
CG100	GRADING PLAN		•	•
CU100	UTILITY PLAN		•	•
CS00	SITE AND UTILITY DETAILS		•	•
CS01	UTILITY DETAILS		•	•
CS001	FIRE ACCESS PLAN			•
03-LANDSCAPE				
L01-00	OVERALL SITE PLAN		•	•
L02-00	MATERIALS & LAYOUT PLAN		•	•
L02-01	ENLARGED MATERIALS & LAYOUT PLAN W		•	•
L02-02	ENLARGED MATERIALS & LAYOUT PLAN E		•	•
L03-01	ENLARGED GRADING PLAN W		•	•
L03-02	ENLARGED GRADING PLAN E		•	•
L04-00	SOILS & IRRIGATION PLAN		•	•
L05-01	ENLARGED PLANTING PLAN W		•	•
L05-02	ENLARGED PLANTING PLAN E		•	•
L06-00	SECTIONS		•	•
L06-01	SECTIONS		•	•
L07-00	ELEVATION		•	•
L08-01	HARDSCAPE DETAILS		•	•
L08-02	PLANTING DETAILS		•	•
04 - ARCHITECTURE				
A00-01	ARCHITECTURAL ABBREVIATIONS, SYMBOLS, AND GEN NOTES		•	
A01-00	ARCHITECTURAL SITE PLAN	•		
A10-01	LEVEL P2 FLOOR PLAN	•	•	
A10-02	LEVEL P1 FLOOR PLAN	•	•	
A10-03	LEVEL B1 FLOOR PLAN	•	•	
A10-04	LEVEL 01 FLOOR PLAN	•	•	
A10-05	LEVEL 02 FLOOR PLAN	•	•	
A10-06	LEVEL 03 FLOOR PLAN	•	•	
A10-07	LEVEL 04 FLOOR PLAN	•	•	
A10-08	LEVEL 05 FLOOR PLAN	•	•	
A10-09	ROOF PLAN	•	•	
A10-10	PENTHOUSE ROOF PLAN	•	•	
A12-01	LEVEL P2 REFLECTED CEILING PLAN		•	
A12-02	LEVEL P1 REFLECTED CEILING PLAN		•	
A12-03	LEVEL B1 REFLECTED CEILING PLAN		•	
A12-04	LEVEL 01 REFLECTED CEILING PLAN		•	
A12-05	LEVEL 02 REFLECTED CEILING PLAN		•	
A12-06	LEVEL 03 REFLECTED CEILING PLAN		•	
A12-07	LEVEL 04 REFLECTED CEILING PLAN		•	
A12-08	LEVEL 05 REFLECTED CEILING PLAN		•	
A12-09	PENTHOUSE REFLECTED CEILING PLAN		•	
A13-01	LEVEL 01 FINISH PLAN		•	
A20-01	WEST EXTERIOR ELEVATION	•	•	
A20-02	NORTH EXTERIOR ELEVATION	•	•	
A20-03	EAST EXTERIOR ELEVATION		•	
A20-04	SOUTH EXTERIOR ELEVATION		•	
A21-01	BUILDING SECTIONS	•	•	
A21-02	BUILDING SECTIONS	•	•	
A21-03	BUILDING SECTIONS		•	
A21-04	BUILDING SECTIONS	•	•	
A30-01	PARTIAL PLAN, SECTION AND ELEVATIONS	•	•	
A30-02	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-03	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-04	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-05	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-06	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-07	PARTIAL PLAN, SECTION AND ELEVATIONS	•	•	

SHEET INDEX

SHEET NUMBER	SHEET NAME	SCHEMATIC DESIGN - 18 MAR 2021	DESIGN DEVELOPMENT - 27 MAY 2021	SITE PLAN APPROVAL - 1 JUN 2021
A30-08	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-09	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-10	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-11	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-12	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-13	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A30-14	PARTIAL PLAN, SECTION AND ELEVATIONS		•	
A32-01	EXTERIOR ENVELOPE DETAILS - TYPICAL	•	•	
A40-01	ENLARGED CORE PLANS		•	
A40-02	ENLARGED CORE PLANS		•	
A40-03	ENLARGED CORE PLANS		•	
A41-01	ENLARGED STAIR PLANS AND SECTIONS		•	
A41-02	ENLARGED STAIR PLANS AND SECTIONS		•	
A41-03	ENLARGED STAIR PLANS, SECTIONS, AND DETAILS		•	
A41-50	STAIR DETAILS		•	
A45-01	INTERIOR ELEVATIONS - LEVEL B1		•	
A45-02	INTERIOR ELEVATIONS - LEVEL 01		•	
A45-03	INTERIOR ELEVATIONS - LEVEL 02-05		•	
A61-01	PARTITION TYPE CHARTS		•	
A62-01	DOOR SCHEDULE		•	
A64-01	INTERIOR FINISH SCHEDULE AND LEGEND		•	
05-STRUCTURAL				
S001	GENERAL NOTES	•	•	
S002	GENERAL INFORMATION	•	•	
S003	GENERAL FOUNDATION DETAILS		•	
S005	GENERAL ROOF DECK DETAILS	•	•	
S006	GENERAL TWO-WAY FLAT SLAB DETAILS	•	•	
S007	GENERAL MASONRY DETAILS	•	•	
S101	FOUNDATION PLAN/ LEVEL P2.5 PLAN	•	•	
S102	FOUNDATION PLAN – LEVEL P2 PLAN	•	•	
S103	FRAMING PLAN – LEVEL P1	•	•	
S104	FRAMING PLAN – LEVEL B1	•	•	
S105	FRAMING PLAN – LEVEL 01	•	•	
S106	FRAMING PLAN – LEVEL 02	•	•	
S107	FRAMING PLAN – LEVEL 03	•	•	
S108	FRAMING PLAN – LEVEL 04	•	•	
S109	FRAMING PLAN – LEVEL 05	•	•	
S110	FRAMING PLAN – ROOF	•	•	
S111	FRAMING PLAN – PENTHOUSE ROOF	•	•	
S501	FOUNDATION DETAILS		•	
S502	FOUNDATION DETAILS		•	
S511	POST-TENSION DETAILS		•	
S512	POST-TENSION DETAILS		•	
S521	TWO-WAY FLAT SLAB DETAILS		•	
S531	ROOF DECK DETAILS		•	
S551	DETAILS		•	
S552	DETAILS		•	
S603	CONCRETE COLUMN SCHEDULE		•	
S604	CONCRETE BEAM SCHEDULE		•	
S607	SHEARHEAD SCHEDULE		•	
S608	MISCELLANEOUS SCHEDULES		•	
06-PARKING				
AG10-01	LEVEL P2 - PARKING FLOOR PLAN		•	•
AG10-02	LEVEL P1 - PARKING FLOOR PLAN		•	•
AG10-03	LEVEL B1 - PARKING FLOOR PLAN		•	•
AG601	SIGN SCHEDULE AND COMPONENTS		•	•
AG602	SIGN AND PARKING DETAILS		•	•
07-LIGHTING				
EL-00	LIGHTING SYMBOLS AND ABBREVIATIONS			•
EL-01	LIGHTING SITE PLAN			•
EL-02	LIGHTING SITE PLAN CALCULATIONS			•
EL-03	LIGHTING FICTURE SCHEDULE			•
EL-04	LIGHTING CUT SHEETS - SITE			•
EL-05	LIGHTING CUT SHEETS - SITE			•
EL-06	LIGHTING CUT SHEETS - SITE			•

DRAWING NUMBER KEY

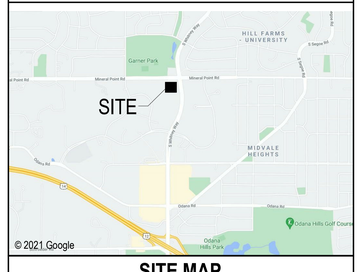
KEY

A - ARCHITECTURE
C - CIVIL
L - LANDSCAPE
M - MECHANICAL
E - ELECTRICAL
P - PLUMBING
FP - FIRE PROTECTION
S - STRUCTURAL

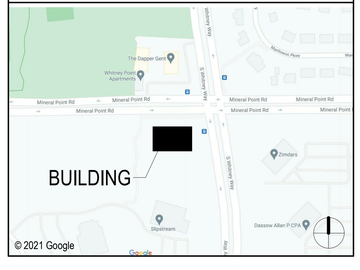
NUMBER OF PLAN, DETAIL, ETC. ON SHEET — 15/A11-01
DISCIPLINE
DRAWING SERIES

OVERALL MAP

VICINITY MAP



SITE MAP



PROJECT DATA

- **PROJECT INFORMATION:**
  - SITE WORK: STORMWATER MANAGEMENT WITH DRY AND WET PONDS FOR STORMWATER RENENTION. SUBGRADE WATER RETENTION TO ADDRESS LARGER CAMPUS WIDE MANAGEMENT PLAN.
  - PARKING GARAGE: PARKING ACCESS AT LEVEL B1 WITH SPEED RAMP FOR ACCESS TO TWO LEVELS OF SUB-GRADE PARKING TOTALLING 122 SPACES
  - NEW FIVE STORY BUILDING: CONCRETE FRAMED STRUCTURE

- **CODES/ LAWS:**
  - BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE (IBC) SPS 362 - BUILDINGS AND STRUCTURES (WISCONSIN SPECIFIC AMENDMENTS)
  - ACCESSIBILITY: 2010 AMERICANS WITH DISABILITIES ACT STANDARDS 2009 ICC A117.1
  - ENERGY: 2015 INTERNATIONAL ENERGY CONSERVATION CODE SPS 363 - ENERGY CONSERVATION (WISCINSIN SPECIFIC AMENDMENTS)
  - ELEVATOR: 2015 INTERNATIONAL BUILDING CODE CHAPTER 30; ASME A17.1-2007
  - ELECTRICAL: 2017 NATIONAL ELECTRIC CODE
  - PLUMBING: SPS 380 TO 387 PLUMBING CODE
  - HVAC: 2015 INTERNATIONAL MECHANICAL CODE SPS 364 - HEATING, VENTILATION AND AIR CONDITIONING (WISCONSIN SPECIFIC AMENDMENTS)
  - FUEL GAS: 2015 INTERNATIONAL FUEL GAS CODE
  - FIRE: 2018 INTERNATIONAL FIRE CODE

- **OCCUPANCY CLASSIFICATION:**
  - 2015 IBC - PRIMARY: BUSINESS GROUP B (CHAPTERS 3, 4)
  - NFPA 101 SECONDARY: LOW-HAZARD STORAGE GROUP S-2 (CHAPTERS 3,4)

- **PRINCIPAL OCCUPANCY TYPE:**
  - BUSINESS GROUP B

- **CONSTRUCTION TYPE:**
  - NEW: 2015 IBC - TYPE 1-B, FULLY SPRINKLERED

- **ALLOWABLE HEIGHT AND BUILD, AREAS:** (IBC TABLE 504.3)
  - MAX # OF STORIES: 12 ALLOWED; STORIES PROVIDED: 5 STORIES AT PRIMARY ENTRY
  - MAX ALLOWABLE HEIGHT: 180 FEET ALLOWED; HEIGHT PROVIDED: 96 FEET LEVEL 1 TO PENTHOUSE ROOF
  - MAX FLOOR AREA: 237,000 SF PER FLOOR; TOTAL AREA PROVIDED: 156,000 SF

- **FIRE RESISTANCE:** (FOR TYPE 1-B CONSTRUCTION)

BUILDING ELEMENT	FIRE RATING	U.L. ASSEMBLY
STRUCTURAL FRAME (INCLUDING COLUMNS & GIRDERS)		
SUPPORTING ROOF ONLY	2-HR	COLUMNS X-772 (W-BEAM) COLUMNS X-771 (TUBES) GIRDERS S-735 (W/ P936) GIRDERS S-734 (W/ P732)
SUPPORTING ONE OR MORE FLOORS	3-HR	COLUMNS X-771 (TUBE) COLUMNS X-772 (W-BEAM) GIRDERS N-792
BEARING WALLS		
EXTERIOR	3-HR	NA
INTERIOR (SUPPORTING ROOF ONLY)	2-HR	NA
NON-BEARING WALLS		
EXTERIOR	0-HR	NA
INTERIOR (SUPPORTING ROOF ONLY)	0-HR	NA
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS (SECONDARY MEMBERS)]	2-HR	POST TENSION SLAB (USING NORMAL WEIGHT CONCRETE)
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS (SECONDARY MEMBERS)]	1 HR	POST TENSION SLAB (USING NORMAL WEIGHT CONCRETE)

NOTES:
1. ALL FIRE RESISTIVE DESIGN TO BE CONSIDERED THERMALLY RESTRAINED.

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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

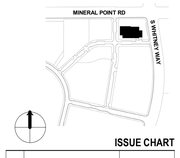
ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

COVER SHEET, INDEX OF DRAWINGS

SHEET NUMBER

G00-01

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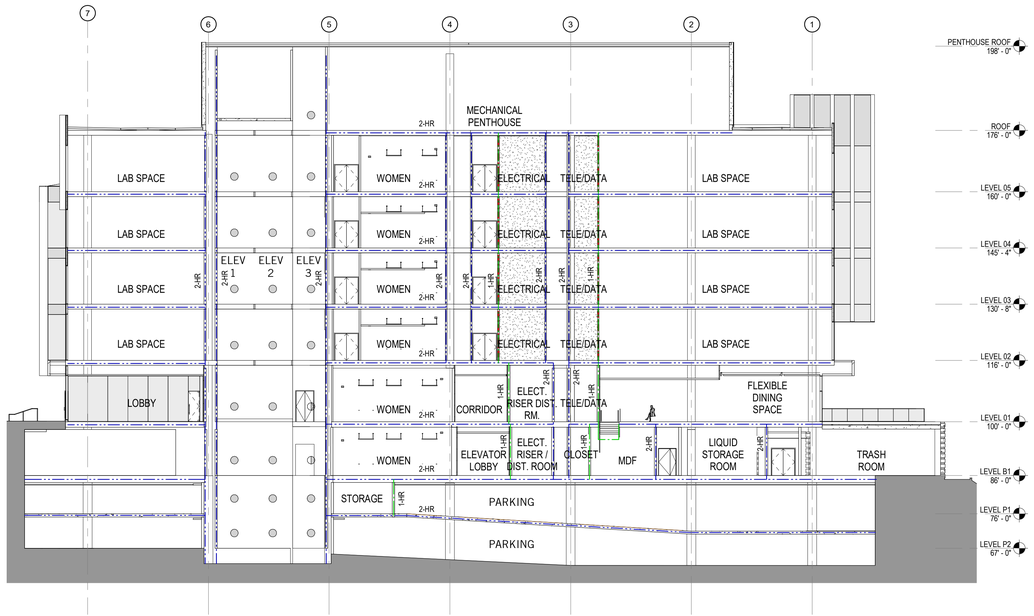


4 LIFE SAFETY SECTION
1/16" = 1'-0"

LIFE SAFETY LEGEND

PARTITION RATINGS DESIGNATIONS

- 4HR — 4-HOUR FIRE RESISTANT SEPARATION
- 3HR — 3-HOUR FIRE RESISTANT SEPARATION
- 2HR — 2-HOUR FIRE RESISTANT SEPARATION
- 1HR — 1-HOUR FIRE RESISTANT SEPARATION
- NON RATED

EXIT CAPACITY (NON-ASSEMBLY)

	SPRINKLERED*
STAIRS	0.2 INCHES / OCCUPANT
DOORS	0.15 INCHES / OCCUPANT

* **EGRESS WIDTHS NOTED FOR A FULLY SPRINKLERED BUILDING**
* H OCCUPANCY REQUIRES 0.3 INCHES / OCCUPANT FOR STAIRS AND 0.2 INCHES / OCCUPANT FOR DOORS
IBC 2015 (1005.3)

TRAVEL DISTANCE IBC 2015

USE	T.D*	D.E*
A	250'	20'
M, S-1	250'	50'
B	300'	50'
S-2	400'	50'
H-1	75'	20'
H-2	100'	20'
H-3	150'	20'
H-4	175'	20'
H-5	200'	20'

EXIT DIMENSION SYMBOL

90"

EXIT SYMBOLS

PATH OF TRAVEL

LIFE SAFETY EGRESS SYMBOL

240 | 44" | STAIR
240 | 72" | DOOR

- ACTUAL CUMULATIVE POPULATION
- WIDTH REQ'D BY CODE BASED ON ACTUAL CUMULATIVE POPULATION
- ACTUAL WIDTH PROVIDED
- POPULATION PERMITTED BASED ON WIDTH PROVIDED

***TRAVEL AND DEAD END DISTANCES WITH AUTOMATIC SPRINKLER SYSTEM**
IBC 2018 (1017.2)
IBC 2018 (1020.4)

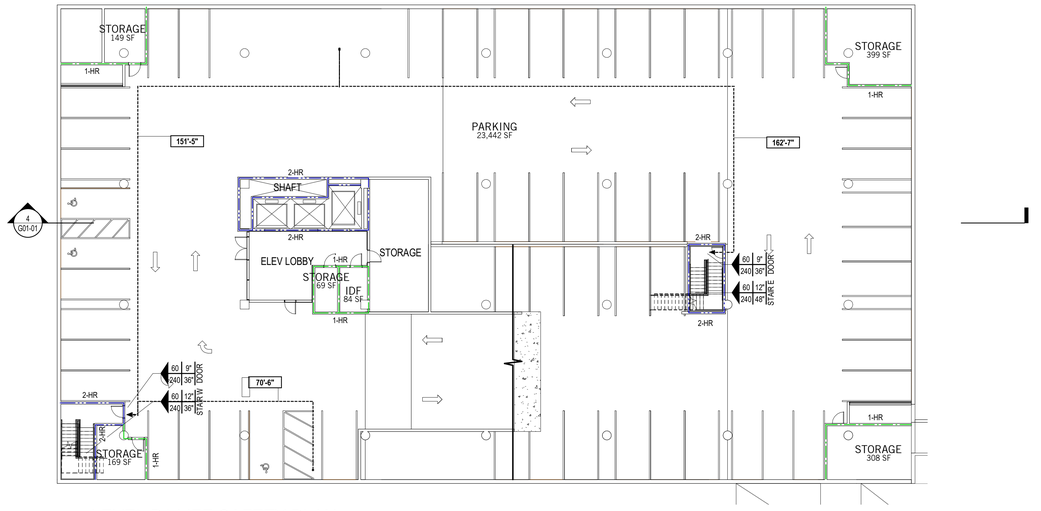
LEVEL B1 PLUMBING FIXTURE COUNTS

	W.C. / URINALS		LAVATORIES		DRINKING FOUNTAINS	
	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED
MEN	3	5	3	3	-	-
WOMEN	3	5	3	3	-	-
UNISEX	-	-	-	-	-	-
TOTALS	6	10	6	6	-	2

NOTE: MAXIMUM NUMBER OF OCCUPANTS ON LEVEL 200

OCCUPANT LOAD CALCULATIONS - LEVEL P1

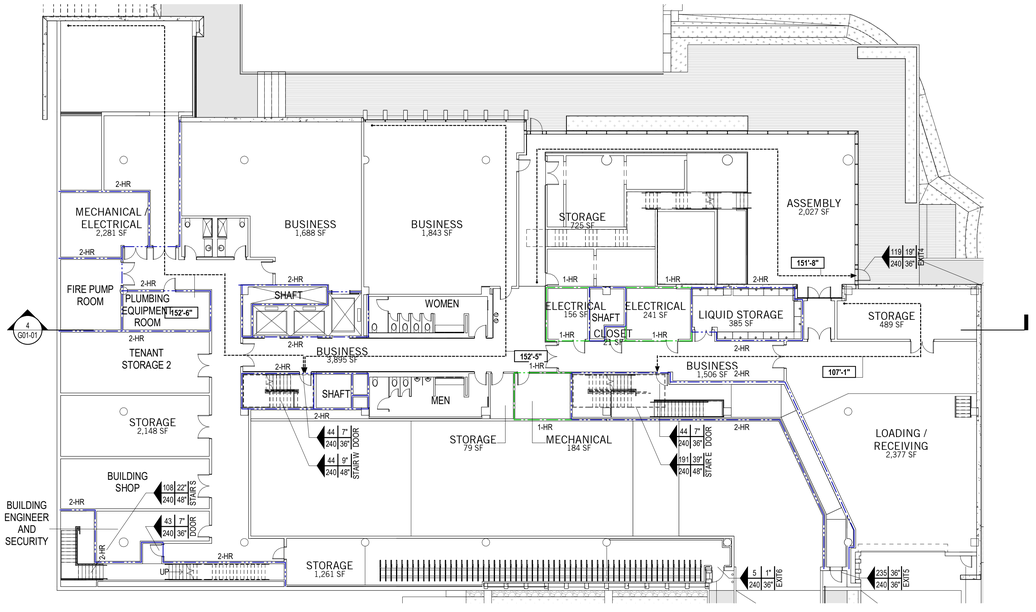
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
PARKING	23,442 SF	200 SF	S-2	118
STORAGE	149 SF	300 SF	S-1	1
STORAGE	399 SF	300 SF	S-1	2
STORAGE	169 SF	300 SF	S-1	1
STORAGE	308 SF	300 SF	S-1	2
STORAGE	69 SF	300 SF	S-1	1
IDF	84 SF	200 SF	S-1	1
Grand total: 7				126



2 LEVEL P1 LIFE SAFETY PLAN
1/16" = 1'-0"

OCCUPANT LOAD CALCULATIONS - LEVEL B1

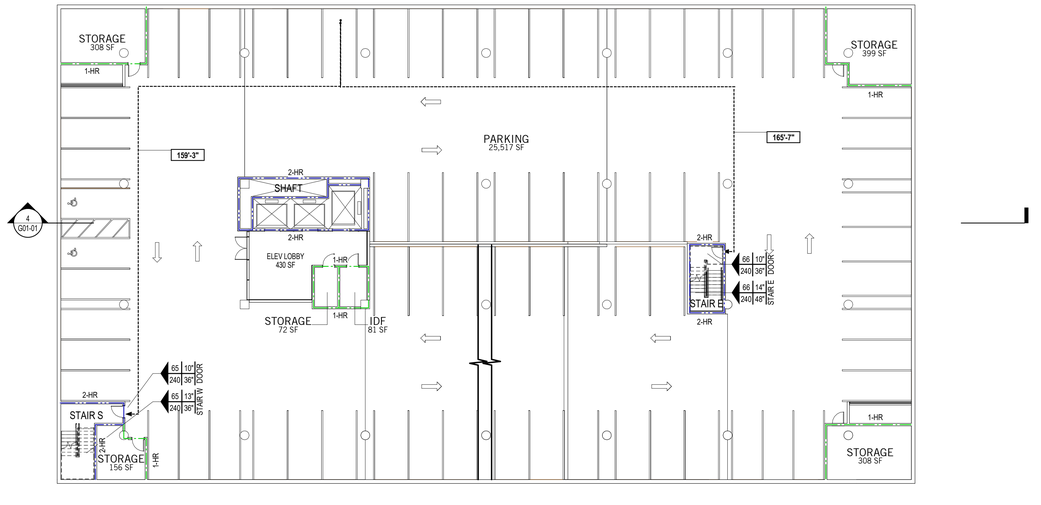
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
MECHANICAL / ELECTRICAL	2,281 SF	200 SF	S-1	12
STORAGE	2,148 SF	300 SF	S-1	8
BUSINESS	1,688 SF	100 SF	B	17
STORAGE	1,261 SF	300 SF	S-1	5
ASSEMBLY	2,027 SF	15 SF	A	136
STORAGE	725 SF	300 SF	S-1	3
ELECTRICAL	156 SF	200 SF	S-1	1
STORAGE	79 SF	300 SF	S-1	1
MECHANICAL	184 SF	200 SF	S-1	1
ELECTRICAL	241 SF	200 SF	S-1	2
LIQUID STORAGE	385 SF	300 SF	H-3	2
STORAGE	489 SF	300 SF	S-1	2
LOADING / RECEIVING	2,377 SF	300 SF	S-2	8
CLOSET	21 SF	300 SF	S-1	1
BUSINESS	3,895 SF	100 SF	B	39
BUSINESS	1,506 SF	100 SF	B	16
BUSINESS	1,843 SF	100 SF	B	19
Grand total: 17				273



3 LEVEL B1 LIFE SAFETY PLAN
1/16" = 1'-0"

OCCUPANT LOAD CALCULATIONS - LEVEL P2

ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
STORAGE	308 SF	300 SF	S-1	2
STORAGE	156 SF	300 SF	S-1	1
STORAGE	308 SF	300 SF	S-1	2
STORAGE	399 SF	300 SF	S-1	2
STORAGE	72 SF	300 SF	S-1	1
IDF	81 SF	200 SF	S-1	1
PARKING	25,517 SF	200 SF	S-2	128
Grand total: 7				137



1 LEVEL P2 LIFE SAFETY PLAN
1/16" = 1'-0"

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UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

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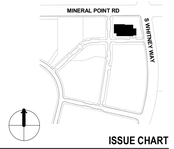
ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

LEVEL P2-B1 CODE COMPLIANCE PLANS

SHEET NUMBER

G01-01

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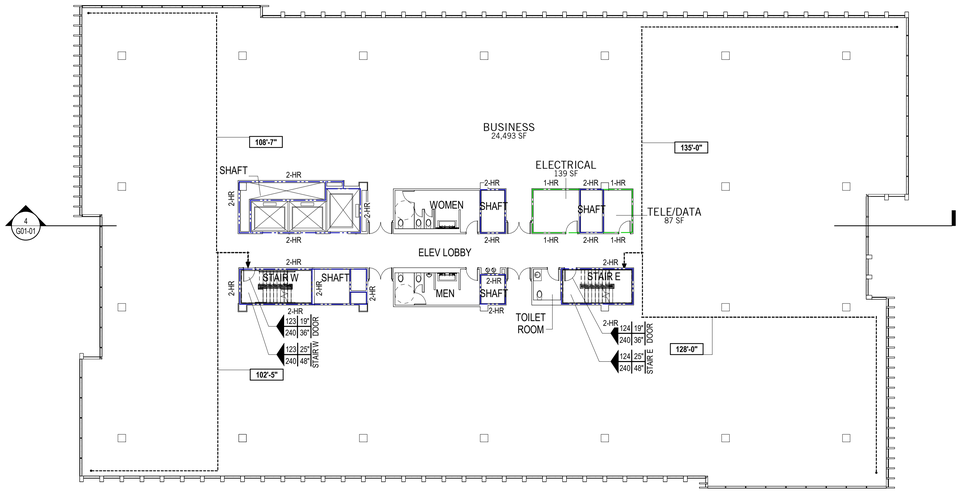
LEVEL 3 PLUMBING FIXTURE COUNTS						
	W.C. / URINALS		LAVATORIES		DRINKING FOUNTAINS	
	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED
MEN	3	3	2	2	-	-
WOMEN	3	3	2	2	-	-
UNISEX	-	1	-	1	-	-
TOTALS	6	7	4	5	-	2

NOTE: MAXIMUM NUMBER OF OCCUPANTS ON LEVEL 180

OCCUPANT LOAD CALCULATIONS - LEVEL 03				
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
BUSINESS	24,493 SF	100 SF	B	245
ELECTRICAL	139 SF	200 SF	S-1	1
TELE/DATA	87 SF	200 SF	S-1	1
Grand total: 3				247



3 LEVEL 03 LIFE SAFETY PLAN

1/16" = 1'-0"

LIFE SAFETY LEGEND

PARTITION RATINGS DESIGNATIONS

- 4-HOUR FIRE RESISTANT SEPARATION — 4HR
- 3-HOUR FIRE RESISTANT SEPARATION — 3HR
- 2-HOUR FIRE RESISTANT SEPARATION — 2HR
- 1-HOUR FIRE RESISTANT SEPARATION — 1HR
- NON RATED

EXIT CAPACITY (NON-ASSEMBLY)

	SPRINKLERED*
STAIRS	0.2 INCHES / OCCUPANT
DOORS	0.15 INCHES / OCCUPANT

* **EGRESS WIDTHS NOTED FOR A FULLY SPRINKLERED BUILDING**
* H OCCUPANCY REQUIRES 0.3 INCHES / OCCUPANT FOR STAIRS AND 0.2 INCHES / OCCUPANT FOR DOORS
IBC 2015 (1005.3)

TRAVEL DISTANCE IBC 2015

USE	T.D*	D.E*
A	250'	20'
M, S-1	250'	50'
B	300'	50'
S-2	400'	50'
H-1	75'	20'
H-2	100'	20'
H-3	150'	20'
H-4	175'	20'
H-5	200'	20'

EXIT DIMENSION SYMBOL

36"

EXIT SYMBOLS

PATH OF TRAVEL

LIFE SAFETY EGRESS SYMBOL

- ACTUAL CUMULATIVE POPULATION
- WIDTH REQ'D BY CODE BASED ON ACTUAL CUMULATIVE POPULATION
- ACTUAL WIDTH PROVIDED
- POPULATION PERMITTED BASED ON WIDTH PROVIDED

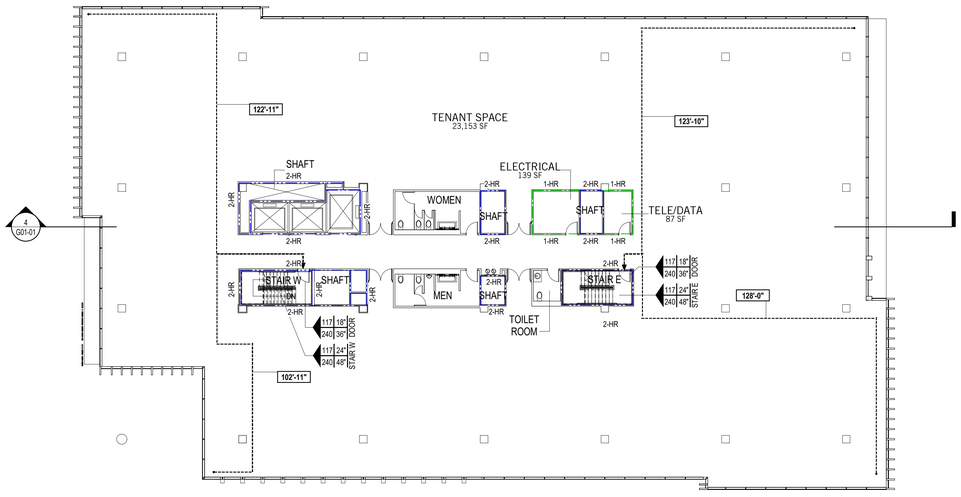
140 | 44" DOOR
240 | 72"

*TRAVEL AND DEAD END DISTANCES WITH AUTOMATIC SPRINKLER SYSTEM
IBC 2018 (1017.2)
IBC 2018 (1020.4)

LEVEL 2 PLUMBING FIXTURE COUNTS						
	W.C. / URINALS		LAVATORIES		DRINKING FOUNTAINS	
	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED
MEN	3	3	2	2	-	-
WOMEN	3	3	2	2	-	-
UNISEX	-	1	-	1	-	-
TOTALS	6	7	4	5	-	2

NOTE: MAXIMUM NUMBER OF OCCUPANTS ON LEVEL 180

OCCUPANT LOAD CALCULATIONS - LEVEL 02				
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
TENANT SPACE	23,153 SF	100 SF	B	232
ELECTRICAL	139 SF	200 SF	S-1	1
TELE/DATA	87 SF	200 SF	S-1	1
Grand total: 3				234



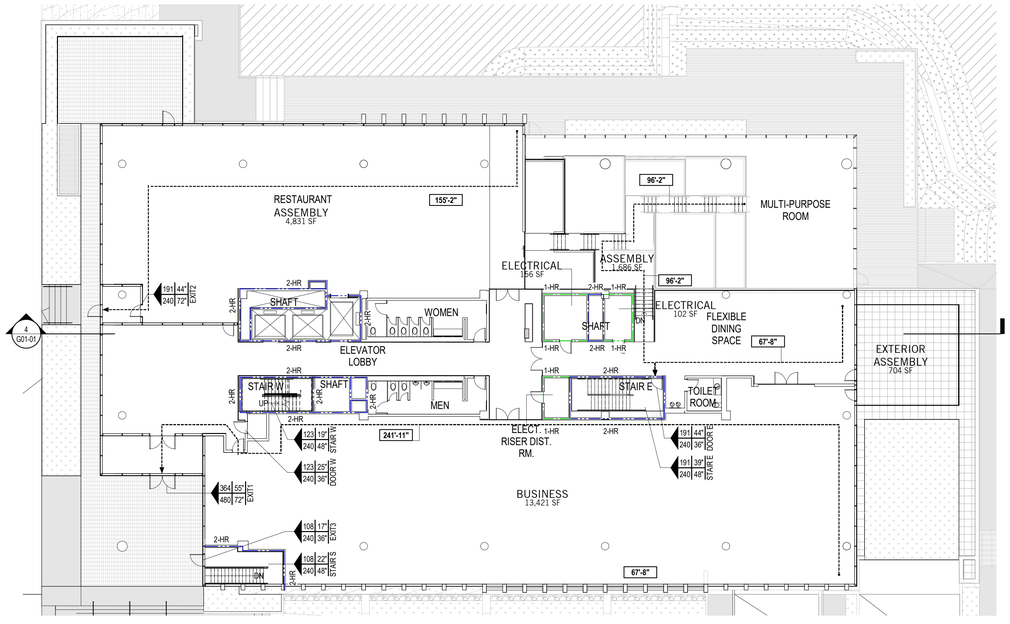
2 LEVEL 02 LIFE SAFETY PLAN

1/16" = 1'-0"

LEVEL 1 PLUMBING FIXTURE COUNTS						
	W.C. / URINALS		LAVATORIES		DRINKING FOUNTAINS	
	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED
MEN	4	5	3	3	-	-
WOMEN	4	5	3	3	-	-
UNISEX	-	1	-	1	-	-
TOTALS	8	11	6	7	-	2

NOTE: MAXIMUM NUMBER OF OCCUPANTS ON LEVEL 1:
ASSEMBLY: 200
BUSINESS: 100
TOTAL ESTIMATED OCCUPANTS: 300

OCCUPANT LOAD CALCULATIONS - LEVEL 01				
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
BUSINESS	13,421 SF	100 SF	B	135
ASSEMBLY	4,831 SF	15 SF	A	323
ASSEMBLY	1,686 SF	15 SF	A	113
ELECTRICAL	156 SF	300 SF	S-1	1
ELECTRICAL	102 SF	300 SF	S-1	1
EXTERIOR ASSEMBLY	704 SF	15 SF	A	47
Grand total: 6				620



1 LEVEL 01 LIFE SAFETY PLAN

1/16" = 1'-0"

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UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

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ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

LEVEL 01-03 CODE COMPLIANCE PLANS

SHEET NUMBER

G01-02

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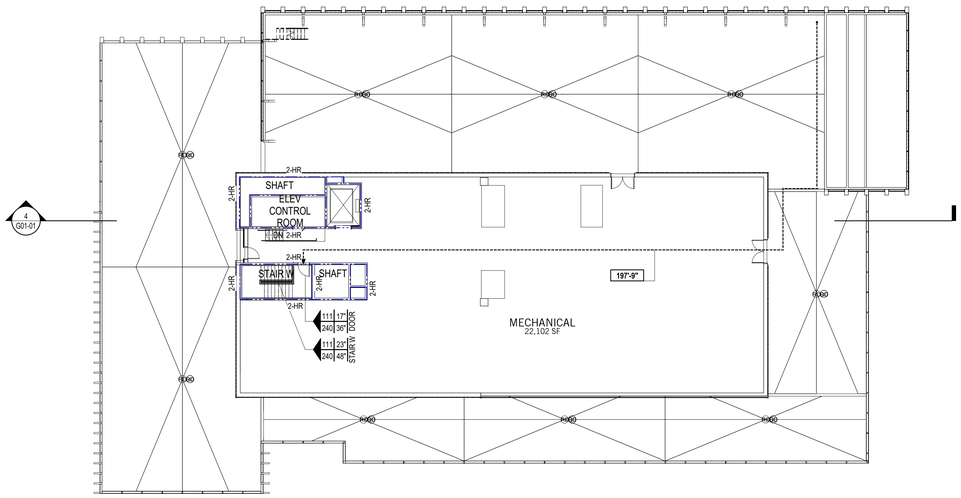
OCCUPANT LOAD CALCULATIONS - ROOF				
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	AREA MEASURED	OCCUPANT LOAD
MECHANICAL	22,102 SF	200 SF	S-1	111
Grand total: 1				111



4 ROOF LIFE SAFETY PLAN
1/16" = 1'-0"

LIFE SAFETY LEGEND

PARTITION RATINGS DESIGNATIONS

- 4HR — 4-HOUR FIRE RESISTANT SEPARATION
- 3HR — 3-HOUR FIRE RESISTANT SEPARATION
- 2HR — 2-HOUR FIRE RESISTANT SEPARATION
- 1HR — 1-HOUR FIRE RESISTANT SEPARATION
- NON RATED

