

Deferred Submittals

The following item is required and will be provided as a deferred submittal:

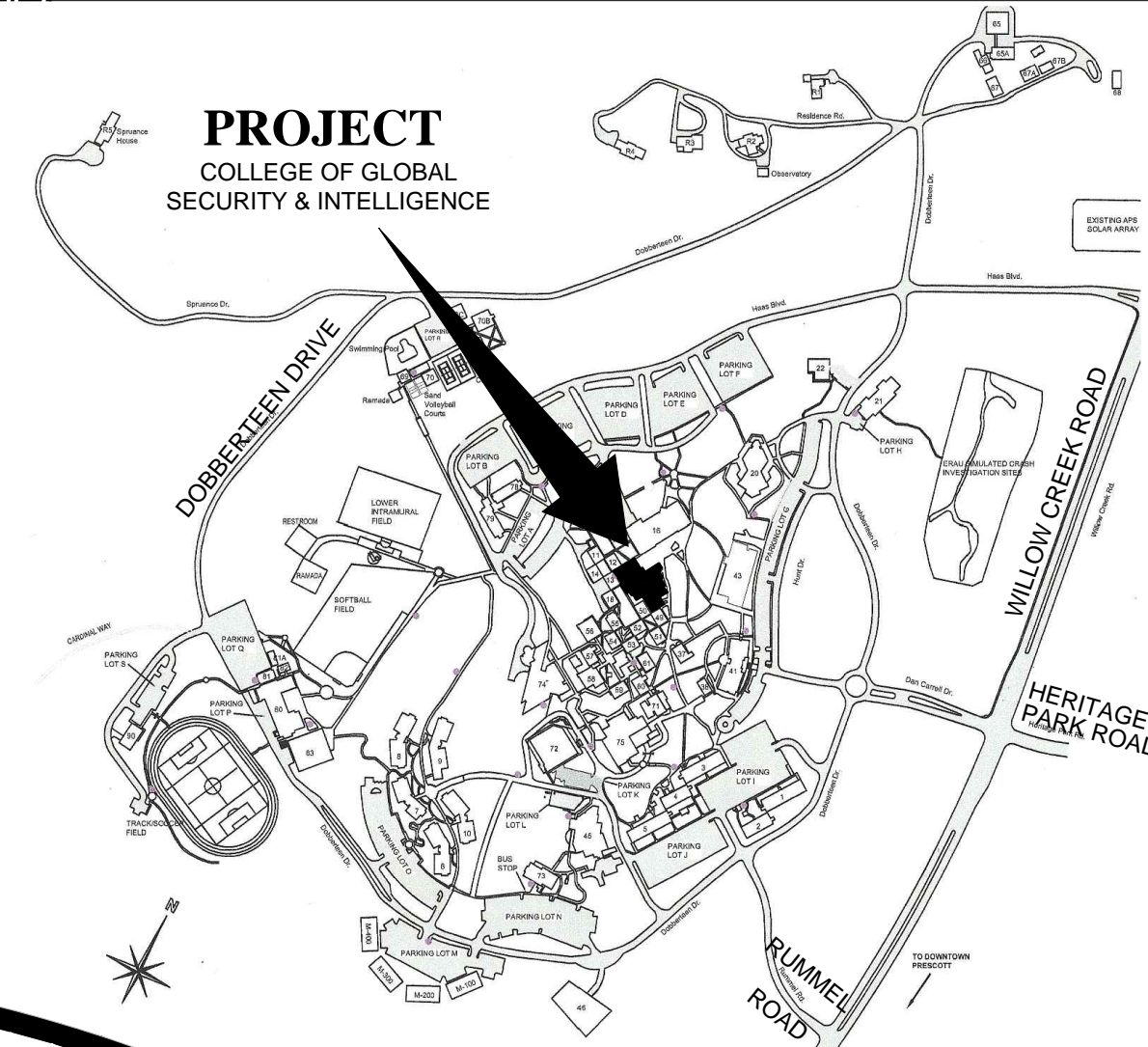
- Fire Sprinkler System.**
Automatic Fire Sprinkler System submittal documents for deferred submittal shall be submitted to the local fire district, who shall review them and forward them to the building official, with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance with the design of the building. The deferred submittal items shall "NOT" be installed until their design and submittal documents have been approved by the fire marshal having jurisdiction.
- Fire Alarm System.**
Automatic Fire Alarm System submittal documents for deferred submittal shall be submitted to the local fire district, who shall review them and forward them to the building official, with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance with the design of the building. The deferred submittal items shall "NOT" be installed until their design and submittal documents have been approved by the fire marshal having jurisdiction.

NOTE: An Automatic Fire Sprinkler System and Alarm is existing throughout Building 17.

Graphic Standards

	NORTH ARROW INDICATOR		ELEVATION DESIGNATOR
	BUILDING SECTION DESIGNATOR		DESCRIPTIVE NOTE DESIGNATOR
	DETAIL DESIGNATOR		ROOM NUMBER / FINISH DESIGNATOR
	GRID LINE DESIGNATOR		DOOR NUMBER DESIGNATOR
	REVISION DESIGNATOR		DOOR TYPE DESIGNATOR
			WINDOW TYPE DESIGNATOR
			WALL TYPE DESIGNATOR

Site / Vicinity Map



IMPROVEMENTS FOR EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

College of Global Security & Intelligence - Cyber Security Lab

Project Information

OWNER:	Embry-Riddle Aeronautical University 3700 Willow Creek Road Prescott, AZ 86301	PHN: 928-777-6600 FAX: 928-777-3950 CONTACT: Carl Beumer beumerc@erau.edu
PREPARED BY:	W. Alan Kenson & Associates, P.C. P.O. Box 11593 Prescott, AZ 86304	PHN: 928-443-5812 FAX: 928-443-5815 CONTACT: Alan Kenson waka@cableone.net
CONTRACTOR:	KNA Construction 2070 Mountain Laurel Road Prescott, AZ 86303	PHN: 928-899-0993 CONTACT: Steve Irwin knams@commspeed.net
SCOPE OF WORK:	Remodel	
PROJECT ADDRESS:	3700 Willow Creek Road (Building 17) Prescott, AZ 86301 (APN: 106-03-004)	
ZONE:	BG - PAD	
OCCUPANCY:	B (Educational Facility for students above the 12th grade), Non-Separated	
CONSTRUCTION TYPE:	II-B (1991 Addition), IV-HT (Original Building), Fully Sprinklered	
ALLOWABLE AREA:	ALLOWABLE AREA (IV-HT) = 36,000 S.F. + 300% = 144,000 SF ALLOWABLE AREA (II-B) = 23,000 S.F. + 300% = 92,000 SF TOTAL ALLOWABLE AREA = 236,000 SQUARE FEET	
ACTUAL AREA		
ORIGINAL BUILDING (IV-HT):	10,238 SQUARE FEET	
1991 ADDITION (II-B):	6,340 SQUARE FEET	
TOTAL AREA:	16,578 SQUARE FEET	
EMERGENCY LIGHTING:	Yes (Existing, to be modified)	
FIRE ALARMS:	Yes (Existing, to be modified)	
FIRE SPRINKLERS:	Yes (Existing, to be modified)	
FIRE EXTINGUISHERS:	Yes - 1 per 3,000 S.F.	
BUILDING CODE:	2006 International Building Code	
PARKING:	Parking is existing and adequate	
OCCUPANT LOAD:	386	
EXITS REQUIRED:	2	
EXITS PROVIDED:	5	

PROJECT DESCRIPTION:

Embry-Riddle Aeronautical University intends to renovate existing building 17, which is the College of Global Security and Intelligence. An existing open classroom will be enclosed to create a new Cyber Security Lab. A new ADA accessible ramp will be constructed to access the new class room. A new server room will be constructed, which will serve only the Cyber Security Lab. Several new walls and doors will be installed in order to properly enclose the classroom.

Sheet Index

ARCHITECTURAL

CS	Cover Sheet / Project Information
A0.1	Occupancy / Egress / Overall Floor Plan
A1.0	Renovated Reference / Dimension Floor Plan / Demolition Floor Plan
A2.0	Reflected Ceiling Plan / Wall Types Plan
A3.0	Wall Details / Door Schedule / Door Details
A4.0	Room Finish Schedule / Materials Schedule

MECHANICAL

M1.0	Mechanical Floor Plan / Mechanical Schedules / Notes / Natural Gas Plan & Isometrics.
------	---

ELECTRICAL

E1.1	Electrical Symbols, Specs., Lighting Fixture Schedule, One Line Diagram & Notes.
E1.2	Lighting & Power Floor Plan

Architect:

W. Alan Kenson & Associates, P.C.

P 928-443-5812 P.O. Box 11593
F 928-443-5815 Prescott, AZ 86304

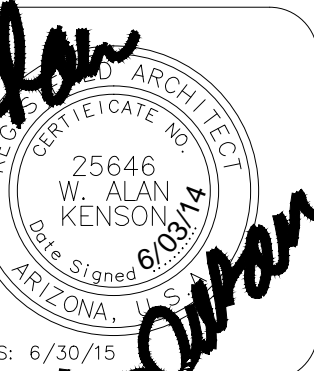
email: waka@cableone.net
www.kenson-associates.com

ARCHITECTURE & PLANNING



REVISIONS BY

These drawings are the property of W. Alan Kenson & Associates P.C., and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.



W. Alan Kenson & Associates, P.C.
P.O. Box 11593
Prescott, AZ 86304
P 928-443-5812
F 928-443-5815
email: waka@cableone.net
www.kenson-associates.com
ARCHITECTURE & PLANNING

DRAWING: COVER SHEET

PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

DRAWN BY: PLM
CHECKED BY: WAK
DATE: 06/03/2014
SCALE: AS NOTED
JOB NO.

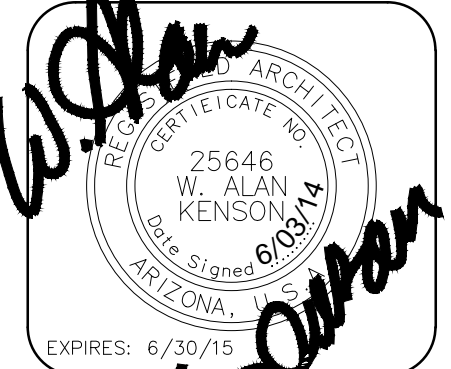
SHEET

CS



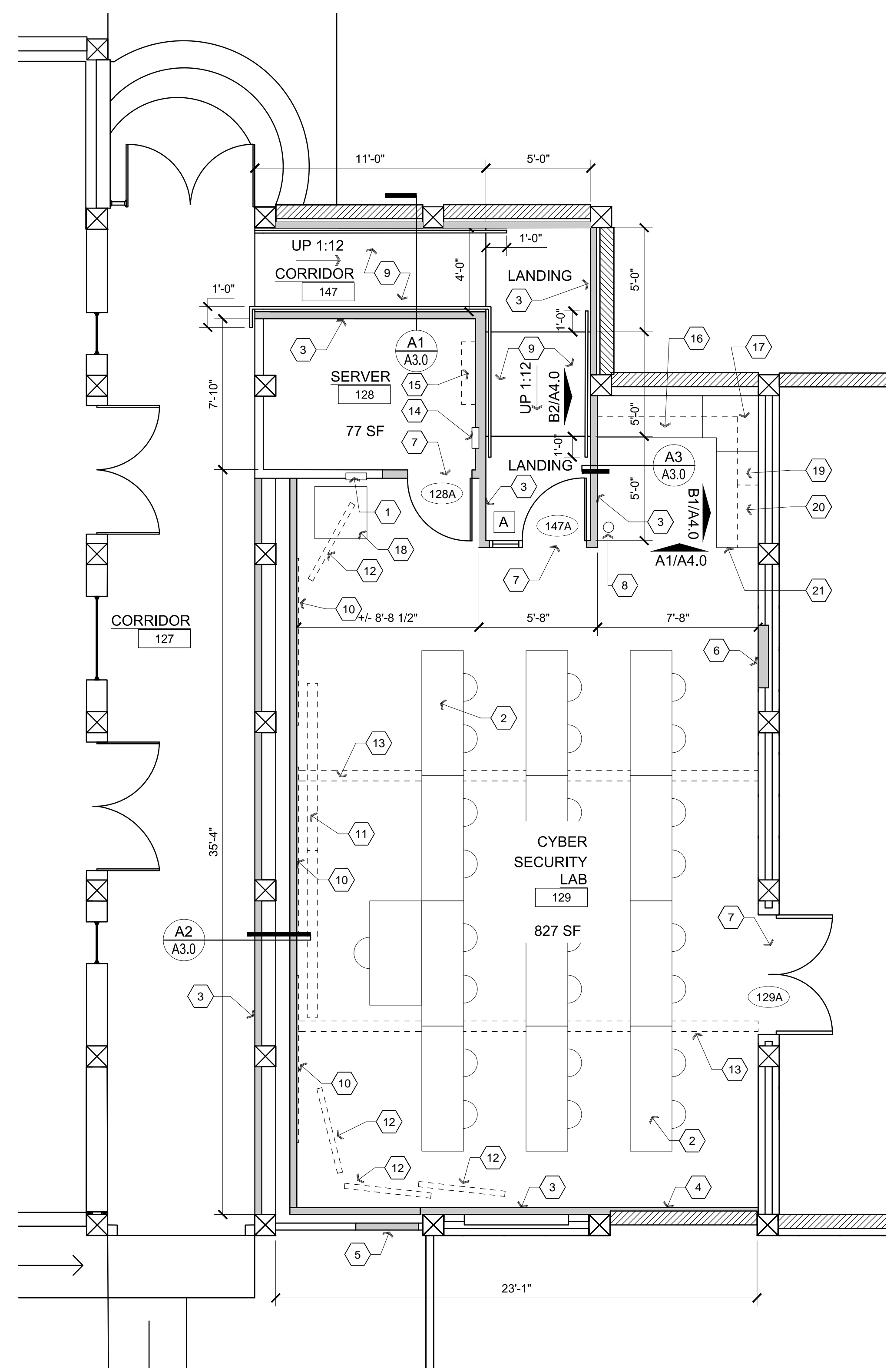
REVISIONS	BY

These drawings are the property of W. Alan Kenson & Associates P.C., and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.



W. Alan Kenson & Associates, P.C.
 ARCHITECTURE & PLANNING
 P.O. Box 11593
 Prescott, AZ 86304
 P 928-443-5812
 F 928-443-5815
 email: waka@cableone.net
 www.kenson-associates.com

DRAWING: RENOVATED REFERENCE / DIMENSION FLOOR PLAN / DEMOLITION PLAN
PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

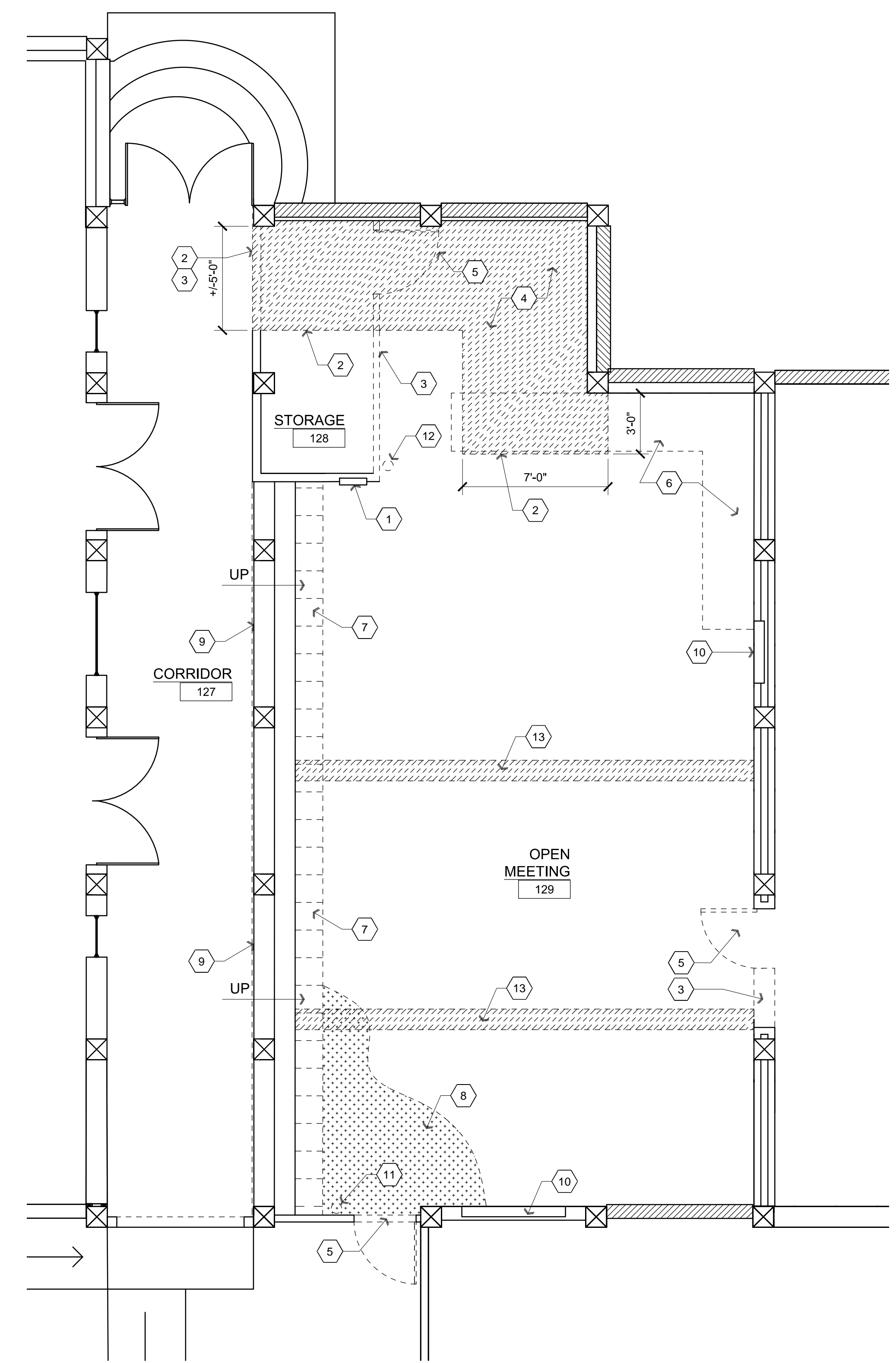


A1 Renovated Reference / Dimension Floor Plan

Scale: 1/4" = 1'-0" North

Descriptive Key Notes:

