WILMINGTON INTERNATIONAL AIRPORT (ILM)

ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

1740 AIRPORT BLVD.
WILMINGTON, NC 28405

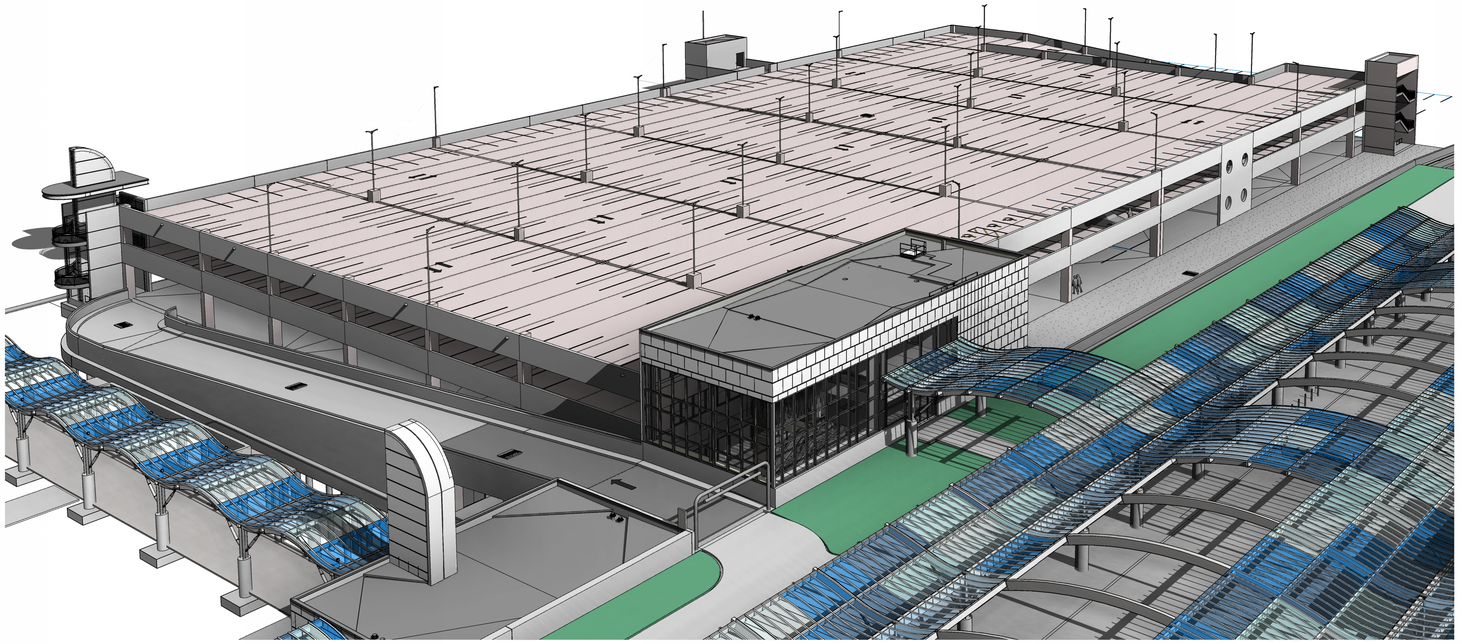
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VOL. I - PARKING GARAGE AND SHUTTLE PLAZA

03/14/2025

AEC PROJECT NUMBER
2003-0070-006

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Charlotte, NC 28203
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ARCHITECTURE:
RS&H
1520 SOUTH BLVD., SUITE 200
CHARLOTTE, NC 28203

STRUCTURAL:
RS&H
1520 SOUTH BLVD., SUITE 200
CHARLOTTE, NC 28203

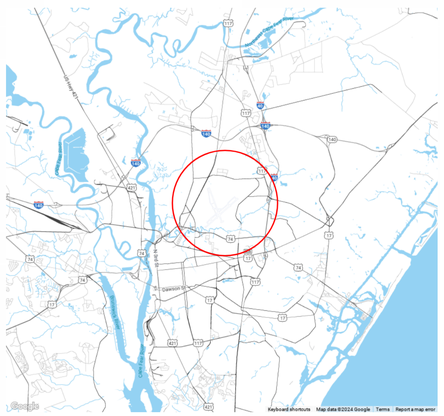
MECHANICAL/PLUMBING:
RS&H
1520 SOUTH BLVD., SUITE 200
CHARLOTTE, NC 28203

FIRE PROTECTION:
RS&H
1520 SOUTH BLVD., SUITE 200
CHARLOTTE, NC 28203

LIGHTING:
HARTRANFT LIGHTING DESIGN
12 FULTON RD
ANDOVER, MA 01810

TELECOM/SECURITY:
RS&H
1520 SOUTH BLVD., SUITE 200
CHARLOTTE, NC 28203

SIGNAGE/WAYFINDING:
APPLE DESIGNS
3739 NATIONAL DRIVE, SUITE 228
RALEIGH, NC 27612



AERIAL MAP



VICINITY MAP

REVISIONS

NO.	DESCRIPTION	DATE

NOT ISSUED FOR CONSTRUCTION

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GR602	PROGRAM SIGNAGE GRAPHIC LAYOUTS
GR603	PROGRAM SIGNAGE GRAPHIC LAYOUTS
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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006
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SEAL:

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

SHEET TITLE:
SHEET INDEX

SHEET ID:
G002

PROJECT STATUS:
100% BID SET

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2024 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOMES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: ILM Airport Boulevard and Parking Improvements – Phase II Vol 1 Parking Garage
Address: 1740 Airport Blvd., Wilmington, NC Zip Code 28405
Owner/Authorized Agent: Mike Doyle Phone # (910) 899 - 2446 E-Mail mdoyle@monmotheco.com
Owned By: Private
Code Enforcement Jurisdiction: County

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	RS&H	Joseph Epstein	14318	(740)940-4733	joseph.epstein@rsandh.com
Civil	RS&H	Dale Stubbs	015021	(678)921-1983	dale.stubbs@rsandh.com
Electrical	RS&H	Chris Durrod	056778	(904)356-3190	chris.durrod@rsandh.com
Fire Alarm	RS&H	Scott Leopold	052256	(904)356-2273	Scott.Leopold@rsandh.com
Plumbing	RS&H	Keith Nix	31858	9043256-2525	keith.nix@rsandh.com
Mechanical	RS&H	Keith Nix	31858	(904)256-2424	keith.nix@rsandh.com
Sprinkler-Standpipe	RS&H	Scott Leopold	052256	(904)256-2373	Scott.Leopold@rsandh.com
Structural	RS&H	Donald Waller	045636	(904)256-2331	donald.waller@rsandh.com
Retaining Walls >5' High	RS&H	Donald Waller	045636	(904)256-2331	donald.waller@rsandh.com
Other	( )				

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2024 NC BUILDING CODE: New Building

2024 NC EXISTING BUILDING CODE: N/A N/A N/A
CONSTRUCTED: (date) _____ CURRENT OCCUPANCY(S) (Ch. 3): _____
RENOVATED: (date) _____ PROPOSED OCCUPANCY(S) (Ch. 3): _____

RISK CATEGORY (Table 1604.5): **Current:** N/A **Proposed:** II

BASIC BUILDING DATA
Construction Type: 1A
Sprinklers: Yes N/A
Standpipes: Class I - Dry
Primary Fire District: No **Flood Hazard Area:** No
Special Inspections Required: Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor	N/A	107,772	107,772
2nd Floor	N/A	114,502	114,502
Mezzanine	N/A	N/A	N/A
1st Floor	N/A	120,049	120,049
Basement	N/A	N/A	N/A
TOTAL	N/A	342,323	342,323

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimums and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: N/A

Exempt Building: No Provide code or statutory reference:

Climate Zone: 3A

Method of Compliance: Energy Code - Prescriptive
(If "Other" specify source here)_____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: Min. R-25 continuous insulation
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: Min. R-13 + R7.5 continuous insulation
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor: _____
Door R-Values: Min. per wall assembly

Walls below grade (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: Min. R7.5 continuous insulation

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: _____
R-Value of insulation: _____

Floors slab on grade
Description of assembly: concrete slab on grade
U-Value of total assembly: N/R
R-Value of insulation: N/R
Horizontal/vertical requirement: N/R
slab heated: N/A

ALLOWABLE AREA

Primary Occupancy Classification(s): Storage - S-2 Select one Select one Select one Select one
Accessory Occupancy Classification(s): N/A
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 – List Code Section(s)): 406.5 Open Parking Garage
Special Provisions: (Chapter 8 – List Code Section): N/A
Mixed Occupancy: No Separation: N/A Select one Exception: N/A

Select one
Actual Area of Occupancy A / *Allowable Area of Occupancy A* + *Actual Area of Occupancy B* / *Allowable Area of Occupancy B* ≤ 1
_____ + _____ + ... = _____ ≤ 1.00

STOR. Y NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(b) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,2]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]
1	Parking Garage S-2	120,049 SF	Unlimited	Not Calc.	Unlimited
2	Parking Garage S-2	114,502 SF	Unlimited	Not Calc.	Unlimited
3	Parking Garage S-2	107,772 SF	Unlimited	Not Calc.	Unlimited

[1] Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (*F*)
b. Total Building Perimeter = _____ (*P*)
c. Ratio (*F/P*) = _____ (*F/P*)
d. *W* = Minimum width of public way = _____ (*W*)
e. Percent of frontage increase $I_f = 100(F/P - 0.25) \times W/30 =$ _____ (%)
[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x *D* (maximum 3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4.
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE [1]
Building Height in Feet (Table 504.3) [2]	Unlimited	40'-8"	N/A
Building Height in Stories (Table 504.4) [3]	12	3	N/A

[1] Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
[2] The maximum height of air traffic control towers must comply with Table 412.3.1.
[3] The maximum height of open parking garages must comply with Table 406.5.4.

2024 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (Is) 1.0
Seismic (Ie) 1.0

Live Loads: Roof 20 psf
Mezzanine N/A psf
Floor 60 psf

Ground Snow Load: 10 psf

Wind Load: Ultimate Wind Speed 145 mph (ASCE-7)
Exposure Category C

SEISMIC DESIGN CATEGORY: B
Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) II
Spectral Response Acceleration S_s 0.153 %g S_1 0.067 %g
Site Classification (ASCE 7) D
Data Source: Field Test
Basic structural system Moment Frame
Analysis Procedure: Equivalent Lateral Force
Architectural, Mechanical, Components anchored? N/A

LATERAL DESIGN CONTROL: Earthquake

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) 2,000 psf
Pile size, type, and capacity 18" diameter Auger Cast-in-Place, 220kips Compression 40kips uplift, 22.8kips lateral

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING PROVIDED (hr) * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		3 HRS	3 HRS		PCI 124-18	3.2.1(a-w) 2.4.1.4
Bearing Walls		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
Exterior		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
North		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
East		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
West		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
South		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
Interior		3 HRS	3 HRS		PCI 124-18	3.2.2(t)
Nonbearing Walls and Partitions		0 HRS	0 HRS		PCI 124-18	3.2.2(t)
Exterior walls						
North		0 HRS	0 HRS			
East		0 HRS	0 HRS			
West		0 HRS	0 HRS			
South		0 HRS	0 HRS			
Interior walls and partitions		0 HRS	0 HRS			
Floor Construction Including supporting beams and joists		2 HRS	2 HRS		PCI 124-18, PPOI, UL1709	3.2.2(t)
Floor Ceiling Assembly		2 HRS	2 HRS		PPOI, UL1709	
Columns Supporting Floors		3 HRS	3 HRS		PPOI, UL1709	
Roof Construction, including supporting beams and joists		1 1/2 HRS	1 1/2 HRS		PPOI, UL1709	
Roof Ceiling Assembly		1 1/2 HRS	1 1/2 HRS		PPOI, UL1709	
Columns Supporting Roof		3 HRS	3 HRS		PCI 124-18, PPOI, UL1709	3.2.2(t)
Shaft Enclosures - Exit		N/A	N/A	N/A	N/A	N/A	N/A
Shaft Enclosures – Other 10' Min. CIP		1 HR	1 HR	A407-A409	NCSBC Table 721.1(2)	PCI 124-18	3.2.2(t)
Shaft Enclosures – Other 10' Min. CIP		1 HR	1 HR	A407-A409	NCSBC Table 721.1(2)	PCI 124-18	3.2.2(t)
Shaft Enclosures – Other Joist		1 HR	1 HR	A407-A409	UL419	PCI 124-18	3.2.2(t)
Corridor Separation		0 HR	0 HR	N/A	N/A	N/A	N/A
Occupancy/Fire Barrier Separation		0 HR	0 HR	N/A	N/A	N/A	N/A
Party/Fire Wall Separation		0 HR	0 HR	N/A	N/A	N/A	N/A
Smoke Barrier Separation		0 HR	0 HR	N/A	N/A	N/A	N/A
Smoke Partition		0 HR	0 HR	N/A	N/A	N/A	N/A
Tenant/Dwelling Unit/ Sleeping Unit Separation		0 HR	0 HR	N/A	N/A	N/A	N/A
Incidental Use Separation		0 HR	0 HR	N/A	N/A	N/A	N/A

* Indicate section number permitting reduction

2024 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: 27.5
summer dry bulb: 91.2

Interior design conditions:
winter dry bulb: 70
summer dry bulb: 74
relative humidity: 50%

Building heating load: See Schedules

Building cooling load: See Schedules

Mechanical Spacing Conditioning System
Unitary
description of unit: Split System
heating efficiency: See Schedules
cooling efficiency: See Schedules
size category of unit: See Schedules
Boiler
Size category. If oversized, state reason.: N/A
Chiller
Size category. If oversized, state reason.: N/A

List equipment efficiencies: See Schedules

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (Table 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
Terminal 143'-6"	None. Section 705.8.1	Unlimited	None. Section 705.8.1

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: Yes
Exit Signs: Yes
Fire Alarm: No
Smoke Detection Systems: No
Carbon Monoxide Detection: No

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: G101, G102, G103

- [X] Fire and/or smoke rated wall locations (Chapter 7)
- [ ] Assumed and real property line locations (if not on the site plan) N/A
- [ ] Exterior wall opening area with respect to distance to assumed property lines (705.8) N/A
- [X] Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
- [X] Occupant loads for each area
- [X] Exit sign locations (1013)
- [X] Exit access travel distances (1017)
- [X] Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
- [ ] Dead end lengths (1020.4) N/A
- [X] Clear exit widths for each exit door
- [X] Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
- [X] Actual occupant load for each exit door
- [ ] A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation N/A
- [ ] Location of doors with panic hardware (1010.1.10) N/A
- [ ] Location of doors with delayed egress locks and the amount of delay (1010.1.9.7) N/A
- [ ] Location of doors with electromagnetic egress locks (1010.1.9.8) N/A
- [ ] Location of doors equipped with hold-open devices N/A
- [ ] Location of emergency escape windows (1030) N/A
- [ ] The square footage of each fire area (202) N/A
- [ ] The square footage of each smoke compartment for Occupancy Classification I-2 (407.5) N/A
- [X] Note any code exceptions or table notes that may have been utilized regarding the items above

2024 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance: Energy Code - Prescriptive

Lighting schedule (each fixture type)
lamp type required in fixture: **LED**
number of lamps in fixture: **N/A**
ballast type used in the fixture: **N/A**
number of ballasts in fixture: **N/A**
total wattage per fixture: **See Luminaire Schedules**
total interior wattage specified vs. allowed (whole building or space by space): **47,500W vs. 68,464W**
total exterior wattage specified vs. allowed: **1,190W vs. 1,200W**

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
- [ ] C406.2 More Efficient HVAC Equipment Performance
- [X] C406.3 Reduced Lighting Power Density
- [ ] C406.4 Enhanced Digital Lighting Controls
- [ ] C406.5 On-Site Renewable Energy
- [ ] C406.6 Dedicated Outdoor Air System
- [ ] C406.7 Reduced Energy Use in Service Water Heating

ACCESSIBLE DWELLING UNITS
(SECTION 1107)

UNIT CLASSIFICATION	TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A								

ACCESSIBLE PARKING
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED 96" SPACES	# OF ACCESSIBLE SPACES PROVIDED 132" SPACES	TOTAL # ACCESSIBLE PROVIDED
N/A First Floor Garage	N/A	301	5	3	8
Second Floor Garage	N/A	314	4	3	7
Third floor Garage	N/A				
TOTAL	N/A	615	9	6	15

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE		WATER CLOSETS MALE	WATER CLOSETS FEMALE	WATER CLOSETS UNISEX	URINALS MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS /TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXIST'G	N/A								
	NEW	1	2	0	1	1	0	0	1	1
	REQ'D	N/A								

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

_____

_____

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: SG
DRAWN BY: KS
DESIGNED BY: FG
PROJECT NUMBER:
2003-0070-006
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SEAL:
FOR REVIEW ONLY
NOT FOR CONSTRUCTION

SHEET TITLE:
APPENDIX B

SHEET ID:
G003

PROJECT STATUS:
100% BID SET

3/14/2025 6:57:25 PM Autodesk Docs://1003007004_ILM TO4 Rdwy Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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ARCHITECTURAL ABBREVIATIONS

&	AND
@	AT
A/C	AIR CONDITIONER
AB	ANCHOR BOLT
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFS	ABOVE FLOOR SLAB
AHU	AIR HANDLING UNIT
ALUM	ALUMINUM
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE OR APPROXIMATELY
ARCH	ARCHITECTURE, ARCHITECTURAL
AVG	AVERAGE
BHMI	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION, INC
BIM	BUILDING INFORMATION MODELING
BLDG	BUILDING
BM	BEAM
BO	BOTTOM OF
BUR	BUILT-UP ROOFING
CFMF	COLD FORMED METAL FRAMING
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COLS	COLUMNS
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DR	DOOR
DS	DOWNSPOUT
DTL OR DET	DETAIL
DWG	DRAWING
EA	EACH
EFS	EXTERIOR FACE OF SHEATHING
EJ	EXPANSION JOINT
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATION
ENG	ENGINEER, ENGINEERING
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQUIP	EQUIPMENT
ERD	EMERGENCY ROOF DRAIN
ETD	ESTIMATED TRAVEL DISTANCE
EWC	ELECTRIC WATER COOLER
EXIST	EXISTING
EXP	EXPANSION, EXPOSED
EXT	EXTERIOR
FD	FIRE DAMPER, FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FID	FLIGHT INFORMATION DISPLAY
FIN.	FINISH, FINISHED
FLR	FLOOR
FO	FACE OF
FOB	FACE OF BRICK
FOP	FACE OF POST
FRP	FIBER REINFORCED PANEL
FT	FEET
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GBF	GYPSUM BOARD FURRING
GL	GLASS
GP	GLOSSY PAINT
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HB	HOSE BIB
HDW	HARDWARE
HGT OR HT	HEIGHT
HKS	HOOKS
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HVAC	HEATING VENTILATION & AIR CONDITIONING
i.e.	THAT IS, SUCH AS
ID	INSIDE DIAMETER
IFS	INTERIOR FACE OF STUD
IN.	INCH, INCHES
INSUL	INSULATION
INT	INTERIOR
JAN.	JANITOR
JST	JOIST
JT	JOINT
KP	KICK PLATE
LAM	LAMINATE
LAV	LAVATORY
LB	POUND
LDG	LANDING
LONG.	LONGITUDINAL
LRV	LOUVER
LT	LIGHT
LTG	LIGHTING
LVP	LUXURY VINYL PLANK
LVT	LUXURY VINYL TILE
MATL	MATERIAL
MAX.	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, & PLUMBING
MFGR	MANUFACTURER
MGR	MANAGER
MIN	MINIMUM
MO	MASONRY OPENING
MOD	MODIFIED
MSC	MISCELLANEOUS
MTL	METAL
MUFID	MULTI-USER FLIGHT INFORMATION DISPLAY
N/A	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OPG	OPENING
OPP	OPPOSITE
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OVHD	OVERHEAD
PDU	POWER DISTRIBUTION UNIT
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PRE-FAB	PRE-FABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT, PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RADIUS
RAF	RAISED ACCESS FLOOR
RAG	RETURN AIR GRILLE
RB	RUBBER BASE
RD	ROOF DRAIN
REF	REINFORCING, REINFORCEMENT
REQD	REQUIRED
REV	REVISED, REVISION
RO	ROUGH OPENING
SC	SEALED CONCRETE
SCHED	SCHEDULE
SCW	SOLID CORE WOOD
SECT	SECTION
SF	SQUARE FEET
SFRM	SPRAYED FIRE RESISTIVE MATERIAL
SGP	SEMI-GLOSS PAINT
SHT	SHEET
SHTS	SHEETS
SIM	SIMILAR
SPECS	SPECIFICATIONS
SQ	SQUARE
SQ IN.	SQUARE INCHES
SS	SERVICE SINK
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL, STRUCTURE
SUSP	SUSPENDED
T&G	TONGUE & GROOVE
TEL	TELEPHONE
TG	TEMPERED GLASS
TO STL	TOP OF STEEL
TOB	TOP OF BRICK, TOP OF BEAM
TOS	TOP OF STEEL, TOP OF SLAB
TOSH	TOP OF SHEATHING
TOW	TOP OF WALL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
VB	VAPOR BARRIER
VCT OR VT	VINYL COMPOSITION TILE
VERT	VERTICAL
W/	WITH
WC	WATER CLOSET
WCO	WALL CLEANOUT
WD	WOOD
WMP	WIRE MESH PARTITION
WWF	WELDED WIRE FABRIC
YD	YARD
Ø	DIAMETER

PLAN SYMBOLS

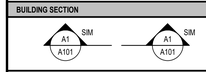
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XX View Name
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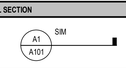
LEVEL HEAD

Name
Elevation

BUILDING SECTION



DETAIL SECTION



ELEVATION - EXTERIOR



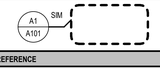
ELEVATION - INTERIOR



WALL SECTION



CALLOUT HEAD & REGION



NORTH ARROW



VIEW REFERENCE



ROOM TAG

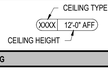
ROOM NAME
101

WALL TAG

*NOTE - REFER TO PARTITION TYPE SHEET FOR INFO ON TAG

X#-X

CEILING TAG



REVISION TAG

DOOR TAG

XXX

MATERIAL TAG



KEYNOTE

0

WINDOW & STOREFRONT TAG



FURNITURE & EQUIPMENT TAG

1i

TOILET ACCESSORY TAG

1i

MATERIAL SYMBOLS

1-HOUR RATED WALL



2-HOUR RATED WALL



3-HOUR RATED WALL



SMOKE RATED WALL



BATT INSULATION



CONCRETE



EARTH



EXPOSED & FINISHED WOOD TRIM



GRASS



GRAVEL



GYPSUM / PLASTER



MASONRY - BRICK



MASONRY - CONCRETE BLOCK



PLYWOOD



RIGID INSULATION



STEEL



STUCCO / E.I.F.S.



TILE / CARPET



GENERAL NOTES

1. ALL DIMENSIONS ARE IN FEET / INCHES UNLESS NOTED OTHERWISE.
2. THESE GENERAL NOTES ARE NOT INTENDED TO REPLACE SPECIFICATIONS - REFER TO SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES.
3. THE TERMS RENOVATE AND REHABILITATE ARE USED INTERCHANGEABLY IN THESE DOCUMENTS.
4. ROOM AREAS AND PERIMETERS ARE APPROXIMATE AND FOR REFERENCE ONLY. VERIFY QUANTITIES AND DIMENSIONS IN FIELD.
5. NO DEVIATIONS FROM THESE CONTRACT DOCUMENTS MUST BE MADE WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT.
6. DO NOT SCALE DIMENSIONS FROM DRAWINGS - THE CONTRACTOR MUST REQUEST NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS FROM THE ARCHITECT.
7. ALL DIMENSIONS ORIGINATE FROM EXISTING FACE OF WALLS & ARE TO FACE OF FRAMING AT NEW WORK OR CENTER OF DOORS, WINDOWS AND OPENINGS UNLESS NOTED OTHERWISE - ALL NON-DIMENSIONED DOOR LOCATIONS MUST BE OFFSET 4" FROM THE ADJACENT WALL TO THE HINGE SIDE OF THE DOOR OPENING. ALL DOORS MUST BE INSTALLED TO MEET ALL APPLICABLE CODES, INCLUDING ADA.
8. DETAILS SHOWN ON DRAWINGS ARE TYPICAL FOR ALL SIMILAR CONDITIONS.
9. DRAWING NOTES AND SPECIFICATIONS ARE INSTRUCTIONS TO THE CONTRACTOR AND APPLY TO ALL THE WORK UNLESS MORE SPECIFIC INFORMATION IS SHOWN ELSEWHERE ON THE DRAWINGS OR WRITTEN IN THE SPECIFICATIONS - IN THE EVENT OF CONFLICTING INSTRUCTIONS, THE ARCHITECT MUST DETERMINE WHAT CONTROLS THE CONTRACT DOCUMENTS ARE COMPLEMENTARY WHAT IS REQUIRED BY ONE MUST BE REQUIRED BY ALL.
10. PRINCIPAL OPENINGS IN THE STRUCTURE ARE SHOWN ON THESE DRAWINGS – THE GENERAL CONTRACTOR MUST EXAMINE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR REQUIRED OPENINGS. GENERAL CONTRACTOR MUST VERIFY SIZE AND LOCATION OF ALL OPENINGS WITH ALL SUB-CONTRACTORS PRIOR TO CONSTRUCTION.
11. STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION - THE CONTRACTOR MUST SUPERVISE CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE, AND APPLICABLE SAFETY REGULATIONS TO BE FOLLOWED.
12. CONTRACTOR MUST BE RESPONSIBLE FOR SCHEDULING AND COORDINATING THE WORK OF THE SUB-CONTRACTORS - THE CONTRACTOR MUST BE RESPONSIBLE TO COORDINATE WITH THE BUILDING OWNER, TENANT OR HIS REPRESENTATIVES THE DELIVERY AND INSTALLATION OF ITEMS BEING PROVIDED AND INSTALLED BY OTHERS.
13. MECHANICAL, PLUMBING AND ELECTRICAL WORK RELATED TO DEMOLITION AND NEW INSTALLATION OF COMPONENTS MUST COMPLY WITH ALL APPLICABLE CODES.
14. ALL MATERIALS, FABRICATION AND INSTALLATION MUST COMPLY WITH THE APPLICABLE REQUIREMENTS AND SPECIFICATIONS FOR EACH DIVISION OF WORK.
15. CONSTRUCTION MUST COMPLY WITH APPLICABLE CODES AND ORDINANCES, LAWS AND SAFETY ORDERS AS DIRECTED BY LOCAL JURISDICTION.
16. CONTRACTOR MUST BE RESPONSIBLE FOR THE TIMELY ORDERING OF MATERIALS INCLUDED IN THESE CONTRACT DOCUMENTS - SOME ITEMS IN THESE DOCUMENTS MAY REQUIRE LONG LEAD TIMES OR SPECIAL COORDINATION. SUBSTITUTIONS WILL NOT BE ALLOWED FOR MATERIAL NOT ORDERED IN A TIMELY FASHION.
17. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS, (BOTH NEW AND EXISTING) REPORTING ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH ANY PHASE OF THE WORK.
18. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION - ALL DISCREPANCIES MUST BE NOTED AND SENT TO THE ARCHITECT WITH ADEQUATE TIME TO REVIEW PRIOR TO STARTING THAT PORTION OF THE WORK IN ORDER TO AVOID PROJECT DELAYS.
19. CONTRACTOR MUST CLEAN, PATCH AND REPAIR ALL SURFACES DAMAGED BY DEMOLITION, ALTERATION OR INSTALLATION OF THE WORK.
20. CONTRACTOR MUST PREPARE ALL WALLS AND PARTITIONS AS REQUIRED BY THE FINISH MANUFACTURER TO RECEIVE THE FINISHES SPECIFIED.
21. CONTRACTOR MUST PROVIDE ADDITIONAL FURRING (THE ENTIRE LENGTH OF THE WALL) TO FULLY CONCEAL ALL MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL ITEMS THAT PROJECT FROM THE FACE OF THE WALL OR PARTITION AND ARE NOT SPECIFICALLY NOTED TO BE SURFACE MOUNTED.
22. CONTRACTOR TO PROVIDE PORTABLE FIRE EXTINGUISHERS IN ACCORDANCE WITH LOCAL JURISDICTION AND NFPA 10. MAXIMUM TRAVEL DISTANCE TO NEAREST FIRE EXTINGUISHER FROM ANY POINT IN THE BUILDING MUST NOT EXCEED 75 FEET. EXISTING FIRE EXTINGUISHERS MUST BE TESTED AND RE-USED IF FULLY OPERATIONAL. FIRE EXTINGUISHERS MUST BE SIZED FOR NO LESS THAN ORDINARY HAZARD.
23. ALL REQUESTS FROM INFORMATION PROMPTED BY THE BUILDING OFFICIALS MUST INCLUDE A COPY OF THE BUILDING OFFICIALS' COMMENTS AND THE BUILDING INSPECTORS FIELD REPORT TO ENSURE AN ACCURATE AND TIMELY RESPONSE.
24. CONTRACTOR AND SUBCONTRACTOR MUST ALL BE LICENSED TO PERFORM THEIR REQUESTED DUTIES AS REQUIRED IN ACCORDANCE WITH LOCAL STANDARDS.
25. CONTRACTOR MUST COMPARE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.
26. ALL EXISTING EQUIPMENT AND FINISHES THAT ARE SCHEDULED OR NOTED TO REMAIN WILL BE PROTECTED BY THE CONTRACTOR. PHOTOGRAPHS OF EXISTING CONDITIONS MUST BE PROVIDED BY THE CONTRACTOR TO DOCUMENT PRE-EXISTING DAMAGE & FINISH CONDITIONS.
27. ALL EXISTING EQUIPMENT AND FINISHES THAT ARE SCHEDULED OR NOTED TO REMAIN WILL BE PROTECTED BY THE CONTRACTOR. PHOTOGRAPHS OF EXISTING CONDITIONS MUST BE PROVIDED BY THE CONTRACTOR TO DOCUMENT PRE-EXISTING DAMAGE & FINISH CONDITIONS.
28. THE CONTRACTOR MUST COORDINATE ALL DEMO AND NEW WORK ACTIVITIES WITH THE AIRPORT PRIOR TO PROCEEDING.
29. MOCK UPS (AS REQUIRED) MUST BE CONSTRUCTED BY THE CONTRACTOR PRIOR TO BEGINNING DEMOLITION WORK.
30. DO NOT USE ESCALATORS OR STAIRS FOR MOVING EQUIPMENT AND/OR MATERIALS UNLESS COORDINATED WITH AIRPORT FACILITIES/OPERATIONS. WHEN USING ELEVATOR, ELEVATOR WALL, SIDES AND CEILING MUST BE PROTECTED FROM DAMAGE, ALL DAMAGE IS THE RESPONSIBILITY OF GENERAL CONTRACTOR AND MUST BE CORRECTED PRIOR TO PROJECT COMPLETION.
31. THE CONTRACTOR IS TO PROTECT EXISTING FINISHES, AND MAKE REPAIRS TO THE EXISTING FINISHES AND FIRE PROOFING WHERE DAMAGED OR REQUIRED FOR UNDER SLAB WORK AND CORES, AS PART OF THE NEW WORK ASSOCIATED WITH THIS PROJECT.
32. WHERE MATERIALS ARE APPLIED TO, OR ARE IN DIRECT CONTACT WITH WORK INSTALLED BY ANOTHER SUBCONTRACTOR, COMMENCEMENT OF WORK IMPLIES ACCEPTANCE OF THE SUBSTRATE AS SUITABLE FOR THE APPLICATION INTENDED.
    A. ISOLATE DISSIMILAR METALS TO PREVENT GALVANIC CORROSION.
33. OPENINGS IN RATED WALL, FLOOR, CEILING AND ROOF ASSEMBLIES MUST BE SEALED WITH PENETRATION SEALANT SYSTEMS MEETING OR EXCEEDING THE REQUIRED FIRE RESISTIVE RATINGS.
34. MAINTAIN THE FIRE RATING OF CONSTRUCTION AROUND CABINETS, PANELS, AND BOXES RECESSED IN FIRE RATED WALL, FLOOR, AND CEILING ASSEMBLIES.
35. PROVIDE CONTINUOUS PERIMETER FIRE SAFING BETWEEN FLOORS AND COORDINATE THE INSTALLATION WITH THE EXTERIOR WALL. FIRE RATING OF SAFING MUST MATCH FIRE RATING OF FLOOR CONSTRUCTION.
36. FIELD MEASURE AND CONFIRM DIMENSIONS FOR OWNER PROVIDED EQUIPMENT AND FURNISHINGS.
37. PROVIDE STIFFENERS, BRACING, BACKING PLATES AND BLOCKING REQUIRED FOR SECURE INSTALLATION OF TOILET PARTITIONS, DOORS AND DOOR HARDWARE INCLUDING WALL-MOUNTED DOOR STOPS, HANDRAILS, WALL-MOUNTED SHELVES, OPERABLE PARTITIONS, MISCELLANEOUS EQUIPMENT, AND SUSPENDED MECHANICAL AND ELECTRICAL EQUIPMENT.
38. COORDINATE ALL BASE AND HOUSEKEEPING PADS WITH MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT.
39. LOCATE ACCESS PANELS AS INDICATED ON DRAWINGS. FOR ACCESS PANELS NOT SHOWN BUT REQUIRED BY PROVISIONS OF THE CONTRACT DOCUMENTS, LOCATED IN ACCORDANCE WITH APPLICABLE CODES. SUBMIT PROPOSED LOCATIONS TO THE ARCHITECT FOR REVIEW AND ACCEPTANCE PRIOR TO INSTALLATION.
40. ALL NON-GALVANIZED EXTERIOR EXPOSED STEEL TO RECEIVE HIGH PERFORMANCE COATING.
41. DO NOT OBSTRUCT ACCESS TO EXISTING EXITS, OR REDUCE THE WIDTH OF PUBLIC CORRIDORS.
42. PENETRATIONS IN THE EXTERIOR BUILDING WALL ARE NOT ALLOWED, INCLUDING THOSE REQUIRED FOR OUTLETS AND BLOCKING.
43. FULLY LAY OUT GRID, WALL, AND OPENING PLACEMENT IN AN AREA PRIOR TO START OF PARTITION CONSTRUCTION. VERIFY THAT DIMENSIONS ARE CONSISTENT WITH REQUIREMENTS INDICATED IN THE DOCUMENTS. REFER ANY DIMENSIONAL INCONSISTENCIES TO THE ARCHITECT FOR RESOLUTION PRIOR TO THE START OF PARTITION CONSTRUCTION.
44. FINISH FLOOR ELEVATIONS ARE TO TOP OF CONCRETE UNLESS OTHERWISE NOTED.
45. LEVEL FLOORS THAT EXCEED 1/4" VARIANCE IN A 10'-0" RADIUS.
46. COORDINATE INSTALLATION OF DIFFUSERS, SPEAKERS, SPRINKLER HEADS, AND ACCESS PANELS WITH LIGHTING LAYOUT. REPORT ANY CONFLICTS TO THE ARCHITECT PRIOR TO INSTALLATION.
47. EXIT SIGNS AND SMOKE DETECTORS LOCATED IN HARD CEILINGS MUST BE POSITIONED AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION AND MUST BE CENTERED IN CORRIDORS AND LOCATED A DISTANCE OF 1'-0" FROM THE WALL TO THE CENTER OF THE FIXTURE UNLESS OTHERWISE NOTED.
48. GANG MULTIPLE SWITCHES TOGETHER INTO ONE BOX WITH A SINGLE COVER PLATE WHENEVER POSSIBLE. MULTIPLE SWITCHES, WHICH CANNOT BE GANGED TOGETHER IN THE SAME BOX, MUST BE LOCATED S CLOSE TOGETHER AS POSSIBLE AND MOUNTED AT THE SAME HEIGHT.
49. APPROVE FLOOR OUTLET LOCATIONS WITH ARCHITECT AND BUILDING MANAGEMENT PRIOR TO CORE DRILLING.
50. WALL OUTLETS MUST BE INSTALLED AT 18" AFF UNLESS OTHERWISE NOTED. INSTALL SWITCH PLATES AT 42" AFF UNLESS OTHERWISE NOTED.
51. DO NOT INSTALL OUTLET OR J-BOXES BACK-TO-BACK ON OPPOSITE SIDES OF THE WALL. BOXES MUST BE SEPARATED BY A STUD.
52. ALL ROOF PENETRATIONS REQUIRED FOR INSTALLATION OF MECHANICAL UNITS, EQUIPMENT CURBS, VENTS, ETC. MUST BE DONE PER MANUFACTURER'S RECOMMENDATIONS TO ENSURE ALL WARRANTIES ARE MAINTAINED. PROVIDE FLASHING, COUNTER FLASHING, SEALANT, ETC. AS REQUIRED TO PROVIDE WATERPROOF CONDITION, TYPICAL AT ALL ROOF PENETRATIONS.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:

GENERAL NOTES, ABBREVIATIONS AND SYMBOLS, ADA COMPLIANCE AND ACCESSIBILITY DETAILS

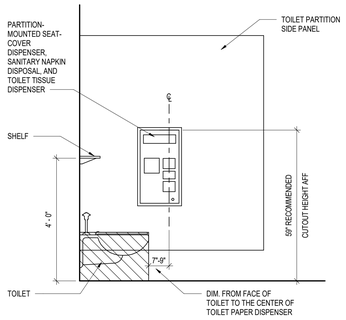
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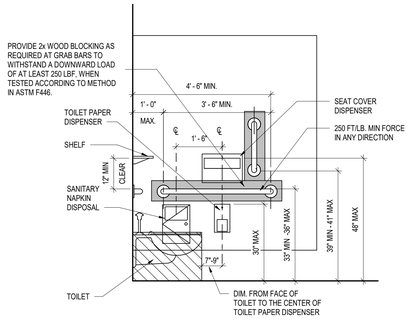
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100% BID SET

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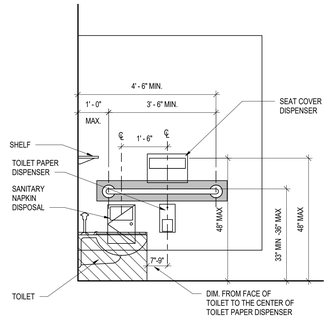
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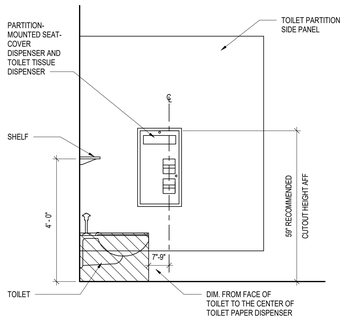
WOMEN STANDARD STALL - TYPICAL



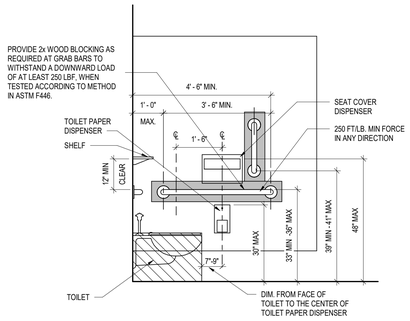
WOMEN WHEELCHAIR ACCESSIBLE STALL & FAMILY STANDARD RESTROOM



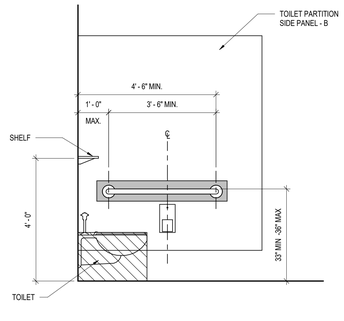
AMBULATORY STANDARD STALL PARTITION A - TYPICAL



MEN STANDARD STALL - TYPICAL



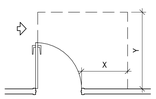
MEN WHEELCHAIR ACCESSIBLE STALL



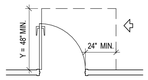
AMBULATORY STANDARD STALL PARTITION B - TYPICAL

RESTROOM ACCESSORIES LOCATION LAYOUT - TOILET PARTITIONS

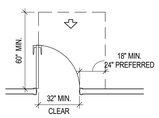
SCALE: 1/2" = 1'-0"



PULL SIDE DOOR CLEARANCE



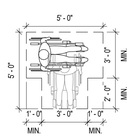
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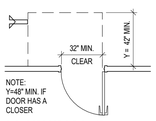
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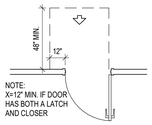
U-TURN AND PASSING SPACES



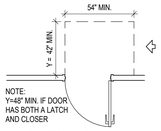
T-TURN CLEAR SPACE



PUSH SIDE DOOR CLEARANCE



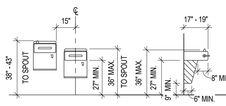
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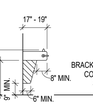
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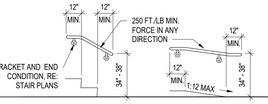
ACCESSIBILITY DETAILS

SCALE: 1/4" = 1'-0"



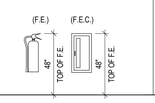
DRINKING FOUNTAIN / ELECTRIC WATER COOLER





STAIR

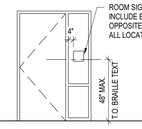
RAMP



FIRE EXTINGUISHERS AND CABINETS

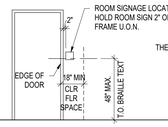
NOTE: OBJECTS MOUNTED 27" OR GREATER ABOVE FINISHED FLOOR MUST NOT PROTRUDE FROM THE FACE OF WALL MORE THAN 4".

6'-8" MINIMUM HEAD CLEARANCE IS REQUIRED AT ALL TIMES.



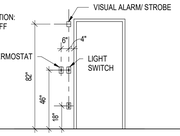
TYPICAL BRAILLE ROOM SIGN @ GLASS SIDELIGHT

BUILDING SIGNAGE TO BE PROVIDED AT LOCATIONS AS REQUIRED BY 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN



TYPICAL BRAILLE ROOM SIGN

BUILDING SIGNAGE TO BE PROVIDED AT LOCATIONS AS REQUIRED BY 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN



TYPICAL PHONE / THERMOSTAT / SWITCH / OUTLET / VISUAL ALARM GROUPINGS AT DOORS AND OPENINGS

ADA MOUNTING HEIGHTS

SCALE: 1/4" = 1'-0"

2 0 2 4

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

4 0 4 8

SCALE: 1/4" = 1'-0"

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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	Author
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006
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SEAL:

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SHEET TITLE:
ADA COMPLIANCE AND ACCESSIBILITY DETAILS

SHEET ID:
G005

PROJECT STATUS:
100% BID SET

CODE ANALYSIS

PROJECT DESCRIPTION

PROJECT CONSISTS OF A NEW PARKING GARAGE AND VERTICAL CIRCULATION CORE. CONSTRUCTION TO INCLUDE NEW FOUNDATIONS, EXTERIOR WALLS, FLOOR SLABS, AND THE BUILDOUT OF VERTICAL CORE WITH ELEVATORS AND ESCALATORS. WORK TO INCLUDE ALL ELECTRICAL, PLUMBING AND MECHANICAL ELEMENTS REQUIRED TO SUPPORT THE BUILDING.

APPLICABLE CODES

MINIMUM STANDARD CODES :
2024 NORTH CAROLINA BUILDING CODE (NCBC)
2024 INTERNATIONAL FIRE CODE (IFC)
2024 INTERNATIONAL PLUMBING CODE
2024 INTERNATIONAL MECHANICAL CODE
2024 INTERNATIONAL FUEL GAS CODE
2024 NATIONAL ELECTRIC CODE (NEC)
2024 INTERNATIONAL ENERGY CONSERVATION CODE
2009 ANSI A117.1 ACCESSIBILITY STANDARD
2012 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101

BUILDING DATA

PROJECT TYPE: NEW CONSTRUCTION
CONSTRUCTION TYPE: IA
TOTAL GROSS BUILDING SQUARE FOOTAGE: 339,090 SF
NUMBER OF FLOORS: 3
HEIGHT OF BUILDING: 40'-8" OVERALL
SPRINKLERED: NO
OCCUPANCY CLASSIFICATION: LOW-HAZARD STORAGE (PARKING) S-2

CONSTRUCTION CLASSIFICATION (NCSBC)

THE PARKING GARAGE IS CLASSIFIED AS LOW-HAZARD STORAGE GROUP S-2, TABLE 406.5.4 ALLOWS UNLIMITED AREA FOR OPEN PARKING GARAGES WITH TYPE IA CONSTRUCTION.

THE ACTUAL AREA PER STORY IS:
GROUND FLOOR - 120, 049 SF
SECOND FLOOR - 114, 502 SF
THIRD FLOOR - 107, 772 SF
TOTAL - 342, 323 SF

TABLE 406.5.4 PERMITS 12 TIERS FOR OPEN PARKING GARAGES
THE ACTUAL HEIGHT IS 3 STORIES AND 40' - 8".

NOTE: THE ABOVE ALLOWANCES DO NOT INCLUDE INCREASES PERMITTED FOR SPRINKLER SYSTEMS

CODE ANALYSIS

FIRE-RATED CONSTRUCTION (NCSBC)

UNDER TYPE IA CONSTRUCTION STRUCTURAL ELEMENTS REQUIRE THE FOLLOWING FIRE RATINGS (TABLE 601):

PRIMARY STRUCTURAL FRAME	3 HOURS
BEARING WALLS	3 HOURS
FLOOR CONSTRUCTION	2 HOURS
ROOF CONSTRUCTION*	1 1/2 HOURS
ROOF SECONDARY FRAMING*	1 1/2 HOURS

* ROOF CONSTRUCTION AND SECONDARY FRAMING ONLY MAY BE OMITTED IF ALL ELEMENTS ARE LOCATED ENTIRELY ABOVE 20' AFF. TABLE 602 DOES NOT REQUIRE ANY EXTERIOR WALL RATINGS

FIRE-RATED SEPARATIONS (NCSBC)

THE FOLLOWING FIRE RATED SEPARATIONS ARE REQUIRED:

TYPE	RATING	OPENING PROTECTION
OCCUPANCY SEPARATION(508.3)	0 HOURS	N/A
SHAFTS	1 HOUR	60 MINUTES
ESCALATOR*	1 HOUR	45 MINUTES
EXIT ACCESS CORRIDORS	0 HOUR	N/A

EXIT STAIRWAY EXCEPTION:
EXIT STAIRWAYS IN OPEN PARKING GARAGES ARE NOT REQUIRED TO BE ENCLOSED WITH A SHAFT ENCLOSURE IN ACCORDANCE WITH SECTION 713 (NCBC 1019.3 EXCEPTION 6)

*ESCALATOR VERTICAL OPENINGS NON-REQUIRED PER 406.5.9 ENCLOSURE OF VERTICAL OPENINGS.

FIRE-RESISTANCE RATING AND SEPARATION (NCSBC)

THE FOLLOWING FIRE RATED SEPARATIONS ARE REQUIRED:

DISTANCE	CONSTRUCTION TYPE	S-2 OCCUPANCY
X < 5'	ALL	1 HOUR

402.4.2.3 AN ATTACHED GARAGE FOR THE STORAGE OF PASSENGER VEHICLES HAVING A CAPACITY OF NOT MORE THAN NINE PERSONS AND OPEN PARKING GARAGES SHALL BE CONSIDERED AS A SEPARATE BUILDING WHERE IT IS SEPARATED FROM THE COVERED OR OPEN MALL BUILDING OR ANCHOR BUILDING BY NOT LESS THAN 2-HOUR FIRE BARRIERS CONSTRUCTED IN ACCORDANCE WITH SECTION 707...

OCCUPANT LOAD (NCSBC)

USE AND OCCUPANCY CLASSIFICATION:	OCCUPANT LOAD FACTOR:	AREA:	OCCUPANTS:
GROUND FLOOR			
PARKING GARAGE	1 PER 200 (1/200)	110,561 SF	557
STORAGE/UTILITY	1 PER 300 (1/300)	1,864 SF	7
BUSINESS (RAC KIOSKS)	1 PER 150 (1/150)	600 SF	4
SECOND FLOOR			
PARKING GARAGE	1 PER 200 (1/200)	105,147 SF	526
STORAGE/UTILITY	1 PER 300 (1/300)	532	2
THIRD FLOOR			
PARKING GARAGE	1 PER 200 (1/200)	105,308 SF	527
STORAGE/UTILITY	1 PER 300 (1/300)	589 SF	2

TOTAL BUILDING (3 FLOORS) OCCUPANCY: 1, 625 PERSONS

CODE ANALYSIS

MEANS OF EGRESS (NCSBC)

MAXIMUM TRAVEL DISTANCE (TABLE 1017.2)

	PROVIDED	REQUIRED
GROUND FLOOR (LEVEL 1)		
TRAVEL DISTANCE	291' - 0"	300' - 0" MAX.
NO. OF EXITS	4	3
CLEAR WIDTH OF EXIT ACCESS (LSC 7.3.3.2)	294"	114" (570 X .2")
SECOND FLOOR (LEVEL 2)		
TRAVEL DISTANCE	276' -10"	300' - 0" MAX.
NO. OF EXITS	4	3
CLEAR WIDTH OF EXIT ACCESS (LSC 7.3.3.2)	144"	117.2" (586 X .2")
REQUIRED STAIR WIDTH (LSC 7.3.3.2)	240"	175.8" (586 X .3")
THIRD FLOOR (LEVEL 3)		
TRAVEL DISTANCE	276' - 10"	300' - 0" MAX.
NO. OF EXITS	4	3
CLEAR WIDTH OF EXIT ACCESS (LSC 7.3.3.2)	144"	108.2" (541 X .2")
REQUIRED STAIR WIDTH (LSC 7.3.3.2)	240"	162.3" (541 X .3")

PLUMBING FIXTURE COUNT (NCSBC)

403.3 PUBLIC TOILET FACILITIES SHALL NOT BE REQUIRED IN OPEN PARKING GARAGES WITH NO PARKING ATTENDANT.

PLUMBING FIXTURES:

BUSINESS OCCUPANTS: 4	LOAD FACTOR: 1 PER 25	REQUIRED TOILETS: 1
		TOTAL (PROVIDED): 4
BUSINESS OCCUPANTS: 4	LOAD FACTOR: 1 PER 40	REQUIRED LAVATORIES: 1
		TOTAL (PROVIDED): 4
BUSINESS OCCUPANTS: 4	LOAD FACTOR: 1 PER 100	REQUIRED DRINKING FOUNTAINS: 1
		TOTAL (PROVIDED): 1

OPEN PARKING GARAGE CLASSIFICATION (NCBC 406.5.2)

"FOR NATURAL VENTILATION PURPOSES, THE EXTERIOR SIDE OF THE STRUCTURE SHALL HAVE UNIFORMLY DISTRIBUTED OPENINGS ON TWO OR MORE SIDES. THE AREA OF SUCH OPENINGS IN EXTERIOR WALLS ON A TIER SHALL BE NOT LESS THAN 20 PERCENT OF THE TOTAL PERIMETER WALL AREA OF EACH TIER. THE AGGREGATE LENGTH OF THE OPENINGS CONSIDERED TO BE PROVIDING NATURAL VENTILATION SHALL BE NOT LESS THAN 40 PERCENT OF THE PERIMETER OF THE TIER. INTERIOR WALLS SHALL BE NOT LESS THAN 20 PERCENT OPEN WITH UNIFORMLY DISTRIBUTED OPENINGS."

EXCEPTION 1: OPENINGS ARE NOT REQUIRED TO BE DISTRIBUTED OVER 40 PERCENT OF THE BUILDING PERIMETER WHERE THE REQUIRED OPENINGS ARE UNIFORMLY DISTRIBUTED OVER TWO OPPOSING SIDES OF THE BUILDING.

LIFE SAFETY LEGEND

SYMBOL LEGEND

- ESCAPE ROUTE TRAVEL PATH
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- EXIT SIGN
- EXIT

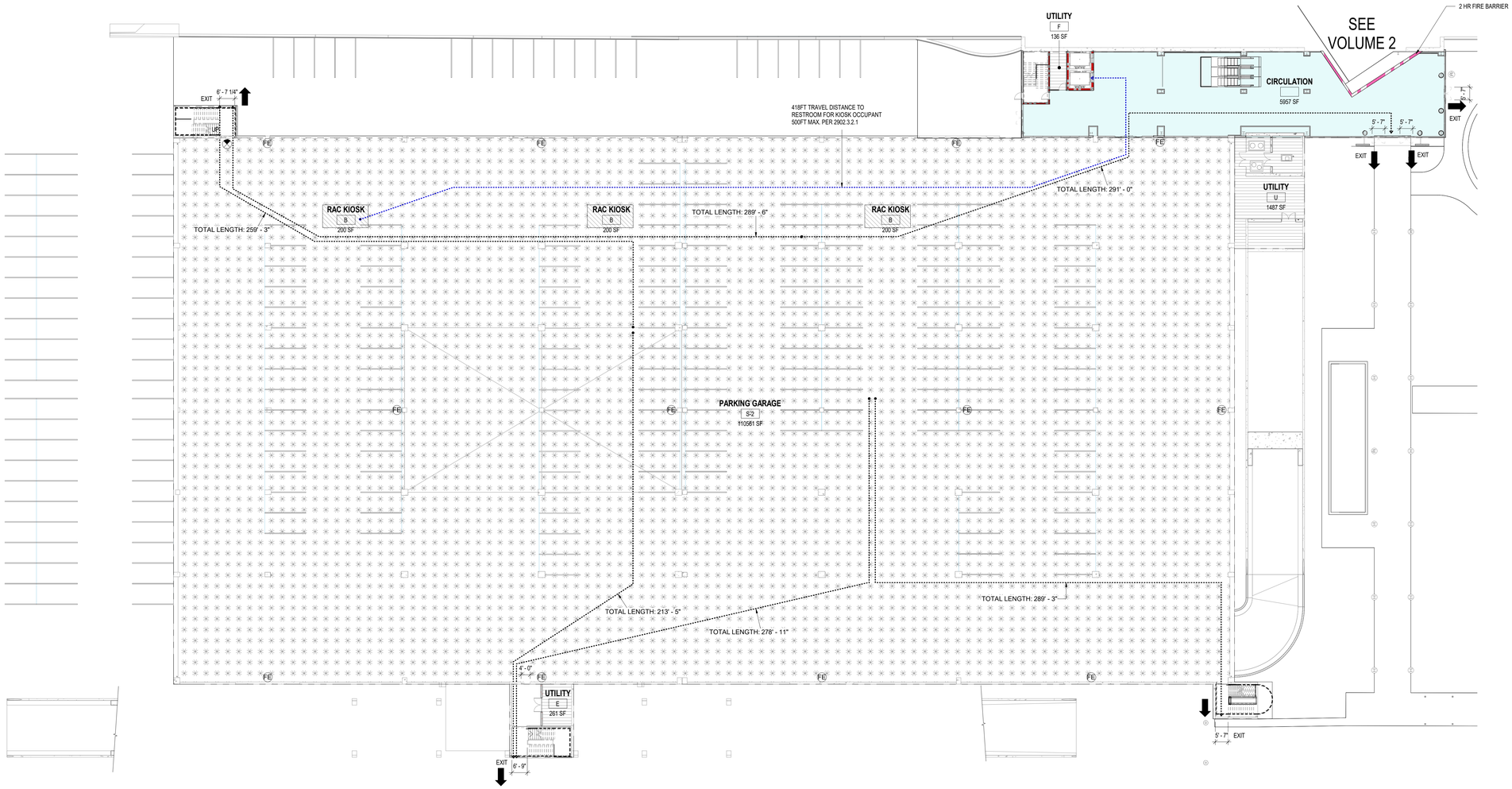
OCCUPANCY LEGEND

- (none)
- ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM
- BUSINESS
- PARKING GARAGES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 2-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS FOR PARTITION TYPE DETAILS



PN
N

A1 GROUND FLOOR LIFE SAFETY PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: SG
DRAWN BY: KS
DESIGNED BY: FG
PROJECT NUMBER: 2003-0070-006

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SHEET TITLE:

PROJECT INFORMATION, BUILDING CODE ANALYSIS, AND LIFE SAFETY PLANS

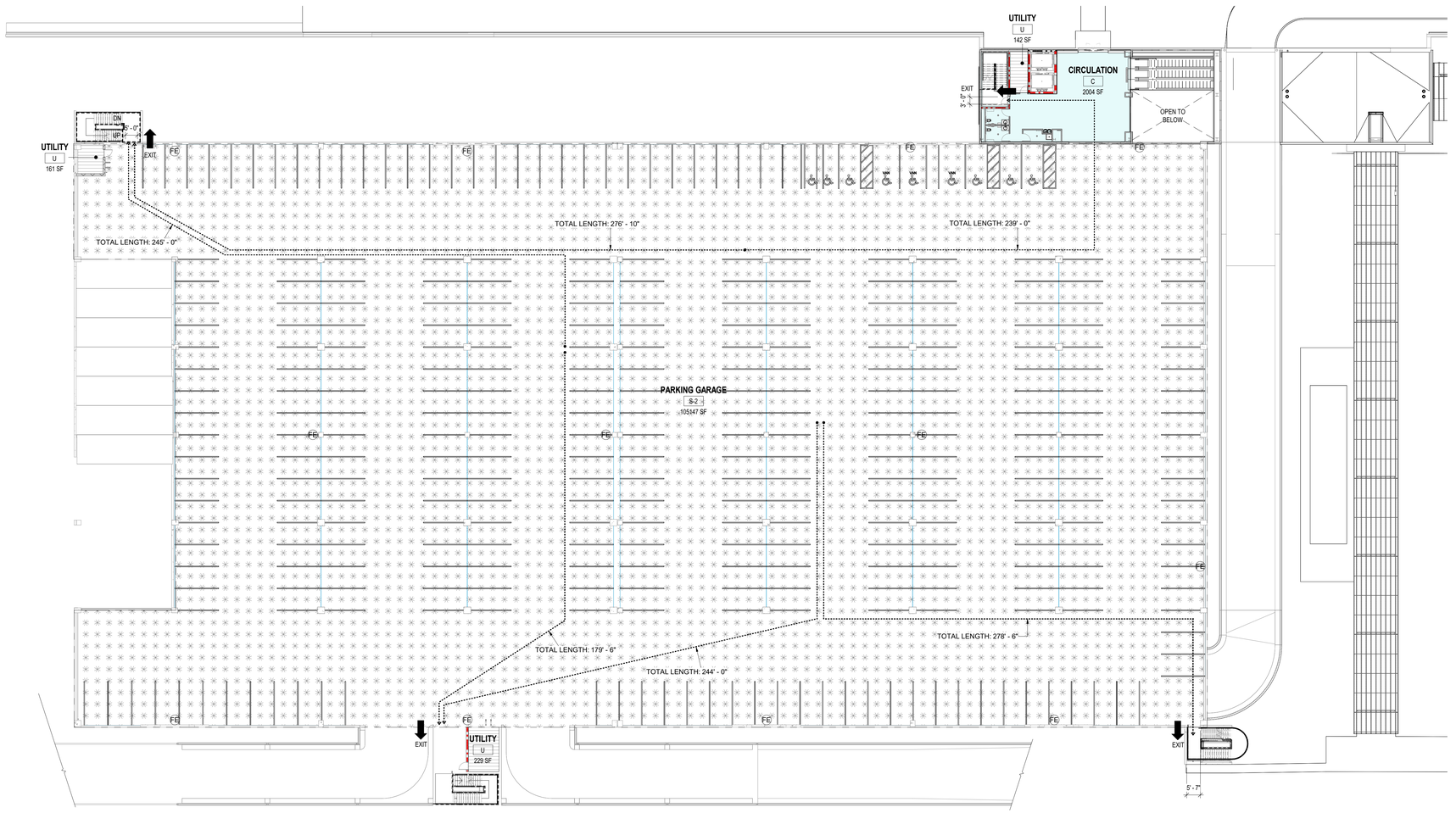
SHEET ID:

G101

PROJECT STATUS:
100% BID SET

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PN

A1 SECOND FLOOR LIFE SAFETY PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

LIFE SAFETY LEGEND

SYMBOL LEGEND

- ESCAPE ROUTE TRAVEL PATH
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- EXIT SIGN
- EXIT

OCCUPANCY LEGEND

- (none)
- ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM
- PARKING GARAGES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 2-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS FOR PARTITION TYPE DETAILS

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PROJECT INFORMATION, BUILDING CODE ANALYSIS, AND LIFE SAFETY PLANS

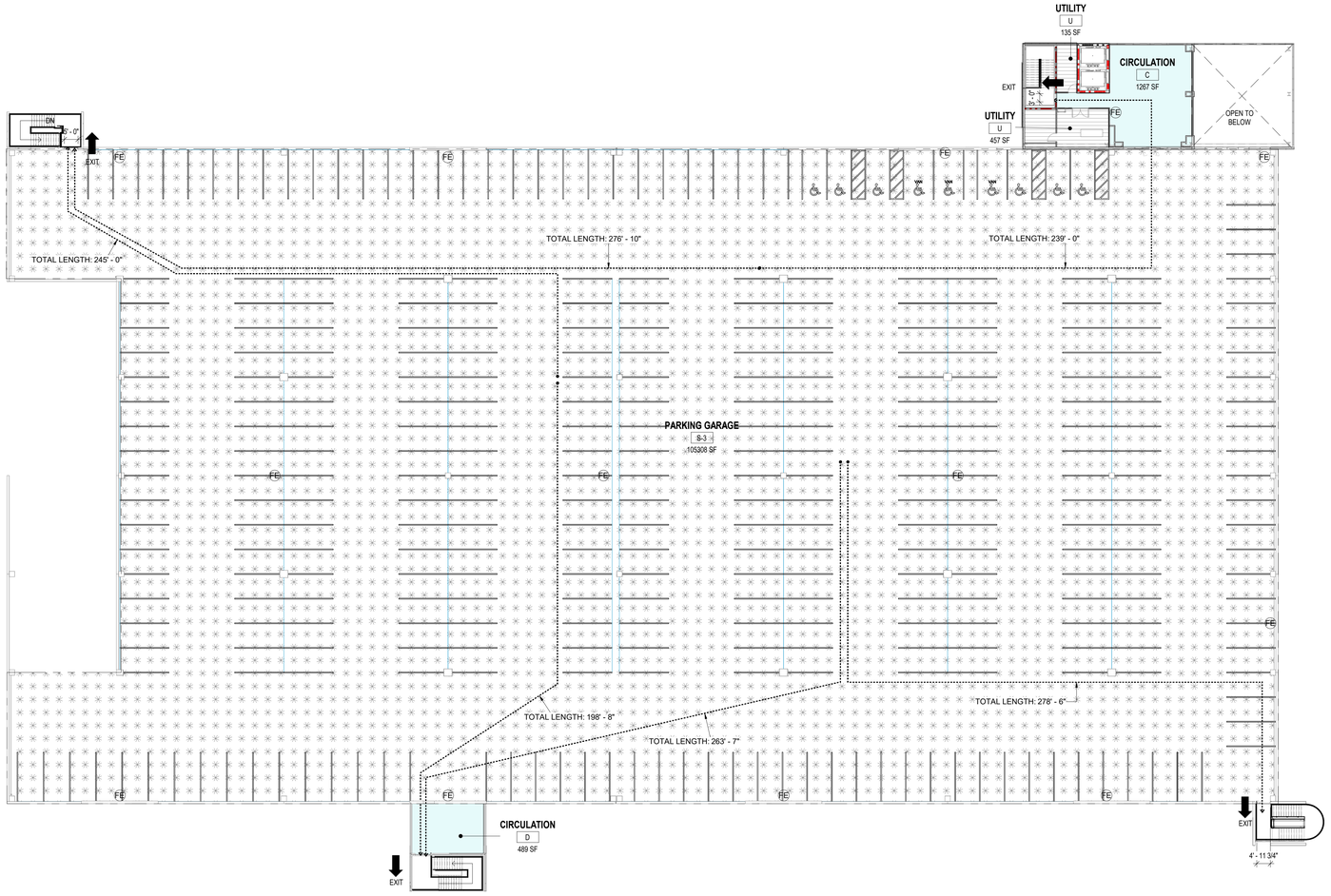
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G102

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LIFE SAFETY LEGEND

SYMBOL LEGEND

- ESCAPE ROUTE TRAVEL PATH
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- EXIT SIGN
- EXIT

OCCUPANCY LEGEND

- (none)
- ACCESSORY STORAGE AREAS, MECHANICAL EQUIPMENT ROOM
- PARKING GARAGES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 2-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS FOR PARTITION TYPE DETAILS

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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SEAL:

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

SHEET TITLE:
PROJECT INFORMATION, BUILDING CODE ANALYSIS, AND LIFE SAFETY PLANS

SHEET ID:
G103

PROJECT STATUS:
100% BID SET

PN
N

A1 THIRD FLOOR LIFE SAFETY PLAN
SCALE: 3/64" = 1'-0"

16 0 16 32 48
SCALE: 3/64" = 1'-0"

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GENERAL STRUCTURAL NOTES

DESIGN CRITERIA:

1. ALL WORK TO CONFORM TO THE 2024 NORTH CAROLINA STATE BUILDING CODE.

2. DEAD LOADS:
   - STRUCTURE SELF-WEIGHT
   - GARAGE COLLATERAL LOAD — 5 PSF

3. LIVE LOADS:
   - SLAB-ON-GRADE — 250 PSF
   - ELEVATED LEVELS (PASSENGER VEHICLES ONLY) — 40 PSF (UNIFORM); 3,000 LBS (CONCENTRATED) ACTING ON AREA 4.5 IN x 4.5
   - LOBBIES — 100 PSF
   - STAIRS — 100 PSF
   - PASSENGER BRIDGE (LEVEL 2) — 100 PSF
   - MECHANICAL / ELECTRICAL ROOMS — 150 PSF (SEE PLAN FOR LOCATIONS)
   - ROOFS — 20 PSF
   - VEHICLE BARRIERS: ALL VEHICULAR IMPACT BARRIERS ALONG THE PERIMETER OF THE PARKING GARAGE AND ALONG INTERIOR RAMPS SHALL BE DESIGNED FOR A 6,000 LB LOAD BETWEEN 18" AND 27" ABOVE FINISHED FLOOR, LOCATED TO PRODUCE THE MAXIMUM LOAD EFFECT. THE LOAD IS APPLIED TO A ONE FOOT SQUARE AREA IN ACCORDANCE WITH SECTION 4.5.3 OF ASCE 7-16.

4. RAIN LOADS:
   - INTENSITY — 60 MINUTE / 100 YEAR - 4.53 INCHES / HOUR; 15 MINUTE / 100 YEAR - 8.59 INCHES / HOUR

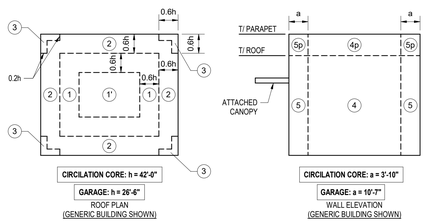
5. SNOW LOADS:
   - GROUND SNOW LOAD — Pg = 10 PSF

6. SEISMIC DESIGN DATA (ASCE 7-16):
   - SEISMIC IMPORTANCE FACTOR — Ie = 1.00
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS — Ss = 0.153 & S1 = 0.067
   - SITE CLASSIFICATION — D
   - SPECTRAL RESPONSE COEFFICIENTS — SDS = 0.163 & SD1 = 0.108
   - SEISMIC DESIGN CATEGORY — B
   - ANALYSIS PROCEDURE — EQUIVALENT LATERAL FORCE PROCEDURE

   GARAGE
   - SEISMIC-FORCE-RESISTING SYSTEM — INTERMEDIATE REINFORCED CONCRETE MOMENT FRAMES
   - RESPONSE MODIFICATION COEFFICIENT — R = 5.0
   - SEISMIC RESPONSE COEFFICIENT — Cs = 0.033
   - DESIGN BASE SHEAR — V = Cs * WEIGHT

   CIRCULATION CORE
   - SEISMIC-FORCE-RESISTING SYSTEM — STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
   - RESPONSE MODIFICATION COEFFICIENT — R = 3.0
   - SEISMIC RESPONSE COEFFICIENT — Cs = 0.055
   - DESIGN BASE SHEAR — V = Cs * WEIGHT

7. WIND DESIGN DATA (ASCE 7-16):
   - ULTIMATE DESIGN WIND SPEED, Vult (3-SECOND GUST) — 145 MPH
   - NOMINAL DESIGN WIND SPEED, Vasd (3-SECOND GUST) — 112 MPH
   - BUILDING RISK CATEGORY — II
   - WIND EXPOSURE — C
   - INTERNAL PRESSURE COEFFICIENT — +/- 0.18



CIRCULATION CORE						
COMPONENTS AND CLADDING ULTIMATE WIND PRESSURE (PSF)						
ROOFS						
ZONE	EFFECTIVE WIND AREA (SF)					
	≤ 10	20	50	100	200	500	≥ 1000
1'	-51.9	-51.9	-51.9	-51.9	-44.7	-35.1	-27.9
1	-90.3	-84.5	-76.4	-70.6	-64.4	-56.7	-56.7
2	-119.1	-111.4	-101.4	-93.7	-86.0	-75.9	-75.9
3	-162.4	-147.0	-126.8	-111.4	-96.1	-75.9	-75.9
ALL ZONES	23.1	21.6	19.7	18.3	18.3	18.3	18.3
WALLS, WINDOWS AND DOORS						
ZONE	EFFECTIVE WIND AREA (SF)					
	≤ 10	20	50	100	200	≥ 500	
4	-56.2	-54.0	-51.0	-48.4	-46.3	-43.2	
5	-69.2	-64.4	-58.4	-54.0	-49.3	-43.2	
ALL ZONES	51.9	49.7	46.7	44.1	41.9	38.9	
PARAPETS						
ZONE	EFFECTIVE WIND AREA (SF)					
	≤ 10	20	50	100	200	≥ 500	
4P	-91.9	-87.5	-81.4	-76.1	-71.7	-65.6	
	155.6	145.6	132.3	121.9	111.9	98.7	
5P	-105.0	-98.0	-88.8	-81.8	-74.8	-65.6	
	199.3	181.6	158.1	139.9	122.2	98.7	

NOTES:
1. EDGE ZONE (a) IS DISTANCE FROM CORNERS OF BUILDINGS AND IS SHOWN ON GENERIC BUILDING DIAGRAMS ABOVE.
2. POSITIVE AND NEGATIVE SIGNS SIGNIFY PRESSURES ACTING TOWARDS AND AWAY FROM THE BUILDING SURFACES, RESPECTIVELY.
3. FOR EFFECTIVE AREAS BETWEEN VALUES GIVEN, INTERPOLATION MAY BE USED. OTHERWISE USE THE LOWER EFFECTIVE AREA.
4. PRESSURES SHOWN ARE ULTIMATE PRESSURES. MULTIPLY BY 0.6 FOR NOMINAL PRESSURES.
5. CALCULATE NET UPLIFT PRESSURES USING ASCE 7 LOAD COMBINATIONS: 0.6D+0.6W (ASD) OR 0.9D+W (LRFD)

GARAGE							
COMPONENTS AND CLADDING ULTIMATE WIND PRESSURE (PSF)							
ROOFS							
ZONE	EFFECTIVE WIND AREA (SF)						
	≤ 10	20	50	100	200	500	≥ 1000
1'	-47.0	-47.0	-47.0	-47.0	-40.5	-31.8	-25.3
1	-81.9	-76.7	-69.3	-64.0	-58.4	-51.4	-51.4
2	-108.0	-101.0	-91.9	-84.9	-78.0	-68.8	-68.8
3	-147.2	-133.3	-115.0	-101.0	-87.1	-68.8	-68.8
ALL ZONES	20.9	19.6	17.9	16.6	16.6	16.6	16.6
WALLS, WINDOWS AND DOORS							
ZONE	EFFECTIVE WIND AREA (SF)						
	≤ 10	20	50	100	200	≥ 500	
4	-51.0	-49.0	-46.3	-43.9	-41.9	-39.2	
5	-62.7	-58.4	-52.9	-49.0	-44.7	-39.2	
ALL ZONES	47.0	45.1	42.3	40.0	38.0	35.3	

GENERAL:

1. NOTES ON THIS AND THE FOLLOWING SHEETS ARE PART OF THE PROJECT REQUIREMENTS BUT ARE NOT INTENDED TO REPLACE THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICTS BETWEEN THE REQUIREMENTS OF THE SPECIFICATIONS AND THESE SHEETS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
2. THIS STRUCTURAL DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS, AS AN INSTRUMENT OF SERVICE, ARE INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY RS&H ARCHITECTS-ENGINEERS-PLANNERS, INC. (RS&H) SHALL BE WITHOUT LIABILITY TO RS&H.
3. IT IS UNDERSTOOD THAT THE STRUCTURAL ENGINEER OF RECORD MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, AS TO FINDINGS, DESIGNS, RECOMMENDATIONS, SPECIFICATIONS, OPINION, OR PROFESSIONAL ADVICE, EXCEPT THAT THESE DOCUMENTS HAVE BEEN PREPARED IN ACCORDANCE WITH THE CURRENT GENERALLY ACCEPTED PROFESSIONAL ENGINEERING PRACTICES.
4. ALL STRUCTURAL MEMBERS SHOWN HEREIN HAVE BEEN DESIGNED FOR THE FINAL DESIGN LOADS PROVIDED IN THIS DOCUMENT IN THE FINAL ERECTED CONDITION SHOWN HEREIN. THE CONTRACTOR IS RESPONSIBLE FOR CONDITIONS ENCOUNTERED DURING ERECTION AND HANDLING, AND NECESSARY TEMPORARY BRACING AND SHORING. SHORING AND BRACING SHALL BE DESIGNED TO PRECLUDE ANY STRUCTURAL ELEMENT FROM BEING OVERSTRESSED AT ANY POINT DURING CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON JOB SITE WITH COMPLETE SET OF LATEST DRAWINGS. NOTES AND DIMENSIONS SHALL BE CHECKED AND VERIFIED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE COMMENCING WORK SO THAT PROPER REMEDIAL WORK CAN BE EXECUTED.
6. CONTRACTOR SHALL REFER TO THE ENGINEER FOR INSTRUCTION FOR ANY DIMENSION NOT GIVEN ON OR OBTAINABLE FROM THE DRAWINGS. THE CONTRACTOR SHALL NOT USE SCALE TO OBTAIN OR VERIFY ANY DIMENSIONS SHOWN ON THESE DRAWINGS.
7. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR OPENINGS, SLEEVES, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS. PROVIDE FRAMING OR REINFORCING AT FLOOR AND ROOF OPENINGS. ALL STRUCTURAL OPENINGS AROUND OR AFFECTED BY ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT SHALL BE VERIFIED WITH THE EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK AFFECTED.
8. DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN FOR SIMILAR CONDITIONS AND MATERIAL.

DELEGATED DESIGN SUBMITTALS:

1. DELEGATED DESIGN SUBMITTALS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE ARCHITECT / ENGINEER AND SHALL BE REVIEWED PRIOR TO INSTALLATION.
2. ALL DELEGATED DESIGN SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA.
3. DELEGATED DESIGN SUBMITTALS ARE AS FOLLOWS:
   - COLD-FORMED STEEL FRAMING
   - PRECAST CONCRETE
   - SEGMENTAL RETAINING WALL (SRW)
   - NCDOT BARRIER WALL AND MOMENT SLAB
   - PRE-ENGINEERED ALUMINUM CANOPIES
   - STEEL STAIRS

CAST-IN-PLACE CONCRETE:

1. ALL CONCRETE SHALL BE DESIGNED PER ACI 318-19.
2. ALL CONCRETE SHALL BE DESIGNED BY AN APPROVED LABORATORY, AND THE DESIGN MIX SHALL SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO USE.

LOCATION	STRENGTH (f'c) @ 28 DAY
NORMAL WEIGHT (NWT) CONCRETE	
ACIP PILES	5000 PSI
SPREAD FOOTINGS	5000 PSI
PILE CAPS	5000 PSI
GRADE BEAMS	5000 PSI
SLAB-ON-GRADE	5000 PSI
WALLS	5000 PSI
ALL OTHER CONCRETE	4500 PSI
LIGHT WEIGHT (LWT) CONCRETE	
INTERIOR ELEVATED SLAB ON COMPOSITE DECK	4000 PSI

3. NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATION OF SLEEVES, MOULDS, FLOOR HINGES, ETC. TO BE CAST INTO THE CONCRETE.
4. EMBEDDED ITEMS THAT WILL SUPPORT STRUCTURAL STEEL CONSTRUCTION SHALL BE PLACED WITHIN THE TOLERANCES PRESCRIBED IN THE LATEST EDITION OF THE AISC "CODE OF STANDARD PRACTICE." FIELD VERIFY LOCATION OF EMBEDDED ITEMS PRIOR TO FABRICATION AND DELIVERY OF STRUCTURAL STEEL TO THE PROJECT SITE.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.
6. FOR MISCELLANEOUS CONCRETE PADS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL.

REINFORCING STEEL:

1. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
2. WHERE WELDING IS REQUIRED, REINFORCING STEEL SHALL BE ASTM A706, GRADE 60, AND SHALL BE WELDED WITH E90 ELECTRODES.
3. ALL WELDED WIRE REINFORCING SHALL BE ASTM A1064.
4. SPLICES IN REINFORCING, WHERE PERMITTED, SHALL BE CLASS B TENSION LAP SPLICES, UNLESS NOTED OTHERWISE. REFER TO CONCRETE TENSION LAP SPLICE SCHEDULE ON THIS SHEET.
5. MINIMUM LAP OF WELDED WIRE FABRIC REINFORCING SHALL BE ONE FULL MESH SIZE PLUS 2", OR A LAP OF 6", WHICHEVER IS GREATER.
6. CONCRETE REINFORCING SHALL HAVE THE FOLLOWING MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE:

AUGER-CAST PILES	3"
PILE CAPS	3" BOTTOM & SIDES, 2" TOP
GRADE BEAMS	3" BOTTOM & SIDES, 2" TOP
FOOTINGS	3" BOTTOM & SIDES, 2" TOP
SLAB-ON-GRADE	2" FROM TOP
CAST-IN-PLACE WALLS	2"

7. DETAILING OF REINFORCING SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE ACI DETAILING MANUAL AND THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE."
8. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES IN CONFORMANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE" DURING PLACING OF CONCRETE.
9. PROVIDE CORNER REINFORCING TO MATCH HORIZONTAL REINFORCING AT ALL CORNERS OF CONTINUOUS FOOTINGS, GRADE BEAMS AND WALLS.
10. ALL HOOKS IN REINFORCING BARS SHALL BE ACI STANDARD 90-DEGREE HOOKS WITH EMBEDMENT INTO CONCRETE GREATER THAN OR EQUAL TO THE DEVELOPMENT LENGTH (Ldh) FOR STANDARD 90-DEGREE HOOKS, UNLESS NOTED OTHERWISE. REFER TO THE DEVELOPMENT LENGTH (Ldh) SCHEDULE.
11. DOWELS FROM FOUNDATIONS OR SLABS TO WALLS SHALL MATCH WALL REINFORCING, UNLESS NOTED OTHERWISE. DOWELS SHALL BE PLACED BEFORE CONCRETE IS POURED AND SHALL NOT BE PUSHED INTO THE CONCRETE.

PRECAST STRUCTURAL CONCRETE:

1. ALL CONCRETE SHALL BE DESIGNED PER ACI 318-19.
2. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA WHO SHALL BE THE DELEGATED ENGINEER.
3. PRECAST MANUFACTURER SHALL VERIFY SIZE, LOCATION AND NUMBER OF FLOOR PENETRATIONS WITH MECHANICAL, PLUMBING AND ELECTRICAL CONTRACTORS.
4. PRECAST CONCRETE DESIGN COMPRESSIVE STRENGTH SHALL BE A MINIMUM 5000 PSI AT 28 DAYS. AT PRECASTER'S OPTION, HIGHER STRENGTH CONCRETE MAY BE USED IN ORDER TO REDUCE THE AMOUNT OF STEEL REINFORCING REQUIRED. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
5. DIAPHRAGM CHORD REINFORCING SHALL BE DESIGNED AND DETAILED BY THE PRECASTER.

MASONRY:

1. ALL MASONRY SHALL BE DESIGNED PER THE FOLLOWING:
   - TMS 402-2016 BUILDING CODE FOR MASONRY STRUCTURES
   - TMS 602-2016 SPECIFICATION FOR MASONRY STRUCTURES
2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 WITH A NET AREA COMPRESSIVE STRENGTH AS FOLLOWS:
   - 2000 PSI FOR TYPE M OR S
3. MORTAR SHALL CONFORM TO ASTM C270 TYPE S OR M. USE TYPE M BELOW GRADE WHEN MASONRY IS IN CONTACT WITH SOIL.
4. GROUT SHALL CONFORM TO ASTM C476 WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. GROUT ALL CELLS WITH REINFORCING OR EMBEDDED ANCHORS.
5. MINIMUM COMPRESSIVE STRENGTH OF THE MASONRY (f'm) SHALL BE 2000 PSI UNLESS NOTED OTHERWISE.
6. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 GRADE 60.
7. HORIZONTAL JOINT REINFORCING SHALL BE 9 GAGE GALVANIZED LADDER TYPE. SPACE JOINT REINFORCING AT A MAXIMUM 16" OC VERTICAL.
8. BOND OF BLOCK SHALL BE RUNNING BOND UNLESS NOTED OTHERWISE.
9. FILL ALL CAVITIES AND CELLS IN MASONRY BELOW FINISHED FLOOR WITH GROUT.
10. REFER TO GENERAL NOTE 4. IF CONTRACTOR'S ENGINEER DETERMINES THAT WALLS REQUIRE TEMPORARY SHORING OR BRACING, WALLS SHALL BE PROPERLY BRACED AGAINST LATERAL LOADS UNTIL THE ROOF DIAPHRAM OR OTHER LATERAL SUPPORT SYSTEM HAS BEEN INSTALLED.
11. ALL LOAD BEARING MASONRY SHALL BE INSPECTED PER TMS 402.

AUGER CAST-IN-PLACE PILE FOUNDATIONS:

1. GEOTECHNICAL REPORT BY: S&ME, INC
   ILM PARKING DECK
   PROJECT NO. 23060158 (REV 1)
   NOVEMBER 15, 2024
2. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE REPORT AND REVIEW THE RECOMMENDATIONS AND REQUIREMENTS INCLUDED THEREIN.
3. THE PARKING STRUCTURE SHALL BE SUPPORTED BY AUGERED CAST-IN-PLACE (ACIP) PILE FOUNDATIONS AS SHOWN ON PLAN, UNLESS NOTED OTHERWISE.
4. NON-PRODUCTION TEST PILES SHALL BE INSTALLED AT THE LOCATIONS DETERMINED BY THE GEOTECHNICAL ENGINEER.
5. THE REQUIRED SERVICE LEVEL CAPACITIES INDICATED IN THE TABLE BELOW SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER WITH A LOAD TESTING PROGRAM PRIOR TO PRODUCTION PILE INSTALLATION.
6. MIN. CENTER-TO-CENTER PILE SPACING = 3 X DIAMETER.
7. THE MINIMUM 28-DAY GROUT COMPRESSIVE STRENGTH = 5,000 PSI.
8. MINIMUM ALLOWABLE GROUT FACTOR = 1.2
9. SEE SHEET S601 FOR PILE DETAILS.

ACIP PILE PARAMETERS	18" Ø ACIP PILE
COMPRESSION CAPACITY	220 KIPS
UPLIFT CAPACITY	40 KIPS
LATERAL CAPACITY	22.8 KIPS (1/2" DEFLECTION)
MINIMUM TIP ELEVATION	45 FEET BELOW EXISTING GRADE

*CAPACITIES INDICATED IN TABLE ARE SERVICE LEVEL

FOUNDATIONS - GENERAL:

1. GEOTECHNICAL REPORT BY: S&ME, INC
   ILM PARKING DECK
   PROJECT NO. 23060158 (REV 1)
   NOVEMBER 15, 2024
2. ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
3. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE REPORT AND REVIEW THE RECOMMENDATIONS AND REQUIREMENTS INCLUDED THEREIN.
4. THE GEOTECHNICAL ENGINEER SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF UNDERLYING MATERIAL TO SUPPORT FOUNDATIONS AND SHALL APPROVE BEARING MATERIAL PRIOR TO FOUNDATION INSTALLATION.
5. AN INDEPENDENT TESTING AGENCY SHALL INSPECT AND VERIFY COMPACTION OF ALL SUBGRADES AND FILL MATERIALS BEFORE FURTHER CONSTRUCTION WORK IS PERFORMED.
6. IF FOOTINGS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL CONTACT THE GEOTECHNICAL ENGINEER AND STRUCTURAL ENGINEER OF RECORD BEFORE PROCEEDING WITH WORK.
7. ALL FOUNDATIONS SHALL BE FORMED TO PREVENT THE CREATION OF AN ENLARGED AREA OF CONCRETE (MUSHROOM).
8. CONCRETE SHALL BE PLACED IMMEDIATELY AFTER FOOTING EXCAVATION AND PLACEMENT OF REINFORCING STEEL TO AVOID BEARING SOILS EXPOSURE TO WETTING AND DRYING. ANY WATER SHALL BE PUMPED OUT OF THE FOOTING EXCAVATION PRIOR TO PLACEMENT OF CONCRETE.

EARTHWORK:

SITE PREPARATION

1. CLEARING AND STRIPPING SHALL CONSIST OF REMOVING VEGETATION, TOPSOIL, ROOT MATS, DEBRIS, AND OTHER DELETERIOUS MATERIAL IN THEIR ENTIRETY. STRIPPING SHALL EXTEND AT LEAST 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT, WHERE PRACTICAL.
2. AFTER EXCAVATION TO FINAL FOOTING ELEVATIONS, PERFORM AT LEAST ONE TEST PER SOIL STRATUM TO VERIFY ALLOWABLE DESIGN BEARING CAPACITIES.
3. ANY EXPOSED SUBGRADE SOILS THAT ARE FOUND TO BE UNSTABLE OR UNSUITABLE SHALL BE REMOVED IN THEIR ENTIRETY AND REPLACED WITH COMPACTED STRUCTURAL FILL.
4. THE UPPER 12 INCHES (AS A MINIMUM) OF NEWLY EXPOSED SUBGRADE SOILS SHALL BE RECOMPACTED TO 98 PERCENT OF THE STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT.
5. FOUNDATION BEARING SURFACES AND FLOOR SLAB SUBGRADES SHALL BE PROTECTED FROM EXPOSURE TO WATER PRIOR TO INSTALLATION OF ENGINEERED FILL AND CONCRETE. WATER RUNOFF SHALL NOT BE PERMITTED TO COLLECT IN THE FOOTING EXCAVATIONS OR WITHIN THE BUILDING FOOTPRINT. SOILS SOFTENED OR LOOSENED BY PONDED WATER OR DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REMOVED AND REPLACED WITH COMPACTED ENGINEERED FILL.
6. FILL SHALL NOT BE PLACED IN A FROZEN CONDITION OR UPON A FROZEN SUBGRADE. FROZEN MATERIALS SHALL NOT BE USED AS ENGINEERED FILL AND NO FILL, FOOTINGS OR SLAB SHALL BE PLACED ON SOILS THAT ARE FROZEN OR CONTAIN FROZEN MATERIAL.

ENGINEERED FILL AND COMPACTION

1. ENGINEERED FILL SHALL BE A CLEAN GRANULAR FILL FREE OF ORGANICS, OR ANY OTHER UNSUITABLE MATERIAL WITH A PLASTICITY INDEX (PI) OF 6 PERCENT OR LESS (ASTM D4318). SILT/CLAY FINES CONTENT NOT GREATER THAN 25 PERCENT BY WEIGHT (ASTM D1140). MOISTURE CONTENT WITHIN 3 PERCENT, PLUS OR MINUS, OF THE STANDARD PROCTOR (ASTM D698) AT OPTIMUM MOISTURE CONTENT (ASTM D2216)
2. ENGINEERED FILL SHALL BE APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER.
3. ENGINEERED FILL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 12 INCHES FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND 4 TO 6 INCHES FOR MATERIAL COMPACTED BY SMALL WALK-BEHIND COMPACTION EQUIPMENT.
4. ENGINEERED FILL SHALL BE COMPACTED TO 98 PERCENT OF THE STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT.
5. THE UPPER 12 INCHES OF SUBGRADE IN FOOTING, SLAB AND PAVEMENT AREAS SHALL BE COMPACTED TO 98 PERCENT OF THE STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT.
6. IN-PLACE DENSITY TESTS SHALL BE PERFORMED BY A QUALIFIED GEOTECHNICAL ENGINEER.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE DESIGNED PER AISC 360-16. MATERIALS SHALL BE AS FOLLOWS:
   - W-SHAPES — ASTM A992, Fy = 50 KSI
   - HSS SHAPES (RECT) — ASTM A500 GRADE C, Fy = 50 KSI
   - HSS SHAPES (ROUND) — ASTM A500 GRADE C, Fy = 46 KSI
   - PLATES — ASTM A36, Fy = 36 KSI
   - ALL OTHER STEEL — ASTM A572, Fy = 50 KSI; ASTM A36, Fy = 36 KSI
2. ALL BOLTS SHALL BE 3/4"Ø ASTM A325N AND SHALL BE SNUG TIGHTENED, UNLESS NOTED OTHERWISE.
3. ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 36, UNLESS NOTED OTHERWISE.
4. BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL BE AS SHOWN ON DETAIL A1/S533, UNLESS NOTED OTHERWISE. BEAM-TO-HSS COLUMN SHALL BE AS SHOWN ON DETAIL A4/S533, UNLESS NOTED OTHERWISE.
5. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL CONFORM TO ANSI/AWS D1.1.
6. MINIMUM SIZE OF ALL FILLET WELDS SHALL CONFORM TO TABLE J2.4 OF AISC SPECIFICATIONS EVEN IF SHOWN OTHERWISE ON ARCHITECTURAL, MECHANICAL, OR STRUCTURAL DRAWINGS.
7. STRUCTURAL STEEL NOT ENCASED IN CONCRETE, MASONRY, OR SPRAY APPLIED FIRE PROOFING SHALL BE SHOP PAINTED AS SPECIFIED. ANY ABRASIONS SHALL BE TOUCHED UP AFTER ERECTION.
8. STRUCTURAL STEEL EXPOSED TO WEATHER IN FINISHED STRUCTURE SHALL BE HOT DIP GALVANIZED PER ASTM A123.
9. ALL EXPOSED STRUCTURAL STEEL, WHERE INDICATED ON PLAN, SHALL BE FABRICATED AND ERECTED PER SECTION 10, "ARCHITECTURALLY EXPOSED STRUCTURAL STEEL" OF THE AISC CODE OF STANDARD PRACTICE.
10. FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO STRUCTURAL ENGINEER FOR REVIEW PRIOR TO START OF FABRICATION. FABRICATION SHALL CONFORM TO AISC SPECIFICATIONS.
11. STRUCTURAL GROUT FOR STEEL COLUMNS SHALL BE A NON-SHRINK, NON-EXPANSIVE, NON-METALLIC GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C109.
12. UNLESS OTHERWISE DETAILED IN THE STRUCTURAL DRAWINGS, ALL METAL PAN STAIRS AND LANDINGS SHALL BE DESIGNED BASED ON THE GEOMETRY AND DETAILS PROVIDED IN THE ARCHITECTURAL PLANS AND SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA, UNLESS NOTED OTHERWISE. SIGNED AND SEALED CALCULATIONS SHALL BE PROVIDED THAT CLEARLY DEPICT THE LOADS TRANSMITTED TO THE SUPPORTING STRUCTURAL MEMBERS.
13. FLOOR FRAMING HAS BEEN DESIGNED TO LIMIT DEFLECTION TO L/360 UNDER THE WEIGHT OF CONCRETE PLACEMENT.

STEEL ROOF DECK:

RX

1. ROOF DECK WITH THE MINIMUM DECK PROPERTIES SHALL BE AS FOLLOWS:

DECK MARK	DECK TYPE	GAUGE	THICKNESS (in)	Ip (in⁴/ft)	Sp (in³/ft)	In (in⁴/ft)	Sn (in³/ft)	Fy (ksi)
R1	1.5B22	22	0.0295	0.155	0.169	0.178	0.179	50
R2	1.5B20	20	0.0358	0.197	0.224	0.217	0.229	50

   A. DECK SHALL BE BY VULCRAFT OR APPROVED EQUAL.
2. ROOF DECK ATTACHMENT PATTERNS ARE AS FOLLOWS:
   - R1: 36 / 5 - 24
   - R2: 36 / 7 - 12

   INSTALLATION OF FASTENERS SHALL BE PER MANUFACTURER'S STANDARD INSTALLATION INSTRUCTIONS. PROVIDE THE FOLLOWING:
   - AT SUPPORTS: 5/8"Ø PUDDLE WELDS
   - AT SIDELAPS: #12 TEK SCREWS
3. DECK ATTACHMENT DESIGNATION:

   36 / X - XX
   - SPACING OF SIDELAP FASTENERS
   - NUMBER OF SUPPORT FASTENERS PER SHEET
   - SHEET WIDTH
4. FASTEN DECK AT ALL EDGE SUPPORTS AT 6" OC.
5. ALL DECK SHALL BE ERECTED AS THREE SPAN CONTINUOUS, UNLESS NOTED OTHERWISE.

STEEL FLOOR DECK:

FX

1. | FLOOR DECK MARK | OVERALL FLOOR THICKNESS (in) | CONCRETE | STEEL DECK TYPE | REINFORCING |
|---|---|---|---|---|
| F1 | 5 1/2 | LWT | 2VLI20 | 6X6-W2.9XW2.9 WWF |
| F2 | 10 | NWT | 2VLI20 | #6 @ 8" OC EA WAY, TOP & BOTT |
| F3 | 2 1/2 | NWT | 1.0C22 | 6X6-W2.1XW2.1 WWF |

   A. SEE CAST-IN-PLACE CONCRETE NOTES FOR ADDITIONAL INFORMATION.
2. STEEL FLOOR DECK WITH THE MINIMUM DECK PROPERTIES SHALL BE AS FOLLOWS:

STEEL DECK TYPE	GAUGE	STEEL THICKNESS (in)	Ip (in⁴/ft)	Sp (in³/ft)	In (in⁴/ft)	Sn (in³/ft)	Fy (ksi)
1.0C22	22	0.0295	0.070	0.129	0.070	0.131	60
2VLI20	20	0.0358	0.404	0.326	0.402	0.337	50

   A. DECK SHALL BE BY VULCRAFT OR APPROVED EQUAL.
3. FLOOR DECK ATTACHMENT PATTERNS ARE AS FOLLOWS:

   36 / 4 - 18

   INSTALLATION OF FASTENERS SHALL BE PER MANUFACTURER'S STANDARD INSTALLATION INSTRUCTIONS. PROVIDE THE FOLLOWING:
   - AT SUPPORTS: 5/8"Ø PUDDLE WELDS
   - AT SIDELAPS: #12 TEK SCREWS
4. DECK ATTACHMENT DESIGNATION:

   36 / X - XX
   - SPACING OF SIDELAP FASTENERS
   - NUMBER OF SUPPORT FASTENERS PER SHEET
   - SHEET WIDTH
5. FASTEN DECK AT ALL EDGE SUPPORTS AT 12" OC.
6. ALL DECK SHALL BE ERECTED AS THREE SPAN CONTINUOUS, UNLESS NOTED OTHERWISE.

COLD-FORMED METAL FRAMING:

1. ALL COLD FORMED METAL FRAMING SHALL BE DESIGNED PER AISI S100 - 16(2020) W/S2-20. NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS, 2016 EDITION (REAFFIRMED 2020) WITH SUPPLEMENT 2, 2020 EDITION.
2. THE MANUFACTURER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE COLD-FORMED STEEL FRAMING SYSTEM INCLUDING SIZE, GAUGE, STRENGTH, SPACING OF MEMBERS, ANCHORAGE TO STRUCTURE,

STATEMENT OF SPECIAL INSPECTION:

1. THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR THE INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO THE BUILDING OFFICIAL AND ARCHITECT/ENGINEER DEMONSTRATING HIS OR HER COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING. EXPERIENCE OR TRAINING SHALL BE CONSIDERED RELEVANT WHEN THE DOCUMENTED EXPERIENCE OR TRAINING IS RELATED IN COMPLEXITY TO THE SAME TYPE OF SPECIAL INSPECTION ACTIVITIES FOR PROJECTS OF SIMILAR COMPLEXITY AND MATERIAL QUALITIES.
2. SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE WORK IS BEING DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVED FABRICATORS MUST SUBMIT A CERTIFICATE OF COMPLIANCE FOR OFFSITE FABRICATIONS SUCH AS STRUCTURAL STEEL, PRECAST CONCRETE, GLUED LAMINATED TIMBER, ETC.
3. ALL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT SPECIAL INSPECTORS. JOB SITE VISITS BY THE STRUCTURAL ENGINEER OR BUILDING OFFICIAL DO NOT CONSTITUTE AND ARE NOT A SUBSTITUTE FOR INSPECTIONS BY A SPECIAL INSPECTOR.
4. ALL INSPECTION REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND ENGINEER OF RECORD. THE FINAL REPORTS BY THE SPECIAL INSPECTOR(S) MUST CERTIFY THAT THE ENTIRE STRUCTURAL SYSTEM COMPLIES WITH THE APPROVED PLANS AND SPECIFICATIONS.
5. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT THESE INSPECTIONS ARE PERFORMED.
6. WORK REQUIRING SPECIAL INSPECTION SHALL BE INSPECTED BY THE SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS PERFORMED AND AT THE COMPLETION OF THE WORK. CONTINUOUS INSPECTION CONSISTS OF FULL-TIME INSPECTION; PERIODIC INSPECTION CONSISTS OF PART-TIME OR INTERMITTENT INSPECTION.
7. THE FOLLOWING SPECIAL INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS BY THE BUILDING OFFICIAL. THIS LIST IS NOT INTENDED TO BE ALL INCLUSIVE.

SUPPORTING SOILS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILLS	X	
PRIOR TO PLACEMENT OF CONTROLLED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

CAST-IN-PLACE DEEP FOUNDATIONS

TYPE	CONTINUOUS	PERIODIC
INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT	X	
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY, RECORD CONCRETE OR GROUT VOLUMES	X	
FOR CONCRETE ELEMENTS, PERFORM TESTS AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH THE CONCRETE INSPECTION TABLE		

STRUCTURAL CONCRETE

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
SAMPLING FRESH CONCRETE & PERFORMING SLUMP AND AIR CONTENT TESTS & DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR STRENGTH TESTS	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUE		X
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO REMOVAL OF SHORES AND FORMS FROM STRUCTURAL ELEMENTS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X
POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS		X

PRECAST CONCRETE

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
REVIEW PLANT CERTIFICATION AND QUALITY CONTROL PROCEDURES		X
INSPECT ERECTION OF PRECAST ELEMENTS FOR CONFORMANCE TO THE CONTRACT DOCUMENTS INCLUDING MEMBER CONFIGURATION, CONNECTIONS, WELDING AND GROUTING	X	

CONCRETE MASONRY (LEVEL 1)

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
PROPORTIONS OF SITE PREPARED MORTAR AND GROUT		X
PREPARATION OF GROUT & MORTAR SPECIMENS AND/OR PRISMS	X	
VERIFICATION OF SIZE & LOCATION OF MASONRY UNITS		X
VERIFICATION OF SIZE, GRADE, TYPE AND PLACEMENT OF REINFORCING STEEL		X
VERIFICATION OF SIZE AND LOCATION OF ANCHORS OR EMBEDDED STRUCTURAL ELEMENTS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION		X
CONSTRUCTION OF MORTAR JOINTS		X
GROUT SPACE CLEAN PRIOR TO GROUTING		X
GROUT PLACEMENT PER CONSTRUCTION DOCUMENTS & CODE COMPLIANCE	X	
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF CONSTRUCTION DOCUMENTS & APPROVED SUBMITTALS SHALL BE VERIFIED		X
PROTECTION OF MASONRY DURING COLD WEATHER BELOW 40°F OR HOT WEATHER ABOVE 90°F		X
POST-INSTALLED ANCHORS AND REINFORCEMENT		X

COLD-FORMED METAL FRAMING

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
VERIFY MEMBER SIZES, BRACING, CLIPS, STRAPS AND HOLD DOWNS		X
INSPECT FIELD CONNECTIONS FOR PROPER CONFIGURATION AND ADHERENCE TO THE CONTRACT DOCUMENTS AND THE APPROVED SHOP DRAWINGS		X

COLD-FORMED STEEL FLOOR AND ROOF DECK

SPECIAL INSPECTION FOR COLD-FORMED STEEL FLOOR AND ROOF DECK SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF SDI QA/QC. IN CASE OF CONFLICTS BETWEEN THE REQUIREMENTS OF SDI QA/QC AND THE TABLE BELOW, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

TASK	OBSERVE	PERFORM
INSPECTION TASKS PRIOR TO DECK PLACEMENT:		
VERIFY COMPLIANCE OF MATERIALS (DECK AND DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS		X
DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES		X
INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT:		
VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS		X
VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS		X
DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES		X
INSPECTION OR EXECUTION TASKS PRIOR TO WELDING:		
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	X	
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	X	
MATERIAL IDENTIFICATION (TYPE/GRADE)	X	
CHECK WELDING EQUIPMENT	X	
INSPECTION OR EXECUTION TASKS DURING WELDING:		
USE OF QUALIFIED WELDERS	X	
CONTROL AND HANDLING OF WELDING CONSUMABLES	X	
ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	X	
WPS FOLLOWED	X	
INSPECTION OR EXECUTION TASKS AFTER WELDING:		
VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS		X
WELDS MEET VISUAL ACCEPTANCE CRITERIA		X
VERIFY REPAIR ACTIVITIES		X
DOCUMENT ACCEPTANCE OR REJECTION OF WELDS		X
INSPECTION OR EXECUTION TASKS PRIOR TO MECHANICAL FASTENING:		
MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS	X	
PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	X	
PROPER STORAGE FOR MECHANICAL FASTENERS	X	
INSPECTION OR EXECUTION TASKS DURING MECHANICAL FASTENING:		
FASTENERS ARE POSITIONED AS REQUIRED	X	
FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	X	
INSPECTION OR EXECUTION TASKS AFTER MECHANICAL FASTENING:		
CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS		X
CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS		X
CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER FASTENERS		X
VERIFY REPAIR ACTIVITIES		X
DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS		X

SEGMENTAL RETAINING (SRW) WALLS

TYPE	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION:		
PERFORM SOIL TESTING OF THE RETAINED, FOUNDATION AND PROPOSED FILL MATERIALS TO VERIFY DESIRED VALUES ARE ACHIEVED.		X
VERIFY BLOCK TYPE, GRID TYPE, DRAINAGE MATERIALS, AND/OR FILTER FABRIC.		X
PERFORM SOIL TESTING OF FOUNDATION AREA (LEVELING PLAN AND REINFORCED ZONE) TO VERIFY ADEQUATE BEARING CAPACITY.		X
VERIFY THICKNESS AND WIDTH OF RETAINING WALL LEVELING PAD.	X	
VERIFY USE OF PROPER SOIL, DENSITIES, MOISTURE CONTENT, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF STRUCTURAL FILL.	X	
WALL CONSTRUCTION:		
VERIFY INSTALLATION OF BLOCK INFILL, DRAINAGE LAYER, DRAIN PIPE, AND DRAIN OUTLETS.	X	
VERIFY BLOCK TO BLOCK AND BLOCK TO GRID CONNECTION METHODS, AND SPECIFIED SETBACK REQUIREMENTS.		X
VERIFY GRID ELEVATION, LENGTH, AND PROPER INSTALLATION.	X	
VERIFY INSTALLATION OF CAP BLOCK AND LOW PERMEABLE SOIL AT TOP OF WALL.		X

STRUCTURAL STEEL

SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360. IN CASE OF CONFLICTS BETWEEN THE REQUIREMENTS OF AISC 360 AND THE TABLE BELOW, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

TASK	OBSERVE	PERFORM
INSPECTION TASKS PRIOR TO WELDING:		
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	X	
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE		X
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE		X
MATERIAL IDENTIFICATION (TYPE/GRADE)	X	
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	X	
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY) • JOINT PREPARATIONS • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	X	
CONFIGURATION AND FINISH OF ACCESS HOLES	X	
FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	X	
INSPECTION TASKS DURING WELDING:		
CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	X	
NO WELDING OVER CRACKED TACK WELDS	X	
ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	X	
WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) • PROPER POSITION (F, V, H, OH)	X	
WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	X	
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS		X
INSPECTION TASKS AFTER WELDING:		
WELDS CLEANED	X	
SIZE, LENGTH AND LOCATION OF WELDS		X
WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY		X
ARC STRIKES		X
K-AREA		X
WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES		X
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)		X
REPAIR ACTIVITIES		X
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER		X
NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR	X	
INSPECTION TASKS PRIOR TO BOLTING:		
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS		X
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	X	
CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	X	
CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	X	
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	X	
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	X	
PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	X	
INSPECTION TASKS DURING BOLTING:		
FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED	X	
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	X	
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	X	
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	X	
INSPECTION TASKS AFTER BOLTING:		
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS		X
OTHER INSPECTION TASKS:		
INSPECT PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. VERIFY DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE, SHALL BE VERIFIED AND DOCUMENTED PRIOR TO PLACEMENT OF CONCRETE		X
INSPECT FABRICATED STEEL OR ERECTED STEEL FRAME, AS APPLICABLE, TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS	X	
ACCEPTANCE OR REJECTION OF JOINT DETAILS AND THE CORRECT APPLICATION OF JOINT DETAILS SHALL BE DOCUMENTED		

ABBREVIATIONS

&	AND
@	AT
AB	ANCHOR BOLT
ABV	ABOVE
ACIP	AUGER CAST-IN-PLACE
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ARCH	ARCHITECT, URAL
B/B	BACK TO BACK
B/	BOTTOM OF
BC	BOTTOM CHORD
BLDG	BUILDING
BLK	BLOCK
BLW	BELOW
BM	BEAM
BOD	BOTTOM OF DECK
BOTT	BOTTOM
BP	BASE PLATE
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN
C/C	CENTER TO CENTER
CCJ	CRACK CONTROL JOINT
CFS	COLD-FORMED STEEL
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT(S)
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE, TION
CTRD	CENTERED
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DT	DOUBLE TEE
DWG(S)	DRAWING(S)
DWL	DOWEL
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EMBED	EMBEDMENT
ENG	ENGINEER
EOD	EDGE OF DECK
EOR	ENGINEER OF RECORD
EOS	EDGE OF SLAB
EP	EMBEDDED PLATE
EQ	EQUAL
EQUIP	EQUIPMENT
EQUV	EQUIVALENT
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F	FOOTING MARK
F/	FACE OF
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FLG	FLANGE
FLR	FLOOR
FDN	FOUNDATION
FS	FAR SIDE
FT	FOOT, FEET
FTG	FOOTING
FV	FIELD VERIFY
GA	GAGE
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GLB	GLU-LAM BEAM
GR	GRADE
GRTG	GRATING
HK	HOOK
HND	HAND
HORIZ	HORIZONTAL
HP	HIGH POINT
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL STEEL
HT	HEIGHT
ID	INSIDE DIAMETER
IN	INCH
INT	INTERIOR
INTERM	INTERMEDIATE

ABBREVIATIONS

JST	JOIST
JT	JOINT
KB	KNEE BRACE
KO	KNOCK OUT
LB, #	POUND
LG	LONG
LL	LIVE LOAD
LLBB	LONG LEG BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LOC	LOCATION
LP	LOW POINT
LSL	LONG SLOTTED HOLES
LT	LIGHT
LVL	LAMINATED VENEER LUMBER
LW	LONG WAY
LWT	LIGHT WEIGHT
MATL	MATERIAL
MAX	MAXIMUM
MC	MOMENT CONNECTION
MCJ	MASONRY CONTROL JOINT
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NO	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
NWT	NORMAL WEIGHT
O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
OPP HND	OPPOSITE HAND
PAF	POWDER ACTUATED FASTENER(S)
PCC	PRECAST CONCRETE
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PL	PLATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
PROJ	PROJECTION
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCE, MENT, ING
REM	REMAINDER
REQ'D	REQUIRED
RET	RETURN
REV	REVISION
RTN	RETURN
RTU	ROOF TOP UNIT
SB	STRAP BEAM
SCH	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SOG	SLAB ON GRADE
SPA	SPACE, ED, ING
SPEC	SPECIFICATION(S)
SQ	SQUARE
SRW	SEGMENTAL RETAINING WALL
SSL	SHORT SLOTTED HOLES
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENERS
STL	STEEL
STRL	STRUCTURAL
SW	SHORT WAY / SHEAR WALL
SYP	SOUTHERN YELLOW PINE
T/	TOP OF
T&B	TOP AND BOTTOM
TB	TIE BEAM
THK	THICK, NESS
TRANS	TRANSVERSE
TS	TUBE STEEL, THICKENED SLAB MARK
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WD	WOOD
W/	WITH
W/O	WITH OUT
WF	WIDE FLANGE, WALL FOOTING MARK
WP	WORKING POINT
WT	WEIGHT, TEE
WWF	WELDED WIRE FABRIC

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	

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SEAL:

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SHEET TITLE:

ABBREVIATIONS AND SPECIAL INSPECTIONS

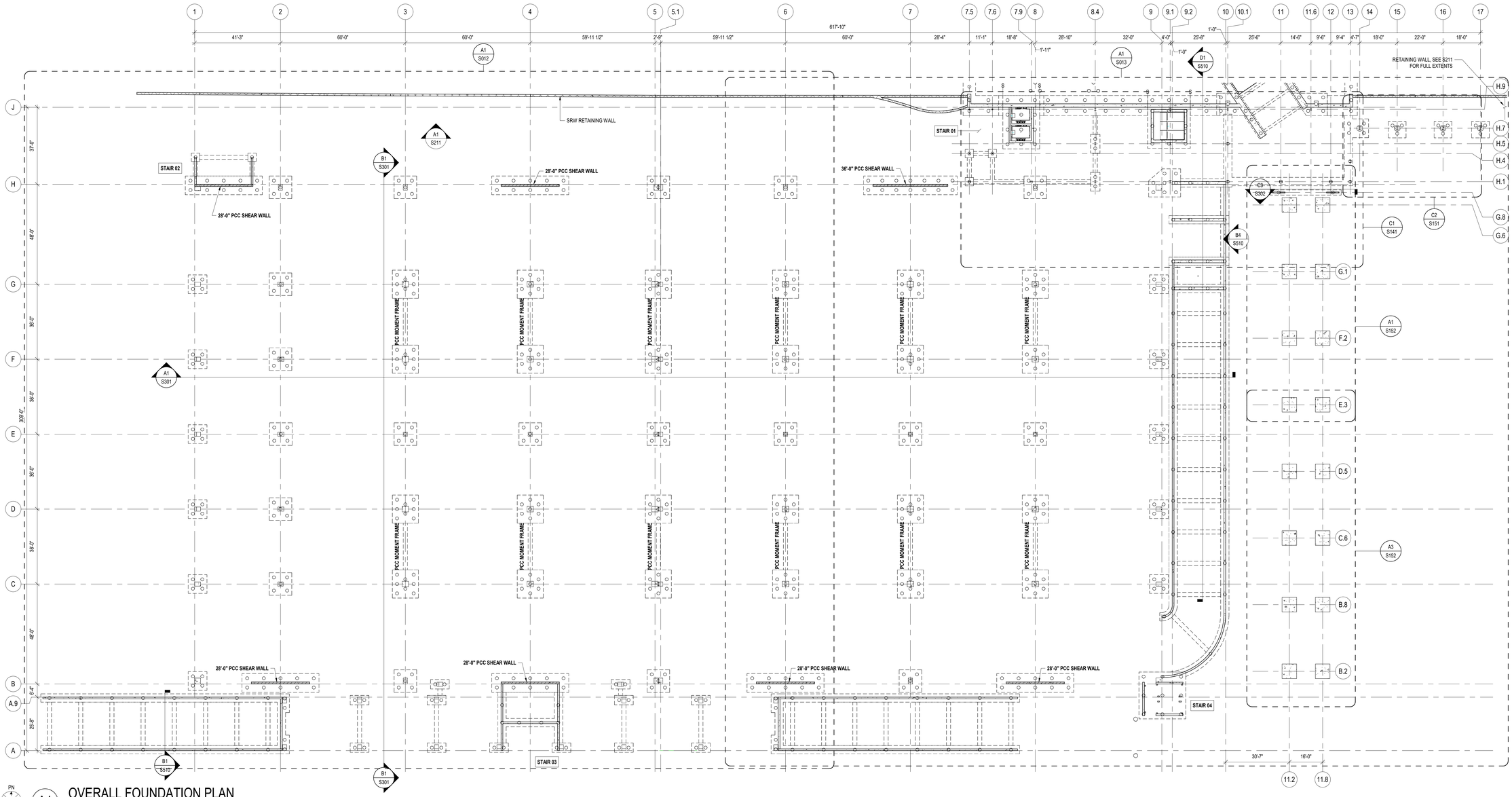
SHEET ID:

S002

PROJECT STATUS:
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PN
N

A1 OVERALL FOUNDATION PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	**2003-0070-006**

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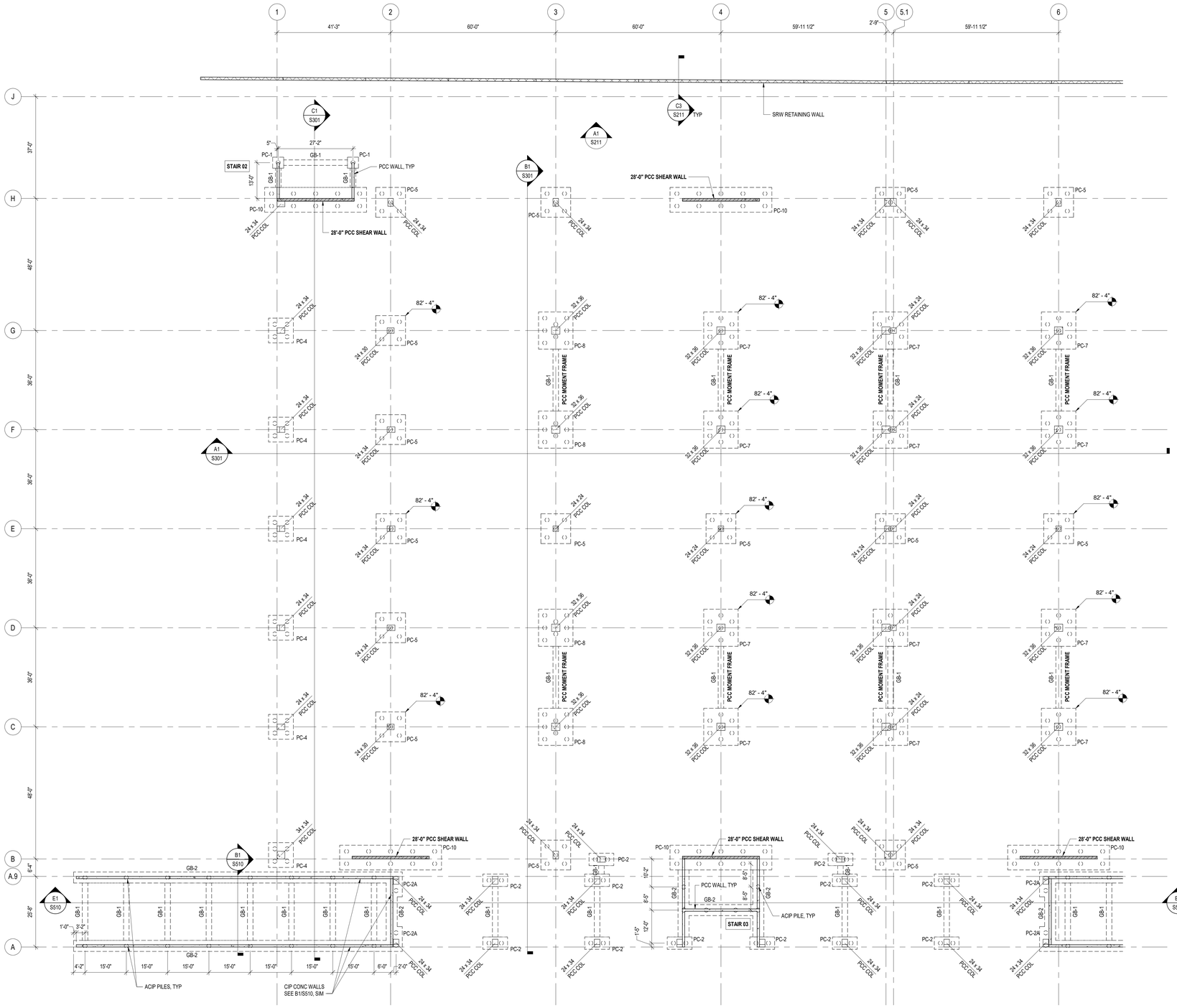
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SHEET TITLE:
OVERALL FOUNDATION PLAN

SHEET ID:
S011

PROJECT STATUS:
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A1 FOUNDATION PLAN - AREA A

SCALE: 1/16" = 1'-0"

PN

N

16 0 16 32

SCALE: 1/16" = 1'-0"

FOUNDATION SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. T/ PILE CAP EQUALS ELEVATION 84'-0", UNLESS NOTED OTHERWISE.
3. **"PC-X"** INDICATES PILE CAP TYPE. SEE S601 FOR PILE CAP SCHEDULE & DETAILS.
4. **"GB-X"** INDICATES GRADE BEAM TYPE. SEE S602 FOR GRADE BEAM SCHEDULE & DETAILS.
5. PILE CAPS SHALL BE CENTERED ON PRECAST CONCRETE COLUMNS AND WALLS, UNLESS NOTED OTHERWISE.
6. GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH PILE CAPS.
7. **-69-** INDICATES SLAB STEP, SEE PLAN.
8. SEE C1/S501 FOR TYPICAL COLUMN - PILE CAP SECTION.
9. SEE C3/S501 FOR TYPICAL SHEAR WALL - PILE CAP SECTION.

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KEY PLAN

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REVISIONS

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DATE ISSUED:	03/14/2025
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SHEET TITLE:

FOUNDATION PLAN - AREA A

SHEET ID:

S012

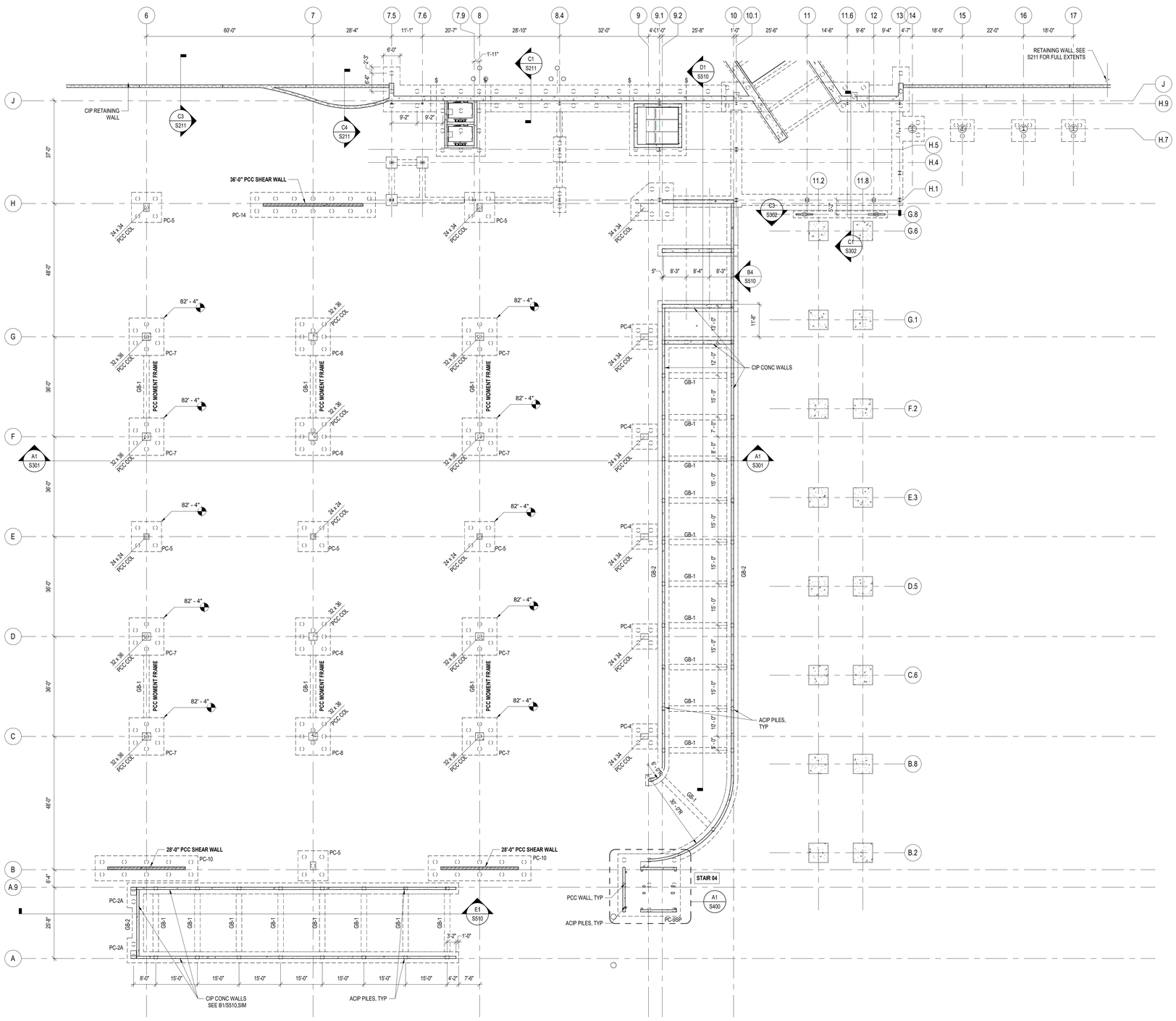
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FOUNDATION SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. T/ PILE CAP EQUALS ELEVATION 84'-0", UNLESS NOTED OTHERWISE.
3. **"PC-X"** INDICATES PILE CAP TYPE. SEE S601 FOR PILE CAP SCHEDULE & DETAILS.
4. **"GB-X"** INDICATES GRADE BEAM TYPE. SEE S602 FOR GRADE BEAM SCHEDULE & DETAILS.
5. PILE CAPS SHALL BE CENTERED ON PRECAST CONCRETE COLUMNS AND WALLS, UNLESS NOTED OTHERWISE.
6. GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH PILE CAPS.
7. **-69-** INDICATES SLAB STEP, SEE PLAN.
8. SEE C1/S501 FOR TYPICAL COLUMN - PILE CAP SECTION.
9. SEE C3/S501 FOR TYPICAL SHEAR WALL - PILE CAP SECTION.



PN

N

A1 FOUNDATION PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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KEY PLAN

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A B

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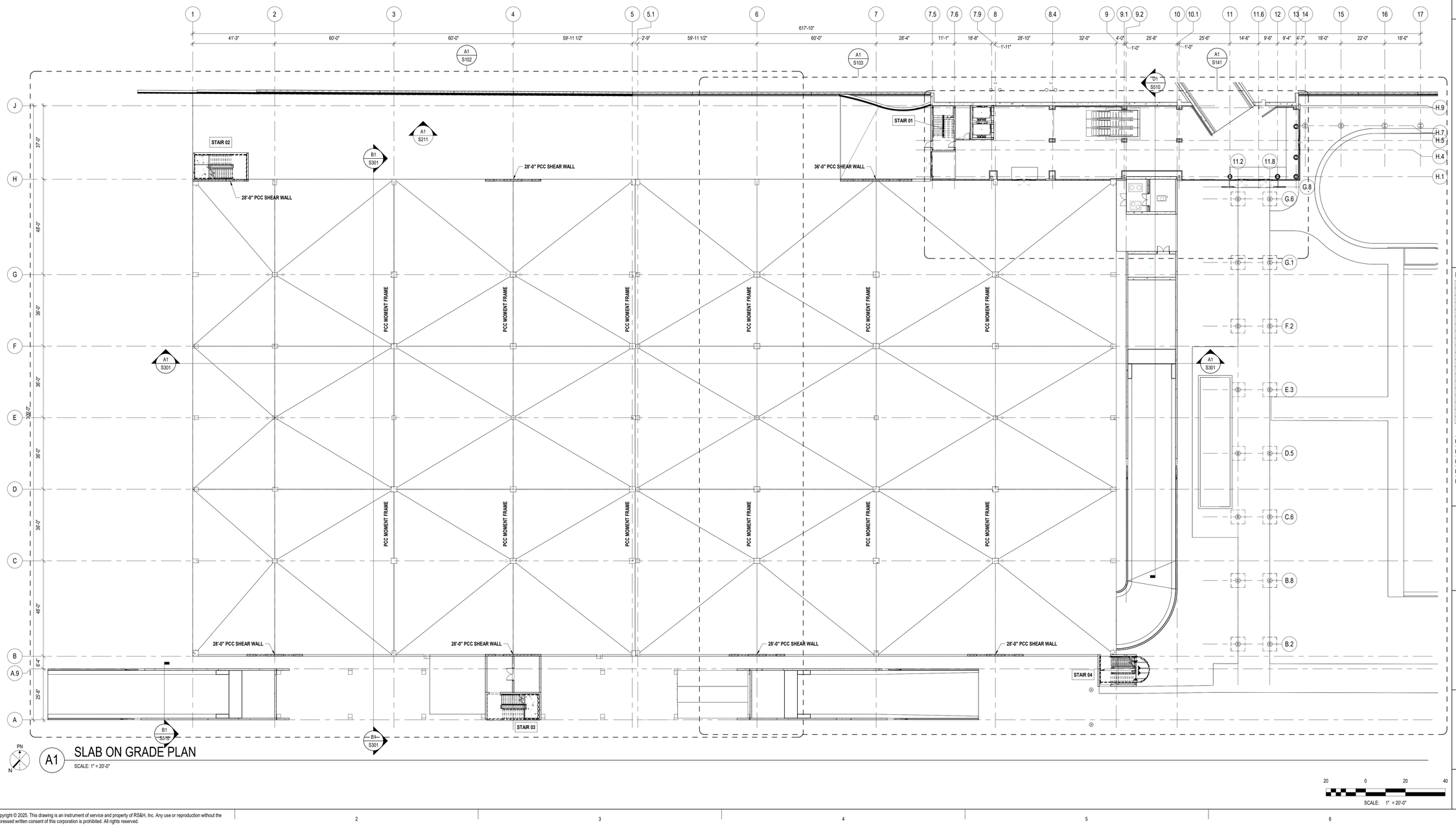
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FOUNDATION PLAN - AREA B

SHEET ID:
S013

PROJECT STATUS:
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A1 SLAB ON GRADE PLAN

SCALE: 1" = 20'-0"

SCALE: 1" = 20'-0"

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KEY PLAN

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REVISIONS

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SHEET TITLE:
OVERALL SLAB ON GRADE PLAN

SHEET ID:
S101

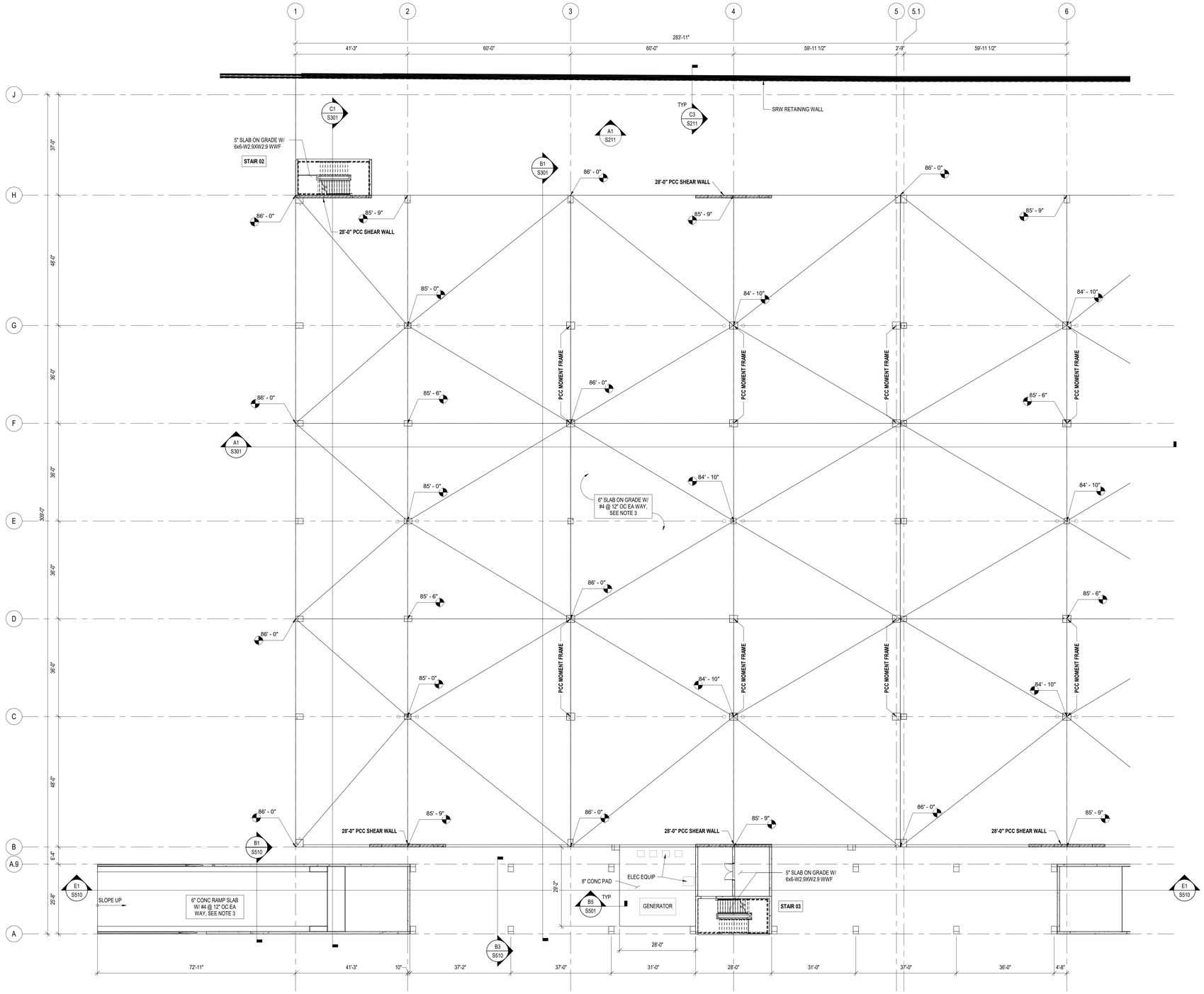
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SLAB-ON-GRADE SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. SEE SHEET S501 FOR TYPICAL SLAB DETAILS.
3. PROVIDE VAPOR BARRIER AND DRAINAGE LAYER PER E3/S501.
4. PROVIDE CRACK CONTROL JOINTS IN SLAB-ON-GRADE ALONG COLUMN LINES & EQUALLY SPACED BETWEEN COLUMN LINES, 15'-0" OC MAXIMUM. SEE E1/S501 FOR TYPICAL SLAB-ON-GRADE JOINT DETAILS.
5. PROVIDE CONTROL JOINTS AT COLUMNS PER E4/S501.
6. PROVIDE (2) #4 X 4'-0" LONG BARS IN SLAB AT ALL RE-ENTRANT CORNERS, PLACED AT 45 DEGREES, TYPICAL.
7. PROVIDE THICKENED SLAB EDGE AT ALL EDGE OF SLAB CONDITIONS, UNLESS NOTED OTHERWISE, SEE S501.
8. COORDINATE FLOOR DRAIN LOCATIONS WITH PLUMBING DRAWINGS.



PN
N

A1 LEVEL 1 SOG PLAN - AREA A

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

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DESIGNED BY:	DFW

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SHEET TITLE:
SLAB ON GRADE PLAN - AREA A

SHEET ID:
S102

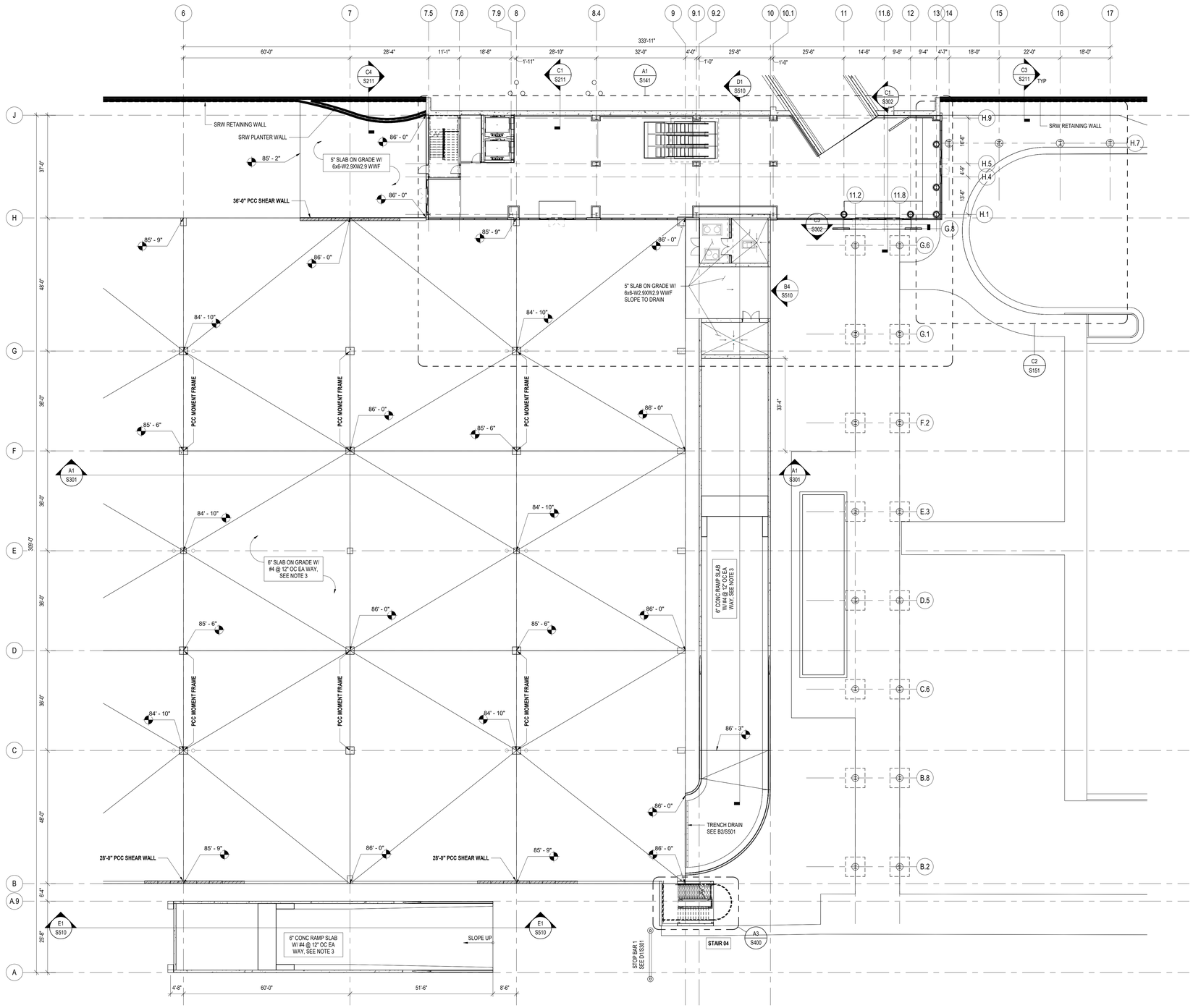
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SLAB-ON-GRADE SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. SEE SHEET S501 FOR TYPICAL SLAB DETAILS.
3. PROVIDE VAPOR BARRIER AND DRAINAGE LAYER PER E3/S501.
4. PROVIDE CRACK CONTROL JOINTS IN SLAB-ON-GRADE ALONG COLUMN LINES & EQUALLY SPACED BETWEEN COLUMN LINES, 15'-0" OC MAXIMUM. SEE E1/S501 FOR TYPICAL SLAB-ON-GRADE JOINT DETAILS.
5. PROVIDE CONTROL JOINTS AT COLUMNS PER E4/S501.
6. PROVIDE (2) #4 X 4'-0" LONG BARS IN SLAB AT ALL RE-ENTRANT CORNERS, PLACED AT 45 DEGREES, TYPICAL.
7. PROVIDE THICKENED SLAB EDGE AT ALL EDGE OF SLAB CONDITIONS, UNLESS NOTED OTHERWISE, SEE S501.
8. COORDINATE FLOOR DRAIN LOCATIONS WITH PLUMBING DRAWINGS.



PN

A1 LEVEL 1 SOG PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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KEY PLAN

C
A B

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SHEET TITLE:

SLAB ON GRADE PLAN - AREA B

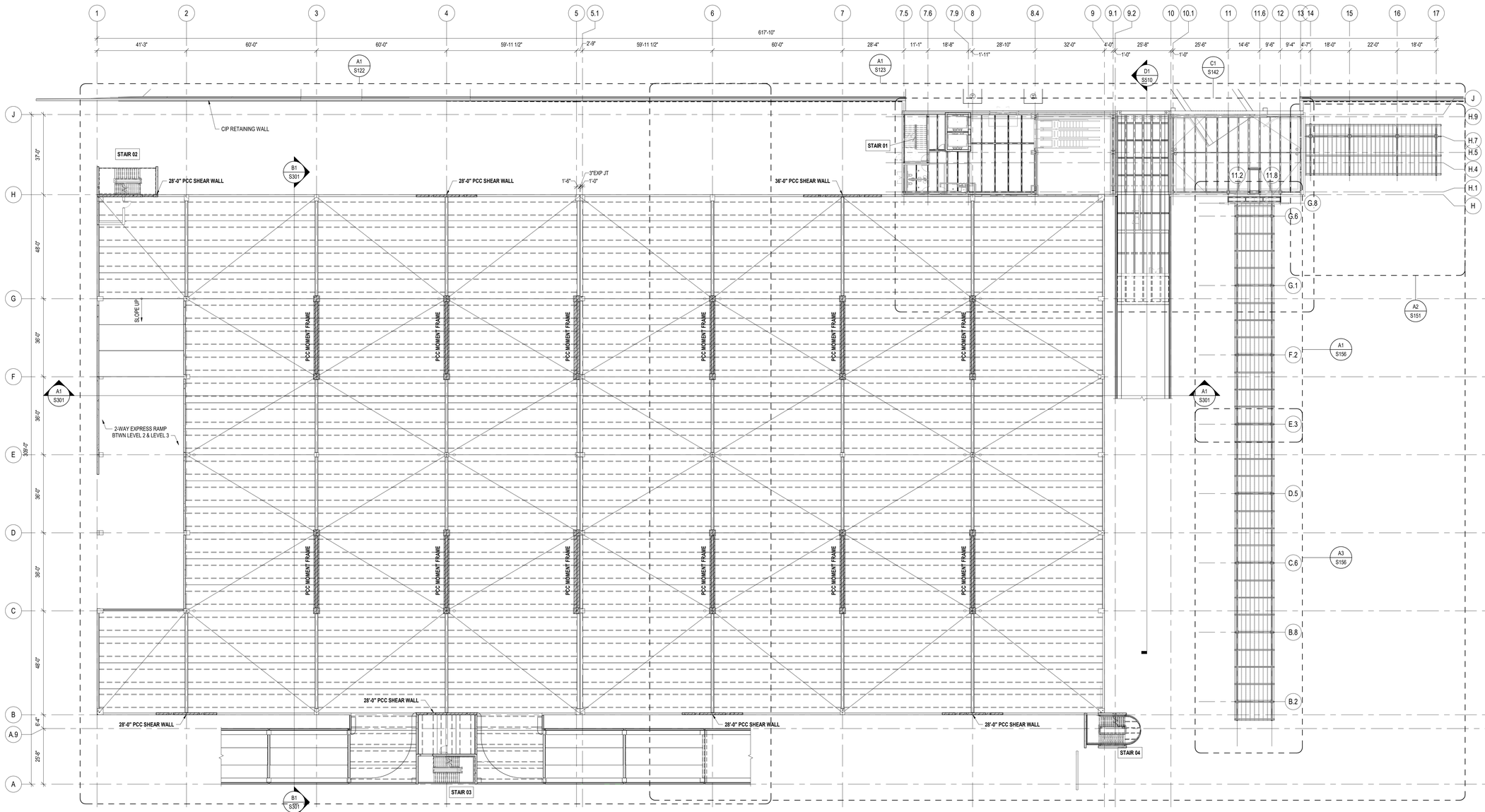
SHEET ID:

S103

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A1 LEVEL 2 FRAMING PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

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ILM

PROJECT TITLE:
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KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
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PROJECT NUMBER:	**2003-0070-006**

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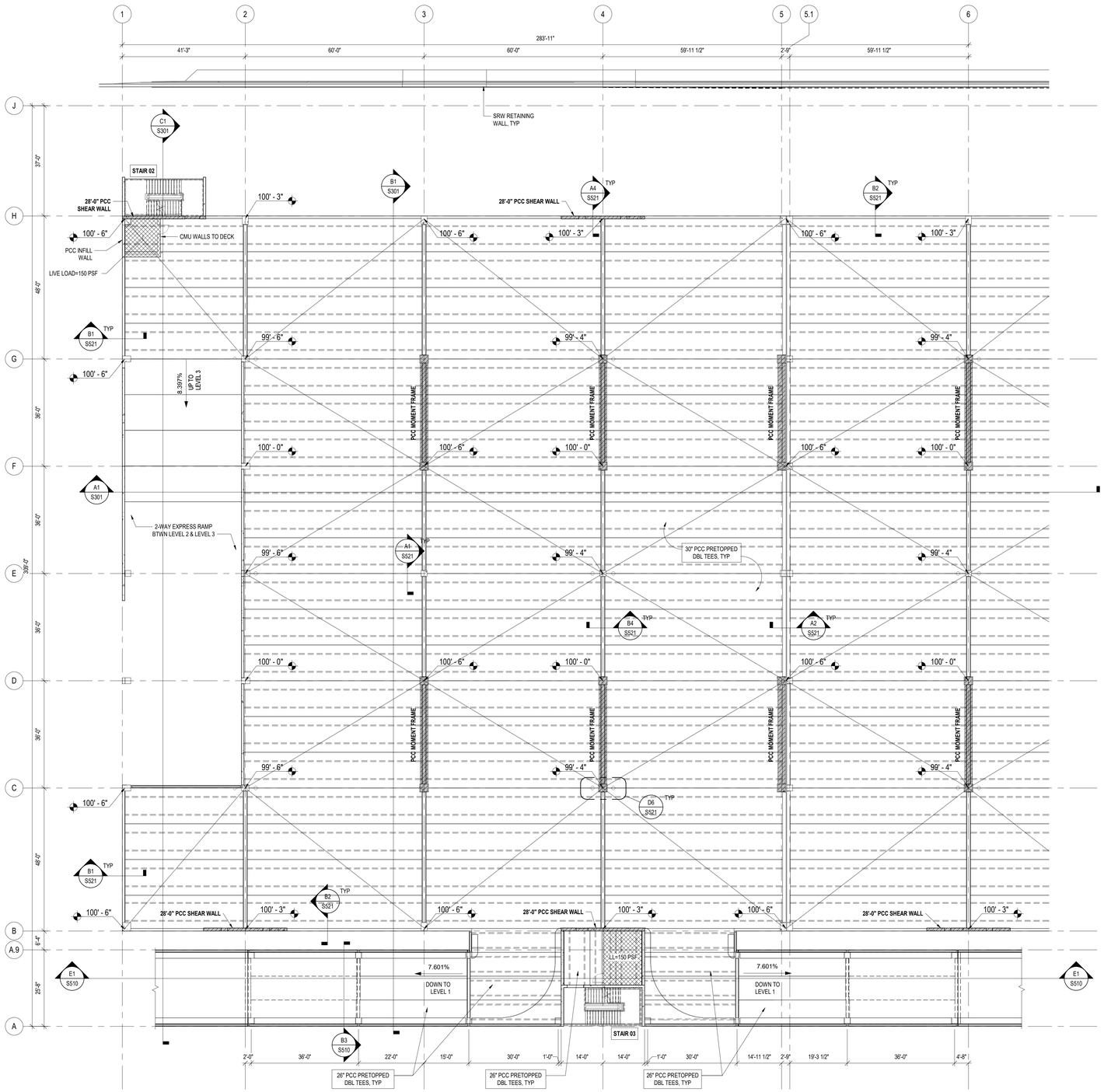
SHEET TITLE:
OVERALL LEVEL 2 FRAMING PLAN

SHEET ID:
S121

PROJECT STATUS:
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A1 LEVEL 2 FRAMING PLAN - AREA A

SCALE: 1/16" = 1'-0"

PN

16 0 16 32

SCALE: 1/16" = 1'-0"

LEVEL 2 SHEET NOTES

1. CONCRETE TOPPING AND PRECAST FRAMING ELEVATIONS VARY, SEE PLAN.
2. SEE SHEET S201 FOR PRECAST MOMENT FRAME AND SHEAR WALL ELEVATIONS, SECTIONS, AND DETAILS.
3. SEE SHEET S521 FOR TYPICAL PRECAST DETAILS.

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ILM

PROJECT TITLE:
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KEY PLAN

C
A B

REVISIONS

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SHEET TITLE:
LEVEL 2 FRAMING PLAN - AREA A

SHEET ID:
S122

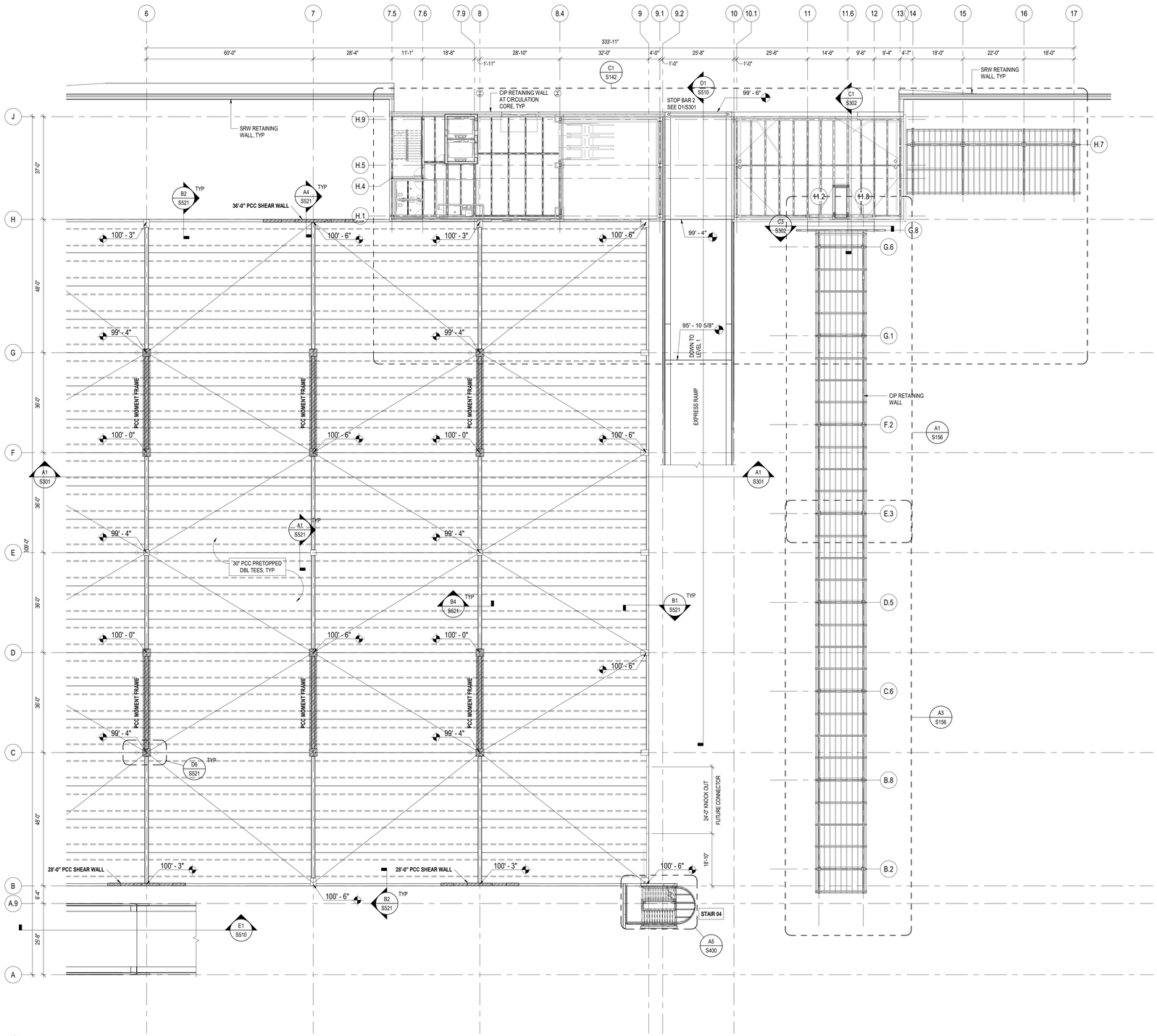
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LEVEL 2 SHEET NOTES

1. CONCRETE TOPPING AND PRECAST FRAMING ELEVATIONS VARY, SEE PLAN.
2. SEE SHEET S201 FOR PRECAST MOMENT FRAME AND SHEAR WALL ELEVATIONS, SECTIONS, AND DETAILS.
3. SEE SHEET S521 FOR TYPICAL PRECAST DETAILS.



PN

N

A1 LEVEL 2 FRAMING PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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PROJECT ADDRESS:
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KEY PLAN

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REVISIONS

NO.	DESCRIPTION	DATE

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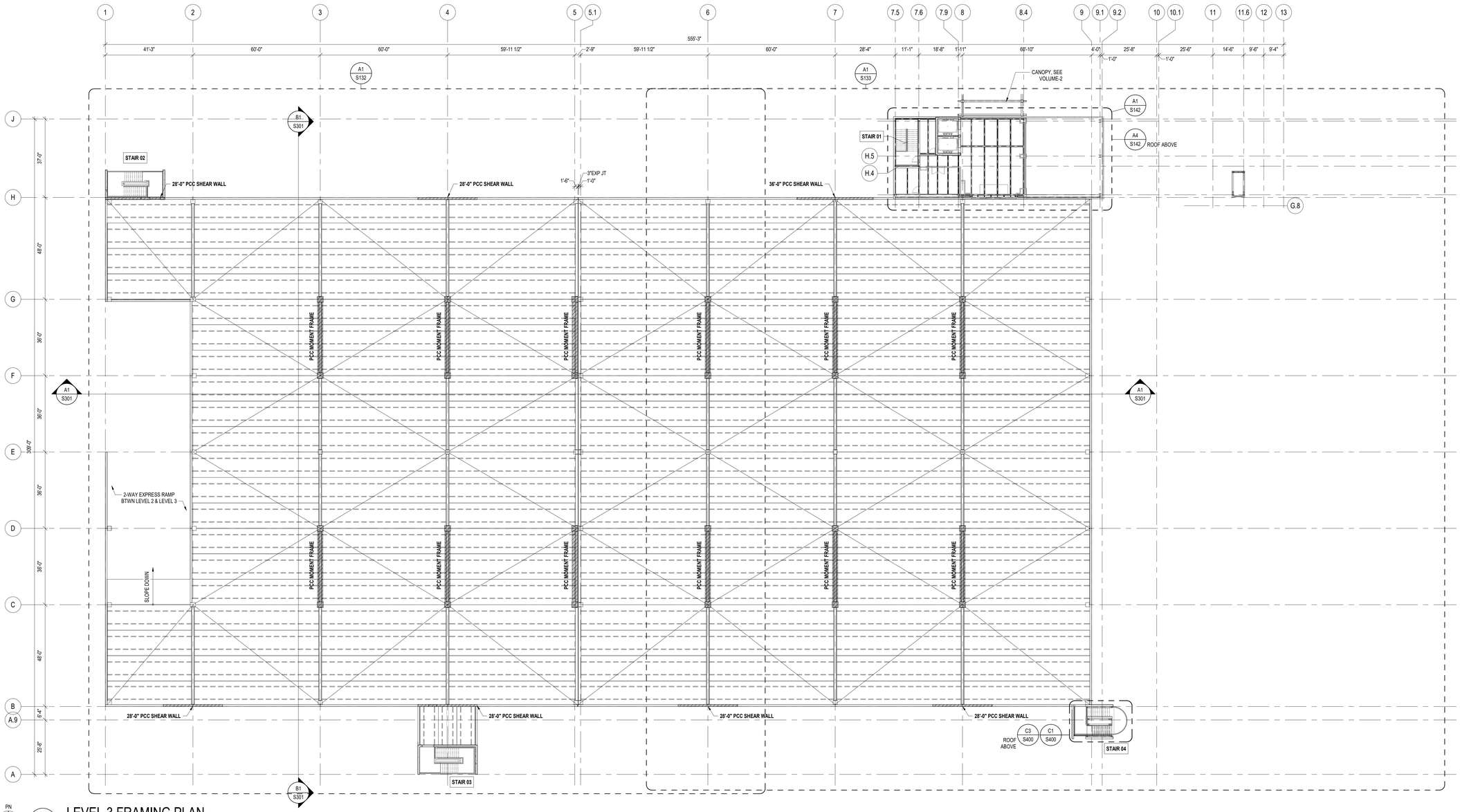
SHEET TITLE:
LEVEL 2 FRAMING PLAN - AREA B

SHEET ID:
S123

PROJECT STATUS:
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A1 LEVEL 3 FRAMING PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

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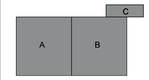
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ILM

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KEY PLAN



REVISIONS

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OVERALL LEVEL 3 FRAMING PLAN

SHEET ID:
S131

PROJECT STATUS:
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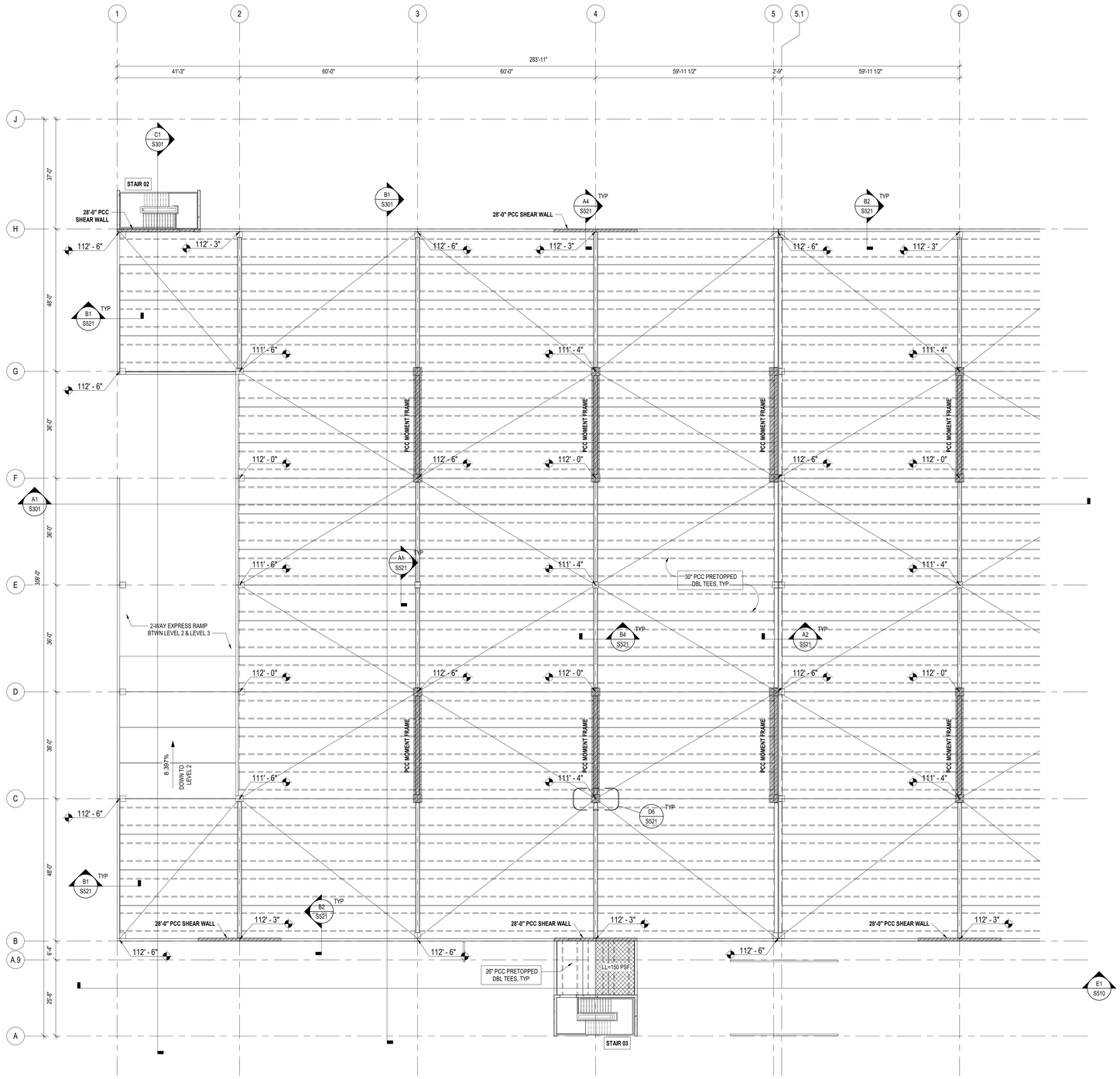
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ALL ELEVATIONS ON PLAN REVISED

LEVEL 3 SHEET NOTES

1. CONCRETE TOPPING AND PRECAST FRAMING ELEVATIONS VARY, SEE PLAN.
2. SEE SHEET S201 FOR PRECAST MOMENT FRAME AND SHEAR WALL ELEVATIONS, SECTIONS, AND DETAILS.
3. SEE SHEET S521 FOR TYPICAL PRECAST DETAILS.



