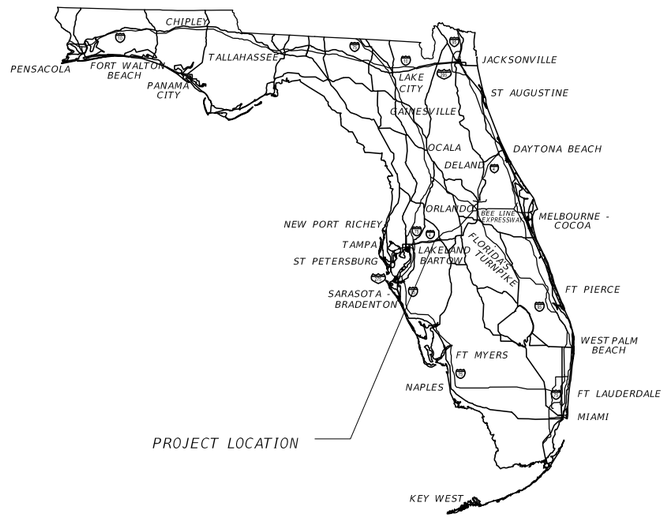
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 437300-1-52-01
FINANCIAL PROJECT ID 437300-2-52-01
_POLK_COUNTY (16470)

SUNTRAX TEST FACILITY

ARCHITECTURAL PLANS
OPERATIONS AND STORAGE BUILDINGS



INDEX OF ARCHITECTURAL PLANS

SHEET NO.	SHEET DESCRIPTION
ARCHITECTURAL	
AA1-000	MASTER KEY SHEET
AA1-001	OPERATIONS BUILDING KEY SHEET / INDEX OF DRAWINGS
AA2-001	STORAGE BUILDING KEY SHEET / INDEX OF DRAWINGS

REVISIONS

KEY SHEET REVISIONS	
DATE	DESCRIPTION

ARCHITECTURAL PLANS
ARCHITECT OF RECORD

GARY KRANSTON, RA NO 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
T. 407 331 6116
F. 407 331 4566
WWW.BAEONLINE.COM
VENDOR NO. 59-3045321
BPE CA NO. 5898
BPA & ID CA NO. AAC002023
CONSULTANT CONTRACT NO. C-9L54

FDOT PROJECT MANAGER
PATRICK M. MUENCH
GEC PROJECT MANAGER
JOSH PEDERSEN, P.E.

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E8Q39	17	AA1-000

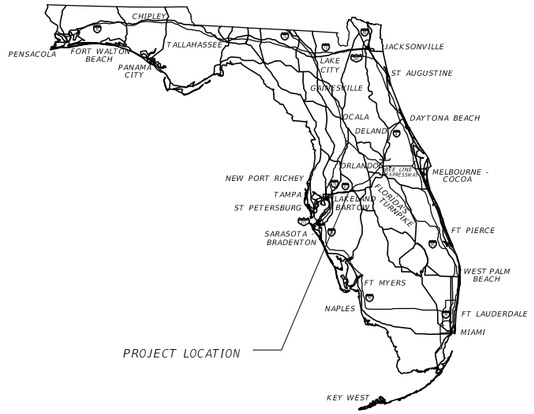
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 437300-1-52-01
FINANCIAL PROJECT ID 437300-2-52-01
_POLK_COUNTY (16470)
SUNTRAX TEST FACILITY

OPERATIONS BUILDING



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AE1-710 DETAILS ELECTRICAL
AE1-711 DETAILS ELECTRICAL
AE1-712 DETAILS ELECTRICAL
AE1-713 DETAILS ELECTRICAL

REVISIONS

KEY SHEET REVISIONS	
DATE	DESCRIPTION

ARCHITECTURAL PLANS
ARCHITECT OF RECORD
GARY KRANSTON, RA NO 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
T. 407 331 6116
F. 407 331 4566
WWW.BAEONLINE.COM
VENDOR NO. 59-3045321
BPE CA NO. 5898
BPA & ID CA NO. AAC002023
CONSULTANT CONTRACT NO. C-9L54

FDOT PROJECT MANAGER
PATRICK M. MUENCH

GEC PROJECT MANAGER
JOSH PEDERSEN, P.E.

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CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E8Q39	17	AA1-001

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BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
CERTIFICATE OF AUTHORIZATION AAC002023
GARY KRANSTON, R.A. 11541

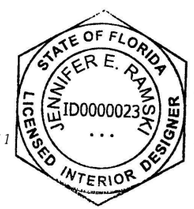
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SHEET NO.	SHEET TITLE
GENERAL SHEETS	
AA1-002	SIGNATURE SHEET 1 OF 2
AA1-003	SIGNATURE SHEET 2 OF 2
ARCHITECTURAL SHEETS	
AA1-000	MASTER KEY SHEET
AA1-001	KEY SHEET / INDEX OF DRAWINGS
AA1-004	MATERIALS SYMBOLS & ABBREVIATIONS
AA1-005	SYMBOL LEGEND & NOTES
AA1-006	RESTROOM ACCESSIBILITY DETAILS
AA1-007	PARTITION NOTES AND DETAIL
AA1-008	PARTITION DETAILS
AA1-009	FLUID APPLIED WATERPROOFING DETAILS
AA1-100	ARCHITECTURAL SITE PLAN
AA1-100.1	LIFE SAFETY PLAN
AA1-101	OVERALL FLOOR PLAN
AA1-102	ENLARGED FLOOR PLAN
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AA1-104	ENLARGED FLOOR PLAN
AA1-105	ENLARGED FLOOR PLAN
AA1-106	REFLECTED CEILING PLAN
AA1-107	ENLARGED RCP-TEC 1
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AA1-109	ENLARGED RCP-COMMON AREAS
AA1-110	ENLARGED RCP-FTE ADMIN.
AA1-111	ROOF PLAN
AA1-112	INTERIOR FINISH PLAN
AA1-113	INTERIOR PATTERN PLAN
AA1-201	SOUTH ELEVATION
AA1-202	WEST ELEVATION
AA1-203	NORTH ELEVATION
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AA1-301	BUILDING SECTION
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AA1-504	SUNSHADE DETAILS
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AA1-507	SKYLIGHT DETAILS
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AA1-509	MCM PANEL DETAILS
AA1-600	FINISH SCHEDULE
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AA1-603	DOOR SCHEDULE & TYPES
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AA1-606	SIGNAGE STANDARDS
AA1-607	SIGNAGE SCHEDULE
AA1-608	MONUMENT SIGN
AA1-609	BUILDING SIGNAGE
AA1-901	PERSPECTIVE VIEW



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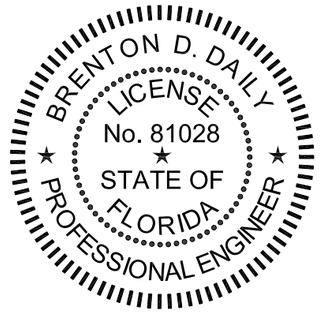


Jennifer E Ramski 2016.12.05 15:02:38 -05'00'

RAMSKI & COMPANY, INC.
500 DELANY AVE, SUITE 301
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION. #IB-00011
JENNIFER RAMSKI, FL ID #0000023

THE ABOVE NAMED REGISTERED INTERIOR DESIGNER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G1-16.005, F.A.C.

SHEET NO.	SHEET TITLE
GENERAL SHEETS	
AA1-002	SIGNATURE SHEET 1 OF 2
INTERIORS SHEET	
AA1-114	FURNITURE PLAN



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BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
CERTIFICATE OF AUTHORIZATION. 5898
BRENTON D. DAILY, P.E. 81028

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET TITLE
GENERAL SHEETS	
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AS1-112	ENLARGED ROOF PLAN
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AS1-511	FRAMING DETAILS
AS1-512	FRAMING DETAILS
AS1-513	FRAMING DETAILS
AS1-514	FRAMING DETAILS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

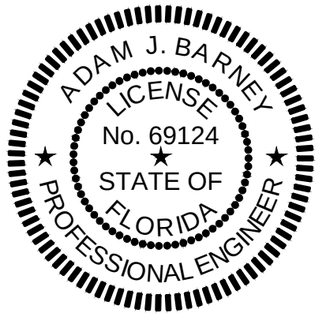
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

SIGNATURE SHEET 1 OF 2

SHEET NO. AA1-002



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Adam Barney
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JOSEPH, LAWRENCE AND CO
1180 HARWOOD AVE., SUITE 3000
ALTAMONTE SPRINGS, FL 32714
CERTIFICATE OF AUTHORIZATION. 28730
ADAM J. BARNEY, P.E. 69124

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET TITLE
GENERAL SHEETS	
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AM1-002	ABBREVIATIONS & GENERAL NOTES - MECHANICAL
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AM1-402	DETAILS - MECHANICAL
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AM1-407	DETAILS - MECHANICAL
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AM1-502	CONTROLS - MECHANICAL
AM1-503	CONTROLS - MECHANICAL
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AP1-401	SCHEDULES - PLUMBING
AP1-402	SCHEDULES - PLUMBING
AP1-501	DETAILS - PLUMBING



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Blake Suddeth
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JOSEPH, LAWRENCE AND CO
1180 HARWOOD AVE., SUITE 3000
ALTAMONTE SPRINGS, FL 32714
CERTIFICATE OF AUTHORIZATION. 28730
BLAKE LAWRENCE SUDDETH, P.E. 69060

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET TITLE
GENERAL SHEETS	
AA1-003	SIGNATURE SHEET 2 OF 2
ELECTRICAL	
AE1-001	SYMBOL LEGEND - ELECTRICAL
AE1-002	SYMBOL LEGEND - ELECTRICAL
AE1-003	GENERAL NOTES - ELECTRICAL
AE1-200	OVERALL FLOOR PLAN - POWER
AE1-201	PARTIAL FLOOR PLAN - POWER
AE1-202	PARTIAL FLOOR PLAN - POWER
AE1-203	PARTIAL FLOOR PLAN - POWER
AE1-204	PARTIAL FLOOR PLAN - POWER
AE1-205	OVERALL ROOF PLAN - POWER
AE1-206	OVERALL ROOF PLAN - LIGHTNING PROTEC.
AE1-207	ENLARGED FLOOR PLANS - POWER & SYST.
AE1-208	SECTION VIEWS - ELECTRICAL
AE1-300	OVERALL FLOOR PLAN - SYSTEMS
AE1-301	PARTIAL FLOOR PLAN - SYSTEMS
AE1-302	PARTIAL FLOOR PLAN - SYSTEMS
AE1-303	PARTIAL FLOOR PLAN - SYSTEMS
AE1-304	PARTIAL FLOOR PLAN - SYSTEMS
AE1-305	OVERALL ROOF PLAN - SYSTEMS
AE1-400	OVERALL FLOOR PLAN - LIGHTING
AE1-401	PARTIAL FLOOR PLAN - LIGHTING
AE1-402	PARTIAL FLOOR PLAN - LIGHTING
AE1-403	PARTIAL FLOOR PLAN - LIGHTING
AE1-404	PARTIAL FLOOR PLAN - LIGHTING
AE1-405	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE1-406	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE1-407	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE1-408	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE1-409	CALCULATIONS - PHOTOMETRICS
AE1-410	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE1-411	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE1-412	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE1-413	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE1-414	CALCULATIONS - PHOTOMETRICS - EMERGENCY
AE1-501	POWER RISER DIAGRAM
AE1-502	TELECOM. SYSTEM RISER DIAGRAM
AE1-503	FIRE ALARM RISER DIAGRAM
AE1-504	ACCESS CONTROL RISER DIAGRAM
AE1-505	CCTV ONE-LINE DIAGRAM
AE1-506	SMALL CONFERENCE ROOM A/V ONE-LINE DIAGRAM
AE1-507	TRAINING ROOM A/V ONE-LINE DIAGRAM
AE1-508	TESTING ROOM A/V ONE-LINE DIAGRAM
AE1-601	SCHEDULES - ELECTRICAL
AE1-602	SCHEDULES - ELECTRICAL
AE1-603	SCHEDULES - ELECTRICAL
AE1-604	SCHEDULES - ELECTRICAL
AE1-605	SCHEDULES - ELECTRICAL
AE1-606	SCHEDULES - ELECTRICAL
AE1-607	SCHEDULES - ELECTRICAL
AE1-608	SCHEDULES - ELECTRICAL
AE1-609	SCHEDULES - ELECTRICAL
AE1-610	SCHEDULES - ELECTRICAL
AE1-611	SCHEDULES - ELECTRICAL
AE1-612	ACCESS CONTROL SCHEDULE
AE1-613	CCTV MATRIX SCHEDULE
AE1-701	DETAILS ELECTRICAL
AE1-702	DETAILS ELECTRICAL
AE1-703	DETAILS ELECTRICAL
AE1-704	DETAILS ELECTRICAL
AE1-705	DETAILS ELECTRICAL
AE1-706	DETAILS ELECTRICAL
AE1-707	DETAILS ELECTRICAL
AE1-708	DETAILS ELECTRICAL
AE1-709	DETAILS ELECTRICAL
AE1-710	DETAILS ELECTRICAL
AE1-711	DETAILS ELECTRICAL
AE1-712	DETAILS ELECTRICAL
AE1-713	DETAILS ELECTRICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

SIGNATURE SHEET 2 OF 2

SHEET NO.
AA1-003

ABBREVIATIONS:

A	
A.A.R.	AUTOMATIC AIR RELEASE
A.R.V.	ABANDONED ROOF VENT
A/C	AIR-CONDITIONING UNIT
ACOUS.	ACOUSTIC
ADJ.	ADJUSTABLE
A.F.F.	ABOVE FINISH FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
ANT.	ANTENNA
ARCHT.	ARCHITECTURAL
B	
BD.	BOARD
B.U.R.	BUILT-UP ROOFING
BLDG.	BUILDING
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
BRKT.	BRACKET
C	
C.C.	CENTER TO CENTER
C.F.	COUNTERFLASHING
C.I.	CAST IRON
CAP.	CAPACITY
CEM.	CEMENT
CHKD.	CHECKERED
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CTSK.	COUNTERSINK
CU.	COPPER
D	
D.F.	DRINKING FOUNTAIN
D.L.	DEAD LOAD
D.S.	DOWNSPOUT
DET.	DETAIL
DFR.	DEFLECTOR
DIA.	DIAMETER
DIM.	DIMENSION
DWG.	DRAWING
E	
E.A.	EACH
E.C.	ELECTRICAL CONDUIT
E.F.	EXHAUST FAN
E.J.	EXPANSION JOINT
ELEV.	ELEVATION
EWC.	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
F	
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.O.	FRAMED OPENING
F.S.	FLUE STACK
FIN. FL.	FINISH FLOOR
FTG.	FOOTING
G	
G.I.	GALVANIZED IRON
G.S.	GRAVEL STOP
GA.	GAUGE
GALV.	GALVANIZED
GL	GLASS
GTR.	GUTTER
G.W.B.	GYPSUM WALL BOARD
H	
H.B.	HOSE BIB
H.M.	HOLLOW METAL
H.P.	HIGH POINT
HD.	HEAD
HGT.	HEIGHT
L	
L.G.	LONG
L.L.	LIVE LOAD
L.P.	LOW POINT
LAB.	LABELED
LAV.	LAVATORY
LBS.	POUNDS
M	
M.B.	MODIFIED BITUMEN
M.O.	MASONRY OPENING
M.T.	METAL THRESHOLD
MAR.	MARBLE
MAR.T.	MARBLE THRESHOLD
MIN.	MINIMUM
N	
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
O	
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.S.	OVERFLOW SCUPPER
OBS.	OBSCURE
OPNG.	OPENING
P	
PART.	PARTITION
PLBG.	PLUMBING
P.I.T.	PITCH PAN
P.J.	PANEL JOINT
PL.	PLATE
PLAS.	PLASTER
PNLS.	PANELS
P.P.	PIPE PENETRATION
PRELIM.	PRELIMINARY
PT.	POINT
R	
R.	RISER
R.D.	ROOF DRAIN
R.H.	ROOF HATCH
R.V.	ROOF VENT
R.W.L.	RAIN WATER LEADER
RAD.	RADIUS
REINF.	REINFORCING
REQ.	REQUIRED
RM.	ROOM
S	
S.B.	SPLASH BLOCK
S.F.	SUPPLY FAN
S.O.	SPILL-OUT
S.S.	STAINLESS STEEL
SH.	SHOWER
SECT.	SECTION
SHT.	SHEET
SKY.	SKYLIGHT
SL.	SLOPE
SP.LT.	SPOT LIGHT
SQ.	SQUARE
STD.	STANDARD
STL.	STEEL
T	
T&G	TONGUE & GROOVE
T.	TREAD
T.C.	TIN CLAD
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T.O.S.	TOP OF STEEL
TRANS.	TRANSOM
TYP.	TYPICAL
V	
V.	VINYL
V.I.F.	VERIFY IN FIELD
V.T.R.	VENT THRU ROOF
VERT.	VERTICAL
VEST.	VESTIBULE
W	
W.S.	WORKING SCUPPER
WD.	WOOD
WDW.	WINDOW

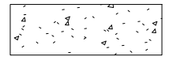
MATERIAL SYMBOLS:

EARTHWORK



EARTH/COMPACT FILL

CONCRETE



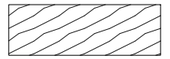
CONCRETE

MASONRY

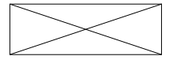


CONCRETE MASONRY

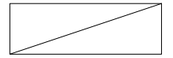
WOOD



FINISH

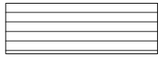


ROUGH



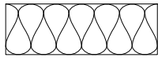
BLOCKING

GLASS

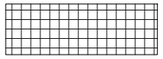


GLASS

INSULATION

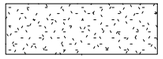


BATT/LOOSE FILL



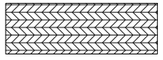
COMPOSITE RIGID

FINISHES



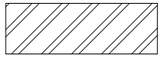
GYPSUM WALLBOARD

PLYWOOD



PLYWOOD

METAL



STEEL/OTHER METALS

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

MATERIALS SYMBOLS & ABBREVIATIONS

SHEET NO.
AA1-004

SYMBOL KEY:

101	DOOR SYMBOL	NUMBERED BY TYPE REFER TO SCHEDULE	XX	ACCESSORY TAG	XX — LOCATION OF NOTE APPLICATION; NOTE NUMBER	1 Ref / A101	ELEVATION REFERENCES	1 Ref — DIRECTION OF VIEW; A101 — SHEET NUMBER
1t	WINDOW SYMBOL	NUMBERED BY TYPE REFER TO SCHEDULE		DETAIL REFERENCES	XX — DETAIL AREA; SHEET NUMBER	1 SIM / A102	SECTION REFERENCES	DIRECTION OF VIEW; 1 SIM; A102 — SHEET NUMBER
W4 / a–b	WALL TAG	W4 / a–b — WALL TYPE	X X X X	INTERIOR ELEVATIONS	VIEW NUMBER; DIRECTION OF VIEW; SHEET NUMBER	XX	NOTE TAG	XX — LOCATION OF NOTE APPLICATION; NOTE NUMBER
0	GRID LINE TARGET	A,B,C, ETC. IN ONE DIRECTION 1,2,3, ETC. IN THE OTHER		LEVEL REFERENCE	Name / Elevation	XX	LEVEL CHANGE	XX — CHANGE IN LEVEL
Room Name / 101	ROOM TAG	Room Name / 101 — ROOM NUMBER	6:12	ROOF SLOPE ARROW	SLOPE; SLOPE DIRECTION	1	REVISION MARK	REV. LOCATION; 1 — REV. NUMBER
XX	TITLE	1 View Name — DRAWING NUMBER; 1/8" = 1'-0" — SCALE						

GENERAL NOTES:

1. WORK SHALL COMPLY WITH APPLICABLE CODES INCLUDING LOCAL CODES AND MODIFICATIONS, AND THE 2014 FLORIDA BUILDING CODE WITH EDITS AND AMENDMENTS.

2. MEASUREMENTS DERIVED BY THE GENERAL CONTRACTOR BY MANUALLY SCALING THE DRAWINGS IS NOT AN ACCEPTABLE MEANS OF DETERMINING MEASUREMENTS. ALL MEASUREMENTS ARE TO BE DERIVED USING THE PRINTED DIMENSIONS. WHERE PRINTED DIMENSIONS ARE INSUFFICIENT OR IN CONFLICT, THE GENERAL CONTRACTOR MUST REQUEST CLARIFICATION OF THE DIMENSIONS IN QUESTION TO THE ARCHITECT.

3. FIELD VERIFY THE ACCURACY OF ALL DIMENSIONS WITH FIELD LAYOUT PRIOR TO PROCEEDING WITH THE WORK. IF NECESSARY, REQUEST CLARIFICATION PRIOR TO PROCEEDING WITH INSTALLATION. WHERE THE DRAWINGS SPECIFICALLY INDICATE DIMENSIONS TO BE FIELD VERIFIED, DO SO PRIOR TO INSTALLATION OF THE WORK AND COORDINATE IF REQUIRED WITH THE ARCHITECT.

4. WHERE ENLARGED PLANS ARE REFERENCED, ADDITIONAL DIMENSIONAL INFORMATION AND DETAIL INFORMATION ARE PROVIDED IN THE ENLARGED PLANS. NOTIFY THE ARCHITECT OF ANY CONFLICTS FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK.

5. INSTALLATION OF ALL ITEMS, IN ADDITION TO COMPLYING WITH THE APPLICABLE CODES AND ACCEPTED TRADE PRACTICES AND STANDARDS, MUST BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS TO INSURE FULL WARRANTY AND OPERATIONAL FUNCTION.

6. THE GENERAL CONTRACTOR SHALL ISSUE HIS SUBCONTRACTORS COMPLETE SETS OF CONSTRUCTION DOCUMENTS TO INSURE THAT THE ENTIRE SCOPE OF WORK NECESSARY TO COMPLETE THE PROJECT IS BID. THE GENERAL CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR COMPLETING THE ENTIRE SCOPE OF WORK.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE LATEST SET OF DRAWINGS THAT INCLUDES ANY ADDENDUM OR REVISION TO HIS STAFF ON SITE AND HIS SUBCONTRACTOR'S.

8. IF THERE ARE CONFLICTS IN THE CONSTRUCTION DOCUMENTS AFFECTING QUALITY OF WORK, QUANTITY OF WORK OR MATERIAL, SCOPE OF WORK, OR ANY OTHER ASPECT OF THE WORK, THE GENERAL CONTRACTOR MUST NOTIFY THE ARCHITECT FOR CLARIFICATION OF THE CONFLICT DURING THE BID PHASE OF THE PROJECT. ABSENT WRITTEN CLARIFICATION OF THE CONFLICT FROM THE ARCHITECT, THE MOST STRINGENT INTERPRETATION OF THE CONFLICT SHALL APPLY, AND UNDER NO CIRCUMSTANCES WILL THERE BE ADDITIONAL COST TO THE OWNER PURSUANT TO THE ARCHITECTS REVIEW AND INTERPRETATION OF THE CONFLICT.

9. THE TERM "OWNER" OR "DISTRICT" SHALL ALSO MEAN "FTE - FLORIDA TURNPIKE ENTERPRISE".

10. FINISHED FLOOR ELEVATION NOTE: FINISHED FLOOR ELEVATIONS SHOWN ON PLAN ARE WITH RESPECT TO A SPECIAL REFERENCE DATUM ELEVATION. FINISHED FLOOR (F.F.) ELEVATIONS SHOWN ON THE CIVIL SITE PLANS EQUATE TO ELEVATION 0'-0" ON ARCHITECTURAL PLANS AS FOLLOWS:
TOP OF SLAB ELEV. 174.75' CIVIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

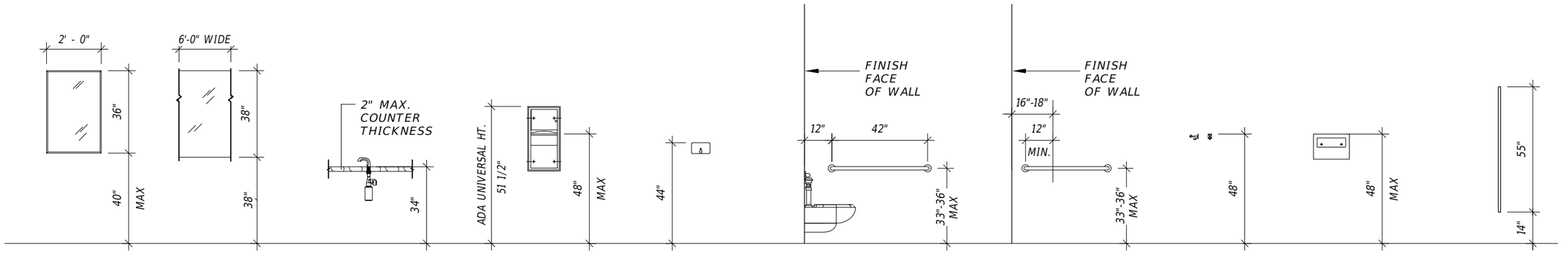
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

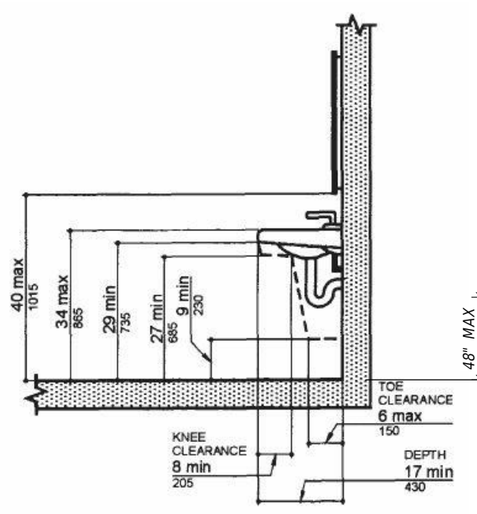
SYMBOL LEGEND & NOTES

SHEET NO. AA1–005

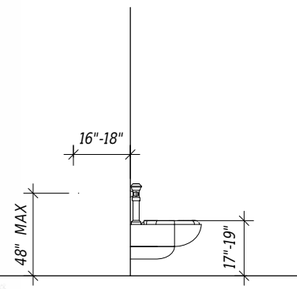
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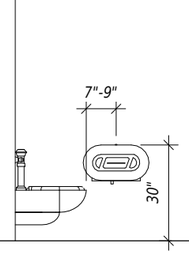
T-1 MIRROR | T-2 MIRROR | T-3 COUNTER-MOUNTED AUTOMATIC SOAP DISPENSER | T-4 SURFACE-MOUNTED PAPER TOWEL DISPENSER | T-5 WALL-MOUNTED SOAP DISPENSER | T-10 GRAB BAR 42" | T-11 GRAB BAR 36" | T-12 COAT HOOK WITH BUMPER | T-13 SURFACE-MOUNTED TOILET-SEAT-COVER DISPENSER | TP-1 PARTITION AT TOILET AND URINAL



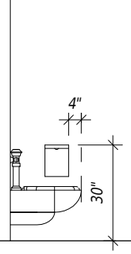
LAVATORY CLEARANCES



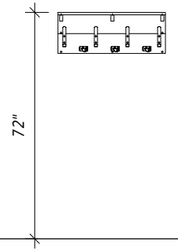
ADA FLUSH VALVE TOILET CLEARANCES



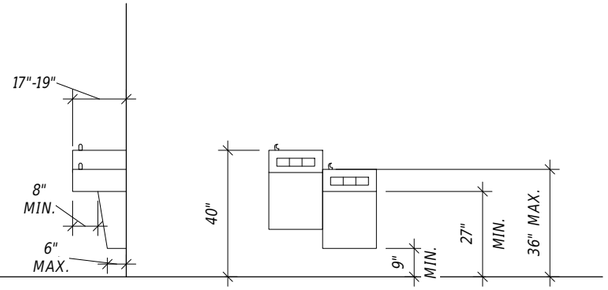
T-14 MULTI-ROLL TOILET TISSUE DISPENSER



T-15 FEMININE NAPKIN DISPOSAL



T-30 MOP/BROOM HOLDERS & RAG HOOKS



DRINKING FOUNTAIN VERTICAL CLEARANCES

NOTES:

1. REFER TO AA1-007 FOR BLOCKING DETAILS.

1 RESTROOM ACCESSIBILITY DETAILS

1/4" = 1'-0"

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

RESTROOM ACCESSIBILITY DETAILS

SHEET NO. AA1-006

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

PARTITION NOTES:

1. GAUGE, SPACING AND BRACING REQUIREMENTS FOR LIGHT GAUGE AND COLD ROLLED METAL FRAMING SYSTEMS TO BE DETERMINED BASED ON STUD SIZE (AS INDICATED ON THE DRAWINGS), HEIGHT OF PARTITIONS, DEFLECTION AND ALL OTHER CRITERIA AS INDICATED.

2. THE THICKNESS OF INSULATION SHALL BE AS FOLLOWS: USE 3 1/2" BATT FOR 4" STUDS, 5 1/2" BATT FOR 6" STUDS, ETC…

3. ALL PARTITIONS TO HAVE 20 GAGE OR HEAVIER STUDS @24" O.C. PARTITIONS INDICATED TO TERMINATE 6" ABOVE CEILING SHALL BE BRACED TO STRUCTURE ABOVE WITH STUDS AT INTERVALS OF 4'-0" O.C. MAXIMUM; ALTERNATING SIDES. AT CORNERS AND INTERSECTIONS AND EACH SIDE OF ALL DOOR AND WINDOW OPENINGS, BRACES TO BE SAME SIZE AND GAUGE AS WALL FRAMING.

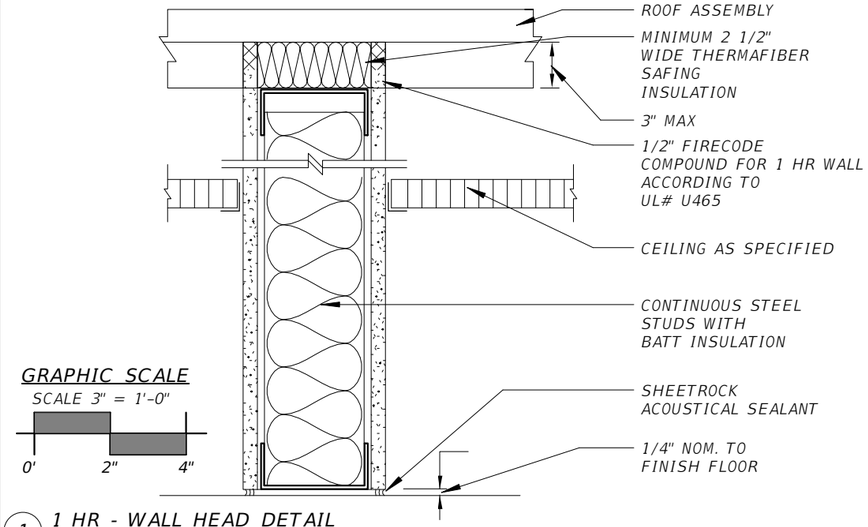
4. UNLESS OTHERWISE NOTED, ALL GYPSUM WALLBOARD TO BE 5/8" THICK.

5. UNLESS OTHERWISE NOTED, ALL PARTITIONS SCHEDULED TO RECEIVE TILE FINISH SHALL HAVE CEMENT BOARD (RATHER THAN GYPSUM WALLBOARD).

6. FOR PARTITION ASSEMBLIES WITH INSULATION, THE INSULATION SHALL EXTEND THE FULL HEIGHT OF THE PARTITION. AT EXTERIOR WALLS, INSULATION TO EXTEND FULL HEIGHT AND BE SEALED TO THE UNDERSIDE OF ROOF DECK.

7. PARTITION ASSEMBLIES AT RESTROOMS, JANITOR ROOMS, CONFERENCE ROOMS, MECHANICAL/ELECTRICAL ROOMS TO BE FULLY INSULATED WITH SOUND BATT, AND ALL PERIMETER AND OPENING FRAMING JOINTS SEALED WITH ACOUSTIC SEALANT.

8. PROVIDE ALL HARDWARE, FRAMING, BRACING, AND BLOCKING, AND GROUNDS AS REQUIRED FOR INSULATION OF EQUIPMENT TO BE MOUNTED IN OR ON PARTITIONS. COORDINATE REQUIREMENTS FOR THESE ITEMS PRIOR TO APPLYING FINISH SURFACE TO PARTITION ASSEMBLY.

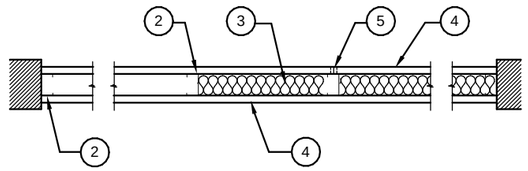


1 1 HR - WALL HEAD DETAIL
3" = 1'-0"

FASTENERS:

FLOOR RUNNER (TRACK)	POWER ACCTUATED FASTENERS @ 24" O.C. MAX. CORNERS, WALL INTERSECTIONS AND END WALL
STUDS	(2) PAN HEAD SCREWS TOP AND BOTTOM OPENINGS, CORNERS, WALL INTERSECTIONS AND END OF WALL
CHASE WALLS	HORIZONTAL BRACES (STUD ON RUNNER) AT 4'-0" O.C. VERT. MAX. WITH (2) SCREWS MIN. TO STUD WEB EACH END
FURRING	TEK SCREWS ON ALTERNATING FLANGES AT 24 O.C. MAX AND ENDS
BRACES	BRACES TO TOP TRACK - MIN (3) PAN HEAD SCREWS
(TOP TRACK TO STRUCTURE ABOVE)	BRACES TO STRUCTURE - MIN (3) PANN HEAD SCREWS TO CROSS MEMBER SECURED TO ADJACENT ROOF FRAMING MEMBERS, OR THRU BOLT THROUGH BOTTOM JOIST CHORD

NONBEARING WALL RATING – 1 HR.



1. FLOOR & CEILING RUNNER-(NOT SHOWN)-25 MSG (MIN) GALV STEEL 1 IN. HIGH, RETURN LEGS 3-5/8 IN. WIDE (MIN), ATTACHED TO FLOOR AND CEILING WITH FASTENERS 24 IN. OC.

2. STEEL STUDS- CHANNEL SHAED 3-5/8 IN. WIDE (MIN), 1-1/4 IN. LEGS, 3/8 IN. RETURN, FORMED OF 25 MSG (MIN) GALV STEEL MAX STUD SPACING 24 IN. OC.

3. BATTS AND BLANKETS*-(OPTIONAL)-MINERAL WOOL OR GLASS FIBER BATTS PARTIALLY OR COMPLETELY FILLING STUD CAVITY.

4. WALLBOARD, GYPSUM*-5/8 IN. THICK, 4 FT. WIDE, ATTACHED TO STEEL STUDS AND FLOOR AND CEILING TRACK WITH 1 IN. LONG, TYPE S SELF-TAPPING STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. OC IN THE FIELD OF THE BOARD. JOINTS ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF THE ASSEMBLY. WHEN ATTACHED TO ITEM 6 (FURRING CHANNELS), WALLBOARD IS SCREW ATTACHED TO FURRING CHANNELS WITH 1 IN. LONG, TYPE S STEEL SCREWS SPACED 12 IN. O.C. CANADIAN GYPSUM CO., LTD.-TYPES C, SCX,SHX,WRX. GEORGIA-PACIFIC CORP., GYPSUM DIV.-TYPE GPFS-C PABCO GYPSUM CO.-TYPE PG-C. U.S. GYPSUM CO.-TYPE C, FCV, 1PX2, SCX,SHC,SHX,WRC OR WRX.

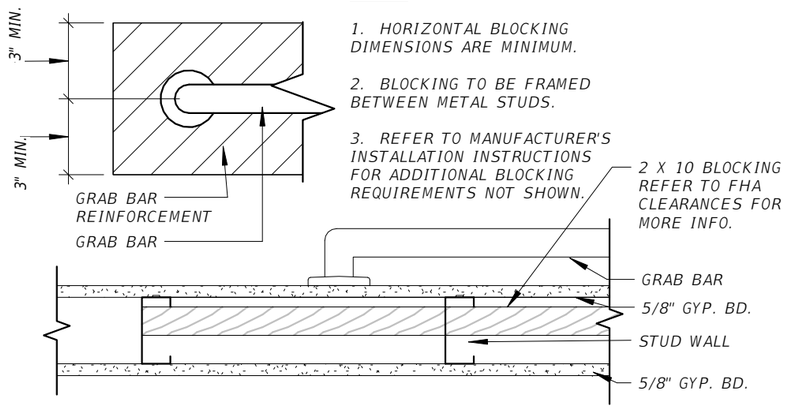
5. JOINT TAPE AND COMPOUND-VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS; PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS. AS AN ALTERNATE, NOMINAL 3/32 IN. THICK GYPSUM VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD. JOINTS REINFORCED
.

6. FURRING CHANNEL-(OPTIONAL-NOT SHOWN)-RESILIENT 24 MSG GALV STEEL FURRING CHANNELS SPACED VERTICALLY MAX 24 IN. OC, FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 IN. LONG TYPE S-12 PAN-HEAD STEEL SCREWS.

*BEARING THE UL CLASSIFICATION MARKING.

7 UL ASSEMBLY 465 - 1 HR.
3/4" = 1'-0"

HORIZONTAL INSTALLATION



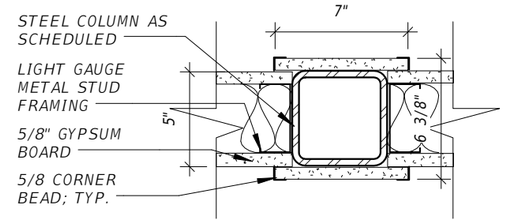
NOTES:

1. HORIZONTAL BLOCKING DIMENSIONS ARE MINIMUM.

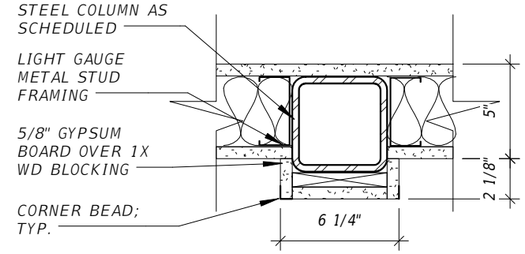
2. BLOCKING TO BE FRAMED BETWEEN METAL STUDS.

3. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL BLOCKING REQUIREMENTS NOT SHOWN.

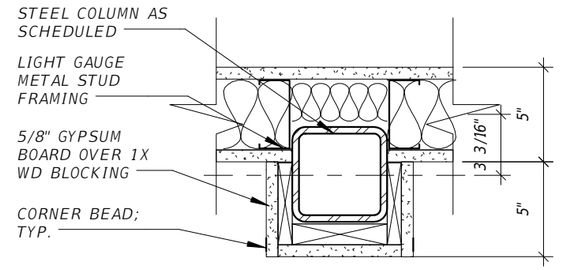
2 BLOCKING FOR GRAB BAR DETAIL
1 1/2" = 1'-0"



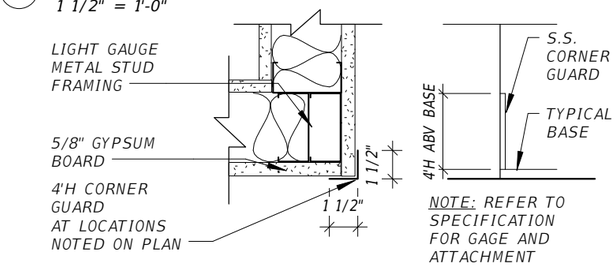
3 ENLARGED COLUMN DETAIL
1 1/2" = 1'-0"



4 ENLARGED COLUMN DETAIL
1 1/2" = 1'-0"



5 ENLARGED COLUMN DETAIL
1 1/2" = 1'-0"



NOTE: REFER TO SPECIFICATION FOR GAGE AND ATTACHMENT OF CORNER GUARD.

6 CORNER GUARD DETAIL
1 1/2" = 1'-0"

7 CORNER GUARD ELEVATION
N.T.S.

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0'
4"
8"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
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BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTITION NOTES AND DETAILS

SHEET NO.
AA1-007

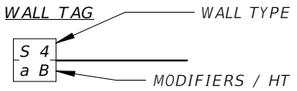
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LEGEND:

MASONRY
M8 = 8" CMU

STEEL STUD
S8 = 8" METAL STUDS
S6 = 6" METAL STUDS
S4 = 3 5/8" METAL STUDS

WALL TAG



MODIFIERS:

a. 5/8" PLYWD ("A" SIDE EXPOSED) OVER 5/8" GYPSUM BOARD ON 1 5/8" FURRING ON 1" RIGID POLYISO. INSULATION; MCM PANEL OVER WEATHER BARRIER ON CMU WALL (EXTERIOR); CERAMIC COATED BLOCK TO 2'-8" HEIGHT.

b. CERAMIC TILE (RESTROOM SIDE) OVER (1) LAYER CEMENT BOARD OVER MTL. STUDS; (I) LAYER OF GYPSUM OTHER SIDE

c. CERAMIC TILE OVER (1) LAYER OF CEMENT BOARD (BOTH SIDES) OVER MTL. STUDS; REFER TO AA1-401 AND AA1-402 FOR PATTERN

d. 5/8" PLYWD ("A" SIDE EXPOSED) OVER 5/8" GYPSUM BOARD ON MTL STUD INSIDE TESTING ROOMS, (1) LAYER GYPSUM OTHER SIDE.

e. (1) LAYER OF 5/8" GYPSUM BOARD (INTERIOR) OVER 1 5/8" MTL. STUDS ON 1" RIGID POLYISOCYANURATE INSULATION (ALL THE WAY TO DECK). MCM PANEL OVER WEATHER BARRIER ON CMU WALL (EXTERIOR); CERAMIC COATED BLOCK TO 2'-8" HEIGHT.

f. (1) LAYER OF 5/8" GYPSUM BOARD (BOTH SIDES OF WALL) OVER MTL. STUDS; PAINT

9. (1) LAYER OF 5/8" GYPSUM BOARD (INTERIOR) OVER 1 5/8" MTL. STUDS ON 1" RIGID POLYISOCYANURATE INSULATION (ALL THE WAY TO DECK). CERAMIC FACED CMU ENTIRE HEIGHT OF EXTERIOR WALL (EXTERIOR).

h. (1) LAYER OF 5/8" GYPSUM BOARD (INTERIOR) OVER 1 5/8" FURRING ON 1" RIGID POLYISOCYANURATE INSULATION (ALL THE WAY TO DECK). MCM PANEL OVER WEATHER BARRIER ON CMU WALL (EXTERIOR); CERAMIC COATED BLOCK TO 2'-8" HEIGHT.

j. (1) LAYER OF 5/8" GYPSUM BOARD OVER MTL. STUDS (INTERIOR); RIBBED METAL PANELS OVER FURRING ON WEATHER BARRIER OVER 5/8" DENSDECK (EXTERIOR); INSULATE STUDS WITH BATT INSULATION; 1 HOUR WALL WHERE NOTED ON PLAN

k. ONE HOUR WALL - REFER TO AA1-010 FOR UL# U415(1). ONE LAYER OF TYPE X GYPSUM BOARD (BOTH SIDES OF WALL) OVER MTL. STUDS; INSULATE BETWEEN STUDS; PAINT GYPSUM.

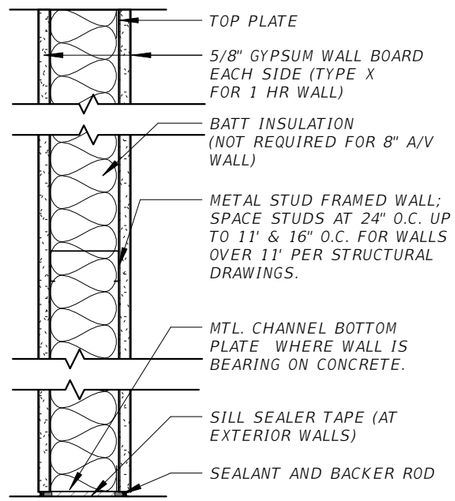
NOTE: ALL EXPOSED PLYWOOD WILL HAVE THE "A" SIDE EXPOSED WITH BUTT JOINTS FILLED AND SANDED

PARTITON HEIGHT:
A = TO THE BOTTOM OF DECK; INSULATED
B = 6" ABOVE FINISHED CEILING
C = EXTERIOR FULL HEIGHT WALL
D = HEIGHT AS NOTED

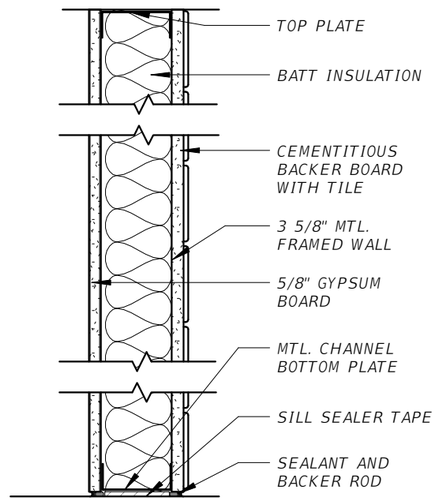
GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

1 PARTITION TYPES
1 1/2" = 1'-0"

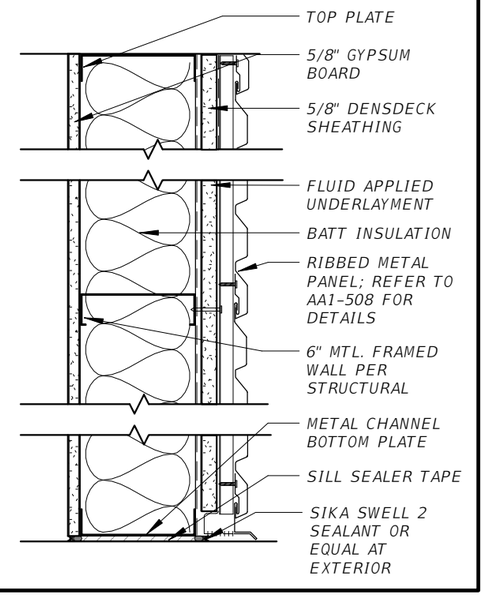
S4-f | S4-k | S8-f



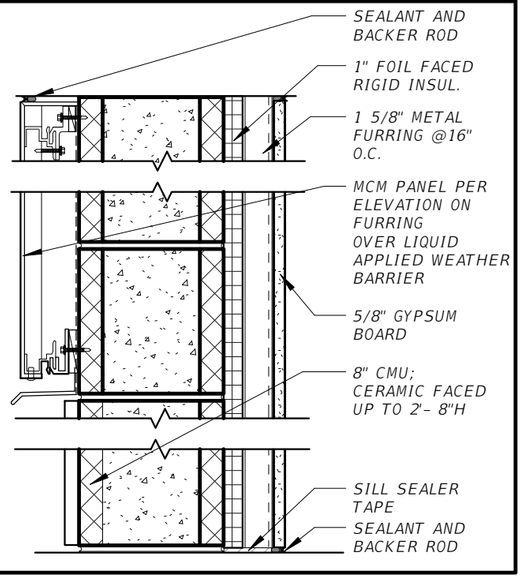
S4-b



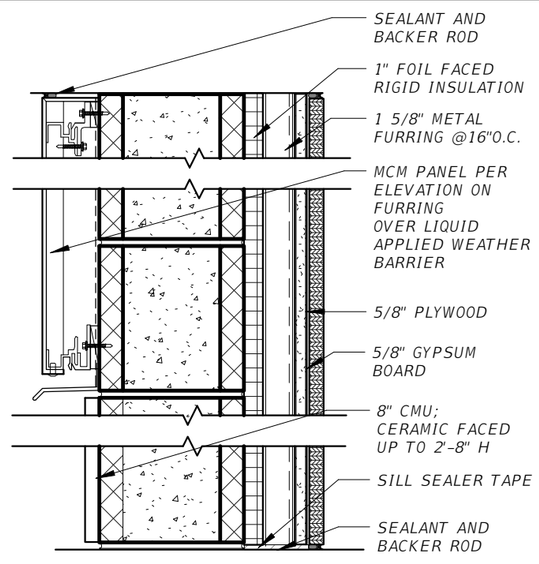
S6-j



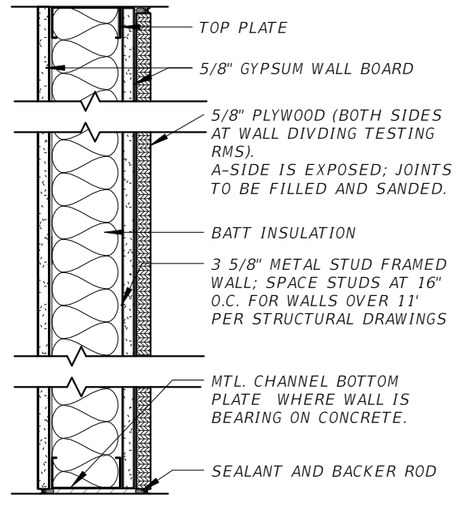
M8-e | M8-g | M8-h



M8-a



S4-d | S6-d



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

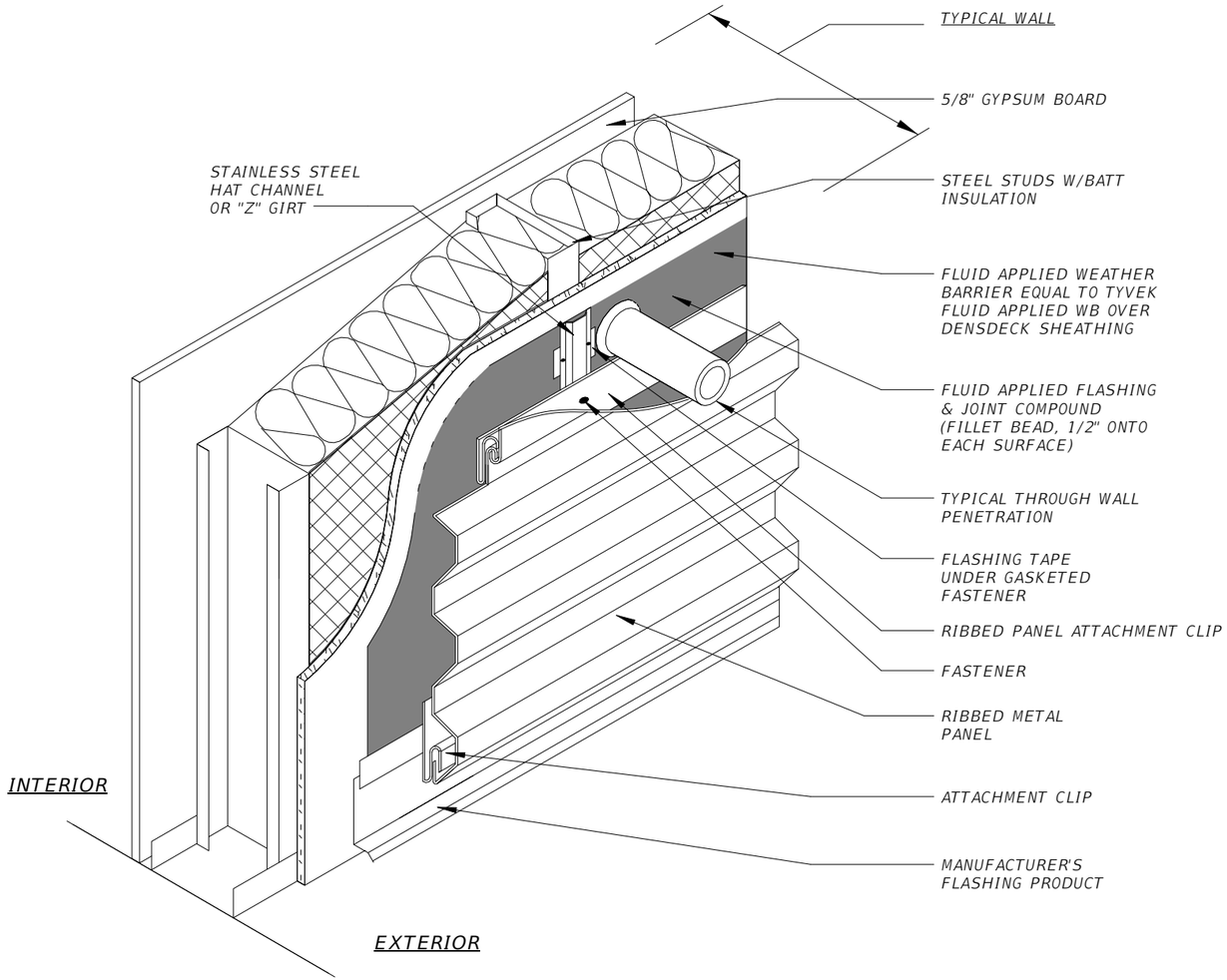
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTITION DETAILS

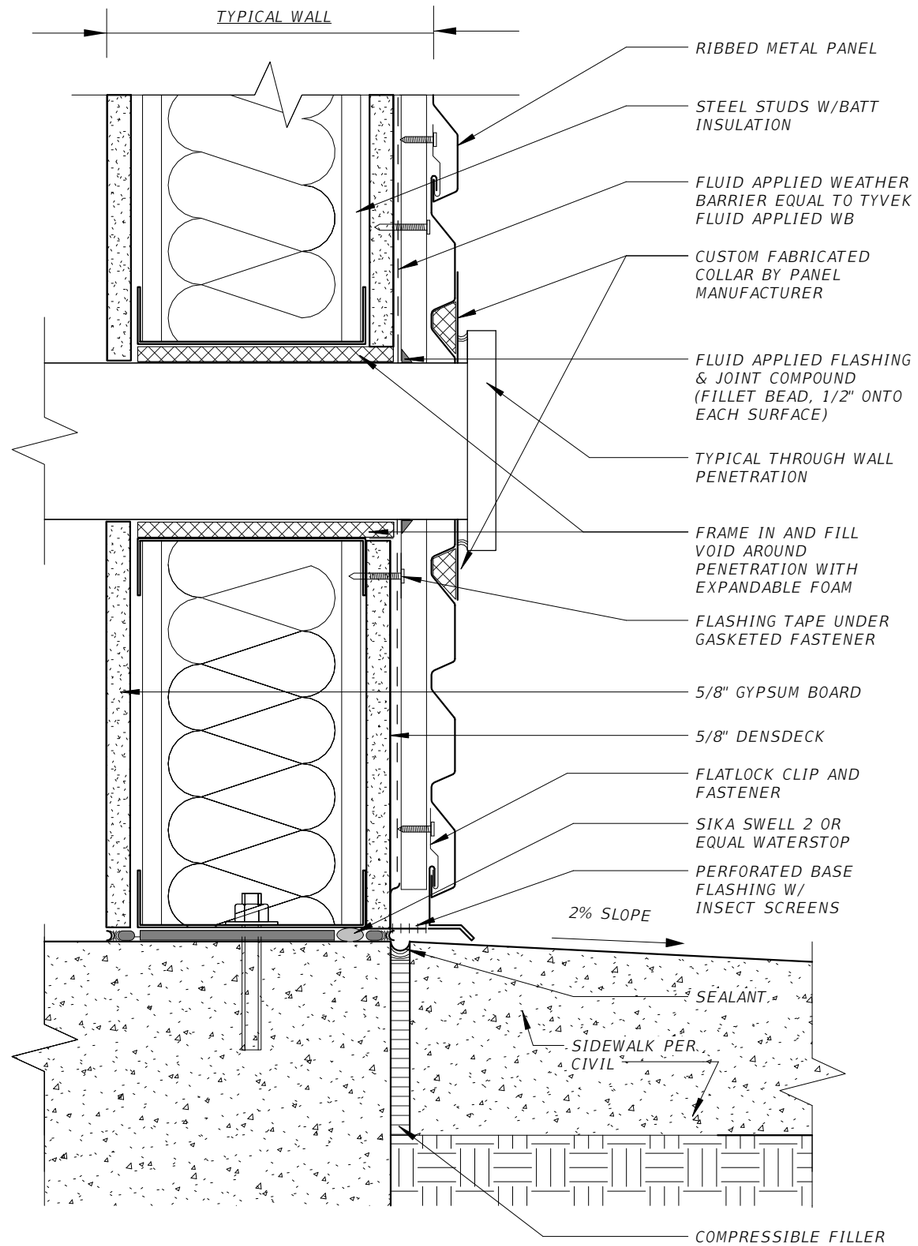
SHEET NO.
AA1-008

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NOTE: ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.



1 PENETRATION DETAIL VIEW
NOT TO SCALE"



2 PENETRATION DETAIL SECTION
3" = 1'-0"

GRAPHIC SCALE
SCALE 3" = 1'-0"
0' 2" 4"

REVISIONS			
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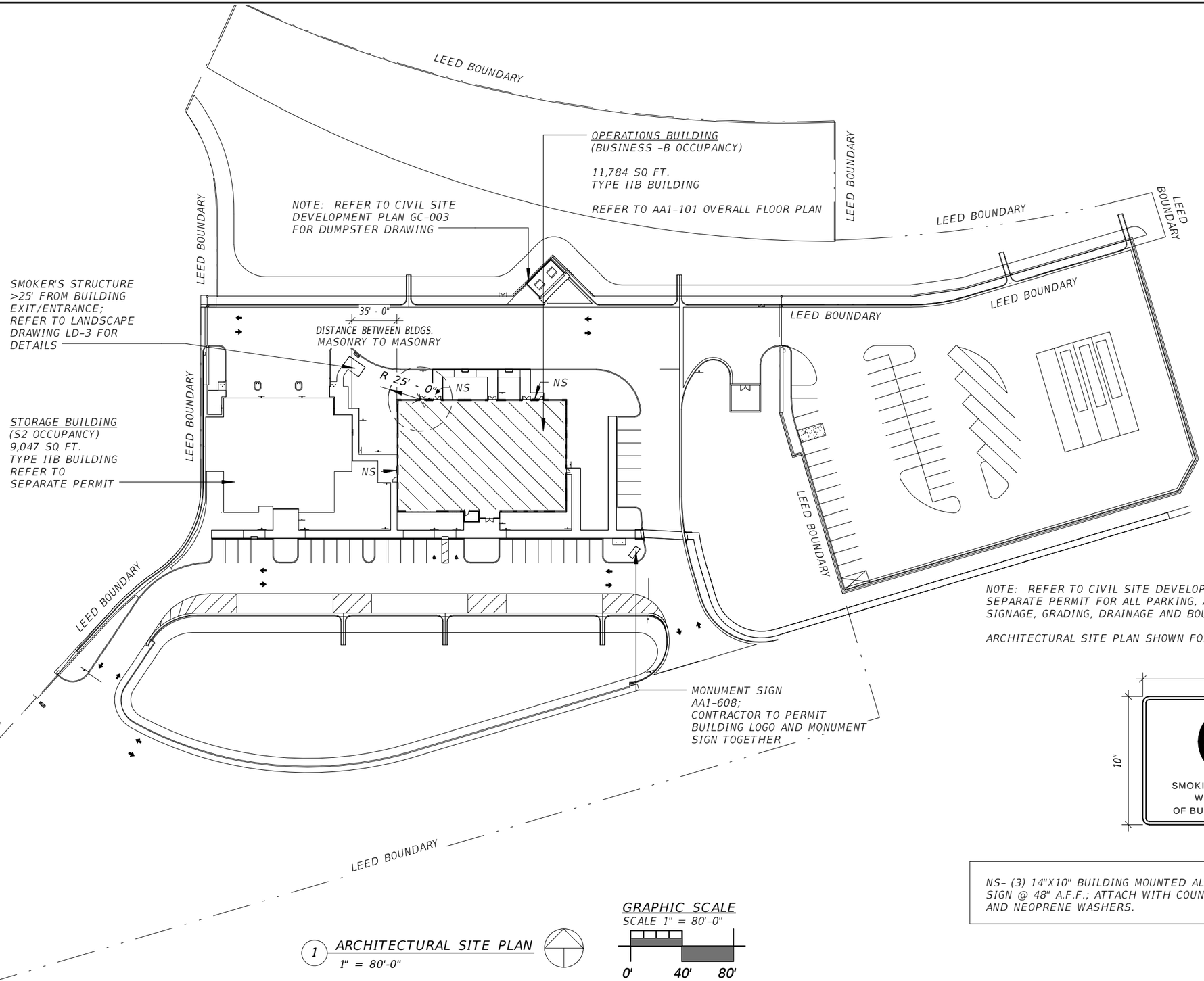
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FLUID APPLIED WATERPROOFING DETAILS

SHEET NO.
AA1-009

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NOTE: REFER TO CIVIL SITE DEVELOPMENT PLANS UNDER SEPARATE PERMIT FOR ALL PARKING, ADA PARKING, STRIPING AND SIGNAGE, GRADING, DRAINAGE AND BOUNDARY DESIGNATIONS.

ARCHITECTURAL SITE PLAN SHOWN FOR REFERENCE ONLY.



NS- (3) 14"X10" BUILDING MOUNTED ALUMINUM NO-SMOKING SIGN @ 48" A.F.F.; ATTACH WITH COUNTERSUNK FASTENERS AND NEOPRENE WASHERS.

1 ARCHITECTURAL SITE PLAN
1" = 80'-0"

GRAPHIC SCALE
SCALE 1" = 80'-0"
0' 40' 80'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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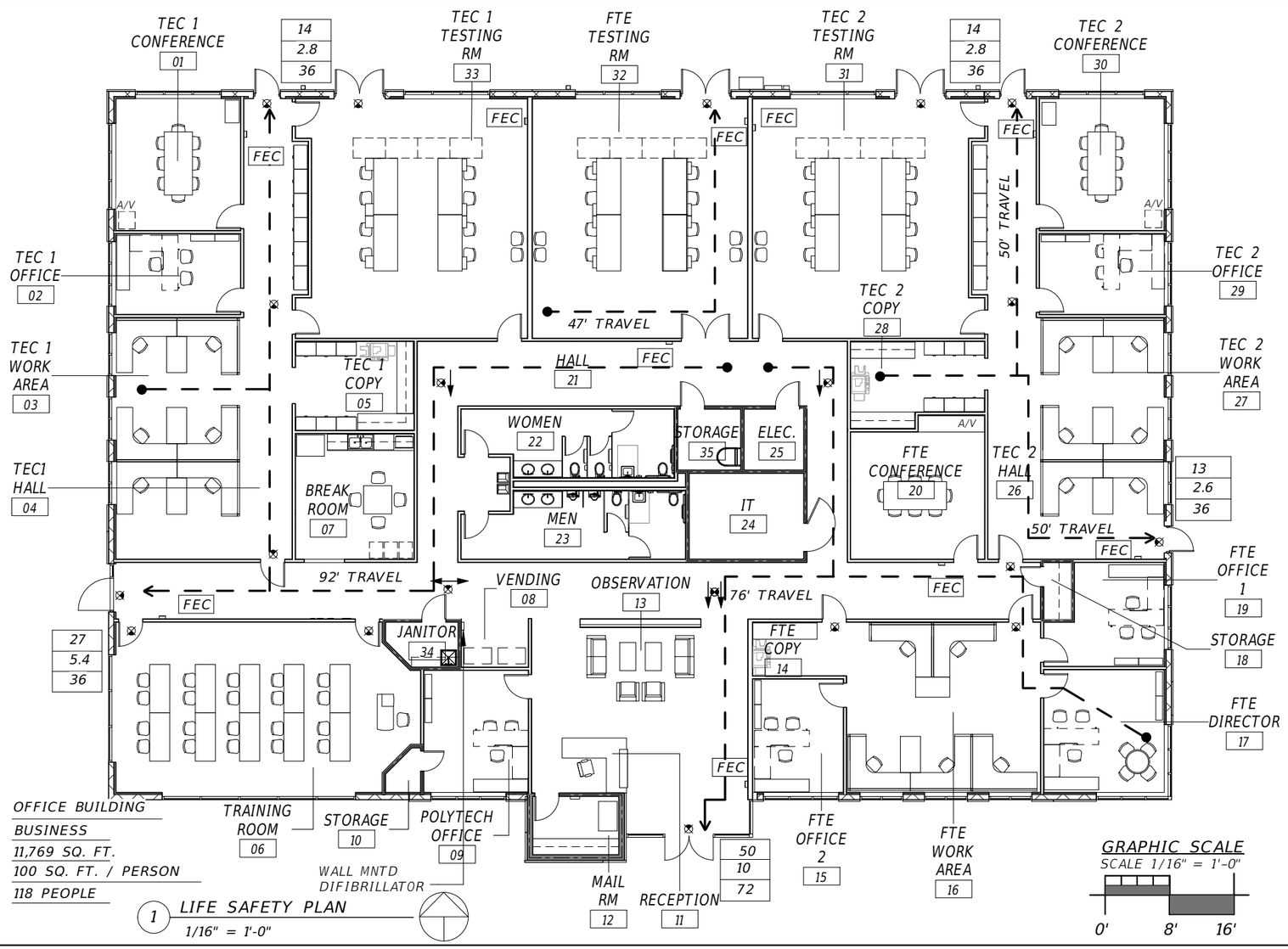
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ARCHITECTURAL SITE PLAN

SHEET NO. AA1-100

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APPLICABLE CODES:

APPLICABLE CODES:
FLORIDA BUILDING CODE 2014
CITY OF AUBURNDALE - CH 15; SPECIAL OVERLAY DISTRICT
FLORIDA BUILDING CODE ACCESSIBILITY 2014
FLORIDA BUILDING CODE MECHANICAL 2014
FLORIDA BUILDING CODE PLUMBING 2014
NFPA 101, 2012 (LIFE SAFETY)
NFPA 70, 2011 NATIONAL ELECTRICAL CODE

OCCUPANCY LOAD CALCULATIONS:

(TYPE II B UNPROTECTED, UNSPRINKLERED)

USE OF: AREA	(GROSS S.F.)OCC. PER S.F.	OCCUPANT LOAD
B-BUSINESS	11,784 S.F./100 GROSS	118
TOTAL OCC. LOAD	118	

EXIT REQUIREMENTS:

MAX. TRAVEL DISTANCE TO EXIT	(B) OCC.	200 FT
MAX. COMMON PATH OF TRAVEL		75 FT
MAX. DEAD-END CORRIDOR		20 FT
MIN. EGRESS CORRIDOR WIDTH		36 IN.(FBC 1017.2; EXCEPTION 2)
MIN. CORRIDOR WIDTH PROVIDED		60"
EGRESS WIDTH PER PERSON - DOOR		0.2 IN./PER PERSON
MIN. CLEAR OPENING OF EXIT DOOR		34 IN. CLEAR
MIN. NUMBER OF EXITS		2 REQD./7 PROVIDED

EXIT CALCULATIONS:

TOTAL BUILDING OCC. LOAD =118

EGRESS WIDTH OF DOOR REQ. =118X0.2= 23.6 INCHES

TOTAL EXIT DOOR WIDTH PROVIDED =264 INCHES

WIND INFORMATION:

AS REQUIRED BY FBC 2014 AND REQUIREMENTS OF FTE:

1. BASIC WIND SPEED	136 MPH
2. RISK FACTOR	TYPE II
3. WIND EXPOSURE	TYPE C

CODE SUMMARY:

USE & OCCUPANCY CLASSIFICATION: (CHAPTER 3)
CLASSIFICATION: BUSINESS, GROUP B (SECTION 304.1)

CONSTRUCTION TYPE: II-B

SPRINKLED: NO

MAX HEIGHT	AREA MAX. TABULAR	(TABLE 503)
3 STORIES	23,000 S.F.	(GROUP B)

HEIGHTS & AREAS: (CHAPTER 5)
BUSINESS OCCUPANCY (B)
HEIGHT: MAX 3 STORIES (TABLE 503)

NOTE:
1. FURNITURE, FILES AND CASEWORK ARE SHOWN FOR REFERENCE.
2. ALL INTERIOR FINISHES SHALL COMPLY WITH SECTION 803 OF RESTRICTIONS OF COMBUSTIBLE MATERIALS OF THE FBC 2014. ALL INTERIOR FINISHES SHALL BE CLASS A, ASTM E84. INTERIOR FINISHES SHALL BE IN ACCORDANCE WITH NFPA; CURRENT EDITION.

LIFE SAFETY LEGEND:

GROUP (B) - BUSINESS OCCUPANCY

#FT — PATH OF TRAVEL (EXIT ACCESS)

EXIT SIGN, SEE ELECTRICAL DWGS.

FEC — FIRE EXTINGUISHER CABINET

FIRE EXTINGUISHER TYPE: ABC 10 LB.
QUANTITY: 10 TOTAL SPACED NO GREATER THAN 75' OF TRAVEL DISTANCE

1 HOUR RATED WALL ACCORDING TO UL# U465; REFER TO AA1-007

XX	OCC. LOAD AT THIS EXIT
XX	REQ. EXIT WIDTH
XX	PROVIDED EXIT WIDTH

1	FUNCTION
2	OCCUPANCY GROUP
3	AREA (SQ. FT)
4	OCCUPANCY FACTOR
5	OCCUPANCY LOAD

PLUMBING FIXTURE COUNT:

TABLE 403.1 MINIMUM NUMBER OF REQ. PLUMBING FIXTURES
GROUP (B) - BUSINESS OCCUPANCY
OCCUPANT LOAD = 118; 59 FEMALE AND 59 MALE
***NOTE: URINALS MAY BE SUBSTITUTED FOR 50% OF REQUIRED WATER CLOSETS

WATER CLOSETS		URINALS ***	LAVATORIES		DRINKING FOUNTAIN	SERVICE SINK
FEMALE	MALE		FEMALE	MALE		
3 REQD	3 REQD.	0 REQD	2 REQD.	2 REQD.	2 REQD	1 REQUIRED
3 PROV.	2 PROV.	2 PROV.	3 PROV.	3 PROV.	2 PROV.	1 PROVIDED

REVISIONS			
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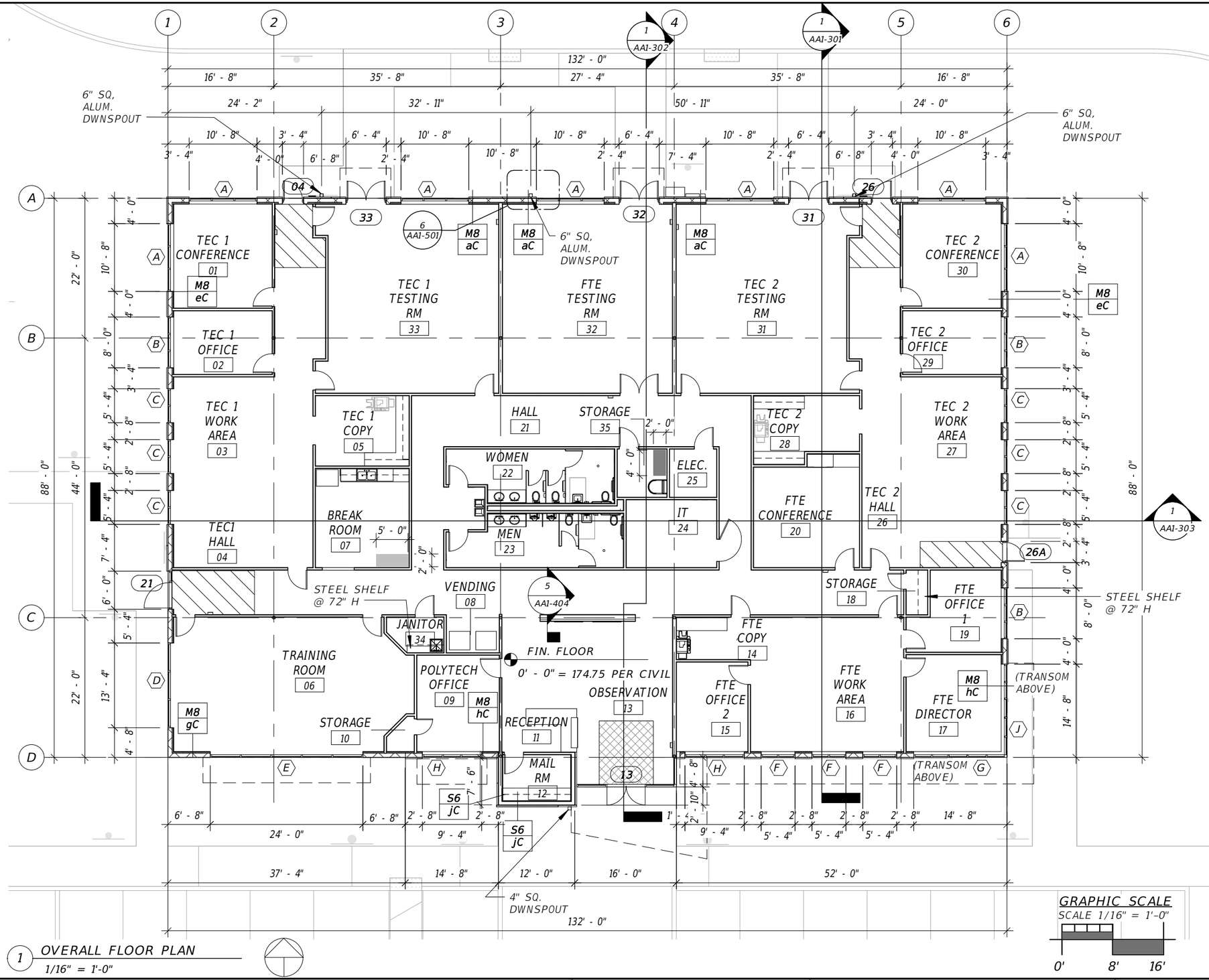
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

LIFE SAFETY PLAN

SHEET NO. AA1-100.1

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1 OVERALL FLOOR PLAN
1/16" = 1'-0"

GRAPHIC SCALE
SCALE 1/16" = 1'-0"
0' 8' 16'

GENERAL NOTES:

1. REFER TO AA1-004 FOR ABBREVIATIONS& MATERIAL SYMBOLS.
2. REFER TO AA1-102, AA1-103, AA1-104, AA1-105 FOR ENLARGED PLANS WITH INTERIOR DIMENSIONS AND PARTITION TYPES NOTATED.
3. REFER TO AA1-600 FOR FINISH SCHEDULE.
4. REFER TO AA1-603 AND AA1-604 FOR DOOR AND WINDOW SCHEDULE.
5. REFER TO AA1-005 GENERAL NOTES IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.
6. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").
7. REFER TO KEY PLANS FOR LOCATION OF ENLARGED PLANS AREAS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.
8. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.
9. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.
10. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.
11. REFER TO ELECTRICAL PLAN FOR "TASK LIGHTING" TO MEET LEED REQUIREMENTS @ WORK SURFACE.
12. ALL PLUMBING FIXTURES AND BREAKROOM CABINETS AND APPLIANCES SHALL BE INCLUDED WITHIN GENERAL CONDITIONS.
13. CONTRACTOR SHALL PROVIDE ALLOWANCE FOR WINDOW SHADES THROUGHOUT AS SPECIFIED. ALLOWANCE SHALL INCLUDE FTE SPECIFIED MONITORS AND OTHER A/V EQUIPMENT FOR TESTING ROOMS, CONFERENCE ROOMS AND OBSERVATION AREA.
14. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.

KEY:

- RECYCLING AREA #1 BINS FOR GLASS, PAPER, ALUMINUM AND PLASTIC. REFER TO FURNITURE SPEC FOR PRODUCT.
- RECYCLING AREA #2 RECYCLING BIN AREA FOR BATTERIES; 8 GALLON CONTAINER EQUAL TO C-THRU NEXUS BYGLASDON.
- 7/16" DEEP RECESS FOR 8'-6"W X 10'LONG RECESSED WALK-OFF MAT
- WALK-OFF CARPET TILE; REFER TO AA1-113 INTERIOR PATTERN PLAN AND AA1-601 FINISHES

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
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LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

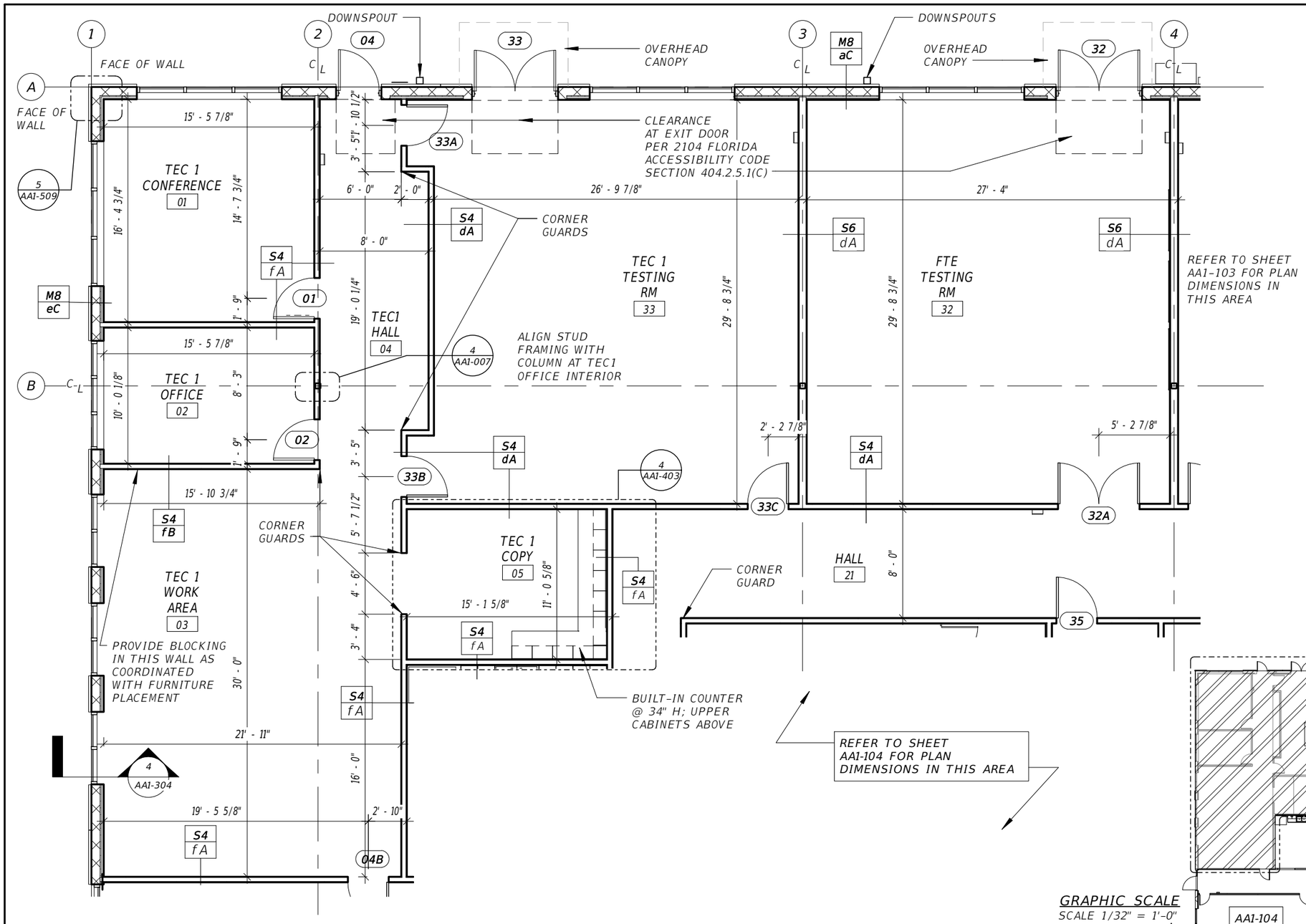
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL FLOOR PLAN

SHEET NO. AA1-101

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING
1/8" = 1'-0"

2 KEY PLAN
1/32" = 1'-0"

GENERAL NOTES:

1. REFER TO AA1-008 FOR PARTITION SCHEDULE.
2. REFER TO AA1-603 FOR DOOR SCHEDULE.
3. REFER TO AA1-005 GENERAL NOTES IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.
4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").
5. SEE KEY PLAN FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.
6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.
7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.
8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.
9. PROVIDE STAINLESS STEEL CORNER GUARDS 4'H ABOVE BASE AT LOCATIONS NOTED. REFER TO DETAIL 6&7 AA1-007.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FLOOR PLAN

SHEET NO.
AA1-102

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

GENERAL NOTES:

1. REFER TO AA1-008 FOR PARTITION SCHEDULE.

2. REFER TO AA1-603 FOR DOOR SCHEDULE.

3. REFER TO AA1-005 GENERAL NOTES IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.

4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").

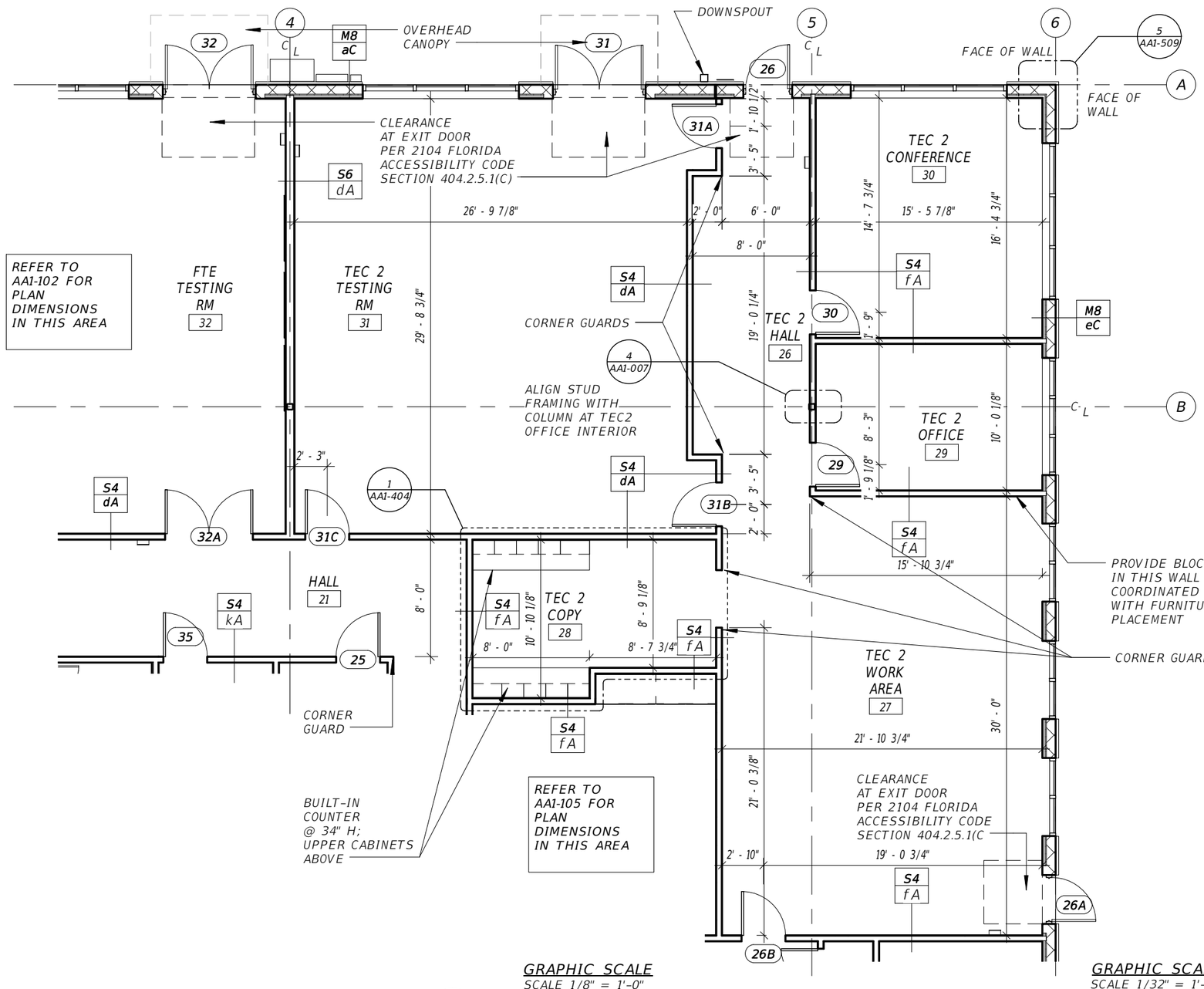
5. SEE KEY PLAN FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.

6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.

7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.

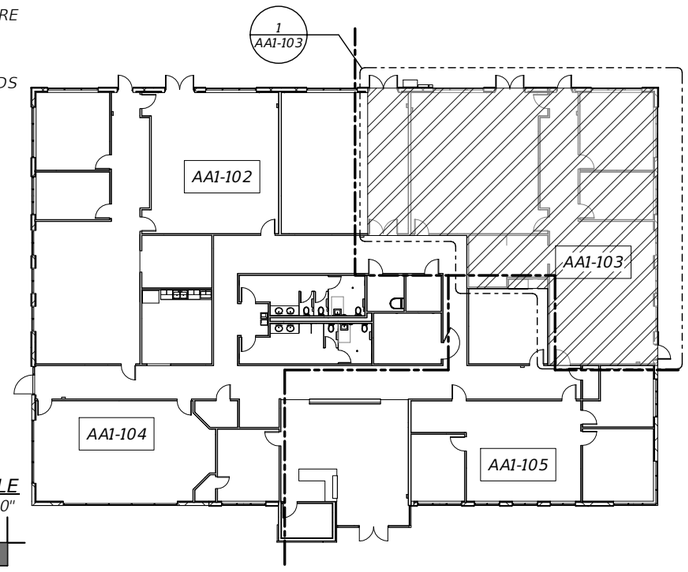
8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.

9. PROVIDE STAINLESS STEEL CORNER GUARDS 4'H ABOVE BASE AT LOCATIONS NOTED. REFER TO DETAIL 6&7 AA1-007.



1 ENLARGED FLOOR PLAN - TEC 2 AREA
1/8" = 1'-0"

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



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

2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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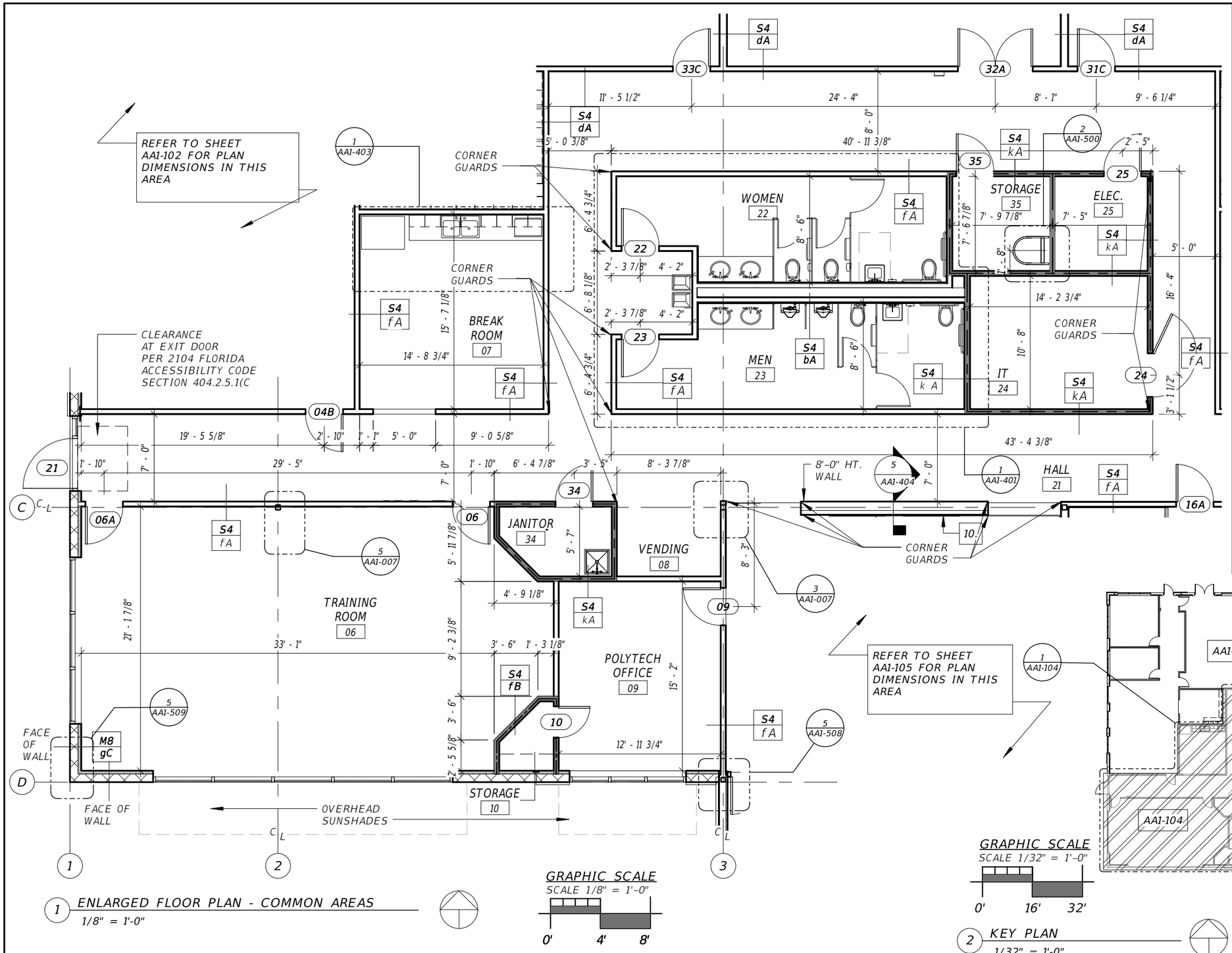
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FLOOR PLAN

SHEET NO.
AA1-103

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 ENLARGED FLOOR PLAN - COMMON AREAS
1/8" = 1'-0"

2 KEY PLAN
1/32" = 1'-0"

GENERAL NOTES:

1. REFER TO AA1-008 FOR PARTITION SCHEDULE.
2. REFER TO AA1-603 FOR DOOR SCHEDULE.
3. REFER TO AA1-005 GENERAL NOTES IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.
4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").
5. SEE KEY PLAN FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.
6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.
7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.
8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.
9. PROVIDE STAINLESS STEEL CORNER GUARDS 4'H ABOVE BASE AT LOCATIONS NOTED. REFER TO DETAIL 6&7 AA1-007.
10. VIDEO WALL: LIGHT-GAUGE STEEL STUD WALL 800S162-54 @ 16" O.C. ATTACH EACH STUD TO 800T162-54 AND CONCRETE SLAB USING MC687 MOMENT CLIPS WITH 1/2" DIAM. X 2" LONG HILTI KWIK-BOLT 3. USE (4) #12 SCREWS FOR MOMENT CLIP ATTACHMENT TO STUD.

1 HOUR RATED WALL ACCORDING TO UL# U465; REFER TO AA1-007

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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FLORIDA R.A. NO.: 11541
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STATE OF FLORIDA
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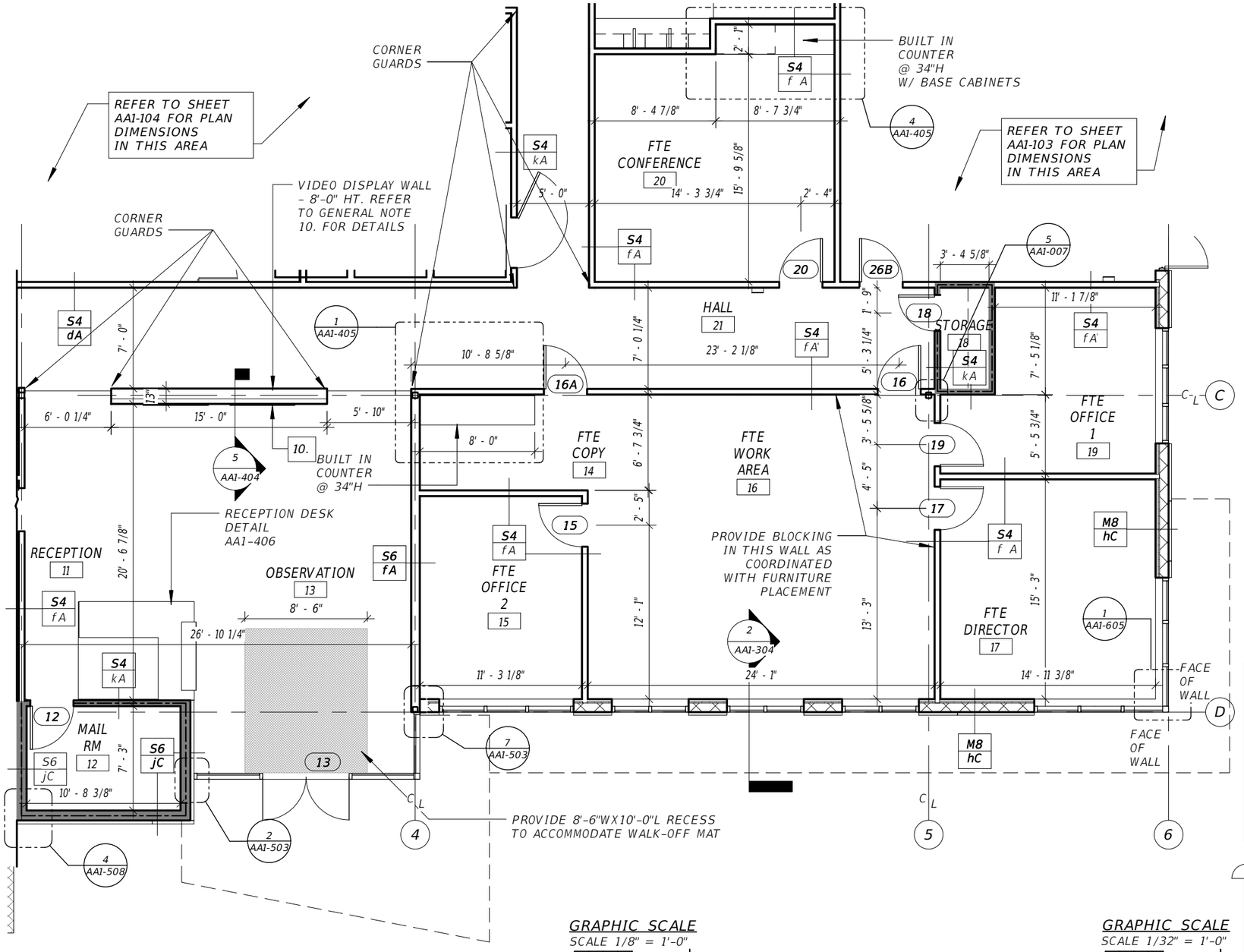
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FLOOR PLAN

SHEET NO. AA1-104

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA
1/8" = 1'-0"

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

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

2 KEY PLAN
1/32" = 1'-0"

GENERAL NOTES:

1. REFER TO AA1-008 FOR PARTITION SCHEDULE.
2. REFER TO AA1-603 FOR DOOR SCHEDULE.
3. REFER TO AA1-005 GENERAL NOTES IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.
4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").
5. SEE KEY PLAN FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.
6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.
7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.
8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.
9. PROVIDE STAINLESS STEEL CORNER GUARDS 4'H ABOVE BASE AT LOCATIONS NOTED. REFER TO DETAIL 6&7 AA1-007.
10. VIDEO WALL: LIGHT-GAUGE STEEL STUD WALL 800S162-54 @ 16" O.C. ATTACH EACH STUD TO 800T162-54 AND CONCRETE SLAB USING MC687 MOMENT CLIPS WITH 1/2" DIAM. X 2" LONG HILTI KWIK-BOLT 3. USE (4) #12 SCREWS FOR MOMENT CLIP ATTACHMENT TO STUD.

1 HOUR RATED WALL ACCORDING TO UL# U465; REFER TO AA1-007

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

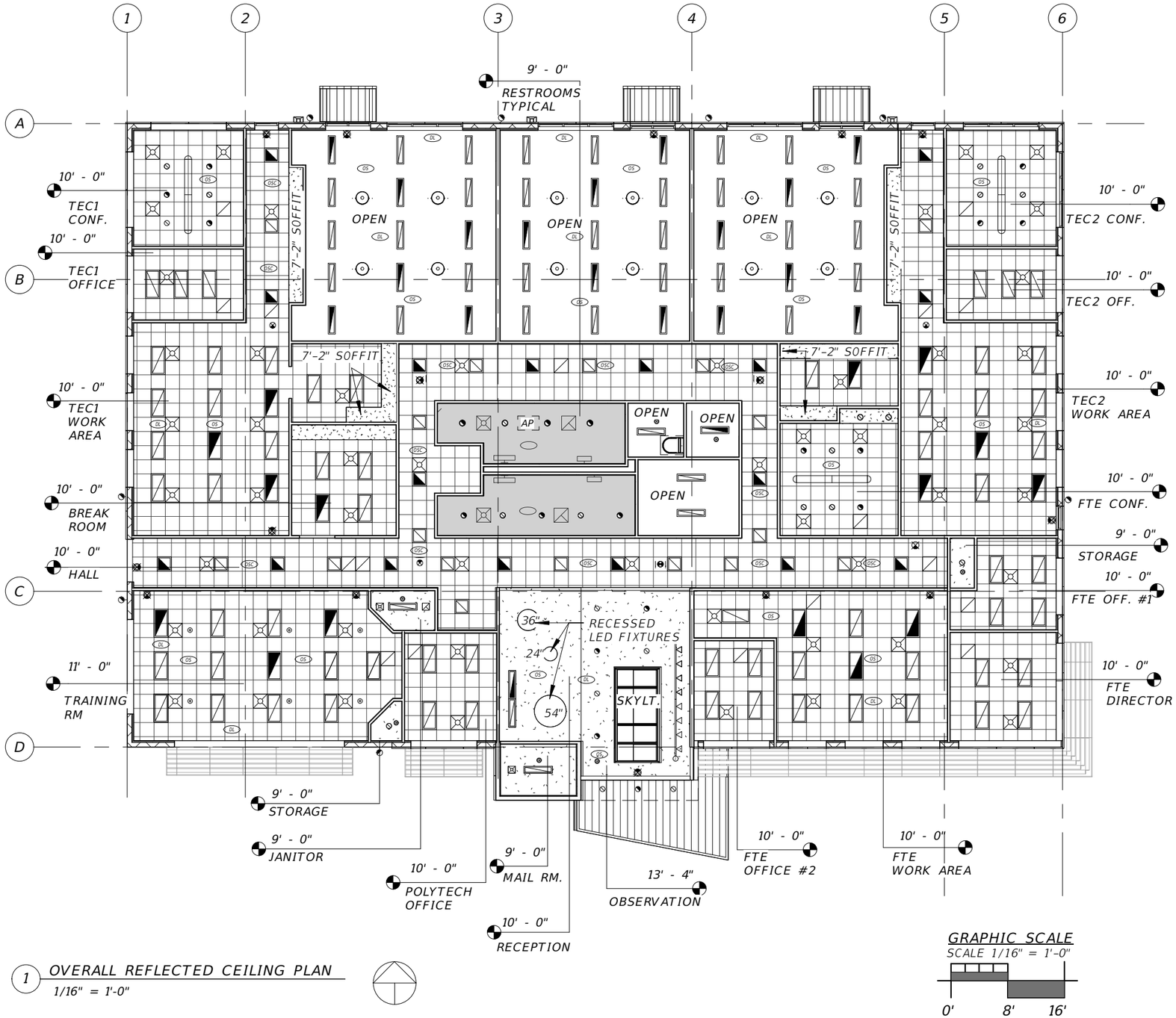
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FLOOR PLAN

SHEET NO. AA1-105

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1 OVERALL REFLECTED CEILING PLAN
1/16" = 1'-0"

GRAPHIC SCALE
SCALE 1/16" = 1'-0"
0' 8' 16'

RCP LEGEND

- EXIT LIGHT
- RECESSED CAN LED LIGHT
- RECESSED EMER. CAN LED LIGHT
- LED LIGHT - LOBBY
- EMER. LED LIGHT - LOBBY
- LED STRIP LIGHT
- TRACK LIGHT
- INTERIOR WALL MOUNTED LIGHT
- EXTERIOR WALL MOUNTED LED EMERGENCY LIGHT
- SUSPENDED LED LIGHT FIXTURE
- SUSPENDED EMERGENCY LED LIGHT FIXT.
- 2X4 LED LIGHT FIXTURE IN CEILING GRID
- 2X4 EMERG LED LIGHT FIXT. IN CLNG GRID
- 2X2 LIGHT FIXTURE IN CEILING GRID
- 2X2 EMERG LED LIGHT FIXT. IN CLNG GRID
- SUPPLY DIFFUSER
- RETURN DIFFUSER
- EXHAUST FAN
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT
- SOUND ISOLATING BATT INSULATION ABOVE CEILING
- GYPSUM SOFFIT CEILING
- SMOKE DETECTOR
- SPEAKER
- OS / OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR
- AP 24"X36" ACCESS PANEL

NOTES:

1. REFER TO SHEET AA1-600, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES AND DUCT LOCATIONS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

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BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

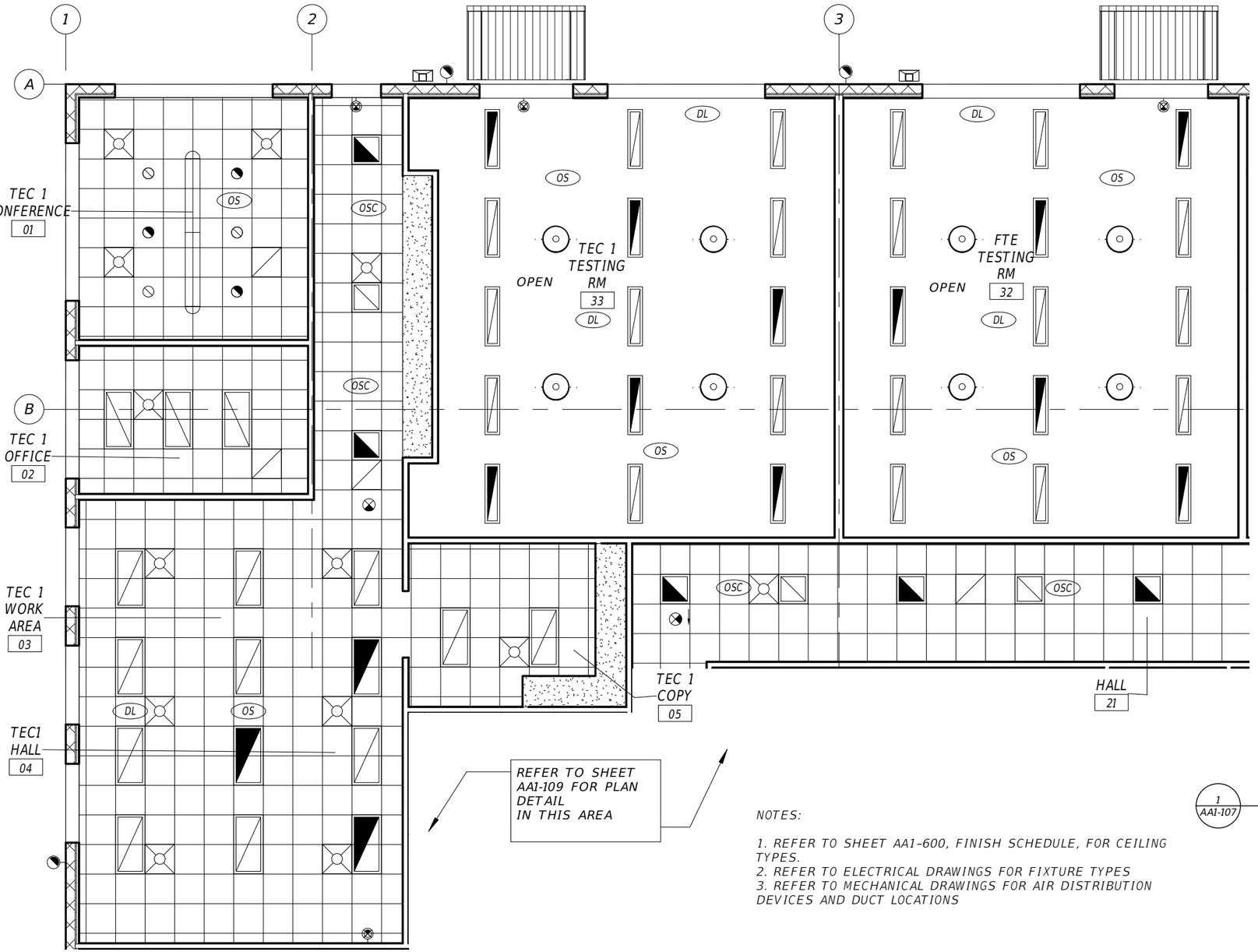
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

REFLECTED CEILING PLAN

SHEET NO. AA1-106

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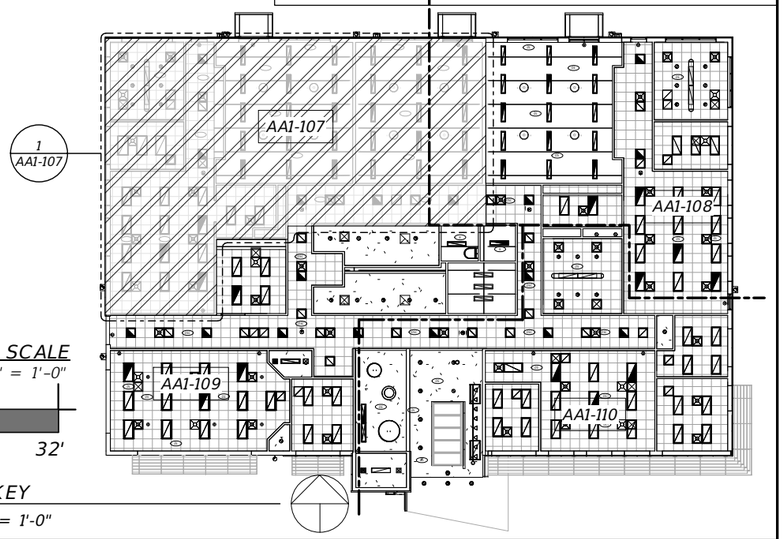


1 ENLARGED REFLECTED CEILING PLAN-TEC 1
1/8" = 1'-0"

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

NOTES:

1. REFER TO SHEET AA1-600, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES AND DUCT LOCATIONS



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

2 RCP KEY
1/32" = 1'-0"

RCP LEGEND

- EXIT LIGHT
- RECESSED CAN LED LIGHT
- RECESSED EMER. CAN LED LIGHT
- LED LIGHT - LOBBY
- EMER. LED LIGHT - LOBBY
- LED STRIP LIGHT
- TRACK LIGHT
- INTERIOR WALL MOUNTED LIGHT
- EXTERIOR WALL MOUNTED LED EMERGENCY LIGHT
- SUSPENDED LED LIGHT FIXTURE
- SUSPENDED EMERGENCY LED LIGHT FIXT.
- 2X4 LED LIGHT FIXTURE IN CEILING GRID
- 2X4 EMERG LED LIGHT FIXT. IN CLNG GRID
- 2X2 LIGHT FIXTURE IN CEILING GRID
- 2X2 EMERG LED LIGHT FIXT. IN CLNG GRID
- SUPPLY DIFFUSER
- RETURN DIFFUSER
- EXHAUST FAN
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT
- SOUND ISOLATING BATT INSULATION ABOVE CEILING
- GYPSUM SOFFIT CEILING
- SMOKE DETECTOR
- SPEAKER
- OS / OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR
- AP 24"X36" ACCESS PANEL

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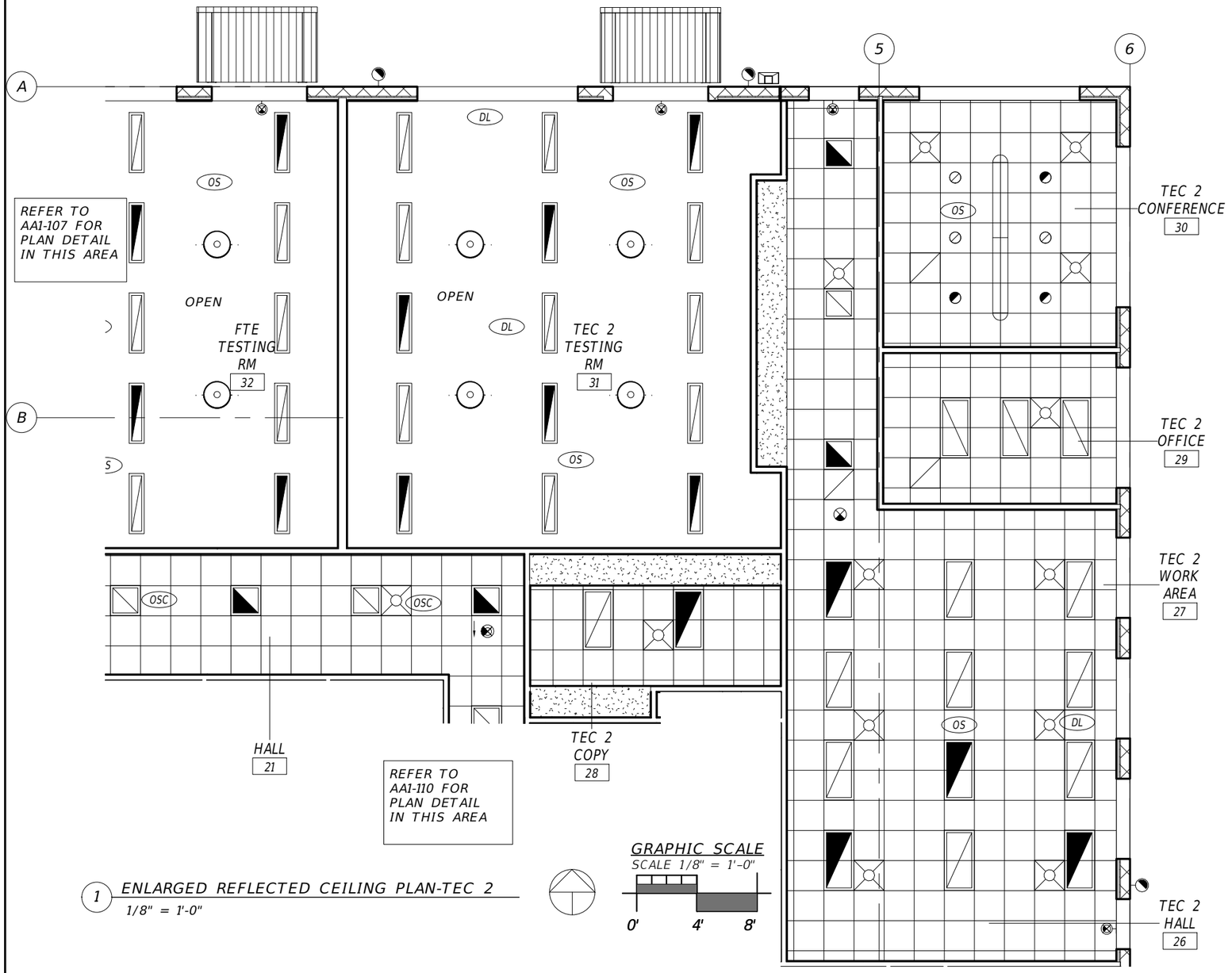
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED REFLECTED CEILING PLAN-TEC 1

SHEET NO. AA1-107

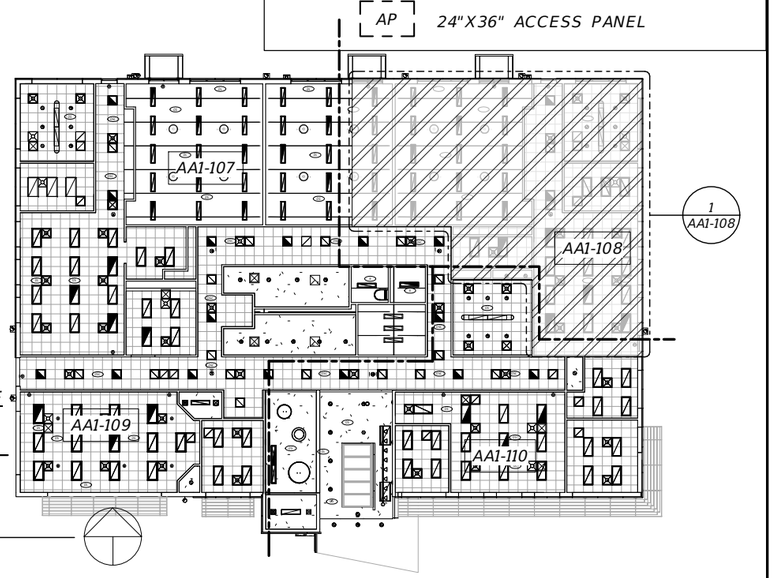


1 ENLARGED REFLECTED CEILING PLAN-TEC 2
1/8" = 1'-0"

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

RCP LEGEND

- EXIT LIGHT
- RECESSED CAN LED LIGHT
- RECESSED EMER. CAN LED LIGHT
- LED LIGHT - LOBBY
- EMER. LED LIGHT - LOBBY
- LED STRIP LIGHT
- TRACK LIGHT
- INTERIOR WALL MOUNTED LIGHT
- EXTERIOR WALL MOUNTED LED EMERGENCY LIGHT
- SUSPENDED LED LIGHT FIXTURE
- SUSPENDED EMERGENCY LED LIGHT FIXT.
- 2X4 LED LIGHT FIXTURE IN CEILING GRID
- 2X4 EMERG LED LIGHT FIXT. IN CLNG GRID
- 2X2 LIGHT FIXTURE IN CEILING GRID
- 2X2 EMERG LED LIGHT FIXT. IN CLNG GRID
- SUPPLY DIFFUSER
- RETURN DIFFUSER
- EXHAUST FAN
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT
- SOUND ISOLATING BATT INSULATION ABOVE CEILING
- GYPSUM SOFFIT CEILING
- SMOKE DETECTOR
- SPEAKER
- OS / OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR
- AP 24"X36" ACCESS PANEL



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

2 RCP KEY
1/32" = 1'-0"

NOTES:

1. REFER TO SHEET AA1-600, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES AND RECEPTACLE CONTROLS.
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES AND DUCT LOCATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

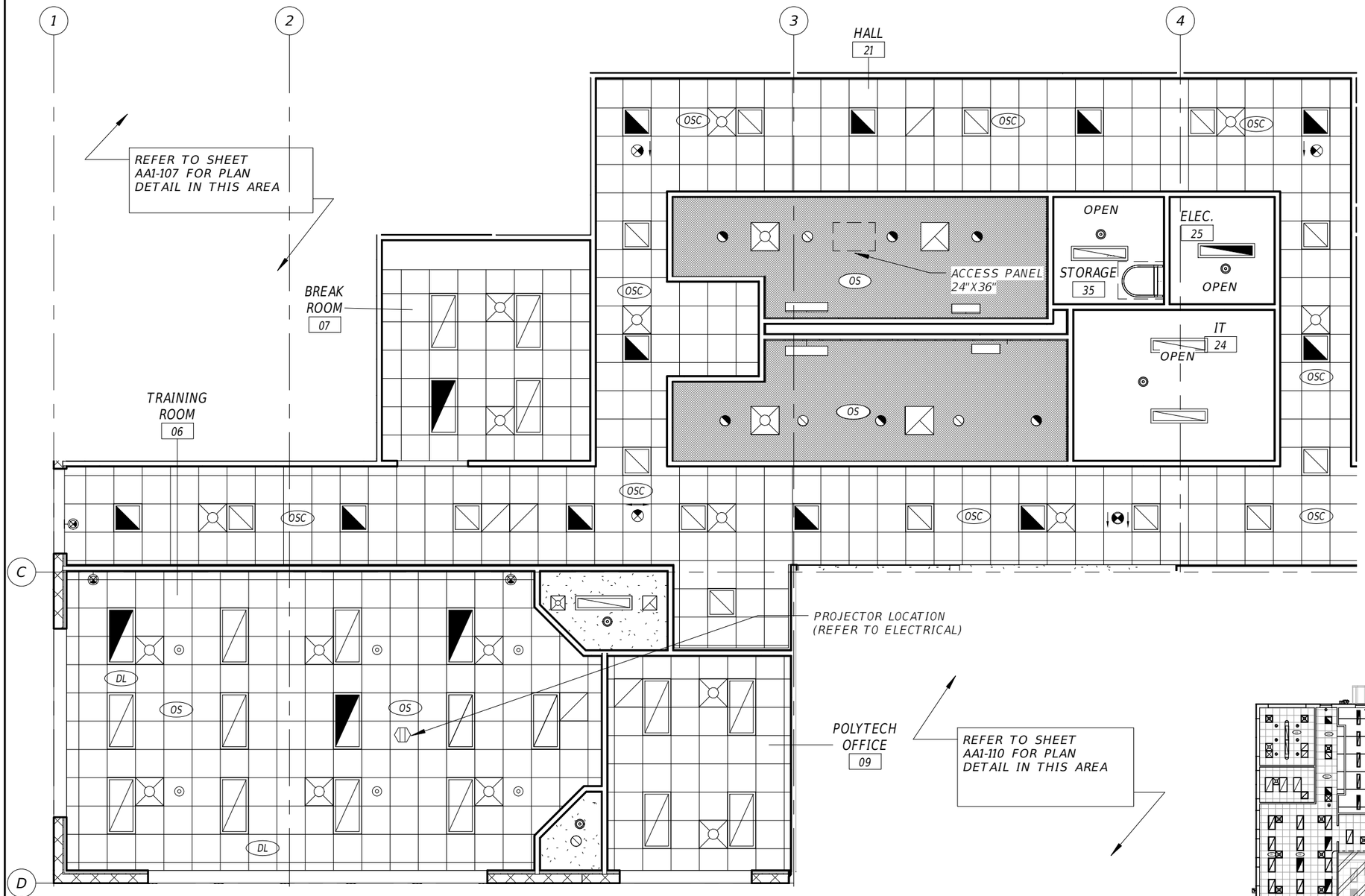
SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED REFLECTED CEILING PLAN-TEC 2

SHEET NO. AA1-108

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1 ENLARGED REFLECTED CEILING PLAN COMMON AREA

1/8" = 1'-0"

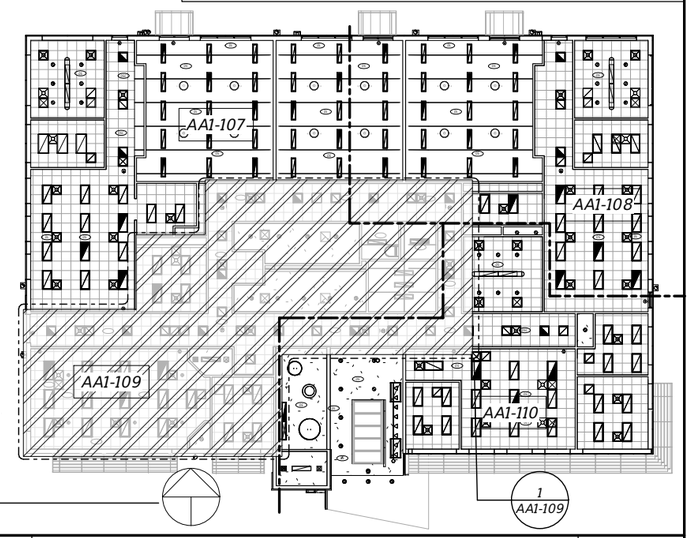
GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTES:

1. REFER TO SHEET AA1-600, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES.
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES AND DUCT LOCATIONS



GRAPHIC SCALE

SCALE 1/32" = 1'-0"

0' 16' 32'

2 RCP KEY

1/32" = 1'-0"

RCP LEGEND

- EXIT LIGHT
- RECESSED CAN LED LIGHT
- RECESSED EMER. CAN LED LIGHT
- LED LIGHT - LOBBY
- EMER. LED LIGHT - LOBBY
- LED STRIP LIGHT
- TRACK LIGHT
- INTERIOR WALL MOUNTED LIGHT
- EXTERIOR WALL MOUNTED LED EMERGENCY LIGHT
- SUSPENDED LED LIGHT FIXTURE
- SUSPENDED EMERGENCY LED LIGHT FIXT.
- 2X4 LED LIGHT FIXTURE IN CEILING GRID
- 2X4 EMERG LED LIGHT FIXT. IN CLNG GRID
- 2X2 LIGHT FIXTURE IN CEILING GRID
- 2X2 EMERG LED LIGHT FIXT. IN CLNG GRID
- SUPPLY DIFFUSER
- RETURN DIFFUSER
- EXHAUST FAN
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT
- SOUND ISOLATING BATT INSULATION ABOVE CEILING
- GYPSUM SOFFIT CEILING
- SMOKE DETECTOR
- SPEAKER
- OS / OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR
- AP 24"X36" ACCESS PANEL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

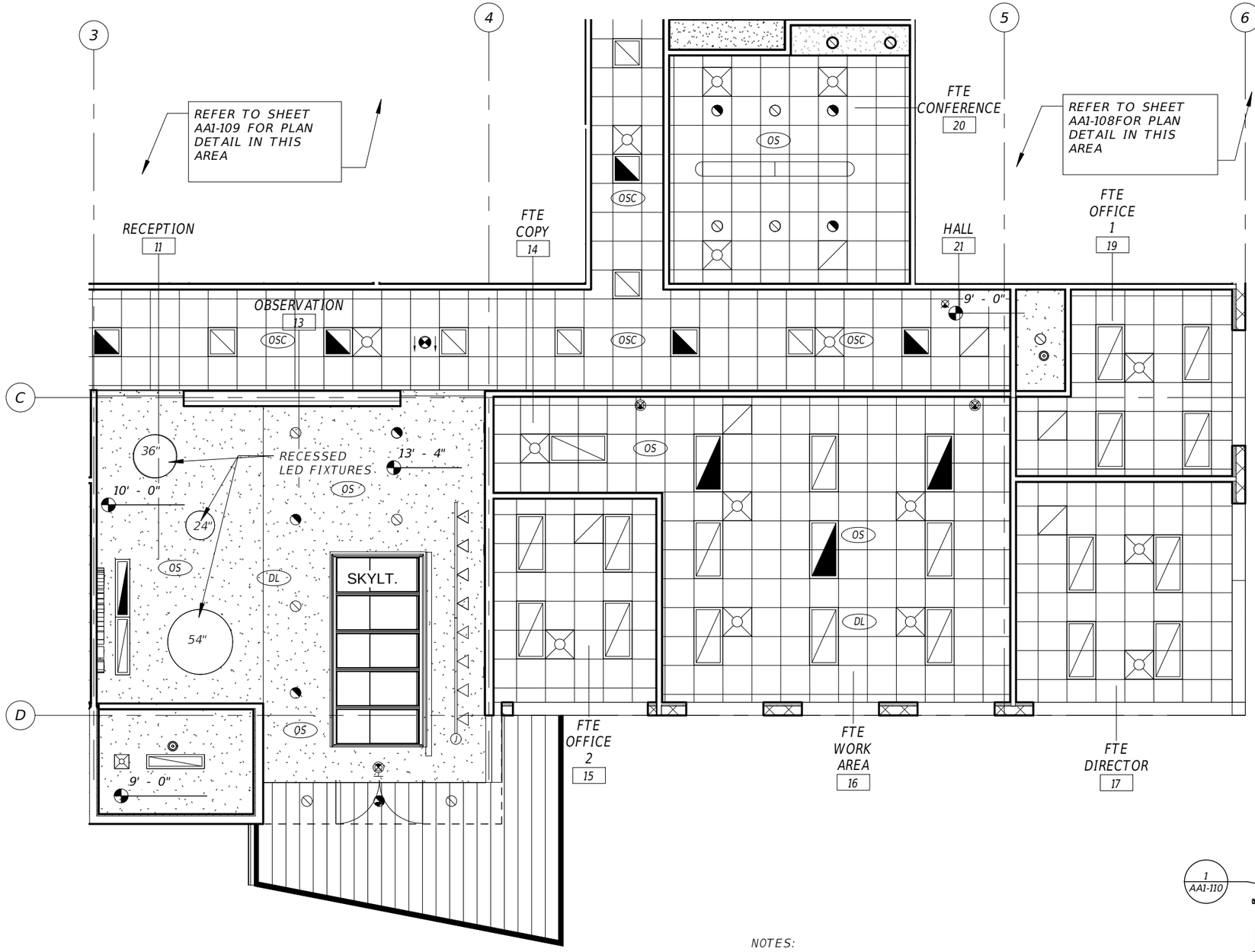
SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED REFLECTED CEILING PLAN-COMMON AREA

SHEET NO. AA1-109

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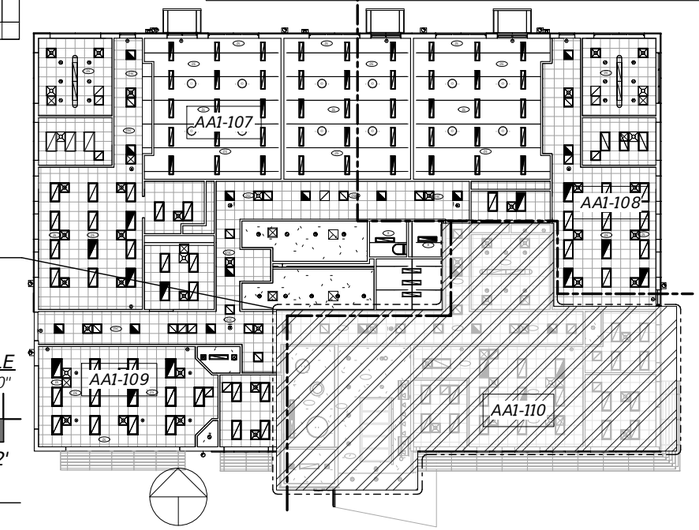


1 ENLARGED REFLECTED CEILING PLAN FTE ADMIN
1/8" = 1'-0"

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

NOTES:

1. REFER TO SHEET AA1-600, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES AND DUCT LOCATIONS



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

2 RCP KEY
1/32" = 1'-0"

RCP LEGEND

- EXIT LIGHT
- RECESSED CAN LED LIGHT
- RECESSED EMER. CAN LED LIGHT
- LED LIGHT - LOBBY
- EMER. LED LIGHT - LOBBY
- LED STRIP LIGHT
- TRACK LIGHT
- INTERIOR WALL MOUNTED LIGHT
- EXTERIOR WALL MOUNTED LED EMERGENCY LIGHT
- SUSPENDED LED LIGHT FIXTURE
- SUSPENDED EMERGENCY LED LIGHT FIXT.
- 2X4 LED LIGHT FIXTURE IN CEILING GRID
- 2X4 EMERG LED LIGHT FIXT. IN CLNG GRID
- 2X2 LIGHT FIXTURE IN CEILING GRID
- 2X2 EMERG LED LIGHT FIXT. IN CLNG GRID
- SUPPLY DIFFUSER
- RETURN DIFFUSER
- EXHAUST FAN
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT
- SOUND ISOLATING BATT INSULATION ABOVE CEILING
- GYPSUM SOFFIT CEILING
- SMOKE DETECTOR
- SPEAKER
- OS / OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR
- AP 24"X36" ACCESS PANEL

REVISIONS			
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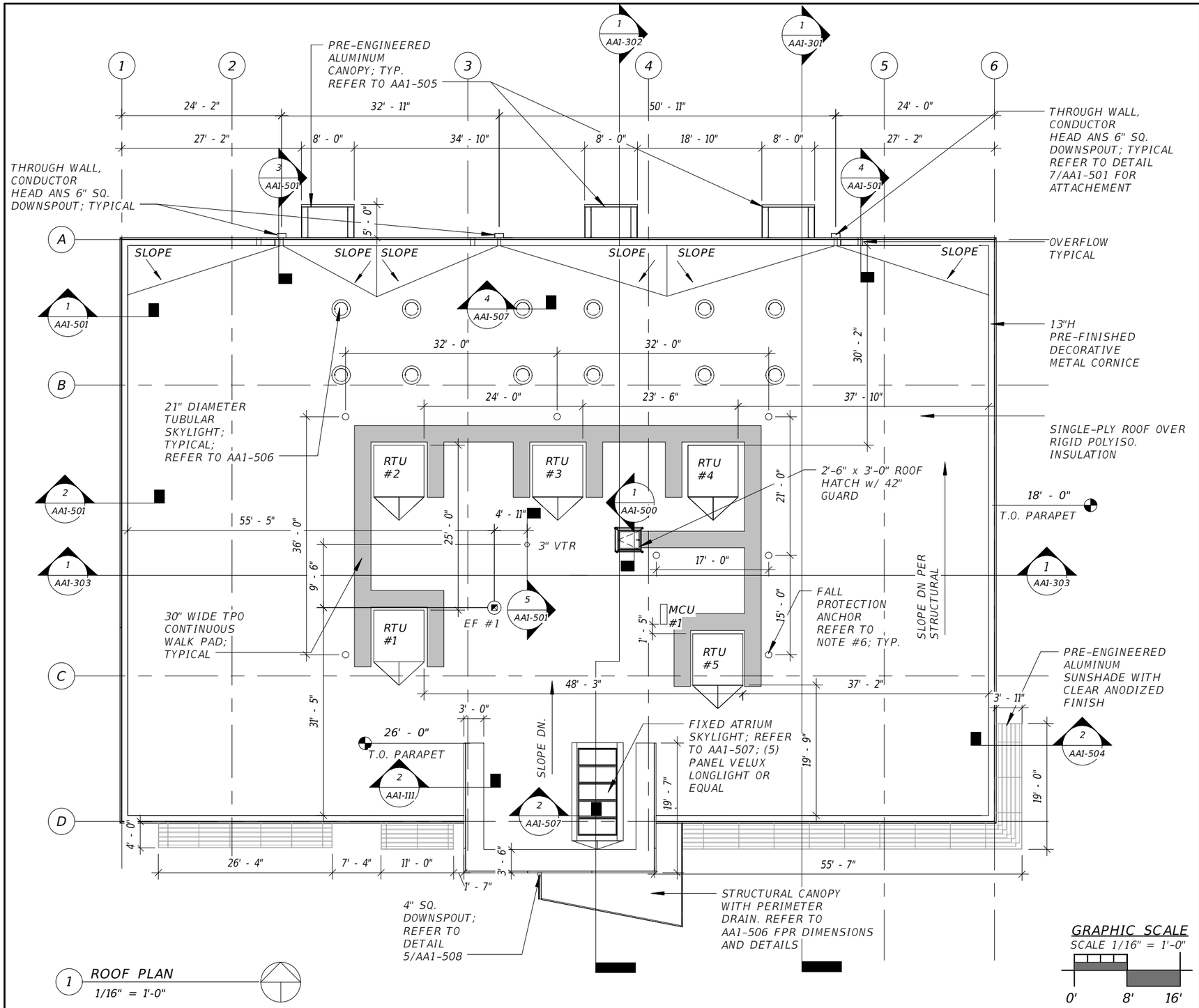
SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED REFLECTED CEILING PLAN-FTE ADMIN

SHEET NO. AA1-110

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1 ROOF PLAN
1/16" = 1'-0"

GRAPHIC SCALE
SCALE 1/16" = 1'-0"
0' 8' 16'

GENERAL ROOF NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH, TYP.

2. GRID DIMENSIONS ARE TO FACE OR CENTERLINE OF STRUTURE.

3. PROVIDE 1/4"/FT. TAPERED INSULATION TO FORM CRICKET SLOPE (TYP.)

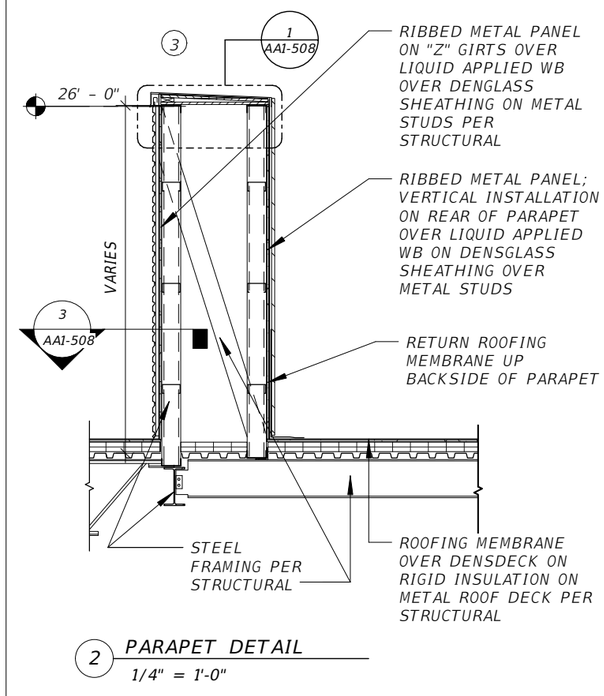
4. STORMWATER DRAINAGE

- ALL DOWNSPOUTS ARE 6"X6," TYP.; UNLESS NOTED OTHERWISE
- CONDUCTORS/SCUPPERS OPENINGS ARE 8"X16," TYP.

a.) SIZE OF VERT. CONDUCTORS BASED ON TABLE 1106.2 FBC 2014-PLUMBING
b.) SIZE OF SEMICIRCULAR ROOF GUTTERS BASED ON TABLE 1106.6 FBC 2014-PLUMBING
c.) SIZE OF THRU-WALL SCUPPER BASED ON TABLE 1106.7 FBC 2014 -PLUMBING FOR 5"/HR. RAINFALL RATE.
d.) SIZE OF RECTANGULAR VERTICAL CONDUCTORS AND LEADERS - 5 1/2"X5 1/2" @ 5" RAINFALL RATE COVERS 8,860 SQ. FT.
e.) SIZE OF SCUPPERS FOR 5" RAINFALL - 4"X16" COVERS 7,179 SQ. FT.

5. REFER TO AA1-501 FOR ROOF DETAILS

6. PROVIDE DBI-SALA ROOFSAFE ANCHOR AND CABLE SYSTEM. MAXIMUM SPACING OF ANCHORS IS 39' IN EITHER DIRECTION.



2 PARAPET DETAIL
1/4" = 1'-0"

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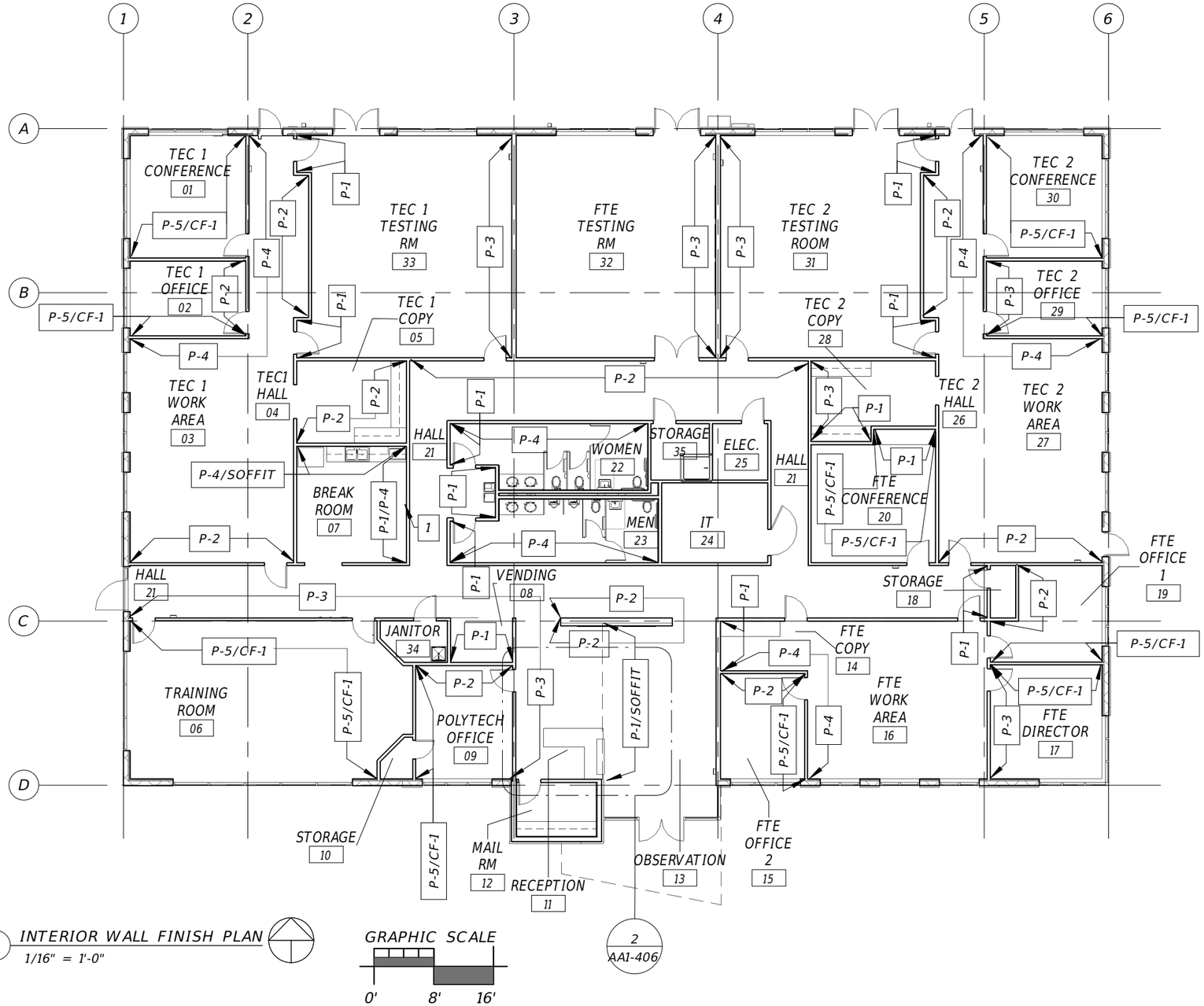
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ROOF PLAN

SHEET NO. AA1-111

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1 INTERIOR WALL FINISH PLAN
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

GENERAL NOTES

A. PAINT SHALL BE EGGSHELL FINISH THROUGHOUT. U.O.N.

B. ALL HOLLOW METAL FRAMES & DOORS TO BE P-4 U.O.N.

C. REFER TO SHEET AA1-601 FOR FINISH MATERIAL LIST WITH PRODUCTS SPECIFICATIONS

D. ALL EXPOSED CEILINGS TO RECEIVE P-6, TYP.

E. ALL SOFFITS AND BULKHEADS TO RECEIVE P-6 U.O.N.

F. ALL WALLS TO BE PAINTED P-6 U.O.N.

G. ALL WALLS IN RESTROOMS, AND BREAK ROOM TO BE SEMI-GLOSS FINISH.

H. USE TILE EXPANSION JOINT AS SHOWN IN DETAIL 4/AA1-600 OVER ALL EXPANSION JOINTS IN CONCRETE SUBFLOOR.

KEYNOTES

1 SPECIAL PAINT FINISH PATTERN - SEE ELEVATION

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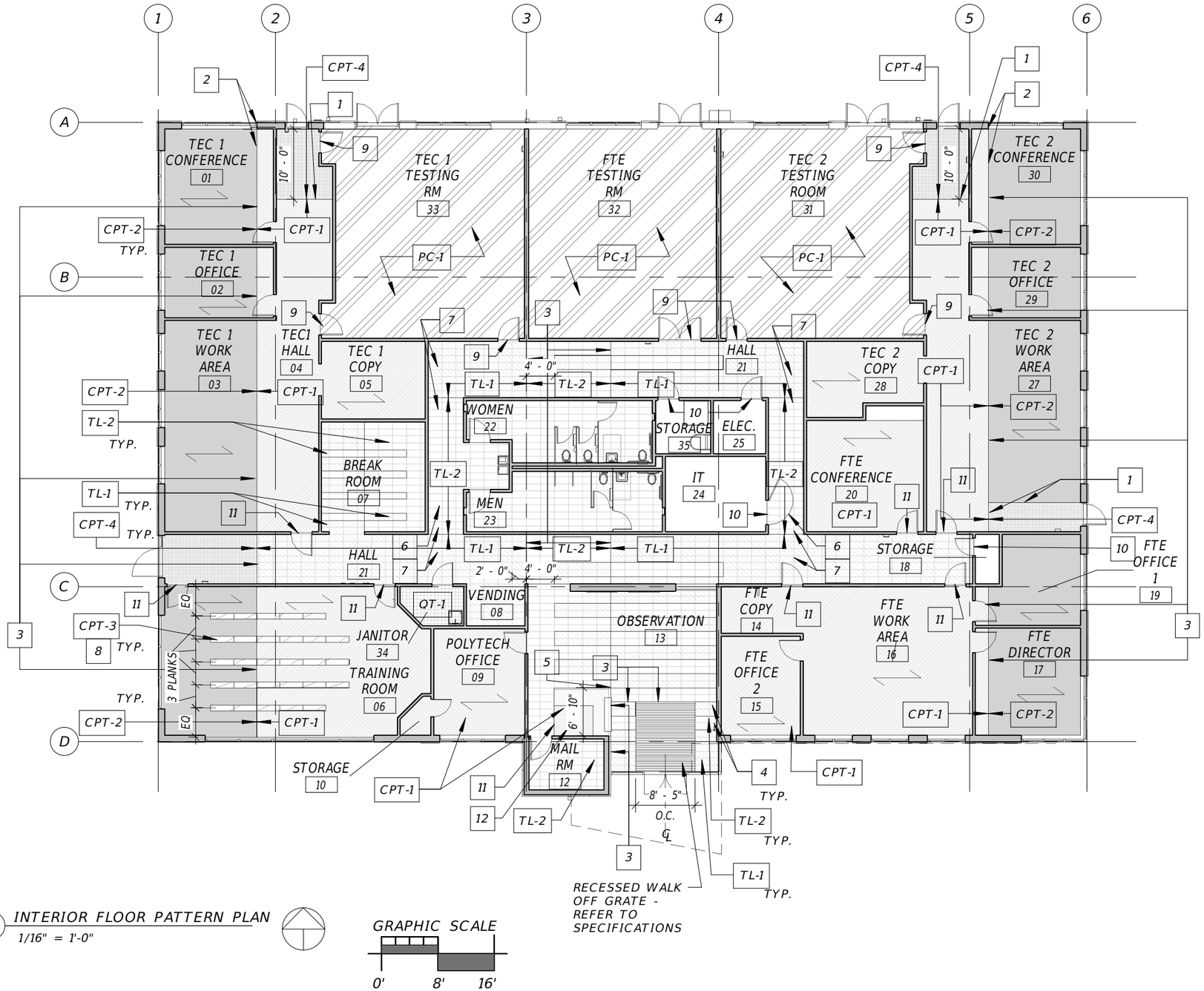
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING INTERIOR FINISH PLAN

SHEET NO. AA1-112

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1 INTERIOR FLOOR PATTERN PLAN
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

FLOOR FINISH LEGEND:

- TL-1, PORCELAIN TILE (CHARCOAL)
- TL-2, PORCELAIN TILE (GRAY)
- CPT-1, CARPET TILE PLANK (BLUE)
- CPT-2, CARPET TILE PLANK (CHARCOAL)
- CPT-3, CARPET TILE PLANK (GRAY)
- PC-1, POLISHED CONCRETE
- QT-1, QUARRY TILE
- CPT-4, WALK-OFF CARPET TILE
- SC, SEALED CONCRETE

SYMBOLS LEGEND

- CARPET PLANK DIRECTION
- X — KEYNOTE

FINISH NOTES

A. SEE FINISH DESCRIPTIONS FOR FINISH SPECIFICATIONS
B. ALL TILE TO BE THINSET
C. GROUT LINES SHALL BE NO GREATER THAN 1/8" WIDTH
D. REFER TO SHEET AA1-601 FOR FINISH MATERIAL LIST WITH PRODUCTS SPECIFICATIONS
E. SEE TRANSITION DETAILS ON SHEET AA1-600
F. PORCELAIN TILE PATTERN TO BE INSTALLED PER THIS PLAN
G. ALL TILE BASE JOINTS TO ALIGN TO FLOOR TILE JOINTS

KEY NOTES

1. NO TRANSITION STRIP REQUIRED BETWEEN CPT-4 (WALK-OFF CARPET TILE) AND INTERIOR CARPET TILE. BEVEL WALL-OFF TILE AT TRANSITION TO CARPET TILE CPT-1 AND CPT-2 TO CREATE A SMOOTH SLOPED TRANSITION.
2. ALIGN CARPET TILE/PLANK COLOR CHANGE TO WINDOW OPENING
3. ALIGN
4. 2 TILE WIDE BANDS
5. START PATTERN HERE
6. CENTER TILE TO CORRIDOR
7. ALIGN TILE JOINTS
8. SINGLE PLANKS
9. REFER TO DETAIL 2/A.A1-600; CARPET TO CONCRETE TRANSITION
10. REFER TO DETAIL 3/AA1-600; TILE TO CONCRETE TRANSITION
11. REFER TO DETAIL 1/AA1-600; TILE TO CARPET TRANSITION
12. REFER TO AA1-406 FOR DIMENSIONS & EXTENT OF CARPET UNDER RECEPTION COUNTER

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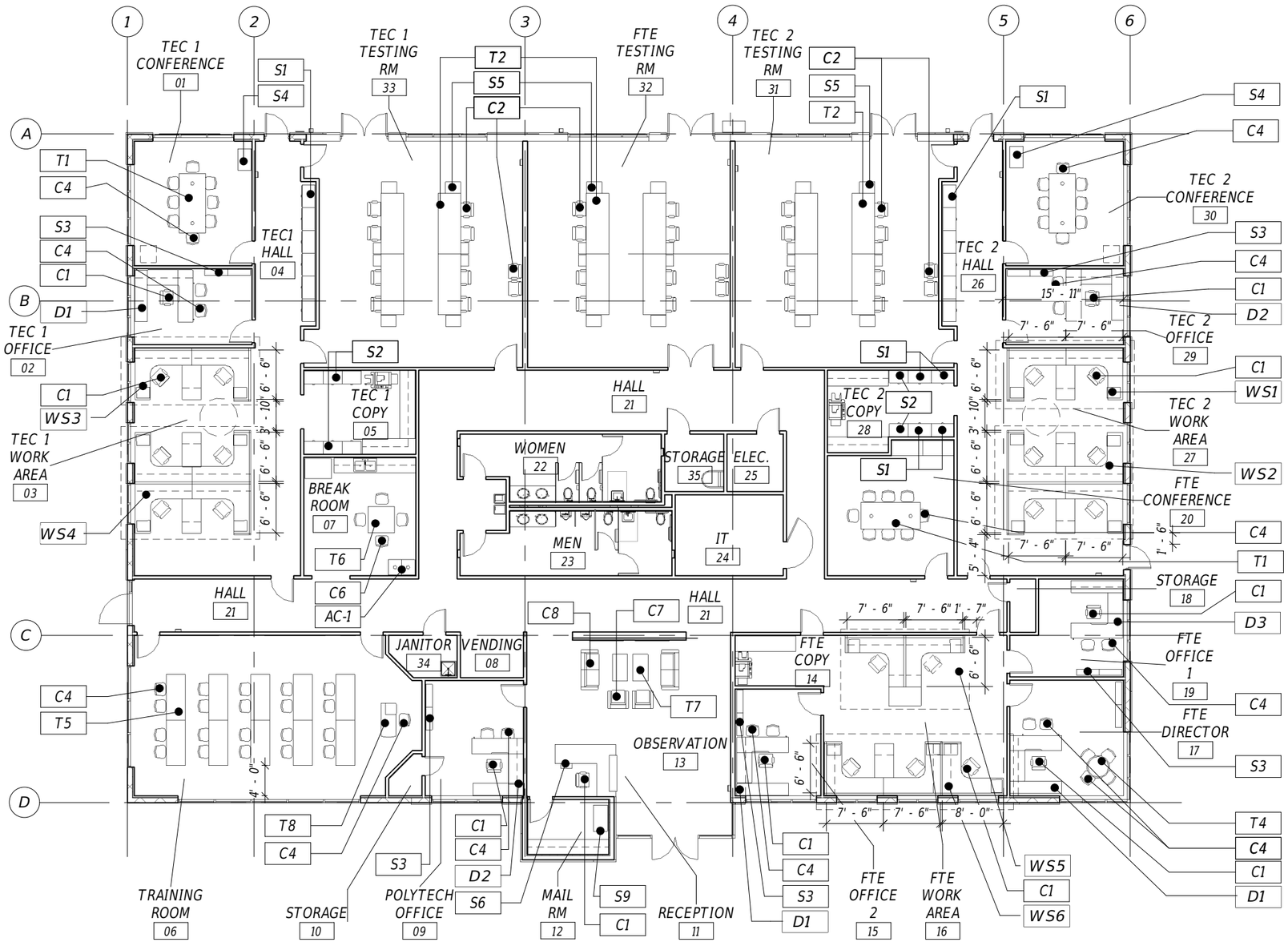
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING INTERIOR PATTERN PLAN

SHEET NO. AA1-113

gcleavenger 12/05/2016 12:21pm



1 FURNITURE PLAN
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

FURNITURE NOTES

1. SEE CORRESPONDING FURNITURE SPECIFICATIONS DOCUMENT, IN APPENDIX C, FOR FURNITURE INFORMATION, IE, MANUFACTURER, DIMENSIONS, FINISHES AND PRICING.

2. TASK LIGHTING SHALL BE PROVIDED AT EACH WORK STATION; REFER TO ELECTRICAL DRAWINGS AND FURNITURE SPECIFICATIONS.

3. 50% RECEPTACLE CONTROLS SHALL BE PROVIDED TO MEET LEED REQUIREMENTS. REFER TO ELECTRICAL DRAWINGS AND FURNITURE SPECIFICATIONS.

4. CONTRACTOR IS TO PURCHASE THE FURNITURE NOTED HEREIN AND IN APPENDIX C OF THE TECHNICAL SPECIAL PROVISIONS ON BEHALF OF FTE. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COMPLETE FURNITURE INSTALLATION.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-16.005, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

JENNIFER RAMSKI, INTERIOR DESIGNER
FL ID #0000023
RAMSKI AND COMPANY
500 DELANEY AVENUE, SUITE 301
ORLANDO, FLORIDA 32801
T: 407.898.6570
WWW.RAMSKIANDCOMPANY.COM
FL LICENSE #IB-0001127

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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NA	POLK	437300-1-52-01

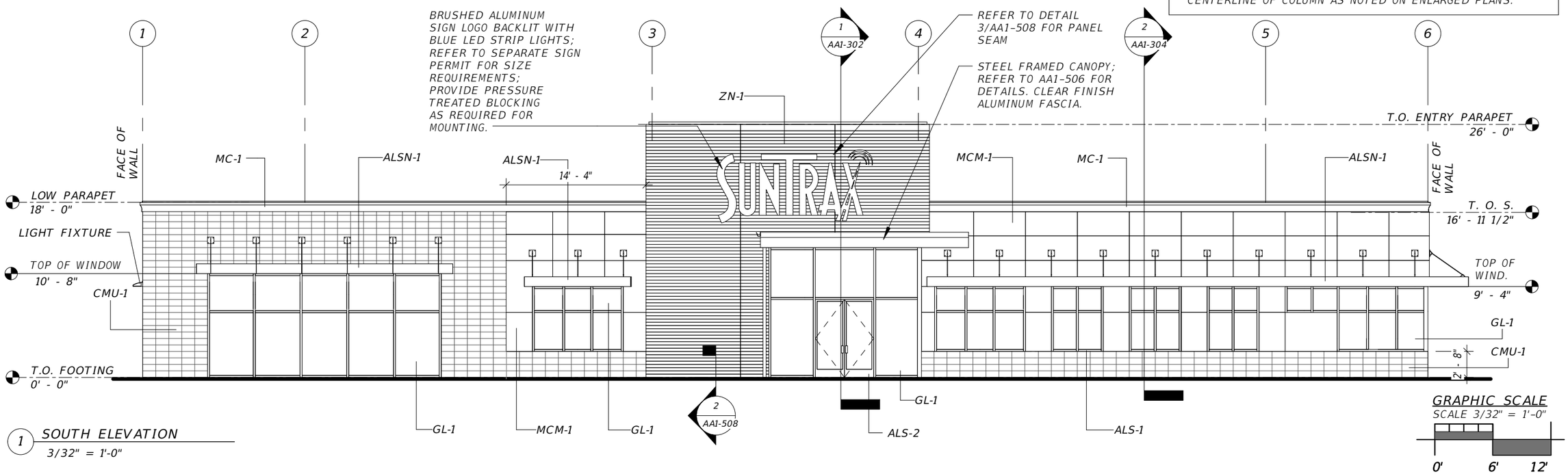
SUNTRAX TEST FACILITY OPERATIONS BUILDING

FURNITURE PLAN

SHEET NO. AA1-114

NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 SOUTH ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES (SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

ALUMINUM ENTRANCES AND STOREFRONT (ALS) (08 4113)

ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: THERMAL GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: THERMAL GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR APPROVED EQUAL
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: FASCIA AS NOTED; AA1-505

ALUMINUM SUNSHADE (ALSN) (10 7113)
ALSN-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR YKK THERMASHADE
STYLE: CANTILEVERED WITH TIE BACKS
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 9" FASCIA
NOTES: FABRICATE FOR SOUTH FACING FACADE

NOTES

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; REFER TO ROOF PLAN FOR SIZE AND LOCATION

-NS - NON SMOKING SIGN MOUNTED 48" A.F.F.; REFER TO SITE CIVIL DRAWINGS FOR DETAIL

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STATE OF FLORIDA
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SUNTRAX TEST FACILITY
OPERATIONS BUILDING

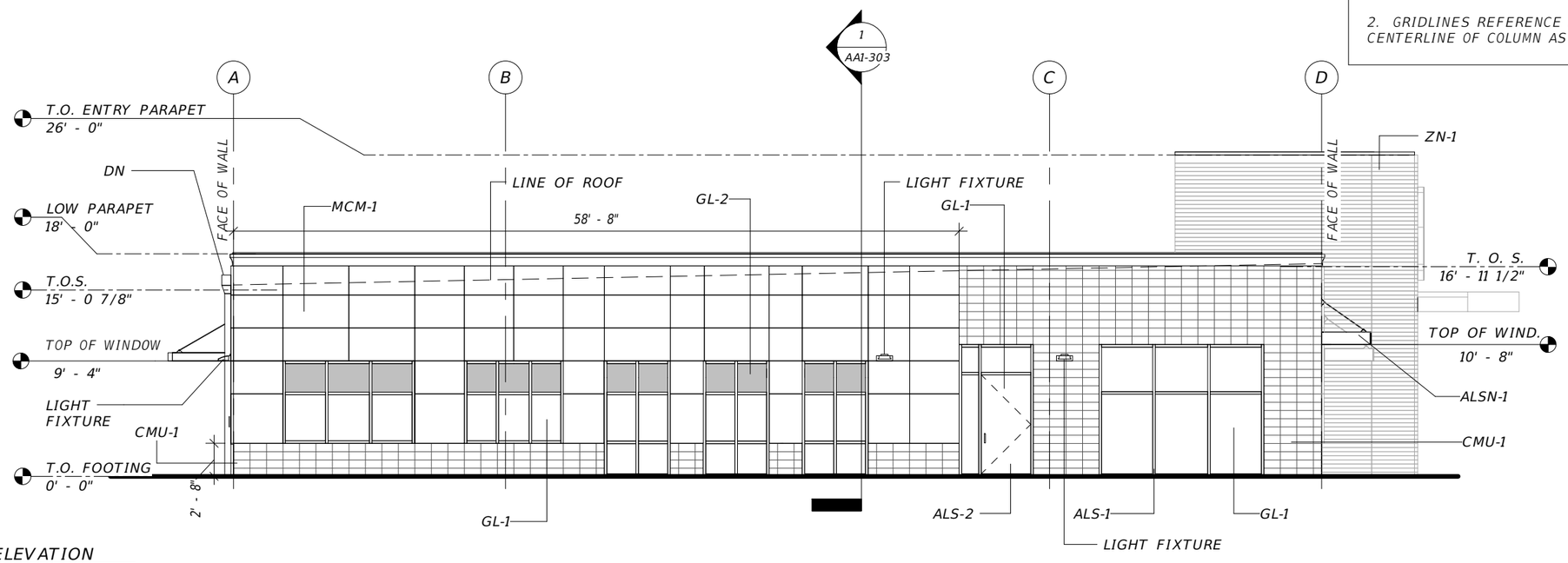
SOUTH ELEVATION

SHEET NO.
AA1-201

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NOTE:
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2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



2 WEST ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES (SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

ALUMINUM ENTRANCES AND STOREFRONT (ALS) (08 4113)

ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: THERMAL GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: THERMAL GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR APPROVED EQUAL
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: FASCIA AS NOTED; AA1-505

ALUMINUM SUNSHADE (ALSN) (10 7113)
ALSN-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR YKK THERMASHADE
STYLE: CANTILEVERED WITH TIE BACKS
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 9" FASCIA
NOTES: FABRICATE FOR SOUTH FACING FACADE

NOTES

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-NS - NON SMOKING SIGN MOUNTED 48" A.F.F.; REFER TO SITE CIVIL DRAWINGS FOR DETAIL

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SUNTRAX TEST FACILITY OPERATIONS BUILDING

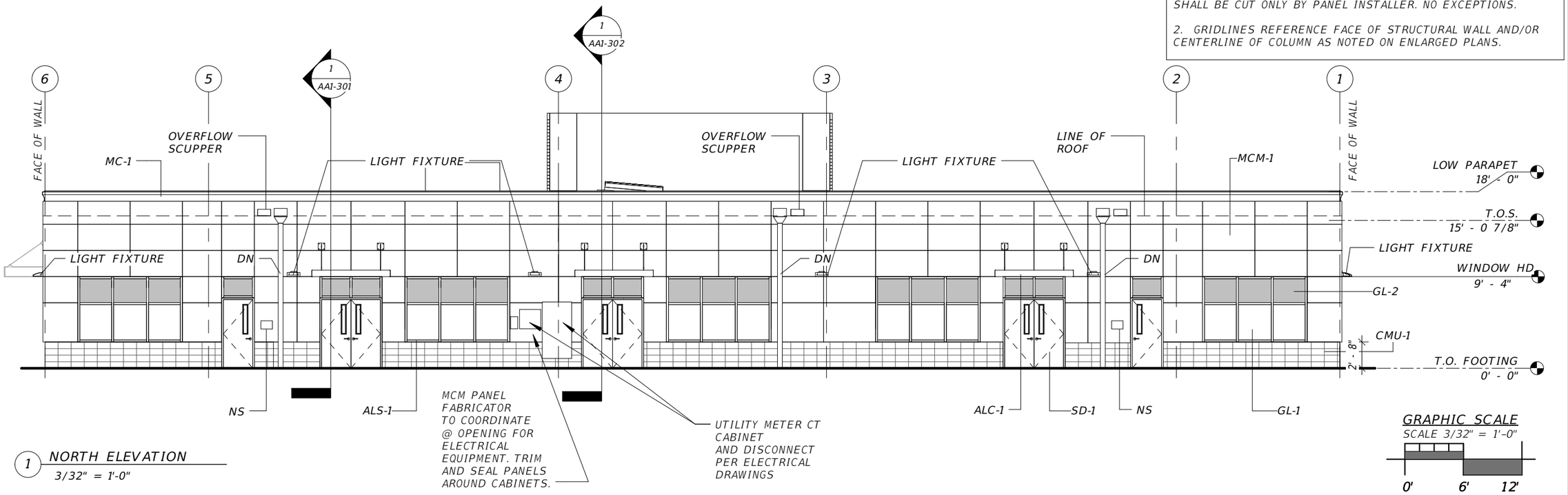
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SHEET NO.
AA1-202

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NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 NORTH ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES (SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

ALUMINUM ENTRANCES AND STOREFRONT (ALS) (08 4113)

ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: THERMAL GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: THERMAL GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR APPROVED EQUAL
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: FASCIA AS NOTED; AA1-505

ALUMINUM SUNSHADE (ALSN) (10 7113)
ALSN-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR YKK THERMASHADE
STYLE: CANTILEVERED WITH TIE BACKS
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 9" FASCIA
NOTES: FABRICATE FOR SOUTH FACING FACADE

NOTES

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; REFER TO ROOF PLAN FOR SIZE AND LOCATION

-NS - NON SMOKING SIGN MOUNTED 48" A.F.F.; REFER TO SITE CIVIL DRAWINGS FOR DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

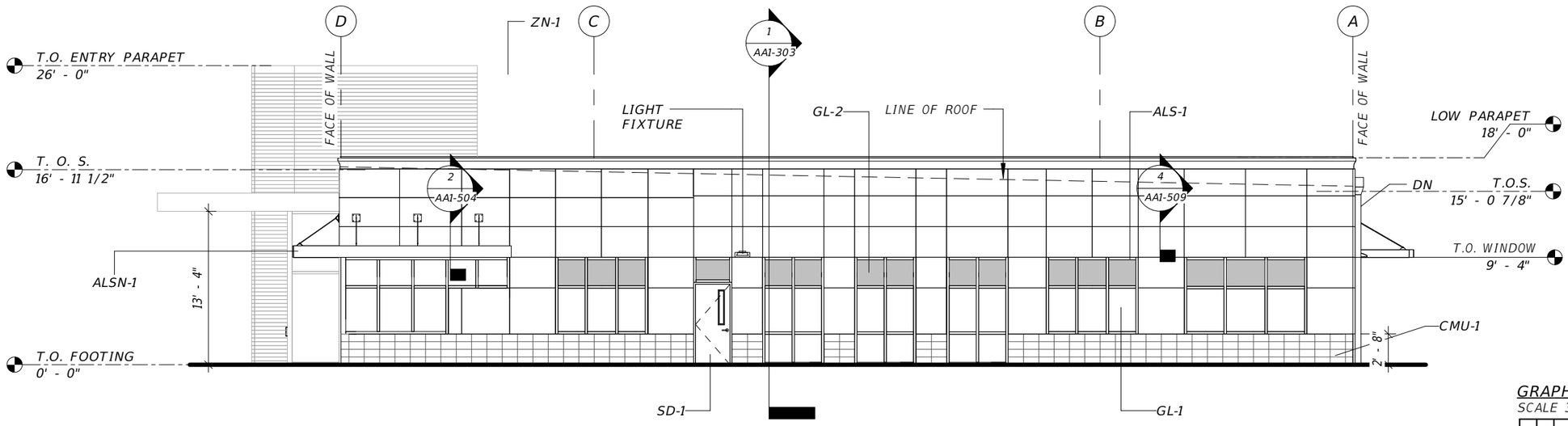
NORTH ELEVATION

SHEET NO.
AA1-203

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 EAST ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES (SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

ALUMINUM ENTRANCES AND STOREFRONT (ALS) (08 4113)

ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: THERMAL GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: THERMAL GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR APPROVED EQUAL
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: FASCIA AS NOTED; AA1-505

ALUMINUM SUNSHADE (ALSN) (10 7113)
ALSN-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS OR YKK THERMASHADE
STYLE: CANTILEVERED WITH TIE BACKS
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 9" FASCIA
NOTES: FABRICATE FOR SOUTH FACING FACADE

NOTES

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; REFER TO ROOF PLAN FOR SIZE AND LOCATION

-NS - NON SMOKING SIGN MOUNTED 48" A.F.F.; REFER TO SITE CIVIL DRAWINGS FOR DETAIL

REVISIONS			
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LONGWOOD, FLORIDA 32750
BO CA NO. 5898
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STATE OF FLORIDA
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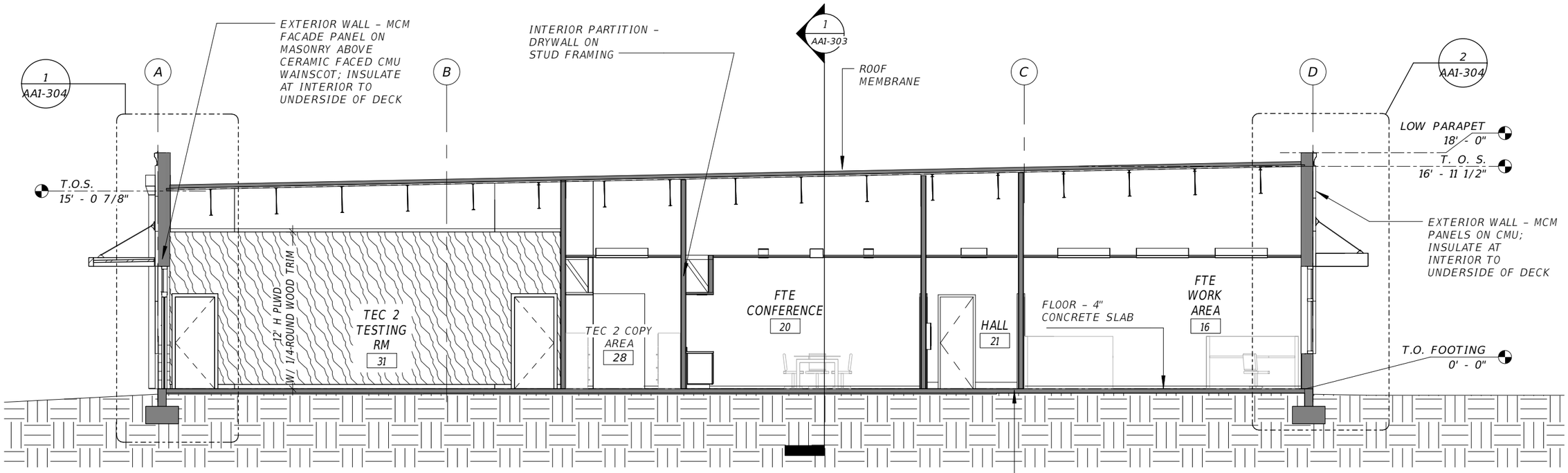
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

EAST ELEVATION

SHEET NO.
AA1-204

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 BUILDING SECTION THROUGH TESTING ROOM, FTE CONFERENCE AND WORK AREA

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTE:

BUILDING SECTIONS ARE ILLUSTRATED WITH WALLS, ROOFS, CEILINGS, PARTITIONS AND FLOORS REPRESENTED GRAPHICALLY WITH A SOLID GRAY REGION. DETAILED MATERIALS ARE DEPICTED IN WALL SECTION DRAWINGS SHEET AA1-304 AND ENLARGED DETAILS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

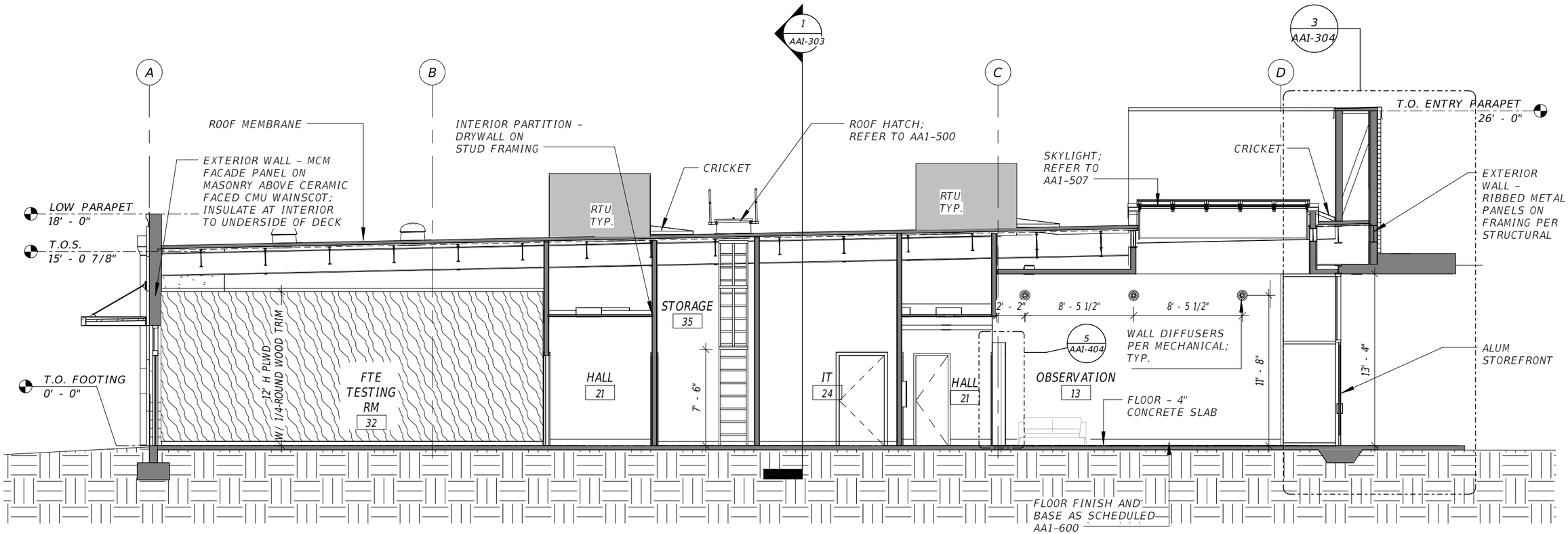
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

BUILDING SECTION

SHEET NO. AA1-301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 BUILDING SECTION THROUGH OBSERVATION, HALL, AND STORAGE AREA

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTE:
BUILDING SECTIONS ARE ILLUSTRATED WITH WALLS, ROOFS, CEILINGS, PARTITIONS AND FLOORS REPRESENTED GRAPHICALLY WITH A SOLID GRAY REGION. DETAILED MATERIALS ARE DEPICTED IN WALL SECTION DRAWINGS SHEET AA1-304 AND ENLARGED DETAILS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

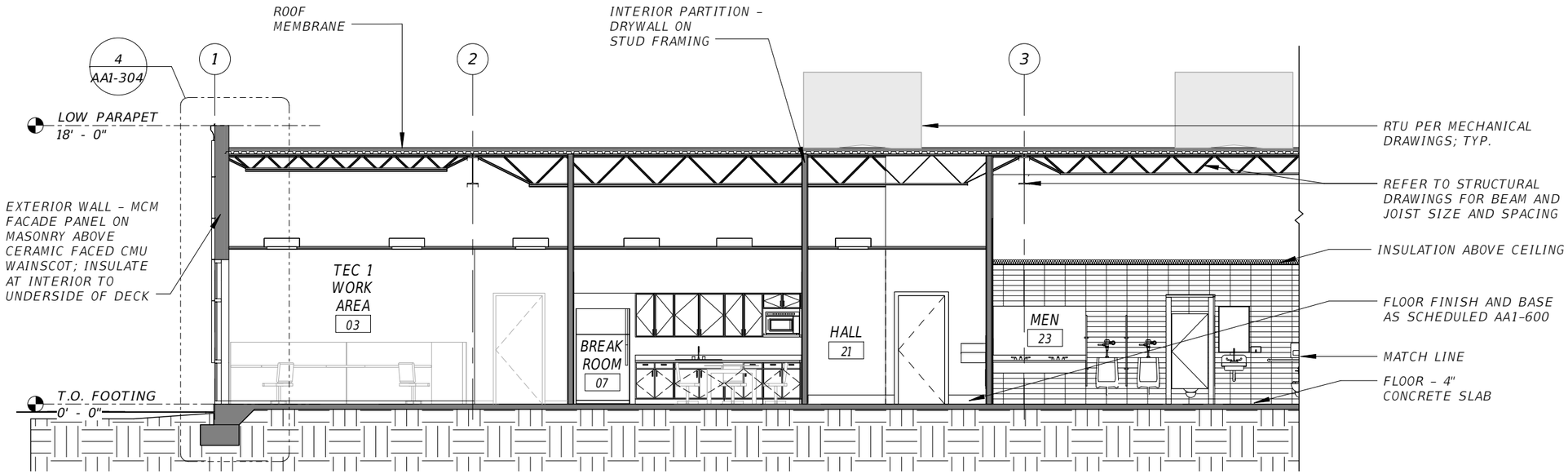
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

BUILDING SECTION

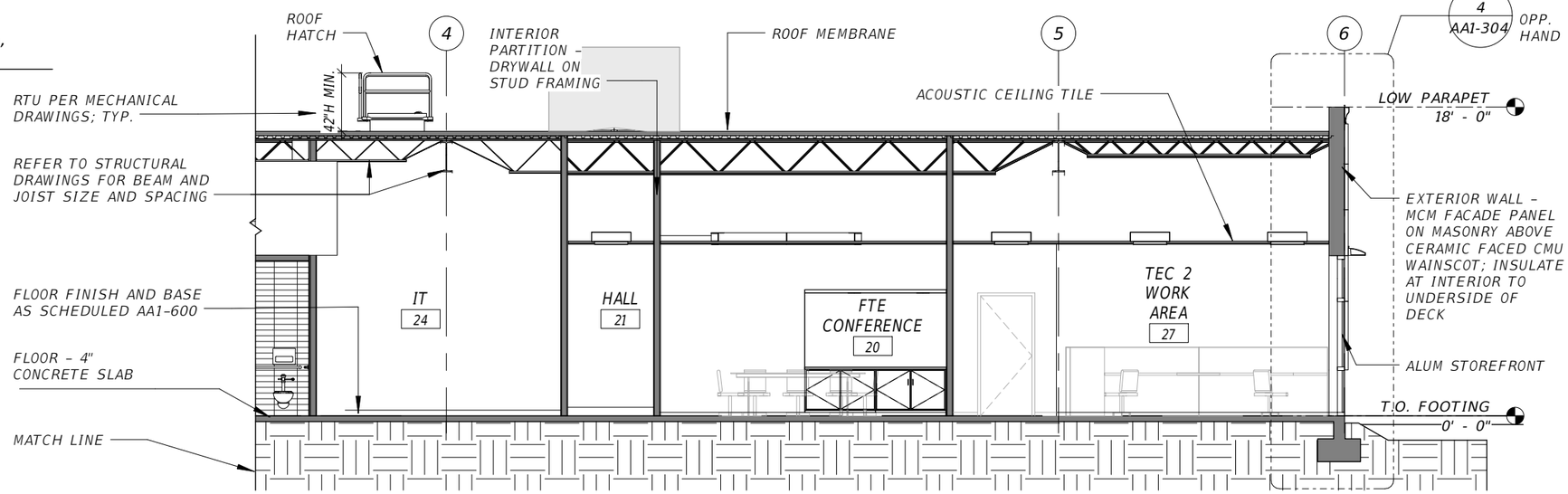
SHEET NO. AA1-302

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 BUILDING SECTION THROUGH WORK AREA, BREAK ROOM, AND HALL

1/8" = 1'-0"



1 BUILDING SECTION THROUGH STORAGE, HALL, AND CONFERENCE

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTE:

BUILDING SECTIONS ARE ILLUSTRATED WITH WALLS, ROOFS, CEILINGS, PARTITIONS AND FLOORS REPRESENTED GRAPHICALLY WITH A SOLID GRAY REGION. DETAILED MATERIALS ARE DEPICTED IN WALL SECTION DRAWINGS SHEET AA1-304 AND ENLARGED DETAILS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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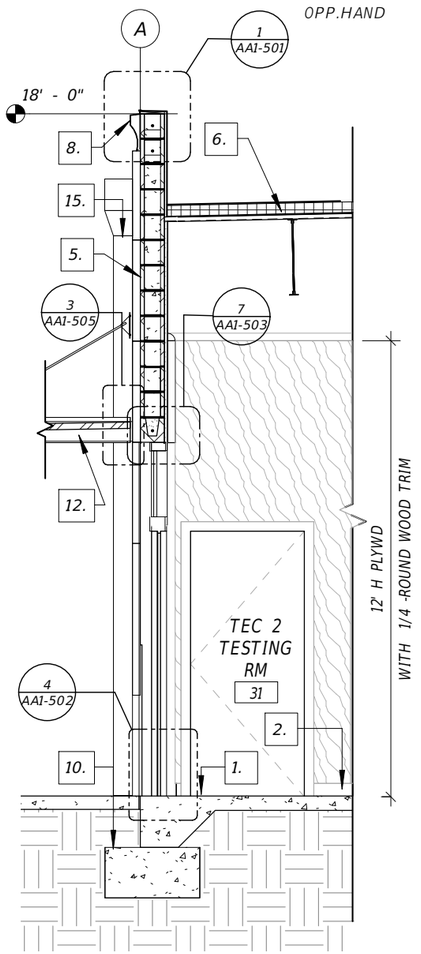
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

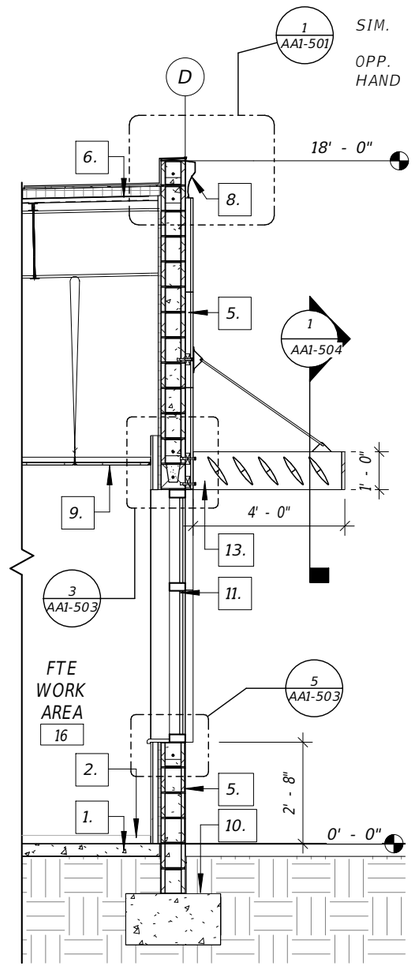
BUILDING SECTIONS

SHEET NO. AA1-303

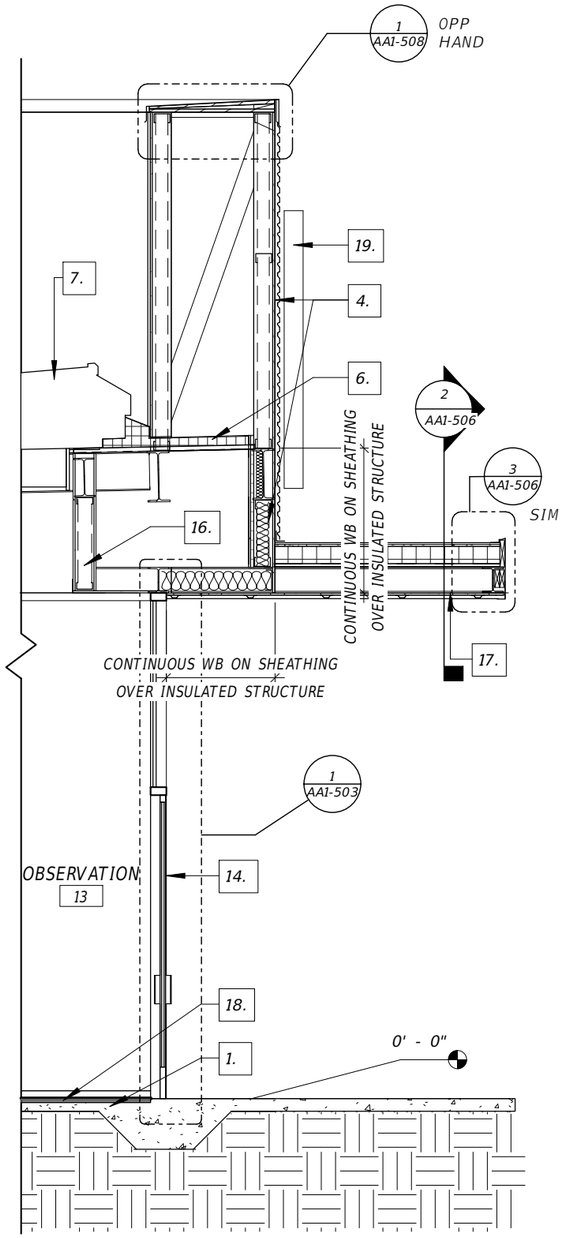
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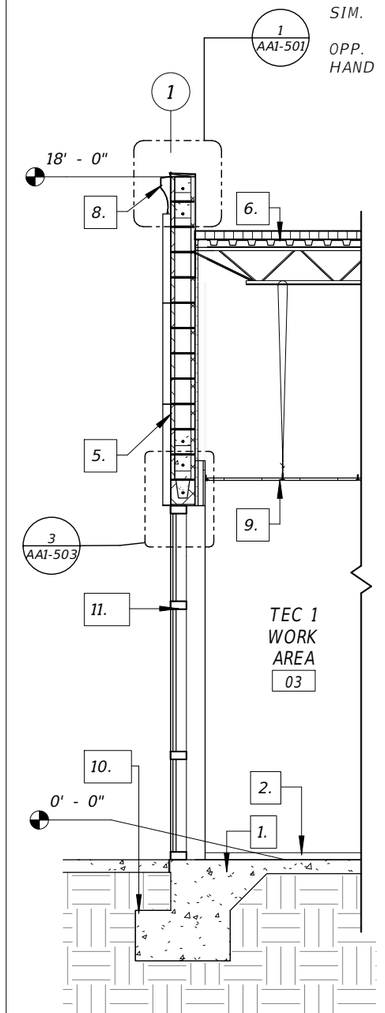
1 WALL SECTION A
1/4" = 1'-0"



2 WALL SECTION B
1/4" = 1'-0"



3 WALL SECTION C
1/4" = 1'-0"



4 WALL SECTION D
1/4" = 1'-0"

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

WALL SECTION KEYNOTES

1. FLOOR- 4" CONCRETE SLAB OVER 10 MIL VAPOR BARRIER OVER TERMITE TREATED COMPACTED FILL; FLR FINISH AS NOTED
2. BASE AS NOTED - AA1-600
3. INTERIOR PARTITION- 5/8" DRYWALL ON METAL STUD FRAMING. INSULATE WITH FIBERGLASS BATT FOR SOUND PROOFING.
4. EXTERIOR WALL- RIBBED METAL PANELS OVER FLUID APPLIED WEATHER BARRIER ON 5/8" DENSDECK SHEATHING ON METAL STUDS PER STRUCTURAL; PROVIDE BATT INSULATION TO ROOF DECK. REFER TO AA1-508.
5. EXTERIOR WALL- PRE-FINISHED FLAT MCM PANELS OVER 8"X8"X16" REINFORCED CMU; CERAMIC GLAZED CMU WAINSCOT TO 2'-8" HEIGHT. RIGID INSULATION TO DECK AT INTERIOR.
6. R00F MEMBRANE OVER 1/2" DENSDECK ON 3.5" RIGID INSUL. (R 20 MIN.) ON 1 1/2" METAL DECK OVER BARJOISTS PER STRUCTURAL.
7. ATRIUM SKYLIGHT; TYPICAL REFER 2/AA1-507
8. PREFINISHED DECORATIVE METAL CORNICE. REFER 1/AA1-501
9. ACOUSTIC 2' X 2' CEILING TILE IN SUSPENDED METAL GRID.
10. REINFORCED CONCRETE FOOTING PER STRUCTURAL.
11. CLEAR ANODIZED ALUMINUM STOREFRONT WITH INSULATED LOW-E GLAZING; U.N.O.
12. PRE-ENGINEERED ALUMINUM CANOPY; CLEAR ANODIZED FINISH; WITH INTEGRAL SOFFIT AND DRAINAGE; REFER TO AA1-505
13. SUNSHADE WITH CLEAR ANODIZED FINISH.
14. ALUMINUM STOREFRONT DOORS WITH INSULATED LOW-E GLAZING AND TRANSOM ABOVE; CLEAR ANODIZED FINISH ON FRAME.
15. PREFINISHED CONDUCTOR HEAD AND DOWNSPOUT; TIE-IN TO UNDERGROUND DRAINAGE PER CIVIL DRAWINGS. REFER DET. 3 & 5/AA1-501
16. METAL STUD FRAMED SOFFIT. 22 GA. STUDS @ 16" O.C.; GYPSUM FINISH; PAINT.
17. STRUCTURAL STEEL CANOPY; REFER TO AA1-506
18. RECESS IN SLAB FOR WALKOFF MAT.
19. BRUSHED ALUMINUM LOGO; REFER TO SHEET AA1-609.

NOTE: ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER. NO EXCEPTIONS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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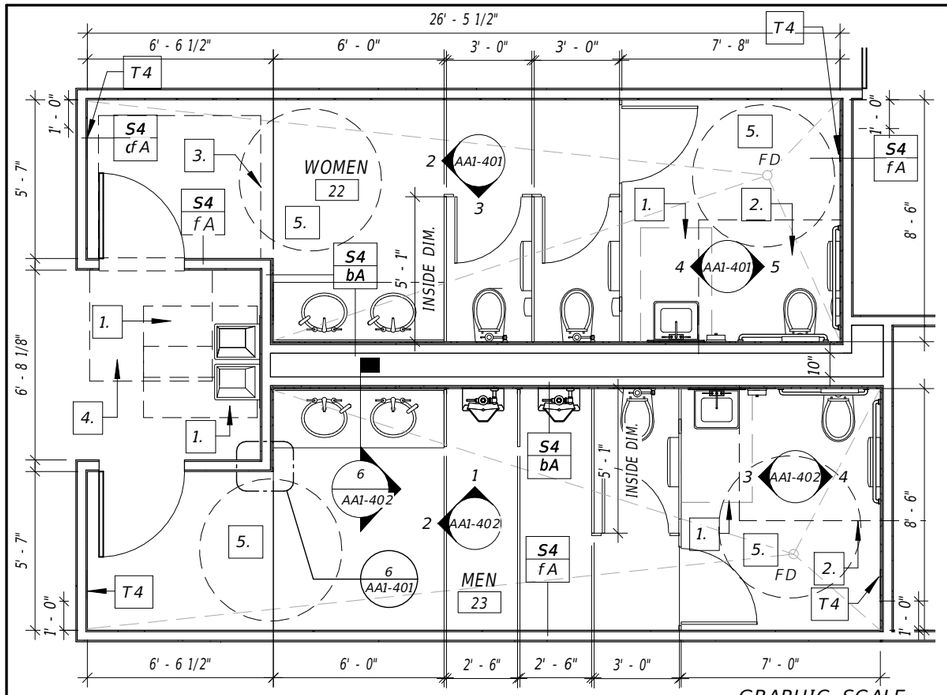
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

WALL SECTIONS

SHEET NO. AA1-304

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 ENLARGED RESTROOM FLOOR PLAN
3/16" = 1'-0"

GRAPHIC SCALE
SCALE 3/16" = 1'-0"
0' 3' 6'

1. 30"X48" CLEAR FLOOR SPACE PER FLORIDA ACCESSIBILITY CODE 2014; SECTION 305.3
2. 56"X60" CLEAR FLOOR SPACE PER FLORIDA ACCESSIBILITY CODE 2014; SECTION 604.3.1
3. 72"X60" CLEAR FLOOR SPACE PER FLORIDA ACCESSIBILITY CODE 2014; SECTION 404.2.4.1 (d)
4. 48"X48" CLEAR FLOOR SPACE PER FLORIDA ACCESSIBILITY CODE 2014; SECTION 404.2.4.1 (c)
5. 60" DIAMETER TURNING SPACE PER FLORIDA ACCESSIBILITY CODE 2014; SECTION 304.3.1

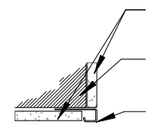
TOILET ROOM ACCESSORIES SCHEDULE		MANF.	MODEL#	DESCRIPTION
LAVATORY				
T-1	MIRROR	BOBRICK	B-165 2436	24"X36 MIRROR WITH STAINLESS STEEL CHANNEL FRAME; 1/4" GLASS
T-2	MIRROR			6'-0" X 38" MIRROR; FRAMELESS MIRROR;ATTACH W/MOUNTING CLIPS
T-3	SOAP DISPENSER	BOBRICK	B-8263	COUNTER-MOUNTED SOAP DISPENSER
T-4	PAPER TOWEL DISPENSER	BOBRICK	B-369	RECESSED MOUNTED PAPER TOWEL DISPENSER
T-5	SOAP DISPENSER	BOBRICK	B-2111	WALL MOUNTED SOAP DISPENSER
WATER CLOSET				
T-10	GRAB BAR 42"	INPRO	DSGB42ADA	STAINLESS STEEL HORIZONTAL 42" GRAB BAR WITH SNAP FLANGE
T-11	GRAB BAR 36"	INPRO	DSGB36ADA	STAINLESS STEEL HORIZONTAL 36" GRAB BAR WITH SNAP FLANGE
T-12	COAT HOOK	BOBRICK	B-212	COAT HOOK WITH BUMPER
T-13	TOILET SEAT COVER DISPENSER	BOBRICK	B-221	SURFACE-MOUNTED TOILET SEAT COVER DISPENSER
T-14	SURFACE-MOUNTED TWIN JUMBO-ROLL TOILET TISSUE DISPENSER	BOBRICK	B-2892	SURFACE-MOUNTED
T-15	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	SURFACE-MOUNTED CONTURA SERIES
JANITOR				
T-30	MOP/BROOM HOLDER & RAG HOOKS	BOBRICK	B-239	UTILITY SHELF WITH MOP/BROOM HOLDERS AND RAG HOOKS

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL
2. COORDINATE PLUMBING FIXTURES, WATER SUPPLY, SANITARY AND FLOOR DRAINS WITH PLUMBING PLANS & SPECIFICATIONS TYPICAL.
3. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT. ETC.
4. ALL EXPOSED FASTNERS SHALL BE STAINLESS STEEL.
5. CONTRACTOR SHALL VERIFY CLEARANCE REQUIREMENTS OF ALL APPLIANCES PRIOR TO MILLWORK FABRICATION, TYP.
6. VERIFY TOILET PARTITION SUPPORTS CLEAR FLOOR DRAINS.
7. SEE DRAWING AA1-008 FOR PARTITION TYPES AND DETAILS.
8. 9. SEE DRAWING AA1-600/AA1-601 FOR FINISH SCHEDULE AND MATERIAL DESCRIPTIONS.

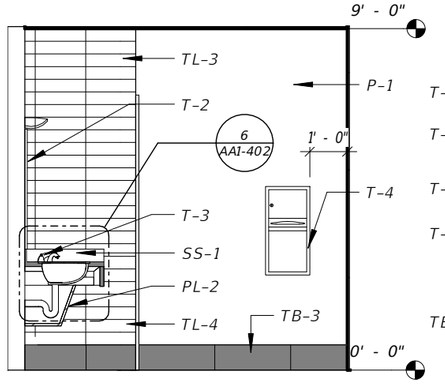
REFERENCE KEYNOTES:

P-1 ACCENT PAINT
SS-1 SOLID SURFACE
(VANITY, FACE PANEL, BACK AND SIDE SPLASH)
TL-3 WALL TILE
TL-4 ACCENT WALL TILE
TP-1 TOILET PARTITIONS
TB-3 TILE BASE

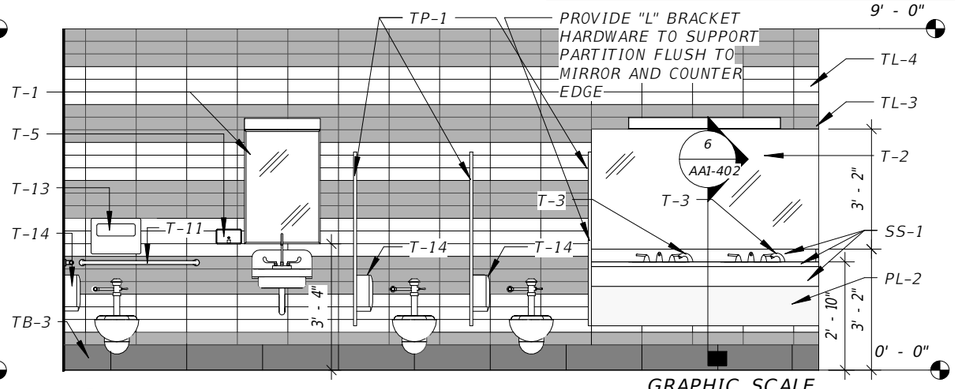


6 TILE CORNER DETAIL
3" = 1'-0"

GRAPHIC SCALE
SCALE 3" = 1'-0"
0' 2" 4"

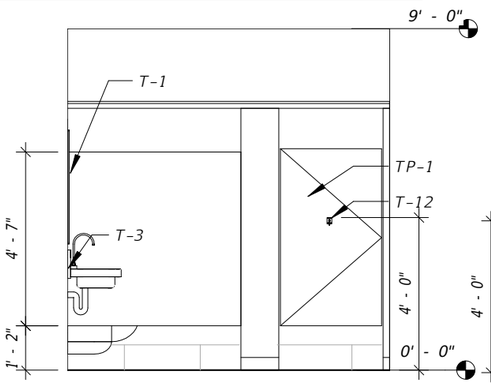


2 RESTROOM ELEVATION WOMEN'S
1/4" = 1'-0"

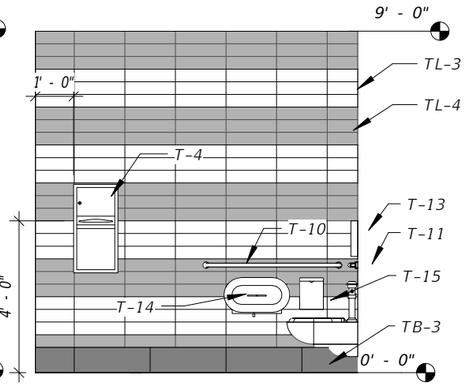


3 RESTROOM ELEVATION WOMEN'S
1/4" = 1'-0"

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



4 RESTROOM ELEVATION WOMEN'S
1/4" = 1'-0"



5 RESTROOM ELEVATION WOMEN'S
1/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

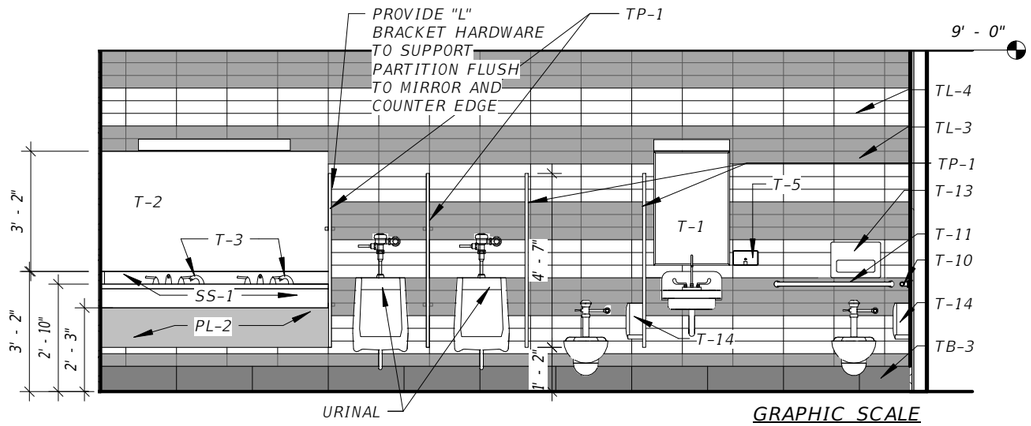
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

RESTROOM DETAILS

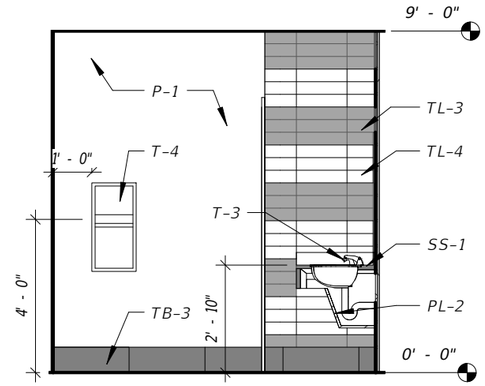
SHEET NO.
AA1-401

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 RESTROOM ELEVATION MEN'S
1/4" = 1'-0"

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



2 RESTROOM ELEVATION MEN'S
1/4" = 1'-0"

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL

2. COORDINATE PLUMBING FIXTURES, WATER SUPPLY, SANITARY AND FLOOR DRAINS WITH PLUMBING PLANS & SPECIFICATIONS TYPICAL.

3. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT. ETC.

4. ALL EXPOSED FASTNERS SHALL BE STAINLESS STEEL.

5. CONTRACTOR SHALL VERIFY CLEARANCE REQUIREMENTS OF ALL APPLIANCES PRIOR TO MILLWORK FABRICATION, TYP.

6. VERIFY TOILET PARTITION SUPPORTS CLEAR FLOOR DRAINS.

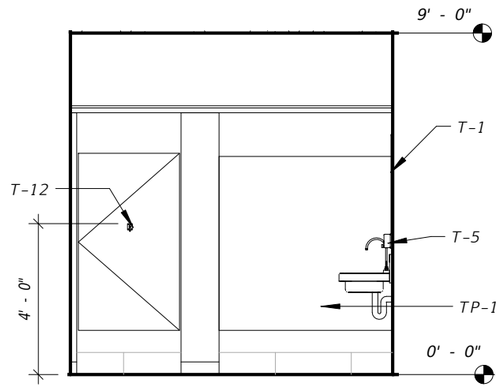
7. SEE DRAWING AA1-008 FOR PARTITION TYPES AND DETAILS.

8. SEE DRAWING AA1-401 FOR TOILET ROOM ACCESSORIES SCHEDULE.

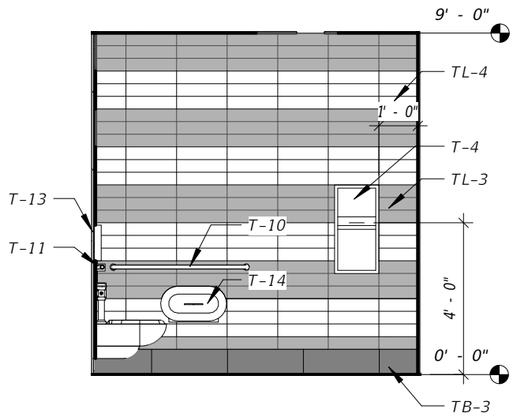
9. SEE DRAWING AA1-600/AA1-601 FOR FINISH SCHEDULE AND MATERIAL DESCRIPTIONS.

REFERENCE KEYNOTES:

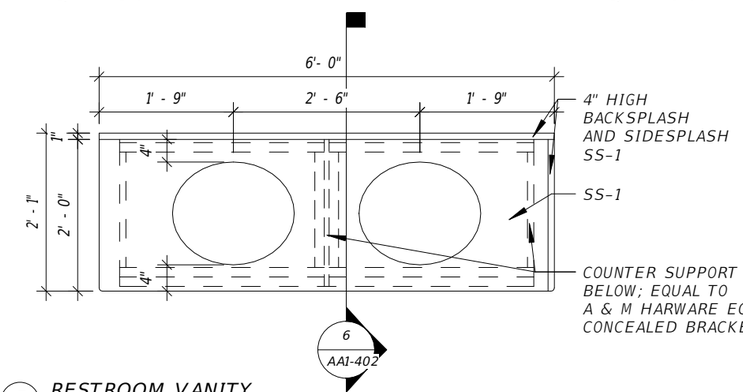
P-1 ACCENT PAINT
PL-2 PLASTIC LAMINATE
SS-1 SOLID SURFACE
(VANITY, FACE PANEL, BACK AND SIDE SPLASH)
TL-3 WALL TILE
TL-4 ACCENT WALL TILE
TP-1 TOILET PARTITIONS
TB-3 TILE COVE BASE



3 RESTROOM ELEVATION MEN'S
1/4" = 1'-0"

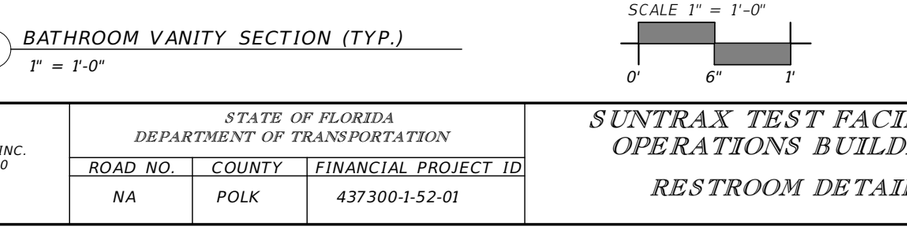


4 RESTROOM ELEVATION MEN'S
1/4" = 1'-0"



5 RESTROOM VANITY
1/2" = 1'-0"

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



6 BATHROOM VANITY SECTION (TYP.)
1" = 1'-0"

GRAPHIC SCALE
SCALE 1" = 1'-0"
0' 6" 1'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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LONGWOOD, FLORIDA 32750
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

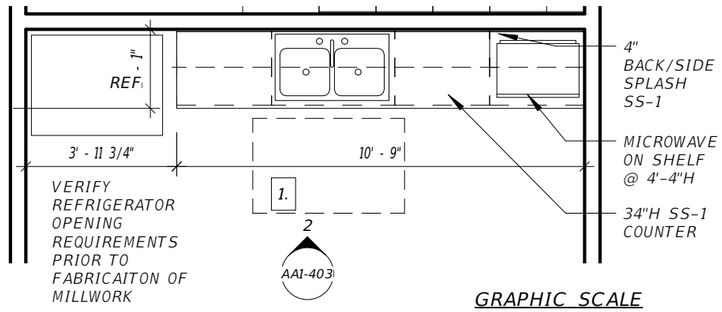
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

RESTROOM DETAILS

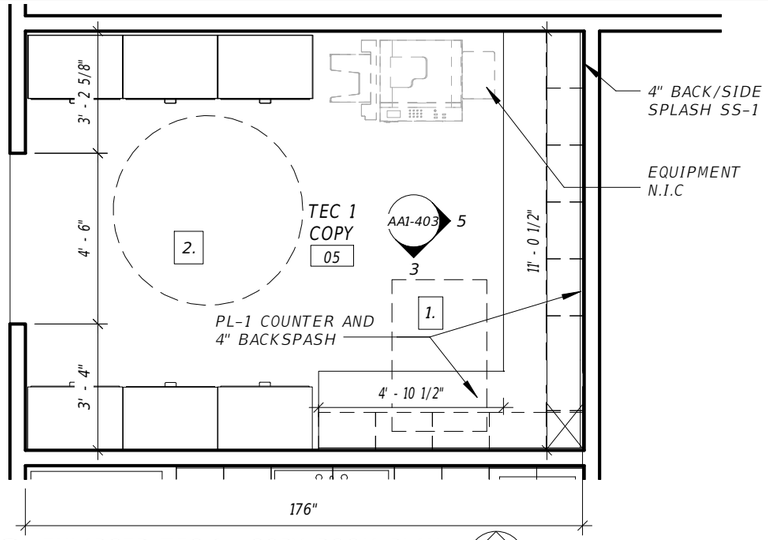
SHEET NO. AA1-402

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 ENLARGED BREAKROOM PLAN
1/4" = 1'-0"

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



4 ENLARGED TEC 1 - COPY ROOM PLAN
1/4" = 1'-0"

REFERENCE KEYNOTES:

SS-1 SOLID SURFACE
PL-1 PLASTIC LAMINATE
PL-2 LOWER AND UPPER CABINETS
P-1 ACCENT PAINT

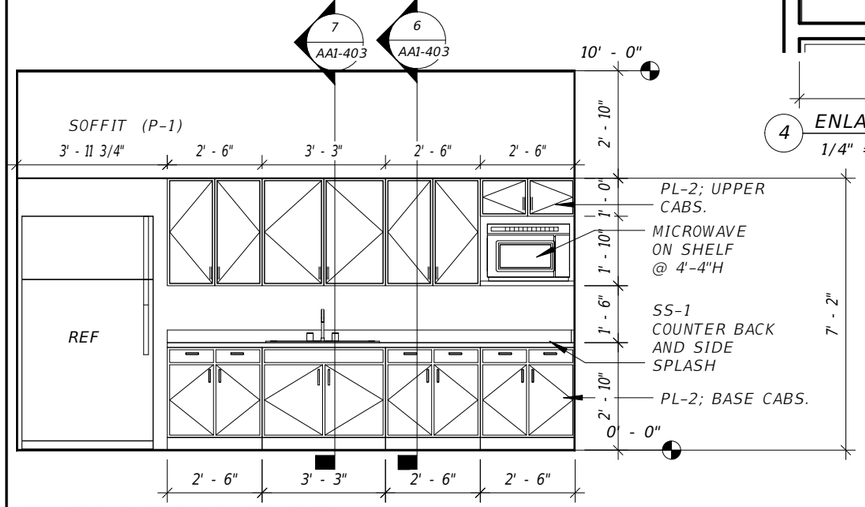
1. REFER TO AA1/601 FOR FINISH DESCRIPTIONS

2. PROVIDE CASEWORK MATERIALS PER SPECIFICATION REQUIREMENTS FOR VOC CONTENT AND SUSTAINABILITY HARVESTED WOOD.

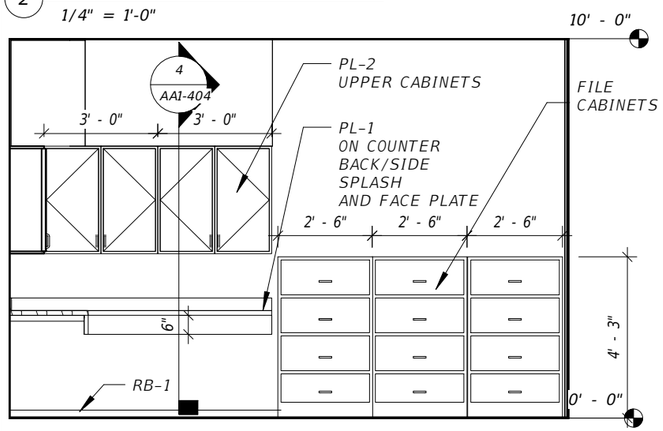
1. 30X48 CLEAR FLOOR SPACE PER FLORIDA ACESSIBILITY CODE 2014; SECTION 305.3

2. 60" DIAMETER TURNING SPACE PER FLORIDA ACESSIBILITY CODE 2014; SECTION 304.3.1

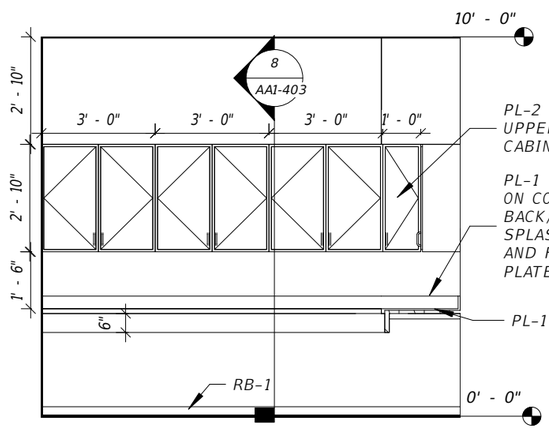
GRAPHIC SCALE
SCALE 1/2" = 1'-0"
0' 1' 2'



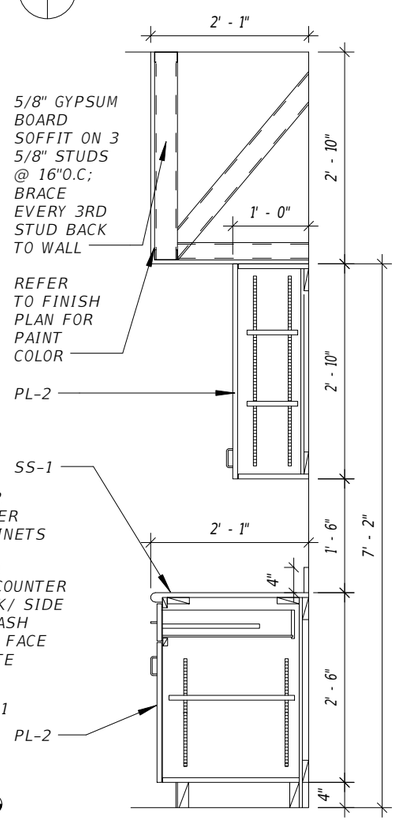
2 BREAK ROOM CASEWORK
1/4" = 1'-0"



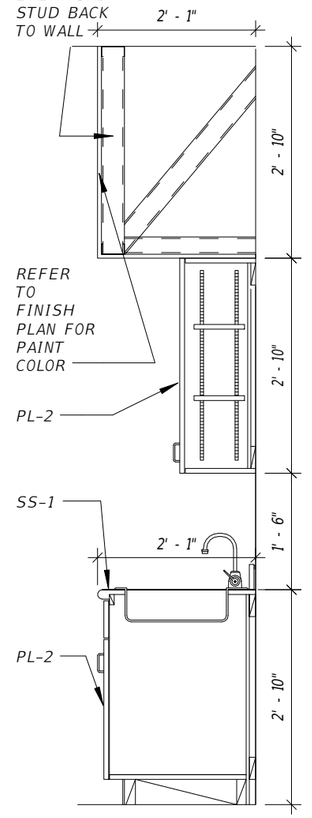
3 TEC 1 COPY ROOM - SOUTH ELEVATION
1/4" = 1'-0"



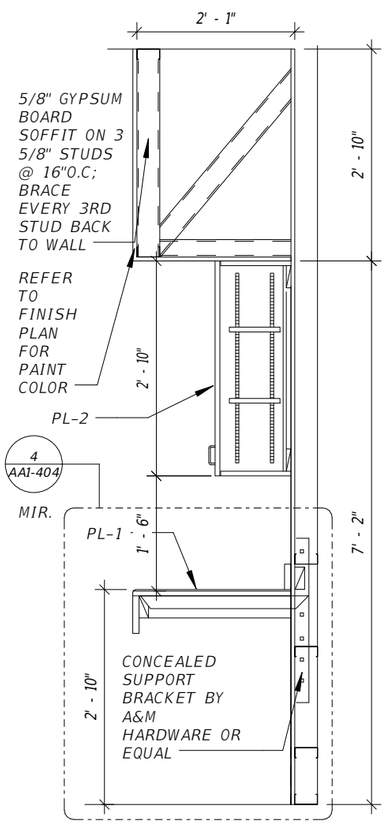
5 TEC 1 COPY ROOM - ELEVATION
1/4" = 1'-0"



6 BASE/WALL CABINETS
1/2" = 1'-0"



7 BASE CABINET @ SINK
1/2" = 1'-0"



8 BASE CABINET TEC 1
1/2" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

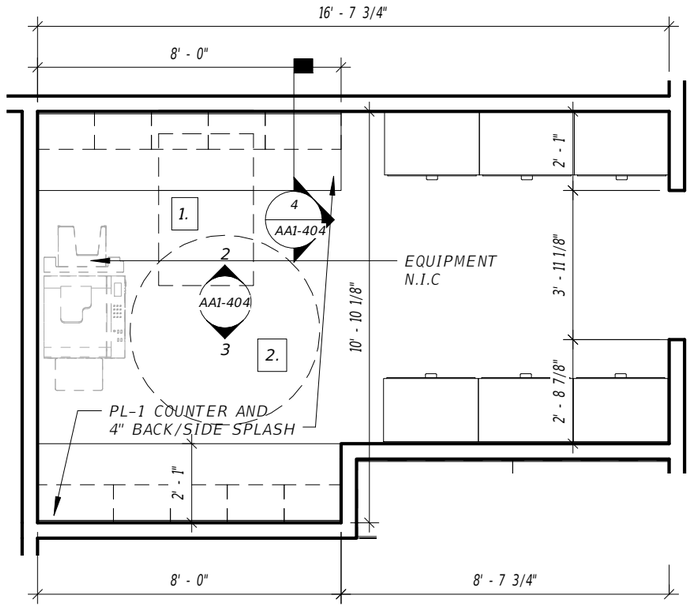
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED PLANS & DETAILS

SHEET NO.
AA1-403

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



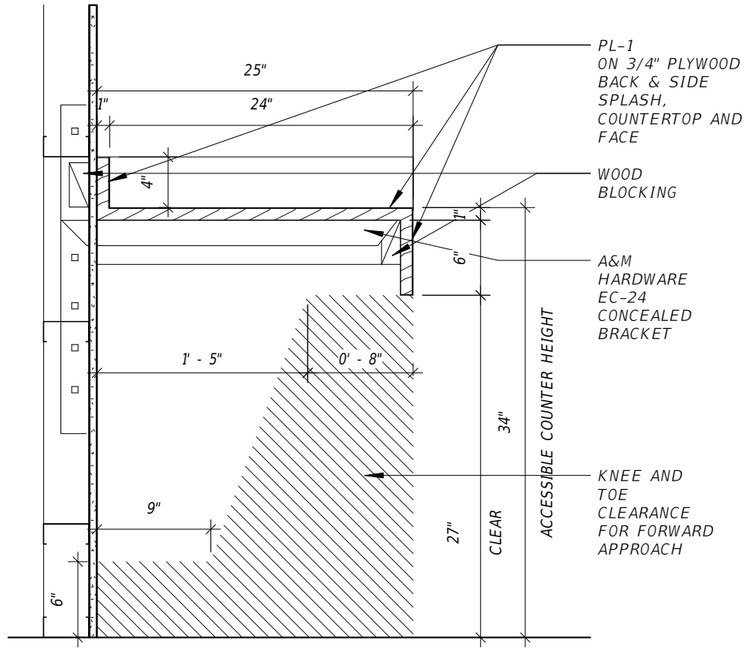
1 ENLARGED TEC 2 - COPY ROOM PLAN

1/4" = 1'-0"

GRAPHIC SCALE

SCALE 1/4" = 1'-0"

0' 2' 4'



4 COUNTER TOP SECTION (TYP.)

1" = 1'-0"

GRAPHIC SCALE

SCALE 1" = 1'-0"

0' 6" 1'

REFERENCE KEYNOTES:

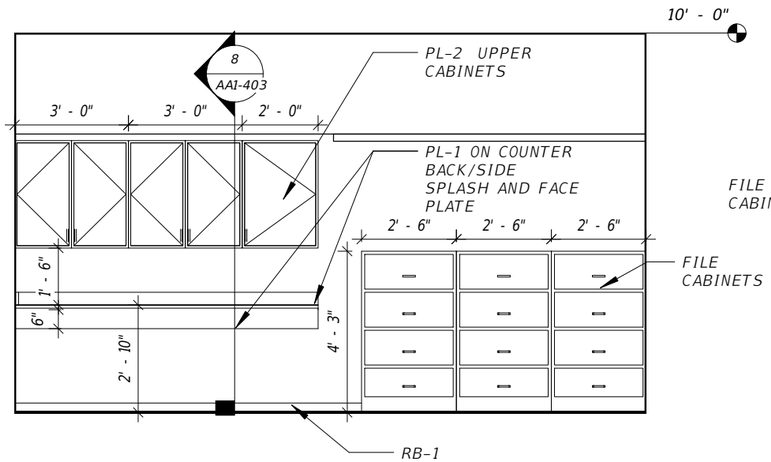
SS-1 SOLID SURFACE
PL-1 PLASTIC LAMINATE

1. REFER TO AA1/601 FOR FINISH DESCRIPTIONS

2. PROVIDE CASEWORK MATERIALS PER SPECIFICATION REQUIREMENTS FOR VOC CONTENT AND SUSTAINABILITY HARVESTED WOOD.

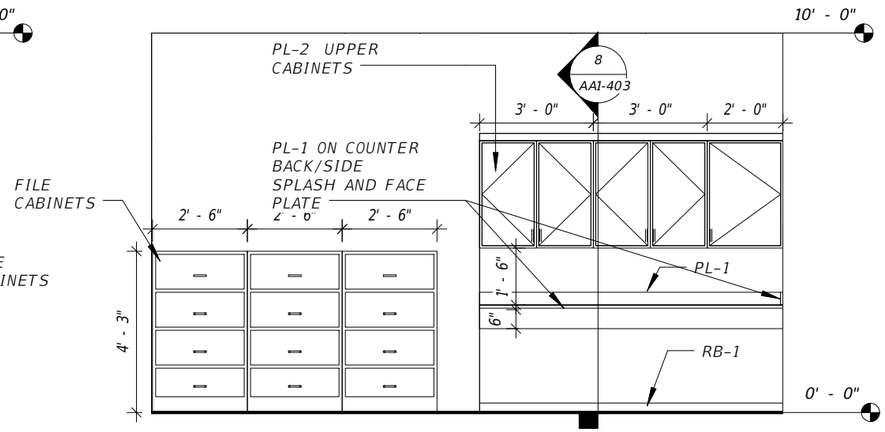
1. 30X48 CLEAR FLOOR SPACE PER FLORIDA ACESSIBILITY CODE 2014; SECTION 305.3

2. 60" DIAMETER TURNING SPACE PER FLORIDA ACESSIBILITY CODE 2014; SECTION 304.3.1



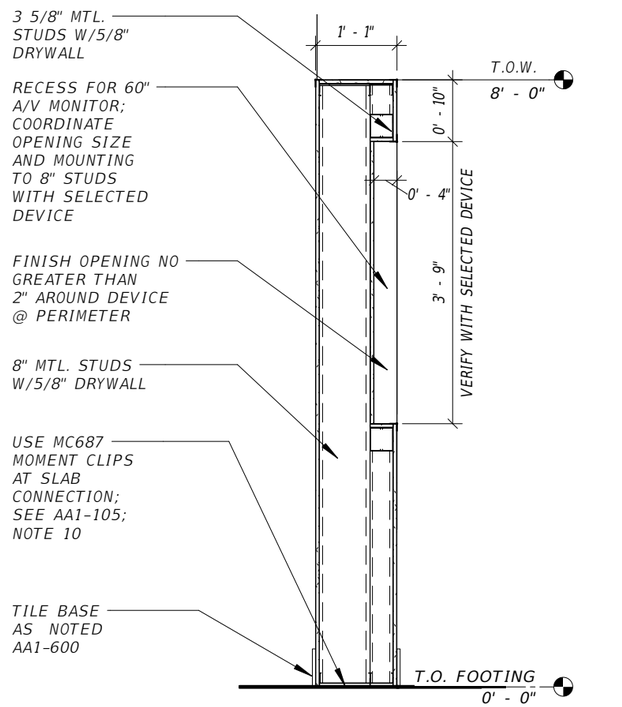
2 TEC 2 - COPY ROOM - NORTH ELEVATION

1/4" = 1'-0"



3 TEC 2 - COPY ROOM - SOUTH ELEVATION

1/4" = 1'-0"



GRAPHIC SCALE

SCALE 1/2" = 1'-0"

0' 1' 2'

5 VIDEO DISPLAY WALL - SECTION

1/2" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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BO CA NO. 5898
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

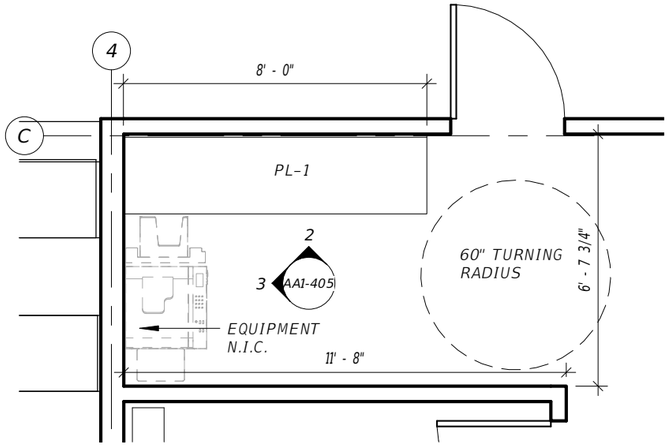
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

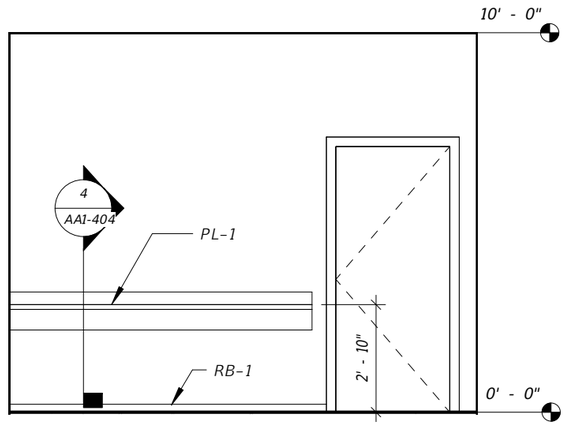
ENLARGED PLANS & DETAILS

SHEET NO. AA1-404

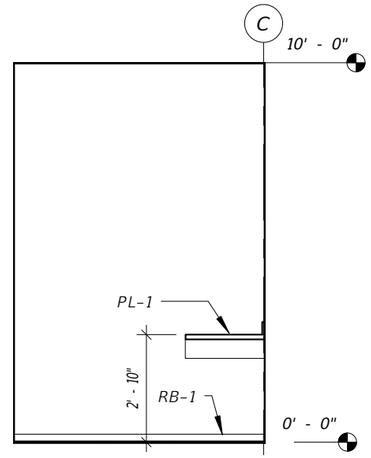
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 FTE COPY ROOM PLAN
1/4" = 1'-0"



2 FTE COPY ROOM NORTH ELEVATION
1/4" = 1'-0"



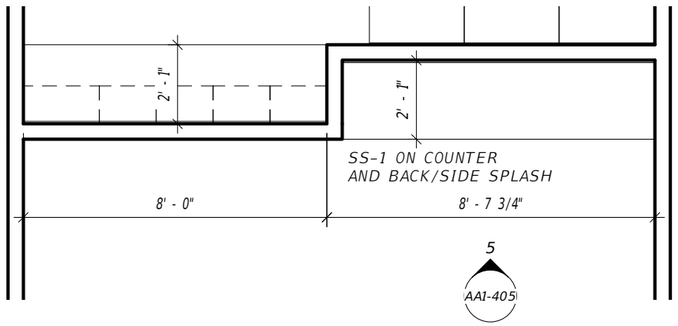
3 FTE COPY ROOM WEST ELEVATION
1/4" = 1'-0"

REFERENCE KEYNOTES:

SS-1 SOLID SURFACE
PL-1 PLASTIC LAMINATE
PL-2 LOWER CABINETS
PL-3 UPPER CABINETS

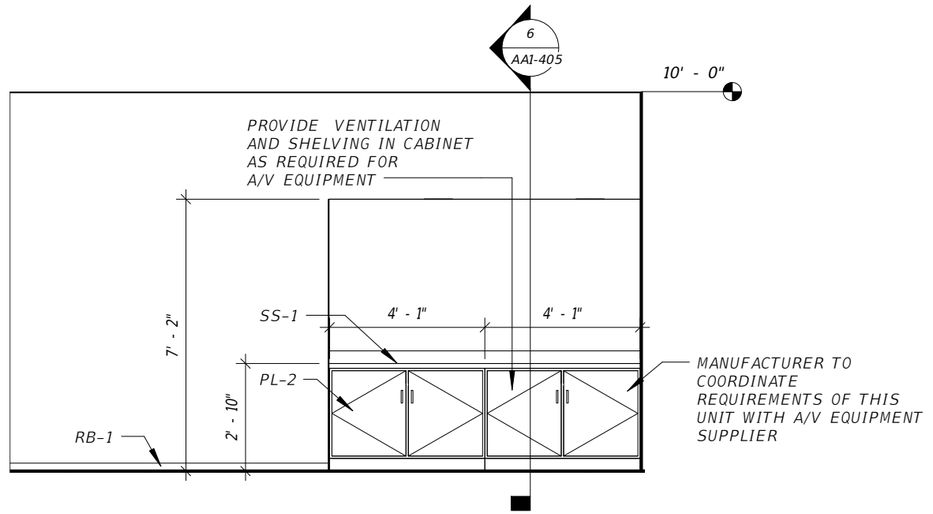
1. REFER TO AA1/601

2. PROVIDE CASEWORK MATERIALS PER SPECIFICATION REQUIREMENTS FOR VOC CONTENT AND SUSTAINABILITY HARVESTED WOOD.

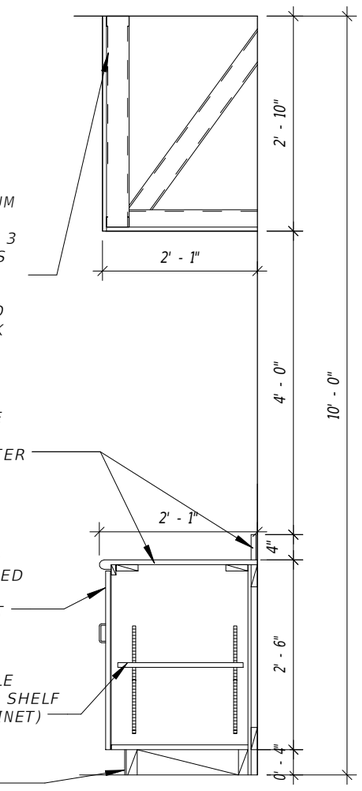


4 FTE CONFERENCE ROOM COUNTER
1/4" = 1'-0"

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



5 FTE CONFERENCE ROOM ELEVATION
1/4" = 1'-0"



6 COPY ROOM BASE CABINET SECTION
1/2" = 1'-0"

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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LONGWOOD, FLORIDA 32750
BO CA NO. 5898
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

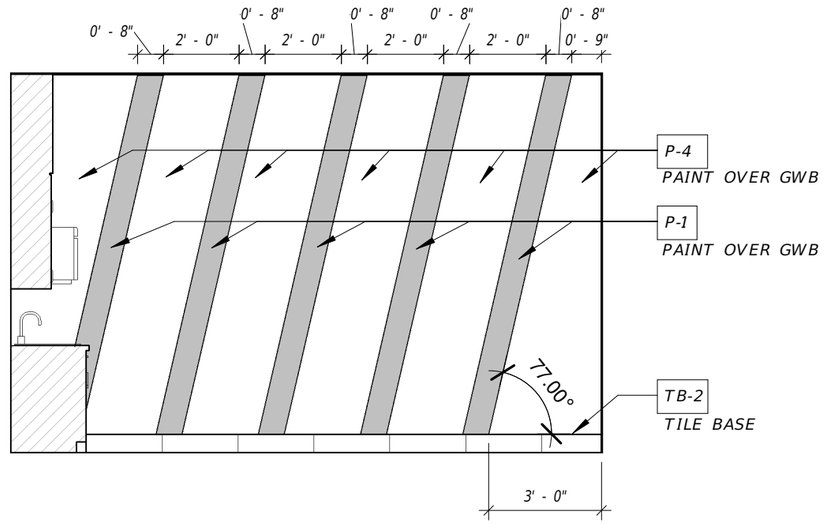
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

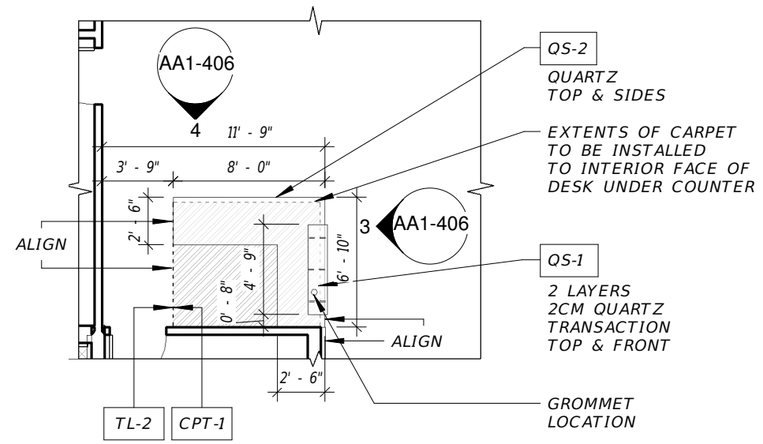
ENLARGED PLANS & DETAILS

SHEET NO.
AA1-405

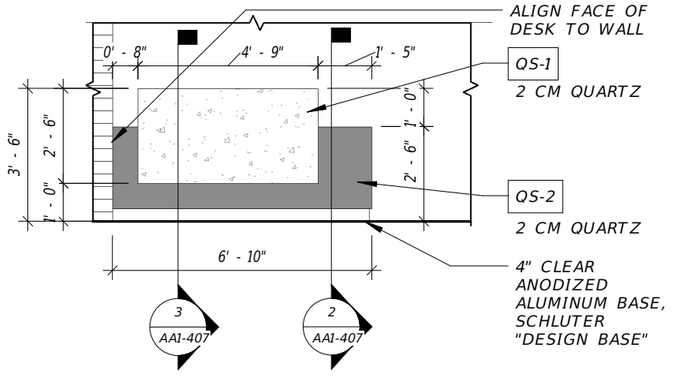
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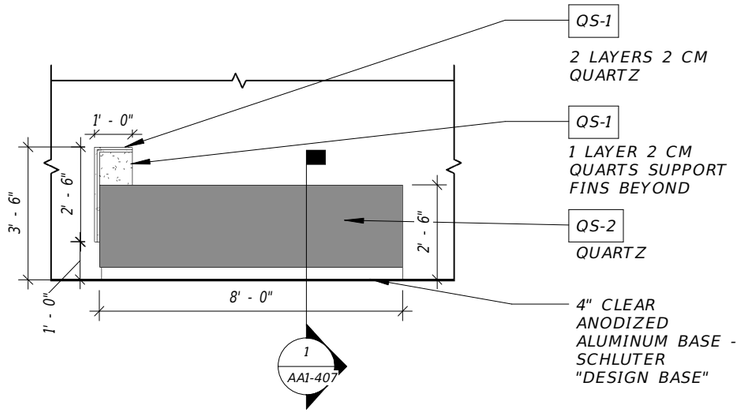
1 BREAK ROOM - EAST WALL
1/4" = 1'-0"



2 ENLARGED RECEPTION DESK PLAN
1/8" = 1'-0"



3 RECEPTION DESK ELEVATON - FRONT / WEST
1/4" = 1'-0"



4 RECEPTION DESK ELEVATION - SOUTH
1/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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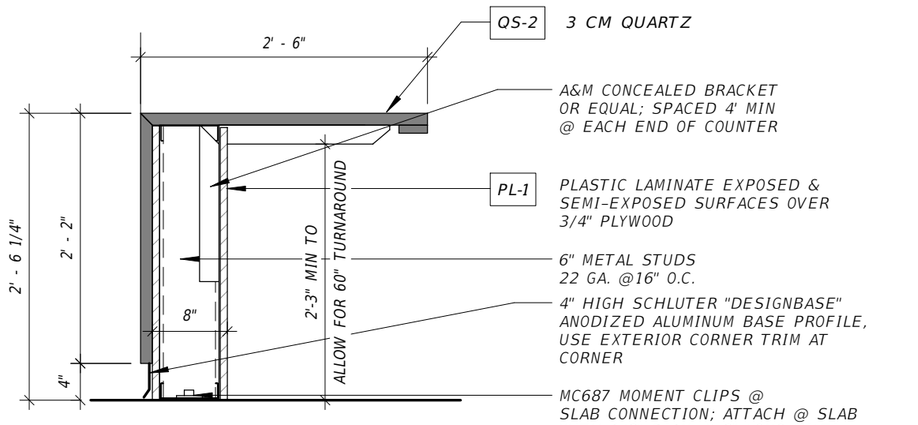
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING RECEPTION PLAN DETAIL

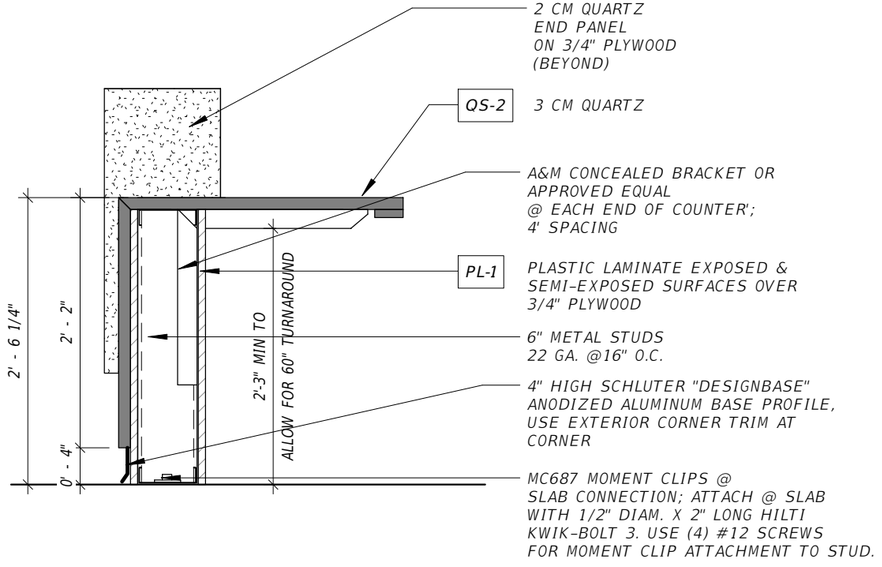
SHEET NO.
AA1-406

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



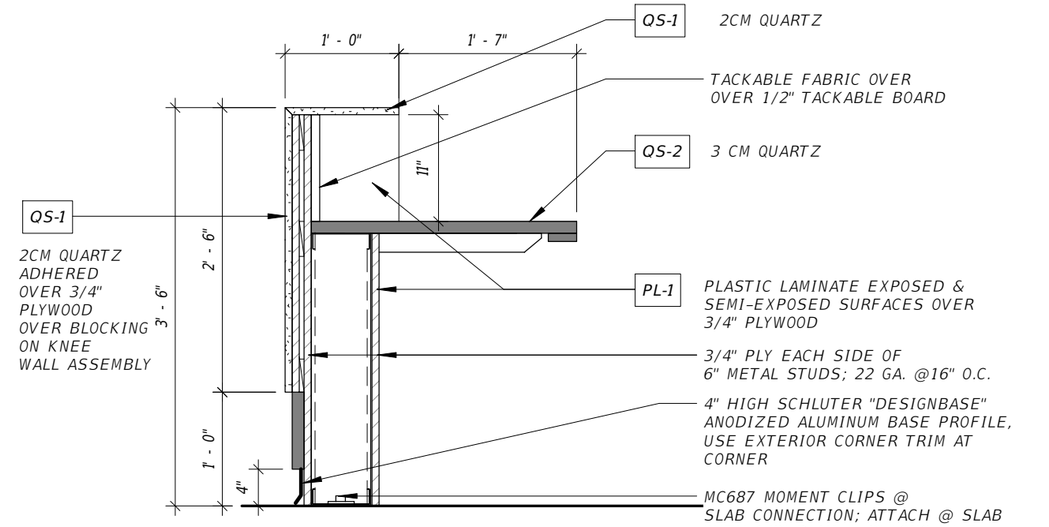
1 RECEPTION DESK SECTION

3/4" = 1'-0"



2 RECEPTION DESK SECTION

3/4" = 1'-0"



3 RECEPTION DESK SECTION THROUGH TRANSACTION TOP

3/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

RECEPTION DESK DETAILS

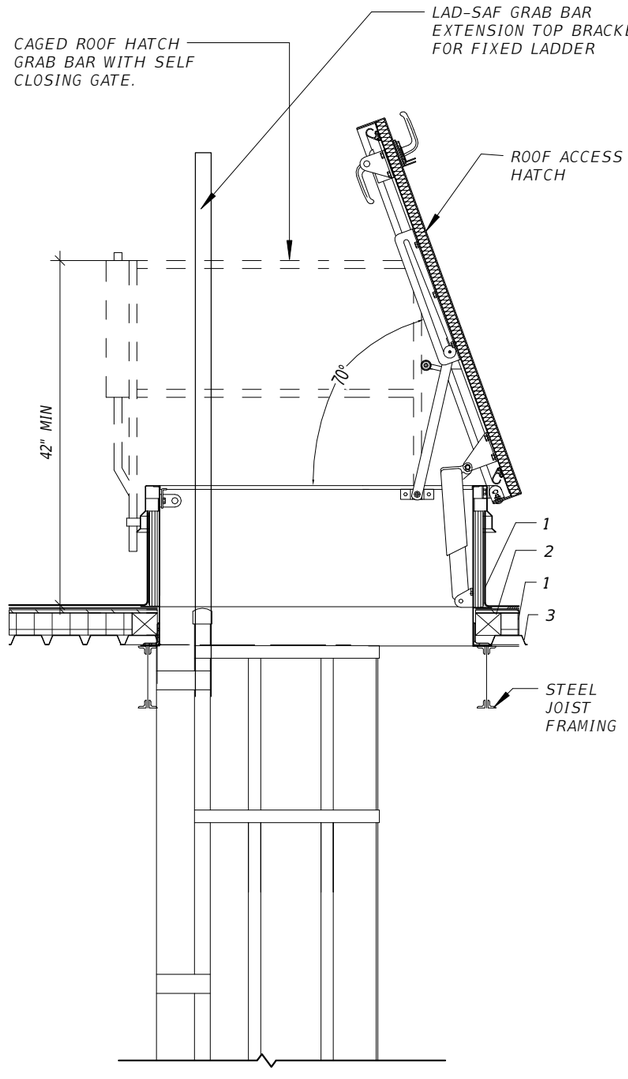
SHEET NO.

AA1-407

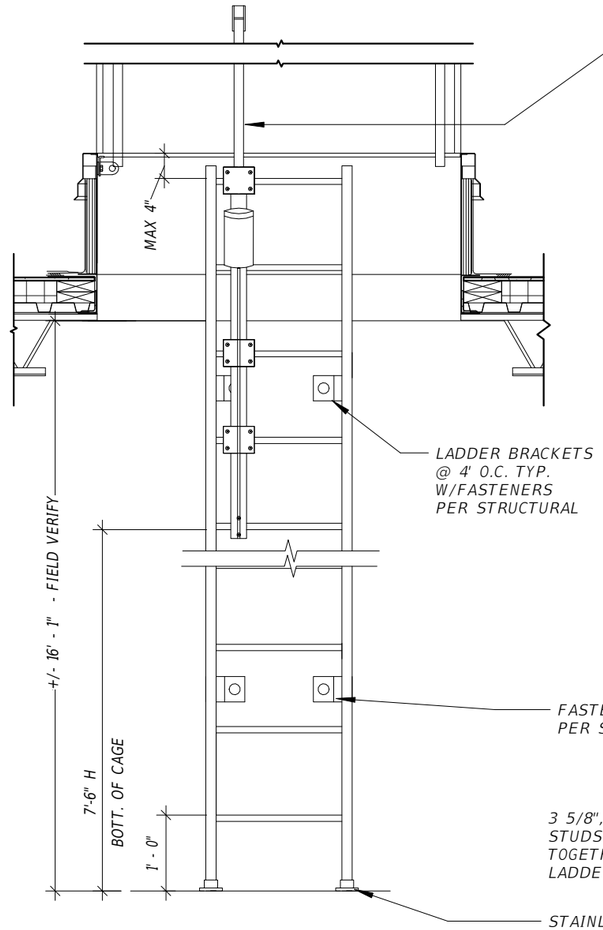
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61GI-16.005, F.A.C.

REFERENCE KEYNOTES:

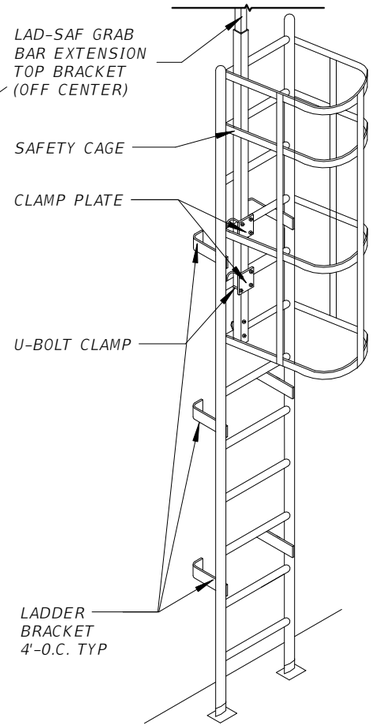
1 ROOFING MEMBRANE
2 WOOD BLOCKING
3 STEEL DECKING. SEE STRUCTURAL.



1 ROOF HATCH DETAIL
1/2" = 1'-0"



2 ROOF HATCH/LADDER DETAIL
1/2" = 1'-0"



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

GENERAL NOTES:

1. DESIGN SHALL COMPLY WITH OSHA STANDARDS 1926.1053.

2. LADDER SHALL HAVE A SAFE LOAD CAPACITY OF 350 LBS.

3. COMPONENTS:

   A. LADDDER:

      1) PROVIDE MANUFACTURER'S STANDARD TUBULAR FIXED-RAIL. COORDINATE WITH SPECIFICATIONS.

      2) STANDARD MILL FINISH

      3) LADDER RUNGS SHALL BE ROUND. CORRUGATED RUNGS ARE NOT ALLOWED. ALL RUNGS SHOULD HAVE SKID RESISTANT FINISH.

   B. FASTENERS:
      1) USE 3/8" THICK GALVANIZED STEEL BRACKETS.

      2) LADDER BRACKETS AND FLOOR BRACKETS SHALL BE INSTALLED PER OSHA STANDARDS AND MANUFACTURER'S REQUIREMENTS.

      3) USE FASTENERS PER STRUCTURAL

      4) COORDINATE LADDER BRACKET SIZE WITH INSTALLATION OF ROOF HATCH AS TO DISTANCE FROM WALL TO LADDER.

   C. ALL FABRICATED ASSEMBLIES CONTAINING PIPE OR TUBE SHALL HAVE DRAIN HOLES IN ACCORDANCE WITH ASTM A385 PRIOR TO BEING HOT-DIP GALVANIZED.

4. ALL DIMENSIONS ARE TO FACE OF FINISH, TYP.

5. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, ETC.