EXIT CAPACITY (NON-ASSEMBLY)

	SPRINKLERED*
STAIRS	0.2 INCHES / OCCUPANT
DOORS	0.15 INCHES / OCCUPANT

* **EGRESS WIDTHS NOTED FOR A FULLY SPRINKLERED BUILDING**
* H OCCUPANCY REQUIRES 0.3 INCHES / OCCUPANT FOR STAIRS AND 0.2 INCHES / OCCUPANT FOR DOORS
IBC 2015 (1005.3)

TRAVEL DISTANCE IBC 2015

USE	T.D*	D.E*
A	250'	20'
M, S-1	250'	50'
B	300'	50'
S-2	400'	50'
H-1	75'	20'
H-2	100'	20'
H-3	150'	20'
H-4	175'	20'
H-5	200'	20'

EXIT DIMENSION SYMBOL

36"

EXIT SYMBOLS

EXIT EXIT

PATH OF TRAVEL

LIFE SAFETY EGRESS SYMBOL

440 44" 240 72" DOOR

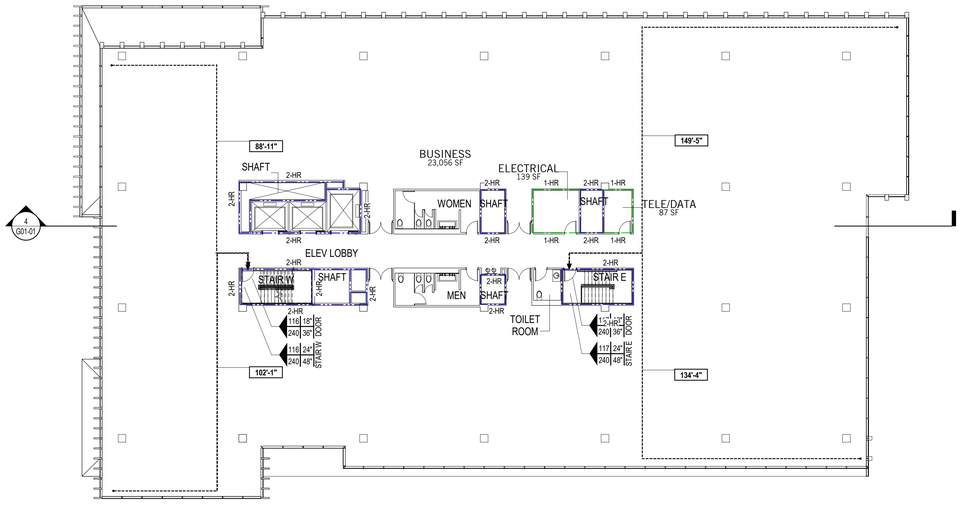
- ACTUAL CUMULATIVE POPULATION
- WIDTH REQ'D BY CODE BASED ON ACTUAL CUMULATIVE POPULATION
- ACTUAL WIDTH PROVIDED
- POPULATION PERMITTED BASED ON WIDTH PROVIDED

***TRAVEL AND DEAD END DISTANCES WITH AUTOMATIC SPRINKLER SYSTEM**
IBC 2018 (1017.2)
IBC 2018 (1020.4)

LEVEL 5 PLUMBING FIXTURE COUNTS						
	W.C. / URINALS		LAVATORIES		DRINKING FOUNTAINS	
	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED
MEN	3	3	2	2	-	-
WOMEN	3	3	2	2	-	-
UNISEX	-	1	-	1	-	-
TOTALS	6	7	6	5	-	2

NOTE: MAXIMUM NUMBER OF OCCUPANTS ON LEVEL 180

OCCUPANT LOAD CALCULATIONS - LEVEL 05				
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	AREA MEASURED	OCCUPANT LOAD
BUSINESS	23,056 SF	100 SF	B	231
ELECTRICAL	139 SF	200 SF	S-1	1
TELE/DATA	87 SF	200 SF	S-1	1
Grand total: 3				233

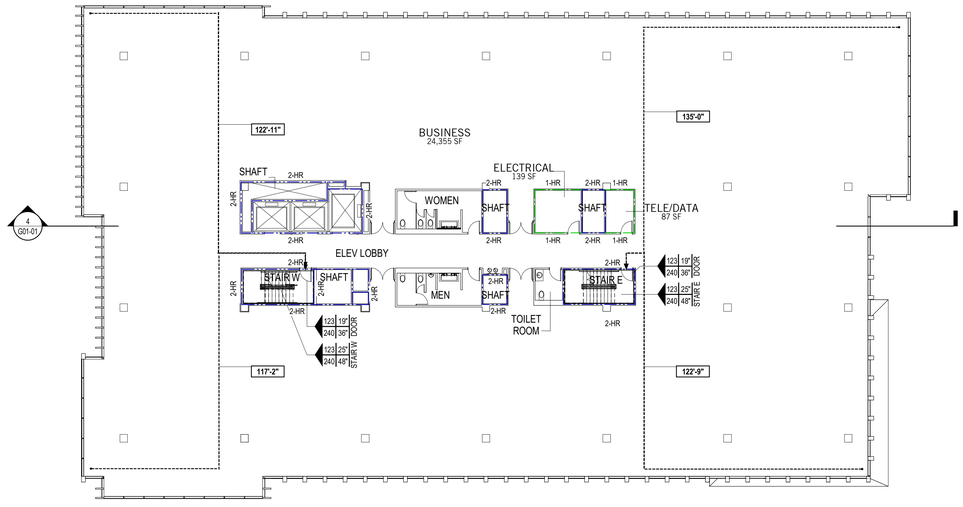


3 LEVEL 05 LIFE SAFETY PLAN
1/16" = 1'-0"

LEVEL 4 PLUMBING FIXTURE COUNTS						
	W.C. / URINALS		LAVATORIES		DRINKING FOUNTAINS	
	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED	REQUIRED	SUPPLIED
MEN	3	3	2	2	-	-
WOMEN	3	3	2	2	-	-
UNISEX	-	1	-	1	-	-
TOTALS	6	7	6	5	-	2

NOTE: MAXIMUM NUMBER OF OCCUPANTS ON LEVEL 180

OCCUPANT LOAD CALCULATIONS - LEVEL 04				
ROOM NAME	FLOOR AREA	FLOOR AREA PER OCCUPANT	SPACE CLASSIFICATION	OCCUPANT LOAD
ELECTRICAL	139 SF	200 SF	S-1	1
TELE/DATA	87 SF	200 SF	S-1	1
BUSINESS	24,355 SF	100 SF	B	244
Grand total: 3				246



2 LEVEL 04 LIFE SAFETY PLAN
1/16" = 1'-0"

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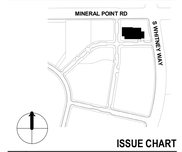
510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

LEVEL 04-ROOF CODE COMPLIANCE PLANS

SHEET NUMBER

G01-03

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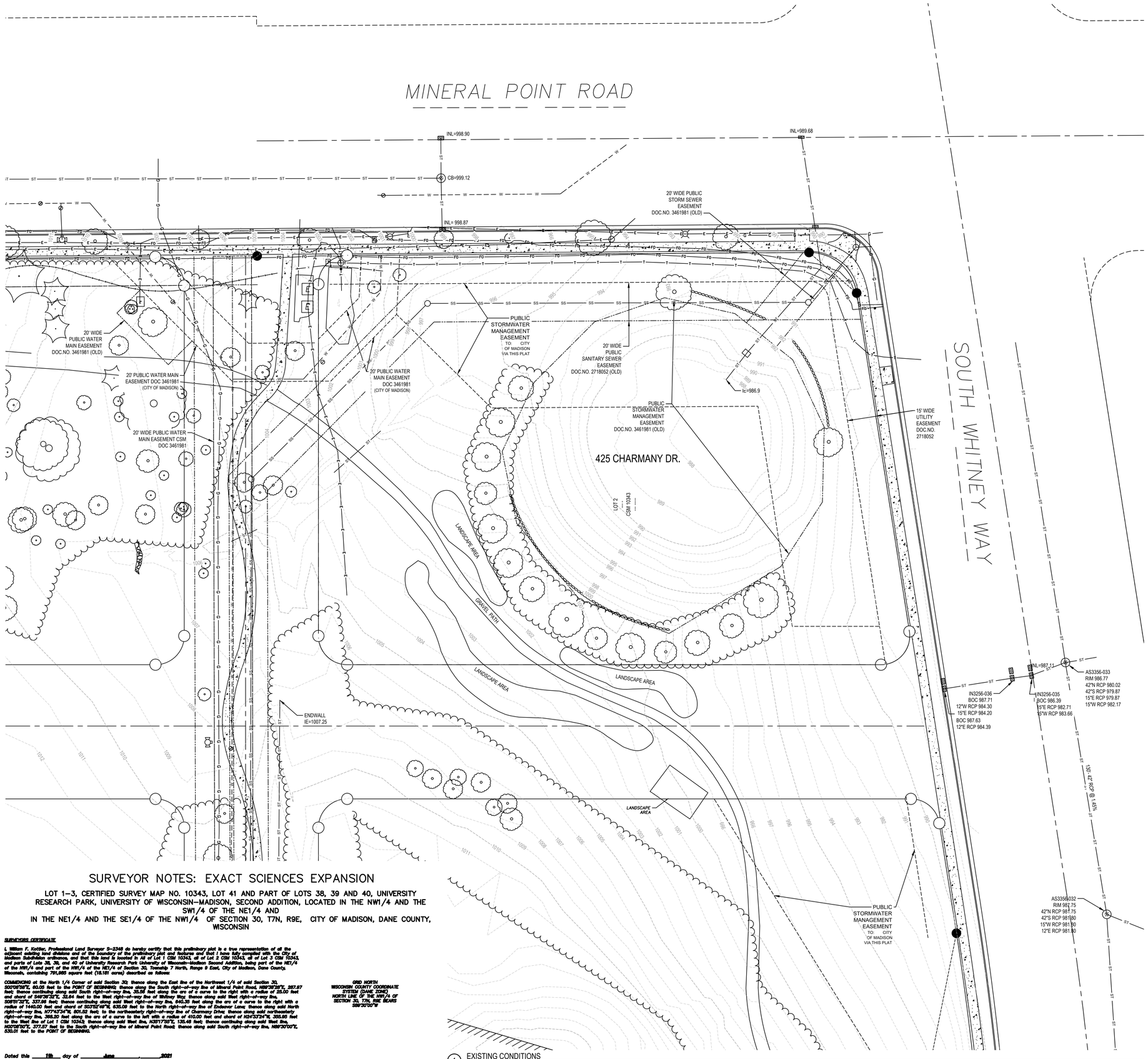

SURVEYOR NOTES: EXACT SCIENCES EXPANSION

LOT 1–3, CERTIFIED SURVEY MAP NO. 10343, LOT 41 AND PART OF LOTS 38, 39 AND 40, UNIVERSITY RESEARCH PARK, UNIVERSITY OF WISCONSIN–MADISON, SECOND ADDITION, LOCATED IN THE NW1/4 AND THE SW1/4 OF THE NE1/4 AND
IN THE NE1/4 AND THE SE1/4 OF THE NW1/4 OF SECTION 30, T7N, R9E, CITY OF MADISON, DANE COUNTY, WISCONSIN

SURVEYORS CERTIFICATE:

I, William F. Kottler, Professional Land Surveyor S–2348 do hereby certify that this preliminary plat is a true representation of all the adjacent subdiving land divisions and of the boundary of the preliminary plat and features and that I have fully complied with the City of Madison Subdivision ordinance, and that this land is located in All of Lot 1 CSM 10343, all of Lot 2 CSM 10343, all of Lot 3 CSM 10343, and parts of Lots 38, 39, and 40 of University Research Park University of Wisconsin–Madison Second Addition, being part of the NE1/4 of the NW1/4 and part of the NW1/4 of the NE1/4 of Section 30, Township 7 North, Range 9 East, City of Madison, Dane County, Wisconsin, containing 791,885 square feet (18.181 acres) described as follows:

COMMENCING at the North 1/4 Corner of said Section 30; thence along the East line of the Northwest 1/4 of said Section 30, S00°06'08"E, 60.05 feet to the POINT OF BEGINNING; thence along the South right–of–way line of Mineral Point Road, N89°26'29"E, 257.97 feet; thence continuing along said South right–of–way line, 35.06 feet along the arc of a curve to the right with a radius of 25.00 feet and chord of S49°36'33"E, 32.54 feet to the West right–of–way line of Whitney Way; thence along said West right–of–way line, S00°51'37"E, 337.66 feet; thence continuing along said West right–of–way line, 640.35 feet along the arc of a curve to the right with a radius of 1440.00 feet and chord of S03°52'46"E, 635.09 feet to the North right–of–way line of Endeavor Lane; thence along said North right–of–way line, N77°43'47"W, 801.52 feet; to the northeasterly right–of–way line of Charmany Drive; thence along said northeasterly right–of–way line, 265.20 feet along the arc of a curve to the left with a radius of 410.00 feet and chord of N24°33'24"E, 260.85 feet to the West line of Lot 1 CSM 10343; thence along said West line, N35°17'55"E, 135.48 feet; thence continuing along said West line, N00°06'52"E, 377.57 feet to the South right–of–way line of Mineral Point Road; thence along said South right–of–way line, N89°26'00"E, 530.01 feet to the POINT OF BEGINNING.

GRID NORTH
WISCONSIN COUNTY COORDINATE SYSTEM (DANE ZONE)
NORTH LINE OF THE NW1/4 OF SECTION 30, T7N, R9E BEARS S89°26'00"W

Dated this 1th day of June, 2021

William F. Kottler, Professional Land Surveyor, S–2348

1 EXISTING CONDITIONS

SCALE: 1" = 20'

SHEET NOTES

KEYED NOTES

LEGEND

- LIMITS OF WORK
- 865 EXISTING MAJOR CONTOUR
- 864 EXISTING MINOR CONTOUR
- EASEMENT, NEW
- EASEMENT, OLD
- PROPERTY CORNER, NEW
- PROPERTY CORNER, OLD
- PARCEL BOUNDARY
- SS EXISTING SANITARY
- W EXISTING WATER MAIN
- ST EXISTING STORM
- G EXISTING NATURAL GAS
- E EXISTING UNDERGROUND ELECTRIC
- T EXISTING UNDERGROUND TELEPHONE
- FO EXISTING UNDERGROUND FIBER OPTIC
- E ELECTRIC BOX
- T TELEPHONE BOX
- MANHOLE
- CATCH BASIN/INLET
- LIGHT POILE
- VALVE
- HYDRANT
- TREE
- CONCRETE CURB AND GUTTER
- BOULDER WALL
- CONCRETE

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GRAEF
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MEP
Affiliated Engineers, Inc.
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Madison, WI 53719

OWNER'S TEAM

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UNIVERSITY RESEARCH PARK
510 Charmany Drive, Suite 250
Madison, WI 53719

OWNER'S REPRESENTATIVE
SMOCKE & ASSOCIATES, INC.
925 E. Wells St., #1119, P.O. Box 511267
Milwaukee, WI 53202

CONSTRUCTION MANAGER
J. H. FINDORFF & SON INC.
300 South Bedford Street
Madison, WI 53703

NOTE: DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION PURPOSES.

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

TITLE

EXISTING CONDITIONS

SHEET NUMBER

CE100

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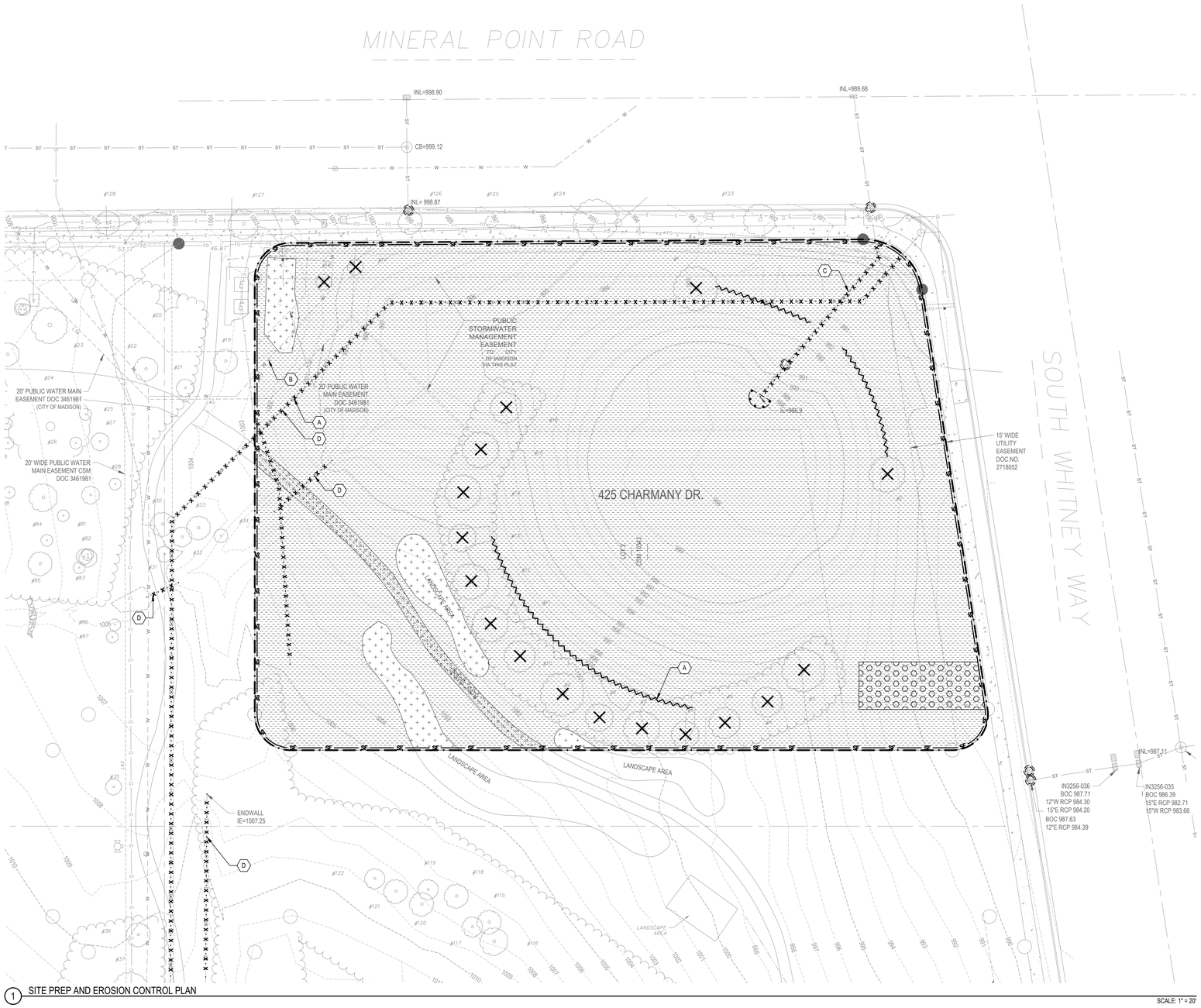
EROSION CONTROL NOTES

1. POST WDNR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED, AND A NOTICE OF TERMINATION IS FILED WITH WDNR.
2. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
3. SUBMIT PLAN REVISIONS OR AMENDMENTS TO THE WDNR AT LEAST 5 DAYS PRIOR TO FIELD IMPLEMENTATION.
4. CONTRACTOR IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
5. INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
6. WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE, MINIMIZE SOIL COMPACTION, AND PRESERVE TOPSOIL.
7. REFER TO THE WDNR STORMWATER CONSTRUCTION TECHNICAL STANDARDS AT http://dnr.wi.gov/topic/stormwater/standards/const_standards.html.
8. INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCE(S) PRIOR TO ANY LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNR TECHNICAL STANDARD STONE TRACKING PAD AND TIRE WASHING #1057 FOR ROCK CONSTRUCTION ENTRANCE(S).
9. INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1060.
10. STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067.
11. NOTIFY WDNR IF DEWATERING IS SCHEDULED TO OCCUR IN AREAS OF SOIL AND/OR GROUNDWATER CONTAMINATION, OR IF DEWATERING WILL OCCUR FROM A HIGH CAPACITY WELL (70 GPM OR MORE). DEWATER ONLY AFTER THE APPROPRIATE WDNR DEWATERING DISCHARGE PERMIT HAS BEEN OBTAINED.
12. PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNR TECHNICAL STANDARD DE-WATERING #1061. A DNR APPROVED WATER QUALITY POLYMER SHALL BE USED IN COMBINATION WITH A PROPERLY DESIGNED SEDIMENT BASIN OR TANK BEFORE OFF SITE DISCHARGE.
13. COMPLETE AND STABILIZE SEDIMENT BASINS/TRAPS OR WET PONDS PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE (REFER TO NR 528). CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WDNR TECHNICAL STANDARD SEDIMENT BASIN #1064 AND SEDIMENT TRAP # 1063.
14. CONSTRUCT AND PROTECT THE BIOINFILTRATION BASIN AND VEGETATION FROM RUNOFF AND SEDIMENT DURING CONSTRUCTION. REFERENCE THE WDNR TECHNICAL STANDARD BIORETENTION FOR INFILTRATION # 1004.
15. INSTALL AND MAINTAIN SILT FENCING PER WDNR TECHNICAL STANDARD SILT FENCE #1056. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
16. REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL, AND MAINTAIN STRAW BALES PER WDNR TECHNICAL STANDARD DITCH CHECKS #1062.
17. INSTALL AND MAINTAIN FILTER SOCKS IN ACCORDANCE WITH WDNR TECHNICAL STANDARD INTERIM MANUFACTURED PERIMETER CONTROL AND SLOPE INTERRUPTION PRODUCTS # 1071.
18. IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
19. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER. BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE. AS APPROPRIATE FOR REGION AND SOIL TYPE OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
20. STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
21. SWEEP/CLEAM UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY. SEPARATE SWEPT MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
22. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST PER WDNR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES # 1068.
23. PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
24. COORDINATE WITH WDNR TO UPDATE THE LAND DISTURBANCE PERMIT TO INDICATE THE ANTICIPATED OR LIKELY DISPOSAL LOCATIONS FOR ANY EXCAVATED SOILS OR CONSTRUCTION DEBRIS THAT WILL BE HAULED OFF-SITE FOR DISPOSAL. THE DEPOSITED OR STOCKPILED MATERIAL NEEDS TO INCLUDE PERIMETER SEDIMENT CONTROL MEASURES (SUCH AS SILT FENCE, HAY BALES, FILTER SOCKS, OR COMPACTED EARTHEN BERMS).
25. FOR NON-CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES, PROVIDE APPROPRIATE (DEPENDING ON THE SLOPE) BIODEGRADABLE EROSION CONTROL MATTING. SELECT EROSION MATTING FROM APPROPRITE MATRIX IN WDOT'S WIDOT PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD NON-CHANNEL EROSION MAT #1052.
26. FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED AREAS, PROVIDE APPROPRIATE (BASED ON SHEAR STRESS) BIODEGRADABLE EROSION CONTROL MATTING. SELECT EROSION MATTING FROM APPROPRIATE MATRIX IN WDOT'S WIDOT PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD CHANNEL EROSION MAT #1053.
27. MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
28. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED (SUCH AS TEMPORARY SEDIMENT BASINS, DITCH CHECKS, EROSION CONTROL MATTING, SILT FENCING, FILTER SOCKS, WATTLES, SWALES, ETC.).
29. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE WDNR REMEDIATION AND WASTE MANAGEMENT REQUIREMENTS FOR HANDLING AND DISPOSING OF CONTAMINATED MATERIALS. SITE-SPECIFIC INFORMATION FOR AREAS WITH KNOWN OR SUSPECTED SOIL AND/OR GROUNDWATER CONTAMINATION CAN BE FOUND ON WDNR'S BUREAU OF REMEDIATION AND REDEVELOPMENT TRACKING SYSTEM (BRRTS) PUBLIC DATABASE AT: http://dnr.wi.gov/botw/



1 SITE PREP AND EROSION CONTROL PLAN

SCALE: 1" = 20'

SHEET NOTES

1. EROSION CONTROL MAT TO BE PLACED ON ALL SLOPES GREATER THAN 3:1.

KEYED NOTES

A. REMOVE PUBLIC SANITARY SEWER. SEWER TO REMAIN IN SERVICE UNTIL CONSTRUCTION AND ACCEPTANCE OF RELOCATED PUBLIC SEWER. PROVIDE TEMPORARY SUPPORT AS REQUIRED.

B. PROTECT WATER MAIN. MAIN TO REMAIN IN SERVICE UNTIL CONSTRUCTION AND ACCEPTANCE OF RELOCATED PUBLIC SEWER.

C. REMOVE EXISTING CULVERT AND CONTROL STRUCTURE WHEN NEW DETENTION BASIN IS CONSTRUCTED. LEAVE EXISTING CULVERT IN PLACE DURING CONSTRUCTION AS REQUIRED FOR DEWATERING.

D. REMOVAL BY OTHERS

LEGEND

- TOPSOIL REMOVAL AND VEGETATION CLEARING, NOT IN CONTRACT
- GRAVEL PATH REMOVAL, NOT IN CONTRACT
- WOODY VEGETATION CLEARING AREA WITH TOPSOIL REMOVAL. MAY INCLUDE TREE REMOVAL, NOT IN CONTRACT
- REMOVE, STOCKPILE, AND SALVAGE STONE BLOCKS
- UTILITY REMOVAL
- TREE REMOVAL, NOT IN CONTRACT
- STABILIZED CONSTRUCTION ENTRANCE (4 / CP500)
- EROSION CONTROL BLANKET (3 / CP500)
- INLET PROTECTION (1 / CP500)
- STONE WEEPER CULVERT PROTECTION (6 / CP500)
- SILT FENCE, NOT IN CONTRACT (2 / CP500)
- SEDIMENT CONTROL TUBE (5 / CP500)

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UNIVERSITY RESEARCH PARK - ELEMENT LABS

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

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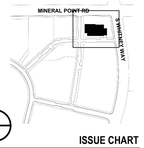
ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

TITLE

SITE PREP AND EROSION CONTROL PLAN

SHEET NUMBER

CP100

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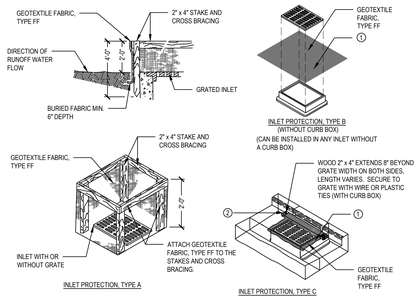
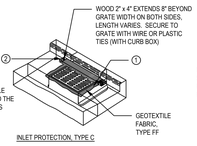
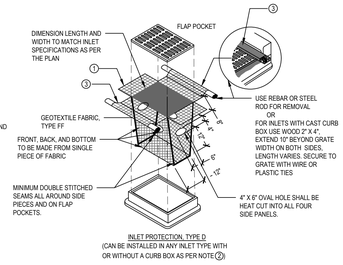


INLET PROTECTION, TYPE A

INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C



INLET PROTECTION, TYPE D
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE 2)

GENERAL NOTES:

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

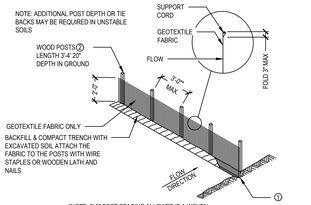
1. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
2. FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
3. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2x4.

INSTALLATION NOTES:

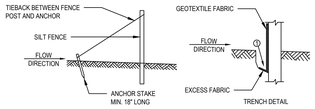
TYPE B & C
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

1 INLET PROTECTION DETAILS
SCALE: NTS



"NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

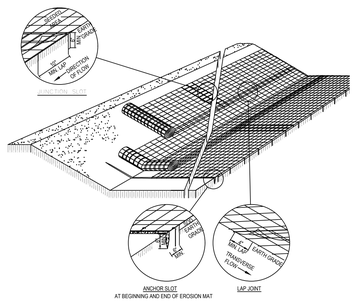


SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)

GENERAL NOTES:

1. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC, FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
2. WOOD POSTS SHALL BE A MINIMUM SIZE OF ½" x ½" OF OAK OR HICKORY.

2 SILT FENCE DETAIL
SCALE: NTS

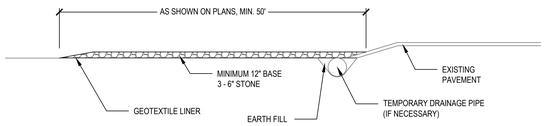


NOTES:

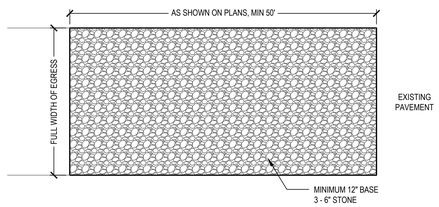
1. VARIATIONS IN THE DIMENSIONS OR MATERIALS SHOWN HEREON SHALL BE PERMITTED IF THEY PROVIDE EQUIVALENT PROTECTION AND MATERIAL STRENGTH AND IF PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.
2. LAP JOINTS SHALL NOT BE PLACED IN THE BOTTOM OF V-SHAPED DITCHES.
3. JUNCTION SLOTS ON ADJACENT STRIPS OF MATTING SHALL BE STAGGERED A MINIMUM OF 4 FEET APART.
4. EDGES OF THE EROSION MAT SHALL BE IMPRESSED IN THE SOIL.

EROSION MAT OVER SEEDING
- JUNCTION OR ANCHOR SLOTS SHALL BE AT MINIMUM INTERVALS OF 100 FEET ON GRADES UP TO AND INCLUDING 3 PERCENT, AND 50 FEET ON GRADES EXCEEDING 3 PERCENT.

3 EROSION CONTROL MAT DETAIL
SCALE: NTS



PROFILE

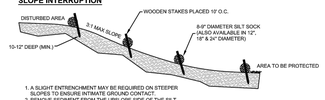


PLAN

4 STABILIZED CONSTRUCTION ENTRANCE DETAIL
SCALE: NTS

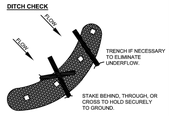
SILT SOCK INSTALLATION GUIDELINES

SLOPE INTERRUPTION



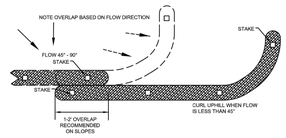
1. A SLIGHT ENTRENCHMENT MAY BE REQUIRED ON STEEPER SLOPES TO ENSURE INTIMATE GROUND CONTACT.
2. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE SILT SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF EFFECTIVE HEIGHT OF SOCK.
3. LOOSE FILTER MEDIA MAY BE BACKFILLED ON THE UPSLOPE SIDE OF SOCK TO ENHANCE PERFORMANCE.
4. HARDWOOD STAKES 2"x2"x24" (NOMINAL) ARE SUGGESTED.

DITCH CHECK

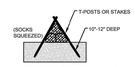


INSTALL SILT SOCK PERPENDICULAR TO FLOW WITH ENDS CURLED SLIGHTLY UPSTREAM TO PREVENT HIGH WATER FROM GOING AROUND THE ENDS. SLOW AND SPREAD WATER TO REDUCE CHANNELING AND EROSION

PERIMETER CONTROL & OVERLAPPING

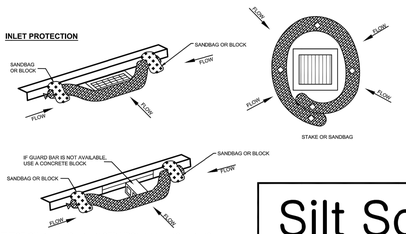


PYRAMID INSTALLATION STAKING



A PYRAMID OF SMALLER DIAMETER SILT SOCKS WILL INCREASE THE EFFECTIVE HEIGHT OF THE DEVICE WHEN LARGER DIAMETER SOCKS ARE NOT READILY AVAILABLE OR EASY TO INSTALL.

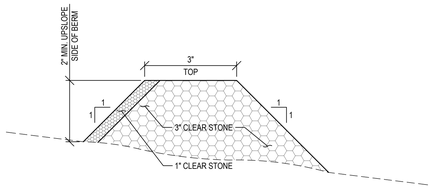
INLET PROTECTION



1. THESE GUIDELINES ARE BASED UPON MANUFACTURERS RECOMMENDATIONS. PROJECT SPECIFICATIONS MAY SUPERSEDE THESE GUIDELINES.
2. REFER TO REGULATORY AUTHORITY OR PROJECT ENGINEER FOR DETAILED INSTALLATION PROCEDURES.
3. WOOD FILLER MATERIAL IS PROPERLY SIZED, BIODEGRADABLE, WEED , SEED & DISEASE FREE AND ENVIRONMENTALLY SOUND.

Silt Sock
EROSION CONTROL PRODUCTS
(608) 438-7625
WWW.SILTSOCK.NET

5 SILT SOCK INSTALLATION DETAIL
SCALE: NTS



STONE WEEPER
SCALE: NTS NOT TO SCALE

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300 South Bedford Street
Madison, WI 53703

NOTE: DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION PURPOSES.

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

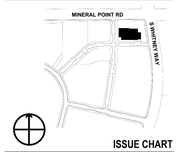
ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN–MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

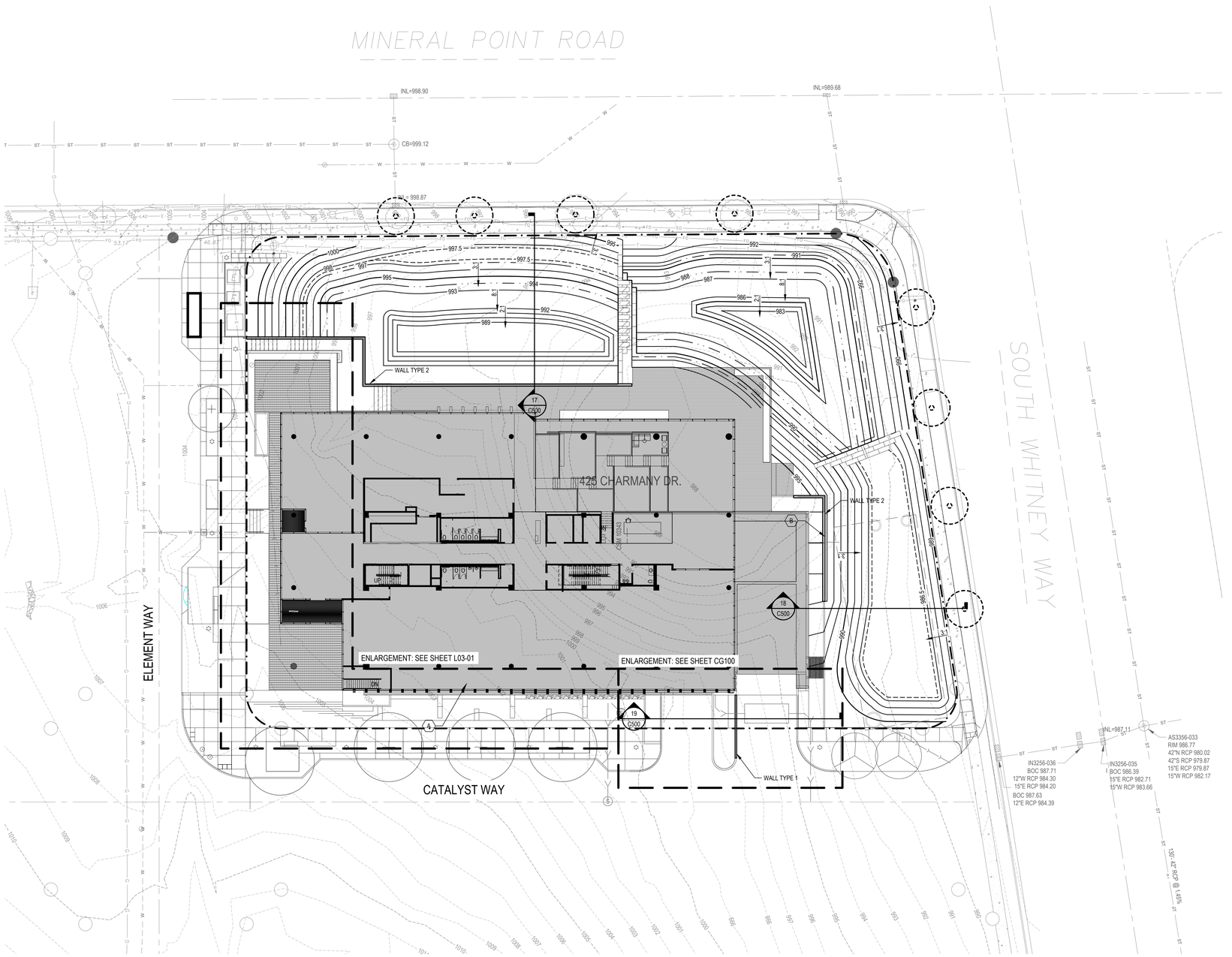
TITLE

EROSION CONTROL DETAILS

SHEET NUMBER

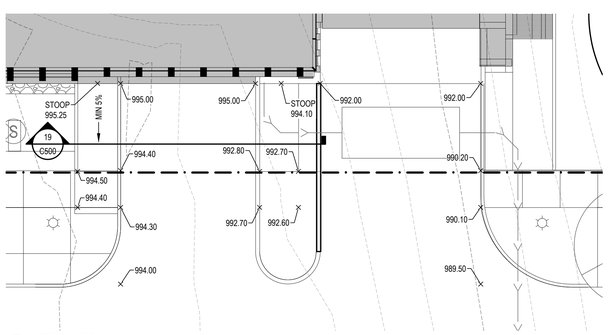
CP500

4/28/2021 8:55:14 AM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt



1 GRADING PLAN

SCALE: 1" = 20'



2 GRADING PLAN

SCALE: 1" = 10'

SHEET NOTES

1. THE INFORMATION DEPICTED ON THIS SHEET IS FOR ESTIMATING INFORMATION ONLY. FINAL PLANS FOR PUBLIC IMPROVEMENTS WILL BE ISSUED BY THE CITY OF MADISON FOR CONSTRUCTION PURPOSES OUTSIDE THE LIMITS OF THE PROJECT. THE RIGHT-OF-WAY IS THE SOLE JURISDICTION OF THE CITY OF MADISON AND IS SUBJECT TO CHANGE AT ANY TIME PER THE RECOMMENDATION/PLAN OF TRAFFIC ENGINEERING AND CITY ENGINEERING DEPARTMENTS.
2. MATCH GRADES ESTABLISHED BY THE CITY OF MADISON AT ROW LINE. NOTIFY ENGINEER OF DISCREPANCIES IMMEDIATELY OR AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION FOR RESOLUTION.