PN

N

A1 LEVEL 3 FRAMING PLAN - AREA A

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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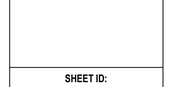
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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

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KEY PLAN



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SHEET TITLE:

LEVEL 3 FRAMING PLAN - AREA A

SHEET ID:

S132

PROJECT STATUS:
100% BID SET

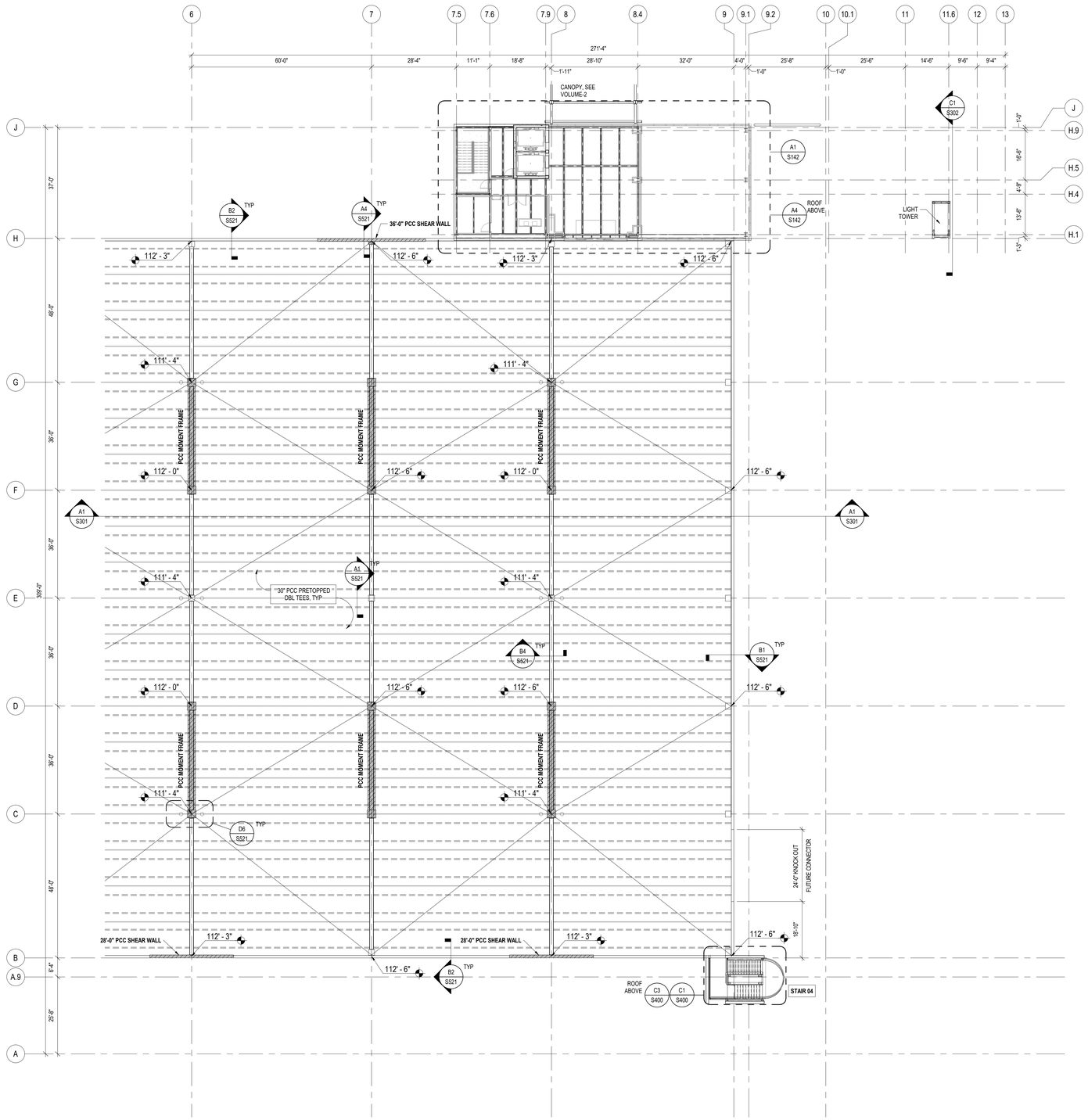
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ALL ELEVATIONS ON PLAN REVISED

LEVEL 3 SHEET NOTES

1. CONCRETE TOPPING AND PRECAST FRAMING ELEVATIONS VARY, SEE PLAN.
2. SEE SHEET S201 FOR PRECAST MOMENT FRAME AND SHEAR WALL ELEVATIONS, SECTIONS, AND DETAILS.
3. SEE SHEET S521 FOR TYPICAL PRECAST DETAILS.



PN

A1 LEVEL 3 FRAMING PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	2003-0070-006

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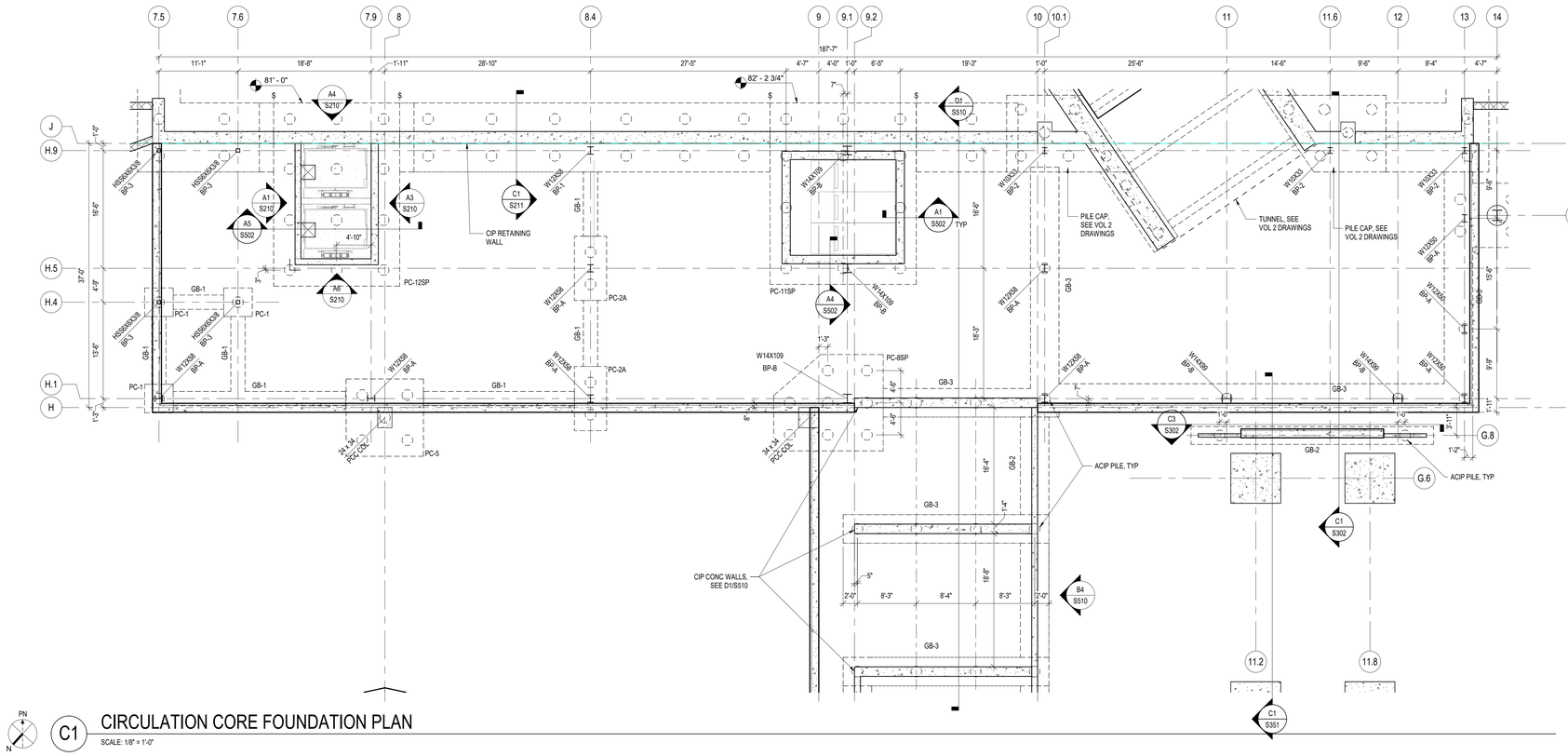
SHEET TITLE:
LEVEL 3 FRAMING PLAN - AREA B

SHEET ID:
S133

PROJECT STATUS:
100% BID SET

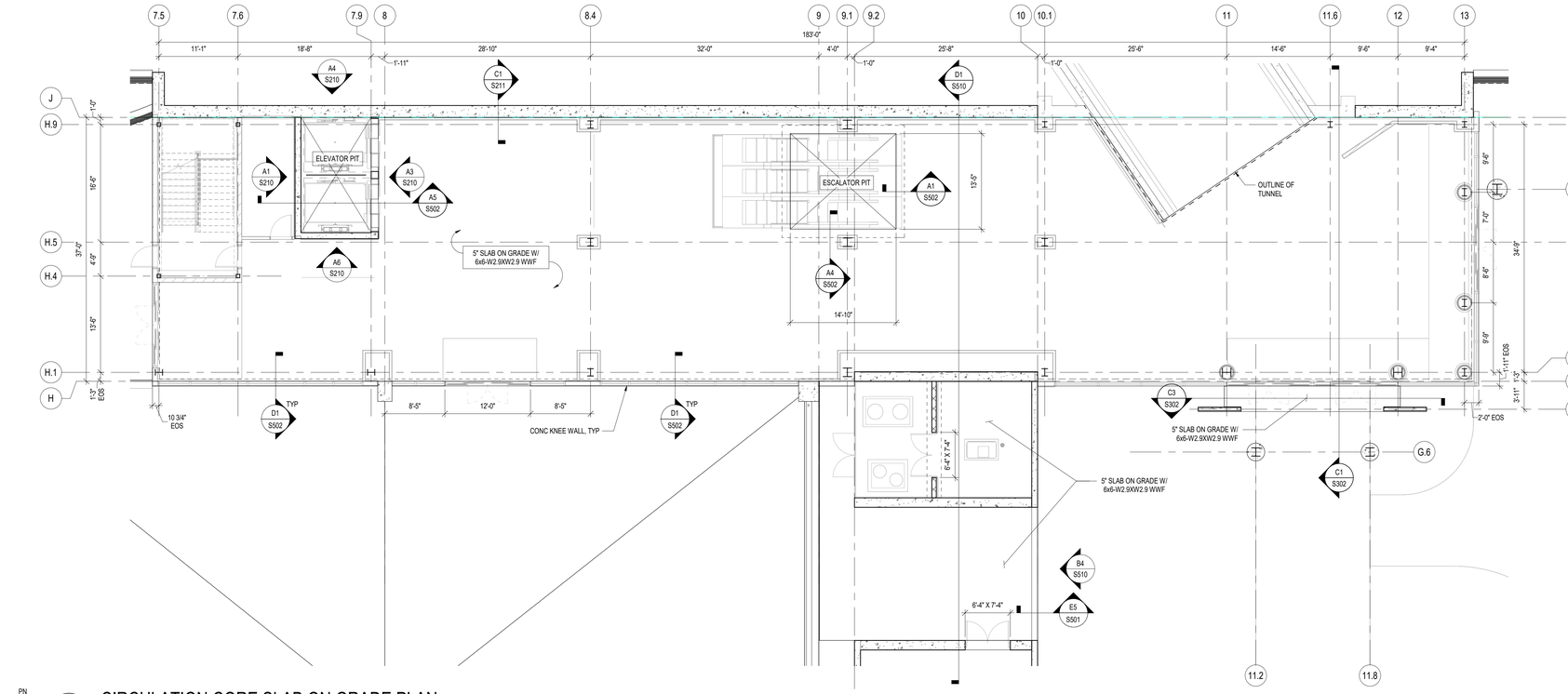
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C1 CIRCULATION CORE FOUNDATION PLAN

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



A1 CIRCULATION CORE SLAB ON GRADE PLAN

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

CIRCULATION CORE FOUNDATION SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. T/ PILE CAP EQUALS ELEVATION 84'-0", UNLESS NOTED OTHERWISE.
3. **"PC-X"** INDICATES PILE CAP TYPE. SEE S601 FOR PILE CAP SCHEDULE & DETAILS.
4. **"GB-X"** INDICATES GRADE BEAM TYPE. SEE S602 FOR GRADE BEAM SCHEDULE & DETAILS.
5. PILE CAPS SHALL BE CENTERED ON PRECAST CONCRETE COLUMNS AND WALLS, UNLESS NOTED OTHERWISE.
6. GRADE BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH PILE CAPS.
7. **-69-** INDICATES STEP IN SLAB, SEE PLAN.
8. SEE C1/S501 FOR TYPICAL COLUMN-PILE CAP SECTION.
9. SEE C3/S501 FOR TYPICAL SHEAR WALL-PILE CAP SECTION.
10. SEE C4/S501 FOR TYPICAL STEEL COLUMN BASE CONNECTION.

CIRCULATION CORE SLAB ON GRADE SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. SEE SHEET S501 FOR TYPICAL SLAB DETAILS.
3. PROVIDE VAPOR BARRIER AND DRAINAGE LAYER PER E3/S501.
4. PROVIDE CRACK CONTROL JOINTS IN SLAB-ON-GRADE ALONG COLUMN LINES & EQUALLY SPACED BETWEEN COLUMN LINES AS SHOWN. SEE S501 FOR TYPICAL SLAB-ON-GRADE JOINT DETAILS.
5. PROVIDE (2) #4 X 4'-0" LONG BARS IN SLAB AT ALL RE-ENTRANT CORNERS, PLACED AT 45 DEGREES, TYPICAL.
6. PROVIDE THICKENED SLAB EDGE AT ALL EDGE OF SLAB CONDITIONS, UNLESS NOTED OTHERWISE, SEE S501.
7. COORDINATE FLOOR DRAIN LOCATIONS WITH PLUMBING DRAWINGS.

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

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KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: MCM
DRAWN BY: DFW
DESIGNED BY: DFW
PROJECT NUMBER: 2003-0070-006

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SHEET TITLE:
CIRCULATION CORE FOUNDATION AND SLAB ON GRADE PLANS

SHEET ID:
S141

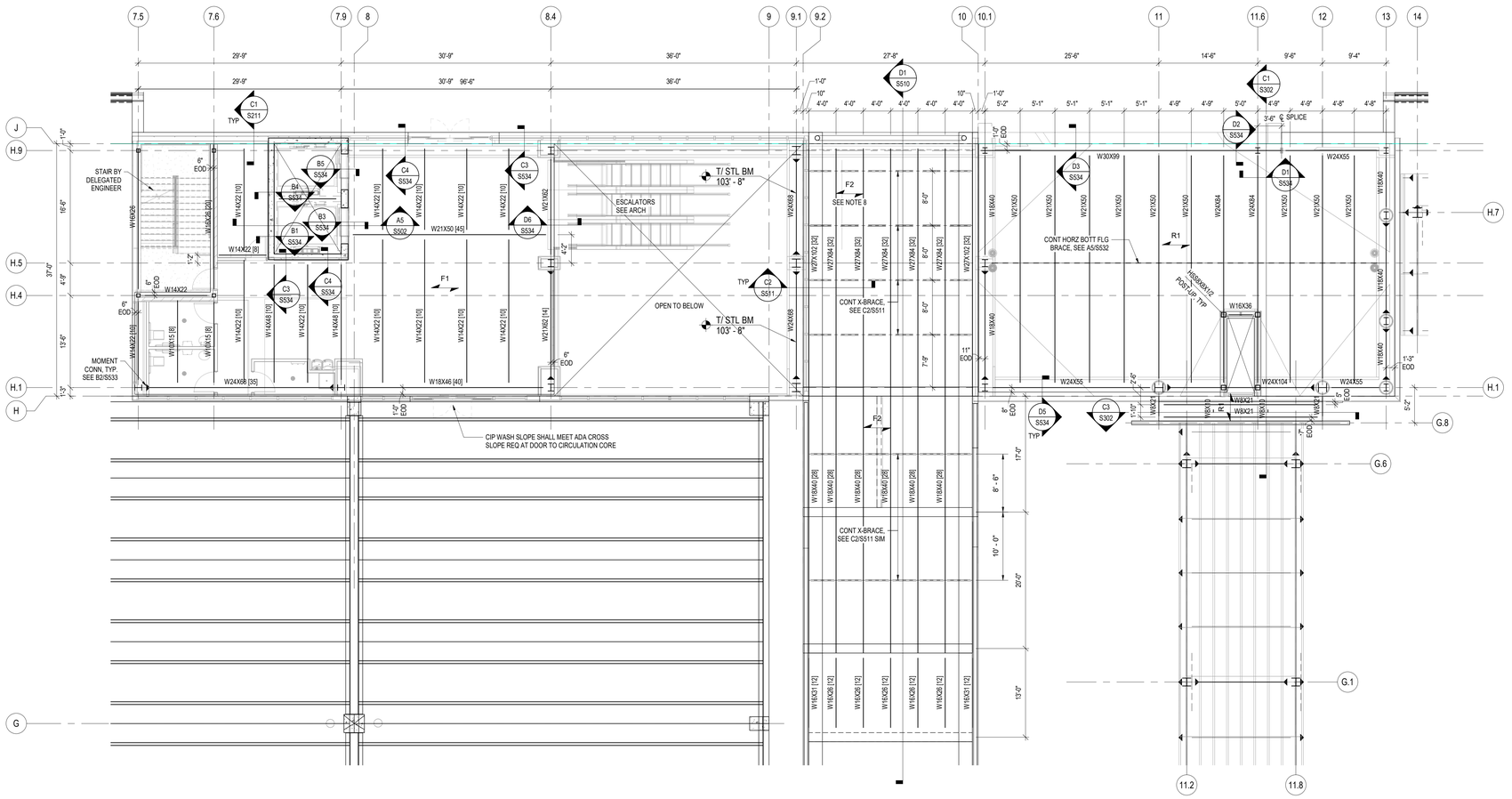
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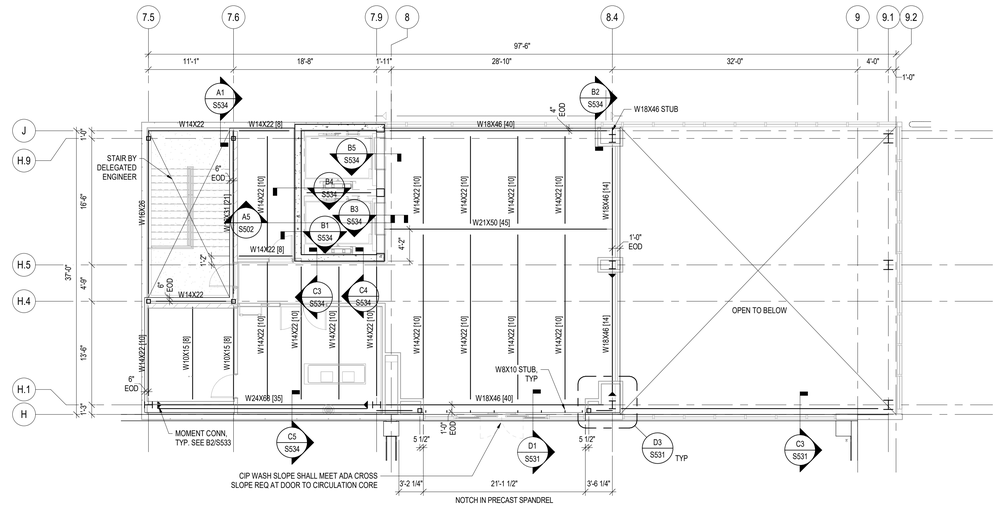
CIRCULATION CORE ELEVATED FLOORS SHEET NOTES

1. T/ STEEL 2ND FLOOR ELEVATION = 100' - 0 1/2" UNO ON PLAN.
2. T/ STEEL LOW ROOF ELEVATION = 102' - 0 1/2" UNO ON PLAN.
3. T/ STEEL 3RD FLOOR ELEVATION = 112' - 0 1/2" UNO ON PLAN.
4. T/ STEEL HIGH ROOF ELEVATION = 127' - 0 1/2" UNO ON PLAN.
5. **"FX"** INDICATES FLOOR DECK TYPE. SEE SEE GENERAL NOTES S001.
6. **"RX"** INDICATES ROOF DECK TYPE. SEE SEE GENERAL NOTES S001.
7. SEE E4/S532 FOR TYPICAL ROOF OPENING FRAMING.
8. SLOPE CONCRETE SLAB UP FOR A TOTAL THICKNESS OF 12" AT RETAINING WALL.



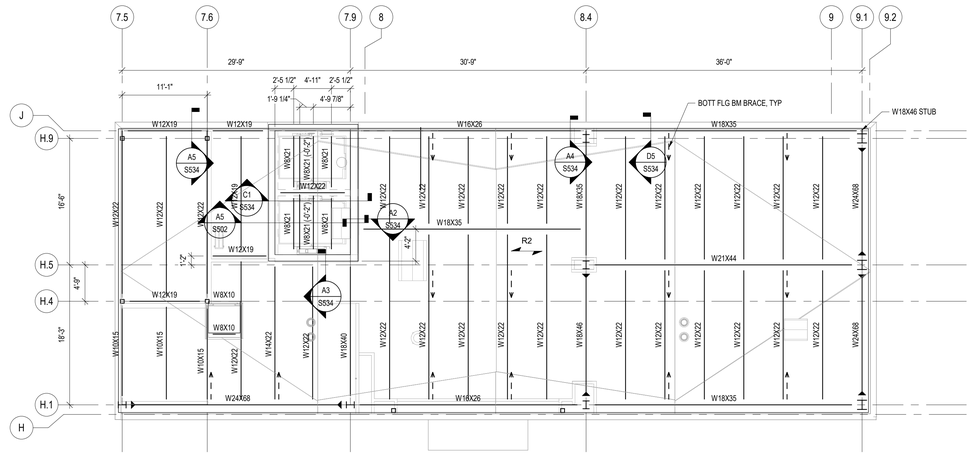
C1 CIRCULATION CORE 2ND FLOOR FRAMING PLAN

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



A1 CIRCULATION CORE 3RD FLOOR FRAMING PLAN

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



A4 CIRCULATION CORE ROOF FRAMING PLAN

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

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

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KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
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DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	

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SHEET TITLE:

CIRCULATION CORE 2ND, 3RD, AND ROOF FRAMING PLANS

SHEET ID:

S142

PROJECT STATUS:
100% BID SET

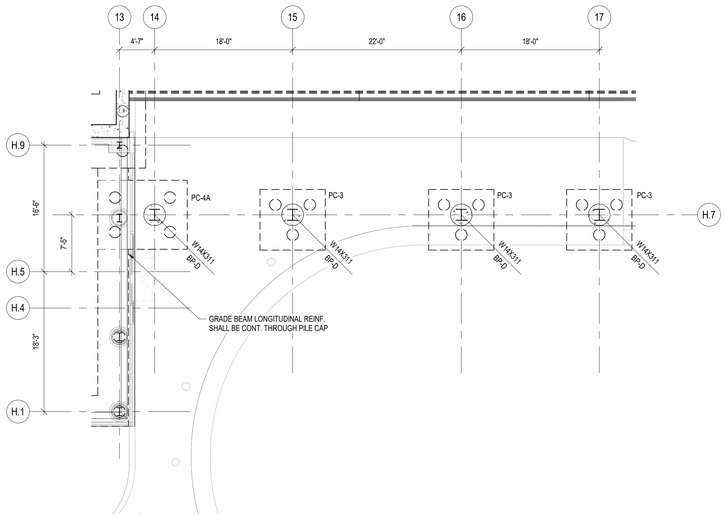
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CANOPY DESIGN CRITERIA:

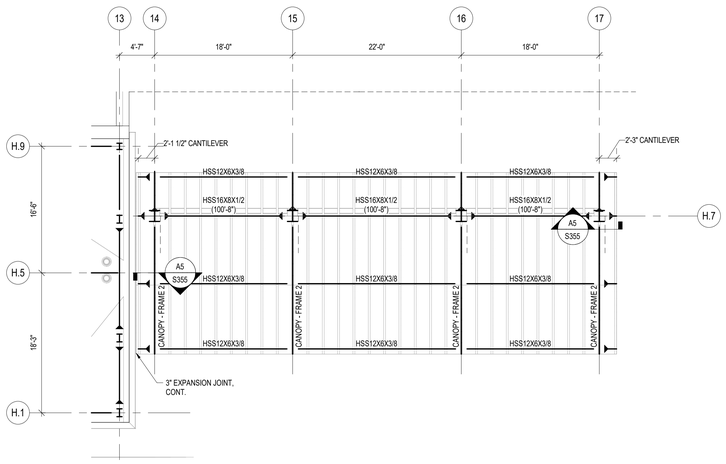
DESIGN PER:
- 2024 *NORTH CAROLINA STATE BUILDING CODE*

1. DEAD LOADS:
   - SELFWEIGHT + ROOF ASSEMBLY
   - CANOPY COLLATERAL _____ 6 PSF
2. LIVE LOADS (PER ASCE 7-16):
   - ROOF _____ 20 PSF
3. WIND LOADS (PER ASCE 7-16):
   - ULTIMATE DESIGN WIND SPEED, V_{ult} _____ 145 MPH
   - NOMINAL DESIGN WIND SPEED, V_{asd} _____ 112 MPH
   - RISK CATEGORY _____ II
   - WIND EXPOSURE CATEGORY _____ C
   - INTERNAL PRESSURE COEFFICIENT _____ ± 0.00
   - COMPONENTS AND CLADDING WIND PRESSURES _____ SEE A5/S151 & D1/S156
   - HURRICANE-PRONE REGION _____ YES, GLAZED OPENINGS SHALL BE PROTECTED AGAINST WIND-BORNE DEBRIS
4. EARTHQUAKE DESIGN DATA (PER ASCE 7-16):
   - SEISMIC IMPORTANCE FACTOR _____ I_E = 1.00
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS _____ S_S = 0.153
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS _____ S_1 = 0.067
   - SPECTRAL RESPONSE COEFFICIENT _____ S_{DS} = 0.163
   - SPECTRAL RESPONSE COEFFICIENT _____ S_{D1} = 0.108
   - SITE CLASS _____ D
   - SEISMIC DESIGN CATEGORY _____ B
   - BASIC SEISMIC FORCE-RESISTING SYSTEMS _____ STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
   - RESPONSE MODIFICATION COEFFICIENT: _____ R = 3
   - SEISMIC RESPONSE COEFFICIENT: _____ C_s = 0.054
   - DESIGN BASE SHEAR _____ V = 2.59 KIP
   - ANALYSIS DESIGN PROCEDURE _____ EQUIVALENT LATERAL FORCE PROCEDURE
5. SNOW LOADS (PER ASCE 7-16):
   - GROUND SNOW LOAD _____ P_g = 10 PSF
   - FLAT ROOF SNOW LOAD _____ P_f = 9.24 PSF
   - SNOW EXPOSURE FACTOR _____ C_e = 1.0
   - SNOW LOAD IMPORTANCE FACTOR _____ I_s = 1.1
   - THERMAL FACTOR _____ C_t = 1.2
   - DRIFT SURCHARGE LOADS _____ SEE CS/S151
   - WIDTH OF SNOW DRIFT _____ SEE CS/S151
6. RAIN INTENSITY (PER NOAA):
   - PRECIPITATION INTENSITY (15-MINUTE) _____ i_{15} = 8.59 IN/HR
   - PRECIPITATION INTENSITY (60-MINUTE) _____ i_{60} = 4.53 IN/HR
7. FOUNDATION SYSTEM:
   - SHALLOW FOUNDATION SYSTEM
     - ALLOWABLE BEARING PRESSURE _____ 2000 PSF
   - DEEP FOUNDATION SYSTEM
     - AUGER CAST PILES (ACP) _____ SEE S001 & S601



C2 DROP-OFF CANOPY FOUNDATION PLAN

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



A2 DROP-OFF CANOPY FRAMING PLAN

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

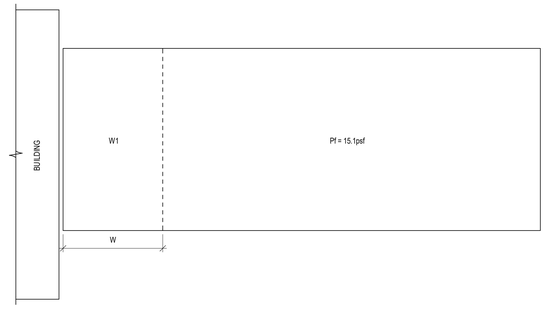
PLAN LEGEND AND SHEET NOTES

FRAMING PLAN LEGEND

DESCRIPTION	SYMBOL
1. CONCRETE COLUMN WRAP, SEE DETAIL A5/S152	
2. STEEL COLUMN: A. COLUMN SIZE _____ W##X##, SEE PLAN B. BASE PLATE _____ BP-#, SEE SCHEDULE A1/S532	W##X## BP-#
3. STEEL FRAMING: A. BEAM SIZE _____ W##X## B. TOP OF STEEL _____ (###'-#")	W##X## (###'-#")
4. MOMENT CONNECTION _____ B3/S355	
5. PILE CAP FOUNDATION _____ PC-#, SEE SCHEDULE D3/S601	PC-#

FRAMING PLAN NOTES

1. CANOPY STEEL FRAMING:
   A. FRAME-2 _____ A1/S351
2. TOP OF DROPOFF PILE CAP FOUNDATION ELEVATION = 84'-0", UNO
3. COLUMN CONCRETE WRAPS FOR CANOPY COLUMNS SHALL BE TYPE-2, SEE DETAIL A5/S152

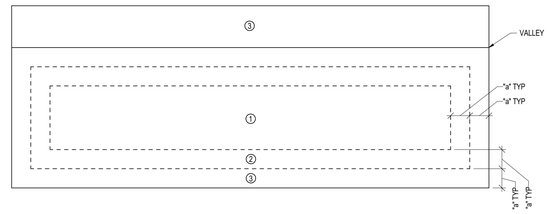


SNOW DRIFT SURCHARGE		
MARK	DRIFT WIDTH [W]	DRIFT LOAD SURCHARGE [Pd]
W1	14'-9"	56.0 PSF

NOTES:
1. SNOW PRESSURES SHOWN ARE SERVICE PER ASCE 7-16
2. Pf (PSF) DENOTES BALANCED SNOW LOAD PER ASCE 7-16
3. SNOW DRIFT LOAD CONFIGURATION PER ASCE.

C5 SNOW DRIFT LOAD DIAGRAM

SCALE: N.T.S.



DROP-OFF CANOPY COMPONENTS AND CLADDING PRESSURES (PSF)						
ZONE a = 3'-0"		EFFECTIVE WIND AREA				
		10 SF	50 SF	100 SF	200 SF	500 SF
ROOF	ALL ZONES	+85.3	+56.9	+56.9	+56.9	+56.9
	ZONE 1	-54.9	-54.9	-54.9	-54.9	-54.9
	ZONE 2	-83.1	-54.9	-54.9	-54.9	-54.9
	ZONE 3	-83.1	-54.9	-54.9	-54.9	-54.9

NOTES:
1. ALL WIND LOADS SHOWN ARE ULTIMATE PER ASCE 7-16 WITH UNITS IN PSF.
2. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARDS AND AWAY FROM THE SURFACES, RESPECTIVELY.
3. EACH COMPONENT MUST BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE PRESSURES.
4. EDGE ZONE ("a") IS DISTANCE FROM CORNERS OF BUILDINGS.
5. FOR EFFECTIVE AREAS BETWEEN VALUES GIVEN, INTERPOLATION MAY BE USED. OTHERWISE, USE THE LOWER EFFECTIVE AREA.

A5 DROP-OFF CANOPY COMPONENTS AND CLADDING WIND PRESSURES

SCALE: N.T.S.

8 0 8 16

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

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	**2003-0070-006**

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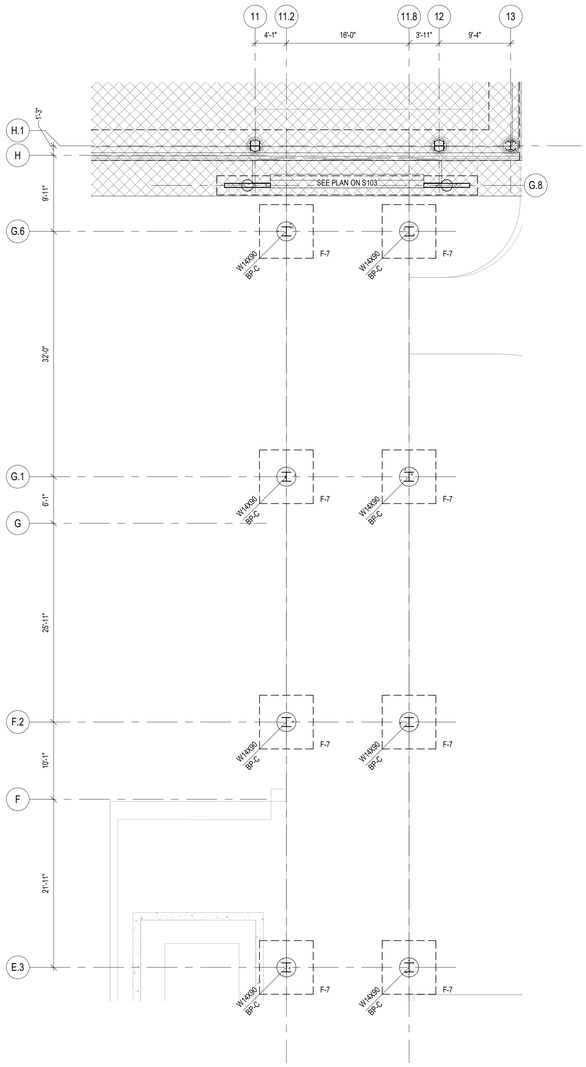
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CANOPY DESIGN CRITERIA, DROP-OFF CANOPY PLANS

SHEET ID:
S151

PROJECT STATUS:
100% BID SET

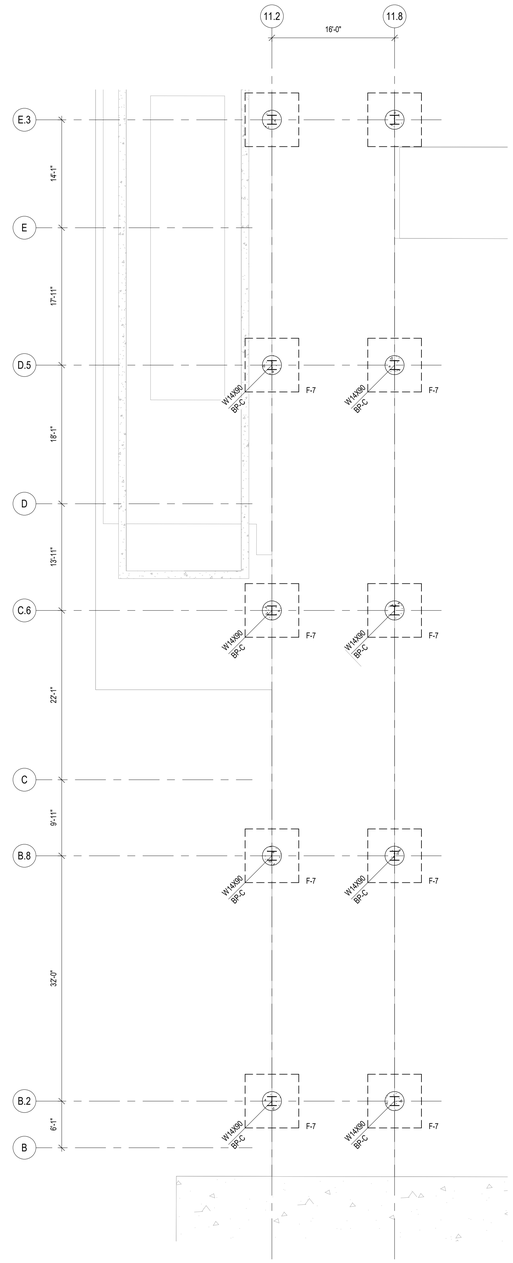
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A1 WALKWAY CANOPY FOUNDATION PLAN - EAST

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



A3 WALKWAY CANOPY FOUNDATION PLAN - WEST

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

PLAN LEGEND AND SHEET NOTES

FRAMING PLAN LEGEND

DESCRIPTION	SYMBOL
1. CONCRETE COLUMN WRAP, SEE DETAIL A5/S152	
2. STEEL COLUMN: A. COLUMN SIZE _____ W##X##, SEE PLAN B. BASE PLATE _____ BP-#, SEE SCHEDULE B1/SS32	W##X## BP-#
3. SHALLOW FOUNDATION _____ F-#, SEE SCHEDULE C5/S152	F-#

FRAMING PLAN NOTES

1. TOP OF WALKWAY SHALLOW FOUNDATION ELEVATION = 85'-0", UNO
2. COLUMN CONCRETE WRAPS FOR CANOPY COLUMNS SHALL BE TYPE-1, SEE DETAIL A5/S152

SHALLOW FOUNDATION SCHEDULE

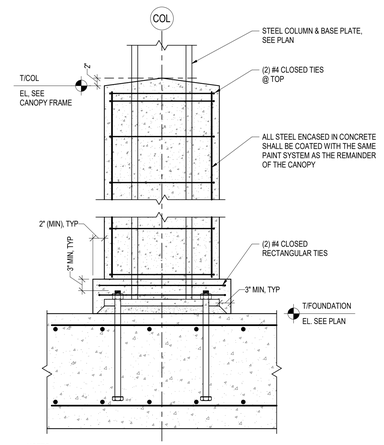
	GEOMETRY			REINFORCEMENT		REMARKS
FND MARK	WIDTH	LENGTH	THICKNESS	TOP BARS	BOTTOM BARS	
F-7	7'-0"	7'-0"	24"	(7) #7, EA. WAY	(7) #7 *, EA. WAY	-

NOTES:

1. * DENOTES REINFORCEMENT BARS REQUIRE STANDARD HOOKS AT EACH END.
2. FOUNDATION SHALL BE CENTERED ON COLUMN, UNO.

C5 SHALLOW FOUNDATION SCHEDULE

SCALE: N.T.S.

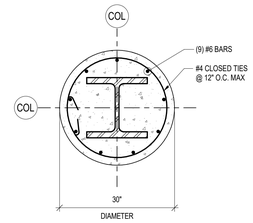


NOTES:

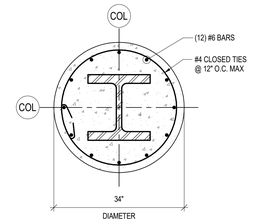
1. REFERENCE CANOPY FOUNDATION PLANS FOR LOCATIONS.
2. CONCRETE COLUMN FORM SHALL BE SONOTUBE "FINISH FREE" OR APPROVED EQUAL.
3. EXPOSED CONCRETE FINISH AESTHETICS SHALL BE SATISFACTORY TO THE ARCHITECT.

A5 COLUMN CONCRETE ENCASEMENT TYPICAL DETAIL

SCALE: N.T.S.



CONCRETE WRAP: TYPE-1



CONCRETE WRAP: TYPE-2

8 0 8 16

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

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DESIGNED BY:	DFW
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SHEET TITLE:
WALKWAY CANOPY FOUNDATION PLAN

SHEET ID:
S152

PROJECT STATUS:
100% BID SET

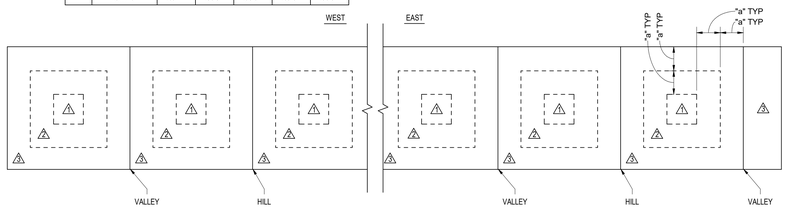
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WALKWAY CANOPY COMPONENTS AND CLADDING PRESSURES (PSF)						
ZONE a = 3'-0"		EFFECTIVE WIND AREA				
		10 SF	50 SF	100 SF	200 SF	500 SF
ROOF	ALL ZONES	+56.9	+36.8	+36.8	+36.8	+36.8
	ZONE 1	-38.8	-38.8	-38.8	-38.8	-38.8
	ZONE 2	-59.1	-38.8	-38.8	-38.8	-38.8
	ZONE 3	-59.1	-38.8	-38.8	-38.8	-38.8

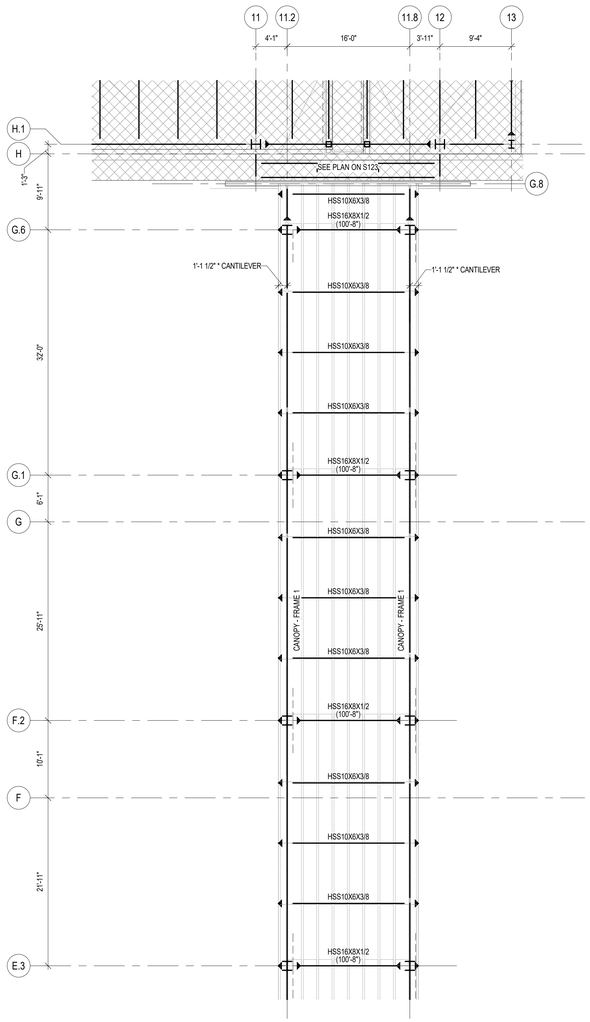
NOTES:

1. ALL WIND LOADS SHOWN ARE ULTIMATE PER ASCE 7-16 WITH UNITS IN PSF.
2. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARDS AND AWAY FROM THE SURFACES, RESPECTIVELY.
3. EACH COMPONENT MUST BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE PRESSURES.
4. EDGE ZONE ("a") IS DISTANCE FROM CORNERS OF BUILDINGS.
5. FOR EFFECTIVE AREAS BETWEEN VALUES GIVEN, INTERPOLATION MAY BE USED. OTHERWISE, USE THE LOWER EFFECTIVE AREA.



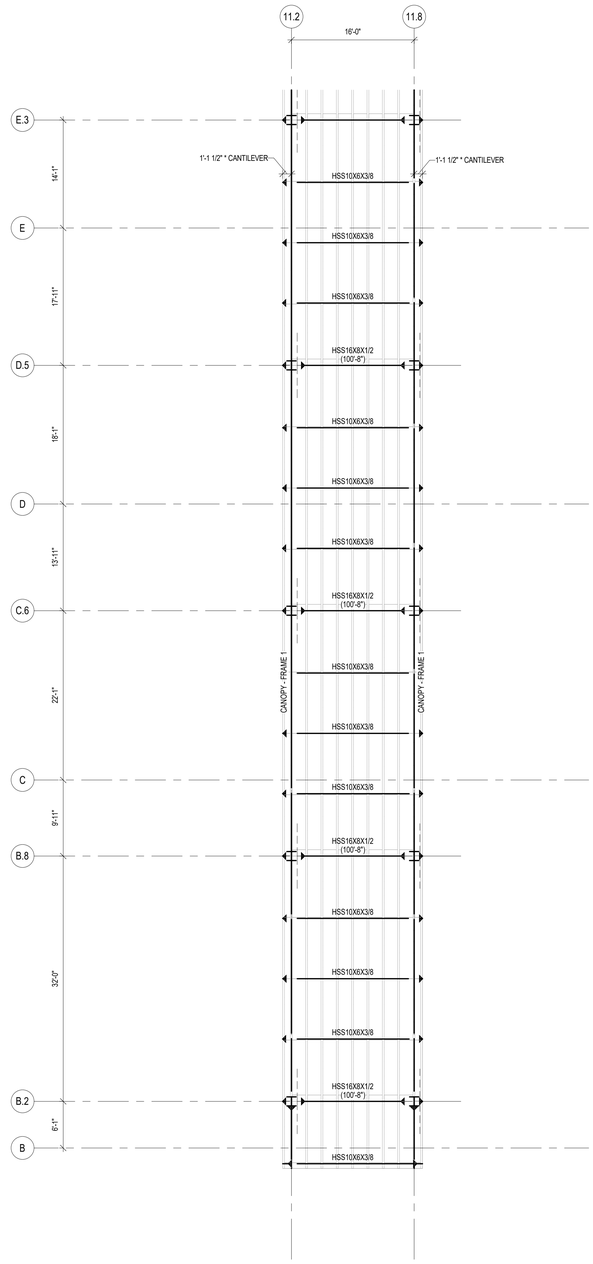
D1 WALKWAY CANOPY COMPONENTS AND CLADDING WIND PRESSURES

SCALE: N.T.S.



A1 WALKWAY CANOPY FRAMING PLAN - EAST

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



A3 WALKWAY CANOPY FRAMING PLAN - WEST

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

8 0 8 16

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

PLAN LEGEND AND SHEET NOTES

FRAMING PLAN LEGEND

DESCRIPTION	SYMBOL
1. STEEL FRAMING A. BEAM SIZE _____ W##X## B. TOP OF STEEL _____ (###'-#")	W##X## (###'-#")
2. MOMENT CONNECTION _____ B3/S355	

FRAMING PLAN NOTES

1. CANOPY STEEL FRAMING:
   A. FRAME-1 _____ C1/S351
2. * DENOTES COORDINATION REQUIRED WITH ROOF PANEL SYSTEM

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

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REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	2003-0070-006

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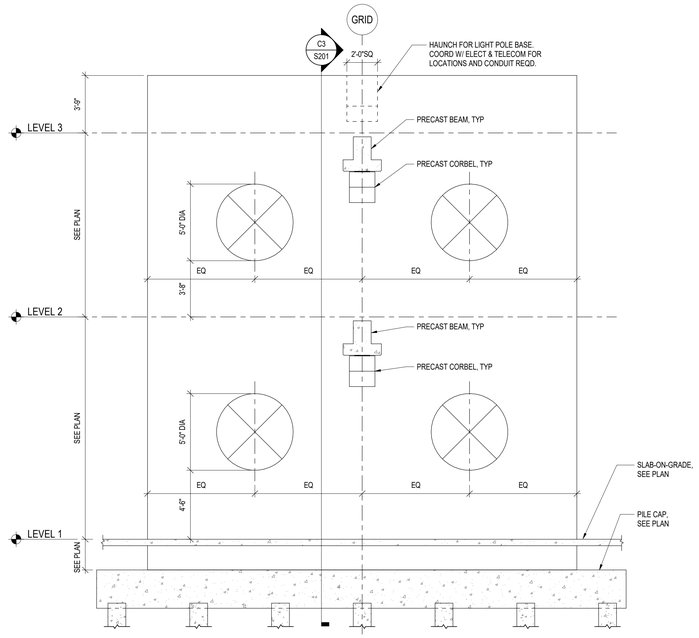
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WALKWAY CANOPY FRAMING PLAN

SHEET ID:
S156

PROJECT STATUS:
100% BID SET

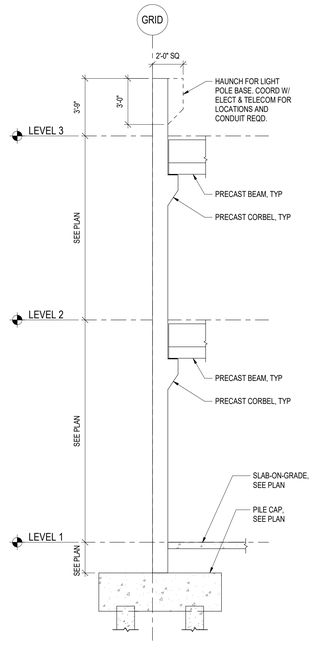
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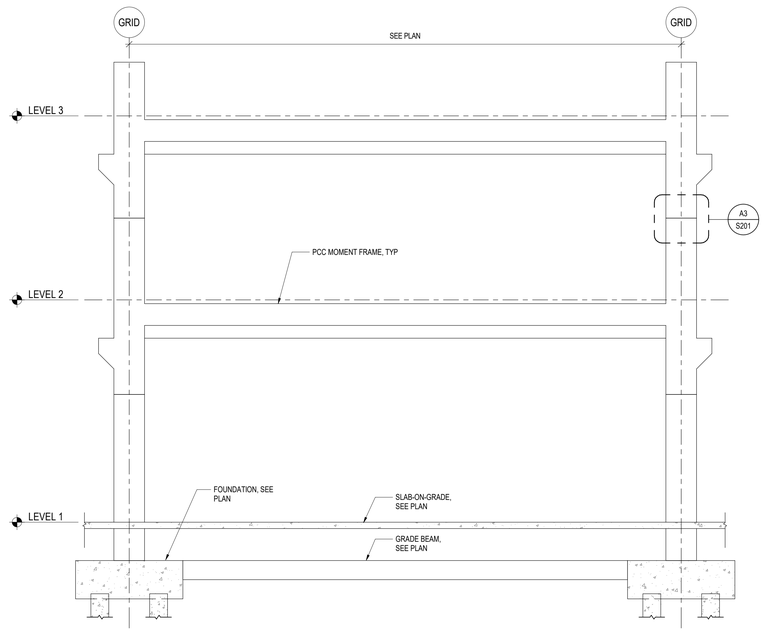
C1 TYP PRECAST SHEAR WALL ELEVATION

SCALE: N.T.S.



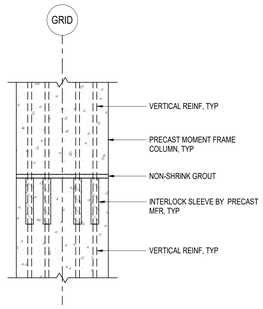
C3 TYP PRECAST SHEAR WALL SECTION

SCALE: N.T.S.



A1 TYP PRECAST MOMENT FRAME ELEVATION

SCALE: N.T.S.



A3 TYP PRECAST MOMENT FRAME SPLICE DETAIL

SCALE: N.T.S.

TYPICAL PRECAST SHEET NOTES

1. THE TYPICAL PRECAST DETAILS SHOWN ARE TO PROVIDE INTENT ONLY. THE FINAL DESIGN, INCLUDING ALL DIMENSIONS AND MEMBER GEOMETRY, IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER.
2. REFER TO THE PRECAST MANUFACTURER'S FINAL DESIGN DOCUMENTS FOR PRECAST MEMBER SIZING, CONCRETE TOPPING THICKNESS / EXTENTS, QUANTITY AND SIZE OF REINFORCING, CONNECTION EMBEDS AND PLATES, ETC.

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DESIGNED BY:	DFW
PROJECT NUMBER:	

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SHEET TITLE:

PRECAST MOMENT FRAME AND SHEAR WALL ELEVATIONS, SECTIONS, AND DETAILS

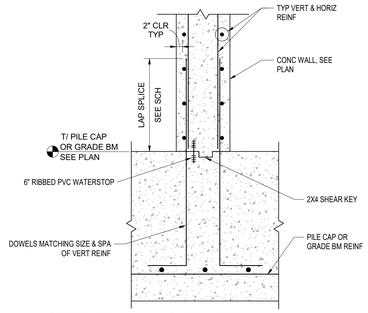
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S201

PROJECT STATUS:
100% BID SET

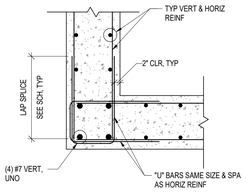
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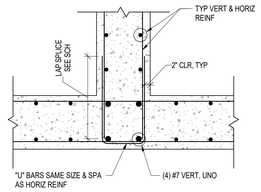


E1 TYP CONC WALL BASE CONN

SCALE: N.T.S.



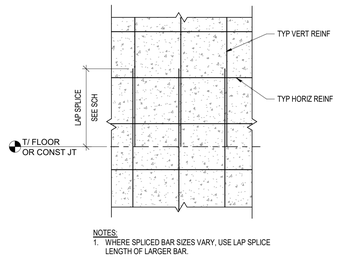
TYPICAL CORNER



T-INTERSECTION

E2 TYP CONC WALL CORNER REINF

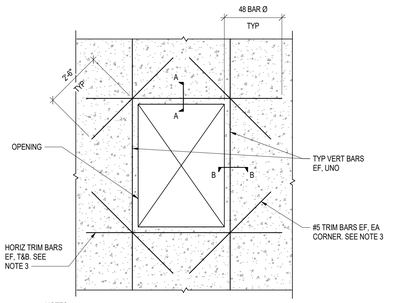
SCALE: N.T.S.



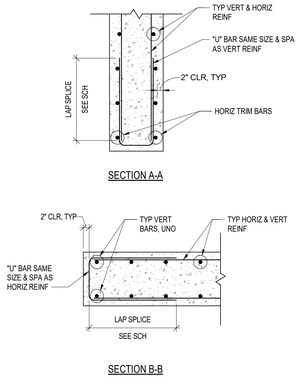
NOTES:
1. WHERE SPLICED BAR SIZES VARY, USE LAP SPLICE LENGTH OF LARGER BAR.

E4 TYP CONC WALL REINF SPLICE

SCALE: N.T.S.

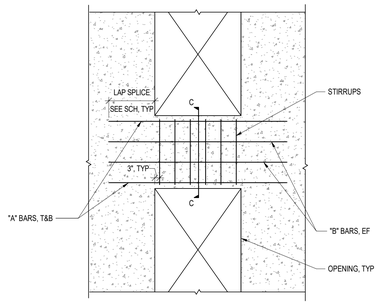


NOTES:
1. TYPICAL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY.
2. TRIM BARS TO MATCH TYPICAL HORIZONTAL REINFORCING SIZE, UNLESS NOTED OTHERWISE.
3. AT WALL ENDS WHERE WALL WIDTH IS LESS THAN LAP SPLICE EXTENSION OF HORIZONTAL OR DIAGONAL TRIM BARS, EXTEND BARS AS FAR AS POSSIBLE, MAINTAINING MINIMUM CLEARANCE, AND HOOK BARS IN THE PLANE OF THE WALL.
4. SEE TYPICAL COUPLING BEAM DETAIL FOR REINFORCING REQUIREMENTS OF COUPLING BEAMS ABOVE OR BELOW OPENINGS. WHERE COUPLING BEAMS ARE REQUIRED, REPLACE HORIZONTAL TRIM BARS SHOWN WITH COUPLING BEAM REINFORCING.



SECTION A-A

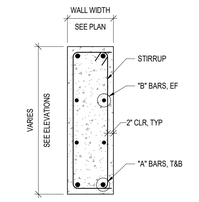
SECTION B-B



NOTES:
1. TYPICAL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY.
2. PROVIDE DIAGONAL TRIM BARS AND VERTICAL BARS ADJACENT TO OPENING AS SHOWN IN C1/S210.
3. AT WALL ENDS WHERE WALL WIDTH IS LESS THAN LAP SPLICE EXTENSION OF "A" AND "B" BARS, EXTEND BARS AS FAR AS POSSIBLE, MAINTAINING MINIMUM CLEARANCE, AND HOOK BARS IN THE PLANE OF THE WALL.
4. SEE ELEVATIONS FOR COUPLING BEAM LOCATIONS.

COUPLING BEAM SCHEDULE

TYPE	"A" BARS	"B" BARS	STIRRUPS
CB1	(2) #5	#5 @ 12" OC	#4 @ 8" OC



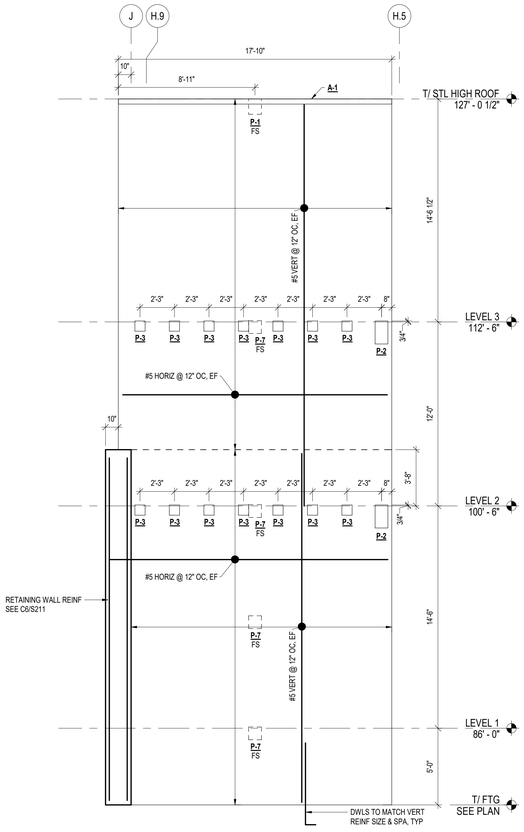
SECTION C-C

C1 TYP CONC WALL OPENING REINF

SCALE: N.T.S.

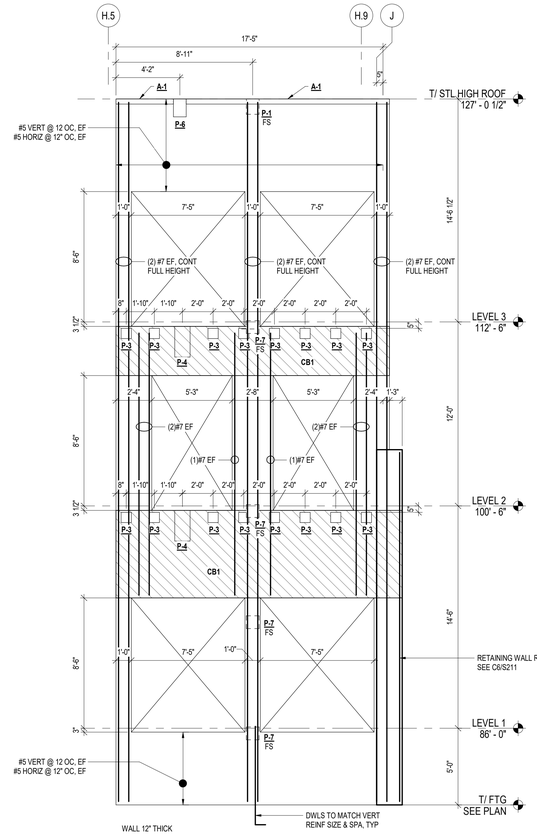
C3 COUPLING BEAM REINF

SCALE: N.T.S.



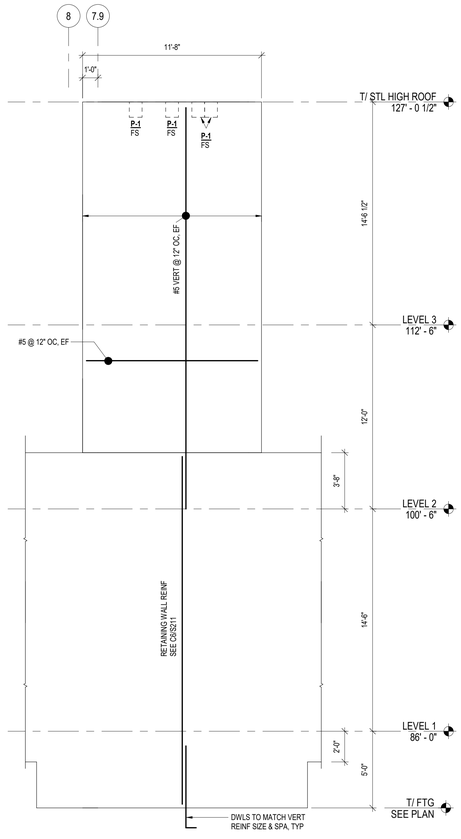
A1 ELEVATOR NORTH ELEVATION

SCALE: 1/4" = 1'-0"



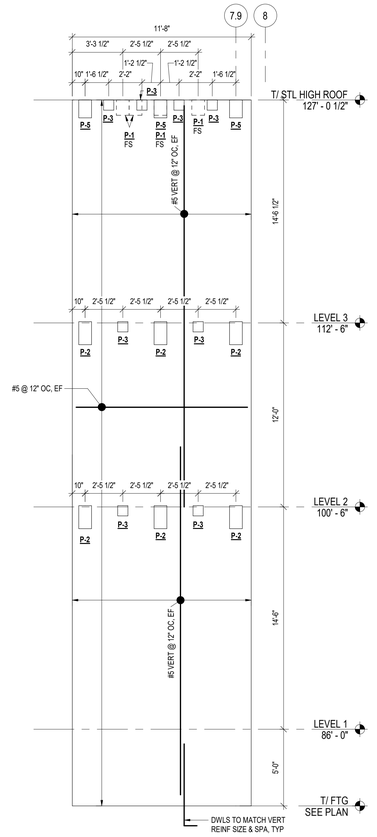
A3 ELEVATOR SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



A4 ELEVATOR EAST ELEVATION

SCALE: 1/4" = 1'-0"



A6 ELEVATOR WEST ELEVATION

SCALE: 1/4" = 1'-0"

WALL ELEVATION SHEET NOTES

1. ALL WALLS ARE 10" THICK CONCRETE UNLESS NOTED OTHERWISE.
2. VERTICAL REINFORCING SPLICES SHALL BE AT FLOOR LEVELS PER DETAIL E4/S210.
3. SEE DETAIL E2/S210 FOR TYPICAL CORNER REINFORCING NOT SHOWN ON ELEVATIONS.
4. IF CORNER REINFORCING SHOWN IN ELEVATIONS CONFLICTS BETWEEN ADJOINING WALLS, THE LARGER REINFORCING SIZE, NUMBER, AND EXTENT SHALL BE USED.
5. SEE DETAIL C1/S210 FOR TYPICAL WALL OPENING REINFORCING.
6. **CB-#** DENOTES COUPLING BEAM. SEE DETAIL C3/S210 FOR COUPLING BEAM TYPES AND REINFORCING.
7. **P-#** DENOTES EMBED PLATE. SEE DETAIL A4/SS32 FOR EMBED PLATE SIZE AND HSA ANCHORS.

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DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	2003-0070-006

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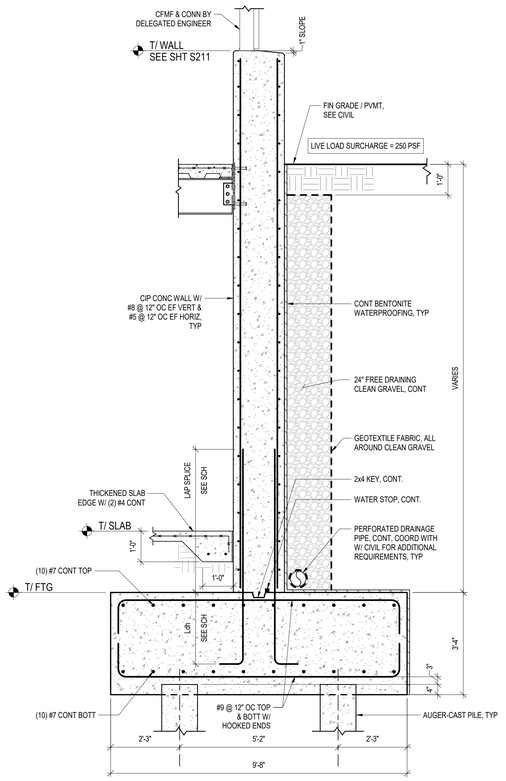
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CAST-IN-PLACE CONCRETE WALL ELEVATIONS AND DETAILS

SHEET ID:
S210

PROJECT STATUS:
100% BID SET

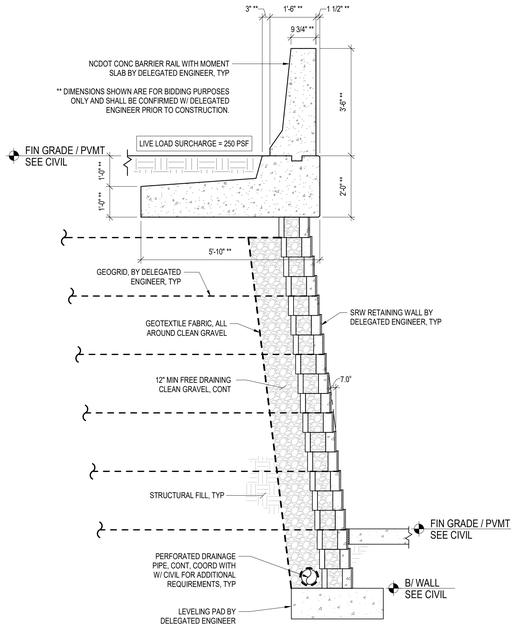
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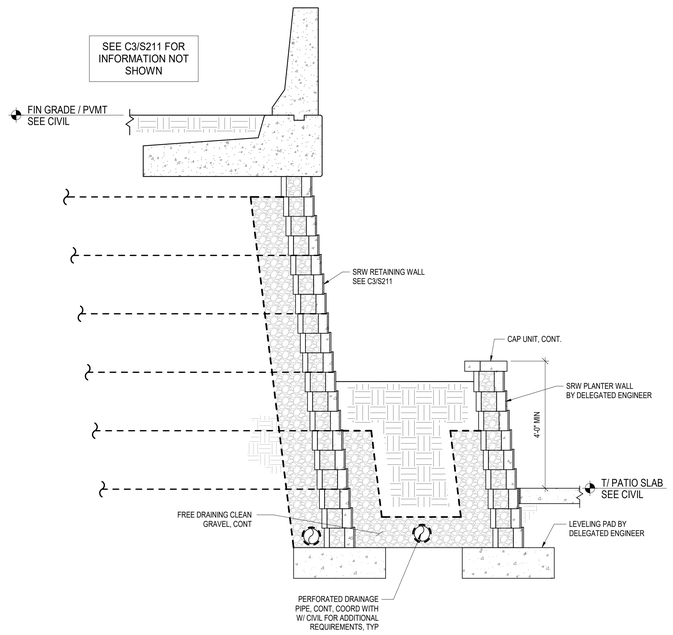
C1 TYP CIP RETAINING WALL AT CIRCULATION CORE SECTION

SCALE: N.T.S.



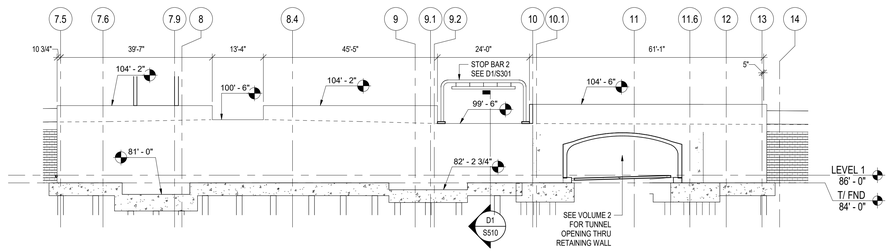
C3 TYP SRW RETAINING WALL SECTION

SCALE: N.T.S.



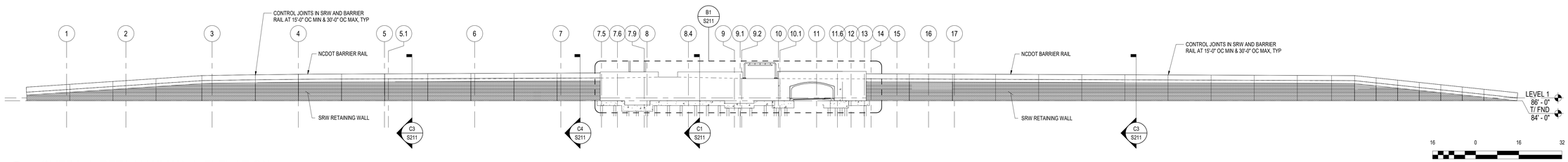
C4 SRW RETAINING WALL AT PLANTER SECTION

SCALE: N.T.S.



B1 ENLARGED RETAINING WALL ELEVATION

SCALE: 1/16" = 1'-0"



A1 OVERALL RETAINING WALL ELEVATION

SCALE: 1" = 30'-0"

16 0 16 32
SCALE: 1/16" = 1'-0"

30 0 30 60
SCALE: 1" = 30'-0"

RETAINING WALL SHEET NOTES

1. DATUM ELEVATION 29.7' EQUALS REFERENCE ELEVATION 86'-0", UNLESS NOTED OTHERWISE.
2. T/ PILE CAP EQUALS ELEVATION 84'-0", UNLESS NOTED OTHERWISE

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DRAWN BY: DFW
DESIGNED BY: DFW
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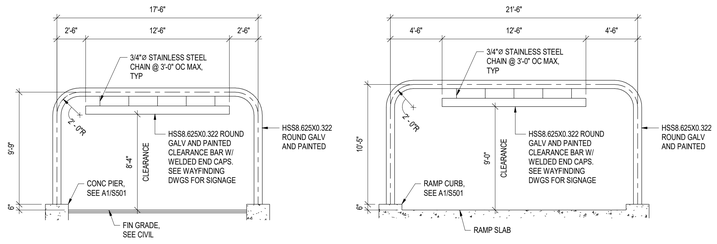
SHEET TITLE:
CIP AND SRW RETAINING WALL ELEVATIONS AND SECTIONS

SHEET ID:
S211

PROJECT STATUS:
100% BID SET

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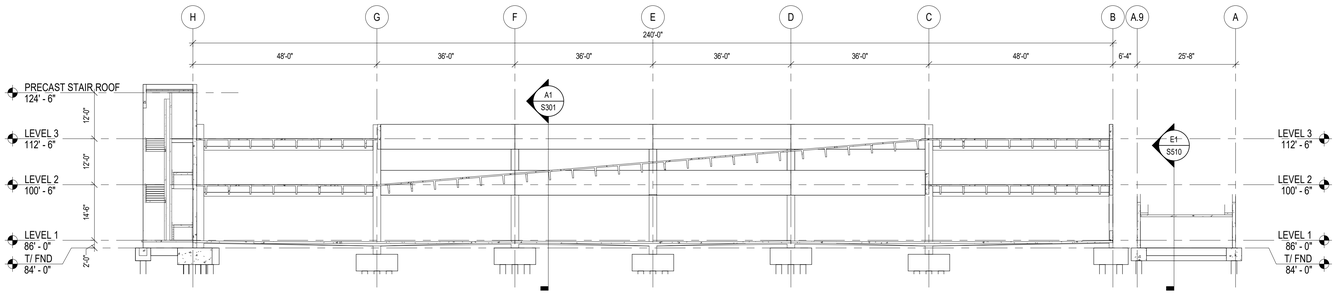


STOP BAR 1

STOP BAR 2

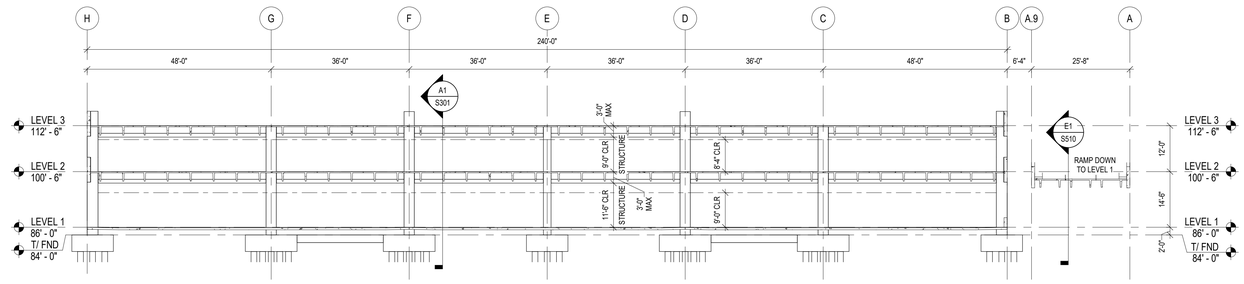
D1 STOP BAR FRAMES

SCALE: N.T.S.



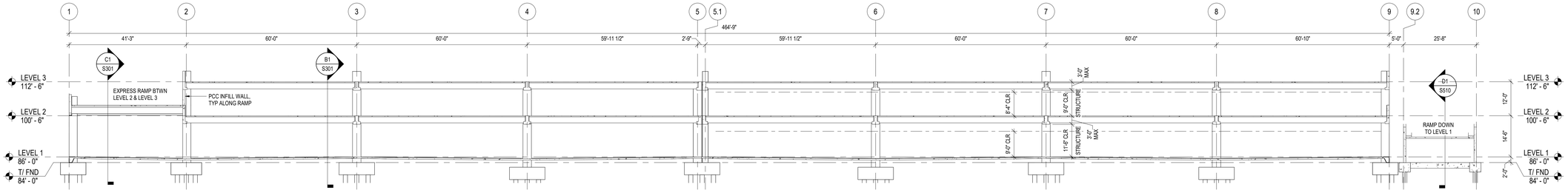
C1 OVERALL SECTION - INTERNAL GARAGE RAMP

SCALE: 1/16" = 1'-0"



B1 OVERALL SECTION

SCALE: 1/16" = 1'-0"



A1 OVERALL SECTION

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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DESIGNED BY:	DFW

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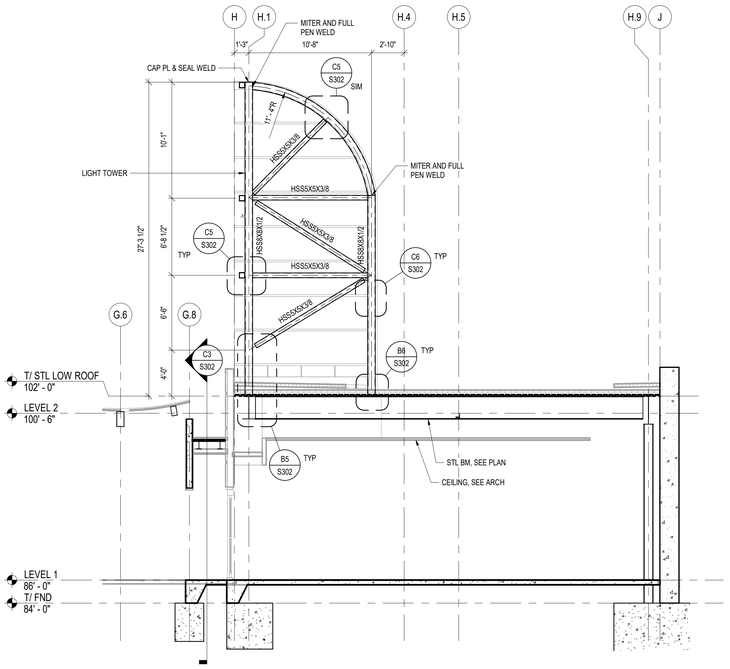
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OVERALL SECTIONS

SHEET ID:
S301

PROJECT STATUS:
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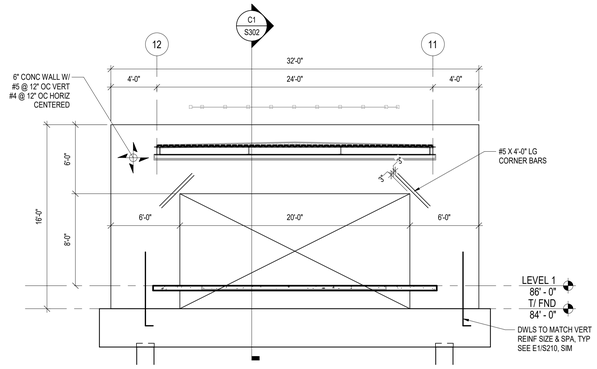
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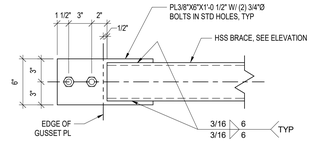
C1 VERTICAL CORE LOW ROOF SECTION

SCALE: 3/16" = 1'-0"



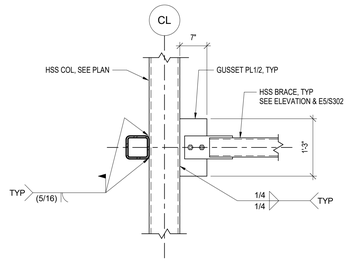
C3 VERTICAL CORE SOUTH ENTRANCE WALL ELEVATION

SCALE: 3/16" = 1'-0"



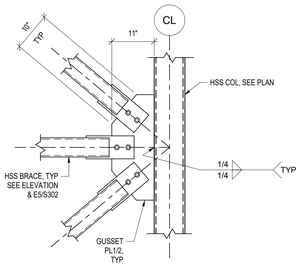
E5 BRACE PLATE DETAIL

SCALE: N.T.S.



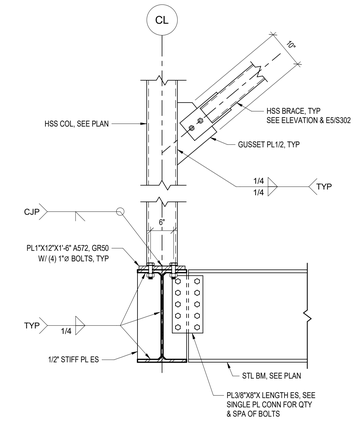
C5 HSS BRACE DETAIL

SCALE: N.T.S.



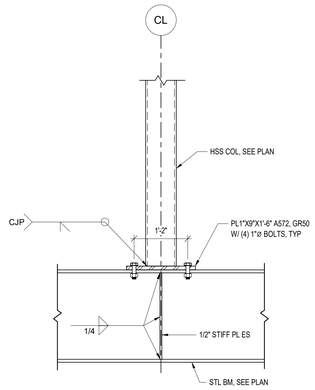
C6 HSS BRACE DETAIL

SCALE: N.T.S.



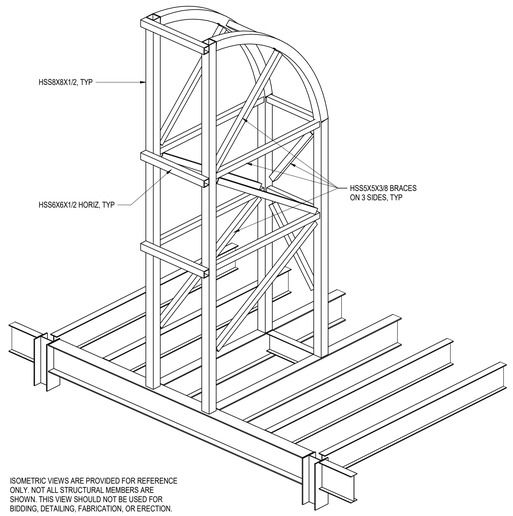
B5 HSS COL BASE DETAIL

SCALE: N.T.S.



B6 HSS COL BASE DETAIL

SCALE: N.T.S.



A1 VERTICAL CORE LOW ROOF LIGHT TOWER ISO

SCALE:

4 0 4 8 12

SCALE: 3/16" = 1'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
LOW ROOF AND LIGHT TOWER SECTIONS AND DETAILS

SHEET ID:
S302

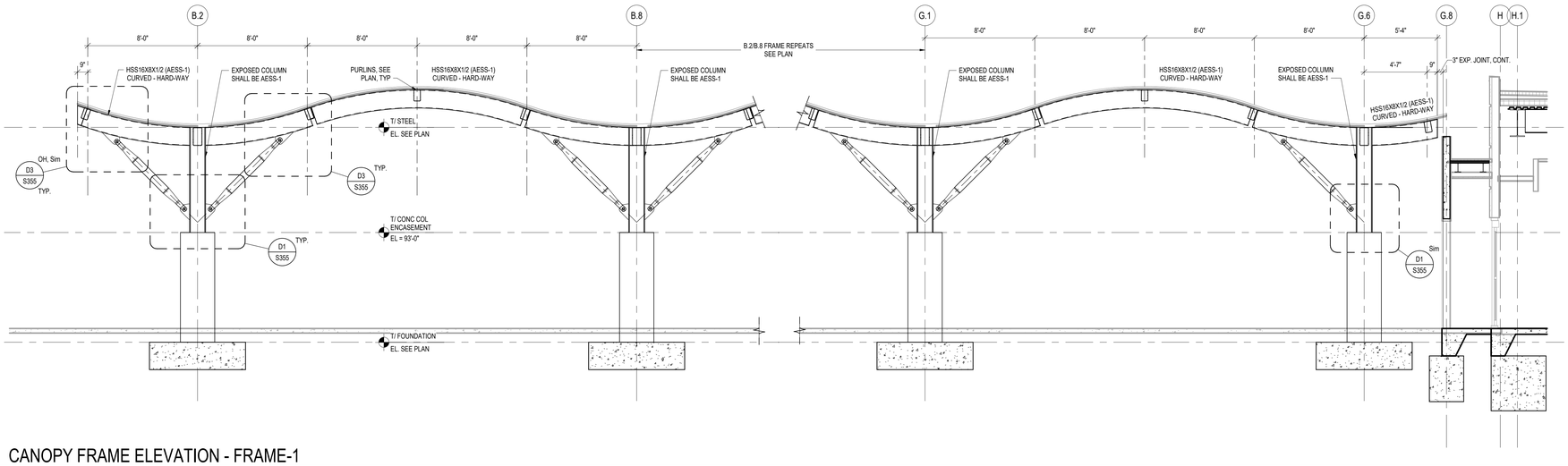
PROJECT STATUS:
100% BID SET

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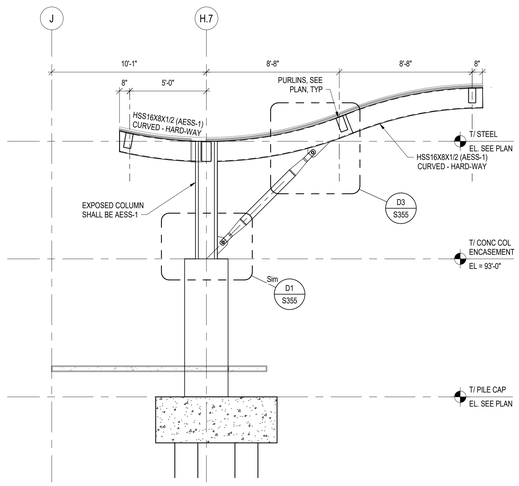
CANOPY FRAME ELEVATION SHEET NOTES

1. ALL HSS SPLICES SHALL BE COMPLETE JOINT PENETRATION WELDS, SEE DETAIL D3/S355
2. HSS CONNECTIONS, REFERENCE TYPICAL CONNECTION DETAILS ON SHEET S355
3. PROVIDE (1) 1/4" WEEP HOLE FOR EACH HSS SPAN WITH THE FOLLOWING CRITERIA:
   A. 12" FROM EACH END
   B. CENTERED ON THE HSS BOTTOM WALL
4. INTERNAL HSS CAP PLATES SHALL BE PROVIDED AT ALL OPEN ENDS, UNO
   A. CAP PLATE SHALL BE 1/8" LESS THAN THE HSS WALL THICKNESS AND GREATER THAN 1/4"
   B. CAP PLATE SHALL BE FULLY WELDED AND GRIND SMOOTH, AESS-1
6. ALL CANOPY STEEL FRAMING SHALL BE PAINTED WITH A HIGH PERFORMANCE COATING AND FINISHING, SEE ARCH. AND SPECIFICATION 099600
7. SEE ARCH. SHEET A320 FOR GEOMETRY



C1 CANOPY FRAME ELEVATION - FRAME-1

SCALE: 1/4" = 1'-0"



A1 CANOPY FRAME ELEVATION - FRAME 2

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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Hartranft Lighting Design

ILM

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WILMINGTON, NC 28405

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DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	

2003-0070-006

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SHEET TITLE:

OVERALL CANOPY SECTIONS

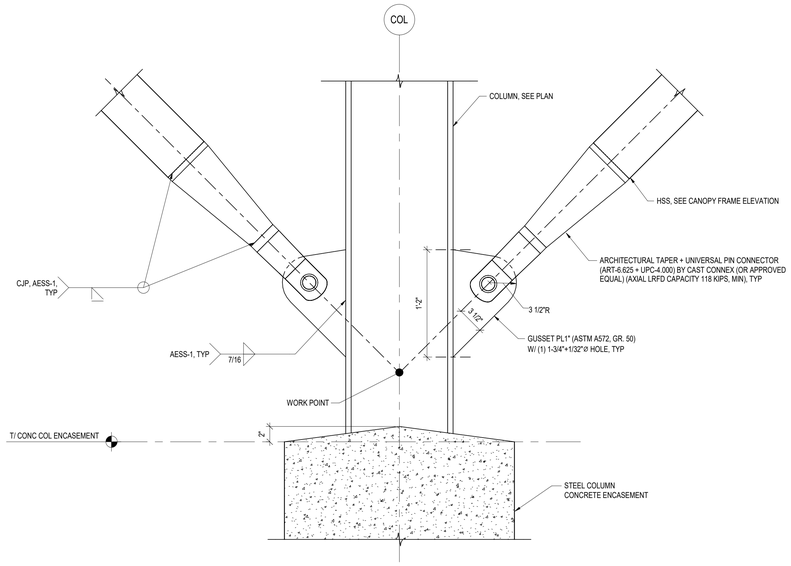
SHEET ID:

S351

PROJECT STATUS:
100% BID SET

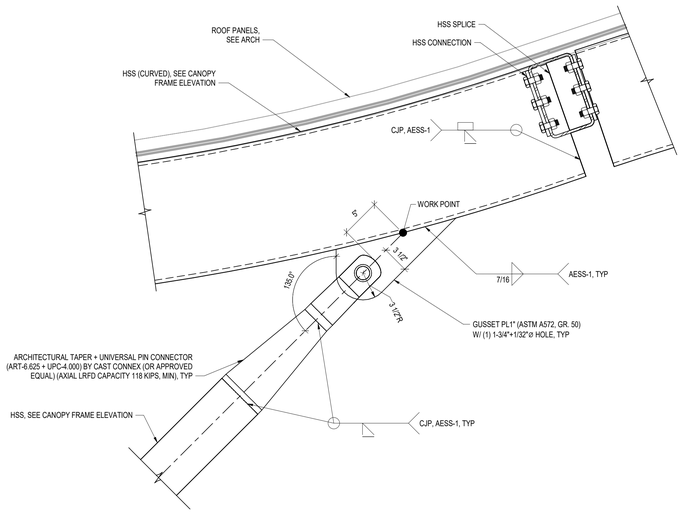
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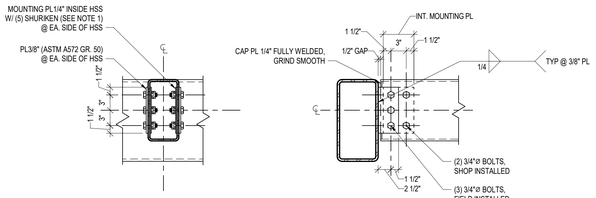
D1 SECTION @ BRACE TO COLUMN CONNECTION

SCALE: N.T.S.



D3 SECTION @ BRACE TO FRAME CONNECTION

SCALE: N.T.S.



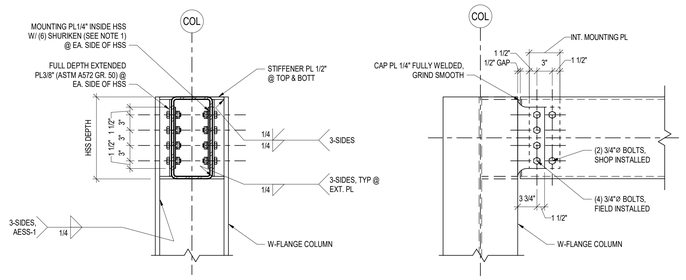
FRONT VIEW **SIDE VIEW**

NOTES:

1. SHURIKEN STRUCTURAL NUT POSITIONERS BY ATLAS TUBE OR APPROVED EQUAL
   A. STRUCTURAL NUT POSITIONERS SHALL BE TACK WELDED TO MOUNTING PLATE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
   B. ENSURE THAT EVERY STRUCTURAL NUT POSITIONERS HAS A STRUCTURAL NUT WITHIN

D5 HSS12 TO HSS16 TYPICAL SHEAR CONNECTION

SCALE: N.T.S.



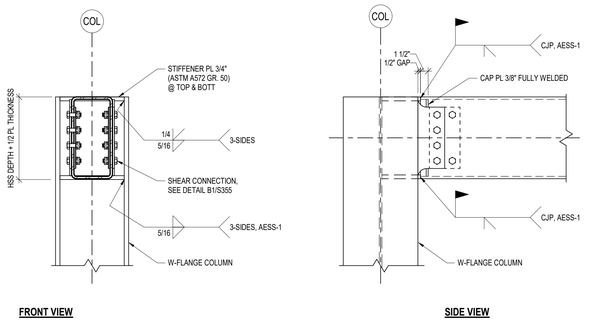
FRONT VIEW **SIDE VIEW**

NOTES:

1. SHURIKEN STRUCTURAL NUT POSITIONERS BY ATLAS TUBE OR APPROVED EQUAL
   A. STRUCTURAL NUT POSITIONERS SHALL BE TACK WELDED TO MOUNTING PLATE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
   B. ENSURE THAT EVERY STRUCTURAL NUT POSITIONERS HAS A STRUCTURAL NUT WITHIN
   C. SLOTTED HOLES NOT PERMITTED

B1 HSS16 TO W14-WEB TYPICAL SHEAR CONNECTION

SCALE: N.T.S.



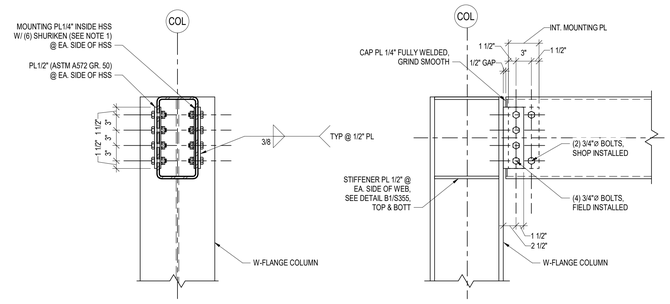
FRONT VIEW **SIDE VIEW**

NOTES:

1. SHURIKEN STRUCTURAL NUT POSITIONERS BY ATLAS TUBE OR APPROVED EQUAL
   A. STRUCTURAL NUT POSITIONERS SHALL BE TACK WELDED TO MOUNTING PLATE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
   B. ENSURE THAT EVERY STRUCTURAL NUT POSITIONERS HAS A STRUCTURAL NUT WITHIN
   C. SLOTTED HOLES NOT PERMITTED

B3 HSS16 TO W14-WEB TYPICAL MOMENT CONNECTION

SCALE: N.T.S.



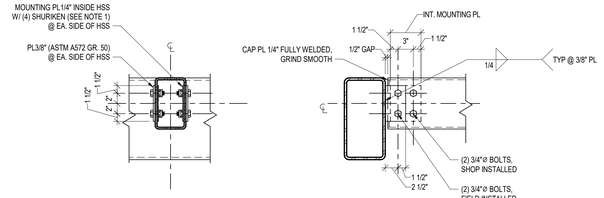
FRONT VIEW **SIDE VIEW**

NOTES:

1. SHURIKEN STRUCTURAL NUT POSITIONERS BY ATLAS TUBE OR APPROVED EQUAL
   A. STRUCTURAL NUT POSITIONERS SHALL BE TACK WELDED TO MOUNTING PLATE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
   B. ENSURE THAT EVERY STRUCTURAL NUT POSITIONERS HAS A STRUCTURAL NUT WITHIN
   C. SLOTTED HOLES NOT PERMITTED

B5 HSS16 TO W14-FLANGE TYPICAL SHEAR CONNECTION

SCALE: N.T.S.



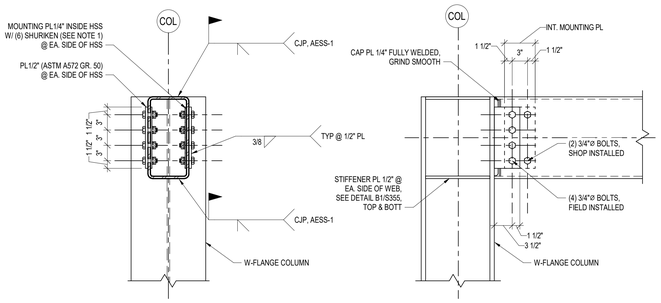
FRONT VIEW **SIDE VIEW**

NOTES:

1. SHURIKEN STRUCTURAL NUT POSITIONERS BY ATLAS TUBE OR APPROVED EQUAL
   A. STRUCTURAL NUT POSITIONERS SHALL BE TACK WELDED TO MOUNTING PLATE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
   B. ENSURE THAT EVERY STRUCTURAL NUT POSITIONERS HAS A STRUCTURAL NUT WITHIN

A1 HSS10 TO HSS16 TYPICAL SHEAR CONNECTION

SCALE: N.T.S.



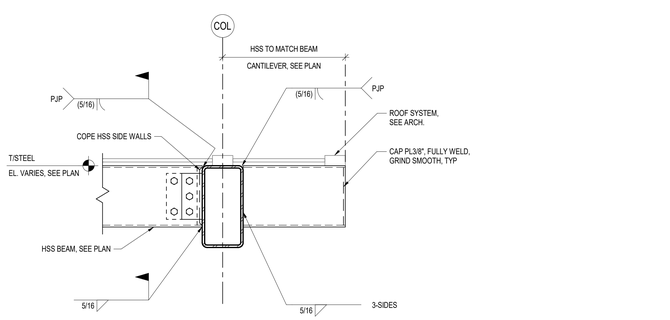
FRONT VIEW **SIDE VIEW**

NOTES:

1. SHURIKEN STRUCTURAL NUT POSITIONERS BY ATLAS TUBE OR APPROVED EQUAL
   A. STRUCTURAL NUT POSITIONERS SHALL BE TACK WELDED TO MOUNTING PLATE PER MANUFACTURER'S WRITTEN INSTRUCTIONS
   B. ENSURE THAT EVERY STRUCTURAL NUT POSITIONERS HAS A STRUCTURAL NUT WITHIN
   C. SLOTTED HOLES NOT PERMITTED

A3 HSS16 TO W14-FLANGE TYPICAL MOMENT CONNECTION

SCALE: 1" = 1'-0"



NOTES:

1. SIMILAR W-FLANGE COLUMN, EXTEND HSS CANTILEVER TO COLUMN WEB AND WELD AS SHOWN IN THIS DETAIL
2. ALL WELDS SHALL MEET AESS-1 CRITERIA

A5 SECTION @ CANTILEVER CANOPY

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
CANOPY FRAMING SECTIONS

SHEET ID:
S355

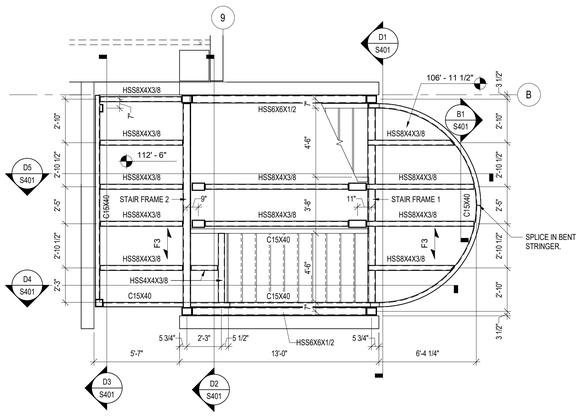
PROJECT STATUS:
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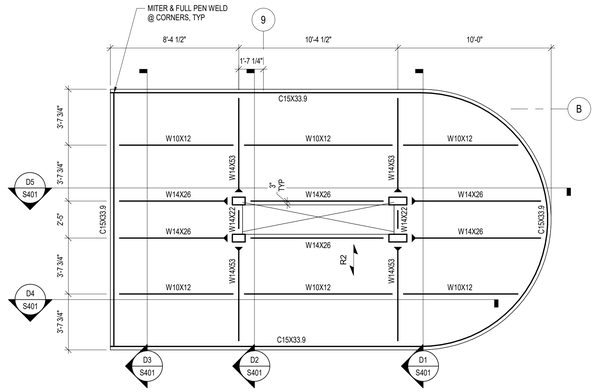
STAIR 04 SHEET NOTES

1. SEE PLAN FOR LANDING ELEVATIONS.
2. SEE C5/S400 FOR FRAME ELEVATIONS.
3. SEE SHEET S401 FOR STAIR SECTIONS AND DETAILS.
4. ALL STAIR FRAMING SHALL BE AESS 1.



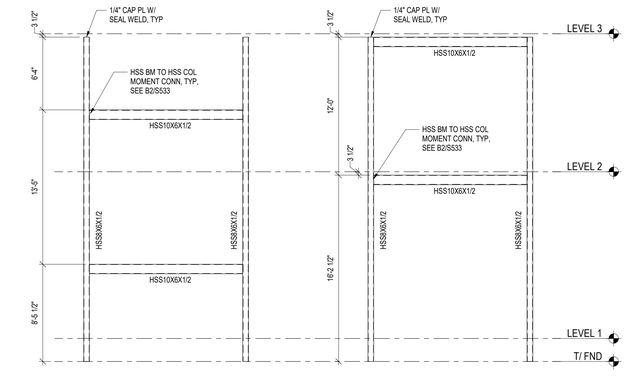
C1 STAIR 04 LEVEL 3 PLAN

SCALE: 1/4" = 1'-0"



C3 STAIR 04 ROOF PLAN

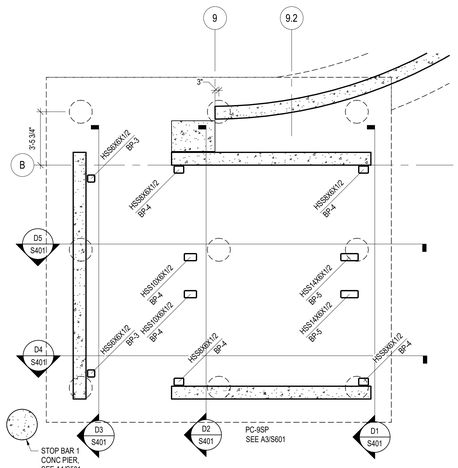
SCALE: 1/4" = 1'-0"



STAIR FRAME 1 **STAIR FRAME 2**

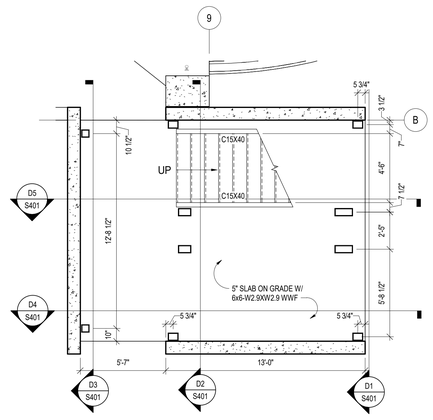
C5 STAIR 04 FRAMES

SCALE: N.T.S.



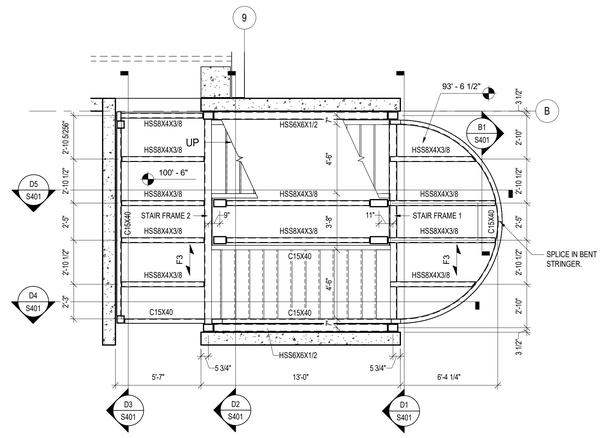
A1 STAIR 04 FOUNDATION PLAN

SCALE: 1/4" = 1'-0"



A3 STAIR 04 LEVEL 1 PLAN

SCALE: 1/4" = 1'-0"



A5 STAIR 04 LEVEL 2 PLAN

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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DESIGNED BY: DFW
PROJECT NUMBER:
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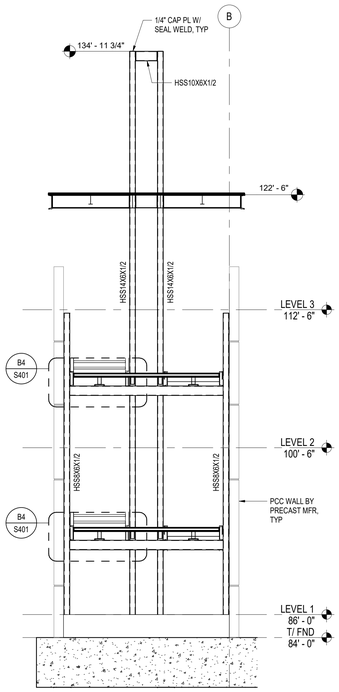
SHEET TITLE:
STAIR 04 PLANS

SHEET ID:
S400

PROJECT STATUS:
100% BID SET

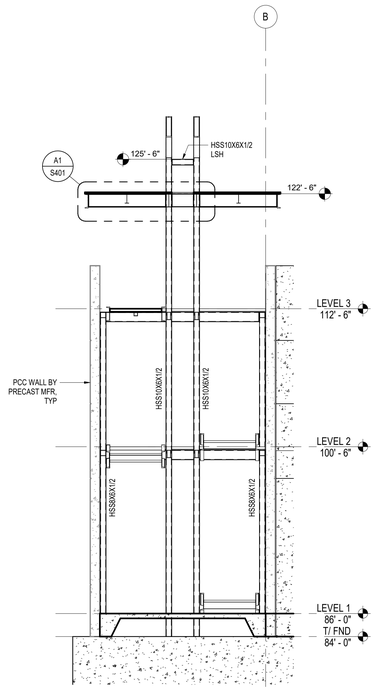
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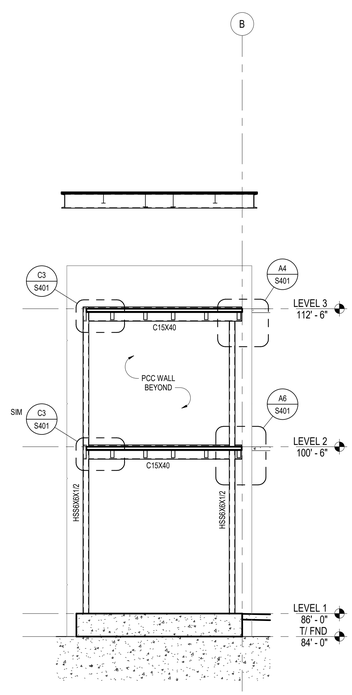
D1 STAIR 04 SECTION 1

SCALE: 3/16" = 1'-0"



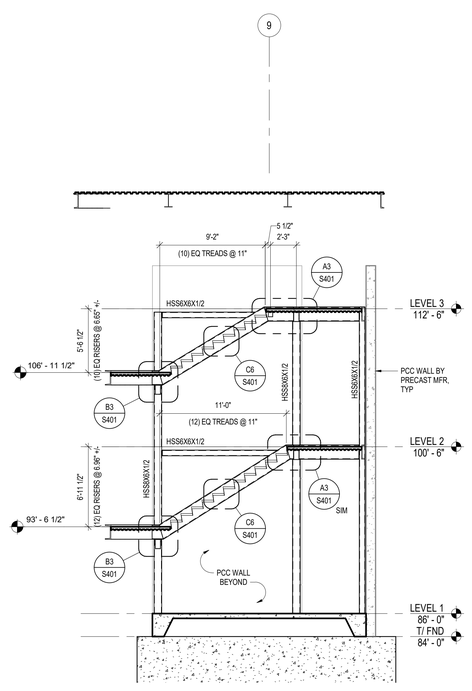
D2 STAIR 04 SECTION 2

SCALE: 3/16" = 1'-0"



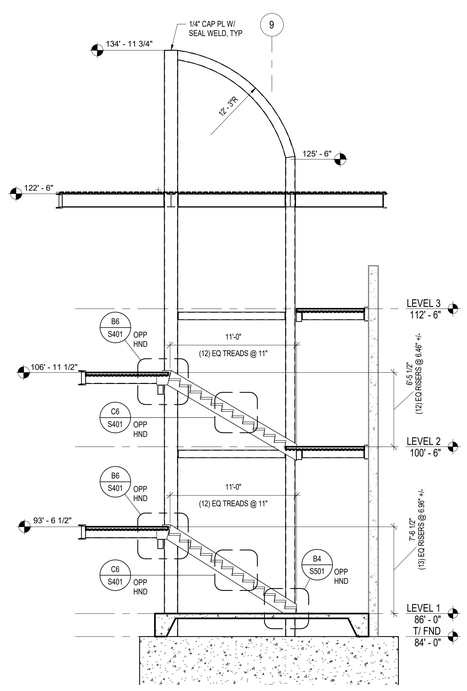
D3 STAIR 04 SECTION 3

SCALE: 3/16" = 1'-0"



D4 STAIR 04 SECTION 4

SCALE: 3/16" = 1'-0"



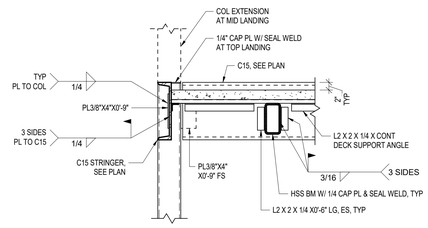
D5 STAIR 04 SECTION 5

SCALE: 3/16" = 1'-0"



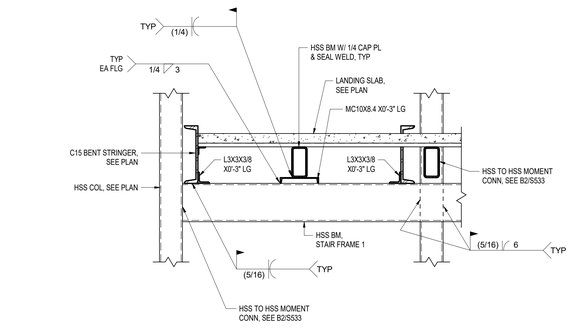
B1 BENT STRINGER SPLICE DETAIL

SCALE: N.T.S.



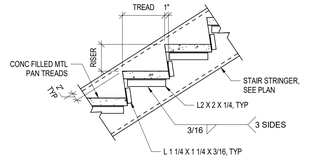
C3 LANDING DETAIL

SCALE: N.T.S.



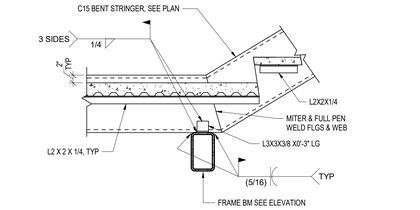
B4 LANDING DETAIL

SCALE: N.T.S.



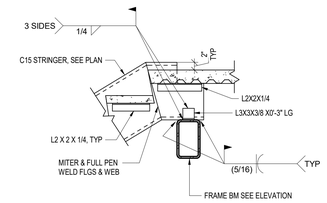
C6 TYP STAIR TREAD DETAIL

SCALE: N.T.S.



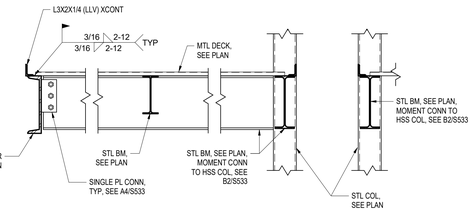
B3 CANTILEVER LANDING DETAIL

SCALE: N.T.S.



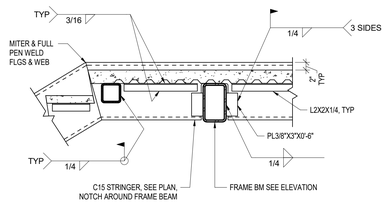
B6 LANDING DETAIL

SCALE: N.T.S.



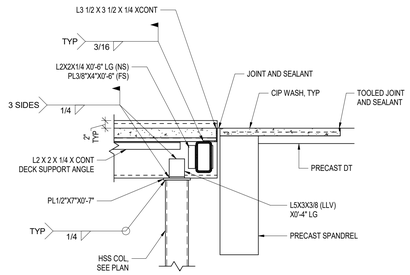
A1 STAIR 04 ROOF DETAIL

SCALE: N.T.S.



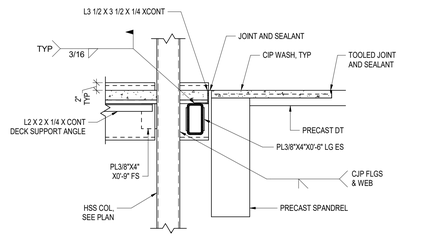
A3 LEVEL 3 LANDING DETAIL

SCALE: N.T.S.



A4 LANDING DETAIL

SCALE: N.T.S.



A6 LANDING DETAIL

SCALE: N.T.S.

4 0 4 8 12

SCALE: 3/16" = 1'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: MCM
DRAWN BY: DFW
DESIGNED BY: DFW
PROJECT NUMBER:
2003-0070-006
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SEAL:
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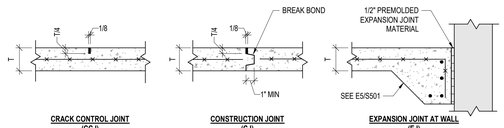
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STAIR 04 SECTIONS AND DETAILS

SHEET ID:
S401

PROJECT STATUS:
100% BID SET

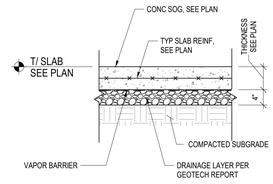
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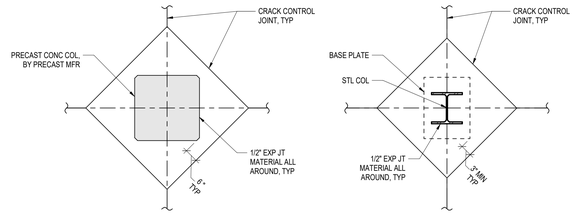


NOTES:
1. CCJ SHALL BE PREFORMED OR SAWED. IF SAWED, SAWING MUST TAKE PLACE WITHIN 12 HOURS OF SLAB PLACEMENT.
2. USE CONSTRUCTION JOINT INSTEAD OF CRACK CONTROL JOINT WHEREVER CONSTRUCTION IS STOPPED OR WHERE CALLED FOR ON PLAN.

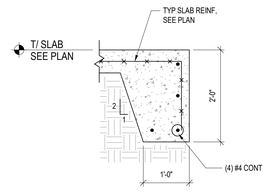
E1 TYP CONC SLAB-ON-GRADE JOINTS
SCALE: N.T.S.



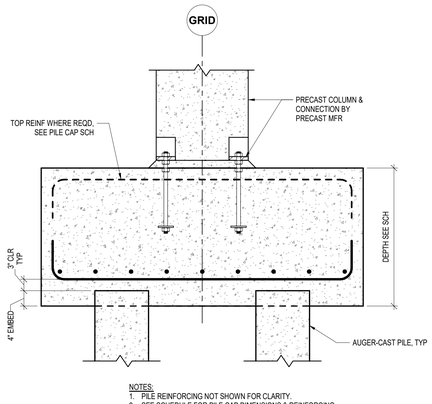
E3 TYP SLAB-ON-GRADE DETAIL
SCALE: N.T.S.



E4 TYP CONTROL JOINT AT COLUMNS
SCALE: N.T.S.

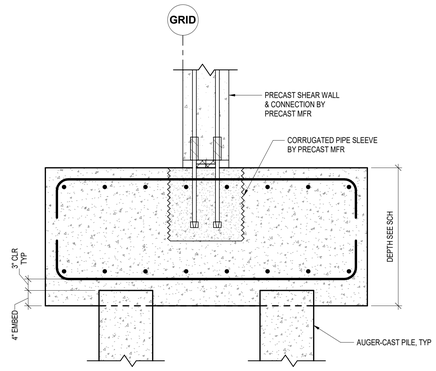


E5 TYP THICKENED SLAB EDGE
SCALE: N.T.S.



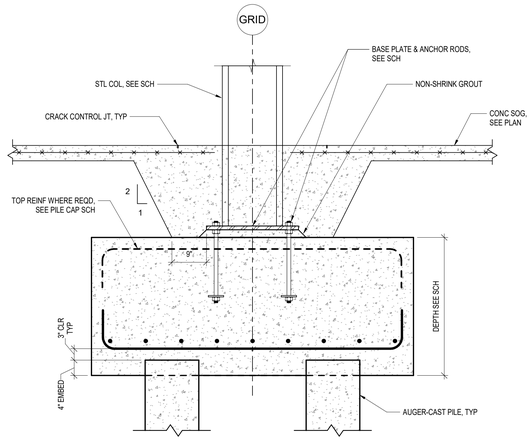
NOTES:
1. PILE REINFORCING NOT SHOWN FOR CLARITY.
2. SEE SCHEDULE FOR PILE CAP DIMENSIONS & REINFORCING.

C1 TYP PRECAST COLUMN PILE CAP SECTION
SCALE: N.T.S.



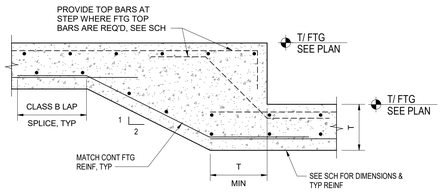
NOTES:
1. PILE REINFORCING NOT SHOWN FOR CLARITY.
2. SEE SCHEDULE FOR PILE CAP DIMENSIONS AND REINFORCING.

C3 TYP SHEAR WALL PILE CAP SECTION
SCALE: N.T.S.

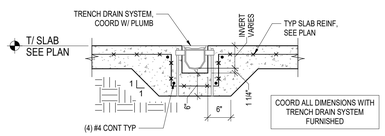


NOTES:
1. PILE REINFORCING NOT SHOWN FOR CLARITY.
2. SEE SCHEDULE FOR PILE CAP DIMENSIONS.

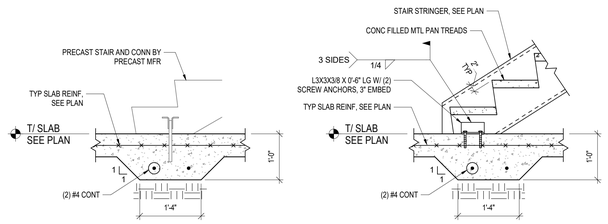
C4 STEEL COLUMN PILE CAP SECTION
SCALE: N.T.S.



B1 TYP CONC FTG STEP DETAIL
SCALE: N.T.S.

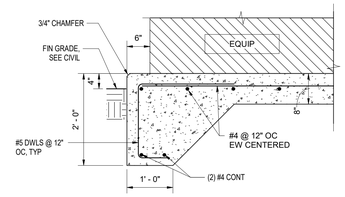


B2 TRENCH DRAIN DETAIL
SCALE: N.T.S.

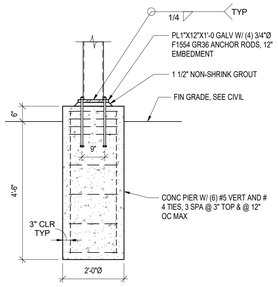


NOTES:
1. CENTER THICKENED SLAB ON STAIR BASE ANCHOR.
2. COORD LOCATION W/ FINAL SHOP DRAWINGS.

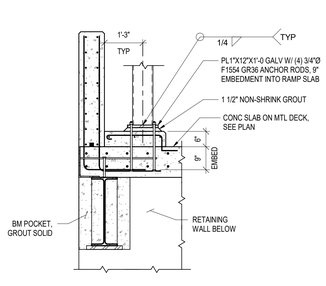
B4 THICKENED SLAB AT STAIR BASE
SCALE: N.T.S.



B5 TYP EQUIP PAD DETAIL
SCALE: N.T.S.

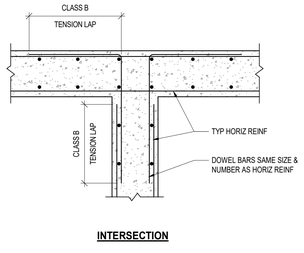


STOP BAR 1 AT GRADE

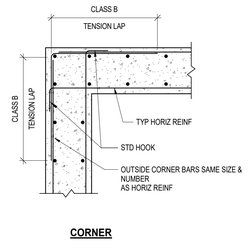


STOP BAR 2 AT TOP OF RETAINING WALL

A1 STOP BAR BASE DETAILS
SCALE: N.T.S.

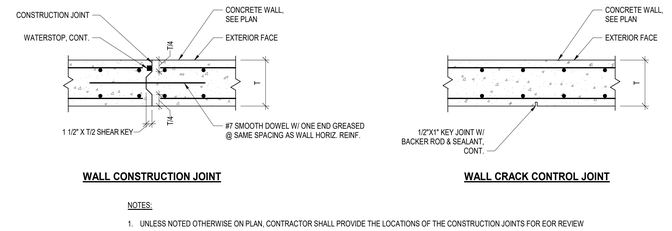


INTERSECTION



CORNER

A3 TYP CONC WALL INTERSECTION DETAILS
SCALE: N.T.S.



WALL CONSTRUCTION JOINT

WALL CRACK CONTROL JOINT

NOTES:
1. UNLESS NOTED OTHERWISE ON PLAN, CONTRACTOR SHALL PROVIDE THE LOCATIONS OF THE CONSTRUCTION JOINTS FOR EOR REVIEW

A5 TYP CONC WALL JOINT DETAILS
SCALE: N.T.S.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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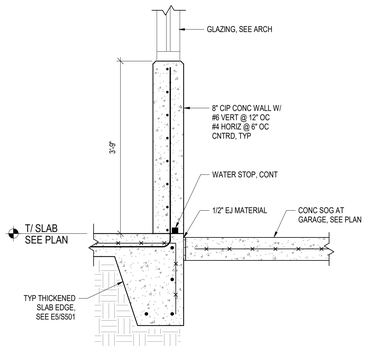
SHEET TITLE:
TYPICAL SLAB AND FOUNDATION DETAILS

SHEET ID:
S501

PROJECT STATUS:
100% BID SET

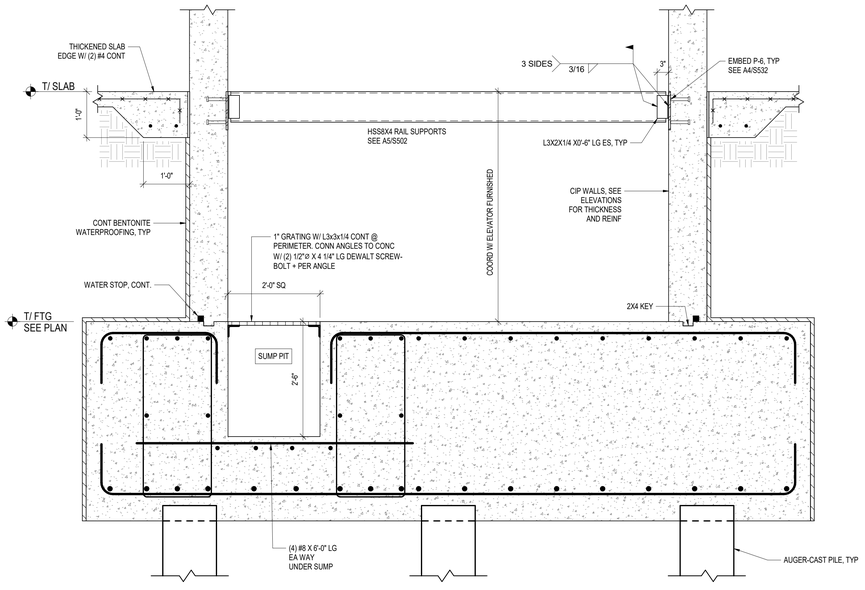
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D1 TYP KNEE WALL THICKENED SLAB EDGE

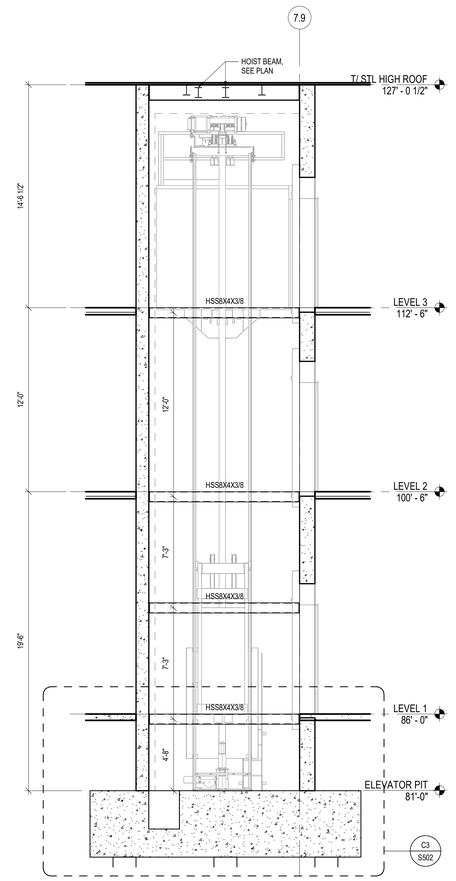
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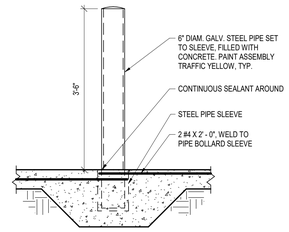


C3 ELEVATOR SECTION

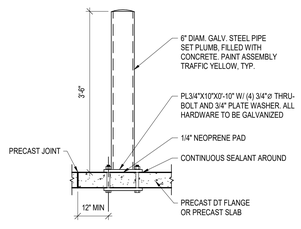
SCALE: N.T.S.

NOTES:
1. VERIFY SUMP PIT DIMENSIONS WITH EQUIPMENT PURCHASED PRIOR TO CONCRETE PLACEMENT.





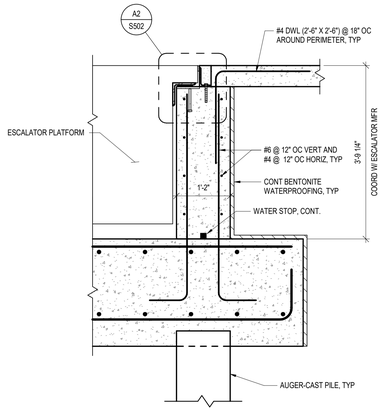
AT SLAB-ON-GRADE



AT ELEVATED PRECAST DECK

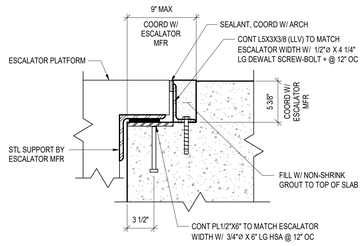
C1 TYP BOLLARD DETAILS

SCALE: N.T.S.



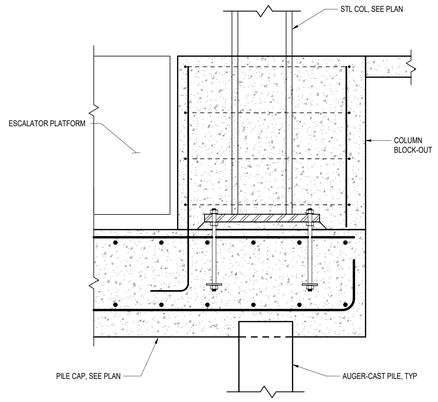
A1 ESCALATOR BASE SUPPORT DETAIL

SCALE: N.T.S.



A2 ENLARGED ESCALATOR BASE SUPPORT DETAIL

SCALE: N.T.S.



A4 COLUMN DETAIL AT ESCALATOR PIT

SCALE: N.T.S.

A5 ELEVATOR RAIL SUPPORT SECTION

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	2003-0070-006

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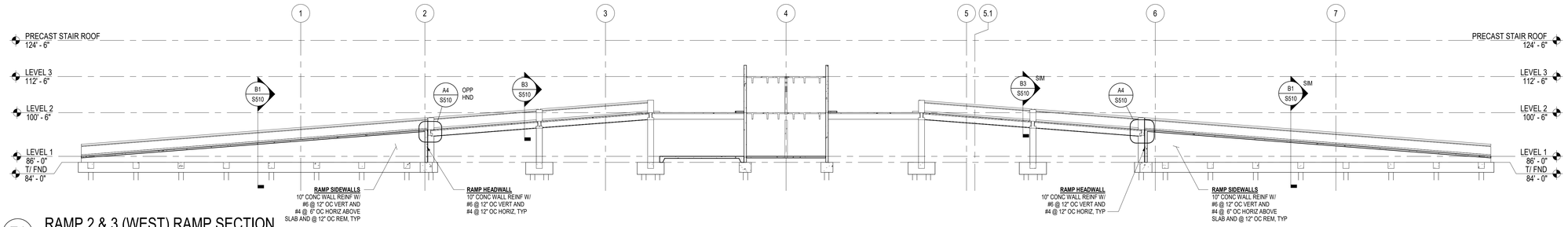
SHEET TITLE:
TYPICAL SLAB AND FOUNDATION DETAILS

SHEET ID:
S502

PROJECT STATUS:
100% BID SET

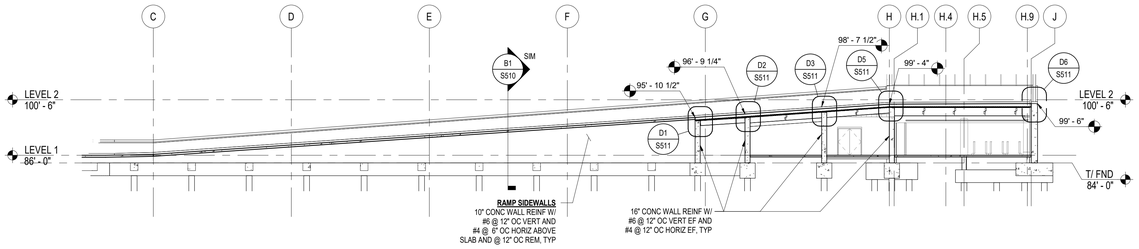
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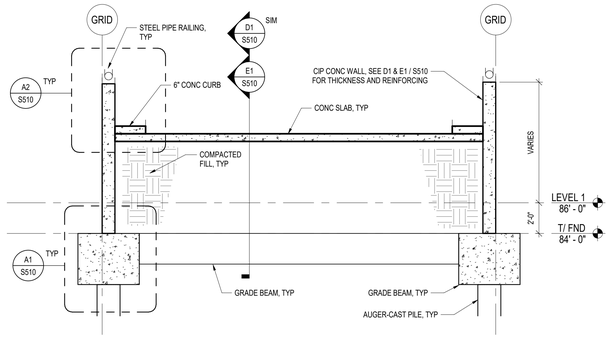
E1 RAMP 2 & 3 (WEST) RAMP SECTION

SCALE: 1/16" = 1'-0"



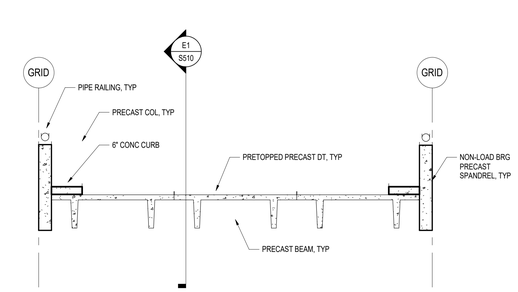
D1 RAMP 1 (SOUTH) SECTION

SCALE: 1/16" = 1'-0"



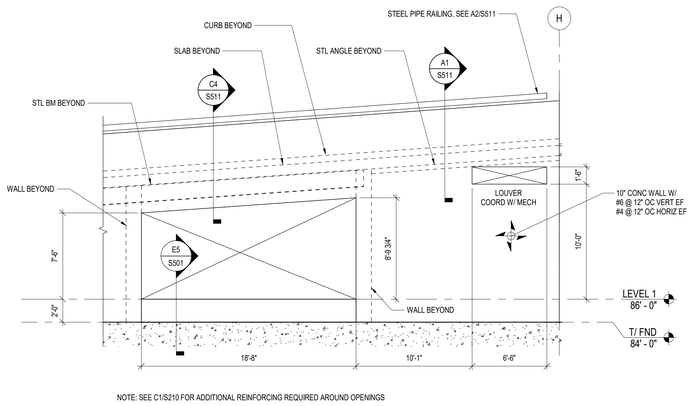
B1 TYP RAMP CROSS SECTION

SCALE: 1/4" = 1'-0"



B3 TYP RAMP PRECAST CROSS SECTION

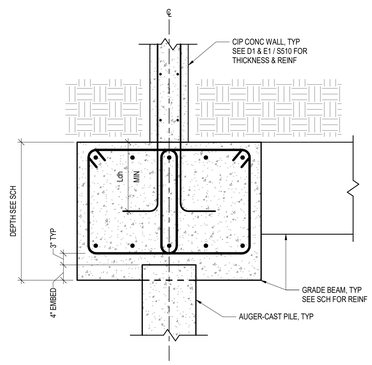
SCALE: 1/4" = 1'-0"



NOTE: SEE C1/S210 FOR ADDITIONAL REINFORCING REQUIRED AROUND OPENINGS

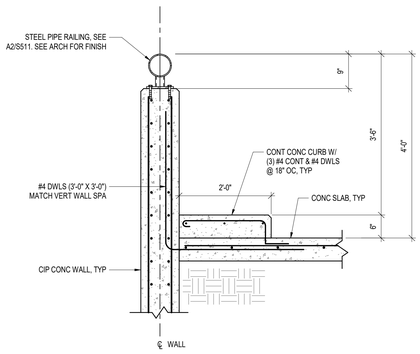
B4 RAMP 1 OPENING ELEVATION

SCALE: N.T.S.



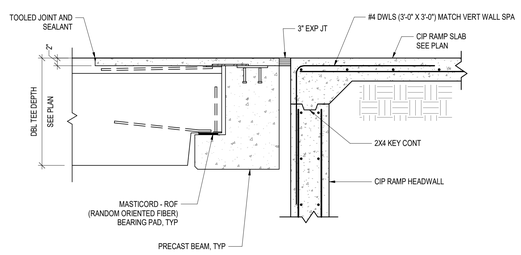
A1 TYP GRADE BEAM AT RAMP DETAIL

SCALE: N.T.S.



A2 TYP RAMP DETAIL

SCALE: N.T.S.



A4 RAMP DETAIL AT EXP JT

SCALE: N.T.S.

SCALE: 1/4" = 1'-0"

SCALE: 1/16" = 1'-0"

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Hartranft Lighting Design

ILM

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WILMINGTON, NC 28405

REVISIONS

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DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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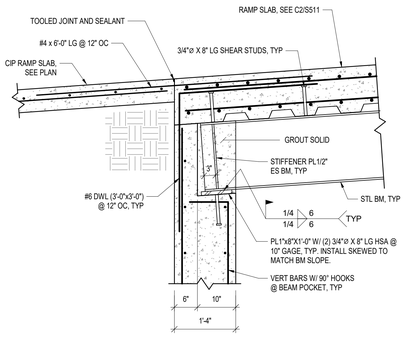
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RAMP SECTIONS AND DETAILS

SHEET ID:
S510

PROJECT STATUS:
100% BID SET

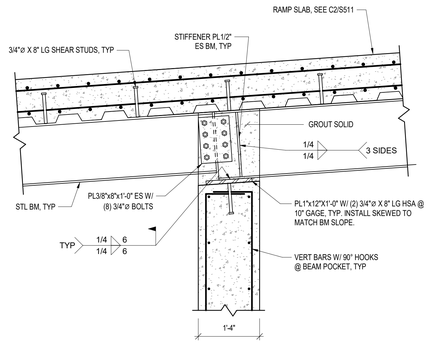
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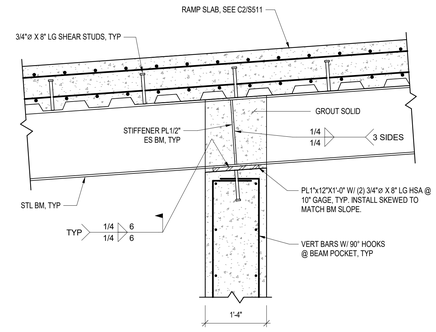
D1 RAMP 1 STL BM BRG DETAIL

SCALE: N.T.S.



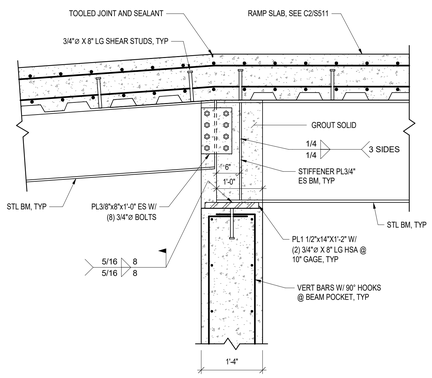
D2 RAMP 1 STL BM BRG DETAIL

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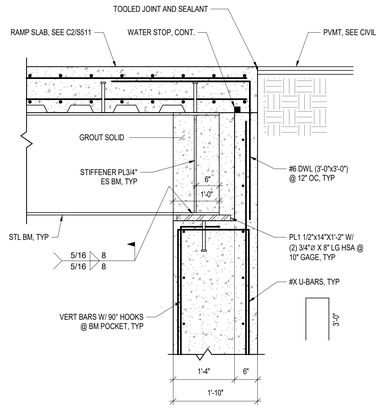
D3 RAMP 1 STL BM BRG DETAIL

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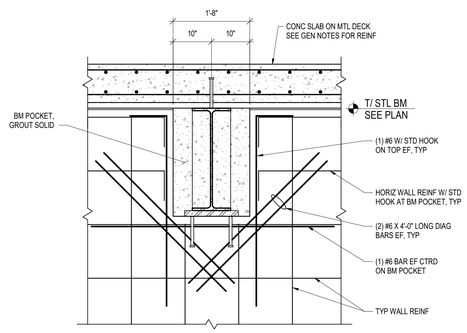
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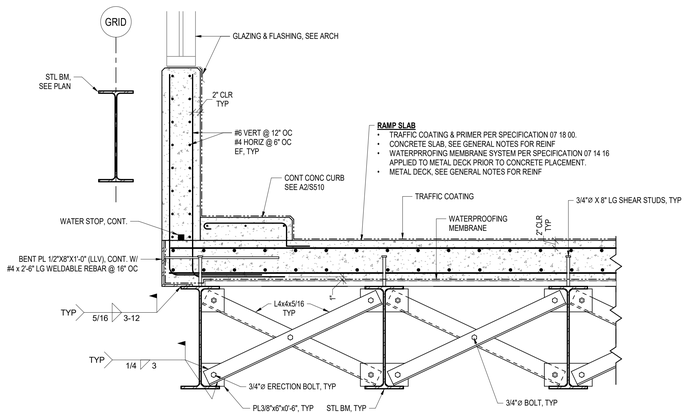
D6 RAMP 1 STL BM BRG DETAIL

SCALE: N.T.S.



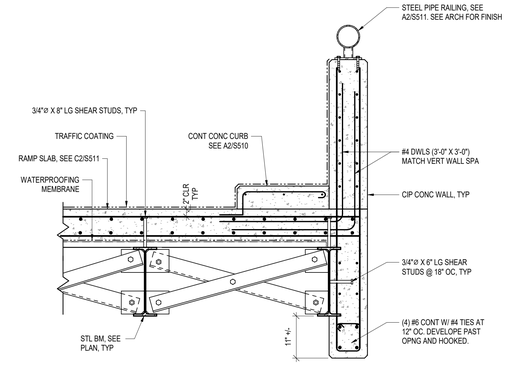
C1 RAMP 1 TYP STL BM BRG ELEVATION

SCALE: N.T.S.



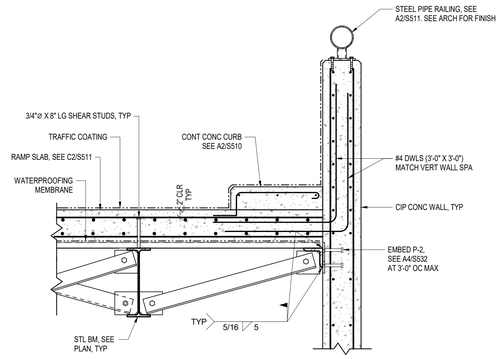
C2 RAMP 1 BEAM X-BRACE DETAIL

SCALE: N.T.S.



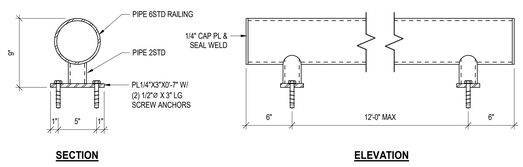
C4 RAMP 1 BEAM AT SIDE WALL OPNG DETAIL

SCALE: N.T.S.



A1 RAMP 1 BEAM AT SIDE WALL DETAIL

SCALE: N.T.S.



A2 PIPE RAILING DETAIL

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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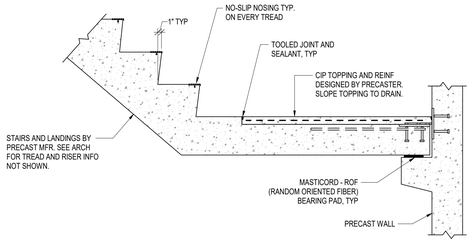
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RAMP SECTIONS AND DETAILS

SHEET ID:
S511

PROJECT STATUS:
100% BID SET

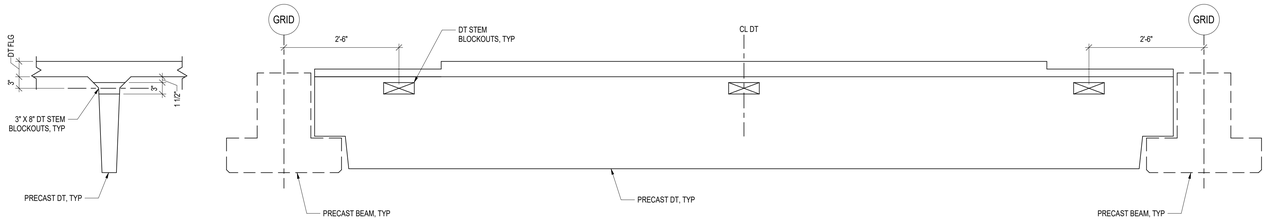
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E1 TYP PRECAST STAIR DETAIL

SCALE: N.T.S.



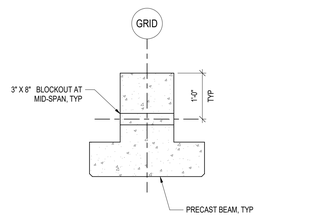
SECTION

ELEVATION

MINIMUM BLOCKOUT LOCATIONS SHOWN. COORDINATE ADDITIONAL LOCATIONS W/ ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND FIRE PROTECTION

D1 TYP DBL TEE STEM BLOCKOUT DETAIL (PRETOPPED)

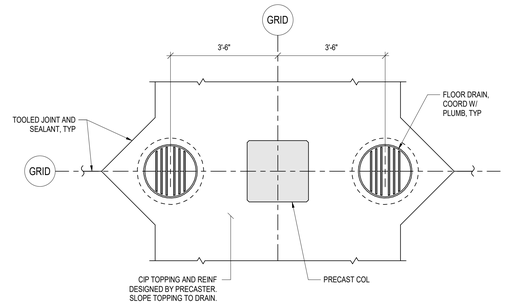
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MINIMUM BLOCKOUT LOCATION SHOWN. COORDINATE ADDITIONAL LOCATIONS W/ ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND FIRE PROTECTION

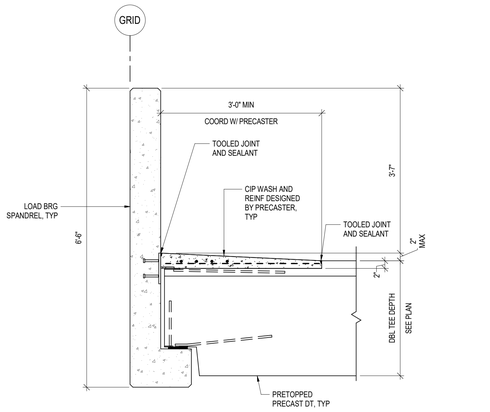
D4 TYP INVERTED TEE BLOCKOUT DETAIL

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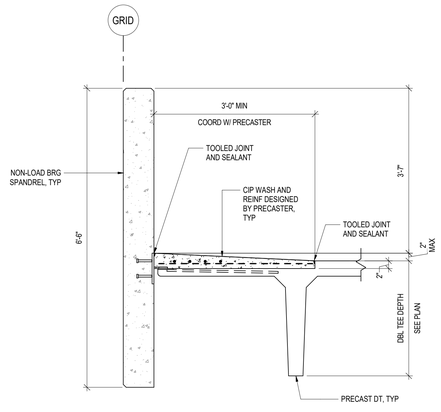
D6 TYP FLOOR DRAIN DETAIL

SCALE: N.T.S.



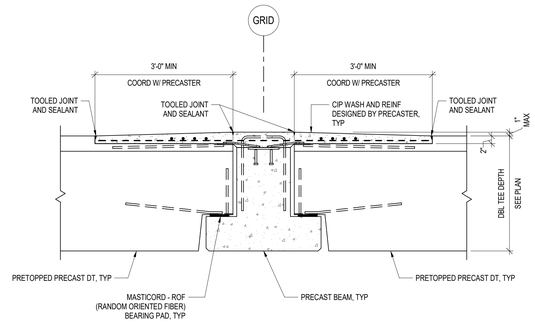
B1 TYP DBL TEE TO LOAD BRG SPANDREL DETAIL (PRETOPPED)

SCALE: 3/4" = 1'-0"



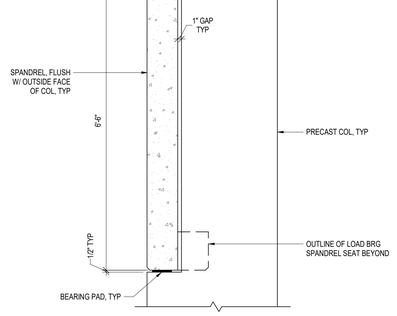
B2 TYP DBL TEE TO NON-LOAD BRG SPANDREL DETAIL (PRETOPPED)

SCALE: N.T.S.



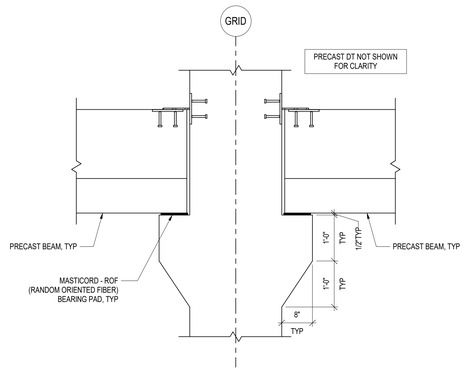
B4 TYP DBL TEE TO INVERTED TEE BM DETAIL (PRETOPPED)

SCALE: 3/4" = 1'-0"



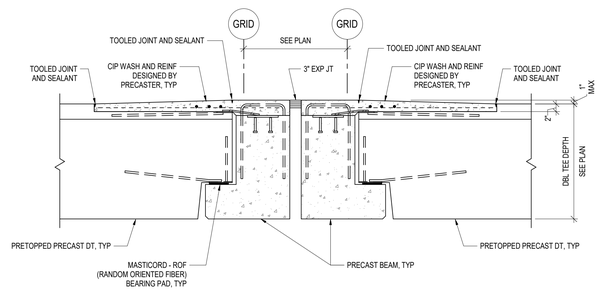
B6 TYP SPANDREL AT NOTCHED COL DETAIL

SCALE: N.T.S.



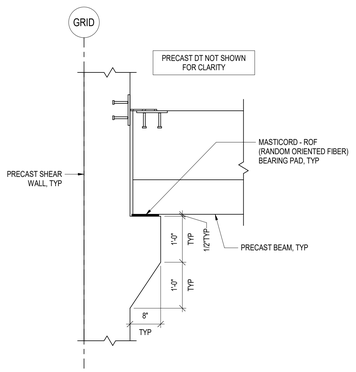
A1 TYP INVERTED TEE BEAM TO COL DETAIL

SCALE: N.T.S.



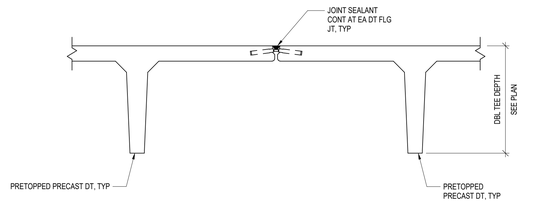
A2 DBL TEE DETAIL AT EXP JT (PRETOPPED)

SCALE: N.T.S.



A4 TYP INVERTED TEE BEAM TO SHEAR WALL DETAIL

SCALE: N.T.S.



A5 TYP DBL TEE TO DBL TEE DETAIL (PRETOPPED)

SCALE: N.T.S.

TYPICAL PRECAST SHEET NOTES

1. THE TYPICAL PRECAST DETAILS SHOWN ARE TO PROVIDE INTENT ONLY. THE FINAL DESIGN, INCLUDING ALL DIMENSIONS AND MEMBER GEOMETRY, IS THE RESPONSIBILITY OF THE PRECAST MANUFACTURER.
2. REFER TO THE PRECAST MANUFACTURER'S FINAL DESIGN DOCUMENTS FOR PRECAST MEMBER SIZING, CONCRETE TOPPING THICKNESS / EXTENTS, QUANTITY AND SIZE OF REINFORCING, CONNECTION EMBEDS AND PLATES, ETC.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	

2003-0070-006

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TYPICAL PRECAST DETAILS

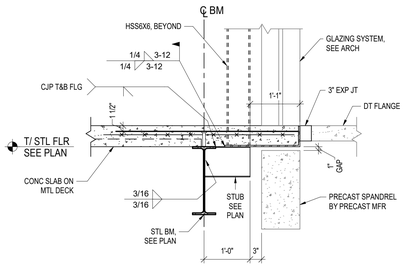
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PROJECT STATUS:
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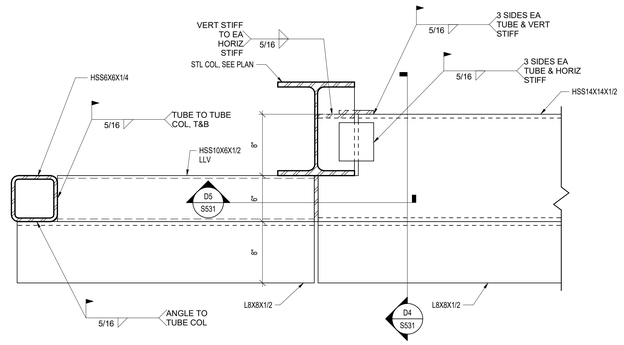
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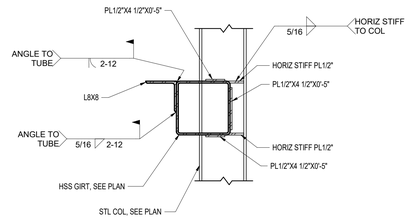
D1 LEVEL 3 SLAB EDGE AT PRECAST

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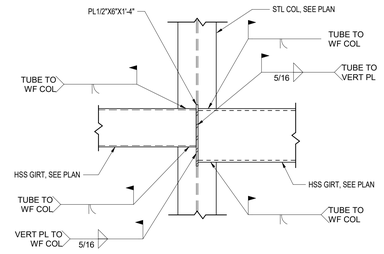
D3 GIRT TO COL PLAN

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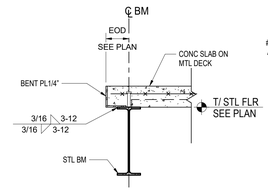
D4 GIRT SECTION

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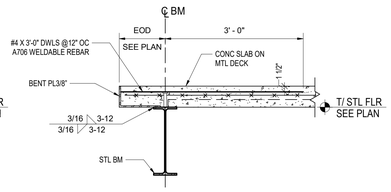


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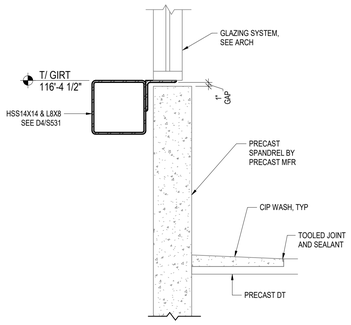
EOD ≤ 6"



6" < EOD ≤ 1'-4"

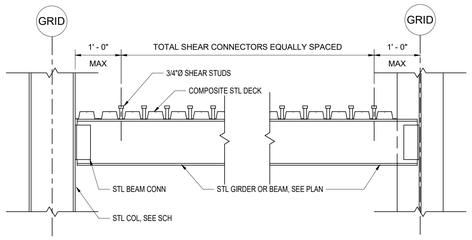
C1 TYPICAL COMPOSITE STEEL DECK SLAB EDGE

SCALE: N.T.S.



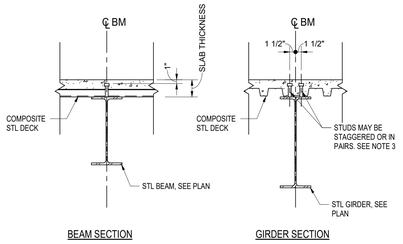
C3 SECTION

SCALE: N.T.S.



PLACING DIAGRAM

ABOVE DIAGRAM SHOWS STUD PLACEMENT FOR ALL BEAMS AND GIRDERS



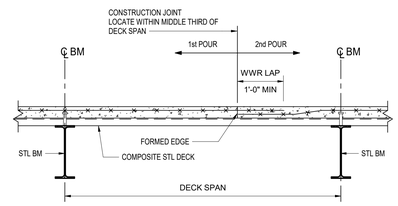
BEAM SECTION

GIRDER SECTION

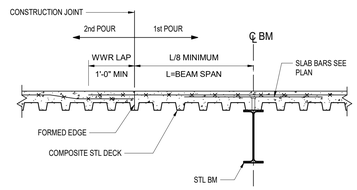
NOTES:
1. ON PLANS COMPOSITE BEAM SIZE IS FOLLOWED BY TOTAL NUMBER OF SHEAR STUDS IN BRACKETS.
2. WELDED STUDS SHALL BE APPLIED TO TOP FLANGE AND ARE INSTALLED AFTER THE METAL DECK IS IN PLACE (FIELD WELDED).
3. MINIMUM STUD SPACING SHALL BE 4 1/2" OC. PLACE STUDS IN PAIRS ACROSS LENGTH OF GIRDER WHEN REQ'D TO KEEP STUD SPACING EQUAL TO OR GREATER THAN 4 1/2" OC.
4. TOP SURFACE OF BEAM FLANGE TO RECEIVE STUDS SHALL BE LEFT UNPAINTED.

A1 TYPICAL COMPOSITE STEEL BEAM CONSTRUCTION

SCALE: N.T.S.



DECK SPAN PERPENDICULAR TO STEEL BEAM



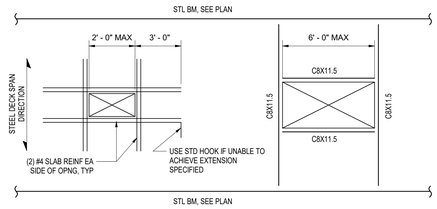
DECK SPAN PARALLEL TO STEEL BEAM

A2 TYPICAL COMPOSITE STEEL DECK CONSTRUCTION JOINT

SCALE: N.T.S.

TYPICAL FLOOR OPENING NOTES

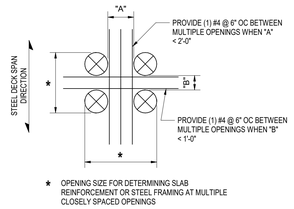
1. REINFORCEMENT IS NOT REQUIRED FOR OPENING SIZES LESS THAN 10" x 10" OR 10"Ø IF ALL OF THE FOLLOWING CRITERIA ARE MET:
   A. STEEL DECK WILL BE CUT AT LEAST 7 DAYS AFTER PLACEMENT OF CONCRETE
   B. THE CLEAR DISTANCE TO THE ADJACENT OPENING(S) IS 1'-0" OR MORE PARALLEL TO DECK SPAN AND 2'-0" OR MORE PERPENDICULAR TO DECK SPAN.
2. SLAB REINFORCEMENT OR CHANNEL FRAMING IS REQUIRED FOR OPENINGS THAT DO NOT MEET THE CRITERIA OF NOTE 1.
3. PLACE ADDITIONAL REINFORCEMENT IN BOTTOM FLUTE FOR REINFORCING PARALLEL TO THE DECK SPAN AND ON TOP OF DECK FOR REINFORCING PERPENDICULAR TO THE DECK SPAN. PROVIDE 3/4" CLEAR FROM DECK, TYPICAL.
4. MULTIPLE OPENINGS THAT DO NOT MEET THE SPACING REQUIREMENTS OF NOTE 1 ARE TO BE TREATED AS ONE LARGE OPENING AND SHALL RECEIVE ADDITIONAL REINFORCEMENT TO THE REINFORCEMENT / FRAMING SHOWN BELOW.
5. IF SLEEVES ARE USED, PLACE SLEEVES SO THAT STEEL DECK IS NOT CUT UNTIL 7 DAYS AFTER PLACEMENT OF CONCRETE.



SLAB REINFORCEMENT

STEEL FRAMING

W8X10 MAY BE USED IN LIEU OF C8 SHOWN IN DETAIL



★ OPENING SIZE FOR DETERMINING SLAB REINFORCEMENT OR STEEL FRAMING AT MULTIPLE CLOSELY SPACED OPENINGS

ADDL REINF FOR MULTIPLE OPENINGS

A4 TYPICAL COMPOSITE STEEL DECK FLOOR OPENINGS

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

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WILMINGTON, NC 28405

REVISIONS

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REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	

2003-0070-006

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SHEET TITLE:

TYPICAL COMPOSITE STEEL FLOOR DETAILS

SHEET ID:

S531

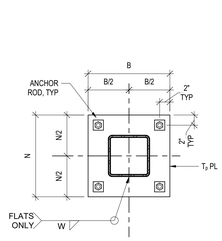
PROJECT STATUS:
100% BID SET

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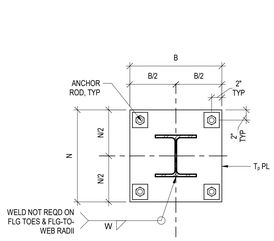
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BASEPLATE SCHEDULE

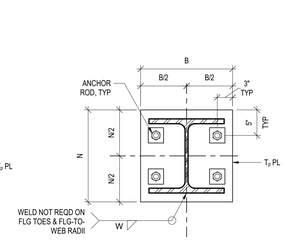
	MARK	TYPE	PLATE DIMENSIONS			WELD SIZE	ANCHOR RODS					SHEAR LUG				REMARKS
			T_p	B	N	W	NO.	DIA	GRADE	EMBED	PLATE WASHERS	HEIGHT	WIDTH	THICKNESS	WELD	
GRAVITY COLUMNS	BP-1	3	1"	1'-3"	1'-3"	1/4"	4	3/4"	36	12"	3/8"x3"x3" A36					
	BP-2	2	1 1/2"	1'-6"	1'-2"	1/4"	4	1"	36	16"	3/8"x3"x3" A36					
	BP-3	1	1"	1'-2"	1'-2"	1/4"	4	3/4"	36	12"	3/8"x3"x3" A36					
	BP-4	1	1 1/2"	1'-4"	1'-4"	7/16"	4	1"	36	16"	3/8"x3"x3" A36					
	BP-5	4	2"	2'-0"	2'-0"	7/16	6	1 1/4"	36	16"	1/2"x3 1/2"x3 1/2" A36					
FRAME COLUMNS	BP-A	A	2"	1'-8"	2'-0"	1/4"	4	1 1/4"	36	16"	1/2"x3 1/2"x3 1/2" A36	4"	1'-6"	1"	5/16	
	BP-B	B	2 1/4"	2'-2"	2'-6"	7/16"	6	1 1/2"	36	24"	1/2"x4"x4" A36	4"	2'-0"	1"	5/16	
	BP-C	C	1"	1'-8"	2'-1"	3/8"	4	1"	36	20"	1/2"x3 1/2"x3 1/2" A36					BASE PLATE MATERIAL SHALL MEET ASTM A572 GR 50
	BP-D	D	1 3/4"	2'-6"	2'-8"	CJP	4	1 3/4"	36	24"	1/2"x3 1/2"x3 1/2" A36					BASE PLATE MATERIAL SHALL MEET ASTM A572 GR 50



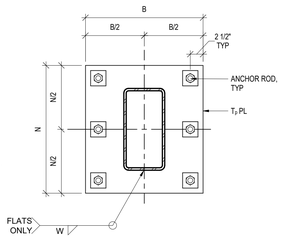
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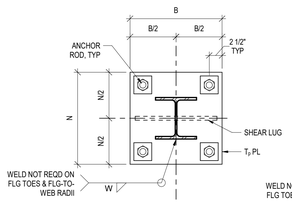
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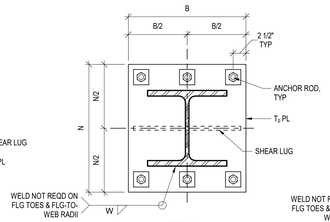
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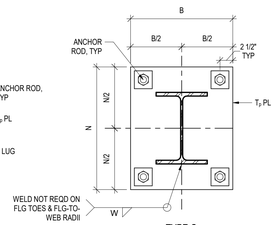
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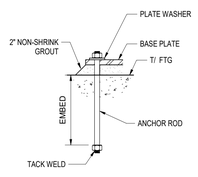
TYPE A



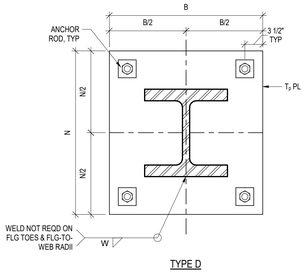
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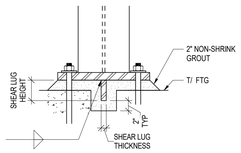
TYPE C



ANCHOR ROD DETAIL



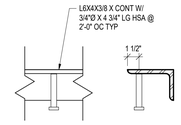
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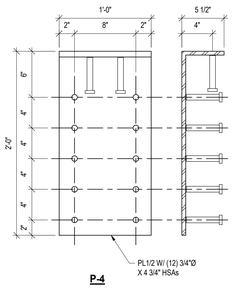
SHEAR LUG DETAIL

A1 TYP BASEPLATE DETAILS

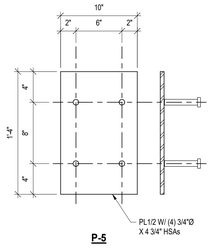
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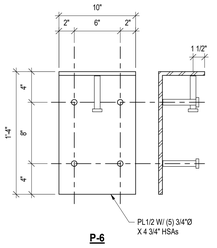
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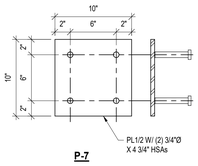
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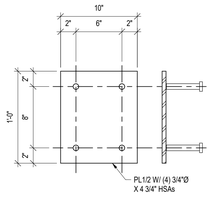
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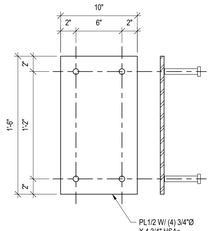
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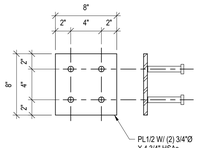
P-7



P-1



P-2



P-3

A4 TYP EMBED DETAILS

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	
2003-0070-006	

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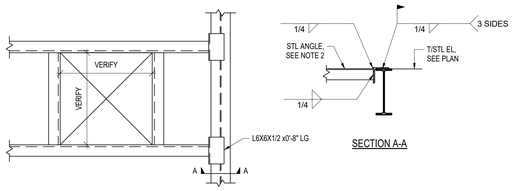
SHEET TITLE:
TYPICAL STEEL DETAILS

SHEET ID:
S532

PROJECT STATUS:
100% BID SET

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SECTION A-A

NOTES:

1. PROVIDE FRAMING AROUND ALL ROOF OPENINGS GREATER THAN 8"x8" OR WHERE 2 OR MORE ROOF CORRUGATIONS ARE INTERRUPTED.
2.

ANGLE SIZE	MAXIMUM SPAN
L4X4X3/8	4' - 0"
L5X5X1/2	5' - 6"

C1 TYP ROOF OPENING FRAMING DETAIL

SCALE: N.T.S.