6. APPLY BONDING ADHESIVE ON ALL SIDES OF ROOF HATCH FLASHING.

7. MIN. 1 1/2" HOT AIR WELD TYP.

8. INSTALLATION:

   A. INSTALL LADDER AS INDICATED ON DRAWINGS.

   B. PROVIDE TAMPER RESISTANT FASTENERS

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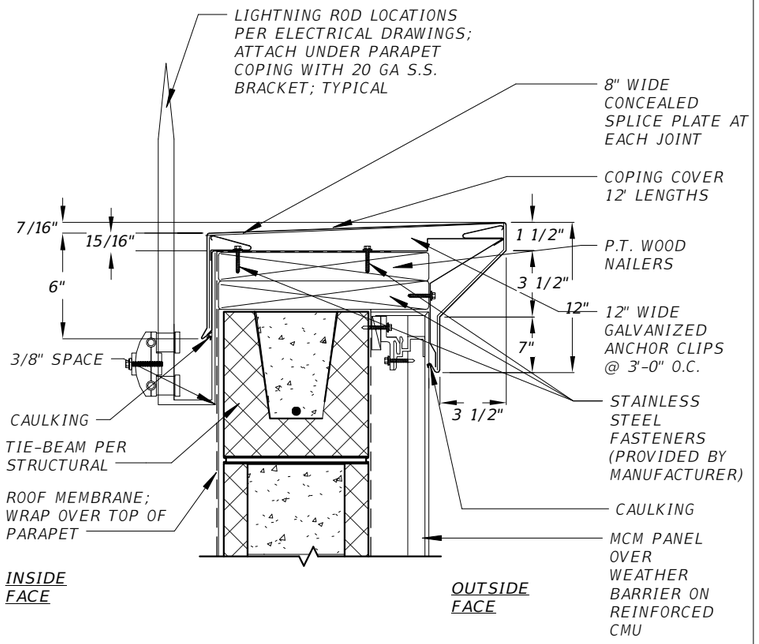
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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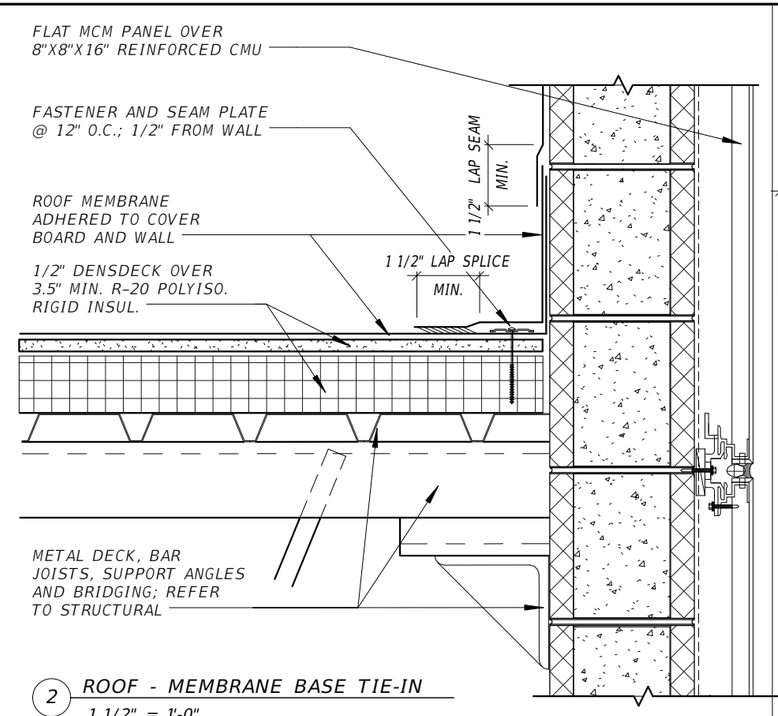
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

ROOF HATCH / LADDER DETAILS

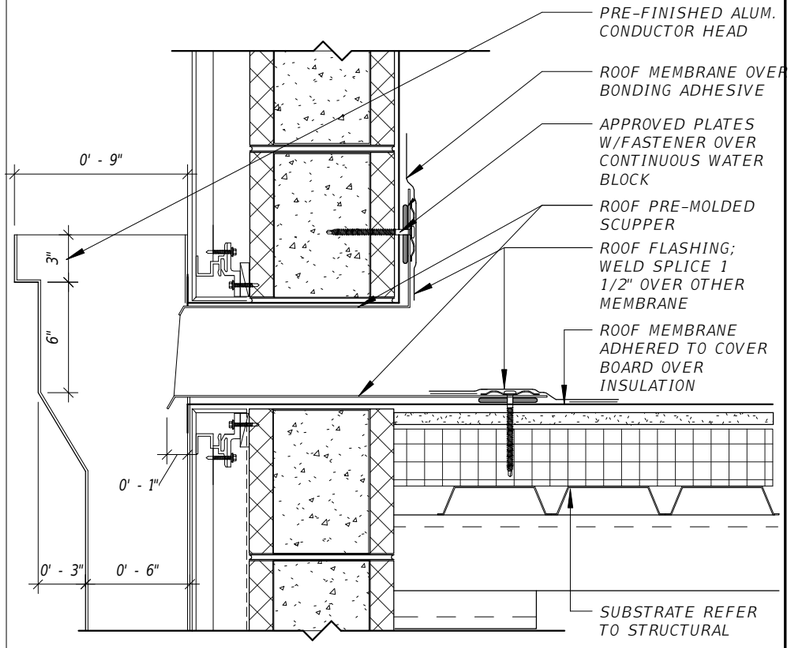
SHEET NO.
AA1-500



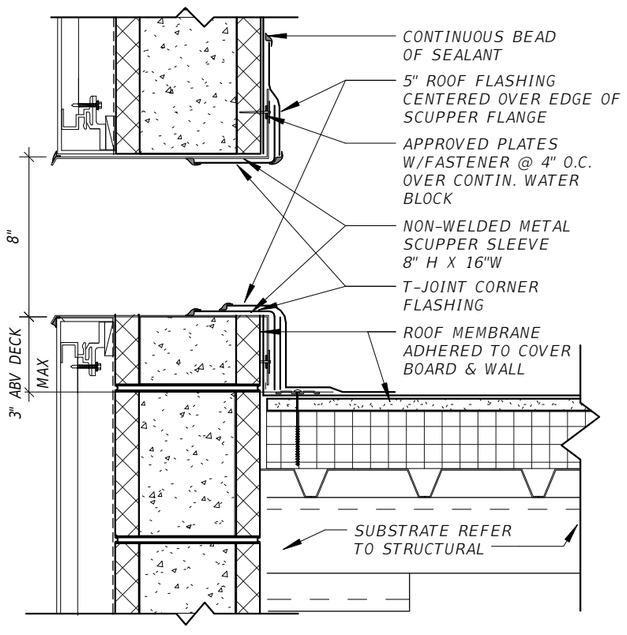
1 ROOF - CORNICE DETAIL
1 1/2" = 1'-0"



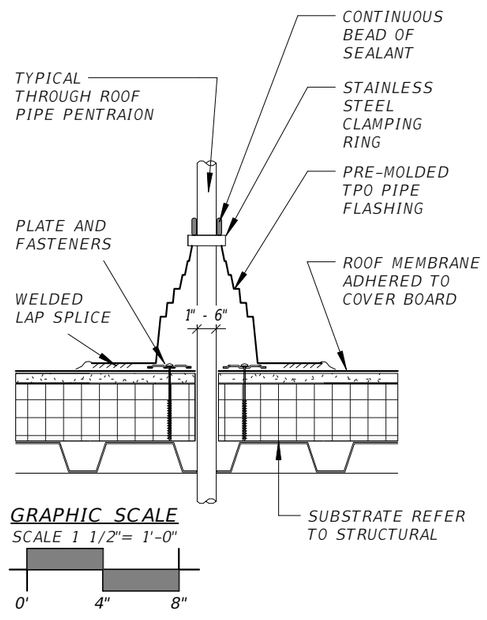
2 ROOF - MEMBRANE BASE TIE-IN
1 1/2" = 1'-0"



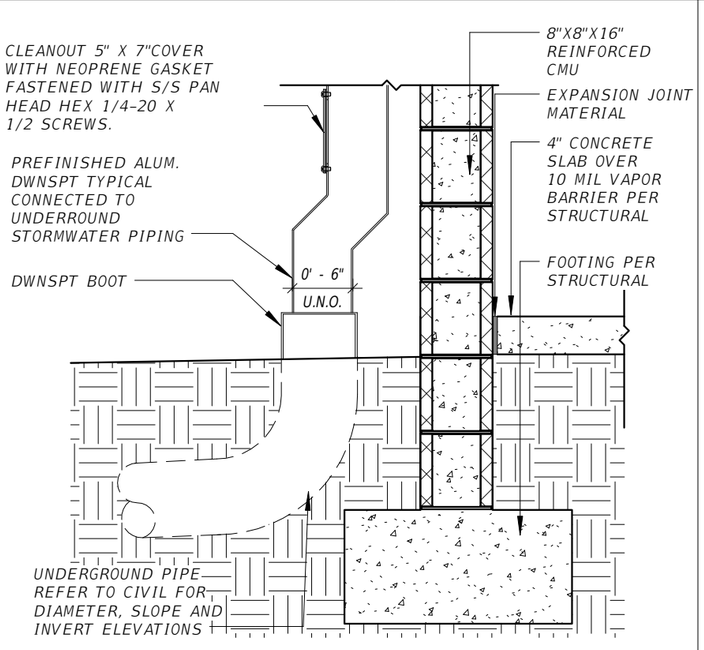
3 ROOF - SCUPPER DETAIL
1 1/2" = 1'-0"



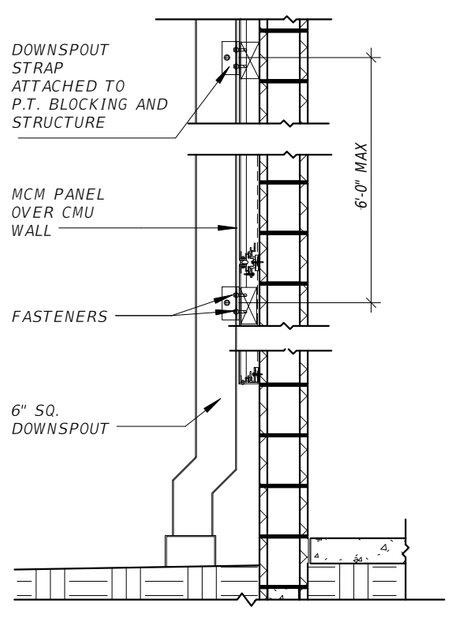
4 ROOF - OVERFLOW SCUPPER DETAIL
1 1/2" = 1'-0"



5 ROOF - PIPE FLASHING DETAIL
1 1/2" = 1'-0"



6 ROOF - DOWNSPOUT TIE-IN DETAIL
3/4" = 1'-0"



7 DOWNSPOUT ATTACHMENT
1/2" = 1'-0"

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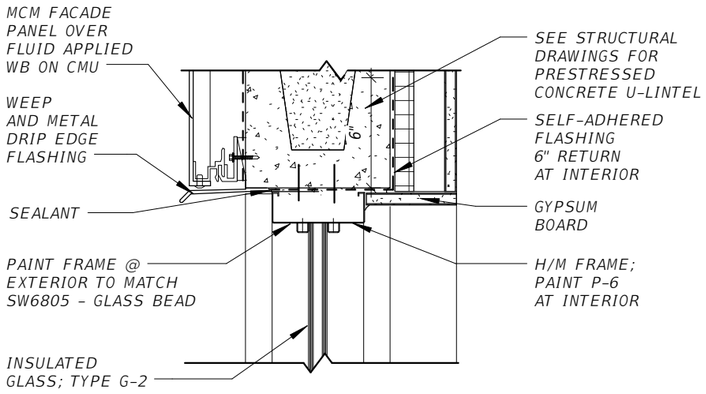
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

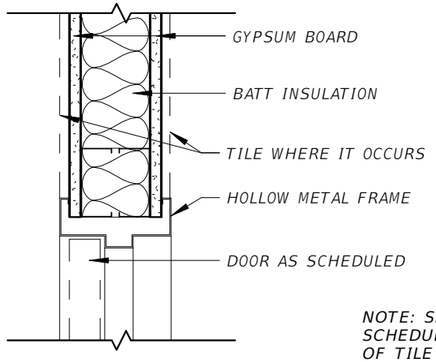
ROOF DETAILS

SHEET NO.
AA1-501

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1 TRANSOM HEAD DETAIL - EXTERIOR
1 1/2" = 1'-0"



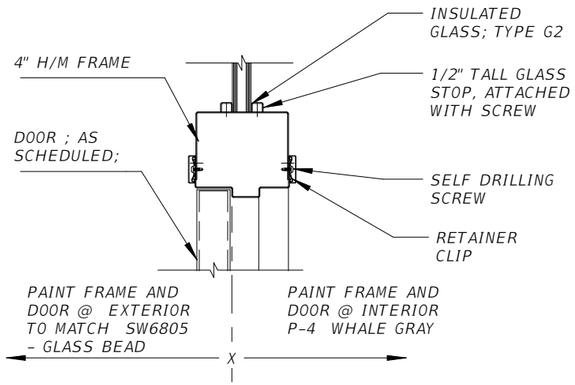
NOTE: SEE FINISH SCHEDULE FOR LOCATION OF TILE FINISH ON BACKER BOARD

5 DOOR HEAD DETAIL - INTERIOR
1 1/2" = 1'-0"

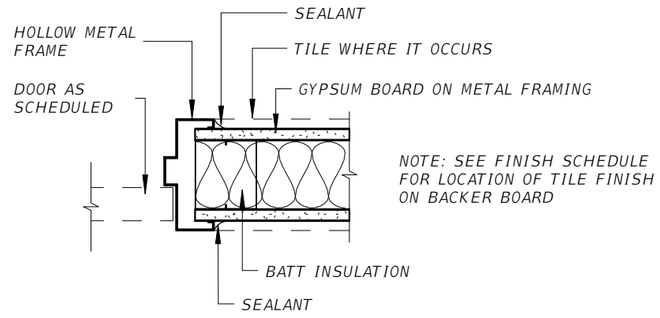
GENERAL NOTES:

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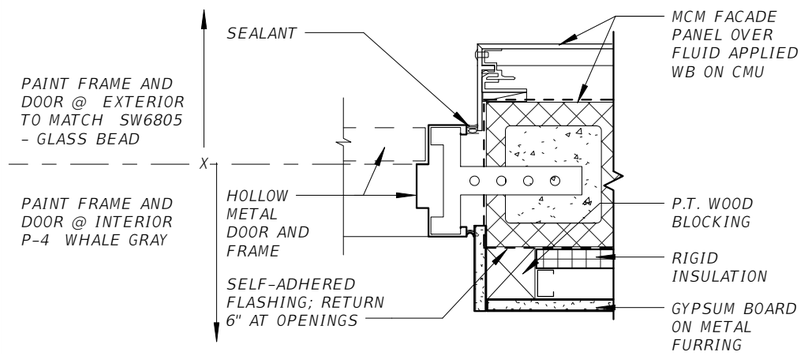


2 DOOR HEAD DETAIL - EXTERIOR
1 1/2" = 1'-0"

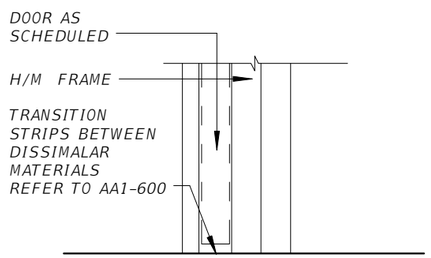


NOTE: SEE FINISH SCHEDULE FOR LOCATION OF TILE FINISH ON BACKER BOARD

6 DOOR JAMB DETAIL - INTERIOR
1 1/2" = 1'-0"

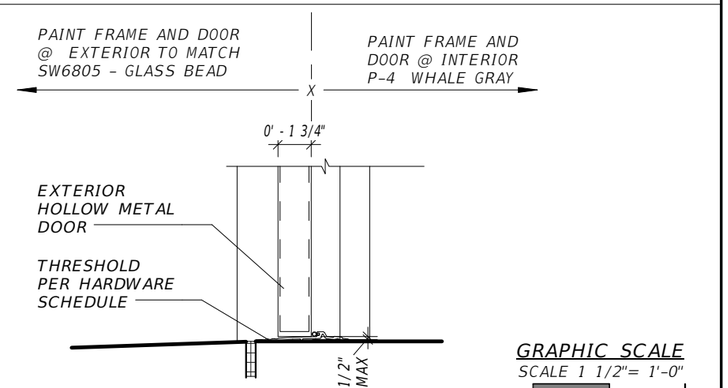


3 DOOR JAMB DETAIL -EXTERIOR
1 1/2" = 1'-0"



NOTE: SEE FINISH SCHEDULE FOR FLOOR FINISHES

7 DOOR THRESHOLD DETAIL - INTERIOR
1 1/2" = 1'-0"



GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

4 EXTERIOR DOOR THRESHOLD DETAIL
1 1/2" = 1'-0"

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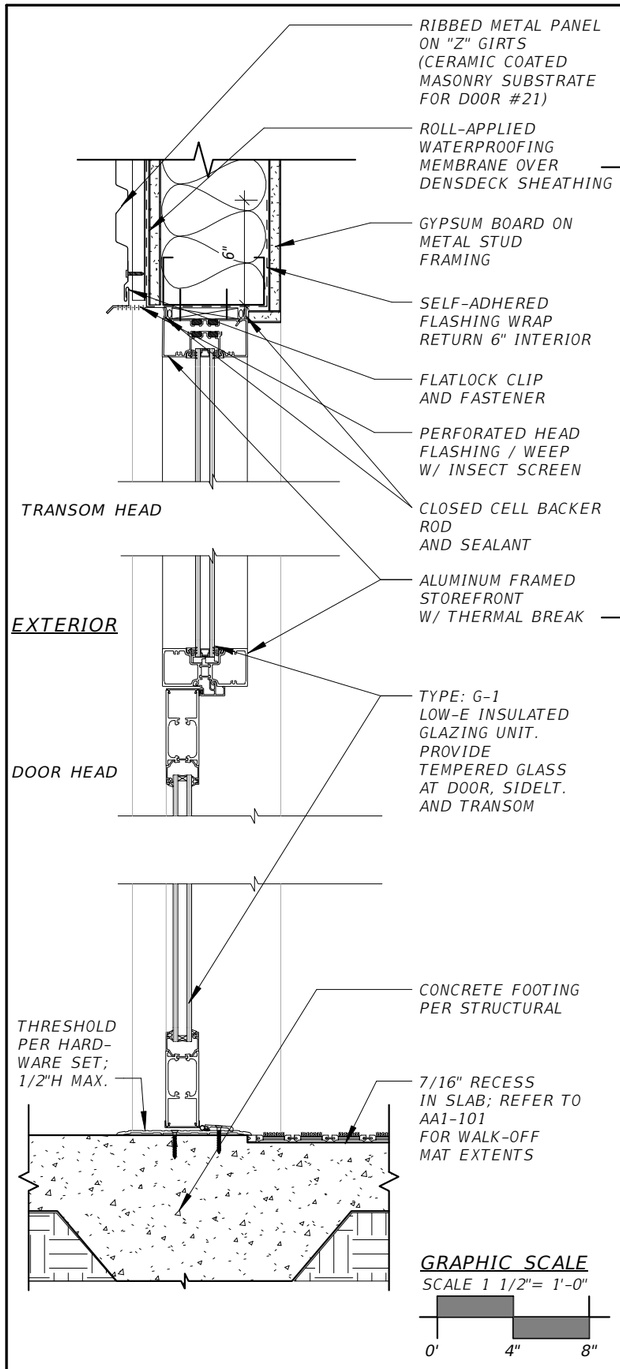
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

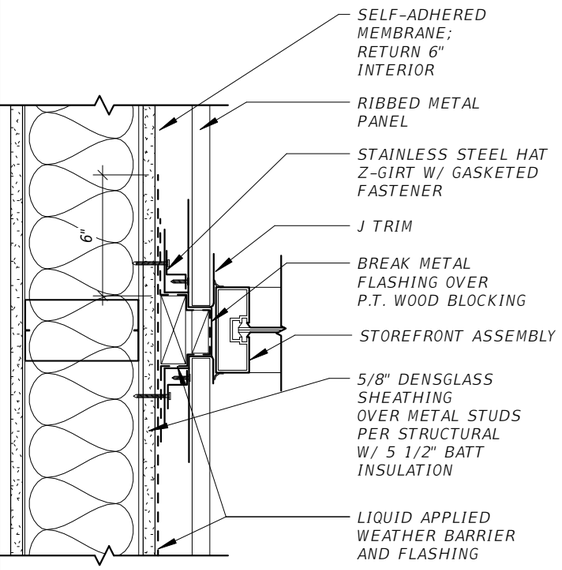
DOOR DETAILS

SHEET NO.
AA1-502

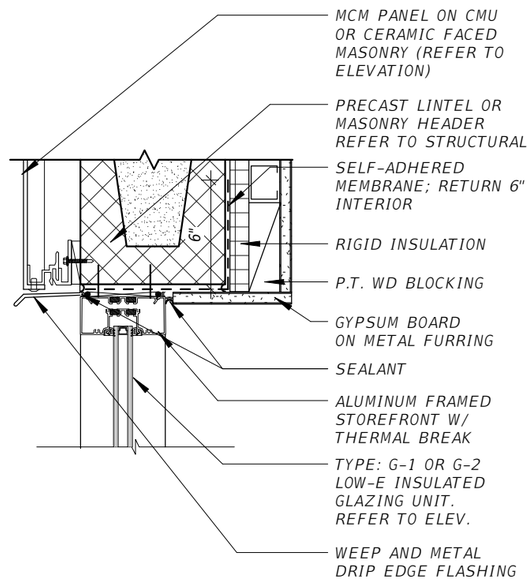
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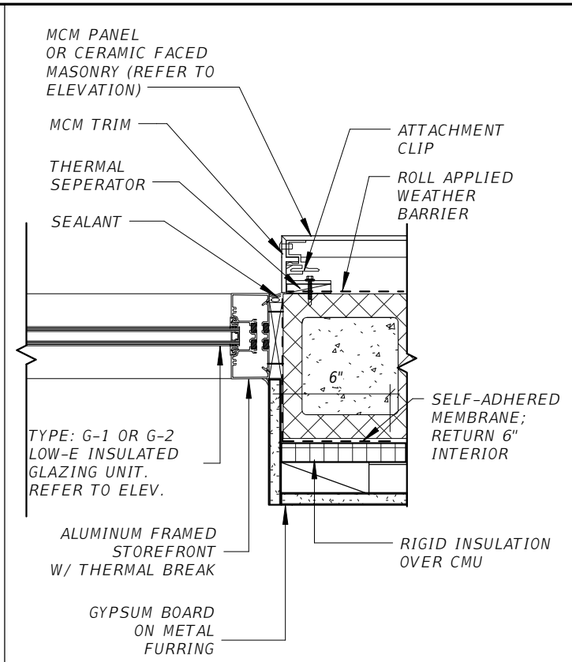
1 STOREFRONT HEAD/THRESHOLD - DETAIL
1 1/2" = 1'-0"



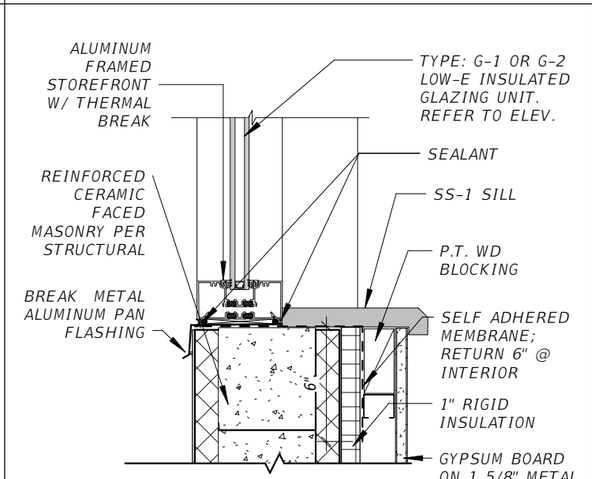
2 STOREFRONT JAMB DETAIL
1 1/2" = 1'-0"



3 WINDOW HEAD DETAIL
1 1/2" = 1'-0"



4 WINDOW JAMB DETAIL
1 1/2" = 1'-0"

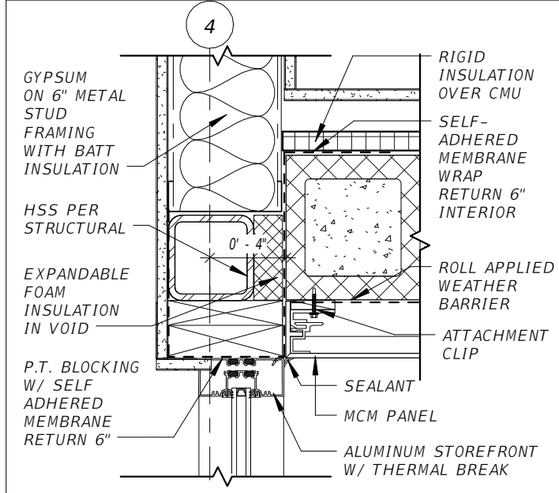


5 WINDOW SILL DETAIL
1 1/2" = 1'-0"

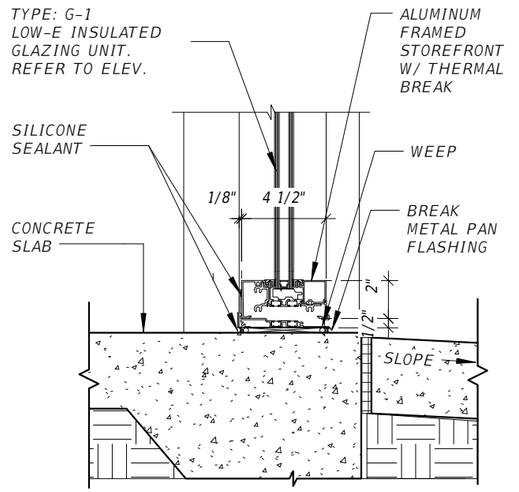
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7 STOREFRONT JAMB DETAIL
1 1/2" = 1'-0"



6 WINDOW SILL DETAIL @ SLAB
1 1/2" = 1'-0"

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STATE OF FLORIDA
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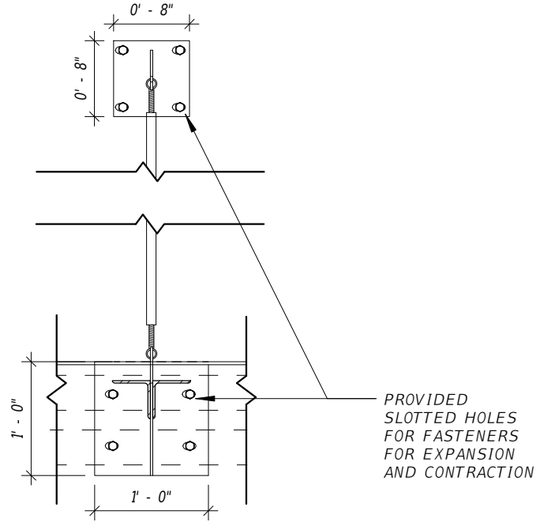
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

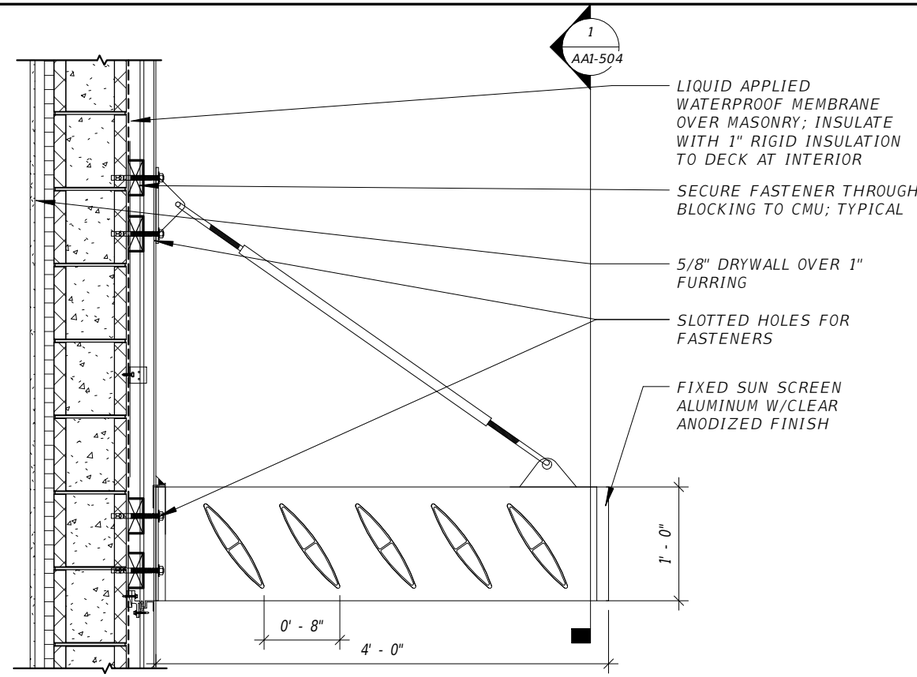
WINDOW DETAILS

SHEET NO.
AA1-503

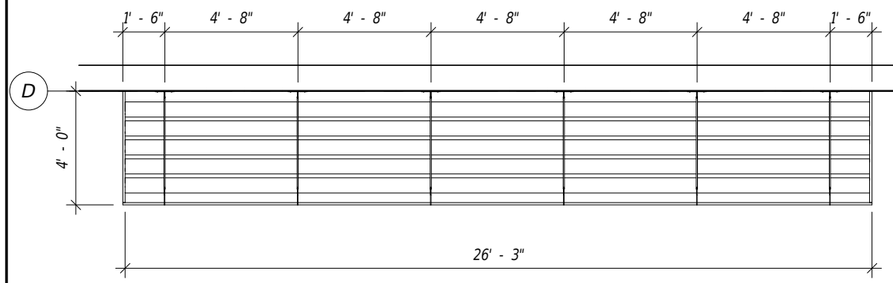
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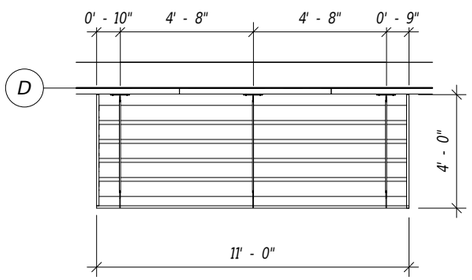
1 FIXED SUN SCREEN DETAIL
3/4" = 1'-0"



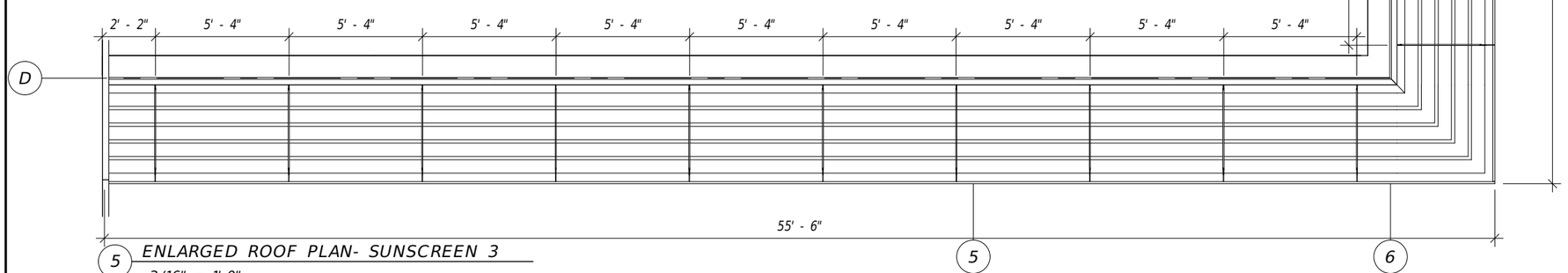
2 FIXED SUN SCREEN DETAIL SECTION
3/4" = 1'-0"



3 ENLARGED ROOF PLAN- SUNSCREEN 1
3/16" = 1'-0"



4 ENLARGED ROOF PLAN- SUNSCREEN 2
3/16" = 1'-0"



5 ENLARGED ROOF PLAN- SUNSCREEN 3
3/16" = 1'-0"

GENERAL NOTES:

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3. PROVIDE SIGNED AND SEALED SHOP DRAWINGS AND STRUCTURAL CALCULATIONS BY FLORIDA REGISTERED P.E. PER SPECIFICAITON REQUIREMENTS.

4. SUN SCREEN HARDWARE SHALL BE SUPPLIED BY MANUFACTURER. VERIFY CONNECTIONS WITH MANUFACTURER.

5. SUN SCREEN FASTENERS TO SUBSTRATE SHALL BE DETAILED IN SHOP DRAWINGS.

NOTE: ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER. NO EXCEPTIONS

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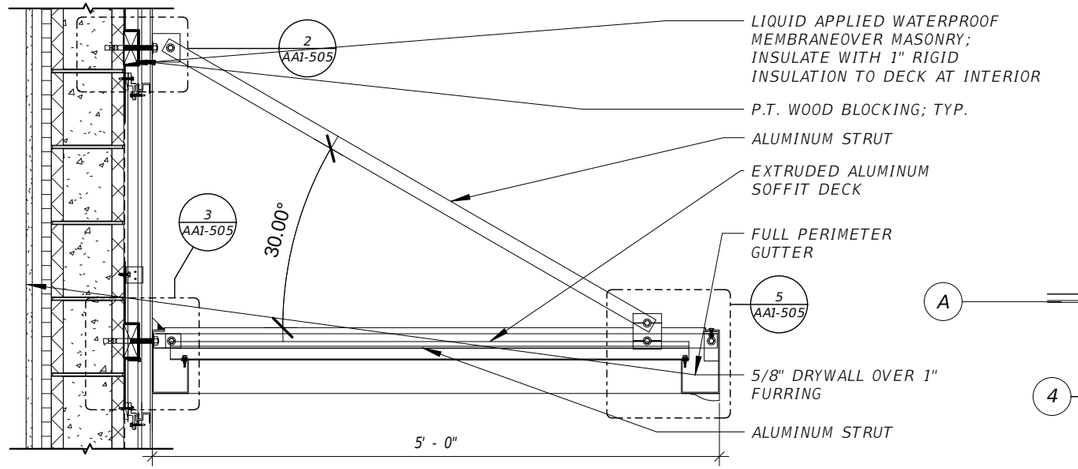
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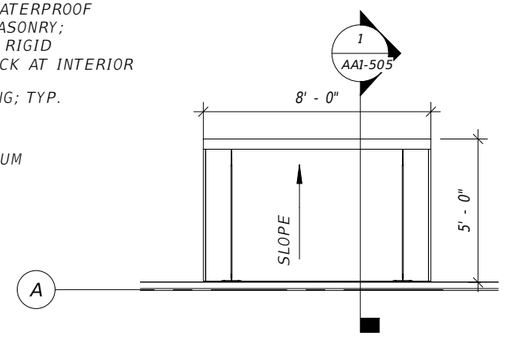
SUNSHADE DETAILS

SHEET NO.
AA1-504

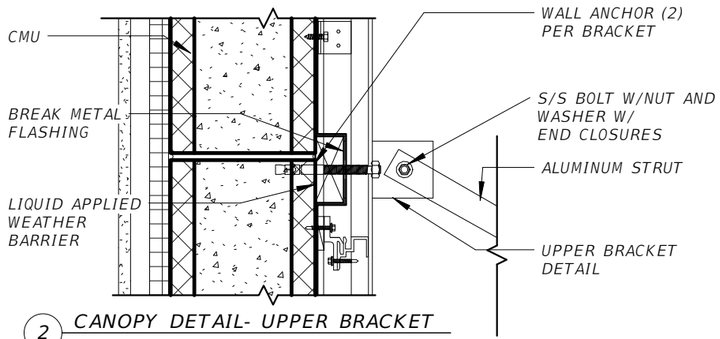
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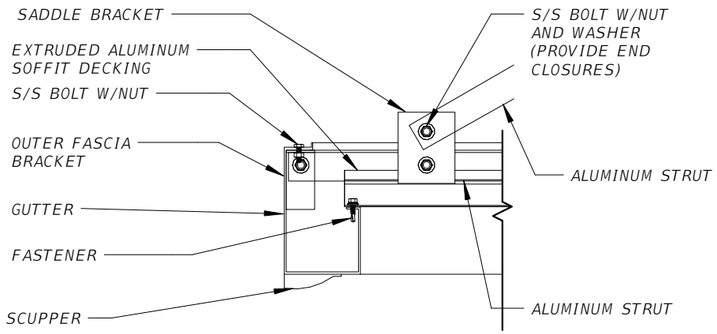
1 CANOPY DETAIL- SECTION
3/4" = 1'-0"



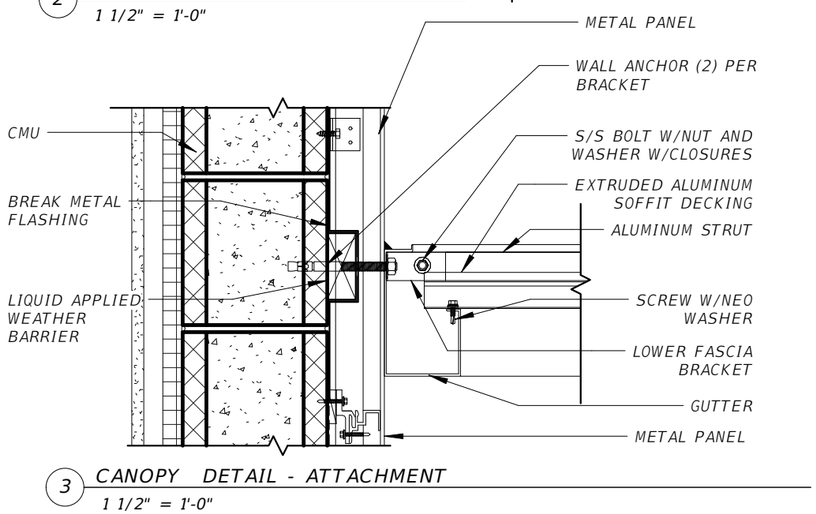
4 ENLARGED DOOR CANOPY TYPICAL
3/16" = 1'-0"



2 CANOPY DETAIL- UPPER BRACKET
1 1/2" = 1'-0"



5 CANOPY DETAIL- GUTTER
1 1/2" = 1'-0"



3 CANOPY DETAIL - ATTACHMENT
1 1/2" = 1'-0"

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

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NOTE:

ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER. NO EXCEPTIONS

PROVIDE SLOTED HOLES FOR ANCHOR BOLTS TO ALLOW FOR EXPANSION AT EACH ATTACHMENT POINT

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

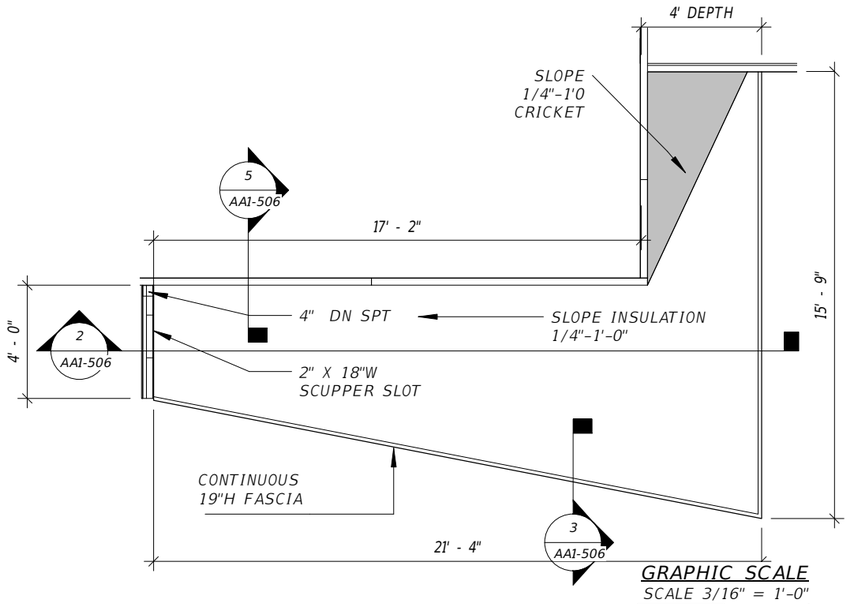
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

CANOPY DETAILS

SHEET NO.
AA1-505

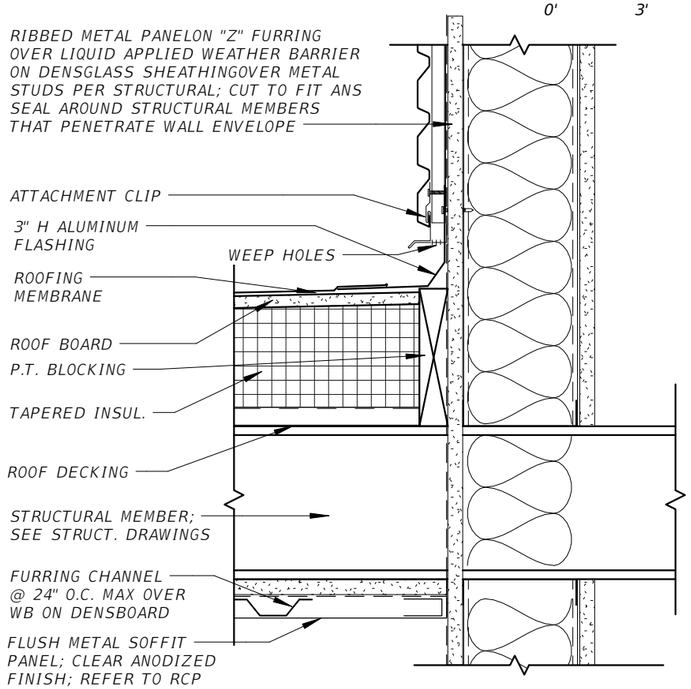
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 ENLARGED ENTRY CANOPY - ROOF PLAN

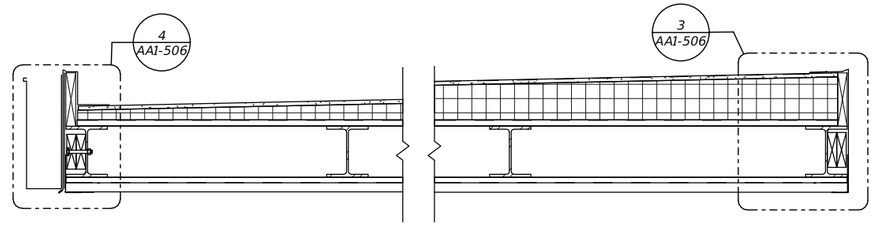
3/16" = 1'-0"

GRAPHIC SCALE
SCALE 3/16" = 1'-0"
0' 3' 6'



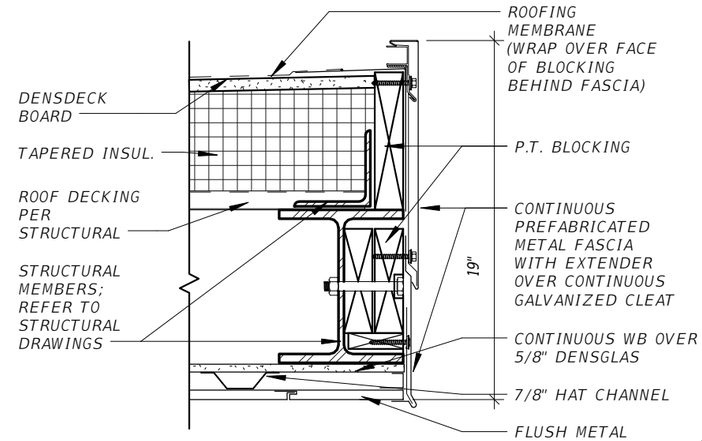
5 ENTRY CANOPY - FLASHING DETAIL

1 1/2" = 1'-0"



2 ENTRY CANOPY - SECTION

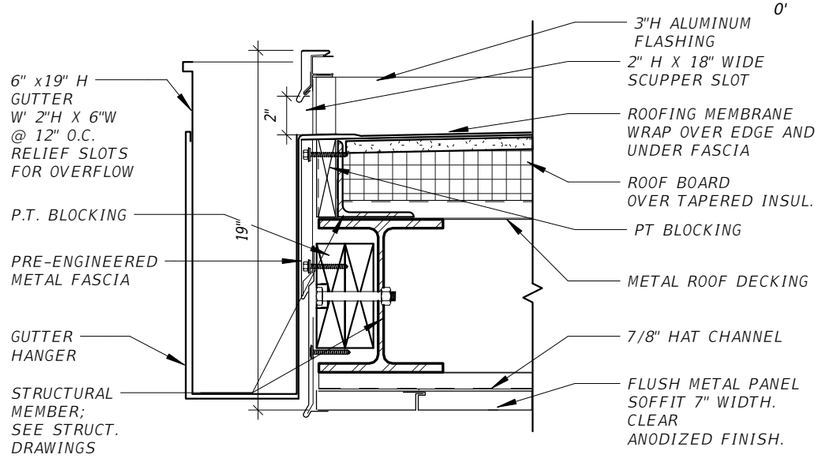
1/2" = 1'-0"



3 ENTRY CANOPY - EDGE DETAIL

1 1/2" = 1'-0"

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"



4 ENTRY CANOPY - GUTTER DETAIL

1 1/2" = 1'-0"

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH, TYP.

2. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, ETC.

NOTE: ALL OPENINGS THROUGH RIBBED METAL PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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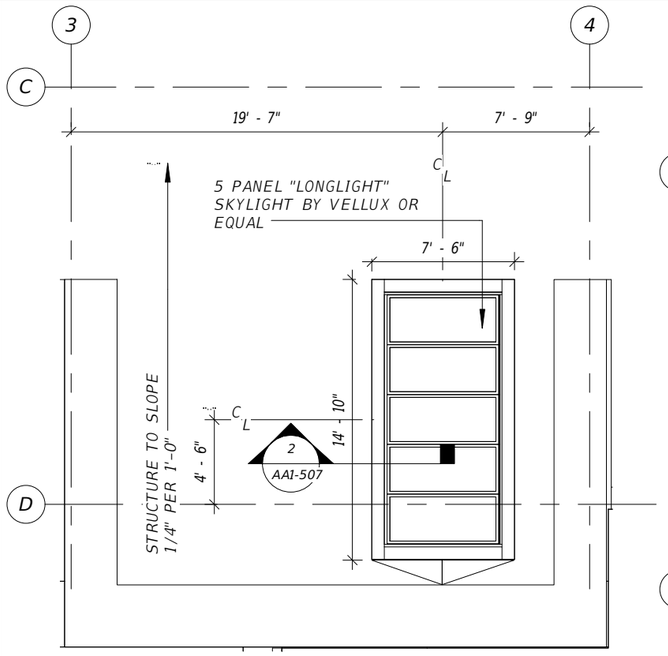
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

CANOPY DETAILS

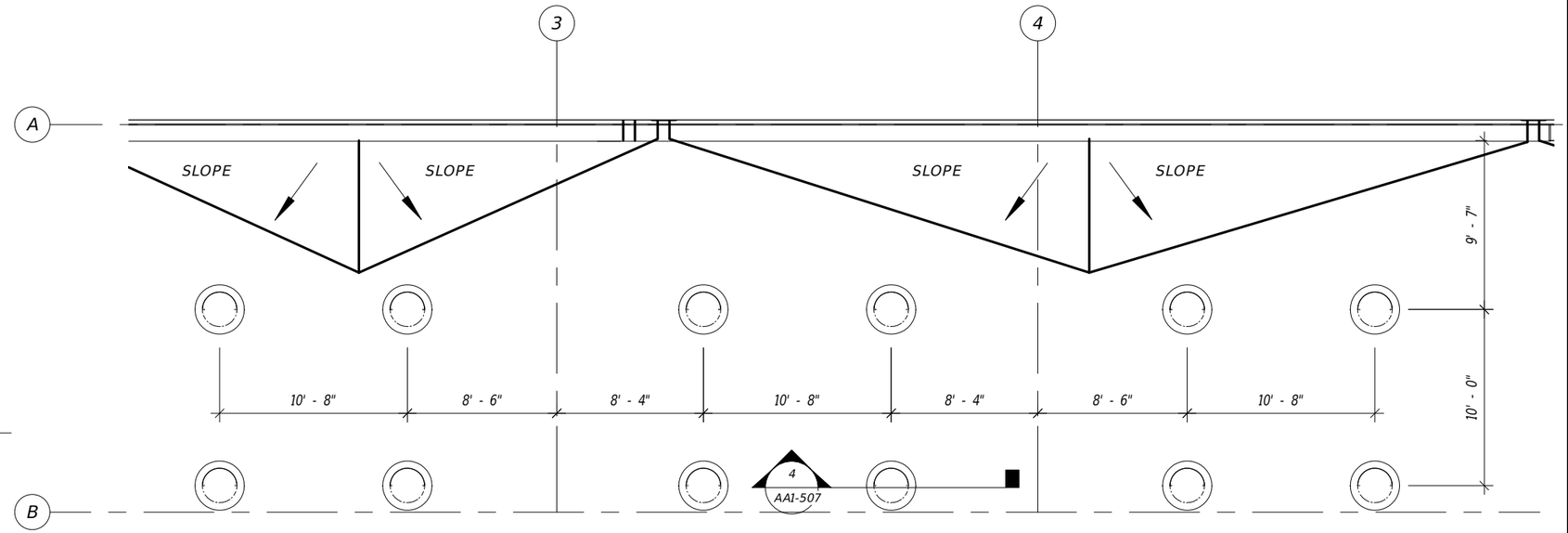
SHEET NO.
AA1-506

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1 ROOF PLAN-SKYLIGHTS

1/8" = 1'-0"



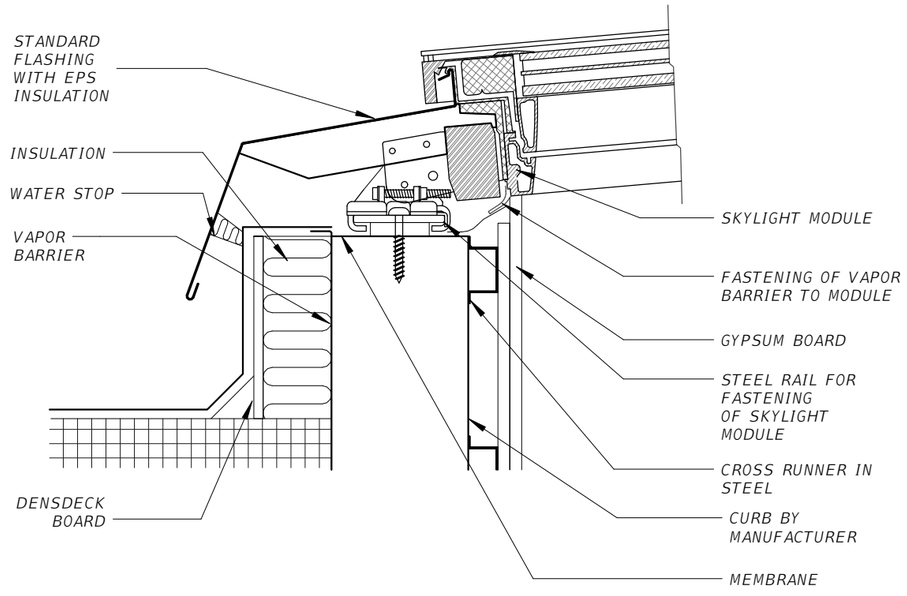
3 ROOF PLAN - TUBULAR SKYLIGHT LAYOUT

1/8" = 1'-0"

GRAPHIC SCALE

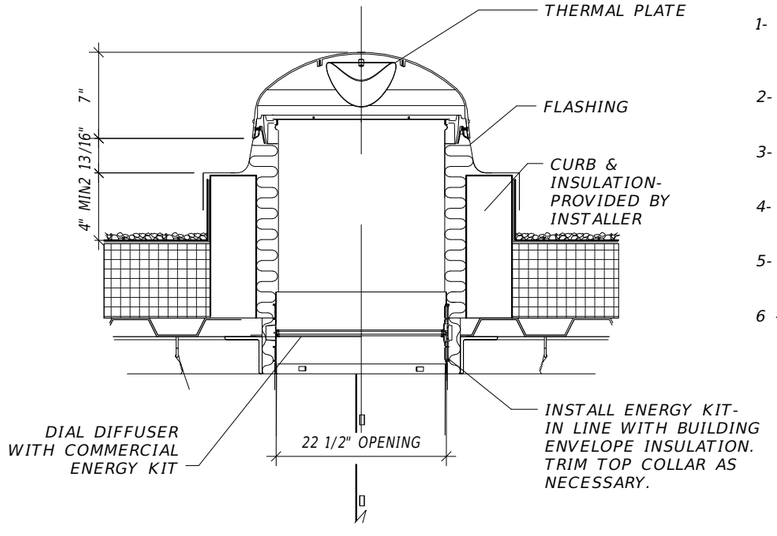
SCALE 1/8" = 1'-0"

0' 4' 8'



2 ATRIUM SKYLIGHT CURB DETAIL

1 1/2" = 1'-0"



4 TUBULAR SKYLIGHT DETAIL

1/2" = 1'-0"

GRAPHIC SCALE

SCALE 1/2" = 1'-0"

0' 1' 2'

GENERAL NOTES

1- SECURE EYE SCREWS/BOLTS TO THE ROOFING STRUCTURE AND ATTACH SUSPENSION WIRE TO CONNECT TO CLIPS AT END OF TUNNEL SECTION.

2- SECURE SUSPENSION WIRES TO THE CEILING ADAPTOR ASSEMBLY & EYEBOLTS.

3- DIMENSIONS SHOWN ARE NOMINAL, UNLESS INDICATED OTHERWISE.

4- MOUNT & FLASH USING STANDARD ROOFING PRACTICES FOR ROOFING MATERIAL.

5- REFER TO MANUFACTURER FOR SUSPENSION WIRE INSTALLATION.

6 -COORDINATE AND INSTALL SWITCHES FOR LIGHT BAFFLES

REVISIONS			
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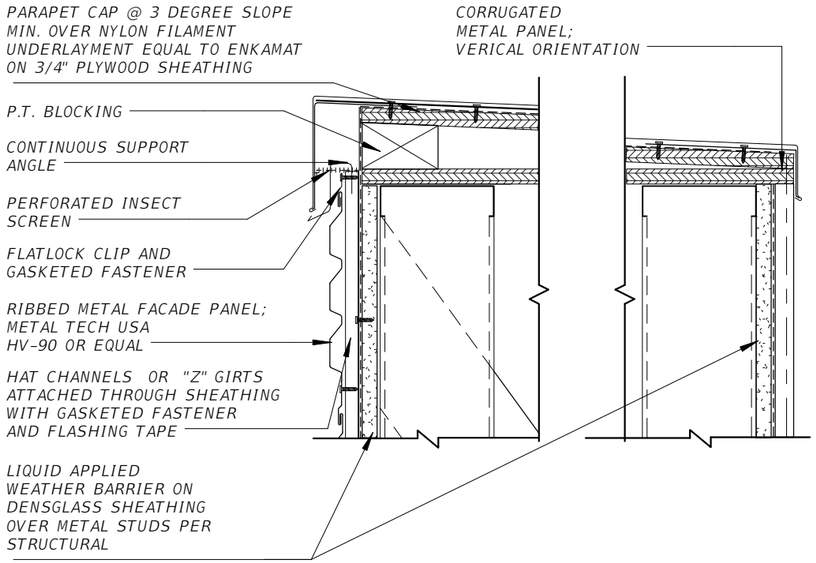
SUNTRAX TEST FACILITY OPERATIONS BUILDING

SKYLIGHT DETAILS

SHEET NO.

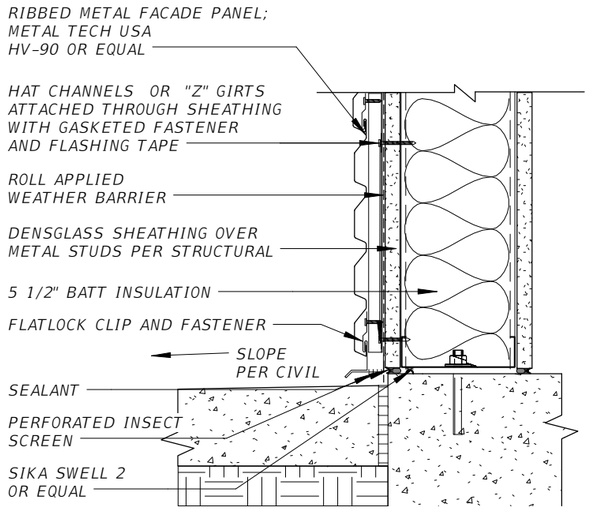
AA1-507

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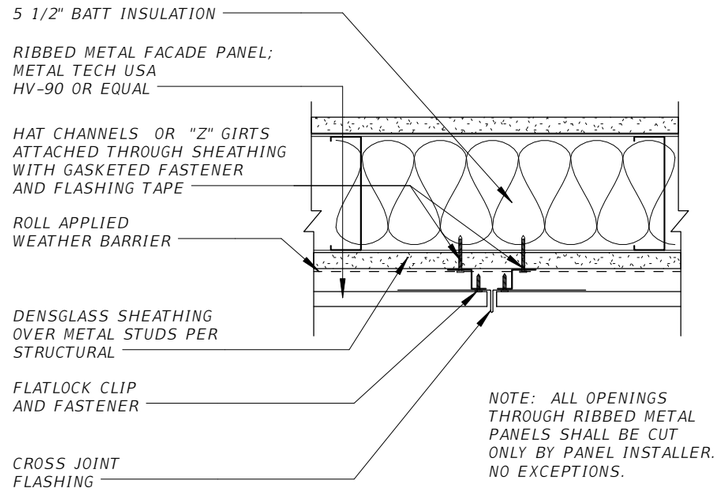
1 METAL PANEL - COPING DETAIL

1 1/2" = 1'-0"



2 METAL PANEL - BASE FLASHING DETAIL

1 1/2" = 1'-0"



NOTE: ALL OPENINGS THROUGH RIBBED METAL PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

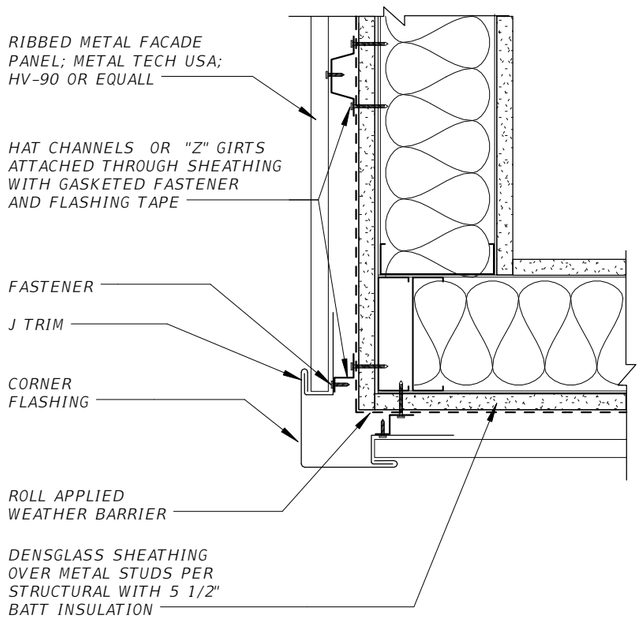
3 METAL PANEL - SEAM PLAN

1 1/2" = 1'-0"

GRAPHIC SCALE

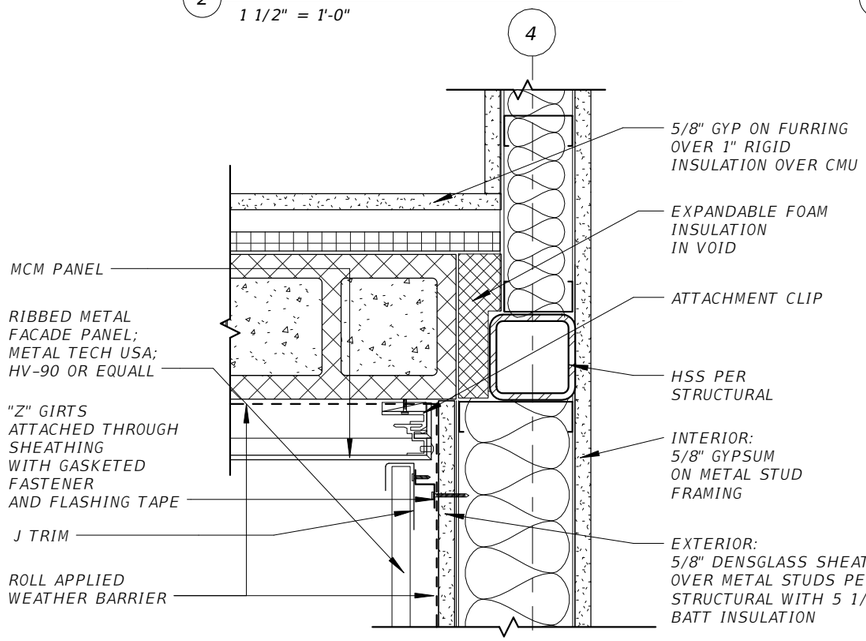
SCALE 1 1/2"= 1'-0"

0' 4" 8"



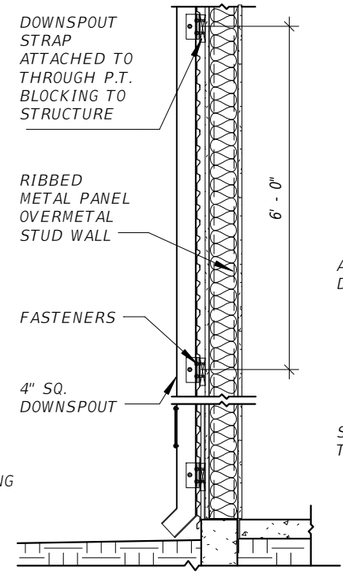
4 METAL PANEL - OUTSIDE CORNER DETAIL

1 1/2" = 1'-0"

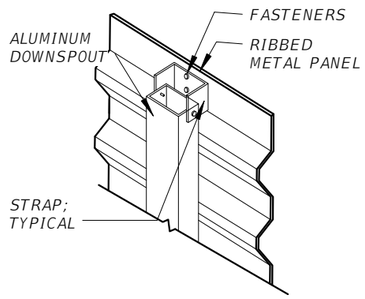


5 METAL PANEL - INSIDE CORNER DETAIL

1 1/2" = 1'-0"



NOTE: DOWNSPOUT TO BE SECURED TO THE WALL WITH A STRAP AND (4) STITCH SCREWS AT A 6'-0" MAX. SPACING. SPLICE DOWNSPOUT AND ATTACH AT BASE.



6 DOWNSPOUT ATTACHMENT SECTION

3/8" = 1'-0"

GRAPHIC SCALE

SCALE 3/8" = 1'-0"

0' 1.5' 3'

REVISIONS			
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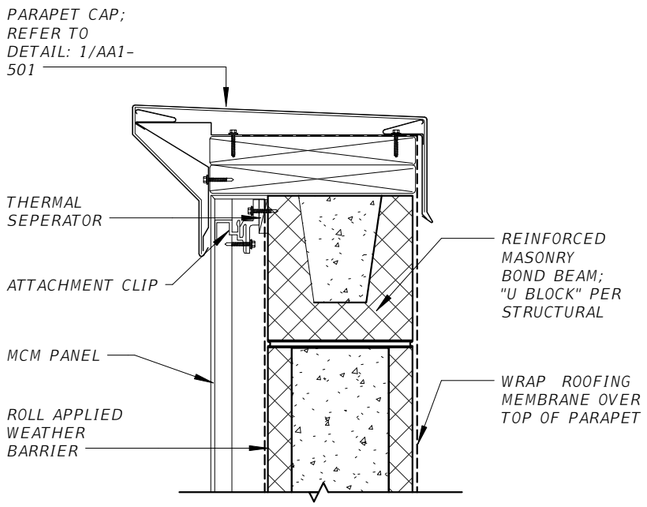
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

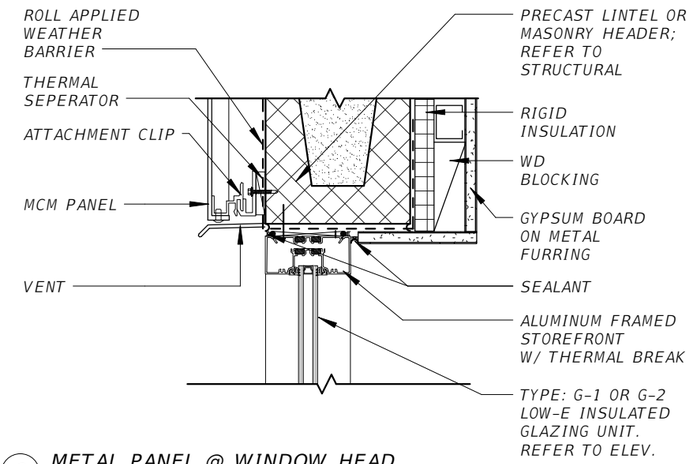
RIBBED METAL PANEL DETAILS

SHEET NO. AA1-508

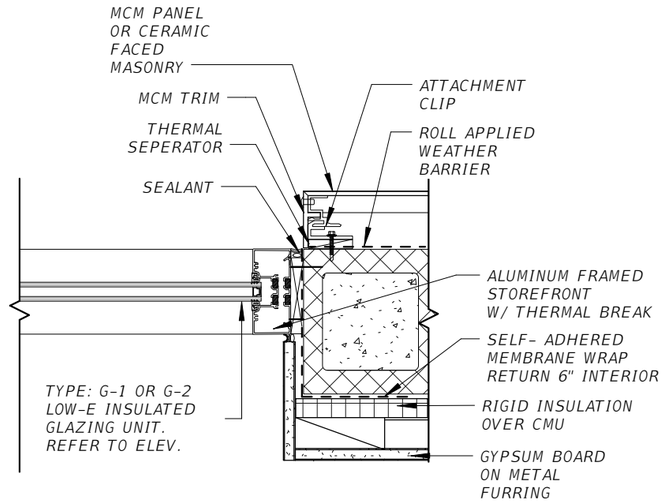
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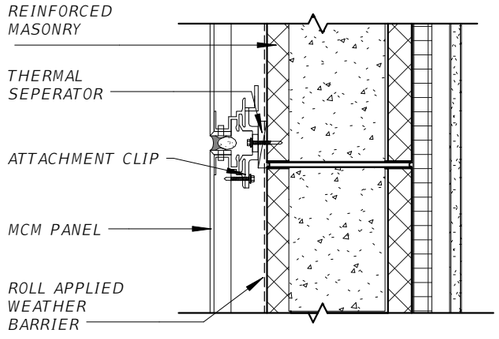
1 METAL PANEL @ PARAPET
1 1/2" = 1'-0"



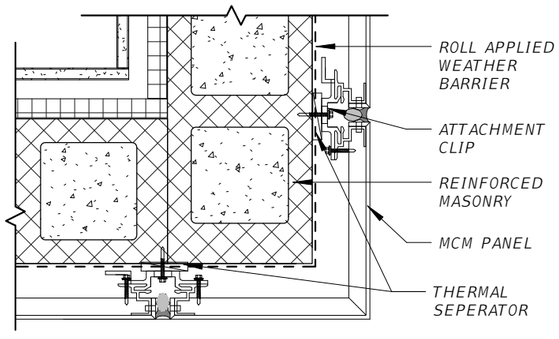
2 METAL PANEL @ WINDOW HEAD
1 1/2" = 1'-0"



3 METAL PANEL @ WINDOW JAMB
1 1/2" = 1'-0"



4 METAL PANEL @ JOINT
1 1/2" = 1'-0"



5 METAL PANEL @ OUTSIDE CORNER
1 1/2" = 1'-0"

NOTE: ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER. NO EXCEPTIONS.

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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SUNTRAX TEST FACILITY OPERATIONS BUILDING

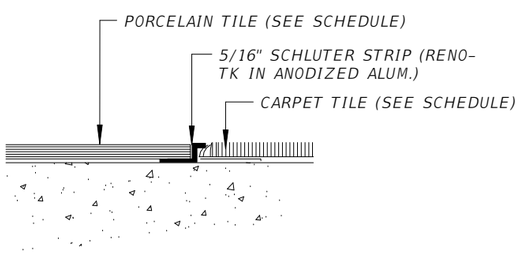
MCM PANEL DETAILS

SHEET NO.
AA1-509

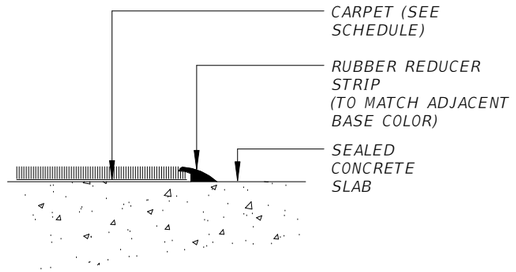
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FINISH SCHEDULE

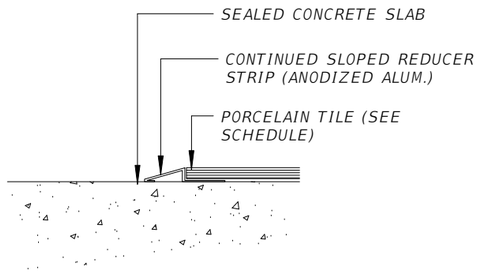
RM NO.	ROOM NAME	FLOOR MATERIAL	BASE MATERIAL	WALLS						CEILING		REMARKS
				MATERIAL	FINISH	NORTH	EAST	SOUTH	WEST	MATERIAL	FINISH	
01	TEC 1 CONFERENCE	CPT-1 / CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-6	P-4	P-4	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
02	TEC 1 OFFICE	CPT-1/ CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-6	P-6	P-2	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
03	TEC 1 WORK AREA	CPT-1 / CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4	P-4	P-6	-	P-6	ACT-1	WHITE; TEGULAR EDGE	
04	TEC1 HALL	CPT-1 / CPT-2 / CPT-4	RB-1	PAINTED GYPSUM	LEVEL 4	-	P-6	P-2	P-6	ACT-1	WHITE; TEGULAR EDGE	
05	TEC 1 COPY	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-6	P-2	P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	
06	TRAINING ROOM	CPT-1 / CPT-2 / CPT-3	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-5	P-5	P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
07	BREAK ROOM	TL-1/ TL-2	TB-1/TB-2	PAINTED GYPSUM	LEVEL 4	P-6	*	P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	PAINT DESIGN-EAST WALL-SEE ELEVATION
08	VENDING	TL-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-3	P-6	P-1	P-6	ACT-1	WHITE; TEGULAR EDGE	LK-1
09	POLYTECH OFFICE	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-2	P-6	P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	
10	STORAGE	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-6	P-6	P-6	P-6	PAINT GYP	SMOOTH TEXTURE	
11	RECEPTION	TL-1/ TL-2	TB-2	PAINTED GYPSUM	LEVEL 4	-	P-6	P-3	P-3	PAINT GYP	LEVEL 5	
12	MAIL RM	TL-2	TB-2	PAINTED GYPSUM	LEVEL 4	P-6	P-6	P-6	P-6	PAINT GYP	SMOOTH TEXTURE	
13	OBSERVATION	TL-1/ TL-2	TB-1/TB-2	PAINTED GYPSUM	LEVEL 4	P-2	P-6	-	-	PAINT GYP	LEVEL 5	LEVEL 5 FINISH ON A/V WALL
14	FTE COPY	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-6	-	P-4	P-1	ACT-1	WHITE; TEGULAR EDGE	
15	FTE OFFICE 2	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-2	P-6	P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
16	FTE WORK AREA	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-6	P-6	P-6	P-4	ACT-1	WHITE; TEGULAR EDGE	
17	FTE DIRECTOR	CPT-1 / CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-3	P-6	P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
18	STORAGE	SC	RB-2	PAINTED GYPSUM	LEVEL 4	P-6	P-6	P-6	P-6	PAINT GYP	SMOOTH TEXTURE	
19	FTE OFFICE 1	CPT-1 / CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-6	P-6	P-2	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
20	FTE CONFERENCE	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-5, P-1	P-5	P-5	P-5	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
21	HALL	TL-1/ TL-2	TB-1/TB-2	PAINTED GYPSUM	LEVEL 4	P-2, P-6	P-1, P-6	P-2, P-3, P-6	P-6	ACT-1	WHITE; TEGULAR EDGE	
22	WOMEN	TL-2	TB-2	TL2/TL3/PAINTED GYP.	GLOSS	P-4	-	-	P-1	PAINT GYP	SMOOTH TEXTURE	FULL HT TILE OVER CEMENT BOARD WET WALL & WALL ADJ. TO TOILET. WALL PAINT TO BE SEMI-GLOSS
23	MEN	TL-2	TB-2	TL2/TL3/PAINTED GYP.	GLOSS	-	-	P-4	P-1	PAINT GYP	SMOOTH TEXTURE	FULL HT TILE OVER CEMENT BOARD WET WALL & WALL ADJ. TO TOILET. WALL PAINT TO BE SEMI-GLOSS
24	IT	SC	RB-2	PLYWOOD OVER GYP	PAINTED	P-6	P-6	P-6	P-6	OPEN	EXPOSED	
25	ELEC.	SC	RB-2	PLYWOOD OVER GYP	PAINTED	P-6	P-6	P-6	P-6	OPEN	EXPOSED	
26	TEC 2 HALL	CPT-1 / CPT-2 / CPT-4	RB-1	PAINTED GYPSUM	LEVEL 4	P-6	P-4, P-6	P-2	P-1, P-6	ACT-1	WHITE; TEGULAR EDGE	
27	TEC 2 WORK AREA	CPT-1/ CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4	P-4	P-6	-	-	ACT-1	WHITE; TEGULAR EDGE	
28	TEC 2 COPY	CPT-1	RB-1	PAINTED GYPSUM	LEVEL 4	P-6	P-6	P-1, P-6	P-4	ACT-1	WHITE; TEGULAR EDGE	
29	TEC 2 OFFICE	CPT-1/ CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-6	P-6	P-3	P-6	ACT-1	WHITE; TEGULAR EDGE	
30	TEC 2 CONFERENCE	CPT-1/ CPT-2	RB-1	PAINTED GYPSUM	LEVEL 4&5	P-6	P-6	P-3	P-6	ACT-1	WHITE; TEGULAR EDGE	CF-1 ONE WALL (LEVEL 5 GWB)
31	TEC 2 TESTING RM	PC-1	RB-2	PLYWOOD OVER GYP	PAINTED	P-6	P-1, P-6	P-6	P-3	OPEN	EXPOSED	
32	FTE TESTING RM	PC-1	RB-2	PLYWOOD OVER GYP	PAINTED	P-6	P-3	P-6	P-6	OPEN	EXPOSED	CF-1 ONE WALL (LEVEL 5 GWB)
33	TEC 1 TESTING RM	PC-1	RB-2	PLYWOOD OVER GYP	PAINTED	P-6	P-3	P-6	P-1, P-6	OPEN	EXPOSED	
34	JANITOR	QT-1	QTB-1	FRP-1	PEBBLED	P-6	P-6	P-6	P-6	PAINT GYP	SMOOTH TEXTURE	
35	STORAGE	SC	RB-2	PAINTED GYPSUM	LEVEL 4	P-6	P-6	P-6	P-6	OPEN	EXPOSED	
37	Room											



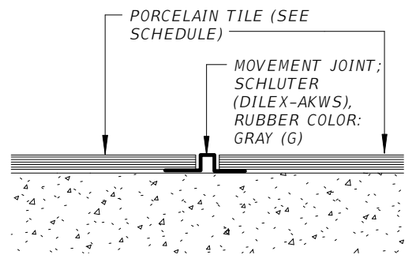
1 TILE TO CARPET TILE - TRANSITION
3" = 1'-0"



2 CARPET TO CONCRETE -TRANSITION
3" = 1'-0"



3 TILE TO CONCRETE- TRANSITION
3" = 1'-0"



4 TILE TO TILE - TRANSITION
3" = 1'-0"

GRAPHIC SCALE
SCALE 3" = 1'-0"
0' 2" 4"

* REFER TO AA1-601 FOR INTERIOR FINISH DESCRIPTIONS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FINISH SCHEDULE

SHEET NO. AA1-600

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

INTERIOR FINISHES - BASIS OF DESIGN

ACOUSTIC CEILING TILES
ACT-1
MANUFACTURER: ARMSTRONG
SIZE: 24" X 24"X 1"
COLOR: WHITE
SERIES: CALLA, TEGULAR, LOW VOC
EDGE PROFILE: 9/16" BEVELED TEGULAR
ITEM NUMBER: 2824
SUSPENSION SYSTEM: 9/16: SUPERFINE, WHITE
NOTES:
1. GENERAL CEILING TILE 2. NO ADDED FORMALDEHYDE

RUBBER BASE
RB-1
TYPE: RESILIENT RUBBER BASE
MANUFACTURER: JOHNSONITE
SIZE: 2 1/2"
COLOR: GREY WB, COLOR#: 48
NOTE: STRAIGHT BASE AT CARPET

RB-2
TYPE: RESILIENT RUBBER BASE
MANUFACTURER: JOHNSONITE
SIZE: 4"
COLOR: GREY WG, COLOR#: 48
NOTE: COVE BASE AT HARD FLOORING

CARPET TILE
CPT - 1
MANUFACTURER: INTERFACE
FORMAT: PLANK
SIZE: 25CM X 1 M
STYLE: DRIFTWOOD
STYLE #: 138940AK00
COLOR: TEAK
COLOR#: 104858
INSTALLATION: ASHLAR
NOTE: NO GLUE INSTALLATION
SEE FINISH PATTERN PLAN FOR PATTERN

CPT - 2
MANUFACTURER: INTERFACE
FORMAT: PLANK
SIZE: 25CM X 1 M
STYLE: DRIFTWOOD
STYLE#: 138940AK00
COLOR: CHESTNUT
COLOR#: 104860
INSTALLATION: ASHLAR
NOTE: NO GLUE INSTALLATION
SEE FINISH PATTERN PLAN FOR PATTERN

CPT -3
MANUFACTURER: INTERFACE
FORMAT: PLANK
SIZE: 25CM X 1 M
STYLE: SHIVER ME TIMBERS
STYLE#:127410AK00
COLOR: ASH
COLOR#: 103935
INSTALLATION: SEE FINISH PLAN
NOTE: NO GLUE INSTALLATION
SEE FLOOR PATTERN PLAN FOR PATTERN

CPT-4
MANUFACTURER: SHAW
FORMAT: TILE
SIZE: 24" X 24"
STYLE: WELCOME II TILE
STYLE#:5T031
COLOR: STERLING
COLOR#: 31557
INSTALLATION: 1/4 TURN
NOTE: SEE FLOOR PATTERN PLAN

FIBER REINFORCED PLASTIC PANELS
FRP-1
MANUFACTURER: MARLITE
SIZE: 4' X 8'
COLOR: P 430N MEDIUM GREY,
FINISH: PEBBLE SURFACE

PAINT
PRIMER
MANUFACTURER: SHERWIN WILLIAMS
SERIES: PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER

P-1
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH COLOR LIFE ALPACA
COLOR #: CL 1686A
FINISH: SATIN (SEMI-GLOSS IN RESTROOMS)
NOTE: ACCENT (BRIGHT YELLOW)

P-2
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE BLUE NOSE
COLOR #: 1678
FINISH: SATIN
NOTE: ACCENT (MEDIUM BLUE)

P-3
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE HUDSON BAY
COLOR #: 1680
FINISH: SATIN
NOTE: ACCENT (DARK BLUE)

P-4
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE WHALE GRAY
COLOR #: 2134-40
FINISH: SATIN (SEMI-GLOSS IN RESTROOMS)
NOTE: INTERIOR DOOR FRAMES AND METAL DOORS & ACCENT (GREY)

P-5
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE SABRE GRAY
COLOR #: 1482
FINISH: SATIN
NOTE: ACCENT OVER LEVEL 5 GWB
THIS COLOR UNDER MARKER BOARD CLEAR FINISH

P-6
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: SHERWIN WILLIAMS WESTHIGHLAND WHITE
COLOR #: SW-7566
FINISH: SATIN (SEMI-GLOSS IN RESTROOMS)
NOTE: GENERAL & CEILING PAINT

CLEAR FINISH CF-1
MANUFACTURER: WOLF GORDON
SERIES: WINK
TYPE: 2 PART DRY ERASE COATING
NOTES: 1. WALLS TO RECEIVE SHALL BE FINISHED TO LEVEL 5 SMOOTHNESS
2. FRONT WALL AT TRAINING ROOMS & (1) LONG WALL IN CONFERENCE ROOMS.

PLASTIC LAMINATE
PL-1
MANUFACTURER: FORMICA
STYLE/COLOR: STORM
STYLE/COLOR NUMBER: 912-58
FINISH: MATTE
NOTE: COUNTERS (NON-WET)
LOWER AND UPPER CABINET BODY (NOT DOORS OR DRAWERS) AND TOE KICK

PL-2
MANUFACTURER: FORMICA
STYLE/COLOR: STORM SOLIDZ
COLOR NUMBER: 3505-SP
FINISH: SCULPTED
NOTE: LOWER AND UPPER CABINETS DOORS AND DRAWERS

SEALED CONCRETE
SC

POLISHED CONCRETE
PC-1
MECHANICALLY GROUND & POLISHED CONCRETE
MANUFACTURER: L.M. SCOFIELD
PRODUCT: CHROMIX L
COLOR: CLEAR
CHEMICAL HARDENER: FORMULA ONE LITHIUM DENSIFIER

PULLS, CABINET DOORS
MANUFACTURER: CH BRIGGS
STYLE: 96MM (4") CC STAINLESS STEEL
PULLSTYLE#: AMBP19011SS

QUARTZ SURFACE
QS-1
MANUFACTURER: WILSONART
STYLE/COLOR: RIO UPANO
STYLE/COLOR #: Q3008
THICKNESS: 2CM
NOTE: RECEPTION DESK TRANSACTION TOP & FRONT

QS-2
MANUFACTURER: WILSONART
STYLE/COLOR: GREY LAKE
STYLE/COLOR #: Q1009
THICKNESS: 3CM
NOTE: RECEPTION DESK FRONT AND WORK SURFACE

SOLID SURFACE
SS-1
MANUFACTURER: WILSONART
STYLE/COLOR: FLINT ROCK
STYLE/COLOR #: 9207CS
THICKNESS: ½"
NOTE: RESTROOM, BREAKROOMS & COFFEE COUNTER

TOILET PARTITIONS
TP-1
MANUFACTURER: SCRANTON PRODUCTS
SERIES: HINY HIDERS
TYPE: FLOOR MOUNTED
COLOR: CHARCOAL GREY
TEXTURE: ORANGE PEEL
NOTE: FLOOR SUPPORTED WITH OVERHEAD BRACE FINISH

TILE
TL-1
TYPE: PORCELAIN TILE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 12" X 24"
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: ANTHRACITE
FINISH: MATTE
PATTERN: STRAIGHT SET, SEE FLOOR PATTERN PLAN
GROUT: 100% EPOXY GROUT, MAPEI, COLOR TBD
NOTE: FIELD FLOOR TILE (DARK GRAY)

TL-2
TYPE: PORCELAIN TILE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 12" X 24"
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: PEWTER
FINISH: MATTE
PATTERN: STRAIGHT SET, SEE FLOOR PATTERN PLAN
GROUT: 100% EPOXY GROUT, MAPEI, COLOR TBD
NOTE: ACCENT FLOOR TILE (LIGHT GRAY)

TL-3
TYPE: GLAZED CERAMIC TILE
DISTRIBUTOR: SPECIALTY TILE
MANUFACTURER: AMERICAN OLEAN
STYLE: BRIGHT
SIZE: 4" X 16"
COLOR: STORM GRAY
PATTERN: SEE ELEVATIONS TBD
GROUT: 100% EPOXY GROUT, MAPEI, COLOR TBD
NOTE: FIELD WALL TILE (DARK GRAY)

TL-4
TYPE: GLAZED CERAMIC TILE
DISTRIBUTOR: SPECIALTY TILE
MANUFACTURER: AMERICAN OLEAN
STYLE: BRIGHT
SIZE: 4" X 16"
COLOR: LIGHT SMOKE
PATTERN: SEE ELEVATIONS TBD
GROUT: 100% EPOXY GROUT, MAPEI, COLOR TBD
NOTE: ACCENT WALL TILE (LIGHT GRAY)

QT-1
TYPE: QUARRY TILE
DISTRIBUTOR: DALTILE
SIZE: 6" X 6"
COLOR: ASHEN GREY
FINISH: NON-ABRASIVE
GROUT: 100% EPOXY GROUT, MAPEI, GROUT, COLOR TBD
NOTE: JANITOR'S CLOSET, GROUT JOINT 3/8"

TB-1
TYPE: PORCELAIN TILE BASE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 6" X 24" FACTORY CUT, FACTORY EDGE UP
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: ANTHRACITE
GROUT: 100% EXPOXY GROUT, MAPEI, COLOR TBD
NOTE: ALIGN BASE AND FLOOR JOINTS
INSTALL NEXT TO TL-1 FLOOR TILE

TB-2
TYPE: PORCELAIN TILE BASE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 6" X 24" FACTORY CUT, FACTORY EDGE UP
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: PEWTER
GROUT: 100% EXPOXY GROUT, MAPEI, COLOR TBD
NOTE: ALIGN JOINTS TO FLOOR JOINTS
INSTALL WHERE TL-2 FLOOR

TB-3
TYPE: PORCELAIN TILE BASE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 8" X 24" FACTORY CUT, FACTORY EDGE UP
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: PEWTER
GROUT: 100% EXPOXY GROUT, MAPEI, COLOR TBD
NOTE: ALIGN TO FLOOR JOINTS
INSTALL IN RESTROOM

QTB-1
TYPE: QUARRY TILE COVE BASE
MANUFACTURER /DISTRIBUTOR: DALTILE
SIZE: 6" X 6"
COLOR: ASHEN GRAY
FINISH: NON-ABRASIVE
GROUT: 100% EPOXY GROUT, MAPEI, COLOR TBD
NOTE: INSTALL WITH QUARRY TILE FLOOR ALIGN BASE JOINTS TO WALL TILE JOINTS

TL-5
TYPE: GLASS TILE MOSAIC
DISTRIBUTOR: SPECIALTY TILE
SIZE: 1" X 1" MOSAIC DOT MOUNTED ON 12" X 12" SHEET
STYLE: ELISYUM
COLOR: WHITE
GROUT: 100% EPOXY GROUT, MAPIE, COLOR TBD
NOTE: BACKSPLASH ABOVE KITCHEN COUNTER

WINDOW ROLLER SHADES
WS-1
MANUFACTURER: PHIFER SHEER WEAVE
SHADECLOTH STYLE: INFINITY 2
WEAVE: BASKET WEAVE
COLOR: VG1 NICKEL
OPENNESS: 10%

WOOD DOORS
WD-1
DOOR TYPE: SOLID CORE FLUSH WOOD VENEER DOORS
MANUFACTURER: MARSHFIELD
SERIES: SIGNATURE SERIES
WOOD SPECIES: CHERRY
VENEER CUT: PLAIN SLICED
STAIN COLOR: NUTMEG 48-97
DOOR HARDWARE FINISH
COLOR: BRUSHED CHROME

FLOOR TRANSITION
RUBBER REDUCER STRIP
TYPE: RUBBER
MANUFACTURER:
COLOR: TO MATCH ADJACENT BASE

CORNER GUARD
TYPE: STAINLESS STEEL
MANUFACTURER: SCHLUTER QUADEC

SCHLUTER STRIP
TYPE: ANODIZED ALUM.
MANUFACTURER: RENO-TK

SLOPED REDUCER STRIP
TYPE: ANODIZED ALUM.

NOTES: 1. ALL FINISHES AND ADHESIVES TO CONTAIN NO ADDED FORMALDEHYDE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
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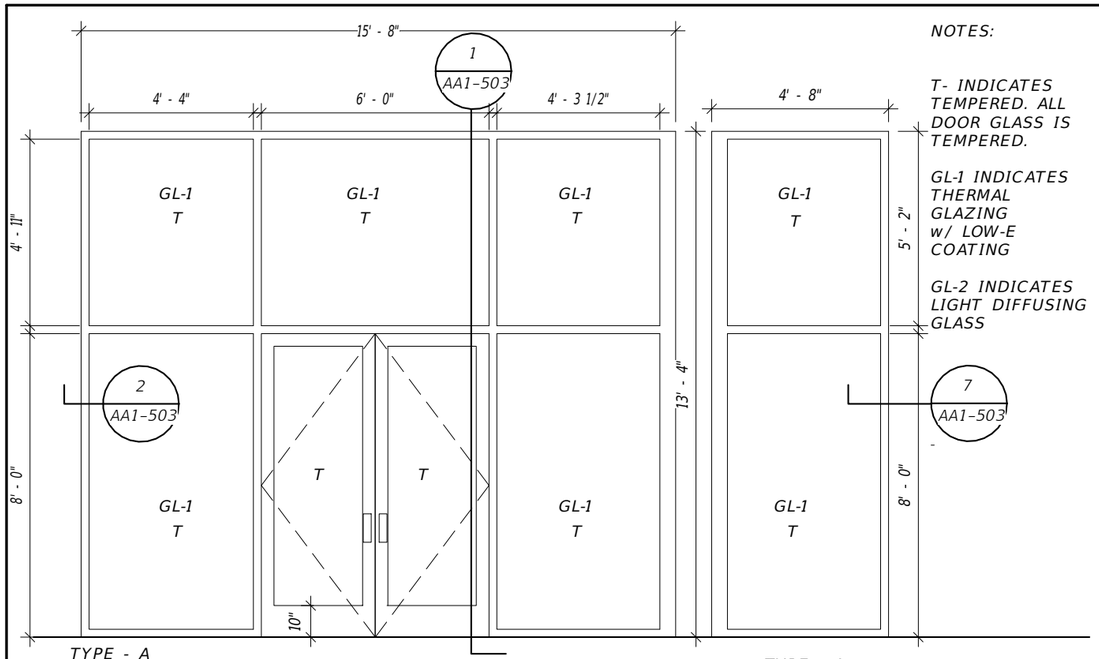
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

INTERIOR FINISH DESCRIPTIONS

SHEET NO.
AA1-601



TYPE - A
ALUMINUM STOREFRONT DOUBLE DOORS; CLEAR ANODIZED FRAMING 4 1/2" X 2" FRAMING WITH TYPE GL-1 INSULATED GLAZING

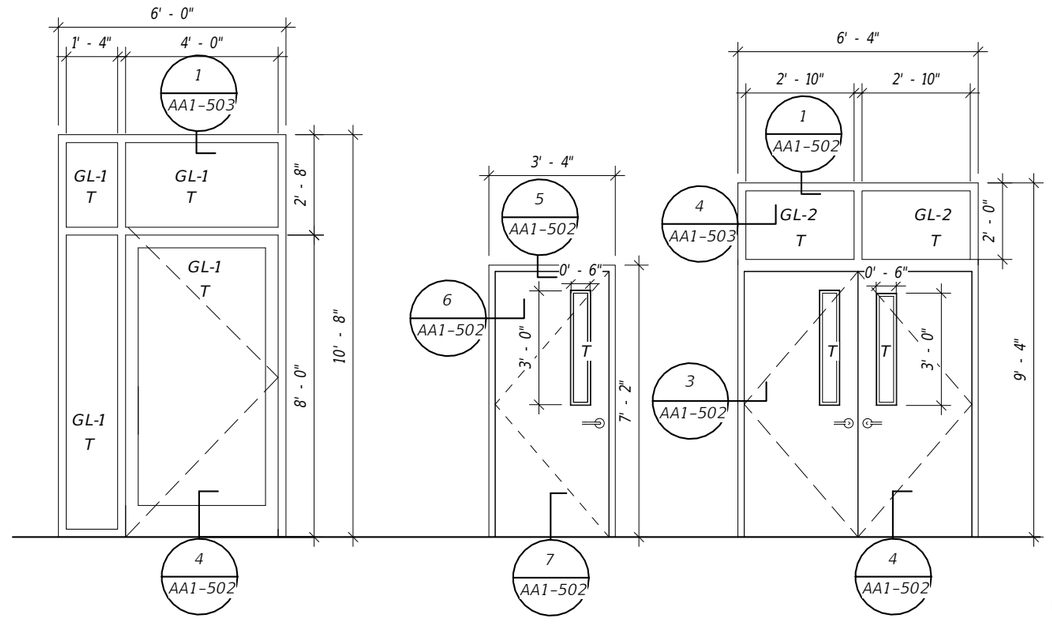
TYPE - A
SIDE WINDOW

NOTES:

T- INDICATES TEMPERED. ALL DOOR GLASS IS TEMPERED.

GL-1 INDICATES THERMAL GLAZING w/ LOW-E COATING

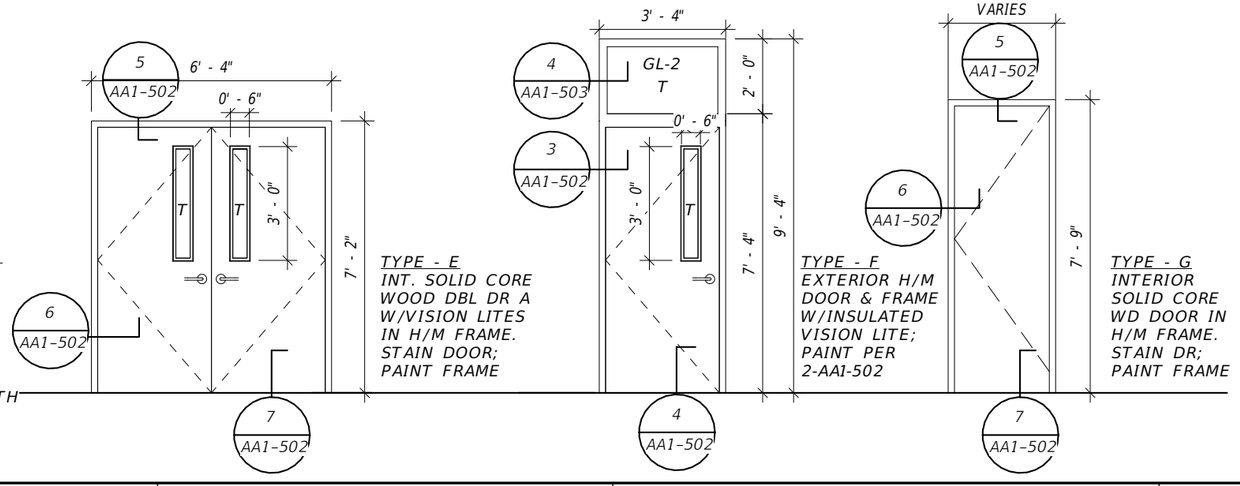
GL-2 INDICATES LIGHT DIFFUSING GLASS



TYPE - B
ALUMINUM STOREFRONT SINGLE DOORS; CLEAR ANODIZED FRAMING WITH TYPE GL-1 INSULATED GLAZING

TYPE - C
INTERIOR SOLID CORE WOOD DOOR WITH VISION LITE IN HOLLOW METAL FRAME. STAIN DOOR; PAINT FRAME.

TYPE - D
EXTERIOR HOLLOW METAL DOUBLE DOORS AND FRAMES WITH INSULATED VISION LITES; PAINT PAINT PER 2-AA1-502.



TYPE - E
INT. SOLID CORE WOOD DBL DR A W/VISION LITES IN H/M FRAME. STAIN DOOR; PAINT FRAME

TYPE - F
EXTERIOR H/M DOOR & FRAME W/INSULATED VISION LITE; PAINT PER 2-AA1-502

TYPE - G
INTERIOR SOLID CORE WD DOOR IN H/M FRAME. STAIN DR; PAINT FRAME

DOOR TYPE - ELEVATIONS

DOOR SCHEDULE

MARK	TYPE	W	H	TH	DR MAT	FRAME MAT	COMMENTS	HARDWARE SET	LABEL
01	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	6	
02	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	3	
04	F	3' - 0"	7' - 0"	0' - 1 3/4"	H/M	H/M	VISION LITE	10A	
04B	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10C	
06	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	6	
06A	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	6	
09	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	3	
10	G	2' - 6"	7' - 0"	0' - 1 3/4"	WD	H/M		1A	45 MIN.
12	G	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M		10D	45 MIN.
13	A	6' - 0"	8' - 0"	0' - 1 3/4"	ALUM	ALUM	GL-1 GLASS	10F	
15	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	3	
16	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10D	
16A	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10C	
17	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	3	
18	G	2' - 6"	7' - 0"	0' - 1 3/4"	WD	H/M		10	45 MIN.
19	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	3	
20	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	6	
21	B	4' - 0"	8' - 0"	0' - 1 3/4"	ALUM	ALUM	GL-1 GLASS	10G	
22	G	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M		7	
23	G	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M		7	
24	G	3' - 6"	7' - 0"	0' - 1 3/4"	WD	H/M	180 HINGE	10C	45 MIN.
25	G	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M		10C	45 MIN.
26	F	3' - 0"	7' - 0"	0' - 1 3/4"	H/M	H/M	VISION LITE	10A	
26A	F	3' - 0"	7' - 0"	0' - 1 3/4"	H/M	H/M	VISION LITE	10A	
26B	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10N	
29	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	3	
30	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	6	
31	D	6' - 0"	7' - 0"	0' - 1 3/4"	H/M	H/M	VISION LITE	10K	
31A	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10	
31B	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10D	
31C	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10	
32	D	6' - 0"	7' - 0"	0' - 1 3/4"	H/M	H/M	VISION LITE	10K	
32A	E	6' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10M	
33	D	6' - 0"	7' - 0"	0' - 1 3/4"	H/M	H/M	VISION LITE	10K	
33A	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10	
33B	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10D	
33C	C	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M	VISION LITE	10	
34	G	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M		1A	45 MIN.
35	G	3' - 0"	7' - 0"	0' - 1 3/4"	WD	H/M		10C	45 MIN.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DOOR SCHEDULE & TYPES

SHEET NO.
AA1-603

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

WINDOW SCHEDULE

MARK	WINDOW UNIT			GLAZING	FRAME	REMARKS
	WIDTH	HEIGHT	HEAD HEIGHT	TYPE	MATERIAL	
A	10'- 8"	6'- 8"	9'- 4"	GL-1, GL-2	ALUMINUM	
B	8'- 0"	6'-8"	9'- 4"	GL-1, GL-2	ALUMINUM	
C	5'- 4"	9'- 4"	9'- 4"	GL-1, GL-2	ALUMINUM	TEMPERED PANES
D	13'- 4"	10'- 8"	10'- 8"	GL-1	ALUMINUM	TEMPERED PANES
E	24'-0"	10'- 8"	10'- 8"	GL-1	ALUMINUM	TEMPERED PANES
F	5'- 4"	6'- 8"	9'- 4"	GL-1	ALUMINUM	
G	14'- 8" TOP 9'-4" BOTT.	6'- 8"	9'- 4"	GL-1	ALUMINUM	
H	9'- 4"	6'- 8"	9'- 4"	GL-1	ALUMINUM	
J	14'- 8" TOP 9'-4" BOTT.	6'- 8"	9'- 4"	GL-1	ALUMINUM	

GLAZING TYPES (08 8000)	
GL-1	INSULATED LOW-E GLAZING
GL-2	LIGHT DIFFUSING GLASS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

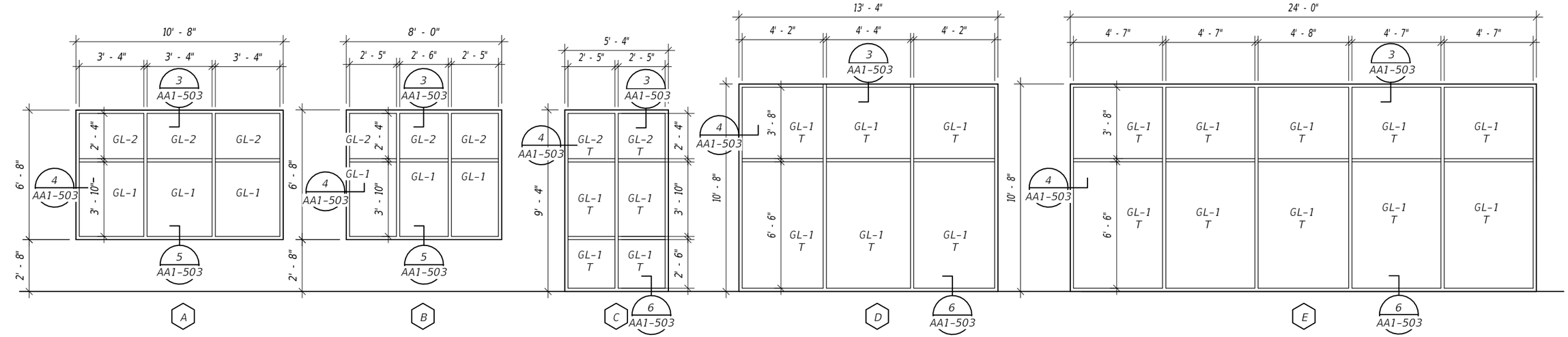
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

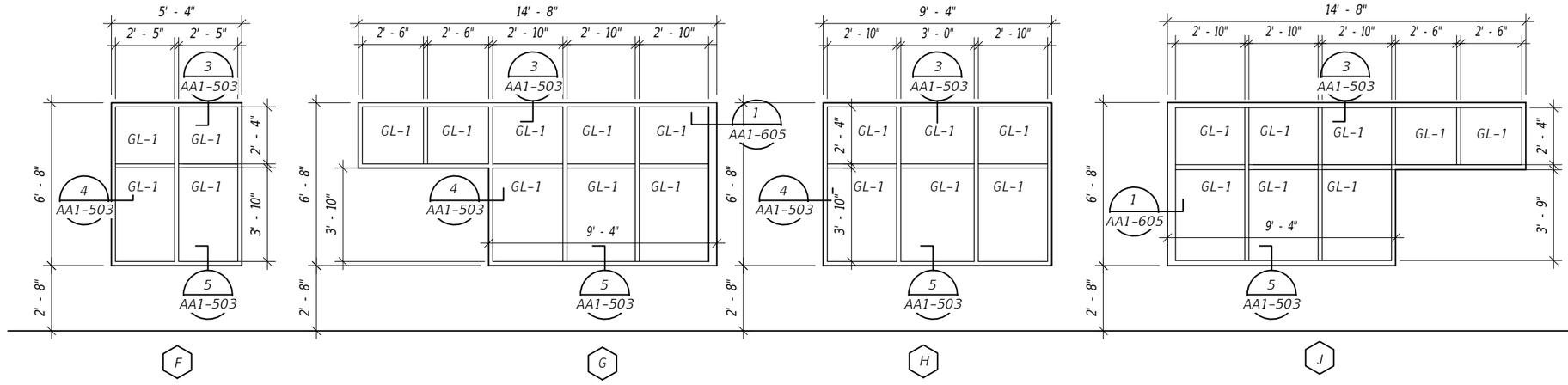
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

WINDOW SCHEDULE

SHEET NO.
AA1-604

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WINDOW TYPES- ELEVATIONS

GLAZING NOTES:

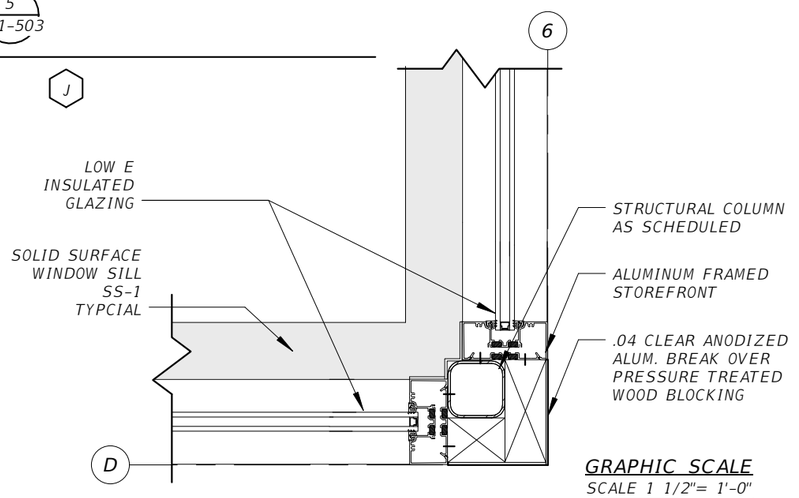
T- INDICATES TEMPERED GLASS

GL-1 -
INDICATES THERMAL GLAZING
w/ LOW-E COATING

GL-2 -
INDICATES LIGHT DIFFUSING
GLASS

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL
2. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONALREQUIREMENTS INCLUDING ATTACHMENT, N.O.A.'S, ETC.



1 CORNER MULLION DETAIL
1 1/2" = 1'-0"

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

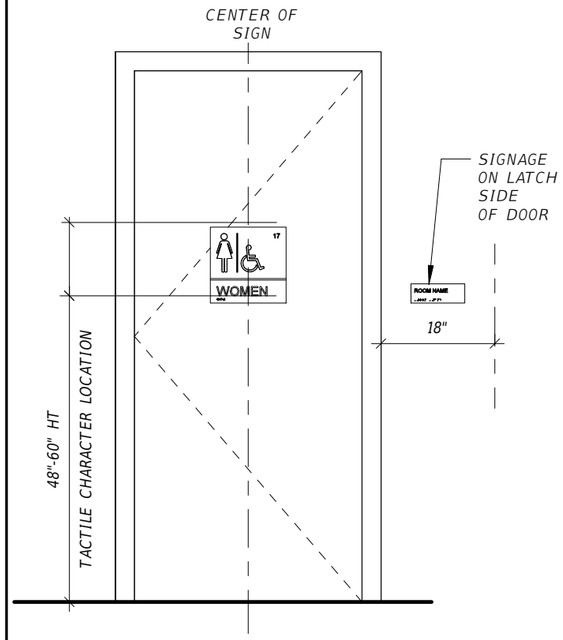
SUNTRAX TEST FACILITY OPERATIONS BUILDING

WINDOW TYPES

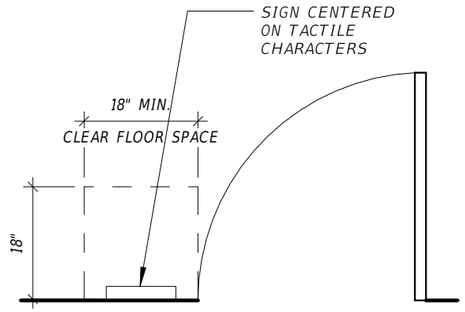
SHEET NO.
AA1-605

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ACCESSIBILITY SIGNS SHALL COMPLY WITH THE REQUIREMENTS OF THE FLORIDA ACCESSIBILITY CODE 2014; CHAPTER 7; SECTION 703: SIGNS.
REFER TO SHEET AA1-607 FOR SIGNAGE SCHEDULE AND DETAILS.
REFERT TO SPECIFICATIONS FOR FURTHER INFORMATION.



ACCESSIBILITY SIGNAGE LOCATION





LIGHT CHARACTERS ON A DARK BACKGROUND

DARK CHARACTERS ON A LIGHT BACKGROUND

PROVIDE DESCRIPTION DIRECTLY BELOW PICTOGRAM WITH NON-GLARE FINISH; PICTOGRAM SHALL BE 6" MIN. HIGH

ACCESSIBILITY SIGNAGE FINISH AND CONTRAST

703.5.5 VISUAL CHARACTER HEIGHT

HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40 INCHES (1015 mm) TO LESS THAN OR EQUAL TO 70 INCHES (1780 mm)	LESS THAN 71 INCHES (1830 mm)	5/8 INCH (16 mm)
	72 INCHES (1830 mm) AND GREATER	5/8 INCH (16mm), plus 1/8 INCH (3.2mm) PER FOOT (305mm) OF VIEWING DISTANCE ABOVE 72 INCHES (1830 mm)
GREATER THAN 70 INCHES (1780mm) TO LESS THAN TO EQUAL TO 120 INCHES (3050mm)	LESS THAN 180 INCHES (4570mm)	2 INCHES (51mm)
	180 INCHES (4570 mm) AND GREATER	2 INCHES (51mm), PLUS 1/8 INCH (3.2mm) PER FOOT (305mm) OF VIEWING DISTANCE ABOVE 180 INCHES (4570mm)
GREATER THAN 120 INCHES (3050mm)	LESS THAN 21 FEET (6400mm)	3 INCHES (75mm)
	21 FEET (6400mm) AND GREATER	3 INCHES (75mm), PLUS 1/8 INCH (3.2 MM) PER FOOT (305 MM) OF VIEWING DISTANCE ABOVE 21 FEET (6400 MM)

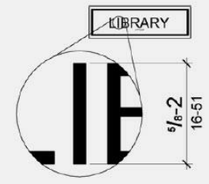
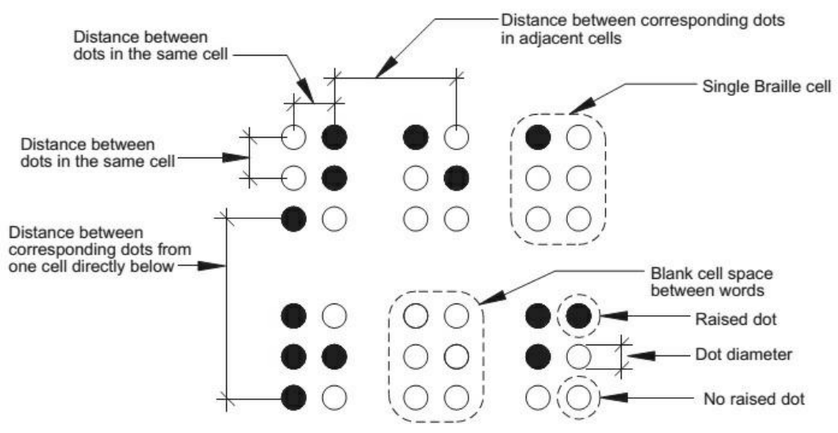


Figure 703.2.5
Height of Raised Characters

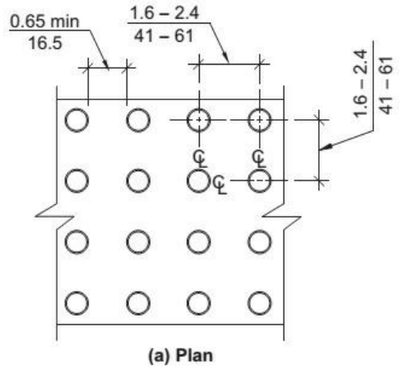
703.3.3.1 BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES TO MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5mm) TO 0.063 (1.6mm)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL *	0.090 (2.3mm) TO 0.100 (2.5mm)
DOT HEIGHT	0.025 (0.6mm) t0 0.037 (0.9mm)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW	0.395 (10 mm) t0 0.400 (10.2mm)

* MEASURED CENTER TO CENTER

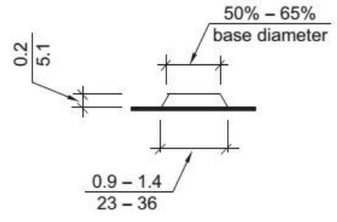


BRAILLE MEASUREMENTS

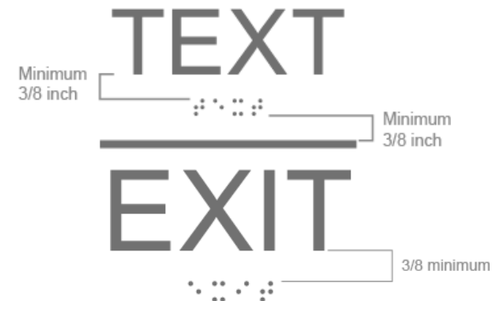


(a) Plan

*DOTS SHALL BE RASTERED



(b) Elevation (Enlarged)



POSITION OF BRAILLE

REVISIONS			
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

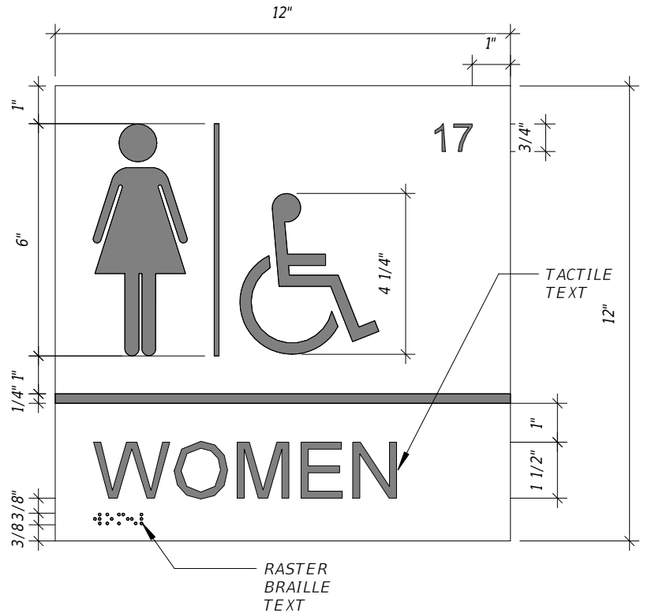
SIGNAGE STANDARDS

SHEET NO.
AA1-606

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

SIGN SCHEDULE

DOOR NO.	ROOM NAME	SIGN
01	TEC 1 CONFERENCE	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
02	TEC 1 OFFICE	NONE
04	TEC1 HALL	EXIT SIGN - LATCH SIDE OF DOOR
04B	HALL	EXIT SIGN - LATCH SIDE OF DOOR
06	TRAINING ROOM	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
06A	TRAINING ROOM	NONE
09	POLYTECH OFFICE	NONE
10	STORAGE	SMALL ROOM SIGN - DOOR MOUNTED
12	MAIL RM	SMALL ROOM SIGN - DOOR MOUNTED
13	OBSERVATION	WHITE VINYL ADDRESS NO. - ABOVE ENTRY DOOR
15	FTE OFFICE 2	NONE
16	FTE WORK AREA	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
16A	FTE COPY	EXIT SIGN - LATCH SIDE OF DOOR IN WORK AREA
17	FTE DIRECTOR	SMALL ROOM SIGN - DOOR MOUNTED
18	STORAGE	SMALL ROOM SIGN - DOOR MOUNTED
19	FTE WORK AREA	NONE
20	FTE CONFERENCE	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
21	HALL	EXIT SIGN - LATCH SIDE OF DOOR
22	WOMEN	DOOR MOUNTED ACCESSIBLE RESTROOM SIGNAGE
23	MEN	DOOR MOUNTED ACCESSIBLE RESTROOM SIGNAGE
24	IT	SMALL ROOM SIGN - DOOR MOUNTED
25	ELEC.	SMALL ROOM SIGN - DOOR MOUNTED
26	TEC 2 HALL	EXIT SIGN - LATCH SIDE OF DOOR
26A	TEC 2 HALL	EXIT SIGN - LATCH SIDE OF DOOR
26B	TEC 2 HALL	EMERGENCY EXIT ONLY SIGN - DR MNTD
29	TEC 2 OFFICE	NONE
30	TEC 2 CONFERENCE	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
31	TEC 2 TESTING RM	EXIT SIGN
31A	TEC 2 TESTING RM	SMALL ROOM SIGN - DOOR MOUNTED
31B	TEC 2 HALL	SMALL ROOM SIGN - DOOR MOUNTED
31C	TEC 2 TESTING RM	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
32	FTE TESTING RM	EXIT SIGN
32A	FTE TESTING RM	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
33	TEC 1 TESTING RM	EXIT SIGN
33A	TEC 1 TESTING RM	SMALL ROOM SIGN - DOOR MOUNTED
33B	TEC 1 TESTING RM	SMALL ROOM SIGN - DOOR MOUNTED
33C	TEC 1 TESTING RM	ROOM SIGN - LATCH SIDE OF DOOR IN HALL
34	JANITOR	SMALL ROOM SIGN - DOOR MOUNTED
35	STORAGE	SMALL ROOM SIGN - DOOR MOUNTED



1 ACCESSIBLE RESTROOM SIGNAGE (TYPICAL)
3" = 1'-0"

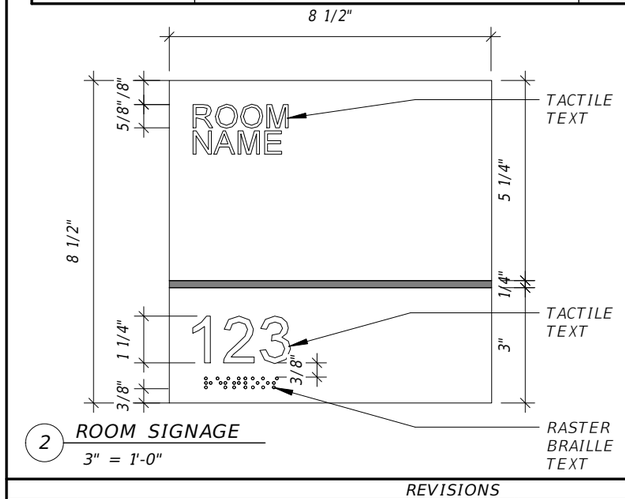
GENERAL NOTES:

1. PROVIDE SIGNAGE AS SCHEDULED WITH TEXT AND RASTERED BRAILLE IN CONTRASTING COLOR TO SIGNAGE BACKGROUND COLOR PER SPECIFICATIONS MANUAL.

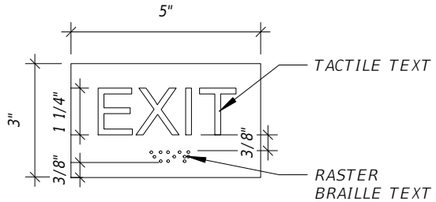
2. ALL SIGNAGE FONTS, FONT SPACING AND RASTERED BRAILLE SHALL ADHERE TO THE STANDARDS OF THE 2014 FLORIDA ACCESSIBILITY CODE AS ILLUSTRATED ON AA1-606.

3. ALL ROOM SIGNS SHALL BE MOUNTED ADJACENT TO THE CORRESPONDING ROOM DOOR ON THE LATCH SIDE OF THE DOOR WITH 48" MIN TO BOTTOM OF TACTILE TEXT UNLESS NOTED OTHERWISE. REFER TO TO AA1-606 FOR STANDARD SIGNAGE LOCATIONS, CLEARANCES AND MOUNTING HEIGHTS.

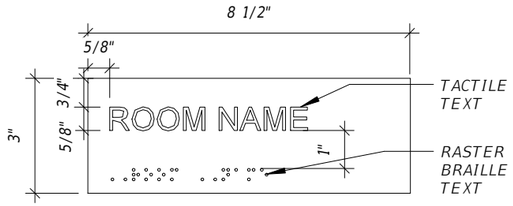
4. RESTROOM SIGNS AND SMALL ROOM SIGNS SHALL BE CENTERED ON THE DOOR. REFER TO TO AA1-606 FOR STANDARD SIGNAGE LOCATIONS, CLEARANCES AND MOUNTING HEIGHTS.



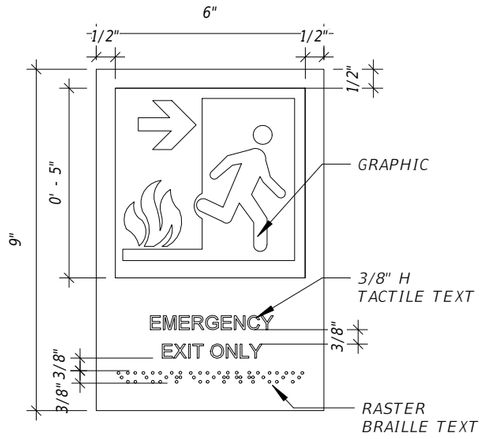
2 ROOM SIGNAGE
3" = 1'-0"



3 EXIT SIGNAGE
3" = 1'-0"



4 SMALL ROOM SIGNAGE
3" = 1'-0"



5 EMERGENCY EXIT SIGNAGE
3" = 1'-0"

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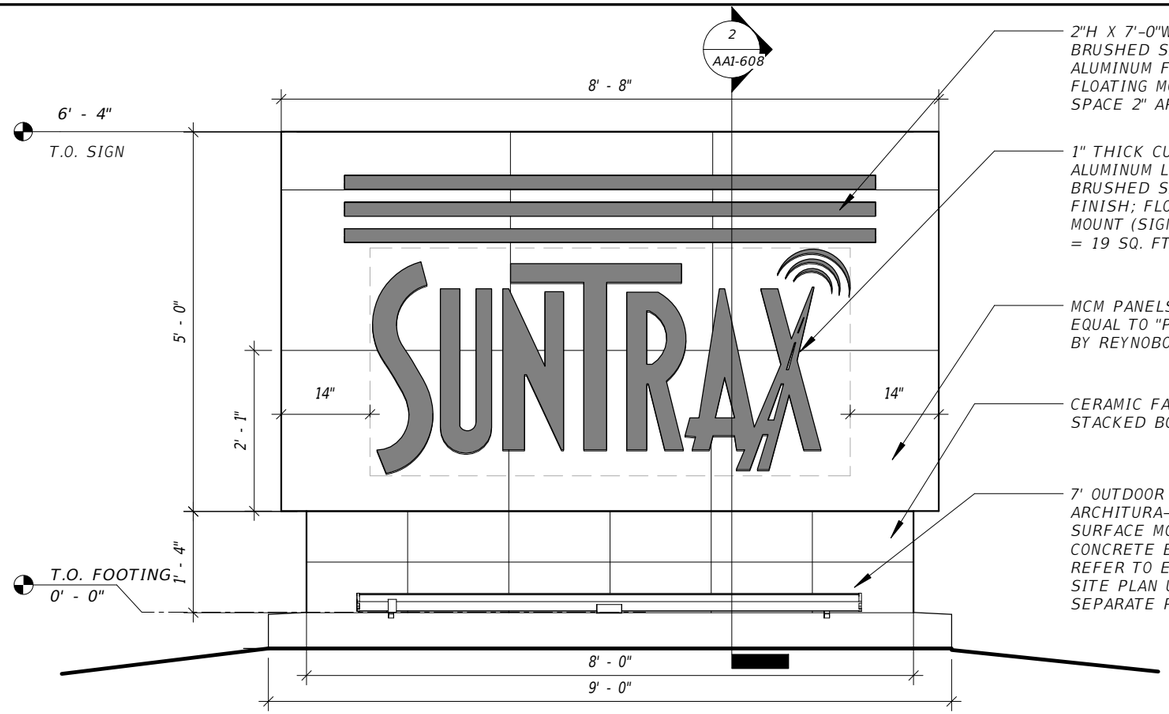
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

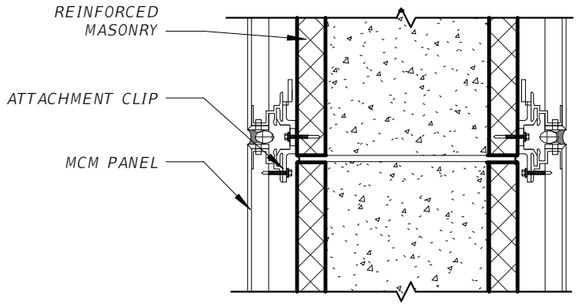
SIGNAGE SCHEDULE

SHEET NO.
AA1-607

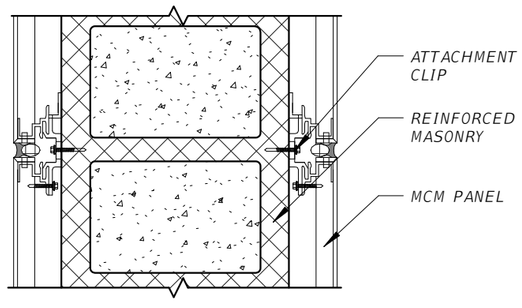
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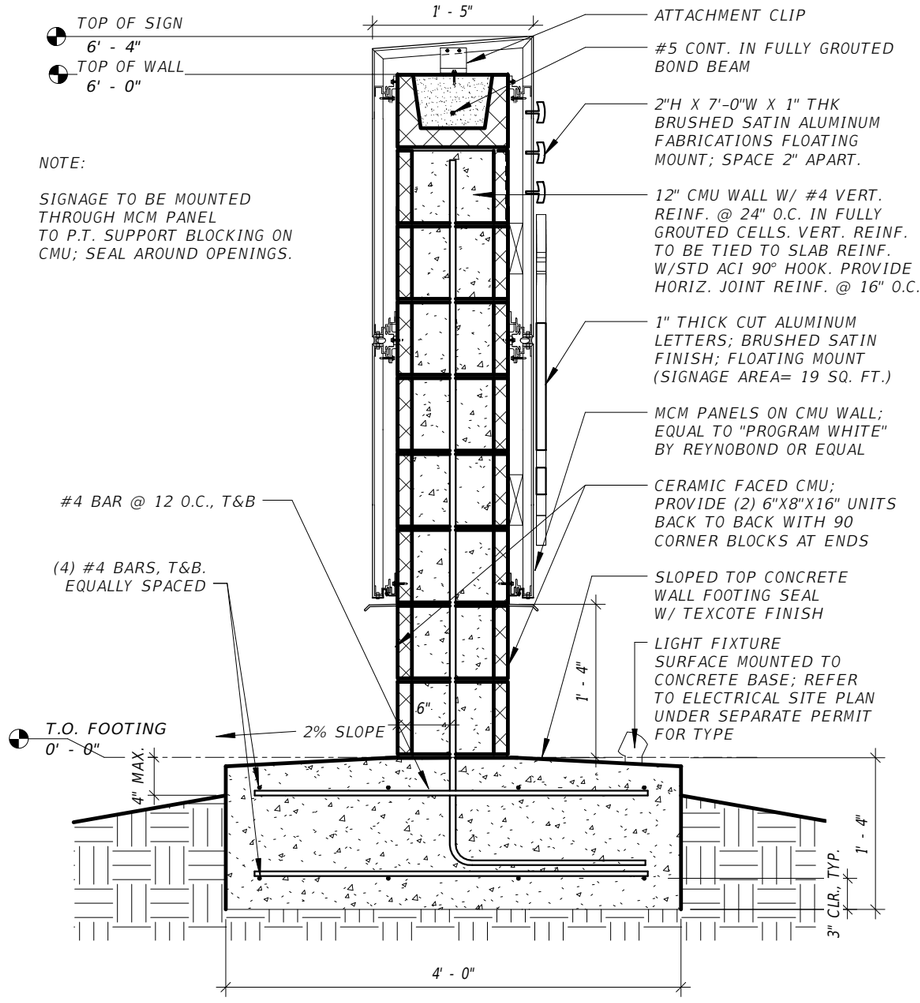
1 MONUMENT SIGN ELEVATION
1/2" = 1'-0"



3 METAL PANEL @ JOINT- MONUMENT SIGN
1 1/2" = 1'-0"



4 METAL PANEL @ JOINT- MONUMENT SIGN
1 1/2" = 1'-0"



2 MONUMENT SIGN SECTION
3/4" = 1'-0"

NOTES

CONCRETE MASONRY REINFORCING BARS

1. VERTICAL REINFORCEMENT TO BE CENTERED IN SOLID GROUTED MASONRY CELLS AS REQUIRED ON PLANS AND AT ALL CORNERS, JAMBS, WALL INTERSECTIONS, EACH SIDE OF OPENINGS, AND EACH SIDE OF MASONRY CONTROL JOINTS.

2. BARS MAY BE LAP SPLICED ACCORDING TO PLAN CONSISTING OF BARS HELD IN DIRECT CONTACT BY WIRE TIES, ALL VERTICAL BARS TERMINATING INTO CONCRETE SHALL TERMINATE WITH A STANDARD ACI 90° HOOK.

3. NO WET SETTING OF BARS IN FOOTING IS PERMITTED. ALL DOWEL REINFORCING BARS SHALL BE TIED TO THE FOUNDATION REINFORCEMENT AND HELD IN PLACE USING FABRICATED FORM WORK PRIOR TO POURING. PLACEMENT OF BARS SHALL BE VERIFIED PRIOR TO FOUNDATION POUR.

4. DEVELOPMENT AND LAP SPLICE LENGTHS OF REINFORCING BARS IN MASONRY SHALL COMPLY WITH THE REQUIREMENTS OF ACI 530-08 AS MODIFIED BY THE 2010 FBC. FOR 8" NOMINAL CONCRETE MASONRY UNITS WITH A MASONRY ASSEMBLAGE COMPRESSIVE STRENGTH (f'm) OF 1,500 PSI AND VERTICAL REINFORCEMENT CENTERED IN THE UNITS.

CONCRETE MASONRY WORKMANSHIP

5. ALL CONCRETE MASONRY WORK SHALL BE IN ACCORDANCE WITH ACI 530-08, AND MEET THE SPECIFICATIONS AS LISTED IN ACI 530.1-08, AS WELL AS THE SPECIFICATIONS LISTED BELOW.

6. AT THE TIME OF LAYING, ALL CONCRETE MASONRY UNITS SHALL BE DRY AND FREE OF EXCESSIVE DUSTAND DIRT.

7. UNLESS NOTED OTHERWISE, HEAD AND BED JOINTS SHALL BE 3/8 INCH THICK, EXCEPT THAT THE THICKNESS OF THE BED JOINT STARTING COURSE PLACED OVER FOUNDATIONS SHALL NOT BE LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH.

8. HOLLOW UNITS SHALL BE PLACED SUCH THAT FACE SHELLS OF BED JOINTS ARE FULLY MORTARED, WEBS SHALL BE FULLY MORTARED IN ALL COURSES OF PIERS, COLUMNS, PILASTERS, IN THE STARTING COURSE ON FOUNDATIONS WHERE ADJACENT CELLS OR CAVITIES ARE TO BE GROUTED, AND WHERE OTHERWISE REQUIRED. HEAD JOINTS SHALL BE MORTARED A MINIMUM DISTANCE FROM EACH FACE EQUAL TO THE FACE SHELL THICKNESS OF THE UNIT.

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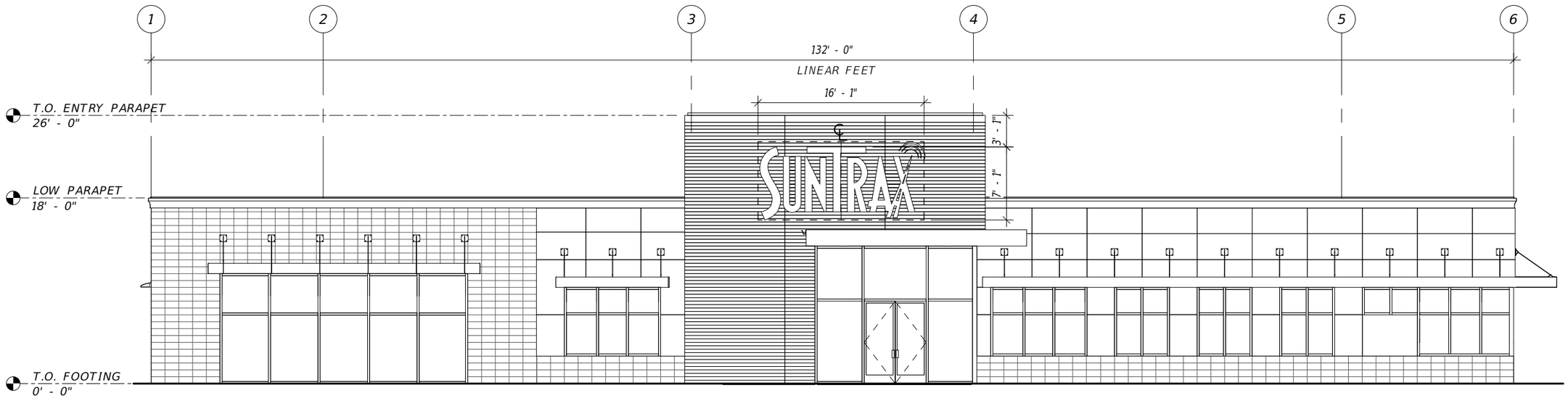
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY SIGNAGE MONUMENT SIGN

SHEET NO.
AA1-608

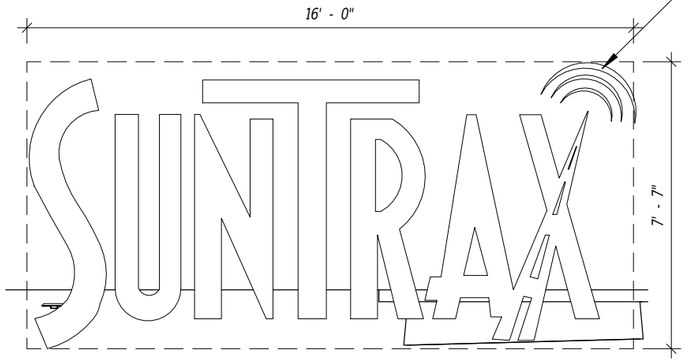
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1 SIGNAGE- SOUTH ELEVATION

3/32" = 1'-0"



2 BUILDING SIGNAGE ELEVATION

1/4" = 1'-0"

1" THICK CUT ALUMINUM LETTERS; BRUSHED SATIN FINISH; FLOATING MOUNT (SIGNAGE AREA = 122 SQ. FT.)

SIZE PERMITTED PER ORDINANCE 1504 SEC. 15.3.4.5.5 : 132 SQ. FT

SIGN SIZE: 122 SQ. FT

SIGN LIGHTING: LED BLUE BACKLIGHT

NOTE:

SIGNAGE TO BE WALL MOUNTED THROUGH RIBBED METAL PANEL. ALL PENETRATIONS THROUGH PANEL SHALL BE BY PANEL MANUFACTURER; NO EXCEPTIONS. CONFIRM SUBSTRATE IS SUFFICIENT TO SUPPORT SIGN PRIOR TO INSTALLATION. SEAL AROUND OPENINGS.

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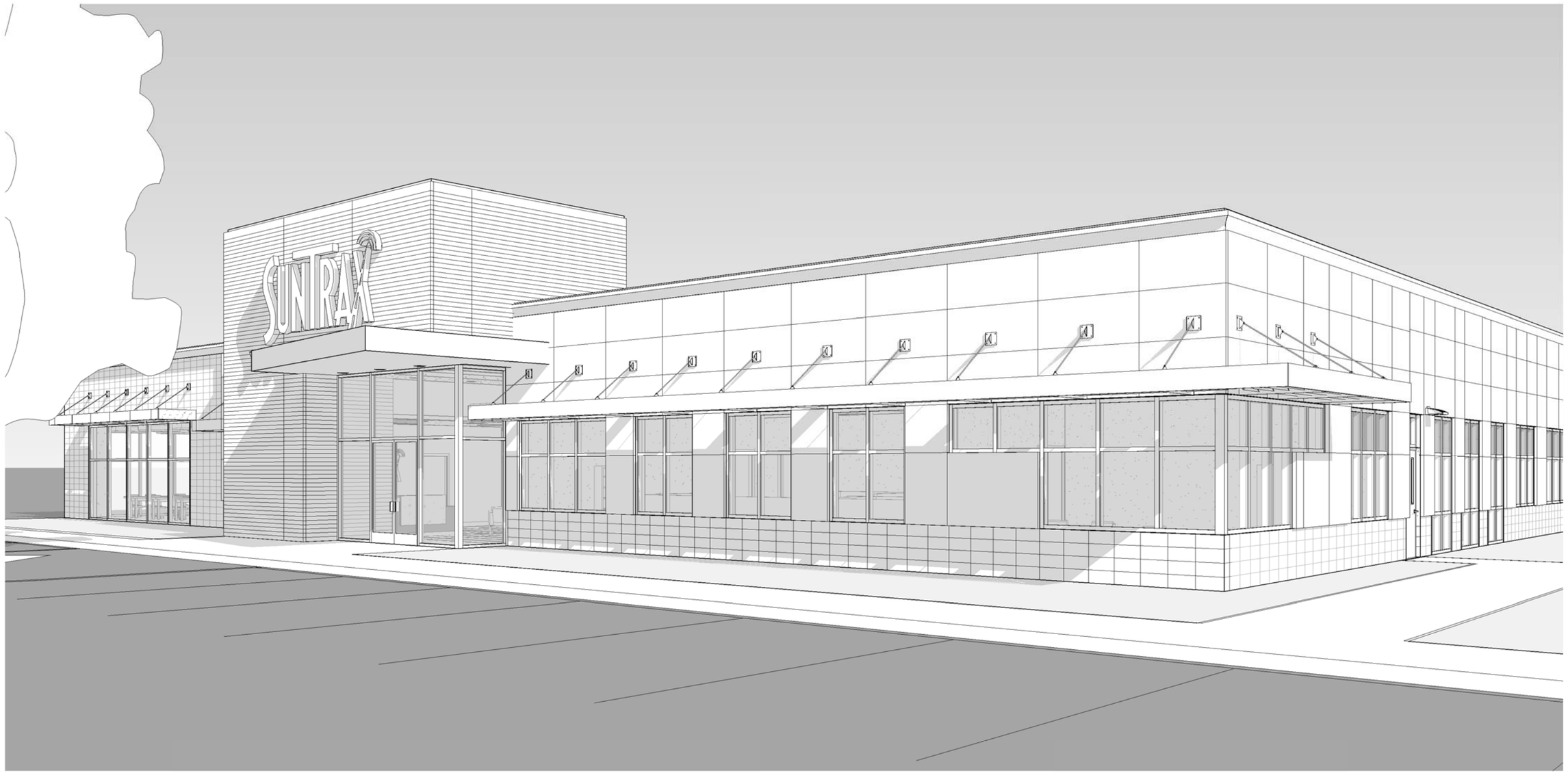
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY SIGNAGE BUILDING SIGNAGE

SHEET NO.

AA1-609



1 PERSPECTIVE VIEW

REVISIONS			
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

PERSPECTIVE VIEW

SHEET NO.
AA1-901

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DESIGN CODES

1. 2014 FLORIDA BUILDING CODE (FBC)
2. ASCE 7-10: MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES
3. ACI 318-14: BUILDING CODES REQUIREMENTS FOR STRUCTURAL CONCRETE & COMMENTARY
4. ACI 530-08: BUILDING CODES REQUIREMENTS FOR MASONRY STRUCTURES
5. AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION

DESIGN LOADS

1. DEAD LOADS
a. .....ROOF = 15 PSF
2. LIVE LOAD
a. .....ROOF = 20 PSF
3. WIND LOAD
a. .....ULTIMATE WIND SPEED = 136 MPH
b. .....NOMINAL WIND SPEED = 105.3 MPH
c. .....WIND EXPOSURE CATEGORY = C
d. .....RISK CATEGORY = II
e. .....ENCLOSURE CLASSIFICATION = ENCLOSED
f. .....COMPONENTS & CLADDING WALL PRESSURES: SEE AS1-005
g. .....COMPONENTS & CLADDING ROOF PRESSURES: SEE AS1-005

PRECAUTIONS

1. ANY REQUIRED DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR MORE INFORMATION.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE UPLIFT OR FLOTATION OF STRUCTURES UNTIL COMPLETELY CONSTRUCTED AND ALL BACKFILL IS IN PLACE AND COMPACTED.
3. BACKFILL SHALL NOT BE PLACED AGAINST ANY STRUCTURE WALL UNTIL SUPPORTING FLOORS AND/OR ROOF ARE IN PLACE AND THE CONCRETE HAS ATTAINED THE SPECIFIED 28-DAY STRENGTH.
4. FOR THE APPROXIMATE LOCATION OF KNOWN EXISTING UTILITIES, REFER TO THE UTILITY WORKING DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO COMMENCING WORK, AND SHALL BE RESPONSIBLE FOR PROTECTING THE UTILITIES DURING EXCAVATION AND CONSTRUCTION.
5. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS NOTED OTHERWISE, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, OR THEIR PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, LATERAL BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACINGS FOR CRANES AND GIN POLES, ETC.
6. THE CONTRACTOR, AT THEIR OWN EXPENSE, SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN FIELD. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVE OF THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
7. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. AS A PART OF THEIR RESPONSIBILITIES, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO DESIGN AND SUPERVISE ANY SCAFFOLDING FOR WORKMEN, AND ALL SHORING OF FORMS AND THE ELEMENTS OF THE CONSTRUCTION.

SHOP DRAWINGS

1. THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY ENGINEER BEFORE FABRICATION/CONSTRUCTION:

1.A REINFORCING STEEL
1.B CAST-IN-PLACE CONCRETE MIX DESIGN
1.C STRUCTURAL STEEL
1.D STEEL JOISTS (SIGNED & SEALED)
1.E STEEL ROOF DECK
1.F PRE-ENGINEERED AWNINGS (SIGNED & SEALED)
1.G CONTROL JOINT LOCATIONS
1.H PRECAST CONCRETE LINTELS
1.I CONCRETE MASONRY UNITS
1.J VAPOR BARRIER
1.K METAL PANELS

SITE PREPARATION RECOMMENDATIONS

1. STRIP THE PROPOSED CONSTRUCTION LIMITS OF ALL TREES, GRASS, ROOTS, TOPSOIL, AND OTHER DELETERIOUS MATERIALS WITHIN AND 5 FEET BEYOND THE PERIMETER OF THE PROPOSED BUILDING AREAS AND 3 FEET BEYOND THE PERIMETER OF PROPOSED PAVED AREAS. EXPECT TYPICAL STRIPPING AT THIS SITE TO DEPTHS OF 6 TO 12 INCHES. DEEPER AREAS MAY BE NEEDED WHERE LARGE ROOT SYSTEMS MAY BE ENCOUNTERED OR WHERE PEAT AND ROOTS ARE PRESENT.
2. DEWATER PRIOR TO COMPACTING THE SUBGRADE SOILS TO MAINTAIN A MINIMUM OF 3 FEET SEPARATION FROM THE COMPACTION SURFACE TO THE WATER LEVEL. COMPACT THE SUBGRADE FROM THE SURFACE WITH A MEDIUM WEIGHT VIBRATORY ROLLER (A 3- TO 4-TON ROLLER, STATIC WEIGHT, AND 3- TO 4-FOOT DRUM DIAMETER) UNTIL A MINIMUM DENSITY OF AT LEAST 95 PERCENT THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) IS OBTAINED, TO A DEPTH OF 2 FEET BELOW THE COMPACTED SURFACE OR 2 FEET BELOW THE BOTTOM OF THE FOOTING. TYPICALLY, THE SOILS SHOULD EXHIBIT MOISTURE CONTENTS WITHIN ±2 PERCENT OF THE MODIFIED PROCTOR OPTIMUM MOISTURE CONTENT DURING COMPACTION. A MINIMUM OF EIGHT (8) COMPLETE COVERAGES (IN PERCENDICULAR DIRECTION) SHOULD BE MADE IN THE BUILDING CONSTRUCTION AREA WITH THE ROLLER TO IMPROVE THE UNIFORMITY AND INCREASE THE DENSITY OF THE UNDERLYING SAND SOILS. SHOULD THE BEARING SOILS EXPERIENCE PUMPING AND SOIL STRENGTH LOSS DURING THE COMPACTION OPERATIONS, COMPACTION WORK SHOULD BE IMMEDIATELY TERMINATED AND (1) THE DISTURBED SOILS REMOVED AND BACKFILLED WITH DRY STRUCTURAL FILL SOILS WHICH ARE THEN COMPACTED, OR (2) THE EXCESS PORE PRESSURES WITHIN THE DISTRIBUTED SOILS ALLOWED TO DISSIPATE BEFORE RE-COMPACTING.
3. TEST THE SUBGRADE FOR COMPACTION AT A FREQUENCY OF NOT LESS THAN ONE TEST PER 2,500 PER SQUARE FEET IN THE BUILDING AREAS, OR A MINIMUM OF THREE TEST LOCATIONS PER BUILDING, WHICHEVER IS GREATER, AND EVERY 10,000 SQUARE FEET IN PAVEMENT AREAS, OR A MINIMUM OF THREE TEST LOCATIONS, WHICHEVER IS GREATER.
4. PLACE FILL MATERIAL, AS REQUIRED. THE FILL SHOULD CONSIST OF "CLEAN", FINE SAND WITH LESS THAN 5 PERECENT SOIL FINES. FILL MATERIALS WITH SOIL FINES BETWEEN 5 AND 10 PERCENT MAY BE USED, BUT STRICT MOISTURE CONTROL MAY BE REQUIRED. TYPICALLY, THE SOILS SHOULD EXHIBIT MOISTURE CONTENTS WITHIN ±2 PERCENT OF THE MODIFIED PROCTOR OPTIMUM MOISTURE CONTENT DURING COMPACTION. PLACE FILL IN UNIFORM 10- TO 12-INCH LOOSE LIFTS AND COMPACT EACH LIFT TO A MINIMUM DENSITY OF 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.
5. IF EXCAVATIONS ARE REQUIRED FOR THE PROPOSED CONSTRUCTION, LIMESTONE MAY BE ENCOUNTERED AT ELEVATIONS ABOVE DEPTH OF EXCAVATION. SOME OF THE LIMESTONE MAY REQUIRE SPECIAL EQUIPMENT TO REMOVE. WHERE LIMESTONE IS ENCOUNTERED, IT SHOULD BE OVER-EXCAVATED TO 12-INCHES BELOW EXCAVATION BASE AND A CLAYEY SAND SOIL PLACED AND COMPACTED ABOVE THE LIMESTONE. A GEOTEXTILE SEPARATION FABRIC MAY BE NEEDED BETWEEN THE CLAYEY SAND AND LIMESTONE SURFACE IF THE SURFACE OF THE LIMESTONE IS POROUS.

COORDINATION

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. THE CONTRACTOR SHALL COORDINATE ALL PIPE AND CONDUIT LOCATIONS IN CONCRETE & MASONRY WITH THE MECHANICAL, ELECTRICAL, PLUMBING, AND SPECIALTY SUB-CONTRACTORS SHOP DRAWINGS PRIOR TO PLACING CONCRETE & GROUT. THE MECHANICAL SUB-CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL ANCHOR BOLT LOCATIONS.
3. THE STRUCTURAL WORKING DRAWINGS SHALL BE COORDINATED WITH THE CIVIL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL WORKING DRAWINGS TO PROPERLY LOCATE DRAINS, SLOPES, PIPE SLEEVES, ANCHOR BOLTS, BLOCKOUTS, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. SCALING OF PLANS NOT PERMITTED, CONTRACTOR IS TO NOTIFY ENGINEER OF ANY DIMENSIONS REQUIRING CLARIFICATION.
5. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
6. ALL PHASES OF WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE DESIGN CODES LISTED ABOVE.
7. ALL STRUCTURAL WORK MUST COMPLY WITH ACI, AISC, AWS, THE ALUMINUM ASSOCIATION AND ASCE 7 w/ SUPPLEMENTS STANDARDS AS REFERENCED IN THE FLORIDA BUILDING CODE, AS WELL AS ALL OTHER APPLICABLE CODES AND ORDINANCES.
8. OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN SLABS, DECKS, BEAMS, COLUMNS, WALLS, ETC. UNLESS SPECIFICALLY DETAILED IN THE DRAWINGS.
9. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING COORDINATION INFORMATION:

9.A FLOOR AND ROOF FINISHES.
9.B DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.

10. ALL ASTM SPECIFICATIONS AND REFERENCE STANDARDS NOTED ON THESE DRAWINGS AND TECHNICAL SPECIFICATIONS SHALL BE OF THE LATEST EDITION.
11. EQUIVALENT MATERIALS SUBSTITUTED AS PER "APPROVED EQUAL" NOTE SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.

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SUNTRAX TEST FACILITY OPERATIONS BUILDING

GENERAL NOTES

SHEET NO.
AS1-001

CONCRETE

1. ALL CONCRETE WORK SHALL BE IN STRICT ACCORDANCE WITH ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. ALL CAST IN PLACE CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

CAST IN-PLACE CONCRETE PROPERTIES				
LOCATION	28 DAY COMPRESSIVE STRENGTH, f'c	SLUMP	MAX W/C RATIO	MAX AGGREGATE
FOUNDATIONS	4,000 PSI	4" +/- 1"	0.45%	3/4"
SLAB ON GRADE	4,000 PSI	4" MAX	0.45%	3/4"

CONCRETE

3. CONCRETE MIX DESIGN SUBMITTALS:

3.A EACH MIX DESIGN SHALL BE LABELED TO INDICATE THE LOCATION IN WHICH THE CONCRETE IS TO BE PLACED, SUCH AS FOUNDATIONS, SLAB ON GRADE, ETC.

3.B PROPOSED MIX DESIGN SHALL BE IN ACCORDANCE WITH ACI 301-10. PROVIDE SUPPORTING DATA IN TABULAR FORM FOR EACH SEPARATE PROPOSED MIX.

4. A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD TESTING INCLUDING SLUMP TESTS AND CYLINDER BREAKS TO ENSURE COMFORMANCE WITH PLANS AND SPECIFICATIONS. SUBMIT REPORTS TO ARCHITECT AND ENGINEER OF RECORD.
5. ALL ADDITIONAL BARS IN FLOOR AND WALLS AROUND ALL OPENINGS SHALL BE PROVIDED AS PER DETAILS.
6. ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN OR NOTED.
7. ALL CONCRETE ADMIXTURES SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-14. CHLORIDES SHALL NOT BE PERMITTED.
8. EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 1/2" x 1/2" UNLESS NOTED OTHERWISE.
9. CONTRACTOR SHALL VIBRATE CONCRETE SUFFICIENTLY TO ELIMINATE ALL VOIDS AND CAVITIES. ALL DEFICIENCIES SHALL BE REPAIRED BY RECEIVING A PARGED FINISH.
10. CONTROL JOINT SPACING AND LOCATION PLAN TO BE SUBMITTED BY CONTRACTOR PRIOR TO SLAB POUR.

FOUNDATIONS

1. ALL FOUNDATION DESIGN AND PARAMETERS ARE BASED ON THE GEOTECHNICAL ENGINEERING REPORT PERFORMED BY TIERRA, INC. (REPORT NO. 5511-15-035). FOUNDATION DESIGN IS BASED ON A NET SOIL BEARING CAPACITY OF 2,000 PSF. ALL SITE PREPARATION AND COMPACTION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER OF RECORD. THE STRICTER OF THE GEOTECHNICAL REPORT REQUIREMENTS AND THOSE INDICATED BELOW SHALL BE USED.
2. ALL FILL MATERIALS SHOULD BE FREE OF ORGANIC MATERIALS, SUCH AS ROOTS AND VEGETATION. AS A GENERAL GUIDE TO AID THE CONTRACTOR, USING FILL WITH 3 TO 10 PERCENT BY DRY WEIGHT OF MATERIAL PASSING THE U.S. STANDARD NO. 200 SIEVE SIZE IS RECOMMENDED. THE FINE SAND AND FINE SAND WITH SILT (STRATA NO. 1 AND 2 WITHOUT ROOTS) ARE SUITABLE AS FILL MATERIALS, AND WITH PROPER MOISTURE CONTROL, SHOULD DENSIFY USING CONVENTIONAL COMPACTION METHODS.
3. ALL STRUCTURAL FILL SHOULD BE PLACED IN LEVEL LIFTS NOT TO EXCEED 6 INCHES IN UNCOMPACTED THICKNESS. EACH LIFT SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR (ASTM D 1557) MAXIMUM DRY DENSITY VALUE. THE FILLING AND COMPACTION OPERATIONS SHOULD CONTINUE IN LIFTS UNTIL THE DESIRED ELEVATION(S) IS ACHIEVED.
4. EXCAVATE THE FOUNDATION TO THE PROPOSED BOTTOM OF FOOTING ELEVATIONS, AND THEREAFTER, VERIFY THE INPLACE COMPACTION FOR A DEPTH OF 2 FEET BELOW THE BOTTOM OF FOOTINGS. IF NECESSARY, COMPACT THE BOTTOM OF THE EXCAVATIONS TO ACHIEVE A MINIMUM DRY DENSITY EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) FOR A DEPTH OF 2 FEET BELOW THE BOTTOM OF FOOTINGS.
5. PROVIDE 10 MIL. VAPOR BARRIER OVER COMPACTED SUBGRADE FOR SLAB ON GRADE. VAPOR BARRIER SHALL BE LAPPED A MINIMUM OF 6 INCHES IN DIRECTION OF CONCRETE POUR AND TAPED. USE MAXIMUM SHEET SIZE WITH MINIMUM JOINTS. CARE SHALL BE EXERCISED TO PREVENT DAMAGE OR RUPTURE OF BARRIER. WHERE COLUMNS, PIPES, CONDUITS, ETC. PENETRATE MEMBRANE, CUT AROUND PROJECTION AND SEAL WITH JOINT TAPE.

CONCRETE REINFORCING BARS

1. ALL REINFORCING BARS SHALL BE IN ACCORDANCE WITH ASTM A 615, GRADE 60 AND DOMESTICALLY PRODUCED.
2. ALL REINFORCING BARS SHALL BE PLACED WITH BAR SUPPORTS AS REQUIRED BY CRSI MANUAL OF STANDARD PRACTICE (LATEST EDITION).
3. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH ACI DETAILING MANUAL SP-66 (LATEST EDITION) FOR REVIEW OF ALL REINFORCMENT REQUIRED FOR PROJECT PRIOR TO FABRICATION.
4. COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:

CAST-IN-PLACE CONCRETE REINFORCING BAR COVER	
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#5 BARS AND SMALLER	1 1/2"
#6 BARS AND LARGER	2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER	
SLABS, WALLS, & JOISTS	
#11 BARS AND SMALLER	3/4"
#14 AND #18 BARS	1 1/2"
BEAMS AND COLUMNS	1 1/2"

CONCRETE REINFORCING BARS

5. ALL REINFORCING BARS AT SPLICES IN CONCRETE SHALL BE LAPPED ACCORDING TO ACI 318-14, UNLESS NOTED OTHERWISE. FOR REINFORCING BARS WITH A DIAMETER = Db, IF A MINIMUM COVER OF Db IS PROVIDED ALONG WITH A MINIMUM CLEAR SPACING OF 2Db, OR A MINIMUM CLEAR COVER OF Db AND A MINIMUM CLEAR SPACING OF Db ARE PROVIDED ALONG WITH MINIMUM TIES OR STIRRUPS, THE FOLLOWING APPLIES:

CAST-IN-PLACE CONCRETE REINFORCING BAR MINIMUM LAP SPLICE (CLASS B) LENGTH		
REINFORCING BAR SIZE	f'c = 3,000 PSI	f'c = 4,000 PSI
#6 BARS AND SMALLER	57Db	50Db
#7 BARS AND LARGER	72Db	62Db

WELDED WIRE FABRIC

1. WWF MUST BE SUPPLIED IN SHEETS, THE USE OF ROLLS IS NOT PERMITTED.
2. WWF SHOULD BE PLACED 1 1/2" BELOW THE SURFACE OF THE SLAB, UNLESS NOTED OTHERWISE. REINFORCING SAND PLATES MUST BE PROVIDED TO POSITION WWF IN THE CORRECT LOCATION DURING CONCRETE POUR AND MUST BE LOCATED AT SUFFICIENT INTERVALS TO PREVENT SAGGING OF THE WWF. WWF SHOULD NOT BE LAID ON THE GROUND AND "PULLED UP", NOR SHOULD THE MATS BE "WALKED IN" FOLLOWING THE CONCRETE PLACEMENT. CARE MUST BE TAKEN SO THAT THE SAND PLATES DO NOT PUNCTURE ANY SPECIFIED VAPOR BARRIER.
3. WWF SHOULD EXTEND TO WITHIN 2" OF EDGE OF SLAB.
4. WWF SHOULD BE LAPPED A MINIMUM OF 1 CROSS WIRE SPACING.

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SUNTRAX TEST FACILITY OPERATIONS BUILDING

GENERAL NOTES

SHEET NO. AS1-002

CONCRETE MASONRY CONSTRUCTION MATERIALS

1. CONCRETE MASONRY UNITS SHALL BE IN ACCORDANCE WITH ASTM C 90, NORMAL WEIGHT, TYPE II AND SHALL BE OF A TYPE SUCH THAT THE CORES LINE UP VERTICALLY.
2. MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL CONFORM TO ASTM C 270, TYPE S OR M. UNUSED MORTAR SHALL BE DISCARDED WITHIN 2 1/2 HOURS AFTER INITIAL MIXING.
3. GROUT SHALL CONFORM TO ASTM C 476, COARSE TYPE, AND SHALL HAVE THE PROPORTIONS ESTABLISHED BY 28-DAY COMPRESSIVE STRENGTH TESTS IN ACCORDANCE WITH TEST METHOD ASTM C 1019 THAT OBTAINS THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 2,000 PSI. THE GROUT SHALL BE MIXED TO A SLUMP OF 8 TO 11 INCHES AS DETERMINED BY THE TEST METHOD ASTM C 143/143M.
4. THE COMPRESSIVE STRENGTH OF THE MASONRY PRISM ASSEMBLAGE (f'm) SHALL BE A MINIMUM OF 1,500 PSI, AS DETERMINED BY THE UNIT STRENGTH METHOD. THIS REQUIRES, IN ADDITION TO THE MATERIAL PROPERTY REQUIREMENTS LISTED ABOVE, THE FOLLOWING:

4.A THE CONCRETE MASONRY UNITS, AS SAMPLED AND TESTED BY ASTM C 140, HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1,900 PSI.

4.B THE THICKNESS OF THE MORTAR BED JOINTS DOES NOT EXCEED 5/8 INCH.

5. DEFORMED REINFORCING BARS SHALL CONFORM WITH ASTM A 615.
6. JOINT REINFORCEMENT SHALL COMPLY WITH ASTM A 951. THE MAXIMUM SPACING OF CROSSWIRES IN LADDER TYPE JOINT REINFORCEMENT SHALL BE 16 INCHES.

CONCRETE MASONRY GROUT PLACEMENT

1. VERTICAL CELLS TO BE FILLED WITH GROUT SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL CELL, AS SHOWN IN THE "GROUT SPACE REQUIREMENTS" TABLE BELOW. EXCESSIVE MORTAR FINS AND ANY OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE CELLS TO BE GROUTED. PROVIDE CLEANOUTS AT THE BOTTOM COURSE OF ALL GROUT POURS.
2. ALL CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLID WITH GROUT. FOR GROUT POURS 12" OR LESS IN HEIGHT, GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION OR PUDDLING. FOR GROUT POURS EXCEEDING 12" IN HEIGHT, GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION AT THE TIME OF PLACEMENT, AND RECONSOLIDATED BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURED, BUT BEFORE WORKABILITY IS LOST.
3. DO NOT PLACE CONDUIT IN CELLS CONTAINING REINFORCEMENT WITHOUT PRIOR APPROVAL FROM STRUCTURAL ENGINEER OF RECORD.
4. DO NOT EXCEED THE MAXIMUM GROUT POUR HEIGHT GIVEN IN THE "GROUT SPACE REQUIREMENTS" TABLE BELOW. IN ADDITION, WHERE THE FOLLOWING CONDITIONS ARE MET, PLACE GROUT IN LIFTS NOT EXCEEDING 12'-0":

4.A THE MASONRY HAS CURED FOR AT LEAST 4 HOURS.

4.B THE GROUT SLUMP IS MAINTAINED BETWEEN 10 AND 11 INCHES.

4.C NO INTERMEDIATE REINFORCED BOND BEAMS ARE PLACED BETWEEN THE TOP AND THE BOTTOM OF THE POUR HEIGHT.

4.D OTHERWISE, PLACE GROUT IN LIFTS NOT EXCEEDING 5'-0".

5. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL WYTHES AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MINIMUM OF 1-1/2 INCHES BELOW A MORTAR JOINT, EXCEPT AT THE TOP OF THE WALL. NEVER STOP A GROUT POUR AT A BED JOINT.
6. ALL CELLS IN UNITS BELOW GRADE SHALL BE FULLY GROUTED, UNLESS NOTED OTHERWISE.

GROUT SPACE REQUIREMENTS			
SPECIFIED GROUT TYPE	MAX GROUT POUR HEIGHT (FT)	MIN. WIDTH OF GROUT SPACE *	MIN. GROUT SPACE DIMENSIONS FOR GROUTING CELLS OF HOLLOW UNITS *, **
COARSE	1	1 1/2"	1 1/2" X 3"
COARSE	5	2"	2 1/2" X 3"
COARSE	12	2 1/2"	3" X 3"
* - GROUT SPACE DIMENSION IS THE CLEAR DIMENSION BETWEEN ANY MASONRY PROTRUSION AND SHALL BE INCREASED BY THE DIAMETERS OF THE HORIZONTAL BARS WITHIN THE CROSS SECTION OF THE GROUT SPACE.			
** - FOR GROUTING BETWEEN MASONRY WYTHES.			

CONCRETE MASONRY REINFORCING BARS

1. VERTICAL REINFORCEMENT TO BE CENTERED IN SOLID GROUTED MASONRY CELLS AS REQUIRED ON PLANS AND AT ALL CORNERS, JAMBS, WALL INTERSECTIONS, EACH SIDE OF OPENINGS, AND EACH SIDE OF MASONRY CONTROL JOINTS.
2. BARS MAY BE LAP SPLICED ACCORDING TO PLAN CONSISTING OF BARS HELD IN DIRECT CONTACT BY WIRE TIES, ALL VERTICAL BARS TERMINATING INTO CONCRETE SHALL TERMINATE WITH A STANDARD ACI 90° HOOK.
3. NO WET SETTING OF BARS IN FOOTING IS PERMITTED. ALL DOWEL REINFORCING BARS SHALL BE TIED TO THE FOUNDATION REINFORCEMENT AND HELD IN PLACE USING FABRICATED FORM WORK PRIOR TO POURING. PLACEMENT OF BARS SHALL BE VERIFIED PRIOR TO FOUNDATION POUR.
4. DEVELOPMENT AND LAP SPLICE LENGTHS OF REINFORCING BARS IN MASONRY SHALL COMPLY WITH THE REQUIREMENTS OF ACI 530-08 AS MODIFIED BY THE 2010 FBC. FOR 8" NOMINAL CONCRETE MASONRY UNITS WITH A MASONRY ASSEMBLAGE COMPRESSIVE STRENGTH (f'm) OF 1,500 PSI AND VERTICAL REINFORCEMENT CENTERED IN THE UNITS, THE FOLLOWING DEVELOPMENT AND LAP SPLICE LENGTHS ARE REQUIRED:

LAP SPLICE REQUIREMENTS	
REINFORCING BAR SIZE	MINIMUM LAP LENGTH
#4	24"
#5	30"
#6	36"
#7	42"
#8	48"

CONCRETE MASONRY WORKMANSHIP

1. ALL CONCRETE MASONRY WORK SHALL BE IN ACCORDANCE WITH ACI 530-08, AND MEET THE SPECIFICATIONS AS LISTED IN ACI 530.1-08, AS WELL AS THE SPECIFICATIONS LISTED BELOW.
2. AT THE TIME OF LAYING, ALL CONCRETE MASONRY UNITS SHALL BE DRY AND FREE OF EXCESSIVE DUST AND DIRT.
3. UNLESS NOTED OTHERWISE, HEAD AND BED JOINTS SHALL BE 3/8 INCH THICK, EXCEPT THAT THE THICKNESS OF THE BED JOINT STARTING COURSE PLACED OVER FOUNDATIONS SHALL NOT BE LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH.
4. HOLLOW UNITS SHALL BE PLACED SUCH THAT FACE SHELLS OF BED JOINTS ARE FULLY MORTARED, WEBS SHALL BE FULLY MORTARED IN ALL COURSES OF PIERS, COLUMNS, PILASTERS, IN THE STARTING COURSE ON FOUNDATIONS WHERE ADJACENT CELLS OR CAVITIES ARE TO BE GROUTED, AND WHERE OTHERWISE REQUIRED. HEAD JOINTS SHALL BE MORTARED A MINIMUM DISTANCE FROM EACH FACE EQUAL TO THE FACE SHELL THICKNESS OF THE UNIT.

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GENERAL NOTES

SHEET NO. AS1-003

STRUCTURAL STEEL

1. ALL STEEL SECTIONS SHALL BE PRODUCED DOMESTICALLY AND CONFORM TO THE FOLLOWING ASTM STANDARDS:

1.A. W-SECTION: ASTM A 992 (Fy = 50 KSI)

1.B. ANGLE, CHANNEL, & PLATE: ASTM A 36 (Fy = 36 KSI)

1.C. HSS-RECTANGULAR: ASTM A 500, GR. B (Fy = 46 KSI)

1.D. HSS-ROUND: ASTM A 500, GR. B (Fy = 42 KSI)

2. SHOP AND FIELD WELDS TO USE E70XX ELECTRODES. MINIMUM FILLET WELD SIZE TO BE 3/16", UNLESS NOTED OTHERWISE. ALL WELDS SHALL BE PREQUALIFIED IN CONFORMITY WITH THE AMERICAN WELDING SOCIETY'S CODE FOR WELDING IN BULDING CONSTRUCTION (AWS D1.1). WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED.

3. BOLTED CONNECTIONS TO USE 3/4" Ø A325-N BOLTS, UNLESS NOTED OTHERWISE. BOLT HOLES IN STEEL EXCEPT IN BASE PLATES SHALL BE 1/16 INCH LARGER IN DIAMETER THAN THE NORMAL SIZE BOLT USED, UNLESS NOTED OTHERWISE.

4. BUILDING ANCHOR BOLTS TO BE ASTM F 1554, GR. 36, UNLESS NOTED OTHERWISE.

5. HEADED STUDS TO BE ASTM A 108, GR. 1010 THROUGH 1020 AND SHALL BE TYPE B (Fut = 65 KSI), MEETING THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1), LATEST EDITION.

6. DEFORMED BAR ANCHORS TO BE ASTM A1064.

7. GROUT FOR COLUMN BASE PLATES AND PRESET BEARING PLATES SHALL BE NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM f'c = 5,000 PSI.

8. BEAM CONNECTIONS SHALL BE AS SHOWN OR NOTED ON DRAWINGS.

9. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS FOR ENGINEER'S REVIEW AND APPROVAL BEFORE FABRICATION.

10. ALL STRUCTURAL STEEL MEMBERS AND SHAPES BELOW GRADE AND EXPOSED TO THE EXTERIOR SHALL BE HOT-DIPPED GALVANIZED AS FOLLOWS:

10.A. ALL NUTS, BOLTS AND WASHERS:ASTM A 153, CLASS C OR D (DEPENDING ON SIZE)

10.B. ALL OTHER STEEL ITEMS:ASTM A 123

STEEL DECK

1. THE STEEL DECK UNITS SHALL BE FABRICATED FROM STEEL CONFORMING TO SECTION 1.2 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI), "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".

2. THE STEEL USED ON THE DECK UNITS SHALL HAVE A MINIMUM YIELD STRENGTH OF 33,000 PSI. THE STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 611, GR. C, D, OR E OR FROM ASTM A 653, STRUCTURAL QUALITY GRADES 33, 37, 40, 50, OR 80.

3. THE STANDARD TOLERANCE FOR ORDERED LENGTH IS PLUS OR MINUS 1/2 INCH.

4. MAXIMUM DEFLECTION OF THE DECK UNITS SHALL NOT EXCEED L/240 UNDER THE UNIFORMLY DISTRIBUTED LIVE LOAD. STRUCTURAL ADEQUACY OF THE DECK SECTIONS SHALL BE ESTABLISHED BY THE DETERMINATION OF SECTION MODULUS AND MOMENT OF INERTIA IN ACCORDANCE WITH CONVENTIONAL METHODS OF DESIGN.

5. DECK SHEETS WILL BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWINGS SUPPLIED BY THE DECK MANUFACTURER AND IN CONFORMANCE WITH THE DECK MANUFACTURER'S STANDARDS.

6. DECK SHALL HAVE A 2" MINIMUM BEARING ON SUPPORTING MEMBERS.

7. DECK UNITS SHALL BE ANCHORED TO SUPPORTING MEMBERS, INCLUDING BEARING WALLS, TO PROVIDE LATERAL STABILITY TO THE TOP FLANGE OF THE SUPPORTING STRUCTURAL MEMBERS AND TO RESIST THE SPECIFIED UPLIFT LOADS. THE DECK MUST BE ADEQUATELY ATTACHED TO THE STRUCTURE TO PREVENT SLIP OFF. SEE PLANS FOR THE LOCATION, SPACING, AND NUMBER OF WELDS OR SCREWS REQUIRED FOR SATISFACTORY ATTACHMENT OF THE DECK TO SUPPORTING STRUCTURAL MEMBERS.

8. PUDDLE WELDS SHALL BE AT LEAST 5/8 INCH DIAMETER OR ELONGATED WELDS WITH AN EQUAL PERIMETER. WELD SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPS AND SIDE JOINTS AND SHALL HAVE GOOD FUSION TO THE SUPPORTING MEMBERS.

9. ALL STEEL TO BE USED FOR THE ROOF DECK SHALL BE GALVANIZED (G90), ALUMINIZED, OR PRIME PAINTED. THE ROOF DECK SHALL BE FREE OF GREASE AND DIRT PRIOR TO THE COATING.

STEEL JOISTS

1. DESIGN SHALL BE BASED ON AN ALLOWABLE TENSILE STRESS OF 30,000 PSI. THE JOIST MANUFACTURER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE (SJI), AND ALL DESIGN AND ERECTION SHALL BE CARRIED OUT ACCORDING TO SJI SPECIFICATIONS.

2. JOISTS SHALL BE DESIGNED TO RESIST THE MINIMUM LOADS AS SHOWN ON THE PLANS. CALCULATIONS SHALL BE SIGNED AND SEALED BY ENGINEER.

3. THE JOIST FABRICATOR SHALL BE RESPONSIBLE FOR THE FINAL DESIGN OF ALL BRACING AND BRIDGING. THE JOIST FABRICATOR SHALL SUBMIT A FRAMING PLAN INDICATING ALL JOISTS, AND BRIDGING AND BRACING LOCATIONS. AXIAL LOADS CARRIED BY BRIDGING AND BRACING WILL BE CLEARLY INDICATED ON THE PLANS SO THE ENGINEER OF RECORD MAY PROVIDE THE PROPER CONNECTION DESIGN TO THE MAIN STRUCTURE. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO MAKE REVISIONS TO THE STRUCTURE AS NECESSARY BASED ON THE FINAL DESIGN OF THE JOISTS, JOIST BRACING, OR BRIDGING.

METAL PANELS

1. CLADDING ATTACHED TO LIGHT GAGE STUDS SHALL COMPLY WITH WIND PRESSURES SHOWN ON AS1-005. CLADDING MANUFACTURER SHALL PROVIDE DOCUMENTATION CONFIRMING COMPLIANCE WITH WIND LOAD PRESSURES INDICATED ON AS1-005 FOR EOR APPROVAL AS PART OF THE SHOP DRAWING REVIEW PROCESS.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

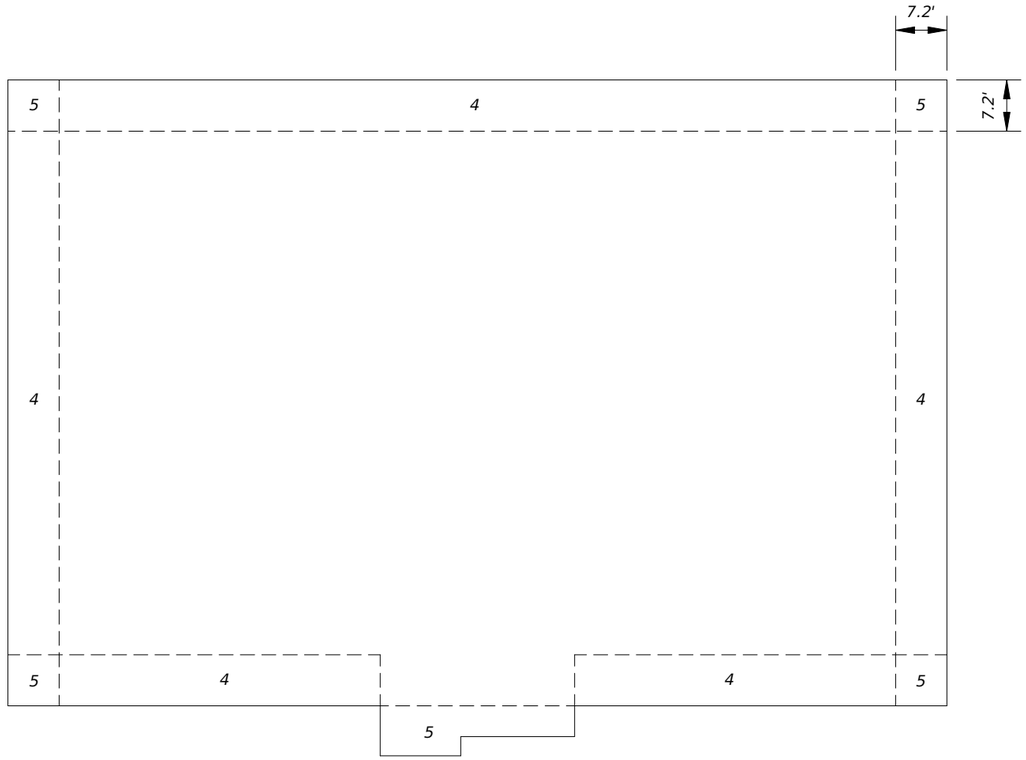
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

GENERAL NOTES

SHEET NO.
AS1-004



2 COMPONENTS & CLADDING WALL PRESSURE DIAGRAM

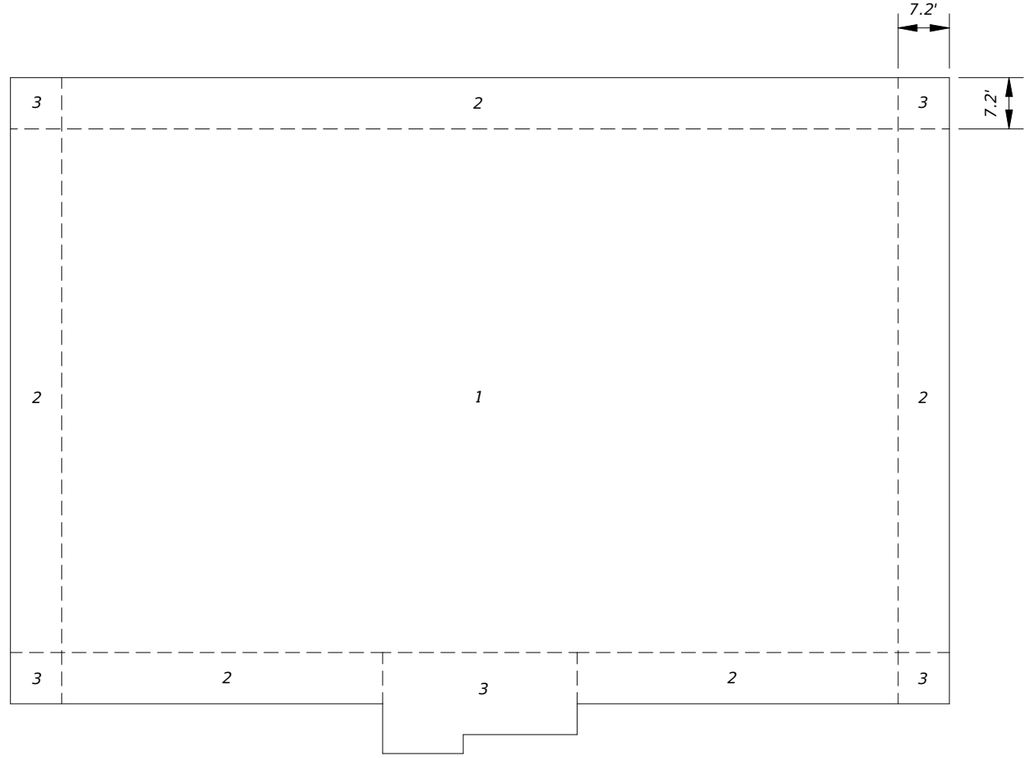
3/64" = 1'-0"

ULTIMATE COMPONENTS & CLADDING WALL PRESSURES				
AREA (SQ. FT)	INTERIOR ZONE 4 (PSF)		EDGE ZONE 5 (PSF)	
	POS (+)	NEG (-)	POS (+)	NEG (-)
10	38.3	-41.4	38.3	-51.0
20	36.7	-39.8	36.7	-47.8
50	34.7	-37.6	34.7	-43.4
100	32.5	-35.7	32.5	-39.8
200	30.9	-33.8	30.9	-36.3
> 500	28.7	-31.9	28.7	-31.9

SEE AS-001 FOR WIND LOAD PARAMETERS.
POSITIVE (+) & NEGATIVE (-) VALUES SIGNIFY PRESSURES ACTING TOWARD & AWAY FROM THE SURFACE, RESPECTIVELY.

NOMINAL COMPONENTS & CLADDING WALL PRESSURES				
AREA (SQ. FT)	INTERIOR ZONE 4 (PSF)		EDGE ZONE 5 (PSF)	
	POS (+)	NEG (-)	POS (+)	NEG (-)
10	23.0	-24.9	23.0	-30.6
20	22.0	-23.9	22.0	-28.7
50	20.8	-22.6	20.8	-26.0
100	19.5	-21.4	19.5	-23.9
200	18.6	-20.3	18.6	-21.8
> 500	17.2	-19.1	17.2	-19.1

SEE AS-001 FOR WIND LOAD PARAMETERS.
THIS TABLE HAS A LOAD FACTOR OF 0.60*WIND APPLIED.
POSITIVE (+) & NEGATIVE (-) VALUES SIGNIFY PRESSURES ACTING TOWARD & AWAY FROM THE SURFACE, RESPECTIVELY.



1 COMPONENTS & CLADDING ROOF PRESSURE DIAGRAM

3/64" = 1'-0"

ULTIMATE COMPONENTS & CLADDING ROOF PRESSURES						
AREA (SQ. FT)	INTERIOR ZONE 1 (PSF)		EDGE ZONE 2 (PSF)		CORNER ZONE 3 (PSF)	
	POS (+)	NEG (-)	POS (+)	NEG (-)	POS (+)	NEG (-)
10	17.0	-41.8	17.0	-70.1	17.0	-105.5
20	15.9	-40.7	15.9	-63.0	15.9	-87.8
50	14.5	-39.3	14.5	-52.4	14.5	-63.0
100	13.5	-38.3	13.5	-45.3	13.5	-45.3
200	13.5	-38.3	13.5	-45.3	13.5	-45.3
> 500	13.5	-38.3	13.5	-45.3	13.5	-45.3

SEE AS-001 FOR WIND LOAD PARAMETERS.
POSITIVE (+) & NEGATIVE (-) VALUES SIGNIFY PRESSURES ACTING TOWARD & AWAY FROM THE SURFACE, RESPECTIVELY.

NOMINAL COMPONENTS & CLADDING ROOF PRESSURES						
AREA (SQ. FT)	INTERIOR ZONE 1 (PSF)		EDGE ZONE 2 (PSF)		CORNER ZONE 3 (PSF)	
	POS (+)	NEG (-)	POS (+)	NEG (-)	POS (+)	NEG (-)
10	10.2	-25.1	10.2	-42.1	10.2	-42.1
20	9.6	-24.4	9.6	-37.8	9.6	-37.8
50	8.7	-23.6	8.7	-31.5	8.7	-31.5
100	8.1	-23.0	8.1	-27.2	8.1	-27.2
200	8.1	-23.0	8.1	-27.2	8.1	-27.2
> 500	8.1	-23.0	8.1	-27.2	8.1	-27.2

SEE AS-001 FOR WIND LOAD PARAMETERS.
THIS TABLE HAS A LOAD FACTOR OF 0.60*WIND APPLIED.
POSITIVE (+) & NEGATIVE (-) VALUES SIGNIFY PRESSURES ACTING TOWARD & AWAY FROM THE SURFACE, RESPECTIVELY.

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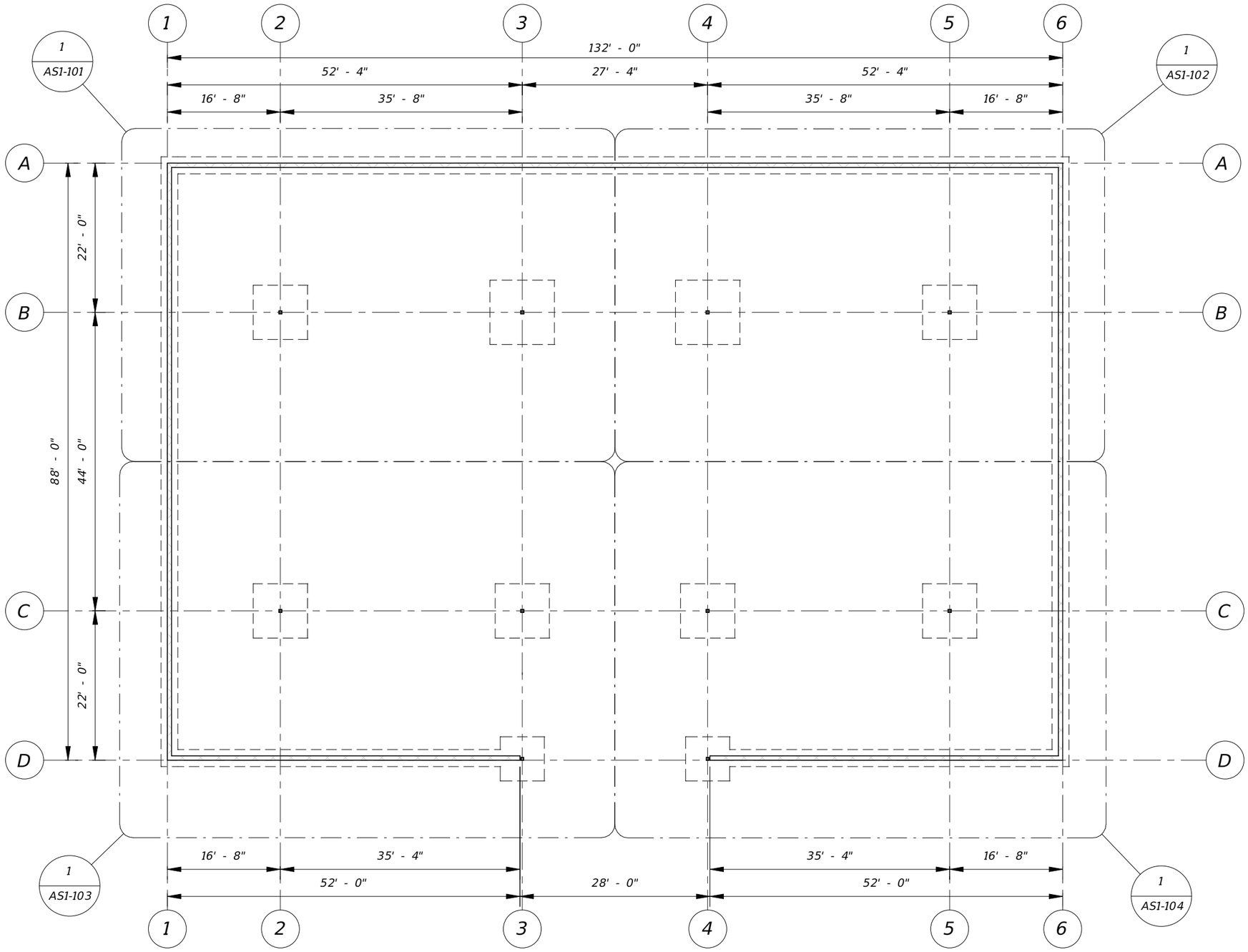
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

GENERAL NOTES

SHEET NO.
AS1-005

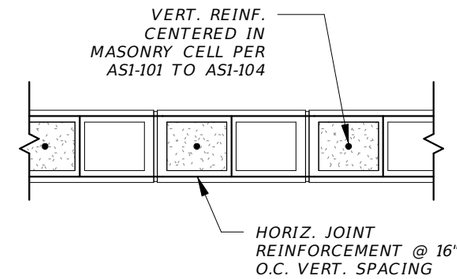


1 OVERALL FOUNDATION PLAN

1/16" = 1'-0"

WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 16" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.



2 CMU WALL REINFORCEMENT

3/4" = 1'-0"

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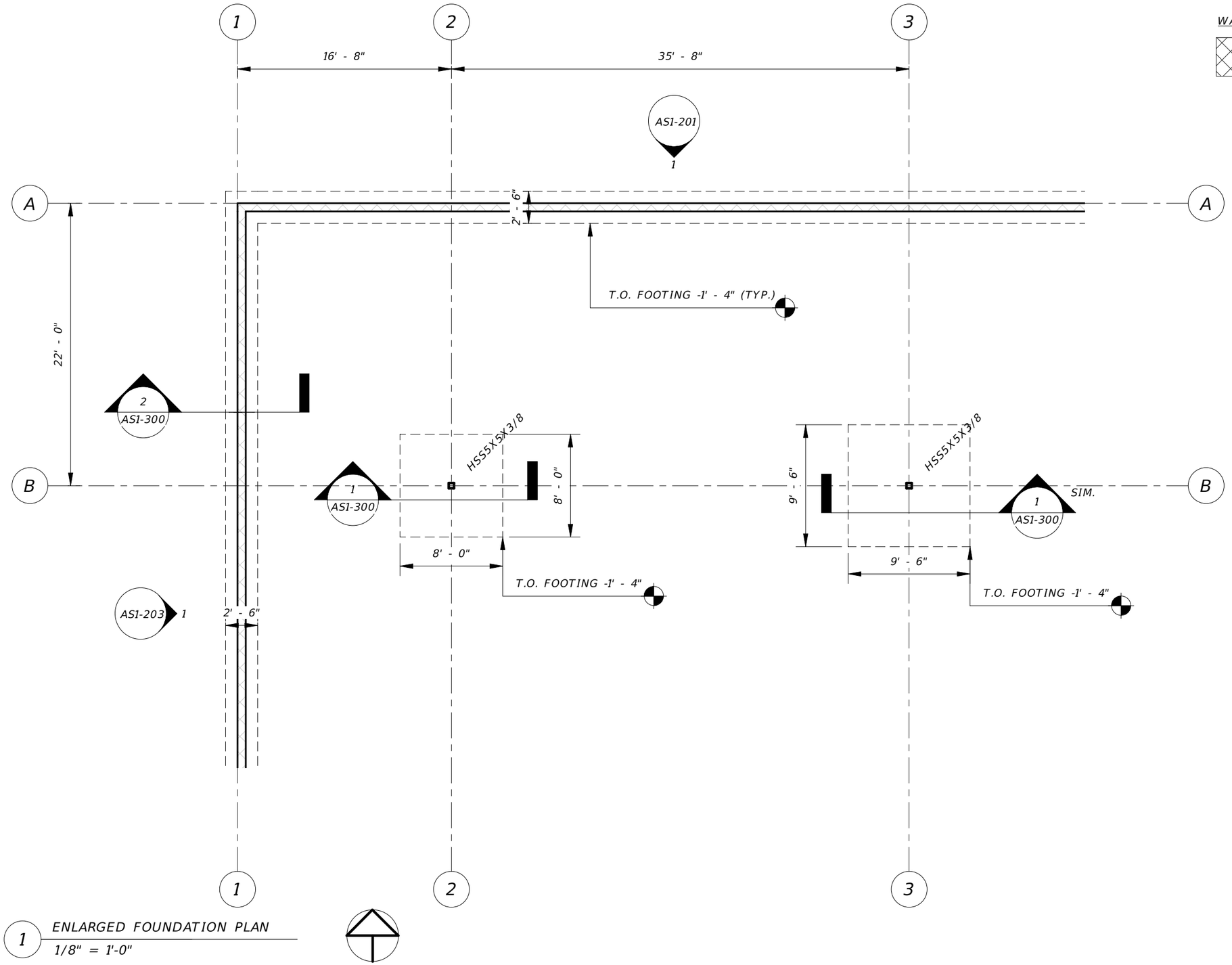
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL FOUNDATION PLAN

SHEET NO. AS1-100



WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 16" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

1 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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FLORIDA P.E. NO. 81028
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FOUNDATION PLAN

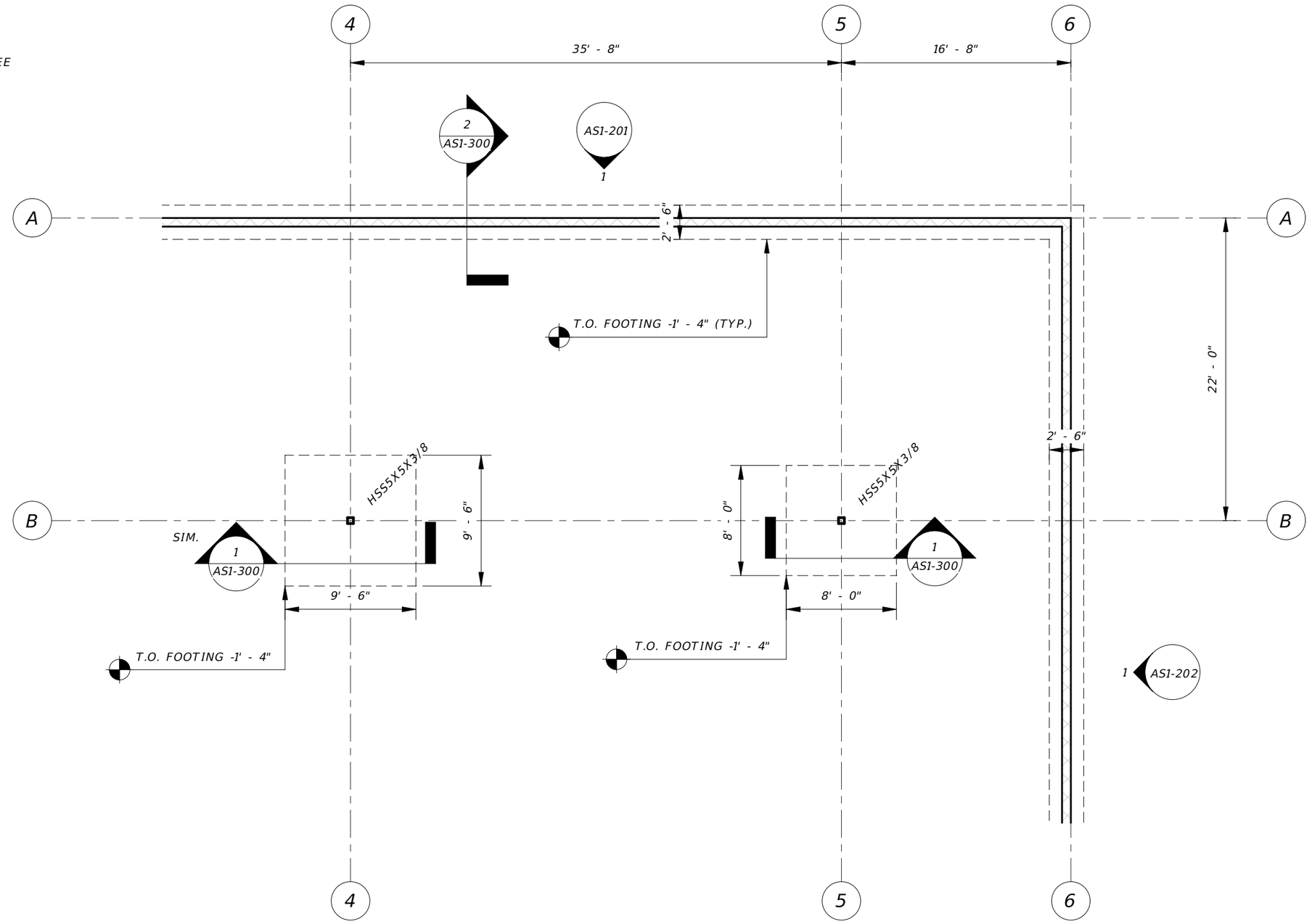
SHEET NO. AS1-101

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WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 16" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.



1 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

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STATE OF FLORIDA
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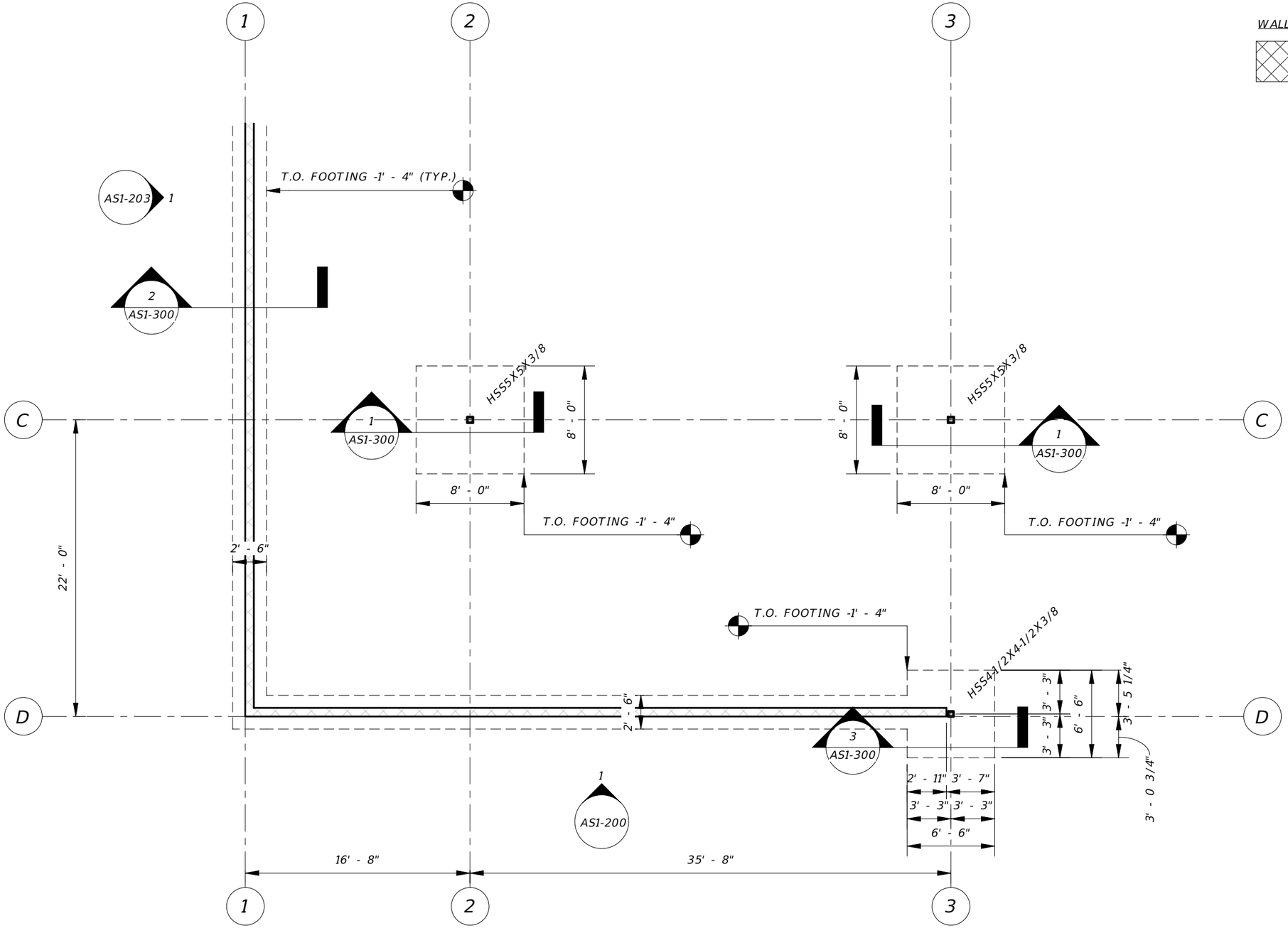
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FOUNDATION PLAN

SHEET NO. AS1-102

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WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 16" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

1 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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NA	POLK	437300-1-52-01

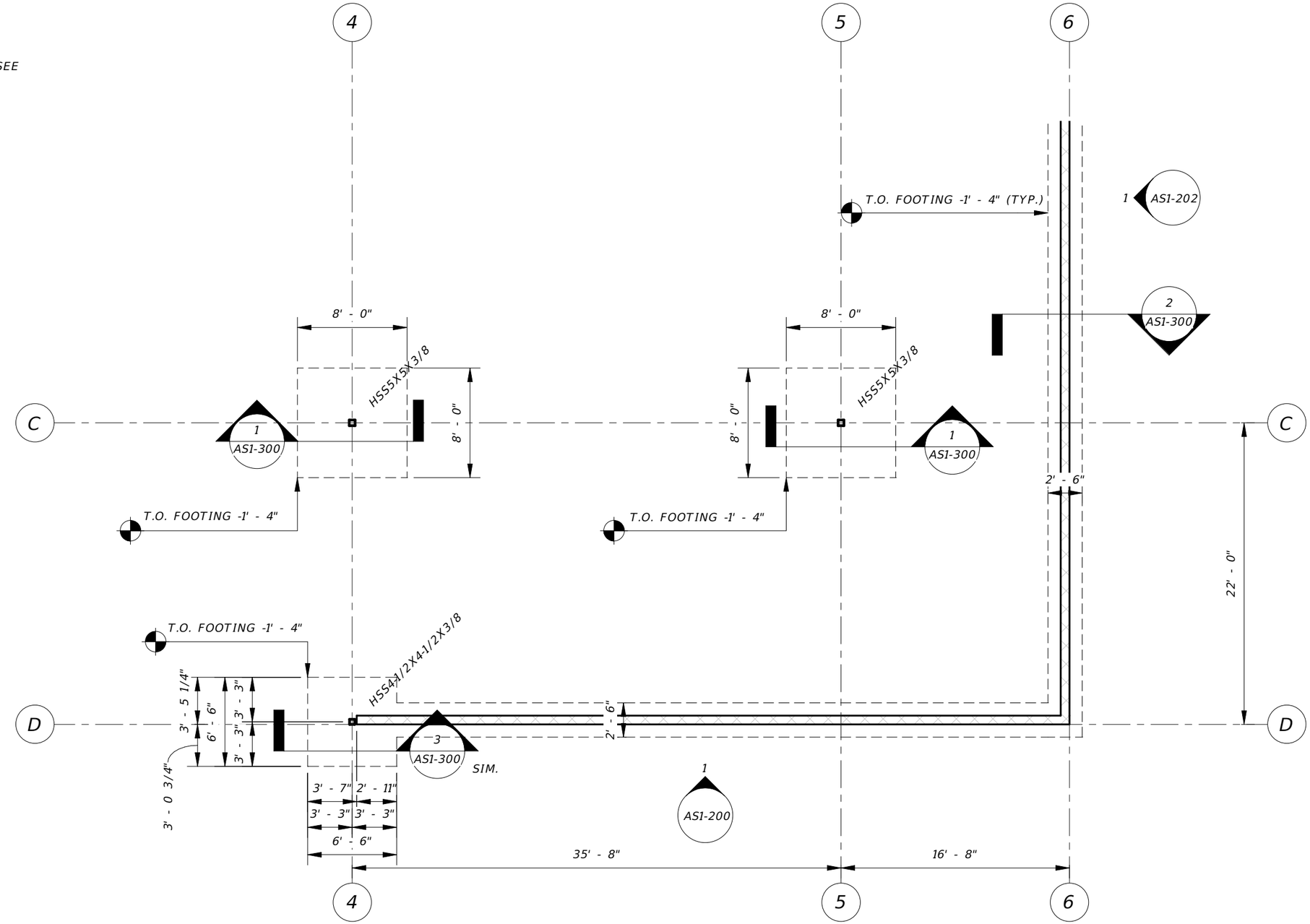
SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED FOUNDATION PLAN

SHEET NO. AS1-103

WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 16" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.



1 ENLARGED FOUNDATION PLAN
1/8" = 1'-0"

REVISIONS			
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STATE OF FLORIDA
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NA	POLK	437300-1-52-01

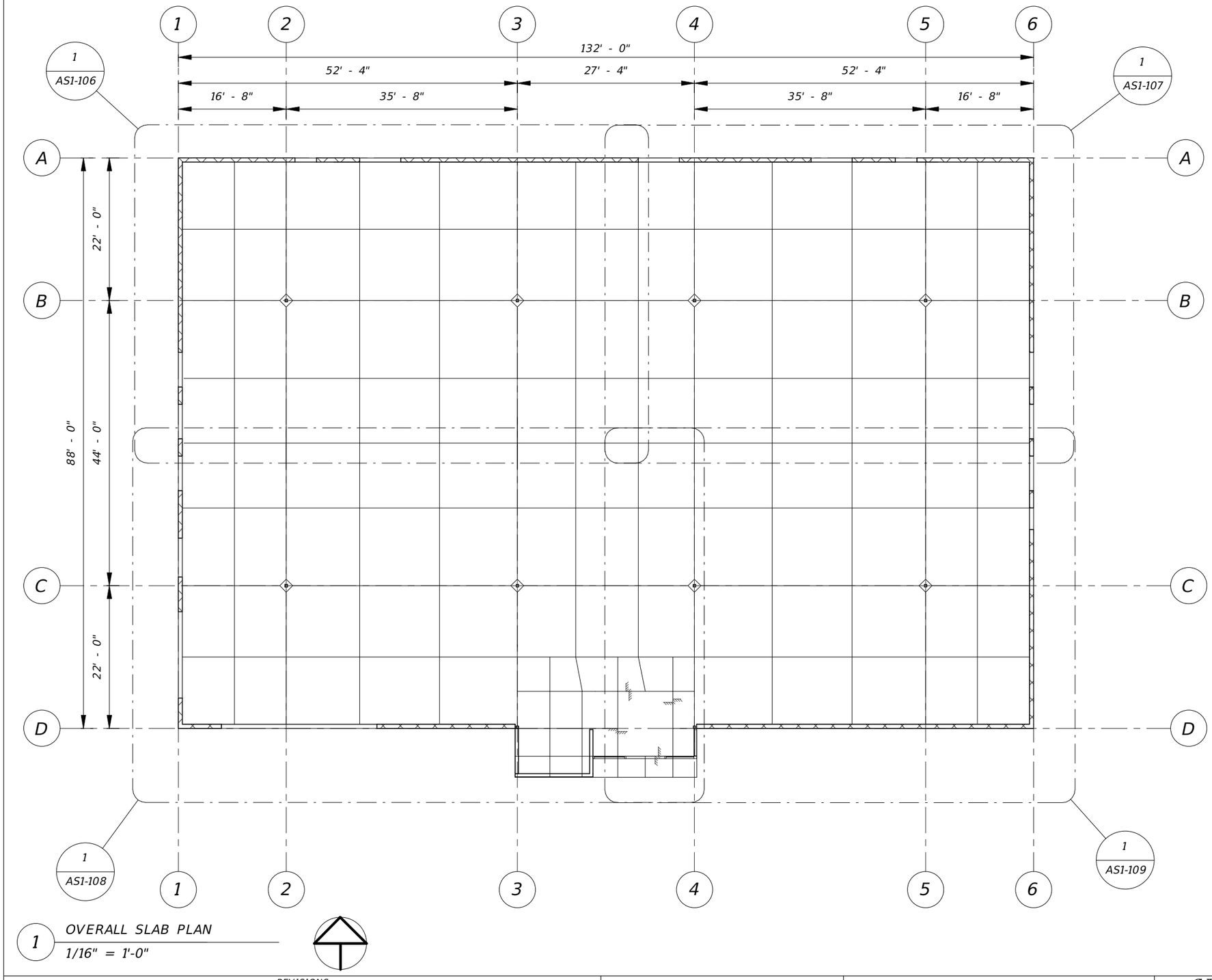
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

ENLARGED FOUNDATION PLAN

SHEET NO.
AS1-104

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1 OVERALL SLAB PLAN

1/16" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
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DEPARTMENT OF TRANSPORTATION

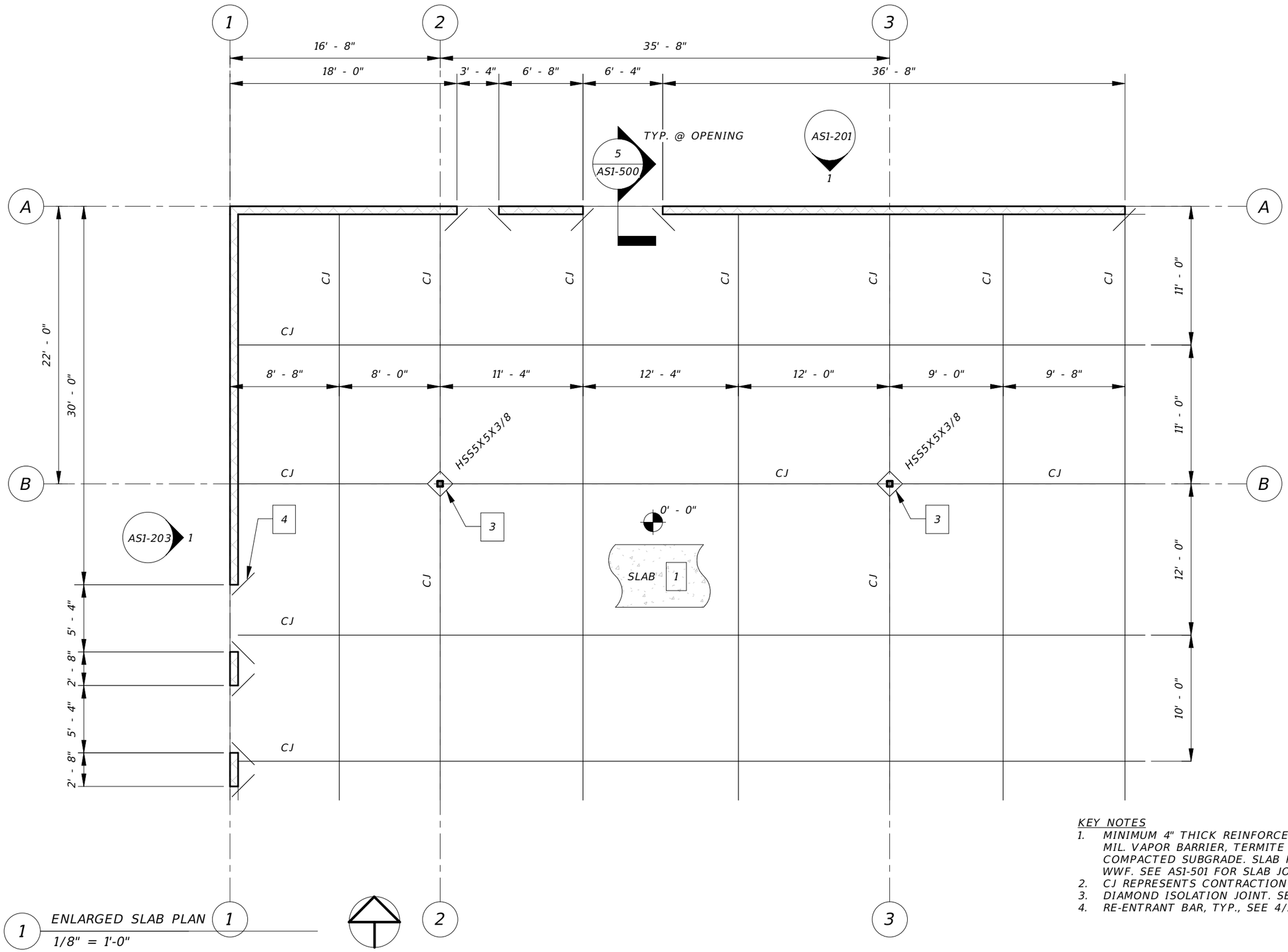
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL SLAB PLAN

SHEET NO. AS1-105

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1 ENLARGED SLAB PLAN
1/8" = 1'-0"

KEY NOTES
1. MINIMUM 4" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W4.5xW4.5 WWF. SEE AS1-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS1-501 FOR DETAIL.
3. DIAMOND ISOLATION JOINT. SEE 3/AS1-501 FOR DETAIL.
4. RE-ENTRANT BAR, TYP., SEE 4/AS1-500 FOR DETAIL.

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DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

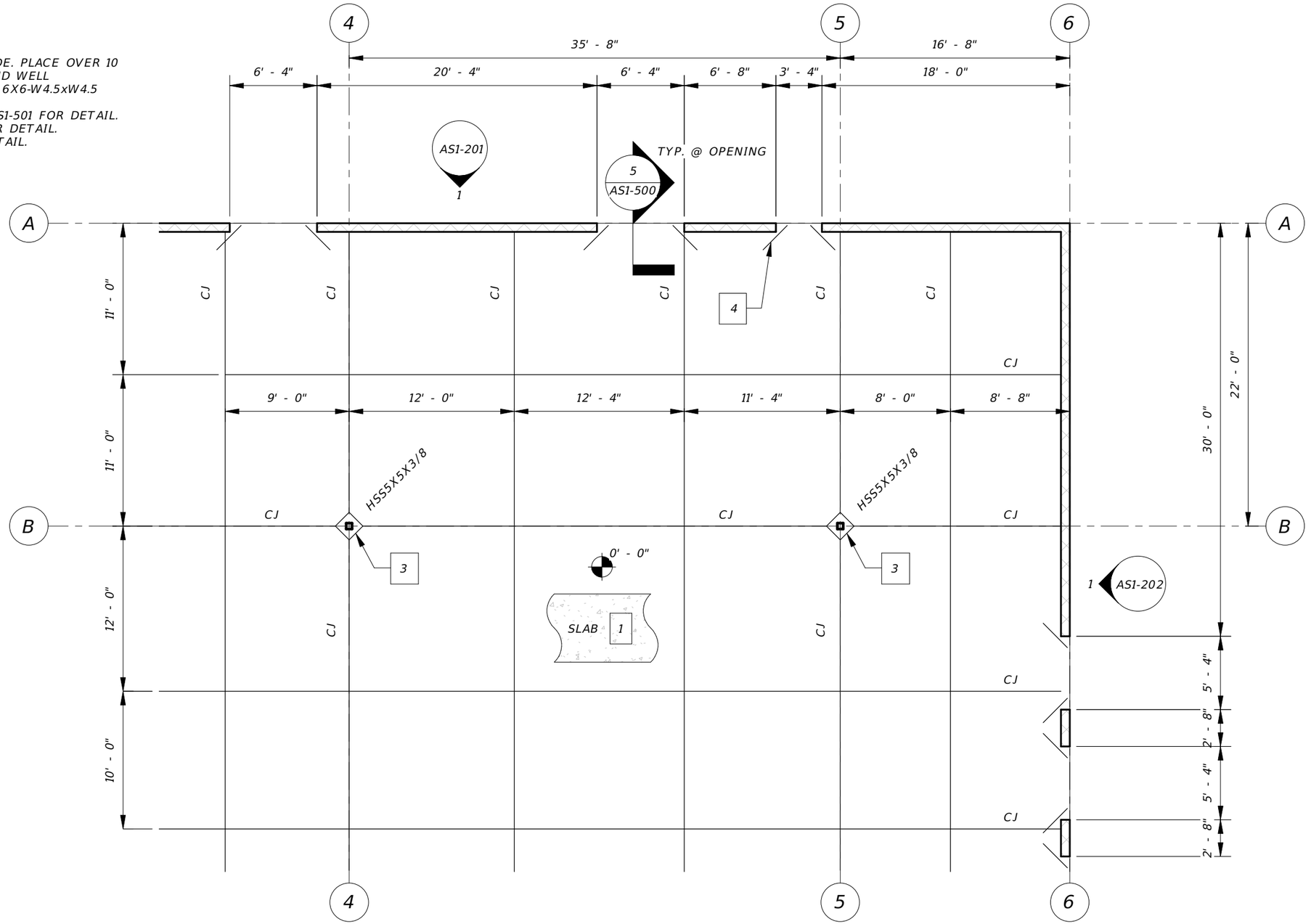
ENLARGED SLAB PLAN

SHEET NO. AS1-106

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 6IG15-23.004, F.A.C.

KEY NOTES

1. MINIMUM 4" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W4.5xW4.5 WWF. SEE AS1-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS1-501 FOR DETAIL.
3. DIAMOND ISOLATION JOINT. SEE 3/AS1-501 FOR DETAIL.
4. RE-ENTRANT BAR, TYP., SEE 4/AS1-500 FOR DETAIL.



1 ENLARGED SLAB PLAN

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

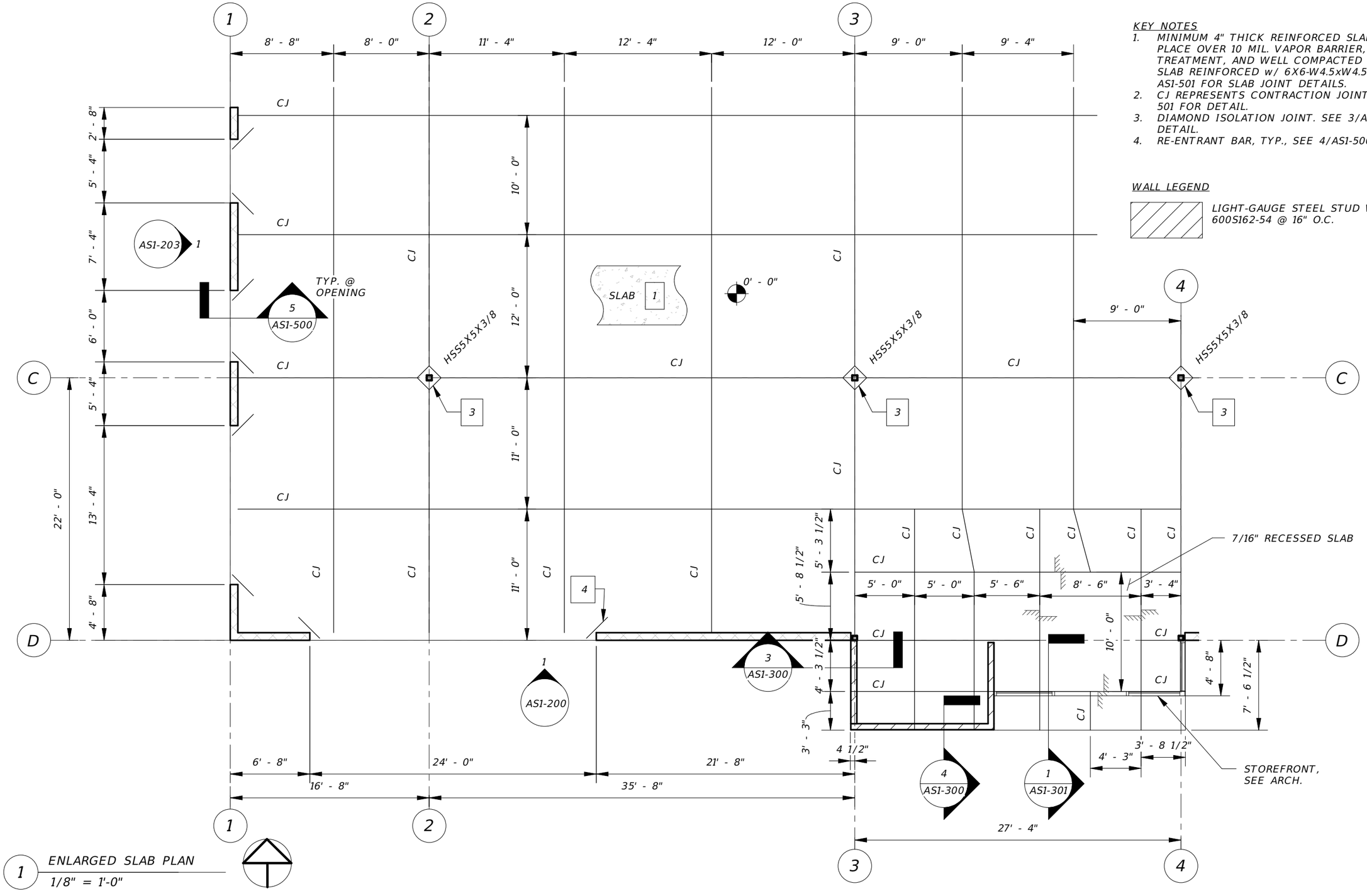
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED SLAB PLAN

SHEET NO. AS1-107

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1 ENLARGED SLAB PLAN
1/8" = 1'-0"

KEY NOTES

1. MINIMUM 4" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W4.5xW4.5 WWF. SEE AS1-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS1-501 FOR DETAIL.
3. DIAMOND ISOLATION JOINT. SEE 3/AS1-501 FOR DETAIL.
4. RE-ENTRANT BAR, TYP., SEE 4/AS1-500 FOR DETAIL.

WALL LEGEND

LIGHT-GAUGE STEEL STUD WALL, 600S162-54 @ 16" O.C.

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

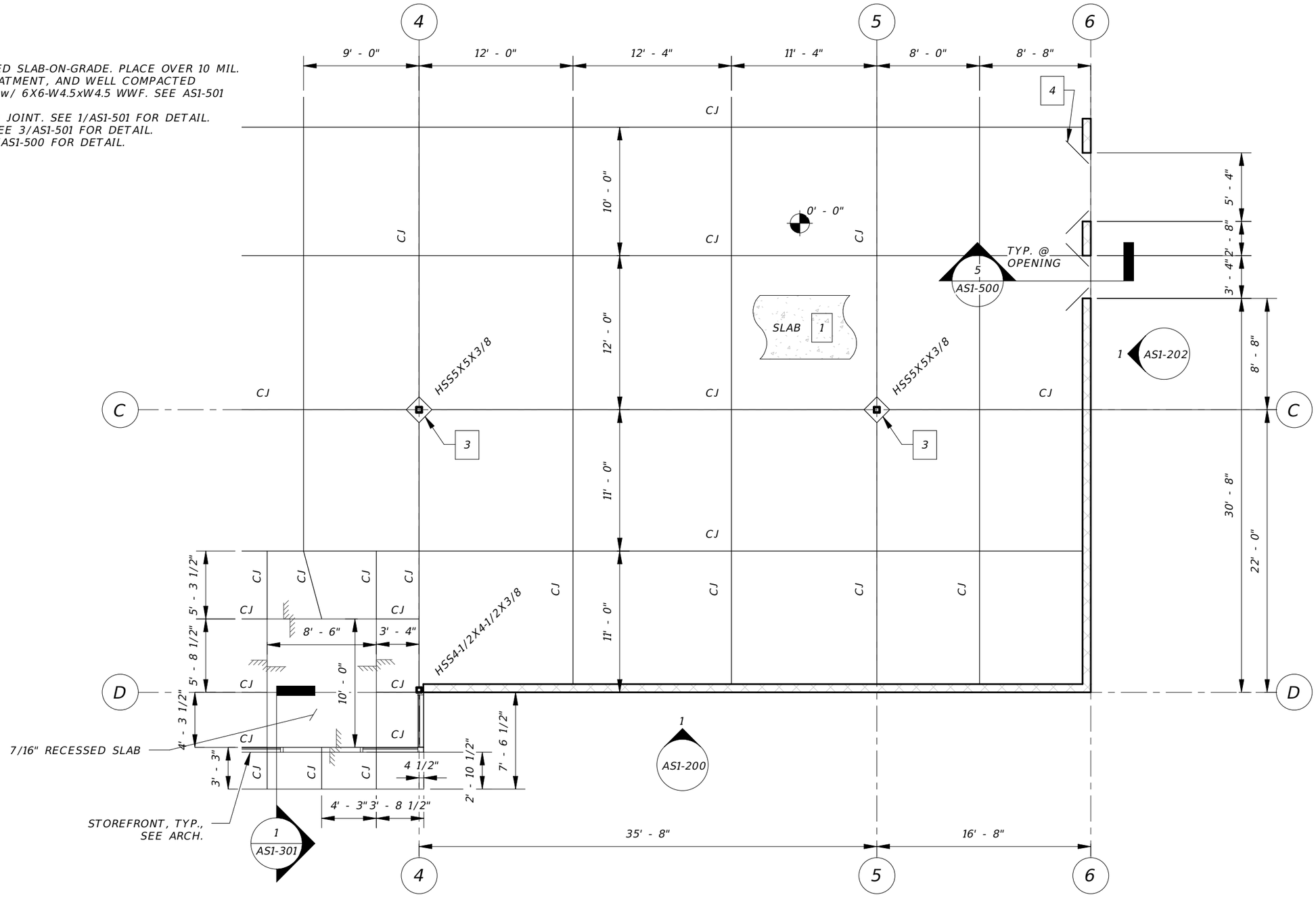
ENLARGED SLAB PLAN

SHEET NO. AS1-108

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KEY NOTES

1. MINIMUM 4" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W4.5xW4.5 WWF. SEE AS1-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS1-501 FOR DETAIL.
3. DIAMOND ISOLATION JOINT. SEE 3/AS1-501 FOR DETAIL.
4. RE-ENTRANT BAR, TYP., SEE 4/AS1-500 FOR DETAIL.



1 ENLARGED SLAB PLAN

1/8" = 1'-0"

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

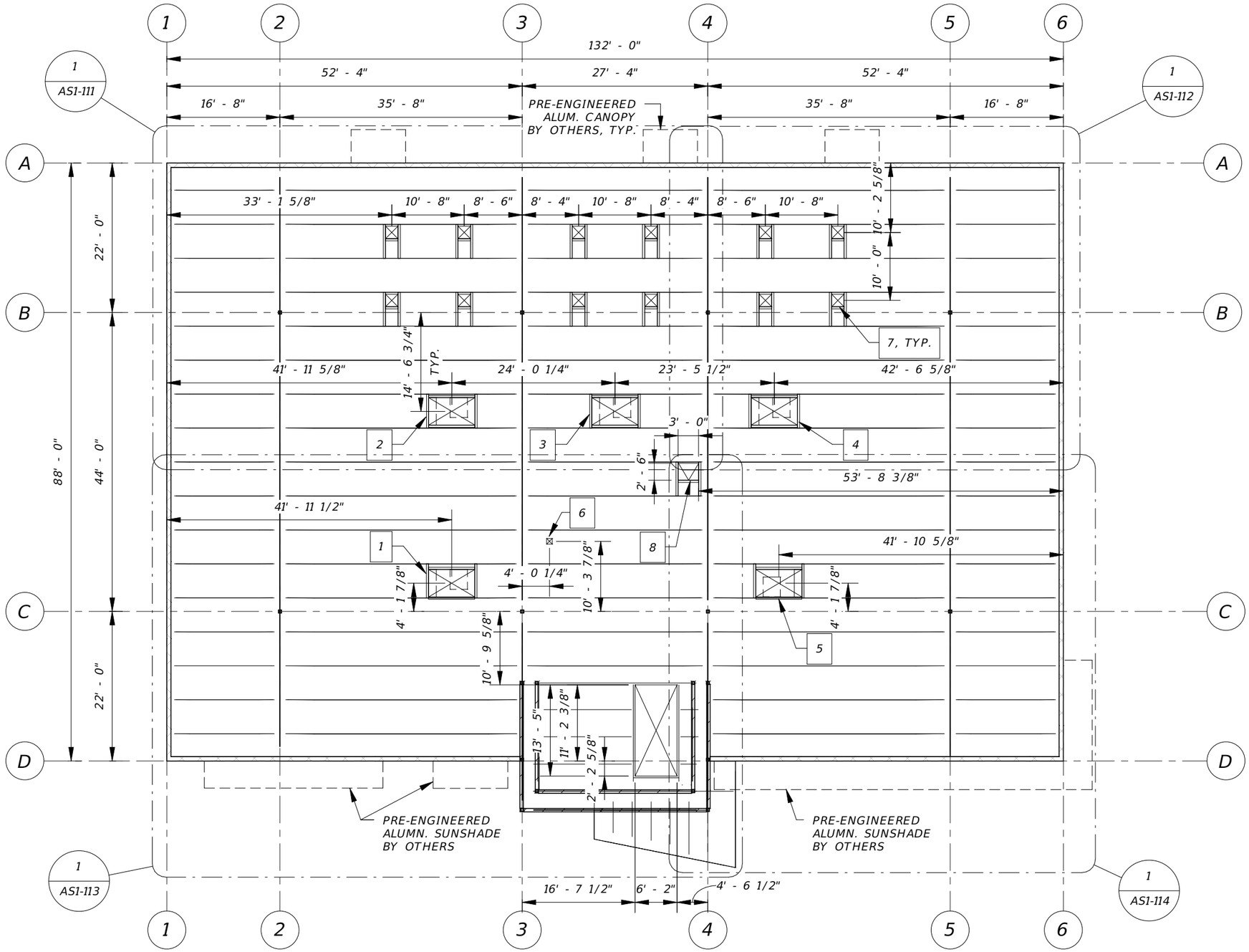
SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED SLAB PLAN

SHEET NO. AS1-109

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1 OVERALL ROOF PLAN
1/16" = 1'-0"

JOIST LOADING NOTES

1. JOIST MANUFACTURER TO USE THE FOLLOWING LOADS FOR THE DESIGN OF THE STEEL ROOF JOISTS. LOADS SHOWN ARE NOMINAL, U.N.O.
2. DEAD LOAD: 75 PLF
3. ROOF LIVE LOAD: 100 PLF
4. WIND LOAD: +72.5 PLF, -196.5 PLF (+ ACTING TOWARDS SURFACE, - ACTING AWAY)
5. NET UPLIFT: -87.9 PLF (ASD 0.6D+0.6W), (DEAD LOAD USED FOR NET UPLIFT = 50 PLF)

GENERAL NOTES

1. SEE 1/AS1-513 FOR FRAMING AROUND PENETRATIONS.
2. COORDINATE FINAL RTU AND EXHAUST FAN LOCATIONS AND PENETRATION SIZES w/ MECH. PLANS.
3. COORDINATE SKYLIGHT OPENING SIZES w/ ARCHITECTURE AND MANUFACTURER SHOP DRAWINGS.

KEY NOTES

1. RTU-1, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
2. RTU-2, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
3. RTU-3, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
4. RTU-4, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
5. RTU-5, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
6. EXHAUST FAN 1, UNIT WEIGHT = 69 LB
7. 22"x22" OPENING FOR TUBULAR SKYLIGHT
8. 30"x36" OPENING FOR ROOF HATCH

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FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

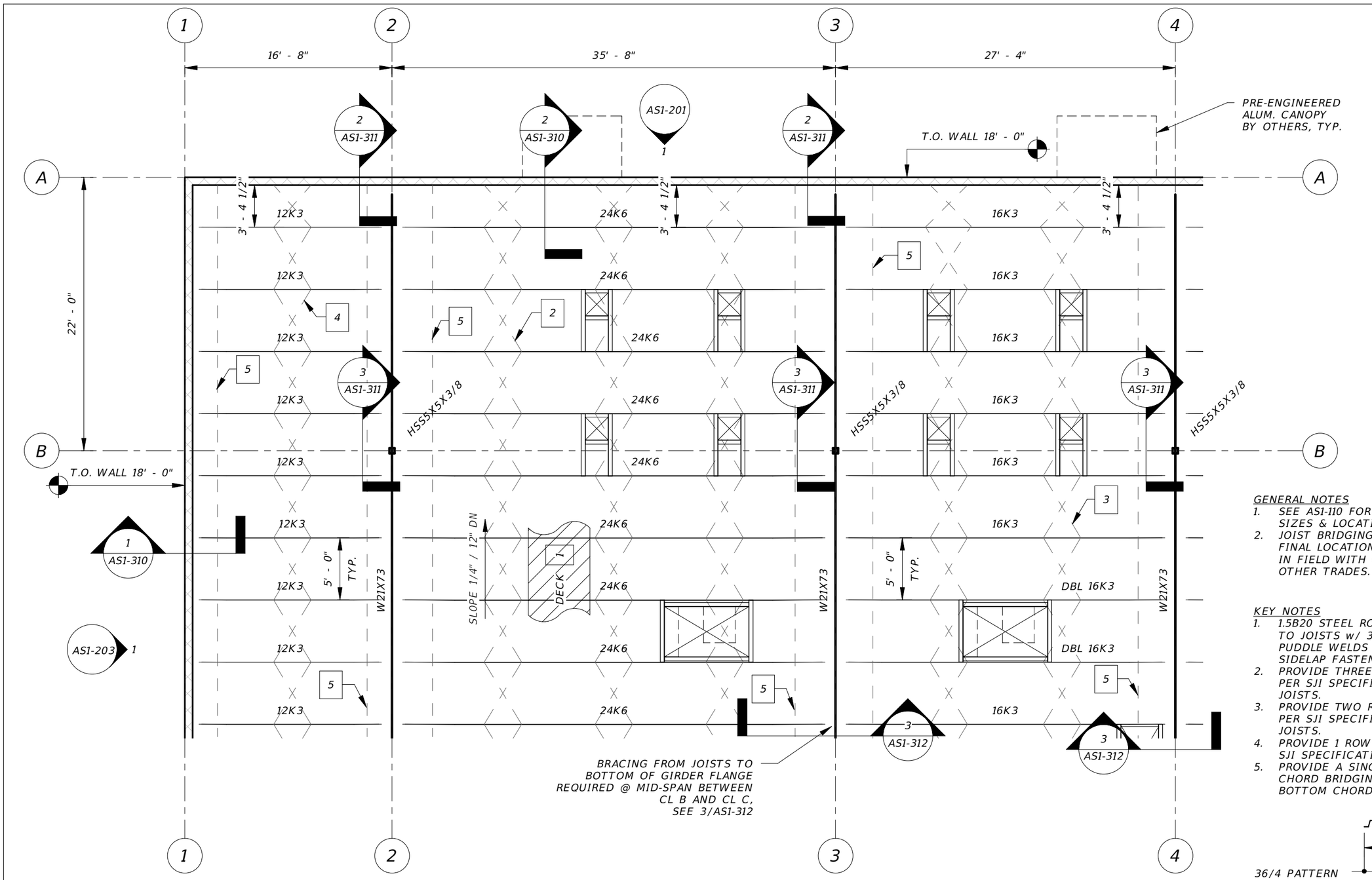
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL ROOF PLAN

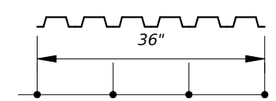
SHEET NO. AS1-110



1 ENLARGED ROOF PLAN
1/8" = 1'-0"

GENERAL NOTES
1. SEE AS1-110 FOR ROOF PENETRATION SIZES & LOCATIONS.
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

KEY NOTES
1. 1.5B20 STEEL ROOF DECK ATTACHED TO JOISTS w/ 36/4 PATTERN OF 5/8" PUDDLE WELDS & (2) #10 TEK SCREW SIDELAP FASTENERS PER SPAN.
2. PROVIDE THREE ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 24K6 JOISTS.
3. PROVIDE TWO ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 16K3 JOISTS.
4. PROVIDE 1 ROW OF X-BRIDGING PER SJI SPECIFICATIONS FOR 12K3 JOISTS.
5. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.



36/4 PATTERN

2 ROOF DECK ATTACHMENT
1/2" = 1'-0"

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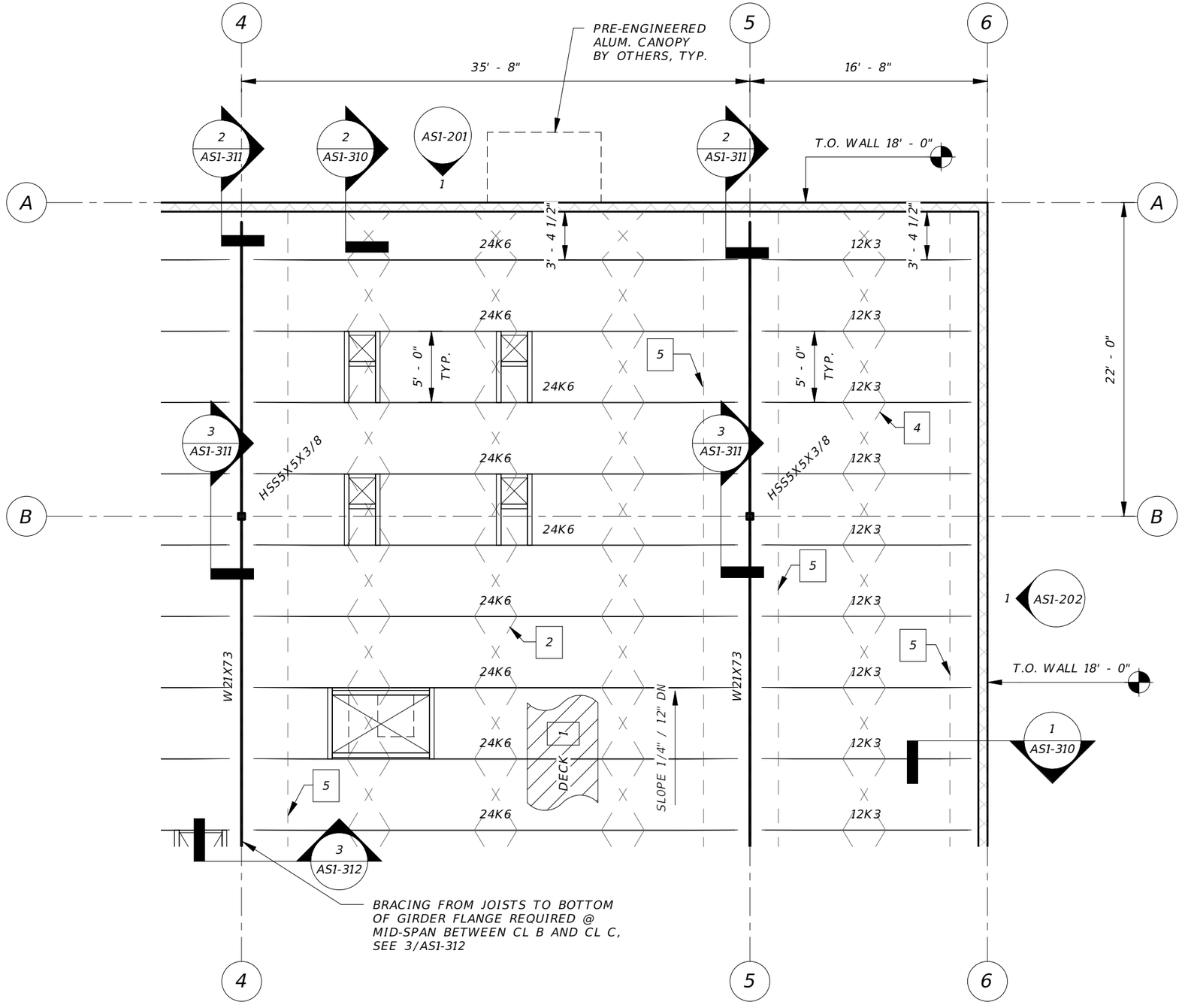
SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED ROOF PLAN

SHEET NO. AS1-111

GENERAL NOTES
1. SEE AS1-110 FOR ROOF PENETRATION SIZES & LOCATIONS.
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

KEY NOTES
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2. PROVIDE THREE ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 24K6 JOISTS.
3. NOT USED THIS SHEET
4. PROVIDE 1 ROW OF X-BRIDGING PER SJI SPECIFICATIONS FOR 12K3 JOISTS.
5. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.



1 ENLARGED ROOF PLAN
1/8" = 1'-0"

REVISIONS			
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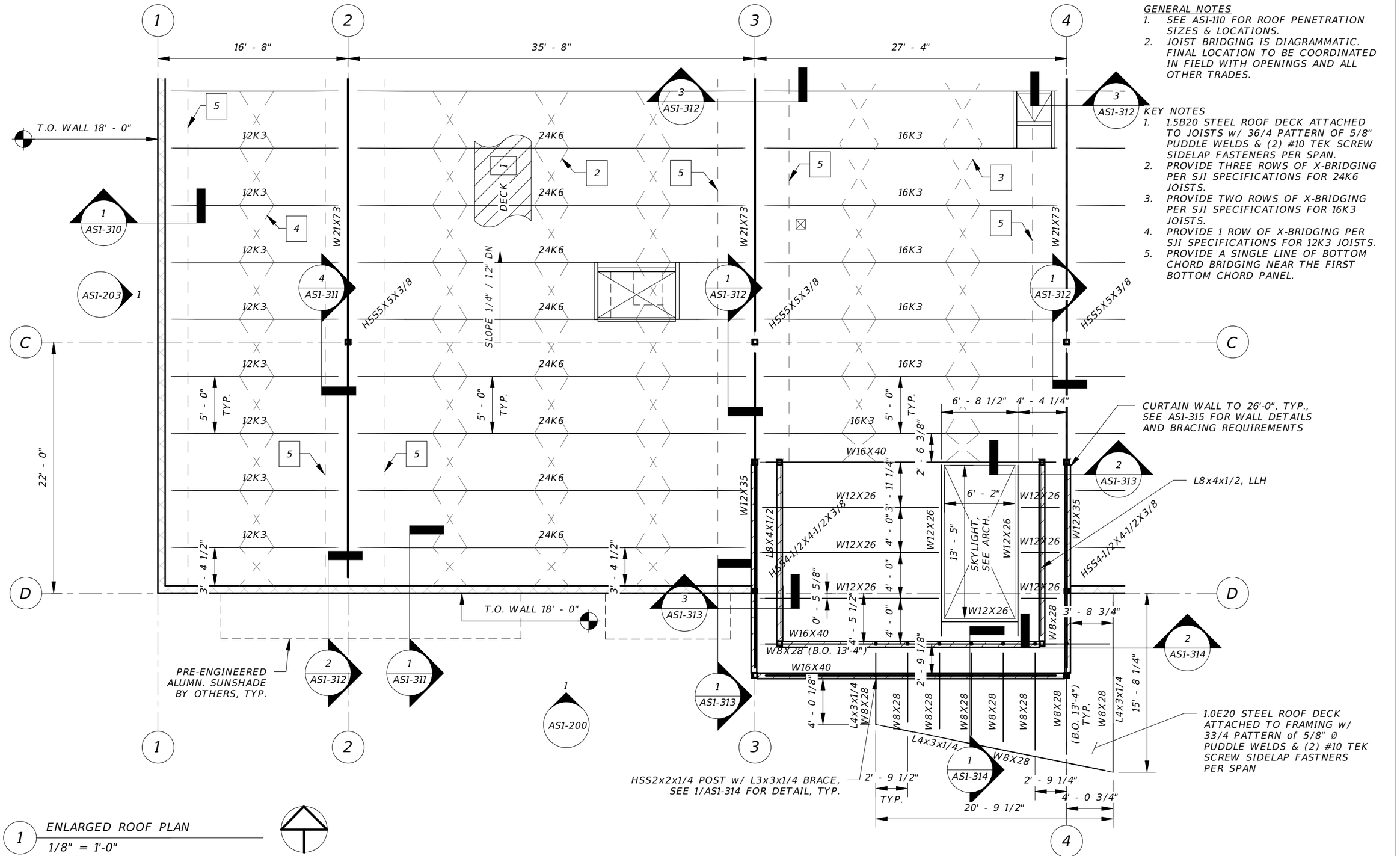
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED ROOF PLAN

SHEET NO. AS1-112

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GENERAL NOTES

1. SEE AS1-110 FOR ROOF PENETRATION SIZES & LOCATIONS.
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

KEY NOTES

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4. PROVIDE 1 ROW OF X-BRIDGING PER SJI SPECIFICATIONS FOR 12K3 JOISTS.
5. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.

1 ENLARGED ROOF PLAN

1/8" = 1'-0"

REVISIONS			
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STATE OF FLORIDA
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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ENLARGED ROOF PLAN

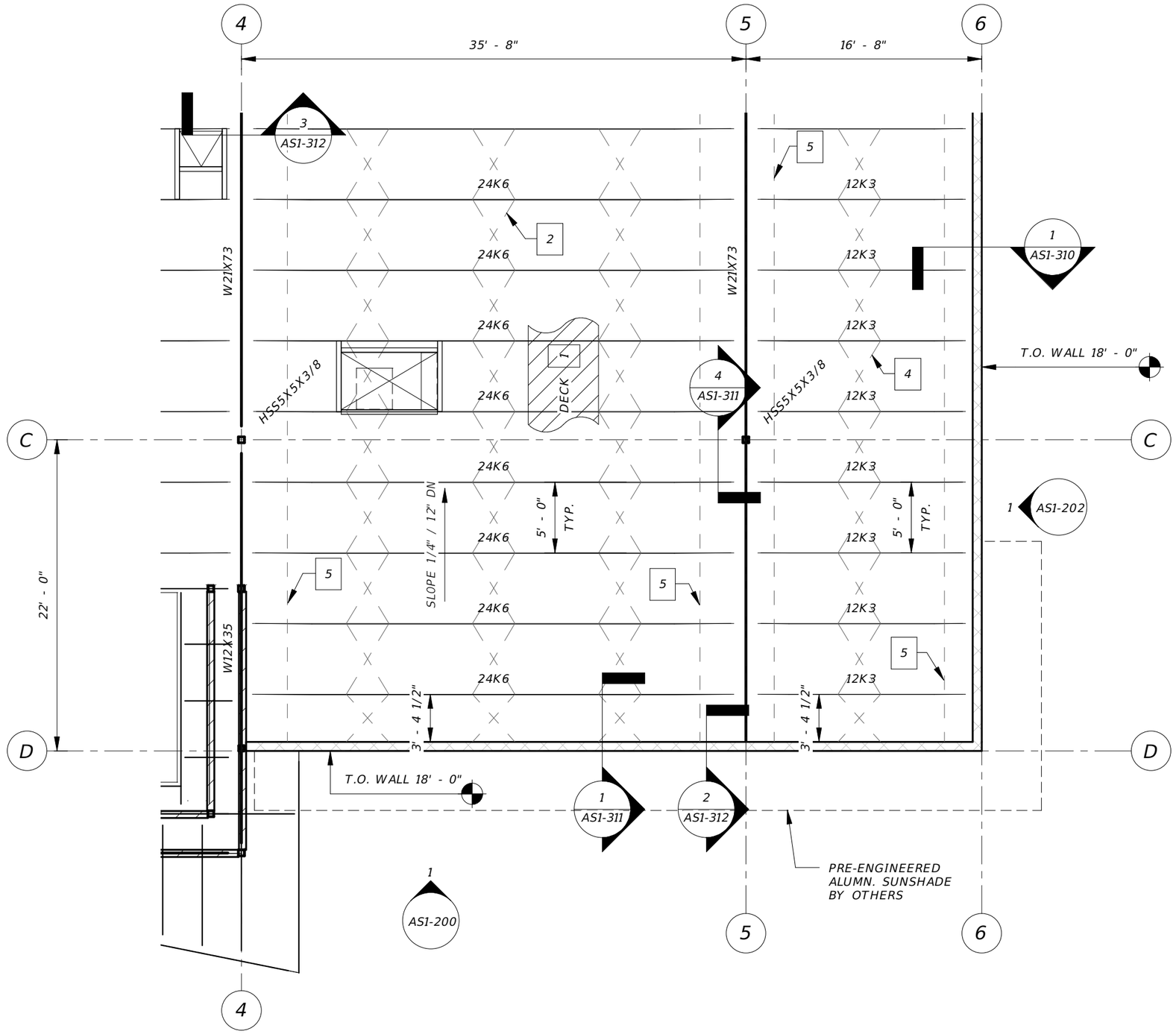
SHEET NO. AS1-113

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GENERAL NOTES
1. SEE AS1-110 FOR ROOF PENETRATION SIZES & LOCATIONS.
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

KEY NOTES
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2. PROVIDE THREE ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 24K6 JOISTS.
3. NOT USED THIS SHEET
4. PROVIDE 1 ROW OF X-BRIDGING PER SJI SPECIFICATIONS FOR 12K3 JOISTS.
5. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.



1 ENLARGED ROOF PLAN
1/8" = 1'-0"

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

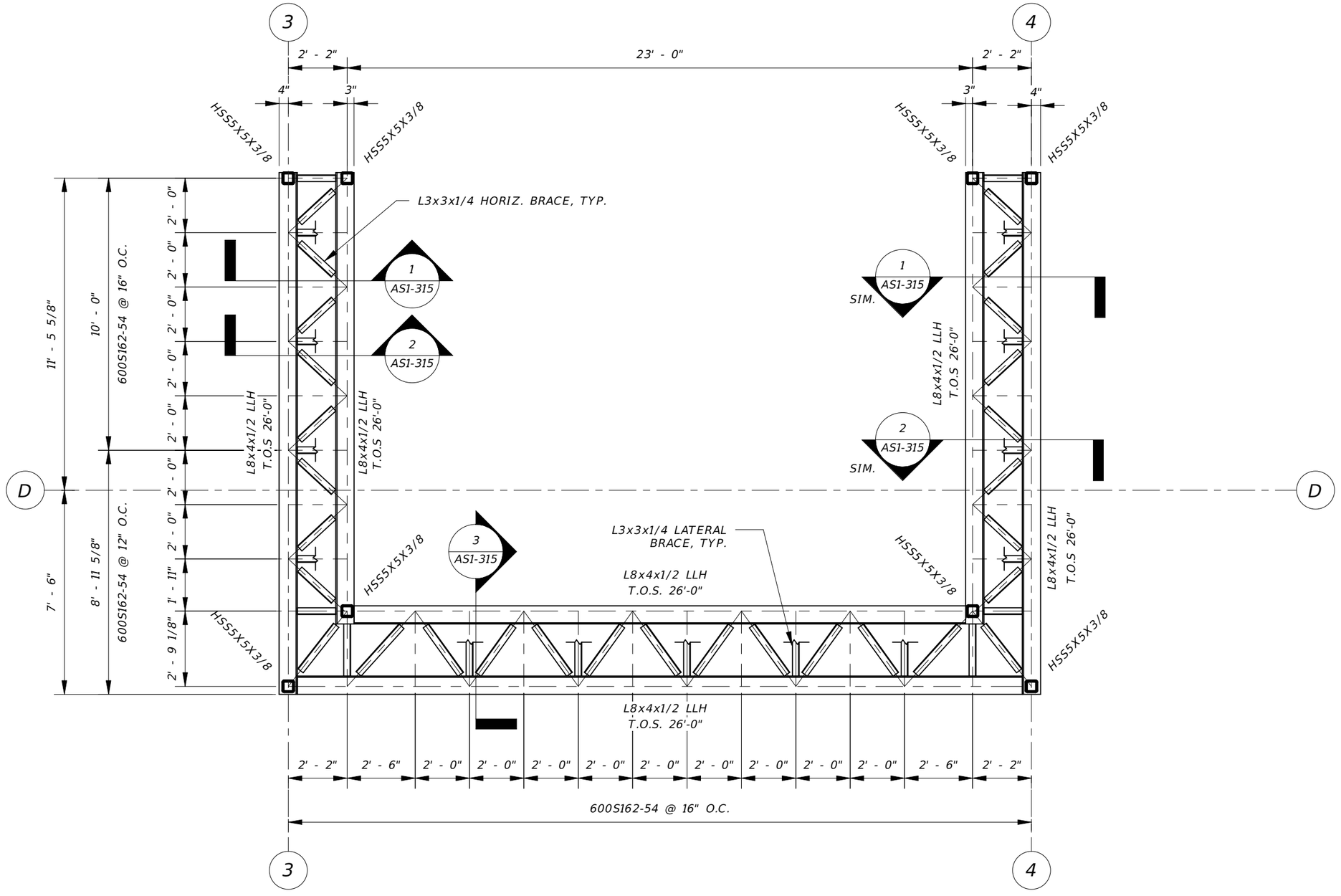
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

ENLARGED ROOF PLAN

SHEET NO.
AS1-114

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1 PARAPET PLAN

1/4" = 1'-0"

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

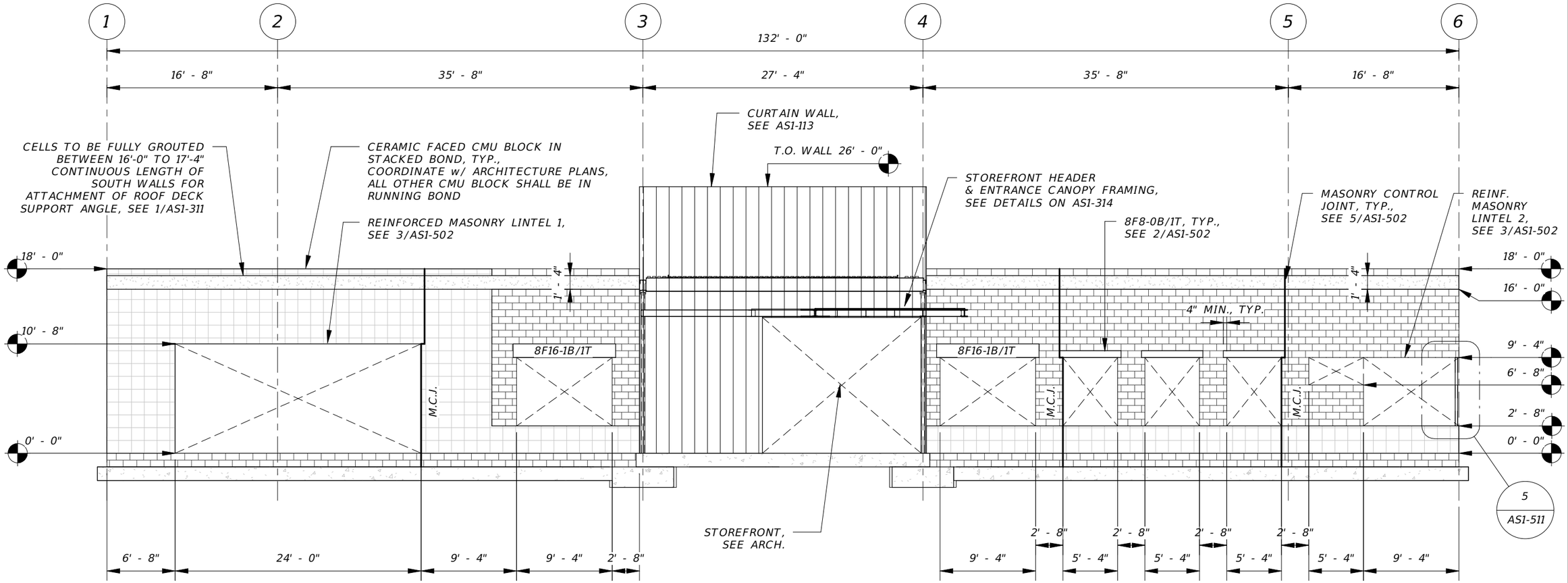
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARAPET PLAN

SHEET NO. AS1-115

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1 SOUTH WALL ELEVATION

1" = 10'-0"

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STATE OF FLORIDA
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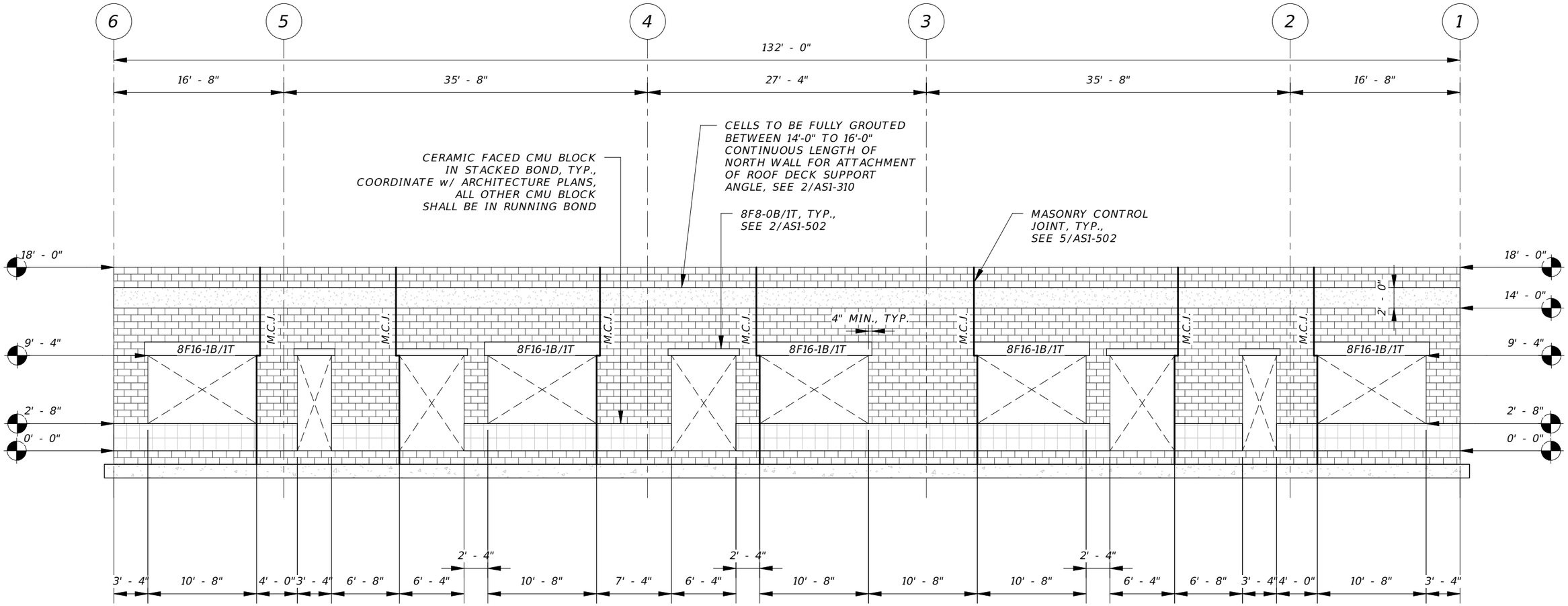
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

WALL ELEVATION

SHEET NO.

AS1-200



1 NORTH WALL ELEVATION

1" = 10'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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LONGWOOD, FLORIDA 32750
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

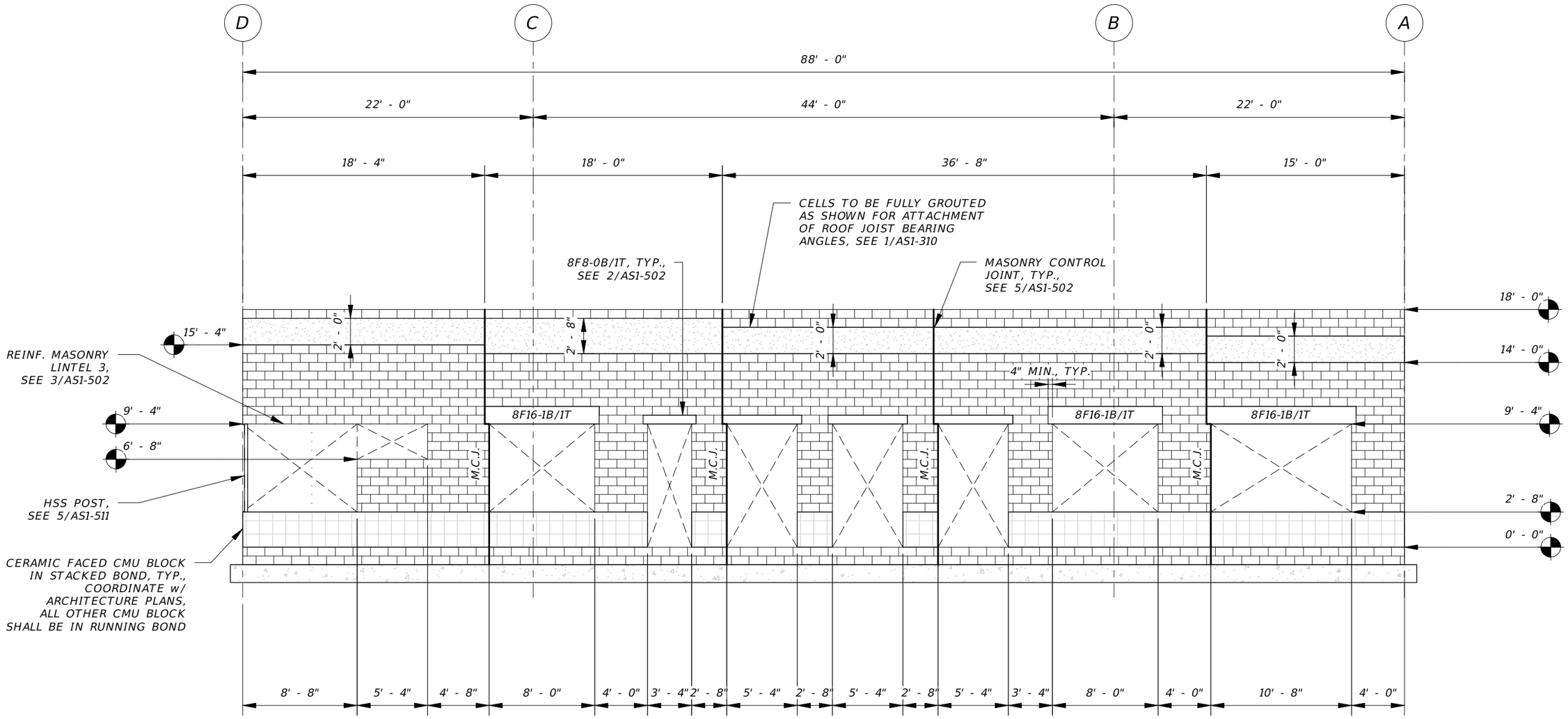
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

WALL ELEVATION

SHEET NO. AS1-201

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1 EAST WALL ELEVATION

1/8" = 1'-0"

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REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

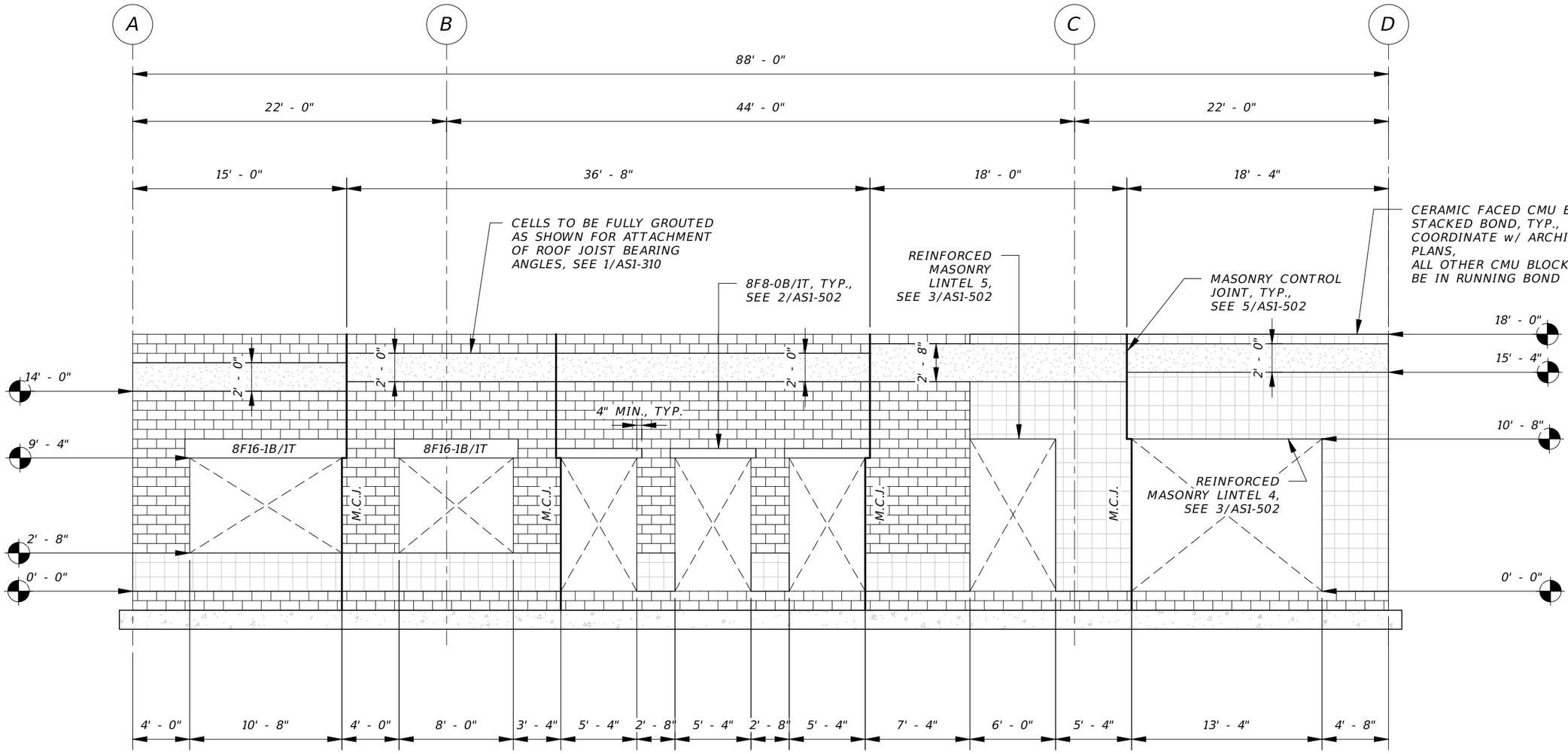
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

WALL ELEVATION

SHEET NO.