- EXISTING ELECTRICAL PANEL TO REMAIN.
- 2'-0" X 6'-0" STUDENT DESK, BY OWNER.
- TYPICALLY INDICATES NEW 3-5/8" STEEL STUD WALL, REFER TO WALL TYPES PLAN.
- TYPICALLY INDICATES NEW 1-5/8" STEEL STUD FURR-OUT, REFER TO WALL TYPES PLAN.
- INFILL EXISTING DOOR OPENING WITH 3-5/8" STEEL STUD WALL, REFER TO WALL TYPES PLAN.
- INFILL EXISTING NICHE WITH 3-5/8" STEEL STUDS, REFER TO TO WALL TYPES PLAN.
- PROVIDE NEW SOLID CORE WOOD DOOR, HOLLOW METAL FRAME, AND HARDWARE.
- RELOCATED FIRE EXTINGUISHER.
- PROVIDE NEW CAST IN PLACE CONCRETE ADA ACCESSIBLE RAMP, MAX 1:12 SLOPE, WITH 1-1/2" Ø PAINTED STEEL HANDRAILS.
- 8'-0" WIDE, WALL MOUNTED WHITE BOARDS, BY OWNER. PROVIDE WOOD BACKING AS REQUIRED BY OWNER TO APPROPRIATELY SUPPORT DEVICES.
- 8'-0" WIDE WALL MOUNTED PROJECTOR SCREENS BY OWNER. PROVIDE WOOD BACKING AS REQUIRED BY OWNER TO APPROPRIATELY SUPPORT DEVICES.
- 50" WALL MOUNTED MONITOR BY OWNER, PROVIDE ELECTRICAL, DATA, PHONE, AND CABLE, REFER TO ELECTRICAL DRAWINGS. PROVIDE WOOD BACKING AS REQUIRED BY OWNER TO APPROPRIATELY SUPPORT DEVICES.
- PROVIDE NEW DATA AND ELECTRICAL GUTTER, IN CAST IN PLACE CONCRETE, SEE ELECTRICAL DRAWINGS.
- NEW ELECTRICAL PANEL, REFER TO ELECTRICAL DRAWINGS.
- WALL MOUNTED MINI SPLIT UNIT, REFER TO MECHANICAL PLANS.
- SOLID SURFACE COUNTER TOP [SS-1]
- PLASTIC LAMINATE BASE CABINET, WITH FINISHED END PANELS [PL-1]
- RACK FOR NETWORK SWITCH / ROUTER AND PRINTER BY OWNER.
- PLASTIC LAMINATE SHELF ABOVE. [PL-1]
- PLASTIC LAMINATE UPPER CABINET WITH FINISHED END PANELS. [PL-1]
- FINISHED END PANEL. [PL-2]



A2 Demolition Floor Plan

Scale: 1/4" = 1'-0" North

Demolition Key Notes:

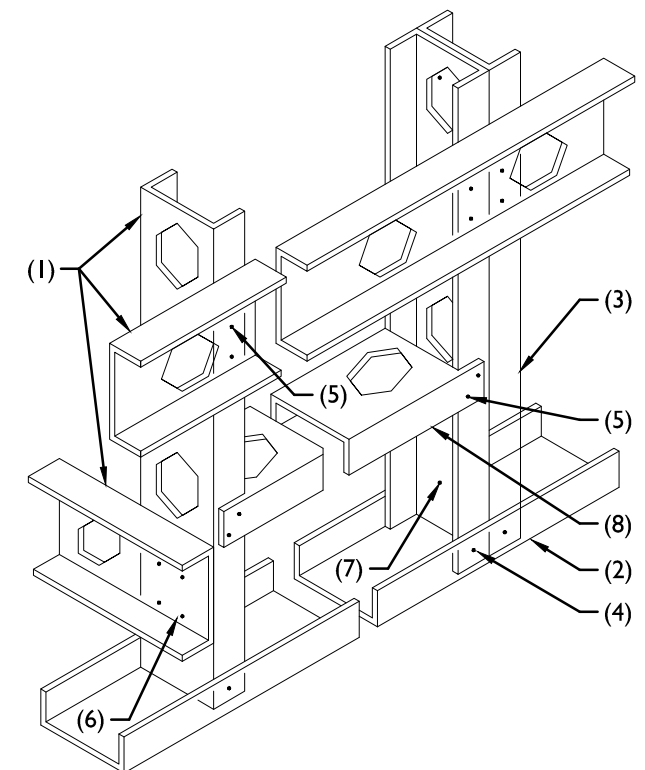
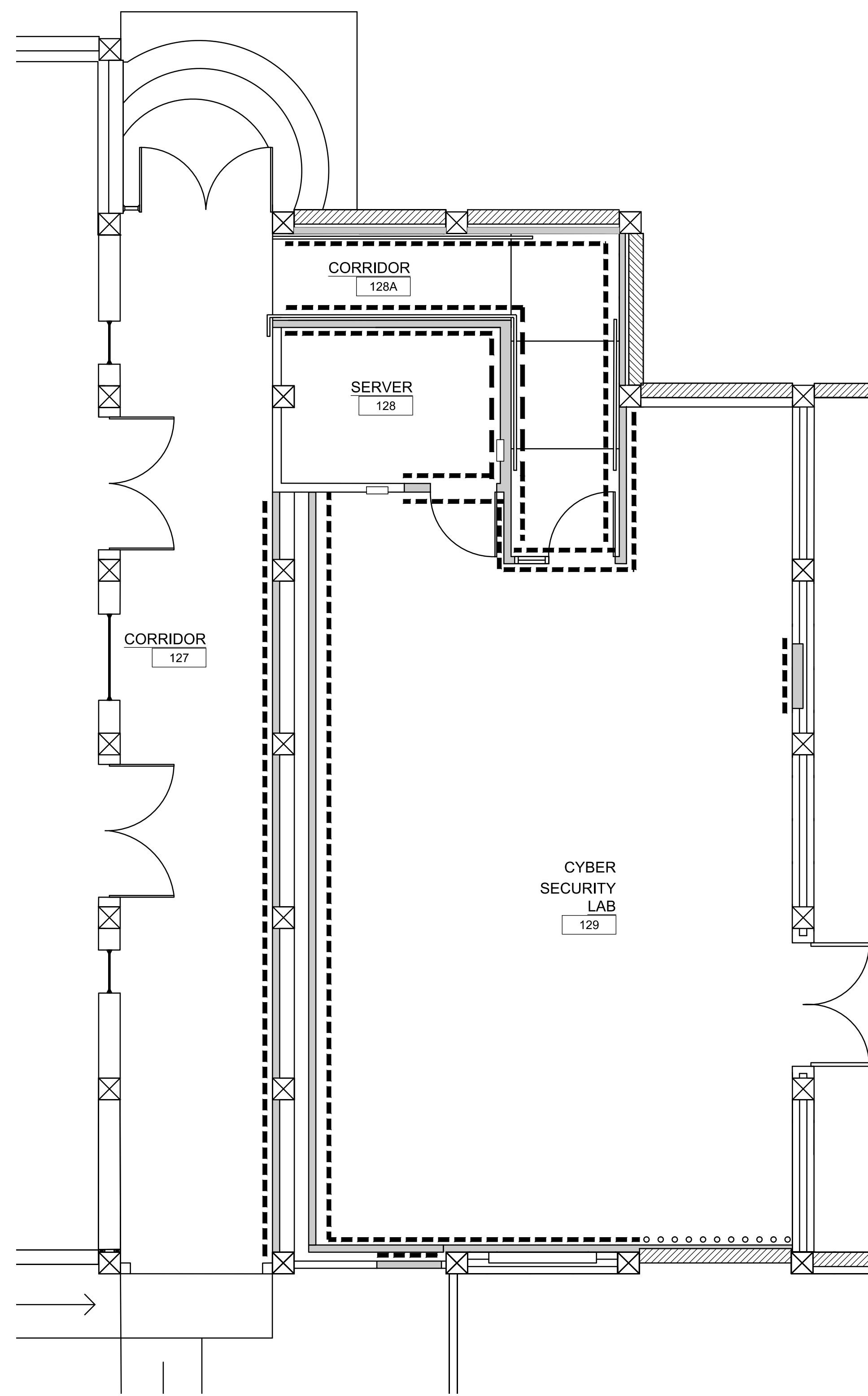
- EXISTING ELECTRICAL PANEL TO REMAIN
- SAWCUT EXISTING CONCRETE FLOOR SLAB & CMU STEM WALL.
- DEMOLISH PORTION OF EXISTING GPDW PARTITION
- DEMOLISH EXISTING SLAB AND EXCAVATE FOR NEW ADA RAMP
- REMOVE EXISTING DOOR
- REMOVE EXISTING CABINETS, AND PLASTIC LAMINATE COUNTERTOPS
- REMOVE EXISTING FLOOR TILE
- REMOVE EXISTING CARPET TILE, ENTIRE ROOM
- REMOVE VERTICAL TILE AT EXISTING STAIR RISER
- EXISTING NICHE TO BE COVERED OVER
- REMOVE EXISTING FIRE EXTINGUISHER
- EXISTING FIRE EXTINGUISHER TO BE RELOCATED
- SAWCUT EXISTING SLAB AND REMOVE CONCRETE AS REQUIRED FOR NEW ELECTRICAL & DATA GUTTER. REFER TO ELECTRICAL PLANS.

Legend:

	TYPICALLY INDICATES EXISTING CONCRETE SLAB TO BE DEMOLISHED
	TYPICALLY INDICATES EXISTING CARPET TILE TO BE DEMOLISHED

DRAWN BY	PLM
CHECKED BY	WAK
DATE	06/03/2014
SCALE	AS NOTED
JOB NO.	
SHEET	

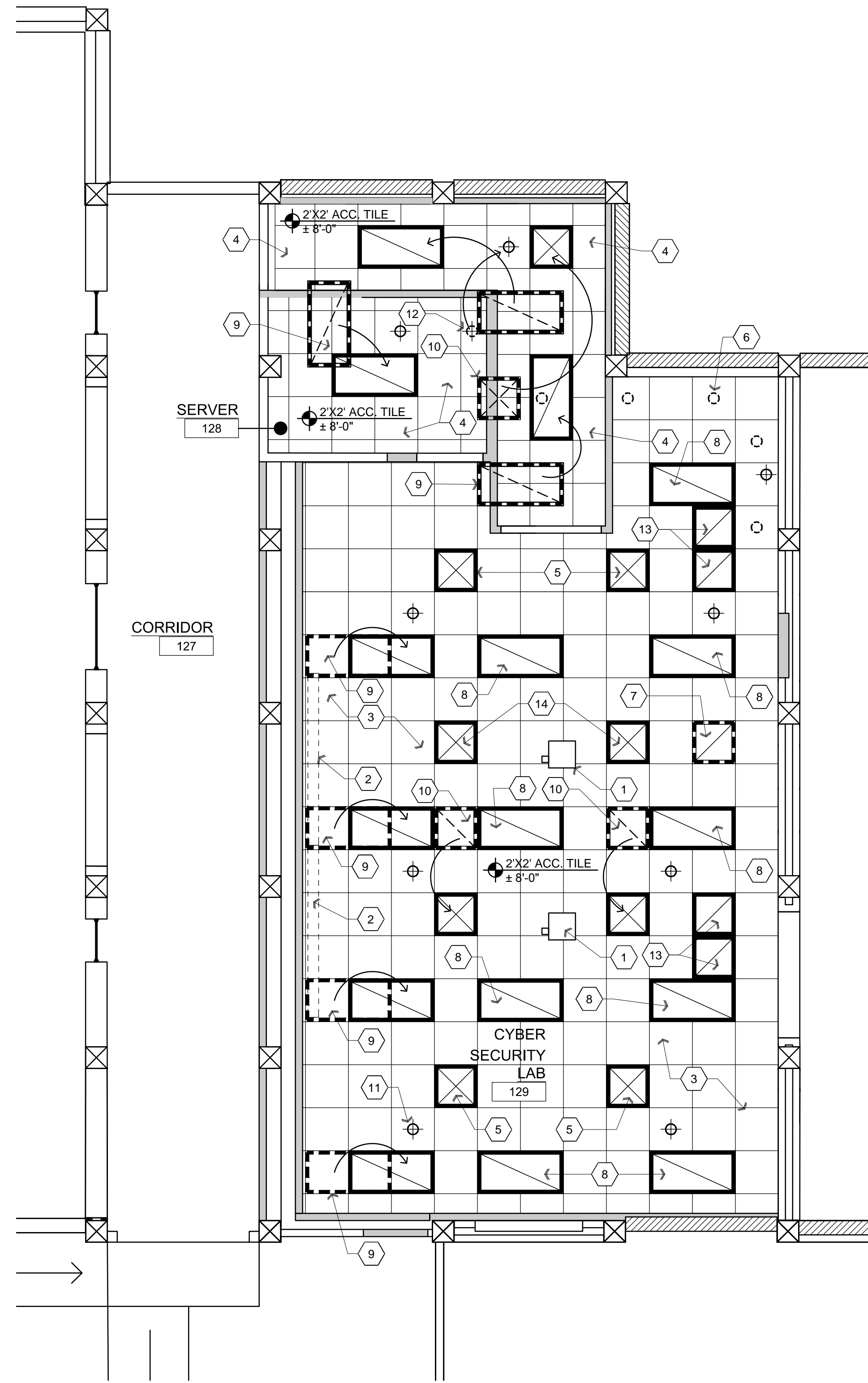
A1.0



NOTES:

1. STEEL STUD.
2. UNPUNCHED STEEL STUD TRACK - ATTACHMENT REQUIRED 1/2" DIA. EXPANSION BOLTS AT 48" O.C. (2 MINIMUM) OR 3/8" X 3/4" LONG POWDER DRIVEN PINS AT 12" O.C. FASTENER SHALL HAVE I.C.B.O. REPORT FOR SAME INSTALLATION.
3. MULTIPLE OR INTERSECTING STUDS WHERE SHOWN ON PLAN OR DETAILS. CONNECT WITH #10 X 3/4" LONG SHEET METAL SCREWS AT 24" O.C. STAGGERED SPACING. AT INTERSECTING STUDS 1 ROW OF SCREWS.
4. #10 X 3/4" LONG SHEET METAL SCREWS EACH SIDE, EACH STUD.
5. 2 #10 X 3/4" LONG SHEET METAL SCREWS.
6. 4 #10 X 3/4" LONG SHEET METAL SCREWS.
7. #10 X 3/4" LONG SHEET METAL SCREWS AT 12" O.C. AT DOUBLE STUDS.
8. STUD BLOCKING.

B1 Typical Framing Detail
Scale: NTS



Legend:

- 2'X2' ACOUSTIC PANELS CEILING. REUSE EXISTING CEILING GRID, OR REPLACE AS NOTED AC-1
- 2'X4' TROFFER FIXTURE TO REMAIN OR BE RELOCATED
- 2'X2' HVAC DIFFUSER TO REMAIN OR NEW AS NOTED
- 2'X2' HVAC RETURN
- 2'X2' HVAC RETURN TO BE REMOVED
- 6" CAN LIGHT TO BE REMOVED
- 2'X4' TROFFER FIXTURE TO BE RELOCATED
- 2'X2' HVAC DIFFUSER TO BE RELOCATED
- EXISTING AUTOMATIC FIRE SPRINKLER TO REMAIN
- EXISTING AUTOMATIC FIRE SPRINKLER TO BE RELOCATED
- CEILING MOUNTED PROJECTOR

NOTE:

- REFER TO ELECTRICAL DRAWINGS FOR EXACT LIGHT LOCATIONS.
- REFER TO MECHANICAL PLANS FOR ADDITIONAL INFORMATION.

A1 Wall Types Plan

Wall Types Legend: REFER TO FRAMING DETAIL B1/ A2.0

	EXISTING WALL: WOOD, OR STEEL STUD WALL. THICKNESS VARIES.		3-5/8" STUD WALL: PROVIDE 3-5/8" 25 GA. STEEL STUDS AT 2'-0" O.C. PROVIDE 1-LAYER 5/8" TYPE 'X' GPDW ON EXPOSED SIDE OF STEEL STUDS UP TO CEILING, OR 6" ABOVE NEW CEILING GRID WHERE NEW CEILING OCCURS.
	EXISTING WALL: 8" WIDE SLUMP BLOCK CMU WALL.		6" STUD WALL: PROVIDE 6" 25 GA. STEEL STUDS AT 2'-0" O.C. PROVIDE 1-LAYER 5/8" TYPE 'X' GPDW ON BOTH SIDES OF STEEL STUDS UP TO 6" ABOVE NEW CEILING GRID.
	INTERIOR FURRED-OUT WALL: PROVIDE 1-LAYER 5/8" TYPE 'X' GPDW ON INTERIOR ROOM SIDE OF 1-5/8" 25 GA. STEEL STUDS AT 2'-0" ON CENTER UP TO CEILING AS OCCURS.		

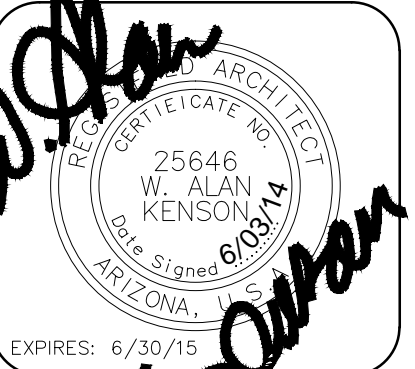
A2 Reflected Ceiling Plan

Descriptive Key Notes:

1. CEILING MOUNTED PROJECTOR BY OWNER, PROVIDE ELECTRICAL AND DATA. REFER TO ELECTRICAL PLANS.
2. WALL MOUNTED PROJECTOR SCREENS BY OWNER.
3. REMOVE EXISTING ACOUSTICAL CEILING PANELS, AND REPLACE WITH NEW 2'X2' ACOUSTICAL CEILING PANELS AS SPECIFIED IN MATERIALS SCHEDULE. EXISTING CEILING GRID TO REMAIN.
4. DEMOLISH EXISTING CEILING GRID AND TILES THIS AREA, PROVIDE NEW CEILING GRID AND NEW ACOUSTICAL TILES AS SPECIFIED IN MATERIALS SCHEDULE.
5. TYPICALLY INDICATES HVAC DIFFUSER TO REMAIN.
6. TYPICALLY INDICATES 6" RECESSED CAN LIGHT FIXTURE TO BE REMOVED.
7. TYPICALLY INDICATES HVAC RETURN TO BE REMOVED.
8. TYPICALLY INDICATES 2'X4' TROFFER LIGHT FIXTURE TO REMAIN.
9. TYPICALLY INDICATES 2'X4' TROFFER LIGHT FIXTURE TO BE RELOCATED.
10. TYPICALLY INDICATES 2'X2' HVAC DIFFUSER TO BE RELOCATED.
11. TYPICALLY INDICATES AUTOMATIC FIRE SPRINKLER HEAD TO REMAIN.
12. TYPICALLY INDICATES AUTOMATIC FIRE SPRINKLER HEAD TO BE RELOCATED.
13. PROVIDE NEW 2'X2' HVAC RETURN.
14. PROVIDE NEW 2'X2' HVAC DIFFUSER.