B1 TYP EXTENDED SHEAR PLATE CONN

SCALE: N.T.S.

WF BM TO WF COL FLG

WF BM TO WF COL WEB

WF BM TO HSS COL

HSS BM TO HSS COL

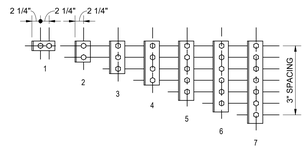
B2 TYP STANDARD MOMENT CONNECTION

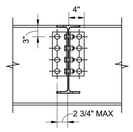
SCALE: N.T.S.

BOLTS SHOP/FIELD	CONNECTION ANGLES *				WELDED TO SUPPORT BOLTED TO BEAM	
ASD LOAD (KIPS)	CONN TYPE	SIZE	LENGTH "L"	MIN BEAM SIZE	ASD LOAD (KIPS)	FILLET WELD "w"
130	7	L4x3 1/2x5/16	20 1/2	W36	95	1/4
111	6	L4x3 1/2x5/16	17 1/2	W30 W33	76	1/4
92	5	L4x3 1/2x5/16	14 1/2	W21 W24 W27	58	1/4
51	4	L4x3 1/2x5/16	11 1/2	W16 W18	40	1/4
42	3	L4x3 1/2x5/16	8 1/2	W12 W14	24	1/4
32	2	L4x3 1/2x5/16	5 1/2	C8 W8 W10	11	1/4
12	1	L6x4x3/8	2 1/2	C6 W6	N/A	N/A

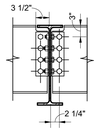
BEAM TO BEAM & BEAM TO COLUMN CONNECTIONS

NOTES:
1. ALL BOLTS SHALL BE 3/4"Ø A325 N BEARING TYPE.
2. * USE 5/16" PLATE ES BEAM FOR CONNECTION TO STIFFENER PLATE.
3. FILLET WELDS MAY BE SUBSTITUTED FOR BOLTS WITH APPROVAL OF ENGINEER OF RECORD.

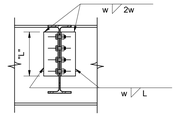




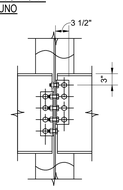
BM TO BM ELEVATION BOLTED TO SUPPORT TYP UNO



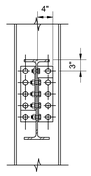
BM TO BM SECTION



BM TO BM ELEVATION WELDED TO SUPPORT



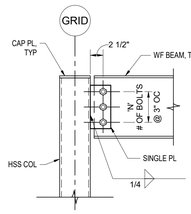
BM TO COL SECTION



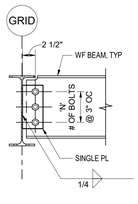
BM TO COL SECTION

A1 TYP DOUBLE ANGLE CONN

SCALE: N.T.S.



BM TO HSS COL SECTION



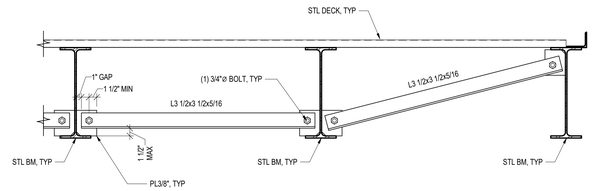
BM TO BM SECTION

ASD LOAD (KIPS)	'N'	SIZE	LENGTH	MIN BEAM SIZE
63.6	6	PL 3/8" x 4"	17 1/2"	W27
53.0	5	PL 3/8" x 4"	14 1/2"	W21 W24
42.4	4	PL 3/8" x 4"	11 1/2"	W16 W18
31.8	3	PL 3/8" x 4"	8 1/2"	W12 W14
21.2	2	PL 3/8" x 4"	5 1/2"	C8 W8 WT8 W10

NOTES:
1. ALL BOLTS SHALL BE 3/4"Ø A325 N BEARING TYPE, UNO.
2. STD OR SSLT HOLES ARE PERMITTED IN PLATE. BEAM SHALL HAVE STD HOLES, TYP.
3. SINGLE PLATE BEAM TO W-SECTION COLUMN DETAIL SIMILAR TO HSS COLUMN DETAIL.

A4 TYP SINGLE PLATE CONN

SCALE: N.T.S.



A5 TYP BEAM HORIZ BRACE DETAIL

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW
PROJECT NUMBER:	2003-0070-006

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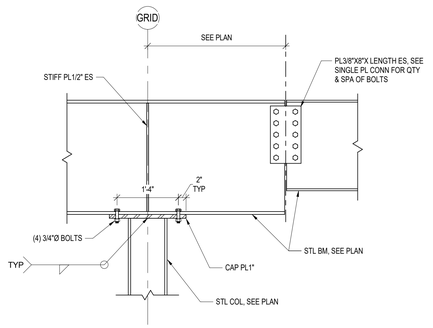
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TYPICAL STEEL DETAILS

SHEET ID:
S533

PROJECT STATUS:
100% BID SET

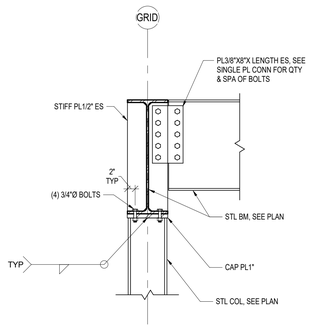
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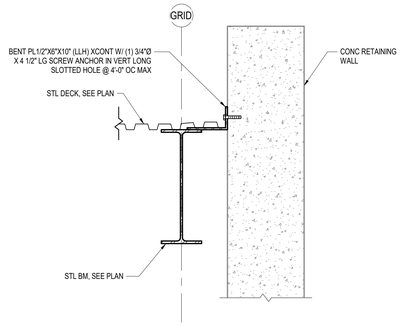
D1 STL COL CAP PLATE DETAIL

SCALE: N.T.S.



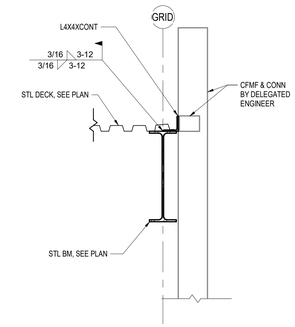
D2 SECTION

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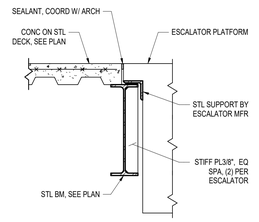
D3 DECK ANGLE CONN @ LOW ROOF

SCALE: N.T.S.



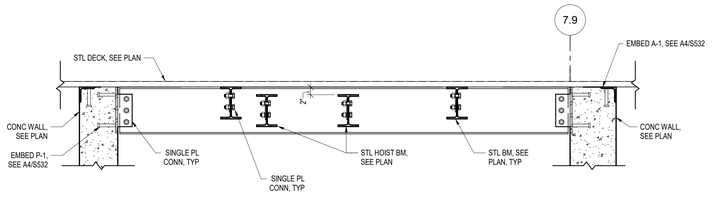
D5 SECTION

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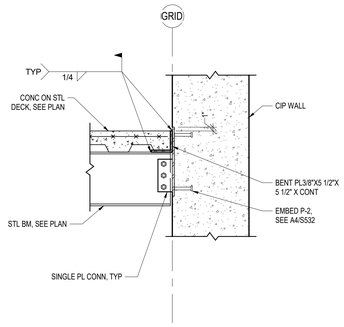
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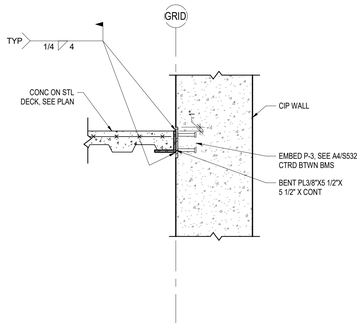
C1 SECTION

SCALE: N.T.S.



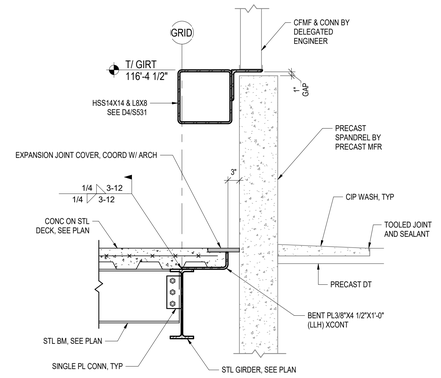
C3 SECTION

SCALE: N.T.S.



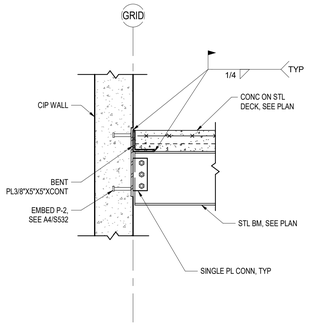
C4 SECTION

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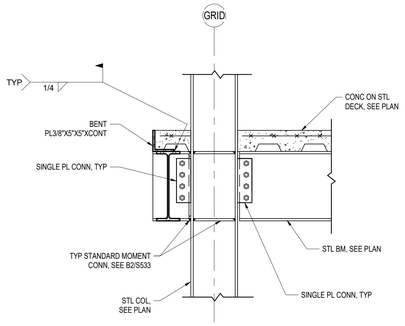
C5 SECTION

SCALE: N.T.S.



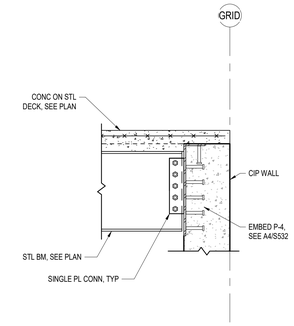
B1 SECTION

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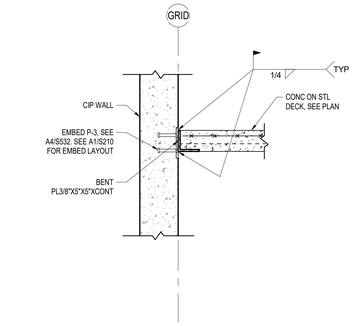
B2 SECTION

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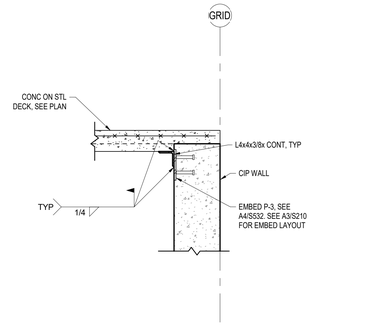
B3 SECTION

SCALE: N.T.S.



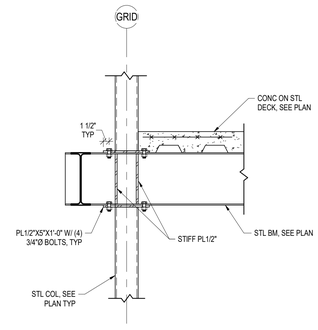
B4 SECTION

SCALE: N.T.S.



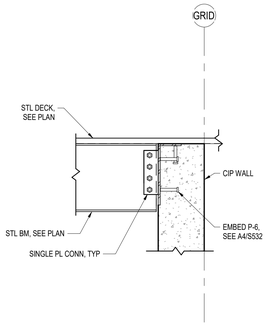
B5 SECTION

SCALE: N.T.S.



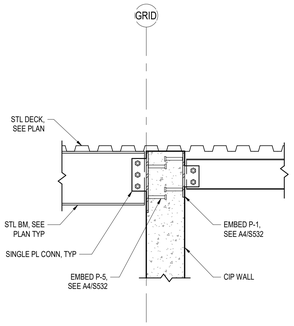
A1 SECTION

SCALE: N.T.S.



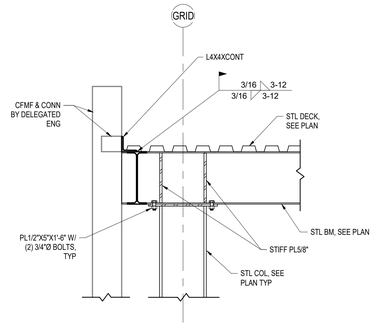
A2 SECTION

SCALE: N.T.S.



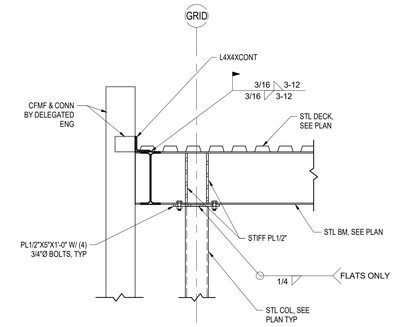
A3 SECTION

SCALE: N.T.S.



A4 SECTION

SCALE: N.T.S.



A5 SECTION

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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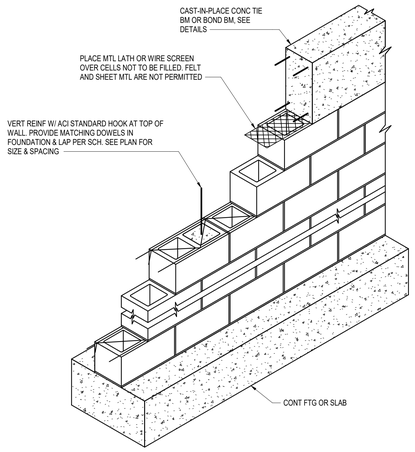
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STEEL DETAILS

SHEET ID:
S534

PROJECT STATUS:
100% BID SET

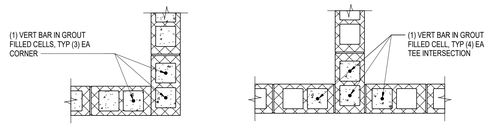
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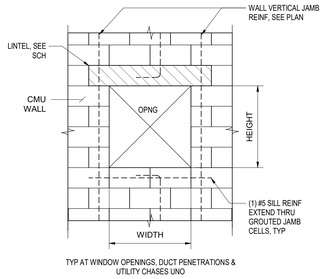
D1 TYP MASONRY WALL CONSTRUCTION

SCALE: N.T.S.



D2 TYP CMU CORNER DETAIL

SCALE: N.T.S.



D4 TYP MASONRY WALL OPNG

SCALE: N.T.S.

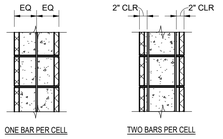


JAMB SCHEDULE		
OPENING SIZE	JAMB LENGTH	# BARS PER CELL
UP TO 4'-0"	8"	(1) #5
4'-1" TO 10'-0"	16"	(1) #5

D5 TYP CMU JAMB SCHEDULE

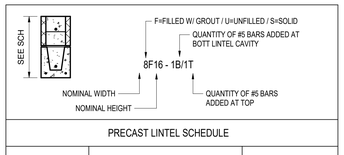
SCALE: N.T.S.

CONCRETE MASONRY (CMU) LAP SPLICE SCHEDULE (f'm = 2000 PSI & fy = 60 KSI)				
BAR SIZE	8" CMU		12" CMU	
	ONE BAR PER CELL	TWO BARS PER CELL	ONE BAR PER CELL	TWO BARS PER CELL
#4	14"	22"	12"	22"
#5	22"	36"	14"	36"
#6	40"	54"	24"	54"
#7	-	-	34"	64"



C1 TYP MASONRY LAP SCHEDULE

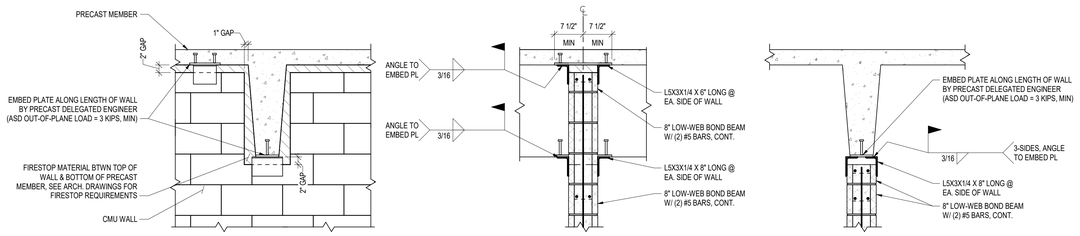
SCALE: N.T.S.



PRECAST LINTEL SCHEDULE		
LINTEL MARK	SIZE & REINF.	REMARKS
L1	8F8 - 1T	
L2	8F16 - 1T	
L3	12F8 - 2T	
L4	12F16 - 2T	

C2 TYP PRECAST LINTEL SCHEDULE

SCALE: N.T.S.



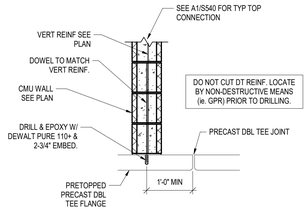
WALL ELEVATION VIEW | **WALL SECTION VIEW** | **WALL SECTION VIEW (OPTION 2)**

NOTES:

1. CONNECTION ALLOWS FOR VERTICAL AND IN-PLANE MOVEMENT OF THE PRECAST MEMBER
2. CUT TOP MASONRY COURSE AS REQUIRED
3. SUPPORT SPACING CRITERIA:
   A. SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 6'-0" O.C. ALONG LENGTH OF WALL
   B. PROVIDE AT LEAST (1) SUPPORT WITHIN 24" OF A WALL END
   C. SHORT WALLS (6'-0" OR LESS) SHALL HAVE AT LEAST (2) SUPPORTS

A1 TYP MASONRY TO PRECAST TOP CONNECTION

SCALE: N.T.S.



WALL SECTION VIEW

A4 TYP MASONRY TO PRECAST BASE CONNECTION

SCALE: N.T.S.

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ILM

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REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	MCM
DRAWN BY:	DFW
DESIGNED BY:	DFW

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SHEET TITLE:
TYPICAL MASONRY DETAILS

SHEET ID:
S540

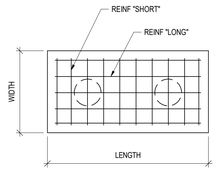
PROJECT STATUS:
100% BID SET

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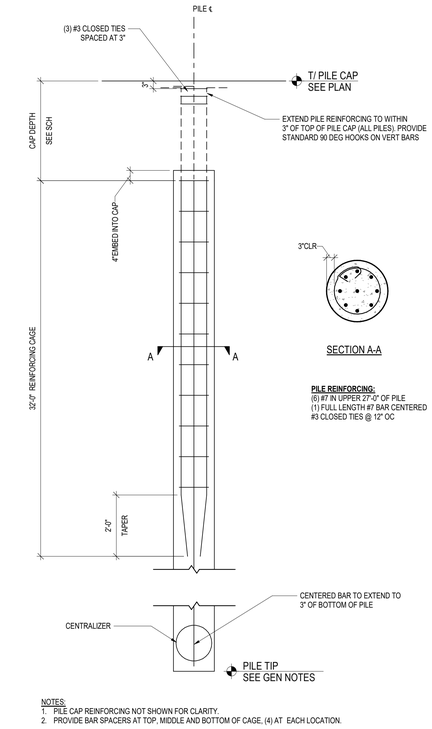
PILE CAP SCHEDULE					
TYPE	# OF PILES	WIDTH X LENGTH	DEPTH	REINFORCING	NOTES
PC-1	1	4'-0" X 4'-0"	3'-4"	(5) #5 EA WAY	
PC-2	2	4'-6" X 9'-0"	4'-0"	(5) #10 LONG, (9) #10 SHORT	
PC-2A	2	4'-6" X 9'-0"	3'-4"	(5) #10 LONG, (9) #10 SHORT	
PC-3	3	7'-11" X 8'-6"	3'-4"	(11) #8 EA WAY, TOP & BOTTOM	
PC-4	4	9'-0" X 9'-0"	4'-4"	(9) #10 EA WAY	
PC-4A	4	9'-0" X 11'-8"	4'-0"	(14) #8 LONG, (18) #8 SHORT, TOP & BOTTOM	
PC-5	5	10'-10" X 10'-10"	4'-4"	(14) #10 EA WAY, TOP & BOTTOM	
PC-7	7	12'-6" X 13'-6"	4'-4"	(15) #10 EA WAY, TOP & BOTTOM	
PC-8	8	12'-6" X 13'-6"	4'-4"	(15) #10 EA WAY, TOP & BOTTOM	
PC-8SP	8	SEE A3/S601	4'-4"	#8 @ 12" OC EA WAY, TOP #10 @ 12" OC EA WAY, BOTTOM	
PC-9SP	9	22'-6 X 22'-6"	4'-4"	#8 @ 12" OC EA WAY, TOP #10 @ 12" OC EA WAY, BOTTOM	
PC-10	10	9'-0" X 37'-0"	4'-4"	(10) #8 LONG, #8 @ 12" OC SHORT, TOP (10) #10 LONG, #10 @ 12" OC SHORT, BOTT	
PC-11SP	11	20'-6 X 25'-5"	3'-4"	#9 @ 12" OC EA WAY, TOP #9 @ 12" OC EA WAY, BOTTOM	SEE PILE CAP DETAIL FOR ADDITIONAL REINF INFORMATION
PC-12SP	12	17'-8" X 25'-8"	4'-4"	#8 @ 12" OC EA WAY, TOP #10 @ 12" OC EA WAY, BOTTOM	SEE PILE CAP DETAIL FOR ADDITIONAL REINF INFORMATION
PC-14	14	9'-0" X 45'-0"	4'-4"	(10) #8 LONG, #8 @ 12" OC SHORT, TOP (10) #10 LONG, #10 @ 12" OC SHORT, BOTT	

NOTES:
1. SEE A1\S601 FOR ACIP PILE DETAILS.
2. REINFORCING AT BOTTOM OF PILE CAP ONLY, UNLESS NOTED OTHERWISE.
3. ALL BOTTOM BARS SHALL HAVE 90-DEGREE STANDARD ACI HOOK EACH END, UNLESS NOTED OTHERWISE.



D3 PILE CAP SCHEDULE

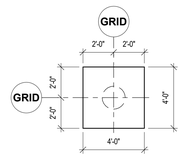
SCALE: N.T.S.



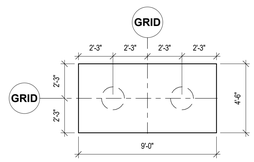
NOTES:
1. PILE CAP REINFORCING NOT SHOWN FOR CLARITY.
2. PROVIDE BAR SPACERS AT TOP, MIDDLE AND BOTTOM OF CAGE, (4) AT EACH LOCATION.

A1 TYPICAL AUGERCAST PILE DETAIL

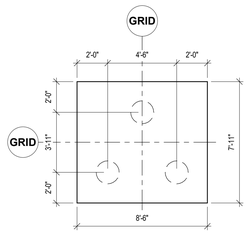
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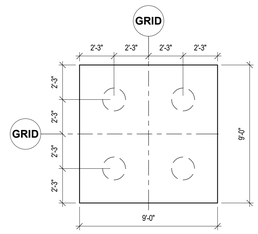
PC-1



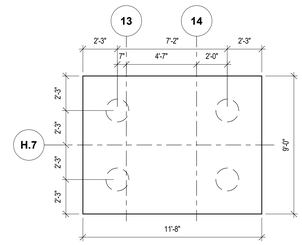
PC-2 & PC-2A



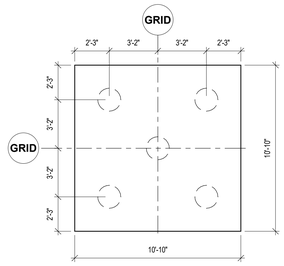
PC-3



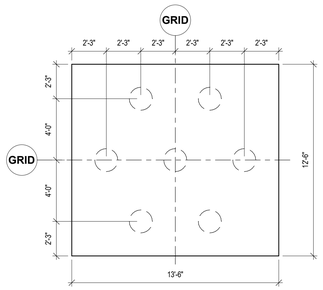
PC-4



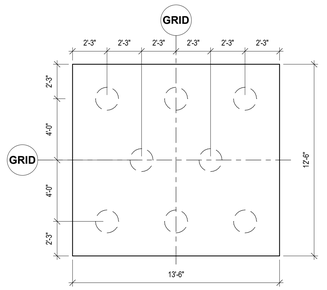
PC-4A



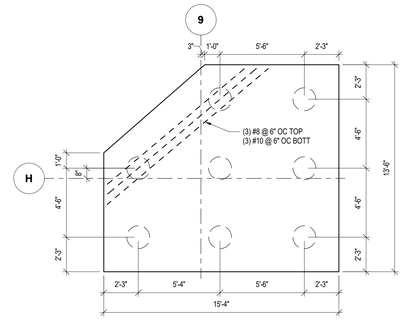
PC-5



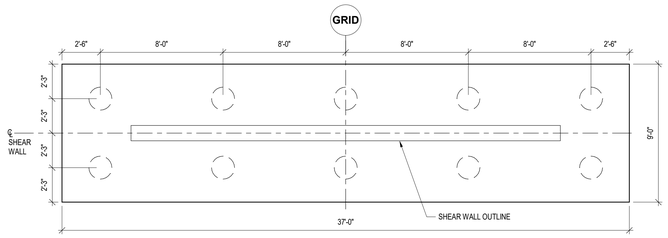
PC-7



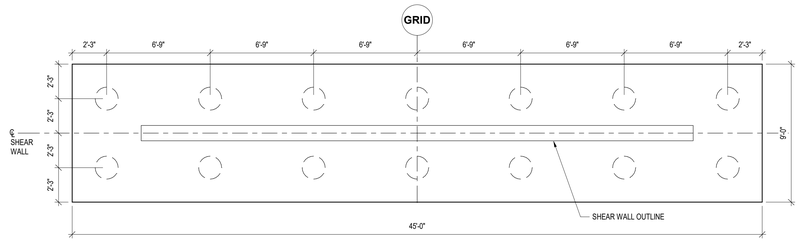
PC-8



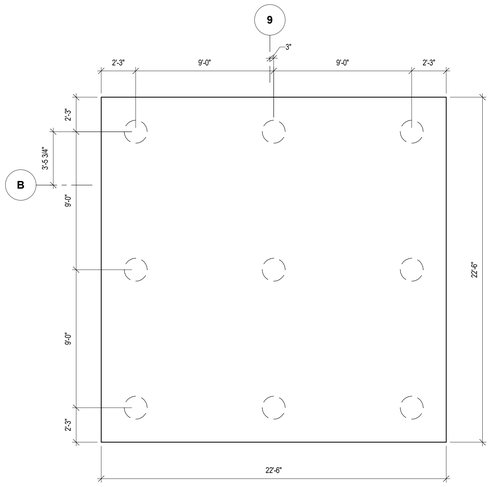
PC-8SP



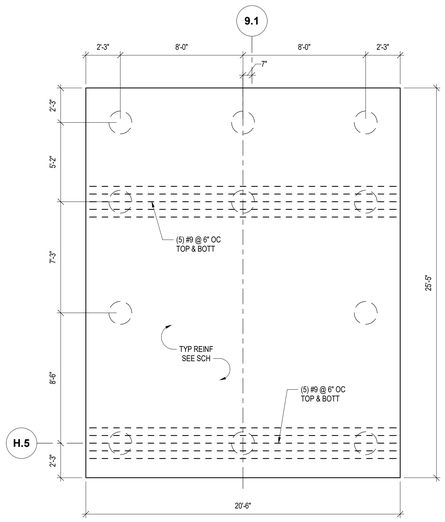
PC-10



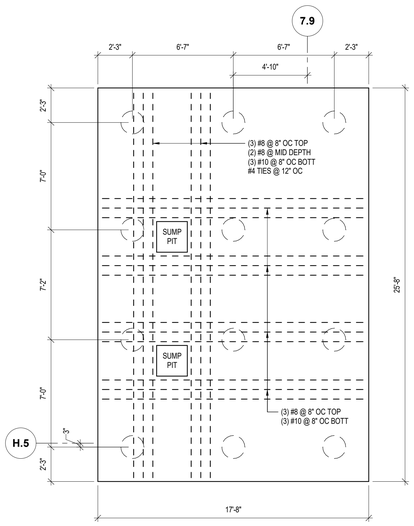
PC-14



PC-9SP



PC-11SP



PC-12SP

A3 TYPICAL PILE CAP DETAILS

SCALE: N.T.S.

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Hartranft Lighting Design

ILM

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DESIGNED BY:	DFW
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:
ACIP PILE AND PILE CAP SCHEDULE AND DETAILS

SHEET ID:
S601

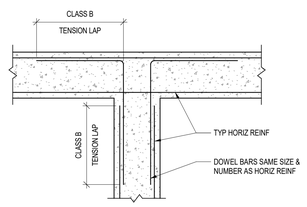
PROJECT STATUS:
100% BID SET

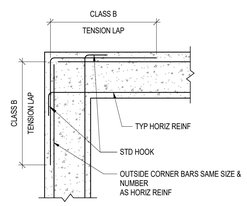
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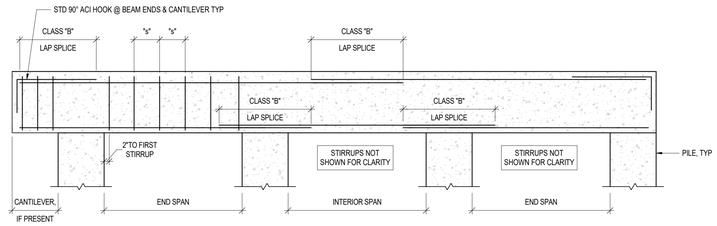
GRADE BEAM SCHEDULE			
TYPE	WIDTH X DEPTH	REINFORCING	NOTES
GB-1	2'-0" X 2'-0"	(3) #6 TOP & BOTT W/ #4 STIRRUPS @ 12" OC	
GB-2	4'-0" X 3'-4"	(5) #6 TOP & BOTT W/ #4 STIRRUPS @ 12" OC	
GB-3	4'-0" X 4'-0"	(5) #8 TOP & BOTT W/ #5 STIRRUPS @ 12" OC	

A1 GRADE BEAM SCHEDULE
SCALE: N.T.S.





A3 TYP GRADE BEAM INTERSECTION DETAILS
SCALE: N.T.S.



NOTES:
1. DIAGRAM INDICATES PERMITTED LOCATIONS OF TENSION LAP SPLICES.
2. SEE SHEET S001 FOR CONCRETE TENSION LAP SPLICE SCHEDULE.
3. AT CONTRACTOR'S OPTION, ADD'L HOOKED BARS AT ENDS CAN BE OMITTED IF MAIN REINFORCEMENT HAS ACI HOOK PROVIDED.

A5 TYP CONC GRADE BEAM REINF DIAGRAM
SCALE: N.T.S.

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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: MCM
DRAWN BY: DFW
DESIGNED BY: DFW
PROJECT NUMBER:
2003-0070-006

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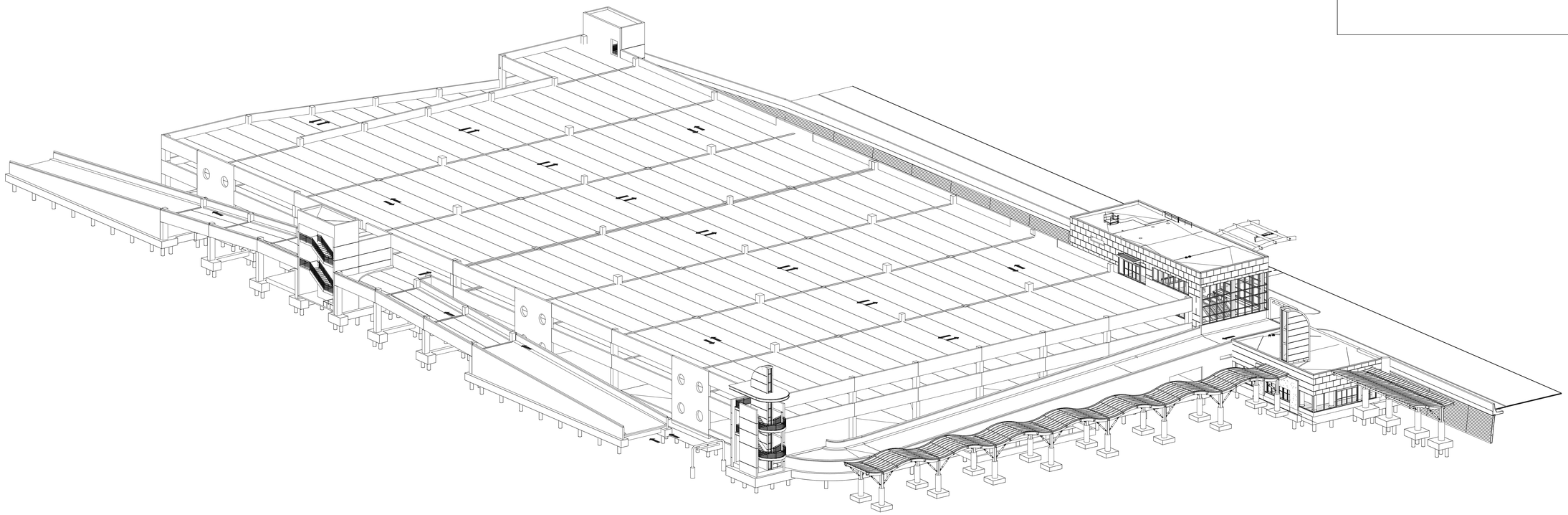
SHEET TITLE:
GRADE BEAM SCHEDULE AND DETAILS

SHEET ID:
S602

PROJECT STATUS:
100% BID SET

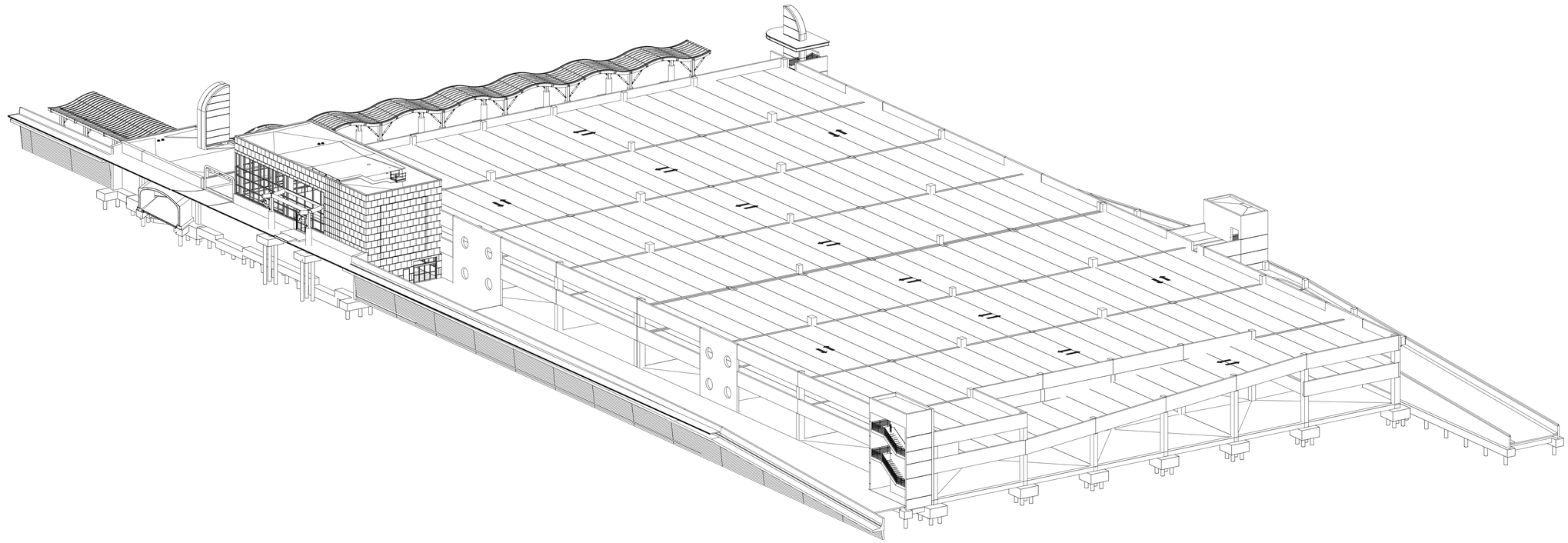
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3/13/2025 4:42:57 PM Autodesk Docs://1003007/0004_ILM TO4 Rdwy Int Improv Design/2003007/0006_ILM_TO6_Parking Garage and Shuttle Plaza_S_R24.rvt



C1 OVERALL GARAGE ISOMETRIC - SOUTHWEST

SCALE:



A1 OVERALL GARAGE ISOMETRIC - NORTHEAST

SCALE:

ISOMETRIC SHEET NOTES

1. ISOMETRIC VIEWS ARE PROVIDED FOR REFERENCE ONLY. NOT ALL STRUCTURAL MEMBERS ARE SHOWN. THIS VIEW SHOULD NOT BE USED FOR BIDDING, DETAILING, FABRICATION, OR ERECTION.

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Phone: 704-752-0810, Fax: 704-949-2672
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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
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WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	DFW
DESIGNED BY:	DFW

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
3D ISOMETRICS

SHEET ID:
S901

PROJECT STATUS:
100% BID SET

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EXISTING MARCH LOT CANOPY

EXISTING TERMINAL

VOLUME 2
CANOPY AND CONNECTOR

SHUTTLE DROP-
OFF PLAZA

WALKWAY
CANOPY

INTERIM
CANOPY

RENTAL CAR
RETURN TO
AIRPORT BLVD

NEW 3-STORY
PARKING GARAGE
339,090 SF

ENTRY PLAZA

ENTRY
CANOPY 1

ADMIN
BUILDING

EXIT
CANOPY 1

A1
A180

BUS
STOP 1

BUS STOP 2

ENTRY
CANOPY 2

PN

N

A1 ARCHITECTURAL SITE PLAN

SCALE: 1" = 60'-0"

60 0 60 120

SCALE: 1" = 60'-0"

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ILM

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WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	CV
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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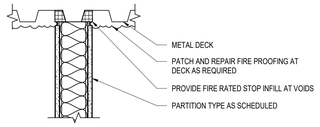
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ARCHITECTURAL SITE PLAN

SHEET ID:
AS101

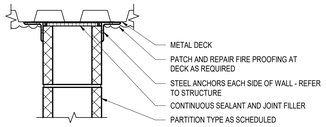
PROJECT STATUS:
100% BID SET

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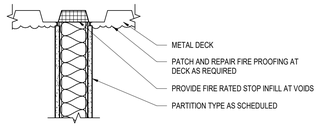
3/14/2025 6:57:47 PM Autodesk Docs://I0030070004_ILM TO4 Rdwy Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt



HEAD DETAIL @ STUD WALL AND MTL DECK



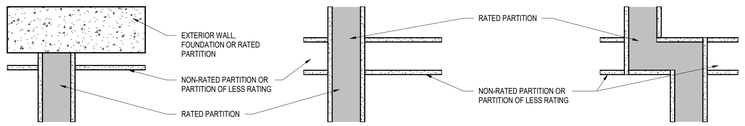
HEAD DETAIL @ CMU WALL AND MTL DECK



HEAD DETAIL @ STUD WALL AND MTL DECK

D1 HEAD DETAILS - FIRE RATED - HORIZONTAL

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



D3 RATED PARTITION CONTINUITY - HORIZONTAL

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

GENERAL PARTITION TYPES NOTES

GENERAL NOTES

1. SEE PLANS FOR ALL LOCATIONS OF PARTITION TYPES.
2. PROVIDE WATER-RESISTANT CORE GYPSUM WALL BOARD AT TILED OR WET LOCATIONS, INCLUDING, BUT NOT LIMITED TO: RESTROOMS, LOCKER ROOMS, SHOWER AREAS, JANITOR CLOSETS, KITCHEN AREAS.
3. SEE STRUCTURAL DRAWINGS FOR MASONRY WALL SIZE AND CONSTRUCTION.
4. COLUMNS SHOWN W/ ENCLOSURES AS PER DETAILS ON ARCHITECTURAL DRAWINGS. WHERE COLUMNS INTERSECT PARTITIONS, PROVIDE RATED OR SOUND ATTENUATED PARTITION ACROSS COLUMN ENCLOSURE, TO MAINTAIN ASSEMBLY RATING.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL WALL BOARD PRODUCT DATA, THICKNESS, AND ADDITIONAL PERFORMANCE REQUIREMENTS.
6. REFER TO SPECIFICATIONS FOR METAL STUD SPACING AND PERFORMANCE REQUIREMENTS FOR METAL STUD GAUGES.
7. GYPSUM WALLBOARD ON PARTITIONS REQUIRING A RATING OF ONE-HOUR OR MORE MUST MEET CONDITIONS STIPULATED BY UL DESIGN NUMBER, WHETHER OR NOT WALL TREATMENT IS SCHEDULED.
8. FRICTION FIT SOUND ATTENUATION INSULATION SNUG IN PLACE BETWEEN FRAMING USED IN PARTITIONS.
9. SCHEDULE CONSTRUCTION OF WALLS ACCORDING TO PRIORITY.

• TWO HOUR FIRE & SMOKE WALL	PRIORITY 1 (HIGHEST)
• TWO HOUR FIRE WALL	PRIORITY 2
• ONE HOUR FIRE & SMOKE WALL	PRIORITY 3
• ONE HOUR FIRE WALL	PRIORITY 4
• NON-RATED WALL	PRIORITY 5 (LOWEST)

PARTITION TAG

NOTE: PARTITION TAGS ARE READ LEFT TO RIGHT.

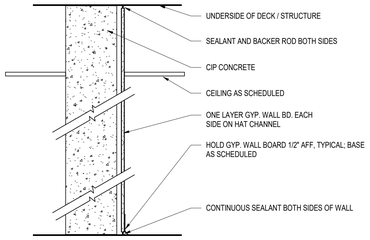
1. THE FIRST SECTION IN THE TAG INDICATES THE WALL TYPE BASED ON THE PRIMARY MATERIAL OR USE OF THE PARTITION AS REFERENCED IN THE WALL TYPE SCHEDULE'S FIRST TWO COLUMNS.
2. THE SECOND SECTION IN THE TAG INDICATES THE HEAD CONDITION OF THE WALL: A = 6" ABOVE CEILING, B = 6" BELOW STRUCTURE, C = TO CEILING, D = TO DECK/STRUCTURE, P = PARTIAL HEIGHT WALL
3. THE LAST SECTION IN THE TAG INDICATES WHETHER THE WALL ASSEMBLY IS FIRE RATED (IF APPLICABLE) AND IF SO, TO WHAT NUMERICAL HOUR RATING.

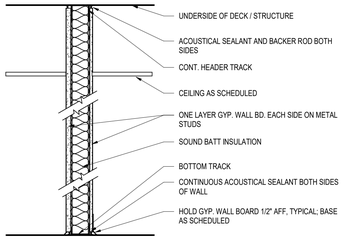
STANDARD PARTITION TAG

WALL TYPE (MATERIAL/USE) — B3-A — HEAD CONDITION

RATED PARTITION TAG

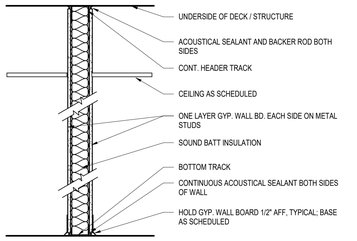
WALL TYPE (MATERIAL/USE) — RS3-1 — NUMERICAL HOUR RATING





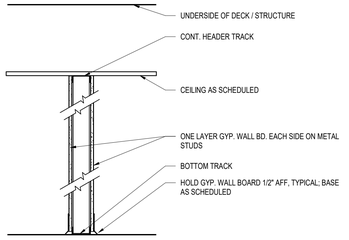
R#-D PARTITION TYPE

TYPE MARK	DESCRIPTION	FIRE RATING	UL No.	HEAD UL No.	STC	TYPE
R6-D	1" LINER PANEL, 6" METAL STUD, FIBERGLASS INSULATION, 5/8" GWB	1 HR	UL415	-	-	
R9-D	10" CIP CONCRETE	1 HR	-	-	-	
R10-D	10" CIP CONCRETE, 7/8" HAT CHANNEL, 5/8" GWB ONE SIDE	1 HR	-	-	-	
R12-D	12" CIP CONCRETE, 7/8" HAT CHANNEL, 5/8" GWB ONE SIDE	1 HR	-	-	-	



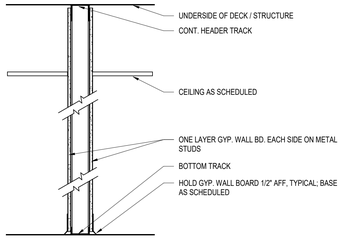
A#-D PARTITION TYPE

TYPE MARK	DESCRIPTION	FIRE RATING	UL No.	HEAD UL No.	STC	TYPE
A3-D	3 5/8" MTL STUD	-	-	-	50	ACOUSTICAL METAL STUD PARTITION



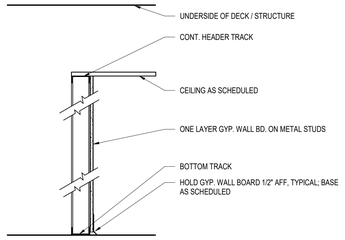
B#-C PARTITION TYPE

TYPE MARK	DESCRIPTION	FIRE RATING	UL No.	HEAD UL No.	STC	TYPE
B3-C	3 5/8" MTL STUD	-	-	-	-	



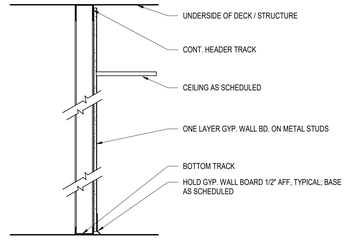
B#-D PARTITION TYPE

TYPE MARK	DESCRIPTION	FIRE RATING	UL No.	HEAD UL No.	STC	TYPE
B6-D	6" MTL STUD	-	-	-	-	METAL STUD PARTITION



F#-C PARTITION TYPE

TYPE MARK	DESCRIPTION	FIRE RATING	UL No.	HEAD UL No.	STC	TYPE
F3-C	3 5/8" METAL STUD, 5/8" GWB ONE SIDE	-	-	-	-	



F#-D PARTITION TYPE

TYPE MARK	DESCRIPTION	FIRE RATING	UL No.	HEAD UL No.	STC	TYPE
F1-D	1 5/8" MTL STUD, 5/8" GWB ONE SIDE	-	-	-	-	GWB COLUMN WRAP
F3-D	3 5/8" METAL STUD, 5/8" GWB ONE SIDE	-	-	-	-	

1 0 1

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

1 0 1 2

SCALE: 1" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
PARTITION TYPES

SHEET ID:
A001

PROJECT STATUS:
100% BID SET

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PARKING TOTALS			
LEVEL 1			
FIRST LEVEL PARKING BY RENTAL CAR AGENCY			
LEVEL 2			
TYPE	LENGTH	WIDTH	COUNT
ACCESSIBLE STANDARD	18'-0"	9'-0"	5
ACCESSIBLE VAN	18'-0"	11'-0"	3
STANDARD	18'-0"	9'-0"	292
TOTAL LEVEL 2			301
LEVEL 3			
TYPE	LENGTH	WIDTH	COUNT
ACCESSIBLE STANDARD	18'-0"	9'-0"	4
ACCESSIBLE VAN	18'-0"	11'-0"	3
STANDARD	18'-0"	9'-0"	307
TOTAL LEVEL 3			314
GRAND TOTAL			615

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

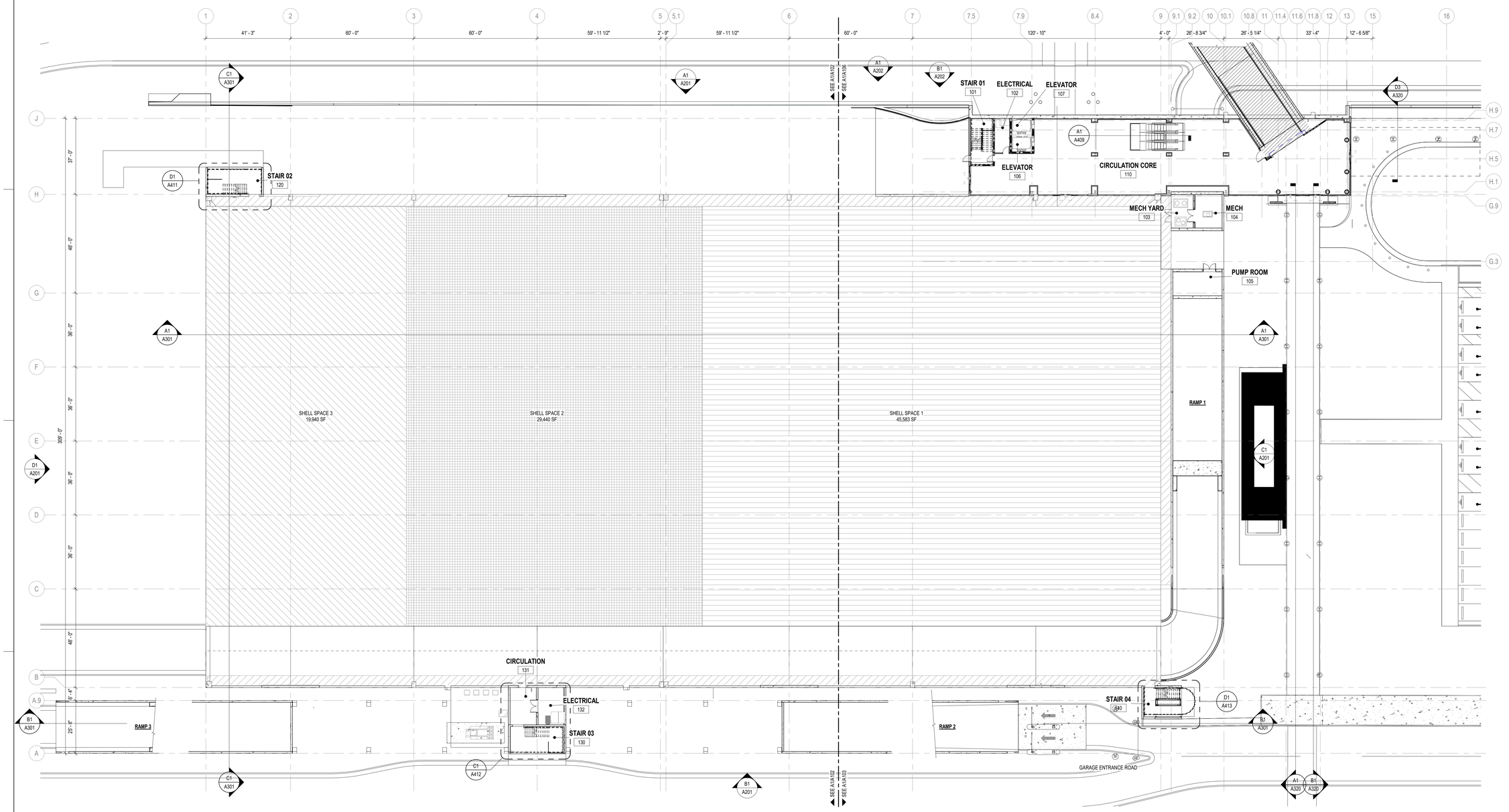
- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
- CONCRETE MASONRY UNIT WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

GENERAL SHEET NOTES

1. ALL EXTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF SHEATHING OR CONCRETE U.N.O.
2. ALL INTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF STUD U.N.O.
3. SEE ENLARGED PLANS FOR PARTITION TAGS NOT IDENTIFIED ON OVERALL FLOOR PLANS.
4. PROVIDE 5/8" WATER-RESISTANT GWB IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO:
   A. RESTROOMS
   B. JANITOR CLOSETS
5. EXTEND SMOKE BARRIER PARTITION WALLS TO BOTTOM OF UPPER FLOOR STRUCTURE.
6. FIELD VERIFY ALL DIMENSIONS, REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
7. SEAL ALL PENETRATIONS ON EXTERIOR WALLS.
8. ALL PLYWOOD TO BE FIRE TREATED, U.N.O.
9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.



PN

A1 OVERALL GROUND FLOOR PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

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ILM

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KEY PLAN

C
A B

REVISIONS

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DRAWN BY:	KS
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2003-0070-006	

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SHEET TITLE:

OVERALL GROUND FLOOR PLAN

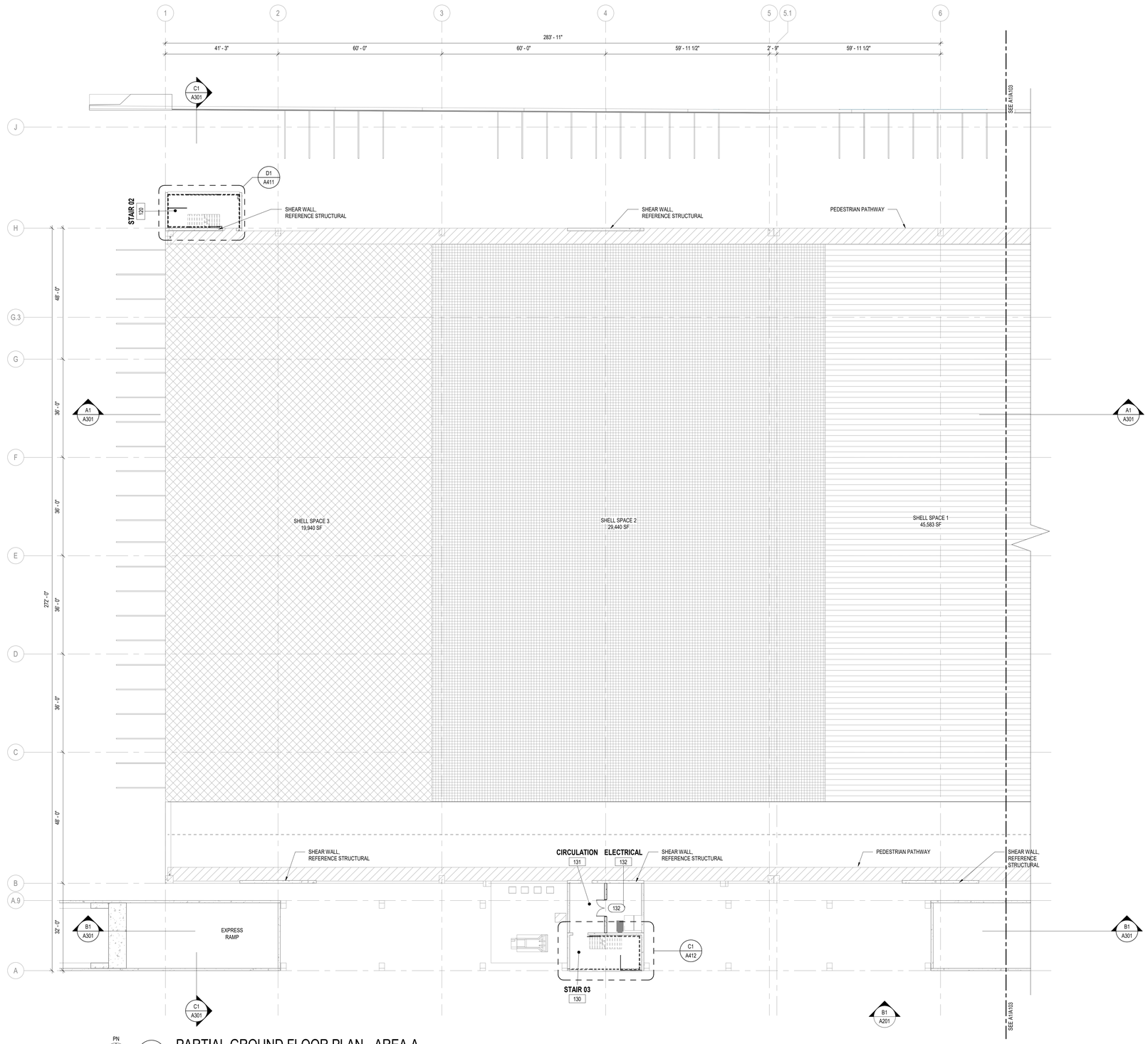
SHEET ID:

A101

PROJECT STATUS:
100% BID SET

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PN

N

A1 PARTIAL GROUND FLOOR PLAN - AREA A

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
- CONCRETE MASONRY UNIT WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

GENERAL SHEET NOTES

1. ALL EXTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF SHEATHING OR CONCRETE U.N.O.
2. ALL INTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF STUD U.N.O.
3. SEE ENLARGED PLANS FOR PARTITION TAGS NOT IDENTIFIED ON OVERALL FLOOR PLANS.
4. PROVIDE 5/8" WATER-RESISTANT GWB IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO:
   A. RESTROOMS
   B. JANITOR CLOSETS
5. EXTEND SMOKE BARRIER PARTITION WALLS TO BOTTOM OF UPPER FLOOR STRUCTURE.
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KEY PLAN

C
A B

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REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
PARTIAL GROUND FLOOR PLAN - AREA A

SHEET ID:
A102

PROJECT STATUS:
100% BID SET

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FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

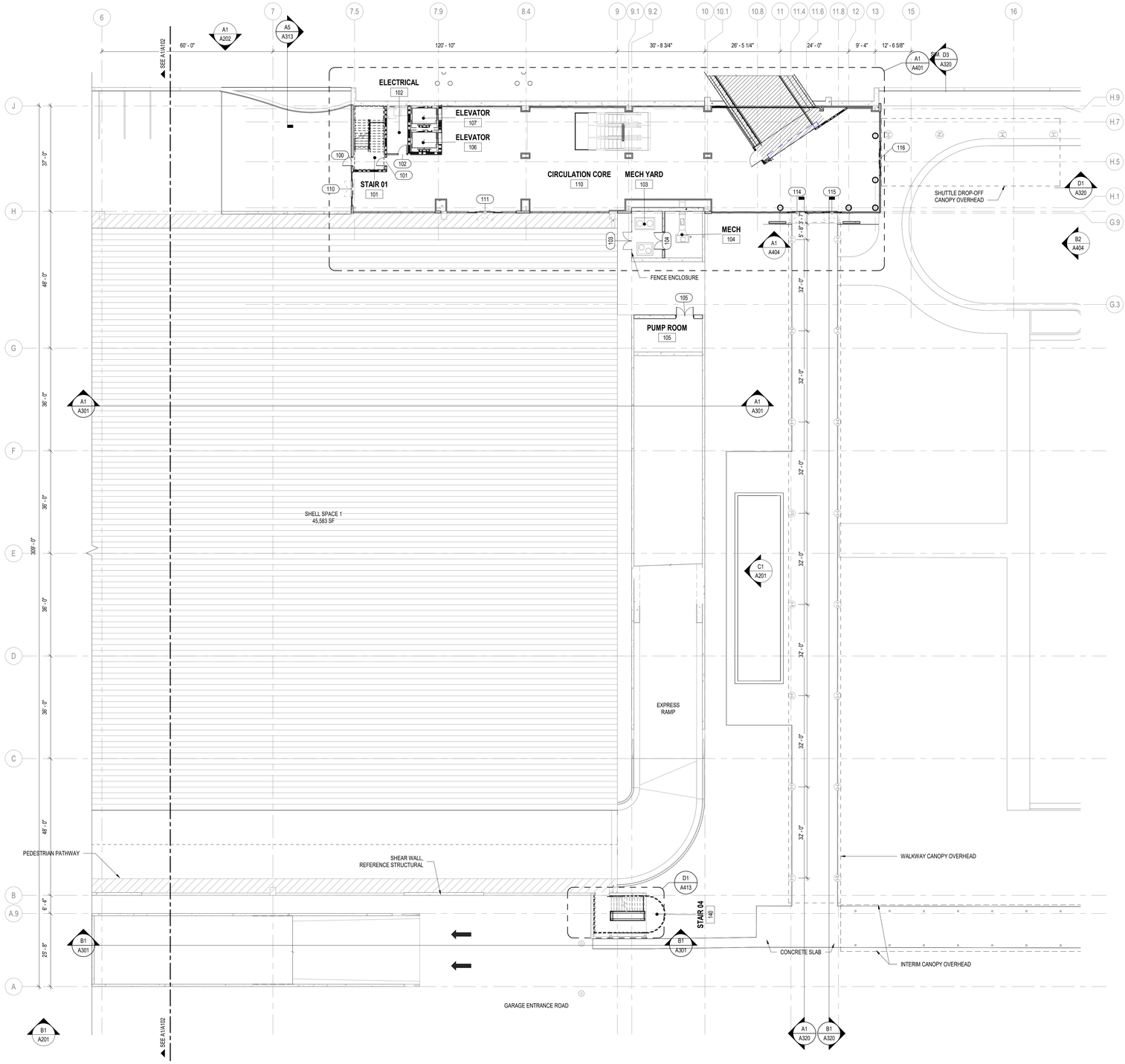
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NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

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7. SEAL ALL PENETRATIONS ON EXTERIOR WALLS.
8. ALL PLYWOOD TO BE FIRE TREATED, U.N.O.
9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.



PN

N

A1 PARTIAL GROUND FLOOR PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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SHEET TITLE:
PARTIAL GROUND FLOOR PLAN - AREA B

SHEET ID:
A103

PROJECT STATUS:
100% BID SET

3/14/2025 6:58:00 PM Autodesk Docs://I0030070004_ILM TO4 Rdwy Inf Improv Design/20030070006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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PARKING TOTALS			
LEVEL 1			
FIRST LEVEL PARKING BY RENTAL CAR AGENCY			
LEVEL 2			
TYPE	LENGTH	WIDTH	COUNT
ACCESSIBLE STANDARD	18'-0"	9'-0"	5
ACCESSIBLE VAN	18'-0"	11'-0"	3
STANDARD	18'-0"	9'-0"	292
TOTAL LEVEL 2			301
LEVEL 3			
TYPE	LENGTH	WIDTH	COUNT
ACCESSIBLE STANDARD	18'-0"	9'-0"	4
ACCESSIBLE VAN	18'-0"	11'-0"	3
STANDARD	18'-0"	9'-0"	307
TOTAL LEVEL 3			314
GRAND TOTAL			615

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

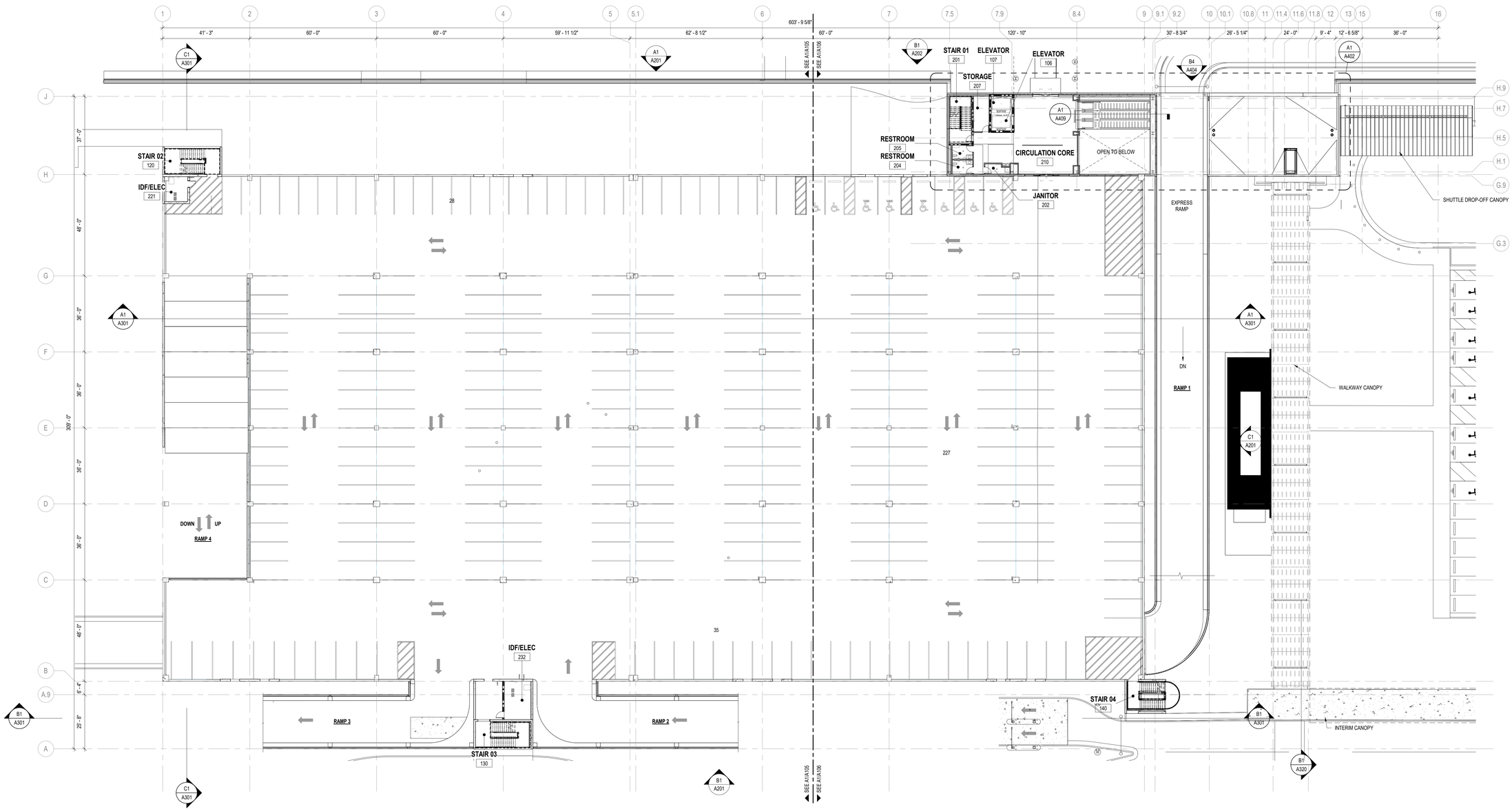
- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
- CONCRETE MASONRY UNIT WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

GENERAL SHEET NOTES

1. ALL EXTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF SHEATHING OR CONCRETE U.N.O.
2. ALL INTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF STUD U.N.O.
3. SEE ENLARGED PLANS FOR PARTITION TAGS NOT IDENTIFIED ON OVERALL FLOOR PLANS.
4. PROVIDE 5/8" WATER-RESISTANT GWB IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO:
   A. RESTROOMS
   B. JANITOR CLOSETS
5. EXTEND SMOKE BARRIER PARTITION WALLS TO BOTTOM OF UPPER FLOOR STRUCTURE.
6. FIELD VERIFY ALL DIMENSIONS, REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
7. SEAL ALL PENETRATIONS ON EXTERIOR WALLS.
8. ALL PLYWOOD TO BE FIRE TREATED, U.N.O.
9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.



PN

A1 OVERALL SECOND LEVEL FLOOR PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

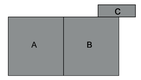
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North Carolina License Nos. 50073 *
F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	

2003-0070-006

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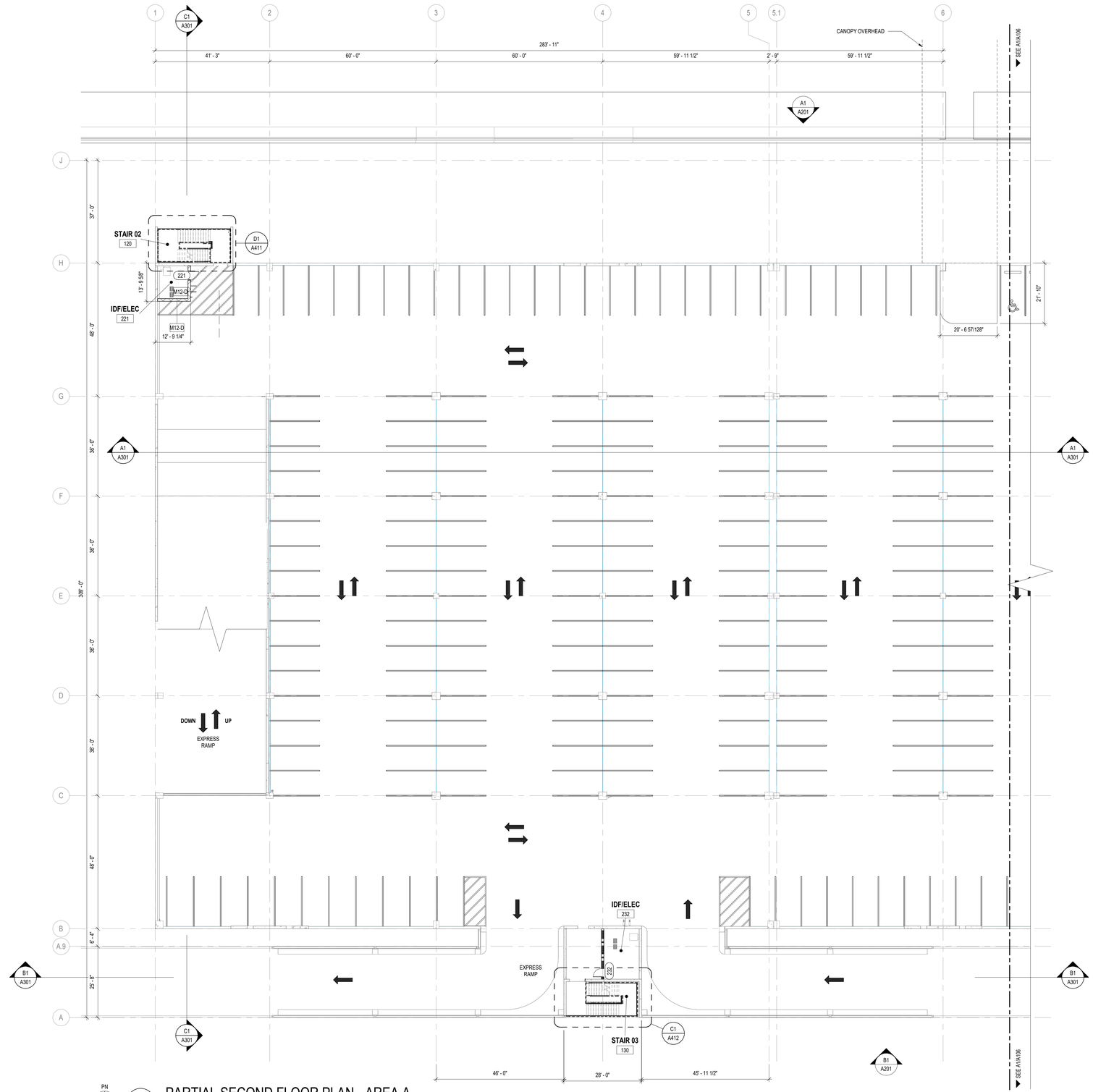
SHEET TITLE:
OVERALL SECOND FLOOR PLAN

SHEET ID:
A104

PROJECT STATUS:
100% BID SET

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PN

N

A1 PARTIAL SECOND FLOOR PLAN - AREA A

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
- CONCRETE MASONRY UNIT WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

GENERAL SHEET NOTES

1. ALL EXTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF SHEATHING OR CONCRETE U.N.O.
2. ALL INTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF STUD U.N.O.
3. SEE ENLARGED PLANS FOR PARTITION TAGS NOT IDENTIFIED ON OVERALL FLOOR PLANS.
4. PROVIDE 5/8" WATER-RESISTANT GWB IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO:
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7. SEAL ALL PENETRATIONS ON EXTERIOR WALLS.
8. ALL PLYWOOD TO BE FIRE TREATED, U.N.O.
9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.

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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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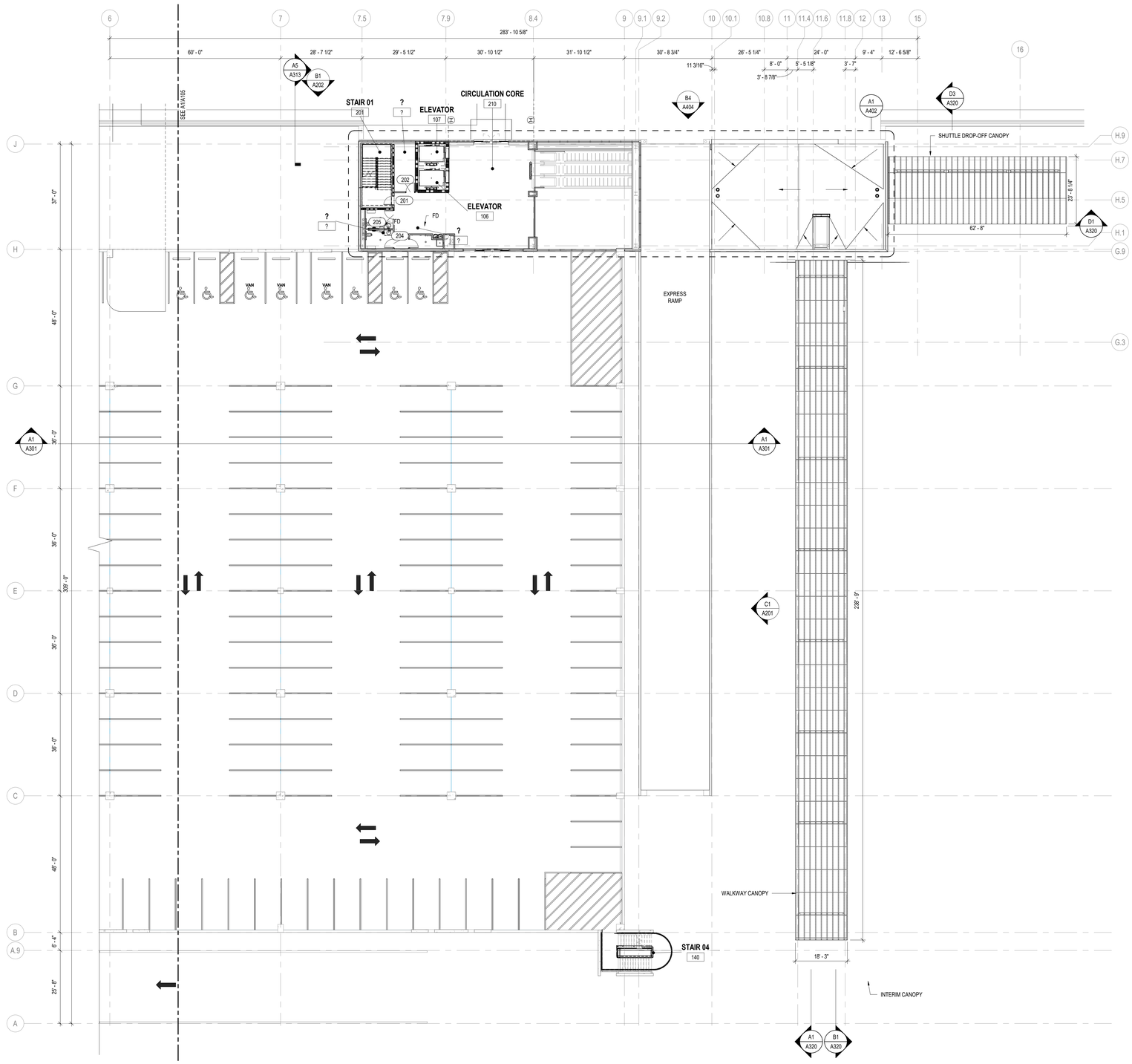
SHEET TITLE:
PARTIAL SECOND FLOOR PLAN - AREA A

SHEET ID:
A105

PROJECT STATUS:
100% BID SET

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PN

N

A1 PARTIAL SECOND FLOOR PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
- CONCRETE MASONRY UNIT WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

GENERAL SHEET NOTES

1. ALL EXTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF SHEATHING OR CONCRETE U.N.O.
2. ALL INTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF STUD U.N.O.
3. SEE ENLARGED PLANS FOR PARTITION TAGS NOT IDENTIFIED ON OVERALL FLOOR PLANS.
4. PROVIDE 5/8" WATER-RESISTANT GWB IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO:
   A. RESTROOMS
   B. JANITOR CLOSETS
5. EXTEND SMOKE BARRIER PARTITION WALLS TO BOTTOM OF UPPER FLOOR STRUCTURE.
6. FIELD VERIFY ALL DIMENSIONS, REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
7. SEAL ALL PENETRATIONS ON EXTERIOR WALLS.
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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: SG
DRAWN BY: KS
DESIGNED BY: FG
PROJECT NUMBER:
2003-0070-006
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SHEET TITLE:
PARTIAL SECOND FLOOR PLAN - AREA B

SHEET ID:
A106

PROJECT STATUS:
100% BID SET

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PARKING TOTALS

LEVEL 1

FIRST LEVEL PARKING BY RENTAL CAR AGENCY

LEVEL 2

TYPE	LENGTH	WIDTH	COUNT
ACCESSIBLE STANDARD	18'-0"	9'-0"	5
ACCESSIBLE VAN	18'-0"	11'-0"	3
STANDARD	18'-0"	9'-0"	292
TOTAL LEVEL 2			301

LEVEL 3

TYPE	LENGTH	WIDTH	COUNT
ACCESSIBLE STANDARD	18'-0"	9'-0"	4
ACCESSIBLE VAN	18'-0"	11'-0"	3
STANDARD	18'-0"	9'-0"	307
TOTAL LEVEL 3			314
GRAND TOTAL			615

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

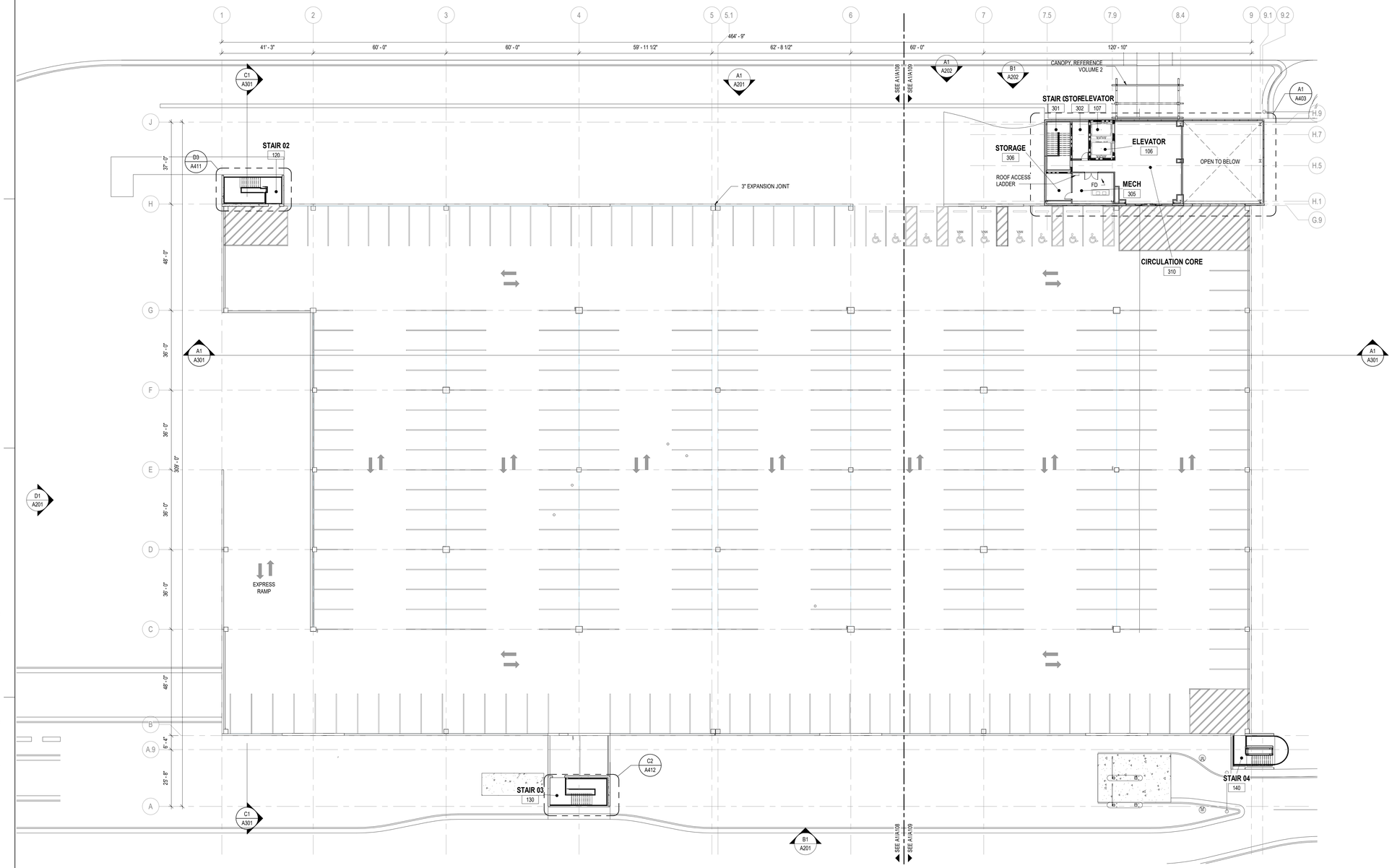
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- 3-HOUR RATED WALL SYSTEM
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REFER TO VOLUME 2 PACKAGE

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9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.



PN

N

A1 OVERALL THIRD FLOOR PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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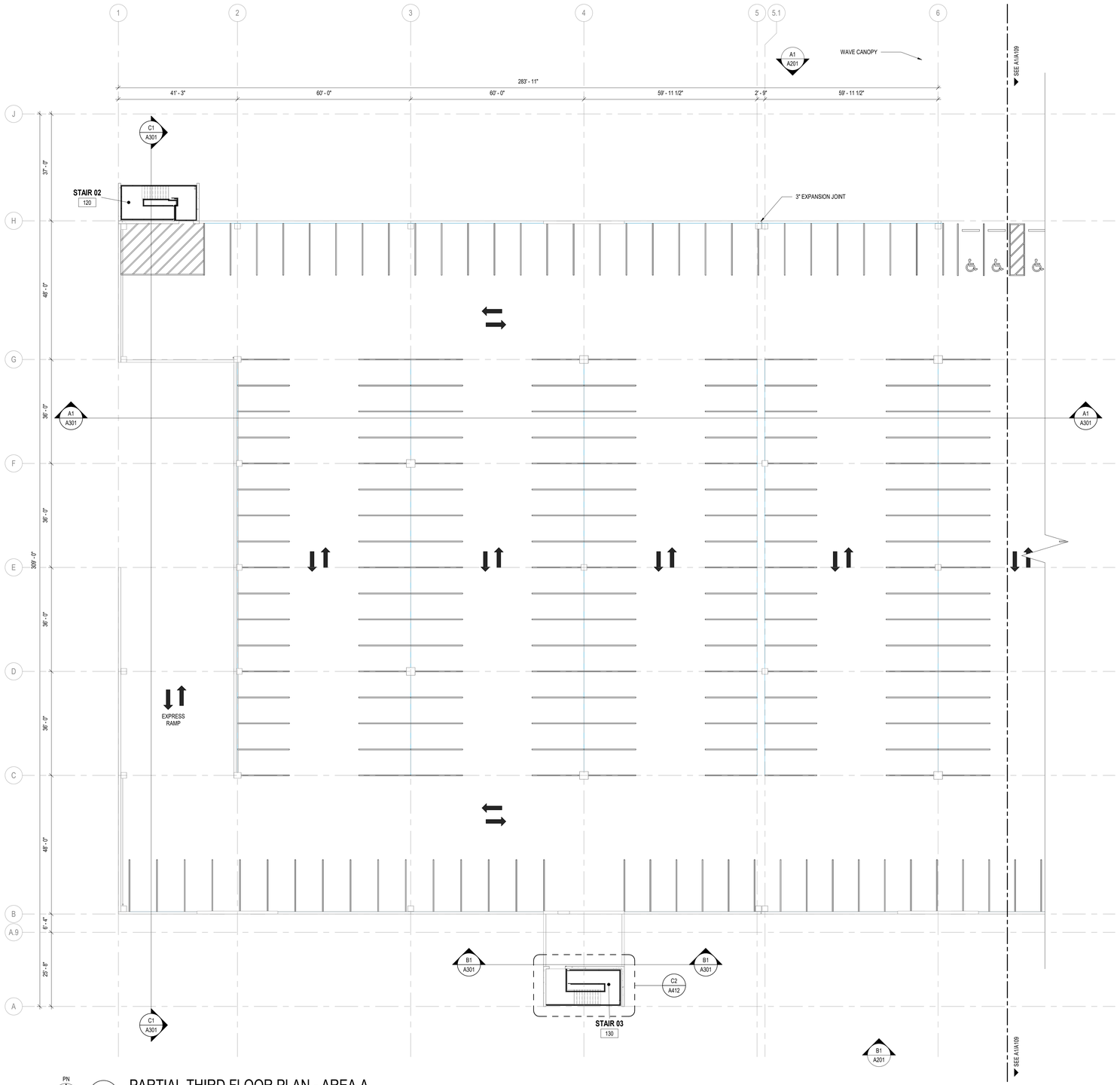
SHEET TITLE:
OVERALL THIRD FLOOR PLAN

SHEET ID:
A107

PROJECT STATUS:
100% BID SET

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PN

N

A1 PARTIAL THIRD FLOOR PLAN - AREA A

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
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REFER TO VOLUME 2 PACKAGE

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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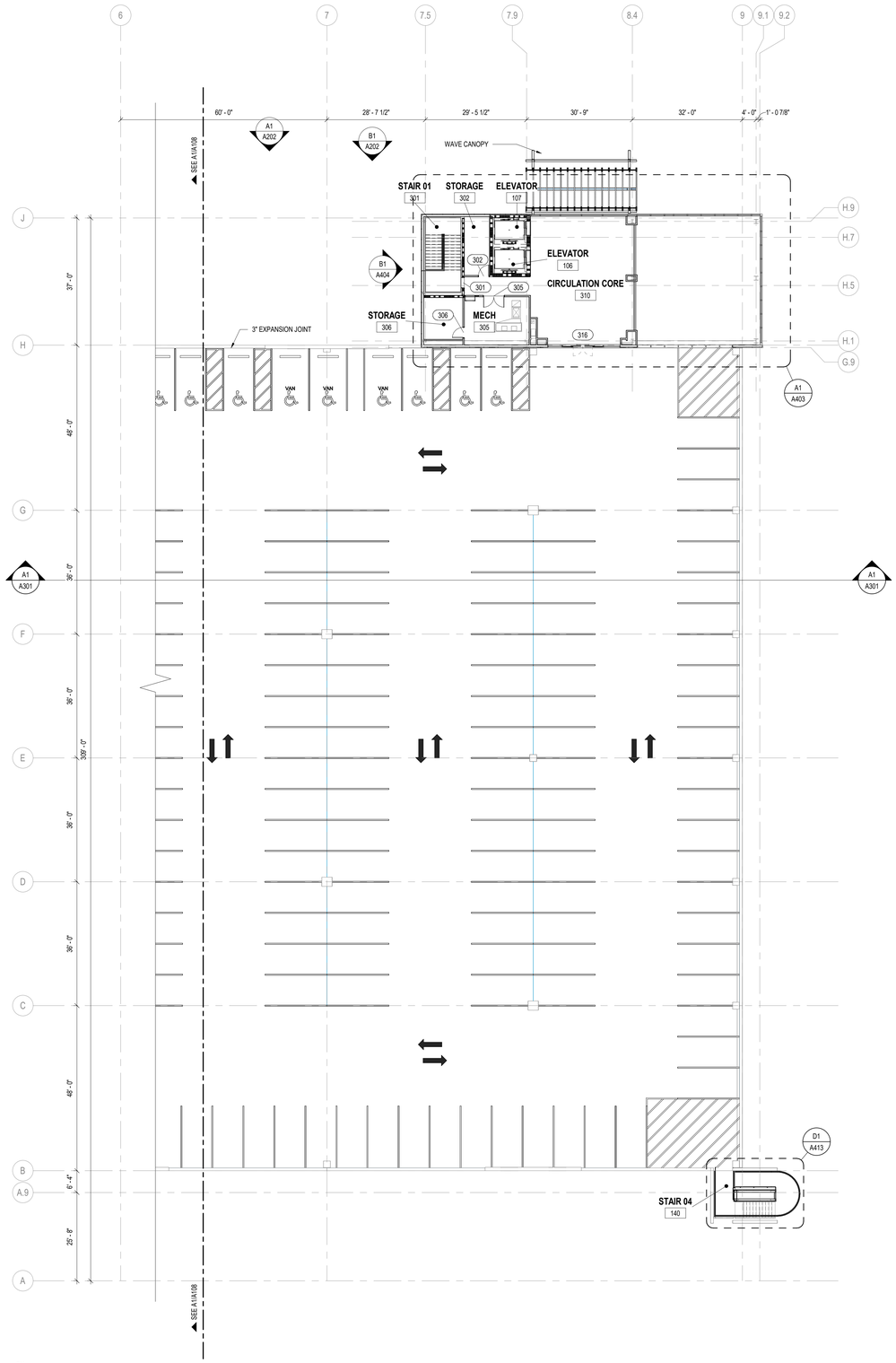
SHEET TITLE:
PARTIAL THIRD FLOOR PLAN - AREA A

SHEET ID:
A108

PROJECT STATUS:
100% BID SET

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FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
- 3-HOUR RATED WALL SYSTEM
- PRECAST OR C.I.P. CONCRETE WALL SYSTEM
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NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
PARTIAL THIRD FLOOR PLAN - AREA B

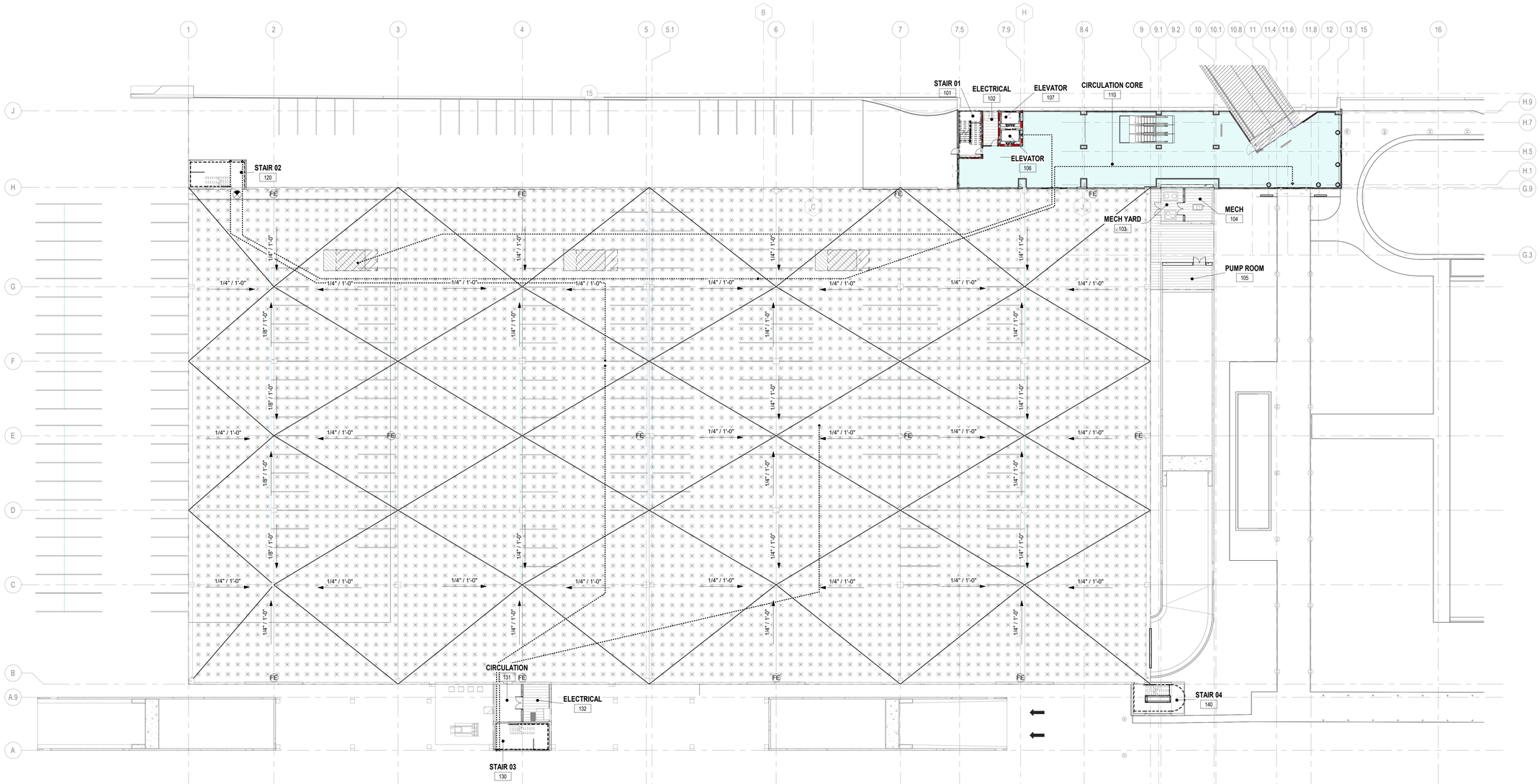
SHEET ID:
A109

PROJECT STATUS:
100% BID SET

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SCALE: 1/16" = 1'-0"

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PN

A1 GROUND FLOOR DRAINAGE PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	PB
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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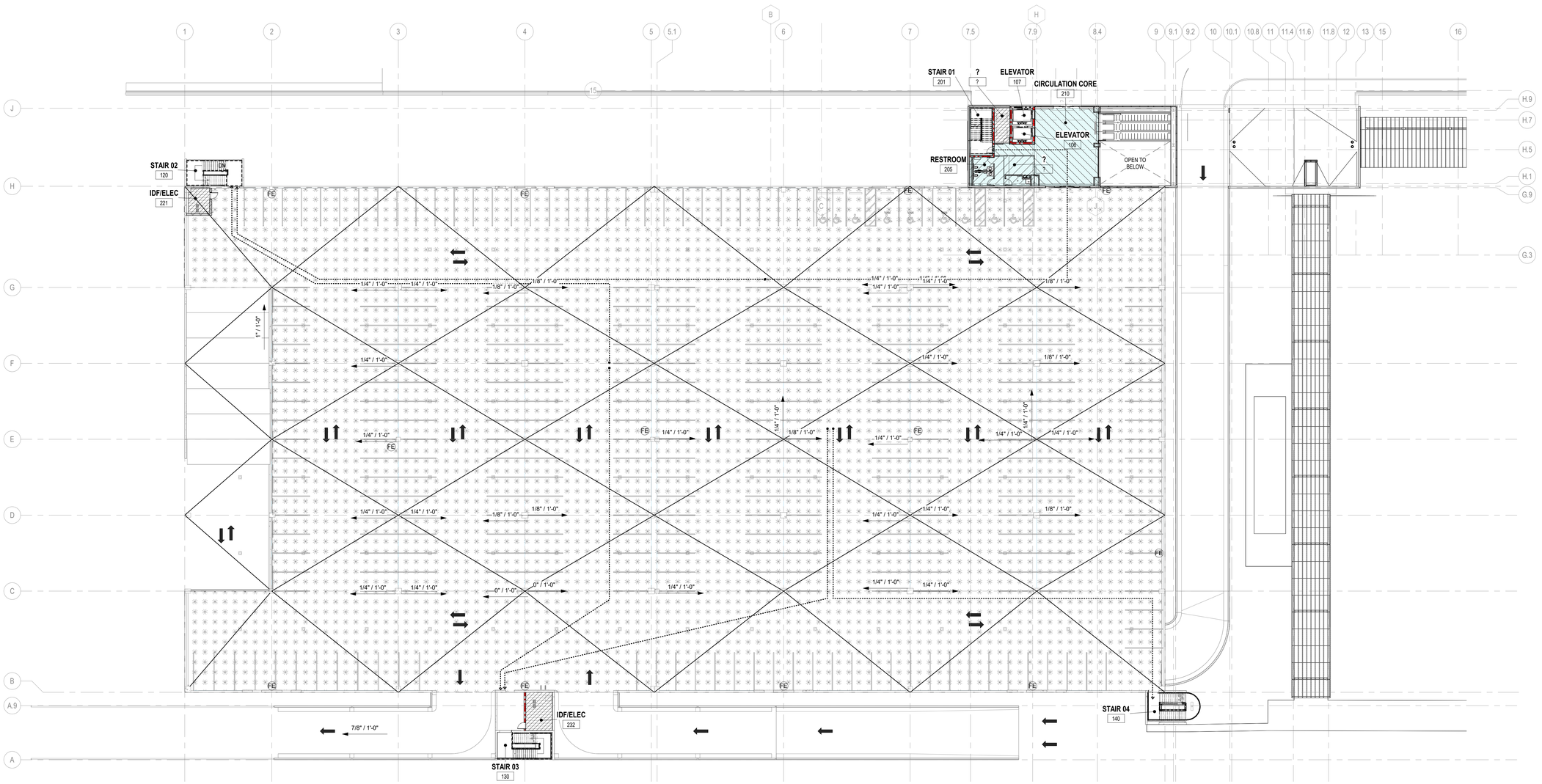
SHEET TITLE:
GROUND FLOOR DRAINAGE PLANS

SHEET ID:
A111

PROJECT STATUS:
100% BID SET

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PN

N

A1 SECOND FLOOR DRAINAGE PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

3/14/2025 6:58:34 PM Autodesk Docs://1003007004_ILM TO4 Rdwy Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	PB
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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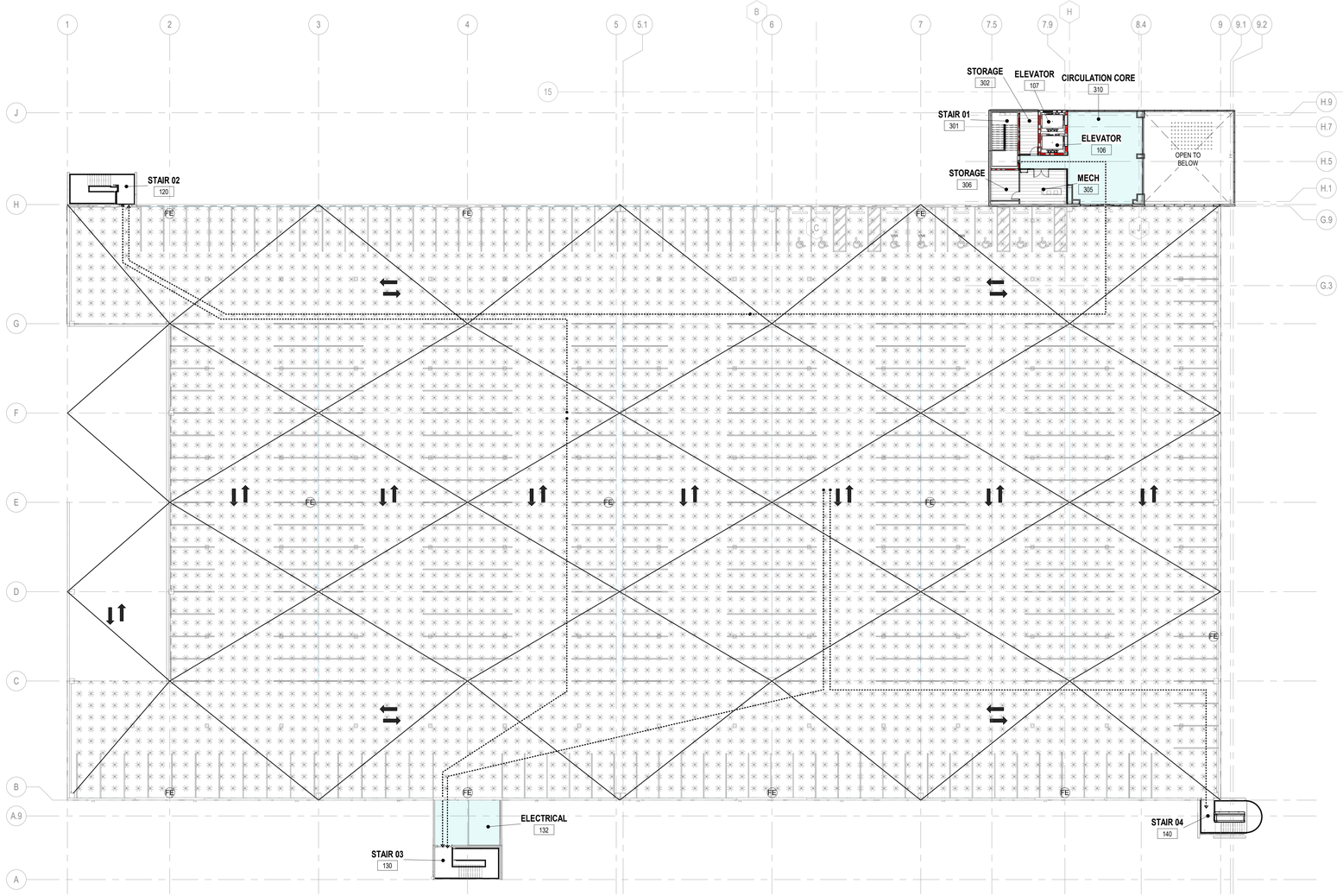
SEAL:

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

SHEET TITLE:
SECOND FLOOR DRAINAGE PLAN

SHEET ID:
A112

PROJECT STATUS:
100% BID SET



A1 THIRD FLOOR DRAINAGE PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	PB
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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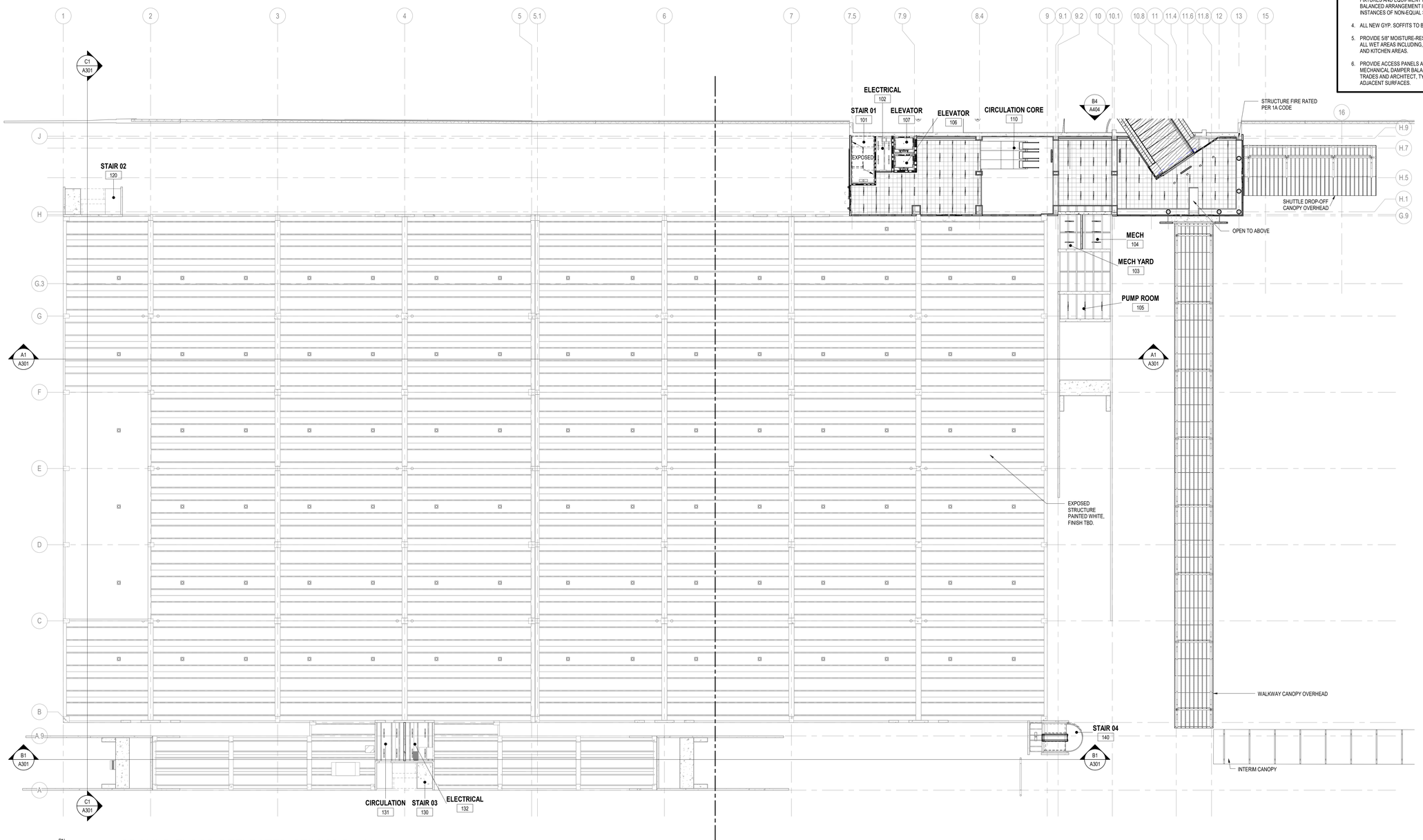
SHEET TITLE:
THIRD FLOOR DRAINAGE PLAN

SHEET ID:
A113

PROJECT STATUS:
100% BID SET

3/14/2025 6:58:38 PM Autodesk Docs://1003007000/4_ILM TO4 Rdwy Imf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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PN

N

A1 GROUND FLOOR REFLECTED CEILING PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

	ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
	ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
	GWB1	5/8" GWB ON METAL FRAMING
	EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
- DOWNLIGHT RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EXIT SIGN
- 4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

1. DEVICES HAVE BEEN SHOWN FOR COORDINATION PURPOSES. SEE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ITEMS NOT SHOWN ON REFLECTED CEILING PLANS. CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
2. ALL CEILING MOUNTED DEVICES MUST BE CENTERED IN BOTH DIRECTIONS IN ACOUSTICAL CEILING PANELS U.N.O.
3. CENTER SPRINKLER HEADS IN ACOUSTICAL CEILING PANELS WHERE THEY OCCUR. COORDINATE THE LOCATION OF THE SPRINKLER HEADS WITH OTHER CEILING FIXTURES AND EQUIPMENT IN ALL CEILINGS. ENSURE THAT A SYMMETRICAL AND BALANCED ARRANGEMENT IS INSTALLED. CONTRACTING OFFICER IS TO REVIEW INSTANCES OF NON-EQUAL SPACING PRIOR TO INSTALLATION.
4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP. U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALVES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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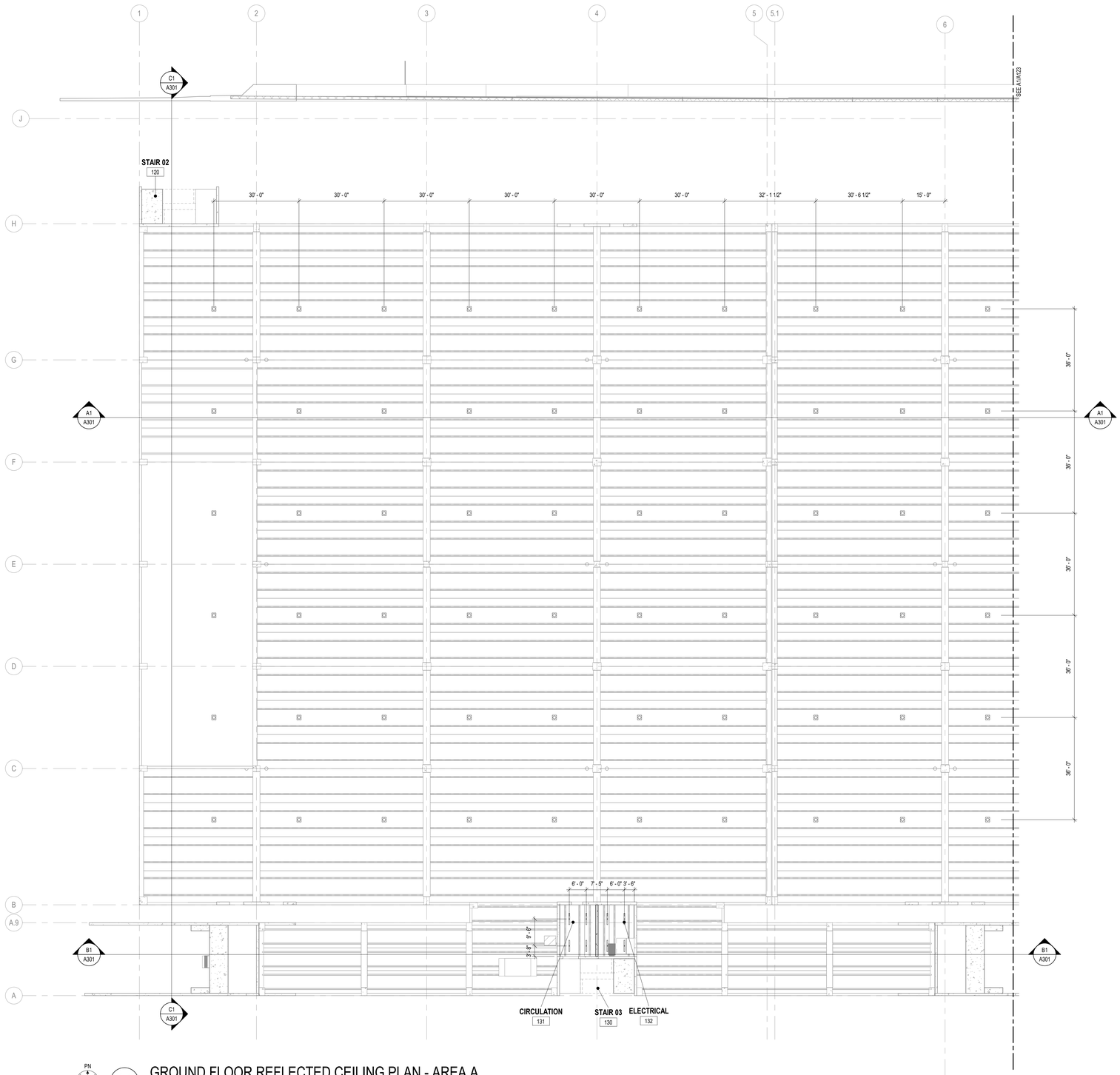
SHEET TITLE:
OVERALL GROUND FLOOR REFLECTED CEILING PLAN

SHEET ID:
A121

PROJECT STATUS:
100% BID SET

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PN

N

A1 GROUND FLOOR REFLECTED CEILING PLAN - AREA A

SCALE: 1/16" = 1'-0"

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

	ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
	ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
	GWB1	5/8" GWB ON METAL FRAMING
	EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
- DOWNLIGHT RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EXIT SIGN
- 4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

1. DEVICES HAVE BEEN SHOWN FOR COORDINATION PURPOSES. SEE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ITEMS NOT SHOWN ON REFLECTED CEILING PLANS. CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
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4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP. U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALUES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:
PARTIAL GROUND FLOOR REFLECTED CEILING PLAN - AREA A

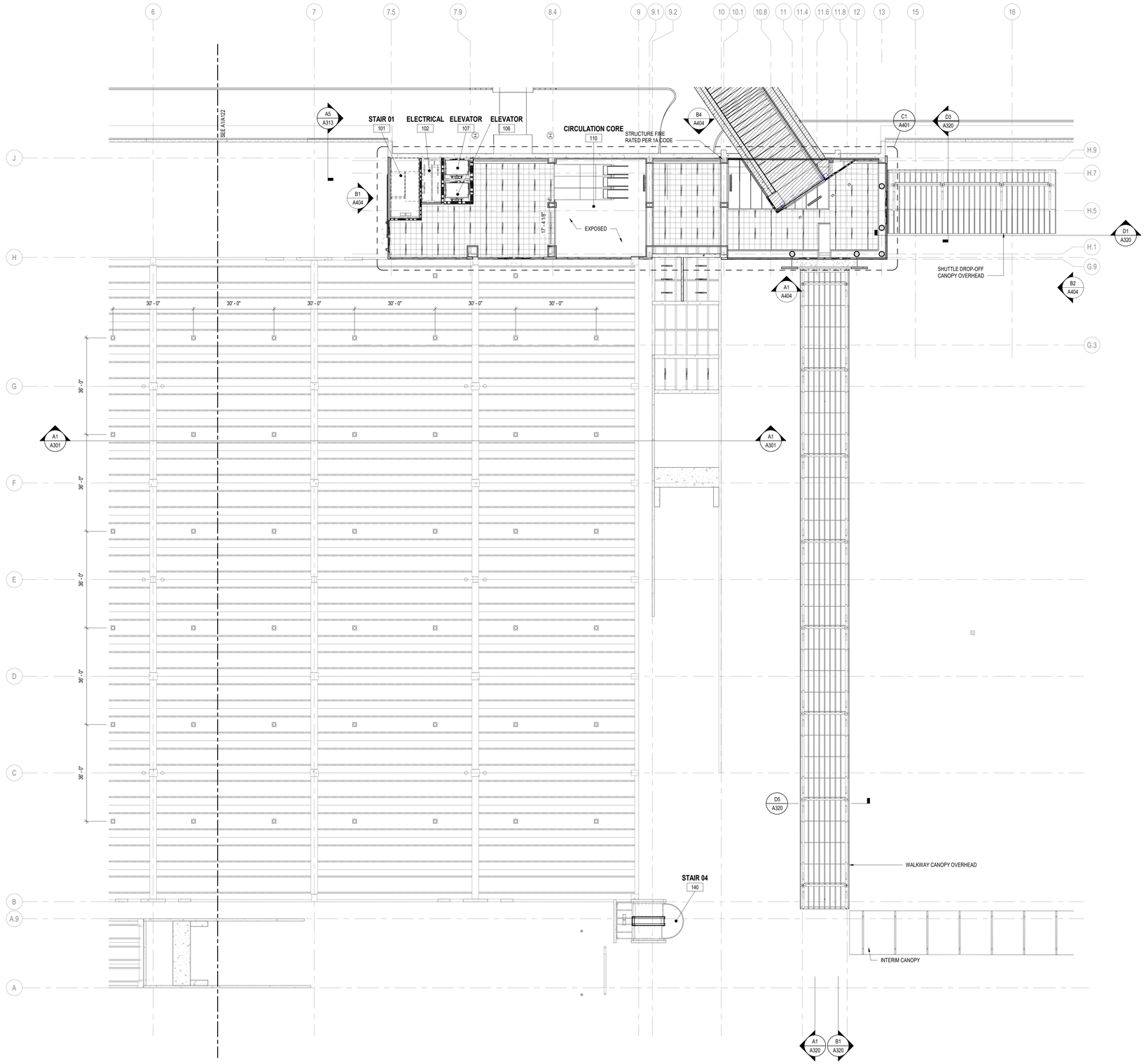
SHEET ID:
A122

PROJECT STATUS:
100% BID SET

16 0 16 32
SCALE: 1/16" = 1'-0"

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A1 GROUND FLOOR REFLECTED CEILING PLAN - AREA B

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
GWB1	5/8" GWB ON METAL FRAMING
EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
- DOWNLIGHT RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EXIT SIGN
- 4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

1. DEVICES HAVE BEEN SHOWN FOR COORDINATION PURPOSES. SEE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ITEMS NOT SHOWN ON REFLECTED CEILING PLANS. CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
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3. CENTER SPRINKLER HEADS IN ACOUSTICAL CEILING PANELS WHERE THEY OCCUR. COORDINATE THE LOCATION OF THE SPRINKLER HEADS WITH OTHER CEILING FIXTURES AND EQUIPMENT IN ALL CEILINGS. ENSURE THAT A SYMMETRICAL AND BALANCED ARRANGEMENT IS INSTALLED. CONTRACTING OFFICER IS TO REVIEW INSTANCES OF NON-EQUAL SPACING PRIOR TO INSTALLATION.
4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP, U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALUES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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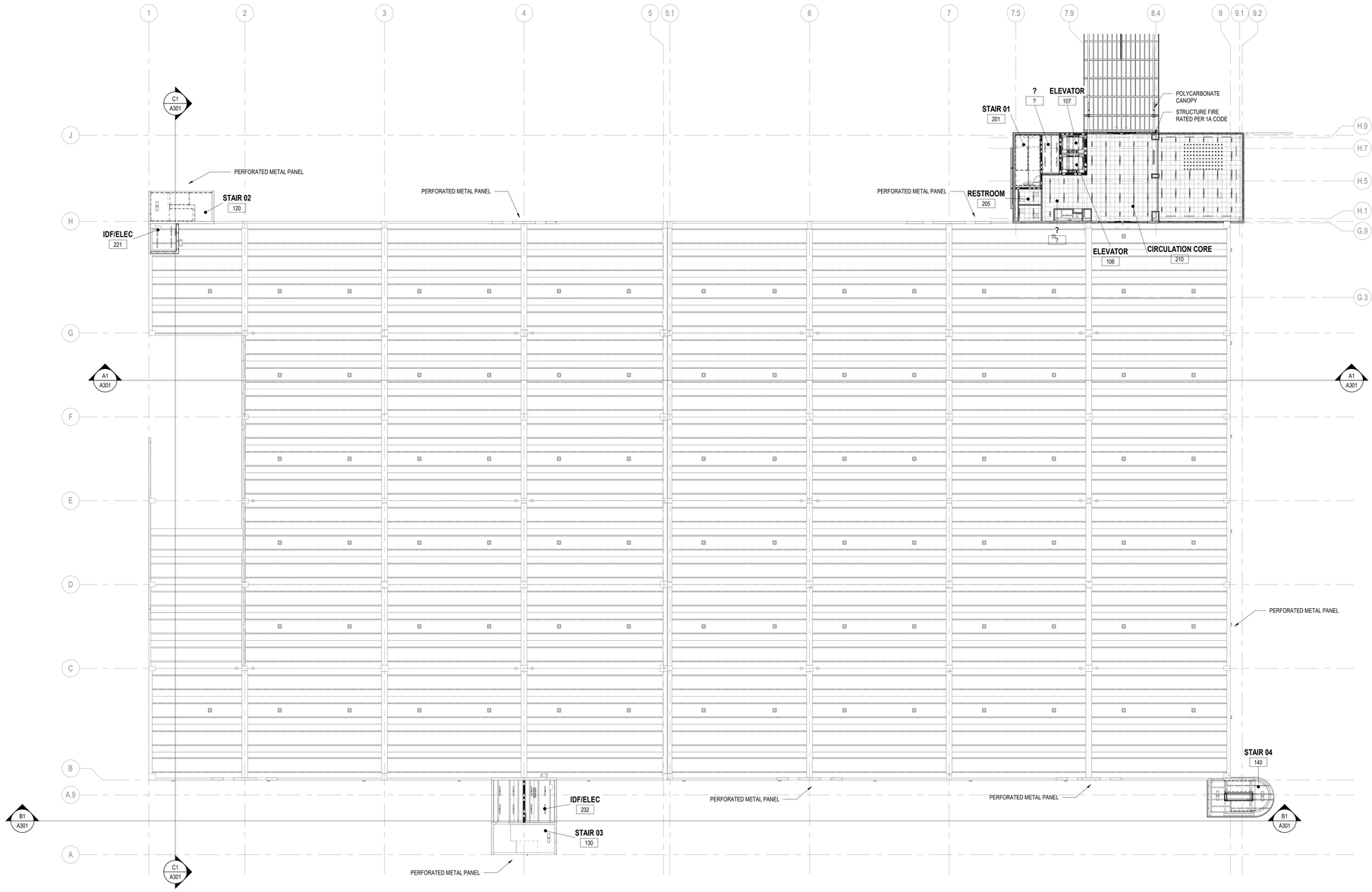
SHEET TITLE:
PARTIAL GROUND FLOOR REFLECTED CEILING PLAN - AREA B

SHEET ID:
A123

PROJECT STATUS:
100% BID SET

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CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

	ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
	ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
	GWB1	5/8" GWB ON METAL FRAMING
	EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
- DOWNLIGHT RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EXIT SIGN
- 4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

1. DEVICES HAVE BEEN SHOWN FOR COORDINATION PURPOSES. SEE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ITEMS NOT SHOWN ON REFLECTED CEILING PLANS. CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
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4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP. U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALVES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

PN
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A1 SECOND LEVEL REFLECTED CEILING PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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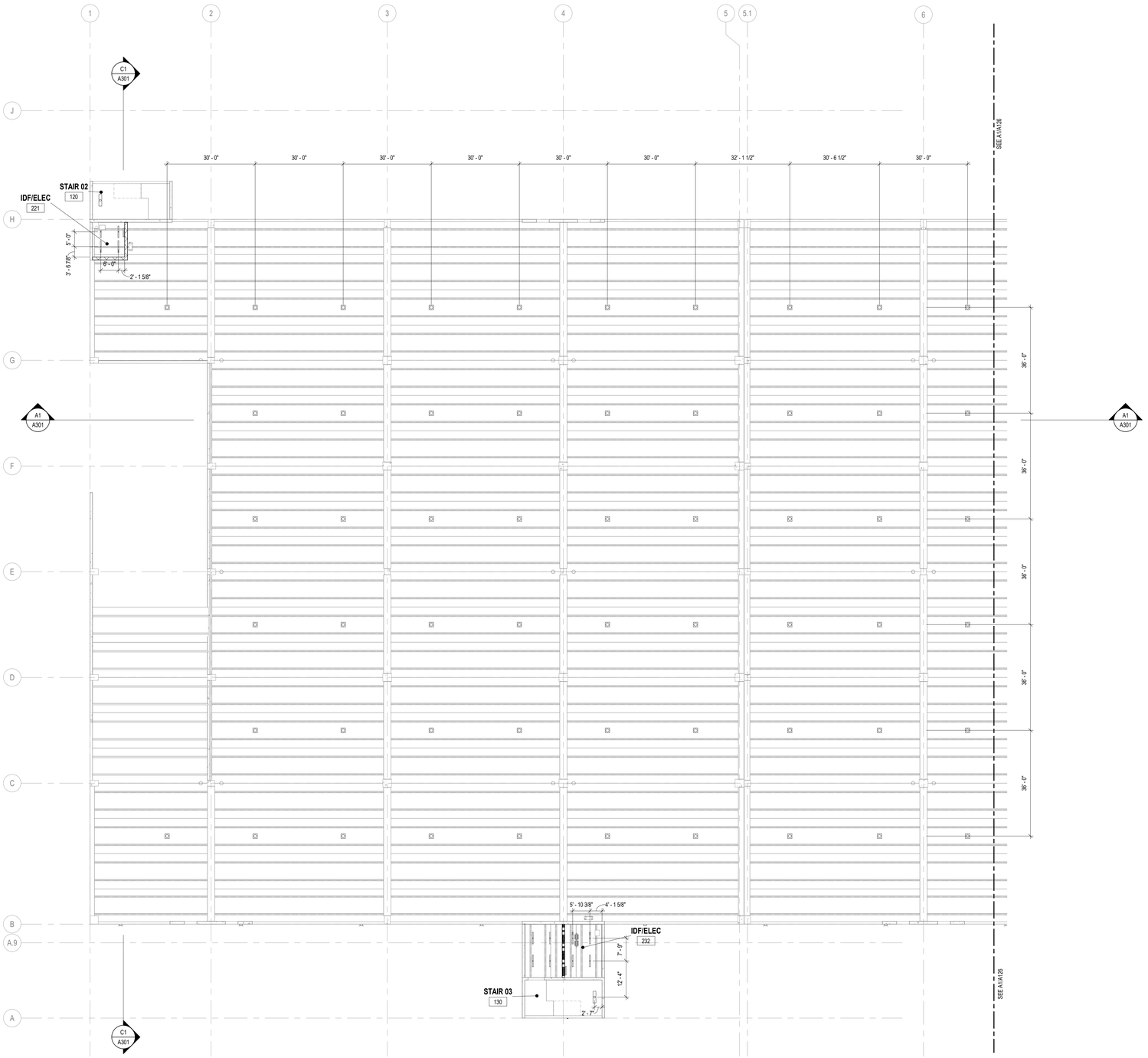
SHEET TITLE:
OVERALL SECOND FLOOR REFLECTED CEILING PLAN

SHEET ID:
A124

PROJECT STATUS:
100% BID SET

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A1 SECOND LEVEL REFLECTED CEILING PLAN - AREA A

SCALE: 1/16" = 1'-0"

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
GWB1	5/8" GWB ON METAL FRAMING
EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
- DOWNLIGHT RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EXIT SIGN
- 4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

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4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP. U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALUES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:

PARTIAL SECOND FLOOR REFLECTED CEILING PLAN - AREA A

SHEET ID:

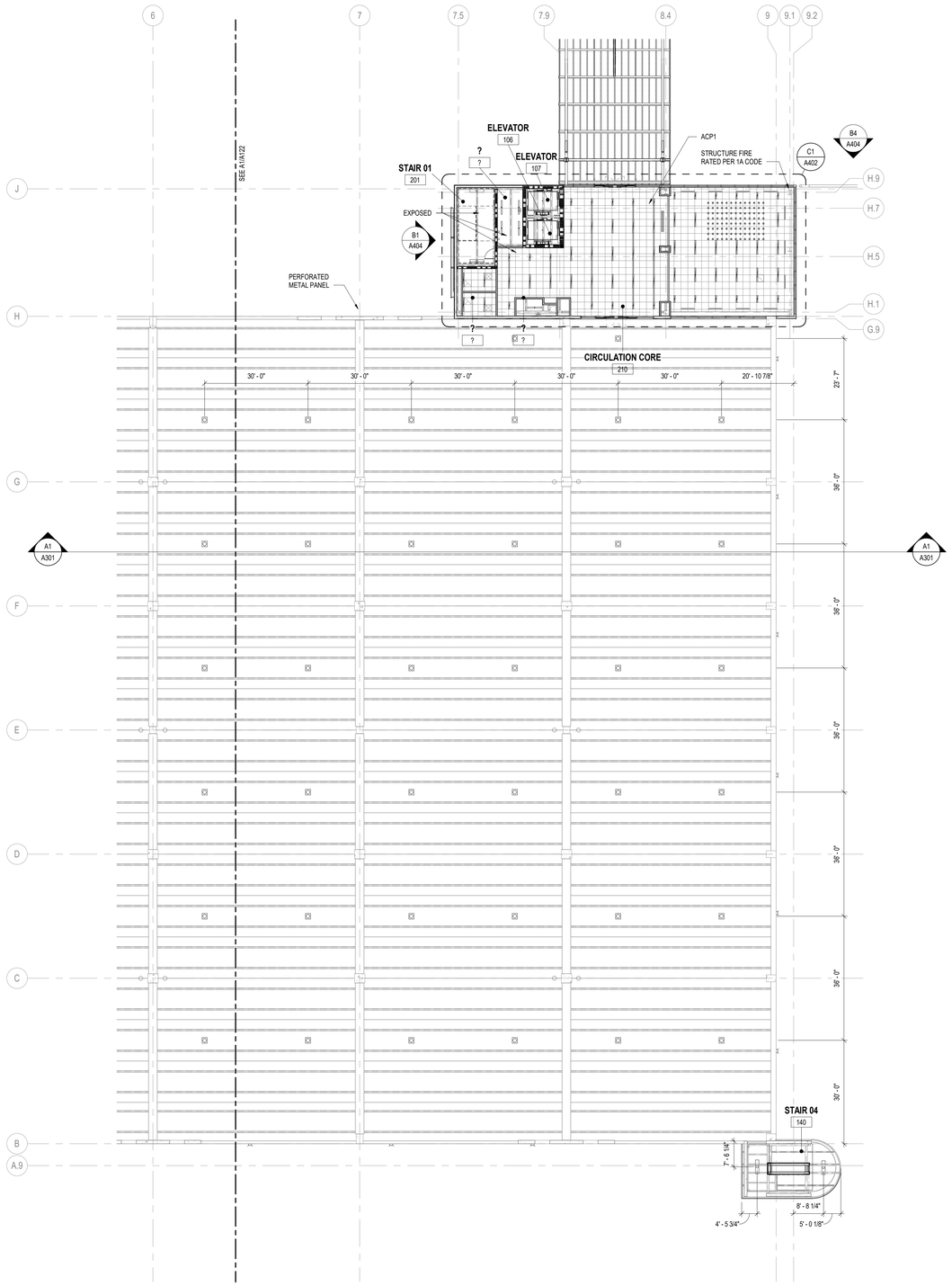
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PROJECT STATUS:
100% BID SET

16 0 16 32
SCALE: 1/16" = 1'-0"

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PN

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A1 SECOND LEVEL REFLECTED CEILING PLAN - AREA B AND AREA C

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
GWB1	5/8" GWB ON METAL FRAMING
EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
- DOWNLIGHT RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- CEILING MOUNTED EXIT SIGN
- 4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

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4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP. U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALUES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

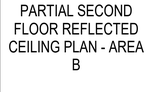
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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:

PARTIAL SECOND FLOOR REFLECTED CEILING PLAN - AREA B

SHEET ID:

A126

PROJECT STATUS:
100% BID SET

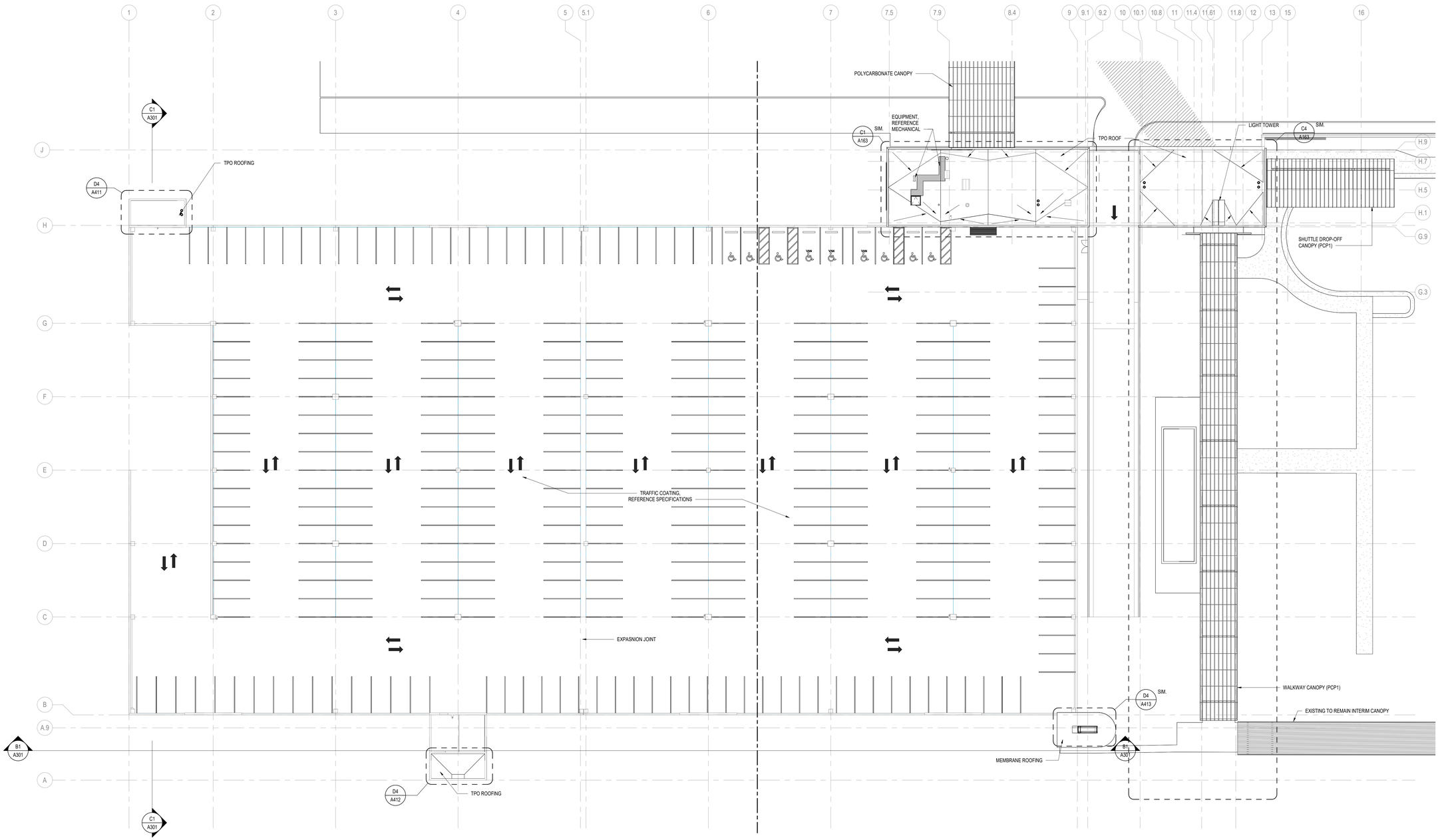
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GENERAL ROOF NOTES

1. ALL ROOF PENETRATIONS REQUIRED FOR INSTALLATION OF MECHANICAL UNITS, EQUIPMENT CURBS, VENTS, ETC. MUST BE DONE PER MANUFACTURER'S RECOMMENDATIONS TO ENSURE ALL WARRANTIES ARE MAINTAINED. PROVIDE FLASHING, COUNTERFLASHING, SEALANT, ETC. AS REQUIRED TO PROVIDE WATERPROOF CONDITION, TYPICAL AT ALL ROOF PENETRATIONS.

REFER TO VOLUME 2 PACKAGE



PN

N

A1 OVERALL ROOF PLAN

SCALE: 1" = 20'-0"

20 0 20 40

SCALE: 1" = 20'-0"

RS&H

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Charlotte, NC 28203
Phone: 704-752-0810, Fax: 704-949-2672
www.rsandh.com
North Carolina License Nos. 50073 * F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	

2003-0070-006

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SEAL:

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NOT FOR CONSTRUCTION

SHEET TITLE:
OVERALL ROOF PLAN

SHEET ID:
A161

PROJECT STATUS:
100% BID SET

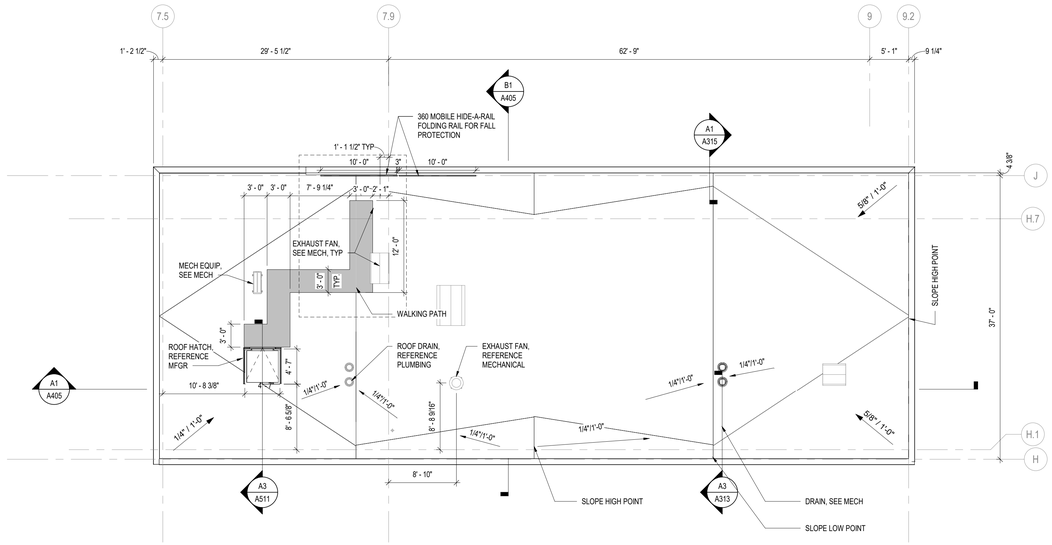
3/14/2025 6:59:07 PM Autodesk Docs://1003007006_ILM TO4 Rdwy Int'l Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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GENERAL ROOF NOTES

1. ALL ROOF PENETRATIONS REQUIRED FOR INSTALLATION OF MECHANICAL UNITS, EQUIPMENT CURBS, VENTS, ETC. MUST BE DONE PER MANUFACTURER'S RECOMMENDATIONS TO ENSURE ALL WARRANTIES ARE MAINTAINED. PROVIDE FLASHING, COUNTERFLASHING, SEALANT, ETC. AS REQUIRED TO PROVIDE WATERPROOF CONDITION, TYPICAL AT ALL ROOF PENETRATIONS.