AS1-202



1 WEST WALL ELEVATION

1/8" = 1'-0"

REVISIONS			
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LONGWOOD, FLORIDA 32750
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BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

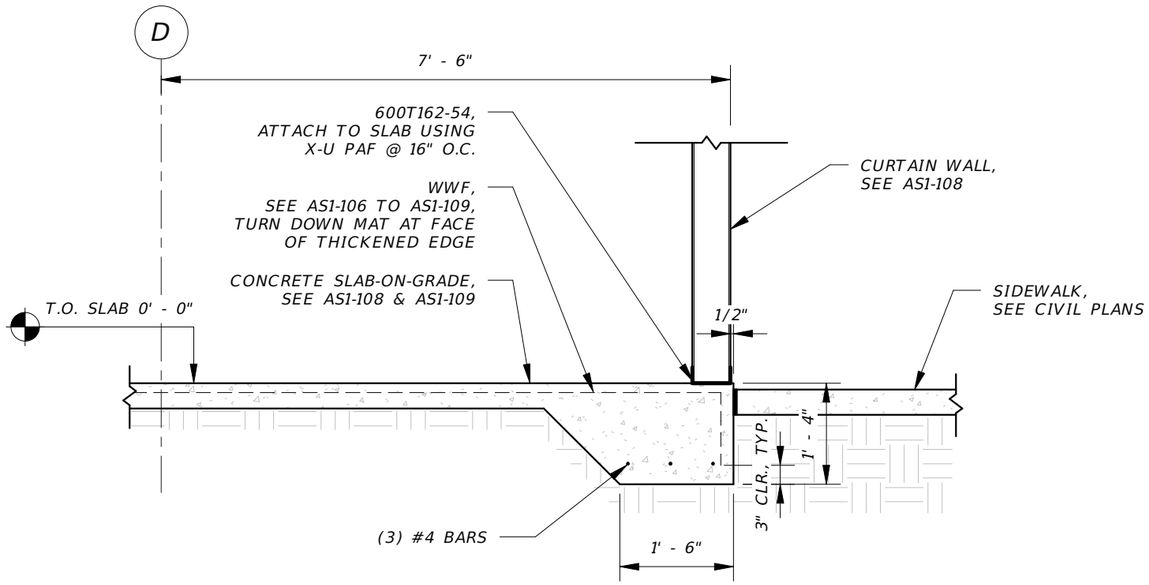
WALL ELEVATION

SHEET NO.

AS1-203

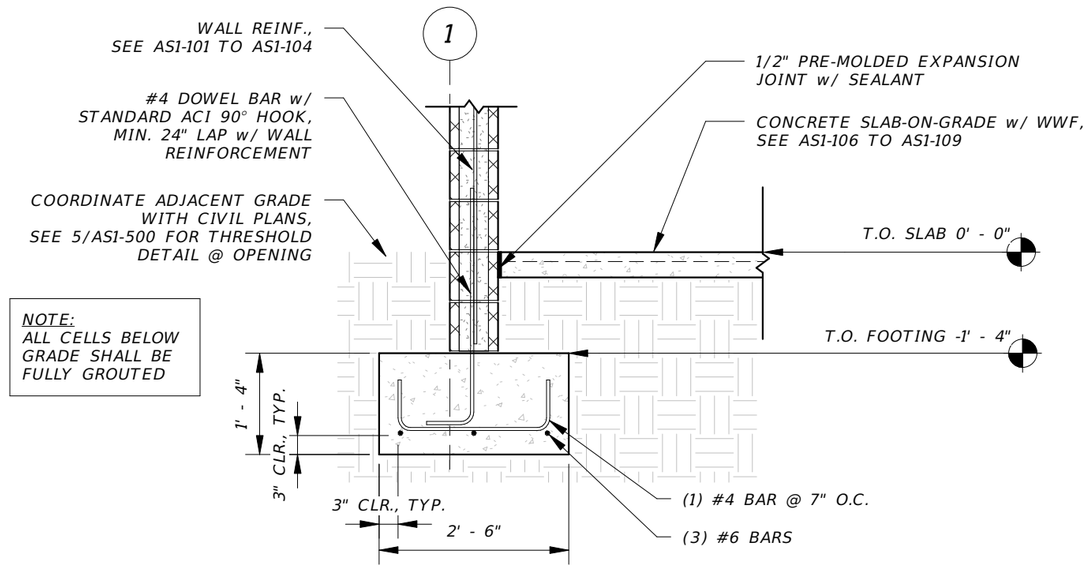
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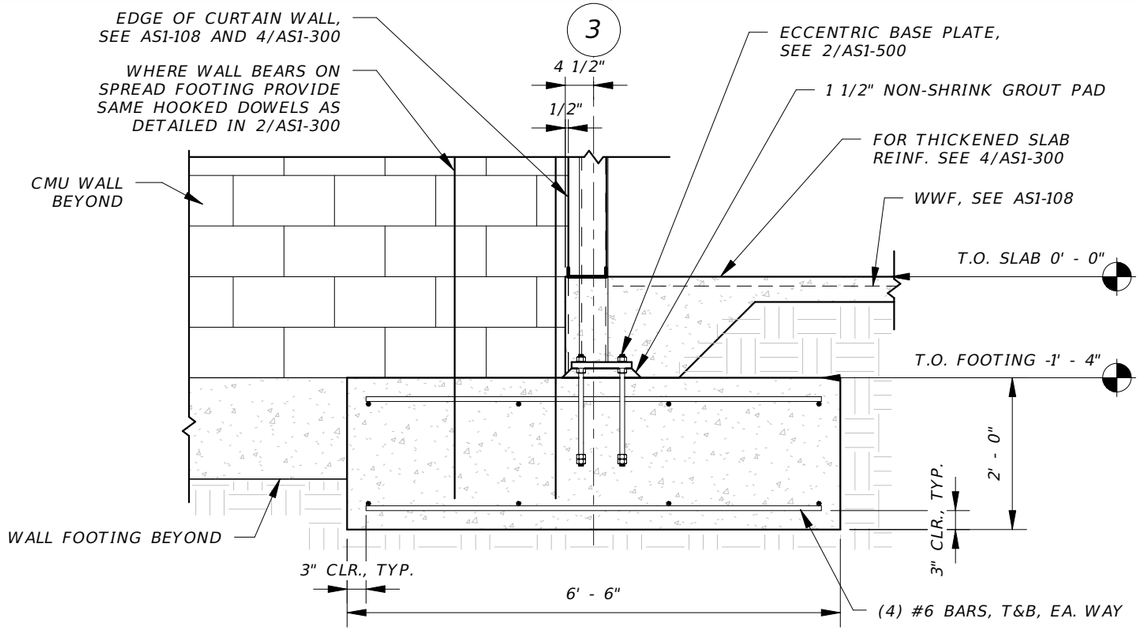
4 SLAB EDGE DETAIL @ CURTAIN WALL

1/2" = 1'-0"



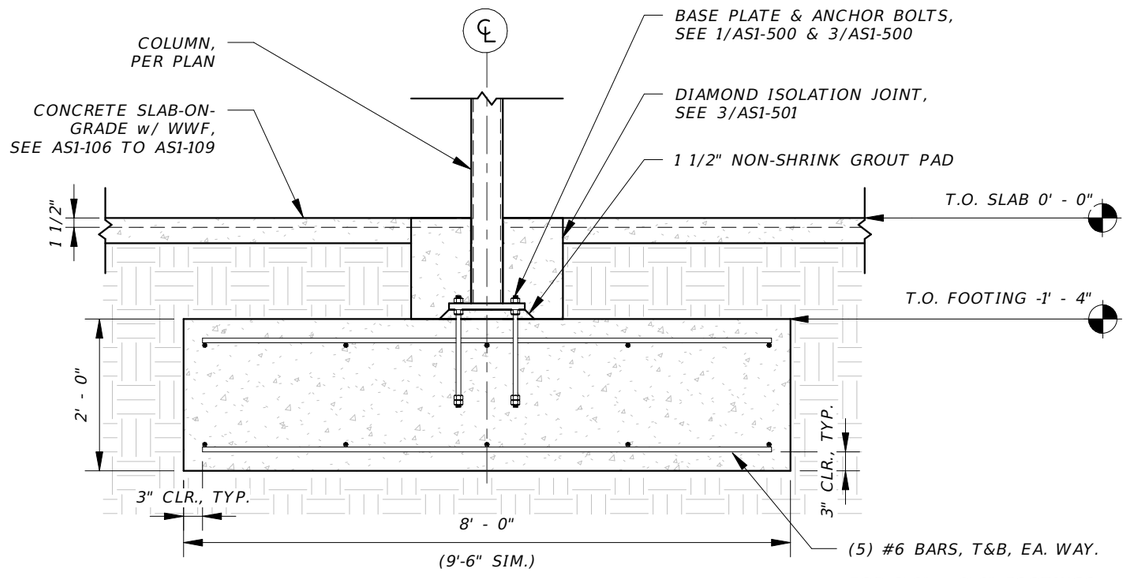
2 TYPICAL WALL FOOTING SECTION

1/2" = 1'-0"



3 COLUMN LINE 3 & 4 FOUNDATION SECTION

1/2" = 1'-0"



1 TYPICAL SPREAD FOOTING SECTION

1/2" = 1'-0"

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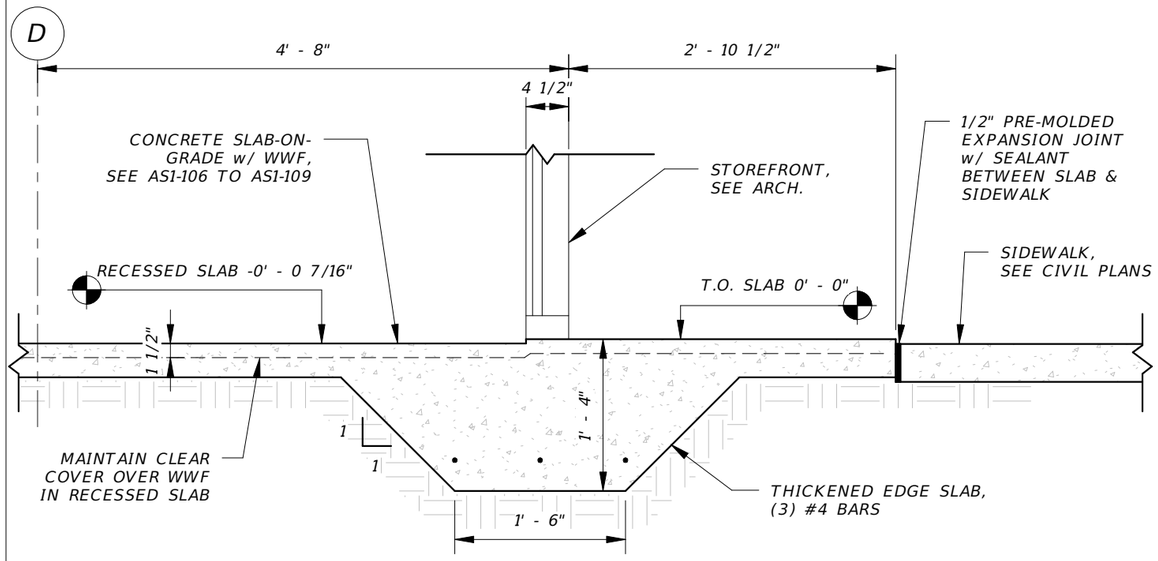
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FOUNDATION SECTIONS

SHEET NO. AS1-300

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1 SLAB EDGE DETAIL @ STOREFRONT

3/4" = 1'-0"

REVISIONS			
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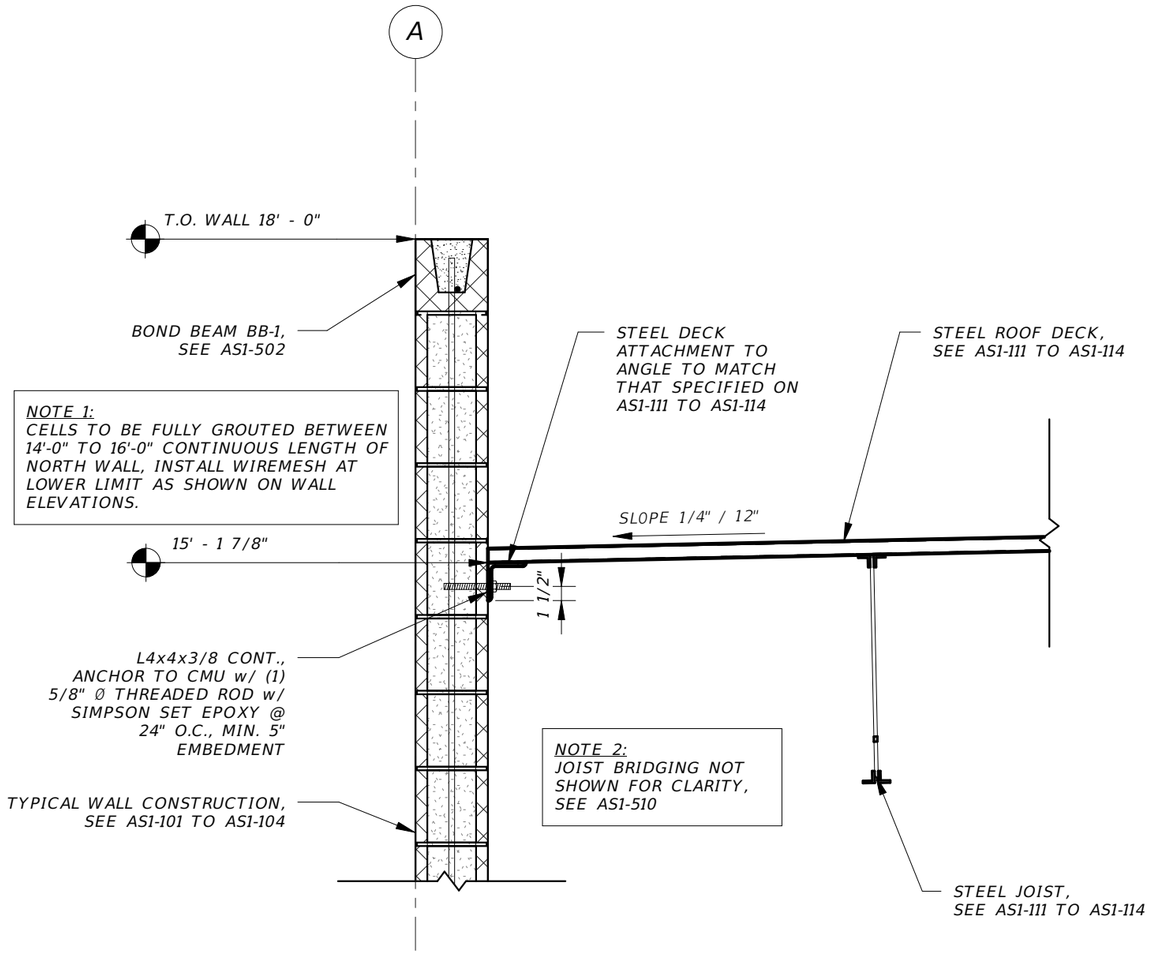
SUNTRAX TEST FACILITY OPERATIONS BUILDING

FOUNDATION SECTIONS

SHEET NO.

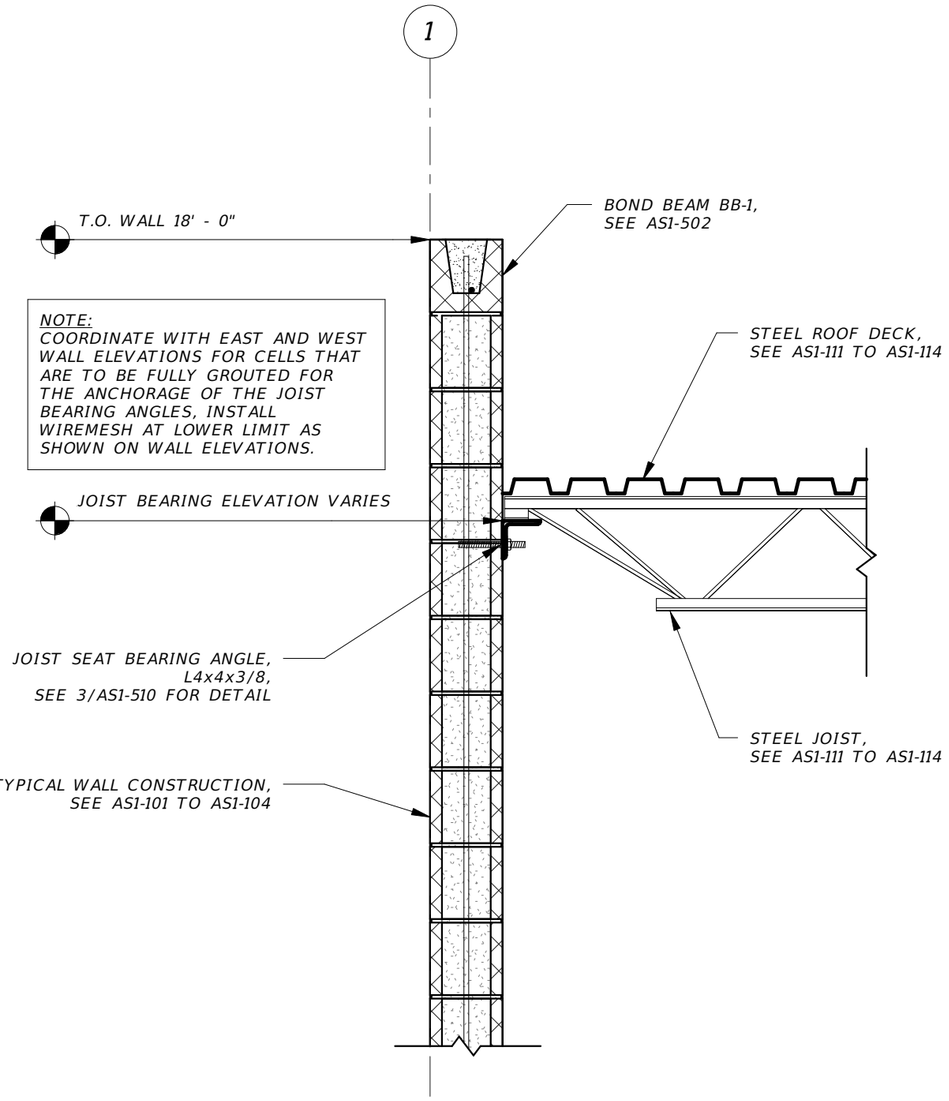
AS1–301

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2 ROOF DECK SUPPORT TO CMU (LOW ELEVATION)

3/4" = 1'-0"



1 TYPICAL ROOF JOIST TO CMU CONNECTION

3/4" = 1'-0"

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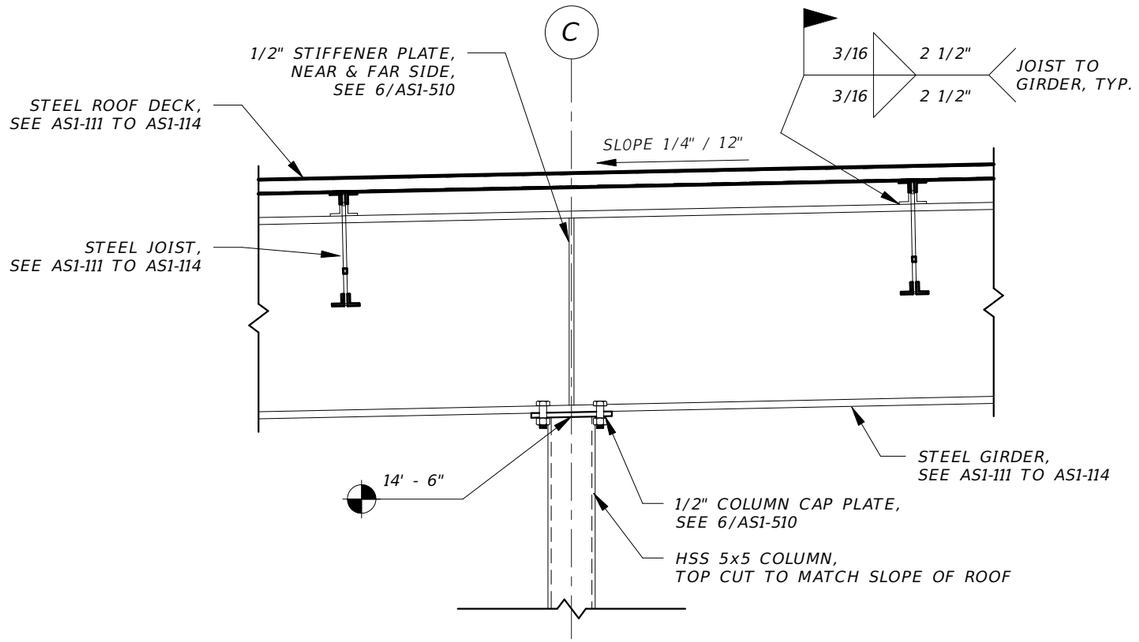
STATE OF FLORIDA
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

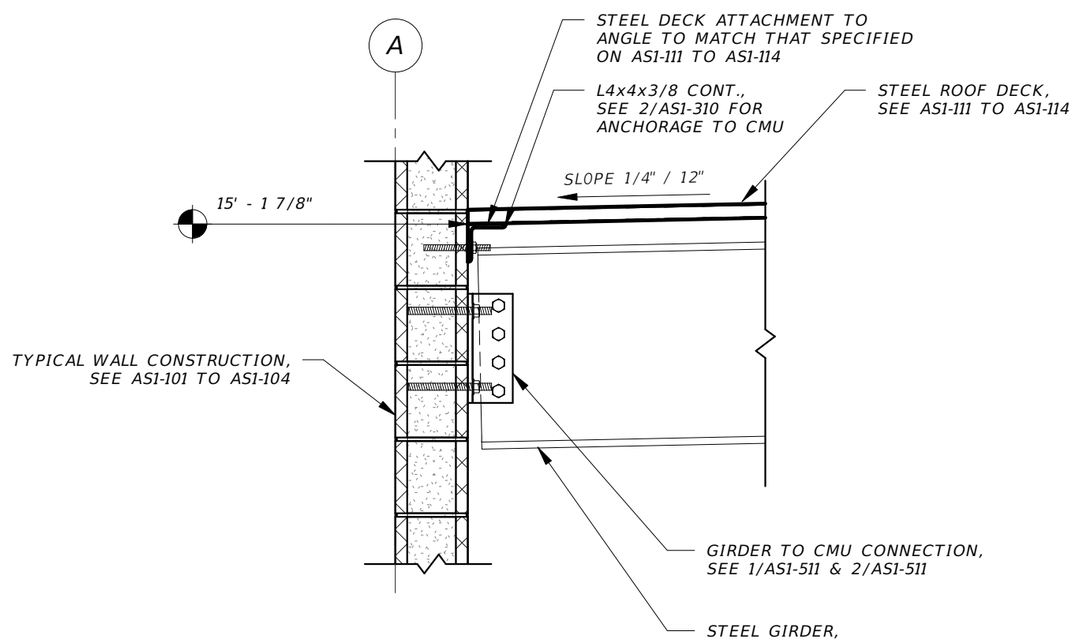
ROOF FRAMING SECTIONS

SHEET NO. AS1-310



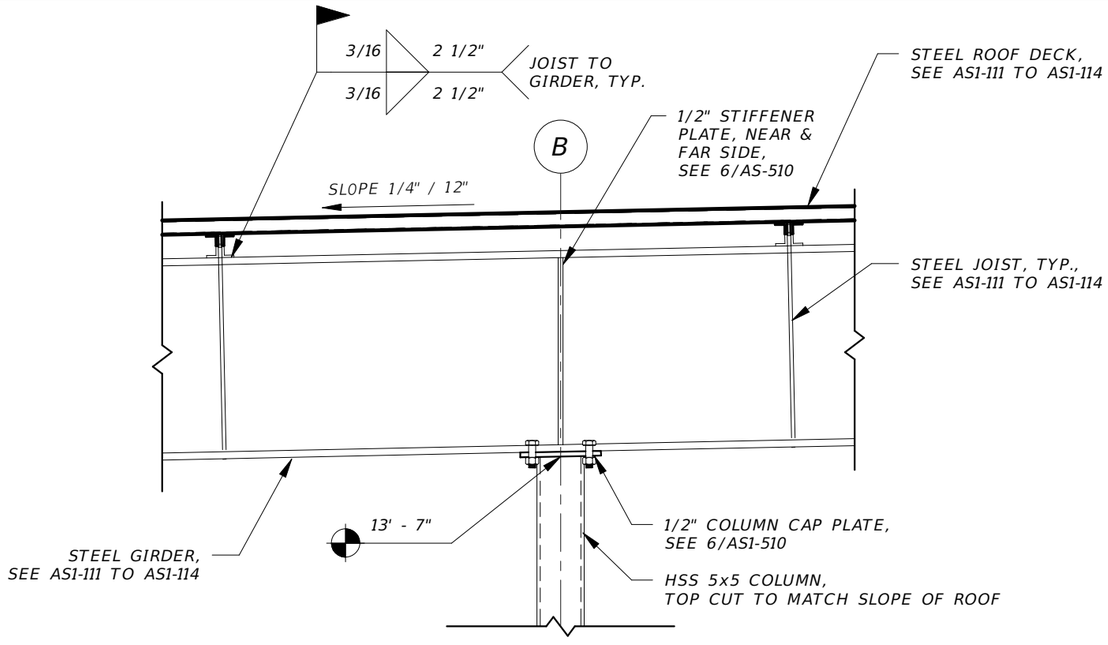
4 GIRDER TO COLUMN CONNECTION @ C-2 & C-5

3/4" = 1'-0"



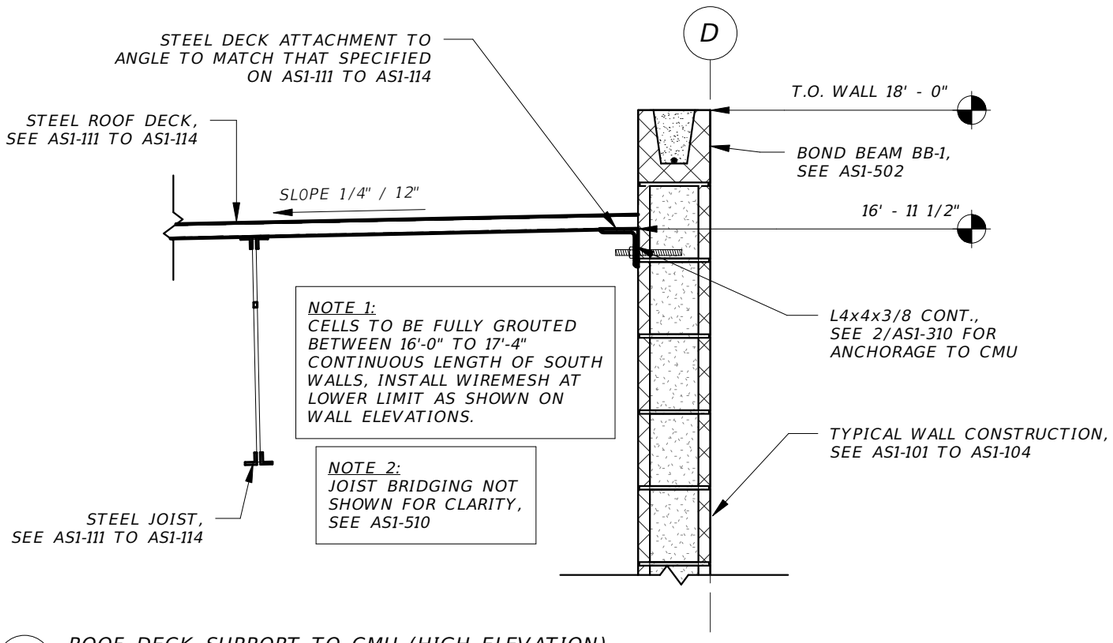
2 GIRDER TO CMU CONNECTION (LOW ELEVATION)

3/4" = 1'-0"



3 GIRDER TO COLUMN CONNECTION @ B-2, B-3, B-4, & B-5

3/4" = 1'-0"



1 ROOF DECK SUPPORT TO CMU (HIGH ELEVATION)

3/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

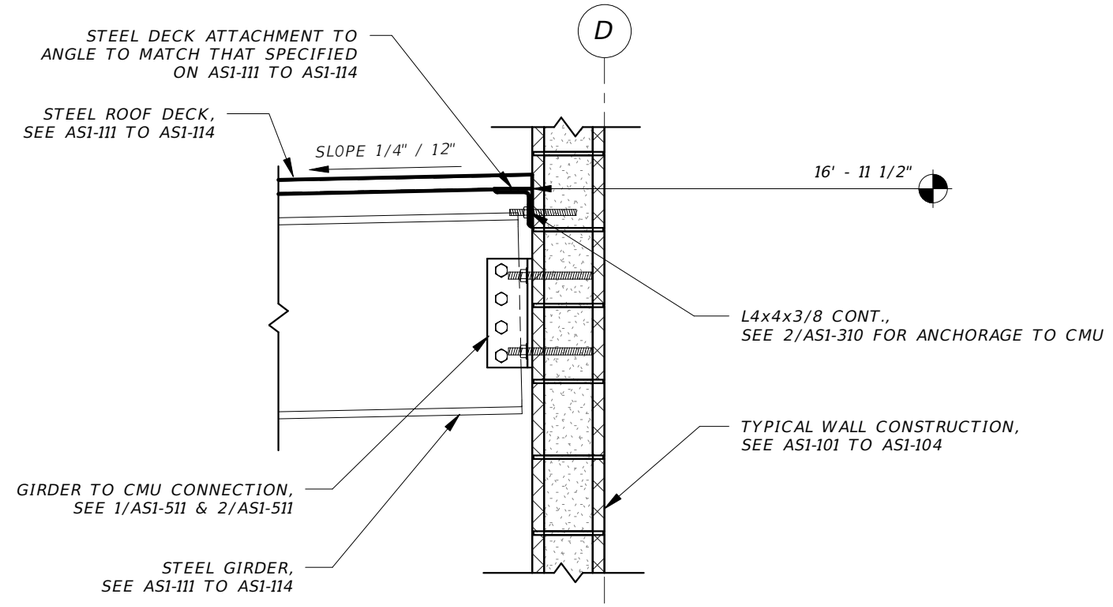
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ROOF FRAMING SECTIONS

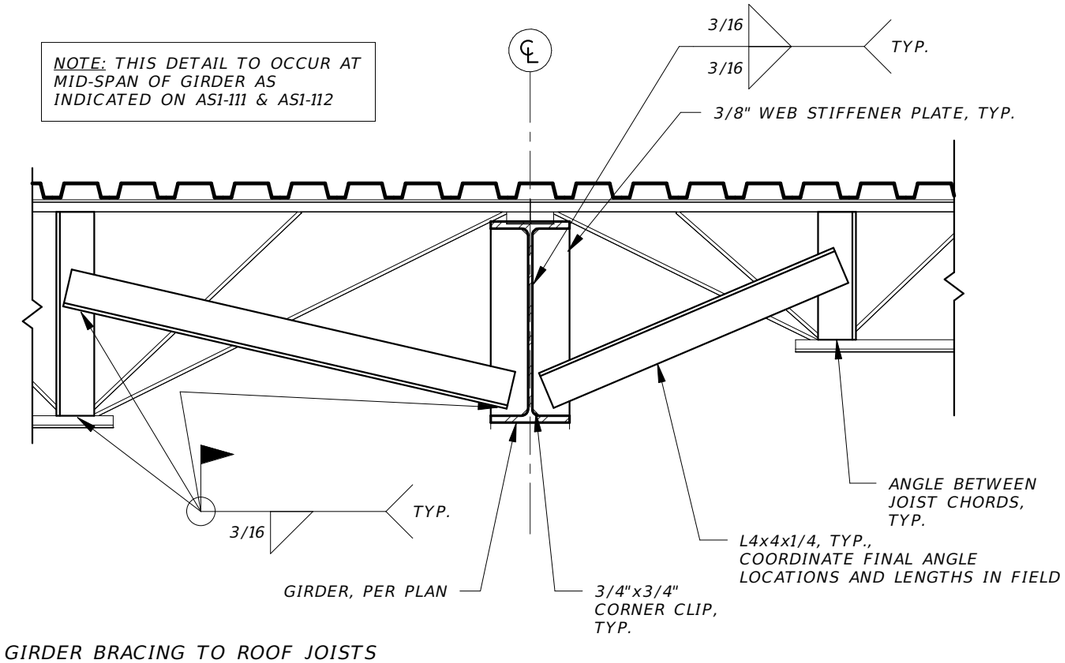
SHEET NO. AS1-311

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



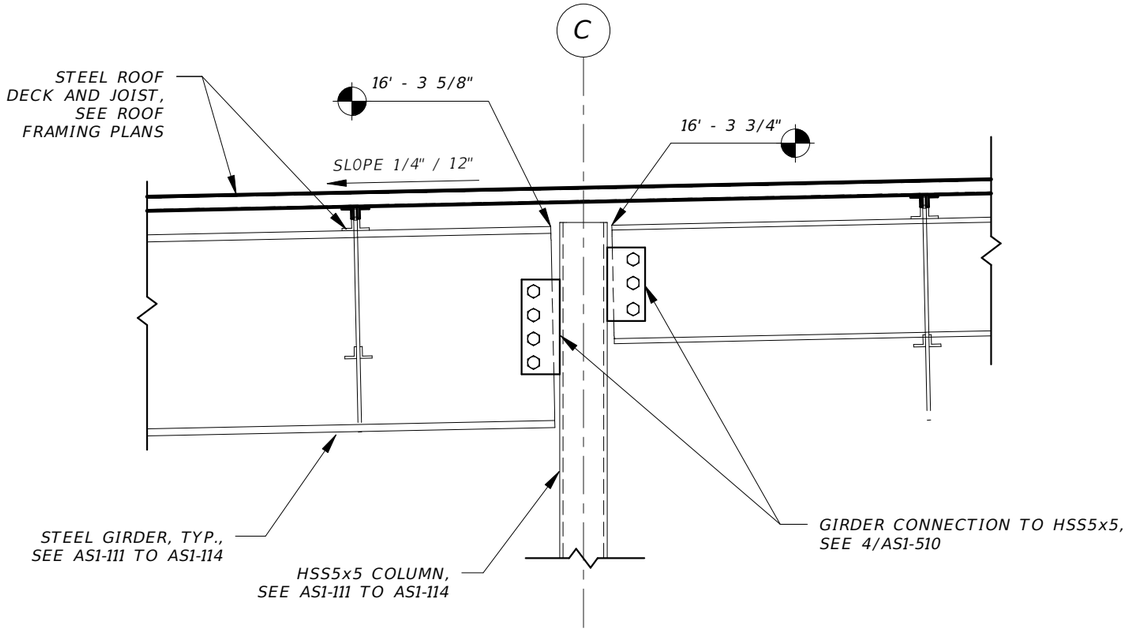
2 GIRDER TO CMU CONNECTION (HIGH ELEVATION)

3/4" = 1'-0"



3 GIRDER BRACING TO ROOF JOISTS

3/4" = 1'-0"



1 GIRDER TO COLUMN @ C-3 & C-4

3/4" = 1'-0"

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

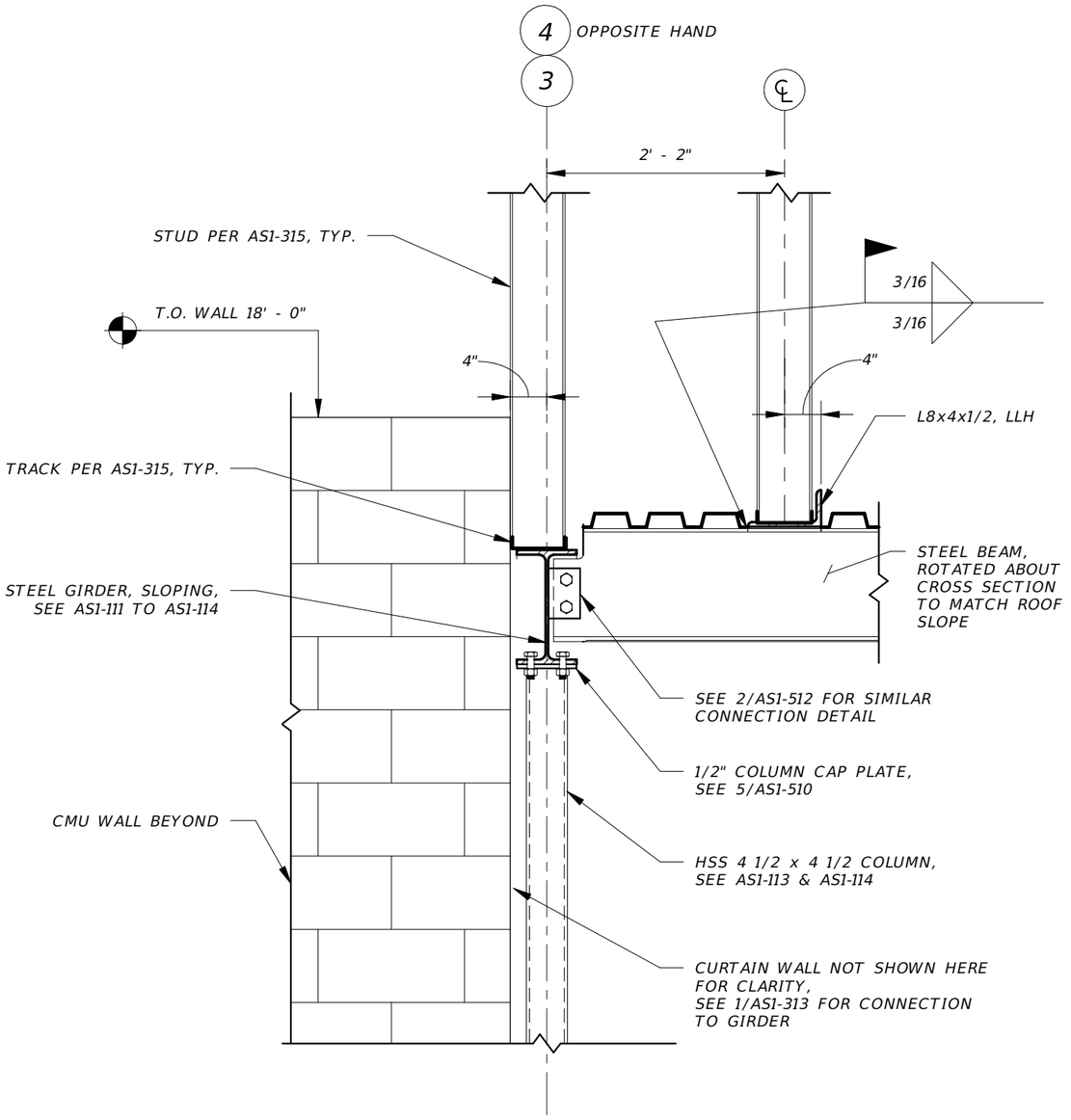
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ROOF FRAMING SECTIONS

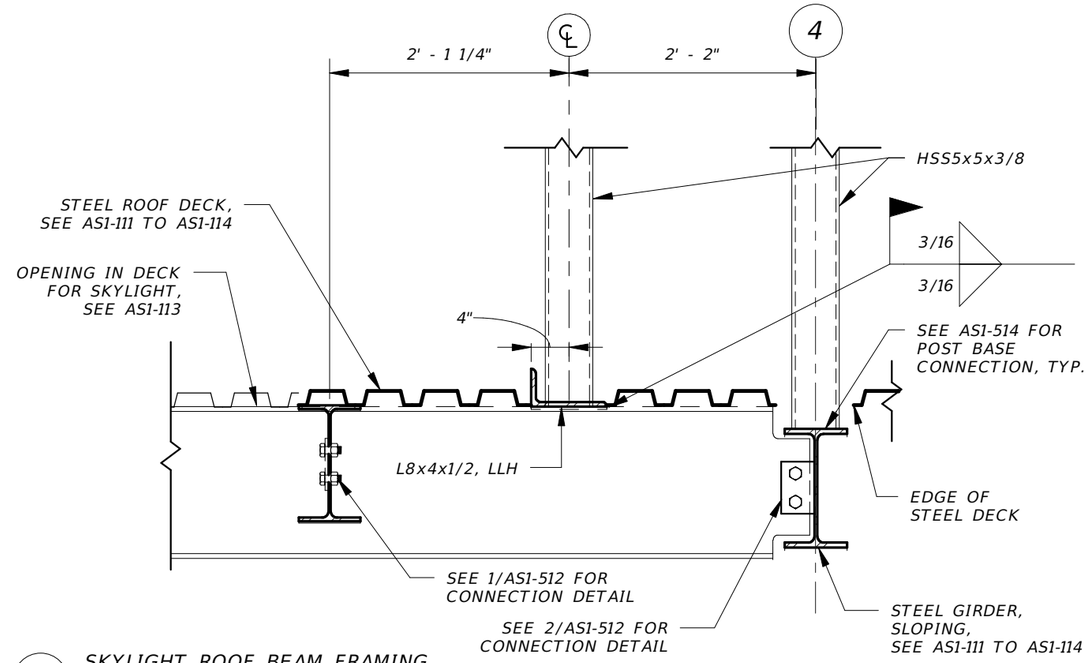
SHEET NO. AS1-312

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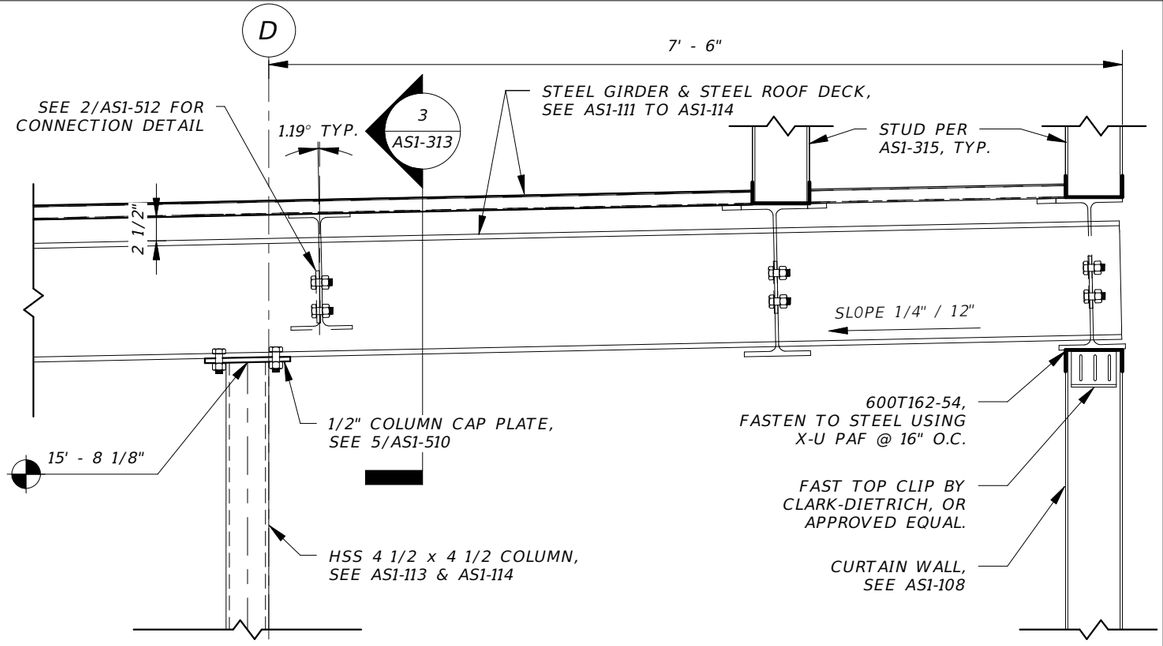
3 SKYLIGHT ROOF BEAM FRAMING

3/4" = 1'-0"



2 SKYLIGHT ROOF BEAM FRAMING

3/4" = 1'-0"



1 FRAMING @ SKYLIGHT, CURTAIN WALL ATTACHMENT

3/4" = 1'-0"

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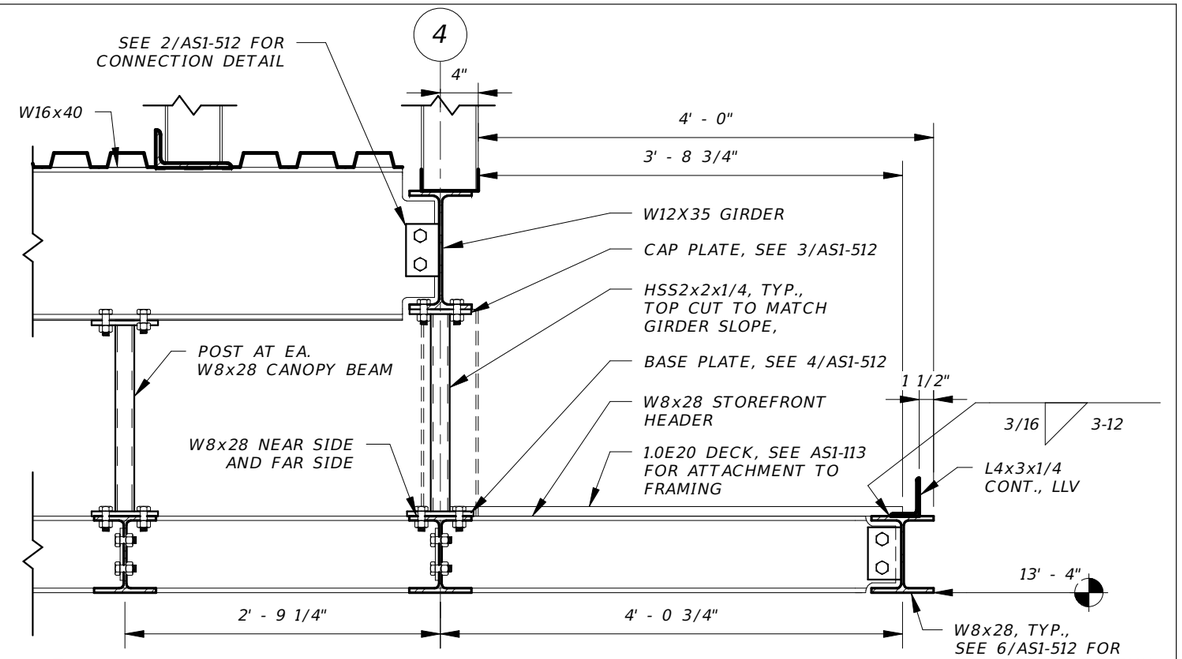
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

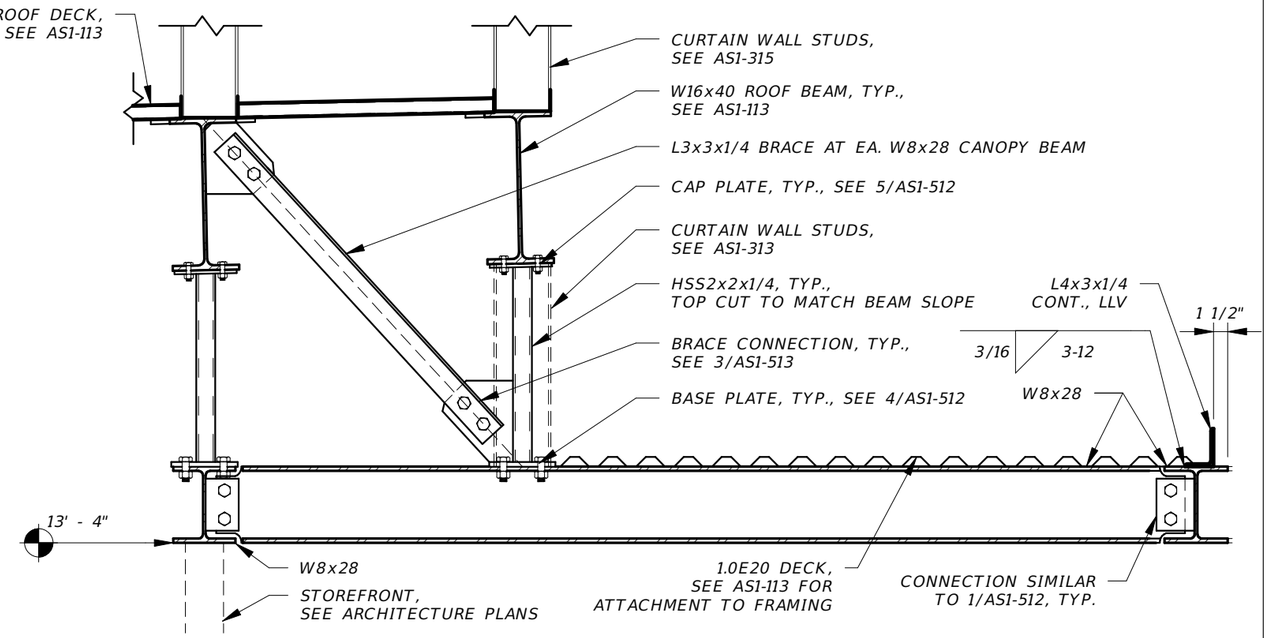
ROOF FRAMING SECTIONS

SHEET NO. AS1–313



2 STOREFRONT HEADER CONNECTION & ENTRANCE CANOPY FRAMING

3/4" = 1'-0"



1 ENTRANCE CANOPY FRAMING & STOREFRONT HEADER SECTION

3/4" = 1'-0"

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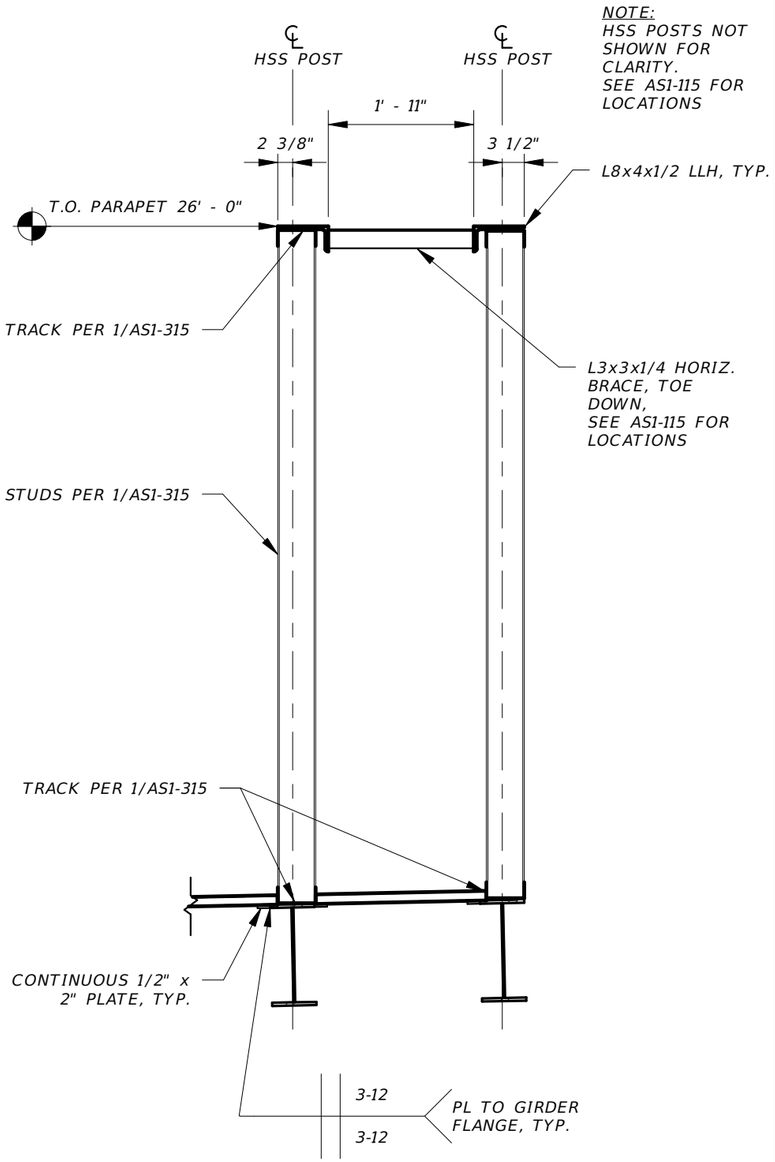
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

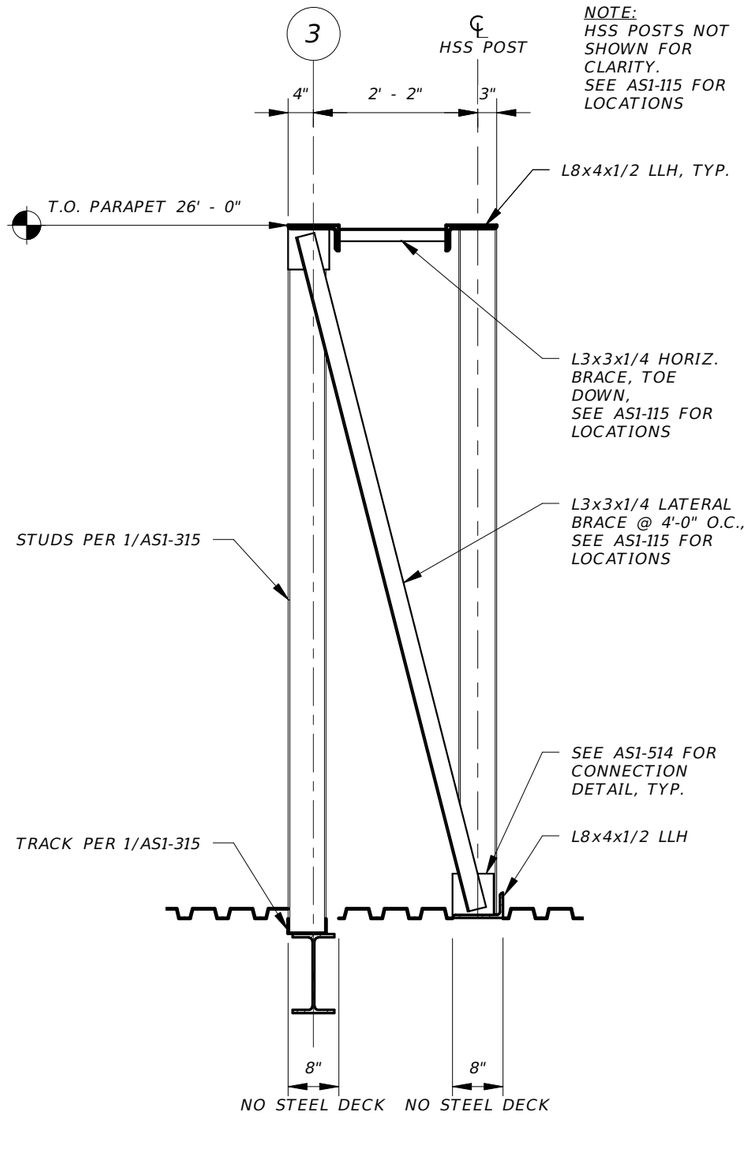
ENTRANCE CANOPY SECTIONS

SHEET NO. AS1-314



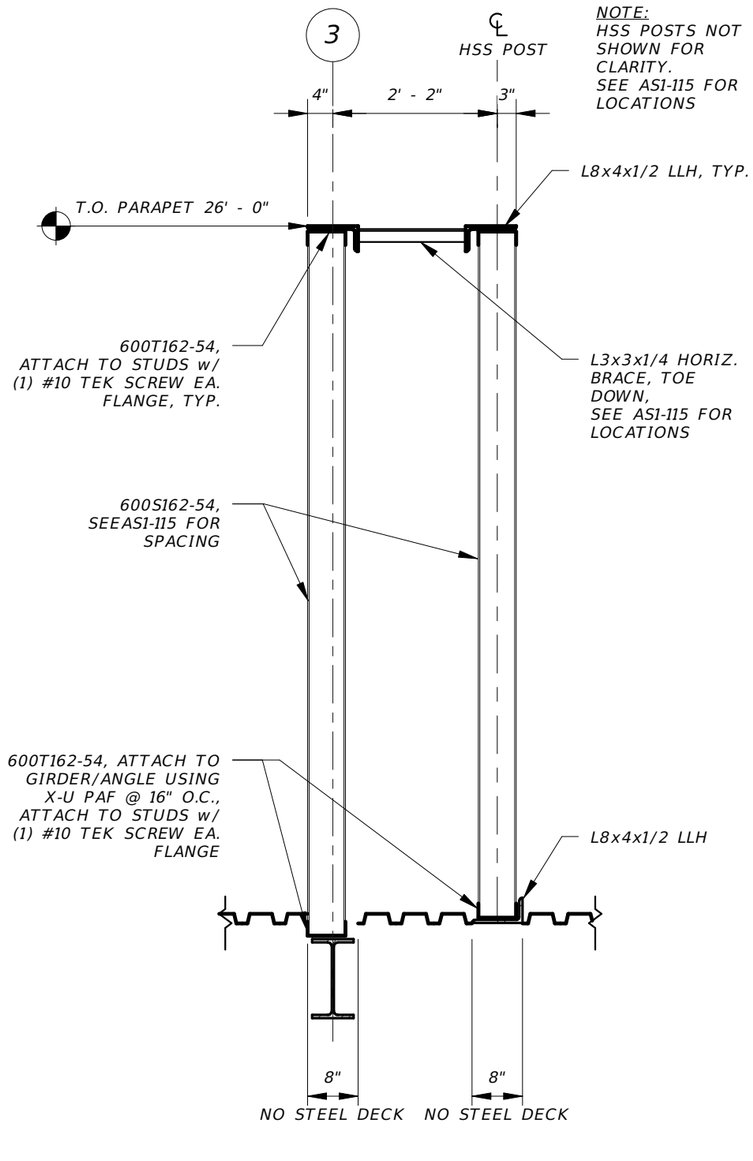
NOTE:
HSS POSTS NOT SHOWN FOR CLARITY.
SEE AS1-115 FOR LOCATIONS

3 PARAPET SECTION
1/2" = 1'-0"



NOTE:
HSS POSTS NOT SHOWN FOR CLARITY.
SEE AS1-115 FOR LOCATIONS

2 PARAPET SECTION @ BRACE
1/2" = 1'-0"



NOTE:
HSS POSTS NOT SHOWN FOR CLARITY.
SEE AS1-115 FOR LOCATIONS

1 PARAPET SECTION
1/2" = 1'-0"

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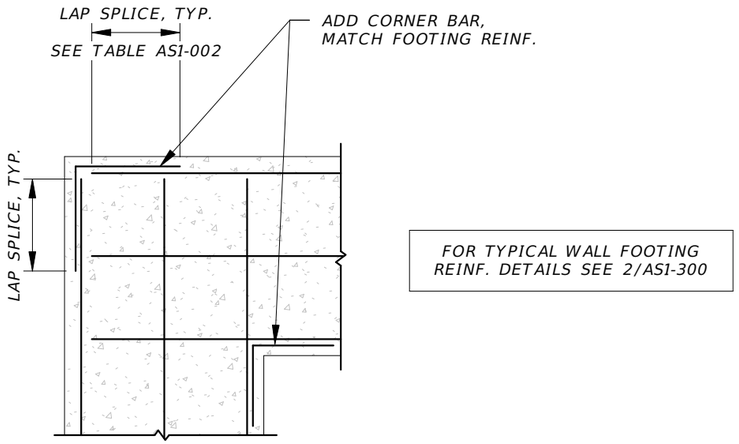
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARAPET FRAMING SECTIONS

SHEET NO.
AS1-315

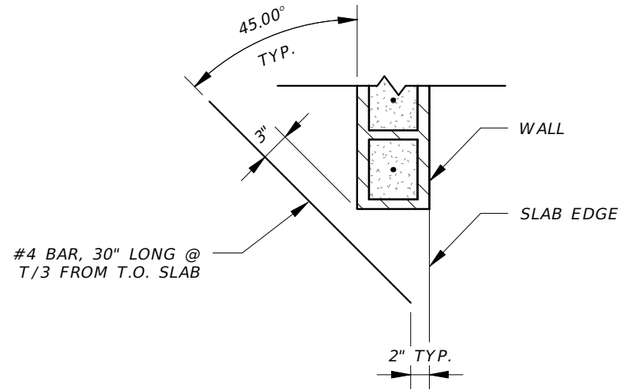


FOR TYPICAL WALL FOOTING REINF. DETAILS SEE 2/AS1-300

CORNER

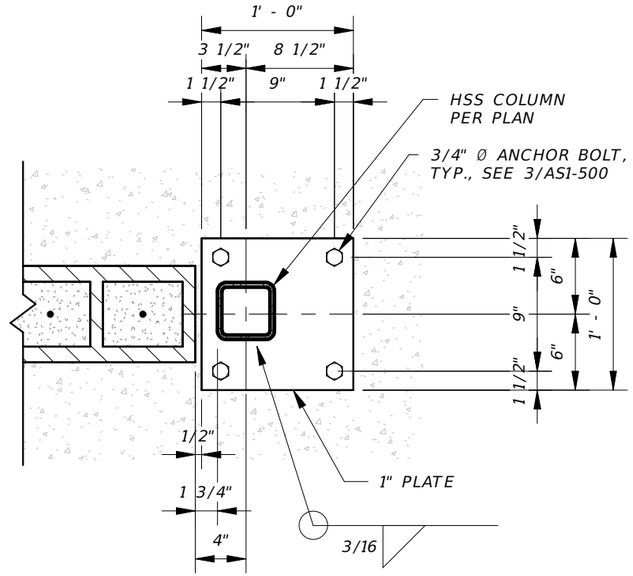
6 TYP. WALL FOOTING REINFORCEMENT DETAILS

3/8" = 1'-0"



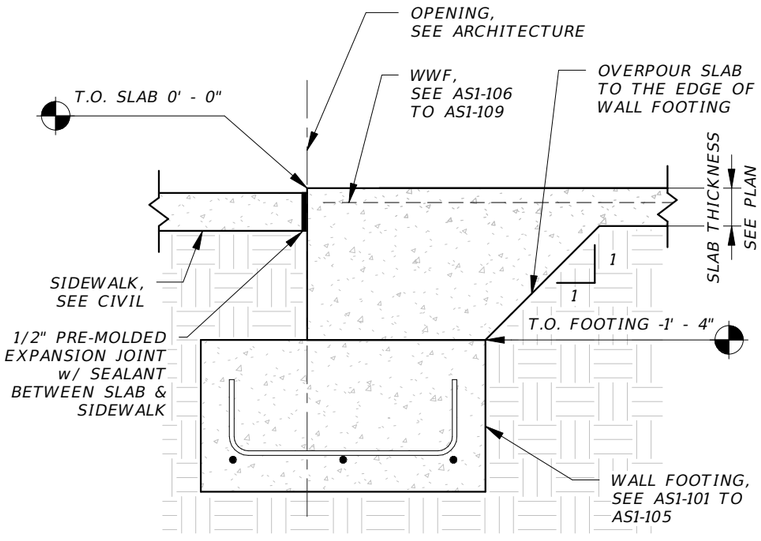
4 TYP. RE-ENTRANT DETAIL

3/4" = 1'-0"



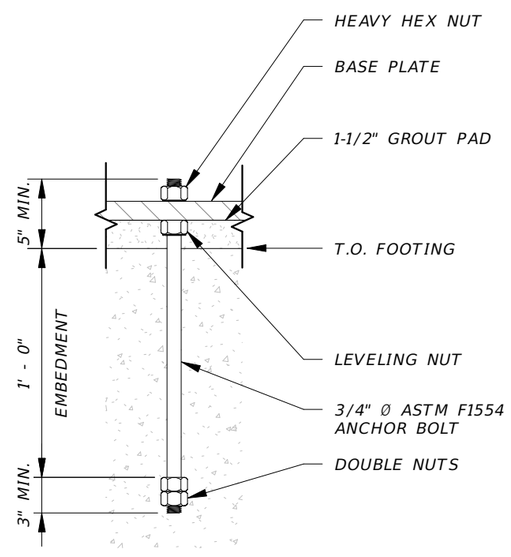
2 ECCENTRIC BASE PLATE

1" = 1'-0"



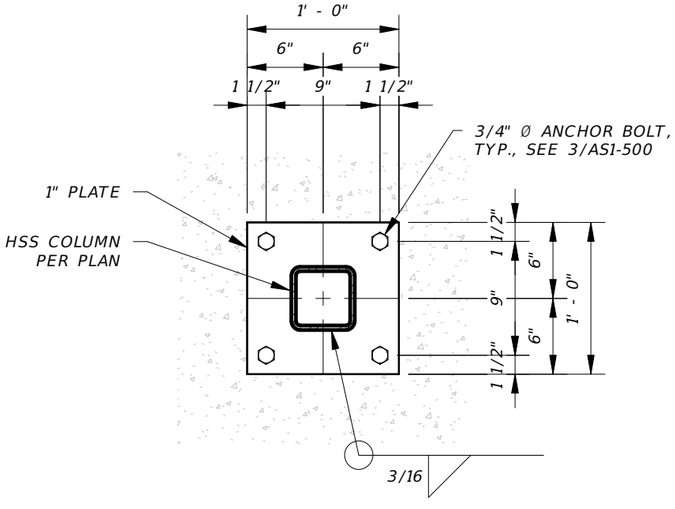
5 THRESHOLD DETAIL

3/4" = 1'-0"



3 TYPICAL ANCHOR BOLT

1 1/2" = 1'-0"



1 TYPICAL BASE PLATE

1" = 1'-0"

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

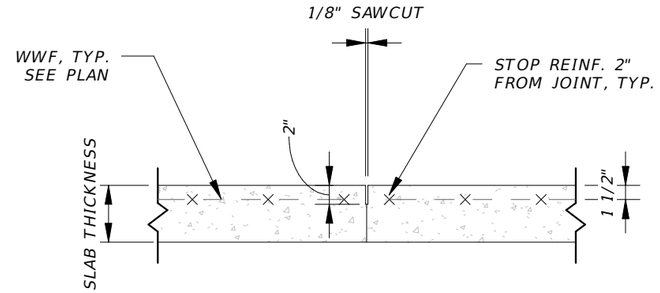
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FOUNDATION & SLAB DETAILS

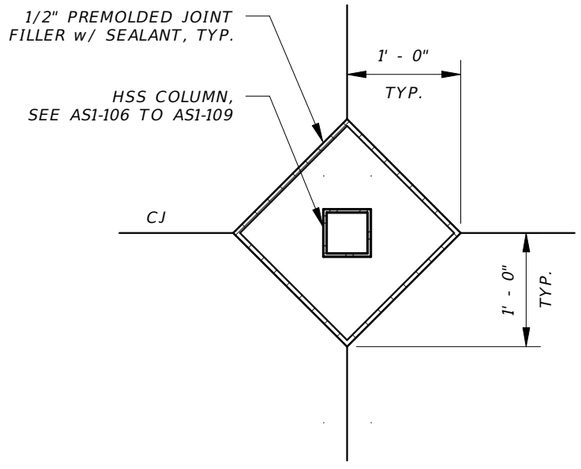
SHEET NO. AS1-500

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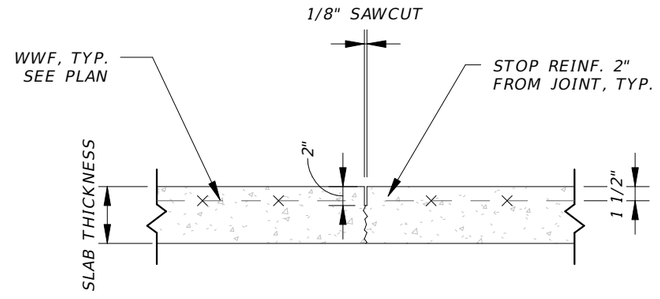


NOTE:
1. ALL CONCRETE SLAB WORK IN ACCORDANCE WITH ACI 302.1R-04 AND 360R-10.
2. CONTRACTION JOINT WITH SHEAR TRANSFER MAY BE SUBSTITUTED.
3. JOINT TO BE SAWCUT AFTER CONCRETE HAS SET BUT PRIOR TO HARDENING.
4. SAWCUTS FILLED WITH "SEMI-RIGID" FILLERS PER ACI 302.1R-04.

2 CONSTRUCTION JOINT
3/4" = 1'-0"



3 DIAMOND ISOLATION JOINT
3/4" = 1'-0"



NOTE:
1. ALL CONCRETE SLAB WORK IN ACCORDANCE WITH ACI 302.1R-04 AND 360R-10.
2. CONSTRUCTION JOINT WITH SHEAR TRANSFER MAY BE SUBSTITUTED.
3. JOINT TO USE EARLY-ENTRY SAW CUTTING EQUIPMENT.
4. SAWCUTS FILLED WITH "SEMI-RIGID" FILLERS PER ACI 302.1R-04.

1 CONTRACTION JOINT
3/4" = 1'-0"

REVISIONS			
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STATE OF FLORIDA
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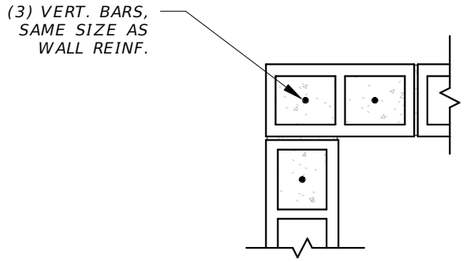
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FOUNDATION & SLAB DETAILS

SHEET NO. AS1-501

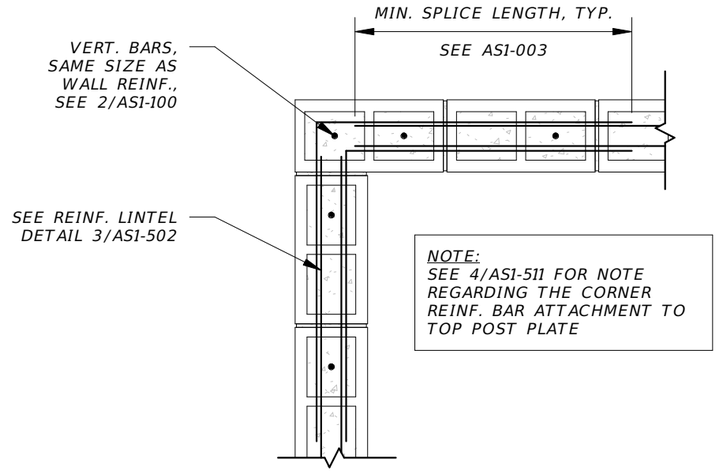
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CORNER DETAIL (TYP.)

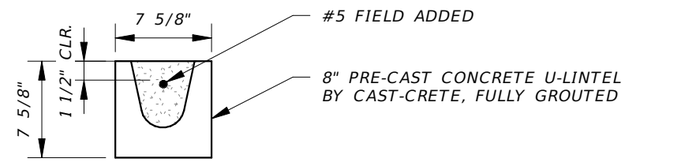
6 CMU TYPICAL WALL CONDITIONS

3/4" = 1'-0"

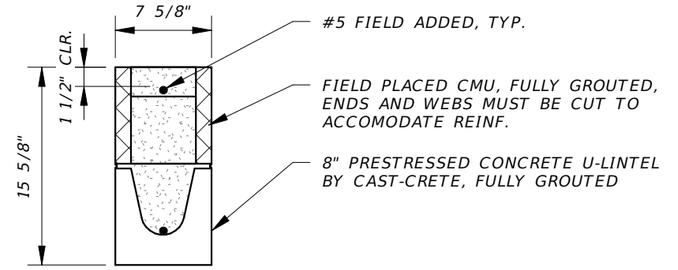


4 LINTEL CORNER REINF. DETAIL

3/4" = 1'-0"



8F8-0B/1T

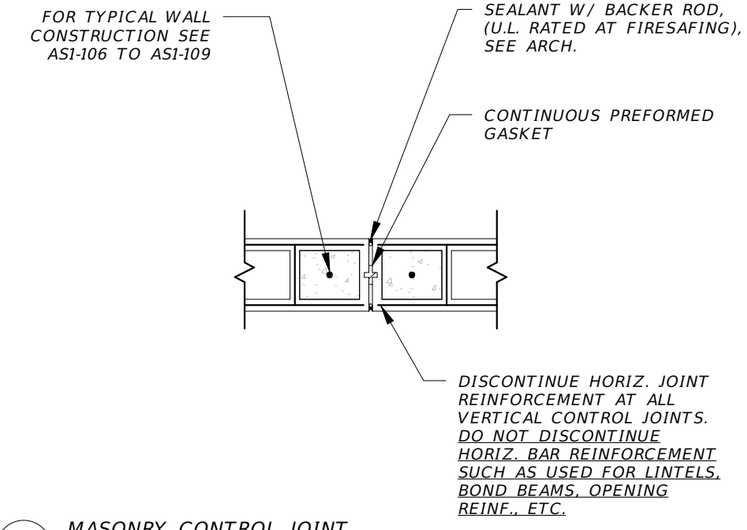


8F16-1B/1T

NOTES
1. INSTALL PRECAST LINTEL IN ACCORDANCE WITH LINTEL MANUFACTURER RECOMMENDATIONS.
2. PROVIDE 4" MIN. BEARING AT EACH END OF OPENING.
3. FILL LINTEL WITH MIN. 3,000 PSI GROUT

2 PRECAST LINTEL DETAILS

1" = 1'-0"



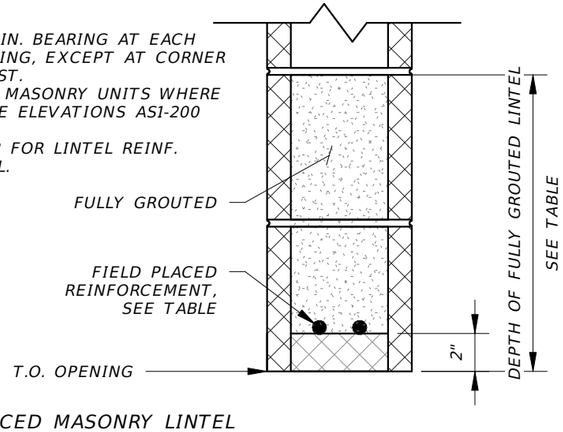
5 MASONRY CONTROL JOINT

3/4" = 1'-0"

REINFORCED MASONRY LINTELS TABLE

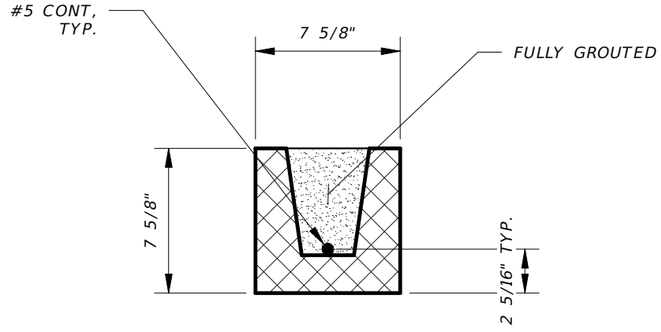
LINTEL NO.	SPAN	DEPTH	REINFORCEMENT
1	24'-0"	32"	(2) #7
2	14'-8"	24"	(2) #5
3	14'-0"	24"	(2) #5
4	13'-4"	24"	(2) #5
5	6'-0"	16"	(1) #5

NOTE
1. PROVIDE 4" MIN. BEARING AT EACH END OF OPENING, EXCEPT AT CORNER WITH HSS POST.
2. USE CERAMIC MASONRY UNITS WHERE REQUIRED. SEE ELEVATIONS AS1-200 TO AS1-203.
3. SEE 3/AS1-502 FOR LINTEL REINF. SPLICE DETAIL.



3 REINFORCED MASONRY LINTEL

1 1/2" = 1'-0"



1 BOND BEAM BB-1 DETAIL

1 1/2" = 1'-0"

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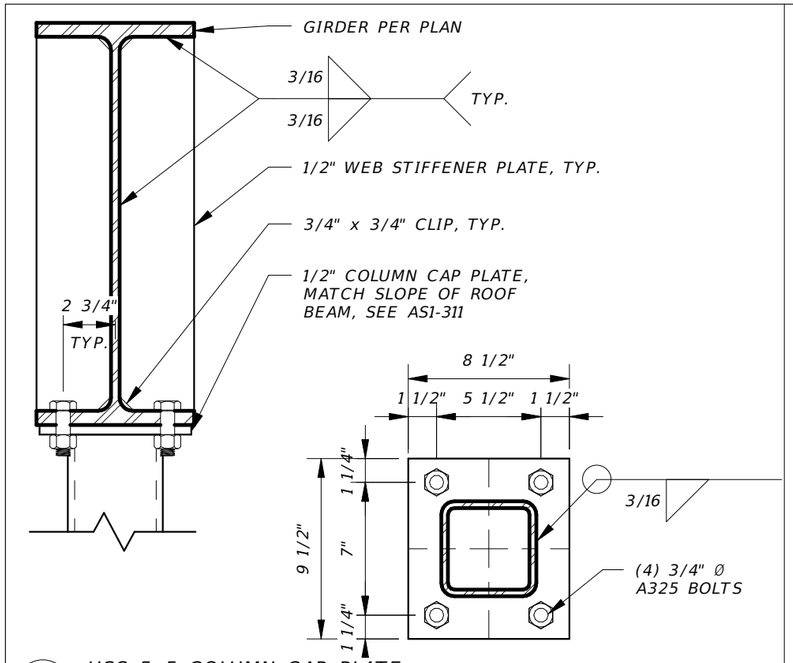
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

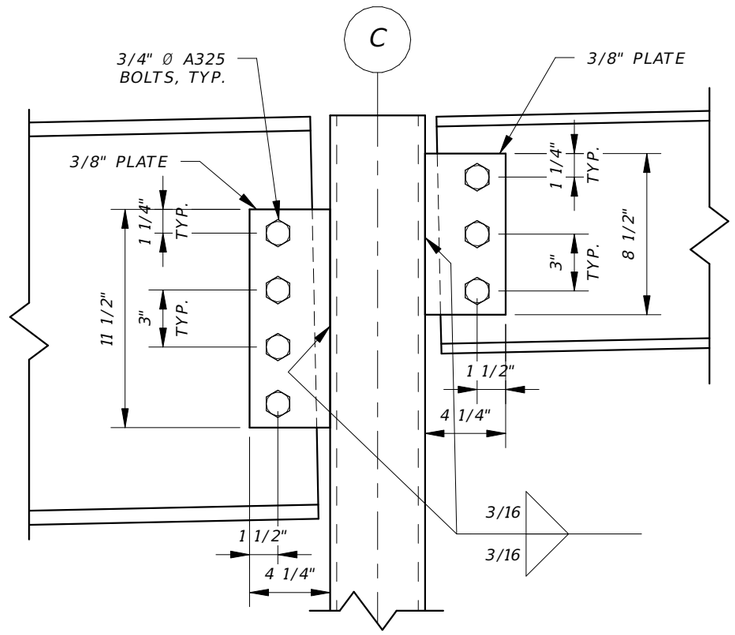
MASONRY DETAILS

SHEET NO. AS1-502



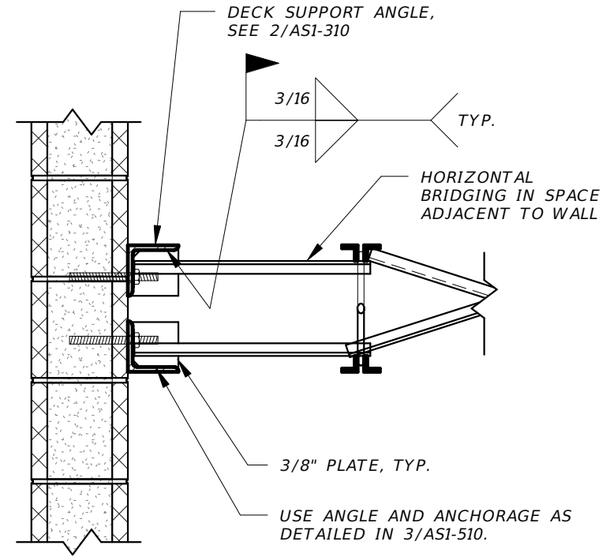
6 HSS 5x5 COLUMN CAP PLATE

1 1/2" = 1'-0"



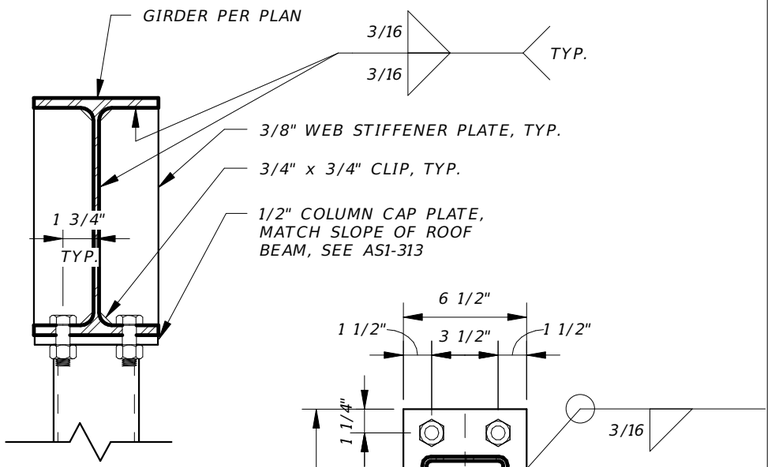
4 GIRDER CONNECTION TO HSS

1 1/2" = 1'-0"



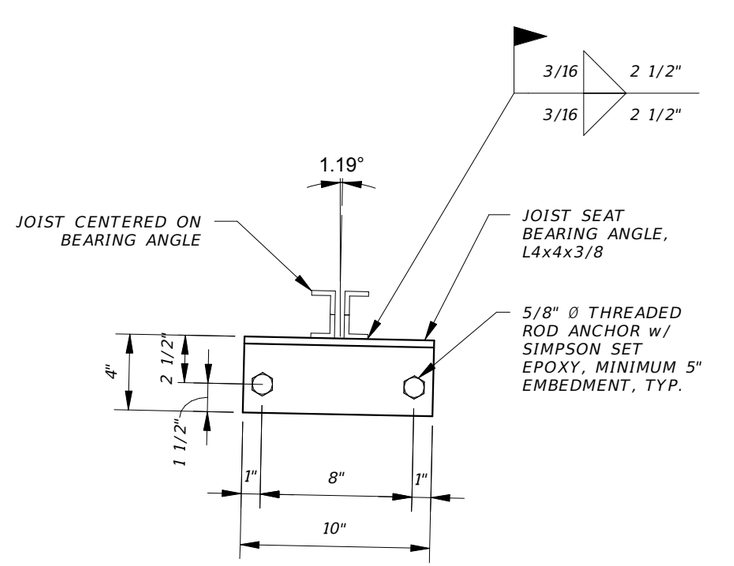
2 BRIDGING TO WALL CONNECTION

1" = 1'-0"



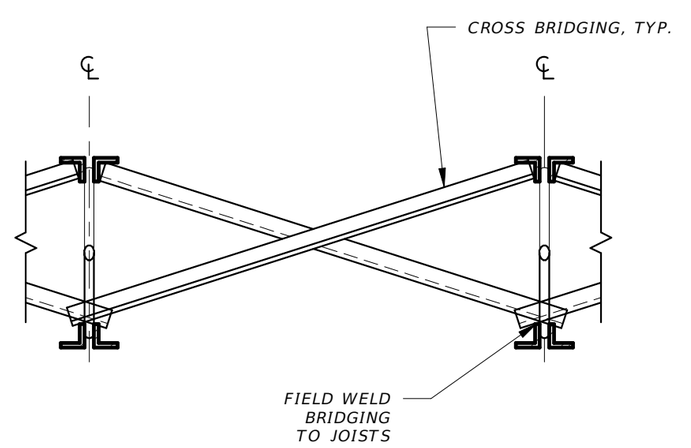
5 HSS 4 1/2 x 4 1/2 COLUMN CAP PLATE

1 1/2" = 1'-0"



3 ROOF JOIST SEAT DETAIL

1 1/2" = 1'-0"



NOTE:
BRIDGING STANDARD WITH THE MANUFACTURER AND COMPLYING WITH THE APPLICABLE STEEL JOIST INSTITUTE SPECIFICATION OF LATEST ADOPTION SHALL BE USED FOR BRIDGING ALL JOISTS FURNISHED BY THE MANUFACTURER.

1 JOIST BRIDGING

1 1/2" = 1'-0"

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FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

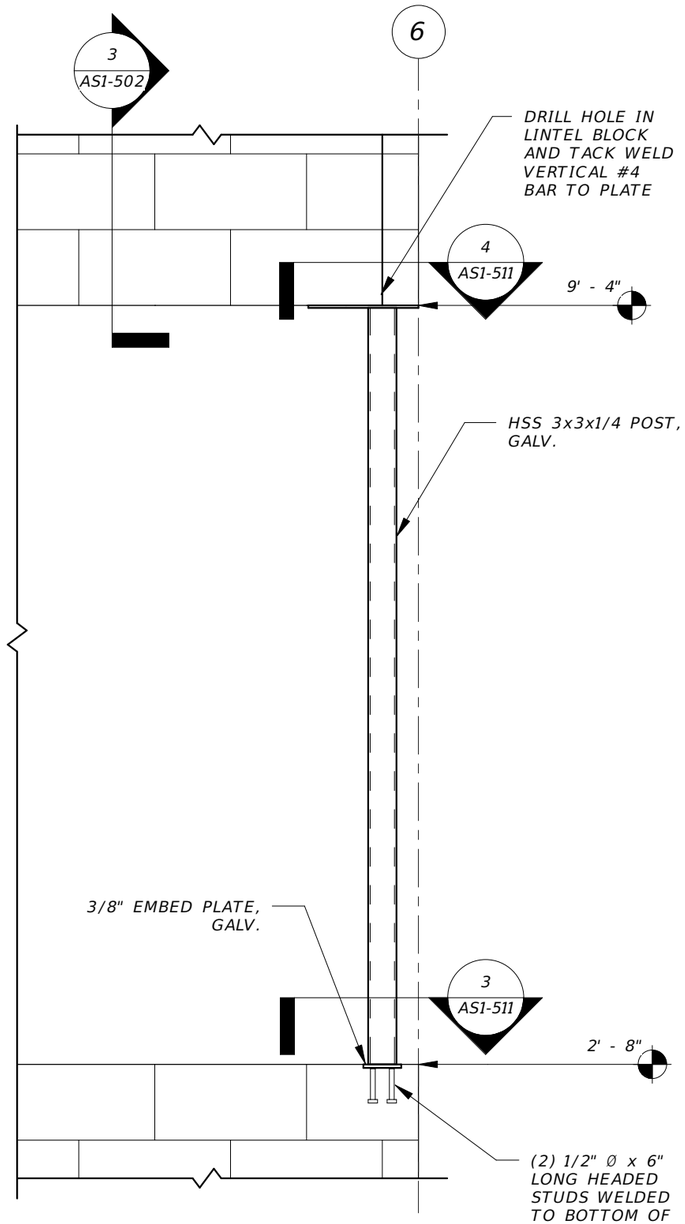
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

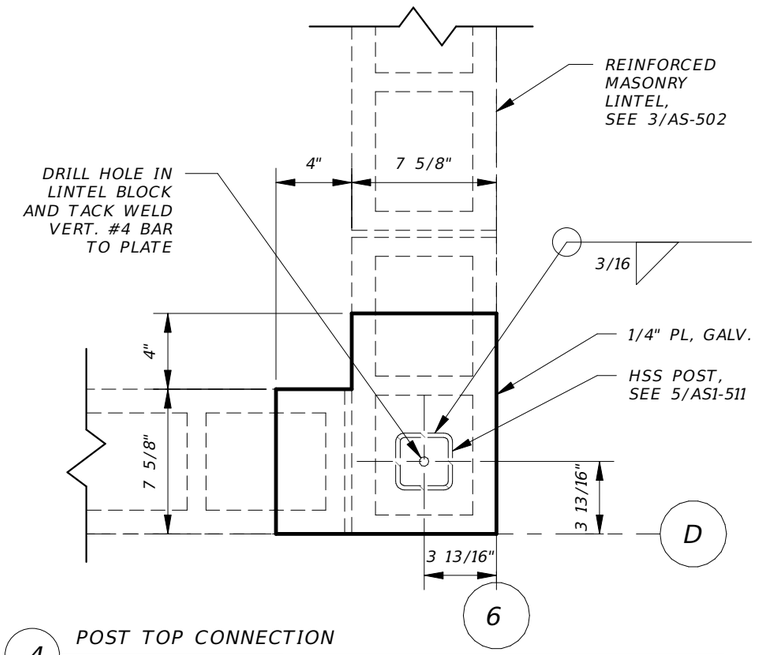
SUNTRAX TEST FACILITY OPERATIONS BUILDING

FRAMING DETAILS

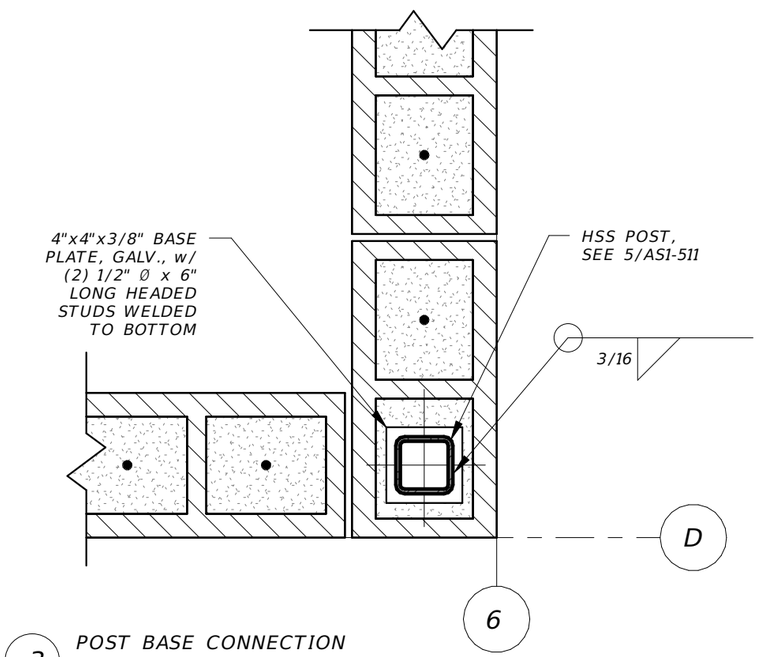
SHEET NO. AS1-510



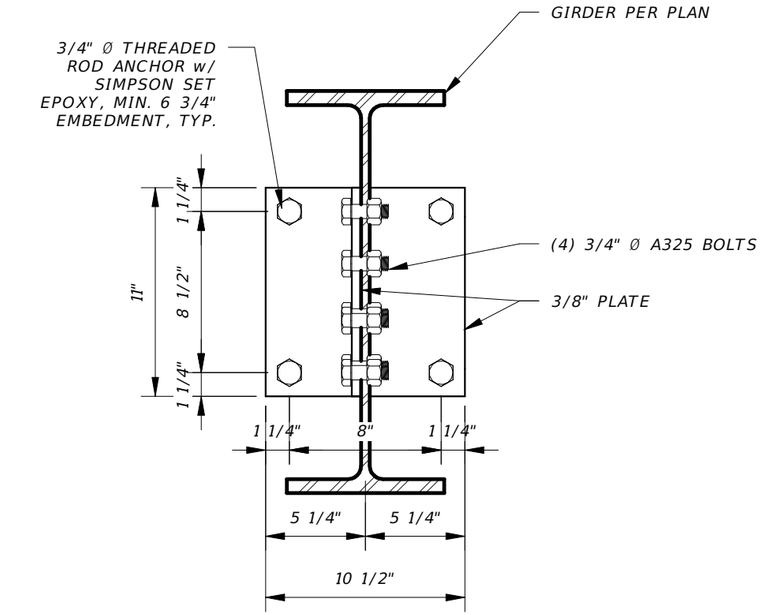
5 POST SECTION
3/4" = 1'-0"



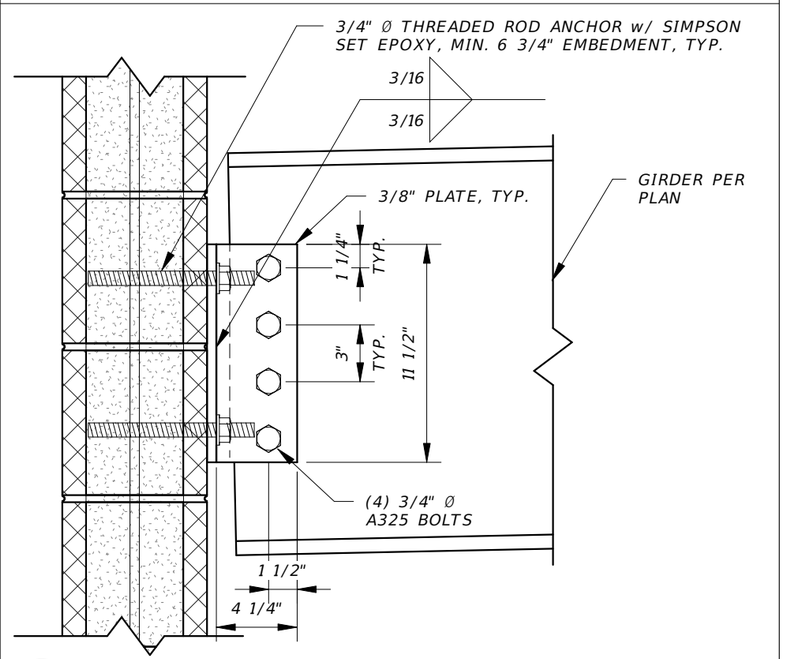
4 POST TOP CONNECTION
1 1/2" = 1'-0"



3 POST BASE CONNECTION
1 1/2" = 1'-0"



2 GIRDER TO CMU CONNECTION - ELEVATION
1 1/2" = 1'-0"



1 GIRDER TO CMU CONNECTION - SECTION
1 1/2" = 1'-0"

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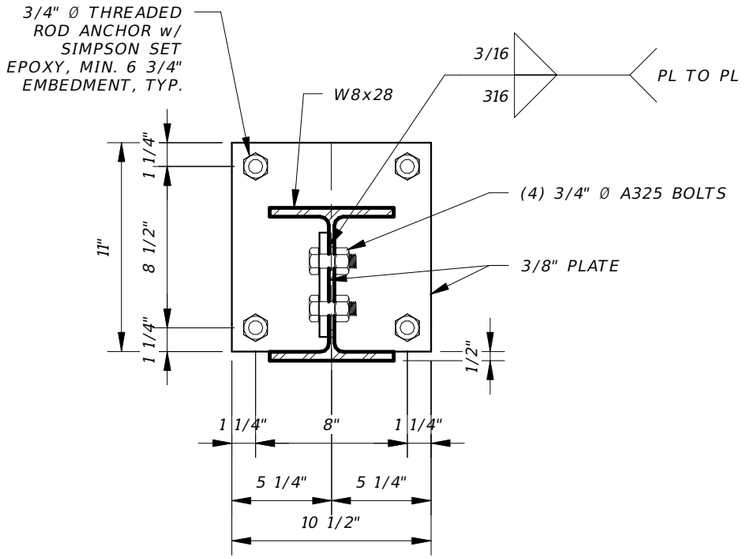
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FRAMING DETAILS

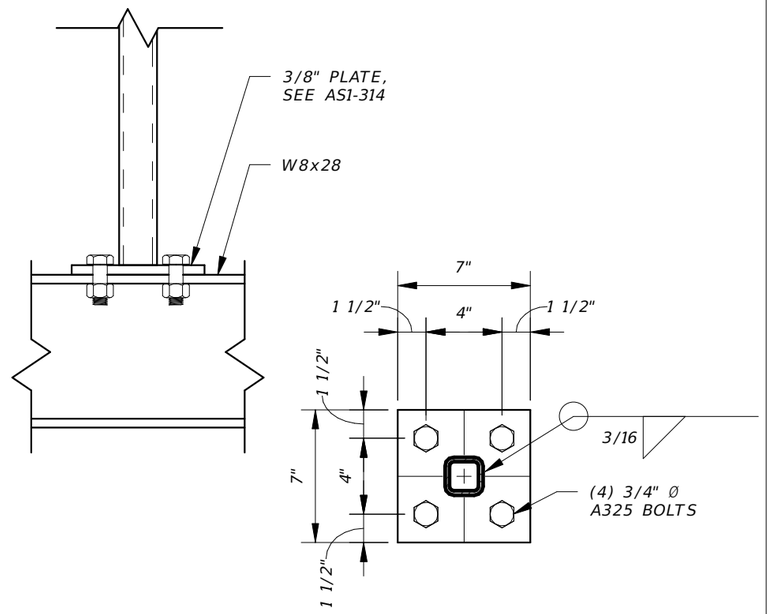
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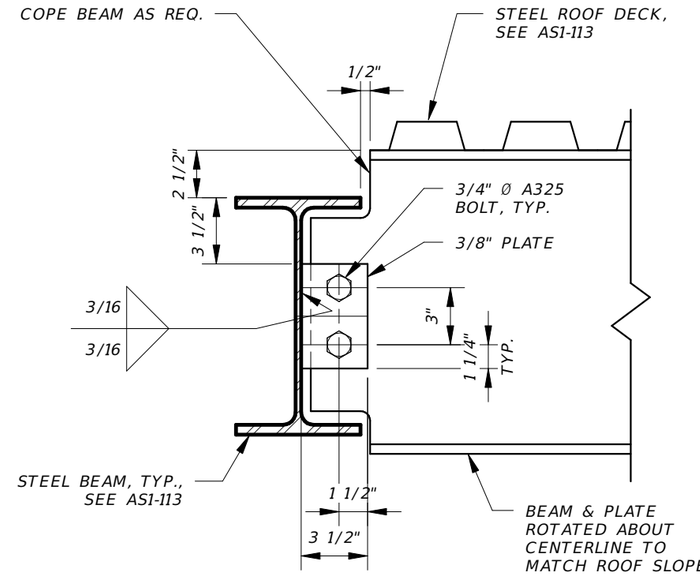
6 CANOPY FRAMING TO CMU CONNECTION

1 1/2" = 1'-0"



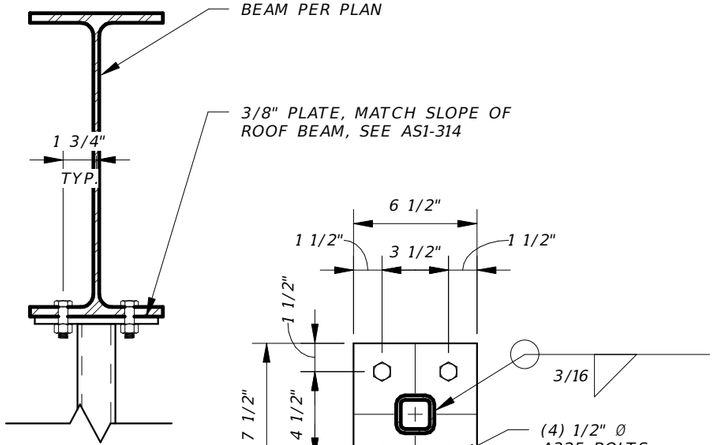
4 STOREFRONT HEADER FRAMING BASE PLATE

1 1/2" = 1'-0"



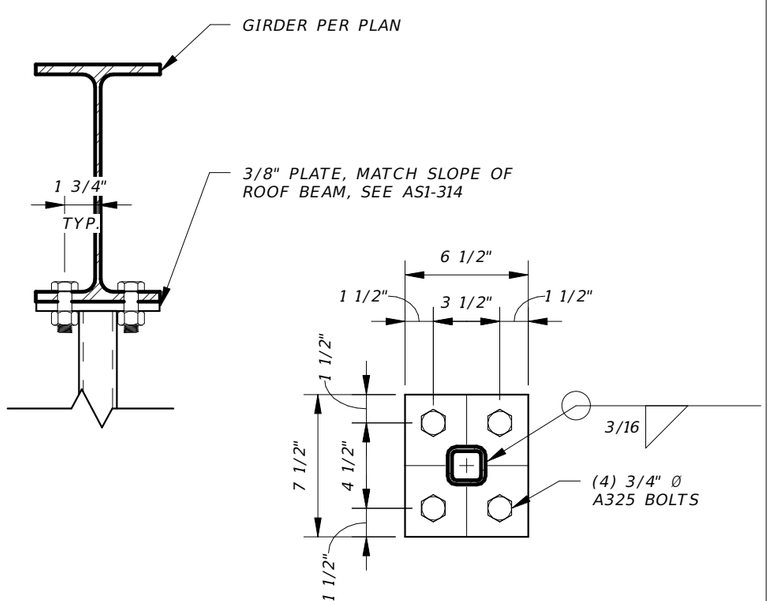
2 SKYLIGHT FRAMING CONNECTION DETAIL

1 1/2" = 1'-0"



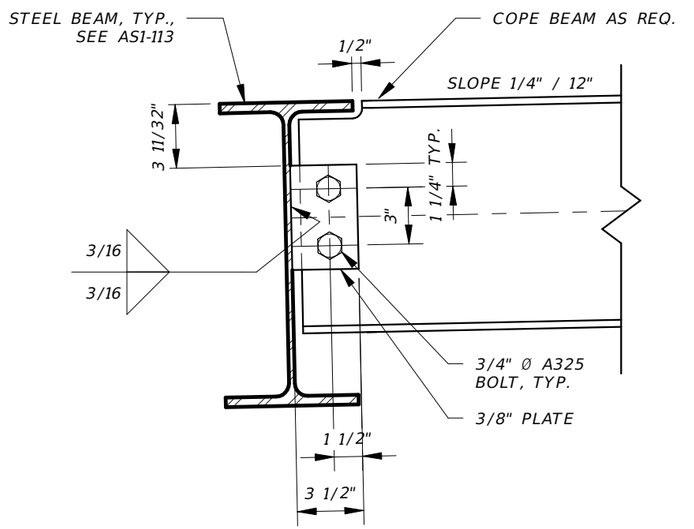
5 CANOPY FRAMING CAP PLATE

1 1/2" = 1'-0"



3 STOREFRONT HEADER FRAMING CAP PLATE

1 1/2" = 1'-0"



1 SKYLIGHT FRAMING CONNECTION DETAIL

1 1/2" = 1'-0"

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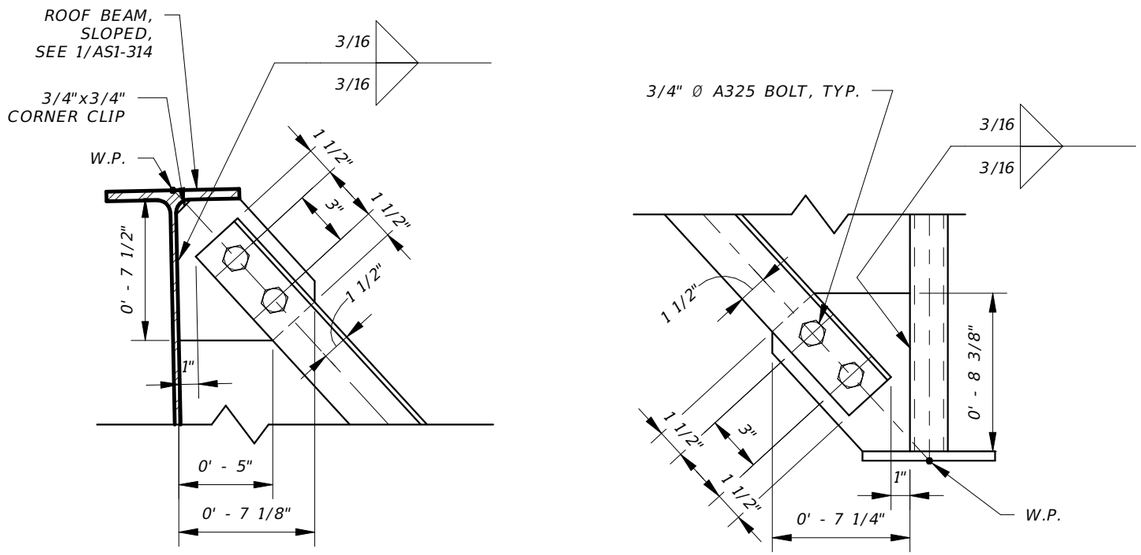
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FRAMING DETAILS

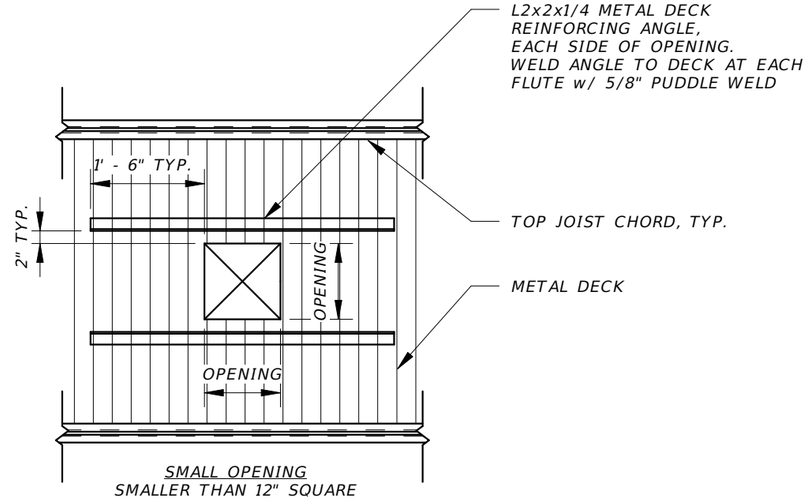
SHEET NO. AS1-512

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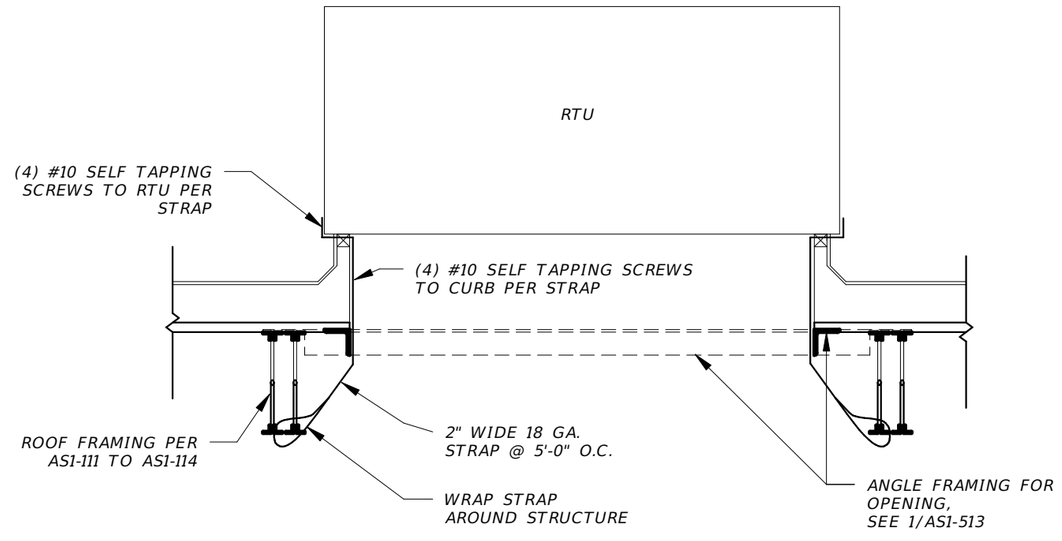
3 BRACING ANGLE CONNECTION DETAILS

1 1/2" = 1'-0"



1 ROOF DECK TYPICAL OPENING DETAILS

1/2" = 1'-0"



2 RTU MOUNTING DETAIL

1/2" = 1'-0"

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

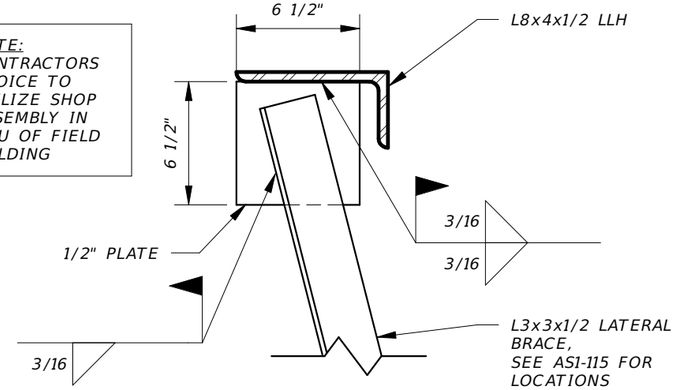
SUNTRAX TEST FACILITY OPERATIONS BUILDING

FRAMING DETAILS

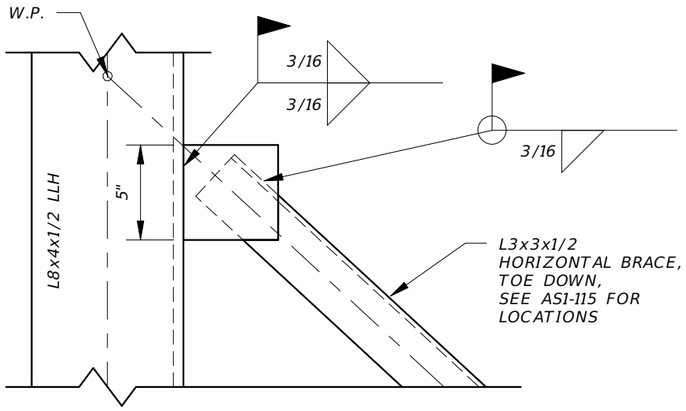
SHEET NO. AS1-513

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NOTE:
CONTRACTORS CHOICE TO UTILIZE SHOP ASSEMBLY IN LIEU OF FIELD WELDING

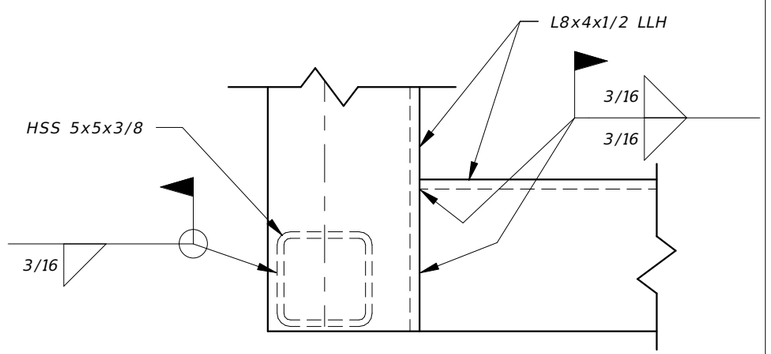


LATERAL BRACE CONNECTION

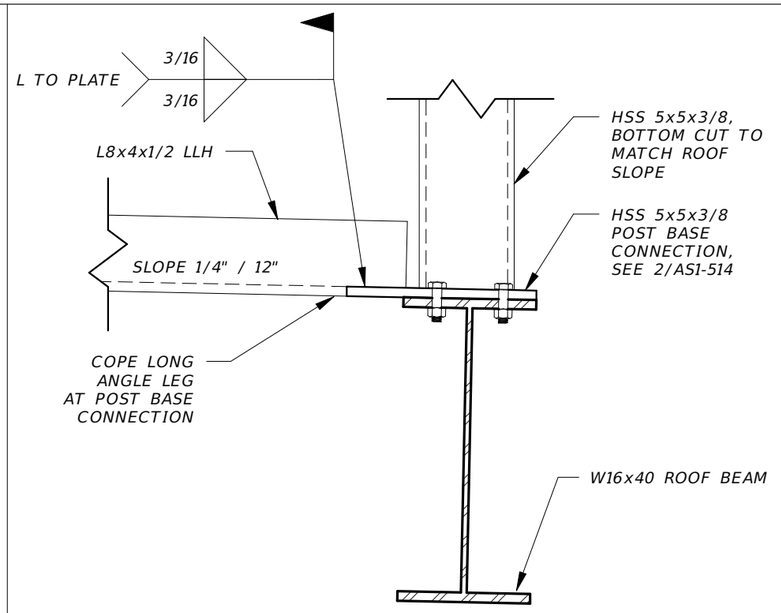


HORIZONTAL BRACE CONNECTION

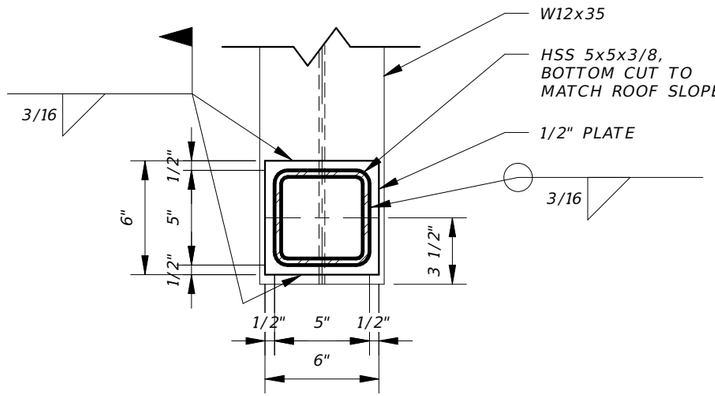
6 PARAPET BRACING CONNECTION DETAIL
1 1/2" = 1'-0"



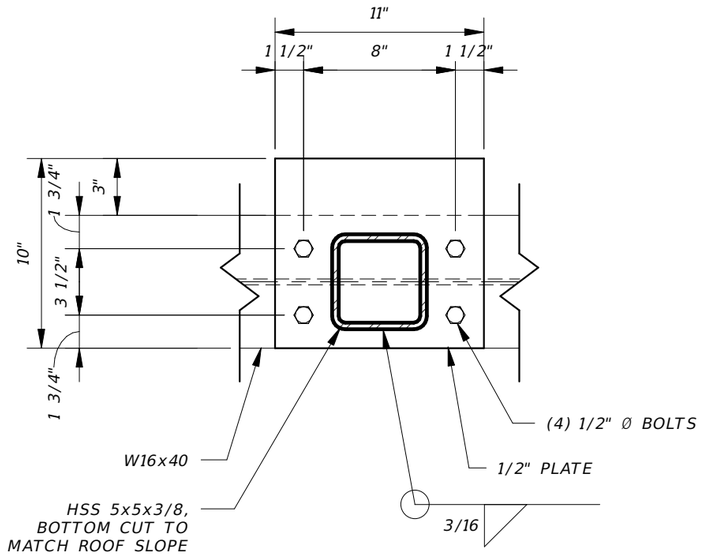
5 TOP ANGLE TO POST CONNECTION
1 1/2" = 1'-0"



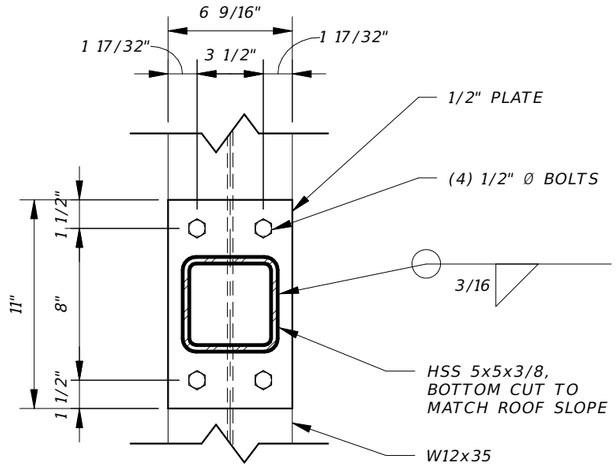
4 BASE ANGLE CONNECTION @ POST
1 1/2" = 1'-0"



3 PARAPET POST BASE CONNECTION TO W12x35 @ EDGE
1 1/2" = 1'-0"



2 PARAPET POST BASE CONNECTION TO W16x40
1 1/2" = 1'-0"



1 PARAPET POST BASE CONNECTION TO W12x35
1 1/2" = 1'-0"

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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

FRAMING DETAILS

SHEET NO.
AS1-514

LEGEND

SUPPLY DIFFUSER. (4-WAY)

RETURN OR OUTDOOR AIR GRILLE

EXHAUST GRILLE

SUPPLY DUCT UP SECTION (RECTANGULAR)

RETURN DUCT UP SECTION (RECTANGULAR)

EXHAUST DUCT UP SECTION (RECTANGULAR)

SUPPLY DUCT DOWN SECTION (RECTANGULAR)

RETURN DUCT DOWN SECTION (RECTANGULAR)

EXHAUST DUCT DOWN SECTION (RECTANGULAR)

SUPPLY DUCT UP SECTION (ROUND)

SUPPLY DUCT DOWN SECTION (ROUND)

A/B

RECTANGULAR DUCTWORK WITH TAKE-OFF, BALANCING DAMPER AND INSULATED FLEXIBLE ROUND DUCT. SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE. FIRST DIMENSION IS THAT OF SIDE SHOWN.

A

ROUND DUCTWORK

CONICAL FITTING WITH DAMPER ON BRANCH CONNECTION TO RECTANGULAR MAIN (PROVIDE DAMPER IN LOW PRESSURE DUCTWORK ONLY)

R

DUCT OFFSETS UP (RISE) IN DIRECTION INDICATED

D

DUCT OFFSETS DOWN (DROP) IN DIRECTION INDICATED

OPPOSED BLADE VOLUME DAMPER (OBD)

MANUAL DAMPER

FLEXIBLE DUCT CONNECTION

FIRE DAMPER WITH ACCESS PANEL.

EXISTING DUCTWORK TO BE REMOVED (DASHED LINETYPE)

DUCT MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR CONTROL REQUIREMENTS.

A-100

AIR DEVICE TAG
MARK-CFM

SIDEWALL TRANSFER GRILLE

SIDEWALL SUPPLY REGISTER

SIDEWALL RETURN GRILLE OR OUTSIDE AIR LOUVER

SIDEWALL EXHAUST GRILLE

T

WALL MOUNTED THERMOSTAT
MOUNT 48" ABOVE FINISHED FLOOR

C

WALL MOUNTED CARBON DIOXIDE SENSOR
MOUNT 48" ABOVE FINISHED FLOOR

H

WALL MOUNTED DDC HUMIDITY SENSOR
MOUNT 48" ABOVE FINISHED FLOOR

A
B

PHOTO DETAIL OR SECTION IDENTIFICATION TARGET
A = DETAIL NUMBER
B = SHEET NUMBER ON WHICH DETAIL IS LOCATED

RD

RADIATION DAMPER
INSTALLED IN AIR DEVICE

ELBOW WITH TURNING VANES

L
45°
L=1/4W, MIN. 4"
W

RECTANGULAR BRANCH DUCT CONNECTION. (PROVIDE BALANCING DAMPER AT ALL BRANCH CONNECTIONS)

X

REFERENCE NOTES

FLOW DIRECTION

M

MOTORIZED ACTUATOR

OPENING IN WALL ABOVE CEILING

AHU
3
EQUIPMENT TYPE
MARK

EQUIPMENT TAG

UC

1" DOOR UNDER CUT. ARROW INDICATES DIRECTION OF FLOW

CD

CONDENSATE DRAIN PIPING

R

REFRIGERANT PIPING

TEE (PLAN, UP, DOWN)

ELBOW (PLAN, UP, DOWN)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SYMBOL LEGEND - MECHANICAL

SHEET NO.
AM1-001

ABBREVIATIONS

ABV	ABOVE
ADJ	ADJUSTABLE
AF	AIRFOIL
AFF	ABOVE FINISHED FLOOR
AC	AIR CONDITIONER
ACU	AIR CONDITIONING UNIT
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BAS	BUILDING AUTOMATION SYSTEM
BI	BACKWARD INCLINE
BLDG	BUILDING
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNIT PER HOUR
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CONC	CONCRETE
COND	CONDENSATE
CONT	CONTINUOUS
CO	CARBON MONOXIDE
COP	COEFFICIENT OF PERFORMANCE
CU	CONDENSING UNIT
DB	DRYBULB
DWDI	DOUBLE WIDTH, DOUBLE INLET
DWGS	DRAWINGS
DX	DIRECT EXPANSION
EF	EXHAUST FAN
EXH	EXHAUST
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
ELECT	ELECTRICAL
ENT	ENTERING
EQ	EQUAL
ER	EXHAUST REGISTER
EWT	ENTERING WATER TEMPERATURE
FC	FORWARD CURVED
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FL	FLOOR
FLEX	FLEXIBLE CONNECTOR OR DUCT
FPM	FEET PER MINUTE
F/S	COMBINATION FIRE AND SMOKE DAMPER
FT. H_20	FEET WATER GAUGE
F	DEGREES FAHRENHEIT
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HVAC	HEATING VENTILATING AND AIR CONDITIONING
HV	HEATING AND VENTILATING
IN.WG	INCHES WATER GAGE
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LD	LINEAR DIFFUSER
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 X BTUH
MIN	MINIMUM
MVD	MANUAL VOLUME DAMPER
MZ	MULTI-ZONE
N.T.S.	NOT TO SCALE
OA	OUTSIDE AIR
OBMVD	OPPOSED BLADE MANUAL VOLUME DAMPER
OPD	OPEN DRIP PROOF
PROP	PROPELLER
PCS	PERCENT
PD	PRESSURE DROP
PLBG	PLUMBING
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
REG	REGISTER
REQ'D	REQUIRED
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RR	RETURN AIR REGISTER
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SF	SUPPLY FAN
SDT	SMOKE DETECTOR
SD	SUPPLY DIFFUSER
SDMP	SMOKE DAMPER
SQ.FT.	SQUARE FOOT
SR	SUPPLY REGISTER
STR	STARTER
SWSI	SINGLE WIDTH, SINGLE INLET
SZ	SINGLE ZONE
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
T/O	TRANSFER OPENING ABOVE CEILING
T'STAT	THERMOSTAT
TYP	TYPICAL
VFDC	VARIABLE FREQUENCY DRIVE CONTROLLER
VAV	VARIABLE AIR VOLUME
VS	VARIABLE SPEED
W	WATTS
W/	WITH
W/O	WITHOUT
WB	WETBULB
ZD	ZONE DAMPER

GENERAL NOTES

1. INSTALL EQUIPMENT AND MATERIALS IN COMPLIANCE WITH MANUFACTURERS MINIMUM CLEARANCE REQUIREMENTS AND RECOMMENDATIONS.
2. COMPLY WITH THE LATEST EDITIONS OF NFPA AND THE LATEST ADOPTED EDITION FLORIDA BUILDING CODE (MECHANICAL, PLUMBING AND GAS).
3. ALL MATERIALS SHALL FIT THE SPACE AVAILABLE. VERIFY DIMENSIONS AND CLEARANCES ON BUILDING PLANS PRIOR TO COMMENCING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR TESTING AND BALANCING OF AIR SYSTEMS IN ACCORDANCE WITH ASSOCIATED AIR BALANCE COUNCIL GUIDELINES. A TEST AND BALANCE REPORT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
5. PROVIDE 45 DEGREE BRANCH TAKE-OFF PER SMACNA FIG. 2-8 ON ALL RECTANGULAR DUCT TAKE-OFFS.
6. PROVIDE AND INSTALL DUCT MOUNTED HINGED ACCESS DOORS FOR ALL SMOKE AND/OR FIRE DAMPERS, NOT OTHERWISE ACCESSIBLE.
7. GAUGES AND CONSTRUCTION FOR DUCTWORK SHALL CONFORM TO THE LATEST EDITION OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS.
8. TRANSITION RECTANGULAR DUCTWORK ON BOTTOM AND SIDES. MAINTAIN TOP OF DUCTWORK LEVEL AND HIGH AS POSSIBLE. FLEXIBLE DUCT RUN-OUTS TO CEILING DIFFUSERS SHALL BE AS STRAIGHT AS POSSIBLE AND FREE OF SAGS & KINKS. FLEX DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK IT SERVES.
9. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
10. ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN THREE (3) FEET OF A WALL TO PROVIDE 2-WAY OR 3-WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL DIFFUSERS SHALL HAVE 4-WAY BLOW UNLESS NOTED OTHERWISE.
11. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
12. ALL DAMPERS IN AND ABOVE CEILING SHALL BE ACCESSIBLE. CONTRACTOR SHALL COORDINATE ALL ACCESS PANELS IN CEILINGS OR WALLS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND INTERIOR DRAWINGS FOR PROPER LOCATION.
13. MOUNT THERMOSTATS WHERE INDICATED ON PLANS 48" A.F.F. UNLESS NOTED OTHERWISE. IN HANDICAPPED ACCESSIBLE AREAS, MOUNT CONTROLS AT 48" A.F.F.
14. SEAL ALL TRANSVERSE JOINTS AND FITTINGS WITH DUCT SEALER.
15. TRAP AND ROUTE CONDENSATE DRAINS LINES, FULL SIZE OF UNIT CONNECTION, AS INDICATED. SLOPE 1/8" PER FOOT.
16. ALL CONTROL WIRING AND CONDUIT SHALL COMPLY WITH NEC ELECTRICAL SPECIFICATIONS.
17. PROVIDE MATERIALS WHICH HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM E84.
18. SLEEVE AND FIRE STOP PENETRATIONS THROUGH FIRE RATED SYSTEMS TO MAINTAIN RATING OF SYSTEM. USE MINIMUM GALVANIZED STEEL GAUGE DUCT AS REQUIRED TO MAINTAIN RATING OF SYSTEM.
19. THE TEST AND BALANCE CONTRACTOR SHALL BE EMPLOYED DIRECTLY BY THE GENERAL CONTRACTOR WHO SHALL BE SOLELY RESPONSIBLE FOR ITS PERFORMANCE AND THE TIMELY SCHEDULE OF ITS OPERATION.

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FLORIDA P.E. NO.: 69124
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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NA	POLK	437300-1-52-01

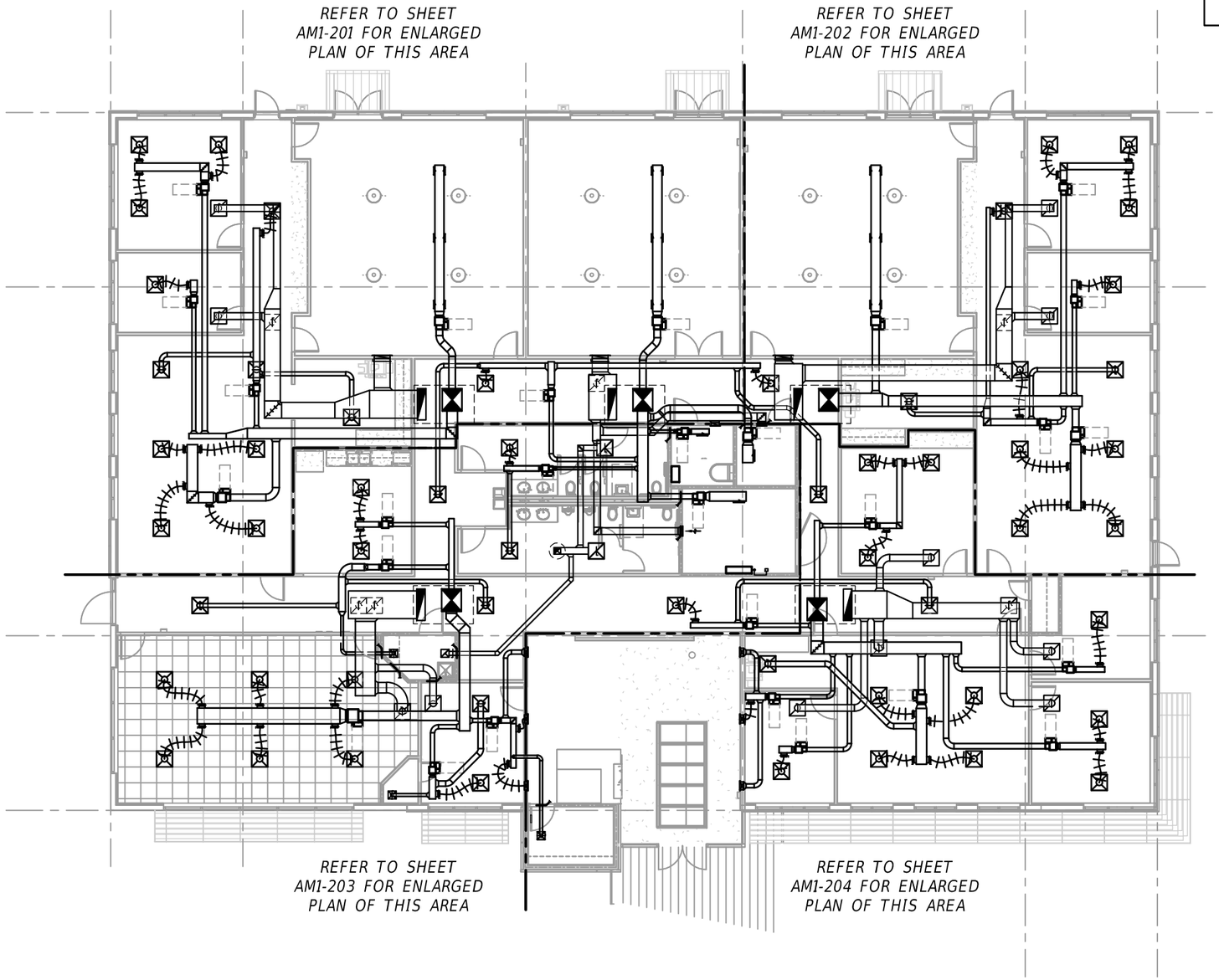
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

ABBREVIATIONS - MECHANICAL

SHEET NO.
AM1-002

GENERAL NOTE:

A. REFER TO SHEETS AM1-001 & AM1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 OVERALL FLOOR PLAN - MECHANICAL
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

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DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL FLOOR PLAN - MECHANICAL

SHEET NO.
AM1-200

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: (X)

(1) 34"x30" SUPPLY AND 48"x14" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.

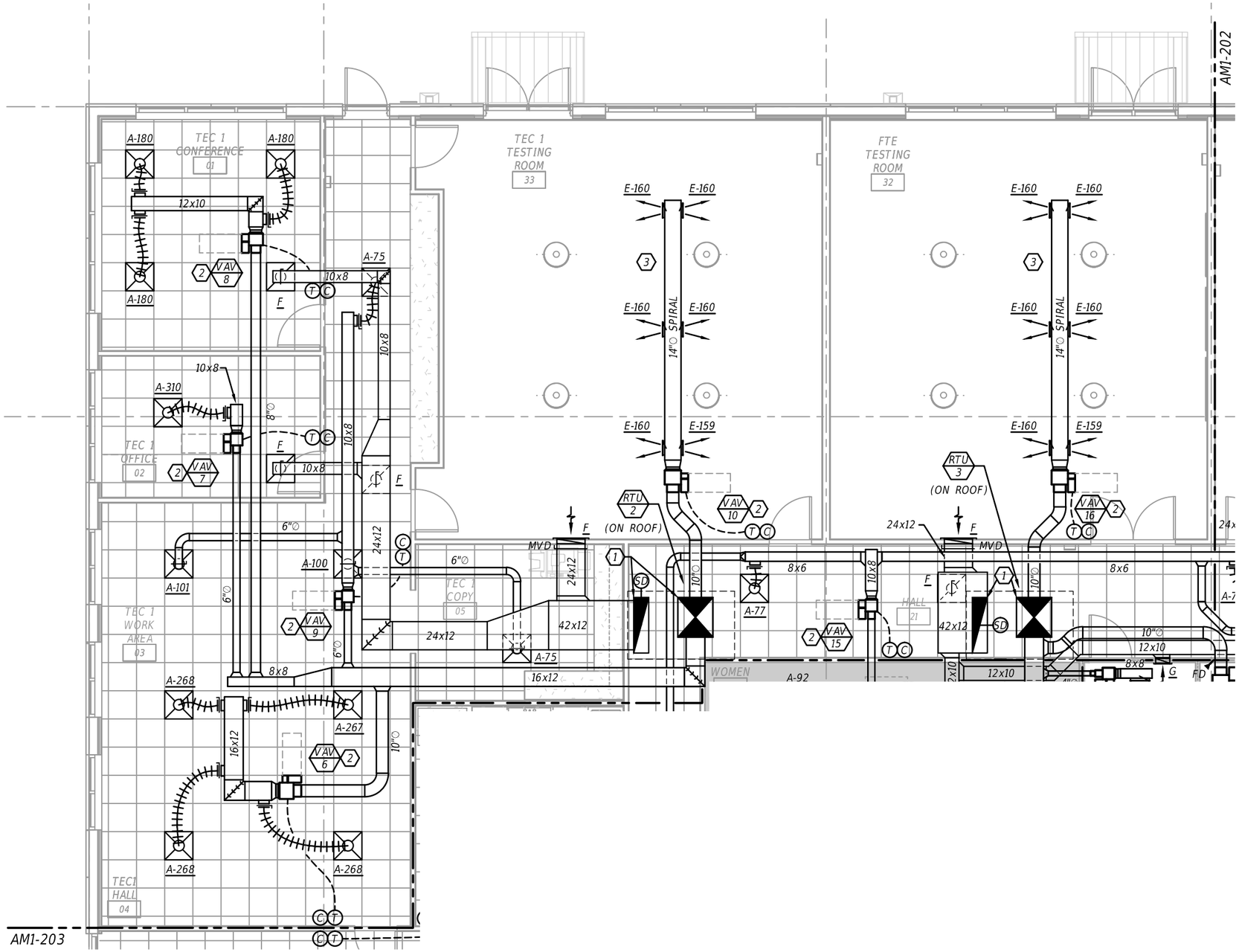
(2) INSTALL VAV BOX PER DETAIL SHEET AM1-404.

(3) 1" INTERNALLY LINED SPIRAL DUCTWORK.

GENERAL NOTE:

A. REFER TO SHEETS AM1-001 & AM1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.

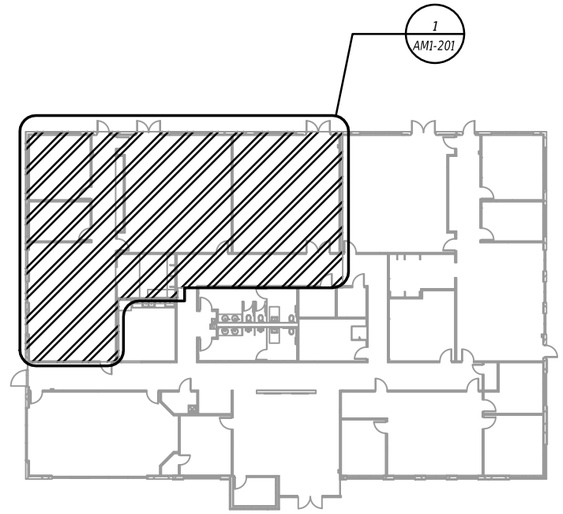


1 ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - MECHANICAL

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN

SCALE: NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

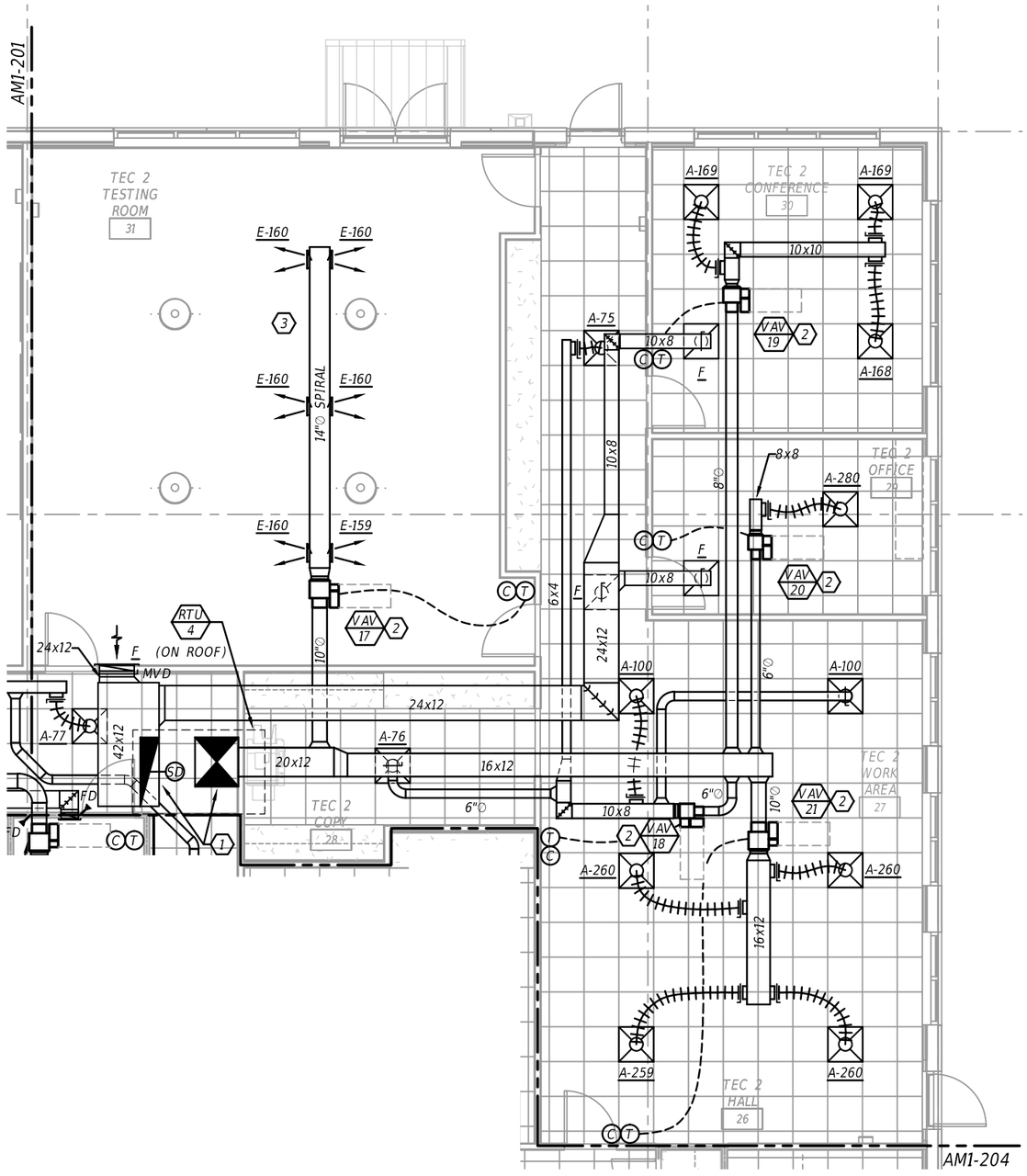
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO.

AM1-201

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

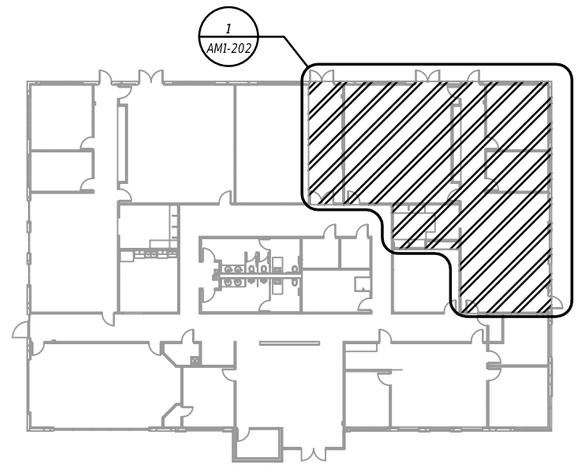


ENLARGED FLOOR PLAN - TEC 2 AREA - MECHANICAL

1 — 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN
SCALE: NTS

REFERENCE NOTES: (X)

1. 34"x30" SUPPLY AND 48"x14" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
2. INSTALL VAV BOX PER DETAIL SHEET AM1-404.
3. 1" INTERNALLY LINED SPIRAL DUCTWORK.

GENERAL NOTE:

A. REFER TO SHEETS AM1-001 & AM1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO. AM1-202

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

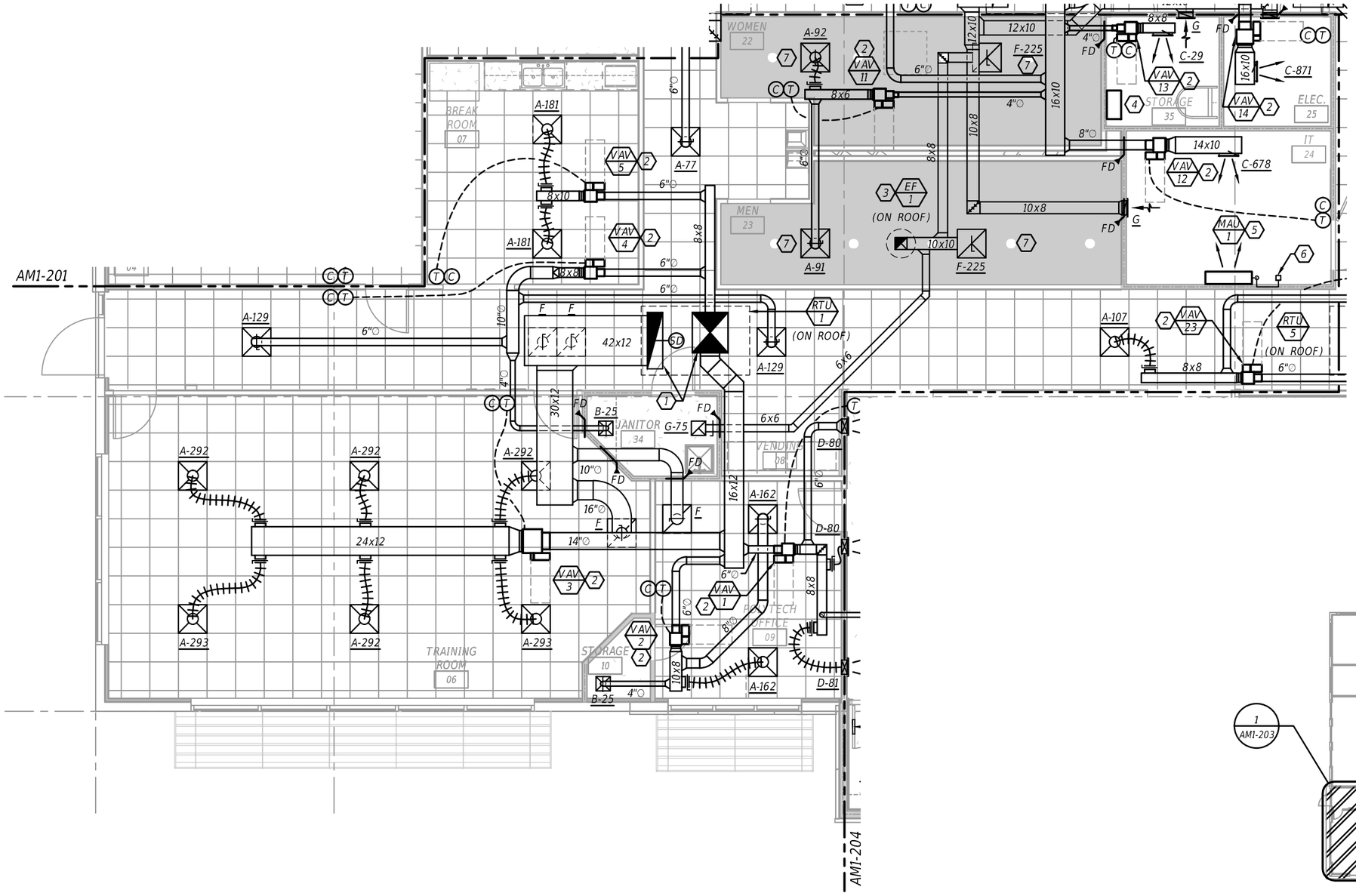
REFERENCE NOTES:

1. 34"x30" SUPPLY AND 48"x14" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
2. INSTALL VAV BOX PER DETAIL SHEET AM1-404.
3. ROUTE 10"x10" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.
4. LOCATE BUILDING AUTOMATION SYSTEM PANEL AND BUILDING HVAC CONTROLS SYSTEM COMPUTER WITHIN STORAGE ROOM.
5. MOUNT MINI-SPLIT SYSTEM ON IT ROOM WALL PER DETAIL SHEET AM1-406. PROVIDE CONDENSATE PUMP SAUERMANN Si-30 OR EQUIVALENT.
6. ROUTE REFRIGERANT/CONDENSATE PIPING FROM MINI-SPLIT UNIT UP THROUGH REFRIGERANT LINE CHASE TO CONDENSING UNIT ON ROOF.
7. PROVIDE BALANCING DAMPER ON BACK OF GRILLE WITH FACE ADJUSTMENT IN HARD CEILINGS.

GENERAL NOTE:

A. REFER TO SHEETS AM1-001 & AM1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.

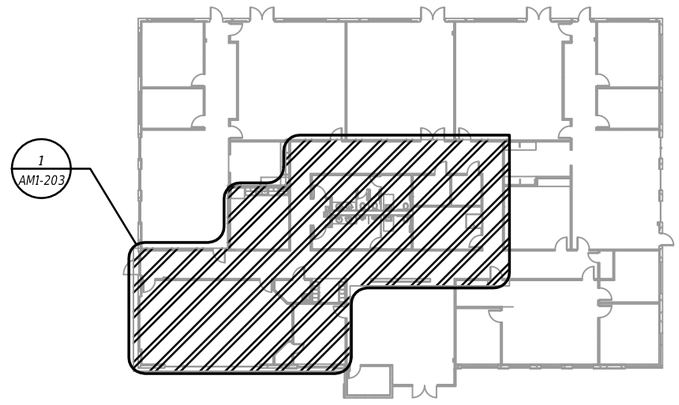


1 ENLARGED FLOOR PLAN - COMMON AREAS - MECHANICAL

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN

SCALE: NTS

REVISIONS			
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO.

AM1-203

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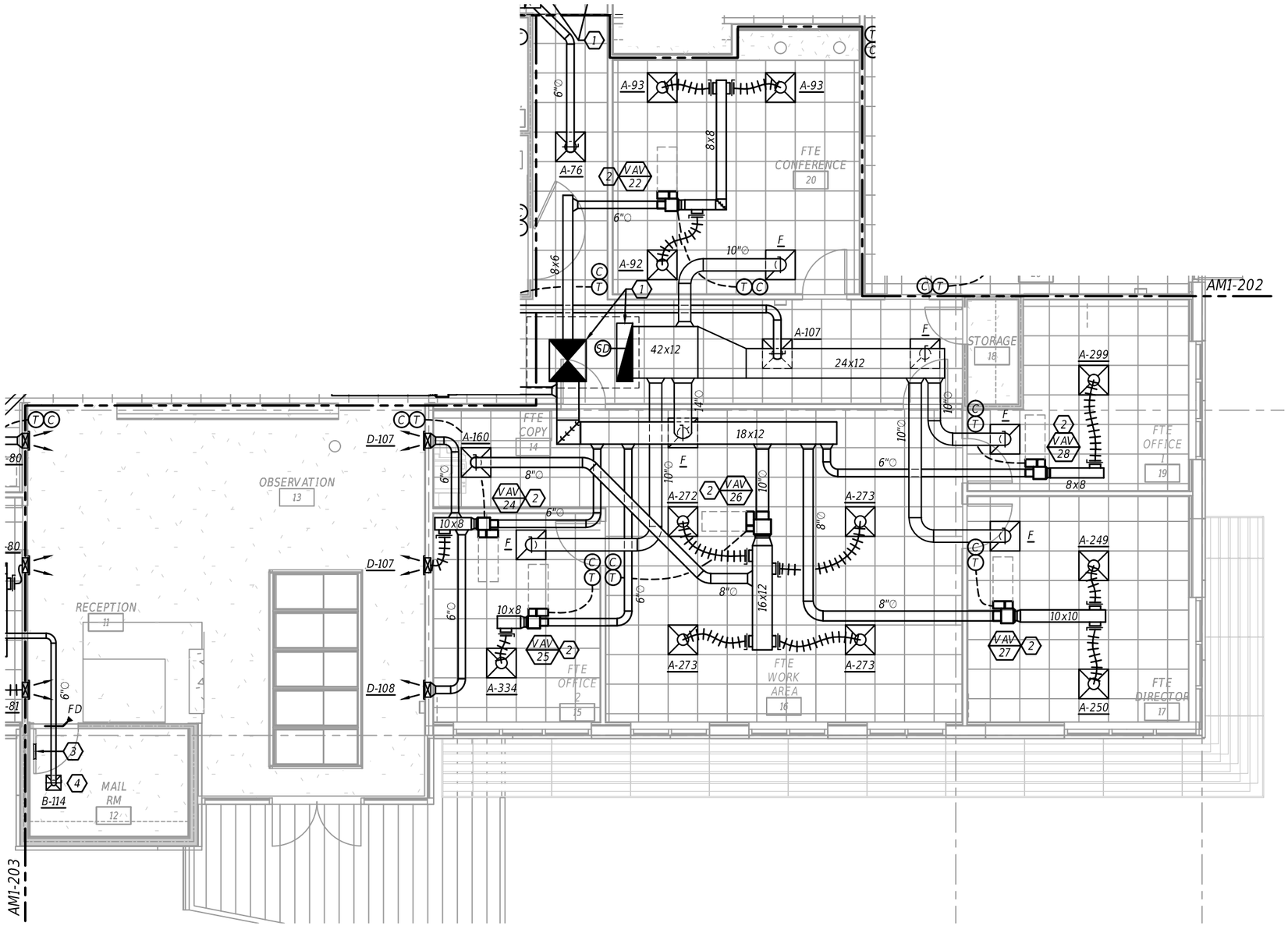
REFERENCE NOTES: (X)

1. 34"x30" SUPPLY AND 48"x14" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
2. INSTALL VAV BOX PER DETAIL SHEET AM1-404.
3. INSTALL 12"x12" HART AND COOLEY DOOR GRILLE MODEL TG WITH TGF FRAME OR EQUIVALENT ON BOTH SIDES OF THE DOOR.
4. PROVIDE BALANCING DAMPER ON BACK OF GRILLE WITH FACE ADJUSTMENT IN HARD CEILINGS.

GENERAL NOTE:

A. REFER TO SHEETS AM1-001 & AM1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

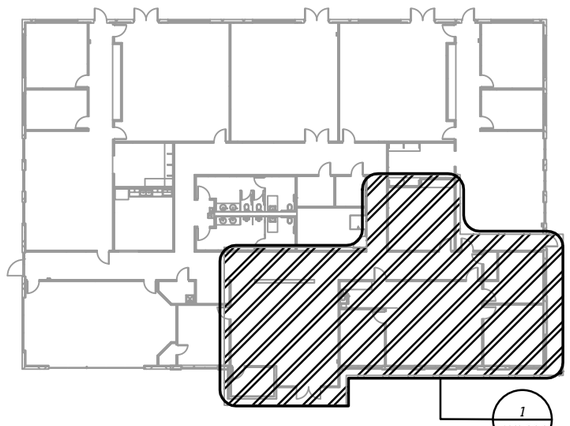
B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.



1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - MECHANICAL

1/8" = 1'-0"

GRAPHIC SCALE 0' 4' 8'



2 KEY PLAN

SCALE: NTS

REVISIONS			
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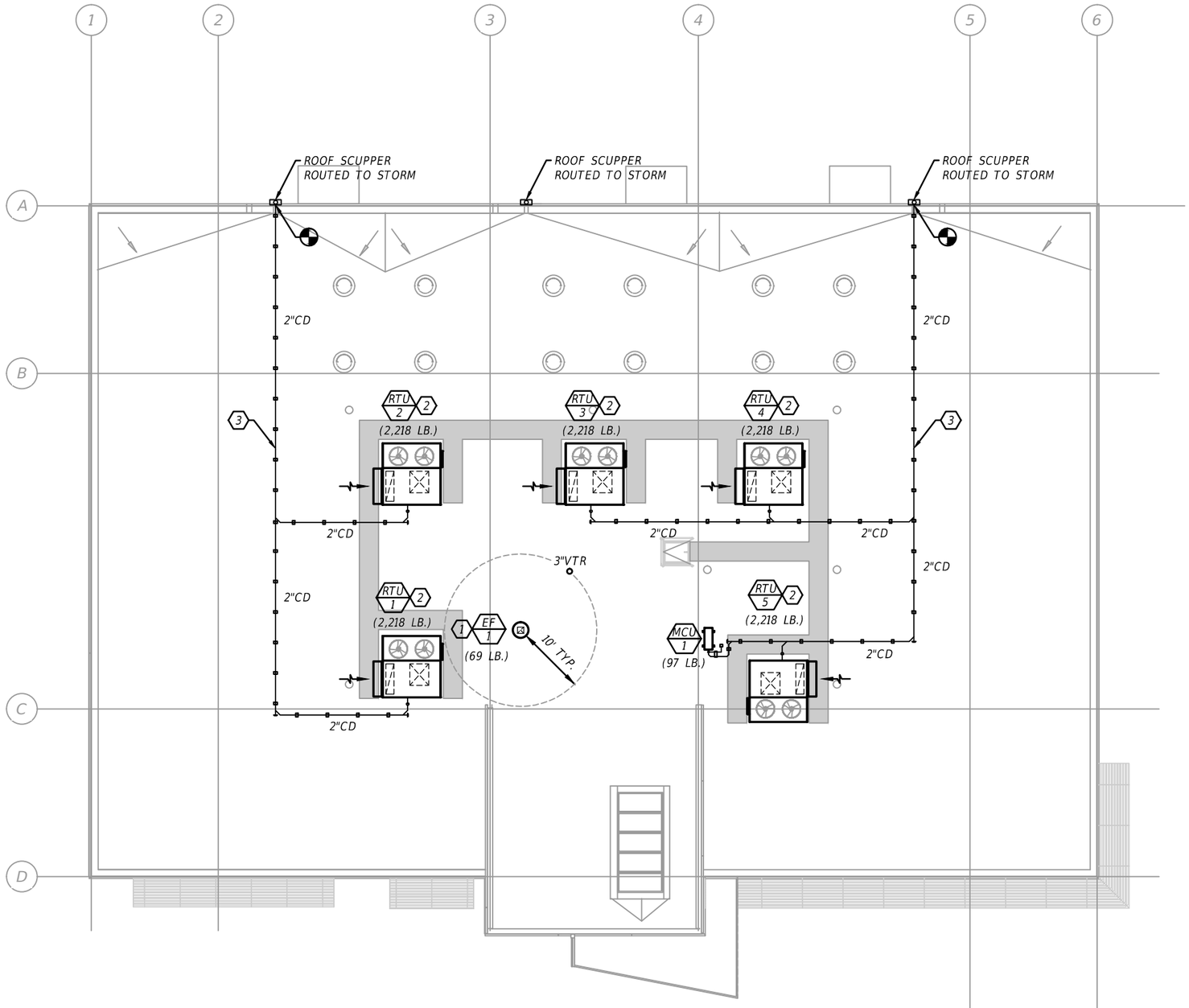
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO. AM1-204

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 OVERALL ROOF PLAN - MECHANICAL
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

REFERENCE NOTES: (X)

1. EXHAUST FAN OUTLET TO BE A MINIMUM 10'-0" AWAY FROM ROOF TOP UNITS OUTSIDE AIR INTAKE OR AT LEAST 3'-0" ABOVE.
2. MOUNT ROOF TOP UNIT PER DETAIL SHEET AM1-405. SEE STRUCTURAL PLANS FOR FRAMING, SUPPORT, AND TIE DOWN DETAILS.
3. ROUTE ROOF TOP UNIT CONDENSATE PIPING ALONG ROOF TO ROOF SCUPPER ROUTED TO STORM. SUPPORT CONDENSATE PIPING PER DETAIL SHEET AM1-405.

GENERAL NOTES:

A. SEE ARCHITECTURAL PLANS FOR OSHA HARNESS TIE-OOF POINT LOCATIONS.

B. REFER TO SHEETS AM1-001 & AM1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL ROOF PLAN - MECHANICAL

SHEET NO.
AM1-205

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MINI-SPLIT AIR HANDLING UNIT SCHEDULE

		FAN				COOLING COIL				FILTERS		ELECTRIC HEATING COIL			SINGLE POINT UNIT ELEC. REQUIREMENTS			UNIT INFORMATION				
MARK	LOCATION SERVED	TOTAL AIR FLOW (CFM)	OUTSIDE AIR FLOW (CFM)	EXTERNAL STATIC PRESS. (IN.WG.)	FLA	ENTERING AIR TEMP. (F° DB/WB)	LEAVING AIR TEMP. (F° DB/WB)	TOTAL CAPACITY (BTUH)	SENSIBLE CAPACITY (BTUH)	TYPE	EFFICIENCY	TOTAL CAPACITY (BTUH)	VOLTS/ PHASE	HEATER AMPS	VOLTAGE/ PHASE	SINGLE CIRCUIT MCA	SINGLE CIRCUIT MOCP	UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	NOTES
MAU-1	IT ROOM	579	-	-	0.57	80.0/67.0	56.0/54.0	22,000	16,120	INTERNAL	25%-30%	-	-	-	208/1Ø	1	15	12"x39"x11"	27	DAIKIN OR EQUAL	FTKN24NMVJU	1., 2., & 3.

NOTES:

1. POWER FOR INDOOR UNIT PROVIDED FROM EXTERIOR CONDENSER. ELECTRICAL CONTRACTOR TO PROVIDE POWER WIRING BETWEEN EACH UNIT IN FIELD.
2. ROUTE AND SIZE REFRIGERANT LINES PER MANUFACTURES REQUIREMENTS.
3. PROVIDE CONDENSATE PUMP SAUERMANN Si-30.

MINI- SPLIT CONDENSING UNIT SCHEDULE

MARK	LOCATION	COMPRESSOR			CONDENSER FANS		ELECTRICAL							UNIT INFORMATION		MANUFACTURER	MODEL NUMBER	NOTES
		OUTDOOR DESIGN TEMP. (F°)	QTY.	CAPACITY STEPS %	QTY.	NOMINAL HP	VOLTAGE/ PHASE	COMPRESSOR RLA/LRA	CONDENSER FANS QTY.	CONDENSER FANS F.L.A.	MCA	MOCP	SEER	UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)			
MCU-1	ROOF	95	1	100	1	-	208/1Ø	12.0/-	1	-	18.3	20	15.0	29"x34"x13"	97	DAIKIN OR EQUAL	RKN24NMVJU	1.

NOTES:

1. PROVIDE COMPLETE WITH DISCONNECT SWITCH, TIME DELAY RELAY AND ANTI-SHORT CYCLE TIMER.

ROOF TOP UNIT SCHEDULE (HEAT PUMP)

PLAN MARK	EVAPORATOR SECTION										HEAT PUMP PERFORMANCE					HEATER AUX. ELECTRIC		CONDENSER SECTION				ELECTRICAL REQUIERMENTS			UNIT WEIGHT (LBS.) W/14" CURB	UNIT EFF. (EER/IEER)	MANUFACTURER & MODEL NUMBER	NOTES
	SUPPLY AIRFLOW (CFM)	MIN. AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	E.A.T. (DB/WB)	L.A.T. (DB/WB)	TOTAL COOLING (BTU/HR)	SENSIBLE COOLING (BTU/HR)	E.S.P. (IN. OF WG.)	H.P.	R.P.M.	TOTAL CAPACITY (BTU/HR)	E.A.T.	L.A.T.	O.A.T.	COP @ 47° (EFF.)	HEATER (KW)	HEATER STAGES	NO. COMP.	COMPRESSOR RLA	NO. CON -DENSER FANS	CONDEN -SER FAN FLA (EA.)	V/Ø	M.C.A.	M.O.C.P.				
RTU-1	3,086	1,003	421	78.5/64.8	52.3/52.1	115,398	88,451	1.45	4	1,168	31,398	56.1	85.0	37.0	3.42	10	SCR Control	2	10.0/17.5	2	2.0	208/3Ø	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-2	3,077	923	299	78.0/63.8	51.2/51.0	113,250	90,114	1.50	4	1,166	25,728	59.3	85.0	37.0	3.42	8	SCR Control	2	10.0/17.5	2	2.0	208/3Ø	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-3	3,027	937	262	77.8/63.3	50.5/50.3	111,861	90,339	1.41	4	1,160	24,730	60.7	85.0	37.0	3.42	8	SCR Control	2	10.0/17.5	2	2.0	208/3Ø	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-4	3,136	941	317	78.2/63.8	51.4/51.2	113,693	91,778	1.44	4	1,174	26,749	58.8	85.0	37.0	3.42	8	SCR Control	2	10.0/17.5	2	2.0	208/3Ø	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-5	3,037	982	344	78.2/64.0	51.3/51.1	113,382	89,487	1.47	4	1,161	28,370	58.4	85.7	37.0	3.42	9	SCR Control	2	10.0/17.5	2	2.0	208/3Ø	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.

NOTES:

1. DOUBLE WALL CONSTRUCTION.
2. 208/3 VOLTAGE SINGLE POINT POWER WITH NON-FUSED DISCONNECT.
3. PROVIDE LEED REQUIRED2" MERV 8 PRE-FILTERS AND 4" MERV 13 FILTERS.
4. STAINLESS STEEL DRAIN PAN.
5. PLENUM SUPPLY FAN WITH ECM MOTOR.
6. PHASE FAILURE MONITOR.
7. FACTORY AUTHORIZED STARTUP.
8. INVERTER DUTY SCROLL.
9. ELECTROFIN E-COATED CONDENSER COILS.
10. 5 YEAR COMPRESSOR PARTS WARRANTY.
11. 14" HIGH WIND RATED VIBRO ACOUSTIC ROOF CURB.
12. BACNET CONTROLS.
13. PROVIDE VARIABLE SPEED EVAPORATOR FAN MOTOR WITH VFD DRIVE.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM1-301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

VAV BOX SCHEDULE

SERVING	MARK	LOCATION SERVED	AIR DATA		MAXIMUM N.C.	INLET SIZE DIA.	UNIT INFORMATION					NOTES
			MAXIMUM CFM	MINIMUM CFM			VOLTS/PH	MCA	MOCP	MANUFACTURER	MODEL NUMBER	
RTU-1	VAV-1	RECEPTION	338	124	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-2	POLYTECH OFFICE	349	105	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-3	TRAINING ROOM	1,754	526	30	14"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-4	HALL	283	85	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-5	BREAK ROOM/TEC 1 COPY	362	163	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
RTU-2	VAV-6	TEC 1 WORK AREA	1,071	321	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-7	TEC 1 OFFICE	310	93	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-8	TEC 1 CONFERENCE	540	162	30	8"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-9	HALL	197	59	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-10	TEC 1 TESTING ROOM	959	288	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
RTU-3	VAV-11	MEN'S & WOMEN'S RESTROOMS	183	73	30	4"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-12	IT ROOM	678	203	30	8"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-13	STORAGE	29	20	30	4"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-14	ELECTRICAL ROOM	871	261	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-15	HALL	307	92	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-16	FTE TESTING ROOM	959	288	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
RTU-4	VAV-17	TEC 2 TESTING ROOM	959	288	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-18	HALL/TEC 2 COPY	351	105	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-19	TEC 2 CONFERENCE	506	152	30	8"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-20	TEC 2 OFFICE	281	84	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-21	TEC 2 WORK AREA	1,039	312	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
RTU-5	VAV-22	FTE CONFERENCE	278	139	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-23	HALL	214	64	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-24	OBSERVATION	322	113	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-25	FTE OFFICE 2	334	100	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-26	FTE WORK AREA/FTE COPY	1,091	326	30	10"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-27	FTE DIRECTOR	499	150	30	8"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.
	VAV-28	FTE OFFICE 1	299	90	30	6"∅	120/1∅	0.5	20	ENVIRO-TEC OR EQUAL	SDR	1. & 2.

NOTES:

1. PROVIDE ELECTRONIC ROOM SENSOR WITH DIGITAL DISPLAY, ADJUSTABLE SETPOINT, NIGHT SET-BACK OVERRIDE AND CANCEL BUTTONS.
2. PROVIDE 24V CONTROL POWER TRANSFORMER, PROVIDE FLOWSTAR AIRFLOW CONTROL SENSOR AND ELECTRICAL DISCONNECT.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM1-302

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

AIR DEVICE SCHEDULE

	DESCRIPTION	FACE SIZE	NECK	MATERIAL	MANUFACTURER & MODEL NO.	NOTES
A	LOUVERED FACE SUPPLY DIFFUSER	24"x24"	SEE PLAN	ALUMINUM	PRICE #ASCD OR EQUAL	1., 2., 3., & 4.
B	LOUVERED FACE SUPPLY DIFFUSER	12"x12"	SEE PLAN	ALUMINUM	PRICE #ASCD OR EQUAL	1., 2., 3., & 4.
C	LOUVERED FACE SIDEWALL SUPPLY GRILLE	16"x8"	SEE PLAN	ALUMINUM	PRICE #640 OR EQUAL	1. & 2.
D	SIDEWALL SUPPLY NOZZLE	8"○	SEE PLAN	ALUMINUM	SEIHO #NT-8P OR EQUAL	1. & 2.
E	SPIRAL DUCT SUPPLY GRILLE	12"x6"	SEE PLAN	ALUMINUM	PRICE #SDGE OR EQUAL	1., 2., & 5.
F	EGGCRATE RET./EXH. GRILLE (1/2"x1/2"x1/2")	24"x24"	SEE PLAN	ALUMINUM	PRICE #80 OR EQUAL	1. & 2.
G	EGGCRATE RET./EXH. GRILLE (1/2"x1/2"x1/2")	12"x12"	SEE SCHED.	ALUMINUM	PRICE #80 OR EQUAL	1. & 2.

NOTES:
1. COORIDINATE SURFACE FINISHES WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE RAPID MOUNT FRAME FOR PLASTER AND SHEET ROCK CEILINGS.
3. SUPPLY COMPLETE FACTORY INSTALLED 1/2" THICK FOIL BACKED INSULATION.
4. PROVIDE REMOTE DAMPERS OR FACE ADJUSTABLE DAMPERS FOR AIR DEVICE IN HARD CEILING.
5. PROVIDE WITH INTEGRAL BALANCING DAMPER.

FLEX DUCT SCHEDULE

CFM	FLEX SIZE
0 - 100	6"○
101 - 200	8"○
201 - 400	10"○
401 - 600	12"○
601 - 900	14"○
901 - 1,300	16"○
1,300 - 1,700	18"○

FAN SCHEDULE

MARK	AREA SERVED	TYPE	CFM	T.S.P.	HP/WATTS	R.P.M.	VOLTS/PH	SONES	WEIGHT	MANUFACTURER & MODEL NO.	NOTES
EF-1	RESTROOMS	DOWNBLAST	525	0.5	1/4 HP	1,441	120/1○	8.3	69	GREENHECK G-098-VG OR EQUAL	1., 2., 3., 4., & 5.

NOTES:
1. EXHAUST FAN TO BE CONTROLLED BY SMART LINK PANEL. SEE SYSTEM DETAILS AND CONTROLS SEQUENCE.
2. PROVIDE FAN WITH SINGLE POINT WIRING AND ELECTRICAL DISCONNECT.
3. PROVIDE FAN WITH ROOF CURB. SEE STRUCTURAL PLANS FOR FAN TIE DOWN INFORMATION.
4. PROVIDE CT'S FOR EXHAUST FAN.
5. EXHAUST FAN TO BE FLORIDA PRODUCT APPROVED FOR HIGH WIND APPLICATIONS. ALL ROOF MOUNTED FANS ARE IMPACT RATED.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM1-303

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

OUTSIDE AIR CALCULATIONS (RTU-4)

VAV	CLASSIFICATION	MINIMUM CFM	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	DISTRO EFF.	SPACE VENT EFF.	UNCORRECTED OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
			Rp	Ra	Az	Pz	Ez	Ev	Vou	Vot	
VAV-17	MULTIPURPOSE	288	5	0.06	870	8	0.8	0.872	92	-	-
VAV-18	CORRIDOR	105	-	0.06	451	-	0.8	0.839	27	-	-
VAV-19	MULTIPURPOSE	152	5	0.06	272	8	0.8	0.809	56	-	-
VAV-20	OFFICE	84	5	0.06	160	1	0.8	1.056	15	-	-
VAV-21	OFFICE	314	5	0.06	600	6	0.8	1.008	66	-	-
TOTAL	-	941	-	-	2,353	23	0.8	0.809	256	317	317

NOTE:

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vou = SUM ALL ZONES (Rp * Pz + Ra * Az)
Ev EVALUATED FROM APPENDIX A OF ASHRAE 62.1
Vou / Min Ev = Vot

OUTSIDE AIR CALCULATIONS (RTU-3)

VAV	CLASSIFICATION	MINIMUM CFM	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	DISTRO EFF.	SPACE VENT EFF.	UNCORRECTED OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
			Rp	Ra	Az	Pz	Ez	Ev	Vou	Vot	
VAV-11	RESTROOMS	73	-	0.06	450	-	0.8	0.726	27	-	-
VAV-12	ELEC/MECH	203	-	0.06	135	-	0.8	1.138	8	-	-
VAV-13	STORAGE	20	-	0.12	60	-	0.8	0.746	7	-	-
VAV-14	ELEC/MECH	261	-	0.06	60	-	0.8	1.170	4	-	-
VAV-15	CORRIDOR	92	-	0.06	632	-	0.8	0.672	38	-	-
VAV-16	MULTIPURPOSE	288	5	0.06	870	8	0.8	0.787	92	-	-
TOTAL	-	937	-	-	2,207	8	0.8	0.711	176	262	262

NOTE:

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vou = SUM ALL ZONES (Rp * Pz + Ra * Az)
Ev EVALUATED FROM APPENDIX A OF ASHRAE 62.1
Vou / Min Ev = Vot

OUTSIDE AIR CALCULATIONS (RTU-2)

VAV	CLASSIFICATION	MINIMUM CFM	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	DISTRO EFF.	SPACE VENT EFF.	UNCORRECTED OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
			Rp	Ra	Az	Pz	Ez	Ev	Vou	Vot	
VAV-6	OFFICE	321	5	0.06	600	6	0.8	1.014	66	-	-
VAV-7	OFFICE	93	5	0.06	160	1	0.8	1.074	15	-	-
VAV-8	MULTIPURPOSE	162	5	0.06	272	8	0.8	0.836	56	-	-
VAV-9	CORRIDOR	59	-	0.06	341	-	0.8	0.837	20	-	-
VAV-10	MULTIPURPOSE	288	5	0.06	870	8	0.8	0.870	92	-	-
TOTAL	-	923	-	-	2,243	23	0.8	0.836	250	299	299

NOTE:

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vou = SUM ALL ZONES (Rp * Pz + Ra * Az)
Ev EVALUATED FROM APPENDIX A OF ASHRAE 62.1
Vou / Min Ev = Vot

OUTSIDE AIR CALCULATIONS (RTU-1)

VAV	CLASSIFICATION	MINIMUM CFM	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	DISTRO EFF.	SPACE VENT EFF.	UNCORRECTED OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
			Rp	Ra	Az	Pz	Ez	Ev	Vou	Vot	
VAV-1	RECEPTION	124	5	0.06	425	5	1.0	0.767	56	-	-
VAV-2	OFFICE	105	5	0.06	200	1	1.0	1.136	17	-	-
VAV-3	MULTIPURPOSE	526	5	0.06	800	20	1.0	1.017	148	-	-
VAV-4	CORRIDOR	85	-	0.06	460	-	1.0	0.974	28	-	-
VAV-5	OFFICE	163	5	0.06	443	6	0.8	0.711	51	-	-
TOTAL	-	1003	-	-	2,328	32	0.8	0.711	299	421	421

NOTE:

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vou = SUM ALL ZONES (Rp * Pz + Ra * Az)
Ev EVALUATED FROM APPENDIX A OF ASHRAE 62.1
Vou / Min Ev = Vot

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM1-304

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

AIR BALANCE

EXHAUST:	
EF-1	525 CFM
EXHAUST TOTAL:	525 CFM
MAKEUP AIR:	
RTU-1	421 CFM
RTU-2	299 CFM
RTU-3	262 CFM
RTU-4	317 CFM
RTU-5	344 CFM
MAKEUP TOTAL:	1,643 CFM

BUILDING PRESSURE = +1,118
(WITH ALL FANS ACTIVATED)

OUTSIDE AIR CALCULATIONS (RTU-5)

VAV	CLASSIFICATION	MINIMUM CFM	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	DISTRO EFF.	SPACE VENT EFF.	UNCORRECTED OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
			Rp	Ra	Az	Pz	Ez	Ev	Vou	Vot	
VAV-22	MULTIPURPOSE	139	5	0.06	297	8	0.8	0.739	58	-	-
VAV-23	CORRIDOR	64	-	0.06	442	-	0.8	0.743	27	-	-
VAV-24	RECEPTION	113	5	0.06	330	5	0.8	0.761	45	-	-
VAV-25	OFFICE	100	5	0.06	161	1	0.8	1.076	15	-	-
VAV-26	OFFICE	326	5	0.06	582	5	0.8	1.016	60	-	-
VAV-27	OFFICE	150	5	0.06	233	4	0.8	0.975	34	-	-
VAV-28	OFFICE	90	5	0.06	195	1	0.8	1.026	17	-	-
TOTAL	-	982	-	-	2,240	24	0.8	0.739	254	344	344

NOTE:
REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vou = SUM ALL ZONES (Rp * Pz + Ra * Az)
Ev EVALUATED FROM APPENDIX A OF ASHRAE 62.1
Vou / Min Ev = Vot

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STATE OF FLORIDA
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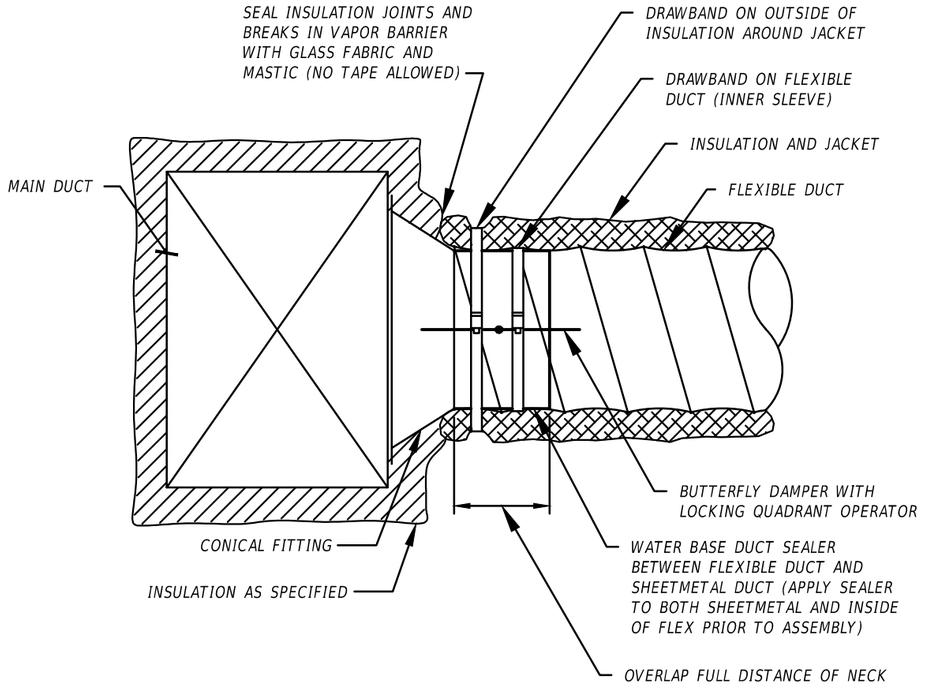
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM1-305

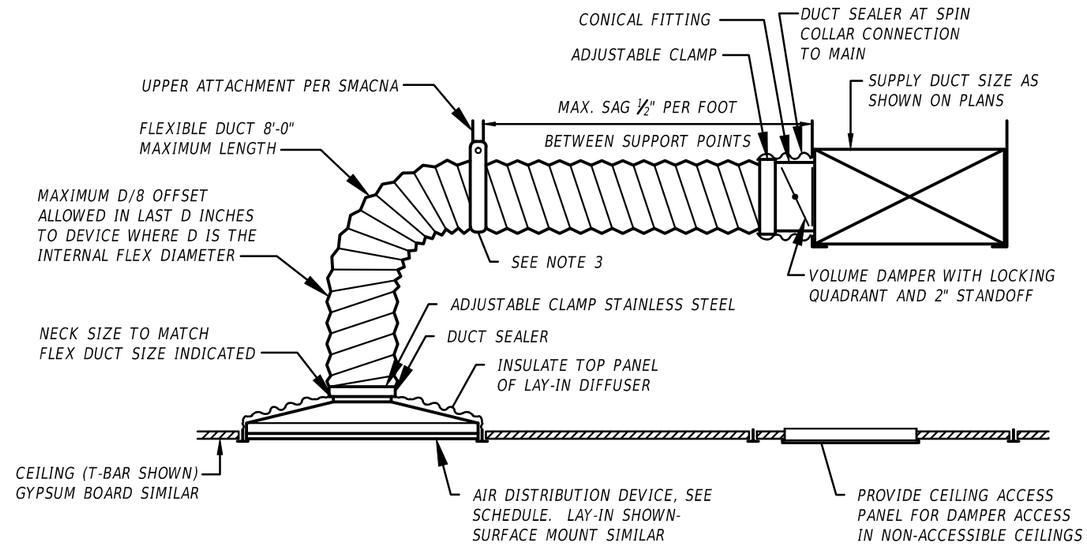
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NOTES:

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.

2 NTS — FLEXIBLE DUCT CONNECTION DETAIL



NOTES:

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MINIMUM 1-1/2" WIDE 22 GAUGE GALVANIZED STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D=1.0.

1 NTS — FLEXIBLE DUCT DETAIL

REVISIONS			
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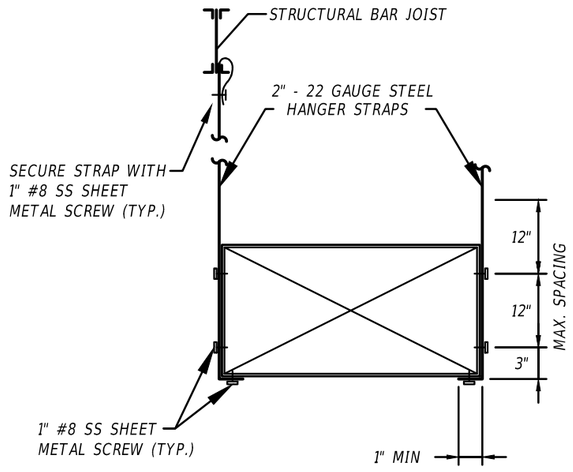
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - MECHANICAL

SHEET NO. AM1-401

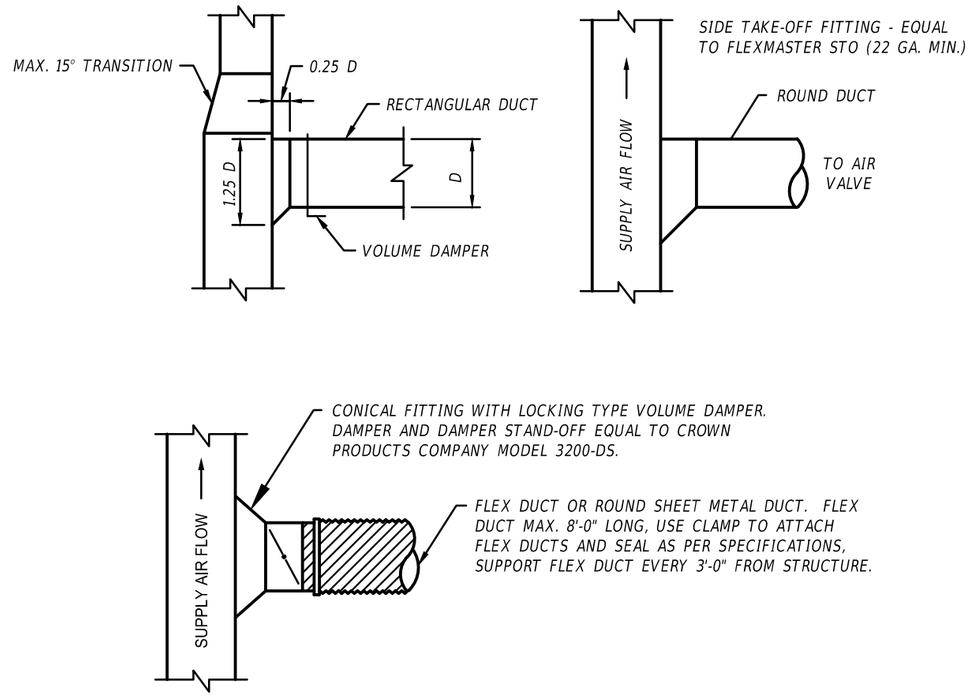
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NOTES:

1. MAXIMUM SPACING BETWEEN HANGER LOCATIONS SHALL BE 8'-0" PER PAIR.
2. STRAPS SHALL BE MINIMUM 2" x 22 GAUGE GALVANIZED STEEL.
3. REFER TO SMACNA FOR ADDITIONAL REQUIREMENTS.

2 NTS DUCTWORK SUPPORT DETAIL



1 NTS DUCT CONNECTION DETAIL

REVISIONS			
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

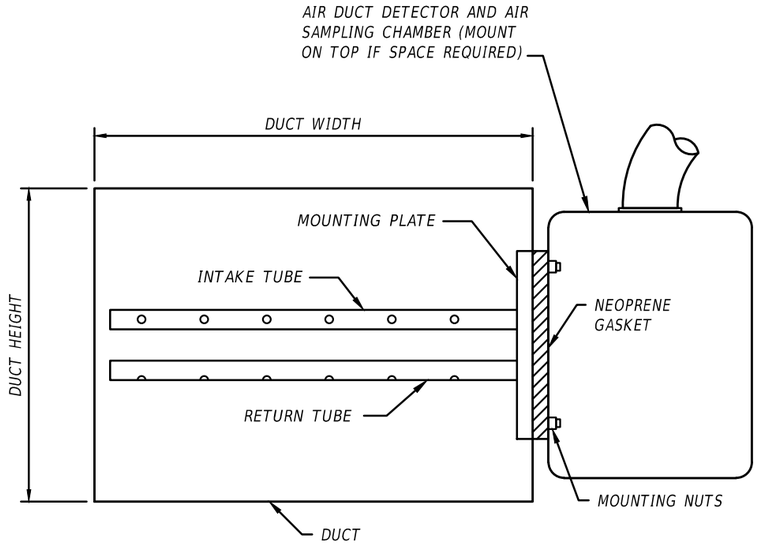
SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - MECHANICAL

SHEET NO.

AM1-402

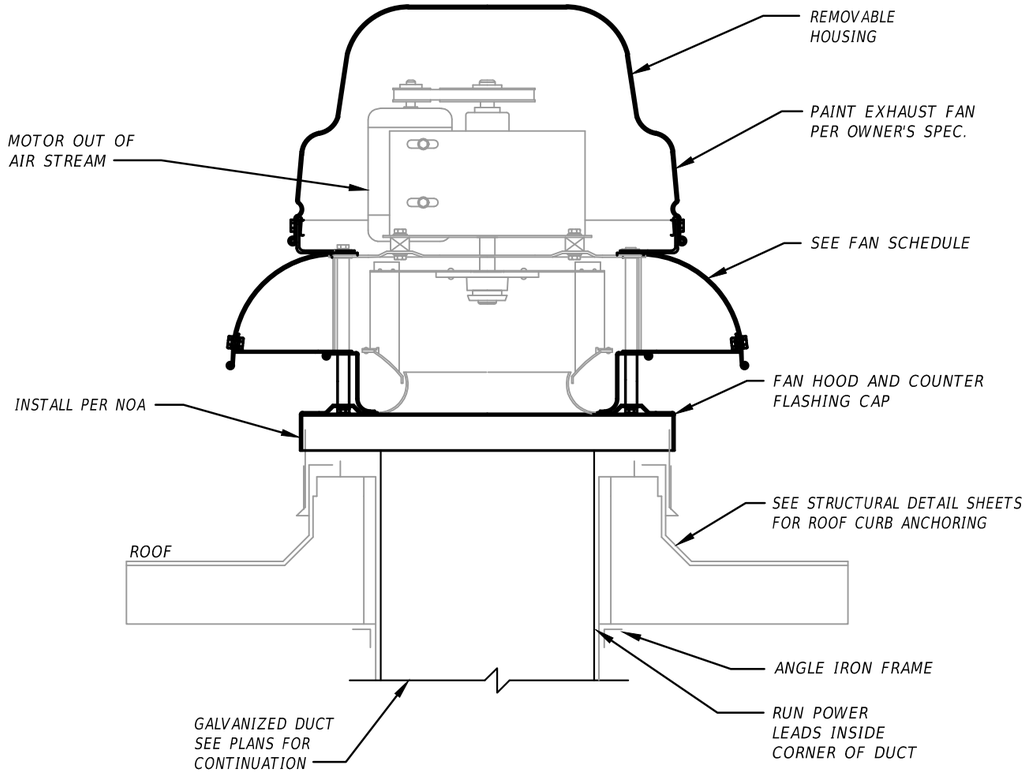
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NOTES:

1. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. PROVIDE ACCESS DOOR AT SAMPLING TUBES.

2 NTS SMOKE DETECTOR DETAIL



NOTE:

1. ALL FANS ON THIS PROJECT ARE IMPACT RATED.

1 NTS CENTRIFUGAL ROOF FAN DETAIL

REVISIONS			
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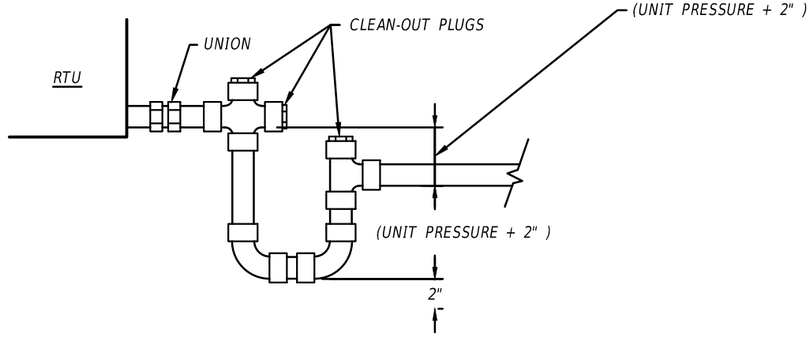
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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

DETAILS - MECHANICAL

SHEET NO.
AM1-403

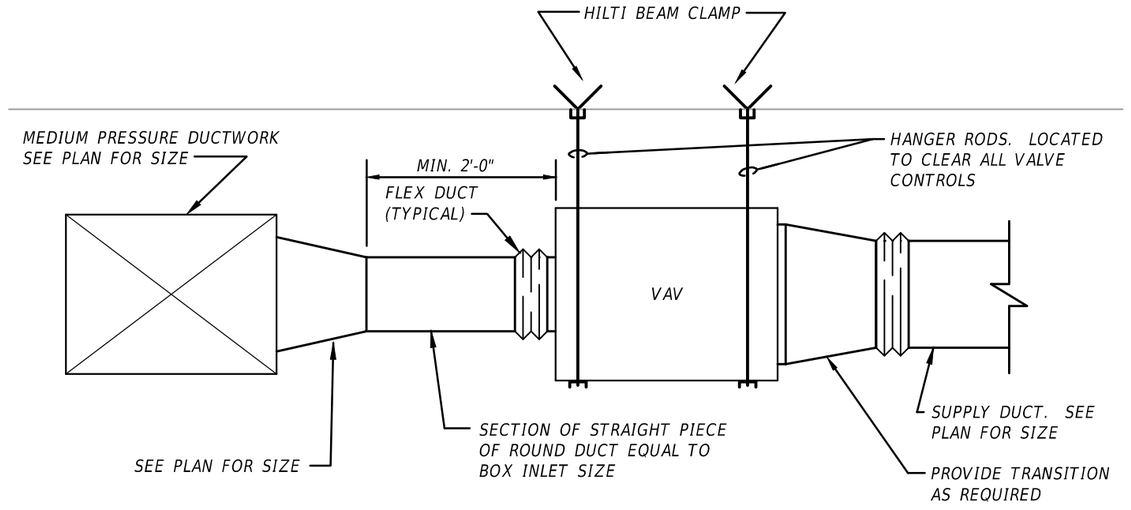
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NOTES:

1. CONDENSATE DRAIN SHALL BE PIPED FULL SIZE OF UNIT CONNECTION.
2. CONDENSATE LINES SHALL BE INSTALLED WITH ADEQUATE PITCH TO ENSURE POSITIVE DRAINAGE OF ACCUMILATED CONDENSATE.
3. TRAP CONDENSATE AND DISCHARGE PER PLAN.

2 NTS CONDENSATE DRAIN DETAIL



1 NTS VAV INSTALLATION DETAIL

REVISIONS			
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1180 HARWOOD AVENUE, SUITE 3000
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SUNTRAX TEST FACILITY
OPERATIONS BUILDING

DETAILS -
MECHANICAL

SHEET NO.
AM1-404

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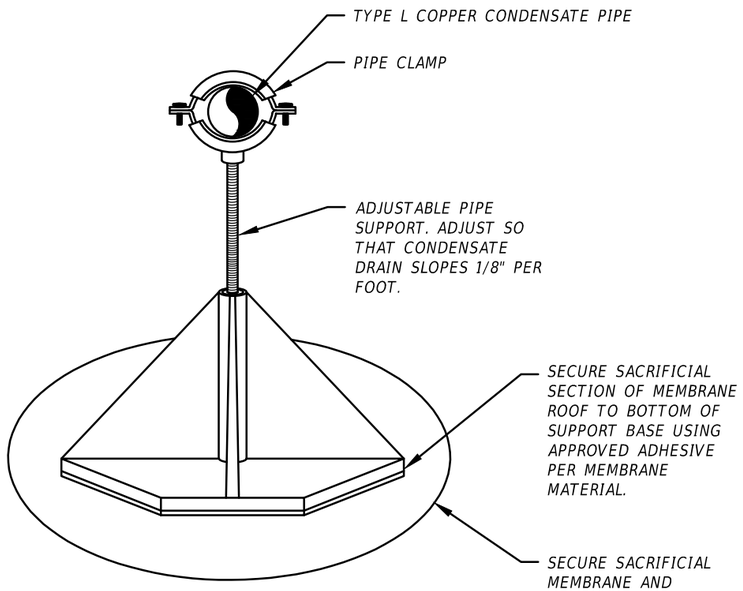
Condensate Piping Supports
MAPA Model MS-1

Spacing for MS-1 condensate support

Pipe IPS	Copper
1-1/2" and smaller	5'
2"	8'
2" and larger	10'

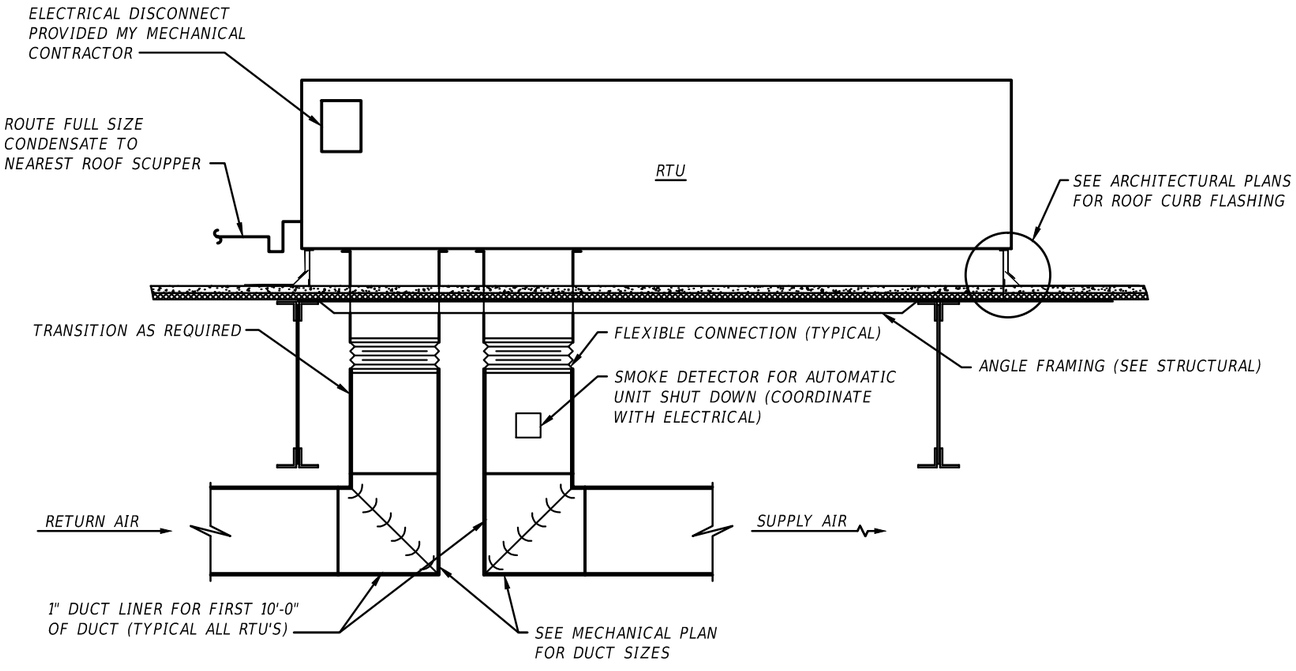
Maximum recommended spacing on all roller supports is 10' Additional support recommended at each change of direction

MAPA Products / 877-897-2371
Naples, Texas



NOTES:
1. SUPPORTS SHALL BE INSTALLED PER SCHEDULE.

2 NTS — CONDENSATE PIPE SUPPORT DETAIL



NOTE:
1. SEE STRUCTURAL PLANS FOR ROOF TOP UNIT FRAMING, SUPPORT, AND TIE DOWN DETAILS.

1 NTS — RTU INSTALLATION DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

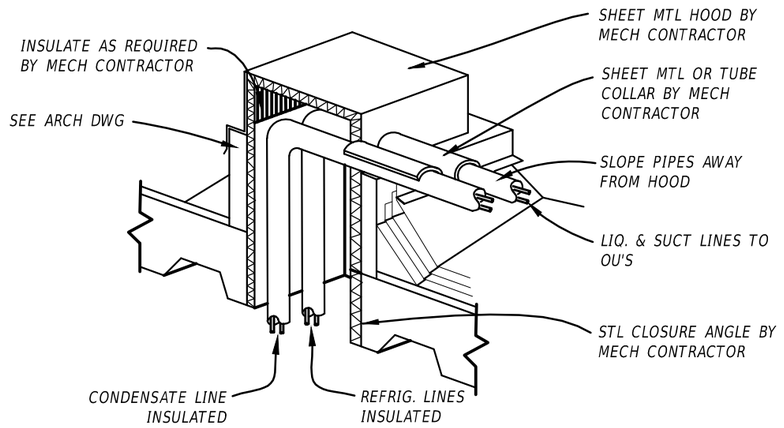
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

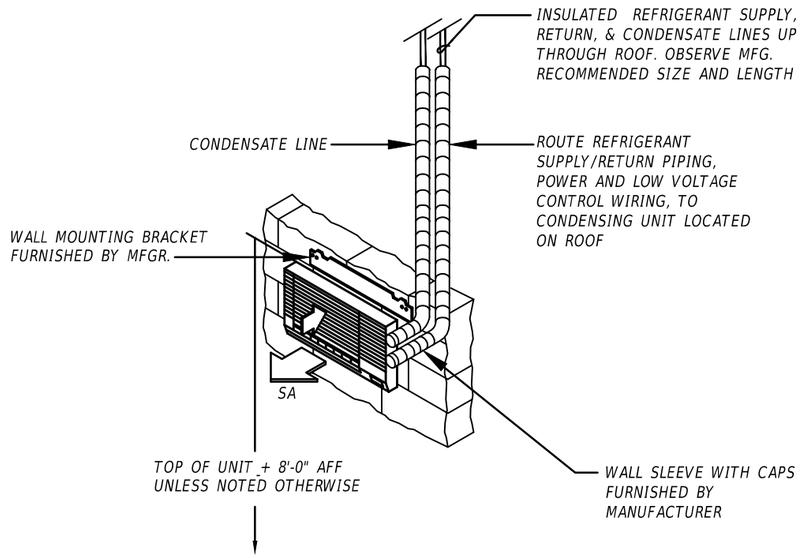
DETAILS - MECHANICAL

SHEET NO.
AM1-405

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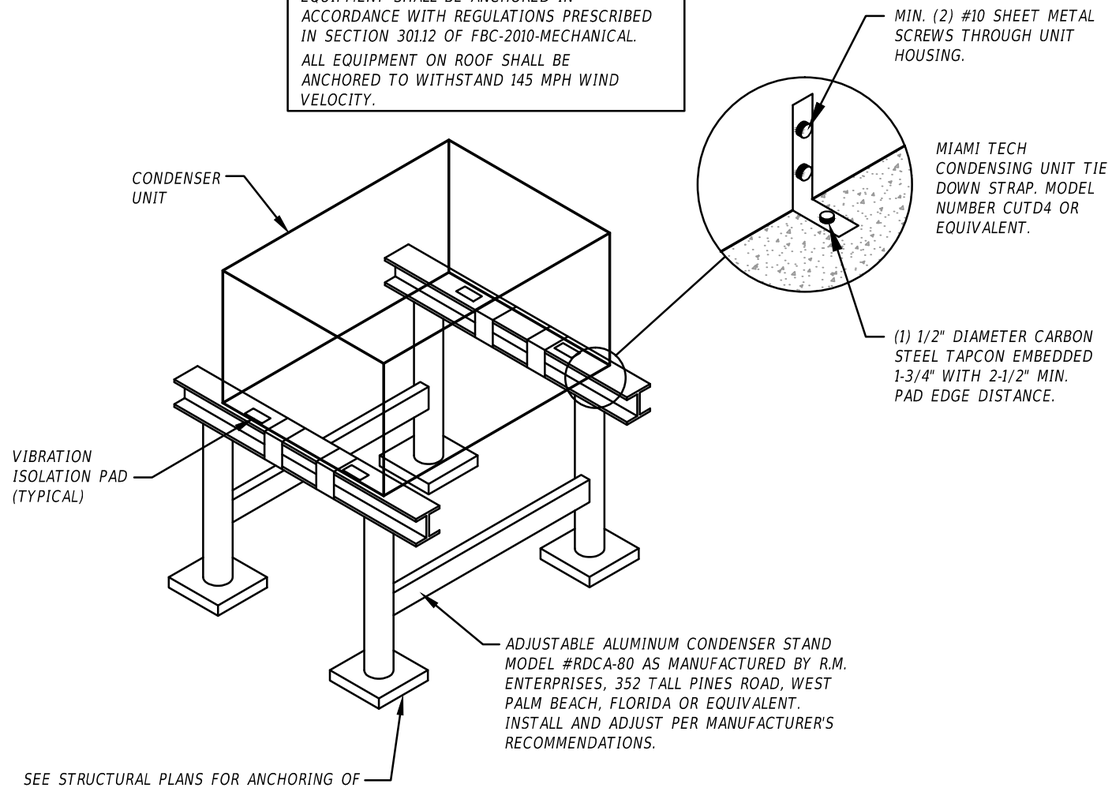


3 NTS — REFRIGERANT PIPING THRU ROOF DETAIL



2 NTS — WALL MOUNTED SPLIT SYSTEM SUPPORT DETAIL

NOTE:
EQUIPMENT SHALL BE ANCHORED IN ACCORDANCE WITH REGULATIONS PRESCRIBED IN SECTION 301.12 OF FBC-2010-MECHANICAL.
ALL EQUIPMENT ON ROOF SHALL BE ANCHORED TO WITHSTAND 145 MPH WIND VELOCITY.



CLEARANCE BELOW RAISED ROOF MOUNTED MECHANICAL UNITS	
WIDTH OF EQUIPMENT (IN)	HEIGHT OF LEGS (IN)
< 24	14
25 < 36	18
36 < 48	24
48 < 60	30
> 60	48

1 NTS — CONDENSER RACK DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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SUNTRAX TEST FACILITY
OPERATIONS BUILDING

DETAILS - MECHANICAL

SHEET NO.
AM1-406

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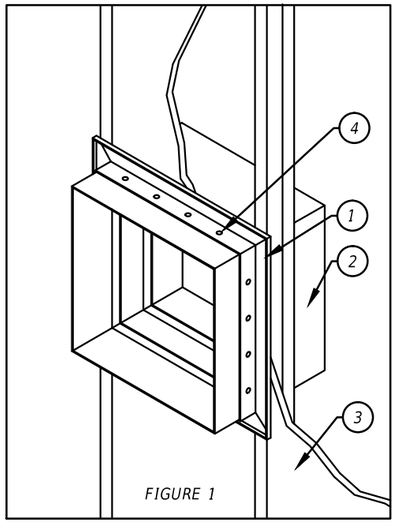


FIGURE 1

ITEM	DESCRIPTION
1.	PICTURE FRAME MOUNTING ANGLE (2 PER DAMPER/1 PER SIDE)
2.	DAMPER/SLEEVE ASSEMBLY
3.	FIRE RATED WALL OR FLOOR
4.	FASTENER (SEE NOTE 2)

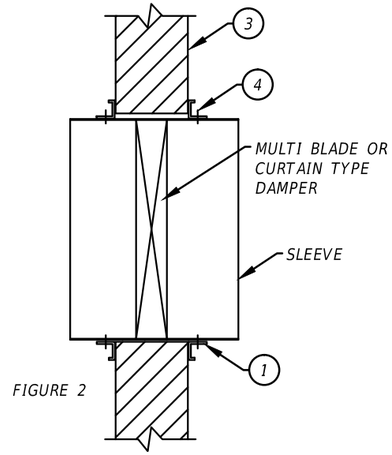


FIGURE 2

1 NTS FIRE DAMPER INSTALLATION DETAIL

FIRE DAMPER INSTALLATION REQUIREMENTS:

STATIC FIRE DAMPERS-IBD models as manufactured by Ruskin-Not for use in dynamic (fans on) systems.
DYNAMIC FIRE DAMPERS-DIBD models as manufactured by Ruskin-Use in Dynamic (fans on) or Static (fans off) Systems

1. Opening Clearance The opening in the wall or floor shall be larger than the damper/sleeve assembly to permit installation or expansion. For two angle installations the opening shall be a minimum of 1/8" per foot larger than the overall size of the damper/sleeve assembly. The maximum opening size shall not exceed 1/8" per foot plus 2", nor shall the opening be less than 1/4" larger than the damper/ sleeve assembly. For one angle installations, the opening shall be a minimum of 1/4" to a maximum of 1" arger than the overall size of the damper/sleeve assembly.

2. Fasteners and Multiple Section Assembly Use No. 10 bolts or screws, 3/16" rivets, tack welds or spot welds and spaced as follows when joining individual dampers to make multiple section damper assemblies or when fastening damper to the sleeve: Vertical Mount (In all) Galvanized steel dampers 12" spacing. Horizontal Mount (In floor) All dampers 6" spacing. Multiple section horizontal mount dampers require a 14 gage thick x 41/2" wide steel reinforcing plate sandwiched between the damper frames with 1/2" long welds staggered intermittently and spaced on maximum 6" centers. The reinforcing plate must be the same material as the dampers. The length must be equal to the damper width of two or more adjoining damper sections. Reinforcing plates are not required for assemblies consisting of two dampers attached end-to-end or three dampers attached side-to-side.

3. Damper Sleeve Sleeve thickness must be equal to or thicker than the duct connected to it. Sleeve gage requirements are listed in the SMACNA Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems and in NFPA90A. If a breakaway style duct/sleeve connection is not used, the sleeve shall be a minimum of 16 gage for dampers up to 36" wide by 24" high and 14 gage for dampers exceeding 36" wide by 24" high. Damper sleeve shall not extend more than 6" beyond the fire wall or partition unless damper is equipped with a factory installed access door. Sleeve may extend up to 16" beyond the fire wall or partition on sides equipped with a factory installed access door. Sleeve shall terminate at both sides of wall within dimensions shown.

4. Damper Orientation Use "Air Flow" and "Mount with Arrow Up" labels on Dynamic DIBD and DIBDX models for proper damper orientation. For Static IBD models use only "Mount With Arrow Up" label on damper for proper damper orientation.

5. Mounting Angles Mounting angles shall be a minimum of 11/2" x 11/2" x 20 gage steel. For openings in metal stud, wood stud walls or concrete/masonry walls and floors of sizes 90" x 49" or 49" x 90" and less mounting angles are only required on one side of the wall or top side of the floor. The angles must be attached to both the sleeve and the wall or floor. Mounting angles may be installed directly to the metal stud under the wall board on metal stud wall installations only. Larger openings require mounting angles on both sides of the partition and must be attached only to the sleeve. Mounting angles must overlap the partition a minimum of 1". Do not weld or fasten angles together at corners of dampers. Ruskin fire dampers may be installed using Ruskin FAST angle for one angle installation or Ruskin PFMA for two angle installations.

5.1 Mounting Angle Fasteners Sleeve: #10 bolts or screws, 3/16" steel rivets or 1/2" long welds. Masonry/Wall or Floor: #10 self-tapping concrete screws. Wood/Steel Stud Wall: #10 screws.

5.2 Mounting Angle Fastener Spacing For one angle installations the sleeve fasteners shall be spaced at 6" o.c. and the wall or floor fasteners shall be spaced at 12" o.c. with a minimum of 2 fasteners on each side, top and bottom. Screw fasteners used in metal stud must engage the metal stud a minimum of 1/2". Screw fasteners used in wood stud must engage the wood stud a minimum of 3/4". Screw fasteners used in masonry walls or floors must engage the wall a minimum of 11/2". For two angle installations the fasteners shall be paced at 8" o.c.

6. Duct/Sleeve Connections:

6.1. Break-away Duct/Sleeve Connections A maximum of two #10 sheet metal screws on each side and the bottom, located in the center of the slip pocket and penetrating both sides of the slip pocket may be used. Connections using these slip joints on the top and bottom with flat drive slips up to 20" long on the sides may also be used.

6.2. Round and Oval Break-away Connections Round and flat oval break-away connections must use either a 4" wide drawband or #10 sheet metal screws spaced equally around the circumference of the duct as follows: Duct diameters 22" and smaller, maximum 3 screws. Duct diameters over 22" and including 36", maximum 5 screws. Duct diameters over 36" and up to and including 191" total perimeter, maximum 8 screws. For flat oval ducts, the diameter is considered the largest (major) dimension of the duct. Note: When optional sealing of these joints is desired, the following sealants may be applied in accordance with the sealant manufacturer's instructions: Hardcast, Inc. - Iron Grip 601, Eco Duct Seal 44- 52, Precision - PA2084T, Design Polymerics - DP 1010

6.3. Flanged Break-away Style Duct Sleeve Connections. Flanged connection systems manufactured by Ductmate, Nexus or Ward are approved break-away connections when installed as shown on the Flanged System Breakaway Connections Supplement. TDC and TDF roll-formed flanged connections using 3/8" steel bolts and nuts, and metal cleats, as tested by SMACNA, are approved break-away connections when installed as shown on the Flanged System Breakaway Connections Supplement.

6.4. Non-Break-away Duct/Sleeve Connections. If other duct sleeve connections are used, the sleeve shall be a minimum of 16 gage for dampers up to 36" wide x 24" high and 14 gage for dampers exceeding 36" wide x 24" high.

7. Installation and Maintenance To ensure optimum operation and performance, the damper must be installed so it is square and free from racking. Each fire damper should be maintained and tested on a regular basis and in accordance with the latest editions of NFPA 90A and loca codes. Care should be exercised to ensure that such tests are l performed safely and do not cause system damage.

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ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

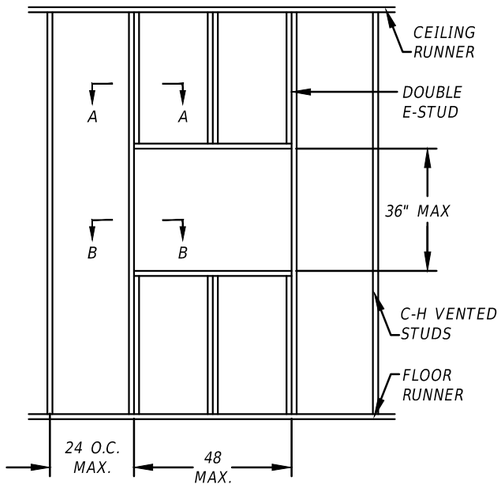
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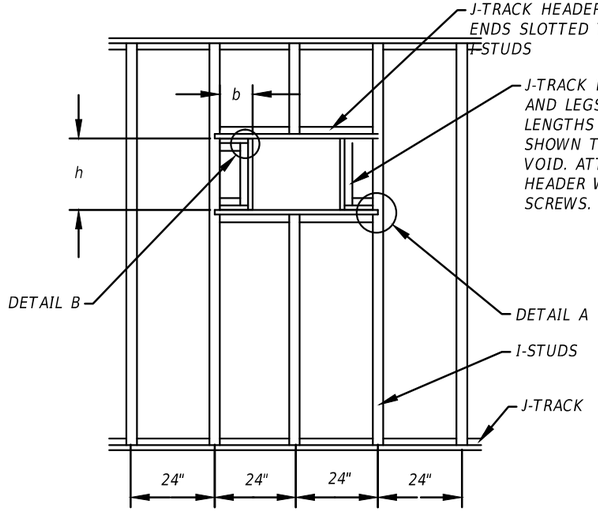
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OPERATIONS BUILDING

DETAILS - MECHANICAL

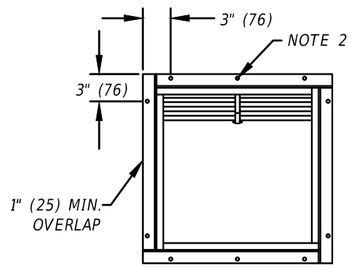
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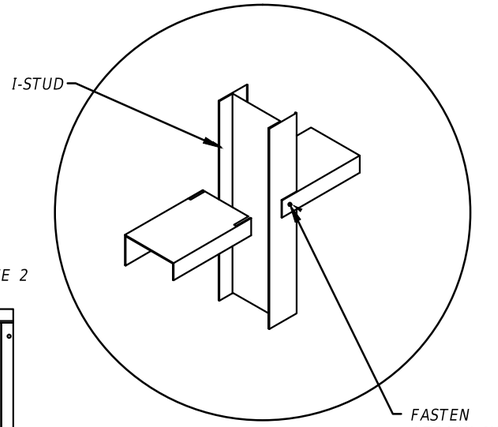


FRAMING DETAIL U438

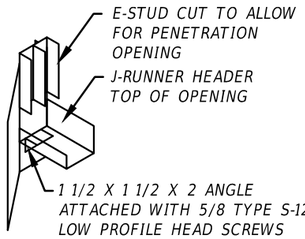


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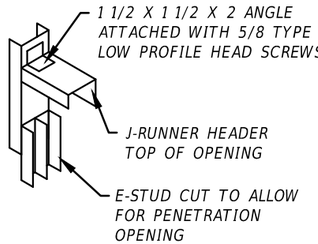




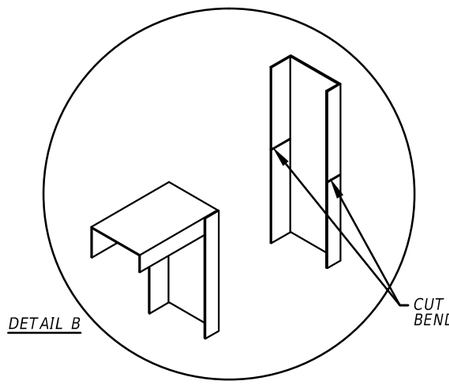
DETAIL A



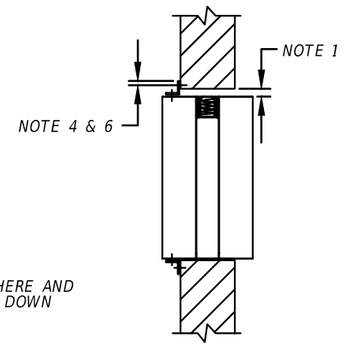
SECTION A-A



SECTION B-B



DETAIL B



1 NTS FIRE DAMPER INSTALLATION DETAIL (CONTINUED)

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CA NO.: 28730

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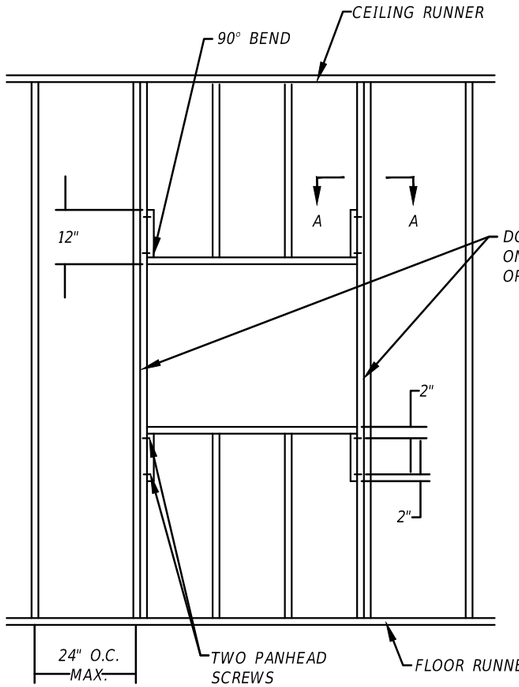
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OPERATIONS BUILDING

DETAILS - MECHANICAL

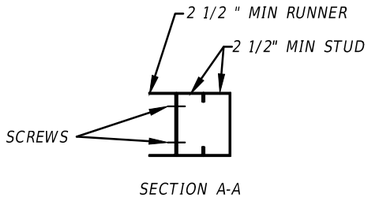
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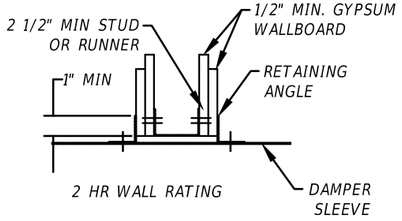


OPENING PREPARATION DETAIL

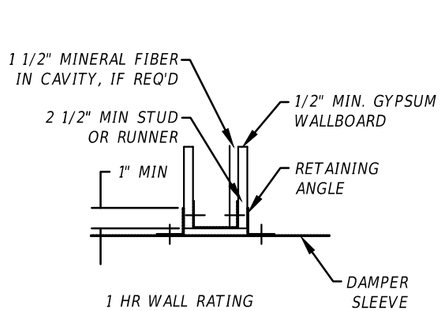
<u>METAL STUD CONSTRUCTION</u>



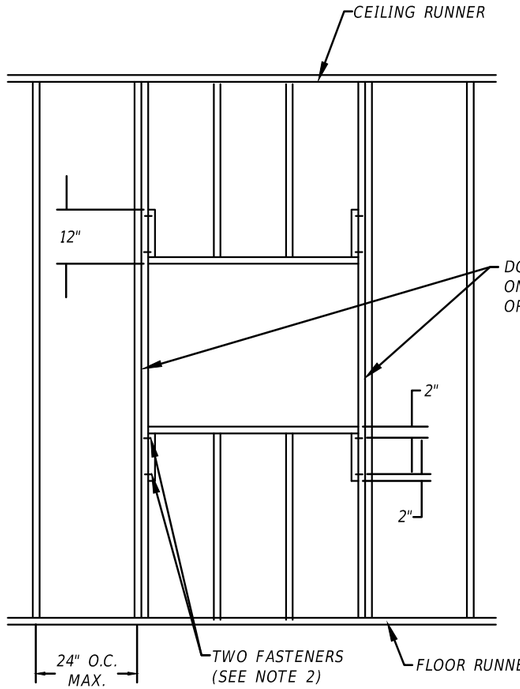
SECTION A-A



2 HR WALL RATING

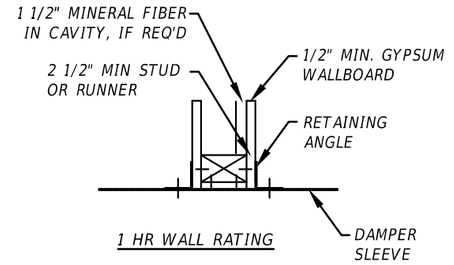


1 HR WALL RATING

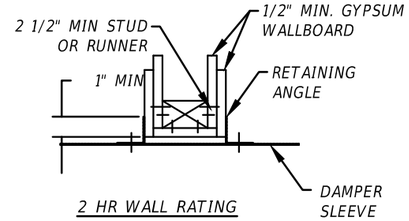


OPENING PREPARATION DETAIL

<u>WOOD STUD CONSTRUCTION</u>



<u>1 HR WALL RATING</u>



<u>2 HR WALL RATING</u>

<u>INSTRUCTIONS:</u>

1. Frame wall openings as shown.
2. Double vertical studs are not required for openings 36"wx36h" or smaller.
3. Full length studs are not required next to the damper if the spacing from the damper to the full length stud does not exceed the maximum stud spacing. The opening may be framed with studs that are attached to full length studs (see figure 2).d
4. All construction and fasteners must meet the requirements of the appropriate wall design and/or local codes.
5. Consult the authority having jurisdiction for the acceptance framing method.

<u>NOTE:</u>

The metal stud construction and wood stud construction figure abovedepict mounting angles installed on both sides of the partition. A single angle may be sufficient. Refer to the instructions for single angle installation requirements.

1 NTS FIRE DAMPER INSTALLATION DETAIL (CONTINUED)

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DETAILS - MECHANICAL

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VERTICAL INSTALLATION

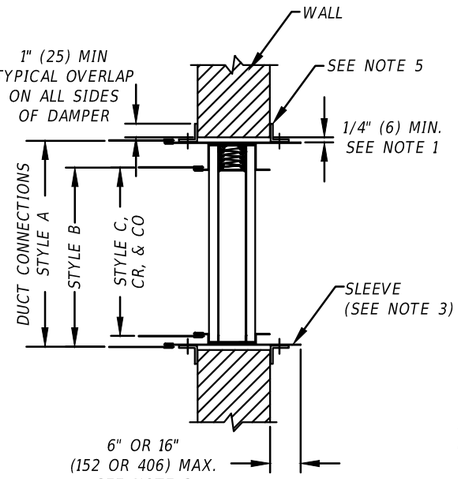
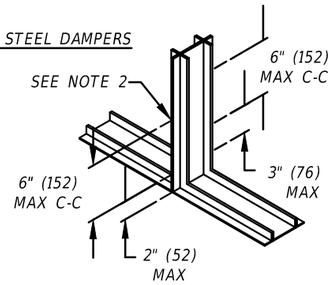
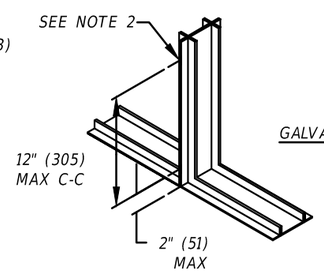


FIGURE 1

STAINLESS STEEL DAMPERS



GALVANIZED DAMPERS



1 1/2 HOUR
FIGURE 2

UNITTYPE

HORIZONTAL INSTALLATION

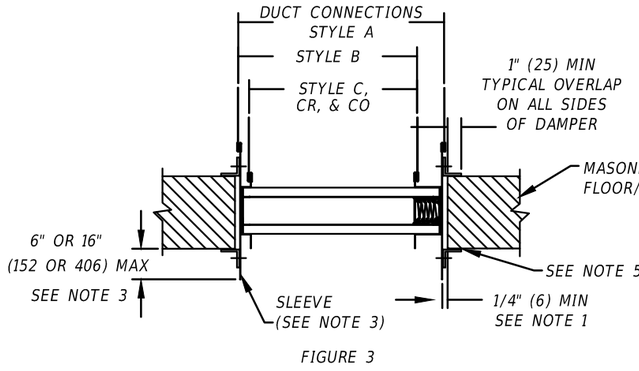


FIGURE 3

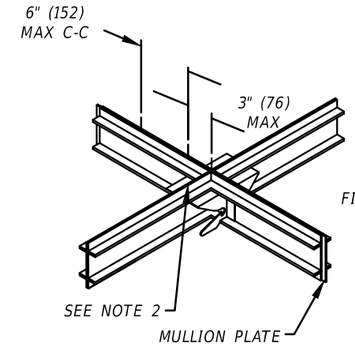


FIGURE 4

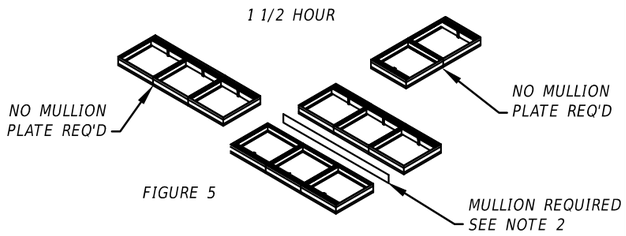


FIGURE 5

1 NTS FIRE DAMPER INSTALLATION DETAIL (CONTINUED)

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OPERATIONS BUILDING

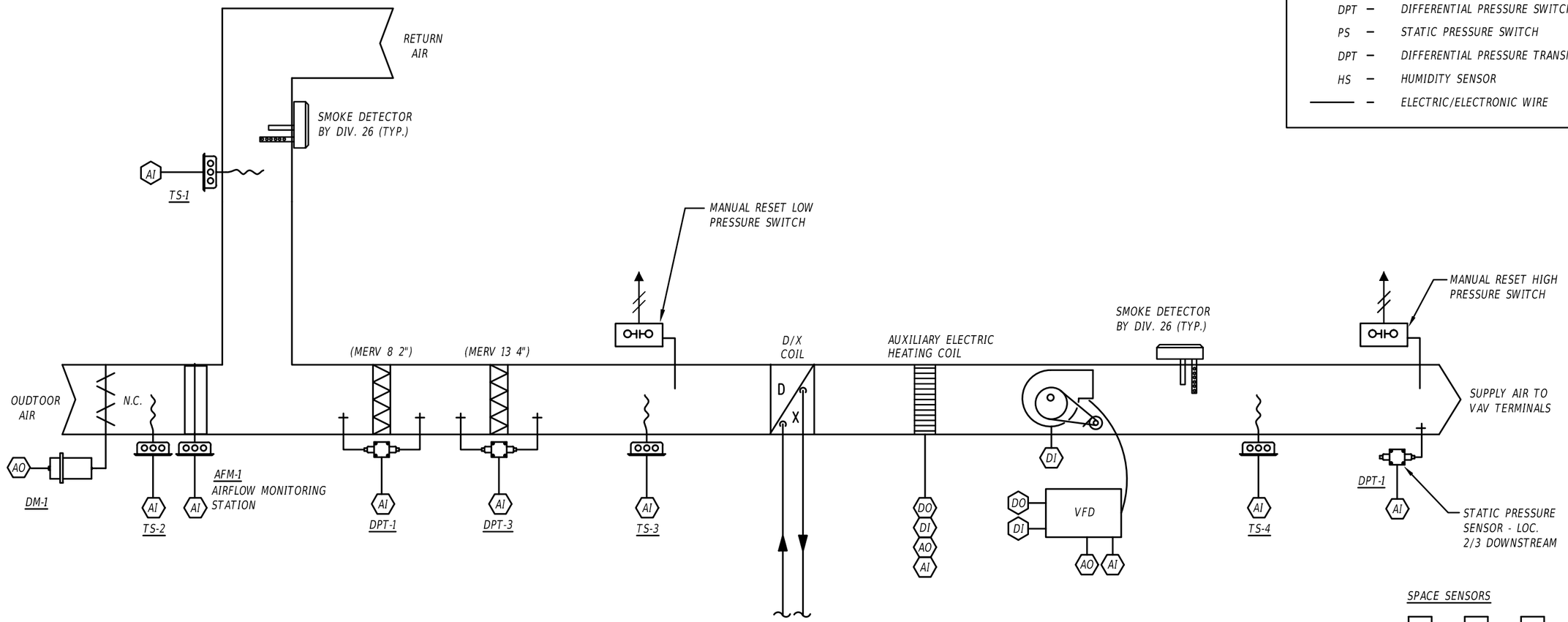
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MECHANICAL

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CONTROLS LEGEND

⬡	–	INPUT/OUTPUT POINT TO DDC CONTROL PANEL
TS	–	TEMPERATURE SENSOR
DI	–	DIGITAL INPUT
DO	–	DIGITAL OUTPUT
AI	–	ANALOG INPUT
AO	–	ANALOG OUTPUT
DPT	–	DIFFERENTIAL PRESSURE SWITCH
PS	–	STATIC PRESSURE SWITCH
DPT	–	DIFFERENTIAL PRESSURE TRANSMITTER
HS	–	HUMIDITY SENSOR
———	–	ELECTRIC/ELECTRONIC WIRE



1 ROOF MOUNTED RTU'S (SINGLE ZONE VAV)

NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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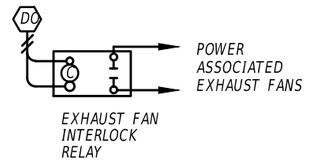
SUNTRAX TEST FACILITY OPERATIONS BUILDING

CONTROLS - MECHANICAL

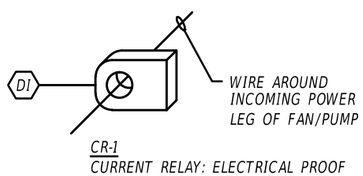
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AM1-501

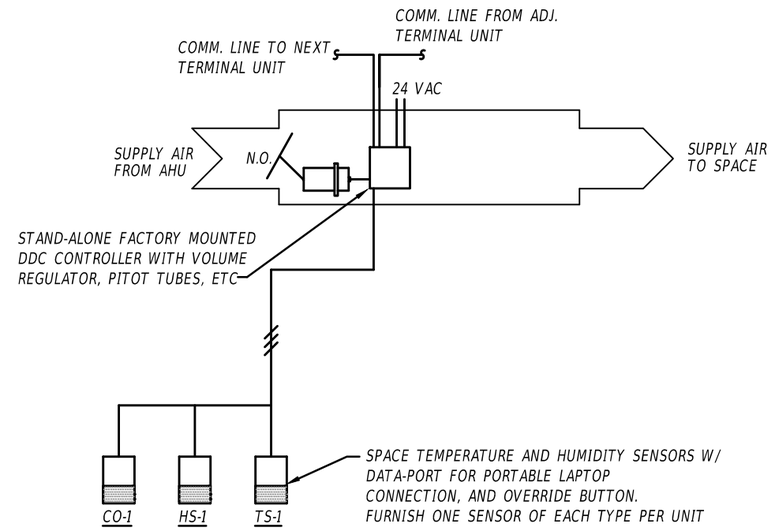
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3 NTS — FAN INTERLOCK DETAIL



2 NTS — TYPICAL FAN MONITORING DETAIL



1 NTS — VARIABLE VOLUME TERMINAL

REVISIONS			
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

CONTROLS - MECHANICAL

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BUILDING CONTROLS SEQUENCE

CONTROLS SYSTEM ARCHITECTURE

THE SYSTEM SHALL CONSIST OF A WIRED MICROPROCESSOR BASED BUILDING CONTROL UNIT CAPABLE OF CONTROLLING ALL ASPECTS OF THE HVAC SYSTEMS WITHIN THE BUILDINGS. THE UNIT WILL BE LOCATED IN THE OPERATIONS BUILDING STORAGE ROOM-35 AND HAVE TWO MODES. ONE "OCCUPIED MODE" FOR WHEN THE BUILDINGS ARE IN USE AND ONE "UNOCCUPIED MODE" FOR WHEN THE BUILDINGS ARE NOT IN USE.

OCCUPIED MODE:

WHEN THE BUILDING IS OCCUPIED (HOURS TO BE DETERMINED BY BUILDING OPERATIONS) THE ROOF TOP UNITS, ZONE VAV BOXES AND EXHAUST FANS SHALL OPERATE AS FOLLOWS:

SINGLE ZONE RTU'S (STORAGE BUILDING) SHALL OPERATE CONTINUOUSLY BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF 75 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY.

MULTI ZONE RTU'S (OPERATIONS BUILDING) SHALL OPERATE CONTINUOUSLY BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN THE DUCTWORK STATIC PRESSURE SETPOINT (1.25" WG) AND SUPPLY TEMPERATURE SETPOINT (53°F). ZONE VAV BOXES SHALL MODULATE TO MAINTAIN A BASELINE SPACE TEMPERATURE SETPOINT OF 75 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY (SUMMER) AND 70 DEGREES FAHRENHEIT AND 50% RELATIVE HUMIDITY (WINTER). IF MORE THAN 2/3 OF OF THE ZONE VAV BOXES CALL FOR HEATING, THE RTU SHALL CHANGEOVER TO HEATING (HEAT PUMP MODE).

UNOCCUPIED MODE:

WHEN THE BUILDING IS UNOCCUPIED (HOURS TO BE DETERMINED BY BUILDING OPERATIONS) THE ROOF TOP UNITS, ZONE VAV BOXES AND EXHAUST FANS SHALL OPERATE AS FOLLOWS:

SINGLE ZONE RTU'S (STORAGE BUILDING) SHALL OPERATE AS REQUIRED BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF 82 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY.

MULTI ZONE RTU'S (OPERATIONS BUILDING) SHALL OPERATE AS REQUIRED BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN THE DUCTWORK STATIC PRESSURE SETPOINT (1.25" WG) AND SUPPLY TEMPERATURE SETPOINT (53°F). ZONE VAV BOXES SHALL MODULATE TO MAINTAIN A BASELINE SPACE TEMPERATURE SETPOINT OF 82 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY (SUMMER) AND 70 DEGREES FAHRENHEIT AND 50% RELATIVE HUMIDITY (WINTER). IF MORE THAN 2/3 OF OF THE ZONE VAV BOXES CALL FOR HEATING, THE RTU SHALL CHANGEOVER TO HEATING (HEAT PUMP MODE).

REVISIONS			
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

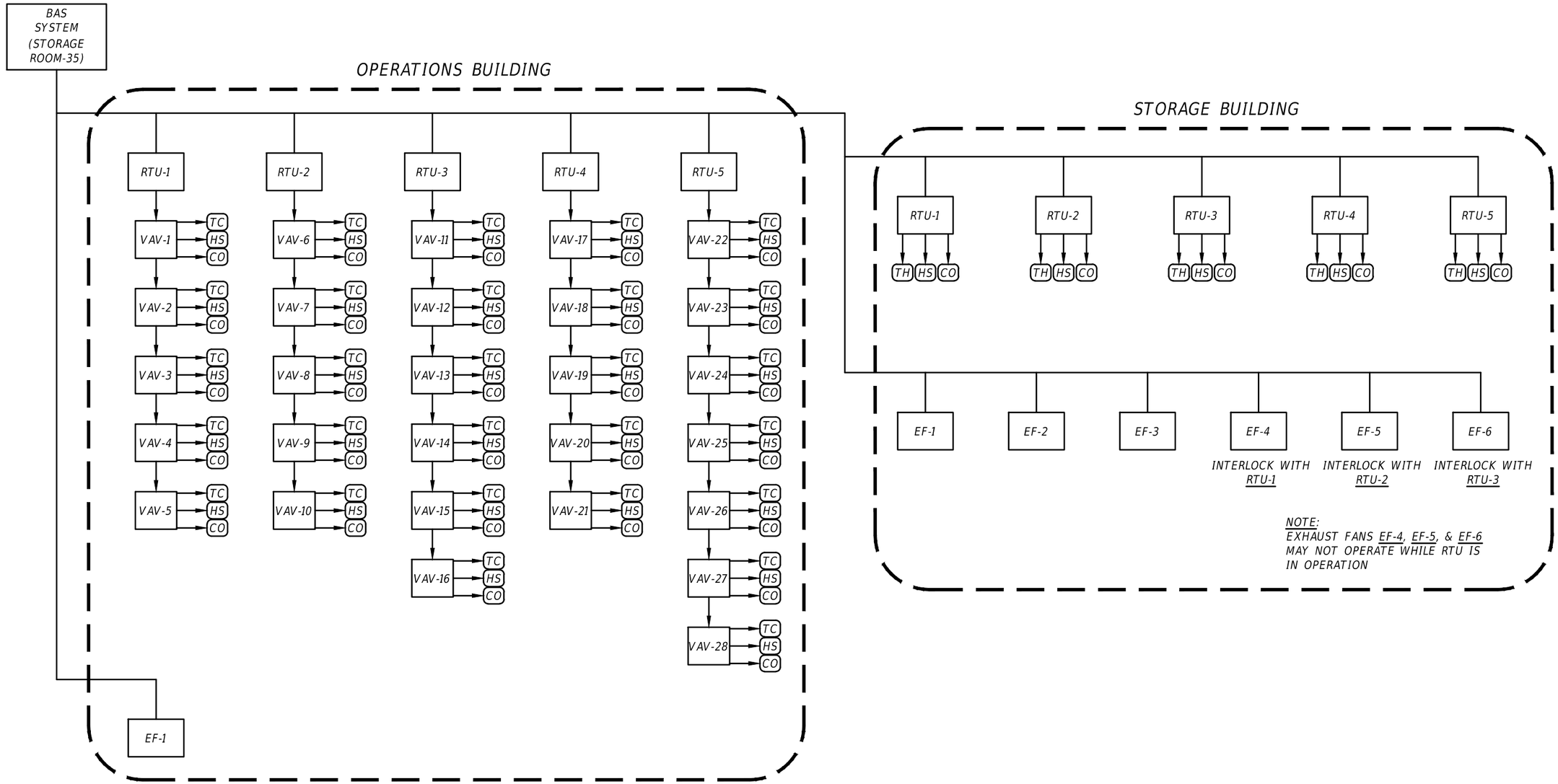
SUNTRAX TEST FACILITY OPERATIONS BUILDING

CONTROLS - MECHANICAL

SHEET NO.

AM1-503

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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SUNTRAX TEST FACILITY OPERATIONS BUILDING

CONTROLS - MECHANICAL

SHEET NO.

AM1-504

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LEGEND

- DIRECTION OF FLOW IN PIPE
- PITCH PIPE DOWN IN DIRECTION OF ARROW
- PIPE UP
- PIPE DOWN
- BALL VALVE
- CHECK VALVE, HORIZONTAL SWING
- GATE VALVE
- CAPPED LINE
- SAN — SANITARY SEWER (ABOVE GRADE)
- SAN — SANITARY SEWER (BELOW GRADE)
- DOMESTIC COLD WATER
- CD — CONDENSATE DRAIN (BELOW GRADE)
- CD — CONDENSATE DRAIN (ABOVE GRADE)
- VENT
- ΔT — DELTA T (TEMPERATURE DIFFERENCE)
- A / B — PHOTO DETAIL OR SECTION IDENTIFICATION TARGET
  A = DETAIL NUMBER.
  B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.
- HB — HOSE BIBB
- FD — FLOOR DRAIN
- HD — HUB DRAIN
- FLOOR CLEANOUT
- CLEANOUT
- EXTERIOR CLEANOUT
- HORIZONTAL CLEANOUT
- SHOCK ABSORBER

GENERAL NOTES

1. ALL SANITARY PIPING SHALL HAVE A 1/8" PER FOOT SLOPE UNLESS OTHERWISE NOTED.
2. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
3. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS SPECIFIED.
4. ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
5. CHANGES IN THE DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (IE: USE OF SANITARY TEE IN A HORIZONTAL CONNECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF SHORT-RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
6. ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
7. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE MOUNTING HEIGHTS, AND DIMENSIONS.
8. ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
9. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
11. PROVIDE 1/2" C.W. SUPPLY WITH ANGLE STOP AND FLEXIBLE SUPPLY TO REFRIGERATORS WITH ICE MAKERS AT HEIGHT REQUIRED BY MANUFACTURER OF EQUIPMENT INSTALLED.
12. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE PLACED ON THE INTERIOR SIDE OF THE WALL, SO THAT WALL INSULATION CAN BE PLACED ON THE EXTERIOR SIDE OF THE PIPING.

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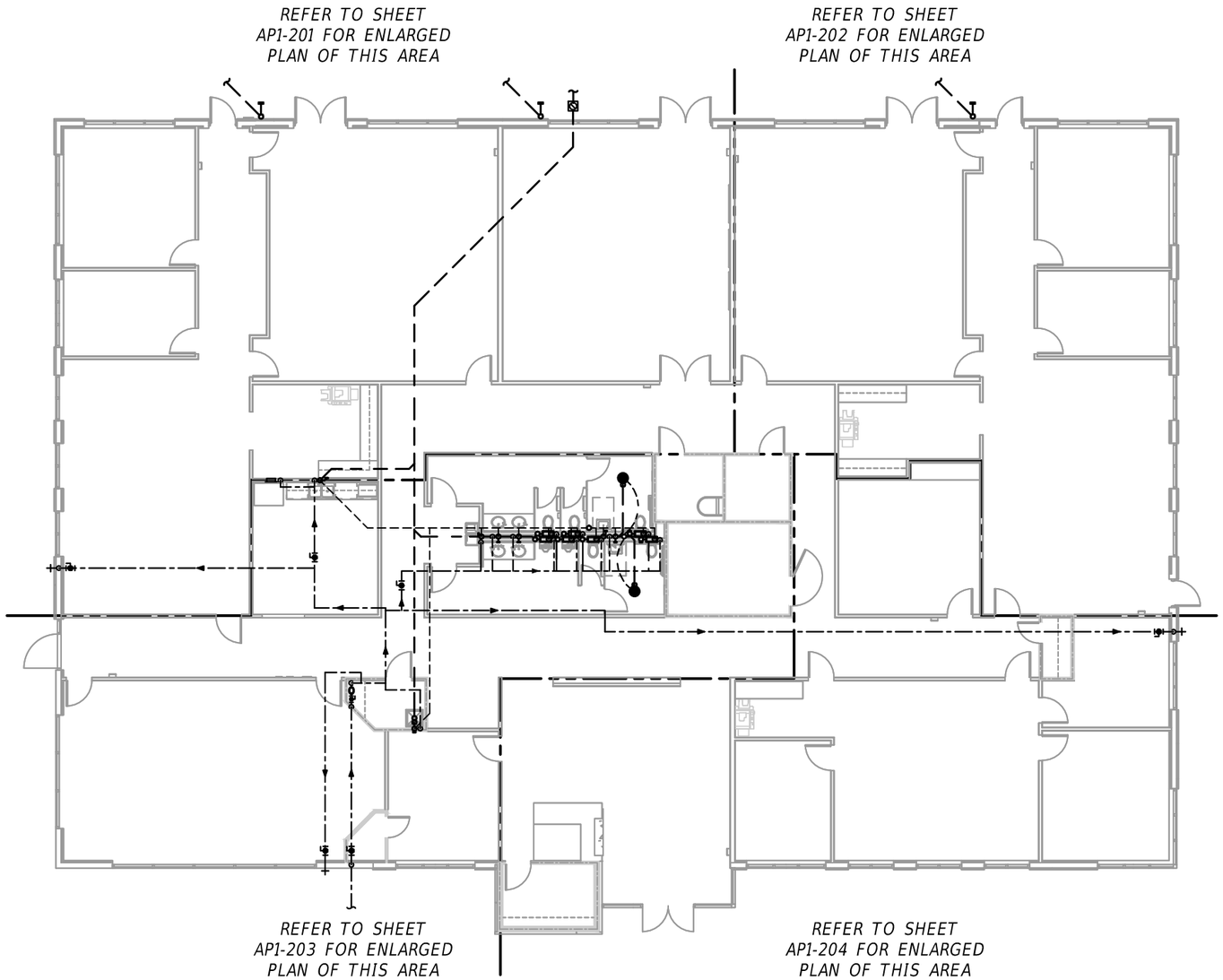
SUNTRAX TEST FACILITY OPERATIONS BUILDING

SYMBOL LEGEND & GENERAL NOTES - PLUMBING

SHEET NO.
AP1-001

GENERAL NOTE:

A. REFER TO SHEET AP1-001 FOR SYMBOL LEGEND.



1 OVERALL FLOOR PLAN - PLUMBING
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

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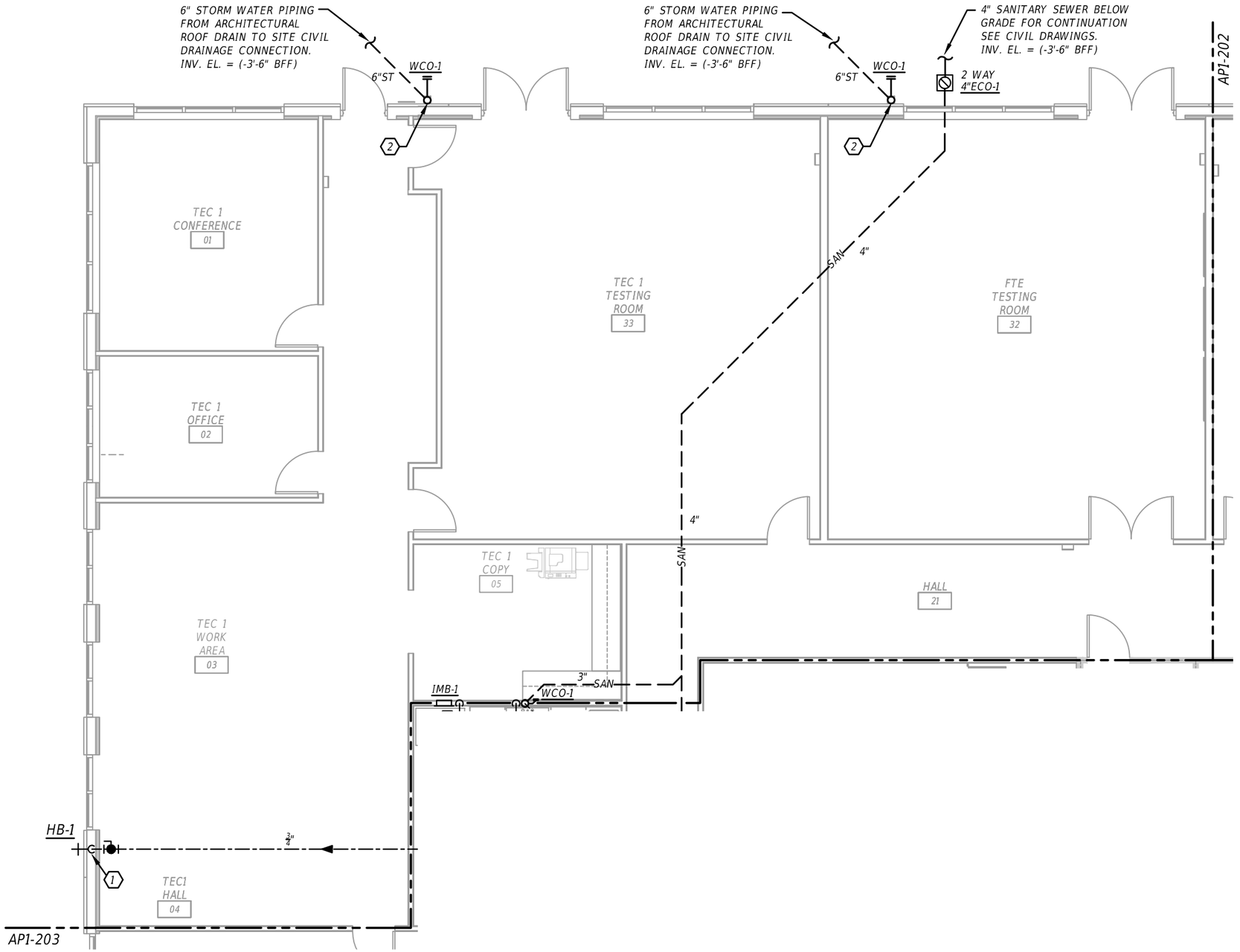
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL FLOOR PLAN - PLUMBING

SHEET NO.
AP1-200

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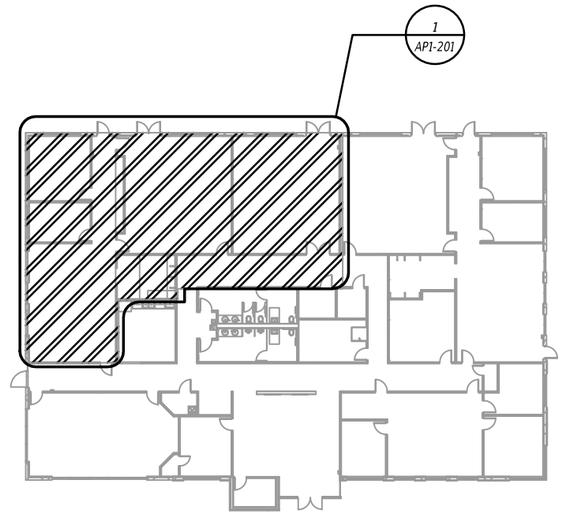


ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - PLUMBING

1 — 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN
SCALE: NTS

REFERENCE NOTES: (X)

1. 3/4" CW DOWN WITHIN WALL TO HOSE BIBB BELOW.
2. CONNECT 6" STORM PIPING TO ARCHITECTURAL ROOF DRAIN AND ROUTE AS SHOWN 5'-0" OUTSIDE OF BUILDING TO SITE CIVIL STORM CONNECTION.

GENERAL NOTE:

A. REFER TO SHEET AP1-001 FOR SYMBOL LEGEND.

REVISIONS			
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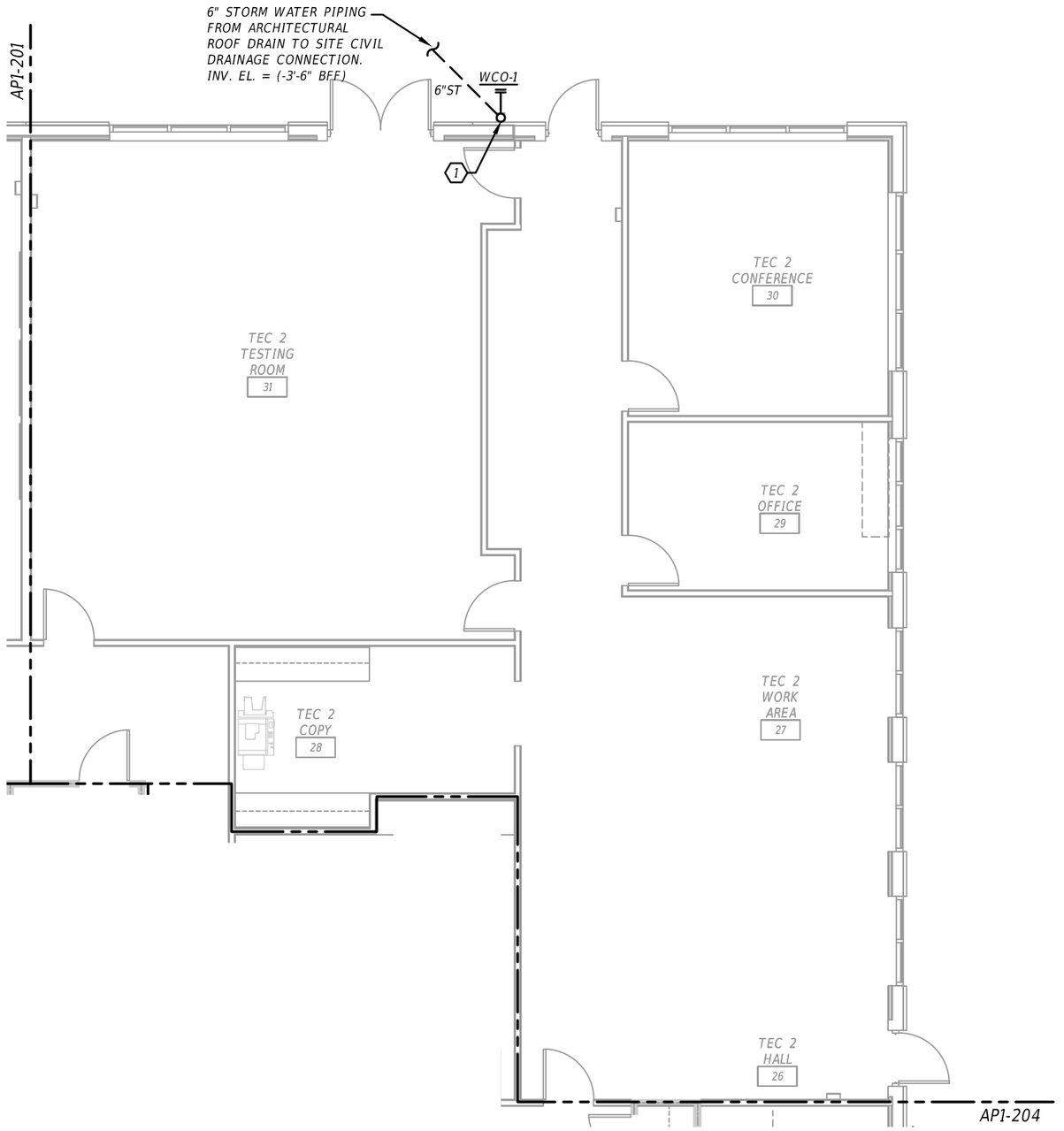
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO. AP1-201

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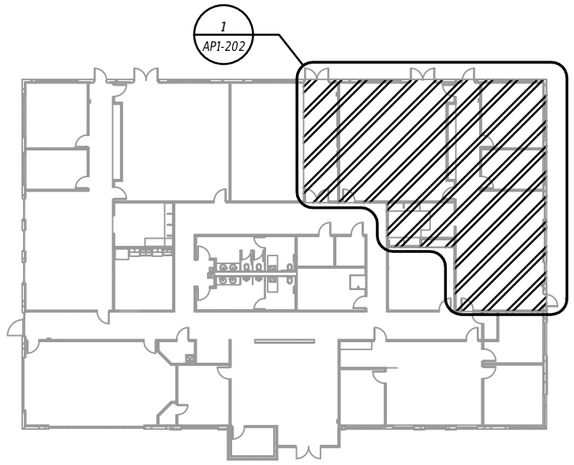


ENLARGED FLOOR PLAN - TEC 2 AREA - PLUMBING

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



KEY PLAN

SCALE: NTS

REFERENCE NOTES: X

1. CONNECT 6" STORM PIPING TO ARCHITECTURAL ROOF DRAIN AND ROUTE AS SHOWN 5'-0" OUTSIDE OF BUILDING TO SITE CIVIL STORM CONNECTION.