KEYED NOTES

A WALL TYPE 2, SEE DETAIL 8 ON SHEET C500

B WALL TYPE 1, SEE DETAIL 1 ON SHEET C500

LEGEND

- 865 — EXISTING MAJOR CONTOUR
- 864 — EXISTING MINOR CONTOUR
- 865 — PROPOSED MAJOR CONTOUR
- 864 — PROPOSED MINOR CONTOUR
- 861.50 — PROPOSED SPOT ELEVATION
- 861.50 M.E. — APPROX. SPOT ELEVATION: MATCH EXISTING GRADE
- 1:3 — DRAINAGE SLOPE
- CONCRETE WALL
- POND NORMAL WATER LEVEL
- POND HIGH WATER LEVEL

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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

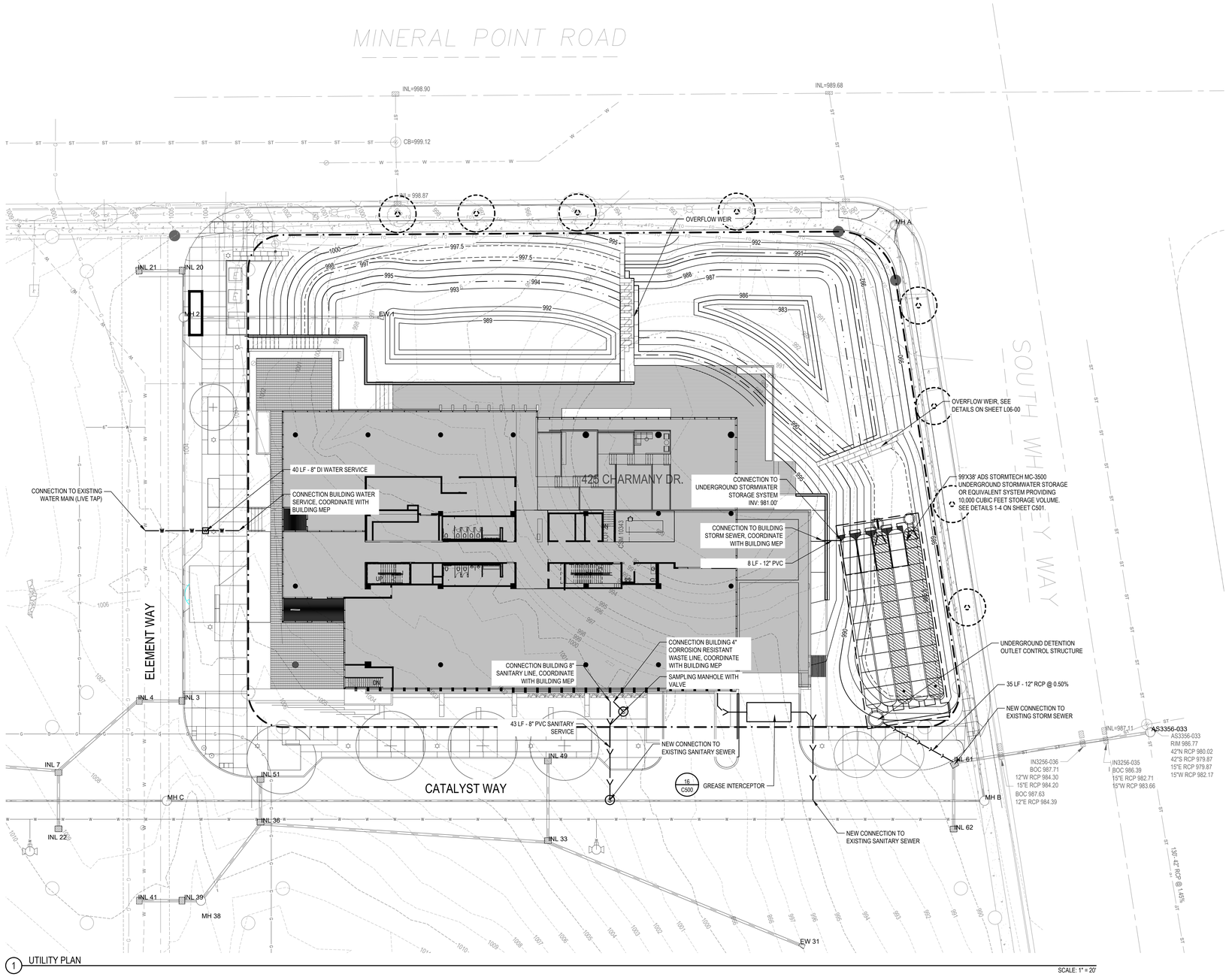
TITLE

GRADING PLAN

SHEET NUMBER

CG100

4/28/2021 8:55:14 AM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt



1 UTILITY PLAN

SCALE: 1" = 20'

SHEET NOTES

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KEYED NOTES

LEGEND

- GATE VALVE BOX
- SANITARY MANHOLE
- W — WATER MAIN
- SANITARY SEWER
- STORM SEWER

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PROJECT

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UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

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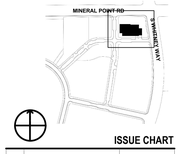
ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

TITLE

UTILITY PLAN

SHEET NUMBER

CU100

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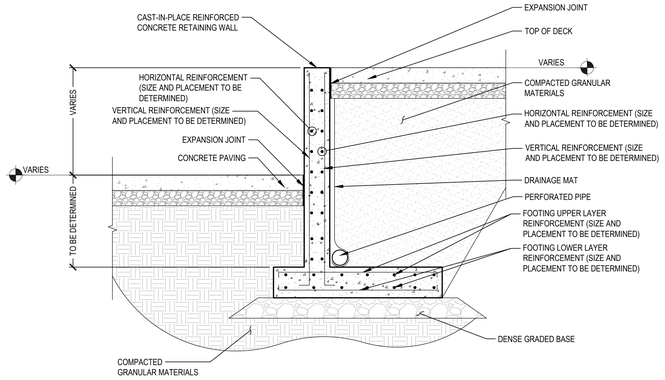
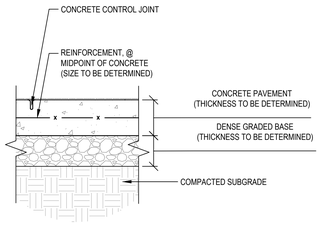
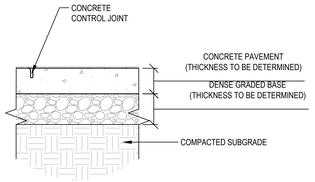


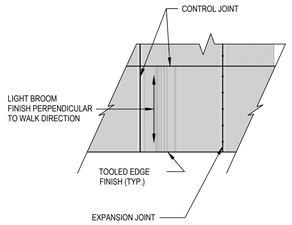
1 WALL TYPE 1 CROSS SECTION
SCALE: NTS



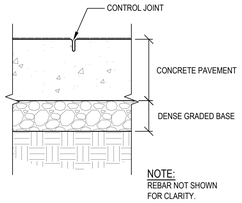
2 CONCRETE DRIVE SECTION DETAIL
SCALE: NTS



3 CONCRETE WALK SECTION DETAIL
SCALE: NTS

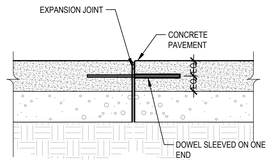


4 CONCRETE PAVEMENT FINISH DETAIL
SCALE: NTS

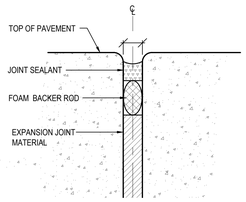


NOTE:
REBAR NOT SHOWN FOR CLARITY.

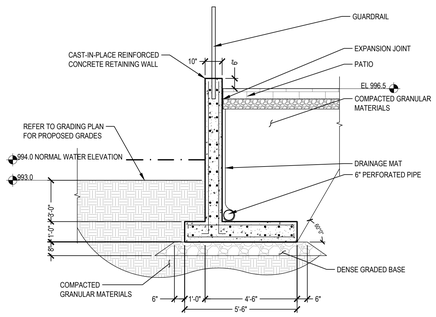
5 CONTROL JOINT DETAIL
SCALE: NTS



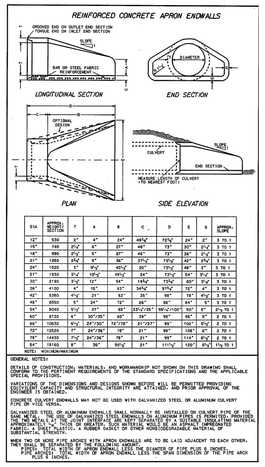
6 EXPANSION JOINT WITH DOWELS DETAIL
SCALE: NTS



7 EXPANSION JOINT DETAIL
SCALE: NTS



8 WALL TYPE 2 CROSS SECTION
SCALE: NTS



DIA	WEIGHT SECTION	T	A	B	C	D	E	SPRING SLOPE
12"	533	3"	4"	24"	45°6"	15"6"	24"	3' 10.1
15"	748	3"6"	4"	27"	46°	19"	30"	3'-4" 3 10.1
18"	890	3"6"	4"	27"	46°	23"	36"	3'-4" 3 10.1
21"	1269	3"6"	4"	36"	31"6"	19"6"	42"	3'-4" 3 10.1
24"	1520	3"	5"6"	45"6"	30"	23"6"	48"	3'-4" 3 10.1
27"	1533	3"6"	10"6"	45"6"	24"	23"6"	54"	3'-4" 3 10.1
30"	3180	3"6"	12"	54"	19"6"	23"6"	60"	3'-4" 3 10.1
36"	4100	4"	15"	63"	24"6"	23"6"	72"	4" 3 10.1
42"	5260	4"6"	21"	63"	30"	30"	84"	4'-4" 3 10.1
48"	6550	5"	24"	72"	26"	30"	96"	5" 3 10.1
54"	8060	5"6"	27"	90"	30"6"/26"	30"/23"6"	102"	4" 3 10.1
60"	8720	6"	30"/28"	90"	29"	30"	120"	5" 3 10.1
66"	10630	6"6"	34"/30"	78"/76"	31"/30"	30"	132"	5'-4" 3 10.1
72"	12520	7"	24"/36"	76"	31"	30"	138"	6" 3 10.1
78"	14450	7"6"	24"/36"	76"	31"	30"	114"	6'-4" 3 10.1
84"	16160	8"	36"	90"6"	31"	11"/6"	126"	6"6" 3 10.1

NOTE: WEIGHT/MATERIAL

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

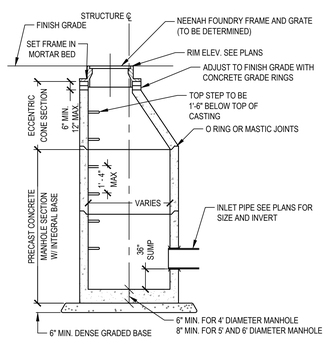
VARIATIONS OF THE DIMENSIONS AND DETAILS SHOWN BEFORE WILL BE PERMITTED PROVIDING THE HYDRAULIC CAPACITY AND STRUCTURAL INTEGRITY ARE ATTAINED AND PRIOR APPROVAL OF THE ENGINEER IS OBTAINED.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR WITH VENEER.

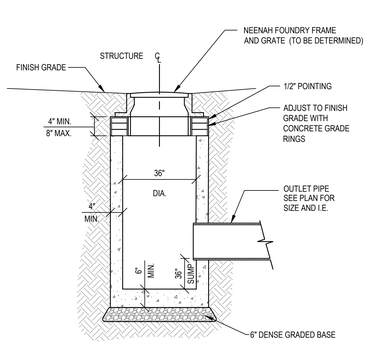
GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL. A PIPE OF ANOTHER METAL MAY BE CONNECTED TO THE ENDWALL PROVIDED THAT THE TWO METALS ARE ELECTRICALLY INSULATED BY A SUITABLE INSULATING MATERIAL. ASPHALTIC OILS OR GREASES, SUCH MATERIAL MOLDED OR AS ASPHALT IMPREGNATED FABRICS, FELT, ETC., A RUBBER GASKET OR OTHER NONDISCERNIBLE MATERIAL OF SUBSTANTIAL STRENGTH.

WHEN TWO OR MORE PIPE ARCHES WITH APRON ENDWALLS ARE TO BE LAID ADJACENT TO EACH OTHER, THE PIPES SHALL BE SPACED AT LEAST ONE FOOT APART.
A PIPE ARCH WITH BEVEL ENDS SHALL HAVE THE BEVELS OF EVEN PLANE HEIGHTS.
PIPE ARCHES WITH BEVEL ENDS OF APRON ENDWALL LESS THE SPUR DIMENSION OF THE PIPE ARCH PLUS 6 INCHES.

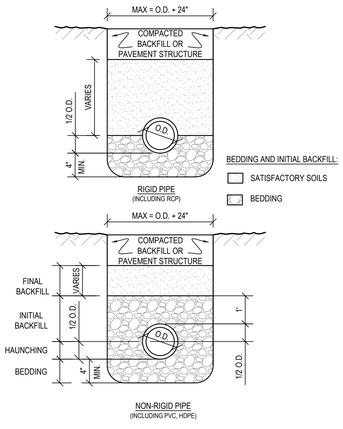
9 APRON ENDWALL DETAIL
SCALE: NTS



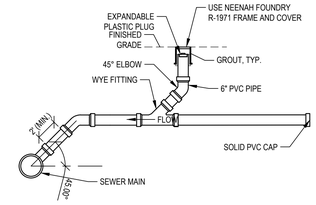
10 CONCRETE STORMSEWER ACCESS STRUCTURE DETAIL
SCALE: NTS



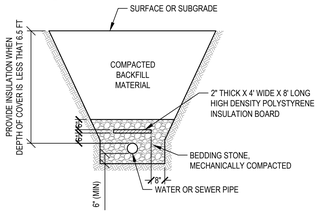
11 CATCH BASIN STRUCTURE DETAIL
SCALE: NTS



12 PIPE BEDDING DETAIL
SCALE: NTS

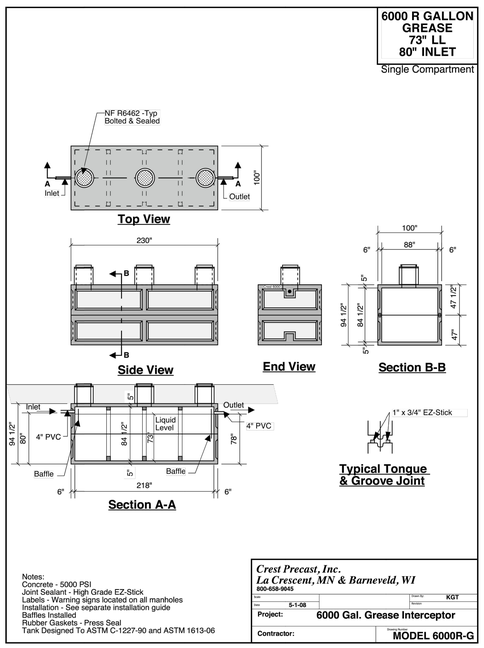


13 SANITARY SEWER SERVICE LATERAL DETAIL
SCALE: NTS

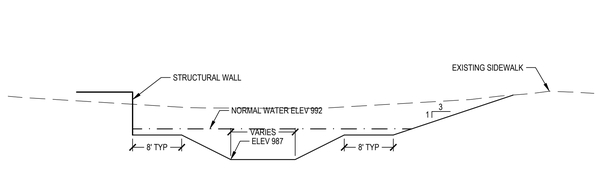


14 WATER AND SEWER PIPE INSULATION DETAIL
SCALE: NTS

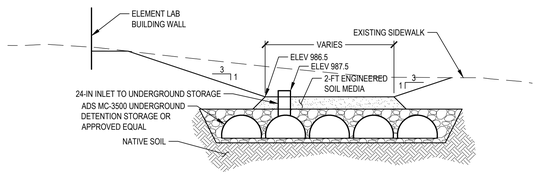
15 NOT USED
SCALE: NTS



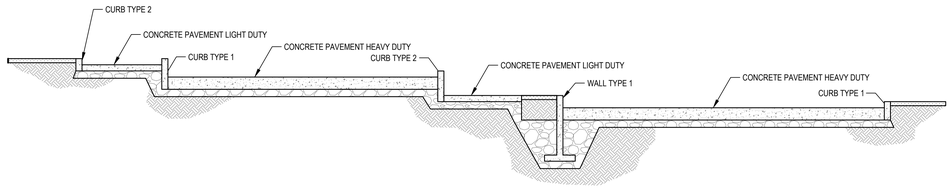
16 GREASE INTERCEPTOR DETAIL
SCALE: NTS



17 WET POND TYPICAL SECTION
SCALE: 1"=10'



18 BIOFILTATION TYPICAL SECTION
SCALE: 1"=10'



19 DOCK AND GARAGE ENTRY CROSS SECTION
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PROJECT

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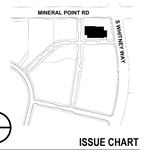
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

TITLE

SITE AND UTILITY DETAILS

SHEET NUMBER

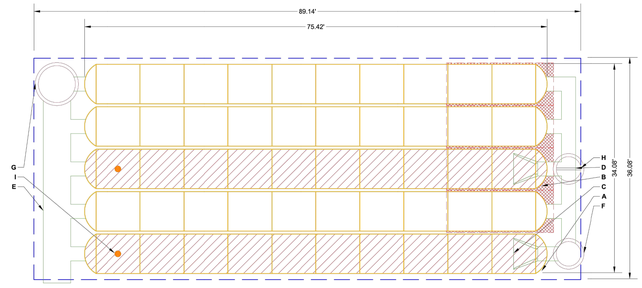
C500

4/28/2021 8:55:14 AM BIM 360:/URP - Element Labs/ARCH_URP_Element Labs.rvt

PROPOSED LAYOUT		PROPOSED ELEVATIONS	
50	STORMTECH MC-3500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	991.00
10	STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	985.00
12	STONE ABOVE (in):	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	984.50
9	STONE BELOW (in):	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	984.25
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	984.00
10464	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	984.00
		TOP OF MC-3500 CHAMBER:	983.00
		24" x 24" TOP MANIFOLD INVERT:	980.46
		48" x 24" BOTTOM MANIFOLD INVERT (24" PIPE):	979.46
3216	SYSTEM AREA (SF)	24" ISOLATOR ROW PLUS INVERT:	979.42
250.4	SYSTEM PERIMETER (ft)	24" ISOLATOR ROW PLUS INVERT:	979.42
		24" BOTTOM CONNECTION INVERT:	979.42
		BOTTOM OF MC-3500 CHAMBER:	979.25
		BOTTOM OF STONE:	978.92
		48" x 24" BOTTOM MANIFOLD INVERT (48" PIPE):	977.46

*INVERT ABOVE BASE OF CHAMBER

ITEM ON LAYOUT	PART TYPE	DESCRIPTION	INVERT*	MAX FLOW
A	PREFABRICATED END CAP	24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.00"	
B	PREFABRICATED END CAP	24" TOP CORED END CAP, PART#: MC3500IEPP24TC / TYP OF ALL 24" TOP CONNECTIONS	14.48"	
C	FLAMP	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MC350024RAMP (TYP 2 PLACES)		
D	MANIFOLD	24" x 24" TOP MANIFOLD: ADS N-12	-14.48"	
E	MANIFOLD	48" x 24" ADS N-12 (48" PIPE)	-21.46"	
		48" x 24" ADS N-12 (24" PIPE)	2.06"	
F	CONCRETE STRUCTURE	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		30.2 CFS IN
G	CONCRETE STRUCTURE	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		35.0 CFS OUT
H	CONCRETE STRUCTURE	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		
I	WIWEIR			
	INSPECTION PORT	4" SEE DETAIL (TYP 2 PLACES)		



ISOLATOR ROW PLUS (SEE DETAIL/TYP 2 PLACES)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES
- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

1 ADS STORMTECH MC-3500 CHAMBER UNDERGROUND STORMWATER DETENTION DETAIL 1
SCALE: NTS

ELEMENT LAB
MADISON, WI
DRAWN: UU
CHECKED: N/A
DATE:
PROJECT #:

REV	DRW	CHK	DESCRIPTION

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 10' 20'

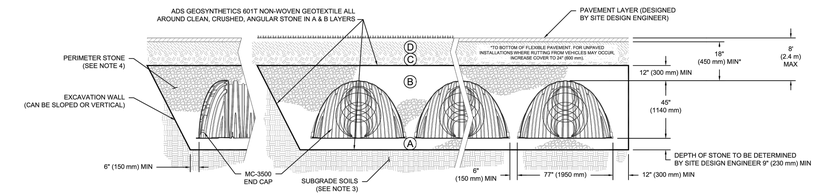
THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OF RECORD. IT IS THE RESPONSIBILITY OF THE SITE DESIGN ENGINEER OF RECORD TO REVIEW THIS DRAWING AND ENSURE THAT ALL DESIGN CONSIDERATIONS HAVE BEEN ADDRESSED PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER OF RECORD TO ENSURE THAT THE PRODUCTS DESCRIBED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND INDUSTRY REQUIREMENTS.

SHEET
2 OF 5

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

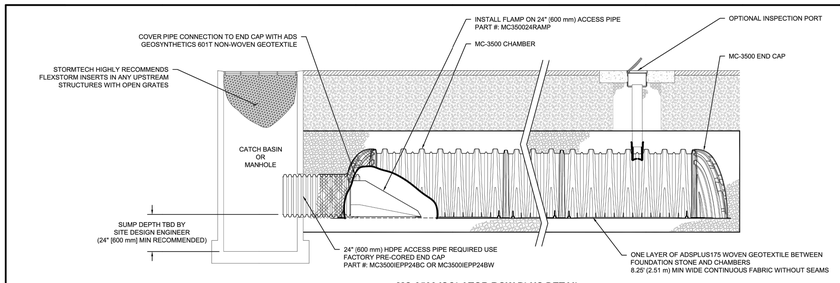
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

2 ADS STORMTECH MC-3500 CHAMBER UNDERGROUND STORMWATER DETENTION DETAIL 2
SCALE: NTS



MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

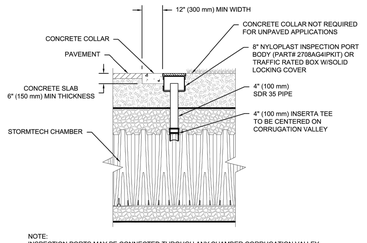
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)
NTS

3 ADS STORMTECH MC-3500 CHAMBER UNDERGROUND STORMWATER DETENTION DETAIL 3
SCALE: NTS

ELEMENT LAB
MADISON, WI
DRAWN: UU
CHECKED: N/A
DATE:
PROJECT #:

REV	DRW	CHK	DESCRIPTION

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

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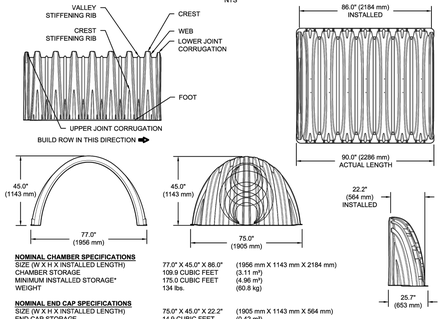
SHEET
4 OF 5

MC-3500 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

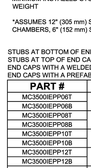
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

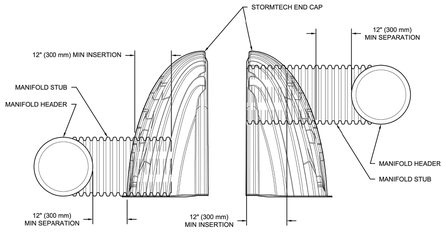
PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

MC-SERIES END CAP INSERTION DETAIL
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

4 ADS STORMTECH MC-3500 CHAMBER UNDERGROUND STORMWATER DETENTION DETAIL 4
SCALE: NTS

ELEMENT LAB
MADISON, WI
DRAWN: UU
CHECKED: N/A
DATE:
PROJECT #:

REV	DRW	CHK	DESCRIPTION

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SHEET
5 OF 5

Perkins&Will
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410 North Michigan Ave.
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f 312.755.0775
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STRUCTURAL
GRAEF
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Madison, WI 53703

MEP
Affiliated Engineers, Inc.
5802 Research Park Boulevard
Madison, WI 53719

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925 E. Wells St., #1119, P.O. Box 511267
Milwaukee, WI 53202

CONSTRUCTION MANAGER
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300 South Bedford Street
Madison, WI 53703

NOTE: DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION PURPOSES.

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

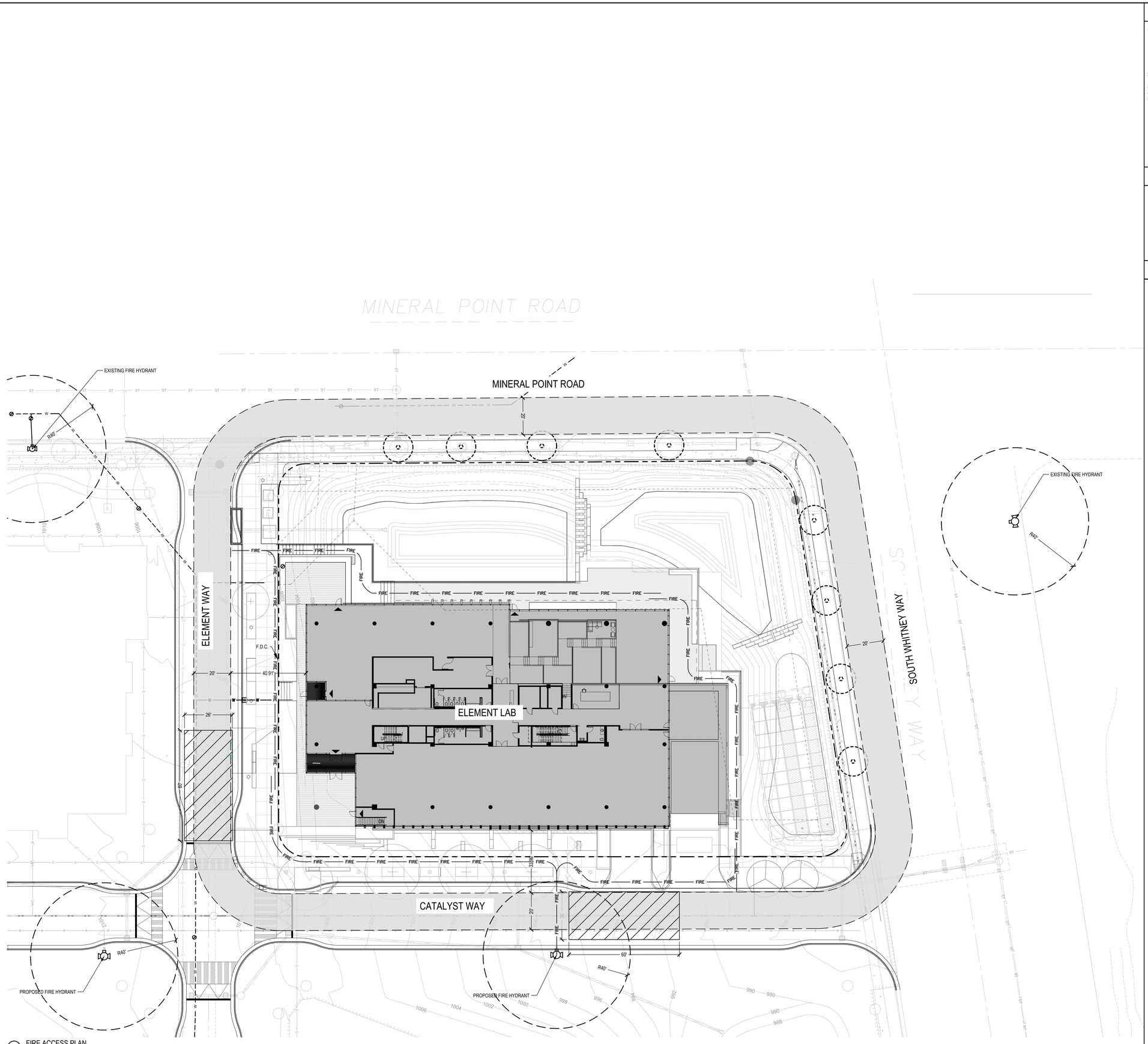
TITLE

UTILITY DETAILS

SHEET NUMBER

C501

4/29/2021 8:55:14 AM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt



1 FIRE ACCESS PLAN

SCALE: 1" = 20'

SHEET NOTES

1. THE INFORMATION DEPICTED ON THIS SHEET IS FOR ESTIMATING INFORMATION ONLY. FINAL PLANS FOR PUBLIC IMPROVEMENTS WILL BE ISSUED BY THE CITY OF MADISON FOR CONSTRUCTION PURPOSES OUTSIDE THE LIMITS OF THE PROJECT. THE RIGHT-OF-WAY IS THE SOLE JURISDICTION OF THE CITY OF MADISON AND IS SUBJECT TO CHANGE AT ANY TIME PER THE RECOMMENDATION/PLAN OF TRAFFIC ENGINEERING AND CITY ENGINEERING DEPARTMENTS.
2. LENGTH OF FIRE HOSES SHOWN DO NOT EXCEED 250 LINEAR FEET IN ANY ONE DIRECTION.
3. ALL FIRE LAND RADII ARE 32'-0" UNLESS OTHERWISE NOTED.
4. ALL FIRE LANE WIDTHS ARE 20'-0" UNLESS OTHERWISE NOTED.
5. ANTICIPATED FDC LOCATION IN WALL ADJACENT TO R.O.W. FINAL LOCATION TO BE ADJUSTED UPON COMPLETION OF MEP DRAWINGS.