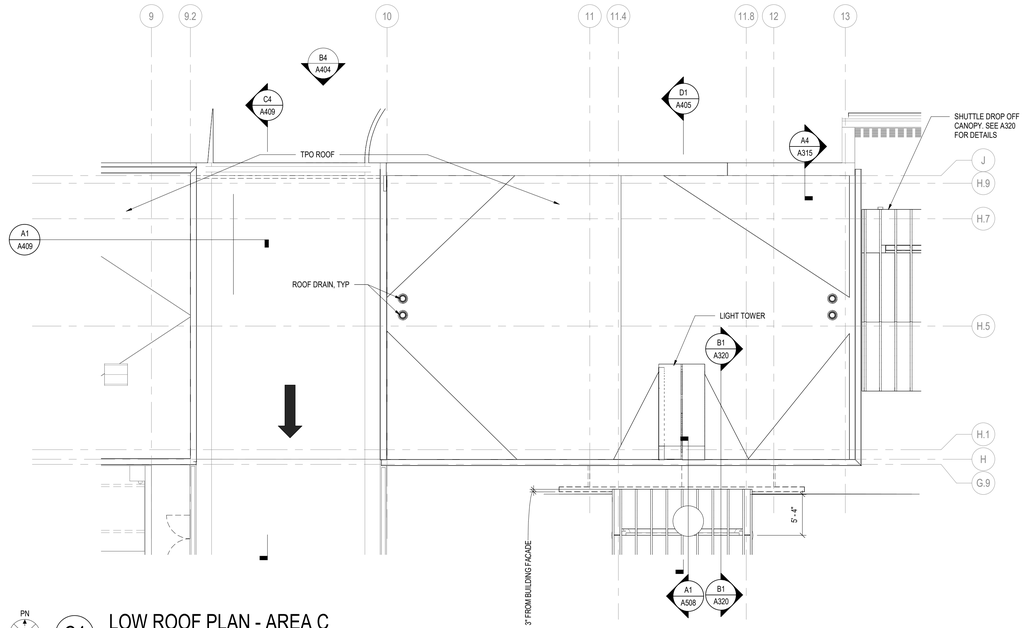
REFER TO VOLUME 2 PACKAGE



PN

C1 HIGH ROOF PLAN - AREA C

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



PN

C4 LOW ROOF PLAN - AREA C

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

16 0 16 32

SCALE: 1/16" = 1'-0"

RS&H

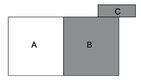
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ILM

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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
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WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
ENLARGED ROOF PLAN

SHEET ID:
A163

PROJECT STATUS:
100% BID SET

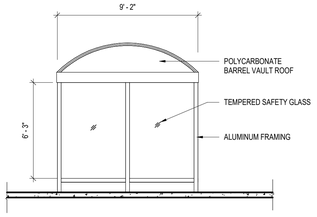
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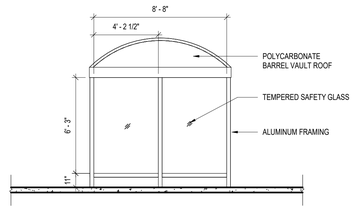
GENERAL NOTES

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7. SEE ELECTRICAL PLANS FOR OPERATIONAL LAYOUT. CONTRACTOR SHALL VERIFY AND COORDINATE WITH OWNER'S VENDOR FOR CORRECT PLACEMENT OF HARDWARE PRIOR TO FABRICATION.
8. EXISTING AND FUTURE UNDERLAY LINEWORK FOR REFERENCE PURPOSES ONLY. ANY CIVIL RELATED WORK, SEE CIVIL PACKAGE FOR DETAILS.
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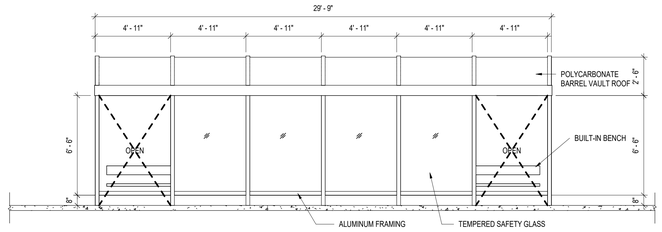
REFER TO VOLUME 2 PACKAGE



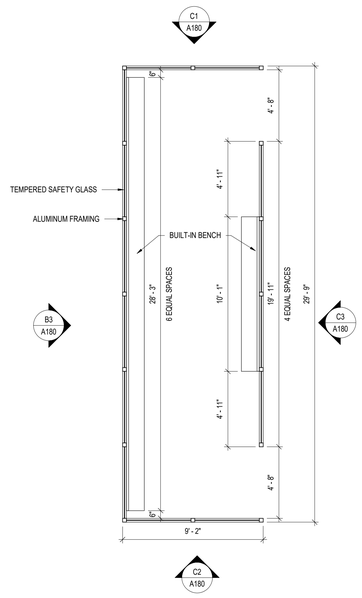
C1 BUS STOP WEST ELEVATION
SCALE: 1/4" = 1'-0"



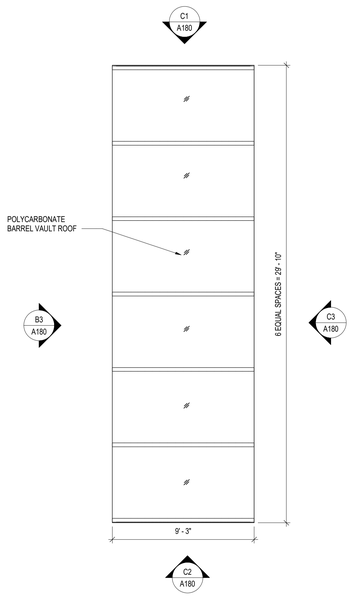
C2 BUS STOP EAST ELEVATION
SCALE: 1/4" = 1'-0"



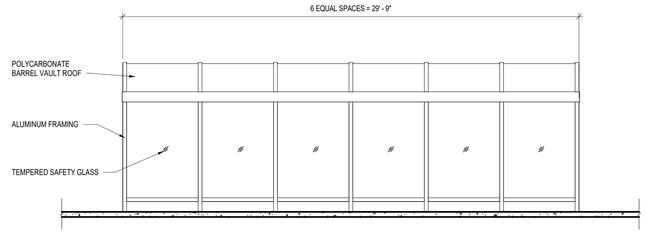
C3 BUS STOP NORTH ELEVATION
SCALE: 1/4" = 1'-0"



A1 BUS SHUTTLE OVERALL FLOOR PLAN
SCALE: 1/4" = 1'-0"



A2 BUS SHUTTLE OVERALL ROOF PLAN
SCALE: 1/4" = 1'-0"



B3 BUS STOP SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

NORTH ARROW DIRECTION	LOCATION (SEE AS101)	SITE
N	EV BUS STOP	1
N	EV BUS STOP	2

4 0 4 8
SCALE: 1/4" = 1'-0"

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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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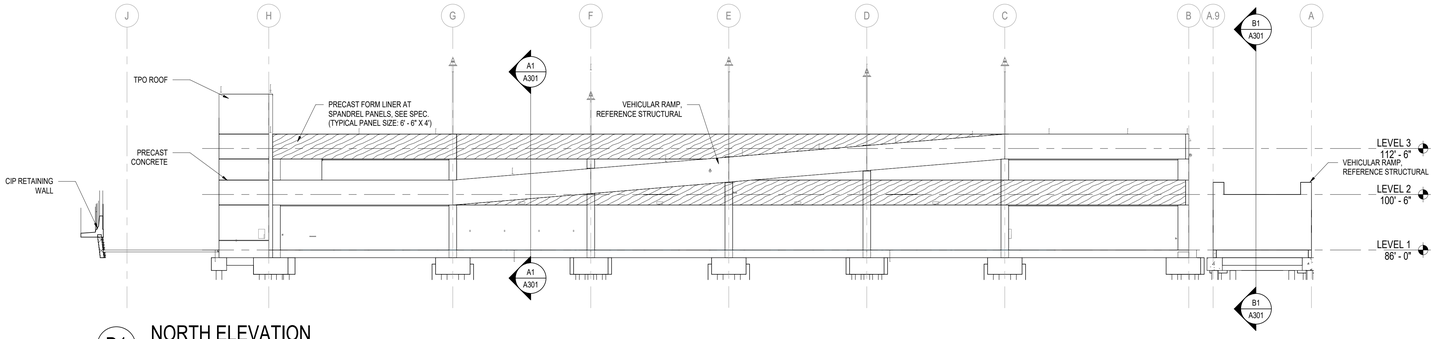
SHEET TITLE:
BUS STOP ELEVATIONS, FLOOR AND ROOF PLANS

SHEET ID:
A180

PROJECT STATUS:
100% BID SET

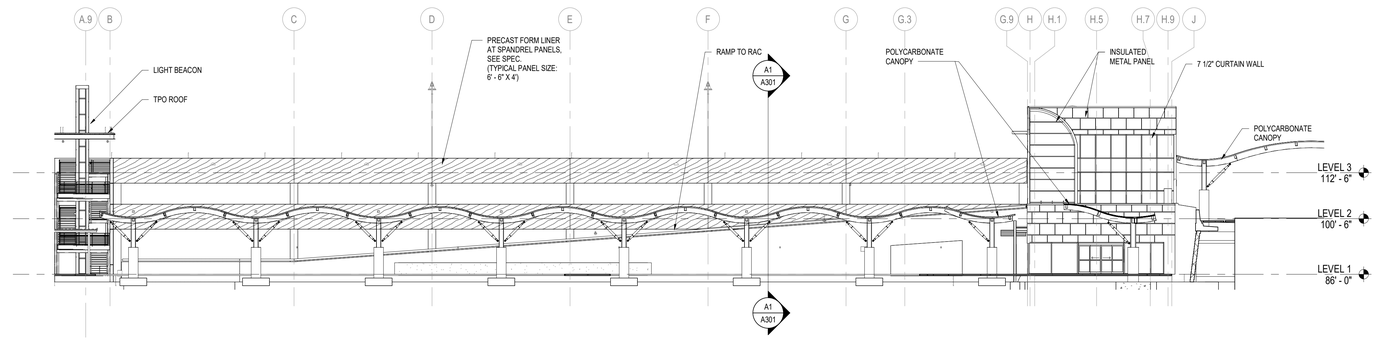
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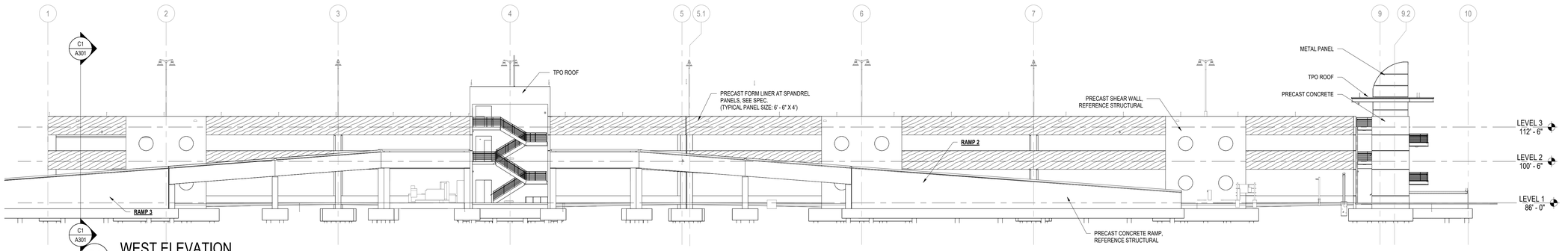
D1 NORTH ELEVATION

SCALE: 1/16" = 1'-0"



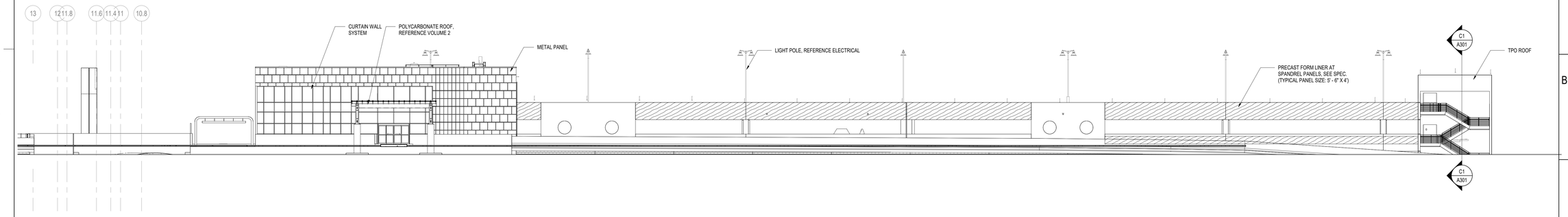
C1 SOUTH ELEVATION

SCALE: 1/16" = 1'-0"



B1 WEST ELEVATION

SCALE: 1/16" = 1'-0"



A1 EAST ELEVATION

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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REFER TO VOLUME 2 PACKAGE

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
BUILDING ELEVATIONS

SHEET ID:
A201

PROJECT STATUS:
100% BID SET

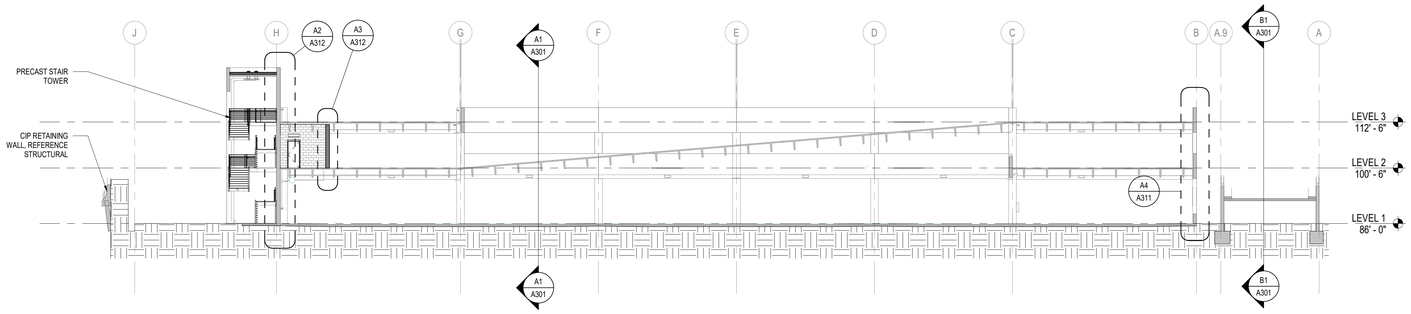
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GENERAL NOTES

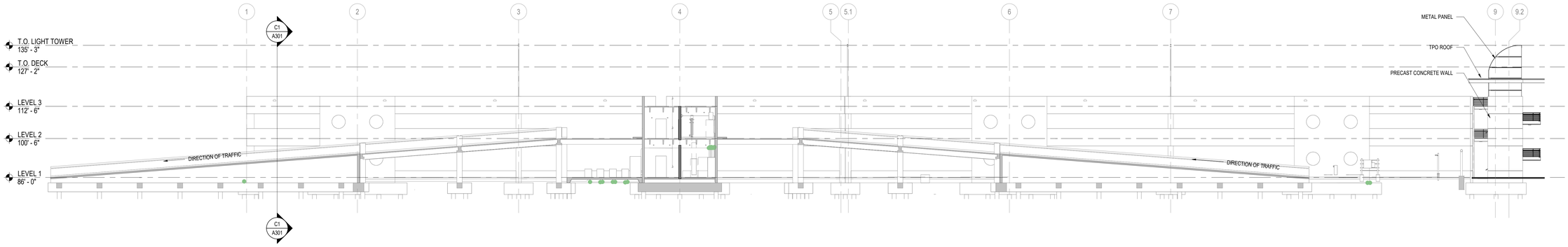
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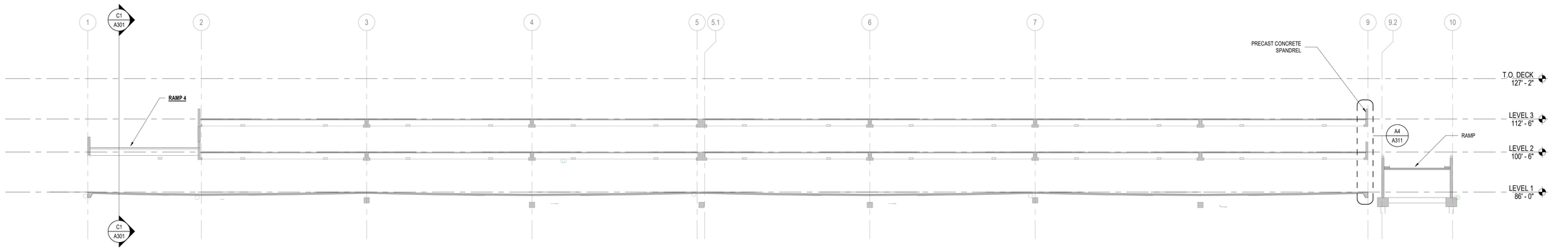
C1 E-W SECTION THROUGH EGRESS STAIR

SCALE: 1/16" = 1'-0"



B1 N-S THROUGH EXPRESS RAMPS

SCALE: 1/16" = 1'-0"



A1 N-S SECTION

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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ILM

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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
BUILDING SECTIONS

SHEET ID:
A301

PROJECT STATUS:
100% BID SET

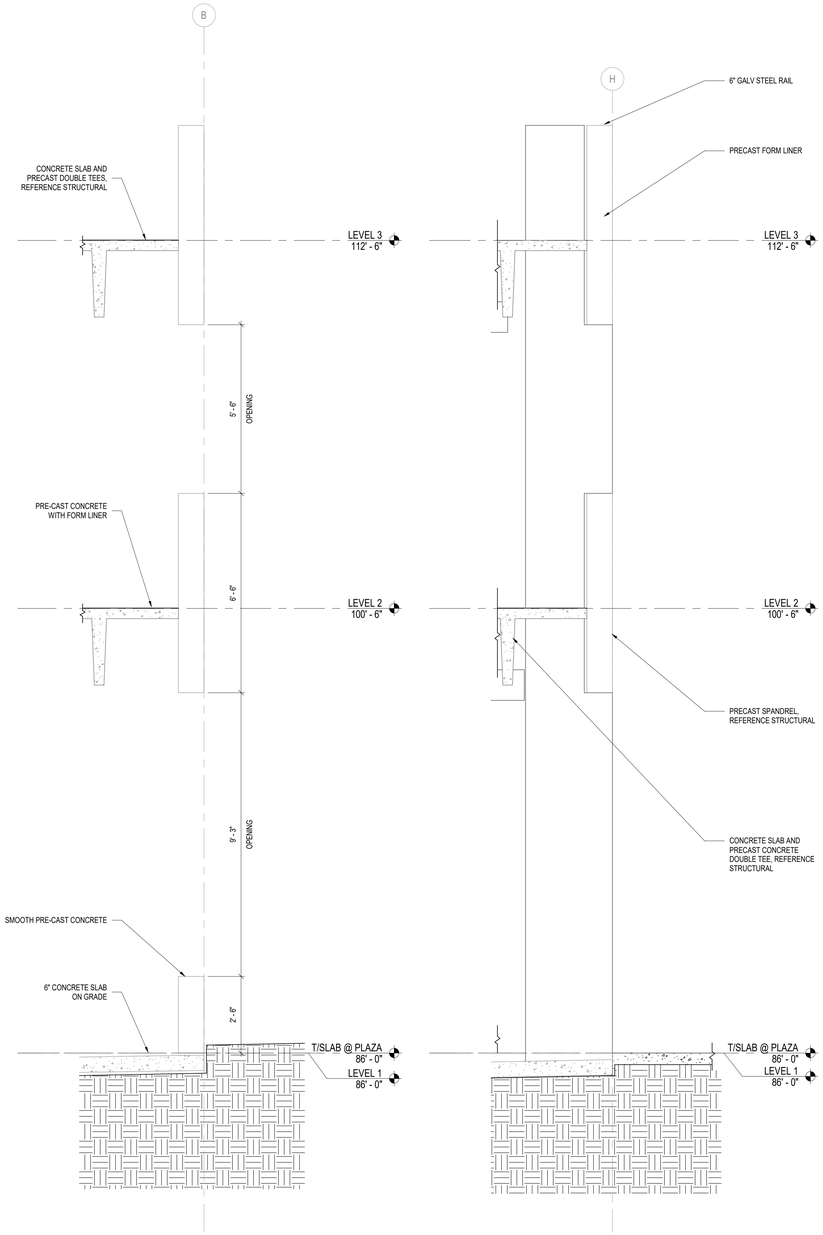
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REFER TO VOLUME 2 PACKAGE



A4 SECTION AT PEDESTRIAN BARRIER
SCALE: 1/2" = 1'-0"

A5 GARAGE FACE AT PEDESTRIAN BRIDGE
SCALE: 1/2" = 1'-0"

2 0 2 4
SCALE: 1/2" = 1'-0"

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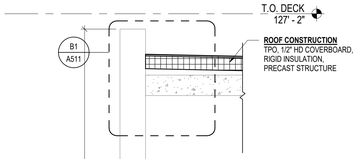
SHEET TITLE:
GARAGE WALL SECTIONS

SHEET ID:
A311

PROJECT STATUS:
100% BID SET

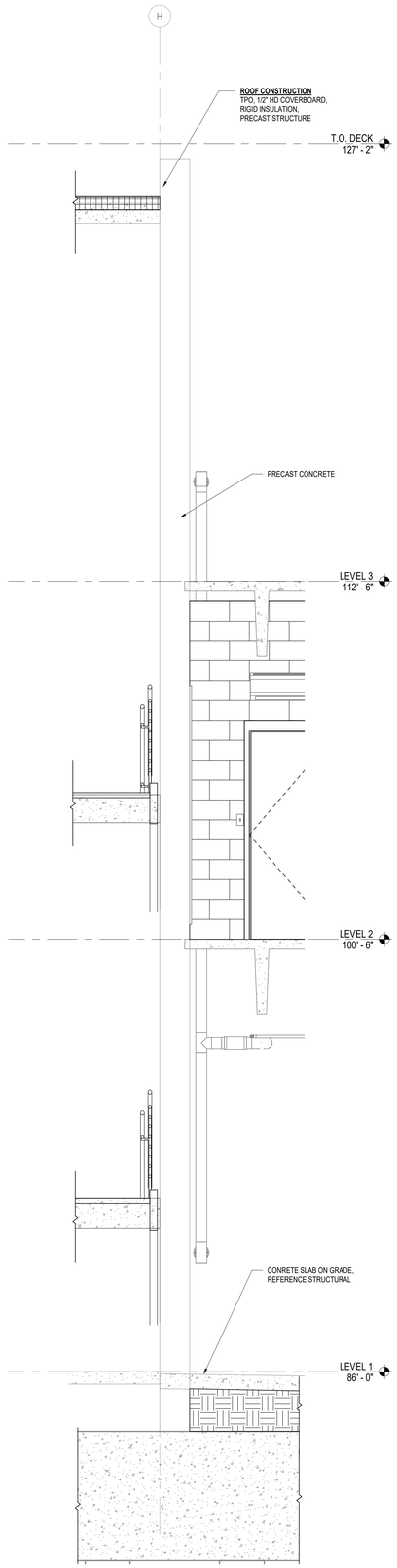
3/14/2025 6:09:55 PM Autodesk Docs://1003007/004_ILM TO4 Rdwy Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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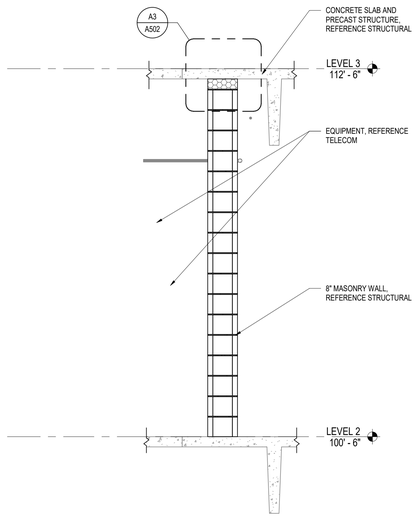
A1 SECTION AT PRECAST / PARAPET

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



A2 SECTION AT PRECAST / ROOF EDGE

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



A3 CMU AT DOUBLE TEE

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

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Phone: 704-752-0610, Fax: 704-949-2672
www.rsandh.com
North Carolina License Nos. 50073 *
F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
GARAGE WALL SECTIONS

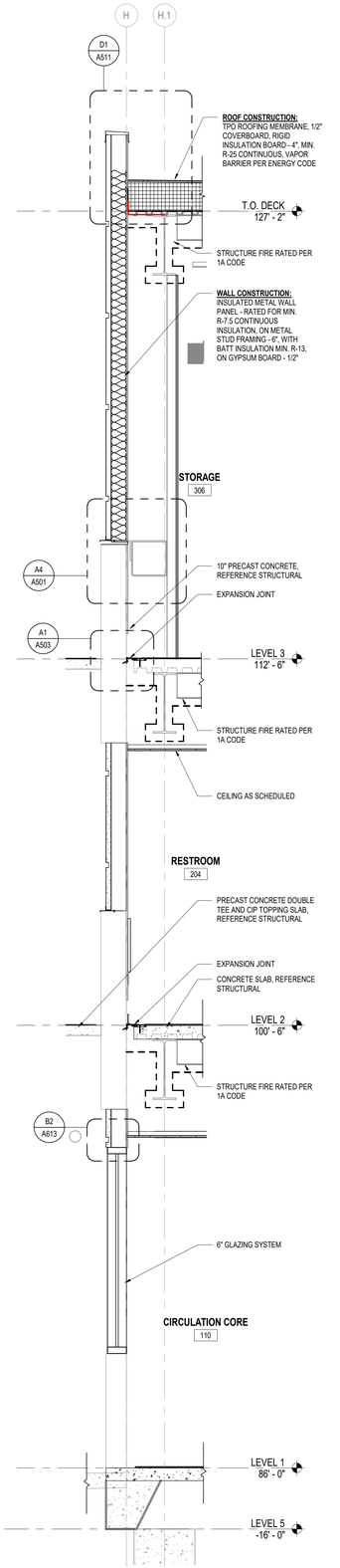
SHEET ID:
A312

PROJECT STATUS:
100% BID SET

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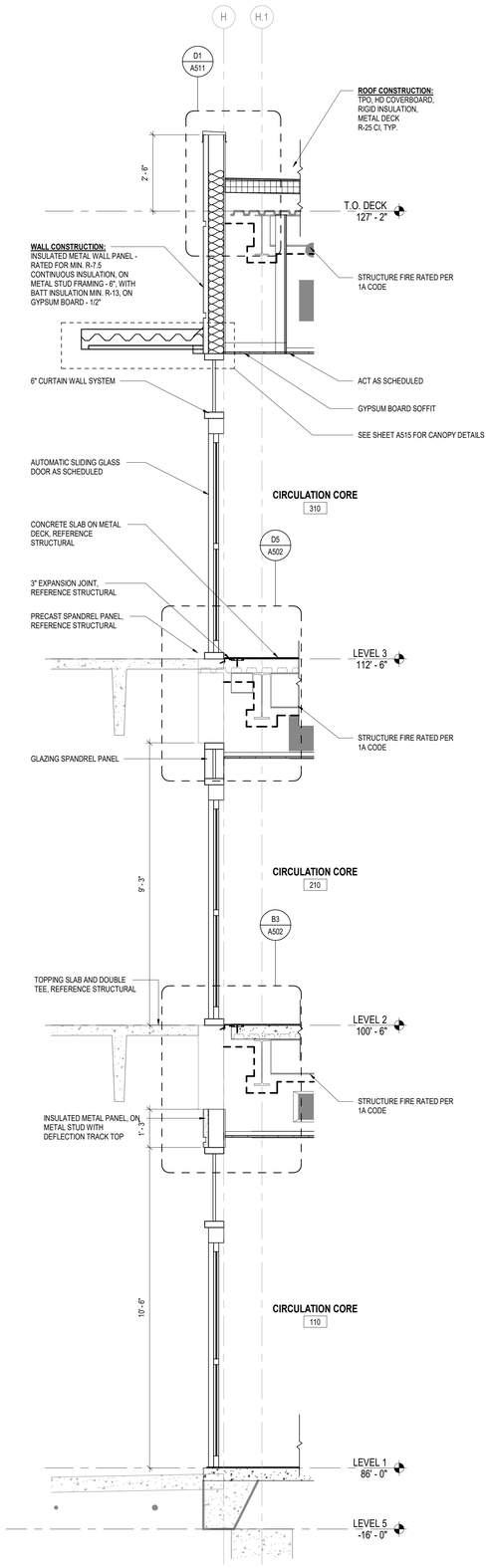
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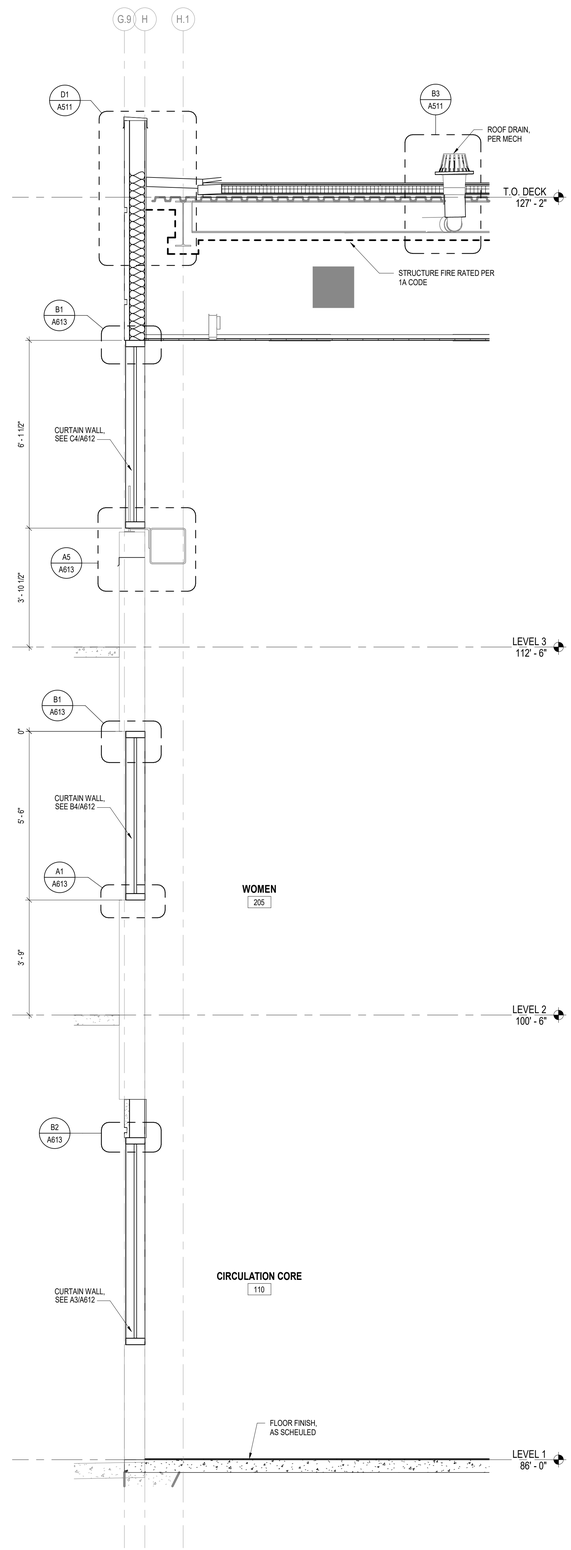
A1 METAL PANEL AT GARAGE SPANDREL

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



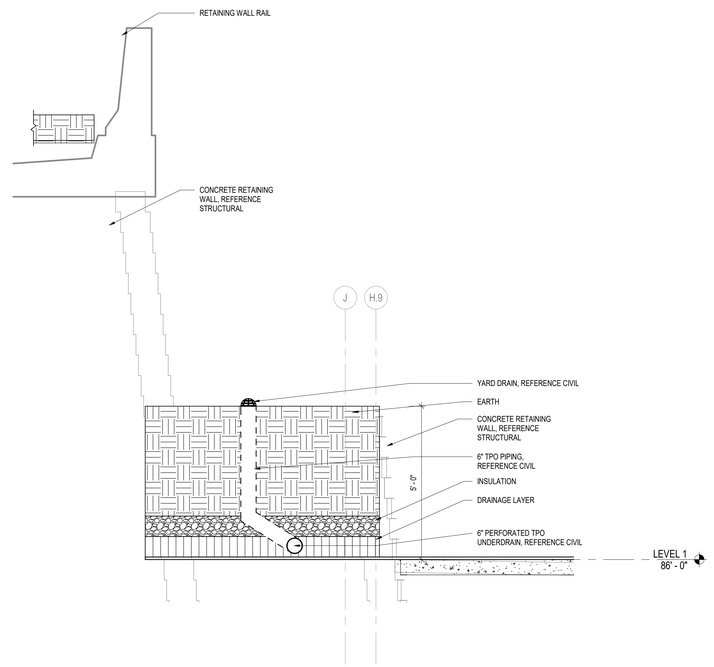
A2 CURTAIN WALL AT GARAGE SPANDREL

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



A3 GLAZING AT GARAGE SPANDREL

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



A5 PLANTER SECTION DETAIL

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

2 0 2 4

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

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ILM

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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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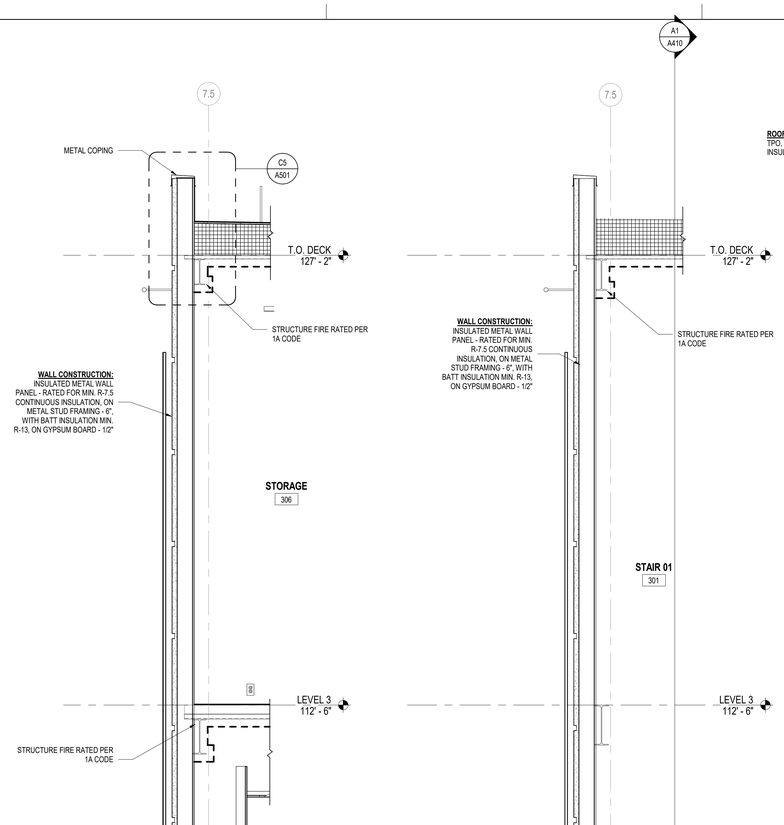
SHEET TITLE:
CIRCULATION CORE WALL SECTIONS

SHEET ID:
A313

PROJECT STATUS:
100% BID SET

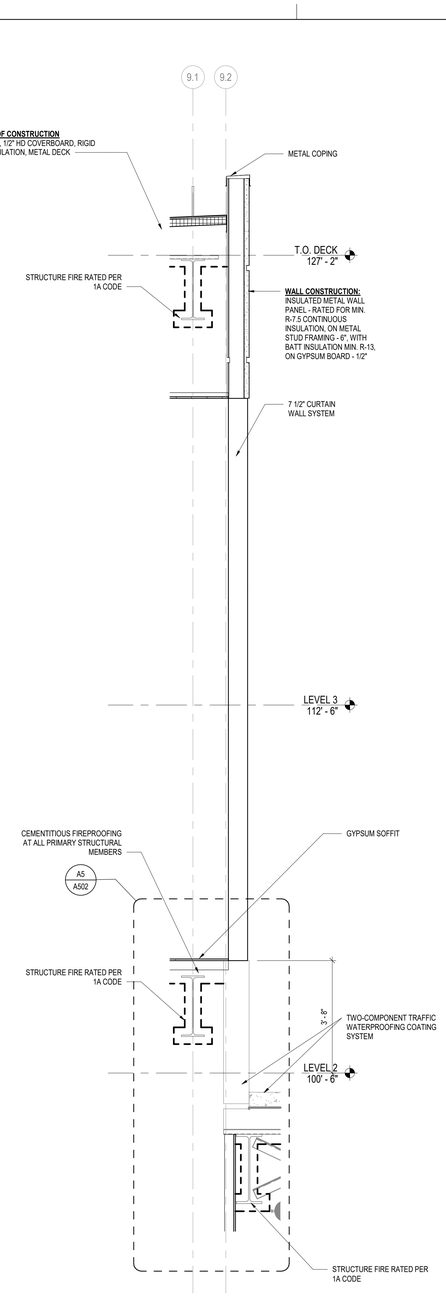
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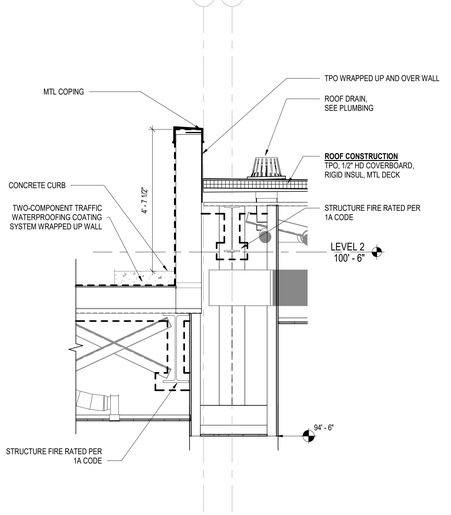


A1 METAL PANEL AT GLAZING
SCALE: 1/2" = 1'-0"

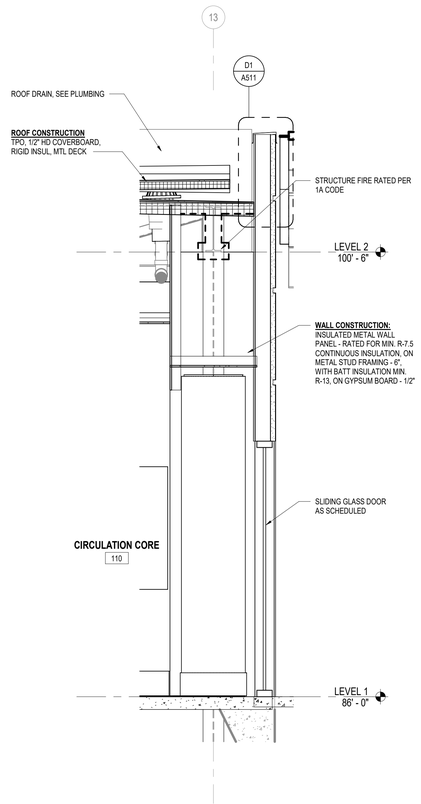
A2 METAL PANEL AT HIGH ROOF
SCALE: 1/2" = 1'-0"



A3 LOW ROOF AT HIGH ROOF
SCALE: 1/2" = 1'-0"



A4 VERTICAL CORE LONGITUDINAL SECTION 1
SCALE: 1/2" = 1'-0"



A5 METAL PANEL AT LOW ROOF
SCALE: 1/2" = 1'-0"

2 0 2 4
SCALE: 1/2" = 1'-0"

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ILM

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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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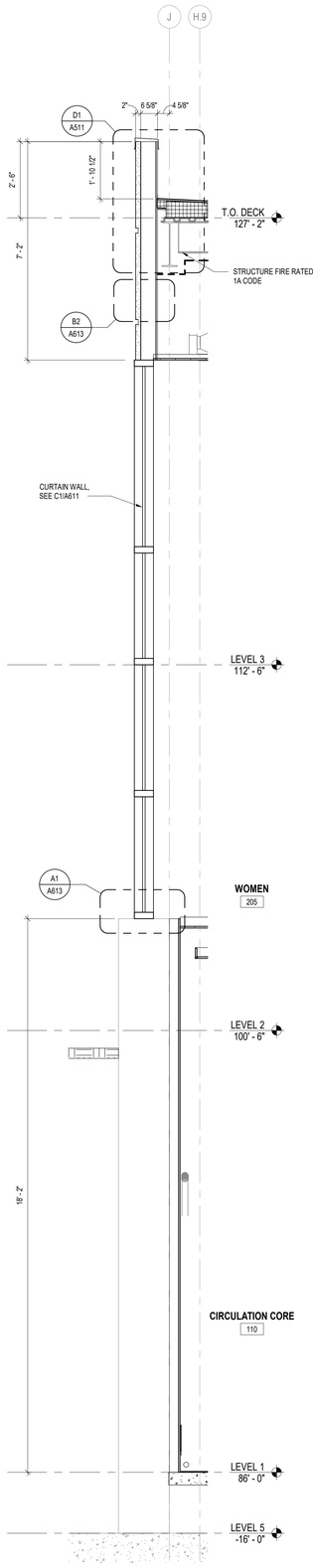
SHEET TITLE:
CIRCULATION CORE WALL SECTIONS

SHEET ID:
A314

PROJECT STATUS:
100% BID SET

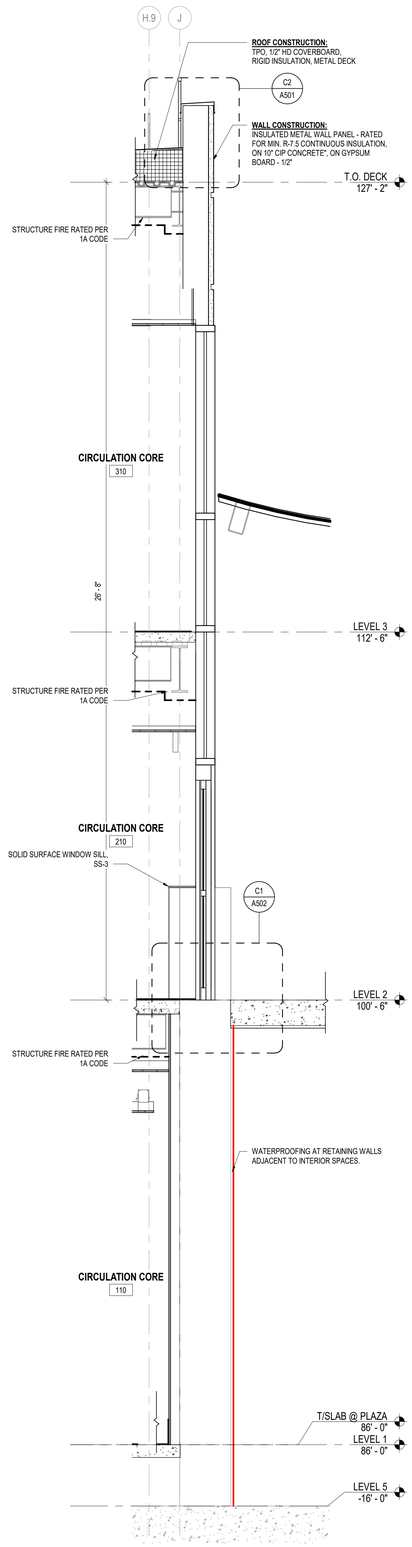
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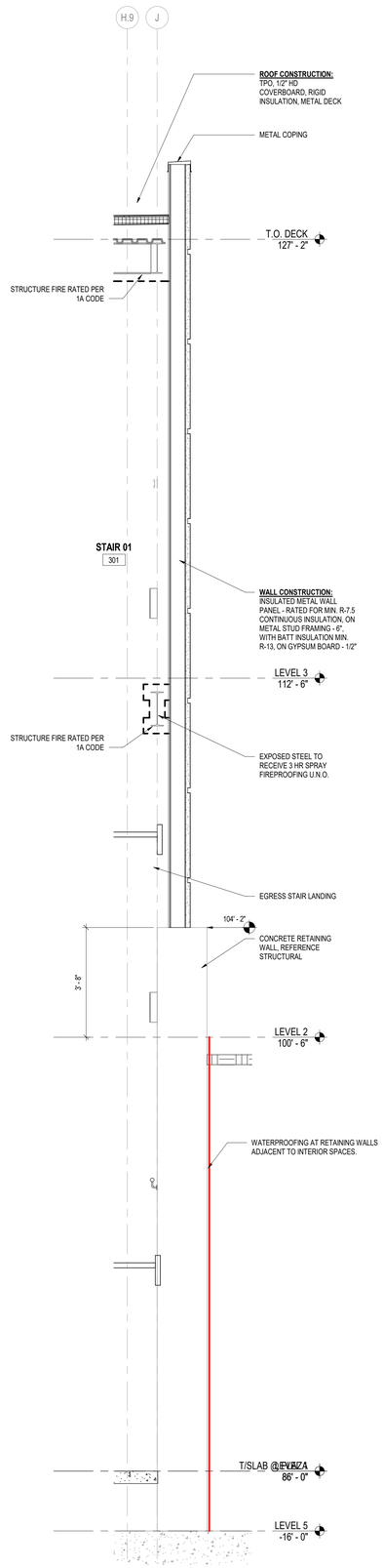
A1 RETAINING WALL AT GLAZING

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



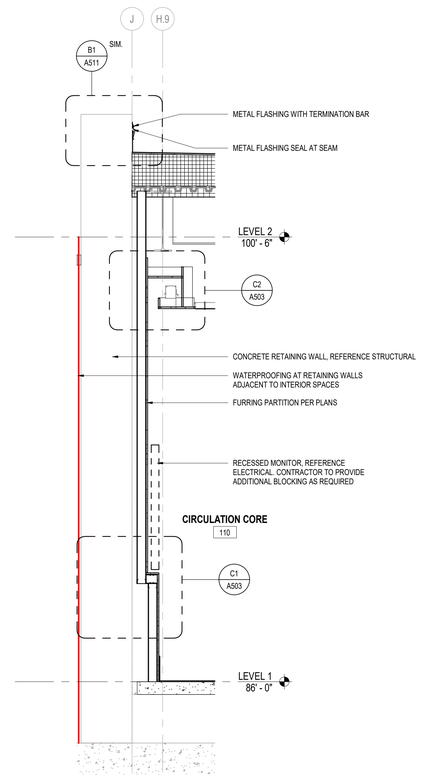
A2 RETAINING WALL AT DOOR

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



A3 RETAINING WALL AT METAL PANEL

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



A4 FIDS RECESS WALL SECTION

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

2 0 2 4

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

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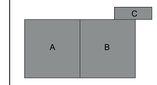
Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	PB
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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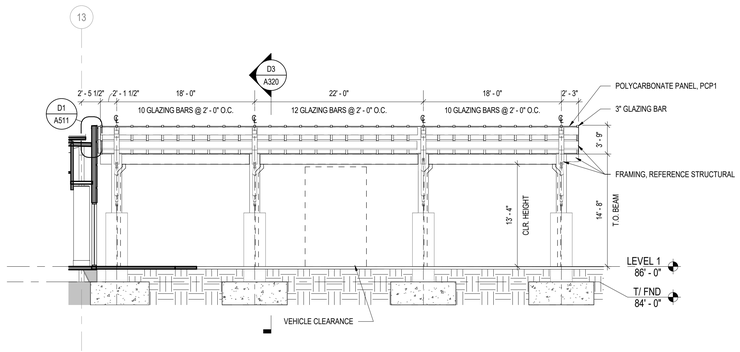
SHEET TITLE:
CIRCULATION CORE WALL SECTIONS

SHEET ID:
A315

PROJECT STATUS:
100% BID SET

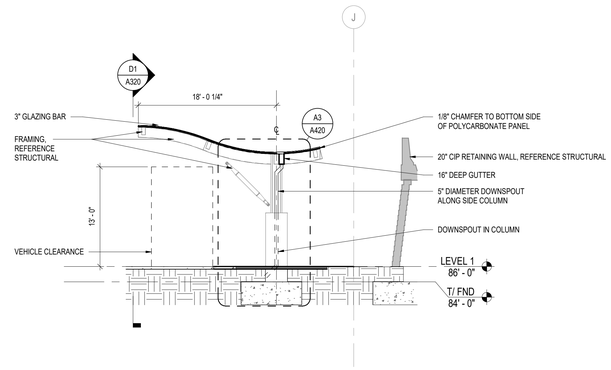
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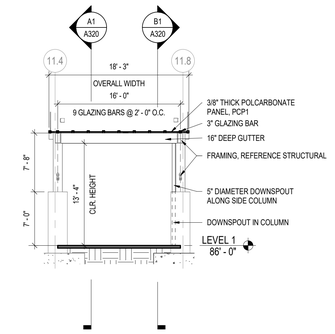
D1 SHUTTLE DROP OFF CANOPY LONGITUDINAL SECTION

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



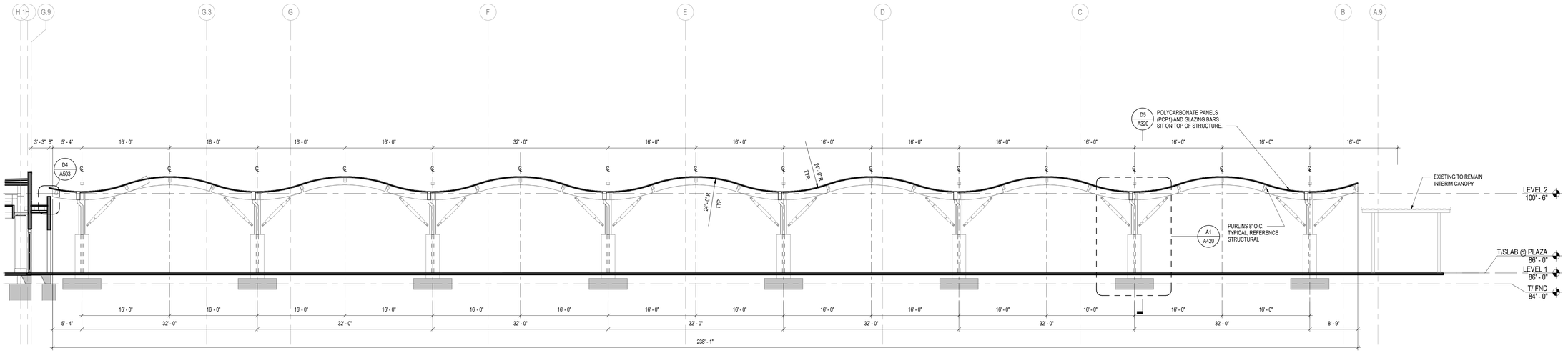
D3 SHUTTLE DROP OFF CANOPY TRANSVERSE SECTION

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



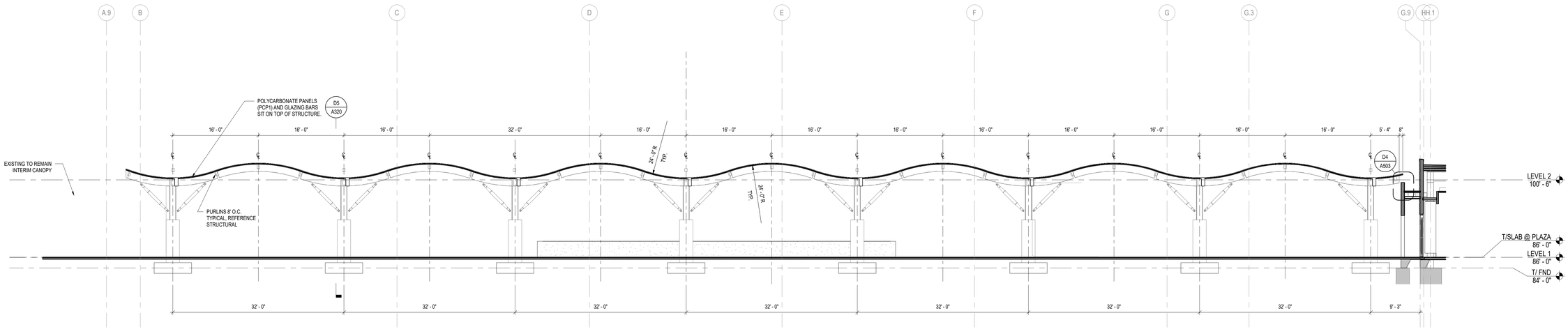
D5 PLAZA WALKWAY CANOPY SECTION 03

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



B1 PLAZA WALKWAY CANOPY SECTION 02

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



A1 PLAZA WALKWAY CANOPY SECTION 01

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

8 0 8 16

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

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WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	TP
DESIGNED BY:	FG
PROJECT NUMBER:	

2003-0070-006

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SHEET TITLE:

CANOPY SECTIONS

SHEET ID:

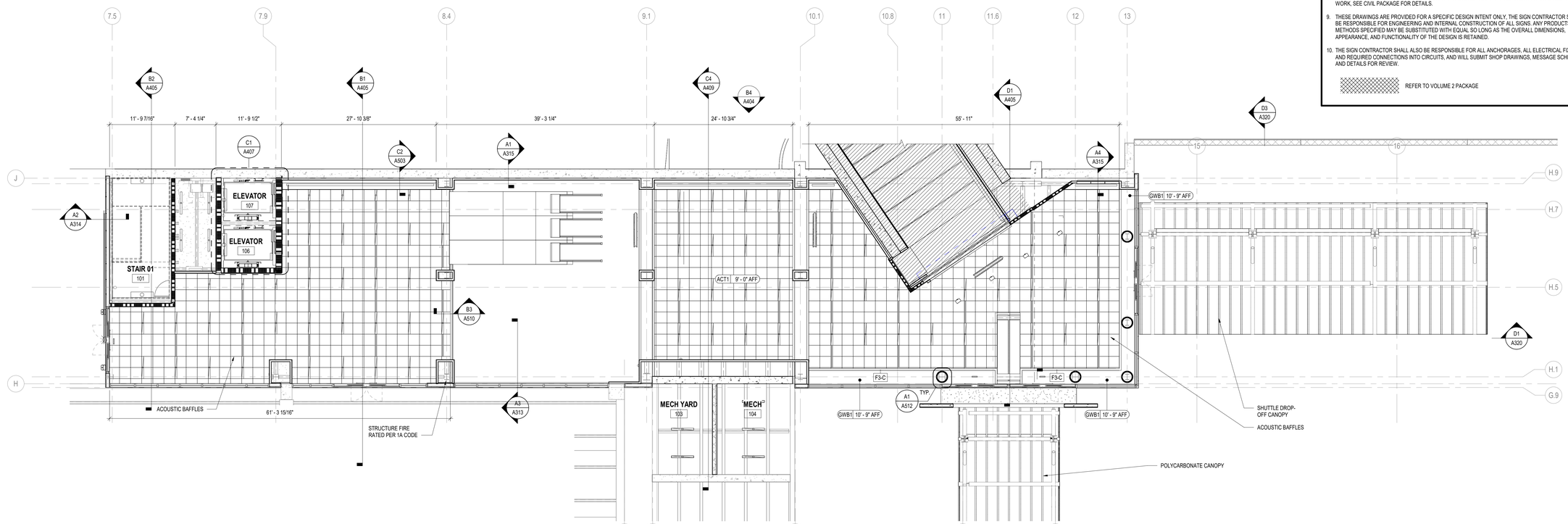
A320

PROJECT STATUS:
100% BID SET

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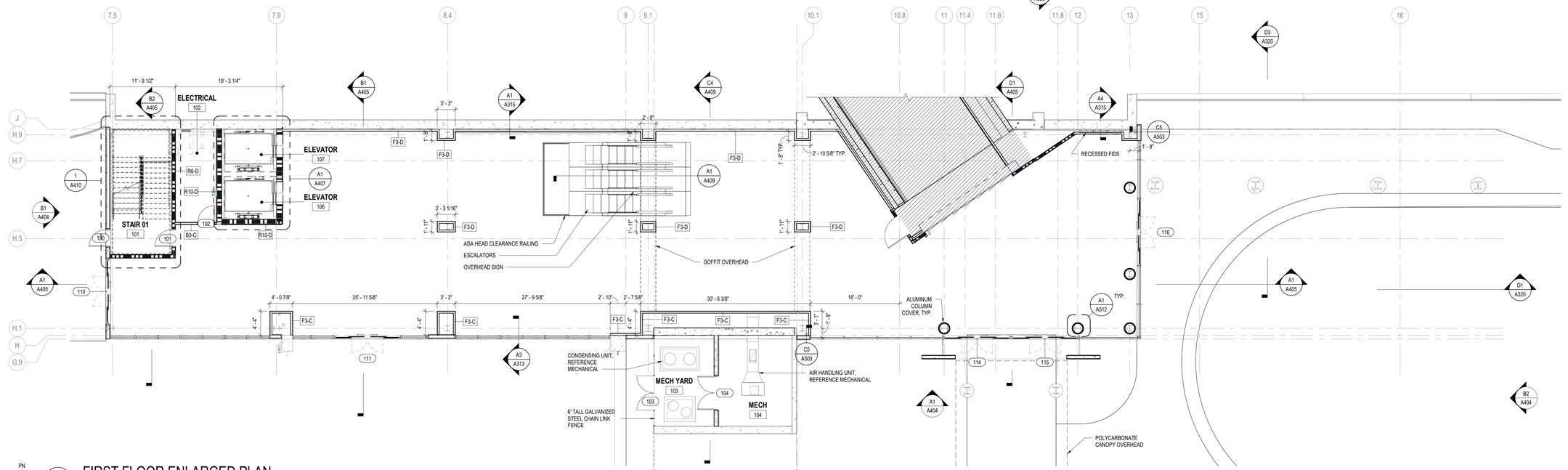
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PN

C1 FIRST FLOOR ENLARGED REFLECTED CEILING PLAN

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



PN

A1 FIRST FLOOR ENLARGED PLAN

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

8 0 8 16

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

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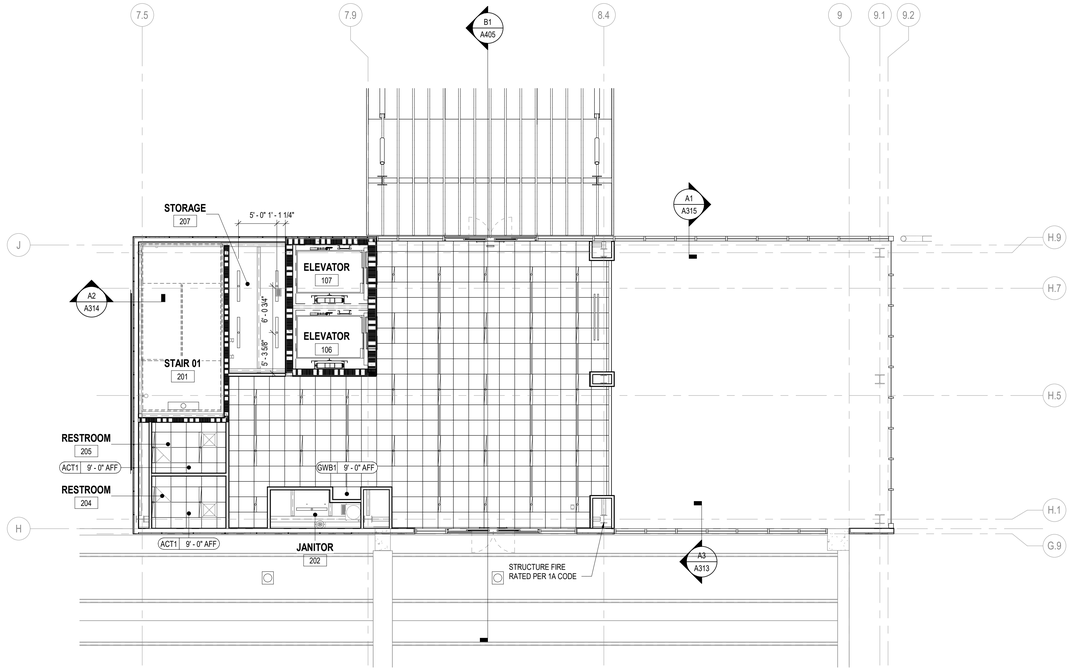
SHEET TITLE:
CIRCULATION CORE FIRST FLOOR ENLARGED PLAN AND REFLECTED CEILING PLAN

SHEET ID:
A401

PROJECT STATUS:
100% BID SET

3/14/2025 7:00:59 PM Autodesk Docs://I0030070004_ILM TO4 Rdwy Inf Improv Design/I0030070006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

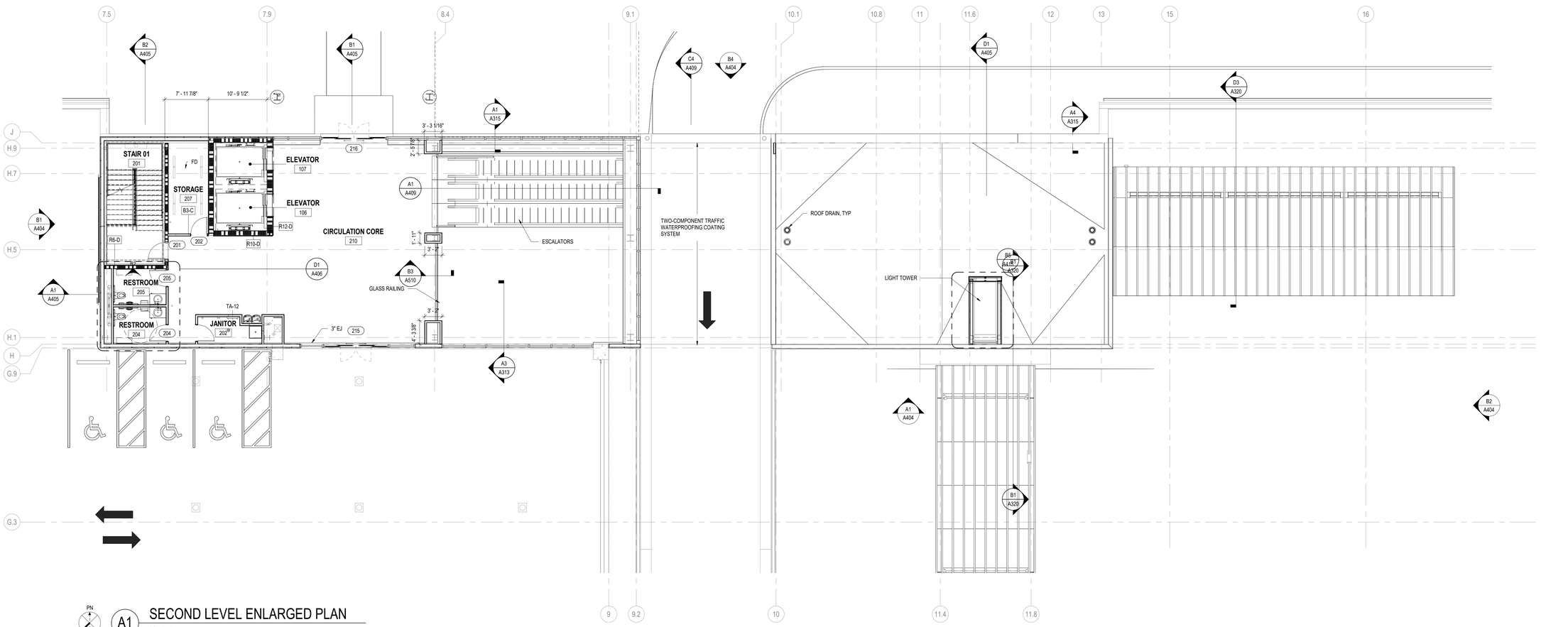
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PN

C1 SECOND LEVEL ENLARGED REFLECTED CEILING PLAN

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



PN

A1 SECOND LEVEL ENLARGED PLAN

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

8 0 8 16

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

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
GWB1	5/8" GWB ON METAL FRAMING
EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

	14" x 11" FLUORESCENT LIGHT FIXTURE
	DOWNLIGHT RECESSED CAN LIGHT FIXTURE
	WALL MOUNTED EXIT SIGN
	CEILING MOUNTED EXIT SIGN
	4" x 4' RECESSED LINEAR LIGHT FIXTURE

GENERAL SHEET NOTES

1. DEVICES HAVE BEEN SHOWN FOR COORDINATION PURPOSES. SEE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ITEMS NOT SHOWN ON REFLECTED CEILING PLANS. CONTACT THE ARCHITECT IF ANY CONFLICTS OCCUR.
2. ALL CEILING MOUNTED DEVICES MUST BE CENTERED IN BOTH DIRECTIONS IN ACOUSTICAL CEILING PANELS U.N.O.
3. CENTER SPRINKLER HEADS IN ACOUSTICAL CEILING PANELS WHERE THEY OCCUR. COORDINATE THE LOCATION OF THE SPRINKLER HEADS WITH OTHER CEILING FIXTURES AND EQUIPMENT IN ALL CEILINGS. ENSURE THAT A SYMMETRICAL AND BALANCED ARRANGEMENT IS INSTALLED. CONTRACTING OFFICER IS TO REVIEW INSTANCES OF NON-EQUAL SPACING PRIOR TO INSTALLATION.
4. ALL NEW GYP. SOFFITS TO BE 5/8" TYPE "X" GYP, U.N.O.
5. PROVIDE 5/8" MOISTURE-RESISTANT GWB FOR CEILINGS IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO RESTROOMS, JANITOR CLOSETS AND KITCHEN AREAS.
6. PROVIDE ACCESS PANELS AS REQUIRED FOR ACCESS TO PLUMBING VALUES AND MECHANICAL DAMPER BALANCE CONTROLS. COORDINATE ALL LOCATIONS WITH TRADES AND ARCHITECT, TYP. ALL ACCESS PANELS TO BE PAINTED TO MATCH ADJACENT SURFACES.

GENERAL NOTES

1. DO NOT SCALE DIMENSIONS FROM DRAWINGS - THE CONTRACTOR MUST REQUEST NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS FROM THE ARCHITECT.
2. ALL DIMENSIONS ARE TO BE FIELD VERIFIED. IF ANY DEVIATIONS OR DISCREPANCIES OCCUR, CONTACT THE ARCHITECT FOR VERIFICATION PRIOR TO PROCEEDING WITH THE WORK.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE OF THE STATE OF NORTH CAROLINA.
4. THE DIMENSIONS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS.
5. THE CONTRACTOR WILL FIELD VERIFY DIMENSIONS AND REPORT IN WRITING ANY CONFLICTS PRIOR TO FABRICATION.
6. PROTECT THE TRANSITION STRIPS WHEN GRINDING TERRAZZO TO POLISH FINISH WITH PROTECTION TAPE.
7. SEE ELECTRICAL PLANS FOR OPERATIONAL LAYOUT. CONTRACTOR SHALL VERIFY AND COORDINATE WITH OWNER'S VENDOR FOR CORRECT PLACEMENT OF HARDWARE PRIOR TO FABRICATION.
8. EXISTING AND FUTURE UNDERLAY LINEWORK FOR REFERENCE PURPOSES ONLY. ANY CIVIL RELATED WORK, SEE CIVIL PACKAGE FOR DETAILS.
9. THESE DRAWINGS ARE PROVIDED FOR A SPECIFIC DESIGN INTENT ONLY. THE SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING AND INTERNAL CONSTRUCTION OF ALL SIGNS. ANY PRODUCTS OR METHODS SPECIFIED MAY BE SUBSTITUTED WITH EQUAL SO LONG AS THE OVERALL DIMENSIONS, APPEARANCE, AND FUNCTIONALITY OF THE DESIGN IS RETAINED.
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REFER TO VOLUME 2 PACKAGE

FLOOR PLAN LEGEND & SHEET NOTES

PARTITION LEGEND

	NON-RATED WALL SYSTEM
	1-HOUR RATED WALL SYSTEM
	3-HOUR RATED WALL SYSTEM
	PRECAST OR C.I.P. CONCRETE WALL SYSTEM
	CONCRETE MASONRY UNIT WALL SYSTEM

NOTE: REFER TO PARTITION TAGS ON PLANS AND PARTITION TYPE DETAILS

REFER TO VOLUME 2 PACKAGE

GENERAL SHEET NOTES

1. ALL EXTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF SHEATHING OR CONCRETE U.N.O.
2. ALL INTERIOR WALLS TO BE DIMENSIONED TO THE FACE OF STUD U.N.O.
3. SEE ENLARGED PLANS FOR PARTITION TAGS NOT IDENTIFIED ON OVERALL FLOOR PLANS.
4. PROVIDE 5/8" WATER-RESISTANT GWB IN LIEU OF TYPICAL GWB AT ALL WET AREAS INCLUDING, BUT NOT LIMITED TO:
   A. RESTROOMS
   B. JANITOR CLOSETS
5. EXTEND SMOKE BARRIER PARTITION WALLS TO BOTTOM OF UPPER FLOOR STRUCTURE.
6. FIELD VERIFY ALL DIMENSIONS, REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
7. SEAL ALL PENETRATIONS ON EXTERIOR WALLS.
8. ALL PLYWOOD TO BE FIRE TREATED, U.N.O.
9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.

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www.rsandh.com
North Carolina License Nos. 50073 *
F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:

CIRCULATION CORE SECOND FLOOR ENLARGED PLAN AND REFLECTED CEILING PLAN

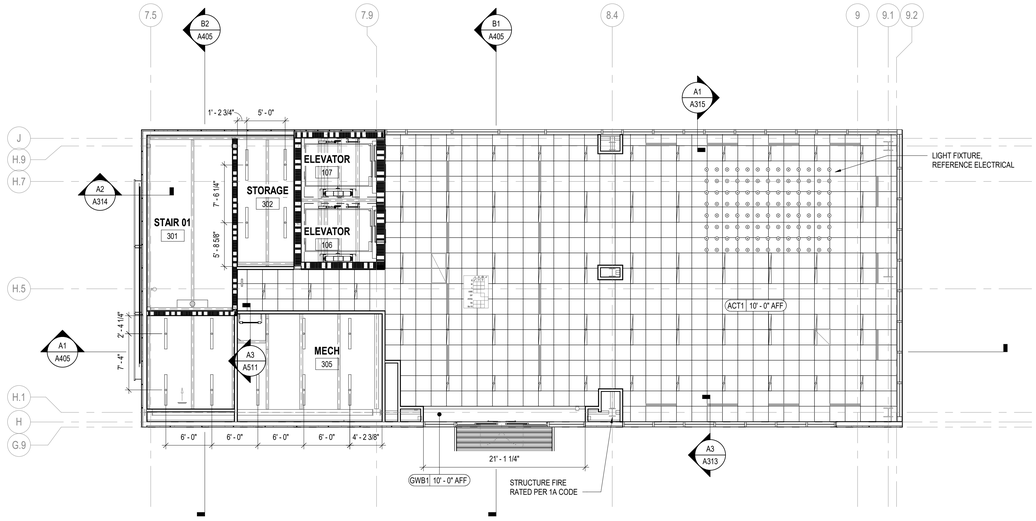
SHEET ID:

A402

PROJECT STATUS:
100% BID SET

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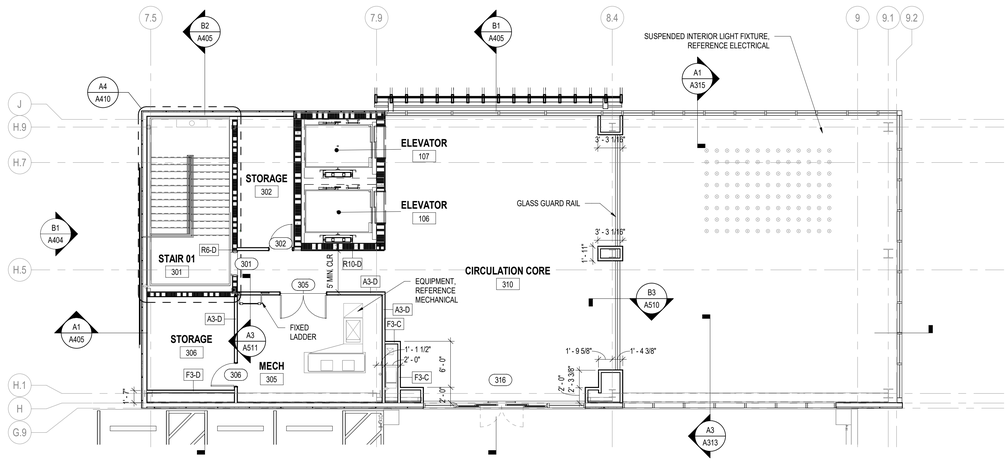
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PN

C1 ENLARGED THIRD LEVEL REFLECTED CEILING PLAN

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



PN

A1 THIRD LEVEL ENLARGED PLAN

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

CEILING PLAN LEGEND & SHEET NOTES

REFER TO VOLUME 2 PACKAGE

CEILING TYPES LEGEND

ACT1	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
ACT2	2' x 2' SUSPENDED ACOUSTICAL CEILING TILE SYSTEM
GWB1	5/8" GWB ON METAL FRAMING
EXP	EXPOSED TO ABOVE

FIXTURE LEGEND

- 14" x 11" FLUORESCENT LIGHT FIXTURE
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- CEILING MOUNTED EXIT SIGN
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REFER TO VOLUME 2 PACKAGE

FLOOR PLAN LEGEND & SHEET NOTES

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- NON-RATED WALL SYSTEM
- 1-HOUR RATED WALL SYSTEM
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8. ALL PLYWOOD TO BE FIRE TREATED, U.N.O.
9. DOOR FRAMES TO BE LOCATED 4" FROM CORNER OF WALL U.N.O.

8 0 8 16

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

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Phone: 704-752-0610, Fax: 704-949-2672
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North Carolina License Nos. 50073 *
F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SEAL:

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NOT FOR CONSTRUCTION

SHEET TITLE:
CIRCULATION CORE THIRD FLOOR ENLARGED PLAN AND REFLECTED CEILING PLAN

SHEET ID:
A403

PROJECT STATUS:
100% BID SET

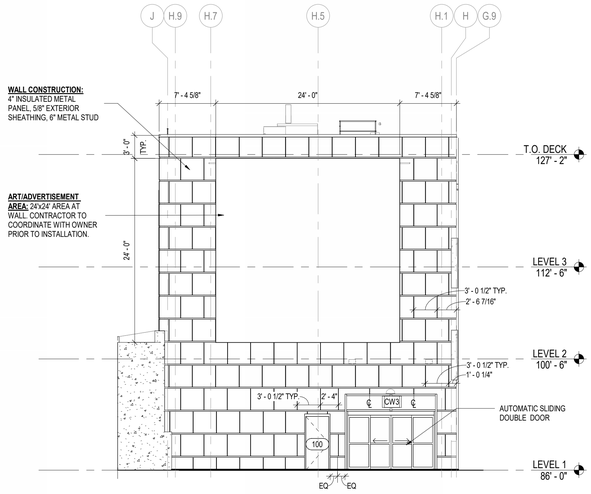
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GENERAL NOTES

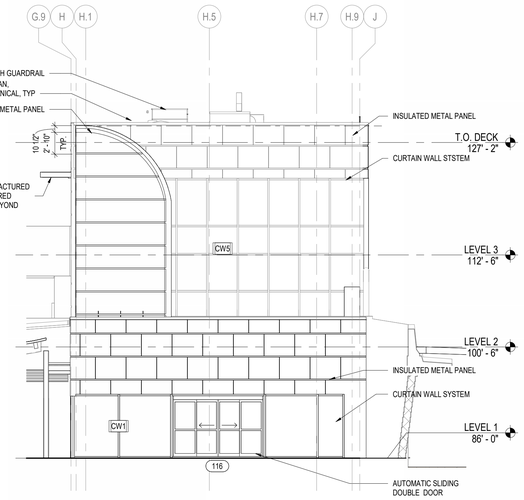
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REFER TO VOLUME 2 PACKAGE



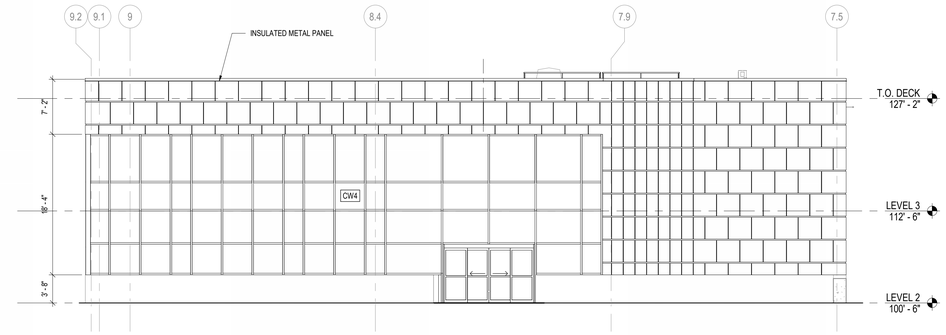
B1 CORE WEST ELEVATION

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



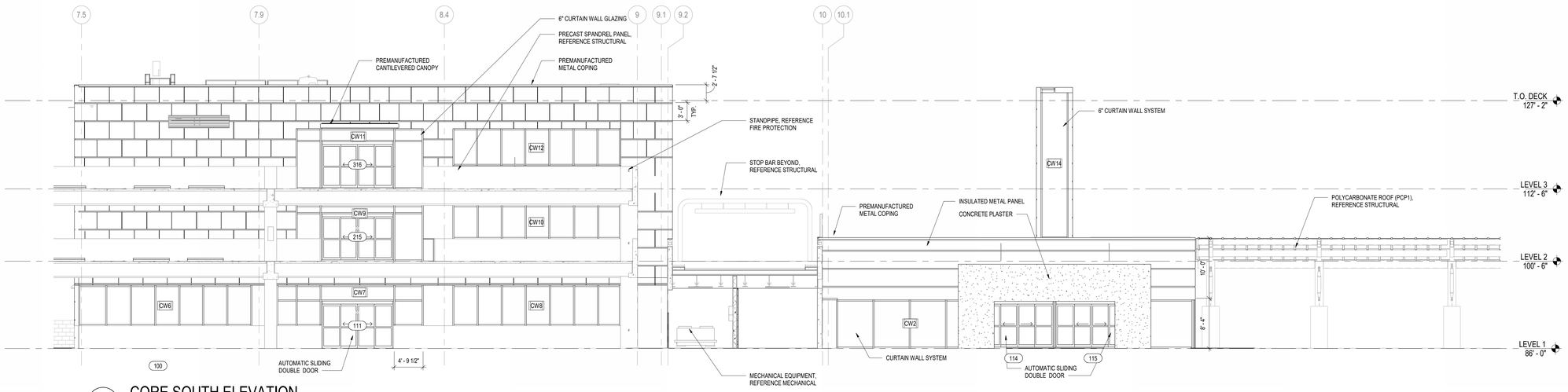
B2 CORE EAST ELEVATION

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



B4 EAST ELEVATION - RETAINING WALL

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



A1 CORE SOUTH ELEVATION

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

8 0 8 16

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

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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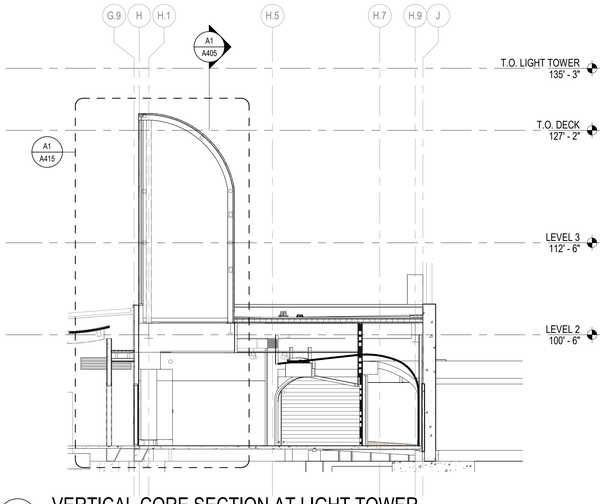
SHEET TITLE:
CIRCULATION CORE ELEVATIONS

SHEET ID:
A404

PROJECT STATUS:
100% BID SET

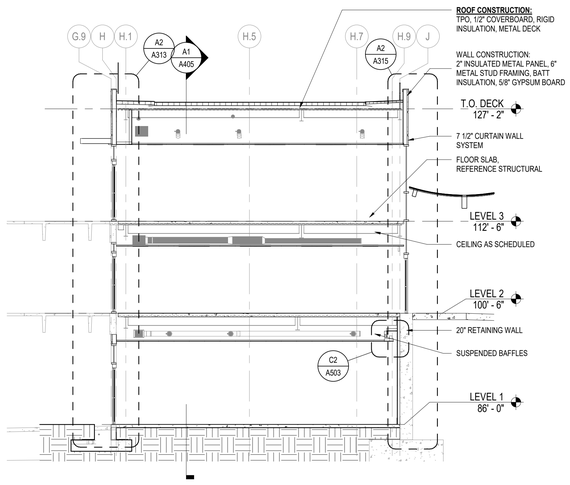
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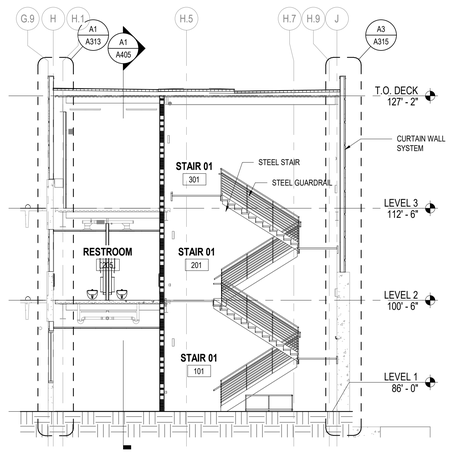
D1 VERTICAL CORE SECTION AT LIGHT TOWER

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



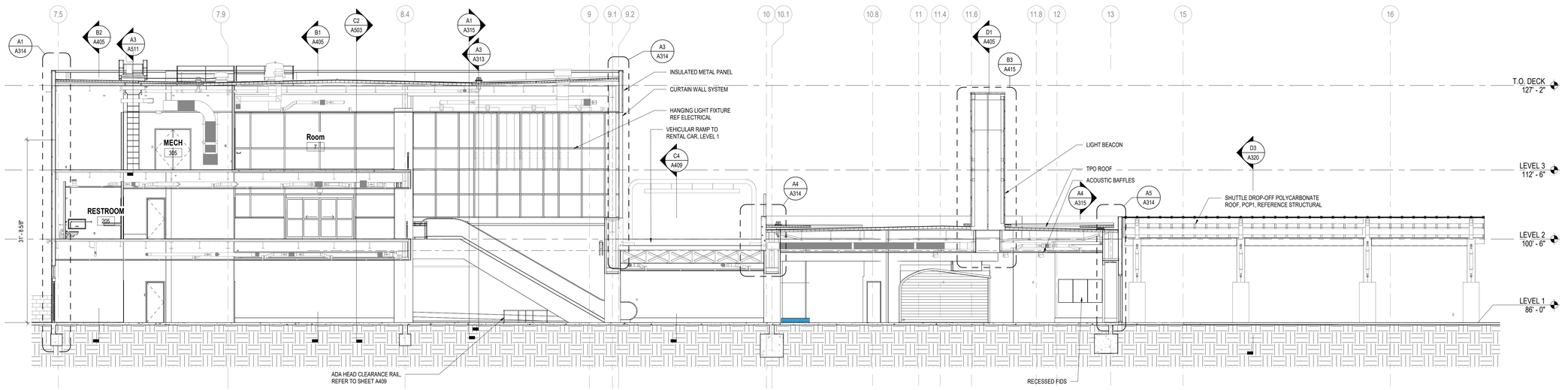
B1 VERTICAL CORE SECTION AT ELEVATOR VESTIBULE

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



B2 VERTICAL CORE SECTION AT STAIR

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



A1 VERTICAL CORE LONGITUDINAL SECTION

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

8 0 8 16

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

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ILM

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SHEET TITLE:
CIRCULATION CORE SECTIONS

SHEET ID:
A405

PROJECT STATUS:
100% BID SET

3/14/2025 7:01:55 PM Autodesk Docs://I003007004_ILM TO4 Rdwy Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

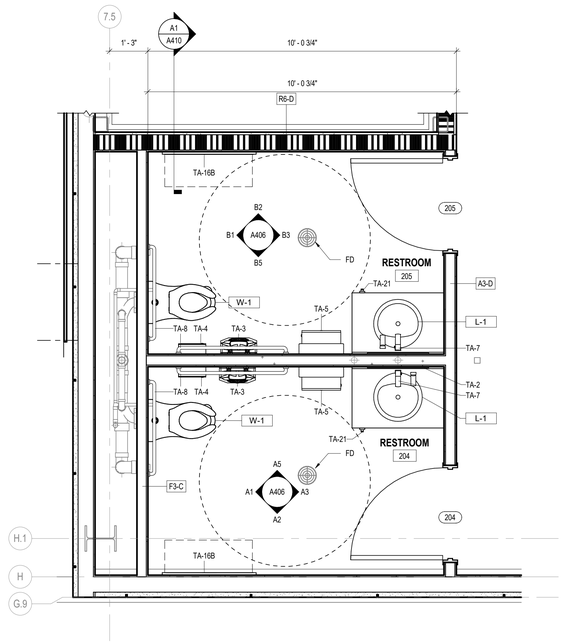
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TOILET ACCESSORY SCHEDULE

TYPE MARK	ACCESSORY	MANUFACTURER	MODEL	POWER REQUIREMENT	FINISH MATERIAL
TA-2	SILHOUETTE LIGHTED MIRROR - 24" X 48" LIGHTED LED MIRROR	ELECTRIC MIRROR	SIL3-24.00x48.00-L HED-30K	YES, SEE ELECTRICAL	
TA-3	TOILET TISSUE(ROLL) DISPENSER	OFCI		NO	
TA-4	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	BOBRICK WASHROOM EQUIPMENT, INC	B-254	NO	STAINLESS STEEL
TA-5	SURFACE MOUNTED CONVERTIBLE AUTOMATIC, UNIVERSAL ROLL TOWEL DISPENSER/WASTE RECEPTACLE	BOBRICK	B-3979	YES, SEE ELECTRICAL	STAINLESS STEEL, BOBRICK SATIN
TA-7	SENSOR ACTIVATED ELECTRONIC SOAP DISPENSER	SLOAN	ESD-500	YES, SEE ELECTRICAL	
TA-8	36" / 42" GRAB BAR	KOHLER	K-11896-BS	NO	BRUSHED STAINLESS
TA-10	COAT HOOK (60" A.F.F.)	MOCKETT	CH53	NO	SATIN-FINISH STAINLESS STEEL
TA-12	MOP AND BROOM HOLDER	BOBRICK	B-223 X 24	NO	SATIN STAINLESS
TA-16B	BABY CHANGING STATION	KOALA KARE	KB310-SSRE	NO	STAINLESS STEEL
TA-21	SS PURSE HOOK	SUGATSUNE GLOBAL	PXB-UM05-101	NO	SATIN NICKLE

GENERAL NOTES

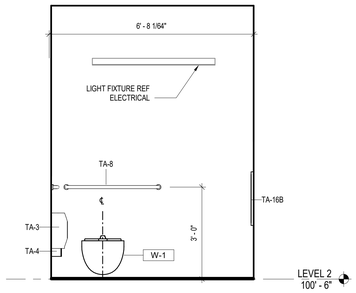
1. DO NOT SCALE DIMENSIONS FROM DRAWINGS - THE CONTRACTOR MUST REQUEST NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS FROM THE ARCHITECT.
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PN
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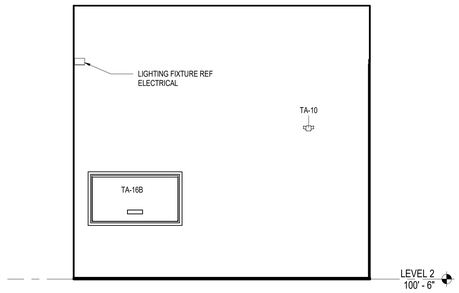
D1 SECOND LEVEL ENLARGED RESTROOM PLAN

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



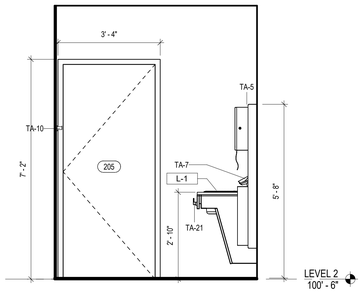
B1 WOMENS RESTROOM WEST ELEVATION

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



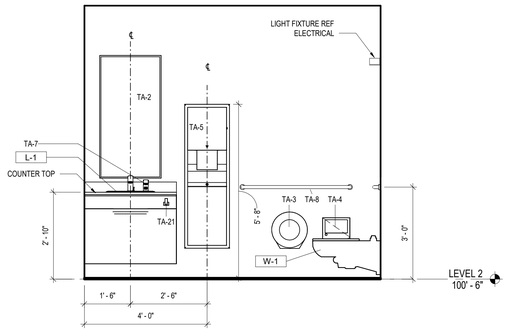
B2 WOMENS RESTROOM NORTH ELEVATION

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



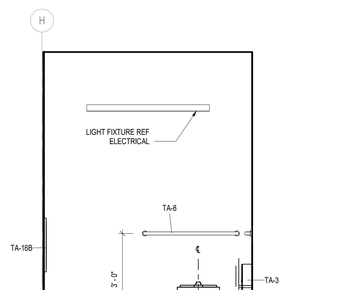
B3 WOMENS RESTROOM EAST ELEVATION

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



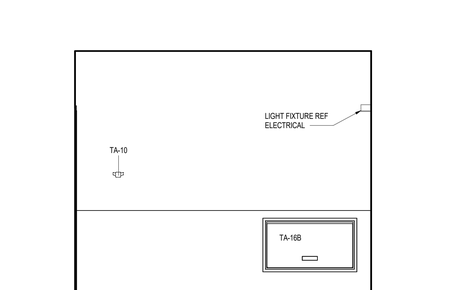
B5 WOMENS RESTROOM SOUTH ELEVATION

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



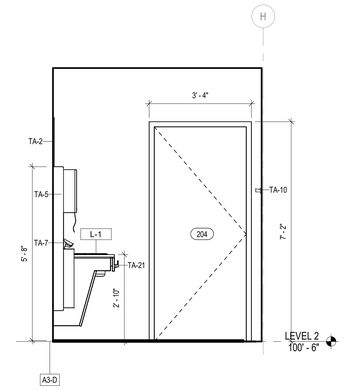
A1 MENS RESTROOM EAST ELEVATION

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



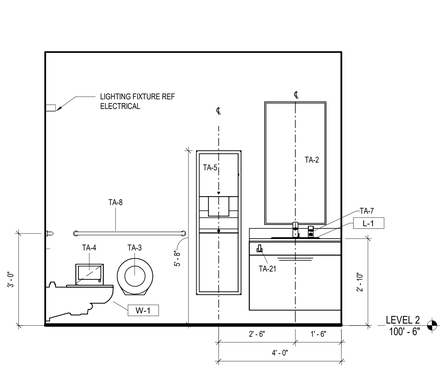
A2 MENS RESTROOM NORTH ELEVATION

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



A3 MENS RESTROOM WEST ELEVATION

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



A5 MENS RESTROOM SOUTH ELEVATION

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

2 0 2 4 6

SCALE: 3/8" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: SG
DRAWN BY: PB
DESIGNED BY: FG
PROJECT NUMBER: 2003-0070-006

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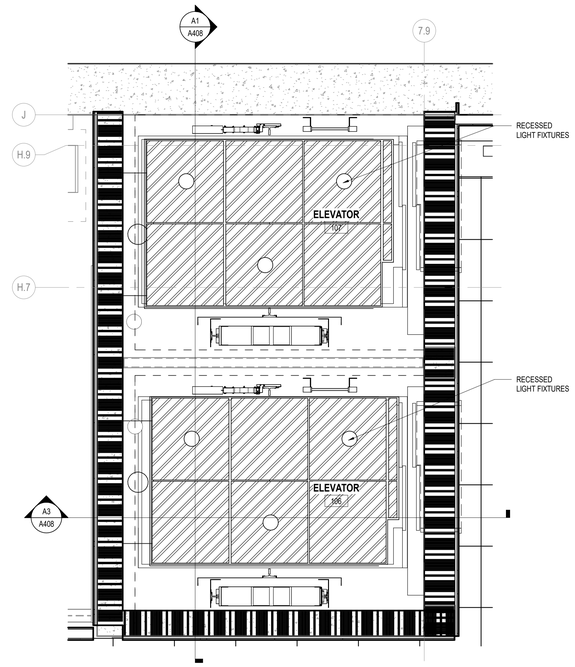
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RESTROOM ENLARGED PLANS AND INTERIOR ELEVATIONS

SHEET ID:
A406

PROJECT STATUS:
100% BID SET

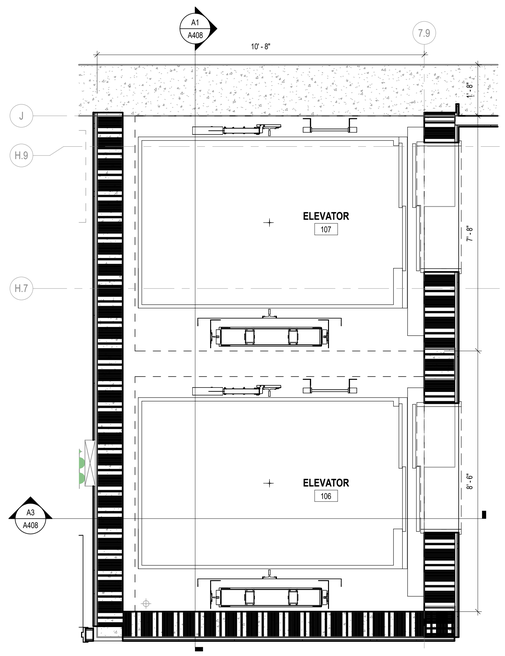
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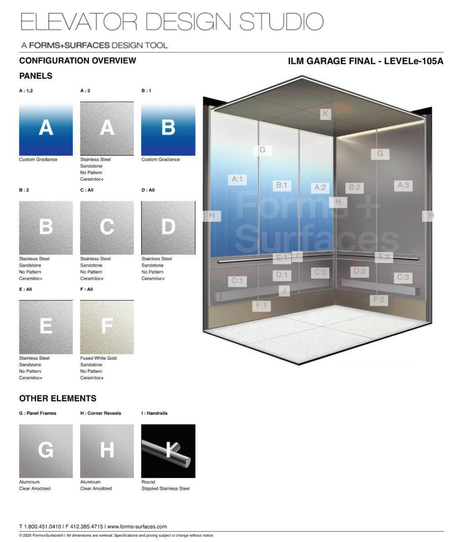
C1 ELEVATOR TYPICAL RCP

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



A1 ELEVATOR TYPICAL ENLARGED PLAN

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



3 TYPICAL ELEVATOR CAB FINISH CONFIGURATIONS

SCALE: N.T.S.

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6. PROTECT THE TRANSITION STRIPS WHEN GRINDING TERRAZZO TO POLISH FINISH WITH PROTECTION TAPE.
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10. THE SIGN CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ANCHORAGES, ALL ELECTRICAL FIXTURES AND REQUIRED CONNECTIONS INTO CIRCUITS, AND WILL SUBMIT SHOP DRAWINGS, MESSAGE SCHEDULE, AND DETAILS FOR REVIEW.

REFER TO VOLUME 2 PACKAGE

GENERAL NOTES

1. ESCALATOR BASIS OF DESIGN IS SCHINDLER 9300 ADVANCED EDITION TYPE 10 30"-M ESCALATOR.
2. ALLOW CLADDING TO BE EASILY ATTACHED TO TRUSS EXTERIOR AT ESCALATORS. MATERIAL SUCH AS CLADDING CARRIED BY THE TRUSS MUST NOT EXCEED 10 LBS/FT². ATTACHMENT SHOULD BE TO THE FACTORY PROVIDED CLADDING BRACKETS OR BY CLAMPS ONLY. WELDING OR DRILLING INTO ANY TRUSS STRUCTURAL MEMBER IS NOT ACCEPTABLE.
3. ELEVATOR BASIS OF DESIGN IS SCHINDLER 3300 XL MRL TRACTION ELEVATOR.
4. BRASCO INTERNATIONAL, INC. PER TSP 10 73 43 TRANSPORTATION STOP SHELTERS.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	
2003-0070-006	

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SHEET TITLE:
VERTICAL CORE ELEVATOR ENLARGED PLANS AND INTERIOR ELEVATIONS

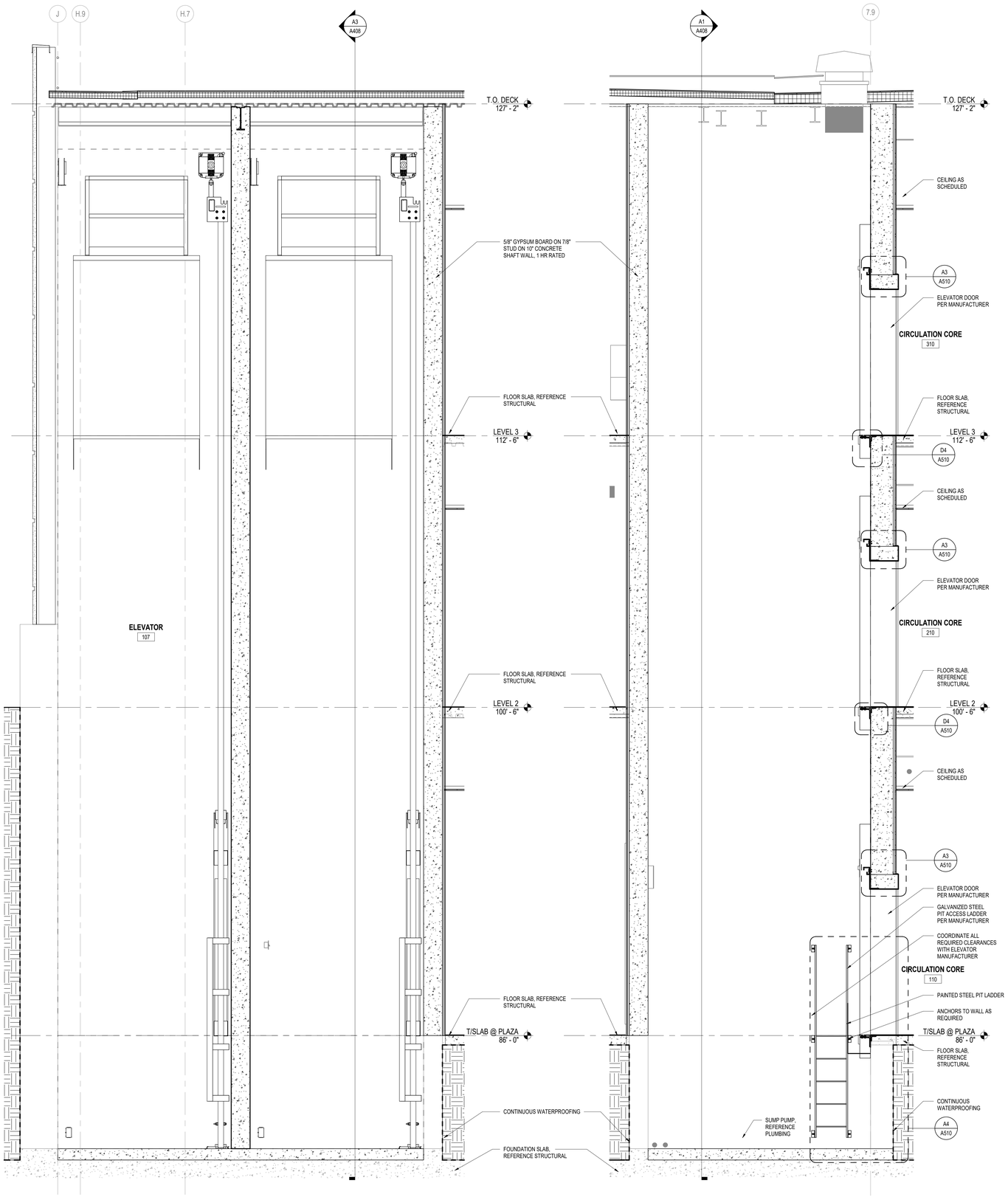
SHEET ID:
A407

PROJECT STATUS:
100% BID SET

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A1 ELEVATOR N-S SECTION
SCALE: 1/2" = 1'-0"

A3 ELEVATOR E-W SECTION
SCALE: 1/2" = 1'-0"

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ILM

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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	**2003-0070-006**

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SHEET TITLE:
VERTICAL CORE ELEVATOR SECTIONS

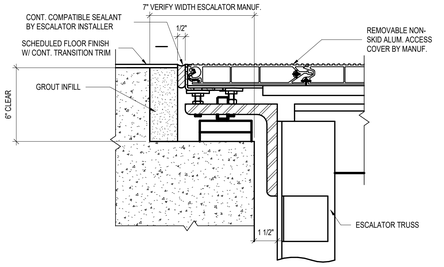
SHEET ID:
A408

PROJECT STATUS:
100% BID SET

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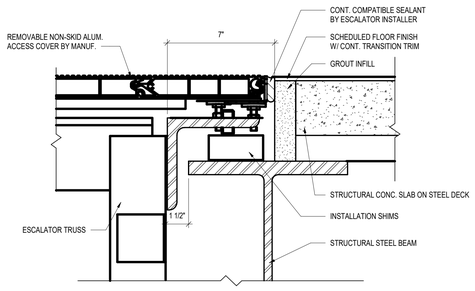
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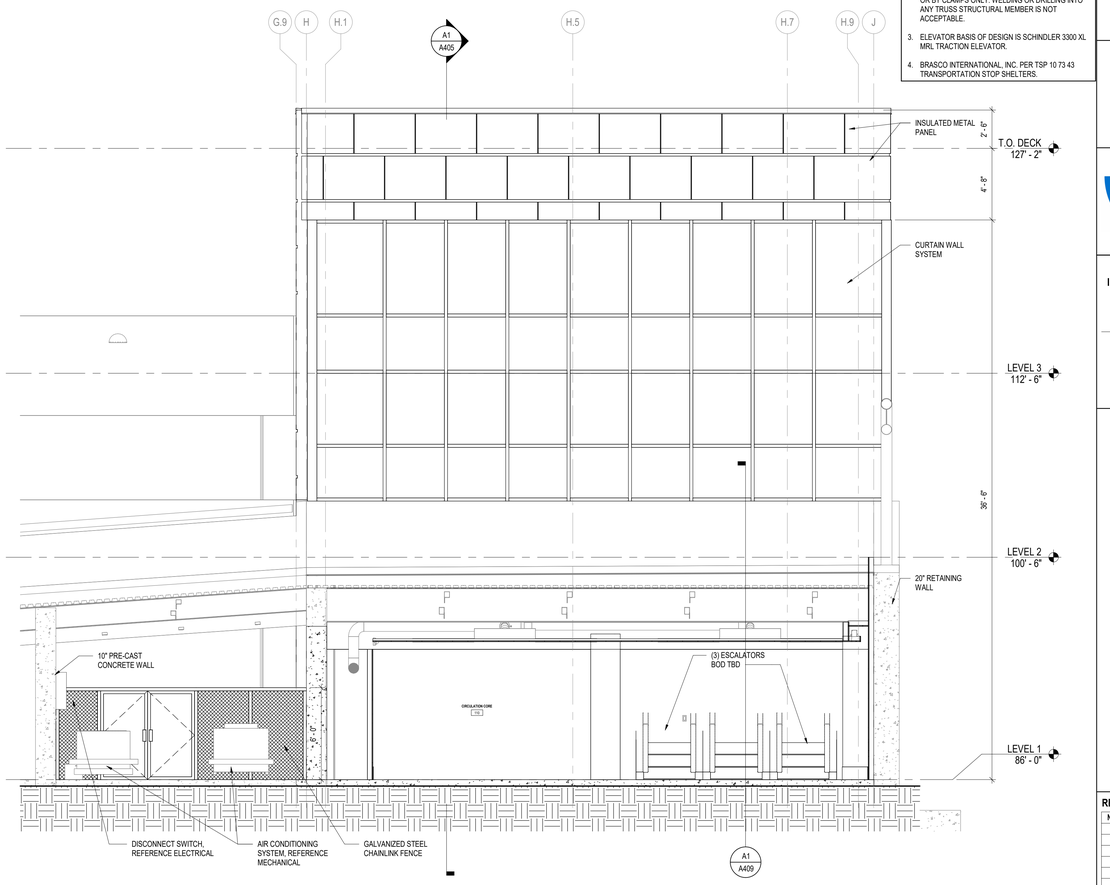
D1 ESCALATOR BOTTOM CONNECTION

SCALE: 3" = 1'-0"



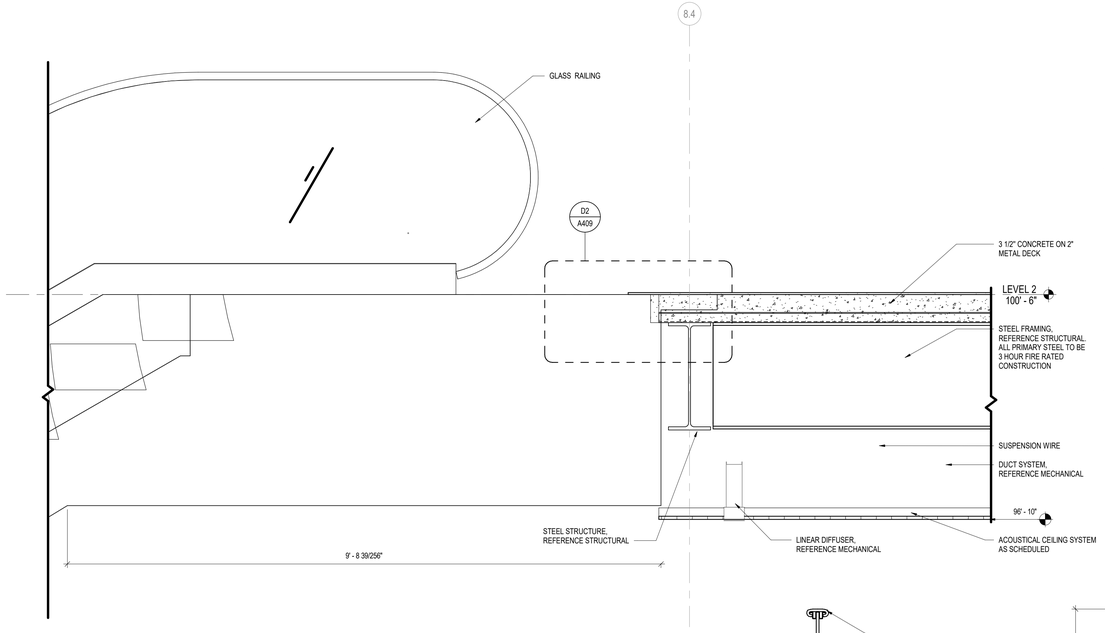
D2 ESCALATOR TOP CONNECTION

SCALE: 3" = 1'-0"



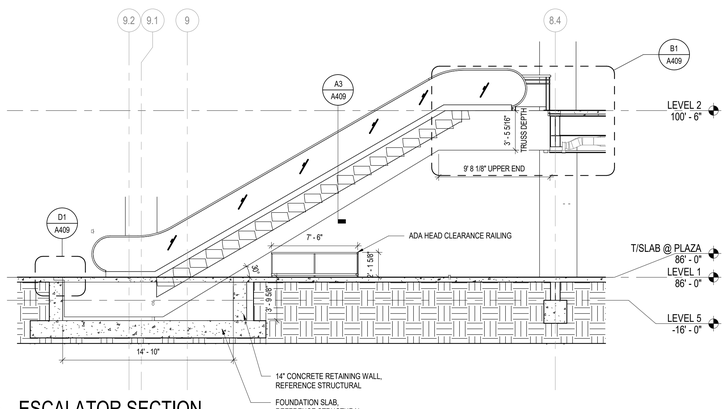
C4 VERTICAL CORE SECTION AT ESCALATORS

SCALE: 1/4" = 1'-0"



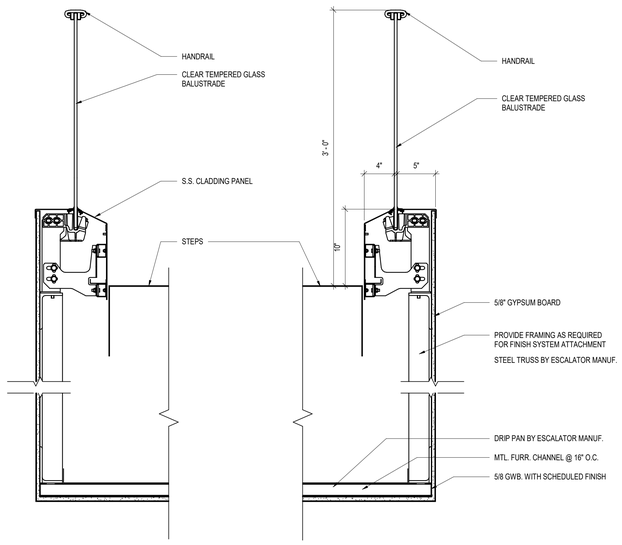
B1 ESCALATOR CONNECTION AT STRUCTURE

SCALE: 1" = 1'-0"



A1 ESCALATOR SECTION

SCALE: 3/16" = 1'-0"



A3 GUARDRAIL DETAIL

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

GENERAL NOTES

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	

2003-0070-006

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SHEET TITLE:

VERTICAL CORE ESCALATOR SECTIONS AND DETAILS

SHEET ID:

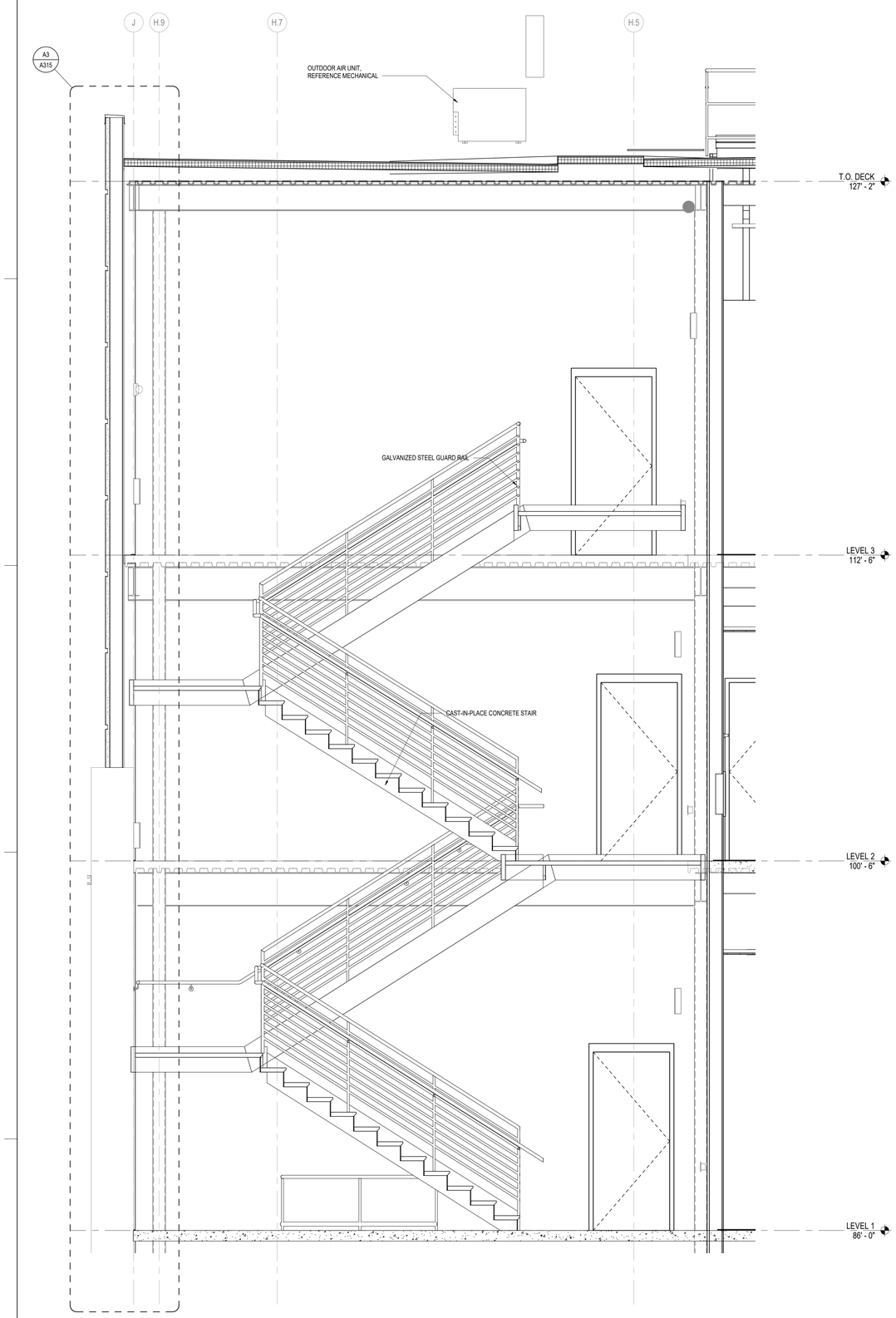
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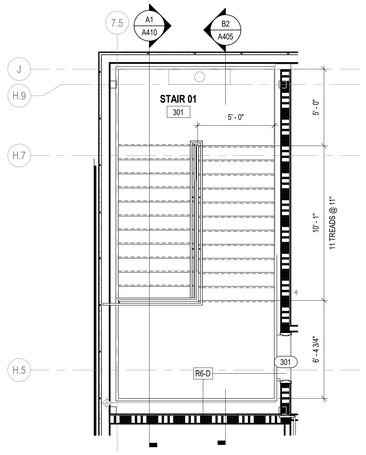
PROJECT STATUS:
100% BID SET

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

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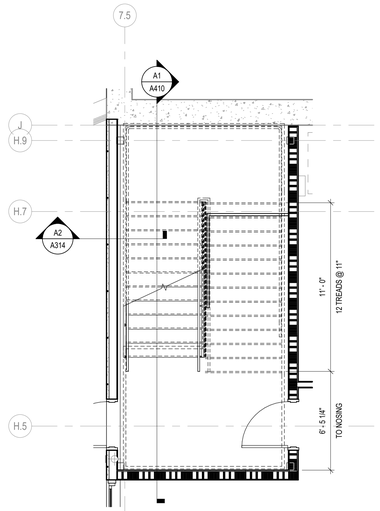
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A4 THIRD FLOOR ENLARGED STAIR PLAN

SCALE: 1/4" = 1'-0"



1 GROUND FLOOR ENLARGED STAIR PLAN

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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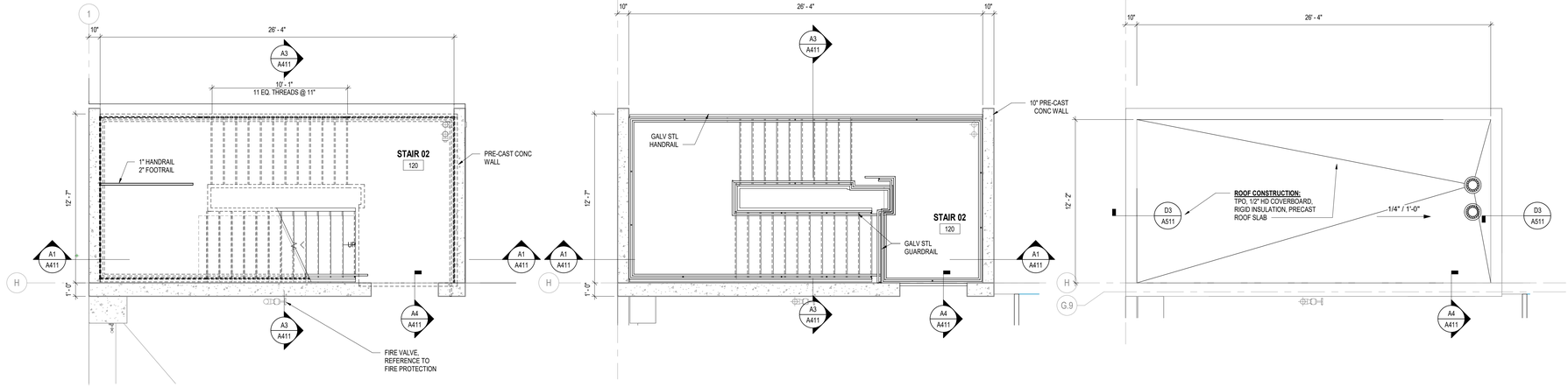
SHEET TITLE:
VERTICAL CORE STAIR ENLARGED PLANS AND SECTIONS

SHEET ID:
A410

PROJECT STATUS:
100% BID SET

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PN

D1 TYPICAL ENLARGED STAIR 02 PLAN

SCALE: 1/4" = 1'-0"

PN

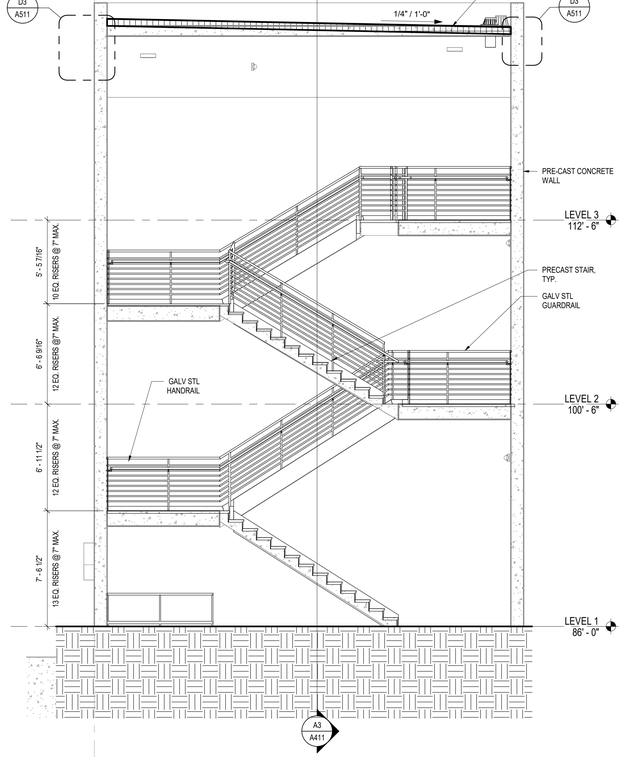
D3 THIRD FLOOR ENLARGED STAIR 02 PLAN

SCALE: 1/4" = 1'-0"

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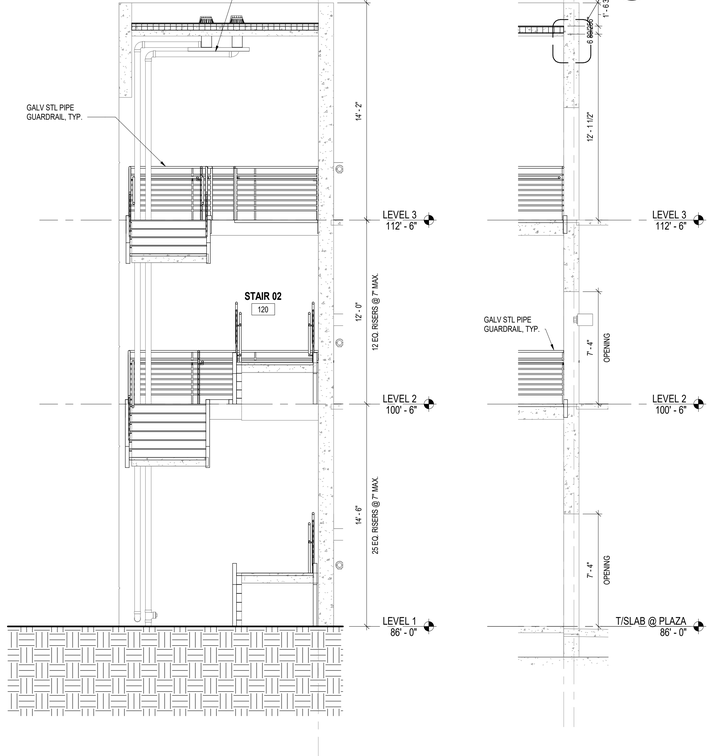
D4 STAIR 02 ROOF PLAN

SCALE: 1/4" = 1'-0"



A1 N-S SECTION @ STAIR 02

SCALE: 1/4" = 1'-0"

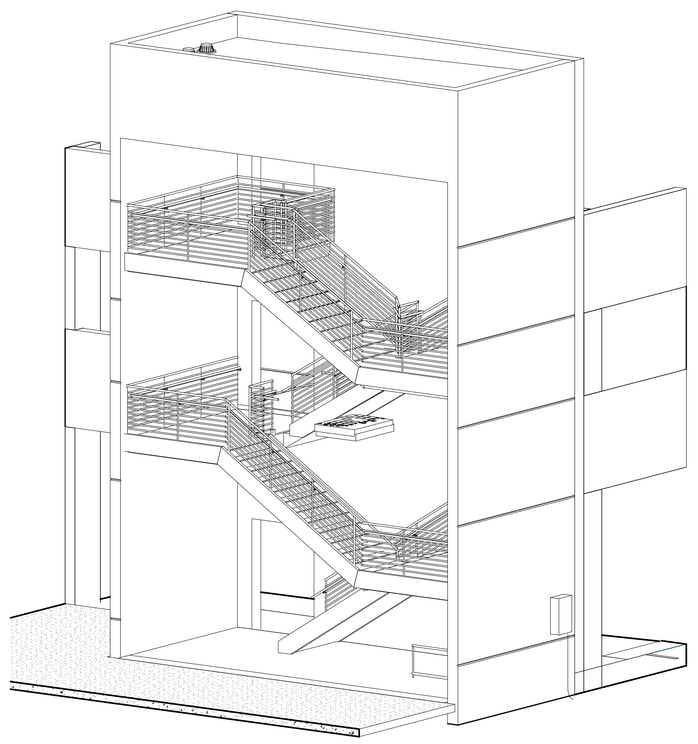


A3 E-W SECTION @ STAIR 02

SCALE: 1/4" = 1'-0"

A4 STAIR 02 TRANSITION

SCALE: 1/4" = 1'-0"



A5 EGRESS STAIR 3D VIEW

SCALE: N.T.S.

1 0 1

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

4 0 4 8

SCALE: 1/4" = 1'-0"

GENERAL NOTES

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8. EXISTING AND FUTURE UNDERLAY LINEWORK FOR REFERENCE PURPOSES ONLY. ANY CIVIL RELATED WORK, SEE CIVIL PACKAGE FOR DETAILS.
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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:

GARAGE EGRESS STAIR ENLARGED PLANS AND INTERIOR ELEVATIONS

SHEET ID:

A411

PROJECT STATUS:
100% BID SET

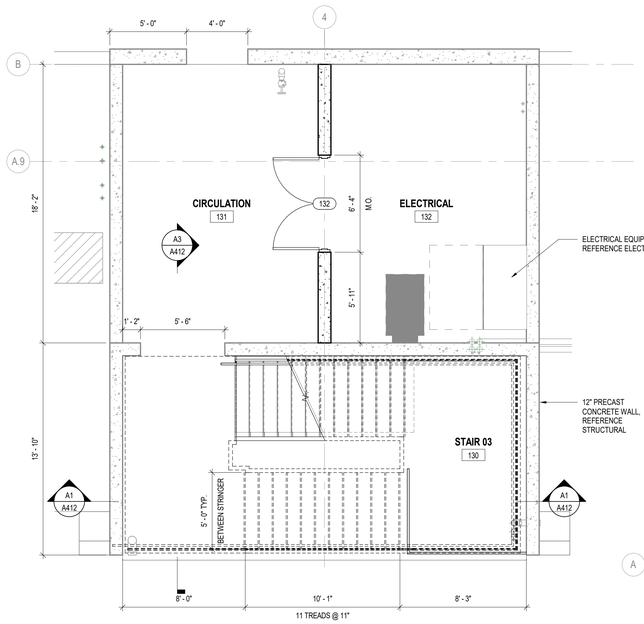
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GENERAL NOTES

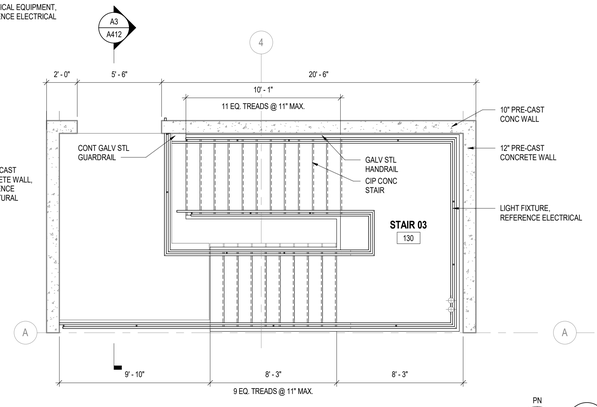
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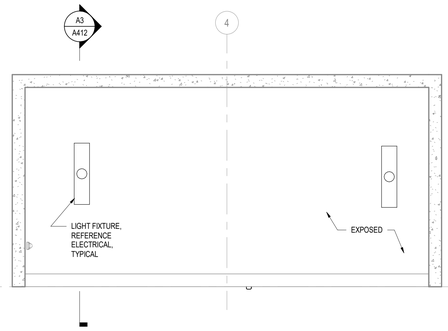
C1 TYPICAL ENLARGED STAIR 03 PLAN

SCALE: 1/4" = 1'-0"



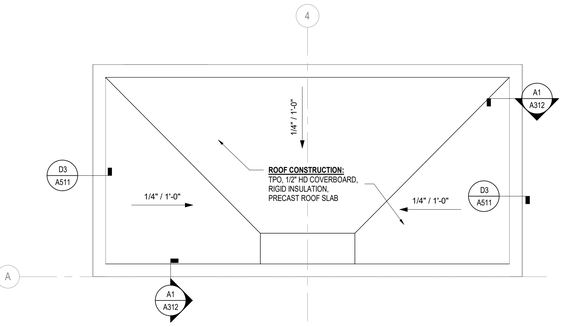
C2 THIRD FLOOR ENLARGED STAIR 03 PLAN

SCALE: 1/4" = 1'-0"



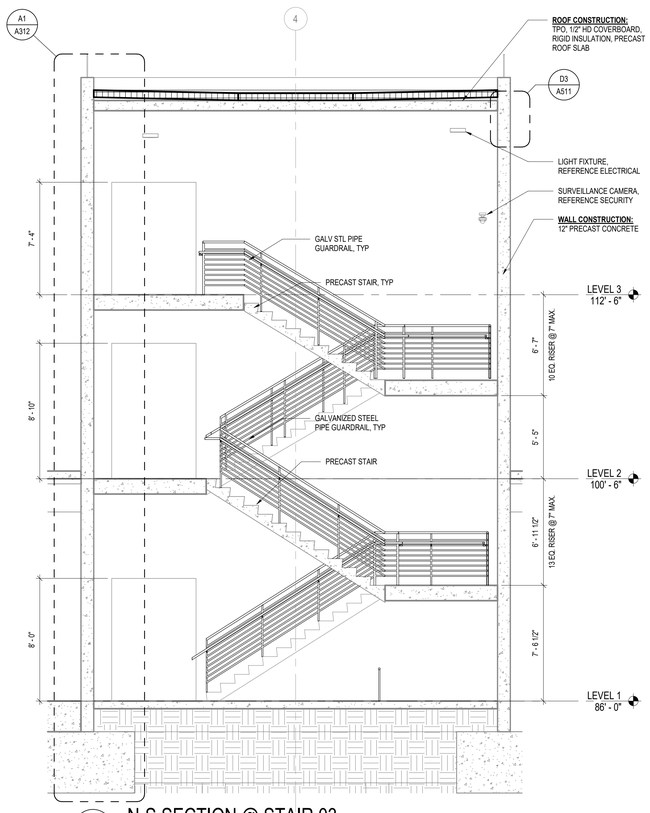
C4 STAIR 03 RCP

SCALE: 1/4" = 1'-0"



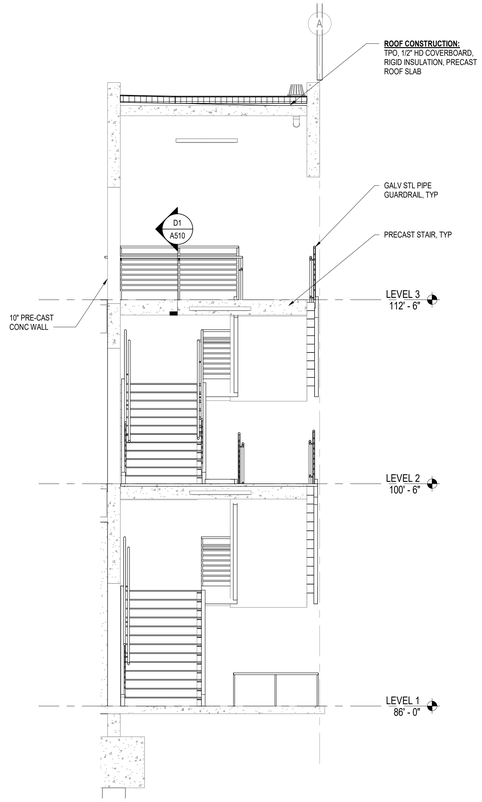
D4 OVERALL ROOF PLAN - STAIR 03

SCALE: 1/4" = 1'-0"



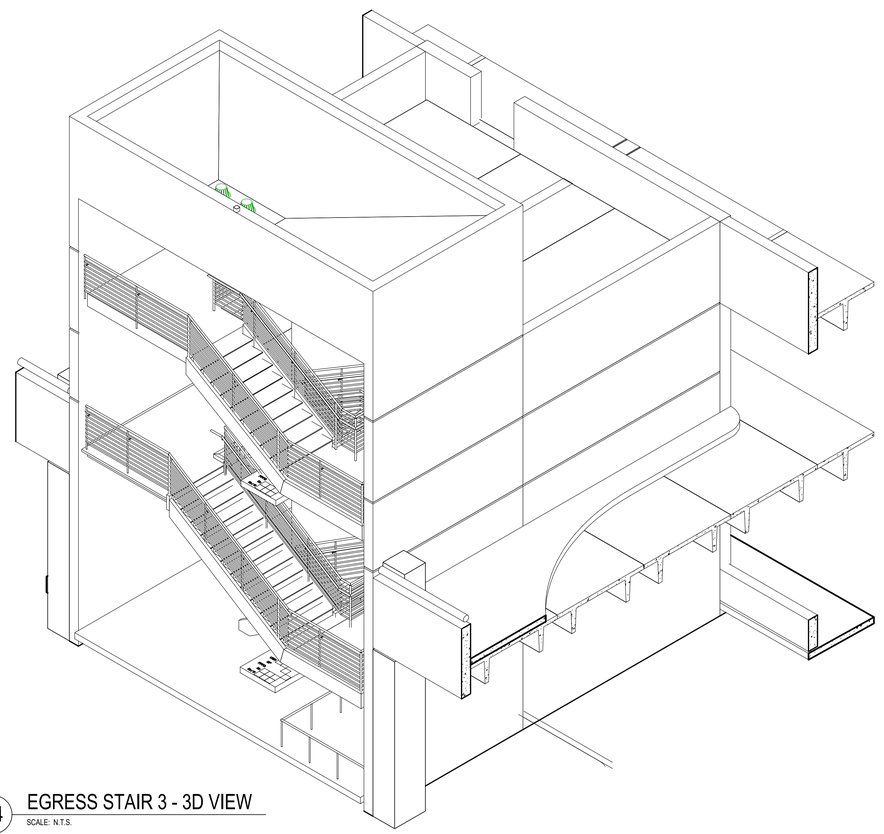
A1 N-S SECTION @ STAIR 03

SCALE: 1/4" = 1'-0"



A3 E-W SECTION @ STAIR 03

SCALE: 1/4" = 1'-0"



A4 EGRESS STAIR 3 - 3D VIEW

SCALE: N.T.S.

4 0 4 8

SCALE: 1/4" = 1'-0"

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ILM

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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:

GARAGE EGRESS STAIR ENLARGED PLANS, SECTIONS AND ELEVATIONS

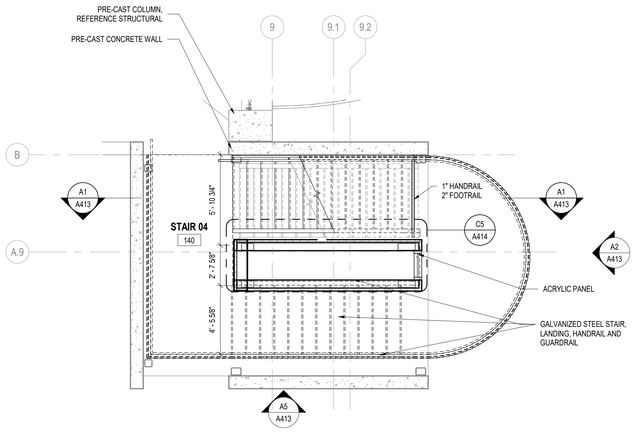
SHEET ID:

A412

PROJECT STATUS:
100% BID SET

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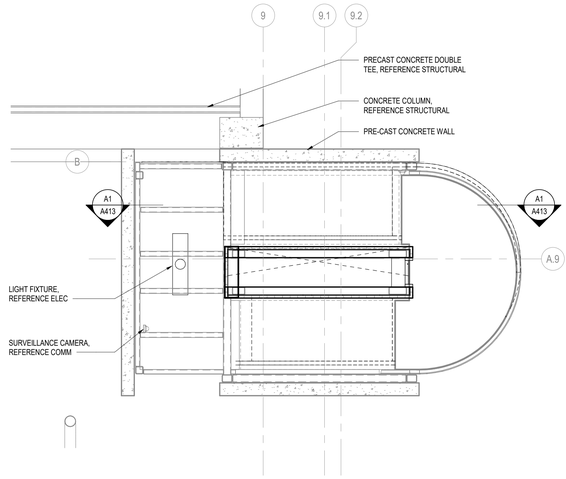
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PN

D1 ENLARGED FEATURE STAIR GROUND FLOOR PLAN

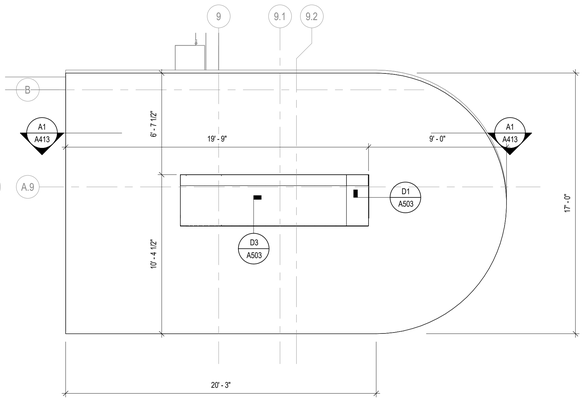
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PN

D3 FEATURE STAIR RCP

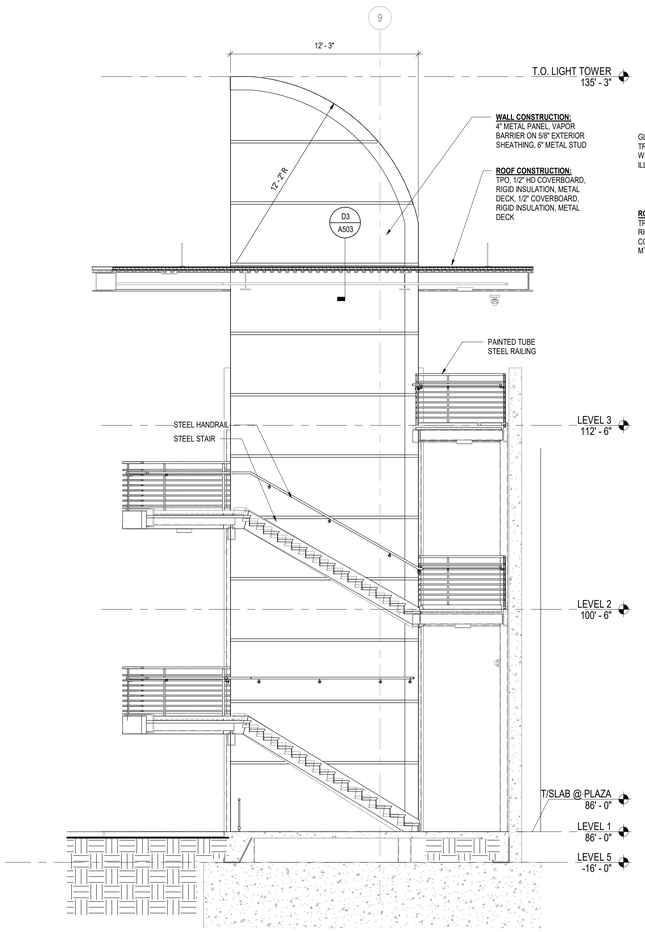
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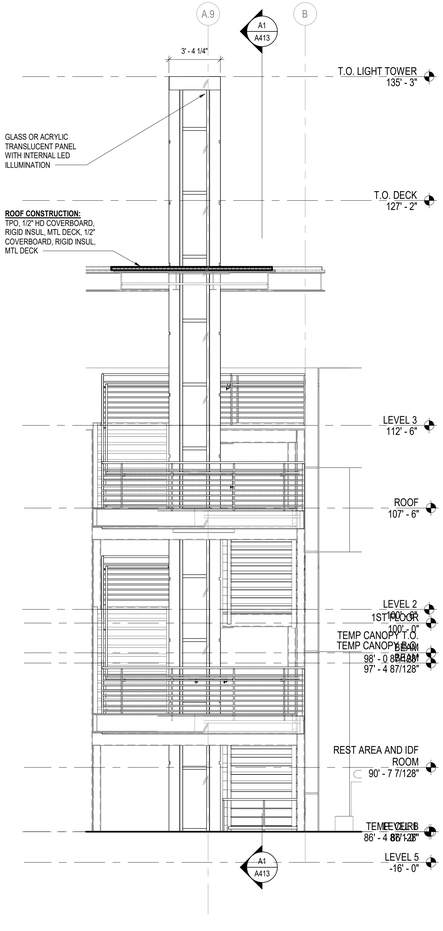
D4 ENLARGED FEATURE STAIR ROOF PLAN

SCALE: 1/4" = 1'-0"



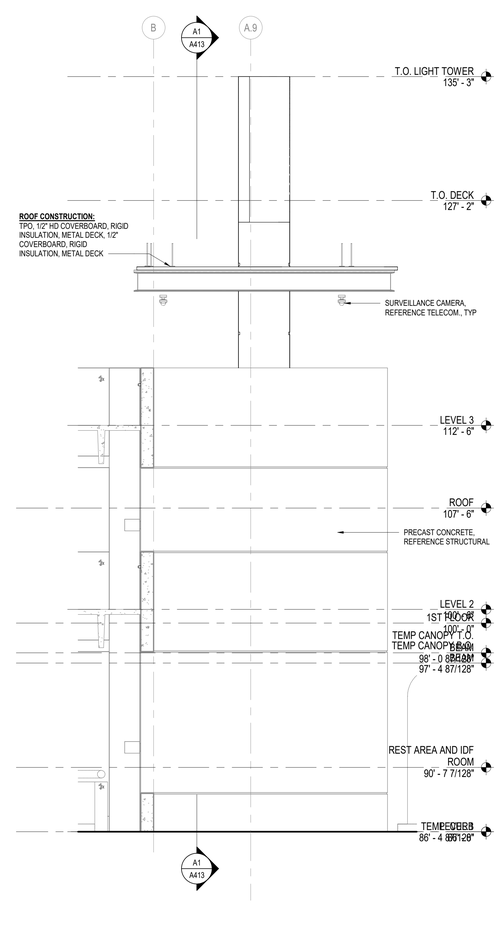
A1 FEATURE STAIR SECTION

SCALE: 1/4" = 1'-0"



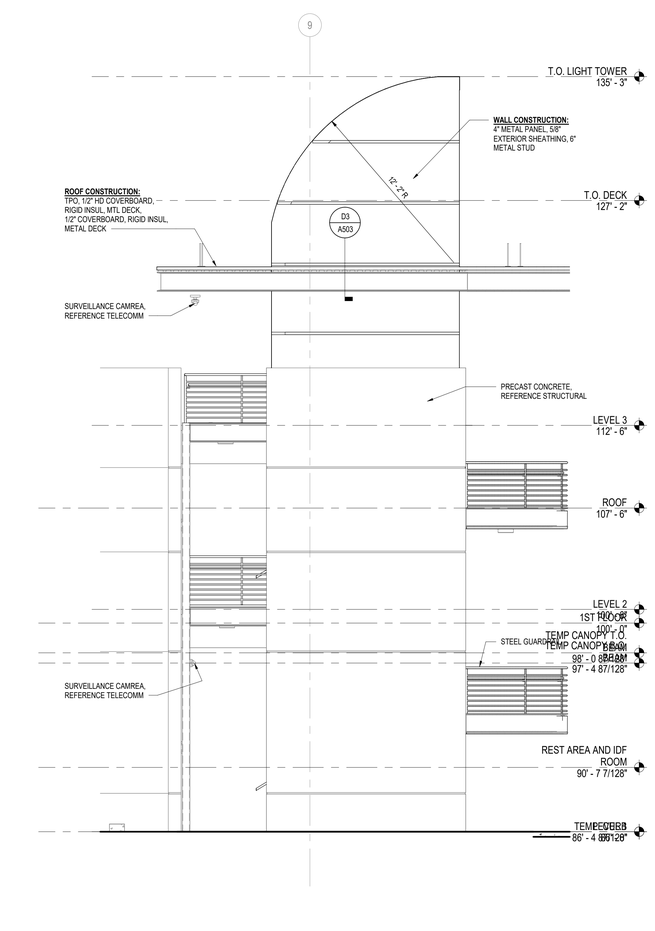
A2 FEATURE STAIR NORTH ELEVATION

SCALE: 1/4" = 1'-0"



A4 FEATURE STAIR SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



A5 FEATURE STAIR EAST ELEVATION

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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PROJECT ADDRESS:
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REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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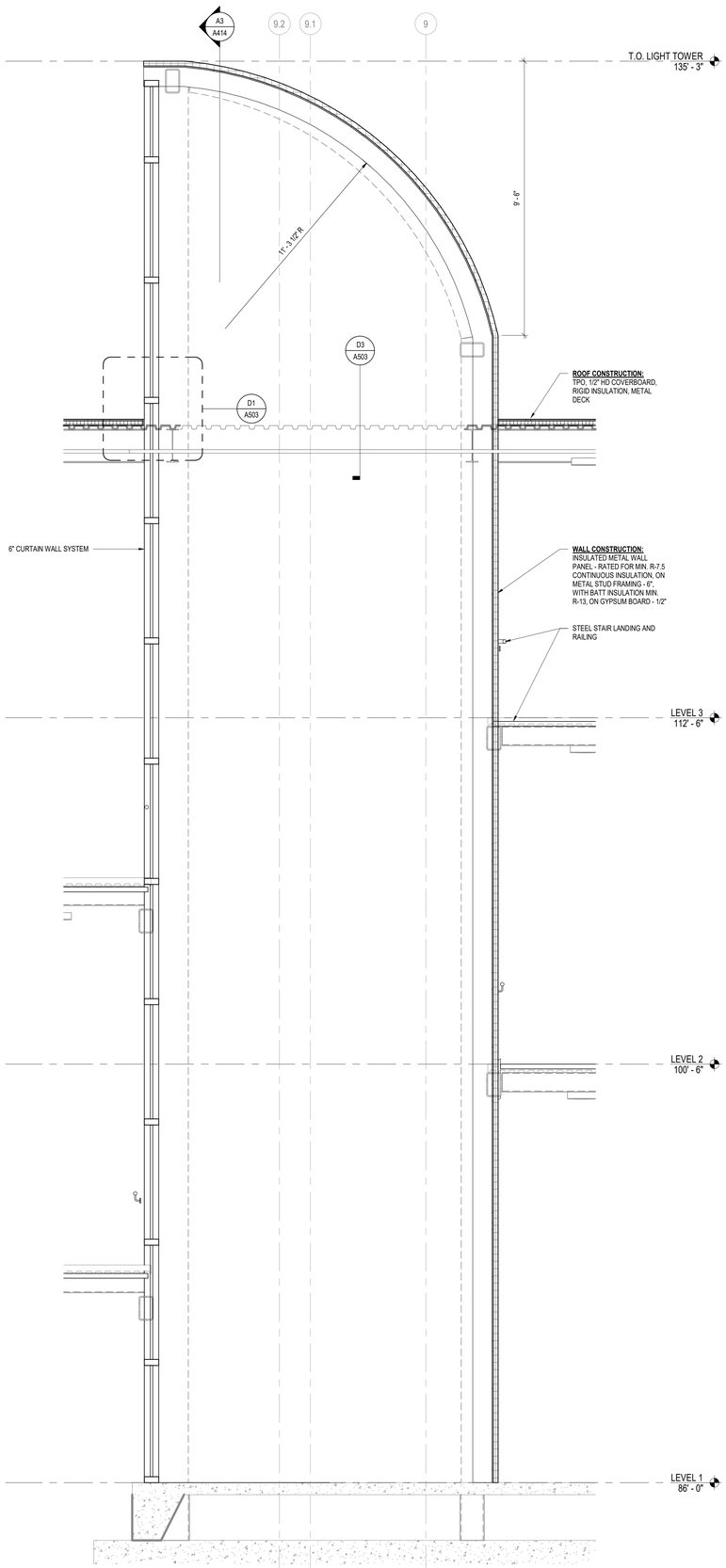
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FEATURE STAIR ENLARGED PLANS AND ELEVATIONS

SHEET ID:
A413

PROJECT STATUS:
100% BID SET

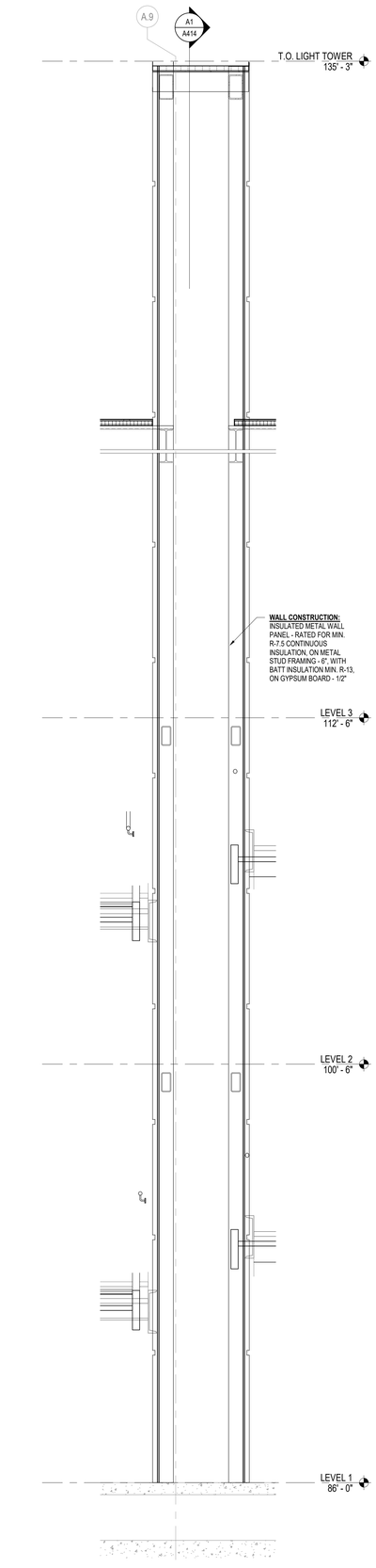
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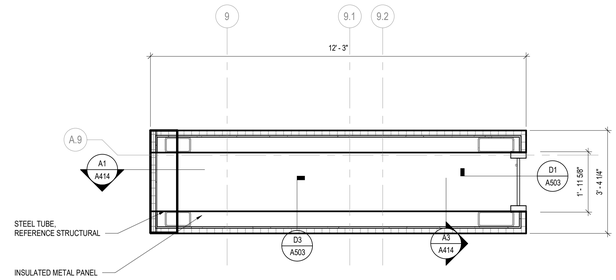
A1 FEATURE STAIR LIGHT BEACON E-W SECTION

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



A3 FEATURE STAIR LIGHT BEACON N-S SECTION

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



C5 FEATURE STAIR LIGHT BEACON ENLARGED PLAN

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

2 0 2 4

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

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FEATURE STAIR LIGHT BEACON ENLARGED PLANS AND SECTIONS

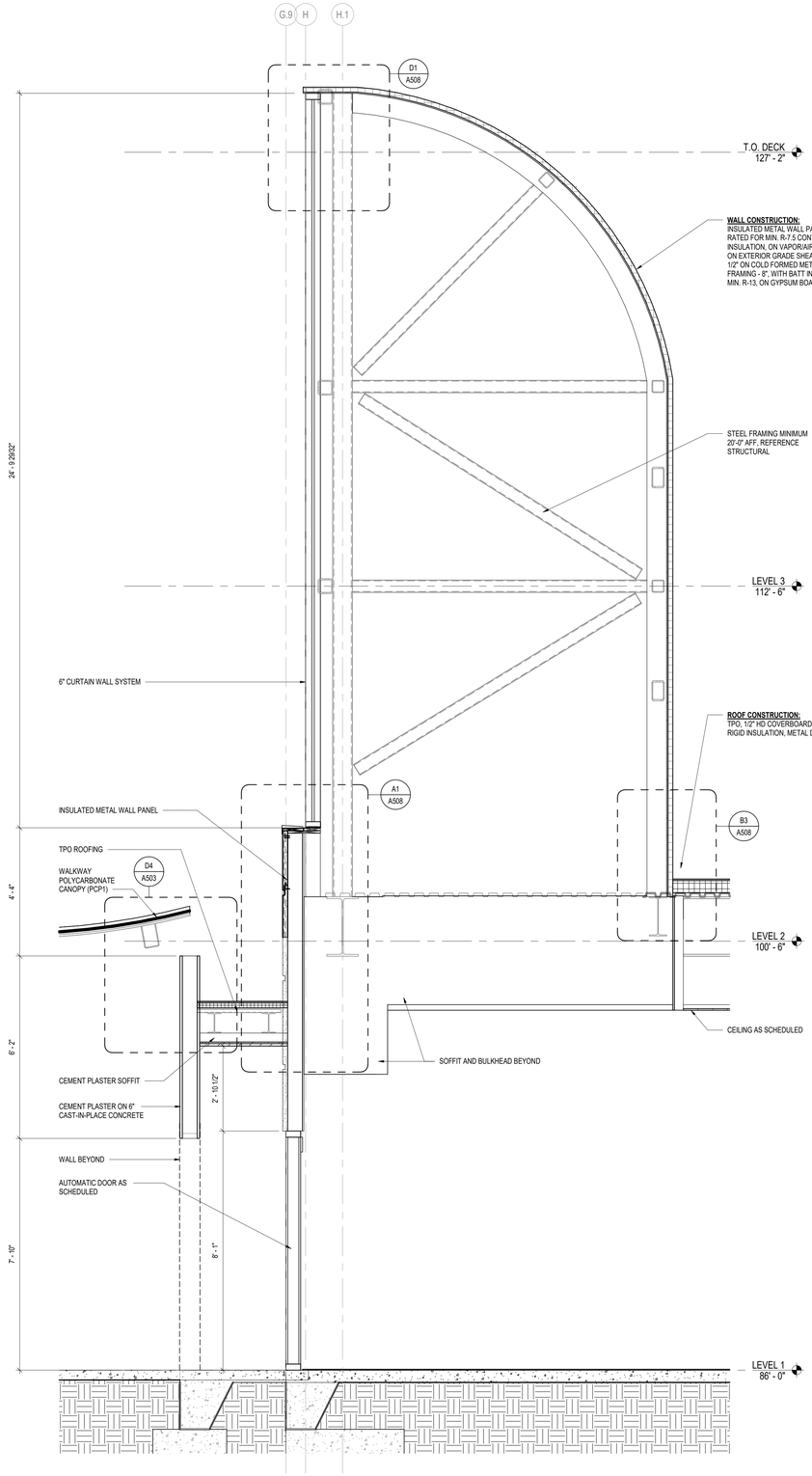
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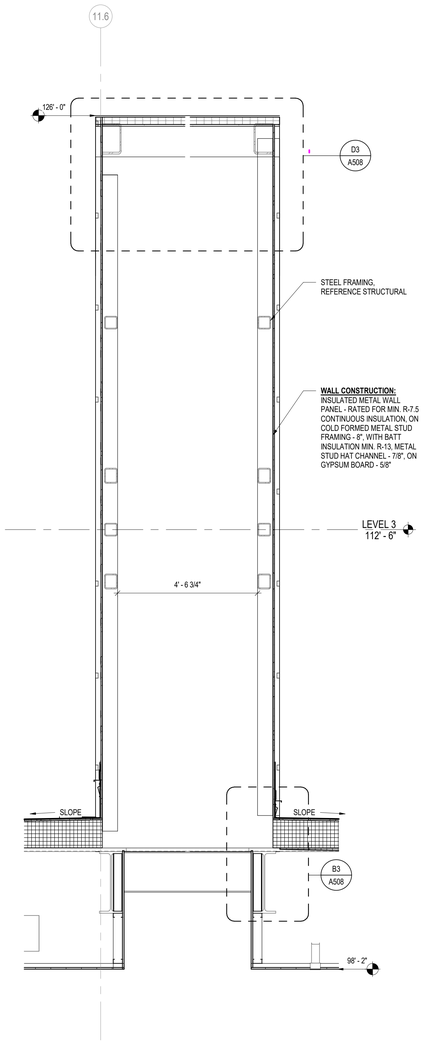
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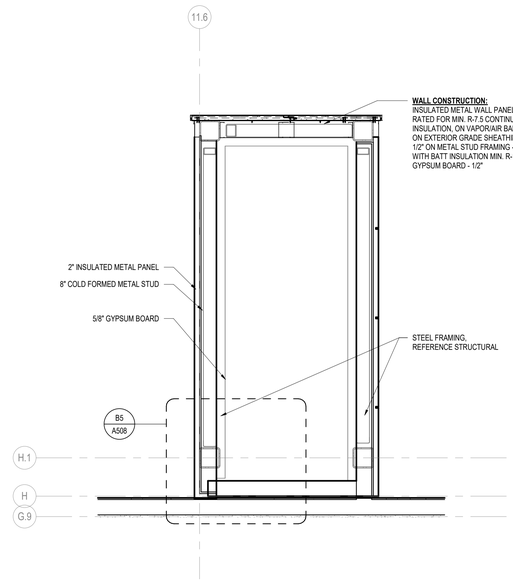
A1 LIGHT BEACON SECTION E-W

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



B3 LIGHT BEACON SECTION N-S

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



PN

N

B5 LIGHT BEACON ENLARGED PLAN

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

2 0 2 4

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

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DESIGNED BY:	FG

PROJECT NUMBER:
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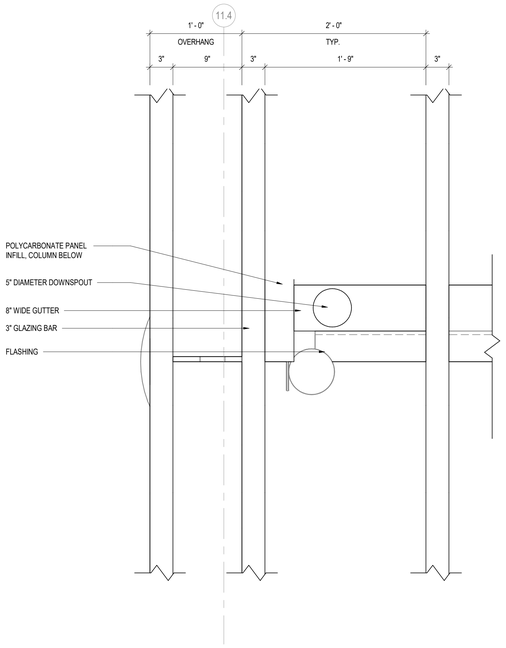
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LIGHT BEACON ENLARGED PLAN AND SECTIONS

SHEET ID:
A415

PROJECT STATUS:
100% BID SET

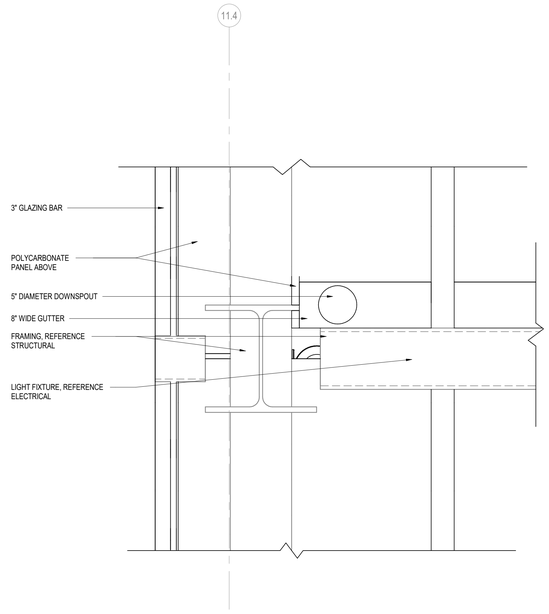
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C1 WALKWAY CANOPY COLUMN PLAN

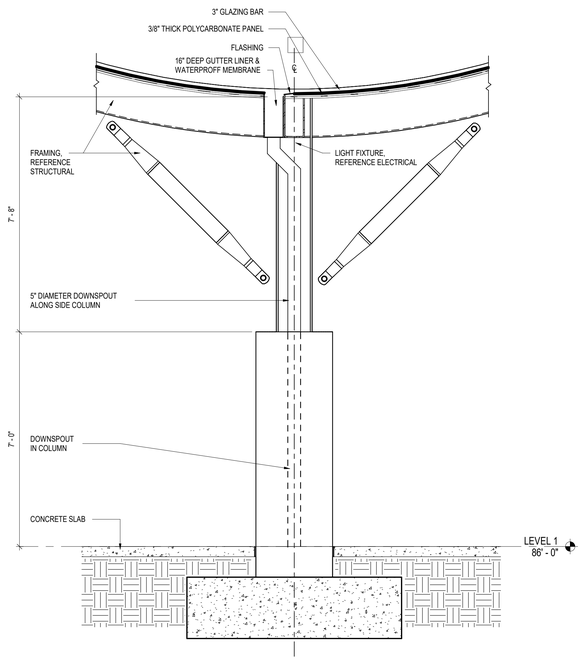
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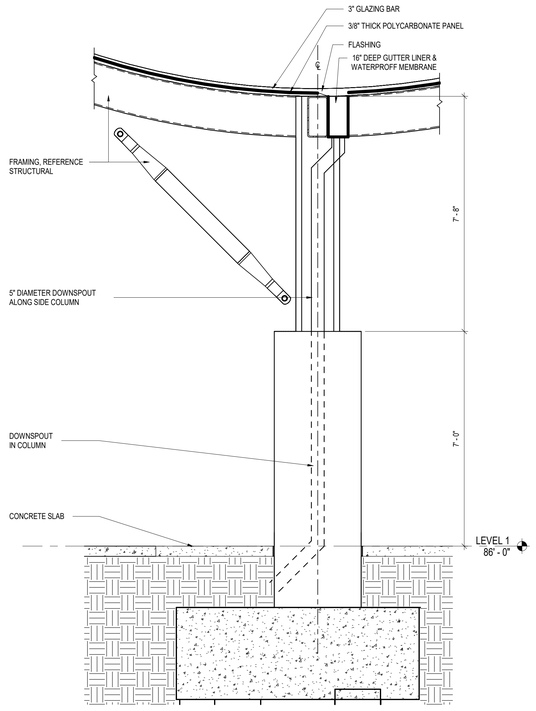
C3 WALKWAY CANOPY COLUMN RCP PLAN

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



A1 ENLARGED WALKWAY CANOPY COLUMN SECTION

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

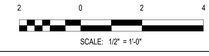


A3 ENLARGED SHUTTLE DROP OFF CANOPY COLUMN SECTION

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



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



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

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	TP
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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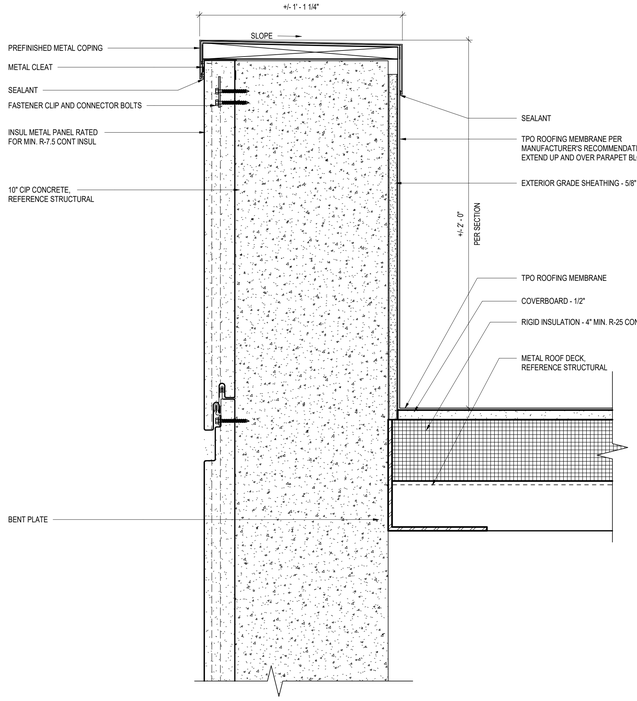
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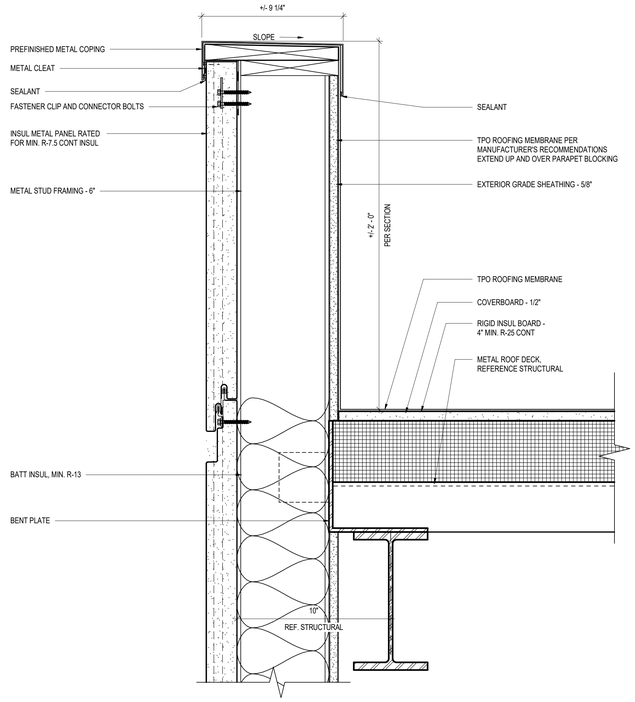
SHEET ID:
A420

PROJECT STATUS:
100% BID SET

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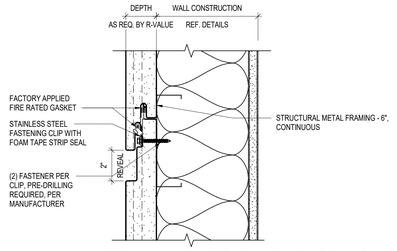
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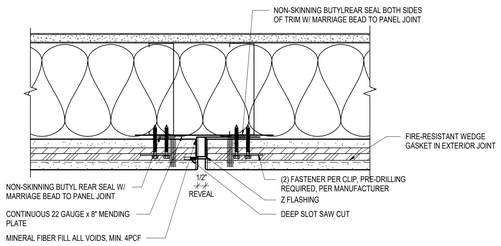
C5 METAL PANEL AT STUD PARAPET

SCALE: 3" = 1'-0"



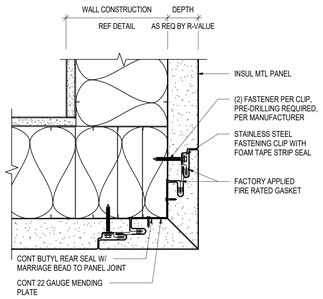
B2 METAL PANEL TO PANEL (HORIZONTAL)

SCALE: 3" = 1'-0"



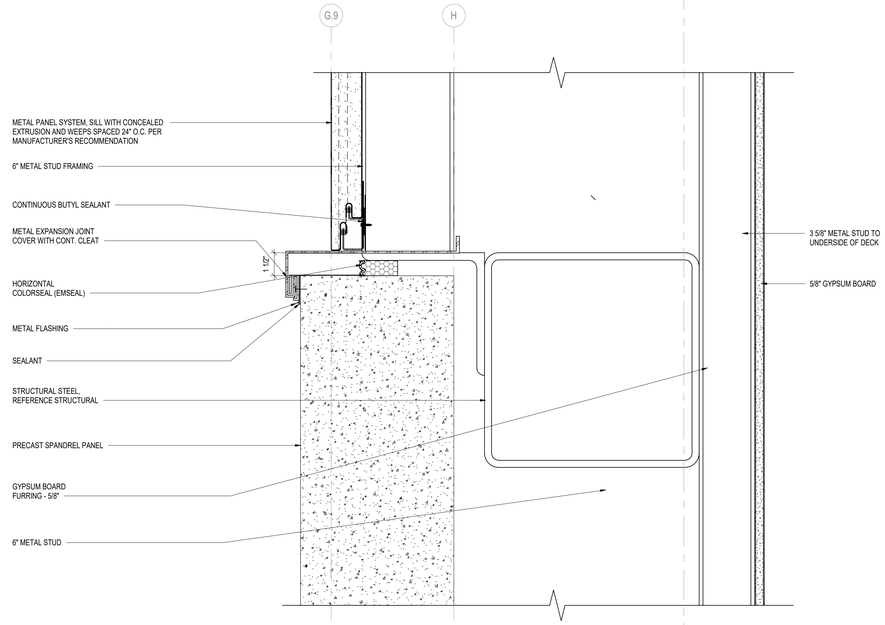
A1 METAL PANEL TO PANEL (VERTICAL)

SCALE: 3" = 1'-0"



A2 METAL PANEL - FORMED OUTSIDE CORNER

SCALE: 3" = 1'-0"



A4 METAL PANEL AT PRECAST SPANDREL PANEL

SCALE: 3" = 1'-0"

1 0 1

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

0 1

SCALE: 3" = 1'-0"

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ILM

PROJECT TITLE:
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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	

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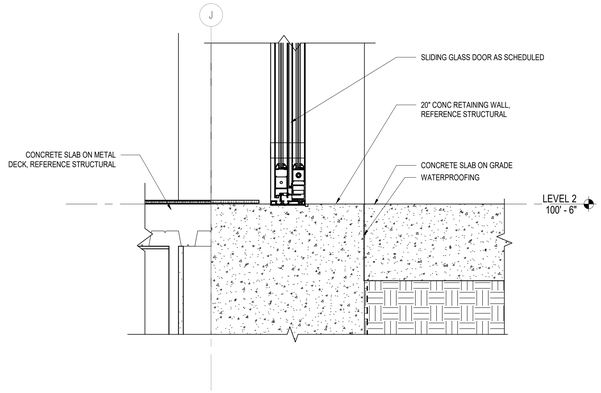
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SECTION DETAILS - METAL PANEL

SHEET ID:
A501

PROJECT STATUS:
100% BID SET

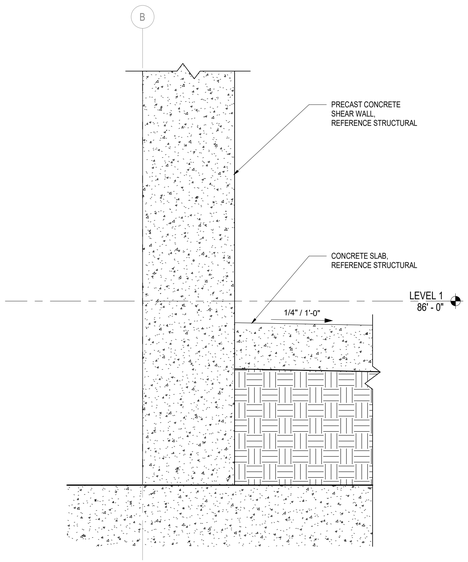
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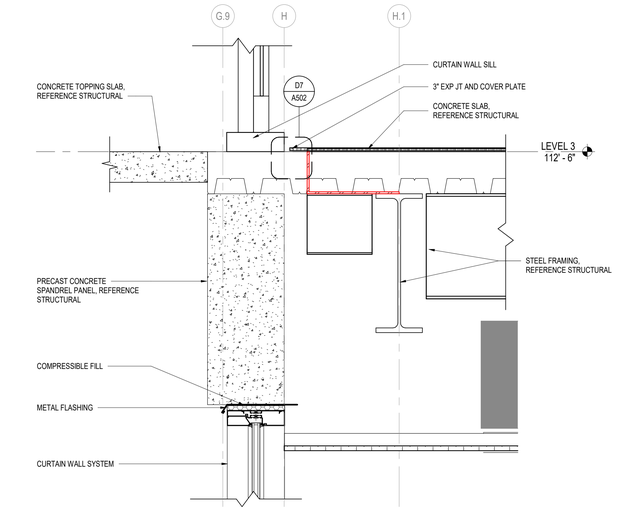
C1 SECTION AT CURTAIN WALL AND RETAINING WALL

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



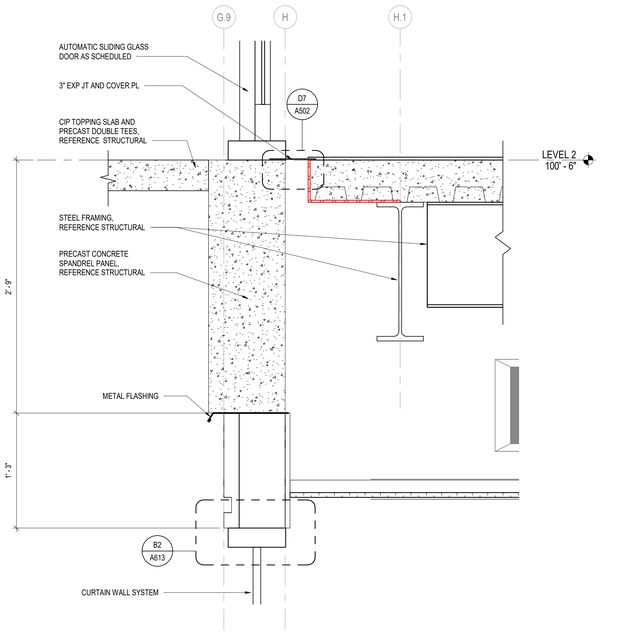
A1 SHEAR WALL AT FOUNDATION

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



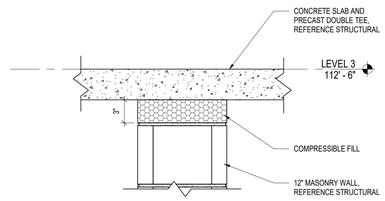
D5 EJ AT THIRD LEVEL SLAB

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



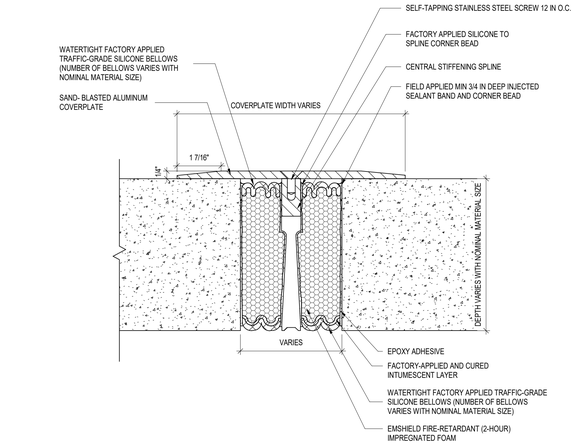
B3 EJ AT SECOND LEVEL SLAB

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



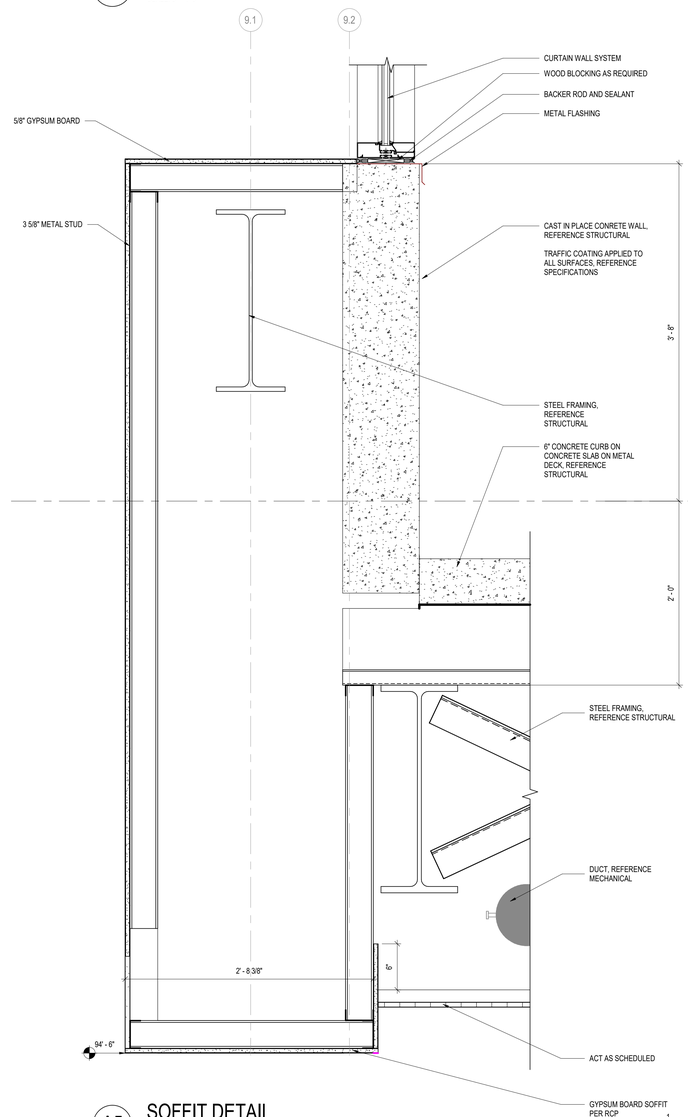
A3 CMU AT DOUBLE TEE

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



D7 DECK TO DECK EXPANSION JOINT

SCALE: 6" = 1'-0"



A5 SOFFIT DETAIL

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

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

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ILM

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DESIGNED BY:	FG
PROJECT NUMBER:	

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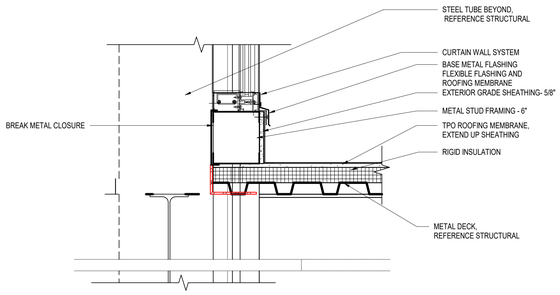
SHEET TITLE:
SECTION DETAILS

SHEET ID:
A502

PROJECT STATUS:
100% BID SET

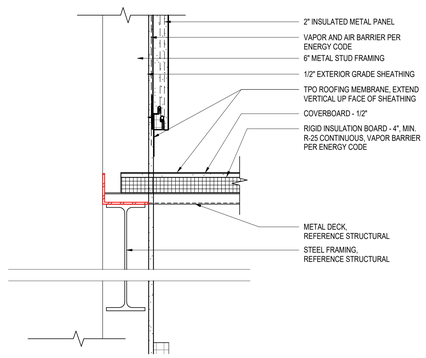
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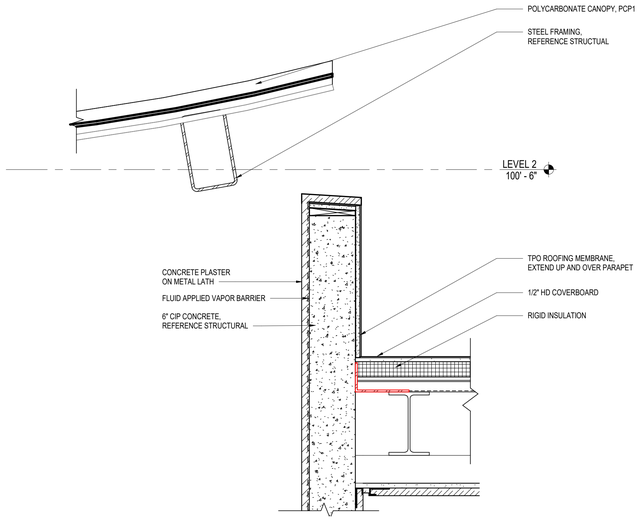
D1 METAL PANEL AT BEACON - ROOF DECK SPANDREL

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



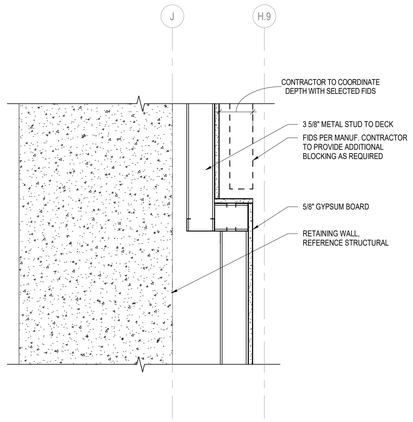
D3 METAL PANEL AT BEACON - ROOF DECK

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



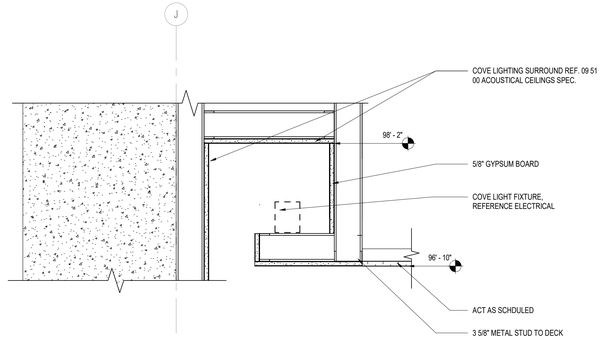
D4 ACRYLIC PANEL AT PORTAL ENTRY

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



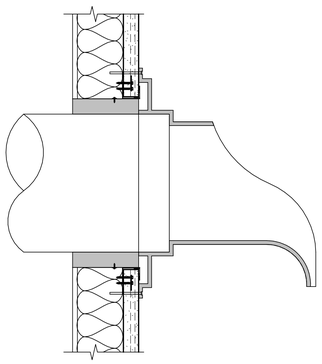
C1 FIDS RECESS DETAIL

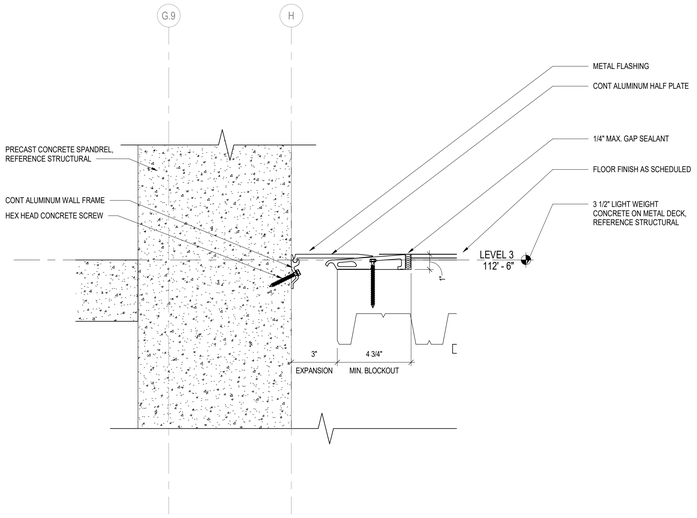
SCALE: 1 1/2" = 1'-0"



C2 LIGHT COVE SECTION DETAIL

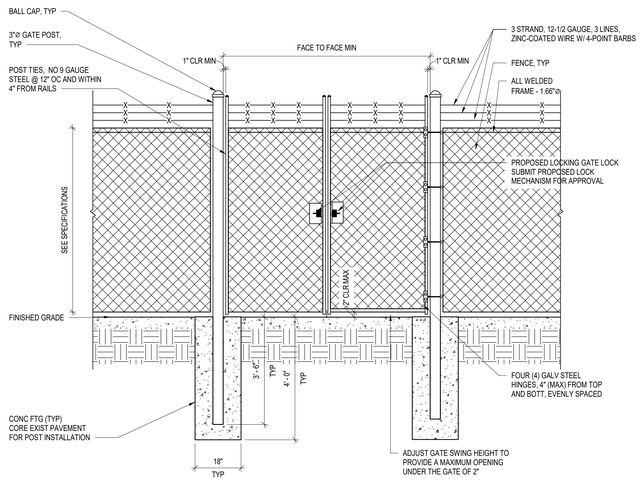
SCALE: 1 1/2" = 1'-0"





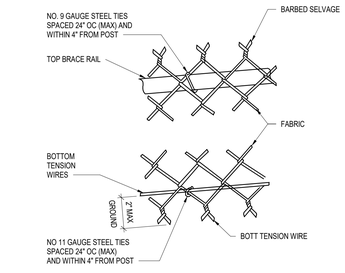
A1 EXPANSION JOINT AT PRECAST SPANDREL PANEL

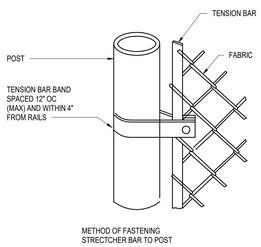
SCALE: 3" = 1'-0"



A3 ACCESS GATE

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





A5 FENCE CONNECTIONS

SCALE: 3" = 1'-0"

2 0 2 4
SCALE: 1/2" = 1'-0"

0 1
SCALE: 3" = 1'-0"

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

GENERAL NOTES

1. DO NOT SCALE DIMENSIONS FROM DRAWINGS - THE CONTRACTOR MUST REQUEST NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS FROM THE ARCHITECT.
2. ALL DIMENSIONS ARE TO BE FIELD VERIFIED. IF ANY DEVIATIONS OR DISCREPANCIES OCCUR, CONTACT THE ARCHITECT FOR VERIFICATION PRIOR TO PROCEEDING WITH THE WORK.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE OF THE STATE OF NORTH CAROLINA.
4. THE DIMENSIONS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS.
5. THE CONTRACTOR WILL FIELD VERIFY DIMENSIONS AND REPORT IN WRITING ANY CONFLICTS PRIOR TO FABRICATION.
6. PROTECT THE TRANSITION STRIPS WHEN GRINDING TERRAZZO TO POLISH FINISH WITH PROTECTION TAPE.
7. SEE ELECTRICAL PLANS FOR OPERATIONAL LAYOUT. CONTRACTOR SHALL VERIFY AND COORDINATE WITH OWNER'S VENDOR FOR CORRECT PLACEMENT OF HARDWARE PRIOR TO FABRICATION.
8. EXISTING AND FUTURE UNDERLAY LINEWORK FOR REFERENCE PURPOSES ONLY. ANY CIVIL RELATED WORK, SEE CIVIL PACKAGE FOR DETAILS.
9. THESE DRAWINGS ARE PROVIDED FOR A SPECIFIC DESIGN INTENT ONLY. THE SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING AND INTERNAL CONSTRUCTION OF ALL SIGNS. ANY PRODUCTS OR METHODS SPECIFIED MAY BE SUBSTITUTED WITH EQUAL SO LONG AS THE OVERALL DIMENSIONS, APPEARANCE, AND FUNCTIONALITY OF THE DESIGN IS RETAINED.
10. THE SIGN CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ANCHORAGES, ALL ELECTRICAL FIXTURES AND REQUIRED CONNECTIONS INTO CIRCUITS, AND WILL SUBMIT SHOP DRAWINGS, MESSAGE SCHEDULE, AND DETAILS FOR REVIEW.