GENERAL NOTE:

A. REFER TO SHEET AP1-001 FOR SYMBOL LEGEND.

REVISIONS			
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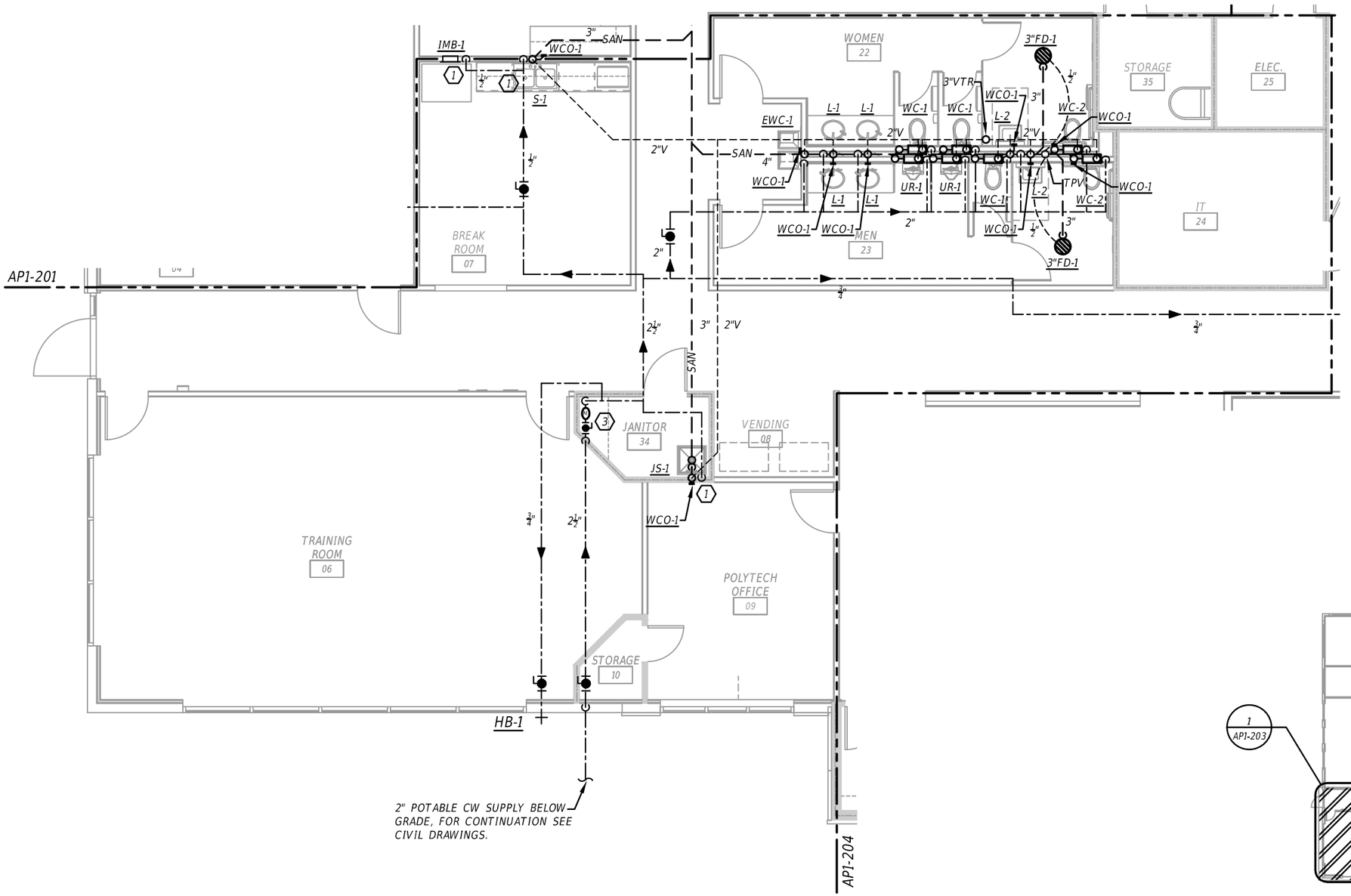
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.

AP1-202

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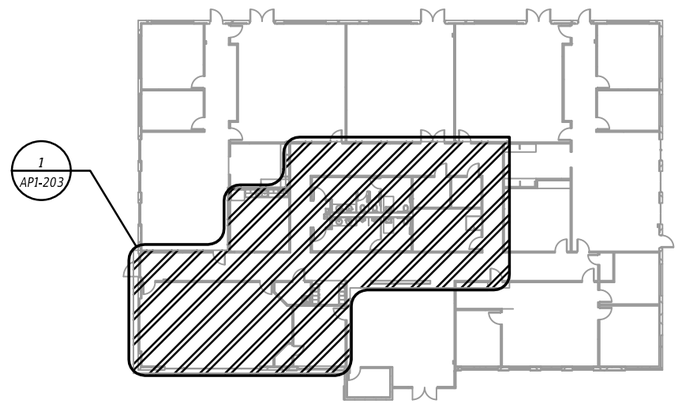


1 ENLARGED FLOOR PLAN - COMMON AREAS - PLUMBING

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN

SCALE: NTS

REFERENCE NOTES:

1. 1/2" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.
2. 1" CW DOWN TO EACH WATER CLOSET AND URINAL.
3. 3/4" CW DOWN TO SHUT-OFF VALVE AND REMOTE READ WATER METER ASSEMBLY FOR DOMESTIC COLD WATER SYSTEM. METER ASSEMBLY SHALL BE FULLY ACCESSIBLE, COORDINATE INSTALLATION WITH OWNER.
4. ROUTE 3/4" CW DOWN TO TRAP PRIMER VALVE ROUTED TO FLOOR DRAIN.

GENERAL NOTE:

A. REFER TO SHEET AP1-001 FOR SYMBOL LEGEND.

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.

AP1-203

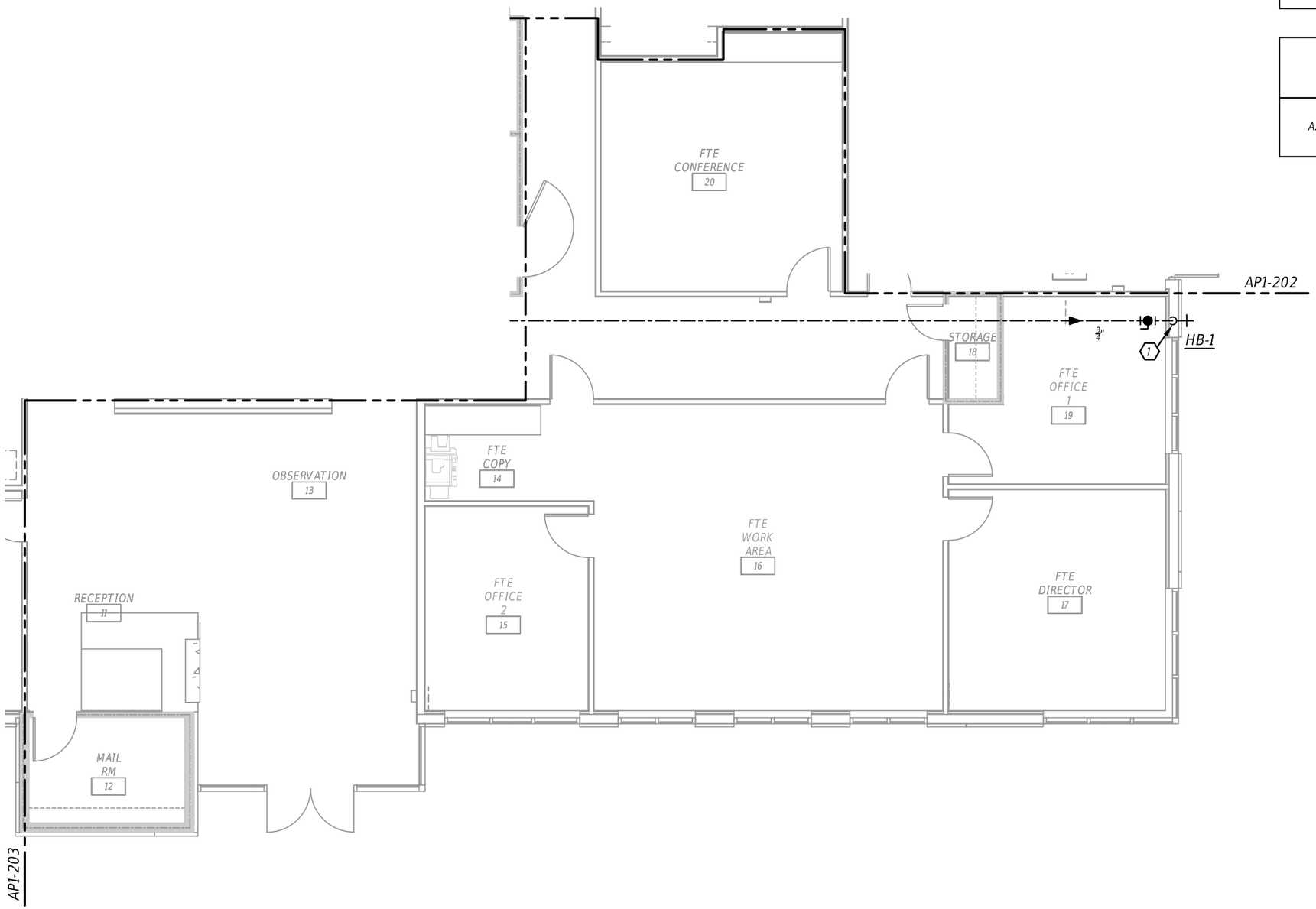
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: (X)

(1) 3/4" CW DOWN WITHIN WALL TO HOSE BIBB BELOW.

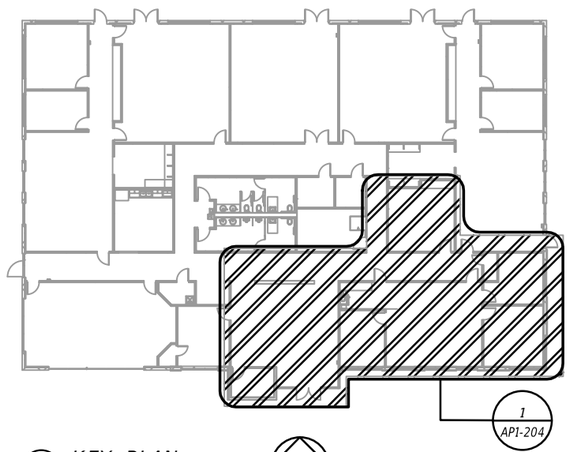
GENERAL NOTE:

A. REFER TO SHEET AP1-001 FOR SYMBOL LEGEND.



1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - PLUMBING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
SCALE: NTS

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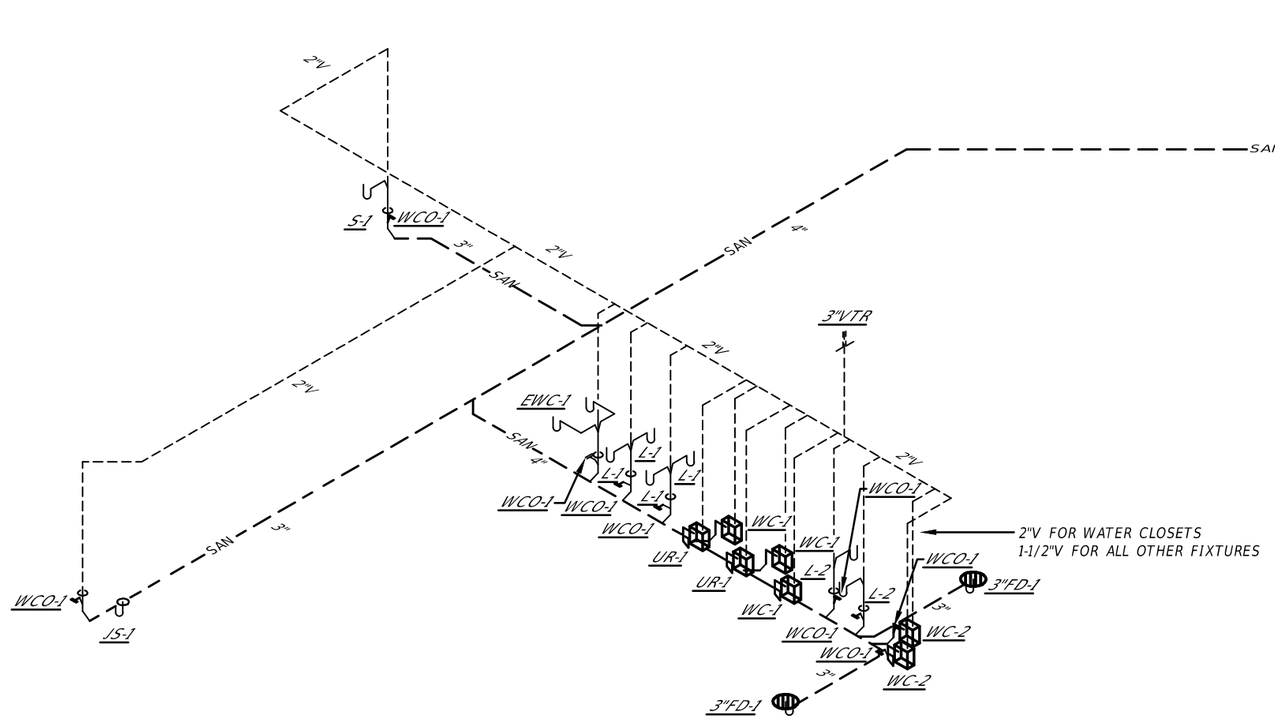
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.
AP1-204

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1 SANITARY RISER DIAGRAM
NTS

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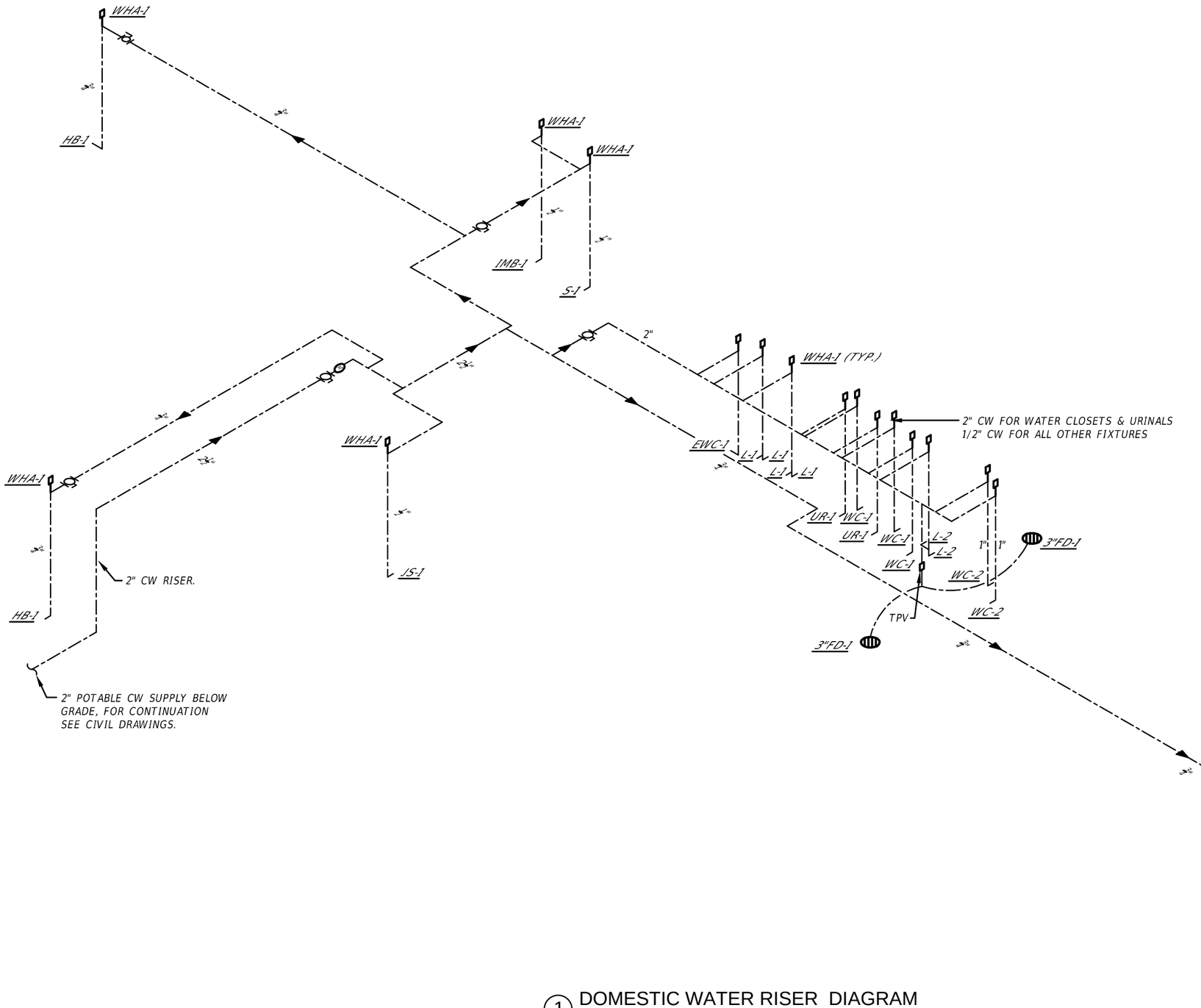
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

SANITARY RISER DIAGRAM - PLUMBING

SHEET NO.
AP1-301

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1 DOMESTIC WATER RISER DIAGRAM
NTS

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DOMESTIC WATER RISER DIAGRAM - PLUMBING

SHEET NO.
AP1-302

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PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	WASTE	TRAP	VENT	COLD WATER	MANUFACTURER /MODEL #	DESCRIPTION
WC-1	WATER CLOSET	4"	INTEG	2"	1"	AMERICAN STANDARD 2257.711 OR EQUAL	15" AFF WALL-HUNG FLUSHOMETER VALVE TOILET, VITREAOUS CHINA, HIGH EFFICIENCY 1.1 GALLONS PER FLUSH, SIPHON JET, AND ELONGATED BOWL. SELECTRONIC EXPOSED AC FLUSH VALVE. 'BEMIS' SOLID PLASTIC, OPEN FRONT ELONGATED SEAT WITH SELF SUSTAINING CHECK HINGES. PROVIDE WATER CLOSET CARRIER WATTS CARRIER ISCA-141.
WC-2	WATER CLOSET - ADA TYPE	4"	INTEG	2"	1"	AMERICAN STANDARD 2257.711 OR EQUAL	17" AFF WALL-HUNG FLUSHOMETER VALVE TOILET, VITREAOUS CHINA, HIGH EFFICIENCY 1.1 GALLONS PER FLUSH, SIPHON JET, AND ELONGATED BOWL. SELECTRONIC EXPOSED AC FLUSH VALVE. 'BEMIS' SOLID PLASTIC, OPEN FRONT ELONGATED SEAT WITH SELF SUSTAINING CHECK HINGES. PROVIDE WATER CLOSET CARRIER WATTS CARRIER ISCA-141.
UR-1	URINAL - ADA TYPE	2"	2"	1-1/2"	-	AMERICAN STANDARD 6042.633 OR EQUAL	VITREOUS CHINA, WHITE, WALL HUNG HIGH EFFICIENCY PINT FLUSH (.125 GPF) URINAL. INTEGRAL HOUSING, DRAIN INSERT, ODOR BARRIER LIQUID. SELECTRONIC EXPOSED AC FLUSH VALVE. 'ZURN' Z1221 CAST IRON, FLOOR MOUNTED CARRIER.
L-1	LAVATORY	2"	1-1/4"	1-1/2"	1/2"	AMERICAN STANDARD 0496.221 OR EQUAL TOTO TEL3LS OR EQUAL	COUNTERTOP OVAL UNDERMOUNT SINK, VITREOUS CHINA WITH INTEGRAL BACKSPLASH. TOTO TEL3LS ECOPOWER FAUCET WITH .35 GPM BUBBLER. GRID STRAINER WITH TAILPIECE, C.P. BRASS P-TRAP WITH WALL ARM & ESCUTCHEONS. 'BRASSCRAFT' ANGLE VALVE SUPPLY RISERS W/LOOSE KEY STOPS.
L-2	LAVATORY - ADA TYPE	2"	1-1/4"	1-1/2"	1/2"	AMERICAN STANDARD 9024.004EC OR EQUAL TOTO TEL3LS OR EQUAL	DECORUM 20"x18" WALL HUNG, VITREOUS CHINA WITH INTEGRAL BACKSPLASH. TOTO TEL3LS ECOPOWER FAUCET WITH .35 GPM BUBBLER. GRID STRAINER WITH TAILPIECE, C.P. BRASS P-TRAP WITH WALL ARM & ESCUTCHEONS. 'BRASSCRAFT' ANGLE VALVE SUPPLY RISERS W/LOOSE KEY STOPS. INSULATE P-TRAP AND SUPPLIES WITH 'TRUEBRO' INSULATION KIT. 'ZURN' 1231 CAST IRON FLOOR MOUNTED CARRIER FITTING WITH CONCEALED ARMS.
S-1	SINK	2"	1-1/2"	1-1/2"	1/2"	ELKAY LR3322 TOTO TEL151 OR EQUAL	STAINLESS STEEL, DOUBLE BOWL SELF RIMMING SINK WITH FAUCET LEDGE, 18-GAUGE, 33"x22" O.A. x 6" DEEP. 'TOTO' #TEL151 HYDROPOWER SELF GENERATIONS SENSOR FAUCET, POLISHED CHROME. PROVIDE ANGLE STOPS, SUPPLIES & ESCUTCHEONS. STAINLESS STEEL CUP STRAINER WITH REMOVABLE BASKET, TAILPIECE, P-TRAP & CONTINUOUS DRAIN FITTING.
EWC-1	ELECTRIC WATER COOLER	2"	1-1/4"	1-1/2"	1/2"	ELKAY EZSTL8C OR EQUAL	WALL MOUNTED STAINLESS STEEL BASIN & PEWTER VINYL, LOWER BUBBLER 36"AFF; UPPER 41"AFF. 8 GPH OF 50°F. WATER, 1/5 HP., 120V, 1 PH. W/ OVERLOAD PROTECTION, 1¼" P-TRAP, STOP VALVE, CORD & PLUG. ZURN #Z1225-BL CAST IRON FLOOR MOUNTED CARRIER FITTING WITH BEARING PLATE.
JS-1	JANITOR SINK	3"	3"	1-1/2"	1/2"	FIAT MSBID2424 832AA, 889CC. T&S B-0665-BSTR OR EQUAL	24"x24"x10" MOLDED STONE MOP BASIN WITH INTEGRAL DRAIN. SERVICE FAUCET WITH VACUUM BREAKER AND UPPER SUPPORT ROD, HOSE AND HOSE BRACKET, AND MOP HANGER.
FD-1	FLOOR DRAIN	SEE PLANS	SEE PLANS	-	1/2"	ZURN ZN415-S-P OR EQUAL	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND SQUARE TYPE 'B' POLISHED NICKEL BRONZE STRAINER. PROVIDE 1/2" COLD WATER TRAP PRIMER CONNECTION.

NOTES:

1. ALL PLUMBING FIXTURES SHALL BE SUPPLIED WITH WATTS "FLOODSAFE" AUTO-SHUT OFF CONNECTOR TYPE SUPPLY RISERS WITH BRAIDED STAINLESS STEEL CONNECTORS. THIS SHALL INCLUDE ALL FAUCETS, TOILETS, DISHWASHERS & ICE MAKERS. PROVIDE FULLY ACCESSIBLE SHOCK ARRESTORS ON SUPPLIES TO ICE MAKERS AND DISHWASHERS.

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - PLUMBING

SHEET NO.
AP1-401

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PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	WASTE	TRAP	VENT	COLD WATER	MANUFACTURER /MODEL #	DESCRIPTION
FC0-1	FLOOR CLEAN OUT	SEE PLANS	SEE PLANS	-	-	ZURN Z1400-SZ OR EQUAL	"LEVEL-TROL" ADJUSTABLE FINISHED FLOOR CLEANOUT, DURA-COATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREADED PLUG, AND SQUARE SCORIATED SECURED TOP. ADJUST TO FINISHED FLOOR (COORDINATE TOP FINISH WITH ARCHITECT).
EC0-1	EXTERIOR CLEAN OUT	SEE PLANS	SEE PLANS	-	-	ZURN CO-2400-SZ OR EQUAL	PVC SQUARE CLEAN-OUT WITH 2-WAY CLEAN-OUT TEE, (LAWN, IN FLUSH 12"x12"x4" CONCRETE PAD.)
WC0-1	WALL CLEAN OUT	SEE PLANS	SEE PLANS	-	-	ZURN Z1446 OR EQUAL	CAST IRON CLEAN-OUT TEE, DURA COATED BODY, GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.
WHA-1	WATER HAMMER ARRESTOR				1/2"	SIOUX CHIEF #650 SERIES OR EQUAL	SIZE PER MANUFACTURER'S RECOMMENDATIONS. PDI CERTIFIED. WHA-1: SIZE "A" WHA-2: SIZE "B" REFER TO RISER DIAGRAMS FOR ARRESTOR LOCATIONS. REFER TO SPECIFICATION FOR SELECTION METHOD.
TPV-1	TRAP PRIMER VALVE	-	-	-	1/2"	PRECISION PLUMBING PRODUCTS PR-500 OR EQUAL	PROVIDE FULLY ACCESSIBLE SHUT OFF VALVE TO EACH PRIMER VALVE.

NOTES:

1. ALL PLUMBING FIXTURES SHALL BE SUPPLIED WITH WATTS "FLOODSAFE" AUTO-SHUT OFF CONNECTOR TYPE SUPPLY RISERS WITH BRAIDED STAINLESS STEEL CONNECTORS. THIS SHALL INCLUDE ALL FAUCETS, TOILETS, DISHWASHERS & ICE MAKERS. PROVIDE FULLY ACCESSIBLE SHOCK ARRESTORS ON SUPPLIES TO ICE MAKERS AND DISHWASHERS.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
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1180 HARWOOD AVENUE, SUITE 3000
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

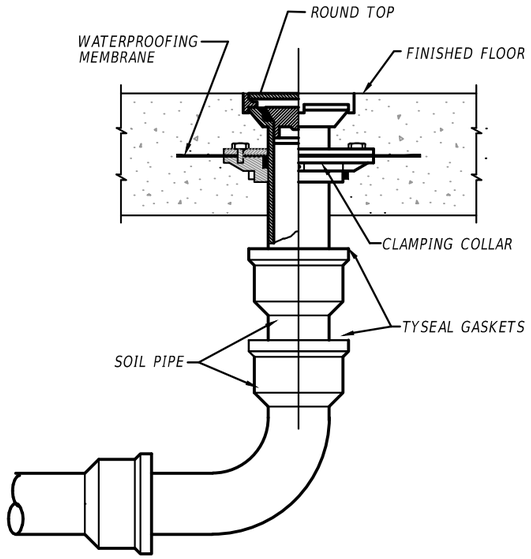
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

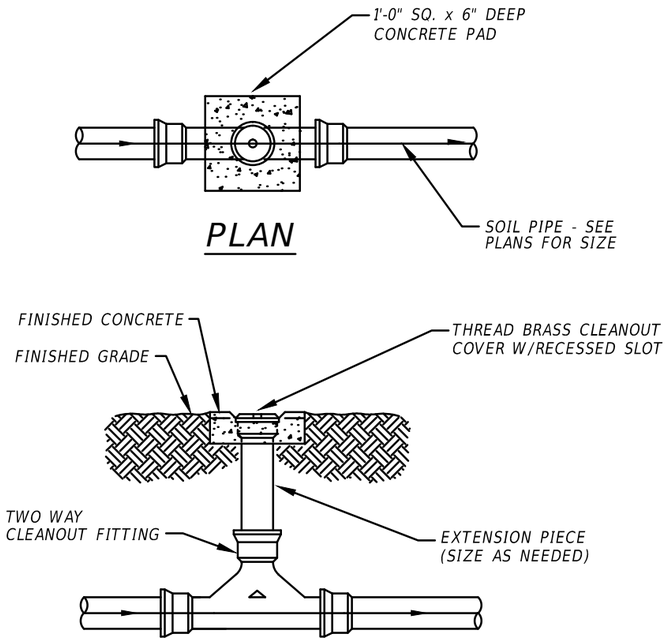
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

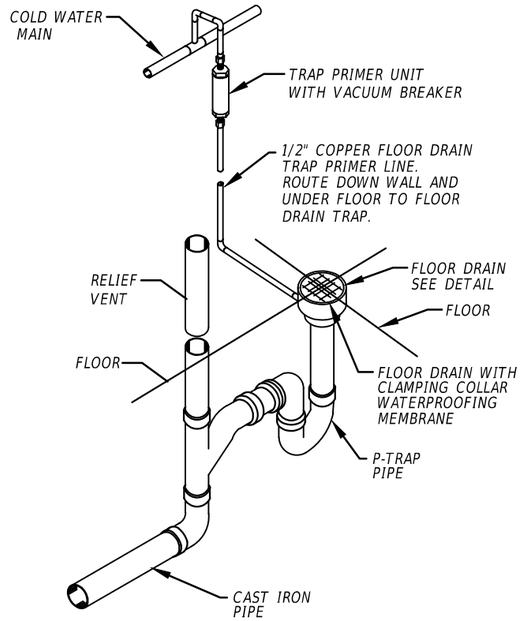
SCHEDULES - PLUMBING

SHEET NO.
AP1-402

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.







3 AP1-501 FLOOR CLEANOUT DETAIL
SCALE: NTS

2 AP1-501 TWO-WAY CLEANOUT
SCALE: NTS

1 AP1-501 FLOOR DRAIN AND TRAP PRIMER DETAIL
SCALE: NTS

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SUNTRAX TEST FACILITY
OPERATIONS BUILDING

DETAILS - PLUMBING

SHEET NO.
AP1-501

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ELECTRICAL LEGEND

WIRING AND POWER

S* — SWITCH

(NONE)	SINGLE POLE TOGGLE SWITCH
2	TWO POLE TOGGLE SWITCH
3	THREE WAY TOGGLE SWITCH
WP	SINGLE POLE WEATHERPROOF SWITCH
K	SINGLE POLE KEYED SWITCH
M	MANUAL MOTOR CONTROLLER W/O OVERLOADS

S abc — LOWER CASE LETTERS INDICATES SWITCHING DESIGNATIONS, QUANTITY OF LETTERS EQUAL QUANTITY OF GANGED SWITCHES

* — SINGLE RECEPTACLE

GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF
IG	ISOLATED GROUND
C	ABOVE COUNTER

* — DUPLEX RECEPTACLE

GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF
IG	ISOLATED GROUND
C	ABOVE COUNTER
EWC	ELECTRIC WATER COOLER, COORDINATE LOCATION WITH PLUMBING CONTRACTOR
VM	VIDEO MONITOR - COORDINATE EXACT MTG. HEIGHT

* — QUADRAPLEX RECEPTACLE

GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF
IG	ISOLATED GROUND
C	ABOVE COUNTER

* — SPECIAL RECEPTACLE

X	TYPE X (SEE RECEPTACLE SCHEDULE)
C	ABOVE COUNTER

PP — POWER POLE

RECESSED FLOOR MOUNTED DUPLEX RECEPTACLE

SURFACE-MOUNTED FLOOR DUPLEX RECEPTACLE

CEILING-MOUNTED DUPLEX RECEPTACLE

COMBINATION RECESSED FLOOR MOUNTED RECEPTACLE/DATA OUTLET

PLUG MOLD

C	ABOVE COUNTER

J — JUNCTION BOX

DISCONNECT SWITCH

C — EQUIPMENT ELECTRICAL CONNECTION POINT

WP — DISCONNECT SWITCH - WEATHERPROOF (NEMA 3R)

F — FUSED DISCONNECT SWITCH

MAGNETIC MOTOR STARTER

* — COMBINATION FUSED DISCONNECT/ MAGNETIC STARTER SWITCH

HOA	HAND/OFF/AUTO
SS	START/STOP

M — MANUAL STARTER

VSD — COMBINATION VARIABLE SPEED DRIVE AND DISCONNECT

VSD — VARIABLE SPEED DRIVE

EF-1 — MOTOR WITH DESIGNATOR

TC — TIME CLOCK

WH — WATER HEATER

A-1 — BRANCH CIRCUIT HOME RUN WITH PANEL NAME AND CIRCUIT NUMBER, QUANTITY OF ARROWHEADS DENOTES QUANTITY OF BRANCH CIRCUITS

BRANCH CIRCUIT WIRING, PROVIDE QUANTITIES OF CONDUCTORS REQUIRED FOR CIRCUITING AND SWITCHING INDICATED

POWER LEG ONLY (NO SWITCH LEG BETWEEN ROOMS)

MUSHROOM HEAD PUSH BUTTON (EMERGENCY STOP)

R — RELAY

PUSHBUTTON

GROUND ROD

T — TRANSFORMER

T K — TYPE "K" TRANSFORMER

UH — ELECTRIC UNIT HEATER (FURNISHED UNDER DIV 15 UNLESS NOTED OTHERWISE)

GROUND BUS BAR - SEE DETAILS

PANELS

XXX — ELECTRICAL PANEL

MDP	MAIN DISTRIBUTION PANEL (SEE PANEL SCHEDULE)
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION

XXX — ELECTRICAL SYSTEMS PANEL

SACP	SECURITY ALARM CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL
MC	MASTER CLOCK CONTROL PANEL
PA	PUBLIC ADDRESS CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL

LIGHTING

XX — LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE FOR LETTER DESIGNATION AND DESCRIPTION OF FIXTURES)

EMERGENCY/NIGHT LIGHT LIGHTING FIXTURE

EXIT LIGHTING FIXTURE UNIVERSAL MOUNT

BATTERY POWERED EMERGENCY LIGHT

EMERGENCY LIGHT REMOTE HEAD

TK — TRACK LIGHTING

TRACK LIGHTING HEAD

WG — WIRE CAGE LIGHT GUARD

OS — OCCUPANCY SENSOR WITH VACANCY OPTION - CEILING MOUNTED

OSC — OCCUPANCY SENSOR - CEILING MOUNTED - CORRIDOR

OSW — OCCUPANCY SENSOR - WALL MOUNTED

DL — DAYLIGHT HARVESTING SENSOR, LOWER CASE LETTER INDICATES CONTROL OF DESIGNATED LIGHTING FIXTURE - SEE PLANS

LC — LIGHTING CONTACTOR

PC — PHOTOCELL

SX — SWITCH

O	OCCUPANCY SENSOR SWITCH
O2	DUAL LEVEL OCCUPANCY SENSOR SWITCH
D	DIMMER
D3	THREE WAY DIMMER (INCANDESCENT)

AUDIO/VISUAL SYSTEMS - (INTERIOR CAMERAS SHALL BE MOUNTED 96" A.F.F. UNLESS NOTED OTHERWISE)

TT — TABLE TOP AV INPUT(S)

AV — CREDENZA RACK (6 NETWORK DROPS WITH 5 HOMERUNS)

PR — CEILING MOUNTED PROJECTOR

WS — TOUCH SCREEN A/V WALL STATION

PH — EXTERIOR RATED PHONE

CAM — VIDEO CONFERENCE PTZ CAMERA

MS — MOTORIZED SCREEN

VM — CRESTRON DM RMC SCALER

INTERIOR VIDEO CONFERENCE CAMERA

SP — CEILING MOUNTED SPEAKER

AOS — AV OCCUPANCY SENSOR

CC — CABLE CUBBY (IN TABLE TOP)

SW — AV NETWORK SELECTOR SWITCH (2 HOMERUNS)

VC CAMERA

WP — HDMI/VGA INPUT WALL PLATE

CM — CEILING MICROPHONE

W — WIRELESS MICROPHONE RECEIVER (ABOVE CEILING)

R — AV RACK FOR TRAINING ROOM

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SYMBOL LEGEND - ELECTRICAL

SHEET NO.
AE1-001

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ELECTRICAL LEGEND, cont'd

FIRE ALARM SYSTEMS

F	FIRE ALARM PULL STATION
F	FIRE ALARM HORN
F	FIRE ALARM HORN AND STROBE COMBINATION
F WP	FIRE ALARM HORN AND STROBE COMBINATION, WEATHERPROOF
FS	FIRE ALARM SPEAKER
FS	FIRE ALARM SPEAKER AND STROBE COMBINATION
F	FIRE ALARM STROBE
S	SMOKE DETECTOR
H	HEAT DETECTOR
DD	DUCT DETECTOR
RTS	REMOTE TEST STATION FOR DUCT DETECTOR
FSR	FIRE ALARM SHUT DOWN RELAY
D	FIRE DOOR HOLD OPEN
•	AREA OF RESCUE CALL STATION
ADA	AREA OF RESCUE MASTER TELEPHONE STATION
LB	LOCK BOX

TELECOMMUNICATIONS

	DATA/COMM OUTLET
TV	TELVISION OUTLET
	WIRELESS ACCESS POINT

SECURITY SYSTEMS – (INTERIOR CAMERAS SHALL BE MOUNTED 96" A.F.F. UNLESS NOTED OTHERWISE)

CR	CARD READER - MOUNT 48" A.F.F.
DC	DOOR CONTACT
PIR	PASSIVE INFRARED EXIT SENSOR
SP	SECURITY SYSTEM HEADEND/PANEL
KP	SECURITY SYSTEM KEYPAD
	STATIC CCTV CAMERA - 'WP' INDICATES WEATHERPROOF ENCLOSURE
	WEATHER PROOF CAMERA ENCLOSURE - 'PTZ' INDICATES PAN, TILT, ZOOM
PTZ	CAMERA - 'PTZ' INDICATES PAN, TILT, ZOOM
08A	DOOR IDENTIFICATION TAG

ABBREVIATIONS

A	-	AMPERES
A/C	-	AIR CONDITIONING
AC	-	ALTERNATING CURRENT
AFF	-	ABOVE FINISHED FLOOR
AFG	-	ABOVE FINISHED GRADE
AHU	-	AIR HANDLING UNIT
AWG	-	AMERICAN WIRE GAUGE
C	-	ABOVE COUNTER
CFL	-	COMPACT FLUORESCENT LAMP
CH	-	COUNTER HEIGHT
CONC	-	CONCRETE
COND	-	CONDUIT
CU	-	COPPER
DISC	-	DISCONNECT
ECB	-	ENCLOSED CIRCUIT BREAKER
ELEC	-	ELECTRICAL
EM	-	EMERGENCY
EMS	-	ENERGY MANAGEMENT SYSTEM
EMT	-	ELECTRICAL METALLIC TUBING
EF	-	EXHAUST FAN
EWC	-	ELECTRIC WATER COOLER
FA	-	FIRE ALARM
FACP	-	FIRE ALARM CONTROL PANEL
FPL	-	FLORIDA POWER AND LIGHT
G	-	GROUND
GFI	-	GROUND FAULT INTERRUPTER
GND	-	GROUND
GRC	-	GALVANIZED RIGID CONDUIT
H.I.D.	-	HIGH INTENSITY DISCHARGE
HVAC	-	HEATING, VENTILATING AND AIR CONDITIONING
I.G.	-	ISOLATED GROUND
J	-	JUNCTION
KAIC	-	(THOUSAND) AMPERE INTERRUPTING CAPACITY
KVA	-	KILOVOLT-AMPERES
KW	-	KILOWATT
LTG	-	LIGHTING
MCM	-	THOUSANDS OF CIRCULAR MILS
MCU	-	MASTER CONTROL UNIT
MCP	-	MOTOR CIRCUIT PROTECTION
MH	-	METAL HALIDE
N	-	NEUTRAL
NA	-	NOT APPLICABLE
NF	-	NON-FUSED
NL	-	NIGHT LIGHT
NEC	-	NATIONAL ELECTRICAL CODE
NEMA	-	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	-	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	-	NOT IN CONTRACT
O.C.	-	ON CENTER
O.F.C.I.	-	OWNER FURNISHED, CONTRACTOR INSTALLED
P	-	POLE
PNL	-	PANELBOARD
PVC	-	POLYVINYL CHLORIDE
RM	-	ROOM
RGS	-	RIGID GALVANIZED STEEL
SPEC	-	SPECIFICATION
SS	-	STAINLESS STEEL
TVSS	-	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	-	TYPICAL
UON	-	UNLESS OTHERWISE NOTED
V	-	VOLTS
W	-	WIRE
WP	-	WEATHERPROOF

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SYMBOL LEGEND -
ELECTRICAL

SHEET NO.
AE1-002

GENERAL NOTES - ELECTRICAL

1) ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), AND THE LATEST ADOPTED EDITION OF THE FLORIDA BUILDING CODE.

2) CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND COORDINATE WITH EXISTING EQUIPMENT PRIOR TO BIDDING.

3) ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD-PARTY TESTING AGENCY.

BUILDING:

4) INSTALLATION HEIGHT OF EQUIPMENT (TO CENTERLINE) ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE SHALL BE:

RECEPTACLE = 18"
CLOCK = 7'-6"
SWITCH = 44"
MODULAR JACK FOR WALL MOUNTED TELEPHONE = 52"
MODULAR TELEPHONE JACK = 18"
AUDIO/VISUAL FIRE ALARM INDICATORS = 80"
FIRE ALARM PULL STATIONS = 50"
TELEVISION OUTLET = 84"
COMPUTER OUTLET = 18"
REMOTE TEST STATION FOR DUCT DETECTOR = 52"
C = ABOVE COUNTER BACKSPLASH, COORDINATE WITH ARCHITECTURAL ELEVATIONS AND MILLWORK.

5) ALL CONDUIT AND WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE OR APPROVED BY THE ARCHITECT/ENGINEER. ALL DEVICE OUTLET BOXES SHALL BE RECESSED UNLESS NOTED OTHERWISE OR APPROVED BY THE ARCHITECT/ENGINEER. WHERE APPROVED OR NOTED SURFACE METAL RACEWAY AND DEVICE BOXES SHALL BE USED IN LIEU OF CONDUIT AND CONCEALED BOXES AT NO EXTRA COST TO THE OWNER.

6) ALL CONDUIT ROUTES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY FINAL ROUTE.

7) CONDUIT RUNS SHOWN ARE SCHEMATIC AND DO NOT INDICATE THE NECESSARY FITTINGS AND JUNCTION BOXES THAT ARE INCLUDED IN THE SCOPE OF THE WORK.

8) CONTRACTOR SHALL PERMANENTLY IDENTIFY ALL WIRING WITH THE SOURCE AND CIRCUIT AT ALL ELECTRICAL EQUIPMENT, PULL AND JUNCTION BOXES AND ELECTRICAL TERMINATIONS PROVIDED OR ASSOCIATED WITH THIS CONSTRUCTION.

GROUNDING:

9) ALL METAL RACEWAYS, INCLUDING CONDUIT, WIRE TROUGHS, WIREMOLD, ETC., SHALL BE GROUNDED. ALL CONNECTIONS IN METAL RACEWAYS SHALL BE COMPLETED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUS PATH TO GROUND THROUGHOUT THE ENTIRE LENGTH OF THE RACEWAY.

WIRING:

10) UNLESS NOTED OTHERWISE ON THE DRAWINGS OR ON THE EQUIPMENT WIRING SCHEDULE, EACH BRANCH CIRCUIT HOME RUN SHALL BE THREE (3) #12 AWG THHN/THWN (1 HOT, 1 NEUTRAL & 1 EQUIPMENT GROUND) IN 3/4" EMT CONDUIT. PROTECT EACH CIRCUIT WITH A 20 AMPERE, 1-POLE OVERCURRENT DEVICE UNLESS NOTED OTHERWISE. COMBINED NEUTRALS ARE NOT PERMITTED.

WIRE SIZE REQUIRED FOR BRANCH CIRCUITS AT LESS THAN 3% VOLTAGE DROP

		1 FT TO 50 FT	51 FT TO 75 FT	76 FT TO 100 FT	101 FT TO 125 FT	126 FT TO 150 FT	151 FT TO 200 FT
120V	20A	#12	#10	#8	#8	#6	#6
	30A	#10	#8	#6	#6	#6	#4
	40A	#8	#6	#6	#4	#4	#3
	50A	#8	#6	#4	#4	#3	#2
208V 1	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#4	#4
	70A	#4	#4	#4	#4	#4	#3
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#2
	100A	#3	#3	#3	#3	#3	#2
208V 3	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#6	#4
	70A	#4	#4	#4	#4	#4	#4
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#3
	100A	#3	#3	#3	#3	#3	#2

CALCULATED USING COPPER WIRE AT 75 C.

BRANCH CIRCUITS HAVE BEEN CALCULATED FOR SINGLE PHASE VOLTAGE DROP BASED ON SINGLE PHASE CIRCUIT

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

GENERAL NOTES - ELECTRICAL

SHEET NO.
AE1-003

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GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

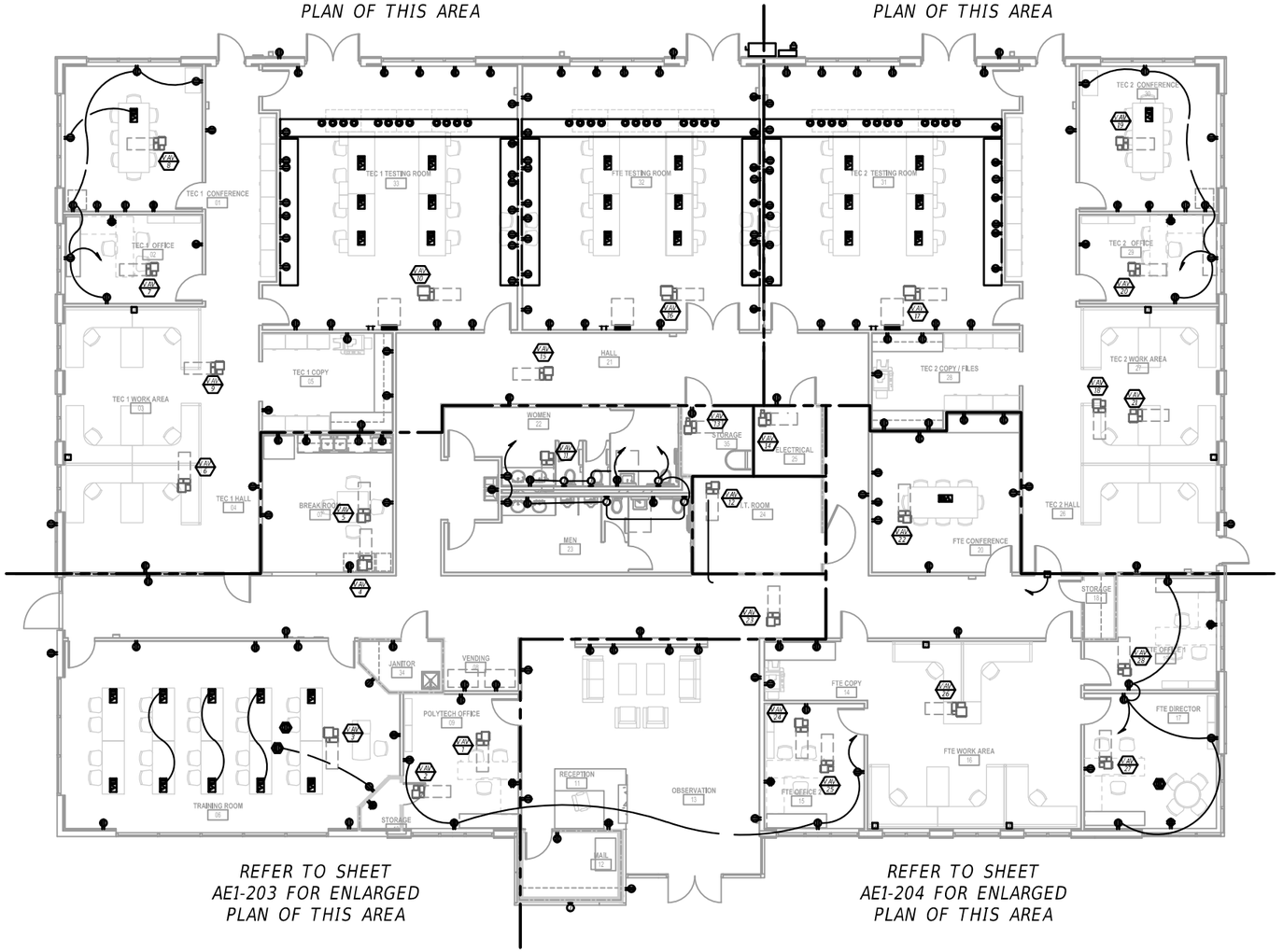
C. SEE RISER DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

E. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

REFER TO SHEET AE1-201 FOR ENLARGED PLAN OF THIS AREA

REFER TO SHEET AE1-202 FOR ENLARGED PLAN OF THIS AREA



REFER TO SHEET AE1-203 FOR ENLARGED PLAN OF THIS AREA

REFER TO SHEET AE1-204 FOR ENLARGED PLAN OF THIS AREA

1 OVERALL FLOOR PLAN - POWER

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

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SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL FLOOR PLAN - POWER

SHEET NO.

AE1-200

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REFERENCE NOTES: (X)

1. BOND #4 BARE STRANDED-CU CONDUCTOR TO GROUND BUSBAR & EXTEND IN 1" SCH 80 PVC OVERHEAD TO CABLE TRAY. BOND CONDUCTOR TO CABLE TRAY & EXTEND CONDUCTOR THE FULL LENGTH OF THE CABLE TRAY. BOND CONDUCTOR WITH UL LISTED FITTING FOR ALUMINUM TO COPPER BOND AT EACH SECTION OF TRAY.
2. BOND #2/0 BARE STRANDED-CU CONDUCTOR TO MAIN GROUND BUSBAR & EXTEND TO CONCRETE ENCASED ELECTRODE
3. JUNCTION BOX FOR POWER CIRCUITRY TO PRE-WIRED FURNITURE SYSTEM. PROVIDE BRANCH CIRCUITS AS INDICATED. 50% OF RECEPTACLES SHALL BE WIRED TO PROGRAMMED CONTROLLED RELAY IN PANEL. SEE PANEL SCHEDULES FOR ADDITIONAL INFORMATION. PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH CIRCUIT.
4. 120VAC 20A DEDICATED CIRCUITS FROM PANEL INDICATED. SIMPLEX RECEPTACLES, COLOR TO BE ORANGE, TWIST LOCK (NEMA L5-20R) MOUNTED IN CABLE TRAY.

GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

1 ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - POWER

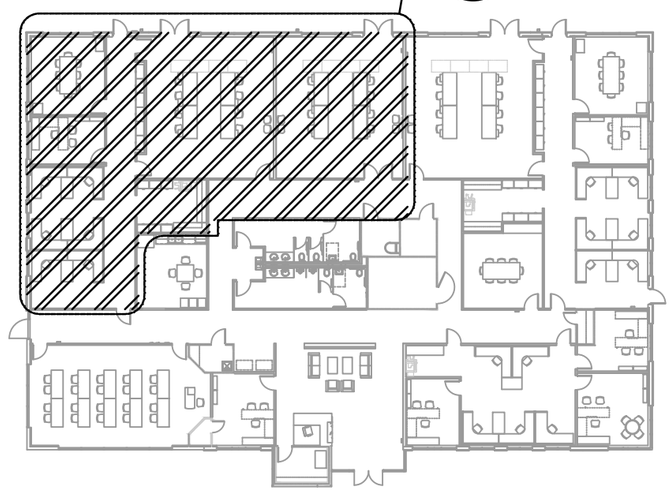
1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'

2 KEY PLAN

1/32" = 1'-0"



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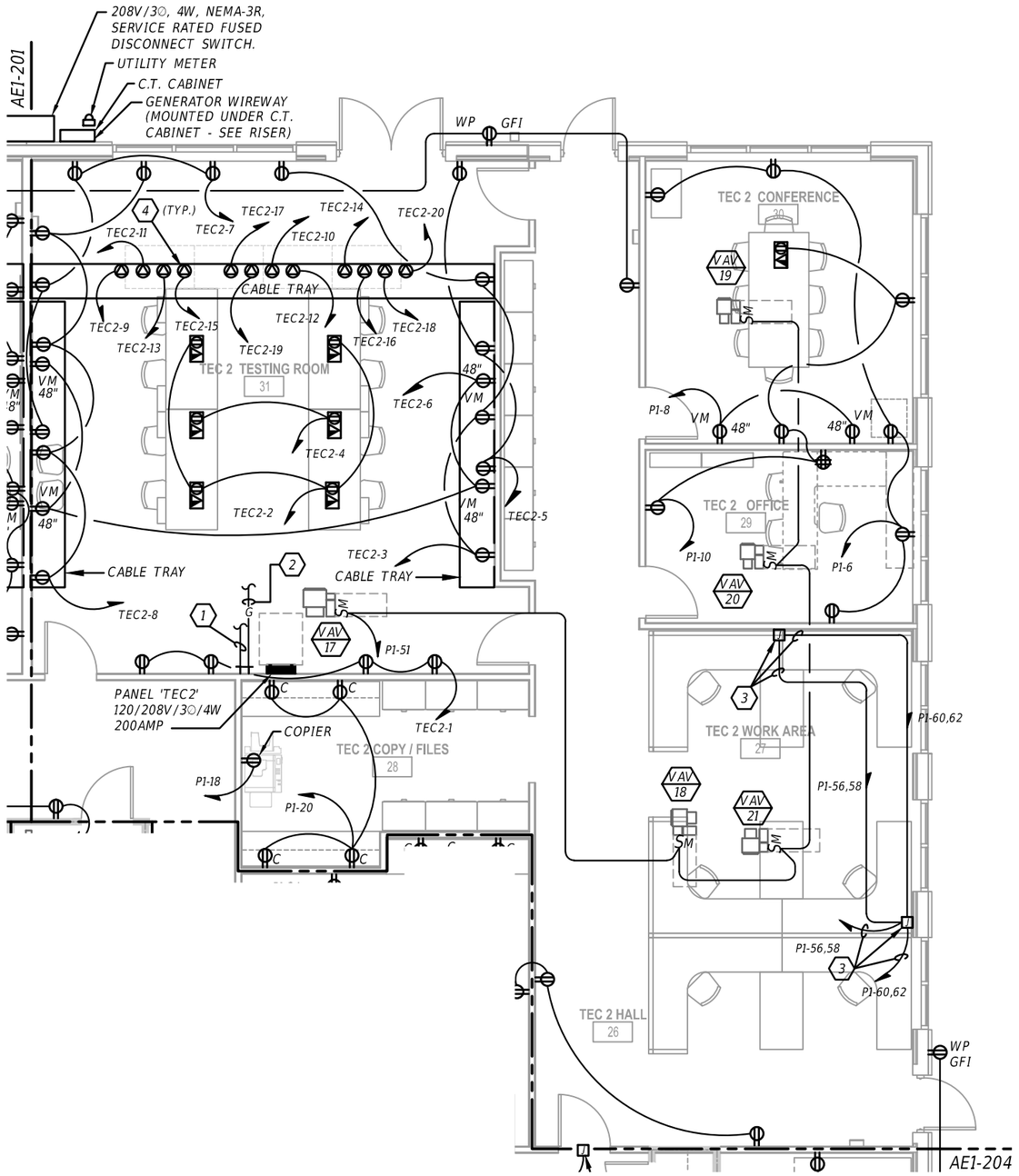
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - POWER

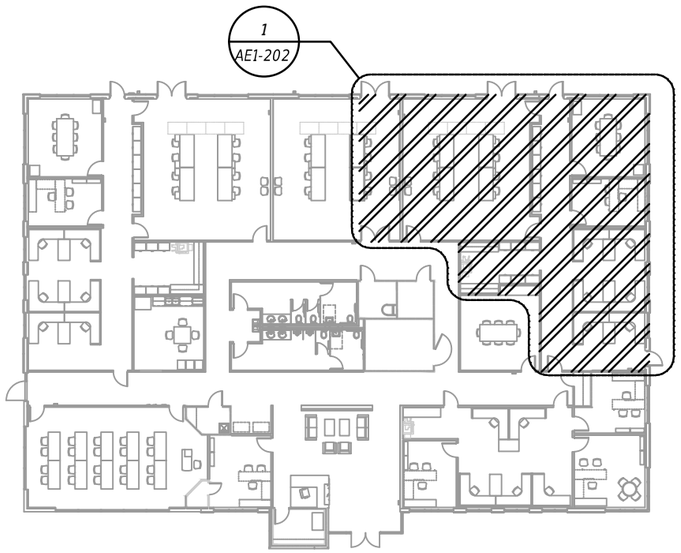
SHEET NO. AE1-201

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 ENLARGED FLOOR PLAN - TEC 2 AREA - POWER
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REFERENCE NOTES: (X)

1. BOND #4 BARE STRANDED-CU CONDUCTOR TO GROUND BUSBAR & EXTEND IN 1" SCH 80 PVC OVERHEAD TO CABLE TRAY. BOND CONDUCTOR TO CABLE TRAY & EXTEND CONDUCTOR THE FULL LENGTH OF THE CABLE TRAY. BOND CONDUCTOR WITH UL LISTED FITTING FOR ALUMINUM TO COPPER BOND AT EACH SECTION OF TRAY.
2. BOND #2/0 BARE STRANDED-CU CONDUCTOR TO MAIN GROUND BUSBAR & EXTEND TO CONCRETE ENCASED ELECTRODE
3. JUNCTION BOX FOR POWER CIRCUITRY TO PRE-WIRED FURNITURE SYSTEM. PROVIDE BRANCH CIRCUITS AS INDICATED. 50% OF RECEPTACLES SHALL BE WIRED TO PROGRAMMED CONTROLLED RELAY IN PANEL. SEE PANEL SCHEDULES FOR ADDITIONAL INFORMATION. PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH CIRCUIT.
4. 120VAC 20A DEDICATED CIRCUITS FROM PANEL INDICATED. SIMPLEX RECEPTACLES, COLOR TO BE ORANGE, TWIST LOCK (NEMA L5-20R) MOUNTED IN CABLE TRAY.

GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

PARTIAL FLOOR PLAN - POWER

SHEET NO.
AE1-202

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

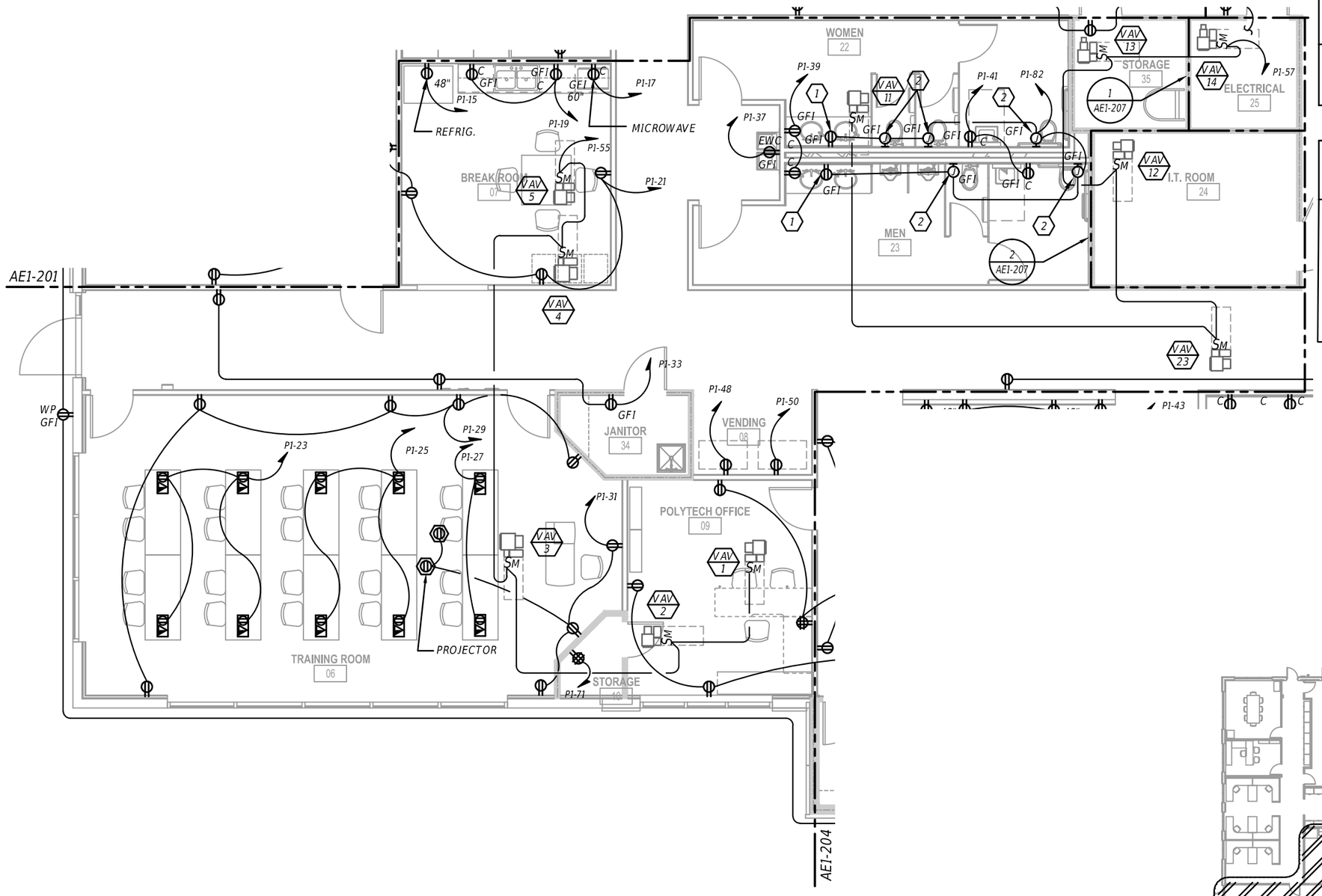
GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

REFERENCE NOTES: ⟨X⟩

⟨1⟩ DUPLEX RECEPTACLE MOUNTED AT 18" A.F.F. BELOW SINK FOR PLUG-IN SOAP DISPENSE UNITS. RECEPTACLE CONNECTED TO GFCI RATED C/B. SEE PANEL SCHEDULE.

⟨2⟩ JUNCTION BOX FOR CONNECTION TO TOILET FLUSH SYSTEM. MOUNT JUNCTION BOX 12" @45° ANGLE FROM CENTER OF SENSOR HOUSING. REFER TO MANUFACTORIES INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.

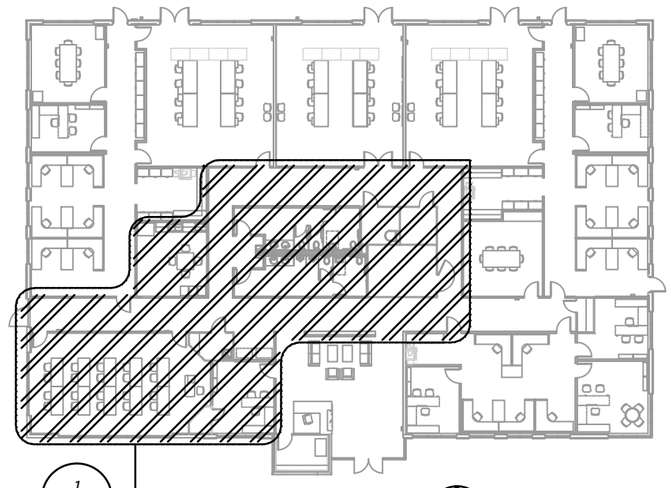


1 ENLARGED FLOOR PLAN - COMMON AREAS - POWER

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



1 AE1-203

2 KEY PLAN

1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - POWER

SHEET NO.

AE1-203

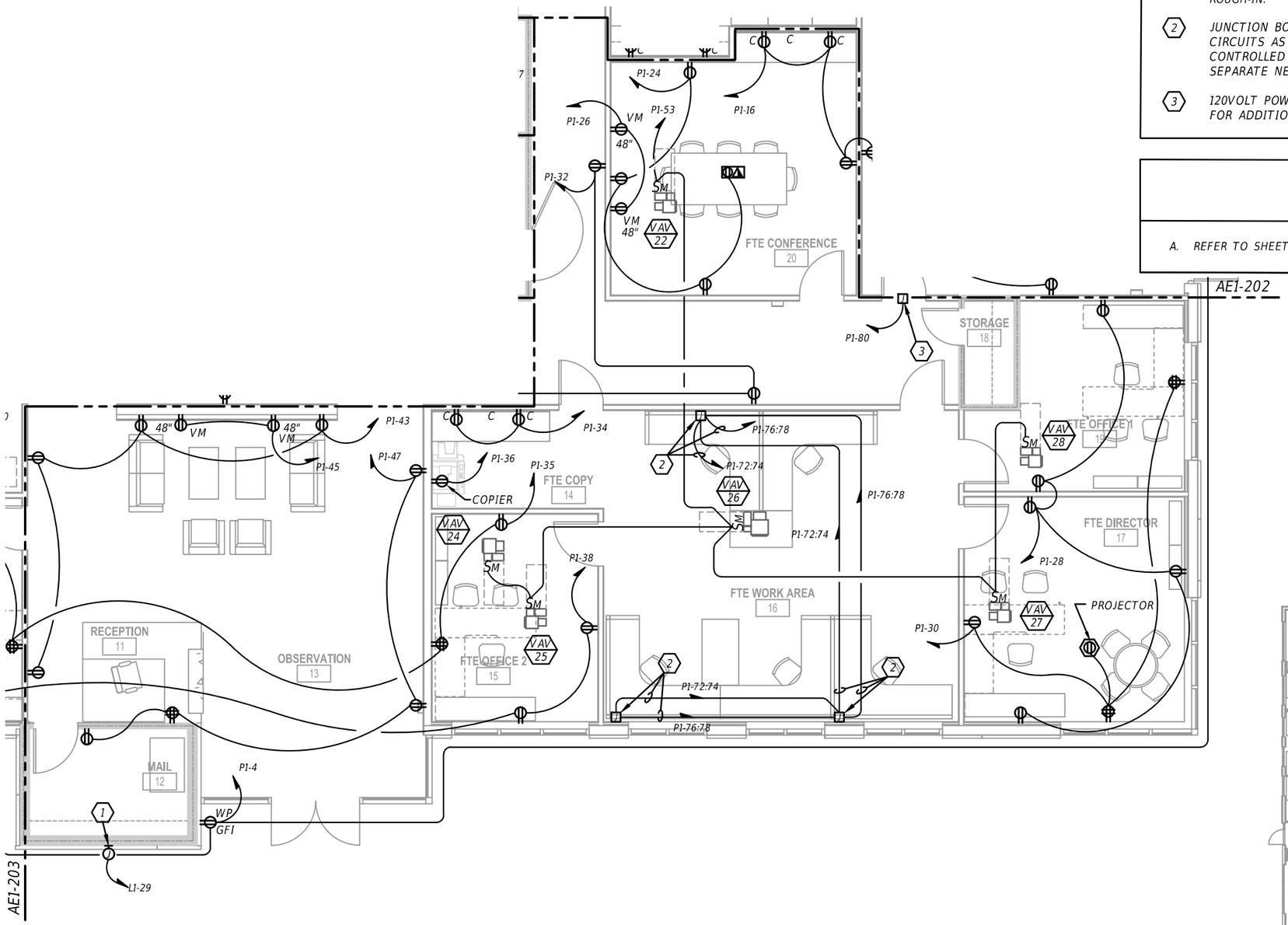
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: X

1. PROVIDE 120V ELECTRICAL CONNECTION TO SIGNAGE FOR BACKLIGHTING. COORDINATE EXACT LOCATION, MOUNTING HEIGHT, AND CONNECTION REQUIREMENTS WITH INSTALLER PRIOR TO ROUGH-IN.
2. JUNCTION BOX FOR POWER CIRCUITRY TO PRE-WIRED FURNITURE SYSTEM. PROVIDE BRANCH CIRCUITS AS INDICATED. 50% OF RECEPTACLES SHALL BE WIRED TO PROGRAMMED CONTROLLED RELAY IN PANEL. SEE PANEL SCHEDULES FOR ADDITIONAL INFORMATION. PROVIDE SEPARATE NEUTRAL CONDUCTORS FOR EACH CIRCUIT.
3. 120VOLT POWER CONNECTION TO SECURED DOOR SYSTEM ACTUATOR. SEE SYSTEMS PLANS FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

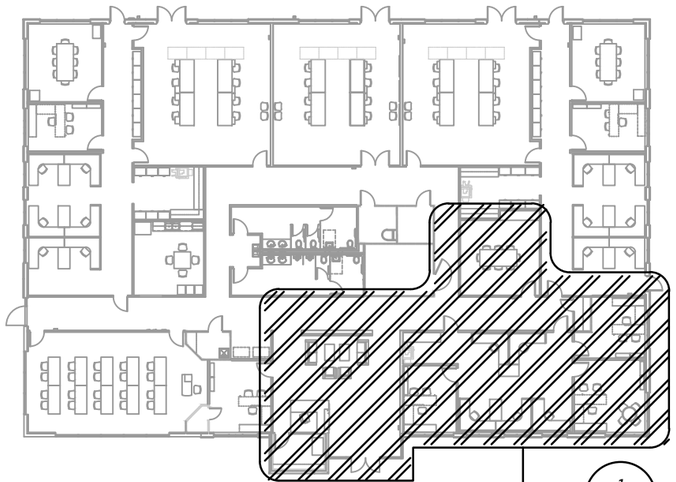


1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - POWER

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN

1/32" = 1'-0"

1 AE1-204

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

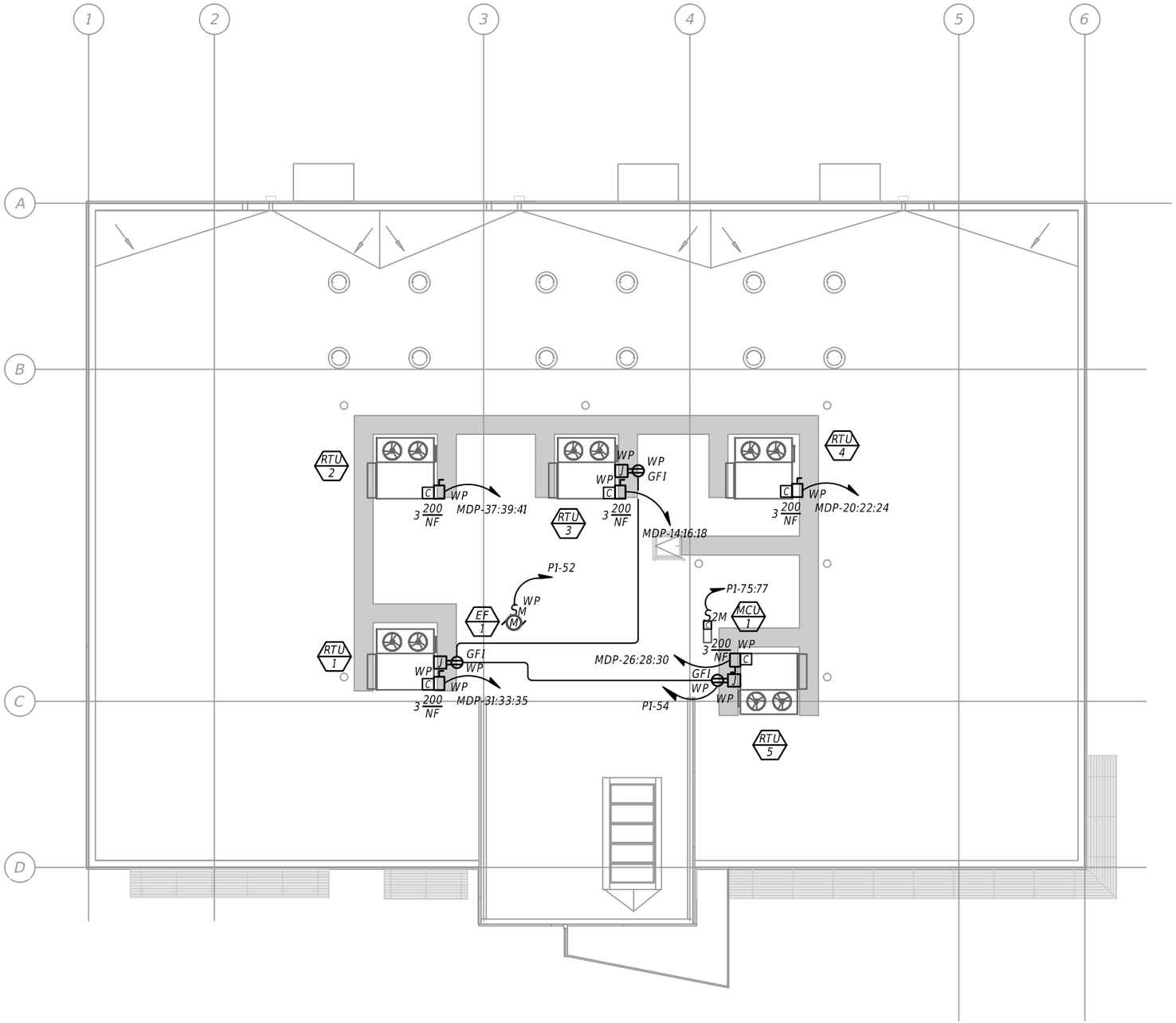
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - POWER

SHEET NO. AE1-204

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 OVERALL ROOF PLAN - POWER

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

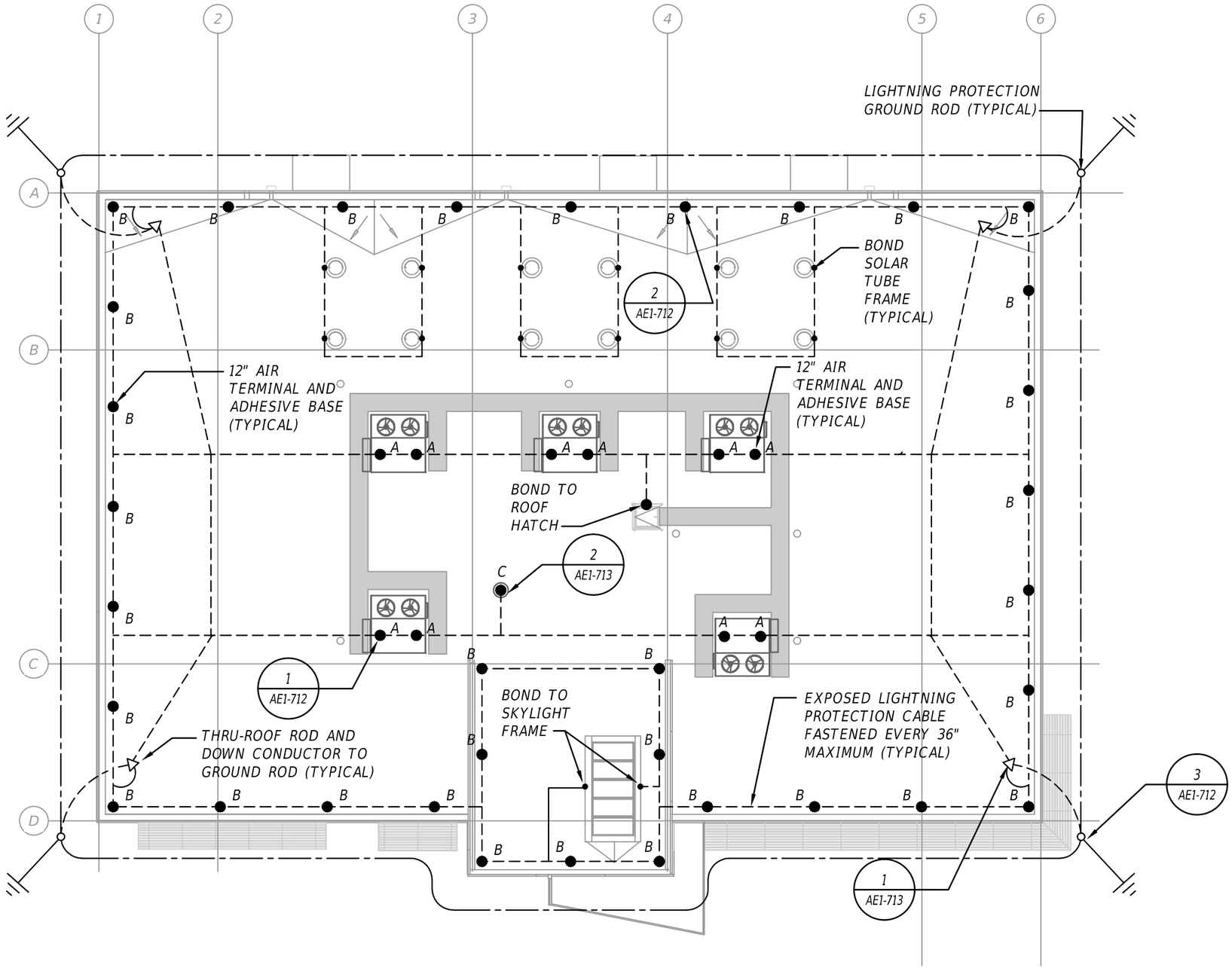
SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL ROOF PLAN - POWER

SHEET NO.

AE1-205

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 6IG15-23.004, F.A.C.



1 OVERALL ROOF PLAN - LIGHTNING PROTECTION

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL ROOF PLAN - LIGHTNING PROTECTION

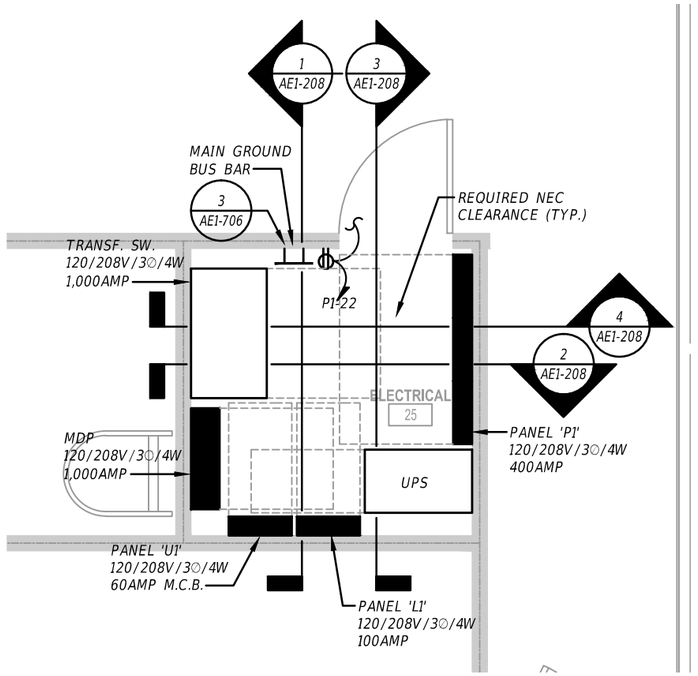
SHEET NO.

AE1-206

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: ⟨X⟩

1. BOND #2/0 BARE STRANDED-CU CONDUCTOR TO MAIN GROUND BUSBAR & EXTEND TO CONCRETE ENCASED ELECTRODE.
2. 6' HIGH x 3/4" DEEP PLYWOOD BACKBOARD WITH FIRE RETARDANT PAINT. LENGTH(S) AS INDICATED.
3. CONNECT INTERIOR MECHANICAL MINI-SPLIT UNIT THROUGH EXTERIOR UNIT LOCATED ON ROOF. CONNECT PER MANUFACTURER'S RECOMMENDATIONS, AND PROVIDE ALL CONTROL WIRING, CONDUIT, ETC. AS REQUIRED.
4. CONDUIT TO FUEL TANK PAD FOR FUTURE SCADA. REFER TO DRAWING GE-113 REFERENCE NOTE #2.

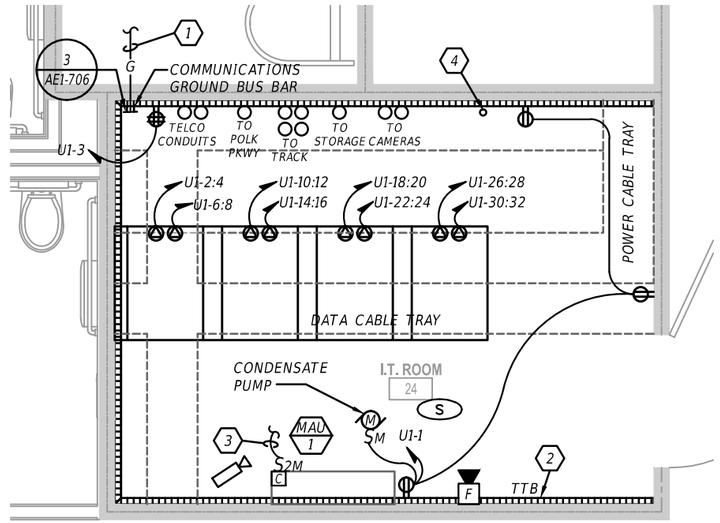


1 ENLARGED FLOOR PLAN - ELECTRIC ROOM

1/4" = 1'-0"

GRAPHIC SCALE

0' 2' 4'



2 ENLARGED FLOOR PLAN - I.T. ROOM

1/4" = 1'-0"

GRAPHIC SCALE

0' 2' 4'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

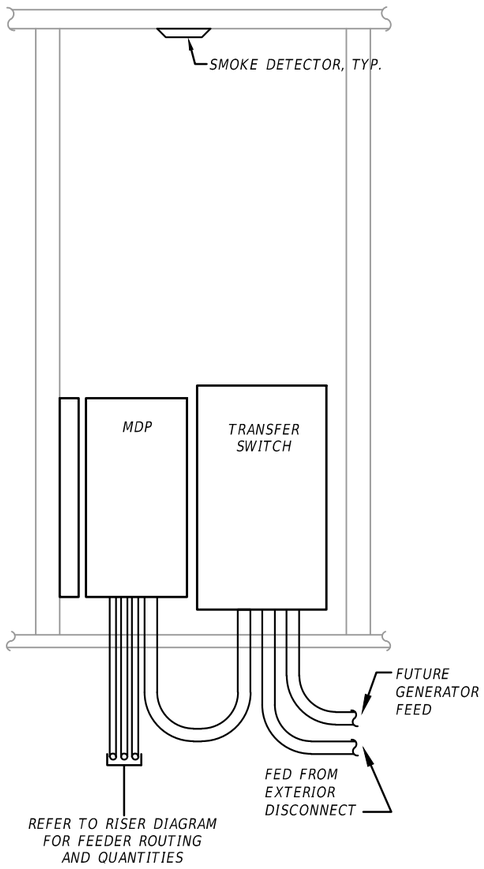
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

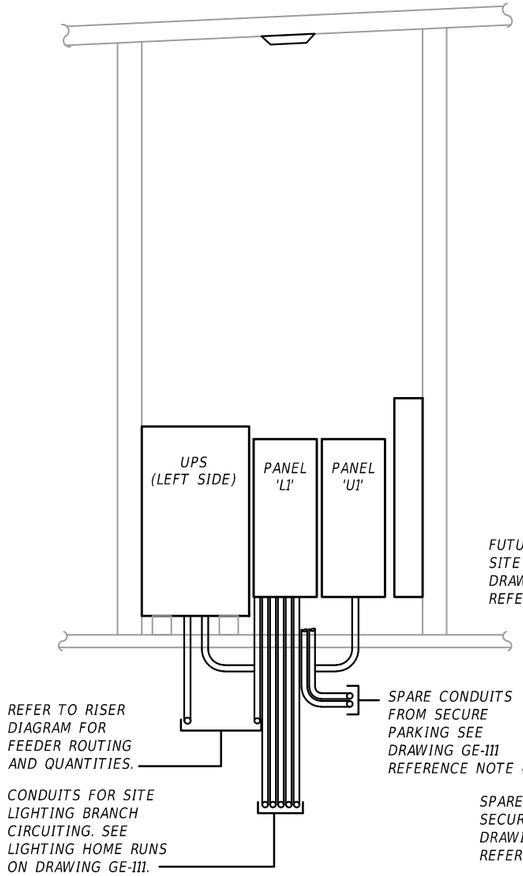
ENLARGED FLOOR PLANS - POWER & SYSTEMS

SHEET NO. AE1-207

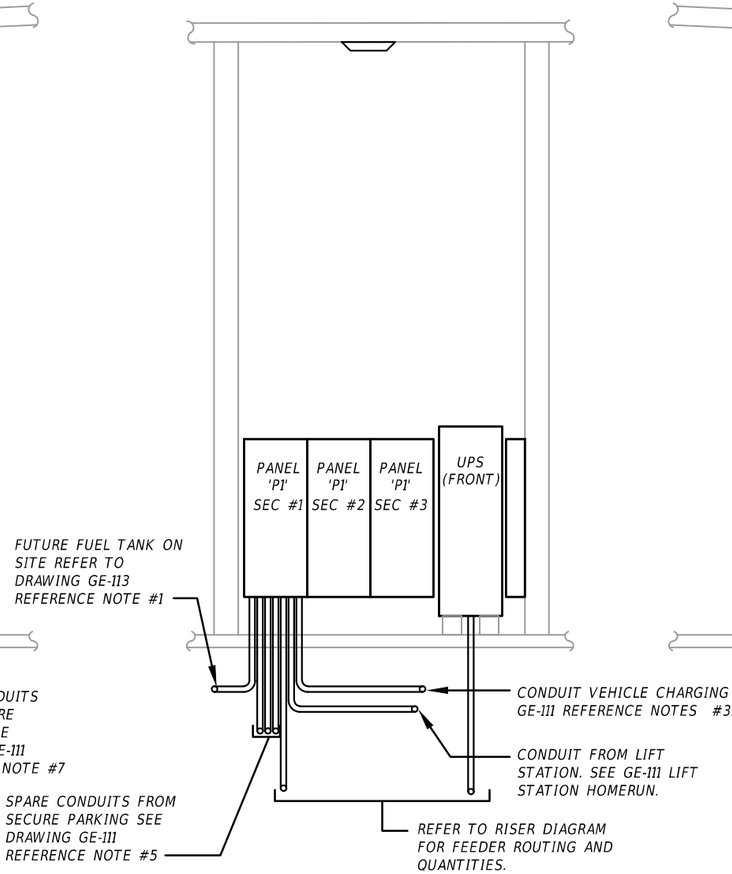
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



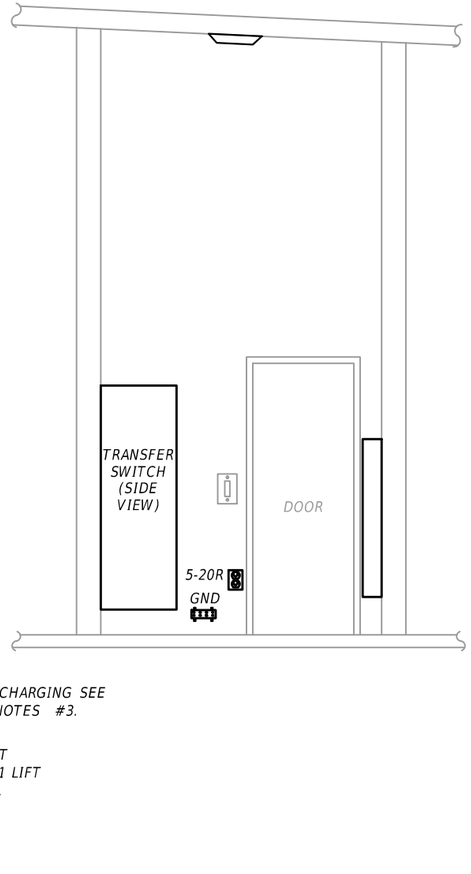
1 SECTION VIEW - ELECTRICAL ROOM - WEST
1/4" = 1'-0"



2 SECTION VIEW - ELECTRICAL ROOM - SOUTH
1/4" = 1'-0"



3 SECTION VIEW - ELECTRICAL ROOM - EAST
1/4" = 1'-0"



4 SECTION VIEW - ELECTRICAL ROOM - NORTH
1/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

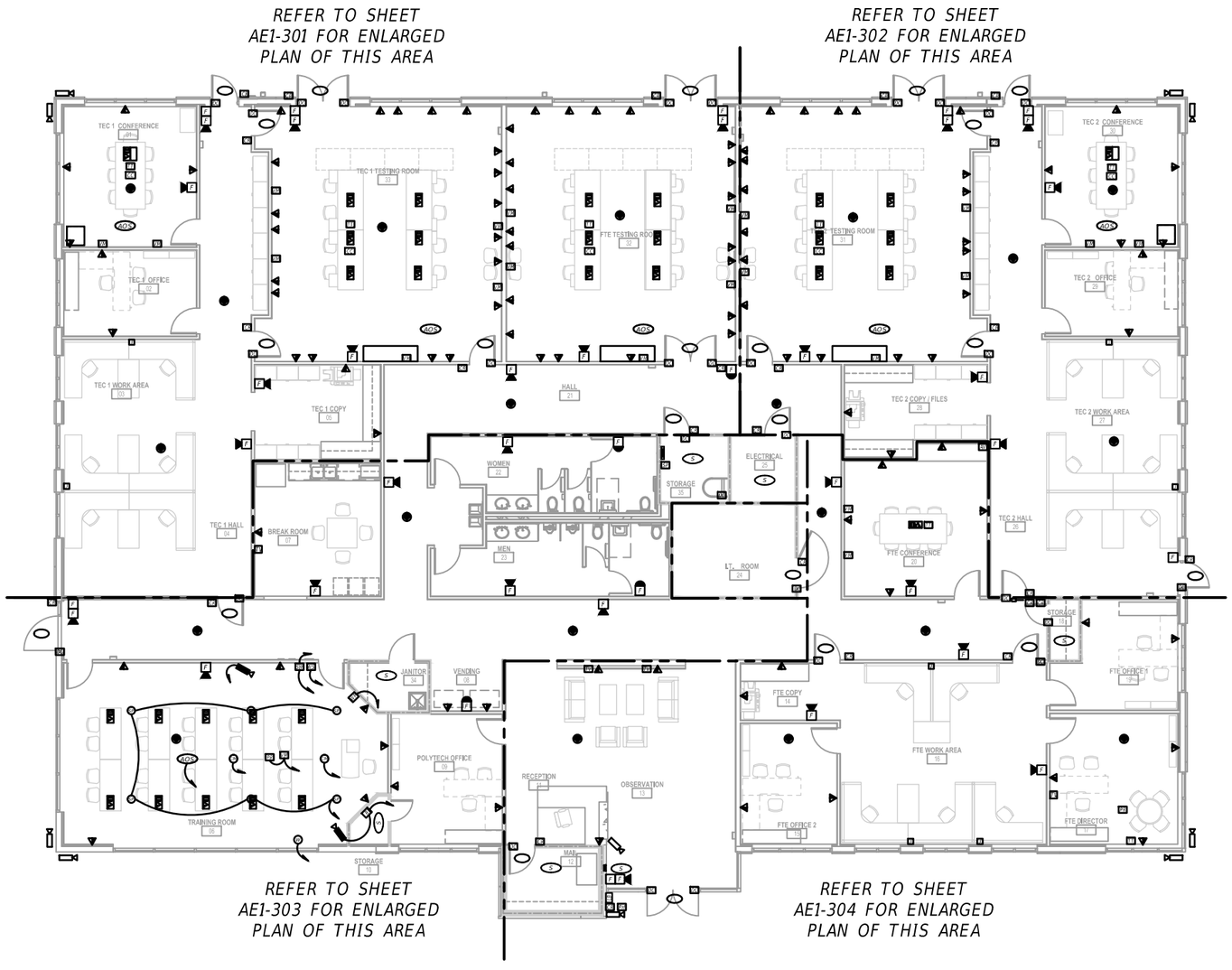
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

SECTION VIEWS - ELECTRICAL

SHEET NO.
AE1-208

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

D. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

● CEILING MOUNTED WIRELESS ACCESS POINT DEVICE (TO BE FURNISHED AND INSTALLED FTE). PROVIDE AND INSTALL (2) CAT6 CABLES TO NEAREST IDF. TERMINATE AT EACH END. WAP.

1 OVERALL FLOOR PLAN - SYSTEMS

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

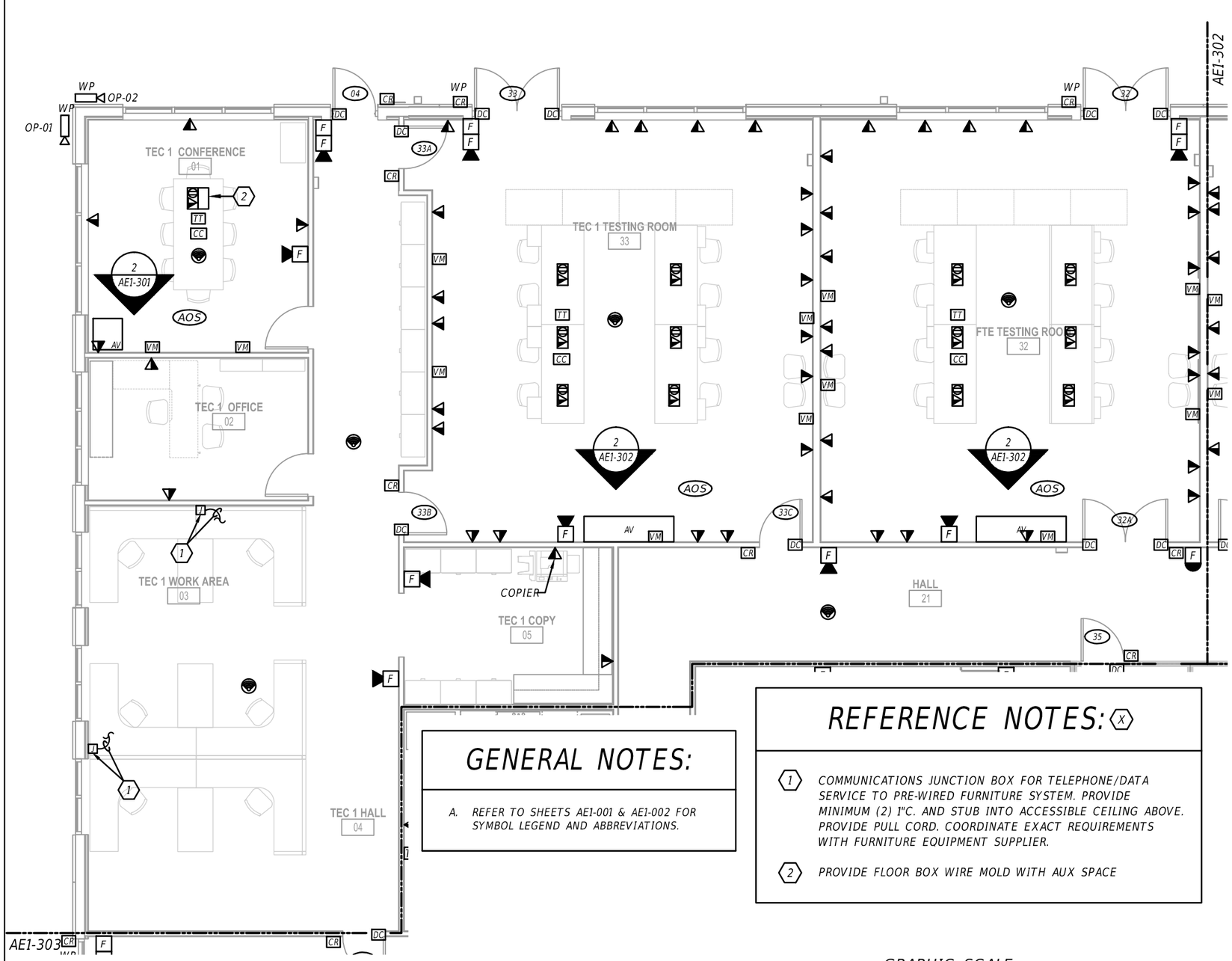
SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL FLOOR PLAN - SYSTEMS

SHEET NO.

AE1-300

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - SYSTEMS

1 — 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'

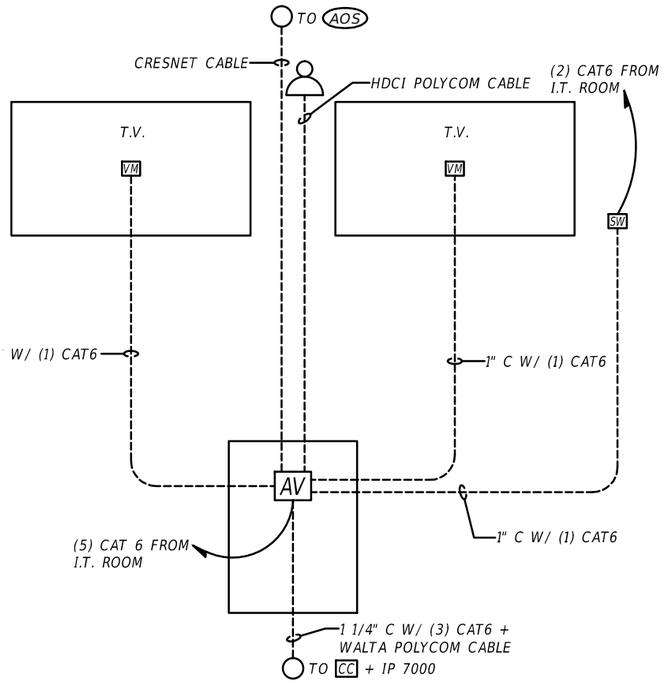
GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

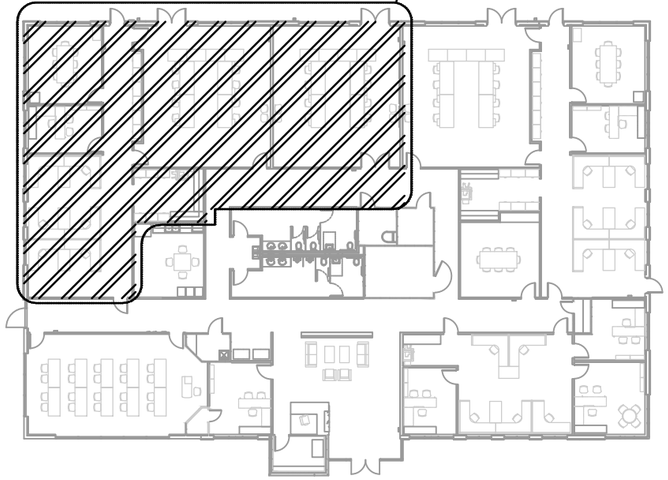
REFERENCE NOTES: (X)

(1) COMMUNICATIONS JUNCTION BOX FOR TELEPHONE/DATA SERVICE TO PRE-WIRED FURNITURE SYSTEM. PROVIDE MINIMUM (2) 1"C. AND STUB INTO ACCESSIBLE CEILING ABOVE. PROVIDE PULL CORD. COORDINATE EXACT REQUIREMENTS WITH FURNITURE EQUIPMENT SUPPLIER.

(2) PROVIDE FLOOR BOX WIRE MOLD WITH AUX SPACE



2 — SMALL CONFERENCE ROOM ELEVATION
NTS



2 — KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

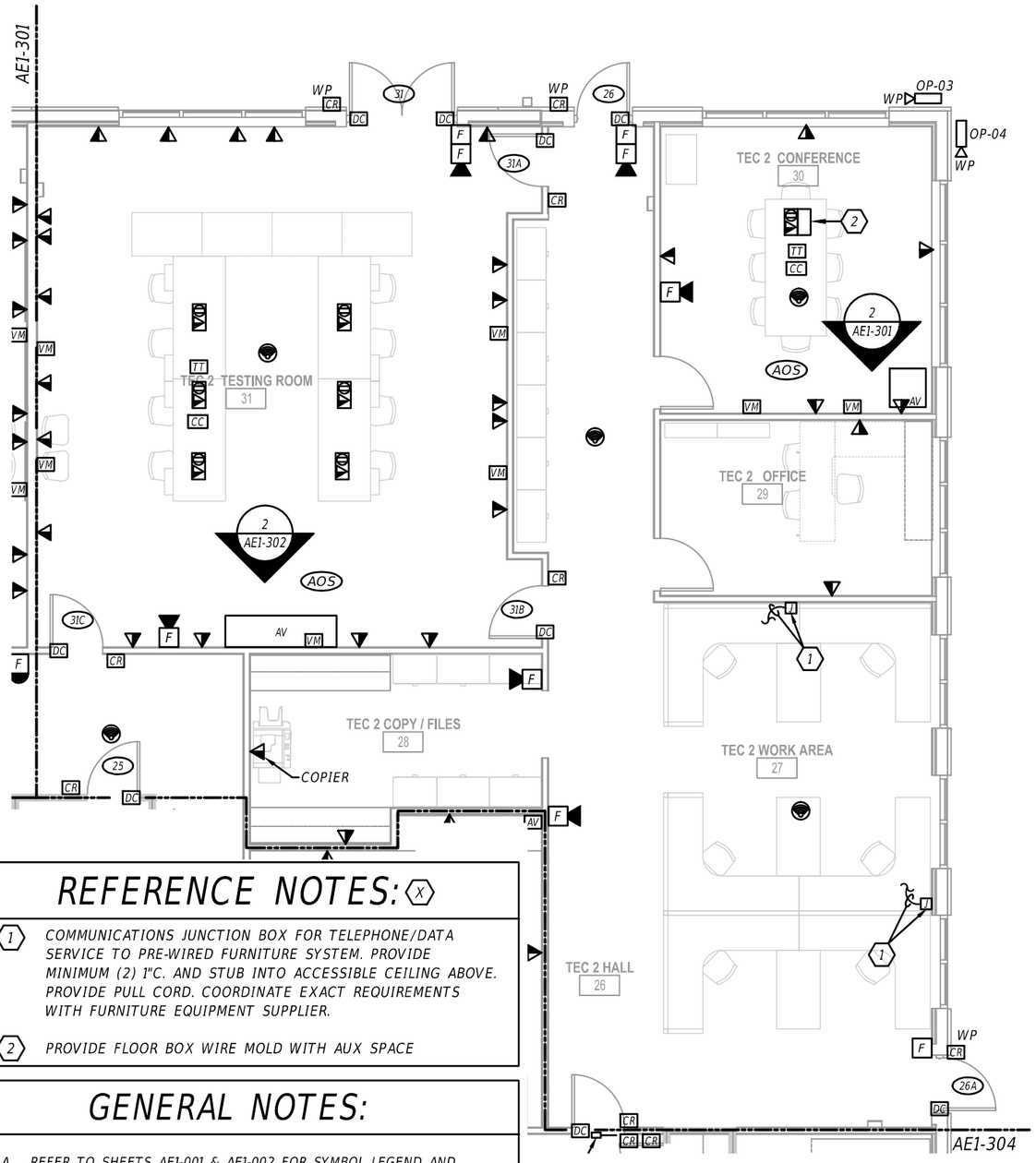
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE1-301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REFERENCE NOTES: (X)

(1) COMMUNICATIONS JUNCTION BOX FOR TELEPHONE/DATA SERVICE TO PRE-WIRED FURNITURE SYSTEM. PROVIDE MINIMUM (2) 1"C. AND STUB INTO ACCESSIBLE CEILING ABOVE. PROVIDE PULL CORD. COORDINATE EXACT REQUIREMENTS WITH FURNITURE EQUIPMENT SUPPLIER.

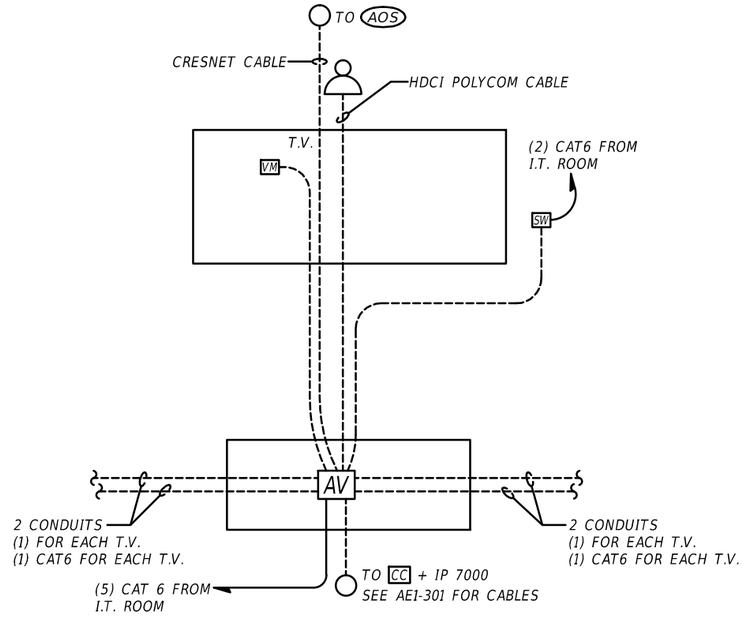
(2) PROVIDE FLOOR BOX WIRE MOLD WITH AUX SPACE

GENERAL NOTES:

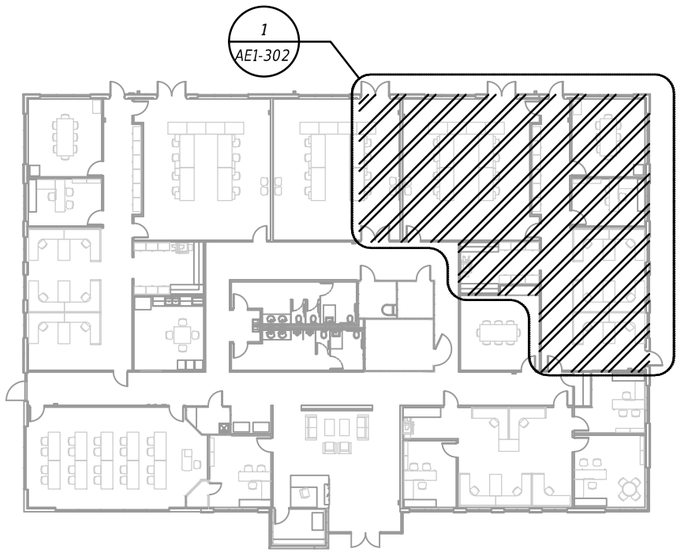
A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

GRAPHIC SCALE
0' 4' 8'

(1) ENLARGED FLOOR PLAN - TEC 2 AREA - SYSTEMS
1/8" = 1'-0"



(2) TESTING ROOM(S) (MEDIUM CONF.) ELEVATION
NTS



(2) KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

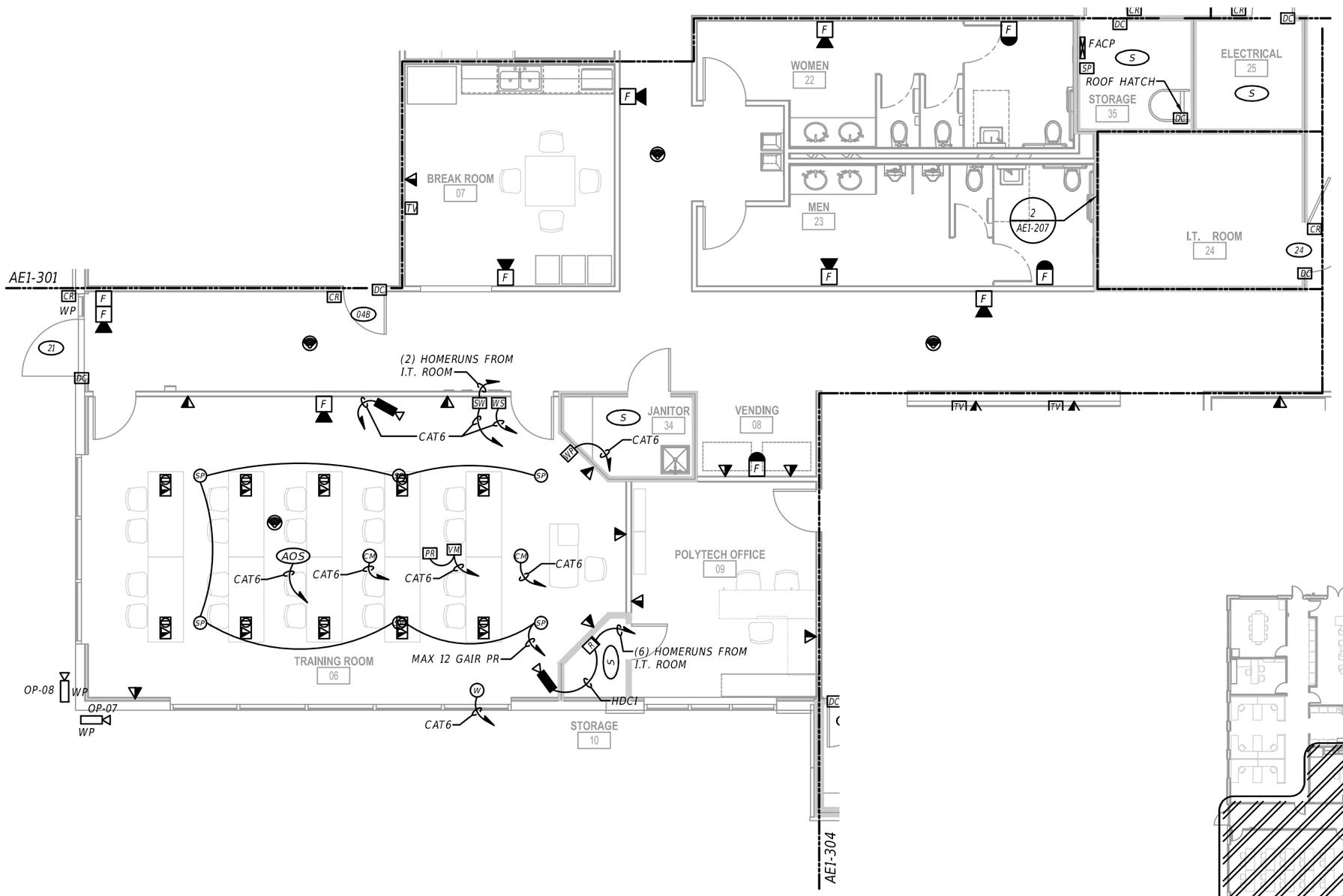
PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE1-302

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.
B. UNLESS OTHERWISE NOTED: ALL HOME RUNS IN TRAINING ROOM #06 SHALL BE ROUTED TO THE RACK LOCATED IN STORAGE ROOM #10.

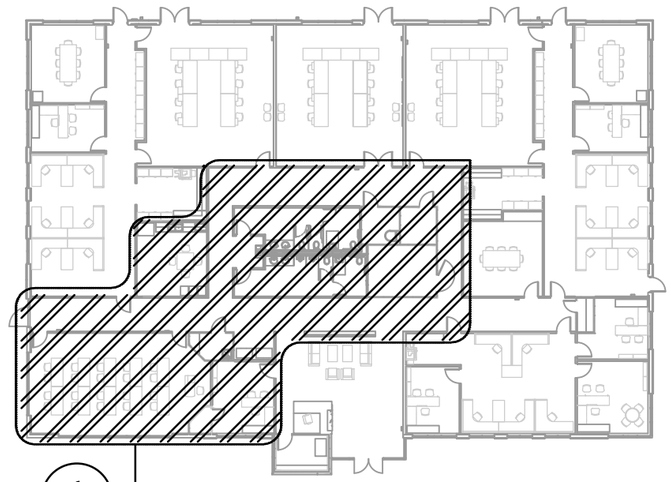


1 ENLARGED FLOOR PLAN - COMMON AREAS - SYSTEMS

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



1 AE1-303

2 KEY PLAN

1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE1-303

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: (X)

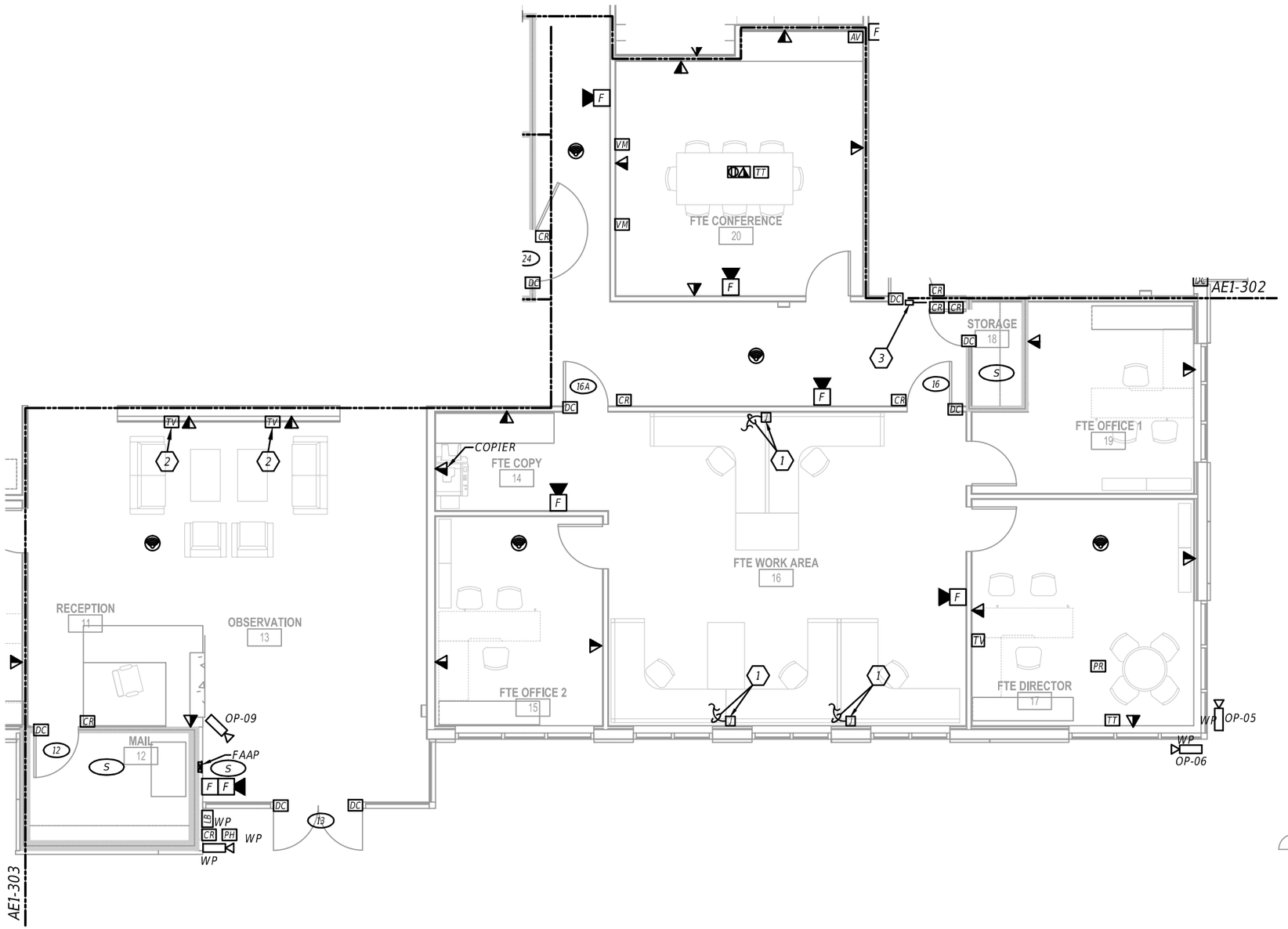
1. COMMUNICATIONS JUNCTION BOX FOR TELEPHONE/DATA SERVICE TO PRE-WIRED FURNITURE SYSTEM. PROVIDE MINIMUM (2) 1"C. AND STUB INTO ACCESSIBLE CEILING ABOVE. PROVIDE PULL CORD. COORDINATE EXACT REQUIREMENTS WITH FURNITURE EQUIPMENT SUPPLIER.

2. PROVIDE (2) CAT6 BACK TO I.T. ROOM WITH OWNER FURNISHED "INTERFACE BOX". COORDINATE EXACT REQUIREMENTS WITH AV DRAWINGS PRIOR TO ROUGH-IN.

3. SPECIAL EGRESS-CONTROL PUSH BAR TYPE DOOR DEVICE WITH LOCAL ALARM AND REMOTE SIGNALING OUTPUTS TO THE BLDG. ACCESS CONTROL SYSTEM TO GRANT EMERGENCY UNLOCKING OF DOOR AND ALLOWING EGRESS. THE BAR TYPE DEVICE SHALL BE PUSHED FOR A MINIMUM OF 15 SECONDS FOLLOWING AN EXIT ATTEMPT. THE FIRE ALARM SHALL PROVIDE IMMEDIATE RELEASE UPON FIRE VIA FIRE ALARM CONTROL RELAY. THE SPECIAL EGRESS-CONTROL DEVICE SHALL BE PROVIDED WITH A LOCAL ALARM SOUNDER AND POWER SUPPLY. ALARM SOUNDER ASSOCIATED LOW VOLTAGE POWER SHALL BE FURNISHED BY THE DOOR HARDWARE PROVIDER. PROVIDE SYSTEM INTERFACE WIRING AS REQUIRED. SEE POWER FLOOR PLANS AND FIRE ALARM DETAILS FOR ADDITIONAL INFORMATION.

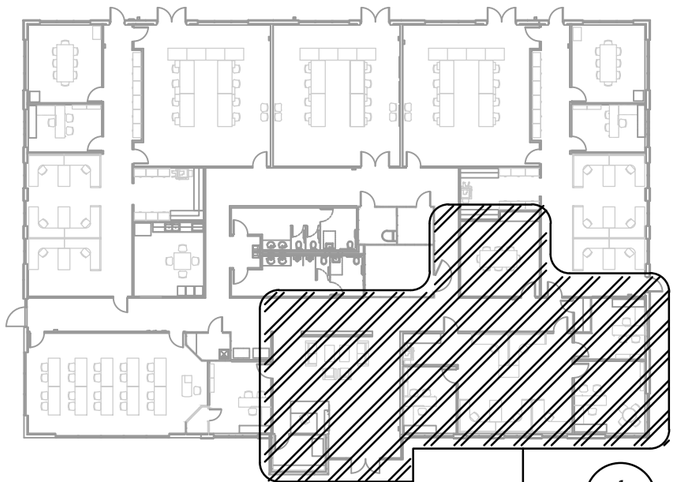
GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - SYSTEMS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

1 / AE1-304

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

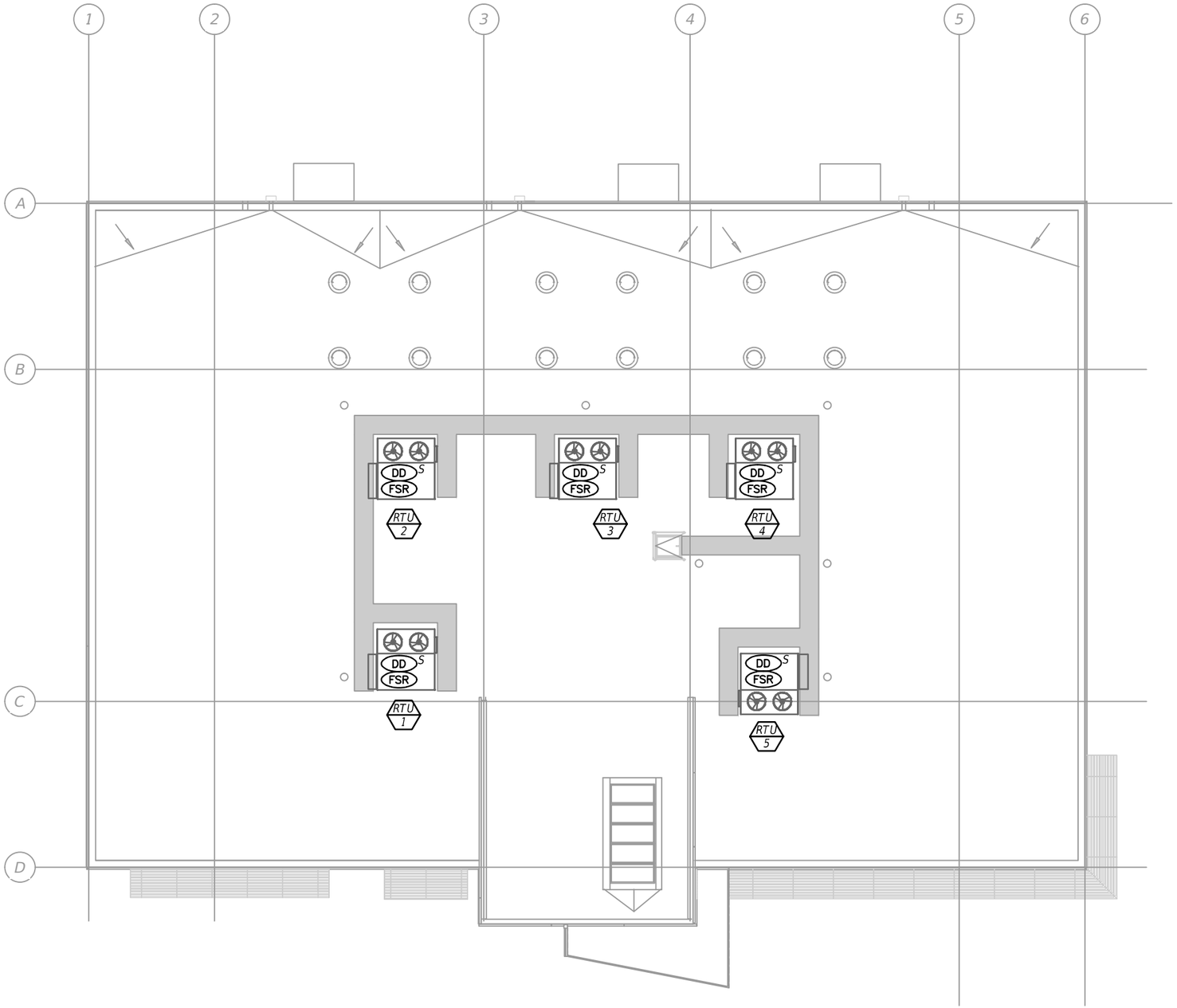
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE1-304

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 OVERALL ROOF PLAN - SYSTEMS

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

OVERALL ROOF PLAN - SYSTEMS

SHEET NO.

AE1-305

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. SEE RISER DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

E. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

1 OVERALL FLOOR PLAN - LIGHTING
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

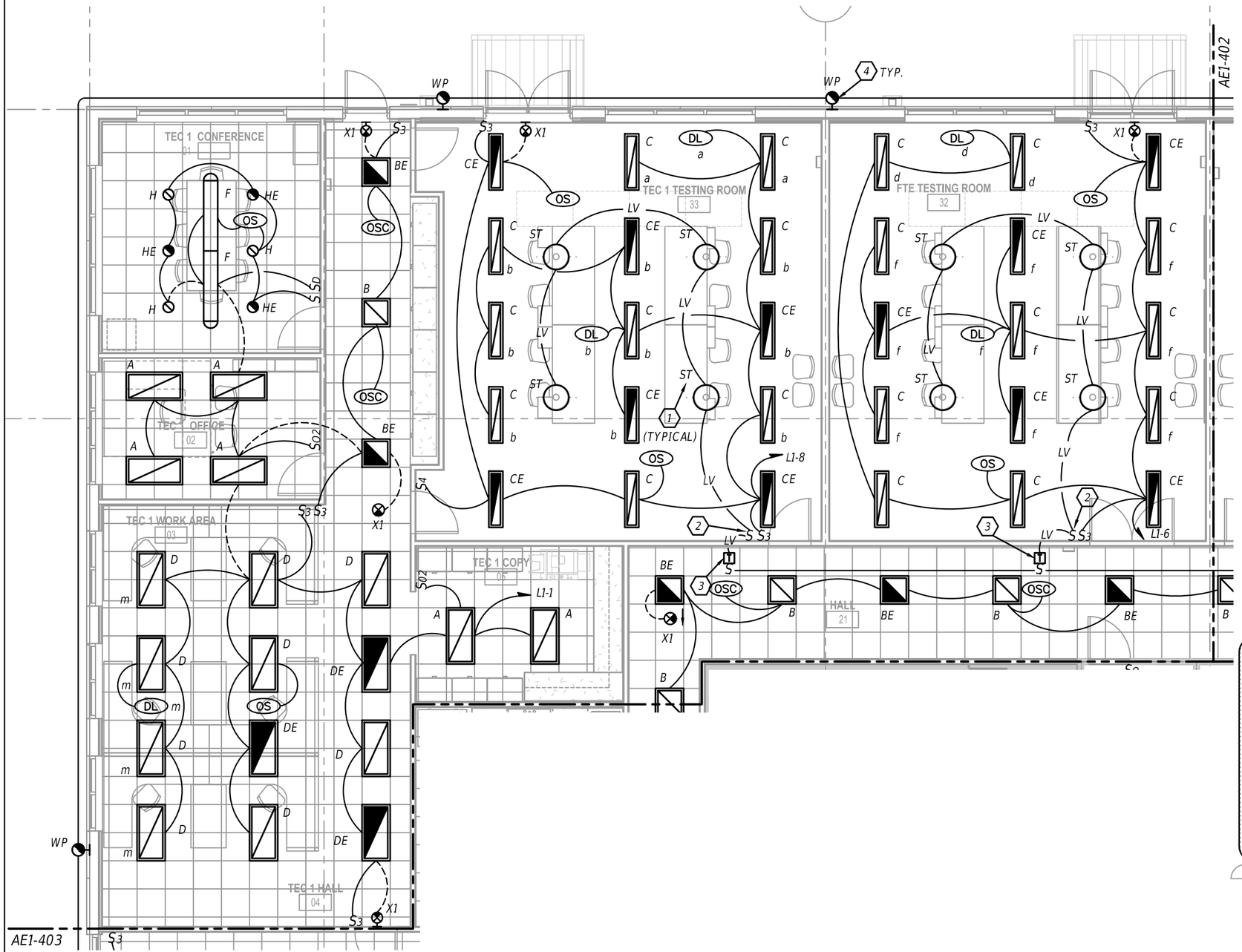
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

OVERALL FLOOR PLAN - LIGHTING

SHEET NO.
AE1-400

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

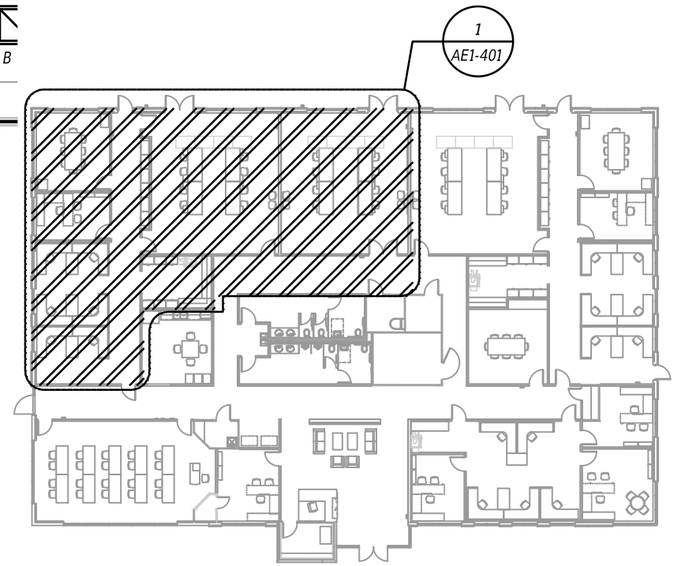


ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - LIGHTING

1 — 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN — 1/32" = 1'-0"

REFERENCE NOTES: (X)

1. "ST" INDICATES SOLAR TUBE UNIT. PROVIDE WITH LOW VOLTAGE (24V) TRANSFORMER. WIRE MINIMUM #12 FROM DOUBLE POLE DOUBLE THROW WALL MOUNTED SWITCH AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. TRANSFORMER SHALL BE FURNISHED BY MANUFACTURER. INSTALLED AND WIRED BY CONTRACTOR. WIRE VIA TIME OF DAY CONTROL VIA RELAY CIRCUIT BREAKER IN PANEL 'L1' SEE PANEL SCHEDULE.
2. DOUBLE POLE DOUBLE THROW WALL SWITCH FOR SOLAR TUBE DIMMER CONTROL. LEGRAND PASS $ SEYMOUR DECORATOR SERIES. SWITCH PROVIDED WITH SYSTEM. SEE SPECIFICATIONS
3. LOW VOLTAGE 120/24V TRANSFORMER FOR SOLAR TUBE DIMMER CONTROL MOUNTED IN ACCESSIBLE CEILING
4. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL EXTERIOR ELEVATIONS.

GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. PROVIDE UN-SWITCHED "HOT LEG" TO EMERGENCY LIGHTING AND EXIT SIGNS.

C. PROVIDE POWER SUPPLIES AND ASSOCIATED CONTACTS AS REQUIRED FOR CONNECTION TO OCCUPANCY SENSORS FOR LIGHTING CONTROL.

D. PROVIDE NEUTRAL CONDUCTOR FOR ALL DIMMERS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

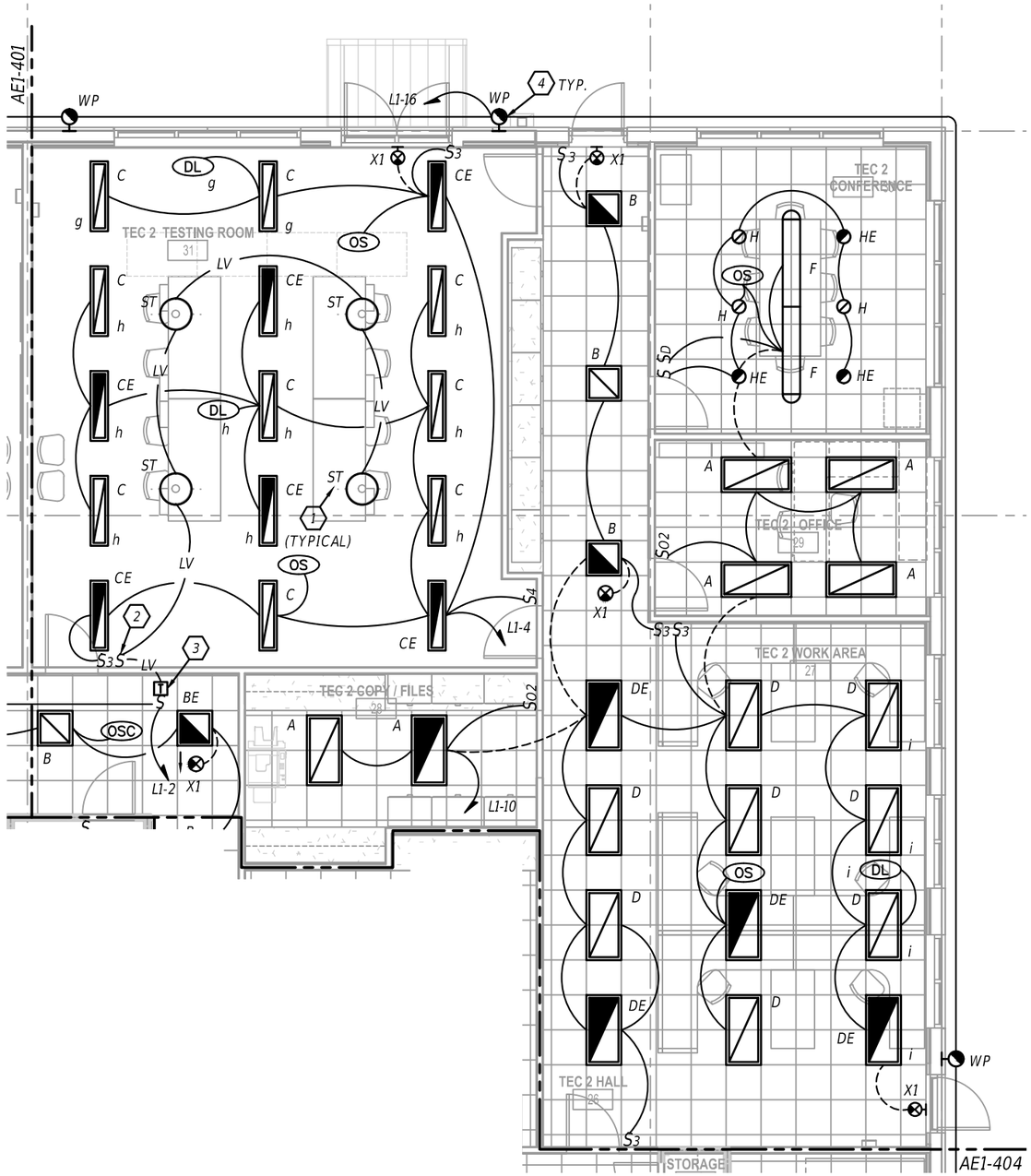
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - LIGHTING

SHEET NO. AE1-401

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 ENLARGED FLOOR PLAN - TEC 2 AREA - LIGHTING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'

REFERENCE NOTES: X

1. "ST" INDICATES SOLAR TUBE UNIT. PROVIDE WITH LOW VOLTAGE (24V) TRANSFORMER. WIRE MINIMUM #12 FROM DOUBLE POLE DOUBLE THROW WALL MOUNTED SWITCH AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. TRANSFORMER SHALL BE FURNISHED BY MANUFACTURER. INSTALLED AND WIRED BY CONTRACTOR. WIRE VIA TIME OF DAY CONTROL VIA RELAY CIRCUIT BREAKER IN PANEL 'L1' SEE PANEL SCHEDULE.
2. DOUBLE POLE DOUBLE THROW WALL SWITCH FOR SOLAR TUBE DIMMER CONTROL. LEGRAND PASS $ SEYMOUR DECORATOR SERIES.
3. LOW VOLTAGE 120/24V TRANSFORMER FOR SOLAR TUBE DIMMER CONTROL MOUNTED IN ACCESSIBLE CEILING
4. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL EXTERIOR ELEVATIONS.

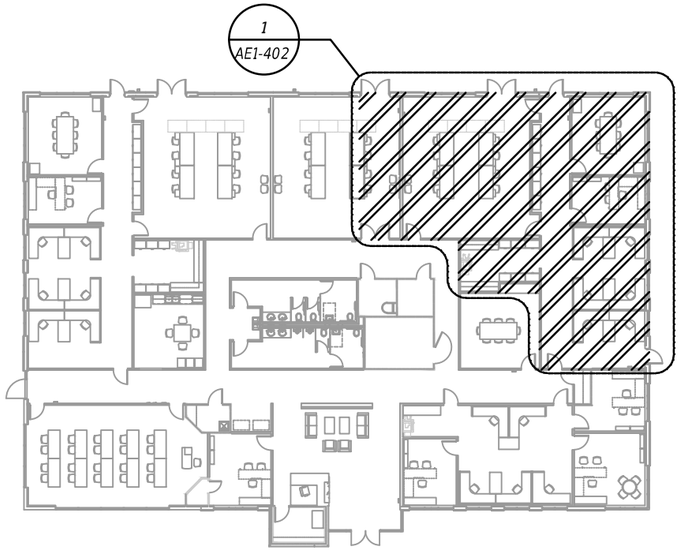
GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. PROVIDE UN-SWITCHED "HOT LEG" TO EMERGENCY LIGHTING AND EXIT SIGNS.

C. PROVIDE POWER SUPPLIES AND ASSOCIATED CONTACTS AS REQUIRED FOR CONNECTION TO OCCUPANCY SENSORS FOR LIGHTING CONTROL.

D. PROVIDE NEUTRAL CONDUCTOR FOR ALL DIMMERS.



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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CA NO.: 28730

STATE OF FLORIDA
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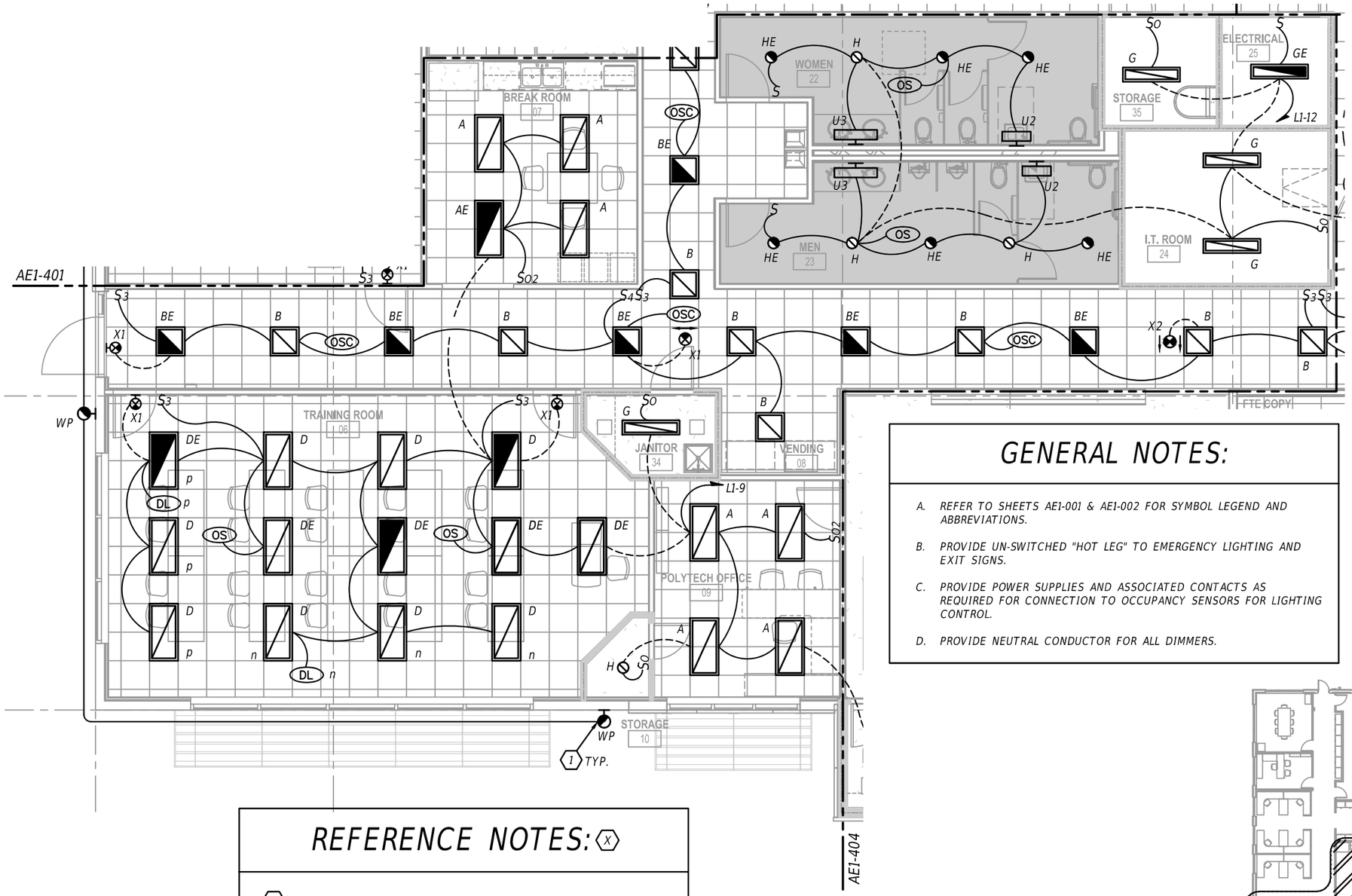
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - LIGHTING

SHEET NO.
AE1-402

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. PROVIDE UN-SWITCHED "HOT LEG" TO EMERGENCY LIGHTING AND EXIT SIGNS.

C. PROVIDE POWER SUPPLIES AND ASSOCIATED CONTACTS AS REQUIRED FOR CONNECTION TO OCCUPANCY SENSORS FOR LIGHTING CONTROL.

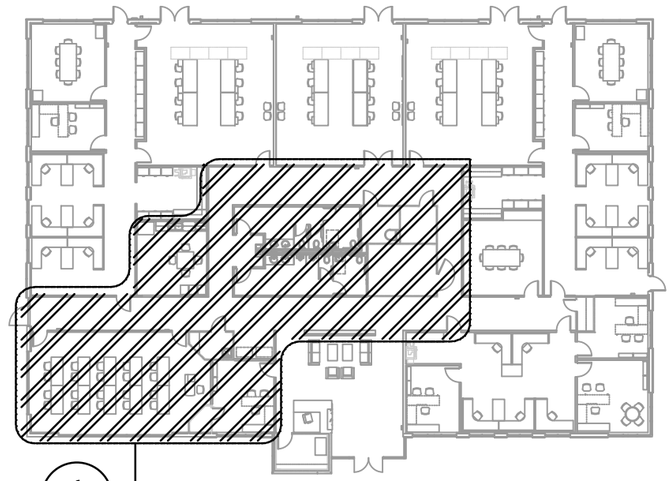
D. PROVIDE NEUTRAL CONDUCTOR FOR ALL DIMMERS.

REFERENCE NOTES: (X)

(1) COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL EXTERIOR ELEVATIONS.

1 ENLARGED FLOOR PLAN - COMMON AREAS - LIGHTING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



1 AE1-403

2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - LIGHTING

SHEET NO. AE1-403

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: X

1. WEATHERPROOF JUNCTION BOX FOR CONNECTION TO SIGN. REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS AND DETAILS.
2. 20AMP, 208VOLT RECEPTACLE FOR CONNECTION OF SKYLIGHT POWER MODULE. RECEPTACLE AND ASSOCIATED POWER MODULE TO BE INSTALLED UNDER BOTTOM FLASHING SECTION OF THE MODULAR SKYLIGHT. COORDINATE EXACT INSTALLATION WITH EQUIPMENT SPECIFICATIONS. CONTROL DEVICE FURNISHED WITH EQUIPMENT IS WIRELESS REMOTE.

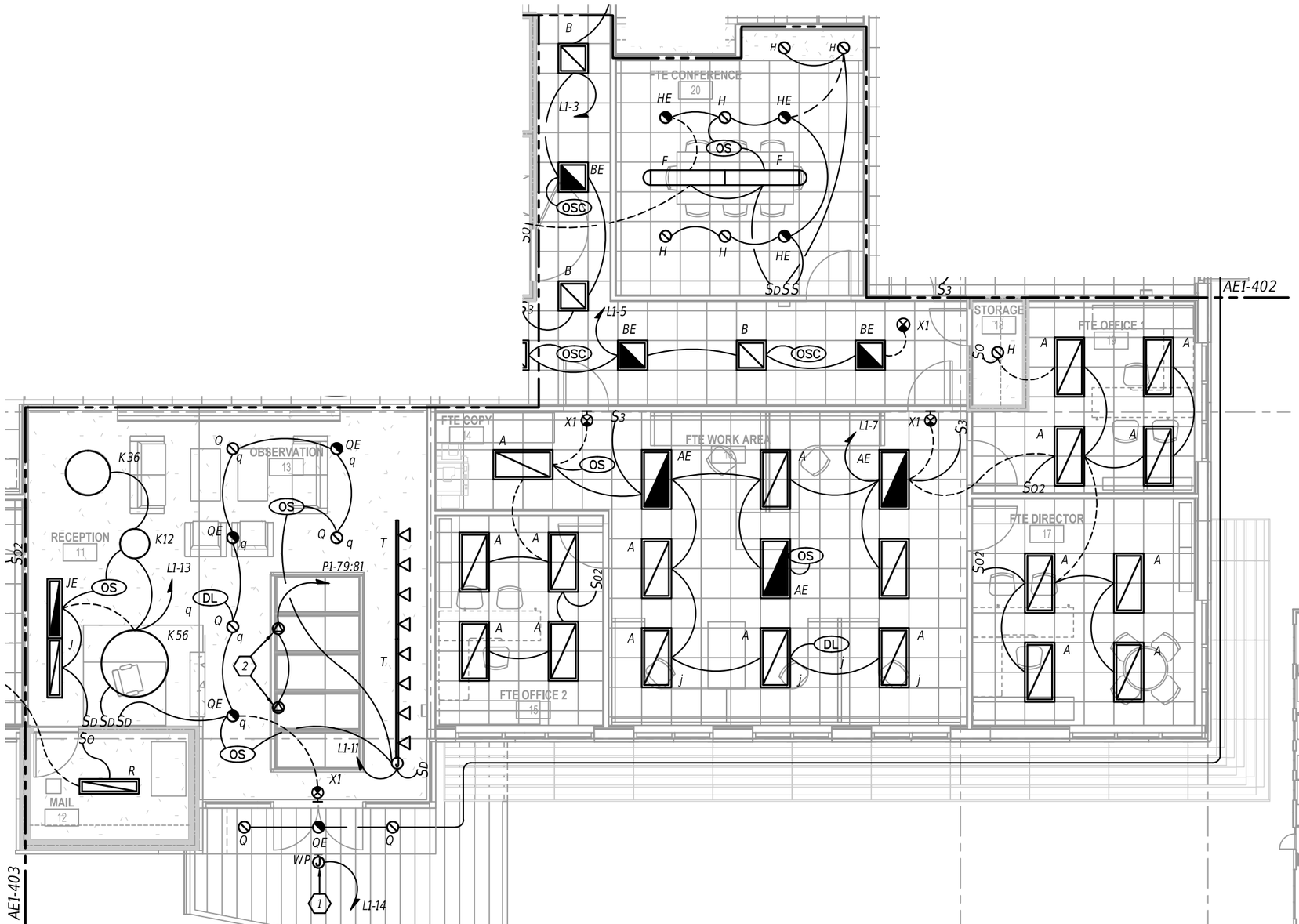
GENERAL NOTES:

A. REFER TO SHEETS AE1-001 & AE1-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. PROVIDE UN-SWITCHED "HOT LEG" TO EMERGENCY LIGHTING AND EXIT SIGNS.

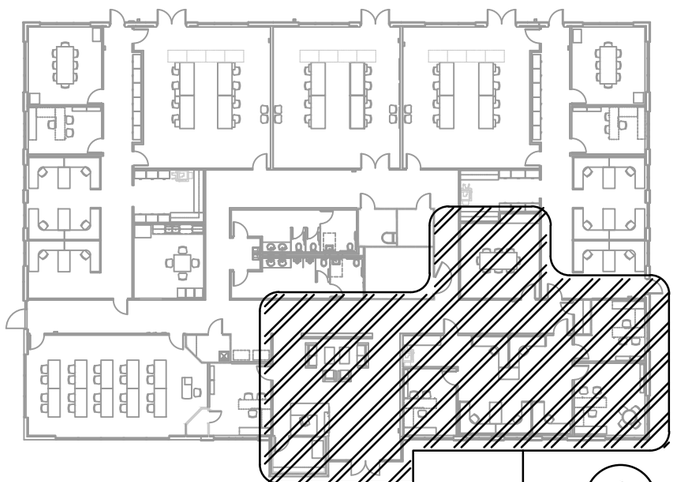
C. PROVIDE POWER SUPPLIES AND ASSOCIATED CONTACTS AS REQUIRED FOR CONNECTION TO OCCUPANCY SENSORS FOR LIGHTING CONTROL.

D. PROVIDE NEUTRAL CONDUCTOR FOR ALL DIMMERS.



1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - LIGHTING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

1 / AE1-404

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

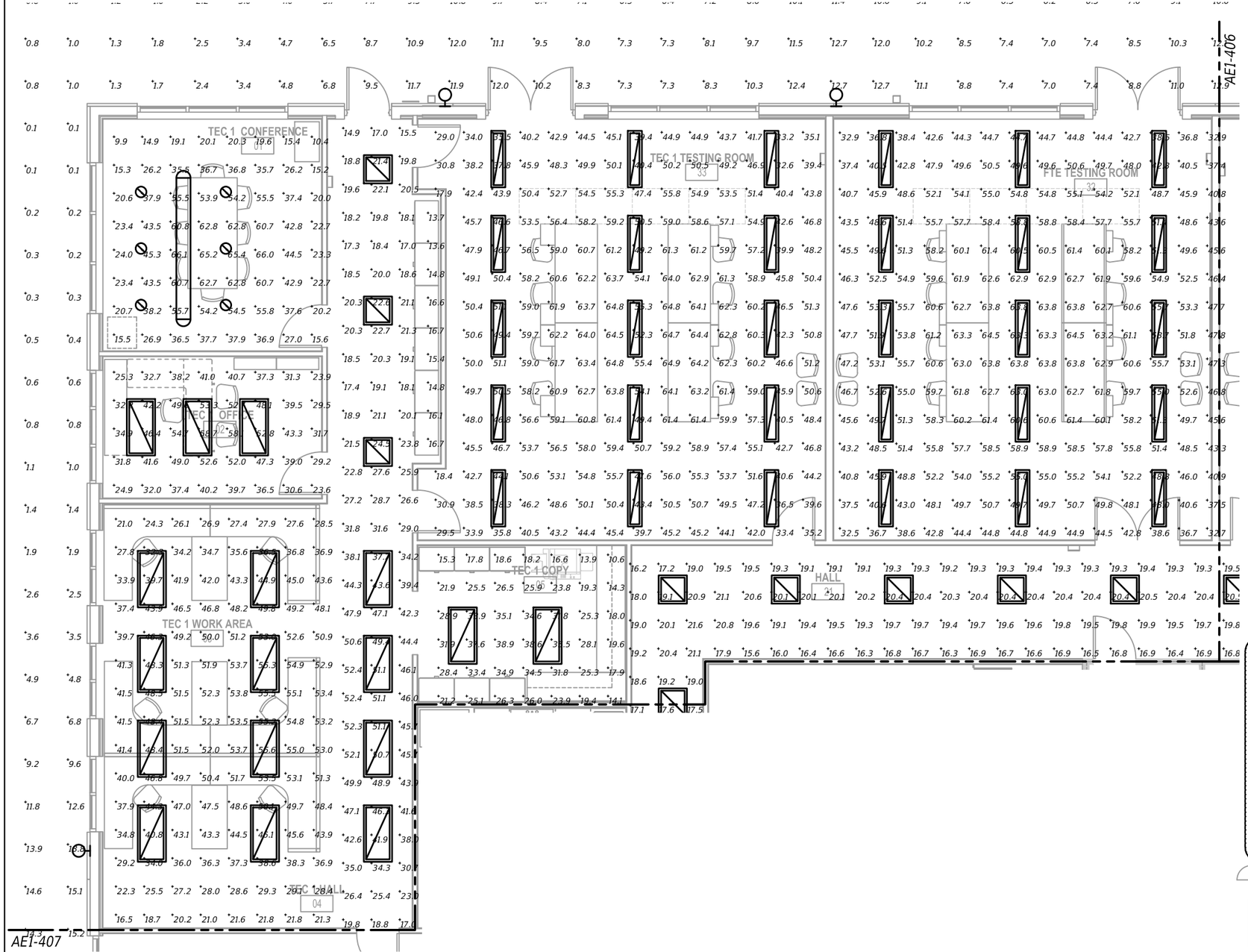
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

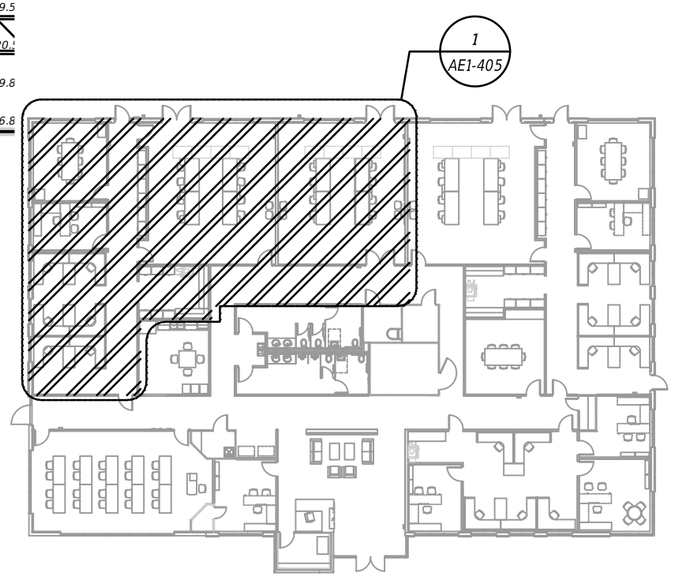
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

PARTIAL FLOOR PLAN - LIGHTING

SHEET NO. AE1-404

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.





ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - PHOTOMETRICS

1 — 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'

2 KEY PLAN — 1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

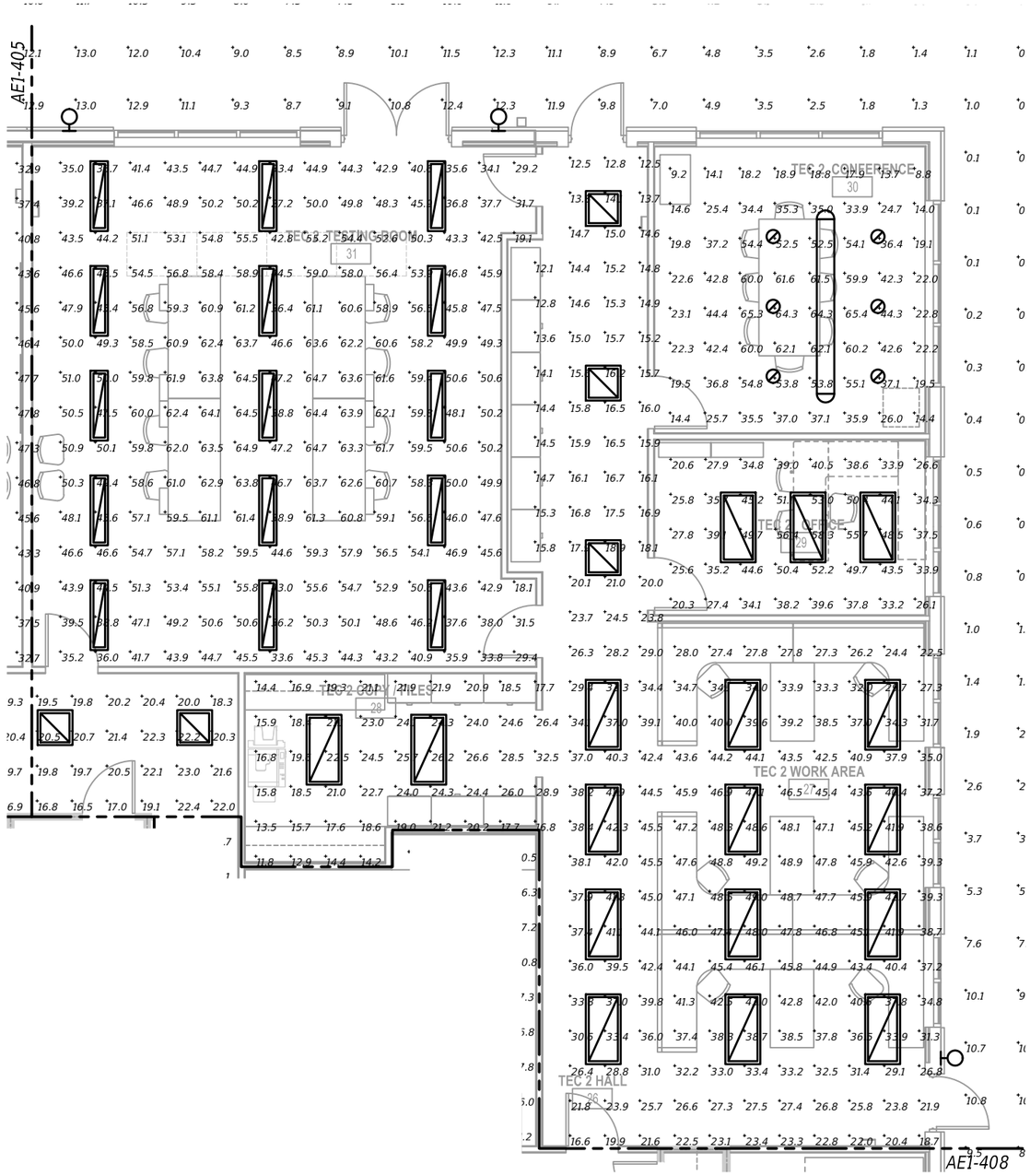
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

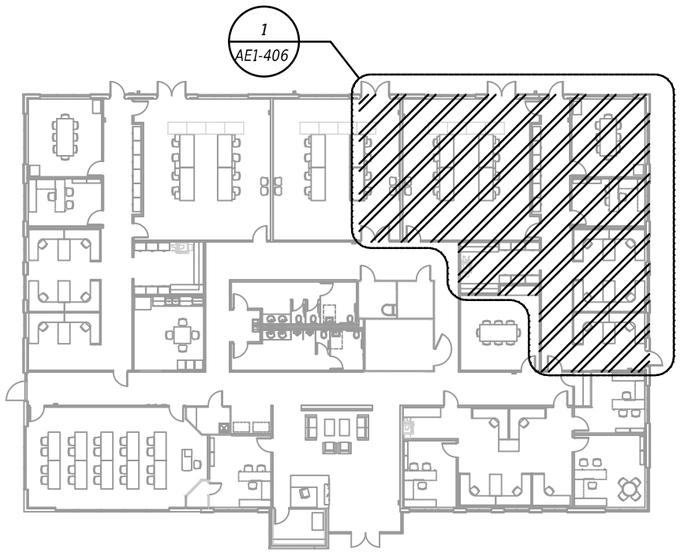
SHEET NO. AE1-405

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1 ENLARGED FLOOR PLAN - TEC 2 AREA - PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

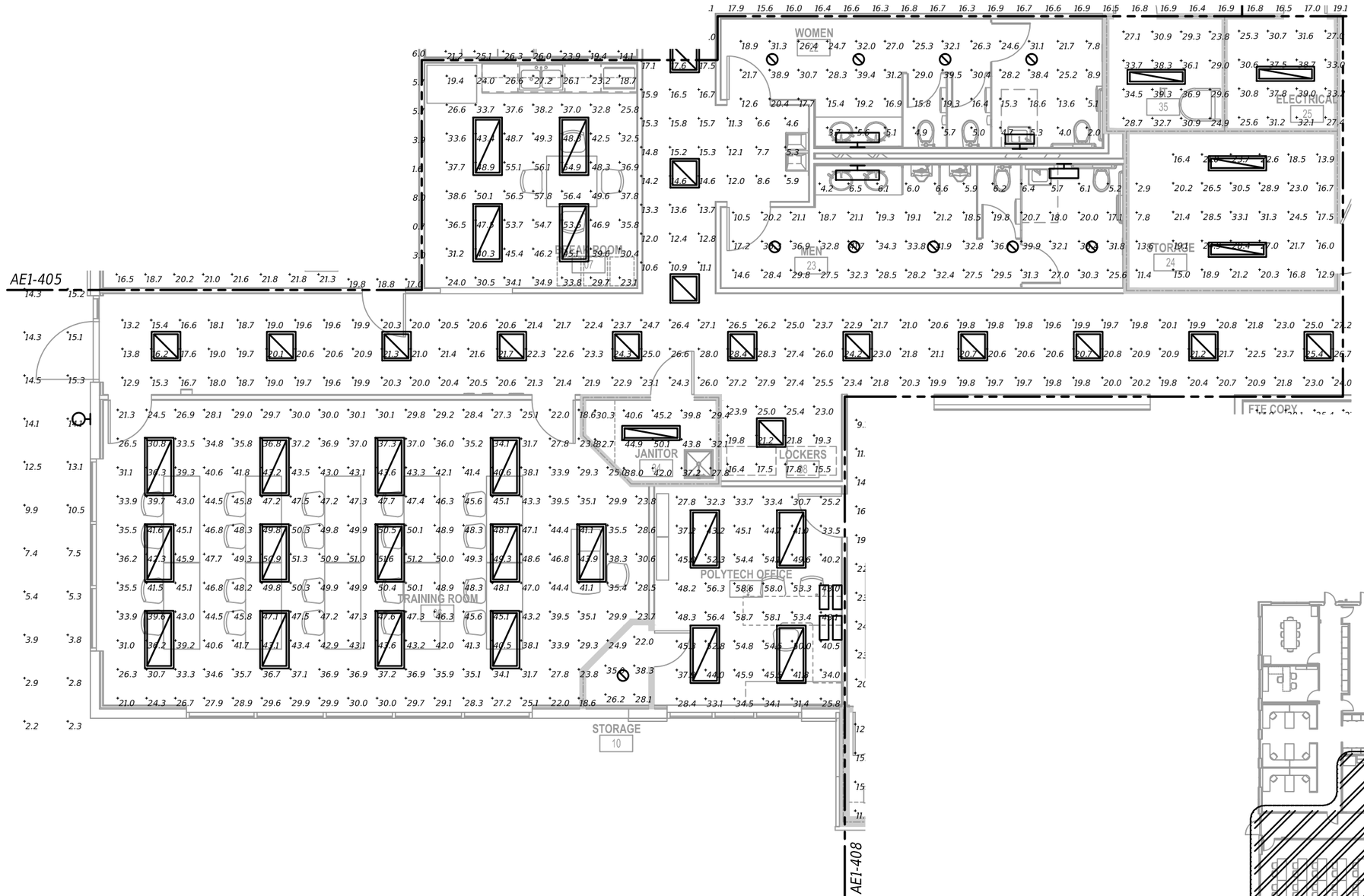
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

SHEET NO.
AE1-406

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

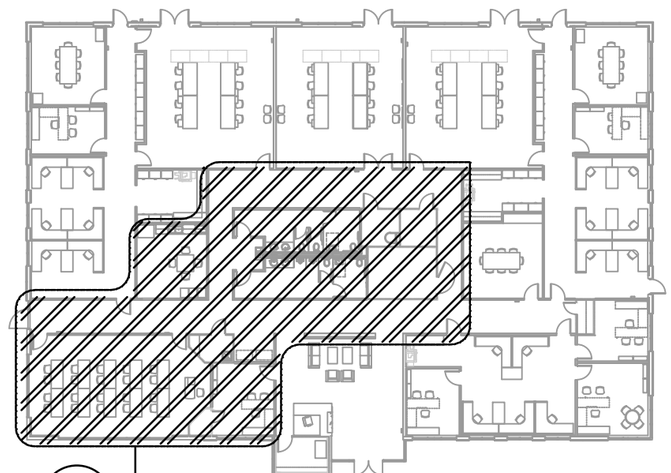


1 ENLARGED FLOOR PLAN - COMMON AREAS - PHOTOMETRICS

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



1 / AE1-407

2 KEY PLAN

1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

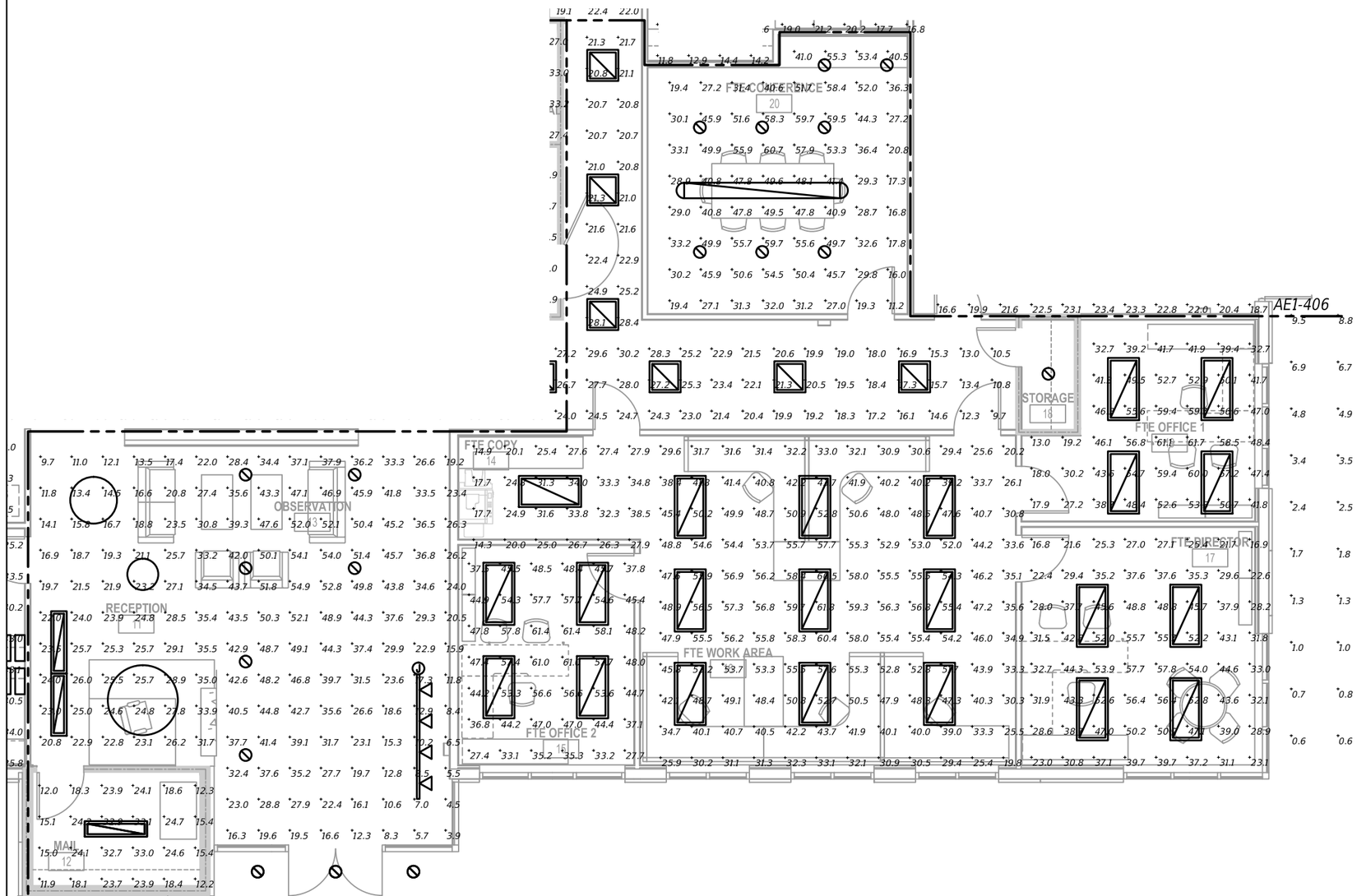
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

SHEET NO.

AE1-407

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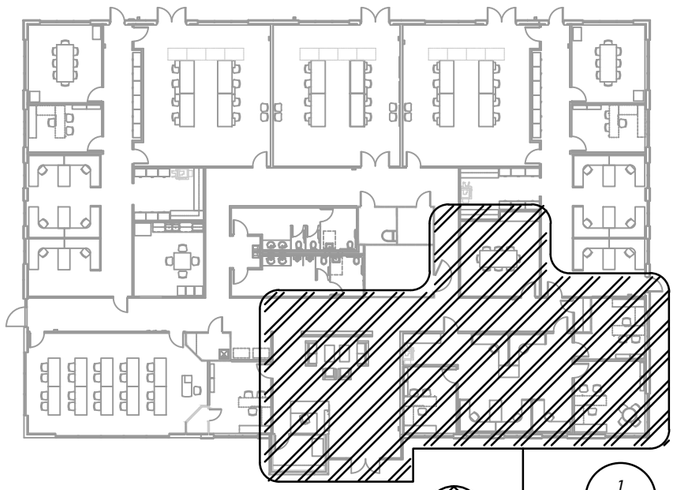


ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - PHOTOMETRICS

1 — 1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN — 1/32" = 1'-0"

1 / AE1-408

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

SHEET NO. AE1-408

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Luminaire Schedule

Symbol	Label	Arrangement	Lumens	LLF	Description	Lum. Watts	Lum. Lumens
	A	SINGLE	N.A.	0.900	50G-S24-L35-830-SAF12125	33	3429
	B	SINGLE	N.A.	0.900	2TG20L840-2-FS-02F-UNV	23	2287
	C	SINGLE	N.A.	0.900	39-4-L52-835-A-xxx-xxx	51	5183
	D	SINGLE	N.A.	0.900	AT1-24-L30-830-SH-XXX-DIM-UNV	30	3080
	F	SINGLE	N.A.	0.900	FINELITE S12-LED-ID-DCO-4ft-2E-S-8-35-FTO	14.5	1798
	G	SINGLE	N.A.	0.900	HEW 75-4-L50-835-xxx-xxx	43	5073
	h	SINGLE	N.A.	0.900	ILM6L2359C-SF / ILC6L2	17.15	1189
	J	SINGLE	N.A.	0.900	HETWG-4-L30-840-A-CHA118-xxx-xxx	43	2943
	WP	SINGLE	N.A.	0.900	HEW VWPH-L60-730-T3-CLR-OPT-EDD-UNV	68.4	5933
	R	SINGLE	N.A.	0.900	50G-S14-L32-835-SAF12125	39	3331
	K24	SINGLE	2326.8	0.900	CYCLE 3800-24-WHM	23.52	1211
	K36	SINGLE	3875.2	0.900	CYCLE 3800-36-WHM	33.6	2042
	K54	SINGLE	6200.32	0.900	CYCLE 3800-54-WHM	62.72	3291
	Q	SINGLE	N.A.	0.900	ILM6L4359C-SF / ILC6L4	38.03	2692

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Exterior Perimeter	Illuminance	Fc	5.10	15.3	0.1	51.00	153.00
MAIN CORRIDOR_Floor	Illuminance	Fc	19.82	30.2	4.6	4.31	6.57
ROOM 01_Workplane	Illuminance	Fc	37.84	66.1	9.9	3.82	6.68
ROOM 02_Workplane	Illuminance	Fc	40.14	58.7	23.6	1.70	2.49
Room 03_Workplane	Illuminance	Fc	41.70	55.6	16.5	2.53	3.37
Room 04_Workplane	Illuminance	Fc	29.61	52.4	13.6	2.18	3.85
ROOM 05_Workplane	Illuminance	Fc	25.43	38.9	10.6	2.40	3.67
ROOM 06_Workplane	Illuminance	Fc	38.50	51.6	18.6	2.07	2.77
ROOM 07_Workplane	Illuminance	Fc	39.23	57.8	18.7	2.10	3.09
ROOM 09_Workplane	Illuminance	Fc	43.61	58.7	25.2	1.73	2.33
Room 10_Workplane	Illuminance	Fc	29.92	38.3	22.0	1.36	1.74
ROOM 11 12 13_Floor	Illuminance	Fc	29.02	54.9	3.9	7.44	14.08
Room 12_Workplane	Illuminance	Fc	21.15	33.1	11.9	1.78	2.78
ROOM 15_Workplane	Illuminance	Fc	47.68	61.4	27.4	1.74	2.24
Room 16_Workplane	Illuminance	Fc	42.02	61.8	14.3	2.94	4.32
Room 17_Workplane	Illuminance	Fc	38.37	57.8	16.8	2.28	3.44
Room 19_Workplane	Illuminance	Fc	45.39	61.7	13.0	3.49	4.75
Room 20_Workplane	Illuminance	Fc	40.18	60.7	11.2	3.59	5.42
Room 22_Workplane	Illuminance	Fc	19.82	39.5	2.0	9.91	19.75
Room 23_Workplane	Illuminance	Fc	21.84	41.9	2.9	7.53	14.45
Room 24_Workplane	Illuminance	Fc	22.01	33.1	12.9	1.71	2.57
Room 25_Workplane	Illuminance	Fc	31.97	39.0	25.3	1.26	1.54
Room 27_Floor	Illuminance	Fc	29.93	49.2	11.8	2.54	4.17
Room 29_Workplane	Illuminance	Fc	39.16	58.3	20.3	1.93	2.87
Room 30_Workplane	Illuminance	Fc	36.87	65.4	8.8	4.19	7.43
Room 31_Workplane	Illuminance	Fc	50.38	64.9	18.1	2.78	3.59
Room 32_Workplane	Illuminance	Fc	51.95	64.5	32.5	1.60	1.98
Room 33_Workplane	Illuminance	Fc	50.84	64.9	17.9	2.84	3.63
Room 34_Workplane	Illuminance	Fc	38.14	50.1	27.8	1.37	1.80
Room 35_Workplane	Illuminance	Fc	31.61	39.3	23.8	1.33	1.65

LPD Area Summary

Label	Area	Total Watts	LPD
Entire Building	11395	6791.016	0.596
LPDArea_1	256.96	146.4	0.570
LPDArea_13	643.68	434.02	0.674
LPDArea_14	589.77	330	0.560
LPDArea_15	159.77	132	0.826
LPDArea_16	589.77	330	0.560
LPDArea_17	230.8	132	0.572
LPDArea_19	166.74	132	0.792
LPDArea_2	156	99	0.635
LPDArea_20	279.69	180.7	0.646
LPDArea_26 27 28	1026	489	0.477
LPDArea_29	155.02	99	0.639
LPDArea_30	256.97	146.4	0.570
LPDArea_31	816.65	765	0.937
LPDArea_32	820.85	765	0.932
LPDArea_33	807.12	765	0.948
LPDArea_5	162.42	66	0.406
LPDArea_7	233.32	132	0.566
LPDArea_9	643.68	434.02	0.674
Tech 1 Hall 04	383.81	189	0.492
Tech 1 Work Area - 03	482.25	240	0.498
Training 06	764.06	390	0.510

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

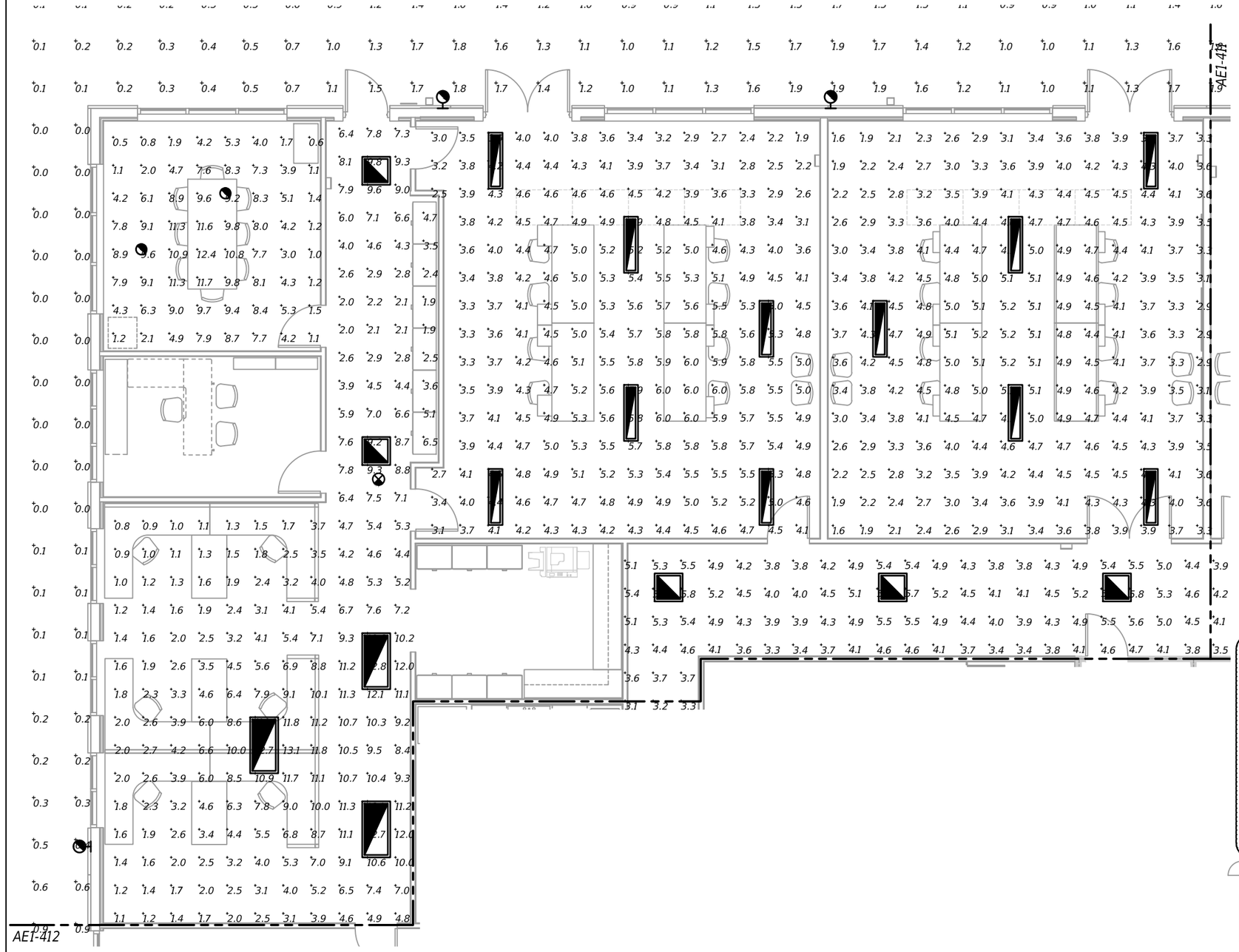
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

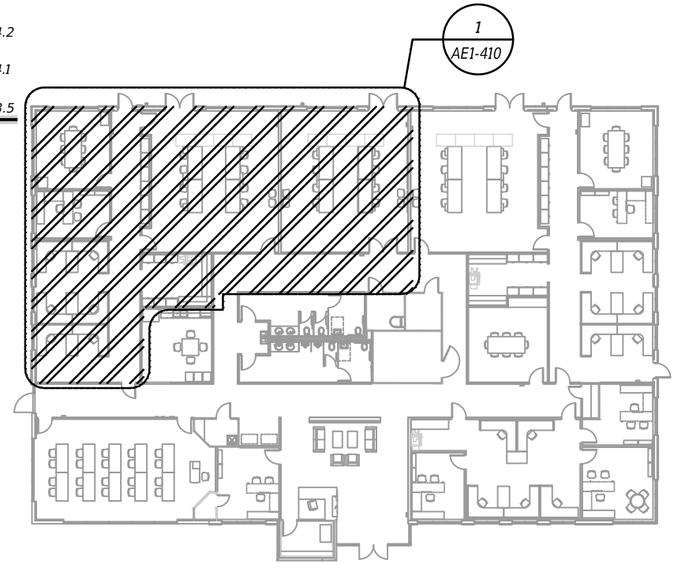
SUNTRAX TEST FACILITY OPERATIONS BUILDING

CALCULATIONS - PHOTOMETRICS

SHEET NO.

AE1-409





1 ENLARGED FLOOR PLAN - TEC 1 AREA & FTE TESTING - PHOTOMETRICS

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'

2 KEY PLAN

1/32" = 1'-0"

REVISIONS			
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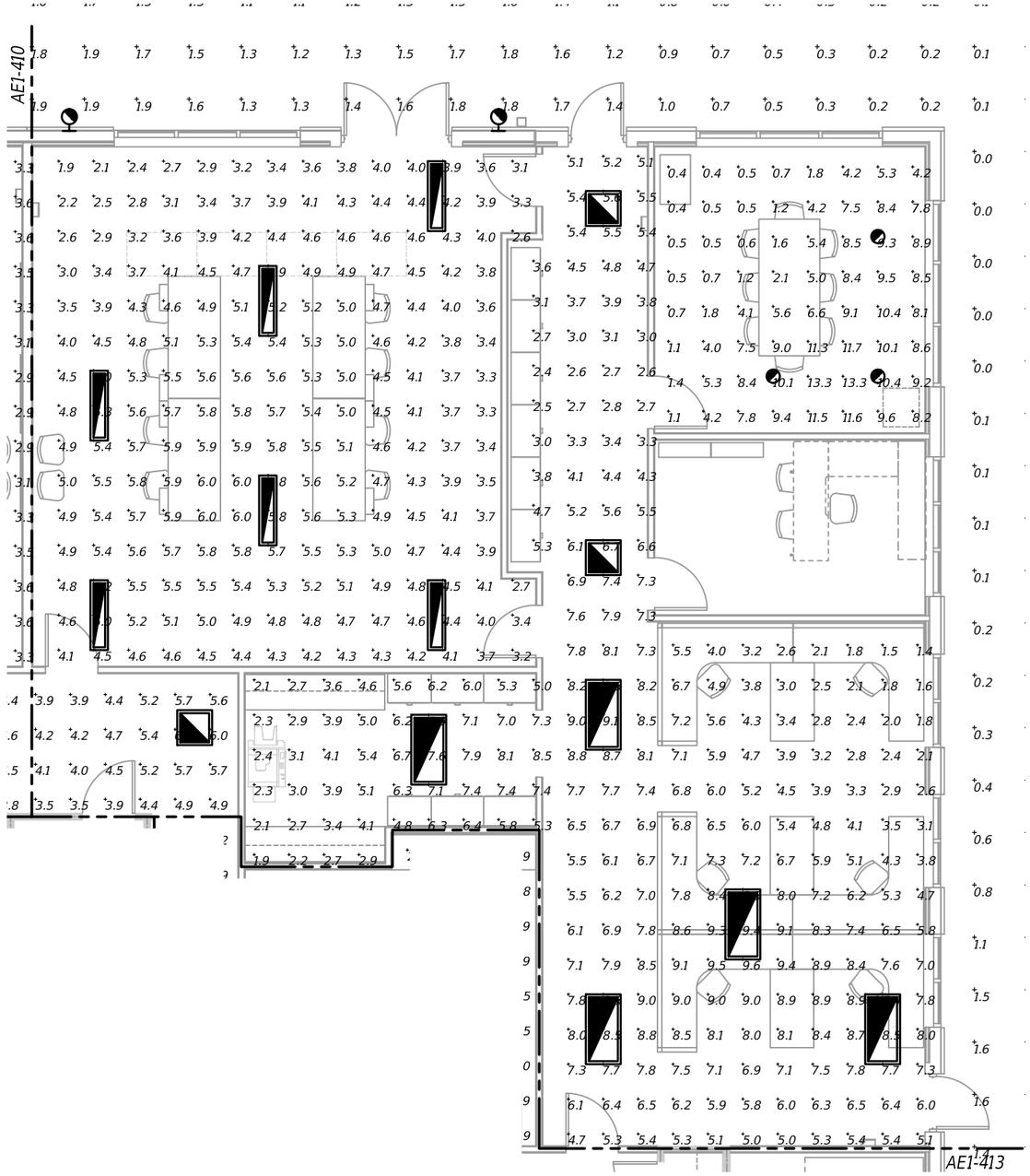
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

SHEET NO.

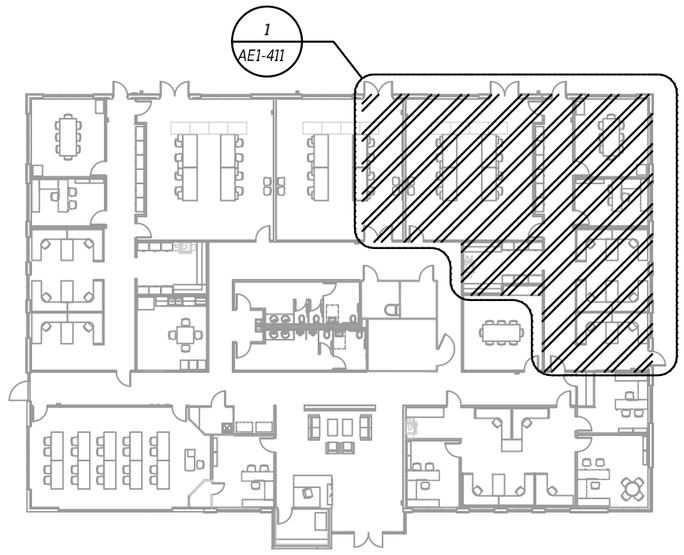
AE1-410

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1 ENLARGED FLOOR PLAN - TEC 2 AREA - PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
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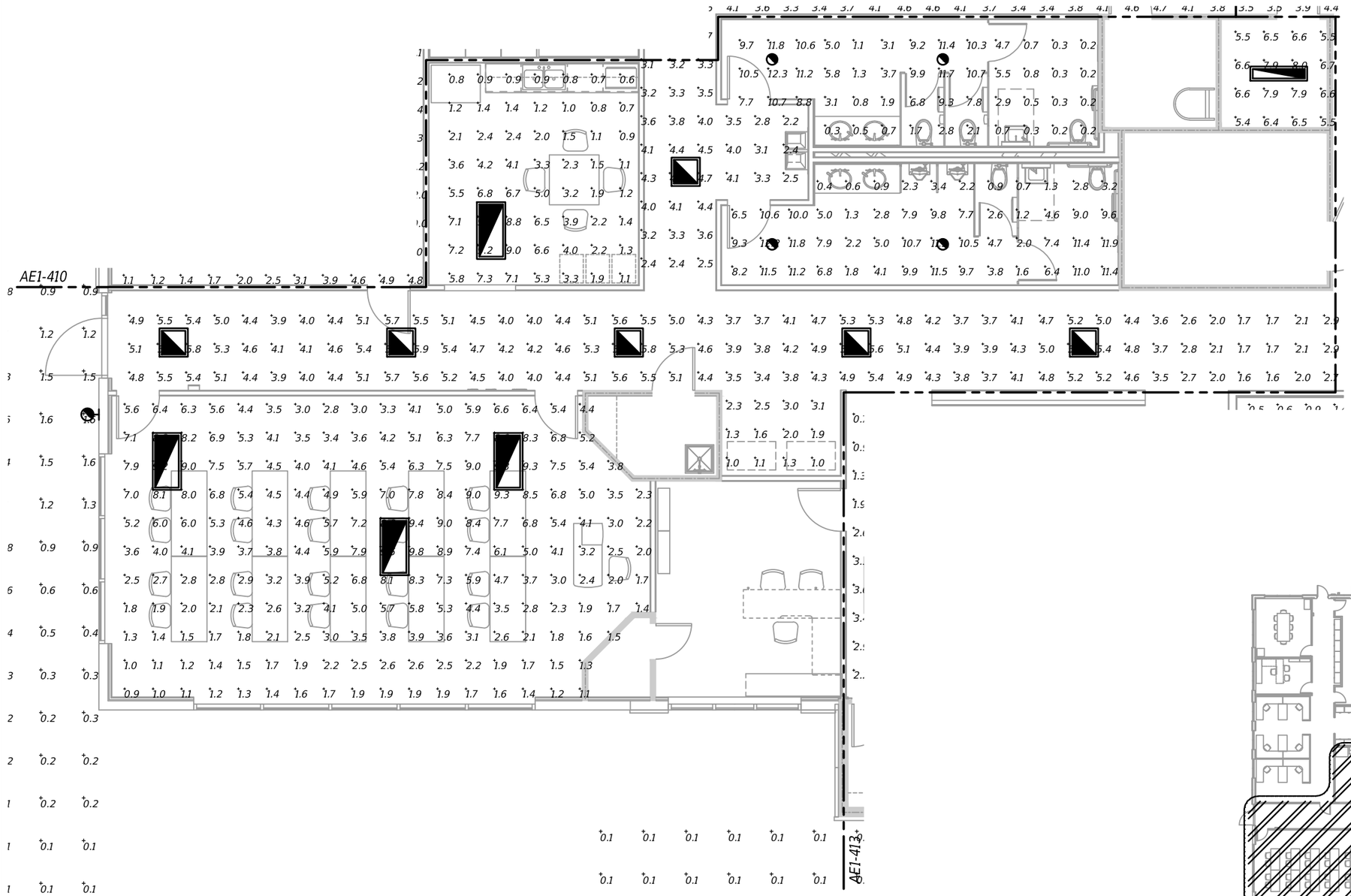
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

SHEET NO.
AE1-411

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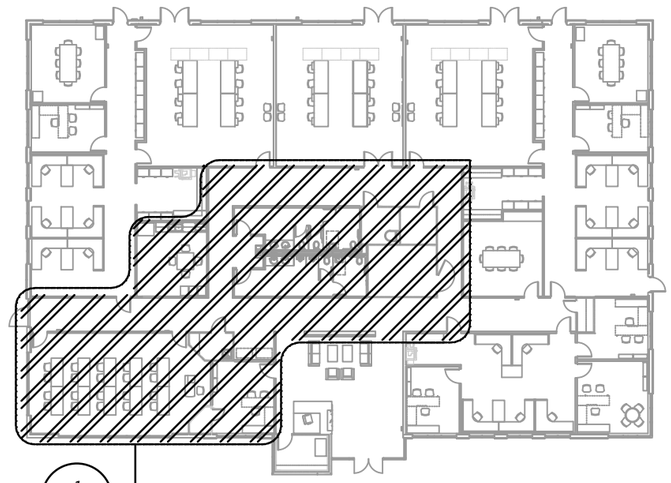


1 ENLARGED FLOOR PLAN - COMMON AREAS - PHOTOMETRICS

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



1 / AE1-412

2 KEY PLAN

1/32" = 1'-0"

REVISIONS			
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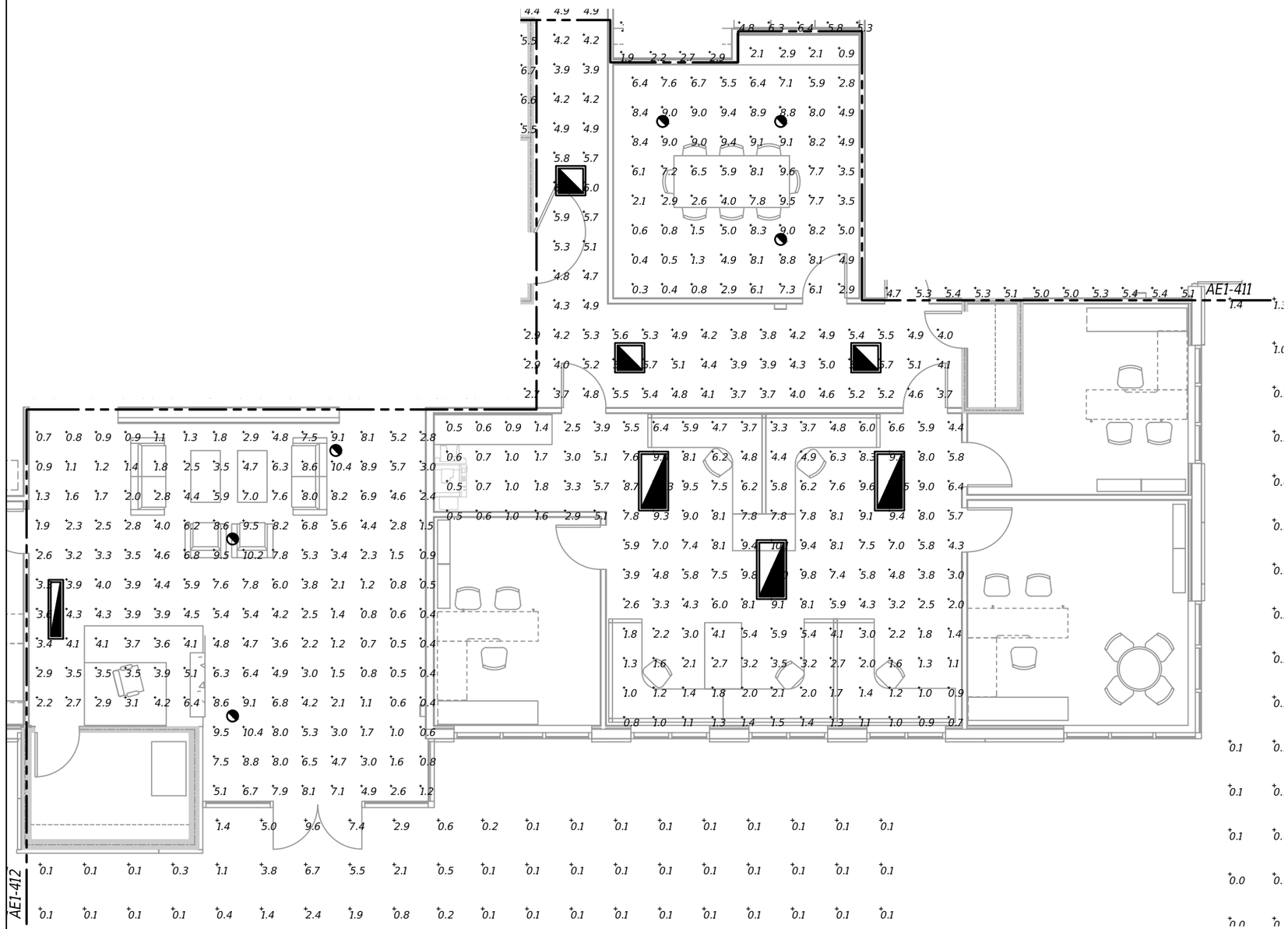
SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

SHEET NO.

AE1-412

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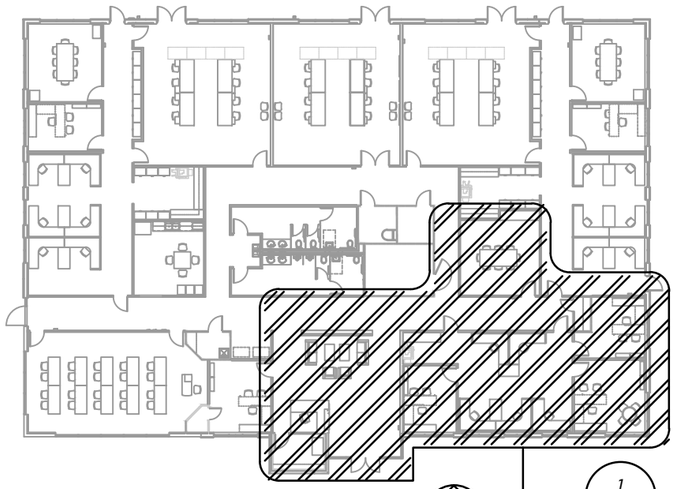


1 ENLARGED FLOOR PLAN - RECEPTION AND FTE WORK AREA - PHOTOMETRICS

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN

1/32" = 1'-0"

1 / AE1-413

REVISIONS			
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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

SHEET NO.

AE1-413

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Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
EXTERIOR MAIN ENTRY	Illuminance	Fc	0.28	9.6	0.0	N.A.	N.A.
EXTERIOR wp area	Illuminance	Fc	0.27	1.9	0.0	N.A.	N.A.
MAIN CORRIDOR_Floor	Illuminance	Fc	4.34	6.2	1.0	4.34	6.20
ROOM 01_Workplane	Illuminance	Fc	6.10	12.4	0.5	12.20	24.80
ROOM 04_Workplane	Illuminance	Fc	5.36	13.1	0.8	6.70	16.38
ROOM 06_Workplane	Illuminance	Fc	4.42	9.8	0.9	4.91	10.89
ROOM 07_Workplane	Illuminance	Fc	3.33	9.2	0.6	5.55	15.33
ROOM 11 12 13_Floor	Illuminance	Fc	4.09	10.4	0.4	10.23	26.00
Room 16_Workplane	Illuminance	Fc	4.55	11.0	0.5	9.10	22.00
Room 20_Workplane	Illuminance	Fc	5.69	9.6	0.3	18.97	32.00
Room 22_Workplane	Illuminance	Fc	4.74	12.3	0.2	23.70	61.50
Room 23_Workplane	Illuminance	Fc	6.32	12.2	0.4	15.80	30.50
ROOM 25_Workplane	Illuminance	Fc	6.63	8.0	5.4	1.23	1.48
Room 27_Floor	Illuminance	Fc	5.73	9.6	1.4	4.09	6.86
Room 30_Workplane	Illuminance	Fc	5.68	13.3	0.4	14.20	33.25
Room 31_Workplane	Illuminance	Fc	4.54	6.0	1.9	2.39	3.16
Room 32_Workplane	Illuminance	Fc	3.88	5.2	1.6	2.43	3.25
Room 33_Workplane	Illuminance	Fc	4.55	6.0	1.9	2.39	3.16

Luminaire Schedule							
Symbol	Label	Arrangement	Lumens	LLF	Description	Lum. Watts	Lum. Lumens
	A em	SINGLE	N.A.	0.250	HEW LPT-24-L42-835-AF12095-xxx-xxx	39	4118
	B em	SINGLE	N.A.	0.220	HEW LPT-22-L43-835-SAF12095-xxx-xxx	50	4322
	C em	SINGLE	N.A.	0.190	HEW 39-4-L52-835-A-xxx-xxx	51	5183
	D em	SINGLE	N.A.	0.250	HEW AT1-24-L55-830-SH-XXX-DIM-UNV	59	5441
	G em	SINGLE	N.A.	0.190	HEW 75-4-L50-835-xxx-xxx	43	5073
	H em	SINGLE	N.A.	0.280	INTENSE SS4G22000358 _ IC430C	24.78	1879
	Q em	SINGLE	N.A.	0.250	ILM6L4359C-SF / ILC6L4	38.03	2692
	WP em	SINGLE	N.A.	0.130	HEW VWPH-L60-730-T3-CLR-OPT-EDD-UNV	68.4	5933
	J em	SINGLE	N.A.	0.250	HETWG-4-L30-840-A-xxx-xxx	43	3135

REVISIONS			
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STATE OF FLORIDA
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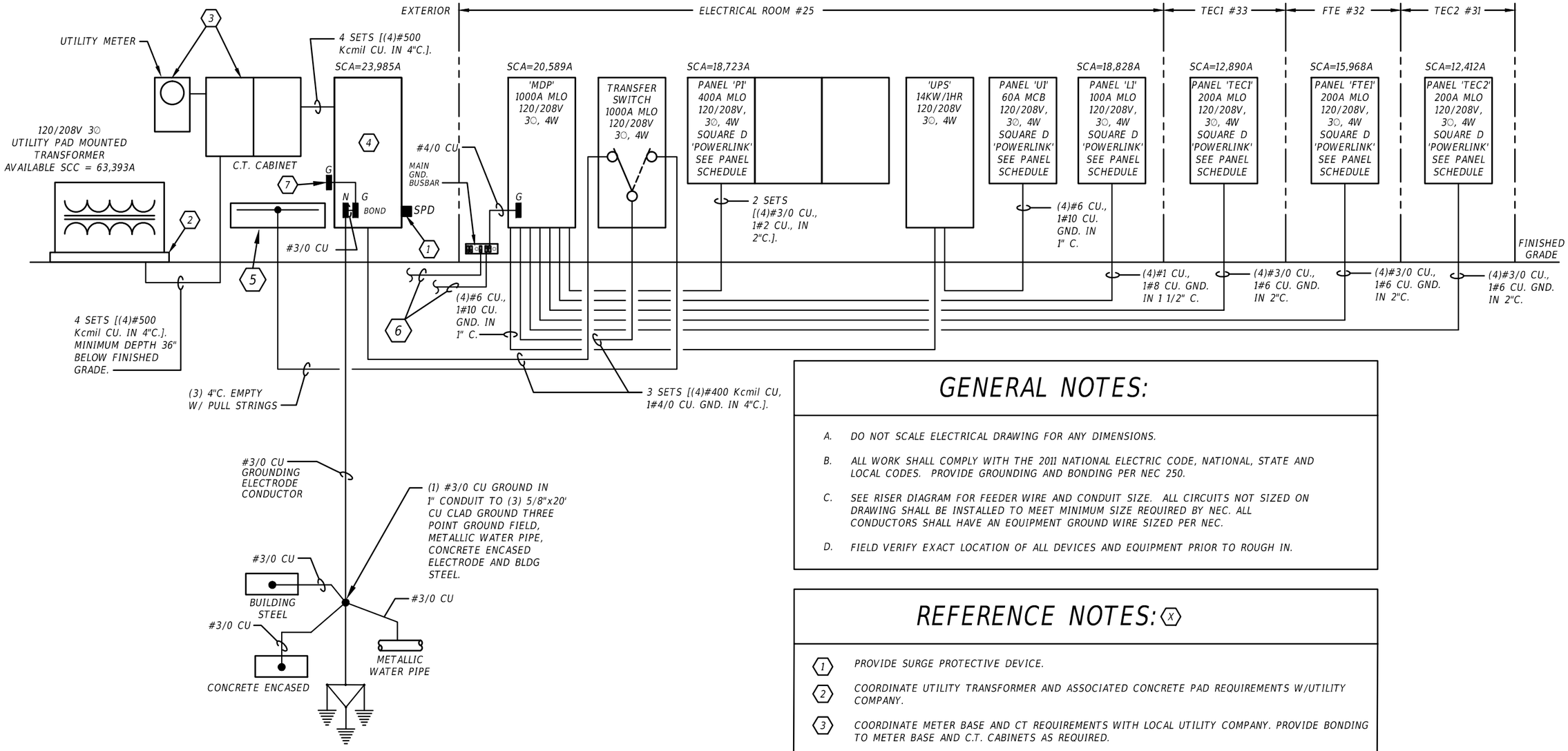
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

CALCULATIONS - PHOTOMETRICS - EMERGENCY

SHEET NO.
AE1-414

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1 POWER RISER DIAGRAM
No Scale

GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. SEE RISER DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

REFERENCE NOTES: ⟨X⟩

⟨1⟩ PROVIDE SURGE PROTECTIVE DEVICE.

⟨2⟩ COORDINATE UTILITY TRANSFORMER AND ASSOCIATED CONCRETE PAD REQUIREMENTS W/UTILITY COMPANY.

⟨3⟩ COORDINATE METER BASE AND CT REQUIREMENTS WITH LOCAL UTILITY COMPANY. PROVIDE BONDING TO METER BASE AND C.T. CABINETS AS REQUIRED.

⟨4⟩ 1000AMP, 120/208VOLT, 3∅, 4W, SERVICE RATED, NEMA 3R, 65KAIC, ENCLOSED CIRCUIT BREAKER

⟨5⟩ 12"x12" NEMA 3R WIREWAY FOR FUTURE GENERATOR CONNECTION. PROVIDE (3) 4"C. EMPTY WITH PULL STRING.

⟨6⟩ BOND TO LIGHTNING PROTECTION SYSTEM AND IT ROOM #24 GROOUND BUS BAR WITH MINIMUM #6 AWG COPPER.

⟨7⟩ PROVIDE INTERSYSTEM GROUND BUS BAR AS REQUIRED PER N.E.C. SECTION 205.94.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

POWER RISER DIAGRAM

SHEET NO.
AE1-501

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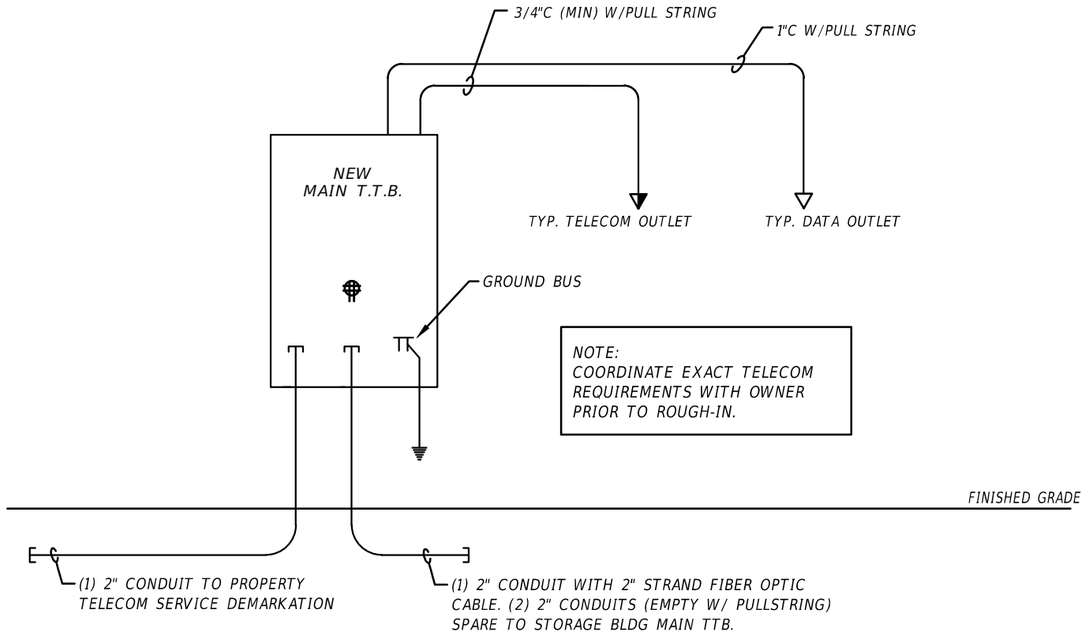
GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. COORDINATE ALL WORK WITH LOCAL TELEPHONE/TELEVISION SERVICE PROVIDER

D. COORDINATE EXACT TELECOMMUNICATIONS REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.



1 TELECOMMUNICATIONS SYSTEM RISER DIAGRAM

No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

TELECOMMUNICATIONS
SYSTEM RISER DIAGRAM

SHEET NO.
AE1-502

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FIRE ALARM SEQUENCE OF OPERATIONS

CATEGORIES	MANUAL PULL	AREA SMOKE/HEAT DETECTORS	DUCT SMOKE DETECTORS	BUILDING POWER FAILURE
ANNUNCIATION AT FIRE ALARM CONTROL PANEL (TROUBLE AND ALARM)	YES	YES	YES	YES
ANNUNCIATE AT REMOTE ANNUNCIATOR (TROUBLE AND ALARM)	YES	YES	YES	YES
ACTIVATE AUDIBLE AND VISUAL ALARM SIGNALS	YES	YES	YES	NO
SHUT DOWN ALL AIR HANDLING UNITS	YES	YES	YES	NO
CLOSE ALL SMOKE/FIRE DAMPERS	YES	YES	YES	YES
RELEASE APPROVED SECURITY DOOR LOCKS	YES	YES	YES	YES
RELEASE SECURED DOOR #26B	YES	YES	YES	YES

GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, NFPA 72, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. PROVIDE 120VAC SURGE SUPPRESSION AND LOW VOLTAGE FIRE ALARM CIRCUIT SURGE SUPPRESSION.

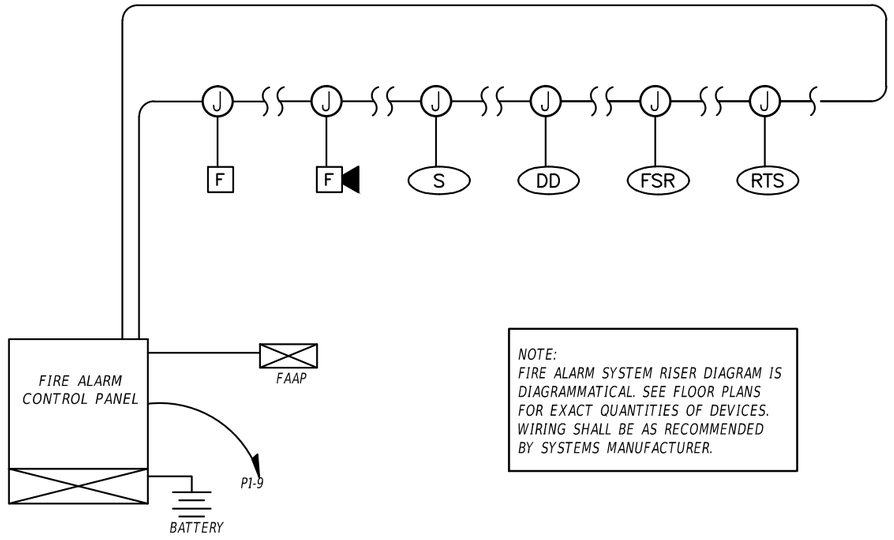
D. PROVIDE NOTIFICATION APPLIANCE CIRCUITS AND POWER SUPPLIES AS REQUIRED.

E. REFER TO POWER AND SYSTEMS FLOOR PLANS FOR FIRE ALARM EQUIPMENT COUNT.

F. PROVIDE 1" CONDUIT FROM FACP TO TTB.

G. OPERATIONS BUILDING & STORAGE BUILDING FIRE ALARM CONTROL PANLES SHALL BE NETWORKED. PANELS SHALL OPERATE IN A PEER-TO-PEER MODE.

H. PROVIDE 2" CONDUIT BETWEEN FACP'S FOR NETWORK COMMUNICATION. PROVIDE CABLE AND SURGE PROTECTION.



NOTE:
FIRE ALARM SYSTEM RISER DIAGRAM IS DIAGRAMMATICAL. SEE FLOOR PLANS FOR EXACT QUANTITIES OF DEVICES. WIRING SHALL BE AS RECOMMENDED BY SYSTEMS MANUFACTURER.

1 FIRE ALARM SYSTEM RISER DIAGRAM
No Scale

REVISIONS			
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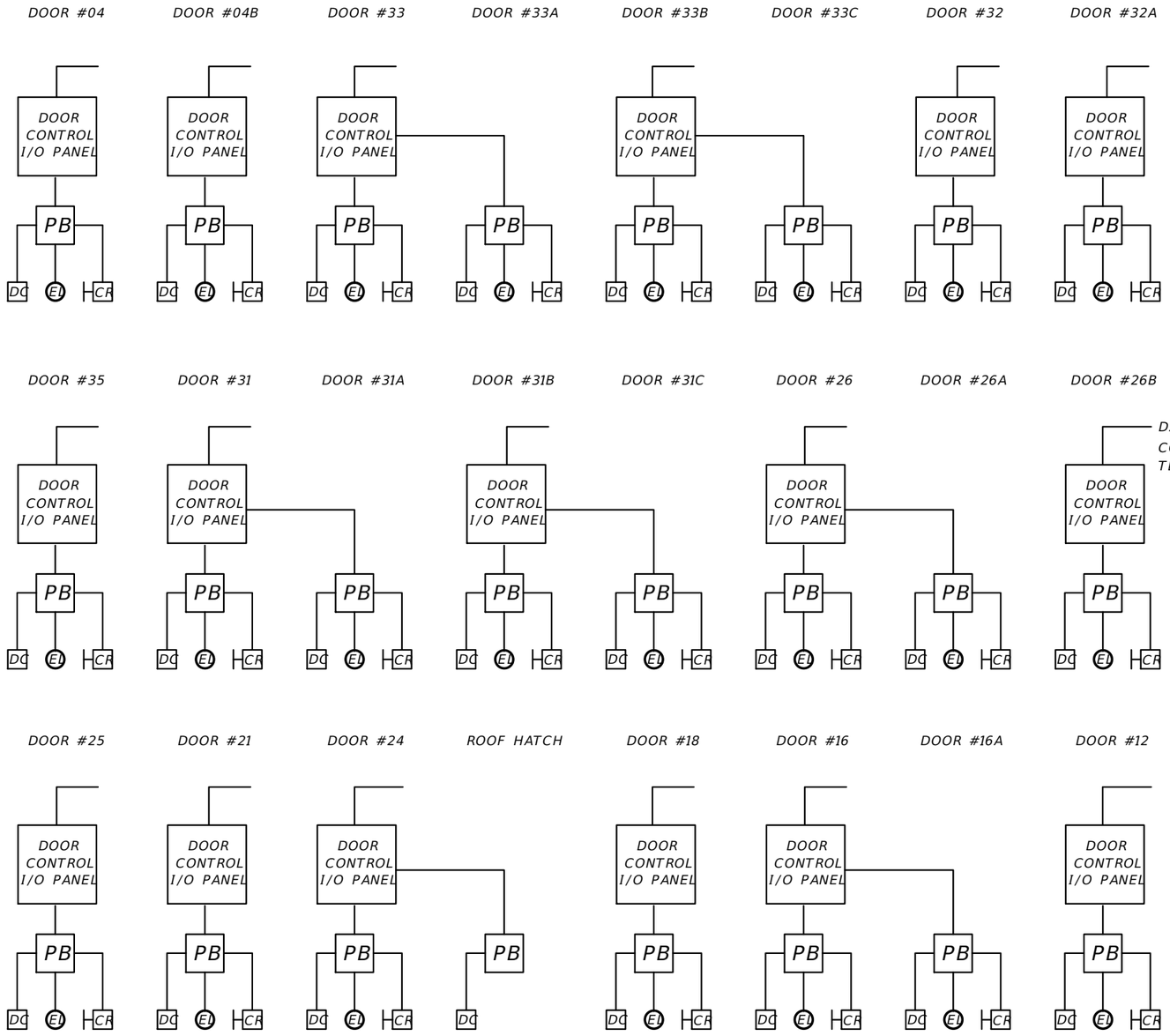
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

FIRE ALARM SYSTEM
RISER DIAGRAM

SHEET NO.
AE1-503

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SYMBOL LEGEND

- PB — ACCESS CONTROL JUNCTION BOX
- DC — DOOR CONTACT
- EL — ELECTRIC LOCK
- CR — CARD READER

1 ACCESS CONTROL RISER DIAGRAM

No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

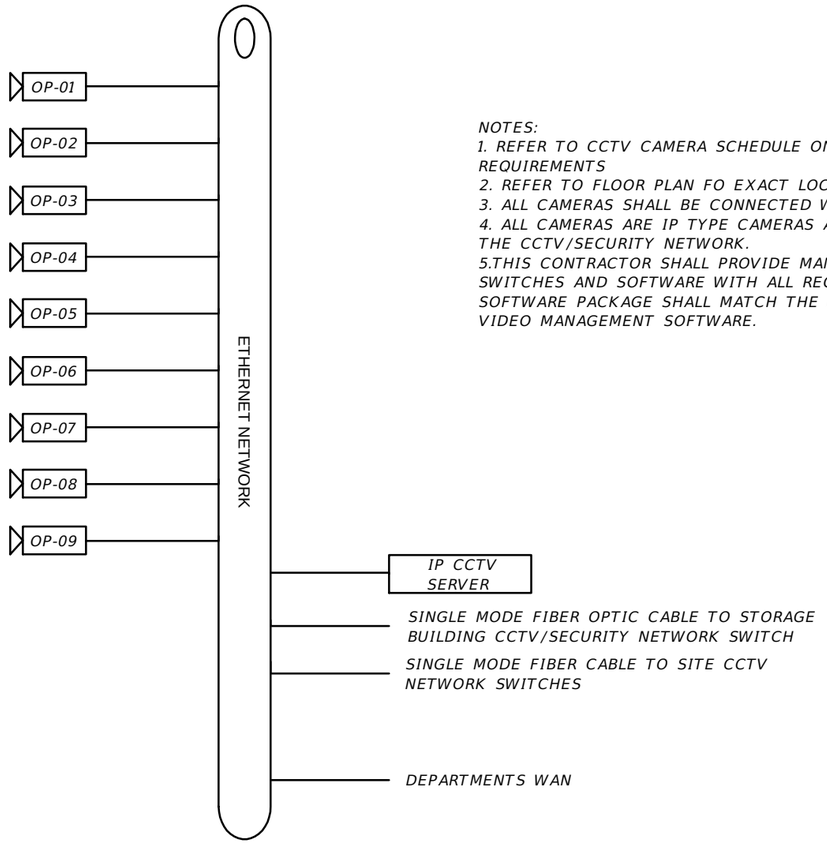
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

ACCESS CONTROL RISER DIAGRAM

SHEET NO. AE1-504

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. REFER TO CCTV CAMERA SCHEDULE ON DRAWING AE1-613 FOR CABLE MEDIA REQUIREMENTS
2. REFER TO FLOOR PLAN FO EXACT LOCATIONS
3. ALL CAMERAS SHALL BE CONNECTED WITH CAT 6 UTP CABLE.
4. ALL CAMERAS ARE IP TYPE CAMERAS AND SHALL TERMINATE TO THE CCTV/SECURITY NETWORK.
5.THIS CONTRACTOR SHALL PROVIDE MANAGED POE NETWORK SWITCHES AND SOFTWARE WITH ALL REQUIRED LICENSES. CCTV SOFTWARE PACKAGE SHALL MATCH THE DEPARTMENTS EXISTING VIDEO MANAGEMENT SOFTWARE.

1 CCTV ONE-LINE DIAGRAM
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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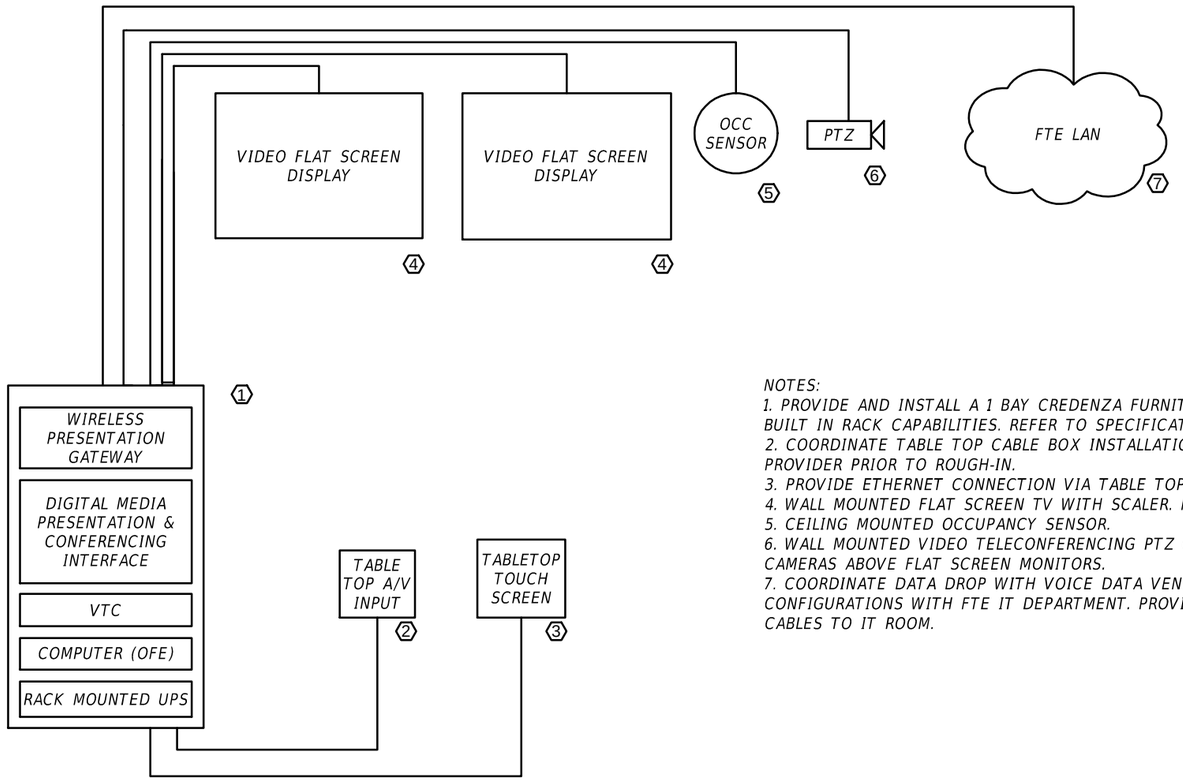
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

CCTV ONE-LINE DIAGRAM

SHEET NO.
AE1-505

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PROVIDE AND INSTALL A 1 BAY CREDENZA FURNITURE SYSTEM WITH BUILT IN RACK CAPABILITIES. REFER TO SPECIFICATIONS.
2. COORDINATE TABLE TOP CABLE BOX INSTALLATION WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN.
3. PROVIDE ETHERNET CONNECTION VIA TABLE TOP CABLE BOX.
4. WALL MOUNTED FLAT SCREEN TV WITH SCALER. REFER TO SPECIFICATIONS.
5. CEILING MOUNTED OCCUPANCY SENSOR.
6. WALL MOUNTED VIDEO TELECONFERENCING PTZ CAMERA. MOUNT CAMERAS ABOVE FLAT SCREEN MONITORS.
7. COORDINATE DATA DROP WITH VOICE DATA VENDOR AND IP CONFIGURATIONS WITH FTE IT DEPARTMENT. PROVIDE FIVE CAT 6 CABLES TO IT ROOM.

1 SMALL CONFERENCE ROOM A/V ONE-LINE DIAGRAM (TYPICAL)
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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STATE OF FLORIDA
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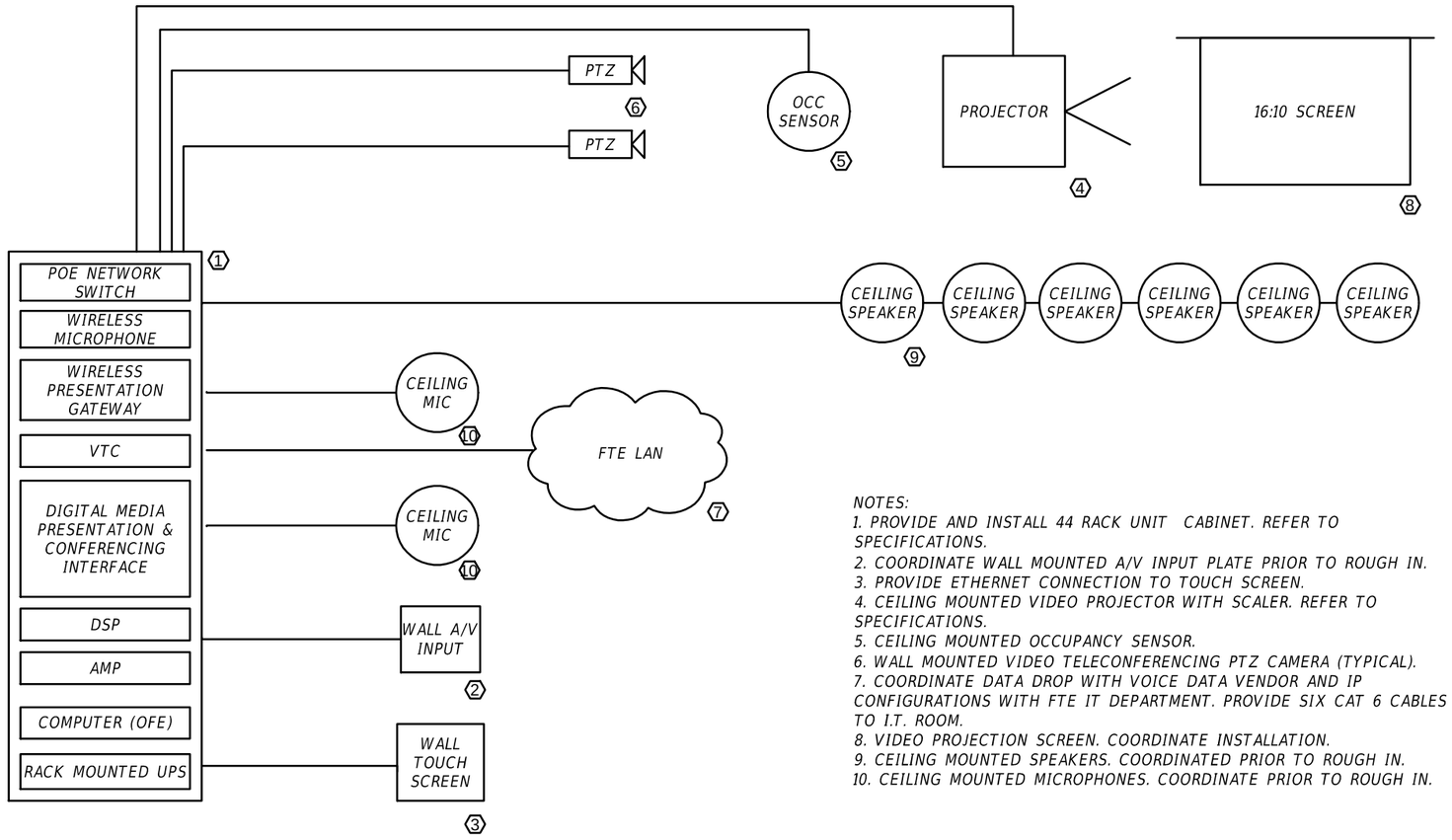
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

SMALL CONFERENCE ROOM A/V ONE-LINE DIAGRAM

SHEET NO.
AE1-506

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PROVIDE AND INSTALL 44 RACK UNIT CABINET. REFER TO SPECIFICATIONS.
2. COORDINATE WALL MOUNTED A/V INPUT PLATE PRIOR TO ROUGH IN.
3. PROVIDE ETHERNET CONNECTION TO TOUCH SCREEN.
4. CEILING MOUNTED VIDEO PROJECTOR WITH SCALER. REFER TO SPECIFICATIONS.
5. CEILING MOUNTED OCCUPANCY SENSOR.
6. WALL MOUNTED VIDEO TELECONFERENCING PTZ CAMERA (TYPICAL).
7. COORDINATE DATA DROP WITH VOICE DATA VENDOR AND IP CONFIGURATIONS WITH FTE IT DEPARTMENT. PROVIDE SIX CAT 6 CABLES TO I.T. ROOM.
8. VIDEO PROJECTION SCREEN. COORDINATE INSTALLATION.
9. CEILING MOUNTED SPEAKERS. COORDINATED PRIOR TO ROUGH IN.
10. CEILING MOUNTED MICROPHONES. COORDINATE PRIOR TO ROUGH IN.

1 TRAINING ROOM A/V ONE-LINE DIAGRAM
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

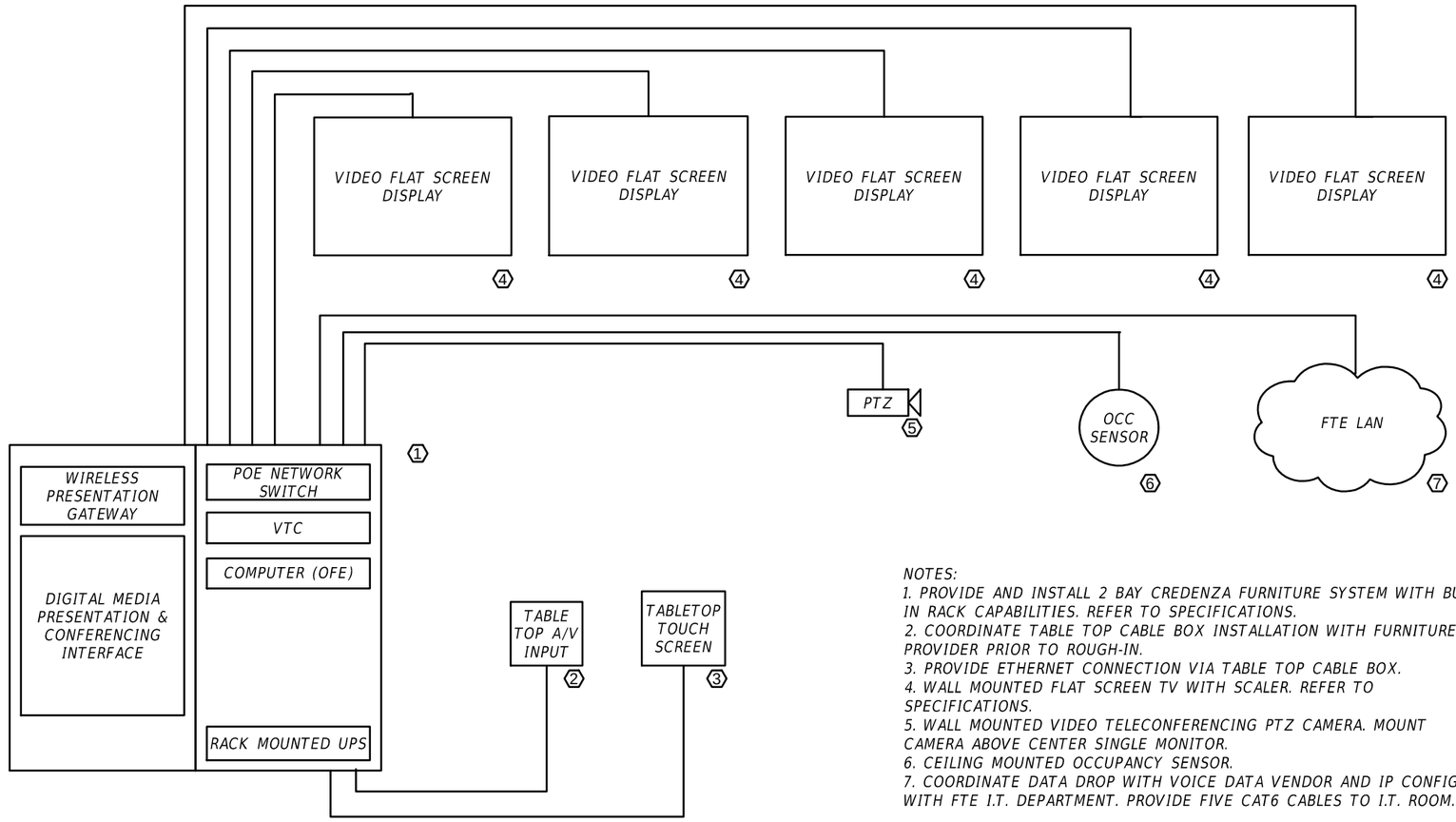
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

TRAINING ROOM A/V ONE-LINE DIAGRAM

SHEET NO.
AE1-507

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTES:
1. PROVIDE AND INSTALL 2 BAY CREDENZA FURNITURE SYSTEM WITH BUILT IN RACK CAPABILITIES. REFER TO SPECIFICATIONS.
2. COORDINATE TABLE TOP CABLE BOX INSTALLATION WITH FURNITURE PROVIDER PRIOR TO ROUGH-IN.
3. PROVIDE ETHERNET CONNECTION VIA TABLE TOP CABLE BOX.
4. WALL MOUNTED FLAT SCREEN TV WITH SCALER. REFER TO SPECIFICATIONS.
5. WALL MOUNTED VIDEO TELECONFERENCING PTZ CAMERA. MOUNT CAMERA ABOVE CENTER SINGLE MONITOR.
6. CEILING MOUNTED OCCUPANCY SENSOR.
7. COORDINATE DATA DROP WITH VOICE DATA VENDOR AND IP CONFIGURATIONS WITH FTE I.T. DEPARTMENT. PROVIDE FIVE CAT6 CABLES TO I.T. ROOM.

1 TESTING ROOM A/V ONE-LINE DIAGRAM (TYPICAL)
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

TESTING ROOM A/V ONE-LINE DIAGRAM

SHEET NO.
AE1-508

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL MDP

LOCATION: ELECTRIC ROOM #25	VOLTAGE: 208Y/120V 3∅ 4W	MIN. AIC RATING: 42K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - TYPE HCP	MAINS: 1000A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: SERVICE DISCONNECT	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ○	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ∅	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	IFE MODULE (TYPE IFE A)	2	-	-	-	-	/2	-	A	5.69	100/3	-	-	-	-	1,3	PANEL 'L1'	2
3	-		-	-	-	-	-	-	B	5.69	-	-	-	-	-		-	4
5	IFE MODULE (TYPE IFM)	2	-	-	-	-	/2	-	C	5.69	-	-	-	-	-		-	6
7	-		-	-	-	-	-	-	A	1.80	200/3	-	-	-	-	1,4	PANEL 'TEC2'	8
9	-		-	-	-	-	-	-	B	1.80	-	-	-	-	-		-	10
11	-		-	-	-	-	-	-	C	1.80	-	-	-	-	-		-	12
13	PANEL 'P1'	1,5	-	-	-	-	400/3	18.32	A	10.29	110/3	1	1	6	1.5"	3	RTU-3	14
15	-		-	-	-	-	-	18.32	B	10.29	-	1	-	-	-		-	16
17	-		-	-	-	-	-	18.32	C	10.29	-	1	-	-	-		-	18
19	PANEL 'TEC1'	1,4	-	-	-	-	200/3	1.80	A	10.29	110/3	1	1	6	1.5"	3	RTU-4	20
21	-		-	-	-	-	-	1.80	B	10.29	-	1	-	-	-		-	22
23	-		-	-	-	-	-	1.80	C	10.29	-	1	-	-	-		-	24
25	PANEL 'FTE1'	1,4	-	-	-	-	200/3	1.86	A	10.29	110/3	1	1	6	1.5"	3	RTU-5	26
27	-		-	-	-	-	-	1.86	B	10.29	-	1	-	-	-		-	28
29	-		-	-	-	-	-	1.86	C	10.29	-	1	-	-	-		-	30
31	RTU-1	3	1	1	6	1.5"	110/3	10.29	A	4.61	60/3	-	-	-	-	1,3	PANEL 'U1' (VIA UPS)	32
33	-		1	-	-	-	-	10.29	B	4.61	-	-	-	-	-		-	34
35	-		1	-	-	-	-	10.29	C	4.61	-	-	-	-	-		-	36
37	RTU-2	3	1	1	6	1.5"	110/3	10.29	A	2.04	30/2	6	6	10	1"	3	LIFT STATION	38
39	-		1	-	-	-	-	10.29	B	204	-	6	-	-	-		(2-1/2 HP)	40
41	-		1	-	-	-	-	10.29	C									42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
PANELS	88.41 KVA		100%	88.41 KVA	
HVAC	154.35 KVA		100%	154.35 KVA	
EQUIPMENT	9.12 KVA		100%	9.12 KVA	
NOTES: 1) REFER TO POWER RISER DIAGRAM FOR FEEDER REQUIREMENTS. 2) MODBUS TCP ETHERNET EM3555 I-LINE SMART CELL MODULE 3) HG ENG LSI SERIES MICRO-LOGIC BREAKER. 4) JG ENR LSI SERIES MICRO-LOGIC BREAKER. 5) LG ENR LSI SERIES MICRO-LOGIC BREAKER.					TOTAL DEMAND LOAD: 251.88 KVA TOTAL DEMAND AMPS: 699.67 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-601

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'P1' (SECTION #1)

LOCATION: ELECTRIC ROOM #25	VOLTAGE: 208Y/120V 3○ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MPV)	MAINS: 400A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☒ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ○	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ○	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES - TEC1 CONF./OFF.	1	12	12	12	1/2"	20/1	0.90	A	0.90	20/1	12	12	12	1/2"	1	RECEPTACLES - WP EXT./ CORRIDOR	2
3	RECEPTACLES - TEC1 CONFERENCE VM	1	12	12	12	1/2"	20/1	0.36	B	0.72	20/1	10	10	10	3/4"	1	RECEPTACLES - EXTERIOR	4
5	RECEPTACLES - TEC1 CONF./OFF.		12	12	12	1/2"	20/1	0.90	C	0.90	20/1	12	12	12	1/2"	1	RECEPTACLES - TEC2 CONF. RM/OFF.	6
7	SPARE		-	-	-	-	20/1	-	A	0.36	20/1	12	12	12	1/2"	1	RECEPTACLES - TEC2 CONF. ROOM VM	8
9	FACP		12	12	12	1/2"	20/1	1.00	B	0.90	20/1	12	12	12	1/2"		RECEPTACLES - TEC2 CONF. RM/OFF.	10
11	RECEPTACLES - TEC1 COPIER		12	12	12	1/2"	20/1	1.00	C	-	20/1	-	-	-	-		SPARE	12
13	RECEPTACLES - TEC1 COPY		12	12	12	1/2"	20/1	0.72	A	-	20/1	-	-	-	-		SPARE	14
15	RECEPT. - BREAK ROOM REFRIGERATOR		12	12	12	1/2"	20/1	1.20	B	0.90	20/1	12	12	12	1/2"		RECEPTACLES - CONF./ TEC2 HALL	16
17	RECEPT. - BREAK ROOM MICROWAVE		12	12	12	1/2"	20/1	1.20	C	1.00	20/1	12	12	12	1/2"		RECEPTACLES - TEC2 COPIER	18
19	RECEPT. - BREAK ROOM COUNTER		12	12	12	1/2"	20/1	0.36	A	0.72	20/1	12	12	12	1/2"		RECEPTACLES - TEC2 COPY/ FILES	20
21	RECEPT. - BREAK ROOM/ TEC1 HALL	1	12	12	12	1/2"	20/1	0.90	B	0.72	20/1	12	12	12	1/2"		RECEPTACLES - ELEC. RM/ CORRIDOR	22
23	RECEPTACLES - TRAINING ROOM FB	1	12	12	12	1/2"	20/1	0.72	C	0.72	20/1	12	12	12	1/2"		RECEPTACLES - FTE CONFERENCE	24
25	RECEPTACLES - TRAINING ROOM FB	1	12	12	12	1/2"	20/1	0.72	A	0.36	20/1	12	12	12	1/2"	1	RECEPTACLES - FTE CONFERENCE VM	26
27	RECEPTACLES - TRAINING ROOM FB	1	12	12	12	1/2"	20/1	0.36	B	1.08	20/1	12	12	12	1/2"	1	RECEPTACLES - FTE DIRECT./OFF #1	28
29	RECEPTACLES - TRAINING ROOM	1	12	12	12	1/2"	20/1	0.72	C	0.90	20/1	12	12	12	1/2"		RECEPTACLES - FTE DIRECT./OFF #1	30
31	RECEPT. - TRAINING ROOM/ PROJECT/ VM	1	12	12	12	1/2"	20/1	0.72	A	0.72	20/1	12	12	12	1/2"		RECEPTACLES - STORAGE/ CORRIDOR	32
33	RECEPTACLES - CORRIDOR/ JANITOR	1	12	12	12	1/2"	20/1	0.54	B	0.72	20/1	12	12	12	1/2"		RECEPTACLES - FTE COPY/ WORK	34
35	RECEPTACLES - POLY/FTE OFFICE		12	12	12	1/2"	20/1	0.72	C	1.00	20/1	12	12	12	1/2"		RECEPTACLES - FTE COPIER	36
37	RECEPTACLES - EWC		12	12	12	1/2"	20/1	1.00	A	0.90	20/1	12	12	12	1/2"	1	RECEPTACLES - FTE/POLY OFFICE	38
39	RECEPTACLES - BATHROOM GFI	1	12	12	12	1/2"	20/1	0.36	B	0.50	20/1	4	4	4	1.25"		IRRIGATION CONTROLLER	40
41	RECEPTACLES - BATHROOM GFI	1	12	12	12	1/2"	20/1	0.36	C	0.50	20/1	8	8	8	1"		IRRIGATION CONTROLLER	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	30.52 KVA		100%	30.52 KVA	
EQUIPMENT	1.00 KVA		100%	1.00 KVA	
PANEL SECTION #2	37.79 KVA		100%	37.79 KVA	
NOTES: 1. PROVIDE RELAY/CB FOR TIME OF DAY RECEPTACLE CONTROL					TOTAL DEMAND LOAD: 69.31 KVA
					TOTAL DEMAND AMPS: 192.53 AMPS

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-602

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'P1' (SECTION #2)

LOCATION: ELECTRIC ROOM #25	VOLTAGE: 208Y/120V 3∅ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 400A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☒ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ∅	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ∅	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
43	RECEPTACLES - RECEPTION		12	12	12	1/2"	20/1	0.72	A	-	20/1	-	-	-	-		SPARE	44
45	RECEPTACLES - RECEPTION VM	1	12	12	12	1/2"	20/1	0.36	B	-	20/1	-	-	-	-		SPARE	46
47	RECEPTACLES - RECEPTION/ OBSERV.		12	12	12	1/2"	20/1	0.90	C	1.00	20/1	12	12	12	1/2"		RECEPTACLES - VENDING	48
49	VAV-6,7,8,9,10,15 & 16		12	12	12	1/2"	20/1	0.42	A	1.00	20/1	12	12	12	1/2"		RECEPTACLES - VENDING	50
51	VAV-17,18,19,20 & 21		12	12	12	1/2"	20/1	0.30	B	0.70	20/1	10	10	10	3/4"		EF-1	52
53	VAV-22,24,25,26,27 & 28		12	12	12	1/2"	20/1	0.36	C	0.54	20/1	10	10	10	3/4"		RECEPTACLE-ROOF	54
55	VAV-1,2,3,4, & 5		12	12	12	1/2"	20/1	0.30	A	1.00	20/1	12	12	12	1/2"	2	PRE-WIRED FURN. SYS. - LTG	56
57	VAV-11,12,13,14, & 23		12	12	12	1/2"	20/1	0.30	B	1.08	20/1	12	12	12	1/2"	1	PRE-WIRED FURN. SYS. - GEN REC.	58
59	EVC		6	6	10	1.25"	40/2	3.12	C	1.08	20/1	12	12	12	1/2"		PRE-WIRED FURN. SYS.. - COMP REC.	60
61	-		6	-	-	-	-	3.12	A	1.08	20/1	12	12	12	1/2"	1	PRE-WIRED FURN. SYS.. - COMP REC.	62
63	MOTORIZED GATE		4	4	8	1.25"	20/1	1.73	B	1.00	20/1	12	12	12	1/2"	2	PRE-WIRED FURN. SYS. - LTG	64
65	MOTORIZED GATE		6	6	10	1"	20/1	1.73	C	1.08	20/1	12	12	12	1/2"	1	PRE-WIRED FURN. SYS. - GEN REC.	66
67	MOTORIZED GATE		2	2	6	1.25"	20/1	1.73	A	1.08	20/1	12	12	12	1/2"		PRE-WIRED FURN. SYS.. - COMP REC.	68
69	FUEL ISLAND PUMP		6	6	10	1"	20/1	0.86	B	1.08	20/1	12	12	12	1/2"	1	PRE-WIRED FURN. SYS.. - COMP REC.	70
71	RECEPTACLES - A.V. RACK		12	12	12	1/2"	20/1	0.36	C	1.00	20/1	12	12	12	1/2"	2	PRE-WIRED FURN. SYS. - LTG	72
73	MOTORIZED GATE		6	6	10	1"	20/1	1.73	A	1.08	20/1	12	12	12	1/2"	1	PRE-WIRED FURN. SYS. - GEN REC.	74
75	MCU-1		12	12	12	1/2"	20/2	1.52	B	1.08	20/1	12	12	12	1/2"		PRE-WIRED FURN. SYS.. - COMP REC.	76
77	-		12	-	-	-	-	1.52	C	1.08	20/1	12	12	12	1/2"	1	PRE-WIRED FURN. SYS.. - COMP REC.	78
79	SKY LIGHT MODULES		12	12	12	3/4"	20/2	0.20	A	0.20	20/1	12	12	12	1/2"		SECURED DOOR ACTUATOR	80
81	-		12	-	-	-	-	0.20	B	0.50	20/1	12	12	12	1/2"		TOILET FLUSH & SOAP DISPENSER	82
83	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	84

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	20.84 KVA		100%	20.84 KVA	
LIGHTING	3.00 KVA		125%	3.75 KVA	
EQUIPMENT	13.20 KVA		100%	13.20 KVA	
NOTES: 1. PROVIDE RELAY/CB FOR TIME OF DAY RECEPTACLE CONTROL 2. PROVIDE RELAY/CB FOR TIME OF DAY TASK LIGHTING CONTROL 3. PROVIDE GFCI TYPE CIRCUIT BREAKER.					TOTAL DEMAND LOAD: 37.79 KVA LOAD CARRIED OVER TO FIRST SECTION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-603

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'P1' (SECTION #3)

LOCATION: ELECTRIC ROOM #25	VOLTAGE: 208Y/120V 3○ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 400A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☒ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ○	NEUT	GND	COND	BKR	LOAD KVA	PHASE ○	LOAD KVA	BKR	BRANCH CIRCUIT ○	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
85	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	86
87	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	88
89	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	90
91	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	92
93	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	94
95	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	96
97	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	98
99	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	100
101	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	102
103	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	104
105	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	106
107	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	108
109	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	110
111	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	112
113	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	114
115	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	116
117	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	118
119	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	120
121	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	122
123	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	124
125	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	126

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
LIGHTING	- KVA		125%	- KVA	
RECEPTACLES - GENERAL	- KVA		**	- KVA	
	- KVA		100%	- KVA	
NOTES: 1. PROVIDE RELAY/CB FOR TIME OF DAY RECEPTACLE CONTROL 2. PROVIDE RELAY/CB FOR TIME OF DAY TASK LIGHTING CONTROL					TOTAL DEMAND LOAD: 0.00 KVA
					LOAD CARRIED OVER TO FIRST SECTION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-604

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'U1'

LOCATION: ELECTRIC ROOM #25	VOLTAGE: 208Y/120V 3Ø 4W	MIN. AIC RATING: 22K AIC
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 60A ☐ MLO ☒ MCB	MOUNTING: SURFACE
FED FROM: UPS	LUGS: ☐ SUB-FEED ☒ FEED-THRU	ENCLOSURE: NEMA 1

NOTES:
PROVIDE TYPED WRITTEN DIRECTORY
PROVIDE GROUND & NEUTRAL BUS

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT Ø	NEUT	GND	COND	BKR	LOAD KVA	PHASE Ø	LOAD KVA	BKR	BRANCH CIRCUIT Ø	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES		12	12	12	1/2"	20/1	0.54	A	0.31	30/2	10	10	10	3/4"		I.T. RACK	2
3	RECEPTACLES		12	12	12	1/2"	20/1	0.36	B	0.31	-	10	-	-	-		-	4
5	SPARE		-	-	-	-	20/1	-	C	0.31	30/2	10	10	10	3/4"		I.T. RACK	6
7	SPARE		-	-	-	-	20/1	-	A	0.31	-	10	-	-	-		-	8
9	SPARE		-	-	-	-	20/1	-	B	0.31	30/2	10	10	10	3/4"		I.T. RACK	10
11	SPARE		-	-	-	-	20/1	-	C	0.31	-	10	-	-	-		-	12
13	SPARE		-	-	-	-	20/1	-	A	0.31	30/2	10	10	10	3/4"		I.T. RACK	14
15	SPARE		-	-	-	-	20/1	-	B	0.31	-	10	-	-	-		-	16
17	SPACE ONLY		-	-	-	-	-	-	C	0.31	30/2	10	10	10	3/4"		I.T. RACK	18
19	SPACE ONLY		-	-	-	-	-	-	A	0.31	-	10	-	-	-		-	20
21	SPACE ONLY		-	-	-	-	-	-	B	0.31	30/2	10	10	10	3/4"		I.T. RACK	22
23	SPACE ONLY		-	-	-	-	-	-	C	0.31	-	10	-	-	-		-	24
25	SPACE ONLY		-	-	-	-	-	-	A	2.30	30/2	10	10	10	3/4"		I.T. RACK	26
27	SPACE ONLY		-	-	-	-	-	-	B	2.30	-	10	-	-	-		-	28
29	SPACE ONLY		-	-	-	-	-	-	C	2.30	30/2	10	10	10	3/4"		I.T. RACK	30
31	SPACE ONLY		-	-	-	-	-	-	A	2.30	-	10	-	-	-		-	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES	0.90 KVA		100%	0.90 KVA	
EQUIPMENT	12.92 KVA		100%	12.92 KVA	
NOTES:					TOTAL DEMAND LOAD: 13.82 KVA
					TOTAL DEMAND AMPS: 38.39 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-605

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'L1'

LOCATION: ELECTRIC ROOM #25	VOLTAGE: 208Y/120V 3∅ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY; PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 100A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ∅	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ∅	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	LIGHTS - TEC1 CONF/ OFF/ WORK		12	12	12	1/2"	20/1	0.94	A	1.20	20/1	12	12	12	1/2"		LIGHTS - SOLAR DAMPERS	2
3	LIGHTS - CORRIDORS		12	12	12	1/2"	20/1	0.65	B	0.77	20/1	12	12	12	1/2"		LIGHTS - TEC2	4
5	LIGHTS - CORRIDORS		12	12	12	1/2"	20/1	0.75	C	0.77	20/1	12	12	12	1/2"		LIGHTS - FTE TESTING	6
7	LIGHTS - FTE WORK/ OFFICES		12	12	12	1/2"	20/1	0.76	A	0.77	20/1	12	12	12	1/2"		LIGHTS - TEC1	8
9	LIGHTS - BR RM/ TRAIN/ POLY OFF.		12	12	12	1/2"	20/1	0.71	B	0.91	20/1	12	12	12	1/2"		LIGHTS - TEC2 CONF/OFF/WORK/CORR	10
11	LIGHTS - RECEPTION TRACK		12	12	12	1/2"	20/1	1.20	C	0.68	20/1	12	12	12	1/2"		LIGHTS - ELEC/ RR/ CONF	12
13	LIGHTS - RECEPTION WALL WSH/RING		12	12	12	1/2"	20/1	1.05	A	0.50	20/1	12	12	12	1/2"	1	LIGHTS - EXTERIOR SIGN	14
15	LIGHTS - SITE BOLLARDS	1	10	10	10	3/4"	20/1	0.10	B	0.34	20/1	12	12	12	1/2"	1	LIGHTS - EXTERIOR	16
17	LIGHTS - SITE/PARKING	1	6	6	10	1"	20/2	0.74	C	-	20/1	-	-	-	-		SPARE	18
19	-		6	-	-	-	-	0.74	A	-	20/1	-	-	-	-		SPARE	20
21	LIGHTS - SITE/PARKING	1	8	8	10	1"	20/2	0.47	B	-	20/1	-	-	-	-		SPARE	22
23	-		8	-	-	-	-	0.47	C	-	20/1	-	-	-	-		SPARE	24
25	LIGHTS - FLAGPOLE	1	10	10	10	3/4"	20/1	0.10	A	-	20/1	-	-	-	-		SPARE	26
27	LIGHTS - MONUMENT SIGN	1	10	10	10	3/4"	20/1	0.06	B	-	-	-	-	-	-		SPACE ONLY	28
29	LIGHTS - BUILDING SIGNAGE	1	12	12	12	1/2"	20/1	0.10	C	-	-	-	-	-	-		SPACE ONLY	30
31	SPARE		-	-	-	-	20/1	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPARE		-	-	-	-	20/1	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPARE		-	-	-	-	20/1	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPARE		-	-	-	-	20/1	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPARE		-	-	-	-	20/1	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPARE		-	-	-	-	20/1	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
LIGHTING	14.28 KVA		125%	17.85 KVA	
NOTES: 1. PROVIDE RELAY/CB AND PROGRAM LIGHTING FOR TIME OF DAY CONTROL.					TOTAL DEMAND LOAD: 17.85 KVA
					TOTAL DEMAND AMPS: 49.58 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-606

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'TEC1'

LOCATION: TEC1 ROOM #33	VOLTAGE: 208Y/120V 3∅ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ∅	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ∅	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	A	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES - FLOOR BOX	2
3	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	B	0.36	20/1	12	12	12	1/2"		RECEPTACLES - FLOOR BOX	4
5	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	C	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES - VIDEO MONITOR	6
7	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	A	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES	8
9	RECETACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	B	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	10
11	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	C	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	12
13	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	A	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	14
15	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	B	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	16
17	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	C	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	18
19	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	A	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	20
21	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	22
23	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	24
25	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	26
27	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	28
29	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	7.56 KVA		100%	7.56 KVA	
NOTES: 1. PROVIDE RELAY/CB FOR TIME OF DAY RECEPTACLE CONTROL					TOTAL DEMAND LOAD: 7.56 KVA
					TOTAL DEMAND AMPS: 21.00 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-607

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'TEC2'

LOCATION: TEC1 ROOM #31	VOLTAGE: 208Y/120V 3∅ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY; PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ∅	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ∅	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	A	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES - FLOOR BOX	2
3	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	B	0.36	20/1	12	12	12	1/2"		RECEPTACLES - FLOOR BOX	4
5	RECEPTACLES	1	12	12	12	1/2"	20/1	0.54	C	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES - VIDEO MONITOR	6
7	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	A	0.90	20/1	12	12	12	1/2"	1	RECEPTACLES	8
9	RECETACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	B	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	10
11	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	C	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	12
13	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	A	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	14
15	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	B	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	16
17	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	C	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	18
19	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	A	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	20
21	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	22
23	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	24
25	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	26
27	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	28
29	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	7.56 KVA		100%	7.56 KVA	
NOTES: 1. PROVIDE RELAY/CB FOR TIME OF DAY RECEPTACLE CONTROL					TOTAL DEMAND LOAD: 7.56 KVA
					TOTAL DEMAND AMPS: 21.00 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-608

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'FTE1'

LOCATION: FTE ROOM #32	VOLTAGE: 208Y/120V 3∅ 4W	MIN. AIC RATING: 22K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MVP)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ∅	NEUT	GND	COND	BKR	LOAD KVA	PHASE ∅	LOAD KVA	BKR	BRANCH CIRCUIT ∅	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLES	1	12	12	12	1/2"	20/1	0.90	A	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES - FLOOR BOX	2
3	RECEPTACLES	1	12	12	12	1/2"	20/1	0.54	B	0.36	20/1	12	12	12	1/2"		RECEPTACLES - FLOOR BOX	4
5	RECEPTACLES	1	12	12	12	1/2"	20/1	0.72	C	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES - VIDEO MONITOR	6
7	RECEPTACLES	1	12	12	12	1/2"	20/1	0.90	A	0.72	20/1	12	12	12	1/2"	1	RECEPTACLES	8
9	RECETACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	B	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	10
11	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	C	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	12
13	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	A	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	14
15	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	B	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	16
17	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	C	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	18
19	RECEPTACLE-DEDICATED (CABLE TRAY)	1	12	12	12	1/2"	20/1	0.18	A	0.18	20/1	12	12	12	1/2"	1	RECEPTACLE-DEDICATED (CABLE TRAY)	20
21	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	22
23	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	24
25	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	26
27	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	28
29	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	7.74 KVA		100%	7.74 KVA	
NOTES: 1. CIRCUIT DESIGNATED TO BE PROGRAMMED "OFF" DURING TIME OFF DAY					TOTAL DEMAND LOAD: 7.74 KVA
					TOTAL DEMAND AMPS: 21.50 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-609

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	VOLTS	LAMP			FIXTURE WATTS
					QTY	WATTS	MODEL	
A	2'X4' LED RECESSED TROFFER WITH PRISMATIC FROSTED LENS - 3500K	H.E. WILLIAMS LIGHTING	50G-S24-L35-835-SAF12I25-DIM-UNV	120	-	-	LED	33
AE	2'X4' LED RECESSED TROFFER WITH PRISMATIC FROSTED LENS - 3500K WITH EMERGENCY BATTERY LED DRIVER	H.E. WILLIAMS LIGHTING	50G-S24-L35-835-SAF12125-DIM EM/10W-CRV-120	120	-	-	LED	33
B	2'X2' LED RECESSED LOW PROFILE TROFFER WITH PRISMATIC FROSTED LENS - 3500K	PHILIPS LIGHTING	2TG20L8352FA02F-UNV-DIM	120	-	-	LED	23
BE	2'X2' LED RECESSED LOW PROFILE TROFFER WITH PRISMATIC FROSTED LENS - 3500K WITH EMERGENCY BATTERY LED DRIVER	PHILIPS LIGHTING	2TG20L8352FA02F-UNVDIM-EMLED	120	-	-	LED	23
C	4' LED SURFACE/PENDANT LOW PROFILE WRAPAROUND W/ FROSTED RIBBED ACRYLIC LENS - 3500K	H.E. WILLIAMS LIGHTING	39-4-L52-835-A-DRV-120	120	-	-	LED	51
CE	4' LED SURFACE/PENDANT LOW PROFILE WRAPAROUND W/ FROSTED RIBBED ACRYLIC LENS - 3500K WITH EMERGENCY BATTERY LED DRIVER	H.E. WILLIAMS LIGHTING	39-4-L52-835-A-WM/10WLP-DRV-120	120	-	-	LED	51
D	2'X4' RECESSED LED ARCHITECTURAL CURVED FLOATING CENTER TROFFER - 3500K - 0-10V DIMMING	H.E. WILLIAMS LIGHTING	AT1-24-L30-835-D-DRV-UNV	120	-	-	LED	30
DE	2'X4' RECESSED LED ARCHITECTURAL CURVED FLOATING CENTER TROFFER - 3500K - 0-10V DIMMING WITH EMERGENCY BATTERY LED DRIVER	H.E. WILLIAMS LIGHTING	AT1-24-L30-835-D-EM/10W-DRV-120	120	-	-	LED	30
F	1'X4' DECORATIVE PENDANT LED DIRECT/INDIRECT - 3500K - 0-10V DIMMING	FINELITE	SI2-ID-LED-DCO-4FT-2E-S-8-35-FTO-120-SC-AC-FE	120	-	-	LED	14.5
G	4' LED SURFACE STRIP - 3500K	H.E. WILLIAMS LIGHTING	75-4-L50-835-VBY-2-DRV-120	120	-	-	LED	43
GE	4' LED SURFACE STRIP - 3500K - W/EMERGENCY BATTERY	H.E. WILLIAMS LIGHTING	75-4-L50-835-VBY-2-EM/10WLP-DRV-120	120	-	-	LED	43
H	4" RECESSED LED DOWNLIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 3500K - 0-10V DIMMING	INTENSE LIGHTING	ILM6L2359C-SF/ILCL2	120	-	-	LED	17.2
HE	4" RECESSED LED DOWNLIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 3500K - 0-10V DIMMING AND EMERGENCY BATTERY LED DRIVER	INTENSE LIGHTING	SS4G21100358-D10V1-EM2/ IC430HZ-SF	120	-	-	LED	17.2

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-610

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LIGHTING FIXTURE SCHEDULE - CONTINUED

MARK	DESCRIPTION	MANUFACTURER	MODEL	VOLTS	LAMP			FIXTURE WATTS
					QTY	WATTS	MODEL	
J	LED CEILING RECESSED MOUNTED ARCHITECTURAL LENSED WALL WASH	H.E. WILLIAMS LIGHTING	HETW-DFK-4-L30-840-A-DFK 0648W-DIM-120	120	-	-	LED	43
JE	LED CEILING RECESSED MOUNTED ARCHITECTURAL LENSED WALL WASH WITH EMERGENCY BATTERY	H.E. WILLIAMS LIGHTING	HETW-DFK-4-L30-840-A-EM/10WDFK 0648W-DIM-120	120	-	-	LED	43
K24	DECORATIVE 24" ROUND SURFACE LED RING - 4000K - 50% LUMEN SWITCH CONTROL	BETACALCO LIGHTING	95 0000-40-S1-*-PR1	120	-	-	LED	23.5
K36	DECORATIVE 36" ROUND SURFACE LED RING - 4000K - 50% LUMEN SWITCH CONTROL	BETACALCO LIGHTING	95 0010-40-S1-*-PR1	120	-	-	LED	33.6
K60	DECORATIVE 60" ROUND SURFACE LED RING - 4000K - 50% LUMEN SWITCH CONTROL	BETACALCO LIGHTING	95 0020-40-S1-*-PR1	120	-	-	LED	62.7
Q	6" RECESSED LED DOWNLIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 4000K WET LOCATION RATED.	INTENSE LIGHTING	IML6-L2-409-SD-SF/ILC6L2	120	-	-	LED	38
QE	6" RECESSED LED DOWNLIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 4000K & EMERGENCY BATTERY LED DRIVER WET LOCATION RATED.	INTENSE LIGHTING	IML6-L2-409-SD-SF/ILC6L2-EM	120	-	-	LED	38
R	1'X4' LED RECESSED LIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 4000K	INTENSE LIGHTING	50F-S14-L45-835-FAF12125-DRV-120	120	-	-	LED	39
T	DECORATIVE LED MINI VERTICAL ROUND ACCENT TRACK LIGHT 32° FLOOD OPTICS - 3000K MTD ON 8' SINGLE CIRCUIT TRACK - 4 TRACK HEADS PER 8' SECTION	INTENSE LIGHTING	HEAD = MBM-25-30-DIM-TBD-32-PS TRACK = IS8-TBD	120	-	25	LED	100
U2	25" BATHROOM VANITY LED LUMINAIRE - 7'-0" A.F.F.	BORDEN LIGHTING	574-25-LED/24-120-SAL-IEM	120	-	-	LED	14
U3	37" BATHROOM VANITY LED LUMINAIRE - 7'-0" A.F.F.	BORDEN LIGHTING	574-37-LED/32-120-SAL-IEM	120	-	-	LED	24
WP	SURFACE WALL MOUNTED EXTERIOR LED WALL PACK WITH EMERGENCY BATTERY LED DRIVER. WET LOCATION RATED.	H.E. WILLIAMS LIGHTING	VWPH-L30/730-TFT-SDGL-EM/10WC-UNV	120	-	-	LED	68.4
X1	LED SINGLE EDGELIT EXIT SIGN WITH ALUMINUM HOUSING RED LETTERS & BATTERY BACKUP	BEGHELLI	CRV-SA-LR-1-C-S-AL	120	-	-	LED	-
X2	LED DUAL EDGELIT EXIT SIGN WITH ALUMINUM HOUSING RED LETTERS & BATTERY BACKUP	BEGHELLI	CRV-SA-LR-2-M-S-AL	120	-	-	LED	-

NOTES:
1. ALL FIXTURES AND FINISHES SHALL BE APPROVED BY ARCHITECT/OWNER PRIOR TO ORDERING.
2. ALL FIXTURES SHALL INCLUDE LAMPS.
3. FINISH SHALL BE SELECTED BY ARCHITECT/INTERIOR DESIGNER.
4. PROVIDE ALL END CAPS, END-FEEDS ETC FOR TYPE 'T'
5. THE SPECIFIED FIXTURES HAVE BEEN SELECTED BASED ON PHOTOMETRIC PERFORMANCE, ELECTRICAL CHARACTERISTICS, VISUAL COMFORT AND AESTHETIC INTERPRETATION AND AS SUCH ANY CONTRACTOR WISHING TO PROPOSE ALTERNATE FIXTURES MUST SUBMIT SUCH REQUEST, IN WRITING, FIFTEEN (15) WORK DAYS PRIOR TO BID. THE REQUEST SHALL INCLUDE TWO COMPLETE SETS OF COLOR CATALOG CUT SHEETS OF ALL FIXTURES FOR REVIEW. APPROVALS SHALL ONLY BE ISSUED BY THE ARCHITECT AND OR ENGINEER IN THE FORM OF AN ADDENDUM TO THE BID DOCUMENTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE1-611

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

OPERATIONS BUILDING ACCESS CONTROL SCHEDULE

LINE	DOOR NUMBER	CARD READER TYPE	ELECTRICAL DOOR LOCK TYPE	ALARM MONITORING DEVICE	REQUEST TO EXIT DEVICE (REX)	LOCATION OR ROOM NUMBER	REMARKS	DOOR CONTROLLER, I/O BOARD AND POWER SUPPLY LOCATION	FIRE ALARM RELAY OVERRIDE	DRAWING NUMBER
1	4	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TEC1 HALL 04	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 04	N/A	AE1-301
2	4B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TRC1 TESTING RM 33	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 04B	YES	AE1-301
3	33	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TRC1 TESTING RM 33	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 33	YES	AE1-301
4	33A	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TRC1 TESTING RM 33	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 33	YES	AE1-301
5	33B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TEC1 HALL 04	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 33B	N/A	AE1-301
6	33C	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TRC1 TESTING RM 33	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 33B	YES	AE1-301
7	32	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	FTE TESTING RM 32	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 32	YES	AE1-301
8	32A	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	FTE TESTING RM 32	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 32A	YES	AE1-301
9	35	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	IT RM 35	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 35	YES	AE1-301
10	31	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TEC2 TESTING RM 31	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 31	YES	AE1-302
11	31A	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TEC2 TESTING RM 31	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 31	YES	AE1-302
12	31B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TEC2 TESTING RM 31	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 31B	YES	AE1-302
13	31C	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TEC2 TESTING RM 31	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 31B	YES	AE1-302
14	26	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TEC2 HALL 26	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 26	YES	AE1-302
15	26A	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TEC2 HALL 26	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 26	YES	AE1-302
16	26B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TEC2 HALL 26	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 26B	YES	AE1-302
17	25	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	ELEC RM 25	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 25	YES	AE1-302
18	21	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	HALL 21	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 21	YES	AE1-302
19	24	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	STORAGE RM 24	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 24	YES	AE1-303
20	ROOF HATCH	N/A	N/A	DOOR POSITION SWITCH SENTROL(GE) 2507AD-L	N/A	STORAGE RM 24	DOOR MONITORED VIA S321-IP I/O MODULE	AT DOOR 24	N/A	AE1-303
21	18	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	STORAGE RM 18	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 18	YES	AE1-304
22	16	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	FTE WORK AREA RM 16	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 16	YES	AE1-304
23	16A	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	FTE COPY RM 14	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 16	YES	AE1-304
24	12	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	MAIL RM 12	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 12	YES	AE1-304
25	13	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	OBSERVATION RM 13	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 13	YES	AE1-304

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

ACCESS CONTROL
SCHEDULE

SHEET NO.
AE1-612

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

OPERATIONS BUILDING VIDEO SURVEILLANCE CAMERA SCHEDULE

LINE	CAMERA NUMBER	CAMERA TYPE	CAMERA LENS	CAMERA WIRING MEDIA	CAMERA MOUNTING	APPROXIMATE LOCATION FIELD OF VIEW	CAMERA SHEET NUMBER	NETWORK SWITCH LOCATION	CAMERA POWER REQUIREMENTS AND POWER SUPPLY LOCATION	REMARKS	VIDEO RECORDING HOURS PER DAY AND FRAMES PER SECOND (FPS)	VIDEO RECORDING STORAGE
27	OP-01	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TEC 1 CONFERENCE RM 01 LOOKING SOUTH	AE1-301	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
28	OP-02	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TEC 1 CONFERENCE RM 01 LOOKING EAST	AE1-301	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
29	OP-03	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TEC 2 CONFERENCE RM 30 LOOKING WEST	AE1-302	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
30	OP-04	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TEC 2 CONFERENCE RM 30 LOOKING SOUTH	AE1-302	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
31	OP-05	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF FTE DIRECTOR RM 17 LOOKING NORTH	AE1-304	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
32	OP-06	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF FTE DIRECTOR RM 17 LOOKING WEST	AE1-304	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
33	OP-07	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TRAINING RM 06 LOOKING EAST	AE1-303	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
34	OP-08	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TRAINING RM 06 LOOKING NORTH	AE1-303	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS
35	OP-09	VANDAL RESISTANT FIXED IP 2 MEGAPIXEL HD DOME CAMERA AVIGILON 2.0C-H4A-D1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	CEILING MOUNTED	INTERIOR LOOKING AT EXTERIOR ENTRY DOORS OF OBSERVATION RM 13	AE1-304	IT RM 35	PoE SWITCH AT COMMUNICATIONS RACK/CABINET		24 HOURS WITH MOTION AT 30 FPS	30 DAYS

NOTE: CCTV CAMERAS (ONLY) ARE FURNISHED AND INSTALLED BY FTE.