KEYED NOTES

LEGEND

- FIRE — HOSE LAY LENGTH - MAX OF 500' BETWEEN TWO HYDRANTS ALONG FIRE ACCESS LANE
- 40' RADII HYDRANT OFFSET
- AERIAL FIRE APPARATUS LANE (26'-0" MIN)
- FIRE ACCESS LANE (20'-0" MIN)
- RIGHT OF WAY
- BUILDING ENTRIES
- F.D.C. — FIRE DEPARTMENT CONNECTION (LOCATION SUBJECT TO MODIFICATION)

Perkins&Will

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410 North Michigan Ave.
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t 312.755.0770
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OWNER'S REPRESENTATIVE
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925 E. Wells St., #1119, P.O. Box 511267
Milwaukee, WI 53202

CONSTRUCTION MANAGER
J. H. FINDORFF & SON INC.
300 South Bedford Street
Madison, WI 53703

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
3	SITE PLAN APPROVAL	JUN 1 2021
2	DESIGN DEVELOPMENT	MAY 27 2021
1	SCHEMATIC DESIGN	MAR 18 2021

Job Number 021130.000

TITLE

FIRE PROTECTION PLAN

SHEET NUMBER

CS001

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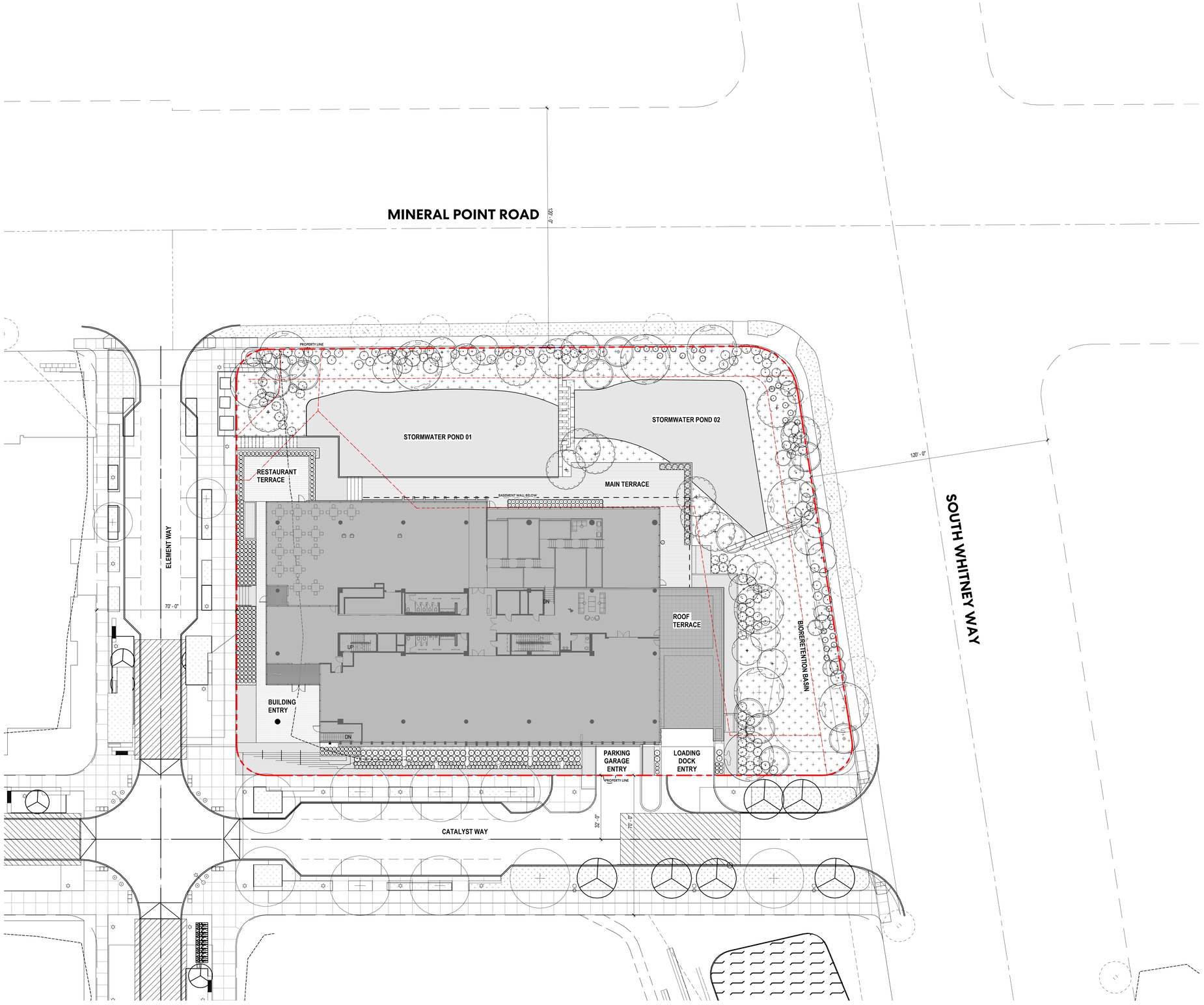

1 OVERALL SITE PLAN
1" = 20'-0"

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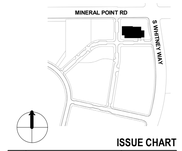
ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

OVERALL SITE PLAN

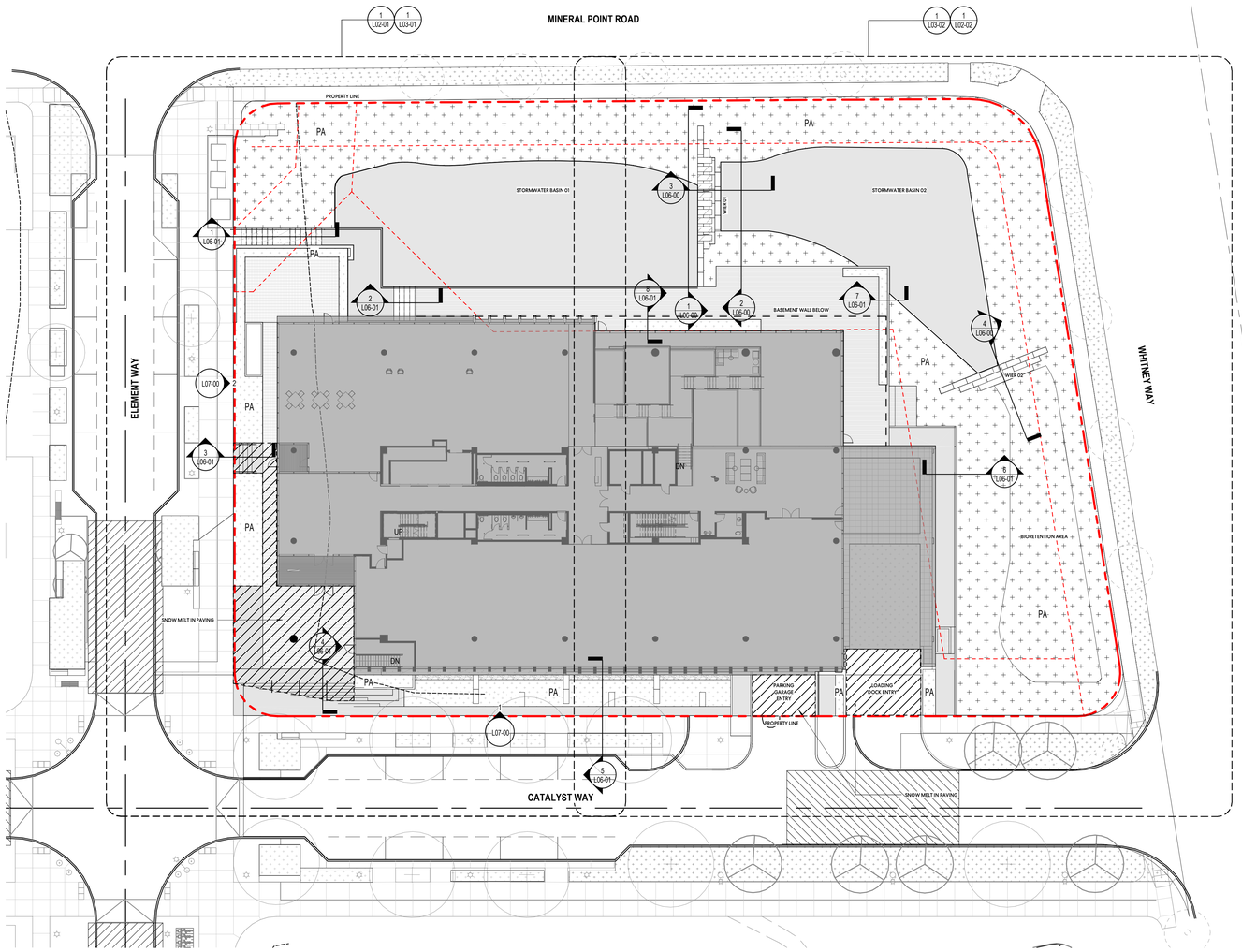
SHEET NUMBER

L01-00

6/1/2021 1:31:52 PM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt

MATERIALS LEGEND

PAVING TYPE 1A	CAST IN PLACE CONCRETE PAVING
PAVING TYPE 2B	**CAST IN PLACE CONCRETE PAVING OVER STRUCTURE**
PAVING TYPE 2A	UNIT PAVERS OVER STRUCTURE
PAVING TYPE 2B	UNIT PAVERS OVER VAULT
PAVING TYPE 3	STABILIZED DECOMPOSED GRANITE
PAVING TYPE 4A	COMPOSITE DECKING ON GRADE
PAVING TYPE 4B	COMPOSITE DECKING OVER STRUCTURE
SSR	STAINLESS STEEL HANDRAIL
SSG	STAINLESS STEEL CABLE GUARDRAIL
GB	REUSED GRANITE BOULDERS
PA	PLANTING AREA



1 MATERIALS & LAYOUT PLAN
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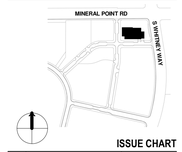

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

MATERIALS & LAYOUT PLAN

SHEET NUMBER

L02-00

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

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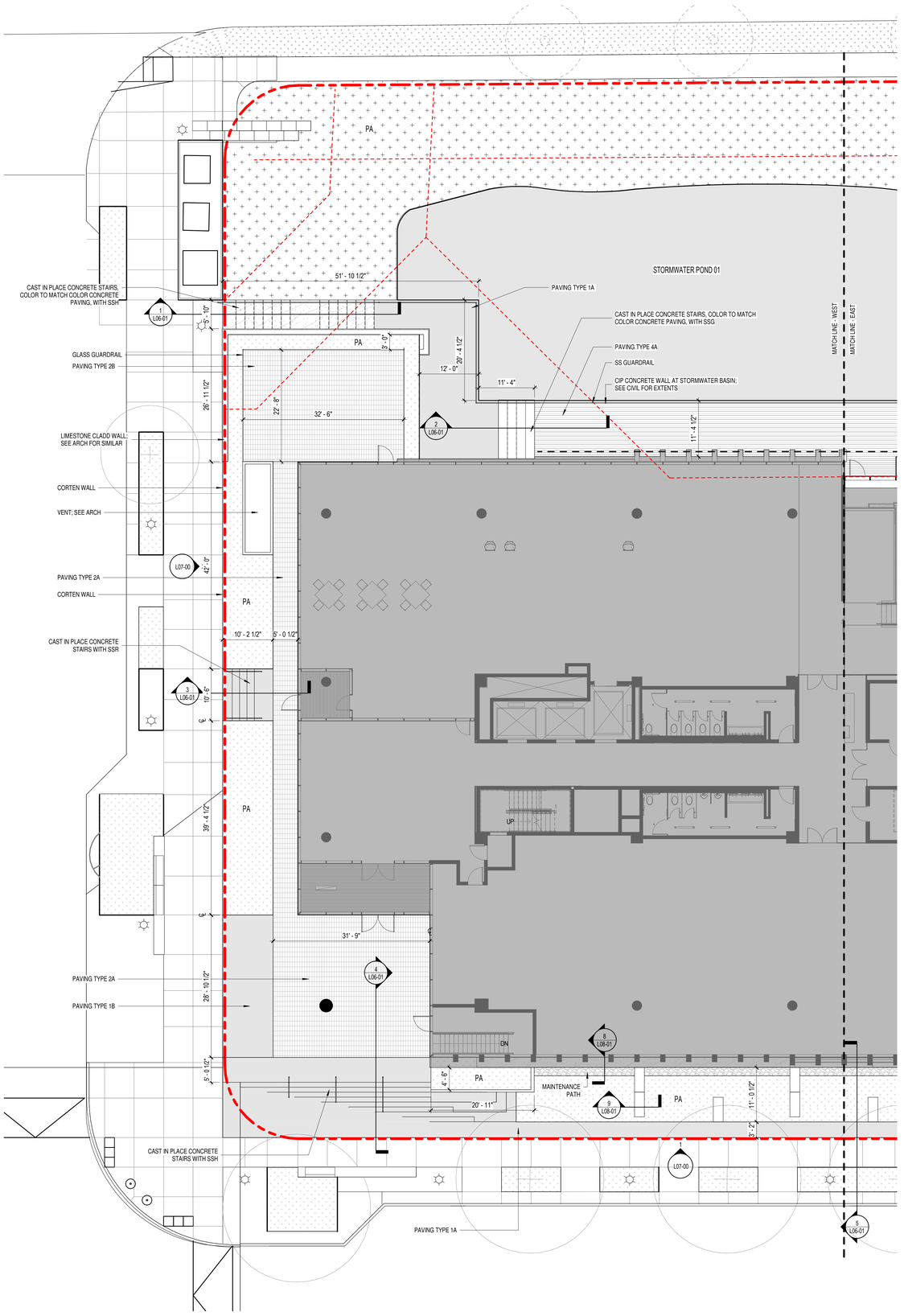

1 WEST ENLARGEMENT PLAN- MATERIALS & LAYOUT
1" = 10'-0"

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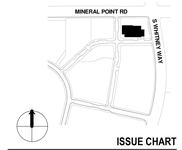

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

ENLARGED MATERIALS & LAYOUT PLAN W

SHEET NUMBER

L02-01

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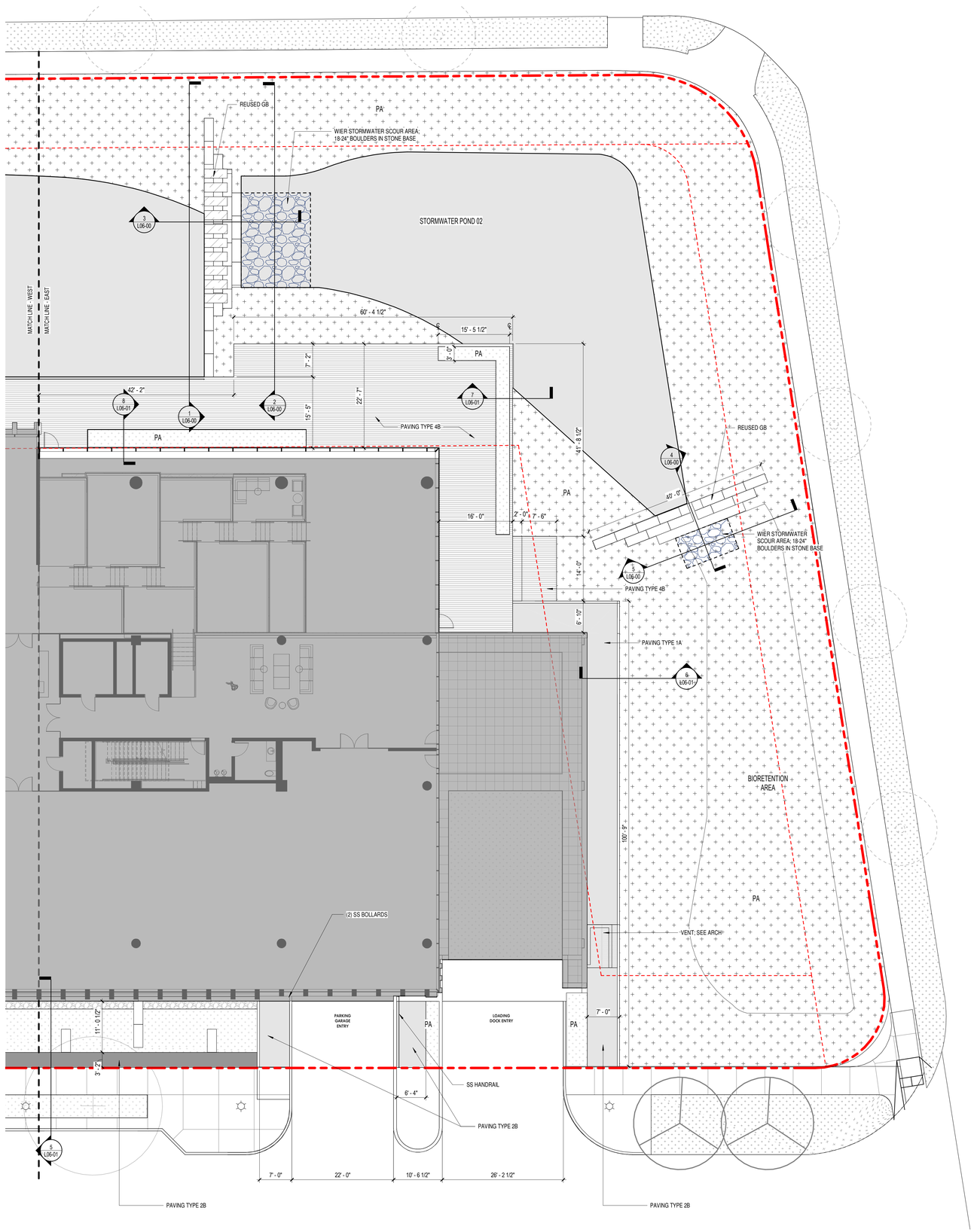

1 EAST ENLARGEMENT PLAN - MATERIALS & LAYOUT
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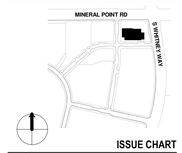

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

ENLARGED MATERIALS & LAYOUT PLAN E

SHEET NUMBER

L02-02

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

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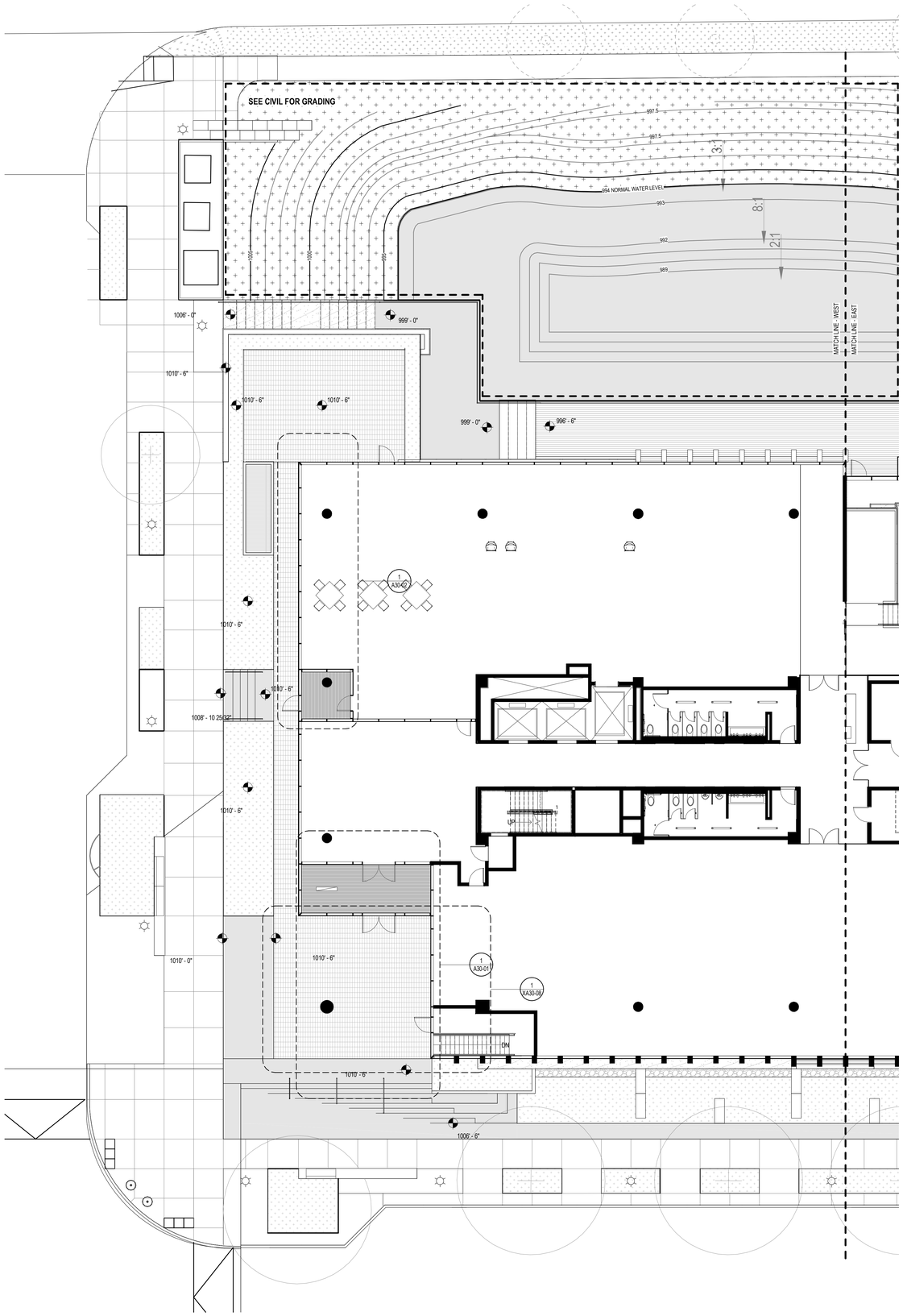

1 ENLARGED GRADING PLAN - W
1" = 10'-0"

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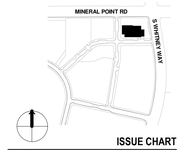
KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

ENLARGED GRADING PLAN W

SHEET NUMBER

L03-01

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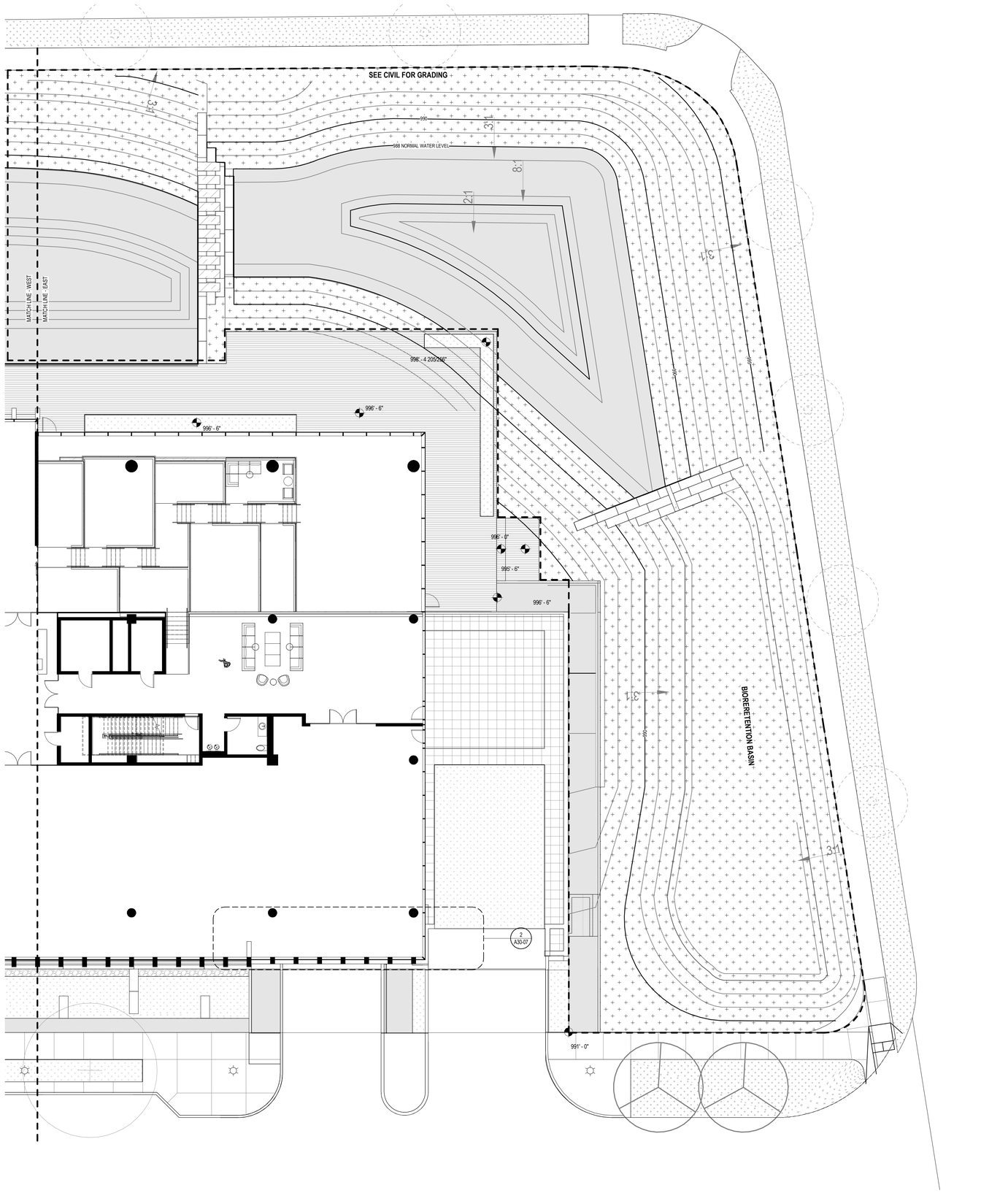

1 ENLARGED GRADING PLAN - E
1" = 10'-0"

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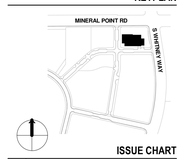

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

ENLARGED GRADING PLAN E

SHEET NUMBER

L03-02

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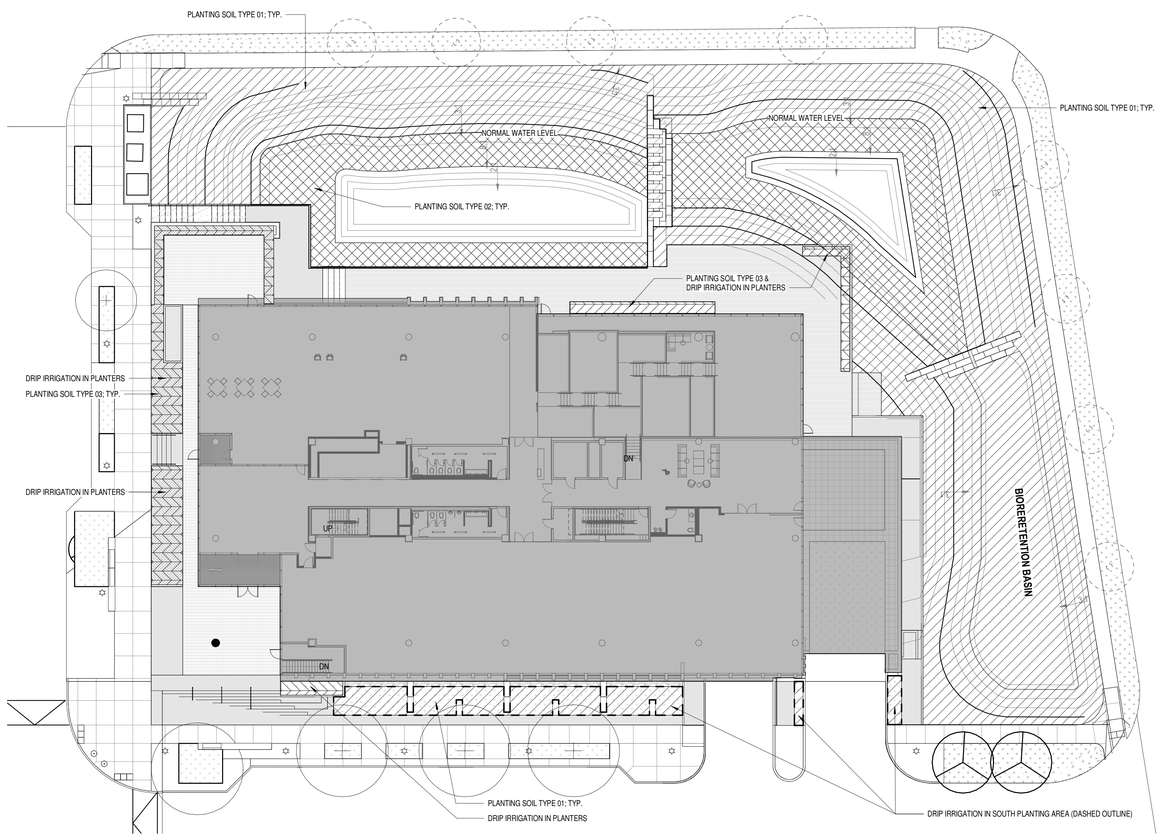

1 SOILS PLAN
1" = 20'-0"

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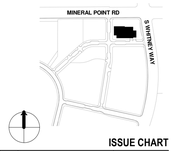

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

SOILS & IRRIGATION PLAN

SHEET NUMBER

L04-00

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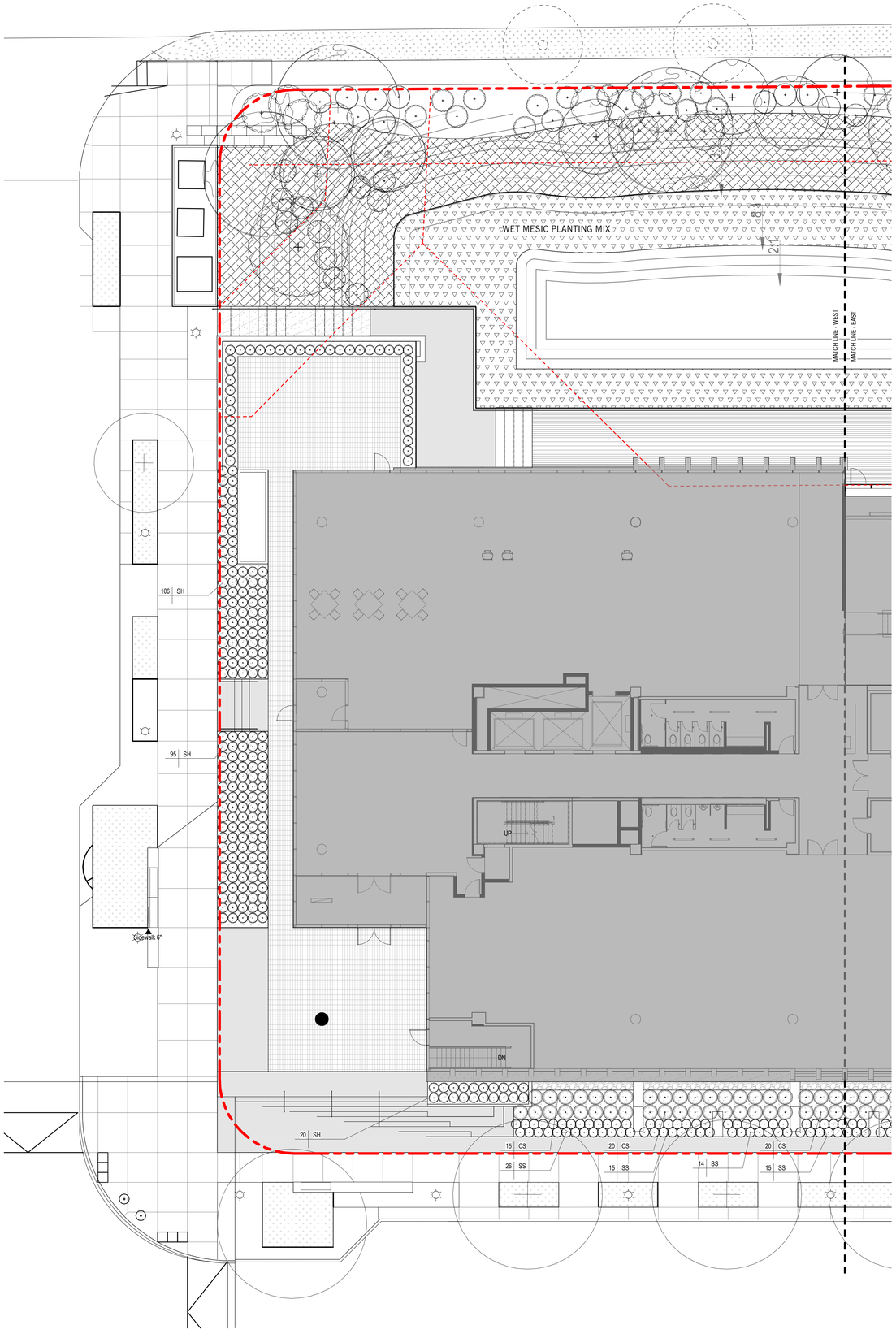


1 ENLARGED PLANTING PLAN W
1" = 10'-0"

CITY OF MADISON SITE PLAN APPROVAL - LANDSCAPE POINTS

PLANT TYPE / ELEMENT	MIN. SIZE AT INSTALLATION	POINTS	QUANTITY	POINTS ACHIEVED
OVERSTORY DECIDUOUS TREE	2.5" CALIPER MIN	35	46	1,610
TALL EVERGREEN TREE	5-6'	35	0	0
ORNAMENTAL TREE	1 1/2" CALIPER	15	0	0
UPRIGHT EVERGREEN SHRUB	3-4'	10	0	0
SHRUB, DECIDUOUS	#3 CONTAINER, MIN 12"-24"	3	245	735
SHRUB, EVERGREEN	#3 CONTAINER, MIN 12"-24"	4	0	0
ORNAMENTAL GRASSES / PERENNIALS	#1 CONTAINER, MIN 6"-18"	2	286	572
			TOTAL NUMBER OF POINTS:	2,917

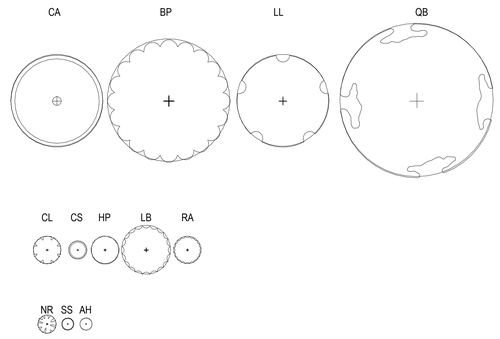
PLANT SCHEDULE

TAG	LATIN NAME	COMMON NAME	QUANTITY	SIZE	NOTES
BP	Betula papyrifera	Paper Birch	12	3.0" Caliper/B&B	SINGLE STEMMED
CA	Cornus alternifolia	Pagoda Dogwood	11	2.5"/B&B	SINGLE STEMMED
LL	Larix laricina	Tamarack	13	7' height/B&B	SINGLE STEMMED
QB	Quercus bicolor	Swamp White Oak	10	3.0" Caliper/ B&B	SINGLE STEMMED
NUMBER OF TREES	**46**				
CL	Clethra alnifolia	Summersweet	44	3 GALLON	
CS	Cornus sericea	Redosier Dogwood	102	3 GALLON	
HP	Hypericum prolificum	St Johns Wort	27	3 GALLON	
LB	Lindera benzoin	Spicebush	26	3 GALLON	
RA	Rhus aromatica	Low Grow Sumac	46	3 GALLON	
NUMBER OF SHRUBS	**245**				
AH	Amsonia hubrichtii	Arkansas Bluestar	48	1 GALLON	PLANTER LOCATION
NF	Nepeta x faassenii 'Walkers Low'	Walker's Low Catmint	17	1 GALLON	PLANTER LOCATION
SH	Sporobolus heterolepi	Prairie Dropseed	221	1 GALLON	PLANTER LOCATION
NUMBER OF PERENNIALS (IN PLANTERS)			**286**		

PRAIRIE MIX PERENNIAL MIX	10,642 SF TOTAL
Native Plugs, mixed species	35% of total area
Native Seed, mixed species	65% of total area
WET MESIC PERENNIAL MIX	5,437 SF TOTAL
Native Plugs, mixed species	35% of total area
Native Seed, mixed species	65% of total area

GENERAL NOTES
1) SHREDDED HARDWOOD MULCH, 2.5' THICKNESS, TO BE INCLUDED IN ALL PLANTING AREAS EXCEPT FOR WET MESIC AND PRAIRIE MIXES

SYMBOLS



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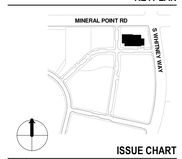

ISSUE CHART

NO.	DESCRIPTION	DATE
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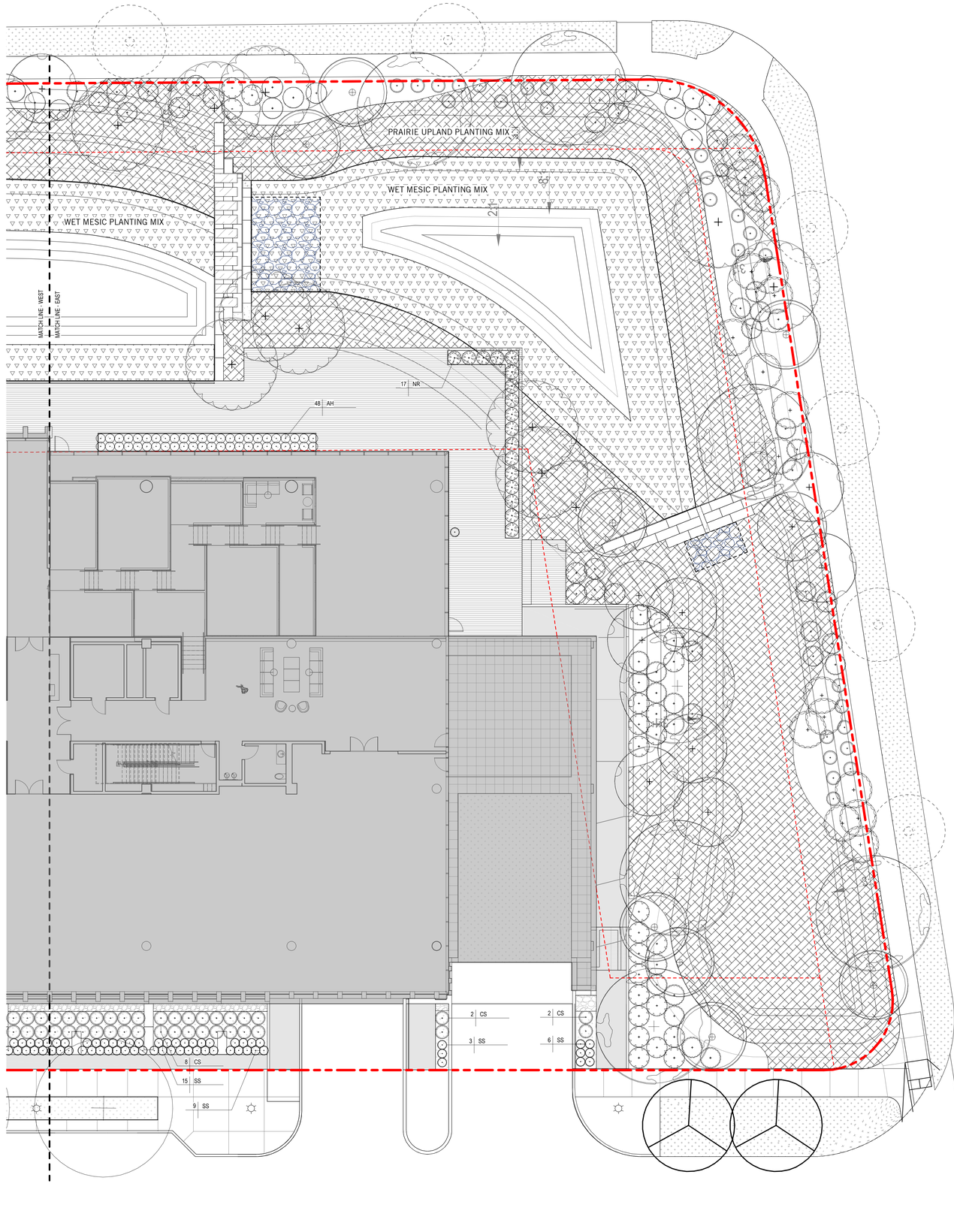
ENLARGED PLANTING PLAN W

SHEET NUMBER

L05-01

5/31/2021 10:49:56 PM BIM 360://URP_Element Labs/ARCH_URP_Element Labs_rvt



1 ENLARGED PLANTING PLAN - E
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300 South Bedford Street
Madison, WI 53719

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Madison, WI 53719

OWNER'S REPRESENTATIVE
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925 E. Wells St., #1119, P.O. Box 511267
Milwaukee, WI 53202

CONSTRUCTION MANAGER
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300 South Bedford Street
Madison, WI 53703

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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

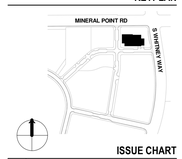
ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