REVISIONS	BY

These drawings are the property of W. Alan Kenson & Associates P.C., and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.



W. Alan Kenson & Associates, P.C.
 P.O. Box 11593
 Prescott, AZ 86304
 P 928-443-5812
 F 928-443-5815
 email: waka@cableone.net
 www.kenson-associates.com
ARCHITECTURE & PLANNING

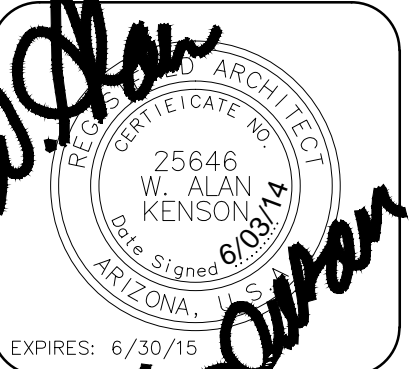
DRAWING: REFLECTED CEILING PLAN / WALL TYPES PLAN
PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

DRAWN BY: PLM
 CHECKED BY: WAK
 DATE: 06/03/2014
 SCALE: AS NOTED
 JOB NO.
 SHEET

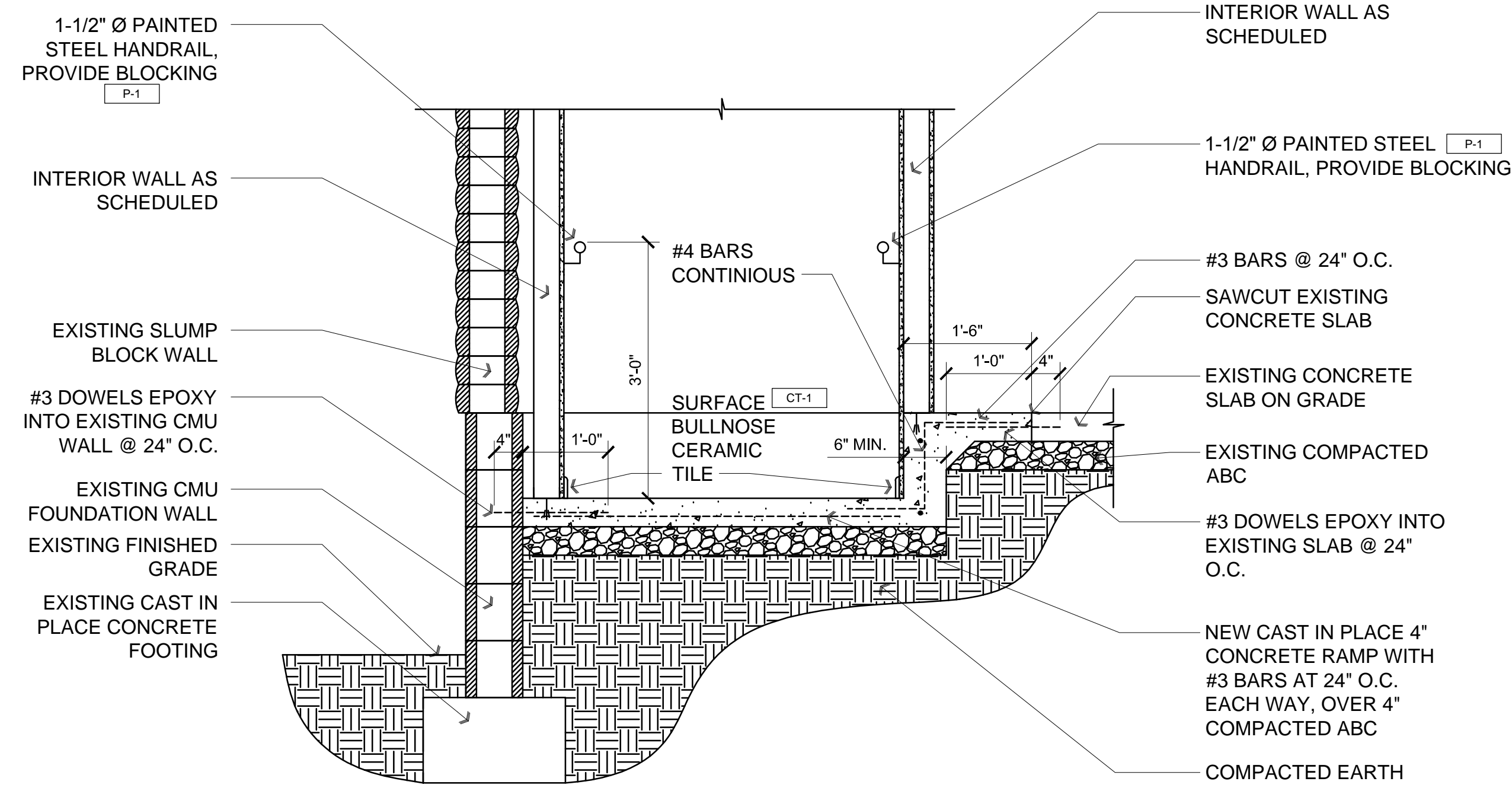
A2.0

REVISIONS	BY

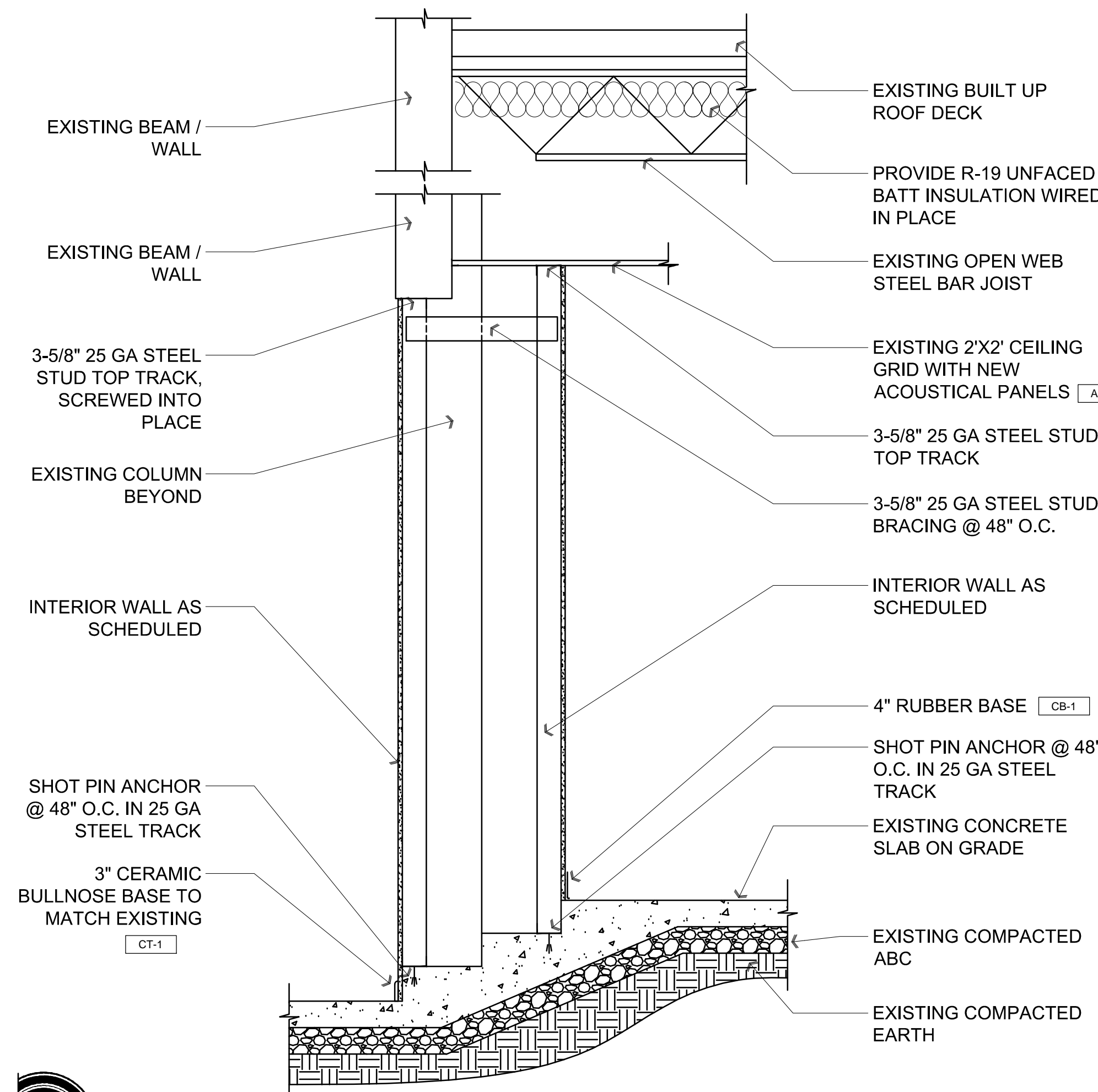
These drawings are the property of W. Alan Kenson & Associates P.C. and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.



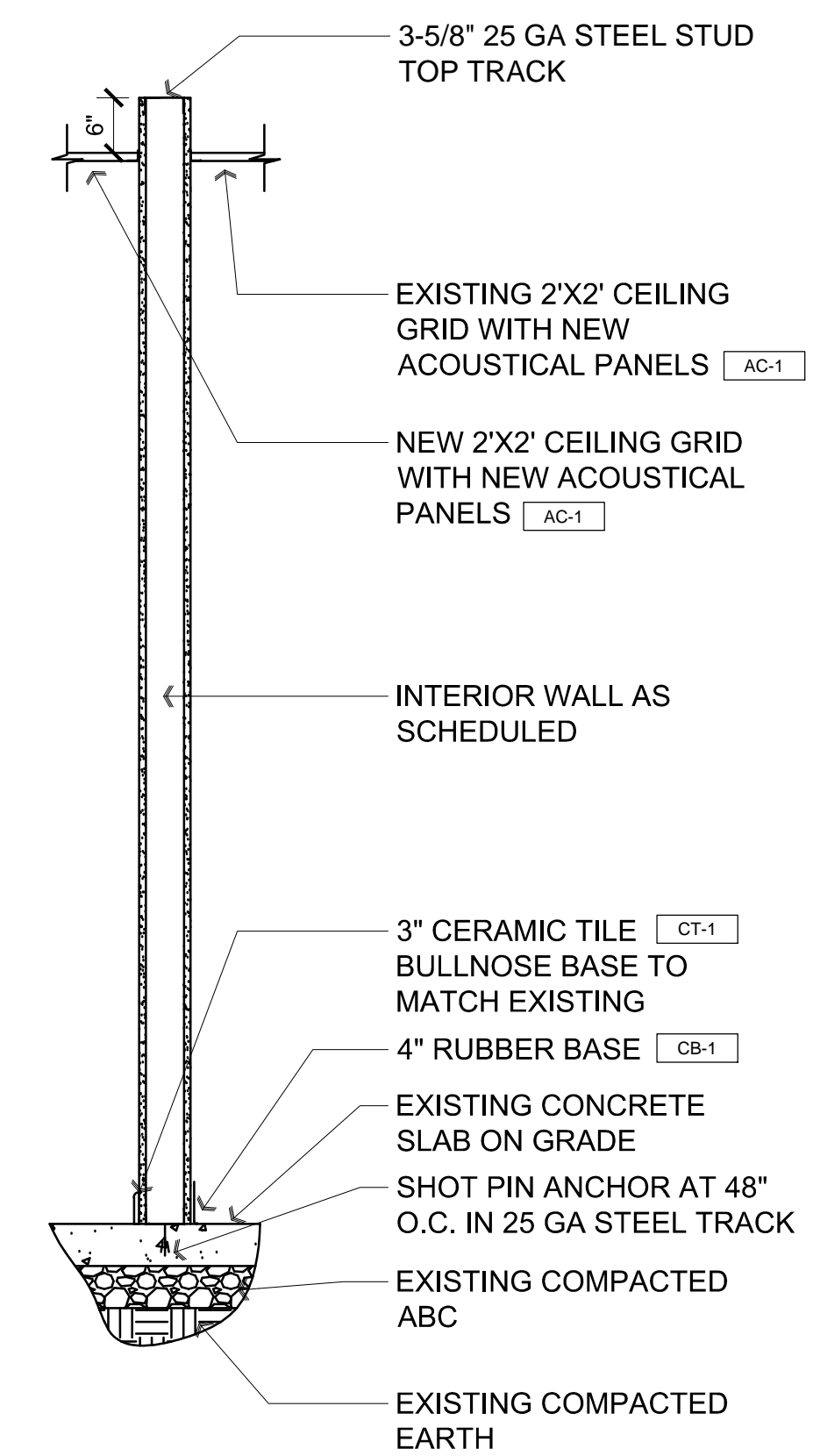
W. Alan Kenson & Associates, P.C.
 ARCHITECTURE & PLANNING
 P.O. Box 11593
 Prescott, AZ 86304
 P 928-443-5812
 F 928-443-5815
 email: waka@cableone.net
 www.kenson-associates.com



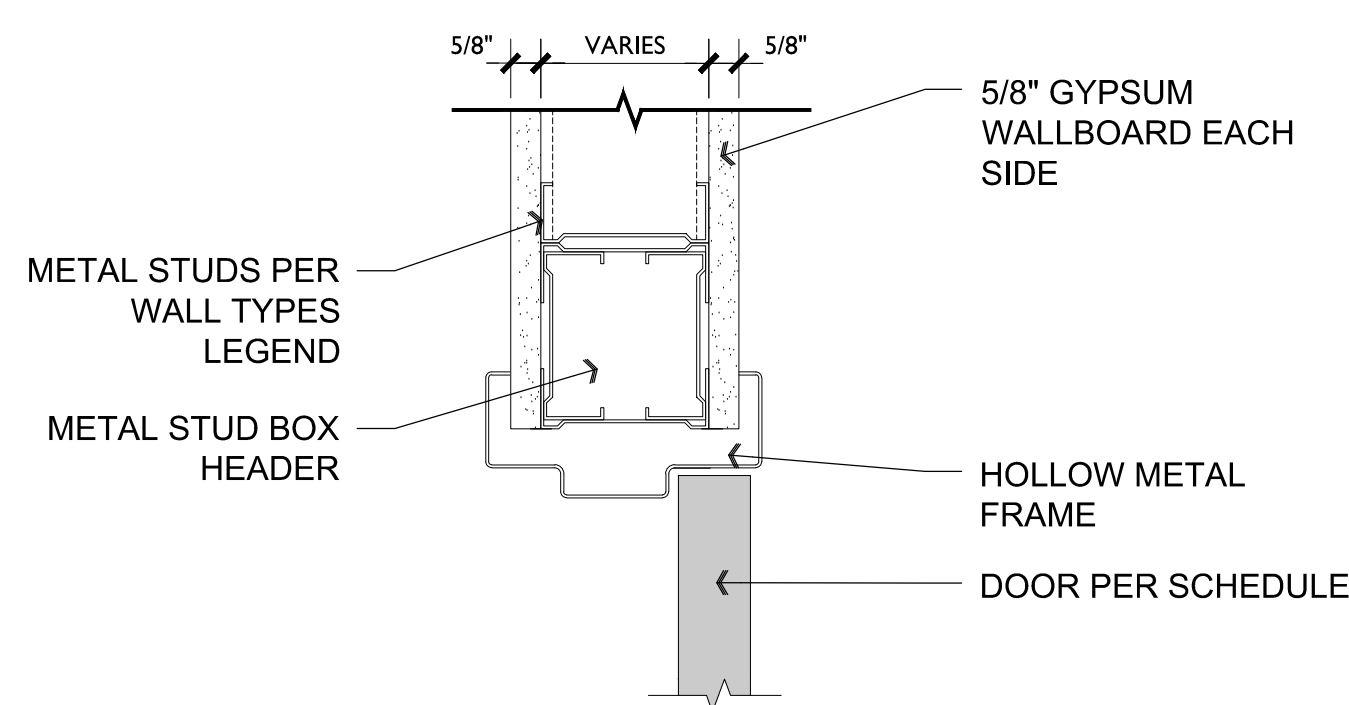
A1 Cast in Place ADA Ramp Detail
 Scale: 3/4" = 1'-0"