REVISIONS			
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

CCTV MATRIX SCHEDULE

SHEET NO.
AE1-613

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Product Information HILTI

Firestop Putty Pad (CP 617, CP 617L and CP 617XL)

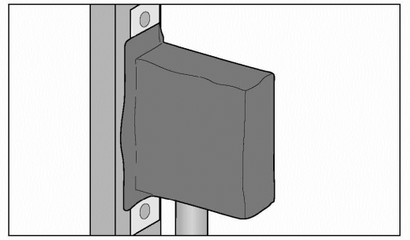
Product description
- A moldable firestop putty designed to help protect electrical outlet boxes

Product features
- Applied by hand
- Fast installation

Areas of application
- Protection of electrical outlet boxes

For use with
- Gypsum wall assemblies with wood or metal studs

Examples
- Where two outlets are within a single stud/cavity or within 24" measured horizontally (not back to back unless specified by the specific UL approval)



Technical Data*	CP 617
Dimensions (LxWxH)	CP 617: 6" x 7" x 1/8" (15 x 18 x 0.3 cm) CP 617L: 7" x 7" x 1/8" (18 x 18 x 0.3 cm) CP 617XL: 9" x 9" x 1/8" (23 x 23 x 0.3 cm)
Consistency	Moldable putty
Color	Red
Application temperature	40°F (5°C) to 95°F (35°C)
Storage temperature	40°F (5°C) to 104°F (40°C)
Curing time	Non-curing
Density	1.48 g/cm³
Intumescent activation	Approx. 220°F to 250°F (104°C to 121°C)
Volatile solvents	None
Asbestos fibers	None
Surface burning characteristics (ASTM E 84-96)	Flame Spread: 15 Smoke development: 10
Sound transmission classification (ASTM E 90-97)	59 (Relates to specific construction)
Tested in accordance with • UL 263 • ASTM E 84 • ASTM G21	

*At 73°F (23°C) and 50% relative humidity

CLASSIFIED c UL us — WALL OPENING PROTECTIVE MATERIAL
FIRE RESISTANCE CLASSIFICATION SEE PRODUCT CATEGORY IN UL FIRE RESISTANCE DIRECTORY 66Y7

FM APPROVED

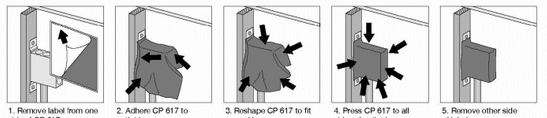
Installation instructions for CP 617

Notice
- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable listing (CLIV) in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information

Application of firestop putty
1. After ensuring box is cleaned of loose debris, dirt, oil, moisture, frost and wax, remove label from one side of pad. For a 1 to 2 hour fire rating, one CP 617 pad is required. Exposed side of pad is placed against box.
2. CP 617 Firestop Putty Pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and completely seal against the stud within the stud cavity.
3. Reshape CP 617 to fit around conduit or cables.
4. Press CP 617 to all sides of electrical box.
5. Remove other side of label.

Not for use
- In areas exposed to water

Storage
- Store only in the original packaging in a location at temperatures 40°F (5°C) to 104°F (40°C)



Hilti Firestop
Saving lives through innovation and education

Hilti. Outperform. Outlast.

Hilti, Inc. (U.S.) 1-800-879-8000 • **www.us.hilti.com** • en español 1-800-879-5000 • Hilti Firestop Systems Guide

1 OUTLET BOX MOUNTED IN FIRE RATED WALL
No Scale

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE1-701

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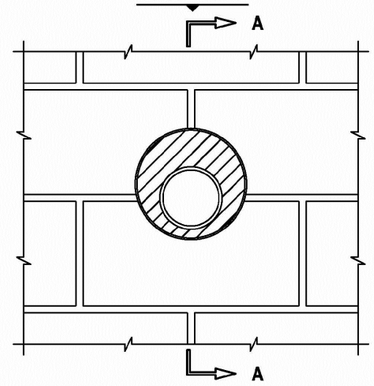
UL/cUL SYSTEM NO. W-J-1020

METAL PIPE THROUGH CONCRETE WALL OR BLOCK WALL

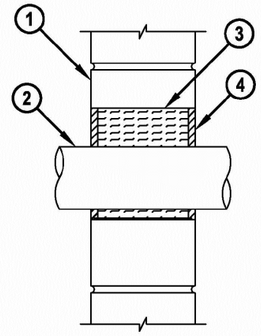
F-RATING = 2-HR.
T-RATING = 0-HR. OR 1/4-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L-RATING AT 400°F = 4 CFM/SQ. FT.

WJ1020e.091699

FRONT VIEW



SECTION A-A



1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 5" THICK).
   B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   B. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   C. MAXIMUM 4" NOMINAL DIAMETER EMT.
3. MINERAL WOOL (MIN. 4 PCF DENSITY), BACKER ROD, OR HILTI CF 128 FILLER FOAM TO BE USED AS A BACKER.
4. HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT:
   A. MINIMUM 1/4" DEPTH WHEN EMT OR STEEL CONDUIT IS THE PENETRATING ITEM.
   B. MINIMUM 1/2" DEPTH WHEN COPPER PIPE IS THE PENETRATING ITEM.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 8".
2. ANNULAR SPACE = MINIMUM 3/4", MAXIMUM 3-1/2".
3. FOR HOLLOW BLOCK WALLS, USE NO. 8 STEEL WIRE MESH TO AID IN THE INSTALLATION.

HILTI® FIRESTOP SYSTEMS

HILTI, Inc.
Tulsa, Oklahoma USA (918) 252-6000

Sheet	1 of 1
Scale	1/8" = 1"
Date	SEPT. 16, 1999

Drawing No. WJ 1020e

Saving Lives through Innovation and Education

1 UL FIRE RATED DETAIL (W-J-1020)
No Scale

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.

REVISIONS			
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ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO. AE1-702

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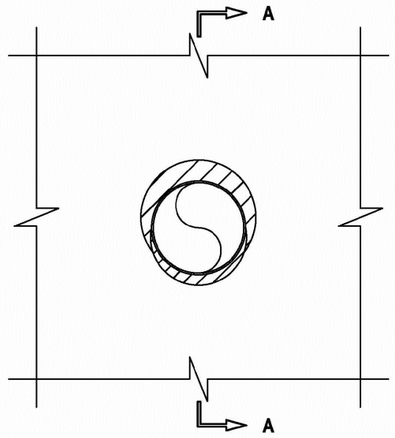
UL/cUL SYSTEM NO. W-L-1175

METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

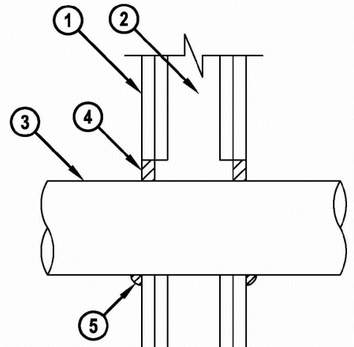
F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = 1 CFM/SQ. FT.
L-RATING AT 400°F = 1 CFM/SQ. FT.

WL1175b.032206

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 4" NOMINAL DIAMETER EMT.
   B. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
4. MINIMUM 5/8" DEPTH HILTI CP 618 FIRESTOP PUTTY STICK.
5. MINIMUM 1/4" CROWN HILTI CP 618 FIRESTOP PUTTY STICK AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 5-1/2".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1".

Hilti Firestop Systems

HILTI, Inc.
Tulsa, Oklahoma USA (918) 252-6000

Sheet	1 of 1	Drawing No.
Scale	3/16" = 1"	WL 1175b
Date	Mar. 22, 2006	

Saving Lives through Innovation and Education

1 UL FIRE RATED DETAIL (W-L-1175)
No Scale

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
OPERATIONS BUILDING

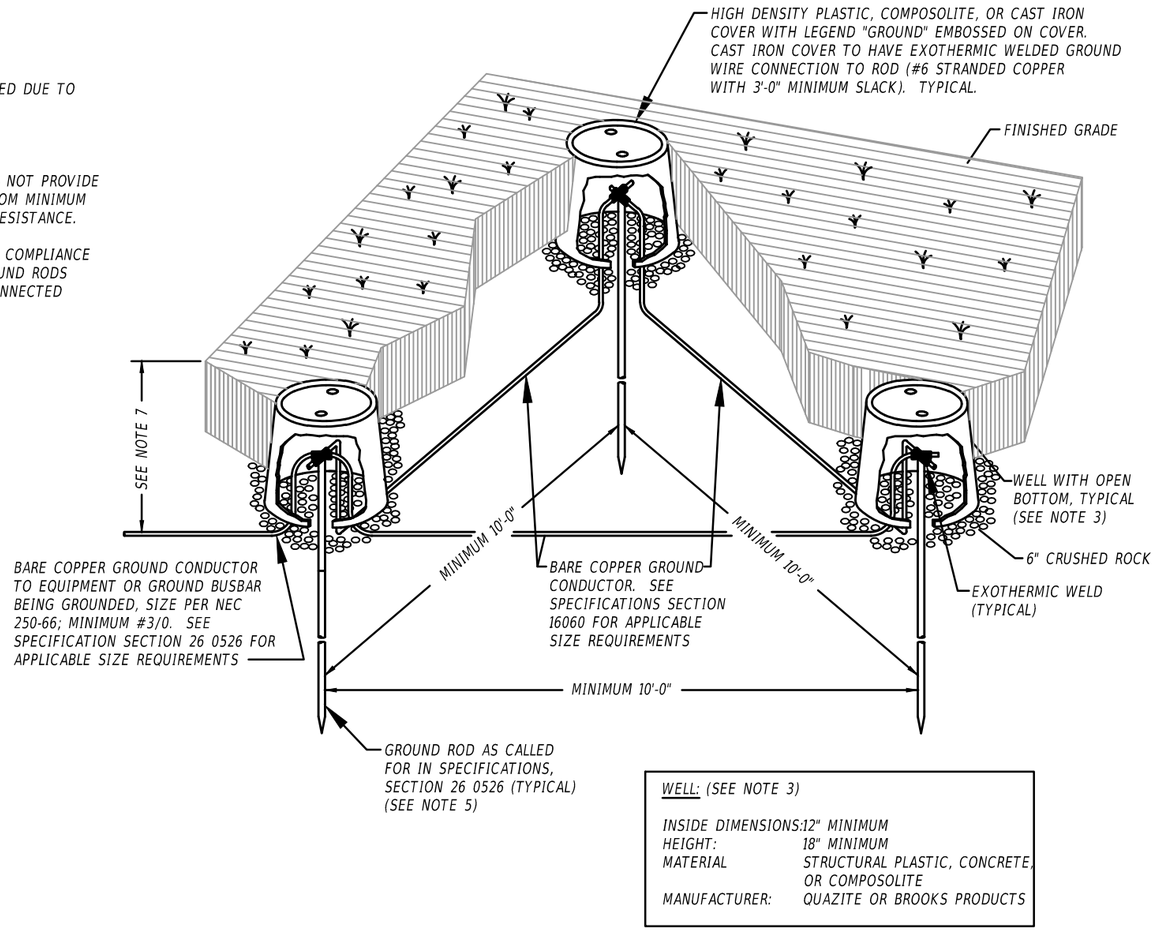
DETAILS - ELECTRICAL

SHEET NO.
AE1-703

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTES:

1. SEE SPECIFICATION SECTION 26 0526.
2. NOT FOR USE IN PAVED, ETC. LOCATIONS.
3. INCREASE DEPTH, DIAMETER, SIZE, ETC IF REQUIRED DUE TO INSTALLATION AND ACCESS REQUIREMENTS.
4. CONCRETE COVERS ARE NOT ACCEPTABLE.
5. IF THREE RODS IN A DELTA CONFIGURATION DOES NOT PROVIDE SPECIFIED RESISTANCE, CHANGE ROD LENGTHS FROM MINIMUM SPECIFIED AS REQUIRED TO PROVIDE SPECIFIED RESISTANCE.
6. MEASUREMENT OF RESISTANCE VALUES TO PROVIE COMPLIANCE WITH SPECIFIED RESISTANCE SHALL BE WITH GROUND RODS CONNECTED IN DELTA CONFIGURATION BUT DISCONNECTED FROM EQUIPMENT OR BUSBAR BEING GROUNDED.
7. DEPTH PER CODES, 1'-0" MINIMUM.



WELL: (SEE NOTE 3)	
INSIDE DIMENSIONS:	12" MINIMUM
HEIGHT:	18" MINIMUM
MATERIAL	STRUCTURAL PLASTIC, CONCRETE, OR COMPOSOLITE
MANUFACTURER:	QUAZITE OR BROOKS PRODUCTS

1 MAIN SERVICE GROUND WELL DETAIL

No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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1180 HARWOOD AVENUE, SUITE 3000
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

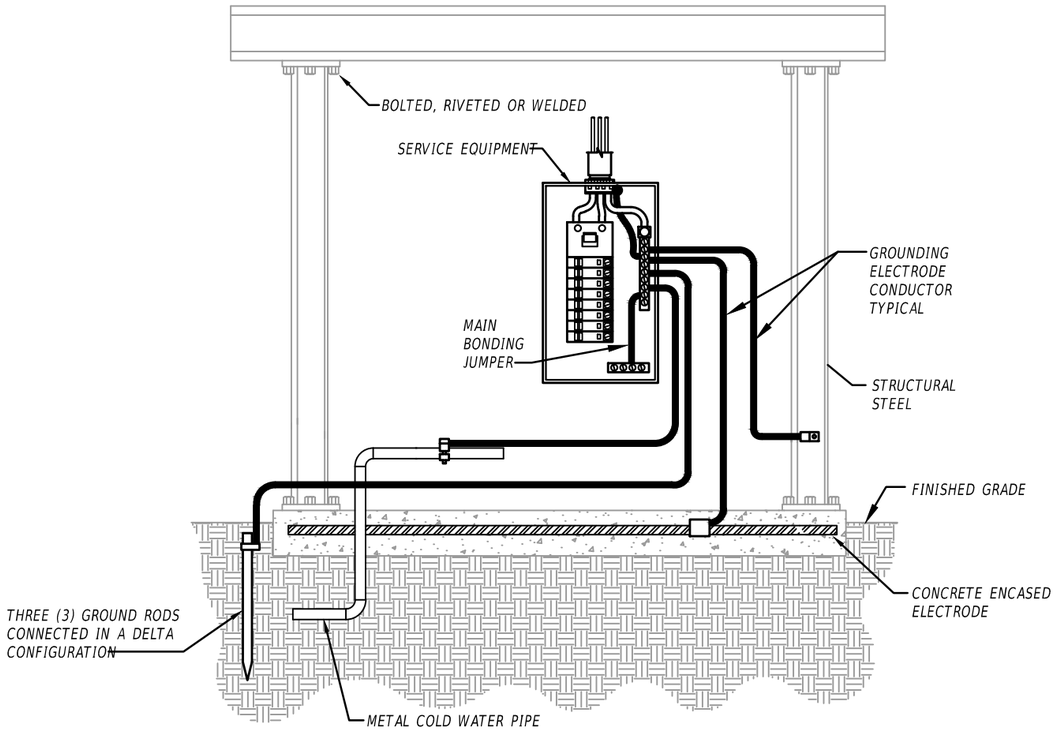
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

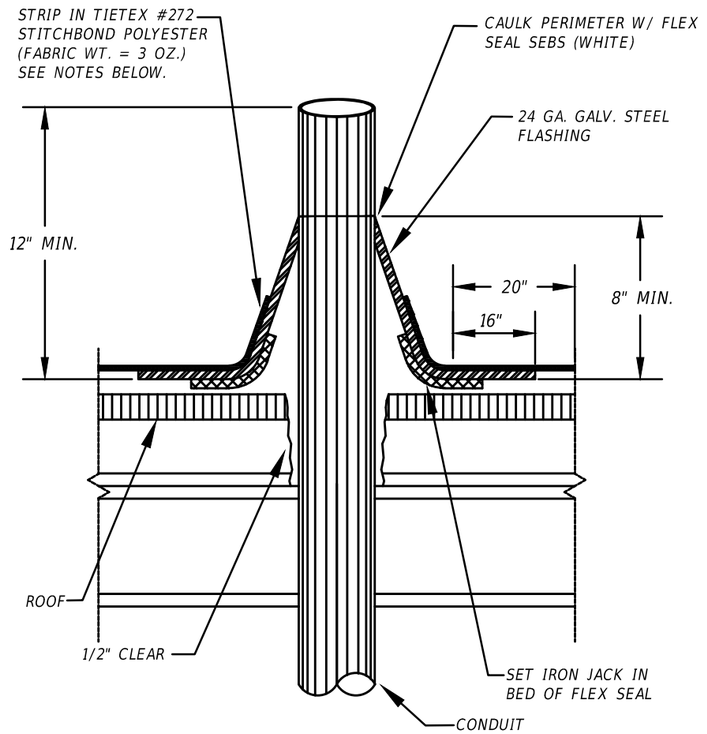
DETAILS - ELECTRICAL

SHEET NO. AE1-704

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1 TYPICAL GROUNDING SYSTEM DETAIL
No Scale



NOTES:

1. ALL SURFACES TO BE CLEAN (FREE OF DIRT, GREASE, SCALE, PAINT, ETC.)
2. WIRE BRUSH ALL LOOSE MATERIAL AS REQUIRED.
3. PRIME EXISTING ROOF AND FLASHING W/ SB ELASTOMERIC PRIMER.
4. 5 COURSE: 2 PLYS TIETEX W/ SB ELASTOMERIC GEL (FEATHER SECOND PLY) AT MIN. 40 MIL UNCURED PER COURSE.
5. TOP COAT W/ K-2 EXTREME DUTY ELASTOMER (MATCH ROOF COLOR)
6. DETAIL SHOW FOR WEATHERPROOFING PENETRATION ONLY. CONTRACTOR SHALL PROVIDE FIRESTOPPING AS REQUIRED TO MAINTAIN FIRE RATING OF ROOF.

2 ROOF PENETRATION WEATHERPROOF DETAIL
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE1-705

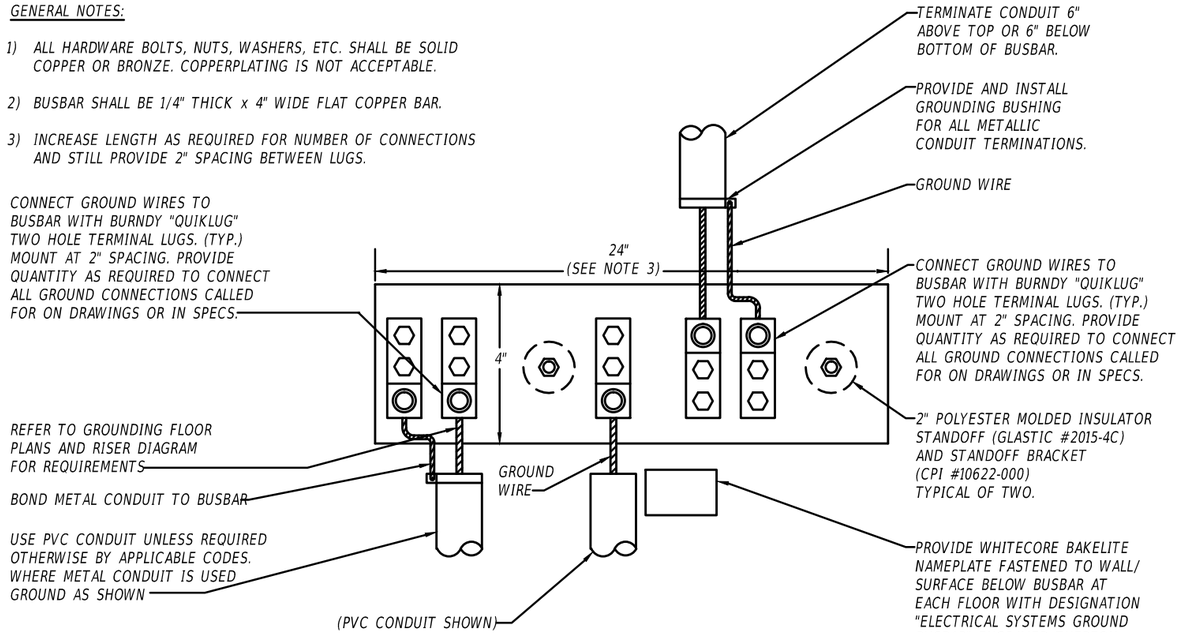
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GENERAL NOTES:

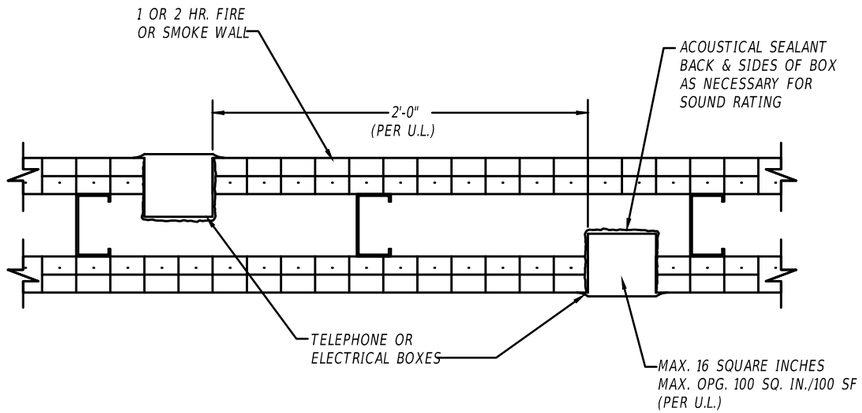
1) ALL HARDWARE BOLTS, NUTS, WASHERS, ETC. SHALL BE SOLID COPPER OR BRONZE. COPPERPLATING IS NOT ACCEPTABLE.

2) BUSBAR SHALL BE 1/4" THICK x 4" WIDE FLAT COPPER BAR.

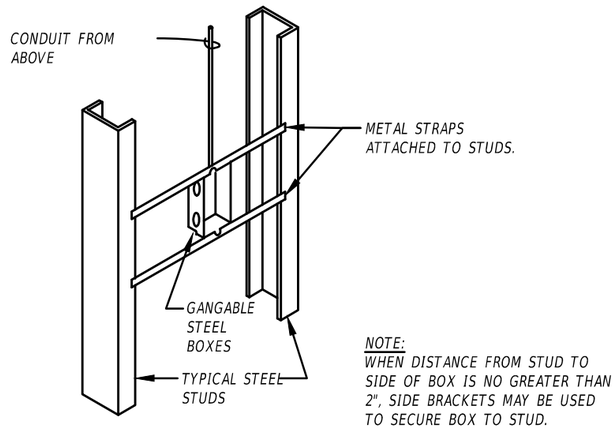
3) INCREASE LENGTH AS REQUIRED FOR NUMBER OF CONNECTIONS AND STILL PROVIDE 2" SPACING BETWEEN LUGS.



3 MAIN GROUND BUSBAR DETAIL
No Scale



1 ADJACENT ELECTRICAL BOX INSTALLATION DETAIL
No Scale



2 TYPICAL BOX SUPPORT DETAIL
No Scale

REVISIONS			
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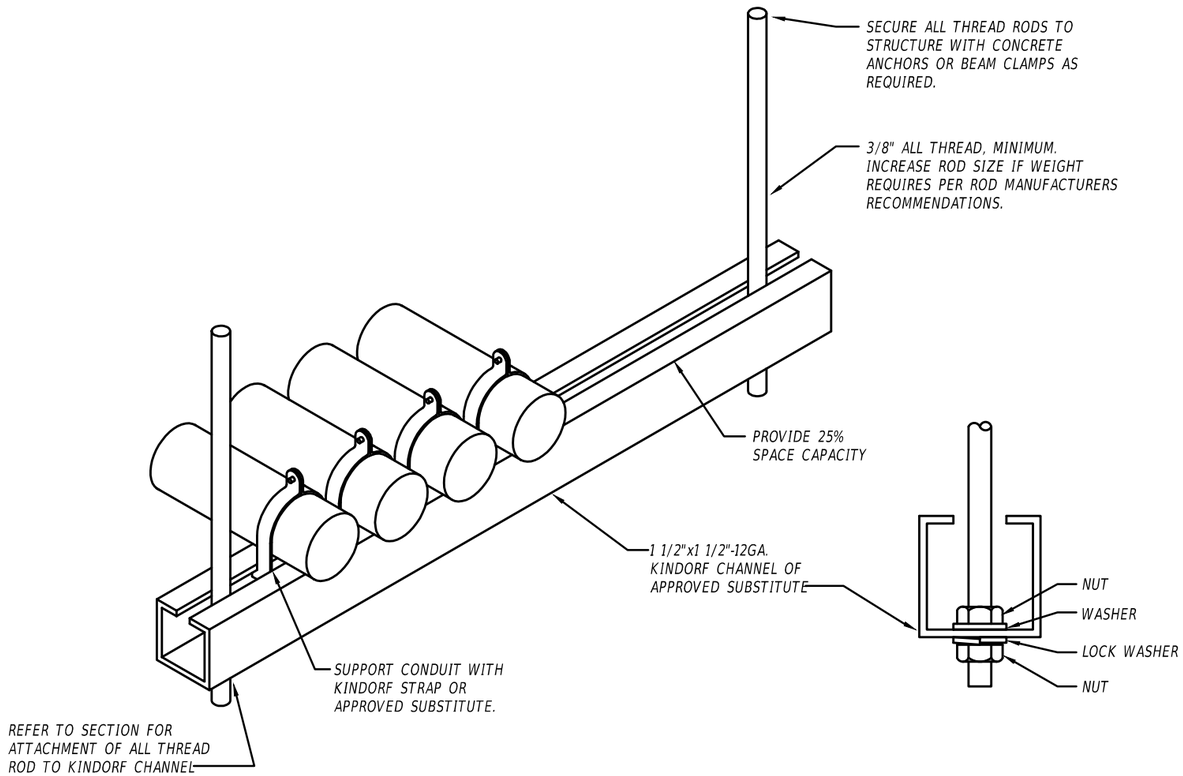
SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE1-706

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.



1 CONDUIT TRAPEZE SUPPORT DETAIL
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

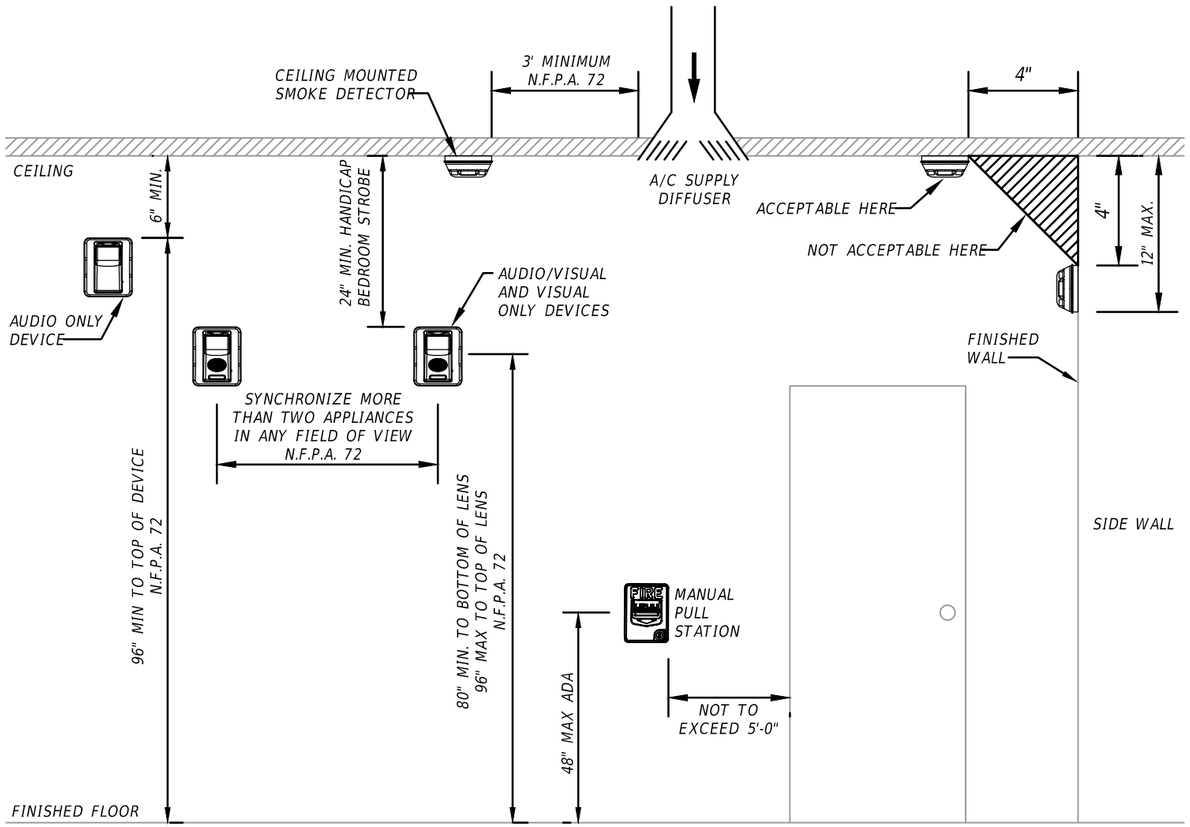
SUNTRAX TEST FACILITY
OPERATIONS BUILDING

DETAILS - ELECTRICAL

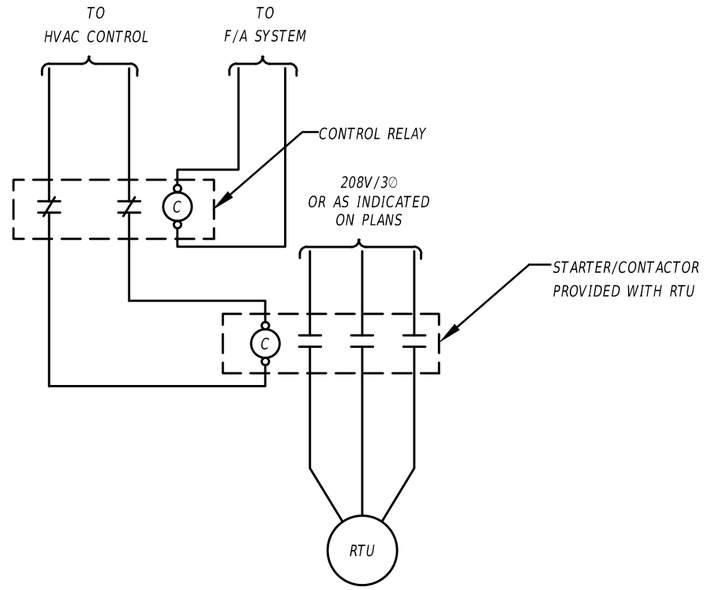
SHEET NO.
AE1-707

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NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.



1 FIRE ALARM MOUNTING HEIGHT DETAIL
No Scale



NOTES:
1. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH HVAC

2 FIRE ALARM SHUT DOWN WIRING DIAGRAM
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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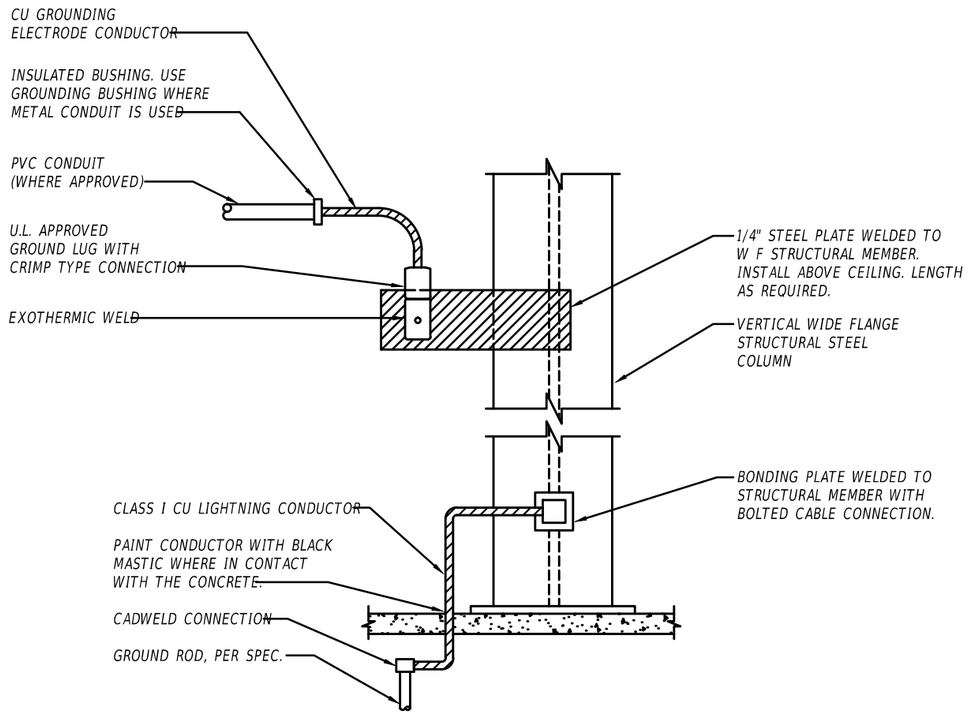
SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE1-708

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1 BUILDING STEEL GROUND CONNECTION FOR STRUCTURAL STEEL SYSTEM

No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE1-709

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COVERS *(BLANK UNLESS LOGO IS SPECIFIED)*

	DESCRIPTION	PART NO.	WEIGHT #	DEIGN/TEST LOAD	ANSI TIER
½	W/2 BOLTS	PG3048CA00	159 (72.1 kg.)	8,000/12,000	8
½	GASKETED W/2 BOLTS	PG3048CG00	159 (72.1 kg.)	8,000/12,000	8
½	NO BOLTS	PG3048WA00	159 (72.1 kg.)	8,000/12,000	8
½	HEVY DUTY W/2 BOLTS	PG3048HA00	206 (93.4 kg.)	15,000/22,500	15
½	GASKETED HEAVY DUTY W/2 BOLTS	PG3048HG00	206 (93.4 kg.)	15,000/22,500	15
	EXTRA HAVEY DUTY W/2 BOLTS	PG3048HH00	220 (99.7 kg.)	22,500/33,750	15*
½	2-PIECE W/2 BOLTS	PG3048CS00	181 (82.1 kg.)	8,000/12,000	8
½	HEAVY DUTY 2-PIECE W/2 BOLTS	PG3048HS00	206 (93.4 kg.)	15,000/22,500	15
	2-PIECE OVERLAPPING	PG3048CC00	227 (103.0 kg.)	8,000/12,000	8
	HEAVY DUTY 2-PIECE OVERLAPPING	PG3048HC00	234 (106.1 kg.)	15,000/22,500	15

** COVERS WITH METER LIDS AVAILABLE UPON REQUEST.*
** GASKETED COVERS AND BOLT GROMMETS MUST BE USED WITH A GASKETED BOX. GASKETS REDUCE THE INFLOW OF FLUIDS BUT DO NOT MAKE THE ENCLOSURE WATER TIGHT.*
** LOADINGS FOR HH COVERS COMPLY WITH ALL TEST PROVISIONS OF ANSI/SCTE 77 EXCEPT THAT THE VERTICAL DESIGN LOAD IS 22,500 LBS. WITH A TEST LOAD OF 33,750 LBS. OVER A 10"x20" PLATE.*

PG BOXES *(STAKABLE WITH SELF-ALIGNING, REPLACEABLE EZ-NUT) *24" & 36" DEEP BOXES MUST BE USED AS BOTTOM OF ANY STACK*

	DESCRIPTION		PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER
½	OPEN BOTTOM		PG3048BA18	185 (83.9 kg.)	18" (457 mm)	15" (381 mm)	22,500/33,750	15**
		*	PG3048BA24	236 (107.0 kg.)	24" (609 mm)	21" (533 mm)	22,500/33,750	15**
		*	PG3048BA36	343 (155.6 kg.)	36" (914 mm)	33" (838 mm)	22,500/33,750	15**
½	OPEN BOTTOM W/ GASKET		PG3048BG18	185 (83.9 kg.)	18" (457 mm)	15" (381 mm)	22,500/33,750	15**
		*	PG3048BG24	236 (107.0 kg.)	24" (609 mm)	21" (533 mm)	22,500/33,750	15**
		*	PG3048BG36	343 (155.6 kg.)	36" (914 mm)	33" (838 mm)	22,500/33,750	15**
½	OPEN BOTTOM W/ 2 MOUSEHOLES		PB3048BB18	185 (83.9 kg.)	18" (457 mm)	15" (381 mm)	22,500/33,750	15**
		*	PB3048BB24	236 (107.0 kg.)	24" (609 mm)	21" (533 mm)	22,500/33,750	15**
		*	PB3048BB36	343 (155.6 kg.)	36" (914 mm)	33" (838 mm)	22,500/33,750	15**
½	SOLID BOTTOM		PB3048DA18	220 (99.8 kg.)	18 1/2" (470 mm)	15" (381 mm)	22,500/33,750	15**
		*	PB3048DA24	287 (130.2 kg.)	24 1/2" (622 mm)	21" (533 mm)	22,500/33,750	15**
		*	PB3048DA36	394 (178.7 kg.)	36 1/2" (927 mm)	33" (838 mm)	22,500/33,750	15**
½	OPEN BOTTOM W/ GASKET		PG3048DG18	220 (99.8 kg.)	18 1/2" (470 mm)	15" (381 mm)	22,500/33,750	15**
		*	PG3048DG24	287 (130.2 kg.)	24 1/2" (622 mm)	21" (533 mm)	22,500/33,750	15**
		*	PG3048DG36	394 (178.7 kg.)	36 1/2" (927 mm)	33" (838 mm)	22,500/33,750	15**

† *PG3048BB36 IS NOT UL LISTED.*
*** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.*

PD BOXES *(NESTABLE)*

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION C	DIMENSION D	DESIGN/TEST LOAD #	ANSI TIER
OPEN BOTTOM	PD3048BA24	286 (130 kg.)	24" (610 mm)	21" (533 mm)	22,500/33,750	15**
	PD3048BA48	614 (278.5 kg.)	48" (1219 mm)	45" (1143 mm)	22,500/33,750	15**
OPEN BOTTOM W/ GASKET	PD3048BG24	286 (130 kg.)	24" (610 mm)	21" (533 mm)	22,500/33,750	15**
	PD3048BG48	614 (278.5 kg.)	48" (1219 mm)	45" (1143 mm)	22,500/33,750	15**
OPEN BOTTOM W/ 2 MOUSEHOLES	PD3048BB24	286 (130 kg.)	24" (610 mm)	21" (533 mm)	22,500/33,750	15**
	PD3048BB48	614 (278.5 kg.)	48" (1219 mm)	45" (1143 mm)	22,500/33,750	15**

*** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.*

TOP EXTENSIONS *(FOR USE UNDER 18" DEEP PG STYLE BOX ONLY, ONE PER BOX)*

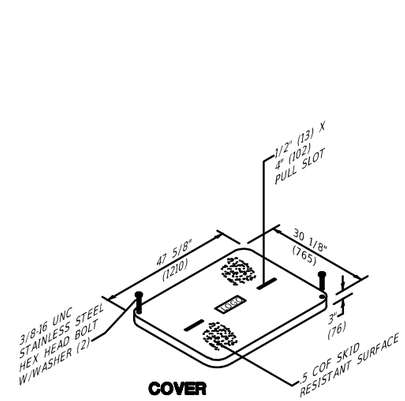
DESCRIPTION	PART NO.	WEIGHT #	DIMENSION E	DIMENSION F	DESIGN/TEST LOAD #	ANSI TIER
OPEN BOTTOM	PG3048EA08	102 (46.3 kg.)	8 3/4" (222 mm)	1" (25 mm)	22,500/33,750	15**
SOLID BOTTOM	PG3048RA08	151 (58.0 kg.)	9 1/4" (235 mm)	N/A	22,500/33,750	15**

** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.*
DIMENSIONS AND WEIGHTS IN PARENTHESES ARE METRIC EQUIVALENT.

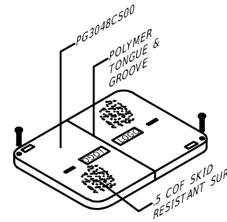
TOP EXTENSIONS *(FOR USE ON TOP OF PG AND PD BOXES OF ANY DEPTH)*

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER
OPEN BOTTOM	PG3048EA11	100 (45.4 kg.)	22,500/33,750	15**

** IN ADDITION, THIS EXTENSION CAN BE USED AS A BOTTOM EXTENSION FOR 18" DEEP PG BOXES.*
*** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.*

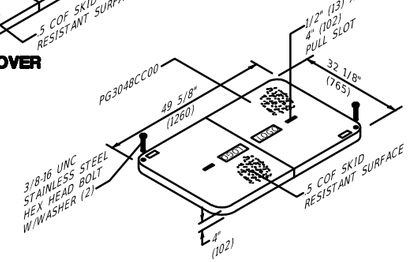


COVER

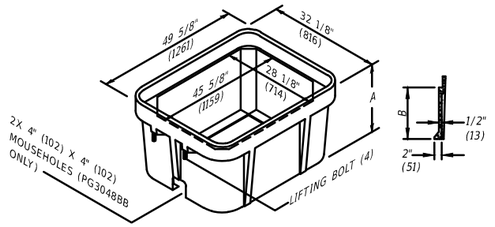


2 PIECE COVER

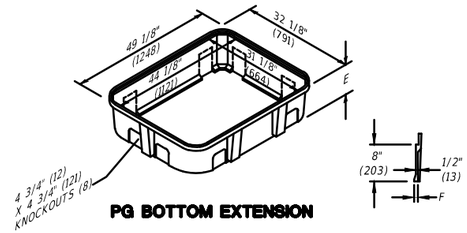

OVERLAPPING COVER



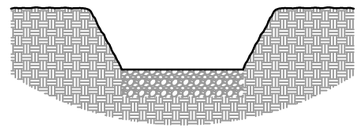
OVERLAPING COVER



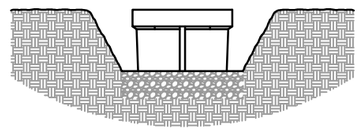
PG BOX



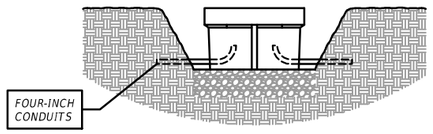
PG BOTTOM EXTENSION



STEP 1. PREPARE THE EXCAVATION APPROXIMATELY 6 INCHES DEEPER THAN THE DEPTH OF THE BOX. THEN ADD 6 TO 8 INCHES OF GRAVEL OR CRUSHED ROCK FOR DRAINAGE.



STEP 2. PLACE BOX IN HOLE WITH TOP AT GRADE LEVEL



STEP 3. FILL AND COMPACT SOIL TO GRADE LEVEL WITH COVER IN BOX.

STEP 4. IF GRADE LEVEL IS RAISED LATER (THRU LANDSCAPING, ETC.) A STRAIGHT SIDED BOX CAN BE PULLED UP AND BRICKED AT THE BOTTOM ON ONE OR FOUR SIDES TO CONFORM TO THE LANDSCAPE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

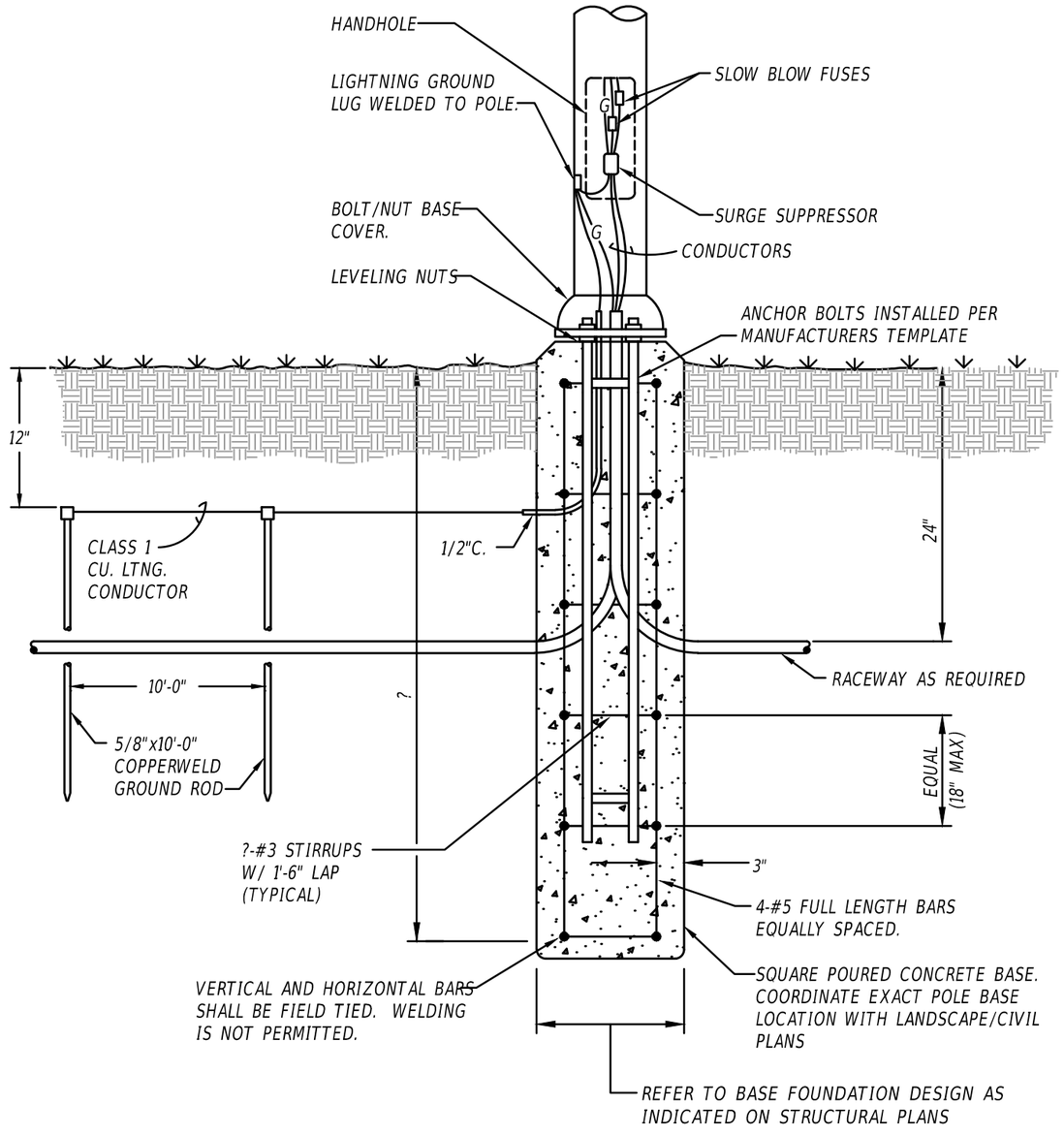
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

DETAILS - ELECTRICAL

SHEET NO. AE1-710

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1 POLE BASE DETAIL - FIXTURE TYPES "SL2", SL3" & "SL4"

No Scale

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

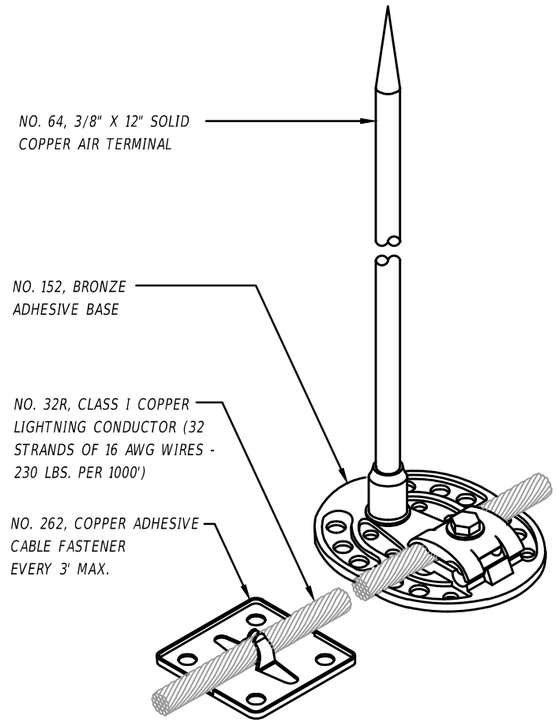
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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

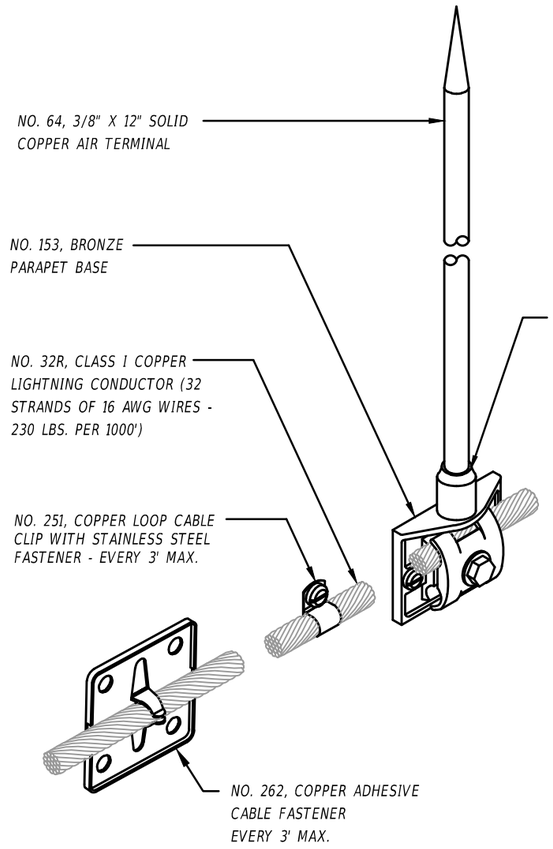
DETAILS - ELECTRICAL

SHEET NO.
AE1-711

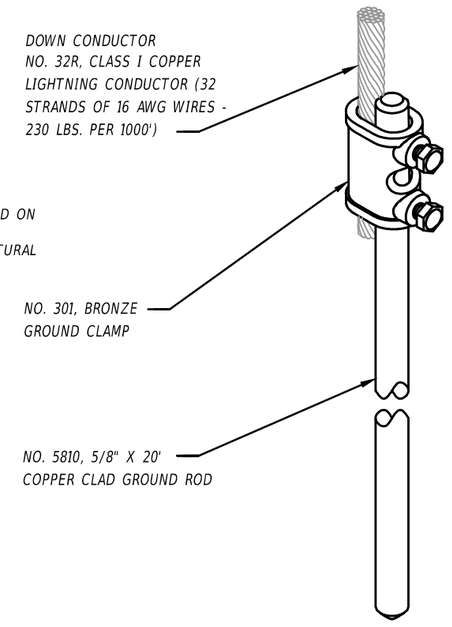
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1 LIGHTNING PROTECTION-AIR TERMINAL "A"
No Scale



2 LIGHTNING PROTECTION-AIR TERMINAL "B"
No Scale



3 LIGHTNING PROTECTION-GROUND ROD
No Scale

REVISIONS			
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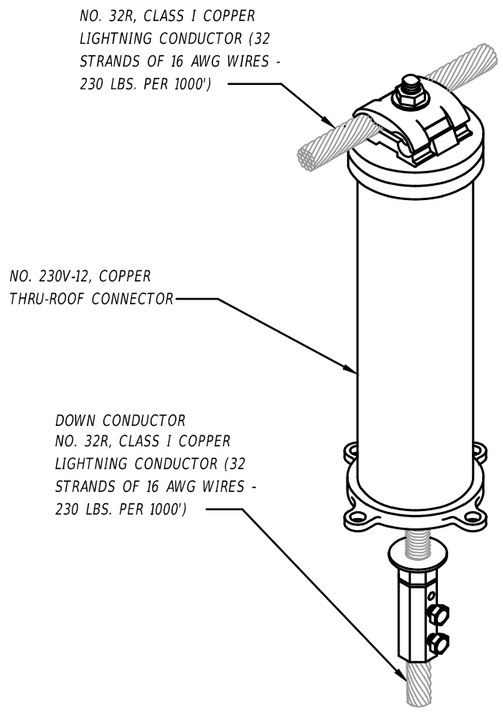
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY OPERATIONS BUILDING

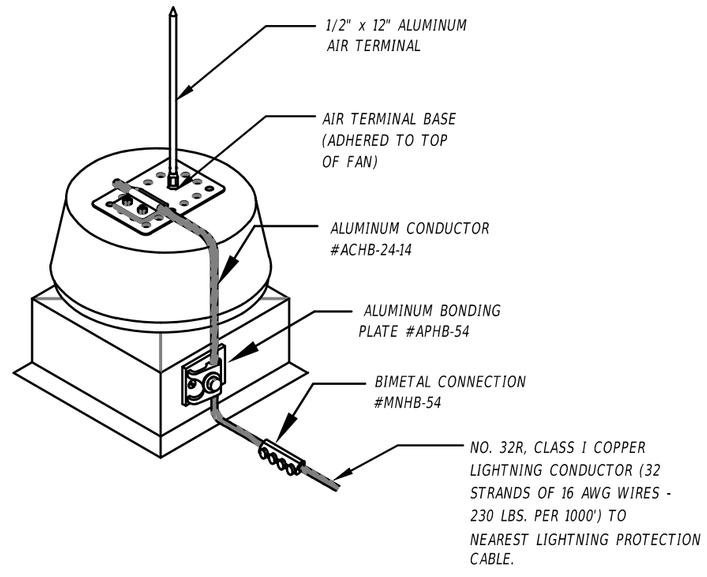
DETAILS - ELECTRICAL

SHEET NO.
AE1-712

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1 LIGHTNING PROTECTION - THRU-ROOF
No Scale



2 LIGHTNING PROTECTION - EXHAUST FAN AIR TERMINAL
No Scale

REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY OPERATIONS BUILDING

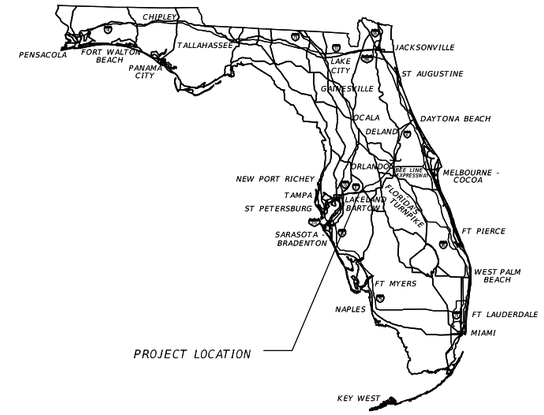
DETAILS - ELECTRICAL

SHEET NO.
AE1-713

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
CONTRACT PLANS

FINANCIAL PROJECT ID 437300-1-52-01
FINANCIAL PROJECT ID 437300-2-52-01
_POLK_COUNTY (16470)
SUNTRAX TEST FACILITY
STORAGE BUILDING



INDEX OF STORAGE BUILDING PLANS

SHEET NO. SHEET DESCRIPTION

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AA2-003	SIGNATURE SHEET 2 OF 2
AA2-004	MATERIALS SYMBOLS & ABBREVIATIONS
AA2-005	SYMBOL LEGEND & GENERAL NOTES
AA2-006	RESTROOM ACCESSIBILITY DETAILS
AA2-007	PARTITION NOTES
AA2-008	PARTITION DETAILS
AA2-009	SHEET WATERPROOFING DETAILS
AA2-100	ARCHITECTURAL SITE PLAN
AA2-101.1	LIFE SAFETY PLAN
AA2-101	OVERALL FLOOR PLAN
AA2-102	ENLARGED FLOOR PLAN
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AS2-004	GENERAL NOTES
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AS2-500	FOUNDATION & SLAB DETAILS
AS2-501	FOUNDATION & SLAB DETAILS
AS2-502	MASONRY DETAILS
AS2-510	FRAMING DETAILS
AS2-511	FRAMING DETAILS
AS2-512	FRAMING DETAILS

MECHANICAL

AM2-001	SYMBOL LEGEND - MECHANICAL
AM2-002	ABBREVIATIONS & GENERAL NOTES - MECHANICAL
AM2-200	OVERALL FLOOR PLAN - MECHANICAL
AM2-201	PARTIAL FLOOR PLAN - MECHANICAL
AM2-202	PARTIAL FLOOR PLAN - MECHANICAL
AM2-203	PARTIAL FLOOR PLAN - MECHANICAL
AM2-204	PARTIAL FLOOR PLAN - MECHANICAL
AM2-205	OVERALL ROOF PLAN - MECHANICAL
AM2-301	SCHEDULES - MECHANICAL
AM2-302	SCHEDULES - MECHANICAL
AM2-303	SCHEDULES - MECHANICAL
AM2-401	DETAILS - MECHANICAL
AM2-402	DETAILS - MECHANICAL
AM2-403	DETAILS - MECHANICAL
AM2-404	DETAILS - MECHANICAL
AM2-405	DETAILS - MECHANICAL
AM2-406	DETAILS - MECHANICAL
AM2-407	DETAILS - MECHANICAL
AM2-501	CONTROLS - MECHANICAL
AM2-502	CONTROLS - MECHANICAL
AM2-503	CONTROLS - MECHANICAL
AM2-504	CONTROLS - MECHANICAL

PLUMBING

AP2-001	SYMBOL LEGEND & GENERAL NOTES - PLUMBING
AP2-200	OVERALL FLOOR PLAN - PLUMBING
AP2-201	PARTIAL FLOOR PLAN - PLUMBING
AP2-202	PARTIAL FLOOR PLAN - PLUMBING
AP2-203	PARTIAL FLOOR PLAN - PLUMBING
AP2-204	PARTIAL FLOOR PLAN - PLUMBING
AP2-301	SANITARY RISER DIAGRAM - PLUMBING
AP2-302	DOMESTIC WATER RISER DIAGRAM - PLUMBING
AP2-401	SCHEDULE - PLUMBING
AP2-501	DETAILS - PLUMBING

ELECTRICAL

AE2-001	SYMBOL LEGEND - ELECTRICAL
AE2-002	SYMBOL LEGEND- ELECTRICAL
AE2-003	GENERAL NOTES- ELECTRICAL
AE2-200	OVERALL FLOOR PLAN - POWER
AE2-201	PARTIAL FLOOR PLAN - POWER
AE2-202	PARTIAL FLOOR PLAN - POWER
AE2-203	PARTIAL FLOOR PLAN - POWER
AE2-204	PARTIAL FLOOR PLAN - POWER
AE2-205	OVERALL ROOF PLAN - POWER
AE2-206	OVERALL ROOF PLAN - LIGHTNING PROTEC.
AE2-207	SECTION VIEWS - ELECTRICAL
AE2-300	OVERALL FLOOR PLAN - SYSTEMS
AE2-301	PARTIAL FLOOR PLAN - SYSTEMS
AE2-302	PARTIAL FLOOR PLAN - SYSTEMS
AE2-303	PARTIAL FLOOR PLAN - SYSTEMS
AE2-304	PARTIAL FLOOR PLAN - SYSTEMS
AE2-305	OVERALL ROOF PLAN - SYSTEMS
AE2-400	OVERALL FLOOR PLAN - LIGHTING
AE2-401	PARTIAL FLOOR PLAN - LIGHTING
AE2-402	PARTIAL FLOOR PLAN - LIGHTING
AE2-403	PARTIAL FLOOR PLAN - LIGHTING
AE2-404	PARTIAL FLOOR PLAN - LIGHTING
AE2-405	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-406	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-407	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-408	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-409	CALCULATIONS - PHOTOMETRICS
AE2-410	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-411	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-412	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-413	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-414	CALCULATIONS - PHOTOMETRICS - EMERGENCY
AE2-501	POWER RISER DIAGRAM
AE2-502	TELECOMM. SYSTEM RISER DIAGRAM
AE2-503	FIRE ALARM SYSTEM RISER DIAGRAM
AE2-504	ACCESS CONTROL RISER DIAGRAM
AE2-505	CCTV ONE-LINE DIAGRAM
AE2-601	SCHEDULES ELECTRICAL
AE2-602	SCHEDULES ELECTRICAL
AE2-603	SCHEDULES ELECTRICAL
AE2-604	SCHEDULES ELECTRICAL
AE2-605	SCHEDULES ELECTRICAL
AE2-606	SCHEDULES ELECTRICAL
AE2-607	SCHEDULES ELECTRICAL
AE2-608	ACCESS CONTROL SCHEDULE
AE2-609	CCTV MATRIX SCEDULE
AE2-701	DETAILS ELECTRICAL
AE2-702	DETAILS ELECTRICAL
AE2-703	DETAILS ELECTRICAL
AE2-704	DETAILS ELECTRICAL
AE2-705	DETAILS ELECTRICAL
AE2-706	DETAILS ELECTRICAL
AE2-707	DETAILS ELECTRICAL
AE2-708	DETAILS ELECTRICAL
AE2-709	DETAILS ELECTRICAL
AE2-710	DETAILS ELECTRICAL
AE2-711	DETAILS ELECTRICAL
AE2-712	DETAILS ELECTRICAL

REVISIONS

KEY SHEET REVISIONS	
DATE	DESCRIPTION

ARCHITECTURAL PLANS
ARCHITECT OF RECORD
GARY KRANSTON, RA NO 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
T. 407 331 6116
F. 407 331 4566
WWW.BAEONLINE.COM
VENDOR NO. 59-3045321
BPE CA NO. 5898
BPA & ID CA NO. AAC002023
CONSULTANT CONTRACT NO. C-9L54

FDOT PROJECT MANAGER
PATRICK M. MUENCH

GEC PROJECT MANAGER
JOSH PEDERSEN, P.E.

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
E8Q39	17	AA2-001

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

GARY KRANSTON LICENSE No. 11541 STATE OF FLORIDA REGISTERED ARCHITECT

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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Gary L Kranston

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DN: 0.9.2342.19200300.100.1.1=AG39600000001542F999D3000066CE, CN=Gary L Kranston, OU=Bentley Architects and Engineers, O=IdenTrust ACES Business Representative, C=US
Date: 2016.12.06 14:58:19-05'00'

BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
CERTIFICATE OF AUTHORIZATION AAC002023
GARY KRANSTON, R.A. 11541

THE ABOVE NAMED REGISTERED ARCHITECT SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G1-16.005, F.A.C.

SHEET NO. SHEET TITLE

GENERAL SHEETS

AA2-002 SIGNATURE SHEET 1 OF 2
AA2-003 SIGNATURE SHEET 2 OF 2

ARCHITECTURAL BUILDING SHEETS

AA2-001 KEY SHEET / INDEX OF DRAWINGS
AA2-004 MATERIALS SYMBOLS & ABBREVIATIONS
AA2-005 SYMBOL LEGEND & GENERAL NOTES
AA2-006 RESTROOM ACCESSIBILITY DETAILS
AA2-007 PARTITION NOTES
AA2-008 PARTITION DETAILS
AA2-009 SHEET WATERPROOFING DETAILS
AA2-100 ARCHITECTURAL SITE PLAN
AA2-100.1 LIFE SAFETY PLAN
AA2-101 OVERALL FLOOR PLAN
AA2-102 ENLARGED FLOOR PLAN
AA2-103 ENLARGED FLOOR PLAN
AA2-104 ENLARGED FLOOR PLAN
AA2-105 REFLECTED CEILING PLAN
AA2-106 ENLARGED RCP
AA2-107 ENLARGED RCP
AA2-108 ENLARGED RCP
AA2-109 ROOF PLAN
AA2-110 INTERIOR FINISH PLAN
AA2-111 INTERIOR PATTERN PLAN
AA2-201 SOUTH ELEVATION
AA2-202 EAST ELEVATION
AA2-203 NORTH ELEVATION
AA2-204 WEST ELEVATION
AA2-301 BUILDING SECTION
AA2-302 BUILDING SECTION
AA2-303 BUILDING SECTION
AA2-304 WALL SECTIONS
AA2-305 WALL SECTIONS
AA2-401 ENLARG. RESTROOM PLAN & ELEVATIONS
AA2-500 ROOF HATCH / LADDER DETAILS
AA2-501 ROOF DETAILS
AA2-502 DOOR DETAILS
AA2-503 WINDOW DETAILS
AA2-504 CANOPY DETAILS
AA2-505 CANOPY DETAILS
AA2-506 RIBBED METAL PANEL DETAILS
AA2-507 MCM PANEL DETAILS
AA2-601 FINISH SCHEDULE & MATERIALS
AA2-602 DOOR SCHEDULE & TYPES
AA2-603 WINDOW SCHEDULE & TYPES
AA2-604 SIGNAGE STANDARDS
AA2-901 PERSPECTIVE VIEW

JENNIFER RAMSKI LICENSE No. 0000023 STATE OF FLORIDA REGISTERED INTERIOR DESIGNER

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STATE OF FLORIDA JENNIFER E. RAMSKI ID0000023 ... LICENSED INTERIOR DESIGNER

Jennifer E Ramski 2016.12.05 14:58:45 -05'00'

RAMSKI & COMPANY, INC.
500 DELANY AVE, SUITE 301
ORLANDO, FL 32801
CERTIFICATE OF AUTHORIZATION. #IL
JENNIFER RAMSKI, FL ID #0000023

THE ABOVE NAMED REGISTERED INTERIOR DESIGNER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G1-16.005, F.A.C.

SHEET NO. SHEET TITLE

GENERAL SHEETS

AA2-002 SIGNATURE SHEET 1 OF 2

INTERIORS SHEET

AA2-112 FURNITURE PLAN

BRENTON D. DAILY LICENSE No. 81028 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Brenton Daily

Digitally signed by Brenton Daily
DN: 0.9.2342.19200300.100.1.1=AG39600000001542D7E0C1CA2000A2C46, CN=Brenton Daily, O=Bentley Architects and Engineers, OU=IdenTrust ACES Business Representative, C=US
Date: 2016.12.06 10:11:49-05'00'

BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVE., SUITE 200
LONGWOOD, FL 32750
CERTIFICATE OF AUTHORIZATION. 5898
BRENTON D. DAILY, P.E. 81028

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

SHEET NO. SHEET TITLE

GENERAL SHEETS

AA2-002 SIGNATURE SHEET 1 OF 2

STRUCTURAL SHEETS

AS2-001 GENERAL NOTES
AS2-002 GENERAL NOTES
AS2-003 GENERAL NOTES
AS2-004 GENERAL NOTES
AS2-005 GENERAL NOTES
AS2-100 OVERALL FOUNDATION PLAN
AS2-101 ENLARGED FOUNDATION PLAN
AS2-102 ENLARGED FOUNDATION PLAN
AS2-103 ENLARGED FOUNDATION PLAN
AS2-105 OVERALL SLAB PLAN
AS2-106 ENLARGED SLAB PLAN
AS2-107 ENLARGED SLAB PLAN
AS2-108 ENLARGED SLAB PLAN
AS2-110 OVERALL LOWER ROOF PLAN
AS2-111 ENLARGED LOWER ROOF PLAN
AS2-112 ENLARGED CANOPY PLAN
AS2-120 OVERALL UPPER ROOF PLAN
AS2-121 ENLARGED ROOF PLAN
AS2-122 ENLARGED ROOF PLAN
AS2-200 WALL ELEVATION
AS2-201 WALL ELEVATION
AS2-202 WALL ELEVATION
AS2-203 WALL ELEVATION
AS2-204 WALL ELEVATIONS
AS2-300 FOUNDATION SECTIONS
AS2-310 LOWER ROOF SECTIONS
AS2-311 LOWER ROOF SECTIONS
AS2-312 CANOPY SECTIONS
AS2-313 CANOPY SECTIONS
AS2-320 UPPER ROOF SECTIONS
AS2-321 UPPER ROOF SECTIONS
AS2-322 UPPER ROOF SECTIONS
AS2-323 UPPER ROOF SECTIONS
AS2-500 FOUNDATION & SLAB DETAILS
AS2-501 FOUNDATION & SLAB DETAILS
AS2-502 MASONRY DETAILS
AS2-510 FRAMING DETAILS
AS2-511 FRAMING DETAILS
AS2-512 FRAMING DETAILS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

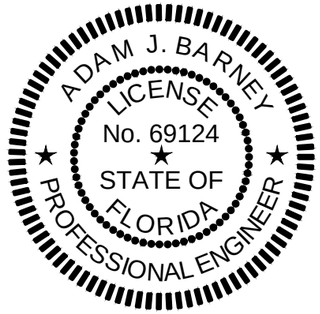
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SIGNATURE SHEET 1 OF 2

SHEET NO. AA2-002



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Adam Barney
2016-12-06 14:36:00 -05:00

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JOSEPH, LAWRENCE AND CO
1180 HARWOOD AVE., SUITE 3000
ALTAMONTE SPRINGS, FL 32714
CERTIFICATE OF AUTHORIZATION. 28730
ADAM J. BARNEY, P.E. 69124

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET TITLE
GENERAL SHEETS	
AA2-003	SIGNATURE SHEET 2 OF 2
MECHANICAL	
AM2-001	SYMBOL LEGEND - MECHANICAL
AM2-002	ABBREVIATIONS & GENERAL NOTES - MECHANICAL
AM2-200	OVERALL FLOOR PLAN - MECHANICAL
AM2-201	PARTIAL FLOOR PLAN - MECHANICAL
AM2-202	PARTIAL FLOOR PLAN - MECHANICAL
AM2-203	PARTIAL FLOOR PLAN - MECHANICAL
AM2-204	PARTIAL FLOOR PLAN - MECHANICAL
AM2-205	OVERALL ROOF PLAN - MECHANICAL
AM2-301	SCHEDULES - MECHANICAL
AM2-302	SCHEDULES - MECHANICAL
AM2-303	SCHEDULES - MECHANICAL
AM2-401	DETAILS - MECHANICAL
AM2-402	DETAILS - MECHANICAL
AM2-403	DETAILS - MECHANICAL
AM2-404	DETAILS - MECHANICAL
AM2-405	DETAILS - MECHANICAL
AM2-406	DETAILS - MECHANICAL
AM2-407	DETAILS - MECHANICAL
AM2-501	CONTROLS - MECHANICAL
AM2-502	CONTROLS - MECHANICAL
AM2-503	CONTROLS - MECHANICAL
AM2-504	CONTROLS - MECHANICAL
PLUMBING	
AP2-001	SYMBOL LEGEND & GENERAL NOTES - PLUMBING
AP2-200	OVERALL FLOOR PLAN - PLUMBING
AP2-201	PARTIAL FLOOR PLAN - PLUMBING
AP2-202	PARTIAL FLOOR PLAN - PLUMBING
AP2-203	PARTIAL FLOOR PLAN - PLUMBING
AP2-204	PARTIAL FLOOR PLAN - PLUMBING
AP2-301	SANITARY RISER DIAGRAM - PLUMBING
AP2-302	DOMESTIC WATER RISER DIAGRAM - PLUMBING
AP2-401	SCHEDULE - PLUMBING
AP2-501	DETAILS - PLUMBING



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Blake Suddeth
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ALTAMONTE SPRINGS, FL 32714
CERTIFICATE OF AUTHORIZATION. 28730
BLAKE LAWRENCE SUDDETH, P.E. 69060

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH THE RULE 61G15-23.004, F.A.C.

SHEET NO.	SHEET TITLE
GENERAL SHEETS	
AA2-003	SIGNATURE SHEET 2 OF 2
ELECTRICAL	
AE2-001	SYMBOL LEGEND - ELECTRICAL
AE2-002	SYMBOL LEGEND- ELECTRICAL
AE2-003	GENERAL NOTES- ELECTRICAL
AE2-200	OVERALL FLOOR PLAN - POWER
AE2-201	PARTIAL FLOOR PLAN - POWER
AE2-202	PARTIAL FLOOR PLAN - POWER
AE2-203	PARTIAL FLOOR PLAN - POWER
AE2-204	PARTIAL FLOOR PLAN - POWER
AE2-205	OVERALL ROOF PLAN - POWER
AE2-206	OVERALL ROOF PLAN - LIGHTNING PROTEC.
AE2-207	SECTION VIEWS - ELECTRICAL
AE2-300	OVERALL FLOOR PLAN - SYSTEMS
AE2-301	PARTIAL FLOOR PLAN - SYSTEMS
AE2-302	PARTIAL FLOOR PLAN - SYSTEMS
AE2-303	PARTIAL FLOOR PLAN - SYSTEMS
AE2-304	PARTIAL FLOOR PLAN - SYSTEMS
AE2-305	OVERALL ROOF PLAN - SYSTEMS
AE2-400	OVERALL FLOOR PLAN - LIGHTING
AE2-401	PARTIAL FLOOR PLAN - LIGHTING
AE2-402	PARTIAL FLOOR PLAN - LIGHTING
AE2-403	PARTIAL FLOOR PLAN - LIGHTING
AE2-404	PARTIAL FLOOR PLAN - LIGHTING
AE2-405	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-406	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-407	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-408	PARTIAL FLOOR PLAN - PHOTOMETRICS
AE2-409	CALCULATIONS - PHOTOMETRICS
AE2-410	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-411	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-412	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-413	PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY
AE2-414	CALCULATIONS - PHOTOMETRICS - EMERGENCY
AE2-501	POWER RISER DIAGRAM
AE2-502	TELECOMM. SYSTEM RISER DIAGRAM
AE2-503	FIRE ALARM SYSTEM RISER DIAGRAM
AE2-504	ACCESS CONTROL RISER DIAGRAM
AE2-505	CCTV ONE-LINE DIAGRAM
AE2-601	SCHEDULES ELECTRICAL
AE2-602	SCHEDULES ELECTRICAL
AE2-603	SCHEDULES ELECTRICAL
AE2-604	SCHEDULES ELECTRICAL
AE2-605	SCHEDULES ELECTRICAL
AE2-606	SCHEDULES ELECTRICAL
AE2-607	SCHEDULES ELECTRICAL
AE2-608	ACCESS CONTROL SCHEDULE
AE2-609	CCTV MATRIX SCHEDULE
AE2-701	DETAILS ELECTRICAL
AE2-702	DETAILS ELECTRICAL
AE2-703	DETAILS ELECTRICAL
AE2-704	DETAILS ELECTRICAL
AE2-705	DETAILS ELECTRICAL
AE2-706	DETAILS ELECTRICAL
AE2-707	DETAILS ELECTRICAL
AE2-708	DETAILS ELECTRICAL
AE2-709	DETAILS ELECTRICAL
AE2-710	DETAILS ELECTRICAL
AE2-711	DETAILS ELECTRICAL
AE2-712	DETAILS ELECTRICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SIGNATURE SHEET 2 OF 2

SHEET NO.
AA2-003

ABBREVIATIONS:

A	
A.A.R.	AUTOMATIC AIR RELEASE
A.R.V.	ABANDONED ROOF VENT
A/C	AIR-CONDITIONING UNIT
ACOUS.	ACOUSTIC
ADJ.	ADJUSTABLE
A.F.F.	ABOVE FINISH FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
ANT.	ANTENNA
ARCHT.	ARCHITECTURAL
B	
BD.	BOARD
B.U.R.	BUILT-UP ROOFING
BLDG.	BUILDING
BLKG.	BLOCKING
BM.	BEAM
BOT.	BOTTOM
BRKT.	BRACKET
C	
C.C.	CENTER TO CENTER
C.F.	COUNTERFLASHING
C.I.	CAST IRON
CAP.	CAPACITY
CEM.	CEMENT
CHKD.	CHECKERED
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CTSK.	COUNTERSINK
CU.	COPPER
D	
D.F.	DRINKING FOUNTAIN
D.L.	DEAD LOAD
D.S.	DOWNSPOUT
DET.	DETAIL
DFR.	DEFLECTOR
DIA.	DIAMETER
DIM.	DIMENSION
DWG.	DRAWING
E	
E.A.	EACH
E.C.	ELECTRICAL CONDUIT
E.F.	EXHAUST FAN
E.J.	EXPANSION JOINT
ELEV.	ELEVATION
EWC.	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXP.	EXPANSION
EXT.	EXTERIOR
F	
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.O.	FRAMED OPENING
F.S.	FLUE STACK
FIN. FL.	FINISH FLOOR
FTG.	FOOTING
G	
G.I.	GALVANIZED IRON
G.S.	GRAVEL STOP
GA.	GAUGE
GALV.	GALVANIZED
GL	GLASS
GTR.	GUTTER
G.W.B.	GYPSUM WALL BOARD
H	
H.B.	HOSE BIB
H.M.	HOLLOW METAL
H.P.	HIGH POINT
HD.	HEAD
HGT.	HEIGHT
L	
L.G.	LONG
L.L.	LIVE LOAD
L.P.	LOW POINT
LAB.	LABELED
LAV.	LAVATORY
LBS.	POUNDS
M	
M.B.	MODIFIED BITUMEN
M.O.	MASONRY OPENING
M.T.	METAL THRESHOLD
MAR.	MARBLE
MAR.T.	MARBLE THRESHOLD
MIN.	MINIMUM
N	
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
O	
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.S.	OVERFLOW SCUPPER
OBS.	OBSCURE
OPNG.	OPENING
P	
PART.	PARTITION
PLBG.	PLUMBING
P.I.T.	PITCH PAN
P.J.	PANEL JOINT
PL.	PLATE
PLAS.	PLASTER
PNLS.	PANELS
P.P.	PIPE PENETRATION
PRELIM.	PRELIMINARY
PT.	POINT
R	
R.	RISER
R.D.	ROOF DRAIN
R.H.	ROOF HATCH
R.V.	ROOF VENT
R.W.L.	RAIN WATER LEADER
RAD.	RADIUS
REINF.	REINFORCING
REQ.	REQUIRED
RM.	ROOM
S	
S.B.	SPLASH BLOCK
S.F.	SUPPLY FAN
S.O.	SPILL-OUT
S.S.	STAINLESS STEEL
SH.	SHOWER
SECT.	SECTION
SHT.	SHEET
SKY.	SKYLIGHT
SL.	SLOPE
SP.LT.	SPOT LIGHT
SQ.	SQUARE
STD.	STANDARD
STL.	STEEL
T	
T&G	TONGUE & GROOVE
T.	TREAD
T.C.	TIN CLAD
T.E.C.	TOLL EQUIPMENT CONTRACTOR
T.O.S.	TOP OF STEEL
TRANS.	TRANSOM
TYP.	TYPICAL
V	
V.	VINYL
V.I.F.	VERIFY IN FIELD
V.T.R.	VENT THRU ROOF
VERT.	VERTICAL
VEST.	VESTIBULE
W	
W.S.	WORKING SCUPPER
WD.	WOOD
WDW.	WINDOW

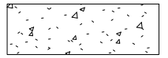
MATERIAL SYMBOLS:

EARTHWORK



EARTH/COMPACT FILL

CONCRETE



CONCRETE

MASONRY

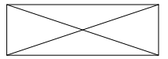


CONCRETE MASONRY

WOOD



FINISH

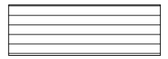


ROUGH



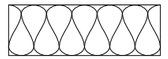
BLOCKING

GLASS

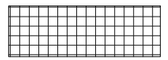


GLASS

INSULATION

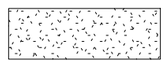


BATT/LOOSE FILL



COMPOSITE RIGID

FINISHES



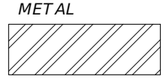
GYPSUM WALLBOARD

PLYWOOD



PLYWOOD

METAL



STEEL/OTHER METALS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

MATERIAL SYMBOLS & ABBREVIATIONS

SHEET NO.
AA2-004

SYMBOL KEY:

101	DOOR SYMBOL	NUMBERED BY TYPE REFER TO SCHEDULE	XX	ACCESSORY TAG	XX — LOCATION OF NOTE APPLICATION; NOTE NUMBER	1 Ref / A101	ELEVATION REFERENCES	1 Ref — DIRECTION OF VIEW; A101 — SHEET NUMBER	
1t	WINDOW SYMBOL	NUMBERED BY TYPE REFER TO SCHEDULE		DETAIL REFERENCES	XX — DETAIL AREA; SHEET NUMBER	1 SIM / A102	SECTION REFERENCES	DIRECTION OF VIEW; 1 SIM; A102 — SHEET NUMBER	
W4 / aB	WALL TAG	W4 / aB — WALL TYPE	X X X X	INTERIOR ELEVATIONS	VIEW NUMBER; DIRECTION OF VIEW; SHEET NUMBER	XX	NOTE TAG	XX — LOCATION OF NOTE APPLICATION; NOTE NUMBER	
0	GRID LINE TARGET	A,B,C, ETC. IN ONE DIRECTION 1,2,3, ETC. IN THE OTHER		LEVEL REFERENCE	Name / Elevation	XX	LEVEL CHANGE	XX — CHANGE IN LEVEL	
Room Name / 101	ROOM TAG	Room Name / 101 — ROOM NUMBER	6:12	ROOF SLOPE ARROW	SLOPE; SLOPE DIRECTION	1	REVISION MARK	1 — REV. LOCATION; REV. NUMBER	
XX	TITLE	1 View Name — DRAWING NUMBER; 1/8" = 1'-0" — SCALE							

GENERAL NOTES:

1. WORK SHALL COMPLY WITH APPLICABLE CODES INCLUDING LOCAL CODES AND MODIFICATIONS, AND THE 2014 FLORIDA BUILDING CODE WITH EDITS AND AMENDMENTS.

2. MEASUREMENTS DERIVED BY THE GENERAL CONTRACTOR BY MANUALLY SCALING THE DRAWINGS IS NOT AN ACCEPTABLE MEANS OF DETERMINING MEASUREMENTS. ALL MEASUREMENTS ARE TO BE DERIVED USING THE PRINTED DIMENSIONS. WHERE PRINTED DIMENSIONS ARE INSUFFICIENT OR IN CONFLICT, THE GENERAL CONTRACTOR MUST REQUEST CLARIFICATION OF THE DIMENSIONS IN QUESTION TO THE ARCHITECT.

3. FIELD VERIFY THE ACCURACY OF ALL DIMENSIONS WITH FIELD LAYOUT PRIOR TO PROCEEDING WITH THE WORK. IF NECESSARY, REQUEST CLARIFICATION PRIOR TO PROCEEDING WITH INSTALLATION. WHERE THE DRAWINGS SPECIFICALLY INDICATE DIMENSIONS TO BE FIELD VERIFIED, DO SO PRIOR TO INSTALLATION OF THE WORK AND COORDINATE IF REQUIRED WITH THE ARCHITECT.

4. WHERE ENLARGED PLANS ARE REFERENCED, ADDITIONAL DIMENSIONAL INFORMATION AND DETAIL INFORMATION ARE PROVIDED IN THE ENLARGED PLANS. NOTIFY THE ARCHITECT OF ANY CONFLICTS FOR CLARIFICATION PRIOR TO PROCEEDING WITH THE WORK.

5. INSTALLATION OF ALL ITEMS, IN ADDITION TO COMPLYING WITH THE APPLICABLE CODES AND ACCEPTED TRADE PRACTICES AND STANDARDS, MUST BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS TO INSURE FULL WARRANTY AND OPERATIONAL FUNCTION.

6. THE GENERAL CONTRACTOR SHALL ISSUE HIS SUBCONTRACTORS COMPLETE SETS OF CONSTRUCTION DOCUMENTS TO INSURE THAT THE ENTIRE SCOPE OF WORK NECESSARY TO COMPLETE THE PROJECT IS BID. THE GENERAL CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR COMPLETING THE ENTIRE SCOPE OF WORK.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE LATEST SET OF DRAWINGS THAT INCLUDES ANY ADDENDUM OR REVISION TO HIS STAFF ON SITE AND HIS SUBCONTRACTOR'S.

8. IF THERE ARE CONFLICTS IN THE CONSTRUCTION DOCUMENTS AFFECTING QUALITY OF WORK, QUANTITY OF WORK OR MATERIAL, SCOPE OF WORK, OR ANY OTHER ASPECT OF THE WORK, THE GENERAL CONTRACTOR MUST NOTIFY THE ARCHITECT FOR CLARIFICATION OF THE CONFLICT DURING THE BID PHASE OF THE PROJECT. ABSENT WRITTEN CLARIFICATION OF THE CONFLICT FROM THE ARCHITECT, THE MOST STRINGENT INTERPRETATION OF THE CONFLICT SHALL APPLY, AND UNDER NO CIRCUMSTANCES WILL THERE BE ADDITIONAL COST TO THE OWNER PURSUANT TO THE ARCHITECTS REVIEW AND INTERPRETATION OF THE CONFLICT.

9. THE TERM "OWNER" OR "DISTRICT" SHALL ALSO MEAN "FTE - FLORIDA TURNPIKE ENTERPRISE".

10. FINISHED FLOOR ELEVATION NOTE: FINISHED FLOOR ELEVATIONS SHOWN ON PLAN ARE WITH RESPECT TO A SPECIAL REFERENCE DATUM ELEVATION. FINISHED FLOOR (F.F.) ELEVATIONS SHOWN ON THE CIVIL SITE PLANS EQUATE TO ELEVATION 0'-0" ON ARCHITECTURAL PLANS AS FOLLOWS:
TOP OF SLAB ELEV. 174.75"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

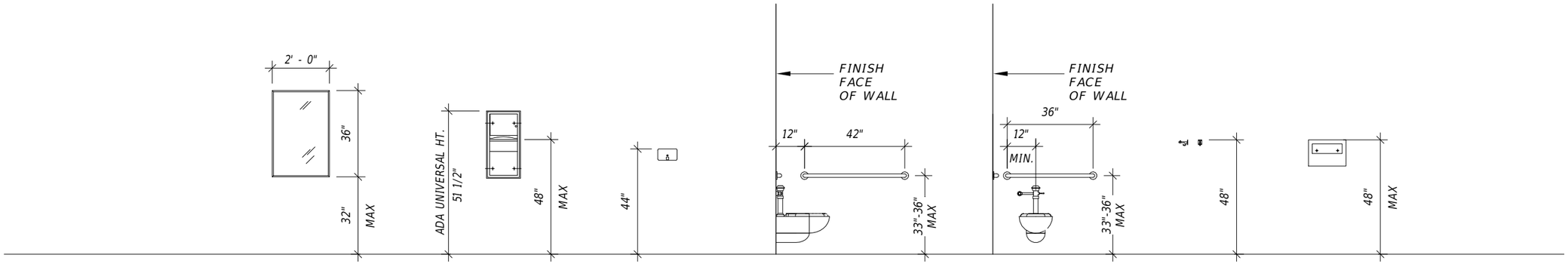
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SYMBOL LEGEND & GENERAL NOTES

SHEET NO.
AA2-005

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 6IGI-16.005, F.A.C.



T-1
MIRROR

T-4
SURFACE-MOUNTED
PAPER TOWEL
DISPENSER

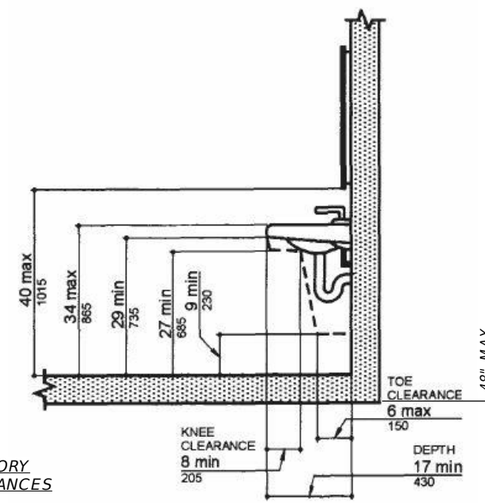
T-5
WALL-MOUNTED
SOAP
DISPENSER

T-10
GRAB BAR 42"

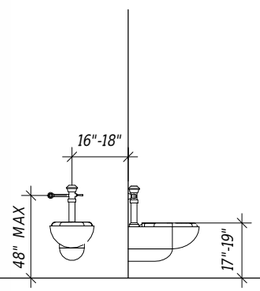
T-11
GRAB BAR 36"

T-12
COAT HOOK WITH
BUMPER

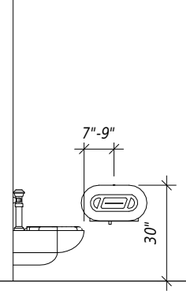
T-13
SURFACE-
MOUNTED
TOILET-SEAT-COVER
DISPENSER



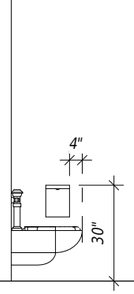
LAVATORY
CLEARANCES



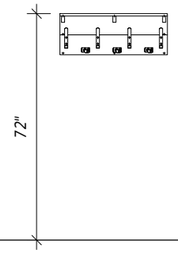
ADA FLUSH VALVE
TOILET CLEARANCES



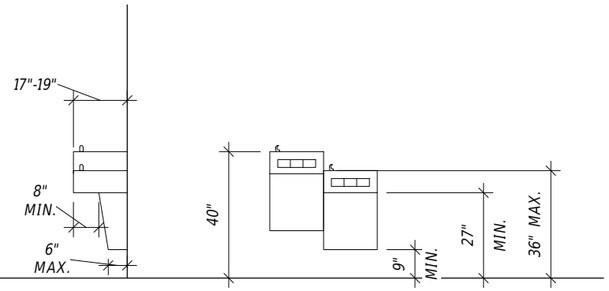
T-14
MULTI-ROLL TOILET TISSUE
DISPENSER



T-15
FEMININE NAPKIN
DISPOSAL



T-30
MOP/BROOM
HOLDERS & RAG
HOOKS



DRINKING FOUNTAIN VERTICAL CLEARANCES

NOTES:

1. REFER TO AA1-007 FOR BLOCKING DETAILS.

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

1 RESTROOM FIXTURE CLEARANCES
1/4" = 1'-0"

REVISIONS				
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

RESTROOM ACCESSIBILITY DETAILS

SHEET NO.
AA2-006

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61GI-16.005, F.A.C.

PARTITION NOTES:

1. GAUGE, SPACING AND BRACING REQUIREMENTS FOR LIGHT GAUGE AND COLD ROLLED METAL FRAMING SYSTEMS TO BE DETERMINED BASED ON STUD SIZE (AS INDICATED ON THE DRAWINGS), HEIGHT OF PARTITIONS, DEFLECTION AND ALL OTHER CRITERIA AS INDICATED.

2. THE THICKNESS OF INSULATION SHALL BE AS FOLLOWS: USE 3 1/2" BATT FOR 4" STUDS, 5 1/2" BATT FOR 6" STUDS, ETC…

3. ALL PARTITIONS TO HAVE 20 GAGE OR HEAVIER STUDS @24" O.C. PARTITIONS INDICATED TO TERMINATE 6" ABOVE CEILING SHALL BE BRACED TO STRUCTURE ABOVE WITH STUDS AT INTERVALS OF 4'-0" O.C. MAXIMUM; ALTERNATING SIDES. AT CORNERS AND INTERSECTIONS AND EACH SIDE OF ALL DOOR AND WINDOW OPENINGS, BRACES TO BE SAME SIZE AND GAUGE AS WALL FRAMING.

4. UNLESS OTHERWISE NOTED, ALL GYPSUM WALLBOARD TO BE 5/8" THICK.

5. UNLESS OTHERWISE NOTED, ALL PARTITIONS SCHEDULED TO RECEIVE TILE FINISH SHALL HAVE CEMENT BOARD (RATHER THAN GYPSUM WALLBOARD).

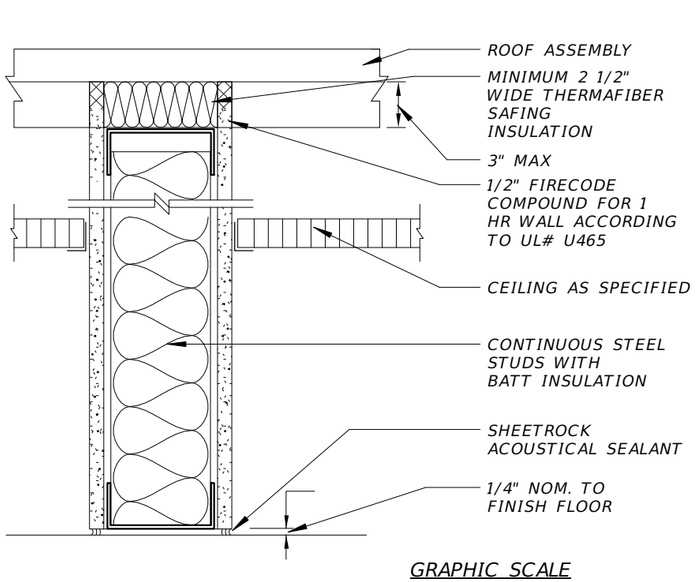
6. FOR PARTITION ASSEMBLIES WITH INSULATION, THE INSULATION SHALL EXTEND THE FULL HEIGHT OF THE PARTITION. AT EXTERIOR WALLS, INSULATION TO EXTEND FULL HEIGHT AND BE SEALED TO THE UNDERSIDE OF ROOF DECK.

7. PARTITION ASSEMBLIES AT RESTROOMS, JANITOR ROOMS, CONFERENCE ROOMS, MECHANICAL/ELECTRICAL ROOMS TO BE FULLY INSULATED WITH SOUND BATT, AND ALL PERIMETER AND OPENING FRAMING JOINTS SEALED WITH ACOUSTIC SEALANT.

8. PROVIDE ALL HARDWARE, FRAMING, BRACING, AND BLOCKING, AND GROUNDS AS REQUIRED FOR INSULATION OF EQUIPMENT TO BE MOUNTED IN OR ON PARTITIONS. COORDINATE REQUIREMENTS FOR THESE ITEMS PRIOR TO APPLYING FINISH SURFACE TO PARTITION ASSEMBLY.

FASTENERS:

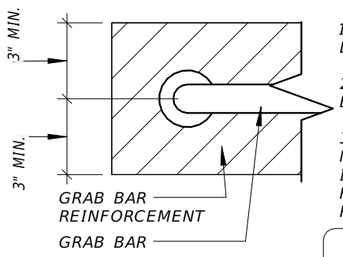
FLOOR RUNNER (TRACK)	POWER ACCUATED FASTENERS @ 24" O.C. MAX. CORNERS, WALL INTERSECTIONS AND END WALL
STUDS	(2) PAN HEAD SCREWS TOP AND BOTTOM AT OPENINGS, CORNERS, WALL INTERSECTIONS AND END OF WALL
CHASE WALLS	HORIZONTAL BRACES (STUD ON RUNNER) AT 4'-0" O.C. VERT. MAX. WITH (2) SCREWS MIN. TO STUD WEB EACH END
FURRING	TEK SCREWS ON ALTERNATING FLANGES AT 24 O.C. MAX AND ENDS
BRACES	BRACES TO TOP TRACK - MIN (3) PAN HEAD SCREWS
(TOP TRACK TO STRUCTURE ABOVE)	BRACES TO STRUCTURE - MIN (3) PANN HEAD SCREWS TO CROSS MEMBER SECURED TO ADJACENT ROOF FRAMING MEMBERS, OR THRU BOLT THROUGH BOTTOM JOIST CHORD



GRAPHIC SCALE
SCALE 3" = 1'-0"
0' 2" 4"

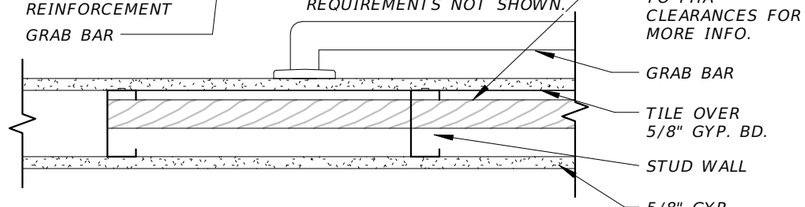
1 1 HR WALL HEAD DETAIL -
3" = 1'-0"

HORIZONTAL INSTALLATION

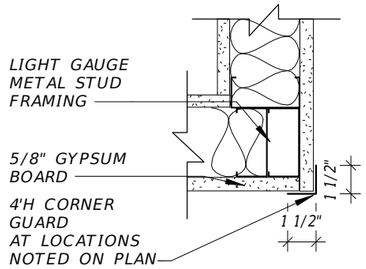


NOTES:

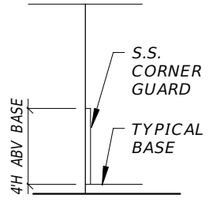
1. HORIZONTAL BLOCKING DIMENSIONS ARE MINIMUM.
2. BLOCKING TO BE FRAMED BETWEEN METAL STUDS.
3. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL BLOCKING REQUIREMENTS NOT SHOWN.



2 BLOCKING FOR GRAB BAR DETAIL
1 1/2" = 1'-0"



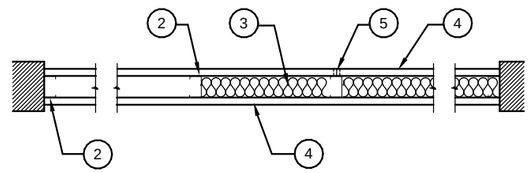
3 CORNER GUARD DETAIL
1 1/2" = 1'-0"



CORNER GUARD ELEVATION
N.T.S.

NOTE: REFER TO SPECIFICATION FOR GAGE AND ATTACHMENT OF CORNER GUARD.

NONBEARING WALL RATING – 1 HR.



1. FLOOR & CEILING RUNNER-(NOT SHOWN)-25 MSG (MIN) GALV STEEL 1 IN. HIGH, RETURN LEGS 3-5/8 IN. WIDE (MIN), ATTACHED TO FLOOR AND CEILING WITH FASTENERS 24 IN. OC.

2. STEEL STUDS- CHANNEL SHAED 3-5/8 IN. WIDE (MIN), 1-1/4 IN. LEGS, 3/8 IN. RETURN, FORMED OF 25 MSG (MIN) GALV STEEL MAX STUD SPACING 24 IN. OC.

3. BATTS AND BLANKETS*-(OPTIONAL)-MINERAL WOOL OR GLASS FIBER BATTS PARTIALLY OR COMPLETELY FILLING STUD CAVITY.

4. WALLBOARD, GYPSUM*-5/8 IN. THICK, 4 FT. WIDE, ATTACHED TO STEEL STUDS AND FLOOR AND CEILING TRACK WITH 1 IN. LONG, TYPE S SELF-TAPPING STEEL SCREWS SPACED 8 IN. O.C. ALONG EDGES OF BOARD AND 12 IN. OC IN THE FIELD OF THE BOARD. JOINTS ORIENTED VERTICALLY AND STAGGERED ON OPPOSITE SIDES OF THE ASSEMBLY. WHEN ATTACHED TO ITEM 6 (FURRING CHANNELS), WALLBOARD IS SCREW ATTACHED TO FURRING CHANNELS WITH 1 IN. LONG, TYPE S STEEL SCREWS SPACED 12 IN. O.C. CANADIAN GYPSUM CO., LTD.- TYPES C, SCX,SHX,WRX. GEORGIA-PACIFIC CORP., GYPSUM DIV.-TYPE GPFS-C PABCO GYPSUM CO.-TYPE PG-C. U.S. GYPSUM CO.-TYPE C, FCV, 1PX2, SCX,SHC,SHX,WRC OR WRX.

5. JOINT TAPE AND COMPOUND-VINYL, DRY OR PREMIXED JOINT COMPOUND, APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS; PAPER TAPE, 2 IN. WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS. AS AN ALTERNATE, NOMINAL 3/32 IN. THICK GYPSUM VENEER PLASTER MAY BE APPLIED TO THE ENTIRE SURFACE OF CLASSIFIED VENEER BASEBOARD. JOINTS REINFORCED
.
6. FURRING CHANNEL-(OPTIONAL-NOT SHOWN)-RESILIENT 24 MSG GALV STEEL FURRING CHANNELS SPACED VERTICALLY MAX 24 IN. OC, FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 IN. LONG TYPE S-12 PAN-HEAD STEEL SCREWS.

*BEARING THE UL CLASSIFICATION MARKING.

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

4 UL ASSEMBLY 465- 1 HR.
3/4" = 1'-0"

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTITION NOTES

SHEET NO. AA2-007

LEGEND:

MASONRY

M8 = 8"X8"X16 REINFORCED MASONRY W/ RECYCLED CONTENT

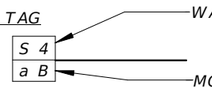
STEEL STUD

S12 = 12" GLAV. METAL STUDS

S6 = 6" GALVANIZED METAL STUDS; REFER TO STRUCTURAL FOR GAUGE

S4 = 3-5/8"; 20 GAUGE METAL STUDS

WALL TAG



MODIFIERS:

a. 5/8" PLYWD (A-SIDE EXPOSED) OVER 5/8" GYPSUM BOARD ON 1-5/8" MTL. STUDS ON 1" RIGID POLYISO. INSULATION (FOIL FACED ON AIR SPACE SIDE) @ INTERIOR; MCM PANEL OVER CMU WALL W/RECYCLED CONTENT; CERAMIC FACED BLOCK UP TO 2'-8" HEIGHT @ EXTERIOR.

b. PAINT (1) LAYER OF GYPSUM BOARD OVER 1-5/8" MTL. STUDS ON 1" RIGID POLYISO. INSULATION (FOIL FACED ON AIR SPACE SIDE) @ INTERIOR; RIBBED METAL PANELS (WET SEAL) OVER CMU WALL W/RECYCLED CONTENT @ EXTERIOR.

c. SIMILAR TO TYPE b AT EXTERIOR W/ CERAMIC TILE UP TO RESTROOM CEILING HEIGHT OVER 1/2" CEMENT BOARD ON S12 (12" STUDS) IN LIEU OF 1 5/8" FURRING @ INTERIOR.

d. 5/8" PLYWD (A-SIDE EXPOSED) OVER 5/8" GYPSUM BOARD ON 1-5/8" MTL. STUDS ON 1" RIGID POLYISO. INSULATION (FOIL FACED ON AIR SPACE SIDE) @ TEC 2 STORAGE SIDE; PAINTED 5/8" GYPSUM BOARD ON 1-5/8" MTL. STUDS @ TRANSPONDER DRIVE THROUGH ROOM INTERIOR SIDE. MCM PANELS ABV ROOF HT.

e. SIMILAR TO TYPE d @ TEC 1 STORAGE SIDE; @ ELECTRICAL ROOM AND YARD STORAGE PROVIDE PAINTED BLOCK; MCM PANELS ABOVE ROOF HT.

f. 5/8" PLYWD (A-SIDE EXPOSED) OVER 5/8" GYPSUM BOARD (BOTH SIDES) OVER 6" MTL. STUD. AT 24" O.C.; PROVIDE TYVEK AIR BARRIER ON TEC 1 & 2 SIDES BEHIND GYPSUM. PROVIDE TYPE X - MR GYP @ JANITOR CLOSET ACCORDING TO UL# U415(1); NO PLYWD.)

g. FTE STORAFE INTERIOR - PAINT 5/8" PLYWD OVER 5/8" GYPSUM BOARD ON 12" STUDS. CERAMIC TILE UP TO RESTROOM CEILING HEIGHT OVER 1/2" CEMENT BOARD AND @ UNISEX RESTROOM SIDE. INSULATE WALL

h. 5/8" GYPSUM (BOTH SIDES) OVER 3/5/8" MTL STUDS @ 16" O.C. ONE HOUR WALL WHERE NOTED: REFER TO AA2-010 FOR UL# U415(1) LAYER OF TYPE X GYPSUM BOARD (BOTH SIDES OF WALL) OVER MTL. STUDS; INSULATE.

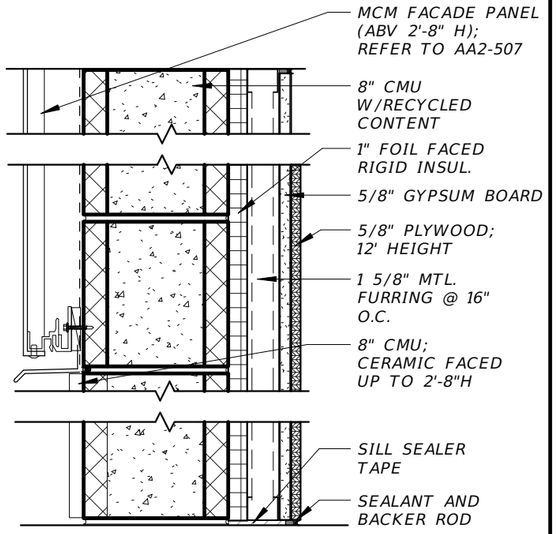
j. 5/8" GYPSUM (BOTH SIDES) OVER 3/5/8" MTL STUDS @ 16" O.C. ONE HOUR WALL WHERE NOTED: REFER TO AA2-010 FOR UL# U415(1) LAYER OF TYPE X GYPSUM BOARD (BOTH SIDES OF WALL); CERAMIC TILE (RESTROOM SIDE); PROVIDE INSULATION IN CAVITY.

k. CERAMIC TILE OVER 1/2" CEMENT BOARD (BOTH SIDES) OVER 3/5/8" MTL STUDS @ 16" O.C. ; INSULATE WITH BATT INSULATION.

m. MCM PANEL OVER CMU WALL W/RECYCLED CONTENT; CERAMIC FACED BLOCK UP TO 2'-8" HEIGHT @ EXTERIOR. PAINT BLOCK AT INTERIOR.

n. 5/8" MR GYPSUM BOARD (BOTH SIDES) OVER 6" MTL. STUD. AT 24" O.C.

M8-a | M8-m



1 PARTITION TYPES

1 1/2" = 1'-0"

GRAPHIC SCALE

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

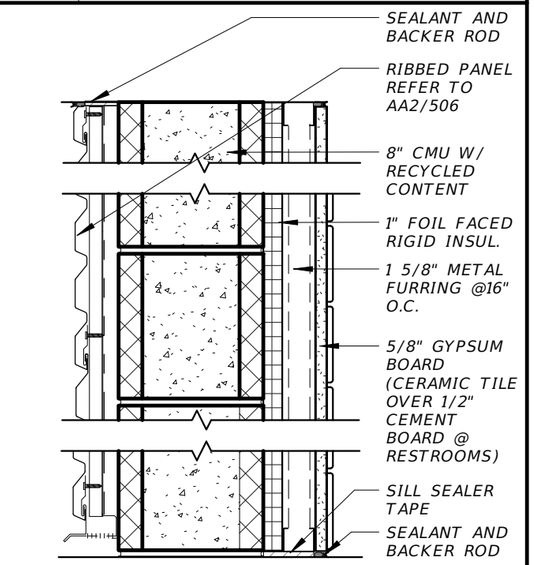
0' 4" 8"

NOTE: ALL EXPOSED PLYWOOD WILL HAVE THE "A" SIDE EXPOSED WITH BUTT JOINTS FILLED AND SANDED

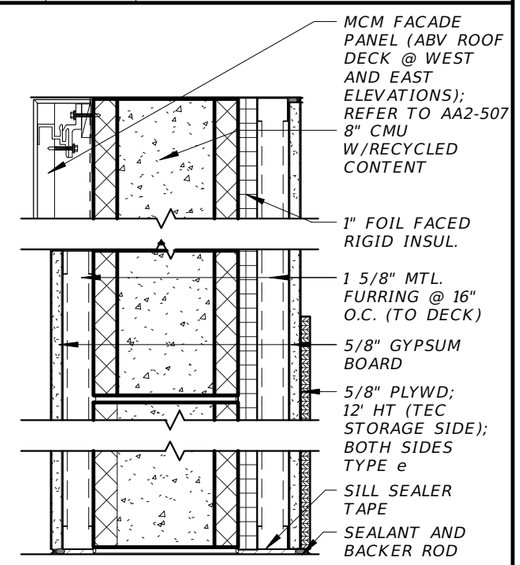
PARTITON HEIGHT:

A = TO THE BOTTOM OF DECK
B = 6" ABOVE FINISHED CEILING
C = EXTERIOR FULL HEIGHT WALL
D = HEIGHT AS NOTED

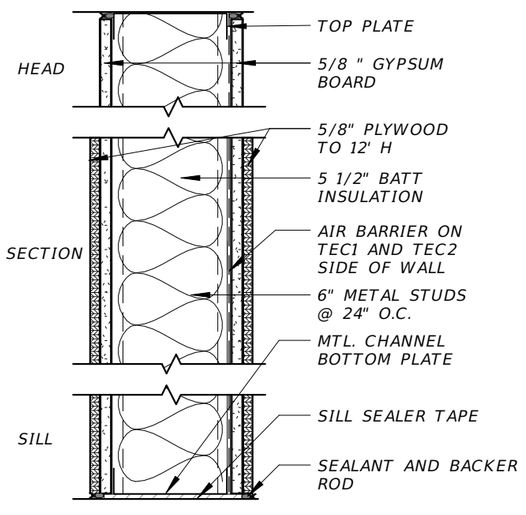
M8-b | M8-c



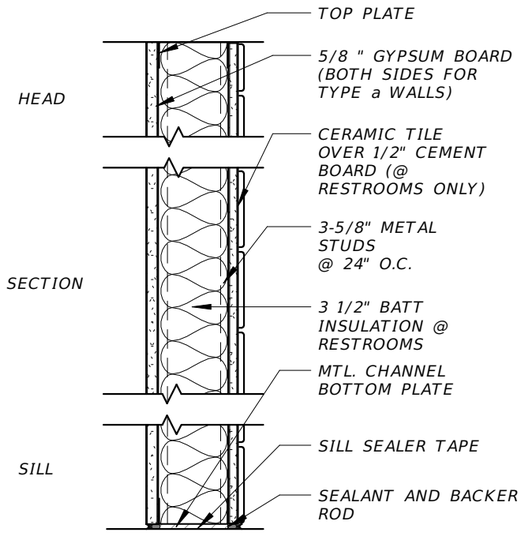
M8-d | M8-e



S6-f | S12-g | S6-n



S4-h | S4-j | S4-k



REVISIONS				
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FLORIDA R.A. NO.: 11541
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651 WEST WARREN AVENUE, SUITE 200
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BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

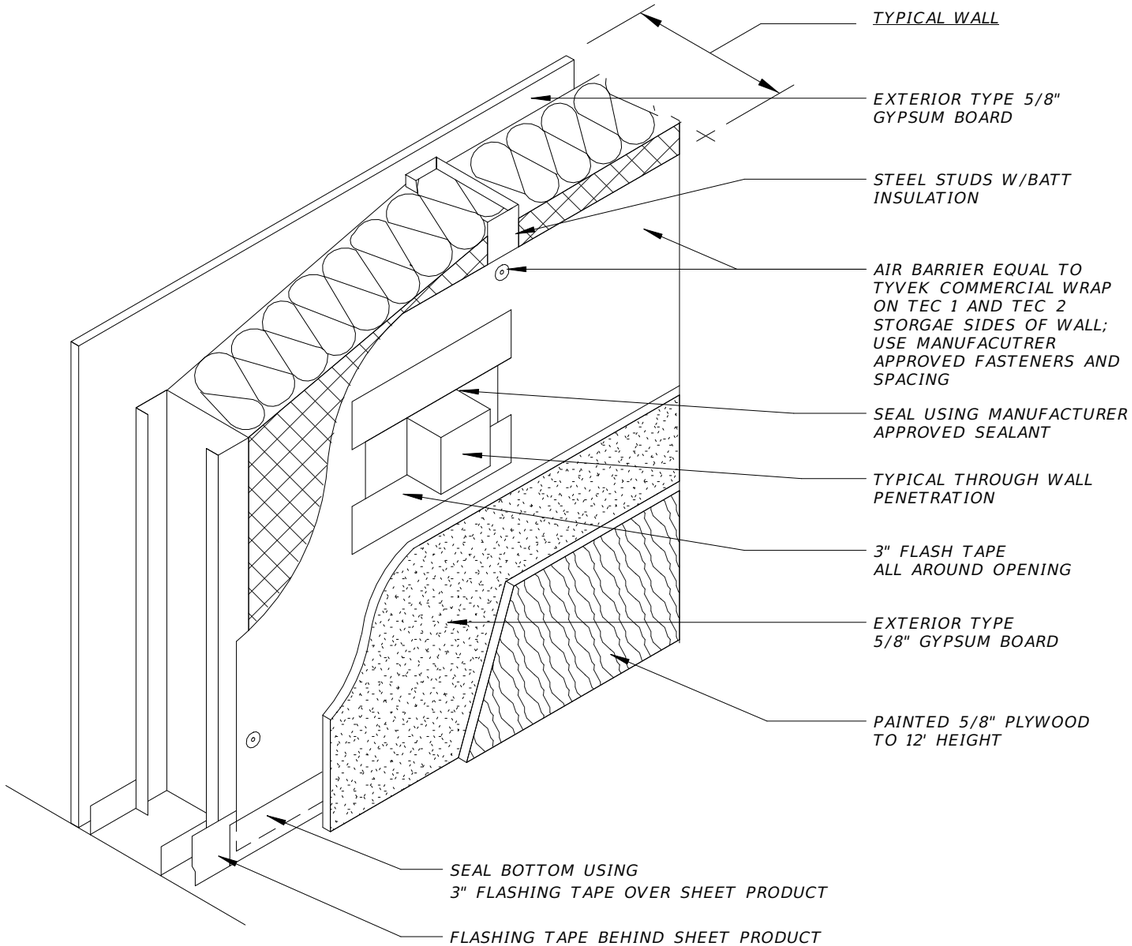
SUNTRAX TEST FACILITY STORAGE BUILDING

PARTITION DETAILS

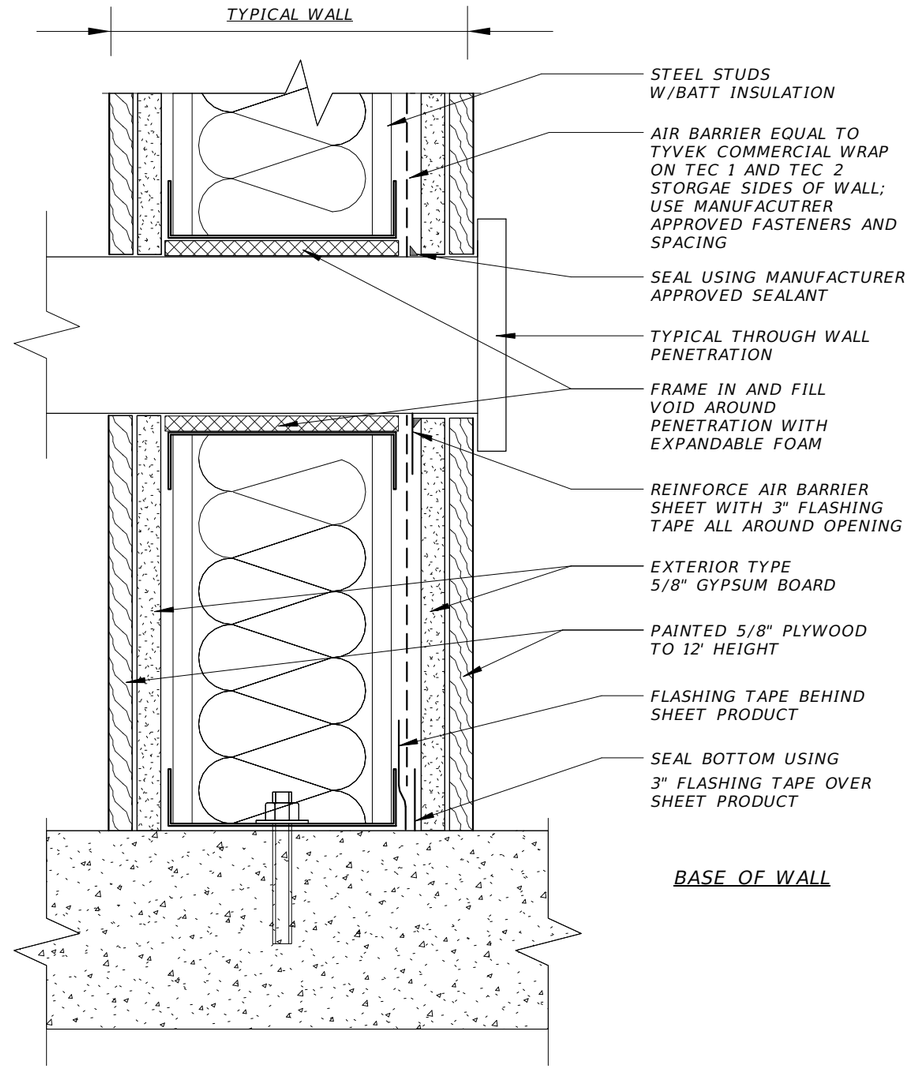
SHEET NO.

AA2-008

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1 PENETRATION DETAIL VIEW
NOT TO SCALE



2 PENETRATION DETAIL SECTION
3" = 1'-0"

GRAPHIC SCALE
SCALE 3" = 1'-0"
0' 2" 4"

REVISIONS				
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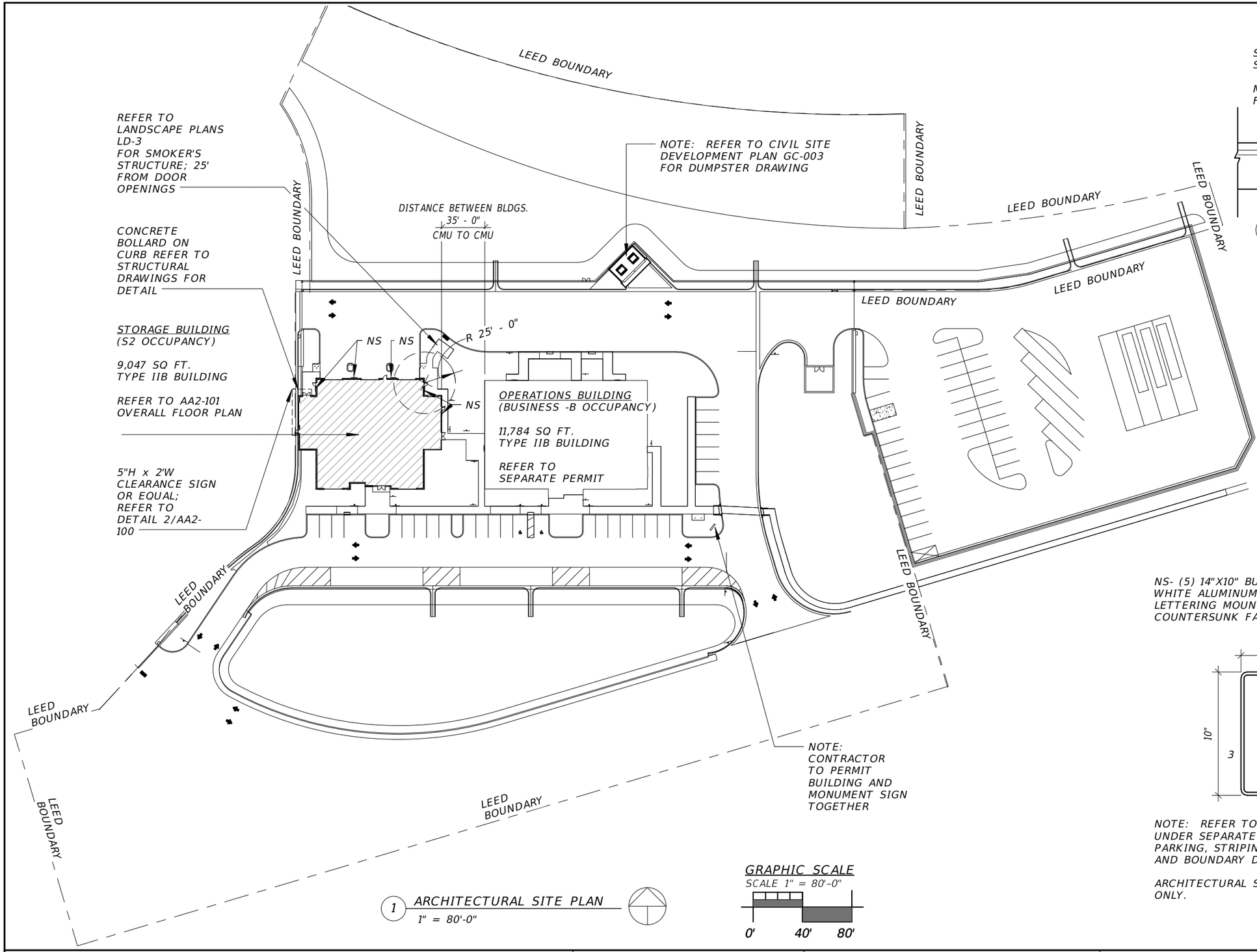
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY STORAGE BUILDING

SHEET WATERPROOFING DETAILS

SHEET NO.
AA2-009

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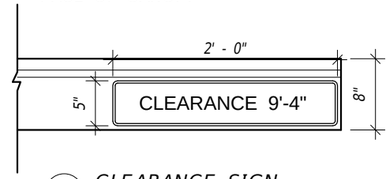


1 ARCHITECTURAL SITE PLAN
1" = 80'-0"

GRAPHIC SCALE
SCALE 1" = 80'-0"
0' 40' 80'

STANDARD TRAFFIC YELLOW ALUMINUM SIGN WITH BLACK LETTERING.

MECHANICALLY FASTEN TO FACE OF CANOPY



2 CLEARANCE SIGN
3/4" = 1'-0"

NS- (5) 14"X10" BUILDING MOUNTED PREFINISHED WHITE ALUMINUM NO-SMOKING SIGN WITH BLACK LETTERING MOUNTED @ 48" A.F.F.; ATTACH WITH COUNTERSUNK FASTENERS AND NEOPRENE WASHERS.



NOTE: REFER TO CIVIL SITE DEVELOPMENT PLANS UNDER SEPARATE PERMIT FOR ALL PARKING, ADA PARKING, STRIPING AND SIGNAGE, GRADING, DRAINAGE AND BOUNDARY DESIGNATIONS.

ARCHITECTURAL SITE PLAN SHOWN FOR REFERENCE ONLY.

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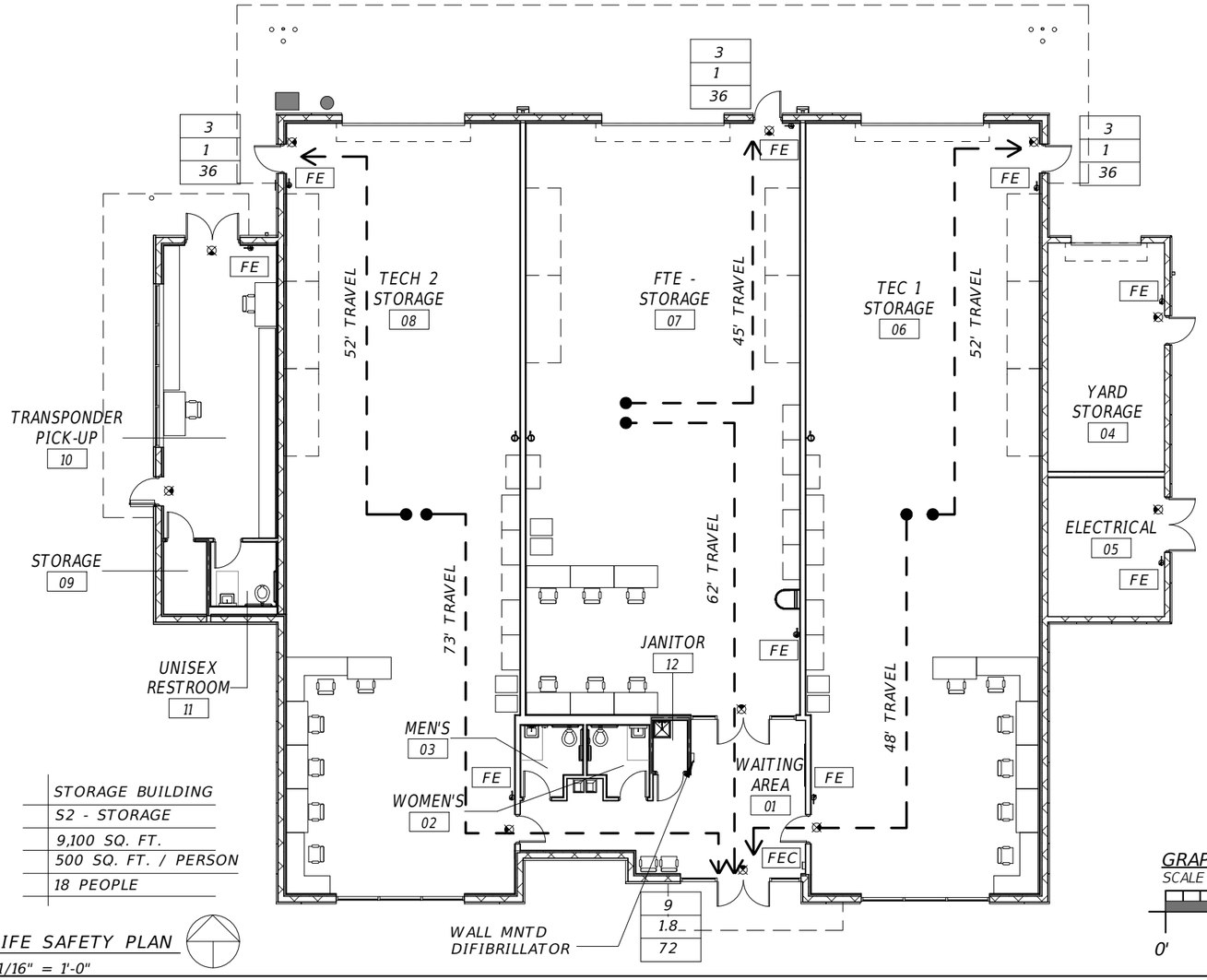
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ARCHITECTURAL SITE PLAN

SHEET NO.
AA2-100

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STORAGE BUILDING
S2 - STORAGE
9,100 SQ. FT.
500 SQ. FT. / PERSON
18 PEOPLE

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

GRAPHIC SCALE
SCALE 1/16" = 1'-0"
0' 8' 16'

LIFE SAFETY LEGEND:

GROUP (S2) - STORAGE OCCUPANCY

#FT — PATH OF TRAVEL (EXIT ACCESS)

EXIT SIGN, SEE ELECTRICAL DWGS.

FE — 10LB. ABC TYPE FIRE EXTINGUISHER IN WALL MOUNTED BRACKET

FEC — FIRE EXTINGUISHER CABINET. 10LB ABC TYPE.

QUANTITY: 10 TOTAL EXTINGUISHERS SPACED NO GREATER THAN 75' OF TRAVEL DISTANCE

1 HOUR RATED WALL ACCORDING TO UL# U465; REFER TO AA2-007

1	FUNCTION
2	OCCUPANCY GROUP
3	AREA (SQ. FT)
4	OCCUPANCY FACTOR
5	OCCUPANCY LOAD

XXX	OCC. LOAD AT THIS EXIT
XXX	REQ. EXIT WIDTH
XXX	PROVIDED EXIT WIDTH

PLUMBING FIXTURE COUNT:

TABLE 403.1 MINIMUM NUMBER OF REQ. PLUMBING FIXTURES
GROUP (S) - STORAGE OCCUPANCY
OCCUPANT LOAD= 18

WATER CLOSETS		URINALS	LAVATORIES		DRINKING FOUNTAIN	SERVICE SINK
FEMALE	MALE		FEMALE	MALE		
1 REQD.	1 REQD.	0 REQD	1 REQD.	1 REQD.	1 REQD	1 REQUIRED
1 PROV.	2 PROV.		1 PROV.	2 PROV.	2 PROV.	1 PROV.

APPLICABLE CODES:

FLORIDA BUILDING CODE 2014
CITY OF AUBURNDALE - CH 15; SPECIAL OVERLAY DISTRICT
FLORIDA BUILDING CODE ACCESSIBILITY 2014
FLORIDA BUILDING CODE MECHANICAL 2014
FLORIDA BUILDING CODE PLUMBING 2014
NFPA 101, 2012 (LIFE SAFETY)
NFPA 70, 2011 NATIONAL ELECTRICAL CODE

OCCUPANCY LOAD CALCULATIONS:

(TYPE II B UNPROTECTED, UNSPRINKLERED)

USE OF:	AREA (GROSS S.F.)	OCC. PER S.F.	OCC. LOAD
S2- STORAGE	9,047 S.F.	/500 GROSS	18
TOTAL OCC. LOAD			18

EXIT REQUIREMENTS:

MAX. TRAVEL DISTANCE TO EXIT (S2) OCC. (UNSPRINKLERED)	300 FT
MAX. COMMON PATH OF TRAVEL	100 FT (UNSPRINKLERED)
MAX. DEAD-END CORRIDOR	20 FT (UNSPRINKLERED)
MIN. EGRESS CORRIDOR WIDTH	36 IN. FBC 1017.2 EXCEPTION 2
EGRESS WIDTH PER PERSON - DOOR	0.2 IN./PERSPM
MIN. CLEAR OPENING OF EXIT DOOR	34 IN. CLEAR
MIN. NUMBER OF EXITS	2 REQD. EACH BAY / 2 PROVIDED EACH BAY

EXIT CALCULATIONS:

TOTAL BUILDING OCC. LOAD	=18
EGRESS WIDTH OF DOOR REQ. INCHES	=18 X 0.2 = 3.6
TOTAL EXIT DOOR WIDTH PROVIDED	=180 INCHES

WIND INFORMATION:

AS REQUIRED BY FBC 2014 AND REQUIREMENTS OF FTE:

1. BASIC WIND SPEED	136 MPH
2. RISK FACTOR	TYPE II
3. WIND EXPOSURE	TYPE C

CODE SUMMARY:

USE & OCCUPANCY CLASSIFICATION:		(CHAPTER 3)
CLASSIFICATION: STORAGE S2 (SECTION 304.1)		
CONSTRUCTION TYPE:	II-B	
SPRINKLED:	NO	
MAX HEIGHT	AREA MAX. TABULAR	(TABLE 503)
3 STORIES	26,000 S.F.	(GROUP S2)

NOTE:
1. FURNITURE, FILES AND CASEWORK ARE SHOWN FOR REFERENCE. REFER TO AA2-112 FURNITURE PLAN AND SPECIFICATIONS.

2. ALL INTERIOR FINISHES SHALL COMPLY WITH SECTION 803 OF RESTRICTIONS OF COMBUSTIBLE MATERIALS OF THE FBC 2014. ALL INTERIOR FINISHES SHALL BE CLASS A, ASTM E84. INTERIOR FINISHES SHALL BE IN ACCORDANCE WITH NFPA; CURRENT EDITION.

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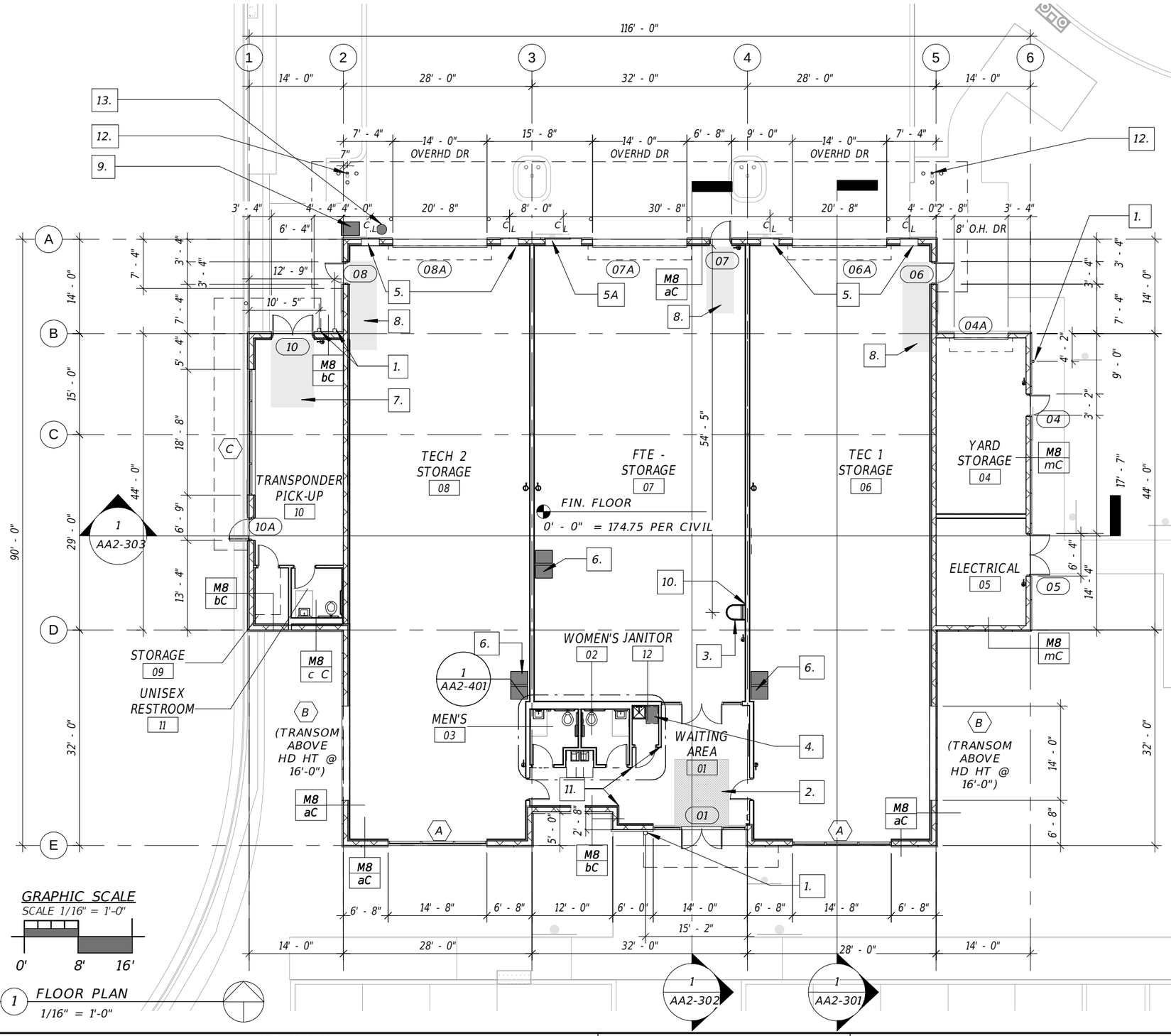
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING
LIFE SAFETY PLAN

SHEET NO. AA2-100.1

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GENERAL NOTES:

1. REFER TO AA2-007 FOR PARTITION SCHEDULE.
2. REFER TO AA2-602 FOR DOOR SCHEDULE.
3. SEE GENERAL NOTES ON AA2-005 IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.
4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").
5. SEE KEY PLANS FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.
6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.
7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.
8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.
9. REFER TO ELECTRICAL PLANS FOR LEED TASK LIGHTING REQUIREMENTS.
10. ALL PLUMBING FIXTURES SHALL BE INCLUDED WITHIN GENERAL CONDITIONS.
11. REFER TO ENLARGED PLANS FOR GRIDLINE LOCATION AS TO FACE OF STRUCTURAL WALL OR CENTERLINE OF COLUMN.

KEY NOTES:

1. 4" SQ. ALUM. DWNSPOUT; REFER TO ROOF PLAN FOR CALCULATIONS
2. PROVIDE 7/16" RECESS 8' WIDE X 10' LONG IN SLAB TO ACCOMODATE ALUM. WALK-OFF MAT.
3. STEEL LADDER AND ROOF HATCH ABOVE; REFER TO AA2-500
4. RECYCLING BIN AREA FOR BATTERIES; 8 GAL. CONTAINER EQUAL TO C-THRU NEXUS BY GLASDON
5. 2'-8"W X 4'-0"H INTAKE LOUVER PER MECH. DWGS; TYP.

5A 5'-4"W X 4'-0"H INTAKE LOUVER PER MECH. DWGS; TYP.

6. RECYCLING AREA FOR (2) 50 GALLON ROLLOUT CONTAINERS BY RUBBERMAID OR EQUAL
7. 6'-4"WX10'L ROLL UP MAT.
8. 4'W X10'L ROLL UP MAT.
9. ICE MACHINE.
10. (2) 3 5/8", 14 GAUGE STUDS, FASTENED TOGETHER TO ANCHOR LADDER
11. CORNER GUARD. REFER TO 3/AA2-007
12. 4"X6" ALUM. DWNSPOUT; REFER TO ROOF PLAN FOR CALCULATIONS
13. REFER TO PLUMBING DRAWING FOR HAZMAT SHOWER

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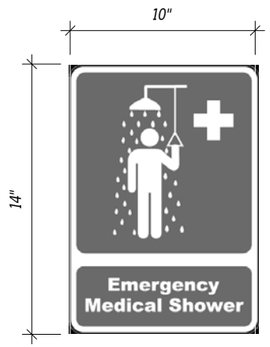
STATE OF FLORIDA
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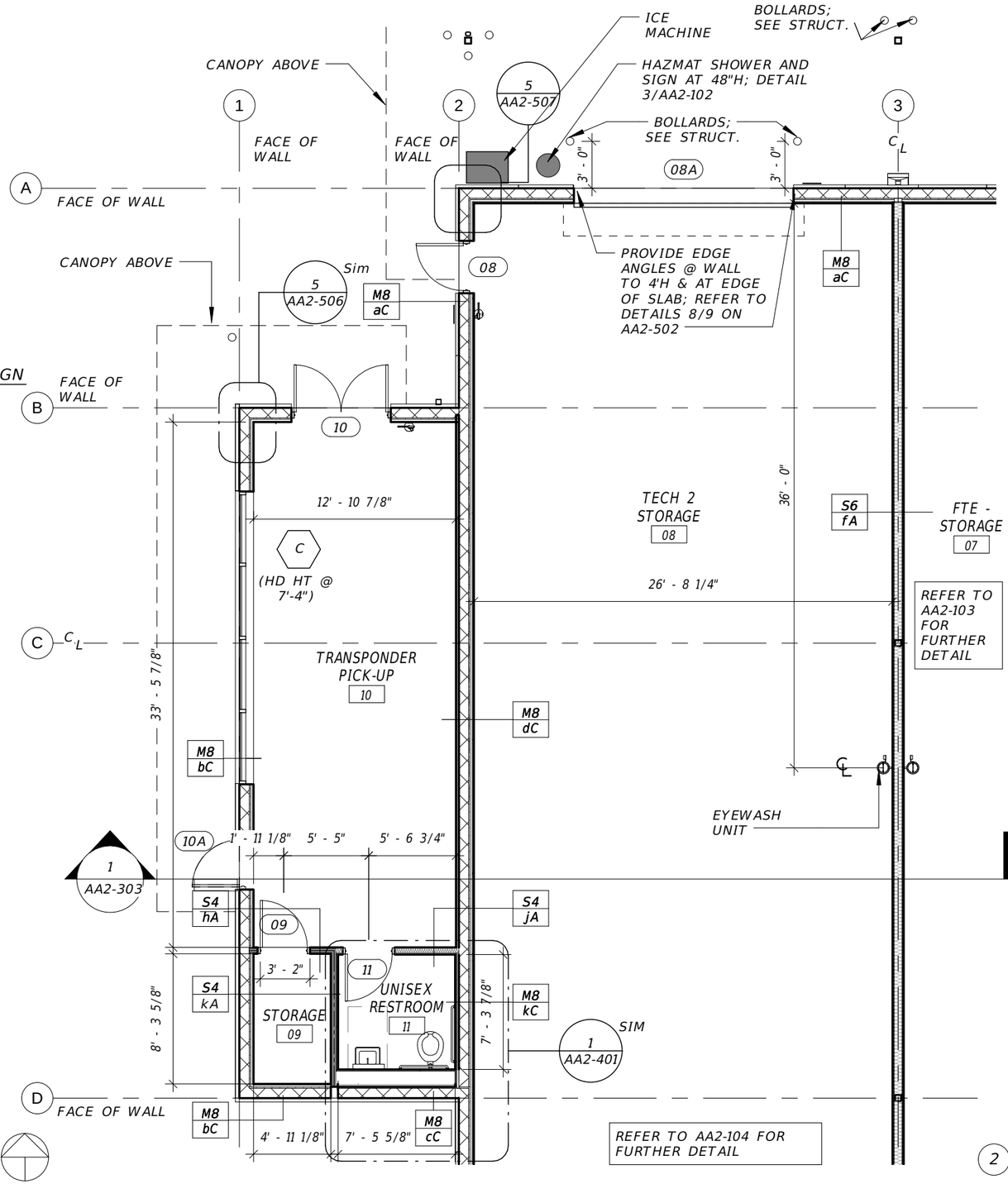
SUNTRAX TEST FACILITY STORAGE BUILDING
OVERALL FLOOR PLAN

SHEET NO. AA2-101

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3 HAZMAT SHOWER SIGN
1 1/2" = 1'-0"



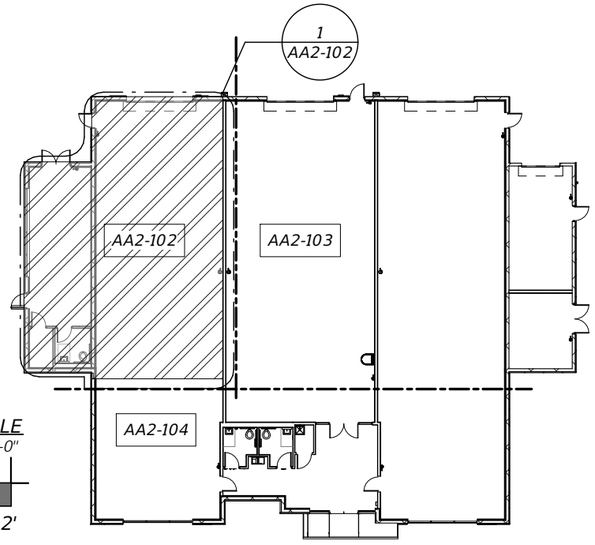
GRAPHIC SCALE
SCALE 1/8" = 1'-0"
0' 4' 8'

1 ENLARGED FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO AA2-008 FOR PARTITION SCHEDULE.
2. REFER TO AA2-602 FOR DOOR SCHEDULE.
3. SEE GENERAL NOTES ON AA2-005 IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.
4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").
5. SEE REFERENCE FLOOR PLAN FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.
6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.
7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.
8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.

1 HOUR RATED WALL ACCORDING TO UL# U465; REFER TO AA2-010



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

2 KEY PLAN
1/32" = 1'-0"

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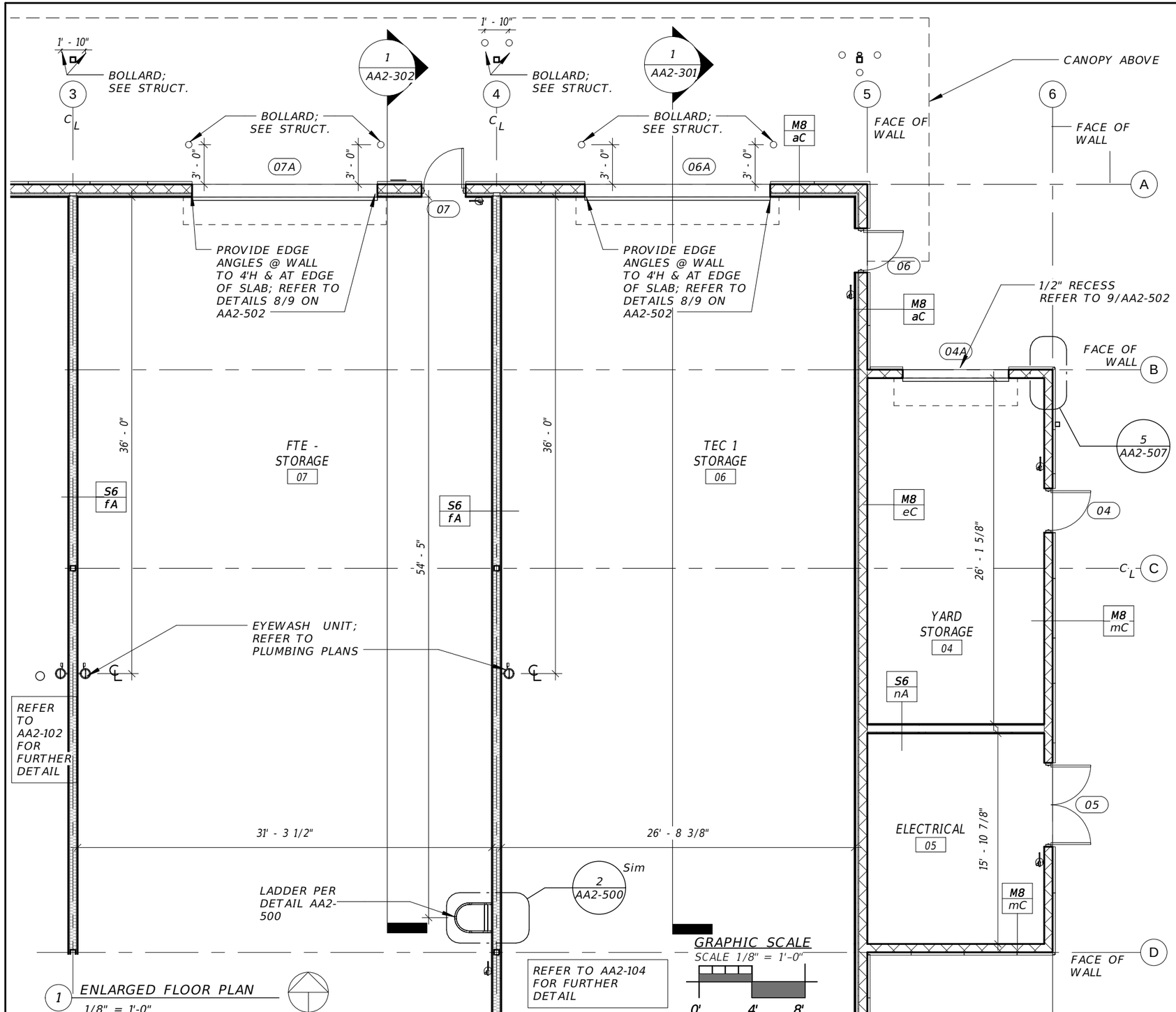
SUNTRAX TEST FACILITY STORAGE BUILDING
ENLARGED FLOOR PLAN

SHEET NO. AA2-102

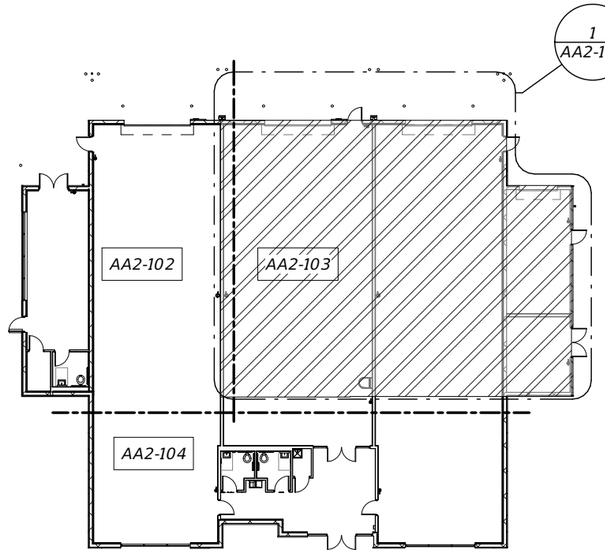
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8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.



1 ENLARGED FLOOR PLAN
1/8" = 1'-0"



2 KEY PLAN
1/32" = 1'-0"

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING
ENLARGED FLOOR PLAN

SHEET NO.
AA2-103

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REFER TO AA2-102 FOR FURTHER DETAIL IN THIS AREA

LADDER AND ROOF HATCH PER AA2-500

26' - 8 3/8"

31' - 3 1/2"

26' - 8 3/8"

REFER TO AA2-102 FOR FURTHER DETAIL IN THIS AREA

S6 / fA

S6 / fA

6' - 5 1/4"

13' - 2 3/8"

FTE - STORAGE 07

BATTERY DISPOSAL

SIM 1 / AA2-401

S12 / gA

S6 / fA

0' - 7 1/4"

0' - 7 1/4"

07B

TECH 2 STORAGE 08

MEN'S 03

WOMEN'S 02

JANITOR 12

WAITING AREA 01

AV MONITOR

TEC 1 STORAGE 06

B (TRANSOM ABOVE HD HT @ 16'-0")

B (TRANSOM ABOVE HD HT @ 16'-0")

11' - 5 1/8"

6' - 2 5/8"

5' - 2"

11' - 5 1/8"

S6 / fA

12

03

02

19' - 6 1/8"

11' - 3 3/4"

32' - 7 1/8"

6 / AA2-507

3' - 4"

08B

06B

3' - 4"

5' - 8 1/2"

5' - 8 1/2"

01

6 / AA2-506

5 / AA2-507

Sim

5 / AA2-506

CORNER GUARD DETAIL 3/AA2-007

7/16" SLAB RECESS 8' WIDE X 10' LONG FOR WALK OFF MAT

A (HD HT @ 16'-0")

A (HD HT @ 16'-0")

REFER TO NOTE #9 FOR GRIDLINE PLACEMENT

FACE OF WALL

FACE OF WALL

FACE OF WALL

FACE OF WALL

FACE OF WALL

E

2

3

4

5

1 ENLARGED FLOOR PLAN

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

GENERAL NOTES:

1. REFER TO AA2-008 FOR PARTITION SCHEDULE.

2. REFER TO AA2-602 FOR DOOR SCHEDULE.

3. SEE GENERAL NOTES AT THE BEGINNING OF THIS DRAWING SET IN REFERENCE TO SCALING DIMENSIONS FROM THESE DRAWINGS.

4. ALL DIMENSIONS TO INTERIOR PARTITIONS ARE FINISH DIMENSIONS (ROUNDED TO THE NEAREST 1/8").

5. SEE REFERENCE FLOOR PLAN FOR LOCATION OF ENLARGED PLANS WHICH CONTAIN ADDITIONAL DIMENSIONAL INFORMATION.

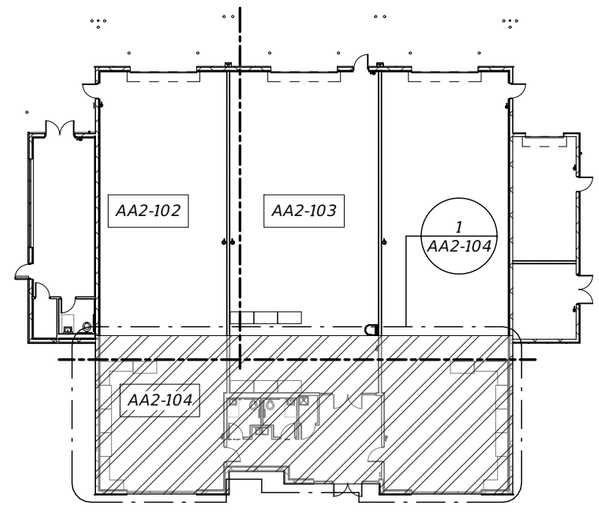
6. COORDINATE DIMENSIONAL REQUIREMENTS WITH ALL EQUIPMENT AND BUILT-IN ITEMS PRIOR TO CONSTRUCTION.

7. CONFIRM LOCATION OF AREAS REQUIRING SLAB RECESS FOR FINISHES, SPECIAL REQUIREMENTS FOR MEP EQUIPMENT, AND ALL OTHER ITEMS REQUIRING COORDINATION WITH THE STRUCTURAL WORK PRIOR TO INSTALLATION.

8. CONFIRM DIMENSIONS WITH ALL ROUGH OPENING REQUIREMENTS PRIOR TO INSTALLATION.

9. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/OR CENTERLINE OF COLUMN

1 HOUR RATED WALL ACCORDING TO UL# U465; REFER TO AA2-010



GRAPHIC SCALE

SCALE 1/32" = 1'-0"

0' 16' 32'

2 KEY PLAN

1/32" = 1'-0"

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FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
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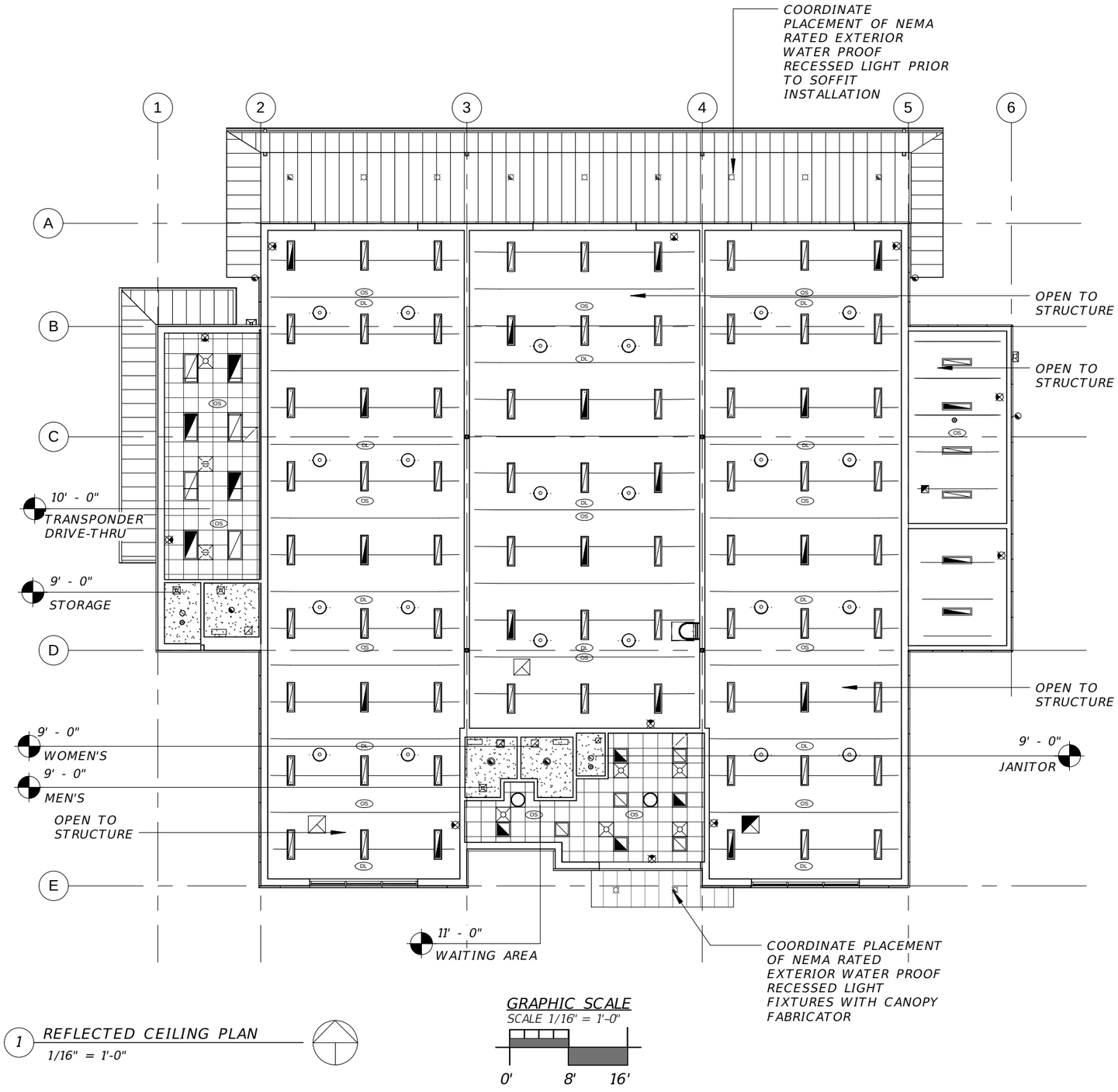
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED FLOOR PLAN

SHEET NO.

AA2-104



1 REFLECTED CEILING PLAN
1/16" = 1'-0"

GRAPHIC SCALE
SCALE 1/16" = 1'-0"
0' 8' 16'

RCP LEGEND

- LED EXIT LIGHT W/ BATTERY BACKUP
- 6" RECESSED LED DOWNLIGHT
- 18" DIAM CANOPY MNTD. EXT. LED LIGHT
- 18" DIAM CANOPY MNTD. EXT. EMERG. LED LIGHT
- INTERIOR WALL MNTD EMERG. LIGHT
- EXTERIOR SURFACE MOUNTED LED EMERGENCY LIGHT
- 4" SURFACE/PENDANT LED FIXTURE
- 4" SURFACE/PENDANT EMERG. LED FIXTURE
- 2X4 RECESSED LED LOW PROFILE TROFFER
- 2X4 RECESSED EMERG. LED LOW PROFILE TROFFER
- 2X2 RECESSED LED TROFFER
- 2X2 RECESSED EMERGENCY LED TROFFER
- EXHAUST FAN - CEILING MOUNTED
- SUPPLY AIR
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT. REFER TO SPECIFICATIONS.
- SMOKE DETECTOR
- SPEAKER
- OS / OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR

NOTES:
1. REFER TO SHEET AA2-601, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES, SMOKE DETECTORS AND DUCT LOCATIONS

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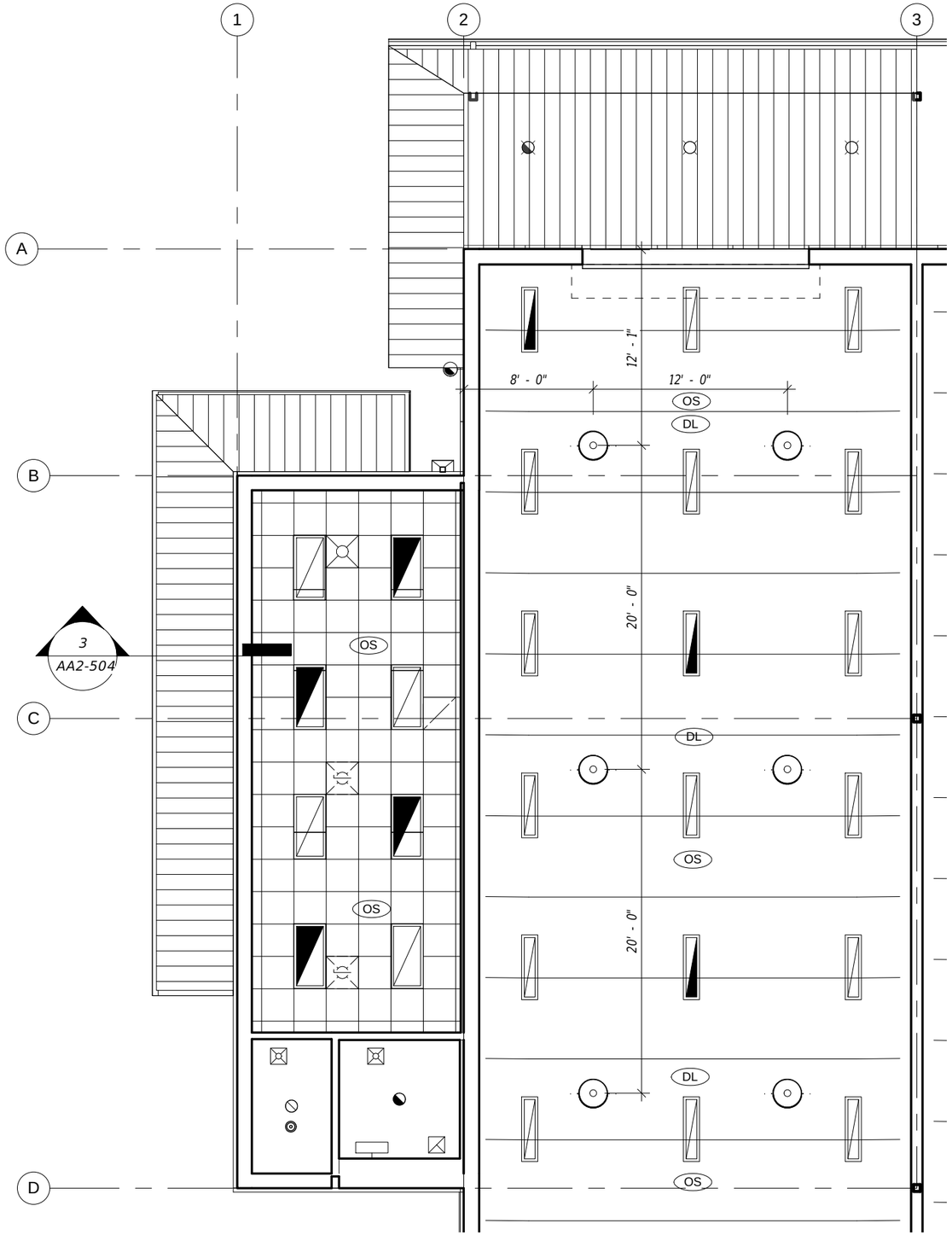
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY STORAGE BUILDING

REFLECTED CEILING PLAN

SHEET NO. AA2-105



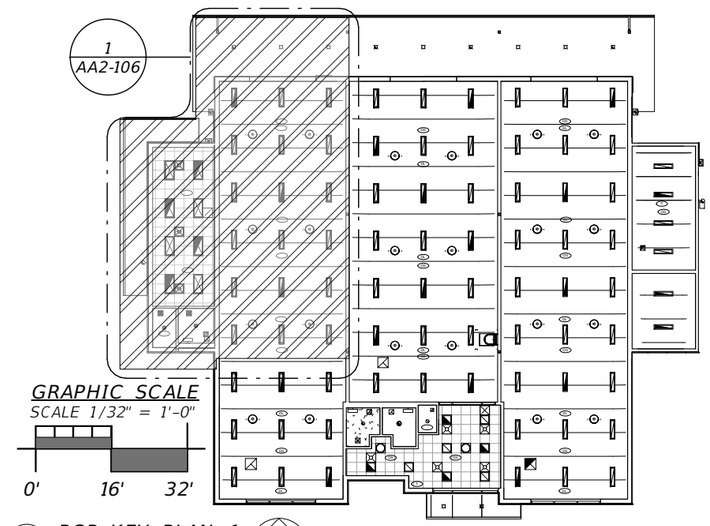
RCP LEGEND

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- EXTERIOR SURFACE MOUNTED LED EMERGENCY LIGHT
- 4" SURFACE/PENDANT LED FIXTURE
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- 2X4 RECESSED LED LOW PROFILE TROFFER
- 2X4 RECESSED EMERG. LED LOW PROFILE TROFFER
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- EXHAUST FAN - CEILING MOUNTED
- SUPPLY AIR
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT. REFER TO SPECIFICATIONS.
- SMOKE DETECTOR
- SPEAKER
- OS OSC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR

NOTES:
1. REFER TO SHEET AA2-601, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES, SMOKE DETECTORS AND DUCT LOCATIONS

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

1 ENLARGED RCP -1
1/8" = 1'-0"



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

2 RCP KEY PLAN -1
1/32" = 1'-0"

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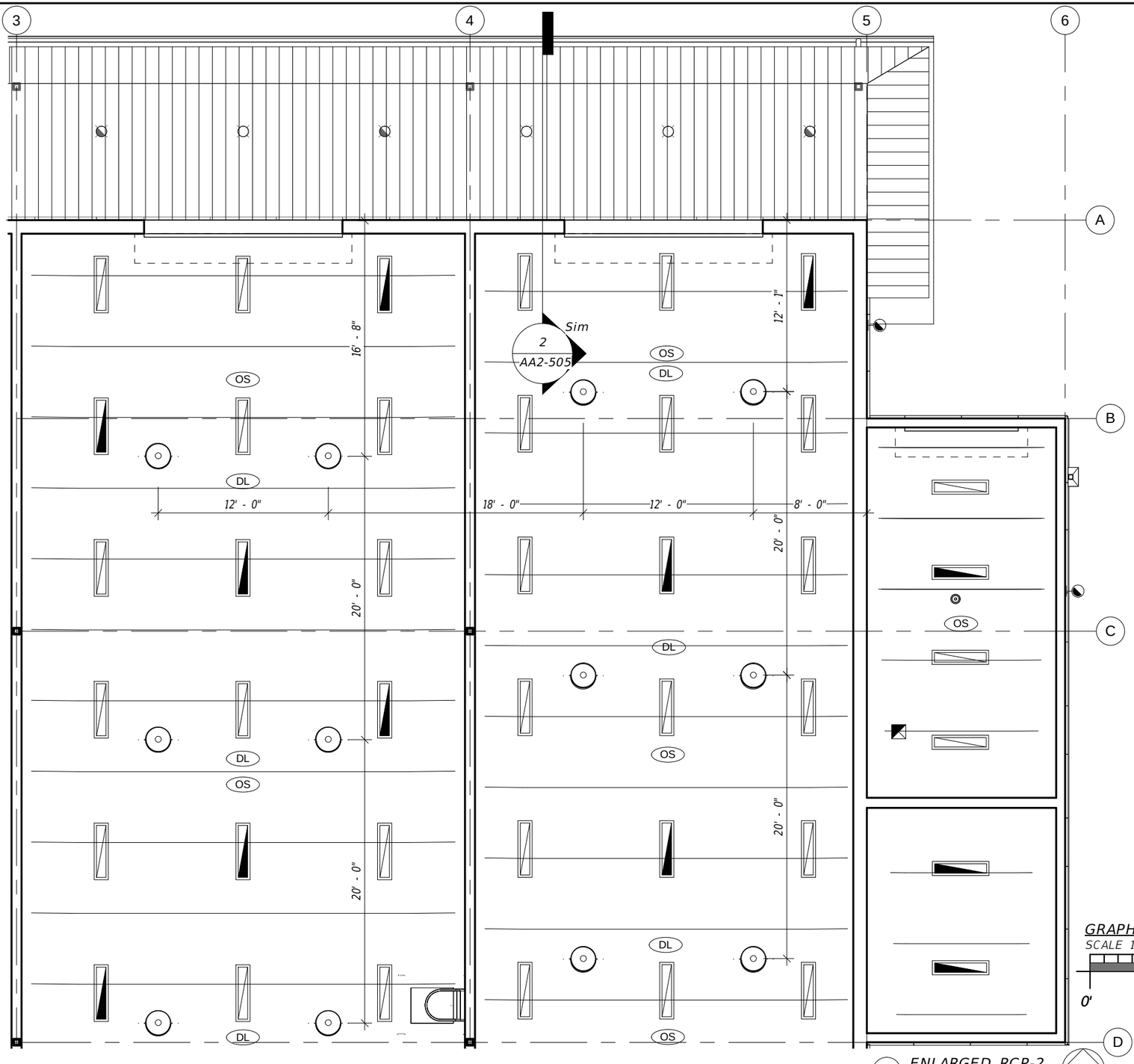
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED RCP

SHEET NO.
AA2-106



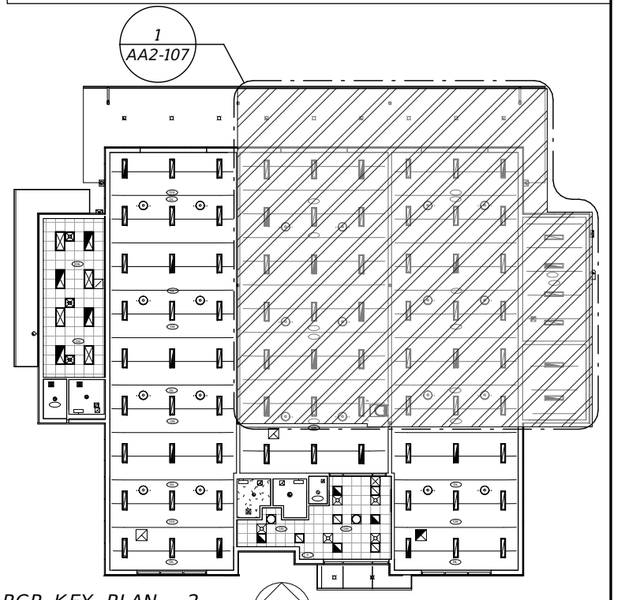
1 ENLARGED RCP-2
1/8" = 1'-0"

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

RCP LEGEND

- LED EXIT LIGHT W/ BATTERY BACKUP
- 6" RECESSED LED DOWNLIGHT
- 18" DIAM CANOPY MNTD. EXT. LED LIGHT
- 18" DIAM CANOPY MNTD. EXT. EMERG. LED LIGHT
- INTERIOR WALL MNTD EMERG. LIGHT
- EXTERIOR SURFACE MOUNTED LED EMERGENCY LIGHT
- 4" SURFACE/PENDANT LED FIXTURE
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- 2X4 RECESSED LED LOW PROFILE TROFFER
- 2X4 RECESSED EMERG. LED LOW PROFILE TROFFER
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- EXHAUST FAN - CEILING MOUNTED
- SUPPLY AIR
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT. REFER TO SPECIFICATIONS.
- SMOKE DETECTOR
- SPEAKER
- OS OSC DL — OCCUPANCY SENSOR / DAYLIGHT HARVESTING SENSOR

NOTES:
1. REFER TO SHEET AA2-601, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES, SMOKE DETECTORS AND DUCT LOCATIONS



2 RCP KEY PLAN - 2
1/32" = 1'-0"

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SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED RCP

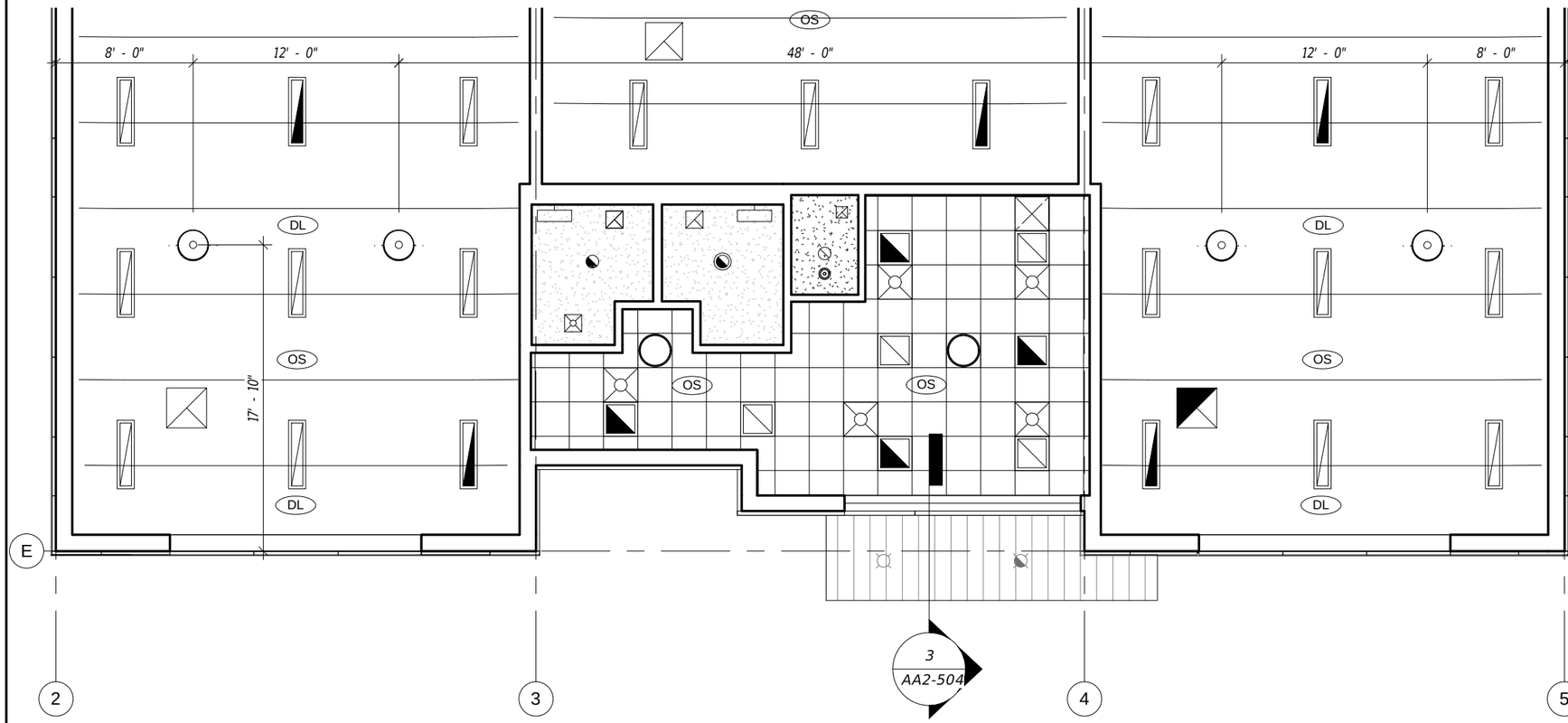
SHEET NO.
AA2–107

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RCP LEGEND

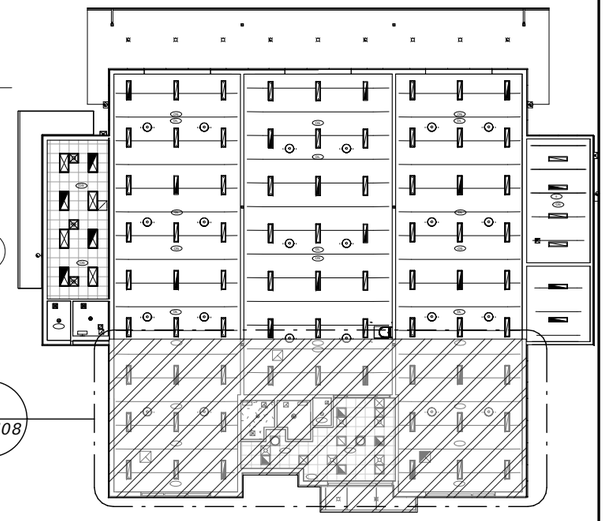
- LED EXIT LIGHT W/ BATTERY BACKUP
- 6" RECESSED LED DOWNLIGHT
- 18" DIAM CANOPY MNTD. EXT. LED LIGHT
- 18" DIAM CANOPY MNTD. EXT. EMERG. LED LIGHT
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- EXHAUST FAN - CEILING MOUNTED
- SUPPLY AIR
- TUBULAR SKYLIGHT
- FLUSH METAL PANEL SOFFIT. REFER TO SPECIFICATIONS.
- SMOKE DETECTOR
- SPEAKER
- OS OCC OCCUPANCY SENSOR
- DL DAYLIGHT HARVESTING SENSOR

NOTES:
1. REFER TO SHEET AA2-601, FINISH SCHEDULE, FOR CEILING TYPES.
2. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES
3. REFER TO MECHANICAL DRAWINGS FOR AIR DISTRIBUTION DEVICES, SMOKE DETECTORS AND DUCT LOCATIONS



1 ENLARGED RCP-3
1/8" = 1'-0"

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



2 RCP KEY PLAN - 3
1/32" = 1'-0"

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SUNTRAX TEST FACILITY STORAGE BUILDING
ENLARGED RCP

SHEET NO.
AA2-108

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THROUGH WALL 8"X12 SCUPPER TO ALUMINUM CONDUCTOR HEAD ; CONNECT TO 4" SQ. DWNSPT TO UNDERGROUND DRAIN

6" GUTTER W/ (2) 4"X6" DWNSPTS TO UNDERGRND DRAIN PER CIVIL

1 AA2-302

1 AA2-301

SINGLE-PLY MEMBRANE OVER DENSDEK OVER STEEL CANOPY PER STRUCTURAL

(2)THROUGH WALL 8"HX12"W SCUPPERS TO ALUMINUM CONDUCTOR HEADS & (2) 4"X6" DOWNSPOUTS

1 AA2-505

8"HX12"W OVERFLOW SCUPPER

THROUGH WALL 8"X12 SCUPPERTO ALUMINUM CONDUCTOR HEAD ; CONNECT TO 4" SQ. DWNSPT TO UNDERGRND DRAIN

8"HX12"W OVERFLOW SCUPPER TYPICAL

12' - 8" PARAPET

PRE-FINISHED DECORATIVE METAL CORNICE; TYPICAL

SINGLE-PLY MEMBRANE OVER DENSDECK ON RIGID INSULATION

PROVIDE CRICKET @ EACH RTU LOCATION

PROVIDE CRICKET @ EACH RTU LOCATION; TYP.

30" x 36" ROOF HATCH REFER TO AA2-500

21" DIAMETER TUBULAR SKYLIGHT; TYPICAL; REFER TO RCP FOR SPACING

24' - 0" PARAPET

PRE-FINISHED ALUMINUM CANOPY @ 11'H A.F.F. W/INTEGRAL GUTTER; REFER TO AA2-504

RIBBED METAL PANEL OVER METAL FRAMING PER STRUCTURAL

8"HX12"W OVERFLOW SCUPPER

15' - 4" PARAPET

1 AA2-303

4" SQ. CANOPY DWNSPT

PRE-FINISHED ALUMINUM CANOPY W/INTEGRAL GUTTER @ 9'-4"H; ; REFER TO AA2-504

30" WIDE TPO WALK PAD; TYPICAL

4" SQ. CANOPY DWNSPT

26' - 0" PARAPET

FALL PROTECTION ANCHOR TYPICAL; REFER TO NOTE #5.

2 AA2-109

10 AA2-305

SLOPE STRUCTURE 1/4" PER 1'-0" MIN.

STRUCTURE SLOPED 1/4" PER 1'-0"

STRUCTURE SLOPED 1/4" PER 1'-0" MIN.

RTU 1

RTU 2

RTU 3

RTU 4

RTU 5

EF 1

EF2

EF 3

EF 4

EF 5

EF 6

MCU 1

2" VTR

C/L SKYLT

SLOPE

7"

2' - 4"

1' - 4"

27' - 1"

32' - 0"

15' - 11"

37' - 4"

21' - 0"

27' - 6"

36' - 2"

19' - 5"

1' - 4"

4' - 2"

11' - 7"

23' - 5"

36' - 4"

10' - 9"

1' - 10"

3' - 11"

33' - 6"

11' - 2"

5' - 0"

11' - 11"

37' - 1"

12' - 0"

29' - 5"

24' - 5"

32' - 1"

2' - 5"

19' - 3"

11' - 10"

9' - 8"

7' - 1"

7' - 6"

17' - 8"

10' - 2"

9' - 9"

6' - 3"

5' - 7"

30' - 3"

GRAPHIC SCALE
SCALE 1/16" = 1'-0"
0' 8' 16'

1 ROOF PLAN
1/16" = 1'-0"

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

GENERAL ROOF NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH, TYP.

2. PROVIDE 1/4"/FT. TAPERED INSULATION TO FORM CRICKET SLOPE (TYP.)

3. STORMWATER DRAINAGE
a.) SIZE OF VERT. CONDUCTORS BASED ON TABLE 1106.2 FBC 2014-PLUMBING
b.) SIZE OF SEMICIRCULAR ROOF GUTTERS BASED ON TABLE 1106.6 FBC 2014-PLUMBING
c.) SIZE OF THRU-WALL SCUPPER BASED ON TABLE 1106.7 FBC 2014 - PLUMBING FOR 5"/HR. RAINFALL RATE.
d.) SIZE OF RECTANGULAR VERTICAL CONDUCTORS - (1)4"X6" @ 5" RAINFALL RATE COVERS 6,590 SQ. FT.; (2) 4"X6" PROVIDED FOR MAIN ROOF AREA + VERTICAL PARAPET RUN-OFF = 9,226 SQ.F.T.
(4) DOWNSPOUTS ARE 4"X4," TYP. WHICH CAN ACCOMODATE UP TO 3,670 SQUARE FEET EACH. ALL SIDE ROOFS AND CANOPIES ARE LESS THAN 200 SQUARE FEET EACH.
e.) SIZE OF SCUPPERS FOR 5" RAINFALL - 4"(HEAD)X16"(LENGTH) COVERS 7,179 SQ. FT.; - (2)CONDUCTORS/ (2)OVERFLOW SCUPPERS OPENINGS ARE SIZED 8"HX12"W TYP. FOR 9,226 SQ.F.T MAIN ROOF. ALL OTHER LOW ROOF SCUPPERS ARE ALSO 8"HX12"W.

4. REFER TO AA2-501 FOR ROOF DETAILS

5. PROVIDE DBI-SALA ROOFSAFE ANCHOR AND CABLE SYSTEM. MAXIMUM SPACING OF ANCHORS IS 39' IN EITHER DIRECTION.

SKYLIGHT NOTES:

1. SECURE EYE SCREWS/BOLTS TO THE ROOFING STRUCTURE AND ATTACH SUSPENSION WIRE TO CONNECT TO CLIPS AT END OF TUNNEL SECTION.

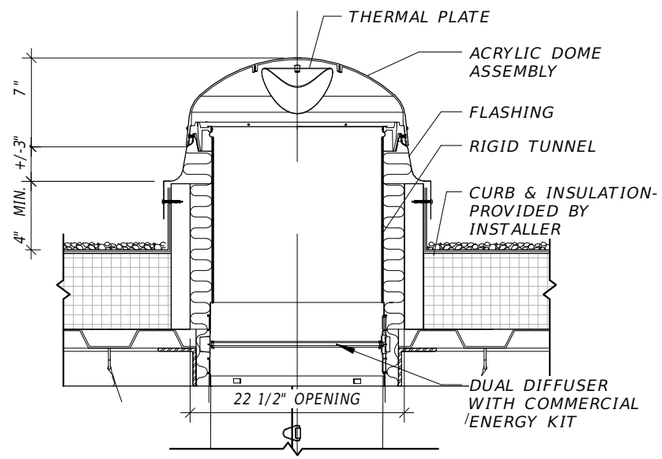
2. SECURE SUSPENSION WIRES TO THE CEILING ADAPTOR ASSEMBLY & EYEBOLTS WHERE REQUIRED

3. DIMENSIONS SHOWN ARE NOMINAL, UNLESS INDICATED OTHERWISE.

4. MOUNT & FLASH USING STANDARD ROOFING PRACTICES FOR ROOFING MATERIAL.

5. REFER TO MANUFACTURER FOR SUSPENSION WIRE INSTALLATION WHERE REQUIRED

6. COORDINATE AND INSTALL SWITCHES FOR LIGHT BAFFLES.



2 TUBULAR SKYLIGHT DETAIL
1/2" = 1'-0"

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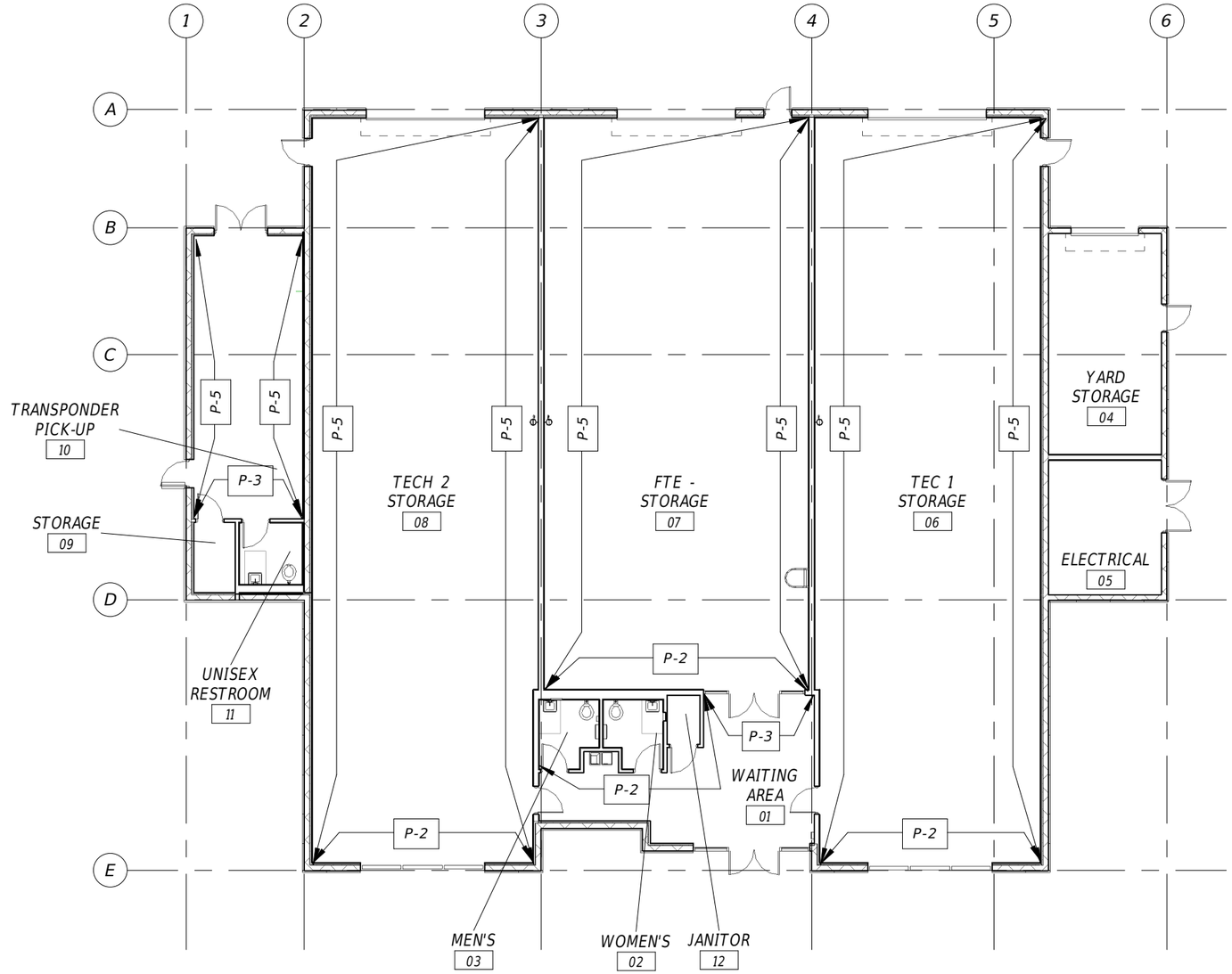
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ROOF PLAN

SHEET NO. AA2-109

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1 INTERIOR FINISH PLAN
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

GENERAL NOTES

A. PAINT SHALL BE SEMI-GLOSS FINISH THROUGHOUT EXCEPT FOR IN WAITING AREA 01. CEILINGS & SOFFITS TO BE EGGSHELL FINISH.

B. ALL HOLLOW METAL DOORS & FRAMES TO BE P-4 U.O.N.

C. REFER TO SHEET AA1-601 FOR FINISH MATERIAL LIST WITH PRODUCTS SPECIFICATIONS

D. ALL EXPOSED CEILINGS TO RECEIVE P-6, TYP.

E. ALL SOFFITS AND BULKHEADS TO RECEIVE P-6, EGGSHELL FINISH U.O.N.

F. PAINT ALL EXPOSED AND SEMI-EXPOSED WOOD BLOCKING AND METAL SUPPORTS TO MATCH ADJACENT SURFACES.

G. ALL WALLS TO BE PAINTED P-6 UNLESS OTHERWISE NOTED.

H. USE EXPANSION JOINT FOR TILE OVER ALL EXPANSION JOINTS IN CONCRETE SUBFLOORS. REFER TO DETAIL 2/AA2-601

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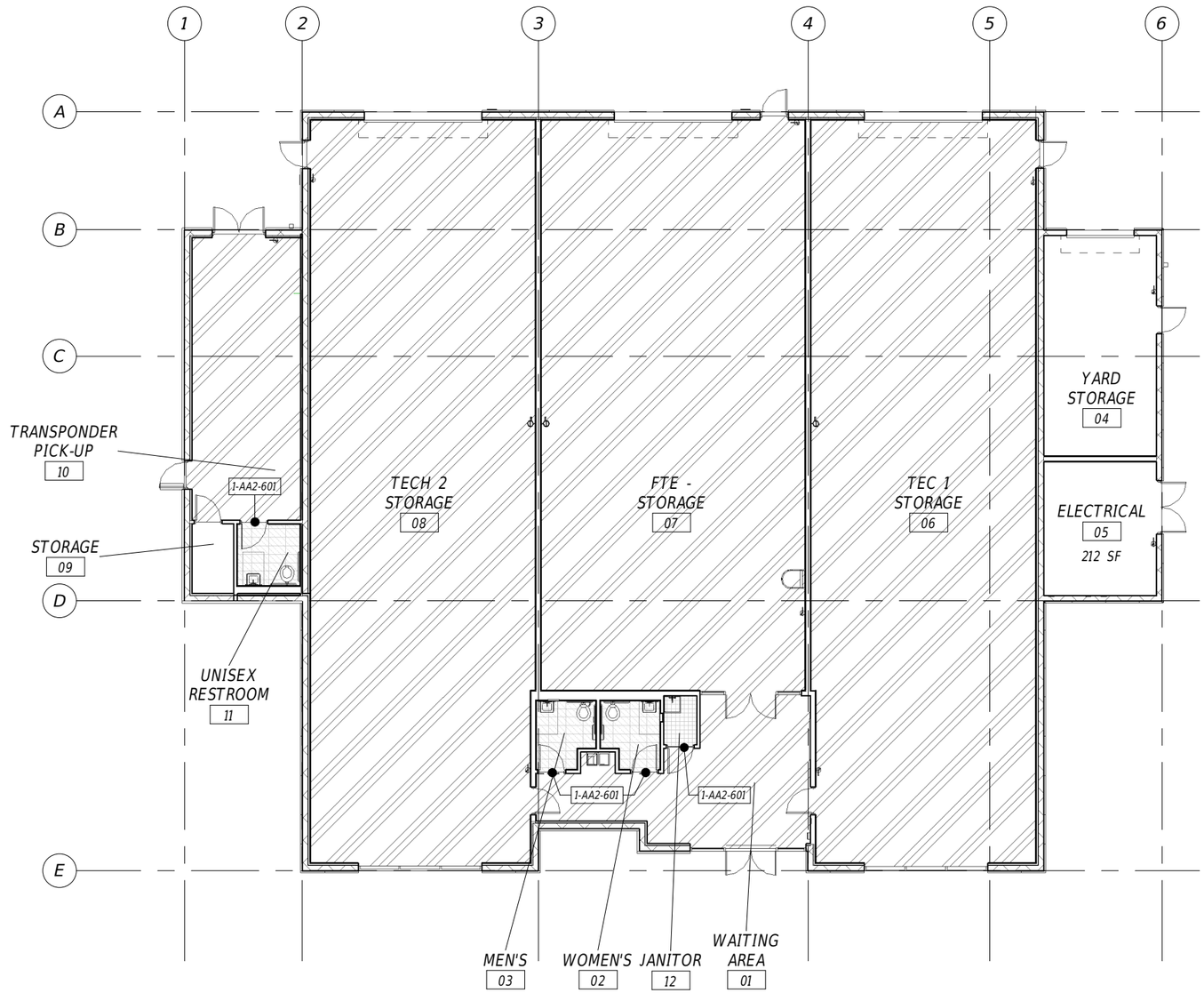
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	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING
INTERIOR FINISH PLAN

SHEET NO.
AA2-110



1 INTERIOR PATTERN PLAN
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

FLOOR FINISH LEGEND:

- TL-1, PORCELAIN TILE (CHARCOAL)
- PC-1, POLISHED CONCRETE
- QT-1, QUARRY TILE
- SC, SEALED CONCRETE

SYMBOLS LEGEND

X-AA2-601 TRANSITION DETAIL

FINISH NOTES

A. SEE FINISH DESCRIPTIONS FOR FINISH SPECIFICATIONS, SHEET AA2-601

B. ALL TILE TO BE THINSET

C. GROUT LINES SHALL BE NO GREATER THAN 1/8" WIDTH

D. SEE TRANSITION DETAILS

E. ALL EXTERIOR DOORS SHALL RECEIVE REMOVABLE INTERIOR WALL-OFF MATTS N.I.C. TO BE 10'-0" IN DIRECTION OF TRAVEL

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651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING
INTERIOR PATTERN PLAN

SHEET NO.
AA2-111

gcleavenger 11/17/2016 5:25pm

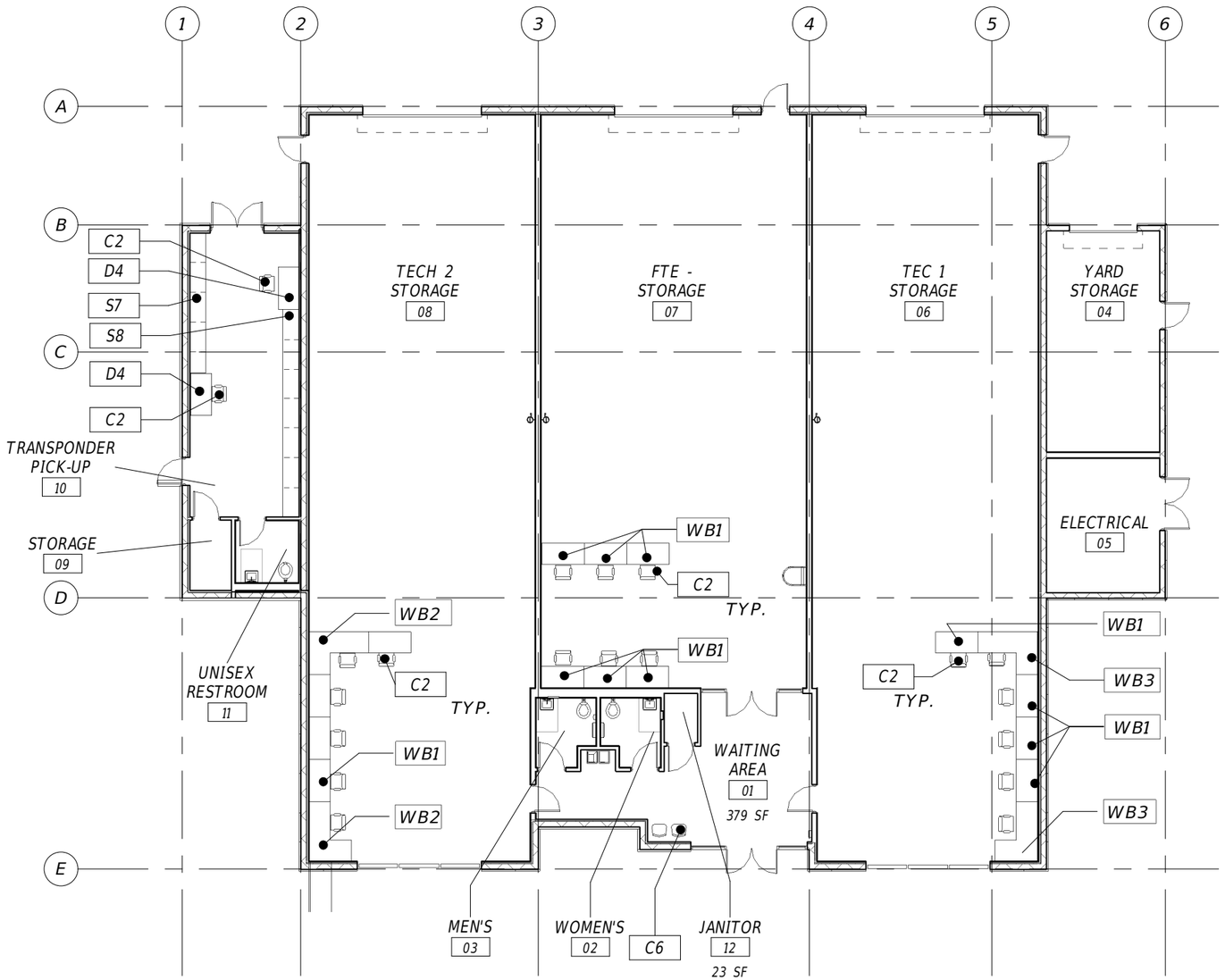
FURNITURE NOTES

1. SEE CORRESPONDING FURNITURE SPECIFICATIONS DOCUMENT, IN APPENDIX C, FOR FURNITURE INFORMATION, IE, MANUFACTURER, DIMENSIONS, FINISHES AND PRICING.

2. TASK LIGHTING SHALL BE PROVIDED AT EACH WORK STATION TO MEET 30FC AT THE WORKSURFACE; REFER TO ELECTRICAL DRAWINGS AND FURNITURE SPECIFICATIONS.

3. 50% RECEPTACLE CONTROLS SHALL BE PROVIDED TO MEET LEED REQUIREMENTS. REFER TO ELECTRICAL DRAWINGS AND FURNITURE SPECIFICATIONS.

4. CONTRACTOR IS TO PURCHASE THE FURNITURE NOTED HEREIN AND IN APPENDIX C OF THE TECHNICAL SPECIAL PROVISIONS ON BEHALF OF FTE. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COMPLETE FURNITURE INSTALLATION.



1 FURNITURE PLAN
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

JENNIFER RAMSKI, INTERIOR DESIGNER
FL ID #0000023
RAMSKI AND COMPANY
500 DELANEY AVENUE, SUITE 301
ORLANDO, FLORIDA 32801
T: 407.898.6570
WWW.RAMSKIANDCOMPANY.COM
FL LICENSE #IB-0001127

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

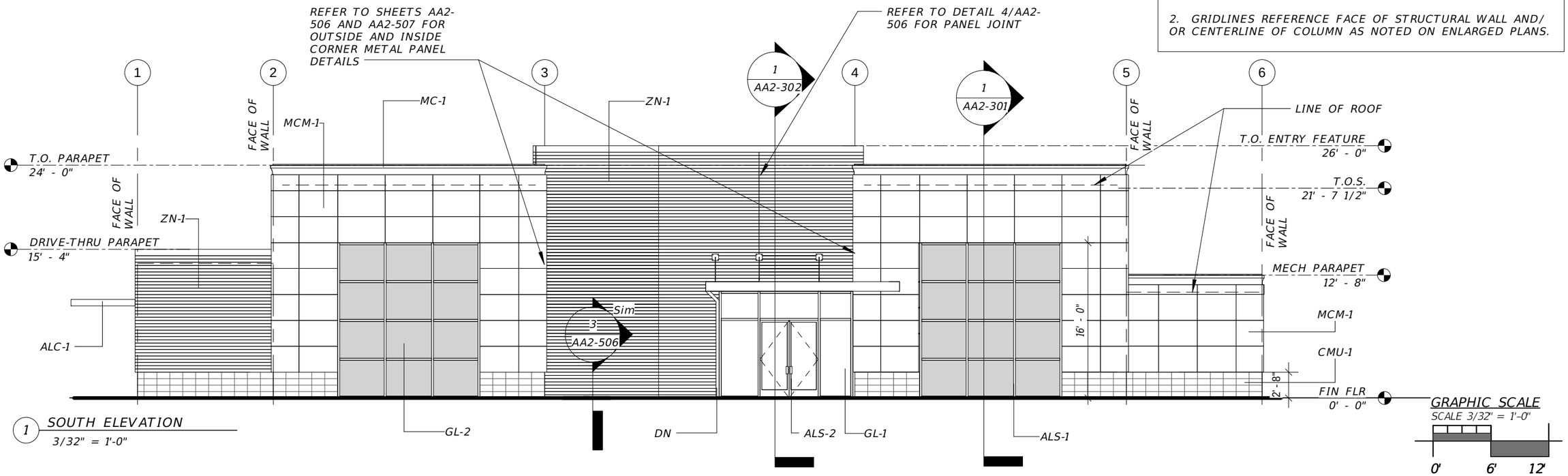
SUNTRAX TEST FACILITY STORAGE BUILDING
FURNITURE PLAN

SHEET NO.
AA2-112

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-16.005, F.A.C.

NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/ OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 SOUTH ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

STRUCTURAL STEEL
(ST) (05 1200)
ST-1
STYLE: HSS
SIZE: 8" X 8"
NOTES: PAINTED TO MATCH SW 6805

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES
(SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

OVERHEAD DOORS
(OD) (08 3330)
OD-1
MANUF: OVERHEAD DOORS
STYLE: ROLLING STEEL
MATERIAL / COLOR: GALVANIZED; POWDERCOATED WHITE
SIZE: 8'x8' or 14' X 16'; REFER TO DOOR SCHEDULE AA2-602
NOTES: NO VISION LIGHTS

ALUMINUM ENTRANCES AND STOREFRONT
(ALS) (08 4113)
ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: INSULATED GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: INSULATED GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 8" FASCIA (SIDE CANOPY) 12" FACIA (ENTRY CANOPY)
NOTES: FABRICATE WITHOUT TIE BACKS

NOTE:

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; 3 STRAPS TYPCIAL OVER 11'H; EQUALLY SPACED

-BOLLARD "SAFETY YELLOW" TYPICAL; REFER TO PLAN FOR LOCATION

-NS - NO SMOKING SIGN MOUNTED 48" A.F.F.

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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NA	POLK	437300-1-52-01

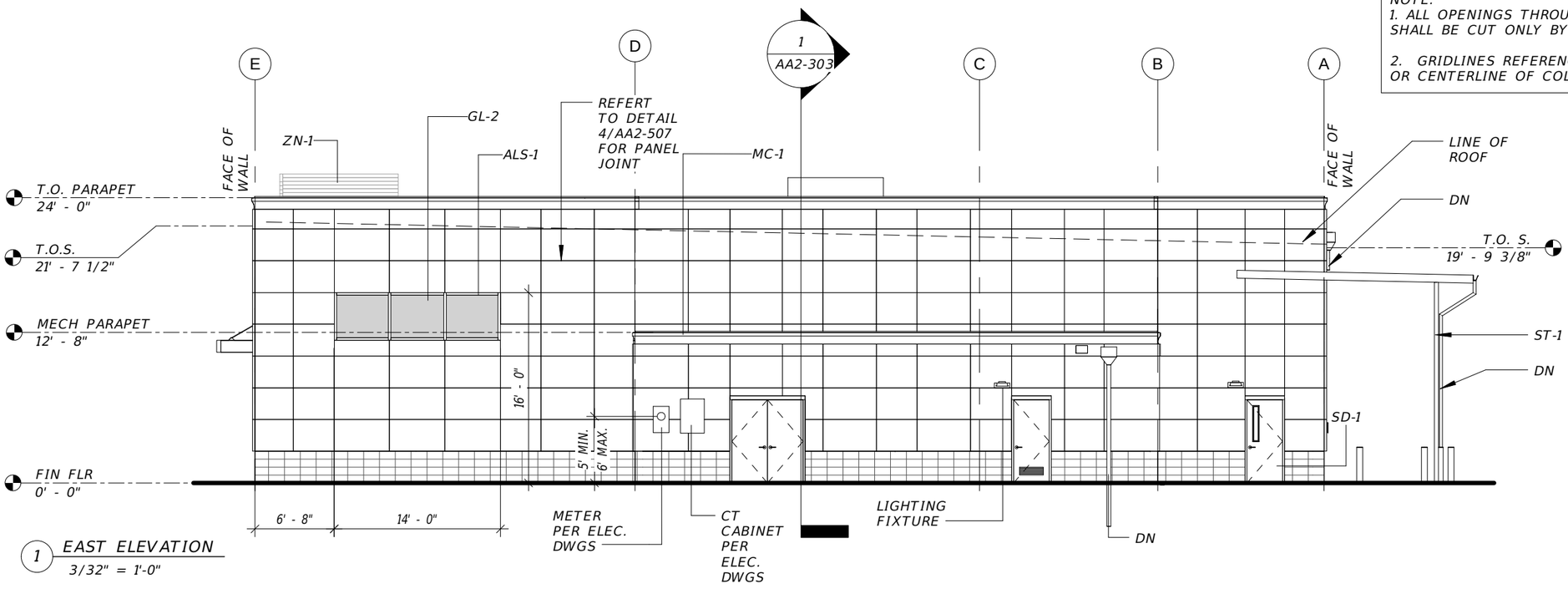
SUNTRAX TEST FACILITY
STORAGE BUILDING
SOUTH ELEVATION

SHEET NO.
AA2-201

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/ OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 EAST ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

STRUCTURAL STEEL
(ST) (05 1200)
ST-1
STYLE: HSS
SIZE: 8" X 8"
NOTES: PAINTED TO MATCH SW 6805

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES
(SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

OVERHEAD DOORS
(OD) (08 3330)
OD-1
MANUF: OVERHEAD DOORS
STYLE: ROLLING STEEL
MATERIAL / COLOR: GALVANIZED; POWDERCOATED WHITE
SIZE: 8'x8' or 14' X 16'; REFER TO DOOR SCHEDULE AA2-602
NOTES: NO VISION LIGHTS

ALUMINUM ENTRANCES AND STOREFRONT
(ALS) (08 4113)
ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: INSULATED GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: INSULATED GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 8" FASCIA (SIDE CANOPY) 12" FACIA (ENTRY CANOPY)
NOTES: FABRICATE WITHOUT TIE BACKS

NOTE:

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; 3 STRAPS TYPCIAL OVER 11'H; EQUALLY SPACED

-BOLLARD "SAFETY YELLOW" TYPICAL; REFER TO PLAN FOR LOCATION

-NS - NO SMOKING SIGN MOUNTED 48" A.F.F.

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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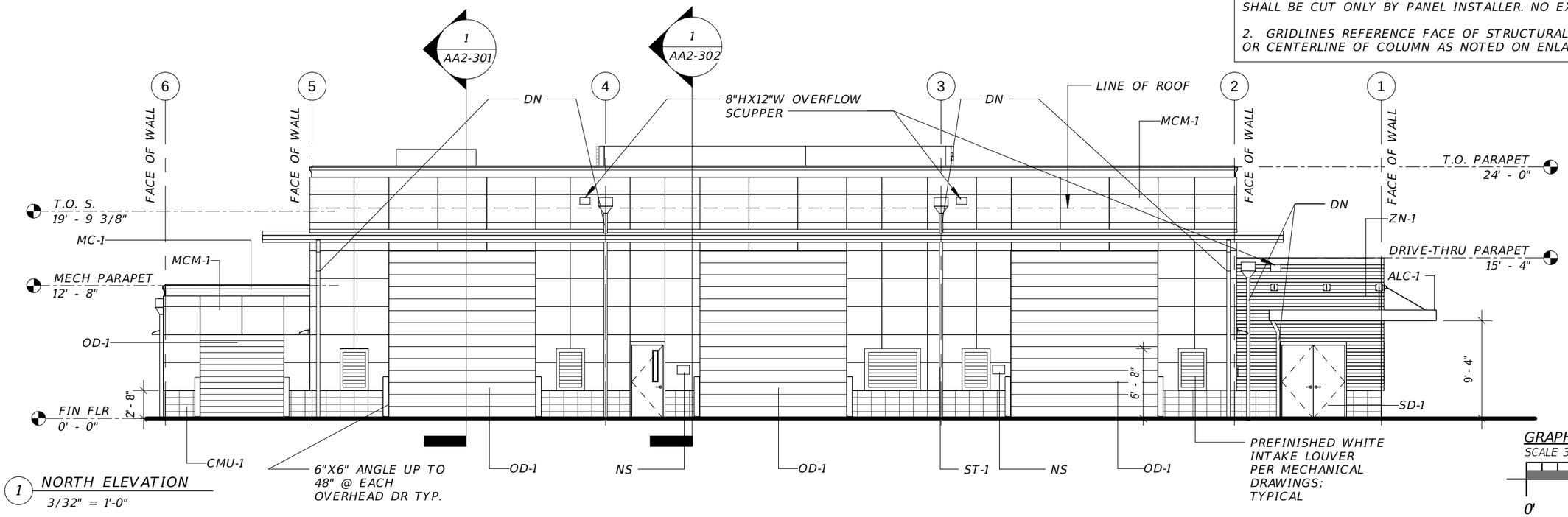
SUNTRAX TEST FACILITY STORAGE BUILDING
EAST ELEVATION

SHEET NO.
AA2-202

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/ OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 NORTH ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

STRUCTURAL STEEL
(ST) (05 1200)
ST-1
STYLE: HSS
SIZE: 8" X 8"
NOTES: PAINTED TO MATCH SW 6805

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES
(SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

OVERHEAD DOORS
(OD) (08 3330)
OD-1
MANUF: OVERHEAD DOORS
STYLE: ROLLING STEEL
MATERIAL / COLOR: GALVANIZED; POWDERCOATED WHITE
SIZE: 8'x8' or 14' X 16'; REFER TO DOOR SCHEDULE AA2-602
NOTES: NO VISION LIGHTS

ALUMINUM ENTRANCES AND STOREFRONT
(ALS) (08 4113)
ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: INSULATED GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: INSULATED GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 8" FASCIA (SIDE CANOPY) 12" FACIA (ENTRY CANOPY)
NOTES: FABRICATE WITHOUT TIE BACKS

NOTE:

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; 3 STRAPS TYPCIAL OVER 11'H; EQUALLY SPACED

-BOLLARD "SAFETY YELLOW" TYPICAL; REFER TO PLAN FOR LOCATION

-NS - NO SMOKING SIGN MOUNTED 48" A.F.F.

REVISIONS				
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BENTLEY ARCHITECTS + ENGINEERS, INC.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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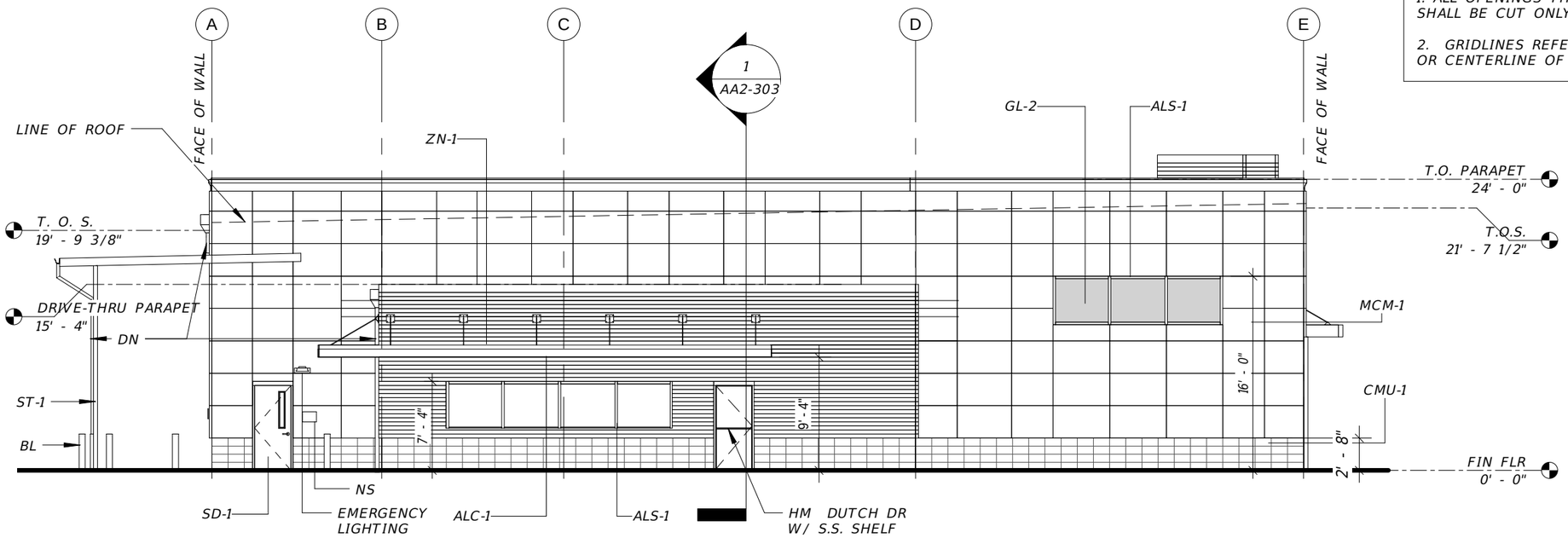
SUNTRAX TEST FACILITY STORAGE BUILDING
NORTH ELEVATION

SHEET NO.
AA2–203

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

NOTE:
1. ALL OPENINGS THROUGH RIBBED METAL AND MCM PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

2. GRIDLINES REFERENCE FACE OF STRUCTURAL WALL AND/ OR CENTERLINE OF COLUMN AS NOTED ON ENLARGED PLANS.



1 WEST ELEVATION
3/32" = 1'-0"

GRAPHIC SCALE
SCALE 3/32" = 1'-0"
0' 6' 12'

EXTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

REINFORCED CONCRETE MASONRY UNITS (CMU) (03 3000)
CMU-1
MANUF: TRENWYTH
STYLE: ASTRAGLAZE "ROTHWELL BLUE"
COURSING: STACKED
SIZE: 8" X 16" NOMINAL

STRUCTURAL STEEL
(ST) (05 1200)
ST-1
STYLE: HSS
SIZE: 8" X 8"
NOTES: PAINTED TO MATCH SW 6805

ZINC FACADE PANEL (ZN) (07 4213)
ZN-1 (SEE DETAILS AA1-508)
MANUF: METALTECH
STYLE: RIBBED - HV-90 PROFILE
MATERIAL / COLOR: 22 GA. ZINC; BLUE
SIZE: MAX PANEL SIZE
NOTES: HORIZONTAL INSTALLATION

ALUMINUM FACADE PANEL (MCM) (07 4400)
MCM-1 (SEE DETAILS AA1-509)
MANUF: ALCOA
STYLE: REYNOBOND PANELS
MATERIAL/COLOR: 6MM ALUMINUM;PROGRAM WHITE
SIZE: VARIES
NOTES: WET SEAL INSTALLATION

METAL CORNICE (MC) (07 6200)
MC-1
MANUF: METAL-ERA
STYLE: CREATIVE DESIGN CORNICE
MATERIAL / COLOR: .050 ALUM; SKYBLUE
SIZE: 11 1/2"

STEEL DOORS AND FRAMES
(SD) (08 1113)
SD-1
MANUF: REPUBLIC
STYLE: FLUSH
MATERIAL / COLOR: GALVANIZED; PAINTED TO MATCH SW 6805 "GLASS BEAD" @ EXTERIOR ONLY
SIZE: 1 3/4" THK
NOTES: PROVIDE VISION LIGHTS WHERE INDICATED

OVERHEAD DOORS
(OD) (08 3330)
OD-1
MANUF: OVERHEAD DOORS
STYLE: ROLLING STEEL
MATERIAL / COLOR: GALVANIZED; POWDERCOATED WHITE
SIZE: 8'x8' or 14' X 16'; REFER TO DOOR SCHEDULE AA2-602
NOTES: NO VISION LIGHTS

ALUMINUM ENTRANCES AND STOREFRONT
(ALS) (08 4113)
ALS-1
MANUF: YKK
STYLE: YES 45 XT STOREFRONT
COLOR: CLEAR ANODIZED
SIZE: 4.5"D X 2"W
NOTES: INSULATED GLAZING AS SPECIFIED

ALS-2
MANUF: YKK
STYLE: 35D MEDIUM STILE DBL SWING ENTRNACE DOOR
COLOR: CLEAR ANODIZED
SIZE: 3.5"W STILE
NOTES: INSULATED GLAZING AS SPECIFIED

GLAZING (GL) (08 8100)
GL-1
MANUF: PILKINGTON
STYLE: SOLAR-E; LOW-E, THERMAL
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: COLOR - ARTIC BLUE EXTERIOR LITE; CLEAR INTERIOR LITE

GL-2
MANUF: OKALUX
STYLE: KAPILUX T WITH ARTIC BLUE EXTERIOR LITE
SIZE: 1" UNIT COMPATIBLE WITH YES 45XT FRAME
NOTES: LIGHT DIFFUSING GLAZING

ALUMINUM CANOPY (ALC) (10 7300)
ALC-1
MANUF: PERFECTION ARCHITECTURAL SYSTEMS
STYLE: CANTILEVERED WITH METAL DECK
MATERIAL / COLOR: ALUMINUM; CLEAR ANODIZED
SIZE: 8" FASCIA (SIDE CANOPY) 12" FACIA (ENTRY CANOPY)
NOTES: FABRICATE WITHOUT TIE BACKS

NOTE:

-CONDUCTOR HEAD AND DOWNSPOUT (DN); PREFINISH TO MATCH SW 6805 "GLASS BEAD"; 3 STRAPS TYPCIAL OVER 11'H; EQUALLY SPACED

-BOLLARD "SAFETY YELLOW" TYPICAL; REFER TO PLAN FOR LOCATION

-NS - NO SMOKING SIGN MOUNTED 48" A.F.F.

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

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FLORIDA R.A. NO.: 11541
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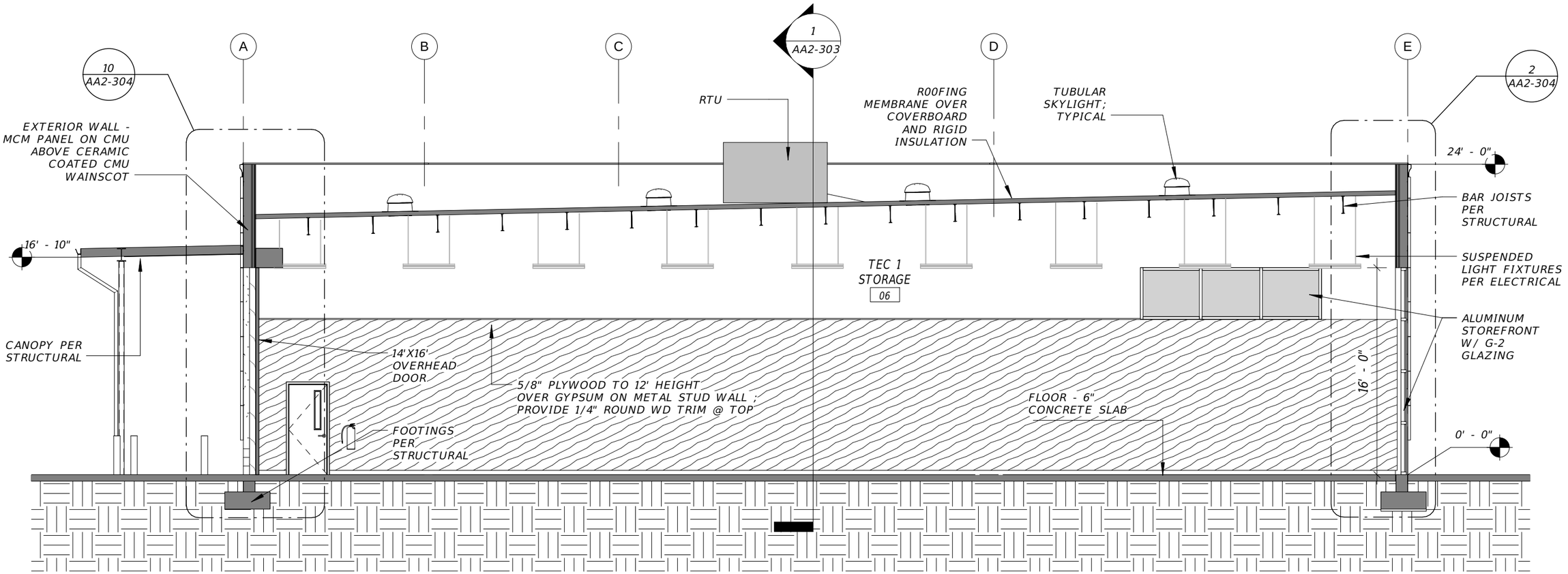
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING
WEST ELEVATION

SHEET NO.
AA2–204

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 BUILDING SECTION THROUGH - TEC STORAGE

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTE:

BUILDING SECTIONS ARE ILLUSTRATED WITH WALLS, ROOFS, CEILINGS, PARTITIONS AND FLOORS REPRESENTED GRAPHICALLY WITH A SOLID GRAY REGION. DETAILED MATERIALS ARE DEPICTED IN WALL SECTION DRAWINGS SHEET AA2-304, AA2-305 AND ENLARGED DETAILS.

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
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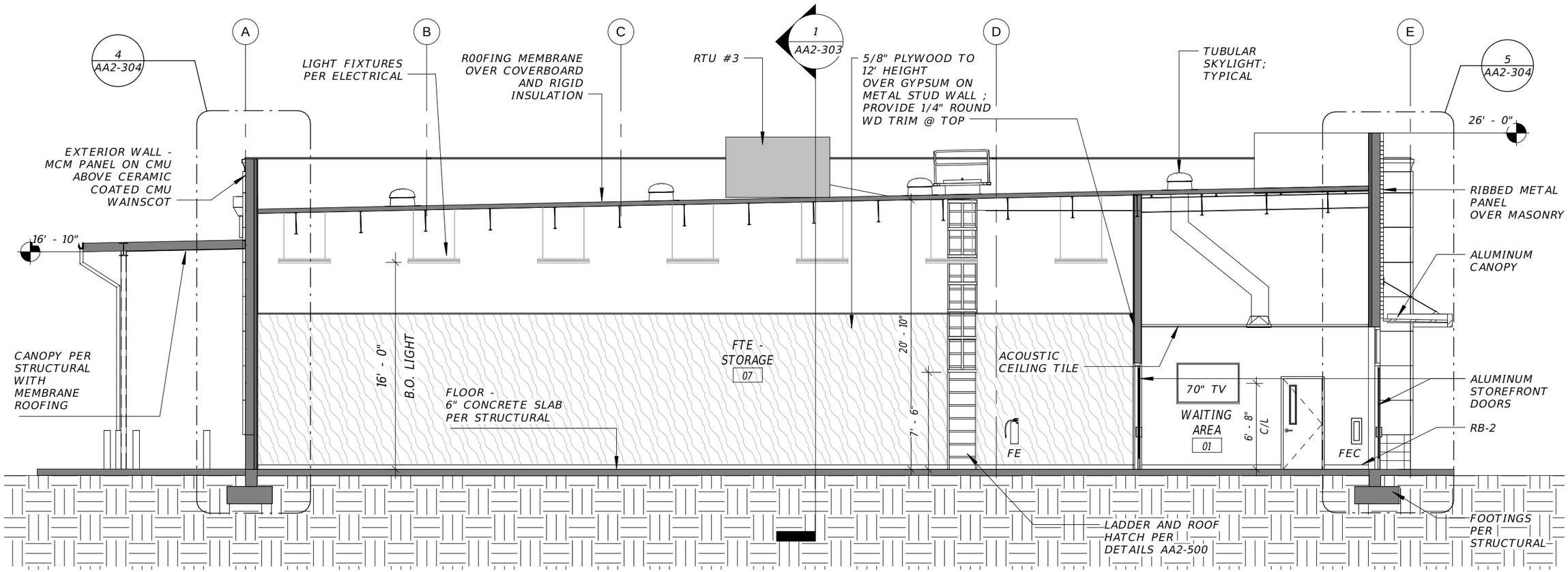
SUNTRAX TEST FACILITY STORAGE BUILDING

BUILDING SECTION

SHEET NO.

AA2–301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 6IGI-16.005, F.A.C.



1 BUILDING SECTION THROUGH FTE STORAGE AND WAITING AREA

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTE:

BUILDING SECTIONS ARE ILLUSTRATED WITH WALLS, ROOFS, CEILINGS, PARTITIONS AND FLOORS REPRESENTED GRAPHICALLY WITH A SOLID GRAY REGION. DETAILED MATERIALS ARE DEPICTED IN WALL SECTION DRAWINGS SHEET AA2-304, AA2-305 AND ENLARGED DETAILS.

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

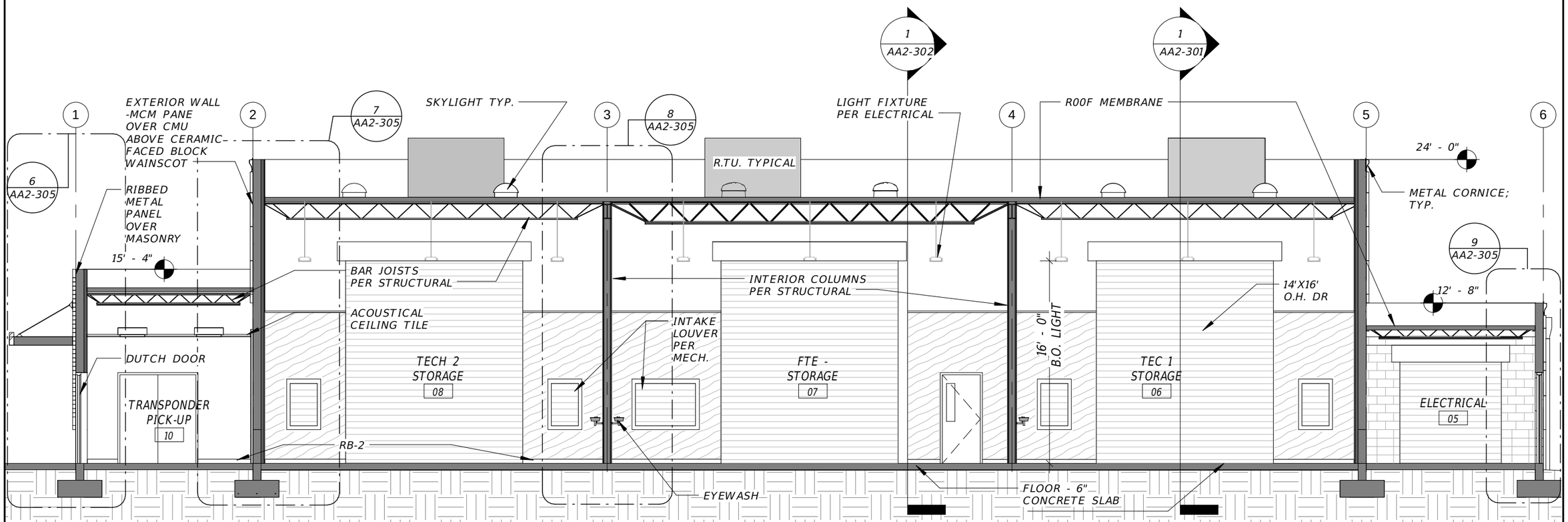
SUNTRAX TEST FACILITY STORAGE BUILDING

BUILDING SECTION

SHEET NO.

AA2-302

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1 BUILDING SECTION - THROUGH ALL STORAGE AREAS

1/8" = 1'-0"

GRAPHIC SCALE

SCALE 1/8" = 1'-0"

0' 4' 8'

NOTE:

BUILDING SECTIONS ARE ILLUSTRATED WITH WALLS, ROOFS, CEILINGS, PARTITIONS AND FLOORS REPRESENTED GRAPHICALLY WITH A SOLID GRAY REGION. DETAILED MATERIALS ARE DEPICTED IN WALL SECTION DRAWINGS SHEET AA2-304, AA2-305 AND ENLARGED DETAILS.

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STATE OF FLORIDA
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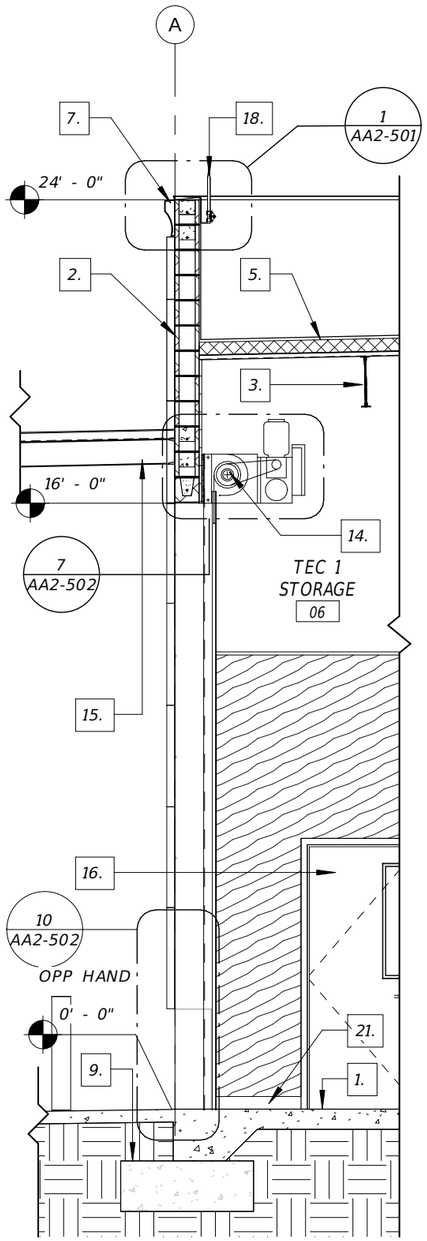
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

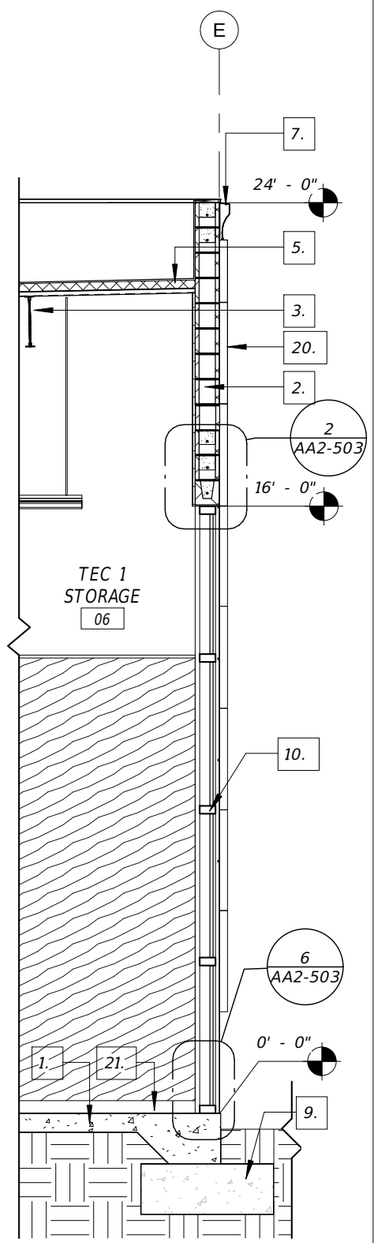
BUILDING SECTION

SHEET NO. AA2-303

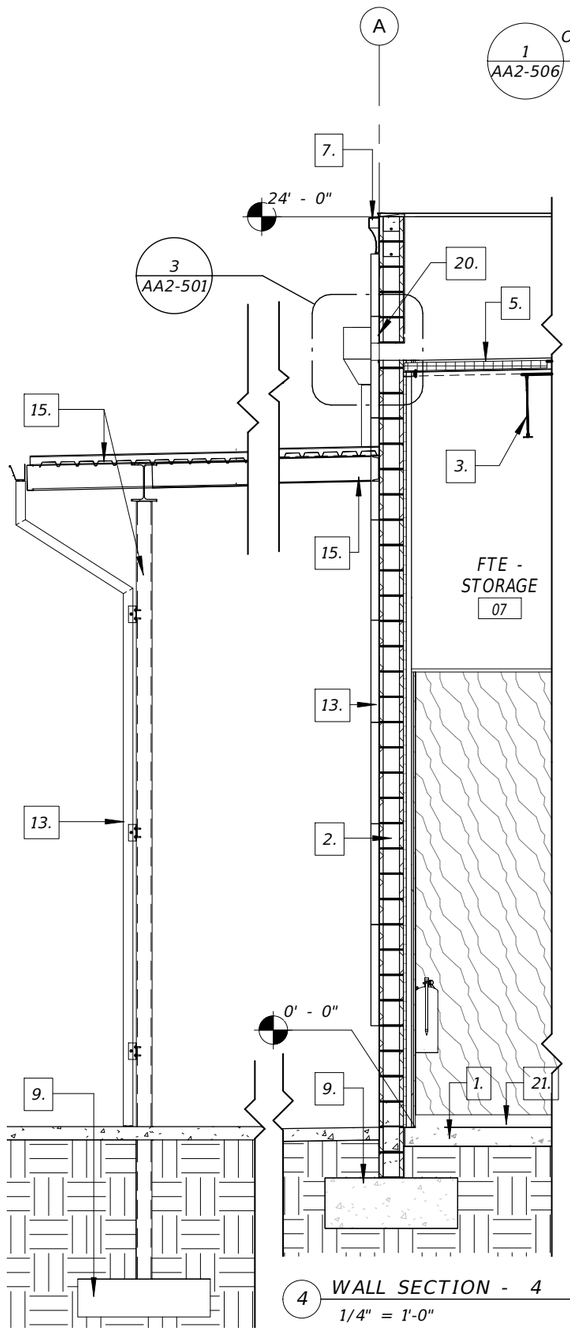
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



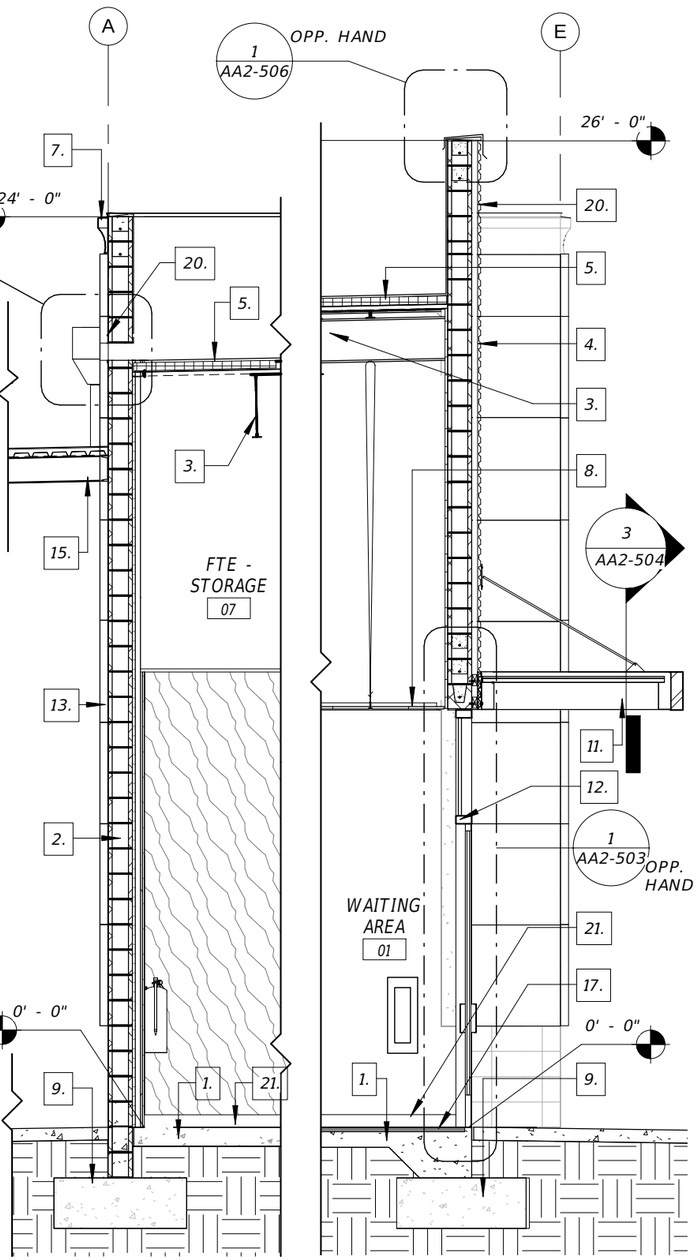
10 WALL SECTION - 1
1/4" = 1'-0"



2 WALL SECTION - 2
1/4" = 1'-0"



3 WALL SECTION - 3
1/4" = 1'-0"



4 WALL SECTION - 4
1/4" = 1'-0"

5 WALL SECTION - 5
1/4" = 1'-0"

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

WALL SECTION KEYNOTES

1. FLOOR- 4" CONCRETE SLAB OVER 10 MIL VAPOR BARRIER OVER TERMITE TREATED COMPACTED FILL.
2. EXTERIOR WALL- 8"X8"X16" CMU 2'-8"'H CERAMIC COATED BLOCK WAINSCOT & MCM PANEL ON REINFORCED 8"X8"X16" CMU ABOVE; ROVIDE RIGID INSULATION TO UNDERSIDE OF ROOF DECK.
3. STEEL BAR JOIST FRAMING; REFER TO STRUCTURAL.
4. EXTERIOR WALL - RIBBED FACADE PANELS OVER FLUID APPLIED WEATHER BARRIER ON CMU PER STRUCTURAL; INSULATE W/ RIGID INSULATION TO UNDERSIDE OF ROOD DECK, GYPSUM @ INT.
5. R00F MEMBRANE OVER 1/2" COVER BOARD ON 3.5" POLYISO. INSULATION (R -20 MIN.) OVER ON 1 1/2" METAL DECK OVER BAR JOISTS PER STRUCTURAL.
6. TUBULAR SKYLIGHT; TYPICAL. REFER TO DETAIL 2/AA2-109.
7. PREFINISHED DECORATIVE METAL CORNICE; REFER TO DETAIL 1/AA2-501.
8. ACOUSTIC 2' X 2' CEILING TILE IN SUSPENDED METAL GRID; REFER TO A601 FOR TYPE.
9. REINFORCED CONCRETE FOOTING PER STRUCTURAL.
10. CLEAR ANODIZED ALUMINUM STOREFRONT WITH LIGHT DIFFUSING GLAZING; TYPE G-2
11. PRE-ENGINEERED ALUMINUM CANOPY; CLEAR ANODIZED FINISH; WITH INTEGRAL SOFFIT AND DRAINAGE.
12. ALUMINUM STOREFRONT DOORS WITH INSULATED LOW-E GLAZING AND TRANSOM ABOVE; CLEAR ANODIZED FINISH
13. PREFINISHED CONDUCTOR HEAD AND DOWNSPOUT; TIE DOWNSPOUT TO UNDERGROUND DRAINAGE PER CIVIL DRAWINGS. PROVIDE 3 STRAPS EQUALLY SPACED TYPCIAL FOR DOWNSPOUTS > 11'H.
14. OVERHEAD COILING DOOR; REFER TO DOOR SCHEDULE AA2-602.
15. PAINTED STEEL CANOPY; REFER TO STRUCTURAL DWGS & AA2-505 FOR CANOPY ROOFING.
16. H/M DUTCH DOOR IN H/M FRAME.
17. WALK-OFF MAT.
18. COORDINATE LIGHTNING PROTECTION LOCATIONS WITH ELECTRICAL; REFER TO 1/AA2-501 FOR BRACKET.
19. INTERIOR METAL STUD WALL; REFER TO PARTITION SCHEDULE.
20. ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER.
21. RB-2 BASE; REFER TO FINISH AA2-601.