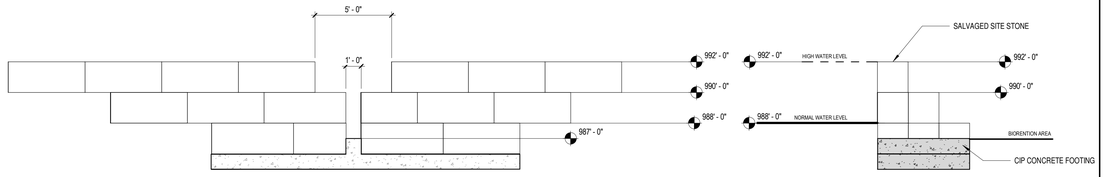
TITLE

ENLARGED PLANTING PLAN E

SHEET NUMBER

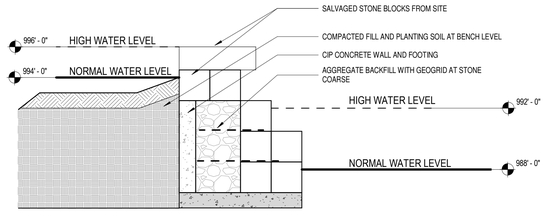
L05-02

5/31/2021 10:50:02 PM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt



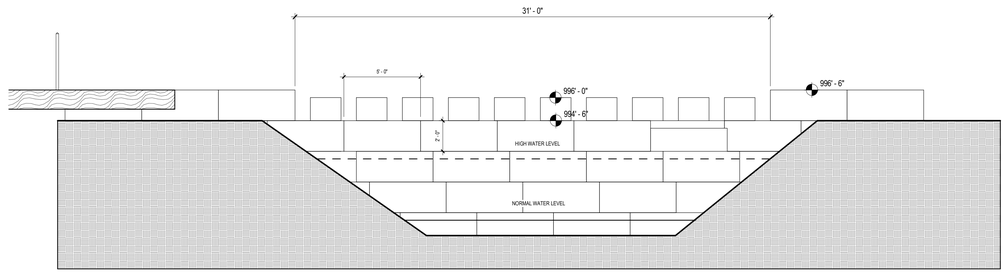
5 WEIR 02 SOUTH ELEVATION
1/4" = 1'-0"

4 WEIR 02 SECTION
1/4" = 1'-0"

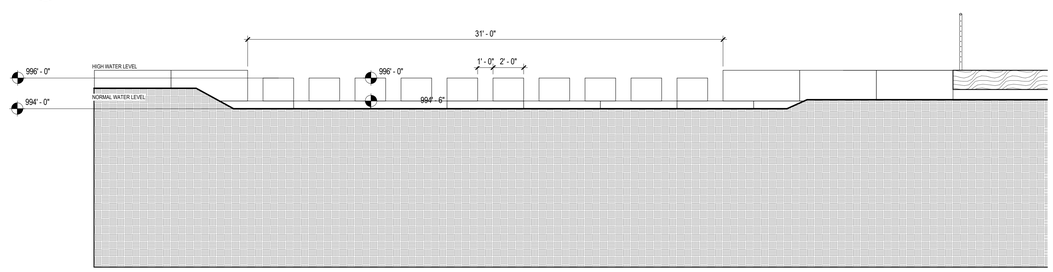


3 WEIR 01 SECTION
1/4" = 1'-0"

GENERAL NOTE:
1) SITE STONE TO BE REUSED IS ESTIMATED AT 50 UNITS . ESTIMATED SIZE FROM RECORD DRAWINGS ARE 2'X2'X5'.
2) NUMBERS AND STONE TYPE TO BE CONFIRMED IN FIELD



2 WEIR 01, EAST ELEVATION
1/4" = 1'-0"



1 WEIR 01, WEST ELEVATION
1/4" = 1'-0"

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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

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UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
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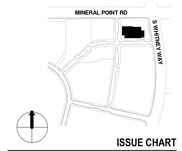
KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

SECTIONS

SHEET NUMBER

L06-00

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

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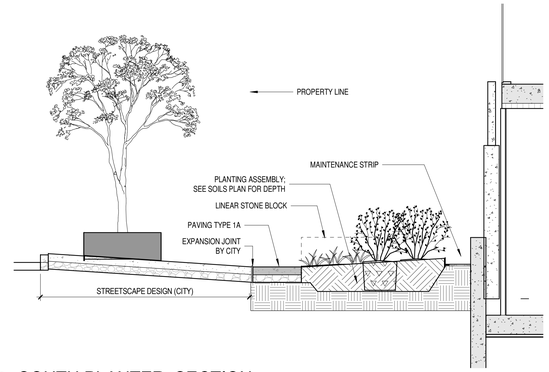
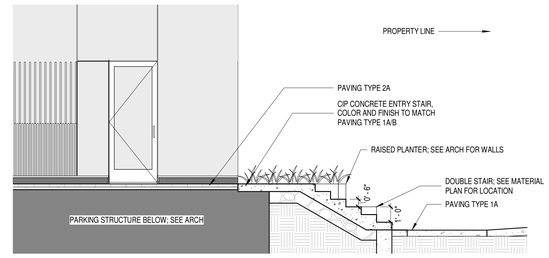
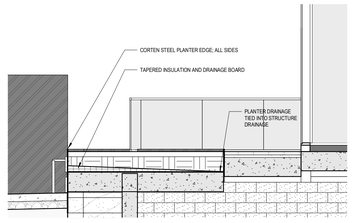


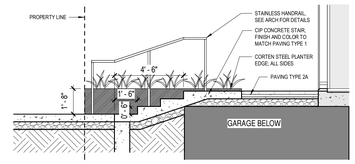
5 SOUTH PLANTER, SECTION
1/4" = 1'-0"



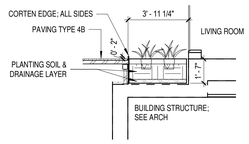
4 ENTRY STAIR
1/4" = 1'-0"



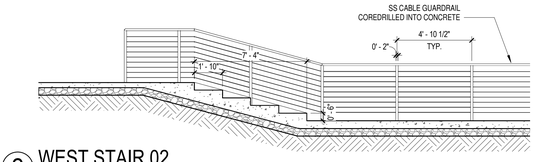
9 WEST PLANTER AT TERRACE, SECTION
1/4" = 1'-0"



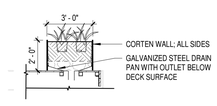
3 RESTAURANT STAIR, SECTION
1/4" = 1'-0"



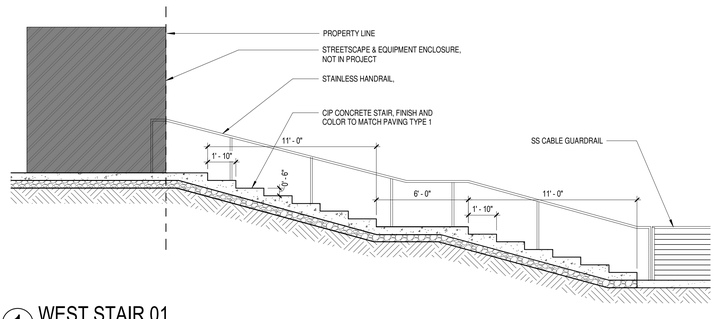
8 FLUSH TERRACE PLANTER, SECTION
1/4" = 1'-0"

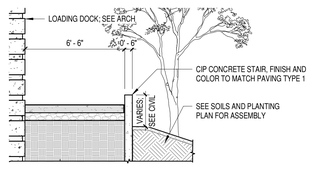


2 WEST STAIR 02
1/4" = 1'-0"



7 TERRACE PLANTER, SECTION
1/4" = 1'-0"





6 EAST WALKWAY, SECTION
1/4" = 1'-0"

1 WEST STAIR 01
1/4" = 1'-0"

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PROJECT

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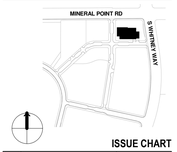
KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

SECTIONS

SHEET NUMBER

L06-01

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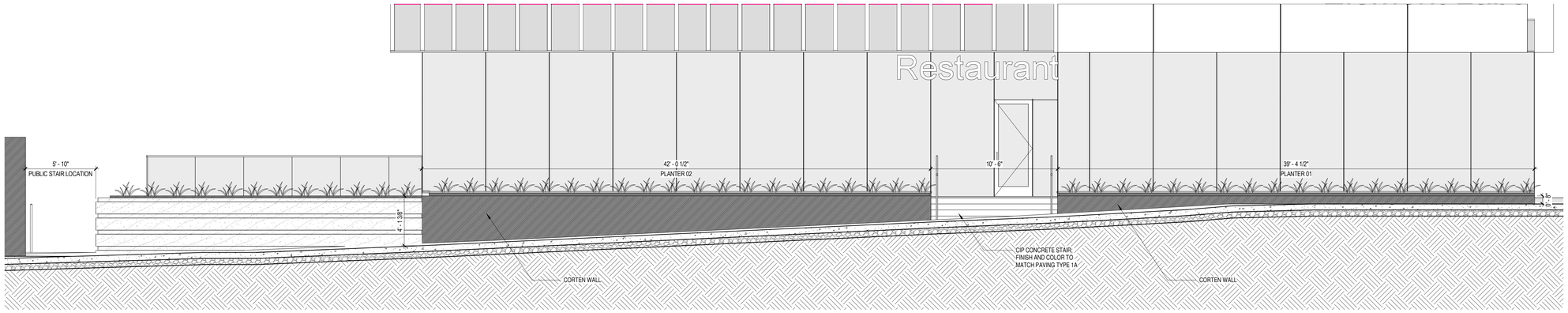
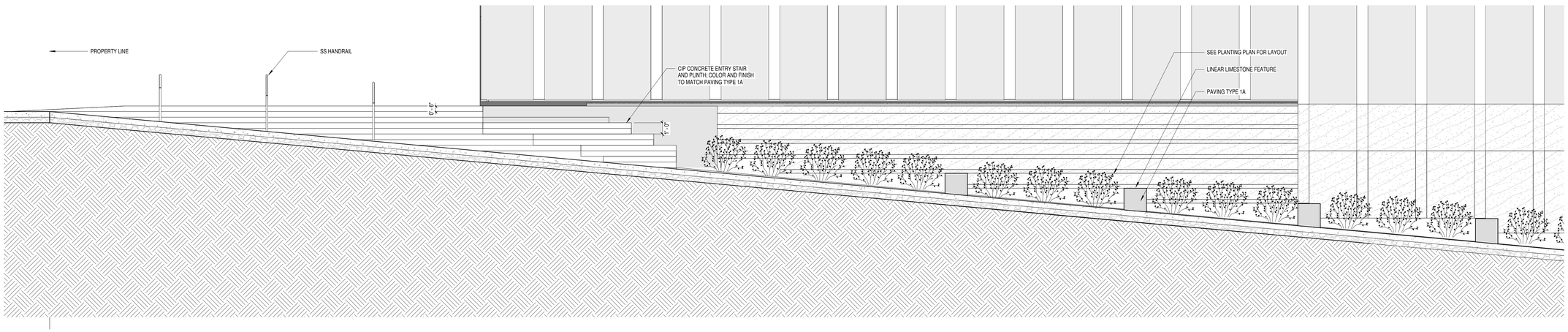


2 WEST WALL ELEVATION
1/4" = 1'-0"



1 SOUTH PLANTER & ENTRY STAIR
1/4" = 1'-0"

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UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
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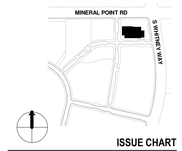
ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

ELEVATION

SHEET NUMBER

L07-00

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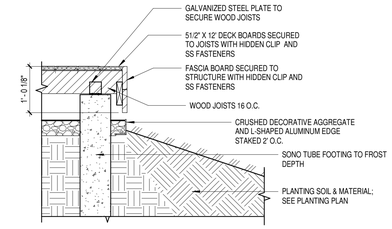
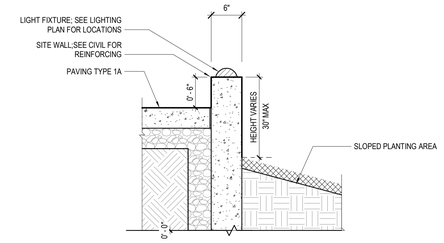
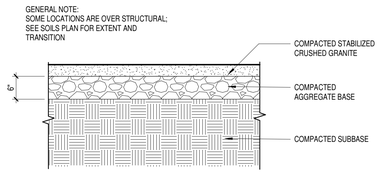


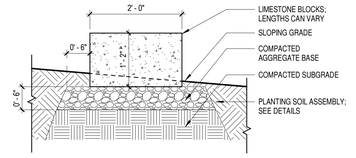
6 PAVING 4A - DECK ON GRADE
3/4" = 1'-0"



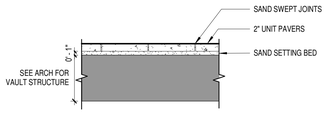
10 EAST EGRESS WALK AND CURB, SECTION
1" = 1'-0"



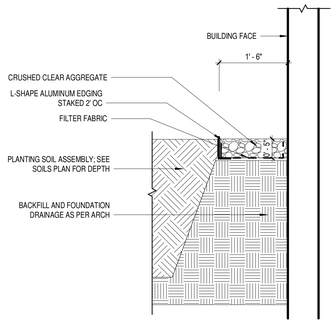
5 PAVING TYPE 3 -STABILIZED DECOMPOSED GRANITE
3/4" = 1'-0"



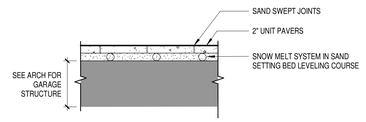
9 LIMESTONE LINEAR BANDS
3/4" = 1'-0"



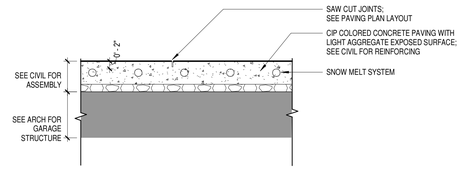
4 PAVING TYPE 2B -UNIT PAVING OVER VAULT
3/4" = 1'-0"



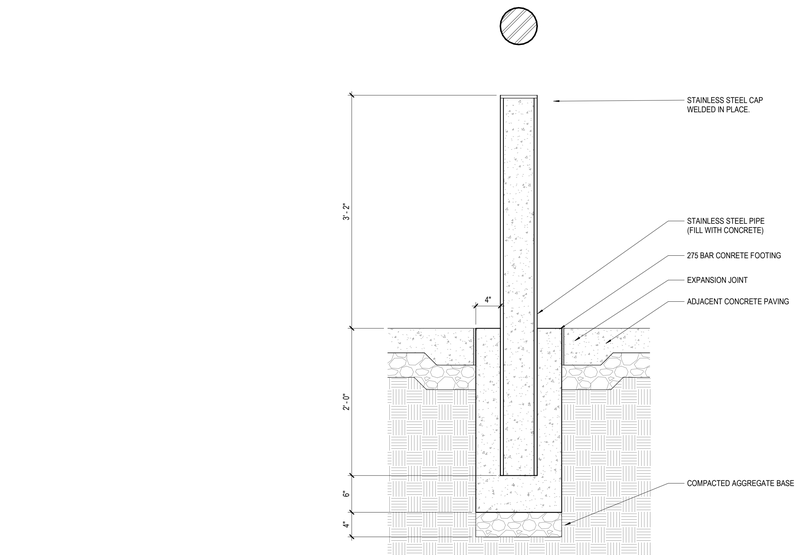
8 MAINTENANCE PATH SECTION
3/4" = 1'-0"



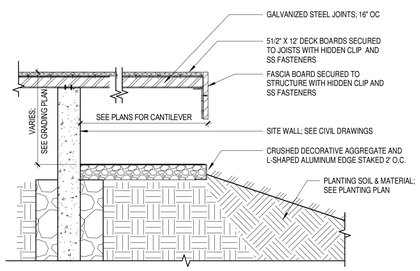
3 PAVING TYPE 2A -UNIT PAVING OVER STRUCTURE
3/4" = 1'-0"



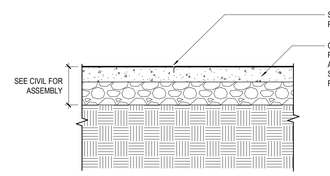
2 PAVING TYPE 1B -CIP CONCRETE PAVING OVER STRUCTURE
3/4" = 1'-0"



11 SS BOLLARD, FIXED
1 : 10



7 PAVING 4B - DECK OVER STRUCTURE
3/4" = 1'-0"



1 PAVING TYPE 1A -CIP CONCRETE PAVING
3/4" = 1'-0"

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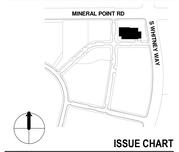
KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

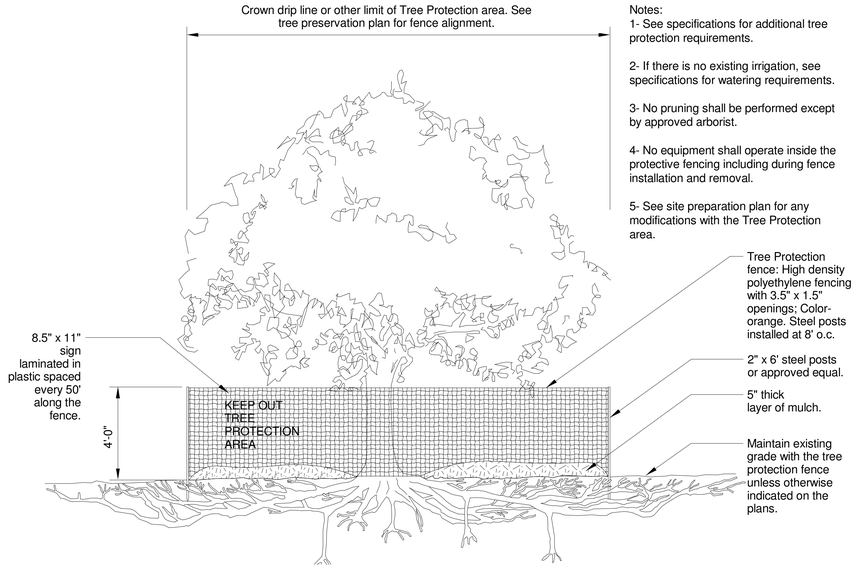
TITLE

HARDSCAPE DETAILS

SHEET NUMBER

L08-01

5/31/2021 10:59:25 PM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt



Notes:
1- See specifications for additional tree protection requirements.

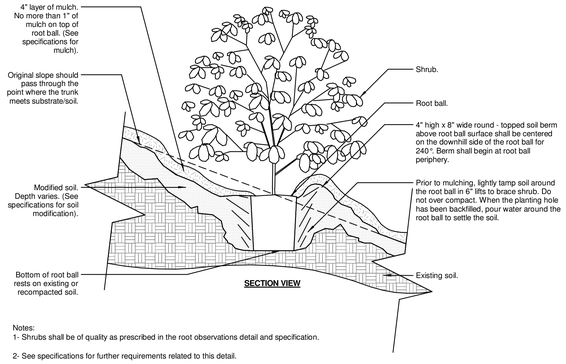
2- If there is no existing irrigation, see specifications for watering requirements.

3- No pruning shall be performed except by approved arborist.

4- No equipment shall operate inside the protective fencing including during fence installation and removal.

5- See site preparation plan for any modifications with the Tree Protection area.

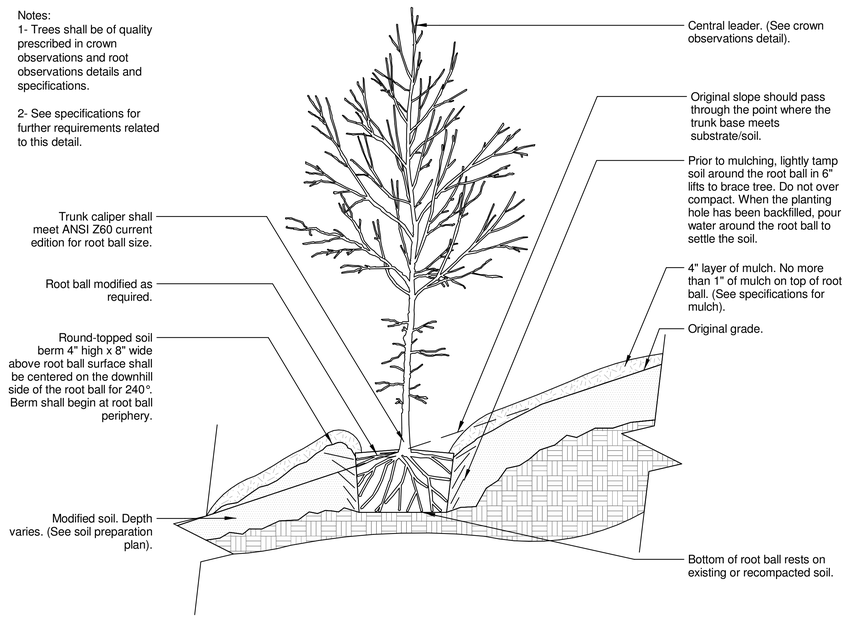
6 TREE PROTECTION, SECTION
3/8" = 1'-0"



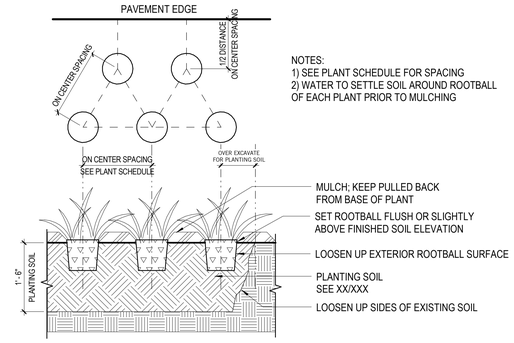
Notes:
1- Shrubs shall be of quality as prescribed in the root observations detail and specification.

2- See specifications for further requirements related to this detail.

5 SHRUB PLANTING ON SLOPE, SECTION
3/4" = 1'-0"

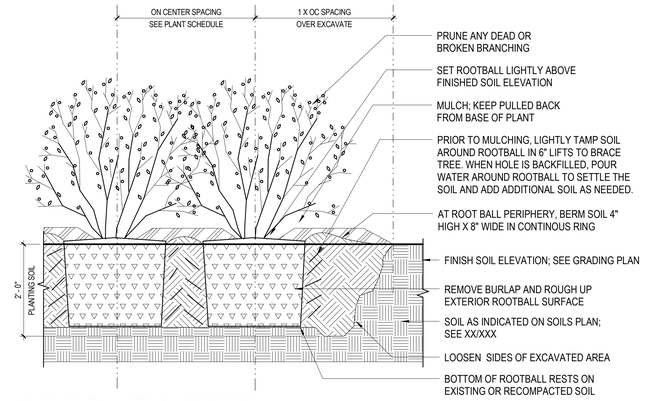


4 TREE PLANTING ON SLOPE, SECTION
3/4" = 1'-0"

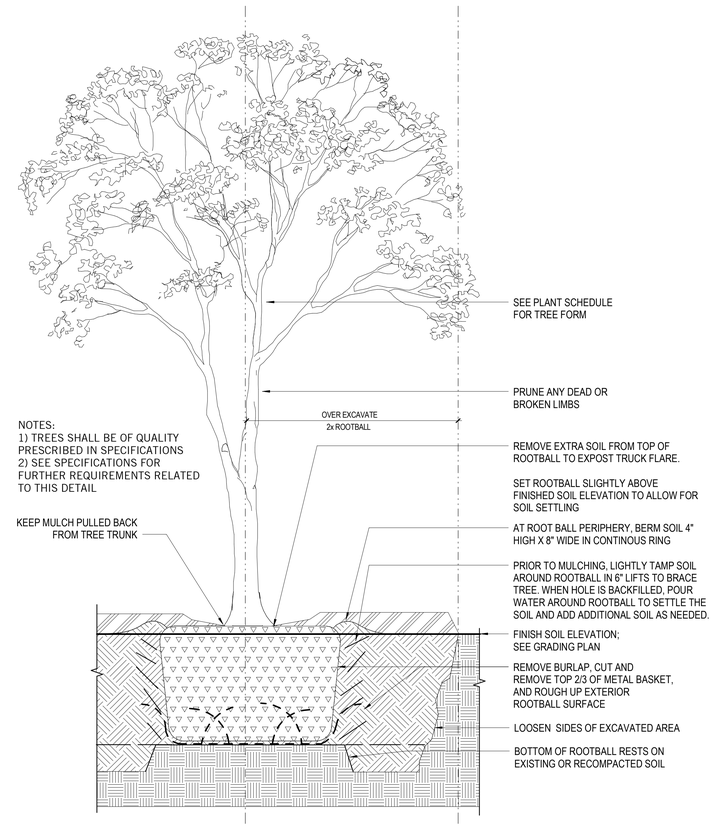


NOTES:
1) SEE PLANT SCHEDULE FOR SPACING
2) WATER TO SETTLE SOIL AROUND ROOTBALL OF EACH PLANT PRIOR TO MULCHING

3 PERENNIAL PLANTING, SECTION & PLAN
3/4" = 1'-0"



2 SHRUB PLANTING, SECTION
3/4" = 1'-0"



1 TREE PLANTING, SECTION
3/4" = 1'-0"

The Wrigley Building
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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

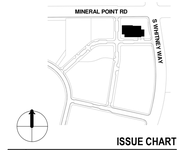
UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27 2021

Job Number 021130.000

TITLE

PLANTING DETAILS

SHEET NUMBER

L08-02

5/31/2021 10:50:28 PM BIM 360://URP - Element Labs/ARCH_URP_Element Labs.rvt

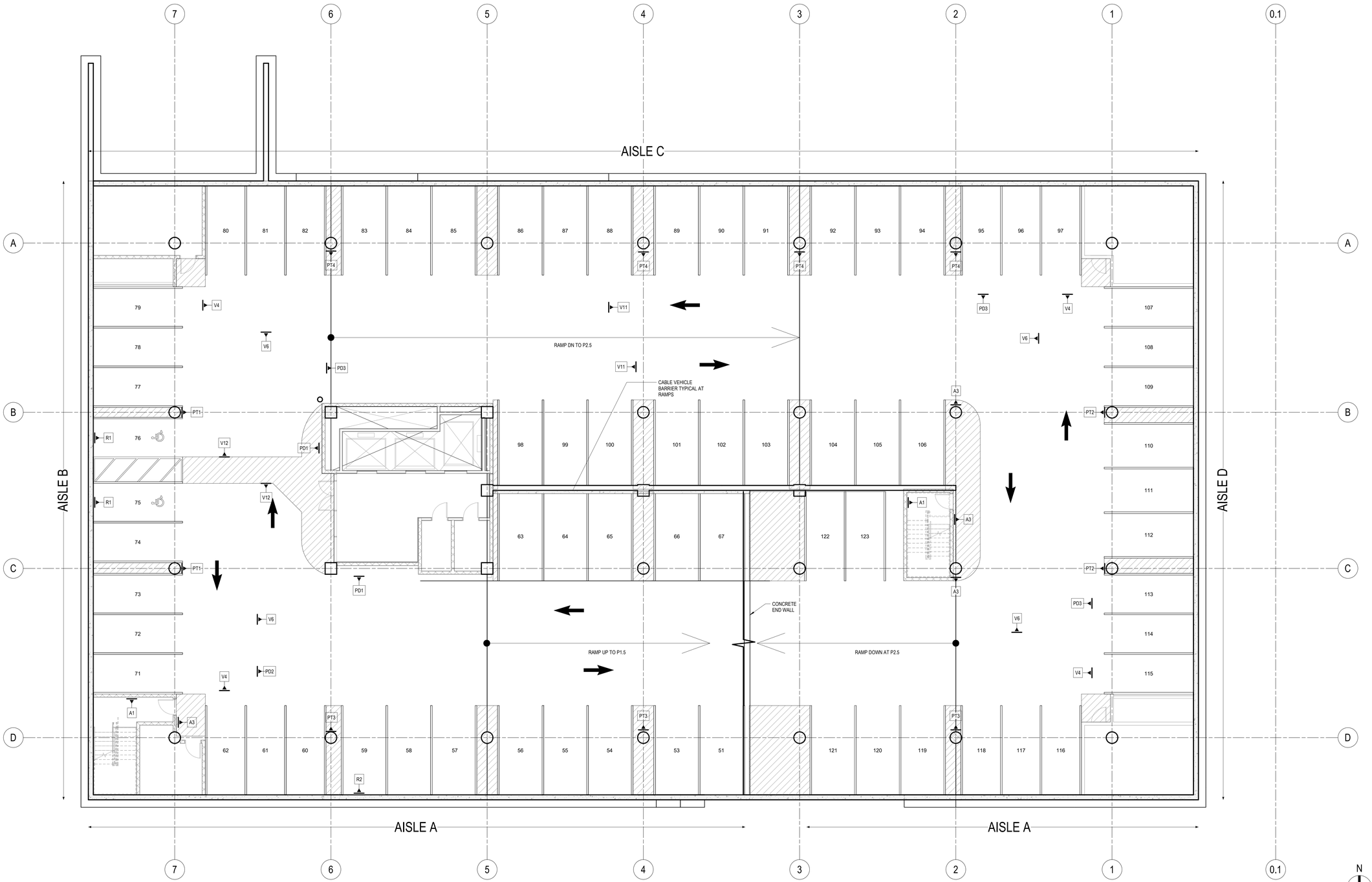
GENERAL PARCS NOTES

1. DRAWINGS ARE SCHEMATIC DIAGRAMS. PARCS CONTRACTOR TO COORDINATE FINAL CONDUIT QUANTITIES, SIZES, LOCATION OF CONDUIT STUB UPS, PROTECTIVE BOLLARDS, AND EQUIPMENT MOUNTING LOCATIONS.
2. GENERAL CONTRACTOR SHALL COORDINATE LOCATION OF FMS (FACILITY MANAGEMENT SYSTEM) WITH OWNER AND ARCHITECT.
3. COORDINATE FINAL EQUIPMENT LOCATIONS, ELECTRICAL AND COMMUNICATIONS REQUIREMENTS WITH EQUIPMENT MANUFACTURERS.

EQUIPMENT LEGEND

EQUIPMENT	DEFINITION
AG	AUTOMATIC GATE 1-30A, 120V, 2400W CIRCUIT
6'-0" / 2'-6"	TYPICAL LOOP
○	EQUIPMENT PROTECTIVE BOLLARD SEE DETAIL
LFS	LOT FULL SIGN
TC	TRAFFIC CONTROLLER

EQUIPMENT	DEFINITION
CR/I	CARD READER / INTERCOM POWER FROM GATE
ENS	ENTRANCE STATION 1-30A, 120V, 2400W CIRCUIT
EXS	EXIT STATION 1-30A, 120V, 2400W CIRCUIT
APM	AUTOMATED PAY MACHINE / INTERCOM 1-30A, 120V, 2400W CIRCUIT
APM/ CC	AUTOMATED PAY MACHINE / CREDIT CARD ONLY / INTERCOM 1-30A, 120V, 2400W CIRCUIT



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PROJECT

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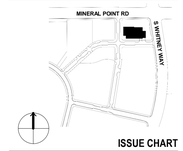
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27, 2021

Job Number 021130.000

TITLE

LEVEL P2 PARKING FLOOR PLAN

SHEET NUMBER

AG10-01

6/1/2021 12:35:36 PM BIM 360://URP - Element Labs/20210016.00.rvt

GENERAL PARCS NOTES

1. DRAWINGS ARE SCHEMATIC DIAGRAMS. PARCS CONTRACTOR TO COORDINATE FINAL CONDUIT QUANTITIES, SIZES, LOCATION OF CONDUIT STUB UPS, PROTECTIVE BOLLARDS, AND EQUIPMENT MOUNTING LOCATIONS.
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EQUIPMENT	DEFINITION
AG	AUTOMATIC GATE 1-30A, 120V, 2400W CIRCUIT
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LFS	LOT FULL SIGN
TC	TRAFFIC CONTROLLER

EQUIPMENT	DEFINITION
CR/I	CARD READER / INTERCOM POWER FROM GATE
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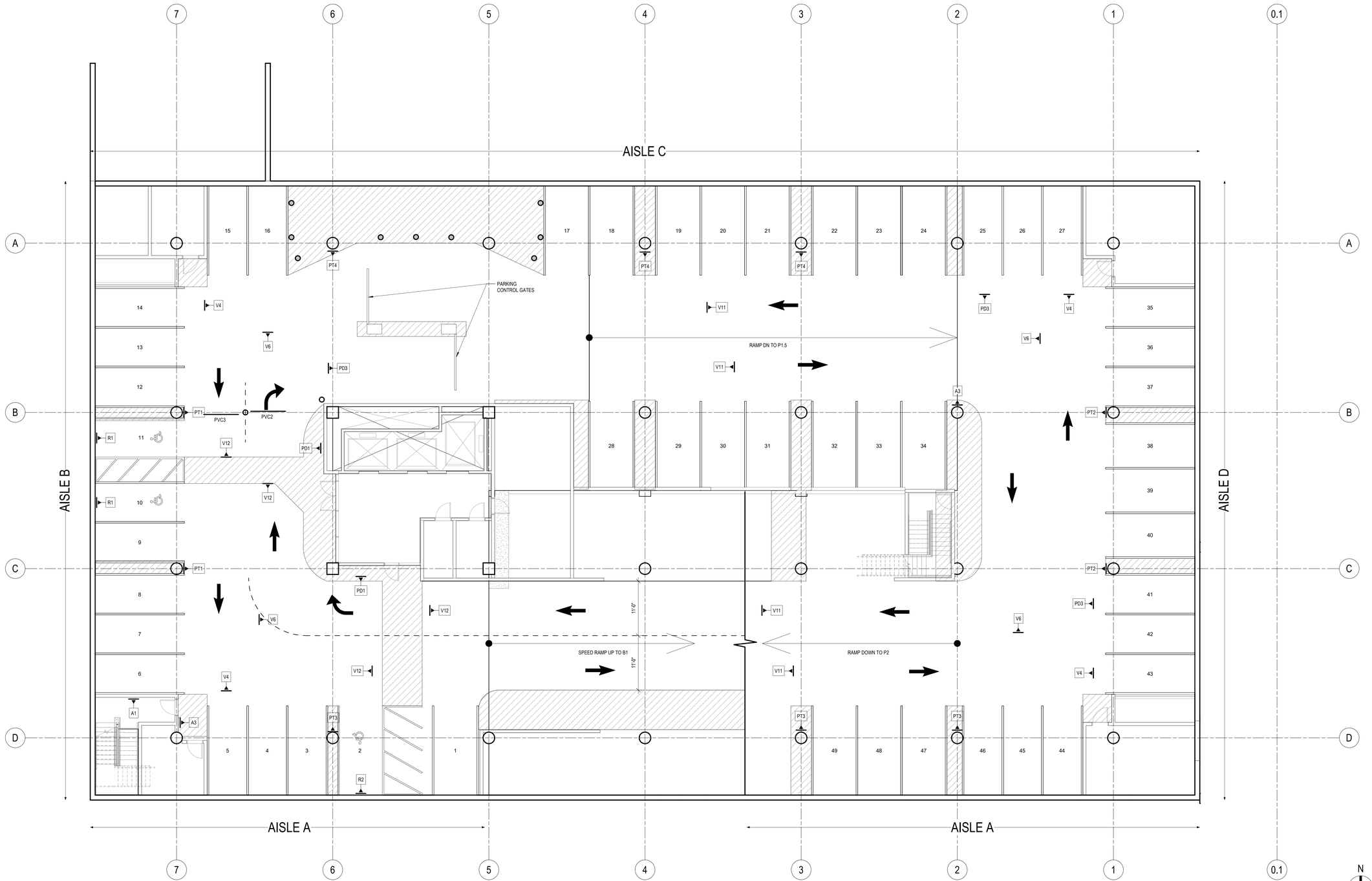
APM/ CC	AUTOMATED PAY MACHINE / CREDIT CARD ONLY / INTERCOM 1-30A, 120V, 2400W CIRCUIT



N
PLAN NORTH
SCALE: 1/8" = 1'-0"

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ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27, 2021