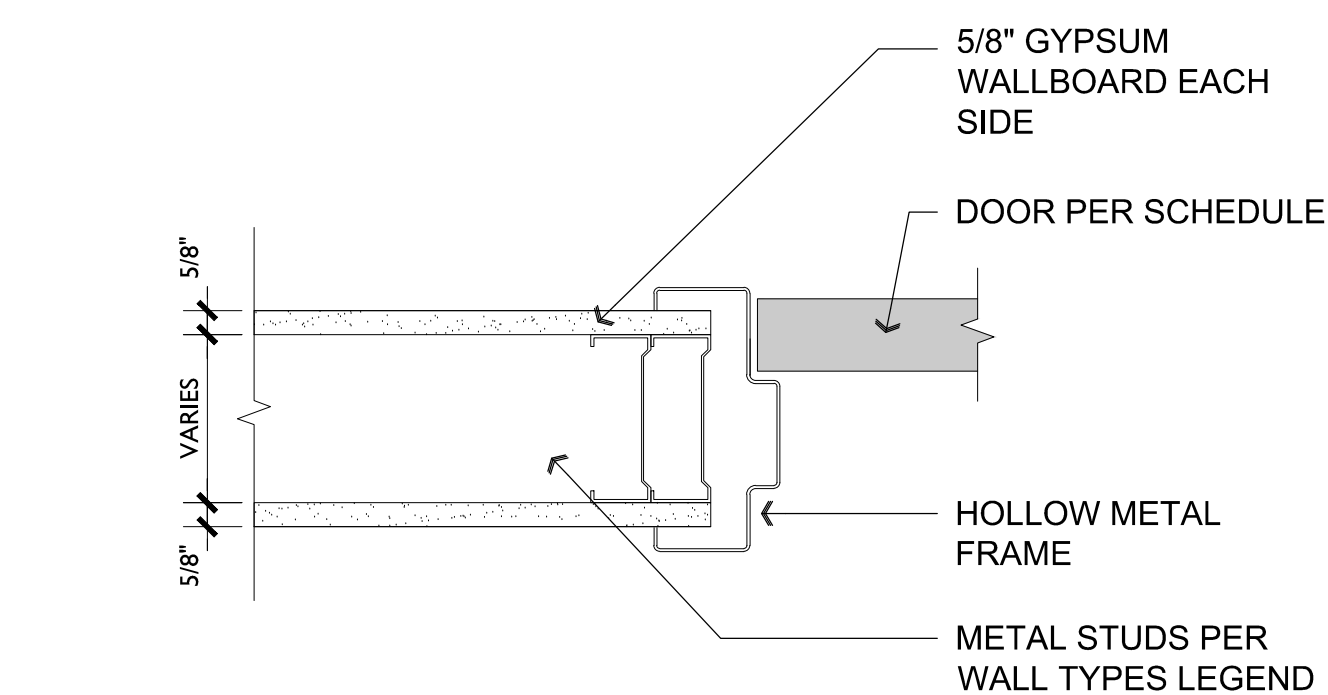
A2 New Wall at Existing Stair
 Scale: 3/4" = 1'-0"



A3 New Wall
 Scale: 3/4" = 1'-0"



D2 Interior Hollow Metal Door Head
 SCALE: 3" = 1'-0"



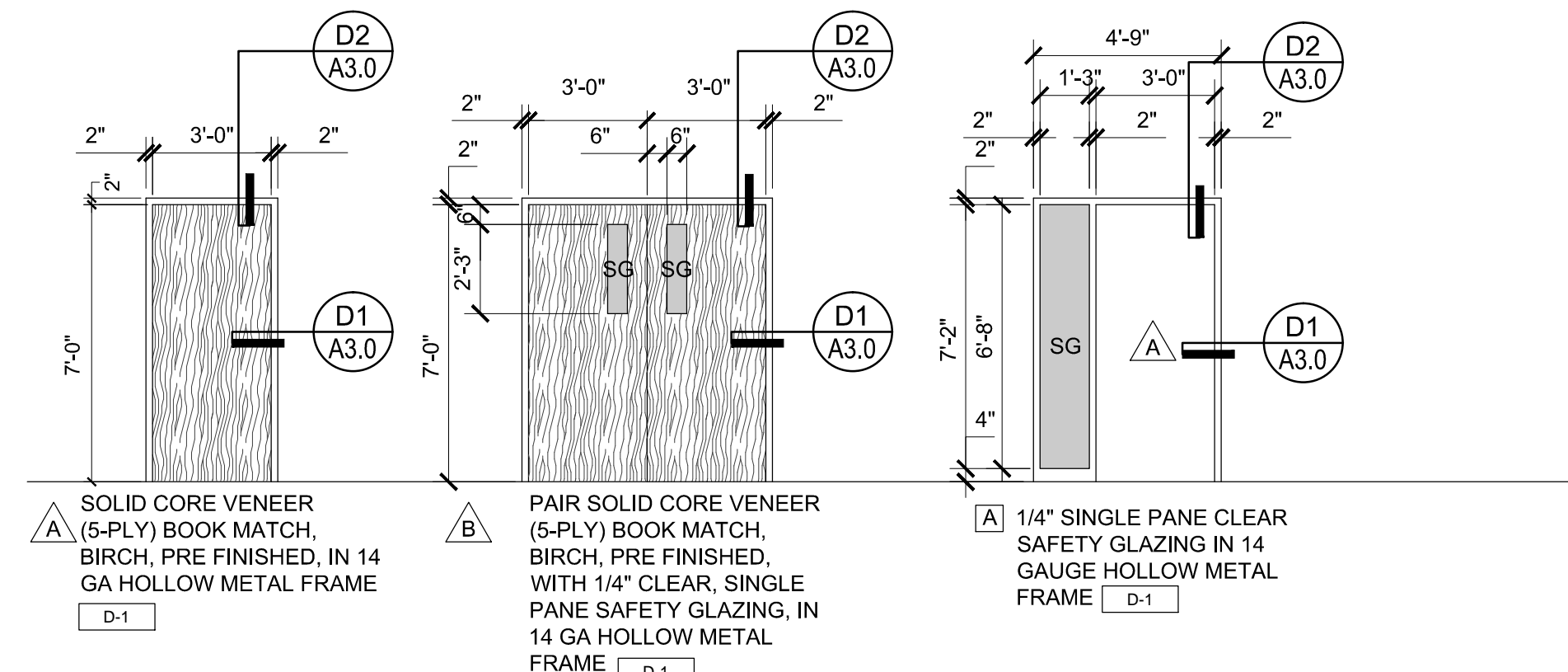
D1 Interior Hollow Metal Door Jamb
 SCALE: 3" = 1'-0"

Hardware Schedule					
DOOR #	QTY.	DESCRIPTION	PART NUMBER	FINISH	MANUFACTURER
128A	3 EA.	HINGES	5BB1 4-1/2" X 4-1/2"	652	IVE
	1 EA.	STOREROOM LOCKSET	ONITY	626	OWNER (NON MORTISE)
	1 EA.	PERM CORE	1C7-2-(VERIFY KEYWAY)	626	BES
	1 EA.	WALL STOP	236W	626	HAG
	3 EA.	SILENCERS	SR64	GRAY	IVE
129A	6 EA.	HINGES	5BB1 4-1/2" X 4-1/2"	652	IVE
	1 EA.	ENTRY LOCK	ONITY	626	OWNER (NON MORTISE)
	1 EA.	PERM CORE	1C7-2-(VERIFY KEYWAY)	626	BES
	1 EA.	MANUAL FLUSH BOLTS	458 12"	626	IVE
	1 EA.	COORDINATOR	COR52 FL20 2-MB2	US28	IVE
	1 EA.	DUST PROOF STRIKE	DP2	626	IVE
	2 EA.	WALL STOPS	236W	626	HAG
3 EA.	SILENCERS	SR64	GRAY	IVE	
147-A	3 EA.	HINGES	5BB1 4-1/2" X 4-1/2"	652	IVE
	1 EA.	ENTRY LOCK	ONITY	626	OWNER (MORTISE) AFC
	1 EA.	PERM CORE	1C7-2-(VERIFY KEYWAY)	689	LON
	3 EA.	SILENCERS	SR64	GRAY	IVE

NOTE: ONITY LOCK PROVIDED BY OWNER

Door Schedule:							
NO.	SIZE	TYPE	DOOR		FRAME		COMMENTS
			MATL.	FINISH	MATL.	FINISH	
128A	3'-0" X 7'-0"	A	SCWD	STAIN	H.M.	PAINT	
129A	PAIR 3'-0" X 7'-0"	B	SCWD	PAINT	H.M.	PAINT	REFER TO NOTE #9
147A	3'-0" X 7'-0"	A	SCWD	STAIN	H.M.	PAINT	

NOTE: 1. ALL EXIT DOORS & HARDWARE SHALL COMPLY WITH THE 2006 I.B.C.
 2. DOOR THRESHOLDS SHALL HAVE A MAX HEIGHT OF 1/2" FOR H.C. ACCESSIBILITY. THRESHOLD SHALL HAVE A MAXIMUM RISE OF 1/4" AND 1/2" RISE WHEN BEVELED WITH MAXIMUM 1:2 SLOPE.
 3. ALL GLAZING IN DOORS SHALL BE SAFETY GLAZING.
 4. ALL DOORS SHALL BE OPERABLE FOR EMERGENCY EXITING PURPOSES WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE NOR EFFORT.
 5. ALL GLAZING WITHIN 24" OF OPENINGS SHALL BE SAFETY GLASS.
 6. IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.
 7. DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. HARDWARE REQUIRED FOR DOOR PASSAGE SHALL BE MOUNTED NO HIGHER THAN 48" ABOVE FINISH FLOOR.
 8. DOOR OPENING FORCE SHALL BE: 5bf MAX INTERIOR HINGED, SLIDING OR FOLDING DOORS; FIRE DOORS SHALL HAVE THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY.
 9. SLIMLINE 6"X27", 1/4" CLEAR TEMPERED GLASS VISION KIT

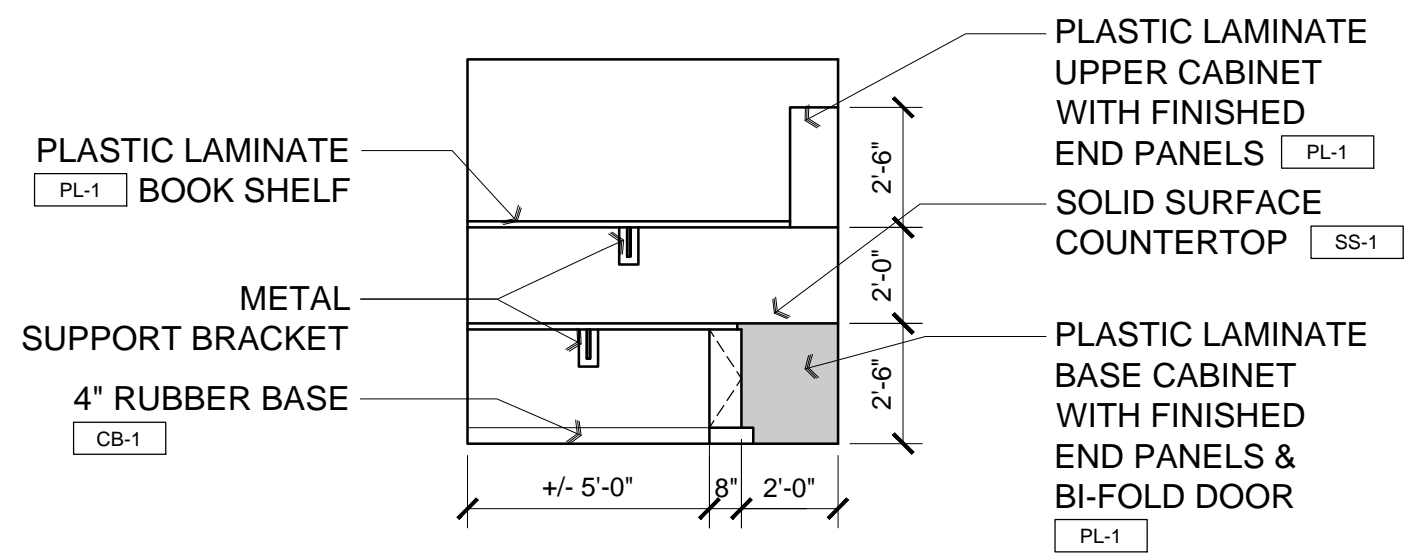


D3 Door & Window Types
 Scale: 1/4" = 1'-0"

DRAWING: WALL DETAILS / DOOR SCHEDULE / DOOR DETAILS
 PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

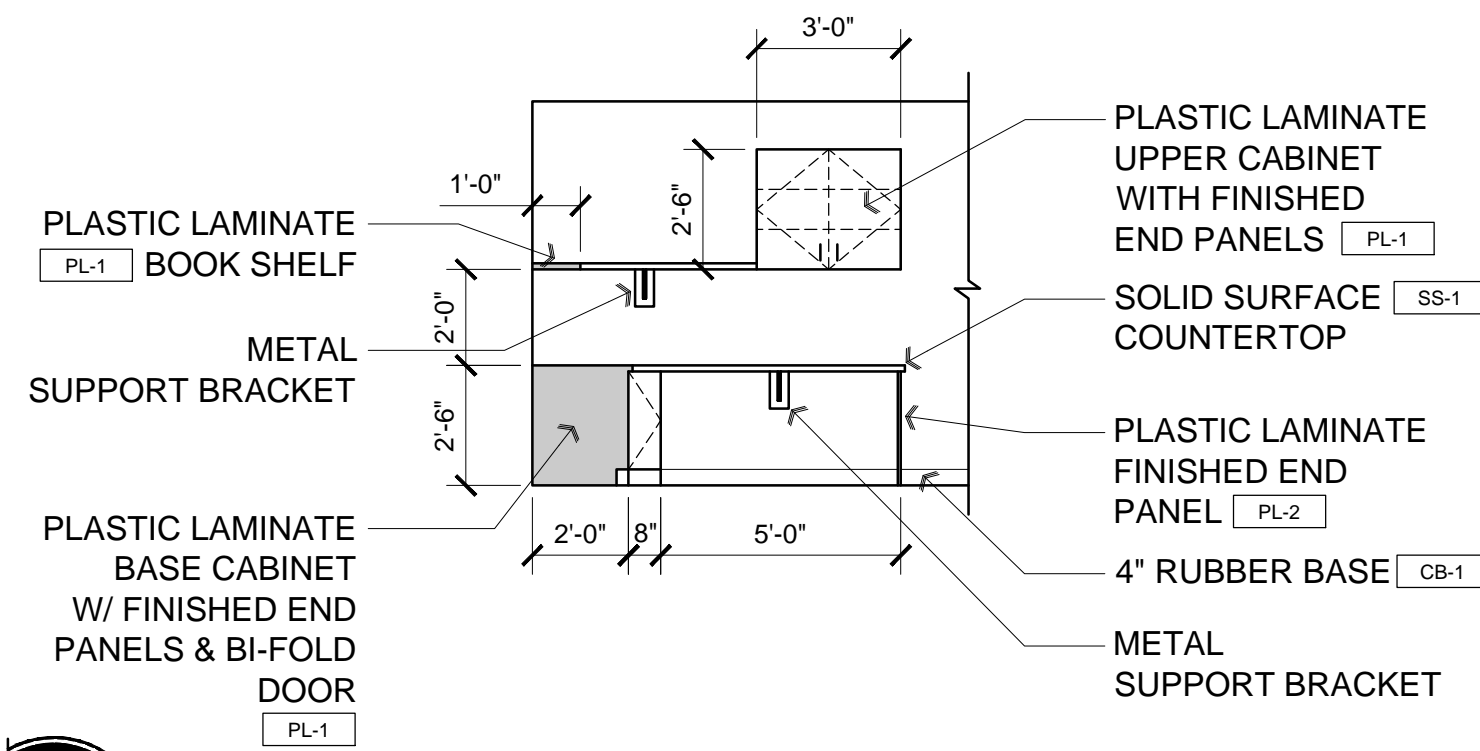
DRAWN BY: PLM
 CHECKED BY: WAK
 DATE: 06/03/2014
 SCALE: AS NOTED
 JOB NO.
 SHEET

A3.0



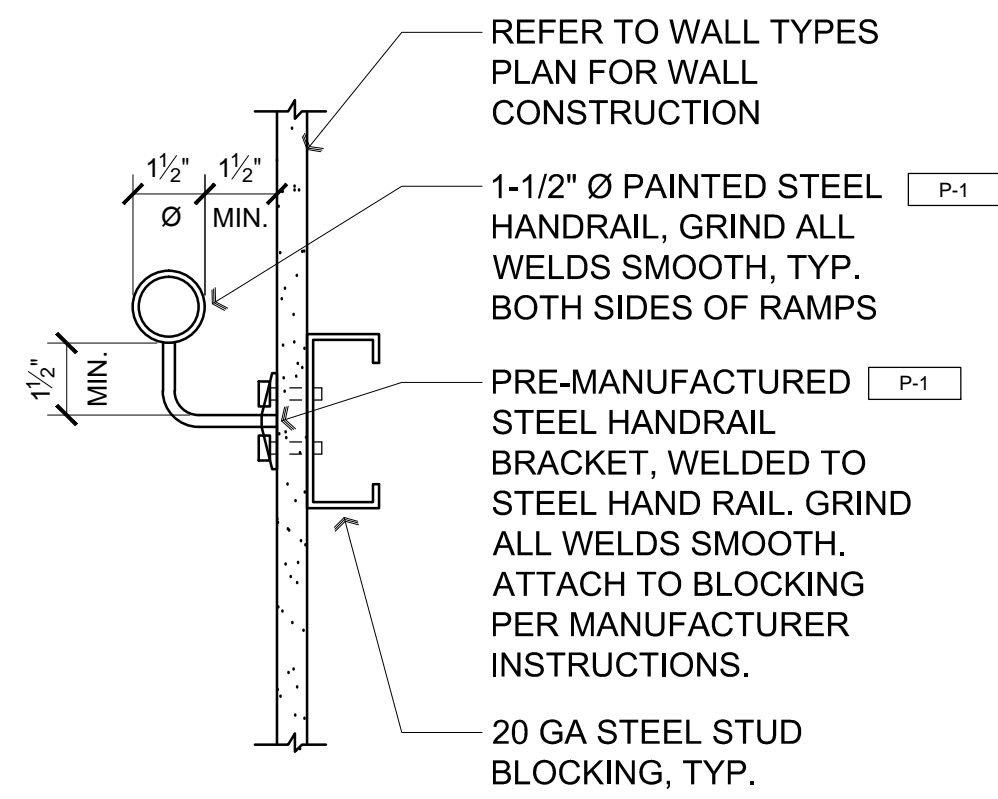
A1 Cabinet Elevation

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



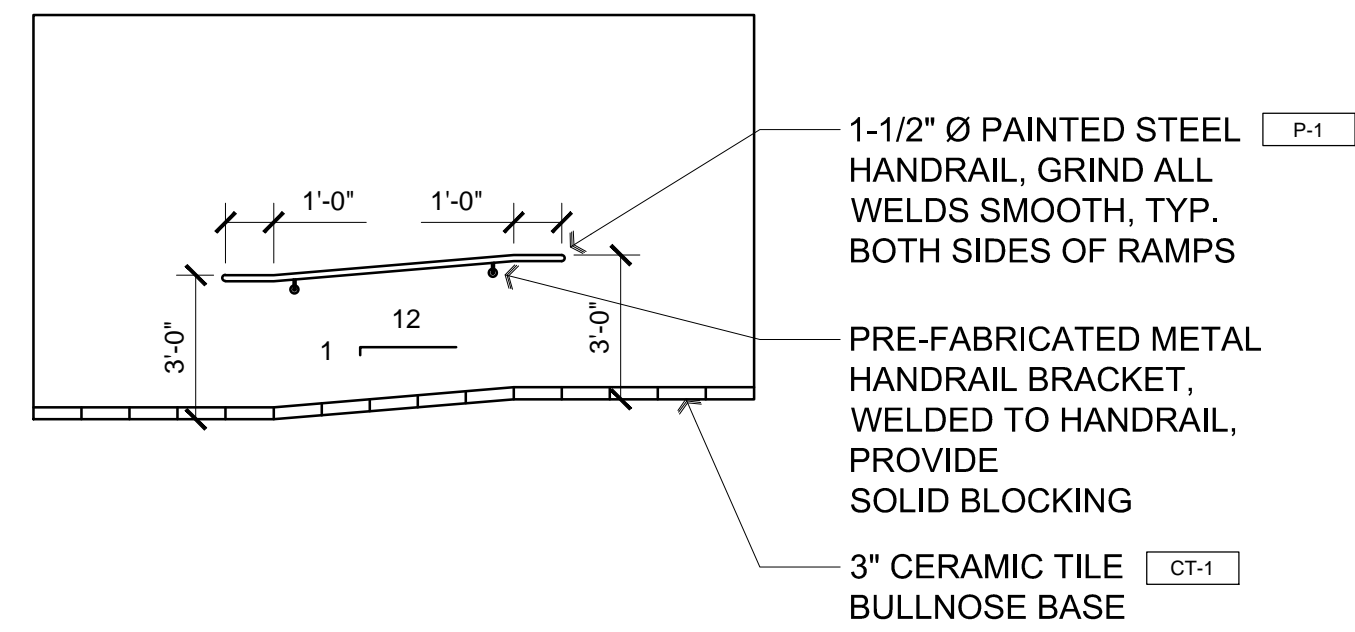
B1 Cabinet Elevation

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



A2 Typical Handrail Detail

Scale: 3" = 1'-0"