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SUNTRAX TEST FACILITY STORAGE BUILDING
WALL SECTIONS

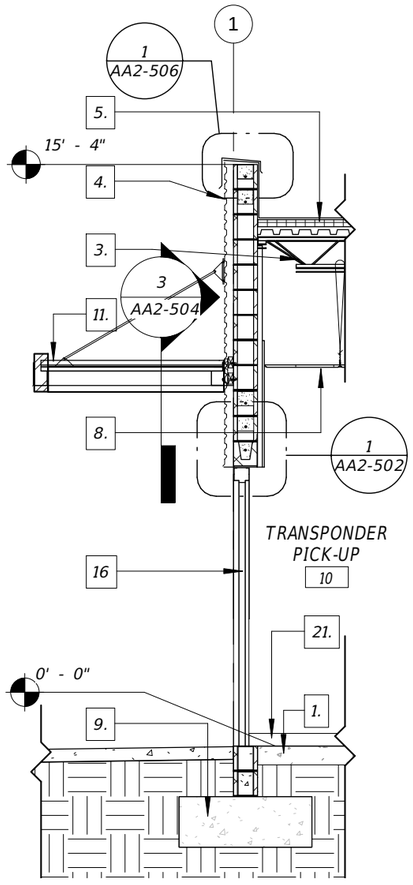
SHEET NO.
AA2-304

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GRAPHIC SCALE

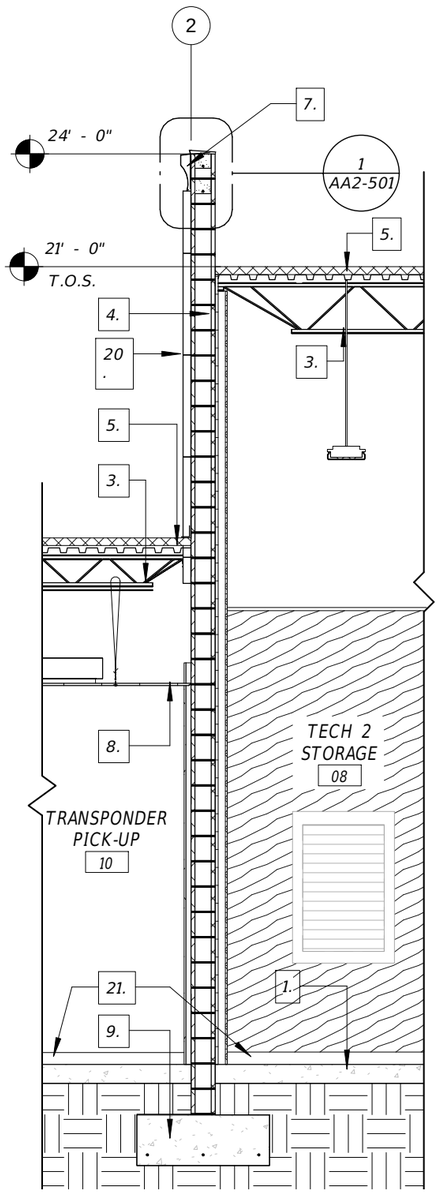
SCALE 1/4" = 1'-0"

0' 2' 4'



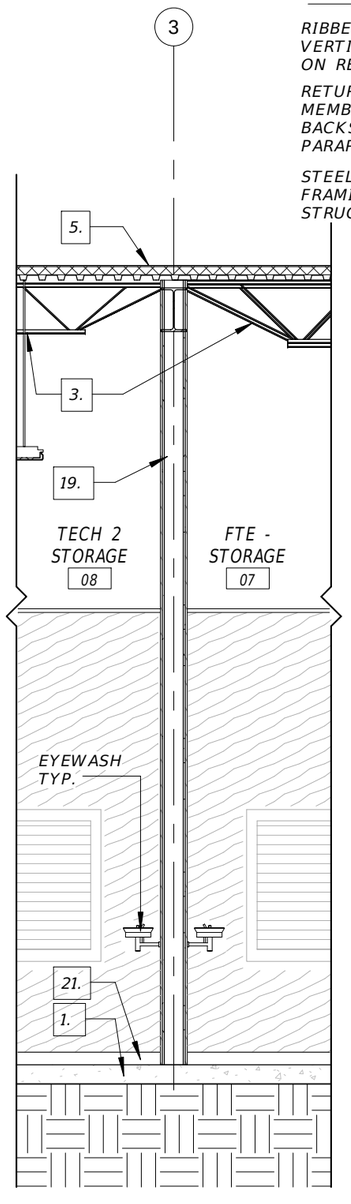
6 WALL SECTION - 6

1/4" = 1'-0"



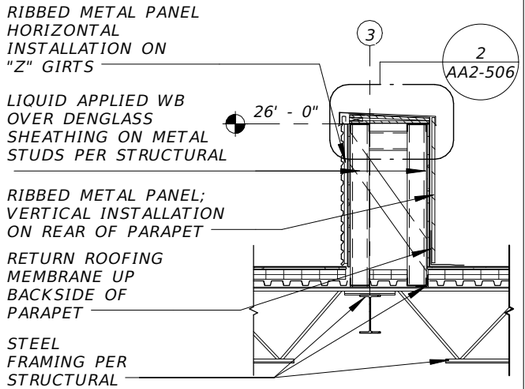
7 WALL SECTION - 7

1/4" = 1'-0"



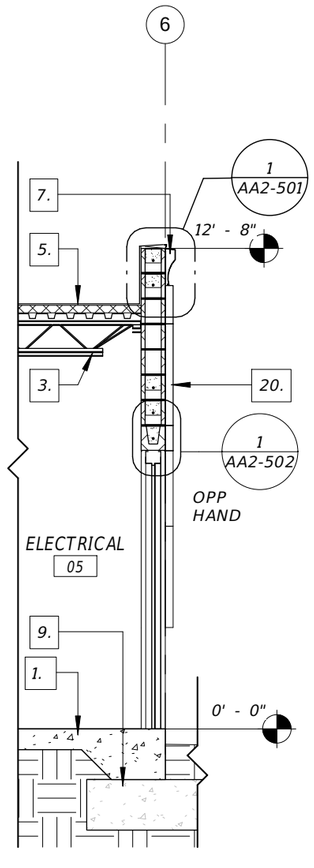
8 WALL SECTION - 8

1/4" = 1'-0"



10 PARAPET DETAIL

1/4" = 1'-0"



9 WALL SECTION - 9

1/4" = 1'-0"

WALL SECTION KEYNOTES

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3. STEEL BAR JOIST FRAMING; REFER TO STRUCTURAL.
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8. ACOUSTIC 2' X 2' CEILING TILE IN SUSPENDED METAL GRID; REFER TO A601 FOR TYPE.
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17. WALK-OFF MAT.
18. COORDINATE LIGHTNING PROTECTION LOCATIONS WITH ELECTRICAL; REFER TO 1/AA2-501 FOR BRACKET.
19. INTERIOR METAL STUD WALL; REFER TO PARTITION SCHEDULE.
20. ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER.
21. RB-2 BASE; REFER TO FINISH AA2-601.

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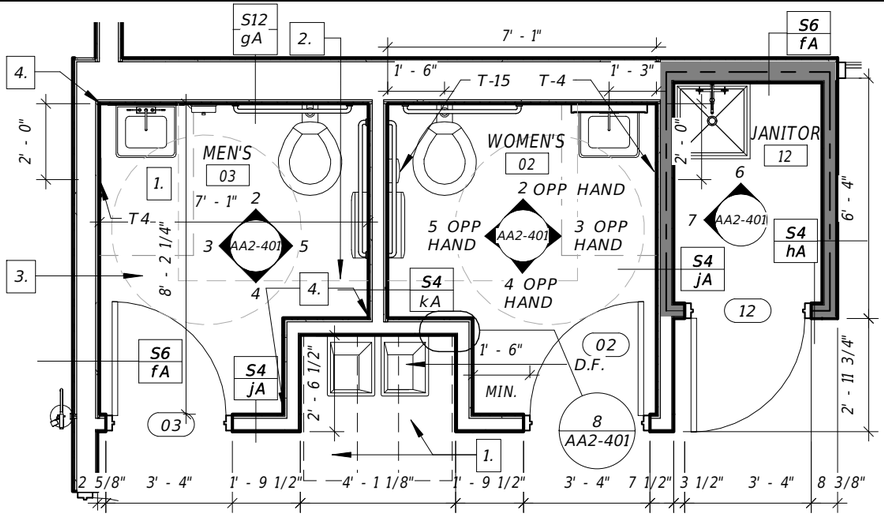
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

WALL SECTIONS

SHEET NO. AA2–305



1 ENLARGED RESTROOM FLOOR PLAN
1/4" = 1'-0"

TOILET ROOM ACCESSORIES SCHEDULE		MANF.	MODEL#	DESCRIPTION
LAVATORY				
T-1	MIRROR	BOBRICK	B-165 2436	24"X36 3/16" MIRROR WITH STAINLESS STEEL CHANNEL FRAME
T-5	SOAP DISPENSER	BOBRICK	B-2111	WALL MOUNTED SOAP DISPENSER
T-4	PAPER TOWEL DISPENSER	BOBRICK	B-369	RECESSED-MOUNTED PAPER TOWEL DISPENSER
WATER CLOSET				
T-10	GRAB BAR 42"	INPRO	DSGB42ADA	STAINLESS STEEL HORIZONTAL 42" GRAB BAR WITH SNAP FLANGE
T-11	GRAB BAR 36"	INPRO	DSGB36ADA	STAINLESS STEEL HORIZONTAL 36" GRAB BAR WITH SNAP FLANGE
T-13	TOILET SEAT COVER DISPENSER	BOBRICK	B-221	SURFACE-MOUNTED TOILET SEAT COVER DISPENSER
T-14	SURFACE-MOUNTED TWIN JUMBO-ROLL TOILET TISSUE DISPENSER	BOBRICK	B-2892	SURFACE-MOUNTED
T-15	SANITARY NAPKIN DISPOSAL	BOBRICK	B-270	SURFACE-MOUNTED CONTURA SERIES
JANITOR				
T-30	MOP/BROOM HOLDER & RAG HOOKS	BOBRICK	B-239	UTILITY SHELF WITH MOP/BROOM HOLDERS AND RAG HOOKS

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL

2. COORDINATE PLUMBING FIXTURES, WATER SUPPLY, SANITARY AND FLOOR DRAINS WITH PLUMBING PLANS & SPECIFICATIONS TYPICAL.

3. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT. ETC.

4. ALL EXPOSED FASTNERS SHALL BE STAINLESS STEEL.

5. CONTRACTOR SHALL VERIFY CLEARANCE REQUIREMENTS OF ALL APPLIANCES PRIOR TO MILLWORK FABRICATION, TYP.

6. NOT USED

7. SEE DRAWING AA-008 FOR PARTITION TYPES AND DETAILS.

8. SEE DRAWING AA-006 FOR TOILET ROOM ACCESSORIES AND FIXTURE MOUNTING HEIGHTS FOR ACCESSIBILITY.

9. SEE DRAWING AA-601 FOR FINISH SCHEDULE.

PLAN KEYNOTES:

1. 30X48 CLEAR FLOOR SPACE PER FLORIDA ACCESSIBILITY CODE 2014 - SECTION 305.3

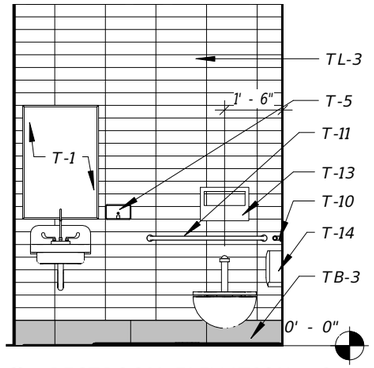
2. 56X60 CLEAR FLOOR SPACE PER FLORIDA ACCESSIBILITY CODE 2014 - SECTION 604.3.1

3. 60" DIAMETER TURNING SPACE PER FLORIDA ACCESSIBILITY CODE 2014 - ADA CODE SECTION 304.3.1

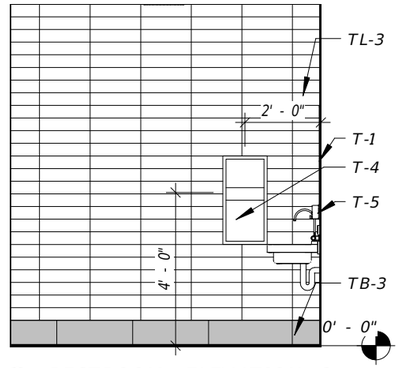
4. CAULKING @ INSIDE CORNERS WHERE WALL TILE MEETS ALL RESTROOM LOCATIONS; TYPICAL

ELEVATION KEYNOTES:

TL-3 WALL TILE
TB-3 TILE BASE
P-3 LATEX PAINT
P-4 LATEX PAINT
FRP-1 - MARLITE PANEL
QTB-1 - QUARRY TILE BASE

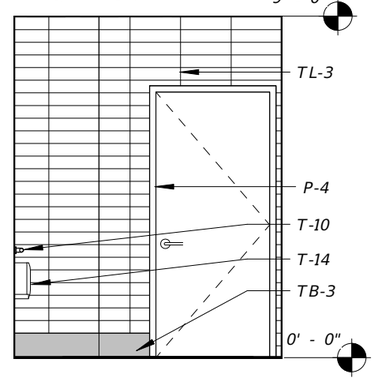


2 RESTROOM ELEVATION - 2
1/4" = 1'-0"

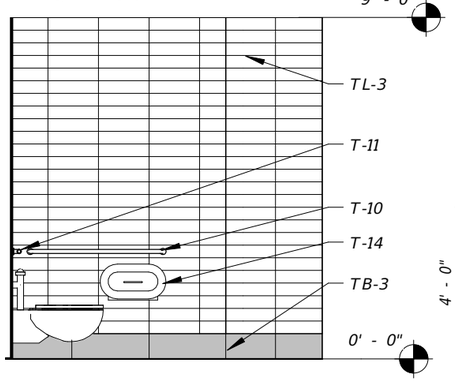


3 RESTROOM ELEVATION -3
1/4" = 1'-0"

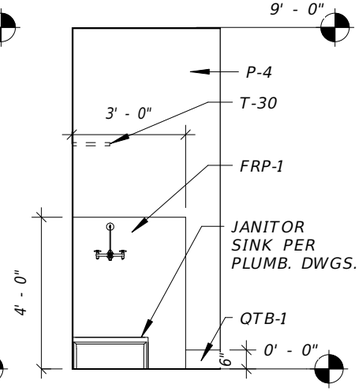
GRAPHIC SCALE
SCALE 1/4" = 1'-0"
0' 2' 4'



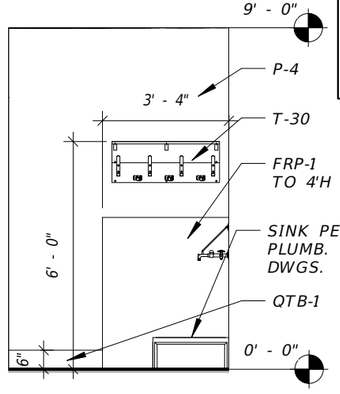
4 RESTROOM ELEVATION -4
1/4" = 1'-0"



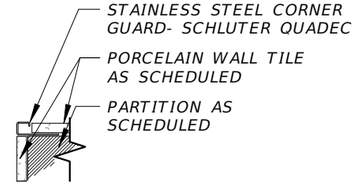
5 RESTROOM ELEVATION -5
1/4" = 1'-0"



6 JANITOR ELEVATION- WEST
1/4" = 1'-0"



7 JANITOR ELEVATION-NORTH
1/4" = 1'-0"



8 TILE CORNER DETAIL
3" = 1'-0"

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SUNTRAX TEST FACILITY STORAGE BUILDING

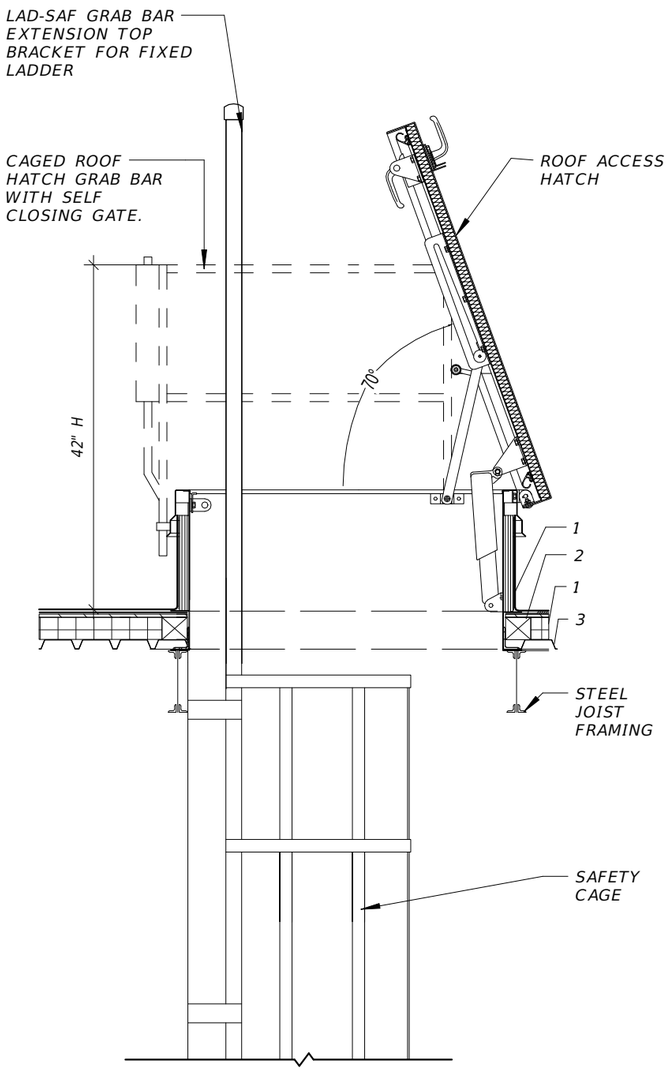
ENLARGED RESTROOM PLAN AND ELEVATIONS

SHEET NO.
AA2-401

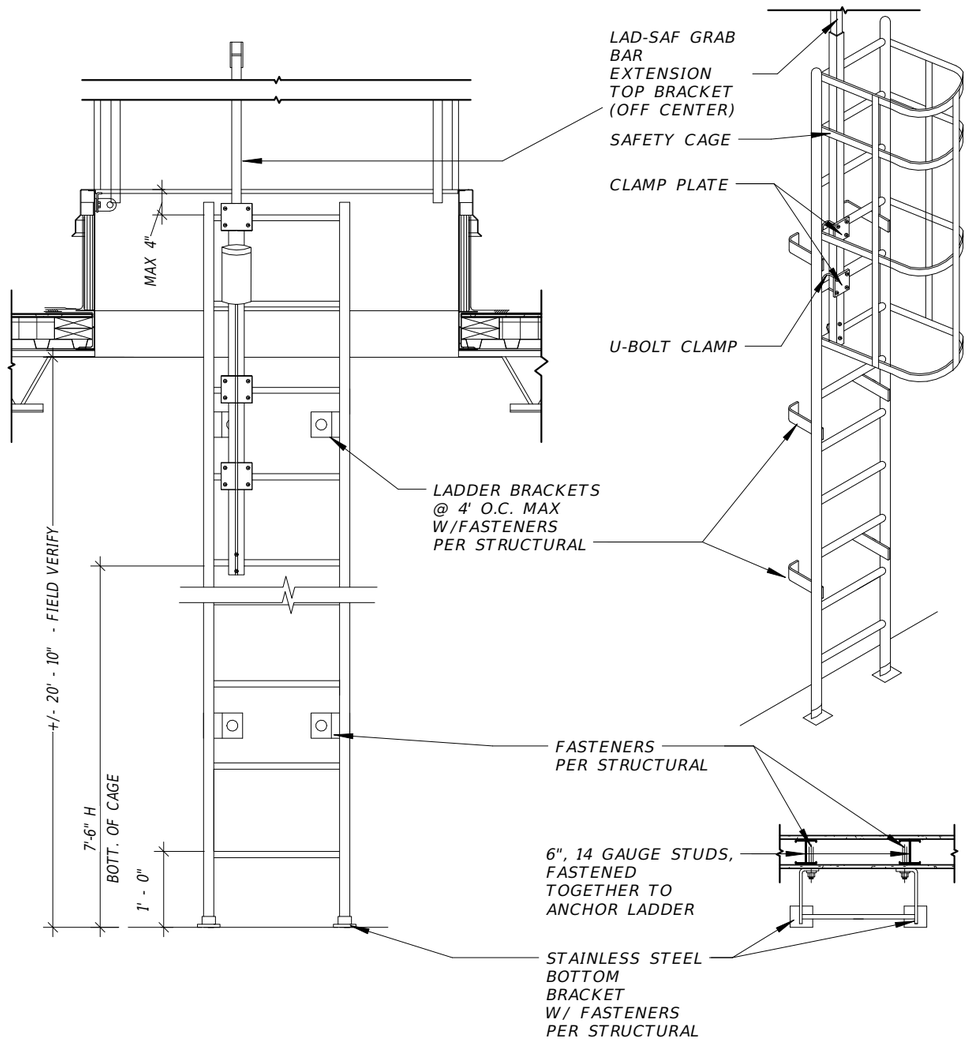
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REFERENCE KEYNOTES:

1 ROOFING MEMBRANE
2 WOOD BLOCKING
3 STEEL DECKING. SEE STRUCTURAL.



1 ROOF HATCH DETAIL
1/2" = 1'-0"



2 ROOF HATCH/LADDER DETAIL
1/2" = 1'-0"

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

GENERAL NOTES:

1. DESIGN SHALL COMPLY WITH OSHA STANDARDS 1926.1053.

2. LADDER SHALL HAVE A SAFE LOAD CAPACITY OF 350 LBS.

3. COMPONENTS:

A. LADDDER:

1. PROVIDE MANUFACTURER'S STANDARD TUBULAR FIXED-RAIL. COORDINATE WITH SPECIFICATIONS.

2. STANDARD MILL FINISH

3. LADDER RUNGS SHALL BE ROUND. CORRUGATED RUNGS ARE NOT ALLOWED. ALL RUNGS SHOULD HAVE SKID RESISTANT FINISH.

B. FASTENERS:
1. USE 3/8" THICK GALVANIZED STEEL BRACKETS.

2. LADDER BRACKETS AND FLOOR BRACKETS SHALL BE INSTALLED PER OSHA STANDARDS AND MANUFACTURER'S REQUIREMENTS.

3. USE FASTENERS PER STRUCTURAL

4. COORDINATE LADDER BRACKET SIZE WITH INSTALLATION OF ROOF HATCH AS TO DISTANCE FROM WALL TO LADDER.

C. ALL FABRICATED ASSEMBLIES CONTAINING PIPE OR TUBE SHALL HAVE DRAIN HOLES IN ACCORDANCE WITH ASTM A385 PRIOR TOBEING HOT-DIP GALVANIZED.

4. ALL DIMENSIONS ARE TO FACE OF FINISH, TYP.

5. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FORADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, ETC.

6. APPLY BONDING ADHESIVE ON ALL SIDES OF ROOF HATCH FLASHING.

7. MIN. 1 1/2" HOT AIR WELD TYP.

8. INSTALLATION:

A. INSTALL LADDER AS INDICATED ON DRAWINGS.

B. PROVIDE TAMPER RESISTANT FASTENERS

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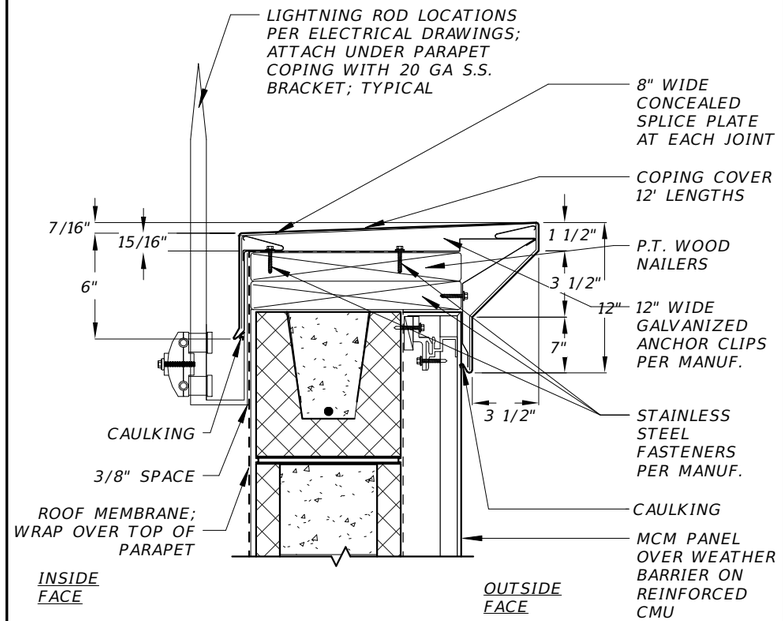
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

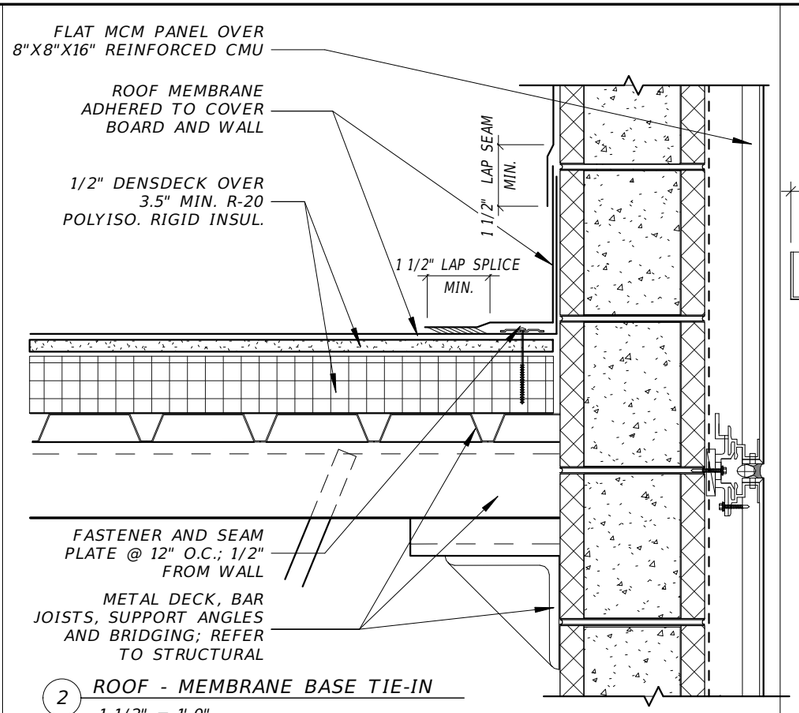
SUNTRAX TEST FACILITY STORAGE BUILDING

ROOF HATCH / LADDER DETAILS

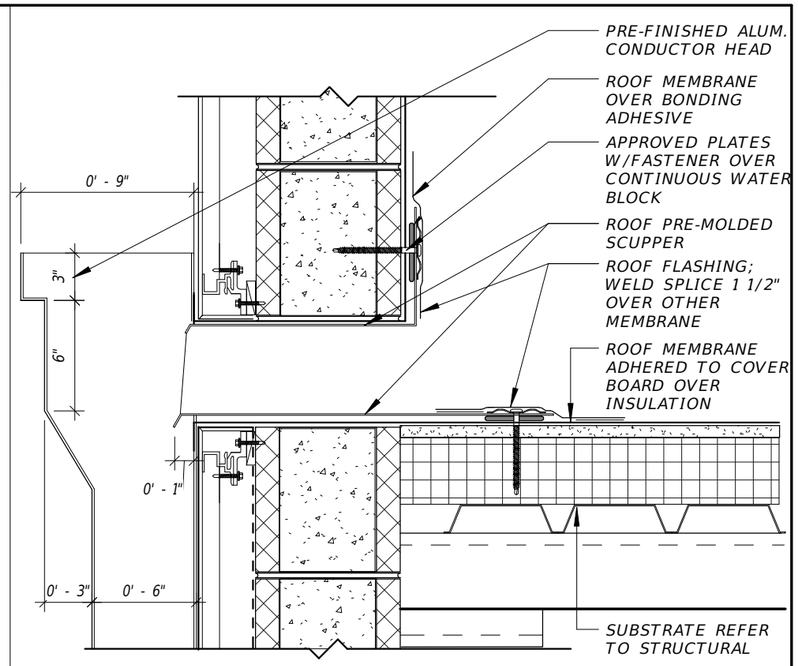
SHEET NO.
AA2-500



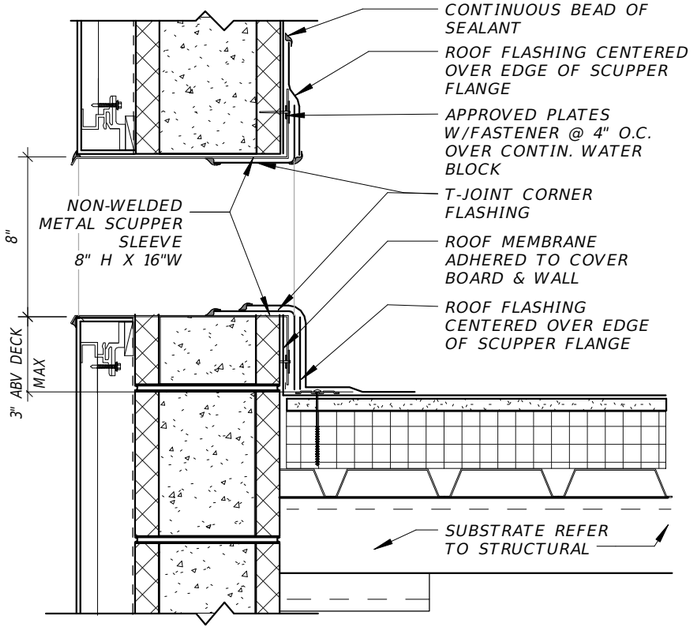
1 ROOF - CORNICE DETAIL
1 1/2" = 1'-0"



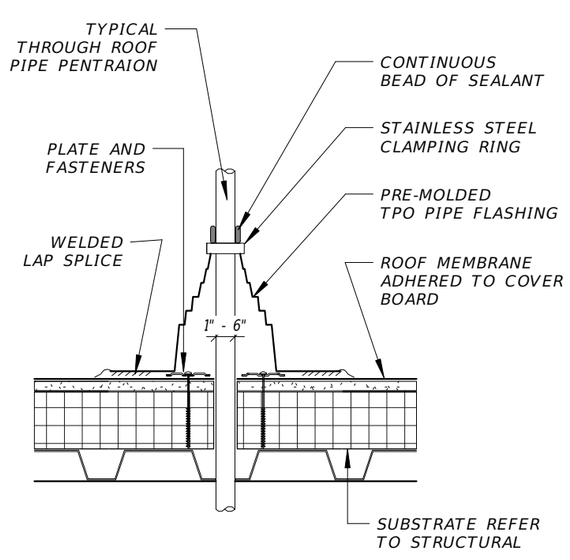
2 ROOF - MEMBRANE BASE TIE-IN
1 1/2" = 1'-0"



3 ROOF - SCUPPER DETAIL
1 1/2" = 1'-0"

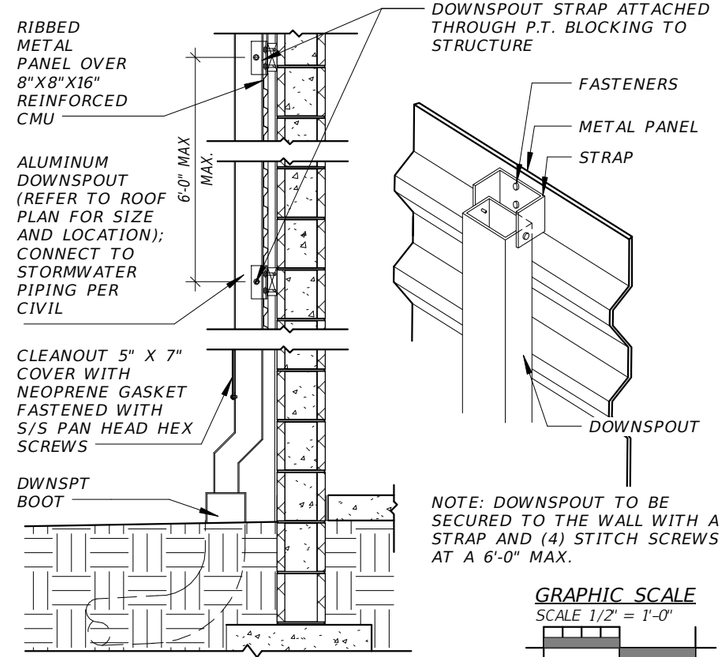


4 ROOF - OVERFLOW SCUPPER DETAIL
1 1/2" = 1'-0"



5 ROOF - PIPE FLASHING DETAIL
1 1/2" = 1'-0"

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"



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

7 DOWNSPOUT ATTACHMENT SECTION
1/2" = 1'-0"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

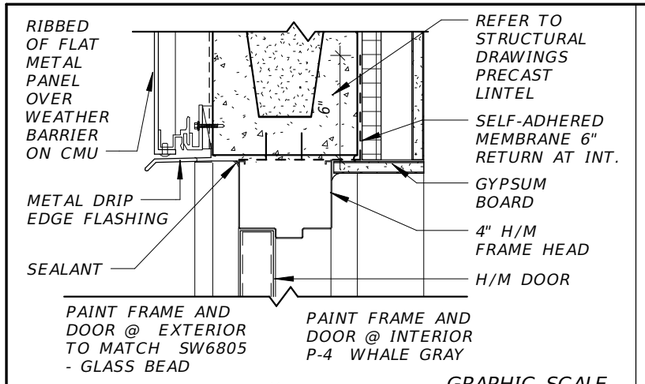
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

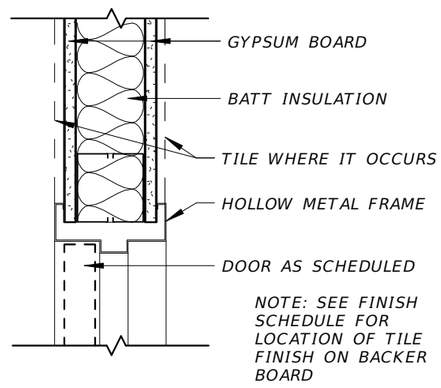
ROOF DETAILS

SHEET NO. AA2-501

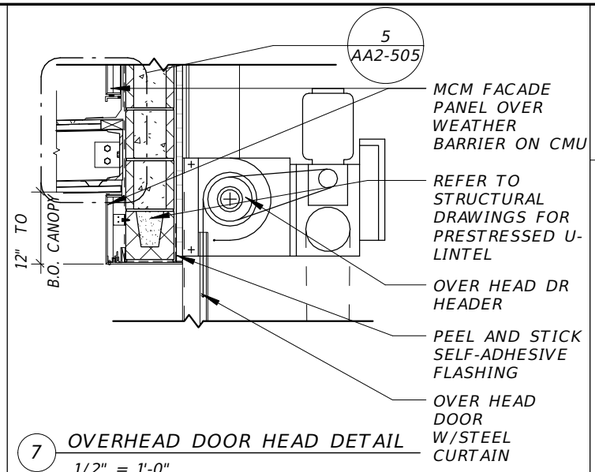
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 DOOR DETAIL - EXTERIOR
1 1/2" = 1'-0"



4 DOOR HEAD DETAIL - INTERIOR
1 1/2" = 1'-0"

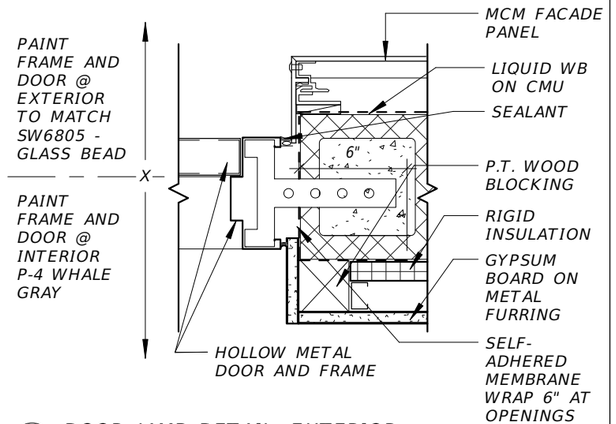


7 OVERHEAD DOOR HEAD DETAIL
1/2" = 1'-0"

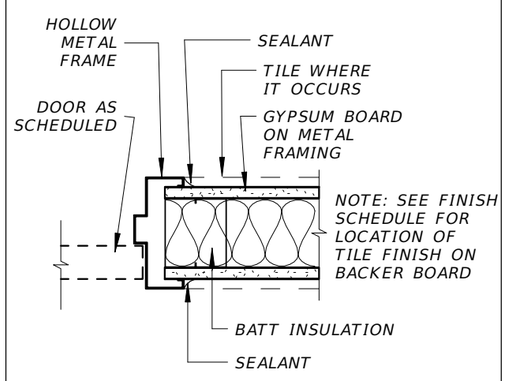
GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL

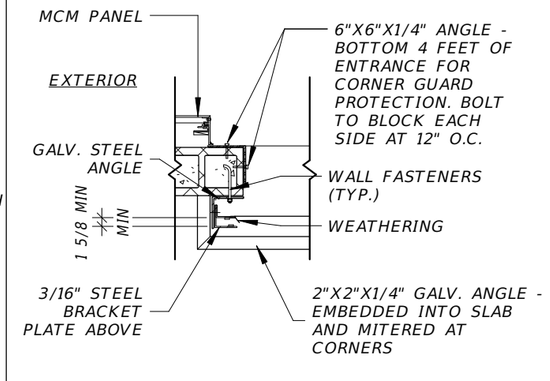
2. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, N.O.A.'S, ETC.



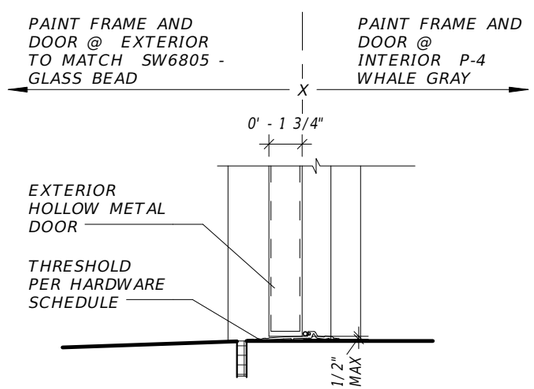
2 DOOR JAMB DETAIL -EXTERIOR
1 1/2" = 1'-0"



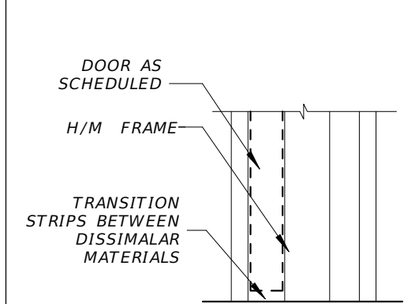
5 DOOR JAMB DETAIL - INTERIOR
1 1/2" = 1'-0"



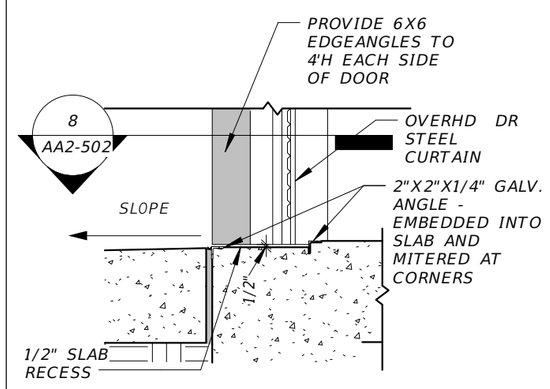
8 OVERHEAD DOOR JAMB DETAIL
1/2" = 1'-0"



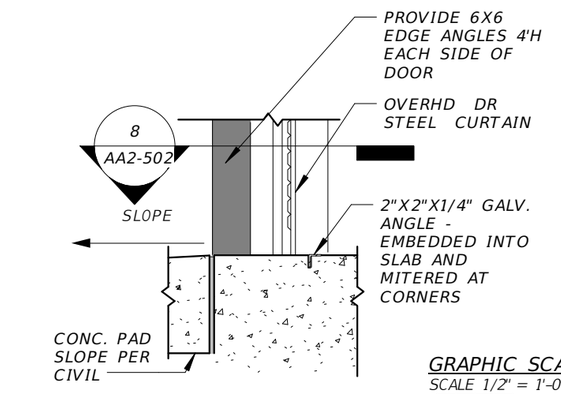
3 EXTERIOR H/M DOOR THRESHOLD DETAIL
1 1/2" = 1'-0"



6 DOOR THRESHOLD DETAIL - INTERIOR
1 1/2" = 1'-0"



9 OVERHEAD DOOR BASE DETAIL- YARD STORAGE
1/2" = 1'-0"



10 OVERHEAD DOOR BASE DETAIL
1/2" = 1'-0"

REVISIONS				
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651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

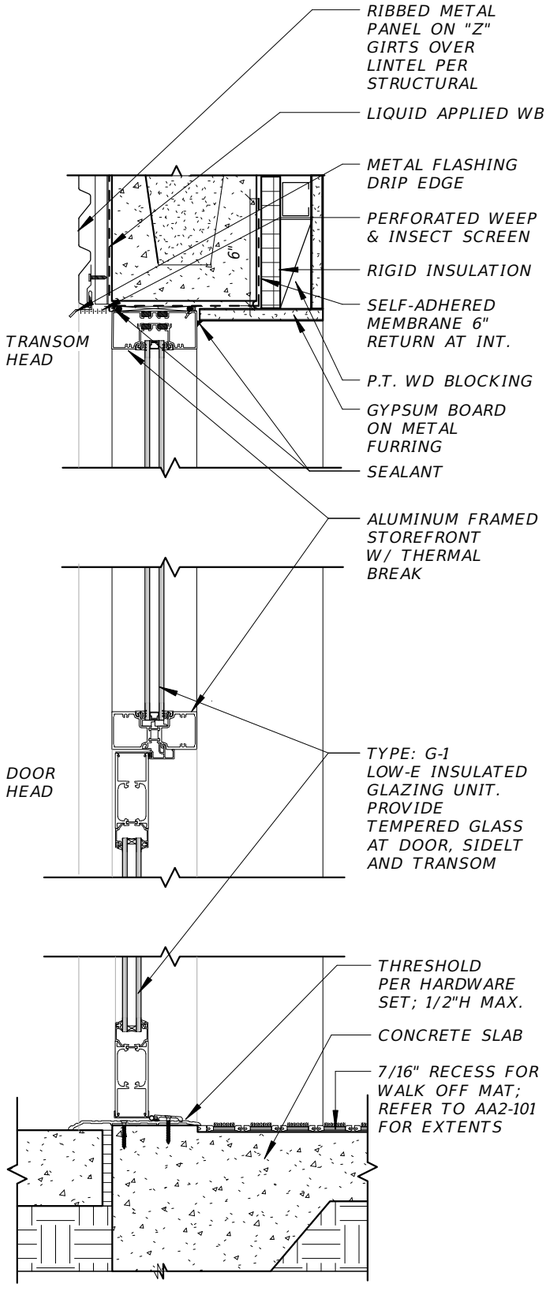
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

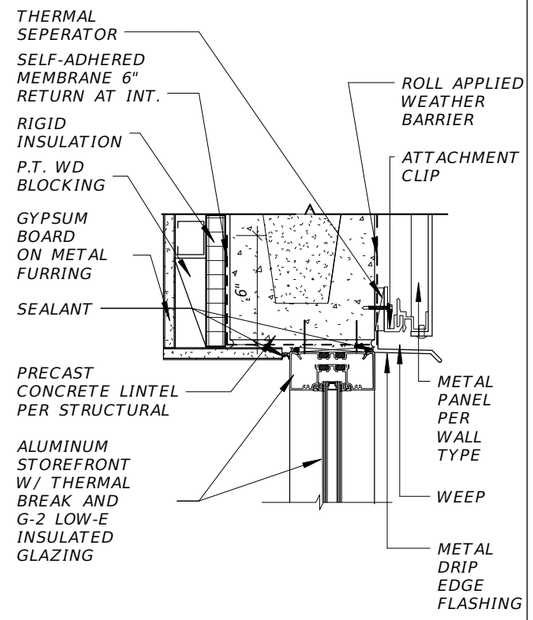
SUNTRAX TEST FACILITY STORAGE BUILDING
DOOR DETAILS

SHEET NO.
AA2-502

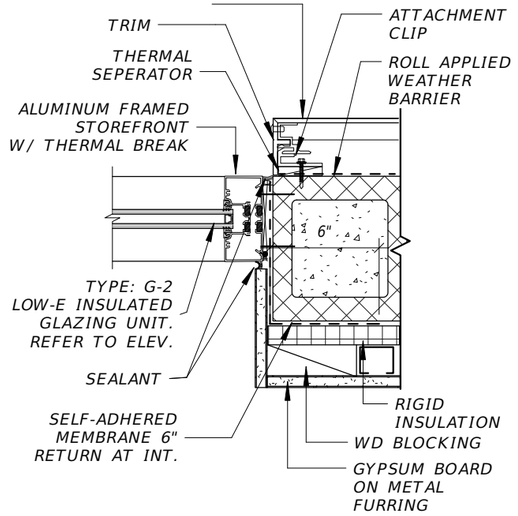
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 6IGI-16.005, F.A.C.



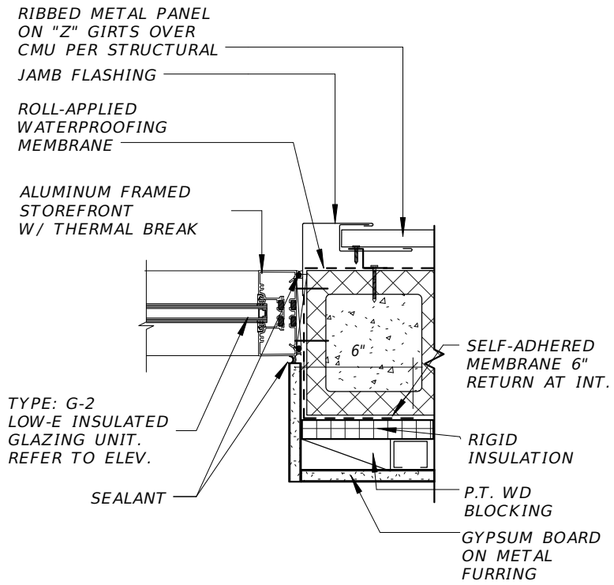
1 STOREFRONT HEAD/THRESHOLD - DETAIL
1 1/2" = 1'-0"



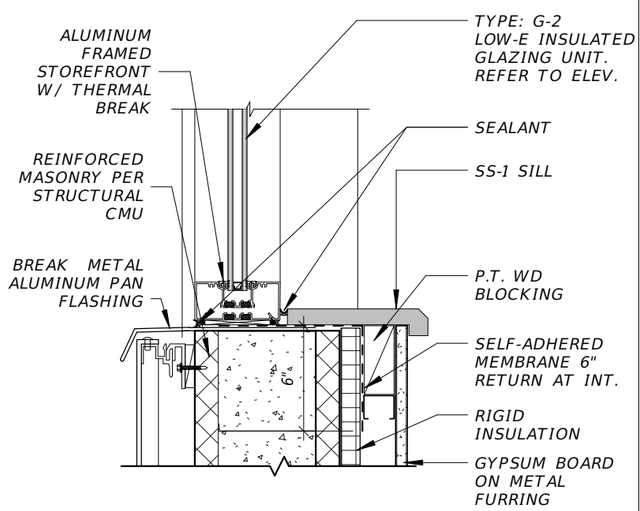
2 WINDOW HEAD DETAIL
1 1/2" = 1'-0"



3 WINDOW JAMB DETAIL
1 1/2" = 1'-0"



4 WINDOW JAMB DETAIL 2
1 1/2" = 1'-0"

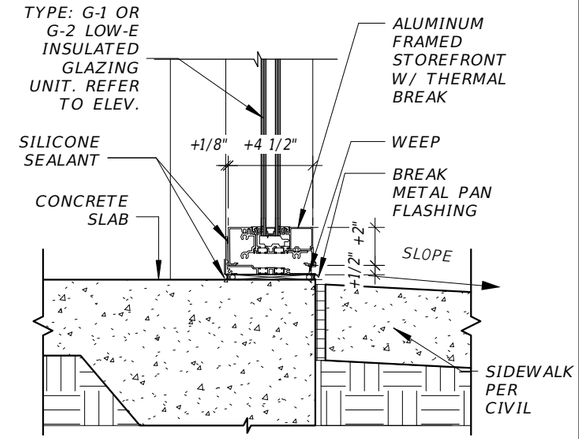


5 WINDOW SILL DETAIL - MCM PANEL
1 1/2" = 1'-0"

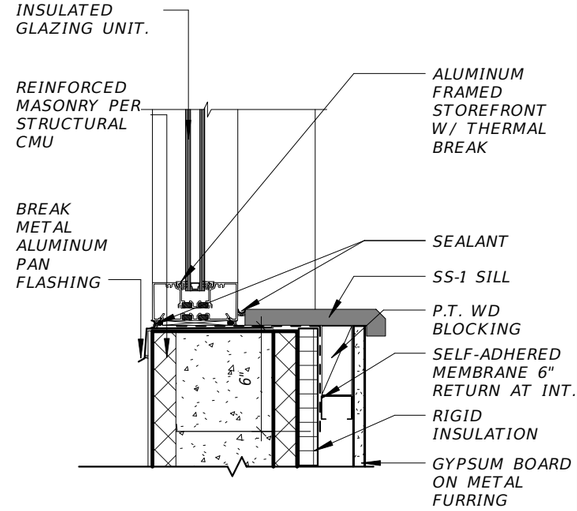
GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL

2. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, N.O.A.'S, ETC.



6 WINDOW SILL DETAIL @ SLAB
1 1/2" = 1'-0"



7 WINDOW SILL - RIBBED METAL PANEL
1 1/2" = 1'-0"

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
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LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

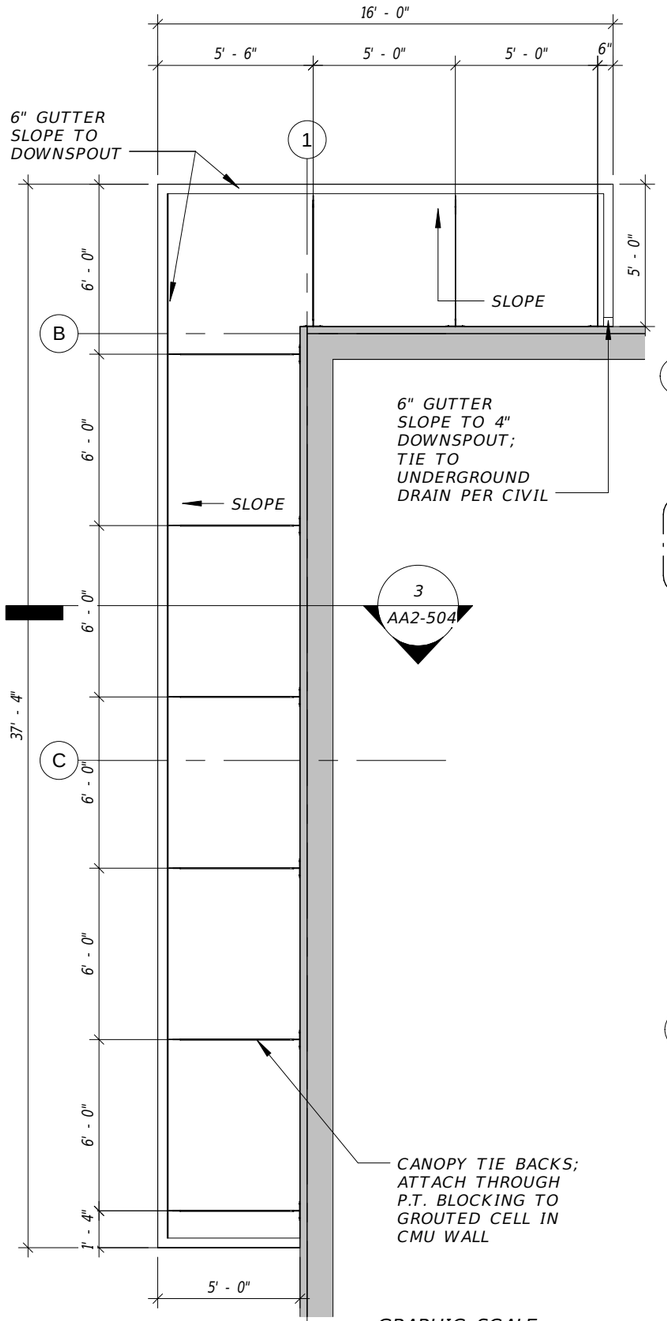
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

WINDOW DETAILS

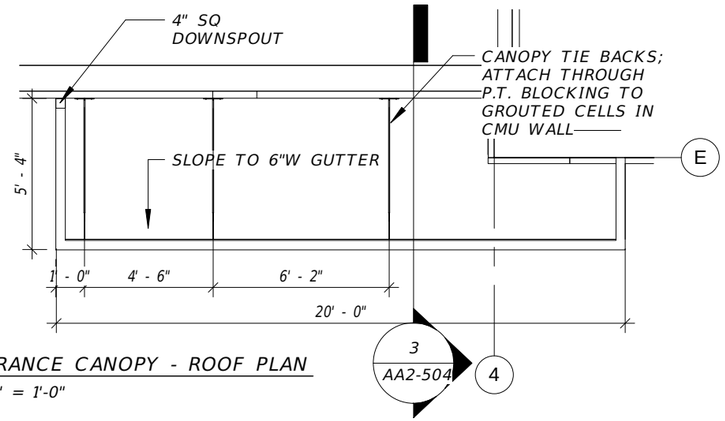
SHEET NO.
AA2-503

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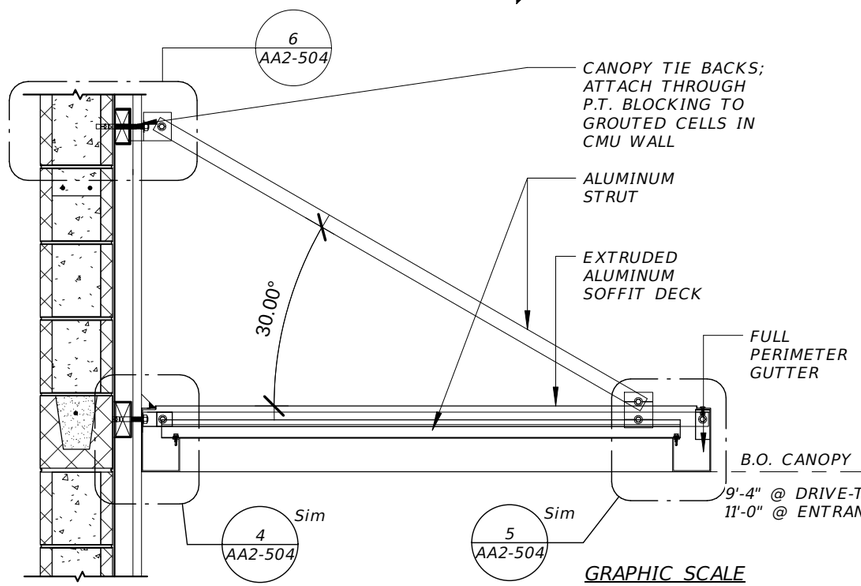


GRAPHIC SCALE
SCALE 3/16" = 1'-0"
0' 2' 4'

1 CANOPY @ DRIVE THRU
3/16" = 1'-0"

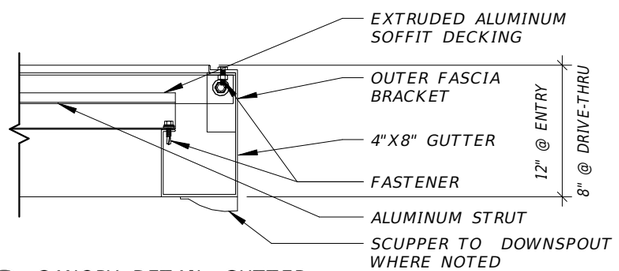


2 ENTRANCE CANOPY - ROOF PLAN
3/16" = 1'-0"



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

3 CANOPY DETAIL- SECTION
3/4" = 1'-0"



5 CANOPY DETAIL- GUTTER
1 1/2" = 1'-0"

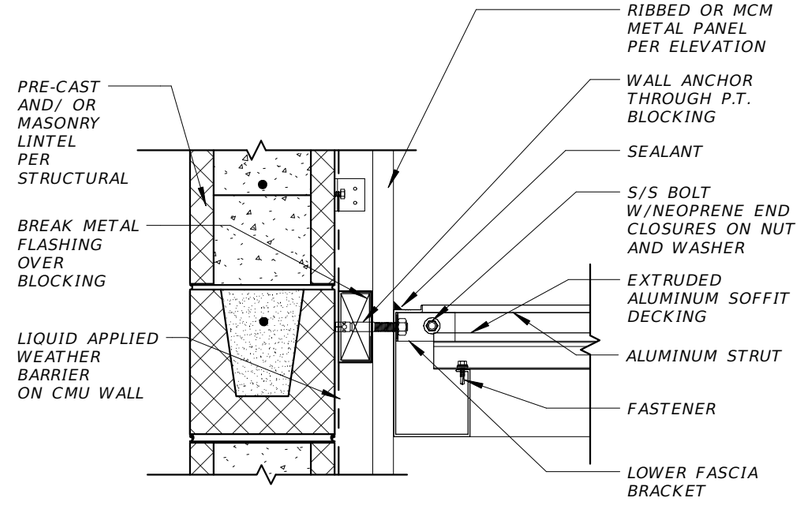
GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF FINISH, TYP.

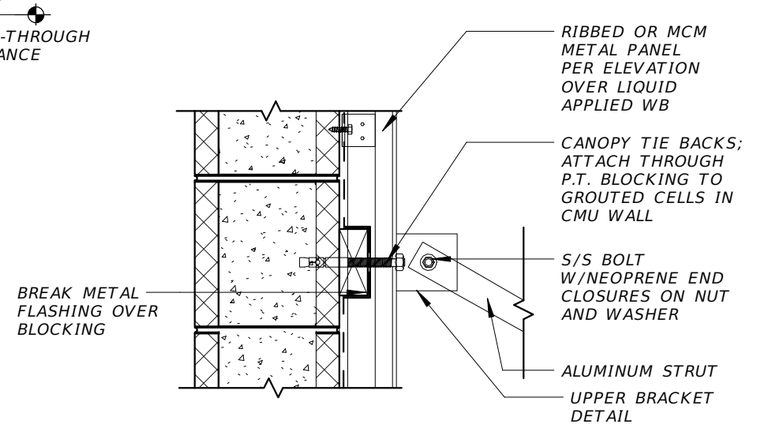
2. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, ETC.

3. PROVIDE SIGNED AND SEALED SHOP DRAWINGS AND STRUCTURAL CALCULATIONS BY FLORIDA REGISTERED P.E. PER SPECIFICAITON REQUIREMENTS.

4. ALL OPENINGS THROUGH METAL PANELS SHALL BE CUT ONLY BY METAL PANEL INSTALLER.



4 CANOPY DETAIL - WALL ATTACHMENT
1 1/2" = 1'-0"



GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

6 CANOPY DETAIL- UPPER BRACKET
1 1/2" = 1'-0"

REVISIONS				
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

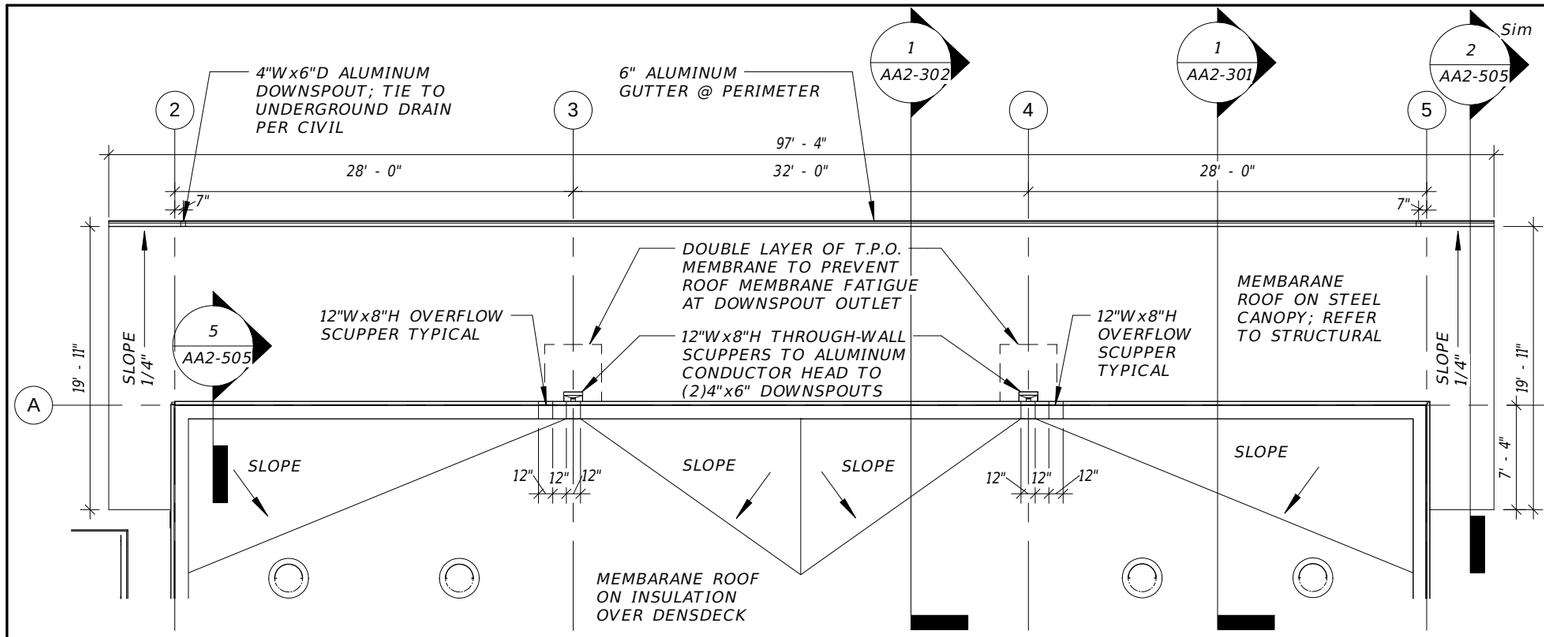
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CANOPY DETAILS

SHEET NO. AA2-504

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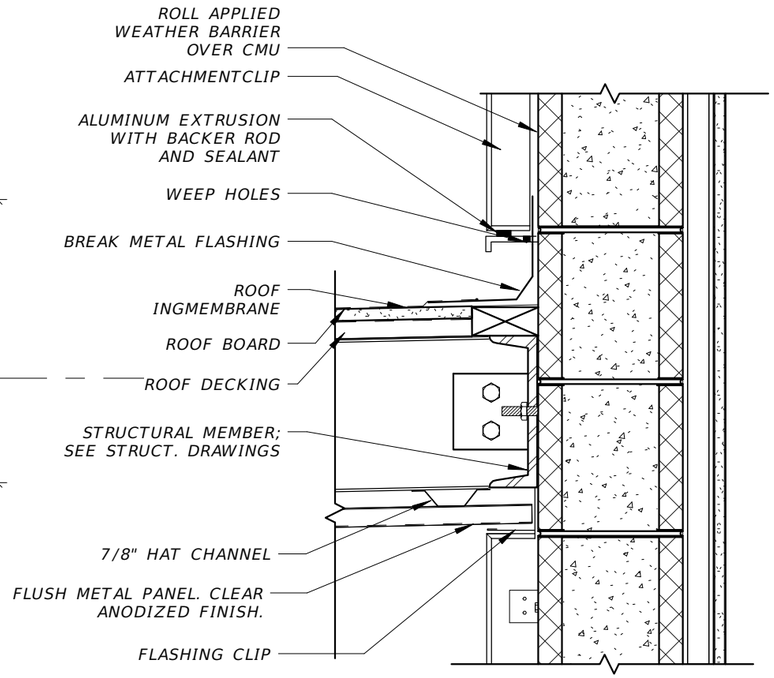
1 REAR CANOPY PLAN

3/32" = 1'-0"

GRAPHIC SCALE

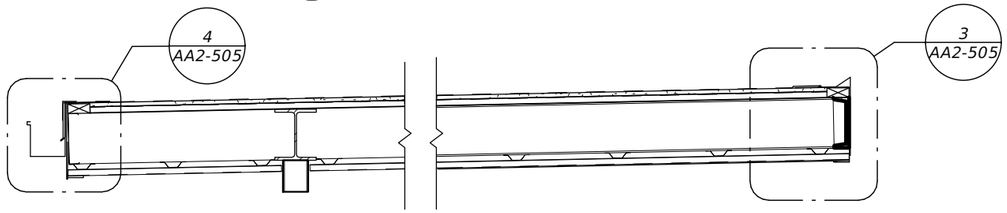
SCALE 3/32" = 1'-0"

0' 6' 12'



5 REAR CANOPY - FLASHING DETAIL

1 1/2" = 1'-0"



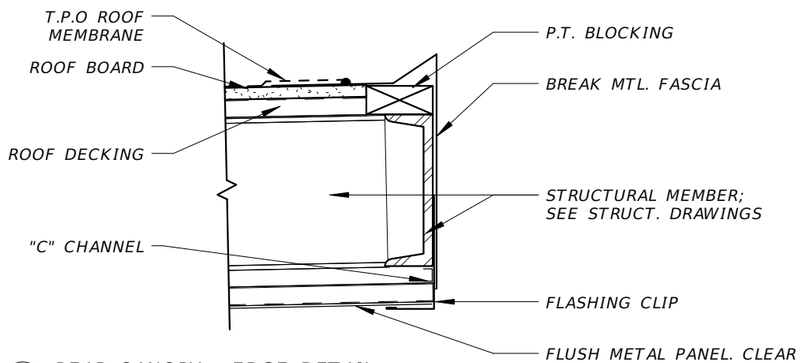
GRAPHIC SCALE

SCALE 1/2" = 1'-0"

0' 1' 2'

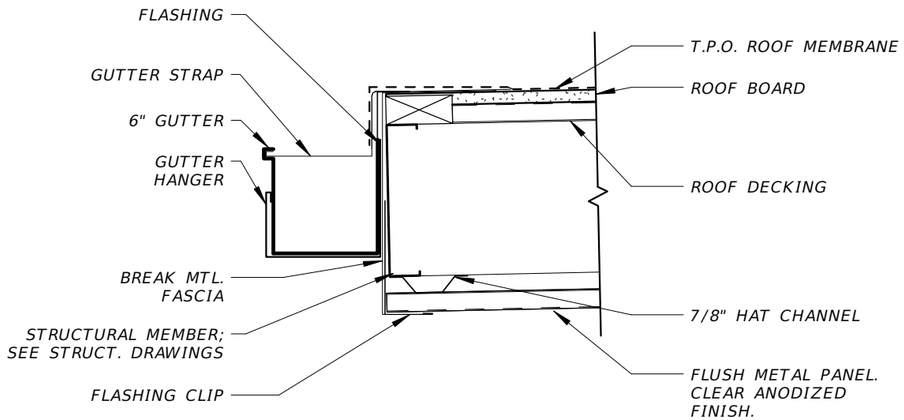
2 REAR CANOPY - SECTION

1/2" = 1'-0"



3 REAR CANOPY - EDGE DETAIL

1 1/2" = 1'-0"



4 REAR CANOPY - GUTTER DETAIL

1 1/2" = 1'-0"

NOTE: ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER.

GRAPHIC SCALE

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

0' 4" 8"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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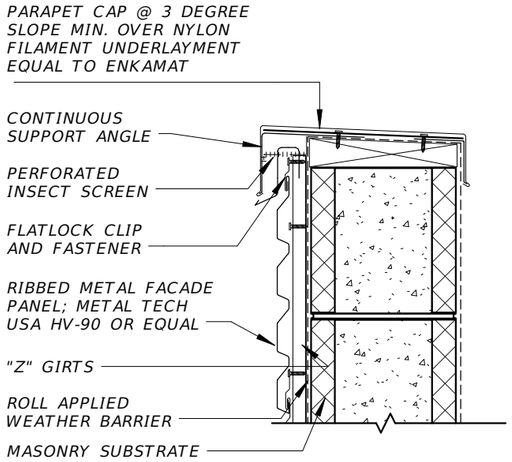
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

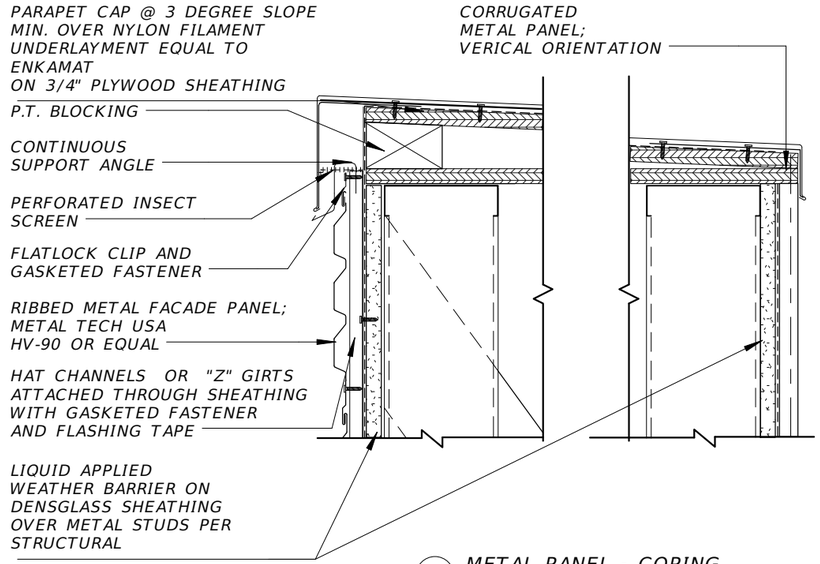
CANOPY DETAILS

SHEET NO. AA2-505

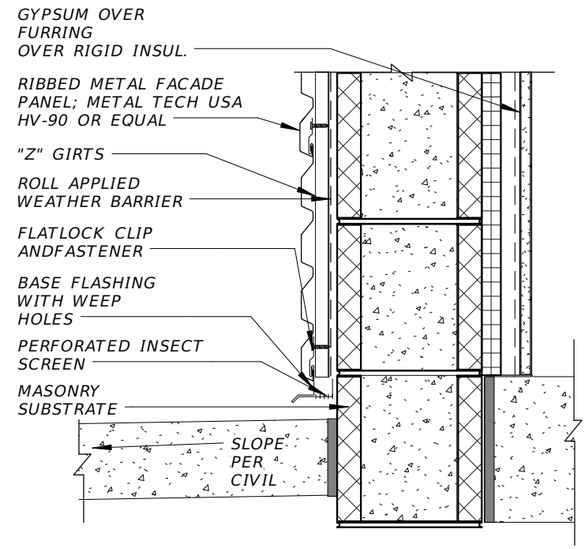
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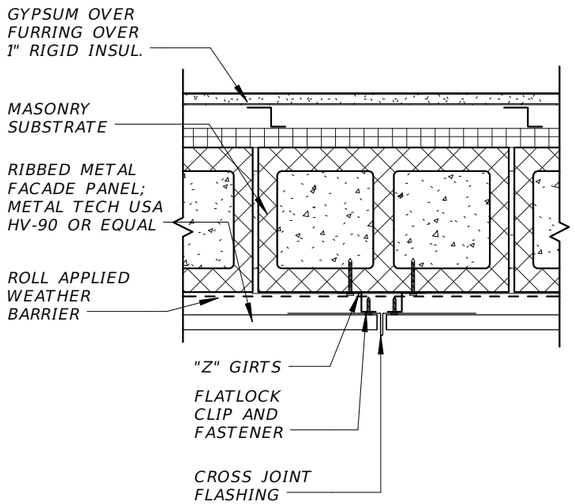
1 METAL PANEL - COPING DETAIL
1 1/2" = 1'-0"



2 METAL PANEL - COPING
1 1/2" = 1'-0"



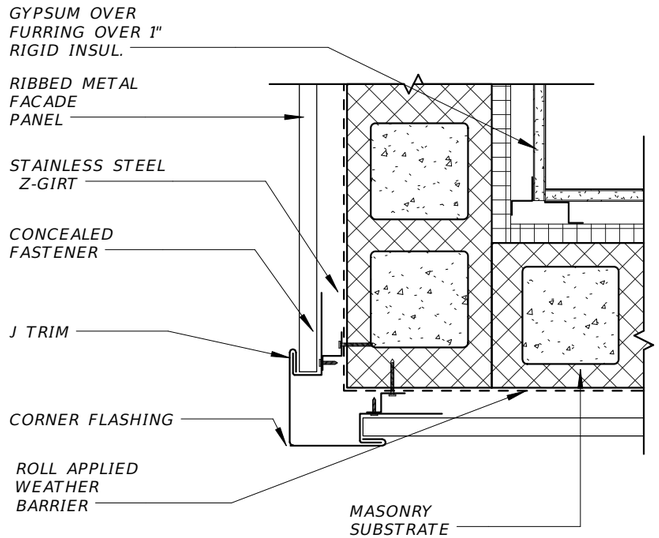
3 METAL PANEL - BASE DETAIL
1 1/2" = 1'-0"



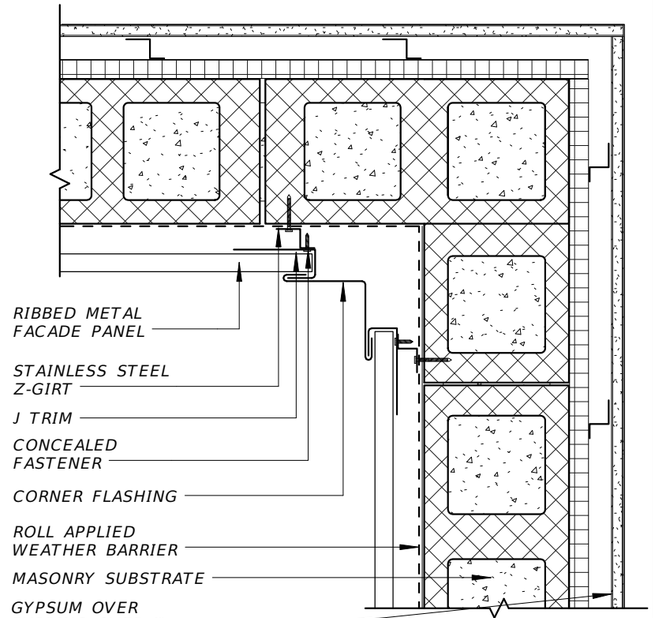
4 METAL PANEL - SEAM PLAN
1 1/2" = 1'-0"

NOTE: ALL OPENINGS THROUGH RIBBED METAL PANELS SHALL BE CUT ONLY BY PANEL INSTALLER. NO EXCEPTIONS.

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"



5 METAL PANEL - OUTSIDE CORNER DETAIL
1 1/2" = 1'-0"



6 METAL PANEL - INSIDE CORNER DETAIL
1 1/2" = 1'-0"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

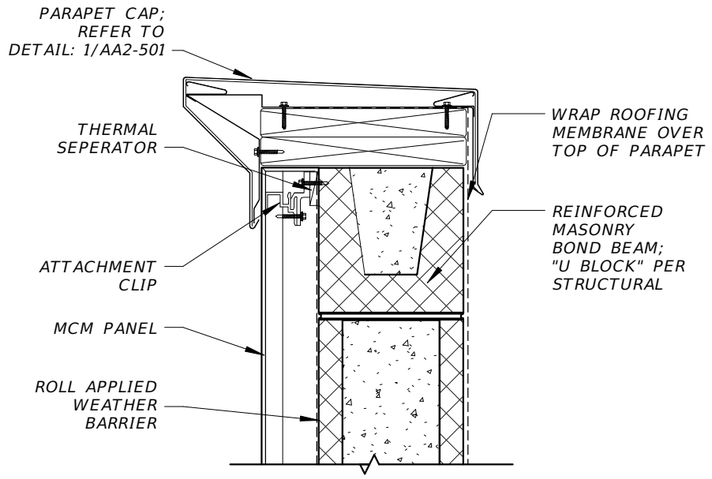
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

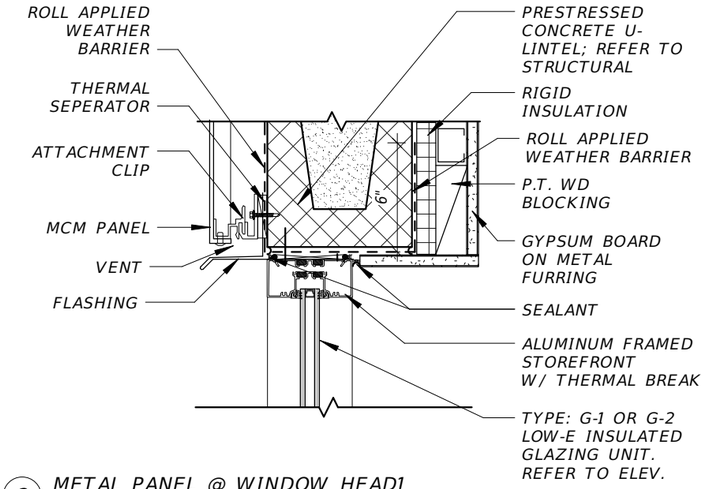
SUNTRAX TEST FACILITY STORAGE BUILDING
RIBBED METAL PANEL DETAILS

SHEET NO.
AA2-506

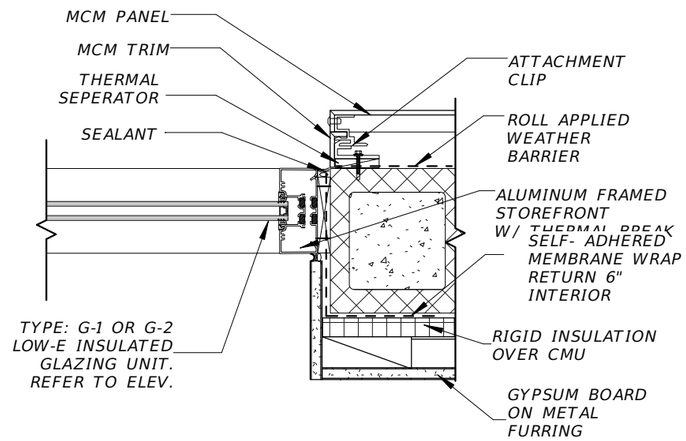
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



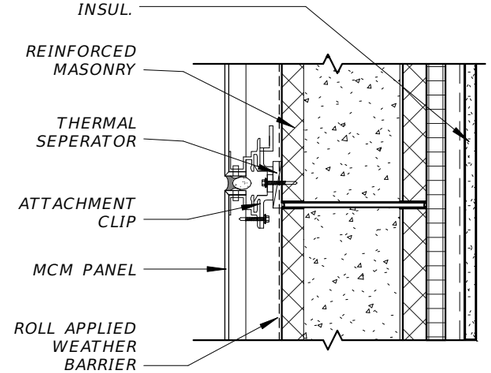
1 METAL PANEL @ PARAPET
1 1/2" = 1'-0"



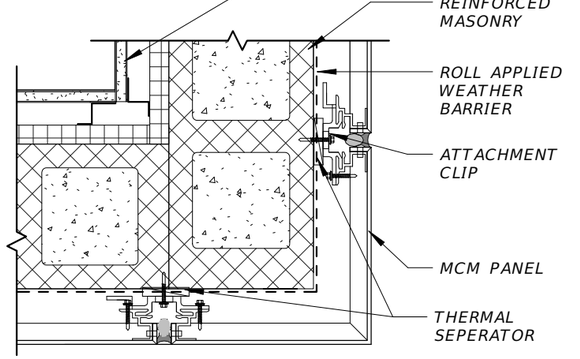
2 METAL PANEL @ WINDOW HEAD1
1 1/2" = 1'-0"



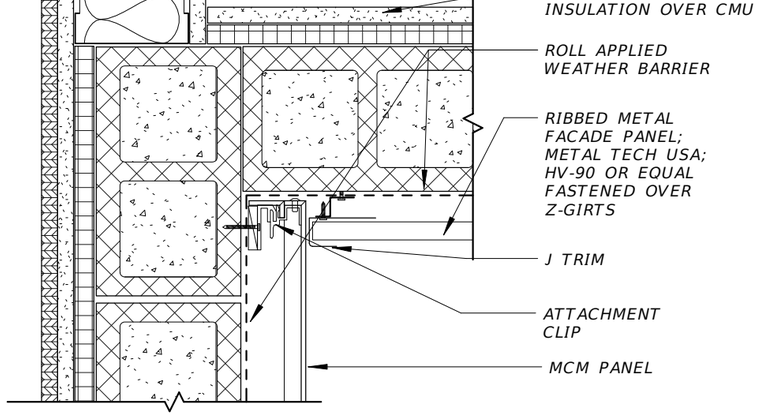
3 METAL PANEL @ WINDOW JAMB
1 1/2" = 1'-0"



4 METAL PANEL @ JOINT
1 1/2" = 1'-0"



5 METAL PANEL @ OUTSIDE CORNER
1 1/2" = 1'-0"



6 INSIDE CORNER DETAIL
1 1/2" = 1'-0"

NOTE: ALL OPENINGS THROUGH MCM PANELS SHALL BE CUT ONLY BY MCM PANEL INSTALLER. NO EXCEPTIONS.

GRAPHIC SCALE
SCALE 1 1/2"= 1'-0"
0' 4" 8"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING
MCM PANEL DETAILS

SHEET NO.
AA2-507

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

FINISH SCHEDULE

Room Number	SPACE DESIGNATION	FLOOR MATERIAL	BASE MATERIAL	WALL		CEILING		REMARKS
				MATERIAL	FINISH	MATERIAL	FINISH	
01	WAITING AREA	PC-1	RB-2	LEVEL 4 GWB	LEVEL 4	ACT-1	ACT-1	
02	WOMEN'S	TL-1	TB-4	LEVEL 4 GWB/TL-3	LEVEL 4	GWB	PAINT	SEMI-GLOSS PAINT FINISH
03	MEN'S	TL-1	TB-4	LEVEL 4 GWB/TL-3	LEVEL 4	GWB	PAINT	SEMI-GLOSS PAINT FINISH
04	YARD STORAGE	SC	N/A	EXPOSED BLOCK	PAINT	OPEN	PAINT	SEMI-GLOSS PAINT FINISH
05	ELECTRICAL	SC	N/A	EXPOSED BLOCK	PAINT	OPEN	PAINT	SEMI-GLOSS PAINT FINISH
06	TEC 1 STORAGE	PC-1	RB-2	PLYWOOD	PAINT	OPEN	PAINT	SEMI-GLOSS PAINT FINISH
07	FTE - STORAGE	PC-1	RB-2	PLYWOOD	PAINT	OPEN	PAINT	SEMI-GLOSS PAINT FINISH
08	TECH 2 STORAGE	PC-1	RB-2	PLYWOOD	PAINT	OPEN	PAINT	SEMI-GLOSS PAINT FINISH
09	STORAGE	SC	RB-2	LEVEL 4 GWB	PAINTED TEXTURE	GWB	PAINT	SEMI-GLOSS PAINT FINISH
10	TRANSPONDER PICK-UP	PC-1	RB-2	LEVEL 4 GWB	PAINTED TEXTURE	ACT-1	ACT-1	SEMI-GLOSS PAINT FINISH
11	UNISEX RESTROOM	TL-1	TB-4	LEVEL 4 GWB/TL-3	LEVEL 4	GWB	PAINT	SEMI-GLOSS PAINT FINISH
12	JANITOR	QT-1	QTB-1	LEVEL 4 GWB	LEVEL 4	GWB	PAINT	SEMI-GLOSS PAINT FINISH/ FRP BEHIND SINK

1

BASIS OF DESIGN INTERIOR FINISHES - * ALL PRODUCT MANUFACTURERS LISTED ARE A "BASIS OF DESIGN" ; APPROVED EQUALS SHALL BE CONSIDERED PER THE TERMS OF THE CONTRACT DOCUMENTS

ACOUSTIC CEILING TILES
ACT-1
MANUFACTURER: ARMSTRONG
SIZE: 24" X 24"X 1"
COLOR: WHITE
SERIES: CALLA, TEGULAR, LOW VOC
EDGE PROFILE: 9/16" BEVELED TEGULAR
ITEM NUMBER: 2824
SUSPENSION SYSTEM: 9/16: SUPERFINE,
COLOR: WHITE
NOTES:
1. GENERAL CEILING TILE 2. NO ADDED FORMALDEHYDE

RUBBER BASE

RB-1
NOT USED

RB-2
TYPE: RESILIENT RUBBER BASE
MANUFACTURER: JOHNSONITE
SIZE: 4"
COLOR: GREY WG, COLOR#: 48
NOTE: COVE BASE AT HARD FLOORING

FIBER REINFORCED PLASTIC PANELS
FRP-1
MANUFACTURER: MARLITE
SIZE: 4' X 8'
COLOR: P 430N MEDIUM GREY,
FINISH: PEBBLE SURFACE

PAINT
PRIMER
MANUFACTURER: SHERWIN WILLIAMS
SERIES: PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER

P-1
NOT USED

P-2
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE BLUE NOSE
COLOR #: 1678
FINISH: SATIN
NOTE: ACCENT (MEDIUM BLUE)

PAINT, CONTINUED

P-3
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE HUDSON BAY
COLOR #: 1680
FINISH: SATIN
NOTE: ACCENT (DARK BLUE)

P-4
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE WHALE GRAY
COLOR #: 2134-40
FINISH: SATIN (SEMI-GLOSS IN RESTROOMS)
NOTE: INTERIOR DOOR FRAMES AND METAL DOORS
& ACCENT (GRAY)

P-6
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE SOFT CHAMOIS
COLOR #: OC-13
FINISH: SATIN (SEMI-GLOSS IN RESTROOMS)
NOTE: GENERAL & CEILING PAINT

P-5
MANUFACTURER: SHERWIN WILLIAMS
TYPE: INTERIOR LATEX
SERIES: PROMAR 200 ZERO VOC
COLOR: MATCH BENJAMIN MOORE SABRE GRAY
COLOR #: 1482
FINISH: SATIN
NOTE: ACCENT OVER LEVEL 5 GWB

SEALED CONCRETE
SC - SEALED CONCREATE

POLISHED CONCRETE
PC-1
TYPE: INTEGRALLY COLORED MECHANICALLY GROUND & POLISHED CONCRETE
MANUFACTURER: L.M. SCOFIELD
PRODUCT: CHROMIX L
COLOR: CLEAR
CHEMICAL HARDENER: FORMULA ONE LITHIUM DENSIFIER

TILE
TL-1
TYPE: PORCELAIN TILE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 12" X 24"
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: ANTHRACITE
FINISH: MATTE
PATTERN: STRAIGHT SET,
SEE FLOOR PATTERN PLAN
GROUT: 100% EPOXY GROUT, MAPEI,
COLOR TBD
NOTE: FIELD FLOOR TILE (DARK GRAY)

TL-2
NOT USED

TL-3
TYPE: GLAZED CERAMIC TILE
DISTRIBUTOR: SPECIALTY TILE
MANUFACTURER: AMERICAN OLEAN
STYLE: BRIGHT
SIZE: 4" X 16"
COLOR: STORM GRAY
PATTERN: SEE ELEVATIONS TBD
GROUT: 100% EPOXY GROUT, MAPEI,
COLOR TBD
NOTE: FIELD WALL TILE (DARK GRAY)

TL-4
NOT USED

QT-1
TYPE: QUARRY TILE
DISTRIBUTOR: DALTILE
SIZE: 6" X 6"
COLOR: ASHEN GREY
FINISH: NON-ABRASIVE
GROUT: 100% EPOXY GROUT, MAPEI,
GROUT COLOR: TBD
NOTE: JANITOR'S CLOSET,
GROUT JOINT 3/8"

TILE BASE

TB-4
TYPE: PORCELAIN TILE BASE
DISTRIBUTOR: SPECIALTY TILE
SIZE: 8" X 24" FACTORY CUT,
FACTORY EDGE UP
MANUFACTURER: ANATOLIA
STYLE: SURFACE
COLOR: ANTHRACITE
GROUT: 100% EXPOXY GROUT, MAPEI,
COLOR TBD
NOTE: ALIGN BASE TO FLOOR JOINTS
INSTALL IN RESTROOM

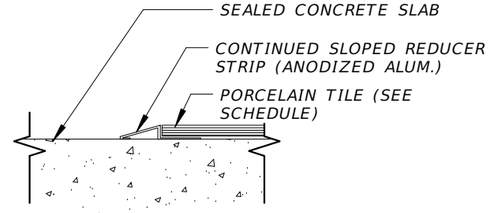
QTB-1
TYPE: QUARRY TILE COVE BASE
MANUFACTURER /DISTRIBUTOR: DALTILE
SIZE: 6" X 6"
COLOR: ASHEN GRAY
FINISH: NON-ABRASIVE
GROUT: 100% EPOXY GROUT, MAPEI,
COLOR TBD
NOTE: INSTALL WITH QUARRY TILE
FLOOR ALIGN BASE JOINTS TO FLOOR
TILE JOINTS

WINDOW ROLLER SHADES
WS-1
MANUFACTURER: PHIFER SHEER WEAVE
SHADECLOTH STYLE: INFINITY 2
WEAVE: BASKET WEAVE
COLOR: VG1 NICKEL
OPENNESS: 10%

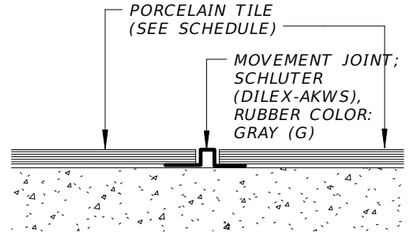
WOOD DOORS
WD-1
DOOR TYPE: SOLID CORE FLUSH WOOD
VENEER DOORS
MANUFACTURER: MARSHFIELD
SERIES: SIGNATURE SERIES
WOOD SPECIES: CHERRY
VENEER CUT: PLAIN SLICED
STAIN COLOR: NUTMEG 48-97
DOOR HARDWARE FINISH
COLOR: BRUSHED CHROME

NOTES:

1. ALL FINISHES AND ADHESIVES TO CONTAIN NO ADDED FORMALDEHYDE.



1 CONCRETE TO TILE - TRANSITION
3" = 1'-0"



2 TILE TO TILE - TRANSITION
3" = 1'-0"

GRAPHIC SCALE
SCALE 3" = 1'-0"
0' 2" 4"

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION
11/4/16	1	PERMIT REVIEW COMMENTS		

GARY KRANSTON, RA
FLORIDA R.A. NO.: 11541
BENTLEY ARCHITECTS + ENGINEERS, INC.
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BO CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

FINISH SCHEDULE & MATERIALS

SHEET NO.
AA2–601

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.

DOOR SCHEDULE

MARK	TYPE	W	H	TH	DR MAT	FRAME MAT	COMMENTS	HARDWARE	LABEL
01	A	6' - 0"	8' - 0"	1 3/4"	ALUM.	ALUMIN.		10F	
02	F	3' - 0"	7' - 0"	1 3/4"	WOOD	H/M		5A	
03	F	3' - 0"	7' - 0"	1 3/4"	WOOD	H/M		5A	
04	B	3' - 0"	7' - 0"	1 3/4"	HM	H/M	2'WX8"H LOUVER; 4" FRAME @ HEAD	10H	
04A	G	8' - 0"	8' - 0"	2"	STEEL	N/A		N/A	
05	C	6' - 0"	7' - 0"	1 3/4"	H/M	H/M	4" FRAME @ HEAD	10J	
06	B	3' - 0"	7' - 0"	1 3/4"	H/M	H/M	6"x36" LITE; 4" FRAME @ HEAD	10A	
06A	H	14' - 0"	16' - 0"	2"	STEEL	N/A		N/A	
06B	F	3' - 0"	7' - 0"	1 3/4"			6"x36" LITE	10	
07	B	3' - 0"	7' - 0"	1 3/4"	H/M	H/M	6"x36" LITE; 4" FRAME @ HEAD	10A	
07A	H	14' - 0"	16' - 0"	2"	STEEL	N/A		N/A	
07B	A1	6' - 0"	8' - 0"	1 3/4"	ALUMIN.	ALUMIN.	GL-3 1/4" CLEAR GLAZ.	10B	
08	B	3' - 0"	7' - 0"	1 3/4"	H/M	H/M	6"x36" LITE; 4" FRAME @ HEAD	10A	
08A	H	14' - 0"	16' - 0"	2"	STEEL	N/A		N/A	
08B	F	3' - 0"	7' - 0"	1 3/4"	WOOD	H/M	6"x36" LITE	10	
09	D	3' - 0"	7' - 0"	1 3/4"	WOOD	H/M		10	45 MIN.
10	C	6' - 0"	7' - 0"	1 3/4"	H/M	H/M	4" FRAME @ HEAD	10K	
10A	E	3' - 0"	7' - 2"	1 3/4"	H/M	H/M	DUTCH-DOOR; 4" FRAME @ HEAD	10L	
11	F	3' - 0"	7' - 0"	1 3/4"	WOOD	H/M		5A	
12	D	3' - 0"	7' - 0"	1 3/4"	WOOD	H/M		1B	45 MIN.

NOTES:

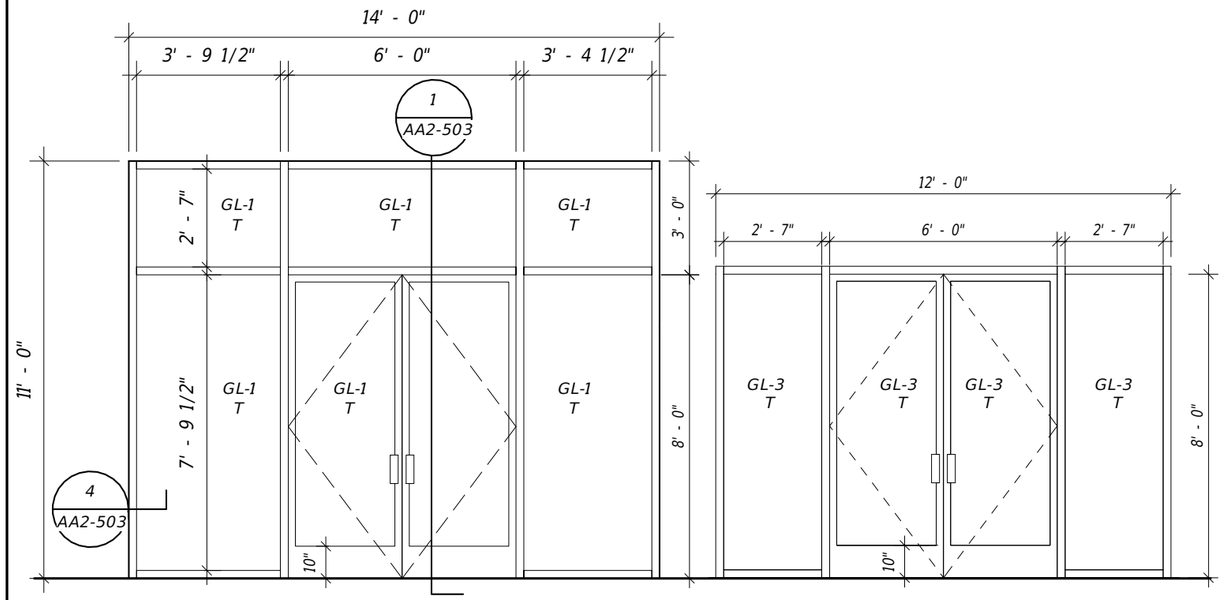
T- INDICATES TEMPERED. ALL DOOR GLASS IS TEMPERED.

GL-1 INDICATES THERMAL GLAZING w/ LOW-E COATING

GL-2 INDICATES LIGHT DIFFUSING GLASS

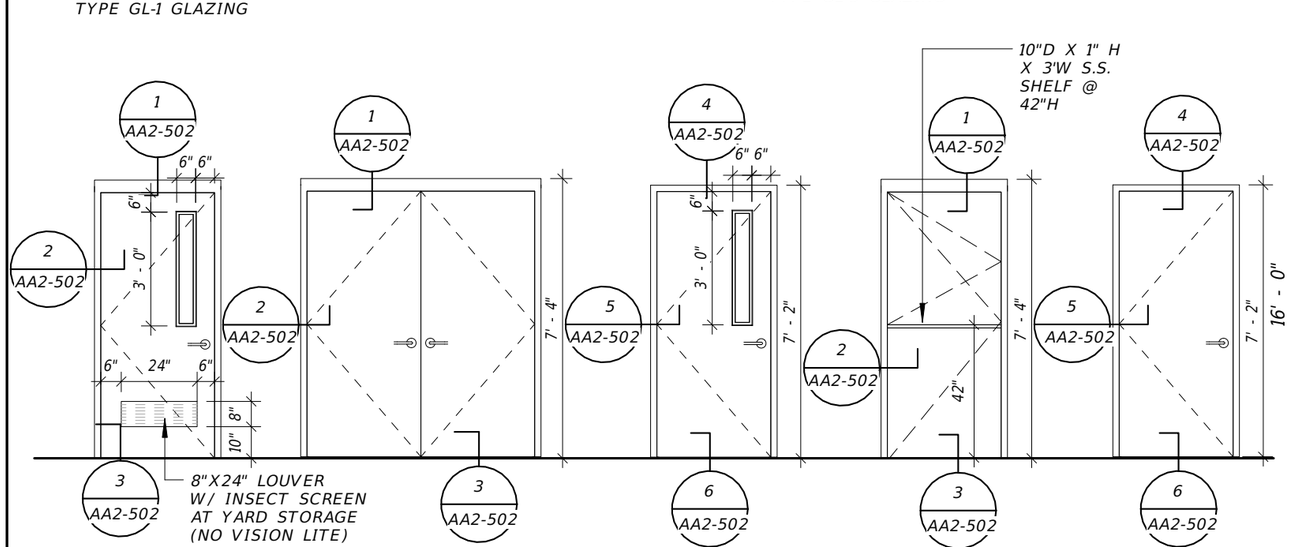
GL-3 CLEAR 1/4" GLASS

PROVIDE ROOM # AND NAME SIGNS ADJACENT TO EACH DOOR PER AA2-603 AND AA2-604



TYPE - A
ALUMINUM STOREFRONT DOUBLE DOORS; CLEAR ANODIZED FRAMING; 2" X 4.5" WITH TYPE GL-1 GLAZING

TYPE - A1
ALUMINUM STOREFRONT DOUBLE DOORS; CLEAR ANODIZED FRAMING; 2" X 4.5" WITH TYPE GL-3 GLAZING



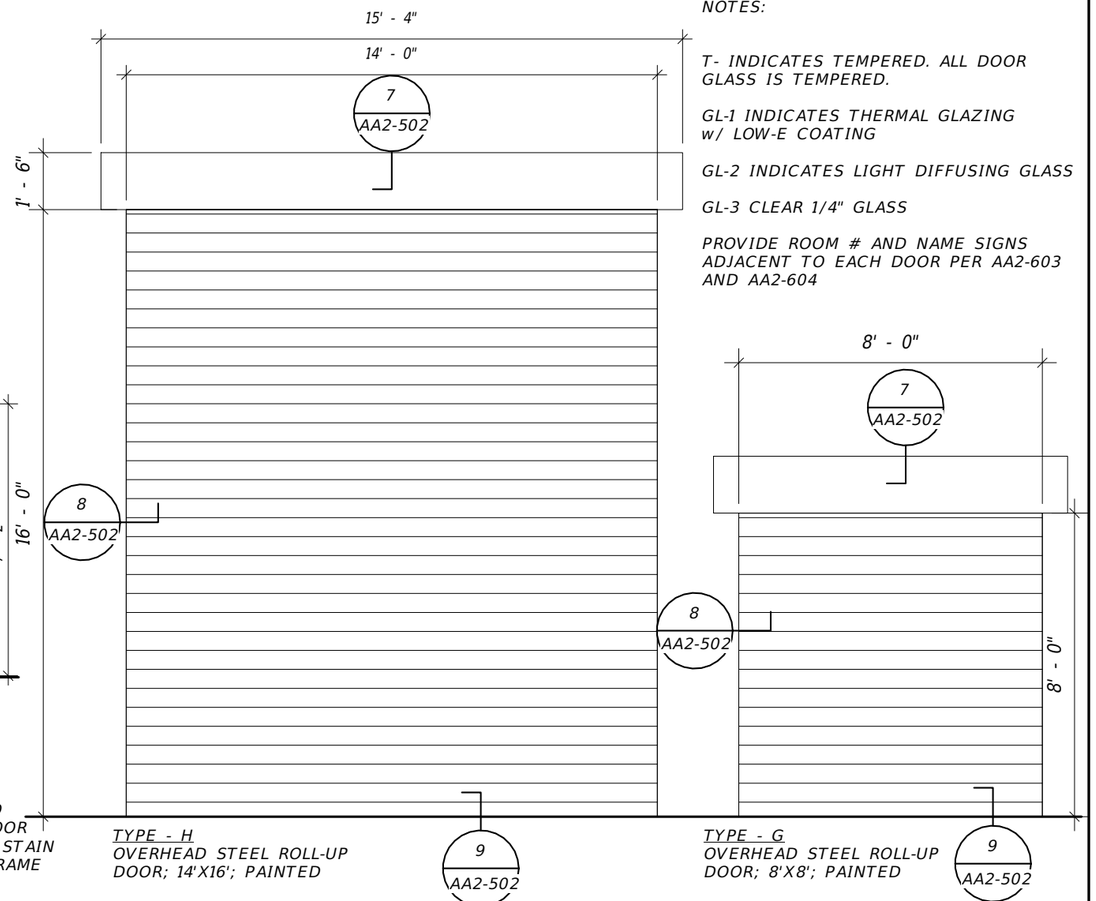
TYPE - B
EXTERIOR H/M DOOR AND FRAME; PAINT; VISION LITE WHERE NOTED; INSULATED GLASS

TYPE - C
EXTERIOR H/M DOUBLE DOOR AND FRAME ; PAINT

TYPE - D
INTERIOR SOLID CORE WOOD DOOR WITH TEMPERED VISION LITE IN H/M FRAME. STAIN DOOR; PAINT FRAME

TYPE - E
EXTERIOR H/M DUTCH DOOR AND FRAME; 10" SS SHELF @ 42"H

TYPE - F
INTERIOR SOLID CORE WOOD DOOR IN H/M FRAME. STAIN DOOR; PAINT FRAME



TYPE - H
OVERHEAD STEEL ROLL-UP DOOR; 14'X16'; PAINTED

TYPE - G
OVERHEAD STEEL ROLL-UP DOOR; 8'X8'; PAINTED

DOOR TYPES

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION
11/4/16	1	PERMIT REVIEW COMMENTS		

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STATE OF FLORIDA
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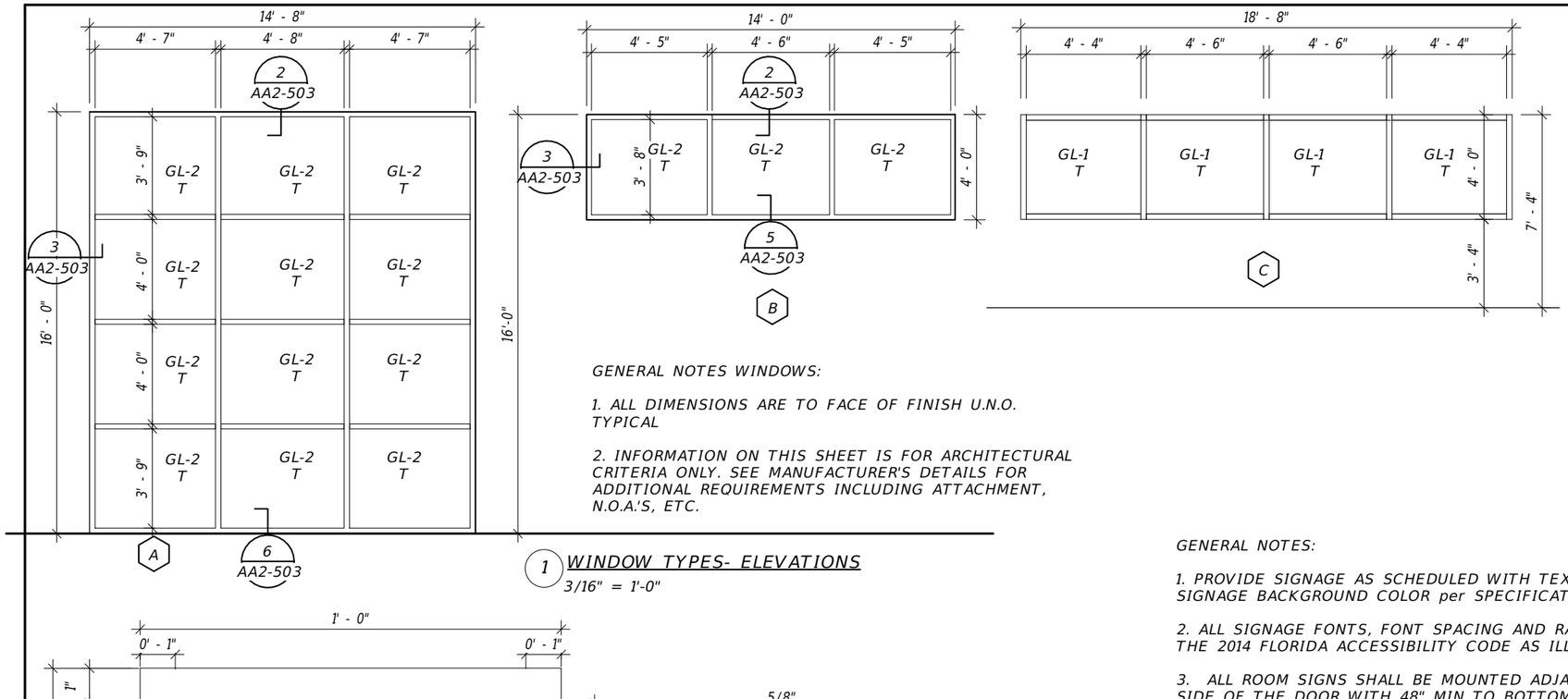
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

DOOR SCHEDULE & TYPES

SHEET NO. AA2-602

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G1-16.005, F.A.C.



1 WINDOW TYPES- ELEVATIONS
3/16" = 1'-0"

GENERAL NOTES WINDOWS:

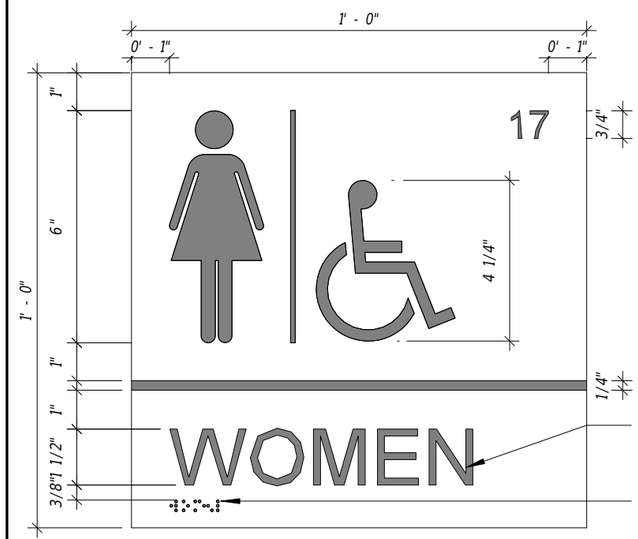
1. ALL DIMENSIONS ARE TO FACE OF FINISH U.N.O. TYPICAL

2. INFORMATION ON THIS SHEET IS FOR ARCHITECTURAL CRITERIA ONLY. SEE MANUFACTURER'S DETAILS FOR ADDITIONAL REQUIREMENTS INCLUDING ATTACHMENT, N.O.A.'S, ETC.

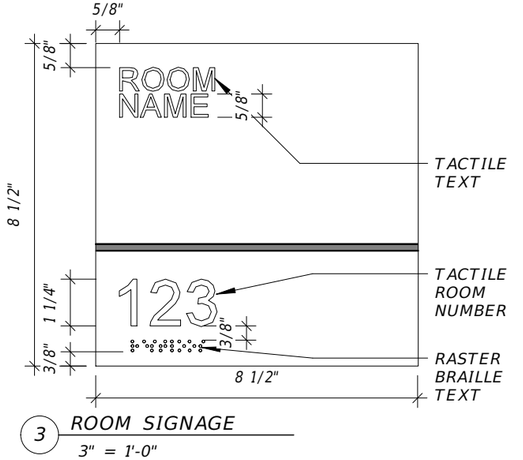
WINDOW SCHEDULE

MARK	WINDOW UNIT WIDTH	WINDOW UNIT HEIGHT	WINDOW UNIT HEAD HT.	GLAZING TYPE	FRAME MATERIAL	REMARKS
A	14'- 8"	16'-0"	16'-0"	GL-2	2" X 4 1/2" ALUMINUM	TEMPERED
B	14'- 0"	4'-0"	16'-0"	GL-2	2" X 4 1/2" ALUMINUM	TEMPERED
C	18'- 8"	4'-0"	7'-4"	GL-1	2" X 4 1/2" ALUMINUM	TEMPERED

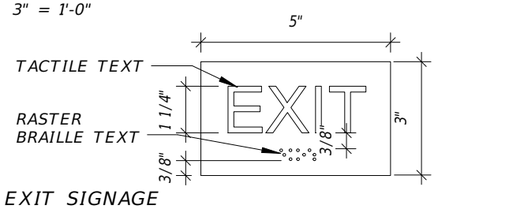
GLAZING TYPES (08 8000)	
GL-2	LIGHT DIFFUSING GLASS IN INSULATED UNIT
GL-1	INSULATED LOW-E GLAZING
T	TEMPERED GLASS



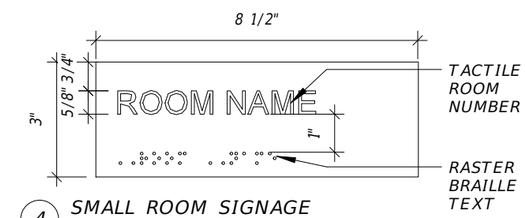
2 ACCESSIBLE RESTROOM SIGNAGE TYPICAL
3" = 1'-0"



3 ROOM SIGNAGE
3" = 1'-0"



5 EXIT SIGNAGE
3" = 1'-0"



4 SMALL ROOM SIGNAGE
3" = 1'-0"

GENERAL NOTES:

1. PROVIDE SIGNAGE AS SCHEDULED WITH TEXT AND RASTERED BRAILLE IN CONTRASTING COLOR TO SIGNAGE BACKGROUND COLOR per SPECIFICATIONS MANUAL.

2. ALL SIGNAGE FONTS, FONT SPACING AND RASTERED BRAILLE SHALL ADHERE TO THE STANDARDS OF THE 2014 FLORIDA ACCESSIBILITY CODE AS ILLUSTRATED ON AA1-604.

3. ALL ROOM SIGNS SHALL BE MOUNTED ADJACENT TO THE CORRESPONDING ROOM DOOR ON THE LATCH SIDE OF THE DOOR WITH 48" MIN TO BOTTOM OF TACTILE TEXT. REFER TO TO AA1-601 FOR STANDARD SIGNAGE LOCATIONS, CLEARANCES AND MOUNTING HEIGHTS.

4. RESTROOM SIGNS AND SMALL ROOM SIGNS SHALL BE CENTERED ON THE DOOR. REFER TO TO AA1-601 FOR STANDARD SIGNAGE LOCATIONS, CLEARANCES AND MOUNTING HEIGHTS.

SIGN SCHEDULE

DOOR NO.	ROOM NAME	SIGN
01	WAITING AREA	EXIT SIGN @ INTER.; 4"H WHITE VINYL ADDRESS # ABV. DR @ EXTER.
02	WOMEN'S	DOOR MOUNTED ACCESSIBLE RESTROOM SIGNAGE
03	MEN'S	DOOR MOUNTED ACCESSIBLE RESTROOM SIGNAGE
04	YARD STORAGE	EXIT SIGN @ INTER.; SMALL ROOM SIGN; DOOR MOUNTED @ EXTER.
04A	YARD STORAGE	NONE
05	ELECTRICAL	EXIT SIGN @ INTER.; SMALL ROOM SIGN; DOOR MOUNTED @ EXTER.
06	TEC 1 STORAGE	EXIT SIGN @ INTER.; SMALL ROOM SIGN; DOOR MOUNTED @ EXTER.
06A	TEC 1 STORAGE	NONE
06B	TEC 1 STORAGE	ROOM SIGN; LATCH SIDE IN WAITING AREA; EXIT SIGN LATCH SIDE IN STORAGE
07	FTE - STORAGE	EXIT SIGN @ INTER.; SMALL ROOM SIGN; DOOR MOUNTED @ EXTER.
07A	FTE - STORAGE	NONE
07B	FTE - STORAGE	ROOM SIGN IN WAITING AREA; EXIT SIGN LATCH SIDE IN STORAGE
08	TECH 2 STORAGE	EXIT SIGN @ INTER.; SMALL ROOM SIGN; DOOR MOUNTED @ EXTER.
08A	TECH 2 STORAGE	NONE
08B	TECH 2 STORAGE	ROOM SIGN; LATCH SIDE IN WAITING AREA; EXIT SIGN LATCH SIDE IN STORAGE
09	STORAGE	SMALL ROOM SIGN; DOOR MOUNTED
10	TRANSPONDER PICK-UP	EXIT SIGN @ INTER.; SMALL ROOM SIGN; DOOR MOUNTED @ EXTER.
10A	TRANSPONDER PICK-UP	SMALL ROOM SIGN; DOOR MOUNTED
11	UNISEX RESTROOM	DOOR MOUNTED ACCESSIBLE RESTROOM SIGNAGE
12	JANITOR	SMALL ROOM SIGN; DOOR MOUNTED

REVISIONS

DATE	#	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

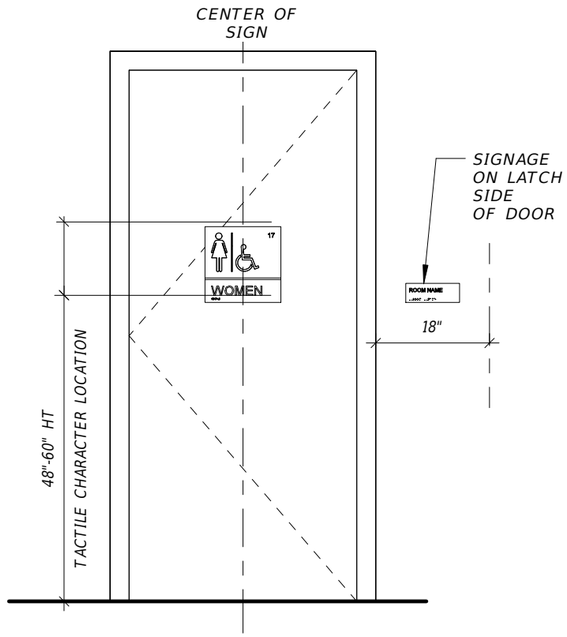
SUNTRAX TEST FACILITY STORAGE BUILDING

WINDOW SCHEDULE & TYPES

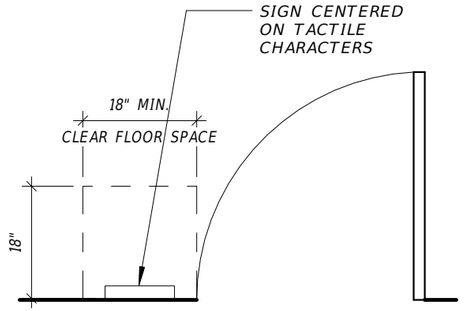
SHEET NO. AA2-603

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ACCESSIBILITY SIGNS SHALL COMPLY WITH THE REQUIREMENTS OF THE FLORIDA ACCESSIBILITY CODE 2014; CHAPTER 7; SECTION 703: SIGNS.
REFER TO SHEET AA1-607 FOR SIGNAGE SCHEDULE AND DETAILS.
REFERT TO SPECIFICATIONS FOR FURTHER INFORMATION.



ACCESSIBILITY SIGNAGE LOCATION





LIGHT CHARACTERS ON A DARK BACKGROUND

DARK CHARACTERS ON A LIGHT BACKGROUND

PROVIDE DESCRIPTION DIRECTLY BELOW PICTOGRAM WITH NON-GLARE FINISH;
PICTOGRAM
SHALL BE 6" MIN. HIGH

ACCESSIBILITY SIGNAGE FINISH AND CONTRAST

703.5.5 VISUAL CHARACTER HEIGHT

HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT
40 INCHES (1015 mm) TO LESS THAN OR EQUAL TO 70 INCHES (1780 mm)	LESS THAN 71 INCHES (1830 mm)	5/8 INCH (16 mm)
	72 INCHES (1830 mm) AND GREATER	5/8 INCH (16mm), plus 1/8 INCH (3.2mm) PER FOOT (305mm) OF VIEWING DISTANCE ABOVE 72 INCHES (1830 mm)
GREATER THAN 70 INCHES (1780mm) TO LESS THAN TO EQUAL TO 120 INCHES (3050mm)	LESS THAN 180 INCHES (4570mm)	2 INCHES (51mm)
	180 INCHES (4570 mm) AND GREATER	2 INCHES (51mm), PLUS 1/8 INCH (3.2mm) PER FOOT (305mm) OF VIEWING DISTANCE ABOVE 180 INCHES (4570mm)
GREATER THAN 120 INCHES (3050mm)	LESS THAN 21 FEET (6400mm)	3 INCHES (75mm)
	21 FEET (6400mm) AND GREATER	3 INCHES (75mm), PLUS 1/8 INCH (3.2 MM) PER FOOT (305 MM) OF VIEWING DISTANCE ABOVE 21 FEET (6400 MM)

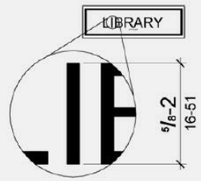
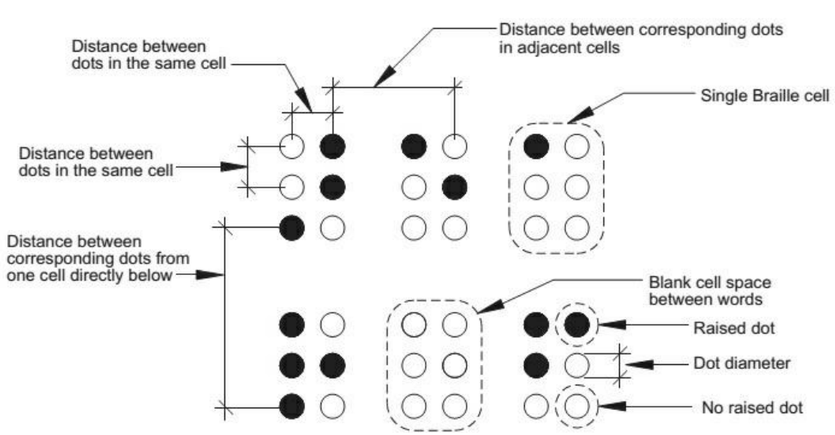


Figure 703.2.5
Height of Raised Characters

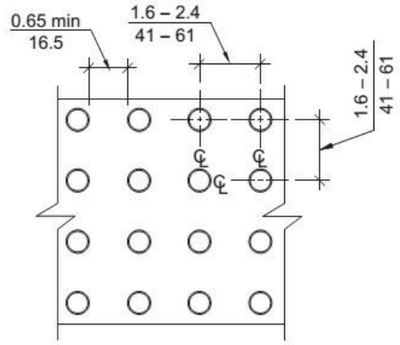
703.3.3.1 BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES TO MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5mm) TO 0.063 (1.6mm)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL *	0.090 (2.3mm) TO 0.100 (2.5mm)
DOT HEIGHT	0.025 (0.6mm) tO 0.037 (0.9mm)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW	0.395 (10 mm) tO 0.400 (10.2mm)

* MEASURED CENTER TO CENTER

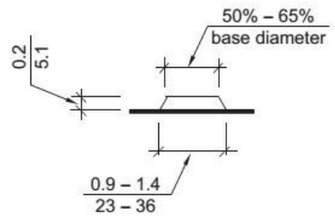


BRAILLE MEASUREMENTS

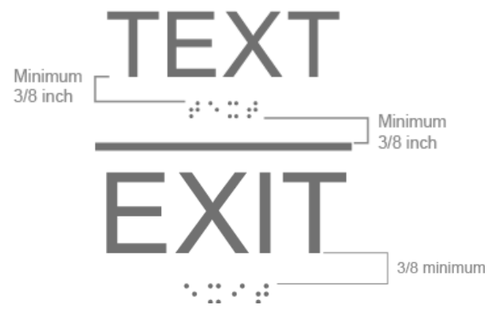


(a) Plan

*DOTS SHALL BE RASTERED



(b) Elevation (Enlarged)



POSITION OF BRAILLE

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

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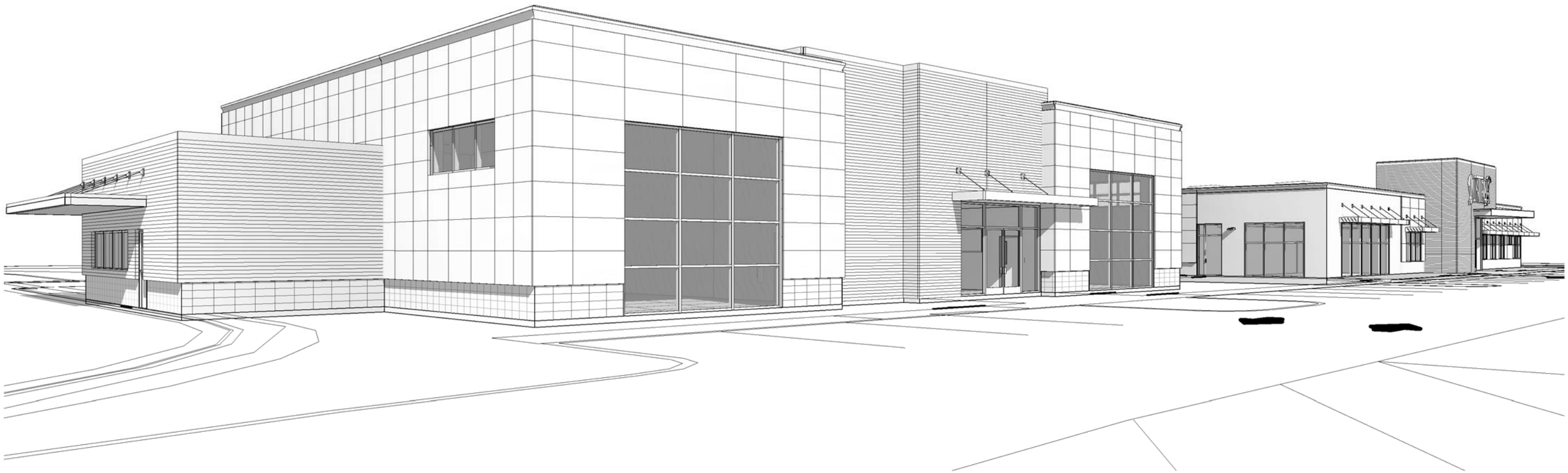
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SIGNAGE STANDARDS

SHEET NO. AA2-604

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1 OVERALL PERSPECTIVE

REVISIONS				
DATE	#	DESCRIPTION	DATE	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PERSPECTIVE VIEW

SHEET NO.
AA2-901

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DESIGN CODES

1. 2014 FLORIDA BUILDING CODE (FBC)
2. ASCE 7-10: MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES
3. ACI 318-14: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE & COMMENTARY
4. ACI 530-08: BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
5. AISC STEEL CONSTRUCTION MANUAL, 14TH EDITION

DESIGN LOADS

1. DEAD LOADS
a. .....ROOF = 15 PSF
2. LIVE LOAD
a. .....ROOF = 20 PSF
3. WIND LOAD
a. .....ULTIMATE WIND SPEED = 136 MPH
b. .....NOMINAL WIND SPEED = 105.3 MPH
c. .....WIND EXPOSURE CATEGORY = C
d. .....RISK CATEGORY = II
e. .....ENCLOSURE CLASSIFICATION = ENCLOSED
f. .....COMPONENTS & CLADDING WALL PRESSURES: SEE AS2-005
g. .....COMPONENTS & CLADDING ROOF PRESSURES: SEE AS2-005

PRECAUTIONS

1. ANY REQUIRED DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR MORE INFORMATION.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE UPLIFT OR FLOTATION OF STRUCTURES UNTIL COMPLETELY CONSTRUCTED AND ALL BACKFILL IS IN PLACE AND COMPACTED.
3. BACKFILL SHALL NOT BE PLACED AGAINST ANY STRUCTURE WALL UNTIL SUPPORTING FLOORS AND/OR ROOF ARE IN PLACE AND THE CONCRETE HAS ATTAINED THE SPECIFIED 28-DAY STRENGTH.
4. FOR THE APPROXIMATE LOCATION OF KNOWN EXISTING UTILITIES, REFER TO THE UTILITY WORKING DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO COMMENCING WORK, AND SHALL BE RESPONSIBLE FOR PROTECTING THE UTILITIES DURING EXCAVATION AND CONSTRUCTION.
5. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS NOTED OTHERWISE, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, OR THEIR PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, LATERAL BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACINGS FOR CRANES AND GIN POLES, ETC.
6. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN FIELD. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVE OF THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
7. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. AS A PART OF HIS RESPONSIBILITIES, THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO DESIGN AND SUPERVISE ANY SCAFFOLDING FOR WORKMEN, AND ALL SHORING OF FORMS AND THE ELEMENTS OF THE CONSTRUCTION.

SHOP DRAWINGS

1. THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY ENGINEER BEFORE FABRICATION/CONSTRUCTION:

1.A REINFORCING STEEL
1.B CAST-IN-PLACE CONCRETE MIX DESIGN
1.C STRUCTURAL STEEL
1.D STEEL JOISTS (SIGNED & SEALED)
1.E STEEL ROOF DECK
1.F PRE-ENGINEERED AWNINGS (SIGNED & SEALED)
1.G CONTROL JOINT LOCATIONS
1.H PRECAST CONCRETE LINTELS
1.I CONCRETE MASONRY UNITS
1.J VAPOR BARRIER
1.K METAL PANELS

SITE PREPARATION RECOMMENDATIONS

1. STRIP THE PROPOSED CONSTRUCTION LIMITS OF ALL TREES, GRASS, ROOTS, TOPSOIL, AND OTHER DELETERIOUS MATERIALS WITHIN AND 5 FEET BEYOND THE PERIMETER OF THE PROPOSED BUILDING AREAS AND 3 FEET BEYOND THE PERIMETER OF PROPOSED PAVED AREAS. EXPECT TYPICAL STRIPPING AT THIS SITE TO DEPTHS OF 6 TO 12 INCHES. DEEPER AREAS MAY BE NEEDED WHERE LARGE ROOT SYSTEMS MAY BE ENCOUNTERED OR WHERE PEAT AND ROOTS ARE PRESENT.
2. DEWATER PRIOR TO COMPACTING THE SUBGRADE SOILS TO MAINTAIN A MINIMUM OF 3 FEET SEPARATION FROM THE COMPACTION SURFACE TO THE WATER LEVEL. COMPACT THE SUBGRADE FROM THE SURFACE WITH A MEDIUM WEIGHT VIBRATORY ROLLER (A 3- TO 4-TON ROLLER, STATIC WEIGHT, AND 3- TO 4-FOOT DRUM DIAMETER) UNTIL A MINIMUM DENSITY OF AT LEAST 95 PERCENT THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557) IS OBTAINED TO A DEPTH OF 2 FEET BELOW THE COMPACTED SURFACE OR 2 FEET BELOW THE BOTTOM OF THE FOOTING. TYPICALLY, THE SOILS SHOULD EXHIBIT MOISTURE CONTENTS WITHIN ±2 PERCENT OF THE MODIFIED PROCTOR OPTIMUM MOISTURE CONTENT DURING COMPACTION. A MINIMUM OF EIGHT (8) COMPLETE COVERAGES (IN PERCENDICULAR DIRECTION) SHOULD BE MADE IN THE BUILDING CONSTRUCTION AREA WITH THE ROLLER TO IMPROVE THE UNIFORMITY AND INCREASE THE DENSITY OF THE UNDERLYING SAND SOILS. SHOULD THE BEARING SOILS EXPERIENCE PUMPING AND SOIL STRENGTH LOSS DURING THE COMPACTION OPERATIONS, COMPACTION WORK SHOULD BE IMMEDIATELY TERMINATED AND (1) THE DISTURBED SOILS REMOVED AND BACKFILLED WITH DRY STRUCTURAL FILL SOILS WHICH ARE THEN COMPACTED, OR (2) THE EXCESS PORE PRESSURES WITHIN THE DISTRIBUTED SOILS ALLOWED TO DISSIPATE BEFORE RE-COMPACTING.
3. TEST THE SUBGRADE FOR COMPACTION AT A FREQUENCY OF NOT LESS THAN ONE TEST PER 2,500 SQUARE FEET IN THE BUILDING AREAS, OR A MINIMUM OF THREE TEST LOCATIONS PER BUILDING, WHICHEVER IS GREATER, AND EVERY 10,000 SQUARE FEET IN PAVEMENT AREAS, OR A MINIMUM OF THREE TEST LOCATIONS, WHICHEVER IS GREATER.
4. PLACE FILL MATERIAL, AS REQUIRED. THE FILL SHOULD CONSIST OF "CLEAN", FINE SAND WITH LESS THAN 5 PERECENT SOIL FINES. FILL MATERIALS WITH SOIL FINES BETWEEN 5 AND 10 PERCENT MAY BE USED, BUT STRICT MOISTURE CONTROL MAY BE REQUIRED. TYPICALLY, THE SOILS SHOULD EXHIBIT MOISTURE CONTENTS WITHIN ±2 PERCENT OF THE MODIFIED PROCTOR OPTIMUM MOISTURE CONTENT DURING COMPACTION. PLACE FILL IN UNIFORM 10- TO 12-INCH LOOSE LIFTS AND COMPACT EACH LIFT TO A MINIMUM DENSITY OF 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.
5. IF EXCAVATIONS ARE REQUIRED FOR THE PROPOSED CONSTRUCTION, LIMESTONE MAY BE ENCOUNTERED AT ELEVATIONS ABOVE DEPTH OF EXCAVATION. SOME OF THE LIMESTONE MAY REQUIRE SPECIAL EQUIPMENT TO REMOVE. WHERE LIMESTONE IS ENCOUNTERED, IT SHOULD BE OVER-EXCAVATED TO 12-INCHES BELOW EXCAVATION BASE AND A CLAYEY SAND SOIL PLACED AND COMPACTED ABOVE THE LIMESTONE. A GEOTEXTILE SEPARATION FABRIC MAY BE NEEDED BETWEEN THE CLAYEY SAND AND LIMESTONE SURFACE IF THE SURFACE OF THE LIMESTONE IS POROUS.

COORDINATION

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
2. THE CONTRACTOR SHALL COORDINATE ALL PIPE AND CONDUIT LOCATIONS IN CONCRETE & MASONRY WITH THE MECHANICAL, ELECTRICAL, PLUMBING, AND SPECIALTY SUB-CONTRACTORS SHOP DRAWINGS PRIOR TO PLACING CONCRETE & GROUT. THE MECHANICAL SUB-CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL ANCHOR BOLT LOCATIONS.
3. THE STRUCTURAL WORKING DRAWINGS SHALL BE COORDINATED WITH THE CIVIL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL WORKING DRAWINGS TO PROPERLY LOCATE DRAINS, SLOPES, PIPE SLEEVES, ANCHOR BOLTS, BLOCKOUTS, ETC. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. SCALING OF PLANS NOT PERMITTED, CONTRACTOR IS TO NOTIFY ENGINEER OF ANY DIMENSIONS REQUIRING CLARIFICATION.
5. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
6. ALL PHASES OF WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE DESIGN CODES LISTED ABOVE.
7. ALL STRUCTURAL WORK MUST COMPLY WITH ACI, AISC, AWS, THE ALUMINUM ASSOCIATION AND ASCE 7 w/ SUPPLEMENTS STANDARDS AS REFERENCED IN THE FLORIDA BUILDING CODE, AS WELL AS ALL OTHER APPLICABLE CODES AND ORDINANCES.
8. OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN SLABS, DECKS, BEAMS, COLUMNS, WALLS, ETC. UNLESS SPECIFICALLY DETAILED IN THE DRAWINGS.
9. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING COORDINATION INFORMATION:

9.A FLOOR AND ROOF FINISHES.
9.B DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.

10. ALL ASTM SPECIFICATIONS AND REFERENCE STANDARDS NOTED ON THESE DRAWINGS AND TECHNICAL SPECIFICATIONS SHALL BE OF THE LATEST EDITION.
11. EQUIVALENT MATERIALS SUBSTITUTED AS PER "APPROVED EQUAL" NOTE SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.

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DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

GENERAL NOTES

SHEET NO.
AS2-001

CONCRETE

1. ALL CONCRETE WORK SHALL BE IN STRICT ACCORDANCE WITH ACI 301-10 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. ALL CAST IN PLACE CONCRETE SHALL HAVE THE FOLLOWING PROPERTIES:

CAST IN-PLACE CONCRETE PROPERTIES				
LOCATION	28 DAY COMPRESSIVE STRENGTH, f'c	SLUMP	MAX W/C RATIO	MAX AGGREGATE
FOUNDATIONS	4,000 PSI	4" +/- 1"	0.45%	3/4"
SLAB ON GRADE	4,000 PSI	4" MAX	0.45%	3/4"

CONCRETE

3. CONCRETE MIX DESIGN SUBMITTALS:

3.A EACH MIX DESIGN SHALL BE LABELED TO INDICATE THE LOCATION IN WHICH THE CONCRETE IS TO BE PLACED, SUCH AS FOUNDATIONS, SLAB ON GRADE, ETC.

3.B PROPOSED MIX DESIGN SHALL BE IN ACCORDANCE WITH ACI 301-10. PROVIDE SUPPORTING DATA IN TABULAR FORM FOR EACH SEPARATE PROPOSED MIX.

4. A CERTIFIED TESTING AGENCY SHALL BE ENGAGED TO PERFORM INDUSTRY STANDARD TESTING INCLUDING SLUMP TESTS AND CYLINDER BREAKS TO ENSURE COMFORMANCE WITH PLANS AND SPECIFICATIONS. SUBMIT REPORTS TO ARCHITECT AND ENGINEER OF RECORD.
5. ALL ADDITIONAL BARS IN FLOOR AND WALLS AROUND ALL OPENINGS SHALL BE PROVIDED AS PER DETAILS.
6. ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS OTHERWISE SHOWN OR NOTED.
7. ALL CONCRETE ADMIXTURES SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-14. CHLORIDES SHALL NOT BE PERMITTED.
8. EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 1/2" x 1/2" UNLESS NOTED OTHERWISE.
9. CONTRACTOR SHALL VIBRATE CONCRETE SUFFICIENTLY TO ELIMINATE ALL VOIDS AND CAVITIES. ALL DEFICIENCIES SHALL BE REPAIRED BY RECEIVING A PARGED FINISH.
10. CONTROL JOINT SPACING AND LOCATION PLAN TO BE SUBMITTED BY CONTRACTOR PRIOR TO SLAB POUR.

FOUNDATIONS

1. ALL FOUNDATION DESIGN AND PARAMETERS ARE BASED ON THE GEOTECHNICAL ENGINEERING REPORT PERFORMED BY TIERRA, INC. (REPORT NO. 5511-15-035). FOUNDATION DESIGN IS BASED ON A NET SOIL BEARING CAPACITY OF 2,000 PSF. ALL SITE PREPARATION AND COMPACTION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER OF RECORD. THE STRICTER OF THE GEOTECHNICAL REPORT REQUIREMENTS AND THOSE INDICATED BELOW SHALL BE USED.
2. ALL FILL MATERIALS SHOULD BE FREE OF ORGANIC MATERIALS, SUCH AS ROOTS AND VEGETATION. AS A GENERAL GUIDE TO AID THE CONTRACTOR, FILL WITH 3 TO 10 PERCENT BY DRY WEIGHT OF MATERIAL PASSING THE U.S. STANDARD NO. 200 SIEVE SIZE IS RECOMMENDED. THE FINE SAND AND FINE SAND WITH SILT (STRATA NO. 1 AND 2 WITHOUT ROOTS) ARE SUITABLE AS FILL MATERIALS, AND WITH PROPER MOISTURE CONTROL, SHOULD DENSIFY USING CONVENTIONAL COMPACTION METHODS.
3. ALL STRUCTURAL FILL SHOULD BE PLACED IN LEVEL LIFTS NOT TO EXCEED 6 INCHES IN UNCOMPACTED THICKNESS. EACH LIFT SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR (ASTM D 1557) MAXIMUM DRY DENSITY VALUE. THE FILLING AND COMPACTION OPERATIONS SHOULD CONTINUE IN LIFTS UNTIL THE DESIRED ELEVATION(S) IS ACHIEVED.
4. EXCAVATE THE FOUNDATION TO THE PROPOSED BOTTOM OF FOOTING ELEVATIONS, AND THEREAFTER, VERIFY THE INPLACE COMPACTION FOR A DEPTH OF 2 FEET BELOW THE BOTTOM OF FOOTINGS. IF NECESSARY, COMPACT THE BOTTOM OF THE EXCAVATIONS TO ACHIEVE A MINIMUM DRY DENSITY EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) FOR A DEPTH OF 2 FEET BELOW THE BOTTOM OF FOOTINGS.
5. PROVIDE 10 MIL. VAPOR BARRIER OVER COMPACTED SUBGRADE FOR SLAB ON GRADE. VAPOR BARRIER SHALL BE LAPPED A MINIMUM OF 6 INCHES IN DIRECTION OF CONCRETE POUR AND TAPED. USE MAXIMUM SHEET SIZE WITH MINIMUM JOINTS. CARE SHALL BE EXERCISED TO PREVENT DAMAGE OR RUPTURE OF BARRIER. WHERE COLUMNS, PIPES, CONDUITS, ETC. PENETRATE MEMBRANE, CUT AROUND PROJECTION AND SEAL WITH JOINT TAPE.

CONCRETE REINFORCING BARS

1. ALL REINFORCING BARS SHALL BE IN ACCORDANCE WITH ASTM A 615, GRADE 60 AND DOMESTICALLY PRODUCED.
2. ALL REINFORCING BARS SHALL BE PLACED WITH BAR SUPPORTS AS REQUIRED BY CRSI MANUAL OF STANDARD PRACTICE (LATEST EDITION).
3. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH ACI DETAILING MANUAL SP-66 (LATEST EDITION) FOR REVIEW OF ALL REINFORCMENT REQUIRED FOR PROJECT PRIOR TO FABRICATION.
4. COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:

CAST-IN-PLACE CONCRETE REINFORCING BAR COVER	
CONCRETE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#5 BARS AND SMALLER	1 1/2"
#6 BARS AND LARGER	2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER	
SLABS, WALLS, & JOISTS	
#11 BARS AND SMALLER	3/4"
#14 AND #18 BARS	1 1/2"
BEAMS AND COLUMNS	1 1/2"

CONCRETE REINFORCING BARS

5. ALL REINFORCING BARS AT SPLICES IN CONCRETE SHALL BE LAPPED ACCORDING TO ACI 318-14, UNLESS NOTED OTHERWISE. FOR REINFORCING BARS WITH A DIAMETER = Db, IF A MINIMUM COVER OF Db IS PROVIDED ALONG WITH A MINIMUM CLEAR SPACING OF 2Db, OR A MINIMUM CLEAR COVER OF Db AND A MINIMUM CLEAR SPACING OF Db ARE PROVIDED ALONG WITH MINIMUM TIES OR STIRRUPS, THE FOLLOWING APPLIES:

CAST-IN-PLACE CONCRETE REINFORCING BAR MINIMUM LAP SPLICE (CLASS B) LENGTH		
REINFORCING BAR SIZE	f'c = 3,000 PSI	f'c = 4,000 PSI
#6 BARS AND SMALLER	57Db	50Db
#7 BARS AND LARGER	72Db	62Db

WELDED WIRE FABRIC

1. WWF MUST BE SUPPLIED IN SHEETS, THE USE OF ROLLS IS NOT PERMITTED.
2. WWF SHOULD BE PLACED 1 1/2" BELOW THE SURFACE OF THE SLAB, UNLESS NOTED OTHERWISE. REINFORCING SAND PLATES MUST BE PROVIDED TO POSITION WWF IN THE CORRECT LOCATION DURING CONCRETE POUR AND MUST BE LOCATED AT SUFFICIENT INTERVALS TO PREVENT SAGGING OF THE WWF. WWF SHOULD NOT BE LAID ON THE GROUND AND "PULLED UP", NOR SHOULD THE MATS BE "WALKED IN" FOLLOWING THE CONCRETE PLACEMENT. CARE MUST BE TAKEN SO THAT THE SAND PLATES DO NOT PUNCTURE ANY SPECIFIED VAPOR BARRIER.
3. WWF SHOULD EXTEND TO WITHIN 2" OF EDGE OF SLAB.
4. WWF SHOULD BE LAPPED A MINIMUM OF 1 CROSS WIRE SPACING.

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

GENERAL NOTES

SHEET NO. AS2-002

CONCRETE MASONRY CONSTRUCTION MATERIALS

1. CONCRETE MASONRY UNITS SHALL BE IN ACCORDANCE WITH ASTM C 90, NORMAL WEIGHT, TYPE II AND SHALL BE OF A TYPE SUCH THAT THE CORES LINE UP VERTICALLY.
2. MORTAR FOR USE IN MASONRY CONSTRUCTION SHALL CONFORM TO ASTM C 270, TYPE S OR M. UNUSED MORTAR SHALL BE DISCARDED WITHIN 2 1/2 HOURS AFTER INITIAL MIXING.
3. GROUT SHALL CONFORM TO ASTM C 476, COARSE TYPE, AND SHALL HAVE THE PROPORTIONS ESTABLISHED BY 28-DAY COMPRESSIVE STRENGTH TESTS IN ACCORDANCE WITH TEST METHOD ASTM C 1019 THAT OBTAINS THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 2,000 PSI. THE GROUT SHALL BE MIXED TO A SLUMP OF 8 TO 11 INCHES AS DETERMINED BY THE TEST METHOD ASTM C 143/143M.
4. THE COMPRESSIVE STRENGTH OF THE MASONRY PRISM ASSEMBLAGE (f'm) SHALL BE A MINIMUM OF 1,500 PSI, AS DETERMINED BY THE UNIT STRENGTH METHOD. THIS REQUIRES, IN ADDITION TO THE MATERIAL PROPERTY REQUIREMENTS LISTED ABOVE, THE FOLLOWING:

4.A THE CONCRETE MASONRY UNITS, AS SAMPLED AND TESTED BY ASTM C 140, HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1,900 PSI.

4.B THE THICKNESS OF THE MORTAR BED JOINTS DOES NOT EXCEED 5/8 INCH.

5. DEFORMED REINFORCING BARS SHALL CONFORM WITH ASTM A 615.
6. JOINT REINFORCEMENT SHALL COMPLY WITH ASTM A 951. THE MAXIMUM SPACING OF CROSSWIRES IN LADDER TYPE JOINT REINFORCEMENT SHALL BE 16 INCHES.

CONCRETE MASONRY GROUT PLACEMENT

1. VERTICAL CELLS TO BE FILLED WITH GROUT SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED, CONTINUOUS VERTICAL CELL, AS SHOWN IN THE "GROUT SPACE REQUIREMENTS" TABLE BELOW. EXCESSIVE MORTAR FINS AND ANY OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE CELLS TO BE GROUTED. PROVIDE CLEANOUTS AT THE BOTTOM COURSE OF ALL GROUT POURS.
2. ALL CELLS CONTAINING REINFORCEMENT SHALL BE FILLED SOLID WITH GROUT. FOR GROUT POURS 12" OR LESS IN HEIGHT, GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION OR PUDDLING. FOR GROUT POURS EXCEEDING 12" IN HEIGHT, GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION AT THE TIME OF PLACEMENT, AND RECONSOLIDATED BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURED, BUT BEFORE WORKABILITY IS LOST.
3. DO NOT PLACE CONDUIT IN CELLS CONTAINING REINFORCEMENT WITHOUT PRIOR APPROVAL FROM STRUCTURAL ENGINEER OF RECORD.
4. DO NOT EXCEED THE MAXIMUM GROUT POUR HEIGHT GIVEN IN THE "GROUT SPACE REQUIREMENTS" TABLE BELOW. IN ADDITION, WHERE THE FOLLOWING CONDITIONS ARE MET, PLACE GROUT IN LIFTS NOT EXCEEDING 12'-0":

4.A THE MASONRY HAS CURED FOR AT LEAST 4 HOURS.

4.B THE GROUT SLUMP IS MAINTAINED BETWEEN 10 AND 11 INCHES.

4.C NO INTERMEDIATE REINFORCED BOND BEAMS ARE PLACED BETWEEN THE TOP AND THE BOTTOM OF THE POUR HEIGHT.

4.D OTHERWISE, PLACE GROUT IN LIFTS NOT EXCEEDING 5'-0".

5. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL WYTHES AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MINIMUM OF 1-1/2 INCHES BELOW A MORTAR JOINT, EXCEPT AT THE TOP OF THE WALL. NEVER STOP A GROUT POUR AT A BED JOINT.
6. ALL CELLS IN UNITS BELOW GRADE SHALL BE FULLY GROUTED, UNLESS NOTED OTHERWISE.

GROUT SPACE REQUIREMENTS

SPECIFIED GROUT TYPE	MAX GROUT POUR HEIGHT (FT)	MIN. WIDTH OF GROUT SPACE *	MIN. GROUT SPACE DIMENSIONS FOR GROUTING CELLS OF HOLLOW UNITS *, **
COARSE	1	1 1/2"	1 1/2" X 3"
COARSE	5	2"	2 1/2" X 3"
COARSE	12	2 1/2"	3" X 3"

* - GROUT SPACE DIMENSION IS THE CLEAR DIMENSION BETWEEN ANY MASONRY PROTRUSION AND SHALL BE INCREASED BY THE DIAMETERS OF THE HORIZONTAL BARS WITHIN THE CROSS SECTION OF THE GROUT SPACE.

** - FOR GROUTING BETWEEN MASONRY WYTHES.

CONCRETE MASONRY REINFORCING BARS

1. VERTICAL REINFORCEMENT TO BE CENTERED IN SOLID GROUTED MASONRY CELLS AS REQUIRED ON PLANS AND AT ALL CORNERS, JAMBS, WALL INTERSECTIONS, EACH SIDE OF OPENINGS, AND EACH SIDE OF MASONRY CONTROL JOINTS.
2. BARS MAY BE LAP SPLICED ACCORDING TO PLAN CONSISTING OF BARS HELD IN DIRECT CONTACT BY WIRE TIES, ALL VERTICAL BARS TERMINATING INTO CONCRETE SHALL TERMINATE WITH A STANDARD ACI 90° HOOK.
3. NO WET SETTING OF BARS IN FOOTING IS PERMITTED. ALL DOWEL REINFORCING BARS SHALL BE TIED TO THE FOUNDATION REINFORCEMENT AND HELD IN PLACE USING FABRICATED FORM WORK PRIOR TO POURING. PLACEMENT OF BARS SHALL BE VERIFIED PRIOR TO FOUNDATION POUR.
4. DEVELOPMENT AND LAP SPLICE LENGTHS OF REINFORCING BARS IN MASONRY SHALL COMPLY WITH THE REQUIREMENTS OF ACI 530-08 AS MODIFIED BY THE 2010 FBC. FOR 8" NOMINAL CONCRETE MASONRY UNITS WITH A MASONRY ASSEMBLAGE COMPRESSIVE STRENGTH (f'm) OF 1,500 PSI AND VERTICAL REINFORCEMENT CENTERED IN THE UNITS, THE FOLLOWING DEVELOPMENT AND LAP SPLICE LENGTHS ARE REQUIRED:

LAP SPLICE REQUIREMENTS

REINFORCING BAR SIZE	MINIMUM LAP LENGTH
#4	24"
#5	30"
#6	36"
#7	42"
#8	48"

CONCRETE MASONRY WORKMANSHIP

1. ALL CONCRETE MASONRY WORK SHALL BE IN ACCORDANCE WITH ACI 530-08, AND MEET THE SPECIFICATIONS AS LISTED IN ACI 530.1-08, AS WELL AS THE SPECIFICATIONS LISTED BELOW.
2. AT THE TIME OF LAYING, ALL CONCRETE MASONRY UNITS SHALL BE DRY AND FREE OF EXCESSIVE DUST AND DIRT.
3. HEAD AND BED JOINTS SHALL BE 3/8 INCH THICK, EXCEPT THE COURSE PLACED OVER FOUNDATIONS SHALL NOT BE LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH.
4. HOLLOW UNITS SHALL BE PLACED SUCH THAT FACE SHELLS OF BED JOINTS ARE FULLY MORTARED, WEBS SHALL BE FULLY MORTARED IN ALL COURSES OF PIERS, COLUMNS, PILASTERS, IN THE STARTING COURSE ON FOUNDATIONS WHERE ADJACENT CELLS OR CAVITIES ARE TO BE GROUTED, AND WHERE OTHERWISE REQUIRED. HEAD JOINTS SHALL BE MORTARED A MINIMUM DISTANCE FROM EACH FACE EQUAL TO THE FACE SHELL THICKNESS OF THE UNIT.

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SUNTRAX TEST FACILITY STORAGE BUILDING

GENERAL NOTES

SHEET NO. AS2-003

STRUCTURAL STEEL

1. ALL STEEL SECTIONS SHALL BE PRODUCED DOMESTICALLY AND CONFORM TO THE FOLLOWING ASTM STANDARDS:

1.A. W-SECTION: ASTM A 992 (Fy = 50 KSI)

1.B. ANGLE, CHANNEL, & PLATE: ASTM A 36 (Fy = 36 KSI)

1.C. HSS-RECTANGULAR: ASTM A 500, GR. B (Fy = 46 KSI)

1.D. HSS-ROUND: ASTM A 500, GR. B (Fy = 42 KSI)

2. SHOP AND FIELD WELDS TO USE E70XX ELECTRODES. MINIMUM FILLET WELD SIZE TO BE 3/16", UNLESS NOTED OTHERWISE. ALL WELDS SHALL BE PREQUALIFIED IN CONFORMITY WITH THE AMERICAN WELDING SOCIETY'S CODE FOR WELDING IN BULDING CONSTRUCTION (AWS D1.1). WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WELD SIZE SHALL BE AISC MINIMUM UNLESS A LARGER SIZE IS NOTED.

3. BOLTED CONNECTIONS TO USE A325-N BOLTS, UNLESS NOTED OTHERWISE. BOLT HOLES IN STEEL EXCEPT IN BASE PLATES SHALL BE 1/16 INCH LARGER IN DIAMETER THAN THE NORMAL SIZE BOLT USED, UNLESS NOTED OTHERWISE.

4. BUILDING ANCHOR BOLTS TO BE ASTM F 1554, GR. 36, UNLESS NOTED OTHERWISE.

5. HEADED STUDS TO BE ASTM A 108, GR. 1010 THROUGH 1020 AND SHALL BE TYPE B (Fut = 65 KSI), MEETING THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1), LATEST EDITION.

6. DEFORMED BAR ANCHORS TO BE ASTM A1064.

7. GROUT FOR COLUMN BASE PLATES AND PRESET BEARING PLATES SHALL BE NON-SHRINK, NON-METALLIC GROUT WITH MINIMUM f'c = 5,000 PSI.

8. BEAM CONNECTIONS SHALL BE AS SHOWN OR NOTED ON DRAWINGS. ECCENTRIC OR ONE-SIDED CONNECTIONS WILL NOT BE PERMITTED UNLESS APPROVED AND INDICATED ON DRAWINGS. CONNECTIONS AND DETAILS ARE SUBJECT TO ENGINEER'S APPROVAL.

9. THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS FOR ENGINEER'S REVIEW AND APPROVAL BEFORE FABRICATION.

10. ALL STRUCTURAL STEEL MEMBERS AND SHAPES BELOW GRADE AND EXPOSED TO THE EXTERIOR SHALL BE HOT-DIPPED GALVANIZED AS FOLLOWS:

10.A. ALL NUTS, BOLTS AND WASHERS:ASTM A 153, CLASS C OR D (DEPENDING ON SIZE)

10.B. ALL OTHER STEEL ITEMS:ASTM A 123

STEEL DECK

1. THE STEEL DECK UNITS SHALL BE FABRICATED FROM STEEL CONFORMING TO SECTION 1.2 OF THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI), "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".

2. THE STEEL USED ON THE DECK UNITS SHALL HAVE A MINIMUM YIELD STRENGTH OF 33,000 PSI. THE STEEL DECK SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A 611, GR. C, D, OR E OR FROM ASTM A 653, STRUCTURAL QUALITY GRADES 33, 37, 40, 50, OR 80.

3. THE STANDARD TOLERANCE FOR ORDERED LENGTH IS PLUS OR MINUS 1/2 INCH.

4. MAXIMUM DEFLECTION OF THE DECK UNITS SHALL NOT EXCEED L/240 UNDER THE UNIFORMLY DISTRIBUTED LIVE LOAD. STRUCTURAL ADEQUACY OF THE DECK SECTIONS SHALL BE ESTABLISHED BY THE DETERMINATION OF SECTION MODULUS AND MOMENT OF INERTIA IN ACCORDANCE WITH CONVENTIONAL METHODS OF DESIGN.

5. DECK SHEETS WILL BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWINGS SUPPLIED BY THE DECK MANUFACTURER AND IN CONFORMANCE WITH THE DECK MANUFACTURER'S STANDARDS.

6. DECK SHALL HAVE A 2" MINIMUM BEARING ON SUPPORTING MEMBERS.

7. DECK UNITS SHALL BE ANCHORED TO SUPPORTING MEMBERS, INCLUDING BEARING WALLS, TO PROVIDE LATERAL STABILITY TO THE TOP FLANGE OF THE SUPPORTING STRUCTURAL MEMBERS AND TO RESIST THE SPECIFIED UPLIFT LOADS. THE DECK MUST BE ADEQUATELY ATTACHED TO THE STRUCTURE TO PREVENT SLIP OFF. SEE PLANS FOR THE LOCATION, SPACING, AND NUMBER OF WELDS OR SCREWS REQUIRED FOR SATISFACTORY ATTACHMENT OF THE DECK TO SUPPORTING STRUCTURAL MEMBERS.

8. PUDDLE WELDS SHALL BE AT LEAST 5/8 INCH DIAMETER OR ELONGATED WELDS WITH AN EQUAL PERIMETER. WELD SHALL PENETRATE ALL LAYERS OF DECK MATERIAL AT END LAPS AND SIDE JOINTS AND SHALL HAVE GOOD FUSION TO THE SUPPORTING MEMBERS.

9. ALL STEEL TO BE USED FOR THE ROOF DECK SHALL BE GALVANIZED (G90), ALUMINIZED, OR PRIME PAINTED. THE ROOF DECK SHALL BE FREE OF GREASE AND DIRT PRIOR TO THE COATING.

STEEL JOISTS

1. DESIGN SHALL BE BASED ON AN ALLOWABLE TENSILE STRESS OF 30,000 PSI. THE JOIST MANUFACTURER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE (SJI), AND ALL DESIGN AND ERECTION SHALL BE CARRIED OUT ACCORDING TO SJI SPECIFICATIONS.

2. JOISTS SHALL BE DESIGNED TO RESIST THE MINIMUM LOADS AS SHOWN ON THE PLANS. CALCULATIONS SHALL BE SIGNED AND SEALED BY ENGINEER.

3. THE JOIST FABRICATOR SHALL BE RESPONSIBLE FOR THE FINAL DESIGN OF ALL BRACING AND BRIDGING. THE JOIST FABRICATOR SHALL SUBMIT A FRAMING PLAN INDICATING ALL JOISTS, AND BRIDGING AND BRACING LOCATIONS. AXIAL LOADS CARRIED BY BRIDGING AND BRACING WILL BE CLEARLY INDICATED ON THE PLANS SO THE ENGINEER OF RECORD MAY PROVIDE THE PROPER CONNECTION DESIGN TO THE MAIN STRUCTURE. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO MAKE REVISIONS TO THE STRUCTURE AS NECESSARY BASED ON THE FINAL DESIGN OF THE JOISTS, JOIST BRACING, OR BRIDGING.

METAL PANELS

1. CLADDING ATTACHED TO LIGHT GAGE STUDS SHALL COMPLY WITH WIND PRESSURES SHOWN ON AS2-005. CLADDING MANUFACTURER SHALL PROVIDE DOCUMENTATION CONFIRMING COMPLIANCE WITH WIND LOAD PRESSURES INDICATED ON AS2-005 FOR EOR APPROVAL AS PART OF THE SHOP DRAWING REVIEW PROCESS.

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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

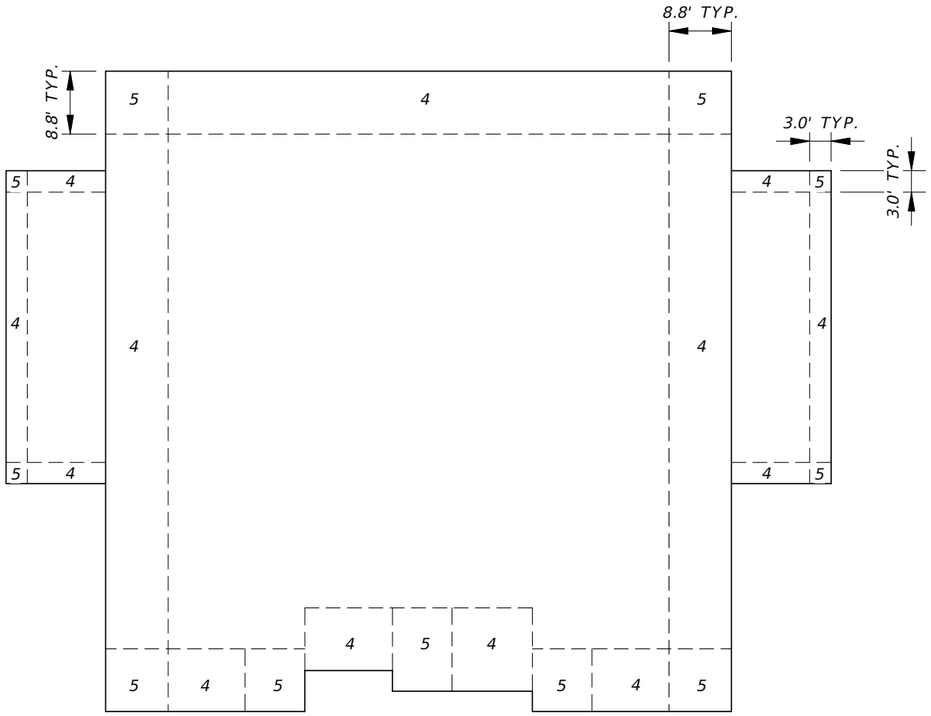
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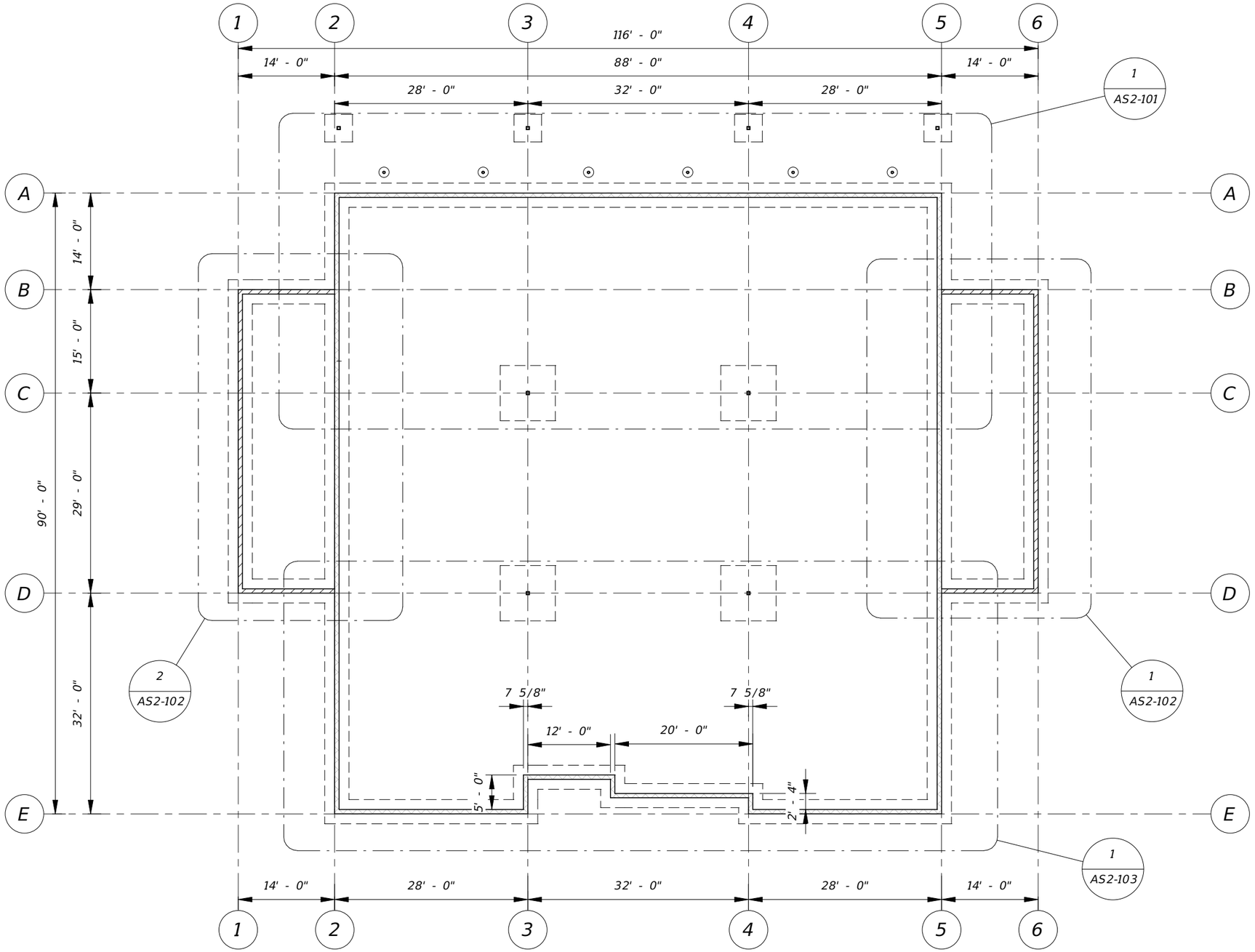
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

GENERAL NOTES

SHEET NO. AS2-004


8.8' TYP.
8.8' TYP.
3.0' TYP.
3.0' TYP.
5
4
5
4
4
4
4
5
4
5
4
5



WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 8" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

8" CMU WALL. w/ #4 BARS IN GROUTED CELLS @ 24" O.C.. TYP. SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

1 OVERALL FOUNDATION PLAN

1/16" = 1'-0"

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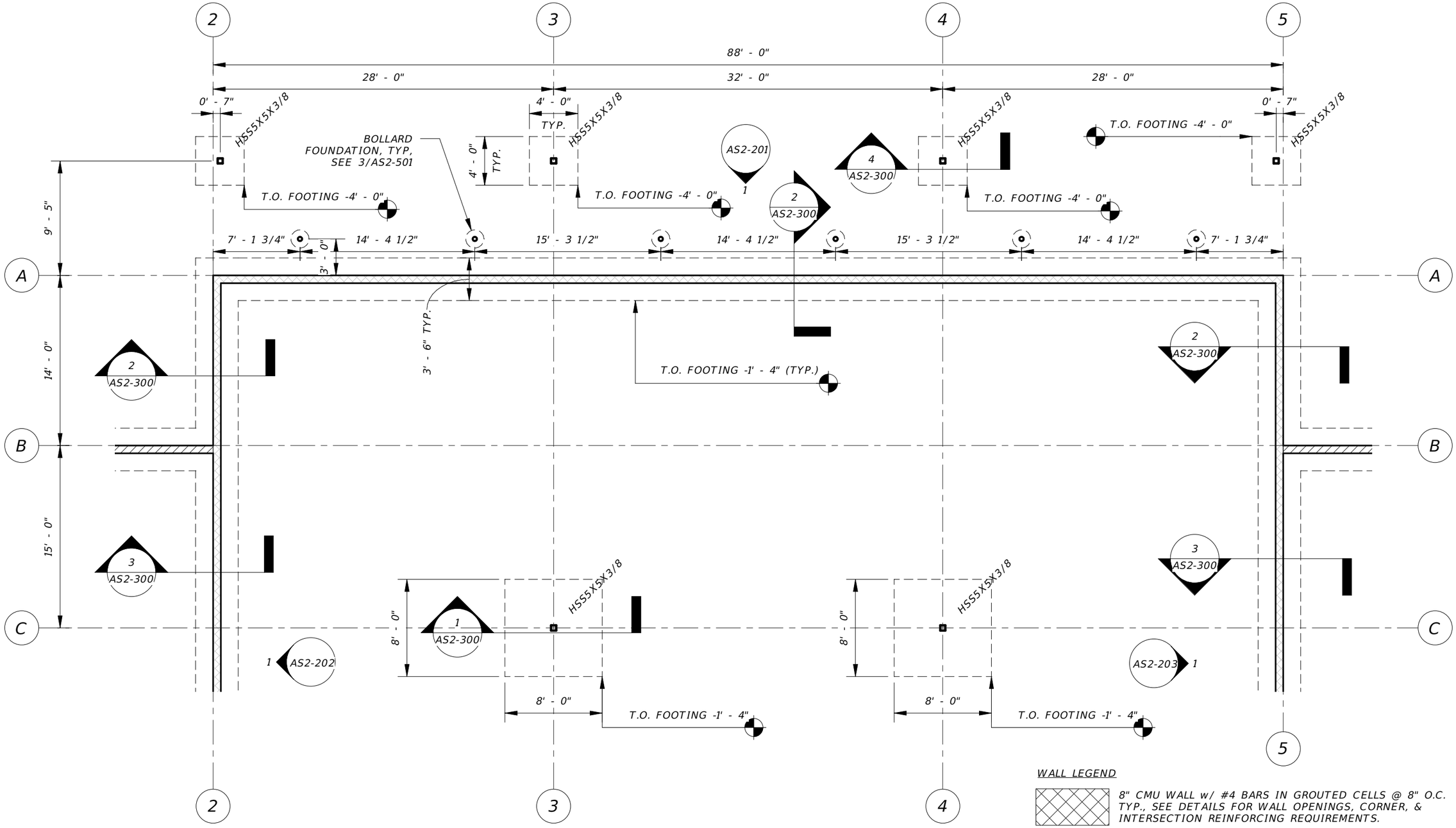
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

OVERALL FOUNDATION PLAN

SHEET NO. AS2-100

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WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 8" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

8" CMU WALL. w/ #4 BARS IN GROUTED CELLS @ 24" O.C.. TYP. SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

1 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

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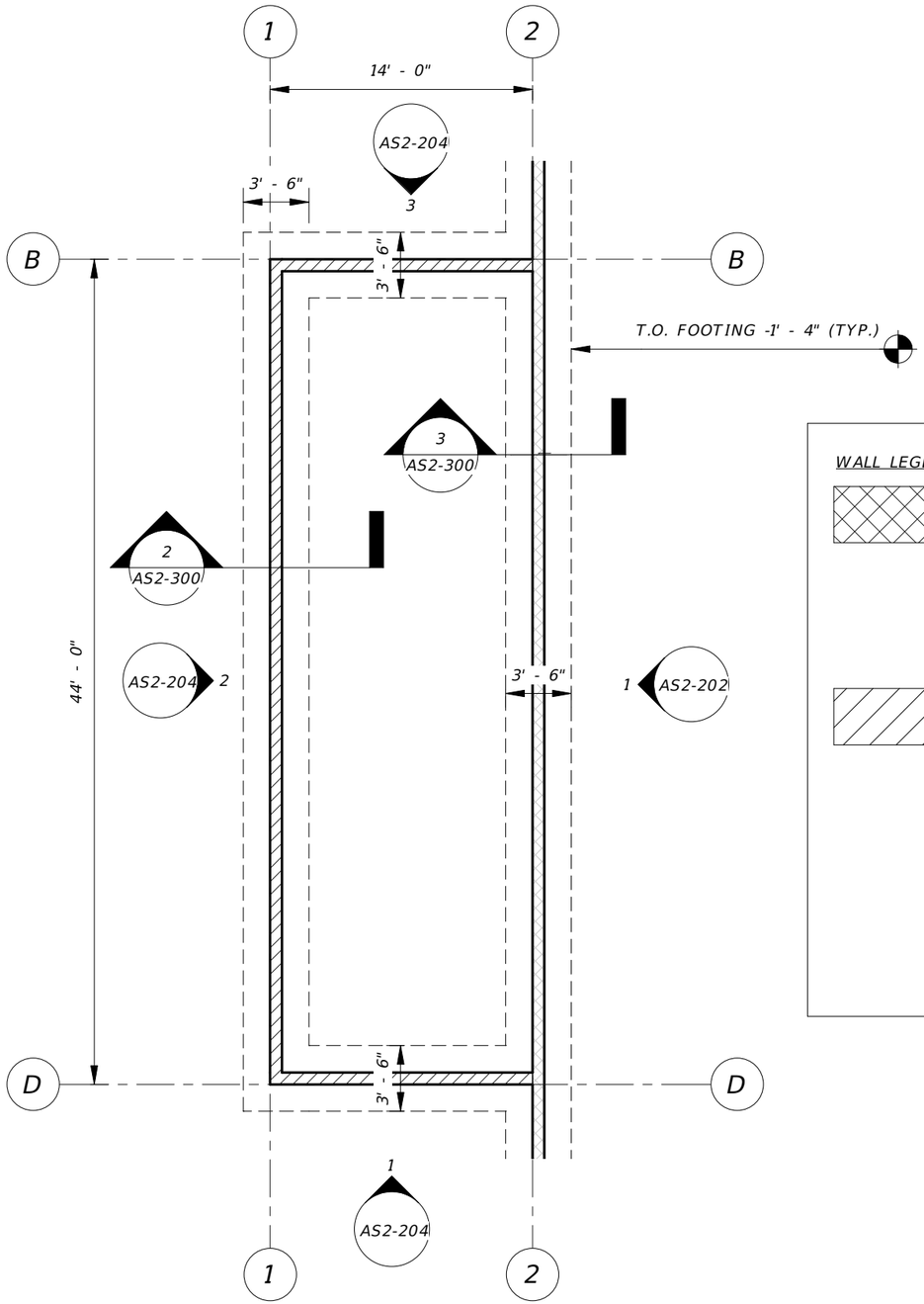
SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED FOUNDATION PLAN

SHEET NO. AS2-101

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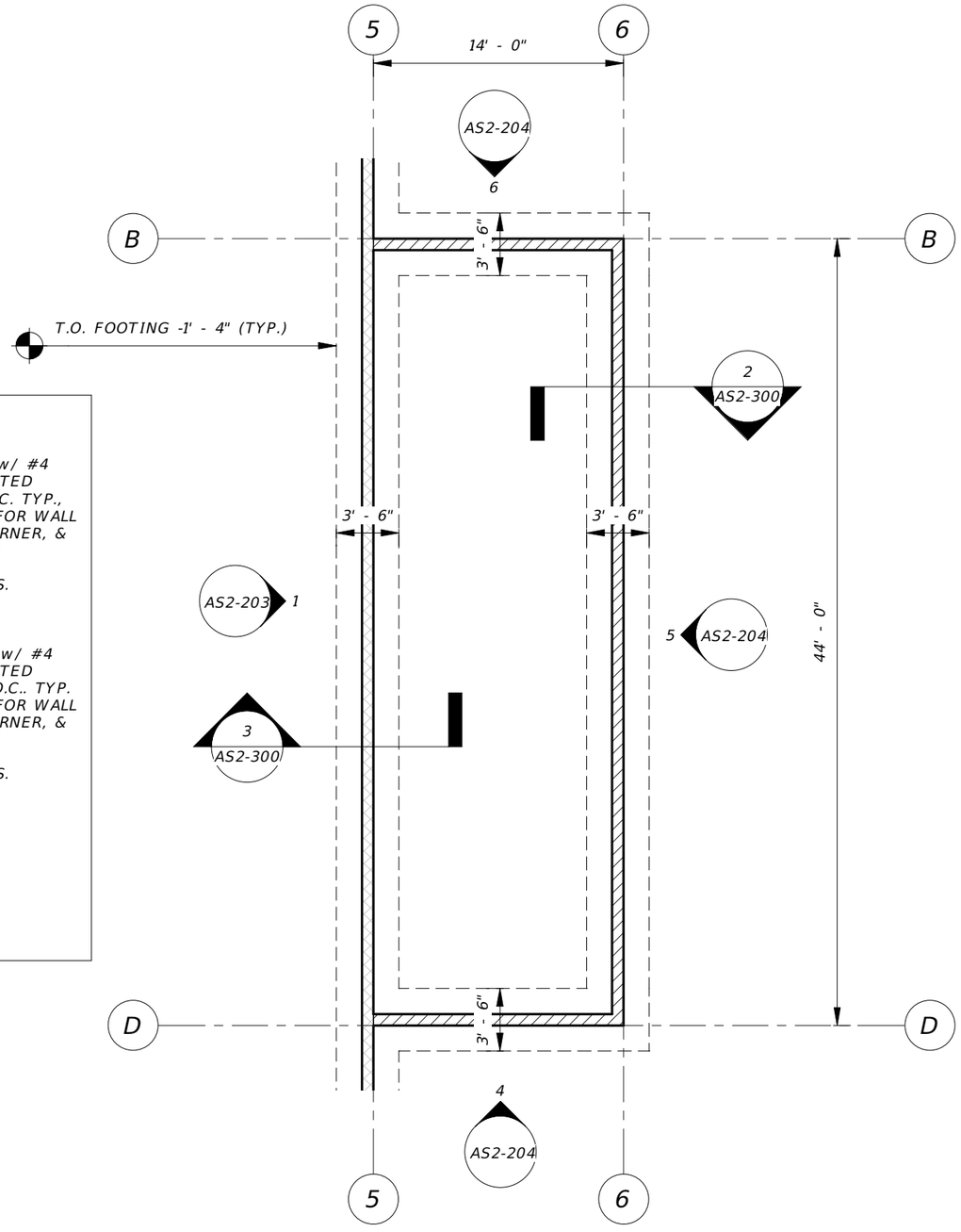
2 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

WALL LEGEND

8" CMU WALL w/ #4 BARS IN GROUTED CELLS @ 8" O.C. TYP., SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

8" CMU WALL. w/ #4 BARS IN GROUTED CELLS @ 24" O.C.. TYP. SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.



1 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

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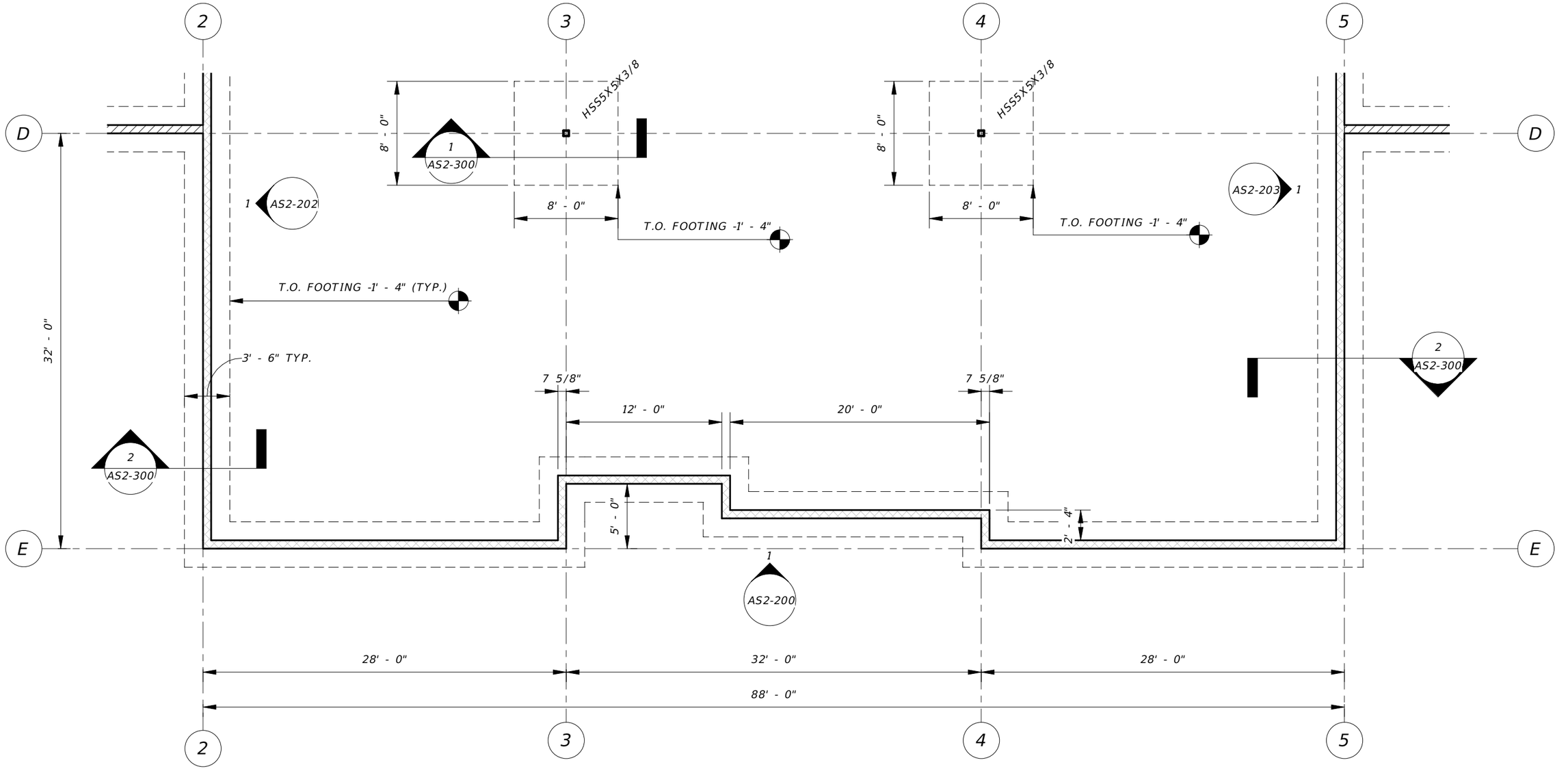
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED FOUNDATION PLAN

SHEET NO. AS2-102

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WALL LEGEND

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8" CMU WALL. w/ #4 BARS IN GROUTED CELLS @ 24" O.C.. TYP. SEE DETAILS FOR WALL OPENINGS, CORNER, & INTERSECTION REINFORCING REQUIREMENTS.

1 ENLARGED FOUNDATION PLAN

1/8" = 1'-0"

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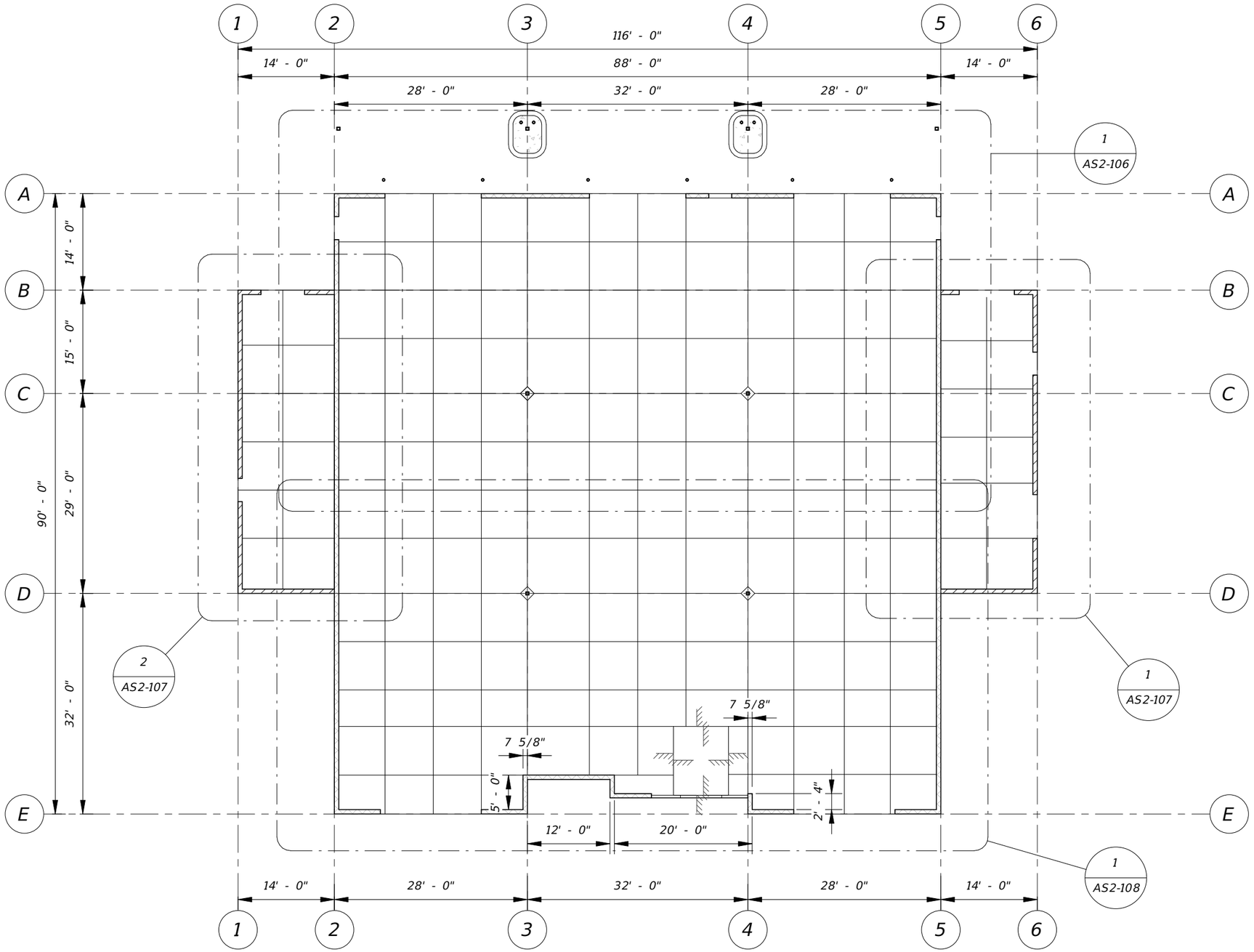
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED FOUNDATION PLAN

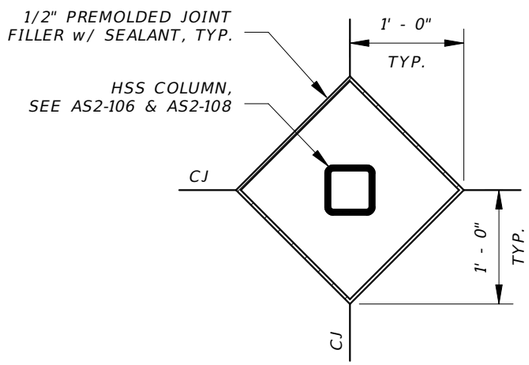
SHEET NO. AS2-103

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1 OVERALL SLAB PLAN

1/16" = 1'-0"



2 DIAMOND ISOLATION JOINT

3/4" = 1'-0"

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DEPARTMENT OF TRANSPORTATION

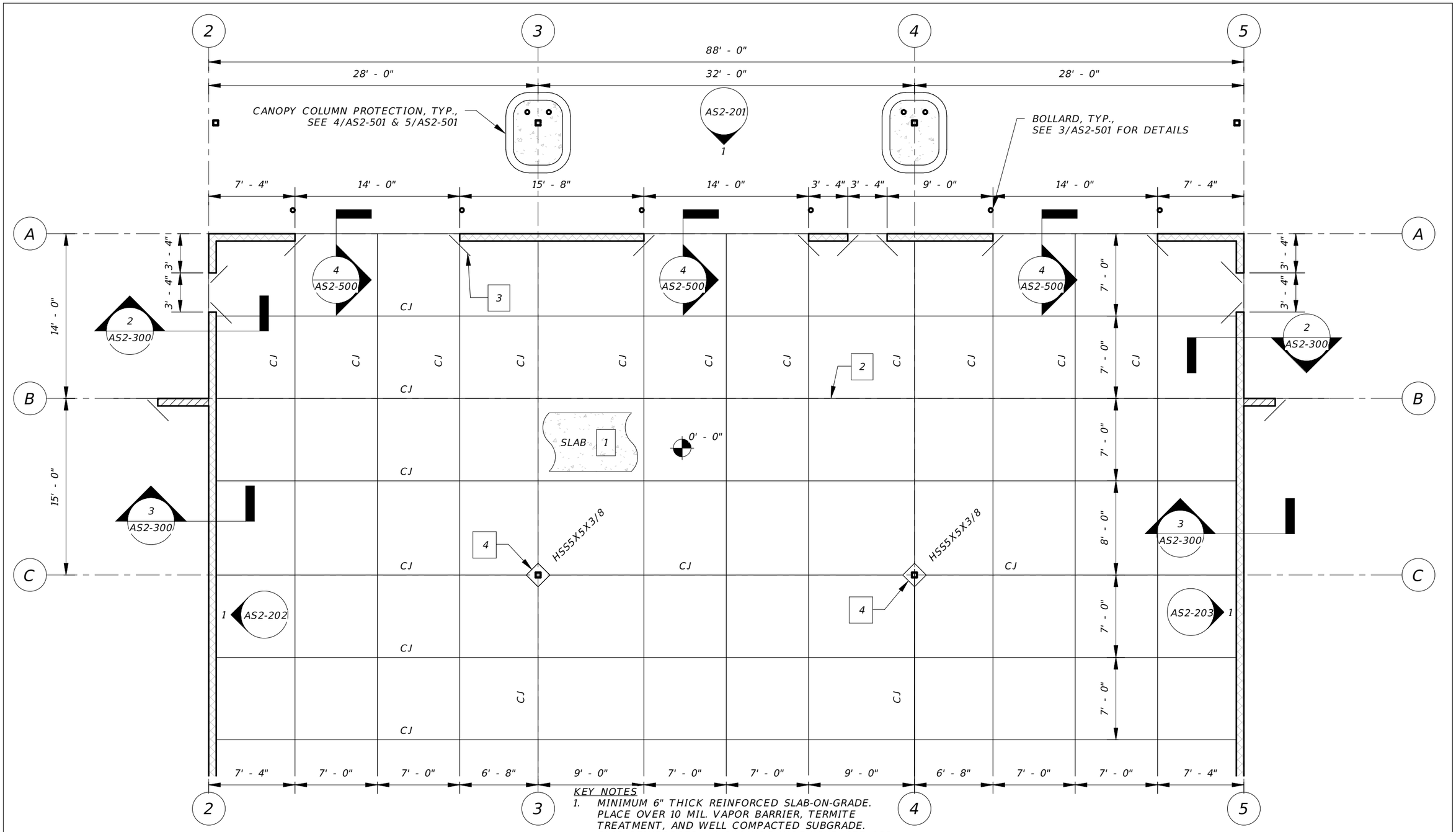
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL SLAB PLAN

SHEET NO. AS2-105

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



KEY NOTES

1. MINIMUM 6" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W6.5xW6.5 WWF. SEE AS2-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS2-501 FOR DETAIL.
3. RE-ENTRANT BAR, TYP., SEE 5/AS2-500
4. DIAMOND ISOLATION JOINT. SEE 2/AS2-105

1 ENLARGED SLAB PLAN

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

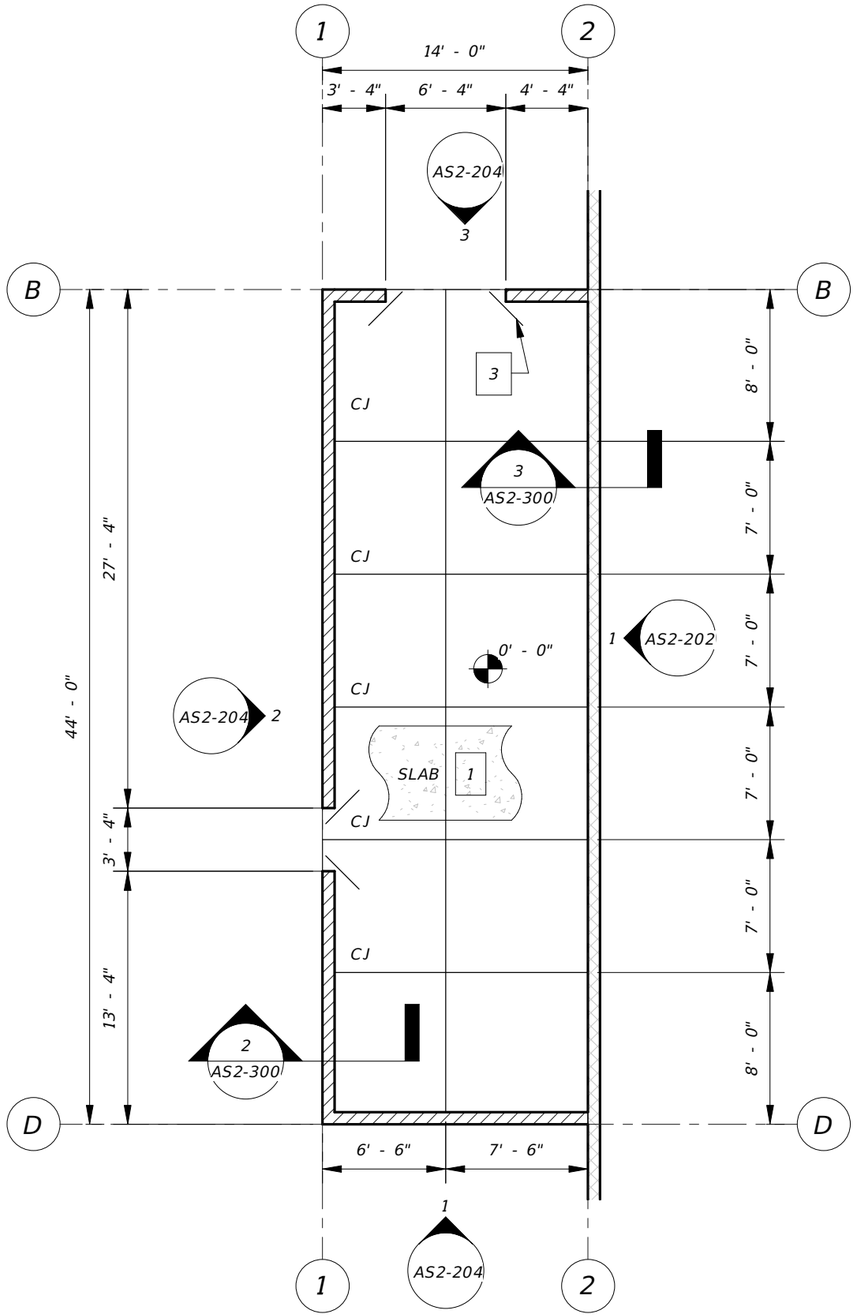
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED SLAB PLAN

SHEET NO. AS2-106

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

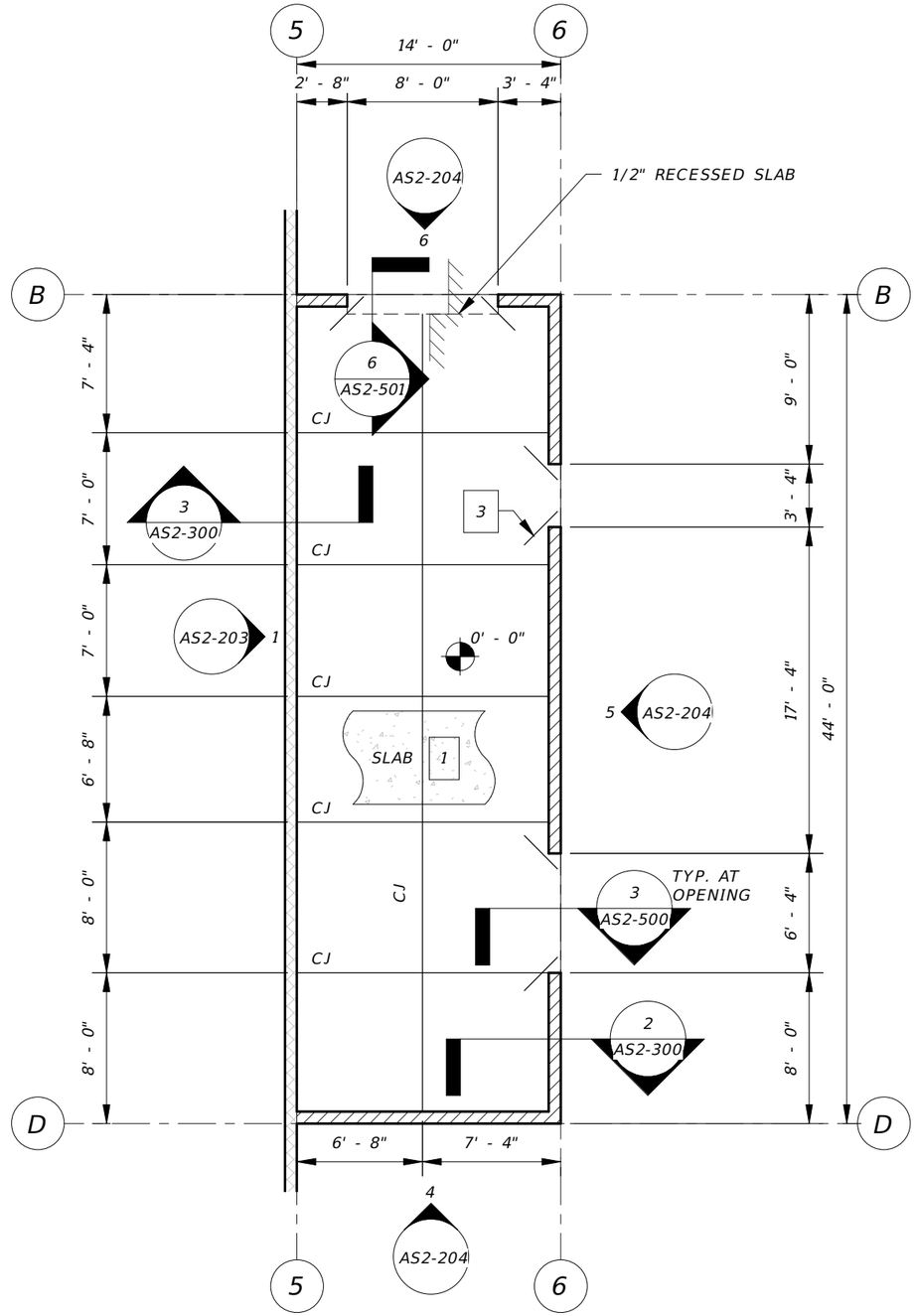


2 ENLARGED SLAB PLAN

1/8" = 1'-0"

KEY NOTES

1. MINIMUM 6" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W6.5xW6.5 WWF. SEE AS2-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS2-501 FOR DETAIL.
3. RE-ENTRANT BAR, TYP., SEE 5/AS2-500



1 ENLARGED SLAB PLAN

1/8" = 1'-0"

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STATE OF FLORIDA
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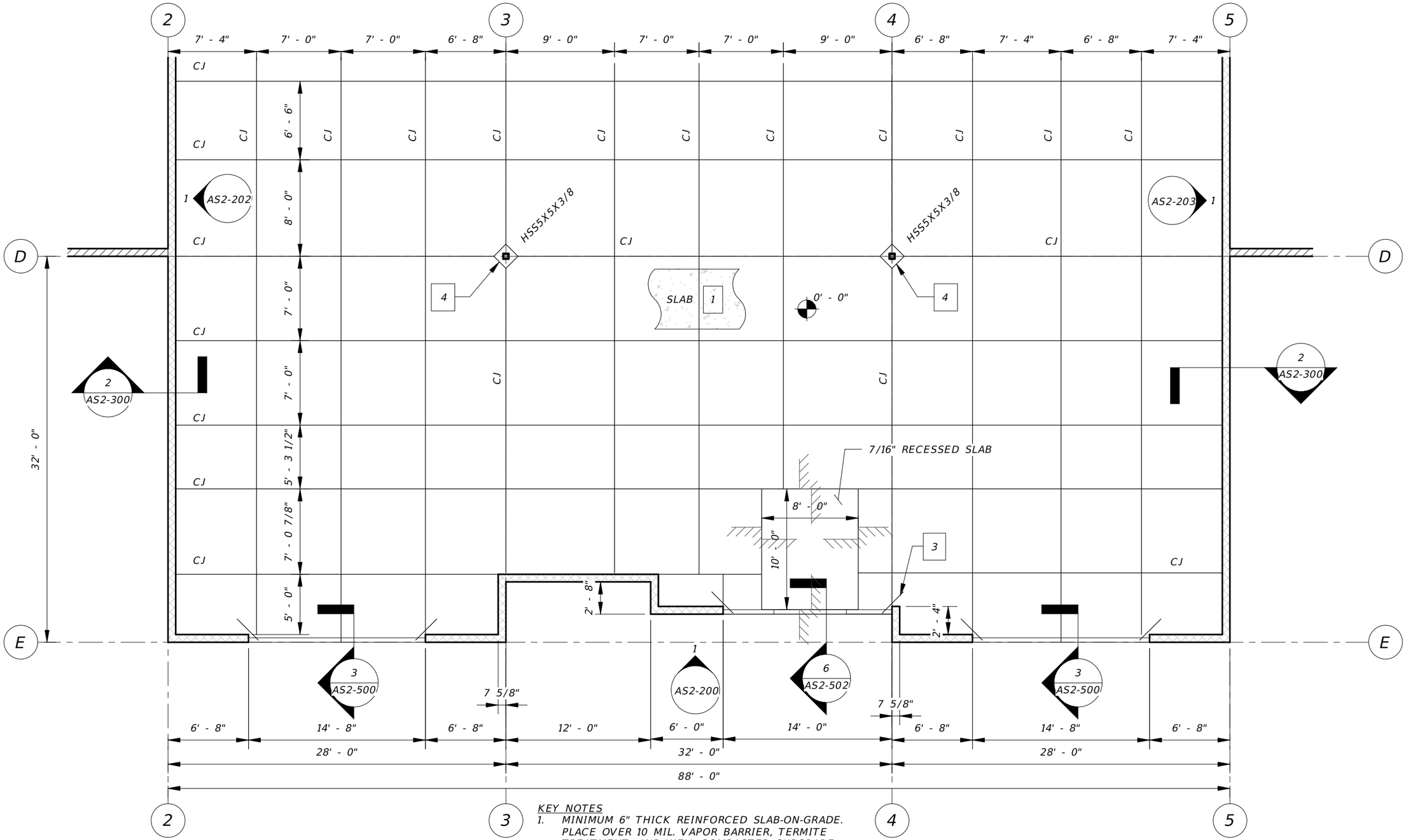
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

ENLARGED SLAB PLAN

SHEET NO.

AS2-107



1 ENLARGED SLAB PLAN

1/8" = 1'-0"

KEY NOTES

1. MINIMUM 6" THICK REINFORCED SLAB-ON-GRADE. PLACE OVER 10 MIL. VAPOR BARRIER, TERMITE TREATMENT, AND WELL COMPACTED SUBGRADE. SLAB REINFORCED w/ 6X6-W6.5xW6.5 WWF. SEE AS2-501 FOR SLAB JOINT DETAILS.
2. CJ REPRESENTS CONTRACTION JOINT. SEE 1/AS2-501 FOR DETAIL.
3. RE-ENTRANT BAR, TYP., SEE 5/AS2-500
4. DIAMOND ISOLATION JOINT. SEE 2/AS2-105

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
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651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

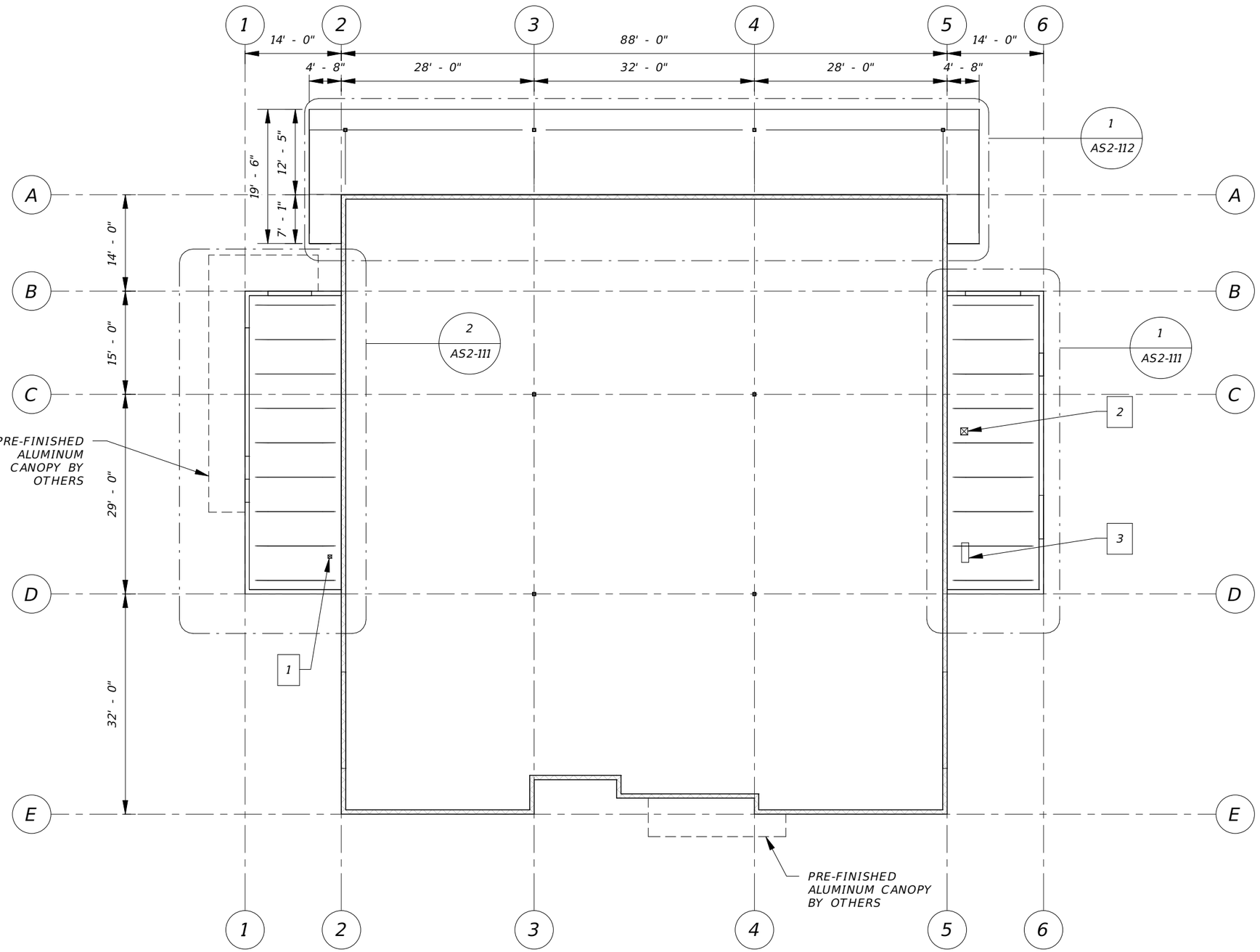
SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED SLAB PLAN

SHEET NO. AS2-108

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2 OVERALL LOWER ROOF FRAMING PLAN

1/16" = 1'-0"

JOIST LOADING NOTES

1. JOIST MANUFACTURER TO USE THE FOLLOWING LOADS FOR THE DESIGN OF THE STEEL ROOF JOISTS. LOADS SHOWN ARE NOMINAL, U.N.O.
2. DEAD LOAD: 75 PLF
3. ROOF LIVE LOAD: 100 PLF
4. WIND LOAD: +77.5 PLF, -210 PLF (+ ACTING TOWARDS SURFACE, - ACTING WAY)
5. NET UPLIFT: -96 PLF (ASD: 0.6D+0.6W), (DEAD LOAD USED FOR NET UPLIFT = 50 PLF)

GENERAL NOTES

1. SEE 1/AS2-512 FOR FRAMING AROUND PENETRATIONS.
2. COORDINATE EXHAUST FAN AND MINI-SPLIT RTU LOCATIONS AND PENETRATION SIZES w/ FINAL MECH. PLANS.

KEY NOTES

1. EXHAUST FAN 2, UNIT WEIGHT = 78 LB.
2. EXHAUST FAN 3, UNIT WEIGHT = 86 LB.
3. MINI-SPLIT RTU, UNIT WEIGHT = 97 LB.

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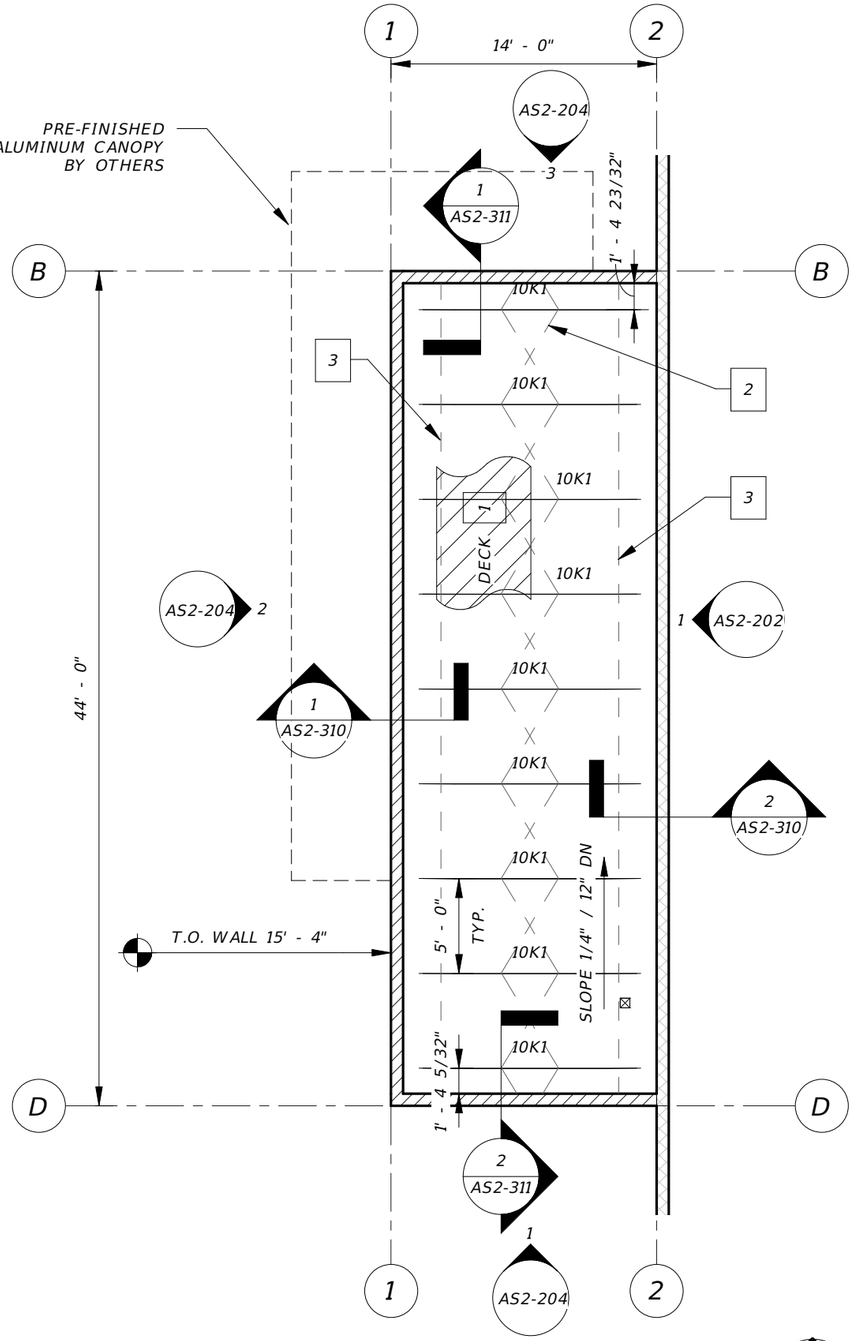
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

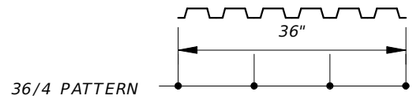
OVERALL LOWER ROOF PLAN

SHEET NO. AS2-110



2 ENLARGED LOWER ROOF PLAN - TRANSPONDER PICK-UP RM

1/8" = 1'-0"



3 ROOF DECK ATTACHMENT

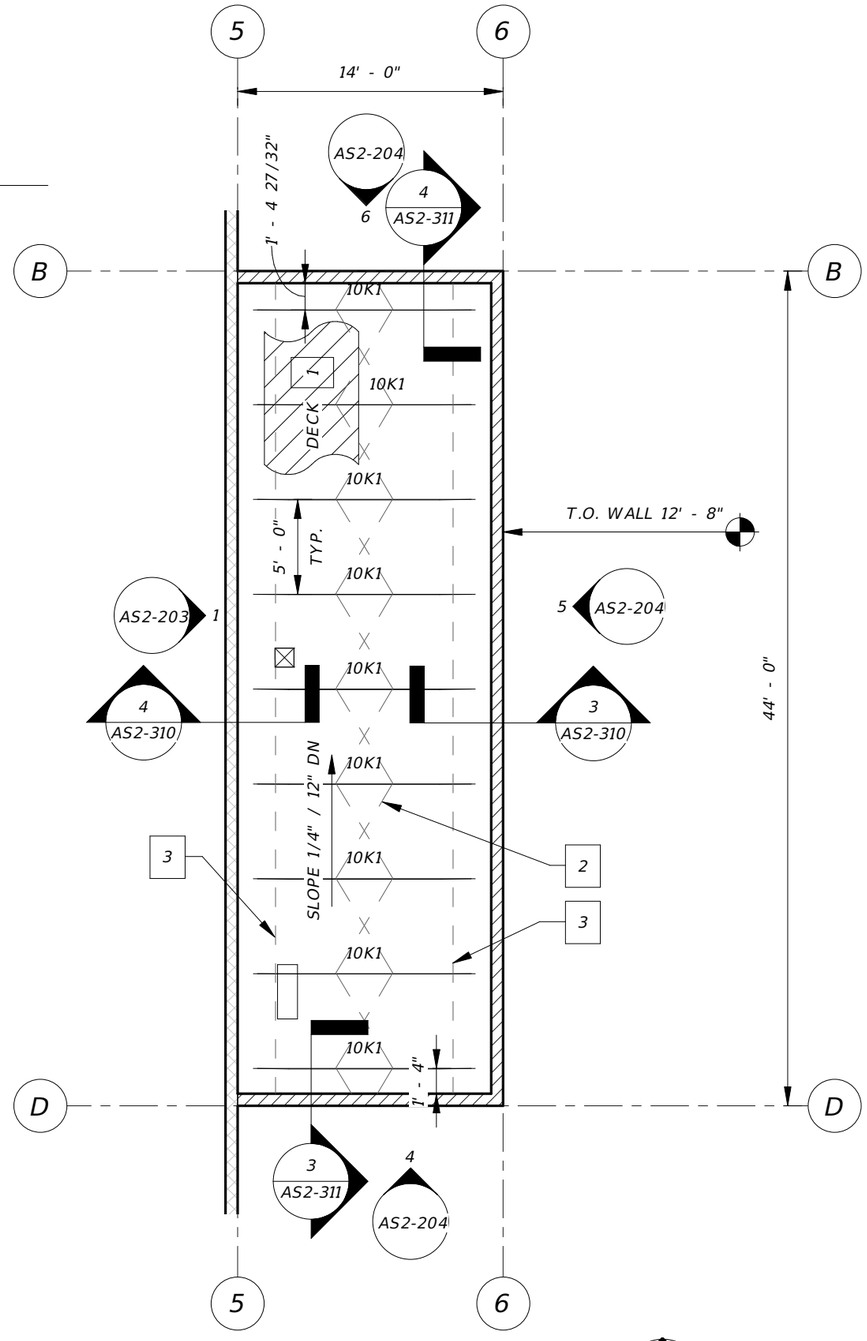
1/2" = 1'-0"

KEY NOTES

1. 1.5B20 STEEL ROOF DECK ATTACHED TO JOISTS w/ 36/4 PATTERN OF 5/8" PUDDLE WELDS & (2) #10 TEK SCREW SIDELAP FASTENERS PER SPAN.
2. PROVIDE ONE ROW OF X-BRIDGING PER SJI SPECIFICATIONS FOR 10K1 JOISTS.
3. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.
4. BRIDGING SHOWN IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

GENERAL NOTES

1. SEE AS2-110 FOR ROOF PENETRATION SIZES & LOCATIONS
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.



1 ENLARGED LOWER ROOF PLAN - MECH./ELEC. RM

1/8" = 1'-0"

REVISIONS			
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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

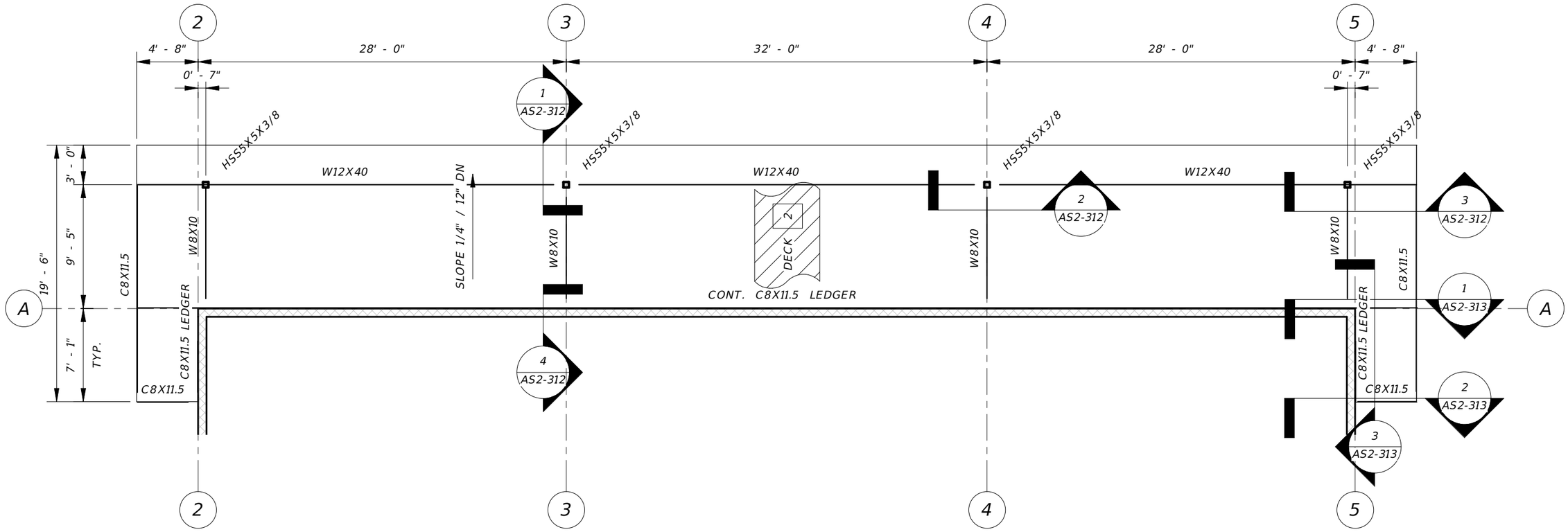
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

ENLARGED LOWER ROOF PLAN

SHEET NO. AS2-111

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1 CANOPY FRAMING

1/8" = 1'-0"

KEY NOTES

1. NOT USED THIS SHEET
2. 3N20 STEEL ROOF DECK ATTACHED w/ 24/4 PATTERN OF 5/8" PUDDLE WELDS & (3) #10 TEK SCREW SIDELAP FASTENERS PER SPAN.

GENERAL NOTES

1. ALL CANOPY STEEL TO BE GALVANIZED.

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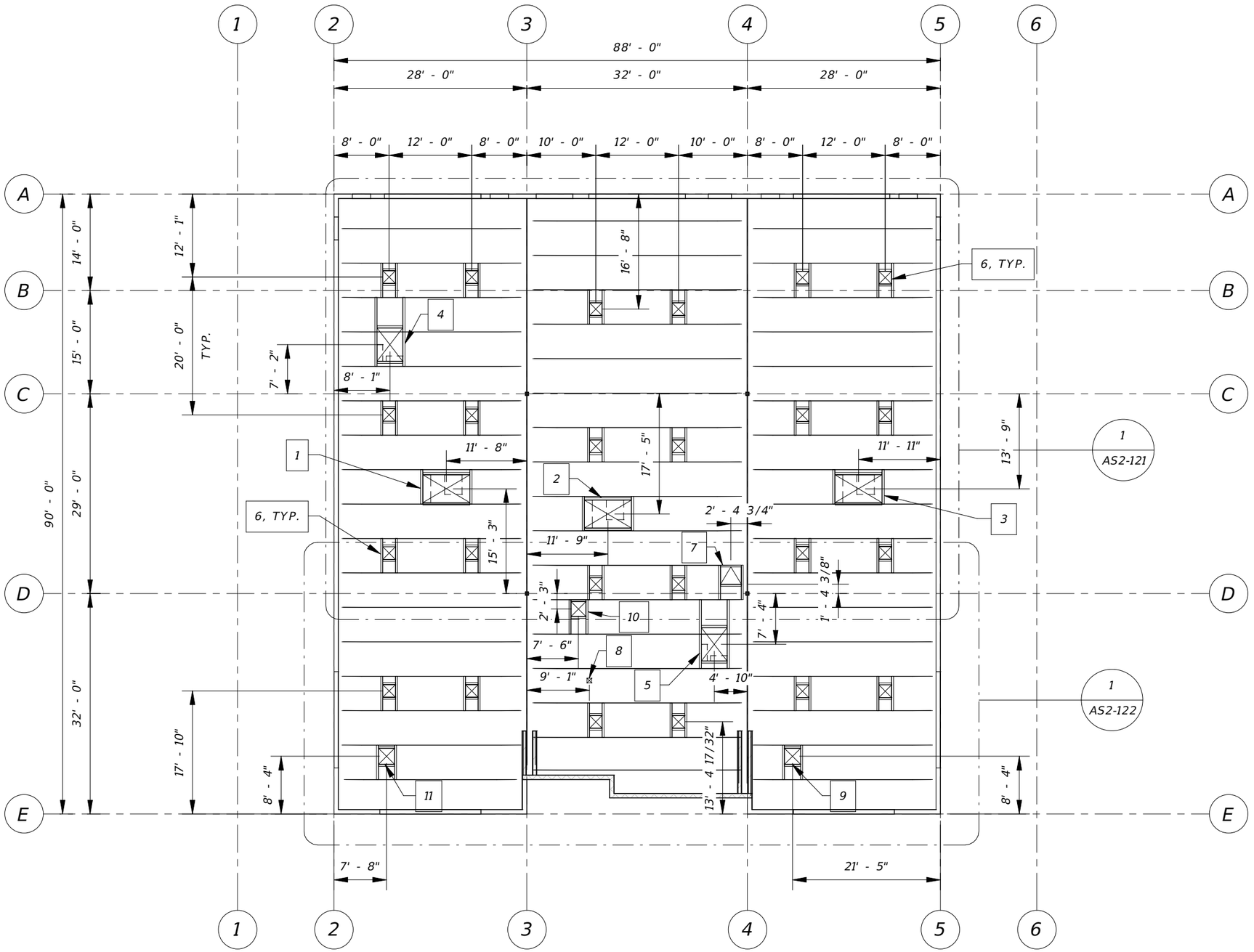
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

ENLARGED CANOPY PLAN

SHEET NO.
AS2-112



1 OVERALL UPPER ROOF FRAMING PLAN

1/16" = 1'-0"

JOIST LOADING NOTES

1. JOIST MANUFACTURER TO USE THE FOLLOWING LOADS FOR THE DESIGN OF THE STEEL ROOF JOISTS. LOADS SHOWN ARE NOMINAL, U.N.O.
2. DEAD LOAD: 75 PLF
3. ROOF LIVE LOAD: 100 PLF
4. WIND LOAD: +77.5 PLF, -210 PLF (+ ACTING TOWARDS SURFACE, - ACTING AWAY)
5. NET UPLIFT: -96 PLF (ASD: 0.6D+0.6W), (DEAD LOAD USED FOR NET UPLIFT = 50 PLF)

GENERAL NOTES

1. SEE 1/AS2-512 FOR FRAMING AROUND PENETRATIONS.
2. COORDINATE FINAL RTU AND EXHAUST FAN LOCATIONS AND PENETRATION SIZES w/ MECH. PLANS.
3. COORDINATE SKYLIGHT OPENING SIZES WITH ARCHITECTURAL AND MANUFACTURER SHOP DRAWINGS.

KEY NOTES

1. RTU-1, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
2. RTU-2, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
3. RTU-3, UNIT WEIGHT = 2,218 LB, 81.5"x48.4" OPENING
4. RTU-4, UNIT WEIGHT = 1,226 LB, 57.5"x44.4" OPENING
5. RTU-5, UNIT WEIGHT = 1,226 LB, 57.5"x44.4" OPENING
6. 22"x22" OPENING FOR TUBULAR SKYLIGHT
7. 30"x36" OPENING FOR ROOF HATCH
8. EXHAUST FAN 1, UNIT WEIGHT = 69 LB.
9. EXHAUST FAN 4, UNIT WEIGHT = 245 LB.
10. EXHAUST FAN 5, UNIT WEIGHT = 193 LB.
11. EXHAUST FAN 6, UNIT WEIGHT = 245 LB.

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BRENTON D. DAILY, P.E.
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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

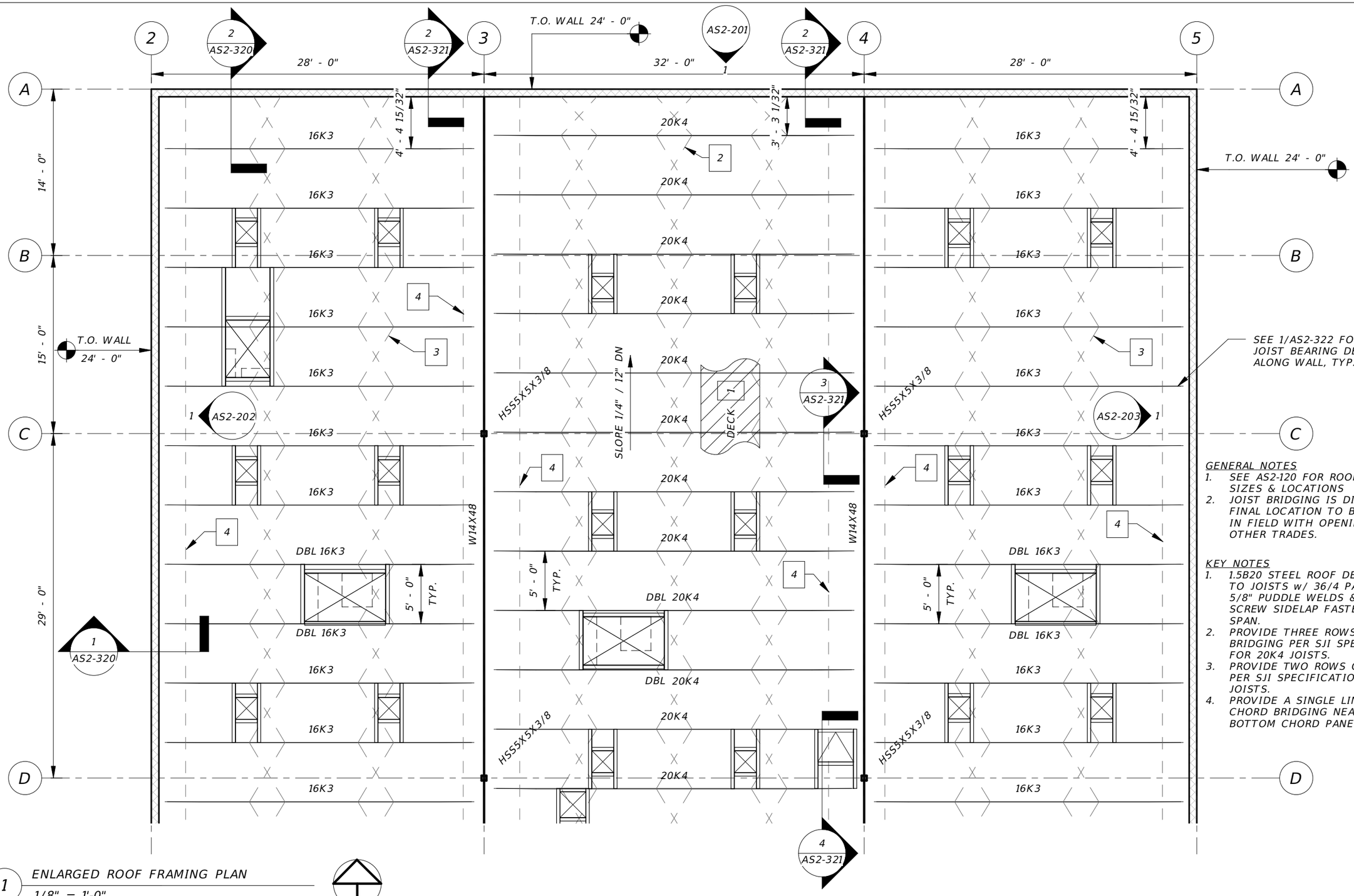
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL UPPER ROOF PLAN

SHEET NO. AS2-120



1 ENLARGED ROOF FRAMING PLAN

1/8" = 1'-0"

GENERAL NOTES

1. SEE AS2-120 FOR ROOF PENETRATION SIZES & LOCATIONS
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

KEY NOTES

1. 1.5B20 STEEL ROOF DECK ATTACHED TO JOISTS w/ 36/4 PATTERN OF 5/8" PUDDLE WELDS & (2) #10 TEK SCREW SIDELAP FASTENERS PER SPAN.
2. PROVIDE THREE ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 20K4 JOISTS.
3. PROVIDE TWO ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 16K3 JOISTS.
4. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.

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STATE OF FLORIDA
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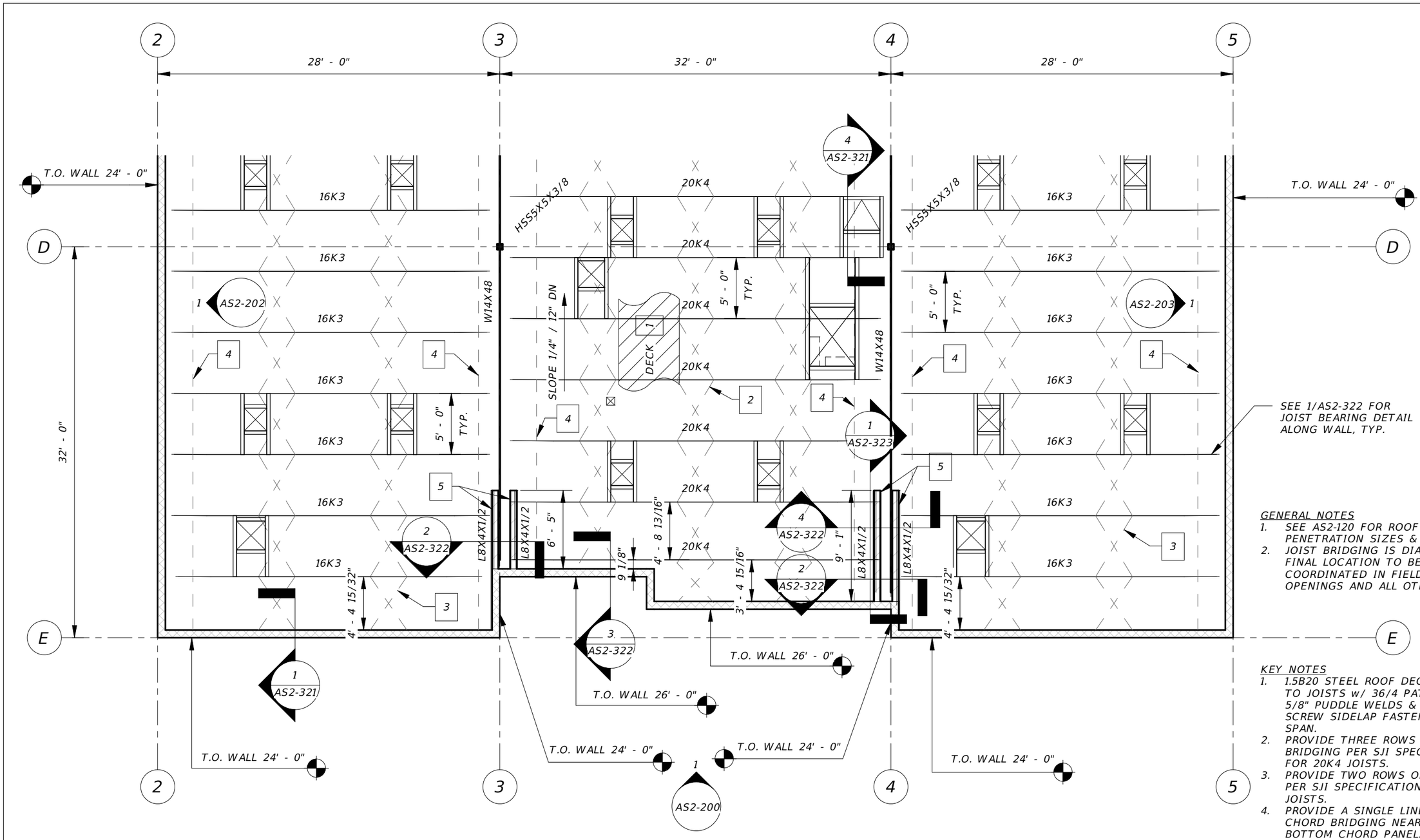
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED ROOF PLAN

SHEET NO. AS2-121

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GENERAL NOTES

1. SEE AS2-120 FOR ROOF PENETRATION SIZES & LOCATIONS
2. JOIST BRIDGING IS DIAGRAMMATIC. FINAL LOCATION TO BE COORDINATED IN FIELD WITH OPENINGS AND ALL OTHER TRADES.

KEY NOTES

1. 1.5B20 STEEL ROOF DECK ATTACHED TO JOISTS w/ 36/4 PATTERN OF 5/8" PUDDLE WELDS & (2) #10 TEK SCREW SIDELAP FASTENERS PER SPAN.
2. PROVIDE THREE ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 20K4 JOISTS.
3. PROVIDE TWO ROWS OF X-BRIDGING PER SJI SPECIFICATIONS FOR 16K3 JOISTS.
4. PROVIDE A SINGLE LINE OF BOTTOM CHORD BRIDGING NEAR THE FIRST BOTTOM CHORD PANEL.
5. LIGHT GAUGE PARAPET FROM STEEL ROOF DECK UP TO 26'-0". SEE 4/AS2-322 FOR DETAILS

1 ENLARGED ROOF FRAMING PLAN

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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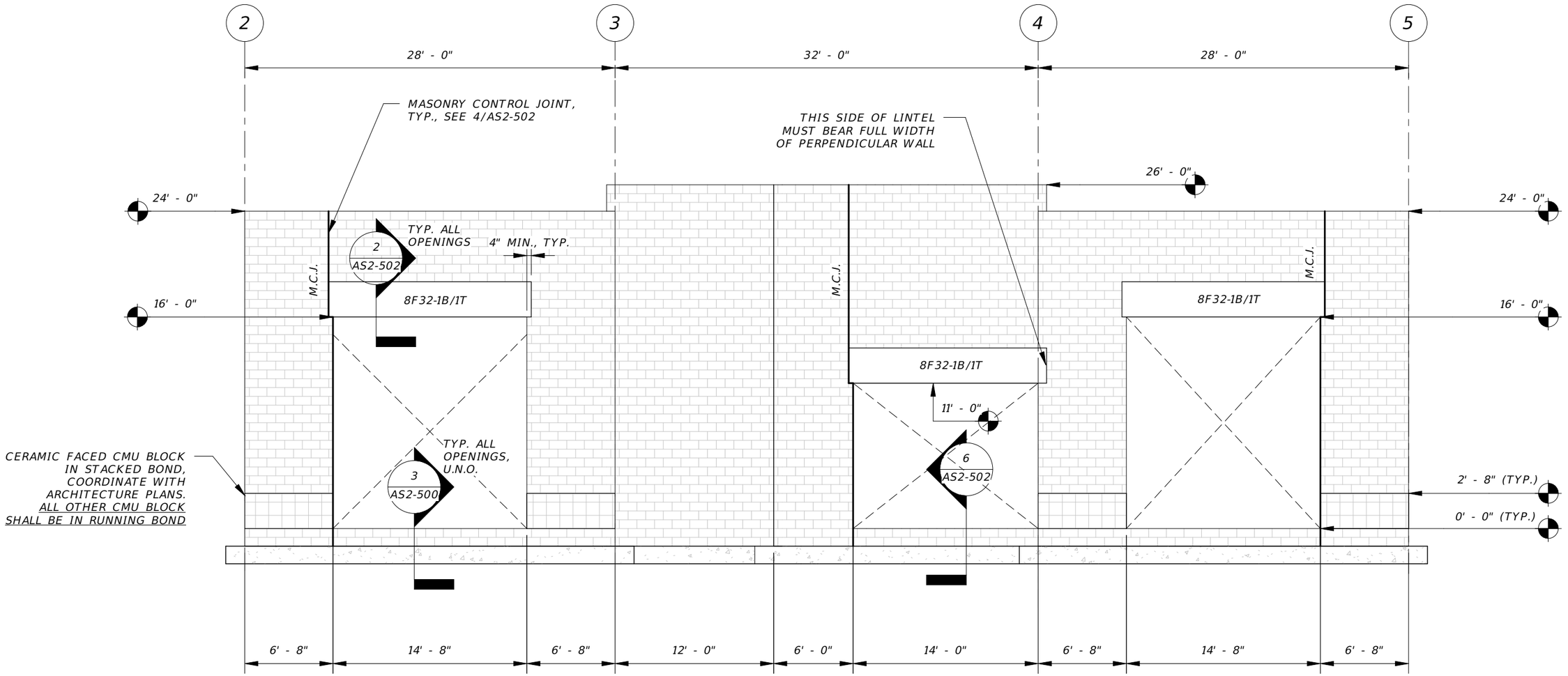
SUNTRAX TEST FACILITY STORAGE BUILDING

ENLARGED ROOF PLAN

SHEET NO. AS2-122

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1 SOUTH WALL ELEVATION

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
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BPE CA NO. 5898
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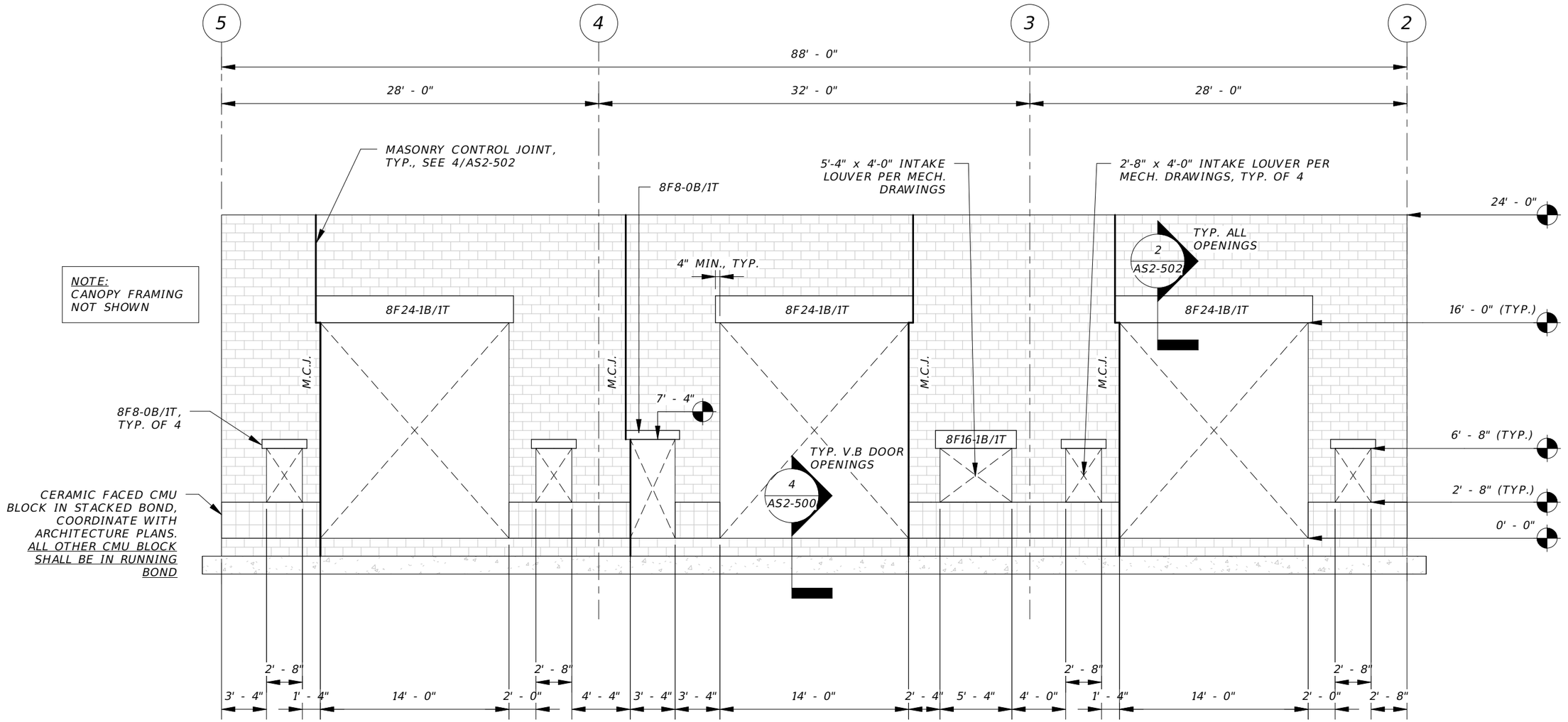
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

WALL ELEVATION

SHEET NO. AS2-200

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 NORTH WALL ELEVATION

1/8" = 1'-0"

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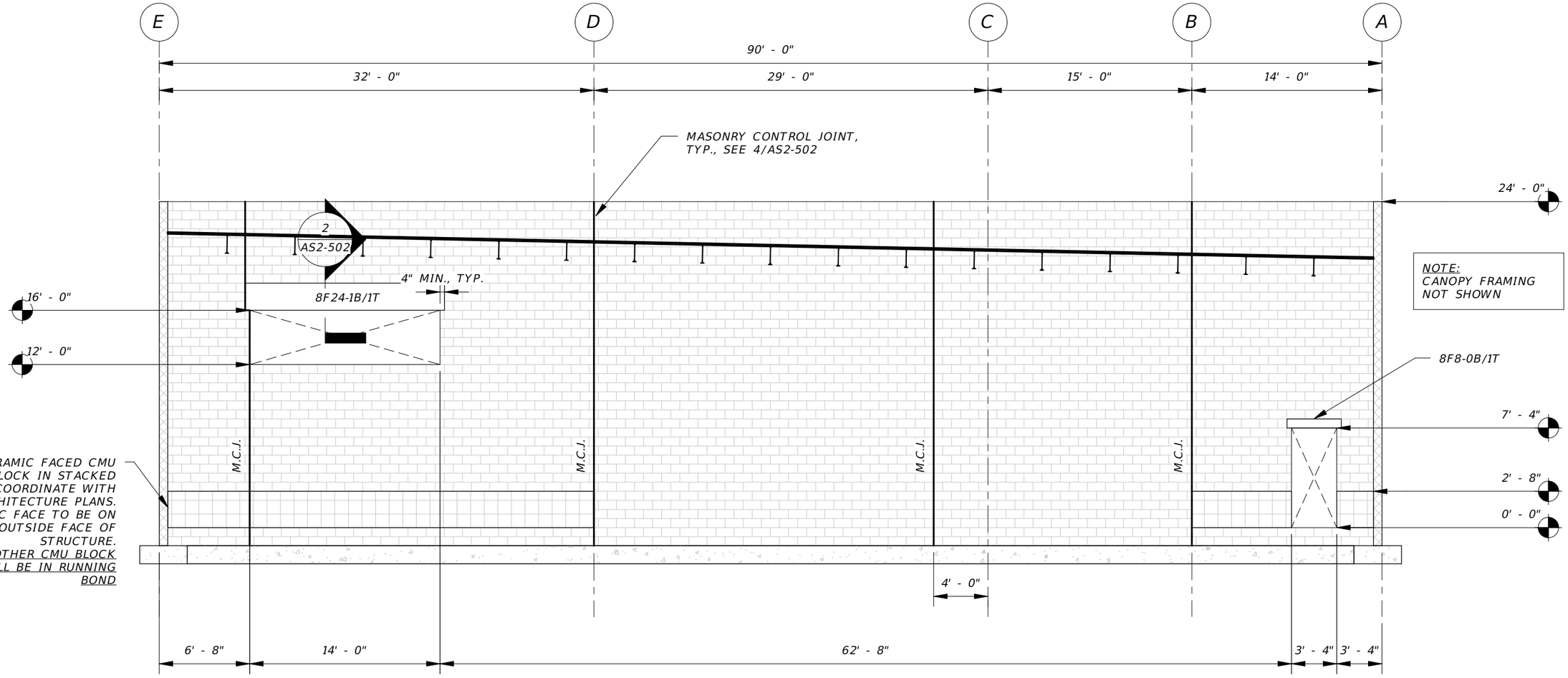
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

WALL ELEVATION

SHEET NO.