REFER TO VOLUME 2 PACKAGE

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ILM

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DESIGNED BY:	FG
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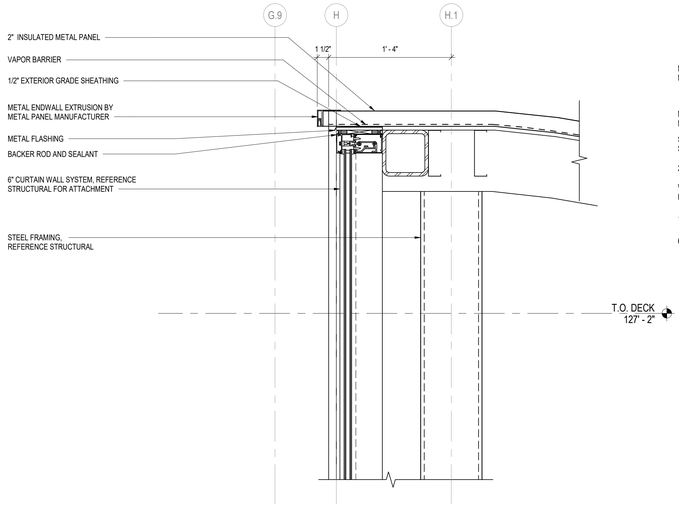
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SECTION DETAILS

SHEET ID:
A503

PROJECT STATUS:
100% BID SET

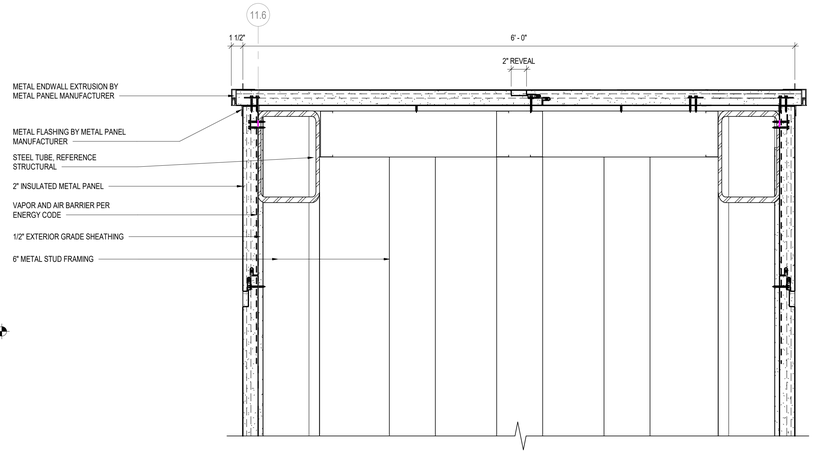
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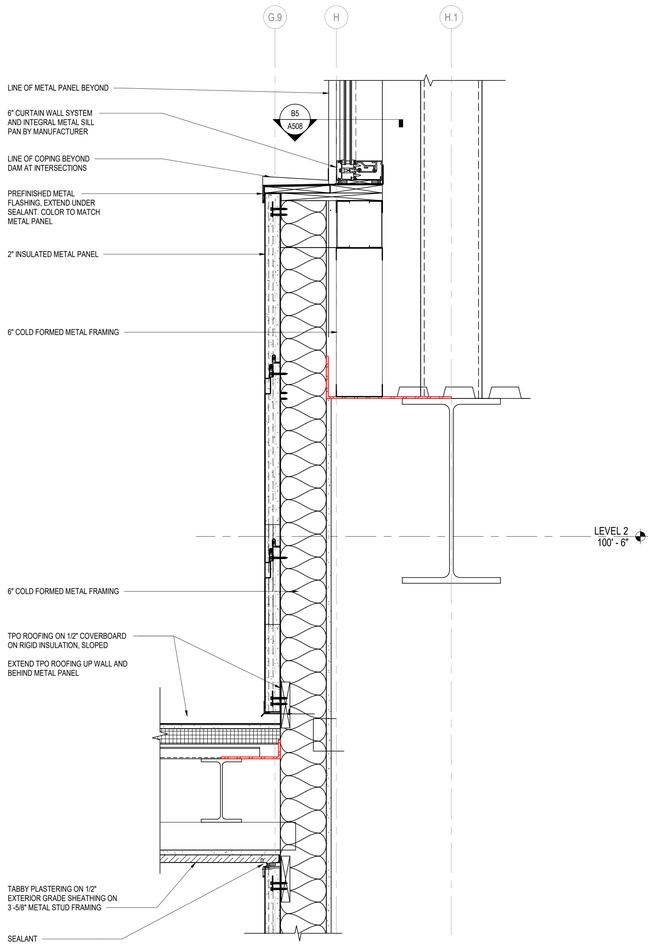
D1 METAL PANEL SECTION DETAIL

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



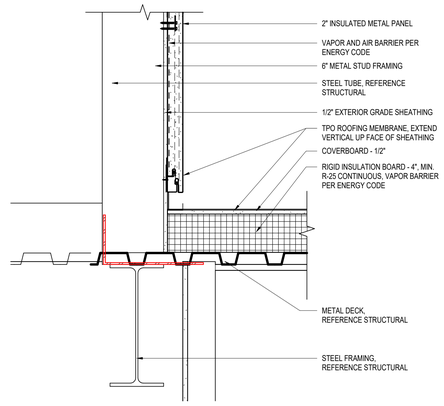
D3 LIGHT BEACON HEAD

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



A1 SKYLIGHT AND SOFFIT

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



B3 METAL PANEL AT ROOF

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

B5 METAL PANEL PLAN DETAIL

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

1 0 1

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

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DESIGNED BY:	FG
PROJECT NUMBER:	

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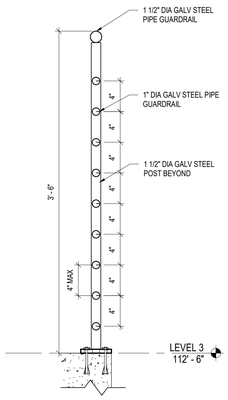
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LIGHT BEACON DETAILS

SHEET ID:
A508

PROJECT STATUS:
100% BID SET

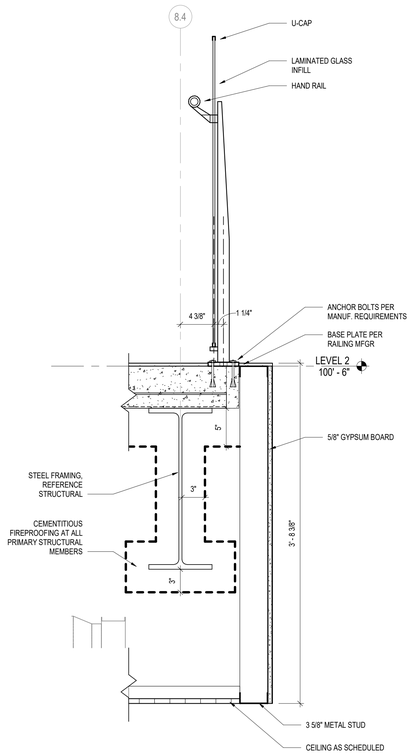
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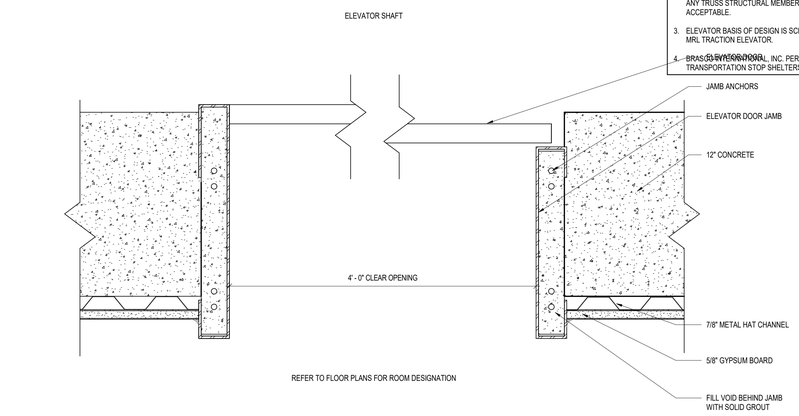
D1 STAIR RAILING DETAIL

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



B3 GLASS RAILING AND SOFFIT DETAIL

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

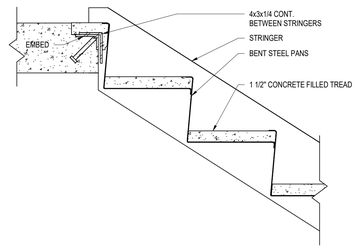


D2 ELEVATOR DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

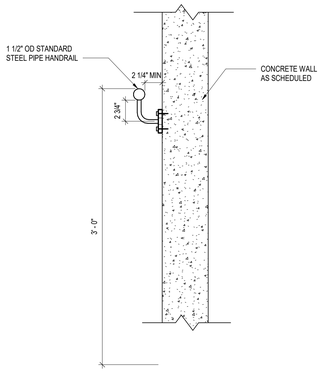
GENERAL NOTES

1. ESCALATOR BASIS OF DESIGN IS SCHINDLER 9300 ADVANCED EDITION TYPE 10 30"-M ESCALATOR.
2. ALLOW CLADDING TO BE EASILY ATTACHED TO TRUSS EXTERIOR AT ESCALATORS. MATERIAL SUCH AS CLADDING CARRIED BY THE TRUSS MUST NOT EXCEED 10 LBS/FT². ATTACHMENT SHOULD BE TO THE FACTORY PROVIDED CLADDING BRACKETS OR BY CLAMPS ONLY. WELDING OR DRILLING INTO ANY TRUSS STRUCTURAL MEMBER IS NOT ACCEPTABLE.
3. ELEVATOR BASIS OF DESIGN IS SCHINDLER 3300 XL MRL TRACTION ELEVATOR.
4. BRASS SUPPLIED BY [illegible] INC. PER TSP 10 73 43 TRANSPORTATION STOP SHELTERS.



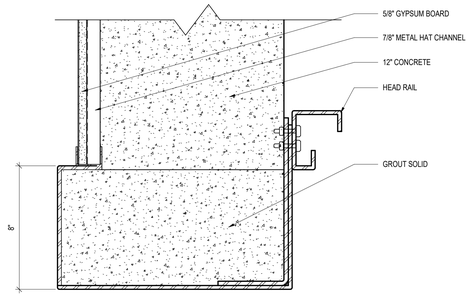
C1 SECTION @ T.O. STAIRS

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



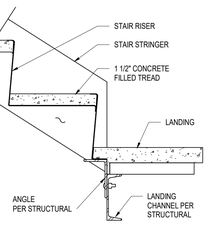
C2 HANDRAIL DETAIL

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



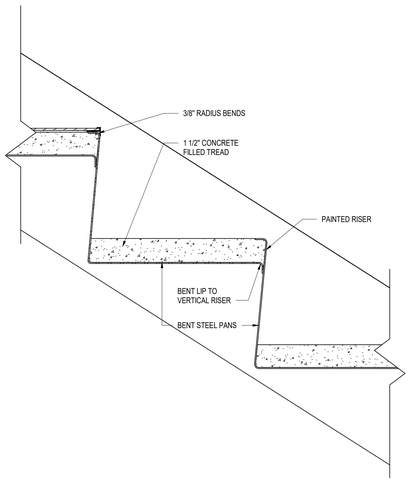
A3 ELEVATOR DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



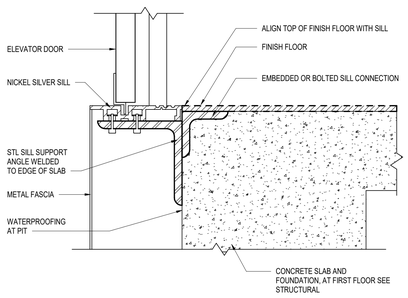
B1 SECTION @ LANDING

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



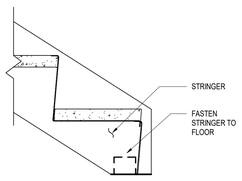
A2 STAIR NOSING TYP @ STEEL PAN STAIR

SCALE: 3" = 1'-0"



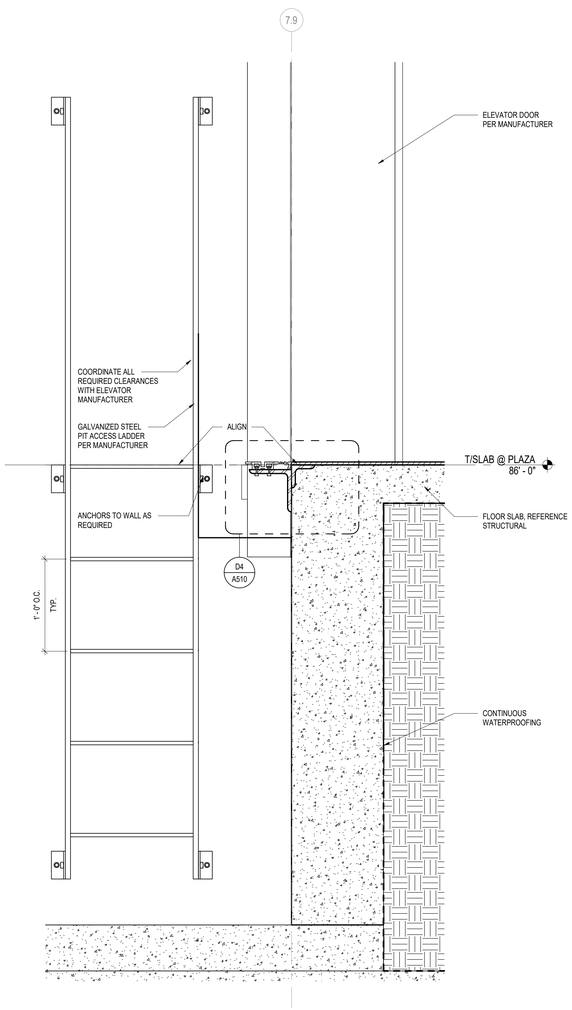
D4 ELEVATOR SILL DETAIL

SCALE: 3" = 1'-0"



A1 SECTION AT B.O. STAIR

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



A4 ELEVATOR PIT DETAIL

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

0 1

SCALE: 3" = 1'-0"

1 0 1

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

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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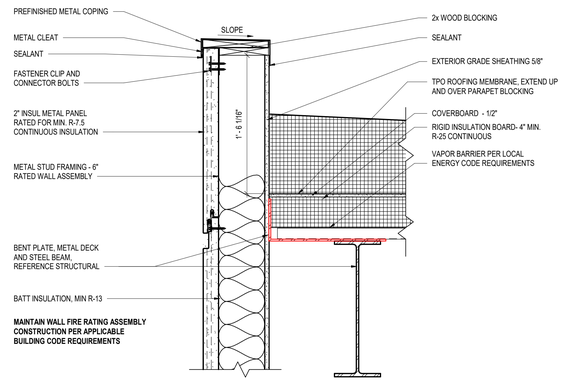
SHEET TITLE:
STAIR, ELEVATOR AND RAILING DETAILS

SHEET ID:
A510

PROJECT STATUS:
100% BID SET

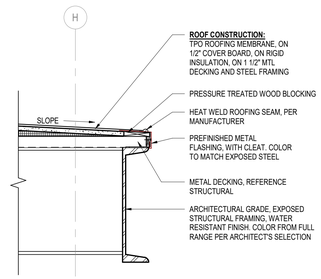
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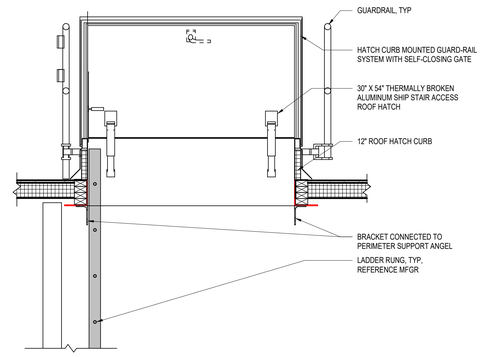
D1 TYPICAL METAL PANEL PARAPET

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



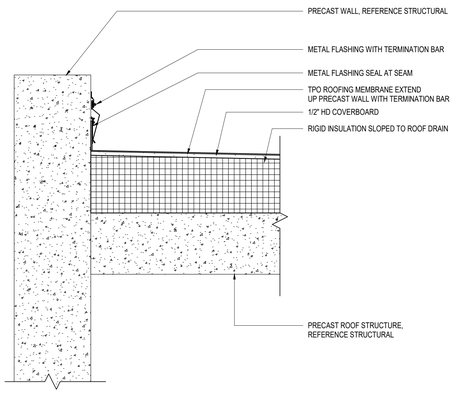
D3 TYPICAL STAIR TOWER CHANNEL ROOF EDGE

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



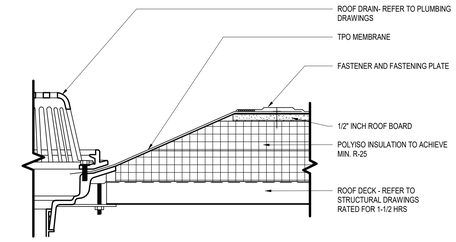
D5 ROOF HATCH - SHIPS LADDER

SCALE: 3/4" = 1'-0"



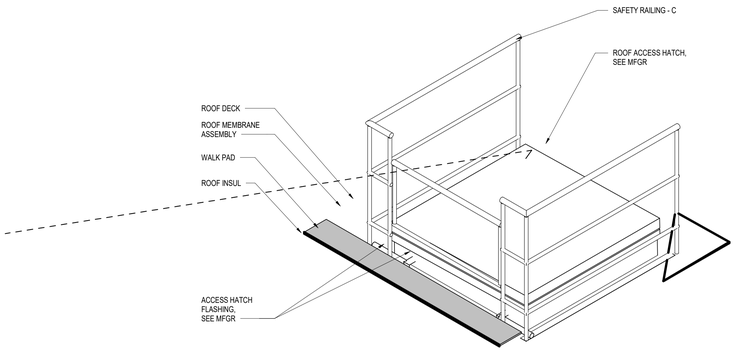
B1 PRECAST PARAPET

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



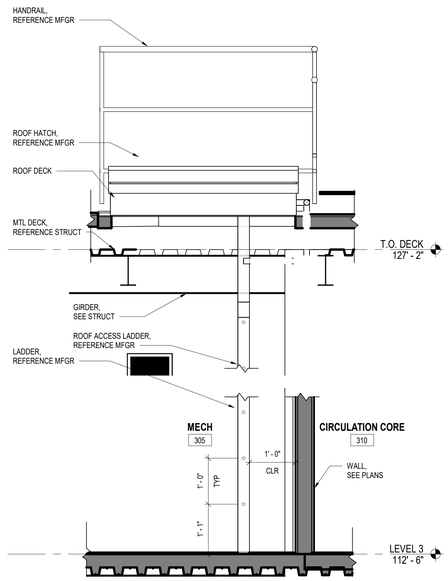
B3 TYPICAL ROOF DRAIN DETAIL

SCALE: 3" = 1'-0"



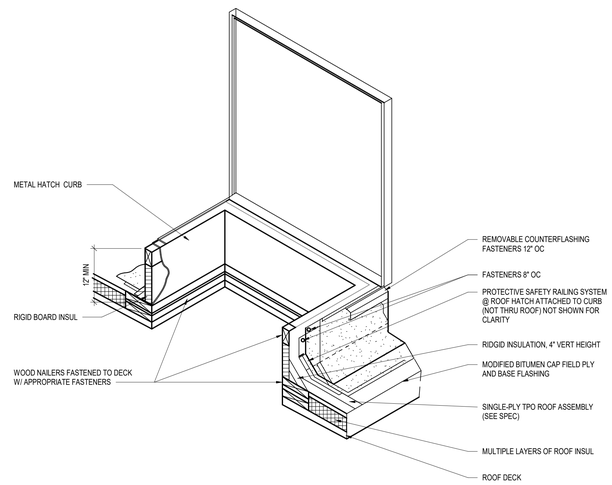
B5 3D - ROOF ACCESS HATCH

SCALE: N.T.S.



A3 ROOF ACCESS HATCH

SCALE: 3/4" = 1'-0"



A5 ROOF HATCH DETAIL

SCALE: 3/4" = 1'-0"

0 1

SCALE: 3" = 1'-0"

1 0 1

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

1 0 1 2 3

SCALE: 3/4" = 1'-0"

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ILM

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REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
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DRAWN BY: PB
DESIGNED BY: FG
PROJECT NUMBER:
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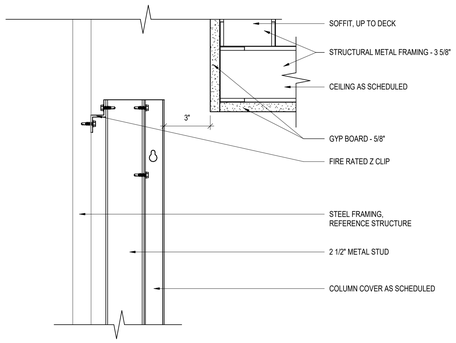
SHEET TITLE:
ROOF DETAILS

SHEET ID:
A511

PROJECT STATUS:
100% BID SET

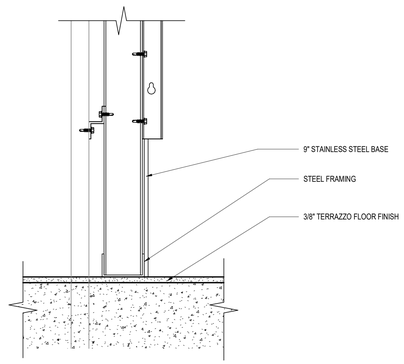
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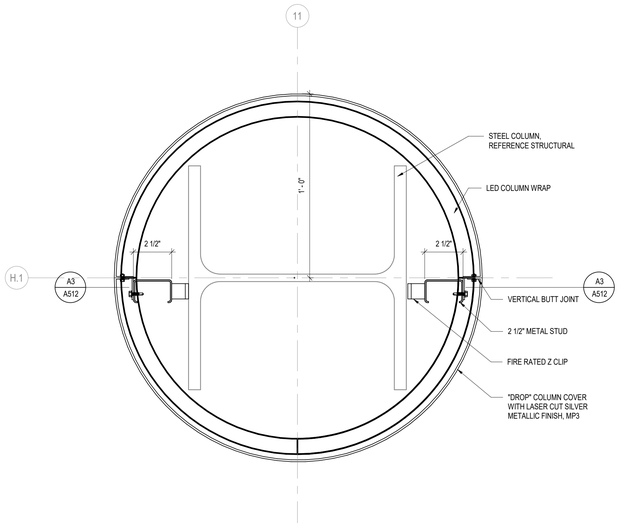
D1 COLUMN CEILING DETAIL

SCALE: 3" = 1'-0"



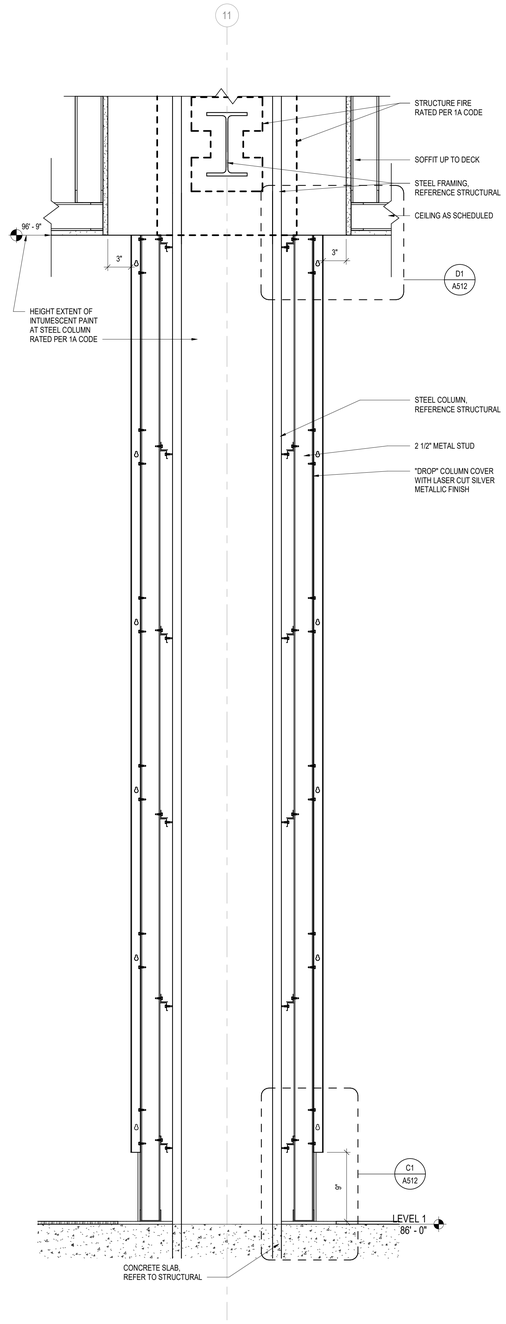
C1 COLUMN FLOOR DETAIL

SCALE: 3" = 1'-0"



A1 COLUMN WRAP PLAN DETAIL

SCALE: 3" = 1'-0"



A3 COLUMN WRAP SECTION DETAIL

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

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ILM

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DESIGNED BY:	FG
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SHEET TITLE:
COLUMN DETAILS

SHEET ID:
A512

PROJECT STATUS:
100% BID SET

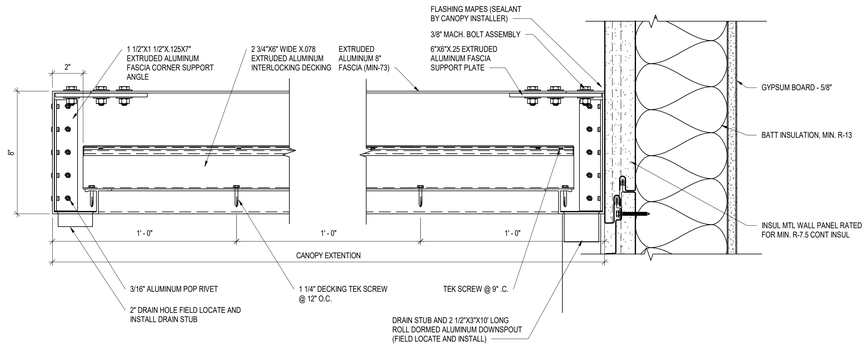
0 1
SCALE: 3" = 1'-0"

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

1 0 1 2 3
SCALE: 3/4" = 1'-0"

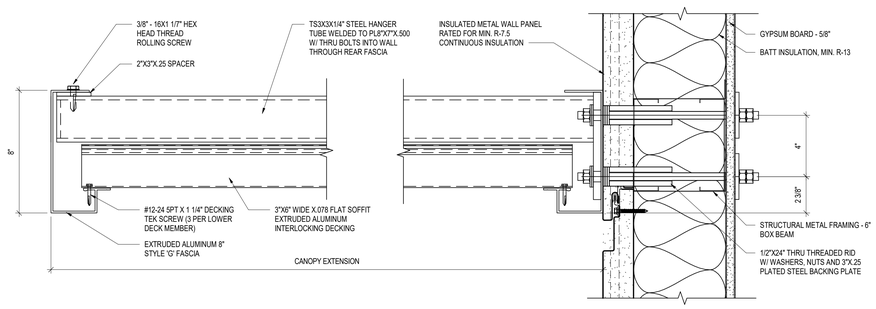
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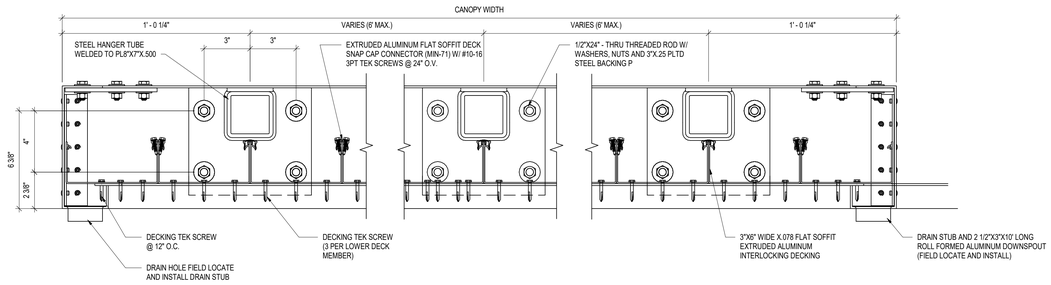
D1 OVERHEAD CANOPY SECTION AT END

SCALE: 3" = 1'-0"



C1 OVERHEAD CANOPY SECTION AT HANGER TUBE

SCALE: 3" = 1'-0"



A1 OVERHEAD CANOPY TRANSVERSE SECTION

SCALE: 3" = 1'-0"

0 1

SCALE: 3" = 1'-0"

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ILM

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REVISIONS

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DATE ISSUED:	03/14/2025
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DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
ENTRANCE CANOPY DETAILS

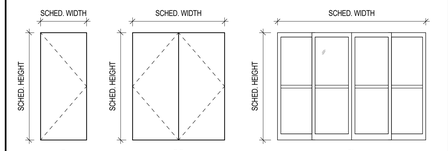
SHEET ID:
A515

PROJECT STATUS:
100% BID SET

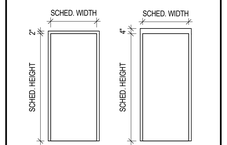
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DOOR TYPES LEGEND



FRAME TYPES LEGEND



DOOR SCHEDULE

DOOR NO.	ROOM NAME	DOOR INFORMATION						FRAME INFORMATION					FIRE RATING	HARDWARE SET	ACCESS CONTROL	COMMENTS
		DOOR DIMENSIONS				MATERIALS		FRAME		DETAILS						
		WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	TYPE	MATERIAL	HEAD	JAMB	SILL				
LEVEL 1																
100	STAIR 01	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	A3/A602	A4/A602	B1/A813		4		
101	STAIR 01	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	A3/A602	A4/A602	C4/A602	2 HR	4		
102	ELECTRICAL	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	C2/A602	C3/A602	B1/A813		19	YES	LOCK
103	MECH YARD	6' - 1 1/2"	5' - 9 1/2"													LOCK, CHAIN LINK FENCE GATE
104	MECH	6' - 0"	7' - 0"	1 3/4"	F-P	HM	PAINT	F1	HM	B3/A601	B4/A602	C4/A602		8		LOCK
105	PUMP ROOM	6' - 0"	7' - 0"	1 3/4"	F-P	HM	PAINT	F1	HM	B3/A601	B4/A602	C4/A602		8		LOCK
110	CIRCULATION CORE	11' - 7"	7' - 8"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
111	CIRCULATION CORE	12' - 0"	7' - 10 1/2"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
114	CIRCULATION CORE	12' - 0"	7' - 8"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
115	CIRCULATION CORE	12' - 0"	7' - 8"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
116	CIRCULATION CORE	12' - 0"	7' - 11"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
132	ELECTRICAL	6' - 0"	7' - 0"	1 3/4"	F-P	HM	PAINT	F1	HM	A3/A602	A4/A602	C4/A602		13		LOCK
LEVEL 2																
201	STAIR 01	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	A3/A602	A4/A602	B1/A813	2 HR	4		
202	STORAGE	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	C2/A602	C3/A602	B1/A813		13	YES	LOCK
204	RESTROOM	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	C2/A602	C3/A602	E1/A813		11		
205		3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	C2/A602	C3/A602	E1/A813		11		
215	CIRCULATION CORE	12' - 0"	7' - 8"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
216	CIRCULATION CORE	12' - 0"	7' - 8"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR
218		3' - 0"	7' - 0"	1 3/4"	F											
221	IDF/ELEC	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	A1/A602	A2/A602	C4/A602		19	YES	LOCK
232	ELECTRICAL	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	A3/A602	A4/A602	C4/A602	2 HR	13	YES	LOCK
LEVEL 3																
301	STAIR 01	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	A3/A602	A4/A602	B1/A813	2 HR	4		
302	STORAGE	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	C2/A602	C3/A602	B1/A813		13	YES	LOCK
305	MECH	6' - 0"	7' - 0"	1 3/4"	F-P	HM	PAINT	F2	HM	C2/A602	C3/A602	B1/A813		8		LOCK
306	MECH	3' - 0"	7' - 0"	1 3/4"	F	HM	PAINT	F1	HM	C2/A602	C3/A602	C4/A602		13		LOCK
316	CIRCULATION CORE	12' - 0"	7' - 8"		SL	GLASS	ALUM	SL1	ALUM	D1/A602	D2/A602	D3/A602				AUTOMATIC SLIDING DOOR

DOOR AND FRAME GENERAL NOTES

1. PROVIDE CAULK / SEALANT ON BOTH SIDES OF FRAMES, TYPICAL.
2. PROVIDE TEMPERED GLAZING AT ALL STOREFRONT DOORS, AT NEW GLAZING WITHIN 24" HORIZONTALLY FROM A DOOR, WHERE NEW GLAZING LITE IS WITHIN 18" A.F.F.
3. FIELD VERIFY ALL CONDITIONS PRIOR TO ORDERING DOORS, HARDWARE, OR ACCESS CONTROLS, TYPICAL.
4. COORDINATE THRESHOLDS WITH NEW / EXISTING FLOOR FINISHES
5. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN DOOR SCHEDULE AND PLAN AND/OR EXISTING CONDITIONS.
6. ENTIRE DOOR ASSEMBLIES TO MAINTAIN RATINGS AS SCHEDULED AND SHOWN ON THE LIFE SAFETY SHEETS. PROVIDE HARDWARE FOR RATED ASSEMBLIES TO MEET ALL APPLICABLE CODES TO INCLUDE BUT NOT LIMITED TO CLOSERS, PANIC DEVICES, CAULK / SEALANT, SWEEPS, SMOKE SEALS, ETC.
7. SET ALL THRESHOLDS IN EXTERIOR DOORS IN FULL BED OF SEALANT.
8. ALL EXTERIOR DOORS TO MEET WATER TIGHT CONDITION INCLUDING ALL WATERPROOF THRESHOLDS. BUMPER SEALS REQUIRED AT ALL EXTERIOR DOORS U.N.O.
9. SEE DOOR HARDWARE SPECIFICATION FOR DOOR HARDWARE.
10. COORDINATE ALL DOOR HARDWARE WITH ACCESS CONTROL AND FIRE ALARM SYSTEM AS REQUIRED.

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2003-0070-006

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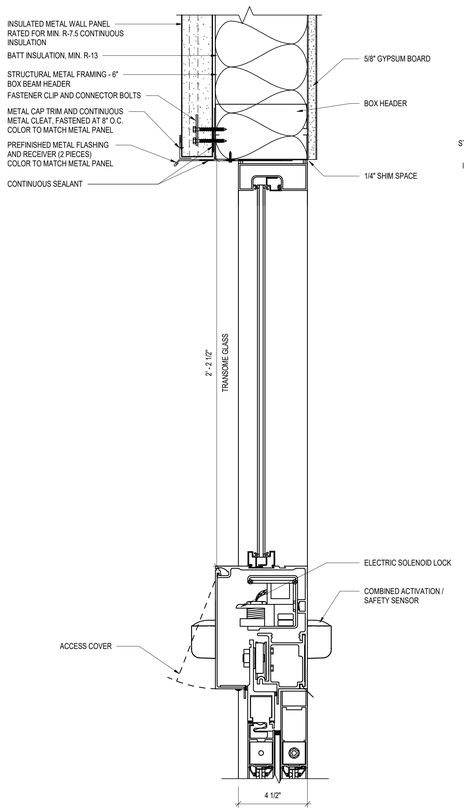
SHEET TITLE:
DOOR SCHEDULE, DOOR TYPES, AND NOTES

SHEET ID:
A601

PROJECT STATUS:
100% BID SET

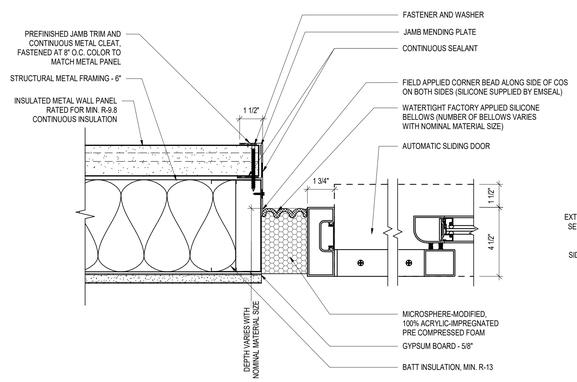
3/14/2025 7:05:20 PM Autodesk Docs://1003007004_ILM TO4 Rdwy Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_A_R24.rvt

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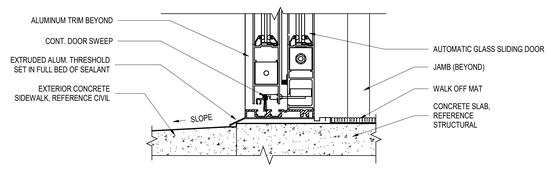
D1 AUTOMATIC DOOR HEAD EXT. DETAIL

SCALE: 3" = 1'-0"



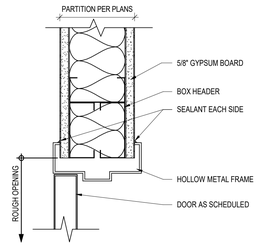
D2 AUTOMATIC DOOR JAMB EXT. DETAIL

SCALE: 3" = 1'-0"



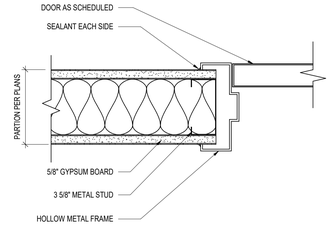
D3 AUTOMATIC DOOR AT EXT. CONCRETE SILL DETAIL

SCALE: 3" = 1'-0"



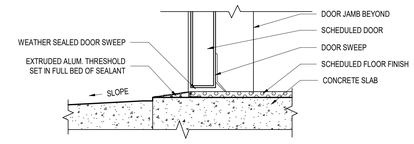
C2 INTERIOR HM DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



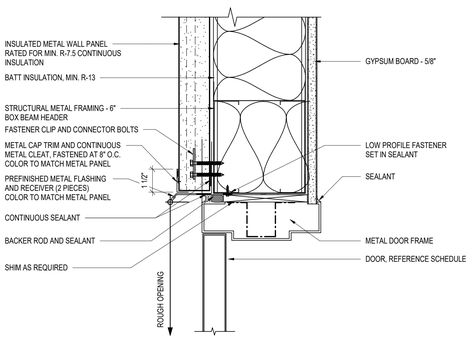
C3 INTERIOR HM DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



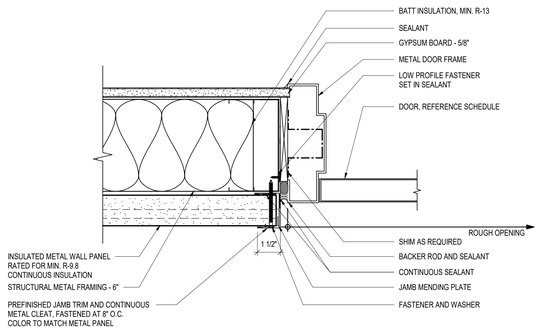
C4 EXTERIOR DOOR SILL DETAIL

SCALE: 3" = 1'-0"



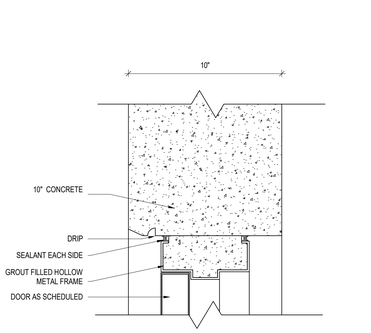
B1 METAL PANEL / EXTERIOR HM DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



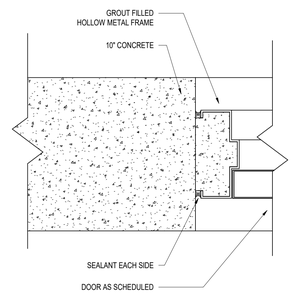
B2 METAL PANEL / EXTERIOR HM DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



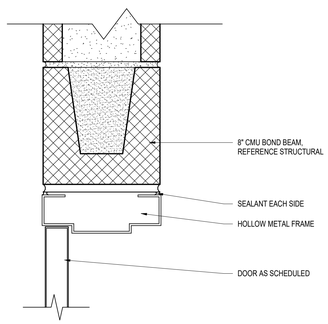
B3 HM DOOR HEAD @ CONCRETE DETAIL

SCALE: 3" = 1'-0"



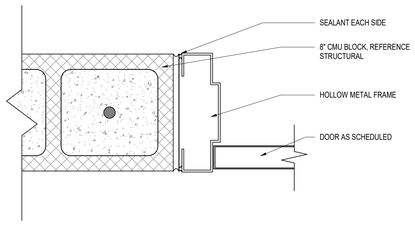
B4 HM DOOR JAMB @ CONCRETE DETAIL

SCALE: 3" = 1'-0"



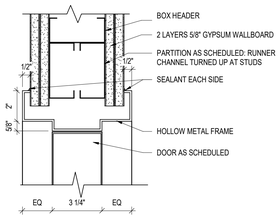
A1 CMU INTERIOR DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



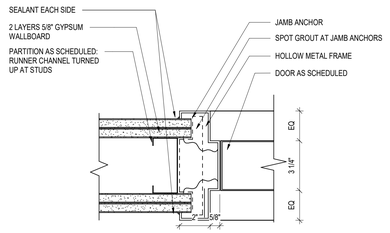
A2 CMU INTERIOR DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



A3 2HR RATED DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



A4 2HR RATED DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

GENERAL NOTES

1. DO NOT SCALE DIMENSIONS FROM DRAWINGS - THE CONTRACTOR MUST REQUEST NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS FROM THE ARCHITECT.
2. ALL DIMENSIONS ARE TO BE FIELD VERIFIED. IF ANY DEVIATIONS OR DISCREPANCIES OCCUR, CONTACT THE ARCHITECT FOR VERIFICATION PRIOR TO PROCEEDING WITH THE WORK.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE OF THE STATE OF NORTH CAROLINA.
4. THE DIMENSIONS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS.
5. THE CONTRACTOR WILL FIELD VERIFY DIMENSIONS AND REPORT IN WRITING ANY CONFLICTS PRIOR TO FABRICATION.
6. PROTECT THE TRANSITION STRIPS WHEN GRINDING TERRAZZO TO POLISH FINISH WITH PROTECTION TAPE.
7. SEE ELECTRICAL PLANS FOR OPERATIONAL LAYOUT. CONTRACTOR SHALL VERIFY AND COORDINATE WITH OWNER'S VENDOR FOR CORRECT PLACEMENT OF HARDWARE PRIOR TO FABRICATION.
8. EXISTING AND FUTURE UNDERLAY LINEWORK FOR REFERENCE PURPOSES ONLY. ANY CIVIL RELATED WORK, SEE CIVIL PACKAGE FOR DETAILS.
9. THESE DRAWINGS ARE PROVIDED FOR A SPECIFIC DESIGN INTENT ONLY. THE SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING AND INTERNAL CONSTRUCTION OF ALL SIGNS. ANY PRODUCTS OR METHODS SPECIFIED MAY BE SUBSTITUTED WITH EQUAL SO LONG AS THE OVERALL DIMENSIONS, APPEARANCE, AND FUNCTIONALITY OF THE DESIGN IS RETAINED.
10. THE SIGN CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ANCHORAGES, ALL ELECTRICAL FIXTURES AND REQUIRED CONNECTIONS INTO CIRCUITS, AND WILL SUBMIT SHOP DRAWINGS, MESSAGE SCHEDULE, AND DETAILS FOR REVIEW.

REFER TO VOLUME 2 PACKAGE

RS&H
1520 South Blvd., Suite 200
Charlotte, NC 28203
Phone: 704-752-0610, Fax: 704-949-2672
www.rsandh.com
North Carolina License Nos. 50073 * F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	SS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
DOOR DETAILS

SHEET ID:
A602

PROJECT STATUS:
100% BID SET

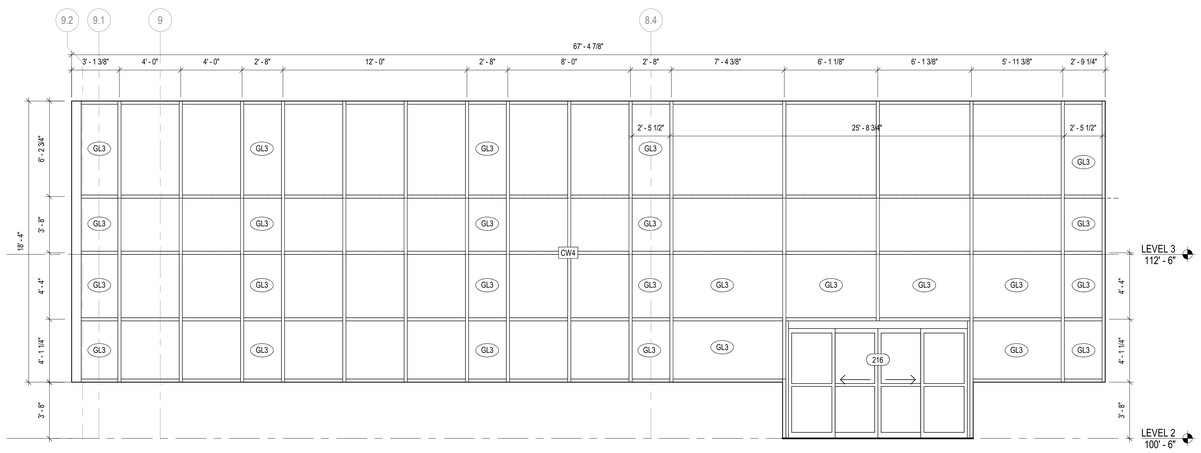
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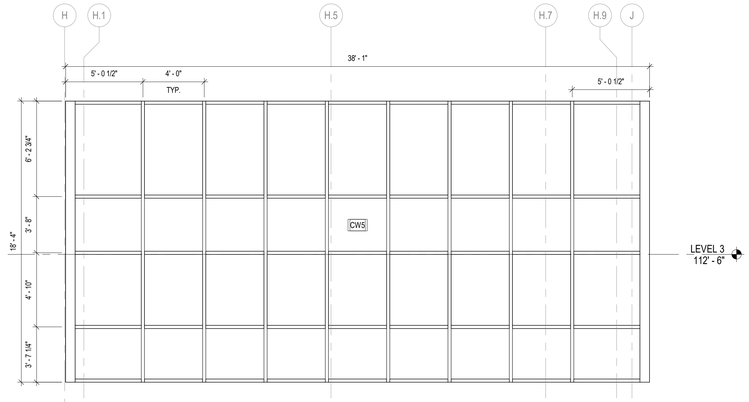
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GENERAL GLAZING NOTES

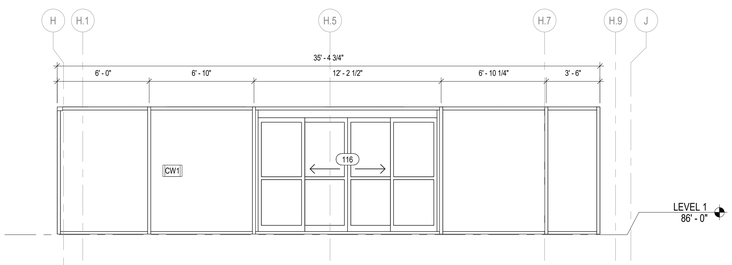
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5. THE CONTRACTOR WILL FIELD VERIFY DIMENSIONS AND REPORT IN WRITING ANY CONFLICTS PRIOR TO FABRICATION.
6. ALL GLAZING TO BE TYPE GL1 UNLESS NOTED OTHERWISE.



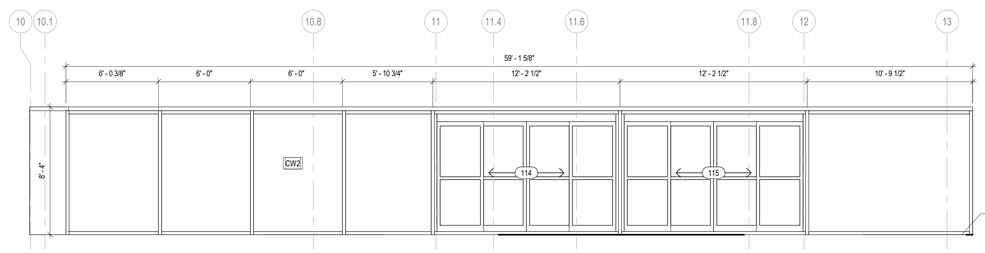
C1 NORTH GLAZING ELEVATION (CW4)
SCALE: 1/4" = 1'-0"



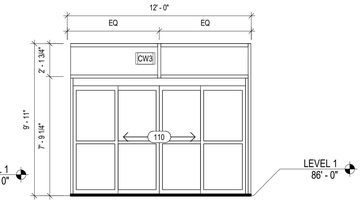
C4 SOUTH GLAZING ELEVATION AT RAC RAMP (CW5)
SCALE: 1/4" = 1'-0"



A1 EAST GLAZING ELEVATION AT SHUTTLE DROP-OFF (CW1)
SCALE: 1/4" = 1'-0"



A3 SOUTH GLAZING ELEVATION AT PLAZA (CW2)
SCALE: 1/4" = 1'-0"



A5 WEST GLAZING ELEVATION (CW3)
SCALE: 1/4" = 1'-0"

4 0 4 8
SCALE: 1/4" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006
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SHEET TITLE:
GLAZING ELEVATIONS

SHEET ID:
A611

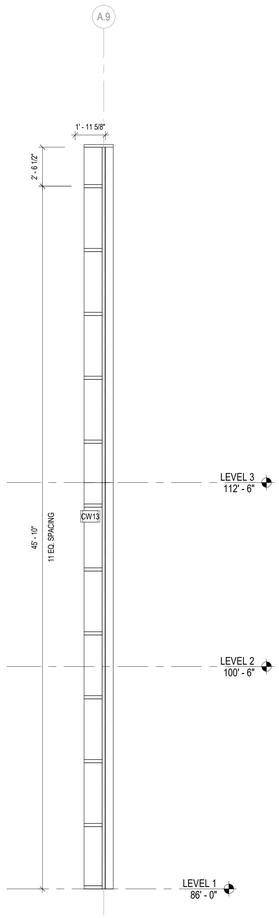
PROJECT STATUS:
100% BID SET

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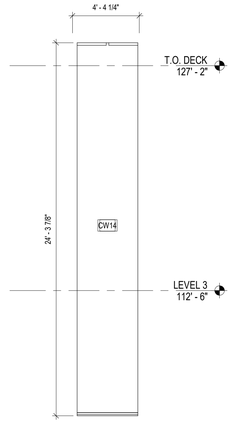
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GENERAL GLAZING NOTES

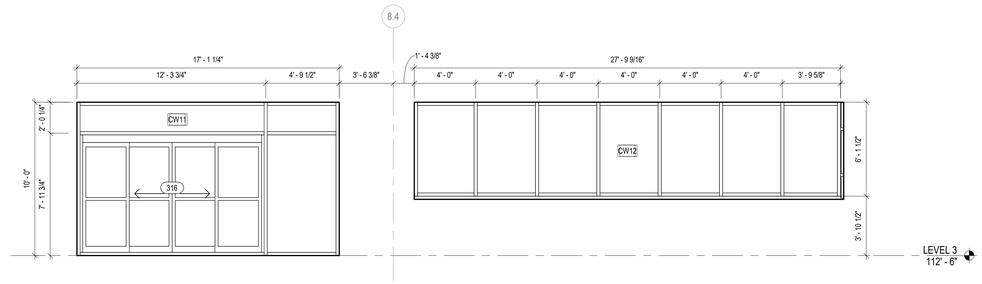
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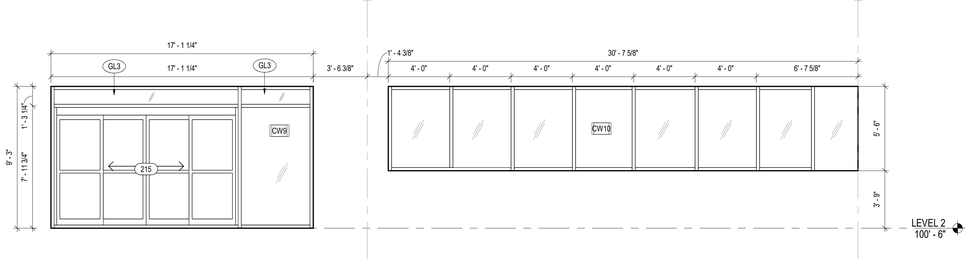
B1 FEATURE STAIR BEACON GLAZING ELEVATION (CW13)
SCALE: 1/4" = 1'-0"



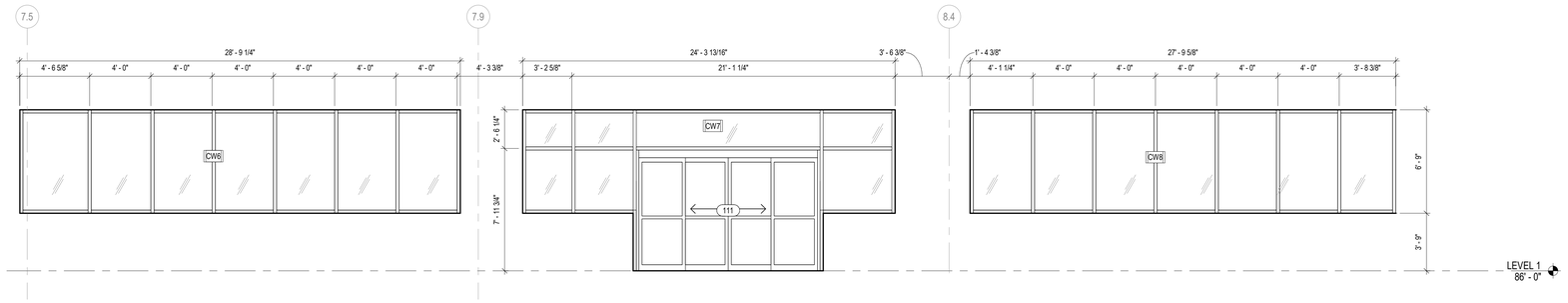
C2 GARAGE CORE LIGHT BEACON GLAZING ELEVATION (CW14)
SCALE: 1/4" = 1'-0"



C4 THIRD FLOOR GLAZING ELEVATION AT GARAGE (CW11 / CW12)
SCALE: 1/4" = 1'-0"



B4 SECOND FLOOR GLAZING ELEVATION AT GARAGE (CW9 / CW10)
SCALE: 1/4" = 1'-0"



A3 FIRST FLOOR GLAZING ELEVATION AT RENTAL CAR (CW6 / CW7 / CW8)
SCALE: 1/4" = 1'-0"

4 0 4 8
SCALE: 1/4" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG
PROJECT NUMBER:	2003-0070-006

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SHEET TITLE:
GLAZING ELEVATIONS

SHEET ID:
A612

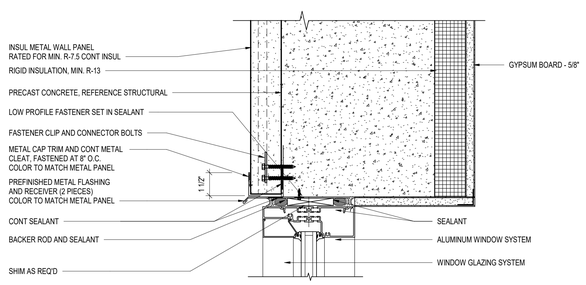
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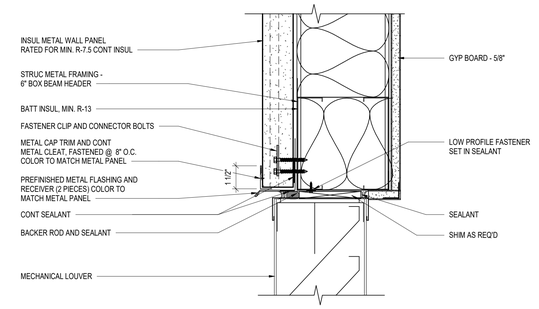
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WINDOW AND GLAZING GENERAL NOTES

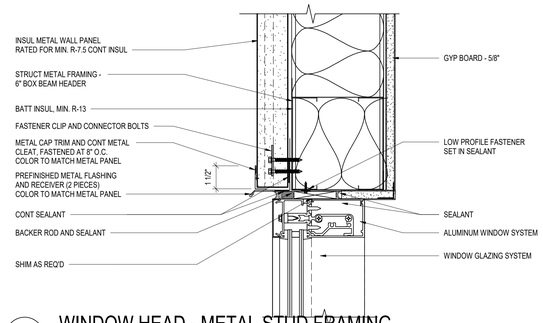
1. PROVIDE CAULK / SEALANT ON BOTH SIDES OF FRAMES, TYPICAL
2. PROVIDE TEMPERED GLAZING AT ALL STOREFRONT DOORS, AT NEW GLAZING WITHIN 24" HORIZONTALLY FROM A DOOR, WHERE NEW GLAZING LITE IS WITHIN 18" A.F.F.
3. FIELD VERIFY ALL CONDITIONS PRIOR TO ORDERING, TYPICAL.
4. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN WINDOW SCHEDULE AND PLAN.
5. ENTIRE WINDOW ASSEMBLIES TO MAINTAIN RATINGS AS SCHEDULED AND SHOWN ON THE LIFE SAFETY SHEETS. ASSEMBLIES TO MEET ALL APPLICABLE CODES TO INCLUDE BUT NOT LIMITED TO CAULK / SEALANT, SEALS, ETC.
6. SET ALL WINDOW FRAMES IN FULL BED OF SEALANT.
7. ALL WINDOWS TO MEET WATER TIGHT CONDITIONS.
8. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
9. COORDINATE ALL WINDOW COMPONENTS WITH ACCESS CONTROL AND FIRE ALARM SYSTEM AS REQUIRED.



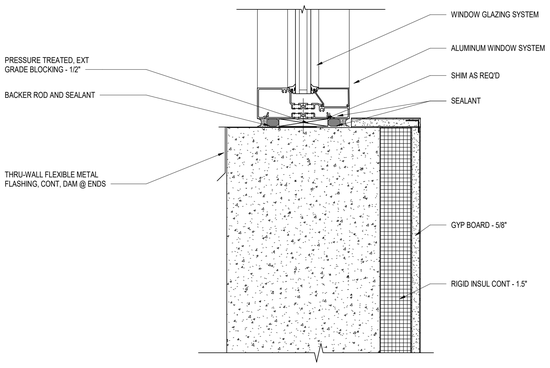
A1 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



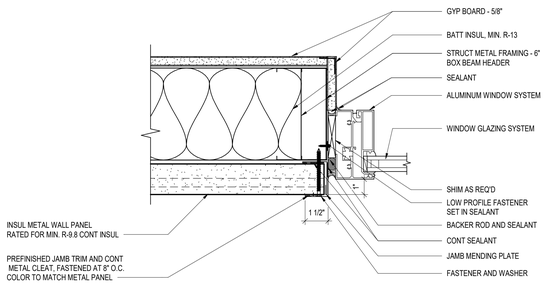
B3 OPENING - LOUVER DETAIL
SCALE: 3" = 1'-0"



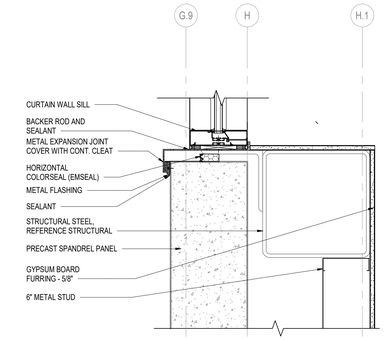
B2 WINDOW HEAD - METAL STUD FRAMING
SCALE: 3" = 1'-0"



A1 WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



A3 WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"



A5 WINDOW SILL AT SPANDREL DETAIL
SCALE: 1 1/2" = 1'-0"

0 1
SCALE: 3" = 1'-0"

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ILM

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DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
GLAZING DETAILS

SHEET ID:
A613

PROJECT STATUS:
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ROOM SCHEDULE

ROOM NO.	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	REMARKS
101	STAIR 01	SC1	B2	P1	EXPOSED	
102	ELECTRICAL	SC1	B2	P1	EXPOSED	
103	MECH YARD	UC	-	-	EXPOSED	
104	MECH	UC	-	P1	EXPOSED	
105	PUMP ROOM	UC	-	P1	EXPOSED	
106	ELEVATOR	-	-	-	EXPOSED	
107	ELEVATOR	-	-	-	ACP1	
110	CIRCULATION CORE	TERR,WOM	B3	P1	ACT1,GWB1	
120	STAIR 02	-	-	-	EXPOSED	
130	STAIR 03	-	-	-	EXPOSED	
131	CIRCULATION	TZ1	B2	P1	ACP1	
132	ELECTRICAL	SC1	B2	P1	EXPOSED	
140	STAIR 04	-	-	-	EXPOSED	
140	STAIR 04	-	-	-	EXPOSED	
201	STAIR 01	SC1	B2	P1	EXPOSED	
202	JANITOR	SC1	B2	P1	EXPOSED	
204	RESTROOM	TERR	B1	T3	ACT1	
205	<varies>	TERR	B1	T3	ACT1	
207	STORAGE					
210	CIRCULATION CORE	TERR,WOM	B3	P1	GWB1	
221	IDF/ELEC	SC	-	P1	EXPOSED	
232	IDF/ELEC	SC	-	P1	EXPOSED	
301	STAIR 01	SC1	B2	P1	EXPOSED	
302	STORAGE	SC1	B2	P1	EXPOSED	
305	MECH	SC1	B2	P1	EXPOSED	
306	STORAGE	SC1	B2	P1	EXPOSED	
310	CIRCULATION CORE	TERR,WOM	B3	P1	GWB1	

FF&E LEGEND

TAG	IMAGE	DESCRIPTION	MANUFACTURER	POWER REQUIREMENT	COUNT
B-1		AND BENCH 133x65x47	VONDOM	YES	11
B-2		AND 218x185x234	VONDOM	YES	1

FINISH LEGEND

Material Type	Location	MATERIAL	DESCRIPTION	MANUFACTURER	SPECIFICATION	SIZE	REMARKS
EXTERIOR							
CEILINGS							
CEILINGS	EXTERIOR	PCP1	POLYCARBONATE PANEL - CANOPY	3FORM	KODA XT, EXTRUDED, COLORS: LOGO BLUE 02, LOGO BLUE 01, FOUNTAIN, CORNFLOWER		
FLOORING							
FLOORING	EXTERIOR	PV1	PAVER	HANOVER	PREST PAVER, MATRIX #M1914, FINISH #13, SRI 51		
FLOORING	EXTERIOR	PV2	PAVER	HANOVER	PREST PAVER, MATRIX #M1810, FINISH: TUDOR, SRI 40		
FLOORING	EXTERIOR	PV3	PAVER	HANOVER	PREST PAVER, MATRIX #M1537, FINISH: TUDOR, SQUARE EDGE		
METAL PANELS							
METAL PANELS	EXTERIOR	IMP1	INSULATED METAL PANEL - CENTER ATRIUM EXTENSION	KINGSPAN	QUADCORE B DESIGNWALL 2000, COLOR: REGAL BLUE	2" THICK	
METAL PANELS	EXTERIOR	IMP2	INSULATED METAL PANEL - GENERAL, GARAGE	KINGSPAN	QUADCORE B DESIGNWALL 2000, COLOR: REGAL WHITE	2" THICK	
METAL PANELS	EXTERIOR	RP1	ROOFING PANEL AT COPULA	BERRIDGE	COLOR: SHASTA WHITE, MODEL: DOUBLE LOCK ZEE LOCK	TBD	
PAINT							
PAINT	EXTERIOR	EP1	EXTERIOR PAINT - STEEL BOLLARD	SHERWIN WILLIAMS	COLOR: SAFETY BLACK, REFER TO CIVIL DRAWINGS FOR MORE INFORMATION		CONTACT: JOY BABUR, 407-694-7994, JOY.L.BABUR@SHERWIN.COM
PAINT	EXTERIOR	EP2	EXTERIOR PAINT - CURB	SHERWIN WILLIAMS			
PAINT	EXTERIOR	EP3	EXTERIOR PAINT - DOOR	SHERWIN WILLIAMS			
STONE PANELS							
STONE PANELS	EXTERIOR	SP1	TABBY STONE PANEL - TERMINAL FACADE	TBD	COLOR TYPE: TABBY OYSTER SHELL, COLOR: LIGHT CREAM	TBD	
WALL							
WALL	EXTERIOR	CW1	CURTAIN WALL	KAWNEER	1600 WALL SYSTEM1 CURTAIN WALL, FINISH: ANODIZED ALUMINUM	6" X 2.5"	
WALL	EXTERIOR	CW2	CURTAIN WALL	KAWNEER	1600 WALL SYSTEM1 CURTAIN WALL, FINISH: ANODIZED ALUMINUM	7 1/2"	
WALL	EXTERIOR	GL1	STOREFRONT GLAZING SYSTEM				
INTERIOR							
CASEWORK							
CASEWORK	INTERIOR	PL1	PLASTIC LAMINATE - RESTROOM APRONS	WILSONART	COLOR: SATIN STAINLESS 4830-18, FINISH: LINEARITY, INSTALL PATTERN: HORIZONTALLY IN ALL INSTANCES, SHOW INSTALL DIRECTION IN SHOP DRAWINGS		CONTACT: CATHY GRIMM, 813-682-9624, CATHY.GRIMM@WILSONART.COM
CASEWORK	INTERIOR	SS1	QUARTZ (RENTAL IN BASE BID, TICKETING - ALTERNATE)	CAMBRIA	COLLECTION: LUXURY SERIES, STYLE: PORTRUSH, THICKNESS: 3CM, EDGE PROFILE: EASED EDGE		CONTACT: TANYA BARKER, 407.490.2099, TANYA.BARKER@CAMBRIAUSA.COM
CASEWORK	INTERIOR	SS2	QUARTZ (RESTROOMS)	COSENTINO	STYLE: ETERNAL CALACATTA GOLD, FINISH: POLISHED, THICKNESS: 3CM - PRICE GROUP 2		CONTACT: NICOLE WATSON, 859-638-2928, NICOLET@COSENTINO.COM
CASEWORK	INTERIOR	SS3	QUARTZ - WINDOW SILLS	HANSTONE	COLOR: AURORA SNOW - CL101, EDGE PROFILE: EASED EDGE	1/2" THICK	
CEILINGS							
CEILINGS	INTERIOR	ACT1	ACOUSTICAL CEILING TILE - GENERAL	ARMSTRONG	ULTIMA LAY IN, SIZE: 2' X 2' ITLE, WHITE GRID, PRELUDE XL 15/16" EXPOSED TEE	2' X 2' X 7/8"	CONTACT: BILL MENDEK, 904-652-6921,WJMENDEK@ARMSTRONGCEILINGS.COM
CEILINGS	INTERIOR	ACT4	ACOUSTICAL CEILING TILE - (ESCALATORS)	ARKTURA	VAPOR SOLID, MATERIAL: RIPPLE MIRROR, STANDARD FINISH	2' X 6'	CONTACT: STEVEN RANTA, 310-291-8096, STEVEN.RANTA@ARKTURA.COM
CEILINGS	INTERIOR	AP1	ACRYLIC PANEL	SENSITILE	LUMINA, PATTERN: RANDOM, LIGHT POINT DENSITY: STANDARD (MEDIUM), GRAIN WIDTH: 3/8", CORE THICKNESS: 3/4", CLADDING THICKNESS: 1/8", CLADDING FINISH: FROSTED- CLEAR - CLEAR MIRROR - WHITE PROTECT, INTERLAYER: NONE, LIGHT EMISSION: FACE ONLY, LED COLORS: RGBW COLOR CHANGING, EDGE TYPE: POLISHED	1-1/16" THICK	CONTACT: MOLLY GREEN, 313-872-6314 EXT. 106, ESTIMATING@SENSITILE.COM, SUBMIT SAMPLE FOR APPROVAL
CEILINGS	INTERIOR	GWB/P5	GYPSUM WALL BOARD - PAINTED, RESTROOMS, LOCKER ROOM	SHERWIN WILLIAMS	COLOR: PURE WHITE SW 7005, EG-SHEL		CONTACT: FRED LAURO, 727-735-1643, FREDERICK.M.LAURO@SHERWIN.COM
FLOORING							
FLOORING	INTERIOR	SC1	SEALED CONCRETE	PACHYDERM/KEY RESIN	SEALER: KEY 804		
FLOORING	INTERIOR	SG1	SYNTHETIC GRASS - PET RELIEF	K9 GRASS CLASSIC BY FOREVER LAWN	INCLUDE ALL COMPONENTS FOR EASE OF MAINTENANCE		
FLOORING	INTERIOR	TER-1	TERRAZZO - DARK BLUE	TERROXY RESIN SYSTEMS	TM#TBD, EPOXY COLOR: #2296 GROTTO BLUE, GRIT: 200, FILLER: ATF-20, SEALER: WB ACRYLIC, CHIPS: 30% - SIZE: 2- CLASSIC MOP, 30%- SIZE: 2 - CRYSTAL GLASS, 20%: SIZE 2 - PACIFIC ONE SIDED MIRROR, 20% - SIZE: 2 - GA WHITE	3/8" THICK	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
FLOORING	INTERIOR	TER-2	TERRAZZO - LIGHT BLUE	TERROXY RESIN SYSTEMS	TM# TBD, EPOXY COLOR: #2870 GARLAND BLUE, GRIT: 200, FILLER: ATF-20, SEALER: WB ACRYLIC, CHIPS: 30% - SIZE: 2- CLASSIC MOP, 30%- SIZE: 2 - CRYSTAL GLASS, 20%: SIZE 2 - PACIFIC ONE SIDED MIRROR, 20% - SIZE: 2 - GA WHITE	3/8" THICK	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
FLOORING	INTERIOR	TER-3	TERRAZZO - GENERAL, RESTROOMS	TERROXY RESIN SYSTEMS	TM#23-3185, EPOXY COLOR: PURE WHITE #4427, GRIT: 200, FILLER: ATF-20, SEALER: WB ACRYLIC, CHIPS: 30% - SIZE: 2 - CLASSIC MOP, 30% - SIZE: 2 - CRYSTAL GLASS, 20% SIZE: 2- PACIFIC ONE SIDED MIRROR, 20% - SIZE 2: GA WHITE	3/8" THICK	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
FLOORING	INTERIOR	TER-4	TERRAZZO - SAND	TERROXY RESIN SYSTEMS	TM# 34-3186, EPOXY COLOR: URBAN PUTTY #4538, GRIT: 200, FILLER: ATF-20, SEALER: WB ACRYLIC, CHIPS: 30%- SIZE: 2- CLASSIC MOP, 30%- SIZE: 2- CRYSTAL GLASS, 20% -SIZE:2- PACIFIC ONE SIDED MIRROR, 20% - SIZE:2 - GA WHITE, WITH STARFISH ALUMINUM INLAY AS SPECIFIED, WITH LED MOTION ACTIVATED FOOTPRINTS AS SPECIFIED, REFER TO FINISH PLANS.	3/8" THICK	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
FLOORING	INTERIOR	TER-5	TERRAZZO - DIVIDER STRIPS	TERROXY RESIN SYSTEMS	L BRACKET, ALUMINUM	1/8" X 3/8" H	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
FLOORING	INTERIOR	TERR	TERRAZZO - MATCH EXISTING - TICKETING LEVEL	TERROXY RESIN SYSTEMS	TM#24-3194, EPOXY COLOR: #2001 WHITE, GRIT: 200, ATF-20, SEALER: WB ACRYLIC, CHIPS: 70%- SIZE 1- PURE WHITE, 30% - SIZE 2: PURE WHITE	3/8" THICK	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
FLOORING	INTERIOR	VCT2	VINYL COMPOSITION TILE - STATIC DISSIPATIVE (ELECTRICAL, COMM, IT ROOM)				
FLOORING	INTERIOR	WOM1	WALK OFF MAT	MILLIKEN	OBEX BAR CUTX, COLLECTION: GRAIN, COLOR: TAUPE GRX174-133, DYE: PRINTWORKS PRECISION DYE, INSTALLATION METHOD: PLANK HORIZONTAL ASHLAR	25 CM X 1M X.50" THICK	CONTACT: HANK ISRAEL, 954-290-8169, HANK.ISRAEL@MILLIKEN.COM
GROUT							
GROUT	INTERIOR	G-1	GROUT 1/8" JOINTS	MAPEI	KERAPOXY CQ, COLOR: ALABASTER 01, USE WITH ALL TILE UNLES NOTED OTHERWISE	1/8"	
METAL PANELS							
METAL PANELS	INTERIOR	MP1	METAL COLUMN WRAP	MOZ	LASER CUT, PATTERN: FALLS, TOP OF LASER CUT PATTERN 8' AFF, COLOR: SILVER METALLIC, RGBW LED BACKLIT, RECESSED BASE INSET 1" AND 5" H BRUSHED STAINLESS. COORDINATE WITH ELECTRICAL, PROVIDE SHOP DRAWING PRIOR TO ORDERING.	4' X 10' X 1/8" THICK	CONTACT: JAMIE SANDFORD, 720.654.3380, JAMIE@MOZDESIGNS.COM
METAL PANELS	INTERIOR	MP2	METAL LAMINATE ACCENT BAND (TICKETING, RENTAL CAR, GATE COUNTER VERTICALS)	MOZ	STYLE: AURORA, GRADIENTS, SIZE: 4' X 10', .040 ALUMINUM, COARSE, INCLUDE 1" DIAMETER STANDOFF, CYLINDER CAP 1/4"	32" X 10'4" X 1/8" THICK	
SPECIALTY							
SPECIALTY	INTERIOR	P6	PAINT - STRUCTURAL COLUMNS	SHERWIN WILLIAMS	FIRETEX FX6010 THREE-COMPONENT INTUMESCENT COATING, TOPCOAT: BONDPLEX WATERBASED ACRYLIC, COLOR: WHITE ALUMINUM, LOCATION: EXPOSED STEEL COLUMNS, TOP COAT WHEN EXPOSED IN PUBLIC SPACES		CONTACT: FRED LAURO, 727-735-1643, FREDERICK.M.LAURO@SHERWIN.COM
STAIRS							
STAIRS	INTERIOR	STR1	STAIR TREAD (BOWSTRING & FIS)				
STAIRS	INTERIOR	STR2	STAIR NOSING				
TOILET PARTITIONS							
TOILET PARTITIONS	INTERIOR	TP1	TOILET PARTITIONS	WILSONART	REFER TO TOILET ACCESSORY SCHEDULES		
TRANSITIONS							
TRANSITIONS	INTERIOR	TR1	TRANSITION - CARPET TO SEALED CONCRETE	SCHLUTER	RENO T, CONT. ALUMINUM TRANSITION PROFILE		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR2	TRANSITION - TERRAZZO TO SEALED CONCRETE	SCHLUTER	RENO RAMP K, COLOR: SATIN ANODIZED ALUMINUM, COORDINATE WITH TERRAZZO THICKNESS		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR3	TRANSITION - TERRAZZO TO CARPET	SCHLUTER	SCHLUTER DECO OR APPROVAL EQUAL, TYP		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR4	TRANSITION - TERRAZZO TO WALK OFF MAT	SCHLUTER	RENO T, CONT. ALUMINUM TRANSITION PROFILE		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR5	TRANSITION - WALL TILE EDGE	SCHLUTER	STYLE: ROUNDED OUTSIDE CORNER, ITEM: RONDEC R0100AE, 100 (3/8"), FINISH: BRUSHED STAINLESS, AT ALL OUTSIDE CORNERS		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR6	TRANSITION - TERRAZZO TO TERRAZZO	SCHLUTER	RENO T, CONT. ALUMINUM TRANSITION PROFILE		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR7	TRANSITION - TERRAZZO TO STAINED CONCRETE	SCHLUTER	RENO RAMP K, COLOR: SATIN ANODIZED ALUMINUM, COORDINATE WITH TERRAZZO THICKNESS, PROTECT TRANSITION DURING POLISHING OF TERRAZZO		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
TRANSITIONS	INTERIOR	TR9	TRANSITION - EXPANSION JOINT	INPRO	304 SERIES-RECESSED MOUNT; JOINT OPENING: 3"; FLOOR THICKNESS: 3/8"; INSTALL CONDITION: FLOOR TO WALL		CONTACT: MATT LONG, 407-795-0794, MLONG@SCHLUTER.COM
WALL							
WALL	INTERIOR	AP1	ACRYLIC PANEL	SENSITILE	LUMINA, PATTERN: RANDOM, LIGHT POINT DENSITY: STANDARD (MEDIUM), GRAIN WIDTH: 3/8", CORE THICKNESS: 3/4", CLADDING THICKNESS: 1/8", CLADDING FINISH: FROSTED- CLEAR - CLEAR MIRROR - WHITE PROTECT, INTERLAYER: NONE, LIGHT EMISSION: FACE ONLY, LED COLORS: RG	4' W, 1-1/16" THICK	CONTACT: MOLLY GREEN, 313-872-6314 EXT. 106, ESTIMATING@SENSITILE.COM, SUBMIT SAMPLE FOR APPROVAL
WALL	INTERIOR	AP2	ACRYLIC PANEL	SENSITILE	LUMINA, PATTERN: RANDOM, LIGHT POINT DENSITY: STANDARD (MEDIUM), GRAIN WIDTH: 3/8", CORE THICKNESS: 3/4", CLADDING THICKNESS: 1/8", CLADDING FINISH: FROSTED- CLEAR - CLEAR MIRROR - WHITE PROTECT, INTERLAYER: NONE, LIGHT EMISSION: FACE ONLY, LED COLORS: RG	VARYING STANDARD SIZE, REFER TO RCP	CONTACT: MOLLY GREEN, 313-872-6314 EXT. 106, ESTIMATING@SENSITILE.COM, SUBMIT SAMPLE FOR APPROVAL
WALL	INTERIOR	AP3	ACRYLIC PANEL	SENSITILE	LUMINA, PATTERN: RANDOM, LIGHT POINT DENSITY: STANDARD (MEDIUM), GRAIN WIDTH: 3/8", CORE THICKNESS: 3/4", CLADDING THICKNESS: 1/8", CLADDING FINISH: FROSTED- CLEAR - CLEAR MIRROR - WHITE PROTECT, INTERLAYER: NONE, LIGHT EMISSION: FACE ONLY, LED COLORS: RG	VARYING STANDARD SIZE, REFER TO RCP	CONTACT: MOLLY GREEN, 313-872-6314 EXT. 106, ESTIMATING@SENSITILE.COM, SUBMIT SAMPLE FOR APPROVAL
WALL	INTERIOR	AP4	ACRYLIC PANEL	SENSITILE	LUMINA, PATTERN: RANDOM, LIGHT POINT DENSITY: STANDARD (MEDIUM), GRAIN WIDTH: 3/8", CORE THICKNESS: 3/4", CLADDING THICKNESS: 1/8", CLADDING FINISH: FROSTED- CLEAR - CLEAR MIRROR - WHITE PROTECT, INTERLAYER: NONE, LIGHT EMISSION: FACE ONLY, LED COLORS: RG	1' W, 1-1/16" THICK	CONTACT: MOLLY GREEN, 313-872-6314 EXT. 106, ESTIMATING@SENSITILE.COM, SUBMIT SAMPLE FOR APPROVAL
WALL	INTERIOR	CC1	COLUMN COVERS - (SSCP, NON SPECIALTY)	ARMSTRONG	PLASTERFORM COLUMN COVERS, 2'-4" DIA, VERTICAL BUTT JOINT, CONFIRM COLUMN DIMENSION DUE TO VARIED SIZES		
WALL	INTERIOR	CG1	CORNER GUARD - GENERAL OUTSIDE WALLS	ACROVYN	WIDTH: 1" 1/2 LEGS X HEIGHT: 8'-0", GAUGE: 16, FLAT-HEAD COUNTERSUNK SCREWS THROUGH FACTORY DRILLED MOUNTING HOLES AND ADHESIVE, STAINLESS STEEL 304,	GAUGE: 14, LEG LENGTH: 1/2"	CONTACT: CLYDE COPELAND, 813-831-3344, CCOPELAND@CAS-CORP.COM
WALL	INTERIOR	DWCSB	ACRYLIC PANEL STANDOFFS	CR LAWRENCE	BRUSHED ALUMINUM STANDOFFS, 1" DIAMETER X 2" CYLINDER, 1/2" CAP		
WALL	INTERIOR	P1	PAINT - GENERAL	SHERWIN WILLIAMS	PROMAR 200 HP LG, B41-1900 SERIES, COLOR: SW 7008 ALABASTER, FINISH: EG-SHEL		CONTACT: FRED LAURO, 727-735-1643, FREDERICK.M.LAURO@SHERWIN.COM
WALL	INTERIOR	P2	PAINT - DOORS/FRAMES	SHERWIN WILLIAMS	PRO IND WB ALKYD URETHANE LS, B53-2250 SERIES, EG-SHEL, COLOR: SW 6002 ESSENTIAL GRAY, FINISH: SEMI-GLOSS		CONTACT: FRED LAURO, 727-735-1643, FREDERICK.M.LAURO@SHERWIN.COM
WALL	INTERIOR	P3	PAINT - ACCENT	SHERWIN WILLIAMS	PROMART 200HP LG, B41-1900 SERIES, COLOR: SW 6958 DYNAMIC BLUE, EG-SHEL		CONTACT: FRED LAURO, 727-735-1643, FREDERICK.M.LAURO@SHERWIN.COM
WALL	INTERIOR	P5	PAINT - GWB CEILING/SOFFITS (STERILE CORRIDOR/PBB)	SHERWIN WILLIAMS	PRO IND MULTI-SURFACE ACRYLIC B66-1560 SERIES, COLOR: SW 7007 CEILING BRIGHT WHITE, FINISH: EG-SHEL		CONTACT: FRED LAURO, 727-735-1643, FREDERICK.M.LAURO@SHERWIN.COM
WALL	INTERIOR	T1	STONE TILE	STONESOURCE	SEASTONE STARFISH FOSSIL IMPRESSION, SQUARE EDGE MEDALLION TILE IN BEIGE, MATERIAL: COMPRESSED STONE, DESIGN: FOSSILIZED, SHADE VARIATION: V2, POLISH FINISH: HONED, INSTALL PATTERN: STRAIGHT STACKED, GROUT JOINT: 1/16", CAN BE DRY CUT	6" X 6" X 1" THICK	CONTACT: KIMBERLY BEYERLEIN, 813-714-4603, KBEYERLEIN@STONESOURCE.COM
WALL	INTERIOR	T3	TILE - PORCELAIN - RESTROOMS	DALTILE	STYLE: IRONCRAFT, COLOR: PHOSPHOR WHITE IC11	12" X 24"	CONTACT: LORI SCHWARTZ, 407.716.6447, LORI.SCHWRATZ@DALTILE.COM
WALL	INTERIOR	WP2	WALL PANEL - ELEVATOR PANELS - INTERIOR CAB	FORMS + SURFACES	LEVEL4-105A GARAGE, PANEL FINISHES: CUSTOM GRADIENCE, STAINLESS STEEL WITH SANDSTONE FINISH NO PATTERN CERAMILOC+, BASE IN FUSED WHITE GOLD SANDSTONE FINISH NO PATTERN CERAMILOC+, ALUMINUYM CLEAR ANODIZED REVEALS, ROUND STIPPLED STAINLESS STEEL HANDRAILS, STAINLESS STEEL SATIN CRASH RAIL, FUSED WHITE GOLD SANDSTONE LED PERIMETER CEILING. SEE DIAGRAM FOR COORDINATION. COORDINATE WITH MANUFACTURER FOR DETAIL DRAWINGS AND PANEL LOCATIONS. CONTROLLER AND DRIVERS FOR CEILING LIGHT AND BACK PANEL LIGHT INCLUDED IN PANEL AS ONE SYSTEM. COORDINATE WITH ELECTGRICAL FOR CIRCUITING REQUIREMENTS. FOR ELEVATOR CAB INTERIORS REFER TO ELEVATOR FINISH DETAILS SHEET.		CONTACT: COREY BREWER, 407.949.2923, COREY.BREWER@FORM-SURFACES.COM
WALL BASE							
WALL BASE	INTERIOR	B1	9" TERRAZZO BASE	TERROXY RESIN SYSTEMS	STRAIGHT PROFILE, MATCH TZ-1 FORMULA	6" H	CONTACT: BRAD HEDGES, 770-325-0725, BRAD@SCIGA.COM
WALL BASE	INTERIOR	B2	4" (FOR CARPET AND RESILIENT FLOORING)	FLEXCO	4" HEIGHT, ROLLED GOOD, USE PREFORMED CORNERS, COLOR: BLACK DAHLIA, PRODUCT: WALLFLOWERS	4"	CONTACT: NADINE PHILLIPS, 607-745-3780, NADINE@CFDFLOORING.COM
WALL BASE	INTERIOR	B3	9" STAINLESS STEEL BASE	INPRO	9-3/8", TOELESS 18 GA. TYPE: 304	9-3/8"	ONTACT: LAUREN DUNN, 727.217.5119, LDUNN@INPROCORP.COM

FINISH PLAN LEGEND & SHEET NOTES

GENERAL SHEET NOTES

1. REFER TO TOILET ACCESSORIES SCHEDULE FOR TOILET PARTITION FINISH
2. GC SHALL PROVIDE MOCK UPS FOR COLUMNS, RESTROOM VANITIES WITH FAUCETS AND SOAP DISPENSERS. TEST FOR WATER PRESSURE OUTPUT AND CONFIRM PRESSURE MEETS OWNERS APPROVAL.
3. LOCATIONS LISTED ON FINISH LEGEND ARE APPROXIMATE LOCATIONS AND ARE NOT LIMITED TO THOSE AREAS LISTED. REFER TO ALL DRAWINGS FOR ADDITIONAL INFORMATION.

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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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SEAL:

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

SHEET TITLE:
ROOM FINISH SCHEDULE, LEGEND AND NOTES

SHEET ID:
A621

PROJECT STATUS:
100% BID SET

3/14/2025 7:05:45 PM Autodesk Docs://1003007004_ILM TO4 Ridley Inf Improv Design/2003007006_ILM_TO4_Parking Garage and Shuttle Plaza_A_R24.rvt

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FINISH PLAN LEGEND & SHEET NOTES

FLOORING TYPES LEGEND

- TERR: TERRAZO TO MATCH EXISTING
- SC1: SEALED CONCRETE
- WOM: WALK OFF MAT
- UC: UNFINISHED CONCRETE
- REFER TO VOLUME 2 PACKAGE

GENERAL INTERIOR FINISH NOTES

GENERAL

1. FOR BIDDING AND PRICING PURPOSES, NO SUBSTITUTIONS WILL BE ACCEPTED. SUBMIT SAMPLES OF FINISHES TO ARCHITECT FOR APPROVAL.
2. FOR BIDDING AND PRICING PURPOSES, CONTACT ARCHITECT TO OBTAIN MANUFACTURER CONTACT INFORMATION PER EACH FINISH.
3. ALL TILE, EXCEPT MESH MOUNTS ARE TO BE INSTALLED WITH 1/8" GROUT JOINTS OR SMALLER. ALL FLOOR TILE AND WALL TILE JOINTS ARE TO ALIGN IN ONE OR BOTH DIRECTIONS.
4. ALL WALLS ARE TO BE PAINTED WITH P1, UNLESS NOTED OTHERWISE.
5. ALL DOORS AND DOOR FRAMES SHALL BE COORDINATED WITH THE FINISH LEGEND AND THE DOOR HARDWARE SCHEDULE.
6. ASSESS EXISTING WALL FINISH. PLAN FOR REMOVAL OF EXISTING WALL FINISHES WHERE PAINT IS SCHEDULED OR SHOWN ON PLAN OR CALLED OUT AS A GENERAL FINISH. ALL WALLS TO BE RESTORED TO A LEVEL 4 FINISH UPON REMOVAL OF EXISTING FINISHES.
7. USE LOW VOC'S FOR ALL PAINTS, PRIMERS, AND ADHESIVES.
8. LEAD TIMES FOR ALL MANUFACTURERS SHOULD BE CHECKED AT RECEIPT OF CONSTRUCTION DOCUMENTS TO ENSURE PRODUCTS ARE ORDERED IN THE APPROPRIATE TIME FRAME FOR SHIPPING AND RECEIVING PRIOR TO SCHEDULED INSTALLATION DATE.
9. PROVIDE REQUIRED BLOCKING AT WALL HUNG TV MONITORS ETC.
10. ALL HOLLOW METAL FRAMES IN SCOPE TO BE PAINTED TO MATCH ADJACENT WALL COLOR IN A SEMI-GLOSS FINISH UNLESS NOTED OTHERWISE.
11. PROVIDE LEVEL 5 DRYWALL FINISH AT ALL PARTITIONS' WALLS TO RECEIVE SCHEDULED COVERING.
12. ALL FINISH MATERIALS TO BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS. REFER TO MANUFACTURER FOR INSTALLATION INSTRUCTIONS. GC TO PROVIDE 6"X6" SAMPLE, U.O.N. IN SPECIFICATIONS FOR MATERIALS LISTED IN FINISH LEGEND.

FLOORING

1. ALL FLOOR FINISH CHANGES TO OCCUR AT CENTERLINE OF DOOR FRAMES, UNLESS NOTED OTHERWISE. REFER TO FINISH PLAN FOR ALL TRANSITION CHANGES.
2. RUBBER BASE SHALL BE USED UNLESS NOTED OTHERWISE.
3. REFER TO FINISH PLANS FOR ANY FLOOR PATTERNS AND FLOOR TRANSITION DETAILS ON FINISH SHEETS.
4. REFER TO FINISH PLANS AND INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION ON THE LIMITS OF FINISHES.
5. MITER TILE TO CORNERS OF SQUARE DRAIN - SEE DIAGRAM FOR REFERENCE, SUBMIT SEAMING DIAGRAM FOR APPROVAL.
6. PROVIDE INSTALLATION DIRECTION FOR EACH PRODUCT AND INCLUDE SEAMING DIAGRAM.
7. CONTRACTOR TO EXTEND FINISH FLOORING UNDER ALL LAVATORIES, PLUMBING FIXTURES, MILLWORK, ETC. TO PROVIDE CONTINUOUS FLOOR FINISH U.O.N.

CEILINGS

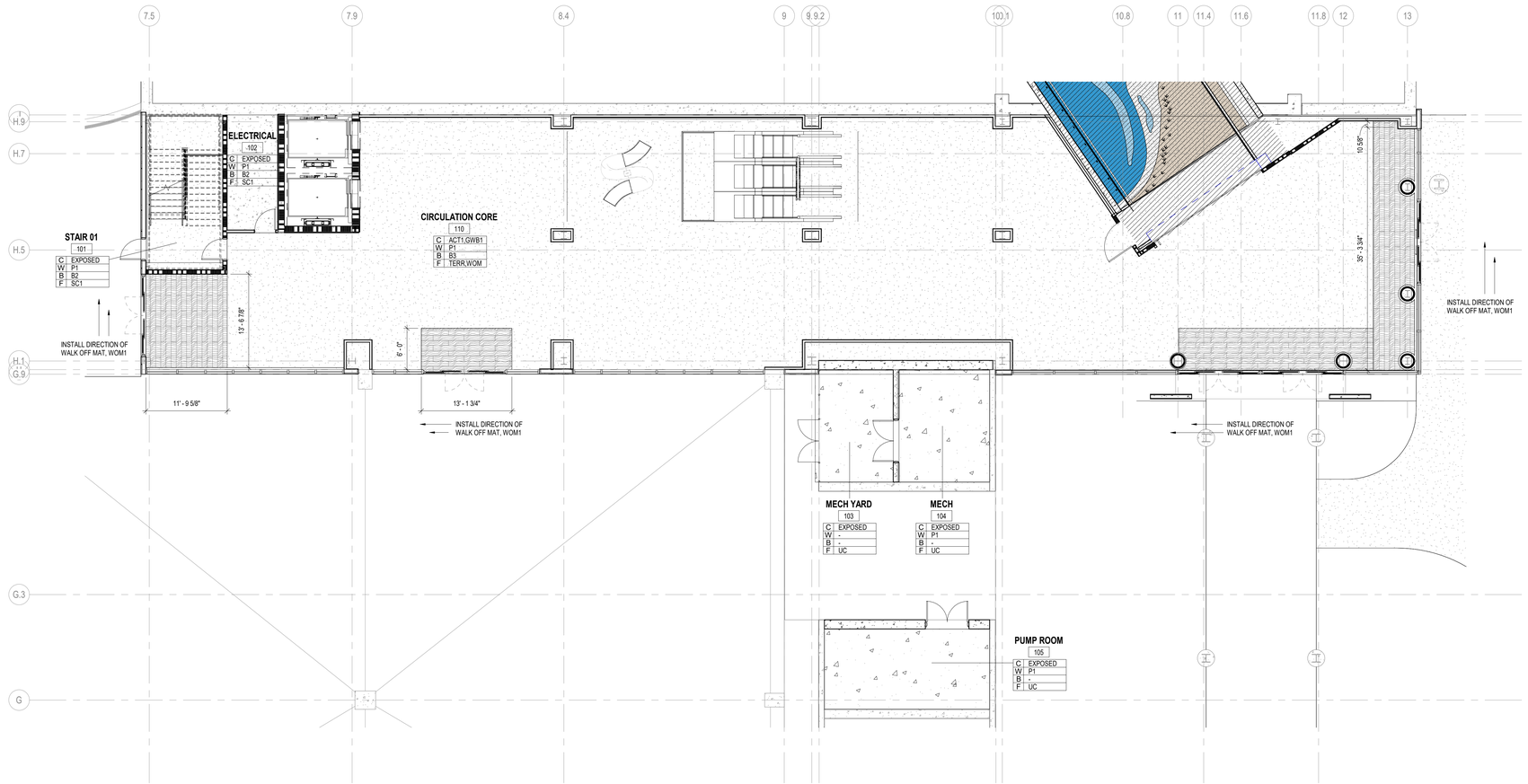
1. ALL GWB SOFFITS/CEILINGS SHALL BE PAINTED WITH THE DESIGNATED PAINT FOR CEILINGS.
2. REFER TO REFLECTED CEILING PLAN FOR GYPSUM BOARD DROPS AND SOFFITS.

ELEVATORS

1. FOR ELEVATOR CAB INTERIORS REFER TO ELEVATOR FINISH DETAILS SHEET A406.

ELECTRICAL

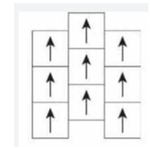
1. COORDINATE SPECIALTY ITEMS WITH ELECTRICAL ENGINEERING SHEETS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: ACRYLIC BACKLIT PANELS, COLUMNS INCLUDING LIGHTING, ELEVATOR CAB INTERIORS, MILLWORK.



A1 PARTIAL INTERIOR FINISH FLOOR PLAN - PLAZA VESTIBULE

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

WALK OFF MAT: WOM1
HORIZONTAL ASHLAR PATTERN DIRECTION
PARALLEL TO BUILDING EXTERIOR



8 0 8 16

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

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1520 South Blvd., Suite 200
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North Carolina License Nos. 50073 * F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	SG
DRAWN BY:	KS
DESIGNED BY:	FG

PROJECT NUMBER:
2003-0070-006

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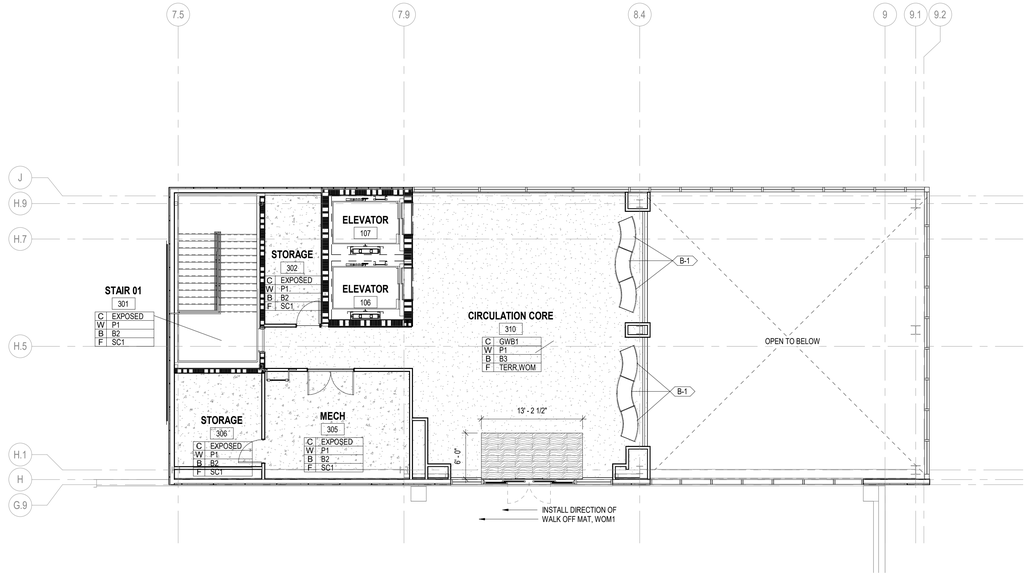
SHEET TITLE:
CIRCULATION CORE FINISH PLANS

SHEET ID:
A811

PROJECT STATUS:
100% BID SET

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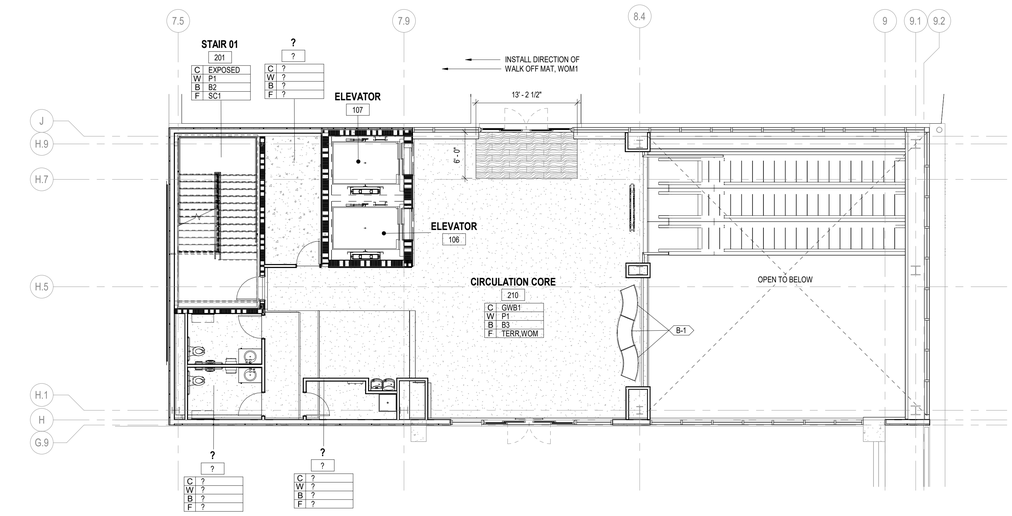
PN

N

C1

PARTIAL INTERIOR FINISH FLOOR PLAN - THIRD FLOOR CIRCULATION CORE

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



PN

N

A1

PARTIAL INTERIOR FINISH FLOOR PLAN - SECOND FLOOR CIRCULATION CORE

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

FINISH PLAN LEGEND & SHEET NOTES

FLOORING TYPES LEGEND

TERR: TERRAZO TO MATCH EXISTING

SC1: SEALED CONCRETE

WOM: WALK OFF MAT

UC: UNFINISHED CONCRETE

REFER TO VOLUME 2 PACKAGE

GENERAL INTERIOR FINISH NOTES

GENERAL

1. FOR BIDDING AND PRICING PURPOSES, NO SUBSTITUTIONS WILL BE ACCEPTED. SUBMIT SAMPLES OF FINISHES TO ARCHITECT FOR APPROVAL.
2. FOR BIDDING AND PRICING PURPOSES, CONTACT ARCHITECT TO OBTAIN MANUFACTURER CONTACT INFORMATION PER EACH FINISH.
3. ALL TILE, EXCEPT MESH MOUNTS ARE TO BE INSTALLED WITH 1/8" GROUT JOINTS OR SMALLER. ALL FLOOR TILE AND WALL TILE JOINTS ARE TO ALIGN IN ONE OR BOTH DIRECTIONS.
4. ALL WALLS ARE TO BE PAINTED WITH P1, UNLESS NOTED OTHERWISE.
5. ALL DOORS AND DOOR FRAMES SHALL BE COORDINATED WITH THE FINISH LEGEND AND THE DOOR HARDWARE SCHEDULE.
6. ASSESS EXISTING WALL FINISH. PLAN FOR REMOVAL OF EXISTING WALL FINISHES WHERE PAINT IS SCHEDULED OR SHOWN ON PLAN OR CALLED OUT AS A GENERAL FINISH. ALL WALLS TO BE RESTORED TO A LEVEL 4 FINISH UPON REMOVAL OF EXISTING FINISHES.
7. USE LOW VOC'S FOR ALL PAINTS, PRIMERS, AND ADHESIVES.
8. LEAD TIMES FOR ALL MANUFACTURERS SHOULD BE CHECKED AT RECEIPT OF CONSTRUCTION DOCUMENTS TO ENSURE PRODUCTS ARE ORDERED IN THE APPROPRIATE TIME FRAME FOR SHIPPING AND RECEIVING PRIOR TO SCHEDULED INSTALLATION DATE.
9. PROVIDE REQUIRED BLOCKING AT WALL HUNG TV MONITORS ETC.
10. ALL HOLLOW METAL FRAMES IN SCOPE TO BE PAINTED TO MATCH ADJACENT WALL COLOR IN A SEMI-GLOSS FINISH UNLESS NOTED OTHERWISE.
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7. CONTRACTOR TO EXTEND FINISH FLOORING UNDER ALL LAVATORIES, PLUMBING FIXTURES, MILLWORK, ETC. TO PROVIDE CONTINUOUS FLOOR FINISH U.O.N.

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1. ALL GWB SOFFITS/CEILINGS SHALL BE PAINTED WITH THE DESIGNATED PAINT FOR CEILINGS.
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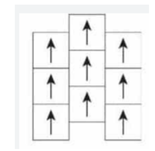
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WALK OFF MAT: WOM1
HORIZONTAL ASHLAR PATTERN DIRECTION
PARALLEL TO BUILDING EXTERIOR



8 0 8 16

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

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F-0493 * C-28

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: SG
DRAWN BY: KS
DESIGNED BY: FG
PROJECT NUMBER:
2003-0070-006

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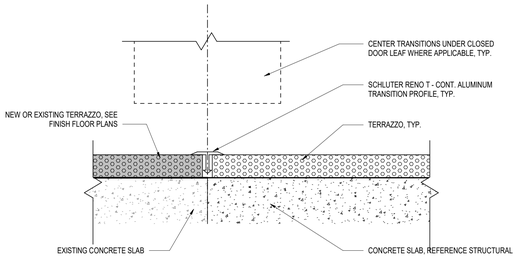
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CIRCULATION CORE FINISH PLANS

SHEET ID:
A812

PROJECT STATUS:
100% BID SET

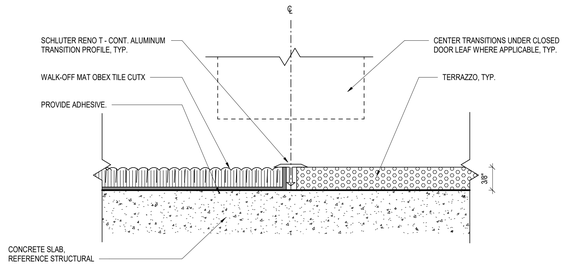
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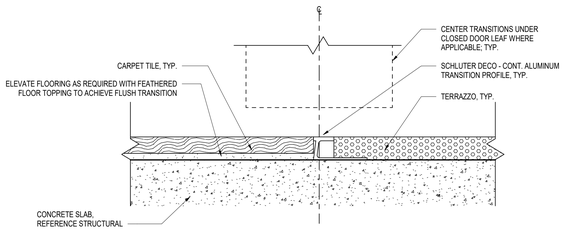
E1 TR5 TERRAZZO TRANSITION

SCALE: N.T.S.



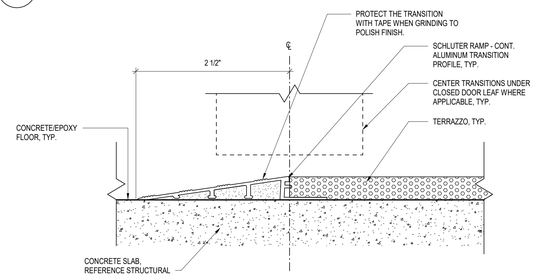
D1 TR4 - TERRAZZO TO INTERIOR WALK OFF MAT

SCALE: N.T.S.



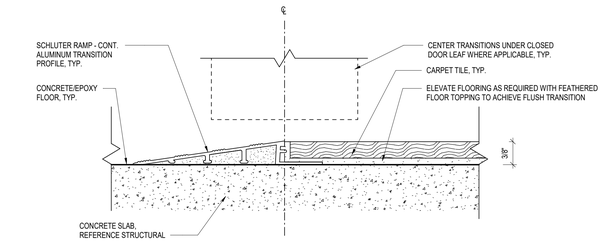
C1 TR3 - TERRAZZO TO CARPET

SCALE: N.T.S.



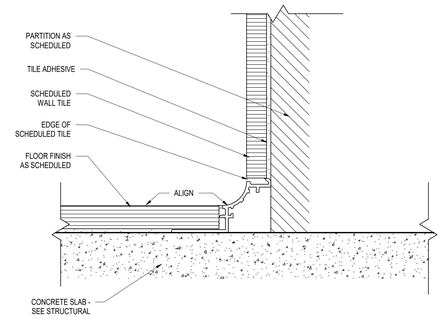
B1 TR2 - TERRAZZO TO SEALED CONCRETE

SCALE: N.T.S.



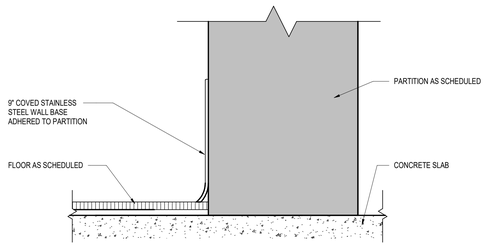
A1 TR1 - CARPET TO SEALED CONCRETE

SCALE: N.T.S.



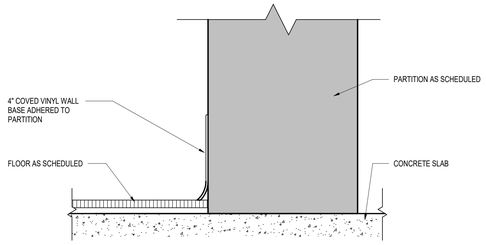
D2 B4 - WALL COVE

SCALE: N.T.S.



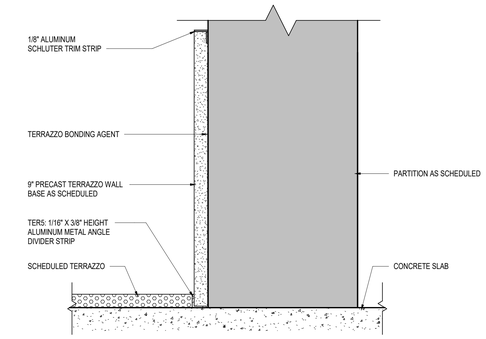
C2 B3 - STAINLESS STEEL BASE DETAIL

SCALE: N.T.S.



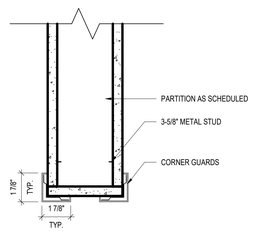
B2 B2 - VINYL BASE DETAIL

SCALE: N.T.S.



A2 B1 - TERRAZZO BASE DETAIL

SCALE: N.T.S.



A3 CORNER GUARD - PLAN DETAIL

SCALE: 3" = 1'-0"

GENERAL NOTES

1. DO NOT SCALE DIMENSIONS FROM DRAWINGS - THE CONTRACTOR MUST REQUEST NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS FROM THE ARCHITECT.
2. ALL DIMENSIONS ARE TO BE FIELD VERIFIED. IF ANY DEVIATIONS OR DISCREPANCIES OCCUR, CONTACT THE ARCHITECT FOR VERIFICATION PRIOR TO PROCEEDING WITH THE WORK.
3. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE OF THE STATE OF NORTH CAROLINA.
4. THE DIMENSIONS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS.
5. THE CONTRACTOR WILL FIELD VERIFY DIMENSIONS AND REPORT IN WRITING ANY CONFLICTS PRIOR TO FABRICATION.
6. PROTECT THE TRANSITION STRIPS WHEN GRINDING TERRAZZO TO POLISH FINISH WITH PROTECTION TAPE.
7. SEE ELECTRICAL PLANS FOR OPERATIONAL LAYOUT. CONTRACTOR SHALL VERIFY AND COORDINATE WITH OWNER'S VENDOR FOR CORRECT PLACEMENT OF HARDWARE PRIOR TO FABRICATION.
8. EXISTING AND FUTURE UNDERLAY LINEWORK FOR REFERENCE PURPOSES ONLY. ANY CIVIL RELATED WORK, SEE CIVIL PACKAGE FOR DETAILS.
9. THESE DRAWINGS ARE PROVIDED FOR A SPECIFIC DESIGN INTENT ONLY, THE SIGN CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING AND INTERNAL CONSTRUCTION OF ALL SIGNS. ANY PRODUCTS OR METHODS SPECIFIED MAY BE SUBSTITUTED WITH EQUAL SO LONG AS THE OVERALL DIMENSIONS, APPEARANCE, AND FUNCTIONALITY OF THE DESIGN IS RETAINED.
10. THE SIGN CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ANCHORAGES, ALL ELECTRICAL FIXTURES AND REQUIRED CONNECTIONS INTO CIRCUITS, AND WILL SUBMIT SHOP DRAWINGS, MESSAGE SCHEDULE, AND DETAILS FOR REVIEW.

REFER TO VOLUME 2 PACKAGE

RS&H
1520 South Blvd., Suite 200
Charlotte, NC 28203
Phone: 704-752-0610, Fax: 704-949-2672
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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: SG
DRAWN BY: Author
DESIGNED BY: FG
PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
FLOOR FINISH TRANSITION DETAILS

SHEET ID:
A813

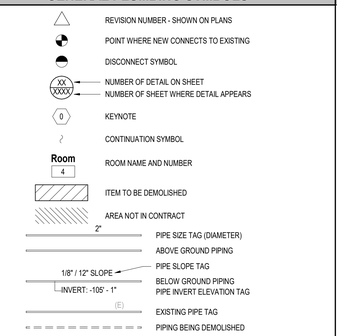
PROJECT STATUS:
100% BID SET

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SCALE: 3" = 1'-0"

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GENERAL PLUMBING SYMBOLS

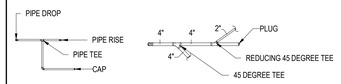


ABBREVIATIONS

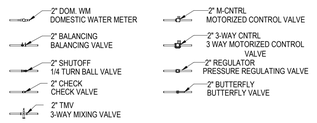
(E)	EXISTING PREFIX STANDARD, ABBREV. FOR EXISTING PIPING
AAV	AIR ADMITTANCE VALVE, INSTALLED ACCESSIBLE WITH FRESH AIR LOUVER
ABV	ABOVE
AC	ABOVE CEILING (GENERALLY INDICATES NOTED PIPING INSTALLED ABOVE CEILING)
AC	AIR CONDITIONING
ACT	REMOVABLE LAY-IN ACOUSTICAL CEILING TILE ASSEMBLY
AD	AREA DRAIN
ADD	ADDENDUM
AF	ABOVE FLOOR - REFERENCE TO TOP OF FINISHED FLOOR ELEVATION (UNO)
AFF	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
ALT	ALTERNATE
AP	ACCESS PANEL
ARCH	ARCHITECT / ARCHITECTURAL
BF	BELOW FLOOR (GENERALLY INDICATES NOTED PIPING INSTALLED BELOW FLOOR)
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BG	BELOW GRADE (GENERALLY INDICATES NOTED PIPING INSTALLED BELOW GRADE, APRON, AND/OR 1ST FLOOR)
BLW	BELOW
BTHU	BRITISH THERMAL UNITS PER HOUR
BTSP	SINGLE FLOOR DRAIN BATTERY OPERATED TRAP SEAL PRIMER
BTU	BRITISH THERMAL UNITS
CAP	CAPACITY
CB	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON PIPING, FITTINGS AND COUPLINGS, ETC. (CAST IRON METAL)
CLG	CEILING
CO	CLEAN OUT
CP	CHROME PLATED FINISH ON SPECIFIED PIPING, MATERIAL, OR EQUIPMENT
CU	COPPER PIPING, MATERIAL, OR EQUIPMENT, TYPE OF COPPER INDICATED
CV	CHECK VALVE
CW	COLD WATER
CWV	COMBINATION WASTE AND VENT, ENGINEERED PIPING SYSTEM
D	DEGREE
DB	DRY BULB
DI	DUCTILE IRON PIPING, FITTINGS, AND COUPLINGS, ETC. (DUCTILE IRON MATERIAL)
DIA	DIAMETER
DN	DOWN
E/A	EXHAUST AIR
EA	EACH
EAT	ENTERING AIR TEMPERATURE
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
ETSP	MULTIPLE ELECTRONIC FLOOR DRAIN TRAP SEAL PRIMER
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
F	DEGREES FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FL	FLOOR
FM	FORCE MAIN
FO	FUEL OIL
FPM	FEET PER MINUTE
FS	FLOOR SINK
GAL	GALLON
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIB
HP	HORSE POWER
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HYD	HYDRANT
ID	INDIRECT
IE	PIPING INVERT ELEVATION - REFERENCE TO FINISHED GROUND LEVEL FLOOR SLAB ELEVATION 0.00' UNO
IN	INCH
INV	INVERT
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LP	LOW PRESSURE
LPG	LIQUIFIED PETROLEUM GAS
LWT	LEAVING WATER TEMPERATURE
M/A	MIXED AIR
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTR	MOTOR
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NUMBER
NO	NORMALLY OPEN
NTS	NOT TO SCALE
O/A	OUTSIDE AIR
ORD	OVERFLOW ROOF DRAIN
PD	PRESSURE DROP
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPING
PWR	POWER
R/A	RETURN AIR
RD	ROOF DRAIN
REC	RECESSED
RED	REDUCER
RH	RELATIVE HUMIDITY
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RW	RAIN WATER
S/A	SUPPLY AIR
SAN	SANITARY
SF	SQUARE FEET
SS	STAINLESS STEEL
STM	STEAM
TPRV	ASME APPROVED COMBINATION TEMPERATURE AND PRESSURE RELIEF VALVE
TSP	SINGLE FLOOR DRAIN TRAP SEAL PRIMER (ADDED SUFFIX LETTERS INDICATE MULTIPLE DRAINS)
TYP	TYPICAL AND TYPICAL AS SHOWN
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VENT
VTR	VENT-THRU-ROOF, VANDAL-PROOF, WITH SKIRT, BOOT, FLASHING AND HOOD
W	WASTE
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WALL HYDRANT

PLUMBING AND PIPING SYMBOLS

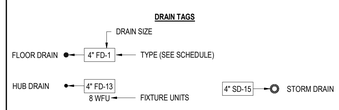
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CD	CONDENSATE DRAINAGE
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
GWR	GEOTHERMAL WATER RETURN
GWS	GEOTHERMAL WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
G	NATURAL GAS
PG	PROPANE GAS
REF-L	REFRIGERANT-LIQUID
REF-S	REFRIGERANT-SUCTION
REF-HG	REFRIGERANT-HOT GAS
STM	STEAM
CDR	CONDENSATE RETURN
CWV	COMBINATION WASTE & VENT
CA	COMPRESSED AIR
CW	DOMESTIC COLD WATER
S-CW	SPECIALTY COLD WATER
HW	HOT WATER
HW-R	HOT WATER RECIRCULATION
GV	GREASE VENT
GW	GREASE WASTE
OV	OIL VENT
OW	OIL WASTE
V	SANITARY VENT
SS	SANITARY SEWER
SHWR	SOLAR HOT WATER RETURN
SHWS	SOLAR HOT WATER SUPPLY
SD	STORM DRAINAGE
OSD	OVERFLOW STORM DRAINAGE

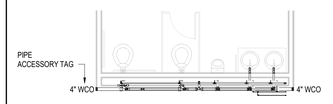


PIPE ACCESSORY TAGS



DRAIN TAGS





GENERAL NOTES

1. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING AND PROPOSED CONDITIONS AND UTILITIES, PIPE SIZES, LOCATIONS, MATERIALS, ETC., BEFORE BID, STARTING WORK OR ORDERING MATERIALS AND INCLUDE MINOR ADJUSTMENTS TO ADAPT DESIGN TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR MUST COORDINATE THE PLUMBING SYSTEMS INSTALLATION WITH WORK OF STRUCTURE, HVAC, ELECTRICAL, CASEWORK, AND RELATED TRIM, ETC., TO PRECLUDE INTERFERENCE.
3. EQUIPMENT AND MATERIALS, ETC., SPECIFIED OR SCHEDULED OR NOTED ON THE DRAWINGS, METHODS DETAILED AND PIPING MATERIALS INDICATED ON THE DRAWINGS SUPERCEDE ONLY ANY CONFLICTING SPECIFICATION ARTICLES AND/OR REQUIREMENTS OF DIVISION 22 REGARDING PLUMBING MATERIALS, METHODS, ETC. THIS INCLUDES MATERIALS SPECIFIED, LEGEND ITEMS REPRESENTED SYMBOLICALLY ON THE DRAWINGS AND IDENTIFIED IN THE LEGEND DESCRIPTIONS OR ABBREVIATIONS DESCRIPTIONS.
4. ADJUST FLOW & TEMPERATURE TO SPECIFIED FLOW & TEMPERATURE FOR ALL FIXTURES PER 2024 NORTH CAROLINA PLUMBING CODE: ADJUST SENSOR / METERING FAUCET TO OPERATE FOR 15 SECONDS AND MAXIMUM MIXED WATER TEMPERATURE TO BE 110 DEGREES FAHRENHEIT AT EVERY SENSOR / MIXING LAVATORY FAUCET.
5. INSTALL ALL PLUMBING MATERIALS, TRIM ACCESSORIES AND RELATED ITEMS IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS AND AS SHOWN ON THE PLUMBING DRAWINGS.
6. DIRECTIONAL CHANGES IN THE HORIZONTAL PLANE OF S, W, ESD AND SD (ALL DRAINAGE) PIPING SYSTEMS MUST NOT USE QUARTER BENDS. SHORT SWEEP QUARTER BENDS OR SHORT SWEEP QUARTER BENDS MUST NOT EXCEED 45 DEGREES UNLESS AN FCO OR WCO IS PROVIDED. PIPING IS INSTALLED AND COORDINATED WITH ALL BUILDING ELEMENTS IN THE FIELD, PROVIDE FCO'S OR WCO'S FOR HORIZONTAL ROUTES OR BRANCHES OF ALL DRAINAGE PIPING SYSTEMS WITH MORE THAN ONE OFFSET OR CHANGE IN DIRECTION EVERY 40 FEET (MAXIMUM SPACING FOR MULTIPLE OFFSETS) OF DEVELOPED LENGTH OF DRAINAGE PIPING.)
7. U.N.O. ON THE PLUMBING DRAWINGS, REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL LAYOUTS AND EXACT LOCATIONS OF PLUMBING FIXTURES, FLOOR DRAINS, FLOOR SINKS, ROOF DRAINS, EMERGENCY ROOF DRAINS, DOWNSPOUT NOZZLES, AREA DRAINS, ETC. WHERE DIMENSIONS ARE NOT GIVEN CENTERLINE FIXTURE PLACEMENT, MOUNTING HEIGHTS, SPOUT HEIGHTS, ETC., MUST BE IN COMPLIANCE WITH THE NORTH CAROLINA BUILDING CODE (2024) AND NORTH CAROLINA PLUMBING CODE (2024).
8. THE CONTRACTOR MUST PAY ALL REQUIRED WATER, AND SANITARY PERMITS, TAPS (UTILITY CONNECTIONS), METERS, CROSS-CONNECTIONS (BACKFLOW PREVENTERS) PERMIT, INSPECTION AND TEST FEES AND OTHER FEES AS MAY BE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
9. PROVIDE CAST IRON DEEP SEALING TRAPS BELOW FLOOR DRAINS AND FLOOR SINKS.
10. PROVIDE CAST IRON CLEANOUT TEES FOR WCO AND CAST IRON COOG AND FCO INCLUDING CLEANOUT BODY, PIPING AND FITTINGS EXTENDED TO PIPING SERVED.
11. SANITARY OR WASTE BRANCHES IN WALLS SERVING LAVATORIES, SINKS, URINALS, HANDSINKS AND SIMILAR FIXTURES MUST BE COPPER DWV TUBE AND FITTINGS. WYES, TEES, CROSSES AND COMBINATION WYE AND 1/8 BENDS AT SANITARY OR WASTE STACKS MUST BE PROVIDED WITH WASTE ARM ELBOWS IN WALL, ALL OF WHICH MUST NOT PENETRATE FACE OF WALL; PROVIDE ELBOWS IN WALL ON WASTE ARM TO ENSURE STACK FITTING CONCEALMENT.
12. ALL PLUMBING WORK MUST BE IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING, PLUMBING & MECHANICAL CODES (2024 WITH MODIFICATIONS) AND NFPA 101 LIFE SAFETY CODE (LATEST EDITION).
13. ALL PLUMBING WORK MUST BE INSTALLED IN A PROFESSIONAL, NEAT AND WORKMANLIKE MANNER FOR COMMERCIAL CONSTRUCTION.
14. ALL MODIFICATIONS TO THE PLUMBING WORK MUST BE RECORDED IN DETAIL ON THE AS-BUILT DRAWINGS AS REQUIRED PER THE PROJECT SPECIFICATIONS IN THE PROJECT MANUAL.
15. DIELECTRIC UNIONS MUST BE PROVIDED ON ONE SIDE OF THREADED BALL VALVES, GATE VALVES, CHECK VALVES AND CIRCUIT BALANCING VALVES. PROVIDE DIELECTRIC UNION ON THE UPSTREAM SIDE OF BRAZED OR SOLDERED VALVES. DIELECTRIC UNIONS ARE NOT BE REQUIRED ON THREE PIECE, UNION, FULL PORT, BALL VALVES.
16. ALL PIPING BELOW FLOOR AND BELOW GRADE MUST BE INSTALLED WITH 4.5 MIL FOIL DETECTABLE UNDERGROUND WARNING AND IDENTIFICATION TAPE INSTALLED A MAXIMUM OF 8" ABOVE TOP OF PIPING. FOR PIPING DEEPER THAN 32" BELOW FLOOR / GRADE PROVIDE ADDITIONAL WARNING AND IDENTIFICATION TAPE(S) AT 24" DEPTH INTERVALS ALONG ENTIRE LENGTH OF PIPING. WHERE PIPING RISES TO ABOVE GRADE OR FLOOR SECURELY TERMINATE TAPE AND PROVIDE ENGRAVED PHENOLIC NAMEPLATES PERMANENTLY SECURED ADJACENT TO PENETRATION. NAMEPLATE TEXT MUST IDENTIFY PIPING SERVICE, MATERIAL AND WHERE PIPING EXTENDS TO.
17. WHERE VALVES ARE INSTALLED ABOVE CEILING, PROVIDE VISUAL IDENTIFICATION AT CEILING GRID ACCESS OR AT ACCESS PANELS. IDENTIFICATION MUST BE VISIBLE FROM BELOW CEILING. THIS IS IN ADDITION TO MECHANICAL IDENTIFICATION REQUIREMENTS SPECIFIED IN THE PROJECT MANUAL. PROVIDE AP (FOR ACCESS PANELS SPECIFICATION SEE SCHEDULE THIS SHEET) AT HARD (GYPSUM BOARD OR PLASTER) CEILINGS TO ACCESS AND MAINTAIN VALVES.

* NOTE *
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	KMN
DRAWN BY:	MA
DESIGNED BY:	RSS

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
PLUMBING GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

SHEET ID:
P001

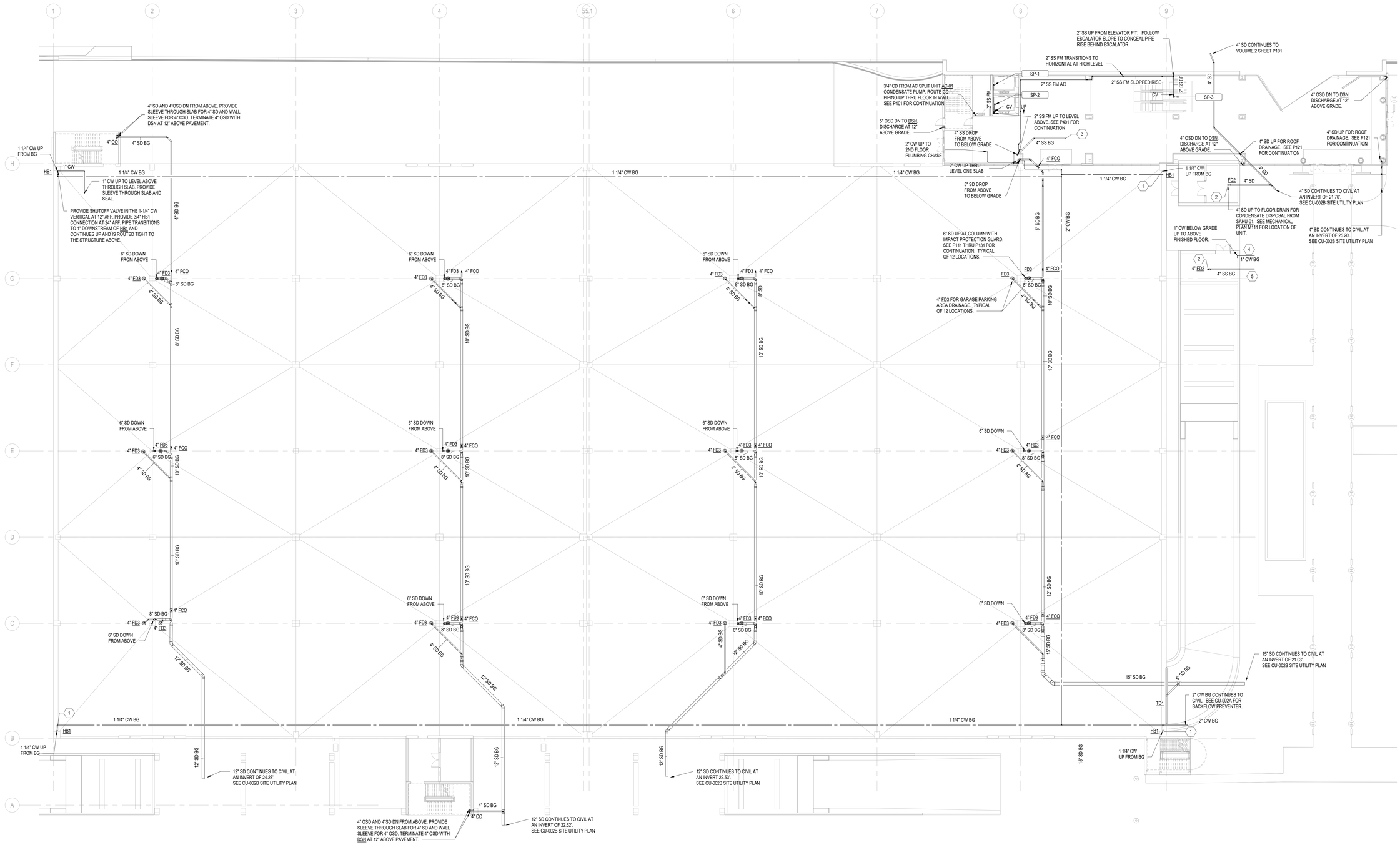
PROJECT STATUS:
100% BID SET

3/14/2025 3:45:51 PM Autodesk Docs://1003007004_ILM TO4 Riley Inf Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_MP_R24.rvt

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KEYED NOTES

1. PROVIDE SHUTOFF VALVE IN 1¼" CW PRIOR TO HB1 CONNECTION ON THIS LEVEL AT MINIMUM OF 12" A.F.F.. 1" CW CONTINUES TO LEVEL ABOVE THROUGH SLAB. PROVIDE SLEEVE THROUGH SLAB AND SEAL.
2. PROVIDE JR SMITH MODEL 701 ROUND COMPRESSION TYPE SEAL BACKWATER VALVE OR EQUIVALENT IN VERTICAL PIPE DOWNSTREAM OF FLOOR DRAIN.
3. 4" SS BG CONTINUES TO CIVIL. SEE CU-002B FOR CONTINUATION.
4. 1" CW BELOW GRADE UP TO ABOVE FINISHED FLOOR INSIDE PUMP ROOM FOR FOUNTAIN EQUIPMENT AND ACCESSORIES. SEE CIVIL SHEET CU-102A FOR CONTINUATION.
5. SEE CIVIL SHEET CU-102B FOR CONTINUATION OF 4" SS BELOW GRADE.



PN
N

1 OVERALL FIRST LEVEL PLUMBING PLAN

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

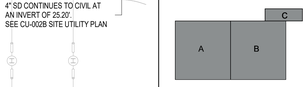
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KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	KMN
DRAWN BY:	MA
DESIGNED BY:	RSS

PROJECT NUMBER:
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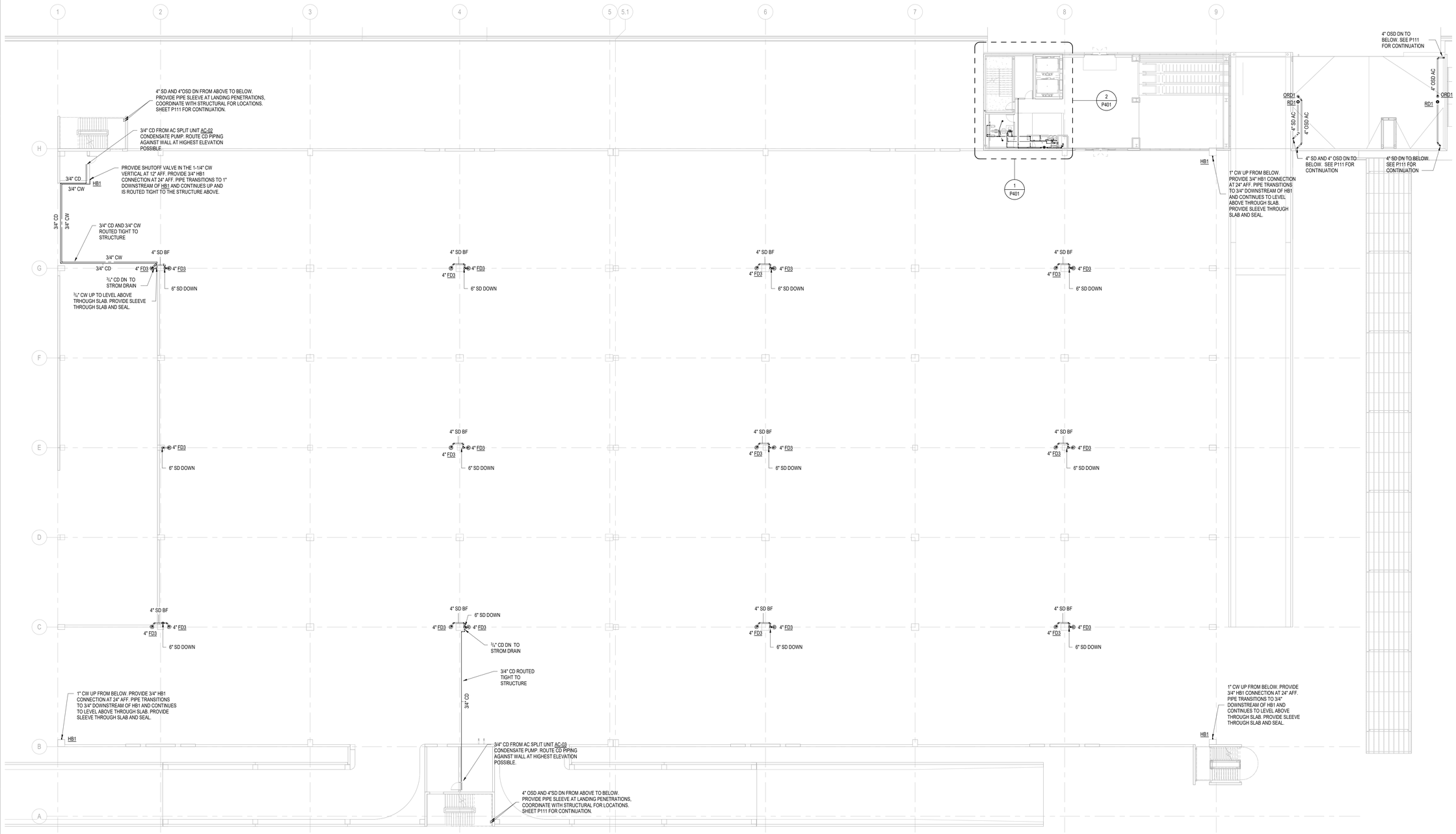
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SHEET ID:
P111

PROJECT STATUS:
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PN

N

1 OVERALL SECOND LEVEL PLUMBING PLAN

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
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DRAWN BY:	MA
DESIGNED BY:	RSS

PROJECT NUMBER:
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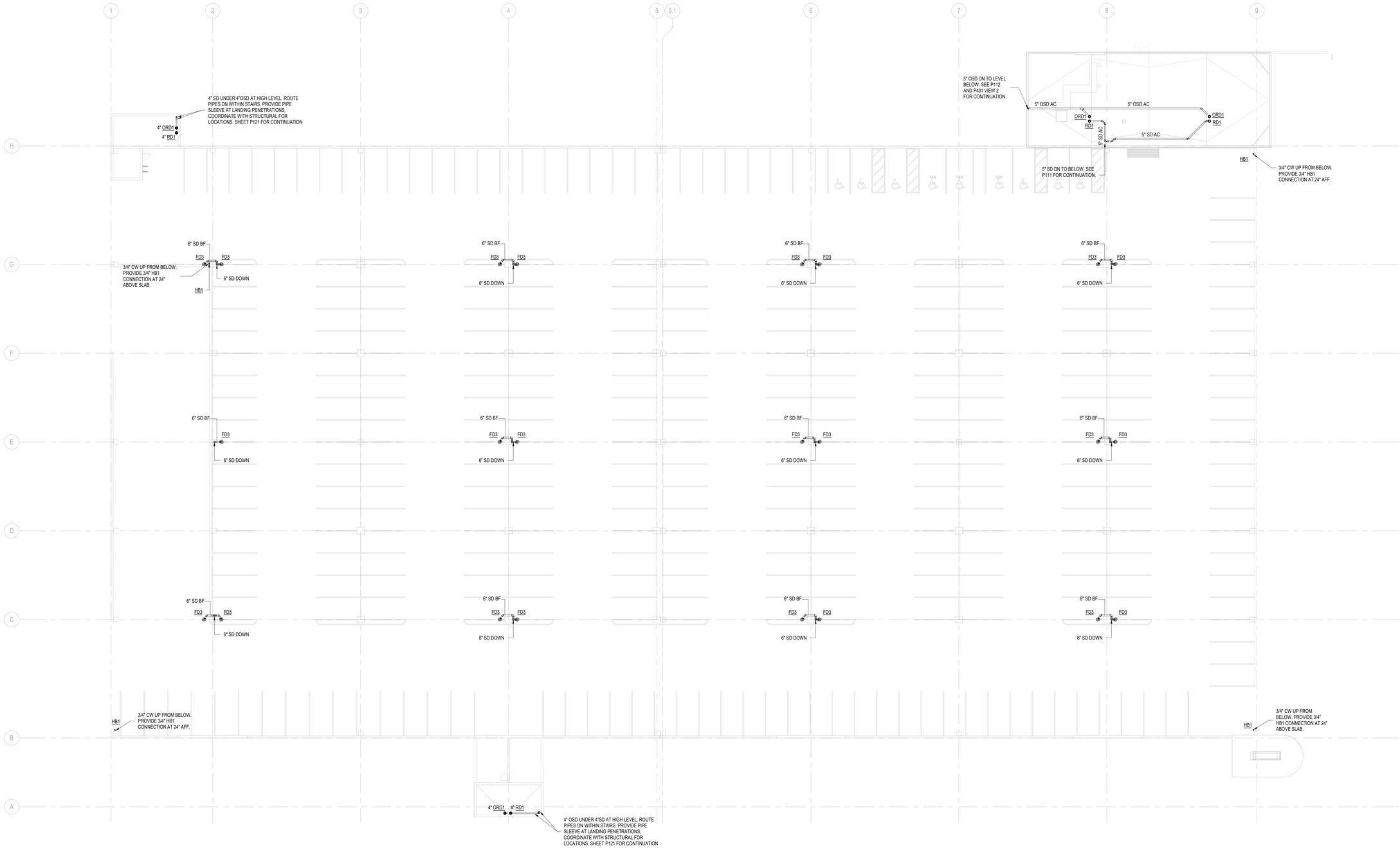
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SHEET ID:
P121

PROJECT STATUS:
100% BID SET

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PN

N

1 OVERALL THIRD LEVEL PLUMBING PLAN

SCALE: 1/16" = 1'-0"

8 0 8 16

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

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KEY PLAN

C
A B

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DESIGNED BY: RSS
PROJECT NUMBER:
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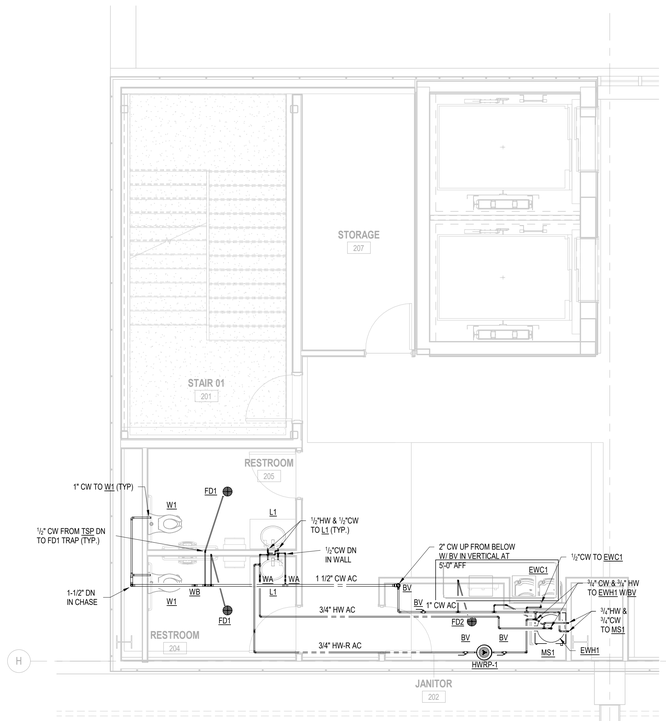
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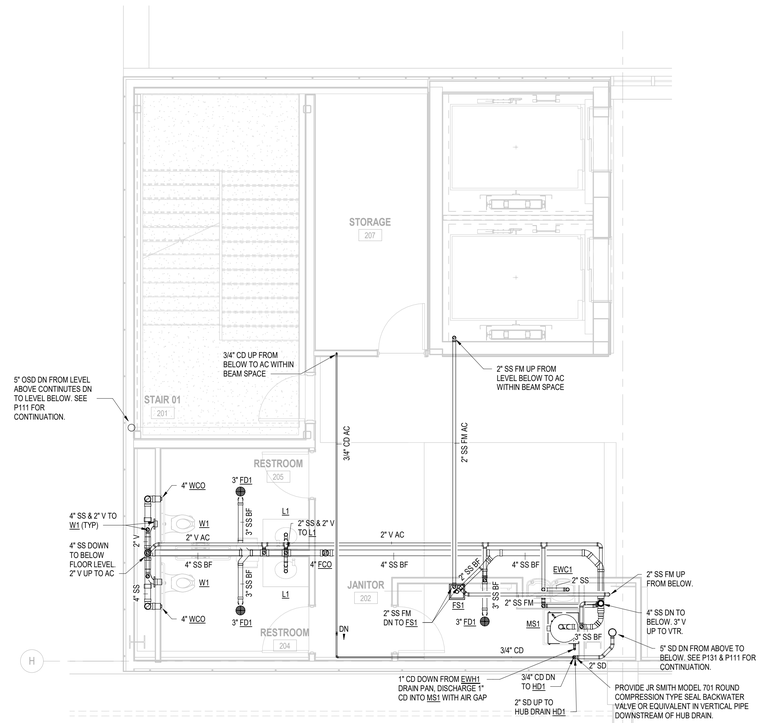
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1 ENLARGED SECOND LEVEL PLUMBING PLAN - PRESSURE PIPING

SCALE: 1/4" = 1'-0"



2 ENLARGED SECOND LEVEL PLUMBING PLAN - DWV

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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KEY PLAN



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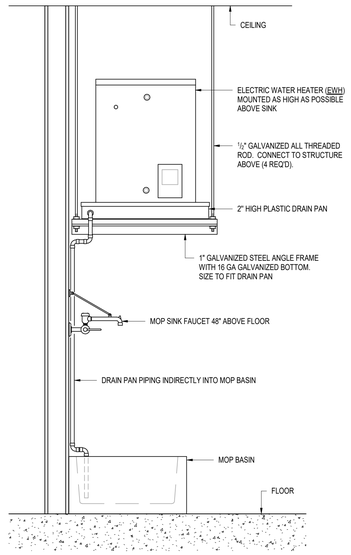
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PLUMBING ENLARGED PLANS

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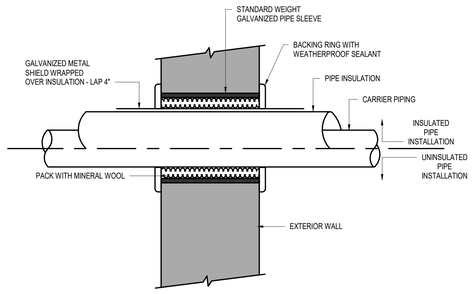
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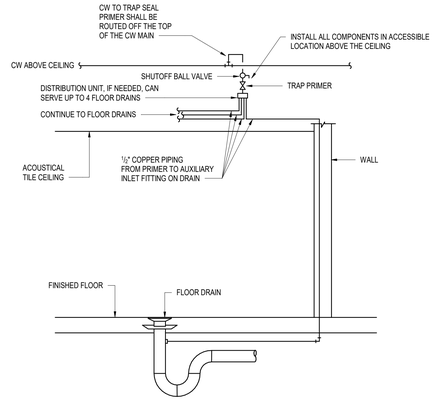
1 WATER HEATER ABOVE JANITOR SINK DETAIL

SCALE: N.T.S.



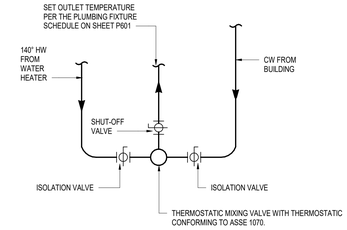
2 PIPING WALL SLEEVE DETAIL

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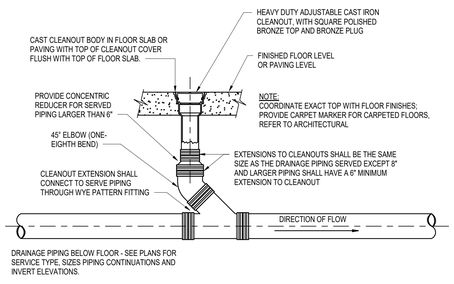
3 TRAP PRIMER DETAIL

SCALE: N.T.S.



4 POINT OF USE THERMOSTATIC MIXING VALVE

SCALE: N.T.S.



5 FLOOR CLEANOUT (FCO) DETAIL

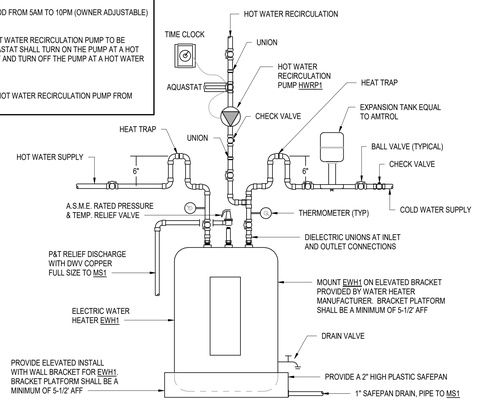
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HOT WATER RECIRCULATION CONTROLS:

TIME CLOCK SETTING: OCCUPIED PERIOD FROM 5AM TO 10PM (OWNER ADJUSTABLE)

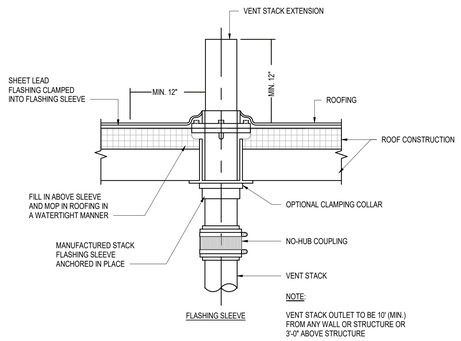
OCCUPIED PERIOD:
THE TIME CLOCK SHALL ALLOW THE HOT WATER RECIRCULATION PUMP TO BE CONTROLLED BY THE AQUASTAT. AQUASTAT SHALL TURN ON THE PUMP AT A HOT WATER RETURN TEMPERATURE OF 95°F AND TURN OFF THE PUMP AT A HOT WATER RETURN TEMPERATURE OF 104°F.

OCCUPIED PERIOD:
THE TIME CLOCK SHALL PROHIBIT THE HOT WATER RECIRCULATION PUMP FROM OPERATING.



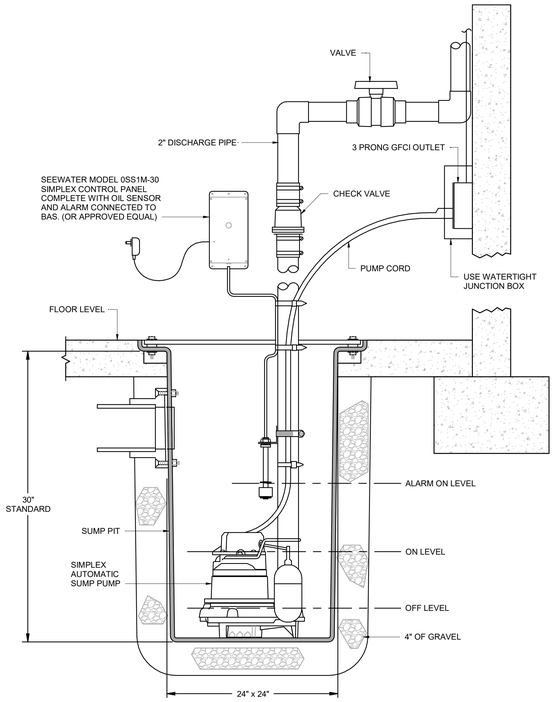
6 ELEC. WATER HEATER PIPING DETAIL

SCALE: N.T.S.



7 VENT THRU ROOF DETAIL

SCALE: N.T.S.



8 ELEVATOR AND ESCALATOR SUMP PUMP DETAIL

SCALE: N.T.S.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	KMN
DRAWN BY:	MA
DESIGNED BY:	RSS
PROJECT NUMBER:	**2003-0070-006**

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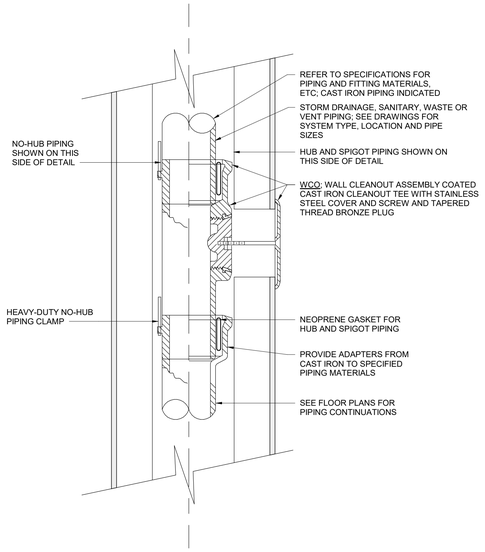
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PLUMBING DETAILS

SHEET ID:
P501

PROJECT STATUS:
100% BID SET

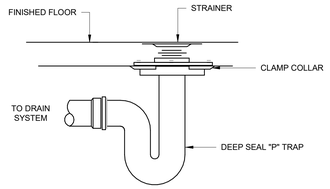
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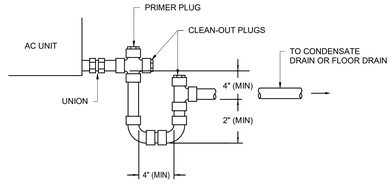
1 WALL CLEANOUT (WCO) ASSEMBLY

SCALE: N.T.S.



2 FLOOR DRAIN DETAIL

SCALE: N.T.S.

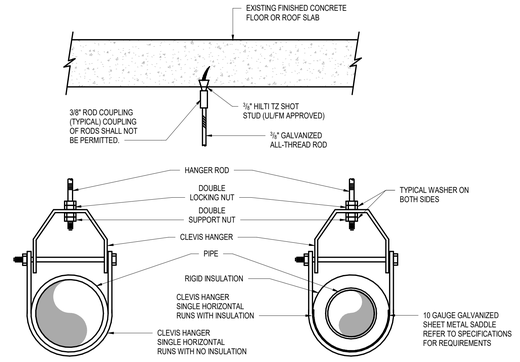


NOTES:

1. CONDENSATE DRAIN LINE SHALL BE THE SAME SIZE AS THE EQUIPMENT OUTLET SIZE FROM MANUFACTURER.
2. CONDENSATE PANS SHALL BE INSTALLED WITH ADEQUATE PITCH TO ENSURE POSITIVE DRAINAGE OF ACCUMULATED CONDENSATE.

3 CONDENSATE DRAIN DETAIL

SCALE: N.T.S.



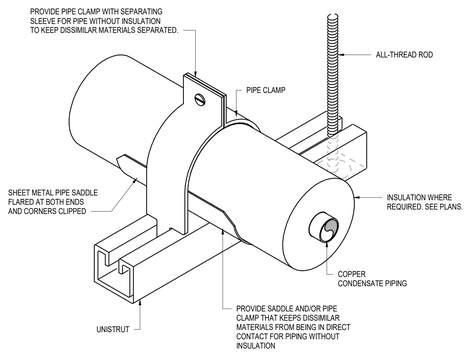
HANGER ROD SCHEDULE			
PIPE SIZE	ROD SIZE	PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.	4" THRU 5"	5/8" DIA.
2 1/2" THRU 3"	1/2" DIA.	6" THRU 12"	7/8" DIA.
NO COUPLING OF RODS IS PERMITTED!			

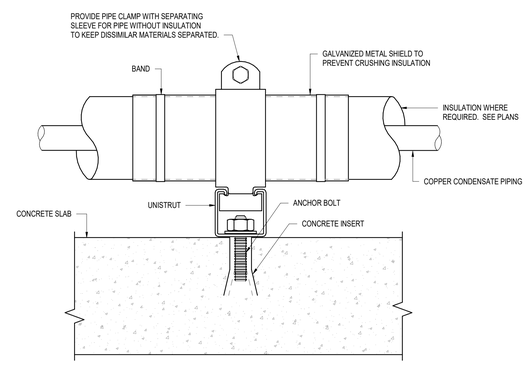
NOTES:
INSTALLATION AND MATERIALS SHALL MEET WITH FEDERAL, STATE AND LOCAL CODE REQUIREMENTS, INCLUDING N.F.P.A. 99

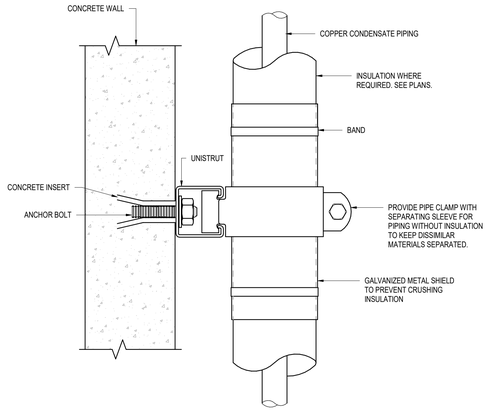
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. INSTALLATION OF SHOT STUDS INTO CONCRETE CONSTRUCTION SHALL HAVE THE APPROVAL AND REVIEW OF THE STRUCTURAL ENGINEER.

4 CLEVIS PIPE HANGER DETAIL

SCALE: N.T.S.