B2 Typical Handrail Elevation

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

Interior Material & Finish Schedule:

CODE	MATERIAL	MANUFACTURER	SPECIFICATION
AC-1	ACOUSTIC CEILING TILE AND SUSPENDED GRID	ARMSTRONG	2'x2'x5/8" REGULAR EDGE ARMSTRONG #770 WHITE NON-DIRECTIONAL WITH WHITE GRID
CB-1	RUBBER COVE BASE	FLEXCO	4" COVED WITH PRE-FORMED CORNERS, BLACK MATTE FINISH FLEXCO, BLACK DAHLIA # WF01
VCT-1	VINYL COMPOSITION TILE	ALTRO	18" X 18" DOLCE, AD 514
CP-1	VINYL CUSHION TUFTED TEXTILE (CARPET)	TANDUS	CRAYON POWERBOND CUSHION RS, #01457 VCTT, PRECIOUS METAL, #48010
CT-1	CERAMIC TILE SURFACE BULLNOSE	DAL TILE	MATCH EXISTING
CT-2	CERAMIC TILE	DAL TILE	20" X 20" CASTLE DE VERRE, GLAZED CHALICE GOLD, CV11
D-1	WOOD DOOR	ALGOMA	SOLID CORE 5-PLY VENEER BOOK MATCH, PRE-FINISHED STAIN, RA4370
P-1	PAINT HANDRAILS	SHERWIN WILLIAMS	SHERWIN WILLIAMS B50A26 KEM-KROMIK GREY PRIMER WITH SHERWIN WILLIAMS F75BC14 SHER-KEM RAVEN BLACK
P-2	PAINT INTERIOR WALL	SHERWIN WILLIAMS	SW6099 SAND DOLLAR EGGSHELL
SS-1	SOLID SURFACE COUNTERTOP	LG	HI MAX, BLACK PEARL, G10
PL-1	PLASTIC LAMINATE CABINET SURFACES	WILSONART	4882-36, OILED SOAPSTONE
PL-2	PLASTIC LAMINATE CABINET SURFACES	CHEMETAL	PLUME ALUMINUM, 443

C1 Room Finish Plan

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



Room Finish Schedule:

NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	HEIGHT	COMMENTS
127	CORRIDOR	F4	B2 / B3	W2	C3	15'-0"	REFER TO NOTE #1, 2
128	SERVER	F3	B1	W1 / W2	C1	8'-0"	
129	C.S. LAB	F2 / F3	B1	W1 / W2	C2	8'-0"	
147	CORRIDOR	F1	B2	W2	C1	VARIES	

FLOOR:
 F1 CERAMIC TILE 20"x20" [CT-2]
 F2 CARPET [CP-1]
 F3 VCT 18"x18" [VCT-1]
 F4 EXISTING FLOOR TO REMAIN

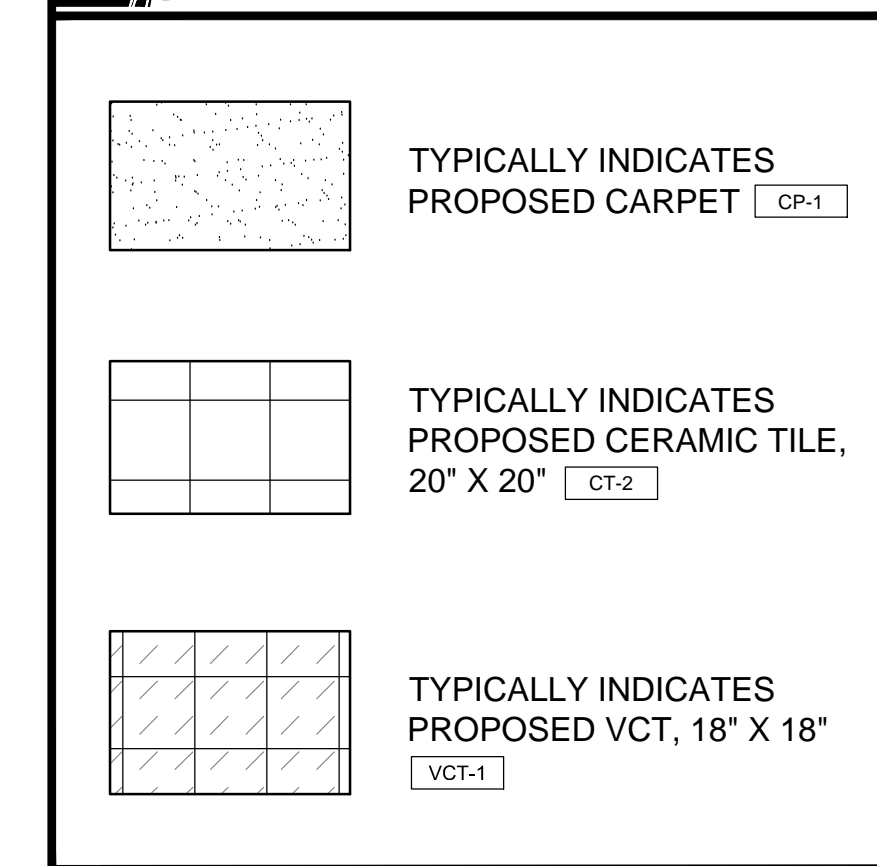
BASE:
 B1 4" RUBBER BASE [CB-1]
 B2 3" X 12" CERAMIC BULLNOSE [CT-1]
 B3 EXISTING BASE TO REMAIN

WALLS:
 W1 RE-PAINT EXISTING PAINTED GPDW [P-2]
 W2 PAINTED GPDW, LIGHT SKIP TROWEL TEXTURE [P-2]

CEILING:
 C1 NEW ACOUSTIC PANEL & NEW SUSPENDED GRID [AC-1]
 C2 NEW ACOUSTIC PANEL, RE-USE SUSPENDED GRID [AC-1]
 C3 EXISTING CEILING TO REMAIN

NOTES:
 1. PROVIDE 3" X 12" CERAMIC (SBN) TILE BASE AT NEW WALL ONLY.
 2. PAINT AND TEXTURE AT NEW WALL ONLY.

Legend:



REVISIONS	BY

These drawings are the property of W. Alan Kenson & Associates P.C., and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.



W. Alan Kenson & Associates, P.C.
 P.O. Box 11593
 Prescott, AZ 86304
 P 928-443-5812
 F 928-443-5815
 email: waka@cableone.net
 www.kenson-associates.com

ARCHITECTURE & PLANNING

DRAWING: ROOM FINISH SCHEDULE / MATERIALS SCHEDULE

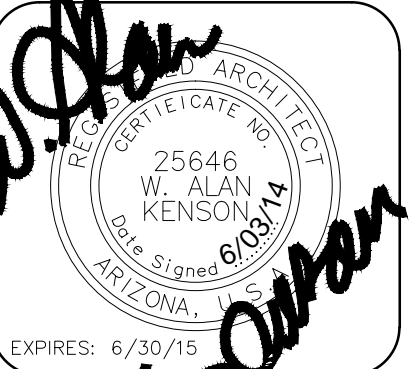
PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

DRAWN BY PLM
CHECKED BY WAK
DATE 06/03/2014
SCALE AS NOTED
JOB NO.
SHEET

A4.0

REVISIONS	BY

These drawings are the property of W. Alan Kenson & Associates P.C., and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.



W. Alan Kenson & Associates, P.C.
 ARCHITECTURE & PLANNING
 P 928-443-5812 P.O. Box 11593
 F 928-443-5815 Prescott, AZ 86304
 email: waka@cableone.net
 www.kenson-associates.com

DRAWING: OCCUPANCY / EGRESS / OVERALL FLOOR PLAN
PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

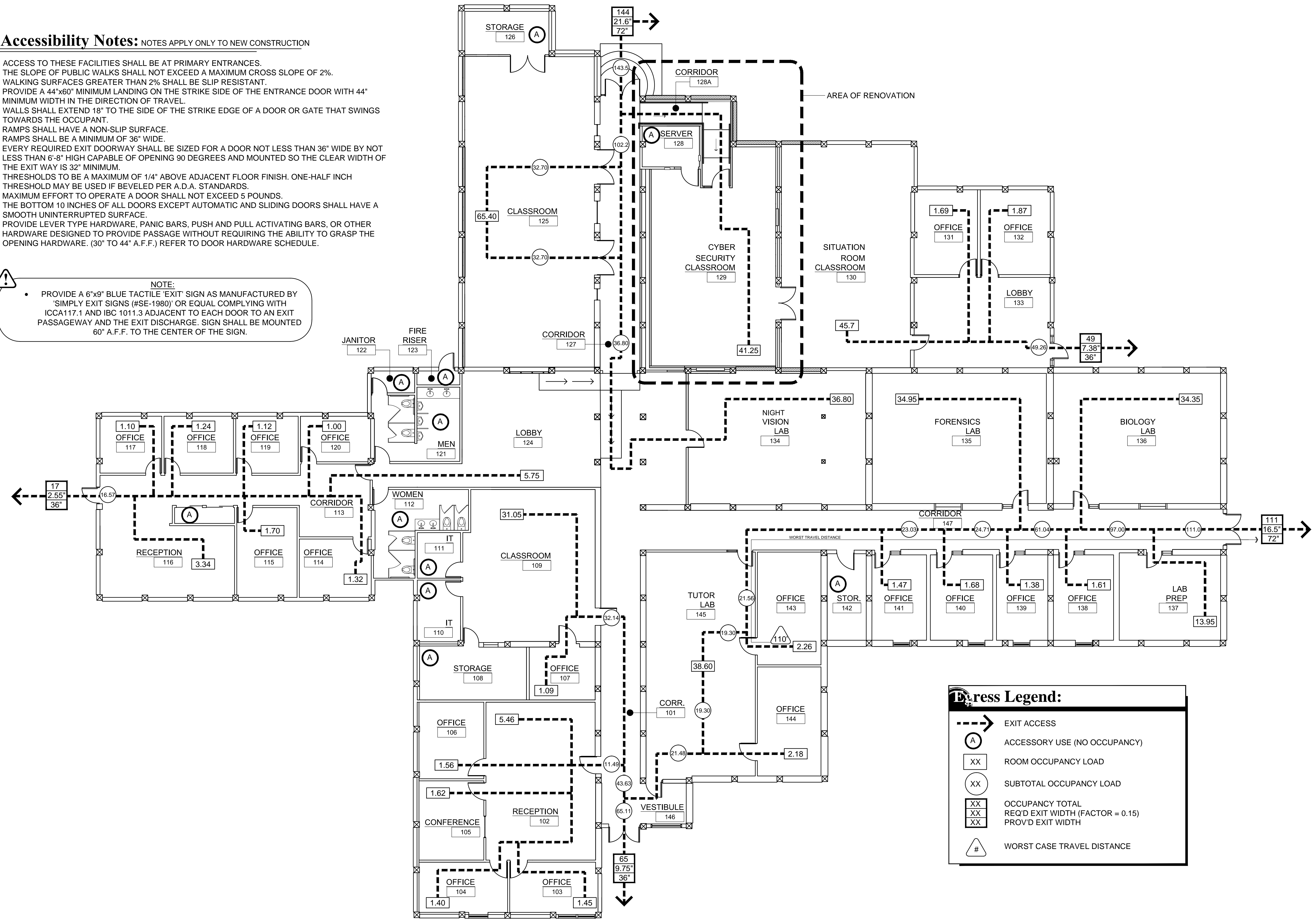
DRAWN BY: PLM
 CHECKED BY: WAK
 DATE: 06/03/2014
 SCALE: AS NOTED
 JOB NO.:
 SHEET:

A0.1

Accessibility Notes: NOTES APPLY ONLY TO NEW CONSTRUCTION

- ACCESS TO THESE FACILITIES SHALL BE AT PRIMARY ENTRANCES.
- THE SLOPE OF PUBLIC WALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 2%.
- WALKING SURFACES GREATER THAN 2% SHALL BE SLIP RESISTANT.
- PROVIDE A 44"x60" MINIMUM LANDING ON THE STRIKE SIDE OF THE ENTRANCE DOOR WITH 44" MINIMUM WIDTH IN THE DIRECTION OF TRAVEL.
- WALLS SHALL EXTEND 18" TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARDS THE OCCUPANT.
- RAMPS SHALL HAVE A NON-SLIP SURFACE.
- RAMPS SHALL BE A MINIMUM OF 36" WIDE.
- EVERY REQUIRED EXIT DOORWAY SHALL BE SIZED FOR A DOOR NOT LESS THAN 36" WIDE BY NOT LESS THAN 6'-8" HIGH CAPABLE OF OPENING 90 DEGREES AND MOUNTED SO THE CLEAR WIDTH OF THE EXIT WAY IS 32" MINIMUM.
- THRESHOLDS TO BE A MAXIMUM OF 1/4" ABOVE ADJACENT FLOOR FINISH. ONE-HALF INCH THRESHOLD MAY BE USED IF BEVELED PER A.D.A. STANDARDS.
- MAXIMUM EFFORT TO OPERATE A DOOR SHALL NOT EXCEED 5 POUNDS.
- THE BOTTOM 10 INCHES OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING DOORS SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE.
- PROVIDE LEVER TYPE HARDWARE, PANIC BARS, PUSH AND PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. (30" TO 44" A.F.F.) REFER TO DOOR HARDWARE SCHEDULE.

NOTE:
 PROVIDE A 6"x9" BLUE TACTILE 'EXIT' SIGN AS MANUFACTURED BY 'SIMPLY EXIT SIGNS (#SE-1980)' OR EQUAL COMPLYING WITH ICCA117.1 AND IBC 1011.3 ADJACENT TO EACH DOOR TO AN EXIT PASSAGEWAY AND THE EXIT DISCHARGE. SIGN SHALL BE MOUNTED 60" A.F.F. TO THE CENTER OF THE SIGN.



Egress Legend:

- EXIT ACCESS
- ACCESSORY USE (NO OCCUPANCY)
- ROOM OCCUPANCY LOAD
- SUBTOTAL OCCUPANCY LOAD
- OCCUPANCY TOTAL
- REQ'D EXIT WIDTH (FACTOR = 0.15)
- PROV'D EXIT WIDTH
- WORST CASE TRAVEL DISTANCE

REVISIONS	BY

These drawings are the property of W. Alan Kenson & Associates P.C., and may not be reproduced in any way without the written consent of W. Alan Kenson & Associates, P.C.

W. Alan Kenson & Associates, P.C.
 P.O. Box 11593
 Prescott, AZ 86304
 P 928-443-5812
 F 928-443-5815
 email: waka@cablone.net
 www.kenson-associates.com
ARCHITECTURE & PLANNING

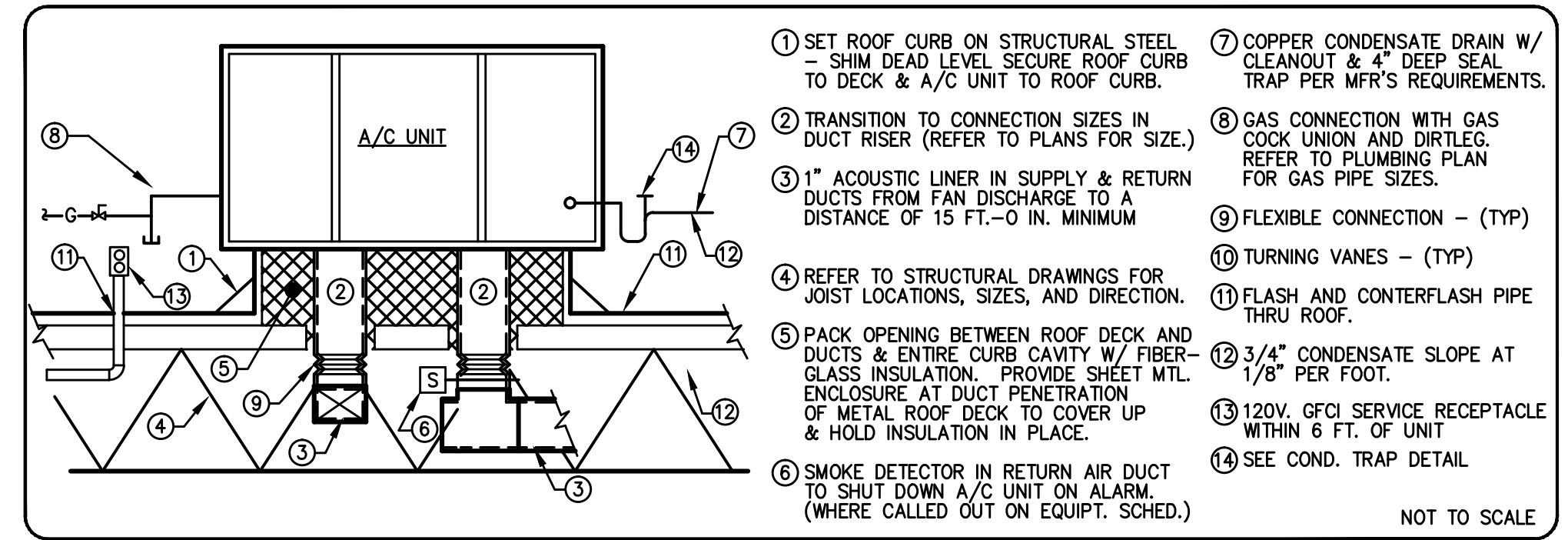
DRAWING: MECHANICAL FLOOR PLAN, NOTES & DETAILS
PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

DRAWN BY: JPR
 CHECKED BY: S.L.R.
 DATE: 06/02/2014
 SCALE: AS NOTED
 JOB NO.