AS2-201



1 WEST WALL ELEVATION (LOOKING WEST)

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
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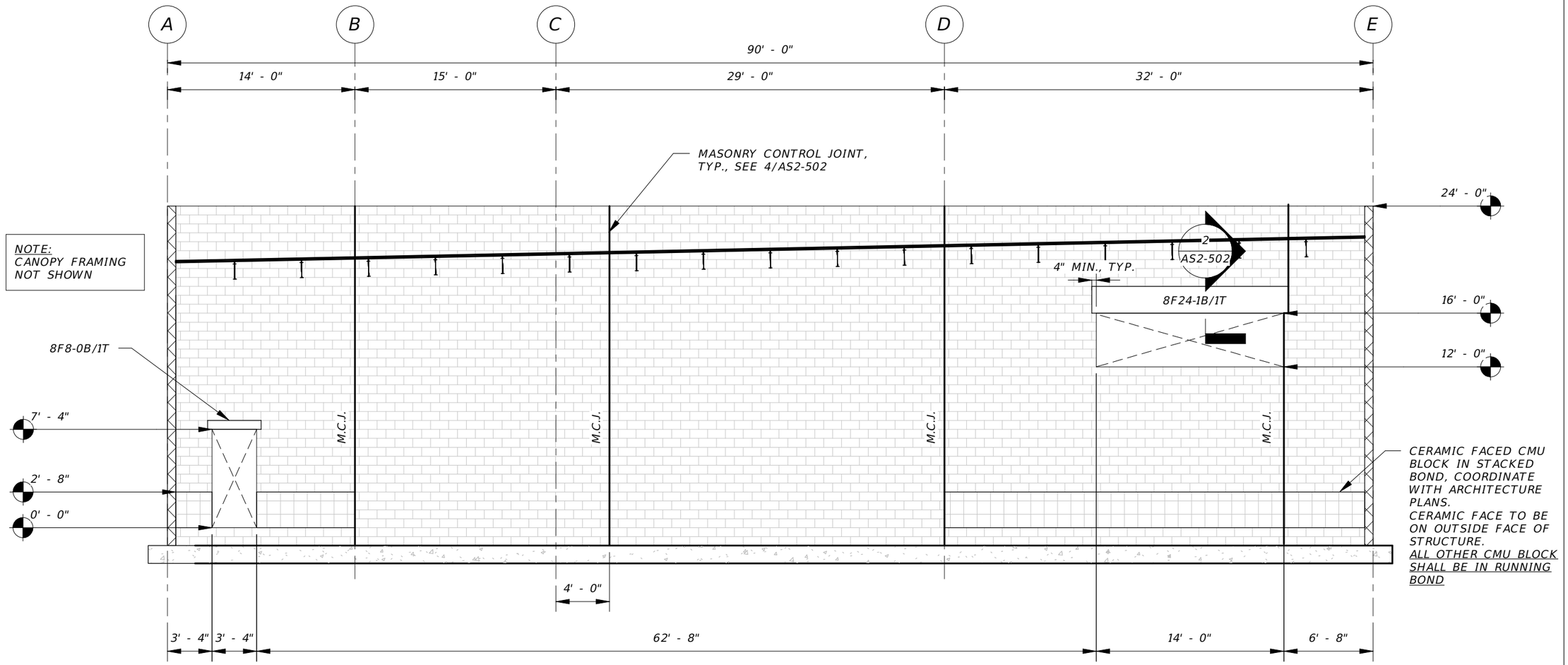
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

WALL ELEVATION

SHEET NO. AS2-202

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1 EAST WALL ELEVATION (LOOKING EAST)

1/8" = 1'-0"

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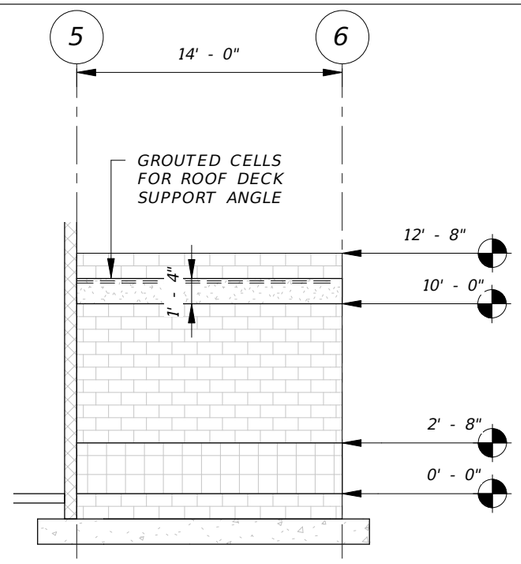
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

WALL ELEVATION

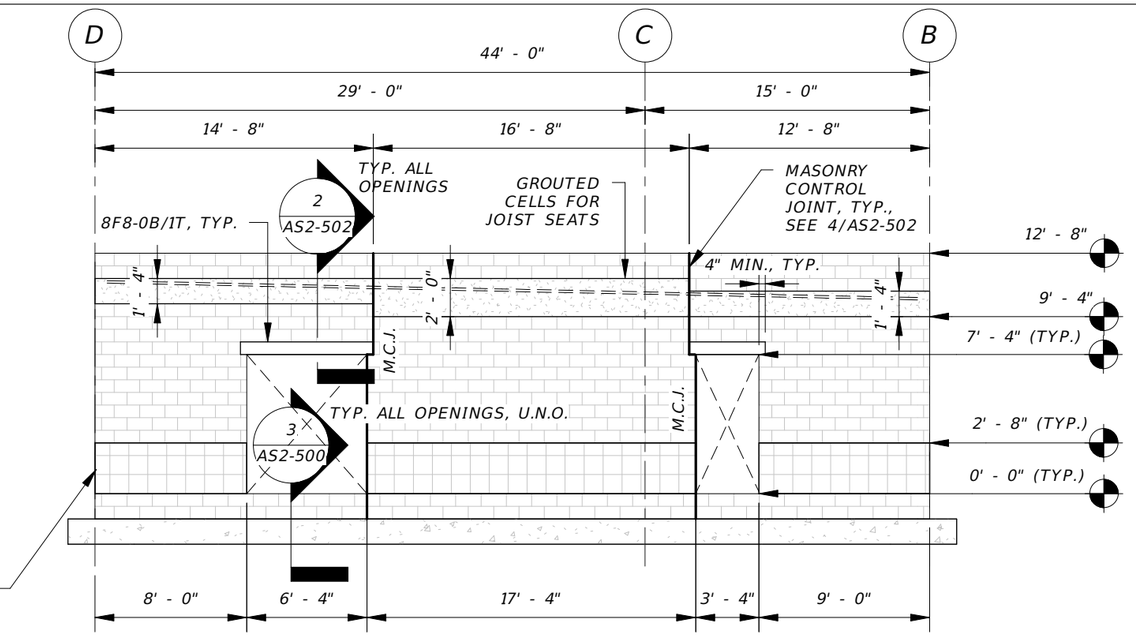
SHEET NO. AS2-203

mrohaus 12/2/2016 3:56:05 PM C:\Users\bdaily\Documents\2015.017.A_Storage_Struc_bdaily.rvt



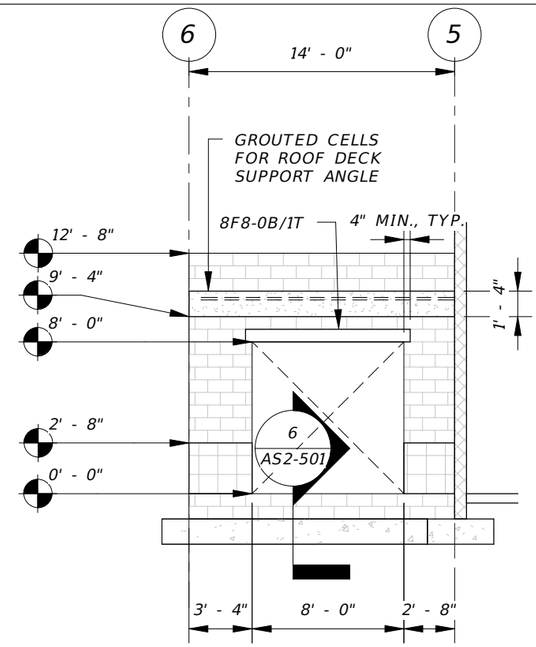
4 SOUTH WALL ELEVATION (MECH./ELEC. RM)

1/8" = 1'-0"



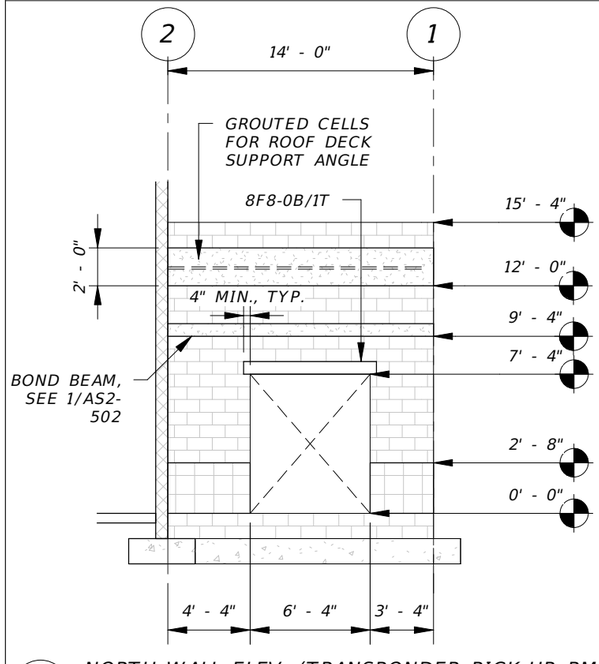
5 EAST WALL ELEVATION (MECH./ELEC. RM)

1/8" = 1'-0"



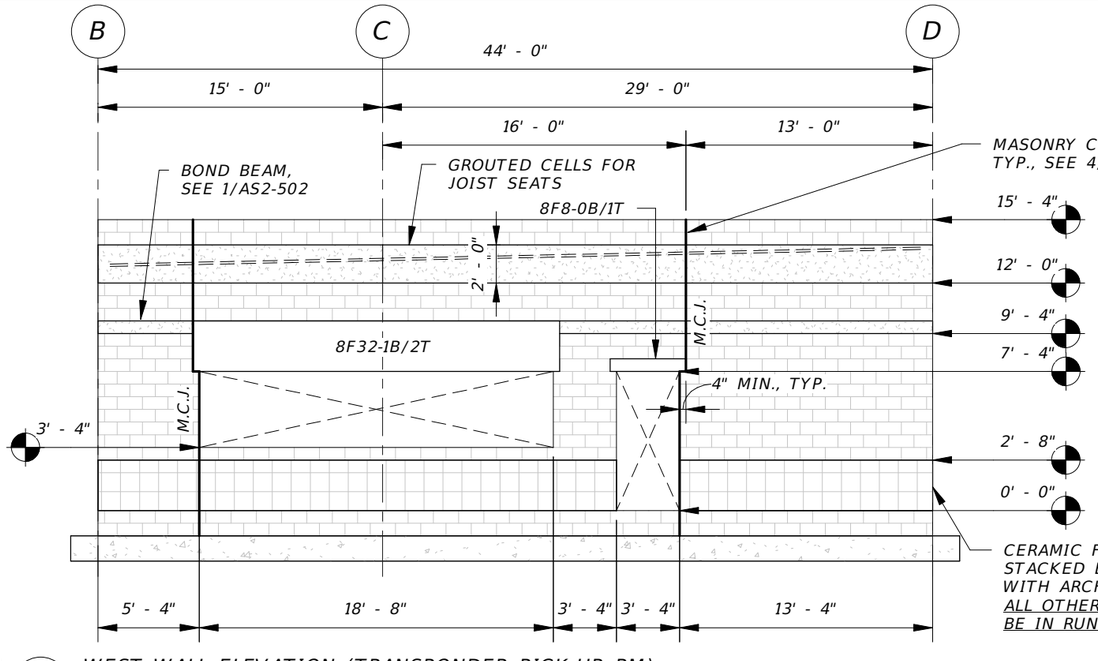
6 NORTH WALL ELEVATION (MECH./ELEC. RM)

1/8" = 1'-0"



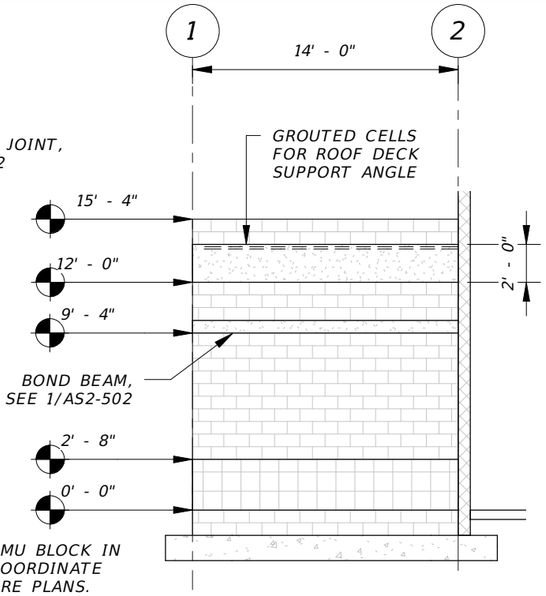
3 NORTH WALL ELEV. (TRANSPONDER PICK-UP RM)

1/8" = 1'-0"



2 WEST WALL ELEVATION (TRANSPONDER PICK-UP RM)

1/8" = 1'-0"



1 SOUTH WALL ELEV. (TRANSPONDER PICK-UP RM)

1/8" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

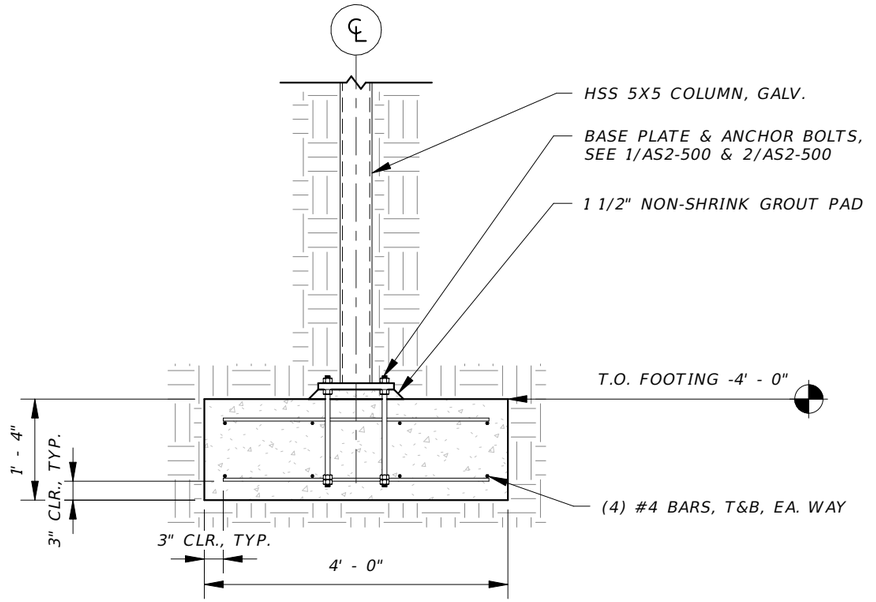
SUNTRAX TEST FACILITY STORAGE BUILDING

WALL ELEVATIONS

SHEET NO. AS2-204

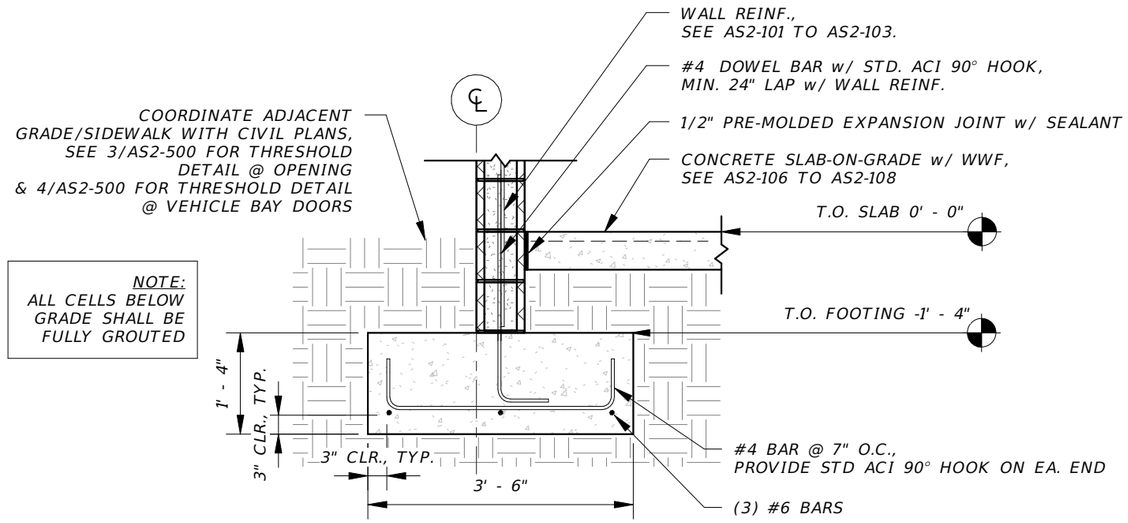
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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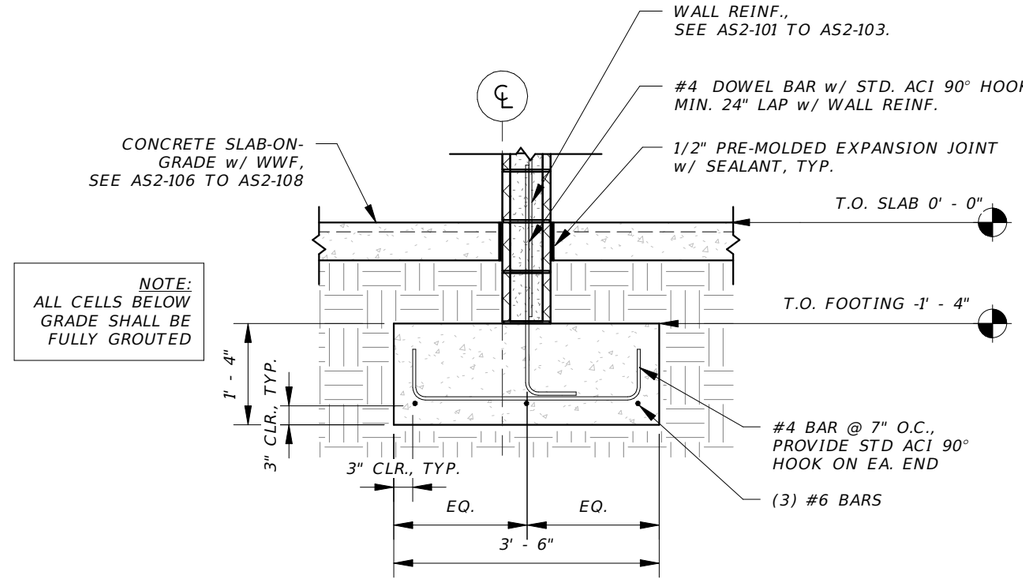
4 TYPICAL CANOPY SPREAD FOOTING

1/2" = 1'-0"



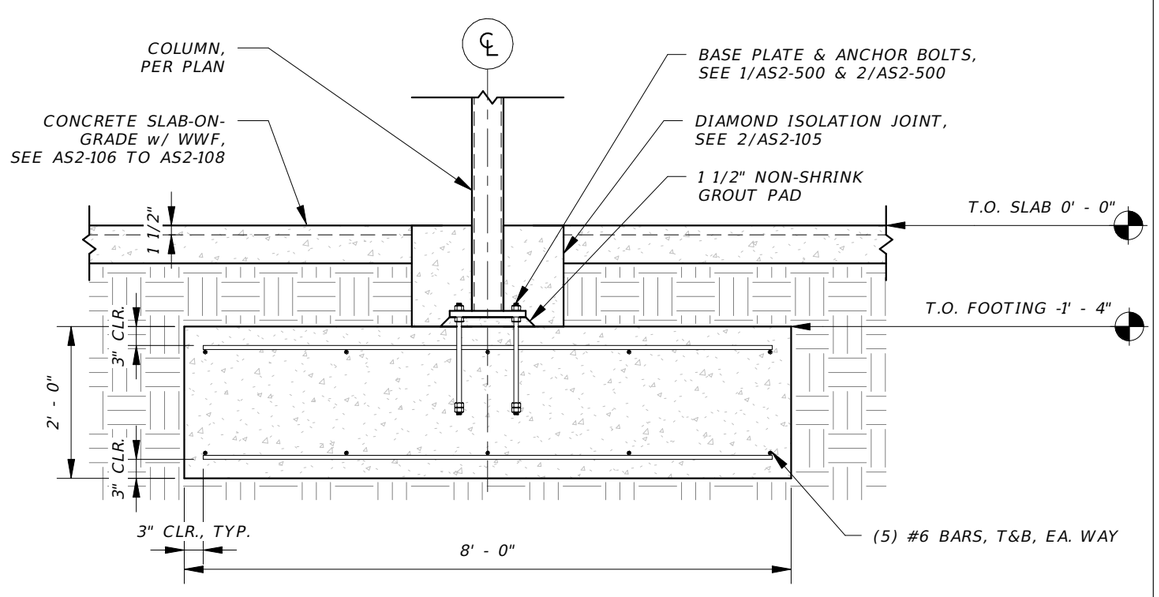
2 TYPICAL WALL FOOTING SECTION

1/2" = 1'-0"



3 WALL FOOTING SECTION @ ADJACENT INTERIOR SLAB

1/2" = 1'-0"



1 TYPICAL SPREAD FOOTING SECTION

1/2" = 1'-0"

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REVISIONS			
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BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

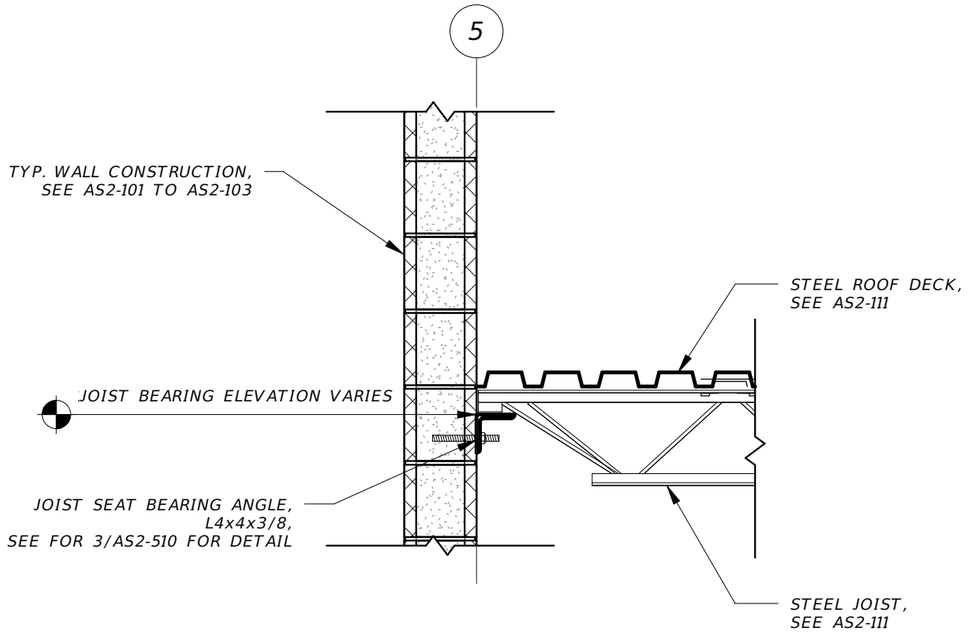
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

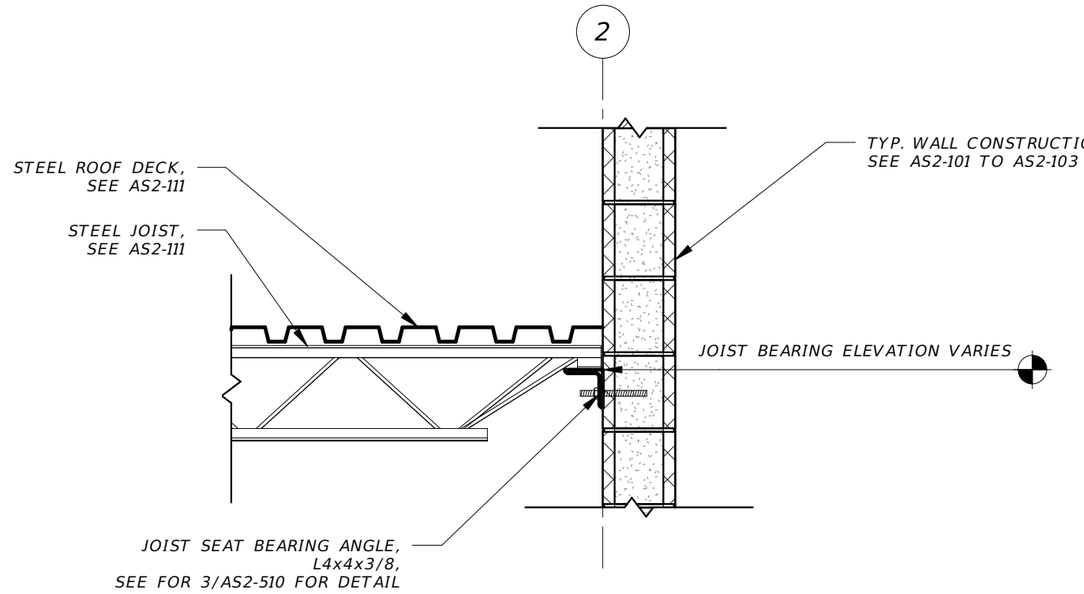
FOUNDATION SECTIONS

SHEET NO. AS2-300



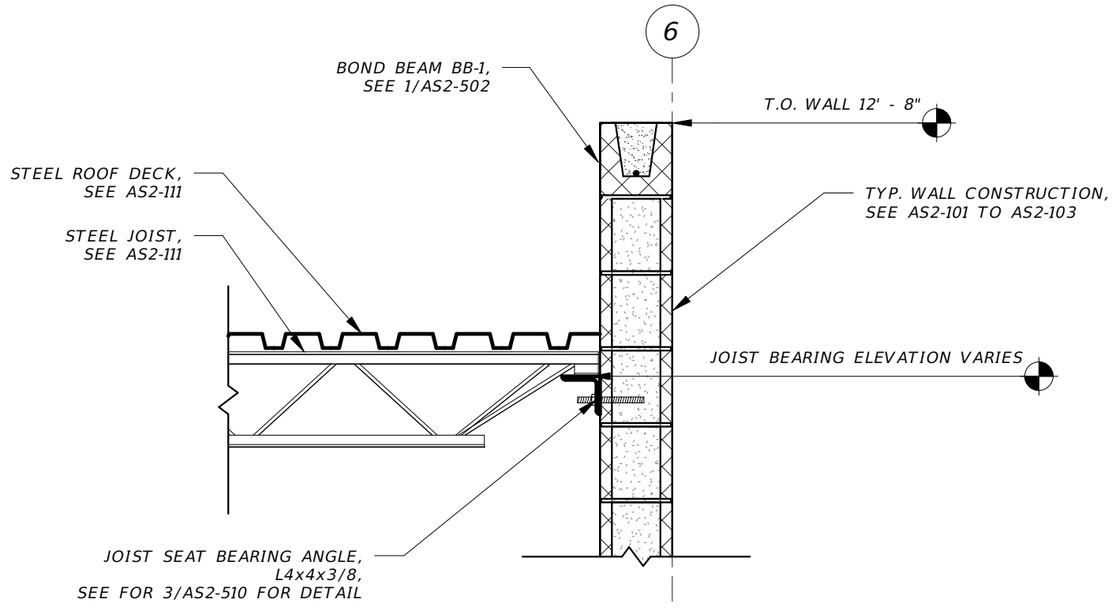
4 ROOF JOIST TO CMU CONNECTION (MECH./ELEC. RM)

3/4" = 1'-0"



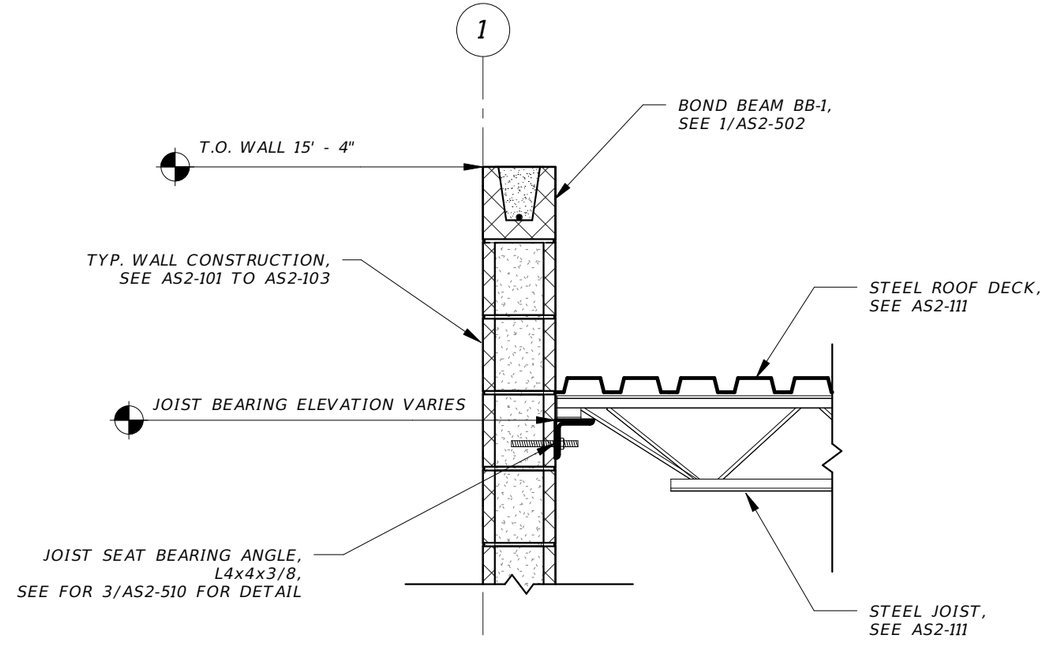
2 ROOF JOIST TO CMU CONNECTION (TRANSPONDER PICK-UP RM)

3/4" = 1'-0"



3 ROOF JOIST TO CMU CONNECTION (MECH./ELEC. RM)

3/4" = 1'-0"



1 ROOF JOIST TO CMU CONNECTION (TRANSPONDER PICK-UP RM)

3/4" = 1'-0"

REVISIONS			
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BRENTON D. DAILY, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

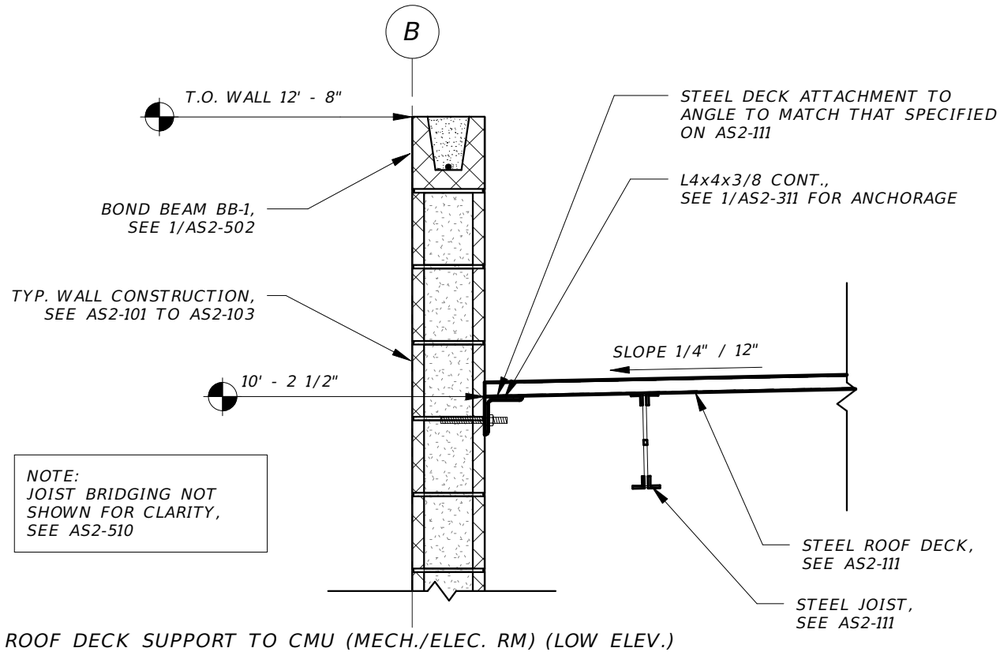
SUNTRAX TEST FACILITY STORAGE BUILDING

LOWER ROOF SECTIONS

SHEET NO. AS2-310

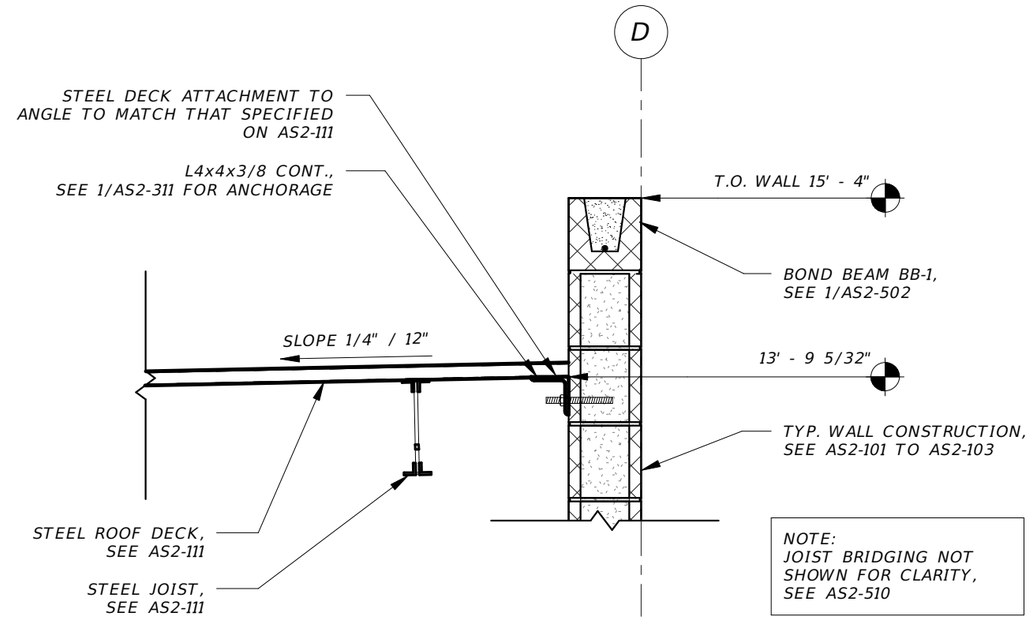
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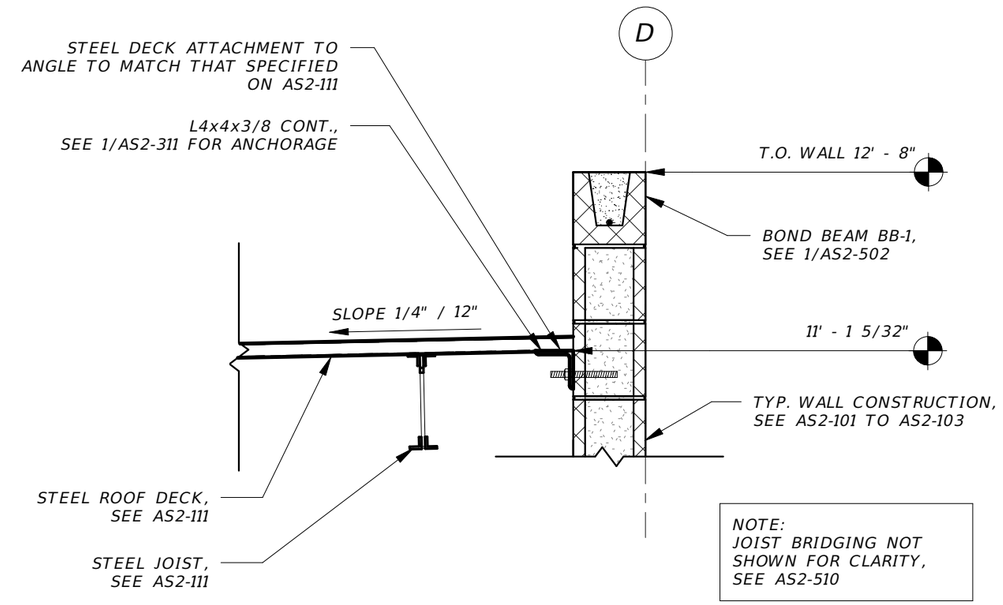
4 ROOF DECK SUPPORT TO CMU (MECH./ELEC. RM) (LOW ELEV.)

3/4" = 1'-0"



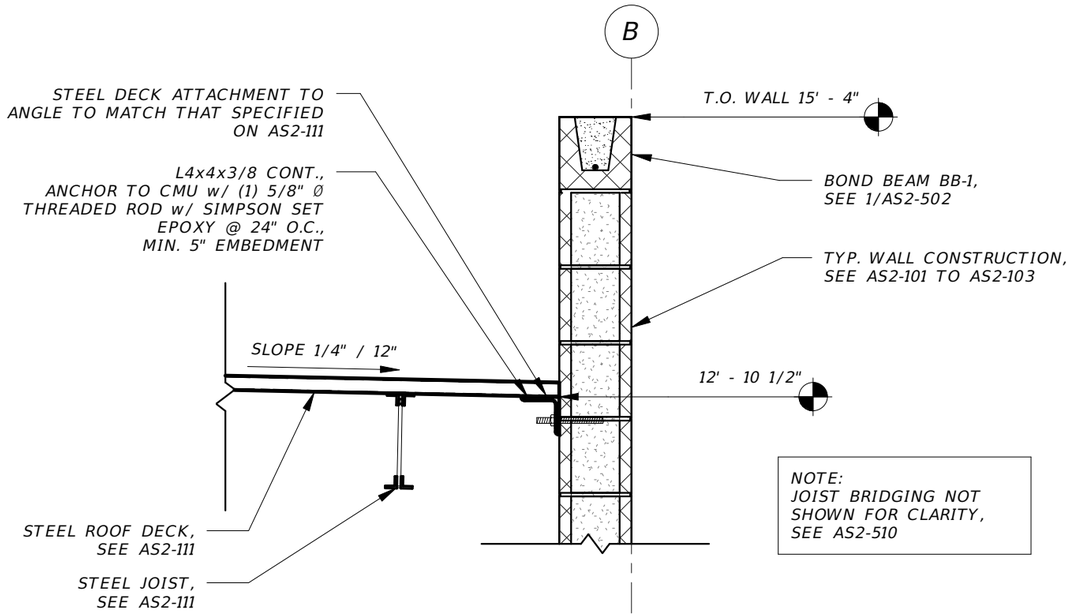
2 ROOF DECK SUPPORT TO CMU (TRANSPONDER PICK-UP RM) (HIGH ELEV.)

3/4" = 1'-0"



3 ROOF DECK SUPPORT TO CMU (MECH./ELEC. RM) (HIGH ELEV.)

3/4" = 1'-0"



1 ROOF DECK SUPPORT TO CMU (TRANSPONDER PICK-UP RM) (LOW ELEV.)

3/4" = 1'-0"

REVISIONS			
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BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

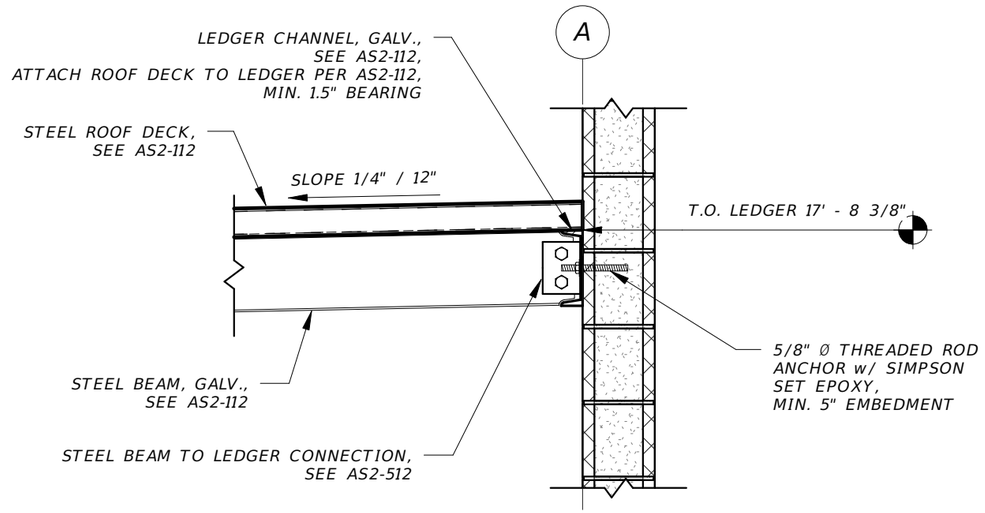
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

LOWER ROOF SECTIONS

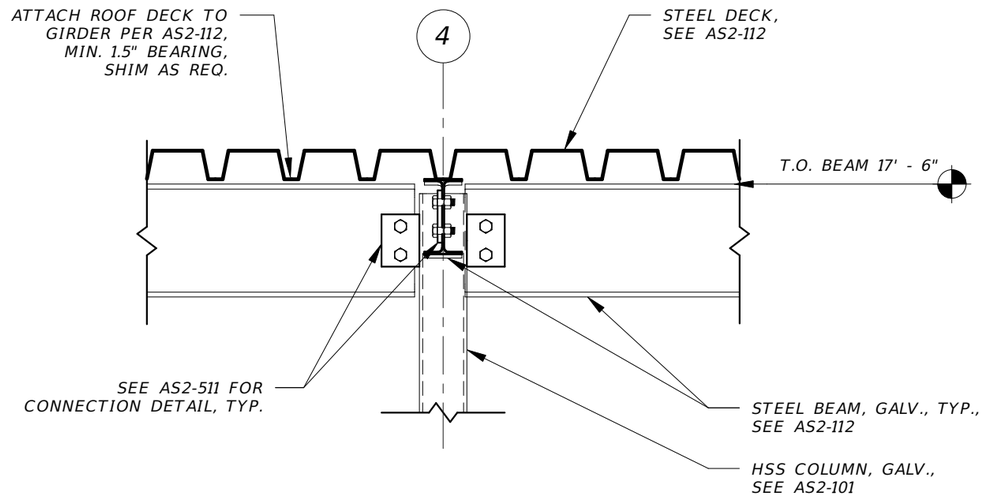
SHEET NO. AS2-311

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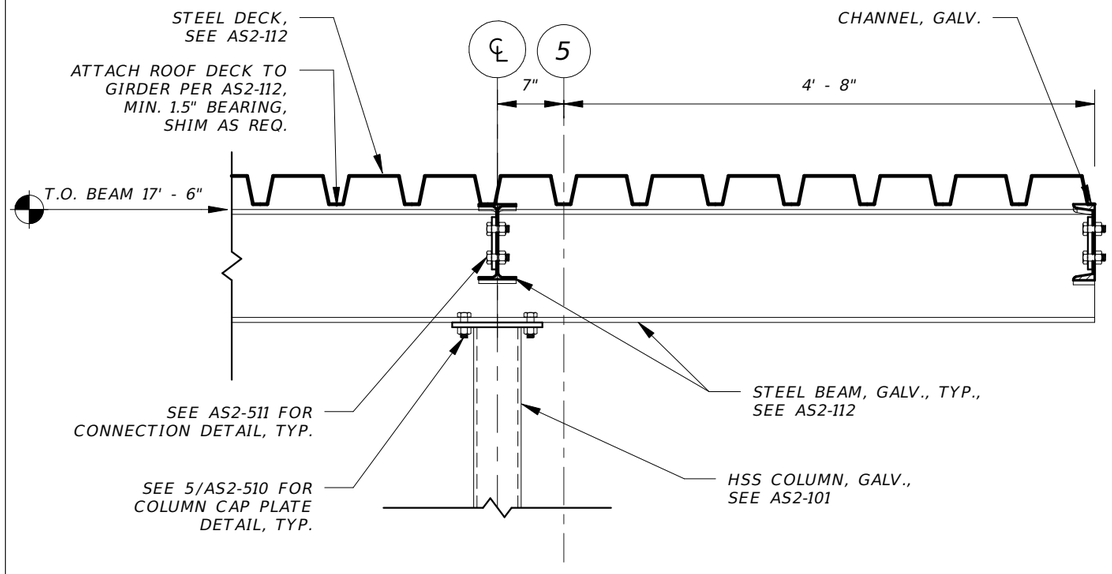
4 CANOPY BEAM TO LEDGER CONNECTION

3/4" = 1'-0"



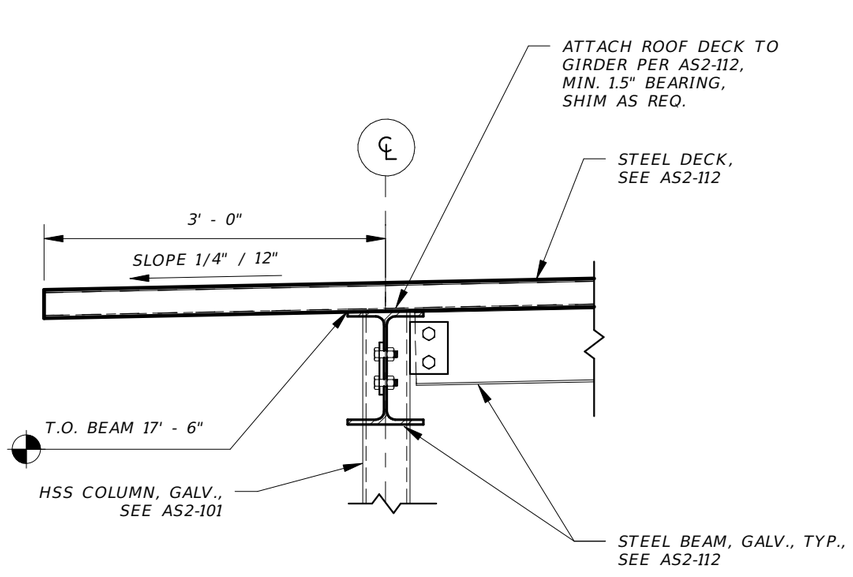
2 CANOPY FRAMING CONNECTION

3/4" = 1'-0"



3 CANOPY BEAM OVERHANG SECTION

3/4" = 1'-0"



1 CANOPY DECK OVERHANG SECTION

3/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

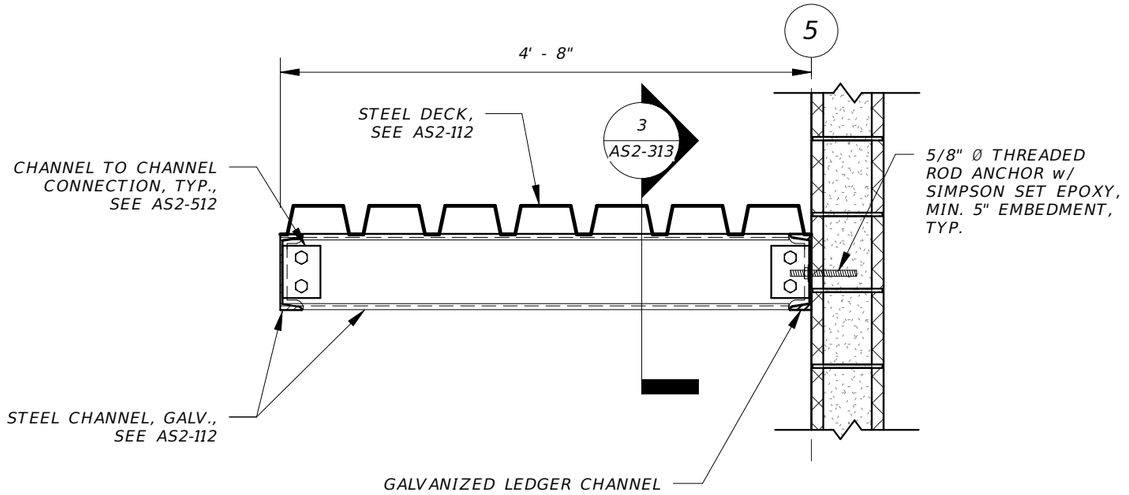
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CANOPY SECTIONS

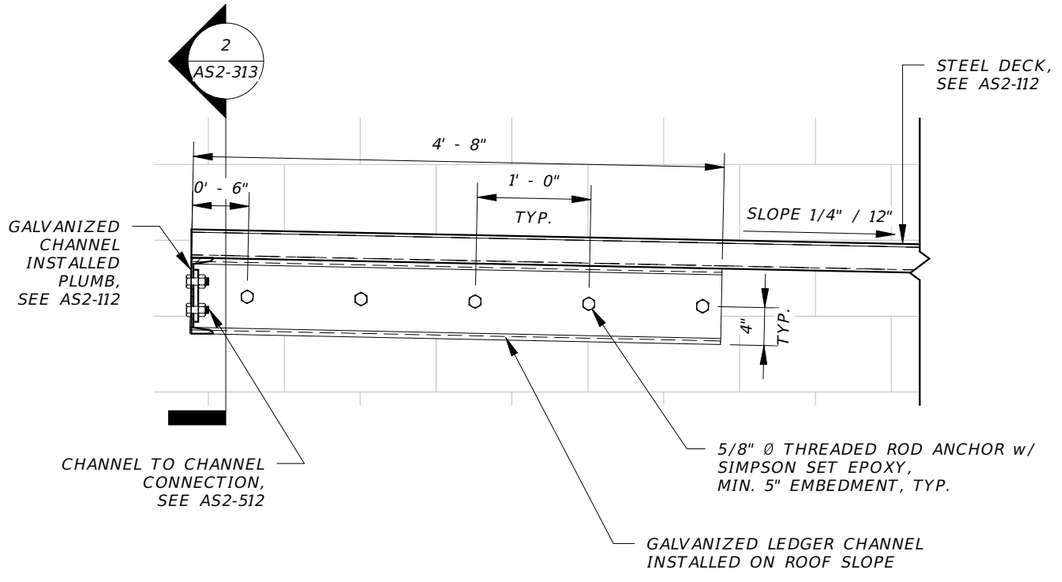
SHEET NO. AS2-312

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



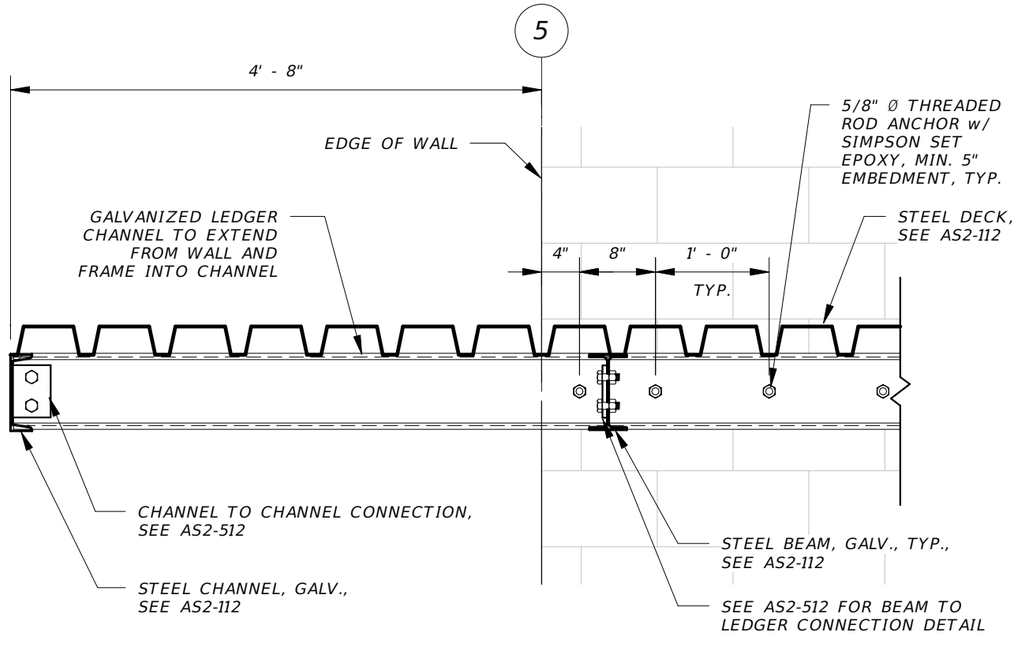
2 CANOPY FRAMING SECTION

3/4" = 1'-0"



3 CANOPY FRAMING SECTION

3/4" = 1'-0"



1 CANOPY FRAMING SECTION

3/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

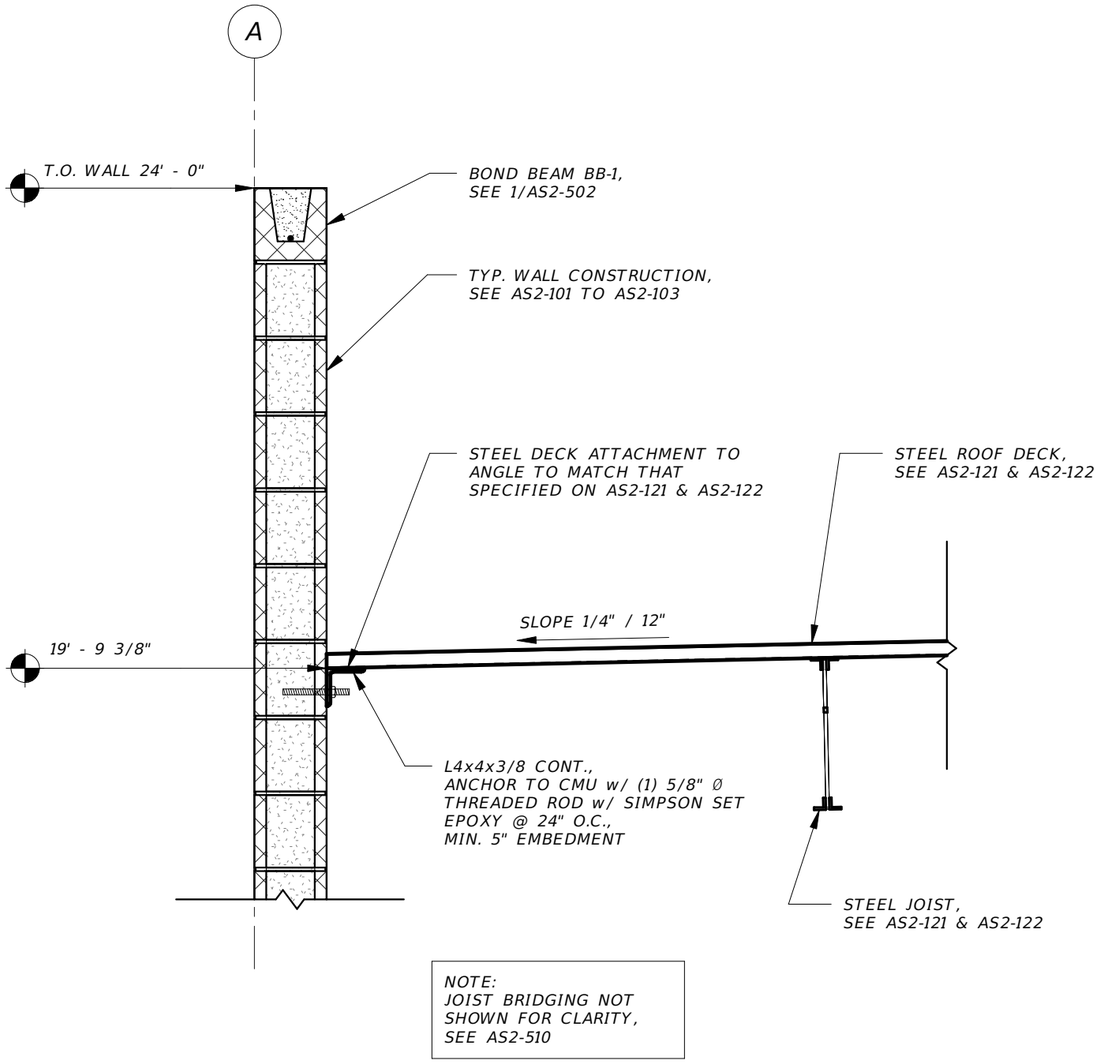
SUNTRAX TEST FACILITY STORAGE BUILDING

CANOPY SECTIONS

SHEET NO. AS2-313

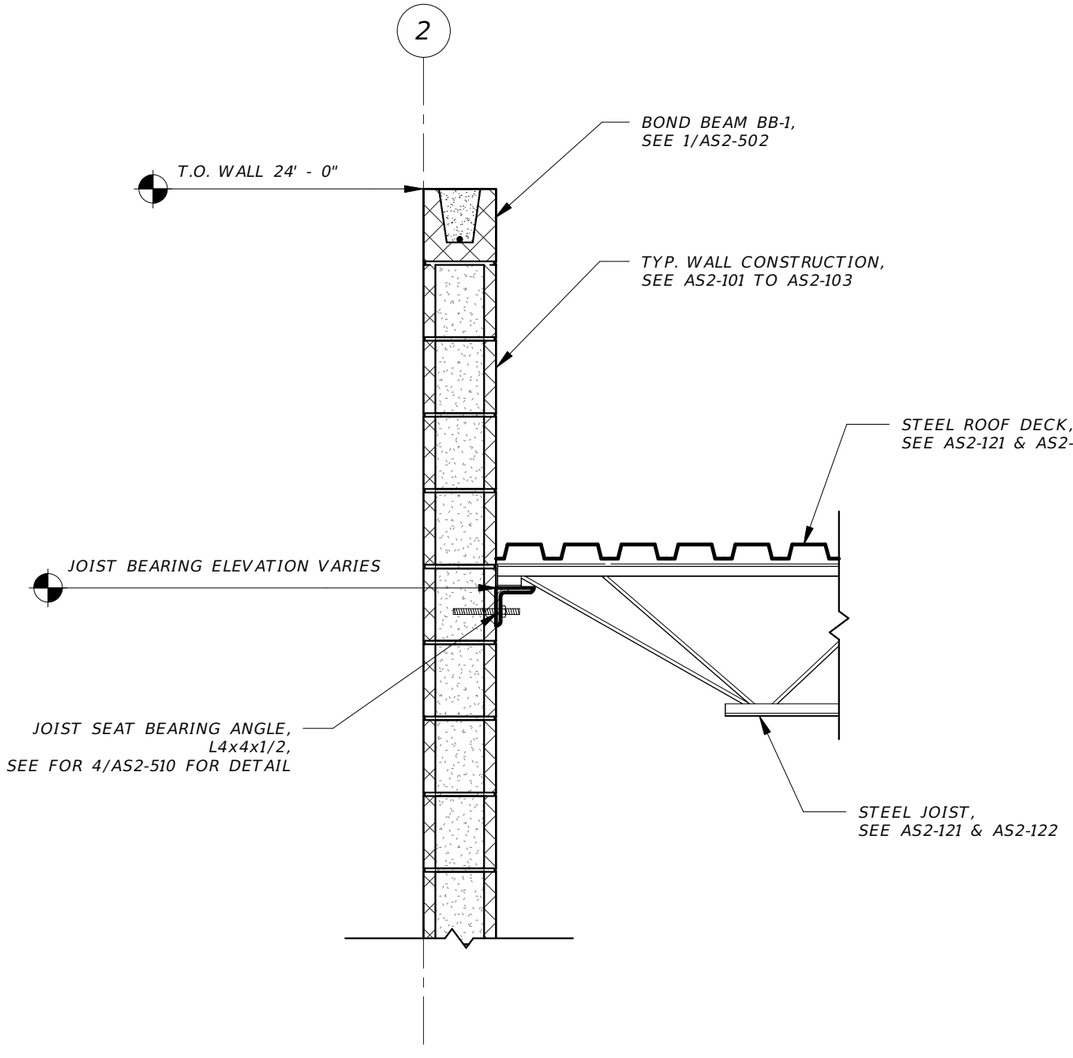
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NOTE:
JOIST BRIDGING NOT
SHOWN FOR CLARITY,
SEE AS2-510

2 ROOF DECK SUPPORT TO CMU (LOW ELEVATION)
3/4" = 1'-0"



1 TYPICAL UPPER ROOF JOIST TO CMU CONNECTION
3/4" = 1'-0"

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REVISIONS			
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BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

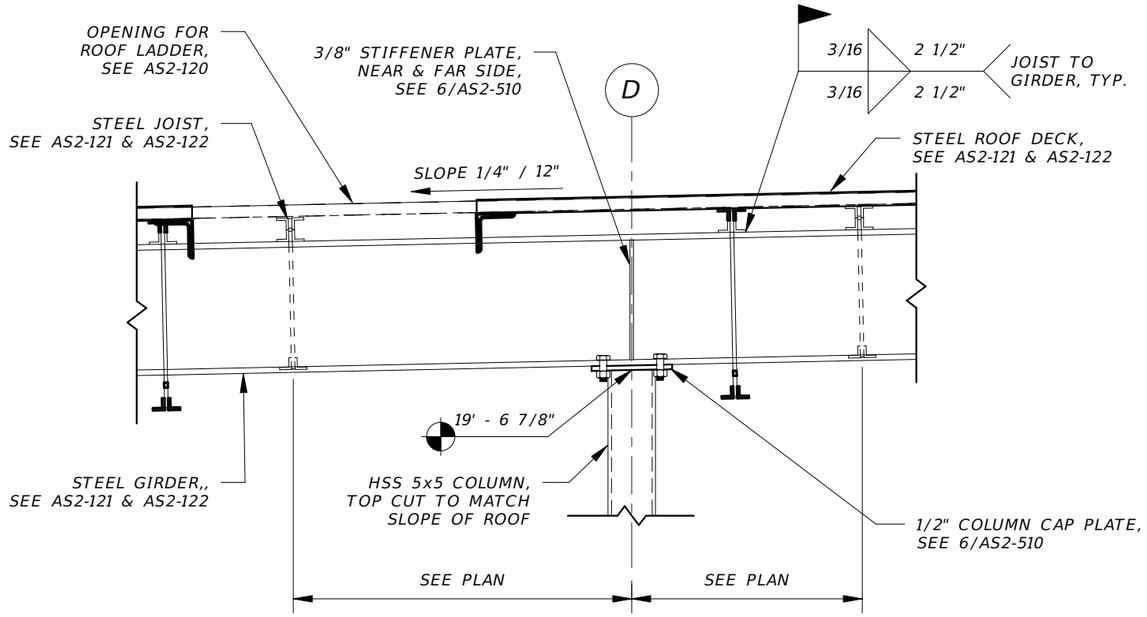
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

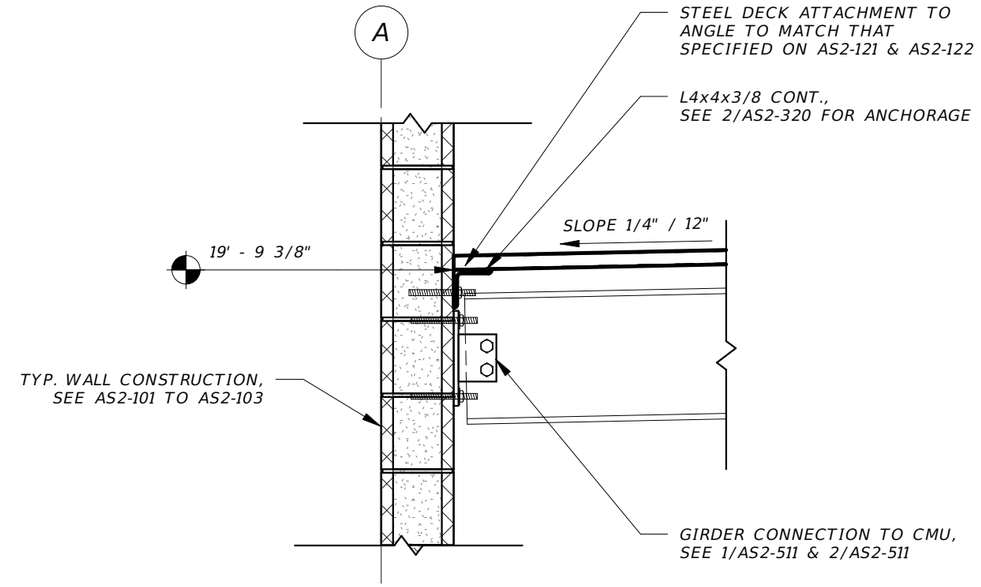
UPPER ROOF SECTIONS

SHEET NO.
AS2-320



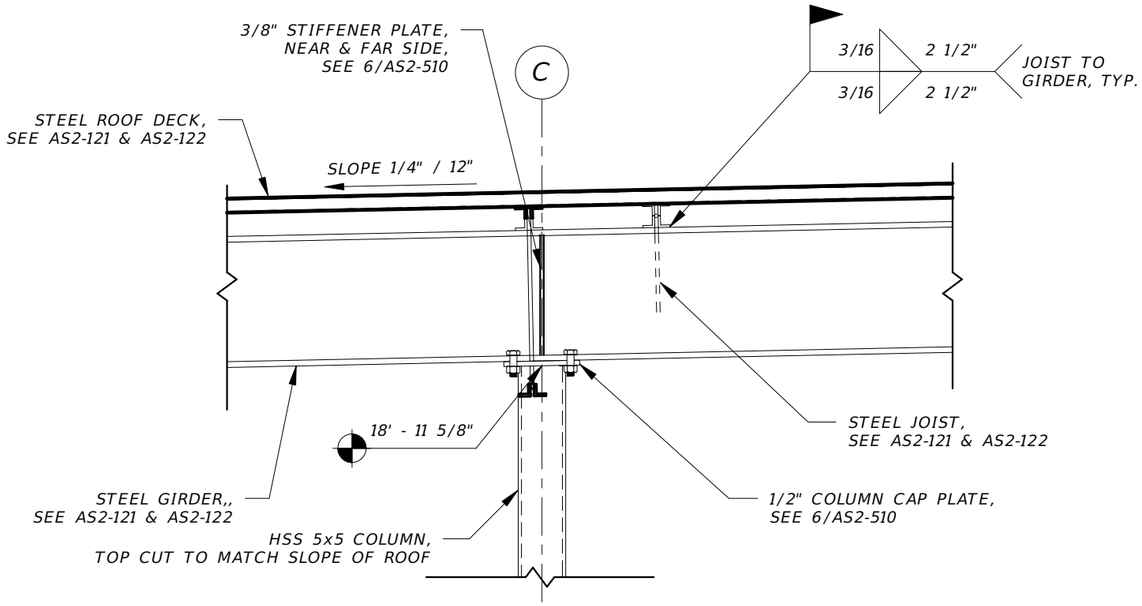
4 GIRDER TO COLUMN CONNECTION D-3 & D-4

3/4" = 1'-0"



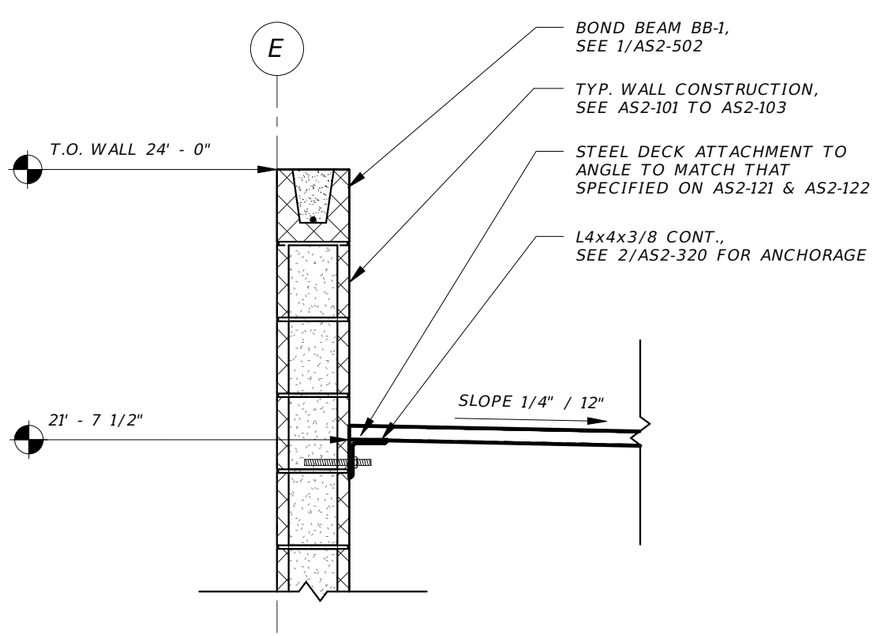
2 GIRDER TO CMU CONNECTION

3/4" = 1'-0"



3 GIRDER TO COLUMN CONNECTION C-3 & C-4

3/4" = 1'-0"



1 ROOF DECK SUPPORT TO CMU (HIGH ELEVATION)

3/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

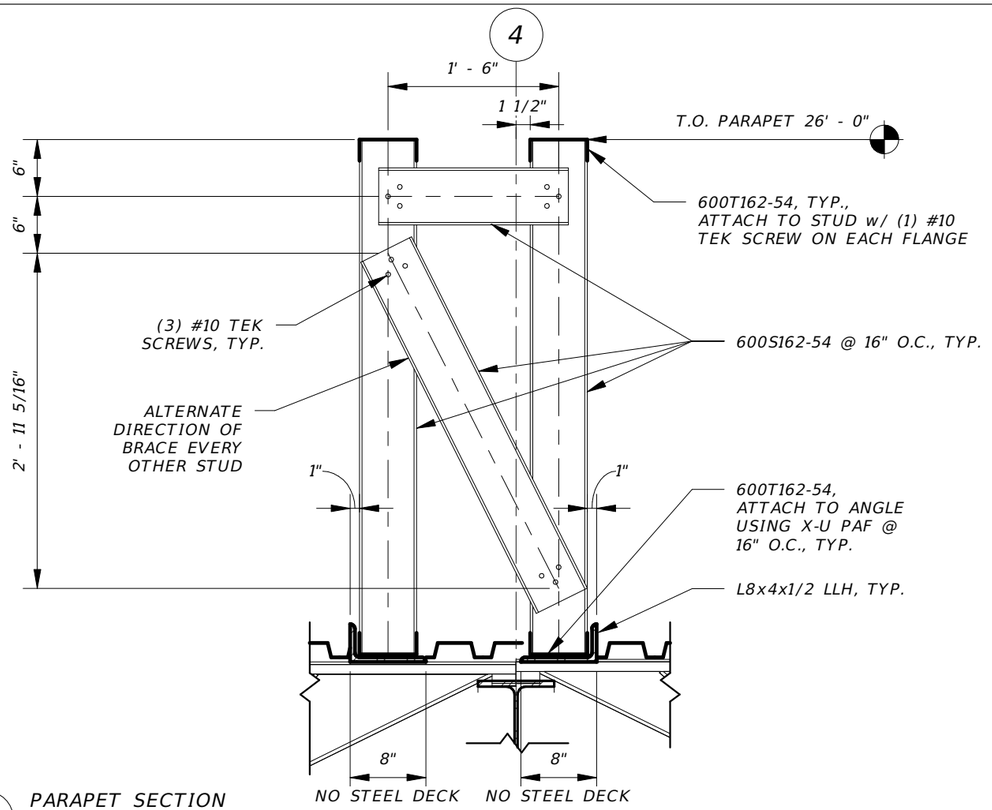
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

UPPER ROOF SECTIONS

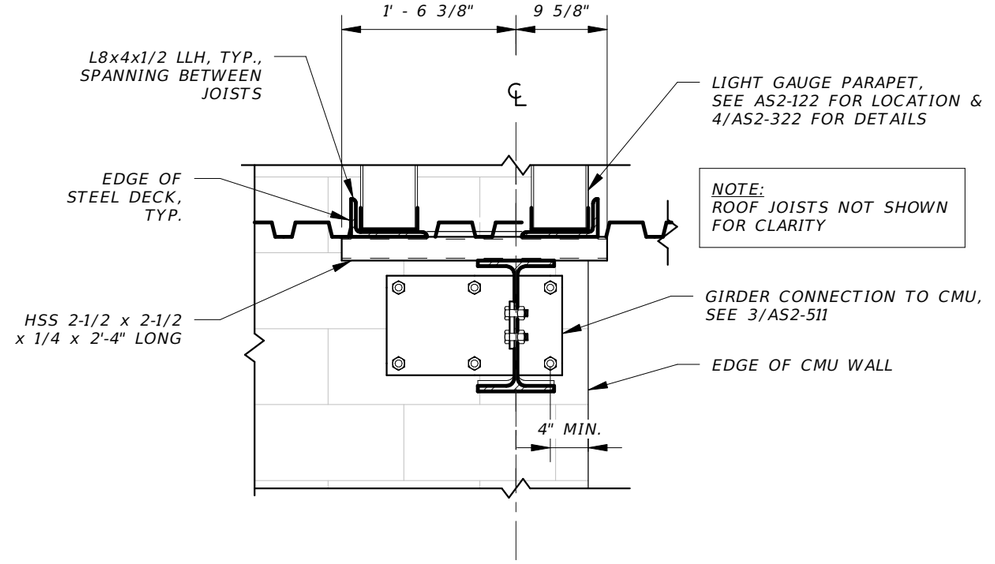
SHEET NO. AS2-321

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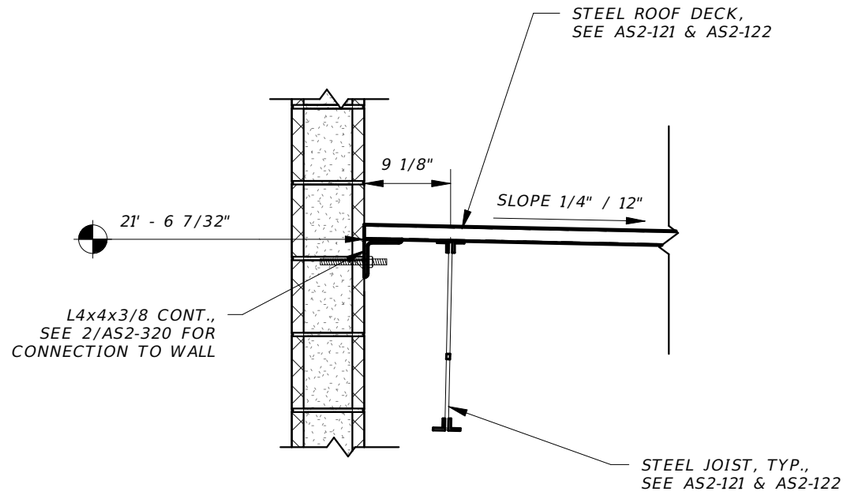
4 PARAPET SECTION

3/4" = 1'-0"



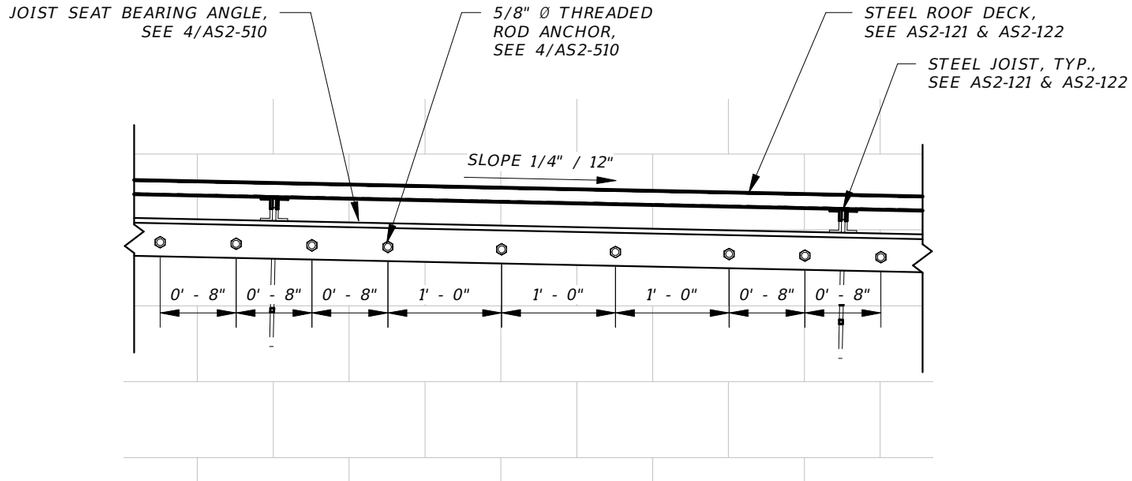
2 GIRDER TO CMU CONNECTION

3/4" = 1'-0"



3 UPPER ROOF JOIST OFFSET

3/4" = 1'-0"



1 JOIST BEARING ANGLE TO CMU CONNECTION

3/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BRENTON D. DAILY, P.E.
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LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

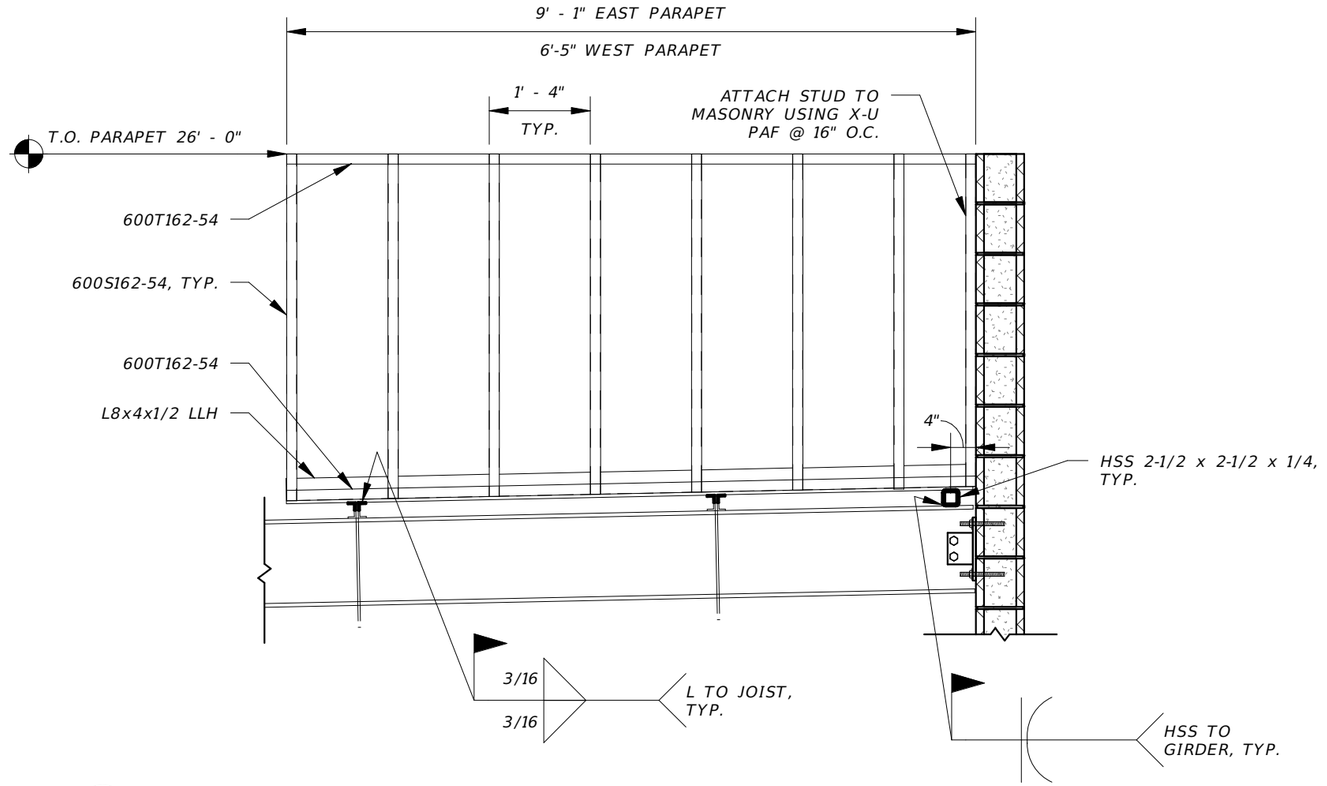
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

UPPER ROOF SECTIONS

SHEET NO. AS2-322

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1 PARAPET SECTION

1/2" = 1'-0"

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BRENTON D. DAILY, P.E.
FLORIDA P.E. NO. 81028
651 WEST WARREN AVENUE, SUITE 200
LONGWOOD, FLORIDA 32750
BPE CA NO. 5898
BPA & ID CA NO. AAC002023

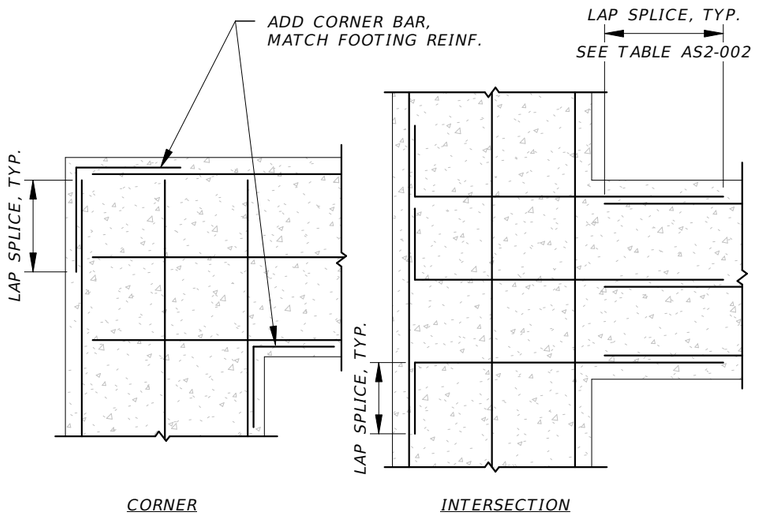
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

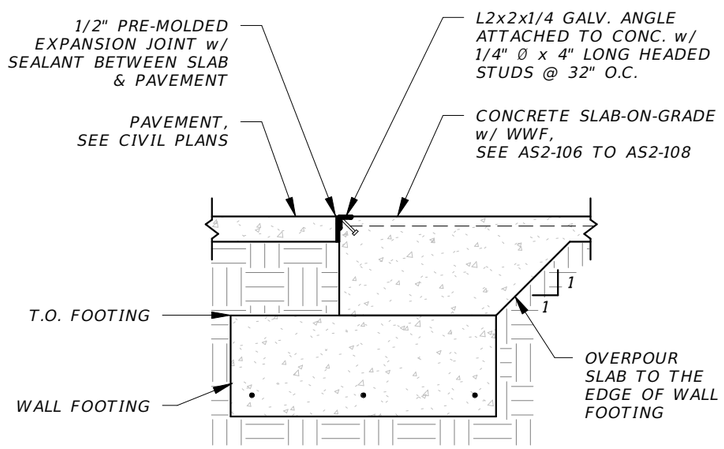
UPPER ROOF SECTIONS

SHEET NO. AS2-323

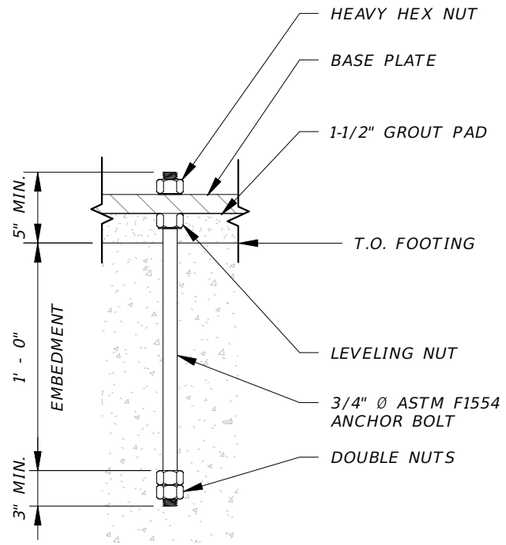


FOR TYPICAL WALL FOOTING REINF. DETAILS SEE 2/AS2-300

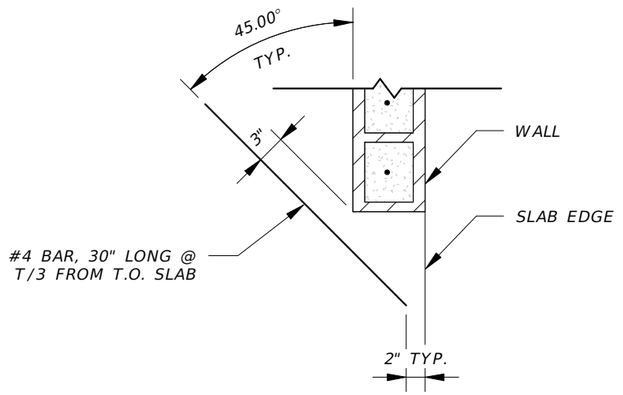
6 TYP. WALL FOOTING REINFORCEMENT DETAILS
3/8" = 1'-0"



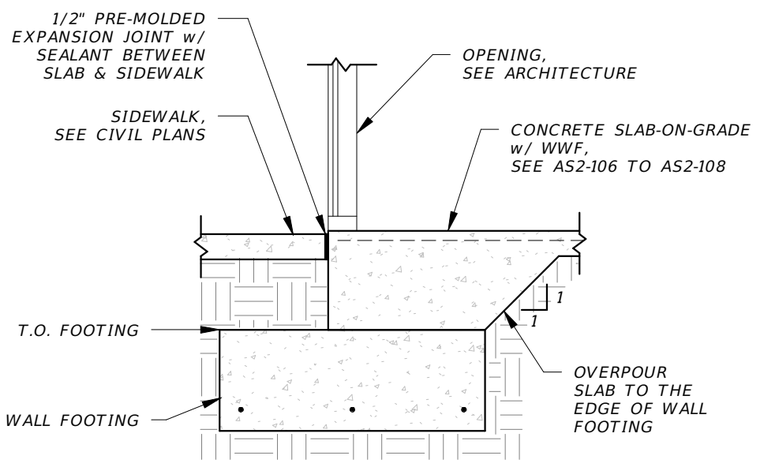
4 THRESHOLD AT VEHICLE BAY DOORS
1/2" = 1'-0"



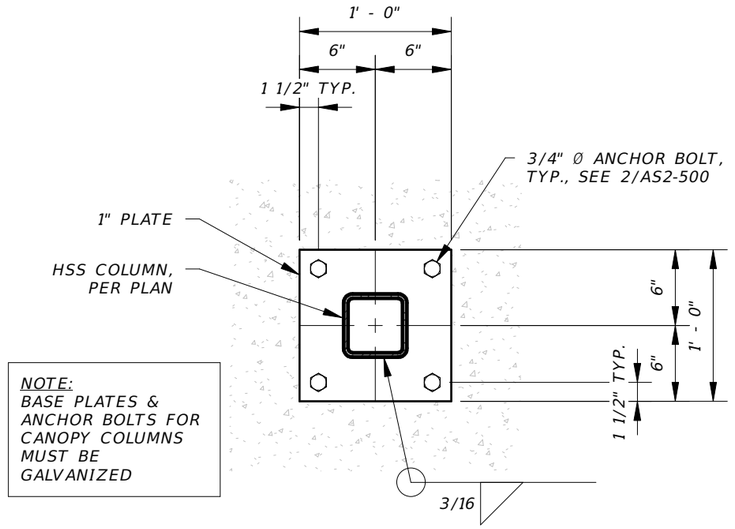
2 TYPICAL ANCHOR BOLT
1 1/2" = 1'-0"



5 TYP. RE-ENTRANT BAR DETAIL
3/4" = 1'-0"



3 TYPICAL THRESHOLD DETAIL
1/2" = 1'-0"



NOTE:
BASE PLATES & ANCHOR BOLTS FOR CANOPY COLUMNS MUST BE GALVANIZED

1 TYPICAL BASE PLATE
1" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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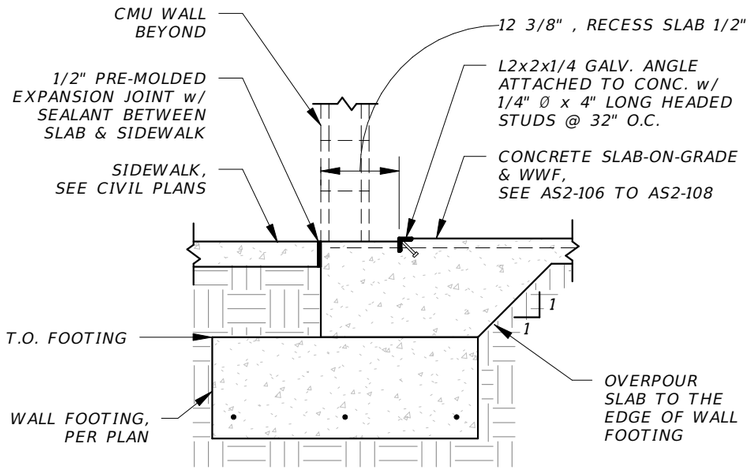
SUNTRAX TEST FACILITY STORAGE BUILDING

FOUNDATION & SLAB DETAILS

SHEET NO. AS2-500

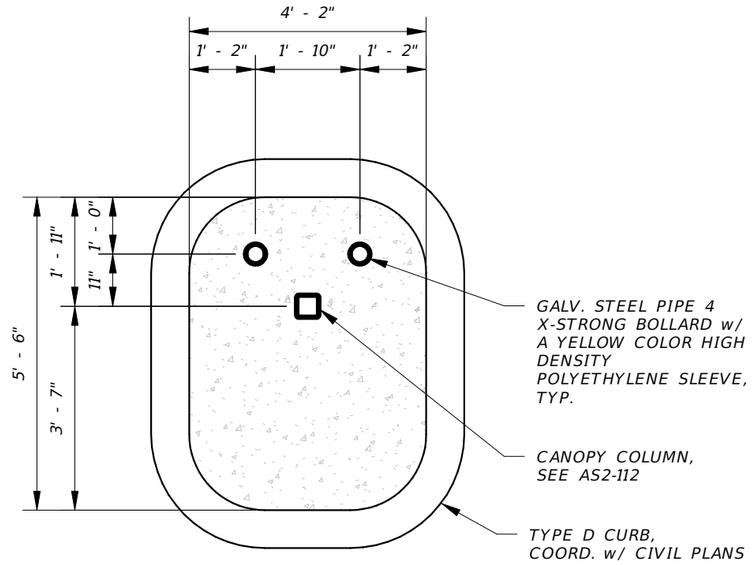
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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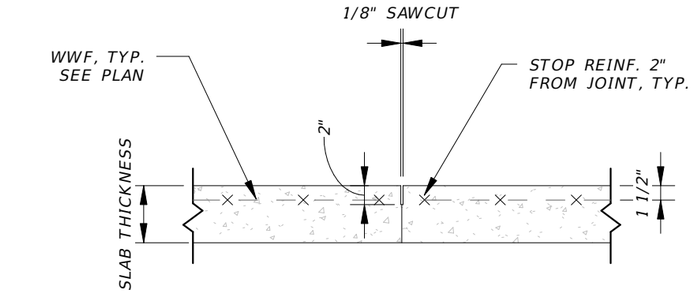
6 THRESHOLD @ MECH./ELEC. RM

1/2" = 1'-0"



4 CANOPY COLUMN PROTECTION - PLAN

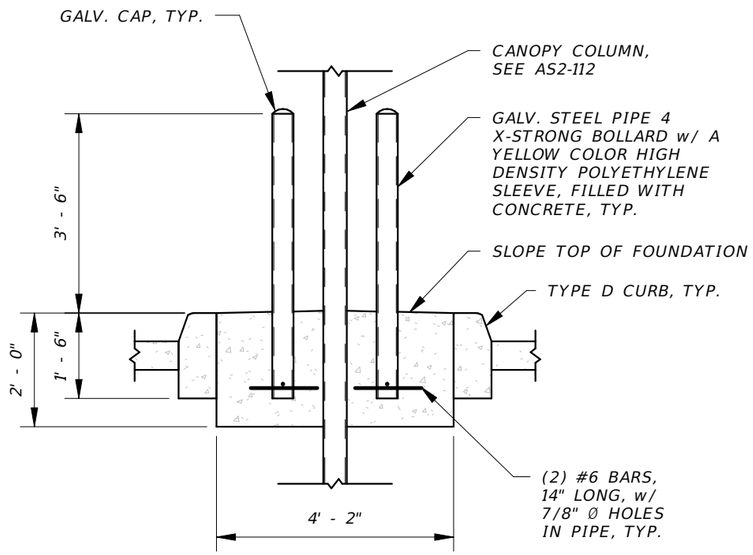
3/8" = 1'-0"



NOTE:
1. ALL CONCRETE SLAB WORK IN ACCORDANCE WITH ACI 302.1R-04 AND 360R-10.
2. CONTRACTION JOINT WITH SHEAR TRANSFER MAY BE SUBSTITUTED.
3. JOINT TO BE SAWCUT AFTER CONCRETE HAS SET BUT PRIOR TO HARDENING.
4. SAWCUTS FILLED WITH "SEMI-RIGID" FILLERS PER ACI 302.1R-04.

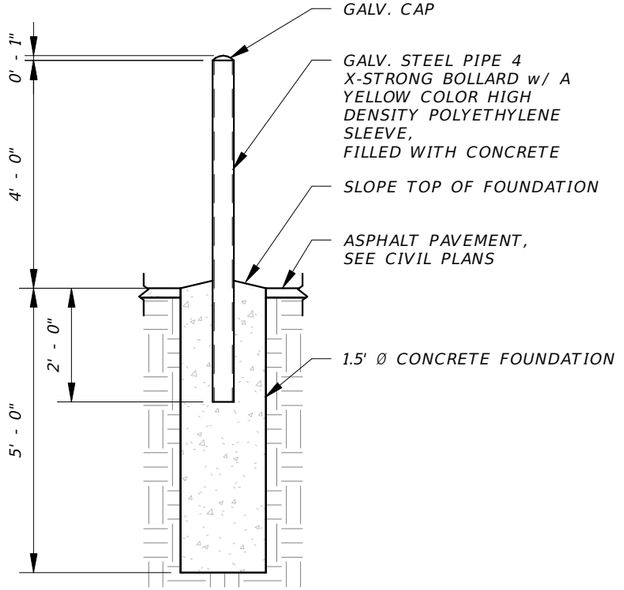
2 CONSTRUCTION JOINT

3/4" = 1'-0"



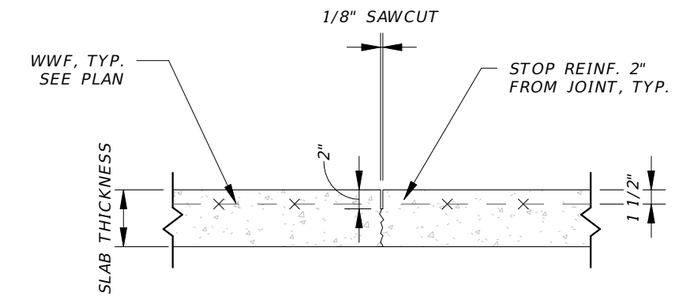
5 CANOPY COLUMN PROTECTION - ELEVATION

3/8" = 1'-0"



3 BOLLARD FOUNDATION

3/8" = 1'-0"



NOTE:
1. ALL CONCRETE SLAB WORK IN ACCORDANCE WITH ACI 302.1R-04 AND 360R-10.
2. CONSTRUCTION JOINT WITH SHEAR TRANSFER MAY BE SUBSTITUTED.
3. JOINT TO USE EARLY-ENTRY SAW CUTTING EQUIPMENT.
4. SAWCUTS FILLED WITH "SEMI-RIGID" FILLERS PER ACI 302.1R-04.

1 CONTRACTION JOINT

3/4" = 1'-0"

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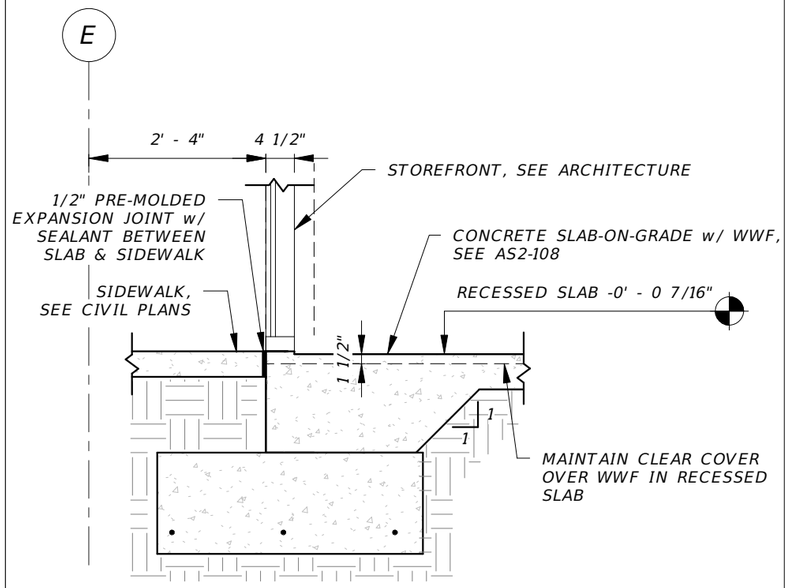
SUNTRAX TEST FACILITY STORAGE BUILDING

FOUNDATION & SLAB DETAILS

SHEET NO. AS2-501

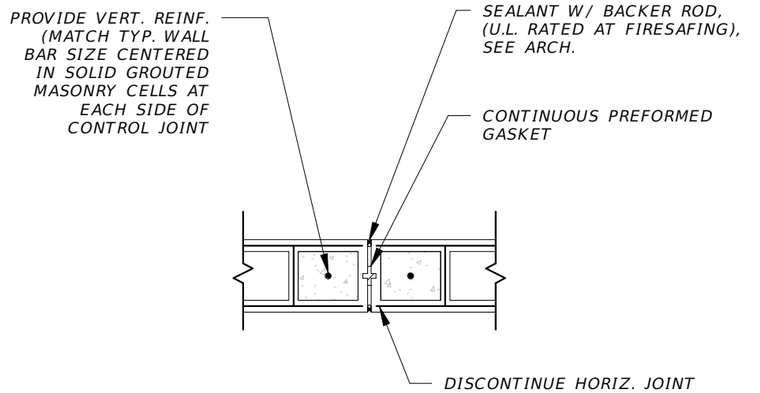
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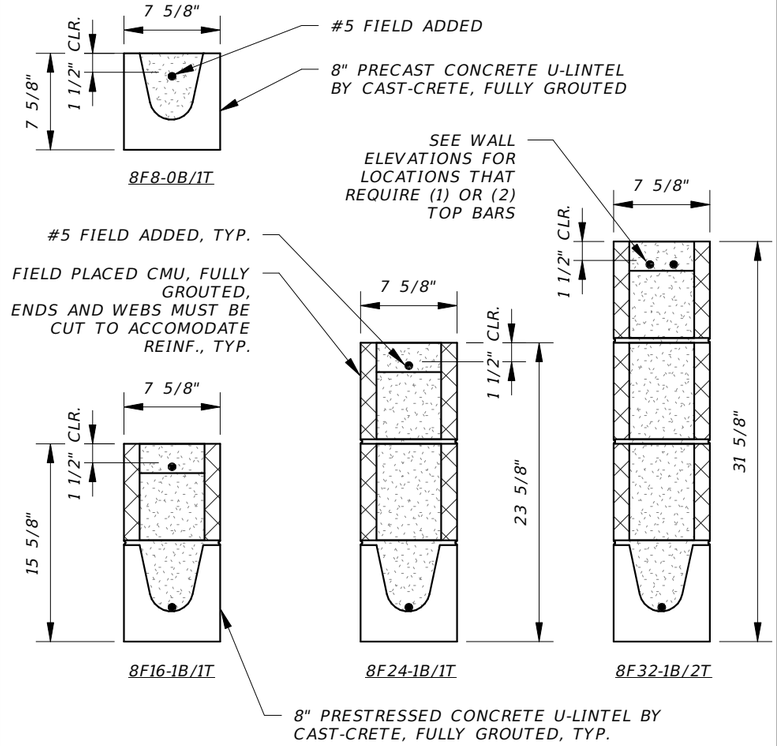
6 SLAB EDGE DETAIL @ STOREFRONT

1/2" = 1'-0"



4 MASONRY CONTROL JOINT

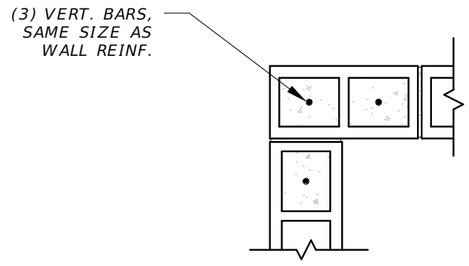
3/4" = 1'-0"



NOTES
1. INSTALL PRECAST LINTEL IN ACCORDANCE WITH LINTEL MANUFACTURER RECOMMENDATIONS.
2. PROVIDE 4" MIN. BEARING AT EACH END OF OPENING
3. FILL LINTEL WITH MIN. 3,000 PSI GROUT

2 PRECAST LINTEL DETAILS

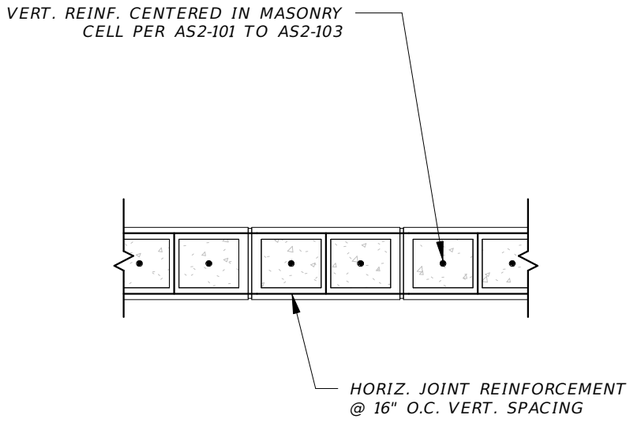
1" = 1'-0"



CORNER DETAIL (TYP.)

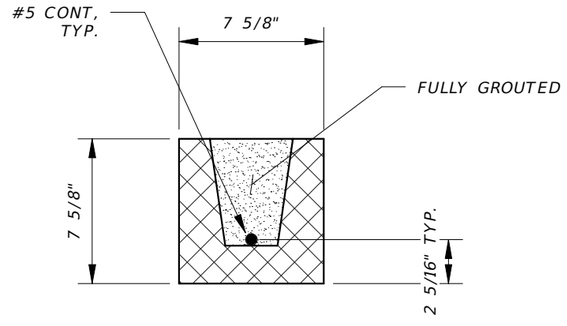
5 CMU TYPICAL WALL CONDITIONS

3/4" = 1'-0"



3 CMU WALL REINFORCEMENT

3/4" = 1'-0"



1 BOND BEAM BB-1 DETAIL

1 1/2" = 1'-0"

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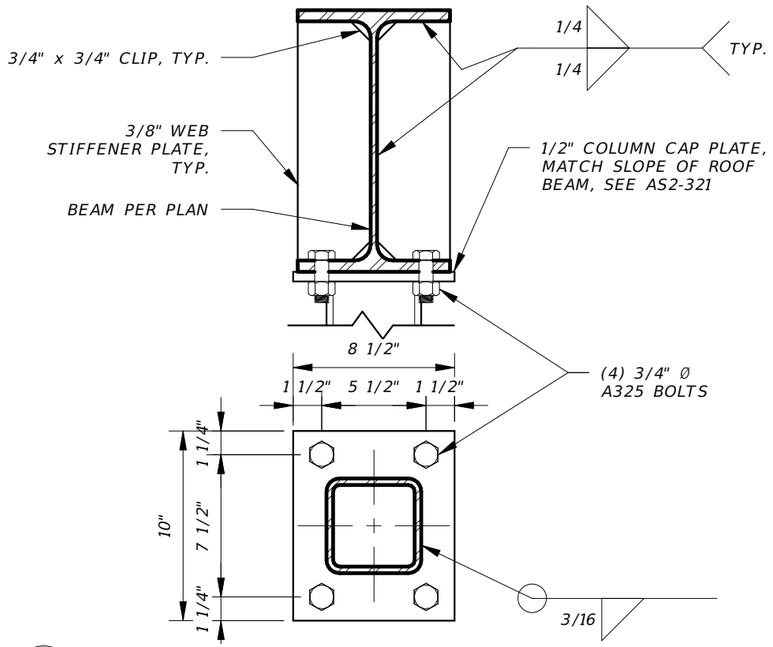
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

MASONRY DETAILS

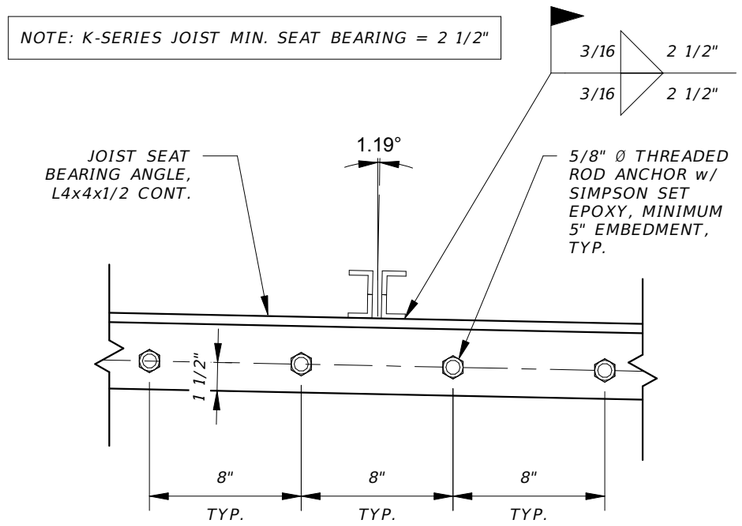
SHEET NO. AS2-502



6 HSS 5x5 COLUMN CAP PLATE

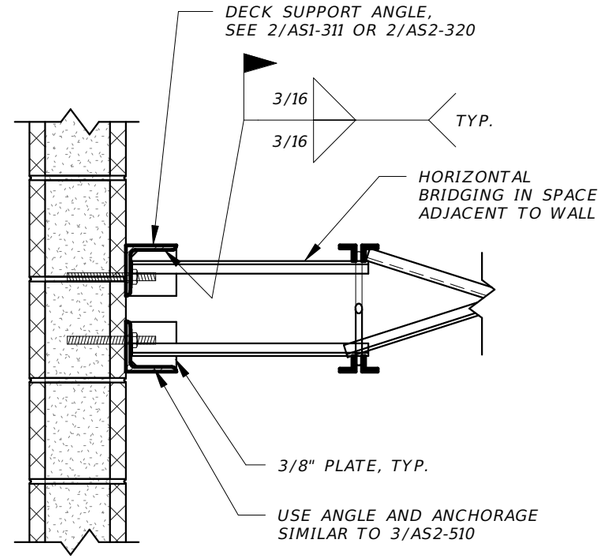
1 1/2" = 1'-0"

NOTE: K-SERIES JOIST MIN. SEAT BEARING = 2 1/2"



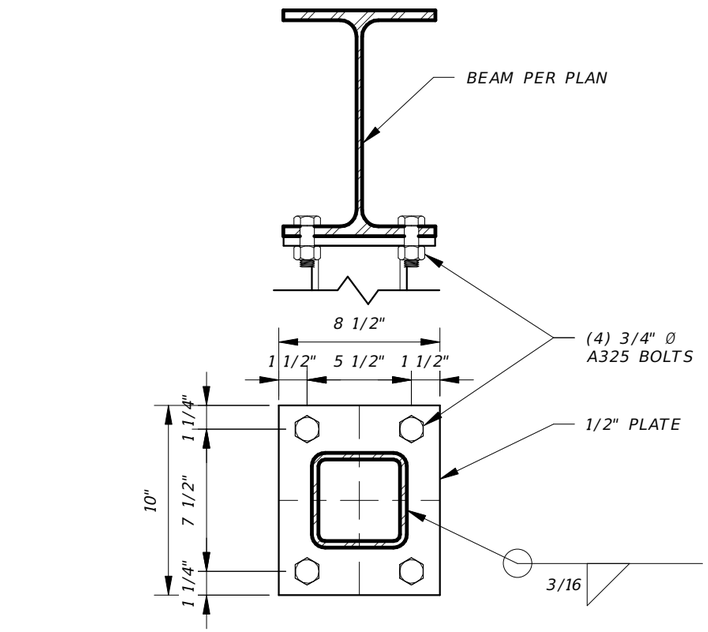
4 UPPER ROOF JOIST SEAT DETAIL

1 1/2" = 1'-0"



2 BRIDGING TO WALL CONNECTION

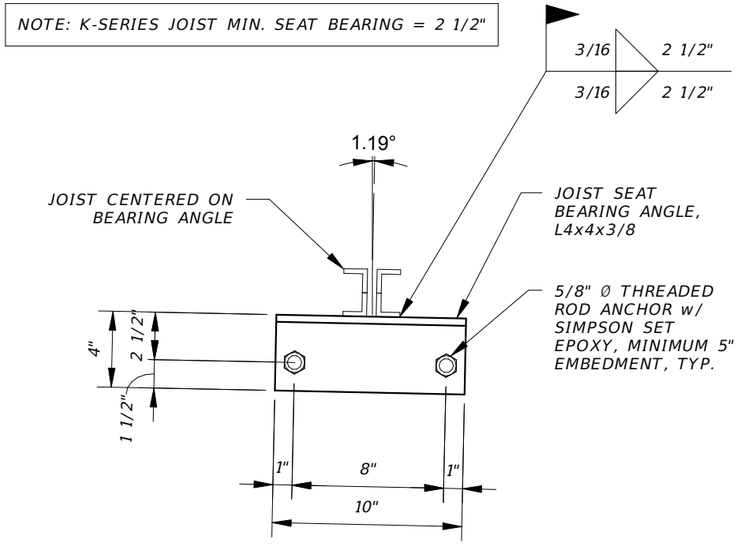
1" = 1'-0"



5 HSS 5x5 COLUMN CAP PLATE (CANOPY)

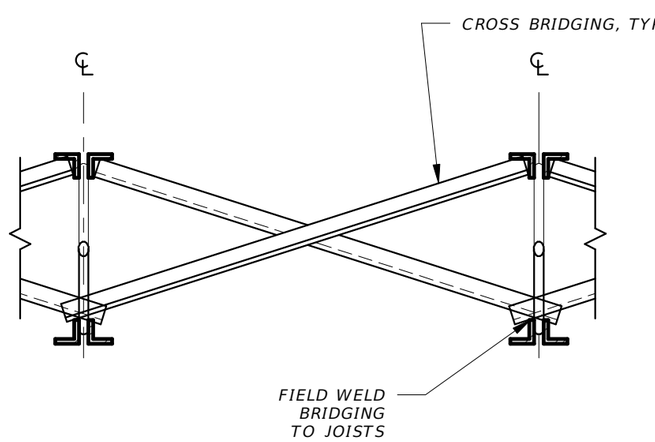
1 1/2" = 1'-0"

NOTE: K-SERIES JOIST MIN. SEAT BEARING = 2 1/2"



3 LOWER ROOF JOIST SEAT DETAIL

1 1/2" = 1'-0"



NOTE:
BRIDGING STANDARD WITH THE MANUFACTURER AND COMPLYING WITH THE APPLICABLE STEEL JOIST INSTITUTE SPECIFICATION OF LATEST ADOPTION SHALL BE USED FOR BRIDGING ALL JOISTS FURNISHED BY THE MANUFACTURER.

1 JOIST BRIDGING

1 1/2" = 1'-0"

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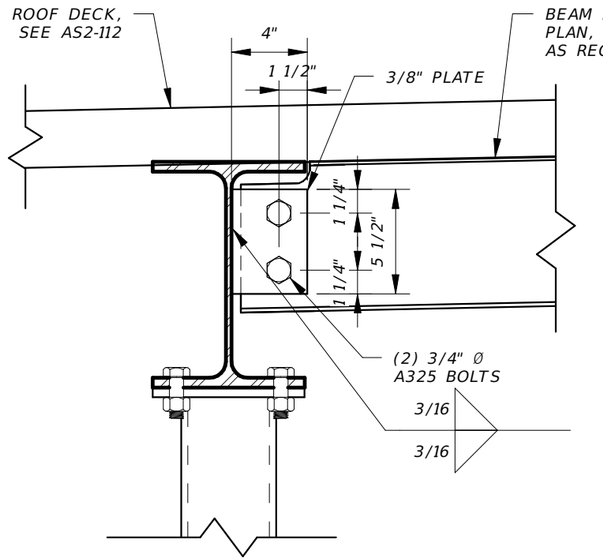
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

FRAMING DETAILS

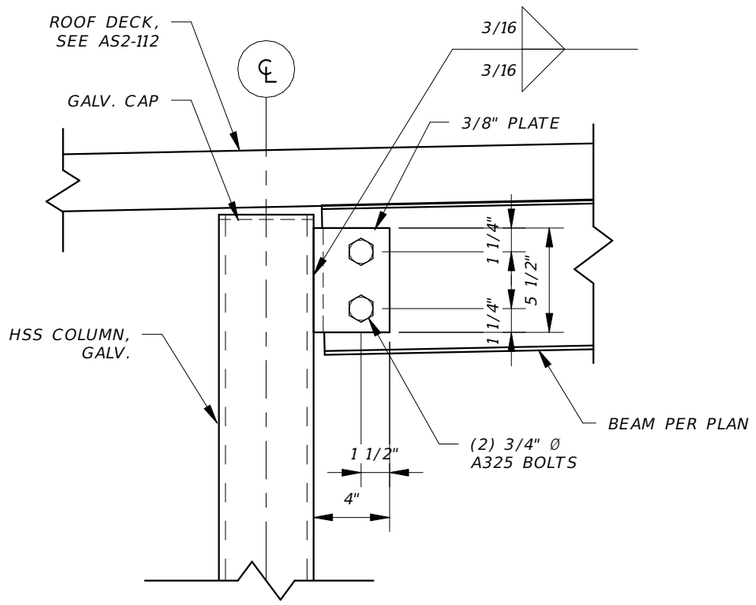
SHEET NO. AS2-510

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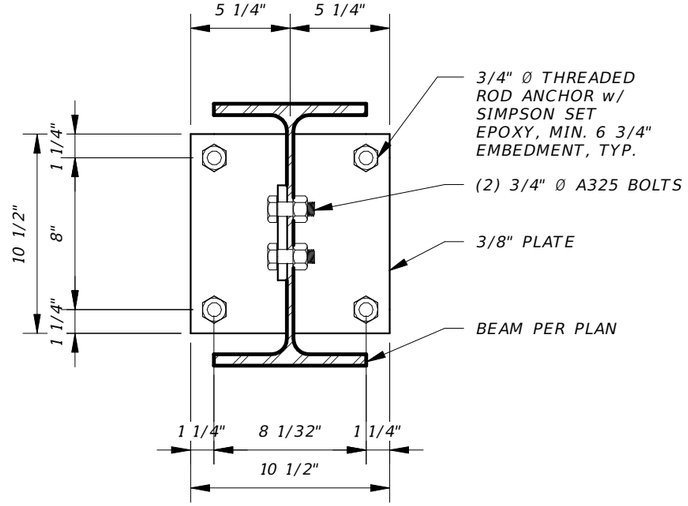
6 CANOPY FRAMING CONNECTION

1 1/2" = 1'-0"



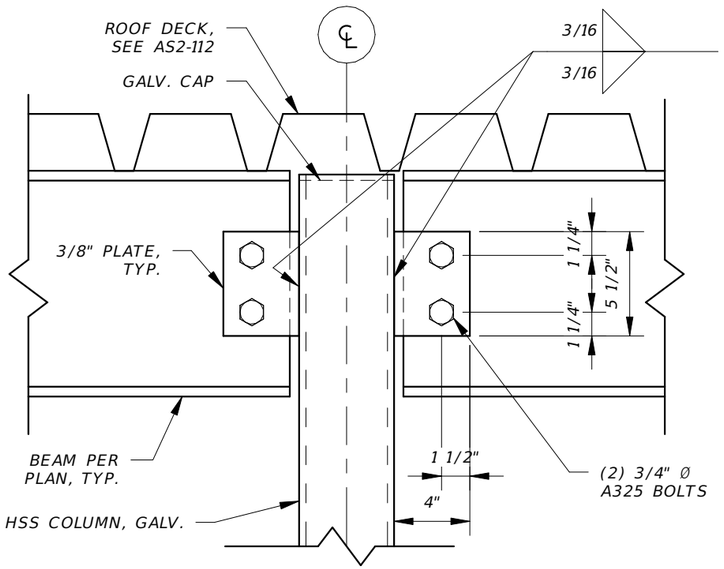
4 CANOPY FRAMING CONNECTION

1 1/2" = 1'-0"



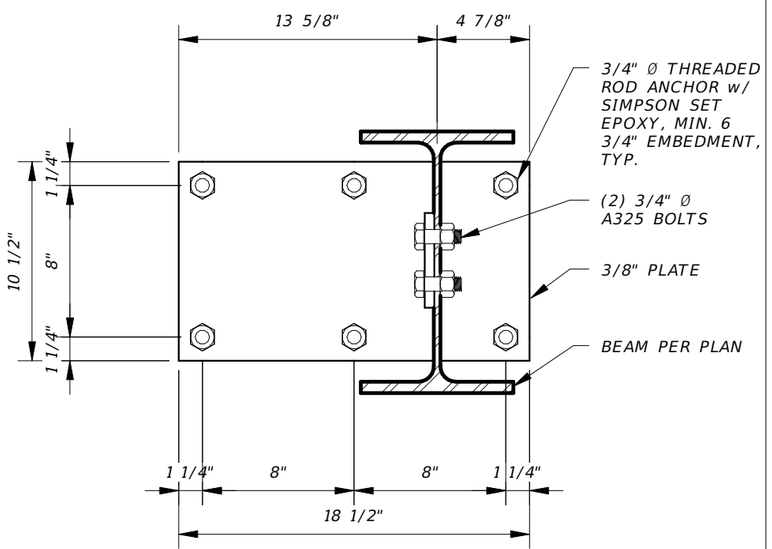
2 GIRDER TO CMU CONNECTION - ELEVATION

1 1/2" = 1'-0"



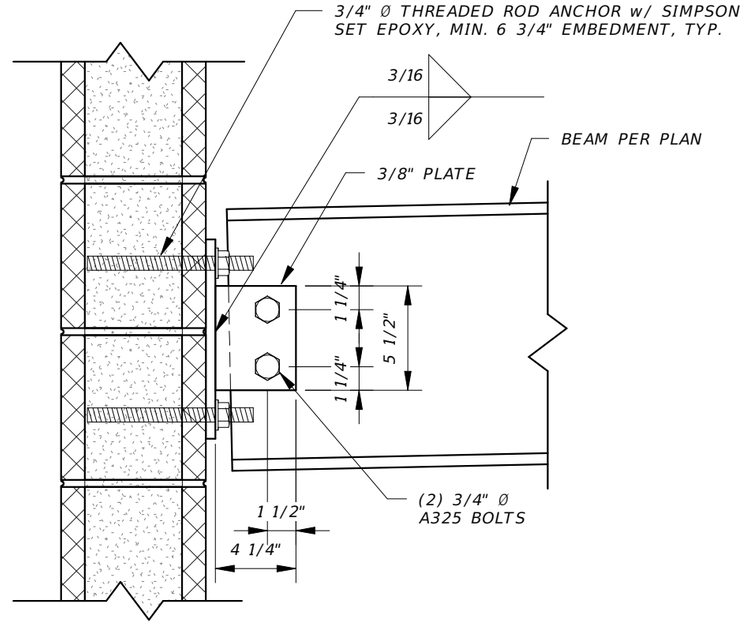
5 CANOPY FRAMING CONNECTION

1 1/2" = 1'-0"



3 GIRDER TO CMU CONNECTION - ELEVATION

1 1/2" = 1'-0"



1 GIRDER TO CMU CONNECTION - SECTION

1 1/2" = 1'-0"

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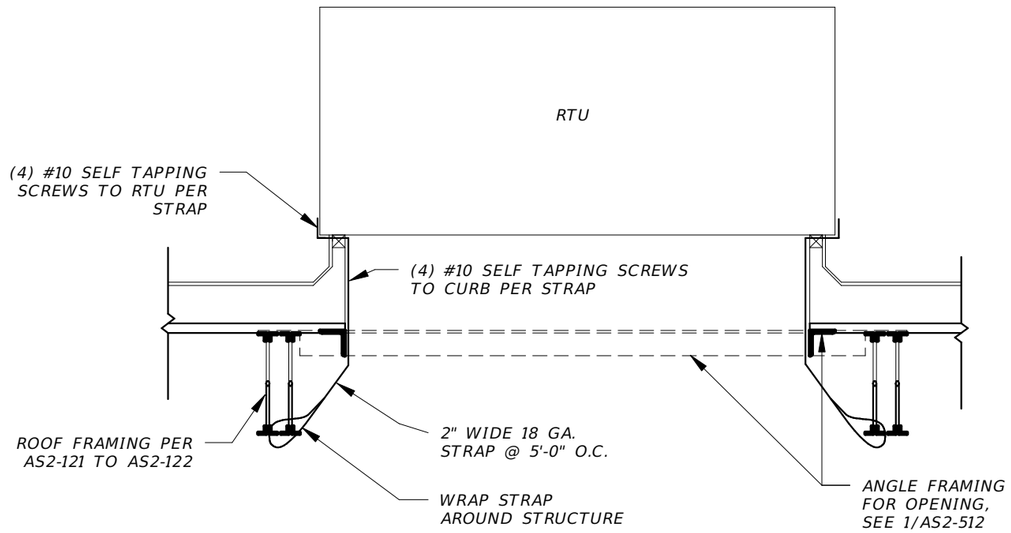
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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SUNTRAX TEST FACILITY STORAGE BUILDING

FRAMING DETAILS

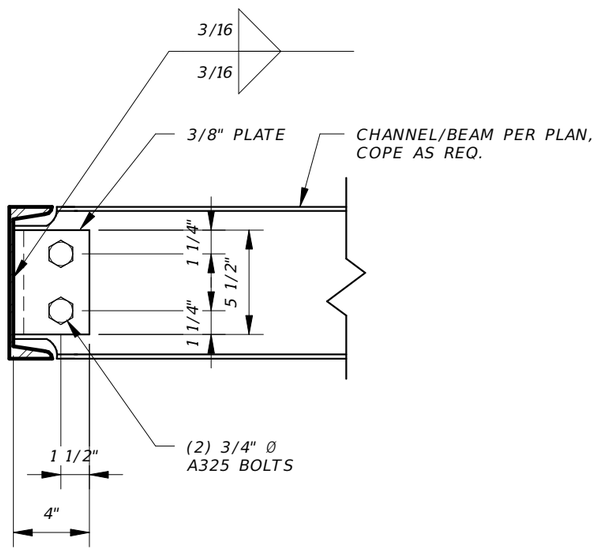
SHEET NO. AS2-511

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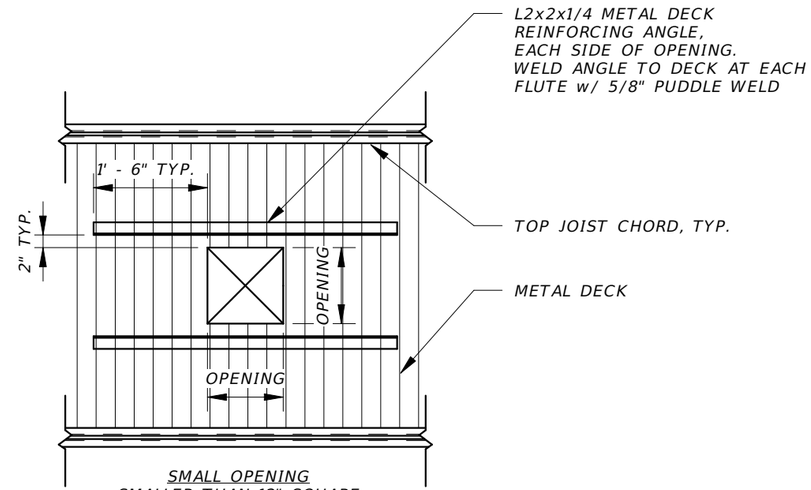
3 RTU MOUNTING DETAIL

1/2" = 1'-0"

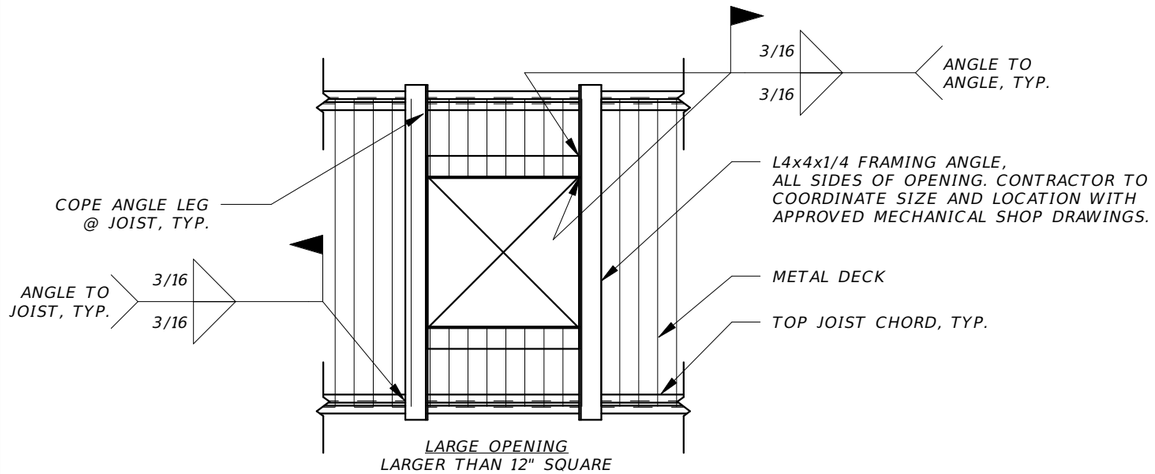


2 CANOPY FRAMING CONNECTION

1 1/2" = 1'-0"



SMALL OPENING
SMALLER THAN 12" SQUARE
LARGER THAN 6" SQUARE



LARGE OPENING
LARGER THAN 12" SQUARE

1 ROOF DECK TYPICAL OPENING DETAILS

1/2" = 1'-0"

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SUNTRAX TEST FACILITY STORAGE BUILDING

FRAMING DETAILS

SHEET NO. AS2-512

LEGEND

SUPPLY DIFFUSER. (4-WAY)

RETURN OR OUTDOOR AIR GRILLE

EXHAUST GRILLE

SUPPLY DUCT UP SECTION (RECTANGULAR)

RETURN DUCT UP SECTION (RECTANGULAR)

EXHAUST DUCT UP SECTION (RECTANGULAR)

SUPPLY DUCT DOWN SECTION (RECTANGULAR)

RETURN DUCT DOWN SECTION (RECTANGULAR)

EXHAUST DUCT DOWN SECTION (RECTANGULAR)

SUPPLY DUCT UP SECTION (ROUND)

SUPPLY DUCT DOWN SECTION (ROUND)

A/B

RECTANGULAR DUCTWORK WITH TAKE-OFF, BALANCING DAMPER AND INSULATED FLEXIBLE ROUND DUCT. SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE. FIRST DIMENSION IS THAT OF SIDE SHOWN.

A

ROUND DUCTWORK

CONICAL FITTING WITH DAMPER ON BRANCH CONNECTION TO RECTANGULAR MAIN (PROVIDE DAMPER IN LOW PRESSURE DUCTWORK ONLY)

R

DUCT OFFSETS UP (RISE) IN DIRECTION INDICATED

D

DUCT OFFSETS DOWN (DROP) IN DIRECTION INDICATED

OPPOSED BLADE VOLUME DAMPER (OBD)

MANUAL DAMPER

FLEXIBLE DUCT CONNECTION.

FIRE DAMPER WITH ACCESS PANEL

EXISTING DUCTWORK TO BE REMOVED (DASHED LINETYPE)

DUCT MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY MECHANICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR CONTROL REQUIREMENTS.

A-100

AIR DEVICE TAG
MARK-CFM

SIDEWALL TRANSFER GRILLE

SIDEWALL SUPPLY REGISTER

SIDEWALL RETURN GRILLE OR OUTSIDE AIR LOUVER

SIDEWALL EXHAUST GRILLE

T

WALL MOUNTED THERMOSTAT
MOUNT 48" ABOVE FINISHED FLOOR

C

WALL MOUNTED CARBON DIOXIDE SENSOR
MOUNT 48" ABOVE FINISHED FLOOR

H

WALL MOUNTED DDC HUMIDITY SENSOR
MOUNT 48" ABOVE FINISHED FLOOR

A
B

PHOTO DETAIL OR SECTION IDENTIFICATION TARGET
A = DETAIL NUMBER.
B = SHEET NUMBER ON WHICH DETAIL IS LOCATED

RD

RADIATION DAMPER
INSTALLED IN AIR DEVICE

ELBOW WITH TURNING VANES

L
45°
L=1/4W, MIN. 4"
W

RECTANGULAR BRANCH DUCT CONNECTION. (PROVIDE BALANCING DAMPER AT ALL BRANCH CONNECTIONS)

X

REFERENCE NOTES

FLOW DIRECTION

M

MOTORIZED ACTUATOR

OPENING IN WALL ABOVE CEILING.

AHU 3
EQUIPMENT TYPE
MARK

EQUIPMENT TAG

UC

1" DOOR UNDER CUT. ARROW INDICATES DIRECTION OF FLOW

CD

CONDENSATE DRAIN PIPING

R

REFRIGERANT PIPING

TEE (PLAN, UP, DOWN)

ELBOW (PLAN, UP, DOWN)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SYMBOL LEGEND - MECHANICAL

SHEET NO.
AM2-001

ABBREVIATIONS

ABV	ABOVE
ADJ	ADJUSTABLE
AF	AIRFOIL
AFF	ABOVE FINISHED FLOOR
AC	AIR CONDITIONER
ACU	AIR CONDITIONING UNIT
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BAS	BUILDING AUTOMATION SYSTEM
BI	BACKWARD INCLINE
BLDG	BUILDING
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNIT PER HOUR
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CONC	CONCRETE
COND	CONDENSATE
CONT	CONTINUOUS
CO	CARBON MONOXIDE
COP	COEFFICIENT OF PERFORMANCE
CU	CONDENSING UNIT
DB	DRYBULB
DWDI	DOUBLE WIDTH, DOUBLE INLET
DWGS	DRAWINGS
DX	DIRECT EXPANSION
EF	EXHAUST FAN
EXH	EXHAUST
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
ELECT	ELECTRICAL
ENT	ENTERING
EQ	EQUAL
ER	EXHAUST REGISTER
EWT	ENTERING WATER TEMPERATURE
FC	FORWARD CURVED
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FL	FLOOR
FLEX	FLEXIBLE CONNECTOR OR DUCT
FPM	FEET PER MINUTE
F/S	COMBINATION FIRE AND SMOKE DAMPER
FT. H_20	FEET WATER GAUGE
F	DEGREES FAHRENHEIT
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HVAC	HEATING VENTILATING AND AIR CONDITIONING
HV	HEATING AND VENTILATING
IN.WG	INCHES WATER GAGE
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LD	LINEAR DIFFUSER
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 X BTUH
MIN	MINIMUM
MVD	MANUAL VOLUME DAMPER
MZ	MULTI-ZONE
N.T.S.	NOT TO SCALE
OA	OUTSIDE AIR
OBMVD	OPPOSED BLADE MANUAL VOLUME DAMPER
OPD	OPEN DRIP PROOF
PROP	PROPELLER
PCS	PERCENT
PD	PRESSURE DROP
PLBG	PLUMBING
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
REG	REGISTER
REQ'D	REQUIRED
RG	RETURN AIR GRILLE
RH	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RR	RETURN AIR REGISTER
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SF	SUPPLY FAN
SDT	SMOKE DETECTOR
SD	SUPPLY DIFFUSER
SDMP	SMOKE DAMPER
SQ.FT.	SQUARE FOOT
SR	SUPPLY REGISTER
STR	STARTER
SWSI	SINGLE WIDTH, SINGLE INLET
SZ	SINGLE ZONE
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
T/O	TRANSFER OPENING ABOVE CEILING
T'STAT	THERMOSTAT
TYP	TYPICAL
VFDC	VARIABLE FREQUENCY DRIVE CONTROLLER
VAV	VARIABLE AIR VOLUME
VS	VARIABLE SPEED
W	WATTS
W/	WITH
W/O	WITHOUT
WB	WETBULB
ZD	ZONE DAMPER

GENERAL NOTES

1. INSTALL EQUIPMENT AND MATERIALS IN COMPLIANCE WITH MANUFACTURERS MINIMUM CLEARANCE REQUIREMENTS AND RECOMMENDATIONS.
2. COMPLY WITH THE LATEST EDITIONS OF NFPA AND THE LATEST ADOPTED EDITION FLORIDA BUILDING CODE (MECHANICAL, PLUMBING AND GAS).
3. ALL MATERIALS SHALL FIT THE SPACE AVAILABLE. VERIFY DIMENSIONS AND CLEARANCES ON BUILDING PLANS PRIOR TO COMMENCING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR TESTING AND BALANCING OF AIR SYSTEMS IN ACCORDANCE WITH ASSOCIATED AIR BALANCE COUNCIL GUIDELINES. A TEST AND BALANCE REPORT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
5. PROVIDE 45 DEGREE BRANCH TAKE-OFF PER SMACNA FIG. 2-8 ON ALL RECTANGULAR DUCT TAKE-OFFS.
6. PROVIDE AND INSTALL DUCT MOUNTED HINGED ACCESS DOORS FOR ALL SMOKE AND/OR FIRE DAMPERS, NOT OTHERWISE ACCESSIBLE.
7. GAUGES AND CONSTRUCTION FOR DUCTWORK SHALL CONFORM TO THE LATEST EDITION OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS.
8. TRANSITION RECTANGULAR DUCTWORK ON BOTTOM AND SIDES. MAINTAIN TOP OF DUCTWORK LEVEL AND HIGH AS POSSIBLE. FLEXIBLE DUCT RUN-OUTS TO CEILING DIFFUSERS SHALL BE AS STRAIGHT AS POSSIBLE AND FREE OF SAGS & KINKS. FLEX DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK IT SERVES.
9. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
10. ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN THREE (3) FEET OF A WALL TO PROVIDE 2-WAY OR 3-WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL DIFFUSERS SHALL HAVE 4-WAY BLOW UNLESS NOTED OTHERWISE.
11. PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
12. ALL DAMPERS IN AND ABOVE CEILING SHALL BE ACCESSIBLE. CONTRACTOR SHALL COORDINATE ALL ACCESS PANELS IN CEILINGS OR WALLS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND INTERIOR DRAWINGS FOR PROPER LOCATION.
13. MOUNT THERMOSTATS WHERE INDICATED ON PLANS 48" A.F.F. UNLESS NOTED OTHERWISE. IN HANDICAPPED ACCESSIBLE AREAS, MOUNT CONTROLS AT 48" A.F.F.
14. SEAL ALL TRANSVERSE JOINTS AND FITTINGS WITH DUCT SEALER.
15. TRAP AND ROUTE CONDENSATE DRAINS LINES, FULL SIZE OF UNIT CONNECTION, AS INDICATED. SLOPE 1/8" PER FOOT.
16. ALL CONTROL WIRING AND CONDUIT SHALL COMPLY WITH NEC ELECTRICAL SPECIFICATIONS.
17. PROVIDE MATERIALS WHICH HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS WHEN TESTED IN ACCORD WITH ASTM E84.
18. SLEEVE AND FIRE STOP PENETRATIONS THROUGH FIRE RATED SYSTEMS TO MAINTAIN RATING OF SYSTEM. USE MINIMUM GALVANIZED STEEL GAUGE DUCT AS REQUIRED TO MAINTAIN RATING OF SYSTEM.
19. THE TEST AND BALANCE CONTRACTOR SHALL BE EMPLOYED DIRECTLY BY THE GENERAL CONTRACTOR WHO SHALL BE SOLELY RESPONSIBLE FOR ITS PERFORMANCE AND THE TIMELY SCHEDULE OF ITS OPERATION.

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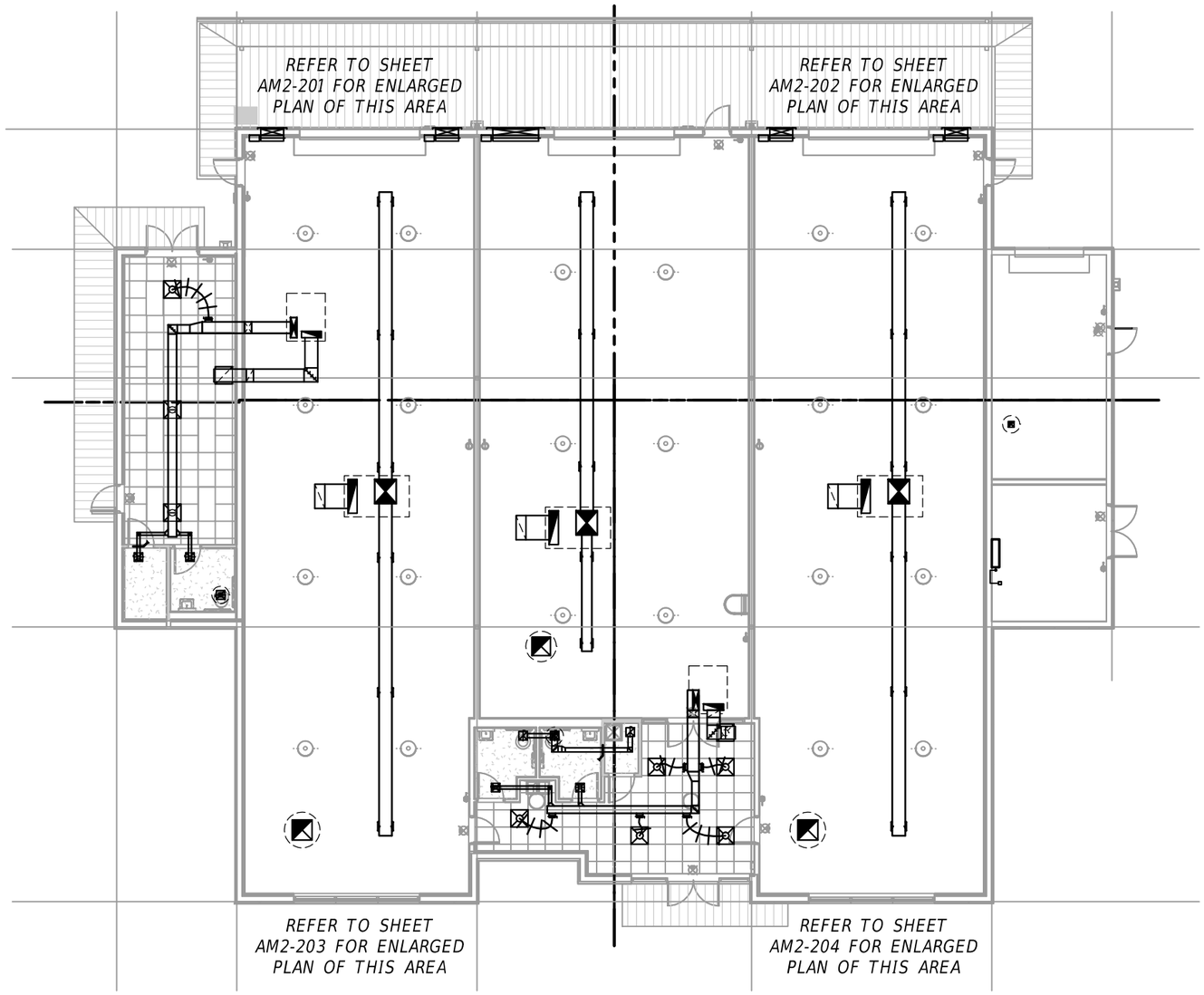
SUNTRAX TEST FACILITY
STORAGE BUILDING

ABBREVIATIONS & GENERAL NOTES - MECHANICAL

SHEET NO.
AM2-002

GENERAL NOTE:

A. REFER TO SHEETS AM2-001 & AM2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 OVERALL FLOOR PLAN - MECHANICAL

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

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SUNTRAX TEST FACILITY
STORAGE BUILDING

OVERALL FLOOR PLAN - MECHANICAL

SHEET NO.

AM2-200

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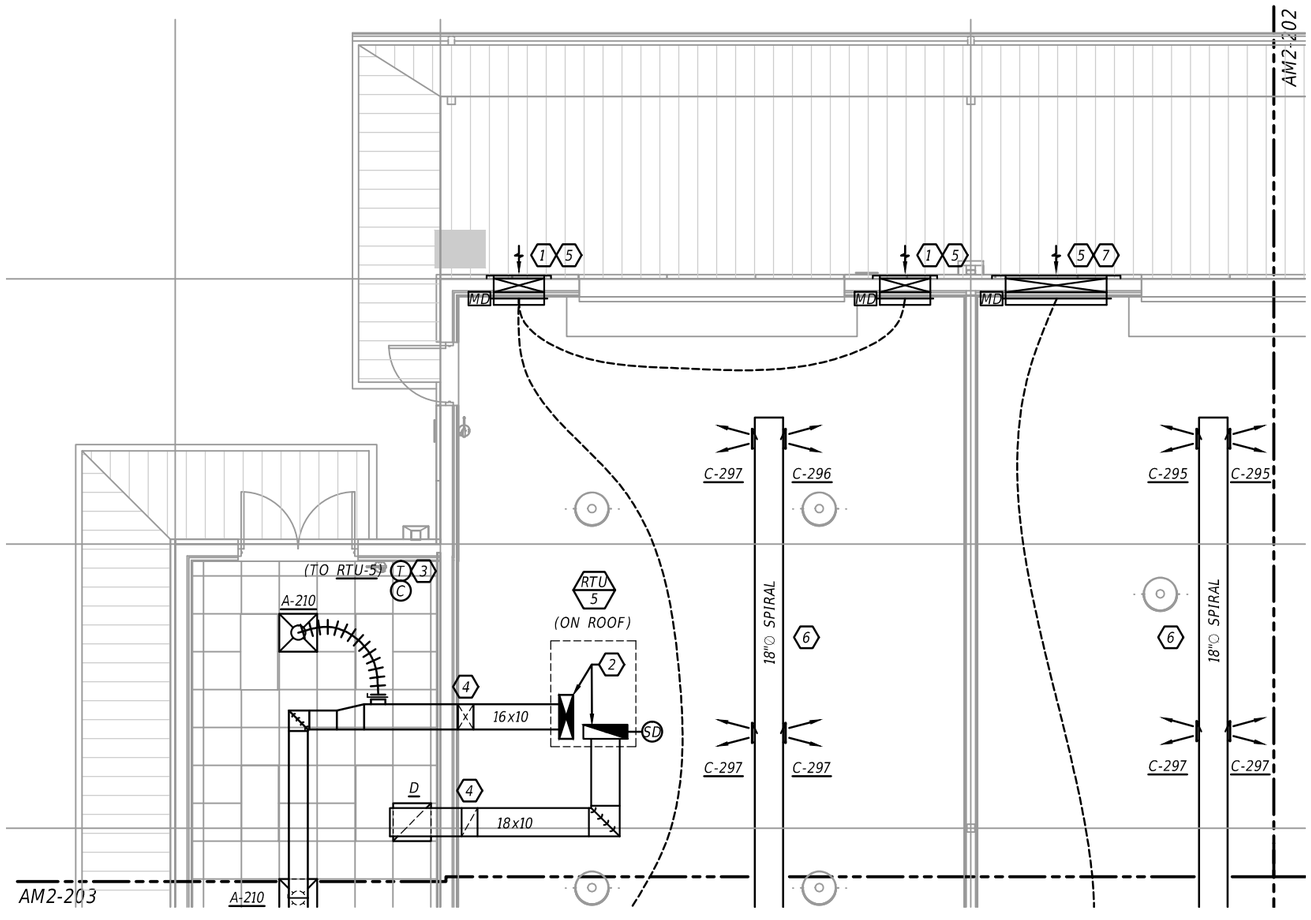
REFERENCE NOTES: (X)

1. INSTALL 32"x48" OUTSIDE 150 MPH RATED AIR INTAKE LOUVER WITH MOTORIZED DAMPER RUSKIN MODEL ELC6375DXD OR EQUIVALENT PER DETAIL SHEET AM2-406. COORDINATE EXACT MOUNTING ELEVATION AND LOCATION OF LOUVER WITH ARCHITECTURAL DRAWINGS. INSTALL PER NOA.
2. 34"x10" SUPPLY AND 28"x10" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
3. PROVIDE WALL MOUNTED TEMPERATURE SENSOR AND CARBON DIOXIDE SENSOR. MOUNT SENSOR 48" ABOVE FINISHED FLOOR.
4. DUCTWORK TO DROP DOWN AND TRANSITION INTO LOWER CEILING SPACE.
5. LOUVERS MOTORIZED DAMPERS TO BE INTERLOCKED WITH ASSOCIATED BAY EXHAUST FAN.
6. 1" INTERNALLY LINED SPIRAL DUCTWORK.
7. INSTALL 64"x48" OUTSIDE 150 MPH RATED AIR INTAKE LOUVER WITH MOTORIZED DAMPER RUSKIN MODEL ELC6375DXD OR EQUIVALENT PER DETAIL SHEET AM2-406. COORDINATE EXACT MOUNTING ELEVATION AND LOCATION OF LOUVER WITH ARCHITECTURAL DRAWINGS. INSTALL PER NOA.

GENERAL NOTE:

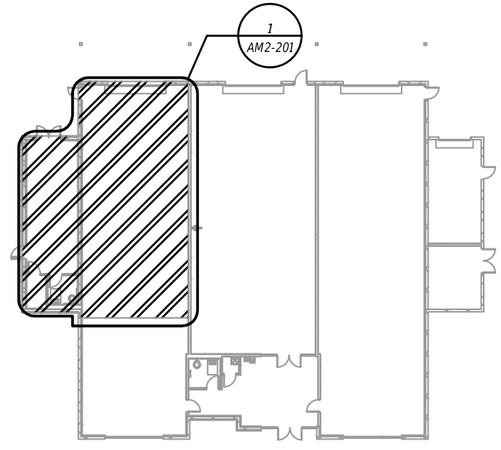
A. REFER TO SHEETS AM2-001 & AM2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.



1 PARTIAL FLOOR PLAN - MECHANICAL
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
SCALE: NTS

REVISIONS			
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SUNTRAX TEST FACILITY
STORAGE BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO.
AM2-201

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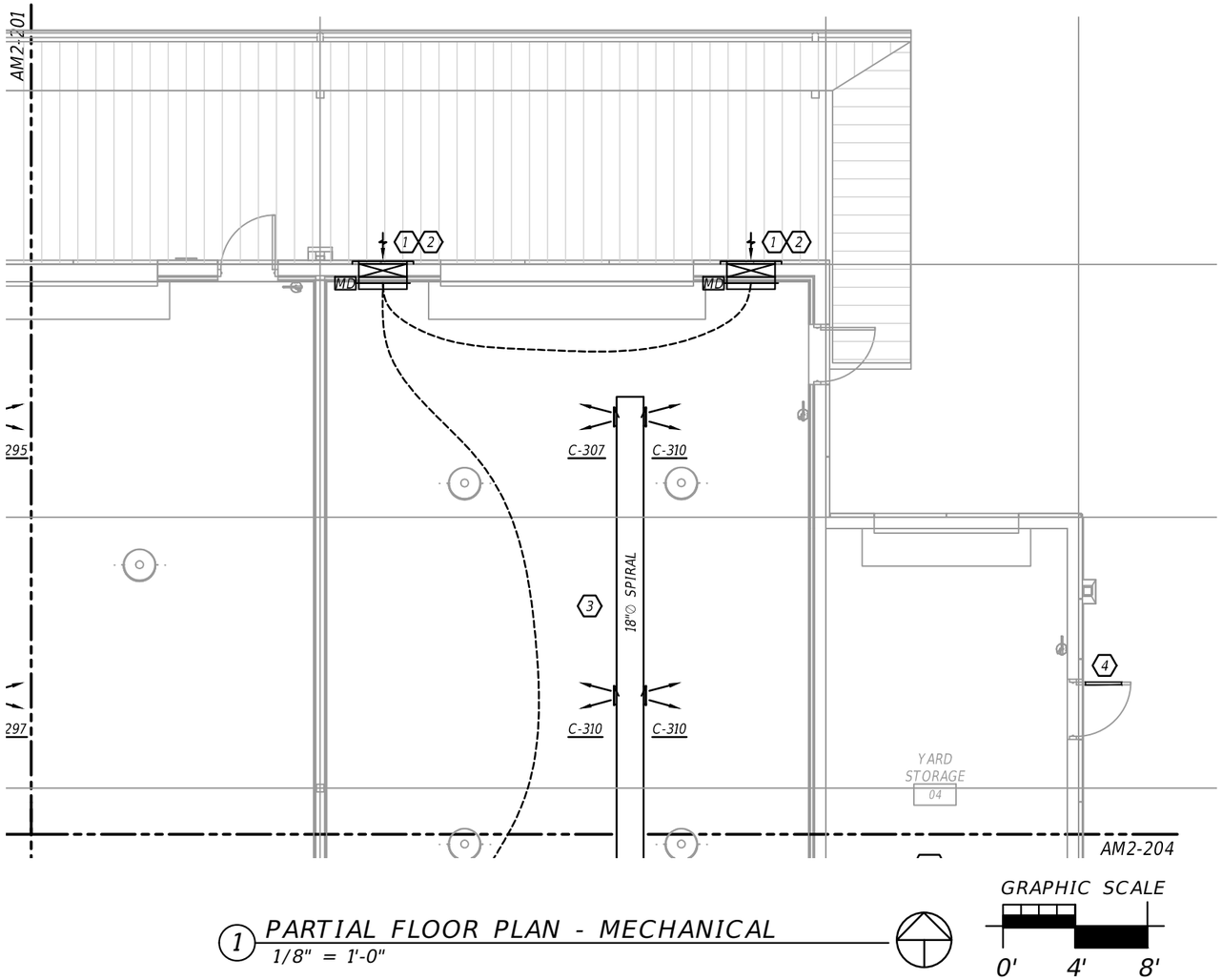
REFERENCE NOTES: (X)

1. INSTALL 32"x48" OUTSIDE 150 MPH RATED AIR INTAKE LOUVER WITH MOTORIZED DAMPER RUSKIN MODEL ELC6375DXD OR EQUIVALENT PER DETAIL SHEET AM2-406. COORDINATE EXACT MOUNTING ELEVATION AND LOCATION OF LOUVER WITH ARCHITECTURAL DRAWINGS. INSTALL PER NOA.
2. LOUVERS MOTORIZED DAMPERS TO BE INTERLOCKED WITH ASSOCIATED BAY EXHAUST FAN.
3. 1" INTERNALLY LINED SPIRAL DUCTWORK.
4. INSTALL 8"x24" HART AND COOLEY DOOR GRILLE MODEL TG WITH TGF FRAME OR EQUIVALENT ON BOTH SIDES OF THE DOOR.

GENERAL NOTE:

A. REFER TO SHEETS AM2-001 & AM2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.

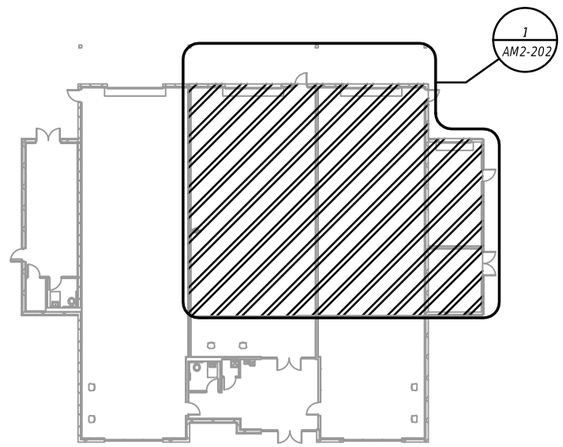


1 PARTIAL FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'



2 KEY PLAN

SCALE: NTS

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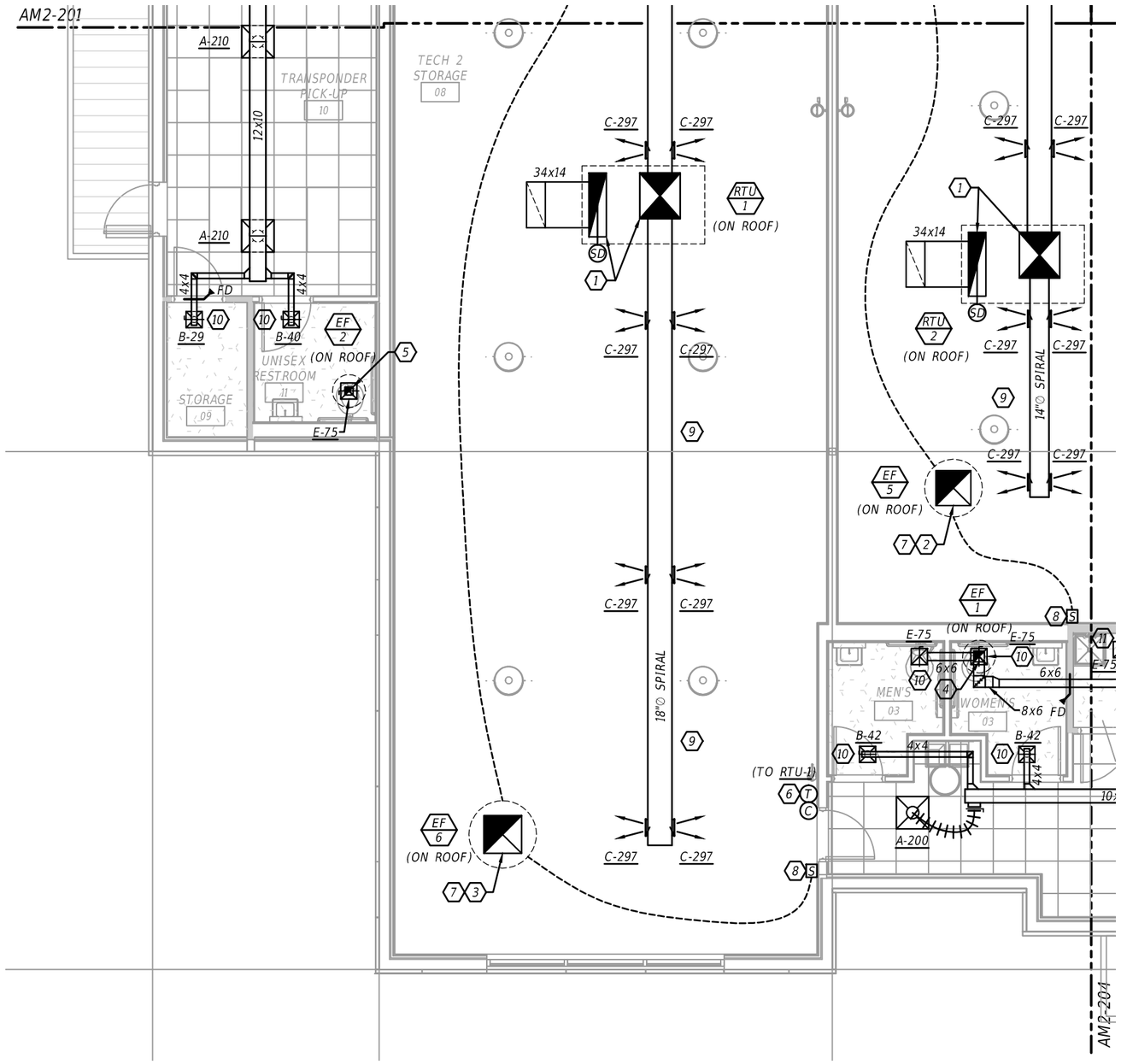
SUNTRAX TEST FACILITY
STORAGE BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO.

AM2-202

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1 PARTIAL FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'

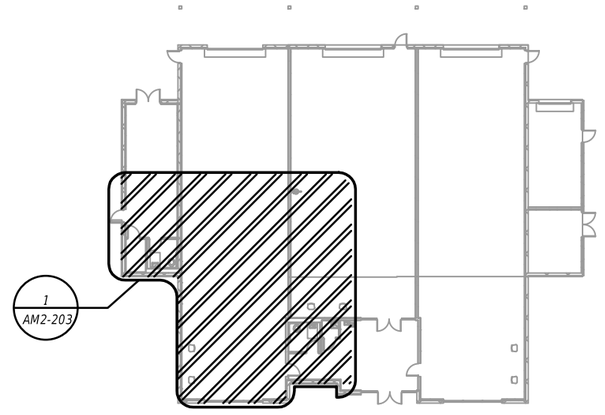
REFERENCE NOTES: (X)

1. 34"x30" SUPPLY AND 48"x14" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
2. ROUTE 26"x26" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.
3. ROUTE 28"x28" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.
4. ROUTE 8"x8" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.
5. ROUTE 6"x6" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.
6. PROVIDE WALL MOUNTED TEMPERATURE SENSOR AND CARBON DIOXIDE SENSOR. MOUNT SENSOR 48" ABOVE FINISHED FLOOR.
7. EXHAUST FAN TO BE CONTROLLED BY WALL MOUNTED SWITCH. EXHAUST FAN TO BE CONNECTED TO BAS SYSTEM AND SHALL NOT ENERGIZE WHEN BAY ROOF TOP UNIT IS ACTIVE.
8. EXHAUST FAN STOP/START SWITCH.
9. 1" INTERNALLY LINED SPIRAL DUCTWORK.
10. PROVIDE BALANCING DAMPER ON BACK OF GRILLE WITH FACE ADJUSTMENT IN HARD CEILINGS.

GENERAL NOTE:

A. REFER TO SHEETS AM2-001 & AM2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.



2 KEY PLAN

SCALE: NTS

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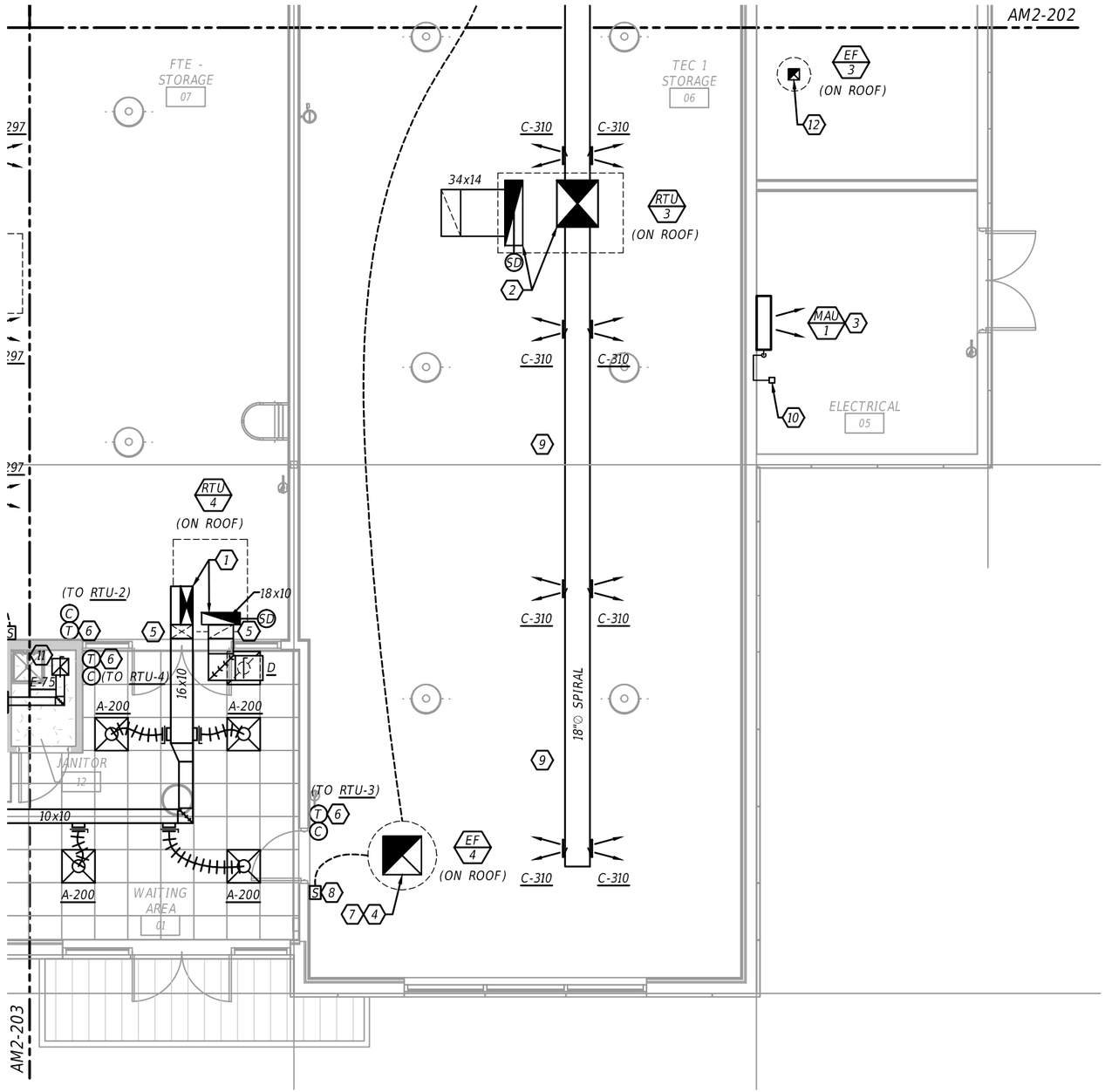
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SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO. AM2-203

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1 PARTIAL FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

GRAPHIC SCALE

0' 4' 8'

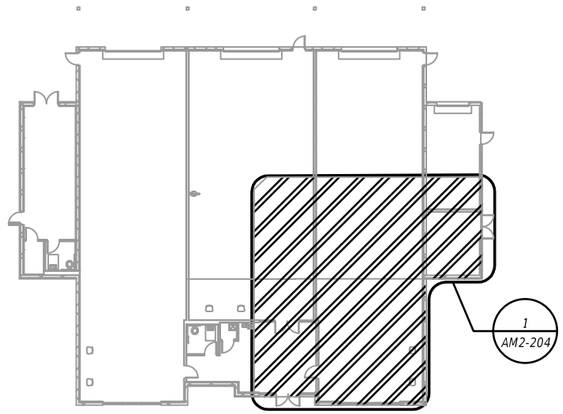
REFERENCE NOTES: (X)

1. 34"x10" SUPPLY AND 28"x10" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
2. 34"x30" SUPPLY AND 48"x14" RETURN UP THROUGH ROOF TO ROOF TOP UNIT.
3. MOUNT MINI-SPLIT SYSTEM ON IT ROOM WALL PER DETAIL SHEET AM2-407. PROVIDE CONDENSATE PUMP SAUERMANN Si-30 OR EQUIVALENT.
4. ROUTE 28"x28" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.
5. DUCTWORK TO DROP DOWN AND TRANSITION INTO LOWER CEILING SPACE.
6. PROVIDE WALL MOUNTED TEMPERATURE SENSOR AND CARBON MONOXIDE SENSOR. MOUNT SENSOR 48" ABOVE FINISHED FLOOR.
7. EXHAUST FAN TO BE CONTROLLED BY WALL MOUNTED SWITCH. EXHAUST FAN TO BE CONNECTED TO BAS SYSTEM AND SHALL NOT ENERGIZE WHEN BAY ROOF TOP UNIT IS ACTIVE.
8. EXHAUST FAN STOP/START SWITCH.
9. 1" INTERNALLY LINED SPIRAL DUCTWORK.
10. ROUTE REFRIGERANT/CONDENSATE PIPING FROM MINI-SPLIT UNIT UP THROUGH REFRIGERANT LINE CHASE TO CONDENSING UNIT ON ROOF.
11. PROVIDE BALANCING DAMPER ON BACK OF GRILLE WITH FACE ADJUSTMENT IN HARD CEILINGS.
12. ROUTE 8"x8" EXHAUST DUCTWORK UP THROUGH ROOF TO ROOF MOUNTED EXHAUST FAN.

GENERAL NOTE:

A. REFER TO SHEETS AM2-001 & AM2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

B. FIRE RATED WALLS ARE DESIGNATED WITH SHADING.



2 KEY PLAN

SCALE: NTS

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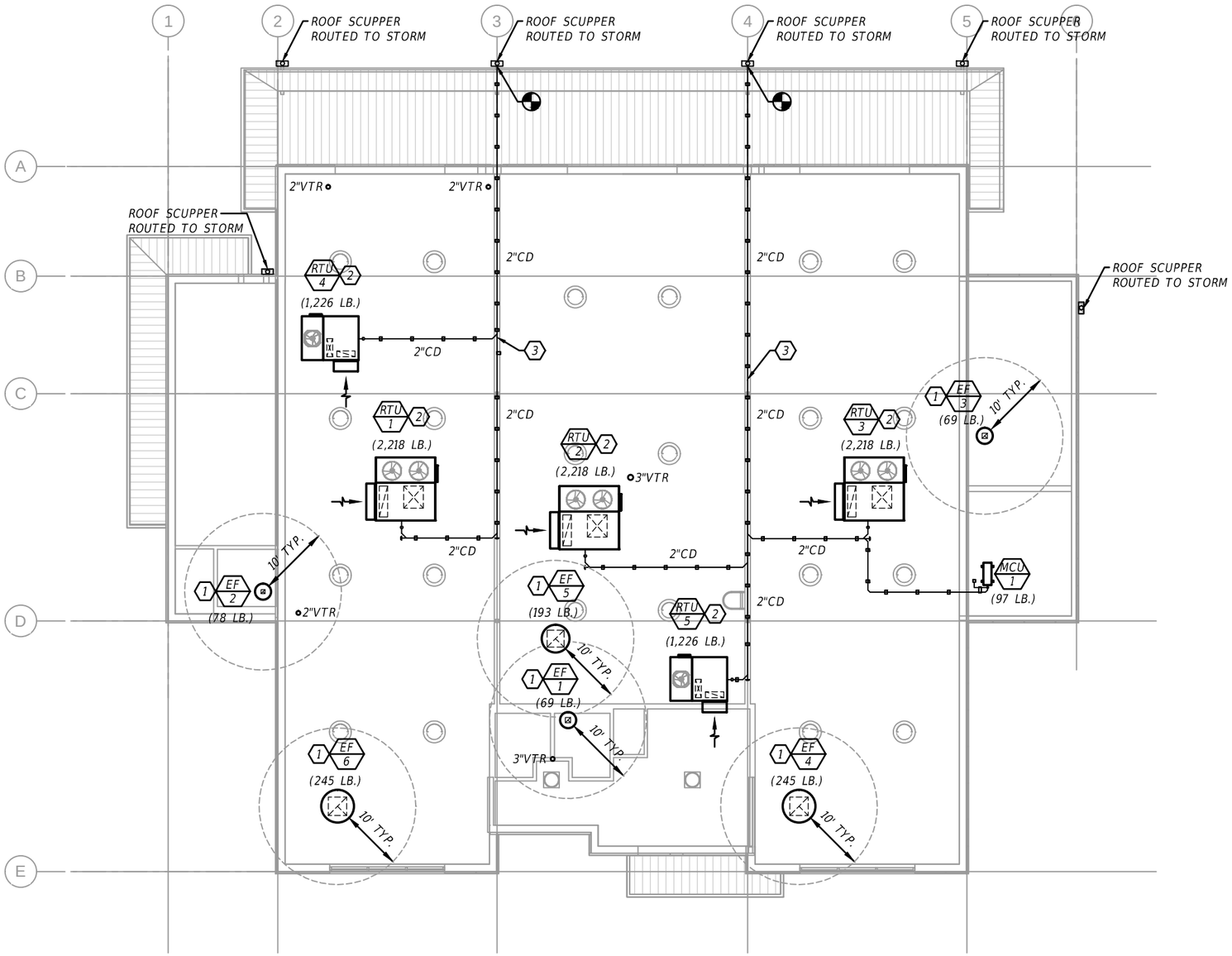
SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - MECHANICAL

SHEET NO.

AM2-204

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1 OVERALL ROOF PLAN - MECHANICAL

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REFERENCE NOTES:

1. EXHAUST FAN OUTLET TO BE A MINIMUM 10'-0" AWAY FROM ROOF TOP UNITS OUTSIDE AIR INTAKE OR AT LEAST 3'-0" ABOVE.
2. MOUNT ROOF TOP UNIT PER DETAIL SHEET AM2-406. SEE STRUCTURAL PLANS FOR FRAMING, SUPPORT, AND TIE DOWN DETAILS.
3. ROUTE ROOF TOP UNIT CONDENSATE PIPING ALONG ROOF TO ROOF SCUPPER ROUTED TO STORM. SUPPORT CONDENSATE PIPING PER DETAIL SHEET AM2-405.

GENERAL NOTES:

A. SEE ARCHITECTURAL PLANS FOR OSHA HARNESS TIE-OOF POINT LOCATIONS.

B. REFER TO SHEETS AM2-001 & AM2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

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SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL ROOF PLAN - MECHANICAL

SHEET NO. AM2-205

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MINI-SPLIT AIR HANDLING UNIT SCHEDULE

		FAN				COOLING COIL				FILTERS		ELECTRIC HEATING COIL			SINGLE POINT UNIT ELEC. REQUIREMENTS			UNIT INFORMATION				
MARK	LOCATION SERVED	TOTAL AIR FLOW (CFM)	OUTSIDE AIR FLOW (CFM)	EXTERNAL STATIC PRESS. (IN.WG.)	FLA	ENTERING AIR TEMP. (F° DB/WB)	LEAVING AIR TEMP. (F° DB/WB)	TOTAL CAPACITY (BTUH)	SENSIBLE CAPACITY (BTUH)	TYPE	EFFICIENCY	TOTAL CAPACITY (BTUH)	VOLTS/ PHASE	HEATER AMPS	VOLTAGE/ PHASE	SINGLE CIRCUIT MCA	SINGLE CIRCUIT MOCP	UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	NOTES
MAU-1	ELECTRICAL	579	-	-	0.57	80.0/67.0	56.0/54.0	22,000	16,120	INTERNAL	25%-30%	-	-	-	208/1○	1	15	12"x39"x11"	27	DAIKIN OR EQUAL	FTKN24NMVJU	1., 2., & 3.

NOTES:

1. POWER FOR INDOOR UNIT PROVIDED FROM EXTERIOR CONDENSER. ELECTRICAL CONTRACTOR TO PROVIDE POWER WIRING BETWEEN EACH UNIT IN FIELD.
2. ROUTE AND SIZE REFRIGERANT LINES PER MANUFACTURERS REQUIREMENTS.
3. PROVIDE CONDENSATE PUMP SAUERMANN Si-30.

MINI- SPLIT CONDENSING UNIT SCHEDULE

		COMPRESSOR			CONDENSER FANS		ELECTRICAL						UNIT INFORMATION				
MARK	LOCATION	OUTDOOR DESIGN TEMP. (F°)	QTY.	CAPACITY STEPS %	QTY.	NOMINAL HP	VOLTAGE/ PHASE	COMPRESSOR RLA/LRA	CONDENSER FANS QTY.	CONDENSER FANS F.L.A.	MCA	MOCP	SEER	UNIT SIZE (H"xW"xD")	OPERATING WEIGHT (LBS.)	MANUFACTURER	MODEL NUMBER	NOTES
MCU-1	ROOF	95	1	100	1	-	208/1○	12.0/-	1	-	18.3	20	15.0	29"x34"x13"	97	DAIKIN OR EQUAL	RKN24NMVJU	1.

NOTES:

1. PROVIDE COMPLETE WITH DISCONNECT SWITCH, TIME DELAY RELAY AND ANTI-SHORT CYCLE TIMER.

ROOF TOP UNIT SCHEDULE (HEAT PUMP)

	EVAPORATOR SECTION									HEAT PUMP PERFORMANCE					HEATER AUX. ELECTRIC		CONDENSER SECTION				ELECTRICAL REQUIERMENTS			UNIT WEIGHT (LBS.) W/14" CURB	UNIT EFF. (EER/IEER) (EER/SEER)*		
PLAN MARK	SUPPLY AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	E.A.T. (DB/WB)	L.A.T. (DB/WB)	TOTAL COOLING (BTU/HR)	SENSIBLE COOLING (BTU/HR)	E.S.P. (IN. OF WG.)	H.P.	R.P.M.	TOTAL CAPACITY (BTU/HR)	E.A.T.	L.A.T.	O.A.T.	COP @ 47° (EFF.)	HEATER (KW)	HEATER STAGES	NO. COMP.	COMPRESSOR RLA	NO. CONDENSER FANS	CONDENSER FAN FLA (EA.)	V/○	M.C.A.	M.O.C.P.			MANUFACTURER & MODEL NUMBER	NOTES
RTU-1	3,563	219	77.4/65.3	54.4/54.2	119,294	89,723	1.11	4	1,232	24,800	67.8	74.3	37.0	3.42	8	SCR Control	2	10.0/17.5	2	2.0	208/3○	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-2	2,966	186	77.3/64.4	51.4/51.2	113,599	84,024	1.10	4	1,152	17,800	57.7	63.3	37.0	3.42	6	SCR Control	2	10.0/17.5	2	2.0	208/3○	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-3	3,717	219	77.4/64.5	54.0/53.8	118,550	95,104	1.11	4	1,255	27,000	57.7	64.4	37.0	3.42	8	SCR Control	2	10.0/17.5	2	2.0	208/3○	107.2	110	2,218	11.7/18.0	DAIKIN DPS010A OR EQUAL	1. - 13.
RTU-4	1,084	231	79.5/66.3	52.2/52.2	45,924	32,357	1.35	2.3	1,801	14,700	62.8	75.4	37.0	3.94	5	SCR Control	1	10.0	1	0.9	208/3○	39.3	45	1,256	11.4/14.3*	DAIKIN DPS004A OR EQUAL	1. - 14.
RTU-5	699	78	78.2/65.1	49.5/49.5	31,505	21,920	1.34	1.3	1,856	9,900	66.0	79.1	37.0	4.06	3	SCR Control	1	7.7	1	0.9	208/3○	34.5	35	1,226	12.2/15.3*	DAIKIN DPS003A OR EQUAL	1. - 14.

NOTES:

1. DOUBLE WALL CONSTRUCTION.
2. 208/3 VOLTAGE SINGLE POINT POWER WITH NON-FUSED DISCONNECT.
3. PROVIDE LEED REQUIRED 2" MERV 8 PRE-FILTERS AND 4" MERV 13 FILTERS.
4. STAINLESS STEEL DRAIN PAN.
5. PLENUM SUPPLY FAN WITH ECM MOTOR.
6. PHASE FAILURE MONITOR.
7. FACTORY AUTHORIZED STARTUP.
8. INVERTER DUTY SCROLL.
9. ELECTROFIN E-COATED CONDENSER COILS.
10. 5 YEAR COMPRESSOR PARTS WARRANTY.
11. 14" HIGH WIND RATED VIBRO ACOUSTIC ROOF CURB.
12. BACNET CONTROLS.
13. PROVIDE VARIABLE SPEED EVAPORATOR FAN MOTOR WITH VFD DRIVE.
14. OUTSIDE AIR IS EXHAUST DRIVEN.

*EER/SEER IS FOR RTU-4 & RTU-5 ONLY

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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FLORIDA P.E. NO.: 69124
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM2-301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

AIR DEVICE SCHEDULE

	DESCRIPTION	FACE SIZE	NECK	MATERIAL	MANUFACTURER & MODEL NO.	NOTES
A	LOUVERED FACE SUPPLY DIFFUSER	24"x24"	SEE PLAN	ALUMINUM	PRICE #ASCD OR EQUAL	1., 2., 3., & 4.
B	LOUVERED FACE SUPPLY DIFFUSER	12"x12"	SEE PLAN	ALUMINUM	PRICE #ASCD OR EQUAL	1., 2., 3., & 4.
C	SPIRAL DUCT SUPPLY GRILLE	12"x6"	SEE PLAN	ALUMINUM	PRICE #SDGE OR EQUAL	1.
D	EGGCRATE RET./EXH. GRILLE (1/2"x1/2"x1/2")	24"x24"	SEE PLAN	ALUMINUM	PRICE #80 OR EQUAL	1. & 2.
E	EGGCRATE RET./EXH. GRILLE (1/2"x1/2"x1/2")	12"x12"	SEE SCHED.	ALUMINUM	PRICE #80 OR EQUAL	1. & 2.

NOTES:
1. COORIDINATE SURFACE FINISHES WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE RAPID MOUNT FRAME FOR PLASTER AND SHEET ROCK CEILINGS.
3. SUPPLY COMPLETE FACTORY INSTALLED 1/2" THICK FOIL BACKED INSULATION.
4. PROVIDE REMOTE DAMPERS FOR AIR DEVICE IN HARD CEILING.

FLEX DUCT SCHEDULE

CFM	FLEX SIZE
0 - 100	6"∅
101 - 200	8"∅
201 - 400	10"∅
401 - 600	12"∅
601 - 900	14"∅
901 - 1,300	16"∅
1,300 - 1,700	18"∅

FAN SCHEDULE

MARK	AREA SERVED	TYPE	CFM	T.S.P.	HP/WATTS	R.P.M.	VOLTS/PH	SONES	WEIGHT	MANUFACTURER & MODEL NO.	NOTES
EF-1	RESTROOM	DOWNBLAST	225	0.5	1/4 HP	1,484	120/1∅	7.8	69	GREENHECK G-097-VG OR EQUAL	1., 2., 3., 4., & 7.
EF-2	RESTROOM	DOWNBLAST	75	0.5	1/4 HP	1,100	120/1∅	4.3	78	GREENHECK G-097-B OR EQUAL	1., 2., 3., 4., & 7.
EF-3	YARD STORAGE	DOWNBLAST	225	0.5	1/4 HP	1,484	120/1∅	7.8	69	GREENHECK G-097-VG OR EQUAL	1., 2., 3., 4., & 7.
EF-4	TECH 1 STORAGE	DOWNBLAST	6,000	1.0	3 HP	699	208/3∅	14.6	245	GREENHECK GB-260-30 OR EQUAL	1., 3., 4., 5., 6., & 7.
EF-5	FTE STORAGE	DOWNBLAST	5,000	1.0	2 HP	846	208/3∅	15.2	193	GREENHECK GB-240-20 OR EQUAL	1., 3., 4., 5., 6., & 7.
EF-6	TECH 2 STORAGE	DOWNBLAST	6,000	1.0	3 HP	699	208/3∅	14.6	245	GREENHECK GB-260-30 OR EQUAL	1., 3., 4., 5., 6., & 7.

NOTES:
1. EXHAUST FAN TO BE CONTROLLED BY SMART LINK PANEL. SEE SYSTEM DETAILS AND CONTROLS SEQUENCE.
2. PROVIDE FAN WITH SINGLE POINT WIRING AND ELECTRICAL DISCONNECT.
3. PROVIDE FAN WITH ROOF CURB. SEE STRUCTURAL PLANS FOR FAN TIE DOWN INFORMATION.
4. PROVIDE CT'S FOR EXHAUST FAN.
5. INTERLOCK EXHAUST FAN CONTROLS WITH ASSOCIATED BAY ROOF TOP UNIT. EXHAUST FAN SHALL NOT OPERATE WHILE ROOF TOP UNIT IS ENERGIZED.
6. PROVIDE EXHAUST FAN WITH SINGLE POINT WIRING AND COMBINATION MOTOR STARTER DISCONNECT WITH 24V COIL.
7. EXHAUST FAN TO BE FLORIDA PRODUCT APPROVED FOR HIGH WIND APPLICATIONS. ALL ROOF MOUNTED FANS ARE IMPACT RATED.

REVISIONS

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM2-302

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AIR BALANCE
(TRANSPONDER PICK-UP)

EXHAUST:	
EF-2	75 CFM
EXHAUST TOTAL:	75 CFM
MAKEUP AIR:	
RTU-5	78 CFM
MAKEUP TOTAL:	78 CFM

BUILDING PRESSURE = +3
(WITH ALL FANS ACTIVATED)

AIR BALANCE
(WAITING AREA)

EXHAUST:	
EF-1	225 CFM
EXHAUST TOTAL:	225 CFM
MAKEUP AIR:	
RTU-4	231 CFM
MAKEUP TOTAL:	231 CFM

BUILDING PRESSURE = +6
(WITH ALL FANS ACTIVATED)

OUTSIDE AIR CALCULATIONS (RTU-5)

CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT. (PERSONS)	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
		Rp	Ra	Az	Pz		
OFFICE	5	5	0.06	621	3	66	78
TOTAL	-	-	-	621	3	66	78

NOTE:
E(z) FACTOR = 0.8

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vbz = Rp * Pz + Ra * Az
Vot = Vbz / E(z) Pz = OCCUPANCY FACTOR * SPACE AREA

OUTSIDE AIR CALCULATIONS (RTU-4)

CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT. (PERSONS)	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
		Rp	Ra	Az	Pz		
LOBBY	10	5	0.06	740	6	94	231
TOTAL	-	-	-	740	6	94	231

NOTE:
E(z) FACTOR = 0.8

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vbz = Rp * Pz + Ra * Az
Vot = Vbz / E(z) Pz = OCCUPANCY FACTOR * SPACE AREA

OUTSIDE AIR CALCULATIONS (RTU-3)

CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT. (PERSONS)	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
		Rp	Ra	Az	Pz		
MULTI-USE ASSEMBLY	2	7.5	0.06	2,539	3	219	219
TOTAL	-	-	-	2,539	3	219	219

NOTE:
E(z) FACTOR = 0.8

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vbz = Rp * Pz + Ra * Az
Vot = Vbz / E(z) Pz = OCCUPANCY FACTOR * SPACE AREA

OUTSIDE AIR CALCULATIONS (RTU-2)

CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT. (PERSONS)	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
		Rp	Ra	Az	Pz		
MULTI-USE ASSEMBLY	2	7.5	0.06	2,101	3	186	186
TOTAL	-	-	-	2,101	3	186	186

NOTE:
E(z) FACTOR = 0.8

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vbz = Rp * Pz + Ra * Az
Vot = Vbz / E(z) Pz = OCCUPANCY FACTOR * SPACE AREA

OUTSIDE AIR CALCULATIONS (RTU-1)

CLASSIFICATION	OCC. FACTOR OCCUPANCY/ 1000 SQFT. (PERSONS)	ASHRAE 62 VALUES PER TABLE 6-1		SPACE AREA (SQFT)	SPACE LOAD (PERSONS)	OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR SUPPLIED (CFM)
		Rp	Ra	Az	Pz		
MULTI-USE ASSEMBLY	2	7.5	0.06	2,539	3	219	219
TOTAL	-	-	-	2,539	3	219	219

NOTE:
E(z) FACTOR = 0.8

REQUIRED OUTDOOR VENTILATION AIR VALUES TAKEN FORM ASHRAE 62, TABLE 6-1.
VENTILATION BREATHING ZONE FORMULA: Vbz = Rp * Pz + Ra * Az
Vot = Vbz / E(z) Pz = OCCUPANCY FACTOR * SPACE AREA

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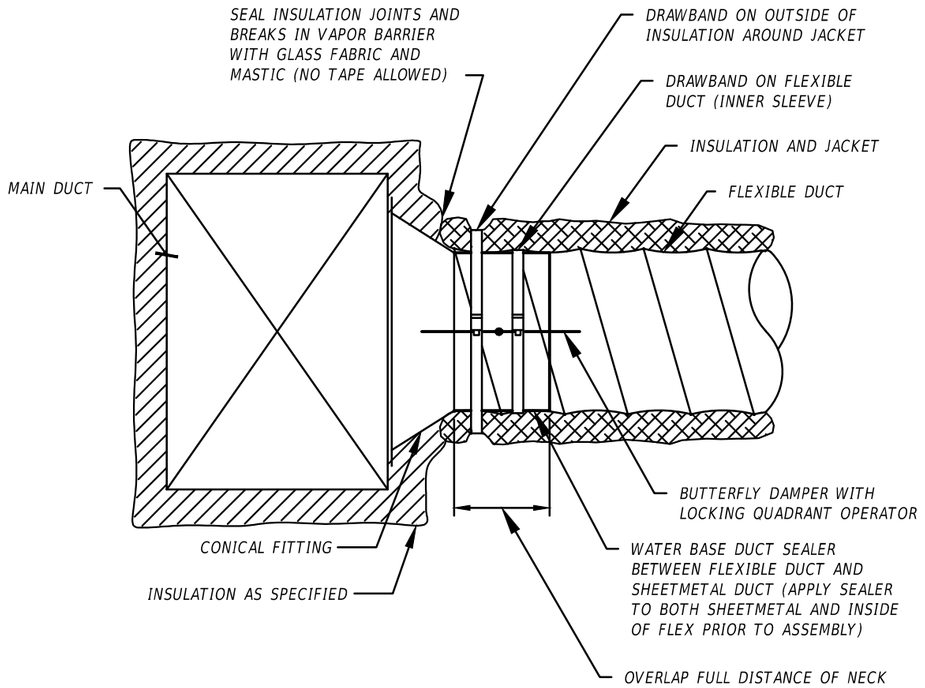
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - MECHANICAL

SHEET NO.
AM2-303

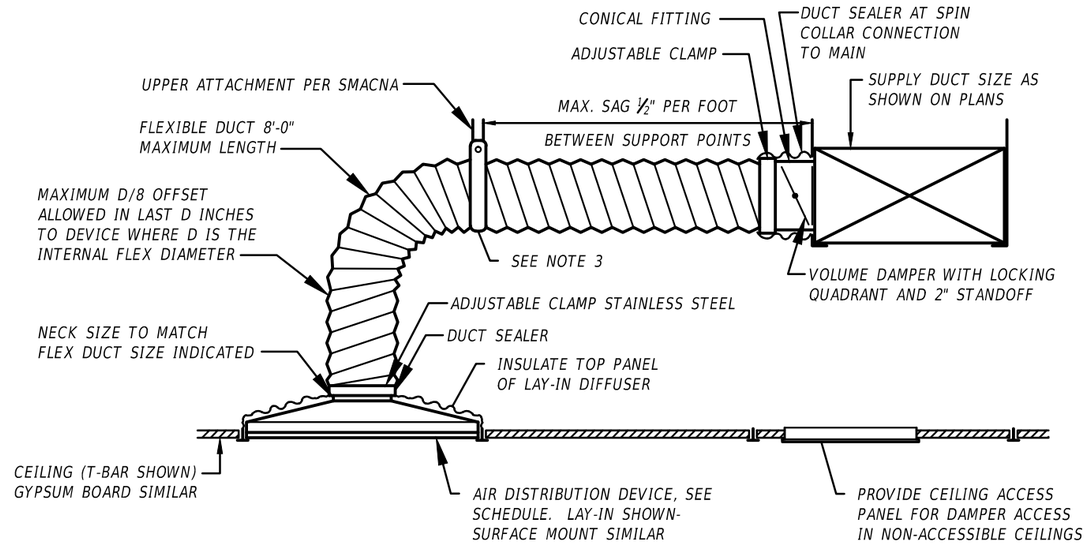
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NOTES:

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.

2 NTS — FLEXIBLE DUCT CONNECTION DETAIL



NOTES:

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MINIMUM 1-1/2" WIDE 22 GAUGE GALVANIZED STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D=1.0.

1 NTS — FLEXIBLE DUCT DETAIL

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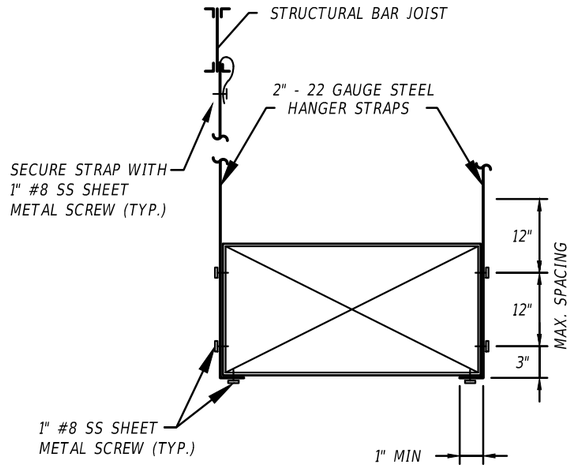
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

DETAILS - MECHANICAL

SHEET NO.
AM2-401

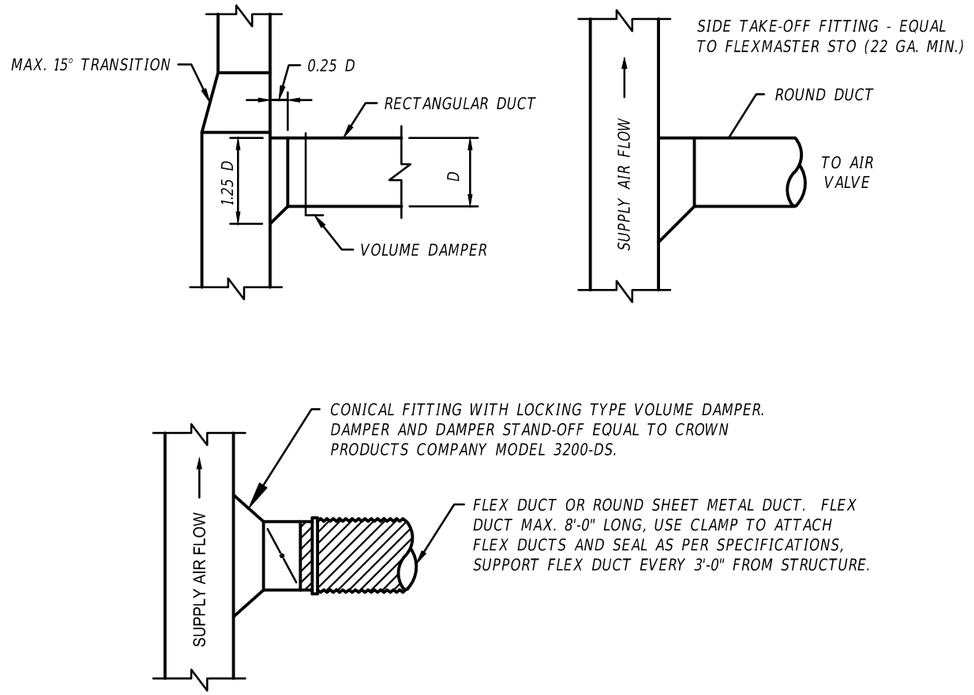
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NOTES:

1. MAXIMUM SPACING BETWEEN HANGER LOCATIONS SHALL BE 8'-0" PER PAIR.
2. STRAPS SHALL BE MINIMUM 2" x 22 GAUGE GALVANIZED STEEL.
3. REFER TO SMACNA FOR ADDITIONAL REQUIREMENTS.

2 NTS DUCTWORK SUPPORT DETAIL



1 NTS DUCT CONNECTION DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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NA	POLK	437300-1-52-01

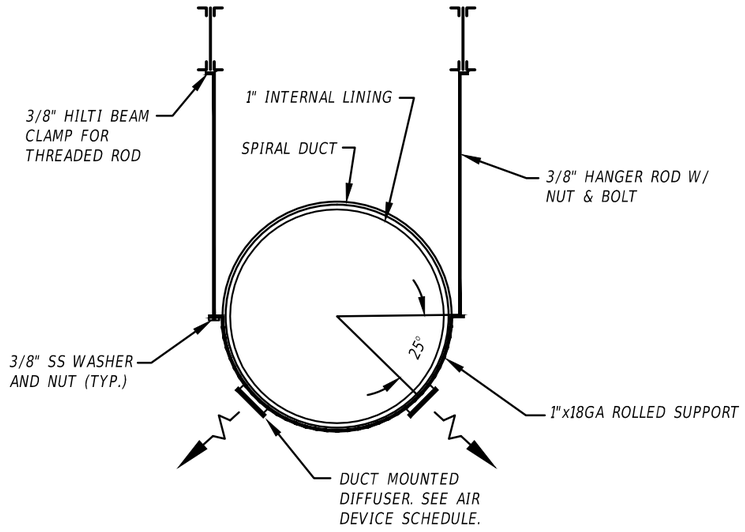
SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - MECHANICAL

SHEET NO.

AM2-402

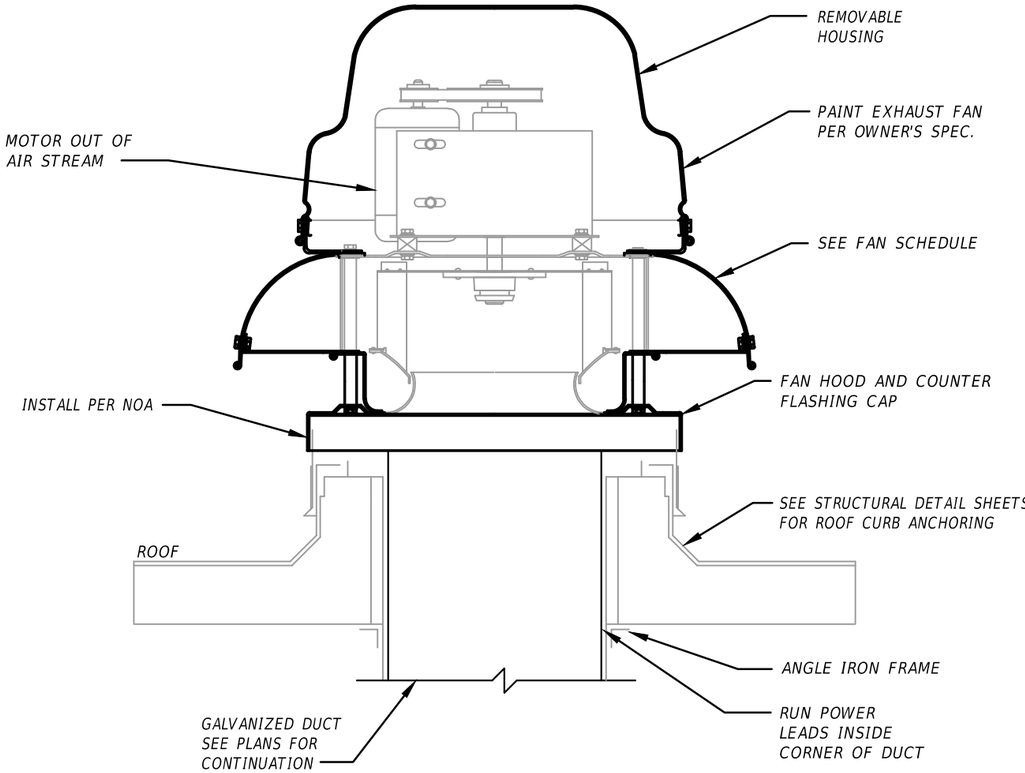
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NOTES:

1. MAXIMUM SPACING BETWEEN HANGER LOCATIONS SHALL BE 8'-0" PER PAIR.
2. REFER TO SMACNA FOR ADDITIONAL REQUIREMENTS.

2 NTS SPIRAL DUCTWORK SUPPORT DETAIL



NOTE:

1. ALL FANS ON THIS PROJECT ARE IMPACT RATED.

1 NTS CENTRIFUGAL ROOF FAN DETAIL

REVISIONS			
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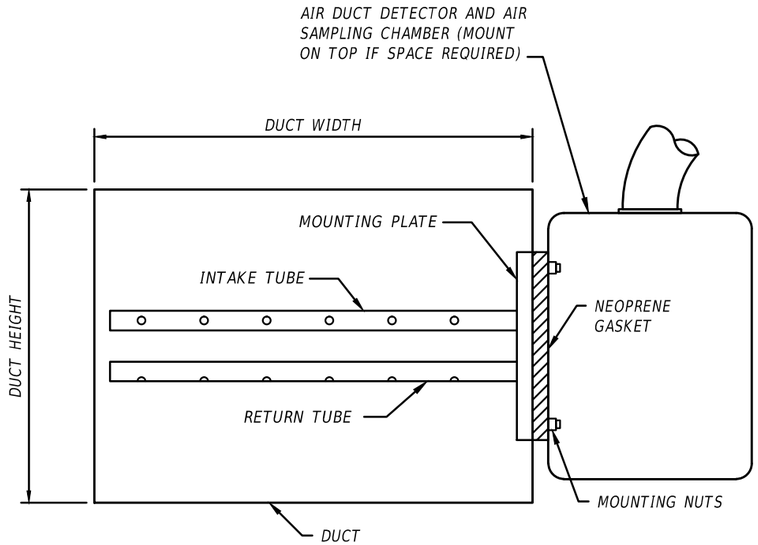
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

DETAILS - MECHANICAL

SHEET NO.
AM2-403

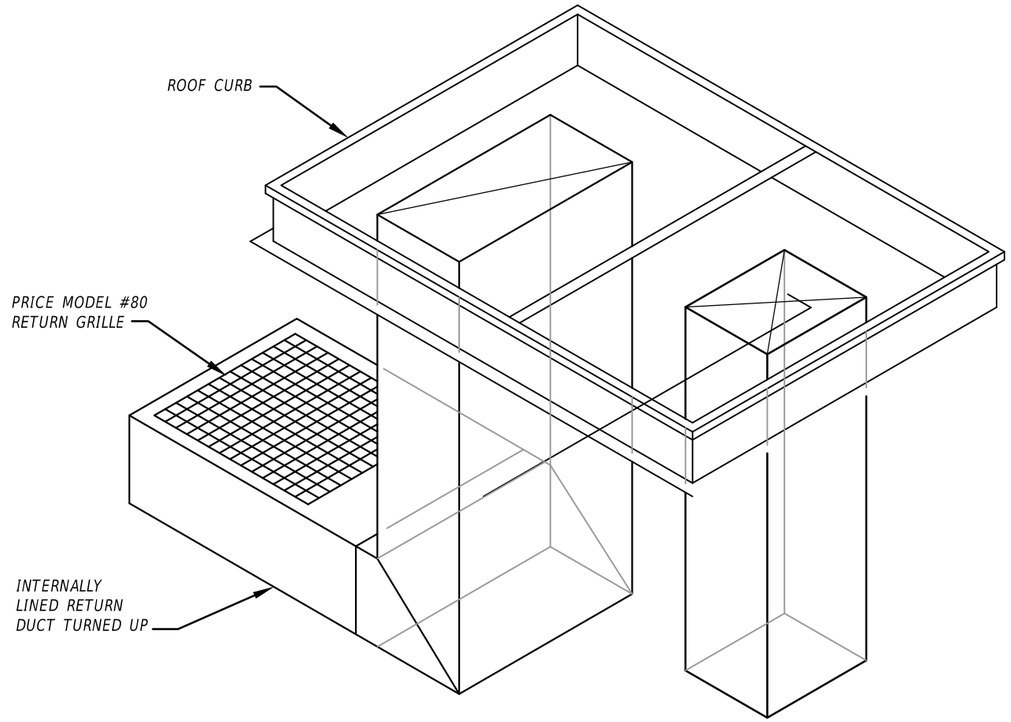
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NOTES:

1. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
2. PROVIDE ACCESS DOOR AT SAMPLING TUBES.

2 NTS SMOKE DETECTOR DETAIL



1 NTS RTU RETURN DUCT DETAIL

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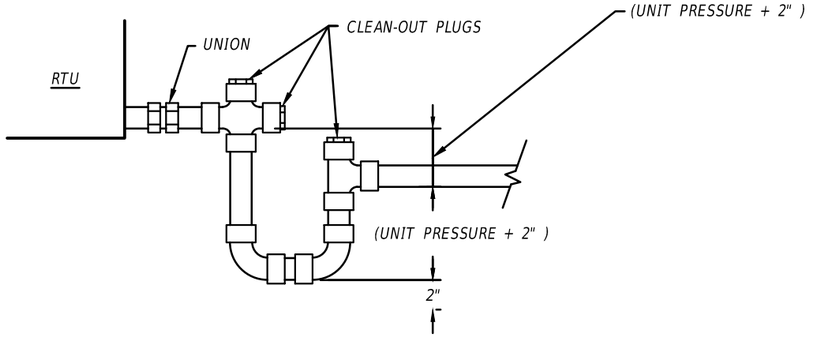
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - MECHANICAL

SHEET NO. AM2-404

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NOTES:

1. CONDENSATE DRAIN SHALL BE PIPED FULL SIZE OF UNIT CONNECTION.
2. CONDENSATE LINES SHALL BE INSTALLED WITH ADEQUATE PITCH TO ENSURE POSITIVE DRAINAGE OF ACCUMILATED CONDENSATE.
3. TRAP CONDENSATE AND DISCHARGE PER PLAN.

2 NTS — CONDENSATE DRAIN DETAIL

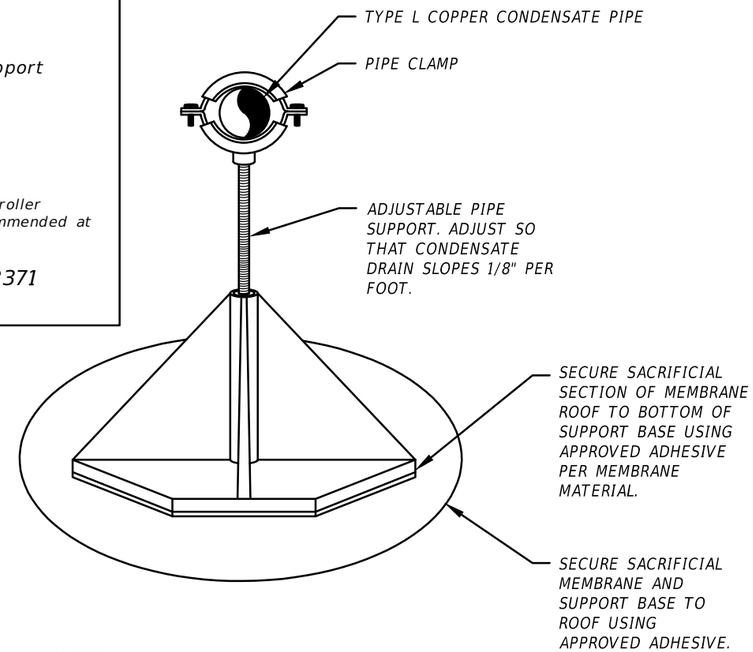
Condensate Piping Supports
MAPA Model MS-1

Spacing for MS-1 condensate support
Copper

Pipe IPS	
1-1/2" and smaller	5'
2"	8'
2" and larger	10'

Maximum recommended spacing on all roller supports is 10' Additional support recommended at each change of direction

MAPA Products / 877-897-2371
Naples, Texas



NOTES:

1. SUPPORTS SHALL BE INSTALLED PER SCHEDULE.

1 NTS — CONDENSATE PIPE SUPPORT DETAIL

REVISIONS			
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

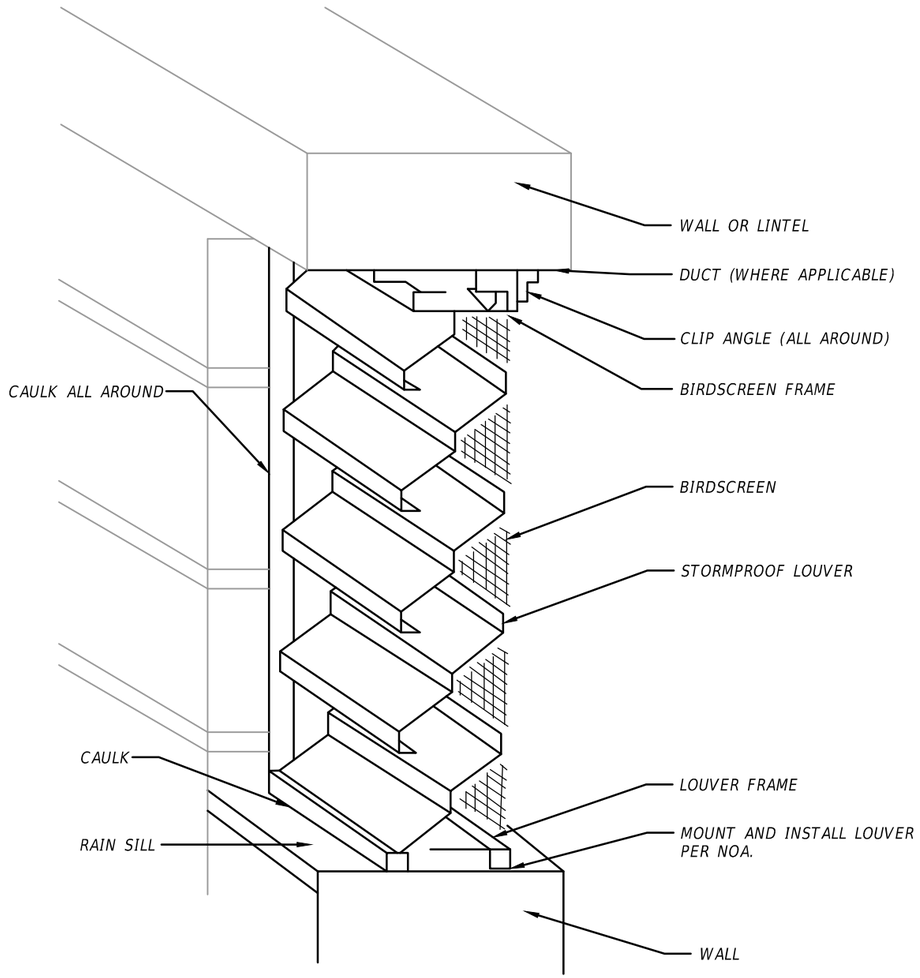
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

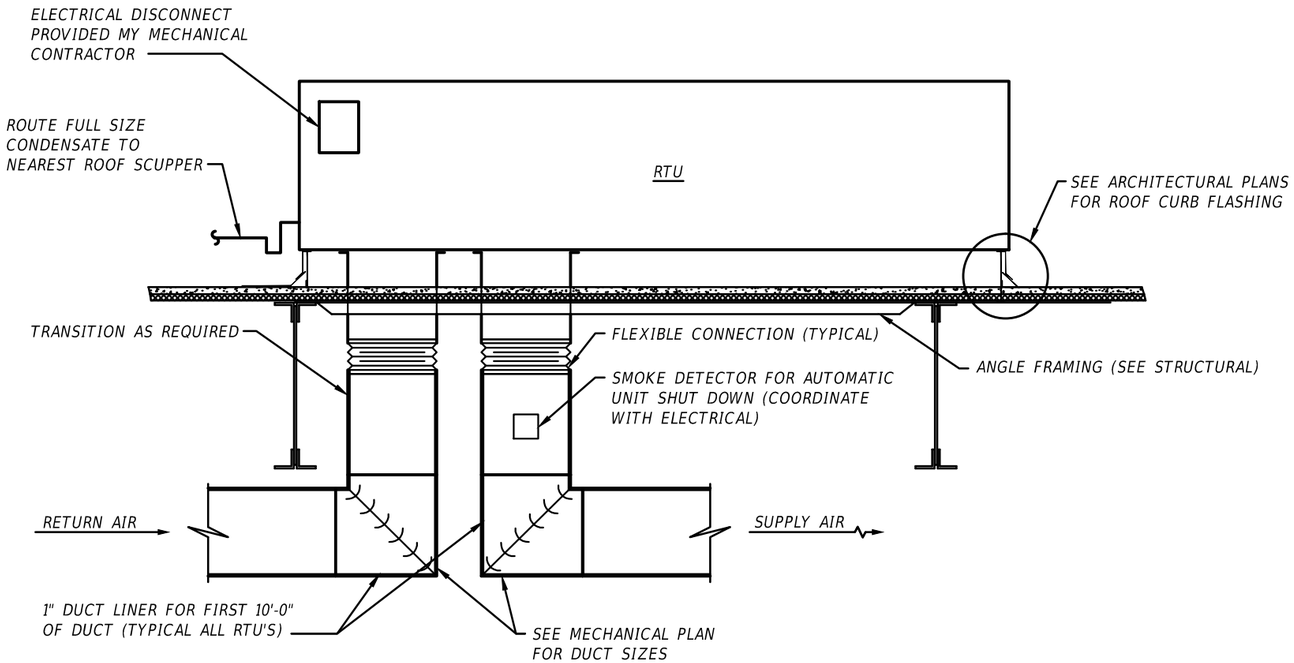
DETAILS - MECHANICAL

SHEET NO.
AM2-405

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



2 NTS TYPICAL WALL LOUVER DETAIL



NOTE:
1. SEE STRUCTURAL PLANS FOR ROOF TOP UNIT FRAMING, SUPPORT, AND TIE DOWN DETAILS.

1 NTS RTU INSTALLATION DETAIL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

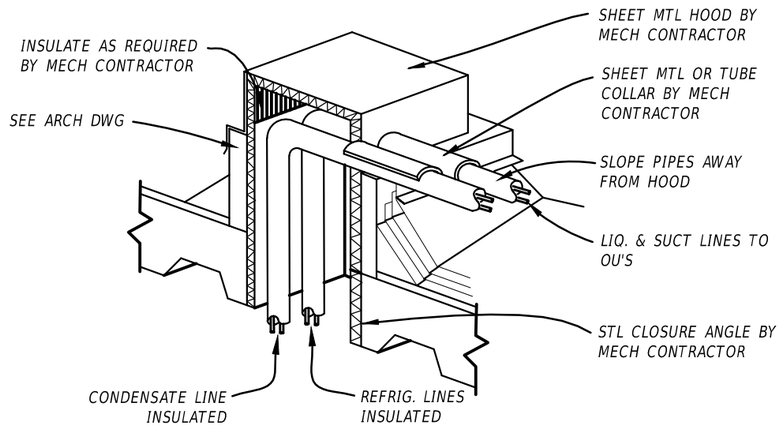
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

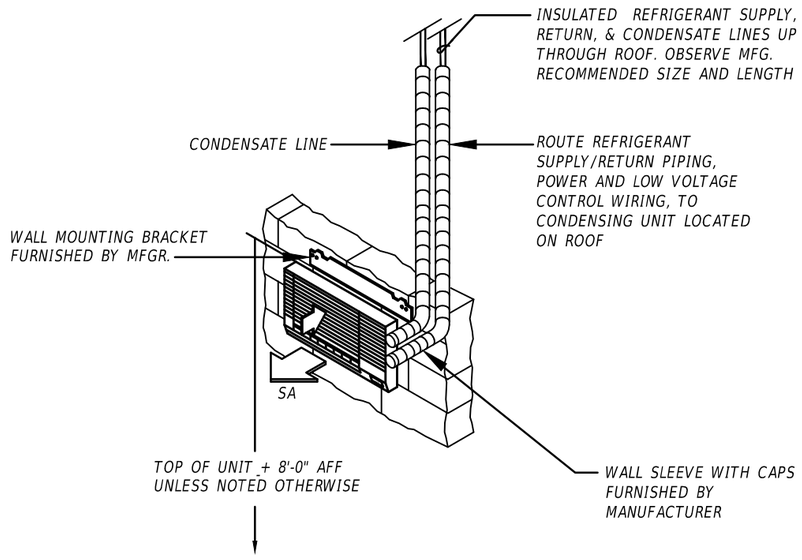
DETAILS - MECHANICAL

SHEET NO.
AM2-406

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

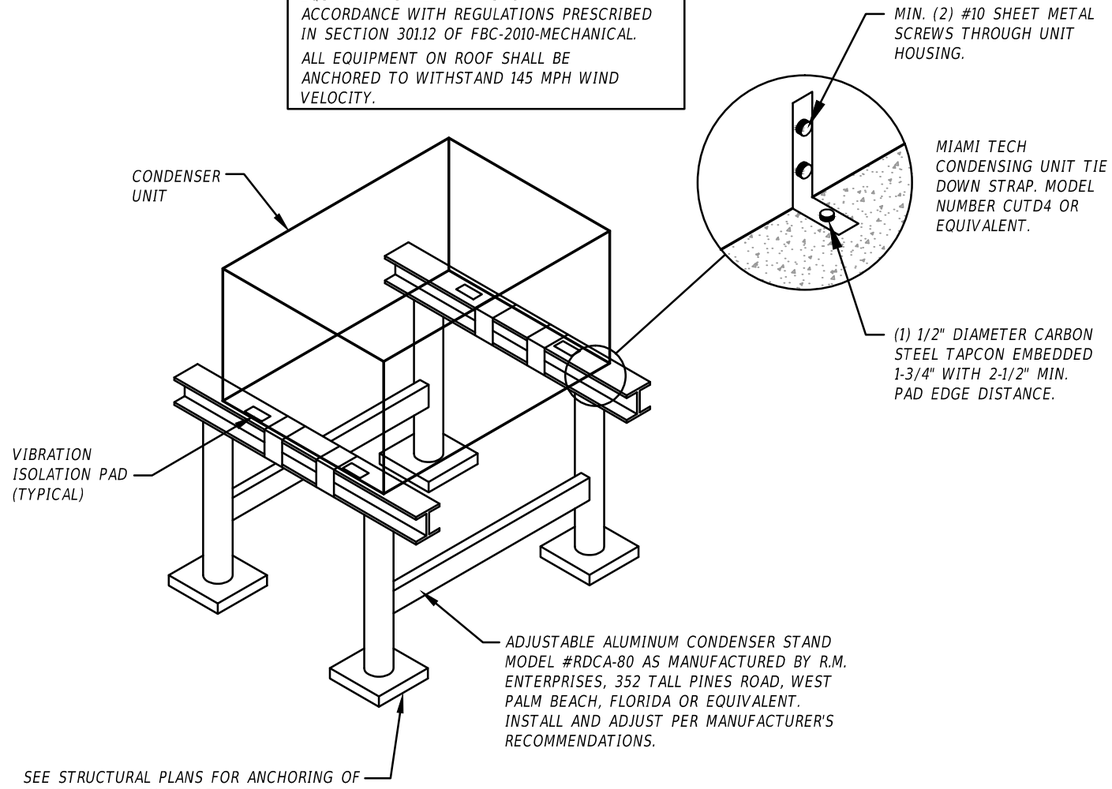


3 NTS — REFRIGERANT PIPING THRU ROOF DETAIL



2 NTS — WALL MOUNTED SPLIT SYSTEM SUPPORT DETAIL

NOTE:
EQUIPMENT SHALL BE ANCHORED IN ACCORDANCE WITH REGULATIONS PRESCRIBED IN SECTION 301.12 OF FBC-2010-MECHANICAL.
ALL EQUIPMENT ON ROOF SHALL BE ANCHORED TO WITHSTAND 145 MPH WIND VELOCITY.



CLEARANCE BELOW RAISED ROOF MOUNTED MECHANICAL UNITS	
WIDTH OF EQUIPMENT (IN)	HEIGHT OF LEGS (IN)
< 24	14
25 < 36	18
36 < 48	24
48 < 60	30
> 60	48

1 NTS — CONDENSER RACK DETAIL

REVISIONS			
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

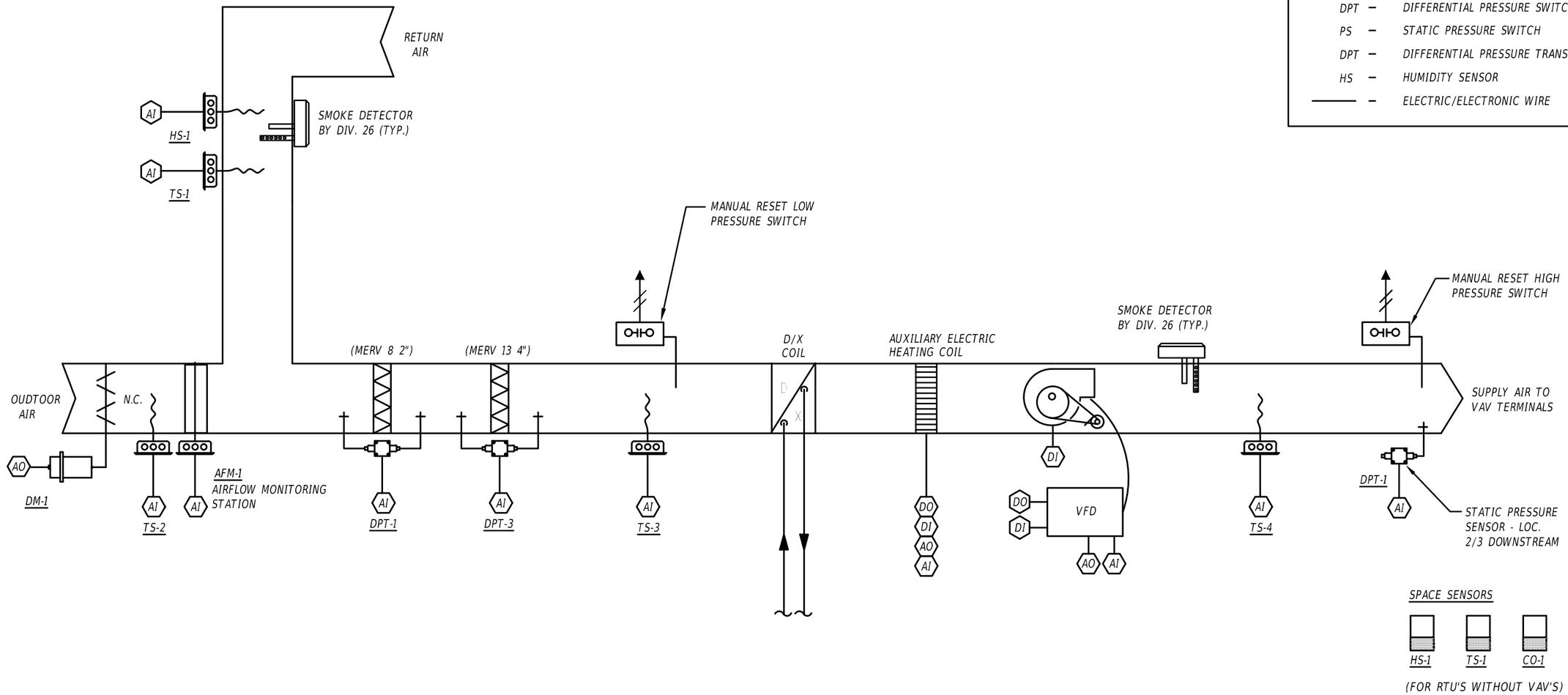
DETAILS - MECHANICAL

SHEET NO.
AM2-407

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CONTROLS LEGEND

⬡	–	INPUT/OUTPUT POINT TO DDC CONTROL PANEL
TS	–	TEMPERATURE SENSOR
DI	–	DIGITAL INPUT
DO	–	DIGITAL OUTPUT
AI	–	ANALOG INPUT
AO	–	ANALOG OUTPUT
DPT	–	DIFFERENTIAL PRESSURE SWITCH
PS	–	STATIC PRESSURE SWITCH
DPT	–	DIFFERENTIAL PRESSURE TRANSMITTER
HS	–	HUMIDITY SENSOR
———	–	ELECTRIC/ELECTRONIC WIRE



SPACE SENSORS

HS-1 TS-1 CO-1

(FOR RTU'S WITHOUT VAV'S)

1 ROOF MOUNTED RTU'S (SINGLE ZONE VAV)

NTS

REVISIONS			
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STATE OF FLORIDA
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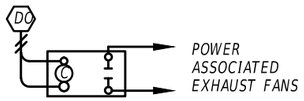
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

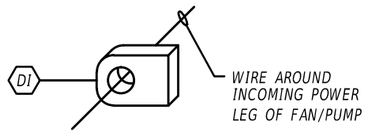
CONTROLS - MECHANICAL

SHEET NO.
AM2-501

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



2 NTS FAN INTERLOCK DETAIL



1 NTS TYPICAL FAN MONITORING DETAIL

REVISIONS			
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CONTROLS - MECHANICAL

SHEET NO.
AM2-502

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

BUILDING CONTROLS SEQUENCE

CONTROLS SYSTEM ARCHITECTURE

THE SYSTEM SHALL CONSIST OF A WIRED MICROPROCESSOR BASED BUILDING CONTROL UNIT CAPABLE OF CONTROLLING ALL ASPECTS OF THE HVAC SYSTEMS WITHIN THE BUILDINGS. THE UNIT WILL BE LOCATED IN THE OPERATIONS BUILDING STORAGE ROOM-35 AND HAVE TWO MODES. ONE "OCCUPIED MODE" FOR WHEN THE BUILDINGS ARE IN USE AND ONE "UNOCCUPIED MODE" FOR WHEN THE BUILDINGS ARE NOT IN USE.

OCCUPIED MODE:

WHEN THE BUILDING IS OCCUPIED (HOURS TO BE DETERMINED BY BUILDING OPERATIONS) THE ROOF TOP UNITS, ZONE VAV BOXES AND EXHAUST FANS SHALL OPERATE AS FOLLOWS:

SINGLE ZONE RTU'S (STORAGE BUILDING) SHALL OPERATE CONTINUOUSLY BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF 75 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY.

MULTI ZONE RTU'S (OPERATIONS BUILDING) SHALL OPERATE CONTINUOUSLY BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN THE DUCTWORK STATIC PRESSURE SETPOINT (1.25" WG) AND SUPPLY TEMPERATURE SETPOINT (53°F). ZONE VAV BOXES SHALL MODULATE TO MAINTAIN A BASELINE SPACE TEMPERATURE SETPOINT OF 75 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY (SUMMER) AND 70 DEGREES FAHRENHEIT AND 50% RELATIVE HUMIDITY (WINTER). IF MORE THAN 2/3 OF OF THE ZONE VAV BOXES CALL FOR HEATING, THE RTU SHALL CHANGEOVER TO HEATING (HEAT PUMP MODE).

UNOCCUPIED MODE:

WHEN THE BUILDING IS UNOCCUPIED (HOURS TO BE DETERMINED BY BUILDING OPERATIONS) THE ROOF TOP UNITS, ZONE VAV BOXES AND EXHAUST FANS SHALL OPERATE AS FOLLOWS:

SINGLE ZONE RTU'S (STORAGE BUILDING) SHALL OPERATE AS REQUIRED BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF 82 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY.

MULTI ZONE RTU'S (OPERATIONS BUILDING) SHALL OPERATE AS REQUIRED BY MODULATING THE SUPPLY AIRFLOW AND REFRIGERATION COMPRESSORS TO MAINTAIN THE DUCTWORK STATIC PRESSURE SETPOINT (1.25" WG) AND SUPPLY TEMPERATURE SETPOINT (53°F). ZONE VAV BOXES SHALL MODULATE TO MAINTAIN A BASELINE SPACE TEMPERATURE SETPOINT OF 82 DEGREES FAHRENHEIT AND 55% RELATIVE HUMIDITY (SUMMER) AND 70 DEGREES FAHRENHEIT AND 50% RELATIVE HUMIDITY (WINTER). IF MORE THAN 2/3 OF OF THE ZONE VAV BOXES CALL FOR HEATING, THE RTU SHALL CHANGEOVER TO HEATING (HEAT PUMP MODE).

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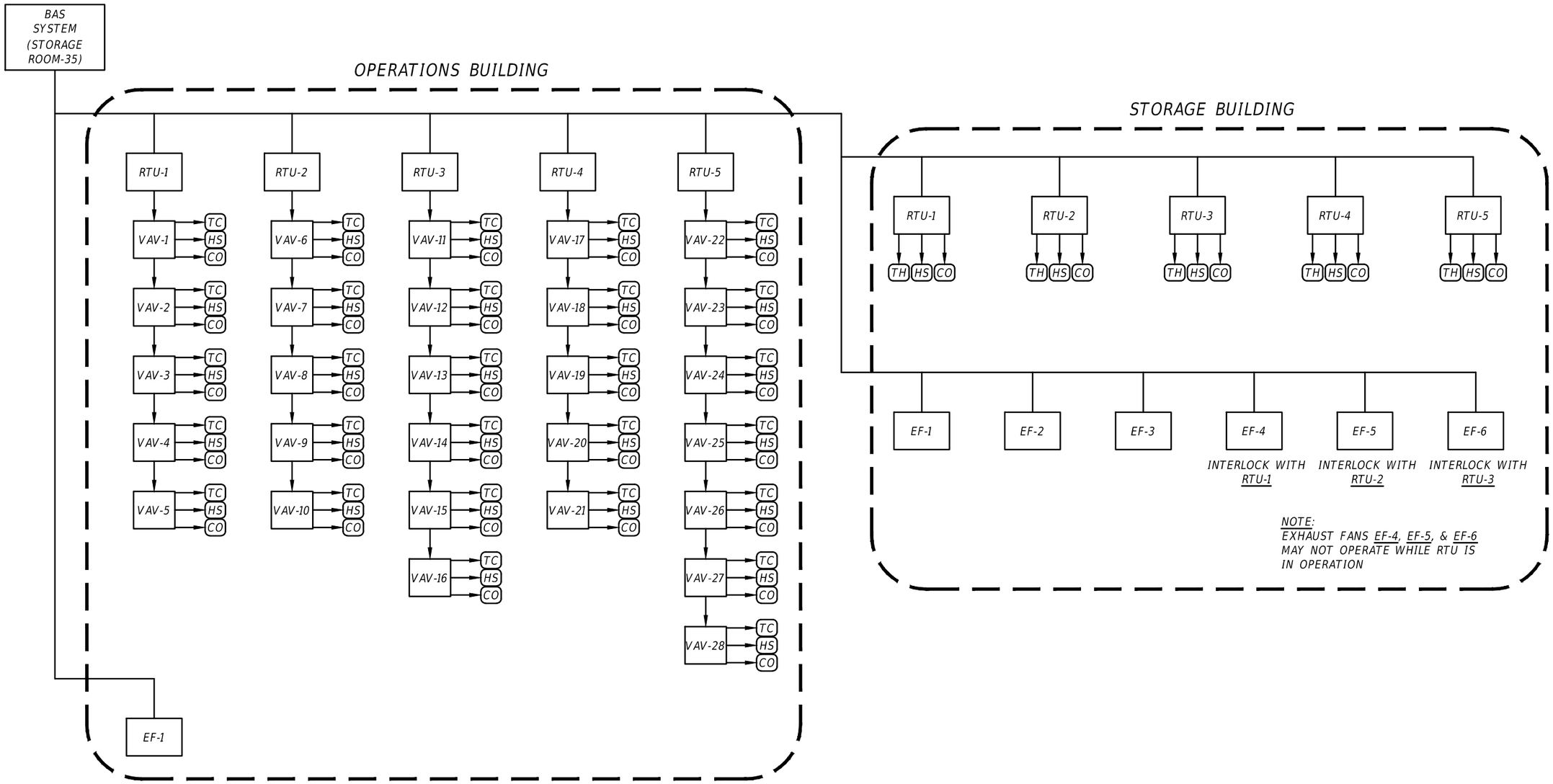
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

CONTROLS - MECHANICAL

SHEET NO.
AM2-503

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CONTROLS - MECHANICAL

SHEET NO.

AM2-504

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LEGEND

- DIRECTION OF FLOW IN PIPE
- PITCH PIPE DOWN IN DIRECTION OF ARROW
- PIPE UP
- PIPE DOWN
- BALL VALVE
- CHECK VALVE, HORIZONTAL SWING
- GATE VALVE
- CAPPED LINE
- SAN — SANITARY SEWER (ABOVE GRADE)
- SAN — SANITARY SEWER (BELOW GRADE)
- DOMESTIC COLD WATER
- CD — CONDENSATE DRAIN (BELOW GRADE)
- CD — CONDENSATE DRAIN (ABOVE GRADE)
- VENT
- ΔT — DELTA T (TEMPERATURE DIFFERENCE)
- A / B — PHOTO DETAIL OR SECTION IDENTIFICATION TARGET
  A = DETAIL NUMBER.
  B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.
- HB — HOSE BIBB
- FD — FLOOR DRAIN
- HD — HUB DRAIN
- FLOOR CLEANOUT
- CLEANOUT
- EXTERIOR CLEANOUT
- HORIZONTAL CLEANOUT
- SHOCK ABSORBER

GENERAL NOTES

1. ALL SANITARY PIPING SHALL HAVE A 1/8" PER FOOT SLOPE UNLESS OTHERWISE NOTED.
2. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
3. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS SPECIFIED.
4. ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
5. CHANGES IN THE DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (IE: USE OF SANITARY TEE IN A HORIZONTAL CONNECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF SHORT-RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
6. ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
7. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF PLUMBING FIXTURE MOUNTING HEIGHTS, AND DIMENSIONS.
8. ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
9. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
10. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
11. PROVIDE 1/2" C.W. SUPPLY WITH ANGLE STOP AND FLEXIBLE SUPPLY TO REFRIGERATORS WITH ICE MAKERS AT HEIGHT REQUIRED BY MANUFACTURER OF EQUIPMENT INSTALLED.
12. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE PLACED ON THE INTERIOR SIDE OF THE WALL, SO THAT WALL INSULATION CAN BE PLACED ON THE EXTERIOR SIDE OF THE PIPING.

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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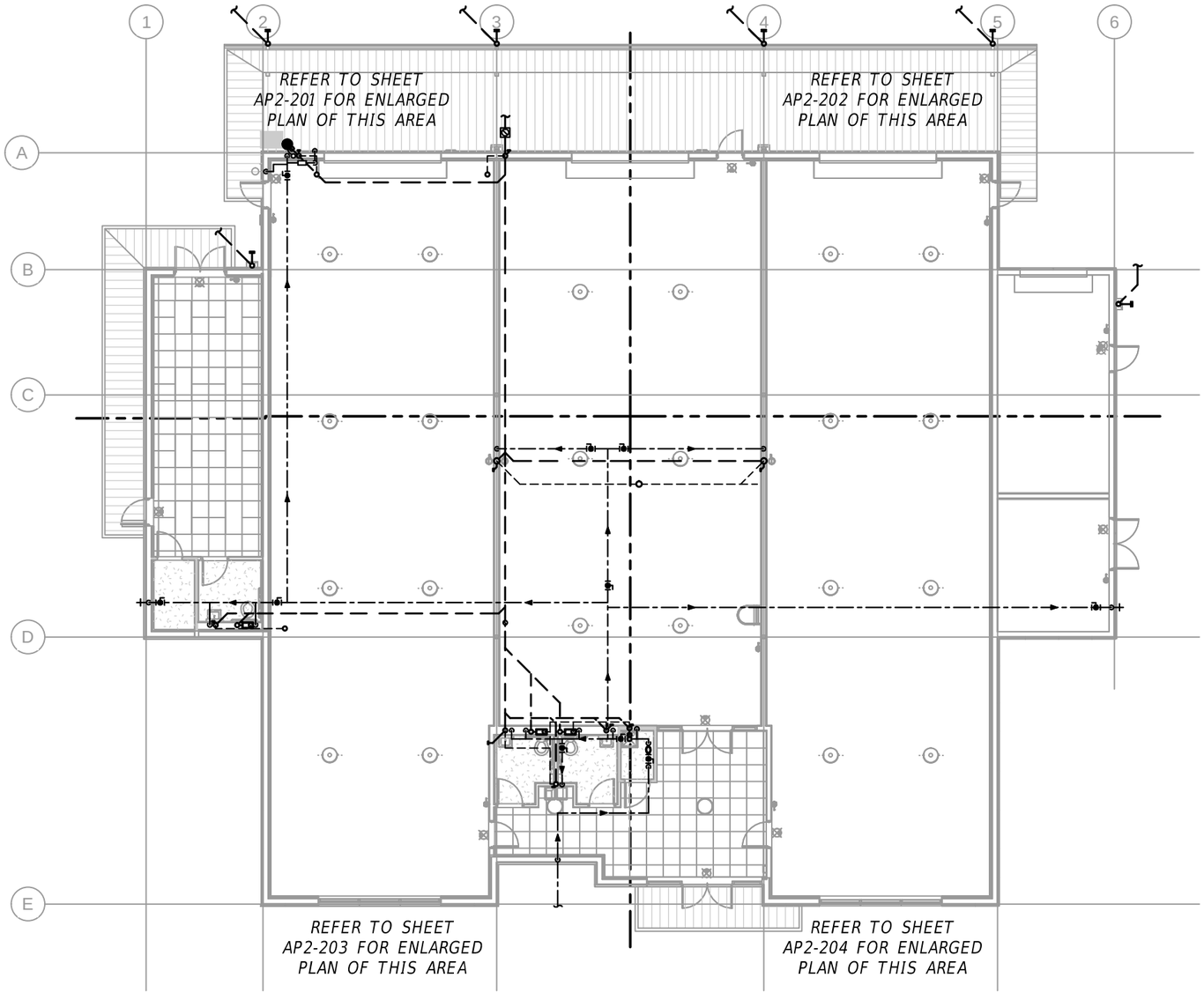
SUNTRAX TEST FACILITY STORAGE BUILDING

SYMBOL LEGEND & GENERAL NOTES - PLUMBING

SHEET NO.
AP2-001

GENERAL NOTE:

A. REFER TO SHEET AP2-001 FOR SYMBOL LEGEND.



1 OVERALL FLOOR PLAN - PLUMBING
1/16" = 1'-0"

GRAPHIC SCALE
0' 8' 16'

REVISIONS			
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STATE OF FLORIDA
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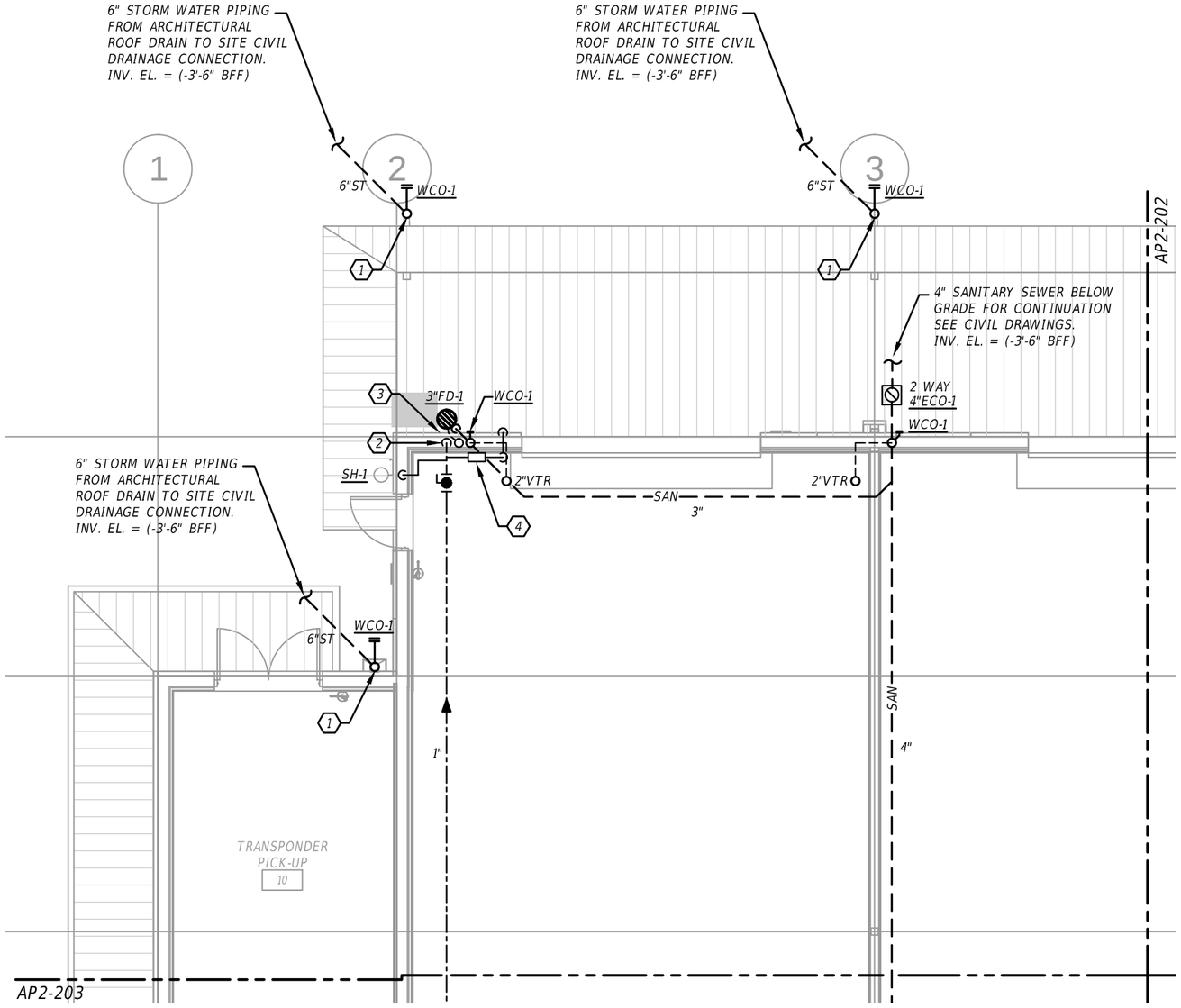
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL FLOOR PLAN - PLUMBING

SHEET NO.
AP2-200

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1 PARTIAL FLOOR PLAN - PLUMBING
1/8" = 1'-0"

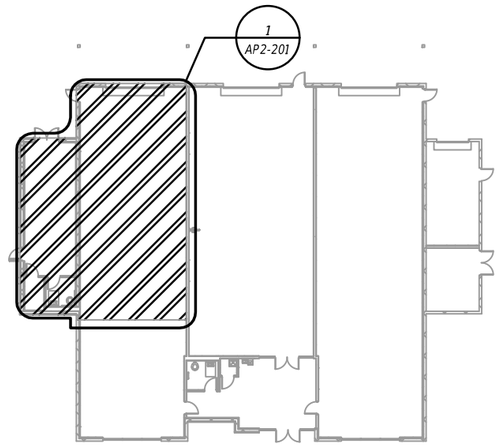
GRAPHIC SCALE
0' 4' 8'

REFERENCE NOTES: (X)

1. CONNECT 6" STORM PIPING TO ARCHITECTURAL ROOF DRAIN AND ROUTE AS SHOWN 5'-0" OUTSIDE OF BUILDING TO SITE CIVIL STORM CONNECTION.
2. $\frac{1}{2}$" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.
3. SANITARY AND CW CONNECTIONS FOR ICE MACHINE. REFER TO ARCHITECTURAL PLANS FOR ICE MACHINE SPECIFICATION.
4. PROVIDE HOSHIZAKI H9320-51 SINGLE CARTRIDGE FILTRATION SYSTEM OR EQUIVALENT FOR ICE MACHINE.

GENERAL NOTE:

A. REFER TO SHEET AP2-001 FOR SYMBOL LEGEND.



2 KEY PLAN
SCALE: NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.
AP2-201

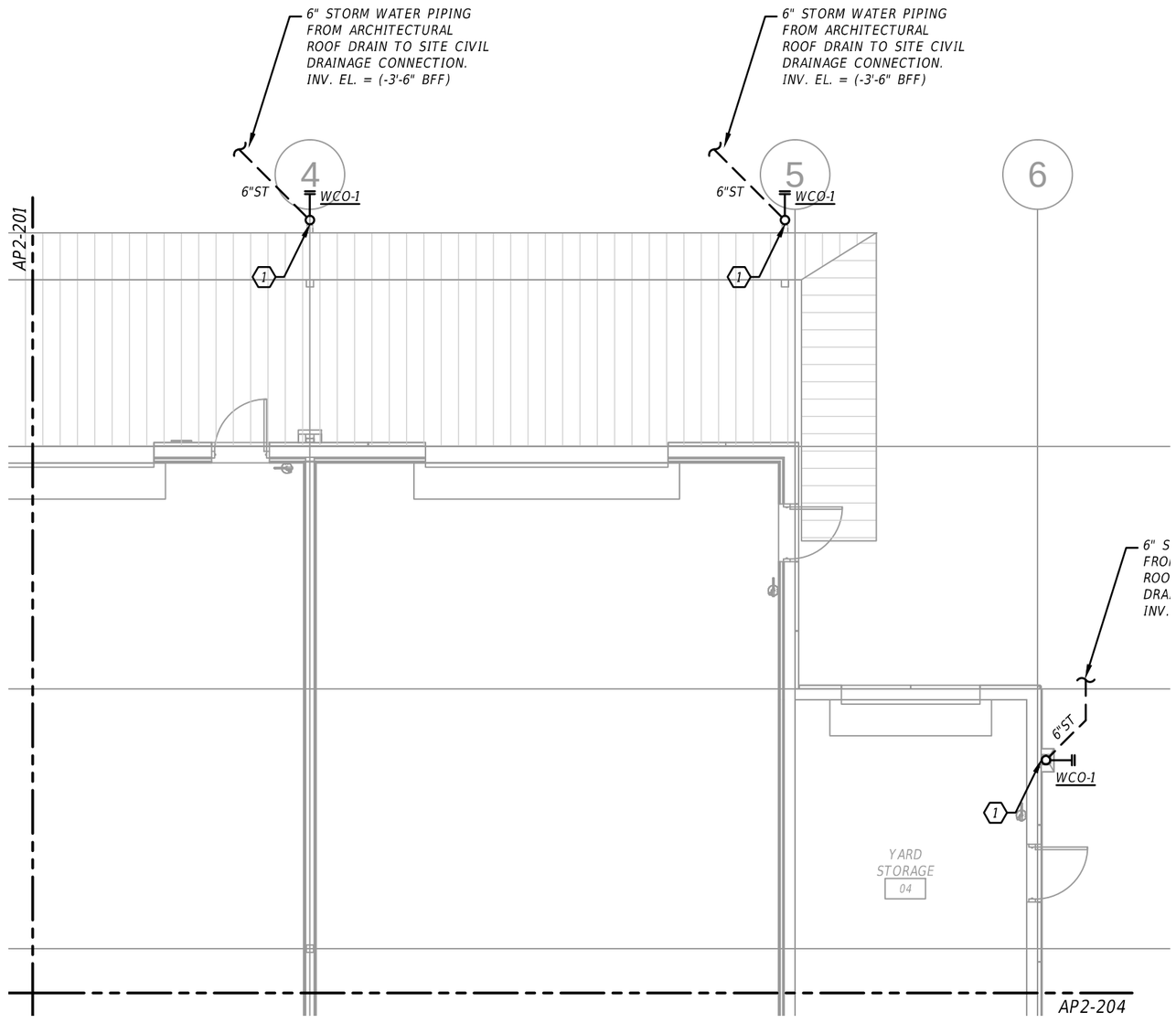
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: X

1 CONNECT 6" STORM PIPING TO ARCHITECTURAL ROOF DRAIN AND ROUTE AS SHOWN 5'-0" OUTSIDE OF BUILDING TO SITE CIVIL STORM CONNECTION.

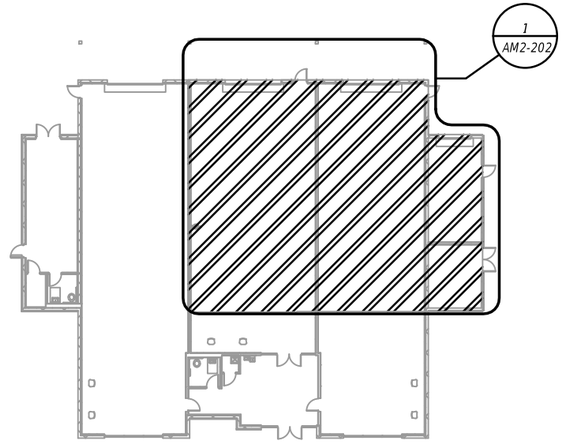
GENERAL NOTE:

A. REFER TO SHEET AP2-001 FOR SYMBOL LEGEND.



1 PARTIAL FLOOR PLAN - PLUMBING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
SCALE: NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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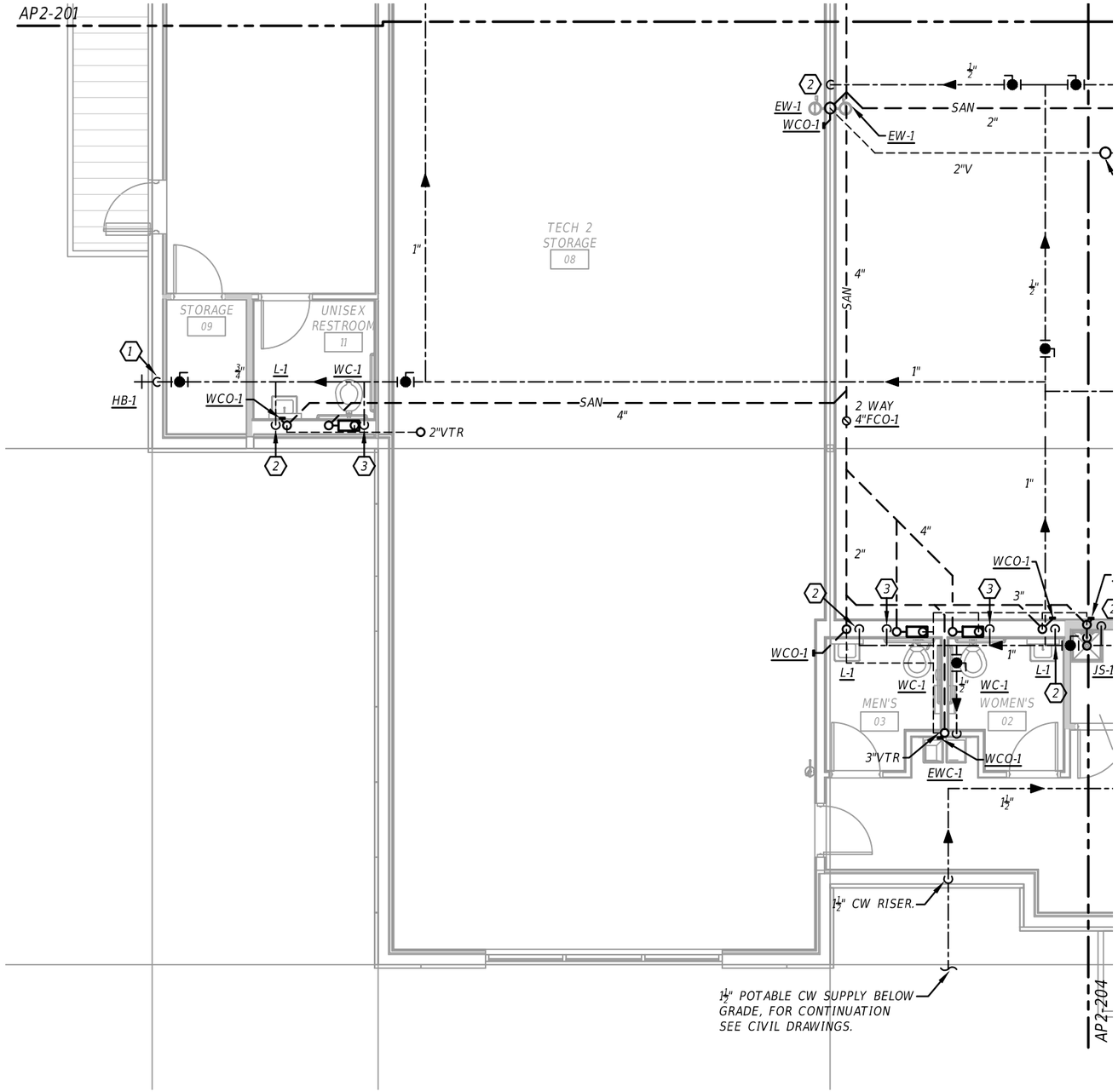
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.
AP2-202

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN - PLUMBING

1/8" = 1'-0"

GRAPHIC SCALE

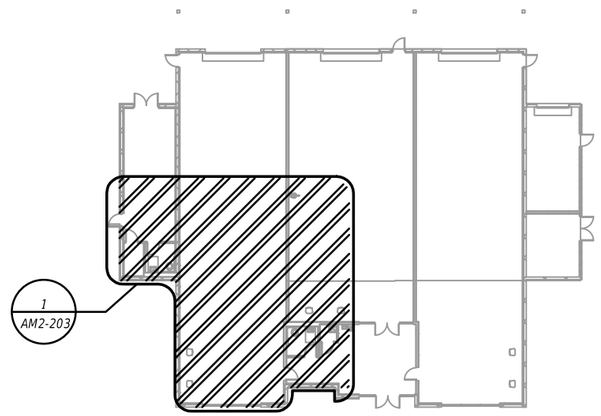
0' 4' 8'

REFERENCE NOTES: (X)

1. ¾" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.
2. ½" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.
3. 1" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.

GENERAL NOTE:

A. REFER TO SHEET AP2-001 FOR SYMBOL LEGEND.



2 KEY PLAN

SCALE: NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
FLORIDA P.E. NO.: 69124
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

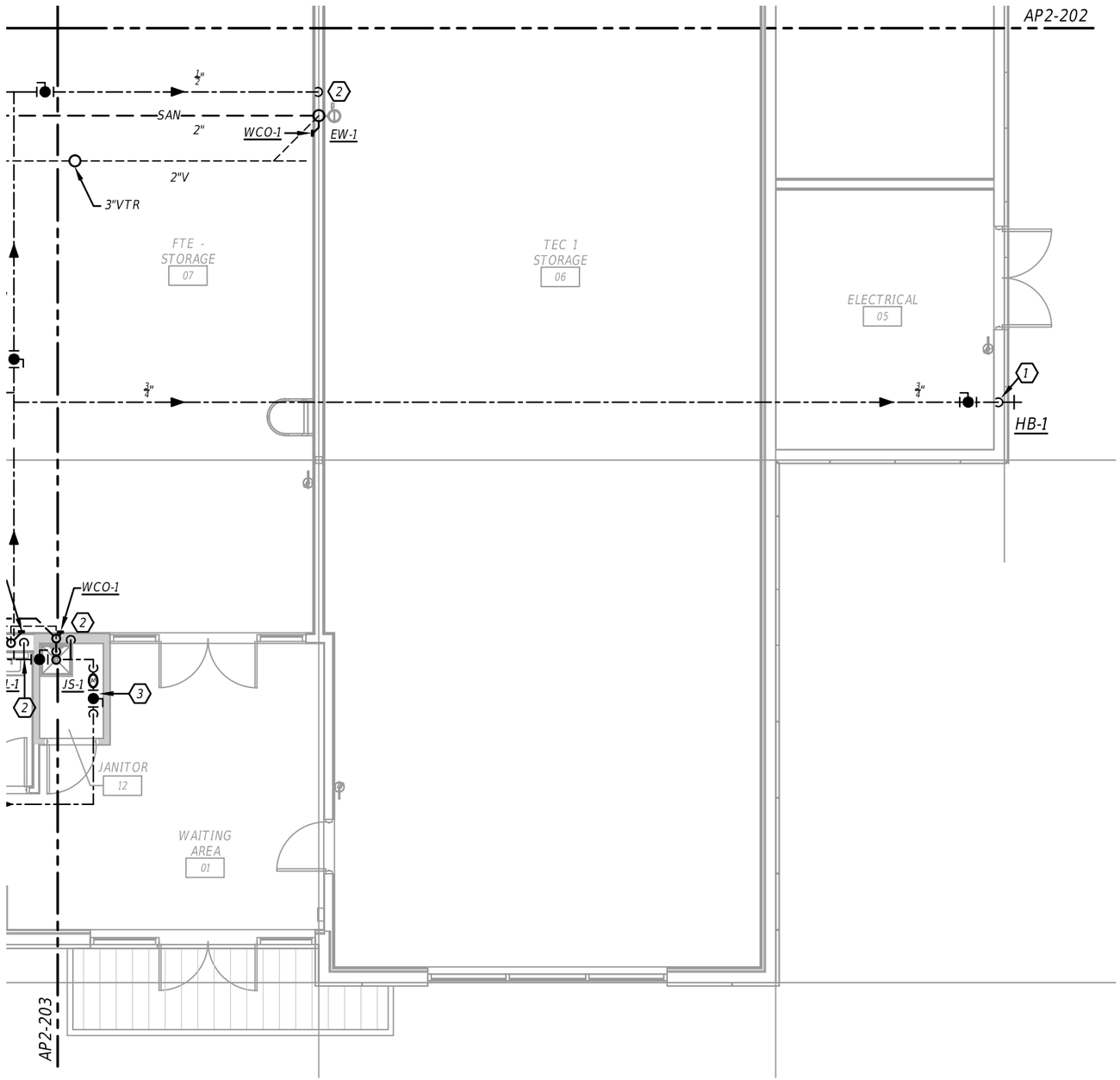
SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.

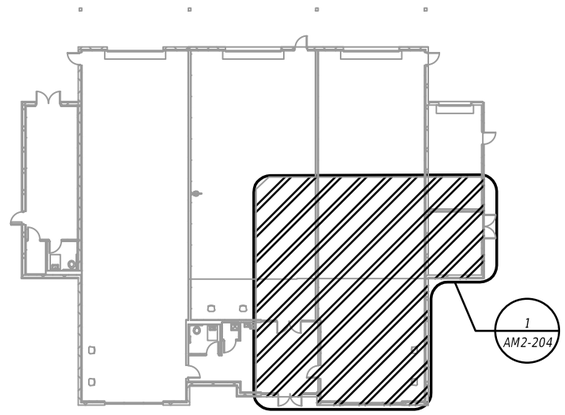
AP2-203

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1 PARTIAL FLOOR PLAN - PLUMBING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
SCALE: NTS

REFERENCE NOTES: X

1. ¾" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.
2. ½" CW DOWN WITHIN WALL TO PLUMBING FIXTURE BELOW.
3. 1½" CW DOWN TO SHUT-OFF VALVE AND REMOTE READ WATER METER ASSEMBLY. METER ASSEMBLY SHALL BE FULLY ACCESSIBLE, COORDINATE INSTALLATION WITH OWNER.