Job Number 021130.000

TITLE

LEVEL P1 PARKING FLOOR PLAN

SHEET NUMBER

AG10-02

6/1/2021 12:35:36 PM BIM 360://URP - Element Labs/021001616.00.rvt

GENERAL PARCS NOTES

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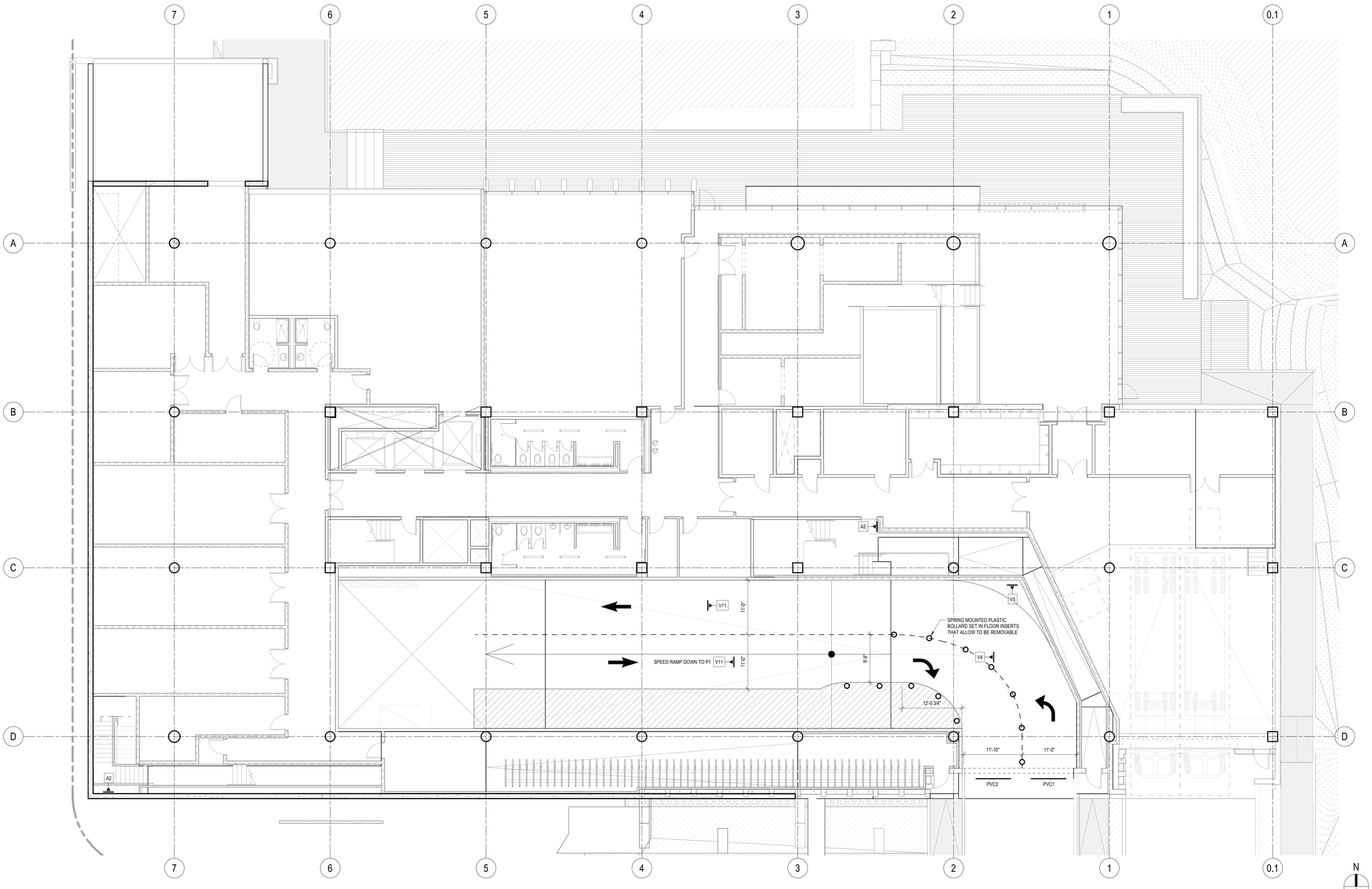
EQUIPMENT LEGEND

EQUIPMENT	DEFINITION	EQUIPMENT	DEFINITION
AG	AUTOMATIC GATE 1-30A, 120V, 2400W CIRCUIT	CR/I	CARD READER / INTERCOM POWER FROM GATE
6'-0" / 2'-6"	TYPICAL LOOP	ENS	ENTRANCE STATION 1-30A, 120V, 2400W CIRCUIT
		EXS	EXIT STATION 1-30A, 120V, 2400W CIRCUIT
	EQUIPMENT PROTECTIVE BOLLARD SEE DETAIL	APM	AUTOMATED PAY MACHINE / INTERCOM 1-30A, 120V, 2400W CIRCUIT
LFS	LOT FULL SIGN		
TC	TRAFFIC CONTROLLER	APM/ CC	AUTOMATED PAY MACHINE / CREDIT CARD ONLY / INTERCOM 1-30A, 120V, 2400W CIRCUIT



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UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

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MADISON, WI 53719

ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27, 2021

Job Number 021130.000

TITLE

LEVEL B1 PARKING FLOOR PLAN

SHEET NUMBER

AG10-03

6/1/2021 12:35:39 PM BIM 360:/URP - Element Labs/20210016.00.rvt

SIGNAGE SCHEDULE

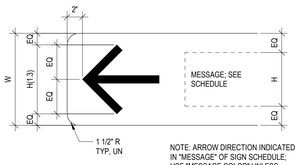
MARK	SIZE W	SIZE L	MESSAGE(S) / SYMBOL(S)	SIGN TYPE	BACKGROUND COLOR	LETTERS / SYMBOLS H	LETTERS / SYMBOLS COLOR	MOUNTING DETAIL	MOUNTING HT	COMMENTS
V1	1' - 0"	8' - 0"	(Do not enter symbol) DO NOT ENTER (Do not enter symbol)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V2	1' - 0"	4' - 0"	OUT (Arrow up)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V3	1' - 0"	4' - 0"	OUT (Arrow right turn)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V4	1' - 0"	4' - 0"	(Arrow left) OUT	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V5	1' - 0"	4' - 0"	(Arrow left) PARK	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V6	1' - 0"	4' - 0"	(Arrow left turn) PARK (Arrow up)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V7	1' - 0"	8' - 0"	PARK (Arrow right)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V8	1' - 0"	8' - 0"	(Arrow up) OUT PARK (Arrow up)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V9	1' - 0"	8' - 0"	(Arrow left turn) OUT PARK (Arrow up)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V10	1' - 0"	8' - 0"	(Arrow up) OUT PARK (Arrow left turn)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V11	1' - 0"	8' - 0"	(5MPH symbol) SPEED LIMIT (5MPH symbol)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V12	1' - 0"	8' - 0"	(Yield symbol) WATCH FOR PEDESTRIANS (Yield symbol)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V13	1' - 0"	8' - 0"	(Stop symbol) STOP (Stop symbol)	V	Green	6"	WHITE	A5/AG602	7' - 2"	
V14	1' - 0"	4' - 0"	(Do not enter symbol)	V	Green	6"	WHITE	A5/AG602	7' - 2"	SYMBOL TO BE CENTERED ON SIGN
PVC1	10"	10' - 0"	7'-2" CLEARANCE 7'-2"	PVC	Black	-	WHITE	A2/AG602 & B2/AG602	7' - 2"	
PVC2	10"	10' - 0"	(Do not enter symbol) DO NOT ENTER (Do not enter symbol)	PVC	Black	-	WHITE	A2/AG602 & B2/AG602	7' - 2"	
PVC3	10"	10' - 0"	8'-2" CLEARANCE 8'-2"	PVC	Black	-	WHITE	A2/AG602 & B2/AG602	7' - 2"	
PD1	1' - 0"	8' - 0"	(Elevator symbol) ELEVATORS	PD	Blue	6"	WHITE	A4/AG602	6' - 0"	
PD2	1' - 0"	8' - 0"	(Elevator symbol) ELEVATORS (Arrow right)	PD	Blue	6"	WHITE	A4/AG602	6' - 0"	
PD3	1' - 0"	8' - 0"	(Arrow left) ELEVATORS (Elevator symbol)	PD	Blue	6"	WHITE	A4/AG602	6' - 0"	
R1	1' - 6"	1' - 2"	ADA	R			WHITE			SEE DETAIL B6/AG602
R2	2' - 0"	2' - 0"	ADA VAN	R			WHITE			SEE DETAIL B6/AG602
R3	1' - 0"	2' - 0"	EV CHARGING	R			WHITE			SEE DETAIL B5/AG602
A1	1' - 4"	1' - 2"	Refer to detail B1/AG602	A		Refer to detail	WHITE	B1/AG602	3' - 0"	
A2	1' - 4"	1' - 2"	Refer to detail C1/AG602	A		Refer to detail	WHITE	C1/AG602	3' - 0"	
A3	10"	6"	Refer to detail D1/AG602	A		Refer to detail	WHITE	D1/AG602	3' - 0"	
PT1	1' - 10"	2' - 0"	Refer to detail A1/AG602	PT	Refer to detail	Refer to detail	WHITE	A1/AG602	4' - 2"	WIDTH TO MATCH COLUMN WIDTH; REFER TO FLOOR PLAN
PT2	1' - 10"	2' - 0"	Refer to detail A1/AG602	PT	Refer to detail	Refer to detail	WHITE	A1/AG602	4' - 2"	WIDTH TO MATCH COLUMN WIDTH; REFER TO FLOOR PLAN
PT3	1' - 10"	2' - 0"	Refer to detail A1/AG602	PT	Refer to detail	Refer to detail	WHITE	A1/AG602	4' - 2"	WIDTH TO MATCH COLUMN WIDTH; REFER TO FLOOR PLAN
PT4	1' - 10"	2' - 0"	Refer to detail A1/AG602	PT	Refer to detail	Refer to detail	WHITE	A1/AG602	4' - 2"	WIDTH TO MATCH COLUMN WIDTH; REFER TO FLOOR PLAN

SIGN TYPES LEGEND

MARK TYPE
- V - VEHICULAR (RETROREFLECTIVE TEXT ONLY)
- PD - PEDESTRIAN
- R - REGULATORY (RETROREFLECTIVE)
- PVC - PVC PIPE CLEARANCE
- A - ARCHITECTURAL
- PT - COLUMN SIGNAGE - AREA DESIGNATORS
- EF - FIRE EXTINGUISHER DESIGNATOR

SIGNAGE GENERAL NOTES

1. SIGN CONTRACTOR SHALL REVIEW SIGN LOCATIONS PRIOR TO INSTALLATION WITH ARCHITECT TO COORDINATE WITH LIGHTING SYSTEM.
2. SIGNS SHALL BE MOUNTED LEVEL AND PLUMB, UNLESS NOTED.
3. WHERE TWO (2) SIGNS ARE MOUNTED BACK TO BACK, SMALLEST L DIMENSION SHALL INCREASE TO MATCH LARGEST L DIMENSION.
4. MAXIMUM BOLT INSERT EMBEDMENT LENGTH 1", UNLESS NOTED.
5. BACKS AND EDGES OF ALL ALUMINUM SIGNS MOUNTED DIRECTLY TO STRUCTURE SHALL BE PAINTED (SIGN BACKGROUND COLOR) TO PREVENT CATHODIC REACTION.
6. SEE ARCHITECTURAL GRAPHICS PLANS (AG100 SERIES) FOR SIGN LOCATIONS.
7. ALL FONTS, COLORS, & SYMBOLS SHALL MATCH PHASE 1 SHOP DRAWINGS UNLESS NOTED OTHERWISE.
8. COLORS WHERE NOT INDICATED TO BE AS SELECTED BY OWNER AND ARCHITECT.
9. REFER TO MESSAGES AND SYMBOLS LEGEND FOR ADDITIONAL SIZING.



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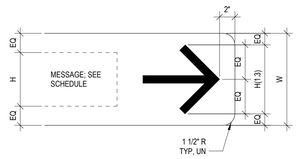

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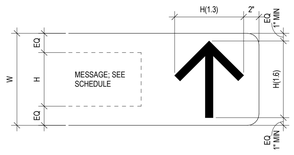

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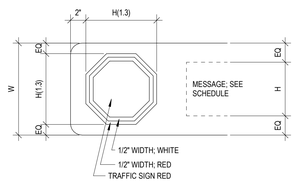
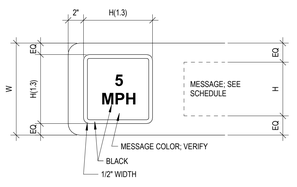


STOP



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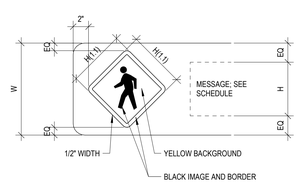
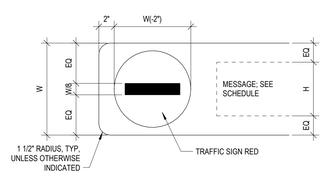
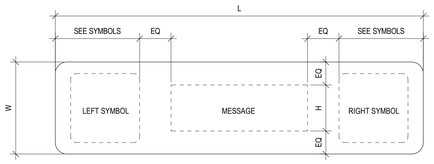


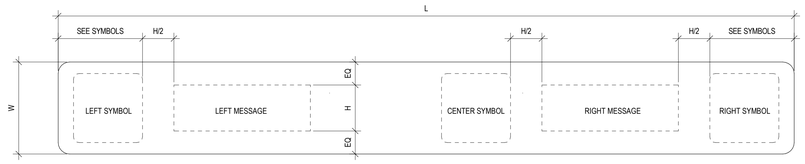
YIELD



DO NOT ENTER

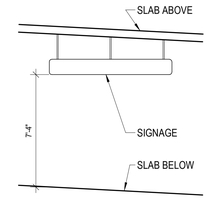


SINGLE MESSAGE SIGN

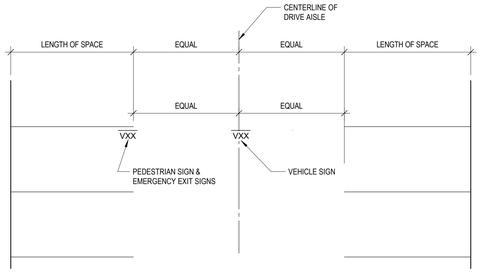


DUAL MESSAGE SIGN

A1 MESSAGES & SYMBOLS LEGEND
NTS



B5 VEHICULAR SIGN MOUNTING AT RAMP
1/4" = 1'-0"



A5 SIGN LOCATION
1/8" = 1'-0"

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ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

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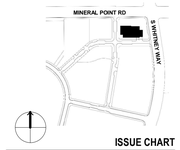
MADISON, WI 53719

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27, 2021

Job Number 021130.000

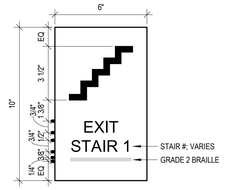
TITLE

SIGN SCHEDULE AND COMPONENTS

SHEET NUMBER

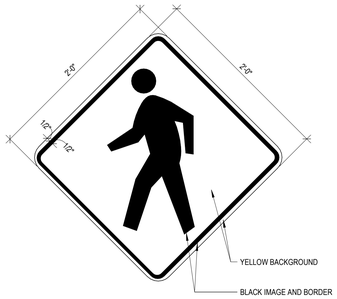
AG601

6/1/2021 12:35:39 PM BIM 360://URP - Element Labs/20210916.00.rvt



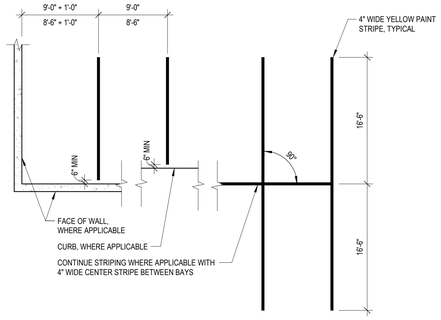
D1 EXIT SIGN A3

3" = 1'-0"



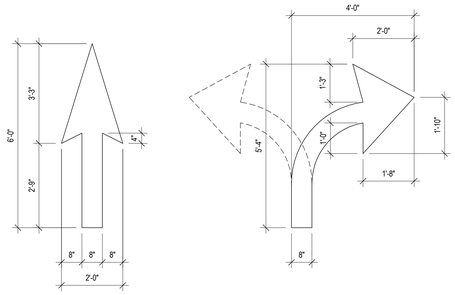
D2 PEDESTRIAN CROSSING SIGN

1 1/2" = 1'-0"



D4 90 DEGREE STRIPING DETAIL

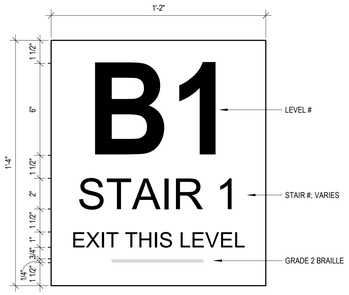
1/8" = 1'-0"



NOTE:
PAINT ARROWS SOLID YELLOW, UNLESS NOTED OTHERWISE, PROVIDE GLASS BEADS.

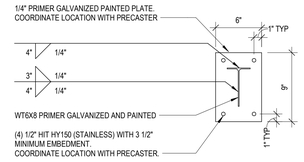
D5 TYPICAL ARROW DETAIL

1/2" = 1'-0"

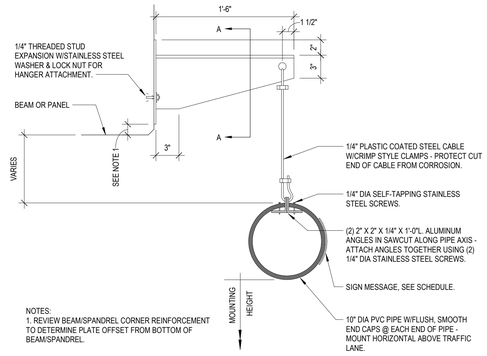


C1 LEVEL ID SIGN A2

3" = 1'-0"



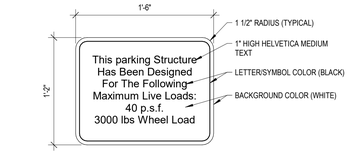
SECTION A-A



NOTES:
1. REVIEW BEAM/SPANDREL CORNER REINFORCEMENT TO DETERMINE PLATE OFFSET FROM BOTTOM OF BEAM/SPANDREL.

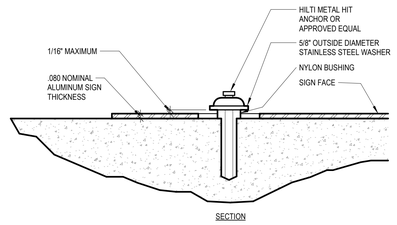
B2 CLEARANCE BAR SECTION

1 1/2" = 1'-0"

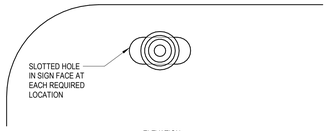


C4 LIVE LOADS SIGN

1 1/2" = 1'-0"



SECTION

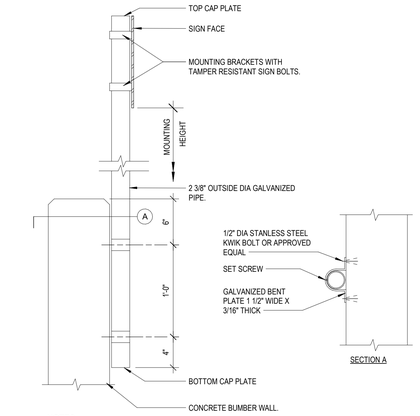


ELEVATION

NOTES:
1. DO NOT OVERDRIVE ANCHORS. ORVERDRIVEN ANCHORS WILL DAMAGE BUSHINGS AND SIGNS.
2. USE THIS MOUNTING DETAIL ON BUMPER WALLS, COLUMNS, PANELS AND BEAMS WITH DETAIL A4/AG802 AT TOP TIER AND IN CONDITIONS WHERE SIGN FACE IS EXPOSED TO DIRECT LIGHT.

B4 WALL FLUSH SECTION AND ELEVATION

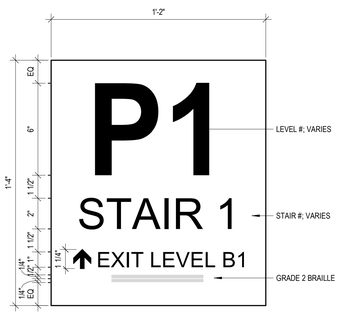
12" = 1'-0"



NOTES:
1. SIGN POST TO BE VERTICAL.
2. LOCATE REINFORCEMENT PRIOR TO INSTALLATION OF BENT PLATE BRACKETS.

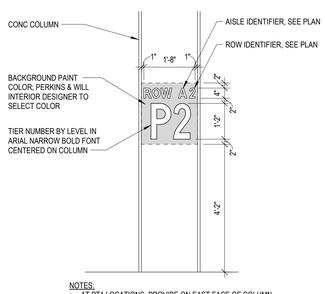
C5 SIGN POST BUMPER WALL

1 1/2" = 1'-0"



B1 LEVEL ID SIGN A1

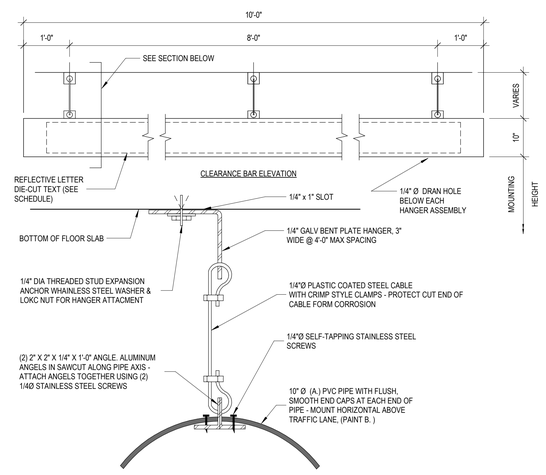
3" = 1'-0"



NOTES:
- AT PT1 LOCATIONS, PROVIDE ON EAST FACE OF COLUMN.
- AT PT2 LOCATIONS, PROVIDE ON WEST FACE OF COLUMN.
- AT PT3 LOCATIONS, PROVIDE ON NORTH FACE OF COLUMN.
- AT PT4 LOCATIONS, PROVIDE ON SOUTH FACE OF COLUMN.

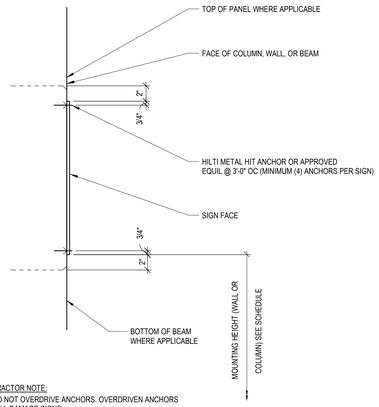
A1 COLUMN ACCENT AND TIER NUMBER

1/2" = 1'-0"



A2 CLEARANCE BAR ELEVATION

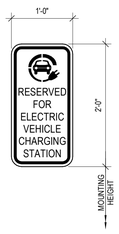
3/4" = 1'-0"



CONTRACTOR NOTE:
1. DO NOT OVERDRIVE ANCHORS. OVERDRIVEN ANCHORS WILL DAMAGE SIGNS.
2. WHERE TOP OF PANEL OR BOTTOM OF BEAM CONDITION OCCURS, MAINTAIN A CONSTANT 2" DIMENSION FROM TOP OF PANEL OR BOTTOM OF BEAM TO SIGN AS SHOWN.
3. SEE 3/AG701 FOR ADDITIONAL INFORMATION.

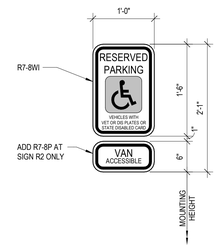
A4 WALL FLUSH MOUNT DETAIL

3/4" = 1'-0"



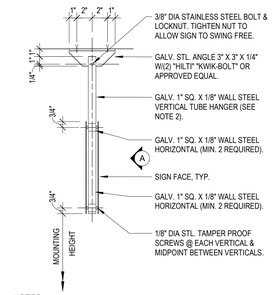
B5 SIGN DETAIL

1" = 1'-0"



B6 FEDERAL R7-8

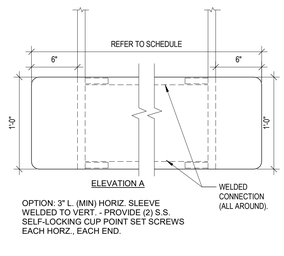
1" = 1'-0"



NOTES:
1. HANGER SPACING 3'-0" O.C. MAX. - MIN. (2) HANGERS PER SIGN.
2. OPTIONAL HANGER CONNECTION - 3/8" STAINLESS STEEL CLEVIS PIN W/HAIRPIN COTTER.
3. MAX SIGN CANTILEVER 1'-0".
4. REFER TO 6/AG701 WHEN SIGN IS PARALLEL TO TEE STEM.

A5 HANGING SIGN MOUNT DETAIL

1 1/2" = 1'-0"



OPTION: 3" L. (MIN) HORIZ. SLEEVE WELDED TO VERT. - PROVIDE (2) S.S. SELF-LOCKING CUP POINT SET SCREWS EACH HORZ., EACH END.

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300 South Bedford Street
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NOTE: DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION PURPOSES.

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

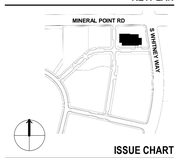
ISSUED FOR DESIGN DEVELOPMENT 27 MAY 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
2	SITE PLAN APPROVAL	JUN 1 2021
1	DESIGN DEVELOPMENT	MAY 27, 2021

Job Number 021130.000

TITLE

SIGN DETAILS

SHEET NUMBER

AG602

6/1/2021 12:35:40 PM BIM 360://URP - Element Labs/20210916 00.rvt

SHEET SYMBOLS

- EQ # — SCHEDULED EQUIPMENT DESIGNATION. -TOP INDICATES EQUIPMENT ABBREVIATION -BOTTOM INDICATES EQUIPMENT NUMBER REFER TO EQUIPMENT SCHEDULES
- 2 — SPECIALTY ITEMS (I.E. GAUGE FILTER, ETC.) REFER TO EQUIPMENT LIST
- REFER M-1 — PLAN CONTINUATION REFERENCE. -BOTTOM INDICATES ON WHICH SHEET CONTINUATION APPEARS
- 1 M-1 — SECTION DESIGNATION. -TOP INDICATES SECTION NUMBER. -BOTTOM INDICATES ON WHICH SHEET SECTION APPEARS
- 2 M-1 — DETAIL REFERENCE. -TOP INDICATES SECTION NUMBER. -BOTTOM INDICATES ON WHICH SHEET SECTION APPEARS
- A/15B-6 — DETAIL REFERENCE. -TOP INDICATES SECTION NUMBER. -BOTTOM INDICATES ON WHICH SHEET SECTION APPEARS
- MATCHLINE DESIGNATION
- ELEVATION DESIGNATION. REFERENCE OFFICIAL PROJECT DATUM
- 1 — REVISION REFERENCE. REFER TO SHEET REVISION BLOCK
- SHEET KEYNOTE REFERENCE
- ROOM NAME 101 — ROOM NAME & NUMBER DESIGNATION
- 1001 — CONSTRUCTION BULLETIN REVISION NUMBER
- POINT OF NEW CONNECTION TO EXISTING
- HALFTONE LIGHT LINE INDICATES EXISTING WORK
- HEAVY DASHED LINE WITH HATCH INDICATES EXISTING WORK TO BE DEMOLISHED
- HEAVY LINE INDICATES NEW WORK

BRANCH CIRCUIT SCHEDULE

BRANCH CIRCUIT	BREAKER SIZE	WIRE	CONDUIT
SINGLE POLE - SINGLE PHASE	20A-1P	2#12+1#12G	3/4"C
	30A-1P	2#10+1#10G	3/4"C
	40A-1P	2#8+1#10G	3/4"C
	50A-1P	2#6+1#10G	3/4"C
	60A-1P	2#4+1#10G	1 1/4"C
TWO POLE - SINGLE PHASE	20A-2P	2#12+1#12G	3/4"C
	30A-2P	2#10+1#10G	3/4"C
	40A-2P	2#8+1#10G	3/4"C
	50A-2P	2#6+1#10G	3/4"C
	60A-2P	2#4+1#10G	1 1/4"C
TWO POLE - SINGLE PHASE WITH NEUTRAL	20A-2P	3#12+1#12G	3/4"C
	30A-2P	3#10+1#10G	3/4"C
	40A-2P	3#8+1#10G	3/4"C
	50A-2P	3#6+1#10G	3/4"C
	60A-2P	3#4+1#10G	1 1/4"C
THREE POLE - THREE PHASE	20A-3P	3#12+1#12G	3/4"C
	30A-3P	3#10+1#10G	3/4"C
	40A-3P	3#8+1#10G	3/4"C
	50A-3P	3#6+1#10G	3/4"C
	60A-3P	3#4+1#10G	1 1/4"C
THREE POLE - THREE PHASE 4-WIRE WITH NEUTRAL	20A-3P	4#12+1#12G	3/4"C
	30A-3P	4#10+1#10G	3/4"C
	40A-3P	4#8+1#10G	3/4"C
	50A-3P	4#6+1#10G	1"C
	60A-3P	4#4+1#10G	1 1/4"C

ONE LINE DIAGRAM

- TRANSFORMER
- ELECTROSTATIC SHIELDED ISOLATION TRANSFORMER
- M — METER WITH CURRENT TRANSFORMER
- CURRENT TRANSFORMER
- POTENTIAL TRANSFORMER
- MOLDED CASE CIRCUIT BREAKER
- LOW VOLTAGE DRAW-OUT AIR CIRCUIT BREAKER
- MEDIUM-VOLTAGE DRAW-OUT VACUUM CIRCUIT BREAKER
- SWITCH
- GROUNDED "Y" SYSTEM
- DELTA SYSTEM
- AUTOMATIC TRANSFER SWITCH
- P# --- — PANELBOARD
- EGS — ENGINE GENERATOR SET
- # — FEEDER TAG
- FUSE
- DRAW-OUT FUSE
- SWITCHGEAR, SWITCHBOARD, DISTRIBUTION BOARD ENCLOSURE
- BATTERY

LIGHTING

- UNSHADED REGION DESIGNATES LUMINAIRE FOR NORMAL OPERATION
- SHADED REGION DESIGNATES LUMINAIRE FOR LIFE SAFETY OPERATION
- SHADED REGION DESIGNATES LUMINAIRE FOR CRITICAL OPERATION

LUMINAIRE ID - SEE LUMINAIRE SCHEDULE (X# / ##/xx) — CIRCUIT/SWITCH

SUFFIX	DESCRIPTION
E	BATTERY PACK/INVERTER
^	ARROW ADDED TO LUMINAIRE SYMBOL TO INDICATE DIRECTION TOWARDS WHICH THE LUMINAIRE IS TO POINT.

LUMINAIRE SYMBOLS - REFER TO LUMINAIRE SCHEDULE FOR MORE INFORMATION

SMALL PROFILE LUMINAIRE

LIGHTING TRACK

- TRACK HEAD

CEILING MOUNTED LUMINAIRES

RECESSED

SURFACE MOUNTED

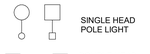
PENDANT/SUSPENDED

WALL MOUNTED LUMINAIRES

RECESSED

SURFACE MOUNTED

FLOOR OR GRADE MOUNTED LIGHTS



- SINGLE HEAD POLE LIGHT
- DOUBLE HEAD POLE LIGHT
- QUAD HEAD POLE LIGHT
- PEDESTRIAN POLES/POST TOPS
- BOLLARD OR GROUND MOUNTED LUMINAIRE
- IN-GRADE/IN-SLAB LUMINAIRE

EXIT SIGNS - CEILING MOUNTED

SINGLE FACE — DOUBLE FACE — DIRECTIONAL ARROW

EXIT SIGNS - WALL MOUNTED

SINGLE FACE — DOUBLE FACE — DIRECTIONAL ARROW

EMERGENCY FIXTURE WITH BATTERY PACK

SINGLE HEAD — DOUBLE HEAD

LIGHTING CONTROL

y XX X — CONTROL STATION
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 3'-6"
y=SWITCH DESIGNATION (lower case)
XX= STATION TYPE
TC = TIMECLOCK
PC = PHOTOCELL
LC# = LIGHTING CONTROL STATION
X = TYPE DEFINITION (SEE BELOW)

y $ X — SWITCH
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 3'-6"
y=SWITCH DESIGNATION (lower case)
X=TYPE DEFINITION (SEE BELOW)

TYPE DEFINITION:

X=TYPE DEFINITION
3 = THREE-WAY SWITCH
4 = FOUR-WAY SWITCH
2 = TWO POLE SWITCH
2P = 2 POLE, DUAL RELAY
I = INDICATOR
K = KEY SWITCH
MC = MOMENTARY CONTACT
D = DIMMER
P = SWITCH WITH PILOT LIGHT
TS = TIMER SWITCH
LV/LV# = LOW VOLTAGE
LV-M = LOW VOLTAGE "M"-MASTER SWITCH
DM = REMOTE CONTROL FOR MOTORIZED DAMPER

C — LIGHTING CONTACTOR
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: AS NOTED

y $ Z — SENSOR SWITCH FOR LIGHTING CONTROL
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 3'-6"
y = SWITCH DESIGNATION (lower case)
Z = SENSOR TYPE DESIGNATION (SEE BELOW)

y S Z — SENSOR FOR LIGHTING CONTROL
MOUNTING LOCATION: CEILING
y = SWITCH DESIGNATION (lower case)
Z = SENSOR TYPE DESIGNATION (SEE BELOW)

y S Z — SENSOR FOR LIGHTING CONTROL
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 8'-0"
y = SWITCH DESIGNATION (lower case)
Z = SENSOR TYPE DESIGNATION (SEE BELOW)

SENSOR TYPE DEFINITION:

Z = SENSOR TYPE DESIGNATION

OCCUPANCY MODE: AUTO ON, AUTO OFF
PIR = PASSIVE INFRARED
PIR/D = PASSIVE INFRARED WITH DIMMER
PIRA = PASSIVE INFRARED WITH AMBIENT LIGHT
2P = 2 POLE, DUAL RELAY
U = ULTRASONIC
DT = DUAL TECHNOLOGY

VACANCY MODE: MANUAL ON, AUTO OFF
VPIR = PASSIVE INFRARED
VPIR/D = PASSIVE INFRARED WITH DIMMER
VPIRA = PASSIVE INFRARED WITH AMBIENT LIGHT
VDT = DUAL TECHNOLOGY

AMBIENT LIGHT
AL = AMBIENT LIGHT SENSOR
PC = PHOTOCELL

DAYLIGHT ZONES

- PRIMARY ZONE
- SECONDARY ZONE

RECEPTACLES

X = RECEPTACLE TYPE, REFER TO CHART BELOW
Y = NEMA CONFIGURATION, REFER TO CHART BELOW

MOUNTING LOCATION: WALL
MOUNTING HEIGHT: 1'-6"

- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- DUPLEX RECEPTACLE, UPPER HALF SWITCHED, LOWER HALF HOT
- SINGLE RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- LOCKING RECEPTACLE

ABOVE CASEWORK OR 2" ABOVE COUNTERTOP BACKSPLASH
MOUNTING LOCATION: WALL
MOUNTING HEIGHT: FIELD VERIFY

- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- DOUBLE DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE, EMERGENCY CIRCUIT

MOUNTING LOCATION: CEILING

- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- DOUBLE DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE, EMERGENCY CIRCUIT

MOUNTING LOCATION: FLOOR

- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- AV MULTI-TRADE FLOOR BOX AV, POWER & DATA

RECEPTACLE TYPE DESIGNATION CHART

X = TYPE
AF = AFCI RECEPTACLE
CR = CONTROLLED RECEPTACLE
DR = DEDICATED RECEPTACLE
IG = ISOLATED GROUND RECEPTACLE
GF = GFCI RECEPTACLE
SP = SURGE PROTECTION RECEPTACLE
SR = SPECIAL PURPOSE RECEPTACLE
TR = TAMPER RESISTANT RECEPTACLE
US = USB RECEPTACLE
WP = WEATHERPROOF, GFCI RECEPTACLE

POKE THRU
MOUNTING LOCATION: FLOOR

- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- W MULTI-TRADE AV, POWER & DATA

FIXED EQUIPMENT CONNECTION
MOUNTING HEIGHT/LOCATION: COORDINATE W/ EQUIPMENT

- FIXED EQUIPMENT CONNECTION
- FIXED EQUIPMENT CONNECTION, EMERGENCY CIRCUIT
- FIXED EQUIPMENT CONNECTION, WALL MOUNT
- FIXED EQUIPMENT CONNECTION, WALL MOUNT, EMERGENCY CIRCUIT

MOUNTING LOCATION: SURFACE MOUNTED RACEWAY

- DUPLEX RECEPTACLE
- DUPLEX RECEPTACLE, EMERGENCY CIRCUIT
- POWER OUTLET
- POWER OUTLET, EMERGENCY CIRCUIT
- OUTLETS INSTALLED IN SURFACE MOUNTED RACEWAY

POWER OUTLET

- WALL MOUNT, MOUNTING HEIGHT: 1'-6"
- EMERGENCY CIRCUIT, WALL MOUNT MOUNTING HEIGHT: 1'-6"
- CEILING MOUNT
- EMERGENCY CIRCUIT, CEILING MOUNT

NEMA CONFIGURATION CHART

Y = NEMA CONFIGURATION
A = 20A, 125V, NEMA 5-20R
B = 20A, 125V, NEMA L5-20R
C = 30A, 125V, NEMA 5-30R
D = 30A, 125V, NEMA L5-30R
E = 50A, 125V, NEMA 5-50R
F = 50A, 125V, NEMA L5-50R
G = 20A, 250V, NEMA 6-20R
H = 20A, 250V, NEMA L6-20R
J = 30A, 250V, NEMA 6-30R
K = 30A, 250V, NEMA L6-30R
L = 50A, 250V, NEMA 6-50R
M = 50A, 250V, NEMA L6-50R
N = 20A, 250V, NEMA 15-20R
P = 20A, 250V, NEMA L15-20R
Q = 30A, 277V, NEMA 7-30R
R = 30A, 277V, NEMA L7-30R
S = 20A, 125/250V, NEMA 14-20R
T = 20A, 125/250V, NEMA L14-20R
U = 30A, 125/250V, NEMA 14-30R
V = 30A, 125/250V, NEMA L14-30R
W= 50A, 125/208V, NEMA 18-50R
Y = 30A, 125/250V, NEMA 15-30R

EQUIPMENT AND WIRING

- MOTOR
- T — TRANSFORMER
- PANELBOARD SURFACE MOUNTED
- PANELBOARD FLUSH MOUNTED
- DISTRIBUTION PANELBOARD (NOT TO SCALE)
- MCC — MOTOR CONTROL CENTER
- VFD — VARIABLE FREQUENCY DRIVE
- ATS — AUTOMATIC TRANSFER SWITCH
- XX-XX — PANEL DIVISION ARROW
- PANEL DIVISION LINE
- CABLE TAP BOX
- BUSWAY PLUG-IN UNIT
- GEN — REMOTE GENERATOR ANNUNCIATOR
- HOMERUN A-1,3,5 — INDICATES NUMBER OF CONDUCTORS; INDICATES NEUTRAL CONDUCTOR; INDICATES GROUND CONDUCTOR
- J — SURFACE JUNCTION BOX
- J — SURFACE JUNCTION BOX - WALL
- J — FLUSH JUNCTION BOX - CEILING
- J — FLUSH JUNCTION BOX - WALL
- J — FLUSH JUNCTION BOX - FLOOR
- R — RELAY - TYPE AS NOTED
- K — KIRK KEY INTERLOCK
- NON-FUSED DISCONNECT SWITCH
- F — FUSED DISCONNECT SWITCH
- B — ENCLOSED CIRCUIT BREAKER
- MAGNETIC MOTOR STARTER
- COMBINATION MOTOR STARTER
- PUSH BUTTON
- PUSH BUTTON - DOUBLE
- GROUND CONNECTION
- REMOTE GENERATOR ANNUNCIATOR
- RP — ROOM REFERENCE GROUND POINT
- AIR TERMINAL
- GROUND ROD
- GROUND ROD WITH TEST WELL

A-1,3,5 = PANEL AND CIRCUITS: PANEL A, CIRCUITS 1,3,5

FIRE ALARM

NOTES:
1. WALL MOUNTED NOTIFICATION DEVICES MOUNTING HEIGHT: 80" AFF TO BOTTOM OF FACEPLATE OR 6" FROM TOP OF FACEPLATE TO CEILING, WHICH EVER IS LOWER.
2. ALL CEILING MOUNTED DEVICES MOUNTED ON ACOUSTICAL CEILING TILE TO BE CENTERED ON TILE, UNO.
3. ALL CEILING MOUNTED DEVICES MOUNTED IN HARD LID CEILING TO BE CENTER ALIGNED WITH OTHER NEARBY CEILING EQUIPMENT, UNO.
4. PULL STATIONS TO BE MOUNTED 4'-0" AFF, UNO.