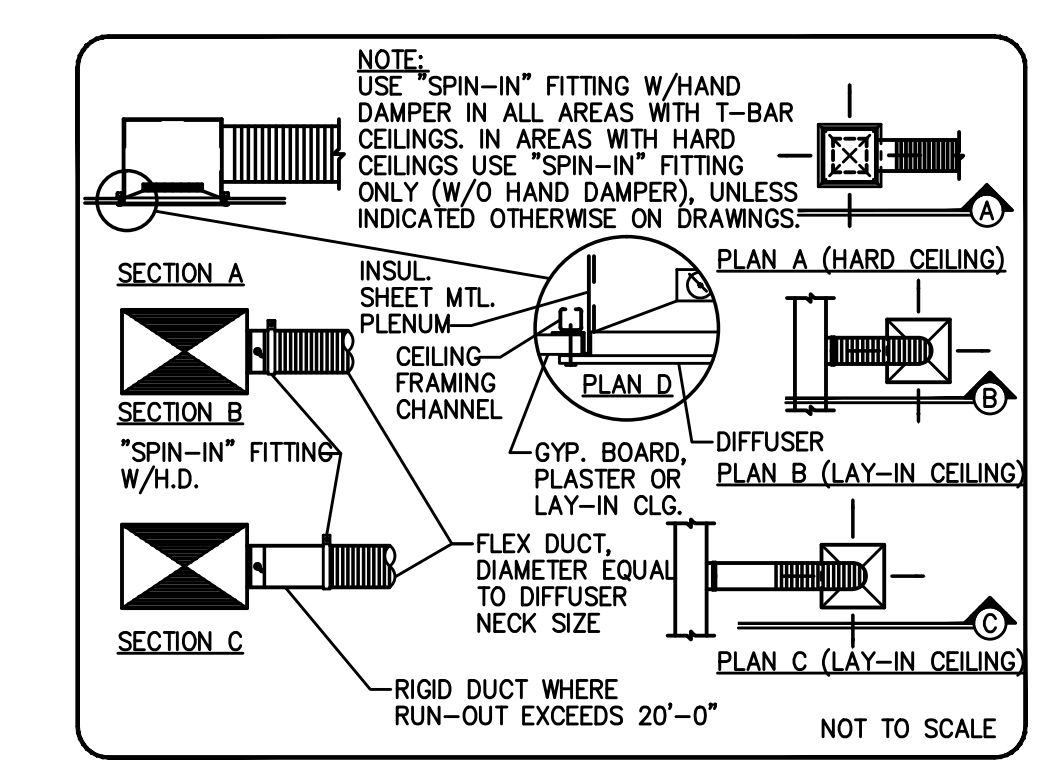
SHEET
M-1

MECHANICAL GENERAL NOTES

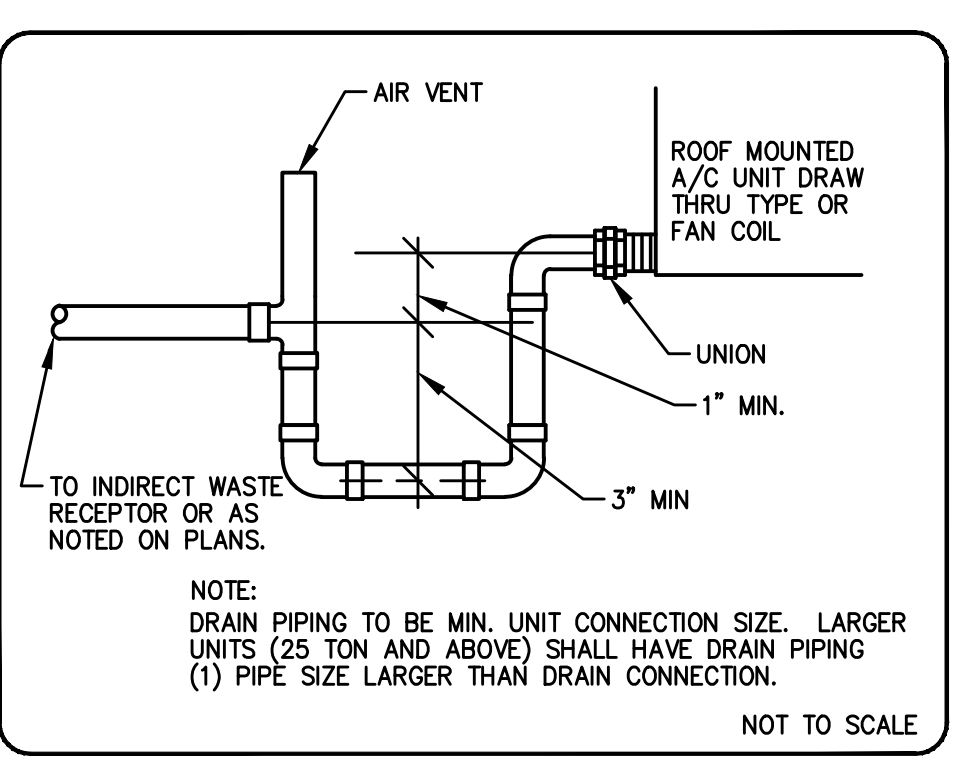
- FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, FEES, PERMITS, CERTIFICATE OF INSPECTION, ETC. NECESSARY OR REASONABLE REQUIRED FOR THE COMPLETE INSTALLATION OF ALL AIR-CONDITIONING WORK. THE WORK SHALL BE IN STRICT ACCORDANCE WITH ASHRAE GUIDELINES, AND ALL LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS.
- MECHANICAL EQUIPMENT LOCATIONS TO COMPLY WITH ALL APPLICABLE CODES.
- COORDINATE EXACT DIFFUSER AND GRILLE LOCATIONS WITH OTHER TRADES.
- NOT USED -
- PROVIDE 1 1/2" DUCT LINER IN ALL SUPPLY & RETURN DUCTS WITHIN 20 FT. OF AIR HANDLER/A/C UNIT DUCT CONNECTIONS AND WHERE SHOWN ON DRAWINGS. INCREASE SHEET METAL DIMENSIONS ACCORDINGLY. ALL SUPPLY AND RETURN DUCTS TO BE SHEET METAL WITH 1 1/2" EXTERIOR INSULATION WITH FOIL FACE. EXCEPT FOR LINED DUCT, SUPPLY AND RETURN DUCTS EXPOSED TO WEATHER SHALL BE LINED WITH 2" DUCT LINER.
- FLEX DUCTS TO BE THERMAFLEX TYPE GKM OR APPROVED EQUAL, 8FT. MAX. LENGTH
- OUTSIDE AIR INTAKES SHALL BE MINIMUM 10 FEET FROM ANY EXHAUST OR PLUMBING VENTS.
- EXTEND 3/4" CONDENSATE DRAIN AS SHOWN ON DRAWING, OR TO NEAREST PLUMBING TAIL PIECE. INTERIOR CONDENSATE DRAINS TO BE SCHED. 40 PVC, OUTSIDE CONDENSATE DRAINS TO BE TYPE "M" COPPER.
- SET A/C UNIT OSA TO CFM AS SPECIFIED ON DRAWING.
- TEST & BALANCE SYSTEM, MAY BE DONE BY INSTALLATION CONTRACTOR (LOCAL GOVERNING AUTHORITIES MAY ALSO REQUIRE A CERTIFIED REPORT) SUBMIT CERTIFIED REPORT TO ENGINEER WITH 10 DAYS OF COMPLETING TEST AND BALANCE.
- NEW DUCTWORK TO BE CONSTRUCTED AND INSTALLED IN ACCORDANCE W/ "ASHRAE GUIDE AND SMACNA STANDARDS".
- MECHANICAL CONTRACTOR TO VERIFY THAT ALL DUCTWORK WILL FIT WHERE INDICATED W/O INTERFERENCE WITH STRUCTURAL MEMBERS OR OTHER MATERIALS OR EQUIPMENT.
- CONTRACTOR AND ARCHITECT TO VERIFY T-STAT LOCATIONS WITH OWNER PRIOR TO INSTALLING THERMOSTATS. CONTRACTOR SHALL PROVIDE ALL NECESSARY WIRING AND CONDUIT.
- COORDINATE ALL MECHANICAL WORK, INCLUDING EQUIPMENT, DUCTWORK AND PIPING, W/ ARCHITECT AND OTHER TRADES PRIOR TO COMMENCING WORK.
- THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING SPACE AVAILABILITY FOR RECESSED LIGHTING AND DUCTWORK TO AVOID RELOCATION OF DUCTWORK AT THE MECHANICAL CONTRACTOR'S EXPENSE.
- THERMOSTATS SHALL BE 7 DAY PROGRAMMABLE WITH AUTOMATIC CHANGE-OVER LOCKING COVER AND FAN ON CONTINUOUSLY (NO EXCEPTIONS). HONEYWELL OR EQUAL - 7360 W/COMMERCIAL SUBBASE.
- DUCTS SHALL CONFORM TO DIMENSIONS ON THE DRAWING UNLESS LOCATION OF STRUCTURAL MEMBERS PROHIBITS. IN CASE OF A CHANGE IN DIMENSIONS, CROSS SECTIONAL AREAS SHALL BE MAINTAINED.
 UP TO 12" WIDTH 26 GAUGE STEEL
 12" TO 18" WIDTH 24 GAUGE STEEL
 18" TO 30" WIDTH 22 GAUGE STEEL
 30" TO 60" WIDTH 20 GAUGE STEEL
- DUCTWORK SHALL BE INSTALLED PER THE LATEST SMACNA MANUAL FOR LOW PRESSURE DESIGN.
- DUCTWORK TO CONFORM TO CURRENT APPLICABLE CODES
- INSULATION, MATERIAL, COVERINGS, ADHESIVES, VAPOR-BARRIERS & TAPES SHALL CONFORM TO NFPA 90A, FLAME SPREAD CLASSIFICATION NOT TO EXCEED 25 AND SMOKE DEVELOPMENT NOT TO EXCEED 50.
- THE EXHAUST DUCTS MUST TERMINATE 10 FEET HORIZONTALLY FROM OR 3 FT. ABOVE ALL AIR INTAKES.
- SEAL ALL JOINTS IN DUCTWORK WITH DUCT SEALER.
- PROVIDE RADIUS ELBOWS, TURNING VANES, AND SPLITTER DAMPERS IN BRANCHES & EXTRACTORS WHERE APPLICABLE.
- DUCT SIZES SHOWN ARE "CLEAR INSIDE" DIMENSIONS.
- MECHANICAL CONTRACTOR TO VERIFY AND COORDINATE AVAILABLE VOLTAGE, PHASE & MCA LOADS WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING ELECTRICAL & MECHANICAL EQUIPMENT.
- MECHANICAL CONTRACTOR TO VERIFY THAT ALL SPECIFIED EQUIPMENT IS COMPATIBLE WITH DUCTWORK, STRUCTURE & OTHER PHYSICAL FACTORS BEFORE ORDERING.
- LOCATE ALL DIFFUSERS, GRILLES & REGISTERS ACCORDING TO ARCHITECTURAL REFLECTED CEILING PLAN.
- ANY PROBLEMS THAT DEVELOP WITH THE MECHANICAL SYSTEMS AS A RESULT OF "VALUE ENGINEERING" OR OTHER CHANGES BY OWNER/CONTRACTOR (WITHOUT APPROVAL OF ENGINEER) SHALL BE THE RESPONSIBILITY OF OWNER/CONTRACTOR.
- SYSTEMS SHALL NOT BE USED FOR TEMPORARY HEATING OR COOLING DURING CONSTRUCTION.
- PROVIDE CEILING ACCESS PANELS FOR ALL VOLUME DAMPERS AND ALL VALVES ABOVE GYP. BOARD CEILINGS.
- SUBMITTAL WITHIN 30 DAYS AFTER AWARD OF CONTRACT FOR THIS WORK. SEVEN COPIES OF PRODUCT BROCHURES, ONE COMPLETE BINDER FOR HVAC ITEMS INDEXED AND SEPARATED BY DIVIDERS, ONE BINDER FOR ALL PLUMBING ITEMS.
- ALL MECHANICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.



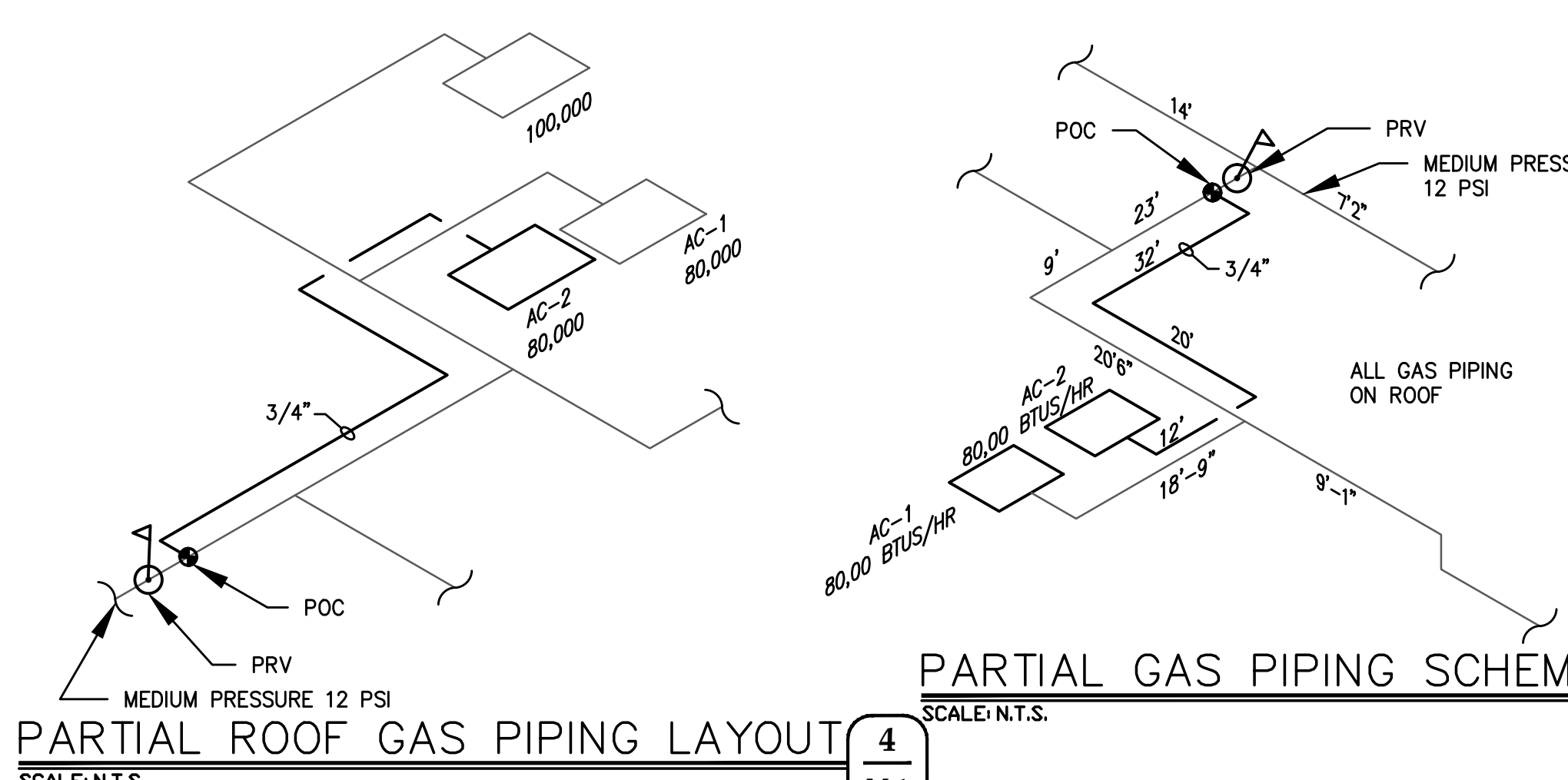
ROOFTOP A/C - GAS HEAT



DIFFUSER CONNECTION DETAIL



CONDENSATE DRAIN TRAP



GAS PIPE SIZING NOTES

- ACCORDING TO MAVEN ENGINEERING DRAWING P-4, DATED 10-23-13 12 PSI SYSTEM CAPACITY IS 7500 CFH. PRESENT LOAD IS 3512 CFH. THE ADDITIONAL 120 CFH IS WITHIN THE CAPACITY OF THE 12 PSI SYSTEM.
- THE LOW PRESSURE LINE IS PRESENTLY AT MAXIMUM CAPACITY (TABLE 402.4(2) 2006 INTERNATIONAL GAS CODE. 380 CFH@100FT.
- NEW AC-1 LOCATED AT THE EXISTING ROOF TOP UNIT LOCATION MAY BE RECONNECTED TO THE EXIST. LINE.
- NEW AC-2 SHALL HAVE A NEW 3/4" LINE RUN FROM THE EXISTING PRESSURE REDUCING VALE TO THE UNIT.