GENERAL NOTE:

A. REFER TO SHEET AP2-001 FOR SYMBOL LEGEND.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

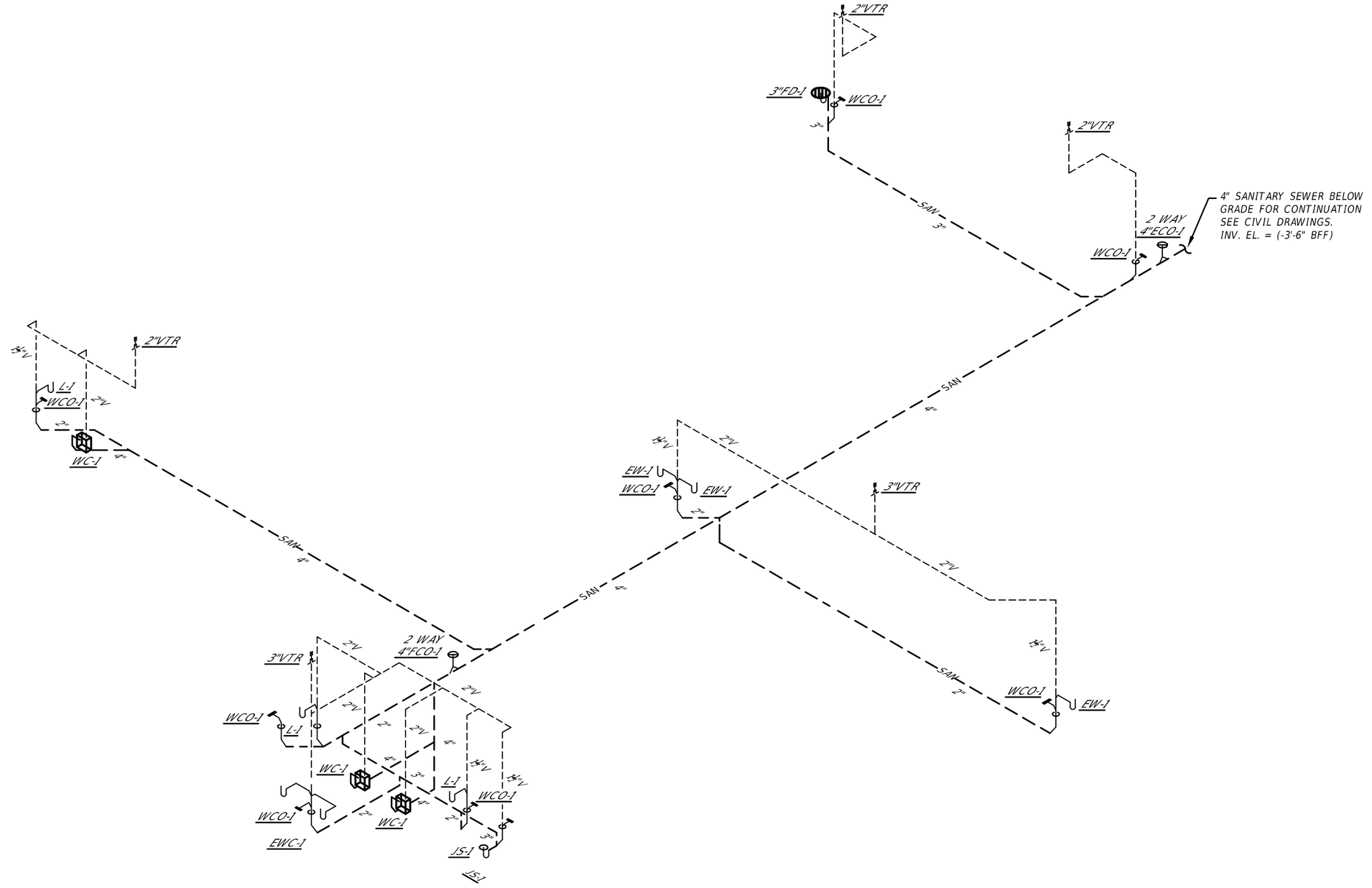
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PLUMBING

SHEET NO.
AP2-204

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 SANITARY RISER DIAGRAM
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ADAM JOSEPH BARNEY, P.E.
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STATE OF FLORIDA
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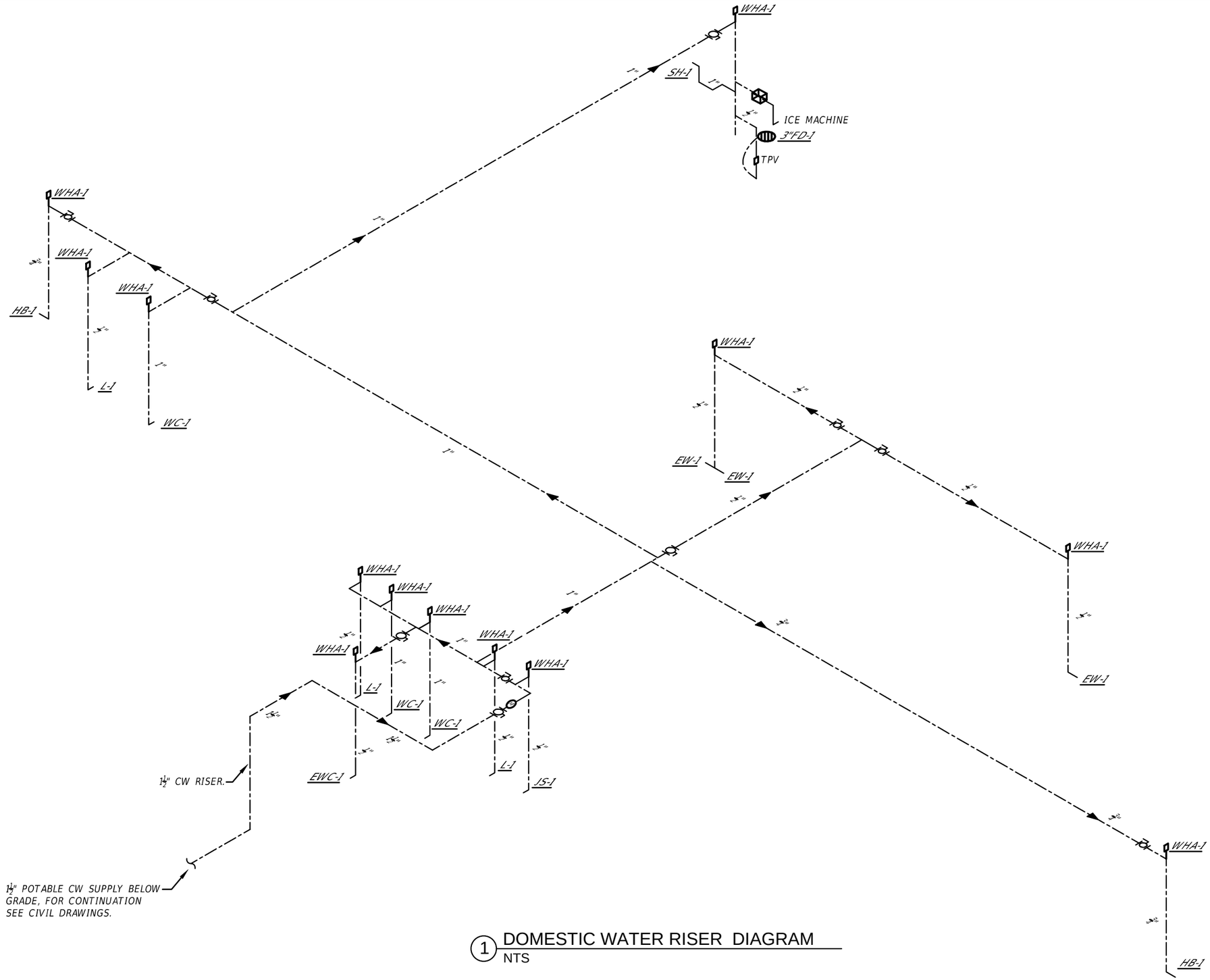
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SANITARY RISER DIAGRAM - PLUMBING

SHEET NO.
AP2-301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 DOMESTIC WATER RISER DIAGRAM
NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING
DOMESTIC WATER RISER DIAGRAM - PLUMBING

SHEET NO.
AP2-302

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	WASTE	TRAP	VENT	COLD WATER	MANUFACTURER /MODEL #	DESCRIPTION
WC-1	WATER CLOSET - ADA TYPE	4"	INTEG	2"	1"	AMERICAN STANDARD 2257.711 OR EQUAL	17" AFF WALL-HUNG FLUSHOMETER VALVE TOILET, VITREAOUS CHINA, HIGH EFFICIENCY 1.1 GALLONS PER FLUSH, SIPHON JET, AND ELONGATED BOWL. SELECTRONIC EXPOSED AC FLUSH VALVE. 'BEMIS' SOLID PLASTIC, OPEN FRONT ELONGATED SEAT WITH SELF SUSTAINING CHECK HINGES. PROVIDE WATER CLOSET CARRIER WATTS CARRIER ISCA-141.
L-1	LAVATORY - ADA TYPE	2"	1-1/4"	1-1/2"	1/2"	AMERICAN STANDARD 9024.004EC OR EQUAL TOTO TEL3LS OR EQUAL	DECORUM 20"x18" WALL HUNG, VITREOUS CHINA WITH INTEGRAL BACKSPLASH. TOTO TEL3LS ECOPOWER FAUCET WITH .35 GPM BUBBLER. GRID STRAINER WITH TAILPIECE, C.P. BRASS P-TRAP WITH WALL ARM & ESCUTCHEONS. 'BRASSCRAFT' ANGLE VALVE SUPPLY RISERS W/LOOSE KEY STOPS. INSULATE P-TRAP AND SUPPLIES WITH 'TRUEBRO' INSULATION KIT. 'ZURN' 1231 CAST IRON FLOOR MOUNTED CARRIER FITTING WITH CONCEALED ARMS.
EWC-1	ELECTRIC WATER COOLER	2"	1-1/4"	1-1/2"	1/2"	ELKAY EZSTL8C OR EQUAL	WALL MOUNTED STAINLESS STEEL BASIN & PEWTER VINYL, LOWER BUBBLER 36"AFF; UPPER 41"AFF. 8 GPH OF 50°F. WATER, 1/5 HP., 120V, 1 PH. W/ OVERLOAD PROTECTION, 1½" P-TRAP, STOP VALVE, CORD & PLUG. ZURN #Z1225-BL CAST IRON FLOOR MOUNTED CARRIER FITTING WITH BEARING PLATE.
JS-1	JANITOR SINK	3"	3"	1-1/2"	1/2"	FIAT MSBID2424 832AA, 889CC. T&S B-0665-BSTR OR EQUAL	24"x24"x10" MOLDED STONE MOP BASIN WITH INTEGRAL DRAIN. SERVICE FAUCET WITH VACUUM BREAKER AND UPPER SUPPORT ROD, HOSE AND HOSE BRACKET, AND MOP HANGER.
EW-1	EYE WASH STATION (FLOOR MOUNTED)	2"	2"	1-1/2"	1/2"	GUARDIAN G1704BC OPTIONS: HFC,HS OR EQUAL	FREE STANDING, PEDESTAL MOUNTED EYE/FACE WASH. STAINLESS STEEL COVER WITH FOUR SPRAY TYPE OUTLETS. PROVIDE OPTIONAL HAND AND FOOT CONTROL, AUXILIARY HAND HELD DRENCH HOSE.
SH-1	EMERGENCY SHOWER	-	-	-	1"	GUARDIAN G1691 OR EQUAL	HORIZONTALLY MOUNTED EMERGENCY SHOWER. 10"⌀ STAINLESS STEEL SHOWER HEAD, ACTUATING ARM, AND 29" PULL ROD.
FD-1	FLOOR DRAIN	SEE PLANS	SEE PLANS	-	1/2"	ZURN ZN415-S-P OR EQUAL	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND SQUARE TYPE 'B' POLISHED NICKEL BRONZE STRAINER. PROVIDE 1/2" COLD WATER TRAP PRIMER CONNECTION.
FC0-1	FLOOR CLEAN OUT	SEE PLANS	SEE PLANS	-	-	ZURN Z1400-SZ OR EQUAL	"LEVEL-TROL" ADJUSTABLE FINISHED FLOOR CLEANOUT, DURA-COATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREADED PLUG, AND SQUARE SCORIATED SECURED TOP. ADJUST TO FINISHED FLOOR (COORDINATE TOP FINISH WITH ARCHITECT).
EC0-1	EXTERIOR CLEAN OUT	SEE PLANS	SEE PLANS	-	-	ZURN CO-2400-SZ OR EQUAL	PVC SQUARE CLEAN-OUT WITH 2-WAY CLEAN-OUT TEE, (LAWN, IN FLUSH 12"x12"x4" CONCRETE PAD.)
WC0-1	WALL CLEAN OUT	SEE PLANS	SEE PLANS	-	-	ZURN Z1446 OR EQUAL	CAST IRON CLEAN-OUT TEE, DURA COATED BODY, GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.
WHA-1	WATER HAMMER ARRESTOR				1/2"	SIOUX CHIEF #650 SERIES OR EQUAL	SIZE PER MANUFACTURER'S RECOMMENDATIONS. PDI CERTIFIED. WHA-1: SIZE "A" WHA-2: SIZE "B" REFER TO RISER DIAGRAMS FOR ARRESTOR LOCATIONS. REFER TO SPECIFICATION FOR SELECTION METHOD.
TPV-1	TRAP PRIMER VALVE	-	-	-	1/2"	PRECISION PLUMBING PRODUCTS PR-500 OR EQUAL	PROVIDE FULLY ACCESSIBLE SHUT OFF VALVE TO EACH PRIMER VALVE.

NOTES:

1. ALL PLUMBING FIXTURES SHALL BE SUPPLIED WITH WATTS "FLOODSAFE" AUTO-SHUT OFF CONNECTOR TYPE SUPPLY RISERS WITH BRAIDED STAINLESS STEEL CONNECTORS. THIS SHALL INCLUDE ALL FAUCETS, TOILETS, DISHWASHERS & ICE MAKERS. PROVIDE FULLY ACCESSIBLE SHOCK ARRESTORS ON SUPPLIES TO ICE MAKERS AND DISHWASHERS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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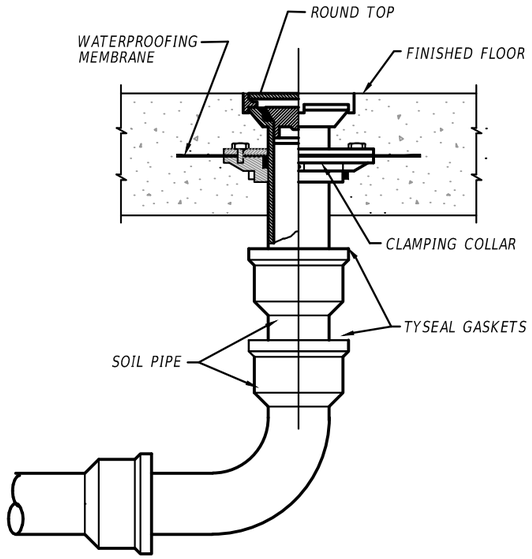
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

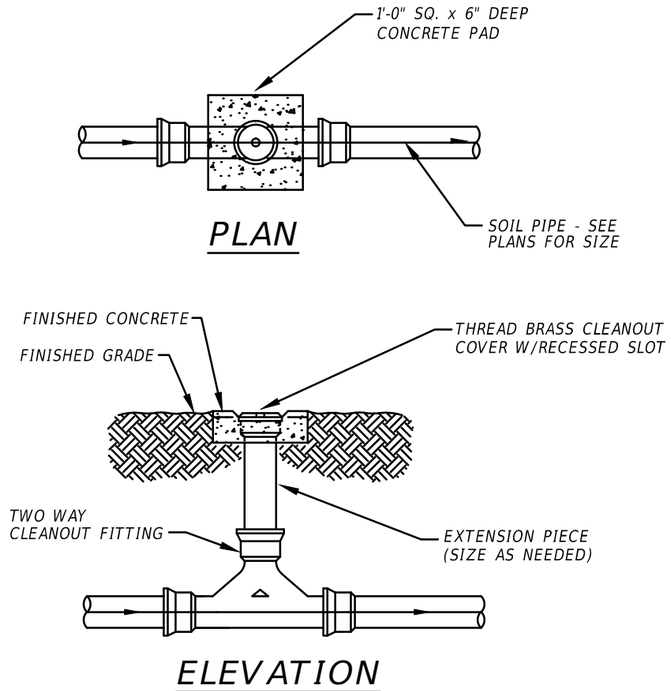
SCHEDULES - PLUMBING

SHEET NO.
AP2-401

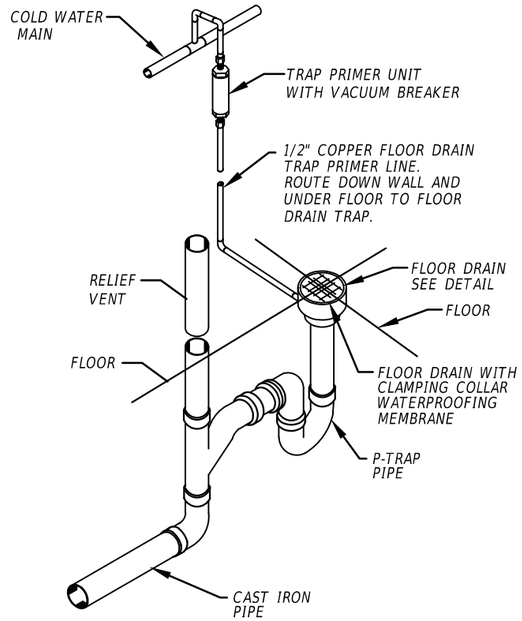
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3 FLOOR CLEANOUT DETAIL
AP2-501 SCALE: NTS



2 TWO-WAY CLEANOUT
AP2-501 SCALE: NTS



1 FLOOR DRAIN AND TRAP PRIMER DETAIL
AP2-501 SCALE: NTS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - PLUMBING

SHEET NO. AP2-501

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ELECTRICAL LEGEND

WIRING AND POWER

S* — SWITCH

(NONE)	SINGLE POLE TOGGLE SWITCH
2	TWO POLE TOGGLE SWITCH
3	THREE WAY TOGGLE SWITCH
WP	SINGLE POLE WEATHERPROOF SWITCH
K	SINGLE POLE KEYED SWITCH
M	MANUAL MOTOR CONTROLLER W/O OVERLOADS

S abc — LOWER CASE LETTERS INDICATES SWITCHING DESIGNATIONS, QUANTITY OF LETTERS EQUAL QUANTITY OF GANGED SWITCHES

* — SINGLE RECEPTACLE

GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF
IG	ISOLATED GROUND
C	COUNTER HEIGHT (ABOVE COUNTER OR 42" AFF)

* — DUPLEX RECEPTACLE

GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF
IG	ISOLATED GROUND
C	ABOVE COUNTER
EWC	ELECTRIC WATER COOLER, COORDINATE LOCATION WITH PLUMBING CONTRACTOR
VM	VIDEO MONITOR - COORDINATE EXACT MTG. HEIGHT

* — QUADRAPLEX RECEPTACLE

GFI	GROUND FAULT CIRCUIT INTERRUPTER
WP	WEATHERPROOF
IG	ISOLATED GROUND
C	ABOVE COUNTER

* — SPECIAL RECEPTACLE

X	TYPE X (SEE RECEPTACLE SCHEDULE)
C	ABOVE COUNTER

PP — POWER POLE

RECESSED FLOOR MOUNTED DUPLEX RECEPTACLE

SURFACE-MOUNTED FLOOR DUPLEX RECEPTACLE

CEILING-MOUNTED DUPLEX RECEPTACLE

COMBINATION RECESSED FLOOR MOUNTED RECEPTACLE/DATA OUTLET

PLUG MOLD

C	ABOVE COUNTER

J — JUNCTION BOX

DISCONNECT SWITCH

C — EQUIPMENT ELECTRICAL CONNECTION POINT

WP — DISCONNECT SWITCH - WEATHERPROOF (NEMA 3R)

F — FUSED DISCONNECT SWITCH

MAGNETIC MOTOR STARTER

* — COMBINATION FUSED DISCONNECT/ MAGNETIC STARTER SWITCH

HOA	HAND/OFF/AUTO
SS	START/STOP

M — MANUAL STARTER

VSD — COMBINATION VARIABLE SPEED DRIVE AND DISCONNECT

VSD — VARIABLE SPEED DRIVE

EF-1 — MOTOR WITH DESIGNATOR

TC — TIME CLOCK

WH — WATER HEATER

A-1 — BRANCH CIRCUIT HOME RUN WITH PANEL NAME AND CIRCUIT NUMBER, QUANTITY OF ARROWHEADS DENOTES QUANTITY OF BRANCH CIRCUITS

BRANCH CIRCUIT WIRING, PROVIDE QUANTITIES OF CONDUCTORS REQUIRED FOR CIRCUITING AND SWITCHING INDICATED

POWER LEG ONLY (NO SWITCH LEG BETWEEN ROOMS)

MUSHROOM HEAD PUSH BUTTON (EMERGENCY STOP)

R — RELAY

PUSHBUTTON

GROUND ROD

T — TRANSFORMER

T K — TYPE "K" TRANSFORMER

UH — ELECTRIC UNIT HEATER (FURNISHED UNDER DIV 15 UNLESS NOTED OTHERWISE)

GROUND BUS BAR - SEE DETAILS

PANELS

XXX — ELECTRICAL PANEL

MDP	MAIN DISTRIBUTION PANEL (SEE PANEL SCHEDULE)
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION

ATS — AUTOMATIC TRANSFER SWITCH

XXX — ELECTRICAL SYSTEMS PANEL

SACP	SECURITY ALARM CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL
MC	MASTER CLOCK CONTROL PANEL

LIGHTING

XX — LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE FOR LETTER DESIGNATION AND DESCRIPTION OF FIXTURES)

EMERGENCY/NIGHT LIGHT LIGHTING FIXTURE

EXIT LIGHTING FIXTURE UNIVERSAL MOUNT

BATTERY POWERED EMERGENCY LIGHT

EMERGENCY LIGHT REMOTE HEAD

TK — TRACK LIGHTING

TRACK LIGHTING HEAD

WG — WIRE CAGE LIGHT GUARD

OS — OCCUPANCY SENSOR WITH VACANCY OPTION - CEILING MOUNTED

OSC — OCCUPANCY SENSOR - CEILING MOUNTED - CORRIDOR

OSW — OCCUPANCY SENSOR - WALL MOUNTED

DL — DAYLIGHT HARVESTING SENSOR, LOWER CASE LETTER INDICATES CONTROL OF DESIGNATED LIGHTING FIXTURE - SEE PLANS

LC — LIGHTING CONTACTOR

PC — PHOTOCELL

SX — SWITCH

O	OCCUPANCY SENSOR SWITCH
O2	DUAL LEVEL OCCUPANCY SENSOR SWITCH
D	DIMMER
D3	THREE WAY DIMMER (INCANDESCENT)

AUDIO/VISUAL SYSTEMS - (INTERIOR CAMERAS SHALL BE MOUNTED 96" A.F.F. UNLESS NOTED OTHERWISE)

TT — TABLE TOP AV INPUT(S)

AV — A/V SYSTEMS CABINET.

PR — CEILING MOUNTED PROJECTOR

WS — TOUCH SCREEN A/V WALL STATION

PH — EXTERIOR RATED PHONE

CAM — VIDEO CONFERENCE PTZ CAMERA

MS — MOTORIZED SCREEN

VM — VIDEO MONITOR

INTERIOR VIDEO CONFERENCE CAMERA

SP — CEILING MOUNTED SPEAKER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SYMBOL LEGEND - ELECTRICAL

SHEET NO.
AE2-001

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ELECTRICAL LEGEND, cont'd

FIRE ALARM SYSTEMS

F	FIRE ALARM PULL STATION
F	FIRE ALARM HORN
F	FIRE ALARM HORN AND STROBE COMBINATION
F WP	FIRE ALARM HORN AND STROBE COMBINATION, WEATHERPROOF
FS	FIRE ALARM SPEAKER
FS	FIRE ALARM SPEAKER AND STROBE COMBINATION
F	FIRE ALARM STROBE
S	SMOKE DETECTOR
H	HEAT DETECTOR
DD	DUCT DETECTOR
RTS	REMOTE TEST STATION FOR DUCT DETECTOR
FSR	FIRE ALARM SHUT DOWN RELAY
D	FIRE DOOR HOLD OPEN
ADA	AREA OF RESCUE MASTER TELEPHONE STATION
LB	LOCK BOX

TELECOMMUNICATIONS

	DATA/COMM OUTLET
TV	TELVISION OUTLET
	WIRELESS ACCESS POINT

SECURITY SYSTEMS - (INTERIOR CAMERAS SHALL BE MOUNTED 96" A.F.F. UNLESS NOTED OTHERWISE)

CR	CARD READER - MOUNT 48" A.F.F.
DC	DOOR CONTACT
PIR	PASSIVE INFRARED EXIT SENSOR
SP	SECURITY SYSTEM HEADEND/PANEL
KP	SECURITY SYSTEM KEYPAD
	STATIC CCTV CAMERA - 'WP' INDICATES WEATHERPROOF ENCLOSURE
	WEATHER PROOF CAMERA ENCLOSURE - 'PTZ' INDICATES PAN, TILT, ZOOM
PTZ	CAMERA - 'PTZ' INDICATES PAN, TILT, ZOOM
08A	DOOR IDENTIFICATION TAG

ABBREVIATIONS

A	-	AMPERES
A/C	-	AIR CONDITIONING
AC	-	ALTERNATING CURRENT
AFF	-	ABOVE FINISHED FLOOR
AFG	-	ABOVE FINISHED GRADE
AHU	-	AIR HANDLING UNIT
AWG	-	AMERICAN WIRE GAUGE
C	-	ABOVE COUNTER
CFL	-	COMPACT FLUORESCENT LAMP
CH	-	COUNTER HEIGHT
CONC	-	CONCRETE
COND	-	CONDUIT
CU	-	COPPER
DISC	-	DISCONNECT
ECB	-	ENCLOSED CIRCUIT BREAKER
ELEC	-	ELECTRICAL
EM	-	EMERGENCY
EMS	-	ENERGY MANAGEMENT SYSTEM
EMT	-	ELECTRICAL METALLIC TUBING
EF	-	EXHAUST FAN
EWC	-	ELECTRIC WATER COOLER
FA	-	FIRE ALARM
FACP	-	FIRE ALARM CONTROL PANEL
FPL	-	FLORIDA POWER AND LIGHT
G	-	GROUND
GFI	-	GROUND FAULT INTERRUPTER
GND	-	GROUND
GRC	-	GALVANIZED RIGID CONDUIT
H.I.D.	-	HIGH INTENSITY DISCHARGE
HVAC	-	HEATING, VENTILATING AND AIR CONDITIONING
I.G.	-	ISOLATED GROUND
J	-	JUNCTION
KAIC	-	(THOUSAND) AMPERE INTERRUPTING CAPACITY
KVA	-	KILOVOLT-AMPERES
KW	-	KILOWATT
LTG	-	LIGHTING
MCM	-	THOUSANDS OF CIRCULAR MILS
MCU	-	MASTER CONTROL UNIT
MCP	-	MOTOR CIRCUIT PROTECTION
MH	-	METAL HALIDE
N	-	NEUTRAL
NA	-	NOT APPLICABLE
NF	-	NON-FUSED
NL	-	NIGHT LIGHT
NEC	-	NATIONAL ELECTRICAL CODE
NEMA	-	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	-	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	-	NOT IN CONTRACT
O.C.	-	ON CENTER
O.F.C.I.	-	OWNER FURNISHED, CONTRACTOR INSTALLED
P	-	POLE
PNL	-	PANELBOARD
PVC	-	POLYVINYL CHLORIDE
RM	-	ROOM
RGS	-	RIGID GALVANIZED STEEL
SPEC	-	SPECIFICATION
SS	-	STAINLESS STEEL
TVSS	-	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	-	TYPICAL
UON	-	UNLESS OTHERWISE NOTED
V	-	VOLTS
W	-	WIRE
WP	-	WEATHERPROOF

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SYMBOL LEGEND - ELECTRICAL

SHEET NO.
AE2-002

GENERAL NOTES - ELECTRICAL

1) ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), AND THE LATEST ADOPTED EDITION OF THE FLORIDA BUILDING CODE.

2) CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND COORDINATE WITH EXISTING EQUIPMENT PRIOR TO BIDDING.

3) ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD-PARTY TESTING AGENCY.

BUILDING:

4) INSTALLATION HEIGHT OF EQUIPMENT (TO CENTERLINE) ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE SHALL BE:

RECEPTACLE = 18"
CLOCK = 7'-6"
SWITCH = 44"
MODULAR JACK FOR WALL MOUNTED TELEPHONE = 52"
MODULAR TELEPHONE JACK = 18"
AUDIO/VISUAL FIRE ALARM INDICATORS = 80"
FIRE ALARM PULL STATIONS = 50"
TELEVISION OUTLET = 84"
COMPUTER OUTLET = 18"
REMOTE TEST STATION FOR DUCT DETECTOR = 52"
C = ABOVE COUNTER BACKSPLASH, COORDINATE WITH ARCHITECTURAL ELEVATIONS AND MILLWORK.

5) ALL CONDUIT AND WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS NOTED OTHERWISE OR APPROVED BY THE ARCHITECT/ENGINEER. ALL DEVICE OUTLET BOXES SHALL BE RECESSED UNLESS NOTED OTHERWISE OR APPROVED BY THE ARCHITECT/ENGINEER. WHERE APPROVED OR NOTED SURFACE METAL RACEWAY AND DEVICE BOXES SHALL BE USED IN LIEU OF CONDUIT AND CONCEALED BOXES AT NO EXTRA COST TO THE OWNER.

6) ALL CONDUIT ROUTES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY FINAL ROUTE.

7) CONDUIT RUNS SHOWN ARE SCHEMATIC AND DO NOT INDICATE THE NECESSARY FITTINGS AND JUNCTION BOXES THAT ARE INCLUDED IN THE SCOPE OF THE WORK.

8) CONTRACTOR SHALL PERMANENTLY IDENTIFY ALL WIRING WITH THE SOURCE AND CIRCUIT AT ALL ELECTRICAL EQUIPMENT, PULL AND JUNCTION BOXES AND ELECTRICAL TERMINATIONS PROVIDED OR ASSOCIATED WITH THIS CONSTRUCTION.

GROUNDING:

9) ALL METAL RACEWAYS, INCLUDING CONDUIT, WIRE TROUGHS, WIREMOLD, ETC., SHALL BE GROUNDED. ALL CONNECTIONS IN METAL RACEWAYS SHALL BE COMPLETED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUS PATH TO GROUND THROUGHOUT THE ENTIRE LENGTH OF THE RACEWAY.

WIRING:

10) UNLESS NOTED OTHERWISE ON THE DRAWINGS OR ON THE EQUIPMENT WIRING SCHEDULE, EACH BRANCH CIRCUIT HOME RUN SHALL BE THREE (3) #12 AWG THHN/THWN (1 HOT, 1 NEUTRAL & 1 EQUIPMENT GROUND) IN 3/4" EMT CONDUIT. PROTECT EACH CIRCUIT WITH A 20 AMPERE, 1-POLE OVERCURRENT DEVICE UNLESS NOTED OTHERWISE. COMBINED NEUTRALS ARE NOT PERMITTED.

WIRE SIZE REQUIRED FOR BRANCH CIRCUITS AT LESS THAN 3% VOLTAGE DROP

		1 FT TO 50 FT	51 FT TO 75 FT	76 FT TO 100 FT	101 FT TO 125 FT	126 FT TO 150 FT	151 FT TO 200 FT
120V	20A	#12	#10	#8	#8	#6	#6
	30A	#10	#8	#6	#6	#6	#4
	40A	#8	#6	#6	#4	#4	#3
	50A	#8	#6	#4	#4	#3	#2
208V 1	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#4	#4
	70A	#4	#4	#4	#4	#4	#3
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#2
	100A	#3	#3	#3	#3	#3	#2
208V 3	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#6	#4
	70A	#4	#4	#4	#4	#4	#4
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#3
	100A	#3	#3	#3	#3	#3	#2

CALCULATED USING COPPER WIRE AT 75 C.

BRANCH CIRCUITS HAVE BEEN CALCULATED FOR SINGLE PHASE VOLTAGE DROP BASED ON SINGLE PHASE CIRCUIT

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

GENERAL NOTES - ELECTRICAL

SHEET NO.
AE2-003

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES:

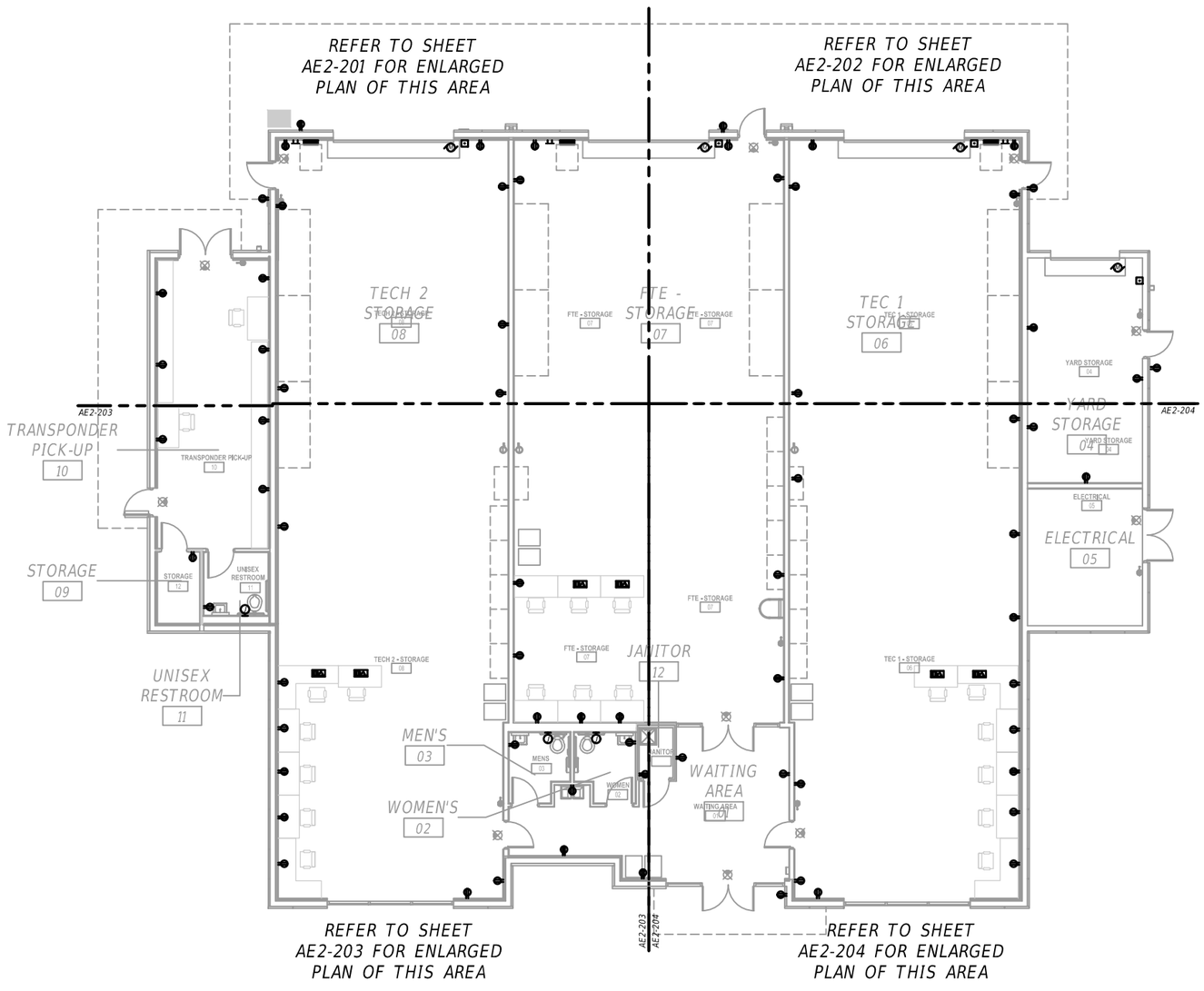
A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. SEE RISER DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

E. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 OVERALL FLOOR PLAN - POWER

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL FLOOR PLAN - POWER

SHEET NO. AE2-200

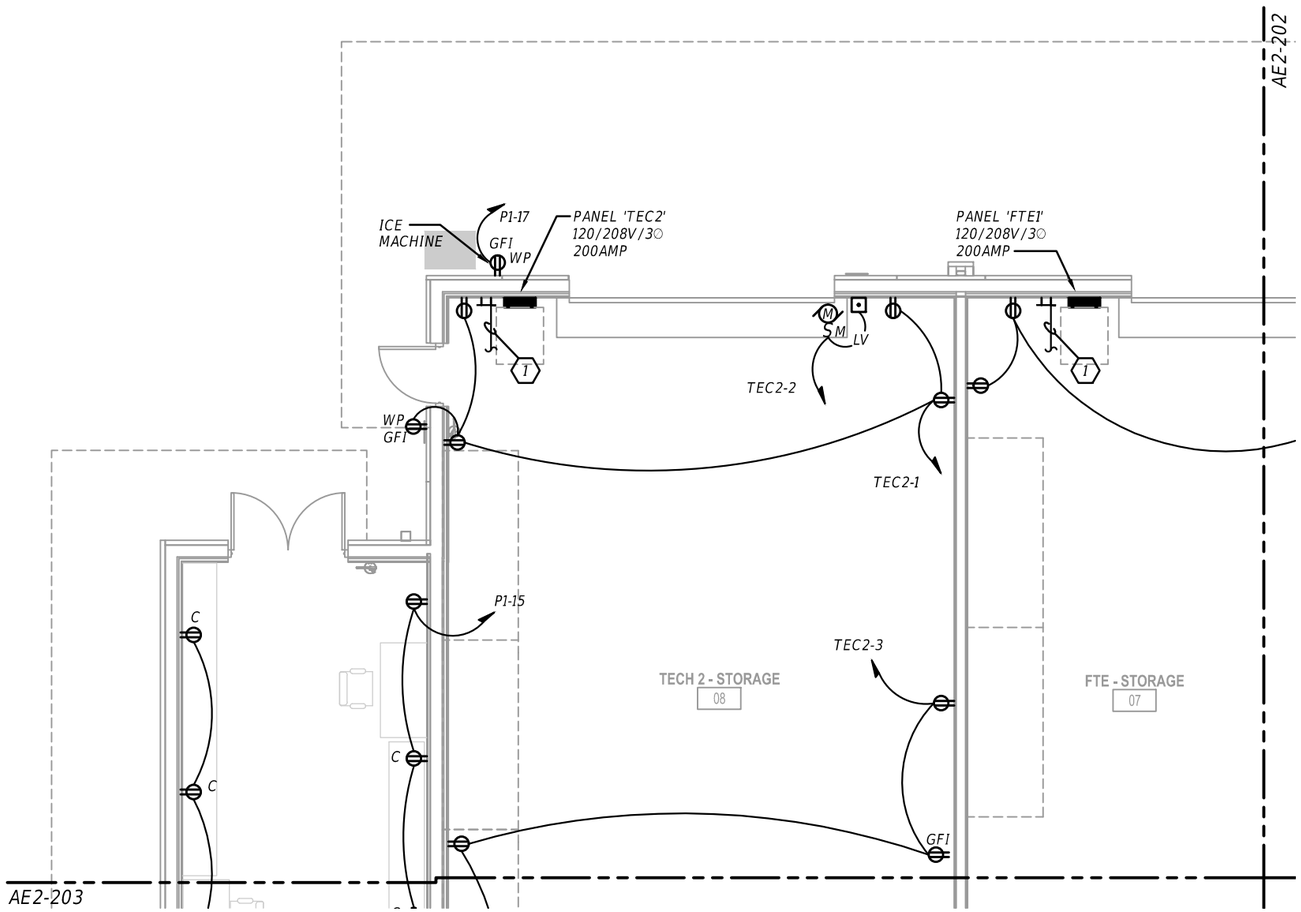
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: X

1	BOND #2/0 BARE STRANDED-CU CONDUCTOR TO MAIN GROUND BUSBAR

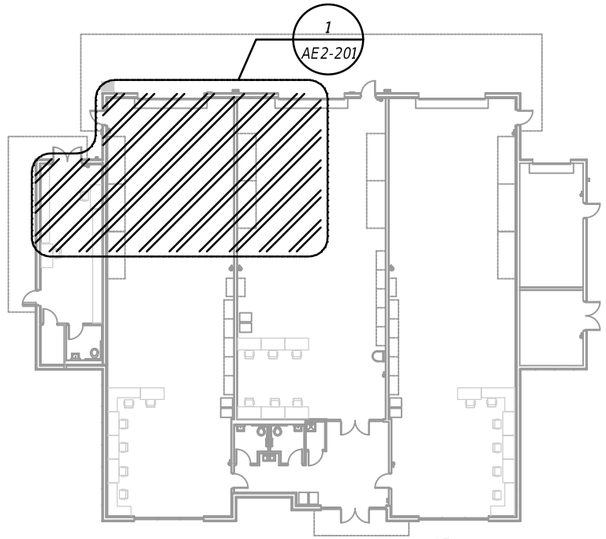
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 PARTIAL FLOOR PLAN - POWER
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - POWER

SHEET NO.
AE2-201

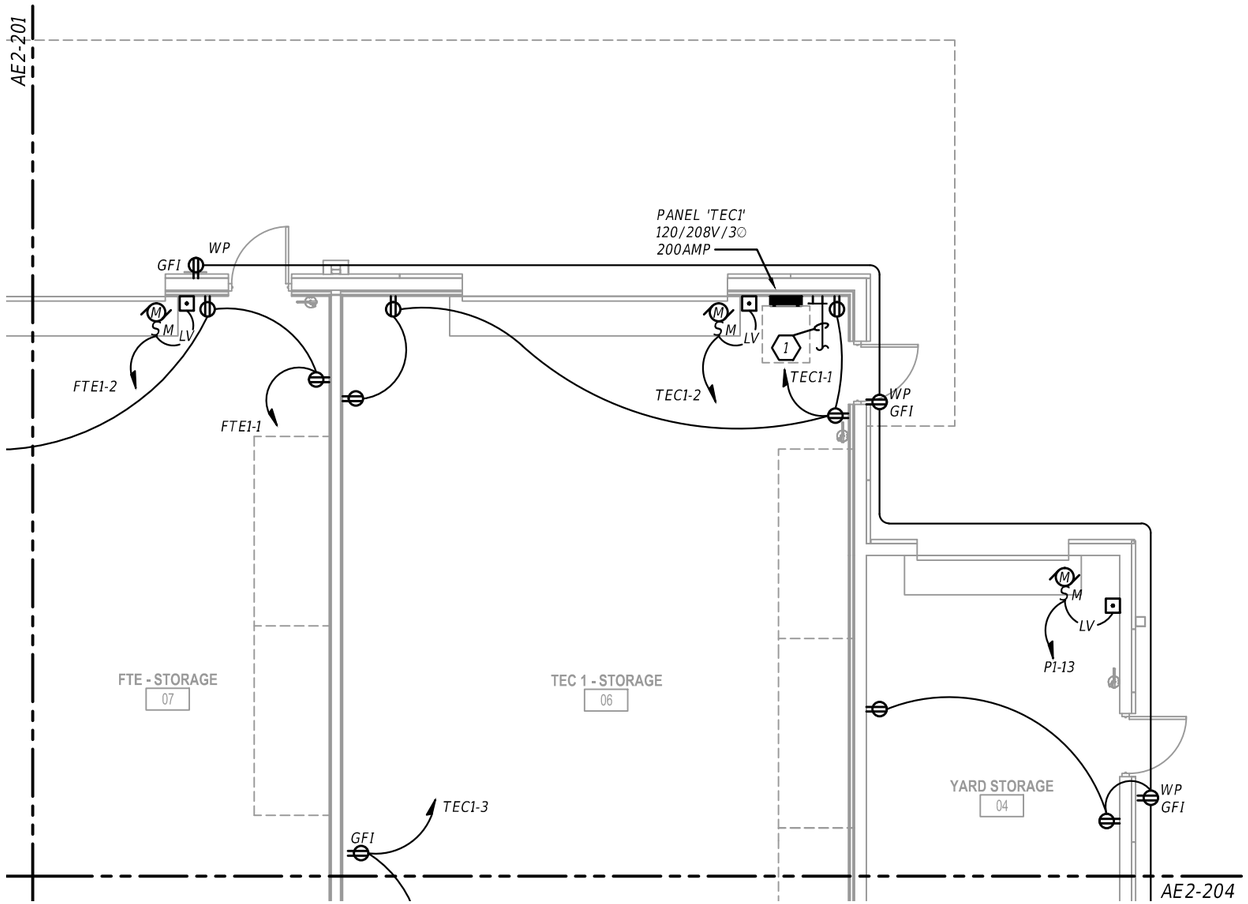
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: X

1 BOND #2/0 BARE STRANDED-CU CONDUCTOR TO MAIN GROUND BUSBAR

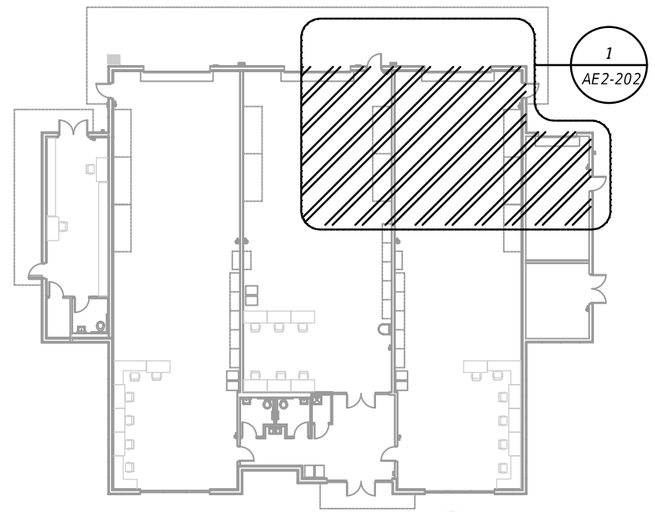
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 PARTIAL FLOOR PLAN - POWER
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - POWER

SHEET NO.
AE2-202

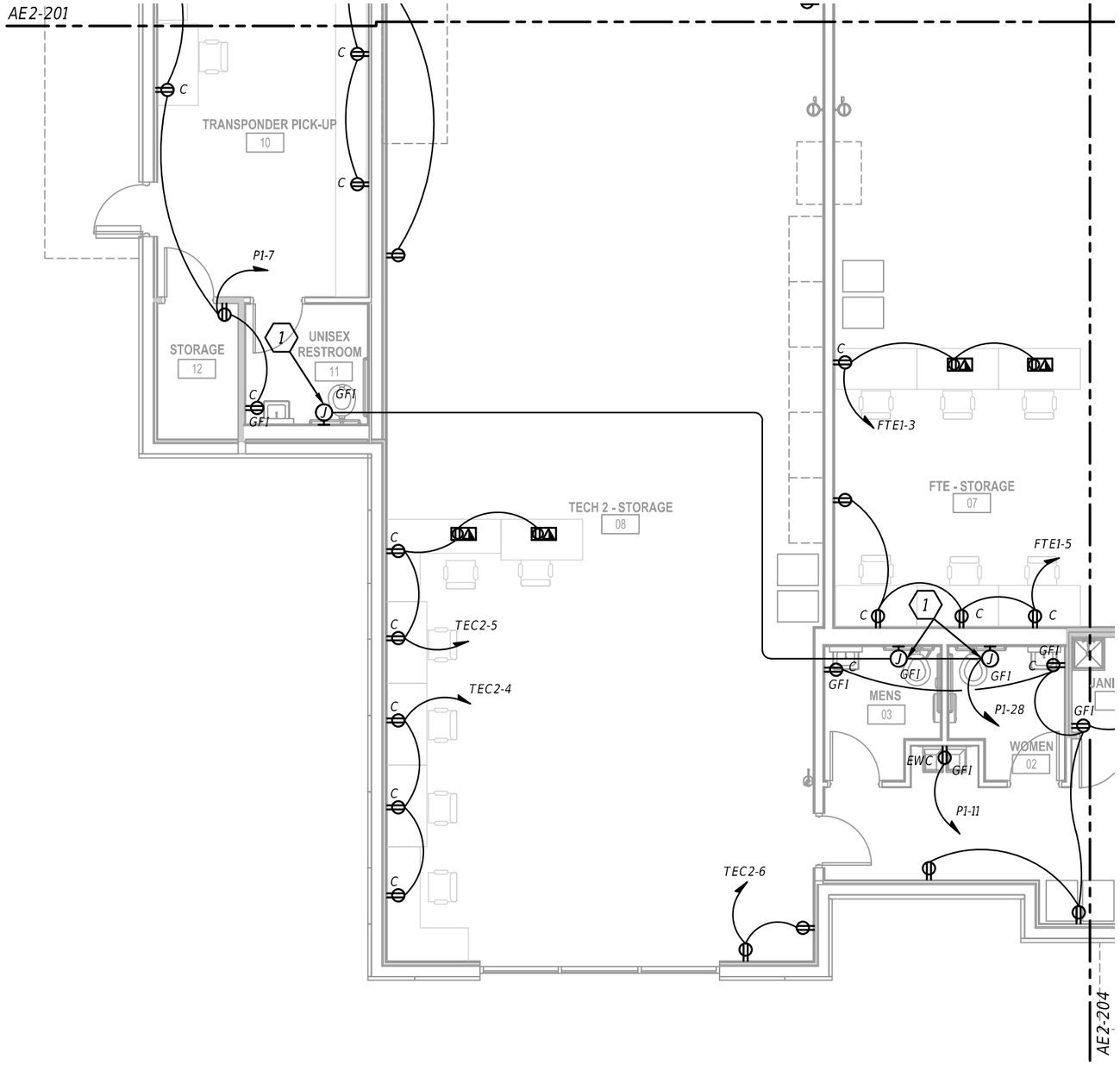
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

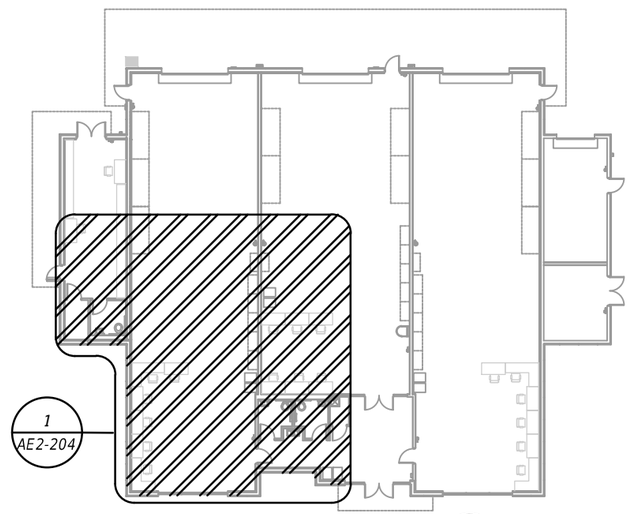
REFERENCE NOTES: ⟨X⟩

⟨1⟩ JUNCTION BOX FOR CONNECTION TO TOILET FLUSH SYSTEM. MOUNT JUNCTION BOX 12" @45° ANGLE FROM CENTER OF SENSOR HOUSING. REFER MANUFACTORIES INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN.



1 PARTIAL FLOOR PLAN - POWER
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

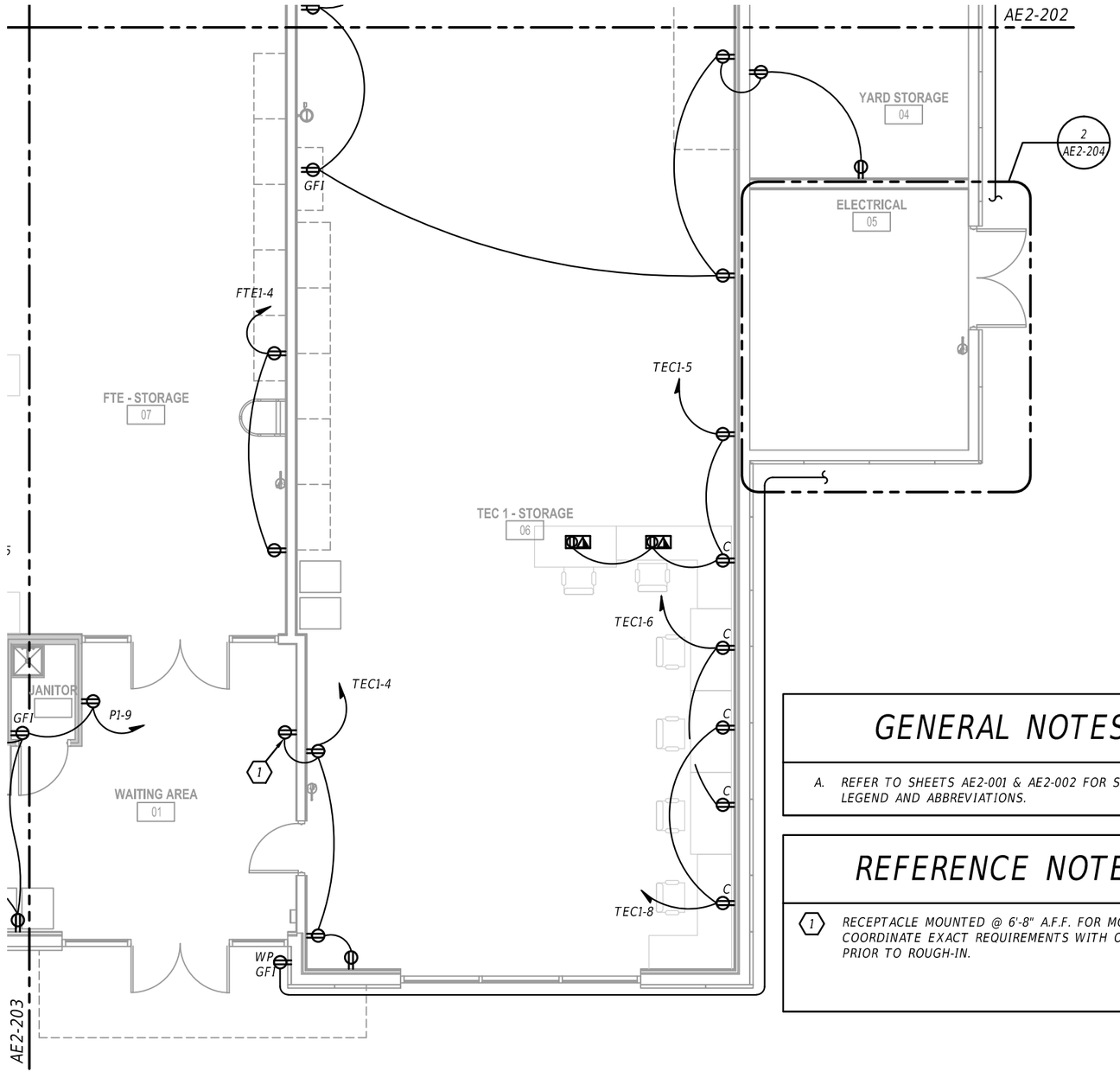
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

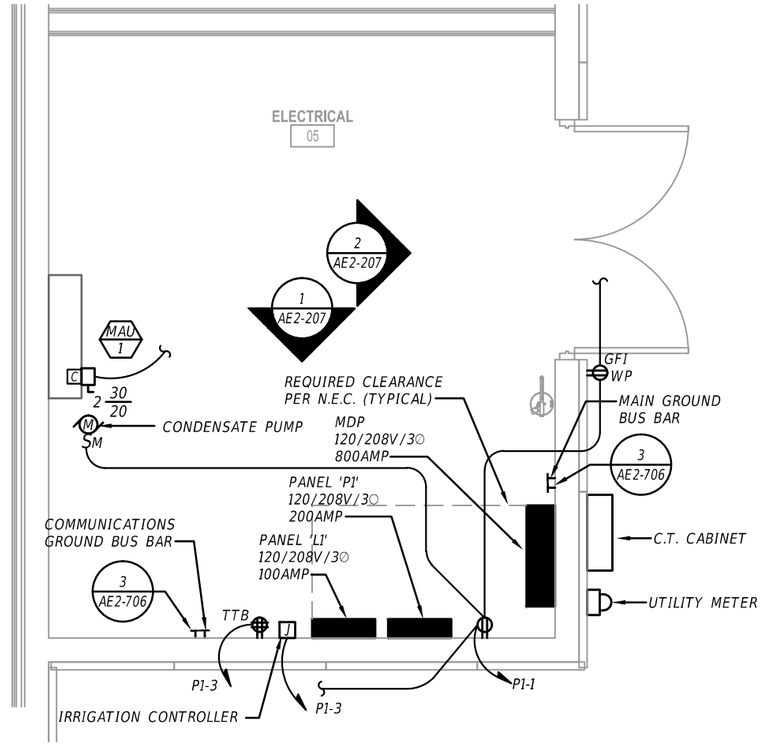
PARTIAL FLOOR PLAN - POWER

SHEET NO.
AE2-203

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN - POWER
1/8" = 1'-0"



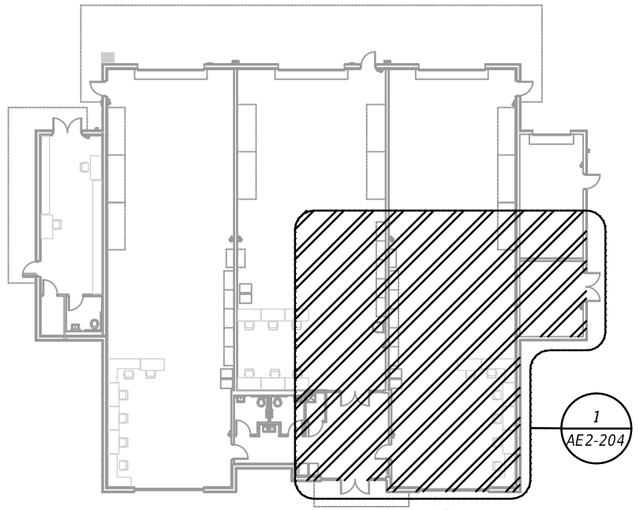
2 ENLARGED PLAN - ELECTRICAL ROOM #05
1/4" = 1'-0"

GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

REFERENCE NOTES: ⟨X⟩

⟨1⟩ RECEPTACLE MOUNTED @ 6'-8" A.F.F. FOR MONITOR. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.



2 KEY PLAN
1/32" = 1'-0"

GRAPHIC SCALE
0' 4' 8'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

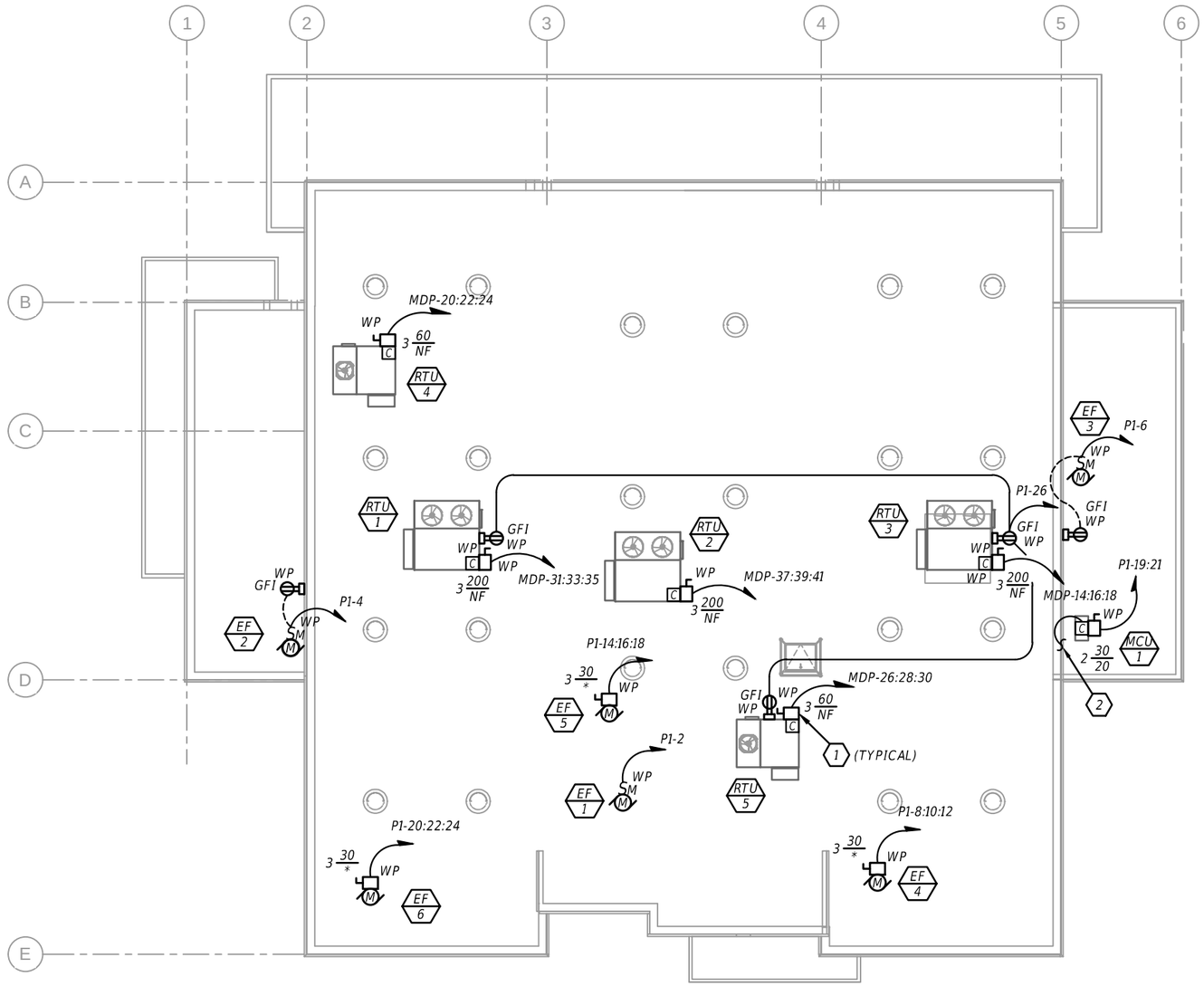
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - POWER

SHEET NO.
AE2-204

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 OVERALL ROOF PLAN - POWER

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REFERENCE NOTES:

1. DISCONNECT PROVIDED BY MECHANICAL, INSTALLED AND WIRE AS INDICATED/REQUIRED.
2. 2#10, 1#10G. IN 3/4"C. TO MAU-1 LOCATED IN ELECTRIC ROOM #05.

GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. SEE SINGLE LINE DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

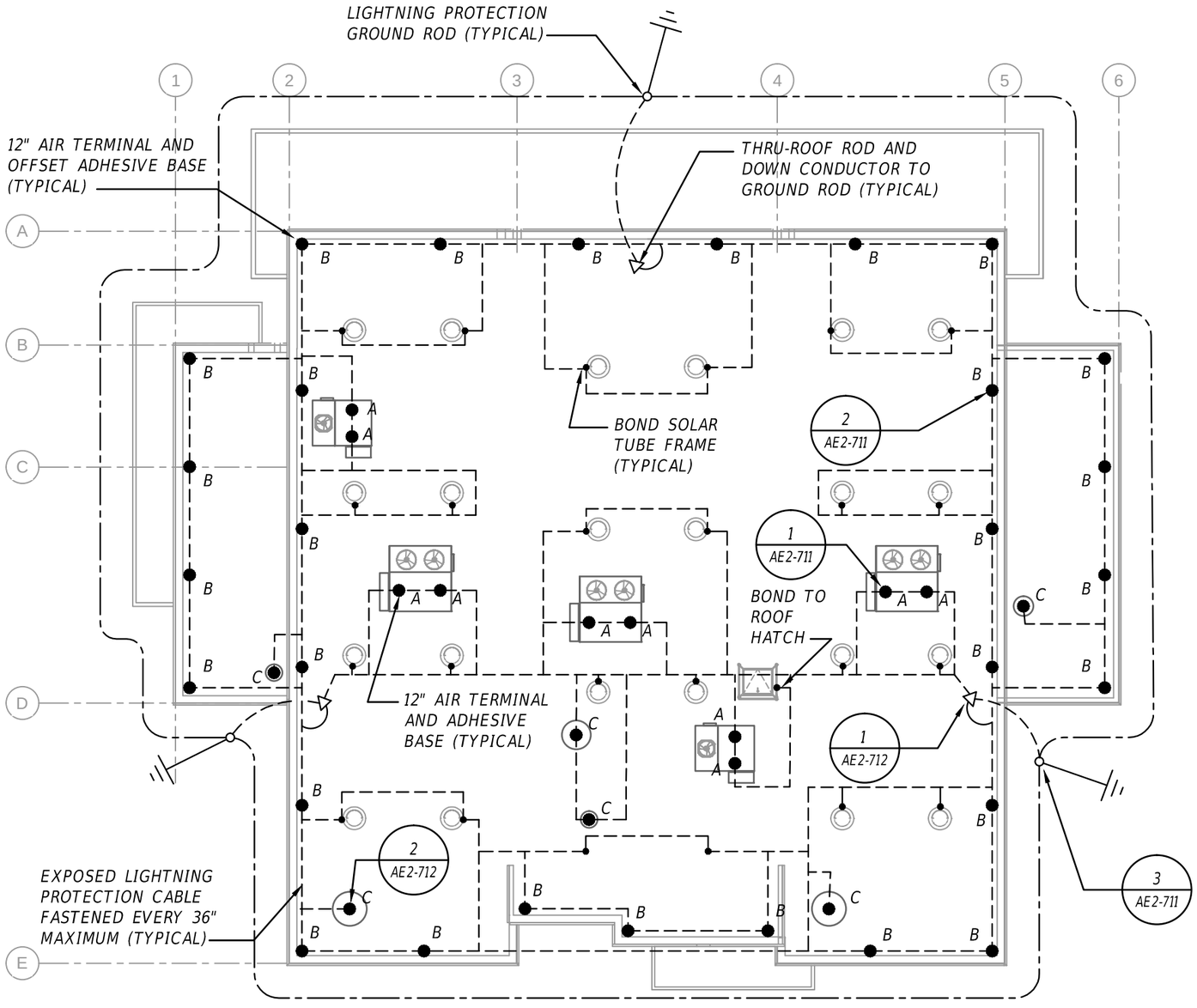
SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL ROOF PLAN - POWER

SHEET NO.

AE2-205

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 OVERALL ROOF PLAN - LIGHTNING PROTECTION

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

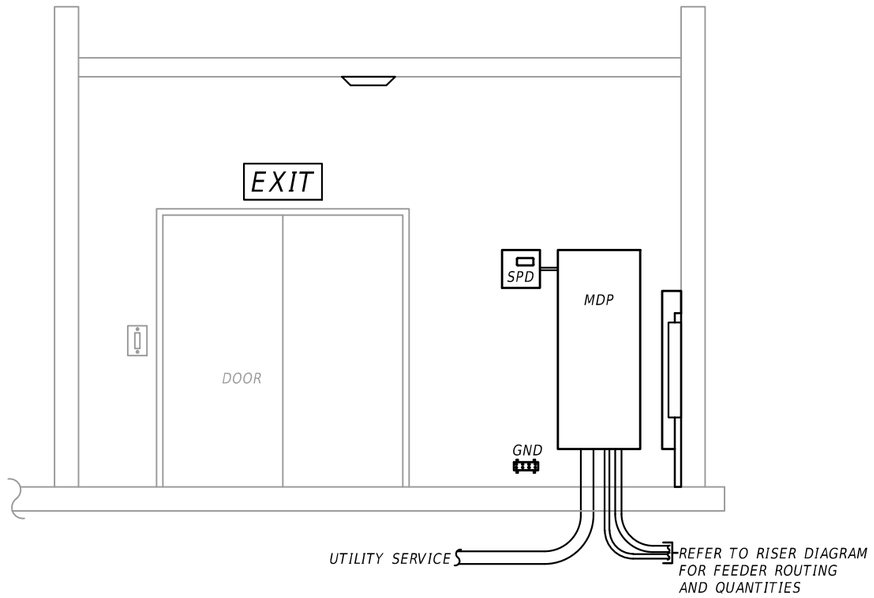
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

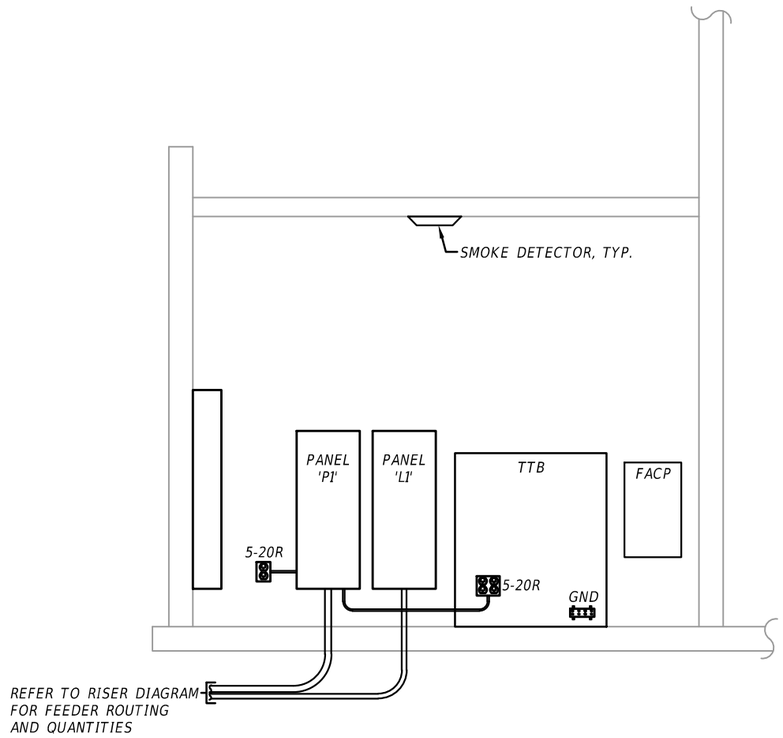
OVERALL ROOF PLAN - LIGHTNING PROTECTION

SHEET NO. AE2-206

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 SECTION VIEW - ELECTRICAL ROOM - EAST
1/4" = 1'-0"



1 SECTION VIEW - ELECTRICAL ROOM - SOUTH
1/4" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

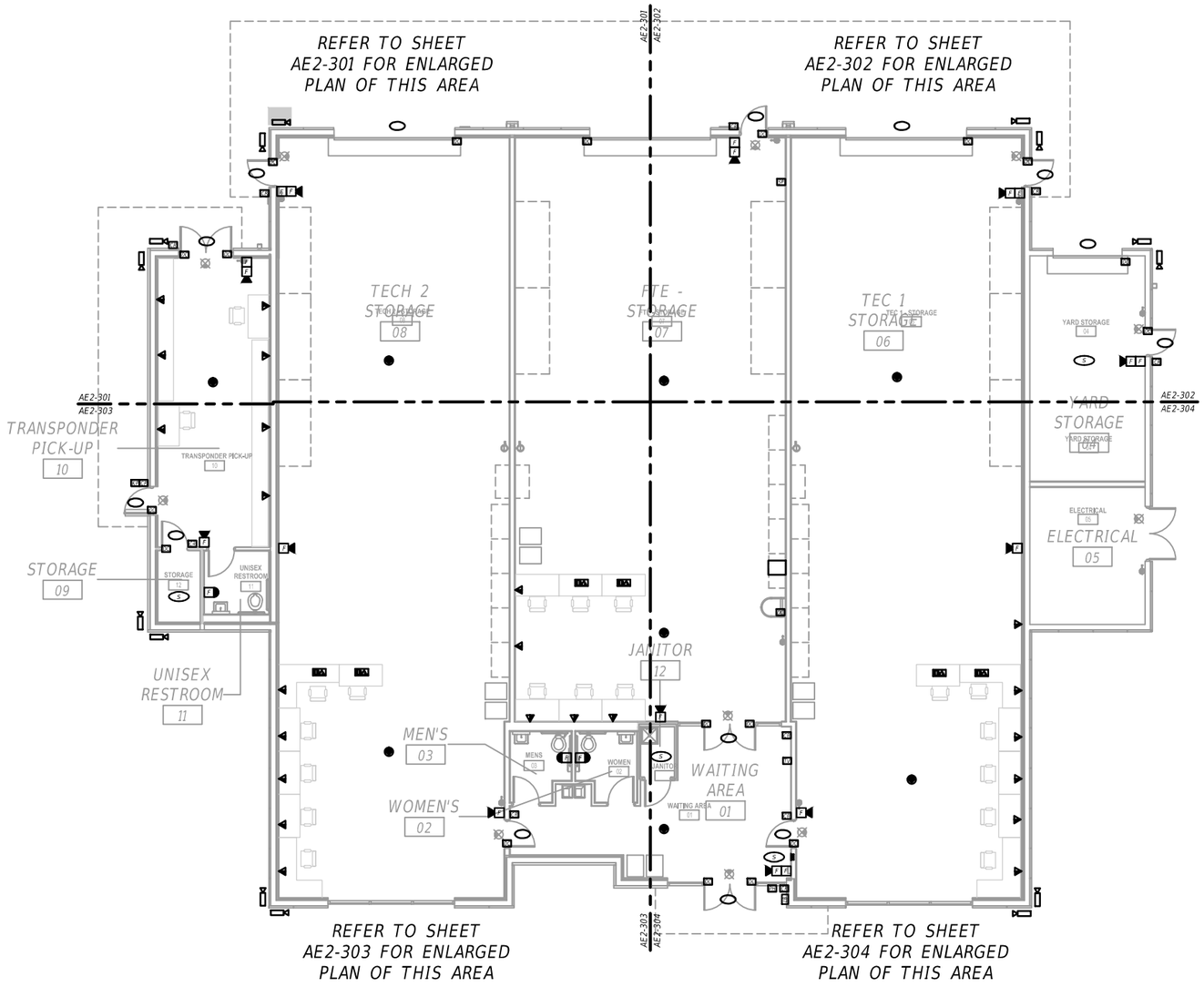
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SECTION VIEWS - ELECTRICAL

SHEET NO.
AE2-207

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. SEE RISER DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

E. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

● CEILING MOUNTED WIRELESS ACCESS POINT DEVICE (TO BE FURNISHED AND INSTALLED FTE). PROVIDE AND INSTALL (2) CAT6 CABLES TO NEAREST IDF. TERMINATE AT EACH END. WAP.

1 OVERALL FLOOR PLAN - SYSTEMS

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

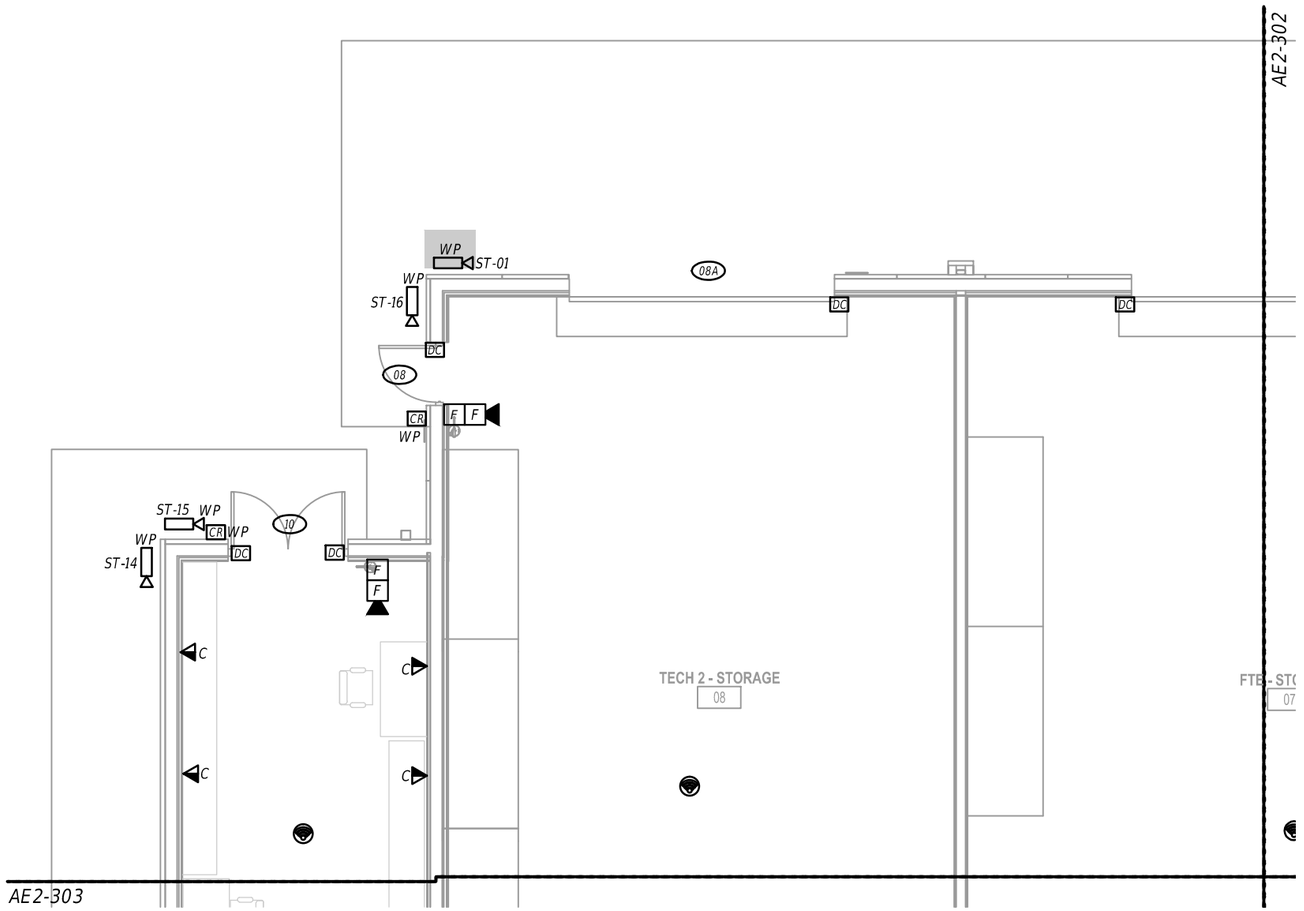
OVERALL FLOOR PLAN - SYSTEMS

SHEET NO.
AE2-300

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

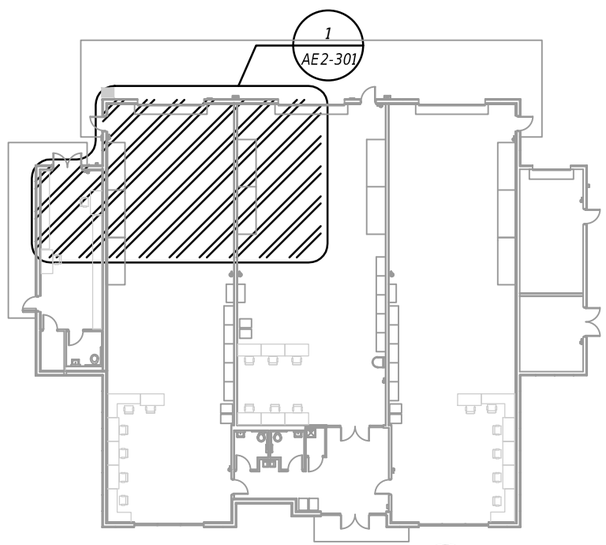
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 PARTIAL FLOOR PLAN - SYSTEMS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

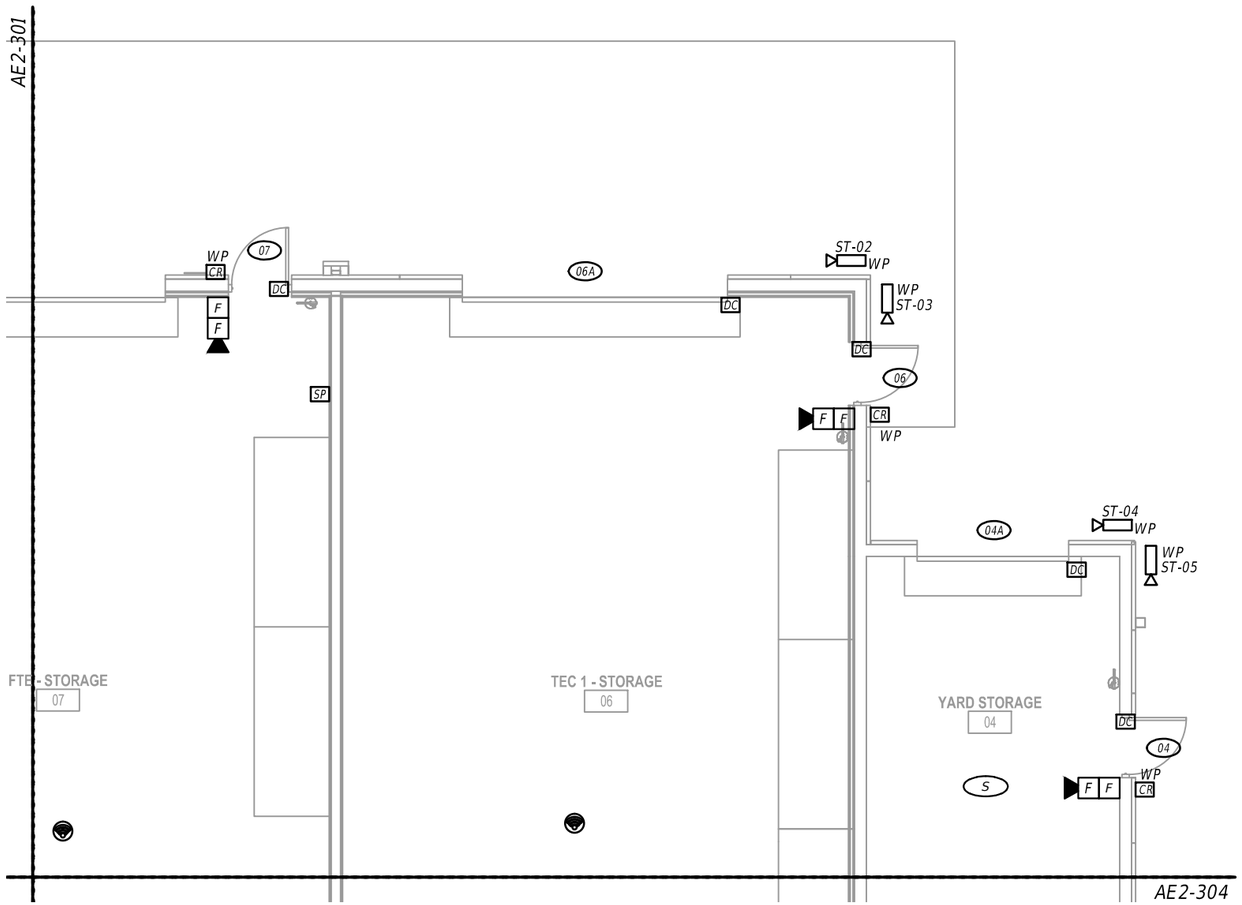
PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE2-301

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

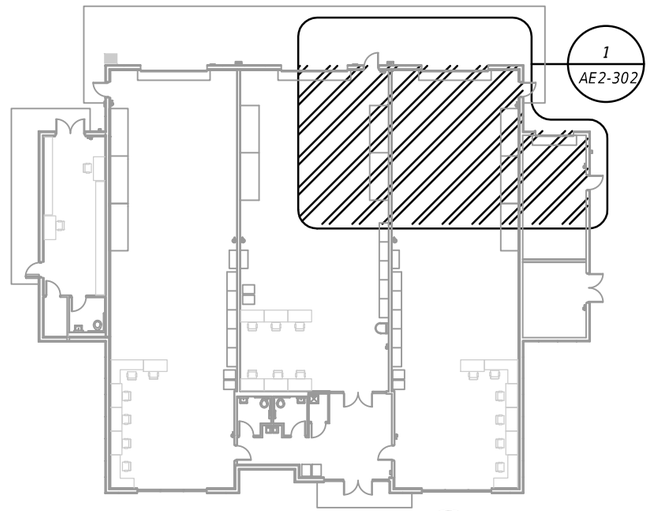
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 PARTIAL FLOOR PLAN - SYSTEMS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

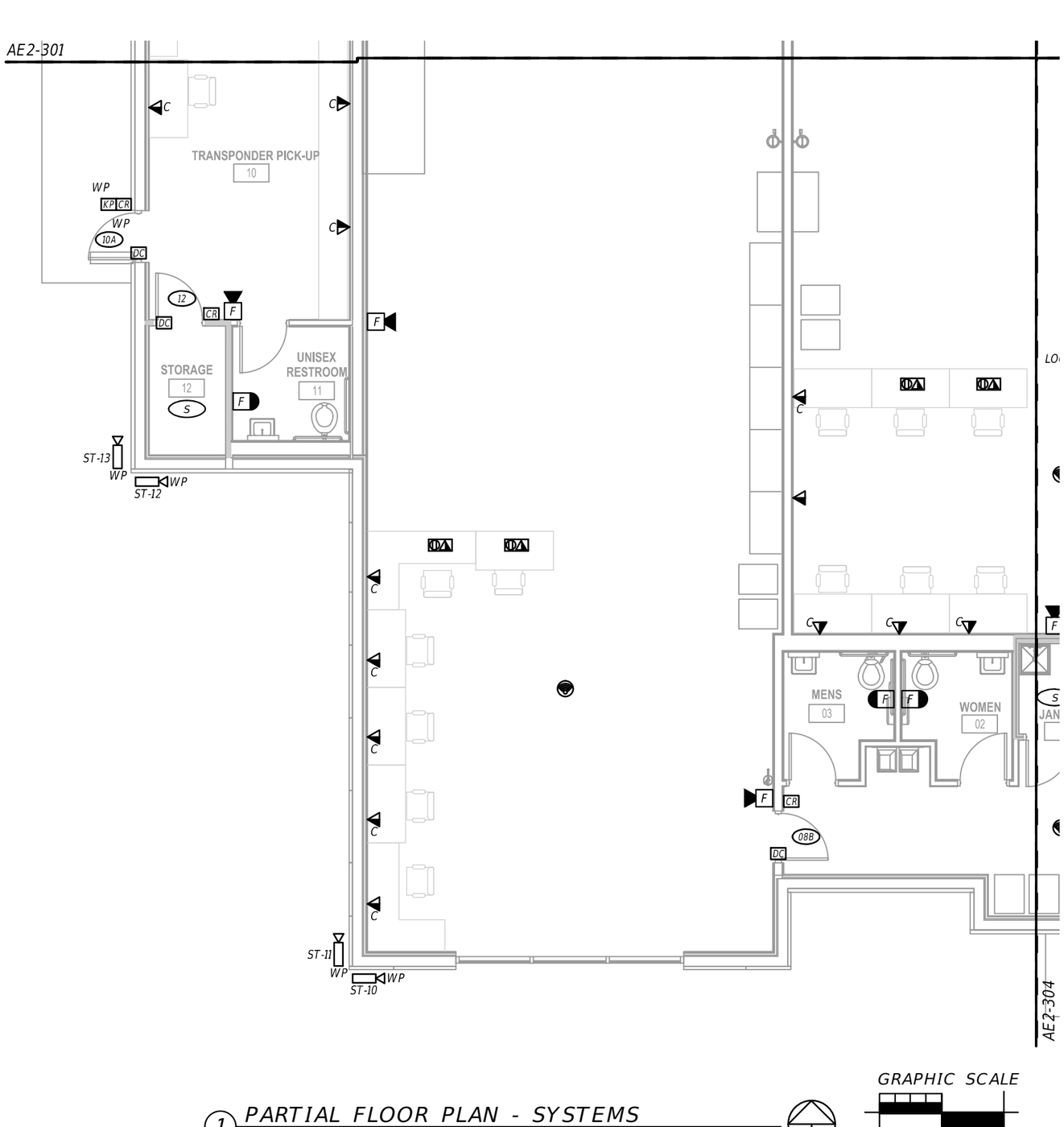
PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE2-302

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

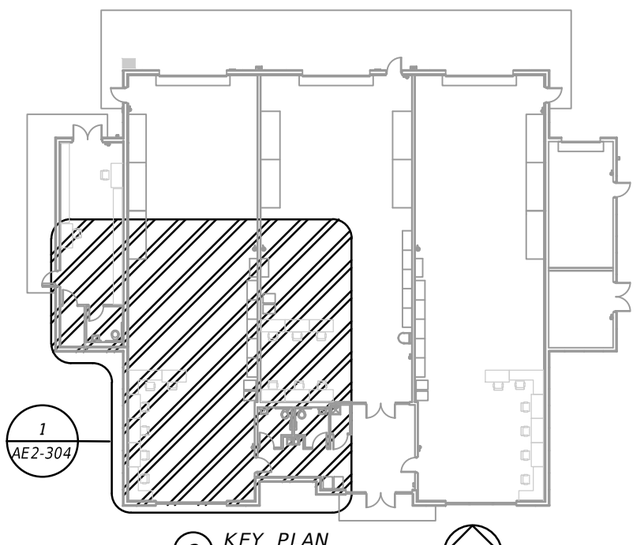
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 PARTIAL FLOOR PLAN - SYSTEMS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

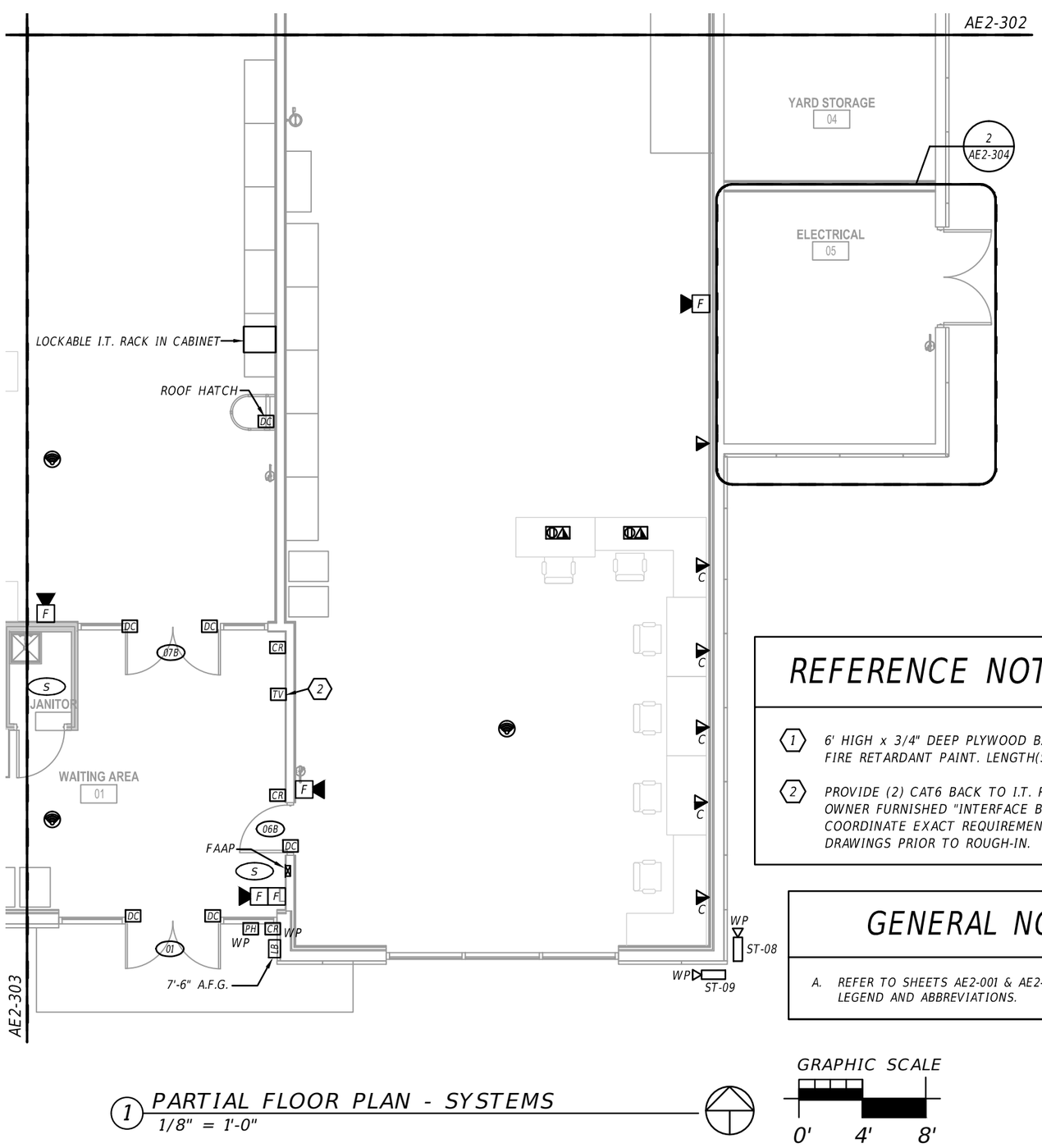
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

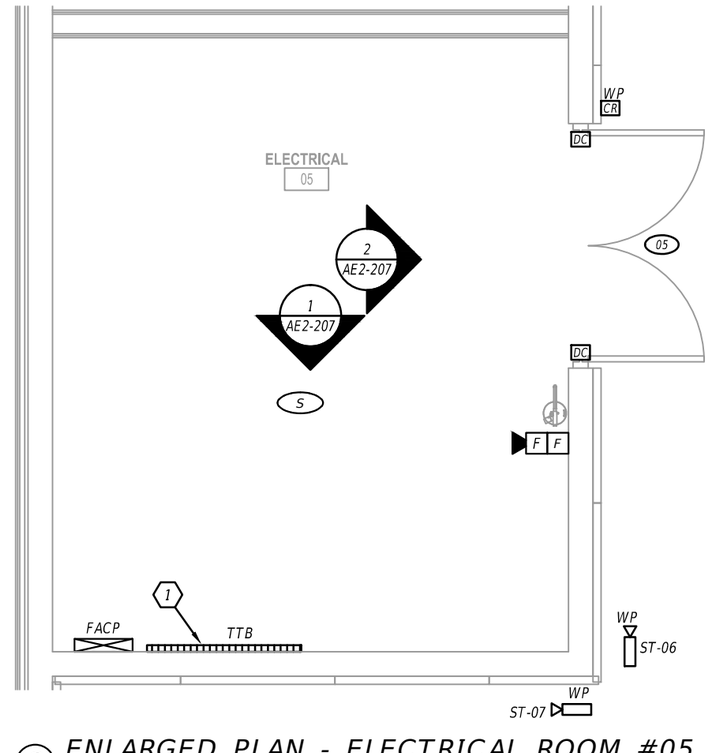
PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO.
AE2-303

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN - SYSTEMS
1/8" = 1'-0"



2 ENLARGED PLAN - ELECTRICAL ROOM #05
1/4" = 1'-0"

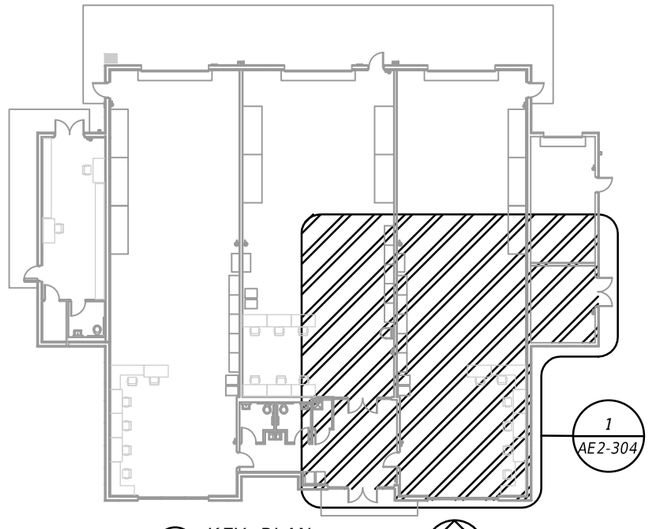
REFERENCE NOTES: (X)

1. 6' HIGH x 3/4" DEEP PLYWOOD BACKBOARD WITH FIRE RETARDANT PAINT. LENGTH(S) AS INDICATED.
2. PROVIDE (2) CAT6 BACK TO I.T. RACK WITH OWNER FURNISHED "INTERFACE BOX". COORDINATE EXACT REQUIREMENTS WITH AV DRAWINGS PRIOR TO ROUGH-IN.

GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

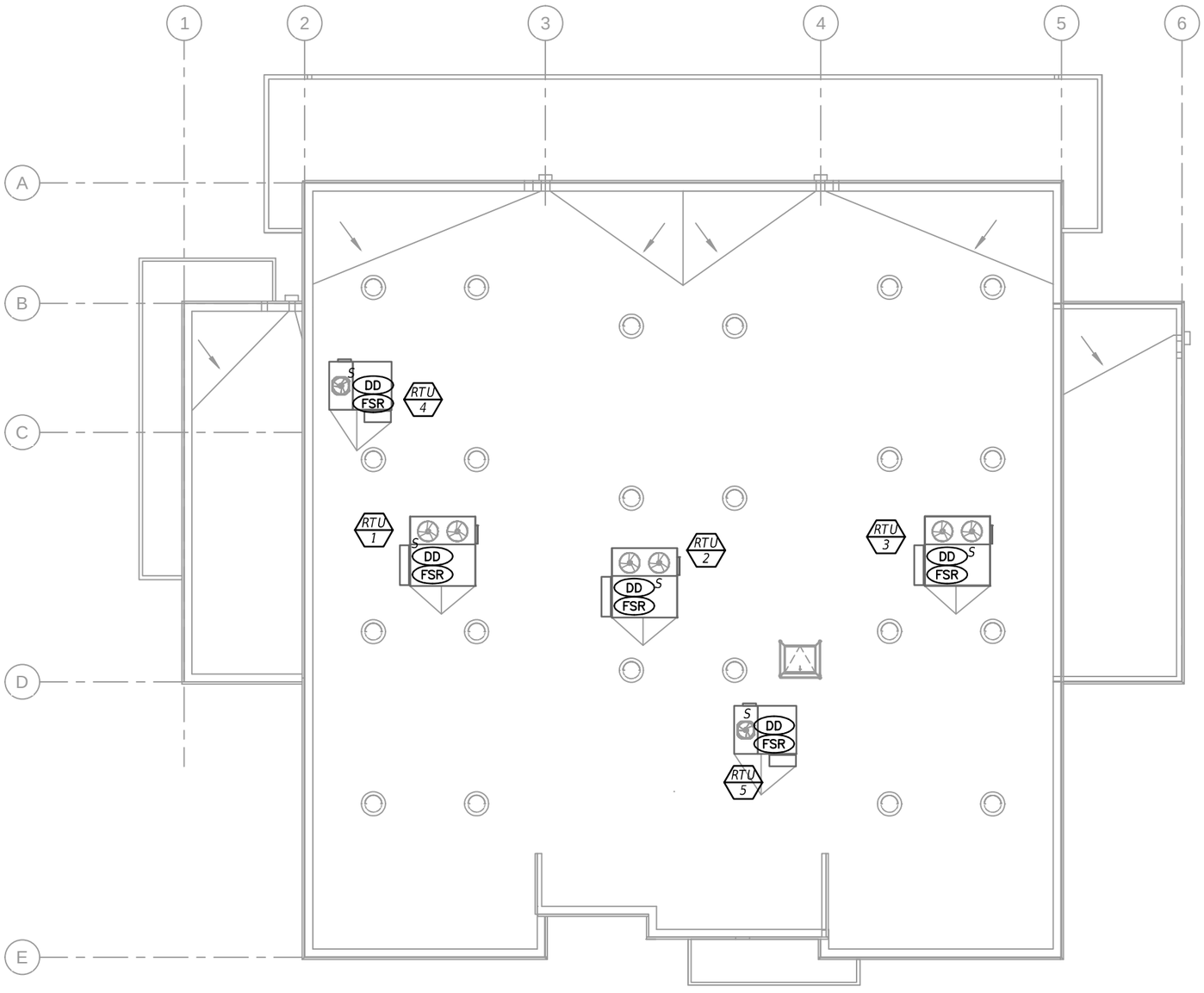
PARTIAL FLOOR PLAN - SYSTEMS

SHEET NO. AE2-304

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES:

1. DISCONNECT SWITCH PROVIDED BY DIVISION 15 CONTRACTOR, INSTALLED AND WIRED BY DIVISION 16 CONTRACTOR. PROVIDE FUSES PER MANUFACTURERS RECOMMENDATIONS.



1 OVERALL ROOF PLAN - SYSTEMS

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL ROOF PLAN - SYSTEMS

SHEET NO. AE2-305

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL LIGHTING NOTES:

(TYPICAL FOR LIGHTING FLOOR PLANS)

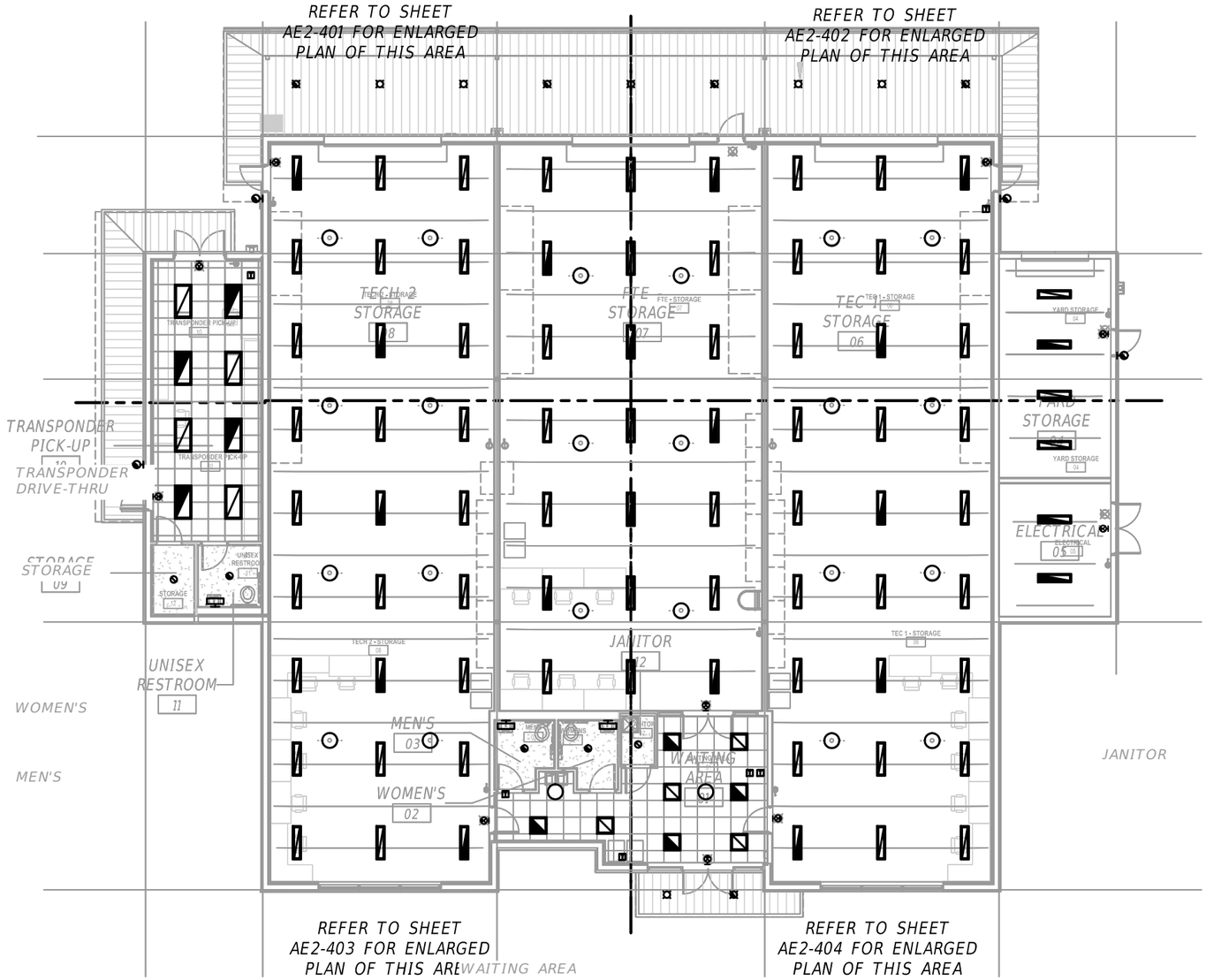
A. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS AND ORIENTATIONS.

B. REFER TO ARCHITECTURAL ELEVATIONS AND SECTIONS FOR ADDITIONAL LIGHTING FIXTURE MOUNTING DETAILS AND INFORMATION.

C. ALL EMERGENCY LIGHTING FIXTURES AND EXIT SIGNS SHALL BE CONNECTED "HOT" TO THE INDICATED LOCAL LIGHTING CIRCUIT.

D. VERIFY ALL MOUNTING HEIGHTS AND PENDANT LENGTHS WITH ARCHITECT AND ENGINEER PRIOR TO ORDERING FIXTURES.

E. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.



1 OVERALL FLOOR PLAN - LIGHTING

1/16" = 1'-0"

GRAPHIC SCALE

0' 8' 16'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

OVERALL FLOOR PLAN - LIGHTING

SHEET NO. AE2-400

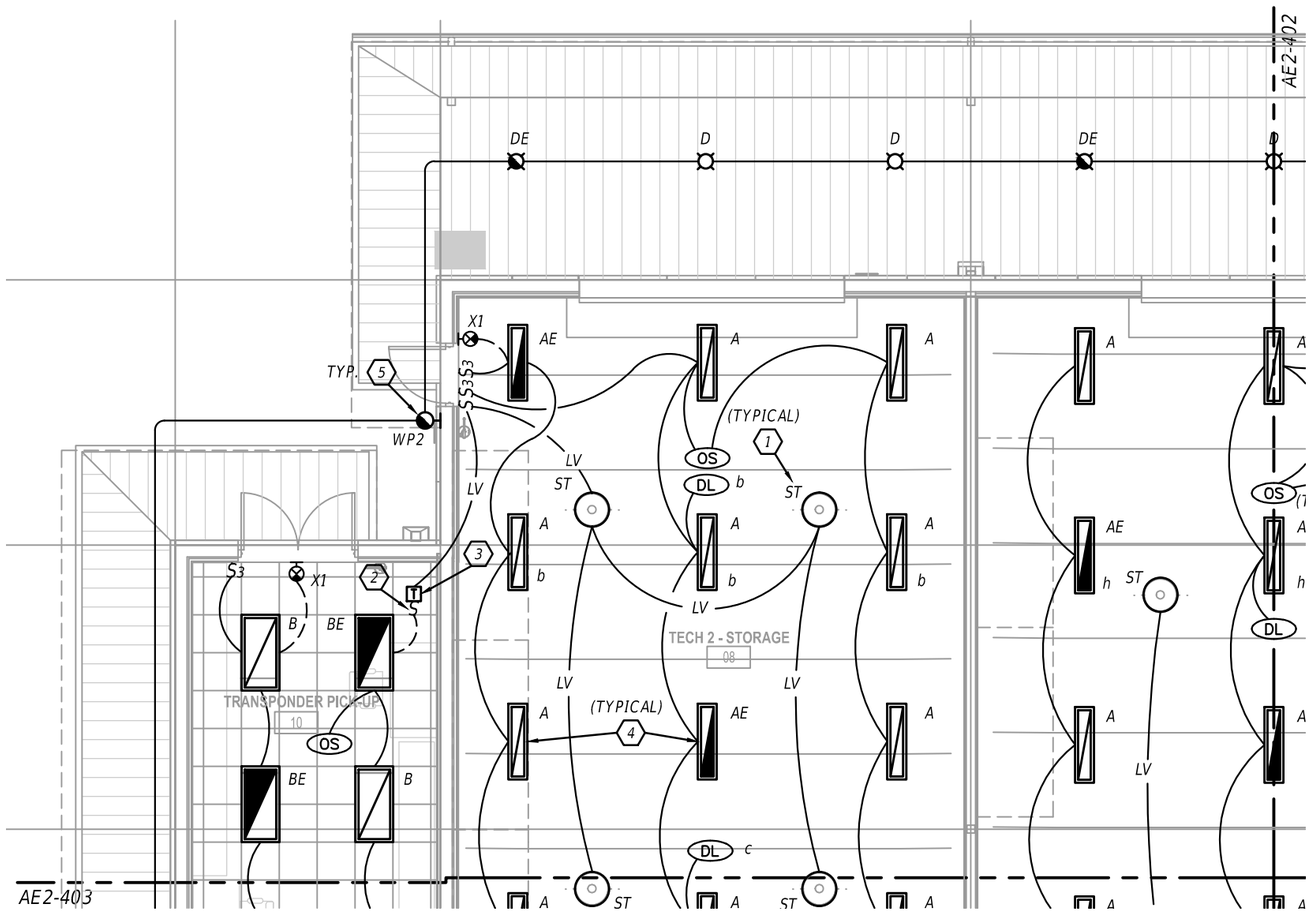
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: ⟨X⟩

1. "ST" INDICATES SOLAR TUBE UNIT. PROVIDE WITH LOW VOLTAGE (24V) TRANSFORMER. WIRE MINIMUM #12 FROM DOUBLE POLE DOUBLE THROW WALL MOUNTED SWITCH AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. TRANSFORMER SHALL BE FURNISHED BY MANUFACTURER. INSTALLED AND WIRED BY CONTRACTOR.
2. DOUBLE POLE DOUBLE THROW WALL SWITCH FOR SOLAR TUBE DIMMER CONTROL. LEGRAND PASS $ SEYMOUR DECORATOR SERIES. SWITCH PROVIDED WITH SYSTEM. SEE SPECIFICATIONS
3. LOW VOLTAGE 120/24V TRANSFORMER FOR SOLAR TUBE DIMMER CONTROL MOUNTED IN ACCESSIBLE CEILING
4. FIXTURE TYPES "A" & "AE" SHALL BE SUSPENDED FROM STRUCTURE WITH A MOUNTING HEIGHT OF 18'-0" A.F.F.
5. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL EXTERIOR ELEVATION.

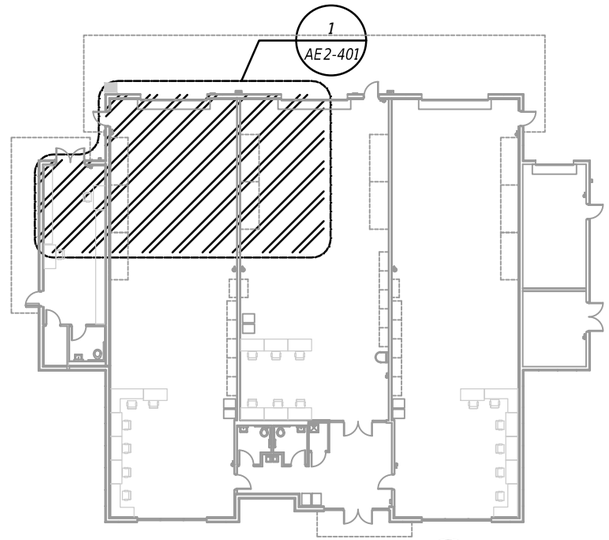
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.
B. PROVIDE NEUTRAL CONDUCTOR TO LIGHTING SWITCHES AS REQUIRED PER N.E.C. 404.2 (B)



1 PARTIAL FLOOR PLAN - LIGHTING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

PARTIAL FLOOR PLAN - LIGHTING

SHEET NO.
AE2-401

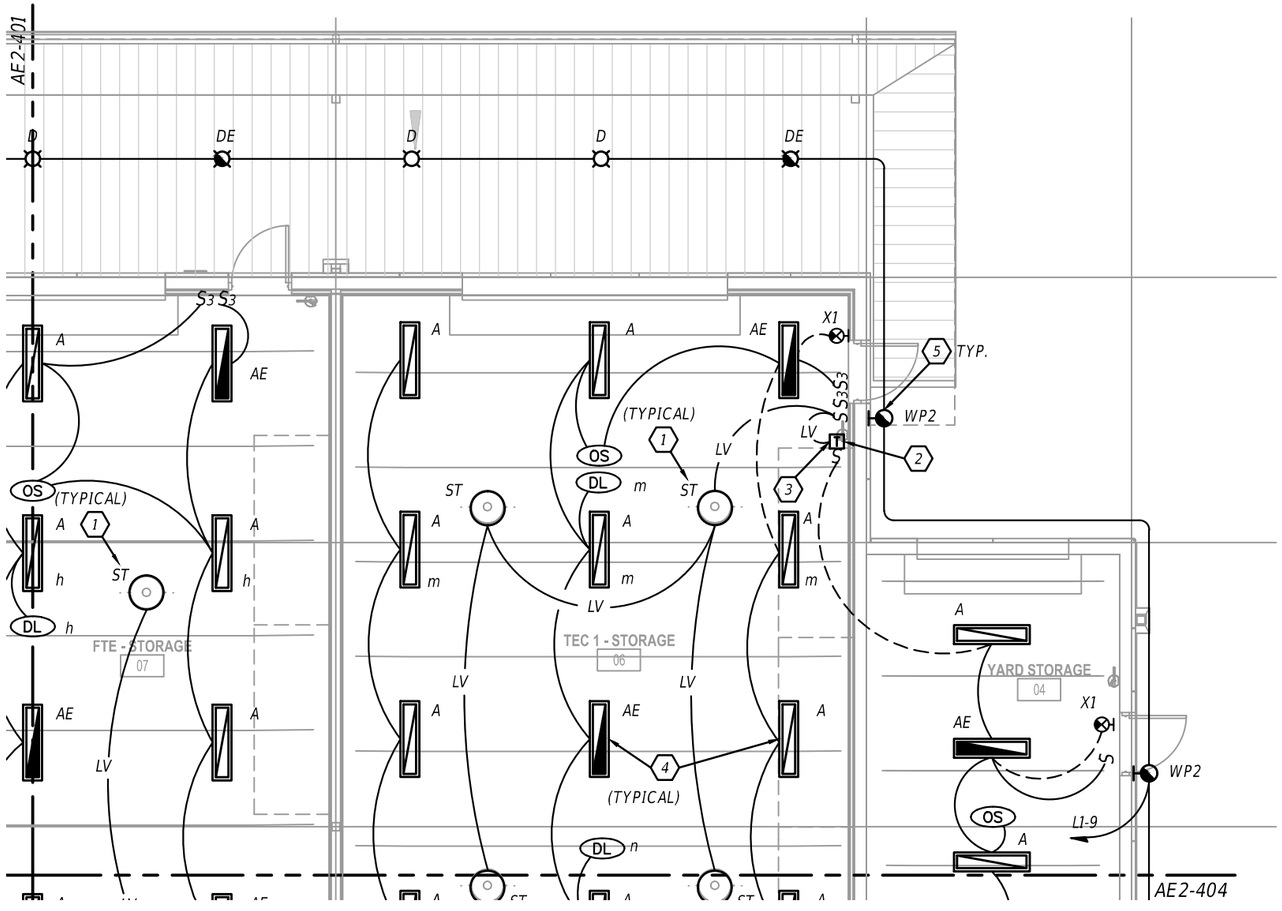
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REFERENCE NOTES: (X)

1. *"ST" INDICATES SOLAR TUBE UNIT. PROVIDE WITH LOW VOLTAGE (24V) TRANSFORMER. WIRE MINIMUM #12 FROM DOUBLE POLE DOUBLE THROW WALL MOUNTED SWITCH AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. TRANSFORMER SHALL BE FURNISHED BY MANUFACTURER. INSTALLED AND WIRED BY CONTRACTOR.*
2. *DOUBLE POLE DOUBLE THROW WALL SWITCH FOR SOLAR TUBE DIMMER CONTROL. LEGRAND PASS $ SEYMOUR DECORATOR SERIES.*
3. *LOW VOLTAGE 120/24V TRANSFORMER FOR SOLAR TUBE DIMMER CONTROL MOUNTED 6" BELOW EXPOSED CEILING IN ACCESSIBLE SPACE. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.*
4. *FIXTURE TYPES "A" & "AE"SHALL BE SUSPENDED FROM STRUCTURE WITH A MOUNTING HEIGHT OF 18'-0" A.F.F.*
5. *COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL EXTERIOR ELEVATION.*

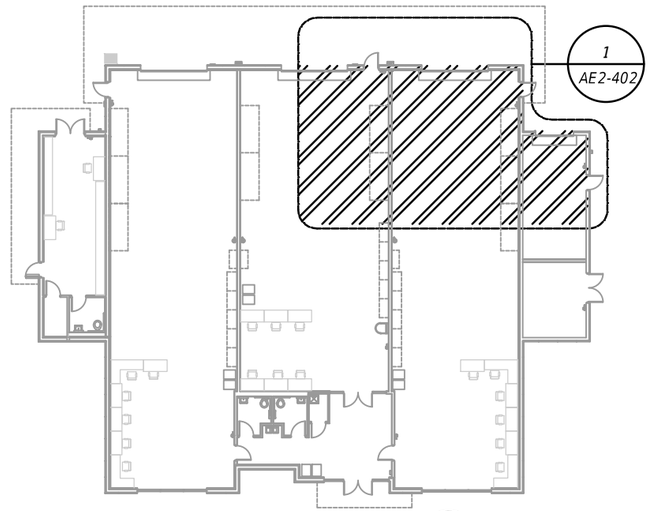
GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.
B. PROVIDE NEUTRAL CONDUCTOR TO LIGHTING SWITCHES AS REQUIRED PER N.E.C. 404.2 (B)



1 PARTIAL FLOOR PLAN - LIGHTING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

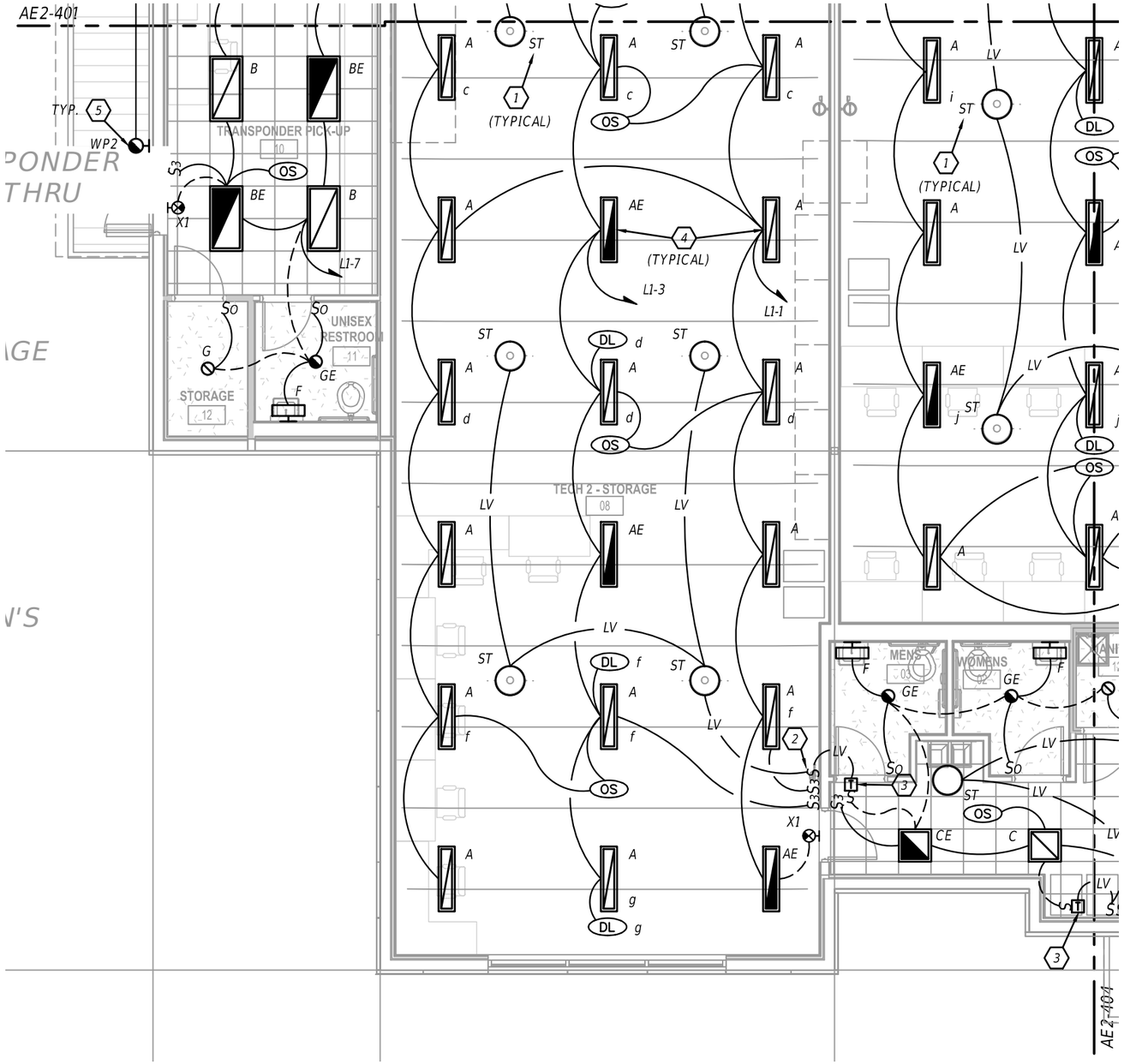
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

PARTIAL FLOOR PLAN - LIGHTING

SHEET NO.
AE2-402

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1 PARTIAL FLOOR PLAN - LIGHTING
1/8" = 1'-0"

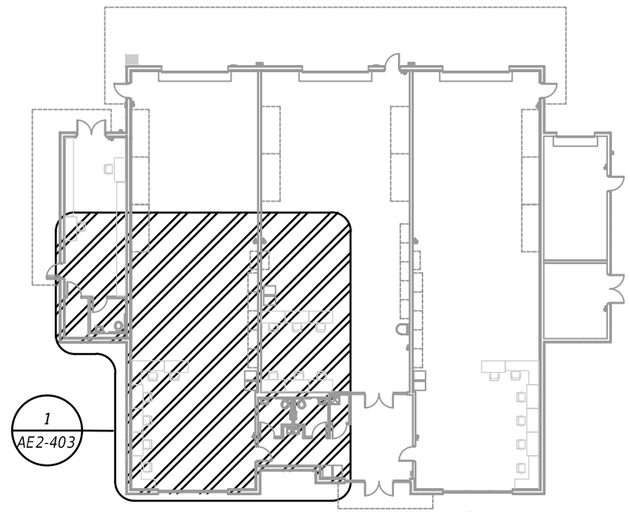
GRAPHIC SCALE
0' 4' 8'

REFERENCE NOTES: (X)

1. "ST" INDICATES SOLAR TUBE UNIT. PROVIDE WITH LOW VOLTAGE (24V) TRANSFORMER. WIRE MINIMUM #12 FROM DOUBLE POLE DOUBLE THROW WALL MOUNTED SWITCH AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. TRANSFORMER SHALL BE FURNISHED BY MANUFACTURER. INSTALLED AND WIRED BY CONTRACTOR.
2. DOUBLE POLE DOUBLE THROW WALL SWITCH FOR SOLAR TUBE DIMMER CONTROL. LEGRAND PASS $ SEYMOUR DECORATOR SERIES.
3. LOW VOLTAGE 120/24V TRANSFORMER FOR SOLAR TUBE DIMMER CONTROL MOUNTED IN ACCESSIBLE CEILING
4. FIXTURE TYPES "A" & "AE"SHALL BE SUSPENDED FROM STRUCTURE WITH A MOUNTING HEIGHT OF 18'-0" A.F.F.
5. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL EXTERIOR ELEVATION.

GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.
B. PROVIDE NEUTRAL CONDUCTOR TO LIGHTING SWITCHES AS REQUIRED PER N.E.C. 404.2 (B)



2 KEY PLAN
1/32" = 1'-0"

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

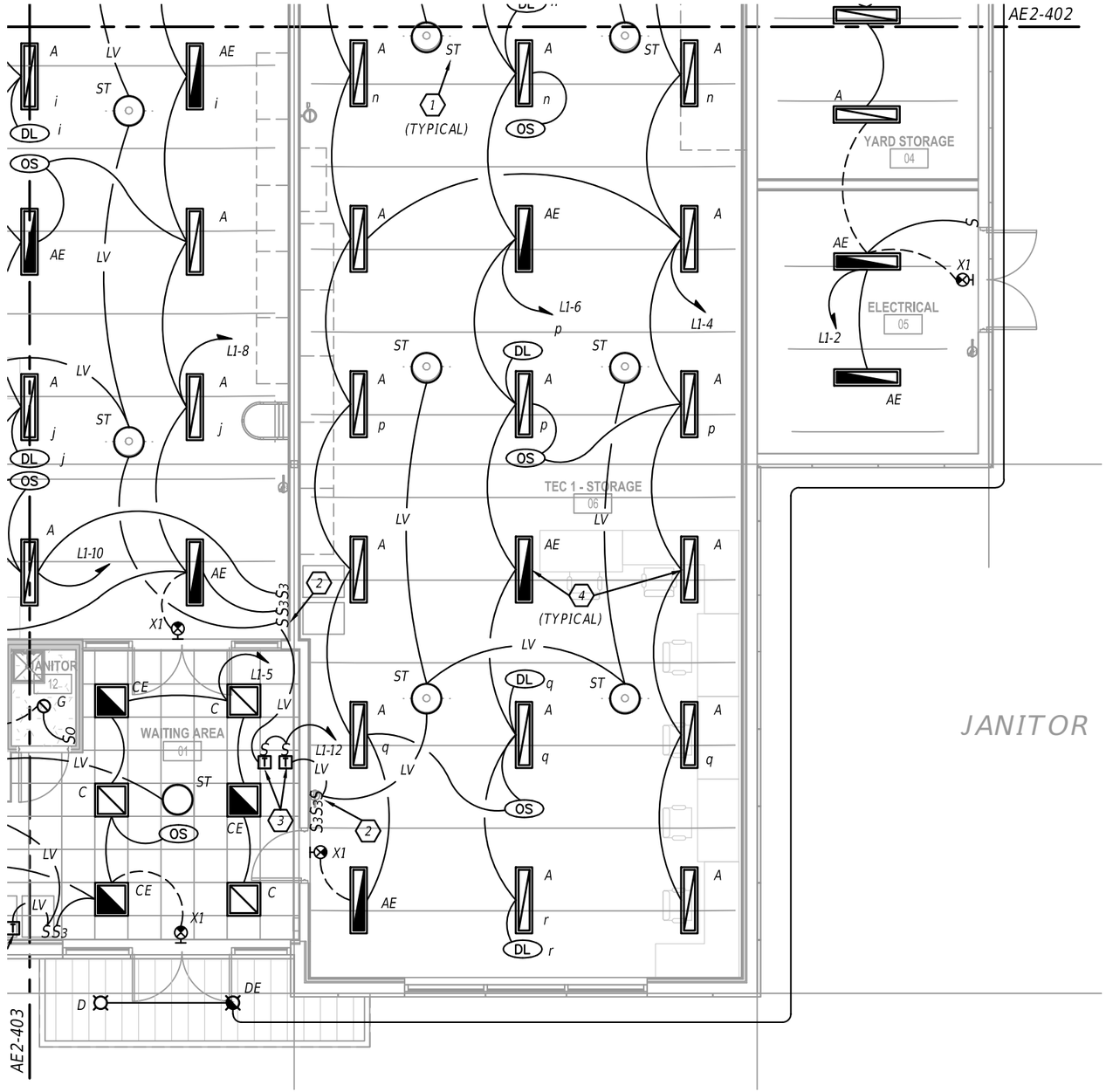
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

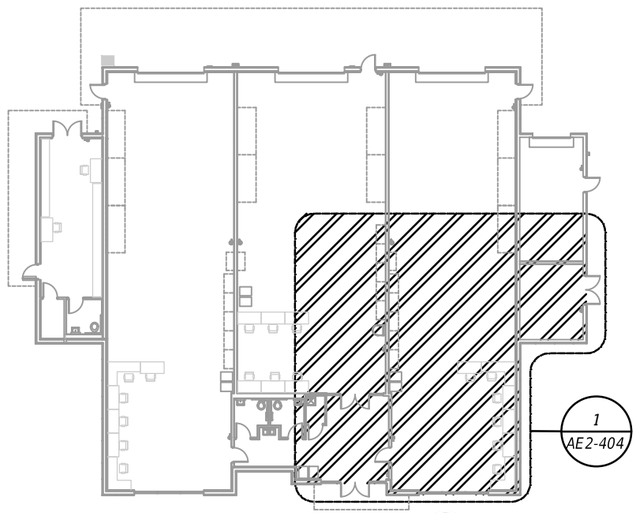
PARTIAL FLOOR PLAN - LIGHTING

SHEET NO.
AE2-403



1 PARTIAL FLOOR PLAN - LIGHTING
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REFERENCE NOTES: (X)

1. "ST" INDICATES SOLAR TUBE UNIT. PROVIDE WITH LOW VOLTAGE (24V) TRANSFORMER. WIRE MINIMUM #12 FROM DOUBLE POLE DOUBLE THROW WALL MOUNTED SWITCH AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS. TRANSFORMER SHALL BE FURNISHED BY MANUFACTURER. INSTALLED AND WIRED BY CONTRACTOR.
2. DOUBLE POLE DOUBLE THROW WALL SWITCH FOR SOLAR TUBE DIMMER CONTROL. LEGRAND PASS $ SEYMOUR DECORATOR SERIES.
3. LOW VOLTAGE 120/24V TRANSFORMER FOR SOLAR TUBE DIMMER CONTROL MOUNTED IN ACCESSIBLE CEILING
4. FIXTURE TYPES "A" & "AE"SHALL BE SUSPENDED FROM STRUCTURE WITH A MOUNTING HEIGHT OF 18'-0" A.F.F.

GENERAL NOTES:

A. REFER TO SHEETS AE2-001 & AE2-002 FOR SYMBOL LEGEND AND ABBREVIATIONS.
B. PROVIDE NEUTRAL CONDUCTOR TO LIGHTING SWITCHES AS REQUIRED PER N.E.C. 404.2 (B)

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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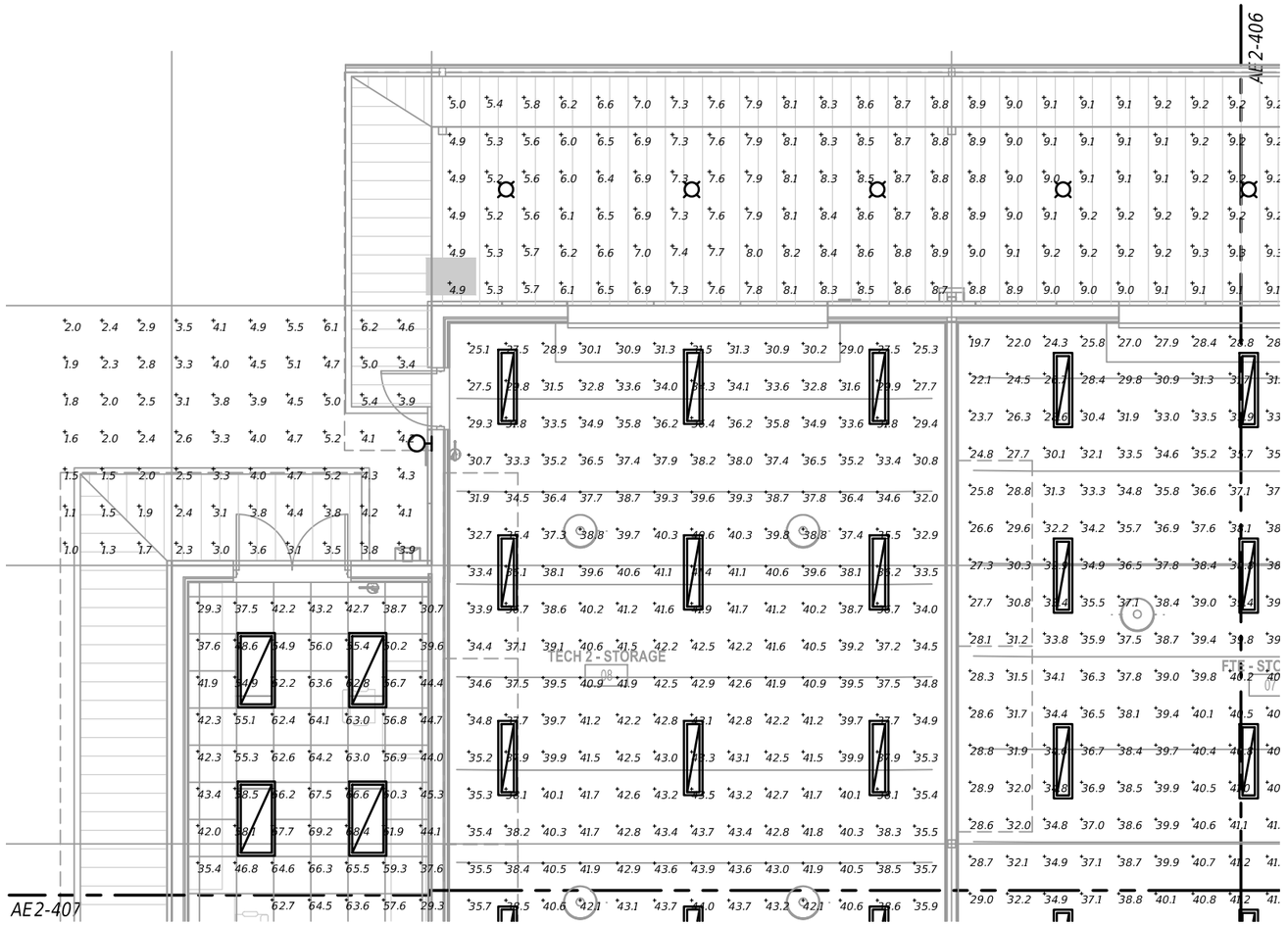
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

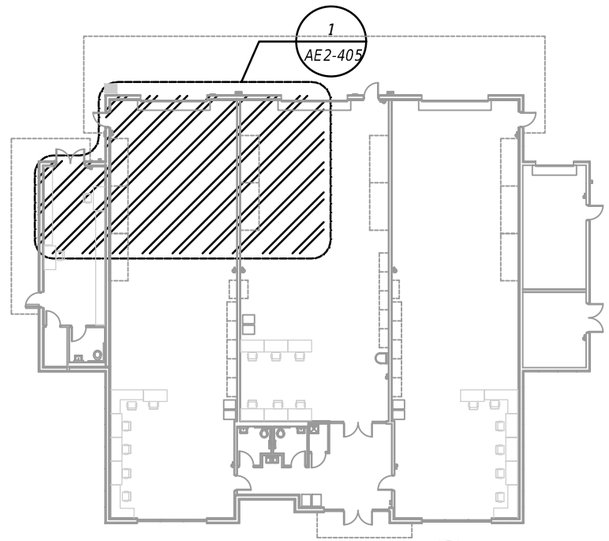
PARTIAL FLOOR PLAN - LIGHTING

SHEET NO. AE2-404



1 PARTIAL FLOOR PLAN - PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

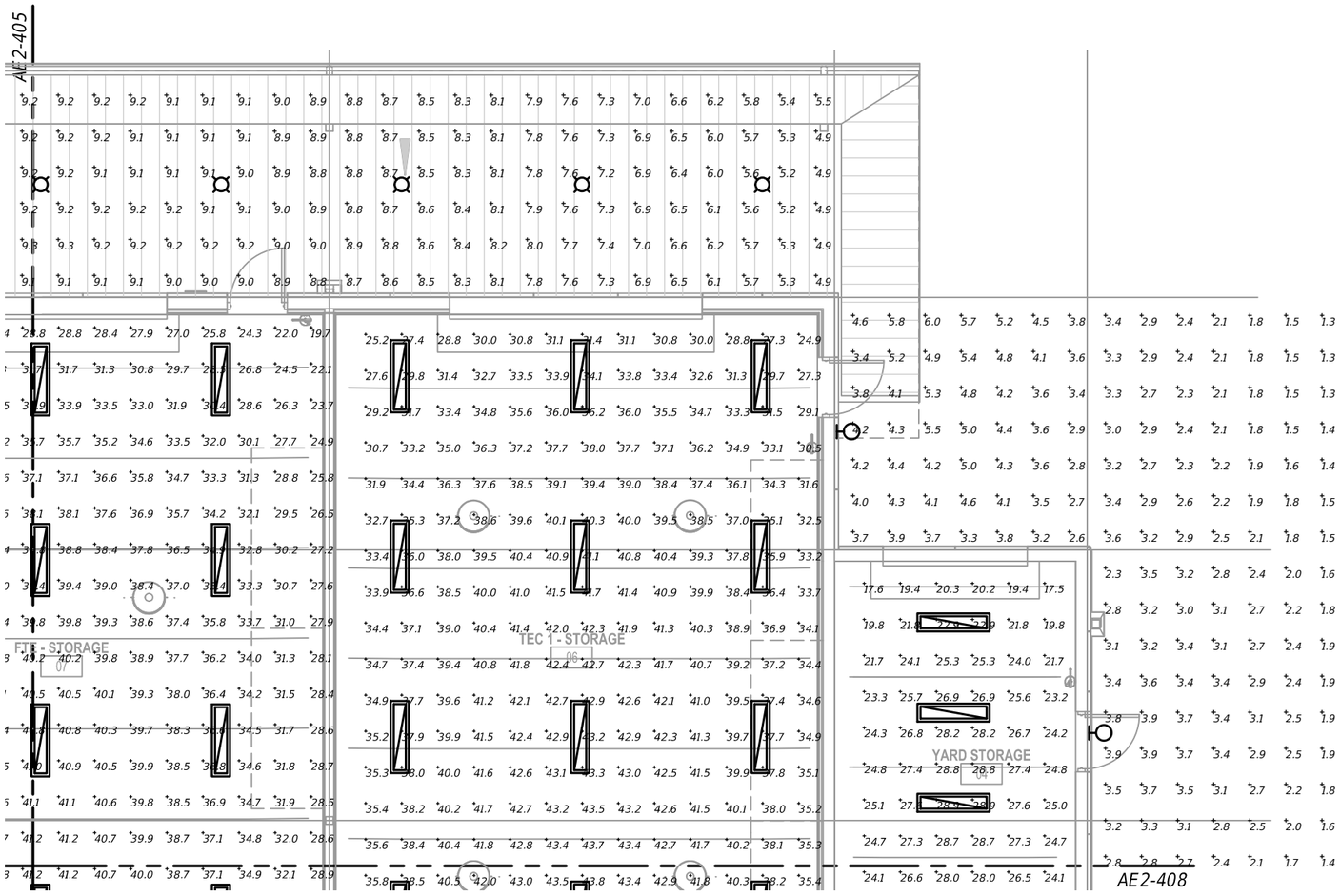
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

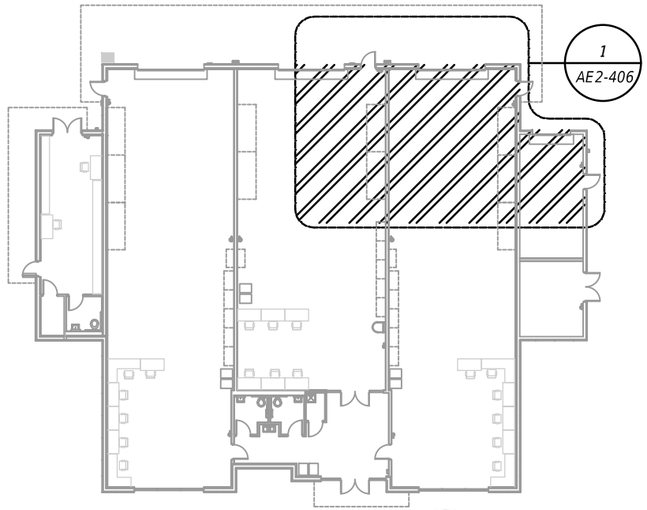
SHEET NO.
AE2-405

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN - PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

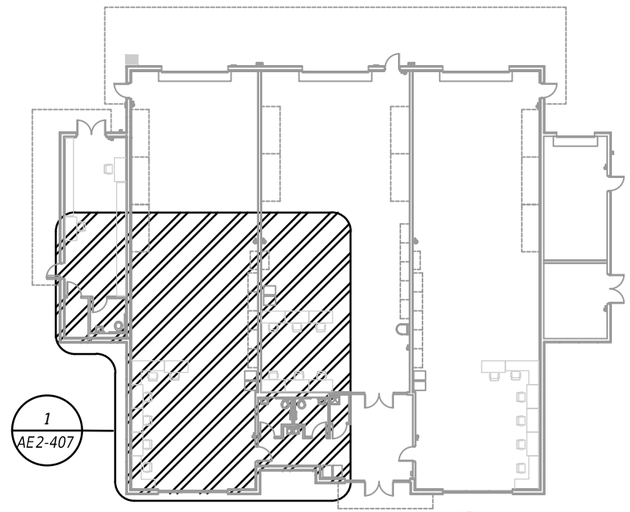
SHEET NO.
AE2-406

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN - PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

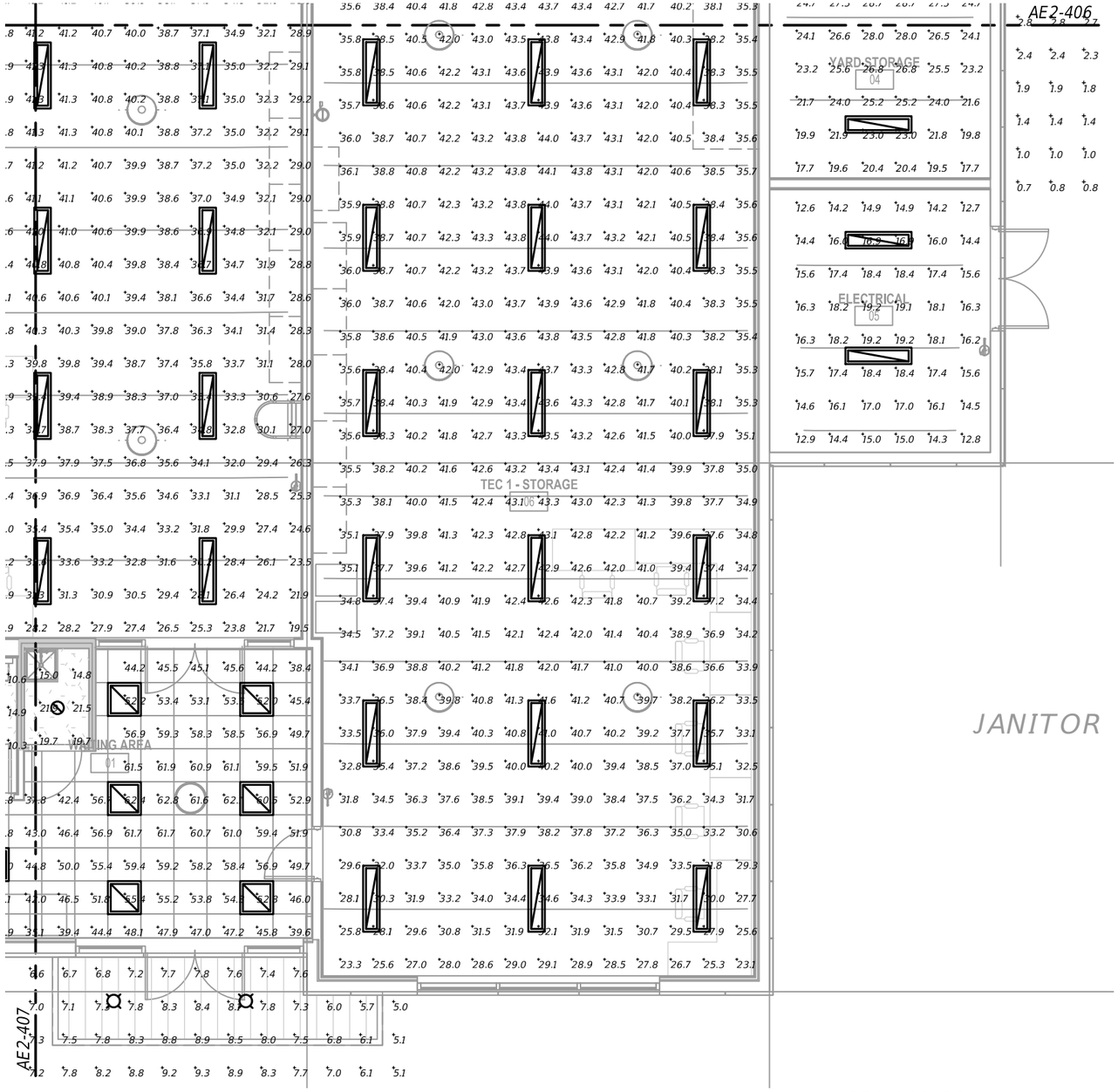
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

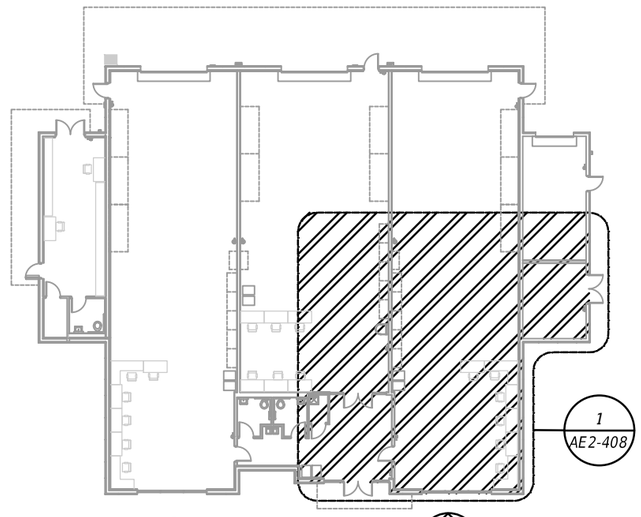
SHEET NO.
AE2-407

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN -PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS

SHEET NO.
AE2-408

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Luminaire Schedule				
Symbol	Label	Arrangement	LLF	Description
	A	SINGLE	0.900	39-4-L52-835-A mtd 18' AFF
	C	SINGLE	0.900	AT1-22-L40-830-SH mtd 11' AFF
	D	SINGLE	0.900	SVPG-168L-1200-NW-5
	WP2	SINGLE	0.900	VWPH-L30-730-FT-SDGL-OPT-EDD mtd 10' AFG
	B2	SINGLE	0.900	LPT-24-L42-835-AF12095 mtd 10' AFF
	G	SINGLE	0.900	ILM6L2359C-SF / ILC6L2

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Canopy	Illuminance	Fc	7.88	9.3	4.9	1.61	1.90
Electric Rm 05_Workplane	Illuminance	Fc	16.21	19.2	12.6	1.29	1.52
Entrace Canopy	Illuminance	Fc	7.45	9.3	5.0	1.49	1.86
Exterior 1	Illuminance	Fc	3.43	6.2	1.0	3.43	6.20
Exterior 2	Illuminance	Fc	2.74	6.0	0.5	5.48	12.00
Janitor_Floor	Illuminance	Fc	18.77	21.9	14.8	1.27	1.48
Mens Rm - 03_Workplane	Illuminance	Fc	19.18	35.0	9.7	1.98	3.61
Restroom 11_Workplane	Illuminance	Fc	15.38	25.1	8.1	1.90	3.10
Room_06_Workplane	Illuminance	Fc	38.13	44.1	23.1	1.65	1.91
Room_07_Workplane	Illuminance	Fc	34.02	41.3	19.4	1.75	2.13
Room_08_Workplane	Illuminance	Fc	38.30	44.5	23.0	1.67	1.93
Room_10_Workplane	Illuminance	Fc	51.94	69.2	24.2	2.15	2.86
Stor 12_Workplane	Illuminance	Fc	20.58	26.5	14.2	1.45	1.87
Waiting Area_Workplane	Illuminance	Fc	47.26	62.8	18.4	2.57	3.41
Womens Rm - 02_Workplane	Illuminance	Fc	19.23	35.1	10.3	1.87	3.41
Yard Storage 04_Workplane	Illuminance	Fc	24.06	28.9	17.5	1.37	1.65

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

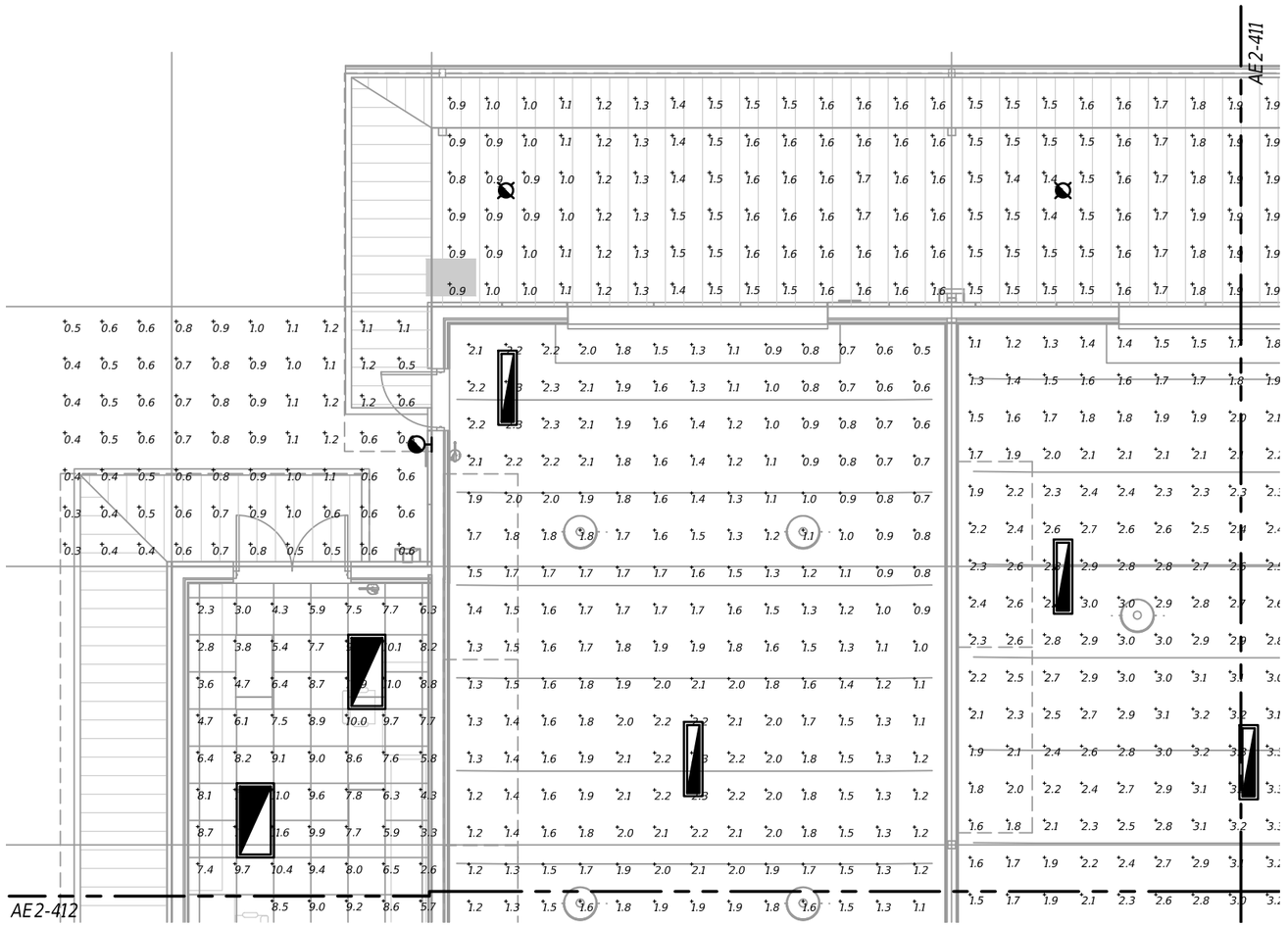
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CALCULATIONS - PHOTOMETRICS

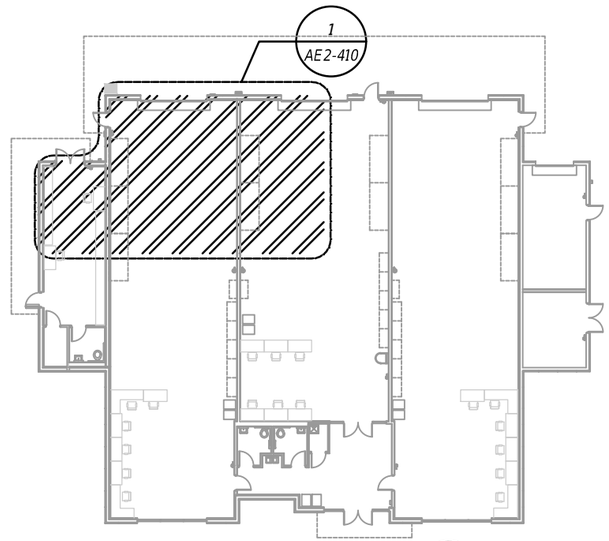
SHEET NO.
AE2-409

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 PARTIAL FLOOR PLAN - PHOTOMETRICS
1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

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NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

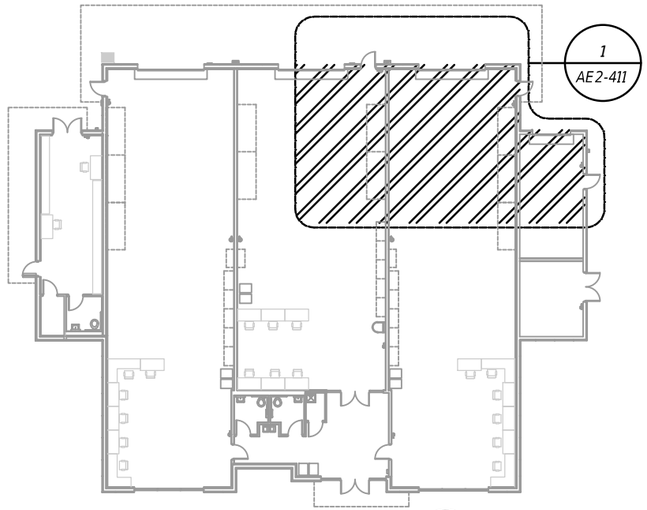
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SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

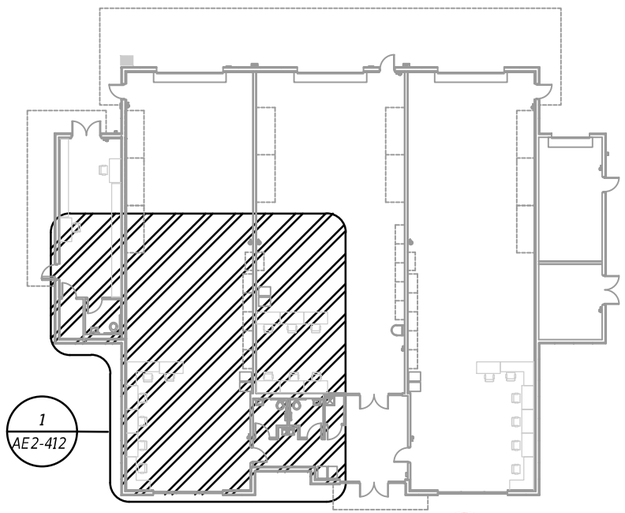
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SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

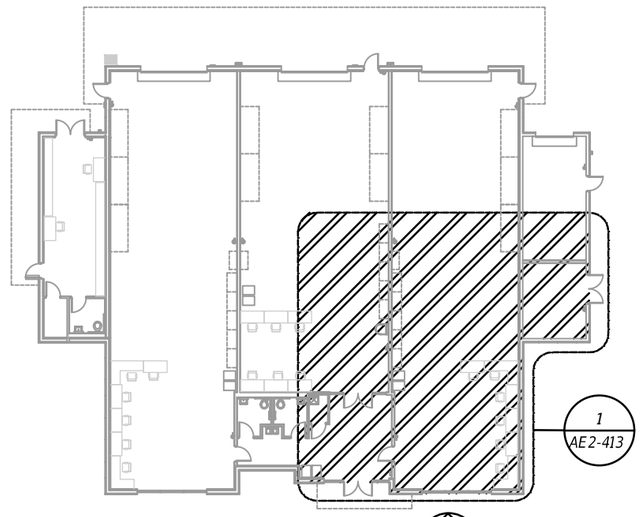
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1/8" = 1'-0"

GRAPHIC SCALE
0' 4' 8'



2 KEY PLAN
1/32" = 1'-0"

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SUNTRAX TEST FACILITY STORAGE BUILDING

PARTIAL FLOOR PLAN - PHOTOMETRICS - EMERGENCY

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Luminaire Schedule					
Symbol	Label	Arrangement	Total Lamp Lumens	LLF	Description
	A EM	SINGLE	N.A.	0.190	39-4-L52-835-A mtd 18' AFF
	C EM	SINGLE	N.A.	0.220	AT1-22-L40-830-SH mtd 11' AFF
	D EM	SINGLE	N.A.	0.400	SVPG-168L-1200-NW-5
	WP2 EM	SINGLE	N.A.	0.130	VWPH-L30-730-FT-SDGL-OPT-EDD mtd 10' AFG
	B EM	SINGLE	N.A.	0.250	LPT-24-L42-835-AF12095 mtd 10' AFF
	G EM	SINGLE	N.A.	0.400	ILM6L2359C-SF / ILC6L2

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Canopy	Illuminance	Fc	1.45	1.9	0.8	1.81	2.38
Electric Rm 05_Workplane	Illuminance	Fc	3.46	4.1	2.7	1.28	1.52
Entrace Canopy	Illuminance	Fc	1.71	2.1	1.2	1.43	1.75
Exterior 1	Illuminance	Fc	0.72	1.2	0.3	2.40	4.00
Exterior 2	Illuminance	Fc	0.50	1.2	0.1	5.00	12.00
Mens Rm - 03_Workplane	Illuminance	Fc	8.69	15.8	4.5	1.93	3.51
Restroom 11_Workplane	Illuminance	Fc	6.68	10.9	3.6	1.86	3.03
Room_06_Workplane	Illuminance	Fc	1.56	2.3	0.5	3.12	4.60
Room_07_Workplane	Illuminance	Fc	2.43	3.4	1.1	2.21	3.09
Room_08_Workplane	Illuminance	Fc	1.56	2.3	0.5	3.12	4.60
Room_10_Workplane	Illuminance	Fc	7.33	11.6	2.0	3.67	5.80
Waiting Area_Workplane	Illuminance	Fc	5.61	8.0	2.2	2.55	3.64
Womens Rm - 02_Workplane	Illuminance	Fc	8.58	15.6	4.6	1.87	3.39
Yard Storage 04_Workplane	Illuminance	Fc	1.36	2.0	0.6	2.27	3.33

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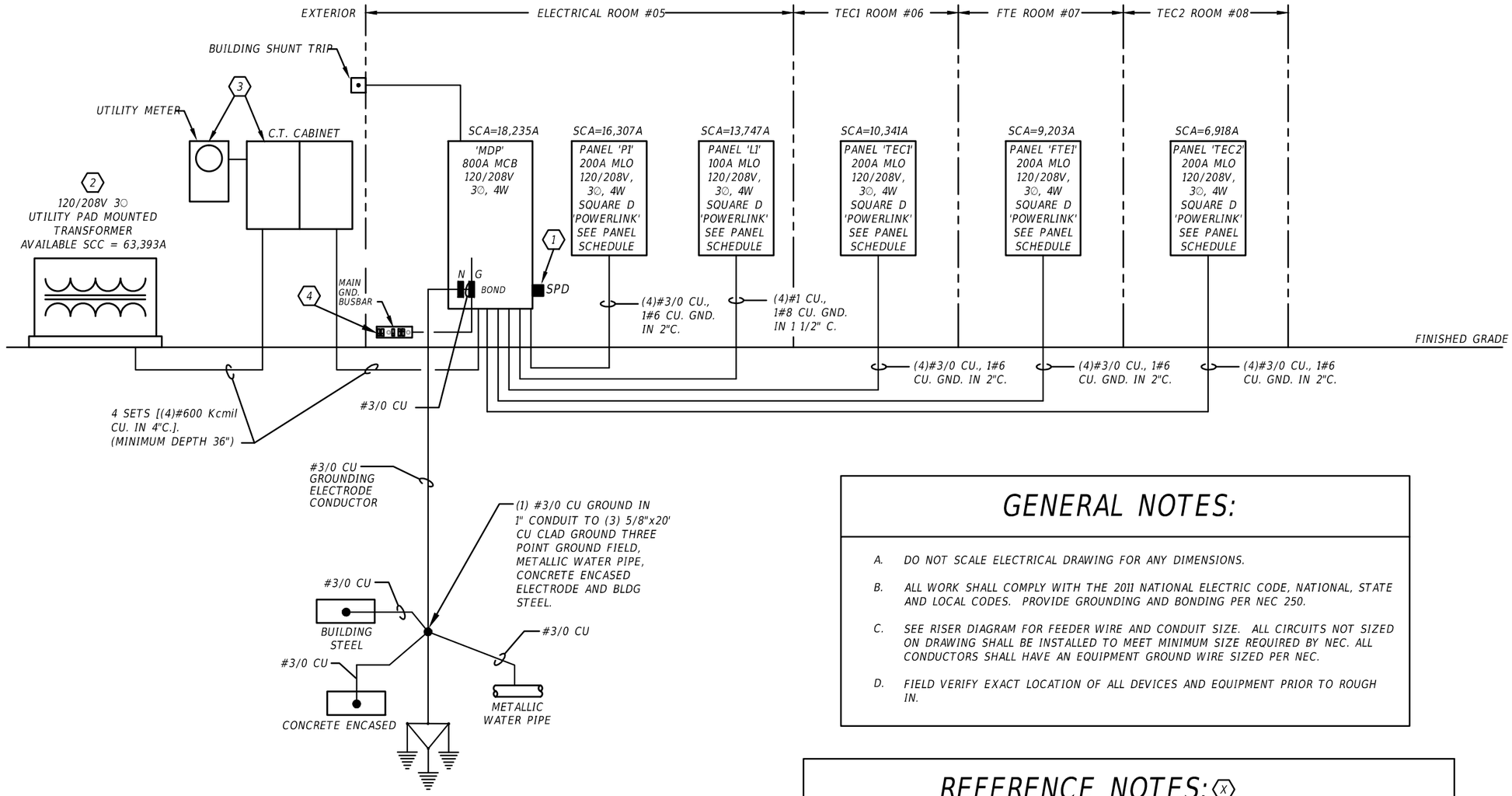
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CALCULATIONS - PHOTOMETRICS - EMERGENCY

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1 POWER RISER DIAGRAM
No Scale

GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. SEE RISER DIAGRAM FOR FEEDER WIRE AND CONDUIT SIZE. ALL CIRCUITS NOT SIZED ON DRAWING SHALL BE INSTALLED TO MEET MINIMUM SIZE REQUIRED BY NEC. ALL CONDUCTORS SHALL HAVE AN EQUIPMENT GROUND WIRE SIZED PER NEC.

D. FIELD VERIFY EXACT LOCATION OF ALL DEVICES AND EQUIPMENT PRIOR TO ROUGH IN.

REFERENCE NOTES: ⟨X⟩

⟨1⟩ PROVIDE SURGE PROTECTIVE DEVICE.

⟨2⟩ COORDINATE UTILITY TRANSFORMER AND ASSOCIATED CONCRETE PAD REQUIREMENTS W/UTILITY COMPANY.

⟨3⟩ COORDINATE METER BASE AND CT REQUIREMENTS WITH LOCAL UTILITY COMPANY. PROVIDE BONDING TO METER BASE AND C.T. CABINETS AS REQUIRED.

⟨4⟩ PROVIDE INTERSYSTEM GROUND BUS BAR AS REQUIRED PER N.E.C. SECTION 205.94.

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SUNTRAX TEST FACILITY
STORAGE BUILDING

POWER RISER DIAGRAM

SHEET NO.
AE2-501

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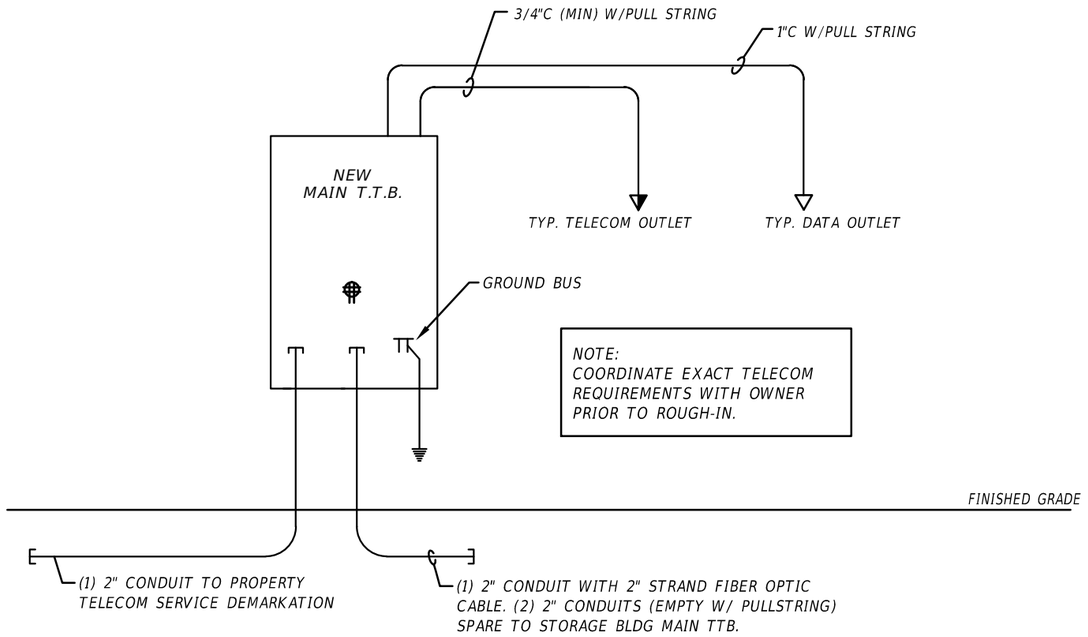
GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. COORDINATE ALL WORK WITH LOCAL TELEPHONE/TELEVISION SERVICE PROVIDER

D. COORDINATE EXACT TELECOMMUNICATIONS REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN.



1 TELECOMMUNICATIONS SYSTEM RISER DIAGRAM

No Scale

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SUNTRAX TEST FACILITY STORAGE BUILDING

TELECOMMUNICATIONS SYSTEM RISER DIAGRAM

SHEET NO.

AE2-502

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FIRE ALARM SEQUENCE OF OPERATIONS

CATEGORIES	MANUAL PULL	AREA SMOKE/HEAT DETECTORS	DUCT SMOKE DETECTORS	BUILDING POWER FAILURE
ANNUNCIATION AT FIRE ALARM CONTROL PANEL (TROUBLE AND ALARM)	YES	YES	YES	YES
ANNUNCIATE AT REMOTE ANNUNCIATOR (TROUBLE AND ALARM)	YES	YES	YES	YES
ACTIVATE AUDIBLE AND VISUAL ALARM SIGNALS	YES	YES	YES	NO
SHUT DOWN ALL AIR HANDLING UNITS	YES	YES	YES	NO
CLOSE ALL SMOKE/FIRE DAMPERS	YES	YES	YES	YES
RELEASE ALL MOTORIZED AND ELECRO-MAGNETICALLY HELD DOORS	YES	YES	YES	YES
RELEASE APPROVED SECURITY DOOR LOCKS	YES	YES	YES	YES

GENERAL NOTES:

A. DO NOT SCALE ELECTRICAL DRAWING FOR ANY DIMENSIONS.

B. ALL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE, NATIONAL, NFPA 72, STATE AND LOCAL CODES. PROVIDE GROUNDING AND BONDING PER NEC 250.

C. PROVIDE 120VAC SURGE SUPPRESSION AND LOW VOLTAGE FIRE ALARM CIRCUIT SURGE SUPPRESSION.

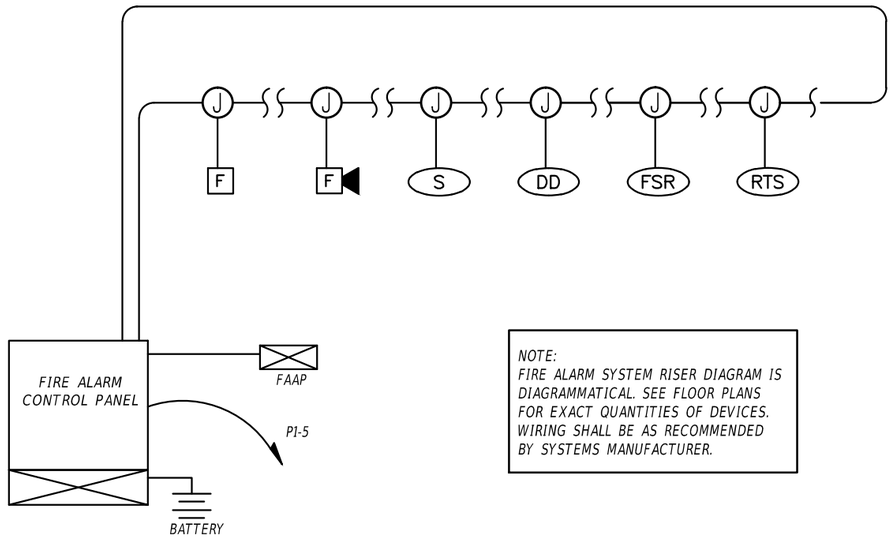
D. PROVIDE NOTIFICATION APPLIANCE CIRCUITS AND POWER SUPPLIES AS REQUIRED.

E. REFER TO POWER AND SYSTEMS FLOOR PLANS FOR FIRE ALARM EQUIPMENT COUNT.

F. PROVIDE 1" CONDUIT FROM FACP TO TTB.

G. OPERATIONS BUILDING & STORAGE BUILDING FIRE ALARM CONTROL PANLES SHALL BE NETWORKED. PANELS SHALL OPERATE IN A PEER-TO-PEER MODE.

H. PROVIDE 2" CONDUIT BETWEEN FACP'S FOR NETWORK COMMUNICATION. PROVIDE CABLE AND SURGE PROTECTION.



NOTE:
FIRE ALARM SYSTEM RISER DIAGRAM IS DIAGRAMMATICAL. SEE FLOOR PLANS FOR EXACT QUANTITIES OF DEVICES. WIRING SHALL BE AS RECOMMENDED BY SYSTEMS MANUFACTURER.

1 FIRE ALARM SYSTEM RISER DIAGRAM
No Scale

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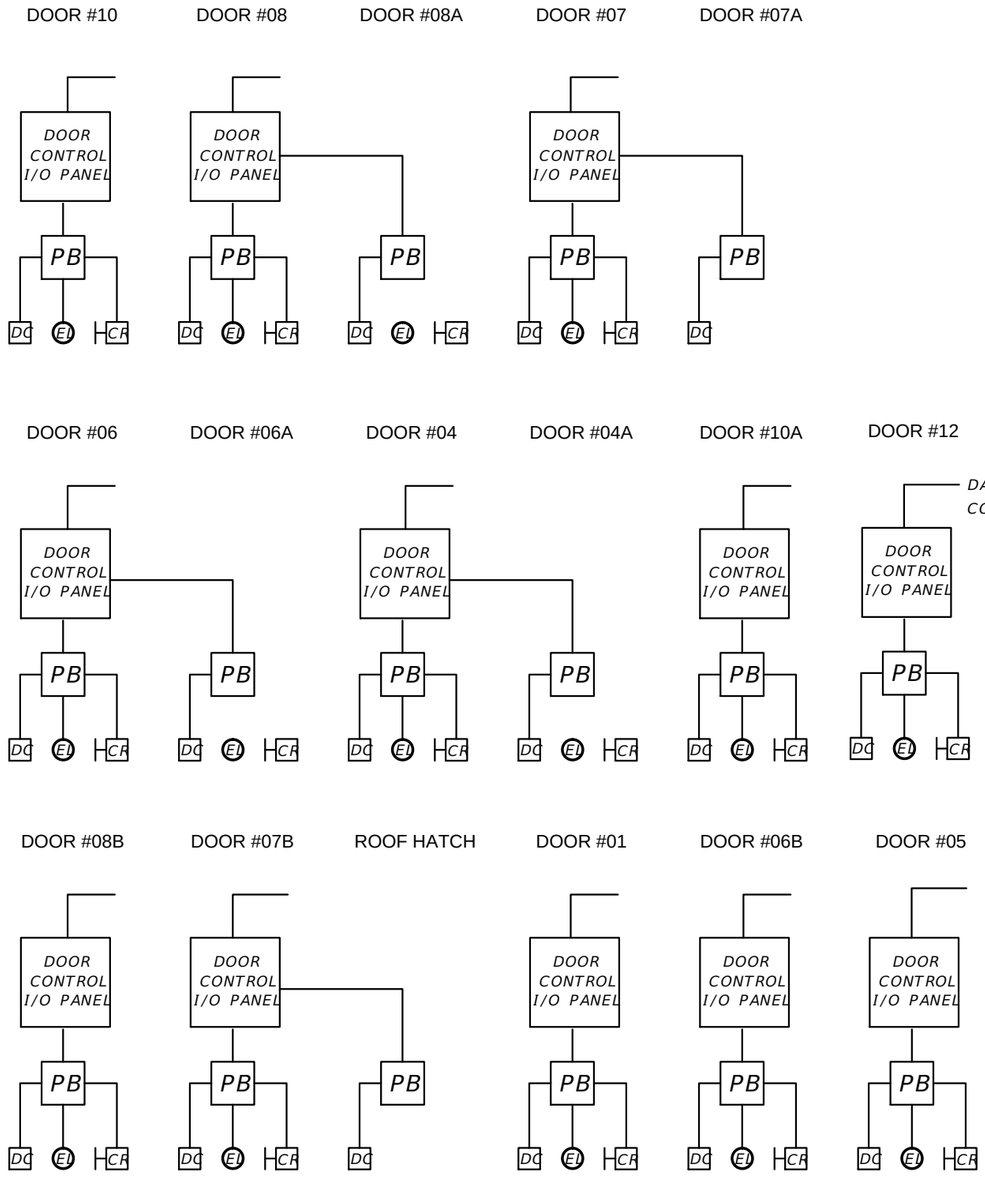
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

FIRE ALARM SYSTEM
RISER DIAGRAM

SHEET NO.
AE2-503

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SYMBOL LEGEND

PB	ACCESS CONTROL JUNCTION BOX
DC	DOOR CONTACT
EL	ELECTRIC LOCK
CR	CARD READER

1 ACCESS CONTROL RISER DIAGRAM

No Scale

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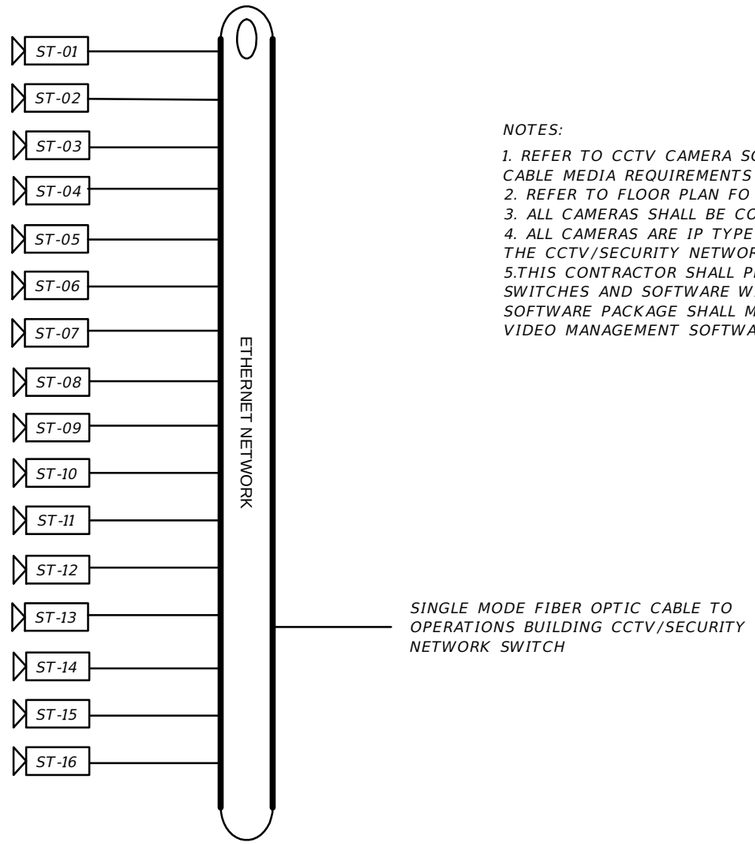
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

ACCESS CONTROL
RISER DIAGRAM

SHEET NO.
AE2-504

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1 CCTV ONE-LINE DIAGRAM
No Scale

NOTES:

1. REFER TO CCTV CAMERA SCHEDULE ON DRAWING AE2-609 FOR CABLE MEDIA REQUIREMENTS
2. REFER TO FLOOR PLAN FO EXACT LOCATIONS
3. ALL CAMERAS SHALL BE CONNECTED WITH CAT 6 UTP CABLE.
4. ALL CAMERAS ARE IP TYPE CAMERAS AND SHALL TERMINATE TO THE CCTV/SECURITY NETWORK.
5. THIS CONTRACTOR SHALL PROVIDE MANAGED POE NETWORK SWITCHES AND SOFTWARE WITH ALL REQUIRED LICENSES. CCTV SOFTWARE PACKAGE SHALL MATCH THE DEPARTMENTS EXISTING VIDEO MANAGEMENT SOFTWARE.

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SUNTRAX TEST FACILITY STORAGE BUILDING

CCTV SYSTEM RISER DIAGRAM

SHEET NO.
AE2-505

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PANEL MDP

LOCATION: ELECTRIC ROOM #05	VOLTAGE: 208Y/120V 3○ 4W	MIN. AIC RATING: 42K AIC
TYPE: SQUARE 'D' - TYPE HCP	MAINS: 800A ☐ MLO ☒ MCB	MOUNTING: SURFACE
FED FROM: UTILITY XFMR	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1

NOTES:
PROVIDE TYPED WRITTEN DIRECTORY
PROVIDE GROUND & NEUTRAL BUS
PROVIDE M.C.B. WITH SHUNT TRIP & 100% RATING - MICRO-LOGIC SERIES

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT ○	NEUT	GND	COND	BKR	LOAD KVA	PHASE ○	LOAD KVA	BKR	BRANCH CIRCUIT ○	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	IFE MODULE (TYPE IFE A)	2	-	-	-	-	/2	-	A	1.37	200/3	-	-	-	-	1	PANEL 'TEC2'	2
3	-		-	-	-	-	-	-	B	1.37	-	-	-	-	-		-	4
5	IFE MODULE (TYPE IFM)	2	-	-	-	-	/2	-	C	1.37	-	-	-	-	-		-	6
7	-		-	-	-	-	-	-	A	1.07	200/3	-	-	-	-	1,4	PANEL 'FTE1`	8
9	-		-	-	-	-	-	-	B	1.07	-	-	-	-	-		-	10
11	-		-	-	-	-	-	-	C	1.07	-	-	-	-	-		-	12
13	PANEL 'P1'	1,4	-	-	-	-	200/3	6.25	A	10.29	110/3	1	1	6	1.5"	3	RTU-3	14
15	-		-	-	-	-	-	6.25	B	10.29	-	1	-	-	-		-	16
17	-		-	-	-	-	-	6.25	C	10.29	-	1	-	-	-		-	18
19	PANEL 'TEC1'	1,4	-	-	-	-	200/3	1.37	A	4.72	45/3	6	6	10	1"	3	RTU-4	20
21	-		-	-	-	-	-	1.37	B	4.72	-	6	-	-	-		-	22
23	-		-	-	-	-	-	1.37	C	4.72	-	6	-	-	-		-	24
25	PANEL 'L1'	1,3	-	-	-	-	100/3	2.79	A	4.14	35/3	8	8	10	1"	3	RTU-5	26
27	-		-	-	-	-	-	2.79	B	4.14	-	8	-	-	-		-	28
29	-		-	-	-	-	-	2.79	C	4.14	-	8	-	-	-		-	30
31	RTU-1	3	1	1	6	1.5"	110/3	10.29	A	-	-	-	-	-	-		SPACE ONLY	32
33	-		1	-	-	-	-	10.29	B	-	-	-	-	-	-		-	34
35	-		1	-	-	-	-	10.29	C	-	-	-	-	-	-		-	36
37	RTU-2	3	1	1	6	1.5"	110/3	10.29	A	-	60/3	4	4	10	1.25"		SURGE SUPPRESSION DEVICE	38
39	-		1	-	-	-	-	10.29	B	-	-	4	-	-	-		-	40
41	-		1	-	-	-	-	10.29	C	-	-	4	-	-	-		-	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
PANELS	38.55 KVA		100%	38.55 KVA	
HVAC	119.19 KVA		100%	119.19 KVA	
NOTES: 1) REFER TO POWER RISER DIAGRAM FOR FEEDER REQUIREMENTS. 2) MODBUS TCP ETHERNET EM3555 I-LINE SMART CELL MODULE 3) HG ENG LSI SERIES MICRO-LOGIC BREAKER. 4) JG ENR LSI SERIES MICRO-LOGIC BREAKER.					TOTAL DEMAND LOAD: 157.74 KVA TOTAL DEMAND AMPS: 438.17 AMPS

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CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE2-601

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'P1'

LOCATION: ELECTRIC ROOM #05	VOLTAGE: 208Y/120V 3Ø 4W	MIN. AIC RATING: 42K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY
TYPE: SQUARE 'D' - POWERLINK (MPV)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE	PROVIDE GROUND & NEUTRAL BUS
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT Ø	NEUT	GND	COND	BKR	LOAD KVA	PHASE Ø	LOAD KVA	BKR	BRANCH CIRCUIT Ø	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLE-EXTERIOR		12	12	12	1/2"	20/1	1.08	A	0.70	20/1	10	10	10	3/4"	1	EF-1	2
3	RECEPTACLE-TTB		12	12	12	1/2"	20/1	0.36	B	0.70	20/1	10	10	10	3/4"	1	EF-2	4
5	FACP		12	12	12	1/2"	20/1	1.00	C	0.70	20/1	10	10	10	3/4"	1	EF-3	6
7	RECEPTACLE-TRANSP/STOR/RESTRM		12	12	12	1/2"	20/1	0.90	A	1.32	20/3	10	10	10	3/4"	1	EF-4	8
9	RECEPTACLE-WAIT/JANITOR/RESTRM		12	12	12	1/2"	20/1	0.72	B	1.32	-	10	-	-	-		-	10
11	RECEPTACLE-EWC		12	12	12	1/2"	20/1	1.00	C	1.32	-	10	-	-	-		-	12
13	MOTORIZED DOOR-YARD STORAGE		12	12	12	1/2"	20/1	0.86	A	0.94	15/3	10	10	10	3/4"	1	EF-5	14
15	RECEPTACLE - TRANSP PICK-UP		12	12	12	1/2"	20/1	0.72	B	0.94	-	10	-	-	-		-	16
17	ICE MACHINE		12	12	12	1/2"	20/1	1.00	C	0.94	-	10	-	-	-		-	18
19	MCU-1		10	10	10	3/4"	20/2	1.60	A	1.32	20/3	10	10	10	3/4"	1	EF-6	20
21	-		10	-	-	-	-	1.60	B	1.32	-	10	-	-	-		-	22
23	SPARE		-	-	-	-	20/1	-	C	1.32	-	10	-	-	-		-	24
25	SPARE		-	-	-	-	20/1	-	A	0.36	20/1	10	.10	.10	3/4"		RECEPTACLE ROOF	26
27	SPARE		-	-	-	-	20/1	-	B	0.30	20/1	12	12	12	1/2"	3	TOILET FLUSH SYSTEM	28
29	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	30
31	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	32
33	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	20/1	-	-	-	-		SPARE	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
HVAC	16.04 KVA		100%	16.04 KVA	
RECEPTACLES - GENERAL	5.14 KVA		100%	5.14 KVA	
EQUIPMENT	2.86 KVA		100%	2.86 KVA	
NOTES: 1. EXHAUST FAN CONTROLS BY MECHANICAL 2. PROGRAM CIRCUIT FOR SHUT-OFF/TIME OF DAY CONTROL 3. PROVIDE GFCI TYPE C/B.					TOTAL DEMAND LOAD: 24.04 KVA TOTAL DEMAND AMPS: 66.78 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO. AE2-602

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'L1'

LOCATION: ELECTRIC ROOM #05	VOLTAGE: 208Y/120V 3Ø 4W	MIN. AIC RATING: 42K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MPV)	MAINS: 100A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT Ø	NEUT	GND	COND	BKR	LOAD KVA	PHASE Ø	LOAD KVA	BKR	BRANCH CIRCUIT Ø	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	LTS-TEC 2 STORAGE		12	12	12	1/2"	20/1	0.98	A	0.31	20/1	12	12	12	1/2"		LTS-ELECTRIC RM/YARD STORAGE	2
3	LTS-TEC 2 STORAGE		12	12	12	1/2"	20/1	0.46	B	0.98	20/1	12	12	12	1/2"	1	LTS-TEC 1 STORAGE	4
5	LTS-WAITING/JANITOR/RESTROOM		12	12	12	1/2"	20/1	0.80	C	0.46	20/1	12	12	12	1/2"	1	LTS-TEC 1 STORAGE	6
7	LTS-TRANSONDER PICKUP/STOR./RR.		12	12	12	1/2"	20/1	0.41	A	0.71	20/1	12	12	12	1/2"		LTS-FTE STORAGE	8
9	LTS-EXTERIOR	1	10	10	10	1/2"	20/1	0.73	B	0.36	20/1	12	12	12	1/2"		LTS-FTE STORAGE	10
11	SPARE		-	-	-	-	20/1	-	C	0.50	20/1	12	12	12	1/2"		SOLAR TUBES TEC 1 /FTE	12
13	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	14
15	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	16
17	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	18
19	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	20
21	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	22
23	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	24
25	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	26
27	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	28
29	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
LIGHTING	6.70 KVA		125%	8.38 KVA	
NOTES: 1. PROGRAM CIRCUIT FOR SHUT-OFF/TIME OF DAY CONTROL					TOTAL DEMAND LOAD: 8.38 KVA
					TOTAL DEMAND AMPS: 23.28 AMPS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE2-603

PANEL 'TEC1'

LOCATION: TEC 1 - STORAGE #06	VOLTAGE: 208Y/120V 3Ø 4W	MIN. AIC RATING: 42K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MPV)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT Ø	NEUT	GND	COND	BKR	LOAD KVA	PHASE Ø	LOAD KVA	BKR	BRANCH CIRCUIT Ø	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLE-TEC 1	1	12	12	12	1/2"	20/1	0.72	A	0.86	20/1	12	12	12	1/2"		MOTORIZED DOOR	2
3	RECEPTACLE-TEC 1	1	12	12	12	1/2"	20/1	0.72	B	0.54	20/1	12	12	12	1/2"	1	RECEPTACLE-TEC 1	4
5	RECEPTACLE-TEC 1	1	12	12	12	1/2"	20/1	0.54	C	0.36	20/1	12	12	12	1/2"	1	RECEPTACLE-TEC 1	6
7	SPARE		-	-	-	-	20/1	-	A	0.36	20/1	12	12	12	1/2"		RECEPTACLE-TEC 1	8
9	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	10
11	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	12
13	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	14
15	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	16
17	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	18
19	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	20
21	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	22
23	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	24
25	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	26
27	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	28
29	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	3.24 KVA		100%	3.24 KVA	
EQUIPMENT	0.86 KVA		100%	0.86 KVA	
NOTES: 1. PROGRAM CIRCUIT FOR SHUT-OFF/TIME OF DAY CONTROL					TOTAL DEMAND LOAD: 4.10 KVA
					TOTAL DEMAND AMPS: 11.39 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE2-604

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'TEC2'

LOCATION: TECH 2 -STORAGE #08	VOLTAGE: 208Y/120V 3Ø 4W	MIN. AIC RATING: 42K AIC
TYPE: SQUARE 'D' - POWERLINK (MPV)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1

NOTES:
PROVIDE TYPED WRITTEN DIRECTORY
PROVIDE GROUND & NEUTRAL BUS

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT Ø	NEUT	GND	COND	BKR	LOAD KVA	PHASE Ø	LOAD KVA	BKR	BRANCH CIRCUIT Ø	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLE-TEC 2	1	12	12	12	1/2"	20/1	0.90	A	0.86	20/1	12	12	12	1/2"		MOTORIZED DOOR	2
3	RECEPTACLE-TEC 2	1	12	12	12	1/2"	20/1	0.72	B	0.54	20/1	12	12	12	1/2"	1	RECEPTACLE-TEC 2	4
5	RECEPTACLE-TEC 2	1	12	12	12	1/2"	20/1	0..72	C	0.36	20/1	12	12	12	1/2"	1	RECEPTACLE-TEC 2	6
7	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	8
9	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	10
11	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	12
13	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	14
15	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	16
17	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	18
19	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	20
21	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	22
23	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	24
25	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	26
27	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	28
29	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	3.24 KVA		**	3.24 KVA	
EQUIPMENT	0.86 KVA		100%	0.86 KVA	
NOTES: 1. PROGRAM CIRCUIT FOR SHUT-OFF/TIME OF DAY CONTROL					TOTAL DEMAND LOAD: 4.10 KVA
					TOTAL DEMAND AMPS: 11.39 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE2-605

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

PANEL 'FTE1'

LOCATION: FTE - STORAGE #07	VOLTAGE: 208Y/120V 3Ø 4W	MIN. AIC RATING: 42K AIC	NOTES: PROVIDE TYPED WRITTEN DIRECTORY PROVIDE GROUND & NEUTRAL BUS
TYPE: SQUARE 'D' - POWERLINK (MPV)	MAINS: 200A ☒ MLO ☐ MCB	MOUNTING: SURFACE	
FED FROM: MDP	LUGS: ☐ SUB-FEED ☐ FEED-THRU	ENCLOSURE: NEMA 1	

CKT	CIRCUIT DESCRIPTION	NOTES	BRANCH CIRCUIT Ø	NEUT	GND	COND	BKR	LOAD KVA	PHASE Ø	LOAD KVA	BKR	BRANCH CIRCUIT Ø	NEUT	GND	COND	NOTES	CIRCUIT DESCRIPTION	CKT
1	RECEPTACLE-FTE	1	12	12	12	1/2"	20/1	0.72	A	0.86	20/1	12	12	12	1/2"		MOTORIZED DOOR	2
3	RECEPTACLE-FTE		12	12	12	1/2"	20/1	0.54	B	0.36	20/1	12	12	12	1/2"	1	RECEPTACLE-FTE	4
5	RECEPTACLE-FTE	1	12	12	12	1/2"	20/1	0.72	C	-	20/1	-	-	-	-		SPARE	6
7	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	8
9	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	10
11	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	12
13	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	14
15	SPARE		-	-	-	-	20/1	-	B	-	20/1	-	-	-	-		SPARE	16
17	SPARE		-	-	-	-	20/1	-	C	-	20/1	-	-	-	-		SPARE	18
19	SPARE		-	-	-	-	20/1	-	A	-	20/1	-	-	-	-		SPARE	20
21	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	22
23	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	24
25	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	26
27	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	28
29	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	30
31	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	32
33	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	34
35	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	36
37	SPACE ONLY		-	-	-	-	-	-	A	-	-	-	-	-	-		SPACE ONLY	38
39	SPACE ONLY		-	-	-	-	-	-	B	-	-	-	-	-	-		SPACE ONLY	40
41	SPACE ONLY		-	-	-	-	-	-	C	-	-	-	-	-	-		SPACE ONLY	42

EQUIPMENT SERVED	CONN. LOAD	L.F.	D.F.	DEMAND LOAD	
RECEPTACLES - GENERAL	2.34 KVA		100%	2.34 KVA	
EQUIPMENT	0.86 KVA		100%	0.86 KVA	
NOTES: 1. PROGRAM CIRCUIT FOR SHUT-OFF/TIME OF DAY CONTROL					TOTAL DEMAND LOAD: 3.20 KVA TOTAL DEMAND AMPS: 8.89 AMPS

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE2-606

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	VOLTS	LAMP			FIXTURE WATTS
					QTY	WATTS	MODEL	
A	4' LED SURFACE/PENDANT LOW PROFILE WRAPAROUND W/ FROSTED RIBBED ACRYLIC LENS - 3500K	H.E. WILLIAMS LIGHTING	39-S-L52-835-A-DRV-120	120	-	-	LED	51
AE	4' LED SURFACE/PENDANT LOW PROFILE WRAPAROUND W/ FROSTED RIBBED ACRYLIC LENS - 3500K WITH EMERGENCY BATTERY LED DRIVER	H.E. WILLIAMS LIGHTING	39-S-L52-835-A-WM/10WLP-DRV-120	120	-	-	LED	51
B	2'X4' RECESSED LED LOW PROFILE FROSTED ACRYLIC LENS TROFFER - 3000K	H.E. WILLIAMS LIGHTING	LPT-24-L42-835-S-AF12095-DRV-120	120	-	-	LED	43
BE	2'X4' RECESSED LED LOW PROFILE FROSTED ACRYLIC LENS TROFFER - 3000K WITH EMERGENCY BATTERY LED DRIVER	H.E. WILLIAMS LIGHTING	LPT-24-L42-835-S-AF12095-EM/10W-DRV-120	120	-	-	LED	43
C	2'X2' RECESSED LED ARCHITECTURAL CURVED FLOATING CENTER TROFFER - 3000K - 0-10V DIMMING	H.E. WILLIAMS LIGHTING	AT1-22-L40-830-D-DIM-120	120	-	-	LED	43
CE	2'X2' RECESSED LED ARCHITECTURAL CURVED FLOATING CENTER TROFFER - 3000K - 0-10V DIMMING WITH EMERGENCY BATTERY LED DRIVER	H.E. WILLIAMS LIGHTING	AT1-22-L40-830-D--EM/10W-DIM-120	120	-	-	LED	43
D	18" DIAMETER CANOPY SURFACE LED LUMINAIRE EXTERIOR RATED	PHILIPS GARDCO	SVPG-168L-1200-NW-SM-5-120-OC	120	-	-	LED	55
DE	18" DIAMETER CANOPY SURFACE LED LUMINAIRE EXTERIOR RATED W/EMERGENCY BATTERY LED DRIVER	PHILIPS GARDCO	SVPG-168L-1200-NW-SM-5-EBP-120-OC	120	-	-	LED	55
WP2	SURFACE WALL MOUNTED EXTERIOR LED WALL PACK WITH EMERGENCY BATTERY LED DRIVER. WET LOCATION RATED.	H.E. WILLIAMS LIGHTING	VWPH-L30/730-TFT-SDGL-EM/10WC-UNV	120	-	-	LED	36
F	25" BATHROOM VANITY OVER THE MIRROR LED LUMINAIRE	BORDEN LIGHTING	574-25-LED/16-120-SAL	120	-	-	LED	24
G	6" RECESSED LED DOWNLIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 3500K	INTENSE LIGHTING	IML6-L2-359-SD-SF/ILC6L2	120	-	-	LED	18
GE	6" RECESSED LED DOWNLIGHT, ALUMINUM SEMI-DIFFUSE REFLECTOR - 3500K W/EMERGENCY BATTERY BACKUP	INTENSE LIGHTING	IML6-L2-359-SD-SF/ILC6L2-EM	120	-	-	LED	18
X1	LED EDGELIT EXIT SIGN WITH ALUMINUM HOUSING RED LETTERS & BATTERY BACKUP	BEGHELLI	CRV-SA-LR-PER PLANS-C-S-AL	120	-	-	LED	-

NOTES:
1. ALL FIXTURES AND FINISHES SHALL BE APPROVED BY ARCHITECT/OWNER PRIOR TO ORDERING.
2. ALL FIXTURES SHALL INCLUDE LAMPS.
3. FINISH SHALL BE SELECTED BY ARCHITECT/INTERIOR DESIGNER.
4. THE SPECIFIED FIXTURES HAVE BEEN SELECTED BASED ON PHOTOMETRIC PERFORMANCE, ELECTRICAL CHARACTERISTICS, VISUAL COMFORT AND AESTHETIC INTERPRETATION AND AS SUCH ANY CONTRACTOR WISHING TO PROPOSE ALTERNATE FIXTURES MUST SUBMIT SUCH REQUEST, IN WRITING, FIFTEEN (15) WORK DAYS PRIOR TO BID. THE REQUEST SHALL INCLUDE TWO COMPLETE SETS OF COLOR CATALOG CUT SHEETS OF ALL FIXTURES FOR REVIEW. APPROVALS SHALL ONLY BE ISSUED BY THE ARCHITECT AND OR ENGINEER IN THE FORM OF AN ADDENDUM TO THE BID DOCUMENTS.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

SCHEDULES - ELECTRICAL

SHEET NO.
AE2-607

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STORAGE BUILDING ACCESS CONTROL SCHEDULE

LINE	DOOR NUMBER	CARD READER TYPE	ELECTRICAL DOOR LOCK TYPE	ALARM MONITORING DEVICE	REQUEST TO EXIT DEVICE (REX)	LOCATION OR ROOM NUMBER	REMARKS	DOOR CONTROLLER, I/O BOARD AND POWER SUPPLY LOCATION	FIRE ALARM RELAY OVERRIDE	DRAWING NUMBER
1	10	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TRANSPONDER PICK-UP RM 10	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 10	YES	AE2-301
2	8	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TECH2 STORAGE RM 08	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 08	YES	AE2-301
3	8A	N/A	N/A	DOOR POSITION SWITCH SENTROL(GE) 2507AD-L	N/A	TECH2 STORAGE RM 08	DOOR MONITORED VIA S321-IP I/O MODULE	AT DOOR 08	N/A	AE2-301
4	7	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	FTE STORAGE RM 07	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 07	YES	AE2-302
5	7A	N/A	N/A	DOOR POSITION SWITCH SENTROL(GE) 2507AD-L	N/A	FTE STORAGE RM 07	DOOR MONITORED VIA S321-IP I/O MODULE	AT DOOR 07	N/A	AE2-302
6	6	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	TECH1 STORAGE RM 06	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 06	YES	AE2-302
7	6A	N/A	N/A	DOOR POSITION SWITCH SENTROL(GE) 2507AD-L	N/A	TECH1 STORAGE RM 06	DOOR MONITORED VIA S321-IP I/O MODULE	AT DOOR 06	N/A	AE2-302
8	4	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	YARD STORAGE RM 04	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 04	YES	AE2-302
9	4A	N/A	N/A	DOOR POSITION SWITCH SENTROL(GE) 2507AD-L	N/A	YARD STORAGE RM 04	DOOR MONITORED VIA S321-IP I/O MODULE	AT DOOR 04	N/A	AE2-302
10	10A	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TRANSPONDER PICK-UP RM 10	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 10A	YES	AE2-303
11	12	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	STORAGE RM 12	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 12	YES	AE2-303
12	8B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TECH2 STORAGE RM 08	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 08B	YES	AE2-303
13	7B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	FTE STORAGE RM 07	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 07B	YES	AE2-304
14	ROOF HATCH	N/A	N/A	DOOR POSITION SWITCH SENTROL(GE) 2507AD-L	N/A	FTE STORAGE RM 07	DOOR MONITORED VIA S321-IP I/O MODULE	AT DOOR 07B	N/A	AE2-304
15	1	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	WAITING AREA RM 01	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 01	YES	AE2-304
16	6B	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE SDC Z7252	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA LOCKSET LEVER SWITCH	TECH1 STORAGE RM 06	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 06B	YES	AE2-304
17	5	PROXIMITY/KEYPAD HID R40	ELECTRIC STRIKE VON DUPRIN SERIES 99 W/RX AND EL996 LOCK	DOOR POSITION SWITCH SENTROL(GE) 1078C (WHITE) 3/4"	REQUEST TO EXIT VIA EXIT DEVICE PUSHPAD SWITCH	ELEC RM 05	DOOR MONITORED/CONTROLLED VIA S321-IP I/O MODULE	AT DOOR 05	YES	AE2-304

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

ACCESS CONTROL SCHEDULE

SHEET NO.
AE2-608

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

STORAGE BUILDING VIDEO SURVEILLANCE CAMERA SCHEDULE

LINE	CAMERA NUMBER	CAMERA TYPE	CAMERA LENS	CAMERA WIRING MEDIA	CAMERA MOUNTING	APPROXIMATE LOCATION FIELD OF VIEW	CAMERA SHEET NUMBER	NETWORK SWITCH LOCATION	CAMERA POWER REQUIREMENTS AND POWER SUPPLY LOCATION	REMARKS	VIDEO RECORDING HOURS PER DAY AND FRAMES PER SECOND (FPS)	VIDEO RECORDING STORAGE
11	ST-01	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 2 - STORAGE RM 08 LOOKING EAST	AE2-301	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
12	ST-02	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 1 - STORAGE RM 06 LOOKING WEST	AE2-302	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
13	ST-03	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 1 - STORAGE RM 06 LOOKING SOUTH	AE2-302	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
14	ST-04	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF YARD STORAGE RM 04 LOOKING WEST	AE2-302	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
15	ST-05	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF YARD STORAGE RM 04 LOOKING SOUTH	AE2-302	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
16	ST-06	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF ELECTRICAL RM 05 LOOKING NORTH	AE2-304	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
17	ST-07	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF ELECTRICAL RM 05 LOOKING WEST	AE2-304	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
18	ST-08	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 1 - STORAGE RM 06 LOOKING NORTH	AE2-304	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
19	ST-09	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 1 - STORAGE RM 06 LOOKING WEST	AE2-304	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
20	ST-10	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 2 - STORAGE RM 08 LOOKING EAST	AE2-303	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
21	ST-11	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 2 - STORAGE RM 08 LOOKING NORTH	AE2-303	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
22	ST-12	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF STORAGE RM 12 LOOKING EAST	AE2-303	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
23	ST-13	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF STORAGE RM 12 LOOKING NORTH	AE2-303	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
24	ST-14	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TRANSPONDER PICK-UP RM 10 LOOKING SOUTH	AE2-301	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
25	ST-15	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TRANSPONDER PICK-UP RM 10 LOOKING EAST	AE2-301	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS
26	ST-16	WP VANDAL RESISTANT FIXED IP 3 MEGAPIXEL HD BULLET CAMERA AVIGILON 3.0-H4A-BO1-IR	3 - 9 mm	CAT 6 CABLE COLOR GREEN	WALL MOUNTED WITH AVIGILON H4-BO-JBOX1	EXTERIOR CORNER OF TECH 2 - STORAGE RM 08 LOOKING SOUTH	AE2-301	ELECTRICAL RM 05	PoE SWITCH AT COMMUNICATIONS RACK/CABINET	NETWORK SWITCH CABLE BACKBONE SHALL BE VIA 6 STRAND SINGLE MODE FIBER OPTIC CABLE TO OERATIONS BUILDING IT RM 35	24 HOURS WITH MOTION AT 30 FPS	30 DAYS

NOTE: CCTV CAMERAS (ONLY) ARE FURNISHED AND INSTALLED BY FTE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

CCTV MATRIX SCHEDULE

SHEET NO.
AE2-609

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Product Information HILTI

Firestop Putty Pad (CP 617, CP 617L and CP 617XL)

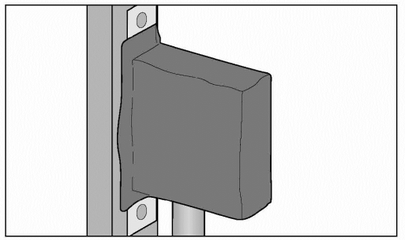
Product description
- A moldable firestop putty designed to help protect electrical outlet boxes

Product features
- Applied by hand
- Fast installation

Areas of application
- Protection of electrical outlet boxes

For use with
- Gypsum wall assemblies with wood or metal studs

Examples
- Where two outlets are within a single stud/cavity or within 24" measured horizontally (not back to back unless specified by the specific UL approval)



Technical Data*	CP 617
Dimensions (LxWxH)	CP 617: 6" x 7" x 1/8" (15 x 18 x 0.3 cm) CP 617L: 7" x 7" x 1/8" (18 x 18 x 0.3 cm) CP 617XL: 9" x 9" x 1/8" (23 x 23 x 0.3 cm)
Consistency	Moldable putty
Color	Red
Application temperature	40°F (5°C) to 95°F (35°C)
Storage temperature	40°F (5°C) to 104°F (40°C)
Curing time	Non-curing
Density	1.48 g/cm³
Intumescent activation	Approx. 220°F to 250°F (104°C to 121°C)
Volatile solvents	None
Asbestos fibers	None
Surface burning characteristics (ASTM E 84-96)	Flame Spread: 15 Smoke development: 10
Sound transmission classification (ASTM E 90-97)	59 (Relates to specific construction)
Tested in accordance with • UL 263 • ASTM E 84 • ASTM G21	

*At 73°F (23°C) and 50% relative humidity

CLASSIFIED C UL US — WALL OPENING PROTECTIVE MATERIAL FIRE RESISTANCE CLASSIFICATION SEE PRODUCT CATEGORY IN UL FIRE RESISTANCE DIRECTORY 66Y7

FM APPROVED

Installation instructions for CP 617

Notice
- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable listing (CLIV) in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information

Application of firestop putty
1. After ensuring box is cleaned of loose debris, dirt, oil, moisture, frost and wax, remove label from one side of pad. For a 1 to 2 hour fire rating, one CP 617 pad is required. Exposed side of pad is placed against box.
2. CP 617 Firestop Putty Pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and completely seal against the stud within the stud cavity.
3. Reshape CP 617 to fit around conduit or cables.
4. Press CP 617 to all sides of electrical box.
5. Remove other side of label.

Not for use
- In areas exposed to water

Storage
- Store only in the original packaging in a location at temperatures 40°F (5°C) to 104°F (40°C)



1. Remove label from one side of CP 617 — 2. Adhere CP 617 to outlet box — 3. Reshape CP 617 to fit around box — 4. Press CP 617 to all sides of outlet box — 5. Remove other side of label

Hilti Firestop
Saving lives through innovation and education

Hilti. Outperform. Outlast.

Hilti, Inc. (U.S.) 1-800-879-8000 • **www.us.hilti.com** • en español 1-800-879-5000 • Hilti Firestop Systems Guide

1 OUTLET BOX MOUNTED IN FIRE RATED WALL
No Scale

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.

REVISIONS			
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING
DETAILS - ELECTRICAL

SHEET NO.
AE2-701

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

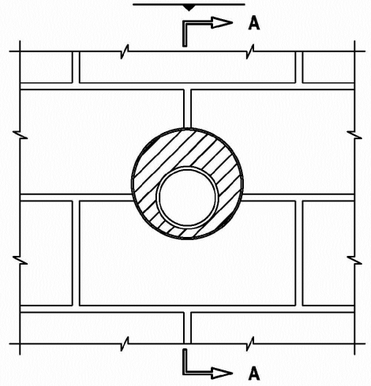
UL/cUL SYSTEM NO. W-J-1020

METAL PIPE THROUGH CONCRETE WALL OR BLOCK WALL

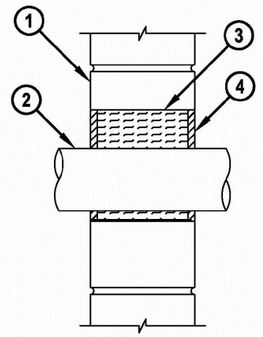
F-RATING = 2-HR.
T-RATING = 0-HR. OR 1/4-HR.
L-RATING AT AMBIENT = LESS THAN 1 CFM/SQ. FT.
L-RATING AT 400°F = 4 CFM/SQ. FT.

WJ1020e.091699

FRONT VIEW



SECTION A-A



1. CONCRETE WALL ASSEMBLY (2-HR. FIRE-RATING):
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 5" THICK).
   B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
   A. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
   B. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
   C. MAXIMUM 4" NOMINAL DIAMETER EMT.
3. MINERAL WOOL (MIN. 4 PCF DENSITY), BACKER ROD, OR HILTI CF 128 FILLER FOAM TO BE USED AS A BACKER.
4. HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT:
   A. MINIMUM 1/4" DEPTH WHEN EMT OR STEEL CONDUIT IS THE PENETRATING ITEM.
   B. MINIMUM 1/2" DEPTH WHEN COPPER PIPE IS THE PENETRATING ITEM.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 8".
2. ANNULAR SPACE = MINIMUM 3/4", MAXIMUM 3-1/2".
3. FOR HOLLOW BLOCK WALLS, USE NO. 8 STEEL WIRE MESH TO AID IN THE INSTALLATION.

HILTI® FIRESTOP SYSTEMS

HILTI, Inc.
Tulsa, Oklahoma USA (918) 252-6000

Sheet	1 of 1
Scale	1/8" = 1"
Date	SEPT. 16, 1999

Drawing No. WJ 1020e

Saving Lives through Innovation and Education

1 UL FIRE RATED DETAIL (W-J-1020)
No Scale

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

DETAILS - ELECTRICAL

SHEET NO. AE2-702

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

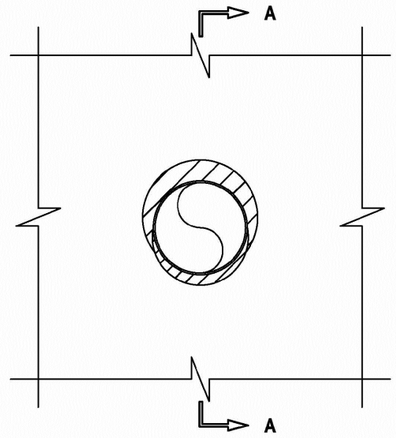
UL/cUL SYSTEM NO. W-L-1175

METAL PIPE THROUGH GYPSUM WALL ASSEMBLY

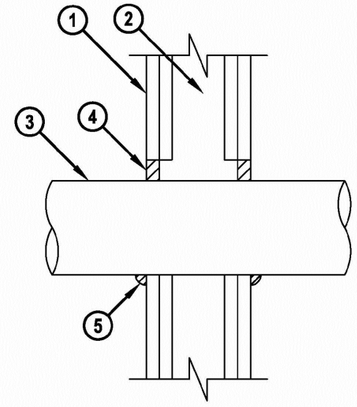
F-RATING = 1-HR. OR 2-HR.
T-RATING = 0-HR.
L-RATING AT AMBIENT = 1 CFM/SQ. FT.
L-RATING AT 400°F = 1 CFM/SQ. FT.

WL1175b.032206

FRONT VIEW



SECTION A-A



1. GYPSUM WALL ASSEMBLY (UL/cUL CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. [NOT SHOWN] WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 4" NOMINAL DIAMETER EMT.
   B. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
4. MINIMUM 5/8" DEPTH HILTI CP 618 FIRESTOP PUTTY STICK.
5. MINIMUM 1/4" CROWN HILTI CP 618 FIRESTOP PUTTY STICK AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 5-1/2".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1".

Hilti Firestop Systems

HILTI, Inc.
Tulsa, Oklahoma USA (918) 252-6000

Sheet	1 of 1
Scale	3/16" = 1"
Date	Mar. 22, 2006

Drawing No. WL 1175b

Saving Lives through Innovation and Education

1 UL FIRE RATED DETAIL (W-L-1175)
No Scale

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AS REQUIRED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

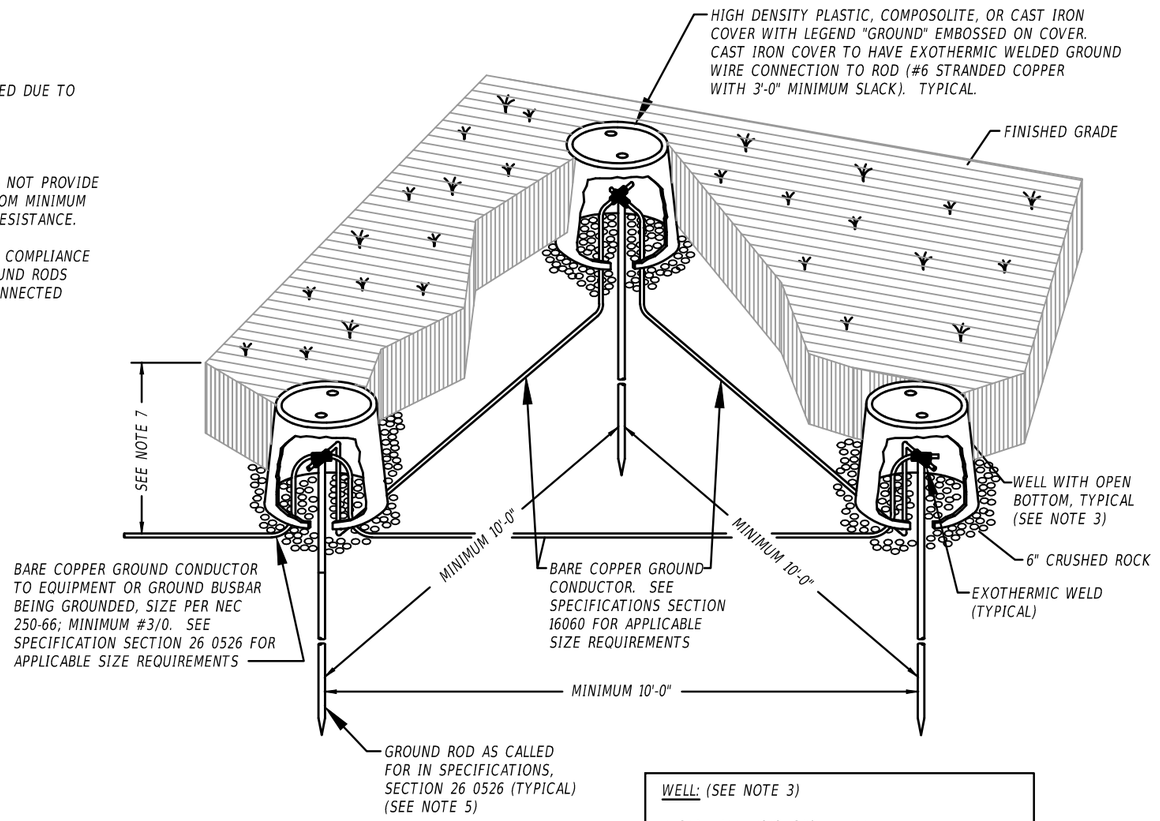
DETAILS - ELECTRICAL

SHEET NO. AE2-703

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NOTES:

1. SEE SPECIFICATION SECTION 26 0526.
2. NOT FOR USE IN PAVED, ETC. LOCATIONS.
3. INCREASE DEPTH, DIAMETER, SIZE, ETC IF REQUIRED DUE TO INSTALLATION AND ACCESS REQUIREMENTS.
4. CONCRETE COVERS ARE NOT ACCEPTABLE.
5. IF THREE RODS IN A DELTA CONFIGURATION DOES NOT PROVIDE SPECIFIED RESISTANCE, CHANGE ROD LENGTHS FROM MINIMUM SPECIFIED AS REQUIRED TO PROVIDE SPECIFIED RESISTANCE.
6. MEASUREMENT OF RESISTANCE VALUES TO PROVIE COMPLIANCE WITH SPECIFIED RESISTANCE SHALL BE WITH GROUND RODS CONNECTED IN DELTA CONFIGURATION BUT DISCONNECTED FROM EQUIPMENT OR BUSBAR BEING GROUNDED.
7. DEPTH PER CODES, 1'-0" MINIMUM.



WELL: (SEE NOTE 3)

INSIDE DIMENSIONS:	12" MINIMUM
HEIGHT:	18" MINIMUM
MATERIAL	STRUCTURAL PLASTIC, CONCRETE, OR COMPOSOLITE
MANUFACTURER:	QUAZITE OR BROOKS PRODUCTS

1 MAIN SERVICE GROUND WELL DETAIL
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

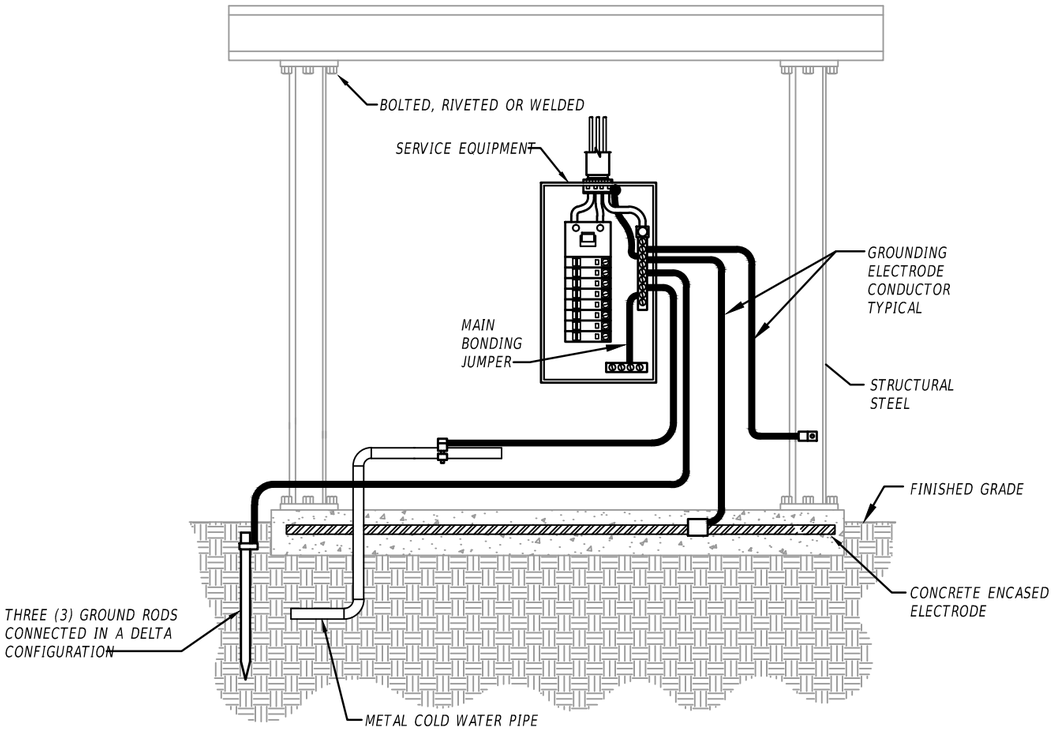
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY
STORAGE BUILDING

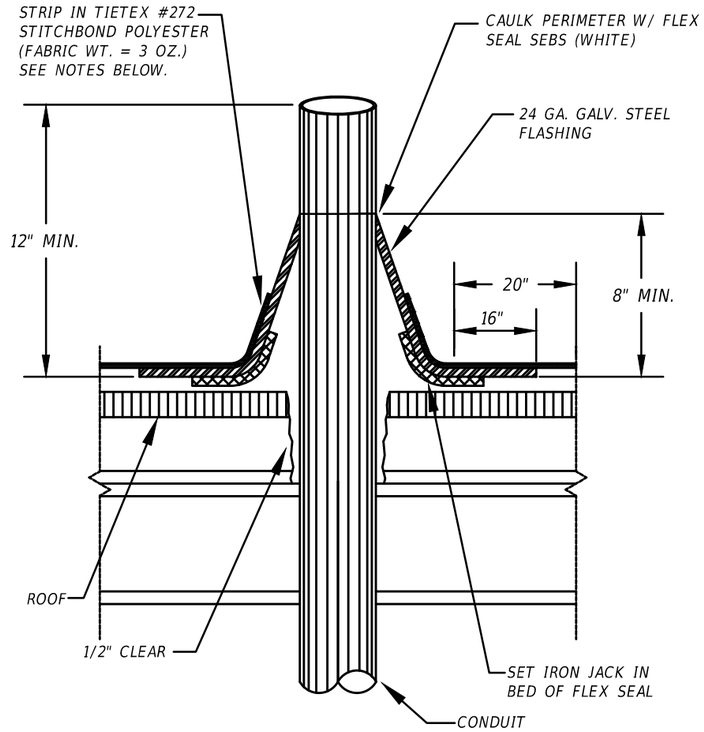
DETAILS - ELECTRICAL

SHEET NO.
AE2-704

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 TYPICAL GROUNDING SYSTEM DETAIL
No Scale



NOTES:
1. ALL SURFACES TO BE CLEAN (FREE OF DIRT, GREASE, SCALE, PAINT, ETC.)
2. WIRE BRUSH ALL LOOSE MATERIAL AS REQUIRED.
3. PRIME EXISTING ROOF AND FLASHING W/ SB ELASTOMERIC PRIMER.
4. 5 COURSE: 2 PLYS TIETEX W/ SB ELASTOMERIC GEL (FEATHER SECOND PLY) AT MIN. 40 MIL UNCURED PER COURSE.
5. TOP COAT W/ K-2 EXTREME DUTY ELASTOMER (MATCH ROOF COLOR)
6. DETAIL SHOW FOR WEATHERPROOFING PENETRATION ONLY. CONTRACTOR SHALL PROVIDE FIRESTOPPING AS REQUIRED TO MAINTAIN FIRE RATING OF ROOF.

2 ROOF PENETRATION WEATHERPROOF DETAIL
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING
DETAILS - ELECTRICAL

SHEET NO.
AE2-705

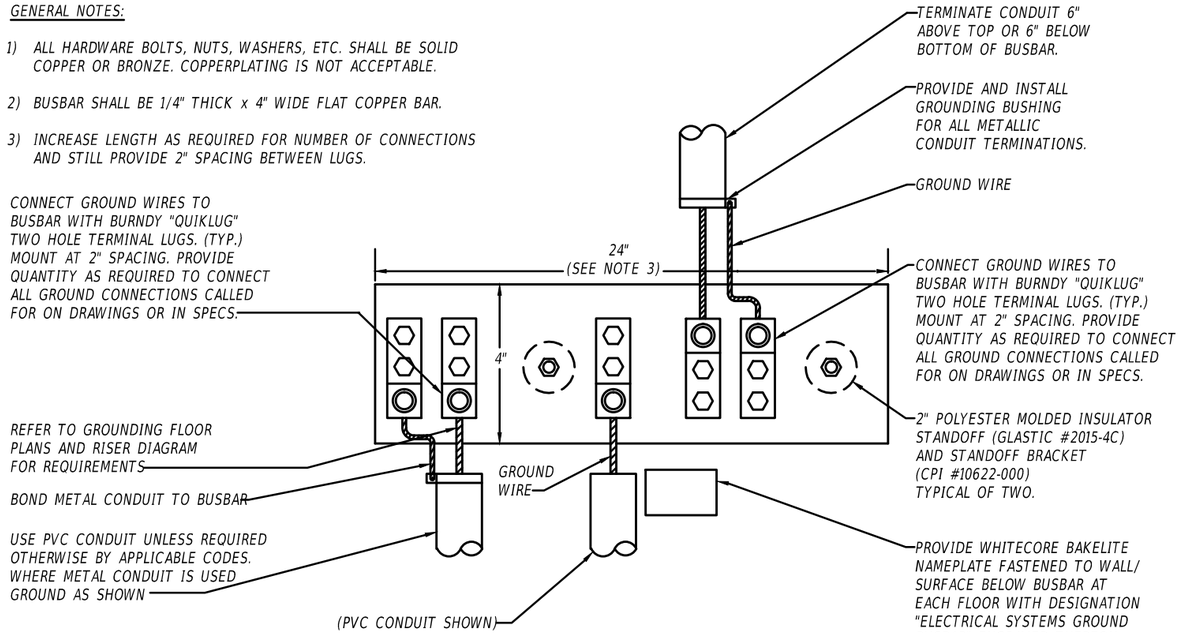
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES:

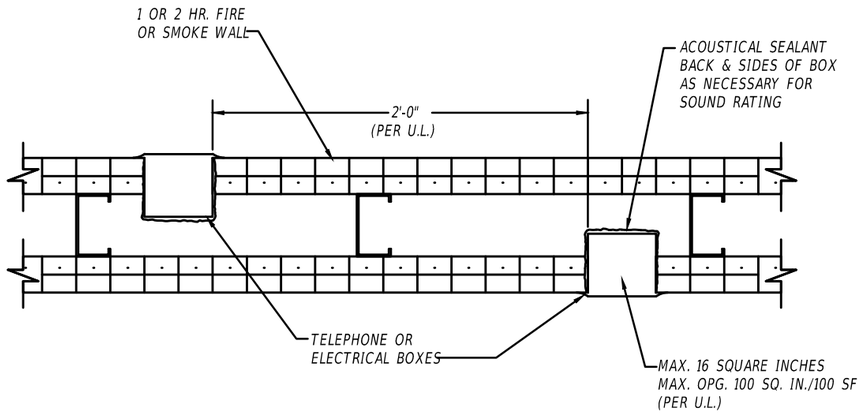
1) ALL HARDWARE BOLTS, NUTS, WASHERS, ETC. SHALL BE SOLID COPPER OR BRONZE. COPPERPLATING IS NOT ACCEPTABLE.

2) BUSBAR SHALL BE 1/4" THICK x 4" WIDE FLAT COPPER BAR.

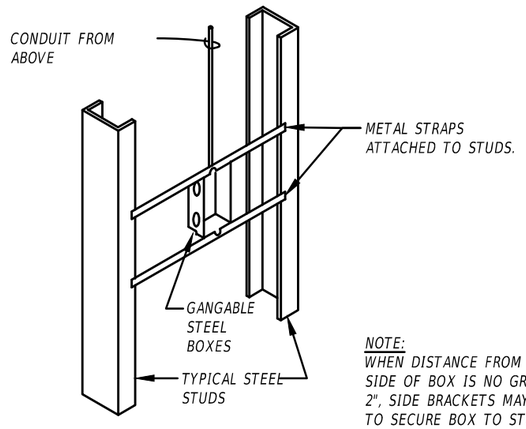
3) INCREASE LENGTH AS REQUIRED FOR NUMBER OF CONNECTIONS AND STILL PROVIDE 2" SPACING BETWEEN LUGS.



3 MAIN GROUND BUSBAR DETAIL
No Scale



1 ADJACENT ELECTRICAL BOX INSTALLATION DETAIL
No Scale



2 TYPICAL BOX SUPPORT DETAIL
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
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1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
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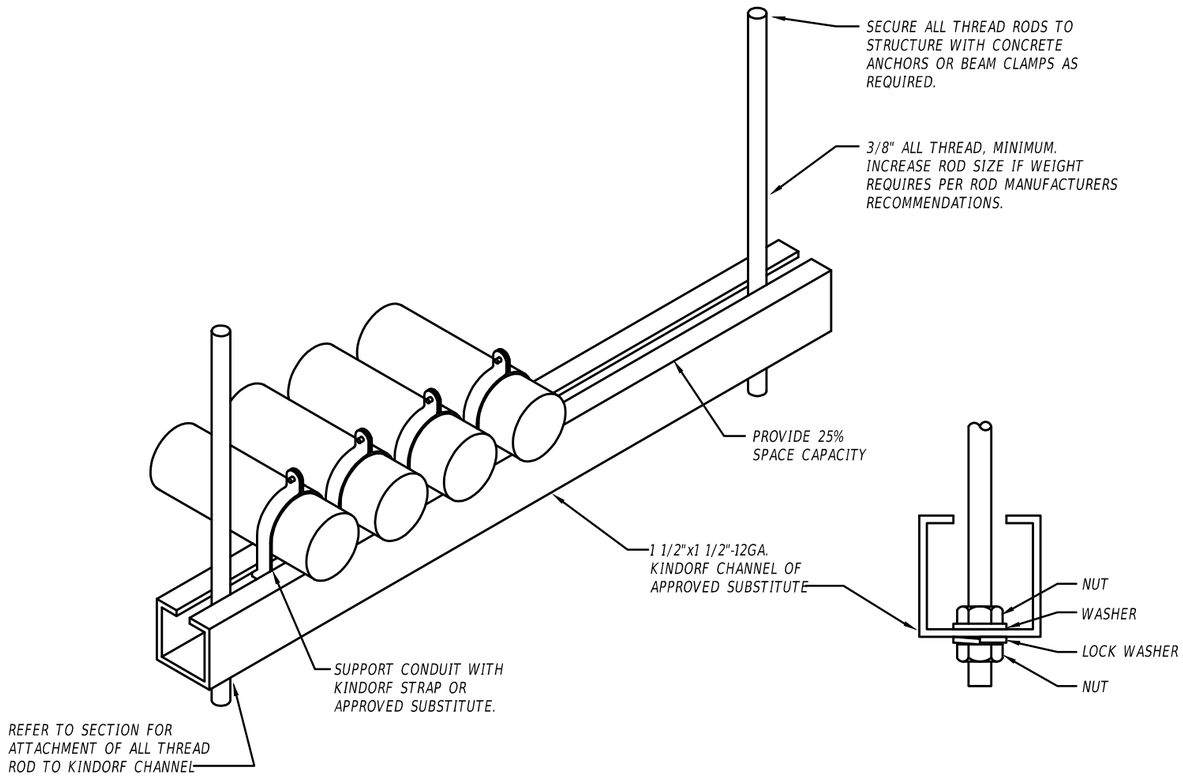
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE2-706

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 CONDUIT TRAPEZE SUPPORT DETAIL

No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

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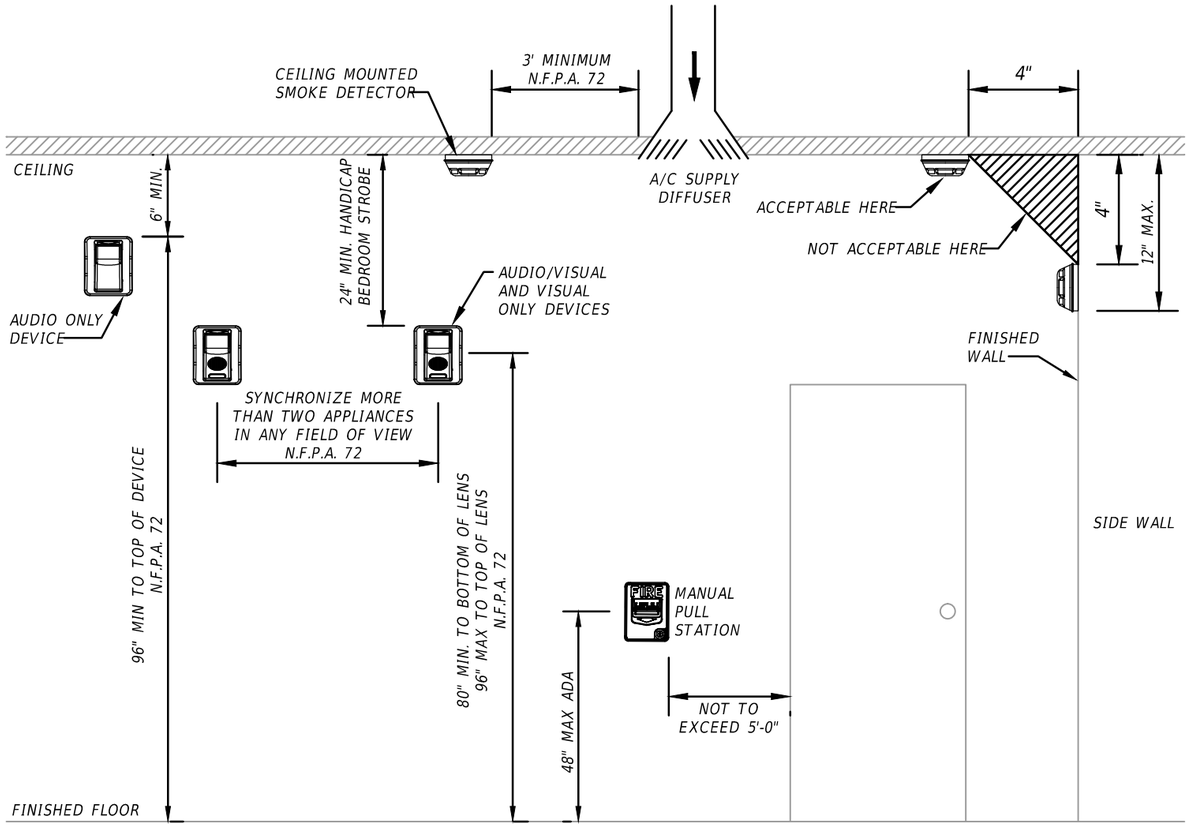
SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - ELECTRICAL

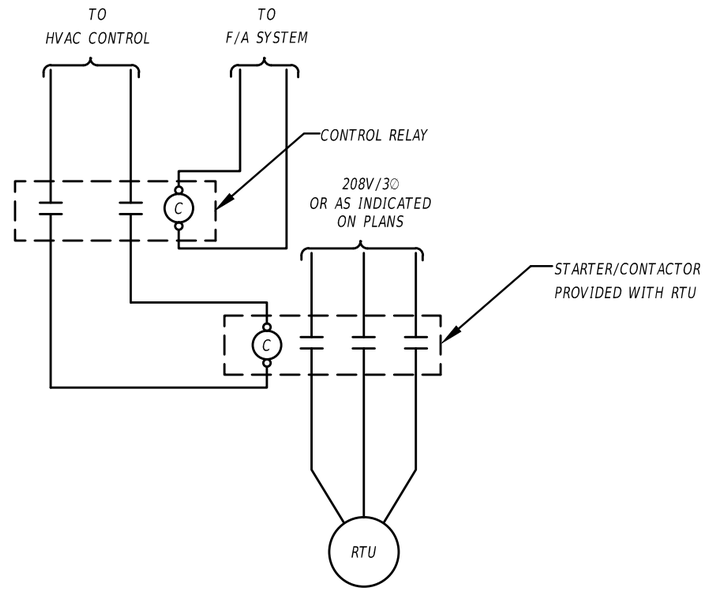
SHEET NO.

AE2-707

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 FIRE ALARM MOUNTING HEIGHT DETAIL
No Scale



NOTES:
1. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH HVAC

2 FIRE ALARM SHUT DOWN WIRING DIAGRAM
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

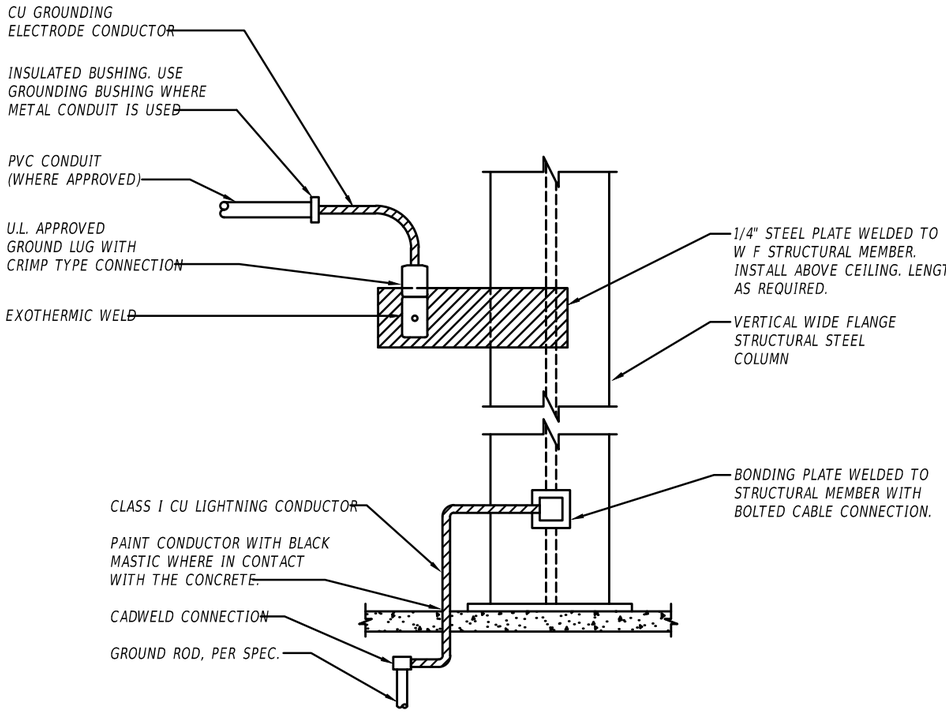
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE2-708

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1 BUILDING STEEL GROUND CONNECTION FOR STRUCTURAL STEEL SYSTEM

No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE2-709

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COVERS (BLANK UNLESS LOGO IS SPECIFIED)

	DESCRIPTION	PART NO.	WEIGHT #	DEIGN/TEST LOAD	ANSI TIER
(1/2)	W/2 BOLTS	PG3048CA00	159 (72.1 kg.)	8,000/12,000	8
(1/2)	GASKETED W/2 BOLTS	PG3048CG00	159 (72.1 kg.)	8,000/12,000	8
(1/2)	NO BOLTS	PG3048WA00	159 (72.1 kg.)	8,000/12,000	8
(1/2)	HEVY DUTY W/2 BOLTS	PG3048HA00	206 (93.4 kg.)	15,000/22,500	15
(1/2)	GASKETED HEAVY DUTY W/2 BOLTS	PG3048HG00	206 (93.4 kg.)	15,000/22,500	15
	EXTRA HAVEY DUTY W/2 BOLTS	PG3048HH00	220 (99.7 kg.)	22,500/33,750	15*
(1/2)	2-PIECE W/2 BOLTS	PG3048CS00	181 (82.1 kg.)	8,000/12,000	8
(1/2)	HEAVY DUTY 2-PIECE W/2 BOLTS	PG3048HS00	206 (93.4 kg.)	15,000/22,500	15
	2-PIECE OVERLAPPING	PG3048CC00	227 (103.0 kg.)	8,000/12,000	8
	HEAVY DUTY 2-PIECE OVERLAPPING	PG3048HC00	234 (106.1 kg.)	15,000/22,500	15

* COVERS WITH METER LIDS AVAILABLE UPON REQUEST.
* GASKETED COVERS AND BOLT GROMMETS MUST BE USED WITH A GASKETED BOX. GASKETS REDUCE THE INFLOW OF FLUIDS BUT DO NOT MAKE THE ENCLOSURE WATER TIGHT.
* LOADINGS FOR HH COVERS COMPLY WITH ALL TEST PROVISIONS OF ANSI/SCTE 77 EXCEPT THAT THE VERTICAL DESIGN LOAD IS 22,500 LBS. WITH A TEST LOAD OF 33,750 LBS. OVER A 10"x20" PLATE.

PG BOXES (STAKABLE WITH SELF-ALIGNING, REPLACEABLE EZ-NUT) *24" & 36" DEEP BOXES MUST BE USED AS BOTTOM OF ANY STACK

	DESCRIPTION		PART NO.	WEIGHT #	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD #	ANSI TIER
(1/2)	OPEN BOTTOM		PG3048BA18	185 (83.9 kg.)	18" (457 mm)	15" (381 mm)	22,500/33,750	15**
		*	PG3048BA24	236 (107.0 kg.)	24" (609 mm)	21" (533 mm)	22,500/33,750	15**
		*	PG3048BA36	343 (155.6 kg.)	36" (914 mm)	33" (838 mm)	22,500/33,750	15**
(1/2)	OPEN BOTTOM W/ GASKET		PG3048BG18	185 (83.9 kg.)	18" (457 mm)	15" (381 mm)	22,500/33,750	15**
		*	PG3048BG24	236 (107.0 kg.)	24" (609 mm)	21" (533 mm)	22,500/33,750	15**
		*	PG3048BG36	343 (155.6 kg.)	36" (914 mm)	33" (838 mm)	22,500/33,750	15**
(1/2)	OPEN BOTTOM W/ 2 MOUSEHOLES		PB3048BB18	185 (83.9 kg.)	18" (457 mm)	15" (381 mm)	22,500/33,750	15**
		*	PB3048BB24	236 (107.0 kg.)	24" (609 mm)	21" (533 mm)	22,500/33,750	15**
		*	PB3048BB36	343 (155.6 kg.)	36" (914 mm)	33" (838 mm)	22,500/33,750	15**
(1/2)	SOLID BOTTOM		PB3048DA18	220 (99.8 kg.)	18 1/2" (470 mm)	15" (381 mm)	22,500/33,750	15**
		*	PB3048DA24	287 (130.2 kg.)	24 1/2" (622 mm)	21" (533 mm)	22,500/33,750	15**
		*	PB3048DA36	394 (178.7 kg.)	36 1/2" (927 mm)	33" (838 mm)	22,500/33,750	15**
(1/2)	OPEN BOTTOM W/ GASKET		PG3048DG18	220 (99.8 kg.)	18 1/2" (470 mm)	15" (381 mm)	22,500/33,750	15**
		*	PG3048DG24	287 (130.2 kg.)	24 1/2" (622 mm)	21" (533 mm)	22,500/33,750	15**
		*	PG3048DG36	394 (178.7 kg.)	36 1/2" (927 mm)	33" (838 mm)	22,500/33,750	15**

† PG3048BB36 IS NOT UL LISTED.
** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.

PD BOXES (NESTABLE)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION C	DIMENSION D	DESIGN/TEST LOAD #	ANSI TIER
OPEN BOTTOM	PD3048BA24	286 (130 kg.)	24" (610 mm)	21" (533 mm)	22,500/33,750	15**
	PD3048BA48	614 (278.5 kg.)	48" (1219 mm)	45" (1143 mm)	22,500/33,750	15**
OPEN BOTTOM W/ GASKET	PD3048BG24	286 (130 kg.)	24" (610 mm)	21" (533 mm)	22,500/33,750	15**
	PD3048BG48	614 (278.5 kg.)	48" (1219 mm)	45" (1143 mm)	22,500/33,750	15**
OPEN BOTTOM W/ 2 MOUSEHOLES	PD3048BB24	286 (130 kg.)	24" (610 mm)	21" (533 mm)	22,500/33,750	15**
	PD3048BB48	614 (278.5 kg.)	48" (1219 mm)	45" (1143 mm)	22,500/33,750	15**

** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.

TOP EXTENSIONS (FOR USE UNDER 18" DEEP PG STYLE BOX ONLY, ONE PER BOX)

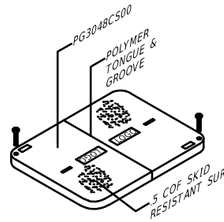
DESCRIPTION	PART NO.	WEIGHT #	DIMENSION E	DIMENSION F	DESIGN/TEST LOAD #	ANSI TIER
OPEN BOTTOM	PG3048EA08	102 (46.3 kg.)	8 3/4" (222 mm)	1" (25 mm)	22,500/33,750	15**
SOLID BOTTOM	PG3048RA08	151 (58.0 kg.)	9 1/4" (235 mm)	N/A	22,500/33,750	15**

* LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.
DIMENSIONS AND WEIGHTS IN PARENTHESES ARE METRIC EQUIVALENT.

TOP EXTENSIONS (FOR USE ON TOP OF PG AND PD BOXES OF ANY DEPTH)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER
OPEN BOTTOM	PG3048EA11	100 (45.4 kg.)	22,500/33,750	15**

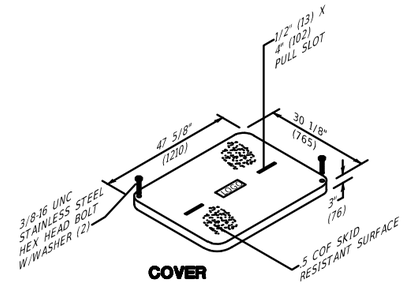
* IN ADDITION, THIS EXTENSION CAN BE USED AS A BOTTOM EXTENSION FOR 18" DEEP PG BOXES.
** LOADINGS COMPLY WITH ANSI/SCTE 77. THESE BOXES MEET AND EXCEED ANSI TIER 15 TEST PROVISIONS.



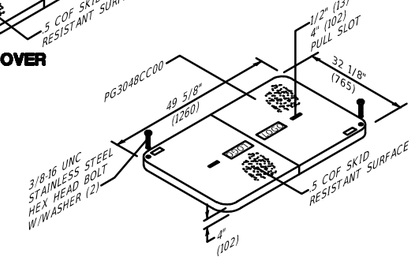
2 PIECE COVER



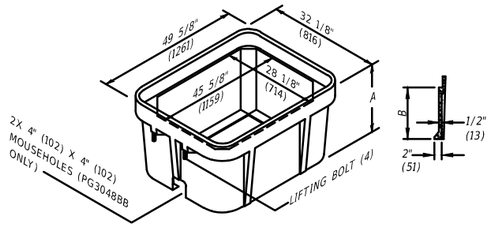
OVERLAPPING COVER



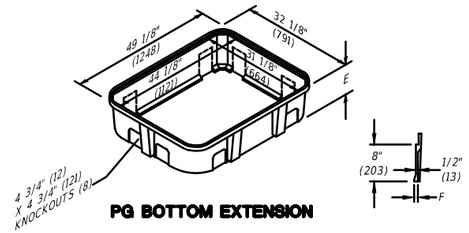
COVER



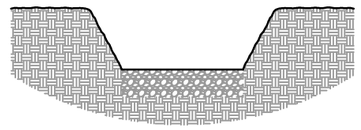
OVERLAPING COVER



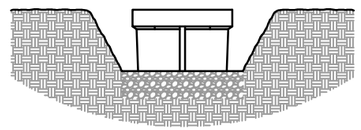
PG BOX



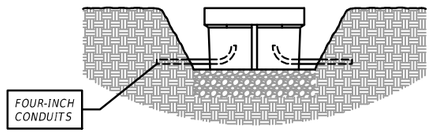
PG BOTTOM EXTENSION



STEP 1. PREPARE THE EXCAVATION APPROXIMATELY 6 INCHES DEEPER THAN THE DEPTH OF THE BOX. THEN ADD 6 TO 8 INCHES OF GRAVEL OR CRUSHED ROCK FOR DRAINAGE.



STEP 2. PLACE BOX IN HOLE WITH TOP AT GRADE LEVEL



STEP 3. FILL AND COMPACT SOIL TO GRADE LEVEL WITH COVER IN BOX.

STEP 4. IF GRADE LEVEL IS RAISED LATER (THRU LANDSCAPING, ETC.) A STRAIGHT SIDED BOX CAN BE PULLED UP AND BRICKED AT THE BOTTOM ON ONE OR FOUR SIDES TO CONFORM TO THE LANDSCAPE.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

BLAKE LAWRENCE SUDDETH, P.E.
FLORIDA P.E. NO.: 69060
JOSEPH, LAWRENCE & CO.
1180 HARWOOD AVENUE, SUITE 3000
ALTAMONTE SPRINGS, FLORIDA 32714
CA NO.: 28730

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

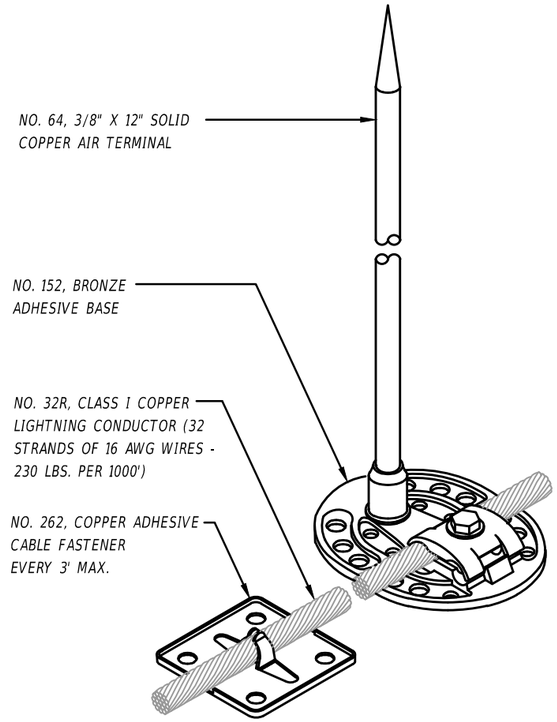
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

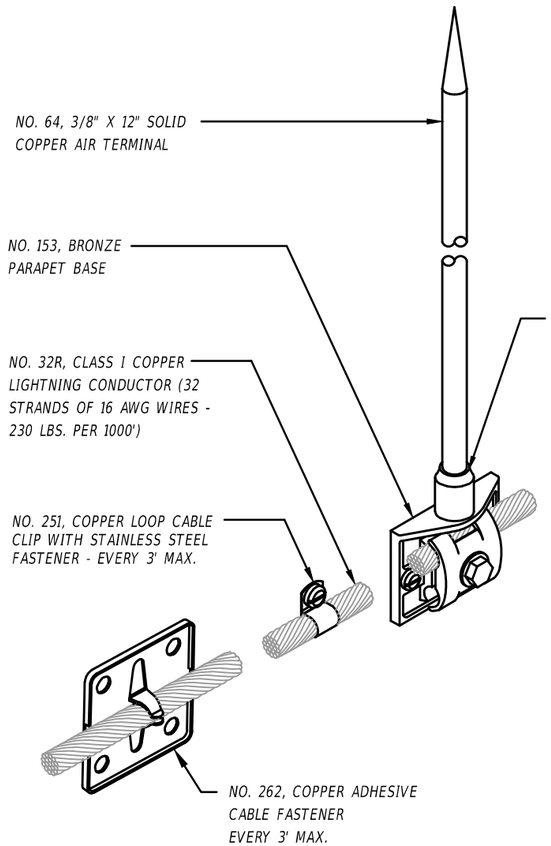
DETAILS - ELECTRICAL

SHEET NO. AE2-710

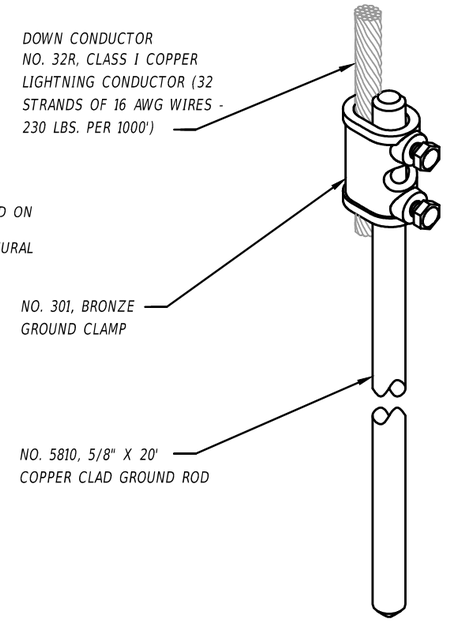
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 6IG15-23.004, F.A.C.



1 LIGHTNING PROTECTION-AIR TERMINAL "A"
No Scale



2 LIGHTNING PROTECTION-AIR TERMINAL "B"
No Scale



3 LIGHTNING PROTECTION-GROUND ROD
No Scale

REVISIONS			
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1180 HARWOOD AVENUE, SUITE 3000
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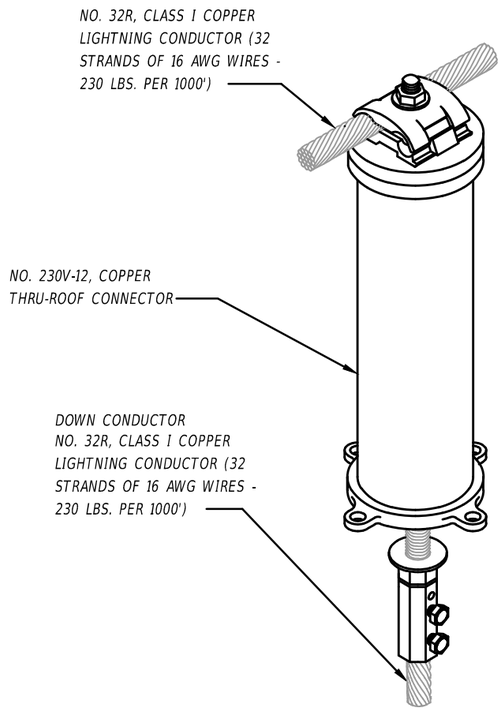
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

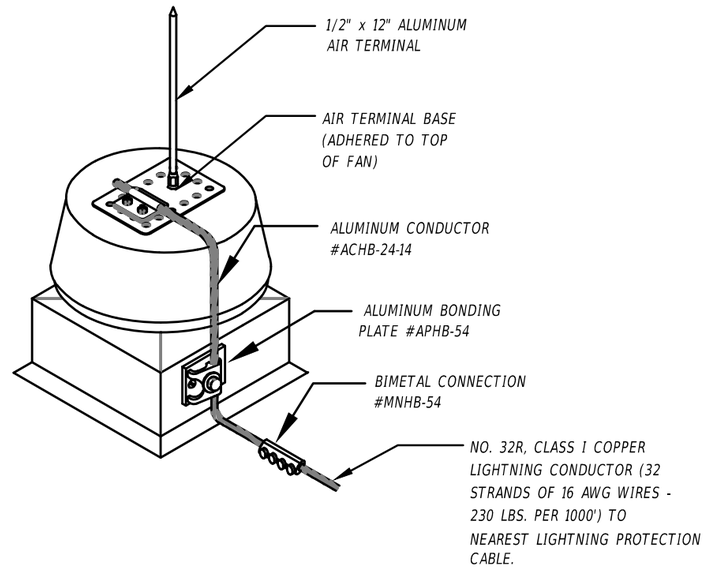
DETAILS - ELECTRICAL

SHEET NO.
AE2-711

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1 LIGHTNING PROTECTION - THRU-ROOF
No Scale



2 LIGHTNING PROTECTION - EXHAUST FAN AIR TERMINAL
No Scale

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
NA	POLK	437300-1-52-01

SUNTRAX TEST FACILITY STORAGE BUILDING

DETAILS - ELECTRICAL

SHEET NO.
AE2-712

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