5 AC INSULATED CONDENSATE PIPE MOUNTING DETAIL (UNISTRUT)

SCALE: N.T.S.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	KMN
DRAWN BY:	MA
DESIGNED BY:	RSS

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
PLUMBING DETAILS

SHEET ID:
P502

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100% BID SET

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FIXTURE AND EQUIPMENT SCHEDULE

DESIGNATION	DESCRIPTION	SANITARY	VENT	HOT	COLD	TEPID	FIXTURE - MAN/MOD	SEAT	FLUSH VALVE MODEL	CARRIER MODEL	FAUCET - MAN/MOD	SUPPLIES	DRAIN ASSEMBLY	REMARKS
W1	ADA WALL MTD. WATER CLOSET	4"	2"	-	1"	-	SLOAN - ST-2459	KOHLER K-4670-C-0	ECOS 111-1.6-HW	ZURN Z1203-N / Z1203-ND4	- -	-	-	ELONGATED BOWL, EXPOSED HARDWIRED SENSOR FLUSH VALVE, MOUNT SO TOP OF BOWL IS 17" AFF, ADA COMPLIANT.
L1	ADA WALL-HUNG LAVATORY	2"	2"	1/2"	1/2"	-	AMERICAN STANDARD - LUCERN	-	-	-	SLOAN - EFX-200-HLP/PLG-TEE-CP-O.5GPM-MLM-IR-FC T	PPP - MM-500	McGUIRE PW 2125	SINGLE CENTER HOLE, SENSOR FAUCET, SLOAN ETF-460A 1-1/2" CHROME PLATED BRASS STRAINER.
MS1	FLOOR MOUNT CORNER TYPE TERRAZZO MOP BASIN W/DROP FRONT	3"	2"	3/4"	3/4"	-	FIAT - TSB-3000	-	-	-	T&S BRASS - B-0665-BSTP POLISHED CHROME PLATED	-	P-TRAP DEEP SEAL	24"x24", 12" DEEP WITH 6" DROP FRONT. PROVIDE WITH INTEGRAL SS DRAIN ASSEMBLY AND STRAINER PLATE. SS EDGE CAPS ON ALL SIDES, TWO SS WALL GUARDS. SMITH 72223 3" CAST IRON DEEP SEAL TRAP.
FD1	FLOOR DRAIN	AS NOTED	AS NOTED	-	-	-	MIFAB - F1000-C-S	-	-	-	-	-	P-TRAP DEEP SEAL	6" ROUND SS TOP, PROVIDE WITH SMITH 72223 3" CAST IRON DEEP SEAL TRAP & QUICK DRAIN CONNECTOR FOR SERVICE WEIGHT CAST IRON AND RECTORSEAL SURESEAL TRAP GUARD.
FD2	FLOOR DRAIN	AS NOTED	AS NOTED	-	-	-	JAY R SMITH - 2110Y-G-L-B	-	-	-	-	-	-	8" ROUND NB TOP, SERVICE WEIGHT GASKET, SEDIMENT BUCKET, MITH 72223 3" CAST IRON DEEP SEAL TRAP & QUICK DRAIN CONNECTOR FOR SERVICE WEIGHT CAST IRON AND RECTORSEAL SURESEAL TRAP GUARD.
FD3	FLOOR DRAIN	AS NOTED	AS NOTED	-	-	-	ZURN - Z536	-	-	-	-	-	-	15" DIAMETER HEAVY-DUTY PARKING DECK FLOOR DRAIN, WITH SUPPORT FLANGE, DURA COATED CAST IRON BODY, BOTTOM OUTLET, HEAVY-DUTY GASKETED DRAIN SUPPORT FLANGE, WITH HEAVY-DUTY GRATE.
HD1	HUB DRAIN	AS NOTED	AS NOTED	-	-	-	ZURN - Z1870	-	-	-	-	-	-	STAINLESS STEEL HUB DRAIN, 3" INLET WITH 2" NO-HUB OUTLET. PROVIDE WITH BACKWATER VALVE. INSTALL TOP OF DRAIN AT 12" AFF
FCO	FLOOR CLEANOUT	AS NOTED	-	-	-	-	JAY R SMITH - 4020-4034	-	-	-	-	-	-	ADJUSTABLE COATED CAST IRON W/ POLISHED STAINLESS STEEL TOP, NO-HUB CONNECTION.
WCO	WALL CLEANOUT	AS NOTED	-	-	-	-	ZURN - Z1446	-	-	-	-	-	-	DURA-COATED CAST IRON BODY WITH COUNTER-SUNK PLUG. PROVIDE WITH SS ACCESS COVER.
EWC1	DUAL ELECTRIC WATER COOLER W/ BOTTLE FILLER	2"	2"	-	1/2"	-	ELKAY - LZSTL8WSLP	-	-	ZURN - Z1225	-	-	McGUIRE 8912-C	BI-LEVEL, BOTTLE FILLER, FILTERED AND REFRIGERATED.
HB-1	HOSE BIBB	-	-	-	3/4"	-	ZURN Z1343	-	-	-	-	-	-	BRONZE LOOSE KEY HOSE BIBB, WITH INTEGRAL ASSE 1011 VACUUM BREAKER. VERTICAL 3/4" CONNECTION.
TD1	TRENCH DRAIN	AS NOTED	AS NOTED	-	-	-	WATTS DX20-CO-GDI-B6T	-	-	-	-	-	-	6" WIDE BY 20' LONG. SYSTEM SHALL BE IN CLASS C LOAD RATING. SYSTEM SHALL INCLUDE FRAME CONNECTORS, GRATE LOCKDOWNS, AND CONSTRUCTION COVERS. INSTALLATION TO BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTION AND 2018 NORTH CAROLINA STATE BUILDING CODE: BUILDING CODE.
DSN	DOWNSPOUT NOZZLE	AS NOTED	-	-	-	-	ZURN Z199-DC	-	-	-	-	-	-	ROUND FABRICATED STAINLESS STEEL FRAME WITH FABRICATED SCURED PERFORATED STAINLESS STEEL HINGED STRAINER
RD	ROOF DRAIN	SEE PLANS	-	-	-	-	SMITH 1010Y-L-C-U	-	-	-	-	-	-	ADJUSTABLE 15-1/4" DIAMETER ROOD DRAIN WITH BOTTOM NO-HUB OUTLET, UNDERDECK CLAMP, VANDAL PROOF POLYETHYLENE DOME. SEE PLANS FOR OUTLET SIZE REQUIRED.
ORD	OVERFLOW ROOF DRAIN	SEE PLANS	-	-	-	-	SMITH 1045Y-WD02-L-C	-	-	-	-	-	-	ADJUSTABLE 15-1/4" DIAMETER ROOD DRAIN WITH 2" EXTERIOR WATER DAM, BOTTOM NO-HUB OUTLET, UNDERDECK CLAMP, VANDAL PROOF POLYETHYLENE DOME. SEE PLANS FOR OUTLET SIZE REQUIRED.
FS1	FLOOR SINK	AS NOTED	-	-	-	-	ZURN - Z1902-P-33	-	-	-	-	-	-	FLOOR SINK, SEE PLANS FOR SIZE OUTLET, MOUNT FLOOR SINK FROM WALL OR ON STAND APPROXIMATELY 3' AFF. PROVIDE WITH ABOVE GRADE DEEP SEAL CAST IRON TRAP WITH ACCESIBLE CO PLUG. PROVIDE WITH WHITE A.R.C. ANTI-SPLASH BOTTOM DOME STRAINER AND RECTORSEAL SURESEAL TRAP GUARD

PLUMBING PUMP SCHEDULE

MARK	SERVICE	CONTROL ON	CONTROL OFF	GPM	TDH	PSI	HP	VOLTAGE	PHASE	HERTZ	NOTES
HWRP-1	RECIRC.	AQUASTAT (95 °F)	AQUASTAT (104 °F)	0-16	0-18'	125	1/16	120	SINGLE	60	1-2
SP-1 THRU SP-3	SUMP	HI LEVEL	LO LEVEL	50	40	17.3	1	208	SINGLE	60	3

NOTES:

1. ALL CAST IRON CONSTRUCTION. BASIS OF DESIGN: TACO 0015e3-2F4 . ALTERNATE MANUFACTURERS: GRUNDFOS, B&G, WATTS, ARMSTRONG.
2. HWRP-1 SHALL BE OPERATED VIA TIMER AND AQUASTAT COMPATIBLE WITH PUMP MANUFACTURER. TIME CLOCK TO BE SET DURING HANDOVER. COORDINATE WIRING CONNECTIONS BETWEEN COMPONENTS WITH ELECTRICAL CONTRACTOR.
3. PROVIDE NEMA 4X SIMPLEX CONTROL PANEL WITH ELECTRICAL ALTERNATOR, ALARM, AND (2) 10-0330 VARIABLE LEVEL FLOAT CONTROL SWITCHES. PROVIDE CHECK VALVE (UNICHECK) AND BALL VALVE IN DISCHARGE PIPING FROM PUMP. INTEGRATE HIGH-LEVEL ALARM WITH BAS.

ELECTRIC WATER HEATER SCHEDULE

MARK	MODEL	LOCATION	STORAGE CAP GPH	REC. GPH/ 1st HOUR	EWT DEG F	LWT DEG F	TEMP RISE	ELEMENT KW	INLET SIZE	OUTLET SIZE	ELECT V/PH/HZ	SEE NOTES
EWH1	DEL-20	JANITOR 202	20	30 / 80	60	140	80	6	3/4"	3/4"	208/1/60	1-3

NOTES:

1. AO SMITH IS BASIS OF DESIGN MANUFACTURER, EQUAL COMMERCIAL WATER HEATERS. WHICH MEET OR EXCEED SPECIFIED CHARACTERISTICS AND MANUFACTURERS WRITTEN WARRANTY, MANUFACTURED BY RHEEM, LOCHINVAR, OR GE MAY BE SUBMITTED FOR PRIOR APPROVAL. PRODUCT DATA SUBMITTAL SHALL INCLUDE FULL MANUFACTURERS WARRANTY INFORMATION.
2. INSTALL AS INDICATED PER MANUFACTURERS RECOMMENDATIONS ON ELEVATED WALL MOUNTED BRACKET. MOUNT BRACKET AT A MINIMUM OF 5-1/2' AFF. SUBMIT BRACKET FOR APPROVAL.
3. (1) 6.0 KW HEATING ELEMENT.

WATER HAMMER ARRESTER SCHEDULE

MARK	ASSE RATING	FIXTURE UNITS CAPACITY	MINIMUM PIPE SIZE	MODEL NUMBER	NOTES
WAA	AA	1 - 3	1/2"	CL-AA-NPB	1,2,3
WA	A	1 - 11	1/2"	CL-A-NPB	1,2,3
WB	B	12 - 30	3/4"	CL-B-NPB	1,2,3

NOTES:

1. PROVIDE ARRESTERS ETC., AS NOTED HEREIN AND PER STANDARD ASSE-1010 AT EACH FIXTURE GROUP AND INDIVIDUAL FIXTURE. ARRESTERS SHALL BE AS MANUFACTURED BY MIFAB, OR APPROVED EQUAL. INSTALL ARRESTERS WHERE SHOWN, IF INDICATED. ARRESTERS MAY NOT BE GRAPHICALLY INDICATED. INSTALL ARRESTERS, ETC., ABOVE CEILINGS UNLESS OTHERWISE NOTED.
2. ARRESTERS SHALL BE PISTON TYPE. ARRESTERS SHALL BE CONSTRUCTED OF THICK WALL, HARD DRAWN "K" COPPER BODY.
3. PROVIDE BALL VALVE (BV) BETWEEN SUPPLY PIPE & ARRESTER. ARRESTERS AND BV SHALL BE ACCESSIBLE. PROVIDE AP WHERE REQUIRED TO ACHIEVE ACCESS. ACCESS PANELS SHALL BE AS MANUFACTURED BY MIFAB OR APPROVED EQUAL, SERIES CAD-DW, CAD-PL OR MPFR FOR WALLS OR CEILINGS.

TRAP SEAL PRIMER AND DISTRIBUTION UNIT SCHEDULE

MARK	DRAINS	FIXTURE UNITS CAPACITY	INLET NPT	OUTLET NPT	NOTES
TSP	1	1 - 11	3/4"	5005	1,2,3

NOTES:

1. ALL FLOOR DRAINS (EXCEPT MOP BASINS AND FLOOR SINKS) SHALL BE PRIMED. INSTALL ALL COMPONENTS OF PRIMING SYSTEM IN STRICT ACCORDANCE WITH THE 2024 NORTH CAROLINA STATE BUILDING CODE: PLUMBING CODE. DRAINS SHALL BE PRIMED VIA PRIMING VALVES AS INDICATED OR AS REQUIRED WHERE NOT SHOWN. PRIMERS SHALL BE ACTIVATED BY A PRESSURE DROP OF 3 PSI MINIMUM. PRIMERS SHALL BE TESTED AND CERTIFIED TO ASSE STANDARD 1018 AND LISTED WITH IAPMO. INSTALL IN STRICT COMPLIANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS. INSTALL PRIMERS IN EASILY ACCESSIBLE LOCATIONS. PRIMER SHALL NOT REQUIRE ANY FIELD ADJUSTMENTS.
2. UNITS SHALL BE CAPABLE OF PROPER FUNCTION WHEN INSTALLED OUT OF PLUMB OR LEVEL. A METERED AMOUNT OF WATER SHALL BE DISTRIBUTED TO SINGLE AND MULTIPLE DRAINS EQUALLY AND UNIFORMLY. PROVIDE WITH REMOVABLE FILTER SCREEN. OPERATING RANGE 20 PSI TO 80 PSI.
3. PRIMER OPERATION SHALL BE VERIFIABLE VIA INSPECTION THROUGH PORTS AT THE DISCHARGE SECTION WHICH PASS THROUGH THE ENTIRE DEVICE TO ALLOW LIGHT TO PASS THROUGH TO EASE VERIFICATION OF OPERATION. SECURE AND PROTECT PIPING FROM DAMAGE AND THE ENTRANCE OF DEBRIS DURING CONSTRUCTION. THOROUGHLY FLUSH ALL PIPING AND PRE-CYCLE PRIMERS AT LEAST SIX TIMES AND VERIFY PROPER OPERTION.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: KMN
DRAWN BY: MA
DESIGNED BY: RSS
PROJECT NUMBER:
2003-0070-006

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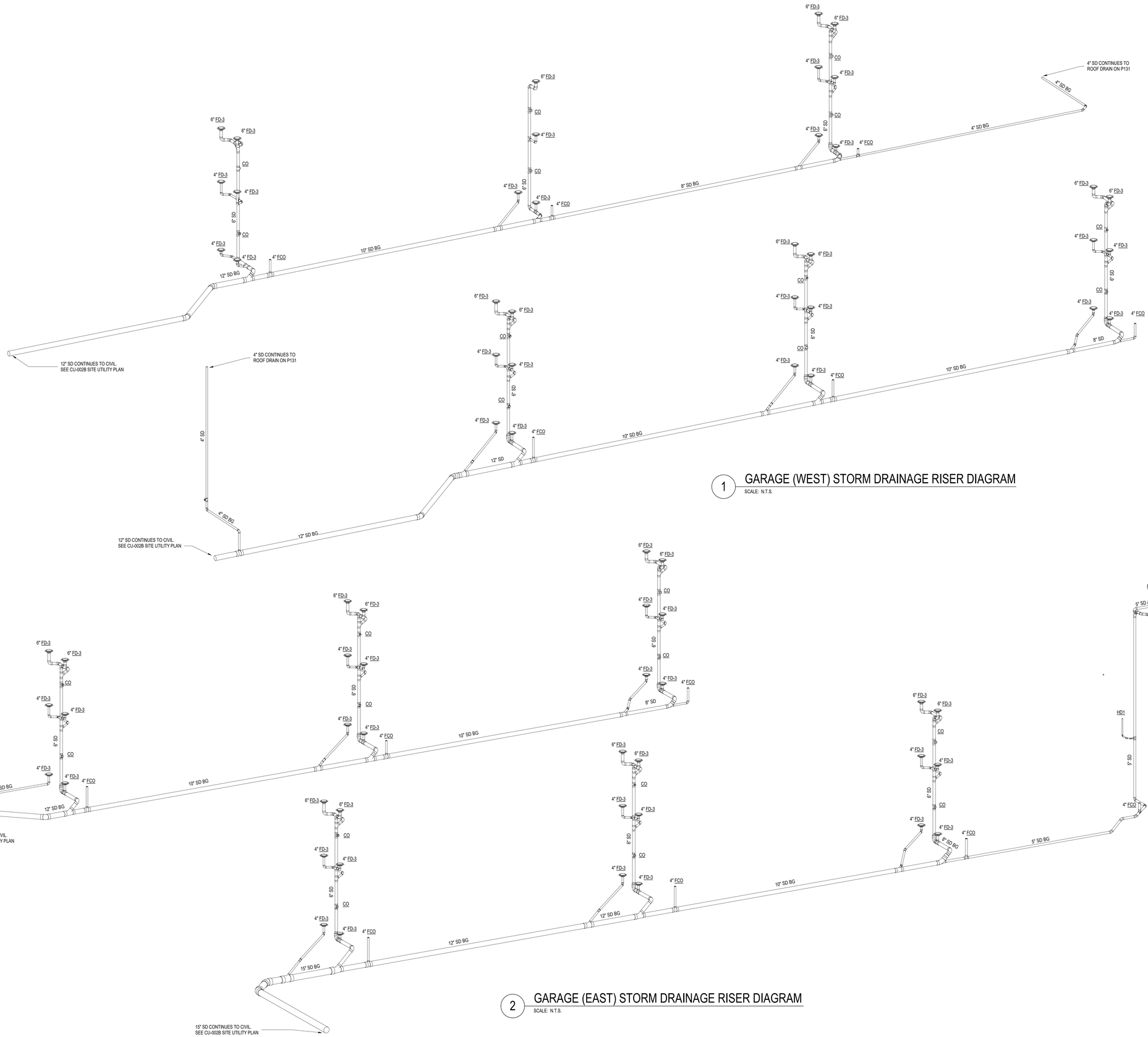
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PLUMBING SCHEDULES

SHEET ID:
P601

PROJECT STATUS:
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1 GARAGE (WEST) STORM DRAINAGE RISER DIAGRAM

SCALE: N.T.S.

2 GARAGE (EAST) STORM DRAINAGE RISER DIAGRAM

SCALE: N.T.S.

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PLUMBING GARAGE STORM DRAINAGE RISER DIAGRAMS

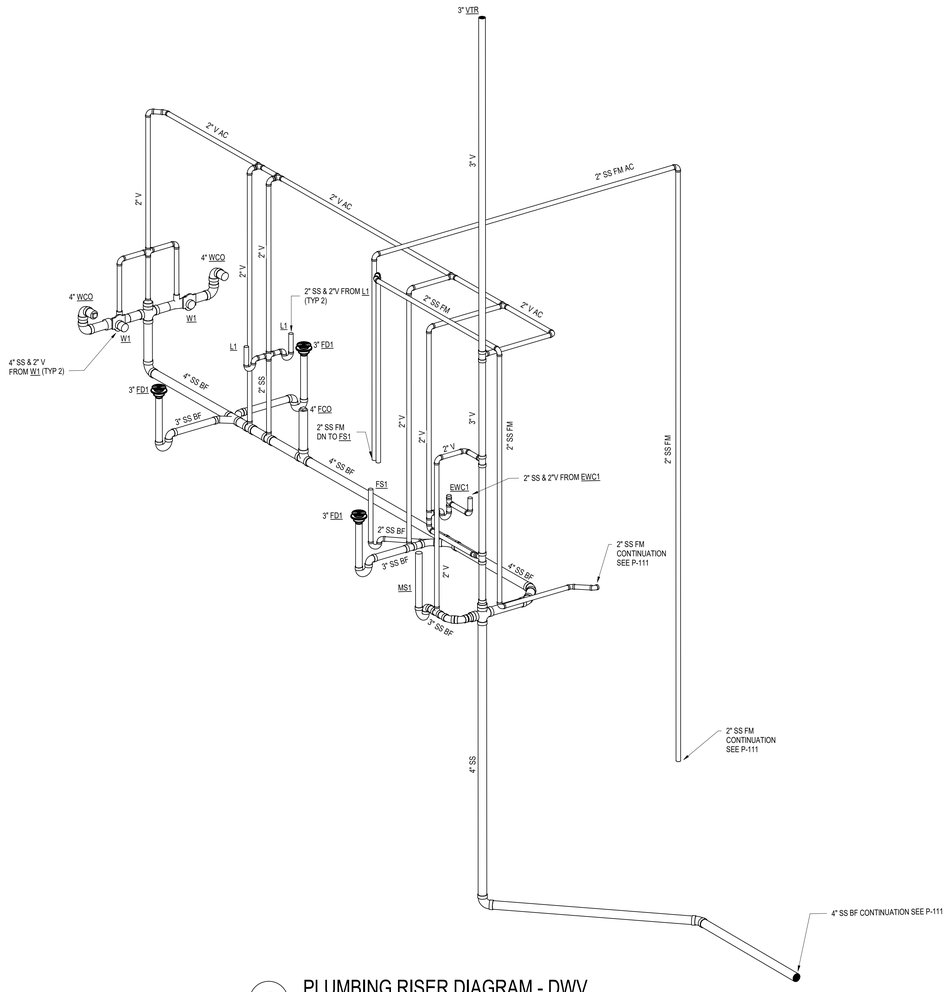
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P701

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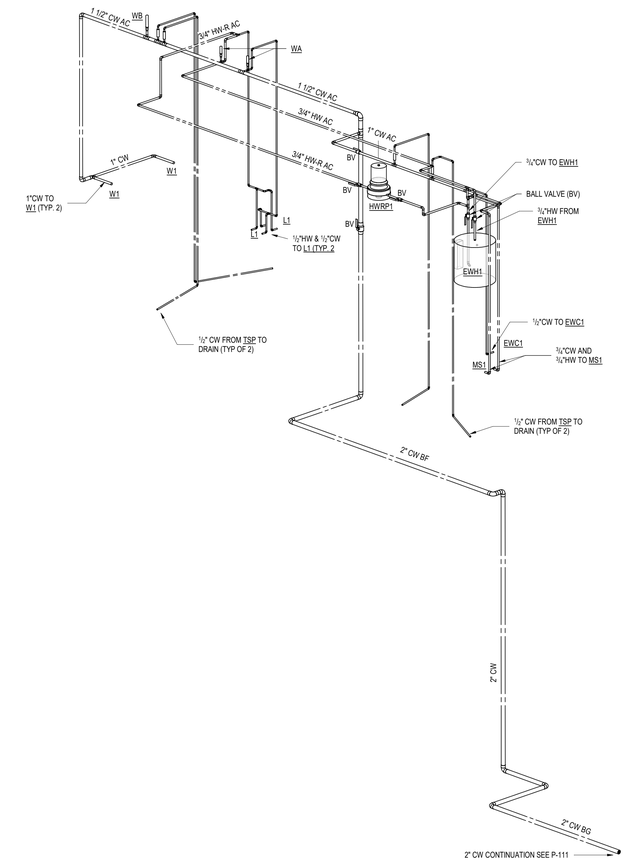
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1 PLUMBING RISER DIAGRAM - DWV

SCALE: N.T.S.



2 PLUMBING RISER DIAGRAM - PRESSURE PIPE

SCALE: N.T.S.

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ILM

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WILMINGTON, NC 28405

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2003-0070-006

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SHEET TITLE:
PLUMBING RISER DIAGRAMS

SHEET ID:
P702

PROJECT STATUS:
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GENERAL MECHANICAL SYMBOLS

- REVISION NUMBER - SHOWN ON PLANS
- POINT WHERE NEW CONNECTS TO EXISTING
- DISCONNECT SYMBOL
- XX / XXXX — NUMBER OF DETAIL ON SHEET / NUMBER OF SHEET WHERE DETAIL APPEARS
- 0 — KEYNOTE
- CONTINUATION SYMBOL
- Room / 5 — ROOM NAME AND NUMBER
- EXISTING CONSTRUCTION
- AREA NOT IN CONTRACT
- 2" — PIPE SIZE TAG (DIAMETER)
- ABOVE GROUND PIPING
- 1/8" / 12" SLOPE — PIPE SLOPE TAG
- BELOW GROUND PIPING
- INVERT: -105' - 1" — PIPE INVERT ELEVATION TAG
- (E) — EXISTING PIPE TAG
- PIPING BEING DEMOLISHED

ABBREVIATIONS

(E)	EXISTING
ABV	ABOVE
AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACS	AIR CONDITIONING SYSTEM
ACU	AIR CONDITIONING UNIT
ADJ	ADJUSTABLE
AF	AIRFOIL
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AMB	AMBIENT
AS	AIR SEPARATOR
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BD	BELT DRIVE
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINED
BID	BAGGAGE INFORMATION DISPLAY
BLDG	BUILDING
BTUH	BRITISH THERMAL UNIT/HOUR
C	CONDENSATE
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CD	CONDENSATE DRAIN
CDL	CONDENSATE DRAIN LINE
CFF	CAPPED FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWP	CHILLED WATER PUMP
CHWR	CHILLER WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CONC	CONCRETE
CONT	CONTINUOUS
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
CS	CURRENT SENSOR
CT	CONTROL TRANSFORMER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DB	DRY BULB
DD	DIRECT DRIVE
DIFF	DIFFUSER
DL	DOOR LOUVER
DMPR	DAMPER
DN	DOWN
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DTS	DUCT TEMPERATURE SENSOR
DWDI	DOUBLE WIDTH, DOUBLE INLET
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ELEC	ELECTRICAL
ENT	ENTERING
EQ	EQUAL
ERU	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
FC	FORWARD CURVED
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FF	FINAL FILTER
FG	FLOOR GRILLE
FID	FLIGHT INFORMATION DISPLAY
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE CONNECTION
FLR	FLOOR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPM	FEET PER MINUTE
FR	FLOOR RETURN
FT	FAN TERMINAL
FTR	FINNED TUBE RADIATION
FTU	FAN POWERED VAV TERMINAL UNIT
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GH	GRAVITY HOOD
GID	GATE INFORMATION DISPLAY
GPM	GALLONS PER MINUTE
GUV	GRAVITY UNIT VENTILATOR
H	HUMIDIFIER
HC	HEATING COIL
HP	HORSEPOWER
HRC	HEAT RECOVERY UNIT
HVAC	HEATING VENTILATION AND AIR
HVU	HEATING AND VENTILATING UNIT
HWC	HOT WATER COIL
IN WC	INCH OF WATER COLUMN
IN WG	INCH OF WATER GAUGE
IRH	INFRARED HEATER
ISOTR	ISOLATION TRANSFORMER
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LD	LINEAR DIFFUSER
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMP
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MIN	MINIMUM
MUFID	MULTI-USER FLIGHT INFORMATION DISPLAY
MZ	MULTI-ZONE
NC	NOISE CRITERIA
NEC	NATIONAL ELECTRIC CODE (NFPA-70)
No	NUMBER
OAHU	OUTSIDE AIR HANDLING UNIT
OPNG	OPENING
P	PUMP
PBB	PASSENGER BOARDING BRIDGE
PD	PRESSURE DROP
PF	PRE-FILTER
PH	PREHEAT COIL
PHWP	PRIMARY HOT WATER PUMP
PRV	PRESSURE REDUCING VALVE
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
QTY	QUANTITY
RAF	RETURN AIR FAN
RELA	RELIEF AIR
REQD	REQUIRED
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RLA	RUNNING LOAD AMP
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RS	REFRIGERANT SENSOR
RTS	ROOM TEMPERATURE SENSOR
RTU	ROOF TOP UNIT
S	SMOKE DETECTOR
SA	SOUND ATTENUATOR
SCHWP	SECONDARY CHILLED WATER PUMP
SF	SUPPLY FAN
SF	SQUARE FEET
SHWP	SECONDARY HOT WATER PUMP
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
STR	STARTER
SW	SWITCH
T	TEMPERATURE SENSOR
TA	TRANSFER AIR
TAO	TRANSFER AIR OPENING
TEFC	TOTALLY ENCLOSED FAN COOLED
TELE	TELEPHONE
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
TOAC	TRANSFER OPENING ABOVE CEILING
TSTAT	THERMOSTAT
TUX	TERMINAL UNIT CONTROLLER
TYP	TYPICAL
UH	UNIT HEATER
UTR	UP THROUGH ROOF
V-PH-HZ	VOLTS-PHASE-HERTZ
VAF	VENTILATION AIR FAN
VAFC	VENTILATION AIR FAN CONTROLLER
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VP	VACUUM PUMP
VTR	VENT THRU ROOF
W	WATTS
WB	WET BULB
WHP	WATER SOURCE HEAT PUMP
WP	WEATHER PROOF
WWF	WOVEN WIRE FABRIC

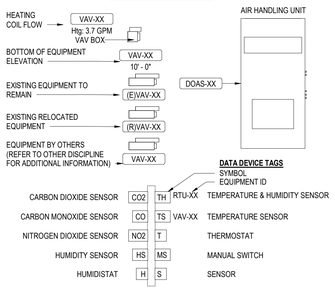
HVAC SYMBOLS

- 16"X8" — SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
- 16"Ø — ROUND DUCT SIZE TAG (DIAMETER)
- (E) — EXISTING DUCT TAG
- DUCT BEING DEMOLISHED
- S/A SUPPLY AIR — SUPPLY AIR
- O/A OUTSIDE AIR — OUTSIDE AIR
- R/A RETURN AIR — RETURN AIR
- T/A TRANSFER AIR — TRANSFER AIR
- E/A EXHAUST AIR — EXHAUST AIR
- L/A RELIEF AIR — RELIEF AIR
- GE/A GREASE EXHAUST AIR — GREASE EXHAUST AIR
- DROP — RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — ROUND SUPPLY/OUTSIDE AIR DUCT RISE
- DROP — RECTANGULAR RETURN/TRANSFER AIR DUCT RISE
- DROP — ROUND RETURN/TRANSFER AIR DUCT RISE
- DROP — RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE
- DROP — ROUND EXHAUST/RELIEF AIR DUCT RISE

GRILLES, REGISTERS & DIFFUSERS TAG

- 400 CFM / 10"Ø — 3-CONE DIFFUSER
- 500 CFM / 12"X10" — LOUVERED GRILLE
- 500 CFM / 12"X10" — EGGCRATE RETURN GRILLE

MECHANICAL EQUIPMENT TAGS



DATA DEVICE TAGS

SYMBOL / EQUIPMENT ID

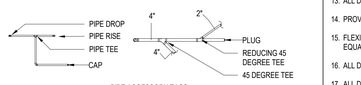
CARBON DIOXIDE SENSOR	CO2	TH	RTU-XX	TEMPERATURE & HUMIDITY SENSOR
CARBON MONOXIDE SENSOR	CO	TS	VAV-XX	TEMPERATURE SENSOR
NITROGEN DIOXIDE SENSOR	NO2	T		THERMOSTAT
HUMIDITY SENSOR	HS	MS		MANUAL SWITCH
HUMIDISTAT	H	S		SENSOR

DAMPER TAGS

FIRE DAMPER	F	B	MANUAL BALANCING DAMPER
SMOKE DAMPER	S	D	BACKDRAFT DAMPER
MOTORIZED DAMPER	M	C	COMBINATION FIRE/SMOKE DAMPER

PIPING SYMBOLS

CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CD	CONDENSATE DRAINAGE
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
GWR	GEOTHERMAL WATER RETURN
GWS	GEOTHERMAL WATER SUPPLY
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
G	NATURAL GAS
PG	PROPANE GAS
REF-L	REFRIGERANT-LIQUID
REF-S	REFRIGERANT-SUCTION
REF-HG	REFRIGERANT-HOT GAS
STM	STEAM
CDR	CONDENSATE RETURN



PIPE ACCESSORY TAGS

- 2" DOM. WM — DOMESTIC WATER METER
- 2" BALANCING — BALANCING VALVE
- 2" SHUTOFF — 1/4 TURN BALL VALVE
- 2" CHECK — CHECK VALVE
- 2" TMV — 3-WAY MIXING VALVE
- 2" M-CNTRL — MOTORIZED CONTROL VALVE
- 2" 3-WAY CNTRL — 3 WAY MOTORIZED CONTROL VALVE
- 2" REGULATOR — PRESSURE REGULATING VALVE
- 2" BUTTERFLY — BUTTERFLY VALVE

GENERAL NOTES

1. PROVIDE COMPLETE PRODUCT DATA (SIZE, WEIGHT, OPERATING CHARACTERISTICS, WIRING DIAGRAMS, ETC.) FOR ALL EQUIPMENT AND DEVICES SPECIFIED ON THE DRAWINGS.
2. ALL HVAC SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL ORDINANCES, 2024 NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS, 2024 NORTH CAROLINA STATE MECHANICAL AND PLUMBING CODE AND THE NATIONAL ELECTRICAL CODE AND STATE BUILDING CODE.
3. SMOKE DETECTORS ARE FURNISHED BY DIVISION 26 AND INSTALLED IN DUCTWORK AND AHU's BY DIVISION 23.
4. PROVIDE OFFSETS IN NEW DUCT AND PIPING SYSTEMS AS REQUIRED TO FACILITATE INSTALLATION OF NEW WORK AT NO ADDITIONAL COST TO THE CONTRACT.
5. PROVIDE 45 DEGREE ENTRANCE AND EXIT TAPS AT DUCT BRANCH CONNECTIONS.
6. ALL NON-GALVANIZED SUPPORTS AND HANGERS FOR DUCTWORK, PIPING, AND EQUIPMENT MUST BE CLEANED OF DEBRIS AND RUST, PROPERLY PREPPED, PRIMED AND PAINTED. REFER TO DIVISION 9 OF SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
7. THE INSIDE OF DUCTWORK THAT IS VISIBLE THROUGH A DIFFUSER, REGISTER OR GRILLE, MUST BE PAINTED FLAT BLACK.
8. IN ADDITION TO THE SPECIFICATION REQUIREMENTS AND PRIOR TO ORDERING EQUIPMENT AND INSTALLATION OF NEW WORK, SUBMIT A COMPOSITE SHOP DRAWING (1/4" MIN. SCALE PLAN AND SECTIONS) SHOWING DUCTWORK AND EQUIPMENT LAYOUT. THIS SHOP DRAWING MUST ALSO INDICATE MAINTENANCE/SERVICE SPACE FOR ALL EQUIPMENT.
9. CONCRETE PADS FOR MECHANICAL EQUIPMENT MUST BE SIZED, LOCATED AND PROVIDED BY DIVISION 23. PROVIDE 4" HIGH x UNIT LENGTH PLUS 4" x UNIT WIDTH PLUS 4" CONCRETE PADS FOR ALL HVAC EQUIPMENT MOUNTED ON GRADE OR FLOOR SLABS.
10. MANUAL VOLUME DAMPERS MUST HAVE OPPOSED BLADE TYPE DAMPERS.
11. VERIFY ALL EQUIPMENT WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
12. ALL DIFFUSER AND REGISTER LOCATIONS IN SUSPENDED CEILINGS MUST BE COORDINATED WITH REFLECTED CEILING PLANS, SPRINKLER PLANS AND ELECTRICAL PLANS BEFORE INSTALLATION.
13. ALL DUCTWORK MUST BE INSTALLED AS CLOSE AS POSSIBLE TO WALLS AND UNDERSIDE OF BEAMS UNLESS OTHERWISE NOTED.
14. PROVIDE ACCESS PANELS IN DUCTWORK FOR OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL FANS, VALVES, FIRE DAMPERS, CONTROL DAMPERS, SMOKE DETECTORS, AND AIRFLOW MEASURING STATIONS.
15. FLEXIBLE DUCT CONNECTING MAIN DUCT TO SUPPLY DIFFUSER OR AIR BOOT MUST NOT EXCEED 6 FEET IN LENGTH. IF THIS DISTANCE EXCEEDS THIS LIMIT, AN INSULATED METAL DUCT OF REQUIRED LENGTH AND EQUAL DIAMETER MUST BE INSTALLED WITH DAMPER AT MAIN DUCT TO REDUCE FLEXIBLE DUCT TO MAXIMUM LENGTH OF 6 FEET.
16. ALL DUCT MUST BE GROUNDED ACROSS FLEXIBLE CONNECTIONS WITH FLEXIBLE COPPER BRAIDED GROUNDING STRAP.
17. ALL DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
18. UNLESS OTHERWISE INDICATED ALL CONDENSATE DRAIN LINES FROM EACH PIECE OF HVAC EQUIPMENT MUST BE PIPED FULL SIZE OF DRAIN OUTLET, WITH P-TRAP TO FLOOR DRAIN OR JANITOR SINK.
19. ALL EQUIPMENT, PIPING, DUCTWORK, ETC., MUST BE SUPPORTED AS DETAILED AND SPECIFIED. ADDITIONAL SUPPORTS MUST BE PROVIDED AS REQUIRED TO PROPERLY SUPPORT ALL HVAC SYSTEM COMPONENTS.
20. MANUFACTURERS LISTED IN SCHEDULES WERE USED AS A BASIS FOR DESIGN. REFER TO PLAN SCHEDULES AND SPECIFICATIONS FOR OTHER ACCEPTABLE MANUFACTURERS.
21. ALL FLEXIBLE DUCTWORK MUST BE NOMINAL SIZE AS THE NECK OF THE AIR DEVICE (DIFFUSERS, GRILLES, REGISTERS AND LINEARS) IT SERVES. REFER TO THE LAYOUT PLANS FOR NECK SIZES OF AIR DEVICES.
22. PROVIDE SINGLE THICKNESS, TRAILING EDGE TURNING VANES INSIDE ALL 90 AND 45 DEGREE SHEET METAL ELBOWS EXCEPT THOSE USED IN TRANSFER AIR DUCTS AND NON-DUCTED ELBOWS ON RETURN AIR GRILLES AND REGISTERS.
23. CAPPED DUCTS MUST BE BLANKED OFF WITH 18 GAUGE GALVANIZED SHEET METAL, CAULKED TO PROVIDE AN AIR TIGHT SEAL AND EXTERNALLY INSULATED.
24. COORDINATE ROUTING OF DUCTWORK WITH THE REFLECTED CEILING PLANS, LIGHT FIXTURES, PLUMBING PIPING AND SPRINKLER PIPING. WHEREVER POSSIBLE PROVIDE OFFSETS AND TRANSITIONS TO ROUTE DUCTWORK BETWEEN CEILING MOUNTED LIGHT FIXTURES IN LIEU OF ABOVE THEM.
25. ALL HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS SHOWN ON THE CONTRACT DRAWINGS MUST BE NEW.
26. SUBMIT COMPLETE SHOP DRAWINGS AND PRODUCT DATA FOR ALL EQUIPMENT AND DEVICES SPECIFIED ON THE HVAC DRAWINGS.
27. CONSTRUCT LOUVER PLENUMS OF 16 GAUGE GALVANIZED STEEL WITH BOTTOM AT 15 DEGREE SLOPE TOWARD LOUVER. PROVIDE 12"x12" INSULATED ACCESS DOOR. INSULATE PLENUM WITH 2" THICK, 3 POUND DENSITY, RIGID BOARD INSULATION AND SEAL ALL JOINTS AND SEAMS WITH 4" WIDE GLASS FABRIC BETWEEN TWO LAYERS OF MASTIC. REFER TO SPECIFICATIONS, FLOOR PLANS AND DETAILS FOR ADDITIONAL REQUIREMENTS.
28. DISCREPANCIES AND CONFLICTS BETWEEN MECHANICAL SYSTEMS AND OTHER DISCIPLINE (ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION) DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE A/E PRIOR TO CONSTRUCTION OF SUBJECT SYSTEMS. FAILURE TO NOTIFY A/E OF THE SUBJECT PROBLEMS MUST CONSTITUTE ACCEPTANCE OF ALL CONDITIONS AND ANY CORRECTIVE WORK REQUIRED, AS DIRECTED BY A/E. THE SUBJECT CORRECTIVE WORK MUST BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
29. ALL FURNISHED EQUIPMENT MUST FIT THE ALLOCATED SPACE. PROVIDE ALL MODIFICATIONS TO THE OPENINGS, IN ROOF OR SLAB, STEEL SUPPORTS, ELECTRICAL REQUIREMENTS AND ANY OTHER BUILDING COMPONENTS REQUIRED TO FACILITATE THE INSTALLATION OF SUBJECT EQUIPMENT.
30. PRIOR TO FINAL INSPECTION OF EQUIPMENT BY A/E, EACH PIECE OF MECHANICAL EQUIPMENT MUST BE CLEANED AND ALL FOREIGN MATERIALS REMOVED. ALL PENETRATIONS THRU UNIT CASINGS MUST BE PROPERLY SEALED AND ALL CONTROL DEVICES MUST BE OPERATIONAL AND CALIBRATED.
31. ALL FINISHES DAMAGED DURING THE INSTALLATION OF NEW HVAC SYSTEM MUST BE REPAIRED TO MATCH EXISTING ADJACENT FINISHES.
32. COORDINATE LOCATION OF HVAC EQUIPMENT AND SYSTEM ROUTINGS SO THAT HVAC EQUIPMENT, PIPING AND DUCTWORK ARE NOT LOCATED ABOVE ELECTRICAL EQUIPMENT, PANELS OR ELEVATOR EQUIPMENT.
33. REFER TO CONTROL DRAWINGS FOR BOTH DUCTWORK AND EQUIPMENT DAMPERS (CONTROL, MANUAL BALANCING, BACKDRAFT AND ADJUSTABLE WEIGHTED) THAT MAY NOT BE SHOWN ON THE FLOOR PLANS BUT ARE REQUIRED.

* NOTE *
ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET.THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: KMN
DRAWN BY: MA
DESIGNED BY: RSS
PROJECT NUMBER: 2003-0070-006

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SHEET TITLE:
MECHANICAL GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

SHEET ID:
M001

PROJECT STATUS:
100% BID SET

3/14/2025 3:45:46 PM Autodesk Docs://I0030070004_ILM TO4 Rdwy Intl Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_MP_R24.rvt

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HVAC CONTROLS CONTRACTOR TO COORDINATE COMMUNICATIONS CABLE ROUTING WITH AIRPORT WIDE BAS AND IT SYSTEMS FOR PROVIDING NEW BAS CONNECTION TO ALL HVAC SYSTEM EQUIPMENT AND COMPONENTS WITHIN PARKING GARAGE. SEE ELECTRICAL AND LOW VOLTAGE IT PLANS FOR CONDUIT ROUTING AND COORDINATION OF PATHWAY FROM TERMINAL BUILDING TO PARKING GARAGE.

AC-01

SCU-02

SCU-01

SAHU-01

1
M401

LV-03 AND LV-04 TO BE INSTALLED 8'-0" ABOVE FINISHED FLOOR

LV-04

PUMP ROOM
105

LV-03

PN
N

1 OVERALL FIRST LEVEL HVAC PLAN
SCALE: 1/16" = 1'-0"

16 0 16 32
SCALE: 1/16" = 1'-0"

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KEY PLAN

C
A B

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DESIGNED BY: RSS
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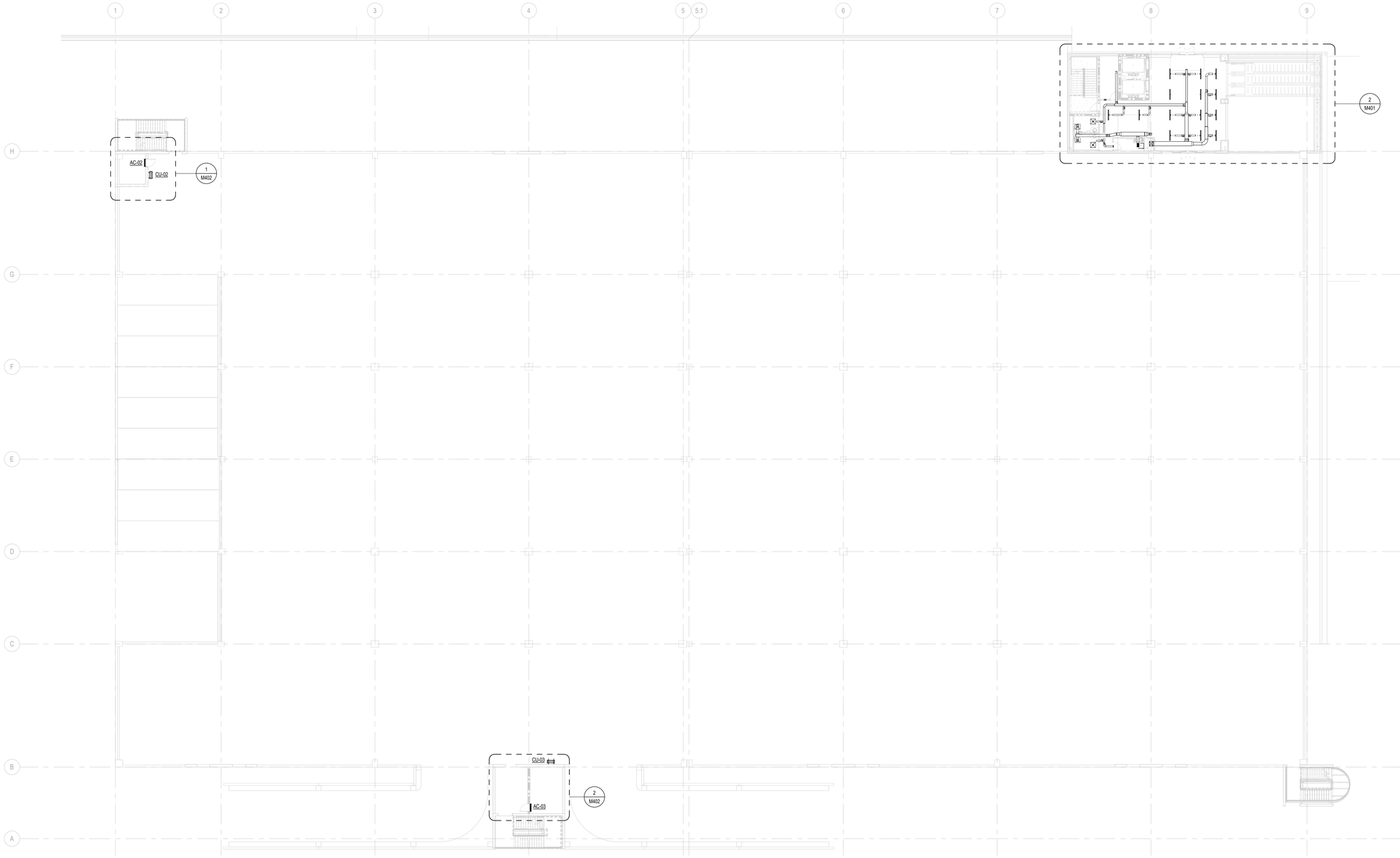
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OVERALL FIRST LEVEL HVAC PLAN

SHEET ID:
M111

PROJECT STATUS:
100% BID SET

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PN
N

1 OVERALL SECOND LEVEL HVAC PLAN

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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KEY PLAN

C
A B

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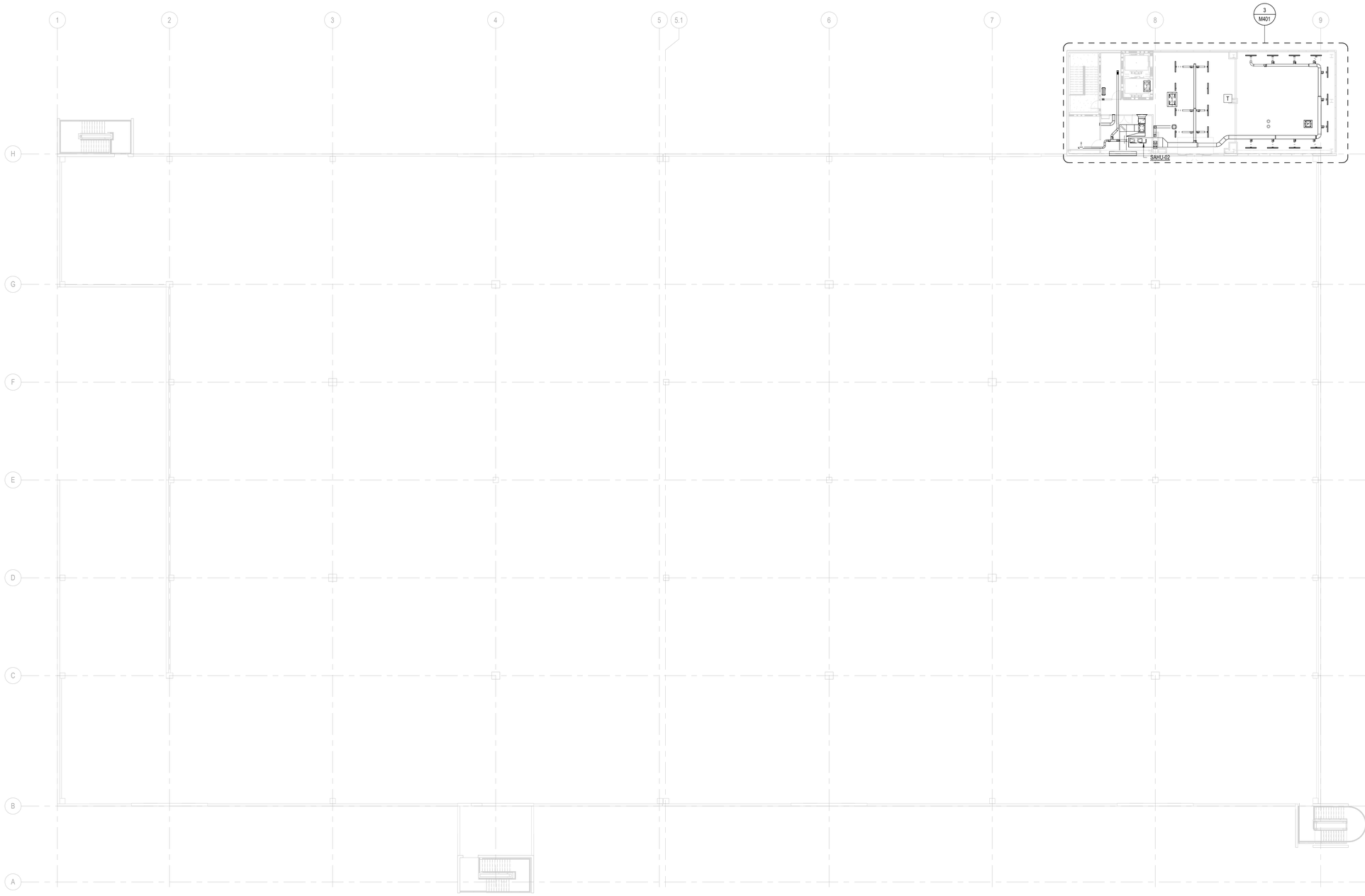
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SHEET ID:
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PROJECT STATUS:
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PN
N

1 OVERALL THIRD LEVEL HVAC PLAN

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

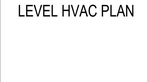
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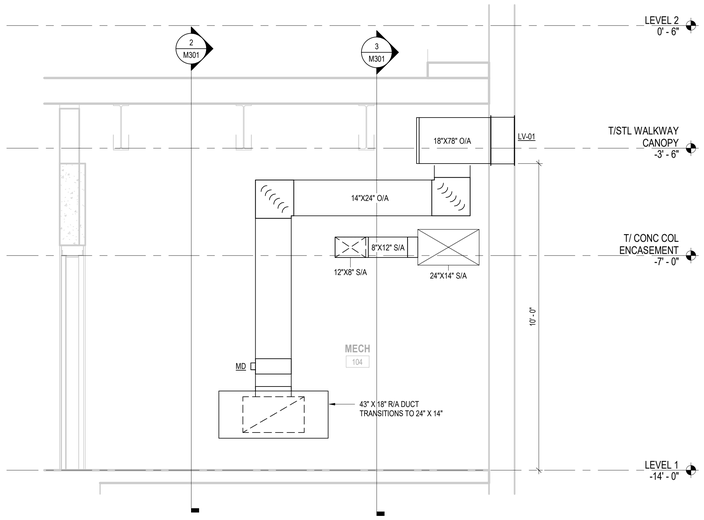
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OVERALL THIRD LEVEL HVAC PLAN

SHEET ID:
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PROJECT STATUS:
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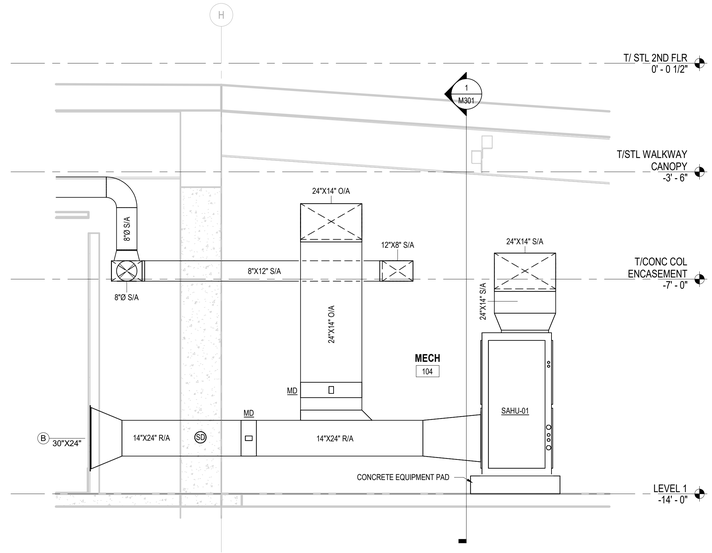
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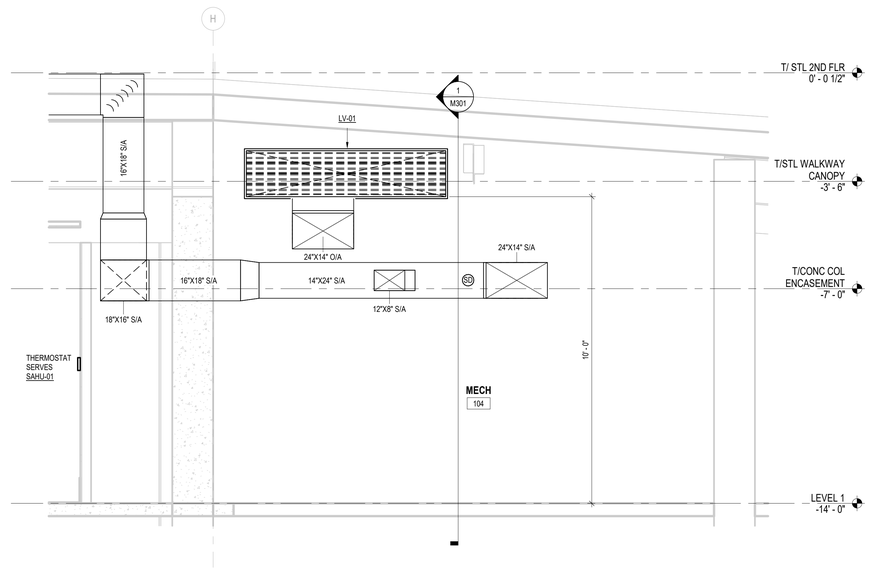
1 MECAHNICAL ROOM HORIZONTAL SECTION

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



2 SAHU-01 VERTICAL SECTION

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



3 MECHANICAL ROOM VERTICAL SECTION

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

2 0 2 4

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

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KEY PLAN

C
A B

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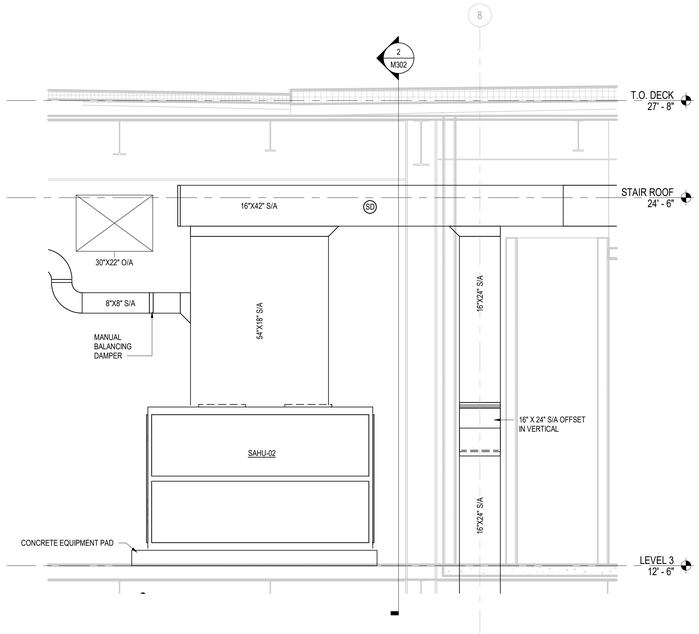
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HVAC SECTIONS

SHEET ID:
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PROJECT STATUS:
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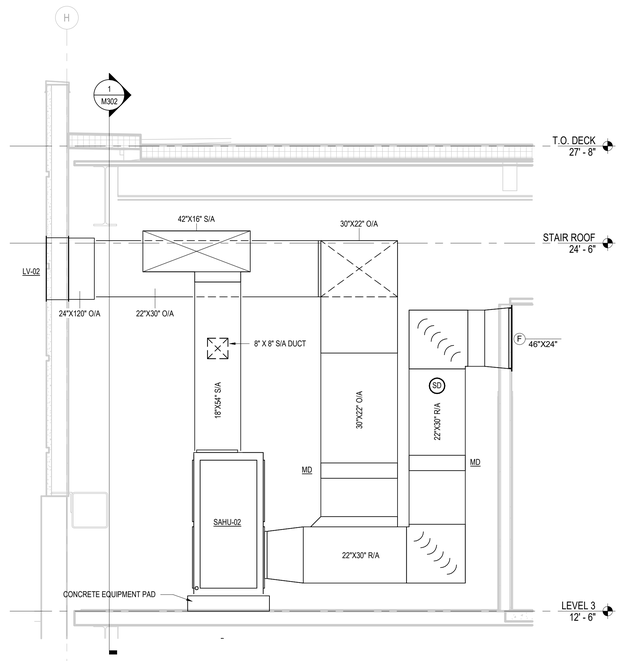
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1 SAHU-02 HORIZONTAL SECTION

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



2 SAHU-02 VERTICAL SECTION

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

2 0 2 4

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

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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

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KEY PLAN

C
A B

REVISIONS

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HVAC SECTIONS

SHEET ID:
M302

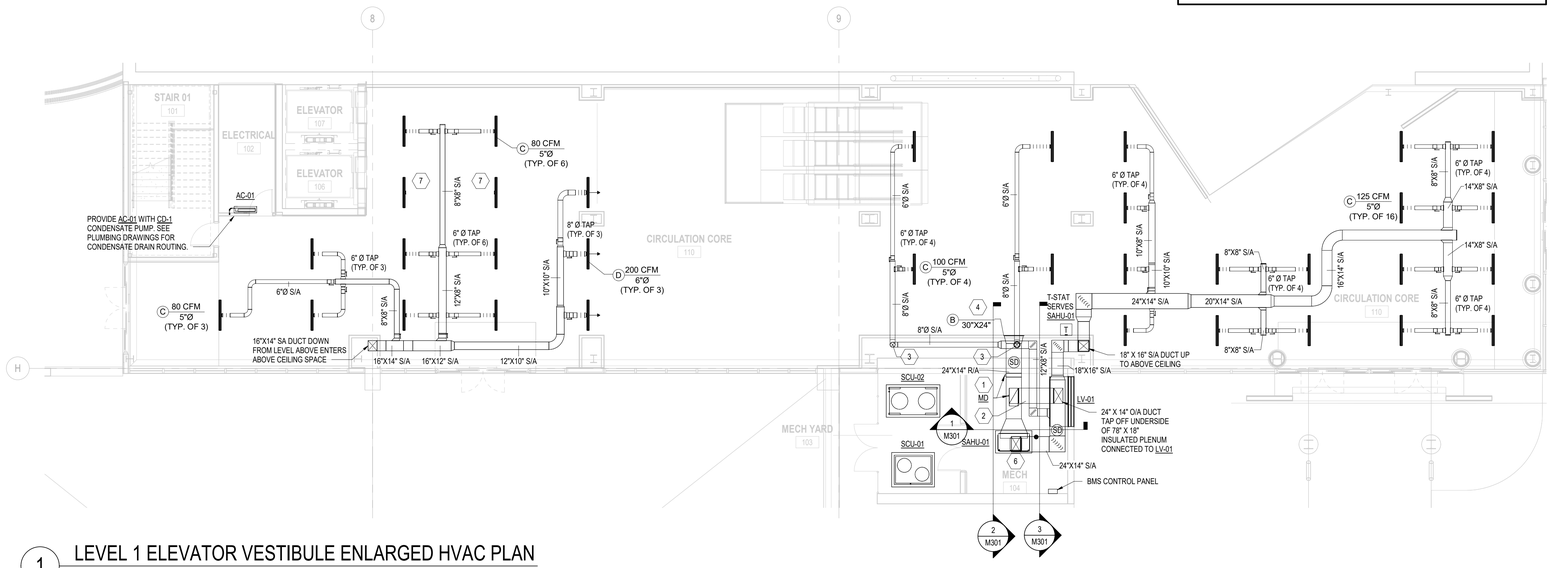
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KEYED NOTES

1. MOTORIZED DAMPER LOCATED IN THE MAIN RETURN AIR DUCT AND IN THE VERTICAL OF OUTSIDE AIR DUCT INTERLOCKED WITH SAHU-01. SEE SHEET M701 VIEW 1 FOR DAMPER OPERATION.
2. 24" X 14" OUTSIDE AIR DUCT ROUTED ABOVE SUPPLY AIR DUCT TO LV-01 ON EXTERIOR WALL.
3. 8" S/A DUCT UP TO ABOVE CEILING.
4. CENTERLINE OF RETURN AIR GRILLE LOCATED AT 2'-0" AFF.
5. INSTALL LV-01 AT MINIMUM OF 10'-0" ABOVE ADJACENT PAVEMENT.
6. PROVIDE TEMPERATURE AND HUMIDITY SENSOR IN RETURN AIR DUCT AND OUTSIDE AIR DUCT FOR SAHU-01 ECONOMIZER OPERATION.
7. PROVIDE MATCHING MARK C DUMMY LINEAR SLOT DIFFUSER FOR VISUAL CONSISTENCY. BLANK OFF DIFFUSER.

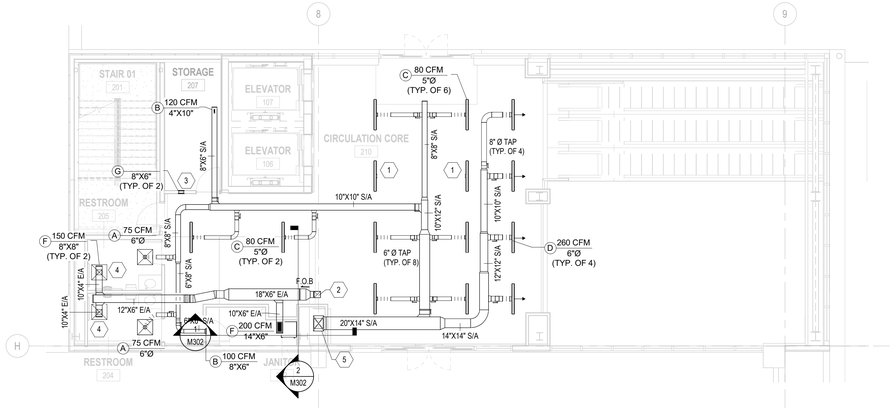


1 LEVEL 1 ELEVATOR VESTIBULE ENLARGED HVAC PLAN

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

KEYED NOTES

1. PROVIDE MATCHING MARK C DUMMY LINEAR SLOT DIFFUSER FOR VISUAL CONSISTENCY. BLANK OFF DIFFUSER.
2. 10" X 10" EXHAUST AIR DUCT UP TO LEVEL ABOVE.
3. INSTALL 8" X 6" TRANSFER AIR DUCT AND GRILLES BELOW THE CIRCULATION CORE CEILING.
4. 8" X 8" EXHAUST AIR DUCT TAP DOWN TO CONNECT TO EXHAUST GRILLE.
5. 24" X 16" SUPPLY AIR DUCT DOWN FROM LEVEL ABOVE. 20" X 14 SUPPLY AIR TAKEOFF ENTERS ABOVE CEILING SPACE. 24" X 16" SUPPLY AIR DUCT TRANSITIONS TO 16" X 14" AFTER TAKEOFF AND CONTINUES TO LEVEL BELOW.

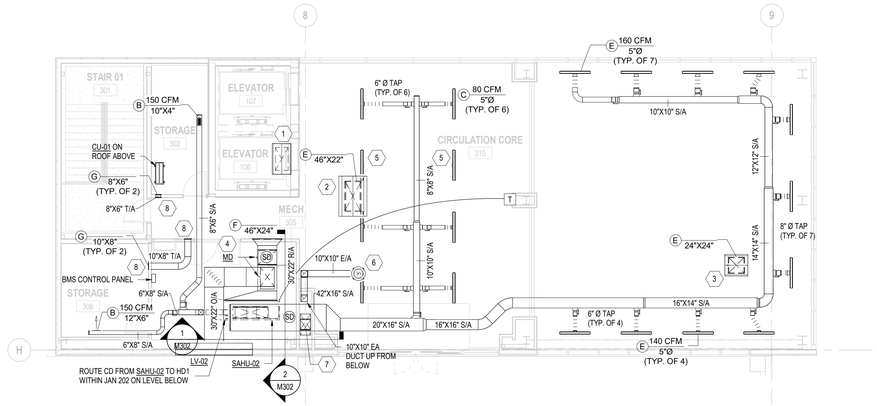


2 LEVEL 2 ENLARGED HVAC PLAN

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

KEYED NOTES

1. GV-01 ON ROOF ABOVE FOR ELEVATOR SHAFT VENTILATION.
2. 34" X 20" RELIEF AIR DUCT UP FROM GRILLE TO GV-02 ON ROOF ABOVE FOR SAHU-02 ECONOMIZER MODE PRESSURE RELIEF WITH INTERLOCKED MOTORIZED DAMPER.
3. 20" X 18" RELIEF AIR DUCT UP FROM GRILLE TO GV-03 ON ROOF ABOVE FOR SAHU-01 ECONOMIZER MODE PRESSURE RELIEF WITH INTERLOCKED MOTORIZED DAMPER.
4. MOTORIZED DAMPER LOCATED IN THE VERTICAL OF RETURN AIR AND OUTSIDE AIR DUCT INTERLOCKED WITH SAHU-02. SEE SHEET M701 VIEW 1 FOR DAMPER OPERATION.
5. PROVIDE MATCHING MARK C DUMMY LINEAR SLOT DIFFUSER FOR VISUAL CONSISTENCY. BLANK OFF DIFFUSER.
6. 10"X10" EA DUCT UP TO EF-01 ON ROOF.
7. 24"X16" SA DUCT DOWN TO LEVEL BELOW WITH OFFSET IN VERTICAL.
8. INSTALL TRANSFER AIR DUCT AND GRILLES BELOW THE CIRCULATION CORE CEILING.



3 LEVEL 3 ELEVATOR VESTIBULE ENLARGED HVAC PLAN

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

8 0 8 16

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

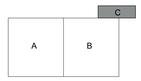
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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	KMN
DRAWN BY:	MA
DESIGNED BY:	RSS
PROJECT NUMBER:	2003-0070-006

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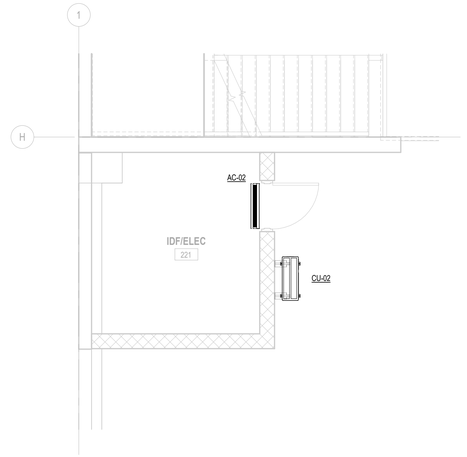
SHEET TITLE:
HVAC ENLARGED PLANS

SHEET ID:
M401

PROJECT STATUS:
100% BID SET

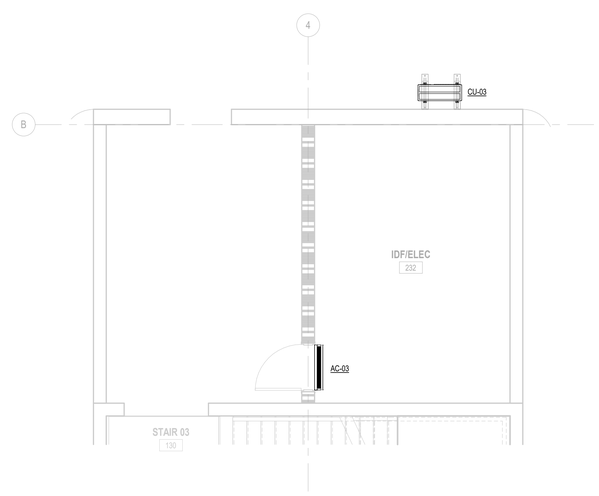
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1 LEVEL 2 GARAGE ROOM 208 ENLARED HVAC PLAN

SCALE: 1/4" = 1'-0"



2 LEVEL 2 GARAGE ROOM 214 ENLARED HVAC PLAN

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

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ILM

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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
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REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: KMN
DRAWN BY: MA
DESIGNED BY: RSS
PROJECT NUMBER:
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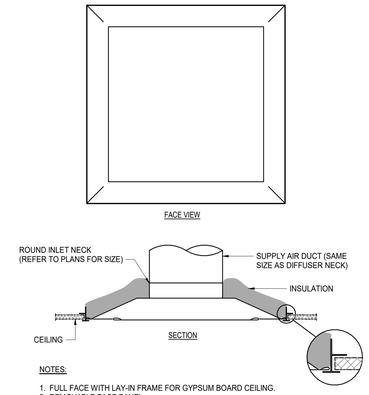
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HVAC ENLARGED PLANS

SHEET ID:
M402

PROJECT STATUS:
100% BID SET

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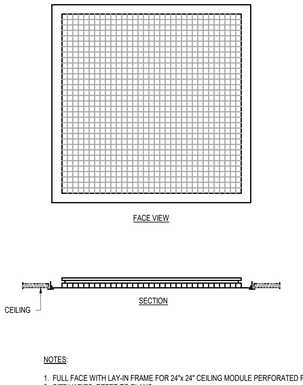


NOTES:

1. FULL FACE WITH LAY-IN FRAME FOR GYPSUM BOARD CEILING.
2. REMOVABLE FACE PANEL.
3. DISCHARGE SHALL BE UNIFORM 360° HORIZONTAL PATTERN.
4. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING SYSTEM DETAILS.

1 TYPICAL SUPPLY DIFFUSER DETAIL

SCALE: N.T.S.

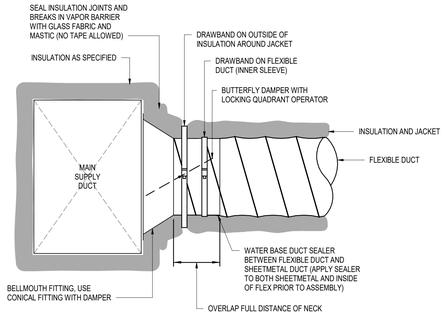


NOTES:

1. FULL FACE WITH LAY-IN FRAME FOR 24"x 24" CEILING MODULE PERFORATED FACE.
2. SIZE VARIES, REFER TO PLANS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING SYSTEM DETAILS.

2 RETURN/EXHAUST AIR GRILLE

SCALE: N.T.S.

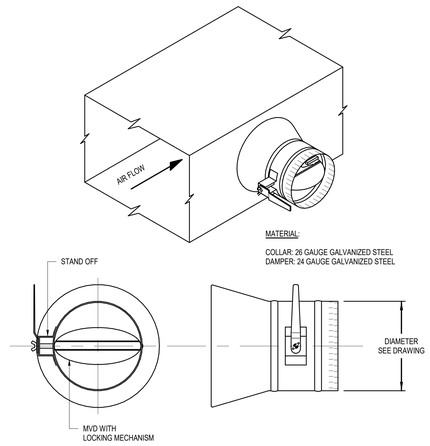


NOTES:

1. TYPICAL FOR: LOW PRESSURE AND HIGH PRESSURE CONNECTION TO MAIN DUCT, FAN TERMINAL UNITS, VARIABLE AIR VOLUME UNITS, AND DIFFUSERS.
2. DRAWBANDS SHALL BE EQUIVALENT TO PANDUIT PLT-H.

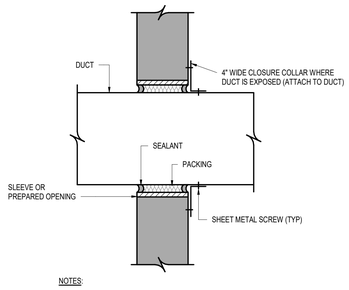
3 FLEX DUCT TERMINATION DETAIL

SCALE: N.T.S.



4 CONICAL SPIN-IN CONNECTION DETAIL

SCALE: N.T.S.



NOTES:

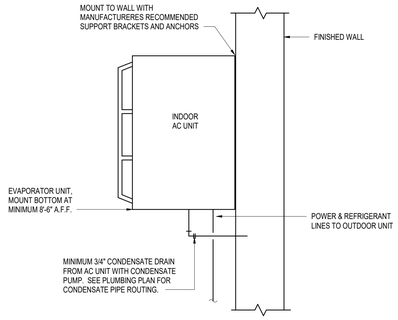
A. DETAIL IS NOT APPLICABLE WHERE FIRE DAMPER, REGISTER, OR DIFFUSER IS PROVIDED.

B. PROVIDE SEPARATE AND UNCONNECTED SLEEVES WHERE DUCTS PENETRATE DOUBLE (FLOATING) FLOOR SLABS TO PREVENT "SHORT CIRCUITING" THE VIBRATION ISOLATING MATERIAL.

C. EXTERNALLY INSULATED DUCT SHALL BE CAULKED TO PROVIDE A COMPLETE SEAL BETWEEN THE INSULATION AND CLOSURE COLLAR.

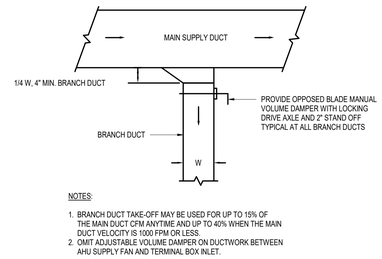
5 DUCT PENETRATION THRU WALL DETAIL

SCALE: N.T.S.



6 WALL MOUNTED AC DETAIL

SCALE: N.T.S.

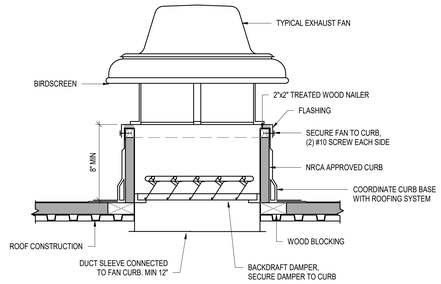


NOTES:

1. BRANCH DUCT TAKE-OFF MAY BE USED FOR UP TO 15% OF THE MAIN DUCT CFM ANYTIME AND UP TO 40% WHEN THE MAIN DUCT VELOCITY IS 1000 FPM OR LESS.
2. OMIT ADJUSTABLE VOLUME DAMPER ON DUCTWORK BETWEEN AHU SUPPLY FAN AND TERMINAL BOX INLET.

7 SUPPLY BRANCH DUCT TAKE-OFF DETAIL

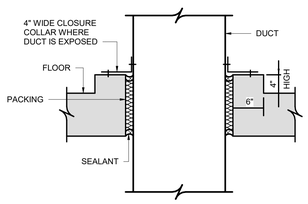
SCALE: N.T.S.



NOTE:
COORDINATE CURB CONSTRUCTION WITH ROOFING SLOPE AND DETAILS, SEE ARCHITECTURAL DRAWINGS

8 ROOF MOUNTED EXHAUST FAN DETAIL

SCALE: N.T.S.



NOTES:

A. DETAIL IS NOT APPLICABLE WHERE FIRE DAMPER, REGISTER, OR DIFFUSER IS PROVIDED.
B. EXTERNALLY INSULATED DUCT SHALL BE CAULKED TO PROVIDE A COMPLETE SEAL BETWEEN THE INSULATION AND CLOSURE COLLAR.

9 TYPICAL DUCT PENETRATION THRU FLOOR

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: KMN
DRAWN BY: MA
DESIGNED BY: RSS
PROJECT NUMBER:
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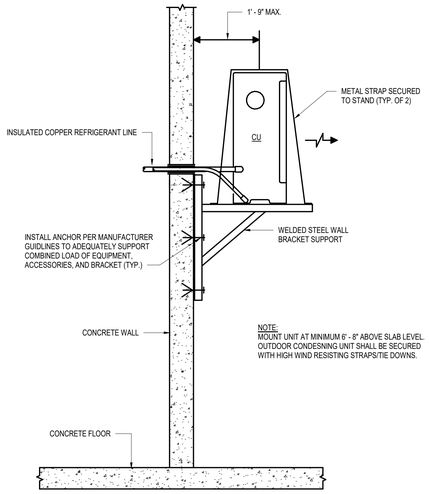
SHEET TITLE:
HVAC DETAILS

SHEET ID:
M501

PROJECT STATUS:
100% BID SET

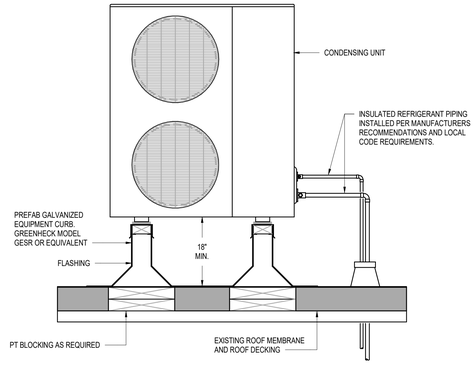
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1 WALL MOUNTED CONDENSING UNIT

SCALE: N.T.S.

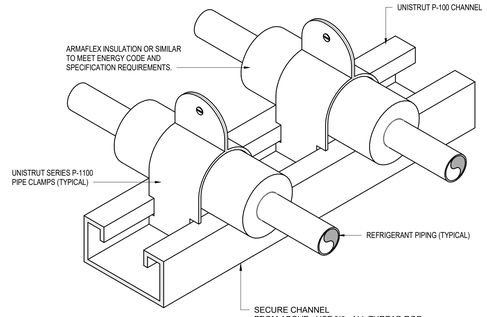


NOTES:

1. REFER TO SPECIFICATION SECTION 230548.13 - "VIBRATION CONTROLS FOR HVAC PIPING AND EQUIPMENT" FOR VIBRATION ISOLATION REQUIREMENT.
2. EQUIPMENT CURB, PT BLOCKING AND FLASHING SYSTEMS SHALL BE INSTALLED PER THE ROOF MANUFACTURERS RECOMMENDATIONS AND GUIDELINES TO MAINTAIN EXISTING WARRANTY AND PROVIDE WATER PROOF CONDITION.

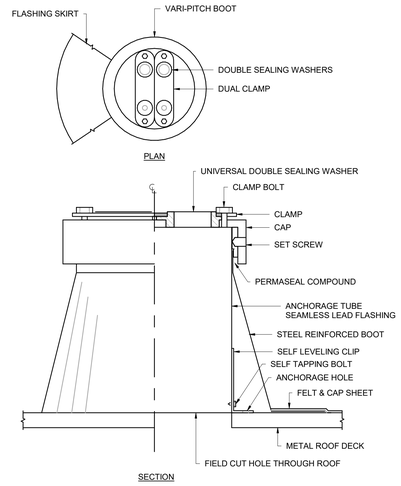
2 ROOF MOUNTED CONDENSING UNIT DETAIL

SCALE: N.T.S.



3 REFRIGERANT PIPE SUPPORT

SCALE: N.T.S.

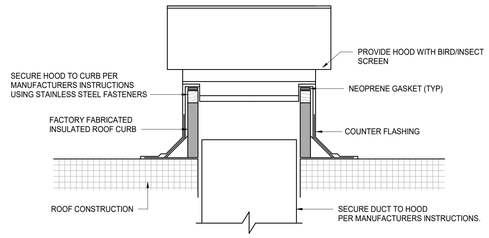


NOTE:

1. REFRIGERANT PIPING BOOT AND FLASHING SYSTEM SHALL BE INSTALLED PER THE ROOF MANUFACTURERS RECOMMENDATIONS AND GUIDELINES TO MAINTAIN EXISTING WARRANTY AND PROVIDE WATER PROOF CONDITION.

4 REFRIGERANT PIPING ROOF FLASHING DETAIL

SCALE: N.T.S.



NOTES:

1. SECURE ROOF CURB, DUCTWORK AND DAMPER TO ROOF SYSTEM.
2. CURB INSTALLATION AND FLASHING SYSTEM SHALL BE INSTALLED PER THE ROOF MANUFACTURERS RECOMMENDATIONS AND GUIDELINES TO MAINTAIN EXISTING WARRANTY AND PROVIDE WATER PROOF CONDITION.
3. SIZE OF DUCT THRU ROOF SHALL NOT BE LARGER THAN CURB SUPPLIED WITH HOOD.
4. ENSURE THAT HOOD IS INSTALLED LEVEL.

5 GRAVITY VENTILATOR ROOF MOUNTING DETAIL

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PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: KMN
DRAWN BY: MA
DESIGNED BY: RSS
PROJECT NUMBER:
2003-0070-006
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SHEET TITLE:
HVAC DETAILS

SHEET ID:
M502

PROJECT STATUS:
100% BID SET

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COMM ROOM SPLIT SYSTEM UNIT SCHEDULE

INDOOR UNIT DATA			
MARK	AC-01	AC-02	AC-03
LOCATION	ELECTRICAL ROOM 102	IDF/ELECTRICAL 207	IDF/ELECTRICAL 208
MANUFACTURER	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL	TPKA0A0121LA10A	TPKA0A0121LA10A	TPKA0A0121LA10A
COOLING DATA			
MAXIMUM CAPACITY (BTU/HR)	12,000	12,000	12,000
SENSIBLE CAPACITY (BTU/HR)	10,560	10,560	10,560
AIRFLOW MAXIMUM (CFM)	385	385	385
RATED ENTERING AIR TEMP. (DB / WB °F)	80/67	80/67	80/67
FAN POWER (W)	56	56	56
INDOOR UNIT ELECTRICAL DATA			
VOLTAGE / PHASE / HZ	208 / 1 / 60	208/230 / 1 / 60	208/230 / 1 / 60
FLA / MCA	0.19 / 1.0	0.19 / 1.0	0.19 / 1.0
OUTDOOR UNIT DATA			
MARK	CU-01	CU-02	CU-03
MOUNTING STYLE	ROOF	WALL	WALL
REFRIGERANT	R410A	R410A	R410A
VOLTAGE/PHASE/HZ	208 / 1 / 60	208 / 1 / 60	208 / 1 / 60
FLA / MCA / MOCP	0.5 / 11 / 28	0.5 / 11 / 28	0.5 / 11 / 28
MANUFACTURER	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL	TRUYA012KA70NA	TRUYA012KA70NA	TRUYA012KA70NA
EER / SEER	13.3 / 21.3	13.3 / 21.3	13.3 / 21.3
NOTES	1-6	1-6	1-6

NOTES:

1. PROVIDE PROGRAMMABLE FACTORY MOUNTED HARD WIRED THERMOSTAT WITH TOUCHSCREEN AND HUMIDITY CONTROL.
2. PROVIDE FACTORY DISCONNECTS FOR CONDENSING UNIT AND INDOOR UNIT.
3. PROVIDE WITH BLUE DIAMOND (ADVANCED) MINI CONDENSATE PUMP WITH RESERVOIR (208 V, OPTION X87-721). UNIT MARK CD-1. PROVIDE RESERVOIR WITH LEVEL SENSOR FLOW SWITCH TO SHUT UNIT DOWN IF CONDENSATE RISES ABOVE SET LIMITS.
4. CONDENSING UNITS SHALL BE GROUND MOUNTED ON AN EQUIPMENT PAD.
5. PROVIDE MANUFACTURERS RECOMMENDED PIPING BETWEEN INDOOR AND OUTDOOR UNIT. PIPING TO BE INSULATED WITH FIRERETARDANT ARMAFLEX THAT COMPLIES WITH 2024 NORTH CAROLINA MECHANICAL AND ENERGY CODES.
6. PROVIDE FACTORY INSTALLED BACNET COMMUNICATIONS CARD FOR INTEGRATION OF UNIT FOR MONITORING VIA EXISTING TERMINAL WIDE BAS.

AIR DISTRIBUTION DEVICE SCHEDULE

MARK	DESCRIPTION	FACE SIZE, W X H (IN.)	MANUFACTURER	MODEL	NOTES
A	ARCHITECTURAL SQUARE PANEL SUPPLY REGISTER	24 X 24	PRICE	SPD	1,2
B	SINGLE DEFLECTION SIDEWALL REGISTER	SEE PLANS	PRICE	600	2,3,5
C	4' 0" LINEAR SLOT SUPPLY DIFFUSER - SLOT QTY: 1, SLOT WIDTH: 1"	-	PRICE	SDS	2,4,5,7,9
D	4' 0" LINEAR SLOT SUPPLY DIFFUSER - SLOT QTY: 1, SLOT WIDTH: 1-1/2"	-	PRICE	SDS	2,4,5,6,7
E	4' 0" LINEAR SLOT SUPPLY DIFFUSER - SLOT QTY 1, SLOT WIDTH: 1"	-	PRICE	SDS	2,4,5,7,8
F	PERFORATED RETURN/EXHAUST GRILLE	SEE PLANS	PRICE	10	2,3,5
G	ALUMINUM TRANSFER GRILLE	SEE PLANS	PRICE	ATG	2,5

NOTES:

1. PROVIDE DEVICE FOR FOUR WAY THROW UNLESS NOTED OTHERWISE, THEN PROVIDE DIRECTIONAL BLOW CLIPS AS NECESSARY.
2. UNIT SHALL BE OF ALUMINUM CONSTRUCTION.
3. PROVIDE INTEGRAL OPPOSED BLADE DAMPER FOR DUCT MOUNTED APPLICATIONS FOR BALANCING.
4. PROVIDE PRICE SDS MOUNTING STYLE SUITABLE FOR APPLICATION.
5. PROVIDE BORDER TYPE SUITABLE FOR INDIVIDUAL LOCATIONS.
6. AIR TERMINAL TO BE SINGLE DIRECTION HORIZONTAL THROW PATTERN IN DIRECTION SHOWN ON PLAN.
7. PROVIDE AND INSTALL 4' 0" SDB PLENUM (OR APPROVED EQUAL) WITH CONNECTION SIZE INDICATED ON PLANS.
8. UNIT TO BE SINGLE DIRECTION VERTICAL DOWN THROW PATTERN.
9. UNIT TO BE DOUBLE DIRECTION HORIZONTAL THROW PATTERN.

EXHAUST FAN SCHEDULE

MARK	EF-01
FAN TYPE	DOWNBLAST
MANUFACTURER	GREENHECK
MODEL	G-095-VG
AIRFLOW (CFM)	500
ESP (IN. W.G.)	0.65
RPM	1626
MOTOR POWER (HP)	1/6
VOLTAGE / PHASE / HZ	208 / 1 / 60
WEIGHT (LBS)	45
NOTES	1 - 5

NOTES:

1. FACTORY MOUNTED NEC COMPLIANT DISCONNECT
2. BACKDRAFT DAMPER
3. SOLID STATE SPEED CONTROL
4. DIRECT DRIVE
5. THERMAL OVERLOAD MOTOR

VAV AHU SPLIT SYSTEM HEAT PUMP UNIT SCHEDULE

INDOOR UNIT DATA		
INDOOR UNIT MARK	SAHU-01	SAHU-02
INDOOR UNIT LOCATION	MECHANICAL 104	MECHANICAL 304
INDOOR UNIT MANUFACTURER	TRANE	TRANE
INDOOR UNIT MODEL	ODYSSEY - TWE072K4B	ODYSSEY - TWE180K4B
COOLING DATA		
TOTAL NOMINAL CAPACITY (BTU/HR)	72,000	180,000
SUPPLY AIRFLOW (CFM)	2,400	5,830
MINIMUM OUTSIDE AIRFLOW (CFM)	260	450
COOLING ENTERING MIXED AIR TEMP. (DB °F)	75.3	75.5
LEAVING AIR TEMP. DB/WB (°F)	55.0 / 54.5	55.0 / 54.5
ESP (IN. W.G.)	0.75	1.2
HEATING DATA		
TOTAL GROSS CAPACITY @ 22°F AMBIENT AND 70°F SPACE TEMP (BTU/HR)	44,500	114,200
ELECTRICAL DATA		
FAN MOTOR (HP)	2	5
INDOOR UNIT VOLTAGE/PHASE/HZ	460 / 3 / 60	460 / 3 / 60
INDOOR UNIT UNIT FLA	3.3	7.1
MCA / MOCP	5 / 15	9 / 15
OUTDOOR UNIT DATA		
OUTDOOR UNIT MARK	SCU-01	SCU-02
OUTDOOR UNIT LOCATION	MECHANICAL YARD 103	MECHANICAL YARD 103
REFRIGERANT	R-454B	R-454B
OUTDOOR UNIT VOLTAGE/PHASE/HZ	460 / 3 / 60	460 / 3 / 60
MCA / MOCP	17 / 20	33 / 40
OUTDOOR UNIT MANUFACTURER	TRANE	TRANE
OUTDOOR UNIT MODEL	ODYSSEY - TWA072K4D	ODYSSEY - TWA180K4D
EER / IEER	11.2 / 14.1	10.8 / 13.5
NOTES	1-10	1-9

NOTES:

1. PROVIDE PROGRAMMABLE FACTORY MOUNTED WIRELESS THERMOSTAT WITH TOUCHSCREEN AND HUMIDITY CONTROL. INTEGRATE WITH BAS.
2. PROVIDE UNIT WITH INTEGRAL FLOW SWITCH TO SHUT UNIT DOWN IF CONDENSATE RISES ABOVE SET LIMITS
3. PROVIDE FACTORY DISCONNECTS FOR CONDENSING UNIT AND INDOOR UNIT
4. CONDENSING UNITS SHALL BE MOUNTED ON CONCRETE HOUSEKEEPING PAD SUITABLE FOR OUTDOOR CONDITIONS.
5. UNIT TO HAVE 100% ECONOMIZER MODE. SEE CONTROLS SCHEMATIC ON M701 FOR MORE INFORMATION.
6. PROVIDE MANUFACTURERS RECOMMENDED PIPING BETWEEN INDOOR AND OUTDOOR UNIT. PIPING TO BE INSULATED WITH FIRE RETARDANT ARMAFLEX THAT COMPLIES WITH 2024 NC MECHANICAL AND ENERGY CODES
7. PROVIDE BACNET COMMUNICATION INTERFACE FOR CONNECTION TO EXISTING TERMINAL BUILDING AUTOMATION SYSTEM FOR CONTROL AND MONITORING.
8. PROVIDE UNIT WITH 2 INCH MERV 13 FILTERS AND RUBBER ISOLATORS
9. UNIT TO HAVE FACTORY INSTALLED REFRIGERANT LEAK DETECTION SYSTEM.
10. FILTER RACK FOR UNIT SHALL BE FIELD CONVERTED TO ALLOW FOR USE OF 2 INCH DEEP PANEL FILTERS PER MANUFACTURER CUTSHEET.

EXTERIOR LOUVER SCHEDULE

MARK	LV-01	LV-02	LV-03	LV-04
AIRFLOW (MIN / MAX CFM)	260 / 2400	450 / 5830	150 / 150	150 / 150
INTAKE OR EXHAUST	INTAKE	INTAKE	INTAKE / EXHAUST	INTAKE / EXHAUST
OVERALL DIMENSIONS (WxH, IN.)	78" x 18"	120" X 24"	26" X 14"	26" X 14"
MAX. PRESSURE DROP (IN. W.G.)	0.10	0.10	0.01	0.01
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	EHH-501	EHH-501	EHH-501	EHH-501
NOTES	1 - 4	1 - 4	1 - 5	1 - 5

NOTES:

1. WIND-DRIVEN LOUVER CONSTRUCTED OF HEAVY GAUGE ALUMINUM WITH BIRDSCREEN, EXTENDED SILL, AND KYNAR FINISH IN ARCH SELECTED COLOR.
2. DRAINABLE STATIONARY 5" DEEP LOUVER CONSTRUCTED OF 16ga. GALVANIZED STEEL. 50% FREE AREA, WITH INTEGRAL BIRD SCREEN AND WATER STOP.
3. PERFORMANCE OF LOUVER SHALL BE CERTIFIED BY AMCA PUBLICATION 500L, 550 AND 540.
4. PROVIDE CORROSIVE RESISTANT COATING IN ARCHITECTURAL APPROVED COLOR.
5. LOUVER TO BE USED FOR NATURAL CROSSFLOW VENTILATION AND AIRFLOW (MIN. / MAX.) WAS USED FOR SIZING PURPOSES ONLY.

ROOF VENT SCHEDULE

MARK	GV-01	GV-02	GV-03
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK
MODEL	FGR-20X36	FGR-26X46	FGR-24X24
AIRFLOW (CFM)	1000	5525	2,400
THROAT SIZE, W X H (IN.)	20 X 36	26 X 46	24 X 24
THROAT AREA (FT^2)	5	8	4
MAX. PRESSURE DROP (IN. W.G.)	0.01	0.075	0.065

NOTES:

1. PROVIDE ROOF VENT CONSTRUCTED OF HEAVY GAUGE ALUMINUM WITH BIRD/INSECT SCREEN.
2. ROOF CURB OF SUFFICIENT HEIGHT TO PROVIDE A MINIMUM OF 10" FROM FINISHED ROOF SURFACE TO AIR INLET.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
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DRAWN BY: MA
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SHEET TITLE:
MECHANICAL SCHEDULES

SHEET ID:
M601

PROJECT STATUS:
100% BID SET

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BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED, UNOCCUPIED, MANUAL BYPASS AND ECONOMIZER MODES. IF A BAS SIGNAL IS NOT PRESENT, OR COMMUNICATION IS LOST WITH THE BAS, THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS. THE BAS SHALL ALSO SEND THE CONTROLLER A DUCT STATIC PRESSURE SETPOINT (ADJUSTED DURING TEST AND BALANCE FOR PROPER AIRFLOW CONTROL), ACTIVE DISCHARGE AIR TEMPERATURE SETPOINT, RELATIVE HUMIDITY SETPOINT, AND DAMPER MIN. / MAX. POSITIONS. THE UNOCCUPIED MODE IS DEFINED BY THE TIME PERIOD BETWEEN 00:00-04:00 (ADJ.).

OCCUPIED MODE:
THE AHU SUPPLY FAN SHALL CONTINUOUSLY RUN, AND THE RETURN AIR AND OUTSIDE AIR DAMPERS SHALL MODULATE TO ENSURE THAT THE MINIMUM OUTSIDE AIRFLOW CFM SETPOINT IS MET AS THE AHU SUPPLY MODULATES THE TOTAL SUPPLY AIR CFM. THE INTERLOCKED ECONOMIZER RELIEF AIR DAMPER SHALL BE CLOSED. THE UNIT CONTROLLER SHALL MODULATE THE REFRIGERANT HEAT PUMP COMPONENTS TO MAINTAIN THE DISCHARGE AIR SETPOINTS. THE UNIT CONTROLLER SHALL OPERATE THE SUPPLY FAN IN CONJUNCTION WITH THE REFRIGERANT COIL TO MAINTAIN THE SPACE TEMPERATURE SETPOINTS. HEATING AND COOLING SETPOINTS ARE AS FOLLOWS:

COOLING SPACE SETPOINT - 74°F
HEATING SPACE SETPOINT - 68°F

UNOCCUPIED MODE:
ALL ASSOCIATED, RETURN, OUTSIDE AIR AND RELIEF AIR DAMPERS SHALL BE CLOSED. THE UNIT SHALL REMAIN OFF IN UNOCCUPIED MODE UNLESS THE MANUAL BYPASS IS ACTIVATED AT THE BAS. THE UNOCCUPIED MODE SHALL BE BASED ON THE BAS TIMECLOCK SETTING.

MANUAL BYPASS MODE:
THE BAS CONTRACTOR SHALL PROVIDE A MANUAL OVERRIDE WITHIN THE BAS INTERFACE TO PLACE THE SYSTEM INTO OCCUPIED MODE FOR A PERIOD OF 2 HOURS (ADJ.).

OPTIMAL START:
THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

EMERGENCY STOP:
LOCATE AN EMERGENCY STOP BUTTON FOR EACH AHU IN THE MECHANICAL ROOM NEAR THEIR RESPECTIVE DISCONNECTS. WHEN EMERGENCY STOP BUTTON IS PRESSED, THE UNIT OPERATION SHALL BE STOPPED AND AN ALARM SHALL BE GENERATED. UNIT SHALL REVERT TO NORMAL OPERATION UPON CLEARANCE OF ALL ALARM AT THE BAS.

DISCHARGE AIR TEMPERATURE SETPOINTS:
FOR HEATING AND COOLING MODES THE SUPPLY AIR TEMPERATURE SHALL BE AS FOLLOWS:

COOLING MODE | DISCHARGE AIR - 55°F
HEATING MODE | DISCHARGE AIR - 85°F

ECONOMIZER MODE:
DIFFERENTIAL ENTHALPY ENABLES ECONOMIZER OPERATION WHEN THE OUTDOOR AIR ENTHALPY IS BELOW THE RETURN AIR ENTHALPY - 2.0 BTU/LB. WHEN ECONOMIZER OPERATION IS ENABLED AND THE UNIT IS IN COOLING MODE, THE INTERLOCKED OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE TO ALLOW FOR 100% ECONOMIZER OUTSIDE AIRFLOW. THE INTERLOCKED RELIEF AIR DAMPER SHALL OPEN TO ALLOW FOR PRESSURE RELIEF THROUGH THE ASSOCIATED ROOF MOUNTED GRAVITY VENTILATOR. DURING ECONOMIZER MODE THE UNIT SHALL BE PLACED INTO FAN ONLY OPERATION. ECONOMIZER MODE SHALL BE PROHIBITED WHEN THE MIXED AIR TEMPERATURE FALLS BELOW 45°F.

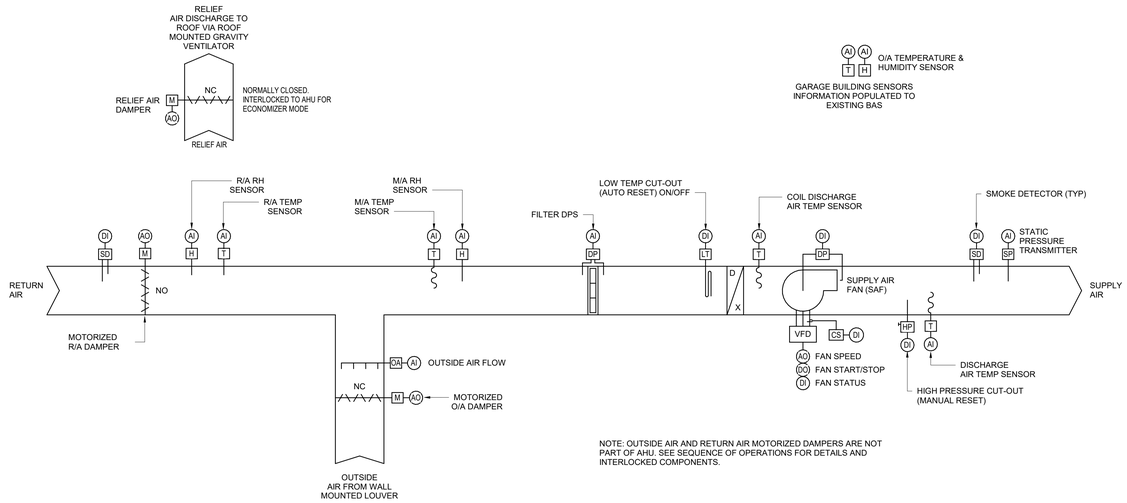
DISCHARGE AIR STATIC PRESSURE HIGH LIMIT:
IF FOR ANY REASON THE DISCHARGE AIR STATIC PRESSURE EXCEEDS THE HIGH LIMIT OF SET DURING TEST AND BALANCE, THE SUPPLY FAN SHALL SHUT DOWN. THE UNIT SHALL BE ALLOWED TO RESTART THREE TIMES AFTER A 15 MINUTE OFF PERIOD. IF THE OVER PRESSURIZATION CONDITION OCCURS ON THE FOURTH RESTART, THE UNIT SHALL SHUT DOWN AND A MANUAL RESET DIAGNOSTIC IS DISPLAYED AT THE REMOTE PANEL AND/OR THE BAS SYSTEM.

FILTER STATUS:
DIFFERENTIAL PRESSURE SWITCH SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTERS. IF THE SWITCH CLOSES FOR 2 MINUTES DURING FAN OPERATION A FILTER MAINTENANCE ALARM SHALL BE ANNUNCIATED AT THE BAS.

SMOKE DETECTOR SHUTDOWN:
THE UNIT SHALL SHUT DOWN IN RESPONSE TO A SIGNAL FROM THE SMOKE DETECTORS INDICATING THE PRESENCE OF SMOKE. THE SMOKE DETECTORS SHALL BE INTERLOCKED TO THE UNIT THROUGH THE DRY CONTACTS OF THE SMOKE DETECTORS. A MANUAL RESET OF THE SMOKE DETECTORS SHALL BE REQUIRED TO RESTART THE UNIT.

LOW TEMPERATURE CUT-OUT CONTROL:
THE UNIT CONTROLLER SHALL RECEIVE A SIGNAL FROM THE LOW TEMPERATURE CUT-OUT CONTROL SENSOR WHEN IT SENSES AN AIR TEMPERATURE BELOW 33° F (ADJ.). THE OUTSIDE AIR AND RETURN AIR DAMPER SHALL CLOSE AND THE UNIT SHALL BE COMMANDED OFF. UPON SHUTDOWN A MANUAL RESET DIAGNOSTIC IS DISPLAYED AT THE REMOTE PANEL AND/OR THE BAS SYSTEM.

CONDENSATE OVERFLOW LIMIT:
THE UNIT SHALL SHUTDOWN IN THE RESPONSE TO A HIGH LEVEL SIGNAL FROM THE CONDENSATE DRAIN PAN FLOAT SWITCH.



NOTE: OUTSIDE AIR AND RETURN AIR MOTORIZED DAMPERS ARE NOT PART OF AHU. SEE SEQUENCE OF OPERATIONS FOR DETAILS AND INTERLOCKED COMPONENTS.

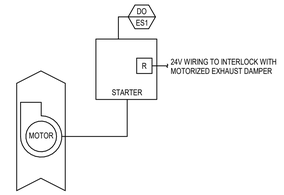
1 SAHU-01 & SAHU-02 SINGLE ZONE VARIABLE AIR VOLUME CONTROL SCHEMATIC AND SEQUENCE

SCALE: N.T.S.

FAN SEQUENCE:

EXHAUST FAN SHALL BE ACTIVATED BY BAS SYSTEM BASED ON OCCUPANCY SCHEDULE. EXHAUST FAN SHALL BE INTERLOCKED WITH THE CORRESPONDING EXHAUST AIR MOTORIZED DAMPER. WHEN THE EXHAUST FAN IS ACTIVATED, THE MOTORIZED DAMPER SHALL OPEN. MOTORIZED DAMPER SHALL CLOSE WHEN THE EXHAUST FAN IS DE-ACTIVATED.

EXHAUST FAN SHALL HAVE CURRENT TRANSDUCER TO MONITOR STATUS. ALARM NOTIFICATION SHALL BE SENT TO THE BAS IN THE EVENT OF A FAN START FAILURE.



2 EF-01 CONTROLS SCHEMATIC AND SEQUENCE

SCALE: N.T.S.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
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100% BID SET

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ELECTRICAL ABBREVIATIONS

A	AMPERES
A/C	AIR CONDITIONING
AC	ABOVE COUNTER
AC	AIR COMPRESSOR
ACCU	AIR COOLED CONDENSER UNIT
ACT	ACOUSTIC CEILING TILE
ACU	AIR CONDITIONING UNIT
ADA	AMERICANS WITH DISABILITIES ACT
ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
AF	AMP FUSE
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPS INTERRUPTING CURRENT
AIR	AMPERE INTERUPTING RATING
AL	ALUMINUM
AMP	AMPERE
AMS	ACCESS MANAGEMENT SYSTEM
AP	ACCESS PANEL
APU	AUXILIARY POWER UNIT
AT/FP	ANTITERRORISM/FORCE PROTECTION
ATR	ALL THREADED ROD
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BCW	BARE COPPER WIRE
BDCT	BUILDING DESIGN AND CONSTRUCTION TEAM
BFG	BELOW FINISHED GRADE
BHS	BAGGAGE HANDLING SYSTEM
BID	BAGGAGE INFORMATION DISPLAY
BTS	BEAM TRANSPORT SYSTEM
C	CONDUIT
CAT6	CATEGORY 6 ETHERNET CABLE
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CC	CRANE CONTROL
CCP	CONCRETE CAMERA POLE
CCTV	CLOSED CIRCUIT TELEVISION
CE	COMMUNICATIONS ENCLOSURE
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFL	COMPACT FLUORESCENT
CH	CHILLER
CKT	CIRCUIT
CLP	CONCRETE LIGHT POLE
CMH	COMMUNICATIONS MANHOLE
CMU	CONCRETE MASONRY UNIT
CNTRL	CONTROLLER
CO	CONDUIT ONLY
COMM	COMMUNICATION
CONC	CONCRETE
CP	CONSOLIDATION POINT
CR	CARD READER
CRU	COMPUTER ROOM UNIT
CT	COOLING TOWER
CT	CURRENT TRANSFORMER
CTWP	COOLING TOWER WATER PUMP
CU	COPPER
CUB	CENTRAL UTILITIES BUILDING
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
DAS	DISTRIBUTED ANTENNA SYSTEM
DC	DIRECT CURRENT
DCU	DUCTLESS SPLIT AIR CONDITIONING OUTDOOR UNIT
DDC	DIRECT DIGITAL CONTROL PANEL
DH	DOOR HOLDER
DHZ	DAYLIGHT HARVESTING ZONE
DISC	DISCONNECT
DTCO	DOUBLE-THROW CENTER OFF
DWG	DRAWING
E	EXISTING
E	EAST
EC	ELECTRICAL CONTRACTOR
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EL	ELEVATION
EL	EMERGENCY LIGHT
ELEC	ELECTRIC/ELECTRICAL
EM	EMERGENCY
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EMH	ELECTRICAL MANHOLE
EMI	ELECTROMAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
EOR	ENGINEER OF RECORD
EPO	EMERGENCY POWER-OFF
EQ	EQUAL
ER	EXISTING TO BE REMOVED
ERU	ENERGY RECOVERY UNIT
ESS	ENERGY SELECTION SYSTEM
ETSP	ELECTRONIC TRAP SEAL PRIMER
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EX	EXISTING TO REMAIN
EXR	EXISTING TO BE RELOCATED
F/P	FAX / PRINTER
FA	FIRE ALARM
FAAA	FIRE ALARM AUDIO AMPLIFIER
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FAGA	FIRE ALARM GRAPHIC ANNUNCIATOR
FAIC	FIRE ALARM INTERFACE CABINET
FAPS	FIRE ALARM POWER SUPPLY
FATC	FIRE ALARM TERMINAL CABINET
FCU	FAN COIL UNIT
FID	FLIGHT INFORMATION DISPLAY
FLA	FULL LOAD AMPS
FLR	FLOOR
FO	FIBER OPTIC
FPB	FAN POWERED TERMINAL BOX
FPU	FAN POWERED TERMINAL UNIT
FS	FLOW SWITCH
FSPC	FLUSHFAUCET SENSOR POWER CONVERTER
FTU	FAN POWERED VAV TERMINAL UNIT
G	GROUND
GC	GENERAL CONTRACTOR
GDF	GAS DUCT FURNACE
GF	GROUND FAULT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GFP	GROUND FAULT PROTECTION
GID	GATE INFORMATION DISPLAY
GPU	GROUND POWER UNIT
GR	GROUND ROD
GRC	GALVANIZED RIGID CONDUIT
GUH	GAS UNIT HEATER
GWH	GAS WATER HEATER
HB	HIGH BAY
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HP	HORSE POWER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
IC	INTERCOM
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
ITC	INTERCOM TERMINAL CABINET
J	JUNCTION
JB	JUNCTION BOX
KAIC	(THOUSAND) AMPERE INTERRUPTING CAPACITY
Kcmil	THOUSANDS OF CIRCULAR MILS
KO	KNOCK OUT
KVA	KILOVOLT-AMPERES
KW	KILOWATT
LBS	LOAD BREAK SWITCH
LC	LIGHTING CONTACTOR
LED	LIGHT EMITTING DIODE
LPS	LIGHTNING PROTECTION SYSTEM
LSI	LONG TIME, SHORT TIME, INSTANTANEOUS
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT
LT	LIGHT
LTG	LIGHTING
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MNS	MASS NOTIFICATION SYSTEM
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH
MUFID	MULTI-USER FLIGHT INFORMATION DISPLAY
N	NEUTRAL
N	NORTH
N/A	NOT APPLICABLE
NAC	NOTIFICATION APPLIANCE CIRCUIT
NE	NORTH ENTRANCE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NUMBER
NTS	NOT TO SCALE
O.C.	ON CENTER
OAE	OR APPROVED EQUAL
OAHU	OUTSIDE AIR HANDLING UNIT
OH	OVERHEAD
OS	OCCUPANCY SENSOR
P	PHASE
PBB	PASSENGER BOARDING BRIDGE
PBX	PRIVATE BRANCH EXCHANGE
PCHWP	PRIMARY CHILLED WATER PUMP
PIV	POST INDICATOR VALVE
PNEU	PNEUMATIC
PNL	PANELBOARD
PNL	PANEL
POE	POWER OVER ETHERNET
PP	POWER PANEL
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYLCHLORIDE
RAF	RETURN AIR FAN
RECP	RECEPTACLE
REF	REFRIGERATOR
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METAL CONDUIT
RTU	ROOF TOP UNIT
S	SOUTH
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SCCR	SHORT CIRCUIT CURRENT RATING
SCHWP	SECONDARY CHILLED WATER PUMP
SD	SUB-DISTRIBUTION CABINET
SE	SOUTH ENTRANCE
SEC	SECURITY
SEGB	SERVICE ENTRANCE GROUND BAR
SF	SUPPLY FAN
SHWP	SECONDARY HOT WATER PUMP
SIM	SIMILAR
SLC	SIGNAL LINE CIRCUIT
SN	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SPEC	SPECIFICATION
SPST	SINGLE POLE SINGLE THROW
SQ	SQUARE
SS	STAINLESS STEEL
SSF	SIDE STREAM FILTER
ST	SHUNT TRIP COIL
STC	SECURITY TERMINAL CABINET
STR	STARTER
STS	STAINLESS STEEL
STS	STATIC TRANSFER SWITCH
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
T	TRANSFORMER
TB	TELEPHONE BACKBOARD
TE	THERMAL ELEMENT
TEFC	TOTALLY ENCLOSED FAN COOLED
TEL	TELEPHONE
TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
TR	TAMPER RESISTANT
TS	TAMPER SWITCH
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UDS	UTILITY DISTRIBUTION SYSTEM
UG	UNDERGROUND
UGC	UNDERGROUND COMMUNICATIONS
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UNSW	UNSWITCHED
UON	UNLESS OTHERWISE NOTED
UT	UTILITY
UTR	UP THROUGH ROOF
V	VOLTS
VAV	VARIABLE AIR VOLUME (HVAC)
VFD	VARIABLE FREQUENCY DRIVE
VFI	VACUUM FAULT INTERRUPTER
VT	VOLTAGE TRANSFORMER
W	WIRE
W	WALL MOUNTED
W	WATTS
W	WEST
WP	WEATHERPROOF
WR	WEATHER-RESISTANT
Y	WYE (CONNECTED)
Z	ZONE
Z	IMPEDANCE

ELECTRICAL SYMBOLS

LIGHTING SYMBOLS

GENERAL NOTE: UPPER CASE LETTER INDICATES LUMINAIRE TYPE, SEE LUMINAIRE SCHEDULE. LOWER CASE LETTER INDICATES SWITCH CIRCUIT.

- RECESSED LUMINAIRE WITH OUTLET
- RECESSED EMERGENCY OR NIGHTLIGHT LUMINAIRE WITH OUTLET
- RECESSED OR SURFACE STANDBY LUMINAIRE WITH OUTLET
- SURFACE LUMINAIRE WITH OUTLET
- SURFACE EMERGENCY OR NIGHTLIGHT LUMINAIRE WITH OUTLET
- SURFACE LUMINAIRE
- STANDBY RECESSED OR SURFACE LUMINAIRE
- EMERGENCY RECESSED OR SURFACE LUMINAIRE
- EMERGENCY WALL LUMINAIRE
- PENDANT LUMINAIRE
- EXTERIOR SURFACE OR RECESSED WALL MOUNTED LUMINAIRE
- EXTERIOR EMERGENCY SURFACE OR RECESSED WALL MOUNTED LUMINAIRE
- CEILING MOUNTED TRACK AND LUMINAIRES
- BOLLARD OR POLE MOUNTED LUMINAIRE WITHOUT ARM
- AREA LUMINAIRE WITH MOUNTING ARM ONLY
- POLE MOUNTED AREA LUMINAIRE
- POLE MOUNTED DUAL AREA LUMINAIRE
- POLE MOUNTED TRIPLE AREA LUMINAIRE
- POLE MOUNTED QUAD AREA LUMINAIRE
- CEILING MOUNTED EXIT LUMINAIRE, PROVIDE ARROWS AS REQUIRED
- WALL MOUNTED PHOTOCELL
- SINGLE POLE SWITCH
- SINGLE POLE 3-WAY SWITCH
- SINGLE POLE 4-WAY SWITCH
- SINGLE POLE DIMMER SWITCH, 2000 W OR LMDM-101, UON
- SINGLE POLE SWITCH WITH PILOT LIGHT
- SINGLE POLE OCCUPANCY SENSOR SWITCH, WATTSTOPPER PW-301 OR LMPW-100, OAE
- SINGLE POLE KEY OPERATED SWITCH
- SINGLE POLE TIMER OPERATED SWITCH
- SINGLE POLE CEILING FAN SWITCH
- SINGLE POLE LOW VOLTAGE MASTER SWITCH
- SINGLE POLE VACANCY SENSOR SWITCH, WATTSTOPPER CS-50 OR LMDW-101, OAE
- DOUBLE POLE SWITCH
- LOW VOLTAGE, 3 POSITION MOMENTARY, CENTER OFF SWITCH
- CEILING MOUNTED PASSIVE INFRARED OCCUPANCY SENSOR, WATTSTOPPER CI-300-1 OR LMPC-100, OAE
- CEILING MOUNTED OCCUPANCY SENSOR, WATTSTOPPER W2000A OR 2 LMUC-100, OAE
- CEILING MOUNTED OCCUPANCY SENSOR, WATTSTOPPER W1000A OR LMUC-100, OAE
- CEILING MOUNTED OCCUPANCY SENSOR, WATTSTOPPER W2000H OR 2 LMUC-100, OAE
- WALL MOUNTED OCCUPANCY SENSOR, WATTSTOPPER CB-100 OR LMDX-100, OAE
- JUNCTION BOX FOR REMOTE LED DRIVER
- JUNCTION BOX FOR BACKLIT MIRROR

POWER SYSTEMS

- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE ABOVE COUNTER
- DUPLEX RECEPTACLE AUTOMATICALLY CONTROLLED
- DUPLEX ISOLATED GROUND RECEPTACLE
- DUPLEX GFCI RECEPTACLE
- DUPLEX RECEPTACLE MOUNTED @ SPECIFIC HEIGHT
- DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT
- DOUBLE DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE ABOVE COUNTER
- DOUBLE DUPLEX RECEPTACLE AUTOMATICALLY CONTROLLED
- SPECIAL RECEPTACLE MOUNTED @ SPECIFIC HEIGHT & NEMA TYPE
- DUPLEX RECEPTACLE IN FLOOR BOX
- DOUBLE DUPLEX RECEPTACLE IN FLOOR BOX
- DUPLEX RECEPTACLE CEILING MOUNTED
- SINGLE POLE MANUAL MOTOR SWITCH
- SINGLE POLE THERMAL ELEMENT SWITCH
- JUNCTION BOX CEILING MOUNTED
- JUNCTION BOX WALL MOUNTED
- JUNCTION BOX IN FLOOR
- DATA RECEPTACLE
- DATA RECEPTACLE IN FLOOR BOX
- DISCONNECT SWITCH FUSED
- DISCONNECT SWITCH NON-FUSED
- COMBINATION MOTOR STARTER FUSED
- PUSH BUTTON START/STOP
- PUSHBUTTON
- LIGHTING RELAY
- DISTRIBUTION TRANSFORMER
- AUTOMATIC TRANSFER SWITCH
- SURGE PROTECTIVE DEVICE
- ELECTRONIC WALL CLOCK
- RECEPTACLE ON DROP CORD
- RECEPTACLE ON CORD REEL

GROUNDING SYSTEMS

- LIGHTNING PROTECTION AIR TERMINAL
- GROUND ROD
- LIGHTNING PROTECTION COND. SPLICE
- GROUND BAR
- GROUND TEST WELL

MOUNTING HEIGHTS

ABOVE COUNTER DEVICES	6" TO BOTTOM WITHOUT BACKSPLASH 4" TO BOTTOM WITH BACKSPLASH
WALL LUMINAIRES	SEE LUMINAIRE SCHEDULE OR KEYNOTE
EXTERIOR SPEAKERS	10'-0" TO CENTER OF BOX, UON
TV OUTLETS & TV RECEPTACLE	72" TO BOTTOM OF BOX, UON
RECEPTACLES IN INDUSTRIAL AREAS	48" AFF TO CENTER LINE, UON
RECEPTACLES	18" AFF TO CENTER LINE, UON
SWITCHES	48" AFF TO CENTER OF BOX, UON
GROUND BAR	18" AFF TO BOTTOM OF BAR OR BOX, UON
EMERGENCY PHONE	54" AFF TO CENTER LINE, UON
CARD READER	48" AFF TO CENTER LINE, UON
EPO SWITCHES	54" AFF TO CENTER LINE, UON
CEILING MOUNTED DEVICES	EQUAL HEIGHT TO ROOM LUMINAIRES

ELECTRICAL SYMBOL NOTES

D3 1d — THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

E1 1 — EXIT LIGHTS: STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER.

1d — DEVICES: THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER.

d — THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SINGLE POLE SWITCH "d" TO CONTROL LIGHTING FIXTURES INDICATED BY "d".

PANELBOARDS: PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION CODES.

FLOOR CLEARANCE AREA

TA — TRANSFORMERS: "TA" INDICATES THE TRANSFORMER IDENTIFIER, SEE ONE-LINE DIAGRAM FOR TRANSFORMER RATING.

XX-1 — MOTOR CONNECTIONS: THE MOTOR IS INDICATED BY A NUMBER WITHIN OR CHARACTERS ADJACENT TO THE MOTOR SYMBOL. SEE THE MOTOR AND EQUIPMENT SCHEDULE FOR THE MOTOR DESCRIPTION AND ELECTRICAL REQUIREMENTS.

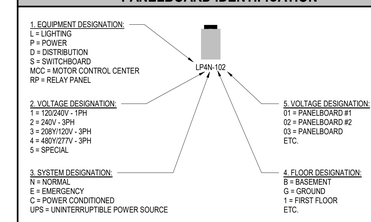
GRAPHICAL REPRESENTATION OF PHASING, TYPICAL FOR ALL SYMBOLS

XX-1 XX-1 XX-1

EXISTING TO REMAIN

NEW

PANELBOARD IDENTIFICATION



GENERAL NOTES

1. ALL ELECTRICAL WORK MUST COMPLY WITH NATIONAL ELECTRICAL CODE, NFPA 70, THE NATIONAL FIRE CODES, THE AMERICANS WITH DISABILITIES ACT, AND NORTH CAROLINA BUILDING CODES.
2. THOROUGHLY REVIEW THE PROJECT TO ENSURE THAT ALL WORK MUST MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES MUST BE BROUGHT TO THE ENGINEER'S ATTENTION.
3. OBTAIN COPIES OF ALL RELATED PLANS, SPECIFICATIONS, SHOP DRAWINGS AND ADDENDA TO COORDINATE THE RELATED WORK AND SCHEDULING.
4. THE ELECTRICAL SERVICE TO AND FOR MECHANICAL AND OTHER EQUIPMENT IS BASED ON EQUIPMENT DESIGN DATA. THE ACTUAL VALUES MAY DIFFER DEPENDING UPON THE EQUIPMENT TO BE FURNISHED. ANY MODIFICATION TO THE ELECTRICAL INSTALLATION, BASED UPON ACTUAL EQUIPMENT SELECTION, MUST RESULT IN NO ADDITIONAL COST TO THE OWNER.
5. THOROUGHLY REVIEW THE ARCHITECTURAL AND MECHANICAL PLANS TO ENSURE THAT ELECTRICAL SERVICE FOR ALL ITEMS AND/OR EQUIPMENT REQUIRING ELECTRICAL SERVICE IS INCLUDED. ANY ITEM AND/OR EQUIPMENT NOT FURNISHED AND INSTALLED WITH ELECTRICAL SERVICE, REQUIRING ELECTRICAL SERVICE, MUST BE BROUGHT TO THE ENGINEER'S ATTENTION.
6. MECHANICAL, FIRE PROTECTION AND ELECTRICAL EQUIPMENT HAVE BEEN LOCATED AND ARRANGED TO MINIMIZE THE INTERFERENCES OF EQUIPMENT AND STRUCTURE. THOROUGHLY FAMILIARIZE ONESELF WITH THE WORK TO BE PERFORMED BY OTHER TRADES AND THE PHYSICAL CHARACTERISTICS OF THE STRUCTURE IN ORDER TO SCHEDULE AND INSTALL EQUIPMENT AND TO MINIMIZE POSSIBLE INTERFERENCE. FAILURE TO PROPERLY COMMUNICATE AND SCHEDULE WORK WITH OTHER TRADES THAT RESULTS IN ADDITIONAL WORK AND MATERIAL MUST BE THE RESPONSIBILITY OF THE CONTRACTOR. THE MODIFICATIONS REQUIRED TO RESOLVE THE CONFLICT MUST BE DECIDED BY THE ENGINEER.
7. ALL PANELBOARDS MUST BE FURNISHED AND INSTALLED WITH A TYPEWRITTEN SCHEDULE SHOWING CIRCUIT NUMBERS AND A COMPLETE DESCRIPTION OF EACH CIRCUIT, INCLUDING OFFICIAL ROOM NUMBER. HANDWRITTEN SCHEDULES ARE NOT ACCEPTABLE.
8. ALL LIGHT SWITCHES AND DUPLEX RECEPTACLES MUST BE RATED FOR 20 AMPERES AT 120/277 VOLTS AC. WIRING DEVICES MUST BE SPECIFICATION GRADE.
9. ALL ELECTRICAL WIRING DEVICES INDICATED TO BE INSTALLED IN MASONRY WALLS OR FLOORS MUST BE FLUSH MOUNTED, INCLUDING BRANCH CIRCUIT PANELBOARDS, UON. THE CONDUITS TO ASSOCIATED ELECTRICAL EQUIPMENT MUST BE CONCEALED IN WALLS OR FLOOR.
10. ALL CONDUIT RUNS MUST BE CONCEALED, UON.
11. THE LUMINAIRE SCHEDULE IS FOR REFERENCE ONLY. MODEL NUMBERS LISTED MAY NOT INCLUDE ALL REQUIRED OPTIONS, HOWEVER, THESE OPTIONS MUST BE FURNISHED AND INSTALLED WITH THE LUMINAIRES. ALL SUBSTITUTIONS ARE SUBJECT TO PRIOR APPROVAL AS EQUAL BY THE ENGINEER OF RECORD.
12. ALL EXIT LIGHTS MUST BE FURNISHED AND INSTALLED WITH UNIVERSAL MOUNTING BRACKETS. VERIFY ALL DIRECTIONAL ARROWS WITH ARCHITECTURAL EGRESS PLANS PRIOR TO ORDERING LUMINAIRES.
13. FURNISH THE AIR CONDITIONING SUBCONTRACTOR AND THE CEILING SUBCONTRACTOR COPIES OF APPROVED LUMINAIRE SHOP DRAWINGS.
14. ALL RECESSED LUMINAIRES IN FIRE RATED CEILINGS MUST BE TENTED TO COMPLY WITH THE APPLICABLE CEILING RATING. VERIFY REQUIREMENTS.
15. ALL COMMUNICATIONS OUTLET BOXES MUST BE MIN. 4" WIDE BY 4" HIGH BY 2 1/2" DEEP WITH SINGLE GANG MUD RING.
16. FURNISH AND INSTALL 1" C FROM COMMUNICATIONS OUTLET TO THE ACCESSIBLE CEILING SPACE, UON. FURNISH AND INSTALL CABLING AS REQUIRED. CABLE ROUTING WILL BE VIA CONDUIT (INACCESSIBLE SPACES) OR J" HOOKS AND CABLE TRAY SYSTEM (ACCESSIBLE SPACES) TO COMMUNICATION ROOM OR ROOM OF TERMINATION. FURNISH AND INSTALL RACEWAY SYSTEM OVER THE INACCESSIBLE CEILING SPACE AS INDICATED ON PLANS. COMMUNICATIONS CONDUITS ARE TO BE LONG RADIUS TYPE AND MUST CONTAIN PULL STRINGS. FURNISH AND INSTALL PLATES FOR ALL OUTLETS. CAT6 CABLES MUST BE PLENUM RATED.
17. ALL SPECIAL PURPOSE OUTLETS MUST BE FURNISHED AND INSTALLED TO MATCH EQUIPMENT TO BE SUPPLIED.
18. THE PLANS INDICATE THE DESIRED ARRANGEMENT AND GENERAL LOCATIONS OF LUMINAIRES. THE ARCHITECTURAL CEILING PLANS INDICATE ADDITIONAL DATA AS TO THE FINAL FIXTURE PLACEMENT.
19. ALL CONDUITS MUST INCLUDE A SEPARATE GREEN EQUIPMENT GROUNDING CONDUCTOR.
20. ANY EXISTING UTILITIES LOCATED IN THE AREA OF CONSTRUCTION THAT REQUIRE RELOCATION OR TIE-IN MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE. PROVIDE 72 HOUR ADVANCE NOTICE.
21. ALL DISCONNECT SWITCHES MUST BE THE HEAVY DUTY TYPE. FUSED DISCONNECTS MUST HAVE LITTLEFUSE TIME DELAY, CLASS RK5 AND INDICATING CLASS RK5.
22. CHECK THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND/OR DIMENSIONS FOR INSTALLATION OF ALL ELECTRICAL ITEMS. ALL QUESTIONABLE LOCATIONS MUST BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
23. ALL EMPTY CONDUITS MUST CONTAIN JET LINE #232 POLYOLEFIN 200 LB. TEST PULL STRING.
24. ALL WORK SHOWN ON THE ELECTRICAL PLANS MUST BE PERFORMED BY THE CONTRACTOR, UON.
25. ALL EXIT FIXTURES MUST BE CONNECTED TO THE BUILDING LIFE SAFETY PANEL AND/OR HAVE INTEGRAL EMERGENCY BATTERY.
26. ALL SURGE PROTECTED OUTLETS MUST BE EQUAL TO HUBBELL #5352.
27. EQUIPMENT INSTALLED WITHIN CONCEALED SPACES MUST HAVE REASONABLE ACCESS PANELS FURNISHED AND INSTALLED NEARBY FOR INSPECTION, TESTING, AND SERVICE CONSIDERATIONS. LOCATION OF ACCESS PANELS PER APPROVAL OF ARCHITECT/ENGINEER.
28. SECURITY WIRING MUST BE IN CONDUIT AND MUST BE A SEPARATE, COMPLETE, AND FULLY FUNCTIONAL SYSTEM.
29. VERIFY CEILING TYPES AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING LUMINAIRES.
30. WHERE CABLES OR CONDUITS ARE REQUIRED TO PASS THROUGH A FIRE RATED WALL, FLOOR, OR CEILING THEY MUST BE SEALED WITH FIRESTOP. THE APPROVED FIRESTOP METHOD MUST COMPLY WITH ARTICLES 300.21 OF NEC AND MUST BE UL LISTED UNDER "THROUGH-PENETRATION FIRESTOP SYSTEM (XHEZ)" IN UL FIRE RESISTANCE DIRECTORY. ALL UNSPRINKLERED FACILITIES MUST BE CONSIDERED TO HAVE INTERIOR CORRIDORS WITH FIRE RATED WALLS, UNO. ANY PENETRATION THROUGH THESE WALLS AND OTHER FIRE RATED WALLS MUST BE SEALED WITH FIRESTOP. FURNISH AND INSTALL MINIMUM 1" EMT THROUGH WALL PENETRATIONS.
31. SPARE CONDUITS, WIREWAYS, AND CABLE TRAYS MUST BE SUPPORTED FROM BUILDING STRUCTURE AND NOT FROM OTHER PIPES, DUCTS, OR EXISTING RACKS, UON.
32. EXTERIOR BURIED CONDUIT RUNS MUST BE MINIMUM 24" BELOW FINISHED GRADE. FURNISH AND INSTALL CAUTION TAPE 12" BELOW GRADE. FURNISH AND INSTALL (1) SPARE WITH EACH UNDERGROUND RUN. DUCT BANKS MUST BE CONCRETE ENCASED WITH LOCATION PLAQUES PLACED EVERY 50' AND BEFORE AND AFTER EVERY TURN, UON. SUBMIT SHOP DRAWINGS BEFORE DIGGING.
33. FURNISH AND INSTALL GROUND STRAP ACROSS ALL CABLE TRAY JOINTS. GROUND CABLE TRAY TO SERVICE GROUND WITH #1/0 AWG BARE COPPER.
34. ALL CONDUIT BENDS FOR COMMUNICATIONS WIRING MUST BE SMOOTH LONG RADIUS TYPE. "LB" TYPE FITTINGS MUST NOT BE USED FOR FOR COMMUNICATION RACEWAY.
35. DO NOT LOCATE ELECTRICAL OUTLETS AND DEVICES ON WALL PANEL JOINTS. REFER TO ARCHITECTURAL BUILDING ELEVATIONS FOR WALL PANEL LAYOUT AND PANEL JOINT LOCATIONS.
36. FURNISH AND INSTALL A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR OF SINGLE POLE BRANCH CIRCUITS THAT SERVE HIGH HARMONIC LOADS, SUCH AS, BALLAST OR SWITCH MODE POWER SUPPLIES (I.E. PERSONAL COMPUTERS AND SERVERS).
37. RACEWAYS INSTALLED IN OUTDOOR LOCATIONS MUST BE HOT DIPPED GALVANIZED, AT MINIMUM, FOR CORROSION RESISTANCE. FOR HIGHLY CORROSIVE ENVIRONMENTS, SUCH AS COASTAL AREAS, ALUMINUM, STAINLESS STEEL, OR PVC COATED RACEWAYS MUST BE REQUIRED.
38. POWER CHANGE EXPENSES RESULTING FROM EQUIPMENT SUBSTITUTIONS THAT DIFFER FROM ITEMS CALLED FOR IN DRAWINGS OR SPECIFICATIONS MUST BE BORNE BY THE CONTRACTOR OR THEIR SUB. THESE MUST INCLUDE CHANGES IN VOLTAGE OR FULL LOAD AMPS RESULTING IN LARGER FEEDERS AND OR CIRCUIT BREAKERS.
39. COORDINATE FINAL ELECTRICAL DEVICE AND LUMINAIRE LOCATIONS WITH FINAL SPRINKLER HEAD LOCATIONS TO COMPLY WITH NFPA REQUIREMENTS.
40. WATERPROOF RECEPTACLE COVER MUST BE WP EXTRA DUTY WHILE IN-USE TYPE.
41. ALL EXISTING ELECTRICAL DEVICES THAT ARE NOT SHOWN ARE EXISTING TO REMAIN, UON.
42. COORDINATE WITH DIVISION 23 FOR DISCONNECT REQUIREMENTS ON MECHANICAL EQUIPMENT. REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR INFORMATION. FURNISH AND INSTALL DISCONNECTS FOR THOSE DEVICES THAT DO NOT COME WITH FACTORY INSTALLED DISCONNECTS.
43. BEFORE INITIATING ANY UNDERGROUND WORK, LOCATE ALL UTILITIES.
44. INTERIOR FIRE ALARM CONDUCTORS MUST BE INSTALLED IN RED EMT CONDUIT. EXTERIOR FIRE ALARM CONDUIT MUST BE RED RMC CONDUIT.
45. RAMP LEVEL CONDUIT INSTALLED IN UNCONDITIONED AIR SPACE MUST BE RMC WITH COMPRESSION FITTINGS. CONDUIT LEAVING TENANT SPACE MUST BE 1) LABELED BEFORE AND AFTER THE WALL PENETRATED BY THE CONDUIT. 2) LABELED EVERY 50' OR ON EVERY 90 DEGREE TURN. LABEL MUST BE 1 1/2" LABEL TAPE IDENTIFYING THE ORIGIN AND DESTINATION (ROOM NAME AND NUMBER), CIRCUIT NUMBER AND SYSTEM NAME.

NOTE: LIST IS A MASTER LIST, ALL SYMBOLS AND ABBREVIATIONS MAY NOT USED IN THIS PROJECT.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	BWG
DESIGNED BY:	CRD

PROJECT NUMBER:
2003-0070-006

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SHEET TITLE:
ELECTRICAL GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET ID:
E001

PROJECT STATUS:
100% BID SET

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GENERAL NOTES

A. THIS DRAWING IS INTENDED TO SHOW THE GENERAL ARRANGEMENT OF A LIGHTNING PROTECTION SYSTEM FOR THIS BUILDING. THESE DRAWINGS DO NOT SHOW COMPLETE DETAIL AND BONDING REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM INSTALLED IN ACCORDANCE WITH APPROVED LIGHTNING PROTECTION SYSTEM SHOP DRAWING AND A UL LIGHTNING PROTECTION INSPECTION CERTIFICATE CERTIFIED TO UL 96A.

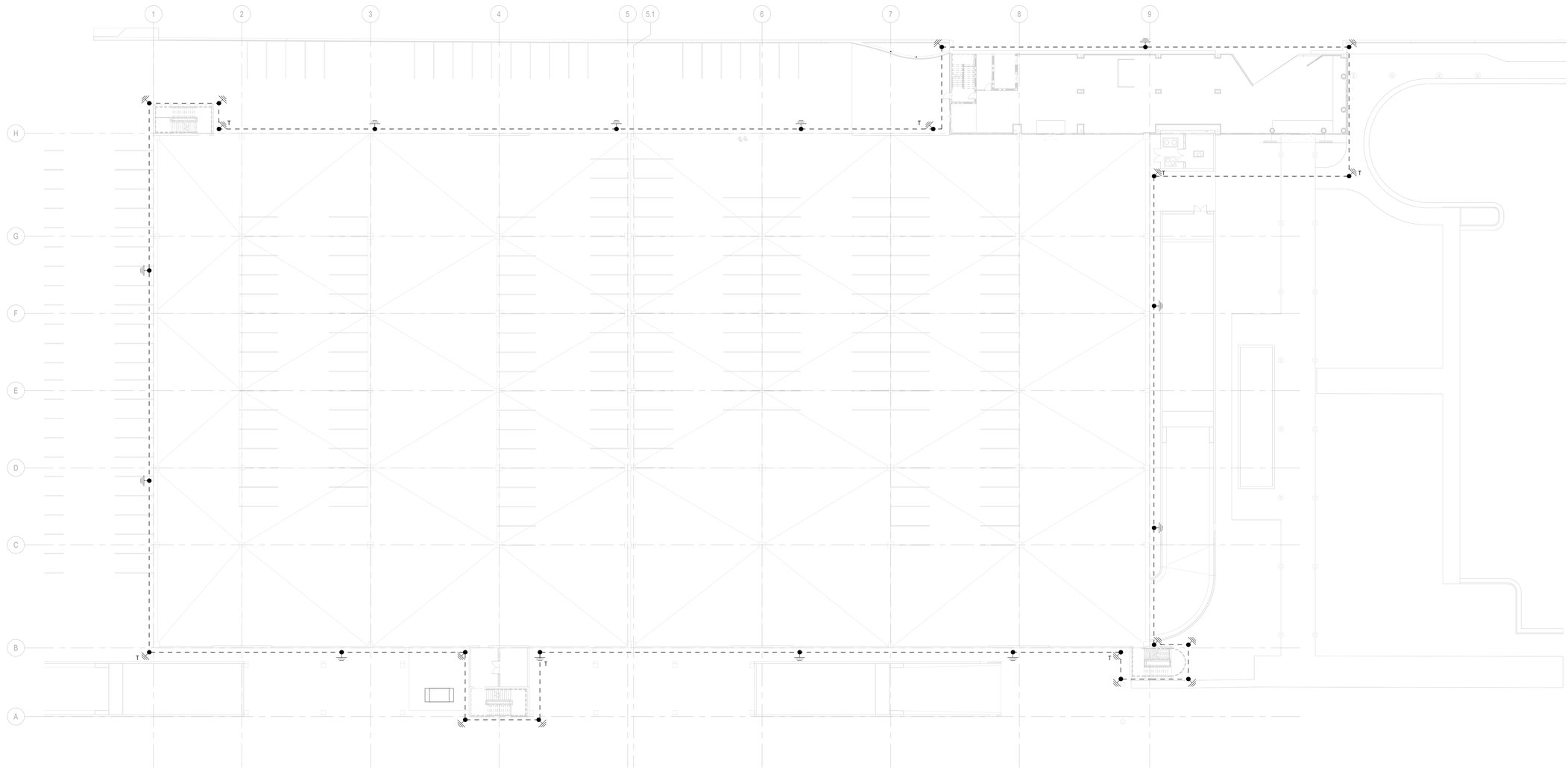
B. GROUND ELECTRODES SHALL BE INSTALLED AS SHOWN BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM FOUNDATION WALL. DRIVEN RODS SHALL PENETRATE EARTH A MINIMUM OF 10'-0".

C. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS SHOWN AND AS REQUIRED BY CODES.

D. INTERCONNECT LIGHTNING PROTECTION GROUND TO ELECTRIC, TELECOMMUNICATIONS, AND OTHER BUILDING GROUND SYSTEMS AS SHOWN OR AS REQUIRED BY CODE.

E. "AS-BUILT" DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH CERTIFICATION PROCEDURES.

F. COMPLETED INSTALLATION AS SHOWN SHALL BEAR U.L. MASTER LABEL. TO BE SECURED BY SYSTEM INSTALLER PER UL96A.



PN
N

A1 FIRST FLOOR ELECTRICAL GROUNDING PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

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Hartranft Lighting Design

ILM

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PROJECT ADDRESS:
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DRAWN BY:	BWG
DESIGNED BY:	CRD

PROJECT NUMBER:
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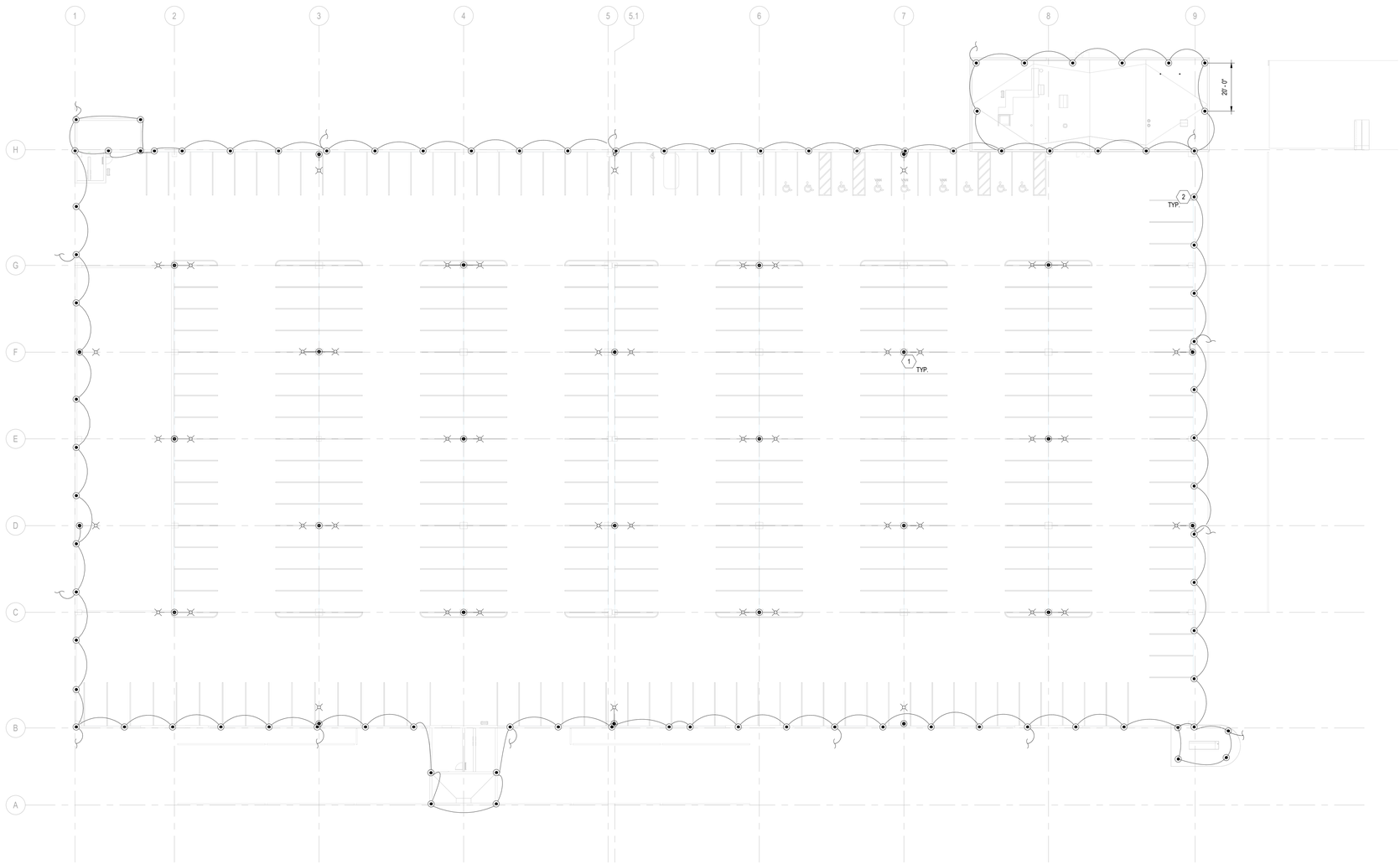
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FIRST FLOOR ELECTRICAL GROUNDING PLAN

SHEET ID:
EG111

PROJECT STATUS:
100% BID SET

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PN

N

A1 LIGHTING PROTECTION PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

GENERAL NOTES

A. THIS DRAWING IS INTENDED TO SHOW THE GENERAL ARRANGEMENT OF A LIGHTNING PROTECTION SYSTEM FOR THIS BUILDING. THESE DRAWINGS DO NOT SHOW COMPLETE DETAIL AND BONDING REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM INSTALLED IN ACCORDANCE WITH APPROVED LIGHTNING PROTECTION SYSTEM SHOP DRAWING AND A UL LIGHTNING PROTECTION INSPECTION CERTIFICATE CERTIFIED TO UL 96A.

B. ALL LIGHTNING PROTECTION SYSTEM COMPONENTS (AIR TERMINALS, CONDUCTORS ETC.) SHALL BE COMPATIBLE WITH ROOF MATERIALS.

C. LOCATE AIR TERMINALS AS SHOWN. TAKE CARE TO INSURE THAT ALL POINTS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNERS, AND RIDGE ENDS, AND THAT MAXIMUM SPACING DOES NOT EXCEED 20'-0", AND THAT MINIMUM PROJECTION ABOVE OBJECT PROTECTED IS 10" (POINTS PROJECTING 24" MAY BE SPACED AT 25' MAX.).

D. MAINTAIN HORIZONTAL OR DOWNWARD COURSING OF MAIN CONDUCTOR AND INSURE THAT ALL BENDS HAVE AT LEAST AN 8" RADIUS AND DO NOT EXCEED 90°.

E. ATTACH ALL EXPOSED ROOF, DOWN LEAD AND BONDING CABLES AT 3'-0" ON CENTER MAXIMUM. VERIFY COMPATIBILITY OF ADHESIVE ON MEMBRANE ROOF APPLICATIONS PRIOR TO INSTALLATION.

F. GROUND ELECTRODES SHALL BE INSTALLED AS SHOWN BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM FOUNDATION WALL. DRIVEN RODS SHALL PENETRATE EARTH A MINIMUM OF 10'-0".

G. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS SHOWN AND AS REQUIRED BY CODES.

H. INTERCONNECT LIGHTNING PROTECTION GROUND TO ELECTRIC, TELECOMMUNICATIONS, AND OTHER BUILDING GROUND SYSTEMS AS SHOWN OR AS REQUIRED BY CODE.

I. "AS-BUILT" DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH CERTIFICATION PROCEDURES.

J. ALL MATERIAL TO BE UNDERWRITER'S LABORATORIES APPROVED WITH LABELS ON CONDUCTORS AT 10'-0" INTERVALS AND LABELS ON ALL AIR TERMINALS.

K. COMPLETED INSTALLATION AS SHOWN SHALL BEAR U.L. MASTER LABEL. TO BE SECURED BY SYSTEM INSTALLER PER UL96A.

L. ON HINGED EXHAUST FAN HOODS, CONDUCTORS SHALL BE ROUTED NEXT TO HINGES TO ALLOW OPENING OF EXHAUST HOODS WITHOUT REMOVING LIGHTNING PROTECTION CONDUCTORS. ON EXHAUST FAN HOODS THAT ARE REMOVABLE FOR ACCESS TO MOTORS, ROUTE CONDUCTORS SO AS TO ALLOW REMOVAL.

M. CABLE, BONDING PLATES AND AIR TERMINALS SHALL BE ARRANGED SO THAT COVERS AND ACCESS TO EQUIPMENT WILL NOT BE RESTRICTED. COORDINATE WITH EQUIPMENT MANUFACTURER'S INSTALLATION DRAWINGS.

N. BOND ALL VENTS, DRAINS, PIPING AND METAL COMPONENTS TO THE LIGHTNING PROTECTION SYSTEM.

O. BIMETALLIC FITTINGS SHALL BE USED FOR THE CONNECTION OF ALUMINUM ROOF CONDUCTORS TO COPPER DOWN CONDUCTORS AND WHEN JOINING METALS THAT ARE NOT GALVANICALLY COMPATIBLE.

KEYNOTES

1 POLE MOUNTED AIR TERMINAL, ROUTE DOWN CONDUCTOR ON THE OUTSIDE OF THE POLE THROUGH THE POLEBASE TO THE LEVEL BELOW ROUTE ALL DOWN CONDUCTORS TO BURIED GROUND LOOP.

2 COORDINATE AIR TERMINAL MOUNTING WITH TOP RAILING, COORDINATE ROUTING OF BONDING AND DOWN CONDUCTORS IN THE FIELD.

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Hartranft Lighting Design

ILM

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PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

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DATE ISSUED: 03/14/2025
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DRAWN BY: BWG
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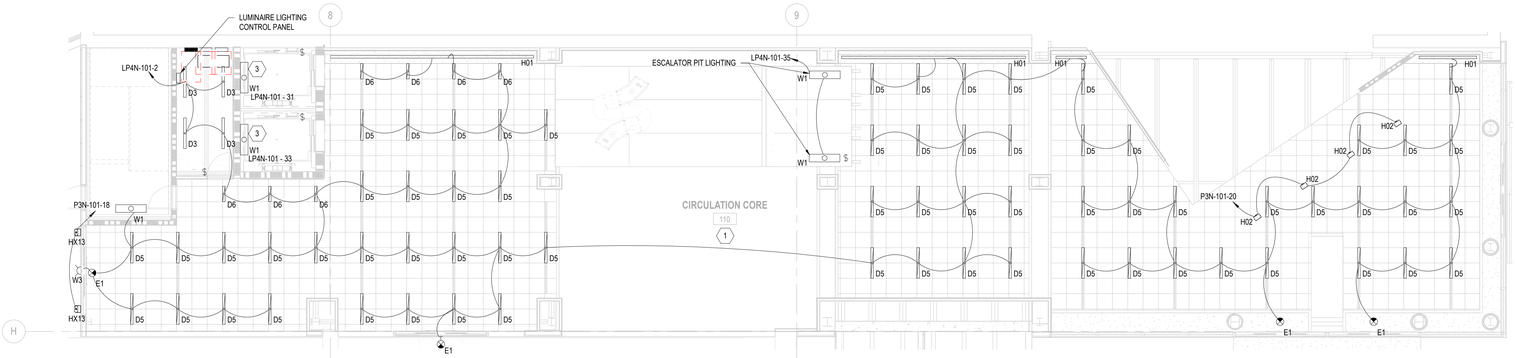
SHEET TITLE:
LIGHTNING PROTECTION PLAN

SHEET ID:
EG131

PROJECT STATUS:
100% BID SET

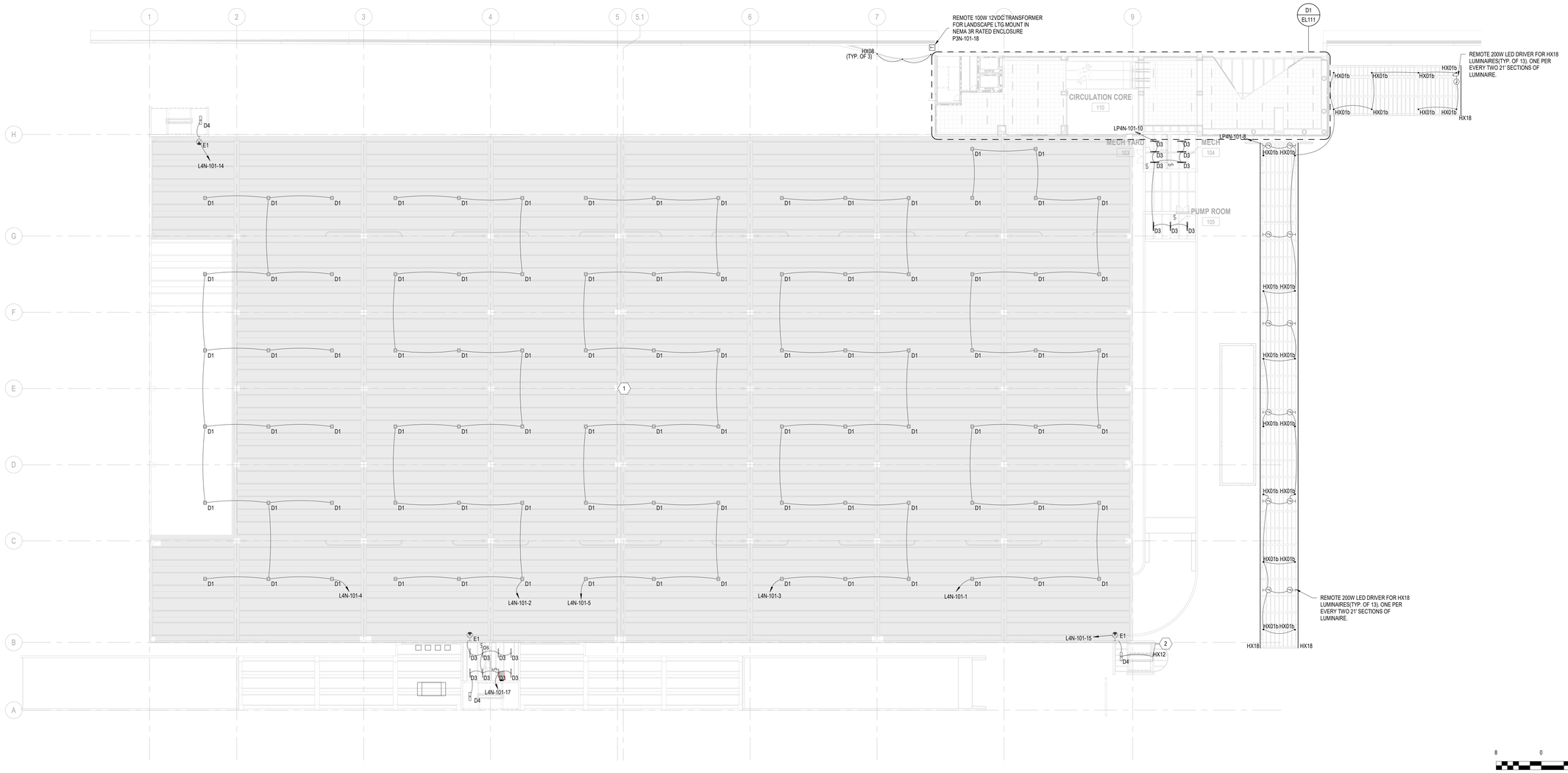
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D1 FIRST FLOOR ELECTRICAL LIGHTING PLAN - VERTICAL CORE

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



A1 FIRST FLOOR ELECTRICAL LIGHTING PLAN

SCALE: 3/64" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET EL601 FOR THE LIGHTING FIXTURE SCHEDULE

B. ALL EXTERIOR LUMINAIRES CONTROLLED VIA PHOTOCELL VIA LIGHTING SYSTEM CONTROL.

C. NEW LUMINAIRES WITH "HX" OR "HX0X" DESIGNATIONS ARE BEING DESIGNED BY HARTRANFT LIGHTING DESIGN. SEE HARTRANFT PROVIDED LUMINAIRE SCHEDULES ON SHEETS EL601 AND EL601

D. LUMINAIRES WITH RGBW CAPABILITIES ARE TO BE CONTROLLED VIA DMX LIGHTING CONTROL SYSTEM. LOCATED IN ELECTRICAL ROOM 102. SEE LUMINAIRE SCHEDULES ON SHEET EL601 AND EL602 LUMINAIRES CONTROLLED VIA DMX LIGHTING CONTROL SYSTEM.

KEYNOTES

1 LUMINAIRES SHALL BE CONTROLLED BY LUMINAIRE LIGHTING CONTROLLER AND PROGRAMMED TIME SCHEDULE, TYPICAL FOR ALL AREAS WITHOUT LOCAL CONTROL.

2 HX12 LUMINAIRE TO BE ROUTED INSIDE THE STAIRWELL BEACON. TOTAL LENGTH SHOULD BE 45'

3 ELEVATOR PIT LIGHTING, COORDINATE MOUNTING WITH ELEVATOR EQUIPMENT LOCATION. PIT LIGHTING AND LIGHTING CONTROLS TO COMPLY WITH ASME 17.1.

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ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	BWG
DESIGNED BY:	CRD
PROJECT NUMBER:	**2003-0070-006**

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SEAL:

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NOT FOR CONSTRUCTION

SHEET TITLE:
FIRST FLOOR ELECTRICAL LIGHTING PLAN

SHEET ID:
EL111

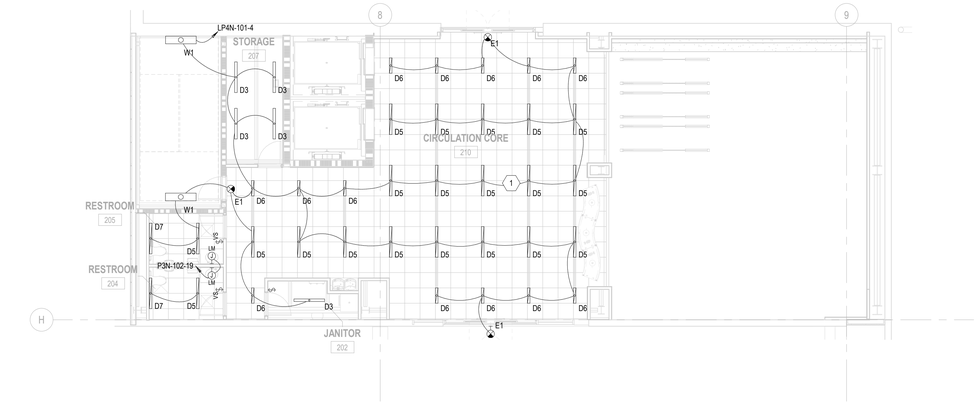
PROJECT STATUS:
100% BID SET

8 0 8 16
SCALE: 1/8" = 1'-0"

16 0 16 32 48
SCALE: 3/64" = 1'-0"

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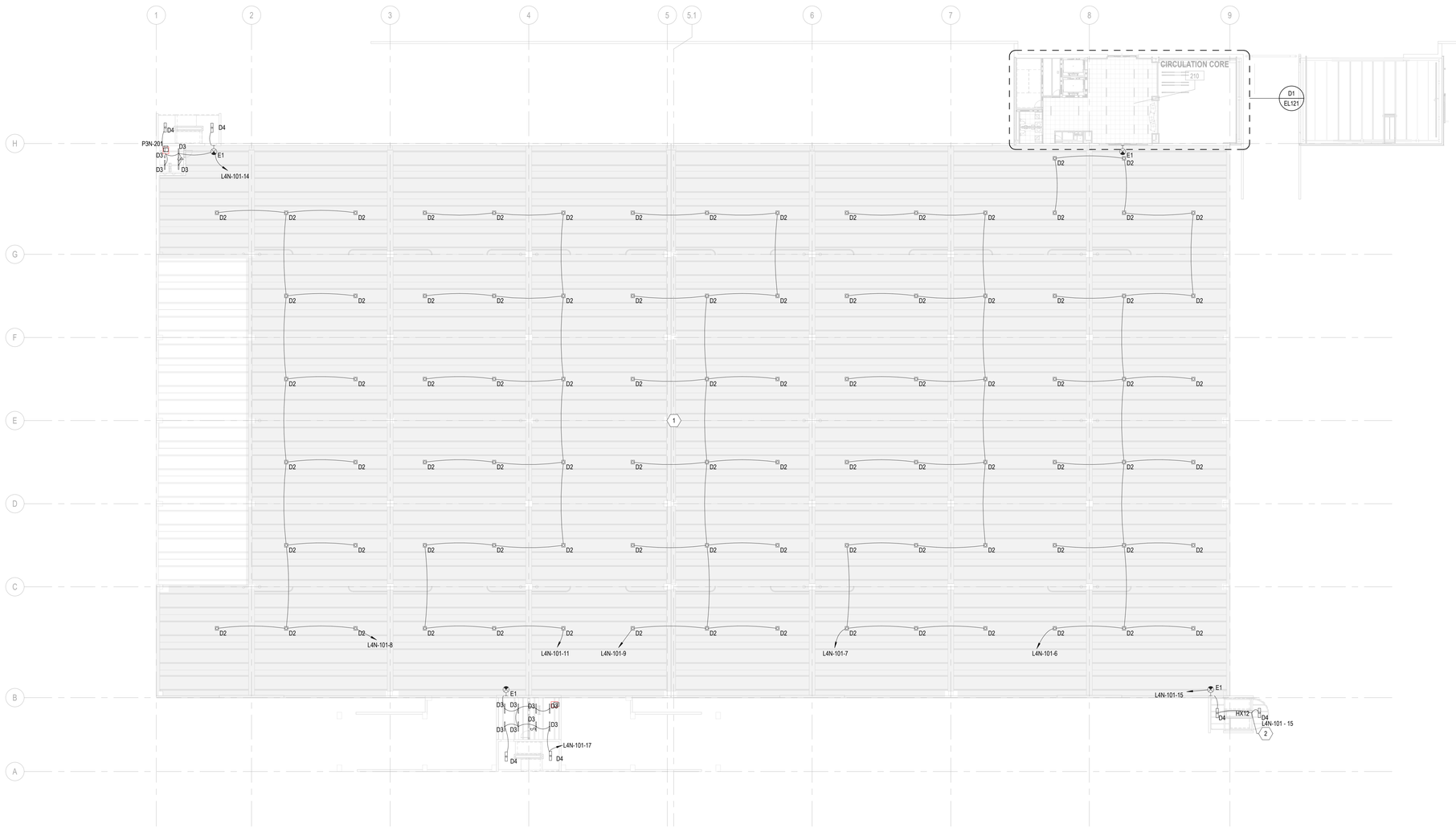
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PN

D1 SECOND FLOOR ELECTRICAL LIGHTING PLAN - VERTICAL CORE

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



PN

A1 SECOND FLOOR ELECTRICAL LIGHTING PLAN

SCALE: 3/64" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET EL601 FOR THE LIGHTING FIXTURE SCHEDULE

B. ALL EXTERIOR LUMINAIRES CONTROLLED VIA PHOTOCELL VIA LIGHTING SYSTEM CONTROL.

C. NEW LUMINAIRES WITH "HOX" OR "HX0X" DESIGNATIONS ARE BEING DESIGNED BY HARTRANFT LIGHTING DESIGN. SEE HARTRANFT PROVIDED LUMINAIRE SCHEDULES ON SHEETS EL601 AND EL601

D. LUMINAIRES WITH RGBW CAPABILITIES ARE TO BE CONTROLLED VIA DMX LIGHTING CONTROL SYSTEM. LOCATED IN ELECTRICAL ROOM 102. SEE LUMINAIRE SCHEDULES ON SHEET EL601 AND EL602 LUMINAIRES CONTROLLED VIA DMX LIGHTING CONTROL SYSTEM.