XX — MANUAL FIRE ALARM BOX TYPES
XX=TYPE
CO2 = CARBON DIOXIDE
DC = DRY CHEMICAL
DH = DOOR HOLDER
HL = HALON
F = PULL STATION/FIRE ALARM BOX
FO = FOAM
WC = WET CHEMICAL
CA = CLEAN AGENT
WM = WATER MIST
DL = DELUGE FIRE SPRINKLER
PRE = PREACTION
MB = FIRE ALARM MASTER BOX
DK = DRILL KEY
DS = DOOR HOLDER W/ SMOKE DETECTOR

XX — SWITCH
XX=TYPE
M = MANUAL RELEASING SWITCH
TS = TAMPER SWITCH
WF = FLOW DETECTOR/SWITCH
PS = PRESSURE DETECTOR/SWITCH
LS = LEVEL DETECTOR/SWITCH
TSS = TEMPERATURE SUPERVISORY SWITCH
HT = HIGH TEMPERATURE SWITCH
LT = LOW TEMPERATURE SWITCH
VS = VALVE SUPERVISORY SWITCH

VS — VALVE WITH SUPERVISORY SWITCH

XX — ABORT SWITCH
XX=TYPE
A = ABORT SWITCH
CO2 = CARBON DIOXIDE
DC = DRY CHEMICAL
HL = HALON
FO = FOAM
WC = WET CHEMICAL
CA = CLEAN AGENT
WM = WATER MIST
DL = DELUGE FIRE SPRINKLER
PRE = PREACTION

XX — HEAT DETECTOR/SENSOR
XX=TYPE
R/F = COMBINATION RATE OF RISE / FIXED TEMPERATURE
R/C = RATE COMPENSATION
F = FIXED TEMPERATURE
R = RATE OF RISE ONLY

S XX — SMOKE DETECTOR/SENSOR
XX=TYPE
AS = AIR SAMPLING
P = PHOTOELECTRIC
I = IONIZATION
R = RELAY BASE
SS = SINGLE STATION
SB = SOUNDER BASE
ID = IN DUCT
BT = BEAM TRANSMITTER
BR = BEAM RECEIVER

S — SMOKE DETECTOR/SENSOR FOR DUCT

XX — GAS DETECTOR/SENSOR
XX=TYPE
CO2 = CARBON DIOXIDE
CO = CARBON MONOXIDE
HCL = HYDROGEN CHLORIDE
CH4 = METHANE

XX — FLAME DETECTOR/SENSOR
XX=TYPE
UV = ULTRAVIOLET
IR = INFRARED
UV/IR = COMBINATION UV / INFRARED
VR = VISIBLE RADIATION

W XX — WATER DETECTOR

XXX # — MODULES
XXX = TYPE
AIM = ADDRESSABLE INPUT MONITOR MODULE
AOM = ADDRESSABLE OUTPUT CONTROL MODULE
IO = ISOLATION MODULE
AIO = ADDRESSABLE INPUT/ OUTPUT MONITOR MOUDLE
# DENOTES NUMBER OF INPUTS/OUTPUTS

F H — HORN ONLY
F M — MINI-HORN
F CH — CHIME - ELECTRONIC
S — SPEAKER ONLY
X — COMBINATION HORN/STROBE
X cd — COMBINATION SPEAKER/VISIBLE cd = CANDELA RATING/SETTING
M cd — EMERGENCY SPEAKER/VISIBLE cd = CANDELA RATING/SETTING
F V — BELL - VIBRATING
F SS — BELL - SINGLE STROKE
F T — BELL - TROUBLE
F G — BELL - GONG
F CH — BELL - CHIME

FOR THE ABOVE SYMBOLS:
C=CEILING MOUNTED
W=WALL MOUNTED

X cd — VISIBLE ONLY (STROBE) WALL MOUNT cd = CANDELA RATING/SETTING
X cd — VISIBLE ONLY (STROBE) CEILING MOUNT cd = CANDELA RATING/SETTING
X cd — EMERGENCY VISIBLE ONLY (STROBE) WALL MOUNT cd = CANDELA RATING/SETTING
X cd — EMERGENCY VISIBLE ONLY (STROBE) CEILING MOUNT cd = CANDELA RATING/SETTING
X RI — REMOTE INDICATOR
X RI — CEILING MOUNT INDICATOR
X — ROTATING BEACON
X RTS — REMOTE ALARM INDICATING AND TEST SWITCH
A — FIRE SERVICE OR EMERGENCY PHONE STATION - ACCESSIBLE
FIRE SERVICE OR EMERGENCY PHONE STATION - BASIC SHAPE
H — FIRE SERVICE OR EMERGENCY PHONE STATION - HANDSET
J — FIRE SERVICE OR EMERGENCY PHONE STATION - JACK
FWS — FLOOR WARDEN STATION

XXXX — CONTROL PANELS/UNITS

XXXX=TYPE
FACP = FIRE ALARM CONTROL PANEL
FAA = FIRE ALARM ANNUNCIATOR
FACU = FIRE ALARM CONTROL UNIT
FATC = FIRE ALARM TERMINAL CABINET
ECCU = EMERGENCY COMMUNICATIONS CONTROL UNIT
FSCP = FIRE SUPPRESSION CONTROL PANEL
FSCU = FIRE SUPPRESSION CONTROL UNIT
FAC = FIRE ALARM COMMUNICATOR
SAP = SPRINKLER ALARM PANEL
WCU = WIRELESS CONTROL UNIT
MFACU = MASTER FIRE ALARM CONTROL UNIT
BATT = BATTERY CABINET
EVAC = VOICE EVACUATION CONTROL UNIT
NPS = NOTIFICATION POWER SUPPLY
GAP = GRAPHIC ANNUNCIATOR PANEL
ARCM = AREA OF REFUGE MASTER UNIT
ARCR = AREA OF REFUGE REMOTE UNIT

ELECTRICAL ABBREVIATIONS

A	- AMPERES	LAN	- LOCAL AREA NETWORK
AC	- ABOVE CEILING / ALTERNATING CURRENT	LED	- LIGHT EMITTING DIODE
ADO	- AUTOMATIC DOOR OPENER	LI	- LONG-TIME/INSTANTANEOUS
AF	- AMPERE FRAME	LSI	- LONG-TIME/SHORT-TIME/ INSTANTANEOUS
AFCI	- ARC FAULT CIRCUIT INTERRUPTER	LSIA	- LONG-TIME/SHORT-TIME/ INSTANTANEOUS/GROUND
AFF	- ABOVE FINISHED FLOOR	ALARM	
AIC	- AMP INTERRUPTING CAPACITY	LSIG	- LONG-TIME/SHORT-TIME/ INSTANTANEOUS/GROUND
ALT	- ALTERNATE	LTCP	- LOCAL TEMPERATURE CONTROL PANEL
ARCH	- ARCHITECTURAL		
ASC	- ABOVE SUSPENDED CEILING	LTG	- LIGHTING
AT	- AMPERE TRIP	LTS	- LIGHTS
ATC	- ASTRONOMIC TIME CLOCK	LV	- LOW VOLTAGE
ATS	- AUTOMATIC TRANSFER SWITCH		
AUTO	- AUTOMATIC	MATV	- MASTER ANTENNA TELEVISION
BC	- BARE COPPER	MC	- MECHANICAL CONTRACTOR
BFC	- BELOW FINISH CEILING	MCB	- MAIN CIRCUIT BREAKER
BFL	- BELOW FLOOR LEVEL	MCC	- MOTOR CONTROL CENTER
BLDG	- BUILDING	MCP	- MOTOR CIRCUIT PROTECTOR
BPIP	- BOILER PLANT INSTRUMENTATION PANEL	MER	- MECHANICAL EQUIPMENT ROOM
		MH	- MANHOLE
BRKR	- BREAKER	MLO	- MAIN LUGS ONLY
		MPTB	- MUSIC & PAGE TERMINAL BOX
C	- CONDUIT	MTD	- MOUNTED
CB	- CIRCUIT BREAKER	MTG	- MOUNTING
CCTV	- CLOSED CIRCUIT TELEVISION	MTG HGT	- MOUNTING HEIGHT
CFCI	- CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	MTR	- MOTOR / METER
		MV	- MEDIUM VOLTAGE
CGL	- CEILING		
CKT	- CIRCUIT	NA	- NOT APPLICABLE
CO	- CONDUIT ONLY	NAC	- NOTIFICATION APPLIANCE CIRCUIT
CONTR	- CONTRACTOR		
CORR	- CORRIDOR	NC	- NORMALLY CLOSED
CR	- CONTROL RELAY	NEC	- NATIONAL ELECTRICAL CODE
CT	- CURRENT TRANSFORMER	NIC	- NOT IN CONTRACT
		NO	- NORMALLY OPEN
DB	- DIRECT BURIAL	NTS	- NOT TO SCALE
DC	- DIRECT CURRENT		
DED	- DEDICATED	OC	- ON CENTER
DET	- DETAIL	OFCI	- OWNER FURNISHED, CONTRACTOR INSTALLED
DIA	- DIAMETER		
DISC	- DISCONNECT	OFOI	- OWNER FURNISHED, OWNER INSTALLED
DN	- DOWN		
DP	- DISTRIBUTION PANEL		
DS	- DISCONNECT SWITCH	P	- POLE
		PA	- PUBLIC ADDRESS
EC	- ELECTRICAL CONTRACTOR	PB	- PULL BOX / PUSHBUTTON
EDB	- ELECTRIC DUCT BANK	PC	- PLUMBING CONTRACTOR / PHOTOCELL
EGC	- EQUIPMENT GROUND CONDUCTOR	PDU	- POWER DISTRIBUTION UNIT
EGS	- ENGINE GENERATOR SET	PF	- POWER FACTOR
EJ	- EXPANSION JOINT	PH	- PHASE
ELEC	- ELECTRIC / ELECTRICAL	PLBG	- PLUMBING
ELL	- EMERGENCY LIFE SAFETY LIGHTING	PNL	- PANEL
		POD	- POWER OPERATED DAMPER
ELP	- EMERGENCY LIFE SAFETY POWER	PS	- POWER SUPPLY
		PT	- POTENTIAL TRANSFORMER
EMI/EMER-	- EMERGENCY ELECTROMAGNETIC INTERFERENCE	PTRV	- POWER TYPE ROOF VENTILATOR
		PWR	- POWER
EMT	- ELECTRICAL METALLIC TUBING		
EQUIP	- EQUIPMENT	REC	- RECESSED
ESM	- ELECTRIC STRIP MOLD	RECEP	- RECEPTACLE
ETR	- EXISTING TO REMAIN	REL	- RELOCATE
EWC	- ELECTRIC WATER COOLER	REQD	- REQUIRED
		RMC	- RIGID METAL CONDUIT
FA	- FIRE ALARM	RVAT	- REDUCED VOLTAGE AUTO TRANSFORMER
FACP	- FIRE ALARM CONTROL PANEL		
FCU	- FAN COIL UNIT		
FDR	- FEEDER	SCCR	- SHORT CIRCUIT CURRENT RATING
FDS	- FUSED DISCONNECT SWITCH	SHT	- SHEET
FIXT	- FIXTURE	SIG	- SIGNAL
FL	- AT FLOOR LINE	SIM	- SIMILAR
FLA	- FULL LOAD AMPERES	SPD	- SURGE PROTECTIVE DEVICE
FLEX	- FLEXIBLE	SPEC	- SPECIFICATION
FLR	- FLOOR	SS	- SAFETY SWITCH
FLUOR	- FLUORESCENT	SSBJ	- SUPPLY SIDE BONDING JUMPER
FS	- FLOW SWITCH	STA	- STATION
FSCP	- FLAME SAFEGUARD CONTROL PANEL	STR	- STARTER
FVNR	- FULL VOLTAGE NON-REVERSING	SW	- SWITCH
		SWBD	- SWITCHBOARD
GC	- GENERAL CONTRACTOR	SWGR	- SWITCHGEAR
GEN	- GENERATOR		
GFCI	- GROUND FAULT CIRCUIT INTERRUPTER	TEL	- TELEPHONE
GFI	- GROUND FAULT INTERRUPTER	TFA	- TO FLOOR ABOVE
GFP	- GROUND FAULT PROTECTION	TFB	- TO FLOOR BELOW
GND	- GROUND	TS	- TAMPER SWITCH / TIME SWITCH
GTB	- GROUND TERMINAL BOX	TV	- TELEVISION
		TVTC	- TELEVISION TERMINAL CABINET
HH	- HANDHOLE	TYP	- TYPICAL
HOA	- HAND OFF AUTOMATIC	UC	- UNDER COUNTER
HP	- HORSE POWER	UG	- UNDERGROUND
HT	- HEIGHT / HEAT TRACE	UH	- UNIT HEATER
HV	- HIGH VOLTAGE	UNO	- UNLESS NOTED OTHERWISE
		UPS	- UNINTERRUPTED POWER SUPPLY
IMC	- INTERMEDIATE METAL CONDUIT		
INV	- INVERTER	V	- VOLTAGE
		VFD	- VARIABLE FREQUENCY DRIVE
J or JB	- JUNCTION BOX	VP	- VAPOR PROOF
KV	- KILOVOLT	W	- WIRE
KVA	- KILOVOLT-AMPERES	W/	- WITH
KW	- KILOWATTS	WP	- WEATHERPROOF
KWH	- KILOWATT HOURS	WS	- WALL SURFACE
		WT	- WATER TIGHT
		XFMR	- TRANSFORMER
		XP	- EXPLOSION PROOF

ANSI DEVICE FUNCTION NUMBERS

25	= SYNC CHECK	51N	= NEUTRAL TIME OVERCURRENT
26	= LIQUID THERMAL RELAY	51G	= GROUND TIME OVERCURRENT
27	= UNDERVOLTAGE	52	= CIRCUIT BREAKER
32	= REVERSE POWER	59	= OVERVOLTAGE
47	= PHASE SEQUENCE	63	= SUDDEN PRESSURE RELAY
49	= WINDING THERMAL RELAY	71	= LIQUID LEVEL RELAY
50	= INSTANTANEOUS OVERCURRENT	81U	= UNDER-FREQUNECY
50N	= NEUTRAL INSTANTANEOUS OVERCURRENT	81O	= OVER-FREQUENCY
		83	= CONTROL POWER AUTO-TRANSFER
50G	= GROUND INSTANTANEOUS OVERCURRENT	86	= LOCKOUT RELAY
51	= TIME OVERCURRENT	87	= DIFFERENTIAL

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UNIVERSITY RESEARCH PARK - ELEMENT LABS

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

SITE LIGHTING SYMBOLS & ABBREVIATIONS

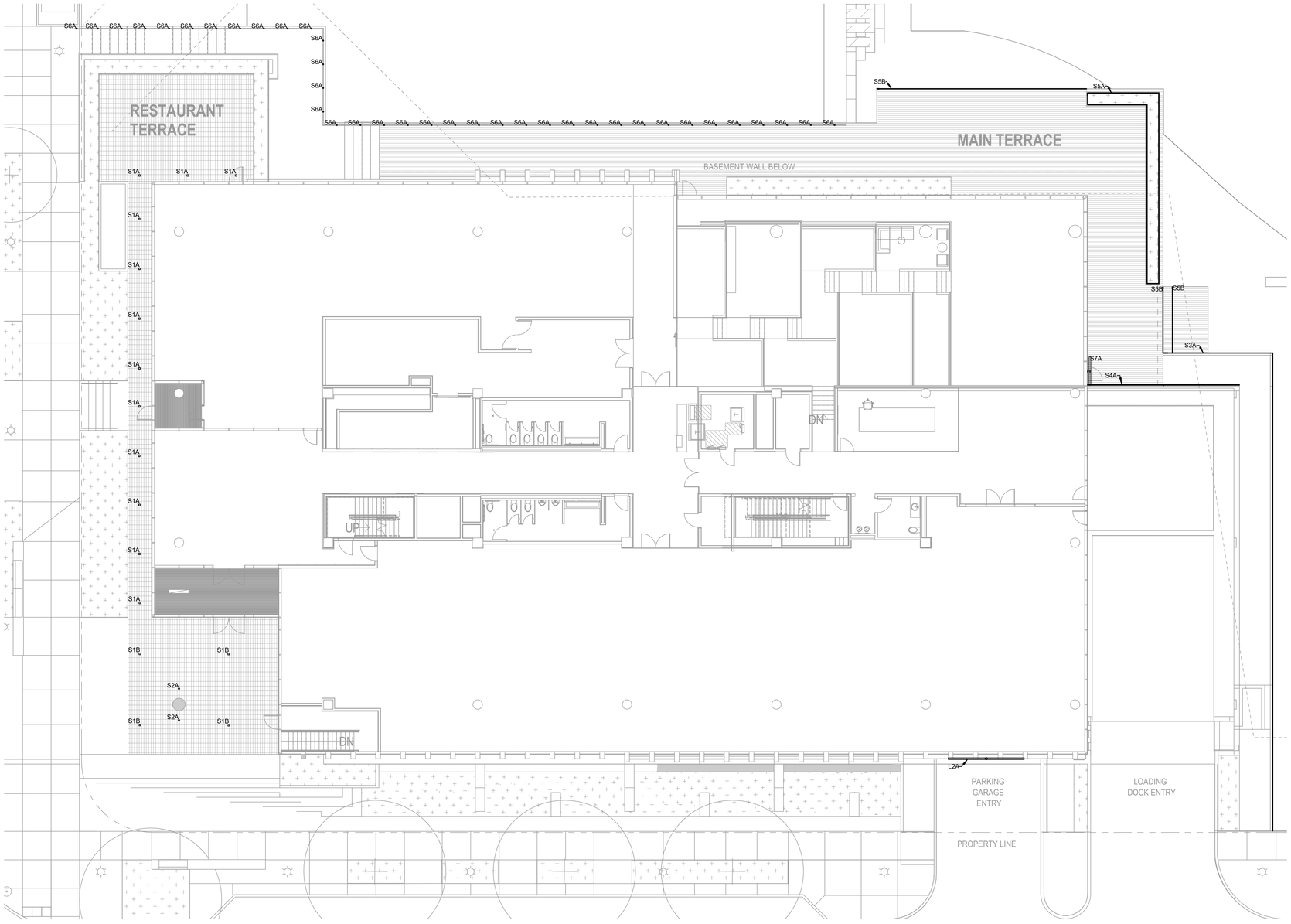
SHEET NUMBER

EL-00

6/1/2021 9:31:11 AM BIM 360://URP - Element Labs/URP - MEP model.rvt

General Notes

1. LIGHTING LOCATIONS ARE CONCEPTUAL BASED ON THE PROJECT DEVELOPMENT. MINOR MODIFICATIONS MAY OCCUR AS THE DESIGN PROGRESS, AND AS DICTATED BY COORDINATION WITH HARDSCAPE, LANDSCAPE AND FIELD CONDITIONS.
2. PEDESTRIAN SCALE SIDEWALK AND STREET LIGHTING IS PROVIDED UNDER A SEPARATE CONTRACT, AND SO IS NOT INDICATED ON THIS DRAWING OR INCLUDED IN THE SITE CALCULATIONS.



1 LIGHTING SITE PLAN

SCALE: 1" = 10'-0"

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KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

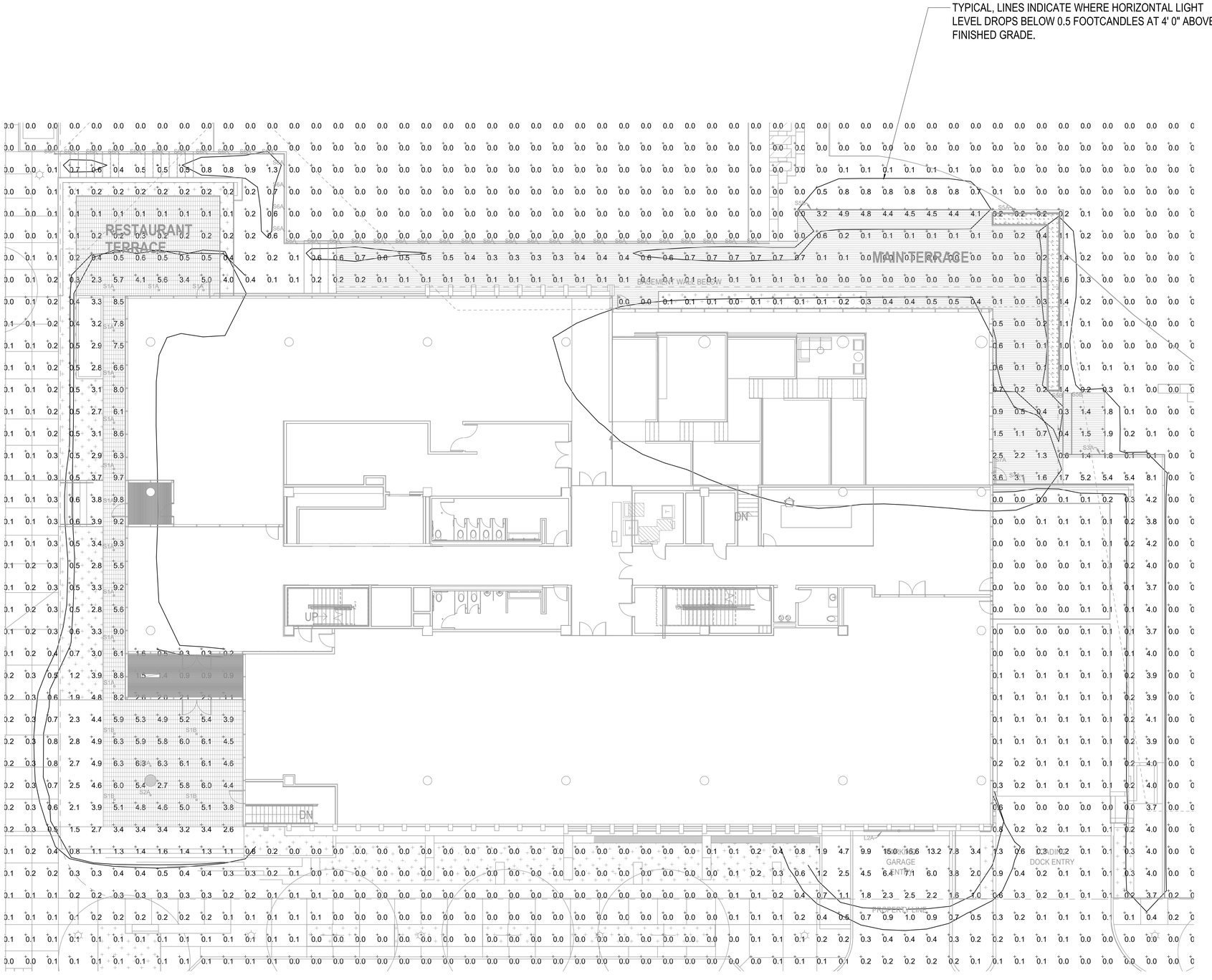
LIGHTING SITE PLAN

SHEET NUMBER

EL-01

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

6/1/2021 9:31:11 AM BIM 360://URP - Element Labs/URP - MEP model.rvt



1 LIGHTING SITE PLAN CALCS

SCALE: 1" = 10'-0"

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KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

LIGHTING SITE PLAN CALCULATIONS

SHEET NUMBER

EL-02

6/1/2021 9:31:12 AM BIM 360://URP - Element Labs/URP - MEP model.rvt

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LED LUMENS AND CCT	DRIVER POWER SUPPLY	MOUNTING	MOUNTING HEIGHT	VOLTAGE	REMARKS	LLF
L1A	A.LIGHT	D4-M*-LVH-30-U-N-D-M-O-D-EC	1648 LM/FT 3000K 80 CRI	0-10V DIMMING DRIVER	MULLION	22'	277	LED LINEAR MULLION MOUNT LUMINAIRE WITH ASYMMETRIC THROW. *LENGTHS AS INDICATED ON DRAWINGS. FINISH TO BE DETERMINED BY ARCHITECT. LUMINAIRE IS LIGHTING INTERIOR WOOD CEILING FIXTURE IS ONLY BEING INCLUDED TO MODEL SPILL LIGHT FROM WOOD CEILING THROUGH THE WINDOW TO THE DECK SURFACE.	1.00
L2A	LUMENWERX	VIAWETR-TMG-HLO-LED-80-500-30-*-UNV-D1-1-**-TRM-W	500 LM/FT 3000K 80 CRI	0-10V DIMMING DRIVER	CEILING	12'	277	LED RECESSED LINEAR LUMINAIRE WITH TEMPERED GLASS LENS. *LENGTHS AS INDICATED ON PLANS. **FEED LOCATION TO BE DETERMINED BY E.C..	1.00
S1A	USAI	B4SCM-09C3-30KS-40-S-*-**-UNV-D6E	675 LM 3000K 80 CRI	0-10V DIMMING DRIVER	CEILING	12'	277	4 INCH SQUARE RECESSED LED DOWNLIGHT WITH WET LOCATION RATING. FORTY DEGREE BEAM SPREAD. FINISH TO BE DETERMINED BY ARCHITECT.	1.00
S1B	USAI	B4SCM-33C3-30KS-40-S-*-**-UNV-D6E	2075 LM 3000K 80 CRI	0-10V DIMMING DRIVER	CEILING	25.5'	277	4 INCH SQUARE RECESSED LED DOWNLIGHT WITH WET LOCATION RATING. FORTY DEGREE BEAM SPREAD. FINISH TO BE DETERMINED BY ARCHITECT.	1.00
S2A	BK LIGHTING	S-UL-F-DE-LED-TR-X123-SP-*-12-11-ELV-120	1392 LM 3000K 80 CRI	INTEGRAL DRIVER ELV DIMMING	ON GRADE	0 AFF	120	IN GRADE UPLIGHT WITH HEX LOUVER TO PROVIDE 45 DEGREE CUTOFF. FINISH TO BE DETERMINED BY ARCHITECT. LUMINAIRE IS MOUNTED BELOW ENTRANCE CANOPY, AND POSITIONED TO PREVENT SPILL LIGHT OUTSIDE OF THE CANOPY AREA.	1.00
S3A	LUMINII	K45M-*-30K-VHO-F-FC-**/PS010V-3X94-24-***	408 LM/FT 3000K 80 CRI	0-10V DIMMING POWER SUPPLY	ARCH CURB	GROUND	277/24	LED LINEAR LIGHT IN EXTRUDED CHANNEL, MOUNTED AT A 45 DEGREE ANGLE. FROSTED LENS. *LENGTHS AS INDICATED ON PLANS. **FINISH TO BE DETERMINED BY ARCHITECT. ***POWER SUPPLY DIMMING PROTOCOL TO BE COORDINATED WITH CONTROLS SUPPLIER TO OPTIMIZE DIMMING CURVE. FIXTURE IS TO BE MOUNTED CONCEALED FROM VIEW IN ARCHITECTURAL CURB.	1.00
S4A	LUMINII	KMWG-*-30K-VH0-11-A-**/PS010V-3X96-24-***	355 LM/FT 3000K 80 CRI	0-10V DIMMING POWER SUPPLY	ARCH POCKET	GROUND	277/24	LED WALL GRAZER WITH *LENGTHS AS INDICATED ON PLANS. **FINISH TO BE DETERMINED BY ARCHITECT. ***POWER SUPPLY DIMMING PROTOCOL TO BE COORDINATED WITH CONTROLS SUPPLIER TO OPTIMIZE DIMMING CURVE. LUMINAIRE IS TO BE MOUNTED IN ARCHITECTURAL POCKET, CONCEALED FROM DIRECT VIEW AND AIMED AT THE VERTICAL WALL.	1.00
S5A	LEDLINEAR	VENUS-930-*-TV-IP67/10000339/PWM-90-24	100 LM/FT 3000K 90 CRI	0-10V DIMMING POWER SUPPLY	ARCH PLANTER	GROUND	277/24	IP67 LISTED FLEXIBLE LED LINEAR LIGHT. MOUNTED IN PLANTER, BENEATH PLANTER LIP TO PROVIDE SPILL LIGHT ON PLANTS. LIGHT WILL BE CONCEALED FROM VIEW BY PLANTER LIP.	1.00
S5B	LEDLINEAR	VENUS-930-*-TV-IP67/10000339/PWM-90-24	100 LM/FT 3000K 90 CRI	0-10V DIMMING POWER SUPPLY	STAIR TREAD	GROUND	277/24	IP67 LISTED FLEXIBLE LED LINEAR LIGHT. MOUNTED IN BOTTOM OF STAIR TREAD. LIGHT WILL BE CONCEALED FROM VIEW BY STAIR TREAD.	1.00
S6A	i2 SYSTEMS	AT1S-30K-*-**-***/E05PW 75W/LL-205	28.5 LUMENS 3000K 80 CRI	0-10V DIMMING POWER SUPPLY	VERTICAL HANDRAIL POST	POST	277/24	MINATURE STEP LIGHT MOUNTED IN VERTICAL POST OF HANDRAIL. EXACT MOUNTING, FACEPLATE SHAPE AND FINISH TO BE DETERMINED AS DESIGN PROGRESSES.	1.00
S7A	A.LIGHT	ALD3ST-4FT-LS-30-U-KS-M-O-D-*WETLOCATIONLISTED	469 LM/FT 3000K 80 CRI	0-10V DIMMING DRIVER	MULLION MOUNT	12' AFF	277	SMALL SCALE LINEAR MULLION MOUNT LUMINAIRE WITH ASYMMETRIC DOWNLIGHT DISTRIBUTION. WET LOCATION LISTED. FINISH TO BE DETERMINED BY ARCHITECT.	1.00

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f 312.755.0775
www.perkinswill.com

CONSULTANTS

CIVIL
SmithGroup
44 East Mifflin Street, Suite 500
Madison, WI 53703

STRUCTURAL
GRAEF
1010 East Washington Avenue, Suite 202
Madison, WI 53703

MEP
J. H. FINDORFF & SON INC.
300 South Bedford Street
Madison, WI 53719

OWNER'S TEAM

OWNER
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925 E. Wells St., #1119, P.O. Box 512267
Milwaukee, WI 53202

CONSTRUCTION MANAGER
J. H. FINDORFF & SON INC.
300 South Bedford Street
Madison, WI 53703

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

LIGHTING FIXTURE SCHEDULE

SHEET NUMBER

EL-03

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

6/1/2021 9:31:14 AM BIM 360://URP - Element Labs/URP - MEP model.rvt

TYPE L1A

D4 | SPECIFICATION GUIDE

ORDERING CODE

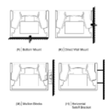
D4 | D | PROJECT INFO | DATE | TYPE | QUANTITY

PERFORMANCE AT 4000K

OUTPUT	DISTRIBUTION	NOMINAL LUMEN OUTPUT	INPUT WATTS	EFFICACY
V. High	Symmetric Wide	1,648 lm/ft	20 W/ft	90 lm/W
High	Symmetric Wide	824 lm/ft	9.2 W/ft	90 lm/W
High	Symmetric Narrow	1060 lm/ft	9.7 W/ft	109 lm/W
High	Asymmetric	788 lm/ft	9.7 W/ft	79 lm/W
Standard	Symmetric Wide	412 lm/ft	6 W/ft	90 lm/W
Standard	Symmetric Narrow	530 lm/ft	6 W/ft	109 lm/W
Standard	Asymmetric	384 lm/ft	6 W/ft	79 lm/W

Custom tuned output available from 20% to 120% of high output. Please consult factory for custom lumen output and wattage.

MOUNTING OPTIONS



D4

SERIES	LENGTH OR PATTERN TYPE	OUTPUT	LED CCT	VOLTAGE	INDIRECT DISTRIBUTION
D4	Nominal Length* M_ Exact Length** PL_ "L" Shape*** PU_ "U" Shape*** PR_ Rectangle / Square*** CP Custom Pattern****	LS LED Standard Output LH LED High Output LVH LED Very High Output* C_ LED Custom Output**	27 2700K 30 3000K 35 3500K 40 4000K	U Universal 120V - 277V 3 347V	M Symmetric Wide* G Symmetric Narrow N Asymmetric**

*Specify in feet to the nearest first 2 in. 10
**Specify in inches to the nearest 1/8 inch. Min 6.25 in.
***Contact Design Assist for available custom tooled sizes. Available max 24 in. x 120 in. / 20 in.x 96 in. Tooled.
****Contact Design Assist
*Limited Design Assist for available custom tuned output. Contact Design Assist for more information.
**Contact Design Assist for available custom tuned output strips. Available max 20% or 120% of LED high output. *Not recommended for wall mount

D	MOUNTING	FINISH	DIMMING	EMERGENCY
D Rigid Diffuse Dust Cover	R Direct Wall Mount M Mullion Blocks* H Horizontal "90DP Bracket"** F Bottom / Surface Mount	T Titanium W White B Black O_ Other*	D_ Standard 0-10V dimming** D1 HiLume Ecosystems 1% (LDE1) D2 ELV 5% dimming** D3 DMX 0.1% dim-to-dark (EldoLED) D4 DALI dim-to-off (EldoLED) NAIR nLight @AIR (dim-to-off) NWIR nLight @Wired (dim-to-off) DO Dimming - Other	EC Emergency - Circuited E_ Emergency - battery*

*Enter "T" for 1" depth, Enter "B" for 1/2" depth
**Enter "T" for 1" depth, Enter "B" for 1/2" depth, Not available with wet location.
*Specify RAL#
*Factory installed emergency battery pack. Specify desired quantity of batteries. Not avail. with wet location. Not avail. with 120V. Not avail. with L. See technical data for more information.

SENSORS		OPTIONS	
OC Occupancy Sensor - Ceiling		M Multi-Circuit*	K Natatorium Application**
PC Photocell / Daylight Sensor - Ceiling		R Right Endcap Feed	Q Wet Location***
OF Occupancy Sensor - Fixture		L Left Endcap Feed	CRI 90+
PF Photocell / Daylight Sensor - Fixture		N New York City Code	MRI MRI
OPC Occupancy & daylight Sensor -Ceiling			
OPF Occupancy & daylight Sensor - Fixture		*Just-in-time circuiting requirements **Not available with horizontal cable* bracket. See guide and contact Design Assist. Special hardware required. Not avail. with L. ***Not available with factory-set cut-off & power. Wet location suitable in full coverage and/or suction-type wet applications (direct to sky not recommended), not suitable for exterior weather applications. Not for use in corrosive environments or near swimming pools.	