FRESH AIR SCHEDULE

UNIT	2006 I.M.C. OCCUPANCY CLASSIFICATION	2006 IMC MAXIMUM OCCUPANCY/1000 SQ. FT.	AREA SQ. FT.*	TOTAL NO. OF PERSONS	2006 IMC CFM PER PERSON	CFM OF FRESH AIR
AC-1	CLASS RM	30	374	12	20	240
AC-2	CLASS RM	30	374	12	20	240

* AS PER I.M.C. 403.1 & 403.3c NET AREA CAN BE MEASURED 24 IN. FROM ENCLOSING WALLS

PACKAGE GAS/ELECTRIC AIR CONDITIONING UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	TOTAL CFM	O.A. CFM	E.S.P.	COOLING CAPACITY			GAS HEATING CAP		FILTERS	ELECTRICAL				WEIGHT (LBS)	REMARKS				
						SENS MBH	TOTAL MBH	ENT AIR EDB/EWB	AMB./Y	INPUT MBH		OUTPUT MBH	COMP. QTY.	IFM RLA (EA)	DEFM QTY.			FLA (EA)	MCA	V/PH	
AC-1,2	TRANE	T/YHC067E3	2000	5	.5"	43	58	80/67	95	80	60	IN UNIT	1	11.6	59	1	15	18.1	208/3	875	① ② ③ ④ ⑤ ⑥

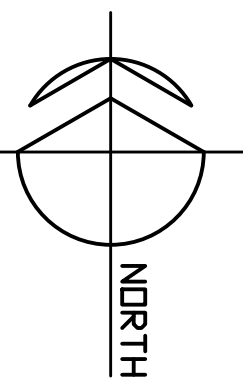
- THERMOSTATS PROVIDED BY OWNER INSTALL BY CONTRACTOR
- MECHANICAL CONTRACTOR TO INSTALL SMOKE DETECTOR IN RETURN AIR DUCT FOR UNIT SHUTDOWN. FINAL ELECTRICAL CONNECTIONS BY ELECTRICAL CONTRACTOR, FINAL TESTING BY FIRE PROTECTION CONTRACTOR.
- PROVIDE ECONOMIZER FRESH AIR FLOW WITH DAMPER
- PROVIDE FACTORY ROOF CURB
- SEE FRESH AIR SCHEDULE
- ADJUST FURNACE FOR 5,300 FT. ELEVATION (RE-JET FOR 80% OF RATED INPUT, OR AS PER MFG. INSTRUCTIONS)

GRILLES / REGISTERS / DIFFUSERS SCHEDULE

MARK	MANUFACTURER	DESCRIPTION	MODEL	FRAME	MODULE	O.B.D.	FINISH	REMARKS
D-1	KRUEGER	CEILING DIFFUSER	SERIES 1400	LAY-IN/ DRYWALL	VARIABLE	NO	OFF WHITE	STEEL CONSTRUCTION RE-USE EX. DIFFUSER AS APPLICABLE
D-2	KRUEGER	SIDEWALL DIFFUSER	880-V	LAY-IN/ DRYWALL	-	YES	OFF WHITE	DOUBLE-DEFLECTION ADJUSTABLE BLADES @ 3/4" O.C.
R-1	KRUEGER	CEILING GRILLE	S80H-Z	LAY-IN/ DRYWALL	24"X24"	YES	OFF WHITE	ZERO-DEFLECTION VANES @ 3/4" O.C.
R-2	KRUEGER	SIDEWALL GRILLE	S80H-Z	LAY-IN/ DRYWALL	12"X12"	YES	OFF WHITE	HORIZONTAL DEFLECTION

CYBER SECURITY LAB MECHANICAL PLAN

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





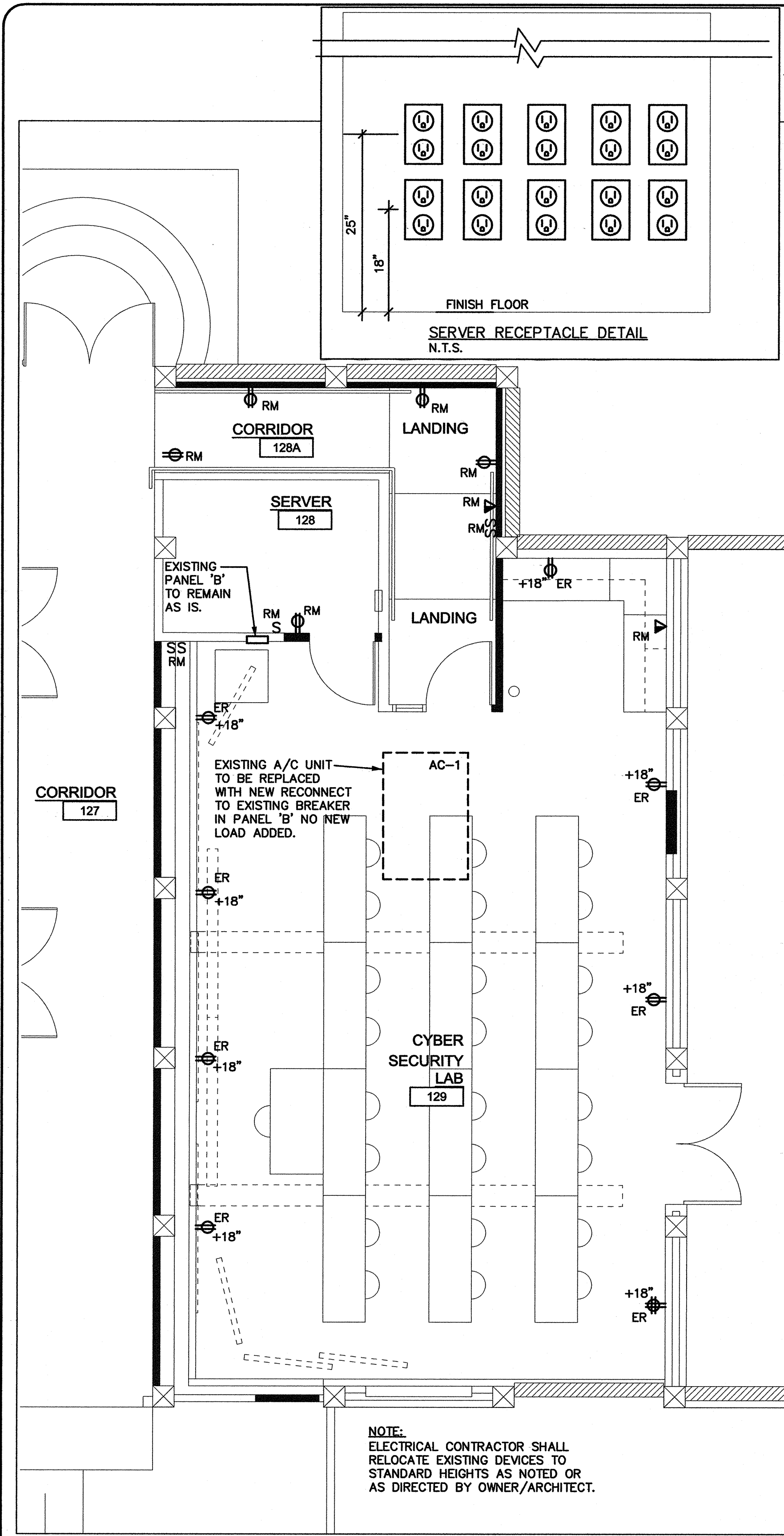
W. Alan Kenson & Associates, P.C.
 ARCHITECTURE & PLANNING

P.O. Box 11593
 Prescott, AZ 86304

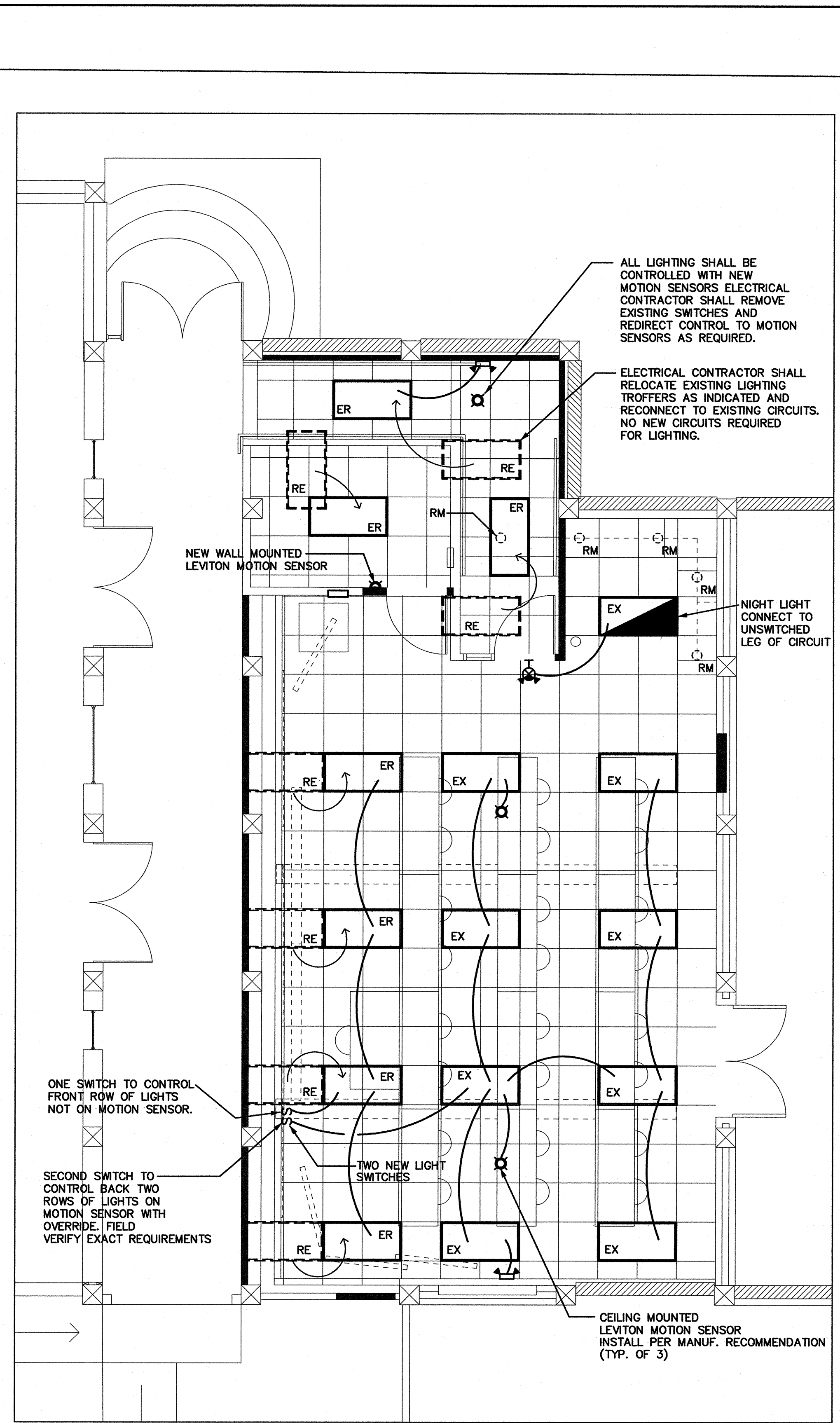
P 928-443-5812
 F 928-443-5815
 email: waka@cableone.net
 www.kenson-associates.com

DRAWING: LIGHTING AND POWER FLOOR PLAN

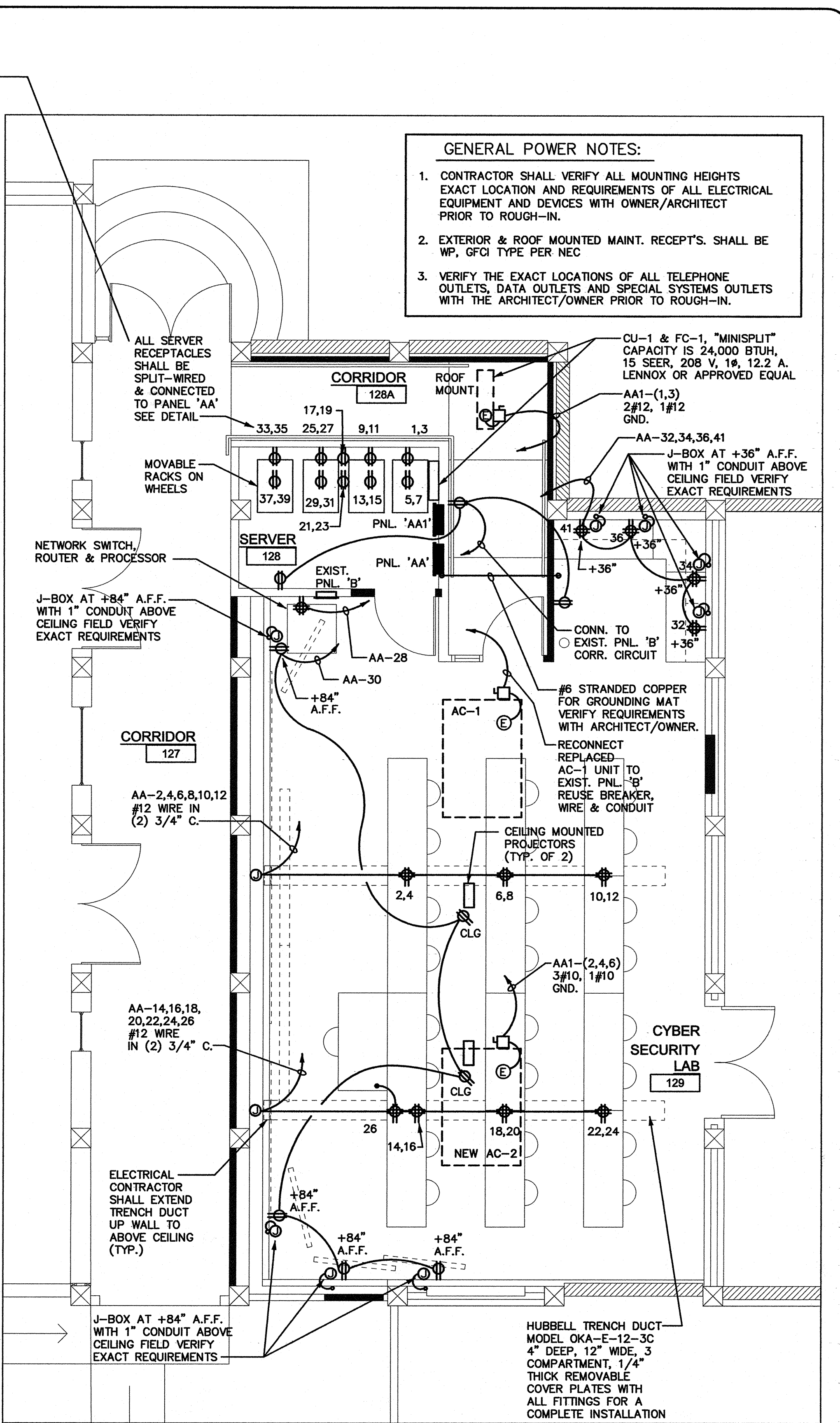
PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA



Relocate Devices Floor Plan North
 Scale: 1/4" = 1'-0"



Lighting Floor Plan North
 Scale: 1/4" = 1'-0"



Power Floor Plan North
 Scale: 1/4" = 1'-0"

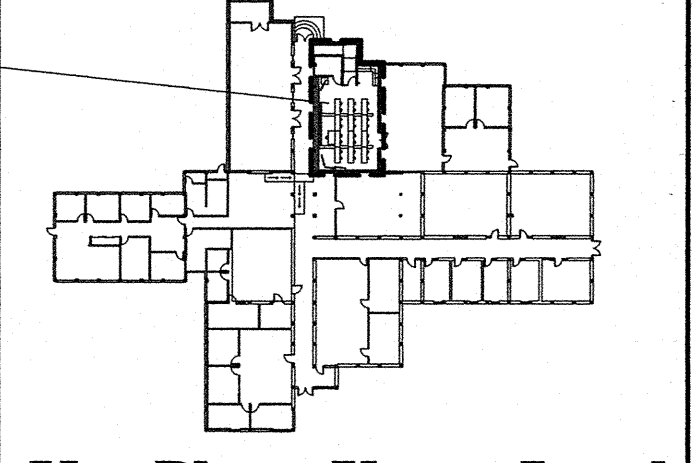
LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER AND MODEL NO.	VOLTS	LAMPS	MOUNTING	FINISH	REMARKS
⊙	LITHONIA LHQM S W 1 R 120 H	120	LED & (2) 6W HAL FURN'D. WITH UNIT	WALL- 12" ABOVE DOOR	WHITE HOUSING RED LETTER	COMBINATION EMERGENCY/EXIT LIGHT WITH LEAD-CAL. BATTERY
⊙	LITHONIA ELM627 H1206 N	120	(2) 12W/6V/MR24	WALL- 8'-0" A.F.F.	STANDARD WHITE	EMERGENCY LIGHT WITH NI-CAD BATTERY

NOTES: ① VERIFY ALL FINAL MOUNTING HEIGHTS WITH ARCHITECT.

GENERAL LIGHTING NOTES:

- CONTRACTOR SHALL VERIFY ALL MOUNTING HEIGHTS EXACT LOCATION AND REQUIREMENTS OF ALL LIGHTING FIXTURES AND SWITCHES WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
- NIGHT LIGHTS (NL), EMERGENCY & EXIT LIGHT FIXTURES SHALL BE CONNECTED TO UNSWITCHED LEG OF CIRCUIT.
- ROMAX IS NOT ALLOWED ABOVE T-BAR CEILING.