KEYNOTES

1 LUMINAIRES SHALL BE CONTROLLED BY LUMINAIRE LIGHTING CONTROLLER AND PROGRAMMED TIME SCHEDULE, TYPICAL FOR ALL AREAS WITHOUT LOCAL CONTROL.

2 HX12 LUMINAIRE TO BE ROUTED INSIDE THE STAIRWELL BEACON. TOTAL LENGTH SHOULD BE 45'

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Hartranft Lighting Design

ILM

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SHEET TITLE:
SECOND FLOOR ELECTRICAL LIGHTING PLAN

SHEET ID:
EL121

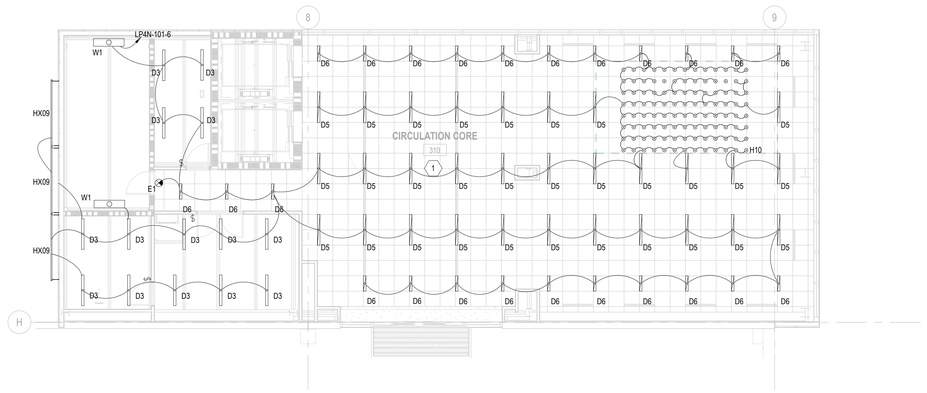
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8 0 8 16
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16 0 16 32 48
SCALE: 3/64" = 1'-0"

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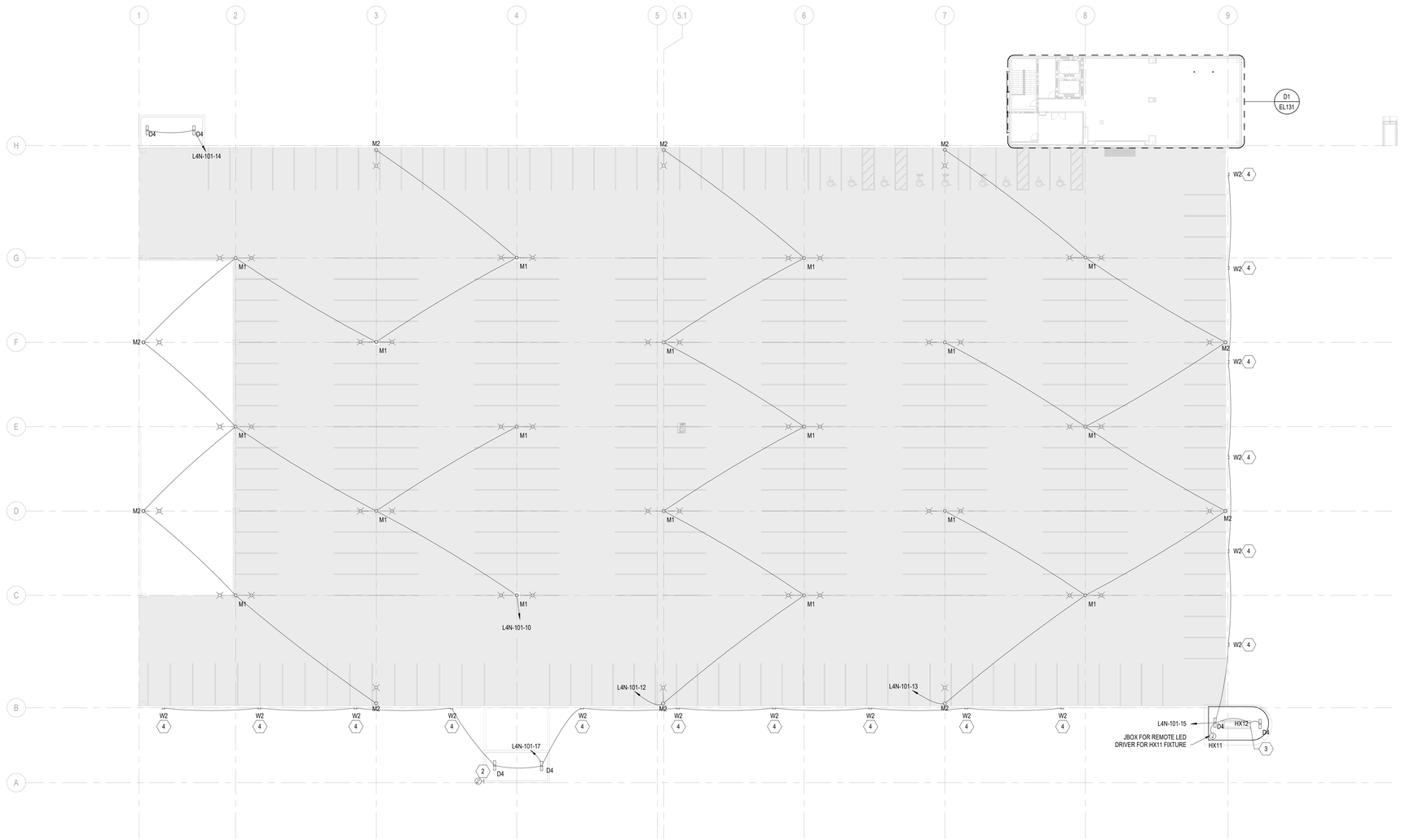
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PN
N

D1 ROOF LEVEL VERTICAL CORE RCP

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



PN
N

A1 ROOF ELECTRICAL LIGHTING PLAN

SCALE: 3/64" = 1'-0"

8 0 8 16

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

16 0 16 32 48

SCALE: 3/64" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET EL601 FOR THE LIGHTING FIXTURE SCHEDULE

B. ALL EXTERIOR LUMINAIRES CONTROLLED VIA PHOTOCELL VIA LIGHTING SYSTEM CONTROL.

C. NEW LUMINAIRES WITH "HXX" OR "HXXX" DESIGNATIONS ARE BEING DESIGNED BY HARTRANFT LIGHTING DESIGN. SEE HARTRANFT PROVIDED LUMINAIRE SCHEDULES ON SHEETS EL601 AND EL601

D. LUMINAIRES WITH RGBW CAPABILITIES ARE TO BE CONTROLLED VIA DMX LIGHTING CONTROL SYSTEM. LOCATED IN ELECTRICAL ROOM 102. SEE LUMINAIRE SCHEDULES ON SHEET EL601 AND EL602 LUMINAIRES CONTROLLED VIA DMX LIGHTING CONTROL SYSTEM.

KEYNOTES

1 LUMINAIRES SHALL BE CONTROLLED BY LUMINAIRE LIGHTING CONTROLLER AND PROGRAMMED TIME SCHEDULE, TYPICAL FOR ALL AREAS WITHOUT LOCAL CONTROL.
2 PROVIDE PHOTOCELL AND MOUNT AT ROOF LEVEL FACING NORTH FOR CONTROL OF EXTERIOR LIGHTING.
3 HX12 LUMINAIRE TO BE ROUTED INSIDE THE STAIRWELL BEACON. TOTAL LENGTH SHOULD BE 45'
4 LUMINAIRE TO BE MOUNTED TO THE EXTERIOR SURFACE OF THE GARAGE 2' AFF OF ROOF LEVEL.

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SEAL:

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SHEET TITLE:
THIRD FLOOR ELECTRICAL LIGHTING PLAN

SHEET ID:
EL131

PROJECT STATUS:
100% BID SET

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GENERAL NOTES

A. ALL FEEDER SIZES ARE INDICATED ON EP601 OR ON PANEL SCHEDULES.

B. SEATING OUTLETS MUST BE TR TYPE OUTLETS PER NFPA 70.

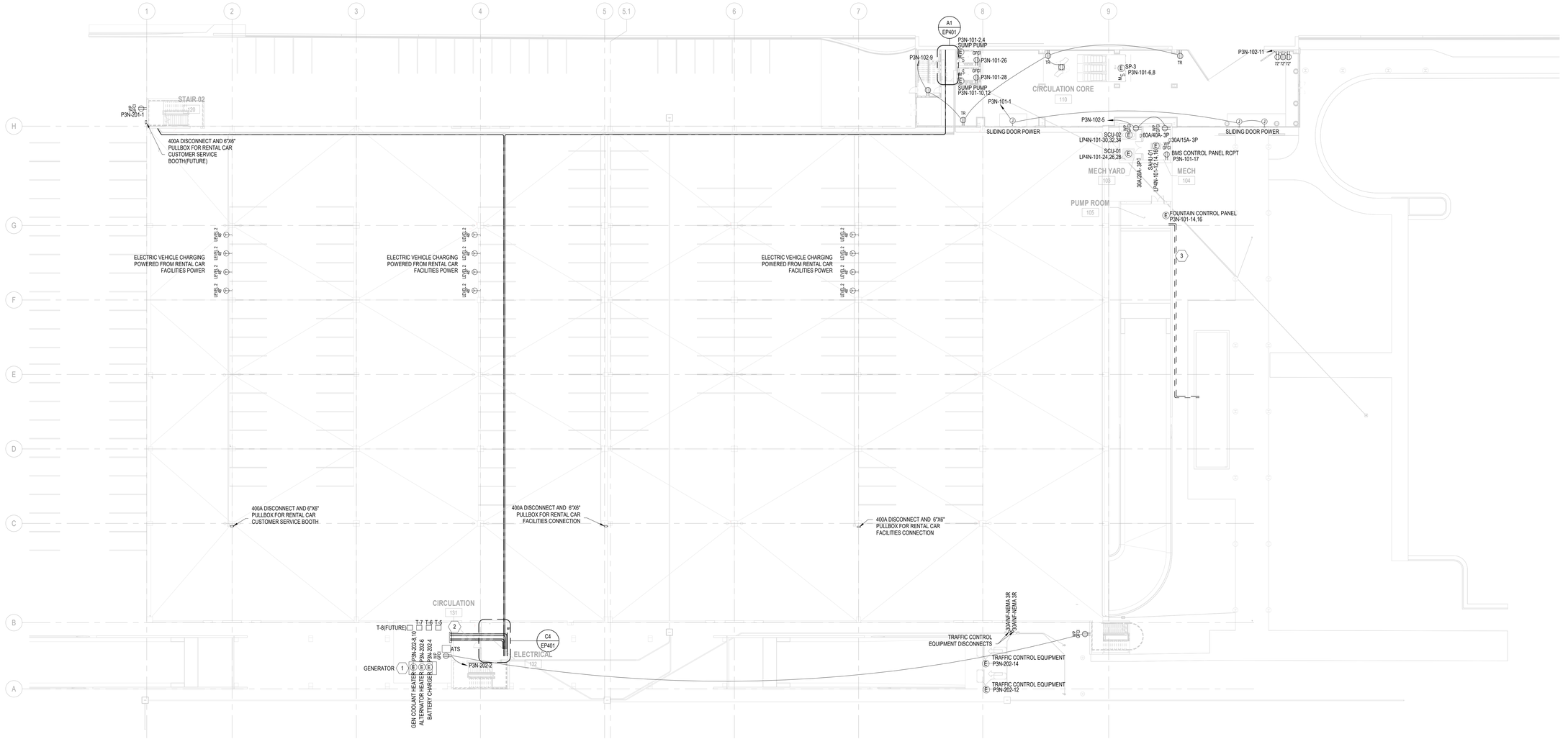
C. ALL CONDUIT ROUTING SHOWN IS APPROXIMATE. COORDINATE EXACT ROUTING WITH OTHER DISCIPLINES IN THE FIELD. SEE SHEET EP601 FOR CONDUIT SIZING.

KEYNOTES

1 PROVIDE 500KW DIESEL GENERATOR, WITH LEVEL 2 SOUNDS ATTENUATED ENCLOUSURE, AND A BELLY TANK SIZED FOR 24HR RUNTIME AT 80% LOAD. EXHAUST TO BE DIRECTED TO THE EXTERIOR OF THE GARAGE.

2 5'x1'x1' WALL MOUNTED PULL BOX MOUNTED 3' AFG. CONDUIT FROM SWITCHBOARD TO PULLBOX TO BE ROUTED OVERHEAD. CONDUITS FROM PULLBOX TO TRANSFORMERS ARE TO BE ROUTED BELOW GRADE. COUNDUIT ROUTING SHOWN IS APPROXIMATE COORDINATE EXACT ROUTING IN THE FIELD.

3 2- MIN. 1" CONDUITS FOR FOUNTAIN LIGHTING AND CONTROLS. COORDINATE REQUIREMENTS WITH MANUFACTURER.



PN

N

A1 FIRST FLOOR POWER PLAN

SCALE: 3/64" = 1'-0"

8 0 8 16

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

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ILM

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FIRST FLOOR ELECTRICAL POWER PLAN

SHEET ID:
EP111

PROJECT STATUS:
100% BID SET

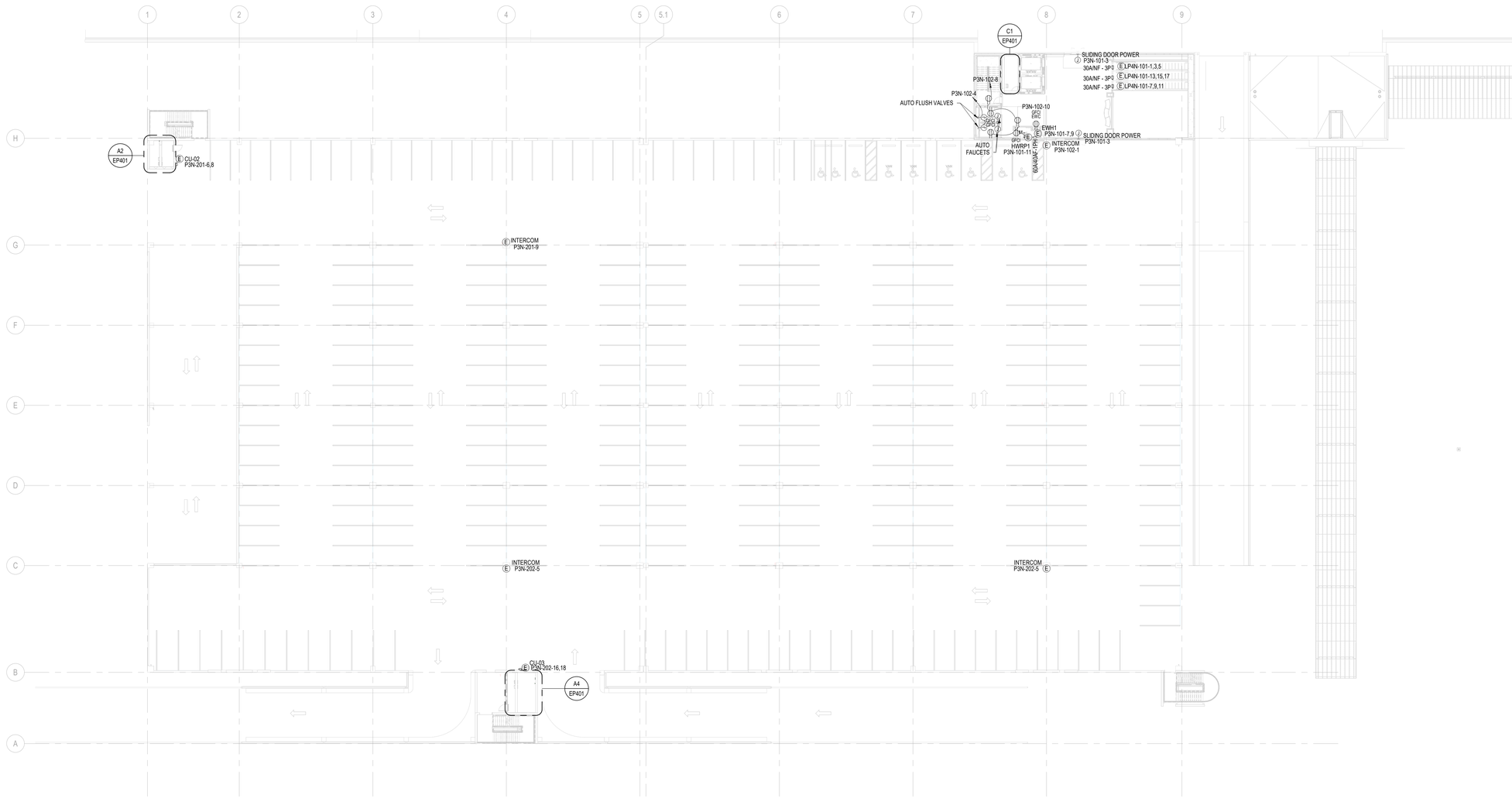
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GENERAL NOTES

A. ALL FEEDER SIZES ARE INDICATED ON EP601 OR ON PANEL SCHEDULES.

B. SEATING OUTLETS MUST BE TR TYPE OUTLETS PER NFPA 70.

C. ALL CONDUIT ROUTING SHOWN IS APPROXIMATE. COORDINATE EXACT ROUTING WITH OTHER DISCIPLINES IN THE FIELD. SEE SHEET EP601 FOR CONDUIT SIZING.



PN

N

A1 SECOND FLOOR ELECTRICAL POWER PLAN

SCALE: 3/64" = 1'-0"

16 0 16 32 48

SCALE: 3/64" = 1'-0"

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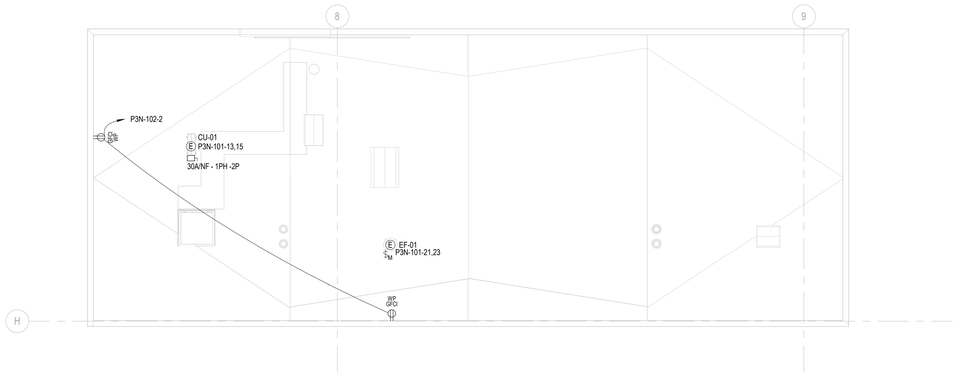
SHEET TITLE:
SECOND FLOOR ELECTRICAL POWER PLAN

SHEET ID:
EP121

PROJECT STATUS:
100% BID SET

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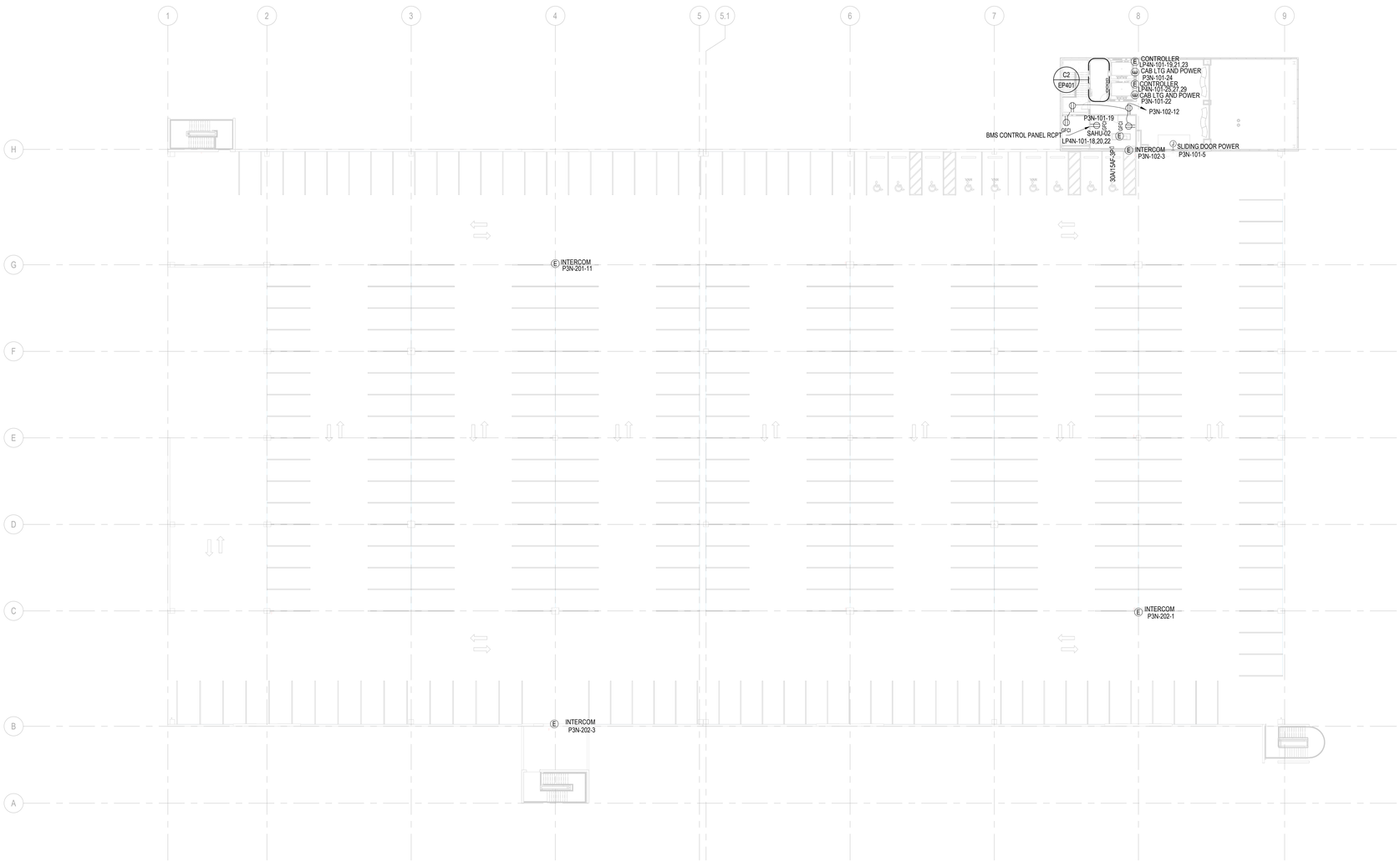
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PN
N

D1 VERTICAL CORE ROOF POWER PLAN

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



PN
N

A1 ROOF ELECTRICAL POWER PLAN

SCALE: 3/64" = 1'-0"

8 0 8 16
SCALE: 1/8" = 1'-0"

8 0 8 16
SCALE: 1/8" = 1'-0"

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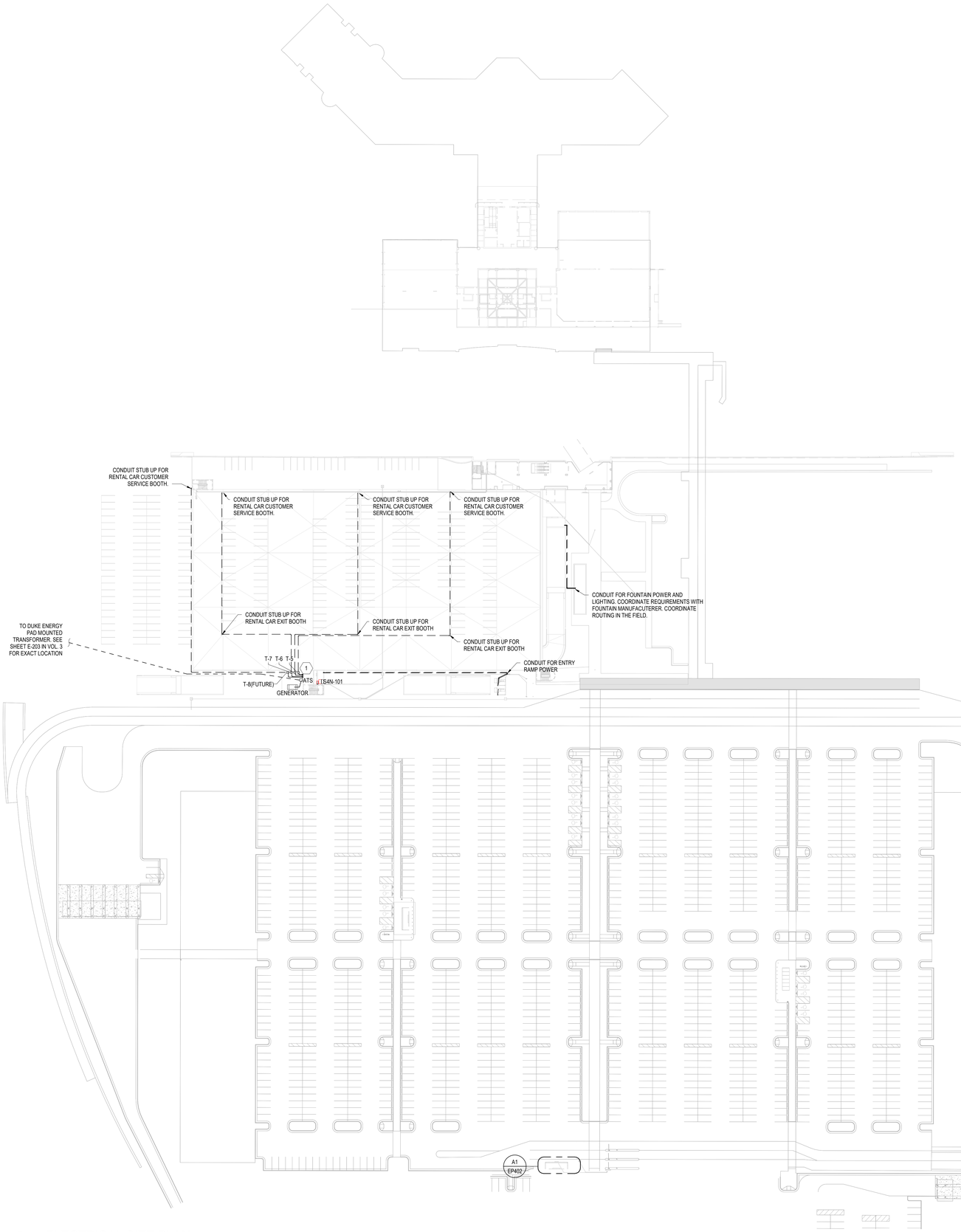
SHEET TITLE:
THIRD FLOOR ELECTRICAL POWER PLAN

SHEET ID:
EP131

PROJECT STATUS:
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PN
N

A1 ELECTRICAL SITE PLAN

SCALE: 1" = 60'-0"

60 0 60 120

SCALE: 1" = 60'-0"

GENERAL NOTES

A. CONDUIT ROUTING IS APPROXIMATE. COORDINATE CONDUIT ROUTE WITH OTHER DISCIPLINES IN THE FIELD. SEE SHEET EP601 AND EP602 FOR SIZE AND QUANTITY OF CONDUCTORS AND CONDUITS.

KEYNOTES

1 5'x1'x1' WALL MOUNTED PULL BOX MOUNTED 3' AFG. CONDUIT FROM SWITCHBOARD TO PULLBOX TO BE ROUTED OVERHEAD. CONDUITS FROM PULLBOX TO TRANSFORMERS ARE TO BE ROUTED BELOW GRADE. COUNDUIT ROUTING SHOWN IS APPROXIMATE COORDINATE EXACT ROUTING IN THE FIELD.

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ELECTRICAL SITE PLAN

SHEET ID:
ES111

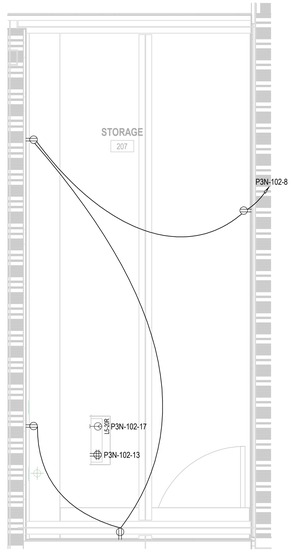
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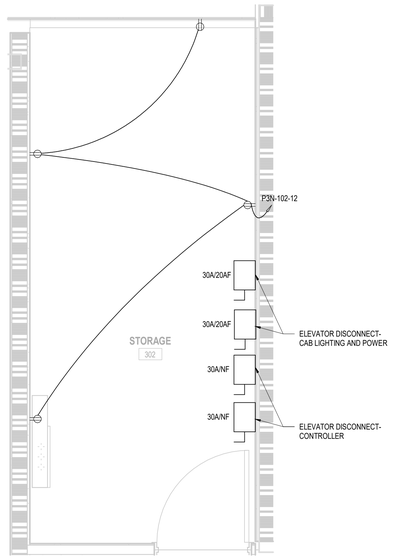
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KEYNOTES

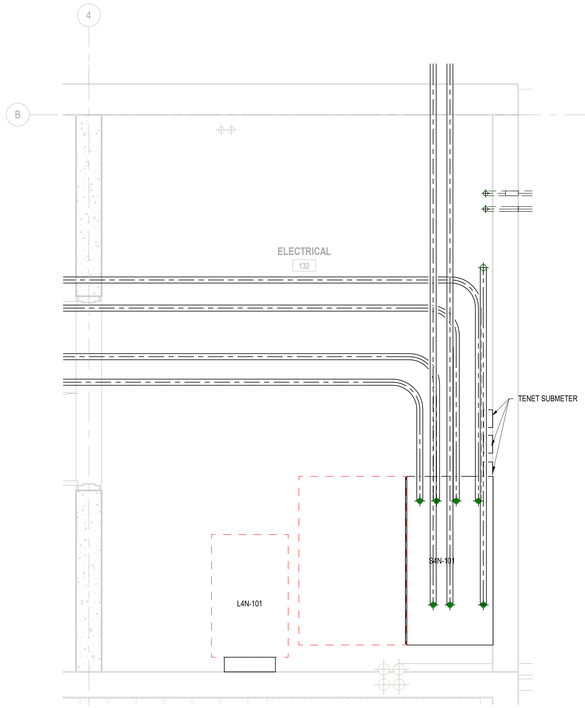
1 INDOOR UNIT POWER FEED FROM OUTDOOR UNIT. FURNISH AND INSTALL TOGGLE SWITCH TO DISCONNECT ALL UNGROUNDED CONDUCTORS TO INDOOR UNIT.
2 TRANSFORMER SUSPENDED FROM STRUCTURE. SEE C1 ON SHEET EP502 FOR MOUNTING DETAIL.



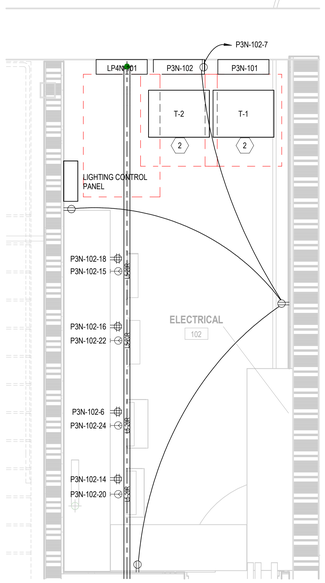
PN N C1 ENLARGED JANITOR CLOSET 202
SCALE: 1/2" = 1'-0"



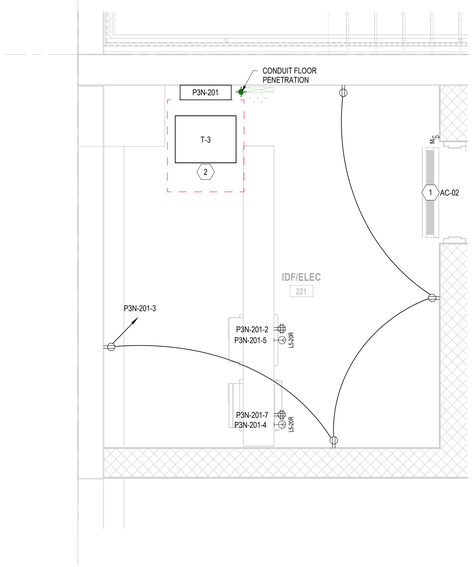
PN N C2 ENLARGED STORAGE 302
SCALE: 1/2" = 1'-0"



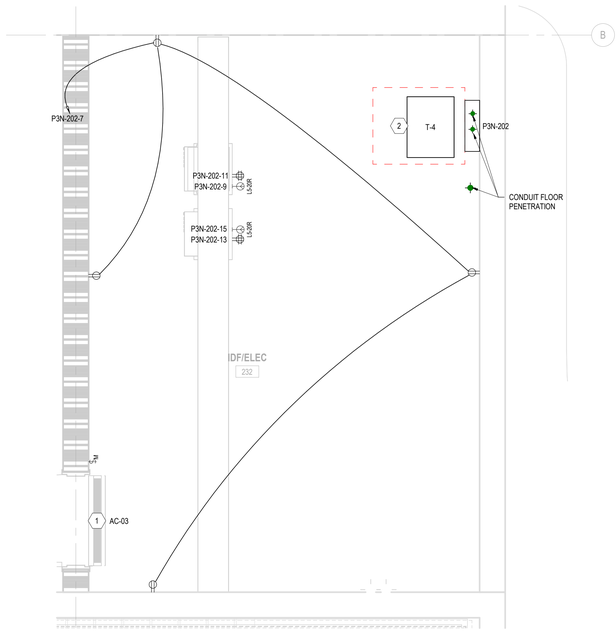
PN N C4 ENLARGED ELECTRICAL 132
SCALE: 1/2" = 1'-0"



PN N A1 ENLARGED ELECTRICAL ROOM 102
SCALE: 1/2" = 1'-0"



PN N A2 ENLARGED IDF/ ELECTRICAL ROOM 221
SCALE: 1/2" = 1'-0"



PN N A4 ENLARGED IDF/ELECTRICAL ROOM 232
SCALE: 1/2" = 1'-0"

2 0 2 4
SCALE: 1/2" = 1'-0"

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SHEET TITLE:
ENLARGED ELECTRICAL PLANS

SHEET ID:
EP401

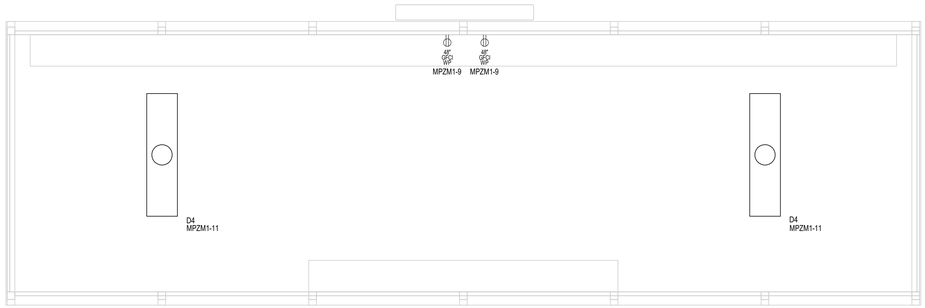
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GENERAL NOTES

A. ROUTE NEW CONDUIT BELOW GRADE TO NEW POWER HANDHOLE SEE SHEET E-306 IN VOL. 3 FOR LOCATION. CIRCUIT TO EXISTING SPARE BREAKERS IN EXISTING MPZM1 SHEET E-303 IN VOL. 3 FOR PANEL SCHEDULE. PROVIDE PHOTOCELL AND LIGHTING CONTACTOR, MOUNT TO MPZM1 MOUNTING STRUCTURE.



SECURITY POLE
MPZM1-11 (E)

X1
MPZM1-11

X1
MPZM1-11

PN
N

A1 SHUTTLE SHELTER ELECTRICAL PLAN

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

2 0 2 4

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

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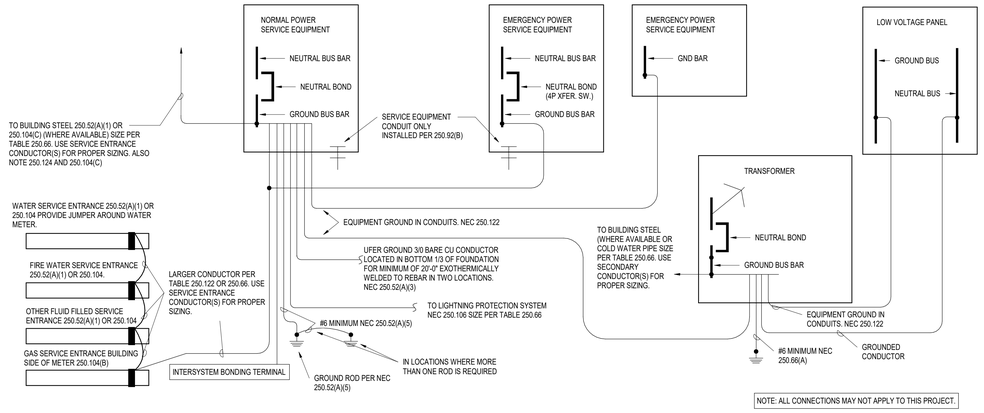
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ENLARGED ELECTRICAL PLANS

SHEET ID:
EP402

PROJECT STATUS:
100% BID SET

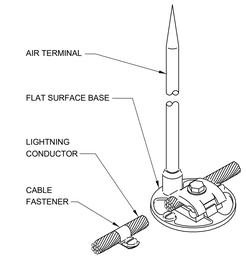
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3/14/2025 11:48:13 AM Autodesk Docs://1003007004_ILM TO4 Rdwy Intl Improv Design/2003007006_ILM_TO6_Parking Garage and Shuttle Plaza_E_R24.rvt



D1 GROUNDING RISER DETAIL

SCALE: N.T.S.



D4 AIR TERMINAL DETAIL - FLAT ROOF

SCALE: N.T.S.

B1 GROUND ROD DETAIL

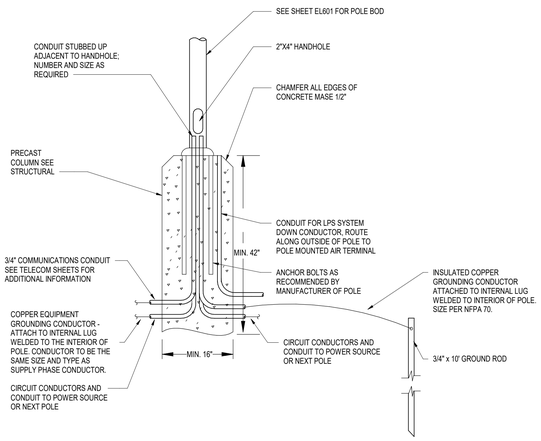
SCALE: N.T.S.

B2 GROUND TEST WELL DETAIL

SCALE: N.T.S.

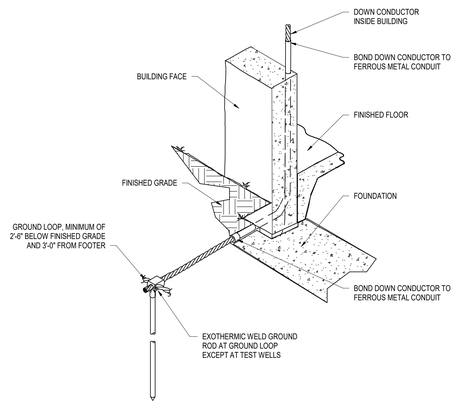
B4 AIR TERMINAL DETAIL - PARAPET

SCALE: N.T.S.



A1 ANCHOR BASE POLE FOUNDATION DETAIL

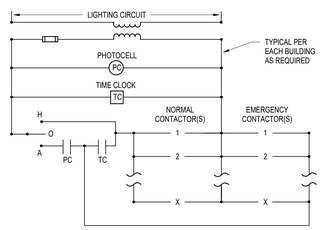
SCALE: N.T.S.



A2 DOWN CONDUCTOR CONNECTION AT GRADE

SCALE: N.T.S.

NOTE: PHOTO CELL MOUNTED ABOVE ROOF LEVEL FACING NORTH UON.



A4 LUMINAIRE CONTROLS EXTERIOR LIGHTING

SCALE: N.T.S.

8 0 8 16

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

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	BWG
DESIGNED BY:	CRD
PROJECT NUMBER:	**2003-0070-006**

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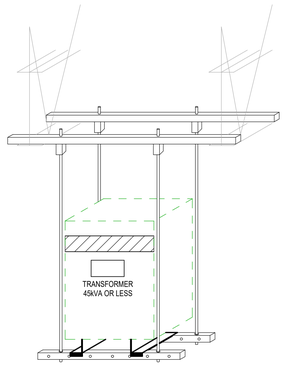
SHEET TITLE:
ELECTRICAL DETAILS

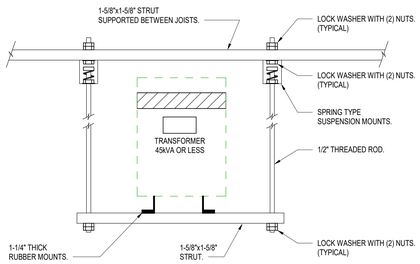
SHEET ID:
EP501

PROJECT STATUS:
100% BID SET

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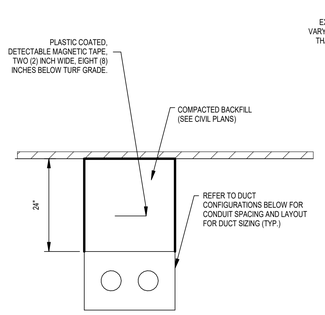


NOTES:

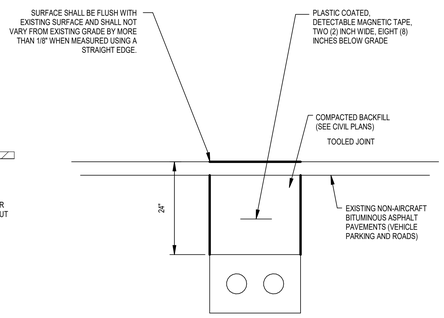
1. SEE TYPICAL 480V:208Y/120V DRY-TYPE TRANSFORMER GROUNDING DETAIL FOR GROUNDING REQUIREMENTS OF SEPARATELY DERIVED SYSTEMS.

C1 TRAPEZE MOUNTED TRANSFORMER DETAIL

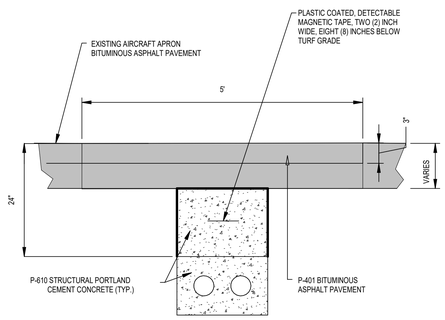
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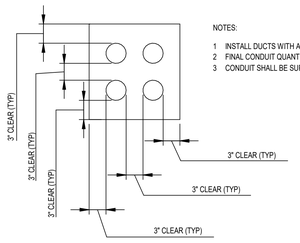
CONDITION #1:
(GREENFIELD AREA)



CONDITION #2:
(NON-AIRCRAFT PAVEMENT)



CONDITION #3:
(AIRCRAFT PAVEMENT)



NOTES:

1 INSTALL DUCTS WITH A MINIMUM OF 3" BETWEEN DUCTS FOR LIKE SERVICES.
2 FINAL CONDUIT QUANTITY AND LAYOUT TO REFLECT HOME RUNS INDICATED ON SITE PLAN.
3 CONDUIT SHALL BE SUPPORTED BY SNAP-LOC SPACERS, CARLON OR APPROVED EQUAL.

CONDUIT SPACING AND ARRANGEMENT REQUIREMENTS (TYP)

A1 TRENCH AND CONDUIT LAYOUT DETAIL

SCALE: N.T.S.

8 0 8 16

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

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F-0493 * C-28

Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	BWG
DESIGNED BY:	CRD

PROJECT NUMBER:
2003-0070-006

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SEAL:

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SHEET TITLE:
ELECTRICAL DETAILS

SHEET ID:
EP502

PROJECT STATUS:
100% BID SET

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LUMINAIRE SCHEDULE

GENERAL NOTES:

A. SEE ARCHITECTURAL PLANS FOR CEILING TYPE.
B. 'E' SUFFIX ON LUMINAIRE DESIGNATION INDICATES LUMINAIRE WITH FACTORY INSTALLED EMERGENCY BATTERY UNIT RATED AT 800 OR 1400 LUMENS.
C. EXIT SIGN TYPES WITHOUT 'E' SUFFIX SHALL BE FURNISH AND INSTALLED WITH FACTORY INSTALLED EMERGENCY BATTERY UNIT.

KEYNOTES:

1. MOUNTING HEIGHT SHALL BE 8' AFF OR ABOVE FINISHED STAIR PLATFORM, UON.
2. LUMINAIRE TO BE MOUNTED 9'6" AFF MEASURED AT THE BOTTOM OF THE FIXTURE.
3. LUMINAIRE TO BE MOUNTED 120" AFF MEASURED AT THE BOTTOM OF THE FIXTURE.
4. LUMINAIRE TO BE MOUNTED 113" AFF.
5. POLE BOD: WJM, INC MODEL NO: RT6101120 - G/BK-3.5BC

MARK	DESCRIPTION	MOUNT	MANUFACTURER (OAE)	MODEL	VOLTAGE	LAMP	LUMENS	WATTAGE	KEYNOTES
D1	PARKING GARAGE TANDEM LUMINAIRE, 1000mA, TSM DISTRIBUTION, 40K COLOR TEMPERATURE	PENDANT	LITHONIA	DSXPGT LED 60C 1000 40K TSM MVOLT	277 V	LED	23128 lm	214 W	3
D2	PARKING GARAGE TANDEM LUMINAIRE, 530mA, TSW DISTRIBUTION, 40K COLOR TEMPERATURE	PENDANT	LITHONIA	DSXPGT LED 60C 530 40K TSW MVOLT	277 V	LED	12723 lm	106 W	2
D3	4' LINEAR LED STRIP LIGHT, STANDARD EFFIECENCY, WIDE DIFFUSE LENS, 40K COLOR TEMPERATURE, 80 CRI,	SUSPENDED	LITHONIA	CLX L48 4000LM SEF WDL MVOLT 40K 80CRI WGCLX48	277 V	LED	2628 lm	20 W	4
D4	4' SURFACE MOUNTED LED GASKETED LINEAR, LOW PROFILE, WIDE DIFFUSED LENS, EZ1, 80CRI 40K COLOR TEMPERATURE	SURFACE	LITHONIA	FEM L48 6000LM LPPFL WD MVOLT GZ10 40K 80CRI	277 V	LED	6000 lm	40 W	
D5	4' RECESSED LINEAR, 80CRI, 30K COLOR TEMPERATURE, 475 LUMENS PER FOOT	LAY-IN	PRUDENTIAL	STR4 LED3 LO 4' TMW D1 SC UNV TBD DM01 *EMHE	277 V	LED	1900 lm	16 W	
D6	2' RECESSED LINEAR, 80CRI, 30K COLOR TEMPERATURE, 475 LUMENS PER FOOT	LAY-IN	PRUDENTIAL	STR4 LED3 LO 2' TMW D1 SC UNV TBD DM01 *EMHE	277 V	LED	950 lm	8 W	
D7	4' WALL MOUNTED INDIRECT DIRECT LINEAR, 400LMF DIRECT 800LMF INDIRECT, 30K COLOR TEMPERATURE 90CRI	LAY-IN	LITHONIA	SAWD LLP 4FT MSL4 90CRI 30K 400LMF I90 I40K I800LMF AS SCT MIN1 FLL DCF MVOLT WHTT	277 V	LED	1600 lm	32 W	
E1	CONTEMPORARY LED SINGLE FACED EXIT SIGN WITH BLACK POWDER PAINT ALUMINUM HOUSING, BRUSHED ALUMINUM FACE, RED LETTERS, AND CHEVRON ARROWS AS SHOWN ON PLANS	UNIVERSAL	LITHONIA	EDG	277 V	LED	500 lm	5 W	
M1	POLE MOUNTED AREA LUMINAIRE, 20FT POLE	POLE	VISIONARE	ODN-2-L T4L 20L 4K UNV UAM BK C5 H2 DIM	277 V	LED	21229 lm	150 W	5
W1	1x4 SURFACE WALL MOUNTED LED WRAPAROUND, CURVED RIBBED DIFFUSE EZ1 80CRI 40K COLOR TEMPERATURE	SURFACE WALL	LITHONIA	BLWP4 48L ADPT LP840	277 V	LED	4800 lm	40 W	1
W2	ARCHITECTURAL WALL SCONCE, 40K COLOR TEMPERATURE, FORWARD THROW DISTRIBUTION, SURFACE MOUNTED BACK BOX	EXTERIOR WALL	LITHONIA	WDGE4 LED P1 40K 80CRI RFT MVOLT SRM PBBW	277 V	LED	12000 lm	77 W	
W3	EXTERIOR LED WALL PACK, EXTRUDED ALUMINUM HOUSING, TYPE III MEDIUM DISTRIBUTION, P3, DARK BRONZE FINISH, 4000K	EXTERIOR WALL	LITHONIA	DSXW1 LED P3 40K 80CRI T3M 120 BBW	277 V	LED	3200 lm	21 W	
X1	12' COLUMN LIGHT, BLACK FINISH, 40K COLOR TEMPERATURE, SYMETRIC WIDE DISTRIBUTION	SURFACE	LITON	BL2RZ	120 V	LED	2600 lm	50 W	

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REVISION: REV.# NO. MM DD YYYY

LUMINAIRE SCHEDULE - CONSTRUCTION DOCUMENTATION

PROJECT: ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS

DATE: 03 12 2025

SPECIFICATION NOTES FOLLOW THIS SCHEDULE AND ARE INCORPORATED HEREIN

LUMINAIRE TYPE	IMAGE	DESCRIPTION	LAMPING	MANUFACTURER and SERIES	CATALOG NUMBER	POWER SUPPLY/ CONTROL PROTOCOL	SYSTEM WATTS (W)	VOLTAGE(V)	DEPTH	MOUNTING	LOCATION	NOTES
H01		LINEAR COVE LUMINAIRE	3000K LED 445 LUMENS PER FOOT 90 CRI	PRUDENTIAL MICROCOVEPRO	MIC-PRO-LED35-90-LO-LENGTH PER PLAN-SC-UNV-DM01-	0-10V TO 1%	3.5 PER FOOT	MVOLT	2.5"	COVE SURFACE	GARAGE LOBBY	EC TO COORDINATE FIELD VERIFIED OVERALL RUNS PRIOR TO ORDER FIELD REPLACEABLE DRIVER AND LED MODULES
H02		LED PROJECTOR	5500K LED 3000 LUMENS	ROSCO X-EFFECTS LED PROJECTOR	XFXLED-X-EFFEXTS-90-5-C-LENS TBD-ACCESSORY TBD-S-P / 296000005101 /	ONBOARD DIMMING AND SPEED CONTROLS	90	100-240 VAC		POLE MOUNT	GARAGE LOBBY	WEIGHT: 9 POUNDS PROVIDE BRACING AS REQUIRED TO ACCOMMODATE STEM MOUNT
H03		ACRYLIC SIDE LIT 'WAVE'	RGBW LED	SENSITILE	SENSITILE PRODUCTION 'WAVE' ASSEMBLY AND CONTROLS	DMX	16.000 MAX	12V		SURFACE	CONNECTOR	SEE ARCHITECTURAL SPECIFICATION FOR DETAILS
H04		LINEAR PERIMETER	3000K LED 400 LUMENS UP 475 LUMENS DOWN CRI	PRUDENTIAL BIONICPRO4	BPRO2-04 -LIN-FLSH-LED3090-LO-R156-PFL-NU-SC-UNV-WM-DM01-SEE	INTEGRAL 0-10V DIMMING TO 1%	6 PER FOOT	MVOLT	5"	PENDANT OR WALL MOUNT	CONNECTOR	MOUNT PER ARCHITECTS DETAIL
H05					NOT USED							
H06		4" APERTURE DOWNLIGHT	3000K LED 1007 LUMENS 95 CRI	GOTHAM IVO	IVO4-D-10LM-30K-95CRI-50D-MIN1-MVOLT / ICAT-SF-BEV-CUSTOM COLOR TBD-LD-FLANGE CUSTOM COLOR TBD	INTEGRAL 0-10V DIMMING TO 1%	9.8	MVOLT	8"	RECESSED	METAL CEILING AT ESCALATOR LOWER LOBBY	CUSTOM COLOR FINISHES PER INTERIOR DESIGNER FIELD CHANGEABLE OPTICS EVERY 5 DEGREES
H07		SCONCE	3000K LED 2023 LUMENS 90 CRI	BEGA	B24503-K30-COLOR	0-10V / TRIAC / ELV DIMMABLE	17	MVOLT	9-1/8"	SURFACE	TERMINAL LOBBY STAIRWELL	FINISH PER ARCHITECT
H08		CYLINDER DOWNLIGHT	3000K LED 1471 LUMENS 90 CRI	GOTHAM EVO	EVO6SC-30-1500-TRIM COLOR TBD-LD-ND-MVOLT-GZ1-JBX- - -90CRI-FINISH TBD	INTEGRAL 0-10V DIMMING TO 1%	15	MVOLT	12-5/8"	SURFACE	TERMINAL LOBBY	CONFIRM FINISH WITH INTERIOR DESIGNER CONDUIT MOUNT AVAILABLE - EC TO CONFIRM PRIOR TO ORDER
H09		BACKLIT COLUMN COVERS	3000K LED 100 LUMENS PER FOOT	MOZ / DIODELED STREAMLITE RGBW	DI-24V-STMLT-RGBW-LENGTH PER PLAN-WH-MOUNTING TBD-O/O-DELIVERY PER INTERIOR DESIGNER-DMX CONTROLLED	DMX	ASSUME 200 PER COLUMM ASSEMBLY	24VDC	0.08"	SURFACE	CONNECTOR ESCALATOR LOBBY	COORDINATE COLUMN COVER / ACRYLIC LENS AND INSTALLATION PER INTERIOR DESIGNER EC TO PROVIDE ALL FEEDS,DRIVERS, CONNECTORS, CAPS, CONTROLLER, ETC TO FORM A COMPLETE WORKING SYSTEM THIS LUMINAIRE TYPE REQUIRES FULLY COORDINATED MANUFACTURER-PROVIDED SHOP DRAWINGS FOR REVIEW PRIOR TO APPROVAL
H10		CUSTOM PENDANT	TBD	TBD	TBD		ASSUME 1,000				GARAGE VERTICAL LOBBY	
H11		LINEAR PENDANT DOWNLIGHT	3000K LED ~400 LUMENS CRI	PRUDENTIAL BIONICPRO2	BPRO2-LIN-REG.5-LED3-90-LO-LENGTH PER PLAN-TMW-BTW-SYM-ADC-SC-UNV-CA PER PLAN-DM01	INTEGRAL 0-10V DIMMING TO 1%	7.6 PER FOOT	MVOLT	5.5"	PENDANT	GARAGE LOBBY AT CONNECTOR	SINGLE CIRCUIT
H12		CYLINDER DOWNLIGHT TYPE IV DISTRIBUTION	3000K LED 2407 LUMENS 90 CRI	LUMINIS SYRIOS PRO	SYP600-L1L25-LD5-30K-MVOLT-SWK-SP-CUSTOM FINISH TBD	INTEGRAL 0-10V DIMMING TO 1%	19	MVOLT	13"	SURFACE	ALTERNATE 4 VESTIBULE	CUSTOM FINISH PER INTERIOR DESIGNER

SPECIFICATION NOTES (MUST BE INCLUDED ON DRAWINGS WITH LUMINAIRE SCHEDULE):

1 ELECTRICAL ENGINEER TO SPECIFY AND CONFIRM ALL VOLTAGES AND PROPERLY SIZE ALL REMOTE POWER SUPPLIES

2 CONTRACTOR SHALL PROVIDE LUMINAIRES AND LIGHTING EQUIPMENT THAT MEETS PERFORMANCE, AESTHETICS, AND MATERIAL AS NOTED IN THE WRITTEN LUMINAIRE SPECIFICATION. ALTERNATES OR SUBSTITUTIONS ARE NOT PERMITTED WITHOUT REVIEW AND APPROVAL BY THE LIGHTING DESIGNER. CONTRACTOR TO COORDINATE LEAD TIMES, DEPOSIT REQUIREMENTS, SHOP DRAWING DEVELOPMENT AND SUBMITTAL, ETC. TO ASSURE TIMELY DELIVERY IN ACCORDANCE WITH OVERALL PROJECT SCHEDULE. ALL PROPOSED SUBSTITUTIONS MUST BE SUBMITTED NO LESS THAN FOURTEEN (14) DAYS PRIOR TO THE BID DUE DATE. FAILURE TO SUBMIT PROPOSED SUBSTITUTIONS WITHIN THAT DEADLINE CONSTITUTES A GUARANTEE THAT THE SPECIFIED PRODUCTS WILL BE SUPPLIED.

3 INSTALLING CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL WIRING SCHEMES AND OTHER INSTALLATION DETAILS WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.

4 SUBSTANTIAL COMPLETION IN THIS CONTEXT REFERS TO COMPLETELY INSTALLED AND OPERATIONAL LIGHTING AND LIGHTING CONTROL SYSTEMS. CONTRACTOR SHALL VERIFY THE CORRECT INSTALLATION AND DIMMING OPERATION OF ALL LUMINAIRES, SENSORS, AND OF THE CONTROL SYSTEM AS AWHOLE PRIOR TO REQUESTING THE LIGHTING DESIGNER'S ATTENDANCE AT ANY FOCUSSING OR LEVEL SETTING SESSIONS. IN THE EVENT THAT THE LIGHTING CONTROL ZONES OR OTHER OPERATIONAL CHARACTERISTICS OF THE COMPLETED SYSTEM ARE NOT FULLY READY AT THE TIME OF THE FIRST FOCUSSING APPOINTMENT, THE LIGHTING DESIGNER SHALL BE ENTITLED TO REQUEST FEES FOR ADDITIONAL SERVICES FROM THE CONTRACTOR WHICH SHALL NOT BE PASSED ON TO THE CLIENT.

5 CATALOGUE OR SERIES NUMBERS ARE INTENDED TO PROVIDE ASSISTANCE IN ESTABLISHING IDENTIFICATION OF MANUFACTURER'S MODEL, SERIES, OR LUMINAIRE STYLE, AND MAY NOT BE COMPLETE AND SHALL NEVER BE USED TO ORDER LUMINAIRES. MANUFACTURER'S CATALOG NUMBERS ARE SUBJECT TO CHANGE AND ANY DISCREPANCIES BETWEEN THE CATALOG NUMBER, LUMINAIRE DESCRIPTION, REMARKS, LAMP AND SUPPLY VOLTAGE, AND ARCHITECTURAL DRAWINGS MUST BE BROUGHT TO THE ATTENTION TO THE LIGHTING DESIGNER PRIOR TO THE RELEASE OF A PURCHASE ORDER.

6 CATALOGUE CUTS, WHEN INCLUDED, ARE FOR GENERAL ASSISTANCE AND IMAGE REFERENCE ONLY AND ARE NOT A PART OF THESE SPECIFICATIONS. MANUFACTURER'S CATALOG CUTS ARE SUBJECT TO CHANGE AND CURRENT CATALOG CUTS FROM THE MANUFACTURER ARE REQUIRED TO BE SUBMITTED DURING SHOP DRAWING REVIEW FOR APPROVAL.
A. ARCHITECTURAL DETAIL SKETCHES OR CUSTOM LUMINAIRE DRAWINGS INCLUDED IN THESE LUMINAIRE SPECIFICATIONS ARE PART OF THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BRING ANY DISCREPANCIES BETWEEN SKETCHES AND CONSTRUCTION DOCUMENTS TO THE ATTENTION OF THE ARCHITECT BEFORE SUBMITTING BIDS.

7 AUXILIARY EMERGENCY EQUIPMENT OPTIONS MUST BE DETERMINED, VERIFIED, AND APPROVED BY THE ELECTRICAL ENGINEER.

8 "CONTINUOUS", WHEN NOTED, REQUIRES BUTTED END TO END LAYOUTS WITH NO GAPS BETWEEN LUMINAIRE HOUSINGS. NOTE MINIMUM OR MAXIMUM GAPS OR LAYOUT WHEN PROVIDED.

9 "FLANGELESS" OR "TRIMLESS" OR "FLUSH", WHEN NOTED, REQUIRES CONTRACTOR TO REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR PLASTER FRAME. PROPER ALIGNMENT OF BOTTOM OF APERTURE THROAT WITH FACE OF FINISHED CEILING IS CRITICAL FOR INSTALLATION; CONTRACTOR TO COORDINATE.

10 "REMOTE DRIVERS" OR "ACCESSIBLE" WHEN NOTED REQUIRES CONTRACTOR TO COORDINATE WITH BOTH THE ARCHITECT AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS TO LOCATE A SUITABLE LOCATION REMOVED FROM THE LUMINAIRE ITSELF FOR THE DRIVER/POWER SUPPLY. SAID LOCATION SHALL BE CONCEALED FROM GERENAL VIEW, WELL VENTILATED, SECURE AND REACHABLE BY NO MORE THAN A 10' LADDER PLACED SECURELY, ON FLAT GROUND.

A. ELECTRICAL CONTRACTOR TO COORDINATE MOUNTING DETAILS AND ELECTRICAL CONNECTIONS, ADVISE MANUFACTURER OF LEAD LENGTHS, AND VERIFY THAT INSTALLATION COMPLIES WITH NATIONAL AND LOCAL CODES, AND PROVIDE FUSE FOR SECONDARY WIRING, WHEN REQUIRED.

B. LUMINAIRE MANUFACTURER TO DETERMINE REQUIRED WIRE SIZE BETWEEN LUMINAIRES AND DRIVERS, LENGTH OF RUNS, OR QUANTITY OF LUMINAIRES PER CIRCUIT, AND TO ASSURE THAT VOLTAGE DROP DOES NOT EXCEED 5% - VERIFICATION OF VOLTAGE DROP MUST BE CONDUCTED ON SITE BY THE ELECTRICAL CONTRACTOR USING A "TRUE RMS" VOLTMETER TO MEASURE THE SECONDARY VOLTAGE.

11 "ALLOWANCES", WHEN NOTED, ARE TO BE IN U.S. DOLLARS AND COVER THE COST, TO THE OWNER, OF THE LIGHTING LUMINAIRES, LAMPS, AND ACCESSORIES AS NOTED. AN ALLOWANCE DOES NOT INCLUDE LAMPS, DELIVERY TO THE SITE, HANDLING, INSTALLATION OR CONTRACTOR'S OVERHEAD OR MARK-UP. CONTRACTOR MUST PROVIDE UNIT PRICING TO THE ARCHITECT- FOR EACH LUMINAIRE TYPE COMPLETE WITH ALL ACCESSORIES AND LAMP.

12 SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND LIGHTING CONSULTANT FOR REVIEW AND APPROVAL IN ACCORDANCE WITH ARCHITECT'S GENERAL TERMS AND CONDITIONS. DO NOT OBTAIN LUMINAIRES WITHOUT APPROVAL.

A. SHOP DRAWINGS FOR ALL LIGHTING EQUIPMENT SHALL INCLUDE DETAILS AND CUTS OF EACH LUMINAIRE TYPE, AND SHALL INCLUDE INFORMATION ON LIGHT SOURCE, HOUSING SIZE AND MATERIAL, DRIVER TYPE (WHERE APPLICABLE), LENSES, BAFFLES, FINISHES, AND MEANS AND METHODS OF ATTACHMENT AND SUPPORT, JOINING, AND ELECTRICAL CONNECTION.

B. IN ADDITION, SHOP DRAWINGS FOR CONTINUOUS OR CUSTOM LENGTH LIGHTING EQUIPMENT REQUIRE FIELD DIMENSIONS, AND SHOP DRAWINGS SHALL INCLUDE FIELD DIMENSIONS AND LAYOUTS.

13 CONTROL SAMPLES WHEN REQUESTED, SUBMIT AT LEAST 1 WORKING SAMPLE OF EACH LUMINAIRE TYPE SPECIFIED FOR USE AS A CONTROL SAMPLE TO VERIFY COLOR FIDELITY AND COMPATABILITY WITH CONTROL SYSTEM. CONTROL SAMPLES SHALL BE PROVIDED DURING SHOP DRAWING SUBMITAL PROCESS AND SHALL BE OF THE SAME BIN/PRODUCTION RUN AS THE LUMINAIRES ULTIMATELY SUPPLIED FOR THE PROJECT AS A WHOLE. AFTER APPROVAL, CONTROL SAMPLES MAY BE INSTALLED AS PART OF THE OVERALL LUMINAIRE COUNT, OR MAY SERVE AS A PORTION OF THE ATTIC STOCK REQUIRED FOR THE PROJECT. LUMINAIRES SPECIFIED AS PART OF A SERIES (HA, HA-1, E.G.) MAY BE REPRESENTED BY A SINGLE SAMPLE, BUT ADDITIONAL UNITS MAY STILL BE REQUIRED AS ATTIC STOCK.

14 "FOCUSING REQUIRED", WHEN NOTED, REQUIRES CONTRACTOR TO PROVIDE ALLOWANCE FOR LABOR, SCAFFOLDING, AND TOOLS TO ADJUST, AIM, OR INSTALL LUMINAIRES AND ACCESSORIES PER THE LIGHTING CONSULTANT'S DIRECTION DURING EVENING HOURS (IF REQUIRED). FOCUSING CAN ONLY OCCUR AFTER INSTALLATION AND CONFIRMED OPERATION OF ALL LUMINAIRES, AND AFTER THE CONTRACTOR HAS VERIFIED INSTALLATION AND CONFIRMED OPERATION OF CONTROL SYSTEMS. SPECIFIC ARCHITECTURAL ORNAMENT OR ART INTENDED TO BE ILLUMINATED MUST BE IN PLACE PRIOR TO FOCUS SESSION.

A. WHEN KNOWN INITIAL AIMING ANGLES ARE DEFINED ABOVE, LUMINAIRES MAY BE "PRE-AIMED" AS INDICATED. HOWEVER, THESE "INITIAL" AIMING ANGLES WILL BE VERIFIED IN THE FIELD BY THE LIGHTING DESIGNER AND MAY REQUIRE ADDITIONAL RE-AIMING FOR FINAL FOCUSING.

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20 CUSTOM OR CUSTOMIZED LUMINAIRE: WHERE NOTED REFERS TO EITHER A LUMINAIRE DESIGNED FOR THIS SPECIFIC PROJECT ONLY, OR MAY REFER TO A SPECIFIC ELEMENT OF THE LUMINAIRE THAT IS BEING CHANGED FOR USE WITHIN THIS PROJECT. IN EITHER CASE, BIDDERS ARE ENCOURAGED TO COMMUNICATE WITH MANUFACTURERS WHERE NOTED DURING THE PREPARATION OF BIDS AND TO REFER ANY QUESTIONS TO THE DESIGN TEAM IN THE FORM OF RFI'S. REQUESTS FOR CHANGE ORDERS THAT COULD HAVE BEEN RESOLVED IN ADVANCE, BASED ON THE INFORMATION PROVIDED AND A STANDARD RFI WILL NOT BE HONORED OR REFERRED TO THE CLIENT. IN INSTANCES WHERE THE LUMINAIRE IS DESCRIBED AS IN DEVELOPMENT WITH THE SELECTED MANUFACTURER, CONFIRM THAT PROVIDED PRICE IS SUFFICIENT TO INCLUDE ADJUSTMENTS TO THE OVERALL SIZE, FINISH, MATERIALS, ETC. DURING THE SUBMISSION PROCESS.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	BWG
DESIGNED BY:	CRD

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NOT FOR CONSTRUCTION

SHEET TITLE:
LUMINAIRE SCHEDULE

SHEET ID:
EL601

PROJECT STATUS:
100% BID SET

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LUMINAIRE SCHEDULE - CONSTRUCTION DOCUMENTATION

REVISION: REV.# NO. MM DD YYYY

PROJECT: ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS

DATE: 03 12 2025

SPECIFICATION NOTES FOLLOW THIS SCHEDULE AND ARE INCORPORATED HEREIN

LUMINAIRE TYPE	IMAGE	DESCRIPTION	LAMPING	MANUFACTURER and SERIES	CATALOG NUMBER	POWER SUPPLY/ CONTROL PROTOCOL	SYSTEM WATTS (W)	VOLTAGE(V)	DEPTH	MOUNTING	LOCATION	NOTES
EXTERIOR LIGHTING												
HX01		CYLINDER DOWNLIGHT TYPE IV DISTRIBUTION	3000K LED 2407 LUMENS 90 CRI	LUMINIS SYRIOS PRO	SYP600-L1L25-LD5-30K-MVOLT-SWK-SP-FINISH TBD-MG	INTEGRAL 0-10V DIMMING TO 1%	19	MVOLT	13"	SURFACE / BACKBOX	DRIVE CANOPY	OPERATING TEMP OF -22 DEGREE TO 113 DEGREE F BACKBOX WITH CONDUIT PUNCHOUTS MARINE GRADE FINISH
HX01a		CYLINDER DOWNLIGHT TYPE IV DISTRIBUTION	3000K LED LUMENS 90 CRI	LUMINIS SYRIOS PRO	SYP600-L1 MODIFIED 3000 LM OUTPUT-LD5-30K-MVOLT-SWK-SP-FINISH TBD-MG	INTEGRAL 0-10V DIMMING TO 1%	19	MVOLT	13"	SURFACE / BACKBOX	CANOPY PEDESTRIAN WALKWAY CANOPY	OPERATING TEMP OF -22 DEGREE TO 113 DEGREE F BACKBOX WITH CONDUIT PUNCHOUTS MARINE GRADE FINISH
HX01b		CYLINDER DOWNLIGHT TYPE III DISTRIBUTION	3000K LED LUMENS 90 CRI	LUMINIS SYRIOS PRO	SYP600-L1L25-LD3-30K-MVOLT-SWK-SP-FINISH TBD-MG	INTEGRAL 0-10V DIMMING TO 1%	19	MVOLT	13"	SURFACE / BACKBOX	PEDESTRIAN WALKWAY CANOPY	OPERATING TEMP OF -22 DEGREE TO 113 DEGREE F BACKBOX WITH CONDUIT PUNCHOUTS MARINE GRADE FINISH
HX02		4' LINEAR DIRECT VIEW ACCENT	RGBW LED 482 LUMENS - FULL ON	COLOR KINETICS VAYA TUBE, G2	316-100029-01	DMX	13.6	24DC	2.61"	SURFACE	DRIVE CANOPY PERLINS	EC TO PROVIDE ALL FEEDS, CONNECTORS, CAPS ETC TO FORM A COMPLETE WORKING SYSTEM
HX02a		1' LINEAR DIRECT VIEW ACCENT	RGBW LED 482 LUMENS - FULL ON	COLOR KINETICS VAYA TUBE, G2	316-100029-00	DMX	3.4	24DC	2.61"	SURFACE	DRIVE CANOPY PERLINS	EC TO PROVIDE ALL FEEDS, CONNECTORS, CAPS ETC TO FORM A COMPLETE WORKING SYSTEM
HX03		CYLINDER DOWNLIGHT TYPE III DISTRIBUTION	RGBW UPLIGHT 3000K LED DOWNLIGHT 2403 LUMENS DOWNLIGHT 349 LUMENS UPLIGHT 90 CRI	LUMINIS SYRIOS PRO	SYP600-L1L25-LD3-30K-MVOLT-SWK-SP-FINISH TBD-MG	INTEGRAL 0-10V DIMMING TO 1%	19	MVOLT	13"	SURFACE	DRIVE CANOPY OUTERMOST GIRDERS	OPERATING TEMP OF -22 DEGREE TO 113 DEGREE F BACKBOX WITH CONDUIT PUNCHOUTS MARINE GRADE FINISH
HX04		CANOPY DOWNLIGHT	3000K LED 1436 LUMENS 80 CRI	LUMINIS OCCULUS	OC750-L1L15-FLD-30K-MVOLT-DR10-SL-GL-CUSTOM COLOR TBD-MG	REMOTE 0-10V DIMMING	14	MVOLT	5.83"	RECESSED	TERMINAL ENTRIES	REQUIRES 7" CLEAR PLENUM IP66
HX05		INGRADE UPLIGHT	3000K LED 1453 LUMENS 80 CRI	HYDREL TIERRA	IGF6-SS-LED-P1-80CRI-30K-MVOLT-7 DEGREE-0T-SLCSR-CONDUIT ENTRIES TBD-IHL-ZT-FINISH TBD	INTEGRAL 0-10V DIMMING TO 1%	24	MVOLT	10.5"	INGRADE	TERMINAL ENTRY	INTERNAL HONEYCOMB LOUVER FOR GLARE CONTROL AIMING ADJUSTMENT 0 TO 20 DEGRESS
HX05a		FLAG POLE INGRADE UPLIGHT	3000K LED 4205 LUMENS 80 CRI	HYDREL M9700C	M9720C-DOOR MATERIAL TBD-P2-30K-MVOLT-NSP-FLC2SSR-CONDUIT ENTRIES TBD-GS-LDIM-FINISH TBD + ZINC UNDERCOAT	INTEGRAL 0-10V DIMMING TO 10%	35	MVOLT	16"	INGRADE	FLAG POLES	DOUBLE LENS, OPTICAL AND MECHANICAL AIMING SLIP RESISTANT LENS GLARE SHIELD
HX06	NOT USED											
HX07	NOT USED											
HX08		LANDSCAPE ACCENT	3000K LED 674 LUMENS 90 CRI	HYDREL ASPEN LED	ASPEN-A-P1-90CRI-30K-12-45DEG-WSL-350R-STK-IHL-C3-FINIS H + Z9- / REMOTE TRANSFORMER	REMOTE 12V TRANSFORMER	8	12	8.65"	STAKE	LANDSCAPE	WATERSHED LENS HONEYCOMB LOUVER 45 DEGREE CUT EXTERNAL CAP 350 DEGREE ROTATIONAL KNUCKLE
HX09		ARM MOUNTED SIGN LIGHTER	3000K LED 674 LUMENS 90 CRI	ELLIPTIPAR STYLE S175	S-175-H-8'-H-FINISH-M-V0-0-935-EL / HUBS AS REQUIRED-CANTILEVER HANGER WITH 24" ARM	ELDOLED 0-10V DIMMING TO 1%	13 PER FOOT	MVOLT	4" NOMINAL	SURFACE	GARAGE	FINISH PER ARCHITECT AIMING LOCKS WITH SET SCREWS FIELD SERVICABLE LIGHT ENGINE
HX10	NOT USED											
HX11		FLEXIBLE WET RATED RGBW	RGBW LED 205 LUMENS PER FOOT AT 3K	OPTIC ARTS KURBA LARGE	KBL-W-VB-LENGTH PER PLAN-RGBW26SO-BK-MOUNTING-BK-FEED POSITION LEFT AND RIGHT TBD-	REMOTE 24VDC DMX	1.25 PER FOOT			SURFACE	GARAGE ACCENT AT STAIRWELL	VERTICAL BEND EC TO PROVIDE ALL FEEDS, CONNECTORS, CAPS, CLIPS ETC TO FORM A COMPLETE WORKING SYSTEM
HX12		RGBW EXTERIOR LINEAR ACCENT	RGBW LED 205 LUMENS PER FOOT AT 3K	DADO EXTERIOR HARDLINE	EHL25-1EL-RGBW-1-W-R-START END TBD-LENGTH PER PLAN-NO TRANSITION-FINISH END TBD-LIP COLOR TBD-IN-OPTIONS AS REQUIRED / REMOTE DRIVER TBD-DDMX	REMOTE DMX	6.1 PER FOOT	UNV	1.75" DEEP	SURFACE	GARAGE MONITOR AT STAIRWELL	IP65 EC TO PROVIDE ALL FEEDS, CONNECTORS, CAPS, CLIPS ETC TO FORM A COMPLETE WORKING SYSTEM
HX13		LED PROJECTOR	5500K LED 3000 LUMENS	ROSCO X-EFFECTS LED PROJECTOR	XFXLED-X-EFFEXTS-90-5-C-LENS TBD-ACCESSORY TBD--S-P / 296000005101 / CUSTOM COLOR TBD	ONBOARD DIMMING AND SPEED CONTROLS	90	100-240 VAC		WALL MOUNT	GARAGE LOBBY	WEIGHT: 9 POUNDS PROVIDE BRACING AS REQUIRED FOR WALL MOUNTING
HX14	NOT USED											
HX14a	NOT USED											
HX15	NOT USED											
HX16	NOT USED											
HX17		RGBW TREE UPLIGHT	RGBW LED 1645 LUMENS FULL ON	COLOR KINETICS BURST POWERCORE	423-000030-FINISH TBD / FULL GLARE SHIELD / (1) LENS TO BE DETERMINED	DMX	31.3	MVOLT	10.75"	STAKE	PALM TREES DRIVE APPROACH	8 DEGREE BEAM ANGLE NATIVE FULL GLARE SHIELD...
HX18		RGBW FLEXIBLE DIRECT VIEW	RGBW LED	KELVIX SIGNWAVE 5	SWSS-LENGTH PER PLAN-RGBW-FEED POINT TBD-FEED LENGTH TBD-IP68 / END CAPS AS REQUIRED / SW-E-CH-AL-FLX-1M	DMX	4.6 PER FOOT	24V DC	1.12"	SURFACE	PEDESTRIAN WALKWAY CANOPY	POWER FEED EVERY 21 FEET FLEXIBLE ALUMINUM CHANNEL

SPECIFICATION NOTES (MUST BE INCLUDED ON DRAWINGS WITH LUMINAIRE SCHEDULE):

1 ELECTRICAL ENGINEER TO SPECIFY AND CONFIRM ALL VOLTAGES AND PROPERLY SIZE ALL REMOTE POWER SUPPLIES

2 CONTRACTOR SHALL PROVIDE LUMINAIRES AND LIGHTING EQUIPMENT THAT MEETS PERFORMANCE, AESTHETICS, AND MATERIAL AS NOTED IN THE WRITTEN LUMINAIRE SPECIFICATION. ALTERNATES OR SUBSTITUTIONS ARE NOT PERMITTED WITHOUT REVIEW AND APPROVAL BY THE LIGHTING DESIGNER. CONTRACTOR TO COORDINATE LEAD TIMES, DEPOSIT REQUIREMENTS, SHOP DRAWING DEVELOPMENT AND SUBMITTAL, ETC. TO ASSURE TIMELY DELIVERY IN ACCORDANCE WITH OVERALL PROJECT SCHEDULE. ALL PROPOSED SUBSTITUTIONS MUST BE SUBMITTED NO LESS THAN FOURTEEN (14) DAYS PRIOR TO THE BID DUE DATE. FAILURE TO SUBMIT PROPOSED SUBSTITUTIONS WITHIN THAT DEADLINE CONSTITUTES A GUARANTEE THAT THE SPECIFIED PRODUCTS WILL BE SUPPLIED.

3 INSTALLING CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL WIRING SCHEMES AND OTHER INSTALLATION DETAILS WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.

4 SUBSTANTIAL COMPLETION IN THIS CONTEXT REFERS TO COMPLETELY INSTALLED AND OPERATIONAL LIGHTING AND LIGHTING CONTROL SYSTEMS. CONTRACTOR SHALL VERIFY THE CORRECT INSTALLATION AND DIMMING OPERATION OF ALL LUMINAIRES, SENSORS, AND OF THE CONTROL SYSTEM AS AWHOLE PRIOR TO REQUESTING THE LIGHTING DESIGNER'S ATTENDANCE AT ANY FOCUSSING OR LEVEL SETTING SESSIONS. IN THE EVENT THAT THE LIGHTING CONTROL ZONES OR OTHER OPERATIONAL CHARACTERISTICS OF THE COMPLETED SYSTEM ARE NOT FULLY READY AT THE TIME OF THE FIRST FOCUSSING APPOINTMENT, THE LIGHTING DESIGNER SHALL BE ENTITLED TO REQUEST FEES FOR ADDITIONAL SERVICES FROM THE CONTRACTOR WHICH SHALL NOT BE PASSED ON TO THE CLIENT.

5 CATALOGUE OR SERIES NUMBERS ARE INTENDED TO PROVIDE ASSISTANCE IN ESTABLISHING IDENTIFICATION OF MANUFACTURER'S MODEL, SERIES, OR LUMINAIRE STYLE, AND MAY NOT BE COMPLETE AND SHALL NEVER BE USED TO ORDER LUMINAIRES. MANUFACTURER'S CATALOG NUMBERS ARE SUBJECT TO CHANGE AND ANY DISCREPANCIES BETWEEN THE CATALOG NUMBER, LUMINAIRE DESCRIPTION, REMARKS, LAMP AND SUPPLY VOLTAGE, AND ARCHITECTURAL DRAWINGS MUST BE BROUGHT TO THE ATTENTION TO THE LIGHTING DESIGNER PRIOR TO THE RELEASE OF A PURCHASE ORDER.

6 CATALOGUE CUTS, WHEN INCLUDED, ARE FOR GENERAL ASSISTANCE AND IMAGE REFERENCE ONLY AND ARE NOT A PART OF THESE SPECIFICATIONS. MANUFACTURER'S CATALOG CUTS ARE SUBJECT TO CHANGE AND CURRENT CATALOG CUTS FROM THE MANUFACTURER ARE REQUIRED TO BE SUBMITTED DURING SHOP DRAWING REVIEW FOR APPROVAL....

7 AUXILIARY EMERGENCY EQUIPMENT OPTIONS MUST BE DETERMINED, VERIFIED, AND APPROVED BY THE ELECTRICAL ENGINEER.

8 "CONTINUOUS", WHEN NOTED, REQUIRES BUTTED END TO END LAYOUTS WITH NO GAPS BETWEEN LUMINAIRE HOUSINGS. NOTE MINIMUM OR MAXIMUM GAPS OR LAYOUT WHEN PROVIDED.

9 "FLANGELESS" OR "TRIMLESS" OR "FLUSH", WHEN NOTED, REQUIRES CONTRACTOR TO REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR PLASTER FRAME. PROPER ALIGNMENT OF BOTTOM OF APERTURE THROAT WITH FACE OF FINISHED CEILING IS CRITICAL FOR INSTALLATION; CONTRACTOR TO COORDINATE.

10 "REMOTE DRIVERS" OR "ACCESSIBLE" WHEN NOTED REQUIRES CONTRACTOR TO COORDINATE WITH BOTH THE ARCHITECT AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS TO LOCATE A SUITABLE LOCATION REMOVED FROM THE LUMINAIRE ITSELF FOR THE DRIVER/POWER SUPPLY. SAID LOCATION SHALL BE CONCEALED FROM GERENAL VIEW, WELL VENTILATED, SECURE AND REACHABLE BY NO MORE THAN A 10' LADDER PLACED SECURELY, ON FLAT GROUND.

A. ELECTRICAL CONTRACTOR TO COORDINATE MOUNTING DETAILS AND ELECTRICAL CONNECTIONS, ADVISE MANUFACTURER OF LEAD LENGTHS, AND VERIFY THAT INSTALLATION COMPLIES WITH NATIONAL AND LOCAL CODES, AND PROVIDE FUSE FOR SECONDARY WIRING, WHEN REQUIRED.

B. LUMINAIRE MANUFACTURER TO DETERMINE REQUIRED WIRE SIZE BETWEEN LUMINAIRES AND DRIVERS, LENGTH OF RUNS, OR QUANTITY OF LUMINAIRES PER CIRCUIT, AND TO ASSURE THAT VOLTAGE DROP DOES NOT EXCEED 5% - VERIFICATION OF VOLTAGE DROP MUST BE CONDUCTED ON SITE BY THE ELECTRICAL CONTRACTOR USING A "TRUE RMS" VOLTMETER TO MEASURE THE SECONDARY VOLTAGE.

11 "ALLOWANCES", WHEN NOTED, ARE TO BE IN U.S. DOLLARS AND COVER THE COST, TO THE OWNER, OF THE LIGHTING LUMINAIRES, LAMPS, AND ACCESSORIES AS NOTED. AN ALLOWANCE DOES NOT INCLUDE LAMPS, DELIVERY TO THE SITE, HANDLING, INSTALLATION OR CONTRACTOR'S OVERHEAD OR MARK-UP. CONTRACTOR MUST PROVIDE UNIT PRICING TO THE ARCHITECT- FOR EACH LUMINAIRE TYPE COMPLETE WITH ALL ACCESSORIES AND LAMP.

12 SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND LIGHTING CONSULTANT FOR REVIEW AND APPROVAL IN ACCORDANCE WITH ARCHITECT'S GENERAL TERMS AND CONDITIONS. DO NOT OBTAIN LUMINAIRES WITHOUT APPROVAL.

A. SHOP DRAWINGS FOR ALL LIGHTING EQUIPMENT SHALL INCLUDE DETAILS AND CUTS OF EACH LUMINAIRE TYPE, AND SHALL INCLUDE INFORMATION ON LIGHT SOURCE, HOUSING SIZE AND MATERIAL, DRIVER TYPE (WHERE APPLICABLE), LENSES, BAFFLES, FINISHES, AND MEANS AND METHODS OF ATTACHMENT AND SUPPORT, JOINING, AND ELECTRICAL CONNECTION.

B. IN ADDITION, SHOP DRAWINGS FOR CONTINUOUS OR CUSTOM LENGTH LIGHTING EQUIPMENT REQUIRE FIELD DIMENSIONS, AND SHOP DRAWINGS SHALL INCLUDE FIELD DIMENSIONS AND LAYOUTS.

13 CONTROL SAMPLES WHEN REQUESTED, SUBMIT AT LEAST 1 WORKING SAMPLE OF EACH LUMINAIRE TYPE SPECIFIED FOR USE AS A CONTROL SAMPLE TO VERIFY COLOR FIDELITY AND COMPATABILITY WITH CONTROL SYSTEM. CONTROL SAMPLES SHALL BE PROVIDED DURING SHOP DRAWING SUBMITAL PROCESS AND SHALL BE OF THE SAME BIN/PRODUCTION RUN AS THE LUMINAIRES ULTIMATELY SUPPLIED FOR THE PROJECT AS A WHOLE. AFTER APPROVAL, CONTROL SAMPLES MAY BE INSTALLED AS PART OF THE OVERALL LUMINAIRE COUNT, OR MAY SERVE AS A PORTION OF THE ATTIC STOCK REQUIRED FOR THE PROJECT. LUMINAIRES SPECIFIED AS PART OF A SERIES (HA, HA-1, E.G.) MAY BE REPRESENTED BY A SINGLE SAMPLE, BUT ADDITIONAL UNITS MAY STILL BE REQUIRED AS ATTIC STOCK.

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B. DURING FINAL FOCUSING THE LIGHTING DESIGNER WILL PROVIDE AIMING DIRECTION, INSTRUCTION, AND DEFINE AIMING ANGLES FOR TYPICAL LUMINAIRES SO THE CONTRACTOR MAY COMPLETE THE FOCUSING DURING DAYTIME HOURS. THE CONTRACTOR IS TO LOCK BUT NOT OVER-TIGHTEN ALL LUMINAIRES SO THAT LAMPHOLDERS WILL NOT MOVE DURING SUBSEQUENT RELAMPING.

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16 ATTIC STOCK: CONTRACTOR TO INCLUDE COST OF 20% ATTIC STOCK IN BID FOR THE FOLLOWING TYPES OF LUMINAIRES, ACCESSORIES, AND COMPONENTS: LINEAR LUMINAIRE TYPES IN QUANTITIES AND LENGTHS AS REPRESENTED IN THE DRAWINGS, LENSES, REMOVABLE LUMINAIRE TRIMS, DRIVERS, BOTH REMOTE AND INTEGRAL, HOUSINGS, WHERE LUMINAIRE AND HOUSING ARE SEPARATE ENTITIES, CUSTOMIZED COMPONENTS INCLUDING HOUSINGS WITH CUSTOMIZED FINISHES (ARMS, MOUNTING BRACKETS, ETC.). LUMINAIRE TYPES WHICH ARE SUPPLIED ON SPOOLS, REQUIRE ONE ADDITIONAL FULL SPOOL .

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18 A CONTROL SYSTEMS INTEGRATOR IS REQUIRED FOR THIS PROJECT. GENERAL CONTRACTOR, OR THEIR ELECTRICAL SUB TO CONTRACT WITH A QUALIFIED LIGHTING CONTROL SYSTEMS INTEGRATOR TO ENSURE THAT THE CONTROL INTENT SPECIFIED ELSEWHERE CAN BE ACHEIVED AND THAT THE LUMINAIRES CONTROLED VIA DMX-512A AND THOSE CONTROLED BY OTHER PROTOCOLS CAN BE OPERATED SIMALTANEOUSLY AND WITHOUT VISIBLE LAGS....

19 LED REPLACEMENT LAMPS: WHERE NOTED REQUIRES DISTRIBUTOR TO COORDINATE AND PROVIDE APPROPRIATE LED REPLACEMENT LAMPS FOR LUMINAIRES WITH SCREW BASE SOCKETS. TAKE CARE TO ASSURE THAT ALL REPLACEMENT LAMPS, REGARDLESS OF BASE ARE CONSISTENT IN COLOR APPEARANCE AND WILL DIM WITH SPECIFIED SYSTEM. ALL NON-SHIELDED LAMPS SHALL HAVE FILAMENT STYLE LIGHT ELEMENT. PROVIDE A FULL SUITE OF LAMPS FOR LIGHTING DESIGNER'S APPROVAL WITH SUBMISSION. PROVIDE A COMPLETE LIST OF ALL LAMPS WHICH WILL BE FURNISHED ON THE PROJECT. THIS LIST SHALL BE ORGANIZED ALPHABETICALLY BY LUMINAIRE TYPE INDICATED ON THE LUMINAIRE SCHEDULE, AND INCLUDE THE MANUFACTURER AND EXACT MODEL ORDERING CODE OF EACH LAMP.

20 CUSTOM OR CUSTOMIZED LUMINAIRE: WHERE NOTED REFERS TO EITHER A LUMINAIRE DESIGNED FOR THIS SPECIFIC PROJECT ONLY, OR MAY REFER TO A SPECIFIC ELEMENT OF THE LUMINAIRE THAT IS BEING CHANGED FOR USE WITHIN THIS PROJECT. IN EITHER CASE, BIDDERS ARE ENCOURAGED TO COMMUNICATE WITH MANUFACTURERS WHERE NOTED DURING THE PREPARATION OF BIDS AND TO REFER ANY QUESTIONS TO THE DESIGN TEAM IN THE FORM OF RFI'S. REQUESTS FOR CHANGE ORDERS THAT COULD HAVE BEEN RESOLVED IN ADVANCE, BASED ON THE INFORMATION PROVIDED AND A STANDARD RFI WILL NOT BE HONORED OR REFERRED TO THE CLIENT. IN INSTANCES WHERE THE LUMINAIRE IS DESCRIBED AS IN DEVELOPMENT WITH THE SELECTED MANUFACTURER, CONFIRM THAT PROVIDED PRICE IS SUFFICIENT TO INCLUDE ADJUSTMENTS TO THE OVERALL SIZE, FINISH, MATERIALS, ETC. DURING THE SUBMISSION PROCESS.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	RS&H
DRAWN BY:	BWG
DESIGNED BY:	CRD

PROJECT NUMBER:
2003-0070-006

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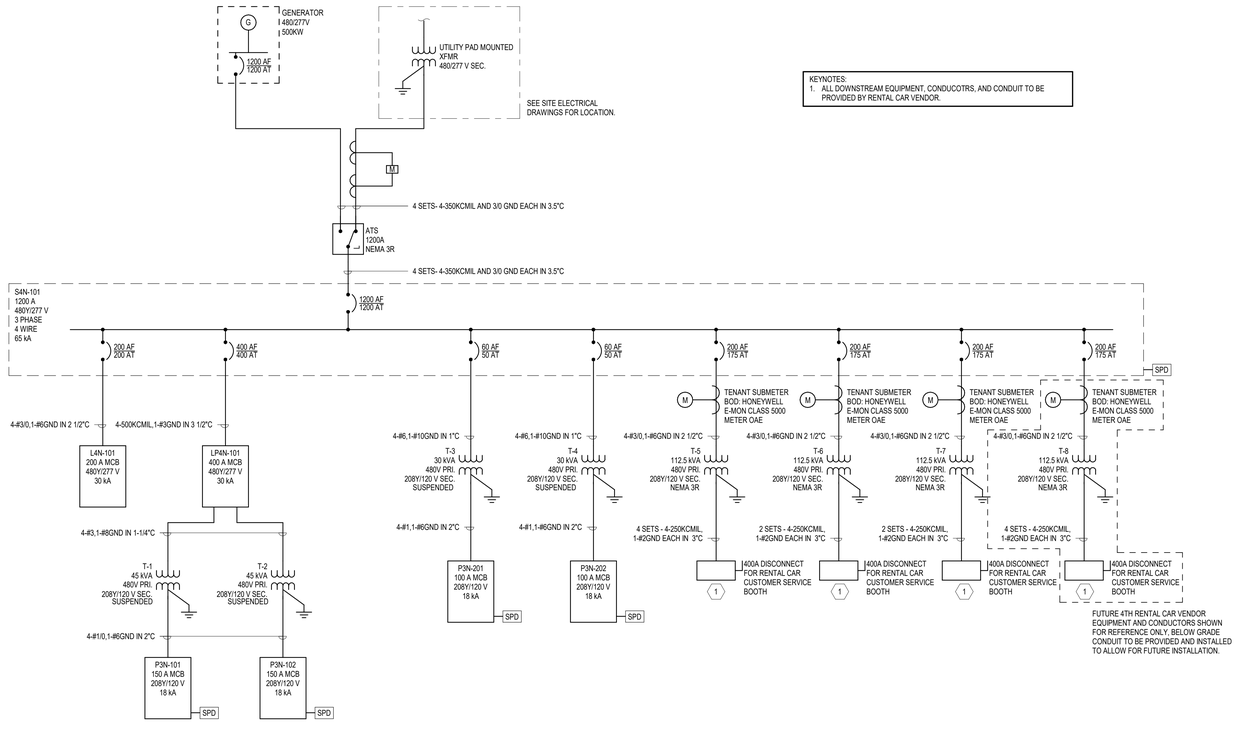
SHEET TITLE:
EXTERIOR LUMINAIRE SCHEDULE

SHEET ID:
EL602

PROJECT STATUS:
100% BID SET

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C1 ELECTRICAL ONE LINE DIAGRAM

SCALE: N.T.S.

TRANSFORMER SCHEDULE

XFMR SIZE (KVA)	PRIMARY								GROUNDING ELECTRODE CONDUCTOR	SECONDARY							
	VOLTS	PHASE	BREAKER TRIP (AMPS)	CONDUCTOR			GROUND GUAGE	CONDUIT SIZE		VOLTS	PHASE	BREAKER TRIP (AMPS)	CONDUCTOR			GROUND GUAGE	CONDUIT SIZE
				SETS	QUANTITY	GUAGE							SETS	QUANTITY	GUAGE		
15	480	3	30	1	3	#10	#10	3/4"	#8	208	3	60	1	4	#4	#8	1 1/4"
30	480	3	60	1	3	#6	#10	1"	#8	208	3	100	1	4	#1	#6	2"
45	480	3	90	1	3	#3	#8	1 1/4"	#8	208	3	150	1	4	#1/0	#6	2"
75	480	3	150	1	3	#1/0	#6	2"	#6	208	3	225	1	4	#4/0	#2	2 1/2"
112.5	480	3	200	1	3	#3/0	#6	2"	#4	208	3	400	2	4	#3/0	#2	EACH SET IN 2 1/2"
150	480	3	300	1	3	300 KCMIL	#4	2 1/2"	#2	208	3	600	2	4	350 KCMIL	#2/0	EACH SET IN 3"
225	480	3	400	1	3	500 KCMIL	#3	3"	#1/0	208	3	800	2	4	600 KCMIL	#3/0	EACH SET IN 4"
300	480	3	600	2	3	300 KCMIL	#1	EACH SET IN 2 1/2"	#2	208	3	1200	4	4	350 KCMIL	#4/0	EACH SET IN 3"
500	480	3	1000	4	3	250 KCMIL	#2/0	EACH SET IN 2 1/2"	#2	208	3	2000	5	4	600 KCMIL	400 KCMIL	EACH SET IN 4"
750	480	3	1600	4	3	600 KCMIL	#4/0	EACH SET IN 3 1/2"	#1/0	208	3	3000	8	4	500 KCMIL	500 KCMIL	EACH SET IN 3 1/2"

GENERAL NOTES:

A. GROUNDING ELECTRODE CONDUCTOR SIZE IS PER NEC TABLE 250.66.

B. PRIMARY GROUND (EQUIPMENT GROUND) CONDUCTOR SIZE IS PER NEC TABLE 250.122.

C. SECONDARY GROUND (SUPPLY SIDE BONDING JUMPER) CONDUCTOR SIZE IS PER NEC 250.102(C)(1). SECONDARY GROUND CONDUCTOR SIZE ASSUMES A SINGLE CONDUCTOR FOR SINGLE OR PARALLEL SETS, MULTIPLE SECONDARY GROUND CONDUCTORS ARE ACCEPTABLE AND SHALL BE SIZED PER NEC TABLE 250.102.

D. CONTRACTOR SHALL INCREASE FEEDER SIZES WHEN THEY ARE LONGER THEN 165' FOR 208 V AND 185' FOR 480 V.

E. CONDUCTORS FEEDING K-RATED TRANSFORMERS REQUIRE 200% NEUTRAL CONDUCTORS WITH CONDUIT SIZED PER NEC.

F. ALL CONDUCTOR SIZES ARE BASED ON COPPER.

FEEDER SCHEDULE

BREAKER TRIP (AMPS)	TYPE	CONDUCTOR			MIN. GEC (SE) MIN. EGC (ΔY)	MINIMUM CONDUIT SIZE
		SETS	QUANTITY	GAUGE		
30	Δ	1	3	#10	#10	3/4"
	Y		4			
40	Δ	1	3	#8	#10	3/4"
	Y		4			1"
50	Δ	1	3	#6	#10	1"
	Y		4			
60	Δ	1	3	#6	#10	1"
	Y		4			
70	Δ	1	3	#4	#8	1 1/4"
	Y		4			
90	Δ	1	3	#3	#8	1 1/4"
	Y		4			
100	SE	1	4	#2	#1/0	1 1/4"
	Δ		3		#8	
	Y		4			
110	Δ	1	3	#2	#6	1 1/4"
	Y		4			1 1/2"
125	SE	1	4	#1	#6	1 1/2"
	Δ		3		#6	
	Y		4			2"
150	SE	1	4	#1/0	#6	2"
	Δ		3			
	Y		4			
175	Δ	1	3	#2/0	#6	2"
	Y		4			
200	SE	1	4	#3/0	#4	2"
	Δ		3		#6	
	Y		4			2 1/2"
225	SE	1	4	#4/0	#2	2 1/2"
	Δ		3		#4	
	Y		4			
250	Δ	1	3	250 KCMIL	#4	2 1/2"
	Y		4			3"
300	Δ	1	3	300 KCMIL	#4	3"
	Y		4			
350	Δ	1	3	350 KCMIL	#3	3"
	Y		4			
400	SE	1	4	500 KCMIL	#1/0	3 1/2"
	Δ		3		#3	
	Y		4			
500	Δ	2	3	#4/0	#2	EACH SET IN 2 1/2"
	Y		4			
600	SE	2	4	300 KCMIL	#1/0	EACH SET IN 3"
	Δ		3		#1	
	Y		4			
800	SE	2	4	500 KCMIL	#2/0	EACH SET IN 3 1/2"
	Δ		3		#1/0	
	Y		4			
1000	SE	4	4	250 KCMIL	#2/0	EACH SET IN 2 1/2"
	Δ		3			
	Y		4			
1200	SE	4	4	350 KCMIL	#3/0	EACH SET IN 3"
	Δ		3			
	Y		4			
1600	SE	4	4	600 KCMIL	#3/0	EACH SET IN 4"
	Δ		3		#4/0	
	Y		4			
2000	SE	5	4	600 KCMIL	#3/0	EACH SET IN 4"
	Δ		3		250 KCMIL	
	Y		4			
2500	SE	6	4	600 KCMIL	#3/0	EACH SET IN 4"
	Δ		3		350 KCMIL	
	Y		4			
3000	SE	8	4	500 KCMIL	#3/0	EACH SET IN 4"
	Δ		3		400 KCMIL	
	Y		4			

G	REFER TO "GROUNDING RISER DETAIL" FOR CONDUCTOR SIZE.
T	REFER TO "TRANSFORMER SCHEDULE" FOR CONDUCTOR SIZE.
U	REFER TO "ELECTRICAL UTILITY MATRIX" FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

1. ALL FEEDER TYPES SCHEDULED MAY NOT APPLY TO THIS PROJECT.
2. MAXIMUM 2% VOLTAGE DROP FOR FEEDERS; 3% VOLTAGE DROP FOR BRANCH CIRCUITS.
3. ADJUST CONDUCTOR & GEC SIZE FOR LONG RUNS AND TEMPERATURE ABOVE DESIGN AMBIENT TEMPERATURE.
4. CONDUIT SIZING IS BASED ON CONDUCTORS WITH THHW INSULATION.

BRANCH CIRCUIT SCHEDULE

BREAKER TRIP (AMPS)	COPPER WIRE (75°C)	MAXIMUM DISTANCE (FEET)			
		1Ø		3Ø	
		120 V	277 V	208 V	480 V
15	12	75'	173'	150'	346'
20	12	56'	130'	113'	260'
	10	94'	216'	187'	443'
	8	147'	340'	295'	681'
30	10	62'	144'	125'	289'
	8	96'	222'	192'	444'
35	8	82'	190'	165'	381'
	6	131'	303'	263'	605'
40	8	72'	166'	144'	333'
	6	115'	265'	230'	530'
45	6	102'	235'	204'	471'
	4	161'	372'	323'	745'
50	6	92'	212'	184'	424'
	4	145'	335'	291'	670'
60	6	76'	176'	152'	353'
	4	121'	280'	243'	559'
70	4	KEYNOTE 1		208'	479'
	3			257'	594'
80	4	KEYNOTE 1		182'	421'
	3			225'	520'
90	3	KEYNOTE 1		200'	462'
	2			250'	578'
100	3	KEYNOTE 1		180'	415'
	2			225'	520'

GENERAL NOTES:

1. SEE DRAWINGS FOR WIRE SIZING WHEN DISTANCE EXCEEDS VALUES SHOWN.
2. DISTANCE IS WIRE LENGTH TO FIRST OUTLET/DEVICE/EQUIPMENT FROM OVERCURRENT PROTECTION.
3. PROVIDE CONDUIT SIZE PER NEC.
4. BASIS OF VOLTAGE DROP CALCULATIONS IS 3% DROP, 80% CIRCUIT LOAD, THHN &THWN, 100% POWER FACTOR, BALANCED LOAD, NEGLIGIBLE REACTANCE, AND 6 OR LESS CURRENT-CARRYING CONDUCTORS IN RACEWAY.

KEYNOTE:

1. SEE DRAWINGS FOR WIRE SIZING.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: RS&H
DRAWN BY: BWG
DESIGNED BY: CRD
PROJECT NUMBER: 2003-0070-006

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SHEET TITLE:
ELECTRICAL ONE LINE DIAGRAM

SHEET ID:
EP601

PROJECT STATUS:
100% BID SET

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480Y/277 VAC | SWITCHBOARD S4N-101 | 1200 A BUS W/ 1200 A
3 PHASE4 WIRE | LOCATION ELECTRICAL 132 | 65 kA SCCR

CKT NO	BREAKER FRAME	BREAKER TRIP / POLE	LOAD CLASS & LOCATION	ID	NOTES	A	B	C
1	200 A	200 A / 3	L4N-101			13863 VA	13418 VA	11145 VA
2	400 A	400 A / 3	LP4N-101			59935 VA	58475 VA	51841 VA
3	60 A	60 A / 3	T-3			2178 VA	2820 VA	3098 VA
4	60 A	60 A / 3	T-4			5491 VA	7886 VA	4458 VA
5	200 A	200 A / 3	T-5			30743 VA	30743 VA	30743 VA
6	200 A	200 A / 3	T-6			30743 VA	30743 VA	30743 VA
7	200 A	200 A / 3	T-7			30743 VA	30743 VA	30743 VA
8								
9								
10								
11								
12	30 A	30 A / 3	SPD			0 VA	0 VA	0 VA
					CONNECTED LOAD:	173696 VA	174827 VA	162771 VA

Load Classification	Connected Load	Demand Factor	Esitmated Demand
MOTR	81743 VA	105.6%	86302 VA
HVAC	48952 VA	100.0%	48952 VA
EQUIPMENT	315079 VA	100.0%	315079 VA
HEAT	6000 VA	100.0%	6000 VA
LITE	48238 VA	100.0%	48238 VA
RCPT	11280 VA	94.3%	10640 VA

Panel Totals
Total Conn. Load: 511293 VA
Total Est. Demand: 515211 VA
Total Conn. Current: 615 A
Total Est. Demand Current: 619.7 A

GENERAL NOTES:

NOTES:

Branch Panel: L4N-101

Location: ELECTRICAL 132 | **Volts:** 480Y/277 VAC | **A.I.C. Rating:** 30kA
Supply From: S4N-101 | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 200 A
Enclosure: NEMA 1

Notes:

CKT	Circuit Description	Trip	Poles	Notes	A	B	C	Notes	Poles	Trip	Circuit Description	CKT
1	1ST FLOOR LTG	20 A	1		4.28 kVA	3.85 kVA			1	20 A	1ST FLOOR LTG	2
3	1ST FLOOR LTG	20 A	1			3.85 kVA	3.85 kVA		1	20 A	1ST FLOOR LTG	4
5	1ST FLOOR LTG	20 A	1				3.85 kVA	2.12 kVA	1	20 A	2ND FLOOR LTG	6
7	2ND FLOOR LTG	20 A	1		1.91 kVA	1.48 kVA			1	20 A	2ND FLOOR LTG	8
9	2ND FLOOR LTG	20 A	1			1.91 kVA	3.00 kVA		1	20 A	ROOF LTG	10
11	2ND FLOOR LTG	20 A	1				1.91 kVA	1.80 kVA	1	20 A	ROOF LTG	12
13	ROOF LTG	20 A	1		2.10 kVA	0.24 kVA			1	20 A	NW STAIR LIGHTING	14
15	SOUTH EAST STAIR LTG	20 A	1			0.81 kVA						16
17	SOUTH CENTER STAIR LTG	20 A	1				1.46 kVA					18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33												34
35												36
37												38
39												40
41												42
		Total Load:			13863 VA	13418 VA	11145 VA					
		Total...			51.3 A	49.7 A	40.2 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
LITE	38426 VA	100.0%	38426 VA	
				Total Conn. Load: 38426 VA
				Total Est. Demand: 38426 VA
				Total Conn.: 46.2 A
				Total Est. Demand: 46.2 A

Branch Panel: LP4N-101

Location: ELECTRICAL 102 | **Volts:** 480Y/277 VAC | **A.I.C. Rating:** 30kA
Supply From: S4N-101 | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: NEMA 1

Notes:

CKT	Circuit Description	Trip	Poles	Notes	A	B	C	Notes	Poles	Trip	Circuit Description	CKT
1					3.88 kVA	1.72 kVA			1	20 A	VERTICAL CORE LTG 1ST FLR	2
3	ESCALATOR	30 A	3			3.88 kVA	0.69 kVA		1	20 A	VERTICAL CORE LTG 2ND...	4
5							3.88 kVA	2.47 kVA	1	20 A	VERTICAL CORE LTG 3RD...	6
7					3.88 kVA	3.01 kVA			1	20 A	CANOPY LIGHTING	8
9	ESCALATOR	30 A	3			3.88 kVA	0.34 kVA		1	20 A	LITE ROOM 103, 104, 105	10
11							3.88 kVA	1.11 kVA				12
13					3.88 kVA	1.11 kVA			3	15 A	SAHU-01	14
15	ESCALATOR	30 A	3			3.88 kVA	1.11 kVA					16
17							3.88 kVA	2.00 kVA				18
19					6.08 kVA	2.00 kVA			3	15 A	SAHU-02	20
21	ELEVATOR	30 A	3			6.08 kVA	2.00 kVA					22
23							6.08 kVA	3.77 kVA				24
25					6.08 kVA	3.77 kVA			3	20 A	SCU-01	26
27	ELEVATOR	30 A	3			6.08 kVA	3.77 kVA					28
29							6.08 kVA	7.32 kVA				30
31	ELEVATOR PIT LTG	20 A	1		0.02 kVA	7.32 kVA			3	40 A	SCU-02	32
33	ELEVATOR PIT LTG	20 A	1			0.02 kVA	7.32 kVA					34
35	ESCALATOR PIT LIGHTING	20 A	1				0.03 kVA					36
37												38
39												40
41												42
						6.44 kVA						44
45							6.98 kVA		3	70 A	T-2(45KVA	46
47								7.18 kVA				48
49					10.76 kVA	0.00 kVA						50
51	T-1(45KVA)	70 A	3			12.46 kVA	0.00 kVA		3	20 A	SPD	52
53							4.18 kVA	0.00 kVA				54
		Total Load:			59935 VA	58475 VA	51841 VA					
		Total...			220.1 A	214.8 A	187.2 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
EQUIPMENT	19516 VA	100.0%	19516 VA	
LITE	9812 VA	100.0%	9812 VA	**Total Conn. Load:** 170251 VA
HVAC	44959 VA	100.0%	44959 VA	**Total Est. Demand:** 174809 VA
HEAT	6000 VA	100.0%	6000 VA	**Total Conn.:** 204.8 A
MOTR	81743 VA	105.6%	86302 VA	**Total Est. Demand:** 210.3 A
RCPT	8220 VA	100.0%	8220 VA	

Branch Panel: P3N-101

Location: ELECTRICAL 102 | **Volts:** 208Y/120 VAC | **A.I.C. Rating:** 18kA
Supply From: T-1 | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 150 A
Enclosure: NEMA1

Notes:

CKT	Circuit Description	Trip	Poles	Notes	A	B	C	Notes	Poles	Trip	Circuit Description	CKT
1	SLIDING DOOR POWER 1ST	20 A	1		1.80 kVA	0.92 kVA			2	20 A	SUMP PUMP	2
3	SLIDING DOOR POWER 2ND	20 A	1				1.20 kVA	0.92 kVA				4
5	SLIDING DOOR POWER 3RD	20 A	1					0.60 kVA	0.00 kVA	2	20 A	SUMP PUMP	6
7	EHW-1	40 A	2		3.00 kVA	0.00 kVA							8
9						3.00 kVA	0.92 kVA			2	20 A	SUMP PUMP	10
11	HWRP1	20 A	1					0.04 kVA	0.92 kVA				12
13	CU-01	30 A	2		1.00 kVA	3.33 kVA				2	45 A	FOUNTAIN CONTROL PANEL	14
15						1.00 kVA	3.33 kVA						16
17	BMS RCPT	20 A	1					0.18 kVA	0.51 kVA	1	20 A	LANDSCAPE LTG	18
19	BMS RCPT	20 A	1		0.18 kVA	0.36 kVA				1	20 A	TUNNEL PROJECTORS	20
21	EF-01	20 A	2				0.20 kVA	1.73 kVA		1	20 A	CAB LTG AND POWER	22
23								0.20 kVA	1.73 kVA	1	20 A	CAB LTG AND POWER	24
25						0.18 kVA				1	20 A	ELEVATOR PIT RCPT	26
27							0.18 kVA			1	20 A	ELEVATOR PIT RCPT	28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
43													44
45	SPARE	20 A	1				0.00 kVA	0.00 kVA		1	20 A	SPARE	46
47	SPARE	20 A	1					0.00 kVA	0.00 kVA	1	20 A	SPARE	48
49	SPARE	20 A	1		0.00 kVA	0.00 kVA							50
51	SPARE	20 A	1				0.00 kVA	0.00 kVA		3	20 A	SPD	52
53	SPARE	20 A	1					0.00 kVA	0.00 kVA				54
		Total Load:			10762 VA	12462 VA	4178 VA						
		Total...			98.1 A	112.3 A	34.8 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
EQUIPMENT	7056 VA	100.0%	7056 VA	
LITE	873 VA	100.0%	873 VA	**Total Conn. Load:** 27402 VA
HVAC	2392 VA	100.0%	2392 VA	**Total Est. Demand:** 29066 VA
HEAT	6000 VA	100.0%	6000 VA	**Total Conn.:** 76.1 A
MOTR	10361 VA	116.1%	12025 VA	**Total Est. Demand:** 80.7 A
RCPT	720 VA	100.0%	720 VA	

Branch Panel: P3N-102

Location: ELECTRICAL 102 | **Volts:** 208Y/120 VAC | **A.I.C. Rating:** 18kA
Supply From: T-2 | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 150 A
Enclosure: NEMA1

Notes:

CKT	Circuit Description	Trip	Poles	Notes	A	B	C	Notes	Poles	Trip	Circuit Description	CKT
1	INTERCOM	20 A	1		0.18 kVA	0.36 kVA			1	20 A	ROOFTOP RCPT	2
3	INTERCOM	20 A	1				0.18 kVA	0.56 kVA				4
5	RCPT MECH YARD	20 A	1					0.36 kVA	0.50 kVA	1	20 A	COMM EQUIPMENT	6
7	RCPT ELEC. RM 102	20 A	1		0.72 kVA	1.62 kVA				1	20 A	RCPT RM 202	8
9	RCPT CIRCULATION CORE	20 A	1				0.90 kVA	1.00 kVA		1	20 A	EWC	10
11	FIDS MONITORS	20 A	1					0.54 kVA	1.44 kVA	1	20 A	RCPT 3RD FLR	12
13	COMM EQUIPMENT	20 A	1		0.50 kVA	0.50 kVA				1	20 A	COMM EQUIPMENT	14
15	COMM EQUIPMENT	20 A	1				1.92 kVA	0.50 kVA		1	20 A	COMM EQUIPMENT	16
17	COMM EQUIPMENT	20 A	1					1.92 kVA	0.50 kVA	1	20 A	COMM EQUIPMENT	18
19	BACKLIT MIRRORS	20 A	1		0.64 kVA	1.92 kVA				1	20 A	COMM EQUIPMENT	20
21							1.92 kVA			1	20 A	COMM EQUIPMENT	22
23								1.92 kVA		1	20 A	COMM EQUIPMENT	24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
43													44
45								0.00 kVA		1	20 A	SPARE	46
47	SPARE	20 A	1				0.00 kVA	0.00 kVA		1	20 A	SPARE	48
49	SPARE	20 A	1		0.00 kVA	0.00 kVA							50
51	SPARE	20 A	1				0.00 kVA	0.00 kVA		3	20 A	SPD	52
53	SPARE	20 A	1					0.00 kVA	0.00 kVA				54
		Total Load:			6441 VA	6980 VA	7180 VA						
		Total...			53.7 A	58.9 A	60.5 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
EQUIPMENT	12460 VA	100.0%	12460 VA	
LITE	641 VA	100.0%	641 VA	**Total Conn. Load:** 20601 VA
RCPT	7500 VA	100.0%	7500 VA	**Total Est. Demand:** 20601 VA
				Total Conn.: 57.2 A
				Total Est. Demand: 57.2 A

Branch Panel: P3N-201

Location: IDF/ELEC 221 | **Volts:** 208Y/120 VAC | **A.I.C. Rating:** 18kA
Supply From: T-3 | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: NEMA 1

Notes:

CKT	Circuit Description	Trip	Poles	Notes	A	B	C	Notes	Poles	Trip	Circuit Description	CKT
1	EXT RCPT	20 A	1		0.18 kVA	0.50 kVA			1	20 A	COMM EQUIPMENT	2
3	RCPT IDF/ELECTRICAL 221	20 A	1			0.72 kVA	1.92 kVA		1	20 A	COMM EQUIPMENT	4
5	COMM EQUIPMENT	20 A	1				1.92 kVA	1.00 kVA				6
7	COMM EQUIPMENT	20 A	1		0.50 kVA	1.00 kVA			2	20 A	CU-02	8
9	INTERCOM	20 A	1			0.18 kVA						10
11	INTERCOM	20 A	1				0.18 kVA					12
13												14
15												16
17												18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33	SPARE	20 A	1			0.00 kVA	0.00 kVA		1	20 A	SPARE	34
35	SPARE	20 A	1				0.00 kVA	0.00 kVA	1	20 A	SPARE	36
37	SPARE	20 A	1		0.00 kVA	0.00 kVA						38
39	SPARE	20 A	1			0.00 kVA	0.00 kVA		3	20 A	SPD	40
41	SPARE	20 A	1				0.00 kVA	0.00 kVA				42
		Total Load:			2178 VA	2820 VA	3098 VA					
		Total...			18.2 A	24.3 A	26.6 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
EQUIPMENT	4840 VA	100.0%	4840 VA	
HVAC	1997 VA	100.0%	1997 VA	**Total Conn. Load:** 8097 VA
RCPT	1260 VA	100.0%	1260 VA	**Total Est. Demand:** 8097 VA
				Total Conn.: 22.5 A
				Total Est. Demand: 22.5 A

Branch Panel: P3N-202

Location: IDF/ELEC 232 | **Volts:** 208Y/120 VAC | **A.I.C. Rating:** 18kA
Supply From: T-4 | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: NEMA 1

Notes:
2#4, 1-#6GND IN 1-1/2"C

CKT	Circuit Description	Trip	Poles	Notes	A	B	C	Notes	Poles	Trip	Circuit Description	CKT
1	INTERCOM	20 A	1		0.18 kVA	0.36 kVA			1	20 A	EXT RCPT	2
3	INTERCOM	20 A	1			0.18 kVA	1.54 kVA		1	20 A	GEN. BATTERY CHARGER	4
5	INTERCOM	20 A	1				0.36 kVA	0.20 kVA	1	20 A	GEN ALT HEATER	6
7	RCPT IDF/ELEC 232	20 A	1		0.72 kVA	1.33 kVA			2	20 A	GENERATOR COOLANT HEATER	8
9	COMM EQUIPMENT	20 A	1			1.92 kVA	1.33 kVA					10
11	COMM EQUIPMENT	20 A	1				0.50 kVA	2.40 kVA	1	1	30 A	ENTRY TRAFFIC CTRL ARM	12
13	COMM EQUIPMENT	20 A	1		0.50 kVA	2.40 kVA			1	1	30 A	ENTRY TRAFFIC CTRL ARM	14
15	COMM EQUIPMENT	20 A	1			1.92 kVA	1.00 kVA		2	20 A	CU-03	16
17								1.00 kVA				18
19												20
21												22
23												24
25												26
27												28
29												30
31												32
33							0.00 kVA		1	20 A	SPARE	34
35	SPARE	20 A	1					0.00 kVA	0.00 kVA	1	20 A	SPARE	36
37	SPARE	20 A	1		0.00 kVA	0.00 kVA							38
39	SPARE	20 A	1			0.00 kVA	0.00 kVA		3	20 A	SPD	40
41	SPARE	20 A	1				0.00 kVA	0.00 kVA				42
		Total Load:			5491 VA	7886 VA	4458 VA					
		Total...			47.1 A	67 A	37.2 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
EQUIPMENT	14038 VA	100.0%	14038 VA	
HVAC	1997 VA	100.0%	1997 VA	**Total Conn. Load:** 17835 VA
RCPT	1800 VA	100.0%	1800 VA	**Total Est. Demand:** 17835 VA
				Total Conn.: 49.5 A
				Total Est. Demand: 49.5 A

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740AIRPORT BLVD.
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REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: RS&H
DRAWN BY: BWG
DESIGNED BY: CRD
PROJECT NUMBER: 2003-0070-006

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SEAL:
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SHEET TITLE:
ELECTRICAL POWER PANEL SCHEDULES

SHEET ID:
EP602

PROJECT STATUS:
100% BID SET

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TELECOMMUNICATIONS ABBREVIATIONS

AC	ABOVE COUNTER
ACS	ACCESS CONTROL SYSTEM
ACT	ACOUSTIC CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADAAG	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AI	AUDIO INTERFACE
AL	ALUMINUM
AMS	ACCESS MANAGEMENT SYSTEM
AP	ACCESS PANEL
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
BDCT	BUILDING DESIGN AND CONSTRUCTION TEAM
BHS	BAGGAGE HANDLING SYSTEM
BID	BAGGAGE INFORMATION DISPLAY
BLS	BOTTLED LIQUIDS SCANNER
BMS	BALANCED MAGNETIC SWITCH
C	CONDUIT
CAT6	CATEGORY 6 ETHERNET CABLE
CATV	CABLE TELEVISION
CBP	CUSTOMS AND BORDER PROTECTION
CCP	CONCRETE CAMERA POLE
CE	COMMUNICATIONS ENCLOSURE
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CNTRL	CONTROLLER
CO	CONDUIT ONLY
COMM	COMMUNICATION
COPP	COPPER PATCH PANEL
CR	CARD READER
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
DAS	DISTRIBUTED ANTENNA SYSTEM
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DDC	DIRECT DIGITAL CONTROL
DH	DOOR HOLDER
DIV	DIVISION
DWG	DRAWING
E	EXISTING
EC	ELECTRICAL CONTRACTOR
EL	ELEVATION
ELEC	ELECTRIC/ELECTRICAL
EM	EMERGENCY
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EMI	ELECTROMAGNETIC INTERFERENCE
EOR	ENGINEER OF RECORD
EQ	EQUAL
ETD	EXPLOSIVE TRACE DETECTION
F/P	FAX / PRINTER
FID	FLIGHT INFORMATION DISPLAY
FLR	FLOOR
FO	FIBER OPTIC
FOPP	FIBER OPTIC PATCH PANEL
FS	FLOW SWITCH
G	GROUND
GC	GENERAL CONTRACTOR
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GPR	GROUND PENETRATING RADAR
GRS	GALVANIZED RIGID STEEL
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
HMI	HUMAN MACHINE INTERFACE
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
IC	INTERCOM
IDF	INTERMEDIATE DISTRIBUTION FRAME
IDS	INTRUSION DETECTION SYSTEM
IMC	INTERMEDIATE METAL CONDUIT
IP	INTERNET PROTOCOL
ISP	INTERNET SERVICE PROVIDER
ITC	INTERCOM TERMINAL CABINET
J	JUNCTION
JB	JUNCTION BOX
KAIC	(THOUSAND) AMPERE INTERRUPTING CAPACITY
Kcmil	THOUSANDS OF CIRCULAR MILS
KO	KNOCK OUT
LAN	LOCAL AREA NETWORK
LBS	LOAD BREAK SWITCH
LCD	LIQUID CRYSTAL DISPLAY
MAX	MAXIMUM
MDF	MAIN DISTRIBUTION FRAME
MIC	MICROPHONE
MM	MULTI-MODE
MTD	MOUNTED
MUFID	MULTI-USER FLIGHT INFORMATION DISPLAY
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NO	NORMALLY OPEN
NTS	NOT TO SCALE
NWSW	NETWORK SWITCH
OAE	OR APPROVED EQUAL
OC	ON CENTER
OH	OVERHEAD
OSR	ONLINE SCREEN RESOLUTION
PNEU	PNEUMATIC
PNL	PANEL
POE	POWER OVER ETHERNET
POS	POINT OF SALE
PP	POWER PANEL
PRCS	PARKING REVENUE CONTROL SYSTEM
PTZ	PAN-TILT-ZOOM
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RBB	RACK BONDING BUSBAR
REX	REQUEST TO EXIT
RF	RADIO FREQUENCY
RM	ROOM
RS	RIGID STEEL
SCR	SCREEN ROOM
SEC	SECURITY
SIDA	SECURITY IDENTIFICATION DISPLAY AREA
SIM	SIMILAR
SM	SINGLE MODE
SPD	SURGE PROTECTIVE DEVICE
STS	STATIC TRANSFER SWITCH
SYM	SYMMETRICAL
TB	TELEPHONE BACKBOARD
TBD	TO BE DETERMINED
TDC	TRAVEL DOCUMENT CHECKER
TEL	TELEPHONE
TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
TSA	TRANSPORTATION SECURITY ADMINISTRATION
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UGC	UNDERGROUND COMMUNICATIONS
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UT	UTILITY
UTP	UNSHIELDED TWISTED PAIR
UTR	UP THROUGH ROOF
VMS	VIDEO MANAGEMENT SYSTEM
VoIP	VOICE OVER IP TELEPHONY
WAP	WIRELESS ACCESS POINT
WP	WEATHER PROOF
WR	WEATHER-RESISTANT
Z	ZONE

TELECOMMUNICATIONS SYMBOLS

MOUNTING HEIGHT ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED. "AC" INDICATES HEIGHT OF 6" ABOVE COUNTER.

COMMUNICATIONS OUTLET -TWO (2) CAT 6 RJ45 JACKS (BLUE) WITH BLUE CAT 6. REFER TO DETAIL 6 ON SHEET T501.

VOICE/DATA OUTLET, ONE (1) CAT 6 RJ45 JACK (WHITE) WITH BLUE CAT 6 AND TWO (2) CAT 6 RJ45 JACKS (BLUE) WITH BLUE CAT 6. REFER TO DETAIL 3 ON SHEET T501.

VIDEO INTERCOM OUTLET, SURFACE MOUNTED -TWO (2) CAT 6 RJ45 JACKS (BLUE) WITH BLUE CAT 6. REFER TO DETAIL 6 ON SHEET T501.

WALL MOUNTED VOICE OUTLET, ONE (1) WHITE JACK WITH ONE (1) BLUE CAT 6. REFER TO DETAIL 4 ON SHEET T501.

SECURITY CAMERA DATA. MOUNTING AS NOTED IN CAMERA SCHEDULE -TWO (2) CAT 6 RJ45 PLUGS/JACKS (GRAY) WITH GRAY CAT 6. REFER TO SECURITY CAMERA SCHEDULE FOR ADDITIONAL INFORMATION.

WIRELESS ACCESS POINT - PROVIDE (2) CAT 6 COMMUNICATIONS JACKS (BLUE) WITH BLUE CAT 6.

COMMUNICATIONS JUNCTION BOX (6" X 6" X 4" UON.)

COMMUNICATIONS HAND HOLE, REFER TO DETAIL 3 ON SHEET T504.

COMMUNICATIONS HAND HOLE, REFER TO DETAIL 4 ON SHEET T504.

COMMUNICATIONS CABLE TRAY, REFER TO PLANS FOR DIMENSIONS AND MOUNTING HEIGHT.

2-POST EQUIPMENT RACK

CABLE LEGEND & COLOR SCHEMES

CABLE LEGEND

ID	DESCRIPTION	DEVICE
A	9-22 AWG SHIELDED	CARD READER
B	4-22 AWG UNSHIELDED	MISC. INPUT (DPS/REX/TD)
C	4-14 AWG UNSHIELDED	ANNUNCIATOR (HORN/STROBE)
D	2-14 AWG UNSHIELDED	MISC. OUTPUT (LOCK) LENGTH < 100'
	2-12 AWG UNSHIELDED	MISC. OUTPUT (LOCK) LENGTH < 200'
E	CATEGORY 6 UTP	ETHERNET (VOICE/DATA/VIDEO)
E1	GEL FILLED CATEGORY 6 UTP	ETHERNET (VOICE/DATA/VIDEO) -I/O WET LOCATIONS
E2	GEL FILLED CATEGORY 6 STP	ETHERNET (VOICE/DATA/VIDEO) -I/O WET LOCATIONS
F	2-18 AWG UNSHIELDED	FIRE ALARM RELAY AND MISC. I/O
G	8-22 AWG UNSHIELDED	GATE OPERATOR I/O
K	KEYBOARD/VIDEO/MOUSE	KVM SWITCH CONTROL CABLE
S	2-12 AWG UNSHIELDED	UNSHIELDED SPEAKER CABLE
T	RG-6/U COAX	COAX CABLE TELEVISION
V	22 AWG UTP	VOLUME CONTROL
X	SINGLE-MODE FIBER	FIBER OPTIC PATCH CABLE

GENERAL NOTES

1. REFER TO CONSTRUCTION MANUAL OR SPECIFICATIONS FOR MATERIALS TO BE INCORPORATED.
2. FIELD VERIFY ALL NEW DEVICE AND EQUIPMENT LOCATIONS PRIOR TO THE START OF INSTALLATION. ANY CONFLICTS MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER.
3. MINIMUM CONDUIT SIZE SHALL BE 3/4". ALL CONDUITS MUST BE EMT. EXCEPTIONS INCLUDE:
   A. GRS FOR EXTERIOR AREAS
   B. RS FOR AREAS ACCESSIBLE TO THE PUBLIC
   C. PVC FOR BURIED OR CAST-IN-PLACE CONDUITS
   D. FLEXIBLE CONDUIT FOR CONCEALED DROPS TO DEVICES AND WHERE APPROVED BY THE OWNER.
4. CONDUIT MUST NOT EXCEED 40% FILL FACTOR. INSTALLATION OF CONDUIT AND WIRING MUST BE IN COMPLIANCE WITH NATIONAL ELECTRICAL CODE (NEC). ALL WIRING MUST BE HOMERUN, UNLESS OTHERWISE NOTED. ANY SPLICES MUST BE APPROVED BY THE DESIGNER.
5. CONTRACTOR SHALL COORDINATE THE ROUTING AND LOCATION OF NEW COMMUNICATIONS CONDUITS WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT LINE VOLTAGE (120V AND ABOVE) POWER CONDUCTORS ARE NOT ROUTED WITHIN 12 INCHES OF COMMUNICATIONS WIRING.
7. ALL CONDUCTORS MUST BE COLOR CODED AND TAGGED AS DESCRIBED IN THE WRITTEN SPECIFICATIONS AND APPROVED BY THE OWNER.
8. COORDINATE WORK WITH OTHER TRADES AND CONFIRM FINAL MOUNTING LOCATION FOR NEW AND RELOCATED EQUIPMENT WITH THE OWNER PRIOR TO INSTALLATION.
9. CONTRACTOR MUST FOLLOW MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES FOR ALL EQUIPMENT. UNLESS OTHERWISE NOTED, ALL MATERIALS SHALL BE NEW AND UNUSED.
10. ALL RACEWAY, CONDUIT AND JUNCTION BOXES SHALL BE NEW AND INSTALLED WITH PULL STRING. REUSE OF EXISTING CONDUITS MUST BE APPROVED BY THE OWNER. WHEN INSTALLING CABLING IN EXISTING CABLE TRAY, CONTRACTOR MUST TAKE CARE NOT TO DISTURB OR DAMAGE EXISTING CABLING.
11. PROVIDE CONDUIT SLEEVES FOR ALL PENETRATIONS, WHETHER SHOWN ON DRAWING OR NOT. PROVIDE INSULATING BUSHINGS ON BOTH ENDS OF ALL CONDUIT SLEEVING.
12. CONDUITS PENETRATING FIRE RATED WALLS OR FLOORS MUST USE APPROVED U.L. DEVICES IN ORDER TO MAINTAIN FIRE RATING OF THE WALL OR FLOOR.
13. ALL DATA CABLING FOR SECURITY MUST BE INSTALLED IN DEDICATED CONDUIT.
14. MAINTAIN MINIMUM BENDING RADII FOR ALL CABLES ACCORDING TO THE CABLE MANUFACTURER AND PER BICSI AND TIA STANDARDS.
15. ALL WIRING, CABLING AND CONDUCTORS SHALL BE NEW UNLESS REUSE OF EXISTING IS APPROVED BY THE OWNER.
16. ALL WORK SHALL BE CLOSELY COORDINATED WITH THE OWNER. ANY WORK AFFECTING TENANTS MUST BE SCHEDULED IN ADVANCE AND PRE-APPROVED BY THE OWNER.
17. ALL COMMUNICATIONS OUTLET BOXES SHALL BE MIN. 4" WIDE BY 4" HIGH BY 3.15" DEEP WITH SINGLE GANG MUD RING FOR CAT 6 CABLES. AV OUTLET BOXES (OTHER THAN THAT BEHIND THE TV, VIDEO WALL DISPLAYS) MUST BE 3.15-INCH DEEP 5-INCH SQUARE BOX.
18. TELE/DATA CONDUITS ARE TO BE LONG RADIUS TYPE AND SHALL CONTAIN PULL STRINGS. PROVIDE PLATES FOR ALL OUTLETS. CAT 6 CABLES SHALL BE PLENUM RATED. "LB" TYPE FITTING MUST NOT BE USED.
19. IF EXISTING EQUIPMENT MUST BE DECOMMISSIONED, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO PROPERLY SHUT DOWN EQUIPMENT PRIOR TO DISCONNECTING. CONTRACTOR SHALL PROPERLY STORE EQUIPMENT ON SITE AT AN AREA DESIGNATED BY THE OWNER UNTIL THE EQUIPMENT IS REINSTALLED OR CONVEYED TO THE OWNER UPON COMPLETION OF THE PROJECT.
20. CONTRACTOR TO COORDINATE WITH THE OWNER FOR TIMING AND SCHEDULE FOR MOVING OWNER PROVIDED EQUIPMENT AND INSTALLATION LOCATION.
21. WHERE "ROUGH-IN" IS REQUIRED, PROVIDE BACK BOX, COVER PLATE, CONDUIT, JUNCTION BOXES, ANCILLARY HARDWARE, AND RACEWAY BACK TO THE COMM ROOM.

COMM SHEET INDEX

SHEET NUMBER	SHEET NAME
T001	COMMUNICATIONS GENERAL NOTES, SYMBOLS AND ABBREVIATIONS
T100	COMMUNICATIONS SITE PLAN
T101	OVERALL COMMUNICATIONS PLAN - GROUND LEVEL
T102	OVERALL COMMUNICATIONS PLAN - 2ND LEVEL
T103	OVERALL COMMUNICATIONS PLAN - 3RD LEVEL
T401	ENLARGED COMMUNICATIONS PLANS
T402	ENLARGED COMMUNICATIONS PLANS
T403	ENLARGED COMMUNICATIONS PLANS
T404	ENLARGED COMMUNICATIONS PLANS
T405	ENLARGED COMMUNICATIONS PLANS
T501	COMMUNICATIONS DETAILS
T502	COMMUNICATIONS DETAILS
T503	COMMUNICATIONS DETAILS
T504	COMMUNICATIONS DETAILS
T701	COMMUNICATIONS BLOCK DIAGRAM
T702	COMMUNICATIONS BACKBONE DIAGRAM
T703	COMMUNICATIONS RISER DIAGRAMS
T704	COMMUNICATIONS INTERCONNECT DIAGRAMS

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

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REVIEWED BY: JAP
DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
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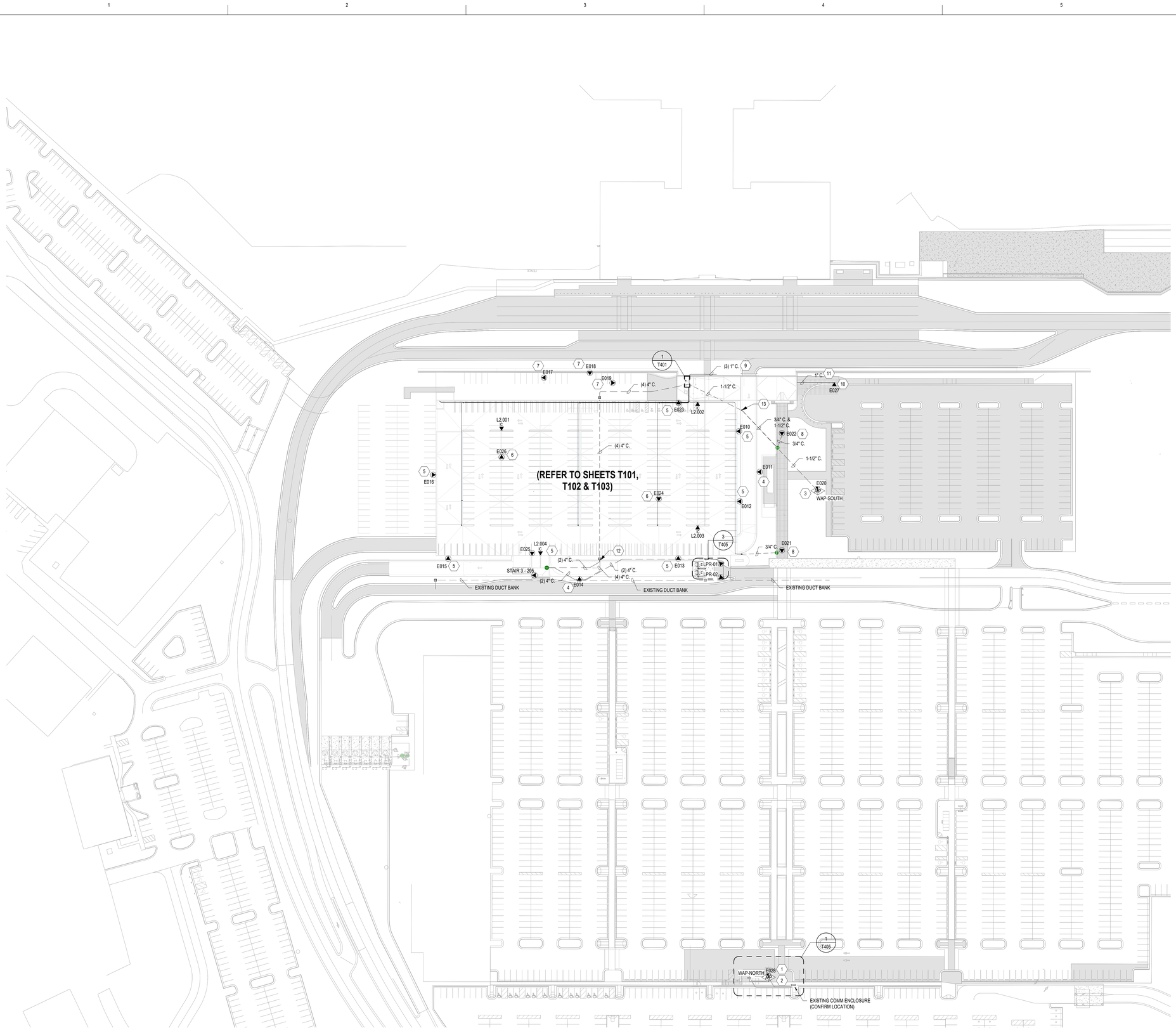
SHEET TITLE:
COMMUNICATIONS GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

SHEET ID:
T001

PROJECT STATUS:
100% BID SET

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PN

1 COMMUNICATIONS SITE PLAN

SCALE: 1" = 60'-0"

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

NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW UNLESS OTHERWISE NOTED.
2. BURIED CONDUIT AND BACKBONE FIBER BETWEEN TERMINAL BUILDING MANAGEMENT ROOM AND COMM ENCLOSURE/IDF ROOM SHALL BE PROVIDED BY ELECTRICAL. REFER TO ELECTRICAL SHEETS E20x FOR NEW CONDUIT AND FIBER.
3. CONTRACTOR SHALL PROVIDE A COMPLETE RACEWAY SYSTEM BETWEEN FIELD DEVICES AND COMMUNICATIONS ROOMS. PROVIDE ALL CONDUITS, JUNCTION BOXES, STRAPPING, ETC. AS REQUIRED UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL COORDINATE CAMERA MOUNTING LOCATIONS WITH THE DIV 28 SECURITY CONTRACTOR PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL COORDINATE RACEWAY ROUTING WITH ELECTRICAL AND OTHER TRADES AS REQUIRED PRIOR TO INSTALLATION.

KEY NOTES:

1. PROVIDE STRUCTURAL FOOTING AS REQUIRED BY SECURITY POLE MANUFACTURER. REFER TO DETAIL 3 ON SHEET T504 FOR ADDITIOINAL IINFORMATION. COORDINATE WITH THE CIVIL CONTRACTOR.
2. PROVIDE NEW SECURITY POLE. CONFIGURE POLE WITH SECURITY CAMERA, WI-FI, HORN, LIGHT, INTERCOM, ETC., MATCHING THOSE DEPLOYED ELSEWHERE DURING PREVIOUS PHASE OF WORK.
3. REINSTALL TEMPORARY SECURITY POLE PREVIOUSLY INSTALLED AT THE TEMPORARY CURBSIDE. RECONFIGURE POLE WITH ALL MODULES (SECURITY CAMERA, WI-FI, HORN, LIGHT, ETC.) TO MATCH THOSE DEPLOYED ELSEWHERE DURING PREVIOUS PHASE OF WORK. PROVIDE A COMPLETE RACEWAY SYSTEM BETWEEN THE EXISTING BUS SHELTER COMM ENCLOSURE AND THE SECURITY POLE AND BUS SHELTER OUTDOOR DISPLAY. PROVIDE ALL CONDUIT FOR FIELD DEVICES, JUNCTION BOXES, STRAPPING, ETC. AS REQUIRED UNLESS OTHERWISE NOTED. COORDINATE INSTALLATION OF SECURITY DEVICES WITH THE DIV 28 CONTRACTOR. REFER TO DETAILS 1 AND 2 ON SHEET T504 FOR ADDITIONAL INFORMATION.
4. PROVIDE NEW EXTERIOR WALL-MOUNT CAMERA ON GARAGE RAMP.
5. PROVIDE NEW EXTERIOR WALL-MOUNT CAMERA ON EXTERIOR WALL OF GARAGE.
6. PROVIDE NEW EXTERIOR POLE MOUNT CAMERA ON LIGHT POLE.
7. PROVIDE NEW EXTERIOR WALL-MOUNT CAMERA.
8. PROVIDE NEW EXTERIOR CEILING MOUNT CAMERA.
9. PROVIDE THREE ONE (1) 1" C. AND TWO (1) 1-1/4" C. STUB OUTS FOR SECURITY AND PAGING CONDUITS TO BE PROVIDED IN VOLUME II. REFER TO VOLUME II SHEET T108, COORDINATE WITH THE COMMUNICATIONS CONTRACTOR.
10. PROVIDE DATA OUTLET IN CANOPY FOR OUTDOOR DISPLAY. COORDINATE OUTLET LOCATION WITH DIV 26 AND THE ARCHITECT.
11. PROVIDE 1" CONDUIT ROUTED TO COMM ROOM WITH TWO (2) CAT6 CABLES FOR OUTDOOR DISPLAY. CONDUIT ROUTING SHALL BE DETERMINED ACCORDING TO FIELD CONDITIONS AND SUBMITTED FOR APPROVAL. COORDINATE ROUTING WITH THE DIV 26 ELECTRICAL CONTRACTOR.
12. PROVIDE 36" X 36" PULL BOX. REFER TO DETAIL 4 ON SHEET T504.
13. PROVIDE 10" X 15" HAND HOLE IN MECHANICAL YARD UNDER RAMP. REFER TO DETAIL 3 ON SHEET T504.

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North Carolina License Nos. 50073 * F-0493 * C-28

Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF

PROJECT NUMBER:
2003-0070-006

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SEAL:

SHEET TITLE:
COMMUNICATIONS SITE PLAN

SHEET ID:
T100

PROJECT STATUS:
100% BID SET

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3/14/2025 8:40:35 PM Autodesk Docs://1003070004_ILM TO4 Rdwy Inf Improv Design/2003070006_ILM_TO4_Parking Garage and Shuttle Plaza_T_R24.rvt

NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW UNLESS OTHERWISE NOTED.
2. BURIED CONDUIT AND BACKBONE FIBER BETWEEN TERMINAL BUILDING MANAGEMENT ROOM AND COMM ENCLOSURE/IDF ROOM SHALL BE PROVIDED BY ELECTRICAL. REFER TO ELECTRICAL SHEETS E20x FOR NEW CONDUIT AND FIBER.
3. CONTRACTOR SHALL PROVIDE A COMPLETE RACEWAY SYSTEM BETWEEN FIELD DEVICES AND COMMUNICATIONS ROOMS. PROVIDE ALL CONDUITS, JUNCTION BOXES, STRAPPING, ETC. AS REQUIRED UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL COORDINATE CAMERA MOUNTING LOCATIONS WITH THE DIV 28 SECURITY CONTRACTOR PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL COORDINATE RACEWAY ROUTING WITH ELECTRICAL AND OTHER TRADES AS REQUIRED PRIOR TO INSTALLATION.

KEY NOTES:

1. COORDINATE DATA CONNECTION REQUIREMENTS FOR RENTAL CAR CUSTOMER SERVICE BOOTH WITH RENTAL CAR IT REPRESENTATIVE. COORDINATE WITH CONDUIT ROUTING WITH DIVISION 26.
2. COORDINATE DATA CONNECTION REQUIREMENTS FOR RENTAL CAR EXIT BOOTH WITH RENTAL CAR IT REPRESENTATIVE. COORDINATE CONDUIT ROUTING WITH DIVISION 26.
3. ROUTE UNDERGROUND CONDUITS THROUGH STORAGE ROOM TO COMM ROOM ABOVE.
4. PROVIDE 10" X 15" HAND HOLE IN MECHANICAL YARD UNDER RAMP. REFER TO DETAIL 3 ON SHEET T504.
5. PROVIDE THREE (3) WALL-MOUNTED FIDS MONITORS AND DATA OUTLETS COLLOCATED WITH ELECTRICAL RECEPTACLES. COORDINATE MONITOR MOUNTING WITH OWNER'S IT REPRESENTATIVE. DATA OUTLET LOCATION AND MONITOR MOUNTING WITH DIVISION 26 AND THE ARCHITECT. REFER TO SECTION 271100 FOR MONITOR SPECIFICATIONS.
6. PROVIDE 36" X 36" PULL BOX. REFER TO DETAIL 4 ON SHEET T504.

STAIR 2 - 212
STAIR 02
120
MDF/ELECTRICAL ROOM 221 ABOVE
NEW PULL BOX
(4)4"Ø C.
(3)2"Ø C. - COMM @ 11' - 0" AFF.
(4)2"Ø COMM @ 11' - 0" AFF.
(5)2"Ø COMM @ 11' - 0" AFF.
STAIR 1 - 211
STAIR 01
ELEC/TRICAL
ELEV01
ELEV02
(1) 1" C., AND (2) 1-1/4" C.
CIRCULATION CORE
110
1-1/2" C.
101B
101C
101A
101D
MECH YARD
103
MECH
104
FID FID FID
5
3/4" C. & 1-1/2" C.
E022
3/4" C.
1-1/2" C.
SEE SHEET T100 FOR CONTINUATION
2"Ø C.
(4)4"Ø C.
STAIR 3 - 131
STORAGE-1
132-1
CIRCULATION-1
131-1
(2)4"Ø C.
EXISTING PULL BOX
EXISTING (4)4"Ø C.
EXISTING MAN HOLE
STAIR 04
107
STAIR 4 - 107
3/4"C.
E021
EXISTING PULL BOX

1 COMMUNICATIONS FLOOR PLAN - GROUND LEVEL

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: JAP
DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
2003-0070-006

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SEAL:

SHEET TITLE:
OVERALL COMMUNICATIONS PLAN - GROUND LEVEL

SHEET ID:
T101

PROJECT STATUS:
100% BID SET

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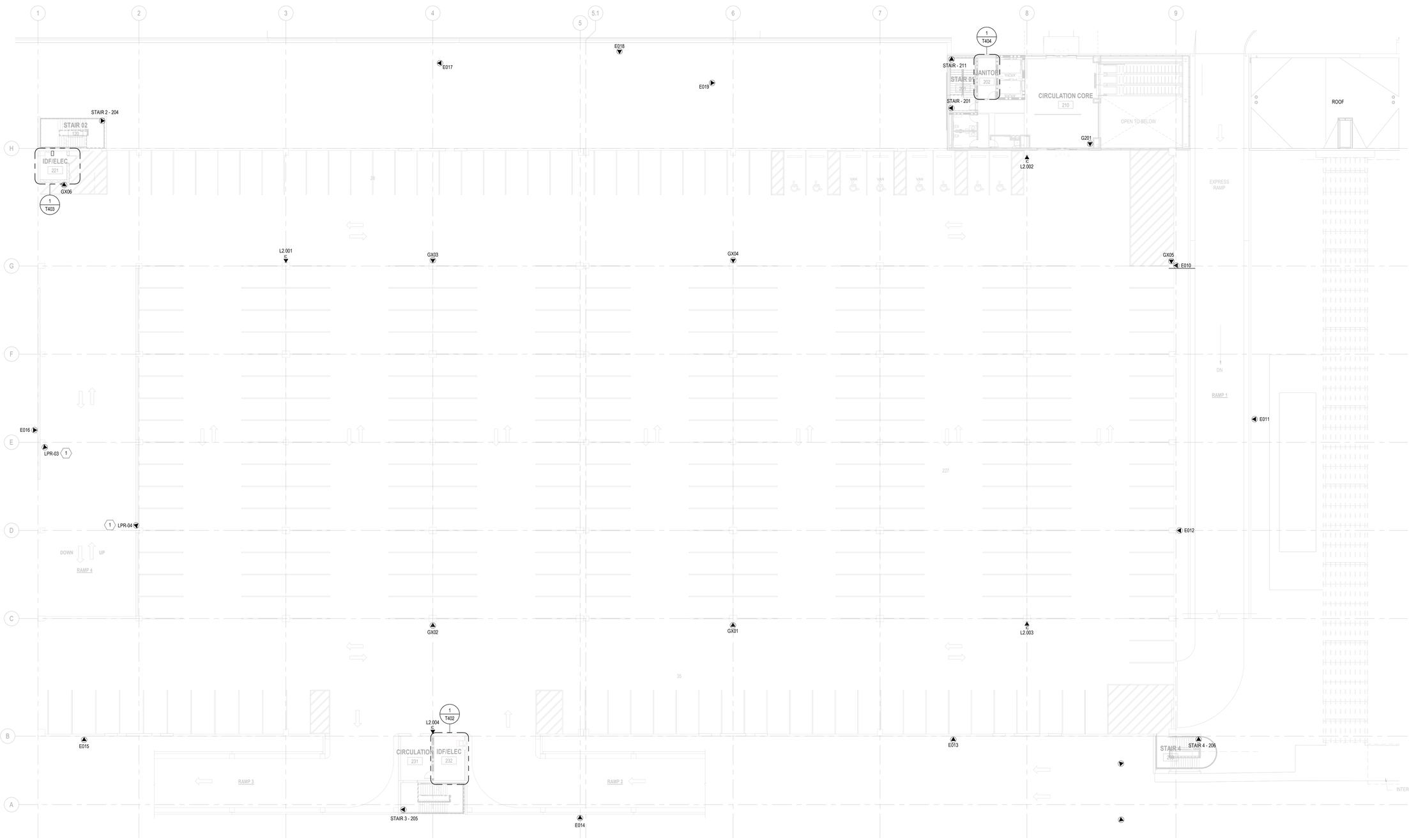
3/14/2025 8:40:36 PM Autodesk Docs://1003007/0004_ILM TO4 Rdwy Int Improv Design/2003007/0006_ILM_TO6_Parking Garage and Shuttle Plaza_T_R24.rvt

NOTES:

1. THE EQUIPMENT LAYOUT AND CONDUIT ROUTING AS SHOWN IS FOR BIDDING PURPOSES ONLY. THE LAYOUT SHOWN IS SCHEMATIC AND IS BASED ON INFORMATION PROVIDED TO THE DESIGN TEAM BY THE PRCS VENDOR. ACTUAL CONDUIT ROUTING SHALL BE DETERMINED BY THE CONTRACTOR AS COORDINATED WITH FIELD CONDITIONS AND OTHER TRADES AND SUBMITTED TO THE DESIGN TEAM FOR APPROVAL.
2. COORDINATE ALL CONDUIT ROUTING WITH THE CIVIL, ELECTRICAL CONTRACTORS AND PRCS INSTALLER, REFER TO ELECTRICAL SHEET E312 AND THE RISER DIAGRAMS ON SHEET T703 FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL COORDINATE ACTUAL EQUIPMENT LOCATION AND CONDUIT REQUIREMENTS WITH THE CIVIL CONTRACTOR AND PRCS INSTALLER VENDOR PRIOR TO CONSTRUCTION.
3. ALL WORK SHALL BE COORDINATED WITH ELECTRICAL AND OTHER TRADES, AND APPROVED BY THE OWNER AND THE PARKING CONTROL INSTALLER.
4. MOUNTING LOCATIONS FOR JUNCTION BOXES AND HAND HOLES SHALL BE COORDINATED WITH OTHER TRADES AND SUBMITTED TO THE OWNER FOR APPROVAL.

KEY NOTES:

1. PROVIDE WEATHERPROOF JUNCTION BOX AND 1" CONDUIT WITH SPD, AND CAT6 CABLE TO IDF/ELEC. ROOM 221 FOR LPR CAMERA BY PRCS VENDOR. COORDINATE INSTALLATION WITH THE PRCS INSTALLER.