Contact will be installed to dimming input.

a·light

3728 MARITIME WAY | OCEANSIDE, CA 92056 | 760.727.7675
ALIGHTS.COM | REV.1.1 02/21

DLC Premium | UL Classified | Energy Star | Buy American | 5Y Warranty

FIXTURE TYPE L1A IS TO BE MULLION MOUNTED ON THE INTERIOR OF THE BUILDING, WITH ASYMMETRIC THROW OF LIGHT FACING INTO THE BUILDING SPACE. FIXTURE IS INCLUDED IN THE CALCULATIONS TO ACCOUNT FOR SPILL LIGHT FROM THE BUILDING TO THE DECK SURFACE.

TYPE L1A

AGI32 Excellence in Illumination Engineering Software since 1981 — Lighting Analysts — www.agi32.com

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Photometric Report (Type C)

```
Filename: D44LH40UND asymmetric .ies
[TEST] 1
[TESTLAB] Photopia 2015.0.1 see: www.ltioptics.com/ies
[LUMINAIRE] D14LH40UND
[LAMPCAT] NFSL757DT-V1
[LAMP] LED 0.1885W Nichia Warm White LED (65mA)

Maximum Candela = 1932 at  0 H  135 V
```

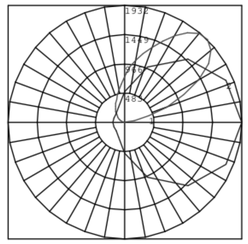
Classification:

```
Road Classification: N.A., N.A., N.A. (deprecated)
Upward Wast Light Ratio: 1.00
Luminaire Efficacy Rating (LER): 81
Maximum UGR: N.A.
Indoor Classification: Indirect
BUG Rating : B0-U5-G0
```

Polar Candela Curves:

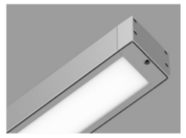
Vertical Plane Through:
1) 0 - 180 Horizontal

Horizontal Cone Through:
2) 135 Vertical



TYPE L2A

VIA WET LED | RECESSED 3 | LUMENWERX WWW.LUMENWERX.COM



DESCRIPTION

Via Wet offers architectural lighting for wet locations in both exterior and interior applications. With a simple 3¼" high by 4½" wide profile of extruded aluminum, Via Wet can be installed in recessed, ceiling, wall, or pendant mounting.
Fully sealed, Via Wet is suitable for extreme weather condition, -20°C/-4°F to 40°C/104°F.
A choice of output options provides up to 1000 lumens per foot section.

PROJECT: _____
TYPE: _____
NOTES: _____

IMPORTANT: Fixture must be installed with lens facing down.

ORDER GUIDE — *IC RATED*

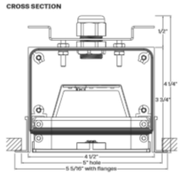
VIAWETR

LUMINAIRE ID	PROTECTIVE OPTICS	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
VIAWETR - via wet recessed	TMG - Tempered Clear Glass PFC - Clear Polycarbonate	HLO - High Efficiency Lambertian Optic FMO - Precision Micro-Prism Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - min. low output 500lm/ft 750 - medium output 750lm/ft 1000 - max. high output 1000lm/ft #### - other required lm/ft	27 - 2700k 30 - 3000k 35 - 3500k 40 - 4000k 50 - 5000k

LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	POWER FEED	MOUNTING	FINISH
Standard sections - 3', 4' For all other specify length ##T - nominal length in feet Continuous Run - 4' sections joint together	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V	DR - 1% dimming 0-10V 0A - Dali	T - LDE1SR +eEM - emergency light circuit +eNL - night light circuit +DTDxxx - generator transfer device, 120V or 277V	TF - top feed EF - end feed	TRM - trim TRL - trimless	W - matte white CF## - custom finish specify RAL#

See page 2 for ordering code detailed information

CROSS SECTION



VIAWETR

OPTICS AND PROTECTIVE OPTICS

TMG +HLO - Tempered Clear Glass with High Efficiency Lambertian Optic

File Name: VIAWET-RECESSED-SPEC | Page 1 / 5 | August 1, 2019

Intertek

TYPE L2A

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Photometric Report (Type C)

```
Filename: viawet-tmghlo-led-80-500-30-4ft.ies
[TEST] Recalc from S1506174-R1
[TESTLAB] Spectra Lux Industries Inc.
[ISSUEDATE] 17 June 2015
[MANUFAC] LumenWerx
[LUMCAT] VIAWET-TMG+HLO-LED-80-500-30-4FT
[LUMINAIRE] Via Wet
[LAMP] LED'S White c/w Driver @ 120.00V

Maximum Candela = 1024.5059877634 at  0 H  2.5 V
```

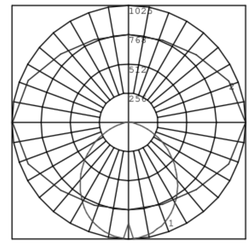
Classification:

```
Road Classification: Type II, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 86
Maximum UGR: 24.8
Indoor Classification: Direct
BUG Rating : B1-U0-G1
```

Polar Candela Curves:

Vertical Plane Through:
1) 0 - 180 Horizontal

Horizontal Cone Through:
2) 2.5 Vertical



TYPE S1A and S1B

BeveLED® 2.2 Complete
4.5" Square Deep Regress Downlight - B4SC

USAI Lighting

Universal and Field Convertible - Trim | Trimless | Millwork

Trimmed - B4SCF | Trimless - B4SCL | Millwork - B4SCM

usailighting.com/beveled

FEATURES

- Field Flexibility between trimmed, trimless and millwork
- Dry/damp/wet location rated for bathrooms and showers, including trimless and millwork
- 1% dimming standard + more dimming options
- Clear overspray protector for installation convenience
- Full family platform
- Iconic beveled look

COMPANION FAMILY PRODUCTS

Downlight - B4SD usailighting.com/B4SD | Adjustable - B4SA usailighting.com/B4SA | Wall Wash - B4SW usailighting.com/B4SW

DEEP REGRESS DOWNLIGHT PERFORMANCE DATA

LED COLOR CHOICES

DELIVERED* PERFORMANCE:	Classic White 9W	Classic White 12W	Classic White 16W	Classic White 24W	Classic White 33W	Classic White 36W	Warm Glow Dimming 16W	Warm Glow Dimming 32W	Color Select 16W	Color Select 32W
Source Lumens:	1150	1300	1725	2400	3025	4150	1275	2150	1250	2075
Lumens Per Watt:	76	75	74	68	63	85	60	54	55	54
Delivered Lumens:	675	900	1175	1650	2075	2950	950	1600	875	1575
EM Mode Output:	450 Delivered Lumens (nominal)						350 Delivered Lumens		375 Delivered Lumens	

*Based on 3000K, 80+ CRI. Performance varies for each specific beamspread and color temperature. See IES files for exact values at usailighting.com.

CORRELATED COLOR TEMPERATURE MULTIPLIER	Classic White 2700K	Classic White 3000K	Classic White 3500K	Classic White 4000K	Warm Glow Dimming 2700K	Warm Glow Dimming 3000K	Color Select 2200K	Color Select 2700K	Color Select 3500K	Color Select 4000K	Color Select 5000K	Color Select 6000K
Color Rendering Index:	80+	90+	80+	90+	80+	90+	80+	80+	80+	80+	80+	80+
Multiplier for Lumen Output:	0.94	0.78	1.00	0.78	1.00	1.00	1.06	0.87	0.96	1.04	1.09	1.13	1.18

THE COMPLETE BEVELED FAMILY PLATFORM

More Ceiling Applications | More Sizes and Shapes | Armstrong® Ceiling Solutions Compatible

Sloped Ceiling | BeveLED Block | Cylinders | BeveLED Micro | BeveLED Mini | BeveLED 5.0 | Trimless Acoustical | Connect TechZone | BeveLED Connect

Page 1

USAI LIGHTING COLLABORATORY
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New York, NY 10013
845-234-4090
showroom@usailighting.com

USAI LIGHTING HEADQUARTERS
1126 River Road
New Windsor, NY 12553
T: 845-565-8500
info@usailighting.com

TYPE S1A and S1B

HOW TO SPECIFY

BeveLED® 2.2 Complete
4.5" Square Deep Regress Downlight - B4SC with Integral Driver

USAI Lighting

Specify fixture part number. (All boxes must be filled in to correctly order)

B4SC_ | BeveLED Trim Style | Wattage Options | LED Color Options | Beam Options | Lens Options | Bevel Trim Finish Options | "Flange/ Millwork Collar Finish | Natatorium Corrosion Protection (optional) | Housing Options | Voltage Options | Dimming Driver Options | Accessories (Optional)*

S1A

F Trimmed with Flange (use with all materials)
L Trimless Spackle-in (use with sheetrock and plaster only)
M Millwork
K Kerfs-Edge (use with wood and stone)

Classic White Light

Wattage Options	LED Color Options	Beam Options
09C3 9W LED	27K3 2700K, 80+ CRI	25 25° beam
12C3 12W LED	27K1 2700K, 90+ CRI	40 40° beam
16C3 16W LED	30K3 3000K, 80+ CRI	70 70° beam
24C3 24W LED	30K1 3000K, 90+ CRI	
33C3 33W LED	35K3 3500K, 80+ CRI	
36E1 36W LED	35K1 3500K, 90+ CRI	
S1B	40K3 4000K, 80+ CRI	
	40K1 4000K, 90+ CRI	

Warm Glow Dimming

Wattage Options	LED Color Options	Beam Options
16WG2 16W LED	2727KS 2700K-2200K, 80+ CRI	25 25° beam
32WG2 32W LED	2727KH 2700K-2200K, 90+ CRI	40 40° beam
	3027KS 3000K-2200K, 80+ CRI	65 65° beam
	3027KH 3000K-2200K, 90+ CRI	

Color Select Tunable White

Wattage Options	LED Color Options	Beam Options
16CS1 16W LED	6022KS 5000K-2200K, Tunable White Light 80+ CRI	30 30° beam
32CS1 32W LED		50 50° beam
		70 70° beam

Lens Options: S (none) (provided standard); SF Satin Frosted; BF Borosilicate Frosted

Bevel Trim Finish Options: WH White; SC Conduit Silver; GR Grey; BL Black; BZ Bronze; PR Primer Finish; OW Antimicrobial Paint, White; AC Clear Matte Anodized; AB Piano Gloss Black; RAL Custom Color Specify RAL # (*Leave blank for trimless)

"Flange/ Millwork Collar Finish: WH White; SC Conduit Silver; GR Grey; BL Black; BZ Bronze; PR Primer Finish; OW Antimicrobial Paint, White; AC Clear Matte Anodized; WH White; BL Black; GR Grey; BZ Bronze; AB Piano Gloss Black; WH White; GR Grey; BL Black; BZ Bronze; RAL Custom Color Specify RAL # (*Leave blank for trimless)

NT Natatorium Triple-coat Corrosion resistant (available on flanged trims and painted finishes only) (*Leave blank for non Natatorium trims)

NCSM Construction Narrow Width
NC New Construction
NCCP Chicago Plenum (ID)
NCIC Insulation Contact Rated / Airtight (1, 4)

Voltage Options (Select one)
UNV 120V-277V
120V
347V

Dimming Driver Options
For use with Universal Voltage 120V - 277V (No Additional Charge)
DNE Eldo LED 0-10V, 1% (provided standard)
DNF Eldo LED 0-10V, 1%
DAA Lutron ECO, 0.1% (1, 2, 3, 5, 6)
DAH Lutron H ECO, 1% Fade (2, 3, 4)
DHP Lutron ECO, 1%-(1, 5, 6)
DAA Eldo LED 0-10V, 0.1%
DAB Eldo LED 0-10V, 0.1%
DF Eldo LED DALI, 0.1%
DSB Eldo LED DMX, 0.1% (7)
For use with 120V only
FA+ Additional Charge
D1S Phase 3-wire, 1% (1, 2, 5, 6, 9)
D3 Lutron 2-wire, 1%
For use with 347V only
D1S 0-10V dim, 1% 347V only (2, 5)

EWW Emergency battery with NC housing and Integral test switch dry/damp/wet-rated, or with NCSM housing and Integral dry/damp only test switch (7)
EMW Emergency battery with NCSM housing and Remote dry/damp/wet-rated test switch (7)
* Residential grade nailer bars provided standard

Accessories (Optional)*
CB27 27" C-Channel Bars
CB32 32" C-Channel Bars
CB52 52" C-Channel Bars
CB62 62" C-Channel Bars
EM Emergency Battery with NC housing and Integral test switch dry/damp/wet-rated, or with NCSM housing and Remote dry/damp only test switch (7)

Notes:
1 Not available with 36E1LED
2 Not available for Warm Glow
3 Not available for Color Select
4 Not available with WW
5 Not available with 32W
6 For use with 116W and lower only
7 Not available with 347V. NCSM housing requires above ceiling access
8 EM and EMW options not available.

TRIM FINISH OPTIONS

White | Grey | Black | Bronze | Clear Matte Anodized | Piano Gloss Black | Clear Matte Anodized with White Flange | Custom RAL (example)

Custom colors and primer finish also available

Page 2

USAI LIGHTING COLLABORATORY
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showroom@usailighting.com

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New Windsor, NY 12553
T: 845-565-8500
info@usailighting.com

TYPE S1A

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Photometric Report (Type C)

```
Filename: B4SC-09C3-30KS-40-S-WH-MOD.ies
[TEST] 1164840
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 9/28/2015 MOD to new nomenclature
[MANUFAC] USA Illumination, Inc
[LUMCAT] B4SC-16C3-30KS-40-S-WH MOD to 9W
[LUMINAIRE] Formed steel housing, aluminum heatsink,
white aluminum tr im, patterned glass lens, no
enclosure
[LAMP] Seven white LEDs
[BALLAST] One Thomas Research Products
LED25W-36-C0700-D

Maximum Candela = 1312.22378211021 at  67.5 H  .5 V
```

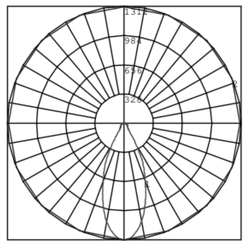
Classification:

```
Road Classification: Type VS, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 88
Maximum UGR: 19.1
Indoor Classification: Direct
BUG Rating : B1-U1-G0
```

Polar Candela Curves:

Vertical Plane Through:
1) 67.5 - 247.5 Horizontal

Horizontal Cone Through:
2) 0.5 Vertical



TYPE S1B

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Photometric Report (Type C)

```
Filename: B4SC-33C3-30KS-40-S-WH-MOD.ies
[TEST] 1164840
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 9/28/2015 MOD to new nomenclature
[MANUFAC] USA Illumination, Inc
[LUMCAT] B4SC-16C3-30KS-40-S-WH MOD to 33W
[LUMINAIRE] Formed steel housing, aluminum heatsink,
white aluminum tr im, patterned glass lens, no
enclosure
[LAMP] Seven white LEDs
[BALLAST] One Thomas Research Products
LED25W-36-C0700-D

Maximum Candela = 3471.70984134674 at  67.5 H  .5 V
```

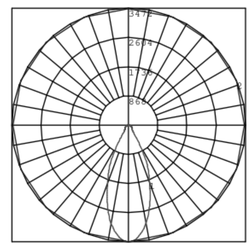
Classification:

```
Road Classification: Type VS, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 63
Maximum UGR: 25.8
Indoor Classification: Direct
BUG Rating : B2-U1-G0
```

Polar Candela Curves:

Vertical Plane Through:
1) 67.5 - 247.5 Horizontal

Horizontal Cone Through:
2) 0.5 Vertical



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300 South Bedford Street
Madison, WI 53703

NOTE: DOCUMENTS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION PURPOSES.

PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

LIGHT FIXTURE CUT SHEET - SITE

SHEET NUMBER

EL-04

6/1/2021 9:31:14 AM BIM 360://URP - Element Labs/URP - MEP model.rvt

TYPE S2A

DENALI - UPLIGHT FLUSH MOUNT LED (INTEGRAL) — IP66 RATED

DATE: | PROJECT: | TYPE:

CATALOG NUMBER LOGIC:

*Accommodates up to 2 lens/shielding media

**120V only

#11 Honeycomb Baffle
Reduces glare by controlling light at 45° cutoff

CATALOG NUMBER LOGIC
Example: B - UL - F - DE - LED - TR - x99 - FL - WHP - 12 - 11 - INC - 120

MATERIAL
(Blank) - Aluminum B - Brass S - Stainless

SERIES
UL - Recessed Uplight

INSTALLATION
F - Flush Mount

FIXTURE
DE - Denali Series

SOURCE
LED - Chip on Board Technology

HOUSING
TR - Integral Driver

LED TYPE

x98 - 13W/2700K/80CRI	x101 - 13W/2700K/90CRI
x99 - 13W/3000K/80CRI	x102 - 13W/3000K/90CRI
x103 - 13W/3500K/80CRI	x104 - 13W/3500K/90CRI
x100 - 13W/4000K/80CRI	x121 - 13W/4000K/90CRI
x122 - 21W/2700K/80CRI	x126 - 21W/2700K/90CRI
x123 - 21W/3000K/80CRI	x127 - 21W/3000K/90CRI
x124 - 21W/3500K/80CRI	x128 - 21W/3500K/90CRI
x125 - 21W/4000K/80CRI	x129 - 21W/4000K/90CRI

OPTICS
SP - Spot (20°) FL - Flood (40°) WFL - Wide Flood (60°)

FINISH (See page 2 for full-color swatches)
Standard Finishes (BZP, BZW, BLP, BLW, WHP, WHW, SAP, VER)
Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRI, CRM, HUG, MDS, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR)
Also available in RAL Finishes
Brass Finishes (MAC, POL, MIT)
Stainless Steel Finishes (MAC, POL)

LENS TYPE*
9 - Clear (Standard)
12 - Soft Focus 13 - Rectilinear

SHIELDING*
11 - Honeycomb Baffle

CONTROL
ELV - Dimming Driver (For use with Electronic Low Voltage Dimmer)**
INC - Dimming Driver (For use with Incandescent Dimmer)**

INPUT VOLTAGE
120 - 120 VAC

TITLE 24, JA8 COMPLIANT

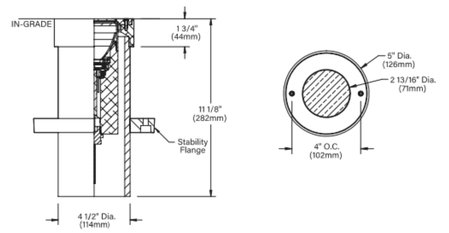
B-K LIGHTING | MADE IN THE USA | 559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

02/03/2021 SKU-1368
SLB-2825-00

TYPE S2A

DENALI - UPLIGHT FLUSH MOUNT LED (INTEGRAL) — IP66 RATED

DATE: | PROJECT: | TYPE:



STANDARD FINISHES

Satin Black (BLP) | Satin Bronze (BZP) | Satin White (WHP) | Satin Aluminum (SAP)
Black Wrinkle (BLW) | Bronze Wrinkle (BZW) | White Wrinkle (WHW) | Verde (VER)

Click Here to view larger, full-color swatches of all available finishes on our website.

PREMIUM FINISHES

Cascade Mtn. Granite (CMG) | Rocky Mtn. Granite (RMG) | Sierra Mtn Granite (SMG) | Aleutian Mtn Granite (AMG) | Textured Forest (TXF)
Black Chrome (BCM) | Beige (BGE) | Weathered Copper (WCP) | Old Copper (OCP) | Hunter Green (HUG)
Cracked Ice (CRI) | Mojave Desert Sandstone (MDS) | Antique Brass Powder (ABP) | Brown Patina Powder (BPP) | Sonoran Desert Sandstone (SDS)
Weathered Iron (WIR) | Clear Anodized Powder (CAP) | Cream (CRM) | Antique White (AQW) | Natural Brass Powder (NBP)

B-K LIGHTING | MADE IN THE USA | 559.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

02/03/2021 SKU-1369
SLB-2825-00

TYPE S2A

Photometric Report (Type C)

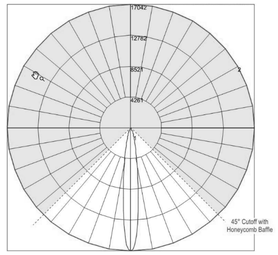
```
Filename: DE-LED-TR-X125-SP-9-C-13583921.04.ies
[TEST] 13583921.04
[TESTLAB] UL Verification Services Inc.
[ISSUEDATE] 2/5/2021
[MANUFAC] B-K Lighting INC
[LUMCAT] DE-LED-TR-X125-SP-9-C-PROTOTYPE(4000K)
[LUMINAIRE] White metal cylindrical housing and clear
glass lens
[LAMP] One (1) White LED
[BALLAST] One (1) ERP EBR020U-0700-30

Maximum Candela = 10430.8 at  0 H  0 V
```

Classification:

```
Road Classification: Type V, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 64
Maximum UGR: 13.5
Indoor Classification: Direct
BUG Rating : B2-U0-G0
```

Polar Candela Curves:

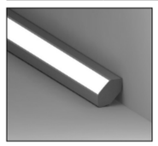
```
Vertical Plane Through:
11 0 - 180  Horizontal

Horizontal Cone Through:
2) 0  Vertical
```



FIXTURE TYPE S2A IS TO BE GROUND MOUNTED BENEATH THE ENTRY CANOPY. HEX LOUVER WILL PROVIDE SHIELDING OF LAMP FROM DIRECT VIEW.

TYPE S3A

Kendo 45M Wet | Linear Valance Illumination System — luminii



Features

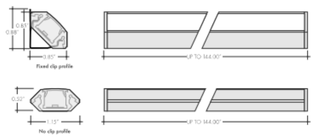
- 24VDC Class 2 fixtures made to order up to 144". Fixtures can be linked up to 35' depending on output
- Suitable for undercabinet, millwork, recessed and surface mount applications
- Approved for closet/storage space installation per NEC 410.16(A)(3) and 410.16(C)(5)
- Operating environmental temperature -30C to 50C
- Vibrant colors with R9 values up to 98
- Single micro binned LEDs +/- 30 CCT
- Dims with minimal color shift
- Class 2 listed for wet locations
- Proprietary strong bond solder method handles up to 50lbs of torque on wire leads and connectors
- 3 Year warranty

Made in USA | cULus LISTED | IC RATED | RoHS

Finish options

Silver anodized | Black powder coated | Bronze powder coated | White powder coated

Profile dimensions



Technical information

OUTPUT OPTIONS

Output	Lumens at 3000K (with clear lens)	Average power consumption at 4'	Lumens / Watt (with clear lens)	Maximum system length (1 run)
SO (LS1)	819 lm/ft	3.2 W/ft	64 lm/W	35'
HO (LS4)	295 lm/ft	5.2 W/ft	62 lm/W	26'
VHO (LS2)	408 lm/ft	6.5 W/ft	63 lm/W	18'

CCT INFO/LUMEN MULTIPLIER — TM-30-15

Color temperature	Multiplier (reference: 3000K)	CRI	R_f	R_g
2200K	0.87	86	87	98
2400K	0.73	98	95	102
2700K	0.81	97	93	101
2900K	0.86	97	94	101
3000K	1.00	91	89	98
3500K	1.05	94	90	102
4100K	1.28	94	86	96

Ordering code

MODEL	LENGTH	CCT	OUTPUT	LENS	MOUNTING	FINISH	E	1
K45MW	12	22K	SO	C	FC	SA	E	1
K45M - Kendo 45M Wet	12" - 128" 4" increments	22K - 2200 K 24K - 2400 K 27K - 2700 K 30K - 3000 K 35K - 3500 K 41K - 4100 K	SO - Standard HO - High VHO - Very High	C - Clear T - Tinted 13 - 13" Bi-directional	FC - Front Clip NC - No Clip	SA - Silver BK - Black BZ - Bronze WH - White (BK, BZ, WH finishes will have an upcharge and require longer lead times)	E - End B - Back	1 - 72" wire leads 1X2 - 72" wire leads at both ends 2 - 72" wire leads at one end and quick connect at other 3 - Single quick connect 4 - Dual quick connect

TYPE S3A

Photometric Report (Type C)

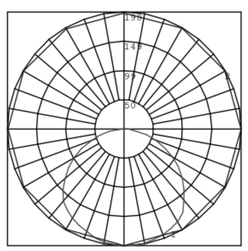
```
Filename: K45MW-48-30K-SO-C-XX-WH-X-X_IESNA2002.IES
[TEST] N/A
[TESTLAB] Engineering Lab
[ISSUEDATE] 18-FEB-2002
[MANUFAC] LUMINII
[LUMCAT] K45MW-48-30K-SO-C-XX-WH-X-X
[LUMINAIRE] Kendo 45M Wet
[LAMPCAT] LL36-24K BIN: WA5a 6/20
[LAMP] 3528 LED

Maximum Candela = 198.06 at  0 H  5 V
```

Classification:

```
Road Classification: Type II, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.01
Luminaire Efficacy Rating (LER): 47
Maximum UGR: 21.6
Indoor Classification: Direct
BUG Rating : B0-U1-G0
```

Polar Candela Curves:

```
Vertical Plane Through:
11 0 - 180  Horizontal

Horizontal Cone Through:
2) 5  Vertical
```

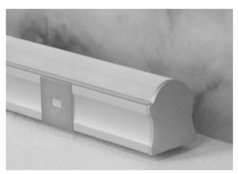


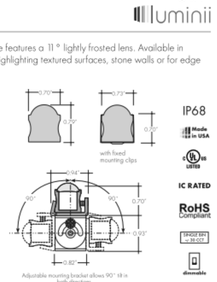
FIXTURE TYPE S4A TO BE MOUNTED IN ARCHITECTURAL SIDEWALK CURB, FACING THE GROUND AT AN ANGLE OR 45 DEGREES. CURB WILL HAVE A LIP TO CONCEAL FIXTURE FROM DIRECT VIEW.

TYPE S4A

Kendo M Wet Graze | Linear Illumination System — luminii

Extruded aluminum linear grazing system, Kendo M Wet Graze features a 11° lightly frosted lens. Available in sections up to 116" long. Kendo M Wet Graze is suitable for highlighting textured surfaces, stone walls or for edge lighting. Class 2 listed for wet location installations.





IP68 | Made in USA | cULus LISTED | IC RATED | RoHS Compliant | DLC 5.1 LM-79 LED | dimmable

Finish options

Black powder coated | Bronze powder coated | Silver anodized | White powder coated

Technical information

Output Options

Output type	HO (LS4)	VHO (LS2)
Lumens at 4000K	262 lum/ft	355 lum/ft
Average power consumption at 4'	5.2 W/ft	6.5 W/ft
Maximum system length (Achievable via feed through fixture wiring.)	26'	18'
Operating Voltage	24VDC	24VDC
Operating Environment Temperature	-30C to 50C	-30C to 50C

CCT INFO/LUMEN MULTIPLIER — TM-30-15

Color temperature	Multiplier (reference: 4000K)	CRI	R_f	R_g
2700K	0.73	97	95	101
3000K	0.81	91	89	98
3500K	0.86	94	90	102
4000K	1.00	94	86	96

Ordering code

MODEL	LENGTH	CCT	OUTPUT	LENS	MOUNTING	FINISH	POWER FEED
KMWG	12	27K	HO	11	A	SA	F1
KMWG - Kendo M Wet Graze	12" - 116" 4" increments	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K	HO - High VHO - Very High	11° - Semi-Frosted	A - Adjustable T - Fixed	SA - Silver BK - Black BZ - Bronze WH - White (BK, BZ, WH finishes will have an upcharge and require longer lead times)	F1 - 72" wire leads F2 - 72" wire leads at one end and quick connect at other F3 - Single quick connect F4 - Dual quick connect

TYPE S4A

Photometric Report (Type C)

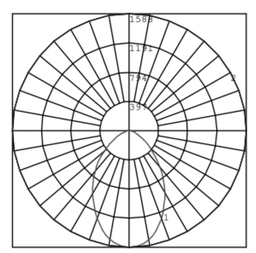
```
Filename: Kendo M Graze - Graze Lens - VHO - LL72-30K-YF8 - 4ft.IES
[TEST] N/A
[TESTLAB] Engineering Lab
[ISSUEDATE] 18-FEB-2002
[MANUFAC] Luminii
[LUMCAT] KMG-48-30K-VHO-11-WH-XX-XX
[LUMINAIRE] 11 degree Semi-frosted Lens
[LAMPCAT] KMG-48-30K-VHO-11-WH-XX-XX
[LAMP] LL72-30K-YF8

Maximum Candela = 1587.59 at  0 H  0 V
```

Classification:

```
Road Classification: Type I, Very Short, Cutoff (deprecated)
Upward Wast Light Ratio: 0.04
Luminaire Efficacy Rating (LER): 56
Maximum UGR: 25.6
Indoor Classification: Direct
BUG Rating : B1-U2-G1
```

Polar Candela Curves:

```
Vertical Plane Through:
1) 0 - 180  Horizontal

Horizontal Cone Through:
2) 0  Vertical
```



FIXTURE TYPE S4A TO BE MOUNTED IN AN ARCHITECTURAL PLANTER, FACING THE WALL TO PROVIDE GRAZING ILLUMINATION. PLANTER DETAIL TO PROVIDE A LIP ABOVE THE FIXTURE TO PROVIDE SHIELDING FROM DIRECT VIEW.

Perkins&Will

The Wrigley Building
410 North Michigan Ave.
Suite 1600
Chicago, IL 60611
t 312.755.0770
f 312.755.0775
www.perkinswill.com

CONSULTANTS

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44 East Mifflin Street, Suite 500
Madison, WI 53703

STRUCTURAL
GRAEF
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Madison, WI 53703

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Madison, WI 53719

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Madison, WI 53719

OWNER'S REPRESENTATIVE
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925 E. Wells St., #1119, P.O. Box 512267
Milwaukee, WI 53202

CONSTRUCTION MANAGER
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Madison, WI 53703

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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

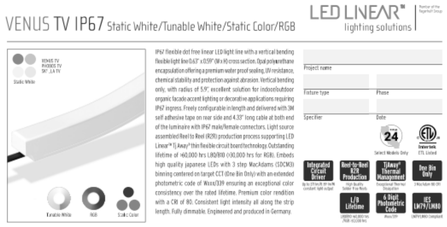
LIGHT FIXTURE CUT SHEET - SITE

SHEET NUMBER

EL-05

6/1/2021 9:31:14 AM BIM 360://URP - Element Labs/URP - MEP model.rvt

TYPE S5A and S5B



TYPE S5A and S5B

Photometric Report (Type C)

```
Filename: VarioLED_Flex_Venus_IQ White_TV_IP68_2200K.ies
[TEST] 1291014a
[TESTLAB] LED Linear Lab
[ISSUEDATE] 20141006
[MANUFAC] LED Linear GmbH
[LUMINAIRE] VarioLED_Flex_Venus_IQ White_TV_IP67_2200K

Maximum Candela = 5.92815 at  15 H  3 V
```

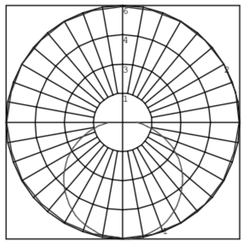
Classification:

```
Road Classification: Type VS, Very Short, Semi-Cutoff (deprecated)
Luminaire Efficacy Rating (LER): 41
Maximum UGR: 23.9
Indoor Classification: Direct
BUG Rating : B2-U0-G0
```

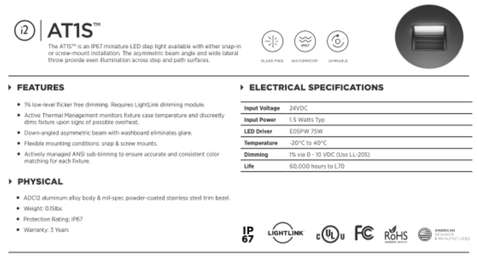
Polar Candela Curves:

```
Vertical Plane Through:
1) 15 - 195  Horizontal

Horizontal Cone Through:
2) 3  Vertical
```



TYPE S6A



TYPE S6A

Photometric Report (Type C)

```
Filename: vertical post light LTL28794.ies
[TEST] 28794
[TESTLAB] Luminaire Testing Laboratory, Inc
[ISSUEDATE] 3/2/2012
[MANUFAC] I2 Systems
[LUMCAT] LED STEP MINI-EL150
[LUMINAIRE] Formed stainless steel and aluminum
housing, frosted plast ic enclosure above black ribbed
lower reflector
[LAMP] Two white LEDs

Maximum Candela = 16.47 at  0 H  47.5 V
```

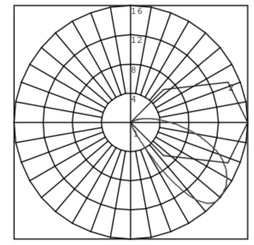
Classification:

```
Road Classification: Type IV, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.09
Luminaire Efficacy Rating (LER): 11
Maximum UGR: 23.7
Indoor Classification: Semi-Direct
BUG Rating : B0-U1-G0
```

Polar Candela Curves:

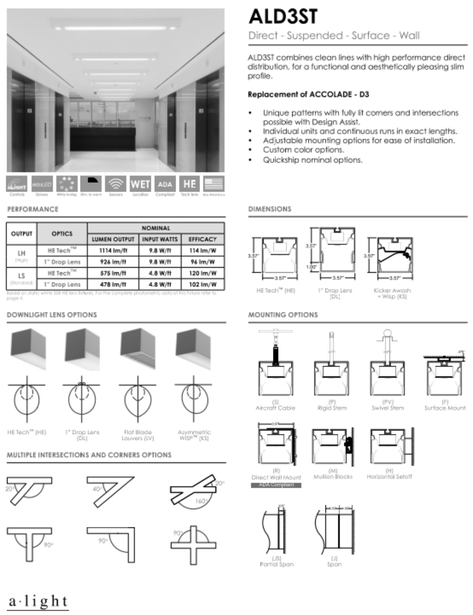
```
Vertical Plane Through:
1) 0 - 180  Horizontal

Horizontal Cone Through:
2) 47.5  Vertical
```

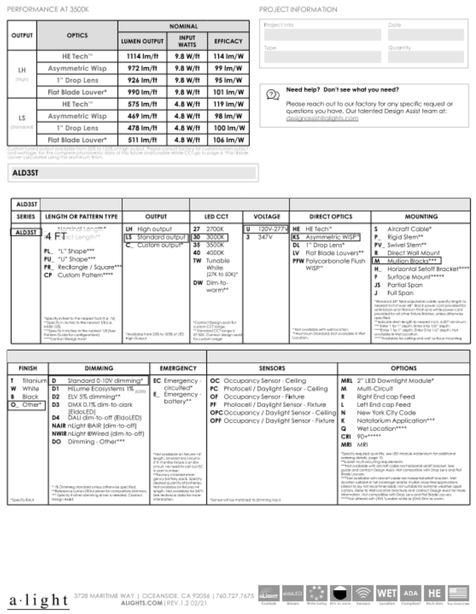


FIXTURE TYPE S5A IS TO BE MOUNTED IN PLANTER UNDERNEATH THE PLANTER LIP, FACING IN TOWARD THE PLANTINGS, TO CONCEAL FIXTURE FROM VIEW.
FIXTURE TYPE S5B IS TO BE MOUNTED IN BOTTOM OF STAIR TREAD, FACING DOWN, WITH FIXTURE CONCEALED FROM DIRECT VIEW.

TYPE S7A



TYPE S7A



TYPE S7A

Photometric Report (Type C)

```
Filename: ALD3ST4LS40UKS DOWN ASYM.ies
[TEST]
ALD3ST4LS40UKS
[TESTLAB] a.light
[ISSUEDATE] 10/25/2017
[MANUFAC] a.light

Maximum Candela = 701.76398804903 at  0 H  15 V
```

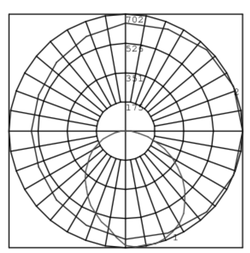
Classification:

```
Road Classification: Type II, Very Short, N.A. (deprecated)
Upward Wast Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 97
Maximum UGR: 27.6
Indoor Classification: Direct
BUG Rating : B1-U1-G1
```

Polar Candela Curves:

```
Vertical Plane Through:
1) 0 - 180  Horizontal

Horizontal Cone Through:
2) 15  Vertical
```



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Madison, WI 53703

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PROJECT

UNIVERSITY RESEARCH PARK - ELEMENT LABS

ISSUED FOR SITE PLAN APPROVAL 1 JUNE 2021

UNIVERSITY RESEARCH PARK
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY RESEARCH PARK

510 CHARMANY DR. STE. 250
MADISON, WI 53719

KEYPLAN

ISSUE CHART

NO.	DESCRIPTION	DATE
1	SITE PLAN APPROVAL	JUN 1 2021

Job Number 021130.000

TITLE

LIGHT FIXTURE CUT SHEET - SITE

SHEET NUMBER

EL-06

6/1/2021 9:31:15 AM BIM 360://URP - Element Labs/URP - MEP model.rvt