OUTLET MOUNTING HEIGHTS PER AMERICAN DISABILITY ACT

SWITCHES	+48" (MAX)
RECEPTACLES	+18" (MIN)
TELEPHONE/DATA	+18" (MIN)
SIDE REACH	+54" (MAX)

- ABBREVIATIONS**
- EX EXISTING LIGHT OR DEVICE TO REMAIN
 - RE EXISTING LIGHT OR DEVICE TO BE RELOCATED EXTEND CIRCUITING AS REQUIRED IF NOT SHOWN.
 - ER RELOCATED LIGHT OR DEVICE
 - RM REMOVED LIGHT OR DEVICE
 - A.F.F. ABOVE FINISHED FLOOR (Ⓞ OF OUTLET)
 - A.F.G. ABOVE FINISHED GRADE (Ⓞ OF OUTLET)
 - E.C. EMPTY CONDUIT
 - UNO UNLESS OTHERWISE NOTED
 - FBO FURNISHED BY OTHERS
 - NL NIGHT LIGHT
 - TYP TYPICAL

JOB# 14-34

ELECTRICAL DESIGN & CADD SERVICES INC.
 1600 LAMB LANE
 PRESCOTT, AZ 86305
 P: 928-443-5812
 F: 928-443-5815
 FAX: 928-443-5815
 E-MAIL: ESS@CABLEONE.NET

DRAWN BY: RA
 CHECKED BY: A.O.
 DATE: 05/09/2014
 SCALE: AS NOTED
 JOB NO.:

SHEET
E1.2

ELECTRICAL SYMBOLS

NOTE: NOT ALL SYMBOLS ARE USED ON THIS PROJECT

- A FLUORESCENT FIXTURE, WITH FIXTURE DESIGNATED BY LETTER. SMALL LETTER INDICATES SWITCH LEG
- NL NIGHT LIGHT- NOT SWITCHED OR EMERGENCY
- FLUORESCENT STRIP FIXTURE.
- CEILING OR WALLMOUNTED FIXTURE.
- PC PORCELAIN PULL CHAIN FIXTURE
- JUNCTION BOX
- JUNCTION BOX WITH FLEX CONNECTION.
- SINGLE FACE EXIT SIGN- NOT SWITCHED
- DOUBLE FACED EXIT SIGN- NOT SWITCHED.
- TWO HEAD EMERGENCY LIGHT WITH BATTERY.
- S SINGLE POLE SWITCH, + 48" A.F.F. (20A-120/277V)
- S₃ THREE WAY SWITCH, + 48" A.F.F. (20A-120/277V)
- S₄ 4-WAY SWITCH +48" AFF (20A-120/277V)
- S_P SWITCH AND PILOT LIGHT (20A-120-/277V)
- S_K SINGLE POLE SWITCH, KEY OPERATED (20A)
- WALL OR CEILING MOUNTED MOTION SENSOR MANUFACTURE BY LAVITON
- DIMMER CONTROL, + 48" A.F.F. TYPE, RATING AS NOTED
- DUPLX RECEPTACLE, + 18" A.F.F. (20A)
- DUPLX RECEPTACLE ABOVE COUNTER, VERIFY HEIGHT. (20A)
- FOURPLX RECEPTACLE, + 18" A.F.F. (20A)
- HALF SWITCHED DUPLX RECEPTACLE (20A)
- SPECIAL RECEPTACLE - SIZE & TYPE AS NOTED
- POWER / PHONE / DATA FLUSH FLOOR OUTLET
- TELEPHONE OUTLET PLASTER RING AT + 18" A.F.F. HUBBELL #P12 COVERPLATE. 3/4" C TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.
- DATA SYSTEM OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4" C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, + 18" A.F.F.
- TELE/DATA COMBO OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4" C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, + 18" A.F.F.
- CABLE TELEVISION (CATV) OUTLET PLASTER RING AT + 18" A.F.F. U.N.O. HUBBELL COVERPLATE. 3/4" C TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.
- TELEPHONE SYSTEM CONDUIT HOMERUN WITH NYLON PULLWIRE (1" MIN UNO)
- CLOSED CIRCUIT TV (CCTV) OUTLET SAME AS CATV OUTLET
- REMOTE CONTROL STATION @ +48" AFF
- DISCONNECT SWITCH, FUSE PER EQUIPMENT MANUFACTURERS RECOMMENDATION. OUTSIDE NEMA 3R - N.F. = NON-FUSED.
- COMBINATION STARTER AND FUSIBLE DISCONNECT SWITCH SIZE AS NOTED
- EQUIPMENT TERMINATION CONNECTION POINT VERIFY EXACT LOCATION LOAD AND VOLTAGE AS NOTED
- MOTOR
- SM THERMAL PROTECTED SWITCH
- MOTOR STARTER - SHADING INDICATES F.B.O.
- DISTRIBUTION PANELBOARD.
- BRANCH CIRCUIT PANELBOARD.
- CONDUIT BELOW FLOOR OR UNDERGROUND
- CONDUIT IN WALL OR ABOVE CEILING
- HOMERUN TO PANEL
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT STUB-OUT, MARK AND CAP AS DIRECTED
- GROUND WIRE (SIZE AS NOTED) EXTENDED AND CONNECTED TO APP'D GROUND

ALL WIRING #6 AWG AND LARGER SHALL BE XHHW COPPER. #6 AWG AND SMALLER SHALL BE THHN/THWN COPPER

FIRE WALL/FLOOR PENETRATION

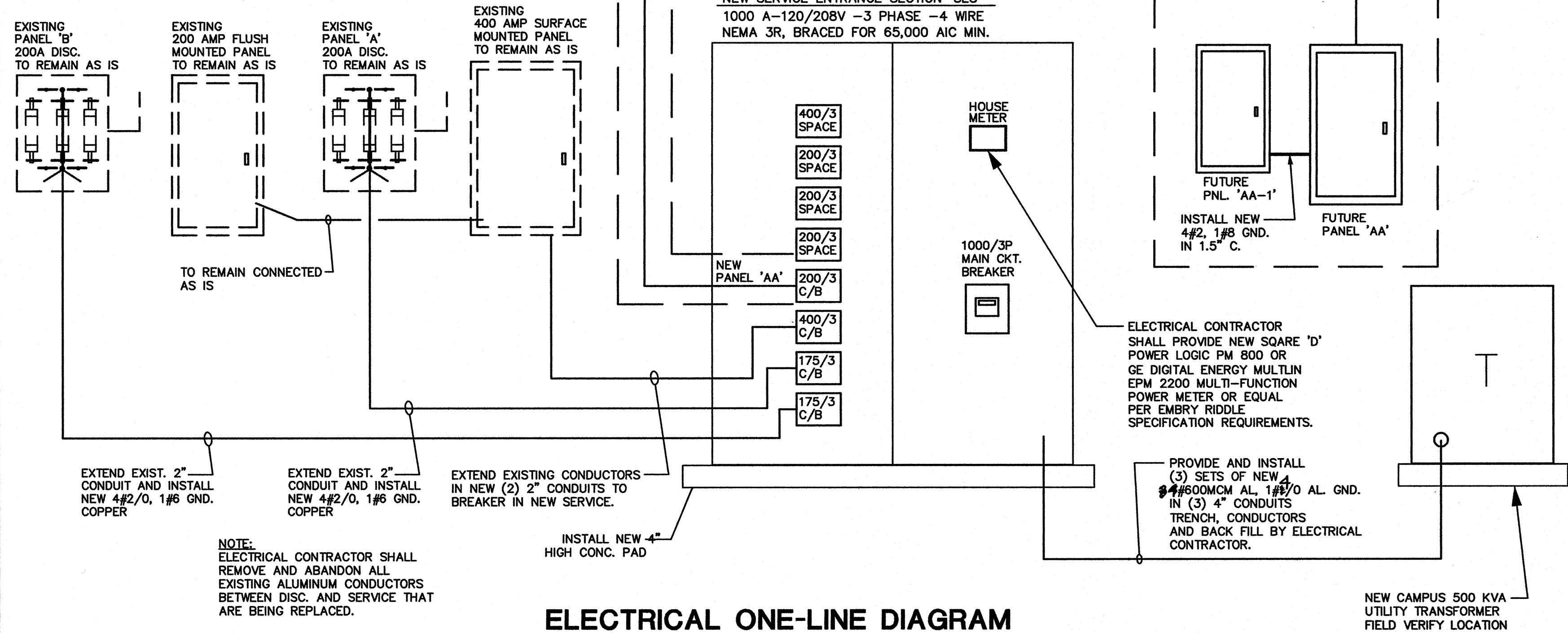
ALL PENETRATIONS OF FIRE RESISTIVE FLOORS OR SHAFT WALLS SHALL BE PROTECTED BY MATERIALS AND INSTALLATION DETAIL THAT CONFORM TO UNDERWRITERS LABORATORY'S LISTINGS FOR THROUGH PENETRATION FIRESTOP SYSTEMS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING DETAILS WHICH SHOW COMPLETE CONFORMANCE WITH THE LISTING TO THE ARCHITECT AND SUCH DRAWINGS SHALL BE AVAILABLE TO THE LOCAL GOVERNING INSPECTORS. THE DRAWINGS SHALL BE SPECIFIC FOR EACH PENETRATION WITH ALL VARIABLES DEFINED.

GENERAL ELECTRICAL DEMOLITION NOTES

- RETURN REMOVED MATERIAL DEEMED SALVAGEABLE TO OWNER'S REPRESENTATIVE. MATERIALS DEEMED NOT SALVAGEABLE SHALL BE REMOVED FROM THE PREMISES.
- THE CONTRACTOR WILL EXAMINE THE PREMISES AND SATISFIED HIMSELF AS TO EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGED TO PERFORM HIS WORK. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND THE CONTRACTOR SHALL FIELD VERIFY ALL DETAILS OF DEMOLITION.
- REMOVE ALL EXISTING WIRING DEVICES, LIGHT FIXTURES, WIRE, CONDUIT, DISCONNECTS, ETC., AS NOTED OR INDICATED WITHIN DEMOLITION AREA. (ALL ITEMS MAY NOT BE SHOWN.) REWORK AS NECESSARY ALL CIRCUITING WHICH REQUIRES CONTINUATION THROUGH THE AREA.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED TO REMOVE/RELOCATE ANY EXISTING ELECTRICAL EQUIPMENT SUCH THAT ELECTRIC SHOCK HAZARDS TO WORKMEN ARE ELIMINATED DURING DEMOLITION AND NEW CONSTRUCTION.
- REMOVED OR DAMAGED CONDUIT, WIRE AND FITTINGS SHALL NOT BE RE-USED
- WORK REQUIRED FOR EXISTING EQUIPMENT NOTED AS "EXISTING TO BE REMOVED" SHALL INCLUDE:
 - SALVAGING OR DISPOSING OF ALL MATERIAL OR EQUIPMENT AS DIRECTED BY OWNER OR OWNER'S REPRESENTATIVE.
 - REMOVAL OF FEEDER OR CABLING FROM EQUIPMENT TO POINT OF FEED.
 - REMOVAL OR RE-CIRCUITING (AS REQUIRED OR AS NOTED ON PANELS) OF ALL BRANCH CIRCUITING.
 - REMOVAL OF ALL FITTINGS, SUPPORTS, BRACKETS, ETC.
 - REPAIR AND PATCHING OF WALLS, FLOORS AND CEILINGS TO MATCH EXISTING OR PER ARCHITECT'S INSTRUCTIONS.
 - CAPPING OF IN-SLAB FEEDER CONDUITS FLUSH WITH THE FINISHED FLOOR.
 - CAPPING OF FEEDER CIRCUITS AT 6" ABOVE OR BELOW THE FLOOR OR CEILING FOR IN-SLAB CONDUITS LOCATED UP NEXT TO A WALL OR FOR CEILING AREA CONDUITS.
 - THE OPPOSITE END LOCATION OF ALL EMPTY FEEDER CONDUITS AT SWITCHBOARDS, PANELBOARDS, ETC., SHALL BE MARKED USING AN ENGRAVED BRASS TAG ATTACHED TO THE CONDUIT.
 - EXISTING FEEDER CONDUITS SHALL BE REMOVED OR CUT OFF AND ABANDONED IF FOUND TO BE UNSALVAGEABLE BY THE OWNER, ARCHITECT OR ENGINEER.
- EXISTING EQUIPMENT NOT IMPLICITLY SHOWN ON THE DRAWINGS IS INTENDED TO BE "EXISTING TO REMAIN," UNLESS NOTED OTHERWISE.

SPECIFICATIONS

- PRIOR TO SUBMITTING BID, SUBCONTRACTORS SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS AND VISIT THE CONSTRUCTION SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH IN ANY WAY AFFECTS THE WORK UNDER HIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
- THE SUBCONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND /OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THE CONTRACT. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED.
- SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, ELEVATIONS AND BUILDING DETAILS. VERIFY LOCATION OF ALL OUTLETS, SWITCHES, AND WALL MOUNTED LIGHTING FIXTURES WITH ARCHITECTURAL DRAWINGS AND ACTUAL CONDITIONS. VERIFY ALL CEILING TYPES WITH ARCHITECTURAL DRAWINGS BEFORE ORDERING FIXTURES.
- PRIOR TO ROUGH-IN AND FINAL CONNECTION, VERIFY ELECTRICAL CHARACTERISTICS AND EXACT LOCATION OF EQUIPMENT.
- GROUT AND SEAL ALL CONDUIT PENETRATIONS OF WALLS AND FLOOR SLABS TO PRESERVE FIRE RATING AND WATERTIGHT INTEGRITY.
- BRANCH CIRCUIT WIRING SHALL BE THHN/THWN INSULATION. PANEL FEEDERS SHALL BE TYPE XHHW. ALL WIRE SHALL BE COPPER. MINIMUM WIRE SIZE SHALL BE #12.
- ALL WIRING TO BE INSTALLED IN RACEWAYS. TYPE OF RACEWAY SHALL BE AS REQUIRED BY CODE. MINIMUM CONDUIT SIZE SHALL BE 1/2".
- PROVIDE CODE SIZED BOND WIRE IN ALL EMT, FLEXIBLE CONDUIT, OR NM CABLES.
- ALL ELECTRICAL EQUIPMENT SHALL BE NEW, U.L. APPROVED AND COMMERCIAL GRADE.
- WIRE RATED FOR 150° CENTIGRADE SHALL BE USED FOR ALL INCANDESCENT LIGHTING FIXTURES.
- ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL CODE, (N.E.C.), AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES.
- PROVIDE TYPEWRITTEN DESCRIPTIVE PANEL DIRECTORIES



ELECTRICAL ONE-LINE DIAGRAM

GENERAL NOTE: ELECTRICAL CONTRACTOR SHALL INSTALL SERVICE PER EMBRY RIDDLE BLDG. 17 ELEC. SERVICE UPGRADE SCOPE OF WORK SPECIFICATIONS PROVIDED BY ARCHITECT OR EMBRY RIDDLE.

ELECTRICAL LOAD CALC'S.

EXISTING ESTIMATED LOAD	=	390.0 AMPS
NEW ADDED LOAD HI #A	=	163.2 AMPS
NEW TOTAL CODE LOAD	=	553.2 AMPS
ADDITIONAL LOAD WILL NOT OVERLOAD NEW SERVICE		

PANELBOARD AA		SCHEDULE	
MAINS 200A MLD		LOCATION: SEE PLAN	
VOLTAGE: 120 / 208 - 3P-4W		MOUNTING: FLUSH	
TYPE: SD, 1" NODD OR EQUAL		MIN. A.I.C.: 5/10K SERIES RATED	
CIRCUIT DESCRIPTION	BKR. CIR. NO. ØA ØB ØC	BKR. CIR. NO.	CIRCUIT DESCRIPTION
RECEPT'S. - SERVER ROOM	20 1 1440 1000	20 1	RECEPT'S. - TRENCH BUCT
	3 1440 1000	2 1	
	5 1440 1000	3 1270 2796	
	7 1440 1000	4 1270 2796	
	9 1440 1000	5 20 1	
	11 1440 1000	6 20 1	
	13 1440 1000	7 20 1	
	15 1440 1000	8 20 1	
	17 1440 1000	9 20 1	
	19 1440 1000	10 20 1	
	21 1440 1000	11 20 1	
	23 1440 1000	12 20 1	
	25 1440 1000	13 20 1	
	27 1440 1000	14 20 1	
	29 1440 1000	15 20 1	
	31 1440 360	16 20 1	
	33 1440 360	17 20 1	
	35 1440 360	18 20 1	
	37 1440 4066	19 20 1	
	39 1440 4066	20 20 1	
	41 360 2796	21 20 1	
		22 20 1	
		23 20 1	
		24 20 1	
		25 20 1	
		26 20 1	
		27 20 1	
		28 20 1	
		29 20 1	
		30 100	PANEL 'AA1'
		40	SUB-FEED
		42 3	
TOTAL LOAD PER PHASE:	19506 19506 17236	HP 19586 / 120 = 163.2 AMPS	

PANELBOARD AA1		SCHEDULE	
MAINS 100A MLD		LOCATION: SEE PLAN	
VOLTAGE: 120 / 208 - 3P-4W		MOUNTING: FLUSH	
TYPE: SD, 1" NODD OR EQUAL		MIN. A.I.C.: 5/10K SERIES RATED	
CIRCUIT DESCRIPTION	BKR. CIR. NO. ØA ØB ØC	BKR. CIR. NO.	CIRCUIT DESCRIPTION
MDISPLIT CU-L/FC-1	20 1 1270 2796	30	HVAC UNIT AC-2
	2 1270 2796	4	233 MCA, 208V, 3P
	3 1270 2796	5	
	4 1270 2796	6	
	5 20 1	7	
	6 20 1	8	SPACE
	7 20 1	9	
	8 20 1	10	
	9 20 1	11	
	10 20 1	12	
	11 20 1	13	
	12 20 1	14	SPACE
	13 20 1	15	
	14 20 1	16	
	15 20 1	17	
	16 20 1	18	
	17 20 1	19	
	18 20 1	20	
	19 20 1	21	
	20 20 1	22	
	21 20 1	23	
	22 20 1	24	
	23 20 1		
TOTAL LOAD PER PHASE:	4066 4066 2796	HP 4066 / 120 = 33.9 AMPS	

PANELBOARD SYMBOLS

- * CONTINUOUS DUTY/LARGEST MOTOR @ 125%
- PROVIDE BREAKER W/ HANDLE "LOCK-ON" DEVICE
- ▲ CIRCUIT W/ TIMECLOCK
- ◆ CIRCUIT W/ PHOTOCELL
- HACR TYPE CIRCUIT BREAKER

REVISIONS	BY



W. Alan Kenson & Associates, P.C.

P.O. Box 11593
Prescott, AZ 86304

P 928-443-5812
F 928-443-5815

email: waka@cableone.net
www.kenson-associates.com

ARCHITECTURE & PLANNING

DRAWING: ELECTRICAL SYMBOLS, SPECS, LIGHTING FIXTURE SCHEDULE, ONE-LINE DIAGRAM AND NOTES

PROJECT: IMPROVEMENTS FOR: EMBRY-RIDDLE AERONAUTICAL UNIVERSITY BUILDINGS 17, CGSI PRESCOTT, ARIZONA

DRAWN BY	R.A.
CHECKED BY	A.O.
DATE	05/09/2014
SCALE	AS NOTED
JOB NO.	
SHEET	

E1.1

ELECTRICAL DESIGN & CADD SERVICES INC.
1600 LAMB LANE
PRESCOTT, AZ. 86305
PH. (928) 776-4900
FAX (928) 776-7800
E-MAIL: EES@CABLEONE.NET