PN

1 COMMUNICATIONS FLOOR PLAN - LEVEL 2

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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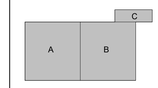
Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	2003-0070-006

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SEAL:

SHEET TITLE:
OVERALL COMMUNICATIONS PLAN - 2ND LEVEL

SHEET ID:
T102

PROJECT STATUS:
100% BID SET

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1 COMMUNICATIONS FLOOR PLAN - LEVEL 3

SCALE: 1/16" = 1'-0"

SCALE: 1/16" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF

PROJECT NUMBER:
2003-0070-006

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SEAL:

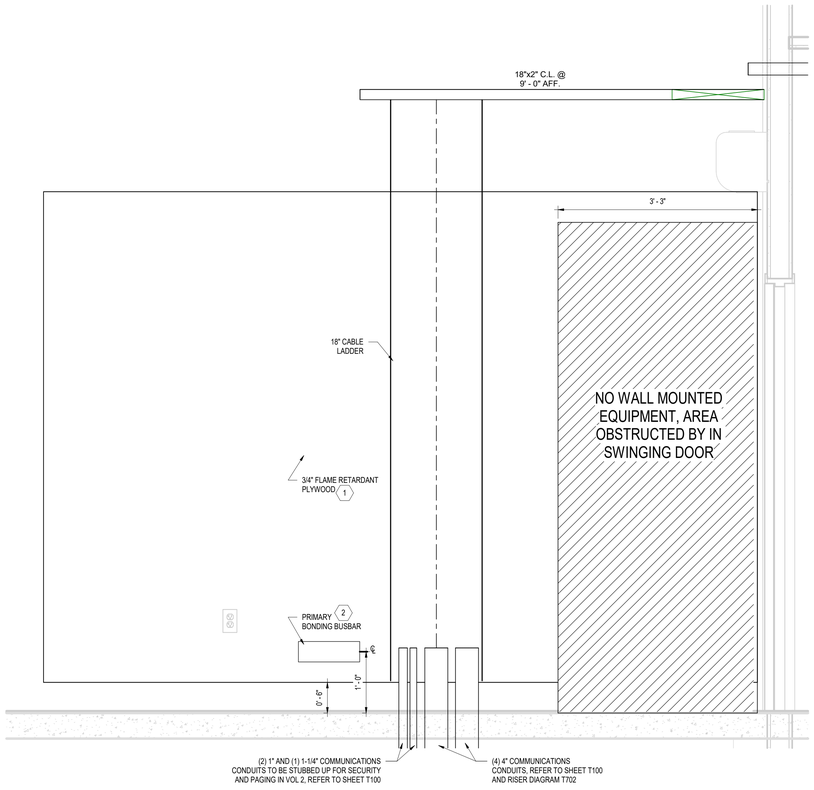
SHEET TITLE:
OVERALL COMMUNICATIONS PLAN - 3RD LEVEL

SHEET ID:
T103

PROJECT STATUS:
100% BID SET

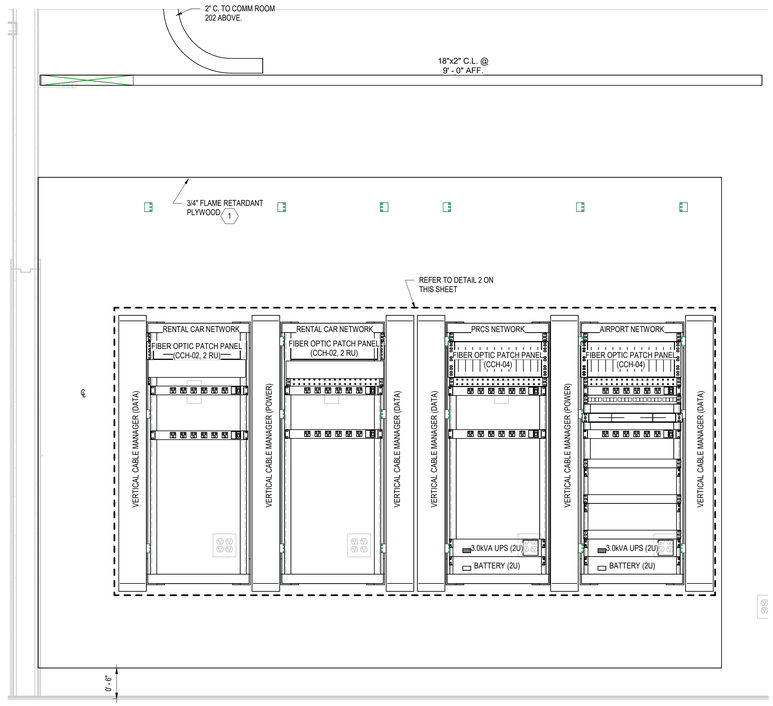
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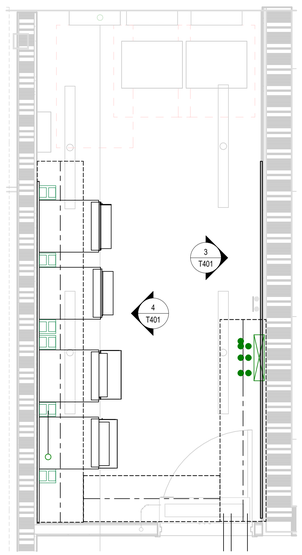
3 PARTIAL WEST WALL ELEVATION - ELECTRIC ROOM 102

SCALE: 1" = 1'-0"



4 PARTIAL EAST WALL ELEVATION - ELECTRIC ROOM 102

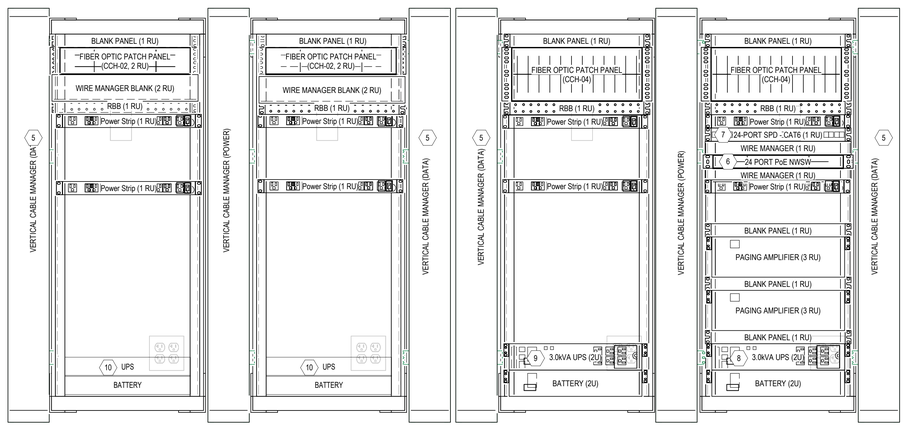
SCALE: 1" = 1'-0"



PN
N

1 ENLARGED PLAN - ELECTRIC ROOM 102

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



2 RACK ELEVATION - ELECTRIC ROOM 102

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

NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
2. REFER TO COMMUNICATIONS INTERCONNECT AND RISER DIAGRAMS ON SHEETS T702 AND T703 FOR CABLE AND CONDUIT REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE WORK WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES AS REQUIRED.
4. NETWORK SWITCHES SHALL BE PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
5. CONDUIT (C) AND CABLE LADDER (C.L.) ROUTING SHOWN IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE DETERMINED ACCORDING TO FIELD CONDITIONS AND AS COORDINATED WITH OTHER TRADES.
6. APPROVED UL DEVICES SHALL BE USED TO SEAL PENETRATIONS THROUGH FIRE RATED WALLS.

KEY NOTES:

1. PROVIDE 3/4" FLAME RETARDANT PLYWOOD MOUNTED TO CONCRETE WALLS USING ANCHORS. PAINT WITH TWO COATS OF WHITE FLAME RETARDANT ENAMEL ON ALL SIX (6) SIDES. MASK UL LABELS FOR AHJ INSPECTION AFTER INSTALLATION.
2. PROVIDE PRIMARY BONDING BUSBAR, REFER TO DETAIL 7 ON SHEET T501.
3. WALL-MOUNTED ENCLOSURE FOR SECURITY EQUIPMENT SHALL BE PROVIDED BY THE DIVISION 28 CONTRACTOR, COORDINATE INSTALLATION WITH THE SECURITY INSTALLER.
4. PROVIDE FOUR (4) WALL-MOUNTED RACKS FOR AIRPORT, PARKING CONTROL, AND RENTAL CAR NETWORKS, REFER TO DETAIL 2 FOR ADDITIONAL INFORMATION.
5. PROVIDE VERTICAL CABLE MANAGER MOUNTED TO WALL BETWEEN RACKS, BUNDLE CABLE TO C.L. ABOVE.
6. NETWORK SWITCH PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
7. PROVIDE RACK-MOUNTED SPD FOR SURVEILLANCE CAMERAS, REFER TO DETAIL 5 ON SHEET T503 FOR ADDITIONAL INFORMATION.
8. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 1 ON SHEET T503 FOR ADDITIONAL INFORMATION.
9. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 2 ON SHEET T503 FOR ADDITIONAL INFORMATION.
10. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26, REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 3 ON SHEET T503 FOR ADDITIONAL INFORMATION.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	

2003-0070-006

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SEAL:

SHEET TITLE:
ENLARGED COMMUNICATIONS PLANS

SHEET ID:
T401

PROJECT STATUS:
100% BID SET

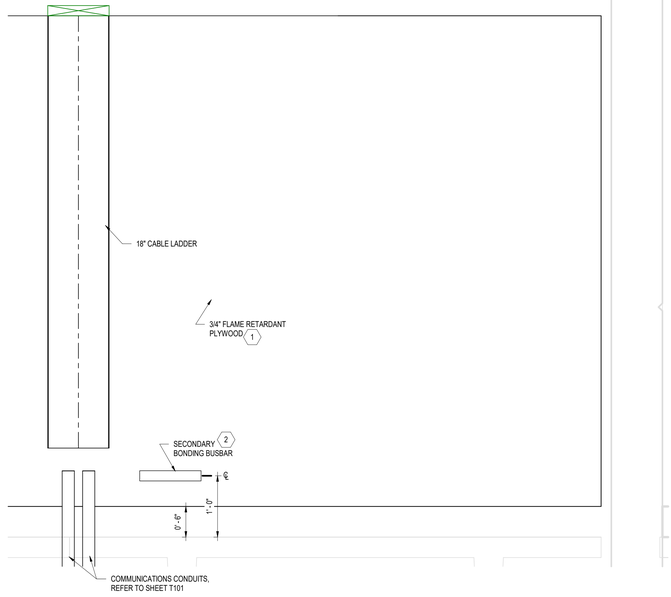
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1 0 1 2
SCALE: 1" = 1'-0"

2 0 2 4
SCALE: 1/2" = 1'-0"

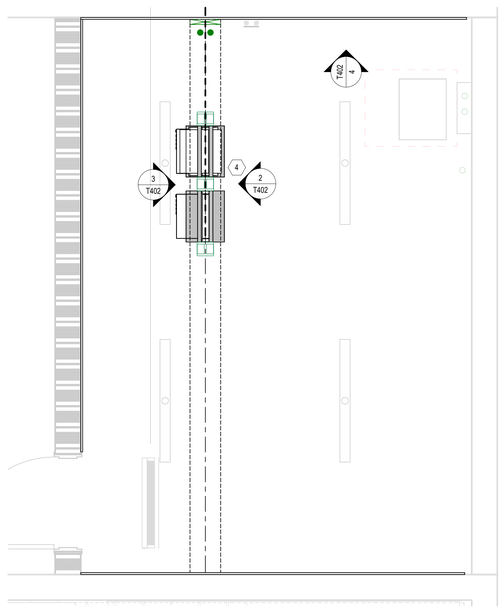
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4 PARTIAL SOUTH WALL ELEVATION - ELECTRIC ROOM 232

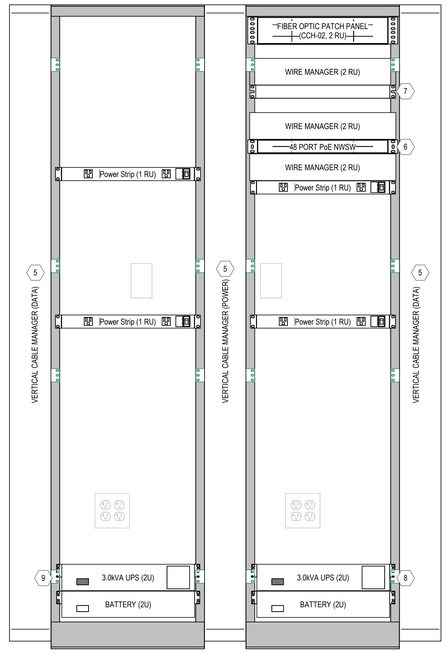
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PN
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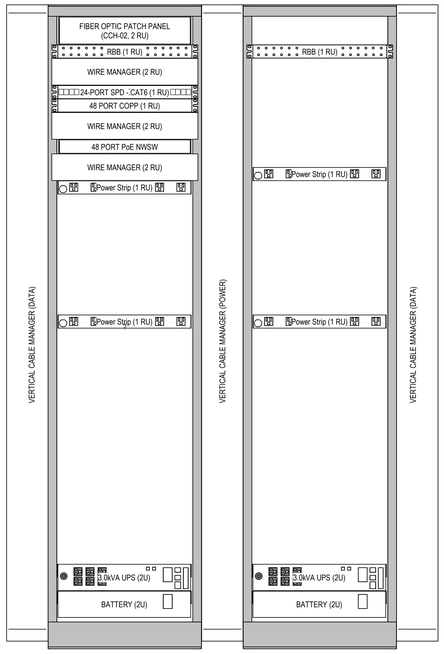
1 ENLARGED PLAN - IDF 232

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



2 IDF 232 - Rear Rack Elevation

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



3 IDF 232 - Front Rack Elevation

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

NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
2. REFER TO COMMUNICATIONS INTERCONNECT AND RISER DIAGRAMS ON SHEETS T702 AND T703 FOR CABLE AND CONDUIT REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE WORK WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES AS REQUIRED.
4. NETWORK SWITCHES SHALL BE PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
5. CONDUIT (C) AND CABLE LADDER (C.L.) ROUTING SHOWN IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE DETERMINED ACCORDING TO FIELD CONDITIONS AND AS COORDINATED WITH OTHER TRADES.
6. APPROVED UL DEVICES SHALL BE USED TO SEAL PENETRATIONS THROUGH FIRE RATED WALLS.

KEY NOTES: ⬡

1. PROVIDE 3/4" FLAME RETARDANT PLYWOOD MOUNTED TO CONCRETE WALLS USING ANCHORS. PAINT WITH TWO COATS OF WHITE FLAME RETARDANT ENAMEL ON ALL SIX (6) SIDES. MASK UL LABELS FOR AHJ INSPECTION AFTER INSTALLATION.
2. PROVIDE SECONDARY BONDING BUSBAR, REFER TO DETAIL 8 ON SHEET T501.
3. WALL-MOUNTED ENCLOSURE FOR SECURITY EQUIPMENT SHALL BE PROVIDED BY THE DIVISION 28 CONTRACTOR, COORDINATE INSTALLATION WITH THE SECURITY INSTALLER.
4. PROVIDE TWO (2) FLOOR MOUNTED TWO POST RACKS FOR AIRPORT, AND PARKING CONTROL NETWORKS, REFER TO DETAIL 2 FOR ADDITIONAL INFORMATION.
5. PROVIDE VERTICAL CABLE MANAGER BETWEEN RACKS.
6. NETWORK SWITCH PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
7. PROVIDE RACK-MOUNTED SPD FOR SURVEILLANCE CAMERAS, REFER TO DETAIL 5 ON SHEET T503 FOR ADDITIONAL INFORMATION.
8. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26, REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 1 ON SHEET T503 FOR ADDITIONAL INFORMATION.
9. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26, REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 2 ON SHEET T503 FOR ADDITIONAL INFORMATION.

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Hartranft Lighting Design

ILM

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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

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DATE ISSUED:	03/14/2025
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DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	

2003-0070-006

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SEAL:

SHEET TITLE:
ENLARGED COMMUNICATIONS PLANS

SHEET ID:
T402

PROJECT STATUS:
100% BID SET

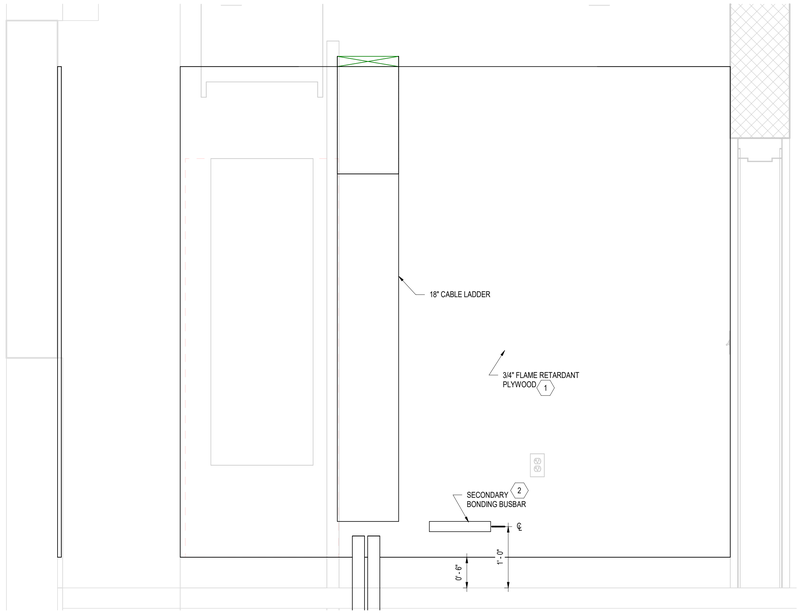
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1 0 1 2
SCALE: 1" = 1'-0"

2 0 2 4
SCALE: 1/2" = 1'-0"

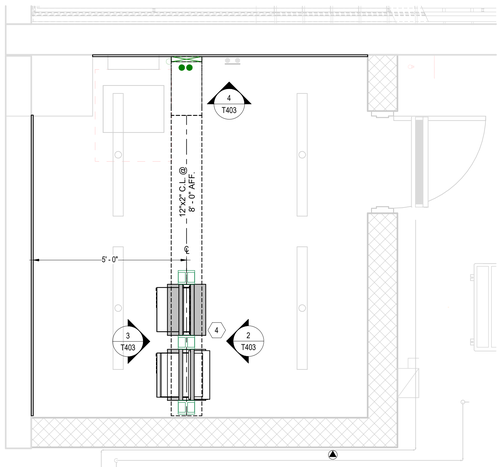
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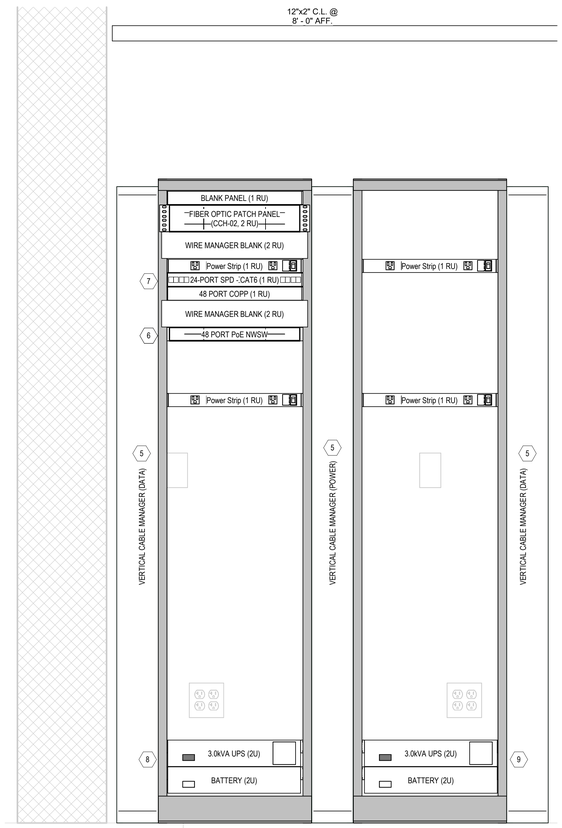
4 EAST WALL ELEVATION - ELECTRIC ROOM 221

SCALE: 1" = 1'-0"



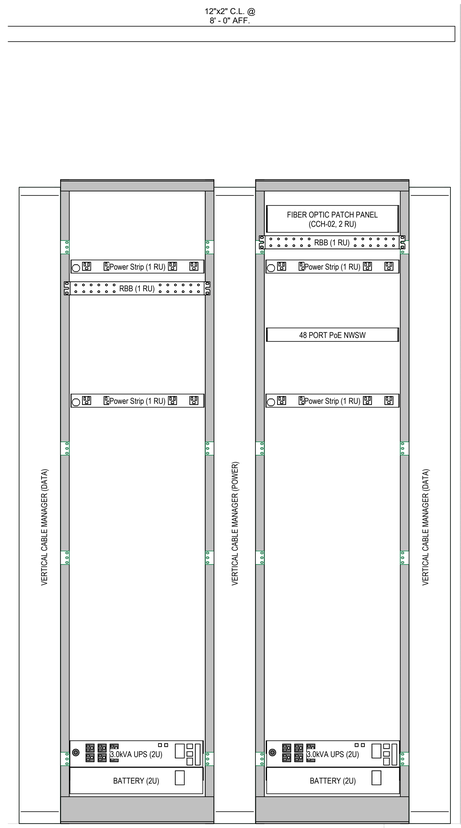
1 ENLARGED PLAN - IDF 221

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



2 IDF 221 - FRONT RACK ELEVATION

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



3 IDF 221 - REAR RACK ELEVATION

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

NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
2. REFER TO COMMUNICATIONS INTERCONNECT AND RISER DIAGRAMS ON SHEETS T702 AND T703 FOR CABLE AND CONDUIT REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE WORK WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES AS REQUIRED.
4. NETWORK SWITCHES SHALL BE PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
5. CONDUIT (C) AND CABLE LADDER (C.L.) ROUTING SHOWN IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE DETERMINED ACCORDING TO FIELD CONDITIONS AND AS COORDINATED WITH OTHER TRADES.
6. APPROVED UL DEVICES SHALL BE USED TO SEAL PENETRATIONS THROUGH FIRE RATED WALLS.

KEY NOTES:

1. PROVIDE 3/4" FLAME RETARDANT PLYWOOD MOUNTED TO CONCRETE WALLS USING ANCHORS. PAINT WITH TWO COATS OF WHITE FLAME RETARDANT ENAMEL ON ALL SIX (6) SIDES. MASK UL LABELS FOR AHJ INSPECTION AFTER INSTALLATION.
2. PROVIDE SECONDARY BONDING BUSBAR, REFER TO DETAIL 8 ON SHEET T501.
3. WALL-MOUNTED ENCLOSURE FOR SECURITY EQUIPMENT SHALL BE PROVIDED BY THE DIVISION 28 CONTRACTOR, COORDINATE INSTALLATION WITH THE SECURITY INSTALLER.
4. PROVIDE TWO (2) FLOOR MOUNTED TWO POST RACKS FOR AIRPORT, AND PARKING CONTROL NETWORKS, REFER TO DETAIL 2 FOR ADDITIONAL INFORMATION.
5. PROVIDE VERTICAL CABLE MANAGER BETWEEN RACKS.
6. NETWORK SWITCH PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
7. PROVIDE RACK-MOUNTED SPD FOR SURVEILLANCE CAMERAS, REFER TO DETAIL 5 ON SHEET T503 FOR ADDITIONAL INFORMATION.
8. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26, REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 1 ON SHEET T503 FOR ADDITIONAL INFORMATION.
9. PROVIDE RACK MOUNTED UPS, CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26, REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 2 ON SHEET T503 FOR ADDITIONAL INFORMATION.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	**2003-0070-006**

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SEAL:

SHEET TITLE:
ENLARGED COMMUNICATIONS PLANS

SHEET ID:
T403

PROJECT STATUS:
100% BID SET

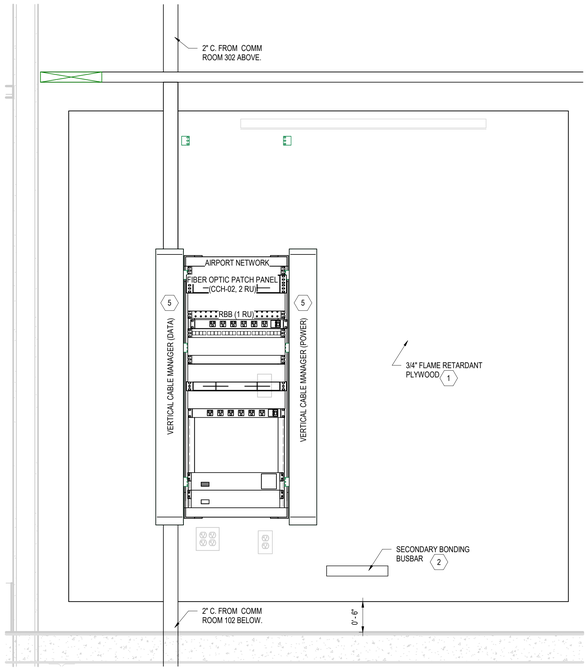
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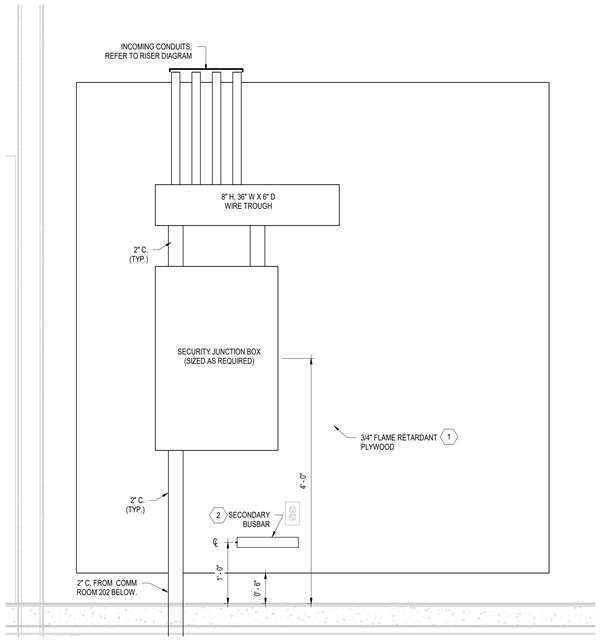
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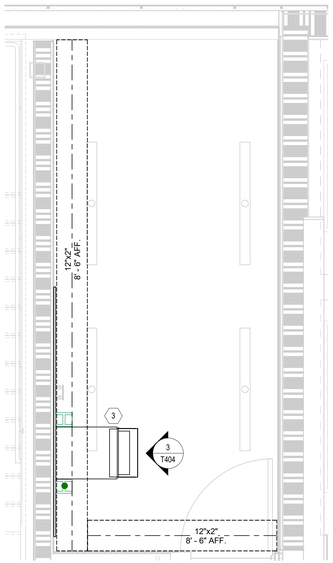
3 PARTIAL EAST WALL ELEVATION - ELECTRIC ROOM 202

SCALE: 1" = 1'-0"



5 PARTIAL EAST WALL ELEVATION - STORAGE ROOM 302

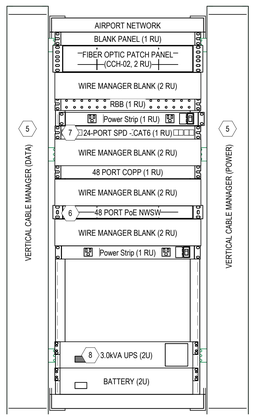
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PN

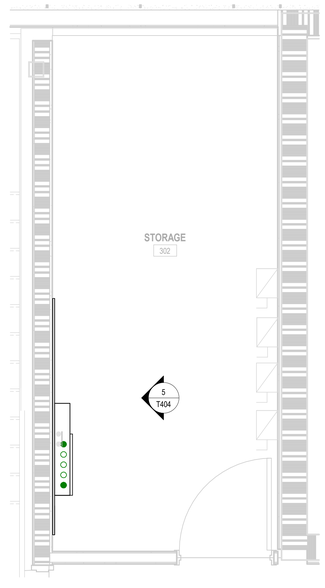
1 ENLARGED PLAN - ELECTRIC ROOM 202

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



2 RACK ELEVATION - ELECTRIC ROOM 202

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



PN

4 ENLARGED PLAN - STORAGE ROOM 302

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

NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
2. REFER TO COMMUNICATIONS INTERCONNECT AND RISER DIAGRAMS ON SHEETS T702 AND T703 FOR CABLE AND CONDUIT REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE WORK WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES AS REQUIRED.
4. NETWORK SWITCHES SHALL BE PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
5. CONDUIT (C) AND CABLE LADDER (C.L.) ROUTING SHOWN IS SCHEMATIC IN NATURE. ACTUAL ROUTING SHALL BE DETERMINED ACCORDING TO FIELD CONDITIONS AND AS COORDINATED WITH OTHER TRADES.
6. APPROVED UL DEVICES SHALL BE USED TO SEAL PENETRATIONS THROUGH FIRE RATED WALLS.

KEY NOTES: ⬡

1. PROVIDE 3/4" FLAME RETARDANT PLYWOOD MOUNTED TO CONCRETE WALLS USING ANCHORS. PAINT WITH TWO COATS OF WHITE FLAME RETARDANT ENAMEL ON ALL SIX (6) SIDES. MASK UL LABELS FOR AHJ INSPECTION AFTER INSTALLATION.
2. PROVIDE SECONDARY BONDING BUSBAR, REFER TO DETAIL 8 ON SHEET T501.
3. WALL-MOUNTED ENCLOSURE FOR SECURITY EQUIPMENT SHALL BE PROVIDED BY THE DIVISION 28 CONTRACTOR, COORDINATE INSTALLATION WITH THE SECURITY INSTALLER.
4. NOT USED.
5. PROVIDE VERTICAL CABLE MANAGER MOUNTED TO WALL BETWEEN RACKS TO CONDUITS AND C.L. ABOVE.
6. NETWORK SWITCH PROVIDED BY THE OWNER AND INSTALLED BY THE CONTRACTOR, COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
7. PROVIDE RACK-MOUNTED SPD FOR SURVEILLANCE CAMERAS, REFER TO DETAIL 5 ON SHEET T503 FOR ADDITIONAL INFORMATION.
8. PROVIDE RACK MOUNTED UPS. CONTRACTOR SHALL COORDINATE RECEPTACLE REQUIREMENTS WITH DIVISION 26. REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CIRCUITS PROVIDED BY DIV. 26. REFER TO DETAIL 1 ON SHEET T503 FOR ADDITIONAL INFORMATION.

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Hartranft Lighting Design

ILM

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DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
2003-0070-006

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SEAL:

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ENLARGED COMMUNICATIONS PLANS

SHEET ID:
T404

PROJECT STATUS:
100% BID SET

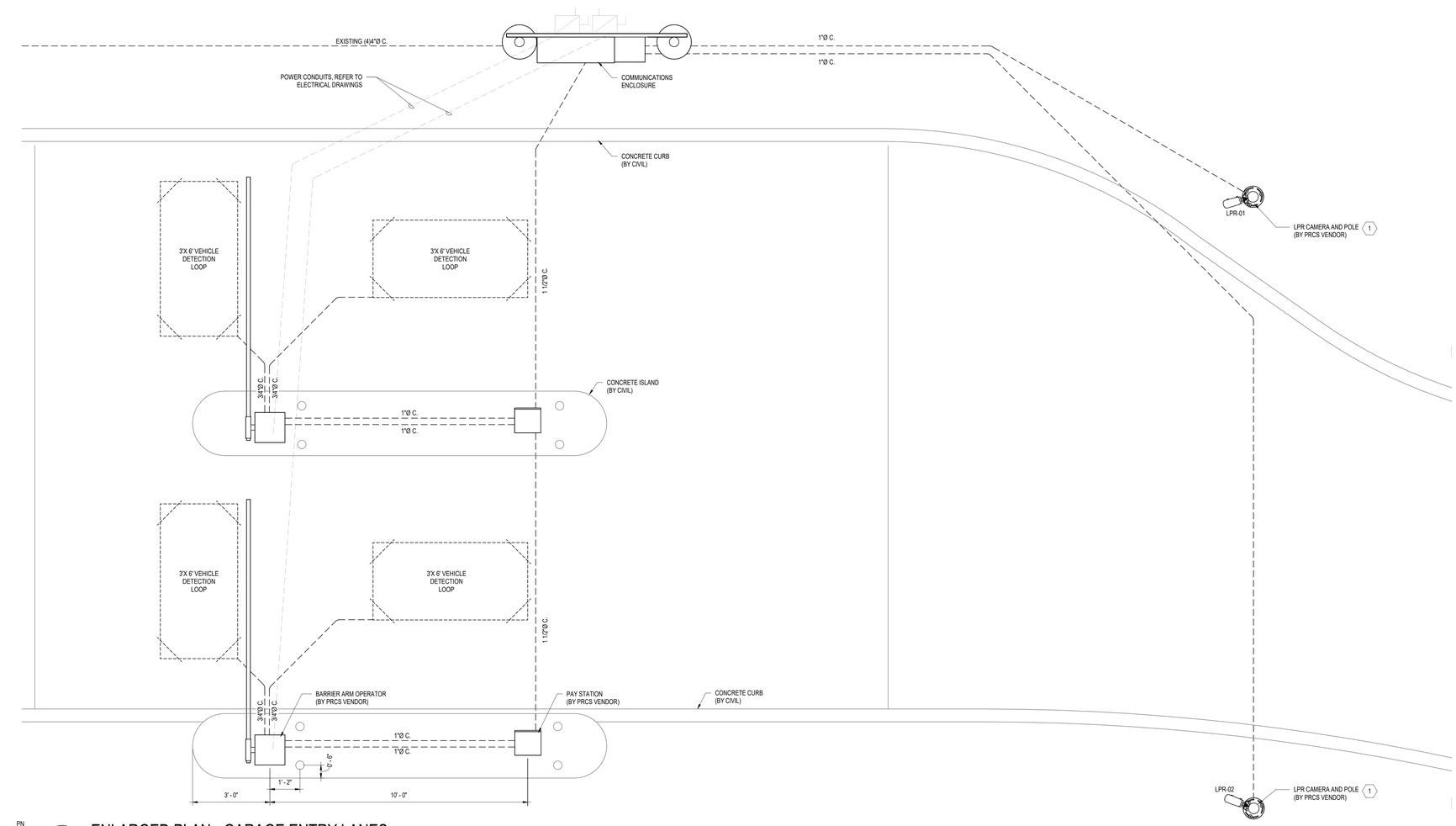
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SCALE: 1" = 1'-0"

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

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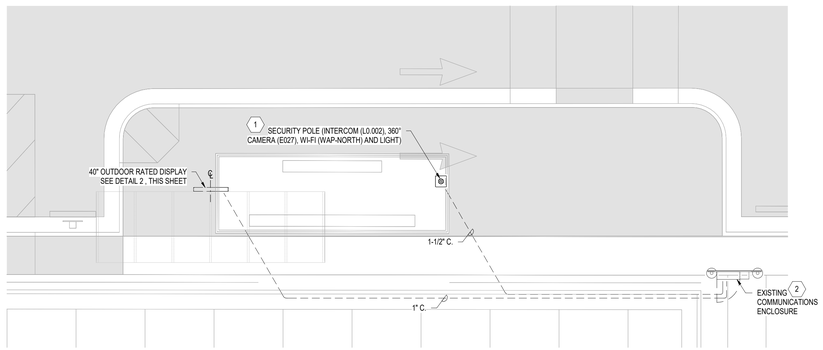
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PN

3 ENLARGED PLAN - GARAGE ENTRY LANES

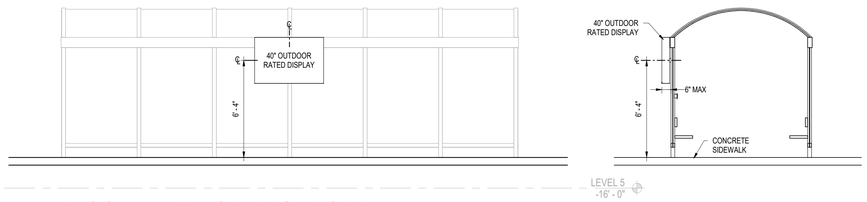
SCALE: 1/2" = 1'-0"



PN

1 ENLARGED PLAN - NORTH BUS SHELTER

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



2 BUS SHELTER INFORMATION DISPLAY

SCALE: 1/4" = 1'-0"

4 0 4 8

SCALE: 1/4" = 1'-0"

8 0 8 16

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

NOTES:

1. THE CONDUIT ROUTING AS SHOWN IS SCHEMATIC IN NATURE. ACTUAL CONDUIT ROUTING SHALL BE DETERMINED BY THE CONTRACTOR ACCORDING TO FIELD CONDITIONS AND SUBMIT SHOP DRAWINGS TO THE OWNER FOR APPROVAL.
2. CONTRACTOR SHALL COORDINATE ACTUAL EQUIPMENT LOCATIONS WITH THE CIVIL CONTRACTOR AND OWNER PRIOR TO CONSTRUCTION.
3. ALL WORK SHALL BE COORDINATED WITH ELECTRICAL AND OTHER TRADES, AND APPROVED BY THE OWNER.
4. MOUNTING LOCATIONS FOR JUNCTION BOXES AND HAND HOLES SHALL BE COORDINATED WITH OTHER TRADES AND SUBMITTED TO THE OWNER FOR APPROVAL.
5. REFER TO SPECIFICATION SECTION 271100 FOR OUTDOOR DISPLAY REQUIREMENTS.

KEY NOTES:

1. PROVIDE STRUCTURAL FOOTING AS REQUIRED BY SECURITY POLE MANUFACTURER, REFER TO DETAIL 2 ON SHEET T504 FOR ADDITIONAL INFORMATION, COORDINATE INSTALLATION WITH CIVIL CONTRACTOR.
2. TERMINATE CAT6 CABLES IN EXISTING COMM EMCLOSURE PROVIDE MULTI-PORT SPD MODULE, REFER TO DETAIL 4 ON SHEET T503. COORDINATE WITH THE OWNER'S IT REPRESENTENTIVE FOR NETWORK DEVICE(S) (ETHERNET SWITCH OR MEDIA CONVERTERS) TO PROVIDE CONNECTIVITY.

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Hartranft Lighting Design

ILM

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REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	2003-0070-006

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SEAL:

SHEET TITLE:
ENLARGED COMMUNICATIONS PLANS

SHEET ID:
T405

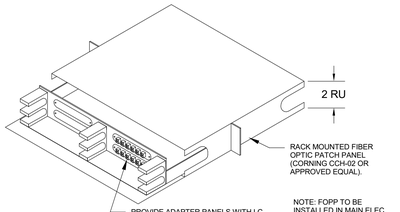
PROJECT STATUS:
100% BID SET

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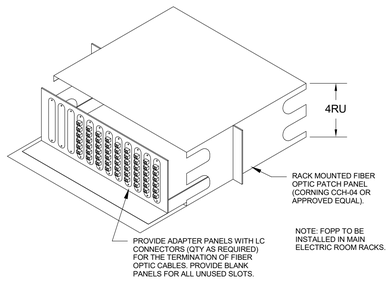
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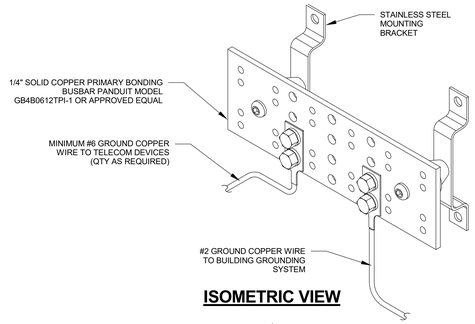
1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW UNLESS OTHERWISE NOTED.
2. REFER TO COMMUNICATIONS INTERCONNECT AND RISER DIAGRAMS ON SHEETS T703 AND T704 FOR ADDITIONAL INFORMATION.
3. DIMENSIONS PROVIDED ARE FOR CONTRACTOR INFORMATION ONLY, VERIFY ALL DIMENSIONS IN THE FIELD.



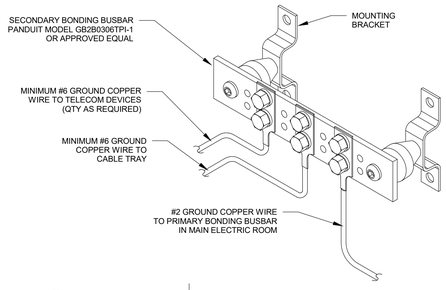
10 FIBER OPTIC PATCH PANEL
SCALE: NONE



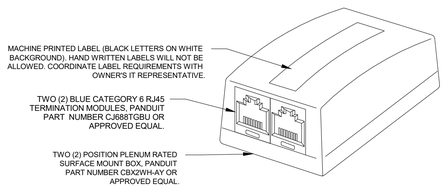
9 FIBER OPTIC PATCH PANEL
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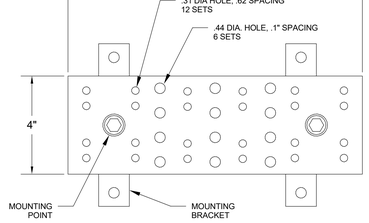
ISOMETRIC VIEW



ISOMETRIC VIEW

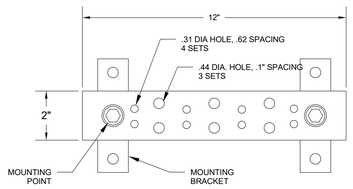


6 TELECOM OUTLET - SURFACE MOUNTED
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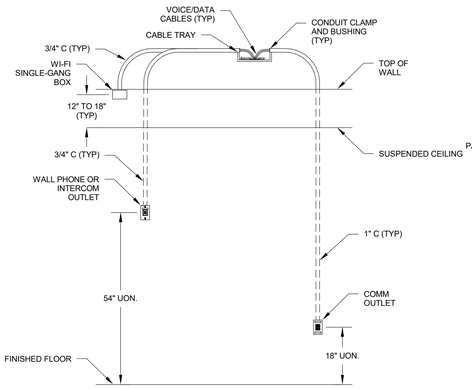
FRONT VIEW

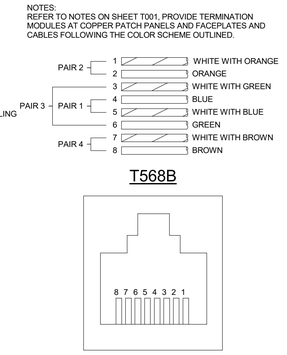
7 PRIMARY BONDING BUSBAR
SCALE: NONE



FRONT VIEW

8 SECONDARY BONDING BUSBAR
SCALE: NONE



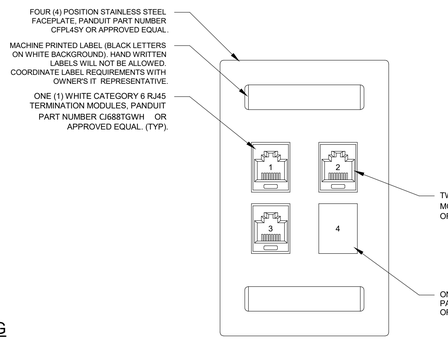


T568B

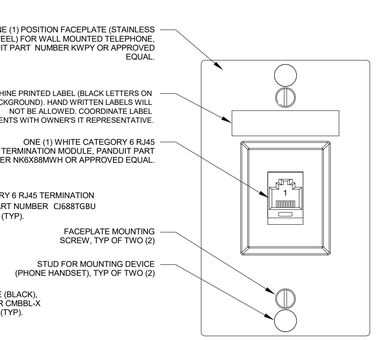
COMMUNICATIONS OUTLET WIRING

1 TELECOM OUTLET MOUNTING (TYP)
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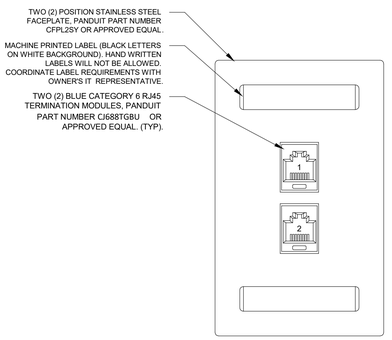
2 TELECOM OUTLET - T568B
SCALE: NONE



3 TELECOM OUTLET - VOICE/DATA
SCALE: NONE



4 TELECOM OUTLET - WALL PHONE
SCALE: NONE



5 TELECOM OUTLET - FIDS/ADVERTISING
SCALE: NONE

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Hartranft Lighting Design

ILM

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SEAL:

SHEET TITLE:
COMMUNICATIONS DETAILS

SHEET ID:
T501

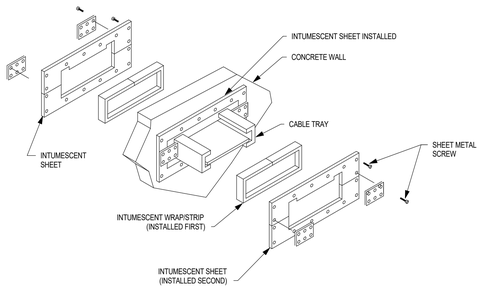
PROJECT STATUS:
100% BID SET

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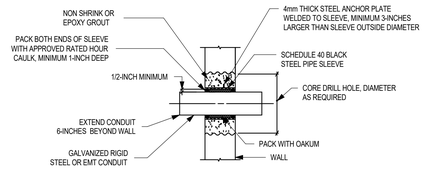
NOTES:

1. THESE DETAILS ARE SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. THEY ARE INTENDED TO ILLUSTRATE TYPICAL EQUIPMENT LAYOUTS.



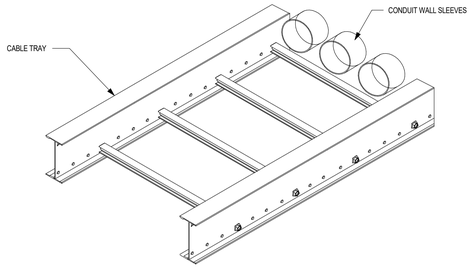
7 CABLE TRAY FIRE STOP DETAIL

SCALE: NONE



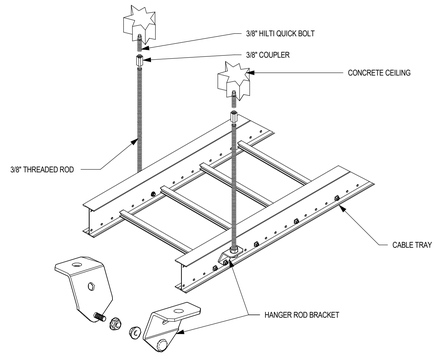
8 CONDUIT PENETRATION AND SLEEVES

SCALE: NONE



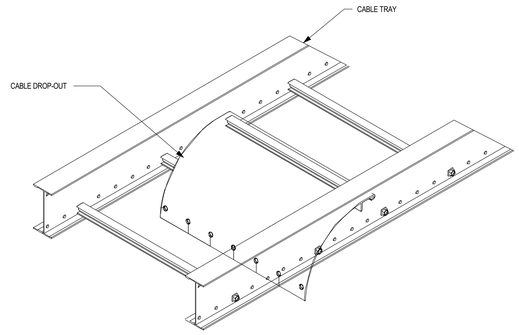
4 TYPICAL WALL SLEEVE PENETRATION

SCALE: NONE



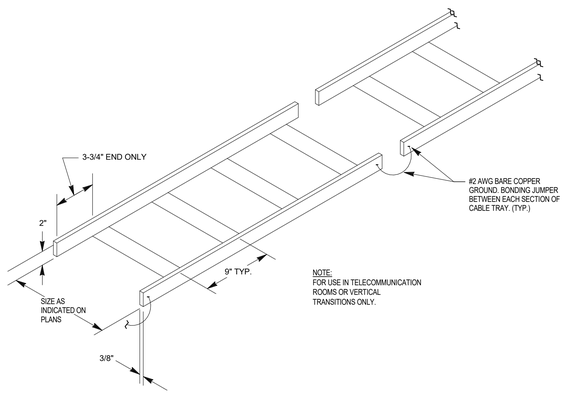
5 TYPICAL CABLE TRAY SUPPORT DETAIL

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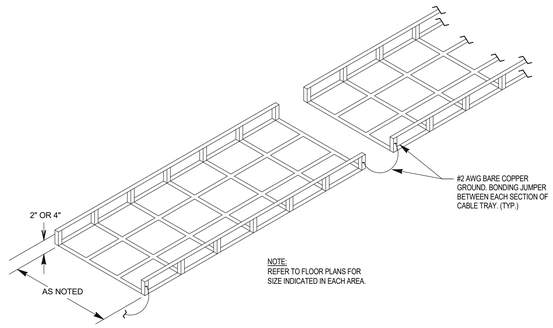
6 CABLE TRAY DROP OUT

SCALE: NONE



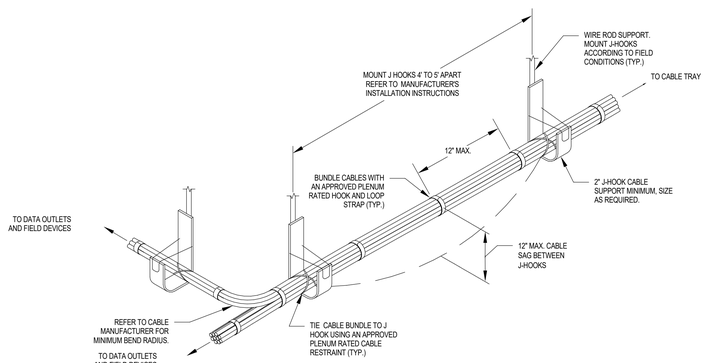
1 CABLE TRAY - LADDER TYPE

SCALE: NONE



2 CABLE TRAY - WIRE BASKET TYPE

SCALE: NONE



3 CABLE TRAY - J-HOOKS

SCALE: NONE

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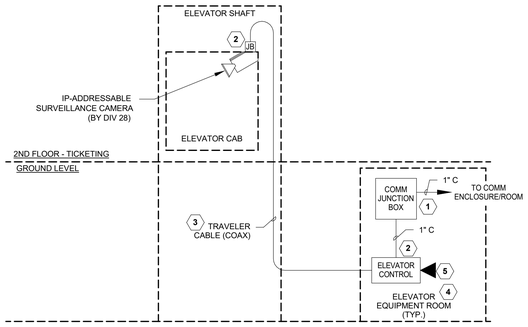
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COMMUNICATIONS DETAILS

SHEET ID:
T502

PROJECT STATUS:
100% BID SET

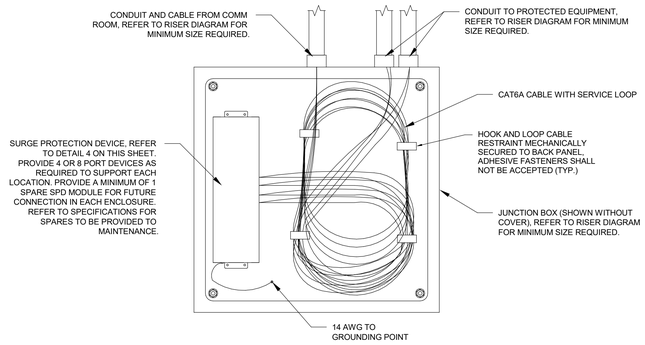
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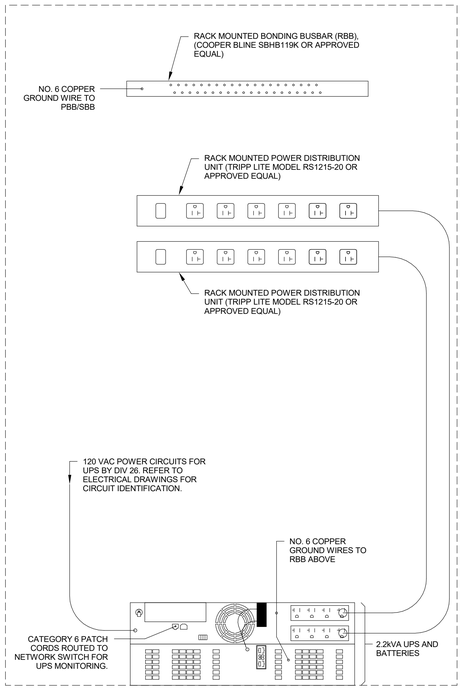
6 ELEVATOR COMMUNICATIONS (TYPICAL)

SCALE: NONE



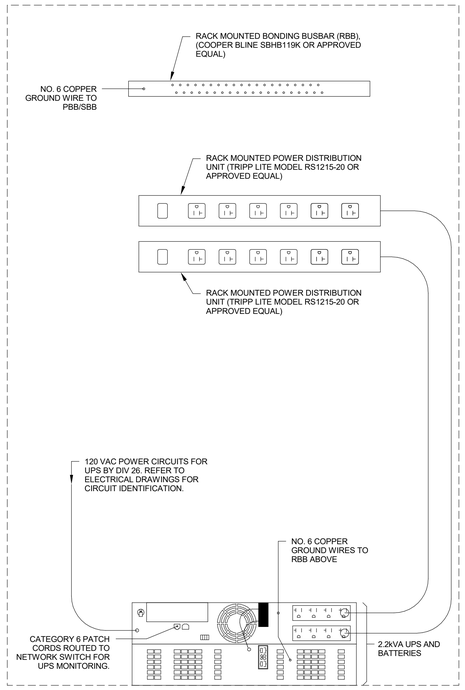
7 TELECOM - SPD ENCLOSURE

SCALE: NONE



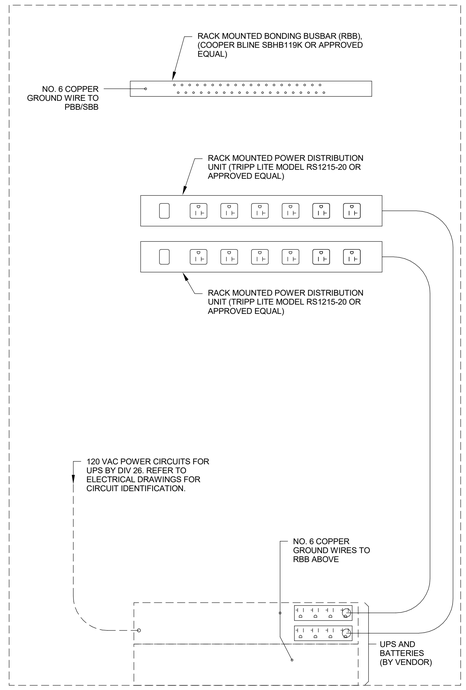
1 AIRPORT NETWORK EQUIPMENT RACK UPS (TYPICAL)

SCALE: NONE



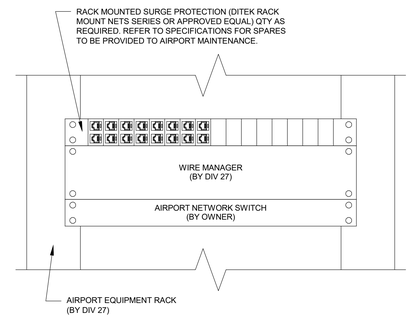
2 PRCS NETWORK EQUIPMENT RACK UPS (TYPICAL)

SCALE: NONE



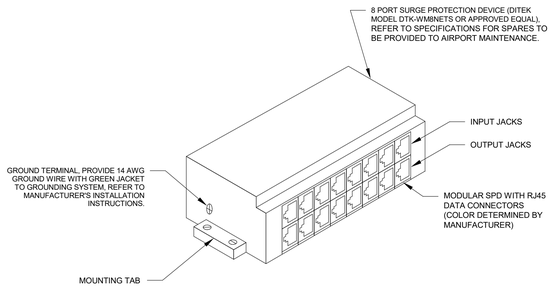
3 RENTAL CAR NETWORK EQUIPMENT RACK (TYPICAL)

SCALE: NONE



5 TELECOM - PARTIAL RACK ELEVATION

SCALE: NONE



4 TELECOM - SURGE PROTECTION DEVICE

SCALE: NONE

NOTES:

1. THESE DETAILS ARE SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. THEY ARE INTENDED TO ILLUSTRATE TYPICAL EQUIPMENT LAYOUTS.
2. PROVIDE UPS UNITS WITH BATTERIES SUFFICIENT FOR TWENTY (20) MINUTES OF RUNTIME. REFER TO THE WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. THE FINAL MOUNTING LOCATION FOR EACH CAMERA SHALL BE DETERMINED BY THE OWNER AND AIRPORT SECURITY AS COORDINATED BY THE CONTRACTOR PRIOR TO INSTALLATION.

KEY NOTES:

1. PROVIDE SPD ENCLOSURE, REFER TO DETAIL 10 ON THIS SHEET.
2. PROVIDE POE ETHERNET OVER COAX EXTENDER FOR VIDEO SURVEILLANCE CAMERA IN ELEVATOR CAB, REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. VIDEO SURVEILLANCE SIGNAL SHALL BE TRANSMITTED VIA ELEVATOR TRAVELING CABLE, COORDINATE WITH ELEVATOR INSTALLER.
4. COORDINATE WITH ELEVATOR INSTALLER FOR LOCATION OF CONTROLLER AND CONNECTION POINT TO TRAVELING CABLE. CONTRACTOR SHALL PROVIDE ALL JUMPERS (CAT6 AND COAX) AS REQUIRED TO MAKE CONNECTIONS FOR IN-CAB CAMERAS AND ELEVATOR TELEPHONE.
5. COORDINATE WITH ELEVATOR INSTALLER TERMINATION LOCATION FOR DATA OUTLETS TO BE USED FOR ELEVATOR COMMUNICATIONS (ELEVATOR TELEPHONE).

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	**2003-0070-006**

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SEAL:

SHEET TITLE:
COMMUNICATIONS DETAILS

SHEET ID:
T503

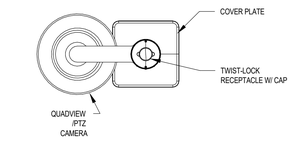
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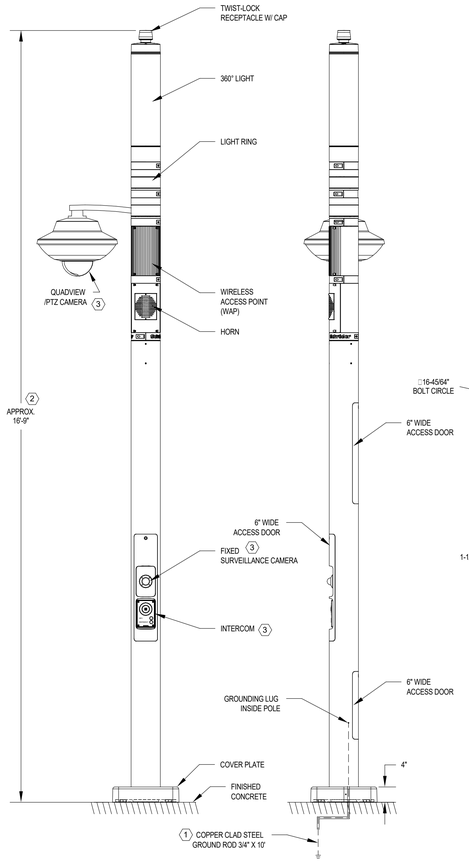
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WIRELESS ACCESS POINT (WAP) SCHEDULE

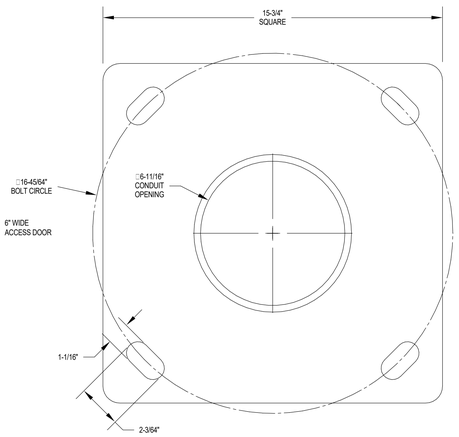
ID NUMBER	IDF ROOM	CABLE TYPE	CABLE COLOR	CABLE DESCRIPTION	DETAIL	DESCRIPTION
WAP-NORTH	COMM ENCLOSURE	CAT6	BLUE	(1) CAT6 WITH MALE RJ45 CONNECTOR	1/T505	PROVIDE UBIQUITI MODEL U6-MESH OUTDOOR ACCESS POINT INTEGRATED INTO SECURITY POLE MODULE. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO CONFIRM MODEL OF WAP TO BE PROVIDED PRIOR TO ORDERING. COORDINATE ORDERING/INSTALLATION REQUIREMENTS WITH THE POLE MANUFACTURER.
WAP-SOUTH	ELEC 102	CAT6	BLUE	(1) CAT6 WITH MALE RJ45 CONNECTOR	1/T505	PROVIDE UBIQUITI MODEL U6-MESH OUTDOOR ACCESS POINT INTEGRATED INTO SECURITY POLE MODULE. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO CONFIRM MODEL OF WAP TO BE PROVIDED PRIOR TO ORDERING. COORDINATE ORDERING/INSTALLATION REQUIREMENTS WITH THE POLE MANUFACTURER.





1 SECURITY POLE DETAIL - TYPICAL

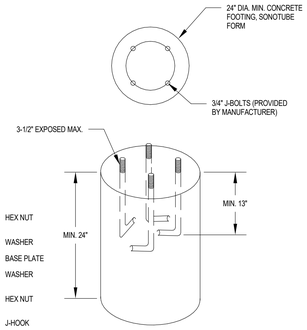
SCALE: N.T.S.



BASIS OF DESIGN: THE BASIS OF DESIGN AS SHOWN IS SHUFFLE SECURITY POLE MANUFACTURED BY SCHREDER CORPORATION. PROVIDE SECURITY POLE WITH THE FOLLOWING MODULES AND FEATURES: INTEGRATED VIDEO INTERCOM, ALARM HORN, WIRELESS ACCESS POINT, QUAD (360°) VIEW CAMERA, LIGHT RING AND 360° LIGHT. COORDINATE ALL FEATURES AND FINISHES WITH THE OWNER. INTEGRATE INTERCOM WITH UNITS INSTALLED DURING PREVIOUS PHASE OF WORK.



ANCHORING HARDWARE INCLUDED:
(4) 3/4"-10 x 17" x 3" J HOOKS, GALVANIZED
(8) 3/4"-10 HEX NUTS, GALVANIZED
(8) 2" O.D. WASHERS, GALVANIZED

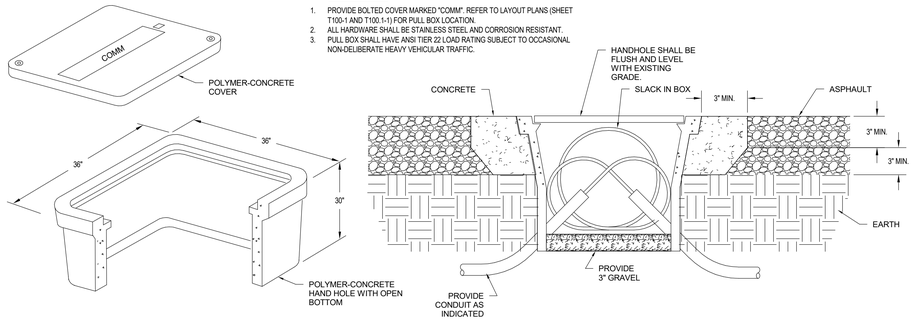


NOTE: DIMENSIONS ARE PROVIDED FOR CONTRACTOR INFORMATION ONLY. CONTRACTOR SHALL CONFIRM ACTUAL DIMENSIONS BASED ON APPROVED SUBMITTALS.

2 SECURITY POLE FOOTING - TYPICAL

SCALE: N.T.S.

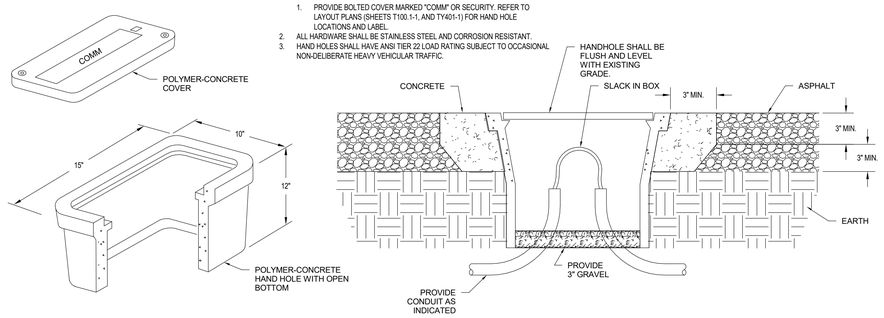
NOTES:
1. PROVIDE BOLTED COVER MARKED "COMM". REFER TO LAYOUT PLANS (SHEET T100-1 AND T100.1-1) FOR PULL BOX LOCATION.
2. ALL HARDWARE SHALL BE STAINLESS STEEL AND CORROSION RESISTANT.
3. PULL BOX SHALL HAVE ANSI TIER 22 LOAD RATING SUBJECT TO OCCASIONAL NON-DELIBERATE HEAVY VEHICULAR TRAFFIC.



4 TELECOM PULL BOX

SCALE: N.T.S.

NOTES:
1. PROVIDE BOLTED COVER MARKED "COMM" OR SECURITY. REFER TO LAYOUT PLANS (SHEETS T100.1-1, AND TY401-1) FOR HAND HOLE LOCATIONS AND LABEL.
2. ALL HARDWARE SHALL BE STAINLESS STEEL AND CORROSION RESISTANT.
3. HAND HOLES SHALL HAVE ANSI TIER 22 LOAD RATING SUBJECT TO OCCASIONAL NON-DELIBERATE HEAVY VEHICULAR TRAFFIC.



3 TELECOM HAND HOLE

SCALE: N.T.S.

NOTES:

1. THESE DETAILS ARE SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. THEY ARE INTENDED TO ILLUSTRATE TYPICAL EQUIPMENT LAYOUTS.
2. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW UNLESS OTHERWISE NOTED.
3. REFER TO COMMUNICATIONS INTERCONNECT AND RISER DIAGRAMS ON SHEET T702 AND T703 FOR ADDITIONAL INFORMATION.
4. DIMENSIONS PROVIDED ARE FOR CONTRACTOR INFORMATION ONLY, VERIFY ALL DIMENSIONS IN THE FIELD.

KEY NOTES:

1. PROVIDE GROUNDING AS REQUIRED SO THAT THE IMPEDANCE TO GROUND OF EACH GROUND ROD DOES NOT EXCEED 25 OHMS PRIOR TO ESTABLISHING CONNECTIONS TO OTHER GROUND ELECTRODES. THE FALL-OF-POTENTIAL GROUND IMPEDANCE TEST SHALL BE USED, AS DESCRIBED BY AMERICAN NATIONAL STANDARDS INSTITUTE/INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (ANSI/IEEE) STANDARD 81, TO VERIFY THIS REQUIREMENT.
2. FINAL OVERALL HEIGHT IS DEPENDENT UPON SELECTION OF COMPONENTS BY THE OWNER AND MAY VARY WITH THE APPROVED CONFIGURATION.
3. COORDINATE EXACT MANUFACTURER/MODEL TO BE PROVIDED WITH THE POLE WITH DIVISION 28 CONTRACTOR.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF

PROJECT NUMBER:
2003-0070-006

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SEAL:

SHEET TITLE:
COMMUNICATIONS DETAILS

SHEET ID:
T504

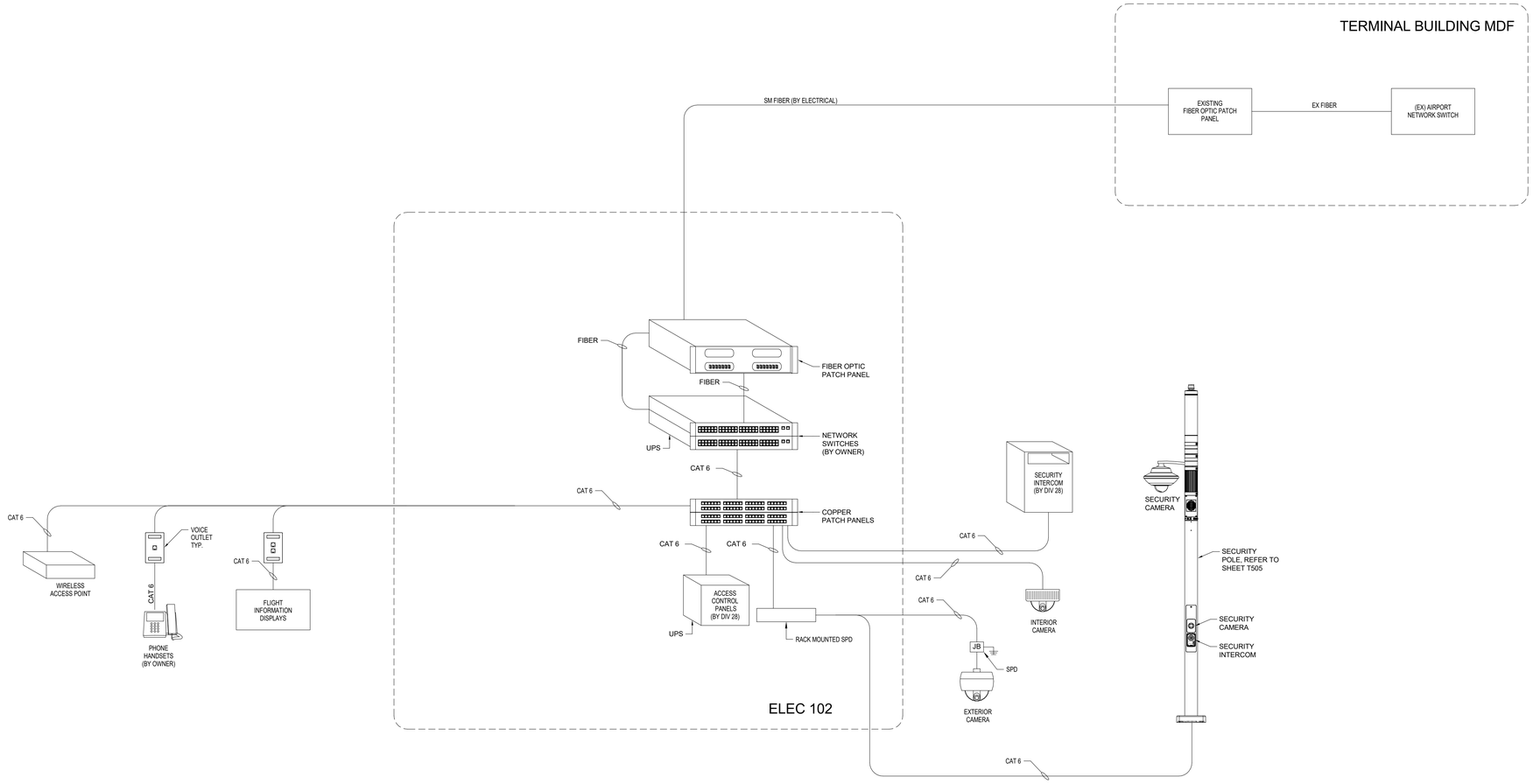
PROJECT STATUS:
100% BID SET

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NOTES:

1. THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED, IT IS INTENDED TO ILLUSTRATE TYPICAL EQUIPMENT LAYOUTS FOR NEW AND EXISTING SYSTEMS.
2. ALL EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED INCLUDING ALL SOFTWARE AND LICENSES REQUIRED FOR A COMPLETE AND WORKING SYSTEM AS DESCRIBED IN THE WRITTEN SPECIFICATIONS.



1 COMMUNICATIONS BLOCK DIAGRAM

SCALE: 12" = 1'-0"

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
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WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: JAP
DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
2003-0070-006
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SEAL:

SHEET TITLE:
COMMUNICATIONS BLOCK DIAGRAM

SHEET ID:
T701

PROJECT STATUS:
100% BID SET

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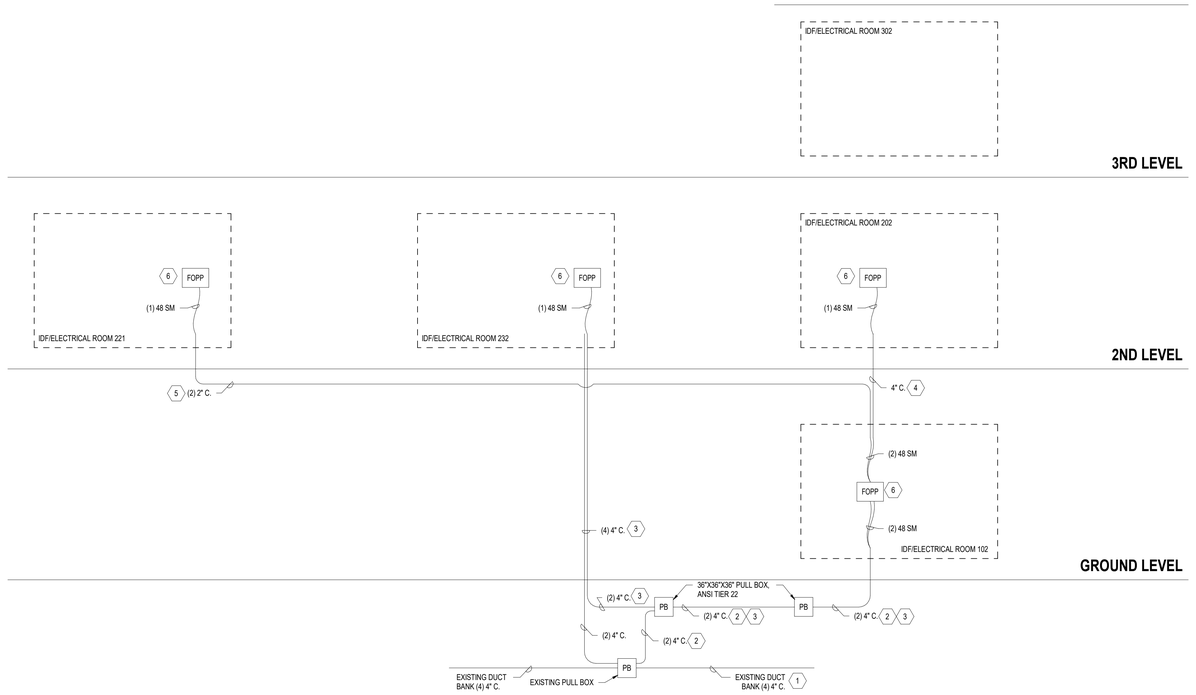
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NOTES:

1. THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT SHOW ALL CONDUIT, RACEWAY, JUNCTION BOXES, ELBOWS, BENDS OR TURNS REQUIRED. CONTRACTOR SHALL PROVIDE A COMPLETE RACEWAY SYSTEM AS REQUIRED.
2. ALL CONDUITS, JUNCTION BOXES, PULL BOXES, AND HAND HOLES SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL COORDINATE CONDUIT ROUTING WITH CIVIL AND ELECTRICAL ACCORDING TO FIELD CONDITIONS AND SUBMIT FOR APROVAL PRIOR TO INSTALLATION.
4. PROVIDE THREE CELL FABRIC INNER DUCT THROUGH ALL NEW COMMUNICATIONS CONDUITS SHOWN.

KEY NOTES: ⬡

1. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION OF 48-STRAND FIBER OPTIC CABLE FROM TERMINAL ROUTED TO ELECTRIC ROOM 102 THROUGH EXISTING AIRPORT DUCT BANK.
2. COORDINATE WITH ELECTRICAL CONTRACTOR FOR THE INSTALLATION OF 48-STRAND FIBER OPTIC CABLE FROM TERMIAL ROUTED TO ELECTRIC ROOM 102 THROUGH NEW 4" C.
3. PROVIDE 48-STRAND FIBER OPTIC CABLE FROM ELECTRIC ROOM 102 TO ELECTRIC ROOM 232 THROUGH NEW 4" C.
4. PROVIDE 24-STRAND FIBER OPTIC CABLE FROM ELECTRIC ROOM 102 TO ELECTRIC ROOM 202 THROUGH NEW 4" C.
5. PROVIDE 24-STRAND FIBER OPTIC CABLE FROM ELECTRIC ROOM 102 TO ELECTRIC ROOM 221 THROUGH NEW 2" C.
6. PROVIDE RACK MOUNTED FIBER OPTIC PATCH PANEL FOR TERMIANTION OF NEW CABLES. PROVIDE LV CONNECTORS AND BLANK PANELS FOR ALL UNUSED PORTS. TEST ALL TERMINATED CABLES AND SUBMIT RESULTS TO THE OWNER'S REPRESENTATIVE FOR REVIEW.



1 COMMUNICATIONS BACKBONE RISER DIAGRAM

SCALE: N.T.S.

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ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	**2003-0070-006**

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SEAL:

SHEET TITLE:
COMMUNICATIONS BACKBONE DIAGRAM

SHEET ID:
T702

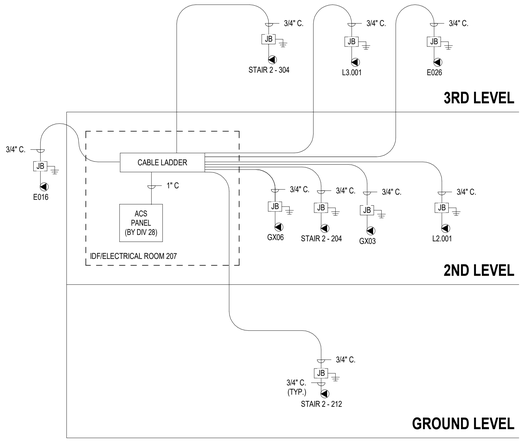
PROJECT STATUS:
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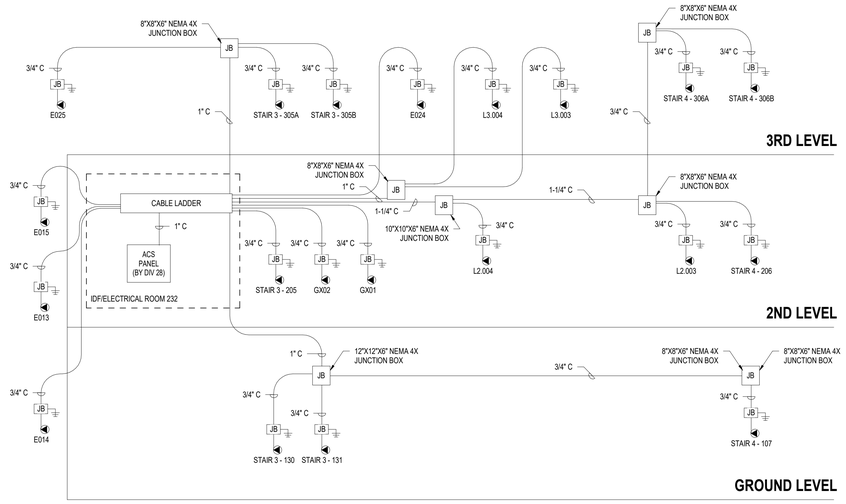
NOTES:

1. THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT SHOW ALL CONDUIT, RACEWAY, JUNCTION BOXES, ELBOWS, BENDS OR TURNS REQUIRED. CONTRACTOR SHALL PROVIDE A COMPLETE RACEWAY SYSTEM AS REQUIRED.
2. ALL CONDUITS, JUNCTION BOXES, AND HAND HOLES SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. COORDINATE ALL FINAL CAMERA, AND WAP LOCATIONS WITH THE OWNER PRIOR TO INSTALLATION.
4. COORDINATE RACEWAY ROUTING WITH ELECTRICAL AND OTHER TRADES AS REQUIRED PRIOR TO INSTALLATION.



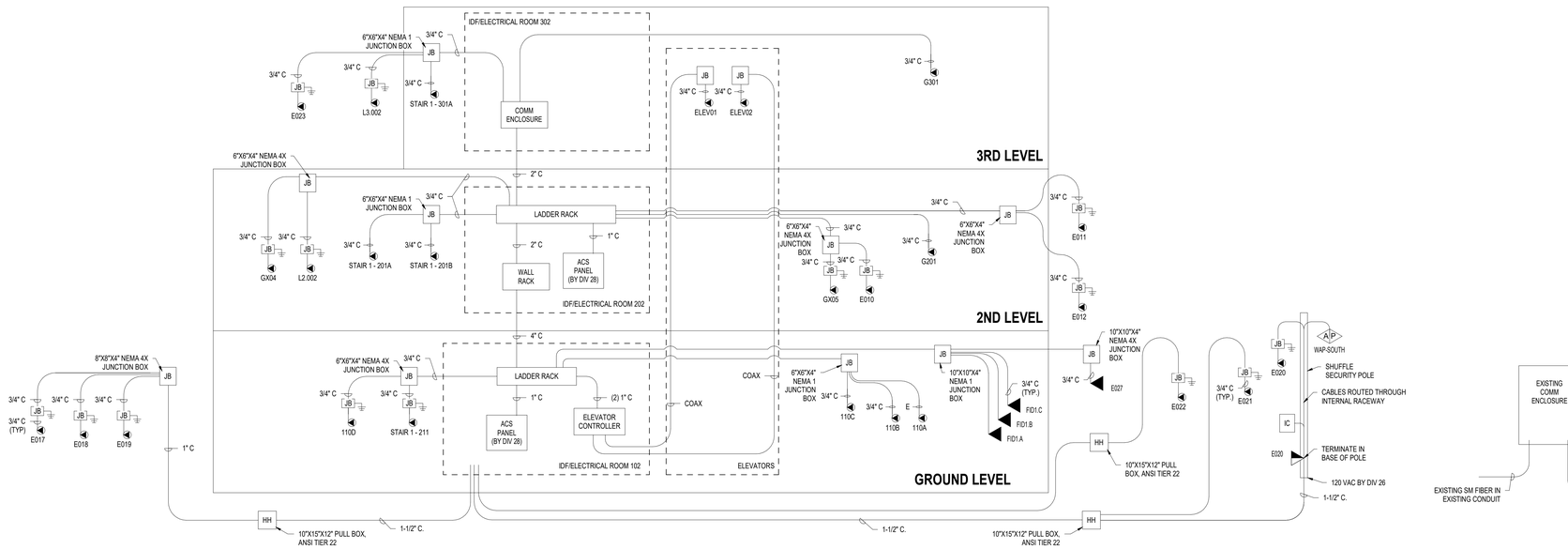
3 IDF 221 COMM RISER DIAGRAM

SCALE: 1/16" = 1'-0"



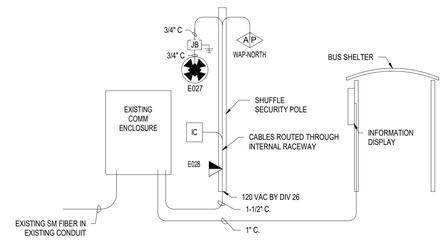
4 IDF 232 COMM RISER DIAGRAM

SCALE: 1/16" = 1'-0"



1 IDF 102 COMM RISER DIAGRAM

SCALE: 1/16" = 1'-0"



2 NORTH BUS SHELTER RISER DIAGRAM

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

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ILM

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WILMINGTON, NC 28405

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DATE ISSUED:	03/14/2025
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DRAWN BY:	RJF
DESIGNED BY:	RJF

PROJECT NUMBER:
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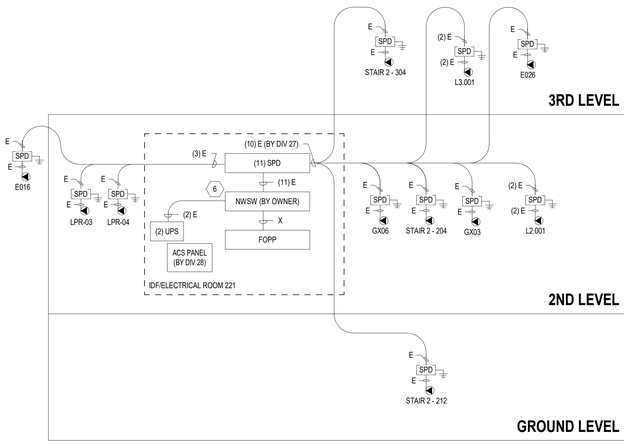
SHEET TITLE:
COMMUNICATIONS RISER DIAGRAMS

SHEET ID:
T703

PROJECT STATUS:
100% BID SET

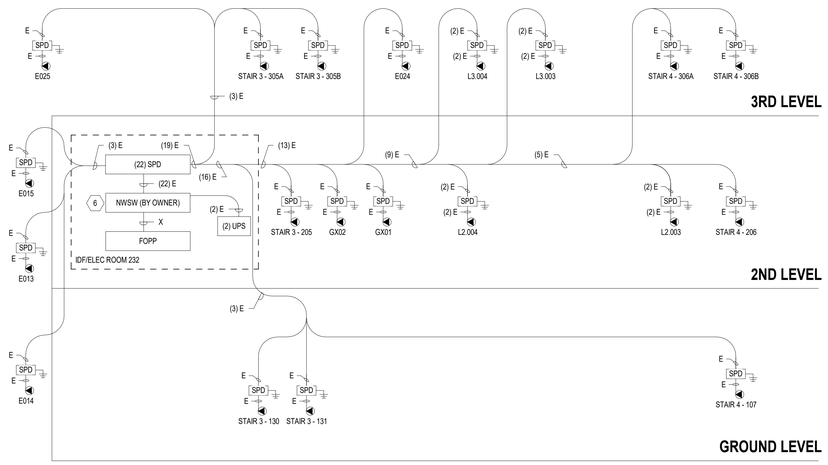
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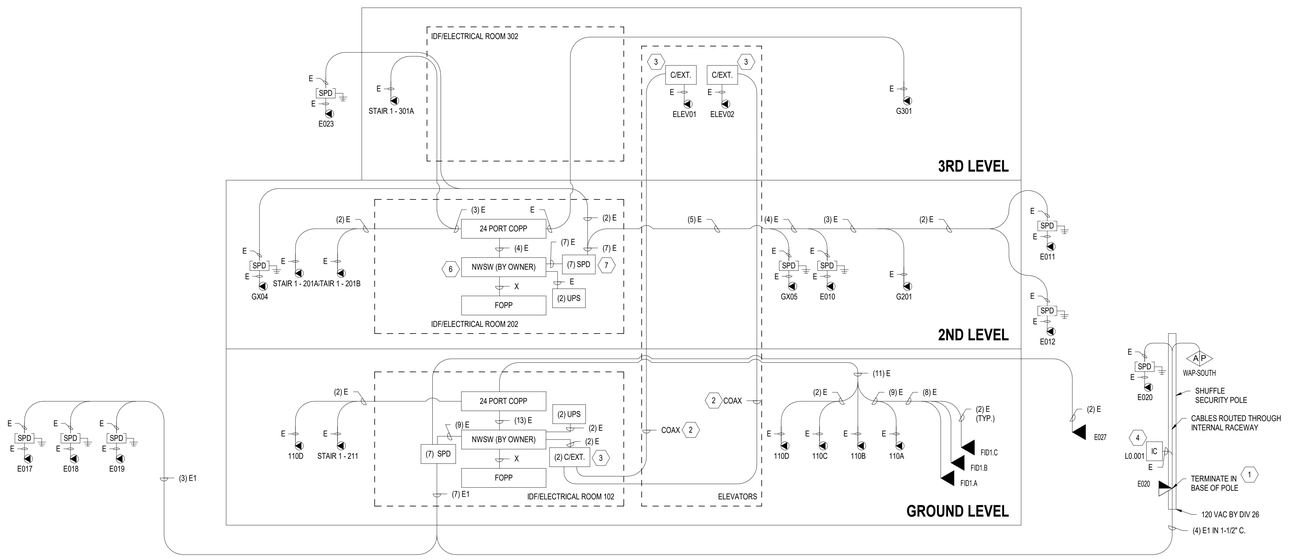
3 IDF 221 COMM INTERCONNECT DIAGRAM

SCALE: 1/16" = 1'-0"



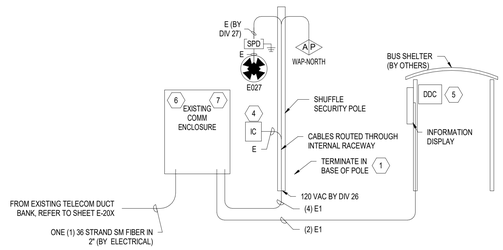
4 IDF 232 COMM INTERCONNECT DIAGRAM

SCALE: 1/16" = 1'-0"



1 IDF 102 COMM INTERCONNECT DIAGRAM

SCALE: 1/16" = 1'-0"



2 NORTH BUS SHELTER COMM INTERCONNECT DIAGRAM

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

NOTES:

1. THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. CONTRACTOR SHALL PROVIDE A COMPLETE AND WORKING SYSTEM AS SHOWN IN THE DRAWINGS AND DESCRIBED IN THE WRITTEN SPECIFICATIONS.
2. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. REFER TO RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
4. REFER TO THE SITE PLAN AND FLOOR PLANS FOR TERMINATION LOCATIONS.
5. CONTRACTOR SHALL COORDINATE THE TERMINATION OF FIBER OPTIC CABLES WITH THE OWNER. REFER TO COMMUNICATIONS SITE PLAN FOR ROUTING OF NEW AND EXISTING DUCT BANK.
6. ALL NETWORK SWITCHES SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. COORDINATE WORK WITH THE OWNER'S IT REPRESENTATIVE.
7. COORDINATE ALL FINAL CAMERA, AND WAP LOCATIONS WITH THE OWNER PRIOR TO INSTALLATION.

KEY NOTES: ⬡

1. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR TERMINATION AND GROUNDING REQUIREMENTS. COORDINATE ALL WORK WITH THE ELECTRICAL AND CIVIL CONTRACTORS.
2. ELEVATOR CAB VIDEO SIGNALS SHALL BE TRANSMITTED OVER COAX CABLES WITHIN ELEVATOR TRAVELING CABLE, COORDINATE WITH ELEVATOR INSTALLER.
3. PROVIDE ETHERNET OVER COAX EXTENDER KIT, REFER TO WRITTEN SPECIFICATIONS.
4. IP ADDRESSABLE EMERGENCY (BLUE LIGHT) INTERCOM STATIONS SHALL BE MOUNTED TO SECURITY POLES. INTERCOM STATIONS SHALL BE PROGRAMMED TO CALL THE AIRPORT COMM CENTER.
5. INFORMATION DISPLAYS SHALL BE CONTROLLED VIA IP ADDRESSABLE DIGITAL DISPLAY CONTROLLERS (DDC) COLOCATED WITH EACH DISPLAY. DDCS AND ASSOCIATED CABLING SHALL BE LOCATED IN A SECURE LOCATION AWAY FROM PUBLIC ACCESS.
6. NETWORK DEVICE(S) (ETHERNET SWITCHE, MEDIA CONVERTERS) SHALL BE OWNER FURNISHED AND CONTRACTOR INSTALLED. CONTRACTOR SHALL COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.
7. PROVIDE PANEL MOUNT SURGE PROTECTION DEVICE IN EXISTING COOM ENCLOSURE, REFER TO DETAIL 4 ON SHEET T503.

CABLE LEGEND

ID	DESCRIPTION	DEVICE
A	9-22 AWG SHIELDED	CARD READER
B	4-22 AWG UNSHIELDED	MISC. INPUT (DPS/REX/TD)
C	4-14 AWG UNSHIELDED	ANNUNCIATOR (HORN/STROBE)
D	2-14 AWG UNSHIELDED	MISC. OUTPUT (LOCK) LENGTH < 100'
D	2-12 AWG UNSHIELDED	MISC. OUTPUT (LOCK) LENGTH < 200'
E	CATEGORY 6 UTP	ETHERNET (VOICE/DATA/VIDEO)
E1	GEL FILLED CATEGORY 6 UTP	ETHERNET (VOICE/DATA/VIDEO) - U/G WET LOCATIONS
E2	GEL FILLED CATEGORY 6 STP	ETHERNET (VOICE/DATA/VIDEO) - U/G WET LOCATIONS
F	2-18 AWG UNSHIELDED	FIRE ALARM RELAY AND MISC. I/O
G	8-22 AWG UNSHIELDED	GATE OPERATOR I/O
K	KEYBOARD/VIDEO/MOUSE	KVM SWITCH CONTROL CABLE
S	2-12 AWG UNSHIELDED	UNSHIELDED SPEAKER CABLE
T	RG-6/U COAX	COAX CABLE TELEVISION
V	22 AWG UTP	VOLUME CONTROL
X	SINGLE-MODE FIBER	FIBER OPTIC PATCH CABLE

SHUTTLE BUS TRACKING:

1. SHUTTLE BUS TRACKING SYSTEM SHALL BE AN EXTENSION OF THE SOLUTION PROVIDED DURING THE PREVIOUS PHASE OF WORK. CONTRACTOR SHALL PROVIDE ADDITIONAL HARDWARE AS REQUIRED TO ADD ADDITIONAL MONITORS ADDED DURING THIS PHASE.
2. CONFIGURE MONITOR TO MATCH THOSE DEPLOYED DURING PREVIOUS PHASE OF WORK TO DISPLAY SHUTTLE ARRIVAL INFORMATION. CONTRACTOR SHALL ASSIST THE OWNER WITH ACCOUNT/LOGIN TO MANAGE THE SYSTEM FROM AN EXISTING AIRPORT WORKSTATION.
4. CONTRACTOR'S PROPOSAL SHALL INCLUDE ALL HARDWARE, LICENSES, AND STARTUP COSTS FOR THE FIRST YEAR'S OPERATION (THROUGH THE WARRANTY PERIOD) AND ONGOING ANNUAL COST IN INCREMENTS OF 1 YEAR, 3 YEARS, AND 5 YEARS.

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
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DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	2003-0070-006

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SEAL:

SHEET TITLE:
COMMUNICATIONS INTERCONNECT DIAGRAMS

SHEET ID:
T704

PROJECT STATUS:
100% BID SET

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SENSITIVE SECURITY INFORMATION

SECURITY ABBREVIATIONS

ACS	ACCESS CONTROL SYSTEM
ACT	ACOUSTICAL CEILING TILE
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AWG	AMERICAN WIRE GAUGE
BMS	BALANCED MAGNETIC SWITCH
C	CONDUIT
CR	CARD READER
D	DURESS ALARM BUTTON
DIA	DIAMETER
DIV	DIVISION
DO	DOOR OPERATOR
DPDT	DOUBLE-POLE DOUBLE-THROW
DPS	DOOR POSITION SWITCH
EH	ELECTRIC HOLD OPEN
EL	ELECTRIC LOCK
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
ER	EXISTING TO REMOVE
ET	ELECTRIC TRIM
EX	EXISTING TO REMAIN
GRS	GALVANIZED RIGID STEEL
I/O	INPUT/OUTPUT
IC	INTERCOM STATION
IDF	INTERMEDIATE DISTRIBUTION FRAME
IP	INTERNET PROTOCOL
ISO	ISOMETRIC
JB	JUNCTION BOX
KP	KEY PAD
KS	KEY SWITCH
LA	LOCAL ANNUNCIATOR
LAN	LOCAL AREA NETWORK
LCD	LIQUID CRYSTAL DISPLAY
LED	LIGHT EMITTING DIODE
MAX	MAXIMUM
MD	MOTION DETECTOR
MFG	MANUFACTURER
MIN	MINIMUM
ML	MAGNETIC LOCK
MM	MULTIMODE
MS	MAGNETIC SWITCH
NTS	NOT TO SCALE
OPS	OPERATIONS
PB	PUSHBUTTON
PH	PANIC HARDWARE
PI	PASSIVE INFRARED
PoE	POWER OVER ETHERNET
PP	PATCH PANEL
PR	DOOR RELEASE PUSHBUTTON
PS	POWER SUPPLY
PT	POWER TRANSFER
PTZ	PAN-TILT-ZOOM
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
REF	REFERENCE
REX	REQUEST-TO-EXIT
RS	RIGID STEEL
RX	RECEIVER
STP	SHIELDED/TWISTED PAIR
SH	SHIELDED
SM	SINGLE MODEL
SPD	SURGE PROTECTION DEVICE
SS	STRIKE SWITCH
SSCP	SECURITY SCREENING CHECKPOINT
TBD	TO BE DETERMINED
TD	TIME DELAY
TP	TWISTED PAIR
TS	TAMPER SWITCH
TX	TRANSMITTER
TYP	TYPICAL
U/TP	UNSHIELDED/TWISTED PAIR
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
VMS	VIDEO MANAGEMENT SYSTEM
W/T	WIRE TROUGH
WG	WIDE-GAP DPS

SECURITY SYMBOLS

IC — INTERCOM [ACCESS CONTROL]. SEE SPECIFICATION DIVISION 28 FOR ADDITIONAL INFORMATION.

DPS — DOOR POSITION SWITCH [ACCESS CONTROL]. SEE SPECIFICATION DIVISION 28 FOR ADDITIONAL INFORMATION.

WG — WIDE GAP DPS (WG) [ACCESS CONTROL] - SEE SPECIFICATION DIVISION 28 FOR ADDITIONAL INFORMATION.

EL — ELECTRIFIED LOCK (EL) [ACCESS CONTROL] - SEE SPECIFICATION DIVISION 8 FOR ADDITIONAL INFORMATION.

ML — ELECTROMAGNETIC LOCK (ML) [ACCESS CONTROL] - SEE SPECIFICATION DIVISION 8 FOR ADDITIONAL INFORMATION.

CABLE LEGEND

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S	2-12 AWG UNSHIELDED	UNSHIELDED SPEAKER CABLE
T	RG-6/U COAX	COAX CABLE TELEVISION
V	22 AWG UTP	VOLUME CONTROL
X	SINGLE-MODE FIBER	FIBER OPTIC PATCH CABLE

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL NEW DEVICE AND EQUIPMENT LOCATIONS PRIOR TO THE START OF INSTALLATION. ANY CONFLICTS MUST BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER.
2. MINIMUM CONDUIT SIZE SHALL BE 3/4" WITH THE EXCEPTION OF "DROP CONDUITS" AT DOOR LOCATIONS, WHICH MAY BE 1/2". ALL CONDUITS SHALL BE EMT. EXCEPTIONS INCLUDE:
   A. GRS FOR EXTERIOR AREAS
   B. RS FOR AREAS ACCESSIBLE TO THE PUBLIC
   C. PVC FOR BURIED OR CAST-IN-PLACE CONDUITS
   D. FLEXIBLE CONDUIT FOR CONCEALED DROPS TO DEVICES AND WHERE APPROVED BY THE OWNER.
3. CONDUIT FILL SHALL NOT EXCEED 40%. INSTALLATION OF CONDUIT AND WIRING SHALL BE IN COMPLIANCE WITH NATIONAL ELECTRICAL CODE (NEC). ALL WIRING SHALL BE HOMERUN, UNLESS OTHERWISE NOTED. ANY SPLICES MUST BE APPROVED BY THE DESIGNER.
4. CONTRACTOR SHALL COORDINATE THE ROUTING AND LOCATION OF SECURITY CONDUITS WITH THE ELECTRICAL CONTRACTOR AND OTHER TRADES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT LINE VOLTAGE (120V AND ABOVE) POWER CONDUCTORS ARE NOT ROUTED WITHIN 12 INCHES OF COMMUNICATIONS WIRING.
6. ALL CONDUCTORS SHALL BE COLOR CODED AND TAGGED AS INDICATED ON DRAWINGS, DESCRIBED IN THE WRITTEN SPECIFICATIONS AND APPROVED BY THE OWNER.
7. COORDINATE WORK WITH OTHER TRADES AND CONFIRM FINAL MOUNTING LOCATION FOR NEW AND RELOCATED EQUIPMENT WITH THE OWNER PRIOR TO INSTALLATION.
8. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES FOR ALL EQUIPMENT. UNLESS OTHERWISE NOTED, ALL MATERIALS SHALL BE NEW AND UNUSED.
9. ALL RACEWAY, CONDUIT AND JUNCTION BOXES SHALL BE NEW AND INSTALLED WITH PULL STRING. REUSE OF EXISTING CONDUITS SHALL BE APPROVED BY THE OWNER.
10. CONDUITS PENETRATING FIRE RATED WALLS OR FLOORS SHALL USE APPROVED U.L. DEVICES IN ORDER TO MAINTAIN FIRE RATING OF THE WALL OR FLOOR.
11. ALL SECURITY CABLING SHALL BE INSTALLED IN DEDICATED CONDUIT.
12. MAINTAIN MINIMUM BENDING RADII FOR ALL CABLES ACCORDING TO THE CABLE MANUFACTURER AND PER BICSI AND ANSI/TIA STANDARDS.
13. ALL WIRING, CABLING AND CONDUCTORS SHALL BE NEW UNLESS REUSE OF EXISTING IS APPROVED BY THE OWNER.
14. ALL WORK SHALL BE CLOSELY COORDINATED WITH THE OWNER. ANY WORK AFFECTING AIRPORT OPERATIONS, CBP, TSA OR TENANTS SHALL BE SCHEDULED IN ADVANCE AND PRE-APPROVED BY THE OWNER.
15. IF EXISTING EQUIPMENT MUST BE DECOMMISSIONED, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO PROPERLY SHUT DOWN EQUIPMENT PRIOR TO DISCONNECTING. CONTRACTOR SHALL PROPERLY STORE EQUIPMENT ON SITE AT AN AREA DESIGNATED BY THE OWNER UNTIL THE EQUIPMENT IS REINSTALLED OR CONVEYED TO THE OWNER UPON COMPLETION OF THE PROJECT.
16. ALL OUTLET BOXES SHALL BE MIN. 4" WIDE BY 4" HIGH BY 2 1/2" DEEP WITH SINGLE GANG MUD RING.
17. ACCESS CONTROL SYSTEM CONDUCTORS SHALL BE SHIELDED COPPER AND MINIMUM 18 AWG, UNLESS OTHERWISE NOTED. SECURITY CONDUCTORS SHALL NOT SHARE CONDUIT WITH CONDUCTORS OF OTHER TRADES.

DEMOLITION NOTES

1. PORTIONS OF THE WORK SHALL INCLUDE THE DEMOLITION OF EXISTING EQUIPMENT, ASSOCIATED MOUNTING HARDWARE, BACK BOXES, CONNECTIONS, CONDUIT, RACEWAY, AND CABLING BACK TO THE SOURCE.
2. DEMOLITION INCLUDES THE REMOVAL OF ALL ELECTRONIC EQUIPMENT AND CABLING TO BE REUSED OR REPLACED.
3. ANY EQUIPMENT DEMOLISHED BY THE CONTRACTOR SHALL BE INVENTORIED AND RETURNED TO THE OWNER UPON DECOMMISSIONING, INCLUDING STORING AT A SECURE LOCATION ON SITE AS DETERMINED BY THE OWNER.
4. FOR DECOMMISSIONED EQUIPMENT, WHETHER TEMPORARILY REMOVED DURING CONSTRUCTION AND REINSTALLED AT A LATER DATE OR PERMANENTLY DECOMMISSIONED, CONTRACTOR SHALL TAG AND MAINTAIN A LOG OF ALL HARDWARE. TAGS SHALL INCLUDE DATE REMOVED, EQUIPMENT IDENTIFICATION, AND LOCATION INFORMATION.
5. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL DEMOLITION WITH THE OWNER PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL MAINTAIN CONTROL OF THE SITE AT ALL TIMES DURING CONSTRUCTION.
6. REMOVE ALL CABLES FROM DECOMMISSIONED DEVICES AND PORTS BACK TO SOURCE. CONTRACTOR SHALL DEMOLISH ABANDONED RACEWAY EXCEPT FOR BURIED CONDUITS WHICH MAY BE CAPPED FOR FUTURE USE.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN SECURITY OF THE SIDA, STERILE AREA, AND SECURED SPACES WHILE PERFORMING WORK IN THOSE AREAS. CONTRACTOR SHALL COORDINATE WORK WITH AIRPORT SECURITY, TSA, AND TENANTS.

SECURITY SHEET INDEX

SHEET NUMBER	SHEET NAME
TY001	SECURITY GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS
TY100	SECURITY SITE PLAN
TY101	OVERALL SECURITY PLAN - GROUND LEVEL
TY102	OVERALL SECURITY PLAN - 2ND LEVEL
TY103	OVERALL SECURITY PLAN - 3RD LEVEL
TY501	SECURITY DETAILS
TY601	SECURITY SCHEDULE
TY701	SECURITY BLOCK DIAGRAM
TY702	SECUTITY INTERCONNECT DIAGRAMS

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
PROJECT NUMBER:	**2003-0070-006**

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SEAL:

SHEET TITLE:
SECURITY GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET ID:
TY001

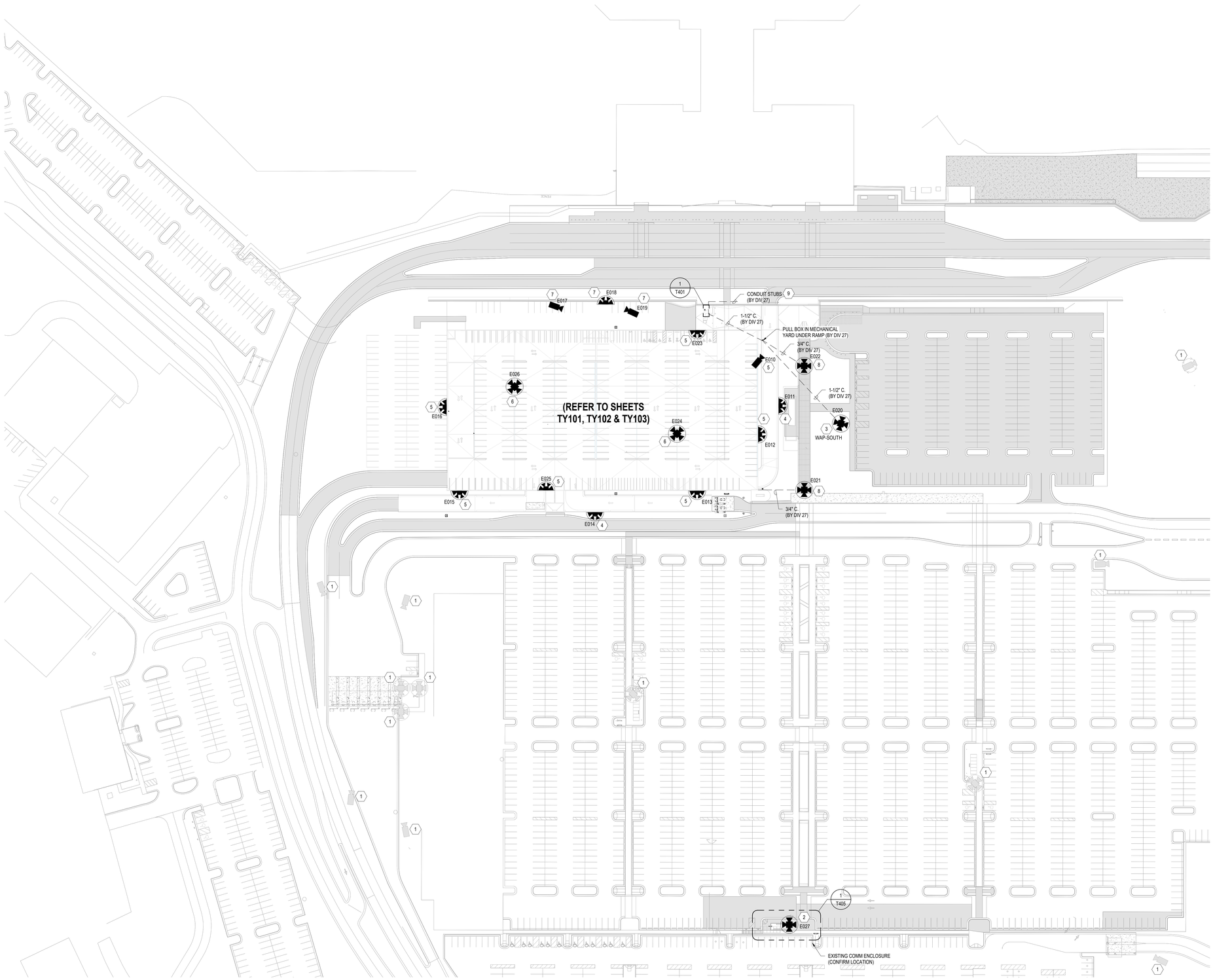
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SENSITIVE SECURITY INFORMATION



NOTES:

1. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW UNLESS OTHERWISE NOTED.
2. BURIED CONDUIT AND BACKBONE FIBER BETWEEN TERMINAL BUILDING MANAGEMENT ROOM AND COMM ENCLOSURE/IDF ROOM SHALL BE PROVIDED BY ELECTRICAL. REFER TO ELECTRICAL SHEETS E20x FOR NEW CONDUIT AND FIBER.
3. RACEWAY SYSTEM BETWEEN COMM ROOM AND SECURITY CAMERA/POLE SHALL BE COMPLETED BY THE DIV 27 CONTRACTOR. SECURITY CONTRACTOR SHALL PROVIDE ALL CONDUIT FOR FIELD DEVICES (SECURITY CAMERA/POLE), JUNCTION BOXES, STRAPPING, ETC. AS REQUIRED UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL COORDINATE FINAL CAMERA MOUNTING LOCATIONS AND FIELDS OF VIEW WITH THE OWNER PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL COORDINATE RACEWAY ROUTING WITH ELECTRICAL AND OTHER TRADES AS REQUIRED PRIOR TO INSTALLATION.
6. REFER TO CAMERA SCHEDULE ON SHEET TY601 FOR BASIS OF DESIGN CAMERA MODELS AND ADDITIONAL INFORMATION. CONDUIT AND DATA CABLE TO COMMUNICATIONS SHALL BE PROVIDED BY THE DIV 27 CONTRACTOR. REFER TO INTERCONNECT AND RISER DIAGRAMS ON SHEET TY02 FOR ADDITIONAL INFORMATION.

KEY NOTES:

1. EXISTING CAMERA INSTALLED DURING PREVIOUS PHASE OF WORK, SHOWN FOR CONTRACTOR REFERENCE ONLY.
2. NEW SECURITY POLE BY DIVISION 27. CONFIGURE POLE WITH DEVICE (SECURITY CAMERA, WI-FI, HORN, LIGHT, INTERCOM, ETC.) MATCHING THOSE DEPLOYED ELSEWHERE DURING PREVIOUS PHASE OF WORK. RACEWAY SYSTEM BETWEEN EXISTING BUS SHELTER COMM ENCLOSURE AND SECURITY POLE SHALL BE COMPLETED BY THE DIV 27 CONTRACTOR. SECURITY CONTRACTOR SHALL PROVIDE ALL CONDUIT FOR FIELD DEVICES (SECURITY POLE), JUNCTION BOXES, STRAPPING, ETC. AS REQUIRED UNLESS OTHERWISE NOTED.
3. DIVISION 27 TO REINSTALL TEMPORARY SECURITY POLE PREVIOUSLY INSTALLED AT THE TEMPORARY CURBSIDE. RECONFIGURE POLE WITH ALL MODULES AND DEVICES (SECURITY CAMERA, WI-FI, HORN, LIGHT, ETC.) TO MATCH THOSE DEPLOYED ELSEWHERE DURING PREVIOUS PHASE OF WORK.
4. PROVIDE NEW EXTERIOR WALL-MOUNT CAMERA ON GARAGE RAMP. REFER TO CAMERA SCHEDULE ON SHEET TY601 AND COMMUNICATIONS INTERCONNECT DIAGRAMS ON SHEET TY702 FOR ADDITIONAL INFORMATION.
5. PROVIDE NEW EXTERIOR WALL-MOUNT CAMERA ON EXTERIOR WALL OF GARAGE. REFER TO CAMERA SCHEDULE ON SHEET TY601 AND INTERCONNECT DIAGRAMS ON SHEET TY702 FOR ADDITIONAL INFORMATION.
6. PROVIDE NEW EXTERIOR POLE MOUNT CAMERA ON LIGHT POLE. REFER TO CAMERA SCHEDULE ON SHEET TY601 AND INTERCONNECT DIAGRAMS ON SHEET TY702 FOR ADDITIONAL INFORMATION.
7. PROVIDE NEW EXTERIOR WALL-MOUNT CAMERA. REFER TO CAMERA SCHEDULE ON SHEET TY601 AND INTERCONNECT DIAGRAMS ON SHEET TY702 FOR ADDITIONAL INFORMATION.
8. PROVIDE NEW EXTERIOR CEILING MOUNT CAMERA. REFER TO CAMERA SCHEDULE ON SHEET TY601 AND INTERCONNECT DIAGRAMS ON SHEET TY702 FOR ADDITIONAL INFORMATION.
9. CONDUIT STUB OUTS FOR SECURITY AND PAGING FROM COMMERCIAL CURB COLUMN IN VOLUME II. REFER TO VOLUME II SHEET T108, COORDINATE WITH THE COMMUNICATIONS CONTRACTOR.

PN

1 SECURITY SITE PLAN

SCALE: 1" = 60'-0"

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

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KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
REVIEWED BY:	JAP
DRAWN BY:	RJF
DESIGNED BY:	RJF
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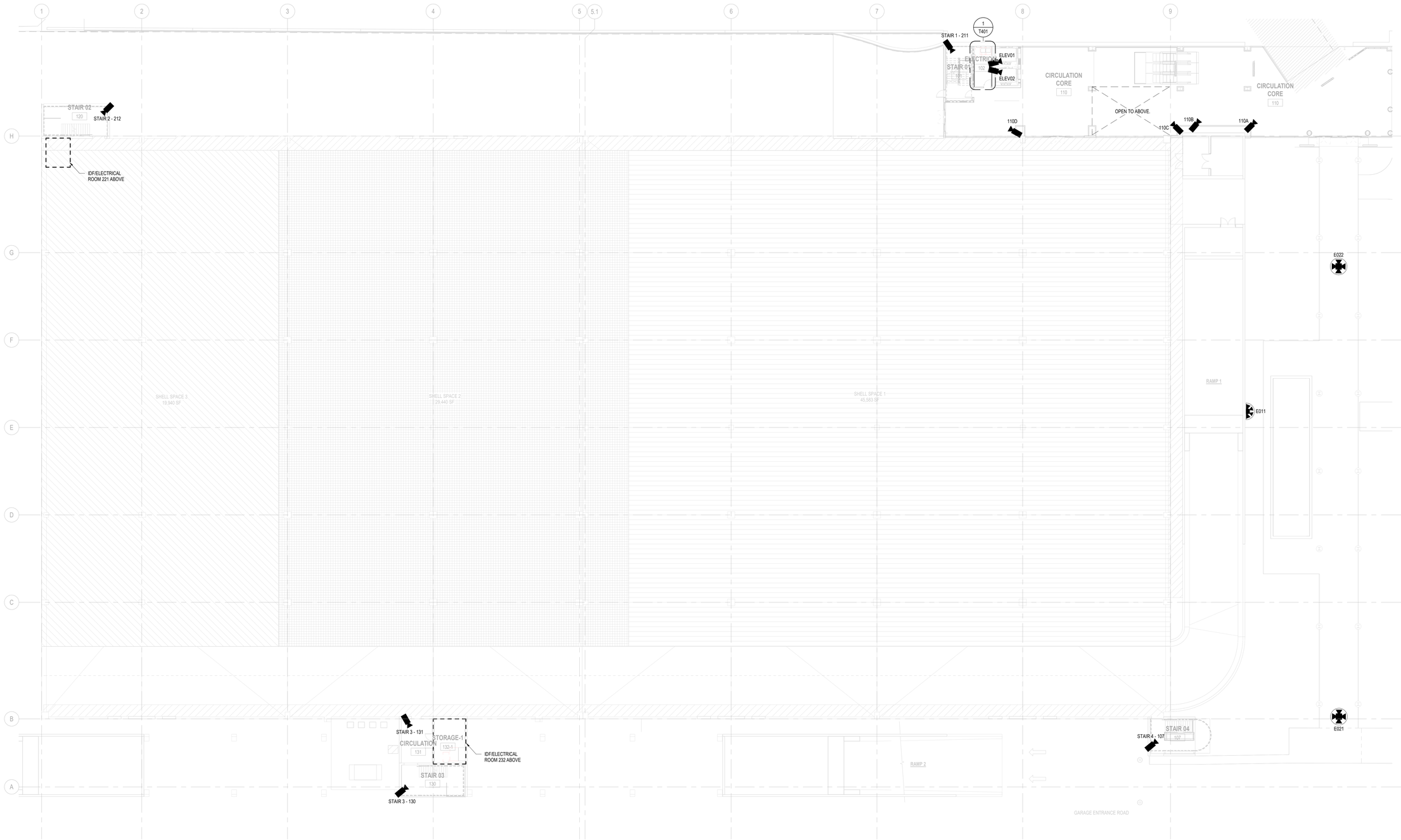
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SECURITY SITE PLAN

SHEET ID:
TY100

PROJECT STATUS:
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SENSITIVE SECURITY INFORMATION



PN
N

1 SECURITY FLOOR PLAN - GROUND LEVEL

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: JAP
DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
2003-0070-006
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SEAL:

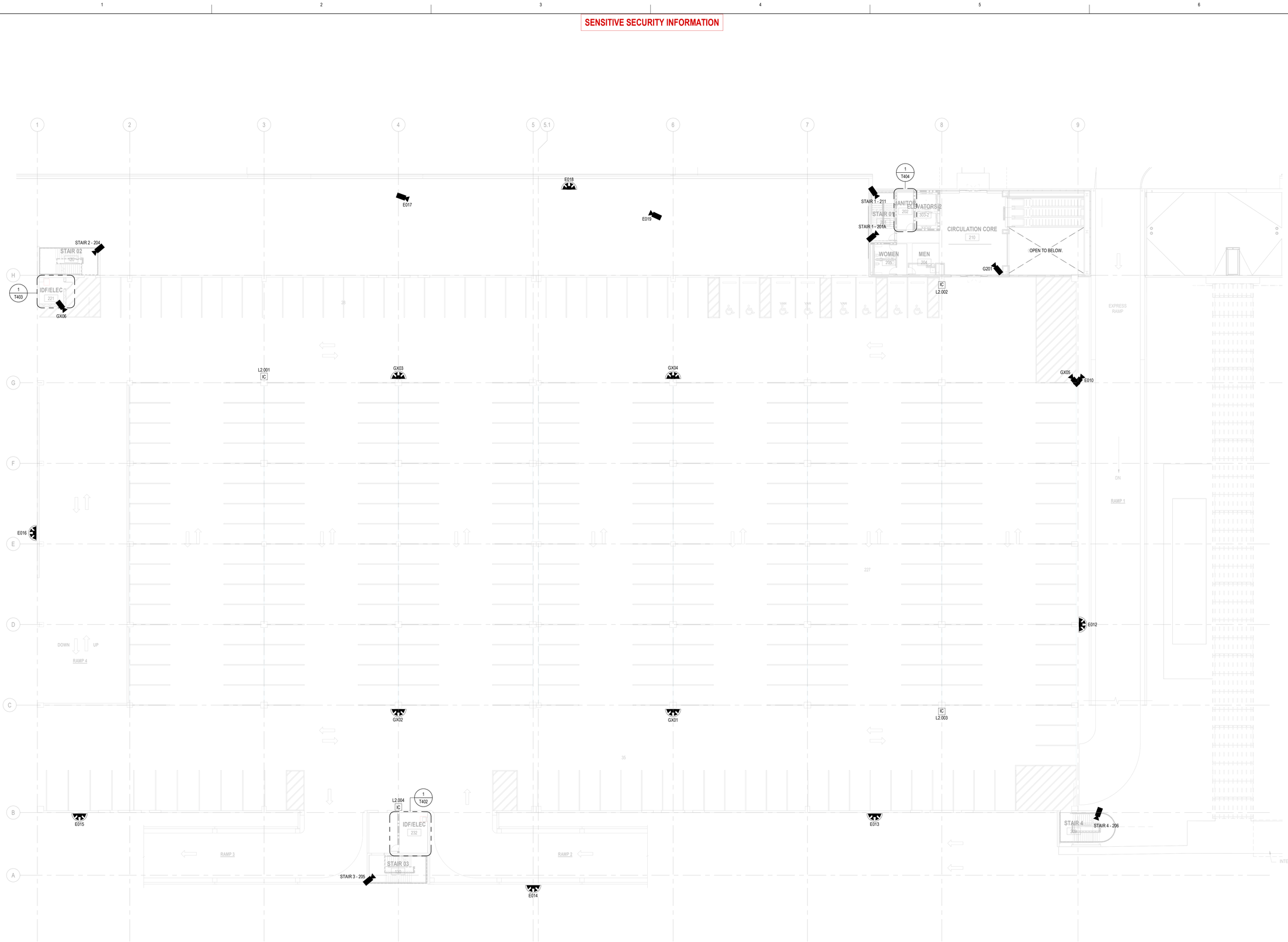
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OVERALL SECURITY PLAN - GROUND LEVEL

SHEET ID:
TY101

PROJECT STATUS:
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SENSITIVE SECURITY INFORMATION



PN

N

1 SECURITY FLOOR PLAN - LEVEL 2

SCALE: 1/16" = 1'-0"

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16 0 16 32

SCALE: 1/16" = 1'-0"

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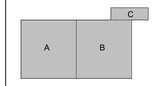
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PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN



REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: JAP
DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
2003-0070-006
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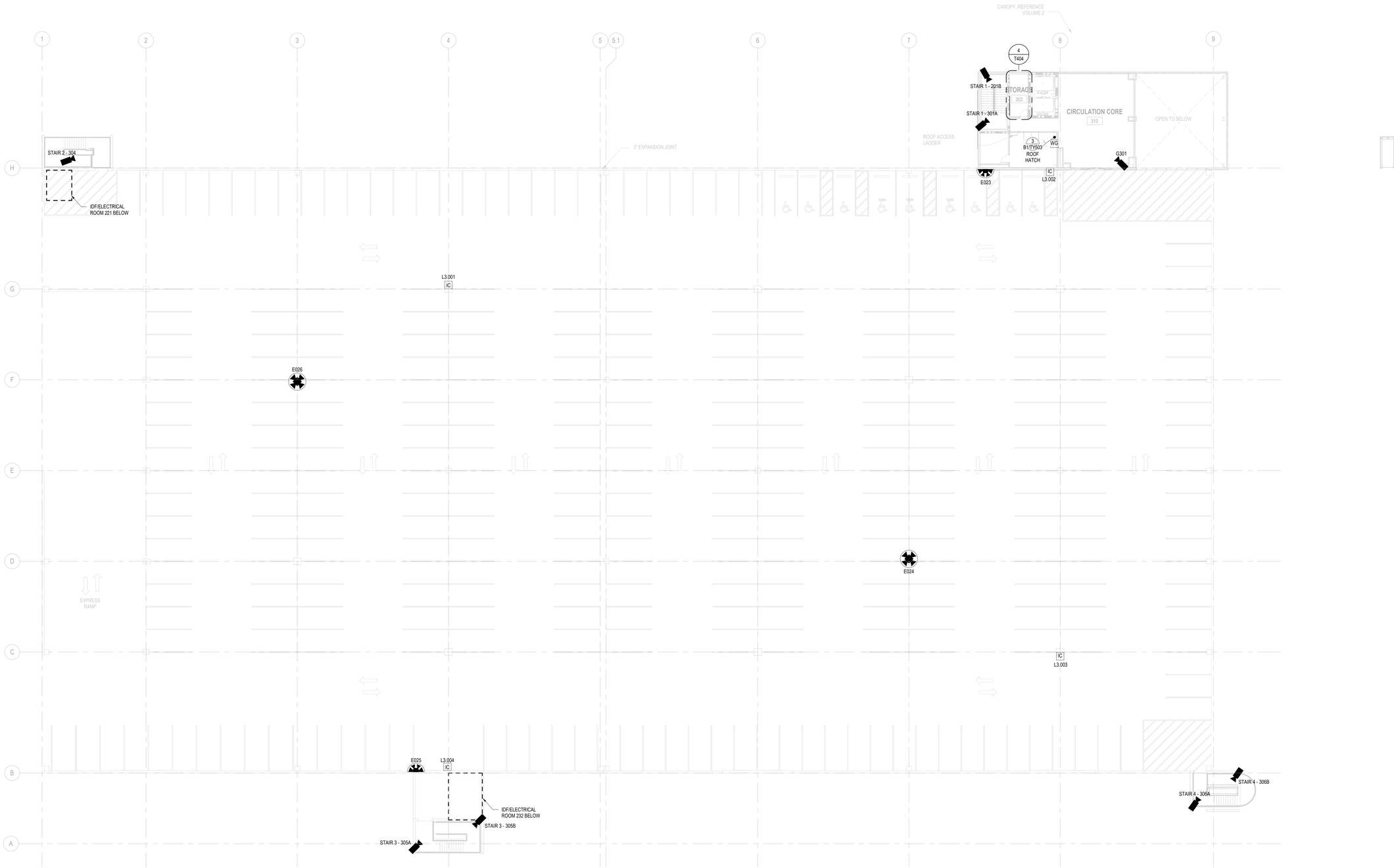
SEAL:

SHEET TITLE:
OVERALL SECURITY PLAN - 2ND LEVEL

SHEET ID:
TY102

PROJECT STATUS:
100% BID SET

SENSITIVE SECURITY INFORMATION



PN

1 SECURITY FLOOR PLAN - LEVEL 3

SCALE: 1/16" = 1'-0"

16 0 16 32

SCALE: 1/16" = 1'-0"

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F-0493 * C-28

Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

KEY PLAN

C
A B

REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED:	03/14/2025
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DRAWN BY:	RJF
DESIGNED BY:	RJF

PROJECT NUMBER:
2003-0070-006

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SEAL:

SHEET TITLE:
OVERALL SECURITY PLAN - 3RD LEVEL

SHEET ID:
TY103

PROJECT STATUS:
100% BID SET

3/14/2025 8:40:56 PM Autodesk Docs://I003007\0004_ILM TO\4 Rdwy Inf Improv Design\2003007\0006_ILM_TO6_Parking Garage and Shuttle Plaza_T_R24.rvt

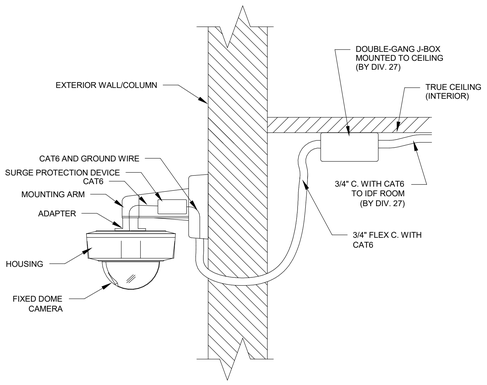
SENSITIVE SECURITY INFORMATION

NOTES:

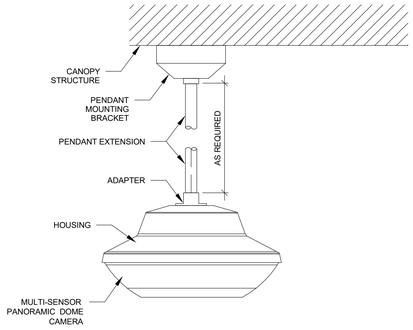
1. THESE DETAILS ARE SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. THEY ARE INTENDED TO ILLUSTRATE TYPICAL EQUIPMENT MOUNTING AND GENERAL CONDITIONS.
2. REFER TO THE SECURITY CAMERA SCHEDULE FOR ADDITIONAL INFORMATION SPECIFIC TO EACH CAMERA LOCATION INCLUDING THE AUTOMATIC CUE UP ASSOCIATED WITH SPECIFIC SECURITY EVENTS.

KEY NOTES:

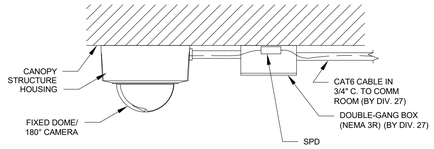
1. MOUNT UNITS TO PRECAST STRUCTURE USING SHALLOW WALL ANCHORS, COORDINATE REQUIREMENTS WITH THE PRECAST CONTRACTOR. PRIOR TO DRILLING, USE A NON-DESTRUCTIVE MEANS (IE. GPR) TO LOCATE EXISTING REINFORCING STEEL.



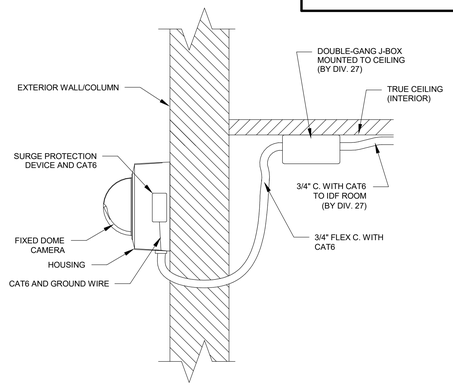
9 FIXED DOME - EXTERIOR WALL/COLUMN
SCALE: NONE



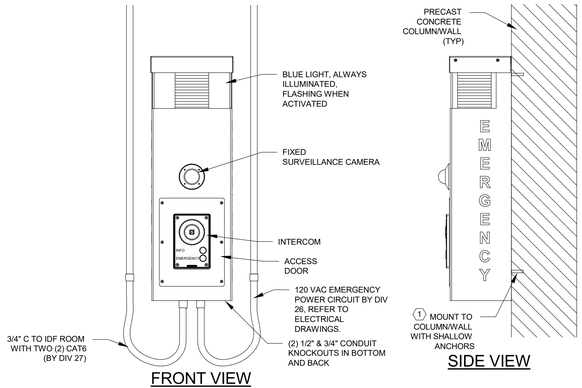
10 FIXED 360° - PENDANT MOUNTED
SCALE: NONE



11 FIXED DOME/180° - CEILING MOUNTED
SCALE: NONE

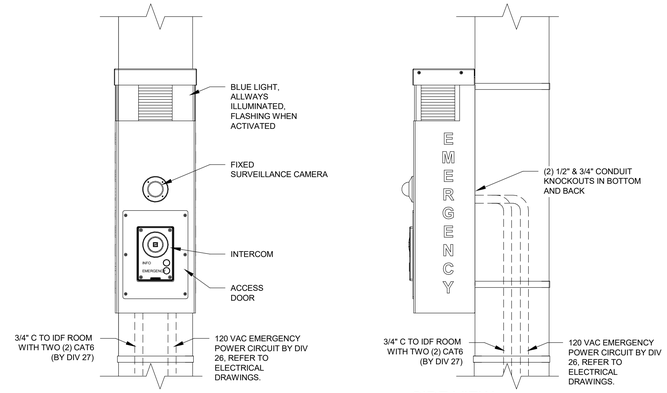


12 FIXED DOME/180° - EXTERIOR WALL/COLUMN
SCALE: NONE



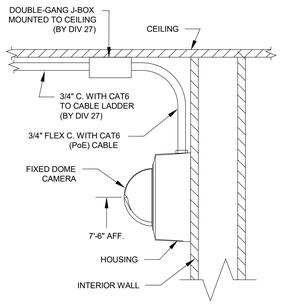
FRONT VIEW SIDE VIEW

BASIS OF DESIGN: THE BASIS OF DESIGN AS SHOWN IS EMERGENCY COMMUNICATION WALL UNIT MODEL 1603 AS MANUFACTURED BY ZENITEL. PROVIDE UNITS WITH THE FOLLOWING FEATURES: INTEGRATED VIDEO INTERCOM, AND BLUE LIGHT ALARM. COORDINATE ALL FEATURES AND FINISHES WITH THE OWNER. INTEGRATE INTERCOM WITH UNITS INSTALLED DURING PREVIOUS PHASE OF WORK.

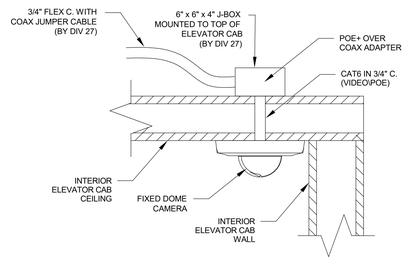


FRONT VIEW SIDE VIEW

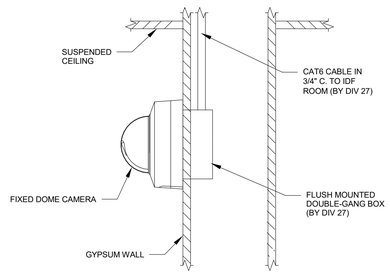
BASIS OF DESIGN: THE BASIS OF DESIGN AS SHOWN IS EMERGENCY COMMUNICATION WALL UNIT MODEL 1603 AS MANUFACTURED BY ZENITEL. PROVIDE UNITS WITH THE FOLLOWING FEATURES: INTEGRATED VIDEO INTERCOM, AND BLUE LIGHT ALARM. COORDINATE ALL FEATURES AND FINISHES WITH THE OWNER. INTEGRATE INTERCOM WITH UNITS INSTALLED DURING PREVIOUS PHASE OF WORK.



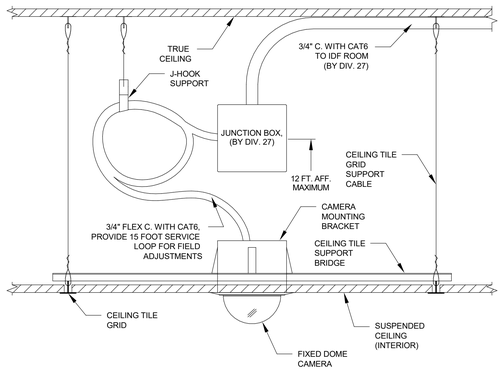
5 FIXED DOME - INTERIOR WALL
SCALE: NONE



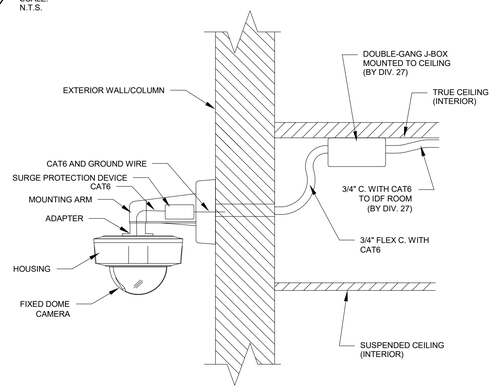
6 ELEVATOR SURVEILLANCE CAMERA (TYP.)
SCALE: NONE



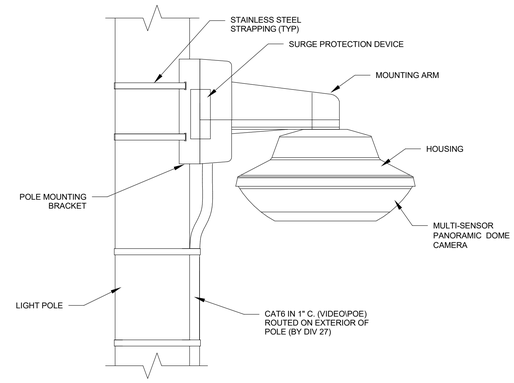
1 FIXED DOME - INTERIOR WALL
SCALE: NONE



2 FIXED DOME - SUSPENDED CEILING
SCALE: NONE



3 FIXED DOME - EXTERIOR WALL
SCALE: NONE



4 FIXED DOME - EXTERIOR POLE
SCALE: N.T.S.

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Hartranft Lighting Design

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SEAL:

SHEET TITLE:
SECURITY DETAILS

SHEET ID:
TY501

PROJECT STATUS:
100% BID SET

3/14/2025 8:40:56 PM Autodesk Docs://10030070004_ILM TOH Rdwy Inf Improv Design/2003070006_ILM_TOH_Parking Garage and Shuttle Plaza_T_R24.rvt

SENSITIVE SECURITY INFORMATION

NOTES:

1. CAMERA NUMBERS LISTED HEREIN INDICATE CAMERA DESIGNATIONS AS SHOWN ON THE COMMUNICATIONS AND SECURITY FLOOR PLANS. FINAL CAMERA NUMBERS FOR SYSTEM CONFIGURATION AND PROGRAMMING TO BE DETERMINED BY AIRPORT SECURITY.
2. REFER TO SHEET T501 FOR TYPICAL CAMERA MOUNTING DETAILS.
3. FINAL CAMERA LOCATIONS, FIELDS OF VIEW, MOUNTING HARDWARE, AND HOUSINGS TO BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
4. ALL CAMERA PRESET POSITIONS AND AUTOMATIC CUE-UP UPON DESIGNATED EVENTS TO BE REVIEWED AND APPROVED BY AIRPORT SECURITY DURING SYSTEM PROGRAMMING PRIOR TO FINAL ACCEPTANCE.
5. FINAL CAMERA MODELS AND LENS FOCAL LENGTHS TO BE FIELD VERIFIED BY THE CONTRACTOR AND REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

SURVEILLANCE CAMERA SCHEDULE

CAMERA NO.	MANUFACTURER & MODEL	DESCRIPTION	LENS	SHEET NO.	LOCATION	MOUNTING HEIGHT	MOUNT	HOUSING	MOUNTING DETAIL	EQUIPMENT ROOM
110A	AXIS P3268-LV	8 MP FIXED	4.3 - 8.6 mm	TY101	CIRCULATION CORE	10'-0"	WALL	INTERIOR	1/TY501	IDF/ELEC 102
110B	AXIS P3268-LV	8 MP FIXED	4.3 - 8.6 mm	TY101	CIRCULATION CORE	10'-0"	WALL	INTERIOR	1/TY501	IDF/ELEC 102
110C	AXIS P3268-LV	8 MP FIXED	4.3 - 8.6 mm	TY101	CIRCULATION CORE	10'-0"	WALL	INTERIOR	1/TY501	IDF/ELEC 102
110D	AXIS P3268-LV	8 MP FIXED	4.3 - 8.6 mm	TY101	STAIR 1 - 1ST LEVEL	10'-0"	WALL	INTERIOR	1/TY501	IDF/ELEC 102
E010	AXIS-P3268-LVE	8 MP FIXED	4.3-8.6 mm	TY100/TY102	WESTSIDE EXTERIOR - 2ND LEVEL	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 202
E011	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY101	WESTSIDE ENTRANCE RAMP	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 102
E012	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY102	WESTSIDE EXTERIOR - 2ND LEVEL	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 102
E013	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100	NORTH EXTERIOR - 2ND LEVEL	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 232
E014	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY102	NORTHSIDE ENTRANCE RAMP	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 232
E015	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY102	NORTH EXTERIOR - 2ND LEVEL	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 232
E016	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY102	EASTSIDE EXTERIOR - 2ND LEVEL	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 221
E017	AXIS P3268-LVE	8 MP FIXED	4.3-8.6 mm	TY100/TY102	WALKWAY RAMP CANOPY	10'-0"	CEILING	EXTERIOR	11/TY501	IDF/ELEC 102
E018	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY102	WALKWAY RAMP CANOPY	10'-0"	CEILING	EXTERIOR	11/TY501	IDF/ELEC 102
E019	AXIS P3268-LVE	8 MP FIXED	4.3-8.6 mm	TY100/TY102	WALKWAY RAMP CANOPY	10'-0"	CEILING	EXTERIOR	11/TY501	IDF/ELEC 102
E020	AXIS P3737-PLE	20 MP - (4) 5 MP FIXED	3.2-8.1 mm	TY100	WEST BUS SHELTER - SECURITY POLE	10'-0"	POLE	EXTERIOR	1/TY504	IDF/ELEC 102
E021	AXIS P3737-PLE	20 MP - (4) 5 MP FIXED	3.18-8.12 mm	TY100/TY101	WALKWAY CANOPY	10'-0"	CEILING	EXTERIOR	10/TY501	IDF/ELEC 102
E022	AXIS P3737-PLE	20 MP - (4) 5 MP FIXED	3.18-8.12 mm	TY100/TY101	WALKWAY CANOPY	10'-0"	CEILING	EXTERIOR	10/TY501	IDF/ELEC 102
E023	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY103	GARAGE PARKING DECK LEVEL 3	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 202
E024	AXIS P3737-PLE	20 MP - (4) 5 MP FIXED	3.2-8.1 mm	TY100/TY103	GARAGE PARKING DECK LEVEL 3	10'-0"	POLE	EXTERIOR	4/TY501	IDF/ELEC 232
E025	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY100/TY103	GARAGE PARKING DECK LEVEL 3	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 232
E026	AXIS P3737-PLE	20 MP - (4) 5 MP FIXED	3.2-8.1 mm	TY100/TY103	GARAGE PARKING DECK LEVEL 3	10'-0"	POLE	EXTERIOR	4/TY501	IDF/ELEC 221
E027	AXIS P3737-PLE	20 MP - (4) 5 MP FIXED	3.2-8.1 mm	TY100	SOUTH BUS SHELTER - SECURITY POLE	10'-0"	POLE	EXTERIOR	1/TY504	EX COMM ENCL
ELEV01	AXIS M3086-V	4 MP FIXED	2.4mm	TY101	ELEVATOR CAB	8'-0"	CEILING	INTERIOR	6/TY501	IDF/ELEC 102
ELEV02	AXIS M3086-V	4 MP FIXED	2.4mm	TY101	ELEVATOR CAB	8'-0"	CEILING	INTERIOR	6/TY501	IDF/ELEC 102
G201	AXIS P3268-LV	8 MP FIXED	4.3-8.6 mm	TY102	ELEVATOR LOBBY	10'-0"	CEILING	INTERIOR	2/TY501	IDF/ELEC 202
G301	AXIS P3268-LV	8 MP FIXED	4.3-8.6 mm	TY103	ELEVATOR LOBBY	10'-0"	CEILING	INTERIOR	2/TY501	IDF/ELEC 202
GX01	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY102	GARAGE PARKING DECK LEVEL 2	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 232
GX02	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY102	GARAGE PARKING DECK LEVEL 2	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 232
GX03	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY102	GARAGE PARKING DECK LEVEL 2	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 221
GX04	AXIS Q3819-PVE	14 MP - (4) 5 MP FIXED	(4) 5.89 mm	TY102	GARAGE PARKING DECK LEVEL 2	10'-0"	WALL	EXTERIOR	9/TY501	IDF/ELEC 202
GX05	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY102	GARAGE PARKING DECK LEVEL 2	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 202
GX06	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY102	GARAGE PARKING DECK LEVEL 2	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 221
L0.001	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY100	GARAGE WALKWAY PLAZA	4'-6"	POLE	EXTERIOR	1/TY504	IDF/ELEC 102
L0.002	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY102	NORTH BUS SHELTER - SECURITY POLE	4'-6"	POLE	EXTERIOR	1/TY504	EX COMM ENCL
L2.001	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY102	GARAGE PARKING DECK LEVEL 2	4'-6"	WALL	EXTERIOR	7/TY501	IDF/ELEC 221
L2.002	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY102	GARAGE PARKING DECK LEVEL 2	4'-6"	WALL	EXTERIOR	7/TY501	IDF/ELEC 202
L2.003	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY102	GARAGE PARKING DECK LEVEL 2	4'-6"	WALL	EXTERIOR	7/TY501	IDF/ELEC 232
L2.004	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY102	GARAGE PARKING DECK LEVEL 2	4'-6"	WALL	EXTERIOR	7/TY501	IDF/ELEC 232
L3.001	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY103	GARAGE PARKING DECK LEVEL 3	4'-6"	POLE	EXTERIOR	8/TY501	IDF/ELEC 221
L3.002	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY103	GARAGE PARKING DECK LEVEL 3	4'-6"	WALL	EXTERIOR	7/TY501	IDF/ELEC 202
L3.003	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY103	GARAGE PARKING DECK LEVEL 3	4'-6"	POLE	EXTERIOR	8/TY501	IDF/ELEC 232
L3.004	AXIS F4105-SLRE	2 MP FIXED	2.8 mm	TY103	GARAGE PARKING DECK LEVEL 3	4'-6"	WALL	EXTERIOR	7/TY501	IDF/ELEC 232
STAIR 1 - 201A	AXIS P3268-LV	8 MP FIXED	4.3 - 8.6 mm	TY102	STAIR 1 - 2ND LEVEL	10'-0"	WALL	INTERIOR	1/TY501	IDF/ELEC 202
STAIR 1 - 201B	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY103	STAIR 1 - 2ND LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 202
STAIR 1 - 211	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY102	STAIR 1 - 1ST LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 202
STAIR 1 - 301A	AXIS P3268-LV	8 MP FIXED	4.3 - 8.6 mm	TY103	STAIR 1 - 3RD LEVEL	10'-0"	WALL	INTERIOR	1/TY501	IDF/ELEC 202
STAIR 2 - 204	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY102	STAIR 2 - 2ND LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 221
STAIR 2 - 212	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY101	STAIR 2 - 1ST LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 221
STAIR 2 - 304	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY103	STAIR 2 - 3RD LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 221
STAIR 3 - 130	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY101	STAIR 4 - 2ND LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 232
STAIR 3 - 131	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY101	STAIR 3 - 1ST LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 232
STAIR 3 - 205	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY102	STAIR 3 - 2ND LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 232
STAIR 3 - 305A	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY103	STAIR 3 - 3RD LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 232
STAIR 3 - 305B	AXIS P3268-LV	8 MP FIXED	4.3-8.6 mm	TY103	STAIR 3 - 3RD LEVEL	10'-0"	CEILING	INTERIOR	2/TY501	IDF/ELEC 232
STAIR 4 - 107	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY101	STAIR 4 - 1ST LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 232
STAIR 4 - 206	AXIS-P3268-LVE	8 MP FIXED	4.3 - 8.6 mm	TY102	STAIR 4 - 2ND LEVEL	10'-0"	WALL	EXTERIOR	12/TY501	IDF/ELEC 232
STAIR 4 - 306A	AXIS P3268-LVE	8 MP FIXED	4.3-8.6 mm	TY103	STAIR 4 - 3RD LEVEL	10'-0"	CEILING	EXTERIOR	11/TY501	IDF/ELEC 232
STAIR 4 - 306B	AXIS P3268-LVE	8 MP FIXED	4.3-8.6 mm	TY103	STAIR 4 - 3RD LEVEL	10'-0"	CEILING	EXTERIOR	11/TY501	IDF/ELEC 232

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NO.	DESCRIPTION	DATE

DATE ISSUED: 03/14/2025
REVIEWED BY: JAP
DRAWN BY: RJF
DESIGNED BY: RJF
PROJECT NUMBER:
2003-0070-006
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SEAL:

SHEET TITLE:
SECURITY SCHEDULE

SHEET ID:
TY601

PROJECT STATUS:
100% BID SET

WARNING: This record contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a "need to know," as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. government agencies, public disclosure is governed by 5 USC 552 and 49 CFR parts 15 and 1520.

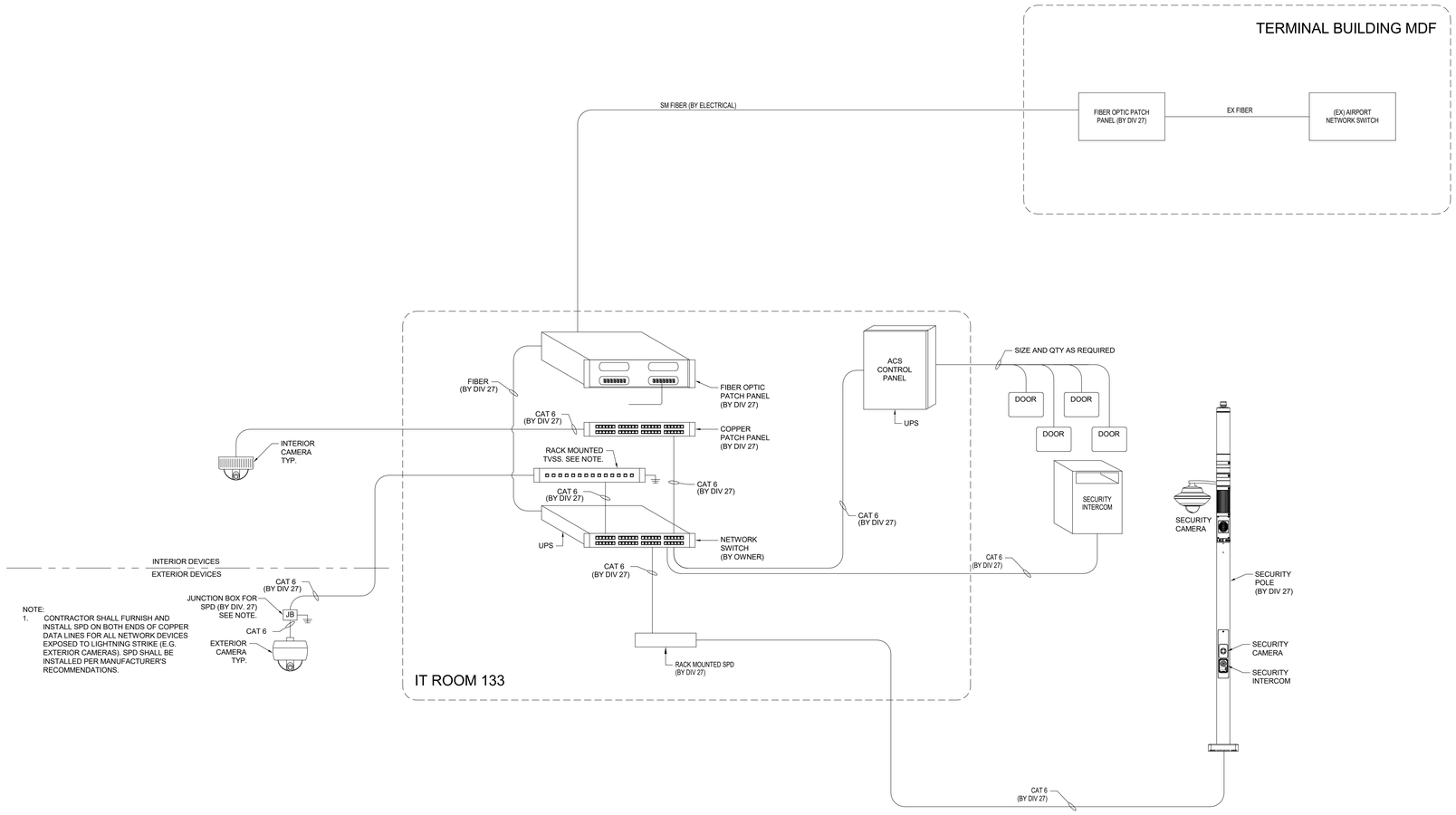
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SENSITIVE SECURITY INFORMATION

NOTES:

1. THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. IT IS INTENDED TO ILLUSTRATE TYPICAL EQUIPMENT LAYOUTS FOR NEW AND EXISTING SYSTEMS.
2. ALL EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED INCLUDING ALL SOFTWARE AND LICENSES REQUIRED FOR A COMPLETE AND WORKING SYSTEM AS DESCRIBED IN THE WRITTEN SPECIFICATIONS.



1 SECURITY BLOCK DIAGRAM

SCALE: 12" = 1'-0"

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Hartranft Lighting Design

ILM

PROJECT TITLE:
ILM AIRPORT BOULEVARD AND PARKING IMPROVEMENTS - PHASE II

PROJECT ADDRESS:
1740 AIRPORT BLVD.
WILMINGTON, NC 28405

REVISIONS

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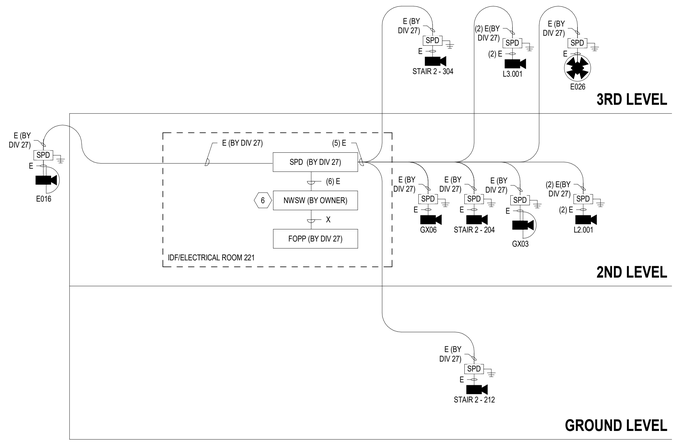
SEAL:

SHEET TITLE:
SECURITY BLOCK DIAGRAM

SHEET ID:
TY701

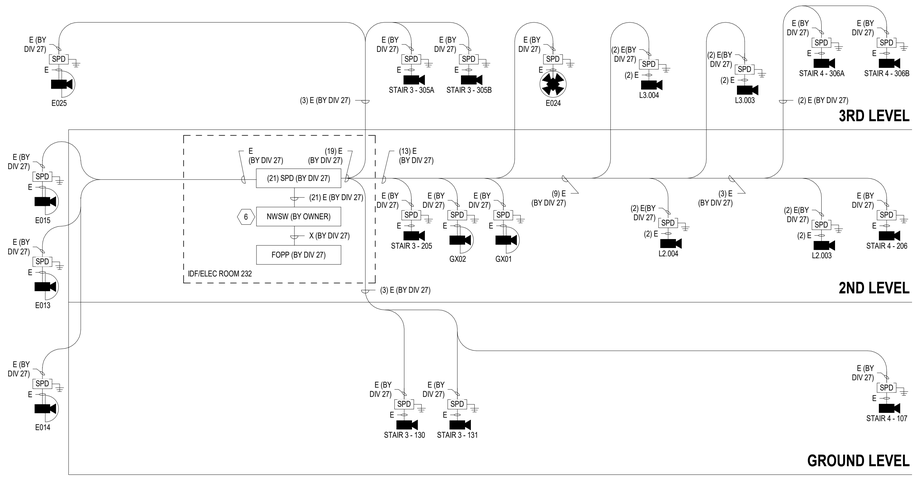
PROJECT STATUS:
100% BID SET

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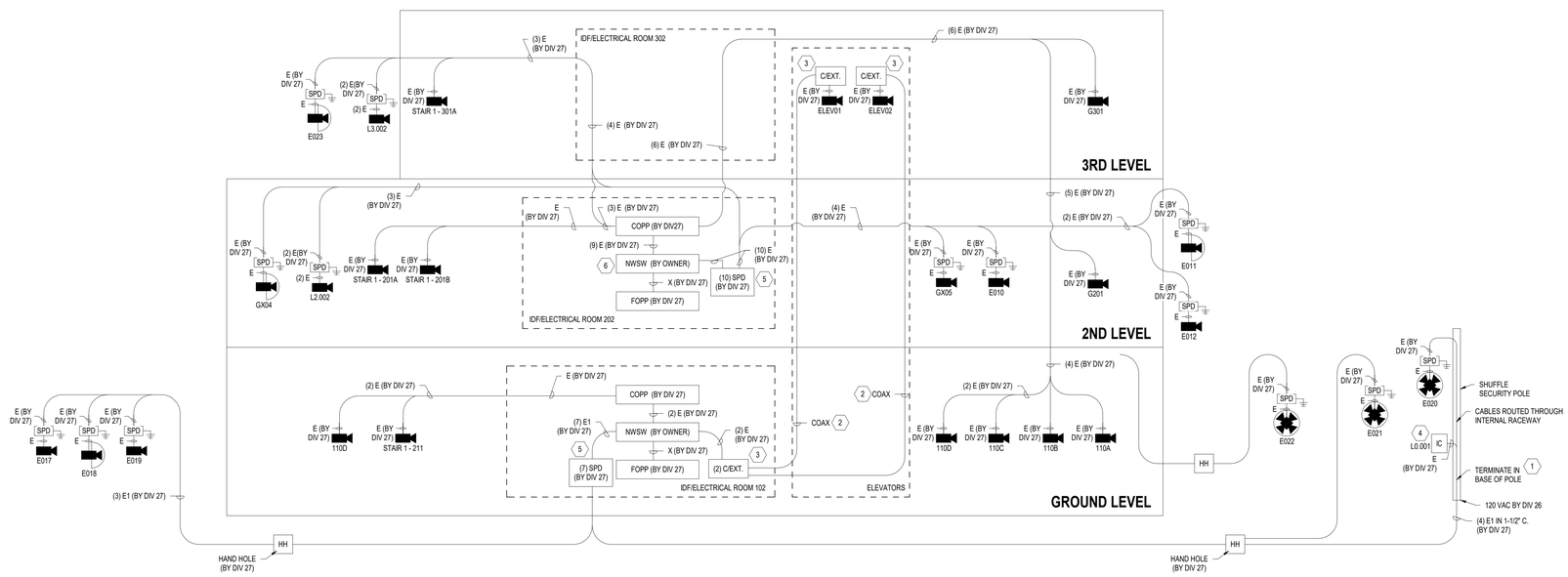
3 IDF 221 SECURITY INTERCONNECT DIAGRAM

SCALE: 1/16" = 1'-0"



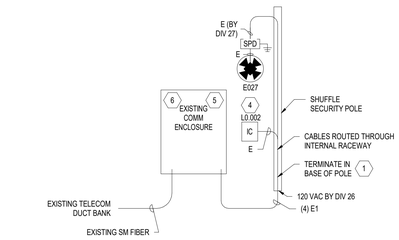
4 IDF 232 SECURITY INTERCONNECT DIAGRAM

SCALE: 1/16" = 1'-0"



1 IDF 102 SECURITY INTERCONNECT DIAGRAM

SCALE: 1/16" = 1'-0"



2 NORTH BUS SHELTER INTERCONNECT DIAGRAM

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

NOTES:

1. THIS DIAGRAM IS SCHEMATIC IN NATURE AND MAY NOT SHOW ALL EQUIPMENT OR CONNECTIONS REQUIRED. CONTRACTOR SHALL PROVIDE A COMPLETE AND WORKING SYSTEM AS SHOWN IN THE DRAWINGS AND DESCRIBED IN THE WRITTEN SPECIFICATIONS.
2. ALL EQUIPMENT, DEVICES AND CABLING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. REFER TO RISER DIAGRAMS FOR ADDITIONAL INFORMATION.
4. REFER TO THE SITE PLAN AND FLOOR PLANS FOR TERMINATION LOCATIONS.
5. REFER TO T SERIES PLANS DATA CABLES AND CONDUITS PROVIDED BY THE COMMUNICATIONS (DIV 27) CONTRACTOR. COORDINATE CAMERA OUTLET INSTALLATION WITH THE COMMUNICATIONS CONTRACTOR.
6. ALL NETWORK SWITCHES SHALL BE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR. COORDINATE WORK WITH THE OWNER'S IT REPRESENTATIVE.
7. COORDINATE ALL FINAL CAMERA LOCATIONS WITH THE OWNER PRIOR TO INSTALLATION.

KEY NOTES: ⬡

1. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR TERMINATION AND GROUNDING REQUIREMENTS. COORDINATE ALL WORK WITH THE ELECTRICAL AND CIVIL CONTRACTORS.
2. ELEVATOR CAB VIDEO SIGNALS SHALL BE TRANSMITTED OVER COAX CABLES WITHIN ELEVATOR TRAVELING CABLE. COORDINATE WITH ELEVATOR INSTALLER.
3. PROVIDE ETHERNET OVER COAX EXTENDER KIT, REFER TO WRITTEN SPECIFICATIONS.
4. IP ADDRESSABLE EMERGENCY (BLUE LIGHT) INTERCOM STATIONS SHALL BE MOUNTED TO SECURITY POLES. INTERCOM STATIONS SHALL BE PROGRAMMED TO CALL THE AIRPORT COMM CENTER.
5. PANEL MOUNT SURGE PROTECTION DEVICE IN EXISTING COMM ENCLOSURE SHALL BE PROVIDED BY DIV 27. REFER TO DETAIL 4 ON SHEET T503.
6. NETWORK DEVICE(S) (ETHERNET SWITCH, MEDIA CONVERTERS) SHALL BE OWNER FURNISHED AND CONTRACTOR INSTALLED. CONTRACTOR SHALL COORDINATE WITH THE OWNER'S IT REPRESENTATIVE.

CABLE LEGEND

ID	DESCRIPTION	DEVICE
A	9-22 AWG SHIELDED	CARD READER
B	4-22 AWG UNSHIELDED	MISC. INPUT (DPS/REX/TD)
C	4-14 AWG UNSHIELDED	ANNUNCIATOR (HORN/STROBE)
D	2-14 AWG UNSHIELDED	MISC. OUTPUT (LOCK) LENGTH < 100'
D	2-12 AWG UNSHIELDED	MISC. OUTPUT (LOCK) LENGTH < 200'
E	CATEGORY 6 UTP	ETHERNET (VOICE/DATA/VIDEO)
E1	GEL FILLED CATEGORY 6 UTP	ETHERNET (VOICE/DATA/VIDEO) - U/G WET LOCATIONS
E2	GEL FILLED CATEGORY 6 STP	ETHERNET (VOICE/DATA/VIDEO) - U/G WET LOCATIONS
F	2-18 AWG UNSHIELDED	FIRE ALARM RELAY AND MISC. I/O
G	8-22 AWG UNSHIELDED	GATE OPERATOR I/O
K	KEYBOARD/VIDEO/MOUSE	KVM SWITCH CONTROL CABLE
S	2-12 AWG UNSHIELDED	UNSHIELDED SPEAKER CABLE
T	RG-6/U COAX	COAX CABLE TELEVISION
V	22 AWG UTP	VOLUME CONTROL
X	SINGLE-MODE FIBER	FIBER OPTIC PATCH CABLE

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SEAL:

SHEET TITLE:
SECUTITY INTERCONNECT DIAGRAMS

SHEET ID:
TY702

PROJECT STATUS:
100% BID SET

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